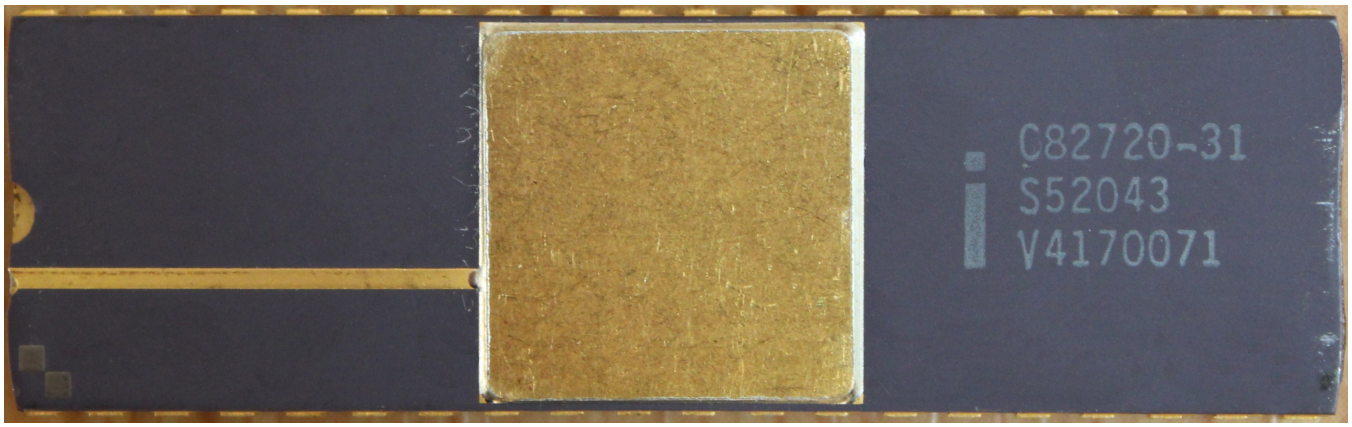
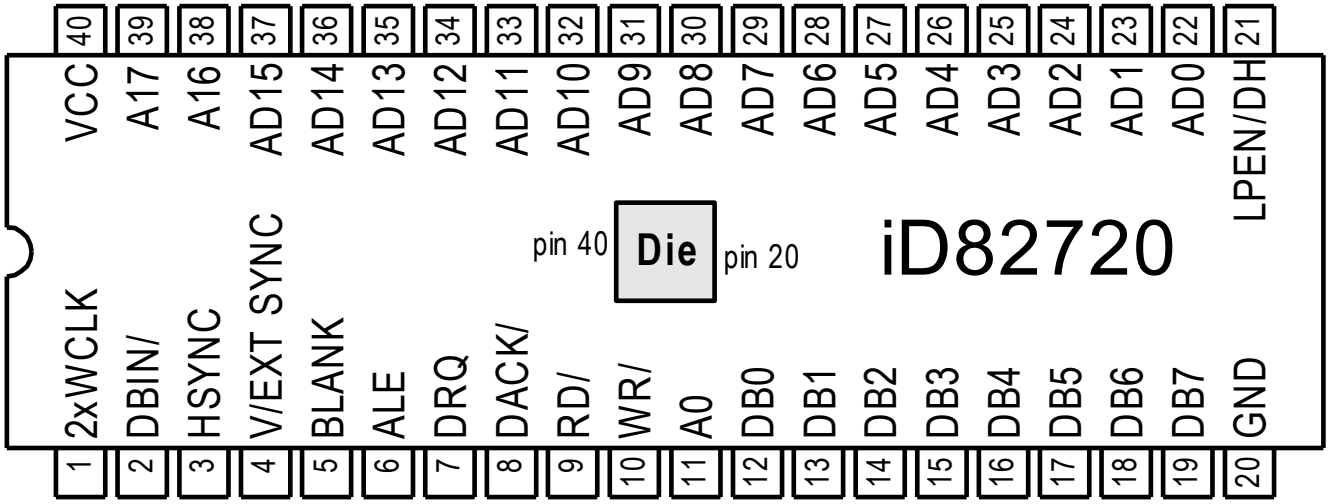




Pin association of next page die photo exactly reflects the die position mounted on the island of the base ribbon.

16 1h	33 2h	50 3h	67 4h	84 5h	101 6h	118 7h	135 8h	152 9h	169 ah	186 bh
15 1g	32 2g	49 3g	66 4g	83 5g	100 6g	117 7g	134 8g	151 9g	168 ag	185 bg
14 1f	31 2f	48 3f	65 4f	82 5f	99 6f	116 7f	133 8f	150 9f	167 af	184 bf
13 1e	30 2e	47 3e	64 4e	81 5e	98 6e	115 7e	132 8e	149 9e	166 ae	183 be
12 1d	29 2d	46 3d	63 4d	80 5d	97 6d	114 7d	131 8d	148 9d	165 ad	182 bd
11 1c	28 2c	45 3c	62 4c	79 5c	96 6c	113 7c	130 8c	147 9c	164 ac	181 bc
10 1b	27 2b	44 3b	61 4b	78 5b	95 6b	112 7b	129 8b	146 9b	163 ab	180 bb
9 1a	26 2a	43 3a	60 4a	77 5a	94 6a	111 7a	128 8a	145 9a	162 aa	179 ba
8 19	25 29	42 39	59 49	76 59	93 69	110 79	127 89	144 99	161 a9	178 b9
7 18	24 28	41 38	58 48	75 58	92 68	109 78	126 88	143 98	160 a8	177 b8
6 17	23 27	40 37	57 47	74 57	91 67	108 77	125 87	142 97	159 a7	176 b7
5 16	22 26	39 36	56 46	73 56	90 66	107 76	124 86	141 96	158 a6	175 b6
4 15	21 25	38 35	55 45	72 55	89 65	106 75	123 85	140 95	157 a5	174 b5
3 14	20 24	37 34	54 44	71 54	88 64	105 74	122 84	139 94	156 a4	173 b4
2 13	19 23	36 33	53 43	70 53	87 63	104 73	121 83	138 93	155 a3	172 b3
1 12	18 22	35 32	52 42	69 52	86 62	103 72	120 82	137 92	154 a2	171 b2
0 11	17 21	34 31	51 41	68 51	85 61	102 71	119 81	136 91	153 a1	170 b1

Hugin Stack# vs. Coordinate
(24 MP x 187 (11 x 17) Sectional Photos)

Micrograph Library

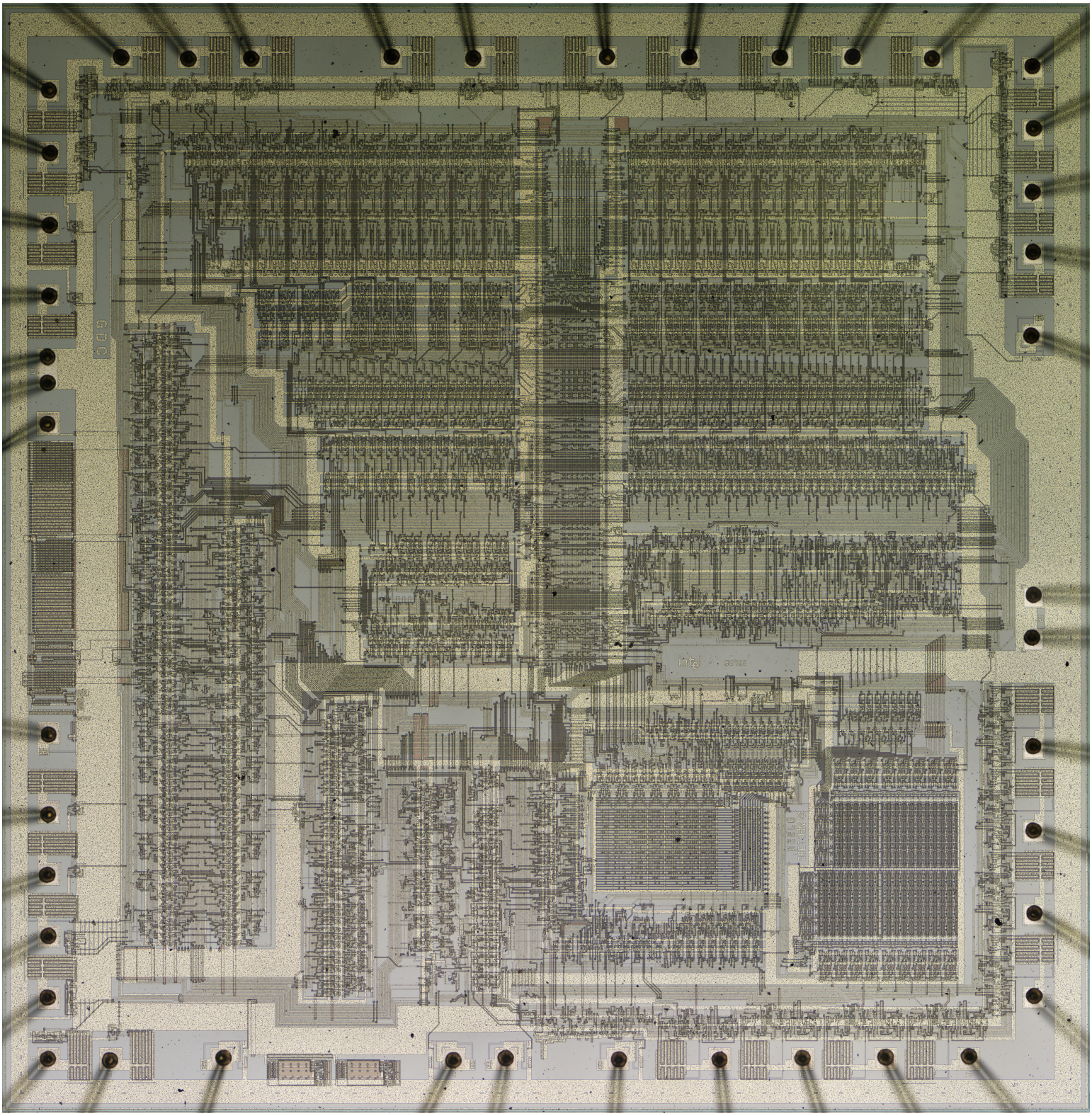
I am introducing total 25 die micrographs I made.

When zooming die micrograph using a smart phone or tablet, you possibly experience limited maximum available zoom factor (up to 2x), slow zooming speed, and sometimes freeze because of the factors such as slow CPU, insufficient main memory capacity, and simplified PDF viewer installed.

I recommend using a desk-top PC with large monitor TV (40”), fast CPU (i7), big capacity of main memory (32/16 GB), and fast GPU (8 GB) if possible.

Design company	Manufacturing company	Product name	Function
NEC		μPD282D	12 Digit Desk-top Calculator (ALU, Registers, etc.) <Tetsuji Oguchi>
		μPD941C	Single-chip 8 Digit 0 memory Desk-top Calculator <Tetsuji Oguchi>
		μPD946C	Single-chip 8 Digit 1 memory Desk-top Calculator
		μPD1201C	Single-chip 12 Digit 1 memory Desk-top Calculator with Printer Control <Tetsuji Oguchi>
		μPD777D	Single-chip Television Game Processor <Tetsuji Oguchi & Toshio Oura>
		μPD777C	
		μPD7220AD	Graphics Display Controller (GDC) <Tetsuji Oguchi>
NEC	Intel	iD82720	Graphics Display Controller (GDC) - License manufacturing (Second source) of μPD7220
NEC		μPD72120L	Advanced Graphics Display Controller (AGDC) <Tetsuji Oguchi, et al.>
		μPD765C	Floppy Disk Controller {NEC Fuchu Peripheral Equipment Division}
		μPD7720AD	Signal Processor {NEC Central Research}
		μPD277	Single-chip 8 Digit 1 memory Desk-top Calculator <Toshio Oura>
Casio	NEC	μPD977	Single-chip 8 Digit 1 memory Desk-top Calculator
		μPD871B	Digital watch
		μPD873G	
Intel		8080A	8 bit Microprocessor
		8085A	
		iD8086	16 bit Microprocessor
Intel	NEC	μPD8086D	16 bit Microprocessor - Reverse engineering of iD8086
	Oki	80C86A	16 bit Microprocessor - License manufacturing (Second source) of iD8086
Zilog		84C00	8 bit Microprocessor (Z80)
Nintendo	Ricoh	RP2C02	Television Game Processor (Family Computer with RP2A03)
Motorola	Ricoh	RP2A03	8 bit Microprocessor - Reverse engineering of Motorola 6800
	Motorola	68000	16 bit Microprocessor (Apple Macintosh)
TI		TMS9918A	Television Game Processor (Multiple chips)

{}; Architectural design by
<>; Architectural & Logic design by



iD82720 20x Die Photo 14204 x 14492 (206 MP) 6400% (64x) Tolerant Synthesized by Hugin