



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			Function				
NEC		μPD282D	12 Digit Desk-top Calculator (ALU, Registers, etc.) <tetsuji oguchi=""></tetsuji>				
		μPD941C	Single-chip 8 Digit 0 memory Desk-top Calculator <tetsuji oguchi=""></tetsuji>				
		μPD946C	Single-chip 8 Digit 1 memory Desk-top Calculator				
		μ <u>PD1201C</u>	ingle-chip 12 Digit 1 memory Desk-top Calculator with Printer Control Tetsuji Oguchi>				
		<u>μΡD777D</u>	 Single-chip Television Game Processor <tetsuji &="" oguchi="" oura<="" td="" toshio=""></tetsuji>				
		<u>μΡD777C</u>	Single-crip relevision dame Processor Cretsuji Ogućin & Ioshio Odraz				
		μPD7220AD	Graphics Display Controller (GDC) <tetsuji oguchi=""></tetsuji>				
NEC	Intel	iD82720	Graphics Display Controller (GDC) - License manufacturing (Second source) of µPD7220				
NEC		μPD72120L	Advanced Graphics Display Controller (AGDC) <tetsuji al.:<="" et="" oguchi,="" td=""></tetsuji>				
		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=""></toshio>				
		<u>μΡD977</u>	Single-chip 8 Digit 1 memory Desk-top Calculator				
Casio	NEC	μPD871B	Digital watch				
		μPD873G	Digital watch				
		8080A	S hit Microprocessor				
Intel		<u>8085A</u>	8 bit Microprocessor				
		<u>iD8086</u>	16 bit Microprocessor				
Intel	NEC	μ <u>PD8086D</u>	16 bit Microprocessor - Reverse engineering of iD8086				
	Oki	<u>80C86A</u>	16 bit Microprocessor - License manufacturing (Second source) of iD8086				
Zilog		<u>84C00</u>	8 bit Microprocessor (Z80)				
Nintendo	Ricoh	RP2C02	Television Game Processor (Family Computer with RP2A03)				
Motorola	Ricoh	<u>RP2A03</u>	8 bit Microprocessor - Reverse engineering of Motorola 6800				
	Motorola	<u>68000</u>	16 bit Microprocessor (Apple Macintosh)				
	TI	TMS9918A	Television Game Processor (Multiple chips)				

^{{};} Architectural design by

<>; Architectural & Logic design by

