82C457 TDL (Toshiba Description Language) Netlist

```
COMPILE $
OPTIONS   :  REPLACE,XREF $
MODULE :   LDCNT5/// $
INPUTS   :
     D0,D1,D2,D3,D4,LOAD,CLK
$
OUTPUTS  :
     Q0,Q1,Q2,Q3,Q4,U8Z
$
DESCRIPTION : MODULE FOR LDCNT5 $
LEVEL  : FUNCTION $
USE   :
     FD1S /// MASTER
    ,FJK1S /// MASTER
    ,NR2 /// MASTER
    ,ND2 /// MASTER
    ,IV /// MASTER

$
DEFINE :
     U1( Q0,U1QN ) = FD1S (  U1QN,CLK,D0,LOAD ) $
     U2( Q1,U2QN ) = FJK1S (  Q0,Q0,CLK,D1,LOAD
         ) $
     U4( Q2, ) = FJK1S (  U3Z,U3Z,CLK,D2,LOAD
         ) $
     U7( Q3,U7QN ) = FJK1S (  U6Z,U6Z,CLK,D3,LOAD
         ) $
     U9( Q4, ) = FJK1S (  U8Z,U8Z,CLK,D4,LOAD
         ) $
     U3( U3Z ) = NR2 (  U2QN,U1QN ) $
     U8( U8Z ) = NR2 (  U7QN,U5Z ) $
     U5( U5Z ) = ND2 (  Q2,U3Z ) $
     U6( U6Z ) = IV (  U5Z ) $
END : MODULE $
MODULE :   DFF4/// $
INPUTS   :
     D0,D1,D2,D3,CLK
$
OUTPUTS  :
     Q0,Q1,Q2,Q3
$
DESCRIPTION : MODULE FOR DFF4 $
LEVEL  : FUNCTION $
USE   :
     YFD1 /// MASTER

$
DEFINE :
     RB398( Q0, ) = YFD1 (  D0,CLK ) $
     RB399( Q1, ) = YFD1 (  D1,CLK ) $
     RB400( Q2, ) = YFD1 (  D2,CLK ) $
     RB401( Q3, ) = YFD1 (  D3,CLK ) $
END : MODULE $
MODULE :   TCNT6/// $
INPUTS   :
     CLRN,CL
$
OUTPUTS  :
     Q0,NQ0,Q1,NQ1,Q2,NQ2,Q3,NQ3,Q4,NQ4,Q5,NQ5
$
```

```
DESCRIPTION : MODULE FOR TCNT6 $
LEVEL  : FUNCTION $
USE   :
     YFD2 /// MASTER

$
DEFINE :
     YFD2T5( Q5,NQ5 ) = YFD2 (  NQ5,NQ4,CLRN ) $
     YFD2T4( Q4,NQ4 ) = YFD2 (  NQ4,NQ3,CLRN ) $
     YFD2T3( Q3,NQ3 ) = YFD2 (  NQ3,NQ2,CLRN ) $
     YFD2T2( Q2,NQ2 ) = YFD2 (  NQ2,NQ1,CLRN ) $
     YFD2T1( Q1,NQ1 ) = YFD2 (  NQ1,NQ0,CLRN ) $
     YFD2T0( Q0,NQ0 ) = YFD2 (  NQ0,CL,CLRN ) $
END : MODULE $
MODULE :   TCNT4/// $
INPUTS   :
     CL,CLRN
$
OUTPUTS  :
     Q0,NQ0,Q1,NQ1,Q2,NQ2,Q3,NQ3
$
DESCRIPTION : MODULE FOR TCNT4 $
LEVEL  : FUNCTION $
USE   :
     YFD2 /// MASTER

$
DEFINE :
     YFD2T3( Q3,NQ3 ) = YFD2 (  NQ3,NQ2,CLRN ) $
     YFD2T2( Q2,NQ2 ) = YFD2 (  NQ2,NQ1,CLRN ) $
     YFD2T1( Q1,NQ1 ) = YFD2 (  NQ1,NQ0,CLRN ) $
     YFD2T0( Q0,NQ0 ) = YFD2 (  NQ0,CL,CLRN ) $
END : MODULE $
MODULE :   ADD1M1/// $
INPUTS   :
     B,A,CIN,SELS,CL,NMR
$
OUTPUTS  :
     COUT,S,Q,NQ
$
DESCRIPTION : MODULE FOR ADD1M1 $
LEVEL  : FUNCTION $
USE   :
     MUX21L /// MASTER
    ,FD4 /// MASTER
    ,FA1P /// MASTER

$
DEFINE :
     MUX21A( D ) = MUX21L (  A,S,SELS ) $
     FFD( NQ,Q ) = FD4 (  D,CL,NMR ) $
     ADRFB( S,COUT ) = FA1P (  CIN,Q,B ) $
END : MODULE $
MODULE :   SUB4M/// $
INPUTS   :
     A3,A2,A1,A0,BOIN
$
OUTPUTS  :
     S3,S2,S1,S0
$
DESCRIPTION : MODULE FOR SUB4M $
LEVEL  : FUNCTION $
```

```
USE   :
     EON1P /// MASTER
    ,ND4P /// MASTER
    ,IVP /// MASTER
    ,ND3P /// MASTER
    ,ND2P /// MASTER
    ,EO1P /// MASTER

$
DEFINE :
     SUB49( S3 ) = EON1P (  A3,BO2,A3,BO2 ) $
     SUB48( BO2 ) = ND4P (  A2N,A1N,A0N,BOIN ) $
     SUB47( A2N ) = IVP (  A2 ) $
     SUB46( S2 ) = EON1P (  A2,BO1,A2,BO1 ) $
     SUB45( BO1 ) = ND3P (  A1N,A0N,BOIN ) $
     SUB44( S1 ) = EON1P (  A1,BO0,A1,BO0 ) $
     SUB43( BO0 ) = ND2P (  A0N,BOIN ) $
     SUB42( S0 ) = EO1P (  A0,BOIN,A0,BOIN ) $
     SUB41( A0N ) = IVP (  A0 ) $
     SUB40( A1N ) = IVP (  A1 ) $
END : MODULE $
MODULE :   SEL816/// $
INPUTS   :
     A0,A1,A2,A3,A4,A5,A6,A7,B0,B1,B2,B3,B4A,B5,B6,B7,S
$
OUTPUTS  :
     Y0,Y1,Y2,Y3,Y4,Y5,Y6,Y7
$
DESCRIPTION : MODULE FOR SEL816 $
LEVEL  : FUNCTION $
USE   :
     IVAP /// MASTER
    ,YMUX24LP /// MASTER

$
DEFINE :
     RB590( Y7 ) = IVAP (  Y7I ) $
     RB589( Y6 ) = IVAP (  Y6I ) $
     RB588( Y5 ) = IVAP (  Y5I ) $
     RB587( Y4 ) = IVAP (  Y4I ) $
     RB586( Y3 ) = IVAP (  Y3I ) $
     RB585( Y2 ) = IVAP (  Y2I ) $
     RB584( Y1 ) = IVAP (  Y1I ) $
     RB583( Y0 ) = IVAP (  Y0I ) $
     RB398( Y0I,Y1I,Y2I,Y3I ) = YMUX24LP (  A0,B0,A1
        ,B1,A2,B2,A3,B3,S ) $
     RB399( Y4I,Y5I,Y6I,Y7I ) = YMUX24LP (  A4,B4A,A5
        ,B5,A6,B6,A7,B7,S ) $
END : MODULE $
MODULE :   SCNT5M/// $
INPUTS   :
     D0,D1,D2,D3,D4,LOAD,CLK
$
OUTPUTS  :
     Q0,Q1,Q2,Q3,Q4,NQ0,NQ1,NQ2,NQ3,NQ4
$
DESCRIPTION : MODULE FOR SCNT5M $
LEVEL  : FUNCTION $
USE   :
     NR2 /// MASTER
    ,FJK1S /// MASTER
    ,ND2 /// MASTER
```

```
    ,IV /// MASTER
    ,FD1S /// MASTER

$
DEFINE :
     U322( Q4T ) = NR2 (  U5Z,NQ3 ) $
     RB440( Q4,NQ4 ) = FJK1S (  Q4T,Q4T,CLK,D4,LOAD
         ) $
     RB398( Q1,NQ1 ) = FJK1S (  Q0,Q0,CLK,D1,LOAD
         ) $
     RB399( Q2,NQ2 ) = FJK1S (  U3Z,U3Z,CLK,D2,LOAD
         ) $
     RB400( Q3,NQ3 ) = FJK1S (  U6Z,U6Z,CLK,D3,LOAD
         ) $
     U3( U3Z ) = NR2 (  NQ1,NQ0 ) $
     U5( U5Z ) = ND2 (  Q2,U3Z ) $
     U6( U6Z ) = IV (  U5Z ) $
     RB401( Q0,NQ0 ) = FD1S (  NQ0,CLK,D0,LOAD ) $
END : MODULE $
MODULE :   SCNT4M/// $
INPUTS   :
     D0,D1,D2,D3,LOAD,CLK
$
OUTPUTS  :
     Q0,Q1,Q2,Q3,NQ0,NQ1,NQ2,NQ3
$
DESCRIPTION : MODULE FOR SCNT4M $
LEVEL  : FUNCTION $
USE   :
     FJK1S /// MASTER
    ,NR2 /// MASTER
    ,ND2 /// MASTER
    ,IV /// MASTER
    ,FD1S /// MASTER

$
DEFINE :
     RB398( Q1,NQ1 ) = FJK1S (  Q0,Q0,CLK,D1,LOAD
         ) $
     RB399( Q2,NQ2 ) = FJK1S (  U3Z,U3Z,CLK,D2,LOAD
         ) $
     RB400( Q3,NQ3 ) = FJK1S (  U6Z,U6Z,CLK,D3,LOAD
         ) $
     U3( U3Z ) = NR2 (  NQ1,NQ0 ) $
     U5( U5Z ) = ND2 (  Q2,U3Z ) $
     U6( U6Z ) = IV (  U5Z ) $
     RB401( Q0,NQ0 ) = FD1S (  NQ0,CLK,D0,LOAD ) $
END : MODULE $
MODULE :   LDCNT10/// $
INPUTS   :
     D0,D1,D2,D3,D4,D5,D6,D7,D8,D9,LOAD,CLK
$
OUTPUTS  :
     Q0,Q1,Q2,Q3,Q4,Q5,Q6,Q7,Q8,Q9,Q9N,U12Z
$
DESCRIPTION : MODULE FOR LDCNT10 $
LEVEL  : FUNCTION $
USE   :
     LDCNT5 ///
    ,FJK1S /// MASTER
    ,ND2 /// MASTER
    ,IV /// MASTER
```

```
    ,NR2 /// MASTER

$
DEFINE :
     U1( Q0,Q1,Q2,Q3,Q4,U1Z ) = LDCNT5 (  D0
        ,D1,D2,D3,D4,LOAD,CLK ) $
     U4( Q5,U4N ) = FJK1S (  U3Z,U3Z,CLK,D5,LOAD
         ) $
     U6( Q6, ) = FJK1S (  U5Z,U5Z,CLK,D6,LOAD
         ) $
     U9( Q7,U9Z ) = FJK1S (  U8Z,U8Z,CLK,D7,LOAD
         ) $
     U11( Q8, ) = FJK1S (  U10Z,U10Z,CLK,D8,LOAD
         ) $
     U14( Q9,Q9N ) = FJK1S (  U13Z,U13Z,CLK,D9,LOAD
         ) $
     U2( U2Z ) = ND2 (  Q4,U1Z ) $
     U3( U3Z ) = IV (  U2Z ) $
     U5( U5Z ) = NR2 (  U2Z,U4N ) $
     U7( U7Z ) = ND2 (  Q6,U5Z ) $
     U8( U8Z ) = IV (  U7Z ) $
     U10( U10Z ) = NR2 (  U7Z,U9Z ) $
     U12( U12Z ) = ND2 (  Q8,U10Z ) $
     U13( U13Z ) = IV (  U12Z ) $
END : MODULE $
MODULE :   LDCLCNT5/// $
INPUTS   :
     D0,D1,D2,D3,D4,LOAD,CLK,CL
$
OUTPUTS  :
     Q0,Q1,Q2,Q3,Q4,U8Z
$
DESCRIPTION : MODULE FOR LDCLCNT5 $
LEVEL  : FUNCTION $
USE   :
     FJK2S /// MASTER
    ,NR2 /// MASTER
    ,ND2 /// MASTER
    ,IV /// MASTER
    ,FD2S /// MASTER

$
DEFINE :
     RB398( Q1,U2QN ) = FJK2S (  Q0,Q0,CLK,CL,D1
        ,LOAD ) $
     RB399( Q2, ) = FJK2S (  U3Z,U3Z,CLK,CL,D2
        ,LOAD ) $
     RB400( Q3,U7QN ) = FJK2S (  U6Z,U6Z,CLK,CL,D3
        ,LOAD ) $
     RB401( Q4, ) = FJK2S (  U8Z,U8Z,CLK,CL,D4
        ,LOAD ) $
     U3( U3Z ) = NR2 (  U2QN,U1QN ) $
     U8( U8Z ) = NR2 (  U7QN,U5Z ) $
     U5( U5Z ) = ND2 (  Q2,U3Z ) $
     U6( U6Z ) = IV (  U5Z ) $
     RB402( Q0,U1QN ) = FD2S (  U1QN,CLK,CL,D0,LOAD
         ) $
END : MODULE $
MODULE :   EQUL10P/// $
INPUTS   :
     B9,B8A,B7,B6,B5,B4A,B3,B2,B1,B0,A9,A8,A7,A6,A5,A4,A3,A2,A1,A0
```

```
$
OUTPUTS  :
     EQ
$
DESCRIPTION : MODULE FOR EQUL10P $
LEVEL  : FUNCTION $
USE   :
     EO /// MASTER
    ,NR4P /// MASTER
    ,OR4 /// MASTER

$
DEFINE :
     BIT0( C0 ) = EO (  A0,B0 ) $
     BIT1( C1 ) = EO (  A1,B1 ) $
     BIT2( C2 ) = EO (  A2,B2 ) $
     BIT3( C3 ) = EO (  A3,B3 ) $
     BIT4( C4 ) = EO (  A4,B4A ) $
     BIT5( C5 ) = EO (  A5,B5 ) $
     BIT6( C6 ) = EO (  A6,B6 ) $
     BIT7( C7 ) = EO (  A7,B7 ) $
     BIT8( C8 ) = EO (  A8,B8A ) $
     BIT9( C9 ) = EO (  A9,B9 ) $
     EQS( EQ ) = NR4P (  EQ03N,EQ47N,C8,C9 ) $
     RB184( EQ03N ) = OR4 (  C0,C1,C2,C3 ) $
     RB186( EQ47N ) = OR4 (  C4,C5,C6,C7 ) $
END : MODULE $
MODULE :   DFF8/// $
INPUTS   :
     D0,D1,D2,D3,D4,D5,D6,D7,CLK
$
OUTPUTS  :
     Q0,Q1,Q2,Q3,Q4,Q5,Q6,Q7
$
DESCRIPTION : MODULE FOR DFF8 $
LEVEL  : FUNCTION $
USE   :
     DFF4 ///

$
DEFINE :
     RB398( Q0,Q1,Q2,Q3 ) = DFF4 (  D0,D1,D2
        ,D3,CLK ) $
     RB399( Q4,Q5,Q6,Q7 ) = DFF4 (  D4,D5,D6
        ,D7,CLK ) $
END : MODULE $
MODULE :   DFF4P/// $
INPUTS   :
     D0,D1,D2,D3,CLK
$
OUTPUTS  :
     Q0,Q1,Q2,Q3,Q0N,Q1N,Q2N,Q3N
$
DESCRIPTION : MODULE FOR DFF4P $
LEVEL  : FUNCTION $
USE   :
     FD1P /// MASTER

$
DEFINE :
     RB398( Q0,Q0N ) = FD1P (  D0,CLK ) $
     RB399( Q1,Q1N ) = FD1P (  D1,CLK ) $
```

```
     RB400( Q2,Q2N ) = FD1P (  D2,CLK ) $
     RB401( Q3,Q3N ) = FD1P (  D3,CLK ) $
END : MODULE $
MODULE :   DFFS4/// $
INPUTS   :
     CLK,TE,TI3,TI2,TI1,TI0,D3,D2,D1,D0
$
OUTPUTS  :
     Q3,Q2,Q1,Q0
$
DESCRIPTION : MODULE FOR DFFS4 $
LEVEL  : FUNCTION $
USE   :
     FD1S /// MASTER

$
DEFINE :
     CC04( Q3, ) = FD1S (  D3,CLK,TI3,TE ) $
     CC03( Q2, ) = FD1S (  D2,CLK,TI2,TE ) $
     CC02( Q1, ) = FD1S (  D1,CLK,TI1,TE ) $
     CC01( Q0, ) = FD1S (  D0,CLK,TI0,TE ) $
END : MODULE $
MODULE :   DCNT4/// $
INPUTS   :
     CLN,CLK
$
OUTPUTS  :
     Q3N,Q2N,Q1N,Q0N,Q3,Q2,Q1,Q0
$
DESCRIPTION : MODULE FOR DCNT4 $
LEVEL  : FUNCTION $
USE   :
     YFD2 /// MASTER

$
DEFINE :
     CC04( Q3,Q3N ) = YFD2 (  Q3N,Q2N,CLN ) $
     CC03( Q2,Q2N ) = YFD2 (  Q2N,Q1N,CLN ) $
     CC02( Q1,Q1N ) = YFD2 (  Q1N,Q0N,CLN ) $
     CC01( Q0,Q0N ) = YFD2 (  Q0N,CLK,CLN ) $
END : MODULE $
MODULE :   YLDG8/// $
INPUTS   :
     D7,D6,D5,D4,D3,D2,D1,D0,CL
$
OUTPUTS  :
     NQ7,Q7,NQ6,Q6,NQ5,Q5,NQ4,Q4,NQ3,Q3,NQ2,Q2,NQ1,Q1,NQ0,Q0
$
DESCRIPTION : MODULE FOR YLDG8 $
LEVEL  : FUNCTION $
USE   :
     YLD24B /// MASTER

$
DEFINE :
     HI( Q4,NQ4,Q5,NQ5,Q6,NQ6,Q7
        ,NQ7 ) = YLD24B (  D4,D5,D6,D7,CL ) $
     LO( Q0,NQ0,Q1,NQ1,Q2,NQ2,Q3
        ,NQ3 ) = YLD24B (  D0,D1,D2,D3,CL ) $
END : MODULE $
MODULE :   YFD9S/// $
INPUTS   :
```

```
     CL,D
$
OUTPUTS  :
     Q0,NQ0,Q1,NQ1,Q2,NQ2,Q3,NQ3,Q4,NQ4,Q5,NQ5,Q6,NQ6,Q7,NQ7,Q8,NQ8

$
DESCRIPTION : MODULE FOR YFD9S $
LEVEL  : FUNCTION $
USE   :
     YFD1 /// MASTER

$
DEFINE :
     BIT0( Q0,NQ0 ) = YFD1 (  D,CL ) $
     BIT1( Q1,NQ1 ) = YFD1 (  Q0,CL ) $
     BIT2( Q2,NQ2 ) = YFD1 (  Q1,CL ) $
     BIT3( Q3,NQ3 ) = YFD1 (  Q2,CL ) $
     BIT4( Q4,NQ4 ) = YFD1 (  Q3,CL ) $
     BIT5( Q5,NQ5 ) = YFD1 (  Q4,CL ) $
     BIT6( Q6,NQ6 ) = YFD1 (  Q5,CL ) $
     BIT7( Q7,NQ7 ) = YFD1 (  Q6,CL ) $
     BIT8( Q8,NQ8 ) = YFD1 (  Q7,CL ) $
END : MODULE $
MODULE :   TCNT10/// $
INPUTS   :
     CL,CLRN,TEST
$
OUTPUTS  :
     NQ3,NQ0,NQ1,NQ2,Q0,Q1,Q2,Q3,NQ4,NQ5,NQ6,NQ7,NQ8,NQ9,Q4,Q5,Q6
    ,Q7,Q8,Q9
$
DESCRIPTION : MODULE FOR TCNT10 $
LEVEL  : FUNCTION $
USE   :
     TCNT6 ///
    ,TCNT4 ///
    ,EO /// MASTER

$
DEFINE :
     TC6( Q4,NQ4,Q5,NQ5,Q6,NQ6,Q7
        ,NQ7,Q8,NQ8,Q9,NQ9 ) = TCNT6 (  CLRN,CL1
         ) $
     TC4( Q0,NQ0,Q1,NQ1,Q2,NQ2,Q3
        ,NQ3 ) = TCNT4 (  CL,CLRN ) $
     EXR( CL1 ) = EO (  TEST,NQ3 ) $
END : MODULE $
MODULE :   READ2/// $
INPUTS   :
     A0,A1,A2,A3,A4,A5,A6,A7,B0,B1,B2,B3,B4A,B5,B6,B7,NRDA,NRDB
$
OUTPUTS  :
     Q0,Q1,Q2,Q3,Q4,Q5,Q6,Q7
$
DESCRIPTION : MODULE FOR READ2 $
LEVEL  : FUNCTION $
USE   :
     AO2 /// MASTER
    ,IVP /// MASTER

$
DEFINE :
```

```
     AMUX0( Q0 ) = AO2 (  A0,SA,B0,SB ) $
     AMUX1( Q1 ) = AO2 (  A1,SA,B1,SB ) $
     AMUX2( Q2 ) = AO2 (  A2,SA,B2,SB ) $
     AMUX3( Q3 ) = AO2 (  A3,SA,B3,SB ) $
     AMUX4( Q4 ) = AO2 (  A4,SA,B4A,SB ) $
     AMUX5( Q5 ) = AO2 (  A5,SA,B5,SB ) $
     AMUX6( Q6 ) = AO2 (  A6,SA,B6,SB ) $
     AMUX7( Q7 ) = AO2 (  A7,SA,B7,SB ) $
     INV1( SA ) = IVP (  NRDA ) $
     INV2( SB ) = IVP (  NRDB ) $
END : MODULE $
MODULE :   RAM64/// $
INPUTS   :
     DI0,DI1,DI2,DI3,DI4,DI5,RW0,RW1,RW2,RW3,WW0,WW1,WW2,WW3
$
OUTPUTS  :
     DO0,DO1,DO2,DO3,DO4,DO5
$
DESCRIPTION : MODULE FOR RAM64 $
LEVEL  : FUNCTION $
USE   :
     IV /// MASTER
    ,RAM1 /// MASTER

$
DEFINE :
     WB3( U000 ) = IV (  WW3 ) $
     WB2( U001 ) = IV (  WW2 ) $
     WB1( U002 ) = IV (  WW1 ) $
     WB0( U003 ) = IV (  WW0 ) $
     B00( DO0, ) = RAM1 (  DI0,U003,WW0,RW0 ) $
     RB89( DO0, ) = RAM1 (  DI0,U002,WW1,RW1 ) $
     RB90( DO1, ) = RAM1 (  DI1,U002,WW1,RW1 ) $
     B01( DO1, ) = RAM1 (  DI1,U003,WW0,RW0 ) $
     B02( DO2, ) = RAM1 (  DI2,U003,WW0,RW0 ) $
     RB91( DO2, ) = RAM1 (  DI2,U002,WW1,RW1 ) $
     B03( DO3, ) = RAM1 (  DI3,U003,WW0,RW0 ) $
     B04( DO4, ) = RAM1 (  DI4,U003,WW0,RW0 ) $
     B05( DO5, ) = RAM1 (  DI5,U003,WW0,RW0 ) $
     RB92( DO3, ) = RAM1 (  DI3,U002,WW1,RW1 ) $
     RB93( DO4, ) = RAM1 (  DI4,U002,WW1,RW1 ) $
     RB94( DO5, ) = RAM1 (  DI5,U002,WW1,RW1 ) $
     B20( DO0, ) = RAM1 (  DI0,U001,WW2,RW2 ) $
     B30( DO0, ) = RAM1 (  DI0,U000,WW3,RW3 ) $
     B21( DO1, ) = RAM1 (  DI1,U001,WW2,RW2 ) $
     B31( DO1, ) = RAM1 (  DI1,U000,WW3,RW3 ) $
     B22( DO2, ) = RAM1 (  DI2,U001,WW2,RW2 ) $
     B32( DO2, ) = RAM1 (  DI2,U000,WW3,RW3 ) $
     B23( DO3, ) = RAM1 (  DI3,U001,WW2,RW2 ) $
     B33( DO3, ) = RAM1 (  DI3,U000,WW3,RW3 ) $
     B24( DO4, ) = RAM1 (  DI4,U001,WW2,RW2 ) $
     B34( DO4, ) = RAM1 (  DI4,U000,WW3,RW3 ) $
     B25( DO5, ) = RAM1 (  DI5,U001,WW2,RW2 ) $
     B35( DO5, ) = RAM1 (  DI5,U000,WW3,RW3 ) $
END : MODULE $
MODULE :   MUX41I/// $
INPUTS   :
     S13,S24,D1,D2,D3,D4,S12,S34
$
OUTPUTS  :
     DOUT
$
```

```
DESCRIPTION : MODULE FOR MUX41I $
LEVEL  : FUNCTION $
USE   :
     AO2 /// MASTER
    ,IV /// MASTER

$
DEFINE :
     RB86( D12N ) = AO2 (  D1,S13,D2,S24 ) $
     B1N( D12 ) = IV (  D12N ) $
     RB95( D34N ) = AO2 (  D3,S13,D4,S24 ) $
     B2N( D34 ) = IV (  D34N ) $
     RB98( DOUTN ) = AO2 (  S12,D12,S34,D34 ) $
     B3N( DOUT ) = IV (  DOUTN ) $
END : MODULE $
MODULE :   MUXFD/// $
INPUTS   :
     I1,I2,I3,I4,CL
$
OUTPUTS  :
     NQ,Q
$
DESCRIPTION : MODULE FOR MUXFD $
LEVEL  : FUNCTION $
USE   :
     AO2P /// MASTER
    ,FD1 /// MASTER

$
DEFINE :
     RB86( D ) = AO2P (  I1,I2,I3,I4 ) $
     RB95( Q,NQ ) = FD1 (  D,CL ) $
END : MODULE $
MODULE :   FCOUP4/// $
INPUTS   :
     CLK,LOAD,RESET,D0,ND0,D1,ND1,D2,NT40,D3,ND3A
$
OUTPUTS  :
     CNTOUT,Q0,NQ0,Q1,NQ1,Q2,NQ2,Q3,NQ3
$
DESCRIPTION : MODULE FOR FCOUP4 $
LEVEL  : FUNCTION $
USE   :
     FD3 /// MASTER
    ,FJK3P /// MASTER
    ,NR2 /// MASTER
    ,AN2 /// MASTER
    ,ND4 /// MASTER
    ,ND2 /// MASTER
    ,AO6 /// MASTER

$
DEFINE :
     BIT0( Q0,NQ0 ) = FD3 (  NQ0,CLK,CLR0,SET0 ) $
     BIT1( Q1,NQ1 ) = FJK3P (  Q0,Q0,CLK,CLR1,SET1
         ) $
     BIT2( Q2,NQ2 ) = FJK3P (  CNT2,CNT2,CLK,CLR2,SET2
         ) $
     BIT3( Q3,NQ3 ) = FJK3P (  CNT3,CNT3,CLK,CLR3,SET3
         ) $
     NR2B( CNT2 ) = NR2 (  NQ0,NQ1 ) $
     AN2C( CNT3 ) = AN2 (  CNT2,Q2 ) $
```

```
     ND4D( CNTOUT ) = ND4 (  Q0,Q1,Q2,Q3 ) $
     ND2E( SET0 ) = ND2 (  LOAD,D0 ) $
     AO6F( CLR0 ) = AO6 (  LOAD,ND0,RESET ) $
     ND2G( SET1 ) = ND2 (  LOAD,D1 ) $
     AO6H( CLR1 ) = AO6 (  LOAD,ND1,RESET ) $
     ND2J( SET2 ) = ND2 (  LOAD,D2 ) $
     AO6K( CLR2 ) = AO6 (  LOAD,NT40,RESET ) $
     ND2L( SET3 ) = ND2 (  LOAD,D3 ) $
     AO6M( CLR3 ) = AO6 (  LOAD,ND3A,RESET ) $
END : MODULE $
MODULE :   EQUL10/// $
INPUTS   :
     B9,B8A,B7,B6,B5,B4A,B3,B2,B1,B0,A9,A8,A7,A6,A5,A4,A3,A2,A1,A0

$
OUTPUTS  :
     EQ
$
DESCRIPTION : MODULE FOR EQUL10 $
LEVEL  : FUNCTION $
USE   :
     EO /// MASTER
    ,NR4 /// MASTER
    ,OR4 /// MASTER

$
DEFINE :
     BIT0( C0 ) = EO (  A0,B0 ) $
     BIT1( C1 ) = EO (  A1,B1 ) $
     BIT2( C2 ) = EO (  A2,B2 ) $
     BIT3( C3 ) = EO (  A3,B3 ) $
     BIT4( C4 ) = EO (  A4,B4A ) $
     BIT5( C5 ) = EO (  A5,B5 ) $
     BIT6( C6 ) = EO (  A6,B6 ) $
     BIT7( C7 ) = EO (  A7,B7 ) $
     BIT8( C8 ) = EO (  A8,B8A ) $
     BIT9( C9 ) = EO (  A9,B9 ) $
     EQS( EQ ) = NR4 (  EQ03N,EQ47N,C8,C9 ) $
     RB184( EQ03N ) = OR4 (  C0,C1,C2,C3 ) $
     RB186( EQ47N ) = OR4 (  C4,C5,C6,C7 ) $
END : MODULE $
MODULE :   ECOUP4/// $
INPUTS   :
     CLK,CNT,E6845,LOAD,RESET,D0,ND0,D1,ND1,D2,NT40,D3,ND3A
$
OUTPUTS  :
     Q0,NQ0,Q1,NQ1,Q2,NQ2,Q3,NQ3
$
DESCRIPTION : MODULE FOR ECOUP4 $
LEVEL  : FUNCTION $
USE   :
     FJK3P /// MASTER
    ,ND2 /// MASTER
    ,IV /// MASTER
    ,NR3 /// MASTER
    ,AN2 /// MASTER
    ,AO6 /// MASTER
    ,AO1 /// MASTER

$
DEFINE :
     BIT0( Q0,NQ0 ) = FJK3P (  CNT,CNT,CLK,CLR0,SET0
```

```
        ) $
     BIT1( Q1,NQ1 ) = FJK3P (  CNT1,CNT1,CLK,CLR1,SET1
        ) $
     BIT2( Q2,NQ2 ) = FJK3P (  CNT2,CNT2,CLK,CLR2,SET2
        ) $
     BIT3( Q3,NQ3 ) = FJK3P (  CNT3,CNT3,CLK,CLR3,SET3
        ) $
     ND2A( ND2AZ ) = ND2 (  CNT,Q0 ) $
     RB262( CNT1 ) = IV (  ND2AZ ) $
     NR3B( CNT2 ) = NR3 (  ND2AZ,NQ1,E6845 ) $
     AN2C( CNT3 ) = AN2 (  CNT2,Q2 ) $
     ND2E( SET0 ) = ND2 (  LOAD,D0 ) $
     AO6F( CLR0 ) = AO6 (  LOAD,ND0,RESET ) $
     ND2G( SET1 ) = ND2 (  LOAD,D1 ) $
     AO6H( CLR1 ) = AO6 (  LOAD,ND1,RESET ) $
     ND2J( SET2 ) = ND2 (  LOAD,D2 ) $
     AO6K( CLR2 ) = AO1 (  LOAD,NT40,RESET,E6845 ) $
     ND2L( SET3 ) = ND2 (  LOAD,D3 ) $
     AO6M( CLR3 ) = AO1 (  LOAD,ND3A,RESET,E6845 ) $
END : MODULE $
MODULE :   CNTUP4/// $
INPUTS   :
     CLK,CNT,LOAD,RESET,D0,ND0,D1,ND1,D2,NT40,D3,ND3A
$
OUTPUTS  :
     CNTOUT,Q0,NQ0,Q1,NQ1,Q2,NQ2,Q3,NQ3
$
DESCRIPTION : MODULE FOR CNTUP4 $
LEVEL  : FUNCTION $
USE   :
     FJK3P /// MASTER
    ,ND2 /// MASTER
    ,IV /// MASTER
    ,NR2 /// MASTER
    ,AN2 /// MASTER
    ,ND4 /// MASTER
    ,AO6 /// MASTER

$
DEFINE :
     BIT0( Q0,NQ0 ) = FJK3P (  CNT,CNT,CLK,CLR0,SET0
        ) $
     BIT1( Q1,NQ1 ) = FJK3P (  CNT1,CNT1,CLK,CLR1,SET1
        ) $
     BIT2( Q2,NQ2 ) = FJK3P (  CNT2,CNT2,CLK,CLR2,SET2
        ) $
     BIT3( Q3,NQ3 ) = FJK3P (  CNT3,CNT3,CLK,CLR3,SET3
        ) $
     ND2A( ND2AZ ) = ND2 (  CNT,Q0 ) $
     RB262( CNT1 ) = IV (  ND2AZ ) $
     NR2B( CNT2 ) = NR2 (  ND2AZ,NQ1 ) $
     AN2C( CNT3 ) = AN2 (  CNT2,Q2 ) $
     ND4D( CNTOUT ) = ND4 (  Q0,Q1,Q2,Q3 ) $
     ND2E( SET0 ) = ND2 (  LOAD,D0 ) $
     AO6F( CLR0 ) = AO6 (  LOAD,ND0,RESET ) $
     ND2G( SET1 ) = ND2 (  LOAD,D1 ) $
     AO6H( CLR1 ) = AO6 (  LOAD,ND1,RESET ) $
     ND2J( SET2 ) = ND2 (  LOAD,D2 ) $
     AO6K( CLR2 ) = AO6 (  LOAD,NT40,RESET ) $
     ND2L( SET3 ) = ND2 (  LOAD,D3 ) $
     AO6M( CLR3 ) = AO6 (  LOAD,ND3A,RESET ) $
END : MODULE $
```

```
MODULE :   CAY2/// $
INPUTS   :
     SELS,CL,NMR,CIN,ST0,ST1A
$
OUTPUTS  :
     S0,S1,Q0,NQ0,Q1,NQ1,COUT
$
DESCRIPTION : MODULE FOR CAY2 $
LEVEL  : FUNCTION $
USE   :
     FD4 /// MASTER
    ,MUX21L /// MASTER
    ,EO /// MASTER
    ,ND2 /// MASTER
    ,NR2 /// MASTER

$
DEFINE :
     FD4A( NQ0,Q0 ) = FD4 (  MX0Z,CL,NMR ) $
     FD4B( NQ1,Q1 ) = FD4 (  MX1Z,CL,NMR ) $
     MX0( MX0Z ) = MUX21L (  ST0,S0,SELS ) $
     MX1( MX1Z ) = MUX21L (  ST1A,S1,SELS ) $
     EO0( S0 ) = EO (  CIN,Q0 ) $
     RB182( S1 ) = EO (  C1N,NQ1 ) $
     ND2A( C1N ) = ND2 (  CIN,Q0 ) $
     NR2B( COUT ) = NR2 (  C1N,NQ1 ) $
END : MODULE $
MODULE :   CAY1/// $
INPUTS   :
     SELS,CL,NMR,CIN,ST0
$
OUTPUTS  :
     S0,Q0,NQ0
$
DESCRIPTION : MODULE FOR CAY1 $
LEVEL  : FUNCTION $
USE   :
     FD4 /// MASTER
    ,MUX21L /// MASTER
    ,EO /// MASTER

$
DEFINE :
     FD4A( NQ0,Q0 ) = FD4 (  MX0Z,CL,NMR ) $
     MX0( MX0Z ) = MUX21L (  ST0,S0,SELS ) $
     EO0( S0 ) = EO (  CIN,Q0 ) $
END : MODULE $
MODULE :   ADD4T/// $
INPUTS   :
     A1,A2,A3,B1,B2,B3,A0,B0
$
OUTPUTS  :
     S0,S1,S2,S3,COUT
$
DESCRIPTION : MODULE FOR ADD4T $
LEVEL  : FUNCTION $
USE   :
     HA1 /// MASTER
    ,FA1A /// MASTER

$
DEFINE :
```

```
     AD5( S0,CI1 ) = HA1 (  A0,B0 ) $
     AD6( S1,CI2 ) = FA1A (  CI1,A1,B1 ) $
     AD7( S2,CI3 ) = FA1A (  CI2,A2,B2 ) $
     AD8( S3,COUT ) = FA1A (  CI3,A3,B3 ) $
END : MODULE $
MODULE :   ADD4M1/// $
INPUTS   :
     B3,ST3,B2,ST2,B1,ST1A,B0,ST0,CIN,SELS,CL,NMR
$
OUTPUTS  :
     COUT,S3,S2,S1,S0,NQ3,Q3,NQ2,Q2,NQ1,Q1,NQ0,Q0
$
DESCRIPTION : MODULE FOR ADD4M1 $
LEVEL  : FUNCTION $
USE   :
     ADD1M1 ///

$
DEFINE :
     ADD13( COUT,S3,Q3,NQ3 ) = ADD1M1 (  B3,ST3,C2
        ,SELS,CL,NMR ) $
     ADD12( C2,S2,Q2,NQ2 ) = ADD1M1 (  B2,ST2,C1
        ,SELS,CL,NMR ) $
     ADD11( C1,S1,Q1,NQ1 ) = ADD1M1 (  B1,ST1A,C0
        ,SELS,CL,NMR ) $
     ADD10( C0,S0,Q0,NQ0 ) = ADD1M1 (  B0,ST0,CIN
        ,SELS,CL,NMR ) $
END : MODULE $
MODULE :   TCNT8/// $
INPUTS   :
     CLRN,CL
$
OUTPUTS  :
     Q0,NQ0,Q1,NQ1,Q2,NQ2,Q3,NQ3,Q4,NQ4,Q5,NQ5,Q6,NQ6,Q7,NQ7
$
DESCRIPTION : MODULE FOR TCNT8 $
LEVEL  : FUNCTION $
USE   :
     YFD2 /// MASTER

$
DEFINE :
     YFD2T5( Q5,NQ5 ) = YFD2 (  NQ5,NQ4,CLRN ) $
     YFD2T4( Q4,NQ4 ) = YFD2 (  NQ4,NQ3,CLRN ) $
     YFD2T3( Q3,NQ3 ) = YFD2 (  NQ3,NQ2,CLRN ) $
     YFD2T2( Q2,NQ2 ) = YFD2 (  NQ2,NQ1,CLRN ) $
     YFD2T1( Q1,NQ1 ) = YFD2 (  NQ1,NQ0,CLRN ) $
     YFD2T0( Q0,NQ0 ) = YFD2 (  NQ0,CL,CLRN ) $
     YFD2T6( Q6,NQ6 ) = YFD2 (  NQ6,NQ5,CLRN ) $
     YFD2T7( Q7,NQ7 ) = YFD2 (  NQ7,NQ6,CLRN ) $
END : MODULE $
MODULE :   SKEWCOMP/// $
INPUTS   :
     EPLTEN,STDCLK,S2,S1,S0,D
$
OUTPUTS  :
     QN,Q
$
DESCRIPTION : MODULE FOR SKEWCOMP $
LEVEL  : FUNCTION $
USE   :
     IVP /// MASTER
```

```
    ,MUX21LP /// MASTER
    ,YFD1 /// MASTER
    ,MUX81 /// MASTER

$
DEFINE :
     NEG1( Q ) = IVP (  QN ) $
     RB373( QN ) = MUX21LP (  D,QD,EPLTEN ) $
     FFF8( SKEW6, ) = YFD1 (  SKEW5,STDCLK ) $
     FFF7( SKEW5, ) = YFD1 (  SKEW4,STDCLK ) $
     FFF6( SKEW4, ) = YFD1 (  SKEW3,STDCLK ) $
     FFF5( SKEW3, ) = YFD1 (  SKEW2,STDCLK ) $
     FFF4( SKEW2, ) = YFD1 (  SKEW1,STDCLK ) $
     FFF3( SKEW1, ) = YFD1 (  SKEW99,STDCLK ) $
     FFF2( SKEW99, ) = YFD1 (  D,STDCLK ) $
     FFF1( QD, ) = YFD1 (  QI,STDCLK ) $
     RB372( QI ) = MUX81 (  SKEW1,SKEW2,SKEW3,SKEW4,SKEW5,SKEW6
        ,SKEW6,SKEW6,S0,S1,S2 ) $
END : MODULE $
MODULE :   SKEWCMPC/// $
INPUTS   :
     STDCLK,S2,S1,S0,D
$
OUTPUTS  :
     CLN,Q
$
DESCRIPTION : MODULE FOR SKEWCMPC $
LEVEL  : FUNCTION $
USE   :
     ND2 /// MASTER
    ,YFD1 /// MASTER
    ,FD1P /// MASTER
    ,MUX81 /// MASTER

$
DEFINE :
     RB750( CLN ) = ND2 (  QI,QN ) $
     FFF8( SKEW6, ) = YFD1 (  SKEW5,STDCLK ) $
     FFF7( SKEW5, ) = YFD1 (  SKEW4,STDCLK ) $
     FFF6( SKEW4, ) = YFD1 (  SKEW3,STDCLK ) $
     FFF5( SKEW3, ) = YFD1 (  SKEW2,STDCLK ) $
     FFF4( SKEW2, ) = YFD1 (  SKEW1,STDCLK ) $
     FFF3( SKEW1, ) = YFD1 (  SKEW99,STDCLK ) $
     FFF2( SKEW99, ) = YFD1 (  D,STDCLK ) $
     FFF1( Q,QN ) = FD1P (  QI,STDCLK ) $
     RB372( QI ) = MUX81 (  SKEW1,SKEW2,SKEW3,SKEW4,SKEW5,SKEW6
        ,SKEW6,SKEW6,S0,S1,S2 ) $
END : MODULE $
MODULE :   SEL832/// $
INPUTS   :
     A0,A1,A2,A3,A4,A5,A6,A7,B0,B1,B2,B3,B4A,B5,B6,B7,C0,C1,C2,C3
    ,C4,C5,C6,C7,D0,D1,D2,D3,D4,D5,D6,D7,S0,S1
$
OUTPUTS  :
     Y0,Y1,Y2,Y3,Y4,Y5,Y6,Y7
$
DESCRIPTION : MODULE FOR SEL832 $
LEVEL  : FUNCTION $
USE   :
     MUX41P /// MASTER

$
```

```
DEFINE :
     U0( Y0 ) = MUX41P (  A0,B0,C0,D0,S0,S1
         ) $
     U1( Y1 ) = MUX41P (  A1,B1,C1,D1,S0,S1
         ) $
     U2( Y2 ) = MUX41P (  A2,B2,C2,D2,S0,S1
         ) $
     U3( Y3 ) = MUX41P (  A3,B3,C3,D3,S0,S1
         ) $
     U4( Y4 ) = MUX41P (  A4,B4A,C4,D4,S0,S1
         ) $
     U5( Y5 ) = MUX41P (  A5,B5,C5,D5,S0,S1
         ) $
     U6( Y6 ) = MUX41P (  A6,B6,C6,D6,S0,S1
         ) $
     U7( Y7 ) = MUX41P (  A7,B7,C7,D7,S0,S1
         ) $
END : MODULE $
MODULE :   SEL714/// $
INPUTS   :
     A0,A1,A2,A3,A4,A5,B0,B1,B2,B3,B4A,B5,A6,B6,S
$
OUTPUTS  :
     Y0,Y1,Y2,Y3,Y4,Y5,Y6
$
DESCRIPTION : MODULE FOR SEL714 $
LEVEL  : FUNCTION $
USE   :
     IVAP /// MASTER
    ,YMUX24LP /// MASTER
    ,MUX21LP /// MASTER

$
DEFINE :
     RB576( Y6 ) = IVAP (  Y6I ) $
     RB575( Y5 ) = IVAP (  Y5I ) $
     RB574( Y4 ) = IVAP (  Y4I ) $
     RB573( Y3 ) = IVAP (  Y3I ) $
     RB572( Y2 ) = IVAP (  Y2I ) $
     RB571( Y1 ) = IVAP (  Y1I ) $
     RB570( Y0 ) = IVAP (  Y0I ) $
     RB398( Y0I,Y1I,Y2I,Y3I ) = YMUX24LP (  A0,B0,A1
        ,B1,A2,B2,A3,B3,S ) $
     RB399( Y4I ) = MUX21LP (  A4,B4A,S ) $
     RB400( Y5I ) = MUX21LP (  A5,B5,S ) $
     RB401( Y6I ) = MUX21LP (  A6,B6,S ) $
END : MODULE $
MODULE :   SEL612/// $
INPUTS   :
     A0,A1,A2,A3,A4,A5,B0,B1,B2,B3,B4A,B5,S
$
OUTPUTS  :
     Y0,Y1,Y2,Y3,Y4,Y5
$
DESCRIPTION : MODULE FOR SEL612 $
LEVEL  : FUNCTION $
USE   :
     IVAP /// MASTER
    ,YMUX24LP /// MASTER
    ,MUX21LP /// MASTER

$
```

```
DEFINE :
     RB582( Y5 ) = IVAP (  Y5I ) $
     RB581( Y4 ) = IVAP (  Y4I ) $
     RB577( Y3 ) = IVAP (  Y3I ) $
     RB569( Y2 ) = IVAP (  Y2I ) $
     RB563( Y1 ) = IVAP (  Y1I ) $
     RB558( Y0 ) = IVAP (  Y0I ) $
     RB398( Y0I,Y1I,Y2I,Y3I ) = YMUX24LP (  A0,B0,A1
        ,B1,A2,B2,A3,B3,S ) $
     RB399( Y4I ) = MUX21LP (  A4,B4A,S ) $
     RB400( Y5I ) = MUX21LP (  A5,B5,S ) $
END : MODULE $
MODULE :   SEL510/// $
INPUTS   :
     A0,A1,A2,A3,A4,B0,B1,B2,B3,B4A,S
$
OUTPUTS  :
     Y0,Y1,Y2,Y3,Y4
$
DESCRIPTION : MODULE FOR SEL510 $
LEVEL  : FUNCTION $
USE   :
     IVAP /// MASTER
    ,YMUX24LP /// MASTER
    ,MUX21LP /// MASTER

$
DEFINE :
     RB568( Y4 ) = IVAP (  Y4I ) $
     RB567( Y3 ) = IVAP (  Y3I ) $
     RB566( Y2 ) = IVAP (  Y2I ) $
     RB565( Y1 ) = IVAP (  Y1I ) $
     RB564( Y0 ) = IVAP (  Y0I ) $
     RB398( Y0I,Y1I,Y2I,Y3I ) = YMUX24LP (  A0,B0,A1
        ,B1,A2,B2,A3,B3,S ) $
     RB399( Y4I ) = MUX21LP (  A4,B4A,S ) $
END : MODULE $
MODULE :   SEL48/// $
INPUTS   :
     A0,A1,A2,A3,B0,B1,B2,B3,S
$
OUTPUTS  :
     Y0,Y1,Y2,Y3
$
DESCRIPTION : MODULE FOR SEL48 $
LEVEL  : FUNCTION $
USE   :
     IVAP /// MASTER
    ,YMUX24LP /// MASTER

$
DEFINE :
     RB562( Y3 ) = IVAP (  Y3I ) $
     RB561( Y2 ) = IVAP (  Y2I ) $
     RB560( Y1 ) = IVAP (  Y1I ) $
     RB559( Y0 ) = IVAP (  Y0I ) $
     RB398( Y0I,Y1I,Y2I,Y3I ) = YMUX24LP (  A0,B0,A1
        ,B1,A2,B2,A3,B3,S ) $
END : MODULE $
MODULE :   SEL416/// $
INPUTS   :
     A0,A1,A2,A3,B0,B1,B2,B3,C0,C1,C2,C3,D0,D1,D2,D3,S0,S1
```

```
$
OUTPUTS  :
     Y0,Y1,Y2,Y3
$
DESCRIPTION : MODULE FOR SEL416 $
LEVEL  : FUNCTION $
USE   :
     MUX41P /// MASTER

$
DEFINE :
     U0( Y0 ) = MUX41P (  A0,B0,C0,D0,S0,S1
         ) $
     U1( Y1 ) = MUX41P (  A1,B1,C1,D1,S0,S1
         ) $
     U2( Y2 ) = MUX41P (  A2,B2,C2,D2,S0,S1
         ) $
     U3( Y3 ) = MUX41P (  A3,B3,C3,D3,S0,S1
         ) $
END : MODULE $
MODULE :   SEL1632/// $
INPUTS   :
     A0,A1,A2,A3,A4,A5,A6,A7,A8,A9,A10,A11,A12,A13,A14,A15,B0,B1,B2
    ,B3,B4A,B5,B6,B7,B8A,B9,B10,B11,B12A,B13,B14,B15,S
$
OUTPUTS  :
     Y15,Y14,Y13,Y12,Y11,Y10,Y9,Y8,Y7,Y6,Y5,Y4,Y3,Y2,Y1,Y0
$
DESCRIPTION : MODULE FOR SEL1632 $
LEVEL  : FUNCTION $
USE   :
     SEL816 ///

$
DEFINE :
     RB398( Y8,Y9,Y10,Y11,Y12,Y13,Y14
        ,Y15 ) = SEL816 (  A8,A9,A10,A11,A12,A13
        ,A14,A15,B8A,B9,B10,B11,B12A
        ,B13,B14,B15,S ) $
     RB399( Y0,Y1,Y2,Y3,Y4,Y5,Y6
        ,Y7 ) = SEL816 (  A0,A1,A2,A3,A4,A5
        ,A6,A7,B0,B1,B2,B3,B4A
        ,B5,B6,B7,S ) $
END : MODULE $
MODULE :   SEL1020/// $
INPUTS   :
     A0,A1,A2,A3,A4,A5,A6,A7,A8,A9,B0,B1,B2,B3,B4A,B5,B6,B7,B8A,B9
    ,S
$
OUTPUTS  :
     Y0,Y1,Y2,Y3,Y4,Y5,Y6,Y7,Y8,Y9
$
DESCRIPTION : MODULE FOR SEL1020 $
LEVEL  : FUNCTION $
USE   :
     SEL816 ///
    ,MUX21HP /// MASTER

$
DEFINE :
     RB398( Y0,Y1,Y2,Y3,Y4,Y5,Y6
        ,Y7 ) = SEL816 (  A0,A1,A2,A3,A4,A5
```

```
        ,A6,A7,B0,B1,B2,B3,B4A
        ,B5,B6,B7,S ) $
     RB399( Y8 ) = MUX21HP (  A8,B8A,S ) $
     RB400( Y9 ) = MUX21HP (  A9,B9,S ) $
END : MODULE $
MODULE :   NEQUL8/// $
INPUTS   :
     A0,A1,A2,A3,A4,A5,A6,A7,B0,B1,B2,B3,B4A,B5,B6,B7
$
OUTPUTS  :
     NEQ
$
DESCRIPTION : MODULE FOR NEQUL8 $
LEVEL  : FUNCTION $
USE   :
     EO /// MASTER
    ,EN /// MASTER
    ,ND5 /// MASTER
    ,NR4 /// MASTER

$
DEFINE :
     BIT0( C0 ) = EO (  A0,B0 ) $
     BIT1( C1 ) = EO (  A1,B1 ) $
     BIT2( C2 ) = EO (  A2,B2 ) $
     BIT3( C3 ) = EO (  A3,B3 ) $
     RB398( C4 ) = EN (  A4,B4A ) $
     RB399( C5 ) = EN (  A5,B5 ) $
     RB400( C6 ) = EN (  A6,B6 ) $
     RB401( C7 ) = EN (  A7,B7 ) $
     RB402( NEQ ) = ND5 (  EQ03N,C4,C5,C6,C7 ) $
     RB403( EQ03N ) = NR4 (  C0,C1,C2,C3 ) $
END : MODULE $
MODULE :   NEQUL6/// $
INPUTS   :
     A0,A1,A2,A3,A4,A5,B0,B1,B2,B3,B4A,B5
$
OUTPUTS  :
     NEQ
$
DESCRIPTION : MODULE FOR NEQUL6 $
LEVEL  : FUNCTION $
USE   :
     EN /// MASTER
    ,ND6 /// MASTER

$
DEFINE :
     U1( UN000 ) = EN (  A0,B0 ) $
     U2( UN001 ) = EN (  A1,B1 ) $
     U3( UN002 ) = EN (  A2,B2 ) $
     U4( UN003 ) = EN (  A3,B3 ) $
     U5( UN004 ) = EN (  A4,B4A ) $
     U6( UN005 ) = EN (  A5,B5 ) $
     U7( NEQ ) = ND6 (  UN000,UN001,UN002,UN003,UN004,UN005
         ) $
END : MODULE $
MODULE :   LDCNT16/// $
INPUTS   :
     D0,D1,D2,D3,D4,D5,D6,D7,D8,D9,D10,D11,D12,D13,D14,D15,LOAD,CLK

$
```

```
OUTPUTS  :
     Q0,Q1,Q2,Q3,Q4,Q5,Q6,Q7,Q8,Q9,Q10,Q11,Q12,Q13,Q14,Q15
$
DESCRIPTION : MODULE FOR LDCNT16 $
LEVEL  : FUNCTION $
USE   :
     LDCNT10 ///
    ,FJK1S /// MASTER
    ,NR2 /// MASTER
    ,ND2 /// MASTER
    ,IV /// MASTER

$
DEFINE :
     U1( Q0,Q1,Q2,Q3,Q4,Q5,Q6
        ,Q7,Q8,Q9,U1Q8N,U1U12Z ) = LDCNT10 (  D0,D1
        ,D2,D3,D4,D5,D6,D7,D8
        ,D9,LOAD,CLK ) $
     U3( Q10, ) = FJK1S (  U2Z,U2Z,CLK,D10,LOAD
         ) $
     U6( Q11,U6QN ) = FJK1S (  U5Z,U5Z,CLK,D11,LOAD
         ) $
     U8( Q12, ) = FJK1S (  U7Z,U7Z,CLK,D12,LOAD
         ) $
     U11( Q13,U11QN ) = FJK1S (  U10Z,U10Z,CLK,D13,LOAD
         ) $
     U13( Q14, ) = FJK1S (  U12Z,U12Z,CLK,D14,LOAD
         ) $
     U16( Q15, ) = FJK1S (  U15Z,U15Z,CLK,D15,LOAD
         ) $
     U2( U2Z ) = NR2 (  U1Q8N,U1U12Z ) $
     U7( U7Z ) = NR2 (  U6QN,U4Z ) $
     U12( U12Z ) = NR2 (  U11QN,U9Z ) $
     U9( U9Z ) = ND2 (  Q12,U7Z ) $
     U4( U4Z ) = ND2 (  Q10,U2Z ) $
     U5( U5Z ) = IV (  U4Z ) $
     U10( U10Z ) = IV (  U9Z ) $
     U14( U14Z ) = ND2 (  Q14,U12Z ) $
     U15( U15Z ) = IV (  U14Z ) $
END : MODULE $
MODULE :   LDCLCNT7/// $
INPUTS   :
     D0,D1,D2,D3,D4,D5,D6,LOAD,CLK,CL
$
OUTPUTS  :
     Q0,Q1,Q2,Q3,Q4,Q5,Q6
$
DESCRIPTION : MODULE FOR LDCLCNT7 $
LEVEL  : FUNCTION $
USE   :
     LDCLCNT5 ///
    ,FJK2S /// MASTER
    ,ND2 /// MASTER
    ,IV /// MASTER
    ,NR2 /// MASTER

$
DEFINE :
     RB398( Q0,Q1,Q2,Q3,Q4,U1Z ) = LDCLCNT5 (  D0
        ,D1,D2,D3,D4,LOAD,CLK,CL
         ) $
     RB399( Q5,U4N ) = FJK2S (  U3Z,U3Z,CLK,CL,D5
```

```
        ,LOAD ) $
     RB400( Q6, ) = FJK2S (  U5Z,U5Z,CLK,CL,D6
        ,LOAD ) $
     U2( U2Z ) = ND2 (  Q4,U1Z ) $
     U3( U3Z ) = IV (  U2Z ) $
     U5( U5Z ) = NR2 (  U2Z,U4N ) $
END : MODULE $
MODULE :   LDCLCNT4/// $
INPUTS   :
     D0,D1,D2,D3,LOAD,CLK,CL
$
OUTPUTS  :
     Q0,Q1,Q2,Q3
$
DESCRIPTION : MODULE FOR LDCLCNT4 $
LEVEL  : FUNCTION $
USE   :
     FJK2S /// MASTER
    ,NR2 /// MASTER
    ,ND2 /// MASTER
    ,IV /// MASTER
    ,FD2S /// MASTER

$
DEFINE :
     RB398( Q1,U2QN ) = FJK2S (  Q0,Q0,CLK,CL,D1
        ,LOAD ) $
     RB399( Q2, ) = FJK2S (  U3Z,U3Z,CLK,CL,D2
        ,LOAD ) $
     RB400( Q3, ) = FJK2S (  U6Z,U6Z,CLK,CL,D3
        ,LOAD ) $
     U3( U3Z ) = NR2 (  U2QN,U1QN ) $
     U5( U5Z ) = ND2 (  Q2,U3Z ) $
     U6( U6Z ) = IV (  U5Z ) $
     RB401( Q0,U1QN ) = FD2S (  U1QN,CLK,CL,D0,LOAD
         ) $
END : MODULE $
MODULE :   LDCLCNTA/// $
INPUTS   :
     D0,D1,D2,D3,D4,D5,D6,D7,D8,D9,LOAD,CLK,CL
$
OUTPUTS  :
     Q0,Q1,Q2,Q3,Q4,Q5,Q6,Q7,Q8,Q9,Q9N,U12Z
$
DESCRIPTION : MODULE FOR LDCLCNTA $
LEVEL  : FUNCTION $
USE   :
     LDCLCNT5 ///
    ,FJK2S /// MASTER
    ,ND2 /// MASTER
    ,IV /// MASTER
    ,NR2 /// MASTER

$
DEFINE :
     RB398( Q0,Q1,Q2,Q3,Q4,U1Z ) = LDCLCNT5 (  D0
        ,D1,D2,D3,D4,LOAD,CLK,CL
         ) $
     RB399( Q5,U4N ) = FJK2S (  U3Z,U3Z,CLK,CL,D5
        ,LOAD ) $
     RB400( Q6, ) = FJK2S (  U5Z,U5Z,CLK,CL,D6
        ,LOAD ) $
```

```
     RB401( Q7,U9Z ) = FJK2S (  U8Z,U8Z,CLK,CL,D7
        ,LOAD ) $
     RB402( Q8, ) = FJK2S (  U10Z,U10Z,CLK,CL,D8
        ,LOAD ) $
     RB403( Q9,Q9N ) = FJK2S (  U13Z,U13Z,CLK,CL,D9
        ,LOAD ) $
     U2( U2Z ) = ND2 (  Q4,U1Z ) $
     U3( U3Z ) = IV (  U2Z ) $
     U5( U5Z ) = NR2 (  U2Z,U4N ) $
     U7( U7Z ) = ND2 (  Q6,U5Z ) $
     U8( U8Z ) = IV (  U7Z ) $
     U10( U10Z ) = NR2 (  U7Z,U9Z ) $
     U12( U12Z ) = ND2 (  Q8,U10Z ) $
     U13( U13Z ) = IV (  U12Z ) $
END : MODULE $
MODULE :   LATCH8M/// $
INPUTS   :
     D0,D1,D2,D4,D5,D6,D7,CLK,D3
$
OUTPUTS  :
     Q0,Q1,Q2,Q3,Q4,Q5,Q6,Q7
$
DESCRIPTION : MODULE FOR LATCH8M $
LEVEL  : FUNCTION $
USE   :
     YLD24B /// MASTER

$
DEFINE :
     RB398( Q0,,Q1,,Q2,,Q3
        , ) = YLD24B (  D0,D1,D2,D3,CLK ) $
     RB399( Q4,,Q5,,Q6,,Q7
        , ) = YLD24B (  D4,D5,D6,D7,CLK ) $
END : MODULE $
MODULE :   HADD4/// $
INPUTS   :
     A0,A1,A2,A3,B0
$
OUTPUTS  :
     S0,S1,S2,S3,COUT
$
DESCRIPTION : MODULE FOR HADD4 $
LEVEL  : FUNCTION $
USE   :
     HA1 /// MASTER

$
DEFINE :
     U1( S0,UN000 ) = HA1 (  B0,A0 ) $
     U2( S1,UN001 ) = HA1 (  UN000,A1 ) $
     U3( S2,UN002 ) = HA1 (  UN001,A2 ) $
     U4( S3,COUT ) = HA1 (  UN002,A3 ) $
END : MODULE $
MODULE :   FRCCONT/// $
INPUTS   :
     CF4,AR10D6,CF3,N3FRCPAT,NT127,NT126,FRC0,FRC1,PWM0,PWM1,DITHER2
    ,DITHER1,DITHER0,PT11110,PT11101,PT11100,PT11011,PT11010,PT11001
    ,PT11000,PT10110,PT10101,PT10100,PT10011,PT10010,PT10001,PT10000
    ,PTBB111,PT01110,PT01101,PT01100,PT01011,PT01010,PT01001,PT01000
    ,PTAA111,PT00110,PT00101,PT00100,PT00011,PT00010,PT00001,PT00000
    ,CDATA5,CDATA4,CDATA3,CDATA2,CDATA1,CDATA0,FRCLC0,FRCDC0,DOTCLK
    ,SSS
```

```
$
OUTPUTS  :
     PWMOUT3,PWMOUT2,PWMOUT1,PWMOUT0,FRCOUT
$
DESCRIPTION : MODULE FOR FRCCONT $
LEVEL  : FUNCTION $
USE   :
     NR4 /// MASTER
    ,ND2P /// MASTER
    ,NR2 /// MASTER
    ,FD1S /// MASTER
    ,ND2 /// MASTER
    ,MUX21HP /// MASTER
    ,ND6P /// MASTER
    ,AO6 /// MASTER
    ,IV /// MASTER
    ,AN2P /// MASTER
    ,ND3 /// MASTER
    ,AO2 /// MASTER
    ,AN2 /// MASTER
    ,ND4 /// MASTER
    ,NR3P /// MASTER
    ,NR2P /// MASTER
    ,AN4 /// MASTER
    ,ND3P /// MASTER
    ,ND4P /// MASTER
    ,MUX41P /// MASTER
    ,B3IP /// MASTER
    ,IVP /// MASTER
    ,MUX81P /// MASTER
    ,DFF4P ///
    ,YFD1 /// MASTER
    ,ND6 /// MASTER
    ,SUB4M ///

$
DEFINE :
     RB734( N0FRCPWM ) = NR4 (  FRC0,FRC1,PWM0,PWM1 ) $
     RB733( BOIB5 ) = ND2P (  CDATA5,N0FRCPWM ) $
     RB732( BOIA5 ) = ND2P (  CDATA4,N0FRCPWM ) $
     RB731( NT123 ) = NR2 (  CC000XXX,BOIN ) $
     RB730( N0FRCPAT, ) = FD1S (  CDATA5,DOTCLK,NT123,DITHEREN ) $
     RB729( N0F11N ) = ND2 (  N0FRCPWM,N0FRCPAT ) $
     RB728( N4FRCPAT ) = MUX21HP (  NT126,NT127,FRCIN3 ) $
     RB727( BOIA4 ) = ND2P (  CDATA3,N3FRC ) $
     RB726( BOIA3 ) = ND2P (  CDATA2,N4FRCPWM ) $
     RB725( BOIA2 ) = ND2P (  CDATA1,N8PWM ) $
     RB724( BOIA1 ) = ND2P (  CDATA0,NT124 ) $
     RB723( BOINSA ) = ND6P (  DITHEREN,BOIA1,BOIA2,BOIA3,BOIA4,BOIA5
         ) $
     RB722( BOIB4 ) = ND2P (  CDATA4,N3FRC ) $
     RB721( BOIB3 ) = ND2P (  CDATA3,N4FRCPWM ) $
     RB720( BOIB2 ) = ND2P (  CDATA2,N8PWM ) $
     RB719( BOIB1 ) = ND2P (  CDATA1,NT124 ) $
     RB715( DITENN ) = AO6 (  CF3,AR10D6,CF4 ) $
     RB714( DITHEREN ) = IV (  DITENN ) $
     RB713( BOINSB ) = ND6P (  DITHEREN,BOIB1,BOIB2,BOIB3,BOIB4,BOIB5
         ) $
     RB712( SUBD0 ) = AN2P (  CDATA2,NT124 ) $
     RB711( SUBD1I ) = NR2 (  N4FRCPWM,N3FRC ) $
     RB710( SUBD1 ) = AN2P (  CDATA3,SUBD1I ) $
     RB709( CDATA5N ) = IV (  CDATA5 ) $
```

```
RB708( SUBD2 ) = MUX21HP (  CDATA4,CDATA5N,N3FRC ) $
RB707( CC00XXXX ) = NR2 (  CDATA5,CDATA4 ) $
RB706( N0DIV3I ) = ND3 (  N3FRC,CC000XXX,CDATA2N ) $
RB705( N0DIV4I ) = ND2 (  N4FRCPWM,CC00XXXX ) $
RB704( N4FRCPWM ) = IV (  N4FPN ) $
RB703( N4FPN ) = AO2 (  PWM1N,PWM0,FRC1N,FRC0 ) $
RB702( NT124 ) = IV (  N16FPN ) $
RB701( N16FPN ) = AO2 (  PWM1,PWM0N,FRC1,FRC0N ) $
RB700( N3FRC ) = AN2 (  FRC1,FRC0 ) $
RB699( FRC0N ) = IV (  FRC0 ) $
RB698( FRC1N ) = IV (  FRC1 ) $
RB697( PWM0N ) = IV (  PWM0 ) $
RB696( PWM1N ) = IV (  PWM1 ) $
RB695( N8PWM ) = AN2 (  PWM1,PWM0 ) $
RB694( N4F11N ) = ND4 (  N4FRCPWM,FRCIN3,FRCIN2,BOINN ) $
RB693( N3F11N ) = ND2 (  N3FRC,FRCIN3 ) $
RB692( NT119 ) = NR3P (  NT124,FRCIN3,FRCIN2 ) $
RB691( N0DIVHN ) = NR2P (  NT119,NT120 ) $
RB690( AF11N ) = AN4 (  F1111N,N3F11N,N4F11N,N0F11N ) $
RB689( N3FDATN ) = ND3P (  N3FRC,N3FRCPAT,N0DIVHN ) $
RB688( N4FDATN ) = ND3P (  N4FRCPWM,N4FRCPAT,N0DIVHN ) $
RB687( N16FDATN ) = ND3P (  NT124,UN017,N0DIVHN ) $
RB686( FRCOUT ) = ND4P (  N16FDATN,N4FDATN,N3FDATN,AF11N ) $
RB685( BOIN ) = MUX41P (  DITHER0,DITHER1,DITHER2,SSS,BOINSA,BOINSB
    ) $
RB537( N0DIV16I ) = ND4 (  NT121,NT122,N0DIV4I,N0DIV3I ) $
RB536( NT122 ) = ND4 (  CC000XXX,CDATA2,BOIN,NT124 ) $
RB535( NT121 ) = ND3 (  CC000XXX,CDATA2N,NT124 ) $
RB534( CDATA2N ) = IV (  CDATA2 ) $
RB533( ,UN035 ) = B3IP (  FRCIN0 ) $
RB532( UN070 ) = ND3P (  UN70I1,UN70I2,UN70I3 ) $
RB531( UN70I3 ) = ND3P (  FRCIN3,FRCIN1N,FRCIN0N ) $
RB530( UN70I2 ) = ND2P (  FRCIN3N,FRCIN1 ) $
RB529( UN70I1 ) = ND3P (  FRCIN3,FRCIN1,FRCIN0 ) $
RB528( UN036 ) = ND3P (  UN36I2,UN36I3,UN36I4 ) $
RB527( UN36I4 ) = ND3P (  FRCIN3,FRCIN2N,FRCIN0N ) $
RB526( UN36I3 ) = ND3P (  FRCIN3,FRCIN2N,FRCIN1N ) $
RB525( UN36I2 ) = ND2P (  FRCIN3N,FRCIN2 ) $
RB524( UN000N ) = IVP (  UN000 ) $
RB523( UN037N ) = IVP (  UN037 ) $
RB522( UN005N ) = IVP (  UN005 ) $
RB521( UN006N ) = IVP (  UN006 ) $
RB520( UN017 ) = MUX81P (  UN006N,UN005N,UN037N,UN000N,UN006,UN005
   ,UN037,UN000,FRCDC0,FRCLC0,FRCIN3 ) $
RB519( FRCIN0,FRCIN1,FRCIN2,FRCIN3,FRCIN0N,FRCIN1N,FRCIN2N
   ,FRCIN3N ) = DFF4P (  FRCIN0I,FRCIN1I,FRCIN2I,FRCIN3I,DOTCLK ) $
RB517( ,BOINN ) = YFD1 (  BOIN,DOTCLK ) $
RB516( NT120, ) = YFD1 (  N0DIV16I,DOTCLK ) $
RB514( PWMOUT3 ) = AN2P (  FRCIN3,N0DIVHN ) $
RB513( PWMOUT2 ) = AN2P (  FRCIN2,N0DIVHN ) $
RB512( PWMOUT1 ) = AN2P (  FRCIN1,N0DIVHN ) $
RB511( PWMOUT0 ) = AN2P (  FRCIN0,N0DIVHN ) $
RB510( F1111N ) = ND6 (  FRCIN3,FRCIN2,FRCIN1,FRCIN0,BOINN,NT124
    ) $
RB509( FRCIN3I,FRCIN2I,FRCIN1I,FRCIN0I ) = SUB4M (  CDATA5
   ,SUBD2,SUBD1
   ,SUBD0,BOIN ) $
RB515( CC000XXX ) = NR3P (  CDATA5,CDATA4,CDATA3 ) $
RB412( UN006 ) = MUX81P (  PT00000,PT00001,PT00010,PT00011
   ,PT00100,PT00101
   ,PT00110,PTBB111,UN035,UN070,UN036 ) $
RB413( UN005 ) = MUX81P (  PT01000,PT01001,PT01010,PT01011
```

```
        ,PT01100,PT01101
        ,PT01110,PTAA111,UN035,UN070,UN036 ) $
     RB426( UN037 ) = MUX81P (  PT10000,PT10001,PT10010,PT10011
        ,PT10100,PT10101
        ,PT10110,PTAA111,UN035,UN070,UN036 ) $
     RB433( UN000 ) = MUX81P (  PT11000,PT11001,PT11010,PT11011
        ,PT11100,PT11101
        ,PT11110,PTBB111,UN035,UN070,UN036 ) $
END : MODULE $
MODULE :   FPATGEN/// $
INPUTS   :
     FRC0,CF2,CF1,CF0,PRIMN3,PRIMN2,PRIMN1,PRIMN0,PRIMM3,PRIMM2,PRIMM1
    ,PRIMM0,SSS,VSYNC,NRESET,LC0IN,NRCNCLK,DOTCLK
$
OUTPUTS  :
     N3FRCPAT,NT127,NT126,PT11110,PT11101,PT11100,PT11011,PT11010
    ,PT11001,PT11000,PT10110,PT10101,PT10100,PT10011,PT10010,PT10001
    ,PT10000,PTBB111A,PT01110,PT01101,PT01100,PT01011,PT01010,PT01001
    ,PT01000,PTAA111A,PT00110,PT00101,PT00100,PT00011,PT00010,PT00001
    ,PT00000,FRCDC0,FRCLC0,DITHER2,DITHER1,DITHER0
$
DESCRIPTION : MODULE FOR FPATGEN $
LEVEL  : FUNCTION $
USE   :
     FD1P /// MASTER
    ,OR2 /// MASTER
    ,YMUX24H /// MASTER
    ,IV /// MASTER
    ,NR2 /// MASTER
    ,YFD2 /// MASTER
    ,MUX41P /// MASTER
    ,OR2P /// MASTER
    ,FD1S /// MASTER
    ,DCNT4 ///
    ,DFFS4 ///
    ,DFF4P ///
    ,EO /// MASTER
    ,NR2P /// MASTER
    ,ENP /// MASTER
    ,FD2P /// MASTER
    ,B3IP /// MASTER
    ,B2IP /// MASTER
    ,NR3P /// MASTER
    ,NR4P /// MASTER
    ,NR5P /// MASTER
    ,NR6P /// MASTER
    ,NR8 /// MASTER
    ,IVP /// MASTER
    ,YFD1 /// MASTER
    ,ND2 /// MASTER
    ,ND5 /// MASTER
    ,AN4 /// MASTER
    ,AN2P /// MASTER
    ,SCNT5M ///
    ,SCNT4M ///
    ,ADD4T ///
    ,D24L /// MASTER
    ,YD24GH /// MASTER

$
DEFINE :
     RB681( PTAA111A,PTBB111A ) = FD1P (  LFC0,DOTCLK ) $
```

```
RB680( Q13QD ) = OR2 (  Q11NQ,Q13Q ) $
RB679( LFCI0,LFCI1,LFCI2,LFCI3 ) = YMUX24H (  ICNT0,LADD40,ICNT1
   ,LADD41,ICNT2,LADD42,ICNT3,LADD43,CCNCLR ) $
RB678( G13O ) = IV (  G6O ) $
RB734( F10N ) = NR2 (  F0,F1 ) $
RB733( F2, ) = YFD2 (  F1,VSYNC,NRESET ) $
RB732( F1, ) = YFD2 (  F0,VSYNC,NRESET ) $
RB731( F0, ) = YFD2 (  F10N,VSYNC,NRESET ) $
RB730( CF2FRC0 ) = OR2 (  CF2,FRC0 ) $
RB728( N3FRCPAT ) = MUX41P (  PTBB111,PTAA111,PTAA111,PTBB111
   ,FRCDC0,FRCLC0
    ) $
RB727( N4FP12 ) = OR2 (  F1,F2 ) $
RB726( N4FP02 ) = OR2 (  F0,F2 ) $
RB725( N4FP01 ) = OR2 (  F0,F1 ) $
RB724( NT127 ) = MUX41P (  N4FP01,N4FP02,N4FP02,N4FP12,FRCDC0
   ,FRCLC0
    ) $
RB723( NT126 ) = MUX41P (  F2,F1,F1,F0,FRCDC0,FRCLC0
    ) $
RB719( DITHER0 ) = OR2P (  LC0,DC0IN ) $
RB718( FRCLC0ID, ) = FD1S (  INDEX0,DOTCLK,LC0,CF2FRC0 ) $
RB717( FRCDC0ID, ) = FD1S (  INDEX1,DOTCLK,DC0IN,CF2FRC0 ) $
RB716( ,,,PTAA111,FRMC3,FRMC2,FRMC1
   ,PTBB111 ) = DCNT4 (  NRESET,VSYNC ) $
RB715( LFC3,LFC2,LFC1,LFC0 ) = DFFS4 (  DOTCLK,G2O,LFCI3
   ,LFCI2,LFCI1,LFCI0,LFC3,LFC2,LFC1,LFC0
    ) $
RB714( ICNT3,ICNT2,ICNT1,ICNT0 ) = DFFS4 (  ICNCLK,RCNCLR,FRMC3
   ,FRMC2,FRMC1,PTBB111,IADD43,IADD42,IADD41,IADD40
    ) $
RB713( FT13,FT14,FT15,FT16,,,
   , ) = DFF4P (  AFT13,AFT14,AFT15,AFT16,DOTCLK ) $
RB712( FT09,FT10,FT11,FT12,,,
   , ) = DFF4P (  AFT09,AFT10,AFT11,AFT12,DOTCLK ) $
RB711( FT05,FT06,FT07,FT08,,,
   , ) = DFF4P (  AFT05,AFT06,AFT07,AFT08,DOTCLK ) $
RB710( FT01,FT02,FT03,FT04,,,
   , ) = DFF4P (  AFT01,AFT02,AFT03,AFT04,DOTCLK ) $
RB707( LC0, ) = FD1P (  LC0IN,DOTCLK ) $
RB706( INDEX1ND ) = EO (  CF0,INDEX1N ) $
RB705( NRCN0D ) = EO (  CF0,NRCN0 ) $
RB702( INDEX0I ) = NR2 (  CF1,NCCN1 ) $
RB684( DITHER2 ) = NR2P (  LC0,DC0IN ) $
RB683( DITHER1 ) = ENP (  LC0,DC0IN ) $
RB682( DC0IN,DC0INN ) = FD2P (  DC0INN,DOTCLK,NRCNCLK ) $
RB518( ,FRCDC0 ) = B3IP (  FRCDC0ID ) $
RB237( ,FRCLC0 ) = B2IP (  FRCLC0ID ) $
RB406( PT00001 ) = NR2P (  FT01,FT09 ) $
RB407( PT00010 ) = NR3P (  FT01,FT06,FT11 ) $
RB408( PT00011 ) = NR4P (  FT01,FT05,FT09,FT13 ) $
RB409( PT00100 ) = NR5P (  FT01,FT05,FT08,FT11,FT14 ) $
RB410( PT00101 ) = NR6P (  FT01,FT03,FT06,FT09,FT11,FT14
    ) $
RB411( PT00110 ) = NR8 (  FT01,FT03,FT05,FT07,FT10,FT12
   ,FT14,FT14 ) $
RB414( PT01110 ) = NR8 (  FT02,FT05,FT07,FT09,FT11,FT14
   ,FT16,FT16 ) $
RB415( PT01101 ) = NR6P (  FT02,FT05,FT07,FT10,FT13,FT15
    ) $
RB416( PT01100 ) = NR5P (  FT02,FT05,FT09,FT12,FT15 ) $
RB417( PT01011 ) = NR4P (  FT03,FT07,FT11,FT15 ) $
```

```
     RB418( PT01010 ) = NR3P (  FT03,FT09,FT14 ) $
     RB419( PT01001 ) = NR2P (  FT05,FT13 ) $
     RB420( PT10001 ) = NR2P (  FT03,FT11 ) $
     RB421( PT10010 ) = NR3P (  FT05,FT10,FT15 ) $
     RB422( PT10011 ) = NR4P (  FT02,FT06,FT10,FT14 ) $
     RB423( PT10100 ) = NR5P (  FT03,FT06,FT09,FT13,FT16 ) $
     RB424( PT10101 ) = NR6P (  FT03,FT05,FT08,FT11,FT13,FT16
         ) $
     RB425( PT10110 ) = NR8 (  FT01,FT03,FT06,FT08,FT10,FT13
        ,FT15,FT15 ) $
     RB427( PT11001 ) = NR2P (  FT07,FT15 ) $
     RB428( PT11010 ) = NR3P (  FT02,FT07,FT13 ) $
     RB429( PT11011 ) = NR4P (  FT04,FT08,FT12,FT16 ) $
     RB430( PT11100 ) = NR5P (  FT01,FT04,FT07,FT10,FT13 ) $
     RB431( PT11101 ) = NR6P (  FT01,FT04,FT07,FT09,FT12,FT15
         ) $
     RB432( PT11110 ) = NR8 (  FT02,FT04,FT06,FT09,FT11,FT13
        ,FT15,FT15 ) $
     RB434( PT11000 ) = IVP (  FT13 ) $
     RB435( PT10000 ) = IVP (  FT09 ) $
     RB436( PT01000 ) = IVP (  FT05 ) $
     RB437( PT00000 ) = IVP (  FT01 ) $
     RB336( ,Q11NQ ) = YFD2 (  NVSYNC,NRCNCLK,NVSYNC ) $
     RB337( Q13Q, ) = YFD1 (  G11O,NRCNCLK ) $
     RB242( G2O ) = ND2 (  CCNCLR,G3O ) $
     RB243( G3O ) = ND2 (  INDEX1,CCN1 ) $
     RB244( CCNCLR ) = NR2P (  RCNCLK,G13O ) $
     RB245( INDEX0 ) = EO (  INDEX0I,RCN0 ) $
     RB246( G6O ) = ND5 (  CCN1,CCN2,CCN3,INDEX1ND,CCN4 ) $
     RB247( NDOTCLK ) = IVP (  DOTCLK ) $
     G8( NVSYNC ) = IV (  VSYNC ) $
     G9( RCNCLR ) = OR2P (  Q11NQ,G10O ) $
     G10( G10O ) = AN4 (  RCN1,RCN2,RCN3,NRCN0D ) $
     G11( G11O ) = OR2 (  G10O,RCN0 ) $
     G12( ICNCLK ) = AN2P (  Q13QD,RCNCLK ) $
     G14( G14O ) = IV (  CCNCLR ) $
     G15( RCNCLK ) = IVP (  NRCNCLK ) $
     CCN( INDEX1,CCN1,CCN2,CCN3,CCN4,INDEX1N,NCCN1
        ,,, ) = SCNT5M (  SSS,SSS,SSS,SSS
        ,SSS,G14O,DOTCLK ) $
     RCN( RCN0,RCN1,RCN2,RCN3,NRCN0,,
        , ) = SCNT4M (  SSS,SSS,SSS,SSS,RCNCLR,RCNCLK
         ) $
     IADD4( IADD40,IADD41,IADD42,IADD43, ) = ADD4T (  ICNT1,ICNT2
        ,ICNT3,PRIMN1,PRIMN2,PRIMN3,ICNT0,PRIMN0 ) $
     LADD4( LADD40,LADD41,LADD42,LADD43, ) = ADD4T (  LFC1,LFC2
        ,LFC3,PRIMM1,PRIMM2,PRIMM3,LFC0,PRIMM0 ) $
     DC5( EN0,EN1,EN2,EN3A ) = D24L (  LFC2,LFC3 ) $
     DC1( AFT01,AFT02,AFT03,AFT04 ) = YD24GH (  LFC0,LFC1,EN0
         ) $
     DC2( AFT05,AFT06,AFT07,AFT08 ) = YD24GH (  LFC0,LFC1,EN1
         ) $
     DC3( AFT09,AFT10,AFT11,AFT12 ) = YD24GH (  LFC0,LFC1,EN2
         ) $
     DC4( AFT13,AFT14,AFT15,AFT16 ) = YD24GH (  LFC0,LFC1,EN3A
         ) $
END : MODULE $
MODULE :   FFD4P/// $
INPUTS   :
     CL,D0,D1,D2,D3
$
OUTPUTS  :
```

```
     Q0,NQ0,Q1,NQ1,Q2,NQ2,Q3,NQ3
$
DESCRIPTION : MODULE FOR FFD4P $
LEVEL  : FUNCTION $
USE   :
     FD1P /// MASTER

$
DEFINE :
     BIT0( Q0,NQ0 ) = FD1P (  D0,CL ) $
     BIT1( Q1,NQ1 ) = FD1P (  D1,CL ) $
     BIT2( Q2,NQ2 ) = FD1P (  D2,CL ) $
     BIT3( Q3,NQ3 ) = FD1P (  D3,CL ) $
END : MODULE $
MODULE :   FFD3P/// $
INPUTS   :
     CL,D0,D1,D2
$
OUTPUTS  :
     Q0,NQ0,Q1,NQ1,Q2,NQ2
$
DESCRIPTION : MODULE FOR FFD3P $
LEVEL  : FUNCTION $
USE   :
     FD1P /// MASTER

$
DEFINE :
     BIT0( Q0,NQ0 ) = FD1P (  D0,CL ) $
     BIT1( Q1,NQ1 ) = FD1P (  D1,CL ) $
     BIT2( Q2,NQ2 ) = FD1P (  D2,CL ) $
END : MODULE $
MODULE :   FFDS4P/// $
INPUTS   :
     CL,D0,D1,D2,D3,TE,TI0,TI1,TI2
$
OUTPUTS  :
     Q0,NQ0,Q1,NQ1,Q2,NQ2,Q3,NQ3
$
DESCRIPTION : MODULE FOR FFDS4P $
LEVEL  : FUNCTION $
USE   :
     FD1SP /// MASTER
    ,FD1P /// MASTER

$
DEFINE :
     BIT0( Q0,NQ0 ) = FD1SP (  D0,CL,TI0,TE ) $
     BIT1( Q1,NQ1 ) = FD1SP (  D1,CL,TI1,TE ) $
     BIT2( Q2,NQ2 ) = FD1SP (  D2,CL,TI2,TE ) $
     BIT3( Q3,NQ3 ) = FD1P (  D3,CL ) $
END : MODULE $
MODULE :   EQUL5/// $
INPUTS   :
     A3,A2,A1,A0,A4,B0,B1,B2,B3,B4A
$
OUTPUTS  :
     EQ
$
DESCRIPTION : MODULE FOR EQUL5 $
LEVEL  : FUNCTION $
USE   :
```

```
     EO /// MASTER
    ,NR5 /// MASTER

$
DEFINE :
     BIT0( C0 ) = EO (  A0,B0 ) $
     BIT1( C1 ) = EO (  A1,B1 ) $
     BIT2( C2 ) = EO (  A2,B2 ) $
     BIT3( UN000 ) = EO (  A3,B3 ) $
     RB398( EQ ) = NR5 (  C0,C1,C2,UN000,UN001 ) $
     RB399( UN001 ) = EO (  A4,B4A ) $
END : MODULE $
MODULE :   EQUL4NP/// $
INPUTS   :
     A0,B0,A1,B1,A2,B2,A3,B3,COMPDIS
$
OUTPUTS  :
     EQN
$
DESCRIPTION : MODULE FOR EQUL4NP $
LEVEL  : FUNCTION $
USE   :
     EN /// MASTER
    ,EO /// MASTER
    ,NR2 /// MASTER
    ,OR4 /// MASTER

$
DEFINE :
     RB398( UN004 ) = EN (  A0,B0 ) $
     RB399( UN001 ) = EO (  A1,B1 ) $
     RB400( UN003 ) = EO (  A2,B2 ) $
     RB401( UN002 ) = EO (  A3,B3 ) $
     RB402( UN000 ) = NR2 (  COMPDIS,UN004 ) $
     RB403( EQN ) = OR4 (  UN000,UN001,UN003,UN002 ) $
END : MODULE $
MODULE :   DFF6/// $
INPUTS   :
     D0,D1,D2,D3,D4,D5,CLK
$
OUTPUTS  :
     Q0,Q1,Q2,Q3,Q4,Q5
$
DESCRIPTION : MODULE FOR DFF6 $
LEVEL  : FUNCTION $
USE   :
     DFF4 ///
    ,YFD1 /// MASTER

$
DEFINE :
     RB398( Q0,Q1,Q2,Q3 ) = DFF4 (  D0,D1,D2
        ,D3,CLK ) $
     RB399( Q4, ) = YFD1 (  D4,CLK ) $
     RB400( Q5, ) = YFD1 (  D5,CLK ) $
END : MODULE $
MODULE :   DFF16/// $
INPUTS   :
     D0,D1,D2,D3,D4,D5,D6,D7,D8,D9,D10,D11,D12,D13,D14,D15,CLK
$
OUTPUTS  :
     Q0,Q1,Q2,Q3,Q4,Q5,Q6,Q7,Q8,Q9,Q10,Q11,Q12,Q13,Q14,Q15
```

```
$
DESCRIPTION : MODULE FOR DFF16 $
LEVEL  : FUNCTION $
USE   :
     DFF8 ///

$
DEFINE :
     RB398( Q0,Q1,Q2,Q3,Q4,Q5,Q6
        ,Q7 ) = DFF8 (  D0,D1,D2,D3,D4,D5
        ,D6,D7,CLK ) $
     RB399( Q8,Q9,Q10,Q11,Q12,Q13,Q14
        ,Q15 ) = DFF8 (  D8,D9,D10,D11,D12,D13
        ,D14,D15,CLK ) $
END : MODULE $
MODULE :   DFFCL16A/// $
INPUTS   :
     D0,D1,D2,D3,D4,D5,D6,D7,D8,D9,D10,D11,D12,D13,D14,D15,CLK,CLN

$
OUTPUTS  :
     Q0,Q1,Q2,Q3,Q4,Q5,Q6,Q7,Q8,Q9,Q10,Q11,Q12,Q13,Q14,Q15
$
DESCRIPTION : MODULE FOR DFFCL16A $
LEVEL  : FUNCTION $
USE   :
     YFD2 /// MASTER

$
DEFINE :
     RB398( Q0, ) = YFD2 (  D0,CLK,CLN ) $
     RB399( Q1, ) = YFD2 (  D1,CLK,CLN ) $
     RB400( Q2, ) = YFD2 (  D2,CLK,CLN ) $
     RB401( Q3, ) = YFD2 (  D3,CLK,CLN ) $
     RB402( Q4, ) = YFD2 (  D4,CLK,CLN ) $
     RB403( Q5, ) = YFD2 (  D5,CLK,CLN ) $
     RB404( Q6, ) = YFD2 (  D6,CLK,CLN ) $
     RB405( Q7, ) = YFD2 (  D7,CLK,CLN ) $
     RB406( Q8, ) = YFD2 (  D8,CLK,CLN ) $
     RB407( Q9, ) = YFD2 (  D9,CLK,CLN ) $
     RB408( Q10, ) = YFD2 (  D10,CLK,CLN ) $
     RB409( Q11, ) = YFD2 (  D11,CLK,CLN ) $
     RB410( Q12, ) = YFD2 (  D12,CLK,CLN ) $
     RB411( Q13, ) = YFD2 (  D13,CLK,CLN ) $
     RB412( Q14, ) = YFD2 (  D14,CLK,CLN ) $
     RB413( Q15, ) = YFD2 (  D15,CLK,CLN ) $
END : MODULE $
MODULE :   DEC4M/// $
INPUTS   :
     CLRN,CL
$
OUTPUTS  :
     Q0,Q1,Q2,Q3,NQ0,NQ1,NQ2,NQ3
$
DESCRIPTION : MODULE FOR DEC4M $
LEVEL  : FUNCTION $
USE   :
     FJK2P /// MASTER
    ,AN2 /// MASTER
    ,FD2P /// MASTER
    ,NR2 /// MASTER
```

```
$
DEFINE :
     U6( Q3,NQ3 ) = FJK2P (  U5Z,U5Z,CL,CLRN ) $
     U5( U5Z ) = AN2 (  U3Z,NQ2 ) $
     U1( Q0,NQ0 ) = FD2P (  NQ0,CL,CLRN ) $
     U2( Q1,NQ1 ) = FJK2P (  NQ0,NQ0,CL,CLRN ) $
     U3( U3Z ) = NR2 (  Q1,Q0 ) $
     U4( Q2,NQ2 ) = FJK2P (  U3Z,U3Z,CL,CLRN ) $
END : MODULE $
MODULE :   DCL16SEL/// $
INPUTS   :
     D0,D1,D2,D3,D4,D5,D6,D7,D8,D9,D10,D11,D12,D13,D14,D15,CLK,CLN
    ,PRN,INV
$
OUTPUTS  :
     Q0,Q1,Q2,Q3,Q4,Q5,Q6,Q7,Q8,Q9,Q10,Q11,Q12,Q13,Q14,Q15
$
DESCRIPTION : MODULE FOR DCL16SEL $
LEVEL  : FUNCTION $
USE   :
     YFD3 /// MASTER
    ,MUX21LP /// MASTER

$
DEFINE :
     RB398( QI0,QI0N ) = YFD3 (  D0,CLK,CLN,PRN ) $
     RB399( QI1,QI1N ) = YFD3 (  D1,CLK,CLN,PRN ) $
     RB400( QI2,QI2N ) = YFD3 (  D2,CLK,CLN,PRN ) $
     RB401( QI3,QI3N ) = YFD3 (  D3,CLK,CLN,PRN ) $
     RB402( QI4,QI4N ) = YFD3 (  D4,CLK,CLN,PRN ) $
     RB403( QI5,QI5N ) = YFD3 (  D5,CLK,CLN,PRN ) $
     RB404( QI6,QI6N ) = YFD3 (  D6,CLK,CLN,PRN ) $
     RB405( QI7,QI7N ) = YFD3 (  D7,CLK,CLN,PRN ) $
     RB406( QI8,QI8N ) = YFD3 (  D8,CLK,CLN,PRN ) $
     RB407( QI9,QI9N ) = YFD3 (  D9,CLK,CLN,PRN ) $
     RB408( QI10,QI10N ) = YFD3 (  D10,CLK,CLN,PRN ) $
     RB409( QI11,QI11N ) = YFD3 (  D11,CLK,CLN,PRN ) $
     RB410( QI12,QI12N ) = YFD3 (  D12,CLK,CLN,PRN ) $
     RB411( QI13,QI13N ) = YFD3 (  D13,CLK,CLN,PRN ) $
     RB412( QI14,QI14N ) = YFD3 (  D14,CLK,CLN,PRN ) $
     RB413( QI15,QI15N ) = YFD3 (  D15,CLK,CLN,PRN ) $
     RB418( Q0 ) = MUX21LP (  QI0N,QI0,INV ) $
     RB419( Q1 ) = MUX21LP (  QI1N,QI1,INV ) $
     RB420( Q2 ) = MUX21LP (  QI2N,QI2,INV ) $
     RB421( Q3 ) = MUX21LP (  QI3N,QI3,INV ) $
     RB422( Q4 ) = MUX21LP (  QI4N,QI4,INV ) $
     RB423( Q5 ) = MUX21LP (  QI5N,QI5,INV ) $
     RB424( Q6 ) = MUX21LP (  QI6N,QI6,INV ) $
     RB425( Q7 ) = MUX21LP (  QI7N,QI7,INV ) $
     RB426( Q8 ) = MUX21LP (  QI8N,QI8,INV ) $
     RB427( Q9 ) = MUX21LP (  QI9N,QI9,INV ) $
     RB428( Q10 ) = MUX21LP (  QI10N,QI10,INV ) $
     RB429( Q11 ) = MUX21LP (  QI11N,QI11,INV ) $
     RB430( Q12 ) = MUX21LP (  QI12N,QI12,INV ) $
     RB431( Q13 ) = MUX21LP (  QI13N,QI13,INV ) $
     RB432( Q14 ) = MUX21LP (  QI14N,QI14,INV ) $
     RB433( Q15 ) = MUX21LP (  QI15N,QI15,INV ) $
END : MODULE $
MODULE :   DADADD16/// $
INPUTS   :
     DAD0,DAD1,DAD2,DAD3,DAD4,DAD5,DAD6,DAD7,DAD8,DAD9,DAD10,DAD11
    ,DAD12,DAD13,DAD14,DAD15,ADJ,OFST0,OFST1,OFST2,OFST3,OFST4,OFST5
```

```
    ,OFST6,OFST7
$
OUTPUTS  :
     DADS0,DADS1,DADS2,DADS3,DADS4,DADS5,DADS6,DADS7,DADS8,DADS9,DADS10
    ,DADS11,DADS12,DADS13,DADS14,DADS15
$
DESCRIPTION : MODULE FOR DADADD16 $
LEVEL  : FUNCTION $
USE   :
     HA1 /// MASTER
    ,FA1 /// MASTER
    ,EO /// MASTER

$
DEFINE :
     U1( DADS0,U1CO ) = HA1 (  DAD0,ADJ ) $
     U2( DADS1,U2CO ) = FA1 (  U1CO,DAD1,OFST0 ) $
     U3( DADS2,U3CO ) = FA1 (  U2CO,DAD2,OFST1 ) $
     U8( DADS7,U8CO ) = FA1 (  U7CO,DAD7,OFST6 ) $
     U4( DADS3,U4CO ) = FA1 (  U3CO,DAD3,OFST2 ) $
     U9( DADS8,U9CO ) = FA1 (  U8CO,DAD8,OFST7 ) $
     U7( DADS6,U7CO ) = FA1 (  U6CO,DAD6,OFST5 ) $
     U6( DADS5,U6CO ) = FA1 (  U5CO,DAD5,OFST4 ) $
     U5( DADS4,U5CO ) = FA1 (  U4CO,DAD4,OFST3 ) $
     U10( DADS9,U10CO ) = HA1 (  DAD9,U9CO ) $
     U15( DADS14,U15CO ) = HA1 (  DAD14,U14CO ) $
     U12( DADS11,U12CO ) = HA1 (  DAD11,U11CO ) $
     U11( DADS10,U11CO ) = HA1 (  DAD10,U10CO ) $
     U16( DADS15 ) = EO (  DAD15,U15CO ) $
     U14( DADS13,U14CO ) = HA1 (  DAD13,U13CO ) $
     U13( DADS12,U13CO ) = HA1 (  DAD12,U12CO ) $
END : MODULE $
MODULE :   CTRL8/// $
INPUTS   :
     Q0,NQ0,Q1,NQ1,Q2,NQ2,WR,NSELHL,SEL56
$
OUTPUTS  :
     EN0,EN1,EN2,EN3A,EN4,EN5,EN6,EN7,WR0,WR1,WR2,WR3,WR4,WR5,WR6
    ,WR7
$
DESCRIPTION : MODULE FOR CTRL8 $
LEVEL  : FUNCTION $
USE   :
     AN4 /// MASTER
    ,IV /// MASTER
    ,ND2 /// MASTER
    ,NR2P /// MASTER

$
DEFINE :
     RB50( OA7 ) = AN4 (  SEL8,Q2,Q1,Q0 ) $
     RB49( OA6 ) = AN4 (  SEL8,Q2,Q1,NQ0 ) $
     RB48( OA5 ) = AN4 (  SEL8,Q2,NQ1,Q0 ) $
     RB47( OA4 ) = AN4 (  SEL8,Q2,NQ1,NQ0 ) $
     RB46( OA3 ) = AN4 (  SEL8,NQ2,Q1,Q0 ) $
     RB45( OA2 ) = AN4 (  SEL8,NQ2,Q1,NQ0 ) $
     RB35( OA1 ) = AN4 (  SEL8,NQ2,NQ1,Q0 ) $
     RB34( OA0 ) = AN4 (  SEL8,NQ2,NQ1,NQ0 ) $
     RB263( EN0 ) = IV (  OA0 ) $
     RB264( EN1 ) = IV (  OA1 ) $
     RB265( EN2 ) = IV (  OA2 ) $
     RB266( EN3A ) = IV (  OA3 ) $
```

```
     RB267( EN4 ) = IV (  OA4 ) $
     I5( EN5 ) = IV (  OA5 ) $
     I6( EN6 ) = IV (  OA6 ) $
     I7( EN7 ) = IV (  OA7 ) $
     NA7( WR7 ) = ND2 (  OA7,WR ) $
     NA6( WR6 ) = ND2 (  OA6,WR ) $
     NA5( WR5 ) = ND2 (  OA5,WR ) $
     NA4( WR4 ) = ND2 (  OA4,WR ) $
     NA3( WR3 ) = ND2 (  OA3,WR ) $
     NA2( WR2 ) = ND2 (  OA2,WR ) $
     NA1( WR1 ) = ND2 (  OA1,WR ) $
     NA0( WR0 ) = ND2 (  OA0,WR ) $
     NOR1( SEL8 ) = NR2P (  SEL56,NSELHL ) $
END : MODULE $
MODULE :   CAND24P/// $
INPUTS   :
     A0,A1,A2,A3,BI
$
OUTPUTS  :
     Z0,Z1,Z2,Z3
$
DESCRIPTION : MODULE FOR CAND24P $
LEVEL  : FUNCTION $
USE   :
     AN2P /// MASTER

$
DEFINE :
     RB398( Z0 ) = AN2P (  BI,A0 ) $
     RB399( Z1 ) = AN2P (  BI,A1 ) $
     RB400( Z2 ) = AN2P (  BI,A2 ) $
     RB401( Z3 ) = AN2P (  BI,A3 ) $
END : MODULE $
MODULE :   A2T1B7/// $
INPUTS   :
     S,N6B,N6A,N5B,N5A,N4B,N4A,N3B,N3A,N2B,N2A,N1B,N1A,N0B,N0A
$
OUTPUTS  :
     N0Y,N6Y,N5Y,N4Y,N3Y,N2Y,N1Y
$
DESCRIPTION : MODULE FOR A2T1B7 $
LEVEL  : FUNCTION $
USE   :
     IVDA /// MASTER
    ,AO2 /// MASTER

$
DEFINE :
     IV1( NET281,NET285 ) = IVDA (  S ) $
     RB86( N1Y ) = AO2 (  N1A,NET281,N1B,NET285 ) $
     RB95( N2Y ) = AO2 (  N2A,NET281,N2B,NET285 ) $
     RB98( N3Y ) = AO2 (  N3A,NET281,N3B,NET285 ) $
     RB102( N4Y ) = AO2 (  N4A,NET281,N4B,NET285 ) $
     RB103( N5Y ) = AO2 (  N5A,NET281,N5B,NET285 ) $
     RB104( N6Y ) = AO2 (  N6A,NET281,N6B,NET285 ) $
     RB84( N0Y ) = AO2 (  N0A,NET281,N0B,NET285 ) $
END : MODULE $
MODULE :   ALTCNTA/// $
INPUTS   :
     CLK,CLRN
$
OUTPUTS  :
```

```
     Q0,Q1,Q2,Q3,Q4,Q5,Q6,Q7,Q8,Q9
$
DESCRIPTION : MODULE FOR ALTCNTA $
LEVEL  : FUNCTION $
USE   :
     FT2 /// MASTER

$
DEFINE :
     RB398( Q0,UN000 ) = FT2 (  CLK,CLRN ) $
     RB399( Q2,UN002 ) = FT2 (  UN001,CLRN ) $
     RB400( Q5,UN005 ) = FT2 (  UN004,CLRN ) $
     RB401( Q8,UN008 ) = FT2 (  UN007,CLRN ) $
     RB402( Q9, ) = FT2 (  UN008,CLRN ) $
     RB403( Q6,UN006 ) = FT2 (  UN005,CLRN ) $
     RB404( Q3,UN003 ) = FT2 (  UN002,CLRN ) $
     RB405( Q1,UN001 ) = FT2 (  UN000,CLRN ) $
     RB406( Q4,UN004 ) = FT2 (  UN003,CLRN ) $
     RB407( Q7,UN007 ) = FT2 (  UN006,CLRN ) $
END : MODULE $
MODULE :   YLDG7/// $
INPUTS   :
     D6,D5,D4,D3,D2,D1,D0,CL
$
OUTPUTS  :
     NQ6,Q6,NQ5,Q5,NQ4,Q4,NQ3,Q3,NQ2,Q2,NQ1,Q1,NQ0,Q0
$
DESCRIPTION : MODULE FOR YLDG7 $
LEVEL  : FUNCTION $
USE   :
     YLD2 /// MASTER
    ,YLD24B /// MASTER

$
DEFINE :
     BIT7( Q6,NQ6 ) = YLD2 (  D6,CL ) $
     BIT6( Q5,NQ5 ) = YLD2 (  D5,CL ) $
     BIT5( Q4,NQ4 ) = YLD2 (  D4,CL ) $
     RB77( Q0,NQ0,Q1,NQ1,Q2,NQ2,Q3
        ,NQ3 ) = YLD24B (  D0,D1,D2,D3,CL ) $
END : MODULE $
MODULE :   YLDG6/// $
INPUTS   :
     D5,D4,D3,D2,D1,D0,CL
$
OUTPUTS  :
     NQ5,Q5,NQ4,Q4,NQ3,Q3,NQ2,Q2,NQ1,Q1,NQ0,Q0
$
DESCRIPTION : MODULE FOR YLDG6 $
LEVEL  : FUNCTION $
USE   :
     YLD2 /// MASTER
    ,YLD24B /// MASTER

$
DEFINE :
     BIT6( Q5,NQ5 ) = YLD2 (  D5,CL ) $
     BIT5( Q4,NQ4 ) = YLD2 (  D4,CL ) $
     RB77( Q0,NQ0,Q1,NQ1,Q2,NQ2,Q3
        ,NQ3 ) = YLD24B (  D0,D1,D2,D3,CL ) $
END : MODULE $
MODULE :   YLDG5/// $
```

```
INPUTS   :
     D4,D3,D2,D1,D0,CL
$
OUTPUTS  :
     NQ4,Q4,NQ3,Q3,NQ2,Q2,NQ1,Q1,NQ0,Q0
$
DESCRIPTION : MODULE FOR YLDG5 $
LEVEL  : FUNCTION $
USE   :
     YLD2 /// MASTER
    ,YLD24B /// MASTER

$
DEFINE :
     BIT5( Q4,NQ4 ) = YLD2 (  D4,CL ) $
     RB77( Q0,NQ0,Q1,NQ1,Q2,NQ2,Q3
        ,NQ3 ) = YLD24B (  D0,D1,D2,D3,CL ) $
END : MODULE $
MODULE :   YLDG4/// $
INPUTS   :
     D3,D2,D1,D0,CL
$
OUTPUTS  :
     NQ3,Q3,NQ2,Q2,NQ1,Q1,NQ0,Q0
$
DESCRIPTION : MODULE FOR YLDG4 $
LEVEL  : FUNCTION $
USE   :
     YLD24B /// MASTER

$
DEFINE :
     NIBBLE( Q0,NQ0,Q1,NQ1,Q2,NQ2,Q3
        ,NQ3 ) = YLD24B (  D0,D1,D2,D3,CL ) $
END : MODULE $
MODULE :   YLDG2/// $
INPUTS   :
     D1,D0,CL
$
OUTPUTS  :
     NQ1,Q1,NQ0,Q0
$
DESCRIPTION : MODULE FOR YLDG2 $
LEVEL  : FUNCTION $
USE   :
     YLD2 /// MASTER

$
DEFINE :
     BIT2( Q1,NQ1 ) = YLD2 (  D1,CL ) $
     BIT1( Q0,NQ0 ) = YLD2 (  D0,CL ) $
END : MODULE $
MODULE :   YFFD6/// $
INPUTS   :
     CL,NMR,D0,D1,D2,D3,D4,D5
$
OUTPUTS  :
     Q0,NQ0,Q1,NQ1,Q2,NQ2,Q3,NQ3,Q4,NQ4,Q5,NQ5
$
DESCRIPTION : MODULE FOR YFFD6 $
LEVEL  : FUNCTION $
USE   :
```

```
     YFD2 /// MASTER

$
DEFINE :
     BIT0( Q0,NQ0 ) = YFD2 (  D0,CL,NMR ) $
     BIT1( Q1,NQ1 ) = YFD2 (  D1,CL,NMR ) $
     BIT2( Q2,NQ2 ) = YFD2 (  D2,CL,NMR ) $
     BIT3( Q3,NQ3 ) = YFD2 (  D3,CL,NMR ) $
     BIT4( Q4,NQ4 ) = YFD2 (  D4,CL,NMR ) $
     BIT5( Q5,NQ5 ) = YFD2 (  D5,CL,NMR ) $
END : MODULE $
MODULE :   YFD4SI/// $
INPUTS   :
     CL,D
$
OUTPUTS  :
     Q0,NQ0,Q1,NQ1,Q2,NQ2,Q3,NQ3
$
DESCRIPTION : MODULE FOR YFD4SI $
LEVEL  : FUNCTION $
USE   :
     YFD1 /// MASTER

$
DEFINE :
     BIT0( Q0,NQ0 ) = YFD1 (  D,CL ) $
     BIT1( Q1,NQ1 ) = YFD1 (  Q0,CL ) $
     BIT2( Q2,NQ2 ) = YFD1 (  Q1,CL ) $
     BIT3( Q3,NQ3 ) = YFD1 (  Q2,CL ) $
END : MODULE $
MODULE :   YFD3SI/// $
INPUTS   :
     CL,D
$
OUTPUTS  :
     Q0,NQ0,Q1,NQ1,Q2,NQ2
$
DESCRIPTION : MODULE FOR YFD3SI $
LEVEL  : FUNCTION $
USE   :
     YFD1 /// MASTER
    ,FD1 /// MASTER

$
DEFINE :
     BIT0( Q0,NQ0 ) = YFD1 (  D,CL ) $
     BIT1( Q1,NQ1 ) = YFD1 (  Q0,CL ) $
     BIT2( Q2,NQ2 ) = FD1 (  Q1,CL ) $
END : MODULE $
MODULE :   YFD2SI/// $
INPUTS   :
     CL,D
$
OUTPUTS  :
     Q0,NQ0,Q1,NQ1
$
DESCRIPTION : MODULE FOR YFD2SI $
LEVEL  : FUNCTION $
USE   :
     YFD1 /// MASTER

$
```

```
DEFINE :
     BIT0( Q0,NQ0 ) = YFD1 (  D,CL ) $
     BIT1( Q1,NQ1 ) = YFD1 (  Q0,CL ) $
END : MODULE $
MODULE :   YFD2MD/// $
INPUTS   :
     D0,CL,D1
$
OUTPUTS  :
     Q0,NQ0,Q1,NQ1
$
DESCRIPTION : MODULE FOR YFD2MD $
LEVEL  : FUNCTION $
USE   :
     YFD1 /// MASTER

$
DEFINE :
     MD2( Q1,NQ1 ) = YFD1 (  D1,CL ) $
     MD1( Q0,NQ0 ) = YFD1 (  D0,CL ) $
END : MODULE $
MODULE :   YFFD2/// $
INPUTS   :
     CL,NMR,D0,D1
$
OUTPUTS  :
     Q0,NQ0,Q1,NQ1
$
DESCRIPTION : MODULE FOR YFFD2 $
LEVEL  : FUNCTION $
USE   :
     YFD2 /// MASTER

$
DEFINE :
     BIT0( Q0,NQ0 ) = YFD2 (  D0,CL,NMR ) $
     BIT1( Q1,NQ1 ) = YFD2 (  D1,CL,NMR ) $
END : MODULE $
MODULE :   VERTC2C/// $
INPUTS   :
     EQLOWCLK,CRT07Q6,CRT07Q1,VERTA0,VERTA1,VERTA2,VERTA3,VERTA4,VERTA5
    ,VERTA6,VERTA7,VERRSA0,VERRSA1,VERRSA2,VERRSA3,VERRSA4,VERRSA5
    ,VERRSA6,VERRSA7,VERREA0,VERREA1,VERREA2,VERREA3,VERDEA0,VERDEA1
    ,VERDEA2,VERDEA3,VERDEA4,VERDEA5,VERDEA6,VERDEA7,CRT07QA0,CRT07QA1
    ,CRT07QA2,CRT07QA5,CRT07QA6,CRT07QA7,NRESET,LINEC9,VERBS9,DATAIN0
    ,DATAIN1,DATAIN2,DATAIN3,DATAIN7,DATAIN6,DATAIN4,DATAIN5,CRT07Q4
    ,CRTRSB,CRT07Q3,CHRESET,ONCEPERH,SCROFF,D4E5O1,WCRTC06,WCRTC18
    ,WCRTC10,WCRTC16,WCRTC12,WCRTC15,TEST1Z,VERCNT0,VERCNT1,VERCNT2
    ,VERCNT3,VERCNT4,VERCNT5,VERCNT6,VERCNT7,VERCNT8,VERCNT9,CVC0
    ,CVC1,CVC2,CVC3,CVC4,CVC5,CVC6,CVC7,CVC8,CVC9
$
OUTPUTS  :
     VBLKSP,NT103,NVERDE7,LCOMP,C4A9Q,STVERB,ENDVBLNK,ENDVSYNC,STVERR
    ,EQVTOT,ENDVERDE,B4G4Q,VERDE5,VERDE1,VERDE0,VERDE4,VERDE7,VERDE3
    ,VERDE2,VERDE6,VERBS5,VERBS1,VERBS0,VERBS4,VERBS7,VERBS3,VERBS2
    ,VERBS6,VERT5,VERBE5,VERT1,VERBE1,VERT0,VERBE0,VERT4,VERBE4,VERT7
    ,VERBE7,VERT3,VERBE3,VERT2,VERBE2,VERT6,VERBE6,LINEC5,VERRS5,LINEC1
    ,VERRS1,LINEC0,VERRS0,LINEC4,VERRS4,LINEC7,VERRS7,LINEC3,VERRS3
    ,LINEC2,VERRS2,LINEC6,VERRS6,VDSPLYEN,SCROFFQ,NT45,D3C13Q,EVC0
    ,EVC1,EVC2,EVC3,EVC4,EVC5,EVC6,EVC7,EVC8,EVC9,VCNTRSET
$
DESCRIPTION : MODULE FOR VERTC2C $
```

```
LEVEL  : FUNCTION $
USE   :
     FJK3P /// MASTER
    ,EQUL10P ///
    ,TCNT10 ///
    ,YLDG8 ///
    ,IVAP /// MASTER
    ,YFD2 /// MASTER
    ,YFD1 /// MASTER
    ,IVP /// MASTER
    ,FJK2 /// MASTER
    ,OR4 /// MASTER
    ,NR5 /// MASTER
    ,NR2P /// MASTER
    ,EQUL10 ///
    ,EO /// MASTER
    ,AN2 /// MASTER

$
DEFINE :
     RB448( ,VBLKSP ) = FJK3P (  VTOTLDD,VDEEQPNL,ONCEPERH,NRESET,D4E5O1
         ) $
     RB450( ,NT103 ) = FJK3P (  VTOTLDD,VDEEQPNL,EQLOWCLK,NRESET,D4E5O1
         ) $
     RB449( VDEEQPNL ) = EQUL10P (  CRT07Q6,CRT07Q1,VERDE7,VERDE6
        ,VERDE5,VERDE4
        ,VERDE3,VERDE2,VERDE1,VERDE0,CVC9,CVC8,CVC7
        ,CVC6,CVC5,CVC4,CVC3,CVC2,CVC1,CVC0
         ) $
     VERCNT( ,,,,EVC0,EVC1,EVC2
        ,EVC3,,,,,,
        ,EVC4,EVC5,EVC6,EVC7,EVC8,EVC9 ) = TCNT10 (  ONCEPERH
        ,VCNTRSET,TEST1Z ) $
     CRTC15( ,VERBS7,,VERBS6,,VERBS5,
        ,VERBS4,,VERBS3,,VERBS2,,VERBS1
        ,,VERBS0 ) = YLDG8 (  DATAIN7,DATAIN6,DATAIN5,DATAIN4,DATAIN3
        ,DATAIN2,DATAIN1,DATAIN0,WCRTC15 ) $
     NEWDR2( NVERDE7 ) = IVAP (  VERDE7 ) $
     CRTC12( ,VERDE7,,VERDE6,,VERDE5,
        ,VERDE4,,VERDE3,,VERDE2,,VERDE1
        ,,VERDE0 ) = YLDG8 (  DATAIN7,DATAIN6,DATAIN5,DATAIN4,DATAIN3
        ,DATAIN2,DATAIN1,DATAIN0,WCRTC12 ) $
     CRTC16( ,VERBE7,,VERBE6,,VERBE5,
        ,VERBE4,,VERBE3,,VERBE2,,VERBE1
        ,,VERBE0 ) = YLDG8 (  DATAIN7,DATAIN6,DATAIN5,DATAIN4,DATAIN3
        ,DATAIN2,DATAIN1,DATAIN0,WCRTC16 ) $
     RB145( ,VERRS7,,VERRS6,,VERRS5,
        ,VERRS4,,VERRS3,,VERRS2,,VERRS1
        ,,VERRS0 ) = YLDG8 (  DATAIN7,DATAIN6,DATAIN5,DATAIN4,DATAIN3
        ,DATAIN2,DATAIN1,DATAIN0,WCRTC10 ) $
     CRTC18( ,LINEC7,,LINEC6,,LINEC5,
        ,LINEC4,,LINEC3,,LINEC2,,LINEC1
        ,,LINEC0 ) = YLDG8 (  DATAIN7,DATAIN6,DATAIN5,DATAIN4,DATAIN3
        ,DATAIN2,DATAIN1,DATAIN0,WCRTC18 ) $
     CRTC06( ,VERT7,,VERT6,,VERT5,
        ,VERT4,,VERT3,,VERT2,,VERT1
        ,,VERT0 ) = YLDG8 (  DATAIN7,DATAIN6,DATAIN5,DATAIN4,DATAIN3
        ,DATAIN2,DATAIN1,DATAIN0,WCRTC06 ) $
     C3D10( VTOTLD, ) = YFD2 (  EQVTOT,ONCEPERH,NRESET ) $
     C3F13( VTOTLDD, ) = YFD2 (  VTOTLD,NOT1H,NRESET ) $
     D3B13( VDSPLYEN,NT45 ) = FJK3P (  VTOTLDD,ENDVERDE,ONCEPERH
        ,NRESET,D4E5O1
```

```
        ) $
     D3C13( D3C13Q, ) = YFD2 (  LCOMP,ONCEPERH,NRESET ) $
     D3B9( SCROFFQ, ) = YFD1 (  SCROFF,ONCEPERH ) $
     C5A7( ENDVSYNC ) = IVP (  NENDSYNC ) $
     C4A9( C4A9Q, ) = FJK2 (  STVERR,ENDVSYNC,ONCEPERH,CRTRSB ) $
     C3G13( NOT1H ) = IVP (  ONCEPERH ) $
     B5A7( NENDSYNC ) = OR4 (  B5B8O1,A5C9O1,B5B11O1,B5A9O1 ) $
     B4G7( ENDVBLNK ) = NR5 (  B4B18O1,B4C8O1,B4G8O1,B4F9O1,B3G16O1 ) $
     B4G4( B4G4Q, ) = FJK2 (  STVERB,ENDVBLNK,ONCEPERH,NRESET ) $
     B4B18( B4B18O1 ) = OR4 (  B4B17O1,B4B20O1,B4A19O1,B4A18O1 ) $
     B3D13( VCNTRSET ) = NR2P (  BVTOTLDD,CHRESET ) $
     RB181( ENDVERDE ) = EQUL10 (  CRT07QA6,CRT07QA1,VERDEA7
        ,VERDEA6,VERDEA5,VERDEA4
        ,VERDEA3,VERDEA2,VERDEA1,VERDEA0,VERCNT9,VERCNT8,VERCNT7
        ,VERCNT6,VERCNT5,VERCNT4,VERCNT3,VERCNT2,VERCNT1,VERCNT0
         ) $
     RB389( STVERB ) = EQUL10 (  LINEC9,CRT07Q3,VERBS7,VERBS6
        ,VERBS5,VERBS4
        ,VERBS3,VERBS2,VERBS1,VERBS0,VERCNT9,VERCNT8,VERCNT7
        ,VERCNT6,VERCNT5,VERCNT4,VERCNT3,VERCNT2,VERCNT1,VERCNT0
         ) $
     VTOTAL( EQVTOT ) = EQUL10 (  CRT07QA5,CRT07QA0,VERTA7,VERTA6
        ,VERTA5,VERTA4
        ,VERTA3,VERTA2,VERTA1,VERTA0,VERCNT9,VERCNT8,VERCNT7
        ,VERCNT6,VERCNT5,VERCNT4,VERCNT3,VERCNT2,VERCNT1,VERCNT0
         ) $
     RB390( STVERR ) = EQUL10 (  CRT07QA7,CRT07QA2,VERRSA7,VERRSA6
        ,VERRSA5,VERRSA4
        ,VERRSA3,VERRSA2,VERRSA1,VERRSA0,VERCNT9,VERCNT8,VERCNT7
        ,VERCNT6,VERCNT5,VERCNT4,VERCNT3,VERCNT2,VERCNT1,VERCNT0
         ) $
     A5E5( LCOMP ) = EQUL10P (  VERBS9,CRT07Q4,LINEC7,LINEC6
        ,LINEC5,LINEC4
        ,LINEC3,LINEC2,LINEC1,LINEC0,CVC9,CVC8,CVC7
        ,CVC6,CVC5,CVC4,CVC3,CVC2,CVC1,CVC0
         ) $
     B4A18( B4A18O1 ) = EO (  VERBE0,VERCNT0 ) $
     B5A9( B5A9O1 ) = EO (  VERREA0,VERCNT0 ) $
     B4B20( B4B20O1 ) = EO (  VERBE1,VERCNT1 ) $
     B5B8( B5B8O1 ) = EO (  VERREA1,VERCNT1 ) $
     A5C9( A5C9O1 ) = EO (  VERREA2,VERCNT2 ) $
     B4B17( B4B17O1 ) = EO (  VERBE2,VERCNT2 ) $
     B4A19( B4A19O1 ) = EO (  VERBE3,VERCNT3 ) $
     B5B11( B5B11O1 ) = EO (  VERREA3,VERCNT3 ) $
     B4G8( B4G8O1 ) = EO (  VERBE4,VERCNT4 ) $
     B4F9( B4F9O1 ) = EO (  VERBE5,VERCNT5 ) $
     B3G16( B3G16O1 ) = EO (  VERBE6,VERCNT6 ) $
     B4C8( B4C8O1 ) = EO (  VERBE7,VERCNT7 ) $
     RB75( BVTOTLDD ) = AN2 (  ONCEPERH,VTOTLDD ) $
END : MODULE $
MODULE :   TCNT5/// $
INPUTS   :
     CL,CLRN
$
OUTPUTS  :
     Q0,NQ0,Q1,NQ1,Q2,NQ2,Q3,NQ3,Q4,NQ4
$
DESCRIPTION : MODULE FOR TCNT5 $
LEVEL  : FUNCTION $
USE   :
     YFD2 /// MASTER
```

```
$
DEFINE :
     YFD2T0( Q0,NQ0 ) = YFD2 (  NQ0,CL,CLRN ) $
     YFD2T1( Q1,NQ1 ) = YFD2 (  NQ1,NQ0,CLRN ) $
     YFD2T2( Q2,NQ2 ) = YFD2 (  NQ2,NQ1,CLRN ) $
     YFD2T3( Q3,NQ3 ) = YFD2 (  NQ3,NQ2,CLRN ) $
     YFD2T4( Q4,NQ4 ) = YFD2 (  NQ4,NQ3,CLRN ) $
END : MODULE $
MODULE :   TCNT2/// $
INPUTS   :
     CL,CLRN
$
OUTPUTS  :
     Q0,NQ0,Q1,NQ1
$
DESCRIPTION : MODULE FOR TCNT2 $
LEVEL  : FUNCTION $
USE   :
     YFD2 /// MASTER

$
DEFINE :
     YFD2T1( Q1,NQ1 ) = YFD2 (  NQ1,NQ0,CLRN ) $
     YFD2T0( Q0,NQ0 ) = YFD2 (  NQ0,CL,CLRN ) $
END : MODULE $
MODULE :   RWCNT1/// $
INPUTS   :
     ND0,ND1,NT40,ND3A,ND4A,CL,ENA,LD,CLR
$
OUTPUTS  :
     Q0,Q1,Q2,Q3,Q4
$
DESCRIPTION : MODULE FOR RWCNT1 $
LEVEL  : FUNCTION $
USE   :
     NR2 /// MASTER
    ,FD2S /// MASTER
    ,FJK2S /// MASTER
    ,ND2 /// MASTER
    ,IV /// MASTER

$
DEFINE :
     RB270( LD0 ) = NR2 (  ND0,ENA ) $
     BIT0( Q0,NQ0 ) = FD2S (  NQ0,CL,CLR,LD0,LD
         ) $
     RB271( LD1A ) = NR2 (  ND1,ENA ) $
     BIT1( Q1,NQ1 ) = FJK2S (  Q0,Q0,CL,CLR,LD1A
        ,LD ) $
     CNT2S( CNT2 ) = NR2 (  NQ0,NQ1 ) $
     RB272( LD2A ) = NR2 (  NT40,ENA ) $
     BIT2( Q2,NQ2 ) = FJK2S (  CNT2,CNT2,CL,CLR,LD2A
        ,LD ) $
     CNT3NS( CNTN3 ) = ND2 (  CNT2,Q2 ) $
     CNT3S( CNT3 ) = IV (  CNTN3 ) $
     RB273( LD3A ) = NR2 (  ND3A,ENA ) $
     BIT3( Q3,NQ3 ) = FJK2S (  CNT3,CNT3,CL,CLR,LD3A
        ,LD ) $
     CNT4S( CNT4 ) = NR2 (  CNTN3,NQ3 ) $
     RB274( LD4A ) = NR2 (  ND4A,ENA ) $
     BIT4( Q4,NQ4 ) = FJK2S (  CNT4,CNT4,CL,CLR,LD4A
        ,LD ) $
```

```
END : MODULE $
MODULE :   RED8L1/// $
INPUTS   :
     D0A,D1A,D2A,D3A,D4A,D5A,D6A,D7A,D0B,D1B,D2B,D3B,D4B,D5B,D6B,D7B
    ,D0C,D1C,D2C,D3C,D4C,D5C,D6C,D7C,D0D,D1D,D2D,D3D,D4D,D5D,D6D,D7D
    ,D0E,D1E,D2E,D3E,D4E,D5E,D6E,D7E,D0F,D1F,D2F,D3F,D4F,D5F,D6F,D7F
    ,D0G,D1G,D2G,D3G,D4G,D5G,D6G,D7G,D0H,D1H,D2H,D3H,D4H,D5H,D6H,D7H
    ,NRDA,NRDB,NRDC,NRDD,NRDE,NRDF,NRDG,NRDH
$
OUTPUTS  :
     Q0,Q1,Q2,Q3,Q4,Q5,Q6,Q7
$
DESCRIPTION : MODULE FOR RED8L1 $
LEVEL  : FUNCTION $
USE   :
     READ2 ///
    ,ND4 /// MASTER

$
DEFINE :
     READAB( AB0,AB1,AB2,AB3,AB4,AB5,AB6
        ,AB7 ) = READ2 (  D0A,D1A,D2A,D3A,D4A,D5A
        ,D6A,D7A,D0B,D1B,D2B,D3B,D4B
        ,D5B,D6B,D7B,NRDA,NRDB ) $
     READCD( CD0,CD1,CD2,CD3,CD4,CD5,CD6
        ,CD7 ) = READ2 (  D0C,D1C,D2C,D3C,D4C,D5C
        ,D6C,D7C,D0D,D1D,D2D,D3D,D4D
        ,D5D,D6D,D7D,NRDC,NRDD ) $
     READEF( EF0,EF1,EF2,EF3,EF4,EF5,EF6
        ,EF7 ) = READ2 (  D0E,D1E,D2E,D3E,D4E,D5E
        ,D6E,D7E,D0F,D1F,D2F,D3F,D4F
        ,D5F,D6F,D7F,NRDE,NRDF ) $
     READGH( GH0,GH1,GH2,GH3,GH4,GH5,GH6
        ,GH7 ) = READ2 (  D0G,D1G,D2G,D3G,D4G,D5G
        ,D6G,D7G,D0H,D1H,D2H,D3H,D4H
        ,D5H,D6H,D7H,NRDG,NRDH ) $
     NAN0( Q0 ) = ND4 (  AB0,CD0,EF0,GH0 ) $
     NAN1( Q1 ) = ND4 (  AB1,CD1,EF1,GH1 ) $
     NAN2( Q2 ) = ND4 (  AB2,CD2,EF2,GH2 ) $
     NAN3( Q3 ) = ND4 (  AB3,CD3,EF3,GH3 ) $
     NAN4( Q4 ) = ND4 (  AB4,CD4,EF4,GH4 ) $
     NAN5( Q5 ) = ND4 (  AB5,CD5,EF5,GH5 ) $
     NAN6( Q6 ) = ND4 (  AB6,CD6,EF6,GH6 ) $
     NAN7( Q7 ) = ND4 (  AB7,CD7,EF7,GH7 ) $
END : MODULE $
MODULE :   RED6L1/// $
INPUTS   :
     D0A,D1A,D2A,D3A,D4A,D5A,D6A,D7A,D0B,D1B,D2B,D3B,D4B,D5B,D6B,D7B
    ,D0C,D1C,D2C,D3C,D4C,D5C,D6C,D7C,D0D,D1D,D2D,D3D,D4D,D5D,D6D,D7D
    ,D0E,D1E,D2E,D3E,D4E,D5E,D6E,D7E,D0F,D1F,D2F,D3F,D4F,D5F,D6F,D7F
    ,NRDA,NRDB,NRDC,NRDD,NRDE,NRDF
$
OUTPUTS  :
     Q0,Q1,Q2,Q3,Q4,Q5,Q6,Q7
$
DESCRIPTION : MODULE FOR RED6L1 $
LEVEL  : FUNCTION $
USE   :
     READ2 ///
    ,ND3 /// MASTER

$
```

```
DEFINE :
     READAB( AB0,AB1,AB2,AB3,AB4,AB5,AB6
        ,AB7 ) = READ2 (  D0A,D1A,D2A,D3A,D4A,D5A
        ,D6A,D7A,D0B,D1B,D2B,D3B,D4B
        ,D5B,D6B,D7B,NRDA,NRDB ) $
     READCD( CD0,CD1,CD2,CD3,CD4,CD5,CD6
        ,CD7 ) = READ2 (  D0C,D1C,D2C,D3C,D4C,D5C
        ,D6C,D7C,D0D,D1D,D2D,D3D,D4D
        ,D5D,D6D,D7D,NRDC,NRDD ) $
     READEF( EF0,EF1,EF2,EF3,EF4,EF5,EF6
        ,EF7 ) = READ2 (  D0E,D1E,D2E,D3E,D4E,D5E
        ,D6E,D7E,D0F,D1F,D2F,D3F,D4F
        ,D5F,D6F,D7F,NRDE,NRDF ) $
     NAN0( Q0 ) = ND3 (  AB0,CD0,EF0 ) $
     NAN1( Q1 ) = ND3 (  AB1,CD1,EF1 ) $
     NAN2( Q2 ) = ND3 (  AB2,CD2,EF2 ) $
     NAN3( Q3 ) = ND3 (  AB3,CD3,EF3 ) $
     NAN4( Q4 ) = ND3 (  AB4,CD4,EF4 ) $
     NAN5( Q5 ) = ND3 (  AB5,CD5,EF5 ) $
     NAN6( Q6 ) = ND3 (  AB6,CD6,EF6 ) $
     NAN7( Q7 ) = ND3 (  AB7,CD7,EF7 ) $
END : MODULE $
MODULE :   RED5L1/// $
INPUTS   :
     NRDA,NRDB,NRDC,D0A,D0B,D0C,D1A,D1B,D1C,D2A,D2B,D2C,D3A,D3B,D3C
    ,D4A,D4B,D4C,D5A,D5B,D5C,D6A,D6B,D6C,D7A,D7B,D7C,NRDD,NRDE,D7D
    ,D7E,D6D,D6E,D5D,D5E,D4D,D4E,D3D,D3E,D2D,D2E,D1D,D1E,D0D,D0E
$
OUTPUTS  :
     Q0,Q1,Q2,Q3,Q4,Q5,Q6,Q7
$
DESCRIPTION : MODULE FOR RED5L1 $
LEVEL  : FUNCTION $
USE   :
     ND3 /// MASTER
    ,ND2 /// MASTER
    ,IV /// MASTER
    ,READ2 ///

$
DEFINE :
     RB398( Q7 ) = ND3 (  AB7,C7,DE7 ) $
     RB399( Q6 ) = ND3 (  AB6,C6,DE6 ) $
     RB400( Q5 ) = ND3 (  AB5,C5,DE5 ) $
     RB401( Q4 ) = ND3 (  AB4,C4,DE4 ) $
     RB402( Q3 ) = ND3 (  AB3,C3,DE3 ) $
     RB403( Q2 ) = ND3 (  AB2,C2,DE2 ) $
     RB404( Q1 ) = ND3 (  AB1,C1,DE1 ) $
     RB405( Q0 ) = ND3 (  AB0,C0,DE0 ) $
     RB406( C0 ) = ND2 (  UN000,D0C ) $
     RB407( C1 ) = ND2 (  UN000,D1C ) $
     RB408( UN000 ) = IV (  NRDC ) $
     READAB( AB0,AB1,AB2,AB3,AB4,AB5,AB6
        ,AB7 ) = READ2 (  D0A,D1A,D2A,D3A,D4A,D5A
        ,D6A,D7A,D0B,D1B,D2B,D3B,D4B
        ,D5B,D6B,D7B,NRDA,NRDB ) $
     RB409( C2 ) = ND2 (  UN000,D2C ) $
     RB410( C3 ) = ND2 (  UN000,D3C ) $
     RB411( C4 ) = ND2 (  UN000,D4C ) $
     RB412( C5 ) = ND2 (  UN000,D5C ) $
     RB413( C6 ) = ND2 (  UN000,D6C ) $
     RB414( C7 ) = ND2 (  UN000,D7C ) $
```

```
     READDE( DE0,DE1,DE2,DE3,DE4,DE5,DE6
        ,DE7 ) = READ2 (  D0D,D1D,D2D,D3D,D4D,D5D
        ,D6D,D7D,D0E,D1E,D2E,D3E,D4E
        ,D5E,D6E,D7E,NRDD,NRDE ) $
END : MODULE $
MODULE :   READ6/// $
INPUTS   :
     F7,F6,F5,F4,F3,F2,F1,F0,E7,E6,E5,E4,E3,E2,E1,E0,D7,D6,D5,D4,D3
    ,D2,D1,D0,C7,C6,C5,C4,C3,C2,C1,C0,B7,B6,B5,B4A,B3,B2,B1,B0,A7
    ,A6,A5,A4,A3,A2,A1,A0,LD5S,LD4S,LD3S,LD2S,LD1S,LD0S
$
OUTPUTS  :
     Y0,Y1,Y2,Y3,Y4,Y5,Y6,Y7
$
DESCRIPTION : MODULE FOR READ6 $
LEVEL  : FUNCTION $
USE   :
     ND3 /// MASTER
    ,AO2 /// MASTER

$
DEFINE :
     RB42( Y7 ) = ND3 (  A15Z,A15AZ,A15BZ ) $
     A15B( A15BZ ) = AO2 (  E7,LD4S,F7,LD5S ) $
     A15A( A15AZ ) = AO2 (  C7,LD2S,D7,LD3S ) $
     RB41( A15Z ) = AO2 (  A7,LD0S,B7,LD1S ) $
     RB40( Y6 ) = ND3 (  A13Z,A13AZ,A13BZ ) $
     A13B( A13BZ ) = AO2 (  E6,LD4S,F6,LD5S ) $
     A13A( A13AZ ) = AO2 (  C6,LD2S,D6,LD3S ) $
     RB39( A13Z ) = AO2 (  A6,LD0S,B6,LD1S ) $
     RB38( Y5 ) = ND3 (  A11Z,A11AZ,A11BZ ) $
     A11B( A11BZ ) = AO2 (  E5,LD4S,F5,LD5S ) $
     A11A( A11AZ ) = AO2 (  C5,LD2S,D5,LD3S ) $
     RB37( A11Z ) = AO2 (  A5,LD0S,B5,LD1S ) $
     RB36( Y4 ) = ND3 (  A9Z,A9AZ,A9BZ ) $
     A9B( A9BZ ) = AO2 (  E4,LD4S,F4,LD5S ) $
     A9A( A9AZ ) = AO2 (  C4,LD2S,D4,LD3S ) $
     RB52( A9Z ) = AO2 (  A4,LD0S,B4A,LD1S ) $
     RB51( Y3 ) = ND3 (  A7Z,A7AZ,A7BZ ) $
     A7B( A7BZ ) = AO2 (  E3,LD4S,F3,LD5S ) $
     A7A( A7AZ ) = AO2 (  C3,LD2S,D3,LD3S ) $
     RB50( A7Z ) = AO2 (  A3,LD0S,B3,LD1S ) $
     RB49( Y2 ) = ND3 (  A5Z,A5AZ,A5BZ ) $
     A5B( A5BZ ) = AO2 (  E2,LD4S,F2,LD5S ) $
     A5A( A5AZ ) = AO2 (  C2,LD2S,D2,LD3S ) $
     RB48( A5Z ) = AO2 (  A2,LD0S,B2,LD1S ) $
     RB47( Y1 ) = ND3 (  A2Z,A2AZ,A2BZ ) $
     A2B( A2BZ ) = AO2 (  E1,LD4S,F1,LD5S ) $
     A2A( A2AZ ) = AO2 (  C1,LD2S,D1,LD3S ) $
     RB45( A2Z ) = AO2 (  A1,LD0S,B1,LD1S ) $
     RB46( Y0 ) = ND3 (  A1Z,A1AZ,A1BZ ) $
     A1B( A1BZ ) = AO2 (  E0,LD4S,F0,LD5S ) $
     A1A( A1AZ ) = AO2 (  C0,LD2S,D0,LD3S ) $
     RB35( A1Z ) = AO2 (  A0,LD0S,B0,LD1S ) $
END : MODULE $
MODULE :   RAM610A/// $
INPUTS   :
     WR,A,AN,B,BN,C,CN,D,DN,DIN0,DIN1,DIN2,DIN3,DIN4,DIN5
$
OUTPUTS  :
     PRAM0,PRAM1,PRAM2,PRAM3,PRAM4,PRAM5
$
```

```
DESCRIPTION : MODULE FOR RAM610A $
LEVEL  : FUNCTION $
USE   :
     IVP /// MASTER
    ,RAM64 ///
    ,ND2 /// MASTER
    ,B4I /// MASTER
    ,MUX41P /// MASTER
    ,NR3 /// MASTER
    ,IV /// MASTER

$
DEFINE :
     IVD0( NDIN0 ) = IVP (  DIN0 ) $
     IVD1( NDIN1 ) = IVP (  DIN1 ) $
     IVD2( NDIN2 ) = IVP (  DIN2 ) $
     IVD3( NDIN3 ) = IVP (  DIN3 ) $
     IVD4( NDIN4 ) = IVP (  DIN4 ) $
     IVD5( NDIN5 ) = IVP (  DIN5 ) $
     GP0( U010,U011,U012,U013,U014,U015 ) = RAM64 (  NDIN0
        ,NDIN1,NDIN2,NDIN3,NDIN4,NDIN5,U000,U001
        ,U002,U003,RFND2Z,U029,U028,U027 ) $
     GP1( U009,U008,U007,U006,U005,U004 ) = RAM64 (  NDIN0
        ,NDIN1,NDIN2,NDIN3,NDIN4,NDIN5,U000,U001
        ,U002,U003,U026,U025,U024,U023 ) $
     NF( U016 ) = ND2 (  RFNR4Z,U003 ) $
     GP2( U035,U034,U033,U032,U031,U030 ) = RAM64 (  NDIN0
        ,NDIN1,NDIN2,NDIN3,NDIN4,NDIN5,U000,U001
        ,U002,U003,U022,U021,U020,U019 ) $
     GP3( U045,U044,U043,U042,U041,U040 ) = RAM64 (  NDIN0
        ,NDIN1,NDIN2,NDIN3,NDIN4,NDIN5,U000,U001
        ,U002,U003,RFND3Z,U018,U017,U016 ) $
     NE( U017 ) = ND2 (  RFNR4Z,U002 ) $
     ND( U018 ) = ND2 (  RFNR4Z,U001 ) $
     R6FND3( RFND3Z ) = ND2 (  RFNR4Z,U000 ) $
     N8( U022 ) = ND2 (  RFNR3Z,U000 ) $
     N9( U021 ) = ND2 (  RFNR3Z,U001 ) $
     NA( U020 ) = ND2 (  RFNR3Z,U002 ) $
     NB( U019 ) = ND2 (  RFNR3Z,U003 ) $
     N4( U026 ) = ND2 (  RFNR2Z,U000 ) $
     N5( U025 ) = ND2 (  RFNR2Z,U001 ) $
     N6( U024 ) = ND2 (  RFNR2Z,U002 ) $
     N7( U023 ) = ND2 (  RFNR2Z,U003 ) $
     R6FND2( RFND2Z ) = ND2 (  RFNR1Z,U000 ) $
     N1( U029 ) = ND2 (  RFNR1Z,U001 ) $
     N2( U028 ) = ND2 (  RFNR1Z,U002 ) $
     N3( U027 ) = ND2 (  RFNR1Z,U003 ) $
     B0G( U039 ) = ND2 (  C,D ) $
     B1G( U038 ) = ND2 (  CN,D ) $
     B2G( U037 ) = ND2 (  C,DN ) $
     B3G( U036 ) = ND2 (  CN,DN ) $
     RB99( U003 ) = B4I (  U036 ) $
     RB96( U002 ) = B4I (  U037 ) $
     RB87( U001 ) = B4I (  U038 ) $
     RB85( U000 ) = B4I (  U039 ) $
     D0MUX( PRAM0 ) = MUX41P (  U045,U035,U009,U010,A,B
         ) $
     D1MUX( PRAM1 ) = MUX41P (  U044,U034,U008,U011,A,B
         ) $
     D2MUX( PRAM2 ) = MUX41P (  U043,U033,U007,U012,A,B
         ) $
     D4MUX( PRAM4 ) = MUX41P (  U041,U031,U005,U014,A,B
```

```
         ) $
     D5MUX( PRAM5 ) = MUX41P (  U040,U030,U004,U015,A,B
         ) $
     D3MUX( PRAM3 ) = MUX41P (  U042,U032,U006,U013,A,B
         ) $
     R6FNR3( RFNR3Z ) = NR3 (  NWR,AN,B ) $
     R6FNR2( RFNR2Z ) = NR3 (  NWR,BN,A ) $
     R6FNR1( RFNR1Z ) = NR3 (  NWR,BN,AN ) $
     R6FNR4( RFNR4Z ) = NR3 (  NWR,A,B ) $
     IVWRCK( NWR ) = IV (  WR ) $
END : MODULE $
MODULE :   PSHFDD/// $
INPUTS   :
     CL,SD,SHIFT,LOAD,D0,D1,D2,D3,D4,D5,D6,D7
$
OUTPUTS  :
     SO,NSO
$
DESCRIPTION : MODULE FOR PSHFDD $
LEVEL  : FUNCTION $
USE   :
     MUXFD ///

$
DEFINE :
     RB98( NQ3, ) = MUXFD (  D3,LOAD,SHIFT,NQ2,CL
         ) $
     RB86( NQ1, ) = MUXFD (  LOAD,D1,NQ0,SHIFT,CL
         ) $
     RB84( NQ0, ) = MUXFD (  LOAD,D0,SHIFT,SD,CL
         ) $
     RB103( NQ5, ) = MUXFD (  D5,LOAD,SHIFT,NQ4,CL
         ) $
     RB105( SO,NSO ) = MUXFD (  D7,LOAD,SHIFT,NQ6,CL
         ) $
     RB95( NQ2, ) = MUXFD (  LOAD,D2,NQ1,SHIFT,CL
         ) $
     RB102( NQ4, ) = MUXFD (  D4,LOAD,SHIFT,NQ3,CL
         ) $
     RB104( NQ6, ) = MUXFD (  D6,LOAD,NQ5,SHIFT,CL
         ) $
END : MODULE $
MODULE :   PELP1/// $
INPUTS   :
     D,CL,S0,S1,S2,SEL07,SEL8,ENA
$
OUTPUTS  :
     DOUT
$
DESCRIPTION : MODULE FOR PELP1 $
LEVEL  : FUNCTION $
USE   :
     MUX81 /// MASTER
    ,ND3 /// MASTER
    ,ND2 /// MASTER
    ,YFD9S ///

$
DEFINE :
     RB95( MD ) = MUX81 (  Q0,Q1,Q2,Q3,Q4,Q5
        ,Q6,Q7,S0,S1,S2 ) $
     B32( DOUT2 ) = ND3 (  Q8,SEL8,ENA ) $
```

```
     B31( DOUT1 ) = ND3 (  MD,SEL07,ENA ) $
     RB98( DOUT ) = ND2 (  DOUT1,DOUT2 ) $
     RB86( Q0,,Q1,,Q2,,Q3
        ,,Q4,,Q5,,Q6,
        ,Q7,,Q8, ) = YFD9S (  CL,D ) $
END : MODULE $
MODULE :   ORA25/// $
INPUTS   :
     D2,D1,C2,C1,B2,B1,A2,A1,E2,E1
$
OUTPUTS  :
     Z
$
DESCRIPTION : MODULE FOR ORA25 $
LEVEL  : FUNCTION $
USE   :
     AO4 /// MASTER
    ,NR2 /// MASTER
    ,IV /// MASTER
    ,AO7 /// MASTER

$
DEFINE :
     B1X2( AX2 ) = AO4 (  C1,C2,D1,D2 ) $
     B1X1( AX1 ) = AO4 (  A1,A2,B1,B2 ) $
     RB86( A ) = NR2 (  AX1,AX2 ) $
     B2XIV( Z ) = IV (  ZXIV ) $
     RB95( ZXIV ) = AO7 (  E1,E2,A ) $
END : MODULE $
MODULE :   ND5RE/// $
INPUTS   :
     A,B,C,D,E
$
OUTPUTS  :
     Z
$
DESCRIPTION : MODULE FOR ND5RE $
LEVEL  : FUNCTION $
USE   :
     ND3 /// MASTER
    ,ND2 /// MASTER
    ,NR2P /// MASTER
    ,B4I /// MASTER

$
DEFINE :
     RB86( OB1 ) = ND3 (  A,B,C ) $
     RB95( OB2 ) = ND2 (  D,E ) $
     RB98( OB3 ) = NR2P (  OB1,OB2 ) $
     RB102( Z ) = B4I (  OB3 ) $
END : MODULE $
MODULE :   MXRBO2/// $
INPUTS   :
     D00,D10,D01,D11,D02,D12,D03,D13,A
$
OUTPUTS  :
     Z0,Z1,Z2,Z3
$
DESCRIPTION : MODULE FOR MXRBO2 $
LEVEL  : FUNCTION $
USE   :
     MUX21L /// MASTER
```

```
    ,B5IP /// MASTER

$
DEFINE :
     RB86( X0 ) = MUX21L (  D00,D10,A ) $
     RB95( X1 ) = MUX21L (  D01,D11,A ) $
     RB98( X2 ) = MUX21L (  D02,D12,A ) $
     RB102( X3 ) = MUX21L (  D03,D13,A ) $
     RB103( Z0 ) = B5IP (  X0 ) $
     RB104( Z1 ) = B5IP (  X1 ) $
     RB105( Z2 ) = B5IP (  X2 ) $
     RB106( Z3 ) = B5IP (  X3 ) $
END : MODULE $
MODULE :   MXRBO1/// $
INPUTS   :
     D00,D10,D01,D11,D02,D12,D03,D13,A
$
OUTPUTS  :
     Z0,Z1,Z2,Z3
$
DESCRIPTION : MODULE FOR MXRBO1 $
LEVEL  : FUNCTION $
USE   :
     MUX21L /// MASTER
    ,B5IP /// MASTER

$
DEFINE :
     RB86( X0 ) = MUX21L (  D00,D10,A ) $
     RB95( X1 ) = MUX21L (  D01,D11,A ) $
     RB98( X2 ) = MUX21L (  D02,D12,A ) $
     RB102( X3 ) = MUX21L (  D03,D13,A ) $
     RB103( Z0 ) = B5IP (  X0 ) $
     RB104( Z1 ) = B5IP (  X1 ) $
     RB105( Z2 ) = B5IP (  X2 ) $
     RB106( Z3 ) = B5IP (  X3 ) $
END : MODULE $
MODULE :   MUX42/// $
INPUTS   :
     SELB,B1,A1,B0,A0
$
OUTPUTS  :
     C1,C0
$
DESCRIPTION : MODULE FOR MUX42 $
LEVEL  : FUNCTION $
USE   :
     IV /// MASTER
    ,MUX21L /// MASTER

$
DEFINE :
     B2N( C1 ) = IV (  C1N ) $
     RB95( C1N ) = MUX21L (  A1,B1,SELB ) $
     B1N( C0 ) = IV (  C0N ) $
     RB86( C0N ) = MUX21L (  A0,B0,SELB ) $
END : MODULE $
MODULE :   MUX241/// $
INPUTS   :
     S34,S12,S24,S13,D40,D30,D20,D10,D41,D31,D21,D11
$
OUTPUTS  :
```

```
     DOUT0,DOUT1
$
DESCRIPTION : MODULE FOR MUX241 $
LEVEL  : FUNCTION $
USE   :
     MUX41I ///

$
DEFINE :
     RB95( DOUT0 ) = MUX41I (  S13,S24,D10,D20,D30,D40
        ,S12,S34 ) $
     RB86( DOUT1 ) = MUX41I (  S13,S24,D11,D21,D31,D41
        ,S12,S34 ) $
END : MODULE $
MODULE :   MUX168/// $
INPUTS   :
     SELB,B7,A7,B6,A6,B5,A5,B4A,A4,B3,A3,B2,A2,B1,A1,B0,A0
$
OUTPUTS  :
     C7,C6,C5,C4,C3,C2,C1,C0
$
DESCRIPTION : MODULE FOR MUX168 $
LEVEL  : FUNCTION $
USE   :
     IV /// MASTER
    ,MUX21L /// MASTER

$
DEFINE :
     B8N( C7 ) = IV (  C7N ) $
     RB106( C7N ) = MUX21L (  A7,B7,SELB ) $
     B7N( C6 ) = IV (  C6N ) $
     RB105( C6N ) = MUX21L (  A6,B6,SELB ) $
     B6N( C5 ) = IV (  C5N ) $
     RB104( C5N ) = MUX21L (  A5,B5,SELB ) $
     B5N( C4 ) = IV (  C4N ) $
     RB103( C4N ) = MUX21L (  A4,B4A,SELB ) $
     B4N( C3 ) = IV (  C3N ) $
     RB102( C3N ) = MUX21L (  A3,B3,SELB ) $
     B3N( C2 ) = IV (  C2N ) $
     RB98( C2N ) = MUX21L (  A2,B2,SELB ) $
     B2N( C1 ) = IV (  C1N ) $
     RB95( C1N ) = MUX21L (  A1,B1,SELB ) $
     B1N( C0 ) = IV (  C0N ) $
     RB86( C0N ) = MUX21L (  A0,B0,SELB ) $
END : MODULE $
MODULE :   MUXFD1/// $
INPUTS   :
     CL,I4,I3,I2,I1
$
OUTPUTS  :
     NQ,Q
$
DESCRIPTION : MODULE FOR MUXFD1 $
LEVEL  : FUNCTION $
USE   :
     IV /// MASTER
    ,AO2 /// MASTER
    ,FD1 /// MASTER

$
DEFINE :
```

```
     MUXN( D ) = IV (  DN ) $
     MUX( DN ) = AO2 (  I1,I2,I3,I4 ) $
     FD( Q,NQ ) = FD1 (  D,CL ) $
END : MODULE $
MODULE :   MEMIO3/// $
INPUTS   :
     RD1,RD2,RD3,RD4,CL0,CL1,CL2,CL3,MASKC,BD,CPUL,CRTL
$
OUTPUTS  :
     DOUT,CPUD,CPUDN,CRTD
$
DESCRIPTION : MODULE FOR MEMIO3 $
LEVEL  : FUNCTION $
USE   :
     AO2 /// MASTER
    ,MUX41 /// MASTER
    ,YFD1 /// MASTER
    ,LD2 /// MASTER
    ,MUX21L /// MASTER

$
DEFINE :
     RB29( WDN ) = AO2 (  RD1,RD2,RD3,RD4 ) $
     FUNMUF( FUNCD ) = MUX41 (  CL0,CL1,CL2,CL3,CPUD,WDN
         ) $
     FD0( CRTD, ) = YFD1 (  BD,CRTL ) $
     LDG0( CPUD,CPUDN ) = LD2 (  BD,CPUL ) $
     RB286( DOUT ) = MUX21L (  FUNCD,CPUDN,MASKC ) $
END : MODULE $
MODULE :   MACC16/// $
INPUTS   :
     NCPUDONE,MCLK,NRESET,NT28,NT27,GC05D3,F1B15O1,SR4D3,SR4ND2,ADDR01

$
OUTPUTS  :
     SECBYTE,NRMEMAC,HLDRDY,FCAS1,FCAS3
$
DESCRIPTION : MODULE FOR MACC16 $
LEVEL  : FUNCTION $
USE   :
     NR2 /// MASTER
    ,IV /// MASTER
    ,FJK2 /// MASTER
    ,AN2 /// MASTER
    ,ND2 /// MASTER
    ,AO7 /// MASTER
    ,NR3 /// MASTER
    ,OR2 /// MASTER

$
DEFINE :
     U139( U139Z ) = NR2 (  U143QN,NCPUDONE ) $
     U158( U158Z ) = NR2 (  U159Z,U143Q ) $
     U140( U140Z ) = NR2 (  U142Q,U150Z ) $
     U159( U159Z ) = IV (  U150Z ) $
     U142( U142Q, ) = FJK2 (  U139Z,U158Z,MCLK,NRESET ) $
     U143( U143Q,U143QN ) = FJK2 (  U140Z,U142Q,MCLK,NRESET ) $
     U138( U138Z ) = AN2 (  U142Q,U143QN ) $
     U141( NRMEMAC ) = ND2 (  U142Q,U143Q ) $
     U144( U144Z ) = AO7 (  U145Z,U146Z,NT28 ) $
     U149( U149Z ) = ND2 (  NT27,U145Z ) $
     U150( U150Z ) = AN2 (  U144Z,U149Z ) $
```

```
     U201( U201Z ) = NR3 (  GC05D3,U200Z,U145Z ) $
     U147( U147Z ) = IV (  F1B15O1 ) $
     U145( U145Z ) = NR2 (  U147Z,SR4D3 ) $
     U146( U146Z ) = NR2 (  SR4D3,SR4ND2 ) $
     U151( U151Z ) = IV (  NT28 ) $
     U148( U148Z ) = NR3 (  U145Z,U146Z,U151Z ) $
     U152( U152Z ) = AO7 (  U154Z,U155Z,U148Z ) $
     U160( FCAS1 ) = IV (  U152Z ) $
     U154( U154Z ) = IV (  ADDR01 ) $
     U155( U155Z ) = IV (  SR4D3 ) $
     U153( U153Z ) = AO7 (  ADDR01,U155Z,U148Z ) $
     U161( FCAS3 ) = IV (  U153Z ) $
     U200( U200Z ) = IV (  NT27 ) $
     U202( U202Z ) = IV (  NCPUDONE ) $
     U203( U203Z ) = NR2 (  NCPUDONE,U207QN ) $
     U204( U204Z ) = NR2 (  U207Q,U202Z ) $
     U205( U205Q,U205QN ) = FJK2 (  U203Z,U204Z,MCLK,NRESET ) $
     U206( U206Z ) = AN2 (  U205QN,U201Z ) $
     U207( U207Q,U207QN ) = FJK2 (  U206Z,U205Q,MCLK,NRESET ) $
     U208( SECBYTE ) = OR2 (  U205Q,U138Z ) $
     U209( HLDRDY ) = OR2 (  U207Q,U143Q ) $
END : MODULE $
MODULE :   LD4G2/// $
INPUTS   :
     CL,CLRN,D0,D1
$
OUTPUTS  :
     Q0,NQ0,Q1,NQ1
$
DESCRIPTION : MODULE FOR LD4G2 $
LEVEL  : FUNCTION $
USE   :
     LD4 /// MASTER

$
DEFINE :
     BIT1( Q0,NQ0 ) = LD4 (  D0,CL,CLRN ) $
     BIT2( Q1,NQ1 ) = LD4 (  D1,CL,CLRN ) $
END : MODULE $
MODULE :   LDG8R/// $
INPUTS   :
     NMR,CL,D0,D1,D2,D3,D4,D5,D6,D7
$
OUTPUTS  :
     Q0,NQ0,Q1,NQ1,Q2,NQ2,Q3,NQ3,Q4,NQ4,Q5,NQ5,Q6,NQ6,Q7,NQ7
$
DESCRIPTION : MODULE FOR LDG8R $
LEVEL  : FUNCTION $
USE   :
     LD4 /// MASTER

$
DEFINE :
     BIT1( Q0,NQ0 ) = LD4 (  D0,CL,NMR ) $
     BIT2( Q1,NQ1 ) = LD4 (  D1,CL,NMR ) $
     BIT3( Q2,NQ2 ) = LD4 (  D2,CL,NMR ) $
     BIT4( Q3,NQ3 ) = LD4 (  D3,CL,NMR ) $
     BIT5( Q4,NQ4 ) = LD4 (  D4,CL,NMR ) $
     BIT6( Q5,NQ5 ) = LD4 (  D5,CL,NMR ) $
     BIT7( Q6,NQ6 ) = LD4 (  D6,CL,NMR ) $
     BIT8( Q7,NQ7 ) = LD4 (  D7,CL,NMR ) $
END : MODULE $
```

```
MODULE :   LDG8/// $
INPUTS   :
     CL,D0,D1,D2,D3,D4,D5,D6,D7
$
OUTPUTS  :
     Q0,NQ0,Q1,NQ1,Q2,NQ2,Q3,NQ3,Q4,NQ4,Q5,NQ5,Q6,NQ6,Q7,NQ7
$
DESCRIPTION : MODULE FOR LDG8 $
LEVEL  : FUNCTION $
USE   :
     LD2 /// MASTER

$
DEFINE :
     BIT1( Q0,NQ0 ) = LD2 (  D0,CL ) $
     BIT2( Q1,NQ1 ) = LD2 (  D1,CL ) $
     BIT3( Q2,NQ2 ) = LD2 (  D2,CL ) $
     BIT4( Q3,NQ3 ) = LD2 (  D3,CL ) $
     BIT5( Q4,NQ4 ) = LD2 (  D4,CL ) $
     BIT6( Q5,NQ5 ) = LD2 (  D5,CL ) $
     BIT7( Q6,NQ6 ) = LD2 (  D6,CL ) $
     BIT8( Q7,NQ7 ) = LD2 (  D7,CL ) $
END : MODULE $
MODULE :   LDG7/// $
INPUTS   :
     CL,D0,D1,D2,D3,D4,D5,D6
$
OUTPUTS  :
     Q0,NQ0,Q1,NQ1,Q2,NQ2,Q3,NQ3,Q4,NQ4,Q5,NQ5,Q6,NQ6
$
DESCRIPTION : MODULE FOR LDG7 $
LEVEL  : FUNCTION $
USE   :
     LD2 /// MASTER

$
DEFINE :
     BIT1( Q0,NQ0 ) = LD2 (  D0,CL ) $
     BIT2( Q1,NQ1 ) = LD2 (  D1,CL ) $
     BIT3( Q2,NQ2 ) = LD2 (  D2,CL ) $
     BIT4( Q3,NQ3 ) = LD2 (  D3,CL ) $
     BIT5( Q4,NQ4 ) = LD2 (  D4,CL ) $
     BIT6( Q5,NQ5 ) = LD2 (  D5,CL ) $
     BIT7( Q6,NQ6 ) = LD2 (  D6,CL ) $
END : MODULE $
MODULE :   LDG6R/// $
INPUTS   :
     NMR,CL,D0,D1,D2,D3,D4,D5
$
OUTPUTS  :
     Q0,NQ0,Q1,NQ1,Q2,NQ2,Q3,NQ3,Q4,NQ4,Q5,NQ5
$
DESCRIPTION : MODULE FOR LDG6R $
LEVEL  : FUNCTION $
USE   :
     LD4 /// MASTER

$
DEFINE :
     BIT1( Q0,NQ0 ) = LD4 (  D0,CL,NMR ) $
     BIT2( Q1,NQ1 ) = LD4 (  D1,CL,NMR ) $
     BIT3( Q2,NQ2 ) = LD4 (  D2,CL,NMR ) $
```

```
     BIT4( Q3,NQ3 ) = LD4 (  D3,CL,NMR ) $
     BIT5( Q4,NQ4 ) = LD4 (  D4,CL,NMR ) $
     BIT6( Q5,NQ5 ) = LD4 (  D5,CL,NMR ) $
END : MODULE $
MODULE :   LDG6/// $
INPUTS   :
     CL,D0,D1,D2,D3,D4,D5
$
OUTPUTS  :
     Q0,NQ0,Q1,NQ1,Q2,NQ2,Q3,NQ3,Q4,NQ4,Q5,NQ5
$
DESCRIPTION : MODULE FOR LDG6 $
LEVEL  : FUNCTION $
USE   :
     LD2 /// MASTER

$
DEFINE :
     BIT1( Q0,NQ0 ) = LD2 (  D0,CL ) $
     BIT2( Q1,NQ1 ) = LD2 (  D1,CL ) $
     BIT3( Q2,NQ2 ) = LD2 (  D2,CL ) $
     BIT4( Q3,NQ3 ) = LD2 (  D3,CL ) $
     BIT5( Q4,NQ4 ) = LD2 (  D4,CL ) $
     BIT6( Q5,NQ5 ) = LD2 (  D5,CL ) $
END : MODULE $
MODULE :   LDG5/// $
INPUTS   :
     CL,D0,D1,D2,D3,D4
$
OUTPUTS  :
     Q0,NQ0,Q1,NQ1,Q2,NQ2,Q3,NQ3,Q4,NQ4
$
DESCRIPTION : MODULE FOR LDG5 $
LEVEL  : FUNCTION $
USE   :
     LD2 /// MASTER

$
DEFINE :
     BIT1( Q0,NQ0 ) = LD2 (  D0,CL ) $
     BIT2( Q1,NQ1 ) = LD2 (  D1,CL ) $
     BIT3( Q2,NQ2 ) = LD2 (  D2,CL ) $
     BIT4( Q3,NQ3 ) = LD2 (  D3,CL ) $
     BIT5( Q4,NQ4 ) = LD2 (  D4,CL ) $
END : MODULE $
MODULE :   LDG4R/// $
INPUTS   :
     NMR,CL,D0,D1,D2,D3
$
OUTPUTS  :
     Q0,NQ0,Q1,NQ1,Q2,NQ2,Q3,NQ3
$
DESCRIPTION : MODULE FOR LDG4R $
LEVEL  : FUNCTION $
USE   :
     LD4 /// MASTER

$
DEFINE :
     BIT1( Q0,NQ0 ) = LD4 (  D0,CL,NMR ) $
     BIT2( Q1,NQ1 ) = LD4 (  D1,CL,NMR ) $
     BIT3( Q2,NQ2 ) = LD4 (  D2,CL,NMR ) $
```

```
     BIT4( Q3,NQ3 ) = LD4 (  D3,CL,NMR ) $
END : MODULE $
MODULE :   LDG4/// $
INPUTS   :
     CL,D0,D1,D2,D3
$
OUTPUTS  :
     Q0,NQ0,Q1,NQ1,Q2,NQ2,Q3,NQ3
$
DESCRIPTION : MODULE FOR LDG4 $
LEVEL  : FUNCTION $
USE   :
     LD2 /// MASTER

$
DEFINE :
     BIT1( Q0,NQ0 ) = LD2 (  D0,CL ) $
     BIT2( Q1,NQ1 ) = LD2 (  D1,CL ) $
     BIT3( Q2,NQ2 ) = LD2 (  D2,CL ) $
     BIT4( Q3,NQ3 ) = LD2 (  D3,CL ) $
END : MODULE $
MODULE :   LDG3R/// $
INPUTS   :
     NMR,CL,D0,D1,D2
$
OUTPUTS  :
     Q0,NQ0,Q1,NQ1,Q2,NQ2
$
DESCRIPTION : MODULE FOR LDG3R $
LEVEL  : FUNCTION $
USE   :
     LD4 /// MASTER

$
DEFINE :
     BIT1( Q0,NQ0 ) = LD4 (  D0,CL,NMR ) $
     BIT2( Q1,NQ1 ) = LD4 (  D1,CL,NMR ) $
     BIT3( Q2,NQ2 ) = LD4 (  D2,CL,NMR ) $
END : MODULE $
MODULE :   LDG3/// $
INPUTS   :
     CL,D0,D1,D2
$
OUTPUTS  :
     Q0,NQ0,Q1,NQ1,Q2,NQ2
$
DESCRIPTION : MODULE FOR LDG3 $
LEVEL  : FUNCTION $
USE   :
     LD2 /// MASTER

$
DEFINE :
     BIT1( Q0,NQ0 ) = LD2 (  D0,CL ) $
     BIT2( Q1,NQ1 ) = LD2 (  D1,CL ) $
     BIT3( Q2,NQ2 ) = LD2 (  D2,CL ) $
END : MODULE $
MODULE :   LDG2R/// $
INPUTS   :
     NMR,CL,D0,D1
$
OUTPUTS  :
```

```
     Q0,NQ0,Q1,NQ1
$
DESCRIPTION : MODULE FOR LDG2R $
LEVEL  : FUNCTION $
USE   :
     LD4 /// MASTER

$
DEFINE :
     BIT1( Q0,NQ0 ) = LD4 (  D0,CL,NMR ) $
     BIT2( Q1,NQ1 ) = LD4 (  D1,CL,NMR ) $
END : MODULE $
MODULE :   LDG2/// $
INPUTS   :
     CL,D0,D1
$
OUTPUTS  :
     Q0,NQ0,Q1,NQ1
$
DESCRIPTION : MODULE FOR LDG2 $
LEVEL  : FUNCTION $
USE   :
     LD2 /// MASTER

$
DEFINE :
     BIT1( Q0,NQ0 ) = LD2 (  D0,CL ) $
     BIT2( Q1,NQ1 ) = LD2 (  D1,CL ) $
END : MODULE $
MODULE :   EQUL8P/// $
INPUTS   :
     A0,B0,A1,B1,A2,B2,A3,B3,A4,B4A,A5,B5,A6,B6,A7,B7,COMPDIS
$
OUTPUTS  :
     EQ
$
DESCRIPTION : MODULE FOR EQUL8P $
LEVEL  : FUNCTION $
USE   :
     EN /// MASTER
    ,EO /// MASTER
    ,NR2 /// MASTER
    ,NR8 /// MASTER

$
DEFINE :
     RB398( UN003 ) = EN (  A0,B0 ) $
     RB399( UN001 ) = EO (  A1,B1 ) $
     RB400( UN002 ) = EO (  A2,B2 ) $
     RB401( UN004 ) = EO (  A3,B3 ) $
     RB402( UN000 ) = NR2 (  COMPDIS,UN003 ) $
     RB403( EQ ) = NR8 (  UN000,UN001,UN002,UN004,UN005,UN006
        ,UN007,UN008 ) $
     RB404( UN005 ) = EO (  A4,B4A ) $
     RB405( UN006 ) = EO (  A5,B5 ) $
     RB406( UN007 ) = EO (  A6,B6 ) $
     RB407( UN008 ) = EO (  A7,B7 ) $
END : MODULE $
MODULE :   EQUL8/// $
INPUTS   :
     A0,A1,A2,A3,A4,A5,A6,A7,B0,B1,B2,B3,B4A,B5,B6,B7
$
```

```
OUTPUTS  :
     EQ
$
DESCRIPTION : MODULE FOR EQUL8 $
LEVEL  : FUNCTION $
USE   :
     EO /// MASTER
    ,NR5 /// MASTER
    ,OR4 /// MASTER

$
DEFINE :
     BIT0( C0 ) = EO (  A0,B0 ) $
     BIT1( C1 ) = EO (  A1,B1 ) $
     BIT2( C2 ) = EO (  A2,B2 ) $
     BIT3( C3 ) = EO (  A3,B3 ) $
     BIT4( C4 ) = EO (  A4,B4A ) $
     BIT5( C5 ) = EO (  A5,B5 ) $
     BIT6( C6 ) = EO (  A6,B6 ) $
     BIT7( C7 ) = EO (  A7,B7 ) $
     RB183( EQ ) = NR5 (  EQ03N,C4,C5,C6,C7 ) $
     RB184( EQ03N ) = OR4 (  C0,C1,C2,C3 ) $
END : MODULE $
MODULE :   EQUL4N/// $
INPUTS   :
     A1,A2,A3,B0,B1,B2,B3,A0
$
OUTPUTS  :
     EQN
$
DESCRIPTION : MODULE FOR EQUL4N $
LEVEL  : FUNCTION $
USE   :
     EO /// MASTER
    ,OR4 /// MASTER

$
DEFINE :
     RB86( C0 ) = EO (  A0,B0 ) $
     RB95( C1 ) = EO (  A1,B1 ) $
     RB98( C2 ) = EO (  A2,B2 ) $
     RB102( C3 ) = EO (  A3,B3 ) $
     RB103( EQN ) = OR4 (  C0,C1,C2,C3 ) $
END : MODULE $
MODULE :   EQUL16/// $
INPUTS   :
     B15,B14,B13,B12A,B11,B10,B9,B8A,B7,B6,B5,B4A,B3,B2,B1,B0,A15
    ,A14,A13,A12,A11,A10,A9,A8,A7,A6,A5,A4,A3,A2,A1,A0
$
OUTPUTS  :
     EQ
$
DESCRIPTION : MODULE FOR EQUL16 $
LEVEL  : FUNCTION $
USE   :
     NR4 /// MASTER
    ,ND4 /// MASTER
    ,EN /// MASTER

$
DEFINE :
     RB183( EQ ) = NR4 (  EQ03N,EQ47N,EQ811N,EQ1215N ) $
```

```
     RB185( EQ1215N ) = ND4 (  C12,C13,C14,C15 ) $
     RB187( EQ811N ) = ND4 (  C8,C9,C10,C11 ) $
     RB186( EQ47N ) = ND4 (  C4,C5,C6,C7 ) $
     RB184( EQ03N ) = ND4 (  C0,C1,C2,C3 ) $
     BIT15( C15 ) = EN (  A15,B15 ) $
     BIT14( C14 ) = EN (  A14,B14 ) $
     BIT13( C13 ) = EN (  A13,B13 ) $
     BIT12( C12 ) = EN (  A12,B12A ) $
     BIT11( C11 ) = EN (  A11,B11 ) $
     BIT10( C10 ) = EN (  A10,B10 ) $
     BIT9( C9 ) = EN (  A9,B9 ) $
     BIT8( C8 ) = EN (  A8,B8A ) $
     BIT7( C7 ) = EN (  A7,B7 ) $
     BIT6( C6 ) = EN (  A6,B6 ) $
     BIT5( C5 ) = EN (  A5,B5 ) $
     BIT4( C4 ) = EN (  A4,B4A ) $
     BIT3( C3 ) = EN (  A3,B3 ) $
     BIT2( C2 ) = EN (  A2,B2 ) $
     BIT1( C1 ) = EN (  A1,B1 ) $
     BIT0( C0 ) = EN (  A0,B0 ) $
END : MODULE $
MODULE :   CNT16/// $
INPUTS   :
     CLA,CLB,CLC,CLD,E6845,LOAD,RESET,D0,ND0,D1,ND1,D2,NT40,D3,ND3A
    ,D4,ND4A,D5,ND5A,D6,ND6A,D7,ND7,D8,ND8A,D9,ND9,D10,ND10,D11,ND11
    ,D12,ND12,D13,ND13,D14,ND14,D15,ND15
$
OUTPUTS  :
     Q0,NQ0,Q1,NQ1,Q2,NQ2,Q3,NQ3,Q4,NQ4,Q5,NQ5,Q6,NQ6,Q7,NQ7,Q8,NQ8
    ,Q9,NQ9,Q10,NQ10,Q11,NQ11,Q12,NQ12,Q13,NQ13,Q14,NQ14,Q15,NQ15

$
DESCRIPTION : MODULE FOR CNT16 $
LEVEL  : FUNCTION $
USE   :
     FCOUP4 ///
    ,IV /// MASTER
    ,CNTUP4 ///
    ,NR2 /// MASTER
    ,NR3 /// MASTER
    ,ECOUP4 ///

$
DEFINE :
     GP0( NCMT1,Q0,NQ0,Q1,NQ1,Q2,NQ2
        ,Q3,NQ3 ) = FCOUP4 (  CLA,LOAD,RESET,D0,ND0
        ,D1,ND1,D2,NT40,D3,ND3A ) $
     RB262( CNT1 ) = IV (  NCMT1 ) $
     GP1( NCMT2,Q4,NQ4,Q5,NQ5,Q6,NQ6
        ,Q7,NQ7 ) = CNTUP4 (  CLC,CNT1,LOAD,RESET,D4
        ,ND4A,D5,ND5A,D6,ND6A,D7,ND7
         ) $
     NR2B( CNT2 ) = NR2 (  NCMT1,NCMT2 ) $
     GP2( NCMT3,Q8,NQ8,Q9,NQ9,Q10,NQ10
        ,Q11,NQ11 ) = CNTUP4 (  CLB,CNT2,LOAD,RESET,D8
        ,ND8A,D9,ND9,D10,ND10,D11,ND11
         ) $
     NR3C( CNT3 ) = NR3 (  NCMT1,NCMT2,NCMT3 ) $
     GP3( Q12,NQ12,Q13,NQ13,Q14,NQ14,Q15
        ,NQ15 ) = ECOUP4 (  CLD,CNT3,E6845,LOAD,RESET,D12
        ,ND12,D13,ND13,D14,ND14,D15,ND15
         ) $
```

```
END : MODULE $
MODULE :   CCMP1/// $
INPUTS   :
     I0,D0N,C0,D0,I1,D1N,C1,D1,I2,D2N,C2,D2,I3,D3N,C3,D3
$
OUTPUTS  :
     DOUT
$
DESCRIPTION : MODULE FOR CCMP1 $
LEVEL  : FUNCTION $
USE   :
     AO2 /// MASTER
    ,AN4 /// MASTER

$
DEFINE :
     RB455( X0 ) = AO2 (  I0,D0N,C0,D0 ) $
     RB456( X1 ) = AO2 (  I1,D1N,C1,D1 ) $
     RB457( X2 ) = AO2 (  I2,D2N,C2,D2 ) $
     RB458( X3 ) = AO2 (  I3,D3N,C3,D3 ) $
     RB175( DOUT ) = AN4 (  X0,X1,X2,X3 ) $
END : MODULE $
MODULE :   BRSHFT/// $
INPUTS   :
     S0,S1,S2,D0,D1,D2,D3,D4,D5,D6,D7
$
OUTPUTS  :
     DOUT0,DOUT1,DOUT2,DOUT3,DOUT4,DOUT5,DOUT6,DOUT7
$
DESCRIPTION : MODULE FOR BRSHFT $
LEVEL  : FUNCTION $
USE   :
     MUX81 /// MASTER

$
DEFINE :
     RB105( DOUT0 ) = MUX81 (  D7,D0,D1,D2,D3,D4
        ,D5,D6,S0,S1,S2 ) $
     RB104( DOUT1 ) = MUX81 (  D6,D7,D0,D1,D2,D3
        ,D4,D5,S0,S1,S2 ) $
     RB103( DOUT2 ) = MUX81 (  D4,D5,D6,D7,D0,D1
        ,D2,D3,S0,S1,S2 ) $
     RB102( DOUT3 ) = MUX81 (  D5,D6,D7,D0,D1,D2
        ,D3,D4,S0,S1,S2 ) $
     RB98( DOUT4 ) = MUX81 (  D3,D4,D5,D6,D7,D0
        ,D1,D2,S0,S1,S2 ) $
     RB95( DOUT5 ) = MUX81 (  D1,D2,D3,D4,D5,D6
        ,D7,D0,S0,S1,S2 ) $
     RB86( DOUT6 ) = MUX81 (  D2,D3,D4,D5,D6,D7
        ,D0,D1,S0,S1,S2 ) $
     BX1( DOUT7 ) = MUX81 (  D0,D1,D2,D3,D4,D5
        ,D6,D7,S0,S1,S2 ) $
END : MODULE $
MODULE :   A2T1B8/// $
INPUTS   :
     S,N7B,N7A,N6B,N6A,N5B,N5A,N4B,N4A,N3B,N3A,N2B,N2A,N1B,N1A,N0B
    ,N0A
$
OUTPUTS  :
     N0Y,N7Y,N6Y,N5Y,N4Y,N3Y,N2Y,N1Y
$
DESCRIPTION : MODULE FOR A2T1B8 $
```

```
LEVEL  : FUNCTION $
USE   :
     IVDA /// MASTER
    ,AO2 /// MASTER

$
DEFINE :
     IV1( NET281,NET285 ) = IVDA (  S ) $
     RB86( N1Y ) = AO2 (  N1A,NET281,N1B,NET285 ) $
     RB95( N2Y ) = AO2 (  N2A,NET281,N2B,NET285 ) $
     RB98( N3Y ) = AO2 (  N3A,NET281,N3B,NET285 ) $
     RB102( N4Y ) = AO2 (  N4A,NET281,N4B,NET285 ) $
     RB103( N5Y ) = AO2 (  N5A,NET281,N5B,NET285 ) $
     RB104( N6Y ) = AO2 (  N6A,NET281,N6B,NET285 ) $
     RB105( N7Y ) = AO2 (  N7A,NET281,N7B,NET285 ) $
     RB84( N0Y ) = AO2 (  N0A,NET281,N0B,NET285 ) $
END : MODULE $
MODULE :   ADMUX2/// $
INPUTS   :
     RAST,CAST,CKCAS,GRAPH,TEXT,CPU,CRT,CKCRT,ADDR,CPUR,TEXR,ADDC
    ,CPUC,TEXC
$
OUTPUTS  :
     YA,XA
$
DESCRIPTION : MODULE FOR ADMUX2 $
LEVEL  : FUNCTION $
USE   :
     LD2 /// MASTER
    ,AO2 /// MASTER
    ,IV /// MASTER

$
DEFINE :
     RB89( NT47, ) = LD2 (  GCPUADDC,CKCAS ) $
     RB107( ,QCPUADDC ) = LD2 (  CPUADDC,CKCAS ) $
     RB106( QCPUR, ) = LD2 (  CPUR,CKCRT ) $
     RB105( QCPUC, ) = LD2 (  CPUC,CKCRT ) $
     RB104( YAN ) = AO2 (  NT47,CAST,GCPUADDR,RAST ) $
     B6N( YA ) = IV (  YAN ) $
     RB103( XAN ) = AO2 (  QCPUADDC,CAST,CPUADDR,RAST ) $
     B5N( XA ) = IV (  XAN ) $
     RB102( CPUADDRN ) = AO2 (  TEXR,TEXT,GCPUADDR,GRAPH ) $
     B4N( CPUADDR ) = IV (  CPUADDRN ) $
     RB98( CPUADDC ) = AO2 (  TEXC,TEXT,GCPUADDC,GRAPH ) $
     RB95( NT32 ) = AO2 (  QCPUR,CRT,ADDR,CPU ) $
     B2N( GCPUADDR ) = IV (  NT32 ) $
     RB86( NT31 ) = AO2 (  QCPUC,CRT,ADDC,CPU ) $
     B1N( GCPUADDC ) = IV (  NT31 ) $
END : MODULE $
MODULE :   ADD161/// $
INPUTS   :
     CL,SELS,NMR,ST0,ST1A,ST2,ST3,ST4,ST5,ST6,ST7,ST8,ST9,ST10,ST11
    ,ST12,ST13,ST14,ST15,ADJ,OFF0,OFF1,OFF2,OFF3,OFF4,OFF5,OFF6,OFF7
    ,SSS
$
OUTPUTS  :
     S0,S1,S2,S3,S4,S5,S6,S7,S8,S9,S10,S11,S12,S13,S14,S15,Q0,NQ0
    ,Q1,NQ1,Q2,NQ2,Q3,NQ3,Q4,NQ4,Q5,NQ5,Q6,NQ6,Q7,NQ7,Q8,NQ8,Q9,NQ9
    ,Q10,NQ10,Q11,NQ11,Q12,NQ12,Q13,NQ13,Q14,NQ14,Q15,NQ15
$
DESCRIPTION : MODULE FOR ADD161 $
```

```
LEVEL  : FUNCTION $
USE   :
     ADD4M1 ///
    ,ADD1M1 ///
    ,CAY2 ///
    ,CAY1 ///

$
DEFINE :
     RB26( C1,S3,S2,S1,S0,NQ3,Q3
        ,NQ2,Q2,NQ1,Q1,NQ0,Q0 ) = ADD4M1 (  OFF2
        ,ST3,OFF1,ST2,OFF0,ST1A,ADJ,ST0
        ,SSS,SELS,CL,NMR ) $
     RB27( C2,S7,S6,S5,S4,NQ7,Q7
        ,NQ6,Q6,NQ5,Q5,NQ4,Q4 ) = ADD4M1 (  OFF6
        ,ST7,OFF5,ST6,OFF4,ST5,OFF3,ST4
        ,C1,SELS,CL,NMR ) $
     RB24( C3,S8,Q8,NQ8 ) = ADD1M1 (  OFF7,ST8,C2
        ,SELS,CL,NMR ) $
     CAY23( S9,S10,Q9,NQ9,Q10,NQ10,C4
         ) = CAY2 (  SELS,CL,NMR,C3,ST9,ST10 ) $
     CAY24( S11,S12,Q11,NQ11,Q12,NQ12,C5
         ) = CAY2 (  SELS,CL,NMR,C4,ST11,ST12 ) $
     CAY25( S13,S14,Q13,NQ13,Q14,NQ14,C6
         ) = CAY2 (  SELS,CL,NMR,C5,ST13,ST14 ) $
     CAY16( S15,Q15,NQ15 ) = CAY1 (  SELS,CL,NMR,C6
        ,ST15 ) $
END : MODULE $
MODULE :   TEST5/// $
INPUTS   :
     NT77,D3G3O,NT82,R3D77FQ2,R3D77FQ3,R3D77FQ4,NT80,R3D77FQ5,NT81

$
OUTPUTS  :
     TESTFZ,TEST4Z,TEST0Z,TESTBZ,TESTAZ,TESTEZ,TESTCZ,TEST2Z,TEST1Z
    ,TEST3Z
$
DESCRIPTION : MODULE FOR TEST5 $
LEVEL  : FUNCTION $
USE   :
     NR2 /// MASTER
    ,ND2 /// MASTER
    ,D24L /// MASTER
    ,OR3 /// MASTER

$
DEFINE :
     TEST0( TEST0Z ) = NR2 (  D3D4NO0,D3C10O1 ) $
     TEST1( TEST1Z ) = NR2 (  D3C10O1,D3D4NO1 ) $
     TEST2( TEST2Z ) = NR2 (  D3C10O1,D3D4NO2 ) $
     TEST3( TEST3Z ) = NR2 (  D3C10O1,D3D4NO3 ) $
     TEST4( TEST4Z ) = NR2 (  D3E9O1,D3D4NO0 ) $
     TESTA( TESTAZ ) = NR2 (  D3C5O1,D3D4NO2 ) $
     TESTB( TESTBZ ) = NR2 (  D3C5O1,D3D4NO3 ) $
     TESTC( TESTCZ ) = NR2 (  D3E4O1,D3D4NO0 ) $
     TESTE( TESTEZ ) = NR2 (  D3E4O1,D3D4NO2 ) $
     TESTF( TESTFZ ) = NR2 (  D3E4O1,D3D4NO3 ) $
     D3C10( D3C10O1 ) = ND2 (  NT80,D3F3O1 ) $
     D3C5( D3C5O1 ) = ND2 (  NT80,D3F4O1 ) $
     D3D4( D3D4NO0,D3D4NO1,D3D4NO2,D3D4NO3 ) = D24L (  R3D77FQ2
        ,R3D77FQ3 ) $
     TESTEN( D1G3O1 ) = OR3 (  D3G3O,NT82,NT77 ) $
```

```
     D3E9( D3E9O1 ) = ND2 (  R3D77FQ4,D3F3O1 ) $
     D3E4( D3E4O1 ) = ND2 (  D3F4O1,R3D77FQ4 ) $
     D3F4( D3F4O1 ) = NR2 (  NT81,D1G3O1 ) $
     D3F3( D3F3O1 ) = NR2 (  D1G3O1,R3D77FQ5 ) $
END : MODULE $
MODULE :   TESTREG/// $
INPUTS   :
     NMR,CL,D0,D1,D2,D3,D4,D5,D6,D7,IMCLK
$
OUTPUTS  :
     Q0,NQ0,Q1,NQ1,Q2,NQ2,Q3,NQ3,Q4,NQ4,Q5,NQ5,Q6,NQ6,Q7,NQ7,NQP6

$
DESCRIPTION : MODULE FOR TESTREG $
LEVEL  : FUNCTION $
USE   :
     LD4 /// MASTER
    ,LD2 /// MASTER
    ,FD2 /// MASTER

$
DEFINE :
     BIT1( Q0,NQ0 ) = LD4 (  D0,CL,NMR ) $
     BIT2( Q1,NQ1 ) = LD4 (  D1,CL,NMR ) $
     BIT3( Q2,NQ2 ) = LD2 (  D2,CL ) $
     BIT4( Q3,NQ3 ) = LD2 (  D3,CL ) $
     BIT5( Q4,NQ4 ) = LD2 (  D4,CL ) $
     BIT6( Q5,NQ5 ) = LD2 (  D5,CL ) $
     BIT7( Q6,NQ6 ) = FD2 (  D6,CL,NMR ) $
     BIT8( Q7,NQ7 ) = LD4 (  D7,CL,NMR ) $
     BIT7D( QP6,NQP6 ) = FD2 (  Q6,IMCLK,NMR ) $
END : MODULE $
MODULE :   SYNCOUT/// $
INPUTS   :
     VSYNC,HSYNCPNL,PLASMA,CRT,NCHRCLK
$
OUTPUTS  :
     VSYNCOUT,HSYNCOUT
$
DESCRIPTION : MODULE FOR SYNCOUT $
LEVEL  : FUNCTION $
USE   :
     YFD1 /// MASTER
    ,IV /// MASTER
    ,MUX21L /// MASTER
    ,MUX21HP /// MASTER

$
DEFINE :
     RB444( VSYNCD, ) = YFD1 (  VSYNC,NCHRCLK ) $
     RB398( UN009, ) = YFD1 (  VSYNCD,HSYNCPNL ) $
     RB399( UN001, ) = YFD1 (  UN003,UN007 ) $
     RB400( ,UN008 ) = YFD1 (  UN001,UN007 ) $
     RB401( ,UN000 ) = YFD1 (  UN009,UN002 ) $
     RB402( UN010 ) = IV (  HSYNCPNL ) $
     RB403( UN005 ) = MUX21L (  UN008,UN000,PLASMA ) $
     RB404( VSYNCOUT ) = MUX21HP (  UN005,VSYNC,CRT ) $
     RB405( UN006, ) = YFD1 (  HSYNCPNL,NCHRCLK ) $
     RB406( UN004, ) = YFD1 (  UN006,NCHRCLK ) $
     RB407( UN007,UN002 ) = YFD1 (  UN004,NCHRCLK ) $
     RB408( HSYNCOUT ) = MUX21L (  UN002,UN010,CRT ) $
     RB409( UN003, ) = YFD1 (  UN009,UN007 ) $
```

```
END : MODULE $
MODULE :   RASREF/// $
INPUTS   :
     RASERNIE,DOTCLKSL,SLEEPON,NRESET,REFINT0,REFINT1,REFINT2,REFINT3
    ,REFINT4,REFINT5,REFINT6,REFINT7,C3D501
$
OUTPUTS  :
     RASGEN,REFINCSL,REFINC
$
DESCRIPTION : MODULE FOR RASREF $
LEVEL  : FUNCTION $
USE   :
     EQUL8 ///
    ,TCNT2 ///
    ,TCNT8 ///
    ,AN3 /// MASTER
    ,FD2 /// MASTER
    ,MUX21HP /// MASTER
    ,AO6 /// MASTER
    ,YFD1 /// MASTER

$
DEFINE :
     U2( UN001 ) = EQUL8 (  U1Q0,U1Q1,U1Q2,U1Q3,U1Q4,U1Q5
        ,U1Q6,U1Q7,REFINT0,REFINT1,REFINT2,REFINT3,REFINT4
        ,REFINT5,REFINT6,REFINT7 ) $
     U0( ,,U0Q1, ) = TCNT2 (  DOTCLKSL,NRESET ) $
     U1( U1Q0,,U1Q1,,U1Q2,,U1Q3
        ,,U1Q4,,U1Q5,,U1Q6,
        ,U1Q7, ) = TCNT8 (  U3Z,U0Q1 ) $
     RB398( U3Z ) = AN3 (  UN004,NRESET,SLEEPON ) $
     RB399( UN004, ) = FD2 (  UN000,U0Q1,NRESET ) $
     U5( RASGEN ) = MUX21HP (  RASERNIE,UN004,SLEEPON ) $
     RB400( REFINC ) = MUX21HP (  C3D501,UN004,SLEEPON ) $
     RB401( UN000 ) = AO6 (  UN002,UN003,UN001 ) $
     RB402( ,UN003 ) = YFD1 (  UN002,U0Q1 ) $
     RB403( UN002, ) = YFD1 (  SLEEPON,U0Q1 ) $
     RB404( REFINCSL, ) = YFD1 (  UN004,DOTCLKSL ) $
END : MODULE $
MODULE :   HVC2/// $
INPUTS   :
     VC0,VC1,VC2,VC3,VC4,VC5,VC6,VC7,VC8,VC9,VDSA0,VDSA1,VDSA2,VDSA3
    ,VDSA4,VDSA5,VDSA6,VDSA7,VDSA8,VDSA9,VDSB0,VDSB1,VDSB2,VDSB3,VDSB4
    ,VDSB5,VDSB6,VDSB7,VDSB8,VDSB9,VDEA0,VDEA1,VDEA2,VDEA3,VDEA4,VDEA5
    ,VDEA6,VDEA7,VDEA8,VDEA9,VDEB0,VDEB1,VDEB2,VDEB3,VDEB4,VDEB5,VDEB6
    ,VDEB7,VDEB8,VDEB9,HSYNC,SL350,DSPTD2,SL480,VSYNC
$
OUTPUTS  :
     VPU,VPL
$
DESCRIPTION : MODULE FOR HVC2 $
LEVEL  : FUNCTION $
USE   :
     SEL1020 ///
    ,EQUL10 ///
    ,FJK2 /// MASTER
    ,IV /// MASTER
    ,NR3 /// MASTER

$
DEFINE :
     RB398( UN,UN001,UN002,UN003,UN004,UN005,UN006
```

```
        ,UN007,UN008,UN009 ) = SEL1020 (  VDSA0,VDSA1,VDSA2,VDSA3
        ,VDSA4,VDSA5,VDSA6,VDSA7,VDSA8,VDSA9,VDSB0
        ,VDSB1,VDSB2,VDSB3,VDSB4,VDSB5,VDSB6,VDSB7
        ,VDSB8,VDSB9,SL350 ) $
     RB399( UN019,UN018,UN017,UN016,UN015,UN014,UN013
        ,UN012,UN011,UN010 ) = SEL1020 (  VDEA0,VDEA1,VDEA2,VDEA3
        ,VDEA4,VDEA5,VDEA6,VDEA7,VDEA8,VDEA9,VDEB0
        ,VDEB1,VDEB2,VDEB3,VDEB4,VDEB5,VDEB6,VDEB7
        ,VDEB8,VDEB9,SL350 ) $
     RB400( UN021 ) = EQUL10 (  VC9,VC8,VC7,VC6,VC5,VC4
        ,VC3,VC2,VC1,VC0,UN009,UN008,UN007
        ,UN006,UN005,UN004,UN003,UN002,UN001,UN
         ) $
     RB401( UN023 ) = EQUL10 (  UN010,UN011,UN012,UN013,UN014,UN015
        ,UN016,UN017,UN018,UN019,VC9,VC8,VC7
        ,VC6,VC5,VC4,VC3,VC2,VC1,VC0
         ) $
     RB402( VPUI, ) = FJK2 (  UN021,UN023,HSYNC,NMR ) $
     RB403( ,VPLI ) = FJK2 (  UN023,UN021,UN024,NMR ) $
     RB404( UN024 ) = IV (  HSYNC ) $
     RB228( VPL ) = NR3 (  VPLI,DSPTD2,SL480 ) $
     RB227( VPU ) = NR3 (  VPUI,DSPTD2,SL480 ) $
     RB76( NMR ) = IV (  VSYNC ) $
END : MODULE $
MODULE :   HVC1/// $
INPUTS   :
     CLLCLOWL,DSPTD2,LCRCL,CR09D3,SL350,HC0,HC1,HC2,HC3,HC4,HC5,HC6
    ,HC7,T400B0,T400B1,T400B2,T400B3,T400B4,TA350B0,TA350B1,TA350B2
    ,TA350B3,TA350B4,TB350B0,TB350B1,TB350B2,TB350B3,TB350B4,G400B0
    ,G400B1,G400B2,G400B3,G400B4,G400B5,G400B6,G350B0,G350B1,G350B2
    ,G350B3,G350B4,G350B5,G350B6,HPDS0,HPDS1,HPDS2,HPDS3,HPDS4,HPDS5
    ,HPDS6,HPDS7,HPDE0,HPDE1,HPDE2,HPDE3,HPDE4,HPDE5,HPDE6,HPDE7,VDSPLYE
    ,GRAPHICS,HSYNC,DADTSEL,DUALPLD,VPU,VPL,VDE,NRESET,MASKH,MASKL
    ,CLLCLOW,CCC,DCK2PNL,SL480N,B4B10O1,CHRCLK,AHCRN,SSS
$
OUTPUTS  :
     NKILL1I,NKILL1,STRCHM,STRCHP,EQHDES,EQHDEE,STRCHML,STRCHPL,NKILLLOW
    ,VPDISP0,SL480
$
DESCRIPTION : MODULE FOR HVC1 $
LEVEL  : FUNCTION $
USE   :
     MUX21HP /// MASTER
    ,IV /// MASTER
    ,SEL510 ///
    ,SEL714 ///
    ,SEL48 ///
    ,YFD1 /// MASTER
    ,TCNT4 ///
    ,HADD4 ///
    ,EQUL4N ///
    ,YFD4 /// MASTER
    ,AO6 /// MASTER
    ,AO1 /// MASTER
    ,NR3 /// MASTER
    ,NR4 /// MASTER
    ,FT2 /// MASTER
    ,ND3 /// MASTER
    ,LDCLCNT4 ///
    ,EQUL8P ///
    ,FJK2 /// MASTER
    ,FJK2S /// MASTER
```

```
    ,YFD2 /// MASTER
    ,AO1P /// MASTER
    ,ND4 /// MASTER
    ,SEL816 ///
    ,LDCLCNT7 ///
    ,MUX21L /// MASTER
    ,ND2 /// MASTER
    ,AN2 /// MASTER
    ,IVP /// MASTER

$
DEFINE :
     TCOMP3( CLTXC ) = MUX21HP (  CLLCLOW,CLLCLOWL,M10Z ) $
     RB130( DSPTD2N ) = IV (  DSPTD2 ) $
     U1( T350B0,T350B1,T350B2,T350B3,T350B4 ) = SEL510 (  TB350B0
        ,TB350B1
        ,TB350B2,TB350B3,TB350B4,TA350B0,TA350B1,TA350B2,TA350B3
        ,TA350B4,CR09D3 ) $
     U2( U2Y0,U2Y1,U2Y2,U2Y3,U2Y4 ) = SEL510 (  T400B0,T400B1
        ,T400B2,T400B3,T400B4,T350B0,T350B1,T350B2,T350B3
        ,T350B4,SL350 ) $
     U3( U3Y0,U3Y1,U3Y2,U3Y3,STRI,DEL,COM
         ) = SEL714 (  G400B0,G400B1,G400B2,G400B3,G400B4,G400B5,G350B0
        ,G350B1,G350B2,G350B3,G350B4,G350B5,G400B6,G350B6
        ,SL350 ) $
     U5( U5Y0,U5Y1,U5Y2,U5Y3 ) = SEL48 (  U2Y0,U2Y1,U2Y2
        ,U2Y3,U3Y0,U3Y1,U3Y2,U3Y3,M11Z ) $
     RB40( ,A14QN ) = YFD1 (  DUALPLD,A41Z ) $
     U4( U4Q0,,U4Q1,,U4Q2,,U4Q3
        , ) = TCNT4 (  HSYNC,A21Z ) $
     U8( U8S0,U8S1,U8S2,U8S3, ) = HADD4 (  U5Y0,U5Y1
        ,U5Y2,U5Y3,A45Z ) $
     U9( U9EQN ) = EQUL4N (  A44Y1,A44Y2,A44Y3,U8S0,U8S1,U8S2
        ,U8S3,A44Y0 ) $
     U14( U14Q,U14QN ) = YFD4 (  U9EQN,HSYNC,VDSPLYEH ) $
     A47( A47Z ) = IV (  U9EQN ) $
     A22( NKILL1I ) = AO6 (  M10Z,U15Q,VPU ) $
     A21( A21Z ) = AO1 (  M10Z,U15QN,A42QN,U14QN ) $
     A30( STRCHML ) = NR3 (  A46QN,U18Z,STR ) $
     M10( M10Z ) = NR4 (  U2Y4,GRAPHICS,SL480,DSPTD2 ) $
     A31( STRCHPL ) = NR3 (  A46QN,DEL,STR ) $
     U13( U13Q, ) = FT2 (  U16Z,VDSPLYEH ) $
     U16( U16ZI ) = ND3 (  U14QN,COM,M11Z ) $
     A23( NKILLLOW ) = AO6 (  M10Z,A48Q,VPL ) $
     A43( A43Q0,A43Q1,A43Q2,A43Q3 ) = LDCLCNT4 (  U4Q0,U4Q1,U4Q2
        ,U4Q3,DUALPLD,A54Z,A24Z ) $
     U18( U18Z ) = IV (  DEL ) $
     U6( EQHDES ) = EQUL8P (  HPDS0,ZHC0,HPDS1,ZHC1,HPDS2,ZHC2
        ,HPDS3,ZHC3,HPDS4,ZHC4,HPDS5,ZHC5,HPDS6
        ,ZHC6,HPDS7,ZHC7,DCK2PNL ) $
     U7( EQHDEE ) = EQUL8P (  HC0,HPDE0,HC1,HPDE1,HC2,HPDE2
        ,HC3,HPDE3,HC4,HPDE4,HC5,HPDE5,HC6
        ,HPDE6,HC7,HPDE7,DCK2PNL ) $
     A44( A44Y0,A44Y1,A44Y2,A44Y3 ) = SEL48 (  U4Q0,U4Q1,U4Q2
        ,U4Q3,A43Q0,A43Q1,A43Q2,A43Q3,HSYNC ) $
     U15( U15Q,U15QN ) = FJK2 (  LM,A47Z,HSYNC,VDSPLYEH ) $
     A41( A41Z ) = IV (  HSYNC ) $
     A58( A58Q, ) = FJK2S (  CCC,CCC,A13Z,NRESET,U13Q
        ,DUALPLD ) $
     A45( A45Z ) = MUX21HP (  U13Q,A58Q,HSYNC ) $
     A46( A46Q,A46QN ) = YFD2 (  A47Z,A54Z,VDE ) $
     A48( A48Q,A48QN ) = FJK2S (  CM,A47Z,A54Z,NRESET,U15Q
```

```
        ,DUALPLD ) $
     A24( A24Z ) = AO1P (  M10Z,A48QN,RESET,A46Q ) $
     Z10( STR ) = ND4 (  STRI,M11Z,SL480N,DSPTD2N ) $
     A32( STRCHM ) = NR3 (  U14Q,U18Z,STR ) $
     A33( STRCHP ) = NR3 (  U14Q,DEL,STR ) $
     RB90( ZHC0,ZHC1,ZHC2,ZHC3,ZHC4,ZHC5,ZHC6
        ,ZHC7 ) = SEL816 (  HC0,HC1,HC2,HC3,HC4,HC5
        ,HC6,HC7,SSS,AHC1,AHC2,AHC3,AHC4
        ,AHC5,AHC6,AHC7,DCK2PNL ) $
     RB89( AHC1,AHC2,AHC3,AHC4,AHC5,AHC6,AHC7
         ) = LDCLCNT7 (  HC1,HC2,HC3,HC4,HC5,HC6,HC7
        ,B4B10O1,CHRCLK,AHCR ) $
     A55( VDEHL, ) = YFD2 (  VDE,A41Z,NRESET ) $
     A52( VPDISP0 ) = MUX21L (  NKILL1I,NKILLLOW,DADTSEL ) $
     RB38( A12Z ) = ND3 (  COM,M11Z,A46Q ) $
     A42( VDSPLYEH,A42QN ) = YFD1 (  VDSPLYE,A41Z ) $
     RB39( A13Z ) = ND2 (  A12Z,A14QN ) $
     A54( A54Z ) = ND2 (  HSYNC,VDEHL ) $
     A53( RESET ) = IV (  NRESET ) $
     A49( U16Z ) = ND2 (  VDSPLYEH,U16ZI ) $
     A40( LM ) = AN2 (  MASKH,LCRCL ) $
     A57( CM ) = AN2 (  MASKL,CLTXC ) $
     A51( NKILL1, ) = YFD1 (  NKILL1I,HSYNC ) $
     A56( SL480 ) = IV (  SL480N ) $
     M11( M11Z ) = IVP (  M10Z ) $
     RB226( AHCR ) = AN2 (  AHCRN,NRESET ) $
END : MODULE $
MODULE :   FLAGB/// $
INPUTS   :
     CR09D7,SR01D0,COMPTIEN,PD640,PD720,PL200,PL350,PL400,PL480,CR01D5
    ,SR01D3,GRAPHICS,SL200N,CR07D1,CR12D7,CR12D6
$
OUTPUTS  :
     NT128,N89BERT,SDOUBLIN,DCK2DIV,SL480N
$
DESCRIPTION : MODULE FOR FLAGB $
LEVEL  : FUNCTION $
USE   :
     AO6 /// MASTER
    ,NR3 /// MASTER
    ,NR2 /// MASTER
    ,IV /// MASTER
    ,OR2 /// MASTER
    ,ND4 /// MASTER

$
DEFINE :
     RB398( U4Z ) = AO6 (  COMPTIEN,PD640,SR01D0 ) $
     RB399( U1Z ) = NR3 (  UN004,GRAPHICS,UN000 ) $
     RB400( U5Z ) = NR3 (  UN002,UN000,SL200N ) $
     RB401( UN001 ) = AO6 (  COMPTIEN,CR01D5,SR01D3 ) $
     RB402( NT128 ) = NR2 (  U4Z,U1Z ) $
     RB403( UN002 ) = NR3 (  PL350,PL400,PL480 ) $
     DBL1( SDBLN ) = IV (  CR09D7 ) $
     DBL2( SDBL ) = NR2 (  SDBLN,PL200 ) $
     U7( SDOUBLIN ) = OR2 (  SDBL,U5Z ) $
     RB404( DCK2DIV ) = IV (  UN001 ) $
     RB405( UN004 ) = IV (  PD720 ) $
     RB406( N89BERT ) = IV (  NT128 ) $
     RB407( UN000 ) = IV (  COMPTIEN ) $
     RB408( SL480N ) = ND4 (  COMPTIEN,CR07D1,CR12D7,CR12D6 ) $
END : MODULE $
```

```
MODULE :   DPC/// $
INPUTS   :
     NRESET,ELC4,ELC3,ELC2,ELC1,ELC0,LOWVCINC,EVCLD,EVC9,EVC8,EVC7
    ,EVC6,EVC5,EVC4,EVC3,EVC2,EVC1,EVC0,LOWADEN,DADINC,DADLD,SADCLN
    ,SADLDN,OFST7,OFST6,OFST5,OFST4,OFST3,OFST2,OFST1,OFST0,OFSTADJ
    ,LADCLK,LAD15,LAD14,LAD13,LAD12,LAD11,LAD10,LAD9,LAD8,LAD7,LAD6
    ,LAD5,LAD4,LAD3,LAD2,LAD1,LAD0,EDAD15,EDAD14,EDAD13,EDAD12,EDAD11
    ,EDAD10,EDAD9,EDAD8,EDAD7,EDAD6,EDAD5,EDAD4,EDAD3,EDAD2,EDAD1
    ,EDAD0,MAXSL0,MAXSL1,MAXSL2,MAXSL3,MAXSL4,ELCLD,LOWLCINC,DOTCLK
    ,HSYNC,PAGE2,NMR,C3C8Q,LCOMP,NCHRCLK,FIX1Z,ROWCHNG,CSRSTART,CCC
    ,CURDSPIN,C5D6O1,ROWMSK,VDEL,C4F1Q,C3F17Q,C4G13O1,VPU,VCNTRSET
    ,CHRCLK,DUALPNL,DSPTD2
$
OUTPUTS  :
     CLLCLOW,FB7QN,PDAD0,PDAD1,PDAD2,PDAD3,PDAD4,PDAD5,PDAD6,PDAD7
    ,PDAD8,PDAD9,PDAD10,PDAD11,PDAD12,PDAD13,PDAD14,PDAD15,PVC0,PVC1
    ,PVC2,PVC3,PVC4,PVC5,PVC6,PVC7,PVC8,PVC9,PLC0,PLC1,PLC2,PLC3,PLC4
    ,PDAD14P,CLLCLOWL,CURDSP,ULINE,CVC0,CVC1,CVC2,CVC3,CVC4,CVC5,CVC6
    ,CVC7,CVC8,CVC9
$
DESCRIPTION : MODULE FOR DPC $
LEVEL  : FUNCTION $
USE   :
     YFD1 /// MASTER
    ,B5IP /// MASTER
    ,DFF16 ///
    ,DADADD16 ///
    ,SEL1632 ///
    ,DFFCL16A ///
    ,LDCNT16 ///
    ,LDCLCNTA ///
    ,SEL1020 ///
    ,ND2 /// MASTER
    ,NR2 /// MASTER
    ,LDCLCNT5 ///
    ,SEL510 ///
    ,EQUL5 ///
    ,YFD2 /// MASTER
    ,AN3 /// MASTER
    ,NR2P /// MASTER
    ,OR2 /// MASTER
    ,IV /// MASTER
    ,FD1P /// MASTER
    ,AO7P /// MASTER
    ,FD2S /// MASTER
    ,FJK2S /// MASTER
    ,MUX21HP /// MASTER
    ,MUX21L /// MASTER
    ,NR4P /// MASTER
    ,AO6 /// MASTER
    ,ND3 /// MASTER
    ,ALTCNTA ///

$
DEFINE :
     RB556( INC1P2D, ) = YFD1 (  INC1PD,DOTCLK ) $
     RB380( ADDCLOW ) = B5IP (  ADDCLOWI ) $
     ULMOD1( UULCLK,LULCLK ) = YFD1 (  A20Z,CHRCLK ) $
     RB36( A10Q0,A10Q1,A10Q2,A10Q3,A10Q4,A10Q5,A10Q6
        ,A10Q7,A10Q8,A10Q9,A10Q10,A10Q11,A10Q12,A10Q13
        ,A10Q14,A10Q15 ) = DFF16 (  LAD0,LAD1,LAD2,LAD3,LAD4
        ,LAD5,LAD6,LAD7,LAD8,LAD9,LAD10,LAD11
```

```
   ,LAD12,LAD13,LAD14,LAD15,LADCLK ) $
RB37( A11Q0,A11Q1,A11Q2,A11Q3,A11Q4,A11Q5,A11Q6
   ,A11Q7,A11Q8,A11Q9,A11Q10,A11Q11,A11Q12,A11Q13
   ,A11Q14,A11Q15 ) = DADADD16 (  IDAD0,IDAD1,IDAD2,IDAD3,IDAD4
   ,IDAD5,IDAD6,IDAD7,IDAD8,IDAD9,IDAD10,IDAD11
   ,IDAD12,IDAD13,IDAD14,IDAD15,OFSTADJ,OFST0,OFST1
   ,OFST2,OFST3,OFST4,OFST5,OFST6,OFST7 ) $
RB38( A12Y15,A12Y14,A12Y13,A12Y12,A12Y11,A12Y10,A12Y9
   ,A12Y8,A12Y7,A12Y6,A12Y5,A12Y4,A12Y3,A12Y2
   ,A12Y1,A12Y0 ) = SEL1632 (  A10Q0,A10Q1,A10Q2,A10Q3,A10Q4
   ,A10Q5,A10Q6,A10Q7,A10Q8,A10Q9,A10Q10,A10Q11
   ,A10Q12,A10Q13,A10Q14,A10Q15,A11Q0,A11Q1,A11Q2
   ,A11Q3,A11Q4,A11Q5,A11Q6,A11Q7,A11Q8,A11Q9
   ,A11Q10,A11Q11,A11Q12,A11Q13,A11Q14,A11Q15,SADLDN
    ) $
RB39( IDAD0,IDAD1,IDAD2,IDAD3,IDAD4,IDAD5,IDAD6
   ,IDAD7,IDAD8,IDAD9,IDAD10,IDAD11,IDAD12,IDAD13
   ,IDAD14,IDAD15 ) = DFFCL16A (  A12Y0,A12Y1,A12Y2,A12Y3,A12Y4
   ,A12Y5,A12Y6,A12Y7,A12Y8,A12Y9,A12Y10,A12Y11
   ,A12Y12,A12Y13,A12Y14,A12Y15,ADDCLOW,SADCLN ) $
RB40( IIDAD0,IIDAD1,IIDAD2,IIDAD3,IIDAD4,IIDAD5,IIDAD6
   ,IIDAD7,IIDAD8,IIDAD9,IIDAD10,IIDAD11,IIDAD12,IIDAD13
   ,IIDAD14,IIDAD15 ) = LDCNT16 (  IDAD0,IDAD1,IDAD2,IDAD3,IDAD4
   ,IDAD5,IDAD6,IDAD7,IDAD8,IDAD9,IDAD10,IDAD11
   ,IDAD12,IDAD13,IDAD14,IDAD15,A16Q,A17Z ) $
A32( IVC0,IVC1,IVC2,IVC3,IVC4,IVC5,IVC6
   ,IVC7,IVC8,IVC9,, ) = LDCLCNTA (  EVC0,EVC1
   ,EVC2,EVC3,EVC4,EVC5,EVC6,EVC7,EVC8
   ,EVC9,EVCLD,LOWVCINC,NMR ) $
A22( PVC0,PVC1,PVC2,PVC3,PVC4,PVC5,PVC6
   ,PVC7,PVC8,PVC9 ) = SEL1020 (  EVC0,EVC1,EVC2,EVC3
   ,EVC4,EVC5,EVC6,EVC7,EVC8,EVC9,IVC0
   ,IVC1,IVC2,IVC3,IVC4,IVC5,IVC6,IVC7
   ,IVC8,IVC9,A23Q ) $
RB41( PDAD15,PDAD14P,PDAD13,PDAD12,PDAD11,PDAD10,PDAD9
   ,PDAD8,PDAD7,PDAD6,PDAD5,PDAD4,PDAD3,PDAD2
   ,PDAD1,PDAD0 ) = SEL1632 (  EDAD0,EDAD1,EDAD2,EDAD3,EDAD4
   ,EDAD5,EDAD6,EDAD7,EDAD8,EDAD9,EDAD10,EDAD11
   ,EDAD12,EDAD13,EDAD14,EDAD15,IIDAD0,IIDAD1,IIDAD2
   ,IIDAD3,IIDAD4,IIDAD5,IIDAD6,IIDAD7,IIDAD8,IIDAD9
   ,IIDAD10,IIDAD11,IIDAD12,IIDAD13,IIDAD14,IIDAD15,LOWADEN
    ) $
SS00( ,NT35 ) = YFD1 (  LOWLCINC,NCHRCLK ) $
SS0( ,INC1D ) = YFD1 (  NT35,CHRCLK ) $
SS1( INC1P ) = ND2 (  NT35,INC1D ) $
SS2( INC1PD, ) = YFD1 (  INC1P,DOTCLK ) $
SS3( A30Q ) = NR2 (  INC1P2D,ROWMSK ) $
A29( ILC0,ILC1,ILC2,ILC3,ILC4, ) = LDCLCNT5 (  ELC0
   ,ELC1,ELC2,ELC3,ELC4,ELCLD,A30Q,LOWCLM
    ) $
A28( PLC0,PLC1,PLC2,PLC3,PLC4 ) = SEL510 (  ELC0,ELC1
   ,ELC2,ELC3,ELC4,ILC0,ILC1,ILC2,ILC3
   ,ILC4,ROWSEL ) $
A26( CLLCLOW ) = EQUL5 (  MAXSL3,MAXSL2,MAXSL1,MAXSL0,MAXSL4,ILC0
   ,ILC1,ILC2,ILC3,ILC4 ) $
A27( CLLCLOWL, ) = YFD2 (  CLLCLOW,A30Q,FIX1Z ) $
A20( A20Z ) = NR2 (  A23QN,HSYNC ) $
A35( LOWCL ) = AN3 (  NMR,FB19Z,FB6Z ) $
A21( ADDCLOWI ) = NR2P (  C3C8Q,CLLCLOWL ) $
RB44( PDAD14 ) = OR2 (  PDAD14P,PAGE2 ) $
A23( A23Q,A23QN ) = YFD1 (  HSYNC,NCHRCLK ) $
A24( A24Q, ) = YFD2 (  LCOMP,A23QN,A25Z ) $
```

```
     A25( A25Z ) = IV (  HSYNC ) $
     RB42( A16Q,A16QN ) = FD1P (  DADLD,DOTCLK ) $
     RB43( A17Z ) = AO7P (  A16QN,DADLD,A19Z ) $
     A19( A19Z ) = IV (  DADINC ) $
     FB19( FB19Z ) = ND2 (  A24Q,FB18QN ) $
     FB18( ,FB18QN ) = YFD2 (  A24Q,CHRCLK,A25Z ) $
     A36( LOWCLM ) = OR2 (  LOWCL,ELCLD ) $
     FB7( FB7QN,PPP ) = YFD1 (  A23Q,NCHRCLK ) $
     FB8( FB8Q, ) = FD2S (  C4G13O1,FB25Z,FB24Z,C4F1Q,ELCLD
         ) $
     FB9( FB9Q, ) = YFD2 (  CCC,FB8Q,LOWCL ) $
     A40( FB10Z ) = NR2 (  A38Z,FB9Q ) $
     FB11( FB11Q, ) = FJK2S (  FB10Z,FB8Q,FB25Z,FB24Z,C3F17Q
        ,ELCLD ) $
     FB12( CURDSP ) = MUX21HP (  CURDSPIN,FB11Q,LOWADEN ) $
     FB13( ,FB13QN ) = YFD1 (  C5D6O1,UULCLK ) $
     FB15( ,FB15QN ) = YFD1 (  C5D6O1,LULCLK ) $
     A45( ULINE ) = MUX21L (  FB13QN,FB15QN,LOWADEN ) $
     FB6( FB6Z ) = ND2 (  A23Q,CLLCLOWL ) $
     A42( ROWSEL ) = NR4P (  A41Z,DUALPNLN,DSPTD2,A20Z ) $
     A41( A41Z ) = AO6 (  A23QN,FB7QN,ROWCHNG ) $
     FB21( DUALPNLN ) = IV (  DUALPNL ) $
     A90( A90QN, ) = YFD2 (  VPU,A25Z,NRESET ) $
     A39( FB25Z ) = ND3 (  FB7QN,VDEL,A34ZD ) $
     A37( FB24Z ) = OR2 (  LOWCL,ELCLD ) $
     A34( A34Z ) = IV (  ROWMSK ) $
     A48( AVC0,AVC1,AVC2,AVC3,AVC4,AVC5,AVC6
        ,AVC7,AVC8,AVC9 ) = ALTCNTA (  HSYNC,A46Z ) $
     A50( CVC0,CVC1,CVC2,CVC3,CVC4,CVC5,CVC6
        ,CVC7,CVC8,CVC9 ) = SEL1020 (  AVC0,AVC1,AVC2,AVC3
        ,AVC4,AVC5,AVC6,AVC7,AVC8,AVC9,BVC0
        ,BVC1,BVC2,BVC3,BVC4,BVC5,BVC6,BVC7
        ,BVC8,BVC9,A23Q ) $
     A49( BVC0,BVC1,BVC2,BVC3,BVC4,BVC5,BVC6
        ,BVC7,BVC8,BVC9,, ) = LDCLCNTA (  AVC0,AVC1
        ,AVC2,AVC3,AVC4,AVC5,AVC6,AVC7,AVC8
        ,AVC9,EVCLD,LOWVCINC,NMR ) $
     A46( A46Z ) = NR2P (  A47Z,A90QN ) $
     A38( A38Z ) = IV (  CSRSTART ) $
     A47( A47Z ) = IV (  VCNTRSET ) $
     PATCH0( A34ZQ, ) = YFD1 (  A34Z,PPP ) $
     PATCH1( A34ZD ) = OR2 (  A34ZQ,ELCLD ) $
END : MODULE $
MODULE :   DADC01/// $
INPUTS   :
     DOTCLK,VDE,DUALPNL,DOUBLE,UPDBL,STRCHML,HSYNC,NMR,SPLITEQ,STRCHPL
    ,ACCLA,NKILL1,NKILLLOW
$
OUTPUTS  :
     U4Z,DADTSEL,NDADTSEL,HSYNCPNL,DUALPLD,SADLDCLK,VCNTLOW,SADCLN
    ,UACCLA,LACCLA,HVCVDE,VDEL,MASKL,ROWMSK,VDELN
$
DESCRIPTION : MODULE FOR DADC01 $
LEVEL  : FUNCTION $
USE   :
     YFD1 /// MASTER
    ,AN2 /// MASTER
    ,B5IP /// MASTER
    ,AO1P /// MASTER
    ,IV /// MASTER
    ,IVP /// MASTER
    ,ND2 /// MASTER
```

```
    ,FT2 /// MASTER
    ,AO7P /// MASTER
    ,ND2P /// MASTER
    ,B4IP /// MASTER
    ,YFD2 /// MASTER
    ,FD2P /// MASTER
    ,FJK2S /// MASTER
    ,NR3 /// MASTER
    ,FD2 /// MASTER
    ,AO6 /// MASTER
    ,ND3 /// MASTER
    ,IVAP /// MASTER
    ,NR2P /// MASTER
    ,FD4 /// MASTER
    ,MUX21L /// MASTER

$
DEFINE :
     RB495( A10ZZ, ) = YFD1 (  A10Z,DOTCLK ) $
     RB494( AAB ) = AN2 (  U4Z,A14Q ) $
     RB379( SADLDCLK ) = B5IP (  SADLDCLI ) $
     RB486( A23Z ) = AO1P (  MASKLI,STRCHMLD,STRCHPL,KILLLOW ) $
     RB485( STRCHMLD ) = IV (  STRCHML ) $
     M13( UACCLA ) = IVP (  K51Z ) $
     M12( LACCLA ) = IVP (  K50Z ) $
     K51( K51Z ) = ND2 (  A25Q,ACCLA ) $
     K50( K50Z ) = ND2 (  A25QN,ACCLA ) $
     U1( U1Q,U1QN ) = FT2 (  A10Z,U1RES ) $
     M11( NDADTSEL ) = AO7P (  U1QN,HSYNCPNL,DUALPNL ) $
     U4( U4Z ) = AO7P (  SADLDCLK,U1Q,DUALPNL ) $
     M10( NHSPNL ) = ND2P (  U4Z,HSYNC ) $
     RB36( A10Z ) = IVP (  HSYNC ) $
     A27( DADTSEL ) = B4IP (  NDADTSEL ) $
     M15( M15Z ) = IV (  ACCLA ) $
     RB37( A11Q, ) = YFD2 (  VDE,HSYNC,NMR ) $
     RB39( SADCLN, ) = FD2P (  M21Z,NHSPNL,NMR ) $
     M40( NDUALPLD ) = ND2 (  A11Q,NVDE ) $
     RB40( A14Q, ) = YFD2 (  VDE,NHSPNL,NMR ) $
     RB38( ,SADLDCLI ) = FD2P (  DUALPLD,A10Z,NMR ) $
     RB44( VCNTLOW ) = ND2P (  HSYNCPNL,A14Q ) $
     RB42( MASKLI,MASKL ) = FJK2S (  M24Z,M24Z,VCNTLOWD,M31Z,UPDBLM
        ,DUALPLDD ) $
     M24( M24Z ) = NR3 (  STRCHPL,STRCHML,NDOUBLE ) $
     M25( NDOUBLE ) = IV (  DOUBLE ) $
     A26( HSYNCPNL ) = B4IP (  NHSPNL ) $
     RB41( VDEL,VDELN ) = FD2 (  VDE,HSYNCPNL,NMR ) $
     A20( DUALPLDD, ) = YFD1 (  DUALPLD,HSYNC ) $
     M43( HVCVDE ) = ND2 (  VDELN,NVDE ) $
     M42( U1RES ) = AO6 (  NVDE,VDELN,NNMR ) $
     M20( VCNTLOWD ) = AO7P (  AAB,SADLDCLK,HSYNC ) $
     M21( M21Z ) = ND3 (  SPLITEQ,VDE,VDEL ) $
     A29( DUALPLD ) = IVAP (  NDUALPLD ) $
     A24( ROWMSK ) = NR2P (  A23Z,DUALPLD ) $
     M31( M31Z ) = AO6 (  VDE,KILLLOW,NNMR ) $
     A25( A25Q,A25QN ) = FD4 (  NDADTSEL,M15Z,A10ZZ ) $
     M30( KILLLOW ) = MUX21L (  NKILLLOW,NKILLLOY,DOUBLE ) $
     A21( NKILLLOX, ) = FD4 (  NKILLLOW,NHSPNL,NMR ) $
     A22( NKILLLOY ) = AN2 (  NKILLLOW,NKILLLOX ) $
     M29( NNMR ) = IV (  NMR ) $
     M34( NVDE ) = IV (  VDE ) $
     A19( UPDBLM ) = ND2 (  UPDBL,NKILL1 ) $
END : MODULE $
```

```
MODULE :   CDAL01/// $
INPUTS   :
     FRC1,FRC0,CF4,CF3,B5,B4A,B3,B2,B1,B0,G5,G4,G3,G2,G1,G0,R5,R4
    ,R3,R2,R1,R0,XR51D7,SOFF,PLASMA,XR54D0,PRIMN3,PRIMN2,PRIMN1,PRIMN0
    ,PRIMM3,PRIMM2,PRIMM1,PRIMM0,CF2,CF1,CF0,PSKEW2,PSKEW1,PSKEW0
    ,ATTA5,MCP1,MCP0,AR10D6,PWM1,PWM0,CD1,CD0,VSYNC,NRESET,DEPANEL
    ,DOTCLK,C3A10Q,TXSHIFT,ATT30Q0N,VPDISP0,LC0,DCLK,SMN,N320DOT,SSS

$
OUTPUTS  :
     VDOUT0,VDOUT1,VDOUT2,VDOUT3,VDOUT4,VDOUT5,VDOUT6,VDOUT7,VDOUT8
    ,VDOUT9,VDOUT10,VDOUT11,VDOUT12,VDOUT13,VDOUT14,VDOUT15,SHFCLK
    ,BLANKP,BLNKPNL
$
DESCRIPTION : MODULE FOR CDAL01 $
LEVEL  : FUNCTION $
USE   :
     MUX21HP /// MASTER
    ,FRCCONT ///
    ,FPATGEN ///
    ,B4I /// MASTER
    ,LATCH8M ///
    ,DFF8 ///
    ,FD1P /// MASTER
    ,YMUX24HP /// MASTER
    ,YFD1 /// MASTER
    ,MUX21L /// MASTER
    ,ND5 /// MASTER
    ,ND2 /// MASTER
    ,IV /// MASTER
    ,NR3 /// MASTER
    ,AO2 /// MASTER
    ,SKEWCOMP ///
    ,SKEWCMPC ///
    ,NR2 /// MASTER
    ,DEC4M ///
    ,DFF16 ///
    ,SEL1632 ///
    ,DCL16SEL ///
    ,AN2 /// MASTER
    ,SEL816 ///
    ,AN3 /// MASTER
    ,MUX21H /// MASTER
    ,SEL416 ///
    ,SEL832 ///
    ,CAND24P ///
    ,FFD3P ///
    ,FFD4P ///
    ,FFDS4P ///
    ,YFD2 /// MASTER
    ,B4IP /// MASTER
    ,OR2 /// MASTER
    ,MUX21LP /// MASTER
    ,AN2P /// MASTER
    ,AO7 /// MASTER
    ,NR2P /// MASTER

$
DEFINE :
     RB602( VDOUT15 ) = MUX21HP (  VDOUT15I,SHFCLK2,N4B2SHF ) $
     BLUFRC( BPWM3,BPWM2,BPWM1,BPWM0,BFRC0 ) = FRCCONT (  CF4,AR10D6
        ,CF3,N3FRCPAT,NT127,NT126,FRC0,FRC1,PWM0
```

```
   ,PWM1,DITHER2,DITHER1,DITHER0,PT11110,PT11101,PT11100
   ,PT11011,PT11010,PT11001,PT11000,PT10110,PT10101,PT10100
   ,PT10011,PT10010,PT10001,PT10000,PTBB111A,PT01110,PT01101
   ,PT01100,PT01011,PT01010,PT01001,PT01000,PTAA111A,PT00110
   ,PT00101,PT00100,PT00011,PT00010,PT00001,PT00000,B5
   ,B4A,B3,B2,B1,B0,FRCLC0,FRCDC0
   ,DOTCLK,SSS ) $
GRNFRC( GPWM3,GPWM2,GPWM1,GPWM0,GFRC0 ) = FRCCONT (  CF4,AR10D6
   ,CF3,N3FRCPAT,NT127,NT126,FRC0,FRC1,PWM0
   ,PWM1,DITHER2,DITHER1,DITHER0,PT11110,PT11101,PT11100
   ,PT11011,PT11010,PT11001,PT11000,PT10110,PT10101,PT10100
   ,PT10011,PT10010,PT10001,PT10000,PTBB111A,PT01110,PT01101
   ,PT01100,PT01011,PT01010,PT01001,PT01000,PTAA111A,PT00110
   ,PT00101,PT00100,PT00011,PT00010,PT00001,PT00000,G5
   ,G4,G3,G2,G1,G0,FRCLC0,FRCDC0
   ,DOTCLK,SSS ) $
REDFRC( RPWM3,RPWM2,RPWM1,RPWM0,RFRC0 ) = FRCCONT (  CF4,AR10D6
   ,CF3,N3FRCPAT,NT127,NT126,FRC0,FRC1,PWM0
   ,PWM1,DITHER2,DITHER1,DITHER0,PT11110,PT11101,PT11100
   ,PT11011,PT11010,PT11001,PT11000,PT10110,PT10101,PT10100
   ,PT10011,PT10010,PT10001,PT10000,PTBB111A,PT01110,PT01101
   ,PT01100,PT01011,PT01010,PT01001,PT01000,PTAA111A,PT00110
   ,PT00101,PT00100,PT00011,PT00010,PT00001,PT00000,R5
   ,R4,R3,R2,R1,R0,FRCLC0,FRCDC0
   ,DOTCLK,SSS ) $
RB668( N3FRCPAT,NT127,NT126,PT11110,PT11101,PT11100,PT11011
   ,PT11010,PT11001,PT11000,PT10110,PT10101,PT10100,PT10011
   ,PT10010,PT10001,PT10000,PTBB111A,PT01110,PT01101,PT01100
   ,PT01011,PT01010,PT01001,PT01000,PTAA111A,PT00110,PT00101
   ,PT00100,PT00011,PT00010,PT00001,PT00000,FRCDC0,FRCLC0
   ,DITHER2,DITHER1,DITHER0 ) = FPATGEN (  FRC0,CF2,CF1,CF0
   ,PRIMN3,PRIMN2,PRIMN1,PRIMN0,PRIMM3,PRIMM2,PRIMM1
   ,PRIMM0,SSS,VSYNC,NRESET,LC0,CNTCLN,DOTCLK
    ) $
RB667( T3N ) = B4I (  T3 ) $
RB666( T2N ) = B4I (  T2 ) $
RB665( T1N ) = B4I (  T1 ) $
RB664( T0N ) = B4I (  T0 ) $
RB663( N42DDI0,N42DDI1,N42DDI2,N42DDI3,N42DDI4,N42DDI5,N42DDI6
   ,N42DDI7 ) = LATCH8M (  N42D0,N42D1,N42D2,N42D4,N42D5,N42D6
   ,N42D7,DOTCLK,N42D3 ) $
RB600( N42DD0,N42DD1,N42DD2,N42DD3,N42DD4,N42DD5,N42DD6
   ,N42DD7 ) = DFF8 (  N42DDI0,N42DDI1,N42DDI2,N42DDI3,N42DDI4
   ,N42DDI5
   ,N42DDI6,N42DDI7,SHFCLK2S ) $
RB599( SHFCLK2S, ) = FD1P (  T0,DOTCLK ) $
RB598( PD4I,PD5I,PD6I,PD7I ) = YMUX24HP (  N412D4,N414D4,N412D5
   ,N414D5,N412D6,N414D6,N412D7,N414D7,CD1 ) $
RB597( DEP7D, ) = YFD1 (  DEP6D,DOTCLK ) $
RB596( DEP6D, ) = YFD1 (  DEP5D,DOTCLK ) $
RB595( DEP5D, ) = YFD1 (  DEP4D,DOTCLK ) $
RB661( DEP4D, ) = YFD1 (  DEP3D,DOTCLK ) $
RB670( PDD8,PDD9,PDD10,PDD11,PDD12,PDD13,PDD14
   ,PDD15 ) = LATCH8M (  PD8,PD9,PD10,PD12,PD13,PD14
   ,PD15,DOTCLK,PD11 ) $
RB669( PDD0,PDD1,PDD2,PDD3,PDD4,PDD5,PDD6
   ,PDD7 ) = LATCH8M (  PD0,PD1,PD2,PD4,PD5,PD6
   ,PD7,DOTCLK,PD3 ) $
RB660( DEPANELC ) = MUX21L (  DEPANELB,DEPANELA,AR10D6 ) $
RB659( DEPANELB, ) = YFD1 (  DEPANELA,DOTCLK ) $
RB658( ,DEPANELA ) = YFD1 (  DEPANEL,DOTCLK ) $
RB657( GFRC9, ) = YFD1 (  GFRC8,DOTCLK ) $
```

```
RB656( CLKMASK2 ) = ND5 (  MCP0,CD1,T3N,T2N,T1 ) $
RB655( CLKMASK1 ) = ND5 (  MCP0,CD0,T2N,T1N,T0 ) $
RB654( CLKMASK3 ) = ND2 (  CLKMASK1,CLKMASK2 ) $
RB652( CLKMASK, ) = YFD1 (  CLKMASK3,NDOTCLK ) $
RB651( RESET ) = IV (  NRESET ) $
RB650( M34Z ) = NR3 (  CLKMASK,RESET,M98Z ) $
RB649( U43ZI ) = AO2 (  T0,CD0,T1,CD1 ) $
RB648( U43Z ) = IV (  U43ZI ) $
RB647( ,DEP1D ) = SKEWCOMP (  N320M13,DOTCLK,PSKEW2,PSKEW1,PSKEW0
   ,DEPANELC ) $
RB646( CNTCLN,DEP2D ) = SKEWCMPC (  DOTCLK,PSKEW2,PSKEW1
   ,PSKEW0,DEP1D
    ) $
RB645( DEP3D,DEP3DN ) = YFD1 (  DEP2D,DOTCLK ) $
RB644( DEP10D ) = MUX21L (  DEP2D,DEP7D,PWMN ) $
RB642( XU2,U2QN ) = YFD1 (  DEP12D,NDOTCLK ) $
RB641( DEP11D, ) = YFD1 (  DEP10D,DOTCLK ) $
RB640( ,DEP12D ) = YFD1 (  DEP11D,DOTCLK ) $
RB639( U2Q, ) = YFD1 (  DEP12D,DOTCLK ) $
RB638( BLNKPNL, ) = YFD1 (  U2Q,DOTCLK ) $
RB637( M23QI ) = NR2 (  DEP11D,DEP12D ) $
RB636( ,M23Q ) = YFD1 (  M23QI,NDOTCLK ) $
RB635( T0,T1,T2,T3,,,
   , ) = DEC4M (  M23Q,DOTCLK ) $
RB634( SHFCLK2, ) = YFD1 (  DSHFCLK,DOTCLK ) $
RB633( DSHFCLK, ) = YFD1 (  M31Q,DOTCLK ) $
RB629( DL0,DL1,DL2,DL3,DL4,DL5,DL6
   ,DL7,DL8,DL9,DL10,DL11,DL12,DL13
   ,DL14,DL15 ) = DFF16 (  PDD0,PDD1,PDD2,PDD3,PDD4
   ,PDD5,PDD6,PDD7,PDD8,PDD9,PDD10,PDD11
   ,PDD12,PDD13,PDD14,PDD15,SHFCLK ) $
RB628( PLASMAN ) = IV (  PLASMA ) $
RB627( SRNPRN ) = ND2 (  PLASMA,SOFF ) $
RB626( SRNCLN ) = ND2 (  PLASMAN,SOFF ) $
RB625( PDA15,PDA14,PDA13,PDA12,PDA11,PDA10,PDA9
   ,PDA8,PDA7,PDA6,PDA5,PDA4,PDA3,PDA2
   ,PDA1,PDA0 ) = SEL1632 (  PDD0,PDD1,PDD2,PDD3,PDD4
   ,PDD5,PDD6,PDD7,PDD8,PDD9,PDD10,PDD11
   ,PDD12,PDD13,PDD14,PDD15,DL0,DL1,DL2
   ,DL3,DL4,DL5,DL6,DL7,DL8,DL9
   ,DL10,DL11,DL12,DL13,DL14,DL15,XR54D0
    ) $
RB624( PDB0,PDB1,PDB2,PDB3,PDB4,PDB5,PDB6
   ,PDB7,VDOUT8,VDOUT9,VDOUT10,VDOUT11,VDOUT12,VDOUT13
   ,VDOUT14,VDOUT15I ) = DCL16SEL (  PDA0,PDA1,PDA2,PDA3,PDA4
   ,PDA5,PDA6,PDA7,PDA8,PDA9,PDA10,PDA11
   ,PDA12,PDA13,PDA14,PDA15,SHFCLK,SRNCLN,SRNPRN
   ,XR51D7 ) $
RB623( PDC0,PDC1,PDC2,PDC3,PDC4,PDC5,PDC6
   ,PDC7 ) = DFF8 (  N42DD0,N42DD1,N42DD2,N42DD3,N42DD4,N42DD5
   ,N42DD6,N42DD7,DOTCLK ) $
RB622( N4B2SHF ) = AN2 (  MCP1,MCP0 ) $
RB621( VDOUT0,VDOUT1,VDOUT2,VDOUT3,VDOUT4,VDOUT5,VDOUT6
   ,VDOUT7 ) = SEL816 (  PDB0,PDB1,PDB2,PDB3,PDB4,PDB5
   ,PDB6,PDB7,PDC0,PDC1,PDC2,PDC3,PDC4
   ,PDC5,PDC6,PDC7,N4B2SHF ) $
RB619( PWMN ) = NR2 (  PWM0,PWM1 ) $
RB618( SELC2 ) = AN3 (  MCP1N,MCP0,CD1 ) $
RB617( MCP1N ) = IV (  MCP1 ) $
RB616( SELC0 ) = MUX21H (  CD0,MCP0,PWMN ) $
RB615( PD4,PD5,PD6,PD7 ) = SEL416 (  RFRC5,GFRC5,BFRC5
   ,EFRC5,BFRC4,EFRC4,BFRC5,EFRC5,GFRC6,RFRC6
```

```
   ,BFRC5,GFRC5,PD4I,PD5I,PD6I,PD7I,SELC0
   ,PWMN ) $
RB614( PD8,PD9,PD10,PD11 ) = SEL416 (  RFRC3,GFRC3,BFRC3
   ,EFRC3,BFRC2,EFRC2,BFRC3,EFRC3,RFRC5,BFRC4
   ,GFRC4,RFRC4,N414D8,N414D9,N414D10,N414D11,SELC0
   ,PWMN ) $
RB613( PD0,PD1,PD2,PD3 ) = SEL416 (  RFRC7,GFRC7,BFRC7
   ,EFRC7,BFRC6,EFRC6,BFRC7,EFRC7,BFRC7,GFRC7
   ,RFRC7,BFRC6,PDZ0,PDZ1,PDZ2,PDZ3,SELC0
   ,PWMN ) $
RB611( N42D0,N42D1,N42D2,N42D3,N42D4,N42D5,N42D6
   ,N42D7 ) = SEL832 (  N42UD0,N42UD1,N42UD2,N42UD3,N42UD4,N42UD5
   ,N42UD6,N42UD7,BFRC5,GFRC4,RFRC3,BFRC3,GFRC2
   ,RFRC1,BFRC1,GFRC0,N42LD0,N42LD1,N42LD2,N42LD3
   ,N42LD4,N42LD5,N42LD6,N42LD7,RFRC6,BFRC6,GFRC5
   ,RFRC4,BFRC4,GFRC3,RFRC2,BFRC2,T3N,T1N
    ) $
RB610( PD12,PD13,PD14,PD15 ) = CAND24P (  N414D12,N414D13,N414D14
   ,N414D15,SELC2 ) $
RB609( N411D0,N411D1,N411D2,N411D3 ) = YMUX24HP (  N411DD0
   ,BFRC7,N411DD1
   ,RFRC6,N411DD2,GFRC6,N411DD3,BFRC6,T1N ) $
RB608( N414D15,N414D14,N414D13,N414D12,N414D11,N414D10,N414D9
   ,N414D8,N414D7,N414D6,N414D5,N414D4,N414D3,N414D2
   ,N414D1,N414D0 ) = SEL1632 (  N414DD0,N414DD1,N414DD2
   ,N414DD3,N414DD4
   ,N414DD5,N414DD6,N414DD7,N414DD8,N414DD9,N414DD10,N414DD11
   ,N414DD12,N414DD13,N414DD14,N414DD15,BFRC5,RFRC4,GFRC4
   ,BFRC4,RFRC3,GFRC3,BFRC3,RFRC2,GFRC2,BFRC2
   ,RFRC1,GFRC1,BFRC1,RFRC0,GFRC0,BFRC0,T3N
    ) $
RB606( N412D0,N412D1,N412D2,N412D3,N412D4,N412D5,N412D6
   ,N412D7 ) = SEL816 (  N412DD0,N412DD1,N412DD2,N412DD3
   ,N412DD4,N412DD5
   ,N412DD6,N412DD7,GFRC6,BFRC6,RFRC5,GFRC5,BFRC5
   ,RFRC4,GFRC4,BFRC4,T2N ) $
RB605( N412DD0,N412DD1,N412DD2,N412DD3,N412DD4,N412DD5,N412DD6
   ,N412DD7 ) = SEL816 (  RFRC7,GFRC7,BFRC7,RFRC6,GFRC6,BFRC6
   ,RFRC5,GFRC5,BFRC7,RFRC6,GFRC6,BFRC6,RFRC5
   ,GFRC5,BFRC5,RFRC4,T1N ) $
RB604( N42LD0,N42LD1,N42LD2,N42LD3,N42LD4,N42LD5,N42LD6
   ,N42LD7 ) = SEL816 (  GFRC9,RFRC8,BFRC8,GFRC7,RFRC6,BFRC6
   ,GFRC5,RFRC4,BFRC8,GFRC7,RFRC6,BFRC6,GFRC5
   ,RFRC4,BFRC4,GFRC3,T2N ) $
RB603( RFRC8,,GFRC8,,BFRC8, ) = FFD3P (  DOTCLK
   ,RFRC7,GFRC7,BFRC7 ) $
RB601( RFRC7,,GFRC7,,BFRC7,,EFRC7
   , ) = FFD4P (  DOTCLK,RFRC6,GFRC6,BFRC6,EFRC6 ) $
RB594( RFRC6,,GFRC6,,BFRC6,,EFRC6
   , ) = FFDS4P (  DOTCLK,BPWM0,BPWM1,BPWM2,BPWM3,PWMN
   ,RFRC5,GFRC5,BFRC5 ) $
RB653( RFRC5,,GFRC5,,BFRC5,,EFRC5
   , ) = FFD4P (  DOTCLK,RFRC4,GFRC4,BFRC4,EFRC4 ) $
RB643( RFRC4,,GFRC4,,BFRC4,,EFRC4
   , ) = FFDS4P (  DOTCLK,GPWM0,GPWM1,GPWM2,GPWM3,PWMN
   ,RFRC3,GFRC3,BFRC3 ) $
RB632( RFRC3,,GFRC3,,BFRC3,,EFRC3
   , ) = FFD4P (  DOTCLK,RFRC2,GFRC2,BFRC2,EFRC2 ) $
RB631( RFRC2,,GFRC2,,BFRC2,,EFRC2
   , ) = FFDS4P (  DOTCLK,RPWM0,RPWM1,RPWM2,RPWM3,PWMN
   ,RFRC1,GFRC1,BFRC1 ) $
RB630( N411DD0,N411DD1,N411DD2,N411DD3 ) = YMUX24HP (  RFRC7
```

```
       ,GFRC7,GFRC7
       ,BFRC7,BFRC7,RFRC6,RFRC6,GFRC6,T0N ) $
     RB620( N414DD15,N414DD14,N414DD13,N414DD12,N414DD11,N414DD10
       ,N414DD9
       ,N414DD8,N414DD7,N414DD6,N414DD5,N414DD4,N414DD3,N414DD2
       ,N414DD1,N414DD0 ) = SEL1632 (  RFRC7,GFRC7,BFRC7,RFRC6,GFRC6
       ,BFRC6,RFRC5,GFRC5,BFRC5,RFRC4,GFRC4,BFRC4
       ,RFRC3,GFRC3,BFRC3,RFRC2,GFRC6,BFRC6,RFRC5
       ,GFRC5,BFRC5,RFRC4,GFRC4,BFRC4,RFRC3,GFRC3
       ,BFRC3,RFRC2,GFRC2,BFRC2,RFRC1,GFRC1,T2N
        ) $
     RB612( RFRC1,,GFRC1,,BFRC1, ) = FFD3P (  DOTCLK
       ,RFRC0,GFRC0,BFRC0 ) $
     RB607( PDZ0,PDZ1,PDZ2,PDZ3 ) = SEL416 (  N411D0,N411D1,N411D2
       ,N411D3,N412D0,N412D1,N412D2,N412D3,N414D0,N414D1
       ,N414D2,N414D3,SSS,SSS,SSS,SSS,CD0
       ,CD1 ) $
     RB593( N42UD0,N42UD1,N42UD2,N42UD3,N42UD4,N42UD5,N42UD6
       ,N42UD7 ) = SEL816 (  RFRC7,BFRC7,GFRC6,RFRC5,BFRC5,GFRC4
       ,RFRC3,BFRC3,GFRC6,RFRC5,BFRC5,GFRC4,RFRC3
       ,BFRC3,GFRC2,RFRC1,T2N ) $
     RB493( M31Q, ) = YFD2 (  U43Z,DOTCLK,M34Z ) $
     RB492( NDOTCLK ) = B4IP (  DOTCLK ) $
     RB491( ,M29ZD ) = YFD1 (  M29Z,NDOTCLK ) $
     RB507( SHFCLK ) = B4IP (  NSHF ) $
     RB489( N320M13 ) = OR2 (  N320DOT,AR10D6 ) $
     RB487( NSHF ) = MUX21LP (  M31Q,NODIVCLK,B33Z ) $
     RB490( NODIVCLK ) = AN2P (  M29ZD,DOTCLK ) $
     M98( M98Z ) = NR3 (  U2Q,SMN,M31Q ) $
     M50( M50Z ) = ND2 (  ATTA5,M57QN ) $
     M28( M28Z ) = AO7 (  U2QN,U17QN,MCP0 ) $
     M27( M27Z ) = ND2 (  T0,T1N ) $
     U17( ,U17QN ) = YFD1 (  M27Z,NDOTCLK ) $
     M29( M29Z ) = AO7 (  SMN,XU2,M28Z ) $
     M30( B33Z ) = NR2 (  CD0,CD1 ) $
     C3A10D( C3A10QD, ) = YFD1 (  C3A10Q,DOTCLK ) $
     M53( M53Q, ) = YFD1 (  C3A10QD,TXSHIFT ) $
     M57( ,M57QN ) = YFD1 (  M56Q,DCLK ) $
     M55( M55Z ) = MUX21L (  M53Q,M54Q,ATT30Q0N ) $
     M56( M56Q, ) = YFD1 (  M55Z,TXSHIFT ) $
     M54( M54Q, ) = YFD1 (  M53Q,TXSHIFT ) $
     M59( M59Q, ) = YFD1 (  M58Q,DCLK ) $
     M63( BLANKP ) = NR2P (  M59Q,VPDISP0 ) $
     M58( M58Q, ) = YFD1 (  M50Z,DCLK ) $
END : MODULE $
MODULE :   BTREGC01/// $
INPUTS   :
     NRESET,N3D7WR2,R3D6Q0,R3D6Q1,R3D6Q2,B3D6Q3,B3D6Q4,B3D6Q5,B3D6Q6
    ,R3D6NQ0,R3D6NQ1,R3D6NQ2,B3D6NQ3,B3D6NQ4,B3D6NQ5,B3D6NQ7,DATAIN00
    ,DATAIN01,DATAIN02,DATAIN03,DATAIN04,DATAIN05,DATAIN06,DATAIN07
    ,SSS
$
OUTPUTS  :
     R3D76EQ7,R3D76EQ6,R3D76EQ5,R3D76EQ4,R3D76EQ3,R3D76EQ2,R3D76EQ1
    ,R3D76EQ0,R3D76DQ7,R3D76DQ6,R3D76DQ5,R3D76DQ4,R3D76DQ3,R3D76DQ2
    ,R3D76DQ1,R3D76DQ0,DOUT0,DOUT1,DOUT2,DOUT3,DOUT4,DOUT5,DOUT6,DOUT7
    ,R3D750Q0,R3D750Q1,R3D750Q3,R3D750Q4,R3D750Q5,R3D750Q6,R3D750Q7
    ,R3D751Q0,R3D751Q1,R3D751Q2,R3D751Q3,R3D751Q4,R3D751Q5,R3D752Q0
    ,R3D752Q1,R3D752Q3,R3D752Q4,R3D752Q5,R3D752Q6,R3D753Q0,R3D753Q1
    ,R3D754Q2,R3D754Q3,R3D754Q6,R3D754Q7,R3D755Q0,R3D755Q1,R3D755Q2
    ,R3D755Q3,R3D756Q0,R3D756Q1,R3D756Q2,R3D756Q3,R3D756Q4,R3D757Q0
    ,R3D757Q1,R3D757Q2,R3D757Q3,R3D757Q4,R3D758Q0,R3D758Q1,R3D758Q2
```

```
    ,R3D758Q3,R3D758Q4,R3D758Q5,R3D758Q6,R3D759Q0,R3D759Q1,R3D759Q2
    ,R3D759Q3,R3D759Q4,R3D759Q5,R3D759Q6,R3D75AQ0,R3D75AQ1,R3D75AQ2
    ,R3D75AQ3,R3D75AQ4,R3D75AQ5,R3D75AQ6,R3D75AQ7,R3D75BQ0,R3D75BQ1
    ,R3D75BQ2,R3D75BQ3,R3D75BQ4,R3D75BQ5,R3D75BQ6,R3D75BQ7,R3D75EQ0
    ,R3D75EQ1,R3D75EQ2,R3D75EQ3,R3D75EQ4,R3D75EQ5,R3D75EQ6,R3D75EQ7
    ,R3D75FQ0,R3D75FQ1,R3D75FQ2,R3D75FQ3,R3D75FQ4,R3D75FQ5,R3D75FQ6
    ,R3D75FQ7,R3D760Q0,R3D760Q1,R3D760Q2,R3D760Q3,R3D760Q4,R3D760Q5
    ,R3D760Q6,R3D760Q7,R3D764Q0,R3D764Q1,R3D764Q2,R3D764Q3,R3D764Q4
    ,R3D764Q5,R3D764Q6,R3D764Q7,R3D765Q0,R3D765Q1,R3D765Q2,R3D765Q5
    ,R3D765Q6,R3D765Q7,R3D766Q0,R3D766Q1,R3D766Q2,R3D766Q3,R3D766Q4
    ,R3D766Q5,R3D766Q6,R3D766Q7,R3D767Q0,R3D767Q2,R3D767Q1,R3D767Q3
    ,R3D768Q1,R3D768Q0,R3D768Q2,R3D768Q3,R3D768Q4,R3D768Q5,R3D768Q6
    ,R3D768Q7,R3D769Q0,R3D769Q1,R3D769Q2,R3D769Q3,R3D769Q4,R3D769Q5
    ,R3D769Q6,R3D769Q7,R3D76AQ0,R3D76AQ1,R3D76AQ2,R3D76AQ3,R3D76AQ4
    ,R3D76AQ5,R3D76AQ6,R3D76AQ7,R3D755Q4,R3D750Q2,R3D751Q6,R3D76BQ0
    ,R3D76BQ1,R3D76BQ2,R3D76BQ3,R3D76BQ4,R3D76BQ5,R3D76BQ6,R3D76BQ7
    ,R3D751Q7,NT75,R3D754Q0
$
DESCRIPTION : MODULE FOR BTREGC01 $
LEVEL  : FUNCTION $
USE   :
     LDG8R ///
    ,B4IP /// MASTER
    ,IVP /// MASTER
    ,B2I /// MASTER
    ,B5I /// MASTER
    ,CTRL8 ///
    ,YLDG8 ///
    ,YLDG7 ///
    ,LD4 /// MASTER
    ,YLDG4 ///
    ,YLDG2 ///
    ,LDG3R ///
    ,LDG6R ///
    ,LDG4R ///
    ,LDG2R ///
    ,ND4 /// MASTER
    ,OR4 /// MASTER
    ,RED5L1 ///
    ,RED6L1 ///
    ,RED8L1 ///
    ,YLDG6 ///

$
DEFINE :
     R3D76E( ,R3D76EQ0,R3D76EQ1,,,R3D76EQ2,
        ,R3D76EQ3,,R3D76EQ4,,R3D76EQ5,R3D76EQ6,
        ,,R3D76EQ7 ) = LDG8R (  NRESETB,WR3D76E,ND0,D1,NT40
        ,ND3A,ND4A,ND5A,D6,ND7 ) $
     R3D76D( ,R3D76DQ0,,R3D76DQ1,R3D76DQ2,,R3D76DQ3
        ,,R3D76DQ4,,R3D76DQ5,,,R3D76DQ6
        ,R3D76DQ7, ) = LDG8R (  NRESETB,WR3D76D,ND0,ND1,D2
        ,D3,D4,D5,ND6A,D7 ) $
     RB239( NRESETB ) = B4IP (  NRESETN ) $
     RB238( NRESETN ) = IVP (  NRESET ) $
     I14( ND0,D0 ) = B2I (  DATAIN00 ) $
     I13( ND1,D1 ) = B2I (  DATAIN01 ) $
     I12( NT40,D2 ) = B2I (  DATAIN02 ) $
     I11( ND3A,D3 ) = B2I (  DATAIN03 ) $
     I10( ND4A,D4 ) = B2I (  DATAIN04 ) $
     I9( ND5A,D5 ) = B2I (  DATAIN05 ) $
     I8( ND6A,D6 ) = B2I (  DATAIN06 ) $
```

```
I7( ND7,D7 ) = B2I (  DATAIN07 ) $
I6( B3D6Q2 ) = B5I (  R3D6NQ2 ) $
I5( B3D6NQ2 ) = B5I (  R3D6Q2 ) $
RB267( B3D6Q1 ) = B5I (  R3D6NQ1 ) $
RB266( B3D6NQ1 ) = B5I (  R3D6Q1 ) $
RB265( B3D6Q0 ) = B5I (  R3D6NQ0 ) $
RB264( B3D6NQ0 ) = B5I (  R3D6Q0 ) $
CT4( EN3D768,EN3D769,EN3D76A,EN3D76B,EN3D76C,EN3D76D,EN3D76E
   ,EN3D76F,WR3D768,WR3D769,WR3D76A,WR3D76B,WR3D76C,WR3D76D
   ,WR3D76E,WR3D76F ) = CTRL8 (  B3D6Q0,B3D6NQ0,B3D6Q1,B3D6NQ1
   ,B3D6Q2
   ,B3D6NQ2,N3D7WR2,B3D6NQ3,ONA2 ) $
CT3( EN3D760,EN3D761,EN3D762,EN3D763,EN3D764,EN3D765,EN3D766
   ,EN3D767,WR3D760,WR3D761,WR3D762,WR3D763,WR3D764,WR3D765
   ,WR3D766,WR3D767 ) = CTRL8 (  B3D6Q0,B3D6NQ0,B3D6Q1,B3D6NQ1
   ,B3D6Q2
   ,B3D6NQ2,N3D7WR2,B3D6Q3,ONA2 ) $
CT2( EN3D758,EN3D759,EN3D75A,EN3D75B,EN3D75C,EN3D75D,EN3D75E
   ,EN3D75F,WR3D758,WR3D759,WR3D75A,WR3D75B,WR3D75C,WR3D75D
   ,WR3D75E,WR3D75F ) = CTRL8 (  B3D6Q0,B3D6NQ0,B3D6Q1,B3D6NQ1
   ,B3D6Q2
   ,B3D6NQ2,N3D7WR2,B3D6NQ3,ONA1 ) $
CT1( EN3D750,EN3D751,EN3D752,EN3D753,EN3D754,EN3D755,EN3D756
   ,EN3D757,WR3D750,WR3D751,WR3D752,WR3D753,WR3D754,WR3D755
   ,WR3D756,WR3D757 ) = CTRL8 (  B3D6Q0,B3D6NQ0,B3D6Q1,B3D6NQ1
   ,B3D6Q2
   ,B3D6NQ2,N3D7WR2,B3D6Q3,ONA1 ) $
R3D764( ,R3D764Q7,,R3D764Q6,,R3D764Q5,
   ,R3D764Q4,,R3D764Q3,,R3D764Q2,,R3D764Q1
   ,,R3D764Q0 ) = YLDG8 (  D7,D6,D5,D4,D3
   ,D2,D1,D0,WR3D764 ) $
R3D760( ,R3D760Q0,,R3D760Q1,R3D760Q2,,R3D760Q3
   ,,R3D760Q4,,R3D760Q5,,R3D760Q6,
   ,,R3D760Q7 ) = LDG8R (  NRESETB,WR3D760,ND0,ND1,D2
   ,D3,D4,D5,D6,ND7 ) $
R3D75F( ,R3D75FQ7,,R3D75FQ6,,R3D75FQ5,
   ,R3D75FQ4,,R3D75FQ3,,R3D75FQ2,,R3D75FQ1
   ,,R3D75FQ0 ) = YLDG8 (  D7,D6,D5,D4,D3
   ,D2,D1,D0,WR3D75F ) $
RB346( ,R3D75EQ6,,R3D75EQ5,,R3D75EQ4,
   ,R3D75EQ3,,R3D75EQ2,,R3D75EQ1,,R3D75EQ0
    ) = YLDG7 (  D6,D5,D4,D3,D2,D1,D0
   ,WR3D75E ) $
RB345( ,R3D75EQ7 ) = LD4 (  ND7,WR3D75E,NRESETB ) $
R3D75B( ,R3D75BQ7,,R3D75BQ6,,R3D75BQ5,
   ,R3D75BQ4,,R3D75BQ3,,R3D75BQ2,,R3D75BQ1
   ,,R3D75BQ0 ) = YLDG8 (  D7,D6,D5,D4,D3
   ,D2,D1,D0,WR3D75B ) $
R3D75A( ,R3D75AQ7,,R3D75AQ6,,R3D75AQ5,
   ,R3D75AQ4,,R3D75AQ3,,R3D75AQ2,,R3D75AQ1
   ,,R3D75AQ0 ) = YLDG8 (  D7,D6,D5,D4,D3
   ,D2,D1,D0,WR3D75A ) $
RB362( ,R3D759Q3,,R3D759Q2,,R3D759Q1,
   ,R3D759Q0 ) = YLDG4 (  D3,D2,D1,D0,WR3D759 ) $
RB363( R3D759Q4, ) = LD4 (  D4,WR3D759,NRESETB ) $
RB361( ,R3D759Q6,,R3D759Q5 ) = YLDG2 (  D6,D5,WR3D759
    ) $
RB359( ,R3D758Q3,,R3D758Q2,,R3D758Q1,
   ,R3D758Q0 ) = YLDG4 (  D3,D2,D1,D0,WR3D758 ) $
RB360( R3D758Q4, ) = LD4 (  D4,WR3D758,NRESETB ) $
RB358( ,R3D758Q6,,R3D758Q5 ) = YLDG2 (  D6,D5,WR3D758
    ) $
```

```
RB357( ,R3D757Q3,,R3D757Q2,,R3D757Q1,
   ,R3D757Q0 ) = YLDG4 (  D3,D2,D1,D0,WR3D757 ) $
RB356( ,R3D757Q4 ) = LD4 (  ND4A,WR3D757,NRESETB ) $
RB355( ,R3D756Q3,,R3D756Q2,,R3D756Q1,
   ,R3D756Q0 ) = YLDG4 (  D3,D2,D1,D0,WR3D756 ) $
RB354( ,R3D756Q4 ) = LD4 (  ND4A,WR3D756,NRESETB ) $
RB353( ,R3D755Q3,,R3D755Q2,,R3D755Q1,
   ,R3D755Q0 ) = YLDG4 (  D3,D2,D1,D0,WR3D755 ) $
RB352( ,R3D755Q4 ) = LD4 (  ND4A,WR3D755,NRESETB ) $
RB351( R3D754Q0,,R3D754Q2,,,R3D754Q3 ) = LDG3R (  NRESETB
   ,WR3D754,D0,D2,ND3A ) $
RB350( ,R3D754Q7,,R3D754Q6 ) = YLDG2 (  D7,D6,WR3D754
    ) $
R3D753( ,R3D753Q1,,R3D753Q0 ) = YLDG2 (  D1,D0,WR3D753
    ) $
R3D752( R3D752Q0,,R3D752Q1,,R3D752Q3,,R3D752Q4
   ,,R3D752Q5,,R3D752Q6, ) = LDG6R (  NRESETB,WR3D752
   ,D0,D1,D3,D4,D5,D6 ) $
RB348( R3D751Q0,,R3D751Q1,,NT76,,R3D751Q3
   , ) = LDG4R (  NRESETB,WR3D751,D0,D1,NT40,D3
    ) $
RB349( ,R3D751Q5,,R3D751Q4 ) = YLDG2 (  D5,D4,WR3D751
    ) $
RB347( R3D751Q6,,R3D751Q7, ) = LDG2R (  NRESETB,WR3D751,D6
   ,D7 ) $
R3D750( NT75,R3D750Q7,,R3D750Q6,,R3D750Q5,
   ,R3D750Q4,,R3D750Q3,,R3D750Q2,,R3D750Q1
   ,,R3D750Q0 ) = YLDG8 (  D7,D6,D5,D4,D3
   ,D2,D1,D0,WR3D750 ) $
NA1( ONA1 ) = ND4 (  B3D6NQ7,B3D6Q6,B3D6NQ5,B3D6Q4 ) $
O8( DOUT7 ) = OR4 (  RD17,RD27,RD37,RD47 ) $
O7( DOUT6 ) = OR4 (  RD16,RD26,RD36,RD46 ) $
O6( DOUT5 ) = OR4 (  RD15,RD25,RD35,RD45 ) $
O5( DOUT4 ) = OR4 (  RD14,RD24,RD34,RD44 ) $
O4( DOUT3 ) = OR4 (  RD13,RD23,RD33,RD43 ) $
O3( DOUT2 ) = OR4 (  RD12,RD22,RD32,RD42 ) $
O2( DOUT1 ) = OR4 (  RD11,RD21,RD31,RD41 ) $
O1( DOUT0 ) = OR4 (  RD10,RD20,RD30,RD40 ) $
RB340( RD30,RD31,RD32,RD33,RD34,RD35,RD36
   ,RD37 ) = RED5L1 (  EN3D760,EN3D764,EN3D765,R3D760Q0
   ,R3D764Q0,R3D765Q0
   ,R3D760Q1,R3D764Q1,R3D765Q1,R3D760Q2,R3D764Q2,R3D765Q2,R3D760Q3
   ,R3D764Q3,SSS,R3D760Q4,R3D764Q4,SSS,R3D760Q5,R3D764Q5
   ,R3D765Q5,R3D760Q6,R3D764Q6,R3D765Q6,R3D760Q7,R3D764Q7,R3D765Q7
   ,EN3D766,EN3D767,R3D766Q7,SSS,R3D766Q6,SSS,R3D766Q5
   ,SSS,R3D766Q4,SSS,R3D766Q3,R3D767Q3,R3D766Q2,R3D767Q2
   ,R3D766Q1,R3D767Q1,R3D766Q0,R3D767Q0 ) $
RB339( RD20,RD21,RD22,RD23,RD24,RD25,RD26
   ,RD27 ) = RED6L1 (  R3D758Q0,R3D758Q1,R3D758Q2,R3D758Q3
   ,R3D758Q4,R3D758Q5
   ,R3D758Q6,SSS,R3D759Q0,R3D759Q1,R3D759Q2,R3D759Q3,R3D759Q4
   ,R3D759Q5,R3D759Q6,SSS,R3D75AQ0,R3D75AQ1,R3D75AQ2,R3D75AQ3
   ,R3D75AQ4,R3D75AQ5,R3D75AQ6,R3D75AQ7,R3D75BQ0,R3D75BQ1,R3D75BQ2
   ,R3D75BQ3,R3D75BQ4,R3D75BQ5,R3D75BQ6,R3D75BQ7,R3D75EQ0,R3D75EQ1
   ,R3D75EQ2,R3D75EQ3,R3D75EQ4,R3D75EQ5,R3D75EQ6,R3D75EQ7,R3D75FQ0
   ,R3D75FQ1,R3D75FQ2,R3D75FQ3,R3D75FQ4,R3D75FQ5,R3D75FQ6,R3D75FQ7
   ,EN3D758,EN3D759,EN3D75A,EN3D75B,EN3D75E,EN3D75F ) $
RB338( RD10,RD11,RD12,RD13,RD14,RD15,RD16
   ,RD17 ) = RED8L1 (  R3D750Q0,R3D750Q1,R3D750Q2,R3D750Q3
   ,R3D750Q4,R3D750Q5
   ,R3D750Q6,R3D750Q7,R3D751Q0,R3D751Q1,R3D751Q2,R3D751Q3,R3D751Q4
   ,R3D751Q5,R3D751Q6,R3D751Q7,R3D752Q0,R3D752Q1,SSS,R3D752Q3
```

```
        ,R3D752Q4,R3D752Q5,R3D752Q6,SSS,R3D753Q0,R3D753Q1,SSS
        ,SSS,SSS,SSS,SSS,SSS,R3D754Q0,SSS
        ,R3D754Q2,R3D754Q3,SSS,SSS,R3D754Q6,R3D754Q7,R3D755Q0
        ,R3D755Q1,R3D755Q2,R3D755Q3,R3D755Q4,SSS,SSS,SSS
        ,R3D756Q0,R3D756Q1,R3D756Q2,R3D756Q3,R3D756Q4,SSS,SSS
        ,SSS,R3D757Q0,R3D757Q1,R3D757Q2,R3D757Q3,R3D757Q4,SSS
        ,SSS,SSS,EN3D750,EN3D751,EN3D752,EN3D753,EN3D754
        ,EN3D755,EN3D756,EN3D757 ) $
     NA2( ONA2 ) = ND4 (  B3D6NQ7,B3D6Q6,B3D6Q5,B3D6NQ4 ) $
     R3D765( ,R3D765Q7,,R3D765Q6,,R3D765Q5,
        ,R3D765Q2,,R3D765Q1,,R3D765Q0 ) = YLDG6 (  D7,D6
        ,D5,D2,D1,D0,WR3D765 ) $
     R3D766( ,R3D766Q7,,R3D766Q6,,R3D766Q5,
        ,R3D766Q4,,R3D766Q3,,R3D766Q2,,R3D766Q1
        ,,R3D766Q0 ) = YLDG8 (  D7,D6,D5,D4,D3
        ,D2,D1,D0,WR3D766 ) $
     R3D767( ,R3D767Q3,,R3D767Q2,,R3D767Q1,
        ,R3D767Q0 ) = YLDG4 (  D3,D2,D1,D0,WR3D767 ) $
     RB341( RD40,RD41,RD42,RD43,RD44,RD45,RD46
        ,RD47 ) = RED6L1 (  R3D768Q0,R3D768Q1,R3D768Q2,R3D768Q3
        ,R3D768Q4,R3D768Q5
        ,R3D768Q6,R3D768Q7,R3D769Q0,R3D769Q1,R3D769Q2,R3D769Q3,R3D769Q4
        ,R3D769Q5,R3D769Q6,R3D769Q7,R3D76AQ0,R3D76AQ1,R3D76AQ2,R3D76AQ3
        ,R3D76AQ4,R3D76AQ5,R3D76AQ6,R3D76AQ7,R3D76BQ0,R3D76BQ1,R3D76BQ2
        ,R3D76BQ3,R3D76BQ4,R3D76BQ5,R3D76BQ6,R3D76BQ7,R3D76DQ0,R3D76DQ1
        ,R3D76DQ2,R3D76DQ3,R3D76DQ4,R3D76DQ5,R3D76DQ6,R3D76DQ7,R3D76EQ0
        ,R3D76EQ1,R3D76EQ2,R3D76EQ3,R3D76EQ4,R3D76EQ5,R3D76EQ6,R3D76EQ7
        ,EN3D768,EN3D769,EN3D76A,EN3D76B,EN3D76D,EN3D76E ) $
     R3D76A( ,R3D76AQ7,,R3D76AQ6,,R3D76AQ5,
        ,R3D76AQ4,,R3D76AQ3,,R3D76AQ2,,R3D76AQ1
        ,,R3D76AQ0 ) = YLDG8 (  D7,D6,D5,D4,D3
        ,D2,D1,D0,WR3D76A ) $
     R3D769( ,R3D769Q7,,R3D769Q6,,R3D769Q5,
        ,R3D769Q4,,R3D769Q3,,R3D769Q2,,R3D769Q1
        ,,R3D769Q0 ) = YLDG8 (  D7,D6,D5,D4,D3
        ,D2,D1,D0,WR3D769 ) $
     R3D768( ,R3D768Q7,,R3D768Q6,,R3D768Q5,
        ,R3D768Q4,,R3D768Q3,,R3D768Q2,,R3D768Q1
        ,,R3D768Q0 ) = YLDG8 (  D7,D6,D5,D4,D3
        ,D2,D1,D0,WR3D768 ) $
     R3D76B( ,R3D76BQ7,,R3D76BQ6,,R3D76BQ5,
        ,R3D76BQ4,,R3D76BQ3,,R3D76BQ2,,R3D76BQ1
        ,,R3D76BQ0 ) = YLDG8 (  D7,D6,D5,D4,D3
        ,D2,D1,D0,WR3D76B ) $
     RB177( R3D751Q2 ) = IVP (  NT76 ) $
END : MODULE $
MODULE :   BLINKING/// $
INPUTS   :
     NRESET,HSYNC,NHRES,NVRES,VSYNC,CLKCONT0,CLKCONT1,CLKCONT2,CLKCONT3
    ,CLKCONT4,CLKCONT5,CLKCONT6,CLKCONT7,BLNKRAT0,BLNKRAT1,BLNKRAT2
    ,BLNKRAT3,BLNKRAT4,BLNKRAT5,BLNKRAT6,BLNKRAT7,CCC
$
OUTPUTS  :
     ACDCLK,ATRBLINK,CSRBLINK
$
DESCRIPTION : MODULE FOR BLINKING $
LEVEL  : FUNCTION $
USE   :
     IV /// MASTER
    ,NR2 /// MASTER
    ,TCNT5 ///
    ,MUX21L /// MASTER
```

```
    ,MUX41 /// MASTER
    ,TCNT8 ///
    ,NEQUL8 ///
    ,FD4 /// MASTER
    ,FT2 /// MASTER
    ,TCNT6 ///
    ,NEQUL6 ///
    ,TCNT2 ///
    ,AN2 /// MASTER

$
DEFINE :
     RB676( CLKC7N ) = IV (  CLKCONT7 ) $
     RB675( CSEL1 ) = NR2 (  CLKC7N,CLKCONT1 ) $
     RB674( CSEL0 ) = NR2 (  CLKC7N,CLKCONT0 ) $
     RB673( U6Q,,ACD3FRC,ACD3FRCN,,,
        ,,N16FRAME, ) = TCNT5 (  VSYNC,NRESET ) $
     RB672( ALTACD ) = MUX21L (  ACD3FRC,ACD3FRCN,N16FRAME ) $
     RB671( ACDCLK ) = MUX41 (  U3Q,ALTACD,ACD3FRC,U6Q,CSEL0,CSEL1
         ) $
     U0( U0Q0,,U0Q1,,U0Q2,,U0Q3
        ,,U0Q4,,U0Q5,,U0Q6,
        ,U0Q7, ) = TCNT8 (  U14Z,HSYNC ) $
     U1( U1NEQ ) = NEQUL8 (  CCC,U0Q0,U0Q1,U0Q2,U0Q3,U0Q4
        ,U0Q5,U0Q6,CCC,CLKCONT0,CLKCONT1,CLKCONT2,CLKCONT3
        ,CLKCONT4,CLKCONT5,CLKCONT6 ) $
     U2( U2Q, ) = FD4 (  U1NEQ,HSYNC,NRESET ) $
     U3( U3Q, ) = FT2 (  U2Q,NHRES ) $
     U5( U5Q0,,U5Q1,,U5Q2,,U5Q3
        ,,U5Q4,,U5Q5, ) = TCNT6 (  U15Z,U6Q
         ) $
     U7( U7NEQ ) = NEQUL6 (  U5Q0,U5Q1,U5Q2,U5Q3,U5Q4,U5Q5
        ,BLNKRAT0,BLNKRAT1,BLNKRAT2,BLNKRAT3,BLNKRAT4,BLNKRAT5 ) $
     U8( U8Q, ) = FD4 (  U7NEQ,VSYNC,NVRES ) $
     U9( CSRBLINK,,U9T1, ) = TCNT2 (  U8Q,NVRES ) $
     U10( U10Z ) = AN2 (  CSRBLINK,U9T1 ) $
     U11( U11Z ) = IV (  U10Z ) $
     U12( U12Z ) = IV (  CSRBLINK ) $
     U13( ATRBLINK ) = MUX41 (  U12Z,U11Z,U9T1,U10Z,BLNKRAT6,BLNKRAT7
         ) $
     U14( U14Z ) = AN2 (  U2Q,NHRES ) $
     U15( U15Z ) = AN2 (  U8Q,NVRES ) $
END : MODULE $
MODULE :   ALTMUX/// $
INPUTS   :
     R3C2Q2,R3C2Q3,R3C2Q6,R3C2Q7,R3D754Q2,R3D754Q3,R3D754Q6,R3D754Q7
    ,VERT0,VERT1,VERT2,VERT3,VERT4,VERT5,VERT6,VERT7,R3D764Q0,R3D764Q1
    ,R3D764Q2,R3D764Q3,R3D764Q4,R3D764Q5,R3D764Q6,R3D764Q7,VERRS0
    ,VERRS1,VERRS2,VERRS3,VERRS4,VERRS5,VERRS6,VERRS7,R3D766Q0,R3D766Q1
    ,R3D766Q2,R3D766Q3,R3D766Q4,R3D766Q5,R3D766Q6,R3D766Q7,VERRE0
    ,VERRE1,VERRE2,VERRE3,R3D767Q0,R3D767Q1,R3D767Q2,R3D767Q3,VERDE0
    ,VERDE1,VERDE2,VERDE3,VERDE4,VERDE5,VERDE6,VERDE7,R3D768Q0,R3D768Q1
    ,R3D768Q2,R3D768Q3,R3D768Q4,R3D768Q5,R3D768Q6,R3D768Q7,CRT07Q0
    ,CRT07Q1,CRT07Q2,CRT07Q5,CRT07Q6,CRT07Q7,R3D765Q0,R3D765Q1,R3D765Q2
    ,R3D765Q5,R3D765Q6,R3D765Q7,CRT
$
OUTPUTS  :
     R3C2QA2,R3C2QA3,R3C2QA6,R3C2QA7,VERTA0,VERTA1,VERTA2,VERTA3,VERTA4
    ,VERTA5,VERTA6,VERTA7,VERRSA0,VERRSA1,VERRSA2,VERRSA3,VERRSA4
    ,VERRSA5,VERRSA6,VERRSA7,VERREA0,VERREA1,VERREA2,VERREA3,VERDEA0
    ,VERDEA1,VERDEA2,VERDEA3,VERDEA4,VERDEA5,VERDEA6,VERDEA7,CRT07QA0
    ,CRT07QA1,CRT07QA2,CRT07QA5,CRT07QA6,CRT07QA7
```

```
$
DESCRIPTION : MODULE FOR ALTMUX $
LEVEL  : FUNCTION $
USE   :
     SEL48 ///
    ,SEL816 ///
    ,SEL612 ///
    ,IVAP /// MASTER

$
DEFINE :
     MSRMUX( R3C2QA2,R3C2QA3,R3C2QA6,R3C2QA7 ) = SEL48 (  R3C2Q2
        ,R3C2Q3,R3C2Q6
        ,R3C2Q7,R3D754Q2,R3D754Q3,R3D754Q6,R3D754Q7,NCRT ) $
     RB156( VERTA0,VERTA1,VERTA2,VERTA3,VERTA4,VERTA5,VERTA6
        ,VERTA7 ) = SEL816 (  VERT0,VERT1,VERT2,VERT3,VERT4,VERT5
        ,VERT6,VERT7,R3D764Q0,R3D764Q1,R3D764Q2,R3D764Q3,R3D764Q4
        ,R3D764Q5,R3D764Q6,R3D764Q7,NCRT ) $
     RB158( VERRSA0,VERRSA1,VERRSA2,VERRSA3,VERRSA4,VERRSA5,VERRSA6
        ,VERRSA7 ) = SEL816 (  VERRS0,VERRS1,VERRS2,VERRS3,VERRS4,VERRS5
        ,VERRS6,VERRS7,R3D766Q0,R3D766Q1,R3D766Q2,R3D766Q3,R3D766Q4
        ,R3D766Q5,R3D766Q6,R3D766Q7,NCRT ) $
     RB159( VERREA0,VERREA1,VERREA2,VERREA3 ) = SEL48 (  VERRE0
        ,VERRE1,VERRE2
        ,VERRE3,R3D767Q0,R3D767Q1,R3D767Q2,R3D767Q3,NCRT ) $
     RB160( VERDEA0,VERDEA1,VERDEA2,VERDEA3,VERDEA4,VERDEA5,VERDEA6
        ,VERDEA7 ) = SEL816 (  VERDE0,VERDE1,VERDE2,VERDE3,VERDE4,VERDE5
        ,VERDE6,VERDE7,R3D768Q0,R3D768Q1,R3D768Q2,R3D768Q3,R3D768Q4
        ,R3D768Q5,R3D768Q6,R3D768Q7,NCRT ) $
     RB157( CRT07QA0,CRT07QA1,CRT07QA2,CRT07QA5,CRT07QA6,CRT07QA7
         ) = SEL612 (  CRT07Q0
        ,CRT07Q1,CRT07Q2,CRT07Q5,CRT07Q6,CRT07Q7,R3D765Q0,R3D765Q1
        ,R3D765Q2,R3D765Q5,R3D765Q6,R3D765Q7,NCRT ) $
     RB398( NCRT ) = IVAP (  CRT ) $
END : MODULE $
MODULE :   YFFD7/// $
INPUTS   :
     CL,NMR,D0,D1,D2,D3,D4,D5,D6
$
OUTPUTS  :
     Q0,NQ0,Q1,NQ1,Q2,NQ2,Q3,NQ3,Q4,NQ4,Q5,NQ5,Q6,NQ6
$
DESCRIPTION : MODULE FOR YFFD7 $
LEVEL  : FUNCTION $
USE   :
     YFD2 /// MASTER

$
DEFINE :
     BIT0( Q0,NQ0 ) = YFD2 (  D0,CL,NMR ) $
     BIT1( Q1,NQ1 ) = YFD2 (  D1,CL,NMR ) $
     BIT2( Q2,NQ2 ) = YFD2 (  D2,CL,NMR ) $
     BIT3( Q3,NQ3 ) = YFD2 (  D3,CL,NMR ) $
     BIT4( Q4,NQ4 ) = YFD2 (  D4,CL,NMR ) $
     BIT5( Q5,NQ5 ) = YFD2 (  D5,CL,NMR ) $
     BIT6( Q6,NQ6 ) = YFD2 (  D6,CL,NMR ) $
END : MODULE $
MODULE :   YFFD3/// $
INPUTS   :
     CL,NMR,D0,D1,D2
$
OUTPUTS  :
```

```
     Q0,NQ0,Q1,NQ1,Q2,NQ2
$
DESCRIPTION : MODULE FOR YFFD3 $
LEVEL  : FUNCTION $
USE   :
     YFD2 /// MASTER

$
DEFINE :
     BIT0( Q0,NQ0 ) = YFD2 (  D0,CL,NMR ) $
     BIT1( Q1,NQ1 ) = YFD2 (  D1,CL,NMR ) $
     BIT2( Q2,NQ2 ) = YFD2 (  D2,CL,NMR ) $
END : MODULE $
MODULE :   VIDEC01/// $
INPUTS   :
     BLANKP,NT105,CC89SELN,VPDISP0,CSRBLINK,ATRBLINK,ATT30Q2A,BLANK1
    ,R3D728Q2,R3D72BQ0,R3D72BQ1,R3D72BQ2,R3D72BQ3,R3D72BQ4,R3D72BQ5
    ,R3D72BQ6,R3D72BQ7,CGASL1,CGASL1N,CGASL2N,DATAIN0,DATAIN1,DATAIN2
    ,DATAIN3,M13CLK,WTRATT31,WTRATT34,DATAIN7,DATAIN6,DCLK,PRAMCL
    ,DATAIN4,DATAIN5,SSS,C3F7Q,C3G8Q,ATTA5N,D3A4O1,ATTA5,ATTA1,ATTA0
    ,ATTA3,ATTA2,CRTLTH,PLNSHIFT,CRTP2D1,CRTP2D5,CRTP2D3,CRTP2D6,CRTP2D7
    ,CRTP2D4,CRTP3D5,CRTP3D6,CRTP3D4,CRTP3D7,CRTP1D6,CRTP1D4,CRTP0D5
    ,CRTP1D2,CRTP0D7,CRTP1D0,CRTP1D7,CRTP1D5,CRTP1D1,CRTP2D0,CRTP2D2
    ,CRTP3D0,CRTP3D2,CRTP3D3,CRTP1D3,CRTP0D4,CRTP0D6,CRTP0D0,CRTP0D2
    ,CRTP0D3,CRTP3D1,CRTP0D1,TXTSHIFT,CCC,ATT02Q2,GCSHLD,GC256L,C3E6Q
    ,D3F11O1,D3C13Q,E3D17O1,WTRATT30,WTRATT33,WTRATT12,R3D9Q4,R3D9Q5
    ,R3B8Q2,R3D9Q3,R3D9Q2,R3D9Q1,R3D9Q0,TEXT,CHAN,EMBLK,NHERGR,STP348
    ,DSPTD2
$
OUTPUTS  :
     DSPEN,NT108,CRTVD7O,CRTVD6O,CRTVD5O,CRTVD4O,CRTVD3O,CRTVD2O,CRTVD1O
    ,CRTVD0O,NATTVMX0,NDSPEN,PLOUT5,PLOUT4,PLOUT3,PLOUT2,PLOUT1,PLOUT0
    ,DPGRP1,DPGRP0,ATT34Q3,ATT34Q2,ATT34Q1,ATT34Q0,ATT31Q7,ATT31Q6
    ,ATT31Q5,ATT31Q4,ATT31Q3,ATT31Q2,ATT31Q1,ATT31Q0,PRAMSAB,PRAMSBC
    ,TXTSHO,PELP3O,PELP1O,PELPO2,PELP0O,E5B1Q,E5D2Q,D3B1QC,SCOLSEL
    ,ATT30Q5,ATT30Q4,ATT30Q3,ATT30Q2,ATT30Q1,ATT30Q0,ATT30Q4N,ATTVMX1
    ,ATTVMX0,ATTCPE3,ATTCPE2,ATTCPE1,ATTCPE0,ATT33Q3,ATT33Q2,ATT33Q1
    ,ATT33Q0,C1F12O1,C1G12O1,PELP1D,PL1SHO,PELPI2,PL2SHO,PELP3D,PL3SHO
    ,PELP0D,PL0SHO,ATT30Q0N,D3B10Q,D3B11Q
$
DESCRIPTION : MODULE FOR VIDEC01 $
LEVEL  : FUNCTION $
USE   :
     DFF8 ///
    ,FD1P /// MASTER
    ,IV /// MASTER
    ,IVP /// MASTER
    ,B3IP /// MASTER
    ,B2I /// MASTER
    ,OR2 /// MASTER
    ,TCNT5 ///
    ,NR2 /// MASTER
    ,AO4 /// MASTER
    ,ND8 /// MASTER
    ,MUX21L /// MASTER
    ,ND2 /// MASTER
    ,YFD3SI ///
    ,YFD2MD ///
    ,YFD2SI ///
    ,LDG4 ///
    ,LDG6 ///
    ,LDG7 ///
```

```
    ,B5I /// MASTER
    ,B4I /// MASTER
    ,YFD1 /// MASTER
    ,AO7P /// MASTER
    ,AN2 /// MASTER
    ,AN4 /// MASTER
    ,ND4P /// MASTER
    ,YFD2 /// MASTER
    ,AO7 /// MASTER
    ,ND3P /// MASTER
    ,ND2P /// MASTER
    ,MUX21LP /// MASTER
    ,FD1 /// MASTER
    ,ND3 /// MASTER
    ,PSHFDD ///
    ,FD1S /// MASTER
    ,MUX42 ///
    ,PELP1 ///
    ,MUX41 /// MASTER
    ,LDG8 ///
    ,RAM610A ///
    ,MUX241 ///

$
DEFINE :
     RB662( CRTVD0O,CRTVD1O,CRTVD2O,CRTVD3O,CRTVD4O,CRTVD5O,CRTVD6O
        ,CRTVD7O ) = DFF8 (  PI0,PI1,PI2,PI3,PI4,PI5
        ,PI6,PI7,M13CLK ) $
     RB554( NDSPENP,DSPENM ) = FD1P (  NDSPENPI,DCLK ) $
     RB553( ATT02Q2N ) = IV (  ATT02Q2 ) $
     RB552( D2B15NQ ) = IVP (  D2B15Q ) $
     RB323( PRAMSCD,PRAMSAB ) = B3IP (  PRAMSABI ) $
     RB322( PRAMSAD,PRAMSBC ) = B3IP (  PRAMSBCI ) $
     RB321( E5B1NQ,E5B1Q ) = B3IP (  E5B1QI ) $
     RB320( E5D2NQ,E5D2Q ) = B3IP (  E5D2QI ) $
     RB386( ,ATT33Q1N ) = B2I (  AT33Q1NI ) $
     RB381( DSPTD2N ) = IV (  DSPTD2 ) $
     RB447( NT108 ) = OR2 (  NT105,VPDISP0 ) $
     D3E12( ,,,,,,D3B11Q
        ,,D3B10Q, ) = TCNT5 (  D3A4O1,NATTVMX0 ) $
     E1F92( E1F9O12 ) = NR2 (  C1G8O1,CRTP3D4 ) $
     E1F91( E1F9O11 ) = AO4 (  CRTP0D1,E1C2O1,E1D2O1,CRTP1D2 ) $
     E1F9( PL0SHD6 ) = NR2 (  E1F9O11,E1F9O12 ) $
     E1E92( E1E9O12 ) = NR2 (  C1G8O1,CRTP3D0 ) $
     E1E91( E1E9O11 ) = AO4 (  CRTP0D0,E1C2O1,E1D2O1,CRTP1D0 ) $
     E1E9( PL0SHD7 ) = NR2 (  E1E9O11,E1E9O12 ) $
     E1E72( E1E7O12 ) = NR2 (  C1G8O1,CRTP1D0 ) $
     E1E71( E1E7O11 ) = AO4 (  CRTP0D4,E1C2O1,E1D2O1,CRTP0D0 ) $
     E1E7( PL0SHD3 ) = NR2 (  E1E7O11,E1E7O12 ) $
     E1E52( E1E5O12 ) = NR2 (  C1G8O1,CRTP0D0 ) $
     E1E51( E1E5O11 ) = AO4 (  E1C2O1,CRTP0D6,E1D2O1,CRTP0D4 ) $
     E1E5( PL0SHD1 ) = NR2 (  E1E5O11,E1E5O12 ) $
     E1D92( E1D9O12 ) = NR2 (  C1G8O1,CRTP2D4 ) $
     E1D91( E1D9O11 ) = AO4 (  E1C2O1,CRTP0D3,E1D2O1,CRTP1D6 ) $
     E1D9( PL0SHD4 ) = NR2 (  E1D9O11,E1D9O12 ) $
     E1D72( E1D7O12 ) = NR2 (  C1G8O1,CRTP1D4 ) $
     E1D71( E1D7O11 ) = AO4 (  E1C2O1,CRTP0D5,E1D2O1,CRTP0D2 ) $
     E1D7( PL0SHD2 ) = NR2 (  E1D7O11,E1D7O12 ) $
     E1D62( E1D6O12 ) = NR2 (  C1G8O1,CRTP0D4 ) $
     E1D61( E1D6O11 ) = AO4 (  E1C2O1,CRTP0D7,E1D2O1,CRTP0D6 ) $
     E1D6( PL0SHD0 ) = NR2 (  E1D6O11,E1D6O12 ) $
     E1C102( E1C10O12 ) = NR2 (  C1G8O1,CRTP0D1 ) $
```

```
E1C101( E1C10O11 ) = AO4 (  CRTP1D6,E1C2O1,E1D2O1,CRTP0D5 ) $
E1C10( PL1SHD1 ) = NR2 (  E1C10O11,E1C10O12 ) $
E1C92( E1C9O12 ) = NR2 (  C1G8O1,CRTP1D1 ) $
E1C91( E1C9O11 ) = AO4 (  CRTP1D4,E1C2O1,E1D2O1,CRTP0D1 ) $
E1C9( PL1SHD3 ) = NR2 (  E1C9O11,E1C9O12 ) $
E1C82( E1C8O12 ) = NR2 (  C1G8O1,CRTP2D0 ) $
E1C81( E1C8O11 ) = AO4 (  CRTP0D2,E1C2O1,E1D2O1,CRTP1D4 ) $
E1C8( PL0SHD5 ) = NR2 (  E1C8O11,E1C8O12 ) $
E1B142( E1B14O12 ) = NR2 (  C1G8O1,CRTP0D5 ) $
E1B141( E1B14O11 ) = AO4 (  CRTP1D7,E1C2O1,E1D2O1,CRTP0D7 ) $
E1B14( PL1SHD0 ) = NR2 (  E1B14O11,E1B14O12 ) $
E1B92( E1B9O12 ) = NR2 (  C1G8O1,CRTP1D5 ) $
E1B91( E1B9O11 ) = AO4 (  CRTP1D5,E1C2O1,E1D2O1,CRTP0D3 ) $
E1B9( PL1SHD2 ) = NR2 (  E1B9O11,E1B9O12 ) $
E1A122( E1A12O12 ) = NR2 (  C1G8O1,CRTP2D5 ) $
E1A121( E1A12O11 ) = AO4 (  CRTP1D3,E1C2O1,E1D2O1,CRTP1D7 ) $
E1A12( PL1SHD4 ) = NR2 (  E1A12O11,E1A12O12 ) $
E1A62( E1A6O12 ) = NR2 (  C1G8O1,CRTP3D5 ) $
E1A61( E1A6O11 ) = AO4 (  CRTP1D1,E1C2O1,E1D2O1,CRTP1D3 ) $
E1A6( PL1SHD6 ) = NR2 (  E1A6O11,E1A6O12 ) $
D3A22( D3A2O12 ) = NR2 (  ATT30Q0N,PL0SHO ) $
D3A21( D3A2O11 ) = AO4 (  D3A1Q,C2F11O1,C2G14O1,D2A14Q ) $
D3A2( PELP0D ) = NR2 (  D3A2O11,D3A2O12 ) $
D2A152( D2A15O12 ) = NR2 (  ATT30Q0N,PL3SHO ) $
D2A151( D2A15O11 ) = AO4 (  D2A16Q,C2F11O1,C2G14O1,D2A13Q ) $
D2A15( PELP3D ) = NR2 (  D2A15O11,D2A15O12 ) $
D1G82( D1G8O12 ) = NR2 (  C1G8O1,CRTP2D1 ) $
D1G81( D1G8O11 ) = AO4 (  CRTP1D2,E1C2O1,E1D2O1,CRTP1D5 ) $
D1G8( PL1SHD5 ) = NR2 (  D1G8O11,D1G8O12 ) $
D1G62( D1G6O12 ) = NR2 (  C1G8O1,CRTP3D1 ) $
D1G61( D1G6O11 ) = AO4 (  E1C2O1,CRTP1D0,E1D2O1,CRTP1D1 ) $
D1G6( PL1SHD7 ) = NR2 (  D1G6O11,D1G6O12 ) $
D1E122( D1E12O12 ) = NR2 (  C1G8O1,CRTP1D6 ) $
D1E121( D1E12O11 ) = AO4 (  E1C2O1,CRTP2D5,E1D2O1,CRTP2D2 ) $
D1E12( PL2SHD2 ) = NR2 (  D1E12O11,D1E12O12 ) $
D1E102( D1E10O12 ) = NR2 (  C1G8O1,CRTP1D2 ) $
D1E101( D1E10O11 ) = AO4 (  CRTP2D4,E1C2O1,E1D2O1,CRTP2D0 ) $
D1E10( PL2SHD3 ) = NR2 (  D1E10O11,D1E10O12 ) $
D1E82( D1E8O12 ) = NR2 (  C1G8O1,CRTP0D2 ) $
D1E81( D1E8O11 ) = AO4 (  E1C2O1,CRTP2D6,E1D2O1,CRTP2D4 ) $
D1E8( PL2SHD1 ) = NR2 (  D1E8O11,D1E8O12 ) $
D1D72( D1D7O12 ) = NR2 (  C1G8O1,CRTP2D2 ) $
D1D71( D1D7O11 ) = AO4 (  CRTP2D2,E1C2O1,E1D2O1,CRTP3D4 ) $
D1D7( PL2SHD5 ) = NR2 (  D1D7O11,D1D7O12 ) $
D1D52( D1D5O12 ) = NR2 (  C1G8O1,CRTP0D6 ) $
D1D51( D1D5O11 ) = AO4 (  CRTP2D7,E1C2O1,E1D2O1,CRTP2D6 ) $
D1D5( PL2SHD0 ) = NR2 (  D1D5O11,D1D5O12 ) $
D1C72( D1C7O12 ) = NR2 (  C1G8O1,CRTP3D2 ) $
D1C71( D1C7O11 ) = AO4 (  CRTP2D0,E1C2O1,E1D2O1,CRTP3D0 ) $
D1C7( PL2SHD7 ) = NR2 (  D1C7O11,D1C7O12 ) $
D1C62( D1C6O12 ) = NR2 (  C1G8O1,CRTP3D6 ) $
D1C61( D1C6O11 ) = AO4 (  CRTP2D1,E1C2O1,E1D2O1,CRTP3D2 ) $
D1C6( PL2SHD6 ) = NR2 (  D1C6O11,D1C6O12 ) $
D1C42( D1C4O12 ) = NR2 (  C1G8O1,CRTP2D6 ) $
D1C41( D1C4O11 ) = AO4 (  E1C2O1,CRTP2D3,E1D2O1,CRTP3D6 ) $
D1C4( PL2SHD4 ) = NR2 (  D1C4O11,D1C4O12 ) $
D1B132( D1B13O12 ) = NR2 (  C1G8O1,CRTP1D7 ) $
D1B131( D1B13O11 ) = AO4 (  CRTP3D5,E1C2O1,E1D2O1,CRTP2D3 ) $
D1B13( PL3SHD2 ) = NR2 (  D1B13O11,D1B13O12 ) $
D1B102( D1B10O12 ) = NR2 (  C1G8O1,CRTP0D3 ) $
D1B101( D1B10O11 ) = AO4 (  CRTP3D6,E1C2O1,E1D2O1,CRTP2D5 ) $
D1B10( PL3SHD1 ) = NR2 (  D1B10O11,D1B10O12 ) $
```

```
D1B92( D1B9O12 ) = NR2 (  C1G8O1,CRTP1D3 ) $
D1B91( D1B9O11 ) = AO4 (  CRTP3D4,E1C2O1,E1D2O1,CRTP2D1 ) $
D1B9( PL3SHD3 ) = NR2 (  D1B9O11,D1B9O12 ) $
D1A112( D1A11O12 ) = NR2 (  C1G8O1,CRTP0D7 ) $
D1A111( D1A11O11 ) = AO4 (  E1C2O1,CRTP3D7,E1D2O1,CRTP2D7 ) $
D1A11( PL3SHD0 ) = NR2 (  D1A11O11,D1A11O12 ) $
D1A82( D1A8O12 ) = NR2 (  C1G8O1,CRTP2D3 ) $
D1A81( D1A8O11 ) = AO4 (  CRTP3D2,E1C2O1,E1D2O1,CRTP3D5 ) $
D1A8( PL3SHD5 ) = NR2 (  D1A8O11,D1A8O12 ) $
C3G22( C3G2O12 ) = NR2 (  ATT30Q0N,PL2SHO ) $
C3G21( C3G2O11 ) = AO4 (  C3D2Q,C2F11O1,C2G14O1,C3F1Q ) $
C3G2( PELPI2 ) = NR2 (  C3G2O11,C3G2O12 ) $
C2F122( C2F12O12 ) = NR2 (  ATT30Q0N,PL1SHO ) $
C2F121( C2F12O11 ) = AO4 (  C2F11O1,C2E18Q,C2G14O1,C2G17Q ) $
C2F12( PELP1D ) = NR2 (  C2F12O11,C2F12O12 ) $
C1G72( C1G7O12 ) = NR2 (  C1G8O1,CRTP3D3 ) $
C1G71( C1G7O11 ) = AO4 (  CRTP3D0,E1C2O1,E1D2O1,CRTP3D1 ) $
C1G7( PL3SHD7 ) = NR2 (  C1G7O11,C1G7O12 ) $
C1G62( C1G6O12 ) = NR2 (  C1G8O1,CRTP3D7 ) $
C1G61( C1G6O11 ) = AO4 (  CRTP3D1,E1C2O1,E1D2O1,CRTP3D3 ) $
C1G6( PL3SHD6 ) = NR2 (  C1G6O11,C1G6O12 ) $
C1F52( C1F5O12 ) = NR2 (  C1G8O1,CRTP2D7 ) $
C1F51( C1F5O11 ) = AO4 (  CRTP3D3,E1C2O1,E1D2O1,CRTP3D7 ) $
C1F5( PL3SHD4 ) = NR2 (  C1F5O11,C1F5O12 ) $
C2E20( C2E20O1 ) = ND8 (  C3D1NQ,C2E17NQ,C3E6Q,C3E1NQ,C3G1NQ
   ,C2F10NQ
   ,C2F8Q,CCC ) $
D3H9B( D3H9O1 ) = IV (  ATTA3 ) $
D3H9( D3H9Z ) = MUX21L (  D3G8O1,CGAM3Z,D3H8O1 ) $
C2F4B( TXTSHD0 ) = ND2 (  C2F4O1N,BLKCKZ ) $
C2F4( C2F4O1N ) = ND2 (  CRTP2D0,C1G12O1 ) $
C2G5B( TXTSHD7 ) = ND2 (  C2G5O1N,BLKCKZ ) $
C2G5( C2G5O1N ) = ND2 (  C1G12O1,CRTP2D7 ) $
C1F9B( TXTSHD5 ) = ND2 (  C1F9O1N,BLKCKZ ) $
C1F9( C1F9O1N ) = ND2 (  C1G12O1,CRTP2D5 ) $
C1F8B( TXTSHD6 ) = ND2 (  C1F8O1N,BLKCKZ ) $
C1F8( C1F8O1N ) = ND2 (  C1G12O1,CRTP2D6 ) $
C1F13B( TXTSHD4 ) = ND2 (  C1F13O1N,BLKCKZ ) $
C1F13( C1F13O1N ) = ND2 (  C1G12O1,CRTP2D4 ) $
C1F11B( TXTSHD3 ) = ND2 (  C1F11O1N,BLKCKZ ) $
C1F11( C1F11O1N ) = ND2 (  C1G12O1,CRTP2D3 ) $
C1E13B( TXTSHD2 ) = ND2 (  C1E13O1N,BLKCKZ ) $
C1E13( C1E13O1N ) = ND2 (  C1G12O1,CRTP2D2 ) $
C1E12B( TXTSHD1 ) = ND2 (  C1E12O1N,BLKCKZ ) $
C1E12( C1E12O1N ) = ND2 (  CRTP2D1,C1G12O1 ) $
D2B12( ,,,DSPEN0,NDSPEN,DSPEN ) = YFD3SI (  DCLK
   ,D2B13O1 ) $
C3G1( C3G1Q,C3G1NQ,D3A1Q, ) = YFD2MD (  CRTP1D4,TXTSHIFT,C3G1Q
    ) $
C2F8( C2F8Q,,D2A14Q, ) = YFD2MD (  CRTP1D0,TXTSHIFT,C2F8Q
    ) $
D2A12( D2A12Q,,D2A13Q, ) = YFD2MD (  CRTP1D3,TXTSHIFT,D2A12Q
    ) $
C3F3( ,,C3F2Q,C3F2NQ ) = YFD2SI (  DCLK,C3F7Q ) $
C3E1( C3E1Q,C3E1NQ,C3F1Q, ) = YFD2MD (  CRTP1D2,TXTSHIFT,C3E1Q
    ) $
C3D1( C3D1Q,C3D1NQ,C3D2Q, ) = YFD2MD (  CRTP1D6,TXTSHIFT,C3D1Q
    ) $
C2F10( C2F10Q,C2F10NQ,C2G17Q, ) = YFD2MD (  CRTP1D1,TXTSHIFT,C2F10Q
    ) $
C2E17( C2E17Q,C2E17NQ,C2E18Q, ) = YFD2MD (  CRTP1D5,TXTSHIFT,C2E17Q
    ) $
```

```
ATT33( ATT33Q0,ATT33Q0N,ATT33Q1,AT33Q1NI,ATT33Q2,ATT33Q2N,ATT33Q3
   , ) = LDG4 (  WTRATT33,DATAIN0,DATAIN1,DATAIN2,DATAIN3 ) $
ATT12( ATTCPE0,,ATTCPE1,ATTCPEN1,ATTCPE2,ATTCPEN2,ATTCPE3
   ,ATTCPEN3,ATTVMX0,NATTVMX0,ATTVMX1,NATTVMX1 ) = LDG6
    (  WTRATT12,DATAIN0
   ,DATAIN1,DATAIN2,DATAIN3,DATAIN4,DATAIN5 ) $
RB285( FATTCPE3 ) = NR2 (  ATTCPEN3,CHAN ) $
RB284( FATTCPE2 ) = NR2 (  ATTCPEN2,CHAN ) $
RB283( FATTCPE1 ) = NR2 (  ATTCPEN1,CHAN ) $
ATT30( ATT30Q0,D3BINQ,ATT30Q1,,ATT30Q2,,ATT30Q3
   ,ATT30Q3N,ATT30Q4,ATT30Q4N,ATT30Q5,,SCOLSEL,
    ) = LDG7 (  WTRATT30,DATAIN0,DATAIN1,DATAIN2,DATAIN3
   ,DATAIN5,DATAIN6
   ,DATAIN7 ) $
RB32( ATT30Q0N ) = IVP (  D3B1QC ) $
RB33( D3B1QC ) = NR2 (  D3BINQ,TEXT ) $
D1A2( E1C2O ) = ND2 (  D1B3O1,C1G8O1 ) $
D1A2A( ,E1C2O1 ) = B2I (  E1C2O ) $
E1D1( E1D2O ) = NR2 (  D1B3O1,GC256L ) $
E1D1A( E1D2O1 ) = B5I (  E1D2O ) $
F2D18( PELPS0 ) = IVP (  PELPS0N ) $
D1B4( PLNLOAD ) = B4I (  PLNSHIFT ) $
C1G8( C1G8O1 ) = B5I (  GC256L ) $
F3B1( PELPS1 ) = IVP (  PELPS1N ) $
F3A7( PELPS2 ) = IVP (  PELPS2N ) $
E5C1( OTB0Q,OTB0NQ ) = YFD1 (  PELP0O,DCLK ) $
E4E13( OTB2Q, ) = YFD1 (  PELPO2,DCLK ) $
E4B19( OTB1Q,OTB1NQ ) = YFD1 (  PELP1O,DCLK ) $
E3G4( PELPSL8N ) = IVP (  PELPSL8 ) $
D3G8( D3G8O1 ) = AO7P (  CGAM3Z,ATT30Q1,D3B10Q ) $
D3F9( PELPS1N ) = AN2 (  D3F14NQ,D3F10Q ) $
D3H13( PELPSL8 ) = AN4 (  D3G11Q,D3F14NQ,NHERGR,CC89SELN ) $
D3H12( PELPS0N ) = AN2 (  D3F14NQ,D3G10Q ) $
D3F12( PELPS2N ) = AN2 (  D3F13Q,D3F14NQ ) $
D3H8( D3H8O1 ) = ND2 (  ATT30Q3,ATT30Q0 ) $
D3E13( D3E13O1 ) = AN2 (  D3C13Q,ATT30Q4 ) $
D3D5( D3D5O1 ) = AN2 (  ATT30Q2A,E3D17O1 ) $
D3B2( C1G12O1 ) = ND4P (  D2B17NQ,C3F2NQ,TEXBK,ATRBLINK ) $
D3F14( ,D3F14NQ ) = YFD2 (  CCC,D3E13O1,D3F11O1 ) $
D3G11( D3G11Q, ) = YFD1 (  ATT33Q3,D3F11O1 ) $
D3G10( D3G10Q, ) = YFD1 (  ATT33Q0,D3F11O1 ) $
D3G9( OTB3Q, ) = YFD1 (  PELP3O,DCLK ) $
D3F13( D3F13Q, ) = YFD1 (  ATT33Q2,D3F11O1 ) $
D3F10( D3F10Q, ) = YFD1 (  ATT33Q1,D3F11O1 ) $
D2B18( D2B18O1 ) = AN2 (  D2B15Q,NTEXBK ) $
D2B13( D2B13O1 ) = AO7 (  ATTA5,DSPTD2N,D2B14Q ) $
D2F13( N16CON ) = ND3P (  C1G8O1,DSPENM,BLANKGN ) $
OVSNS( OVSON ) = ND2P (  NDSPENP,BLANKGN ) $
RB79( NDSPENPI ) = MUX21LP (  BLANKP,DSPEN0,DSPTD2 ) $
RB78( BLANKGN ) = ND3P (  R3D728Q2,BLANK1,DSPTD2 ) $
D2D15( M13ON ) = ND3P (  GC256L,DSPENM,BLANKGN ) $
D2C16( D2C16Q, ) = YFD1 (  D3D5O1,TXTSHIFT ) $
D2B17( ,D2B17NQ ) = YFD1 (  D2B15NQ,CRTLTH ) $
D2B15( D2B15Q, ) = FD1 (  CRTP1D7,TXTSHIFT ) $
D2B14( D2B14Q, ) = YFD1 (  C3G8Q,DCLK ) $
D2A16( D2A16Q, ) = YFD1 (  D2B18O1,TXTSHIFT ) $
D2A11( D2A11Q, ) = YFD1 (  D2C16Q,CRTLTH ) $
D1H5( D1H5O1 ) = NR2 (  D1B3O1,ATT02Q2N ) $
C3F4( C3F4O1 ) = ND3 (  CSRBLINK,ATT30Q0N,C3F2Q ) $
C2F11( C2F11O1 ) = OR2 (  D3B1QC,TXTSHO ) $
C2G14( C2G14O1 ) = OR2 (  D3B1QC,TXTSHON ) $
C2G8( TXTSHI ) = AN2 (  D2A11Q,TXTSHD0 ) $
```

```
C2G7( TXTLOAD ) = IVP (  TXTSHIFT ) $
C2G18( C2G18Q, ) = YFD1 (  C2E20O1,CRTLTH ) $
C2F13( C1F12O1 ) = ND2 (  C3F4O1,C2G18Q ) $
BLKCK( BLKCKZ ) = ND2P (  C1G12O1,C1F12O1 ) $
PL0SHR( PL0SHO, ) = PSHFDD (  DCLK,PL0SHI,PLNSHIFT,PLNLOAD,PL0SHD7
   ,PL0SHD6,PL0SHD5,PL0SHD4,PL0SHD3,PL0SHD2,PL0SHD1,PL0SHD0
    ) $
PL1SHR( PL1SHO, ) = PSHFDD (  DCLK,PL1SHDI,PLNSHIFT,PLNLOAD,PL1SHD7
   ,PL1SHD6,PL1SHD5,PL1SHD4,PL1SHD3,PL1SHD2,PL1SHD1,PL1SHD0
    ) $
PL2SHR( PL2SHO, ) = PSHFDD (  DCLK,PL3SHO,PLNSHIFT,PLNLOAD,PL2SHD7
   ,PL2SHD6,PL2SHD5,PL2SHD4,PL2SHD3,PL2SHD2,PL2SHD1,PL2SHD0
    ) $
PL3SHR( PL3SHO, ) = PSHFDD (  DCLK,SSS,PLNSHIFT,PLNLOAD,PL3SHD7
   ,PL3SHD6,PL3SHD5,PL3SHD4,PL3SHD3,PL3SHD2,PL3SHD1,PL3SHD0
    ) $
P2ADM( PRAMSBCI, ) = FD1S (  CGAM2Z,DCLK,ATTA2,ATTA5N ) $
P0ADM( E5D2QI, ) = FD1S (  CGAM0Z,DCLK,ATTA0,ATTA5N ) $
P1ADM( E5B1QI, ) = FD1S (  CGAM1Z,DCLK,ATTA1,ATTA5N ) $
P3ADM( PRAMSABI, ) = FD1S (  D3H9Z,DCLK,D3H9O1,ATTA5N ) $
TXTSHR( TXTSHO,TXTSHON ) = PSHFDD (  DCLK,TXTSHI,TXTSHIFT
   ,TXTLOAD,TXTSHD0
   ,TXTSHD1,TXTSHD2,TXTSHD3,TXTSHD4,TXTSHD5,TXTSHD6,TXTSHD7
    ) $
D1G7( PL1SHDI,PL0SHI ) = MUX42 (  D1H5O1,PL3SHO,PL2SHO,PL2SHO
   ,PL1SHO
    ) $
RB324( PELP1O ) = PELP1 (  PELP1D,DCLK,PELPS0,PELPS1,PELPS2
   ,PELPSL8N
   ,PELPSL8,FATTCPE1 ) $
RB124( CGASLB ) = ND2 (  CGAEN2O,CGASL2N ) $
RB123( CGAEN2O ) = ND3 (  OTB0NQ,OTB1NQ,CGASL1 ) $
RB122( CGASLA ) = ND2 (  CGAEN1O,CGASL1N ) $
RB121( CGAEN1O ) = ND2 (  CGASL2M,OTB0Q ) $
CGAM1( CGAM1Z ) = MUX41 (  OTB1Q,OTB0Q,SSS,R3D9Q1,CGASLA,CGASLB
    ) $
PELP2( PELPO2 ) = PELP1 (  PELPI2,DCLK,PELPS0,PELPS1,PELPS2
   ,PELPSL8N
   ,PELPSL8,FATTCPE2 ) $
CGAM2( CGAM2Z ) = MUX41 (  OTB2Q,OTB1Q,SSS,R3D9Q2,CGASLA,CGASLB
    ) $
BWINV( BWSP ) = IV (  R3B8Q2 ) $
COLREP( COLROT ) = ND2 (  COLRBW,BWOUT ) $
BWSEL( BWOUT ) = ND2 (  R3B8Q2,OTB0Q ) $
COLBWS( COLRBW ) = ND2 (  R3D9Q5,BWSP ) $
CGAM0( CGAM0Z ) = MUX41 (  OTB0Q,COLROT,SSS,R3D9Q0,CGASLA,CGASLB
    ) $
PELP0( PELP0O ) = PELP1 (  PELP0D,DCLK,PELPS0,PELPS1,PELPS2
   ,PELPSL8N
   ,PELPSL8,ATTCPE0 ) $
PELP3( PELP3O ) = PELP1 (  PELP3D,DCLK,PELPS0,PELPS1,PELPS2
   ,PELPSL8N
   ,PELPSL8,FATTCPE3 ) $
CGAM3( CGAM3Z ) = MUX41 (  OTB3Q,R3D9Q4,SSS,R3D9Q3,CGASLA,CGASLB
    ) $
E3D12( DP02 ) = AO4 (  M13ON,PRAMD0,R3D72BQ0,BLANKGN ) $
E3D11( DP01 ) = AO4 (  N16CON,PRAMD0S,OVSON,ATT31Q0 ) $
E3D1( DP0 ) = NR2 (  DP01,DP02 ) $
D2F162( DP62 ) = AO4 (  M13ON,PRAMD2S,R3D72BQ6,BLANKGN ) $
D2F161( DP61 ) = AO4 (  N16CON,ATT34Q2,OVSON,ATT31Q6 ) $
D2F16( DP6 ) = NR2 (  DP61,DP62 ) $
E2H172( DP72 ) = AO4 (  M13ON,PRAMD3S,R3D72BQ7,BLANKGN ) $
```

```
     E2H171( DP71 ) = AO4 (  ATT34Q3,N16CON,OVSON,ATT31Q7 ) $
     E2H17( DP7 ) = NR2 (  DP71,DP72 ) $
     D3H32( DP12 ) = AO4 (  M13ON,PRAMD1,R3D72BQ1,BLANKGN ) $
     D3H31( DP11 ) = AO4 (  N16CON,PRAMD1S,OVSON,ATT31Q1 ) $
     D3H3( DP1 ) = NR2 (  DP11,DP12 ) $
     E3A12( DP52 ) = AO4 (  M13ON,PRAMD1S,R3D72BQ5,BLANKGN ) $
     E3A11( DP51 ) = AO4 (  D3C1O1,N16CON,OVSON,ATT31Q5 ) $
     E3A1( DP5 ) = NR2 (  DP51,DP52 ) $
     E3G12( DP32 ) = AO4 (  M13ON,PRAMD3,R3D72BQ3,BLANKGN ) $
     E3G11( DP31 ) = AO4 (  N16CON,PRAMD3S,OVSON,ATT31Q3 ) $
     E3G1( DP3 ) = NR2 (  DP31,DP32 ) $
     D2H192( DP22 ) = AO4 (  M13ON,PRAMD2,R3D72BQ2,BLANKGN ) $
     D2H191( DP21 ) = AO4 (  N16CON,PRAMD2S,OVSON,ATT31Q2 ) $
     D2H19( DP2 ) = NR2 (  DP21,DP22 ) $
     E2C152( DP42 ) = AO4 (  M13ON,PRAMD0S,R3D72BQ4,BLANKGN ) $
     E2C151( DP41 ) = AO4 (  D3G2O1,N16CON,OVSON,ATT31Q4 ) $
     E2C15( DP4 ) = NR2 (  DP41,DP42 ) $
     D3G2( D3C1O1,D3G2O1 ) = MUX42 (  SCOLSELK,ATT34Q1,PRAMD5S
        ,ATT34Q0,PRAMD4S
         ) $
     B1E1( PI0, ) = YFD1 (  DP0,M13CLK ) $
     B2F4( PI6, ) = YFD1 (  DP6,M13CLK ) $
     B3E1( PI7, ) = YFD1 (  DP7,M13CLK ) $
     B3F8( PI1, ) = YFD1 (  DP1,M13CLK ) $
     C1F1( PI5, ) = YFD1 (  DP5,M13CLK ) $
     D1C1( PI3, ) = YFD1 (  DP3,M13CLK ) $
     F1E1( PI4, ) = YFD1 (  DP4,M13CLK ) $
     F3E9( PI2, ) = YFD1 (  DP2,M13CLK ) $
     ATT31( ATT31Q0,,ATT31Q1,,ATT31Q2,,ATT31Q3
        ,,ATT31Q4,,ATT31Q5,,ATT31Q6,
        ,ATT31Q7, ) = LDG8 (  WTRATT31,DATAIN0,DATAIN1,DATAIN2,DATAIN3
        ,DATAIN4,DATAIN5,DATAIN6,DATAIN7 ) $
     ATT34( ATT34Q0,,ATT34Q1,,ATT34Q2,,ATT34Q3
        , ) = LDG4 (  WTRATT34,DATAIN0,DATAIN1,DATAIN2,DATAIN3 ) $
     D3E3( ,,PRAMD5S, ) = YFD2SI (  DCLK,PLOUT5 ) $
     D3G5( PRAMD1,,PRAMD1S, ) = YFD2SI (  DCLK,PLOUT1 ) $
     E2A19( PRAMD2,,PRAMD2S, ) = YFD2SI (  DCLK,PLOUT2 ) $
     E3B1( ,,PRAMD4S, ) = YFD2SI (  DCLK,PLOUT4 ) $
     E3C2( PRAMD0,,PRAMD0S, ) = YFD2SI (  DCLK,PLOUT0 ) $
     F3B3( PRAMD3,,PRAMD3S, ) = YFD2SI (  DCLK,PLOUT3 ) $
     RAM610( PLOUT0,PLOUT1,PLOUT2,PLOUT3,PLOUT4,PLOUT5 ) = RAM610A
         (  PRAMCL
        ,E5D2Q,E5D2NQ,E5B1Q,E5B1NQ,PRAMSBC,PRAMSAD,PRAMSAB
        ,PRAMSCD,DATAIN0,DATAIN1,DATAIN2,DATAIN3,DATAIN4,DATAIN5
         ) $
     E2C14( DPGRP1,DPGRP0 ) = MUX241 (  NATTVMX0,ATTVMX0,NATTVMX1
        ,ATTVMX1,DP0
        ,DP1,DP4,DP6,DP2,DP3,DP5,DP7
         ) $
     RB125( CGASL2M ) = NR2 (  STP348Q,CGASL2N ) $
     GCSHDM( D1B3O1 ) = NR2 (  CGASL1,GCSHLD ) $
     S348Q( STP348Q, ) = YFD2 (  CCC,STP348,D3F11O1 ) $
     TEXB( TEXBK ) = ND2 (  EMBLK,ATT30Q3N ) $
     NTEXB( NTEXBK ) = IV (  TEXBK ) $
     RB268( SCOLSELK ) = AN2 (  SCOLSEL,DSPTD2 ) $
END : MODULE $
MODULE :   READ2I/// $
INPUTS   :
     A0,A1,A2,A3,A4,A5,A6,A7,B0,B1,B2,B3,B4A,B5,B6,B7,NRDA,NRDB
$
OUTPUTS  :
     Q0,Q1,Q2,Q3,Q4,Q5,Q6,Q7
```

```
$
DESCRIPTION : MODULE FOR READ2I $
LEVEL  : FUNCTION $
USE   :
     AO2 /// MASTER
    ,IV /// MASTER

$
DEFINE :
     AMUX0( PQ0 ) = AO2 (  A0,SA,B0,SB ) $
     AMUX1( PQ1 ) = AO2 (  A1,SA,B1,SB ) $
     AMUX2( PQ2 ) = AO2 (  A2,SA,B2,SB ) $
     AMUX3( PQ3 ) = AO2 (  A3,SA,B3,SB ) $
     AMUX4( PQ4 ) = AO2 (  A4,SA,B4A,SB ) $
     AMUX5( PQ5 ) = AO2 (  A5,SA,B5,SB ) $
     AMUX6( PQ6 ) = AO2 (  A6,SA,B6,SB ) $
     AMUX7( PQ7 ) = AO2 (  A7,SA,B7,SB ) $
     INV3( Q0 ) = IV (  PQ0 ) $
     INV4( Q1 ) = IV (  PQ1 ) $
     INV5( Q2 ) = IV (  PQ2 ) $
     INV6( Q3 ) = IV (  PQ3 ) $
     INV7( Q4 ) = IV (  PQ4 ) $
     INV8( Q5 ) = IV (  PQ5 ) $
     INV9( Q6 ) = IV (  PQ6 ) $
     INV10( Q7 ) = IV (  PQ7 ) $
     INV1( SA ) = IV (  NRDA ) $
     INV2( SB ) = IV (  NRDB ) $
END : MODULE $
MODULE :   PALIF/// $
INPUTS   :
     IPALCLK,AR10D6,DOTCLK,IPAL5,IPAL4,IPAL3,IPAL2,IPAL1,IPAL0
$
OUTPUTS  :
     IPAL5D,IPAL4D,IPAL3D,IPAL2D,IPAL1D,IPAL0D
$
DESCRIPTION : MODULE FOR PALIF $
LEVEL  : FUNCTION $
USE   :
     B4I /// MASTER
    ,SEL612 ///
    ,DFF6 ///

$
DEFINE :
     RB630( NDOTCLK ) = B4I (  DOTCLK ) $
     RB620( IPAL0DID,IPAL1DID,IPAL2DID,IPAL3DID,IPAL4DID,IPAL5DID
         ) = SEL612 (  IPAL0I
        ,IPAL1I,IPAL2I,IPAL3I,IPAL4I,IPAL5I,IPAL0DI,IPAL1DI
        ,IPAL2DI,IPAL3DI,IPAL4DI,IPAL5DI,AR10D6 ) $
     RB612( IPAL0D,IPAL1D,IPAL2D,IPAL3D,IPAL4D,IPAL5D ) = DFF6
         (  IPAL0DID
        ,IPAL1DID,IPAL2DID,IPAL3DID,IPAL4DID,IPAL5DID,DOTCLK ) $
     RB607( IPAL0DI,IPAL1DI,IPAL2DI,IPAL3DI,IPAL4DI,IPAL5DI )
         = DFF6 (  IPAL0I
        ,IPAL1I,IPAL2I,IPAL3I,IPAL4I,IPAL5I,NDOTCLK ) $
     RB593( IPAL0I,IPAL1I,IPAL2I,IPAL3I,IPAL4I,IPAL5I ) = DFF6 (  IPAL0
        ,IPAL1,IPAL2,IPAL3,IPAL4,IPAL5,IPALCLK ) $
END : MODULE $
MODULE :   MUX881/// $
INPUTS   :
     S0,S1,S2,D00,D10,D20,D30,D40,D50,D60,D70,D01,D11,D21,D31,D41
    ,D51,D61,D71,D02,D12,D22,D32,D42,D52,D62,D72,D03,D13,D23,D33,D43
```

```
    ,D53,D63,D73,D04,D14,D24,D34,D44,D54,D64,D74,D05,D15,D25,D35,D45
    ,D55,D65,D75,D06,D16,D26,D36,D46,D56,D66,D76,D07,D17,D27,D37,D47
    ,D57,D67,D77
$
OUTPUTS  :
     DOUT0,DOUT1,DOUT2,DOUT3,DOUT4,DOUT5,DOUT6,DOUT7
$
DESCRIPTION : MODULE FOR MUX881 $
LEVEL  : FUNCTION $
USE   :
     MUX81 /// MASTER

$
DEFINE :
     RB105( DOUT0 ) = MUX81 (  D00,D10,D20,D30,D40,D50
        ,D60,D70,S0,S1,S2 ) $
     RB104( DOUT1 ) = MUX81 (  D01,D11,D21,D31,D41,D51
        ,D61,D71,S0,S1,S2 ) $
     RB103( DOUT2 ) = MUX81 (  D02,D12,D22,D32,D42,D52
        ,D62,D72,S0,S1,S2 ) $
     RB102( DOUT3 ) = MUX81 (  D03,D13,D23,D33,D43,D53
        ,D63,D73,S0,S1,S2 ) $
     RB98( DOUT4 ) = MUX81 (  D04,D14,D24,D34,D44,D54
        ,D64,D74,S0,S1,S2 ) $
     RB95( DOUT5 ) = MUX81 (  D05,D15,D25,D35,D45,D55
        ,D65,D75,S0,S1,S2 ) $
     RB86( DOUT6 ) = MUX81 (  D06,D16,D26,D36,D46,D56
        ,D66,D76,S0,S1,S2 ) $
     BX1( DOUT7 ) = MUX81 (  D07,D17,D27,D37,D47,D57
        ,D67,D77,S0,S1,S2 ) $
END : MODULE $
MODULE :   MUX851/// $
INPUTS   :
     D23,D21,D24,D22,D20,D13,D11,D14,D12,D10,D33,D31,D34,D32,D30,D03
    ,D01,D04,D02,D00,D73,D71,D74,D72,D70,D63,D61,D64,D62,D60,D53,D51
    ,D54,D52,D50,D43,SEL3,SEL1,D41,D44,SEL4,SEL2,D42,SEL0,D40
$
OUTPUTS  :
     D0,D1,D2,D3,D4,D5,D6,D7
$
DESCRIPTION : MODULE FOR MUX851 $
LEVEL  : FUNCTION $
USE   :
     ORA25 ///

$
DEFINE :
     RB106( D2 ) = ORA25 (  SEL1,D21,D24,SEL4,SEL2,D22
        ,SEL0,D20,D23,SEL3 ) $
     RB105( D1 ) = ORA25 (  D11,SEL1,D14,SEL4,SEL2,D12
        ,SEL0,D10,D13,SEL3 ) $
     RB104( D3 ) = ORA25 (  SEL1,D31,D34,SEL4,SEL2,D32
        ,SEL0,D30,D33,SEL3 ) $
     RB103( D0 ) = ORA25 (  SEL1,D01,D04,SEL4,SEL2,D02
        ,SEL0,D00,D03,SEL3 ) $
     RB102( D7 ) = ORA25 (  SEL1,D71,D74,SEL4,SEL2,D72
        ,SEL0,D70,D73,SEL3 ) $
     RB98( D6 ) = ORA25 (  SEL1,D61,D64,SEL4,SEL2,D62
        ,SEL0,D60,SEL3,D63 ) $
     RB95( D5 ) = ORA25 (  SEL1,D51,D54,SEL4,SEL2,D52
        ,SEL0,D50,D53,SEL3 ) $
     RB86( D4 ) = ORA25 (  SEL1,D41,D44,SEL4,SEL2,D42
```

```
        ,SEL0,D40,D43,SEL3 ) $
END : MODULE $
MODULE :   LD8L/// $
INPUTS   :
     CL,D0,D1,D2,D3,D4,D5,D6,D7
$
OUTPUTS  :
     Q0,NQ0,Q1,NQ1,Q2,NQ2,Q3,NQ3,Q4,NQ4,Q5,NQ5,Q6,NQ6,Q7,NQ7
$
DESCRIPTION : MODULE FOR LD8L $
LEVEL  : FUNCTION $
USE   :
     LD2P /// MASTER

$
DEFINE :
     RB86( Q0,NQ0 ) = LD2P (  D0,CL ) $
     RB95( Q1,NQ1 ) = LD2P (  D1,CL ) $
     RB98( Q2,NQ2 ) = LD2P (  D2,CL ) $
     RB102( Q3,NQ3 ) = LD2P (  D3,CL ) $
     RB103( Q4,NQ4 ) = LD2P (  D4,CL ) $
     RB104( Q5,NQ5 ) = LD2P (  D5,CL ) $
     RB105( Q6,NQ6 ) = LD2P (  D6,CL ) $
     RB106( Q7,NQ7 ) = LD2P (  D7,CL ) $
END : MODULE $
MODULE :   LD8/// $
INPUTS   :
     CL,D0,D1,D2,D3,D4,D5,D6,D7
$
OUTPUTS  :
     Q0,NQ0,Q1,NQ1,Q2,NQ2,Q3,NQ3,Q4,NQ4,Q5,NQ5,Q6,NQ6,Q7,NQ7
$
DESCRIPTION : MODULE FOR LD8 $
LEVEL  : FUNCTION $
USE   :
     LD2P /// MASTER
    ,B4I /// MASTER

$
DEFINE :
     RB86( PNQ0,PQ0 ) = LD2P (  D0,CL ) $
     B1A( NQ0 ) = B4I (  PNQ0 ) $
     RB87( Q0 ) = B4I (  PQ0 ) $
     RB95( PNQ1,PQ1 ) = LD2P (  D1,CL ) $
     B2A( NQ1 ) = B4I (  PNQ1 ) $
     RB96( Q1 ) = B4I (  PQ1 ) $
     RB98( Q2,NQ2 ) = LD2P (  D2,CL ) $
     RB102( Q3,NQ3 ) = LD2P (  D3,CL ) $
     RB103( Q4,NQ4 ) = LD2P (  D4,CL ) $
     RB104( Q5,NQ5 ) = LD2P (  D5,CL ) $
     RB105( Q6,NQ6 ) = LD2P (  D6,CL ) $
     RB106( Q7,NQ7 ) = LD2P (  D7,CL ) $
END : MODULE $
MODULE :   GCDEC2/// $
INPUTS   :
     DATAIN3,DATAIN2,DATAIN1,DATAIN0,WTGCADDR,WT3CEF
$
OUTPUTS  :
     WTRGC04,GCAQ3,GCAQ2,GCAQ1,GCAQ0,WTRGC07,WTRGC06,WTRGC01,WTRGC02
    ,WTRGC00,WTRGC03,WTRGC05,WTRGC08,GC05A0,GC08A0,GC03A0,GC06A0,GC04A0
    ,GC01A0,GC07A0,GC00A0,GC02A0,GC00A0N,GC03A0N
$
```

```
DESCRIPTION : MODULE FOR GCDEC2 $
LEVEL  : FUNCTION $
USE   :
     IV /// MASTER
    ,D24L /// MASTER
    ,IVP /// MASTER
    ,ND2 /// MASTER
    ,AN2 /// MASTER
    ,LDG4 ///

$
DEFINE :
     RB164( GC01XX ) = IV (  C1B14O2N ) $
     RB163( GC10XX ) = IV (  C1B14O1N ) $
     RB162( GC00XX ) = IV (  C1B14O0N ) $
     C1B14( C1B14O0N,C1B14O1N,C1B14O2N, ) = D24L (  GCAQ3,GCAQ2 ) $
     RB168( GCXX11 ) = IV (  C1C14O3N ) $
     RB167( GCXX01 ) = IV (  C1C14O2N ) $
     RB166( GCXX10 ) = IV (  C1C14O1N ) $
     RB165( GCXX00 ) = IV (  C1C14O0N ) $
     C1C14( C1C14O0N,C1C14O1N,C1C14O2N,C1C14O3N ) = D24L (  GCAQ1
        ,GCAQ0 ) $
     B2G4( GC00A0N ) = IVP (  GC00A0 ) $
     B2G5( GC03A0N ) = IVP (  GC03A0 ) $
     B2G6( WTRGC00 ) = ND2 (  GC00A0,WT3CEF ) $
     B2G14( WTRGC02 ) = ND2 (  GC02A0,WT3CEF ) $
     C1B10( WTRGC01 ) = ND2 (  WT3CEF,GC01A0 ) $
     C1E7( WTRGC06 ) = ND2 (  GC06A0,WT3CEF ) $
     C1F10( WTRGC05 ) = ND2 (  GC05A0,WT3CEF ) $
     C1C10( GC01A0 ) = AN2 (  GCXX01,GC00XX ) $
     C1C13( GC02A0 ) = AN2 (  GC00XX,GCXX10 ) $
     C1D12( GC06A0 ) = AN2 (  GC01XX,GCXX10 ) $
     C1D13( GC05A0 ) = AN2 (  GC01XX,GCXX01 ) $
     C1B13( GC08A0 ) = AN2 (  GC10XX,GCXX00 ) $
     C2A12( WTRGC03 ) = ND2 (  GC03A0,WT3CEF ) $
     C2B14( WTRGC07 ) = ND2 (  GC07A0,WT3CEF ) $
     C2D11( WTRGC08 ) = ND2 (  WT3CEF,GC08A0 ) $
     C2C7( WTRGC04 ) = ND2 (  WT3CEF,GC04A0 ) $
     C2B1( GC04A0 ) = AN2 (  GC01XX,GCXX00 ) $
     C2C1( GC00A0 ) = AN2 (  GCXX00,GC00XX ) $
     C2C2( GC03A0 ) = AN2 (  GCXX11,GC00XX ) $
     C2B2( GC07A0 ) = AN2 (  GCXX11,GC01XX ) $
     GCADDR( GCAQ0,,GCAQ1,,GCAQ2,,GCAQ3
        , ) = LDG4 (  WTGCADDR,DATAIN0,DATAIN1,DATAIN2,DATAIN3 ) $
END : MODULE $
MODULE :   DATMX1/// $
INPUTS   :
     DI0,DI1,DI2,DI3,DI4,DI5,DI6,DI7,DI8,DI9,DI10,DI11,DI12,DI13,DI14
    ,DI15,SELA,SELB
$
OUTPUTS  :
     DO0,DO1,DO2,DO3,DO4,DO5,DO6,DO7,DO8,DO9,DO10,DO11,DO12,DO13,DO14
    ,DO15
$
DESCRIPTION : MODULE FOR DATMX1 $
LEVEL  : FUNCTION $
USE   :
     MXRBO2 ///
    ,MXRBO1 ///

$
DEFINE :
```

```
     AMUX0( DO8,DO9,DO10,DO11 ) = MXRBO2 (  DI8,DI0,DI9
        ,DI1,DI10,DI2,DI11,DI3,SELA ) $
     AMUX1( DO12,DO13,DO14,DO15 ) = MXRBO2 (  DI12,DI4,DI13
        ,DI5,DI14,DI6,DI15,DI7,SELA ) $
     BMUX0( DO0,DO1,DO2,DO3 ) = MXRBO1 (  DI0,DI8,DI1
        ,DI9,DI2,DI10,DI3,DI11,SELB ) $
     BMUX1( DO4,DO5,DO6,DO7 ) = MXRBO1 (  DI4,DI12,DI5
        ,DI13,DI6,DI14,DI7,DI15,SELB ) $
END : MODULE $
MODULE :   CRTC01/// $
INPUTS   :
     U4Z,NHERGR,EQLOWCLK,VERTA0,VERTA1,VERTA2,VERTA3,VERTA4,VERTA5
    ,VERTA6,VERTA7,VERRSA0,VERRSA1,VERRSA2,VERRSA3,VERRSA4,VERRSA5
    ,VERRSA6,VERRSA7,VERREA0,VERREA1,VERREA2,VERREA3,VERDEA0,VERDEA1
    ,VERDEA2,VERDEA3,VERDEA4,VERDEA5,VERDEA6,VERDEA7,CRT07QA0,CRT07QA1
    ,CRT07QA2,CRT07QA5,CRT07QA6,CRT07QA7,NT69,NE6845,E6845,NT112,NT113
    ,C3G19O1,VGAMOD,WREXR,R3D6Q0,R3D6NQ0,R3D6Q1,R3D6NQ1,R3D6Q2,R3D6NQ2
    ,R3D6NQ3,R3D6NQ4,R3D6Q5,R3D6Q6,R3D6Q7,TEST1Z,WCRTC15,WCRTC12,WCRTC16
    ,WCRTC10,WCRTC18,WCRTC06,SCROFF,CHRESET,DATAIN5,DATAIN4,DATAIN6
    ,DATAIN7,DATAIN3,DATAIN2,DATAIN1,DATAIN0,VERBS9,LINEC9,NRESET
    ,TESTCZ,TESTAZ,TESTBZ,TEST0Z,ATT30Q4N,CCC,ATT30Q0N,D3B1QC,TXTSHIFT
    ,NT114,CRTAQ5,CRTAQ3,CRTAQ4N,CRTAQQ5,CRTAQQ4,WCRTC07A,WCRT0T7
    ,W3BD45,WCRTC02,WCRTC04,WCRTC05,WCRTC03,WCRTC07,WCRTC00,WCRTC01
    ,IOCMDWR,NCLRHC,NCHRCLK,REF5PL,R3C2Q7,R3C2Q6,R3BDAQ2,CRTCM2,NCRTCM2
    ,CHRCLK,EWIO010N,VGAENW,C5D6O1,NT83,CRTC8Q5,CRTC8Q6,A3C17O1,VERCNT9
    ,VERCNT8,VERCNT7,VERCNT6,VERCNT5,VERCNT4,VERCNT3,VERCNT2,VERCNT1
    ,VERCNT0,HVCVDE,DSPTD2,EQHDEE,EQHDES,NKILL1,STRCHP,STRCHM,B4E4Q
    ,ULINE,VDELN,VDEL,DCK2DIVN,SSS,VPU,CVC0,CVC1,CVC2,CVC3,CVC4,CVC5
    ,CVC6,CVC7,CVC8,CVC9
$
OUTPUTS  :
     VBLKSP,NT103,NT52,D3C13QP,NVERDE7,LPSTB,C3G9O1,BCRR0,BCRR1,BCRR2
    ,BCRR3,BCRR4,BCRR5,BCRR6,BCRR7,VERT7,VERT6,VERT5,VERT4,VERT3,VERT2
    ,VERT1,VERT0,VERRS7,VERRS6,VERRS5,VERRS4,VERRS3,VERRS2,VERRS1
    ,VERRS0,VERDE7,VERDE6,VERDE5,VERDE4,VERDE3,VERDE2,VERDE1,VERDE0
    ,VERBS7,VERBS6,VERBS5,VERBS4,VERBS3,VERBS2,VERBS1,VERBS0,VERBE7
    ,VERBE6,VERBE5,VERBE4,VERBE3,VERBE2,VERBE1,VERBE0,LINEC7,LINEC6
    ,LINEC5,LINEC4,LINEC3,LINEC2,LINEC1,LINEC0,ENDVSYNC,ENDVBLNK
        ,ENDVERDE
    ,EQVTOT,STVERB,LCOMP,LCOMPA,STVERR,POS102Q0,CRT07Q4,PROT07,VERRE3
    ,VERRE2,VERRE1,VERRE0,CRT07Q7,CRT07Q6,CRT07Q5,CRT07Q3,CRT07Q2
    ,CRT07Q1,CRT07Q0,NT45,CRTINT,ADD16NMR,XDHSYNC,DHSYNC,D3C13Q,CRT010X
    ,HORBE7,WCRT0T7P,D3F11O1,NVERINC,D3A12O1,NVERINE,B4G4Q,SCROFFQ
    ,C3D5O1,C3F7Q,C3E6Q,C3D7O1,C3B11NQ,C3G16O1,C3A7O1,HORRE6,HORBE6
    ,C2B18O1,C2C22O1,VDSPLYEN,C4A9Q,B4G5Q,B4E3O1,NT26,ENDHORRE,HORRE4
    ,HORBE4,HORRE7,C3A10NQ,ENDHOR,CRTRSB,D3A4O1,B3A13O1,B3F11O1,C2B17O1
    ,C3A14O1,C3G8Q,BLANK5,HORRE5,HORBE5,B3F7NQ,B4F8O1,HORRS4,HORRS3
    ,HORRS2,HORRS6,HORRS7,HORRS5,HORRS1,HORRS0,ENDHORB,HORB5,HORB7
    ,HORB6,HORB3,HORB1,HORB2,HORB4,HORB0,B4B10O1,HORT6,HORT4,HORT5
    ,HORT2,HORT1,HORT3,HORT0,HORT7,B5C5O1,HORDI2,HORDI3,HORDI1,HORDI0
    ,HORDI6,HORDI5,HORDI7,HORDI4,HORBE2,HORBE3,HORBE0,HORBE1,HORRE3
    ,HORRE1,HORRE2,HORRE0,C3A10Q,EVC9,EVC8,EVC7,EVC6,EVC5,EVC4,EVC3
    ,EVC2,EVC1,EVC0,OB4E4Q,C3A16NQ,VCNTRSET,HCONT7,HCONT6,HCONT5,HCONT4
    ,HCONT3,HCONT2,HCONT1,HCONT0,ONCEPERH,AHORB0,AHORB1,AHORB2,AHORB3
    ,AHORB4,AHORB5,AHORB6,AHORB7,AHORBE0,AHORBE1,AHORBE2,AHORBE3,AHORBE4
    ,AHORBE5,AHORBE6,AHORBE7,DCK2PNL,AHCRN
$
DESCRIPTION : MODULE FOR CRTC01 $
LEVEL  : FUNCTION $
USE   :
     AN2 /// MASTER
    ,IV /// MASTER
```

```
    ,MUX41 /// MASTER
    ,YFD1 /// MASTER
    ,ND2 /// MASTER
    ,NR2 /// MASTER
    ,EQUL4NP ///
    ,EQUL4N ///
    ,EQUL8P ///
    ,EQUL8 ///
    ,MUXFD1 ///
    ,OR2 /// MASTER
    ,ND3 /// MASTER
    ,YFD2 /// MASTER
    ,FD2 /// MASTER
    ,FJK2 /// MASTER
    ,EO /// MASTER
    ,NR3 /// MASTER
    ,FJK2P /// MASTER
    ,AO6 /// MASTER
    ,EN /// MASTER
    ,AO2 /// MASTER
    ,AO7P /// MASTER
    ,IVP /// MASTER
    ,AN4 /// MASTER
    ,FD2P /// MASTER
    ,AN3 /// MASTER
    ,OR3 /// MASTER
    ,EOP /// MASTER
    ,AO7 /// MASTER
    ,AO2P /// MASTER
    ,B4IP /// MASTER
    ,FT2 /// MASTER
    ,FD4 /// MASTER
    ,YLDG8 ///
    ,YLDG5 ///
    ,LDG3 ///
    ,YLDG7 ///
    ,YLDG4 ///
    ,YFFD2 ///
    ,LD2 /// MASTER
    ,YFD2SI ///
    ,TCNT4 ///
    ,VERTC2C ///
    ,A2T1B8 ///
    ,MUX21L /// MASTER
    ,A2T1B7 ///
    ,READ6 ///
    ,NR2P /// MASTER
    ,LDG2 ///
    ,LD4 /// MASTER
    ,NR4 /// MASTER
    ,MUX21HP /// MASTER
    ,SEL816 ///
    ,B2I /// MASTER

$
DEFINE :
     RB555( NCRTCM2D ) = AN2 (  U4Z,NCRTCM2 ) $
     NEWIV( NREF5PL ) = IV (  REF5PL ) $
     K98( K98Z ) = MUX41 (  M17Z,K90Q,K91Q,K92Q,HORBE5,HORBE6
          ) $
     K92( K92Q, ) = YFD1 (  K91Q,NCHRCLK ) $
     K91( K91Q, ) = YFD1 (  K90Q,NCHRCLK ) $
```

```
K90( K90Q, ) = YFD1 (  M17Z,NCHRCLK ) $
RB256( TEXTALL ) = ND2 (  D3B1QC,NHGPNL ) $
RB255( NHGPNL ) = IV (  HGPNL ) $
RB254( GRAFALL ) = NR2 (  HGPNL,ATT30Q0N ) $
RB253( HGPNL ) = NR2 (  DSPTD2,NHERGR ) $
B5D5( B5D4O1 ) = EQUL4NP (  FHORRE0,HCONT0,FHORRE1,HCONT1
   ,FHORRE2,HCONT2
   ,FHORRE3,HCONT3,DCK2PNL ) $
C5C9( C5C10O1 ) = EQUL4N (  FHORBE0,FHORBE3,FHORBE2,HCONT1
   ,HCONT0,HCONT3
   ,HCONT2,FHORBE1 ) $
RB180( B5C5O1 ) = EQUL8P (  FHORDI0,HCONT0,FHORDI1,HCONT1
   ,FHORDI2,HCONT2
   ,FHORDI3,HCONT3,FHORDI4,HCONT4,FHORDI5,HCONT5,FHORDI6
   ,HCONT6,FHORDI7,HCONT7,DCK2PNL ) $
HTOTAL( B4B10O1 ) = EQUL8P (  HCONT0,FHORT0,HCONT1,FHORT1
   ,HCONT2,FHORT2
   ,HCONT3,FHORT3,HCONT4,FHORT4,HCONT5,FHORT5,HCONT6
   ,FHORT6,HCONT7,FHORT7,DCK2PNL ) $
RB388( ENDHORB ) = EQUL8 (  HCONT0,HCONT1,HCONT2,HCONT3
   ,HCONT4,HCONT5
   ,HCONT6,HCONT7,FHORB0,FHORB1,FHORB2,FHORB3,FHORB4
   ,FHORB5,FHORB6,FHORB7 ) $
C5A14( B4F8O1 ) = EQUL8P (  FHORRS0,HCONT0,FHORRS1,HCONT1
   ,FHORRS2,HCONT2
   ,FHORRS3,HCONT3,FHORRS4,HCONT4,FHORRS5,HCONT5,FHORRS6
   ,HCONT6,FHORRS7,HCONT7,DCK2PNL ) $
B3F9( B3F11O1 ) = MUX41 (  B3E7Q,B3E9Q,B3E10Q,B3D10Q,B3E12NQ
   ,B3E11NQ
    ) $
C3C7( C3B6O1 ) = MUX41 (  M7Q,M15QN,C3C5Q,B3G6Q,FHORBE5,FHORBE6
    ) $
C3E11( DHSYNC ) = MUX41 (  B4E4Q,B3G8Q,C3E9Q,C3E10Q,FHORRE5,FHORRE6
    ) $
C3E2( ,BLANK5 ) = MUXFD1 (  TXTSHIFT,C3E3Q,ATT30Q0N,D3B1QC,C3D4Q
    ) $
C3G6( ,C3G8Q ) = MUXFD1 (  TXTSHIFT,C3G7Q,TEXTALL,GRAFALL,C3G5Q
    ) $
A3D16( A3D16Q, ) = YFD1 (  A3C17O1,C3A14O1 ) $
C13NQ( D3C13NQ ) = ND2 (  NE6845,D3C13QP ) $
KUM26( OKUM26 ) = OR2 (  VDEL,DSPTD2 ) $
LINC( LINCMPD ) = ND3 (  NE6845,E4F6Q,OKUM26 ) $
B3A13( B3A13O1 ) = ND2 (  B3B17Q,B3A14NQ ) $
B3A14( ,B3A14NQ ) = YFD1 (  B3B17Q,CHRCLK ) $
B3B17( B3B17Q, ) = YFD1 (  A3D16Q,CHRCLK ) $
B3D10( B3D10Q, ) = YFD2 (  B3E10Q,NCHRCLK,NRESET ) $
B3E8( B3E8Q, ) = YFD2 (  B3F7NQ,CHRCLK,NRESET ) $
B3E9( B3E9Q, ) = YFD2 (  B3E7Q,NCHRCLK,NRESET ) $
B3E10( B3E10Q, ) = YFD2 (  B3E9Q,NCHRCLK,NRESET ) $
B3E11( ,B3E11NQ ) = YFD2 (  CRTC8Q6,D3A4O1,D3D12O1 ) $
B3E12( ,B3E12NQ ) = YFD2 (  CRTC8Q5,D3A4O1,D3D12O1 ) $
B3G6( B3G6Q, ) = YFD2 (  C3C5Q,NCHRCLK,NRESET ) $
B3G8( B3G8Q, ) = YFD2 (  B4E4Q,NCHRCLK,CRTRSB ) $
B3G12( BENDHOR,BENDHORN ) = FD2 (  B3G10O1,CHRCLK,NRESET ) $
B3E7( B3E7Q, ) = FJK2 (  M16Z,B3E8Q,NCHRCLK,NRESET ) $
B3G10( B3G10O1 ) = AN2 (  M6Q,M7QN ) $
B4A9( B4A9O1 ) = EO (  TEST0Z,HCNTN3 ) $
B4A10( B4A10O1 ) = EO (  FHORRE7,HCONT5 ) $
B4C12( B4C12O1 ) = EO (  FHORBE4,HCONT4 ) $
B4D13( B4D13O1 ) = EO (  FHORRE4,HCONT4 ) $
B4D17( ENDHORRE ) = NR2 (  B4D13O1,B5D4O1 ) $
B4C11( NT26 ) = NR3 (  C5C10O1,B4C12O1,B4A10O1 ) $
```

```
B4E3( B4E3O1 ) = AN2 (  B4E4NQ,C3A9Q ) $
B4E4( OB4E4Q, ) = FJK2P (  B4F8O1,ENDHORRE,NCHRCLK,CRTRSB ) $
B4G5( B4G5Q, ) = FJK2 (  ENDHORB,NT26,NCHRCLK,NRESET ) $
C2E19( C2E19O1 ) = AO6 (  R3BDAQ2,VDSPLYEN,C4A9Q ) $
C2B17( C2B17O1 ) = EN (  C2E19O1,R3C2Q7 ) $
C2C22( C2C22O1 ) = NR2 (  C3C5Q,C3C2O1 ) $
C2B18( C2B18O1 ) = NR2 (  B3F7NQ,NT30 ) $
C3C3( C3C3AZ ) = AO2 (  C3B1Q,REF5PL,NREF5PL,C3C4Q ) $
IC13Q( D3C13Q ) = IV (  D3C13NQ ) $
GLPSTB( LPSTB ) = AO7P (  E4G6Q,E4F6NQ,E6845 ) $
C3A7( C3A7O1 ) = ND2 (  C3A9NQ,B3F11O1 ) $
C3A13( C3A13O1 ) = IVP (  B3G8Q ) $
C3E4( C3E4O1 ) = IVP (  C3E5O1 ) $
C3G11( C3G11O1 ) = IVP (  NCHRCLK ) $
C3A9( C3A9Q,C3A9NQ ) = FJK2 (  B3F11O1,M17Z,NCHRCLK,NRESET ) $
C3A10( C3A10Q,C3A10NQ ) = FJK2 (  B3D10Q,K98Z,NCHRCLK,NRESET ) $
C3A14( C3A14O1 ) = AN4 (  M2O1,B3G8Q,M8O1,NKILL3 ) $
C3A15( C3A15O1 ) = AN2 (  NT83,C3A16NQ ) $
C3A16( ,C3A16NQ ) = FD2 (  M13O1,C3A13O1,FBFCRT8Z ) $
C3B1( C3B1Q, ) = YFD2 (  C3B2Q,NCHRCLK,NRESET ) $
C3B2( C3B2Q, ) = YFD2 (  C3C4Q,NCHRCLK,NRESET ) $
C3B11( C3G16O1,C3B11NQ ) = FD2P (  C3E13Q,NCHRCLK,NRESET ) $
C3C1( C3C1Q, ) = YFD2 (  C3B1Q,NCHRCLK,NRESET ) $
C3C4( C3C4Q, ) = YFD2 (  B3G6Q,NCHRCLK,NRESET ) $
C3C5( C3C5Q,C3C5NQ ) = YFD2 (  M15QN,NCHRCLK,NRESET ) $
C3E9( C3E9Q, ) = YFD2 (  B3G8Q,NCHRCLK,CRTRSB ) $
C3E10( C3E10Q, ) = YFD2 (  C3E9Q,NCHRCLK,CRTRSB ) $
C3E13( C3E13Q, ) = YFD2 (  VDSPLYEN,NCHRCLK,NRESET ) $
C3C2( C3C2O1 ) = AO2 (  C3C1Q,REF5PL,NREF5PL,C3B2Q ) $
C3G17( C3G17O1 ) = AO2 (  C3G12NQ,C3G19O1,C5D6O1,C3G12Q ) $
C3D7( C3D7O1 ) = OR2 (  C3B6O1,C3A9Q ) $
C3E6( C3E6QI, ) = YFD1 (  C3F9O1,C3E4O1 ) $
C3F7( C3F7Q, ) = YFD1 (  C3F9O1,TXTSHIFT ) $
C3G12( C3G12Q,C3G12NQ ) = YFD1 (  B4G5Q,C3G11O1 ) $
C3D5( C3D5O1 ) = AN3 (  NCHRCLK,C3C5NQ,C3B4NQ ) $
C3G9( C3G9O1 ) = AN3 (  HVCVDE,NRESET,B3A13O1 ) $
C3E5( C3E5O1 ) = EO (  C3E8O1,TESTBZ ) $
C3F9( C3F9O1I ) = EN (  TESTAZ,C3G17O1 ) $
C3E8( C3E8O1 ) = OR3 (  SCROFFQ,B4G4Q,B4G5Q ) $
C3F5( C3F5O1 ) = AN2 (  VDSPLYEN,C3B6O1 ) $
D2F2( WTPOS102 ) = OR2 (  IOCMDWR,EWIO010N ) $
D3A3( D3A3Q, ) = YFD1 (  C4A9Q,TXTSHIFT ) $
D3A4( D3A4O1 ) = EOP (  TESTCZ,D3A3Q ) $
D3A12( D3A12O1 ) = NR2 (  NVERINE,D3B12NQ ) $
D3B14( D3B14O1 ) = AN2 (  NRESET,NVERINC ) $
D3F11( D3F11O1 ) = IVP (  D3A4O1 ) $
D3D12( D3D12Z ) = AO7 (  ATT30Q4N,D3C13NQ,NRESET ) $
D3D12A( D3D12O1 ) = IVP (  D3D12Z ) $
D3H11( XDHSYNC ) = EO (  DHSYNC,R3C2Q6 ) $
D4A11( WCRT0T7P ) = AN3 (  WCRT0T7,NPROT07,NT69 ) $
D4E5( D4E5O1 ) = ND2 (  DATAIN0,D4H12O1 ) $
D4A16( D4A16AZ ) = AO2P (  OB4E4Q,NCRTCM2D,CRTCM2,D4B19NQ ) $
D4A16A( ONCEPERH ) = B4IP (  D4A16AZ ) $
D4B19( ,D4B19NQ ) = FT2 (  B4E4Q,NRESET ) $
D4H12( D4H12O1 ) = AN3 (  W3BD45,CRTAQQ5,CRTAQQ4 ) $
D4F121( OD4F121 ) = NR3 (  HORBE7,CRTAQ4N,CRTAQ5 ) $
RB179( D4F122 ) = IV (  CRTAQ3 ) $
D4F12( CRT010X ) = ND2 (  OD4F121,D4F122 ) $
E3H13( E3H13O1 ) = IV (  VGAENW ) $
E3H14( CRTINT ) = ND2 (  E3H13O1,D3A12O1 ) $
E4F6( E4F6Q,E4F6NQ ) = FD4 (  D3C13QP,NCHRCLK,NRESET ) $
E4G6( E4G6Q, ) = YFD2 (  E4F6Q,NCHRCLK,NRESET ) $
```

```
E4H7( E4H7Q, ) = YFD2 (  E4G6Q,NCHRCLK,NRESET ) $
F4A14( F4A14O1 ) = AO7 (  E4H7Q,LINCMPD,NRESET ) $
F4B10( ADD16NMR ) = IVP (  F4A14O1 ) $
B3F7( ,B3F7NQ ) = FD2 (  C3A10NQ,NCHRCLK,NRESET ) $
C3B4( ,C3B4NQ ) = FD4 (  C3C3AZ,CHRCLK,NRESET ) $
D3B12( ,D3B12NQ ) = YFD2 (  CCC,NT45,D3B14O1 ) $
RB152( CRTRSB, ) = YFD2 (  DATAIN7,NT114,NRESET ) $
RB136( HORDIN7,HORDI7,HORDIN6,HORDI6,HORDIN5,HORDI5,HORDIN4
   ,HORDI4,HORDIN3,HORDI3,HORDIN2,HORDI2,HORDIN1,HORDI1
   ,HORDIN0,HORDI0 ) = YLDG8 (  DATAIN7,DATAIN6,DATAIN5
   ,DATAIN4,DATAIN3
   ,DATAIN2,DATAIN1,DATAIN0,WCRTC01 ) $
CRTC00( HORTN7,HORT7,HORTN6,HORT6,HORTN5,HORT5,HORTN4
   ,HORT4,HORTN3,HORT3,HORTN2,HORT2,HORTN1,HORT1
   ,HORTN0,HORT0 ) = YLDG8 (  DATAIN7,DATAIN6,DATAIN5,DATAIN4
   ,DATAIN3
   ,DATAIN2,DATAIN1,DATAIN0,WCRTC00 ) $
RB140( HORREN4,HORRE4,HORREN3,HORRE3,HORREN2,HORRE2,HORREN1
   ,HORRE1,HORREN0,HORRE0 ) = YLDG5 (  DATAIN4,DATAIN3,DATAIN2
   ,DATAIN1
   ,DATAIN0,WCRTC05 ) $
RB139( HORRE5,HORREN5,HORRE6,HORREN6,HORRE7,HORREN7 ) =
    LDG3 (  WCRTC05
   ,DATAIN5,DATAIN6,DATAIN7 ) $
CRTC02( HORBN7,HORB7,HORBN6,HORB6,HORBN5,HORB5,HORBN4
   ,HORB4,HORBN3,HORB3,HORBN2,HORB2,HORBN1,HORB1
   ,HORBN0,HORB0 ) = YLDG8 (  DATAIN7,DATAIN6,DATAIN5,DATAIN4
   ,DATAIN3
   ,DATAIN2,DATAIN1,DATAIN0,WCRTC02 ) $
RB138( HORBEN4,HORBE4,HORBEN3,HORBE3,HORBEN2,HORBE2,HORBEN1
   ,HORBE1,HORBEN0,HORBE0 ) = YLDG5 (  DATAIN4,DATAIN3,DATAIN2
   ,DATAIN1
   ,DATAIN0,WCRTC03 ) $
RB137( HORBE5,HORBEN5,HORBE6,HORBEN6,HORBE7,HORBEN7 ) =
    LDG3 (  WCRTC03
   ,DATAIN5,DATAIN6,DATAIN7 ) $
CRTC04( HORRSN7,HORRS7,HORRSN6,HORRS6,HORRSN5,HORRS5,HORRSN4
   ,HORRS4,HORRSN3,HORRS3,HORRSN2,HORRS2,HORRSN1,HORRS1
   ,HORRSN0,HORRS0 ) = YLDG8 (  DATAIN7,DATAIN6,DATAIN5
   ,DATAIN4,DATAIN3
   ,DATAIN2,DATAIN1,DATAIN0,WCRTC04 ) $
CRTC07( ,CRT07Q7,,CRT07Q6,,CRT07Q5,
   ,CRT07Q3,,CRT07Q2,,CRT07Q1,,CRT07Q0
    ) = YLDG7 (  DATAIN7,DATAIN6,DATAIN5,DATAIN3,DATAIN2
   ,DATAIN1,DATAIN0
   ,WCRTC07 ) $
RB149( ,VERRE3,,VERRE2,,VERRE1,
   ,VERRE0 ) = YLDG4 (  DATAIN3,DATAIN2,DATAIN1,DATAIN0,NT113 ) $
RB147( PROT07,NPROT07 ) = YFD2 (  DATAIN7,NT113,NRESET ) $
RB148( NVERINC,,NVERINE,NT52 ) = YFFD2 (  NT112,NRESET,DATAIN4
   ,DATAIN5 ) $
C4F11( CRT07Q4, ) = LD2 (  DATAIN4,WCRTC07A ) $
POS102( POS102Q0, ) = YFD2 (  DATAIN0,WTPOS102,NRESET ) $
C3D4( C3D4Q,,C3E3Q, ) = YFD2SI (  TXTSHIFT,C3E5O1 ) $
C3G5( C3G5Q,,C3G7Q, ) = YFD2SI (  TXTSHIFT,C3F5O1 ) $
A4D6( HCONT4I,,HCONT5I,,HCONT6I,,HCONT7I
   , ) = TCNT4 (  B4A9O1,NCLRHC ) $
B4A16( HCONT0I,,HCONT1I,,HCONT2I,,HCONT3I
   ,HCNTN3 ) = TCNT4 (  NCHRCLK,NCLRHC ) $
RB441( VBLKSP,NT103,NVERDE7,LCOMPA,C4A9Q,STVERB,ENDVBLNK
   ,ENDVSYNC,STVERR,EQVTOT,ENDVERDE,B4G4Q,VERDE5,VERDE1
   ,VERDE0,VERDE4,VERDE7,VERDE3,VERDE2,VERDE6,VERBS5
```

```
   ,VERBS1,VERBS0,VERBS4,VERBS7,VERBS3,VERBS2,VERBS6
   ,VERT5,VERBE5,VERT1,VERBE1,VERT0,VERBE0,VERT4
   ,VERBE4,VERT7,VERBE7,VERT3,VERBE3,VERT2,VERBE2
   ,VERT6,VERBE6,LINEC5,VERRS5,LINEC1,VERRS1,LINEC0
   ,VERRS0,LINEC4,VERRS4,LINEC7,VERRS7,LINEC3,VERRS3
   ,LINEC2,VERRS2,LINEC6,VERRS6,VDSPLYEN,SCROFFQ,NT45
   ,D3C13QP,EVC0,EVC1,EVC2,EVC3,EVC4,EVC5
   ,EVC6,EVC7,EVC8,EVC9,VCNTRSET ) = VERTC2C (  EQLOWCLK,CRT07Q6
   ,CRT07Q1,VERTA0,VERTA1,VERTA2,VERTA3,VERTA4,VERTA5
   ,VERTA6,VERTA7,VERRSA0,VERRSA1,VERRSA2,VERRSA3,VERRSA4
   ,VERRSA5,VERRSA6,VERRSA7,VERREA0,VERREA1,VERREA2,VERREA3
   ,VERDEA0,VERDEA1,VERDEA2,VERDEA3,VERDEA4,VERDEA5,VERDEA6
   ,VERDEA7,CRT07QA0,CRT07QA1,CRT07QA2,CRT07QA5,CRT07QA6,CRT07QA7
   ,NRESET,LINEC9,VERBS9,DATAIN0,DATAIN1,DATAIN2,DATAIN3
   ,DATAIN7,DATAIN6,DATAIN4,DATAIN5,CRT07Q4,CRTRSB,CRT07Q3
   ,CHRESET,ONCEPERH,SCROFF,D4E5O1,WCRTC06,WCRTC18,WCRTC10
   ,WCRTC16,WCRTC12,WCRTC15,TEST1Z,VERCNT0,VERCNT1,VERCNT2
   ,VERCNT3,VERCNT4,VERCNT5,VERCNT6,VERCNT7,VERCNT8,VERCNT9
   ,CVC0,CVC1,CVC2,CVC3,CVC4,CVC5,CVC6
   ,CVC7,CVC8,CVC9 ) $
CRTM04( FHORRS0,FHORRS7,FHORRS6,FHORRS5,FHORRS4,FHORRS3,FHORRS2
   ,FHORRS1 ) = A2T1B8 (  VGAMOD,AHORRSN7,HORRSN7,AHORRSN6
   ,HORRSN6,AHORRSN5
   ,HORRSN5,AHORRSN4,HORRSN4,AHORRSN3,HORRSN3,AHORRSN2,HORRSN2
   ,AHORRSN1,HORRSN1,AHORRSN0,HORRSN0 ) $
CRTM05( FHORRE0,FHORRE7,FHORRE6,FHORRE5,FHORRE4,FHORRE3,FHORRE2
   ,FHORRE1 ) = A2T1B8 (  VGAMOD,AHORREN7,HORREN7,AHORREN6
   ,HORREN6,AHORREN5
   ,HORREN5,AHORREN4,HORREN4,AHORREN3,HORREN3,AHORREN2,HORREN2
   ,AHORREN1,HORREN1,AHORREN0,HORREN0 ) $
MUXLCM( NLCOMP ) = MUX21L (  LCOMPA,D3C13QP,AHORBE7 ) $
RB269( LCOMP ) = IV (  NLCOMP ) $
CRTM03( FHORBE0,FHORBE6I,FHORBE5I,FHORBE4,FHORBE3,FHORBE2,FHORBE1
    ) = A2T1B7 (  VGAMOD,AHORBEN6,HORBEN6,AHORBEN5,HORBEN5
   ,AHORBEN4,HORBEN4
   ,AHORBEN3,HORBEN3,AHORBEN2,HORBEN2,AHORBEN1,HORBEN1,AHORBEN0
   ,HORBEN0 ) $
CRTM01( FHORDI0,FHORDI7,FHORDI6,FHORDI5,FHORDI4,FHORDI3,FHORDI2
   ,FHORDI1 ) = A2T1B8 (  VGAMOD,AHORDIN7,HORDIN7,AHORDIN6
   ,HORDIN6,AHORDIN5
   ,HORDIN5,AHORDIN4,HORDIN4,AHORDIN3,HORDIN3,AHORDIN2,HORDIN2
   ,AHORDIN1,HORDIN1,AHORDIN0,HORDIN0 ) $
CRTM00( FHORT0,FHORT7,FHORT6,FHORT5,FHORT4,FHORT3,FHORT2
   ,FHORT1 ) = A2T1B8 (  VGAMOD,AHORTN7,HORTN7,AHORTN6,HORTN6
   ,AHORTN5
   ,HORTN5,AHORTN4,HORTN4,AHORTN3,HORTN3,AHORTN2,HORTN2
   ,AHORTN1,HORTN1,AHORTN0,HORTN0 ) $
CRTM02( FHORB0,FHORB7,FHORB6,FHORB5,FHORB4,FHORB3,FHORB2
   ,FHORB1 ) = A2T1B8 (  VGAMOD,AHORBN7,HORBN7,AHORBN6,HORBN6
   ,AHORBN5
   ,HORBN5,AHORBN4,HORBN4,AHORBN3,HORBN3,AHORBN2,HORBN2
   ,AHORBN1,HORBN1,AHORBN0,HORBN0 ) $
READEX( BCRR0,BCRR1,BCRR2,BCRR3,BCRR4,BCRR5,BCRR6
   ,BCRR7 ) = READ6 (  AHORB7,AHORB6,AHORB5,AHORB4,AHORB3,AHORB2
   ,AHORB1,AHORB0,AHORT7,AHORT6,AHORT5,AHORT4,AHORT3
   ,AHORT2,AHORT1,AHORT0,AHORDI7,AHORDI6,AHORDI5,AHORDI4
   ,AHORDI3,AHORDI2,AHORDI1,AHORDI0,AHORBE7,AHORBE6,AHORBE5
   ,AHORBE4,AHORBE3,AHORBE2,AHORBE1,AHORBE0,AHORRE7,AHORRE6
   ,AHORRE5,AHORRE4,AHORRE3,AHORRE2,AHORRE1,AHORRE0,AHORRS7
   ,AHORRS6,AHORRS5,AHORRS4,AHORRS3,AHORRS2,AHORRS1,AHORRS0
   ,BCR1CH,BCR1BH,BCR18H,BCR1DH,BCR1AH,BCR19H ) $
BCR19( AHORRSN7,AHORRS7,AHORRSN6,AHORRS6,AHORRSN5,AHORRS5,AHORRSN4
```

```
   ,AHORRS4,AHORRSN3,AHORRS3,AHORRSN2,AHORRS2,AHORRSN1,AHORRS1
   ,AHORRSN0,AHORRS0 ) = YLDG8 (  DATAIN7,DATAIN6,DATAIN5
   ,DATAIN4,DATAIN3
   ,DATAIN2,DATAIN1,DATAIN0,BCR19WZ ) $
BCR19W( BCR19WZ ) = ND2 (  BCR19H,WREXR ) $
RB73( BCR19H ) = NR2P (  BCRG0,BCROD ) $
BCR1AL( AHORREN4,AHORRE4,AHORREN3,AHORRE3,AHORREN2,AHORRE2,AHORREN1
   ,AHORRE1,AHORREN0,AHORRE0 ) = YLDG5 (  DATAIN4,DATAIN3
   ,DATAIN2,DATAIN1
   ,DATAIN0,BCR1AWZ ) $
RB65( AHORRE5,AHORREN5,AHORRE6,AHORREN6,AHORRE7,AHORREN7
    ) = LDG3 (  BCR1AWZ
   ,DATAIN5,DATAIN6,DATAIN7 ) $
BCR1AW( BCR1AWZ ) = ND2 (  BCR1AH,WREXR ) $
RB66( BCR1AH ) = NR2P (  BCRG1,BCREV ) $
BCR1DL( AHORBEN4,AHORBE4,AHORBEN3,AHORBE3,AHORBEN2,AHORBE2,AHORBEN1
   ,AHORBE1,AHORBEN0,AHORBE0 ) = YLDG5 (  DATAIN4,DATAIN3
   ,DATAIN2,DATAIN1
   ,DATAIN0,BCR1DWZ ) $
RB70( AHORBE5,AHORBEN5,AHORBE6,AHORBEN6 ) = LDG2 (  BCR1DWZ
   ,DATAIN5,DATAIN6
    ) $
RB69( AHORBE7,AHORBEN7 ) = LD4 (  DATAIN7,BCR1DWZ,NRESET ) $
BCR1DW( BCR1DWZ ) = ND2 (  BCR1DH,WREXR ) $
RB71( BCR1DH ) = NR2P (  BCRG2,BCROD ) $
BCR18( AHORDIN7,AHORDI7,AHORDIN6,AHORDI6,AHORDIN5,AHORDI5,AHORDIN4
   ,AHORDI4,AHORDIN3,AHORDI3,AHORDIN2,AHORDI2,AHORDIN1,AHORDI1
   ,AHORDIN0,AHORDI0 ) = YLDG8 (  DATAIN7,DATAIN6,DATAIN5
   ,DATAIN4,DATAIN3
   ,DATAIN2,DATAIN1,DATAIN0,BCR18WZ ) $
BCR18W( BCR18WZ ) = ND2 (  BCR18H,WREXR ) $
RB72( BCR18H ) = NR2P (  BCRG0,BCREV ) $
BCR1B( AHORTN7,AHORT7,AHORTN6,AHORT6,AHORTN5,AHORT5,AHORTN4
   ,AHORT4,AHORTN3,AHORT3,AHORTN2,AHORT2,AHORTN1,AHORT1
   ,AHORTN0,AHORT0 ) = YLDG8 (  DATAIN7,DATAIN6,DATAIN5
   ,DATAIN4,DATAIN3
   ,DATAIN2,DATAIN1,DATAIN0,BCR1BWZ ) $
BCR1BW( BCR1BWZ ) = ND2 (  BCR1BH,WREXR ) $
RB67( BCR1BH ) = NR2P (  BCRG1,BCROD ) $
BCR1C( AHORBN7,AHORB7,AHORBN6,AHORB6,AHORBN5,AHORB5,AHORBN4
   ,AHORB4,AHORBN3,AHORB3,AHORBN2,AHORB2,AHORBN1,AHORB1
   ,AHORBN0,AHORB0 ) = YLDG8 (  DATAIN7,DATAIN6,DATAIN5
   ,DATAIN4,DATAIN3
   ,DATAIN2,DATAIN1,DATAIN0,BCR1CWZ ) $
BCR1CW( BCR1CWZ ) = ND2 (  BCR1CH,WREXR ) $
RB68( BCR1CH ) = NR2P (  BCRG2,BCREV ) $
BCRG0S( BCRG0 ) = ND2 (  R3D6NQ1,R3D6NQ2 ) $
BCRG1S( BCRG1 ) = ND2 (  R3D6Q1,R3D6NQ2 ) $
BCRG2S( BCRG2 ) = ND2 (  R3D6NQ1,R3D6Q2 ) $
RB61( BCREV ) = ND2 (  R3D6HBI,BCREVSZ ) $
RB62( BCREVSZ ) = NR2 (  R3D6Q0,R3D6NQ3 ) $
RB63( BCROD ) = ND2 (  R3D6HBI,BCRODSZ ) $
RB64( BCRODSZ ) = NR2 (  R3D6NQ0,R3D6NQ3 ) $
RB344( R3D6HBI ) = NR4 (  R3D6Q7,R3D6Q6,R3D6Q5,R3D6NQ4 ) $
M0( M0O1 ) = AN2 (  M9O1,NT83 ) $
M1( M1O1 ) = EO (  M0O1,C3A15O1 ) $
M2( M2O1 ) = OR2 (  STRCHM,C3A16NQ ) $
M3( M3Q, ) = YFD2 (  B4B10O1,NCHRCLK,NRESET ) $
M4( M4Q, ) = YFD2 (  M3Q,NCHRCLK,NRESET ) $
M5( M5Q,AHCRN ) = FD2 (  M4Q,NCHRCLK,NRESET ) $
M6( M6Q, ) = YFD2 (  M5Q,NCHRCLK,NRESET ) $
M7( M7Q,M7QN ) = FJK2 (  M6Q,B5C5O1,NCHRCLK,NRESET ) $
```

```
     M8( M8O1 ) = IV (  STRCHP ) $
     M9( M9O1 ) = OR2 (  STRCHP,STRCHM ) $
     M12( B4E4NQ ) = IV (  B4E4Q ) $
     M13( M13O1 ) = AN3 (  M1O1,HVCVDE,VPUN ) $
     M15( ,M15QN ) = FD2 (  M7QN,NCHRCLK,NRESET ) $
     M16( M16Z ) = MUX21HP (  EQHDESM,B4B10O1,DSPTD2 ) $
     M17( M17Z ) = MUX21HP (  EQHDEE,B5C5O1,DSPTD2 ) $
     RB211( C3F9O1 ) = MUX21HP (  C3G19O1,C3F9O1I,DSPTD2 ) $
     RB212( C3E6Q ) = MUX21HP (  ULINE,C3E6QI,DSPTD2 ) $
     RB224( FBFCRT8Z ) = AN2 (  NKILL3,NRESET ) $
     RB206( NKILL1L, ) = FD4 (  NKILL1,ONCEPERH,NRESET ) $
     RB207( NKILL1S ) = AN2 (  NKILL1,NKILL1L ) $
     RB208( NKILL2 ) = MUX21HP (  NKILL1,NKILL1S,NT83 ) $
     RB209( NKILL3 ) = OR2 (  NKILL2,VDELN ) $
     RB213( FHORBE6 ) = MUX21HP (  HORBE6,FHORBE6I,DSPTD2 ) $
     RB214( FHORBE5 ) = MUX21HP (  HORBE5,FHORBE5I,DSPTD2 ) $
     RB215( HCONT0,HCONT1,HCONT2,HCONT3,HCONT4,HCONT5,HCONT6
        ,HCONT7 ) = SEL816 (  HCONT0I,HCONT1I,HCONT2I,HCONT3I
        ,HCONT4I,HCONT5I
        ,HCONT6I,HCONT7I,SSS,HCONT0I,HCONT1I,HCONT2I,HCONT3I
        ,HCONT4I,HCONT5I,HCONT6I,DCK2PNL ) $
     RB216( DCK2PNLI ) = NR2 (  DSPTD2,DCK2DIVN ) $
     RB210( ,DCK2PNL ) = B2I (  DCK2PNLI ) $
     RB217( VPUN ) = IV (  VPU ) $
     RB218( NT29 ) = OR2 (  B3G10O1,BENDHORN ) $
     RB219( ENDHOR ) = MUX21L (  NT29,BENDHORN,DSPTD2 ) $
     RB220( ,NT30 ) = FD2 (  B3F7NQ,NCHRCLK,NRESET ) $
     RB221( FB25Q, ) = FJK2 (  B4B10O1,B5C5O1,NCHRCLK,NRESET ) $
     RB222( FB26Z ) = OR2 (  B4B10O1,FB25Q ) $
     RB223( EQHDESM ) = AN2 (  FB26Z,EQHDES ) $
END : MODULE $
MODULE :   CRTDC/// $
INPUTS   :
     R3D715Q1,R3D715Q2,R3D715Q3,IOEN2,IOWR2,DATAIN0,DATAIN1,DATAIN2
    ,DATAIN3,DATAIN4,DATAIN5,EIO3BD45,NRESET,IOCMDWR,NADDR00,WCRT0T7P
    ,CRT010X
$
OUTPUTS  :
     CRT18TF,CRT08TF,CRT20T7,CRT00T7,CRT10T7,CRTAQ0N,CRTAQ1N,CRTAQQ2
    ,CRTAQ2N,WCRTC01,WCRTC00,WCRTC07,WCRTC06,WCRTC03,WCRTC05,WCRTC04
    ,WCRTC02,WCRTC18,W3BD45,WCRT0T7,WCRTC07A,CRTAQQ4,CRTAQQ5,CRTAQ4N
    ,CRTAQQ3,WCRTC08,WCRTC0B,WCRTC0A,WCRTC0F,WCRTC10,WCRTC0D,WCRTC0C
    ,WCRTC0E,WCRTC16,NT113,NT112,NT111,NT110,WCRTC12,CRTAQ3,CRTAQ5
    ,WCRTC14,NT115,NT114,WCRTC15,WCRTC13,CRTC10,CRTC11
$
DESCRIPTION : MODULE FOR CRTDC $
LEVEL  : FUNCTION $
USE   :
     IV /// MASTER
    ,ND2 /// MASTER
    ,ND4 /// MASTER
    ,LDG6R ///
    ,D24L /// MASTER
    ,IVP /// MASTER
    ,NR4 /// MASTER
    ,OR3 /// MASTER
    ,ND3 /// MASTER
    ,B2IP /// MASTER
    ,OR2 /// MASTER
    ,ND5 /// MASTER
    ,NR5 /// MASTER
```

```
$
DEFINE :
     D4H19N( CRTAQQ2N ) = IV (  CRTAQ2 ) $
     D4H19( WCRT10T3 ) = ND2 (  CRTAQQ2N,WCRT10T7 ) $
     D4E11( WCRT8TB ) = ND2 (  CRTAQQ2N,WCRT8TF ) $
     D4A13( WCRT0T3P ) = ND2 (  CRTAQQ2N,WCRT0T7P ) $
     D4G9N( WCRT8TF ) = IV (  D4G9O1N ) $
     D4G9( D4G9O1N ) = ND4 (  W3BD45,CRTAQ4N,CRTAQ3,CRTAQ5N ) $
     D4F17N( WCRT10T7 ) = IV (  WCR10T7N ) $
     D4F17( WCR10T7N ) = ND4 (  W3BD45,CRTAQ3N,CRTAQ5N,CRTAQ4 ) $
     D4F15N( WCRT0T7 ) = IV (  D4F15O1N ) $
     D4F15( D4F15O1N ) = ND4 (  W3BD45,CRTAQ4N,CRTAQ5N,CRTAQ3N ) $
     RB133( CRTAQ0,CRTAQ0N,CRTAQ1,CRTAQ1N,CRTAQ2,CRTAQ2N,CRTAQ3
        ,CRTAQ3N,CRTAQ4,CRTAQ4N,CRTAQ5,CRTAQ5N ) = LDG6R (  NRESET,NT109
        ,DATAIN0,DATAIN1,DATAIN2,DATAIN3,DATAIN4,DATAIN5 ) $
     C4G12( CAXXXX00,CAXXXX01,CAXXXX10,CAXXXX11 ) = D24L (  CRTAQ0
        ,CRTAQ1 ) $
     E4B9( CRTAQQ0N ) = IVP (  CRTAQ0 ) $
     E4B7( CRTC11 ) = NR4 (  CRTAQ2,CRT010X,CRTAQQ0N,CRTAQ1 ) $
     E4A7( CRTC10 ) = NR4 (  CRTAQ2,CRTAQ1,CRT010X,CRTAQ0 ) $
     D5D5( WCRTC13 ) = OR3 (  CAXXXX11,WCRT10T3,R3D715Q2 ) $
     D5D2( WCRTC15 ) = OR3 (  CAXXXX01,WCRT14T7,R3D715Q3 ) $
     D5D3A( NT115 ) = OR3 (  WCRT14T7,CAXXXX11,R3D715Q3 ) $
     D5D3( NT114 ) = OR3 (  WCRT14T7,CAXXXX11,R3D715Q2 ) $
     D5D1( WCRTC14 ) = OR3 (  WCRT14T7,CAXXXX00,R3D715Q2 ) $
     D4H11( B4C16O ) = ND3 (  CRTAQQ5N,CRTAQQ3N,CRTAQQ4N ) $
     D4H11A( ,CRT00T7 ) = B2IP (  B4C16O ) $
     D4F16( WCRT18TF ) = ND4 (  W3BD45,CRTAQ4,CRTAQ3,CRTAQ5N ) $
     D4F8( D5C9O ) = ND3 (  CRTAQQ3N,CRTAQQ4N,CRTAQQ5 ) $
     D4F8A( ,CRT20T7 ) = B2IP (  D5C9O ) $
     D4F7( B3G14O ) = ND3 (  CRTAQQ3,CRTAQQ4N,CRTAQQ5N ) $
     D4F7A( ,CRT08TF ) = B2IP (  B3G14O ) $
     D4E7( D4D11O ) = ND3 (  CRTAQQ5N,CRTAQQ4,CRTAQQ3 ) $
     D4E7A( ,CRT18TF ) = B2IP (  D4D11O ) $
     D4E6( D4B11O ) = ND3 (  CRTAQQ3N,CRTAQQ5N,CRTAQQ4 ) $
     D4E6A( ,CRT10T7 ) = B2IP (  D4B11O ) $
     D4D19( WCRTC12 ) = OR3 (  WCRT10T3,CAXXXX10,R3D715Q3 ) $
     D4D13( NT111 ) = OR3 (  WCRT8TB,CAXXXX01,R3D715Q1 ) $
     D4D13A( NT110 ) = OR3 (  WCRT8TB,CAXXXX01,R3D715Q3 ) $
     D4C16A( NT112 ) = OR3 (  WCRT10T3,CAXXXX01,R3D715Q2 ) $
     D4C16( NT113 ) = OR3 (  WCRT10T3,CAXXXX01,R3D715Q3 ) $
     D4C13( WCRTC16 ) = OR3 (  CAXXXX10,WCRT14T7,R3D715Q3 ) $
     D4D16( WCRTC0E ) = OR2 (  WCRTCTF,CAXXXX10 ) $
     D4D15( WCRTC0C ) = OR2 (  CAXXXX00,WCRTCTF ) $
     D4D12( WCRTC0D ) = OR2 (  CAXXXX01,WCRTCTF ) $
     D4C15( WCRTC10 ) = OR3 (  WCRT10T3,CAXXXX00,R3D715Q3 ) $
     D4C11( WCRTC0F ) = OR2 (  CAXXXX11,WCRTCTF ) $
     D4B15( WCRTC0A ) = OR3 (  WCRT8TB,CAXXXX10,R3D715Q1 ) $
     D4B13( WCRTC0B ) = OR3 (  WCRT8TB,CAXXXX11,R3D715Q1 ) $
     D4B14( WCRTC08 ) = OR3 (  CAXXXX00,WCRT8TB,R3D715Q2 ) $
     D4H9( CRTAQQ3N ) = IVP (  CRTAQQ3 ) $
     D4H8( CRTAQQ5N ) = IVP (  CRTAQQ5 ) $
     D4D8( CRTAQQ2 ) = IVP (  CRTAQ2N ) $
     D4F14( CRTAQQ3 ) = IVP (  CRTAQ3N ) $
     D4F11( CRTAQQ4 ) = IVP (  CRTAQ4N ) $
     D4F10( CRTAQQ5 ) = IVP (  CRTAQ5N ) $
     D4F9( CRTAQQ4N ) = IVP (  CRTAQQ4 ) $
     D4A14( WCRTC07A ) = ND5 (  WCRT0T7,CRTAQ2,CRTAQ0,CRTAQ1,OP28A9 ) $
     D4D18( WCRT14T7 ) = ND2 (  CRTAQ2,WCRT10T7 ) $
     D4C12( NT109 ) = ND2 (  OD1D11,NADDR00 ) $
     D4C9( WCRTCTF ) = ND2 (  CRTAQ2,WCRT8TF ) $
     D4A12( WCRT4T7P ) = ND2 (  CRTAQ2,WCRT0T7P ) $
```

```
     D1D11( OD1D11 ) = IVP (  D1D10O1 ) $
     D1D10( D1D10O1 ) = OR2 (  IOCMDWR,EIO3BD45 ) $
     C4G14( NT44 ) = NR5 (  WCRT18TF,CRTAQ0,CRTAQ2,CRTAQ1,R3D715Q2 ) $
     C4G14A( WCRTC18 ) = IVP (  NT44 ) $
     C4F9( WCRTC02 ) = OR2 (  WCRT0T3P,CAXXXX10 ) $
     C4E11( WCRTC04 ) = OR2 (  WCRT4T7P,CAXXXX00 ) $
     C4E9( WCRTC05 ) = OR2 (  CAXXXX01,WCRT4T7P ) $
     C4G11( WCRTC03 ) = OR2 (  WCRT0T3P,CAXXXX11 ) $
     C4F10( WCRTC06 ) = OR2 (  CAXXXX10,WCRT4T7P ) $
     C4F8( WCRTC07 ) = OR2 (  WCRT4T7P,CAXXXX11 ) $
     C4E10( WCRTC00 ) = OR2 (  CAXXXX00,WCRT0T3P ) $
     C4E8( WCRTC01 ) = OR2 (  CAXXXX01,WCRT0T3P ) $
     P28A6( OP28A6 ) = IVP (  IOEN2 ) $
     P28A7( OP28A7 ) = OR3 (  EIO3BD45,OP28A6,IOWR2 ) $
     P28A8( W3BD45 ) = IVP (  OP28A7 ) $
     P28A9( OP28A9 ) = IV (  R3D715Q2 ) $
END : MODULE $
MODULE :   CLKGN/// $
INPUTS   :
     XR05Q2,BLNKPNL,DSPTD2,NT74,R3D728Q1,NDSPEN,ATT30Q5,NRESET,BLANK5
    ,R3C2Q3,R3C2Q2,DCKN2DIV,DCK2DIVN,CC89SELN,NPRESET,CLK0I,CLK1I
    ,EXTOSC,D2G14O1,D2F12O1,SLEEPON
$
OUTPUTS  :
     NCHRCLK,BLANKDE,PLNSHIFT,DCLK,M13CLK,D2H8O1,DOTCLK,D2H14O1,TXTSHIFT
    ,D2F9O1,D2H13NQ,NCHARCLK,BLANK1,CLKXX
$
DESCRIPTION : MODULE FOR CLKGN $
LEVEL  : FUNCTION $
USE   :
     EN /// MASTER
    ,AN4 /// MASTER
    ,IV /// MASTER
    ,NR2 /// MASTER
    ,MUX21HP /// MASTER
    ,FD2P /// MASTER
    ,MUX21LP /// MASTER
    ,IVP /// MASTER
    ,AN2 /// MASTER
    ,AN2P /// MASTER
    ,YFD1 /// MASTER
    ,B4IP /// MASTER
    ,MUX41P /// MASTER
    ,NR3 /// MASTER
    ,MUX21L /// MASTER
    ,ND2 /// MASTER
    ,B1I /// MASTER
    ,ND3 /// MASTER
    ,B5I /// MASTER
    ,FT2P /// MASTER
    ,OR2 /// MASTER
    ,NR3P /// MASTER
    ,FT2 /// MASTER
    ,ND4 /// MASTER
    ,ND5RE ///
    ,YFD4SI ///
    ,EO /// MASTER

$
DEFINE :
     RB739( BLNKPNLD ) = EN (  BLNKPNL,NT74 ) $
     RB738( CXDLY1 ) = AN4 (  CLKXIN,CLKXIN,CLKXIN,CLKXIN ) $
```

```
    RB737( D2H9O1 ) = IV (  D2H9O1I ) $
    RB736( R3C2Q305 ) = NR2 (  R3C2Q3N,XR05Q2 ) $
    RB735( R3C2Q3N ) = IV (  R3C2Q3 ) $
    RB548( BLANKDE ) = MUX21HP (  BLNKPNLD,BLANKDEI,DSPTD2 ) $
    RB546( NCHRCLKI, ) = FD2P (  D2H9O1I,NPNDCLK,NPRESET ) $
    RB545( DOTCLKN ) = MUX21LP (  PNDCLK,C2F9NQ,ATT30Q5 ) $
    RB544( CLKXIN2 ) = AN4 (  CXDLY1,CXDLY1,CXDLY1,CXDLY1 ) $
    RB543( PNDCLK ) = IVP (  NPNDCLK ) $
    RB542( CLK0I1 ) = AN2 (  SLMASKN,CLK0I ) $
    RB541( CLK1I1 ) = AN2 (  SLMASKN,CLK1I ) $
    RB540( EXTOSC1 ) = AN2 (  SLMASKN,EXTOSC ) $
    RB539( REMASKN ) = AN2P (  SLMASKN,NRESET ) $
    RB551( SLEEPOND, ) = YFD1 (  SLEEPON,CLKXI ) $
    RB550( C2F9NQ ) = IVP (  C2F9Q ) $
    RB549( DOTCLK ) = B4IP (  DOTCLKN ) $
    RB547( NCHRCLK ) = B4IP (  NCHRCLKI ) $
    RB538( TXTSHIFT ) = B4IP (  NTXSHIFT ) $
    RB76( ,BLKDED ) = YFD1 (  BLKDE,M13CLK ) $
    BMUXA( CLKXI ) = MUX41P (  CLK0I,CLK1I,EXTOSC,NRESET,SEL,R3C2Q305
        ) $
    BMUXB( NPNDCLK ) = MUX41P (  E2B6Q,EXTOSC1,CLK1I1,CLK0I1,SEL0,SEL1
        ) $
    BSEL( SEL ) = NR3 (  R3C2Q2N,R3C2Q305,XR05Q2 ) $
    B3C2QN( R3C2Q2N ) = IV (  R3C2Q2 ) $
    BSEL0( SEL0 ) = NR2 (  SEL,DCKN2DIV ) $
    BSEL1( SEL1 ) = NR2 (  R3C2Q305,DCKN2DIV ) $
    BMUXC( DOTCLKI ) = MUX21L (  NPNDCLK,C2F9Q,ATT30Q5 ) $
    C2D15N( C2D15O1N ) = IV (  BLANK2 ) $
    C2D15( C2D15O1 ) = ND2 (  C2D15O1N,BLANK1 ) $
    E2B9N( D2H8O1 ) = B1I (  CLKXF ) $
    D2G122( D2G12O12 ) = ND3 (  D2H13NQ,D2H12Q,DCKN2DIV ) $
    D2G121( D2G12O11 ) = ND3 (  DCK2DIVN,E2A12Q,NCHARCLK ) $
    D2G12( D2G12O1 ) = ND2 (  D2G12O11,D2G12O12 ) $
    C2G13N( M13CLK ) = B5I (  DOTCLKI ) $
    RB174( DCLK ) = B4IP (  PNDCLK ) $
    B1E2( BLANKDEI, ) = YFD1 (  BLKDED,M13CLK ) $
    C2F9( C2F9Q, ) = FT2P (  PNDCLK,C2D15O1 ) $
    D2B11( NCHARCLK ) = B4IP (  CHARCLK ) $
    D2H14( D2H14O1 ) = OR2 (  D2G14O1,DCKN2DIV ) $
    D2F6( NTXSHIFT ) = NR3P (  D2H12Q,CHARCLK,D2G10Q ) $
    D2G9( D2G9O1 ) = AN2 (  CC89SELN,NPRESET ) $
    D2H9( D2H9O1I ) = ND2 (  D2G10NQ,D2H12NQ ) $
    D2G10( D2G10Q,D2G10NQ ) = FD2P (  D2H12Q,NPNDCLK,D2G9O1 ) $
    D2H12( D2H12Q,D2H12NQ ) = FD2P (  D2H13Q,NPNDCLK,NPRESET ) $
    D2H13( D2H13Q,D2H13NQ ) = FD2P (  E2A12Q,NPNDCLK,NPRESET ) $
    D2F11( ,D2F11NQ ) = FT2 (  D2G13Q,D2F12O1 ) $
    D2G13( D2G13Q,D2G13NQ ) = FT2 (  D2H13Q,D2G14O1 ) $
    D2F9( D2F9O1 ) = ND4 (  D2G12O1,D2H14O1,D2G13NQ,D2F11NQ ) $
    D2F7( PLNSHIFT ) = ND5RE (  D2G13NQ,D2H12NQ,NCHARCLK,D2G10NQ
       ,D2F11NQ ) $
    E2A11( CHARCLK, ) = FD2P (  D2H9O1,NPNDCLK,NPRESET ) $
    E2A12( E2A12Q, ) = FD2P (  CHARCLK,NPNDCLK,NPRESET ) $
    E2B6( E2B6Q, ) = FT2P (  CLKXI,REMASKN ) $
    C2D19( ,,,,BLANK2,,BLANK1
       , ) = YFD4SI (  DCLK,BLANK5 ) $
    RB80( BLKDE ) = EO (  BLKMUX,NT74 ) $
    RB81( BLKMUX ) = MUX21L (  BLANK1,NDSPEN,R3D728Q1 ) $
    RB202( ,SLMASKN ) = YFD1 (  SLEEPOND,CLKXIN ) $
    RB203( CLKXIN ) = IV (  CLKXI ) $
    RB204( CLKXF ) = AN2P (  SLMASKN,CLKXI ) $
    RB205( CLKXX ) = IVP (  CLKXIN2 ) $
END : MODULE $
```

```
MODULE :   BLCKD/// $
INPUTS   :
     XR04Q3,SLEEPEN,REFINCSL,DCK2DIV,TEXT,R3D708Q0,NT61,R3D709Q0,NT62
    ,CC89SELN,F2D4O1,SEQ2QN3,F2D6O1,SEQ2QN1,F2D5O1,SEQ2QN2,F2C9O1
    ,SEQ2QN0,WRSEQ00,WTRSEQ01,SEQ3Q5,SEQ3Q4,NSEQ1,E2G7O1,D2F10NQ,NT38
    ,NT39,GC06Q0,NRFAMX,B3G7O1,D2H8O1,D2H14O1,NT45,SCROFFQ,VDSPLYEN
    ,TXTSHIFT,C2C22O1,C3D7O1,C3A7O1,C2B18O1,DATAIN5,DATAIN4,DATAIN3
    ,DATAIN2,DATAIN1,DATAIN0,NRESET,CCC,HERTEX,CHAN,GCAD2,NT28,NT27
    ,GCRTIPE,ATT02Q2,ATT02QN1,F1B15O1,ADDR01,CLKXX
$
OUTPUTS  :
     IOC11,IOC10,IOC01,IOC00,SHIFT4,SAIFT2Z,OCC89SEL,SLEEPON,ODCK2DIV
    ,D2D7O1,SCROFF,D2F12O1,D2G14O1,NPRESET,DCK2DIVN,D2D12NQ,D2E8O1
    ,NT48,D2D2NQ,BDOUT45,BDOUT44,NAMXCPU,NRAMWR,NVGARDY,E3F12O1,D2E9O1
    ,SAIFT2,NAMXGR,NT85,E2G9O1,CC89SEL,NT84,E3A14O1,NT9,ADMUXCPU
        ,DCKN2DIV
    ,NCAS,NRAS11,NRAS00,NRAS10,NRAS01,ERMDRVZ,ERMCONZ,SECBYTE,FCAS1
    ,FCAS3
$
DESCRIPTION : MODULE FOR BLCKD $
LEVEL  : FUNCTION $
USE   :
     OR2 /// MASTER
    ,AN2 /// MASTER
    ,MUX21H /// MASTER
    ,MUX21L /// MASTER
    ,FD3 /// MASTER
    ,NR2 /// MASTER
    ,ND2 /// MASTER
    ,NR2P /// MASTER
    ,FD2 /// MASTER
    ,YFD2 /// MASTER
    ,IVP /// MASTER
    ,ND3 /// MASTER
    ,FD4 /// MASTER
    ,OR2P /// MASTER
    ,FJK2 /// MASTER
    ,ND2P /// MASTER
    ,AN3 /// MASTER
    ,FT2 /// MASTER
    ,ND4 /// MASTER
    ,AN2P /// MASTER
    ,AO6P /// MASTER
    ,AN4P /// MASTER
    ,AO7 /// MASTER
    ,B4I /// MASTER
    ,LDG5 ///
    ,YFFD2 ///
    ,AO2 /// MASTER
    ,IV /// MASTER
    ,MACC16 ///

$
DEFINE :
     RB747( EXTTIM ) = OR2 (  D2E11AQ,D2E11BQ ) $
     RB746( CASTIM ) = AN2 (  CASGO,D2C5O1 ) $
     RB745( RAMCAS ) = MUX21H (  CASTIM,D2D3O1,XR04Q3 ) $
     RB744( RAMWR ) = MUX21H (  D2D3O1,CASTIM,XR04Q3 ) $
     RB743( IOC11 ) = MUX21L (  NRAMWR,NRAS11,XR04Q3 ) $
     RB742( IOC10 ) = MUX21L (  NRAMWR,NRAS10,XR04Q3 ) $
     RB741( IOC01 ) = MUX21L (  NRAMWR,NRAS01,XR04Q3 ) $
     RB740( IOC00 ) = MUX21L (  NRAMWR,NRAS00,XR04Q3 ) $
```

```
SLEEP3( S3Q, ) = FD3 (  SLEEPEN,REFINCSL,NRESET,CCC ) $
SLEEP4( S4Z ) = NR2 (  SLEEPEN,S3Q ) $
SLEEP5( S5Z ) = ND2 (  NT85,S4Z ) $
SLEEP6( SLEEPON ) = NR2P (  E2B2NQ,S4Z ) $
C2E12( C2E12O1 ) = OR2 (  GC06Q0,TEXT ) $
C3E7( C3E7O1 ) = OR2 (  SCROFFQ,B3G7O1 ) $
D1C10( ,D1C10NQ ) = FD2 (  D1E13Q,D2E11NQ,NT107 ) $
D1D13( D1D13Q, ) = YFD2 (  D2C10NQ,D2H8O1,NPRESET ) $
D1E13( D1E13Q,D1E13NQ ) = YFD2 (  CCC,D2C2O1,NT107 ) $
D1F14( D1F14Q, ) = YFD2 (  NT107,D2E1O1,D1F13O1 ) $
D1F13( D1F13O1 ) = AN2 (  D1E13NQ,NRESET ) $
D2C3( D2C3O1 ) = IVP (  NT39 ) $
D2D6( NRAMWR ) = IVP (  RAMWR ) $
D2D17( D2D17O1 ) = IVP (  C3E7O1 ) $
D2B5( NT36 ) = AN2 (  D2B4Q,NPRESET ) $
D2G5( D2G5O1 ) = NR2 (  D2H7NQ,D2E6NQ ) $
D2G14( D2G14O1 ) = AN2 (  C3D7O1,D2H15O1 ) $
D2A10( D2A10O1 ) = NR2 (  TXTSHIFT,C3A7O1 ) $
D2D14( D2D14O1 ) = OR2 (  NT36,NT45 ) $
D2C2( D2C2O1 ) = ND3 (  D2D5Q,D2D2Q,RASGO ) $
D2F3( NMCNT6 ) = ND3 (  D2H6Q,D2E6NQ,D2H7Q ) $
D2F4( NMCNT5 ) = ND3 (  D2E6Q,D2H6Q,D2H7NQ ) $
D2B4( D2B4Q, ) = FD4 (  D2B6O1,D2H8O1,NPRESET ) $
D2C10( ,D2C10NQ ) = FD4 (  D2C15O1,D2C9Q,D2D14O1 ) $
D2D12( ,D2D12NQ ) = FD4 (  D2C12O1,D2E11NQ,D2D14O1 ) $
D2B6( D2B6O1 ) = OR2 (  MEMORYGO,RASGO ) $
D2C12( D2C12O1 ) = OR2 (  D2C11O1,C2B18O1 ) $
D2D8( D2E9O1 ) = OR2P (  E3F12O1,RASGO ) $
D2E8( D2E8O1 ) = OR2 (  MCNTCLK,D2C8NQ ) $
D2H15( D2H15O1 ) = OR2 (  SAIFT2Z,SHIFT4 ) $
D2B8( D2B8Q,D2B8NQ ) = FJK2 (  D2A10O1,C3A7O1,D2H8O1,NPRESET ) $
D2A8( D2A8O1 ) = AN2 (  D2B6O1,D2C9NQ ) $
D2E1( D2E1O1 ) = AN2 (  MCNTCLK,D2C10NQ ) $
D2F12( D2F12O1 ) = AN2 (  C3D7O1,SHIFT4 ) $
D2B9( NCAS ) = ND2 (  D2C5O1,RASGO ) $
D2C5( D2C5O1 ) = ND2P (  D2D5NQ,D2D2Q ) $
D2C7( NAMXCPU ) = ND2 (  D2C10NQ,D1F14Q ) $
D2D3( D2D3O1 ) = AN3 (  D2C6Q,D2D2Q,D2C3O1 ) $
D2C6( D2C6Q, ) = YFD2 (  D1F14Q,RASGO,NRESET ) $
D2C8( NT48,D2C8NQ ) = YFD2 (  RASGO,D2H8O1,NPRESET ) $
D2C9( D2C9NQ,D2C9Q ) = FD4 (  D2E10O1,D2H8O1,NPRESET ) $
D2D1( D2D1Q, ) = YFD2 (  D1D13Q,D2H8O1,NPRESET ) $
D2D2( D2D2Q,D2D2NQ ) = FD2 (  D2D1Q,D2H8O1,NPRESET ) $
D2D5( D2D5Q,D2D5NQ ) = YFD2 (  D1F14Q,D2E11NQ,NRESET ) $
D2E6( D2E6Q,D2E6NQ ) = FT2 (  MCNTCLK,NT36 ) $
D2E7( RASGO,MCNTCLK ) = FD2 (  D2A8O1,D2H8O1,NPRESET ) $
D2E11( CASGO,D2E11NQ ) = FD2 (  NT48,D2H8O1,NPRESET ) $
D2E11A( D2E11AQ, ) = YFD2 (  D2C4O1,D2H8O1,NPRESET ) $
D2E11B( D2E11BQ, ) = YFD2 (  D2E11AQ,D2H8O1,NPRESET ) $
D2H6( D2H6Q, ) = FJK2 (  D2G5O1,D2G5O1,MCNTCLK,NT36 ) $
D2H7( D2H7Q,D2H7NQ ) = FJK2 (  D2E6Q,D2E6Q,MCNTCLK,NT36 ) $
D2C15A( D2C15AZ ) = ND3 (  D2E13O1,VDSPLYEN,D2D17O1 ) $
D2C15B( D2C15BZ ) = ND3 (  C2C22O1,C3E7O1,D2E13O1 ) $
D2C15C( D2C15O1 ) = ND2 (  D2C15AZ,D2C15BZ ) $
D2D7( D2D7O1 ) = ND4 (  D2D5Q,NT39,NT48,D2D2Q ) $
D2D10( E3F12O1 ) = AN2P (  D2C5O1,NT48 ) $
D2C4( D2C4O1 ) = AN3 (  D2C3O1,D2D5Q,D2D1Q ) $
D2C11( D2C11O1 ) = AO6P (  D2H14O1,D2C10NQ,D2D13O1 ) $
D2D13( D2D13O1 ) = AO6P (  VDSPLYEN,D2D17O1,C2C22O1 ) $
D3B8( NAMXGR ) = AN4P (  NAMXCPU,NRFAMX,C2E12O1,SLEEPONN ) $
E2A2( E2A2O1 ) = IVP (  E2D2O1 ) $
E2A3( E2A3O1 ) = IVP (  E2A2O1 ) $
```

```
     E2A4( E2A4O1 ) = IVP (  E2A3O1 ) $
     E2A5( E2A5O1 ) = IVP (  E2A4O1 ) $
     E2E9( E2E9O1 ) = IVP (  E2G7O1 ) $
     E2E10( E2E10O1 ) = IVP (  NSEQ1 ) $
     E2B1( E2B1Q, ) = FD4 (  E2C1Q,CLKXX,NRESET ) $
     E2B2( ,E2B2NQ ) = FD3 (  CCC,D2E11NQ,E2B1Q,NRESET ) $
     E2C1( E2C1Q, ) = FD4 (  S5Z,CLKXX,NRESET ) $
     E2D4( E2D4Q, ) = FD4 (  SEQARSTN,D2H8O1,NRESET ) $
     E2C3( E2G9O1 ) = ND2P (  E2D4Q,E2C2NQ ) $
     E2D2( E2D2O1 ) = ND2 (  E2B2NQ,E2C2NQ ) $
     F2C10( NRAS10 ) = ND2 (  F2D8O1,RAMCAS ) $
     F2C12( NRAS00 ) = ND2 (  F2C11O1,RAMCAS ) $
     F2E13( NRAS11 ) = ND2 (  F2E11O1,RAMCAS ) $
     F2E14( NRAS01 ) = ND2 (  F2E9O1,RAMCAS ) $
     F2C11( F2C11O1 ) = AO7 (  SEQ2QN0,F2C9O1,EXTTIM ) $
     F2D8( F2D8O1 ) = AO7 (  SEQ2QN2,F2D5O1,EXTTIM ) $
     F2E9( F2E9O1 ) = AO7 (  SEQ2QN1,F2D6O1,EXTTIM ) $
     F2E11( F2E11O1 ) = AO7 (  SEQ2QN3,F2D4O1,EXTTIM ) $
     E2A7( NPRESET ) = B4I (  E2A5O1 ) $
     E3A14( E3A14O1 ) = IVP (  E3F12O1 ) $
     E3B13( NT9 ) = IVP (  NAMXGR ) $
     F3D13( ADMUXCPU ) = IVP (  NAMXCPU ) $
     E2C2( ,E2C2NQ ) = YFD2 (  E2D4Q,D2H8O1,NRESET ) $
     RB376( CC89SEL,E2D8ONQ,SAIFT2,,ODCK2DIV,,SHIFT4
        ,,SCROFF, ) = LDG5 (  WTRSEQ01,DATAIN0,DATAIN2,DATAIN3
        ,DATAIN4,DATAIN5 ) $
     RB375( NT84,SEQARSTN,NT85,SEQSRSTN ) = YFFD2 (  WRSEQ00
        ,NRESET,DATAIN0
        ,DATAIN1 ) $
     D2B7( NT37 ) = AO2 (  D2B8Q,CCC,D2B8NQ,C3A7O1 ) $
     D2B7N( MEMORYGO ) = IV (  NT37 ) $
     D2E10( D2E10O1 ) = AO2 (  CASGO,D2H10O1,D2C9Q,NT48 ) $
     D2H10( D2H10O1N ) = AO2 (  D2C9NQ,CCC,CC89SELN,NMCNT6 ) $
     D2H10N( D2H10O1 ) = IV (  D2H10O1N ) $
     E2D11( E2D11O1N ) = AO2 (  E2E9O1,SEQ3Q4,SHIFT4,E2E10O1 ) $
     E2D11N( BDOUT44 ) = IV (  E2D11O1N ) $
     E2E12( E2E12O1N ) = AO2 (  E2E9O1,SEQ3Q5,E2E10O1,SCROFF ) $
     E2E12N( BDOUT45 ) = IV (  E2E12O1N ) $
     D2E13( D2E13O1N ) = MUX21L (  NMCNT5,D2F10NQ,D2H14O1 ) $
     D2E13N( D2E13O1 ) = IV (  D2E13O1N ) $
     ERMDV( ERMDRVZ ) = AO7 (  D2D5Q,R3D708Q0,NT62 ) $
     ERMCON( ERMCONZ ) = ND2 (  NT61,R3D709Q0 ) $
     RB251( OCC89SEL ) = NR2 (  E2D8ONQ,HERTEX ) $
     CGASF2( SAIFT2Z ) = OR2 (  SAIFT2,CHAN ) $
     CGADV2( DCK2DIVN ) = NR2 (  DCK2DIV,GCAD2 ) $
     CGADV3( DCKN2DIV ) = IVP (  DCK2DIVN ) $
     RB278( SECBYTE,NRMEMAC,HLDRDY,FCAS1,FCAS3 ) = MACC16 (
         D1C10NQ,D2H8O1
        ,NPRESET,NT28,NT27,GCRTIPE,F1B15O1,ATT02Q2,ATT02QN1
        ,ADDR01 ) $
     D2C1( D2C1Z ) = ND2 (  NT38,NT39 ) $
     D1C9( NVGARDY ) = ND2 (  MACC16AZ,D2C1Z ) $
     RB280( NT107 ) = AN2 (  D2C1Z,NRMEMAC ) $
     RB279( MACC16AZ ) = OR2 (  D1C10NQ,HLDRDY ) $
     RB199( SLEEPONN ) = IV (  SLEEPON ) $
END : MODULE $
MODULE :   BLCKC/// $
INPUTS   :
     DATAIN8,CCC,DATAIN9,DATAIN10,DATAIN11,DATAIN12,DATAIN13,DATAIN14
    ,DATAIN15,M0DI0,M0DI1,M0DI2,M0DI3,M0DI4,M0DI5,M0DI6,M0DI7,M1DI0
    ,M1DI1,M1DI2,M1DI3,M1DI4,M1DI5,M1DI6,M1DI7,M2DI0,M2DI1,M2DI2,M2DI3
    ,M2DI4,M2DI5,M2DI6,M2DI7,M3DI0,M3DI1,M3DI2,M3DI3,M3DI4,M3DI5,M3DI6
```

```
    ,M3DI7,D2D7O1,C3D5O1,WTRGC08,WTRGC05,WTRGC03,WTRGC00,WTRGC02,WTRGC01
    ,WTRGC07,WTRGC04,DATAIN7,DATAIN6,C3G8Q,TESTEZ,TEST2Z,ADR0,NJADD0
    ,NRESET,DATAIN0,DATAIN1,DATAIN2,DATAIN3,DATAIN4,DATAIN5,NCRTLTH
    ,ATT02QN2,ATT02Q2,ADR1
$
OUTPUTS  :
     E2E13Q,E2E13NQ,NT51,E3H10Q,F3E12Q,E3E12Q,F4E2Q,D4H1Q,D3H16Q,E3G7Q
    ,D3E15Q,E3D17O1,GC256L,GCSHLD,CRTP0D1,CRTP3D1,CRTP0D3,CRTP0D2
    ,CRTP0D0,CRTP0D6,CRTP0D4,CRTP1D3,CRTP3D3,CRTP3D2,CRTP3D0,CRTP2D2
    ,CRTP2D0,CRTP1D1,CRTP1D5,CRTP1D7,CRTP1D0,CRTP0D7,CRTP1D2,CRTP0D5
    ,CRTP1D4,CRTP1D6,CRTP3D7,CRTP3D4,CRTP3D6,CRTP3D5,CRTP2D4,CRTP2D7
    ,CRTP2D6,CRTP2D3,CRTP2D5,CRTP2D1,MRDATA7,GC07Q3,GC07Q2,GC07Q1
    ,GC07Q0,GCCCR3,GCCCR1,GCCCR0,GCCCR2,GCRTIPE,MRDATA3,MRDATA1,MRDATA0
    ,MRDATA2,MRDATA5,MRDATA6,MRDATA4,GCRM1,GCRM0,GCSETE3,GCSETE2,GCSETE1
    ,GCSETE0,GCSETR3,GCSETR2,GCSETR1,GCSETR0,GC03Q4,GC03Q3,GC03Q2
    ,GC03Q1,GC03Q0,GCEVOD,GCWTMOD1,GCWTMOD0,MASKR7,MASKR6,MASKR5,MASKR4
    ,MASKR3,MASKR2,MASKR1,MASKR0,D2B16O1,CPULTH,BAROUT07,BAROUT06
    ,BAROUT01,ENACP3,ENACP0,BAROUT04,BAROUT03,BAROUT02,BAROUT05,ENACP1
    ,PLACL1,PLACL0,BAROUT00,ENACP2,PLACL2,PLACL3,M0DO0,M0DO1,M0DO2
    ,M0DO3,M0DO4,M0DO5,M0DO6,M0DO7,M1DO0,M1DO1,M1DO2,M1DO3,M1DO4,M1DO5
    ,M1DO6,M1DO7,M2DO0,M2DO1,M2DO2,M2DO3,M2DO4,M2DO5,M2DO6,M2DO7,M3DO0
    ,M3DO1,M3DO2,M3DO3,M3DO4,M3DO5,M3DO6,CRTLTH,M3DO7
$
DESCRIPTION : MODULE FOR BLCKC $
LEVEL  : FUNCTION $
USE   :
     B2I /// MASTER
    ,CCMP1 ///
    ,LDG2 ///
    ,LDG4 ///
    ,LDG5 ///
    ,B4I /// MASTER
    ,LDG6 ///
    ,LDG8 ///
    ,YFD2 /// MASTER
    ,IVP /// MASTER
    ,LD2 /// MASTER
    ,AN3 /// MASTER
    ,EO /// MASTER
    ,EN /// MASTER
    ,B5I /// MASTER
    ,B5IP /// MASTER
    ,AO2P /// MASTER
    ,AN2 /// MASTER
    ,MEMIO3 ///
    ,BRSHFT ///
    ,ND2P /// MASTER
    ,ND2 /// MASTER
    ,AO3 /// MASTER
    ,AO2 /// MASTER
    ,IV /// MASTER
    ,NR2P /// MASTER
    ,MUX21LP /// MASTER
    ,AO7P /// MASTER
    ,ND3 /// MASTER

$
DEFINE :
     RB385( ,GC03Q2 ) = B2I (  GC03Q2I ) $
     RB384( ,GC03Q1 ) = B2I (  GC03Q1I ) $
     B2D7( MRDATA7 ) = CCMP1 (  SD0N,CPUP0D7N,CCD0,CPUP0D7,SD1N,CPUP1D7N
        ,CCD1,CPUP1D7,SD2N,CPUP2D7N,CCD2,CPUP2D7,SD3N
```

```
   ,CPUP3D7N,CCD3,CPUP3D7 ) $
A2E3( MRDATA3 ) = CCMP1 (  SD0N,CPUP0D3N,CCD0,CPUP0D3,SD1N,CPUP1D3N
   ,CCD1,CPUP1D3,SD2N,CPUP2D3N,CCD2,CPUP2D3,SD3N
   ,CPUP3D3N,CCD3,CPUP3D3 ) $
B2F8( MRDATA1 ) = CCMP1 (  SD0N,CPUP0D1N,CCD0,CPUP0D1,SD1N,CPUP1D1N
   ,CCD1,CPUP1D1,SD2N,CPUP2D1N,CCD2,CPUP2D1,SD3N
   ,CPUP3D1N,CCD3,CPUP3D1 ) $
B2D17( MRDATA0 ) = CCMP1 (  SD0N,CPUP0D0N,CCD0,CPUP0D0,SD1N
   ,CPUP1D0N
   ,CCD1,CPUP1D0,SD2N,CPUP2D0N,CCD2,CPUP2D0,SD3N
   ,CPUP3D0N,CCD3,CPUP3D0 ) $
B2F3( MRDATA2 ) = CCMP1 (  SD0N,CPUP0D2N,CCD0,CPUP0D2,SD1N,CPUP1D2N
   ,CCD1,CPUP1D2,SD2N,CPUP2D2N,CCD2,CPUP2D2,SD3N
   ,CPUP3D2N,CCD3,CPUP3D2 ) $
B2A4( MRDATA5 ) = CCMP1 (  SD0N,CPUP0D5N,CCD0,CPUP0D5,SD1N,CPUP1D5N
   ,CCD1,CPUP1D5,SD2N,CPUP2D5N,CCD2,CPUP2D5,SD3N
   ,CPUP3D5N,CCD3,CPUP3D5 ) $
B2D10( MRDATA6 ) = CCMP1 (  SD0N,CPUP0D6N,CCD0,CPUP0D6,SD1N
   ,CPUP1D6N
   ,CCD1,CPUP1D6,SD2N,CPUP2D6N,CCD2,CPUP2D6,SD3N
   ,CPUP3D6N,CCD3,CPUP3D6 ) $
B2C16( MRDATA4 ) = CCMP1 (  SD0N,CPUP0D4N,CCD0,CPUP0D4,SD1N
   ,CPUP1D4N
   ,CCD1,CPUP1D4,SD2N,CPUP2D4N,CCD2,CPUP2D4,SD3N
   ,CPUP3D4N,CCD3,CPUP3D4 ) $
GC04( GCRM0,,GCRM1, ) = LDG2 (  WTRGC04,DATAIN0,DATAIN1
    ) $
GC07( GC07Q0,,GC07Q1,,GC07Q2,,GC07Q3
   , ) = LDG4 (  WTRGC07,DATAIN0,DATAIN1,DATAIN2,DATAIN3 ) $
GC01( GCSETE0,,GCSETE1,,GCSETE2,,GCSETE3
   , ) = LDG4 (  WTRGC01,DATAIN0,DATAIN1,DATAIN2,DATAIN3 ) $
GC02( GCCCR0,GCCCR0N,GCCCR1,GCCCR1N,GCCCR2,GCCCR2N,GCCCR3
   ,GCCCR3N ) = LDG4 (  WTRGC02,DATAIN0,DATAIN1,DATAIN2,DATAIN3 ) $
GC00( GCSETR0,,GCSETR1,,GCSETR2,,GCSETR3
   , ) = LDG4 (  WTRGC00,DATAIN0,DATAIN1,DATAIN2,DATAIN3 ) $
GC03( GC03Q0,,GC03Q1I,,GC03Q2I,,GC03Q3
   ,,GC03Q4,GC03NQ4 ) = LDG5 (  WTRGC03,DATAIN0,DATAIN1,DATAIN2
   ,DATAIN3,DATAIN4 ) $
RB370( SELXOR ) = B4I (  SELXORN ) $
RB368( SELAND ) = B4I (  SELANDN ) $
GC05( GCWTMOD0,NT33,GCWTMOD1,NT34,GCRTIPE,GCRTIPEN,GCEVOD
   ,GCEVODN,GCSHLD,,GC256L,GC256LN ) = LDG6 (  WTRGC05,DATAIN0
   ,DATAIN1,DATAIN3,DATAIN4,DATAIN5,DATAIN6 ) $
GC08( MASKR0,,MASKR1,,MASKR2,,MASKR3
   ,,MASKR4,,MASKR5,,MASKR6,
   ,MASKR7, ) = LDG8 (  WTRGC08,DATAIN0,DATAIN1,DATAIN2,DATAIN3
   ,DATAIN4,DATAIN5,DATAIN6,DATAIN7 ) $
B1C10( GC03Q4N ) = B4I (  GC03Q4 ) $
F4E2( F4E2Q, ) = YFD2 (  M0DI7,CRTLTH,NRESET ) $
F3E12( F3E12Q, ) = YFD2 (  M0DI3,CRTLTH,NRESET ) $
E3D16( E3D16O1 ) = IVP (  D3H16Q ) $
E3H10( E3H10Q, ) = LD2 (  M0DI2,CRTLTH ) $
E3G7( E3G7Q, ) = LD2 (  M0DI1,CRTLTH ) $
E3E12( E3E12Q, ) = LD2 (  M0DI0,CRTLTH ) $
E3D17( E3D17O1 ) = AN3 (  D3E15Q,F4E2Q,E3D16O1 ) $
E2E13( E2E13Q,E2E13NQ ) = LD2 (  M1DI3,CRTLTH ) $
D4H1( D4H1Q, ) = YFD2 (  M0DI4,CRTLTH,NRESET ) $
D3E14( NT51 ) = EO (  C3D5O1,TEST2Z ) $
D3H16( D3H16Q, ) = YFD2 (  M0DI5,CRTLTH,NRESET ) $
D3E15( D3E15Q, ) = YFD2 (  M0DI6,CRTLTH,NRESET ) $
D2D11( NCPULTH ) = EN (  D2D7O1,TESTEZ ) $
D2E12A( CPULTH ) = B5I (  NCPULTH ) $
```

```
D2E12( CRTLTH ) = B5IP (  NCRTLTH ) $
D2B16( D2B16O1 ) = IVP (  C3G8Q ) $
C2C9( C2C9O1 ) = AO2P (  GCEVODN,GCRM0,ADR0,GCEVOD ) $
B1F13( WMOD2 ) = AN2 (  NT33,GCWTMOD1 ) $
B1F12( WMOD2N ) = IVP (  WMOD2 ) $
E5I2( M0DO1,CPUP0D1,CPUP0D1N,CRTP0D1 ) = MEMIO3 (  BAROUT01
   ,ENACPN0,PLACL0
   ,ENACP0,SELAND,SELXOR,CCC,GC03Q4N,MASKD01,M0DI1
   ,CPULTH,CRTLTH ) $
C1H1( M3DO1,CPUP3D1,CPUP3D1N,CRTP3D1 ) = MEMIO3 (  BAROUT11
   ,ENACPN3,ENACP3
   ,PLACL3,SELAND,SELXOR,CCC,GC03Q4N,MASKD11,M3DI1
   ,CPULTH,CRTLTH ) $
F5F8( M0DO3,CPUP0D3,CPUP0D3N,CRTP0D3 ) = MEMIO3 (  BAROUT03
   ,ENACPN0,PLACL0
   ,ENACP0,SELAND,SELXOR,CCC,GC03Q4N,MASKD03,M0DI3
   ,CPULTH,CRTLTH ) $
F5F9( M0DO2,CPUP0D2,CPUP0D2N,CRTP0D2 ) = MEMIO3 (  BAROUT02
   ,ENACPN0,ENACP0
   ,PLACL0,SELAND,SELXOR,CCC,GC03Q4N,MASKD02,M0DI2
   ,CPULTH,CRTLTH ) $
E5I1( M0DO0,CPUP0D0,CPUP0D0N,CRTP0D0 ) = MEMIO3 (  BAROUT00
   ,ENACPN0,PLACL0
   ,ENACP0,SELAND,SELXOR,CCC,GC03Q4N,MASKD00,M0DI0
   ,CPULTH,CRTLTH ) $
E5I3( M0DO6,CPUP0D6,CPUP0D6N,CRTP0D6 ) = MEMIO3 (  BAROUT06
   ,ENACPN0,ENACP0
   ,PLACL0,SELAND,SELXOR,CCC,GC03Q4N,MASKD06,M0DI6
   ,CPULTH,CRTLTH ) $
E5I5( M0DO4,CPUP0D4,CPUP0D4N,CRTP0D4 ) = MEMIO3 (  BAROUT04
   ,ENACPN0,ENACP0
   ,PLACL0,SELAND,SELXOR,CCC,GC03Q4N,MASKD04,M0DI4
   ,CPULTH,CRTLTH ) $
D5I8( M1DO3,CPUP1D3,CPUP1D3N,CRTP1D3 ) = MEMIO3 (  BAROUT13
   ,ENACPN1,PLACL1
   ,ENACP1,SELAND,SELXOR,CCC,GC03Q4N,MASKD13,M1DI3
   ,CPULTH,CRTLTH ) $
D1I1( M3DO3,CPUP3D3,CPUP3D3N,CRTP3D3 ) = MEMIO3 (  BAROUT13
   ,ENACPN3,ENACP3
   ,PLACL3,SELAND,SELXOR,CCC,GC03Q4N,MASKD13,M3DI3
   ,CPULTH,CRTLTH ) $
C1H7( M3DO2,CPUP3D2,CPUP3D2N,CRTP3D2 ) = MEMIO3 (  BAROUT12
   ,ENACPN3,ENACP3
   ,PLACL3,SELAND,SELXOR,CCC,GC03Q4N,MASKD12,M3DI2
   ,CPULTH,CRTLTH ) $
C1H3( M3DO0,CPUP3D0,CPUP3D0N,CRTP3D0 ) = MEMIO3 (  BAROUT10
   ,ENACPN3,PLACL3
   ,ENACP3,SELAND,SELXOR,CCC,GC03Q4N,MASKD10,M3DI0
   ,CPULTH,CRTLTH ) $
C1H2( M2DO2,CPUP2D2,CPUP2D2N,CRTP2D2 ) = MEMIO3 (  BAROUT02
   ,ENACPN2,ENACP2
   ,PLACL2,SELAND,SELXOR,CCC,GC03Q4N,MASKD02,M2DI2
   ,CPULTH,CRTLTH ) $
F5F6( M2DO0,CPUP2D0,CPUP2D0N,CRTP2D0 ) = MEMIO3 (  BAROUT00
   ,ENACPN2,PLACL2
   ,ENACP2,SELAND,SELXOR,CCC,GC03Q4N,MASKD00,M2DI0
   ,CPULTH,CRTLTH ) $
A5F5( M1DO1,CPUP1D1,CPUP1D1N,CRTP1D1 ) = MEMIO3 (  BAROUT11
   ,ENACPN1,PLACL1
   ,ENACP1,SELAND,SELXOR,CCC,GC03Q4N,MASKD11,M1DI1
   ,CPULTH,CRTLTH ) $
A5F10( M1DO5,CPUP1D5,CPUP1D5N,CRTP1D5 ) = MEMIO3 (  BAROUT15
```

```
   ,ENACPN1,PLACL1
   ,ENACP1,SELAND,SELXOR,CCC,GC03Q4N,MASKD15,M1DI5
   ,CPULTH,CRTLTH ) $
A5F4( M1DO7,CPUP1D7,CPUP1D7N,CRTP1D7 ) = MEMIO3 (  BAROUT17
   ,ENACPN1,ENACP1
   ,PLACL1,SELAND,SELXOR,CCC,GC03Q4N,MASKD17,M1DI7
   ,CPULTH,CRTLTH ) $
A5F9( M1DO0,CPUP1D0,CPUP1D0N,CRTP1D0 ) = MEMIO3 (  BAROUT10
   ,ENACPN1,PLACL1
   ,ENACP1,SELAND,SELXOR,CCC,GC03Q4N,MASKD10,M1DI0
   ,CPULTH,CRTLTH ) $
F5F10( M0DO7,CPUP0D7,CPUP0D7N,CRTP0D7 ) = MEMIO3 (  BAROUT07
   ,ENACPN0,ENACP0
   ,PLACL0,SELAND,SELXOR,CCC,GC03Q4N,MASKD07,M0DI7
   ,CPULTH,CRTLTH ) $
A4F5( M1DO2,CPUP1D2,CPUP1D2N,CRTP1D2 ) = MEMIO3 (  BAROUT12
   ,ENACPN1,PLACL1
   ,ENACP1,SELAND,SELXOR,CCC,GC03Q4N,MASKD12,M1DI2
   ,CPULTH,CRTLTH ) $
F5F11( M0DO5,CPUP0D5,CPUP0D5N,CRTP0D5 ) = MEMIO3 (  BAROUT05
   ,ENACPN0,PLACL0
   ,ENACP0,SELAND,SELXOR,CCC,GC03Q4N,MASKD05,M0DI5
   ,CPULTH,CRTLTH ) $
A5F2( M1DO4,CPUP1D4,CPUP1D4N,CRTP1D4 ) = MEMIO3 (  BAROUT14
   ,ENACPN1,PLACL1
   ,ENACP1,SELAND,SELXOR,CCC,GC03Q4N,MASKD14,M1DI4
   ,CPULTH,CRTLTH ) $
A5F7( M1DO6,CPUP1D6,CPUP1D6N,CRTP1D6 ) = MEMIO3 (  BAROUT16
   ,ENACPN1,ENACP1
   ,PLACL1,SELAND,SELXOR,CCC,GC03Q4N,MASKD16,M1DI6
   ,CPULTH,CRTLTH ) $
A3F1( M3DO7,CPUP3D7,CPUP3D7N,CRTP3D7 ) = MEMIO3 (  BAROUT17
   ,ENACPN3,ENACP3
   ,PLACL3,SELAND,SELXOR,CCC,GC03Q4N,MASKD17,M3DI7
   ,CPULTH,CRTLTH ) $
A3F8( M3DO4,CPUP3D4,CPUP3D4N,CRTP3D4 ) = MEMIO3 (  BAROUT14
   ,ENACPN3,PLACL3
   ,ENACP3,SELAND,SELXOR,CCC,GC03Q4N,MASKD14,M3DI4
   ,CPULTH,CRTLTH ) $
A3F3( M3DO6,CPUP3D6,CPUP3D6N,CRTP3D6 ) = MEMIO3 (  BAROUT16
   ,ENACPN3,PLACL3
   ,ENACP3,SELAND,SELXOR,CCC,GC03Q4N,MASKD16,M3DI6
   ,CPULTH,CRTLTH ) $
A3F4( M3DO5,CPUP3D5,CPUP3D5N,CRTP3D5 ) = MEMIO3 (  BAROUT15
   ,ENACPN3,PLACL3
   ,ENACP3,SELAND,SELXOR,CCC,GC03Q4N,MASKD15,M3DI5
   ,CPULTH,CRTLTH ) $
A2F3( M2DO4,CPUP2D4,CPUP2D4N,CRTP2D4 ) = MEMIO3 (  BAROUT04
   ,ENACPN2,ENACP2
   ,PLACL2,SELAND,SELXOR,CCC,GC03Q4N,MASKD04,M2DI4
   ,CPULTH,CRTLTH ) $
A2F1( M2DO7,CPUP2D7,CPUP2D7N,CRTP2D7 ) = MEMIO3 (  BAROUT07
   ,ENACPN2,ENACP2
   ,PLACL2,SELAND,SELXOR,CCC,GC03Q4N,MASKD07,M2DI7
   ,CPULTH,CRTLTH ) $
A1F4( M2DO6,CPUP2D6,CPUP2D6N,CRTP2D6 ) = MEMIO3 (  BAROUT06
   ,ENACPN2,PLACL2
   ,ENACP2,SELAND,SELXOR,CCC,GC03Q4N,MASKD06,M2DI6
   ,CPULTH,CRTLTH ) $
B1H1( M2DO3,CPUP2D3,CPUP2D3N,CRTP2D3 ) = MEMIO3 (  BAROUT03
   ,ENACPN2,PLACL2
   ,ENACP2,SELAND,SELXOR,CCC,GC03Q4N,MASKD03,M2DI3
```

```
   ,CPULTH,CRTLTH ) $
A1F3( M2DO5,CPUP2D5,CPUP2D5N,CRTP2D5 ) = MEMIO3 (  BAROUT05
   ,ENACPN2,ENACP2
   ,PLACL2,SELAND,SELXOR,CCC,GC03Q4N,MASKD05,M2DI5
   ,CPULTH,CRTLTH ) $
A1F2( M2DO1,CPUP2D1,CPUP2D1N,CRTP2D1 ) = MEMIO3 (  BAROUT01
   ,ENACPN2,PLACL2
   ,ENACP2,SELAND,SELXOR,CCC,GC03Q4N,MASKD01,M2DI1
   ,CPULTH,CRTLTH ) $
A1A3( BAROUT07,BAROUT06,BAROUT04,BAROUT05,BAROUT03,BAROUT01
   ,BAROUT02
   ,BAROUT00 ) = BRSHFT (  GC03Q0,GC03Q1,GC03Q2,DATAIN0
   ,DATAIN1,DATAIN2
   ,DATAIN3,DATAIN4,DATAIN5,DATAIN6,DATAIN7 ) $
A1A3A( BAROUT17,BAROUT16,BAROUT14,BAROUT15,BAROUT13,BAROUT11
   ,BAROUT12
   ,BAROUT10 ) = BRSHFT (  GC03Q0,GC03Q1,GC03Q2,DATAIN8
   ,DATAIN9,DATAIN10
   ,DATAIN11,DATAIN12,DATAIN13,DATAIN14,DATAIN15 ) $
RB452( WMOD1N ) = ND2P (  GCWTMOD0,NT34 ) $
RB371( SELXORN ) = ND2 (  GC03Q4,GC03Q3 ) $
RB88( MASKD10 ) = AO3 (  NT33,BAROUT10,WMOD1N,MASKR0 ) $
B1E121( MASKD00 ) = AO3 (  NT33,BAROUT00,WMOD1N,MASKR0 ) $
B2F2A1( MASKD12 ) = AO3 (  NT33,BAROUT12,WMOD1N,MASKR2 ) $
B2F21( MASKD02 ) = AO3 (  NT33,BAROUT02,WMOD1N,MASKR2 ) $
RB97( MASKD14 ) = AO3 (  NT33,BAROUT14,WMOD1N,MASKR4 ) $
B2G111( MASKD04 ) = AO3 (  NT33,BAROUT04,WMOD1N,MASKR4 ) $
RB169( MASKD17 ) = AO3 (  NT33,BAROUT17,WMOD1N,MASKR7 ) $
C2A111( MASKD07 ) = AO3 (  NT33,BAROUT07,WMOD1N,MASKR7 ) $
C2A9A1( MASKD16 ) = AO3 (  NT33,BAROUT16,WMOD1N,MASKR6 ) $
C2A91( MASKD06 ) = AO3 (  NT33,BAROUT06,WMOD1N,MASKR6 ) $
B2G7A1( MASKD13 ) = AO3 (  NT33,BAROUT13,WMOD1N,MASKR3 ) $
B2G71( MASKD03 ) = AO3 (  NT33,BAROUT03,WMOD1N,MASKR3 ) $
B2E5A1( MASKD15 ) = AO3 (  NT33,BAROUT15,WMOD1N,MASKR5 ) $
B2E51( MASKD05 ) = AO3 (  NT33,BAROUT05,WMOD1N,MASKR5 ) $
RB161( MASKD11 ) = AO3 (  NT33,BAROUT11,WMOD1N,MASKR1 ) $
RB369( SELANDN ) = ND2 (  GC03NQ4,GC03Q3 ) $
C1A151( MASKD01 ) = AO3 (  NT33,BAROUT01,WMOD1N,MASKR1 ) $
C2D5( CCMPS1N ) = AO2 (  ATT02QN2,GCRM1,ADR1,ATT02Q2 ) $
C2D5N( CCMPS1 ) = IV (  CCMPS1N ) $
B1G13( ENACPN0 ) = NR2P (  GCWTMOD1,GCSETE0 ) $
B1G13N( ENACP0 ) = IVP (  ENACPN0 ) $
B1F15( ENACPN1 ) = NR2P (  GCWTMOD1,GCSETE1 ) $
B1F15N( ENACP1 ) = IVP (  ENACPN1 ) $
C1A10( ENACPN3 ) = NR2P (  GCWTMOD1,GCSETE3 ) $
C1A10N( ENACP3 ) = IVP (  ENACPN3 ) $
B1F11( ENACPN2 ) = NR2P (  GCWTMOD1,GCSETE2 ) $
B1F11N( ENACP2 ) = IVP (  ENACPN2 ) $
B2E1( PLACL0N ) = AO2 (  GCSETR0,WMOD2N,WMOD2,DATAIN0 ) $
B2E1N( PLACL0 ) = IVP (  PLACL0N ) $
B2F1( PLACL1N ) = AO2 (  GCSETR1,WMOD2N,DATAIN1,WMOD2 ) $
B2F1N( PLACL1 ) = IVP (  PLACL1N ) $
B1E9( PLACL3N ) = AO2 (  GCSETR3,WMOD2N,DATAIN3,WMOD2 ) $
B1E9N( PLACL3 ) = IVP (  PLACL3N ) $
B1F14( PLACL2N ) = AO2 (  GCSETR2,WMOD2N,DATAIN2,WMOD2 ) $
B1F14N( PLACL2 ) = IVP (  PLACL2N ) $
RB116( CCMPS0N ) = IV (  CCMPS0 ) $
C2D12( CCMPS0 ) = MUX21LP (  C2C9O1,NJADD0,ATT02Q2 ) $
RB367( SD3N ) = AO7P (  CCE3N,GCCCR3N,CCS3 ) $
RB111( CCD3 ) = NR2P (  CCE3N,GCCCR3 ) $
RB115( CCE3N ) = ND2 (  GCRTIPE,GC07Q3 ) $
RB120( CCS3 ) = ND3 (  GCRTIPEN,CCMPS0,CCMPS1 ) $
```

```
     RB366( SD2N ) = AO7P (  CCE2N,GCCCR2N,CCS2 ) $
     RB110( CCD2 ) = NR2P (  CCE2N,GCCCR2 ) $
     RB114( CCE2N ) = ND2 (  GCRTIPE,GC07Q2 ) $
     RB119( CCS2 ) = ND3 (  GCRTIPEN,CCMPS0N,CCMPS1 ) $
     RB365( SD1N ) = AO7P (  CCE1N,GCCCR1N,CCS1 ) $
     RB109( CCD1 ) = NR2P (  CCE1N,GCCCR1 ) $
     RB113( CCE1N ) = ND2 (  GCRTIPE,GC07Q1 ) $
     RB118( CCS1 ) = ND3 (  GCRTIPEN,CCMPS0,CCMPS1N ) $
     RB364( SD0N ) = AO7P (  CCE0N,GCCCR0N,CCS0 ) $
     RB108( CCD0 ) = NR2P (  CCE0N,GCCCR0 ) $
     RB112( CCE0N ) = ND2 (  GCRTIPE,GC07Q0 ) $
     RB117( CCS0 ) = ND3 (  GCRTIPEN,CCMPS0N,CCMPS1N ) $
END : MODULE $
MODULE :   BLCKB/// $
INPUTS   :
     NADDR16,MAK17,R3D704Q2,NT53,FCAS1,FCAS3,B3A13O1,NJADD0,NRESET
    ,DATAIN0,DATAIN1,DATAIN2,DATAIN3,DATAIN4,DATAIN5,D3F16O1,ADRCNT14
    ,ADRCNT11,ADRCNT10,ADRCNT09,ADRCNT08,ADRCNT01,ADRCNT04,ADRCNT03
    ,ADRCNT02,ADRCNT13,ADRCNT15,ADRCNT00,ADRCNT12,ADRCNT07,ADRCNT06
    ,ADRCNT05,NT49,NUNDER6,UNDER6,ROWCNT0,ROWCNT1,ROWCNT2,ROWCNT3
    ,ROWCNT4,CRTLTH,CRTCM5,CRTCM1,CRTCM0,NAMXCPU,CRTCM6,ADDR11,ADDR04
    ,E3F12O1,D2E9O1,ADMUXCPU,NT9,E3A14O1,D3E15Q,NAMXGR,ADDR13,ADDR06
    ,E3G7Q,ADDR10,ADDR03,D3H16Q,ADDR14,ADDR09,ADDR02,D4H1Q,ADDR12
    ,ADDR05,F4E2Q,E3E12Q,ADDR08,F3E12Q,F1B10O1,ADDR07,E3H10Q,ADDR01
    ,GC06Q1,NADDR1,NT51,R3C2Q5,JADD0,E2G9O1,E2E13NQ,E2E13Q,WTRSEQ03
    ,TEST3Z,NCRTCM6,F1B7O1,ADDR16,WTRSEQ04,WTRSEQ02
$
OUTPUTS  :
     ATT02QN1,F1B15O1,ADR0,YB4,YA4,YB6,YA6,YB3,YA3,YB0,YA0,YB2,YA2
    ,YB5,YA5,YB1,YA1,YB7,YA7,ATT02QN2,ATT02Q2,ADR1,SEQ2Q1,SEQ3Q1,ATT02Q0
    ,SEQ3Q3,SEQ2Q3,SEQ3Q4,SEQ3Q5,F2C9O1,F2D4O1,F2D5O1,F2D6O1,SEQ3Q2
    ,ATT02Q1,SEQ2Q2,SEQ2Q0,SEQ3Q0,SEQ2QN0,SEQ2QN2,SEQ2QN1,SEQ2QN3

$
DESCRIPTION : MODULE FOR BLCKB $
LEVEL  : FUNCTION $
USE   :
     ND2 /// MASTER
    ,EN /// MASTER
    ,ND3 /// MASTER
    ,NR2 /// MASTER
    ,AO4 /// MASTER
    ,IV /// MASTER
    ,MUX21L /// MASTER
    ,AO2 /// MASTER
    ,TCNT4 ///
    ,YFFD6 ///
    ,LDG3 ///
    ,IVP /// MASTER
    ,LDG4 ///
    ,B4I /// MASTER
    ,OR2 /// MASTER
    ,YFD2 /// MASTER
    ,ND4 /// MASTER
    ,OR2P /// MASTER
    ,EO /// MASTER
    ,LD2 /// MASTER
    ,MUX168 ///
    ,ADMUX2 ///

$
DEFINE :
```

```
TGR2( TIGERM2 ) = ND2 (  ADRCNT15,R3D704Q2 ) $
TGR1( TIGERM1 ) = ND2 (  ADRCNT14,R3D704Q2 ) $
AM13( ADRCM13 ) = EN (  ADRCNT13,TIGERM2 ) $
AM12( ADRCM12 ) = EN (  ADRCNT12,TIGERM1 ) $
AM15( ADRM15 ) = EN (  F1B10O1,MAK17 ) $
AM14( ADRM14 ) = EN (  ADDR14,MAK16 ) $
MK16( MAK16 ) = ND3 (  MAK16A,MAK16B,R3D704Q2 ) $
MK16B( MAK16B ) = ND2 (  NT53,F1A4O1 ) $
MK16A( MAK16A ) = ND2 (  NADDR16,F1B7O1 ) $
F4D62( F4D6O12 ) = NR2 (  ADRCNT05,NUNDER6 ) $
F4D61( F4D6O11 ) = AO4 (  ADRCNT07,E4F2O1,ADRCNT06,F4E5O1 ) $
F4D6( F4D6O1 ) = NR2 (  F4D6O11,F4D6O12 ) $
F4C62( F4C6O12 ) = NR2 (  ADRCM12,NUNDER6 ) $
F4C61( F4C6O11 ) = AO4 (  ADRCNT00,E4F2O1,MA1315,F4E5O1 ) $
F4C6( F4C6O1 ) = NR2 (  F4C6O11,F4C6O12 ) $
F4E82( F4E8O12 ) = NR2 (  ADRCNT02,NUNDER6 ) $
F4E81( F4E8O11 ) = AO4 (  ADRCNT04,E4F2O1,ADRCNT03,F4E5O1 ) $
F4E8( F4E8O1 ) = NR2 (  F4E8O11,F4E8O12 ) $
F4E72( F4E7O12 ) = NR2 (  ADRCNT00,NUNDER6 ) $
F4E71( F4E7O11 ) = AO4 (  ADRCNT02,E4F2O1,ADRCNT01,F4E5O1 ) $
F4E7( F4E7O1 ) = NR2 (  F4E7O11,F4E7O12 ) $
F4E62( F4E6O12 ) = NR2 (  ADRCNT06,NUNDER6 ) $
F4E61( F4E6O11 ) = AO4 (  ADRCNT08,E4F2O1,ADRCNT07,F4E5O1 ) $
F4E6( F4E6O1 ) = NR2 (  F4E6O11,F4E6O12 ) $
F4D52( F4D5O12 ) = NR2 (  ADRCM13,NUNDER6 ) $
F4D51( F4D5O11 ) = AO4 (  ADRCNT01,E4F2O1,ADRCNT00,F4E5O1 ) $
F4D5( F4D5O1 ) = NR2 (  F4D5O11,F4D5O12 ) $
F4D42( F4D4O12 ) = NR2 (  ADRCNT07,NUNDER6 ) $
F4D41( F4D4O11 ) = AO4 (  E4F2O1,ADRCNT09,ADRCNT08,F4E5O1 ) $
F4D4( F4D4O1 ) = NR2 (  F4D4O11,F4D4O12 ) $
F4C52( F4C5O12 ) = NR2 (  ADRCNT03,NUNDER6 ) $
F4C51( F4C5O11 ) = AO4 (  ADRCNT05,E4F2O1,ADRCNT04,F4E5O1 ) $
F4C5( F4C5O1 ) = NR2 (  F4C5O11,F4C5O12 ) $
F4C42( F4C4O12 ) = NR2 (  ADRCNT01,NUNDER6 ) $
F4C41( F4C4O11 ) = AO4 (  ADRCNT03,E4F2O1,ADRCNT02,F4E5O1 ) $
F4C4( F4C4O1 ) = NR2 (  F4C4O11,F4C4O12 ) $
F4B62( F4B6O12 ) = NR2 (  ADRCNT04,NUNDER6 ) $
F4B61( F4B6O11 ) = AO4 (  E4F2O1,ADRCNT06,ADRCNT05,F4E5O1 ) $
F4B6( F4B6O1 ) = NR2 (  F4B6O11,F4B6O12 ) $
F4B22( F4B2O12 ) = NR2 (  ADRCNT10,NUNDER6 ) $
F4B21( F4B2O11 ) = AO4 (  E4F2O1,ADRCNT12,ADRCNT11,F4E5O1 ) $
F4B2( F4B2O1 ) = NR2 (  F4B2O11,F4B2O12 ) $
F4A52( F4A5O12 ) = NR2 (  ADRCNT13,NUNDER6 ) $
F4A51( F4A5O11 ) = AO4 (  E4F2O1,ADRCNT15,ADRCNT14,F4E5O1 ) $
F4A5( F4A5O1 ) = NR2 (  F4A5O11,F4A5O12 ) $
E4H22( E4H2O12 ) = NR2 (  ADRCNT08,NUNDER6 ) $
E4H21( E4H2O11 ) = AO4 (  E4F2O1,ADRCNT10,ADRCNT09,F4E5O1 ) $
E4H2( E4H2O1 ) = NR2 (  E4H2O11,E4H2O12 ) $
E4D12( E4D1O12 ) = NR2 (  ADRCNT12,NUNDER6 ) $
E4D11( E4D1O11 ) = AO4 (  E4F2O1,ADRCNT14,ADRCNT13,F4E5O1 ) $
E4D1( E4D1O1 ) = NR2 (  E4D1O11,E4D1O12 ) $
E3A222( E3A22O12 ) = NR2 (  ADRCNT11,NUNDER6 ) $
E3A221( E3A22O11 ) = AO4 (  E4F2O1,ADRCNT13,ADRCNT12,F4E5O1 ) $
E3A22( E3A22O1 ) = NR2 (  E3A22O11,E3A22O12 ) $
D4G22( D4G2O12 ) = NR2 (  ADRCNT09,NUNDER6 ) $
D4G21( D4G2O11 ) = AO4 (  E4F2O1,ADRCNT11,ADRCNT10,F4E5O1 ) $
D4G2( D4G2O1 ) = NR2 (  D4G2O11,D4G2O12 ) $
F4B8N( MA1315 ) = IV (  MA1315N ) $
F4B8( MA1315N ) = MUX21L (  ADRCNT13,ADRCNT15,CRTCM5 ) $
E4C1N( E4C1O1 ) = IV (  E4C1O1N ) $
E4C1( E4C1O1N ) = MUX21L (  ROWCNT1,E4D1O1,CRTCM1 ) $
E3A21N( E3A21O1 ) = IV (  E3A21O1N ) $
```

```
E3A21( E3A21O1N ) = MUX21L (  ROWCNT0,E3A22O1,CRTCM0 ) $
RB281( F2D6O1 ) = NR2 (  F2D6O1N,FCAS1 ) $
RB282( F2D4O1 ) = NR2 (  F2D4O1N,FCAS3 ) $
F2D6( F2D6O1N ) = AO2 (  ATT02QN1,NJADD0,ATT02Q2,F2C6O1 ) $
F2D5N( F2D5O1 ) = IV (  F2D5O1N ) $
F2D5( F2D5O1N ) = AO2 (  ATT02QN1,ADR0,ATT02Q2,F2C4O1 ) $
F2D4( F2D4O1N ) = AO2 (  ATT02QN1,NJADD0,ATT02Q2,F2C2O1 ) $
F2C16N( F2C16O1 ) = IV (  F2C16O1N ) $
F2C16( F2C16O1N ) = AO2 (  F2D14Q,E2E13Q,E2E13NQ,E2H10Q ) $
F2C9N( F2C9O1 ) = IV (  F2C9O1N ) $
F2C9( F2C9O1N ) = AO2 (  ATT02QN1,ADR0,F2C8O1,ATT02Q2 ) $
F2B11N( F2B11O1 ) = IV (  F2B11O1N ) $
F2B11( F2B11O1N ) = AO2 (  F2C15Q,E2E13Q,E2E13NQ,F2B10Q ) $
F2A5N( F2A5O1 ) = IV (  F2A5O1N ) $
F2A5( F2A5O1N ) = AO2 (  ATT02Q2,ADRM15,ATT02QN2,ADDR01 ) $
F2A2N( F2A2O1 ) = IV (  F2A2O1N ) $
F2A2( F2A2O1N ) = AO2 (  ADRM14,ATT02Q2,F1A9O1,ATT02QN2 ) $
E2G12N( E2G12O1 ) = IV (  E2G12O1N ) $
E2G12( E2G12O1N ) = AO2 (  E2E13Q,E2H11Q,E2G11Q,E2E13NQ ) $
RB257( RFSCNT4,,RFSCNT5,,RFSCNT6,,RFSCNT7
   , ) = TCNT4 (  E3H19O1,NRESET ) $
RB277( RFSCNT0,,RFSCNT1,,RFSCNT2,,RFSCNT3
   ,RFSCNTN3 ) = TCNT4 (  NT51,NRESET ) $
RB378( SEQ3Q0,,SEQ3Q1,,SEQ3Q2,,SEQ3Q3
   ,,SEQ3Q4,,SEQ3Q5, ) = YFFD6 (  WTRSEQ03,E2G9O1
   ,DATAIN0,DATAIN1,DATAIN2,DATAIN3,DATAIN4,DATAIN5 ) $
ATT02( ATT02Q0,ATT02QN0,ATT02Q1,ATT02QN1,,ATT02QN2 ) = LDG3
    (  WTRSEQ04
   ,DATAIN1,DATAIN2,DATAIN3 ) $
RB31( ATT02Q2 ) = IVP (  ATT02QN2 ) $
RB377( SEQ2Q0,SEQ2QN0,SEQ2Q1,SEQ2QN1,SEQ2Q2,SEQ2QN2,SEQ2Q3
   ,SEQ2QN3 ) = LDG4 (  WTRSEQ02,DATAIN0,DATAIN1,DATAIN2
   ,DATAIN3 ) $
E4A10( ADR0 ) = B4I (  NJADD0 ) $
D2G4( ADR1 ) = IVP (  NADDR1 ) $
F2C8( F2C8O1 ) = OR2 (  ADR1,ADR0 ) $
F2C6( F2C6O1 ) = OR2 (  ADR1,NJADD0 ) $
F2C4( F2C4O1 ) = OR2 (  NADDR1,ADR0 ) $
F2C2( F2C2O1 ) = OR2 (  NADDR1,NJADD0 ) $
F2D14( F2D14Q, ) = YFD2 (  SEQ3Q3,B3A13O1,E2G9O1 ) $
F2C15( F2C15Q, ) = YFD2 (  SEQ3Q2,B3A13O1,E2G9O1 ) $
F2B10( F2B10Q, ) = YFD2 (  SEQ3Q0,B3A13O1,E2G9O1 ) $
F1B16( F1B16O1 ) = ND2 (  F1B7O1,ATT02QN0 ) $
F1B15( F1B15O1 ) = ND2 (  GC06Q1,F1B16O1 ) $
F1B14( F1B14O1 ) = ND2 (  JADD0,F1B15O1 ) $
F1B12( F1B12O1 ) = ND4 (  F1B7O1,ADDR16,F1B13O1,GC06Q1 ) $
F1A12( F1A12O1 ) = ND4 (  F1A4O1,ATT02QN0,ADDR14,GC06Q1 ) $
F1A9( F1A9O1 ) = ND4 (  F1A12O1,F1A8O1,F1B14O1,F1B12O1 ) $
F1A8( F1A8O1 ) = ND4 (  F1A10O1,F1B13O1,GC06Q1,F1A4O1 ) $
F1B13( F1B13O1 ) = IVP (  ATT02QN0 ) $
F1A10( F1A10O1 ) = IVP (  R3C2Q5 ) $
F1A4( F1A4O1 ) = IVP (  F1B7O1 ) $
E4H1( F4E5O1 ) = OR2P (  UNDER6,CRTCM6 ) $
E4F1( E4F2O1 ) = OR2P (  NCRTCM6,UNDER6 ) $
E3H19( E3H19O1 ) = EO (  RFSCNTN3,TEST3Z ) $
E3C11( ROWCNTL1, ) = LD2 (  ROWCNT1,CRTLTH ) $
E3A15( ROWCNTL0, ) = LD2 (  ROWCNT0,CRTLTH ) $
E2H11( E2H11Q, ) = YFD2 (  SEQ3Q5,B3A13O1,E2G9O1 ) $
E2H10( E2H10Q, ) = YFD2 (  SEQ3Q1,B3A13O1,E2G9O1 ) $
E2G11( E2G11Q, ) = YFD2 (  SEQ3Q4,B3A13O1,E2G9O1 ) $
D3G14( ROWCNTL3, ) = LD2 (  ROWCNT3,CRTLTH ) $
D3G13( ROWCNTL2, ) = LD2 (  ROWCNT2,CRTLTH ) $
```

```
     D3G12( ROWCNTL4, ) = LD2 (  ROWCNT4,CRTLTH ) $
     RB343( E4G2O1,F3B16O1,F3D17O1,F4B3O1,F4C1O1,F4C3O1,F4D3O1
        ,F4B5O1 ) = MUX168 (  NT49,RFSCNT7,F4D6O1,RFSCNT0,F4C6O1,RFSCNT1
        ,F4D5O1,RFSCNT3,F4C4O1,RFSCNT2,F4E7O1,RFSCNT4,F4E8O1
        ,RFSCNT5,F4C5O1,RFSCNT6,F4B6O1 ) $
     F4A2( YA7,YB7 ) = ADMUX2 (  E3A14O1,E3F12O1,D2E9O1,NT9,NAMXGR
        ,ADMUXCPU,NAMXCPU,D3F16O1,ADDR07,E4G2O1,E3H10Q,F1B10O1
        ,F4A5O1,F2C16O1 ) $
     E3G15( YA1,YB1 ) = ADMUX2 (  E3A14O1,E3F12O1,D2E9O1,NT9,NAMXGR
        ,ADMUXCPU,NAMXCPU,D3F16O1,F2A5O1,F3D17O1,ROWCNTL1,ADDR08
        ,F4E6O1,F3E12Q ) $
     E3H17( YA5,YB5 ) = ADMUX2 (  E3A14O1,E3F12O1,D2E9O1,NT9,NAMXGR
        ,ADMUXCPU,NAMXCPU,D3F16O1,ADDR05,F4D3O1,E3E12Q,ADDR12
        ,F4B2O1,F4E2Q ) $
     E3F16( YA2,YB2 ) = ADMUX2 (  E3A14O1,E3F12O1,D2E9O1,NT9,NAMXGR
        ,ADMUXCPU,NAMXCPU,D3F16O1,ADDR02,F4C1O1,ROWCNTL2,ADDR09
        ,F4D4O1,D4H1Q ) $
     E3D15( YA0,YB0 ) = ADMUX2 (  E3A14O1,E3F12O1,D2E9O1,NT9,NAMXGR
        ,ADMUXCPU,NAMXCPU,D3F16O1,F2A2O1,F3B16O1,ROWCNTL0,ADDR14
        ,E4C1O1,F2B11O1 ) $
     E3C16( YA3,YB3 ) = ADMUX2 (  E3A14O1,E3F12O1,D2E9O1,NT9,NAMXGR
        ,ADMUXCPU,NAMXCPU,D3F16O1,ADDR03,F4B3O1,ROWCNTL3,ADDR10
        ,E4H2O1,D3H16Q ) $
     E3F15( YA6,YB6 ) = ADMUX2 (  E3A14O1,E3F12O1,D2E9O1,NT9,NAMXGR
        ,ADMUXCPU,NAMXCPU,D3F16O1,ADDR06,F4B5O1,E3G7Q,ADDR13
        ,E3A21O1,E2G12O1 ) $
     E3B18( YA4,YB4 ) = ADMUX2 (  E3A14O1,E3F12O1,D2E9O1,NT9,NAMXGR
        ,ADMUXCPU,NAMXCPU,D3F16O1,ADDR04,F4C3O1,ROWCNTL4,ADDR11
        ,D4G2O1,D3E15Q ) $
END : MODULE $
MODULE :   ADRGN/// $
INPUTS   :
     NCHRCLK,D2H8O1,NT10,CRTLTH,B4B10O1,CHAN,B4E3O1,B3F11O1,C3G16O1
    ,C3B11NQ,CHRCLK,D2D12NQ,D2E8O1,NT48,TESTFZ,LCOMP,D2D2NQ,C3A7O1
    ,D2H13NQ,TEST4Z,ADD16NMR,B3F7NQ,C4A9Q,C3A10NQ,CRTCM3,C3A14O1,NRESET
    ,WCRTC08,WCRTC0B,WCRTC0A,WCRTC0F,WCRTC0D,WCRTC0C,WCRTC0E,NT110
    ,NT111,WCRTC14,WCRTC13,DATAIN0,DATAIN1,DATAIN2,DATAIN3,DATAIN7
    ,DATAIN6,DATAIN4,DATAIN5,SSS,CCC,E6845,VGAMODO,ERT3D7,R3D6NQ0
    ,R3D6Q0,R3D6NQ1,R3D6Q1,R3D6Q2,R3D6Q3,R3D6NQ4,R3D6Q4,R3D6NQ5,R3D6NQ6
    ,R3D6NQ7,C3G9O1,ADRCNT15,ADRCNT13,ADRCNT12,ADRCNT11,ADRCNT10
        ,ADRCNT09
    ,ADRCNT08,ADRCNT07,ADRCNT06,ADRCNT05,ADRCNT04,ADRCNT03,ADRCNT02
    ,ADRCNT01,ADRCNT00,ROWCNT0,ROWCNT1,ROWCNT2,ROWCNT3,ROWCNT4,UACCLA
    ,CURDSP
$
OUTPUTS  :
     EQMAXSL,B4F19O1,C4G13O1,NCRTLTH,ELC4,ELC3,ELC2,ELC1,ELC0,CRTC8Q4
    ,CRTC8Q3,CRTC8Q2,CRTC8Q1,CRTC8Q0,CURST5,CURST4,CURST3,CURST2,CURST1
    ,CURST0,UNDER6,UNDER5,UNDER4,UNDER3,UNDER2,UNDER1,UNDER0,NUNDER6
    ,CURSK1,CURSK0,CURSE4,CURSE3,CURSE2,CURSE1,CURSE0,CRTC8Q6,CRTC8Q5
    ,CURADD07,CURADD06,CURADD05,CURADD04,CURADD03,CURADD02,CURADD01
    ,CURADD00,CURADD15,CURADD14,CURADD13,CURADD12,CURADD11,CURADD10
    ,CURADD09,CURADD08,OFFSET7,OFFSET6,OFFSET5,OFFSET4,OFFSET3,OFFSET2
    ,OFFSET1,OFFSET0,STADDQ15,STADDQ14,STADDQ13,STADDQ12,STADDQ11
    ,STADDQ10,STADDQ09,STADDQ08,STADDQ07,STADDQ06,STADDQ05,STADDQ04
    ,STADDQ03,STADDQ02,STADDQ01,STADDQ00,NT83,VERBS9,LINEC9,MAXSL4
    ,MAXSL3,MAXSL2,MAXSL1,MAXSL0,NRFAMX,B3G7O1,NT49,ACCLA,C3C11O1
    ,D3F16O1,D3A11O1,EQCURAD,C5D6O1,NEQMAXSL,A3C17O1,NT101,NT100,NT99
    ,NT98,NT97,NT96,NT95,NT94,NT93,NT92,NT91,NT90,NT89,NT88,NT87,NT86
    ,EXRDB0,EXRDB1,EXRDB2,EXRDB3,EXRDB4,EXRDB5,EXRDB6,EXRDB7,C3G19O1
    ,STLN15,STLN14,STLN13,STLN12,STLN11,STLN10,STLN9,STLN8,STLN7,STLN6
    ,STLN5,STLN4,STLN3,STLN2,STLN1,STLN0,D5H6O1,AOFSETZ,OFFSETS7
```

```
        ,OFFSETS6
    ,OFFSETS5,OFFSETS4,OFFSETS3,OFFSETS2,OFFSETS1,OFFSETS0,EDAD15
    ,EDAD14,EDAD13,EDAD12,EDAD11,EDAD10,EDAD9,EDAD8,EDAD7,EDAD6,EDAD5
    ,EDAD4,EDAD3,EDAD2,EDAD1,EDAD0,FIX1Z,C3C8Q,C3G18O1,C3F17Q,C4F1Q

$
DESCRIPTION : MODULE FOR ADRGN $
LEVEL  : FUNCTION $
USE   :
     YFD1 /// MASTER
    ,RWCNT1 ///
    ,TCNT2 ///
    ,YLDG6 ///
    ,YLDG5 ///
    ,LDG2 ///
    ,IVP /// MASTER
    ,YLDG8 ///
    ,A2T1B8 ///
    ,LDG3 ///
    ,YFD2 /// MASTER
    ,FD2 /// MASTER
    ,B4IP /// MASTER
    ,EOP /// MASTER
    ,EO /// MASTER
    ,AN2 /// MASTER
    ,ENP /// MASTER
    ,ND2 /// MASTER
    ,NR2 /// MASTER
    ,OR2 /// MASTER
    ,AO7P /// MASTER
    ,FD4 /// MASTER
    ,FD2P /// MASTER
    ,OR3 /// MASTER
    ,AO6P /// MASTER
    ,ADD161 ///
    ,MUX41 /// MASTER
    ,CNT16 ///
    ,EQUL16 ///
    ,EQUL4N ///
    ,AO2 /// MASTER
    ,IV /// MASTER
    ,ND3 /// MASTER
    ,AO4 /// MASTER
    ,AO7 /// MASTER
    ,LD4G2 ///
    ,MUX21L /// MASTER
    ,FJK2 /// MASTER
    ,NR2P /// MASTER
    ,ND4 /// MASTER

$
DEFINE :
     RB790( D3D7Q, ) = YFD1 (  D3D7QI,D2H8O1 ) $
     B3B18( ELC0,ELC1,ELC2,ELC3,ELC4 ) = RWCNT1 (  CRTC8NQ0,CRTC8NQ1
        ,CRTC8NQ2,CRTC8NQ3,CRTC8NQ4,C3A14O1,ENROWCNT,LDROWCNT,NRESET
         ) $
     CCLKDV( CCLKDV0,CCLKDV0N,CCLKDV1,CCLKDV1N ) = TCNT2 (  NCHRCLK
        ,B3C14O1 ) $
     CRTC0A( NCURST5,CURST5,,CURST4,,CURST3,
        ,CURST2,,CURST1,,CURST0 ) = YLDG6 (  DATAIN5,DATAIN4
        ,DATAIN3,DATAIN2,DATAIN1,DATAIN0,WCRTC0A ) $
     RB151( ,UNDER4,,UNDER3,,UNDER2,
```

```
   ,UNDER1,,UNDER0 ) = YLDG5 (  DATAIN4,DATAIN3,DATAIN2,DATAIN1
   ,DATAIN0,WCRTC14 ) $
RB150( UNDER5,,UNDER6, ) = LDG2 (  WCRTC14,DATAIN5,DATAIN6
    ) $
RB155( NUNDER6 ) = IVP (  UNDER6 ) $
RB135( ,CURSE4,,CURSE3,,CURSE2,
   ,CURSE1,,CURSE0 ) = YLDG5 (  DATAIN4,DATAIN3,DATAIN2,DATAIN1
   ,DATAIN0,WCRTC0B ) $
RB134( CURSK0,,CURSK1, ) = LDG2 (  WCRTC0B,DATAIN5,DATAIN6
    ) $
RB142( CRTC8NQ4,CRTC8Q4,CRTC8NQ3,CRTC8Q3,CRTC8NQ2,CRTC8Q2,CRTC8NQ1
   ,CRTC8Q1,CRTC8NQ0,CRTC8Q0 ) = YLDG5 (  DATAIN4,DATAIN3
   ,DATAIN2,DATAIN1
   ,DATAIN0,WCRTC08 ) $
RB141( CRTC8Q5,,CRTC8Q6, ) = LDG2 (  WCRTC08,DATAIN5,DATAIN6
    ) $
CRTC0F( ,CURADD07,,CURADD06,,CURADD05,
   ,CURADD04,,CURADD03,,CURADD02,,CURADD01
   ,,CURADD00 ) = YLDG8 (  DATAIN7,DATAIN6,DATAIN5,DATAIN4,DATAIN3
   ,DATAIN2,DATAIN1,DATAIN0,WCRTC0F ) $
CRTC0E( ,CURADD15,,CURADD14,,CURADD13,
   ,CURADD12,,CURADD11,,CURADD10,,CURADD09
   ,,CURADD08 ) = YLDG8 (  DATAIN7,DATAIN6,DATAIN5,DATAIN4,DATAIN3
   ,DATAIN2,DATAIN1,DATAIN0,WCRTC0E ) $
OFFMUX( OFFSETS0,OFFSETS7,OFFSETS6,OFFSETS5,OFFSETS4,OFFSETS3
   ,OFFSETS2
   ,OFFSETS1 ) = A2T1B8 (  VGAMODO,NAOFSET7,NOFSET7,NAOFSET6
   ,NOFSET6,NAOFSET5
   ,NOFSET5,NAOFSET4,NOFSET4,NAOFSET3,NOFSET3,NAOFSET2,NOFSET2
   ,NAOFSET1,NOFSET1,NAOFSET0,NOFSET0 ) $
CRTC13( NOFSET7,OFFSET7,NOFSET6,OFFSET6,NOFSET5,OFFSET5,NOFSET4
   ,OFFSET4,NOFSET3,OFFSET3,NOFSET2,OFFSET2,NOFSET1,OFFSET1
   ,NOFSET0,OFFSET0 ) = YLDG8 (  DATAIN7,DATAIN6,DATAIN5
   ,DATAIN4,DATAIN3
   ,DATAIN2,DATAIN1,DATAIN0,WCRTC13 ) $
R3D71E( NAOFSET7,AOFFSET7,NAOFSET6,AOFFSET6,NAOFSET5,AOFFSET5
   ,NAOFSET4
   ,AOFFSET4,NAOFSET3,AOFFSET3,NAOFSET2,AOFFSET2,NAOFSET1,AOFFSET1
   ,NAOFSET0,AOFFSET0 ) = YLDG8 (  DATAIN7,DATAIN6,DATAIN5
   ,DATAIN4,DATAIN3
   ,DATAIN2,DATAIN1,DATAIN0,W3D71E ) $
CRTC0C( ,STADDQ15,,STADDQ14,,STADDQ13,
   ,STADDQ12,,STADDQ11,,STADDQ10,,STADDQ09
   ,,STADDQ08 ) = YLDG8 (  DATAIN7,DATAIN6,DATAIN5,DATAIN4,DATAIN3
   ,DATAIN2,DATAIN1,DATAIN0,WCRTC0C ) $
CRTC0D( ,STADDQ07,,STADDQ06,,STADDQ05,
   ,STADDQ04,,STADDQ03,,STADDQ02,,STADDQ01
   ,,STADDQ00 ) = YLDG8 (  DATAIN7,DATAIN6,DATAIN5,DATAIN4,DATAIN3
   ,DATAIN2,DATAIN1,DATAIN0,WCRTC0D ) $
RB143( LINEC9,,VERBS9,,NT83, ) = LDG3 (  NT110
   ,DATAIN5,DATAIN6,DATAIN7 ) $
RB144( ,MAXSL4,,MAXSL3,,MAXSL2,
   ,MAXSL1,,MAXSL0 ) = YLDG5 (  DATAIN4,DATAIN3,DATAIN2,DATAIN1
   ,DATAIN0,NT111 ) $
C3B9( C3B9Q, ) = YFD2 (  C3B10O1,C3A14O1,FIX1Z ) $
C3C8( C3C8Q, ) = YFD2 (  C3B7Q,NCHRCLK,NRESET ) $
C3B7( C3B7Q, ) = YFD2 (  C4A9Q,NCHRCLK,NRESET ) $
C3B5( ,NRFAMX ) = FD2 (  B3G7O1,NCHRCLK,B3G7O1 ) $
F3B15( NT49 ) = IVP (  NRFAMX ) $
D5H6( D5H6O1 ) = B4IP (  B3G13NQ ) $
D4D1( ADD16CL ) = EOP (  TEST4Z,C3C11O1 ) $
RB25( ADD16CLD, ) = YFD1 (  ADD16CL,D2H8O1 ) $
```

```
D4B16( D4B16O1 ) = EO (  CURSE4,ROWCNT4 ) $
D3C8( D3C8O1 ) = AN2 (  NRFAMX,NRESET ) $
FIX1( FIX1Z ) = AN2 (  C3A10NQ,NRESET ) $
D3E7( D3E7Q, ) = YFD2 (  EQCURADM,D3D6O1,D3C8O1 ) $
D3D9( D3D9Q, ) = YFD2 (  D3C9Q,NCHRCLK,D3C8O1 ) $
D3D7( D3D7QI, ) = YFD2 (  D3E7Q,D3C2O1,D3C8O1 ) $
D3C9( D3C9Q, ) = YFD2 (  D3D7Q,NCHRCLK,D3C8O1 ) $
D3A9( D3A9Q, ) = YFD2 (  D3D9Q,NCHRCLK,D3C8O1 ) $
D2C17( NCRTLTH ) = ENP (  D2C14O1,TESTFZ ) $
D2C14( D2C14O1 ) = ND2 (  NT48,D2D2NQ ) $
C5D6( C5D6O1 ) = NR2 (  C5E8O1,C4D12O1 ) $
C4D12( C4D12O1 ) = EO (  UNDER4,ROWCNT4 ) $
C3C11( C3C11O1 ) = OR2 (  C3B9Q,C3C8Q ) $
C3B10( C3B10O1 ) = NR2 (  NEQMAXSL,C3B11NQ ) $
B4G3( NEQMAXSL ) = IVP (  EQMAXSL ) $
B4D2( B4D2O1 ) = AO7P (  NT11,SELDV4,B4E3O1 ) $
B4B13( EQMAXSL ) = NR2 (  B4A14O1,B5B14O1 ) $
B4F17( B4F17O1 ) = EO (  CURST4,ROWCNT4 ) $
B4A14( B4A14O1 ) = EO (  MAXSL4,ELC4 ) $
B3C14( B3C14O1 ) = AN2 (  NRESET,B3B16O1 ) $
B3D15( B3D15Q, ) = FD4 (  B4D2O1,CHRCLK,NRESET ) $
B3G13( B3G13NQ,B3G13Q ) = FD2P (  B3G9O1,CHRCLK,NRESET ) $
B3B16( B3B16O1 ) = OR3 (  CCLKDV0,B3D14O1,CCLKDV1 ) $
B3D14( B3D14O1 ) = ND2 (  B3D15Q,B4D2O1 ) $
B3G7( B3G7O1 ) = NR2 (  B3F11O1,B3F7NQ ) $
A3D17( A3D17O1 ) = AO6P (  C3G16O1,EQMAXSL,LCOMP ) $
A3C17( A3C17O1 ) = ND2 (  A3E18O1,A3D17O1 ) $
A3E18( A3E18O1 ) = OR2 (  LCOMP,C3G16O1 ) $
A3C18( ENROWCNT ) = IVP (  A3D17O1 ) $
A3C19( LDROWCNT ) = ND2 (  A3D17O1,A3E18O1 ) $
RB342( RESET1 ) = IVP (  NRESET ) $
D5D8( NT86,NT87,NT88,NT89,NT90,NT91,NT92
   ,NT93,NT94,NT95,NT96,NT97,NT98,NT99
   ,NT100,NT101,STLN0,NSTLN0,STLN1,NSTLN1,STLN2
   ,NSTLN2,STLN3,NSTLN3,STLN4,NSTLN4,STLN5,NSTLN5
   ,STLN6,NSTLN6,STLN7,NSTLN7,STLN8,NSTLN8,STLN9
   ,NSTLN9,STLN10,NSTLN10,STLN11,NSTLN11,STLN12,NSTLN12
   ,STLN13,NSTLN13,STLN14,NSTLN14,STLN15,NSTLN15 ) = ADD161
    (  ADD16CLD
   ,C3G16O1,ADD16NMR,STADDQ00,STADDQ01,STADDQ02,STADDQ03,STADDQ04
   ,STADDQ05,STADDQ06,STADDQ07,STADDQ08,STADDQ09,STADDQ10,STADDQ11
   ,STADDQ12,STADDQ13,STADDQ14,STADDQ15,AOFSETZ,OFFSETS0,OFFSETS1
   ,OFFSETS2,OFFSETS3,OFFSETS4,OFFSETS5,OFFSETS6,OFFSETS7,SSS
    ) $
D3D10( D3A11O1 ) = MUX41 (  D3D7Q,D3C9Q,D3D9Q,D3A9Q,CURSK0,CURSK1
    ) $
D5E6( EDAD0,,EDAD1,,EDAD2,,EDAD3
   ,,EDAD4,,EDAD5,,EDAD6,
   ,EDAD7,,EDAD8,,EDAD9,,EDAD10
   ,,EDAD11,,EDAD12,,EDAD13,
   ,EDAD14,,EDAD15, ) = CNT16 (  UACCLA,UACCLA,UACCLA
   ,UACCLA,E6845,D5H6O1,RESET1,STLN0,NSTLN0,STLN1
   ,NSTLN1,STLN2,NSTLN2,STLN3,NSTLN3,STLN4,NSTLN4
   ,STLN5,NSTLN5,STLN6,NSTLN6,STLN7,NSTLN7,STLN8
   ,NSTLN8,STLN9,NSTLN9,STLN10,NSTLN10,STLN11,NSTLN11
   ,STLN12,NSTLN12,STLN13,NSTLN13,STLN14,NSTLN14,STLN15
   ,NSTLN15 ) $
RB131( EQCURAD ) = EQUL16 (  CURADD15,CURADD14,CURADD13
   ,CURADD12,CURADD11,CURADD10
   ,CURADD09,CURADD08,CURADD07,CURADD06,CURADD05,CURADD04,CURADD03
   ,CURADD02,CURADD01,CURADD00,ADRCNT15,NT10,ADRCNT13,ADRCNT12
   ,ADRCNT11,ADRCNT10,ADRCNT09,ADRCNT08,ADRCNT07,ADRCNT06,ADRCNT05
```

```
      ,ADRCNT04,ADRCNT03,ADRCNT02,ADRCNT01,ADRCNT00 ) $
    D5A11( C5E8O1 ) = EQUL4N (  UNDER0,UNDER3,UNDER2,UNDER1
      ,ROWCNT0,ROWCNT3
      ,ROWCNT2,ROWCNT1 ) $
    C4G16( EQCUREND ) = EQUL4N (  CURSE3,CURSE0,CURSE2,ROWCNT1
      ,ROWCNT3,ROWCNT0
      ,ROWCNT2,CURSE1 ) $
    B5E9( EQCURST ) = EQUL4N (  ROWCNT1,ROWCNT3,CURST0,CURST2
      ,CURST1,CURST3
      ,ROWCNT0,ROWCNT2 ) $
    B5B15( B5B14O1 ) = EQUL4N (  ELC3,MAXSL1,MAXSL2,MAXSL0,MAXSL3,ELC1
      ,ELC2,ELC0 ) $
    B3G9( B3G9O1 ) = AO2 (  CCC,B4B10O1,B3G13Q,B3G7O1 ) $
    B3D16( B3D16O1N ) = AO2 (  CCLKDV1N,SELDV4,NT11,CCLKDV0N ) $
    B3D16N( CCLKDIV ) = IV (  B3D16O1N ) $
    B3C13( B3C13O1N ) = AO2 (  B3D14O1,CCLKDIV,NCHRCLK,B3D15Q ) $
    B3C13N( ACCLA ) = IVP (  B3C13O1N ) $
    D3C2( D3C2O1 ) = ND3 (  D3C2O1N,C3A7O1,D2D2NQ ) $
    D2C13( D3C2O1N ) = AO4 (  D2E8O1,D2D12NQ,C3A7O1,D2H13NQ ) $
    D3D6( D3D6O1N ) = AO7 (  D2H13NQ,C3A7O1,CRTLTH ) $
    D3D6N( D3D6O1 ) = IV (  D3D6O1N ) $
    D2C13N( D3F16O1 ) = IVP (  D3C2O1N ) $
    R3D70D( R3D70DQ0,NT54,R3D70DQ1,NT55 ) = LD4G2 (  W3D7OD
      ,NRESET,DATAIN0
      ,DATAIN1 ) $
    AOFSET( AOFSETZ ) = MUX21L (  NT54,NT55,VGAMODO ) $
    RB194( EXRDB3 ) = AN2 (  SR3D71E,AOFFSET3 ) $
    RB195( EXRDB4 ) = AN2 (  SR3D71E,AOFFSET4 ) $
    RB196( EXRDB5 ) = AN2 (  SR3D71E,AOFFSET5 ) $
    RB197( EXRDB6 ) = AN2 (  SR3D71E,AOFFSET6 ) $
    RB198( EXRDB7 ) = AN2 (  SR3D71E,AOFFSET7 ) $
    RB193( EXRDB2 ) = AN2 (  SR3D71E,AOFFSET2 ) $
    RB191( EXRDB0 ) = IVP (  NEXRDB0 ) $
    RB192( EXRDB1 ) = IVP (  NEXRDB1 ) $
    RB189( NEXRDB0 ) = AO2 (  AOFFSET0,SR3D71E,R3D70DQ0,S3D70D ) $
    RB190( NEXRDB1 ) = AO2 (  AOFFSET1,SR3D71E,R3D70DQ1,S3D70D ) $
    C4G13( C4G13O1 ) = NR2 (  D4B16O1,EQCUREND ) $
    C4F1( C4F1Q, ) = YFD2 (  C4G13O1,C3G18O1,C3G9O1 ) $
    B4F19( B4F19O1 ) = NR2 (  B4F17O1,EQCURST ) $
    C3F16( ,C3F16NQ ) = YFD2 (  CCC,C4F1Q,C3G9O1 ) $
    C3G15( C3G15O1 ) = AN2 (  B4F19O1,C3F16NQ ) $
    C3F17( C3F17Q, ) = FJK2 (  C3G15O1,C4F1Q,C3G18O1,C3G9O1 ) $
    C3G19( C3G19O1 ) = AN2 (  D3A11O1,NCURST5 ) $
    C3G18( C3G18O1 ) = IVP (  C3A14O1 ) $
    B4D3M( SELDV4 ) = AN2 (  UNDER5,CHANIVZ ) $
    CHANNR( CHANIVZ ) = NR2 (  CRTCM3,CHAN ) $
    CHANIV( NT11 ) = IV (  CHANIVZ ) $
    RB454( W3D71E ) = ND2 (  ERT3D7,SR3D71E ) $
    RB453( W3D7OD ) = ND2 (  ERT3D7,S3D70D ) $
    RB391( S3D70D ) = NR2 (  GRPHIG,P3D70D ) $
    RB387( SR3D71E ) = NR2P (  GRPHIG,P3D71E ) $
    RB241( GRPHIG ) = ND4 (  R3D6NQ7,R3D6NQ6,R3D6NQ5,R3D6Q3 ) $
    RB333( P3D71E ) = ND4 (  R3D6Q4,R3D6Q2,R3D6Q1,R3D6NQ0 ) $
    RB332( P3D70D ) = ND4 (  R3D6NQ4,R3D6Q2,R3D6NQ1,R3D6Q0 ) $
    FBFCSR( EQCURADM ) = AN2 (  CURDSP,EQCURAD ) $
END : MODULE $
MODULE :   CBERT07/// $
INPUTS   :
    MCLK,BPAL5,BPAL4,BPAL3,BPAL2,BPAL1,BPAL0,GPAL5,GPAL4,GPAL3,GPAL2
   ,GPAL1,GPAL0,RPAL5,RPAL4,RPAL3,RPAL2,RPAL1,RPAL0,PALCLK,SLEEP
   ,M2D1,M2D5,M2D6,AD01,AD14,AD06,M2D7,M2D4,AD11,M3D0,M3D1,M3D2
   ,M3D3,M3D4,M3D5,M3D6,M3D7,BHE,AD02,AD03,M1D2,M1D4,M1D7,M1D1,M1D6
```

```
    ,M1D0,M1D5,M2D3,VGACMD,MIO,M2D2,ENABLE,AD13,AD05,AD09,AD04,AD10
    ,S0,S1,M1D3,M0D0,M0D1,M0D6,M0D4,SENSE,A16,A17,A18,DATAEN,RDHI
    ,RDLO,RESET,CLK2,CLK1,CLK0,ADDHI,AD12,AD08,AD00,SETUP,AD07,AD15
    ,M2D0,M0D3,M0D2,M0D7,M0D5
$
OUTPUTS  :
     PNL7,PNL6,PNL5,PNL4,PNL3,PNL2,PNL1,PNL0,PNL15,PNL14,PNL13,PNL12
    ,PNL11,PNL10,PNL9,PNL8,PALCLK,M2D1,M2D5,M2D6,SHFCLK,ERMEN,ACDCLK
    ,PALRD,PALWR,BLANK,AD01,AD14,AD06,M2D7,M2D4,AD11,AA6,CAS0,M3D0
    ,M3D1,M3D2,M3D3,M3D4,M3D5,M3D6,M3D7,VIDEO0,VIDEO1,VIDEO2,VIDEO3
    ,VIDEO4,VIDEO5,VIDEO6,VIDEO7,AA1,AD02,AD03,BA2,BA3,M1D2,WE,M1D4
    ,VSYNC,M1D7,M1D1,M1D6,M1D0,M1D5,M2D3,BA5,BA0,CAS1,CAS2,M2D2,AA0
    ,VGARDY,AA7,CAS3,AD13,AD05,AD09,AD04,BA1,AD10,VGAREQ,AA4,M1D3
    ,DS16,AA3,M0D0,M0D1,M0D6,M0D4,BA4,DATAEN,RDHI,TRAP,RDLO,AA5,CLK2
    ,CLK1,RAS,AA2,HSYNC,AD12,AD08,VGAINT,AD00,AD07,BA7,AD15,M2D0,BA6
    ,M0D3,M0D2,M0D7,M0D5,ROMCSN
$
BIDIRECT :
     PALCLK,M2D1,M2D5,M2D6,AD01,AD14,AD06,M2D7,M2D4,AD11,M3D0,M3D1
    ,M3D2,M3D3,M3D4,M3D5,M3D6,M3D7,AD02,AD03,M1D2,M1D4,M1D7,M1D1,M1D6
    ,M1D0,M1D5,M2D3,M2D2,AD13,AD05,AD09,AD04,AD10,M1D3,M0D0,M0D1,M0D6
    ,M0D4,DATAEN,RDHI,RDLO,CLK2,CLK1,AD12,AD08,AD00,AD07,AD15,M2D0
    ,M0D3,M0D2,M0D7,M0D5
$
DESCRIPTION : MODULE FOR CBERT07 $
LEVEL  : CHIP $
DEFINE :
     RB789( ,IPALCLK ) = B2IP (  IPALCLKI ) $
     RB788( RESET12 ) = B4I (  CHRESETQ ) $
     RB787( NRESET2 ) = B4IP (  RESET12 ) $
     RB786( P14O ) = MUX21H (  OP11A16I,P14,R3D708Q2 ) $
     RB785( OP11A16 ) = IV (  OP11A16I ) $
     RB784( CLK2,EXTOSC, ) = BD4T (  R3C2Q3,NC/0/,R3D705Q2,NC/0/
         ) $
     RB783( CLK1,CLK1I, ) = BD4T (  R3C2Q2,NC/0/,R3D705Q2,NC/0/
         ) $
     RB782( RD45B2 ) = IV (  RD45B2I ) $
     RB781( RD45B1 ) = IV (  RD45B1I ) $
     RB780( RD45B0 ) = IV (  RD45B0I ) $
     RB779( RD45B3 ) = AN2 (  SEL3D704,R3D704Q3 ) $
     RB778( RD45B2I ) = AO2 (  SEL3D704,R3D704Q2,SEL3D705,R3D705Q2 ) $
     RB777( RD45B1I ) = AO2 (  SEL3D704,R3D704Q1,SEL3D70B,R3D70BQ1 ) $
     RB776( RD45B0I ) = AO2 (  SEL3D704,R3D704Q0,SEL3D70B,R3D70BQ0 ) $
     RB775( R3D705Q2, ) = LD4 (  DATAIN02,WR3D705,NRESET ) $
     RB774( WR3D705 ) = ND2 (  SEL3D705,N3D7WR2 ) $
     RB773( SEL3D705 ) = NR2 (  OD705A,OP7A18 ) $
     RB772( OD705A ) = ND5 (  R3D6NQ4,R3D6NQ3,R3D6Q2,R3D6NQ1,R3D6Q0 ) $
     RB771( IMCLK, ) = TLCHT (  MCLK,NC/0/ ) $
     CDAL( P0,P1,P2,P3,P4,P5,P6
        ,P7,P8,P9,P10,P11,P12,P13
        ,P14,P15,ISHFCLK,BLANKP,BLNKPNL ) = CDAL01 (  FRC1,FRC0
        ,CF4,CF3,BPALD5,BPALD4,BPALD3,BPALD2,BPALD1
        ,BPALD0,GPALD5,GPALD4,GPALD3,GPALD2,GPALD1,GPALD0
        ,RPALD5,RPALD4,RPALD3,RPALD2,RPALD1,RPALD0,XR51D7
        ,SOFF,PLASMA,XR54D0,PRIMN3,PRIMN2,PRIMN1,PRIMN0
        ,PRIMM3,PRIMM2,PRIMM1,PRIMM0,CF2,CF1,CF0
        ,PSKEW2,PSKEW1,PSKEW0,ATTA5,MCP1,MCP0,ATT30Q5
        ,PWM1,PWM0,CD1,CD0,D3A4O1,NRESET2,DSPEN
        ,D2H8O1,C3A10Q,TXTSHIFT,ATT30Q0N,NT108,VERCNT0,DCLK
        ,SMN,DCK2DIV,NC/0/ ) $
     RB770( IBPAL5, ) = TLCHT (  BPAL5,NC/0/ ) $
     RB769( IBPAL4, ) = TLCHT (  BPAL4,NC/0/ ) $
```

```
RB768( IBPAL3, ) = TLCHT (  BPAL3,NC/0/ ) $
RB767( IBPAL2, ) = TLCHT (  BPAL2,NC/0/ ) $
RB766( IBPAL1, ) = TLCHT (  BPAL1,NC/0/ ) $
RB765( IBPAL0, ) = TLCHT (  BPAL0,NC/0/ ) $
RB764( IGPAL5, ) = TLCHT (  GPAL5,NC/0/ ) $
RB763( IGPAL4, ) = TLCHT (  GPAL4,NC/0/ ) $
RB762( IGPAL3, ) = TLCHT (  GPAL3,NC/0/ ) $
RB761( IGPAL2, ) = TLCHT (  GPAL2,NC/0/ ) $
RB760( IGPAL1, ) = TLCHT (  GPAL1,NC/0/ ) $
RB759( IGPAL0, ) = TLCHT (  GPAL0,NC/0/ ) $
RB751( PNL7 ) = BT2 (  P7,NC/0/,HIC5 ) $
RB752( PNL6 ) = BT2 (  P6,NC/0/,HIC5 ) $
RB753( PNL5 ) = BT2 (  P5,NC/0/,HIC5 ) $
RB754( PNL4 ) = BT2 (  P4,NC/0/,HIC5 ) $
RB755( PNL3 ) = BT2 (  P3,NC/0/,HIC5 ) $
RB756( PNL2 ) = BT2 (  P2,NC/0/,HIC5 ) $
RB757( PNL1 ) = BT2 (  P1,NC/0/,HIC5 ) $
RB758( PNL0 ) = BT2 (  P0,NC/0/,HIC5 ) $
RB749( RPALD5,RPALD4,RPALD3,RPALD2,RPALD1,RPALD0 ) = PALIF
    (  IPALCLK
   ,ATT30Q5,D2H8O1,IRPAL5,IRPAL4,IRPAL3,IRPAL2,IRPAL1
   ,IRPAL0 ) $
RB748( GPALD5,GPALD4,GPALD3,GPALD2,GPALD1,GPALD0 ) = PALIF
    (  IPALCLK
   ,ATT30Q5,D2H8O1,IGPAL5,IGPAL4,IGPAL3,IGPAL2,IGPAL1
   ,IGPAL0 ) $
RB677( BPALD5,BPALD4,BPALD3,BPALD2,BPALD1,BPALD0 ) = PALIF
    (  IPALCLK
   ,ATT30Q5,D2H8O1,IBPAL5,IBPAL4,IBPAL3,IBPAL2,IBPAL1
   ,IBPAL0 ) $
RB488( PALCLK,IPALCLKI, ) = BD4T (  DOTCLK,NC/0/,NC/1/,NC/0/
    ) $
RB21( PNL15 ) = BT2 (  P15,NC/0/,HIC5 ) $
RB20( PNL14 ) = BT2 (  P14O,NC/0/,HIC5 ) $
RB19( PNL13 ) = BT2 (  P13,NC/0/,HIC5 ) $
RB18( PNL12 ) = BT2 (  P12,NC/0/,HIC5 ) $
RB17( PNL11 ) = BT2 (  P11,NC/0/,HIC5 ) $
RB16( PNL10 ) = BT2 (  P10,NC/0/,HIC5 ) $
RB15( PNL9 ) = BT2 (  P9,NC/0/,HIC5 ) $
RB14( PNL8 ) = BT2 (  P8,NC/0/,HIC5 ) $
RB13( IRPAL5, ) = TLCHT (  RPAL5,NC/0/ ) $
RB12( IRPAL4, ) = TLCHT (  RPAL4,NC/0/ ) $
RB11( IRPAL3, ) = TLCHT (  RPAL3,NC/0/ ) $
RB10( IRPAL2, ) = TLCHT (  RPAL2,NC/0/ ) $
RB9( IRPAL1, ) = TLCHT (  RPAL1,NC/0/ ) $
RB8( IRPAL0, ) = TLCHT (  RPAL0,NC/0/ ) $
RB446( NT105 ) = MUX21L (  VBLKPSIN,NT104,DUALPNL ) $
RB445( VBLKPSIN ) = ND2 (  VBLKSP,SL480 ) $
RB172( SLEEPONN ) = IV (  SLEEPON ) $
RB395( NORMPINF ) = NR2 (  R3D708Q1,R3D709Q1 ) $
RB261( ENIOCS16 ) = OR2 (  SLEEPON,BCS16BZ ) $
RB260( ENVGARDY ) = OR2 (  SLEEPON,BVGARAZ ) $
RB451( NT104 ) = ND3 (  NT103,DADTSEL,SL480 ) $
RB394( TRAPEN ) = IV (  TRAPD ) $
RB393( ,TRAPD ) = FD2 (  TRAPNORM,DOTCLK,OP8A5 ) $
RB396( TRAPNORM ) = NR2 (  R3D708Q1,R3D709Q1 ) $
CRTID2( CRTID2Z ) = ND2 (  NT52,R3D714Q7 ) $
CRTID1( CRTID1Z ) = NR3 (  CRTID2Z,R3D77FQ0,SLEEPON ) $
LPSTI( NLPSTB ) = IVP (  LPSTB ) $
RB225( MASKL2, ) = YFD2 (  MASKL,ONCEPERH,NRESET ) $
VGAFP( VGAFPZ ) = IV (  DSPTD2 ) $
OVMUX( ATT30Q2A ) = MUX21H (  ATT30Q2,R3D753Q1,R3D753Q0 ) $
```

```
RB28( R3C2QA2,R3C2QA3,R3C2QA6,R3C2QA7,VERTA0,VERTA1,VERTA2
   ,VERTA3,VERTA4,VERTA5,VERTA6,VERTA7,VERRSA0,VERRSA1
   ,VERRSA2,VERRSA3,VERRSA4,VERRSA5,VERRSA6,VERRSA7,VERREA0
   ,VERREA1,VERREA2,VERREA3,VERDEA0,VERDEA1,VERDEA2,VERDEA3
   ,VERDEA4,VERDEA5,VERDEA6,VERDEA7,CRT07QA0,CRT07QA1,CRT07QA2
   ,CRT07QA5,CRT07QA6,CRT07QA7 ) = ALTMUX (  R3C2Q2,R3C2Q3
   ,R3C2Q6,R3C2Q7
   ,R3D754Q2,R3D754Q3,R3D754Q6,R3D754Q7,VERT0,VERT1,VERT2
   ,VERT3,VERT4,VERT5,VERT6,VERT7,R3D764Q0,R3D764Q1
   ,R3D764Q2,R3D764Q3,R3D764Q4,R3D764Q5,R3D764Q6,R3D764Q7,VERRS0
   ,VERRS1,VERRS2,VERRS3,VERRS4,VERRS5,VERRS6,VERRS7
   ,R3D766Q0,R3D766Q1,R3D766Q2,R3D766Q3,R3D766Q4,R3D766Q5,R3D766Q6
   ,R3D766Q7,VERRE0,VERRE1,VERRE2,VERRE3,R3D767Q0,R3D767Q1
   ,R3D767Q2,R3D767Q3,VERDE0,VERDE1,VERDE2,VERDE3,VERDE4
   ,VERDE5,VERDE6,VERDE7,R3D768Q0,R3D768Q1,R3D768Q2,R3D768Q3
   ,R3D768Q4,R3D768Q5,R3D768Q6,R3D768Q7,CRT07Q0,CRT07Q1,CRT07Q2
   ,CRT07Q5,CRT07Q6,CRT07Q7,R3D765Q0,R3D765Q1,R3D765Q2,R3D765Q5
   ,R3D765Q6,R3D765Q7,DSPTD2 ) $
R3D702( R3D702Q0,NT56,P3D702Q1,,R3D702Q2,,R3D702Q3
   ,NT57,R3D702Q4,NT58,R3D702Q5,NT59 ) = LDG6R (  NRESET,WR3D702
   ,DATAIN00,DATAIN01,DATAIN02,DATAIN03,DATAIN04,DATAIN05 ) $
PG31A1( N3D7M00,N3D7M01,N3D7M02,N3D7M03,N3D7M04,N3D7M05,N3D7M06
   ,N3D7M07 ) = RED8L1 (  NC/0/,NC/0/,NC/0/,NC/0/,NC/0/,NC/1/
   ,NC/1/,NC/0/,ADD16,ADD17,ADD18,NBHE,PADDHI
   ,UIMIO,NT106,NC/0/,R3D702Q0,P3D702Q1,R3D702Q2,R3D702Q3
   ,R3D702Q4,R3D702Q5,NC/0/,SELATTD,NT60,NC/0/,NC/0/
   ,NC/0/,NC/0/,NC/0/,NC/0/,NC/0/,R3D708Q0,R3D708Q1
   ,R3D708Q2,NC/0/,NC/0/,NC/0/,NC/0/,NC/0/,R3D709Q0
   ,R3D709Q1,NC/0/,NC/0/,NC/0/,NC/0/,NC/0/,NC/0/
   ,R3D714Q0,R3D714Q1,R3BFQ0,R3BFQ1,R3D714Q4,R3D714Q5,R3D714Q6
   ,R3D714Q7,R3D715Q0,R3D715Q1,R3D715Q2,R3D715Q3,R3D715Q4,R3D715Q5
   ,R3D715Q6,NC/0/,EN3D700,EN3D701,EN3D702,EN3D703,EN3D708
   ,EN3D709,EN3D714,EN3D715 ) $
BTREG( PRIMM3,PRIMM2,PRIMM1,PRIMM0,PRIMN3,PRIMN2,PRIMN1
   ,PRIMN0,CF4,CF3,CF2,CF1,CF0,PSKEW2
   ,PSKEW1,PSKEW0,BOUT0,BOUT1,BOUT2,BOUT3,BOUT4
   ,BOUT5,BOUT6,BOUT7,FRC0,FRC1,PWM1,CD0
   ,CD1,R3D750Q6,SM,DOUBLDRV,DUALPNL,DSPTD2,PLASMA
   ,MCP0,MCP1,PD640,PD720,PL200,PL350,PL400
   ,PL480,R3D753Q0,R3D753Q1,R3D754Q2,R3D754Q3,R3D754Q6,R3D754Q7
   ,TA350B0,TA350B1,TA350B2,TA350B3,TB350B0,TB350B1,TB350B2
   ,TB350B3,TB350B4,T400B0,T400B1,T400B2,T400B3,T400B4
   ,G350B0,G350B1,G350B2,G350B3,G350B4,G350B5,G350B6
   ,G400B0,G400B1,G400B2,G400B3,G400B4,G400B5,G400B6
   ,VDSA0,VDSA1,VDSA2,VDSA3,VDSA4,VDSA5,VDSA6
   ,VDSA7,VDEA0,VDEA1,VDEA2,VDEA3,VDEA4,VDEA5
   ,VDEA6,VDEA7,CLKCONT0,CLKCONT1,CLKCONT2,CLKCONT3,CLKCONT4
   ,CLKCONT5,CLKCONT6,CLKCONT7,REFINT0,REFINT1,REFINT2,REFINT3
   ,REFINT4,REFINT5,REFINT6,REFINT7,BLNKRAT0,BLNKRAT1,BLNKRAT2
   ,BLNKRAT3,BLNKRAT4,BLNKRAT5,BLNKRAT6,BLNKRAT7,R3D764Q0,R3D764Q1
   ,R3D764Q2,R3D764Q3,R3D764Q4,R3D764Q5,R3D764Q6,R3D764Q7,R3D765Q0
   ,R3D765Q1,R3D765Q2,R3D765Q5,R3D765Q6,R3D765Q7,R3D766Q0,R3D766Q1
   ,R3D766Q2,R3D766Q3,R3D766Q4,R3D766Q5,R3D766Q6,R3D766Q7,R3D767Q0
   ,R3D767Q2,R3D767Q1,R3D767Q3,R3D768Q1,R3D768Q0,R3D768Q2,R3D768Q3
   ,R3D768Q4,R3D768Q5,R3D768Q6,R3D768Q7,VDSB0,VDSB1,VDSB2
   ,VDSB3,VDSB4,VDSB5,VDSB6,VDSB7,VDEB0,VDEB1
   ,VDEB2,VDEB3,VDEB4,VDEB5,VDEB6,VDEB7,TA350B4
   ,PWM0,IBMCOMP,VDSB8,VDSB9,VDSA8,VDSA9,VDEB8
   ,VDEB9,VDEA8,VDEA9,XR51D7,SMN,XR54D0 ) = BTREGC01 (  NRESET2
   ,N3D7WR2,R3D6Q0,R3D6Q1,R3D6Q2,R3D6Q3,R3D6Q4,R3D6Q5
   ,R3D6Q6,R3D6NQ0,R3D6NQ1,R3D6NQ2,R3D6NQ3,R3D6NQ4,R3D6NQ5
   ,R3D6NQ7,DATAIN00,DATAIN01,DATAIN02,DATAIN03,DATAIN04,DATAIN05
```

```
   ,DATAIN06,DATAIN07,NC/0/ ) $
SD704B( WR3D704 ) = ND2 (  SEL3D704,N3D7WR2 ) $
SD704( SEL3D704 ) = NR2 (  OD704A,OP7A18 ) $
SD704A( OD704A ) = ND5 (  R3D6NQ4,R3D6NQ3,R3D6Q2,R3D6NQ1
   ,R3D6NQ0 ) $
SD70BB( WR3D70B ) = ND2 (  SEL3D70B,N3D7WR2 ) $
SD70B( SEL3D70B ) = NR2 (  OD70BA,OP7A18 ) $
SD70BA( OD70BA ) = ND5 (  R3D6NQ4,R3D6Q3,R3D6NQ2,R3D6Q1,R3D6Q0 ) $
RB484( O3D7P7B ) = NR3 (  EXRDB7,BCRR7,BOUT7 ) $
RB481( O3D7P6B ) = NR3 (  EXRDB6,BCRR6,BOUT6 ) $
RB478( O3D7P5B ) = NR3 (  EXRDB5,BCRR5,BOUT5 ) $
RB475( O3D7P4B ) = NR3 (  EXRDB4,BCRR4,BOUT4 ) $
RB472( O3D7P3B ) = NR3 (  EXRDB3,BCRR3,BOUT3 ) $
RB469( O3D7P2B ) = NR3 (  EXRDB2,BCRR2,BOUT2 ) $
RB466( O3D7P1B ) = NR3 (  EXRDB1,BCRR1,BOUT1 ) $
RB463( O3D7P0B ) = NR3 (  EXRDB0,BCRR0,BOUT0 ) $
P13A7D( N3D7WR2 ) = B4I (  P3D7WR2 ) $
BLOCKC( E2E13Q,E2E13NQ,NT51,E3H10Q,F3E12Q,E3E12Q,F4E2Q
   ,D4H1Q,D3H16Q,E3G7Q,D3E15Q,E3D17O1,GC256L,GCSHLD
   ,CRTP0D1,CRTP3D1,CRTP0D3,CRTP0D2,CRTP0D0,CRTP0D6,CRTP0D4
   ,CRTP1D3,CRTP3D3,CRTP3D2,CRTP3D0,CRTP2D2,CRTP2D0,CRTP1D1
   ,CRTP1D5,CRTP1D7,CRTP1D0,CRTP0D7,CRTP1D2,CRTP0D5,CRTP1D4
   ,CRTP1D6,CRTP3D7,CRTP3D4,CRTP3D6,CRTP3D5,CRTP2D4,CRTP2D7
   ,CRTP2D6,CRTP2D3,CRTP2D5,CRTP2D1,MRDATA7,GC07Q3,GC07Q2
   ,GC07Q1,GC07Q0,GCCCR3,GCCCR1,GCCCR0,GCCCR2,GCRTIPE
   ,MRDATA3,MRDATA1,MRDATA0,MRDATA2,MRDATA5,MRDATA6,MRDATA4
   ,GCRM1,GCRM0,GCSETE3,GCSETE2,GCSETE1,GCSETE0,GCSETR3
   ,GCSETR2,GCSETR1,GCSETR0,GC03Q4,GC03Q3,GC03Q2,GC03Q1
   ,GC03Q0,GCEVOD,GCWTMOD1,GCWTMOD0,MASKR7,MASKR6,MASKR5
   ,MASKR4,MASKR3,MASKR2,MASKR1,MASKR0,D2B16O1,CPULTH
   ,BAROUT07,BAROUT06,BAROUT01,ENACP3,ENACP0,BAROUT04,BAROUT03
   ,BAROUT02,BAROUT05,ENACP1,PLACL1,PLACL0,BAROUT00,ENACP2
   ,PLACL2,PLACL3,M0DO0,M0DO1,M0DO2,M0DO3,M0DO4
   ,M0DO5,M0DO6,M0DO7,M1DO0,M1DO1,M1DO2,M1DO3
   ,M1DO4,M1DO5,M1DO6,M1DO7,M2DO0,M2DO1,M2DO2
   ,M2DO3,M2DO4,M2DO5,M2DO6,M2DO7,M3DO0,M3DO1
   ,M3DO2,M3DO3,M3DO4,M3DO5,M3DO6,CRTLTH,M3DO7
    ) = BLCKC (  DATAIN08,NC/1/,DATAIN09,DATAIN10,DATAIN11
   ,DATAIN12,DATAIN13
   ,DATAIN14,DATAIN15,M0DI0,M0DI1,M0DI2,M0DI3,M0DI4
   ,M0DI5,M0DI6,M0DI7,M1DI0,M1DI1,M1DI2,M1DI3
   ,M1DI4,M1DI5,M1DI6,M1DI7,M2DI0,M2DI1,M2DI2
   ,M2DI3,M2DI4,M2DI5,M2DI6,M2DI7,M3DI0,M3DI1
   ,M3DI2,M3DI3,M3DI4,M3DI5,M3DI6,M3DI7,D2D7O1
   ,REFINC,WTRGC08,WTRGC05,WTRGC03,WTRGC00,WTRGC02,WTRGC01
   ,WTRGC07,WTRGC04,DATAIN07,DATAIN06,C3G8Q,TESTEZ,TEST2Z
   ,ADR0,NJADD0,NRESET2,DATAIN00,DATAIN01,DATAIN02,DATAIN03
   ,DATAIN04,DATAIN05,NCRTLTH,ATT02QN2,ATT02Q2,ADR1 ) $
RB132( VBLKSP,NT103,NT52,D3C13QP,NVERDE7,LPSTB,C3G9O1
   ,BCRR0,BCRR1,BCRR2,BCRR3,BCRR4,BCRR5,BCRR6
   ,BCRR7,VERT7,VERT6,VERT5,VERT4,VERT3,VERT2
   ,VERT1,VERT0,VERRS7,VERRS6,VERRS5,VERRS4,VERRS3
   ,VERRS2,VERRS1,VERRS0,VERDE7,VERDE6,VERDE5,VERDE4
   ,VERDE3,VERDE2,VERDE1,VERDE0,VERBS7,VERBS6,VERBS5
   ,VERBS4,VERBS3,VERBS2,VERBS1,VERBS0,VERBE7,VERBE6
   ,VERBE5,VERBE4,VERBE3,VERBE2,VERBE1,VERBE0,LINEC7
   ,LINEC6,LINEC5,LINEC4,LINEC3,LINEC2,LINEC1,LINEC0
   ,ENDVSYNC,ENDVBLNK,ENDVERDE,EQVTOT,STVERB,LCOMP,LCOMPA
   ,STVERR,POS102Q0,CRT07Q4,PROT07,VERRE3,VERRE2,VERRE1
   ,VERRE0,CRT07Q7,CRT07Q6,CRT07Q5,CRT07Q3,CRT07Q2,CRT07Q1
   ,CRT07Q0,NT45,CRTINT,ADD16NMR,XDHSYNC,DHSYNC,D3C13Q
   ,CRT010X,HORBE7,WCRT0T7P,D3F11O1,NVERINC,D3A12O1,NVERINE
```

```
    ,B4G4Q,SCROFFQ,C3D5O1,C3F7Q,C3E6Q,C3D7O1,C3B11NQ
    ,C3G16O1,C3A7O1,HORRE6,HORBE6,C2B18O1,C2C22O1,VDSPLYEN
    ,C4A9Q,B4G5Q,B4E3O1,NT26,ENDHORRE,HORRE4,HORBE4
    ,HORRE7,C3A10NQ,ENDHOR,CRTRSB,D3A4O1,B3A13O1,B3F11O1
    ,C2B17O1,C3A14O1,C3G8Q,BLANK5,HORRE5,HORBE5,B3F7NQ
    ,B4F8O1,HORRS4,HORRS3,HORRS2,HORRS6,HORRS7,HORRS5
    ,HORRS1,HORRS0,ENDHORB,HORB5,HORB7,HORB6,HORB3
    ,HORB1,HORB2,HORB4,HORB0,B4B10O1,HORT6,HORT4
    ,HORT5,HORT2,HORT1,HORT3,HORT0,HORT7,B5C5O1
    ,HORDI2,HORDI3,HORDI1,HORDI0,HORDI6,HORDI5,HORDI7
    ,HORDI4,HORBE2,HORBE3,HORBE0,HORBE1,HORRE3,HORRE1
    ,HORRE2,HORRE0,C3A10Q,EVC9,EVC8,EVC7,EVC6
    ,EVC5,EVC4,EVC3,EVC2,EVC1,EVC0,OB4E4Q
    ,C3A16NQ,VCNTRSET,HCONT7,HCONT6,HCONT5,HCONT4,HCONT3
    ,HCONT2,HCONT1,HCONT0,ONCEPERH,AHORB0,AHORB1,AHORB2
    ,AHORB3,AHORB4,AHORB5,AHORB6,AHORB7,AHORBE0,AHORBE1
    ,AHORBE2,AHORBE3,AHORBE4,AHORBE5,AHORBE6,AHORBE7,DCK2PNL
    ,AHCRN ) = CRTC01 (  U4Z,NHERGR,EQLOWCLK,VERTA0,VERTA1,VERTA2
    ,VERTA3,VERTA4,VERTA5,VERTA6,VERTA7,VERRSA0,VERRSA1
    ,VERRSA2,VERRSA3,VERRSA4,VERRSA5,VERRSA6,VERRSA7,VERREA0
    ,VERREA1,VERREA2,VERREA3,VERDEA0,VERDEA1,VERDEA2,VERDEA3
    ,VERDEA4,VERDEA5,VERDEA6,VERDEA7,CRT07QA0,CRT07QA1,CRT07QA2
    ,CRT07QA5,CRT07QA6,CRT07QA7,NT69,NE6845,E6845,NT112
    ,NT113,C3G19O1,VGAMOD,N3D7WR2,R3D6Q0,R3D6NQ0,R3D6Q1
    ,R3D6NQ1,R3D6Q2,R3D6NQ2,R3D6NQ3,R3D6NQ4,R3D6Q5,R3D6Q6
    ,R3D6Q7,TEST1Z,WCRTC15,WCRTC12,WCRTC16,WCRTC10,WCRTC18
    ,WCRTC06,SOFF,CHRESET,DATAIN05,DATAIN04,DATAIN06,DATAIN07
    ,DATAIN03,DATAIN02,DATAIN01,DATAIN00,VERBS9,LINEC9,NRESET2
    ,TESTCZ,TESTAZ,TESTBZ,TEST0Z,ATT30Q4N,NC/1/,ATT30Q0N
    ,D3B1QC,TXTSHIFT,NT114,CRTAQ5,CRTAQ3,CRTAQ4N,CRTAQQ5
    ,CRTAQQ4,WCRTC07A,WCRT0T7,W3BD45,WCRTC02,WCRTC04,WCRTC05
    ,WCRTC03,WCRTC07,WCRTC00,WCRTC01,IOCMDWR,NCLRHC,NCHRCLK
    ,REF5PL,R3C2QA7,R3C2QA6,R3BDAQ2,CRTCM2,NCRTCM2,CHRCLK
    ,EWIO010N,VGAENW,C5D6O1,NT83,MCRT8Q5,CRTC8Q6,A3C17O1
    ,VERCNT9,VERCNT8,VERCNT7,VERCNT6,VERCNT5,VERCNT4,VERCNT3
    ,VERCNT2,VERCNT1,VERCNT0,HVCVDE,DSPTD2,EQHDEE,EQHDES
    ,NKILL1,STRCHP,STRCHM,HSYNCPNL,ULINE,VDELN,VDEL
    ,DCK2DIVN,NC/0/,VPU,CVC0,CVC1,CVC2,CVC3
    ,CVC4,CVC5,CVC6,CVC7,CVC8,CVC9 ) $
CLKGEN( NCHRCLK,BLANKDE,PLNSHIFT,DCLK,M13CLK,D2H8O1,DOTCLK
    ,D2H14O1,TXTSHIFT,D2F9O1,D2H13NQ,CHRCLK,BLANK1,CLKXX
     ) = CLKGN (  R3D705Q2,BLNKPNL,DSPTD2,NT74,R3D728Q1,NDSPEN
    ,ATT30Q5
    ,B3G11A,BLANK5,R3C2QA3,R3C2QA2,DCKN2DIV,DCK2DIVN,CC89SELN
    ,NPRESET,CLK0I,CLK1I,EXTOSC,D2G14O1,D2F12O1,SLEEPON
     ) $
ADRGEN( EQMAXSL,B4F19O1,C4G13O1,NCRTLTH,ELC4,ELC3,ELC2
    ,ELC1,ELC0,CRTC8Q4,CRTC8Q3,CRTC8Q2,CRTC8Q1,CRTC8Q0
    ,CURST5,CURST4,CURST3,CURST2,CURST1,CURST0,UNDER6
    ,UNDER5,UNDER4,UNDER3,UNDER2,UNDER1,UNDER0,NUNDER6
    ,CURSK1,CURSK0,CURSE4,CURSE3,CURSE2,CURSE1,CURSE0
    ,CRTC8Q6,CRTC8Q5,CURADD07,CURADD06,CURADD05,CURADD04,CURADD03
    ,CURADD02,CURADD01,CURADD00,CURADD15,CURADD14,CURADD13,CURADD12
    ,CURADD11,CURADD10,CURADD09,CURADD08,OFFSET7,OFFSET6,OFFSET5
    ,OFFSET4,OFFSET3,OFFSET2,OFFSET1,OFFSET0,STADDQ15,STADDQ14
    ,STADDQ13,STADDQ12,STADDQ11,STADDQ10,STADDQ09,STADDQ08,STADDQ07
    ,STADDQ06,STADDQ05,STADDQ04,STADDQ03,STADDQ02,STADDQ01,STADDQ00
    ,NT46,VERBS9,LINEC9,MAXSL4,MAXSL3,MAXSL2,MAXSL1
    ,MAXSL0,NRFAMX,B3G7O1,NT49,ACCLA,C3C11O1,D3F16O1
    ,D3A11O1,EQCURAD,C5D6O1,NEQMAXSL,A3C17O1,NT101,NT100
    ,NT99,NT98,NT97,NT96,NT95,NT94,NT93
    ,NT92,NT91,NT90,NT89,NT88,NT87,NT86
```

```
   ,EXRDB0,EXRDB1,EXRDB2,EXRDB3,EXRDB4,EXRDB5,EXRDB6
   ,EXRDB7,C3G19O1,STLN15,STLN14,STLN13,STLN12,STLN11
   ,STLN10,STLN9,STLN8,STLN7,STLN6,STLN5,STLN4
   ,STLN3,STLN2,STLN1,STLN0,D5H6O1,AOFSETZ,OFFSETS7
   ,OFFSETS6,OFFSETS5,OFFSETS4,OFFSETS3,OFFSETS2,OFFSETS1,OFFSETS0
   ,EDAD15,EDAD14,EDAD13,EDAD12,EDAD11,EDAD10,EDAD9
   ,EDAD8,EDAD7,EDAD6,EDAD5,EDAD4,EDAD3,EDAD2
   ,EDAD1,EDAD0,FIX1Z,C3C8Q,C3G18O1,C3F17Q,C4F1Q
    ) = ADRGN (  NCHRCLK,D2H8O1,NT10,CRTLTH,B4B10O1,CHAN,B4E3O1
   ,B3F11O1,C3G16O1,C3B11NQ,CHRCLK,D2D12NQ,D2E8O1,NT48
   ,TESTFZ,LCOMP,D2D2NQ,C3A7O1,D2H13NQ,TEST4Z,ADD16NMR
   ,B3F7NQ,C4A9Q,C3A10NQ,CRTCM3,C3A14O1,NRESET2,WCRTC08
   ,WCRTC0B,WCRTC0A,WCRTC0F,WCRTC0D,WCRTC0C,WCRTC0E,NT110
   ,NT111,WCRTC14,WCRTC13,DATAIN00,DATAIN01,DATAIN02,DATAIN03
   ,DATAIN07,DATAIN06,DATAIN04,DATAIN05,NC/0/,NC/1/,E6845
   ,VGAMODO,N3D7WR2,R3D6NQ0,R3D6Q0,R3D6NQ1,R3D6Q1,R3D6Q2
   ,R3D6Q3,R3D6NQ4,R3D6Q4,R3D6NQ5,R3D6NQ6,R3D6NQ7,C3G9O1
   ,ADRCNT15,ADRCNT13,ADRCNT12,ADRCNT11,ADRCNT10,ADRCNT09,ADRCNT08
   ,ADRCNT07,ADRCNT06,ADRCNT05,ADRCNT04,ADRCNT03,ADRCNT02,ADRCNT01
   ,ADRCNT00,ROWCNT0,ROWCNT1,ROWCNT2,ROWCNT3,ROWCNT4,UACCLA
   ,CURDSP ) $
RB392( TESTFZ,TEST4Z,TEST0Z,TESTBZ,TESTAZ,TESTEZ,TESTCZ
   ,TEST2Z,TEST1Z,TEST3Z ) = TEST5 (  NT77,NC/0/,NT82,R3D77FQ2
   ,R3D77FQ3,R3D77FQ4,NT80,R3D77FQ5,NT81 ) $
BLOCKB( ATT02QN1,F1B15O1,ADR0,BA4I,AA4I,BA6I,AA6I
   ,BA3I,AA3I,BA0I,AA0I,BA2I,AA2I,BA5I
   ,AA5I,BA1I,AA1I,BA7I,AA7I,ATT02QN2,ATT02Q2
   ,ADR1,SEQ2Q1,SEQ3Q1,ATT02Q0,SEQ3Q3,SEQ2Q3,SEQ3Q4
   ,SEQ3Q5,F2C9O1,F2D4O1,F2D5O1,F2D6O1,SEQ3Q2,ATT02Q1
   ,SEQ2Q2,SEQ2Q0,SEQ3Q0,SEQ2QN0,SEQ2QN2,SEQ2QN1,SEQ2QN3
    ) = BLCKB (  NADDR16,MAK17,R3D704Q2,NT53,FCAS1,FCAS3,B3A13O1
   ,NJADD0,NRESET,DATAIN00,DATAIN01,DATAIN02,DATAIN03,DATAIN04
   ,DATAIN05,D3F16O1R,ADRCNT14,ADRCNT11,ADRCNT10,ADRCNT09,ADRCNT08
   ,ADRCNT01,ADRCNT04,ADRCNT03,ADRCNT02,ADRCNT13,ADRCNT15,ADRCNT00
   ,ADRCNT12,ADRCNT07,ADRCNT06,ADRCNT05,NT50,NUNDER6,UNDER6
   ,ROWCNT0,ROWCNT1,ROWCNT2,ROWCNT3,ROWCNT4,CRTLTH,CRTCM5
   ,CRTCM1P,CRTCM0P,NAMXCPU,CRTCM6,ADDR11,ADDR04,E3F12O1
   ,D2E9O1,ADMUXCPU,NT9,E3A14O1,D3E15Q,NAMXGR,ADDR13
   ,ADDR06,E3G7Q,ADDR10,ADDR03,D3H16Q,ADDR14,ADDR09
   ,ADDR02,D4H1Q,ADDR12,ADDR05,F4E2Q,E3E12Q,ADDR08
   ,F3E12Q,F1B10O1,ADDR07,E3H10Q,ADDR01,GC06Q1,NADDR01
   ,NT51,R3C2Q5,JADD0,E2G9O1,E2E13NQ,E2E13Q,WTRSEQ03
   ,TEST3Z,NCRTCM6,F1B7O1,ADDR16,WTRSEQ04,WTRSEQ02 ) $
VIDEO( DSPEN,NT108,CRTVD7O,CRTVD6O,CRTVD5O,CRTVD4O,CRTVD3O
   ,CRTVD2O,CRTVD1O,CRTVD0O,NATTVMX0,NDSPEN,PRAM5,PRAM4
   ,PRAM3,PRAM2,PRAM1,PRAM0,DPGRP1,DPGRP0,ATT34Q3
   ,ATT34Q2,ATT34Q1,ATT34Q0,ATT31Q7,ATT31Q6,ATT31Q5,ATT31Q4
   ,ATT31Q3,ATT31Q2,ATT31Q1,ATT31Q0,PRAMSAB,PRAMSBC,TXTSHO
   ,PELP3O,PELP1O,PELPO2,PELP0O,E5B1Q,E5D2Q,D3B1QC
   ,SCOLSEL,ATT30Q5,ATT30Q4,ATT30Q3,ATT30Q2,ATT30Q1,ATT30Q0
   ,ATT30Q4N,ATTVMX1,ATTVMX0,ATTCPE3,ATTCPE2,ATTCPE1,ATTCPE0
   ,ATT33Q3,ATT33Q2,ATT33Q1,ATT33Q0,C1F12O1,C1G12O1,PELP1D
   ,PL1SHO,PELPI2,PL2SHO,PELP3D,PL3SHO,PELP0D,PL0SHO
   ,ATT30Q0N,D3B10Q,D3B11Q ) = VIDEC01 (  BLANKP,NT105,CC89SELN
   ,VPDISP0
   ,CSRBLINK,ATRBLINK,ATT30Q2A,BLANK1,R3D728Q2,R3D72BQ0,R3D72BQ1
   ,R3D72BQ2,R3D72BQ3,R3D72BQ4,R3D72BQ5,R3D72BQ6,R3D72BQ7,CGASL1
   ,CGASL1N,CGASL2N,DATAIN00,DATAIN01,DATAIN02,DATAIN03,M13CLK
   ,WTRATT31,WTRATT34,DATAIN07,DATAIN06,DCLK,PRAMCL,DATAIN04
   ,DATAIN05,NC/0/,C3F7Q,C3G8Q,ATTA5N,D3A4O1,ATTA5
   ,ATTA1,ATTA0,ATTA3,ATTA2,CRTLTH,PLNSHIFT,CRTP2D1
   ,CRTP2D5,CRTP2D3,CRTP2D6,CRTP2D7,CRTP2D4,CRTP3D5,CRTP3D6
```

```
   ,CRTP3D4,CRTP3D7,CRTP1D6,CRTP1D4,CRTP0D5,CRTP1D2,CRTP0D7
   ,CRTP1D0,CRTP1D7,CRTP1D5,CRTP1D1,CRTP2D0,CRTP2D2,CRTP3D0
   ,CRTP3D2,CRTP3D3,CRTP1D3,CRTP0D4,CRTP0D6,CRTP0D0,CRTP0D2
   ,CRTP0D3,CRTP3D1,CRTP0D1,TXTSHIFT,NC/1/,ATT02Q2,GCSHLD
   ,GC256L,C3E6Q,D3F11O1,D3C13Q,E3D17O1,WTRATT30,WTRATT33
   ,WTRATT12,R3D9Q4,R3D9Q5,R3B8Q2,R3D9Q3,R3D9Q2,R3D9Q1
   ,R3D9Q0,TEXT,CHAN,EMBLK,NHERGR,STP348,DSPTD2
    ) $
BLOCKD( IOC11,IOC10,IOC01,IOC00,SHIFT4,SAIFT2Z,OCC89SEL
   ,SLEEPON,ODCK2DIV,D2D7O1,SCROFF,D2F12O1,D2G14O1,NPRESET
   ,DCK2DIVN,D2D12NQ,D2E8O1,NT48,D2D2NQ,BDOUT45,BDOUT44
   ,NAMXCPU,NRAMWR,NVGARDY,E3F12O1,D2E9O1,SAIFT2,NAMXGR
   ,NT85,E2G9O1,CC89SEL,NT84,E3A14O1,NT9,ADMUXCPU
   ,DCKN2DIV,NCAS,NRAS11,NRAS00,NRAS10,NRAS01,ERMDRVZ
   ,ERMCONZ,SECBYTE,FCAS1,FCAS3 ) = BLCKD (  R3D704Q3,SLEEPEN
   ,REFINCSL
   ,DCK2DIV,TEXT,R3D708Q0,NT61,R3D709Q0,NT62,CC89SELN
   ,F2D4O1,SEQ2QN3,F2D6O1,SEQ2QN1,F2D5O1,SEQ2QN2,F2C9O1
   ,SEQ2QN0,WRSEQ00,WTRSEQ01,SEQ3Q5,SEQ3Q4,NSEQ1,E2G7O1
   ,D2F10NQ,NT38,NT39,GC06NQ0,NRFAMX,B3G7O1,D2H8O1
   ,D2H14O1,NT45,SCROFFQ,VDSPLYEN,TXTSHIFT,C2C22O1,C3D7O1
   ,C3A7O1,C2B18O1,DATAIN05,DATAIN04,DATAIN03,DATAIN02,DATAIN01
   ,DATAIN00,B3G11A,NC/1/,HERTEX,CHAN,GCAD2,NT28
   ,NT27,GCRTIPE,ATT02Q2,ATT02QN1,F1B15O1,ADDR01,CLKXX
    ) $
RB0( AA0 ) = BT2 (  AA0I,NC/0/,HIM5C5 ) $
RB1( AA1 ) = BT2 (  AA1I,NC/0/,HIM5C5 ) $
RB2( AA2 ) = BT2 (  AA2I,NC/0/,HIM5C5 ) $
RB3( AA3 ) = BT2 (  AA3I,NC/0/,HIM5C5 ) $
RB4( AA4 ) = BT2 (  AA4I,NC/0/,HIM5C5 ) $
RB5( AA5 ) = BT2 (  AA5I,NC/0/,HIM5C5 ) $
RB6( AA6 ) = BT2 (  AA6I,NC/0/,HIM5C5 ) $
RB7( AA7 ) = BT2 (  AA7I,NC/0/,HIM5C5 ) $
RB53( BA0 ) = BT2 (  BA0I,NC/0/,HIM5C5 ) $
RB54( BA1 ) = BT2 (  BA1I,NC/0/,HIM5C5 ) $
RB55( BA2 ) = BT2 (  BA2I,NC/0/,HIM5C5 ) $
RB56( BA3 ) = BT2 (  BA3I,NC/0/,HIM5C5 ) $
RB57( BA4 ) = BT2 (  BA4I,NC/0/,HIM5C5 ) $
RB58( BA5 ) = BT2 (  BA5I,NC/0/,HIM5C5 ) $
RB59( BA6 ) = BT2 (  BA6I,NC/0/,HIM5C5 ) $
RB60( BA7 ) = BT2 (  BA7I,NC/0/,HIM5C5 ) $
RB287( M0D0,M0DI0, ) = BD4T (  M0DO0,NC/0/,IOC00,NC/0/
    ) $
RB288( M0D1,M0DI1, ) = BD4T (  M0DO1,NC/0/,IOC00,NC/0/
    ) $
RB289( M0D2,M0DI2, ) = BD4T (  M0DO2,NC/0/,IOC00,NC/0/
    ) $
RB290( M0D3,M0DI3, ) = BD4T (  M0DO3,NC/0/,IOC00,NC/0/
    ) $
RB291( M0D4,M0DI4, ) = BD4T (  M0DO4,NC/0/,IOC00,NC/0/
    ) $
RB292( M0D5,M0DI5, ) = BD4T (  M0DO5,NC/0/,IOC00,NC/0/
    ) $
RB293( M0D6,M0DI6, ) = BD4T (  M0DO6,NC/0/,IOC00,NC/0/
    ) $
RB294( M0D7,M0DI7, ) = BD4T (  M0DO7,NC/0/,IOC00,NC/0/
    ) $
RB295( M1D0,M1DI0, ) = BD4T (  M1DO0,NC/0/,IOC01,NC/0/
    ) $
RB296( M1D1,M1DI1, ) = BD4T (  M1DO1,NC/0/,IOC01,NC/0/
    ) $
RB297( M1D2,M1DI2, ) = BD4T (  M1DO2,NC/0/,IOC01,NC/0/
```

```
    ) $
RB298( M1D3,M1DI3, ) = BD4T (  M1DO3,NC/0/,IOC01,NC/0/
    ) $
RB299( M1D4,M1DI4, ) = BD4T (  M1DO4,NC/0/,IOC01,NC/0/
    ) $
RB300( M1D5,M1DI5, ) = BD4T (  M1DO5,NC/0/,IOC01,NC/0/
    ) $
RB301( M1D6,M1DI6, ) = BD4T (  M1DO6,NC/0/,IOC01,NC/0/
    ) $
RB302( M1D7,M1DI7, ) = BD4T (  M1DO7,NC/0/,IOC01,NC/0/
    ) $
RB303( M2D0,M2DI0, ) = BD4T (  M2DO0,NC/0/,IOC10,NC/0/
    ) $
RB304( M2D1,M2DI1, ) = BD4T (  M2DO1,NC/0/,IOC10,NC/0/
    ) $
RB305( M2D2,M2DI2, ) = BD4T (  M2DO2,NC/0/,IOC10,NC/0/
    ) $
RB306( M2D3,M2DI3, ) = BD4T (  M2DO3,NC/0/,IOC10,NC/0/
    ) $
RB307( M2D4,M2DI4, ) = BD4T (  M2DO4,NC/0/,IOC10,NC/0/
    ) $
RB308( M2D5,M2DI5, ) = BD4T (  M2DO5,NC/0/,IOC10,NC/0/
    ) $
RB309( M2D6,M2DI6, ) = BD4T (  M2DO6,NC/0/,IOC10,NC/0/
    ) $
RB310( M2D7,M2DI7, ) = BD4T (  M2DO7,NC/0/,IOC10,NC/0/
    ) $
RB311( M3D0,M3DI0, ) = BD4T (  M3DO0,NC/0/,IOC11,NC/0/
    ) $
RB312( M3D1,M3DI1, ) = BD4T (  M3DO1,NC/0/,IOC11,NC/0/
    ) $
RB313( M3D2,M3DI2, ) = BD4T (  M3DO2,NC/0/,IOC11,NC/0/
    ) $
RB314( M3D3,M3DI3, ) = BD4T (  M3DO3,NC/0/,IOC11,NC/0/
    ) $
RB315( M3D4,M3DI4, ) = BD4T (  M3DO4,NC/0/,IOC11,NC/0/
    ) $
RB316( M3D5,M3DI5, ) = BD4T (  M3DO5,NC/0/,IOC11,NC/0/
    ) $
RB317( M3D6,M3DI6, ) = BD4T (  M3DO6,NC/0/,IOC11,NC/0/
    ) $
RB318( M3D7,M3DI7, ) = BD4T (  M3DO7,NC/0/,IOC11,NC/0/
    ) $
A2F7( RAS ) = BT4 (  RASGEN,NC/0/,HIM5C5 ) $
D5I7( CAS3 ) = BT2 (  NRAS11,NC/0/,HIM5C5 ) $
F3F1( CAS0 ) = BT2 (  NRAS00,NC/0/,HIM5C5 ) $
F3F3( CAS2 ) = BT2 (  NRAS10,NC/0/,HIM5C5 ) $
F3F4( CAS1 ) = BT2 (  NRAS01,NC/0/,HIM5C5 ) $
RB188( ERMEN ) = BT4 (  ERMDRVZ,NC/0/,ERMCONZ ) $
A1F9( BLANK ) = BT2 (  BLANKDE,NC/0/,HIC5 ) $
F2F3( SHFCLK ) = BT4 (  ISHFCLK,NC/0/,HIC5 ) $
RB82( SLEEPENI, ) = TLCHT (  SLEEP,NC/0/ ) $
F2F6( CLK0I, ) = TLCHT (  CLK0,NC/0/ ) $
A5F3( VSYNC ) = BT2 (  VSYNCOUT,NC/0/,HIC5 ) $
F3F6( HSYNC ) = BT2 (  HSYNCOUT,NC/0/,HIC5 ) $
F4F5( VGAINT ) = BT8 (  MODINT,NC/0/,CRTID1Z ) $
RB482( O3D7P7 ) = OR3 (  O3D7P7A,N3D7M17,N3D7M07 ) $
RB483( O3D7P7A ) = NR3 (  O3D7P7B,OP13A1,NADDR00 ) $
RB479( O3D7P6 ) = OR3 (  O3D7P6A,N3D7M16,N3D7M06 ) $
RB480( O3D7P6A ) = NR3 (  O3D7P6B,OP13A1,NADDR00 ) $
RB476( O3D7P5 ) = OR3 (  O3D7P5A,N3D7M15,N3D7M05 ) $
RB477( O3D7P5A ) = NR3 (  O3D7P5B,OP13A1,NADDR00 ) $
```

```
RB473( O3D7P4 ) = OR3 (  O3D7P4A,N3D7M14,N3D7M04 ) $
RB474( O3D7P4A ) = NR3 (  O3D7P4B,OP13A1,NADDR00 ) $
RB470( O3D7P3 ) = OR4 (  O3D7P3A,N3D7M13,N3D7M03,RD45B3 ) $
RB471( O3D7P3A ) = NR3 (  O3D7P3B,OP13A1,NADDR00 ) $
RB467( O3D7P2 ) = OR4 (  O3D7P2A,N3D7M12,N3D7M02,RD45B2 ) $
RB468( O3D7P2A ) = NR3 (  O3D7P2B,OP13A1,NADDR00 ) $
RB464( O3D7P1 ) = OR4 (  O3D7P1A,N3D7M11,N3D7M01,RD45B1 ) $
RB465( O3D7P1A ) = NR3 (  O3D7P1B,OP13A1,NADDR00 ) $
RB461( O3D7P0 ) = OR4 (  O3D7P0A,N3D7M10,N3D7M00,RD45B0 ) $
RB462( O3D7P0A ) = NR3 (  O3D7P0B,OP13A1,NADDR00 ) $
BVGARB( ,VGARDYD ) = YFD2 (  NC/1/,DOTCLK,NVGARDY ) $
BVGARA( BVGARAZ ) = ND2 (  VGARDYD,NT78 ) $
C1H6( VGARDY ) = BT8 (  NVGARDY,ENVGARDY,NC/1/ ) $
F4F3( VIDEO2 ) = BT2 (  CRTVD2O,NC/0/,HIC5 ) $
F1F7( VIDEO4 ) = BT2 (  CRTVD4O,NC/0/,HIC5 ) $
C1H4( VIDEO3 ) = BT2 (  CRTVD3O,NC/0/,HIC5 ) $
B1H3( VIDEO5 ) = BT2 (  CRTVD5O,NC/0/,HIC5 ) $
A3F5( VIDEO1 ) = BT2 (  CRTVD1O,NC/0/,HIC5 ) $
A2F6( VIDEO6 ) = BT2 (  CRTVD6O,NC/0/,HIC5 ) $
A2F2( VIDEO7 ) = BT2 (  CRTVD7O,NC/0/,HIC5 ) $
A1F8( VIDEO0 ) = BT2 (  CRTVD0O,NC/0/,HIC5 ) $
F2B82( F2B8O12 ) = AO4 (  NSEQ1,CC89SEL,NT84,NSEQ0 ) $
F2B81( F2B8O11 ) = AO4 (  SEQ2Q0,SEQ02A0,SEQ3Q0,E2G7O1 ) $
F2B8( F2B8O1 ) = NR2 (  F2B8O11,F2B8O12 ) $
F2A112( F2A11O12 ) = AO4 (  SEQ02A0,SEQ2Q2,NSEQ1,SAIFT2 ) $
F2A111( F2A11O11 ) = AO4 (  SEQ3Q2,E2G7O1,ATT02Q1,NSEQ4 ) $
F2A11( F2A11O1 ) = NR2 (  F2A11O11,F2A11O12 ) $
E4F52( E4F5O12 ) = AO4 (  E4B1O1,LPD05,MYS5,E4A5O1 ) $
E4F51( E4F5O11 ) = NR2 (  LPD13,E4A6O1 ) $
E4F5( BDOUT05 ) = NR2 (  E4F5O11,E4F5O12 ) $
E4E22( E4E2O12 ) = AO4 (  E4B1O1,LPD00,E4A5O1,MYS0 ) $
E4E21( E4E2O11 ) = NR2 (  LPD08,E4A6O1 ) $
E4E2( BDOUT00 ) = NR2 (  E4E2O11,E4E2O12 ) $
E4D42( E4D4O12 ) = AO4 (  E4B1O1,LPD04,MYS4,E4A5O1 ) $
E4D41( E4D4O11 ) = NR2 (  LPD12,E4A6O1 ) $
E4D4( BDOUT04 ) = NR2 (  E4D4O11,E4D4O12 ) $
E4D22( E4D2O12 ) = AO4 (  E4B1O1,LPD06,MYS6,E4A5O1 ) $
E4D21( E4D2O11 ) = NR2 (  LPD14,E4A6O1 ) $
E4D2( BDOUT06 ) = NR2 (  E4D2O11,E4D2O12 ) $
E4B22( E4B2O12 ) = AO4 (  E4B1O1,LPD01,MYS1,E4A5O1 ) $
E4B21( E4B2O11 ) = NR2 (  LPD09,E4A6O1 ) $
E4B2( BDOUT01 ) = NR2 (  E4B2O11,E4B2O12 ) $
E4A12( E4A1O12 ) = AO4 (  E4B1O1,LPD02,MYS2,E4A5O1 ) $
E4A11( E4A1O11 ) = NR2 (  LPD10,E4A6O1 ) $
E4A1( BDOUT02 ) = NR2 (  E4A1O11,E4A1O12 ) $
E3H14B( OE3H14B ) = IV (  CRTINT ) $
E3H14A( MODINT ) = MUX21L (  OE3H14B,CRTINT,R3D714Q7 ) $
E3C52( E3C5O12 ) = AO4 (  E3B8O1,ATT33Q0,E3C3O1,ATTCPE0 ) $
E3C51( E3C5O11 ) = NR2 (  ATT34Q0,E3A5O1 ) $
E3C5( E3C5O1 ) = NR2 (  E3C5O11,E3C5O12 ) $
E3G32( E3G3O12 ) = AO4 (  E3B8O1,ATT33Q3,ATTCPE3,E3C3O1 ) $
E3G31( E3G3O11 ) = NR2 (  ATT34Q3,E3A5O1 ) $
E3G3( E3G3O1 ) = NR2 (  E3G3O11,E3G3O12 ) $
E3B22( E3B2O12 ) = AO4 (  E3B6O1,ATT30Q4,PRAM5,E3E9O1 ) $
E3B2A( E3B2O11 ) = AO4 (  ATT31Q5,E3D6O1,ATTVMX1,E3C3O1 ) $
E3B2( E3B2O1 ) = NR2 (  E3B2O11,E3B2O12 ) $
E3F32( E3F3O12 ) = AO7 (  PRAM4,E3E9O1,E3B6O1 ) $
E3F31( E3F3O11 ) = AO4 (  ATT31Q4,E3D6O1,ATTVMX0,E3C3O1 ) $
E3F3( E3F3O1 ) = NR2 (  E3F3O11,E3F3O12 ) $
E3E202( E3E20O12 ) = AO4 (  E4B1O1,LPD03,MYS3,E4A5O1 ) $
E3E201( E3E20O11 ) = NR2 (  LPD11,E4A6O1 ) $
E3E20( BDOUT03 ) = NR2 (  E3E20O11,E3E20O12 ) $
```

```
E3B212( E3B21O12 ) = AO4 (  E4B1O1,LPD07,MYS7,E4A5O1 ) $
E3B211( E3B21O11 ) = NR2 (  LPD15,E4A6O1 ) $
E3B21( BDOUT07 ) = NR2 (  E3B21O11,E3B21O12 ) $
E2E142( E2E14O12 ) = AO7 (  EWIO3C2,ISENSE,NIO3CC ) $
E2E141( E2E14O11 ) = AO7 (  DPGRP1,NIO3BDA,NIO3CA ) $
E2E14( E2E14O1 ) = NR2 (  E2E14O11,E2E14O12 ) $
E2C102( E2C10O12 ) = AO7 (  NIO3CC,R3C2Q3,EWIO3C2 ) $
RB74( EMXD3N ) = AO2 (  D3A4O1,NT66,R3D714Q5,DPGRP0 ) $
BEMXD3( EMXD3 ) = IV (  EMXD3N ) $
E2C101( E2C10O11 ) = AO4 (  R3BDAQ2,NIO3CA,EMXD3,NIO3BDA ) $
E2C10( E2C10O1 ) = NR2 (  E2C10O11,E2C10O12 ) $
E2C122( E2C12O12 ) = AO4 (  NIO3CC,R3C2Q7,D3A12O1,EWIO3C2 ) $
E2C121( E2C12O11 ) = AO7 (  VSYNBIT,NIO3BDA,NIO3CA ) $
E2C12C( VSYNBIT ) = NR2 (  NT67,C4A9Q ) $
E2C12( E2C12O1 ) = NR2 (  E2C12O11,E2C12O12 ) $
E2A132( E2A13O12 ) = AO7 (  NIO3CC,R3C2Q6,EWIO3C2 ) $
E2A131( E2A13O11 ) = ND2 (  NIO3CA,NIO3BDA ) $
E2A13( E2A13O1 ) = NR2 (  E2A13O11,E2A13O12 ) $
E2B102( E2B10O12 ) = AO7 (  NIO3CC,R3C2Q2,EWIO3C2 ) $
E2B101( E2B10O11 ) = IV (  NIO3CA ) $
E2B10( E2B10O1 ) = NR2 (  E2B10O11,E2B10O12 ) $
E2H92( E2H9O12 ) = AO4 (  SEQ02A0,SEQ2Q3,NSEQ1,DCK2DIV ) $
E2H91( E2H9O11 ) = AO4 (  SEQ3Q3,E2G7O1,ATT02Q2,NSEQ4 ) $
E2H9( E2H9O1 ) = NR2 (  E2H9O11,E2H9O12 ) $
E2F52( E2F5O12 ) = AO4 (  NSEQ4,ATT02Q0,NT85,NSEQ0 ) $
E2F51( E2F5O11 ) = AO4 (  SEQ2Q1,SEQ02A0,SEQ3Q1,E2G7O1 ) $
E2F5( E2F5O1 ) = NR2 (  E2F5O11,E2F5O12 ) $
E2A10A( D2B16MOD ) = IV (  NT41 ) $
E2A10B( NT41 ) = AO2 (  NT65,D2B16O1,R3D714Q4,DHSYNC ) $
E2A102( E2A10O12 ) = AO4 (  NIO3BDA,D2B16MOD,R3BDAQ0,NIO3CA ) $
E2A101( E2A10O11 ) = AO4 (  DACST0,NIO3C7,POS102Q0,EWIO010N ) $
E2A10( E2A10O1 ) = NR2P (  E2A10O11,E2A10O12 ) $
E1F112( E1F11O12 ) = AO7 (  NIO3CC,R3C2Q5,EWIO3C2 ) $
E1F111( E1F11O11 ) = AO7 (  DPGRP0,NIO3BDA,NIO3CA ) $
E1F11( E1F11O1 ) = NR2 (  E1F11O11,E1F11O12 ) $
D3F62( D3F6O12 ) = AO4 (  E3B8O1,ATT33Q1,E3C3O1,ATTCPE1 ) $
D3F61( D3F6O11 ) = NR2 (  ATT34Q1,E3A5O1 ) $
D3F6( D3F6O1 ) = NR2 (  D3F6O11,D3F6O12 ) $
D3G72( D3G7O12 ) = AO4 (  E3B8O1,ATT33Q2,ATTCPE2,E3C3O1 ) $
D3G71( D3G7O11 ) = NR2 (  ATT34Q2,E3A5O1 ) $
D3G7( D3G7O1 ) = NR2 (  D3G7O11,D3G7O12 ) $
B1G102( B1G10O12 ) = AO4 (  NGC01A0,GCSETE2,GCSETR2,GC00A0N ) $
B1G101( B1G10O11 ) = AO4 (  GCCCR2,NGC02A0,GC03Q2,GC03A0N ) $
B1G10( B1G10O1 ) = NR2 (  B1G10O11,B1G10O12 ) $
C2B32( C2B3O12 ) = AO4 (  NGC07A0,GC07Q2,NGC06A0,GC06Q2 ) $
C2B31( C2B3O11 ) = NR2 (  MASKR2,NGC08A0 ) $
C2B3( C2B3O1 ) = NR2 (  C2B3O11,C2B3O12 ) $
C2D42( C2D4O12 ) = AO4 (  NGC05A0,GCWTMOD1,GCRM1,NGC04A0 ) $
C2D41( C2D4O11 ) = AO4 (  GC06Q1,NGC06A0,GC07Q1,NGC07A0 ) $
C2D4( C2D4O1 ) = NR2 (  C2D4O11,C2D4O12 ) $
C2C52( C2C5O12 ) = AO4 (  NGC06A0,GC06Q3,GCRTIPE,NGC05A0 ) $
C2C51( C2C5O11 ) = AO4 (  GC07Q3,NGC07A0,MASKR3,NGC08A0 ) $
C2C5( C2C5O1 ) = NR2 (  C2C5O11,C2C5O12 ) $
C2B42( C2B4O12 ) = AO4 (  NGC05A0,GCWTMOD0,GCRM0,NGC04A0 ) $
C2B41( C2B4O11 ) = AO4 (  GC06Q0,NGC06A0,GC07Q0,NGC07A0 ) $
C2B4( C2B4O1 ) = NR2 (  C2B4O11,C2B4O12 ) $
B2G12( B2G1O12 ) = AO4 (  NGC01A0,GCSETE0,GC00A0N,GCSETR0 ) $
B2G11( B2G1O11 ) = AO4 (  GCCCR0,NGC02A0,GC03Q0,GC03A0N ) $
B2G1( B2G1O1 ) = NR2 (  B2G1O11,B2G1O12 ) $
B1E112( B1E11O12 ) = AO4 (  NGC01A0,GCSETE1,GCSETR1,GC00A0N ) $
B1E111( B1E11O11 ) = AO4 (  GCCCR1,NGC02A0,GC03Q1,GC03A0N ) $
B1E11( B1E11O1 ) = NR2 (  B1E11O11,B1E11O12 ) $
```

```
B1G112( B1G11O12 ) = AO4 (  NGC01A0,GCSETE3,GC00A0N,GCSETR3 ) $
B1G111( B1G11O11 ) = AO4 (  GCCCR3,NGC02A0,GC03Q3,GC03A0N ) $
B1G11( B1G11O1 ) = NR2 (  B1G11O11,B1G11O12 ) $
E3D42( E3D4O12 ) = NR2 (  ATT31Q0,E3D6O1 ) $
E3D41( E3D4O11 ) = AO4 (  E3E9O1,PRAM0,ATT30Q0,E3B6O1 ) $
E3D4( E3D4O1 ) = NR2 (  E3D4O11,E3D4O12 ) $
E3F42( E3F4O12 ) = NR2 (  ATT31Q3,E3D6O1 ) $
E3F41( E3F4O11 ) = AO4 (  E3E9O1,PRAM3,ATT30Q3,E3B6O1 ) $
E3F4( E3F4O1 ) = NR2 (  E3F4O11,E3F4O12 ) $
E1D122( E1D12O12 ) = IV (  E2A10O1 ) $
E1D121( E1D12O11 ) = AO7 (  R3C2Q0,NIO3CC,EWIO3C2 ) $
E1D12( BDOUT20 ) = NR2 (  E1D12O11,E1D12O12 ) $
D3G62( D3G6O12 ) = NR2 (  ATT31Q1,E3D6O1 ) $
D3G61( D3G6O11 ) = AO4 (  E3E9O1,PRAM1,ATT30Q1,E3B6O1 ) $
D3G6( D3G6O1 ) = NR2 (  D3G6O11,D3G6O12 ) $
D3H62( D3H6O12 ) = NR2 (  ATT31Q2,E3D6O1 ) $
D3H61( D3H6O11 ) = AO4 (  E3E9O1,PRAM2,ATT30Q2,E3B6O1 ) $
D3H6( D3H6O1 ) = NR2 (  D3H6O11,D3H6O12 ) $
C2A3N( C2A3O1 ) = IV (  C2A3O1N ) $
C2A3( C2A3O1N ) = NR2 (  NGC08A0,MASKR0 ) $
C2A2N( C2A2O1 ) = IV (  C2A2O1N ) $
C2A2( C2A2O1N ) = NR2 (  MASKR1,NGC08A0 ) $
D2G22( D2G2O12 ) = NR2 (  NVACCMEM,OP22A7 ) $
D2G21A( OD2G21A ) = AN2 (  EWIO010N,NIOREG ) $
D2G21( D2G2O11 ) = NR2 (  OD2G21A,IOCMDRD ) $
D2G2( NMEMIORD ) = NR2 (  D2G2O11,D2G2O12 ) $
E2A20N( BDOUT37 ) = IV (  E2A20O1N ) $
E2A20( E2A20O1N ) = AO2 (  D3G1O1,ATT31Q7,D2H20O1,SCOLSEL ) $
D3H1N( BDOUT36 ) = IV (  D3H1O1N ) $
D3H1( D3H1O1N ) = AO2 (  D3G1O1,ATT31Q6,D2H20O1,ATT30Q5 ) $
C2E11( C2E11O1N ) = AO2 (  GC08A0,MASKR6,GC05A0,GC256L ) $
C2C11N( BDOUT14 ) = IV (  C2C11O1N ) $
C2C11( C2C11O1N ) = AO2 (  GC08A0,MASKR4,C2B11O1,NGC08A0 ) $
C2B11N( C2B11O1 ) = IV (  C2B11O1N ) $
C2B11( C2B11O1N ) = AO2 (  GC05A0,GCEVOD,GC03Q4,GC03A0 ) $
C2C13( C2C13O1N ) = ND2 (  GC08A0,MASKR7 ) $
C2E16( BDOUT16 ) = NR2 (  NADDR00,C2E11O1N ) $
C2D9( BDOUT15 ) = NR2 (  NADDR00,C2D8O1N ) $
C2D8( C2D8O1N ) = AO2 (  GC08A0,MASKR5,GCSHLD,GC05A0 ) $
C2B13( BDOUT17 ) = NR2 (  NADDR00,C2C13O1N ) $
C2B12N( BDOUT12 ) = IV (  C2B12O1N ) $
C2B12( C2B12O1N ) = ND2 (  ADDR00,C2C4O1 ) $
C2A10N( BDOUT13 ) = IV (  C2A10O1N ) $
C2A10( C2A10O1N ) = ND2 (  ADDR00,C2C6O1 ) $
C2A8N( BDOUT11 ) = IV (  C2A8O1N ) $
C2A8( C2A8O1N ) = ND2 (  ADDR00,C2A4O1 ) $
C2A7N( BDOUT10 ) = IV (  C2A7O1N ) $
C2A7( C2A7O1N ) = ND2 (  ADDR00,C2A5O1 ) $
E2A1N( NIOREG1 ) = IV (  E2A1O1N ) $
E2A1( E2A1O1N ) = ND8 (  EIO3BD45,EWIO3C2,NIO3C45,NIO3BDA
   ,NIO3C01,NIO3C7
   ,NIO3CC,NIO3CA ) $
F2E2N( NT116 ) = IV (  NT117 ) $
F2E2( NT117 ) = ND6 (  NIO3BDA,NIO3C7,EWIO3C2,EWIO010N,NIO3CA
   ,NIO3CC
    ) $
RB146( REF5PL, ) = LD2 (  DATAIN06,NT113 ) $
RB154( CRTCM0,,CRTCM1,,CRTCM3,,CRTCM5
   ,,CRTCM6,NCRTCM6 ) = LDG5 (  NT114,DATAIN00,DATAIN01,DATAIN03
   ,DATAIN05,DATAIN06 ) $
E3E5B( CRTCM1P ) = OR2 (  TEXT,CRTCM1 ) $
E3E5A( CRTCM0P ) = OR2 (  TEXT,CRTCM0 ) $
```

```
E3E5( BDOUT30 ) = AN2 (  E3C5O1,E3D4O1 ) $
E3G2( BDOUT33 ) = AN2 (  E3G3O1,E3F4O1 ) $
E3F2( BDOUT35 ) = AN3 (  E3B8O1,E3A5O1,E3B2O1 ) $
E3E3( BDOUT34 ) = AN3 (  E3F3O1,E3B8O1,E3A5O1 ) $
E2D1( BDOUT21 ) = AN2 (  EWIO010N,E2E1O1 ) $
E2D15( BDOUT24 ) = AN3 (  NIO3C7,EWIO010N,E2E14O1 ) $
E2D10( BDOUT23 ) = AN3 (  EWIO010N,E2C10O1,NIO3C7 ) $
E2B11( BDOUT27 ) = AN3 (  NIO3C7,EWIO010N,E2C12O1 ) $
E2A16( BDOUT26 ) = AN3 (  E2A13O1,EWIO010N,NIO3C7 ) $
E2A15( BDOUT22 ) = AN3 (  E2B10O1,EWIO010N,NIO3C7 ) $
E1F13( BDOUT25 ) = AN3 (  EWIO010N,NIO3C7,E1F11O1 ) $
D5D10( C5F3O1 ) = IVP (  CRTAQ1N ) $
D4B7( D5A1O1 ) = IVP (  CRTAQ0N ) $
D3E5( BDOUT31 ) = AN2 (  D3G6O1,D3F6O1 ) $
D3G1( D3G1O1 ) = IVP (  E3D6O1 ) $
D3H5( BDOUT32 ) = AN2 (  D3H6O1,D3G7O1 ) $
D2F10( ,D2F10NQ ) = FD3 (  NC/1/,NCRTLTH,D2F9O1,NPRESET ) $
D2H20( D2H20O1 ) = IVP (  E3B6O1 ) $
C2C4( C2C4O1 ) = AN4 (  C2B3O1,NGC05A0,B1G10O1,NGC04A0 ) $
C2E5( NGC06A0 ) = IVP (  GC06A0 ) $
C2D10( NGC08A0 ) = IVP (  GC08A0 ) $
C2D7( NGC04A0 ) = IVP (  GC04A0 ) $
C2D1( NGC05A0 ) = IVP (  GC05A0 ) $
C2C3( NGC01A0 ) = IVP (  GC01A0 ) $
C2B6( NGC07A0 ) = IVP (  GC07A0 ) $
C2A5( C2A5O1 ) = AN3 (  C2B4O1,B2G1O1,C2A3O1 ) $
C2A4( C2A4O1 ) = AN3 (  C2A2O1,B1E11O1,C2D4O1 ) $
P34A22( OP34A22 ) = AO7 (  VAL16REG,OP34A21,OP34A4 ) $
P34A21( OP34A21 ) = NR3 (  AMODE01,NIO3C01,PADDR00 ) $
P34A9( OP34A9 ) = ND3 (  VAL16REG,IBHE,OP34A11 ) $
P34A8( OP34A8 ) = ND2 (  PNADDR00,OP34A9 ) $
P34A11( OP34A11 ) = IV (  IOCMDRD ) $
P34A10( ADDR00 ) = B5I (  NADDR00 ) $
P34A7( NADDR00 ) = B5I (  OP34A8 ) $
P34A6( OP34A6,OP34A5 ) = IVDA (  OP34A22 ) $
P34A4( OP34A4 ) = ND2 (  PADDR00,NIBHE ) $
B1G14( NGC02A0 ) = IVP (  GC02A0 ) $
E1G10( E2E1O1 ) = ORA25 (  R3C2Q1,NIO3CC,NIO3CA,R3BDAQ1
   ,DACST1,NIO3C7
   ,NC/0/,NIO3BDA,EWIO3C2,NC/0/ ) $
C3D15H( MYS5,MYS1,MYS0,MYS4,MYS7,MYS3,MYS2
   ,MYS6 ) = MUX881 (  D5A1O1,C5F3O1,CRTAQQ2,B4B3O1,B3F13O1,C4E2O1
   ,C3F15O1,B4G1O1,C4F2O1,D4A6O1,C4F5O1,B5A5O1,B5B7O1
   ,B5G10O1,C5G9O1,C5G7O1,C5B4O1,C4G17O1,C5F2O1,B5C3O1
   ,B5D10O1,B5E6O1,C5D1O1,C5D9O1,C5B5O1,C4D14O1,C4E14O1
   ,B4C13O1,C4A7O1,B4D9O1,C4D7O1,C4D9O1,C4C10O1,D4A10O1
   ,C4G10O1,A4C1O1,C4A2O1,C4A3O1,C4C5O1,C4B4O1,C4C7O1
   ,C4A5O1,C4A4O1,A5B1O1,B5B4O1,B5F5O1,C5B2O1,C5A5O1
   ,B5F2O1,C4C14O1,B5G1O1,A5C6O1,A5D9O1,B5D8O1,C5C5O1
   ,C5C11O1,B5E3O1,C4A11O1,B4G14O1,B4A1O1,B4D1O1,B4F1O1
   ,C3F14O1,C3E14O1,C3D12O1,C3E15O1,C3D16O1 ) $
C3D15A( B4B3O1,B5A5O1,B5C3O1,B4C13O1,A4C1O1,A5B1O1,A5C6O1
   ,B4A1O1 ) = MUX851 (  HORT0,CRTC8Q0,VERRS0,BAROUT00,LINEC0,HORT1
   ,CRTC8Q1,VERRS1,BAROUT01,LINEC1,HORT4,CRTC8Q4,VERRS4
   ,BAROUT04,LINEC4,HORT5,CRTC8Q5,VERRS5,BAROUT05,LINEC5
   ,HORT6,CRTC8Q6,VERRS6,BAROUT06,LINEC6,HORT2,CRTC8Q2
   ,VERRS2,BAROUT02,LINEC2,HORT3,CRTC8Q3,VERRS3,BAROUT03
   ,LINEC3,HORT7,CRT00T7,CRT08TF,NC/0/,VERRS7,CRT10T7
   ,CRT20T7,BAROUT07,CRT18TF,LINEC7 ) $
C3D15B( C4F5O1,C5F2O1,C4E14O1,C4G10O1,C4A4O1,B5G1O1,B4G14O1
   ,C3D16O1 ) = MUX851 (  CRT07Q0,CURADD00,CRTCM0,ROWCNT0
   ,GC00A0,CRT07Q1
```

```
   ,CURADD01,CRTCM1,ROWCNT1,GC01A0,CRT07Q4,CURADD04,NC/0/
   ,ROWCNT4,GC04A0,CRT07Q5,CURADD05,CRTCM5,PLNSHIFT,GC05A0
   ,CRT07Q6,CURADD06,CRTCM6,NAMXCPU,GC06A0,CRT07Q2,CURADD02
   ,CRTCM2,ROWCNT2,GC02A0,CRT07Q3,CURADD03,CRTCM3,ROWCNT3
   ,GC03A0,CRT07Q7,CRT00T7,CRT08TF,CURADD07,CRTRSB,CRT10T7
   ,CRT20T7,D2H14O1,CRT18TF,GC07A0 ) $
C3D15C( D4A6O1,C4G17O1,C4D14O1,D4A10O1,C4A5O1,C4C14O1,C4A11O1
   ,C3E15O1 ) = MUX851 (  VERT0,CURADD08,VERBE0,ATTA0,NEQMAXSL
   ,VERT1
   ,CURADD09,VERBE1,ATTA1,GC08A0,VERT4,CURADD12,VERBE4
   ,ATTA4,PL0SHO,VERT5,CURADD13,VERBE5,ATTA5,PL1SHO
   ,VERT6,CURADD14,VERBE6,CRTLTH,PL2SHO,VERT2,CURADD10
   ,VERBE2,ATTA2,NIO3CEFM,VERT3,CURADD11,VERBE3,ATTA3
   ,NC/0/,VERT7,CRT00T7,CRT08TF,CURADD15,VERBE7,CRT10T7
   ,CRT20T7,CPULTH,CRT18TF,PL3SHO ) $
C3D15D( C4F2O1,C5B4O1,C5B5O1,C4C10O1,C4C7O1,B5F2O1,B5E3O1
   ,C3D12O1 ) = MUX851 (  HORRE0,STADDQ00,VERBS0,BLANK5
   ,B4B10O1,HORRE1
   ,STADDQ01,VERBS1,C3F7Q,B5C5O1,HORRE4,STADDQ04,VERBS4
   ,C3G8Q,ENDHORB,HORRE5,STADDQ05,VERBS5,D3B11Q,NT26
   ,HORRE6,STADDQ06,VERBS6,D3B10Q,B4F19O1,HORRE2,STADDQ02
   ,VERBS2,D3A4O1,B4F8O1,HORRE3,STADDQ03,VERBS3,D2B16O1
   ,ENDHORRE,HORRE7,CRT00T7,CRT08TF,STADDQ07,VERBS7,CRT10T7
   ,CRT20T7,ATTA5N,CRT18TF,C4G13O1 ) $
C3D15E( C3F15O1,C5G9O1,C5D1O1,C4D7O1,C4C5O1,C5B2O1,C5C5O1
   ,C3F14O1 ) = MUX851 (  HORBE0,CURSE0,OFFSET0,PELP0O,NT94,HORBE1
   ,CURSE1,OFFSET1,PELP1O,NT95,HORBE4,CURSE4,OFFSET4
   ,PELP0D,NT98,HORBE5,CURSK0,OFFSET5,PELP1D,NT99
   ,HORBE6,CURSK1,OFFSET6,PELPI2,NT100,HORBE2,CURSE2
   ,OFFSET2,PELPO2,NT96,HORBE3,CURSE3,OFFSET3,PELP3O
   ,NT97,HORBE7,CRT00T7,CRT08TF,NC/0/,OFFSET7,CRT10T7
   ,CRT20T7,PELP3D,CRT18TF,NT101 ) $
C3D15F( C4E2O1,B5G10O1,B5E6O1,B4D9O1,C4A3O1,B5F5O1,B5D8O1
   ,B4F1O1 ) = MUX851 (  HORB0,CURST0,VERDE0,MRDATA0,NT86,HORB1
   ,CURST1,VERDE1,MRDATA1,NT87,HORB4,CURST4,VERDE4
   ,MRDATA4,NT90,HORB5,CURST5,VERDE5,MRDATA5,NT91
   ,HORB6,NC/0/,VERDE6,MRDATA6,NT92,HORB2,CURST2
   ,VERDE2,MRDATA2,NT88,HORB3,CURST3,VERDE3,MRDATA3
   ,NT89,HORB7,CRT00T7,CRT08TF,NC/0/,VERDE7,CRT10T7
   ,CRT20T7,MRDATA7,CRT18TF,NT93 ) $
C3D15G( B3F13O1,B5B7O1,B5D10O1,C4A7O1,C4A2O1,B5B4O1,A5D9O1
   ,B4D1O1 ) = MUX851 (  HORDI0,MAXSL0,VERRE0,PLACL0,B4G5Q,HORDI1
   ,MAXSL1,VERRE1,PLACL1,B4G4Q,HORDI4,MAXSL4,NVERINC
   ,ENACP0,C3C11O1,HORDI5,LINEC9,NVERINE,ENACP1,ACCLA
   ,HORDI6,VERBS9,REF5PL,ENACP2,NCHRCLK,HORDI2,MAXSL2
   ,VERRE2,PLACL2,D3A11O1,HORDI3,MAXSL3,VERRE3,PLACL3
   ,C5D6O1,HORDI7,CRT00T7,CRT08TF,NT46,PROT07,CRT10T7
   ,CRT20T7,ENACP3,CRT18TF,C3D7O1 ) $
E2F10A( DATAOUT0,DATAOUT1,DATAOUT2,DATAOUT3,DATAOUT4,DATAOUT5
   ,DATAOUT6
   ,DATAOUT7 ) = RED8L1 (  R3D6Q0,R3D6Q1,R3D6Q2,R3D6Q3,R3D6Q4
   ,R3D6Q5
   ,R3D6Q6,R3D6Q7,D5A1O1,C5F3O1,CRTAQQ2,CRTAQQ3,CRTAQQ4
   ,CRTAQQ5,NC/0/,NC/0/,ATTA0,ATTA1,ATTA2,ATTA3
   ,ATTA4,ATTA5,NC/0/,NC/0/,SEQA0,SEQA1,SEQA2
   ,NC/0/,NC/0/,NC/0/,NC/0/,NC/0/,GCAQ0,GCAQ1
   ,GCAQ2,GCAQ3,NC/0/,NC/0/,NC/0/,NC/0/,NC/0/
   ,NC/0/,NC/0/,NC/0/,NC/0/,NC/0/,NC/0/,NC/0/
   ,NC/0/,NC/0/,NC/0/,NC/0/,NC/0/,NC/0/,NC/0/
   ,NC/0/,NC/0/,NC/0/,NC/0/,NC/0/,NC/0/,NC/0/
   ,NC/0/,NC/0/,OP13A1A,EIO3BD45,NIO3C01,NIO3C45,NIO3CEF
   ,NC/1/,NC/1/,NC/1/ ) $
```

```
E2F10( NT17,DATAOUT9,NT16,NT12,NT15,NT13,DATAOUT8
   ,NT14 ) = RED8L1 (  BDOUT07,BDOUT01,BDOUT06,BDOUT02,BDOUT05
   ,BDOUT03
   ,BDOUT00,BDOUT04,BDOUT17,BDOUT11,BDOUT16,BDOUT12,BDOUT15
   ,BDOUT13,BDOUT10,BDOUT14,BDOUT27,BDOUT21,BDOUT26,BDOUT22
   ,BDOUT25,BDOUT23,BDOUT20,BDOUT24,BDOUT37,BDOUT31,BDOUT36
   ,BDOUT32,BDOUT35,BDOUT33,BDOUT30,BDOUT34,NC/0/,BDOUT41
   ,NC/0/,BDOUT42,BDOUT45,BDOUT43,BDOUT40,BDOUT44,R3B8Q7
   ,R3B8Q1,R3B8Q6,R3B8Q2,R3B8Q5,R3B8Q3,R3B8Q0,R3B8Q4
   ,NC/0/,R3D9Q1,NC/0/,R3D9Q2,R3D9Q5,R3D9Q3,R3D9Q0
   ,R3D9Q4,O3D7P7,O3D7P1,O3D7P6,O3D7P2,O3D7P5,O3D7P3
   ,O3D7P0,O3D7P4,EIO3BD45,NIO3CEF,NT116,NIO3C01,NIO3C45
   ,EN3BD8,AEN3D9,OP13A1A ) $
C5F5( C4D9O1,C4B4O1,B4G1O1,C3E14O1,C5G7O1,C5D9O1,C5C11O1
   ,C5A5O1 ) = MUX851 (  HORRS5,STADDQ13,UNDER5,C1F12O1
   ,ENDVBLNK,HORRS7
   ,STADDQ15,NC/0/,SELATTD,LCOMP,HORRS6,STADDQ14,UNDER6
   ,TXTSHO,EQCURAD,HORRS4,STADDQ12,UNDER4,C1G12O1,STVERB
   ,HORRS3,STADDQ11,UNDER3,PRAMSAB,ENDVERDE,HORRS2,STADDQ10
   ,UNDER2,PRAMSBC,EQVTOT,HORRS0,STADDQ08,UNDER0,E5D2Q
   ,STVERR,HORRS1,CRT00T7,CRT08TF,STADDQ09,UNDER1,CRT10T7
   ,CRT20T7,E5B1Q,CRT18TF,ENDVSYNC ) $
RD2B2( MUXREG0,MUXREG1,MUXREG2,MUXREG3,MUXREG4,MUXREG5,MUXREG6
   ,MUXREG7 ) = READ2I (  DATAOUT8,DATAOUT9,NT12,NT13,NT14,NT15
   ,NT16,NT17,DATAOUT0,DATAOUT1,DATAOUT2,DATAOUT3,DATAOUT4
   ,DATAOUT5,DATAOUT6,DATAOUT7,OP34A6,OP34A5 ) $
RD2B4( DOUT8,DOUT9,DOUT10,DOUT11,DOUT12,DOUT13,DOUT14
   ,DOUT15 ) = READ2I (  MRDATA0,MRDATA1,MRDATA2,MRDATA3
   ,MRDATA4,MRDATA5
   ,MRDATA6,MRDATA7,DATAOUT8,DATAOUT9,NT12,NT13,NT14
   ,NT15,NT16,NT17,NT38,IOCMDRD ) $
RD2B1( DOUT0,DOUT1,DOUT2,DOUT3,DOUT4,DOUT5,DOUT6
   ,DOUT7 ) = READ2I (  MDOUT0,MDOUT1,MDOUT2,MDOUT3,MDOUT4,MDOUT5
   ,MDOUT6,MDOUT7,MUXREG0,MUXREG1,MUXREG2,MUXREG3,MUXREG4
   ,MUXREG5,MUXREG6,MUXREG7,NT38,IOCMDRD ) $
E4A6N( E4A6O1N ) = IV (  EIO3BD45 ) $
P11A21( DATAEN,ADDRENIN, ) = BD2T (  OP11A16,CHRESET,NC/1/,NC/0/
    ) $
RB327( OP11A21A ) = IV (  ADDRENIN ) $
P16A10( RDHI,RDHIIN, ) = BD2T (  OP16A3,CHRESET,NC/1/,NC/0/
    ) $
P16A9( RDLO,RDLOIN, ) = BD2T (  OP16A5,CHRESET,NC/1/,NC/0/
    ) $
A3F7( AD06,DIN6, ) = BD2T (  DOUT6,NC/0/,ENBDBUS,NC/0/
    ) $
A5F6( AD02,DIN2, ) = BD2T (  DOUT2,NC/0/,ENBDBUS,NC/0/
    ) $
F1F5( AD00,DIN0, ) = BD2T (  DOUT0,NC/0/,ENBDBUS,NC/0/
    ) $
F4F1( AD07,DIN7, ) = BD2T (  DOUT7,NC/0/,ENBDBUS,NC/0/
    ) $
F3F2( AD05,DIN5, ) = BD2T (  DOUT5,NC/0/,ENBDBUS,NC/0/
    ) $
F5F5( AD04,DIN4, ) = BD2T (  DOUT4,NC/0/,ENBDBUS,NC/0/
    ) $
F2F2( AD03,DIN3, ) = BD2T (  DOUT3,NC/0/,ENBDBUS,NC/0/
    ) $
F2F4( AD01,DIN1, ) = BD2T (  DOUT1,NC/0/,ENBDBUS,NC/0/
    ) $
C5H6( AD09,DIN9, ) = BD2T (  DOUT9,NC/0/,OP16A6,NC/0/
    ) $
D5I2( AD10,DIN10, ) = BD2T (  DOUT10,NC/0/,OP16A6,NC/0/
```

```
    ) $
A2F4( AD11,DIN11, ) = BD2T (  DOUT11,NC/0/,OP16A6,NC/0/
    ) $
F4F2( AD12,DIN12, ) = BD2T (  DOUT12,NC/0/,OP16A6,NC/0/
    ) $
C5H3( AD13,DIN13, ) = BD2T (  DOUT13,NC/0/,OP16A6,NC/0/
    ) $
A1F11( AD14,DIN14, ) = BD2T (  DOUT14,NC/0/,OP16A6,NC/0/
    ) $
F5F4( AD15,DIN15, ) = BD2T (  DOUT15,NC/0/,OP16A6,NC/0/
    ) $
F4F4( AD08,DIN8, ) = BD2T (  DOUT8,NC/0/,OP16A6,NC/0/
    ) $
P3A32( DS16 ) = BT4 (  OP3A30,NC/0/,NC/1/ ) $
BCS16A( ,IOCS16D ) = YFD2 (  NC/1/,DOTCLK,OP3A24 ) $
BCS16B( BCS16BZ ) = IV (  IOCS16D ) $
P3A31( VGAREQ ) = BT8 (  OP3A24,ENIOCS16,NC/1/ ) $
A1F6( PALRD ) = BT4 (  NDACRD,NC/0/,HIC5 ) $
P8A6( TRAP ) = BT8 (  OP8A5,TRAPEN,OP8A11 ) $
A1F7( PALWR ) = BT4 (  NDACWR,NC/0/,HIC5 ) $
A5F1( WE ) = BT4 (  NRAMWR,NC/0/,HIM5C5 ) $
E1I4( ACDCLK ) = BT2 (  IACDCLK,NC/0/,HIC5 ) $
E3E8N( E3E8O1N ) = IV (  NWT3C0 ) $
E3E8( WTATTA ) = ND3 (  E3E8O1N,OP20A11,NT68 ) $
E4A6( E4A6O1 ) = ND2 (  E4A6O1N,CRTC10 ) $
E4B1( E4B1O1 ) = ND2 (  E4A6O1N,CRTC11 ) $
E3E9N( E3E9O1N ) = IV (  NADDR00 ) $
E3E9( E3E9O1 ) = ND3 (  E3E9O1N,ATTA5N,ATTA4N ) $
F1B2( ENACCMEM ) = ND2 (  R46E8Q3,NT42 ) $
F2E1N( F2E1O1N ) = IV (  NWT3C45 ) $
F2E1( NT118 ) = ND3 (  F2E1O1N,PNADDR00,OF2E1A ) $
E1G62( AH7 ) = ND4 (  ADDR02,NADDR03,ADDR00,ADDR01 ) $
E1G61( AH8 ) = ND4 (  NADDR02,ADDR03,NADDR01,NADDR00 ) $
E1G6( AH7O8 ) = ND2 (  AH8,AH7 ) $
E1H42( IO3C89 ) = AN4 (  NADDR02,OA03CXA,ADDR03,NADDR01 ) $
E1H41( IO3C67 ) = AN4 (  ADDR01,OA03CXA,NADDR03,ADDR02 ) $
E1H4( N3C6789 ) = NR2 (  IO3C67,IO3C89 ) $
F1A32( IO3C8O9 ) = AN4 (  ADDR03,NADDR01,NADDR02,OA03CXA ) $
F1A31( IO3C6 ) = AN4 (  ADB10,OA03CXA,NADDR03,ADDR02 ) $
F1A3( NIO3C689 ) = NR2 (  IO3C6,IO3C8O9 ) $
E1H10( OE1H10 ) = MUX21L (  EIO03BX,EID45,R3C2Q0 ) $
RB459( NIO3BDA ) = ND3P (  OE1H10,AHA,NT3FF ) $
RB460( EIO3BD45 ) = ND3P (  OE1H10,ADDR010X,NT3FF ) $
P29A5( WR3D714 ) = ND3 (  OP29A3,N3D7WR2,R3D6NQ0 ) $
P29A4( WR3D715 ) = ND3 (  OP29A3,N3D7WR2,R3D6Q0 ) $
P29A3( OP29A3 ) = NR5 (  OP7A18,R3D6NQ4,R3D6Q3,R3D6NQ2,R3D6Q1 ) $
P29A26( WR3D708 ) = ND3 (  OP29A1,N3D7WR2,R3D6NQ0 ) $
P29A2( WR3D709 ) = ND3 (  OP29A1,N3D7WR2,R3D6Q0 ) $
P29A1( OP29A1 ) = NR5 (  OP7A18,R3D6Q4,R3D6NQ3,R3D6Q2,R3D6Q1 ) $
R3D728( R3D728Q0,NT74,R3D728Q1,,R3D728Q2,,R3D728Q3
   , ) = LDG4R (  NRESET,WR3D728,DATAIN00,DATAIN01,DATAIN02
   ,DATAIN03
    ) $
R3D715( R3D715Q0,NT68,R3D715Q1,,R3D715Q2,,R3D715Q3
   ,,R3D715Q4,,R3D715Q5,,R3D715Q6,NT69
   ,, ) = LDG8R (  NRESET,WR3D715,DATAIN00,DATAIN01,DATAIN02
   ,DATAIN03,DATAIN04,DATAIN05,DATAIN06,DATAIN07 ) $
R3D72B( R3D72BQ0,,R3D72BQ1,,R3D72BQ2,,R3D72BQ3
   ,,R3D72BQ4,,R3D72BQ5,,R3D72BQ6,
   ,R3D72BQ7, ) = LDG8R (  NRESET,WR3D72B,DATAIN00,DATAIN01
   ,DATAIN02
   ,DATAIN03,DATAIN04,DATAIN05,DATAIN06,DATAIN07 ) $
```

```
R3D714( R3D714Q0,NT63,R3D714Q1,NT64,R3D714Q4,NT65,R3D714Q5
   ,NT66,R3D714Q6,NT67,R3D714Q7, ) = LDG6R (  NRESET,WR3D714
   ,DATAIN00,DATAIN01,DATAIN04,DATAIN05,DATAIN06,DATAIN07 ) $
R3D709( R3D709Q0,NT62,R3D709Q1, ) = LDG2R (  NRESET,WR3D709
   ,DATAIN00
   ,DATAIN01 ) $
R3D708( R3D708Q0,NT61,R3D708Q1,,R3D708Q2, ) = LDG3R (  NRESET
   ,WR3D708,DATAIN00,DATAIN01,DATAIN02 ) $
CTR4H( CTR4HZ ) = IV (  CTR4IQ ) $
CTR4R( CTR4RZ ) = IV (  CTR4HZ ) $
CTR4I( CTR4IQ, ) = FT2 (  IMCLK,NRESET ) $
CTR4J( CTR4JZ ) = NR2P (  CHRESET,CTR4NZ ) $
CTR4N( CTR4NZ ) = NR2 (  PIOCMDWR,CTR4KZ ) $
CTR4L( CTR4LZ ) = OR2 (  CTR4NZ,CTR4EZ ) $
CTR4K( CTR4KZ ) = ND2 (  CTR4CQN,CTR4AQN ) $
CTR4A( CTR4AQ,CTR4AQN ) = YFD2 (  CTR4BQN,CTR4RZ,CTR4JZ ) $
CTR4C( CTR4CQ,CTR4CQN ) = YFD2 (  CTR4DQN,CTR4HZ,CTR4JZ ) $
CTR4B( CTR4BQ,CTR4BQN ) = FD3 (  CTR4AQ,CTR4RZ,CTR4JZ,CTR4LZ ) $
CTR4D( CTR4DQ,CTR4DQN ) = FD3 (  CTR4CQ,CTR4HZ,CTR4JZ,CTR4LZ ) $
CTR4E( CTR4EZ ) = ND2 (  CTR4DQ,CTR4BQ ) $
CTR4F( CTR4FZ ) = AO7 (  CTR4KZ,PIOCMDWR,CTR4EZ ) $
CTR4M( ,IOCMDWR ) = B2I (  CTR4FZ ) $
CTR4G( CTR4GZ ) = AO3 (  EN16IOWR,PADDR00,CTR4KZ,IOCMDWR ) $
CTR4P( IOEN2 ) = IVP (  CTR4GZ ) $
CTR4O( IOWR2 ) = IVP (  CTR4KZ ) $
P22A15( IIOW ) = IV (  ISETUP ) $
P22A14( NMIO ) = IV (  IMIO ) $
P22A12( NT43 ) = IVP (  OP22A10 ) $
P22A10( OP22A10 ) = IV (  NIS0 ) $
P22A7( OP22A7 ) = ND2 (  NIS1,NT42 ) $
P22A6( PIOCMDWR ) = IV (  OP22A4 ) $
P22A4( OP22A4 ) = ND2 (  IIOW,NIMIO ) $
P22A3( NIOCMDRD ) = NR2 (  PCIOR,IVGACMD ) $
P22A3A( IOCMDRD ) = IVP (  NIOCMDRD ) $
P22A1( PCIOR ) = ND2 (  NIMIO,NT42 ) $
P18A15( OP18A15 ) = ND2 (  OP18A7,R3D703Q0 ) $
P18A7( OP18A7 ) = NR3 (  OP18A3,OP18A4,OP22A7 ) $
P18A4( OP18A4 ) = ND2 (  IADDHI,NADDR15 ) $
P18A3( OP18A3 ) = ND3 (  ADDR18,NADDR17,NADDR16 ) $
P19A1( VAL16REG ) = ND5P (  NIO3C45,EIO3BD45,NIO3CEF,OP13A1
   ,OP19A13 ) $
P11A33( OP11A33, ) = TLCHT (  S1,NC/0/ ) $
RB328( ISENSE, ) = TLCHT (  SENSE,NC/1/ ) $
P11A31( OP11A31, ) = TLCHT (  S0,NC/0/ ) $
P11A20( NSETUP ) = IV (  OP11A20B ) $
RB326( OP11A20B ) = IV (  OP21A7 ) $
P11A16( OP11A16I ) = ND3 (  ICMD,OP18A15,SLEEPONN ) $
RB153( CRTCM2,NCRTCM2 ) = LD2 (  DATAIN02,NT115 ) $
P11A15( IMIO,NIMIO ) = LD2P (  UIMIO,OP2A29 ) $
P11A12( IVGACMD, ) = TLCHT (  VGACMD,NC/0/ ) $
P11A7A( NICMD ) = IVP (  ICMD ) $
P11A7( ICMD ) = ND2 (  IVGACMD,OP11A6 ) $
P11A6( OP11A6 ) = IV (  OP11A4 ) $
P11A4( OP11A4 ) = ND3 (  OP11A33,OP11A31,ISETUP ) $
P11A2( NIS1 ) = IV (  OP11A33 ) $
P11A1( NIS0 ) = IV (  OP11A31 ) $
P3A35( NT102 ) = IVP (  NVACCMEM ) $
P3A30( OP3A30 ) = IVP (  R3D702Q0 ) $
P3A24( OP3A24 ) = IVP (  VAL16REG ) $
P3A18( NT28 ) = NR2 (  OP3A16N,MEMCMDWR ) $
P3A17( NT27 ) = NR2 (  OP22A7,OP3A16N ) $
P3A16( OP3A16N ) = ND4 (  R3D702Q0,NT102,IBHE,PNADDR00 ) $
```

```
P3A15( EN16IOWR ) = NR2 (  OP3A4,IOWR2 ) $
P3A4( OP3A4 ) = ND2 (  VAL16REG,IBHE ) $
RB329( O16A3TES, ) = LD3 (  OP16A3,IMCLK,R3D77FQ7 ) $
P16A6( OP16A6I ) = OR4 (  OP16A3,OP11A21A,RDHIIN,O16A3TES ) $
RB201( OP16A6 ) = IVP (  OP16A6I ) $
P16A5( OP16A5 ) = AN2 (  D2G2O1A,NDACRD ) $
P16A3A( OP16A3A ) = ND2 (  VAL16REG,IBHE ) $
P16A3B( OP16A3B ) = NR2 (  OP16A3A,IOCMDRD ) $
P16A3( OP16A3 ) = NR3 (  OP16A1,NT27,OP16A3B ) $
P16AC( OP16A2C ) = AN2 (  OP16A3B,PADDR00 ) $
P16A2( D2G2O1A ) = OR3 (  NMEMIORD,OP16A2A,OP16A2C ) $
P16A2B( OP16A2B ) = IV (  NT38 ) $
P16A2A( OP16A2A ) = AN4 (  R3D702Q0,IBHE,PADDR00,OP16A2B ) $
P16A1( OP16A1 ) = NR5 (  NT56,PNADDR00,NIBHE,OP22A7,NVACCMEM ) $
P8A16A( ,R3D717Q5 ) = FD2 (  NC/1/,RD3D717,T3D45Q ) $
P8A16( ,R3D717Q4 ) = FD2 (  NC/1/,RD3D717,T3D83D9 ) $
P8A15( ,R3D717Q3 ) = FD2 (  NC/1/,RD3D717,T3D45 ) $
P8A14( ,R3D717Q2 ) = FD2 (  NC/1/,RD3D717,T3CX ) $
P8A13( ,R3D717Q1 ) = FD2 (  NC/1/,RD3D717,T3B83BF ) $
P8A12( ,R3D717Q0 ) = FD2 (  NC/1/,RD3D717,T3B45 ) $
P8A11( OP8A11 ) = AO2 (  R3D709Q1,OP8A10,SLEEPON,NORMPINF ) $
P8A10( OP8A10 ) = IV (  R3D708Q1 ) $
P8A9( OP8A9 ) = IV (  R3D709Q1 ) $
P8A8( OP8A8 ) = AN2 (  R3D708Q1,R3D709Q1 ) $
P8A7( OP8A7 ) = AN2 (  R3D708Q1,OP8A9 ) $
P8A5( OP8A5 ) = OR2 (  OP8A4,OP8A8 ) $
P8A4( OP8A4 ) = NR6 (  R3D717Q0,R3D717Q1,R3D717Q2,R3D717Q3
   ,R3D717Q4,OP8A7
    ) $
P8A3( OP8A3 ) = OR2 (  EN3D717,IOCMDRD ) $
P8A3A( RD3D717 ) = AN2 (  OP8A3,NRESET ) $
P8A1( EN3D717 ) = ND3 (  OP7A1,R3D6Q0,ADDR00 ) $
P6A3( WR3BF ) = OR2 (  EN3BF,IOCMDWR ) $
P6A2( AWR3D9 ) = OR2 (  EN3D9,IOCMDWR ) $
P6A1( WR3BD8 ) = OR2 (  EN3BD8,IOCMDWR ) $
R3D70B( R3D70BQ0,NT53,R3D70BQ1, ) = LDG2R (  NRESET,WR3D70B
   ,DATAIN00
   ,DATAIN01 ) $
R3D704( R3D704Q0,,R3D704Q1,,R3D704Q2,,R3D704Q3
   , ) = LDG4R (  NRESET,WR3D704,DATAIN00,DATAIN01,DATAIN02
   ,DATAIN03
    ) $
R3BF( R3BFQ0,,R3BFQ1,R3BFNQ1 ) = LDG2R (  NRESET,WR3BF,DATAIN00
   ,DATAIN01 ) $
R3D9( R3D9Q0,,R3D9Q1,,R3D9Q2,,R3D9Q3
   ,,R3D9Q4,,R3D9Q5, ) = LDG6R (  NRESET,WR3D9
   ,DATAIN00,DATAIN01,DATAIN02,DATAIN03,DATAIN04,DATAIN05 ) $
R3B8( R3B8Q0,,R3B8Q1,R3B8NQ1,R3B8Q2,,R3B8Q3
   ,R3B8NQ3,R3B8Q4,R3B8NQ4,R3B8Q5,,R3B8Q6,
   ,R3B8Q7, ) = LDG8R (  NRESET,WR3BD8,DATAIN00,DATAIN01,DATAIN02
   ,DATAIN03,DATAIN04,DATAIN05,DATAIN06,DATAIN07 ) $
P7A18( OP7A18 ) = ND3 (  R3D6NQ7,R3D6NQ6,R3D6NQ5 ) $
P7A40( OP7A40 ) = NR3 (  CRTAQ2N,OP7A42,OP7A41 ) $
P7A41( OP7A41 ) = IV (  CRTAQ4N ) $
P7A42( OP7A42 ) = IV (  CRTAQ3 ) $
P7A18A( OP7A18A ) = ND4 (  R3D6NQ7,R3D6NQ6,R3D6NQ5,ADDR00 ) $
P7A16( T3D83D9 ) = OR3 (  OP7A15,IOCMDWR,EID45 ) $
P7A15( OP7A15 ) = ND4 (  ADDR03,R3D716Q4,NADDR02,NADDR01 ) $
P7A12A( T3D45Q ) = OR4 (  OP7A9A,IO0T3FF,OP7A40,NIOEN2 ) $
P7A12( T3D45 ) = OR3 (  OP7A9,IO0T3FF,IOCMDWR ) $
P7A11( T3CX ) = OR2 (  OP7A10,IOCMDWR ) $
P7A10( OP7A10 ) = ND2P (  R3D716Q2,EWIO3CX ) $
```

```
P7A9A( OP7A9A ) = OR3 (  NT73,NADD010X,EIO3BD45 ) $
P7A9( OP7A9 ) = OR3 (  NT72,NADD010X,EID45 ) $
P7A8( NIOEN2 ) = IV (  IOEN2 ) $
P7A6A( OP7A6A ) = AN4 (  ADDR03,NADDR02,NADDR01,NADDR00 ) $
P7A7( T3B83BF ) = OR4 (  OP7A6,NT71,IOCMDWR,EIO03BX ) $
P7A6( OP7A6 ) = NR2 (  OP7A6A,OP10A7 ) $
P7A5( T3B45 ) = OR3 (  OP7A4,OP7A40,IOCMDWR ) $
P7A4A( NADD010X ) = IV (  ADDR010X ) $
P7A4( OP7A4 ) = OR3 (  NT70,EIO03BX,NADD010X ) $
R3D77F( R3D77FQ0,NT78,R3D77FQ1,NT79,R3D77FQ2,,R3D77FQ3
   ,,R3D77FQ4,NT80,R3D77FQ5,NT81,R3D77FQ6,NT82
   ,R3D77FQ7,,NT77 ) = TESTREG (  NRESET,WR3D77F,DATAIN00,DATAIN01
   ,DATAIN02,DATAIN03,DATAIN04,DATAIN05,DATAIN06,DATAIN07,IMCLK
    ) $
R3D716( R3D716Q0,NT70,R3D716Q1,NT71,R3D716Q2,,R3D716Q3
   ,NT72,R3D716Q4,,R3D716Q5,NT73 ) = LDG6R (  NRESET,WR3D716
   ,DATAIN00,DATAIN01,DATAIN02,DATAIN03,DATAIN04,DATAIN05 ) $
P7A3( WR3D716 ) = ND3 (  OP7A1,N3D7WR2,R3D6NQ0 ) $
P7A1( OP7A1 ) = NR6 (  R3D6NQ4,R3D6Q3,R3D6NQ2,R3D6NQ1,OP7A18,OP13A1
    ) $
P10A17( R3C2NQ0 ) = IV (  R3C2Q0 ) $
P718A2( EN3D716 ) = ND3 (  R3D6NQ0,OP7A1,ADDR00 ) $
P10A14( EN3BD8 ) = NR2 (  OP10A13,OP10A5 ) $
P10A13( OP10A13 ) = AN4 (  OP10A11,NADDR00,R3C2Q0,NT3FF ) $
P10A12( EN3D9 ) = ND3 (  OP10A11,ADDR00,NT3FF ) $
P10A11( OP10A11 ) = AN3 (  OP10A9,OP10A10,OP10A11A ) $
RB325( OP10A11A ) = IV (  EIO03DX ) $
P10A10( OP10A10 ) = AN3 (  ADDR03,NADDR02,NADDR01 ) $
P10A9( OP10A9 ) = OR2 (  OP10A8,R103Q7 ) $
P10A8( OP10A8 ) = NR2 (  R3D714Q1,NT63 ) $
P10A7( OP10A7 ) = AN4 (  ADDR00,ADDR01,ADDR02,ADDR03 ) $
P10A6( EN3BF ) = ND4 (  OP10A4,OP10A7,OP10A5C,NT3FF ) $
P10A5C( OP10A5C ) = IV (  EIO03BX ) $
P10A5( OP10A5 ) = AN4 (  OP10A2,OP10A5C,OP10A5A,R3C2NQ0 ) $
P10A5A( OP10A5A ) = AN4 (  NADDR00,NADDR01,NADDR02,ADDR03 ) $
P10A3( OP10A4 ) = AO7 (  NT63,NT64,R103NQ7 ) $
P10A2( OP10A2 ) = OR2 (  R3D714Q1,R103Q7 ) $
P10A1( VGAEM ) = AO7 (  R3D714Q1,R3D714Q1,R103NQ7 ) $
P15A21( NENERNIE ) = ND4 (  OP15A17,OP15A18,OP15A19,OP15A20 ) $
P15A20( OP15A20 ) = OR2 (  OP15A13,NEEN1 ) $
P15A19( OP15A19 ) = OR2 (  OP15A14,NEEN2 ) $
P15A18( OP15A18 ) = OR2 (  OP15A15,NEEN3 ) $
P15A17( OP15A17 ) = OR2 (  OP15A16,NEEN4 ) $
P15A16( OP15A16 ) = NR2 (  OP15A9,NEEN4 ) $
P15A15( OP15A15 ) = NR2 (  OP15A10,NEEN3 ) $
P15A14( OP15A14 ) = NR2 (  OP15A11,NEEN2 ) $
P15A13( OP15A13 ) = NR2 (  OP15A12,NEEN1 ) $
P15A12( OP15A12 ) = EO (  ADD16,R103Q0 ) $
P15A11( OP15A11 ) = EO (  ADD17,R103Q1 ) $
P15A10( OP15A10 ) = EO (  ADD18,R103Q2 ) $
P15A9( OP15A9 ) = EO (  NBHE,R103Q3 ) $
P15A8( NALTEN,ALTEN ) = YFD2 (  NENERNIE,WR103,NRESET ) $
P15A7( NEEN1 ) = IV (  OP15A6 ) $
P15A6( OP15A6 ) = OR2 (  OP15A4,R103Q1 ) $
P15A5( NEEN2 ) = IV (  OP15A4 ) $
P15A4( OP15A4 ) = OR2 (  OP15A3,R103Q2 ) $
P15A3( OP15A3 ) = OR2 (  R103Q4,R103Q3 ) $
P15A2( NEEN3 ) = IV (  OP15A3 ) $
P15A1( NEEN4 ) = IV (  R103Q4 ) $
R103( R103Q0,,R103Q1,,R103Q2,,R103Q3
   ,,R103Q4,,R103Q5,,R103Q6,R103NQ6
   ,R103Q7,R103NQ7 ) = LDG8R (  NRESET,WR103,DATAIN00,DATAIN01
```

```
   ,DATAIN02
   ,DATAIN03,DATAIN04,DATAIN05,DATAIN06,DATAIN07 ) $
BDSEL( OBDSEL ) = ND2 (  ODEQD,ODEQB ) $
DEQB( ODEQB ) = ND3 (  R103Q6,NADDR06,ADDR05 ) $
DEQD( ODEQD ) = ND3 (  R103NQ6,ADDR06,NADDR05 ) $
P12A10( WR103 ) = OR2 (  OP12A8,IOCMDWR ) $
P12A7( OP12A7 ) = ND3 (  OP12A5,OP12A6,OP12A3 ) $
P12A8( OP12A8 ) = ND3 (  OP12A5,OP12A6,OP12A4 ) $
P12A6( OP12A6 ) = IV (  OP12A6A ) $
P12A6A( OP12A6A ) = NR2 (  PSETUP,OP12A6B ) $
P12A6B( OP12A6B ) = IV (  NSETUP ) $
P12A5( OP12A5 ) = NR2 (  OP12A1,OP12A2 ) $
P12A4( OP12A4 ) = NR3 (  ADDR02,NADDR01,NADDR00 ) $
P12A3( OP12A3 ) = NR3 (  NADDR02,ADDR01,ADDR00 ) $
P12A2( OP12A2 ) = ND5 (  NADDR07,NADDR06,NADDR05,NADDR04
   ,NADDR03 ) $
P12A1( OP12A1 ) = ND4 (  NT3FF,NADDR09,ADDR08,NIMIO ) $
P14A9( WR3D77F ) = ND3 (  OP14A7,OP14A8,N3D7WR2 ) $
P14A8( OP14A8 ) = NR4 (  R3D6NQ3,R3D6NQ2,R3D6NQ1,R3D6NQ0 ) $
P14A7( OP14A7 ) = NR4 (  R3D6Q7,R3D6NQ6,R3D6NQ5,R3D6NQ4 ) $
P14A6( WR3D703 ) = ND4 (  OP14A1,N3D7WR2,R3D6Q1,R3D6Q0 ) $
P14A5( WR3D702 ) = ND4 (  OP14A1,N3D7WR2,R3D6Q1,OP14A2 ) $
P14A3( R3D703Q0 ) = IV (  NT60 ) $
P14A2( OP14A2 ) = IV (  R3D6Q0 ) $
P14A1( OP14A1 ) = NR6 (  R3D6Q7,R3D6Q6,R3D6Q5,R3D6Q4,R3D6Q3,R3D6Q2
    ) $
R3D703( NT60,,, ) = LDG2R (  NRESET,WR3D703,DATAIN00
   ,DATAIN01 ) $
P13A7( P3D7WR2 ) = ND2 (  IOEN2,OP13A3 ) $
P13A5( WR3D6 ) = ND2 (  OP13A4,PNADDR00 ) $
P13A4( OP13A4 ) = NR2 (  OP13A1,IOCMDWR ) $
P13A2( OP13A2 ) = NR4 (  ADDR03,NADDR02,NADDR01,R103NQ7 ) $
P13A1D( OP13A1D ) = IV (  ENR34 ) $
P13A1C( OP13A1C ) = IV (  EN3D77E ) $
P13A1A( OP13A1A ) = NR2 (  OP13A3,OP13A1D ) $
P13A1( OP13A1P ) = ND2 (  OA03DXA,OP13A2 ) $
P13A19( OP13A3,OP13A1 ) = B2I (  OP13A1P ) $
R3D6( ,R3D6NQ0,R3D6Q1,R3D6NQ1,R3D6Q2,R3D6NQ2,R3D6Q3
   ,R3D6NQ3,R3D6Q4,R3D6NQ4,R3D6Q5,R3D6NQ5,R3D6Q6,R3D6NQ6
   ,R3D6Q7,R3D6NQ7 ) = LD8L (  WR3D6,IDIN0,IDIN1,IDIN2,IDIN3
   ,IDIN4,IDIN5,IDIN6,IDIN7 ) $
R3D6A( R3D6Q0 ) = IVP (  R3D6NQ0 ) $
P17A3( NIBHE,IBHE ) = LD2 (  NBHE,OP2A29 ) $
P17A7( ADDR18,NADDR18 ) = LD2 (  ADD18,OP2A29 ) $
P17A6( ADDR17,NADDR17 ) = LD2 (  ADD17,OP2A29 ) $
P17A5( ADDR16,NADDR16 ) = LD2 (  ADD16,OP2A29 ) $
P17A4( IADDHI, ) = LD2 (  PADDHI,OP2A29 ) $
P21A7( OP21A7 ) = IV (  PSETUP ) $
R46E8( R46E8Q3,,PSETUP, ) = LDG2R (  NRESET,OP21A4,DATAIN03
   ,DATAIN04 ) $
P21A4( OP21A4 ) = OR4 (  OP21A1,OP21A2,OP21A3,IOCMDWR ) $
P21A3( OP21A3 ) = ND5 (  NADDR04,ADDR03,NADDR02,NADDR01,NADDR00 ) $
P21A2( OP21A2 ) = ND6 (  ADDR10,ADDR09,NADDR08,ADDR07,ADDR06,ADDR05
    ) $
P21A1( OP21A1 ) = ND4 (  NMIO,NADDR15,ADDR14,NADDR11 ) $
GCDEC( WTRGC04,GCAQ3,GCAQ2,GCAQ1,GCAQ0,WTRGC07,WTRGC06
   ,WTRGC01,WTRGC02,WTRGC00,WTRGC03,WTRGC05,WTRGC08,GC05A0
   ,GC08A0,GC03A0,GC06A0,GC04A0,GC01A0,GC07A0,GC00A0
   ,GC02A0,GC00A0N,GC03A0N ) = GCDEC2 (  IDIN3,IDIN2,IDIN1,IDIN0
   ,WTGCADDR,WT3CEF ) $
A4A5( LOM5 ) = IVP (  NT79 ) $
B3G11( NCLRHC ) = AN2 (  B3G11A,B3G11B ) $
```

```
RB101( B3G11B ) = NR2 (  IOCLRHC,ENDHOR ) $
RB100( B3G11A ) = B4IP (  CHRESET ) $
B5H6( UIMIO, ) = TLCHT (  MIO,NC/0/ ) $
C2C6( C2C6O1 ) = AN3 (  B1G11O1,NGC04A0,C2C5O1 ) $
P11A13( ISETUP, ) = TLCHT (  SETUP,NC/0/ ) $
D1B14( NWT3CEF ) = OR2 (  NIO3CEF,IOCMDWR ) $
D1F5( NDACWR ) = OR3 (  IOCMDWR,N3C6789,R3D715Q5 ) $
D1B15( D1B15O1 ) = IV (  NWT3CEF ) $
D1G2( PLOC5 ) = IV (  NT78 ) $
RB178( D2G2OTES, ) = LD3 (  D2G2O1A,IMCLK,R3D77FQ7 ) $
D1F12( ENBDBUSI ) = OR4 (  D2G2O1A,OP11A21A,RDLOIN,D2G2OTES ) $
RB200( ENBDBUS ) = IVP (  ENBDBUSI ) $
D2E3( NT39 ) = ND2 (  NT43,NT102 ) $
D2E4( NT38 ) = OR2 (  NVACCMEM,OP22A7 ) $
D2B1( WTGCADDR ) = ND4 (  D1B15O1,ADDR01,PNADDR00,NT68 ) $
D2B2A( WT3CEF ) = AN3 (  D2B2O1A,IOEN2,NT68 ) $
D2B2( D2B2O1A ) = NR2 (  NADDR01,NIO3CEF ) $
D2H2A( PD2H2A ) = ND4 (  EN3D9,EN3BD8,OP13A1P,NIO3CEF ) $
D2H2AI( OD2H2A ) = IV (  PD2H2A ) $
D2H2B( OD2H2B ) = OR2 (  ENR34,NSETUP ) $
D2H2( NIOREG ) = AN3 (  NIOREG1,OD2H2A,OD2H2B ) $
D2E5( NIO3CEFM ) = AN2 (  NIO3CEF,NT38 ) $
P1A33( NT106, ) = TLCHT (  ENABLE,NC/0/ ) $
P1A34( ,NOP1A34 ) = LD2 (  NT106,ICMD ) $
P1A36( NT42 ) = IV (  NOP1A34 ) $
E1H6( NWTDACS ) = OR3 (  NIO3C78,IOCMDWR,R3D715Q5 ) $
E1F7( NIO3CEF ) = ND4P (  ADDR02,ADDR01,ADDR03,EWIO3CX ) $
E1G4( NIO3C01 ) = ND4 (  NADDR03,EWIO3CX,NADDR01,NADDR02 ) $
E1H7A( OE1H7A ) = ND3 (  NADDR03,ADDR02,NADDR01 ) $
E1H7( ADDR010X ) = MUX21L (  ADDR03,OE1H7A,VGAEM ) $
E1H2( NDACRD ) = OR2 (  IOCMDRD,NIO3C689 ) $
E2G5( IOCLRHC, ) = YFD2 (  SEQ7OF,WT3C5,NRESET ) $
RB170( DACST0, ) = LD2 (  ADDR00,NWTDACS ) $
RB171( DACST1, ) = LD2 (  ADDR01,NWTDACS ) $
E2E6( BDOUT41 ) = AN2 (  E2F5O1,NSEQ1 ) $
E2F6( BDOUT43 ) = AN3 (  ADDR00,E2H9O1,NSEQ0 ) $
E2G4( SEQ7OF ) = AN3 (  SEQA0,SEQA1,SEQA2 ) $
E2G6( BDOUT40 ) = AN2 (  F2B8O1,NSEQ4 ) $
E2B3( WT3BDA ) = OR3 (  IOCMDWR,NIO3BDA,R3D715Q4 ) $
E2D3( RD3BDA ) = OR2 (  IOCMDRD,NIO3BDA ) $
P20A8( OP20A8 ) = AN2 (  RD3BDA,NAMODE01 ) $
E2C4( EWIO010N ) = ND2P (  E2C5O1,ADDR01 ) $
E2D5( VGAENW ) = ND2 (  NSETUP,POS102Q0 ) $
E2G7( E2G7O1 ) = ND2 (  SEQ03,ADDR00 ) $
E2G8( WTRSEQ01 ) = ND2 (  SEQ01,WT3C5 ) $
E2H3( WRSEQ00 ) = ND2 (  SEQ00,WT3C5 ) $
E2H7( WTRSEQ03 ) = ND2 (  SEQ03,WT3C5 ) $
E2H8( NSEQ1 ) = ND2 (  SEQ01,ADDR00 ) $
E2C5( E2C5O1 ) = NR4 (  ADDR02,IMIO,NSETUP,ADDR00 ) $
E2F3( NWT3C0 ) = OR3 (  NIO3C01,OP20A1,IOCMDWR ) $
P20A7( AMODE02 ) = NR2 (  R3D702Q3,NT58 ) $
P20A5( NAMODE01 ) = IVP (  AMODE01 ) $
P20A4( AMODE01 ) = NR2 (  R3D702Q4,NT57 ) $
P20A2( AMODE00 ) = NR2 (  R3D702Q3,R3D702Q4 ) $
P20A1( OP20A1 ) = NR2 (  AMODE02,PNADDR00 ) $
E2F7( BDOUT42 ) = AN2 (  F2A11O1,NSEQ0 ) $
A03BX( EINN3BX ) = ND4 (  NADDR06,NVGENW,ADDR05,ADDR04 ) $
A3DXA( OA03DXA ) = NR2 (  IO0XHX,EIO03DX ) $
A3BXG( EIO03BX ) = OR2 (  EINN3BX,EIO3XX ) $
A3DXG( EIO03DX ) = OR2 (  EINN3DX,EIO3XX ) $
A3CXG( XXIO3CX ) = OR2 (  XXNN3CX,EIO3XX ) $
A3DXGA( EID45 ) = OR2 (  OA3DXA,EIO3XX ) $
```

```
A03DXA( OA3DXA ) = ND4 (  ADDR06,NADDR05,ADDR04,NVGENW ) $
A03DX( EINN3DX ) = ND3 (  OBDSEL,NVGENW,ADDR04 ) $
E3A5( E3A5O1 ) = ND2 (  E3D8O1,ATTX4 ) $
E3A6( WTRATT34 ) = ND2 (  ATTX4,WTATT1X ) $
E3A8( WTRATT30 ) = ND2 (  ATTX0,WTATT1X ) $
E3B6( E3B6O1 ) = ND2 (  E3D8O1,ATTX0 ) $
E3B8( E3B8O1 ) = ND2 (  E3D8O1,ATTX3 ) $
E3B9( WTRATT33 ) = ND2 (  ATTX3,WTATT1X ) $
E3C3( E3C3O1 ) = ND2 (  E3D8O1,ATTX2 ) $
E3C4( WTRATT12 ) = ND2 (  ATTX2,WTATT1X ) $
E3D5( WTRATT31 ) = ND2 (  ATTX1,WTATT1X ) $
E3D6( E3D6O1 ) = ND2 (  E3D8O1,ATTX1 ) $
E3A7( ATTX4 ) = AN3 (  ATTA1N,ATTA2,ATTA0N ) $
E3B4( ATTX2 ) = AN3 (  ATTA2N,ATTA1,ATTA0N ) $
E3B5( ATTX1 ) = AN3 (  ATTA2N,ATTA1N,ATTA0 ) $
E3B7( ATTX0 ) = AN3 (  ATTA2N,ATTA0N,ATTA1N ) $
E3B10( ATTX3 ) = AN3 (  ATTA2N,ATTA1,ATTA0 ) $
P20A17( OP20A17 ) = ND3 (  OP20A14,OP20A15A,OP20A16 ) $
P20A16( OP20A16 ) = ND3 (  AMODE02,SELATTD,E3E8O1N ) $
RB331( OP20A15A ) = ND2 (  OP20A15,IOEN2 ) $
P20A15( OP20A15 ) = NR2 (  NAMODE01,NIO3C01 ) $
P19A13( OP19A13 ) = IVP (  OP20A15 ) $
P20A14( OP20A14 ) = ND4 (  SELATTD,AMODE00,PNADDR00,E3E8O1N ) $
P20A11( OP20A11 ) = ND3 (  OP20A9,OP20A10,OP20A11A ) $
RB330( OP20A11A ) = ND2 (  SELATTA,AMODE02 ) $
P20A10( OP20A10 ) = ND2 (  AMODE01,PNADDR00 ) $
P20A9( OP20A9 ) = ND3 (  AMODE00,PNADDR00,SELATTA ) $
E3C7( NWTATTD ) = ND2P (  OP20A17,NT68 ) $
E3C8( PRAMCL ) = NR3 (  NWTATTD,ATTA4,ATTA5 ) $
E3D8( E3D8O1 ) = NR2 (  NADDR00,ATTA4N ) $
E3D9( WTATT1X ) = NR2 (  NWTATTD,ATTA4N ) $
E3D18( IO0XHX ) = ND6P (  NADDR12,NADDR11,NADDR10,NADDR15
   ,NADDR14,NADDR13
    ) $
E3E18( IO0T3FF ) = AN2P (  NT59,IO0XHX ) $
E3E18I( NT3FF ) = IVP (  IO0T3FF ) $
E3E19( EIO3XX ) = ND6 (  ADDR08,R46E8Q3,ADDR09,ALTEN,NIMIO,ADDR07
    ) $
E4A5( E4A5O1 ) = OR2 (  NADDR00,E4B5O1 ) $
E4B5( E4B5O1 ) = OR3 (  EIO3BD45,CRTC10,CRTC11 ) $
F1C10( NIO3CC ) = ND5P (  NADDR01,NADDR00,ADDR02,OA03CXA,ADDR03 ) $
F1D4( EWIO3C2 ) = ND5P (  NADDR00,ADDR01,EWIO3CX,NADDR02
   ,NADDR03 ) $
F1A2( ADB10 ) = AN2 (  ADDR01,NADDR00 ) $
F1B7( F1B7O1 ) = AN2 (  F1C2O1,ACCMEM ) $
F1B10C( OF1B10C ) = ND3 (  ADDR16,GC06Q2N,GC06Q3 ) $
F1B10B( OF1B10B ) = NR3 (  NTWOPAG,F1C5O1,OF1B10C ) $
F1B10A( OF1B10A ) = OR2 (  F1B8O1,OF1B10B ) $
F1B10( F1B10O1 ) = AN2 (  ACCMEM,OF1B10A ) $
F1B5( GC06Q2N ) = IVP (  GC06Q2 ) $
F1D5( GC06Q3N ) = IVP (  GC06Q3 ) $
F1A5( NIO3C45 ) = ND4 (  NADDR01,EWIO3CX,NADDR03,ADDR02 ) $
F1C4( NERAMABX ) = ND4 (  ADDR17,R3C2Q1,IADDHI,NADDR18 ) $
F1C5( F1C5O1 ) = ND4 (  ADDR15,R3C2Q1,IADDHI,ADDR17 ) $
F1A6( NIO3C78 ) = ND2 (  OA03CXA,AH7O8 ) $
F1A11( NIO3CA ) = ND2P (  OA03CXA,AHA ) $
F1B11( NVACCMEM ) = ND2P (  ACCMEM,MEMVALD ) $
F1A7( AHA ) = AN4 (  NADDR02,ADDR03,NADDR00,ADDR01 ) $
F1B3( F1B3O1 ) = NR2 (  GC06Q2N,ADDR16 ) $
F1B4( F1B4O1 ) = NR2 (  GC06Q2N,F1B3O1 ) $
F1B9( ACCMEM ) = NR3 (  VGAENW,ENACCMEM,NALTEN ) $
F1D11( MAP00 ) = NR2 (  GC06Q3,GC06Q2 ) $
```

```
F1D8( MEMVALD ) = NR2 (  NMEMMAP,NERAMABX ) $
F1B8( F1B8O1 ) = NR4 (  F1B4O1,ADDR18,F1C5O1,GC06Q3 ) $
F1C2( F1C2O1 ) = NR4 (  GC06Q2,ADDR18,GC06Q3,F1D3O1 ) $
F1C6A( OF1C6A ) = AN2 (  NTWOPAG,ADDR15 ) $
F1C6( MAP10HL ) = NR4 (  GC06Q2,OF1C6A,NADDR16,GC06Q3N ) $
F1C7( MAP11HH ) = NR4 (  GC06Q2N,NADDR15,NADDR16,GC06Q3N ) $
F1D9( NMEMMAP ) = NR4 (  MAP11HH,MAP10HL,MAP00,MAP01L ) $
F1D3( F1D3O1 ) = ND3 (  ADDR17,R3C2Q1,IADDHI ) $
F1E8( NIO3C7 ) = ND3P (  ADDR02,AH7O8,OA03CXA ) $
F1D6( MAP01L ) = NR3 (  GC06Q2N,ADDR16,GC06Q3 ) $
F1D13( NWT3C45 ) = OR2 (  NIO3C45,IOCMDWR ) $
F1E5( WTR3C2 ) = OR3 (  IOCMDWR,EWIO3C2,R3D715Q4 ) $
F1F3( ADD16, ) = TLCHT (  A16,NC/0/ ) $
F1F6( ADD17, ) = TLCHT (  A17,NC/0/ ) $
F1F8( ADD18, ) = TLCHT (  A18,NC/0/ ) $
F1F10A( CHRESET ) = B4IP (  CHRESETQ ) $
RB557( NRESET ) = B4IP (  RESET12 ) $
F1F10( CHRESETI, ) = TLCHT (  RESET,NC/0/ ) $
A03CX( XXNN3CX ) = ND4 (  NADDR04,NVGENW,NADDR05,ADDR06 ) $
ENW( NVGENW ) = IV (  VGAENW ) $
A3CX( EWIO3CX ) = NR2P (  IO0T3FF,XXIO3CX ) $
A3CXA( OA03CXA ) = NR2P (  IO0XHX,XXIO3CX ) $
F2A6( SEQ00 ) = AN3 (  SEQA2N,SEQA0N,SEQA1N ) $
F2A7( SEQ01 ) = AN3 (  SEQA2N,SEQA0,SEQA1N ) $
F2A8( SEQ03 ) = AN3 (  SEQA2N,SEQA0,SEQA1 ) $
F2B7( SEQ02 ) = AN3 (  SEQA1,SEQA0N,SEQA2N ) $
F2D9( SEQ04 ) = AN3 (  SEQA2,SEQA0N,SEQA1N ) $
F2A9( NSEQ0 ) = ND2 (  SEQ00,ADDR00 ) $
F2A10( SEQ02A0 ) = ND2 (  ADDR00,SEQ02 ) $
F2B4( WTRSEQ04 ) = ND2 (  SEQ04,WT3C5 ) $
F2B9( WTRSEQ02 ) = ND2 (  SEQ02,WT3C5 ) $
F2D10( NSEQ4 ) = ND2 (  ADDR00,SEQ04 ) $
P2A43( VALIOADD ) = IV (  NIOREG ) $
P2A41( MEMCMDWR ) = IVP (  NT43 ) $
RB275( ,LPD07,,LPD06,,LPD05,
   ,LPD04,,LPD03,,LPD02,,LPD01
   ,,LPD00 ) = YLDG8 (  ADRCNT07,ADRCNT06,ADRCNT05,ADRCNT04
   ,ADRCNT03
   ,ADRCNT02,ADRCNT01,ADRCNT00,NLPSTB ) $
RB276( ,LPD15,,LPD14,,LPD13,
   ,LPD12,,LPD11,,LPD10,,LPD09
   ,,LPD08 ) = YLDG8 (  ADRCNT15,NT10,ADRCNT13,ADRCNT12,ADRCNT11
   ,ADRCNT10,ADRCNT09,ADRCNT08,NLPSTB ) $
P2A40( MDOUT0,,MDOUT1,,MDOUT2,,MDOUT3
   ,,MDOUT4,,MDOUT5,,MDOUT6,
   ,MDOUT7, ) = LDG8 (  SECBYTE,MRDATA0,MRDATA1,MRDATA2,MRDATA3
   ,MRDATA4,MRDATA5,MRDATA6,MRDATA7 ) $
DADL1( IDIN8,,IDIN9,,IDIN10,,IDIN11
   ,,IDIN12,,IDIN13,,IDIN14,
   ,IDIN15, ) = LDG8 (  NICMD,DIN8,DIN9,DIN10,DIN11
   ,DIN12,DIN13,DIN14,DIN15 ) $
DADL0( IDIN0,,IDIN1,,IDIN2,,IDIN3
   ,,IDIN4,,IDIN5,,IDIN6,
   ,IDIN7, ) = LDG8 (  NICMD,DIN0,DIN1,DIN2,DIN3
   ,DIN4,DIN5,DIN6,DIN7 ) $
ADDL1( ADDR08,NADDR08,ADDR09,NADDR09,ADDR10,NADDR10,ADDR11
   ,NADDR11,ADDR12,NADDR12,ADDR13,NADDR13,ADDR14,NADDR14
   ,ADDR15,NADDR15 ) = LD8L (  OP2A29,DIN8,DIN9,DIN10,DIN11
   ,DIN12,DIN13,DIN14,DIN15 ) $
ADDL0( PADDR00,PNADDR00,ADDR01,NADDR01,ADDR02,NADDR02,ADDR03
   ,NADDR03,ADDR04,NADDR04,ADDR05,NADDR05,ADDR06,NADDR06
   ,ADDR07,NADDR07 ) = LD8 (  OP2A29,DIN0,DIN1,DIN2,DIN3
```

```
   ,DIN4,DIN5,DIN6,DIN7 ) $
JOHN2( OJOHN2 ) = NR2 (  SECBYTE,ADDR00 ) $
JOHN3( JADD0,NJADD0 ) = B3I (  OJOHN2 ) $
F2D1B( WT3C5 ) = NR2 (  NIO3C45,F2D1O1AN ) $
F2D1( F2D1O1AN ) = ND2 (  IOEN2,NT68 ) $
F2E1A( OF2E1A ) = IV (  R3D715Q0 ) $
F2F7( PADDHI, ) = TLCHT (  ADDHI,NC/0/ ) $
A3A14( HIC5 ) = IVP (  PLOC5 ) $
A3A11( HIM5C5 ) = B4I (  LOM5 ) $
P26A1( OP26A1 ) = IVP (  EN16IOWR ) $
P1A9( OP1A9 ) = IVP (  SECBYTE ) $
P1A7( AMUXEN ) = ND3P (  OP1A5,OP1A6,OP1A6D ) $
P1A6( OP1A6 ) = ND3 (  NT28,OP1A6C,OP1A9 ) $
P1A6D( OP1A6D ) = ND3 (  NT43,NT102,NT56 ) $
P1A6A( OP1A6A ) = ND2 (  ATT02Q1,OP1A6B ) $
P1A6B( OP1A6B ) = IV (  ATT02Q2 ) $
P1A6C( OP1A6C ) = IV (  OP1A6A ) $
P1A5( OP1A5 ) = ND4 (  NIBHE,NT102,R3D702Q0,NT43 ) $
P1A45( ,BMUXENX ) = LD1 (  OP1A4A,ICMD ) $
P1A4A( OP1A4A ) = ND2 (  OP1A3,OP26A1 ) $
P1A60( BMUXEN ) = ND3P (  OP1A1,OP1A2,BMUXENX ) $
P1A3( OP1A3 ) = ND3 (  IBHE,PADDR00,VALIOADD ) $
P1A2( OP1A2 ) = ND3 (  NT28,OP1A6C,SECBYTE ) $
P1A1( OP1A1 ) = ND5 (  PADDR00,NT102,R3D702Q0,IBHE,NT43 ) $
E3D7( SELATTD,SELATTA ) = FD2 (  SELATTA,NWT3C0,OP20A8 ) $
RB30( ATTA0,ATTA0N,ATTA1,ATTA1N,ATTA2,ATTA2N,ATTA3
   ,,ATTA4,ATTA4N,ATTA5,ATTA5N ) = LDG6 (  WTATTA,IDIN0
   ,IDIN1,IDIN2,IDIN3,IDIN4,IDIN5 ) $
GC06( GC06Q0,GC06NQ0,GC06Q1,,GC06Q2,,GC06Q3
   , ) = LDG4 (  WTRGC06,DATAIN00,DATAIN01,DATAIN02,DATAIN03 ) $
RB374( SEQA0,SEQA0N,SEQA1,SEQA1N,SEQA2,SEQA2N ) = LDG3R (  NRESET
   ,NT118,IDIN0,IDIN1,IDIN2 ) $
R3BDA( R3BDAQ0,,R3BDAQ1,,R3BDAQ2, ) = YFFD3 (  WT3BDA
   ,NRESET,DATAIN00,DATAIN01,DATAIN03 ) $
R3C2( R3C2Q0,,R3C2Q1,,R3C2Q2,,R3C2Q3
   ,,R3C2Q5,,R3C2Q6,,R3C2Q7,
    ) = YFFD7 (  WTR3C2,NRESET,DATAIN00,DATAIN01,DATAIN02
   ,DATAIN03,DATAIN05
   ,DATAIN06,DATAIN07 ) $
CRTDEC( CRT18TF,CRT08TF,CRT20T7,CRT00T7,CRT10T7,CRTAQ0N,CRTAQ1N
   ,CRTAQQ2,CRTAQ2N,WCRTC01,WCRTC00,WCRTC07,WCRTC06,WCRTC03
   ,WCRTC05,WCRTC04,WCRTC02,WCRTC18,W3BD45,WCRT0T7,WCRTC07A
   ,CRTAQQ4,CRTAQQ5,CRTAQ4N,CRTAQQ3,WCRTC08,WCRTC0B,WCRTC0A
   ,WCRTC0F,WCRTC10,WCRTC0D,WCRTC0C,WCRTC0E,WCRTC16,NT113
   ,NT112,NT111,NT110,WCRTC12,CRTAQ3,CRTAQ5,WCRTC14
   ,NT115,NT114,WCRTC15,WCRTC13,CRTC10,CRTC11 ) = CRTDC (  R3D715Q1
   ,R3D715Q2,R3D715Q3,IOEN2,IOWR2,IDIN0,IDIN1,IDIN2
   ,IDIN3,IDIN4,IDIN5,EIO3BD45,NRESET,IOCMDWR,PNADDR00
   ,WCRT0T7P,CRT010X ) $
RB173( DATAIN00,DATAIN01,DATAIN02,DATAIN03,DATAIN04,DATAIN05
   ,DATAIN06
   ,DATAIN07,DATAIN08,DATAIN09,DATAIN10,DATAIN11,DATAIN12,DATAIN13
   ,DATAIN14,DATAIN15 ) = DATMX1 (  IDIN0,IDIN1,IDIN2,IDIN3,IDIN4
   ,IDIN5,IDIN6,IDIN7,IDIN8,IDIN9,IDIN10,IDIN11
   ,IDIN12,IDIN13,IDIN14,IDIN15,AMUXEN,BMUXEN ) $
P17A8( NBHE, ) = TLCHT (  BHE,NC/0/ ) $
P2A29( POP2A29 ) = ND3 (  IVGACMD,OP11A6,IOWR2 ) $
P2A29G( ,OP2A29 ) = B2I (  POP2A29 ) $
RB382( SOFF ) = IV (  NSOFF ) $
EMGEN( EMBLK ) = ND2 (  E6845,R3B8Q5 ) $
NSGEN( NSOFF ) = AO6 (  E6845,R3B8NQ3,SCROFF ) $
HERON( HERONNZ ) = ND2 (  R3D714Q0,R3D714Q1 ) $
```

```
HERGRF( HERGRFNZ ) = ND2 (  R3BFQ0,R3B8Q1 ) $
GGAON( CGAONNZ ) = ND2 (  R3D714Q0,NT64 ) $
CGA80( GCA80NZ ) = NR2 (  R3B8Q0,R3B8Q4 ) $
RB248( NHERGR ) = IV (  HERGRAZ ) $
RB249( HERGRAZ ) = NR2P (  HERONNZ,HERGRFNZ ) $
RB250( HERGRFZ ) = IV (  HERGRFNZ ) $
RB252( HERTEX ) = NR2 (  HERONNZ,HERGRFZ ) $
CGA2G( CGASL2 ) = NR2 (  CGAONNZ,R3B8NQ4 ) $
SHFADJ( MCRT8Q5 ) = OR2 (  CRTC8Q5,CGASL2 ) $
CGA2GN( CGASL2N ) = NR2 (  CGASL2,HERGRAZ ) $
CGA1G( CGASL1 ) = NR3 (  CGAONNZ,R3B8Q4,R3B8NQ1 ) $
CGA1GN( CGASL1N ) = IV (  CGASL1 ) $
RB240( GCA80Z ) = IV (  GCA80NZ ) $
GCAD2S( GCAD2 ) = NR2 (  CGAONNZ,GCA80Z ) $
RB443( VGAMOD ) = OR3 (  HERGRAZ,GCAD2,VGAFPZ ) $
RB442( VGAMODO ) = OR3 (  HERGRAZ,GCAD2,CGASL2 ) $
CHANS( CHAN ) = OR2 (  HERGRAZ,CGASL2 ) $
CGATEX( CGATEXZ ) = NR2 (  CGAONNZ,R3B8Q1 ) $
TEXTS( TEXT ) = OR2 (  CGATEXZ,HERTEX ) $
RB397( TWOPAG ) = NR2 (  HERONNZ,R3BFNQ1 ) $
RB319( NTWOPAG ) = IV (  TWOPAG ) $
PAGE2S( PAGE2 ) = AN2 (  TWOPAG,R3B8Q7 ) $
E6845N( E6845 ) = IV (  NE6845 ) $
GSTP3( STP348 ) = AN2 (  D3C13QP,HERGRAZ ) $
E6845S( NE6845 ) = NR2 (  R3D714Q0,R3D714Q1 ) $
P7AA1( OP7AA1 ) = NR6P (  OP13A1,OP7A18A,R3D6Q4,R3D6Q3,R3D6Q2
   ,R3D6Q1
    ) $
P7AA2( OP7AA2 ) = NR6P (  OP13A1,OP7A18A,R3D6Q4,R3D6Q3,R3D6Q2
   ,R3D6NQ1
    ) $
P7AA3( OP7AA3 ) = NR6P (  OP13A1,OP7A18A,R3D6Q4,R3D6NQ3
   ,R3D6Q2,R3D6Q1
    ) $
P7AA4( OP7AA4 ) = NR6P (  OP13A1,OP7A18A,R3D6NQ4,R3D6Q3
   ,R3D6NQ2,R3D6Q1
    ) $
P7AA6( OP7AA6 ) = NR6P (  OP13A1,OP7AA5,R3D6NQ4,R3D6NQ3
   ,R3D6NQ2,R3D6NQ1
    ) $
P7AA8( OP7AA8 ) = NR5P (  OP13A1,OP7AA7,R3D6Q4,R3D6NQ3,R3D6Q2 ) $
P7AA5( OP7AA5 ) = ND3 (  R3D6NQ7,R3D6Q6,R3D6Q5 ) $
E3D9A( AEN3D9 ) = AN2 (  EN3D9,EN3D77E ) $
E3D77E( EN3D77E ) = ND2 (  OP7AA6,R3D6NQ0 ) $
P7AA7( OP7AA7 ) = ND3 (  R3D6NQ7,R3D6NQ6,R3D6Q5 ) $
P7AA9( EN3D700 ) = ND2 (  OP7AA1,R3D6NQ0 ) $
P7AA10( EN3D701 ) = ND2 (  OP7AA1,R3D6Q0 ) $
P7AA11( EN3D702 ) = ND2 (  OP7AA2,R3D6NQ0 ) $
P7AA12( EN3D703 ) = ND2 (  OP7AA2,R3D6Q0 ) $
P7AA13( EN3D708 ) = ND2 (  OP7AA3,R3D6NQ0 ) $
P7AA14( EN3D709 ) = ND2 (  OP7AA3,R3D6Q0 ) $
P7AA15( EN3D714 ) = ND2 (  OP7AA4,R3D6NQ0 ) $
P7AA16( EN3D715 ) = ND2 (  OP7AA4,R3D6Q0 ) $
P6A2B( WR3D9 ) = AN2 (  AWR3D9,BWR3D9 ) $
P6A2A( BWR3D9 ) = ND2 (  N3D7WR2,OP13A1C ) $
P7AA17( EN3D77F ) = ND3 (  OP7AA6,R3D6Q0,ADDR00 ) $
P7AA18( EN3D728 ) = ND4 (  OP7AA8,R3D6NQ0,R3D6NQ1,ADDR00 ) $
P7AA19( EN3D72B ) = ND4 (  OP7AA8,R3D6Q0,R3D6Q1,ADDR00 ) $
RB334( WR3D728 ) = ND4 (  OP7AA8,R3D6NQ0,R3D6NQ1,N3D7WR2 ) $
RB335( WR3D72B ) = ND4P (  OP7AA8,R3D6Q0,R3D6Q1,N3D7WR2 ) $
P1234S( ENR34 ) = AN2 (  OP12A7,OP12A8 ) $
RD1034( R34Q0,R34Q1,R34Q2,R34Q3,R34Q4,R34Q5,R34Q6
```

```
   ,R34Q7 ) = READ2I (  R103Q0,R103Q1,R103Q2,R103Q3,R103Q4,R103Q5
   ,R103Q6,R103Q7,NC/1/,NC/0/,NC/1/,NC/0/,NC/0/
   ,NC/1/,NC/0/,NC/1/,OP12A8,OP12A7 ) $
PG31A2( N3D7M10,N3D7M11,N3D7M12,N3D7M13,N3D7M14,N3D7M15,N3D7M16
   ,N3D7M17 ) = RED8L1 (  R3D716Q0,R3D716Q1,R3D716Q2,R3D716Q3
   ,R3D716Q4,R3D716Q5
   ,NC/0/,NC/0/,R3D717Q0,R3D717Q1,R3D717Q2,R3D717Q3,R3D717Q4
   ,R3D717Q5,NC/0/,NC/0/,R3D728Q0,R3D728Q1,R3D728Q2,R3D728Q3
   ,NC/0/,NC/0/,NC/0/,NC/0/,R3D72BQ0,R3D72BQ1,R3D72BQ2
   ,R3D72BQ3,R3D72BQ4,R3D72BQ5,R3D72BQ6,R3D72BQ7,R3D77FQ0,R3D77FQ1
   ,R3D77FQ2,R3D77FQ3,R3D77FQ4,R3D77FQ5,R3D77FQ6,R3D77FQ7,NC/0/
   ,NC/0/,NC/0/,NC/0/,NC/0/,NC/0/,NC/0/,NC/0/
   ,NC/0/,NC/0/,NC/0/,NC/0/,NC/0/,NC/0/,NC/0/
   ,NC/0/,R34Q0,R34Q1,R34Q2,R34Q3,R34Q4,R34Q5
   ,R34Q6,R34Q7,EN3D716,EN3D717,EN3D728,EN3D72B,EN3D77F
   ,NC/1/,NC/1/,ENR34 ) $
RB258( NKILL1I,NKILL1,STRCHM,STRCHP,EQHDES,EQHDEE,STRCHML
   ,STRCHPL,NKILLLOW,VPDISP0,SL480 ) = HVC1 (  CLLCLOWL
   ,DSPTD2,EQMAXSL
   ,MAXSL3,NVERDE7,HCONT0,HCONT1,HCONT2,HCONT3,HCONT4
   ,HCONT5,HCONT6,HCONT7,T400B0,T400B1,T400B2,T400B3
   ,T400B4,TA350B0,TA350B1,TA350B2,TA350B3,TA350B4,TB350B0
   ,TB350B1,TB350B2,TB350B3,TB350B4,G400B0,G400B1,G400B2
   ,G400B3,G400B4,G400B5,G400B6,G350B0,G350B1,G350B2
   ,G350B3,G350B4,G350B5,G350B6,AHORB0,AHORB1,AHORB2
   ,AHORB3,AHORB4,AHORB5,AHORB6,AHORB7,AHORBE0,AHORBE1
   ,AHORBE2,AHORBE3,AHORBE4,AHORBE5,AHORBE6,AHORBE7,HVCVDE
   ,GRAPHICS,ONCEPERH,DADTSEL,DUALPLD,VPU,VPL,VDSPLYEN
   ,NRESET,C3A16NQ,MASKL2,CLLCLOW,NC/1/,DCK2PNL,SL480N
   ,B4B10O1,CHRCLK,AHCRN,NC/0/ ) $
RB259( VPU,VPL ) = HVC2 (  VERCNT0,VERCNT1,VERCNT2,VERCNT3,VERCNT4
   ,VERCNT5,VERCNT6,VERCNT7,VERCNT8,VERCNT9,VDSA0,VDSA1
   ,VDSA2,VDSA3,VDSA4,VDSA5,VDSA6,VDSA7,VDSA8
   ,VDSA9,VDSB0,VDSB1,VDSB2,VDSB3,VDSB4,VDSB5
   ,VDSB6,VDSB7,VDSB8,VDSB9,VDEA0,VDEA1,VDEA2
   ,VDEA3,VDEA4,VDEA5,VDEA6,VDEA7,VDEA8,VDEA9
   ,VDEB0,VDEB1,VDEB2,VDEB3,VDEB4,VDEB5,VDEB6
   ,VDEB7,VDEB8,VDEB9,ONCEPERH,NVERDE7,DSPTD2,SL480
   ,D3A4O1 ) $
RASO( RASGEN,REFINCSL,REFINC ) = RASREF (  NCAS,CLKXX,SLEEPON
   ,NRESET
   ,REFINT0,REFINT1,REFINT2,REFINT3,REFINT4,REFINT5,REFINT6
   ,REFINT7,C3D5O1 ) $
FCG( ,CC89SELN,NT83,DCK2DIV,SL480N ) = FLAGB (  NT46,OCC89SEL
   ,IBMCOMP,PD640,PD720,PL200,PL350,PL400,PL480
   ,HORDI5,ODCK2DIV,GRAPHICS,CRT07Q1,CRT07Q1,VERDE7,VERDE6
    ) $
BLK( IACDCLK,ATRBLINK,CSRBLINK ) = BLINKING (  NRESET,ONCEPERH
   ,NRESET,NATTVMX0
   ,D3A4O1,CLKCONT0,CLKCONT1,CLKCONT2,CLKCONT3,CLKCONT4,CLKCONT5
   ,CLKCONT6,CLKCONT7,BLNKRAT0,BLNKRAT1,BLNKRAT2,BLNKRAT3,BLNKRAT4
   ,BLNKRAT5,BLNKRAT6,BLNKRAT7,NC/1/ ) $
RB176( CLLCLOW,EQLOWCLK,ADRCNT00,ADRCNT01,ADRCNT02,ADRCNT03
   ,ADRCNT04
   ,ADRCNT05,ADRCNT06,ADRCNT07,ADRCNT08,ADRCNT09,ADRCNT10,ADRCNT11
   ,ADRCNT12,ADRCNT13,ADRCNT14,ADRCNT15,VERCNT0,VERCNT1,VERCNT2
   ,VERCNT3,VERCNT4,VERCNT5,VERCNT6,VERCNT7,VERCNT8,VERCNT9
   ,ROWCNT0,ROWCNT1,ROWCNT2,ROWCNT3,ROWCNT4,NT10,CLLCLOWL
   ,CURDSP,ULINE,CVC0,CVC1,CVC2,CVC3,CVC4
   ,CVC5,CVC6,CVC7,CVC8,CVC9 ) = DPC (  NRESET,ELC4
   ,ELC3,ELC2,ELC1,ELC0,VCNTLOW,DUALPLD,EVC9
   ,EVC8,EVC7,EVC6,EVC5,EVC4,EVC3,EVC2
```

```
      ,EVC1,EVC0,DADTSEL,LACCLA,D5H6O1,SADCLN,C3G16O1
      ,OFFSETS7,OFFSETS6,OFFSETS5,OFFSETS4,OFFSETS3,OFFSETS2,OFFSETS1
      ,OFFSETS0,AOFSETZ,SADLDCLK,STLN15,STLN14,STLN13,STLN12
      ,STLN11,STLN10,STLN9,STLN8,STLN7,STLN6,STLN5
      ,STLN4,STLN3,STLN2,STLN1,STLN0,EDAD15,EDAD14
      ,EDAD13,EDAD12,EDAD11,EDAD10,EDAD9,EDAD8,EDAD7
      ,EDAD6,EDAD5,EDAD4,EDAD3,EDAD2,EDAD1,EDAD0
      ,MAXSL0,MAXSL1,MAXSL2,MAXSL3,MAXSL4,DUALPLD,VCNTLOW
      ,D2H8O1,ONCEPERH,PAGE2,NRESET,C3C8Q,LCOMPA,NCHRCLK
      ,FIX1Z,DADTSEL,B4F19O1,NC/1/,C3F17Q,C5D6O1,ROWMSK
      ,VDEL,C4F1Q,C3F17Q,C4G13O1,VPU,VCNTRSET,CHRCLK
      ,DUALPNL,DSPTD2 ) $
    DCL( U4Z,DADTSEL,,HSYNCPNL,DUALPLD,SADLDCLK,VCNTLOW
      ,SADCLN,UACCLA,LACCLA,HVCVDE,VDEL,MASKL,ROWMSK
      ,VDELN ) = DADC01 (  D2H8O1,VDSPLYEN,DUALPNL,NT83,C3A16NQ
      ,STRCHML
      ,OB4E4Q,NRESET,LCOMPA,STRCHPL,ACCLA,NKILL1,NKILLLOW
       ) $
    MK17( MAK17 ) = ND2 (  R3D70BQ1,R3D704Q2 ) $
    SYNC( VSYNCOUT,HSYNCOUT ) = SYNCOUT (  C2B17O1,XDHSYNC,PLASMA
      ,DSPTD2,NCHRCLK
       ) $
    RB229( NT50 ) = OR2 (  NT49,SLEEPON ) $
    RB230( D3F16O1R ) = MUX21H (  D3F16O1,REFINCN,SLEEPON ) $
    RB231( REFINCN ) = IV (  REFINC ) $
    RB233( SLEEPEN2, ) = YFD1 (  SLEEPENI,CLKXX ) $
    RB234( SLEEPEN, ) = YFD1 (  SLEEPEN2,CLKXX ) $
    RB235( ,CHRESETN ) = YFD1 (  CHRESETI,IMCLK ) $
    RB236( CHRESETQ, ) = FD1P (  CHRESETN,IMCLK ) $
    RB22( IROMCSN ) = IV (  OP18A7 ) $
    RB23( ROMCSN ) = BT2 (  IROMCSN,NC/0/,HIC5 ) $
    RB232( GRAPHICS ) = IV (  ATT30Q0N ) $
END : MODULE $
END : COMPILE $
END : TDL $
```