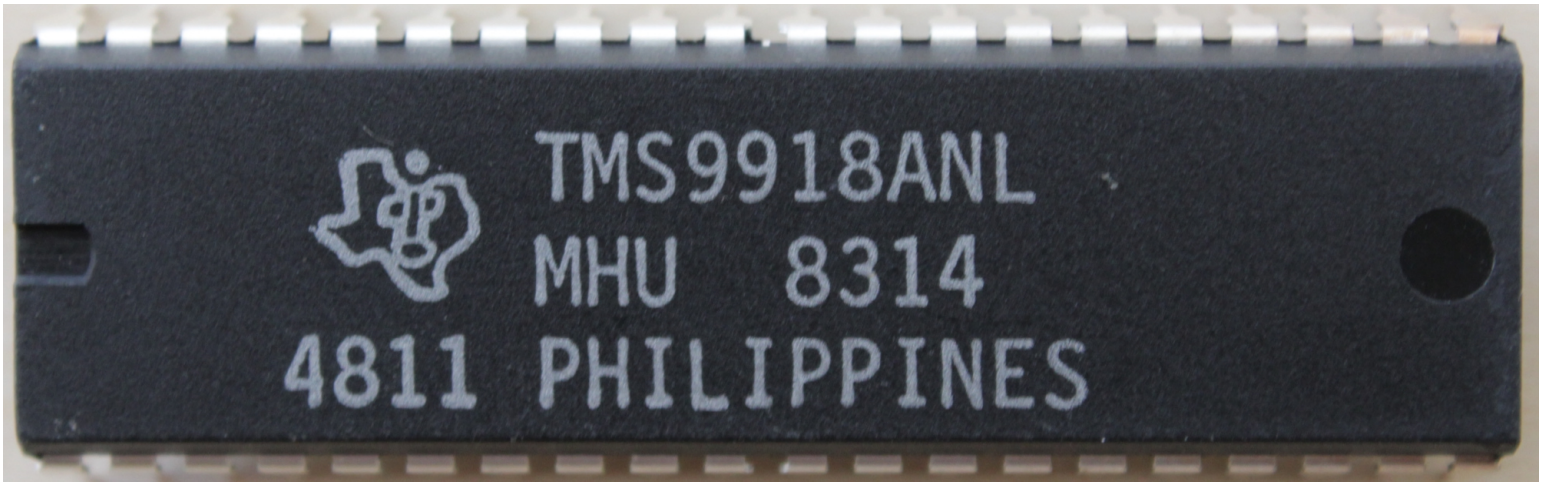
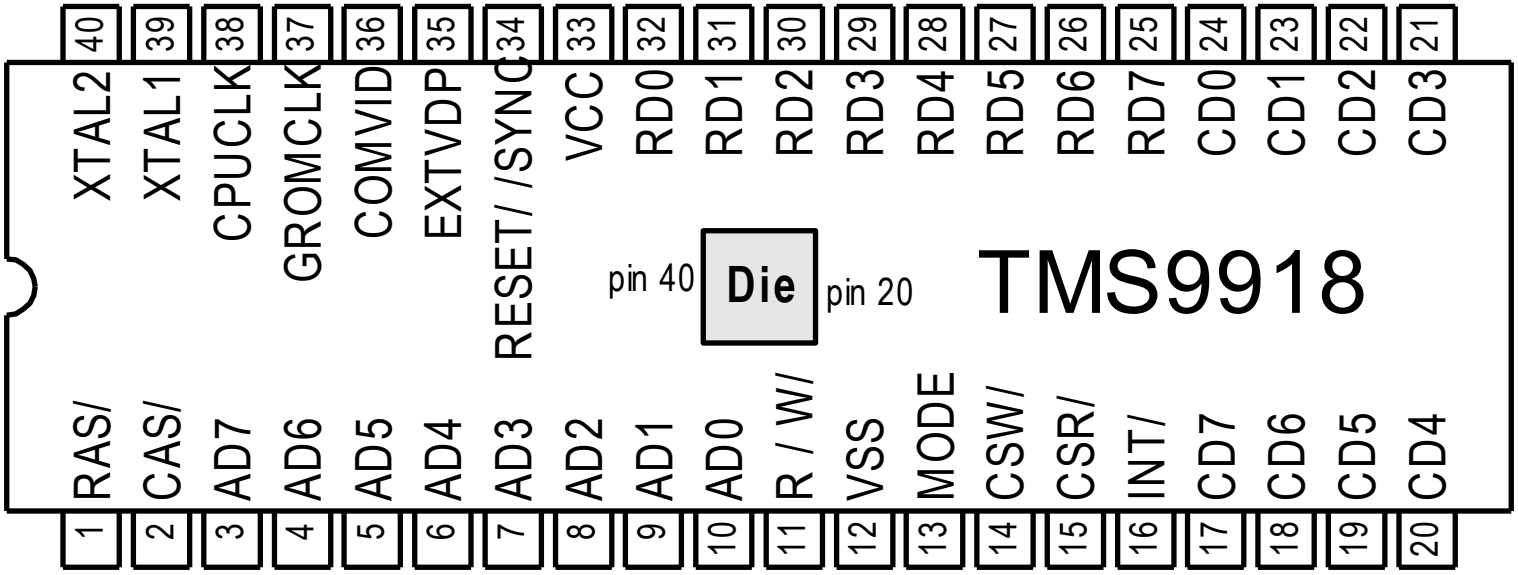




Pin association of next page die photo exactly reflects the die position mounted on the island of the base ribbon.

10 1b	21 2b	32 3b	43 4b	54 5b	65 6b	76 7b	87 8b	98 9b
9 1a	20 2a	31 3a	42 4a	53 5a	64 6a	75 7a	86 8a	97 9a
8 19	19 29	30 39	41 49	52 59	63 69	74 79	85 89	96 99
7 18	18 28	29 38	40 48	51 58	62 68	73 78	84 88	95 98
6 17	17 27	28 37	39 47	50 57	61 67	72 77	83 87	94 97
5 16	16 26	27 36	38 46	49 56	60 66	71 76	82 86	93 96
4 15	15 25	26 35	37 45	48 55	59 65	70 75	81 85	92 95
3 14	14 24	25 34	36 44	47 54	58 64	69 74	80 84	91 94
2 13	13 23	24 33	35 43	46 53	57 63	68 73	79 83	90 93
1 12	12 22	23 32	34 42	45 52	56 62	67 72	78 82	89 92
0 11	11 21	22 31	33 41	44 51	55 61	66 71	77 81	88 91

Hugin Stack# vs. Coordinate
(18 MP x 99 (9 x 11) Sectional Photos)

Micrograph Library

I am introducing total 25 die micrographs I made.

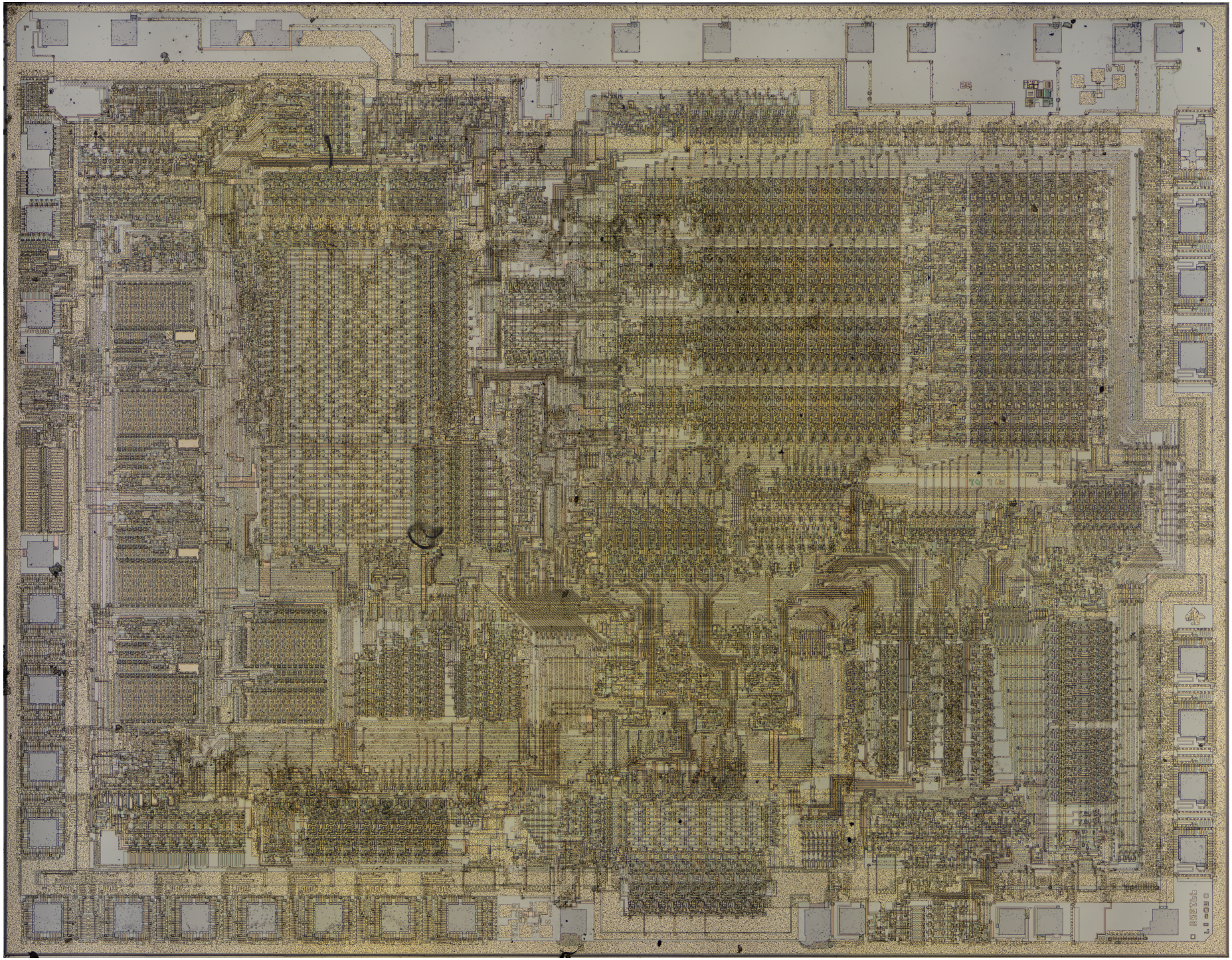
When zooming die micrograph using a smart phone or tablet, you possibly experience limited maximum available zoom factor (up to 2x), slow zooming speed, and sometimes freeze because of the factors such as slow CPU, insufficient main memory capacity, and simplified PDF viewer installed.

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

Downloadable Files



TMS9918A 20x Die Photo 15000 x 11705 (176 MP) 6400% Tolerant Synthesized by Hugin