4. BLOCK DIAGRAM

GAME CARTRIDGE

PERIPHERAL DEVICE (MEGA-CD1.2) (SEGA-CD1.2)

ANTENNA

IC7. IC8
μPD41264
V-RAM
64KB

TV

RF UNIT

OSC1
53.203424M (MEGA DRIVE II)
53.693175 (GENESIS II)
ZCLK: 3.5MHz
VCLK: 7.6MHz

CN3 (64P)
EDCK
VCLK

CN2 (60P)

OSC
MCLK

IC6
FC1004
MCLK
EDCK
ZCLK
VCLK

VDP

IC11
MB3514
RGB ENCODER

VIDEO/AUDIO

IC1
68000CC

SR 1   SL 1

SR 2   SL 2

RGB/SYNC
42
131
SBCR

VIDEO/AUDIO

CN1

VIDEO/AUDIO
AUDIO
RGB

CPU 68000

ADDRESS/CONTROL BUS (16 bit)

DATA BUS (16 bit)

VCLK

VA8~23

ZA1~7

VD00~15

AUDIO

PSG

RGB/SYNC

MIX

L

R

VD 8

IC6
FC1004

IC6
FC1004

MCLK
EDCK
ZCLK
VCLK

MIX

RAM
64KB

IC2. IC3
μPD42832-15

BUS
ARBITER

PORT

I/O

EDCK:
13.3MHz

MIX

ZD 0

I/O, ZTOV, VTOZ

IC4
Z80QFP

ZA0 7~15

ZA0~7   ZA0~7

VCLK

IC6
FC1004

IC12
TA7805HF

DC 5V

CPU Z80

ZCLK

FM SOUND SOURCE
+
D/A CONVERTER

REGULATOR
IC

DC 9V OR 10V 850mA

AC ADAPTOR

AC~

ADDRESS/CONTROL BUS (8 bit)

DATA BUS (8 bit)

RAM
8KB

IC5
μPD4364CX-15

CN5

CN6

CONTROL PAD
1 PLAYER

CONTROL PAD
2 PLAYER

OPTION

E

D

C

B

A

1   2   3   4   5   6   7   8

RF
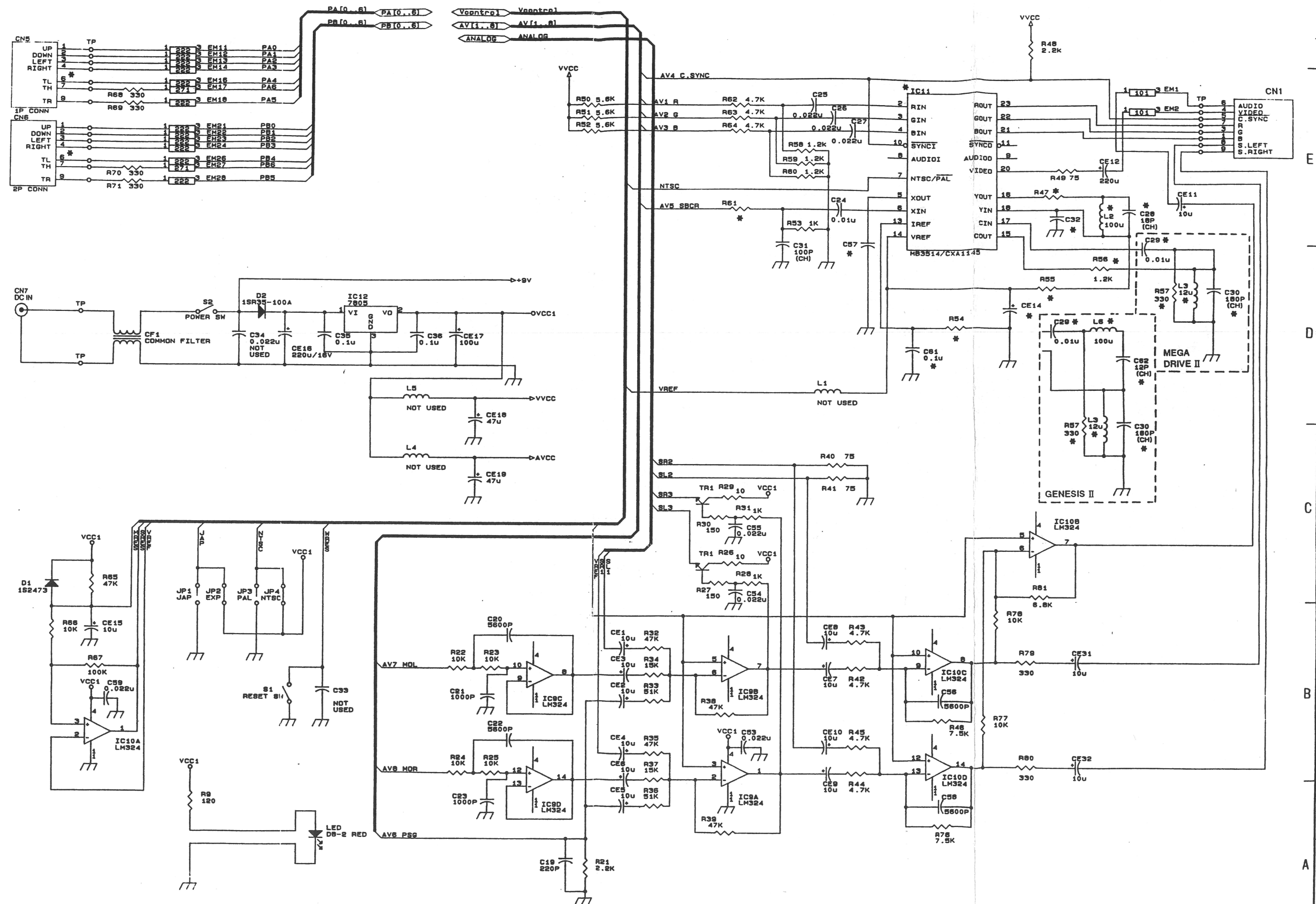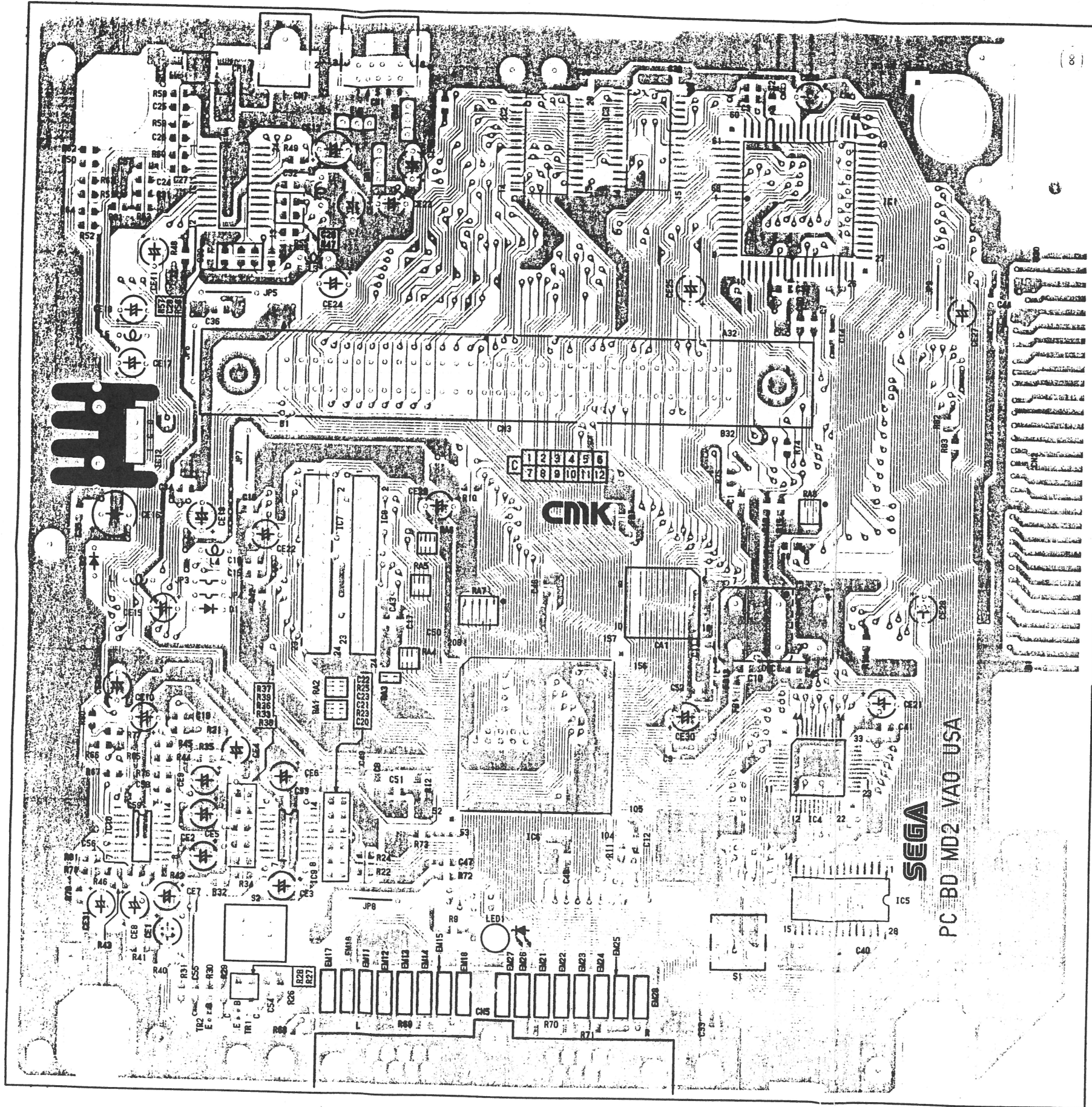
7

5. SCHEMATIC DIAGRAMS
5-1. SCHEMATIC DIAGRAM-1
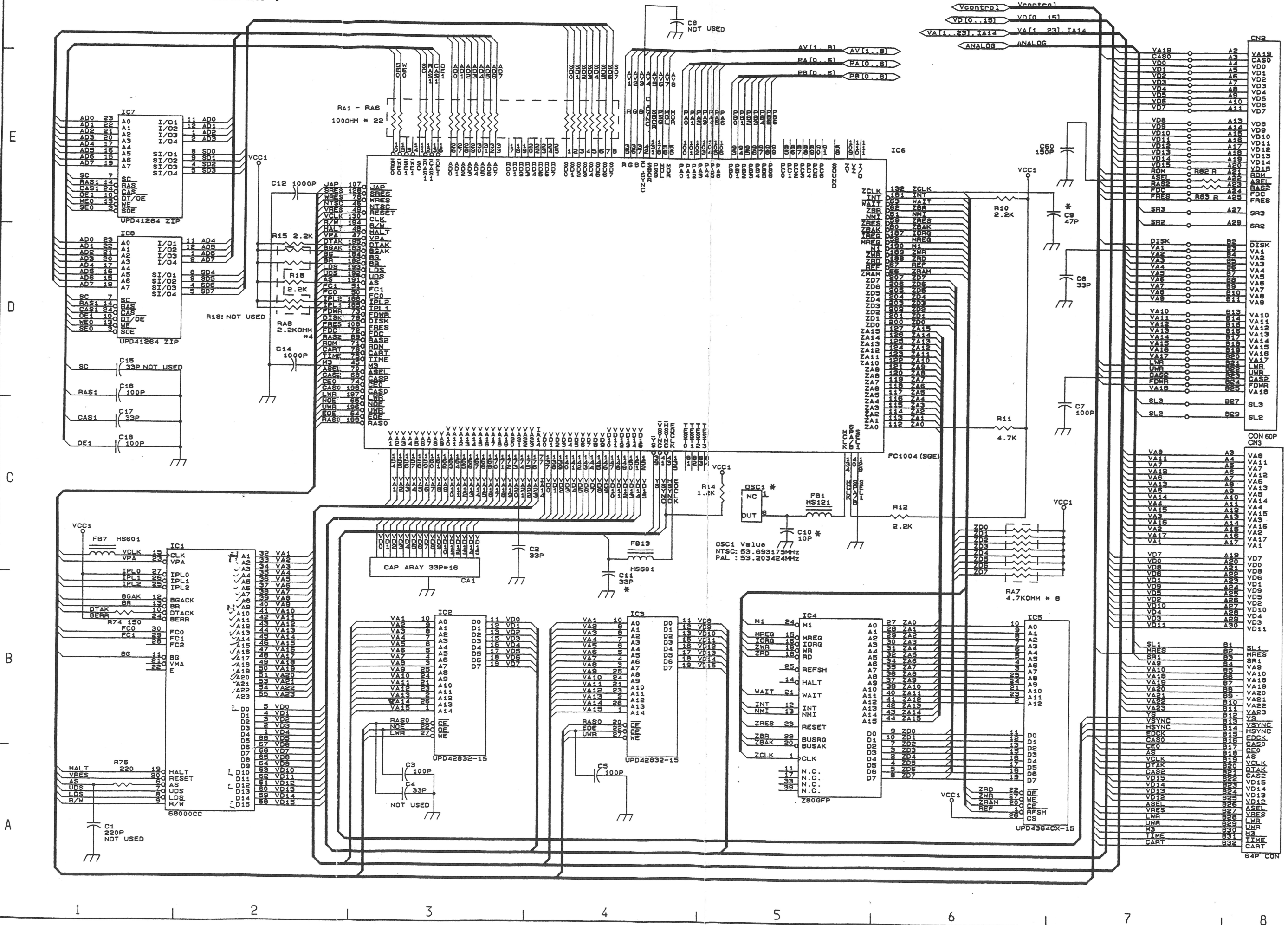
6. CIRCUIT BOARD DIAGRAMS
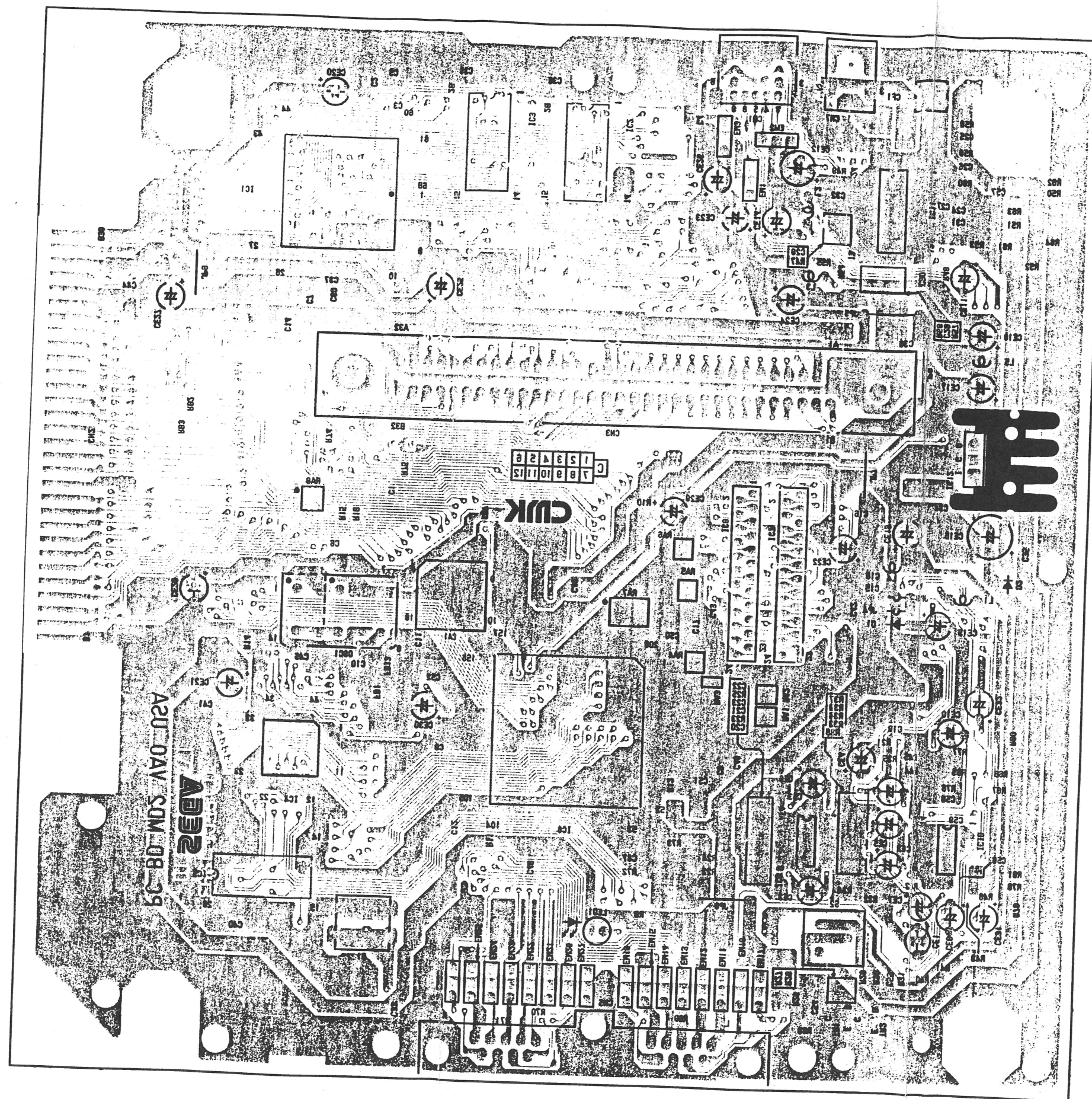
6-1. MAIN CIRCUIT BOARD (Top View)　—For GENESIS II —

* DIFFERENCE TABLE

CIRCUIT	GENESIS II		
No.	TYPE-F	TYPE-S	TYPE-SM
L2	○	○	×
L3	○	○	×
L6	×	×	×
C9	×	×	×
C10	×	×	×
C11	×	×	×
C28	○	○	×
C29	○	○	×
C30	○	○	×
C32	○	○	×
C57	○	×	×
C61	×	×	×
C62	×	×	×
R47	○	○	×
R54	×	○	○
R55	○	○	×
R56	○	○	×
R57	○	○	×

× : NOT MOUNTED

○ : MOUNTED
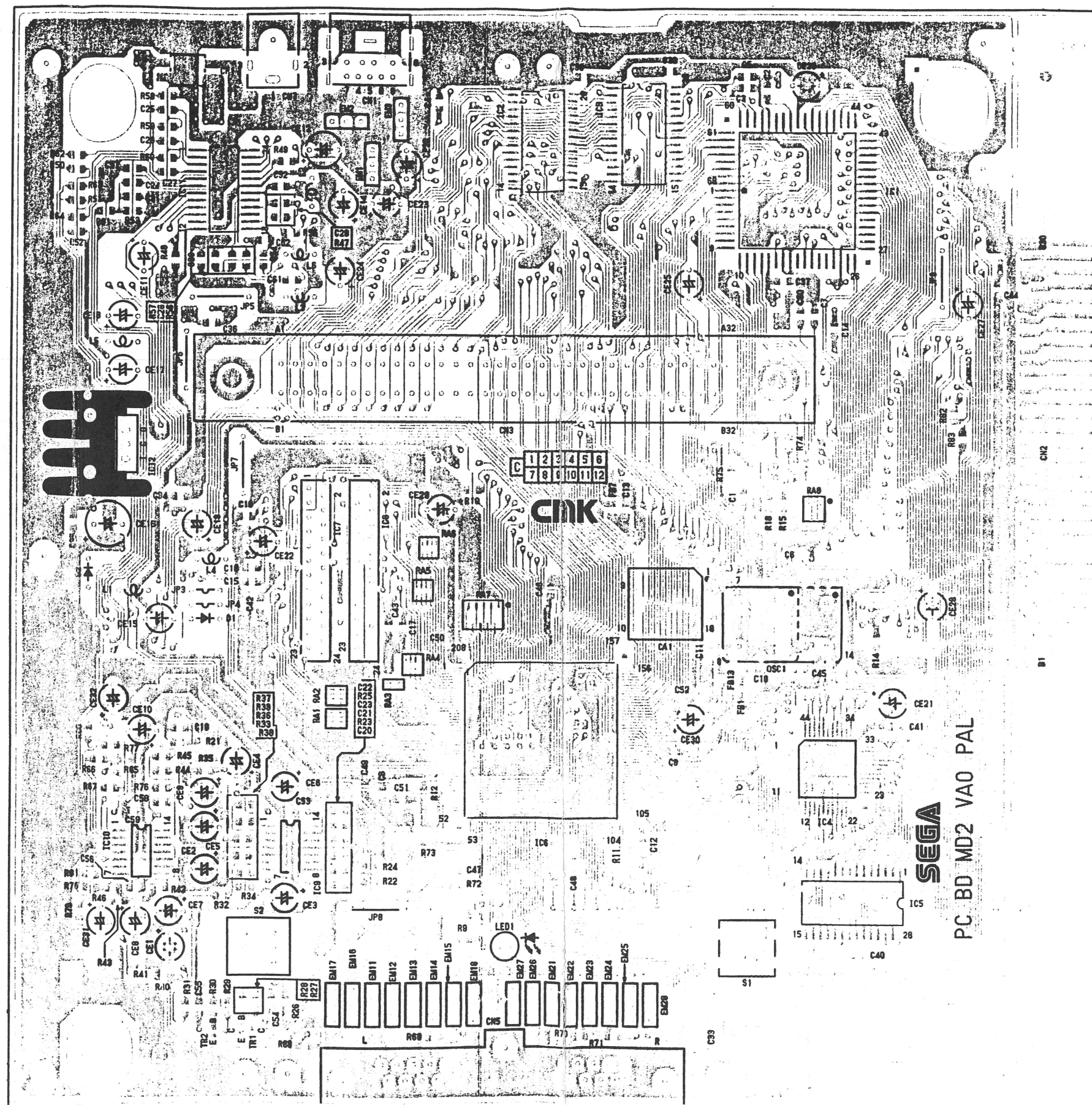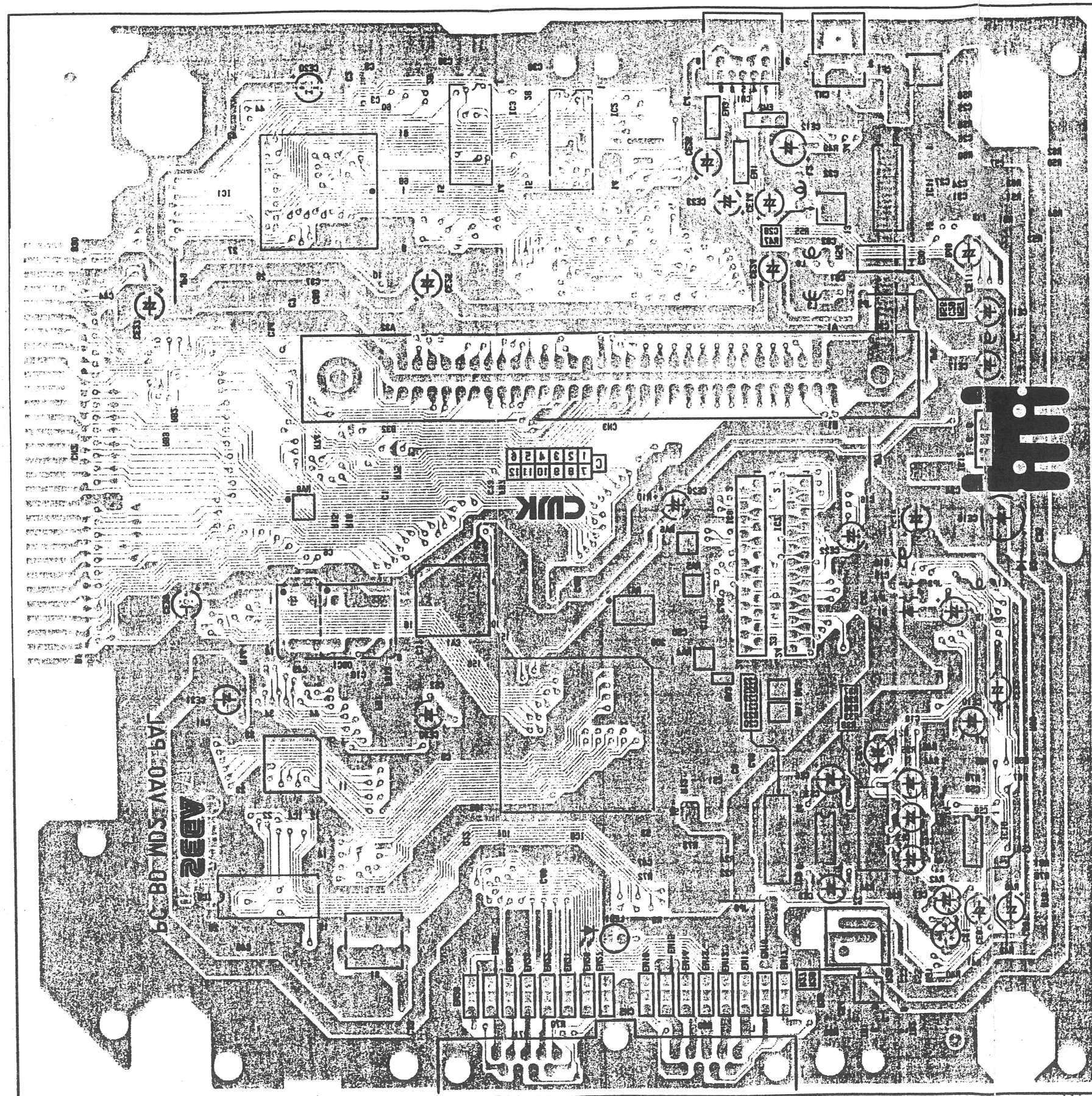
7. PARTS SPECIFICATION

IC1

IC HD68HC000CP8	IC MC68HC000FN8
Parts No. : 315-0685-A	Parts No. : 315-0686-A

■ Outside View
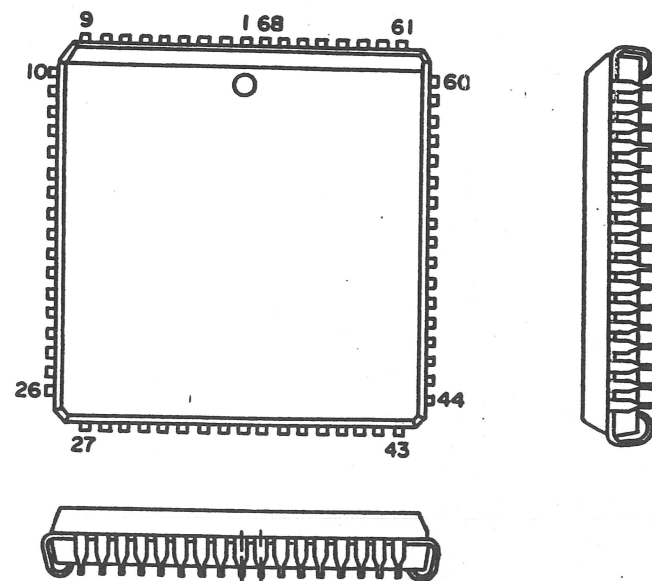
■ Description

Pin No.	Name	I/O	Function
1	N/C	–	N/C
2	$\overline{DTACK}$	I	Data Transfer Acknowledge.
3	$\overline{BGACK}$	I	Bus Grant Acknowledge.
4	$\overline{BR}$	I	Bus Request.
5	CLK	I	Clock.
6	$\overline{HALT}$	I/O	Halt.
7	$\overline{VMA}$	O	Valid Memory Address.
8	E	O	Enable.
9	$\overline{BERR}$	I	Bus Error.
10	N/C	–	N/C
11	FC_2	O	Function Code Output 2.
12	FC_0	O	Function Code Output 0.
13	A_1	O	Address Bus 1.
14	A_3	O	Address Bus 3.
15	A_4	O	Address Bus 4.
16	A_6	O	Address Bus 6.
17	A_7	O	Address Bus 7.
18	A_9	O	Address Bus 9.
19	N/C	–	N/C
20	A_{14}	O	Address Bus 14.

Pin No.	Name	I/O	Function
21	A_{16}	O	Address Bus 16.
22	A_{17}	O	Address Bus 17.
23	A_{19}	O	Address Bus 19.
24	A_{20}	O	Address Bus 20.
25	A_{21}	O	Address Bus 21.
26	A_{22}	O	Address Bus 22.
27	D_{15}	I/O	Data bus 15.
28	D_{12}	I/O	Data bus 12.
29	D_{10}	I/O	Data bus 10.
30	D_8	I/O	Data bus 8.
31	D_7	I/O	Data bus 7.
32	D_5	I/O	Data bus 5.
33	D_4	I/O	Data bus 4.
34	D_2	I/O	Data bus 2.
35	D_1	I/O	Data bus 1.
36	$\overline{AS}$	O	Address Strobe.
37	$\overline{LDS}$	O	Lower Data Strobe.
38	$\overline{BG}$	O	Bus Grant.
39	V_{cc}	I	Power Input.
40	V_{ss}	I	GND.

Pin No.	Name	I/O	Function
41	$\overline{RES}$	I/O	Reset
42	$\overline{VPA}$	I	Valid Peripheral Address.
43	$\overline{IPL_2}$	I	Interrupt Priority Level 2.
44	$\overline{IPL_0}$	I	Interrupt Priority Level 0.
45	FC_1	O	Function Code Output 1.
46	N/C	–	N/C
47	A_2	O	Address Bus 2.
48	A_5	O	Address Bus 5.
49	A_8	O	Address Bus 8.
50	A_{10}	O	Address Bus 10.
51	A_{11}	O	Address Bus 11.
52	A_{12}	O	Address Bus 12.
53	A_{15}	O	Address Bus 15.
54	A_{18}	O	Address Bus 18.
55	V_{cc}	I	Power Input.
56	V_{ss}	I	GND.
57	A_{23}	O	Address Bus 23.
58	D_{14}	I/O	Data bus 14.
59	D_{11}	I/O	Data bus 11.
60	D_9	I/O	Data bus 9.
61	D_6	I/O	Data bus 6.
62	D_3	I/O	Data bus 3.
63	D_0	I/O	Data bus 0.
64	$\overline{UDS}$	O	Upper Data Strobe.
65	$R/\overline{W}$	O	Read/Write.
66	$\overline{IPL_1}$	I	Interrupt Priority Level 1.
67	A_{13}	O	Address Bus 13.
68	D_{13}	I/O	Data Bus 13.

IC11 IC MB3514PF-G-BND-EF
Parts No. : 313-5232-A
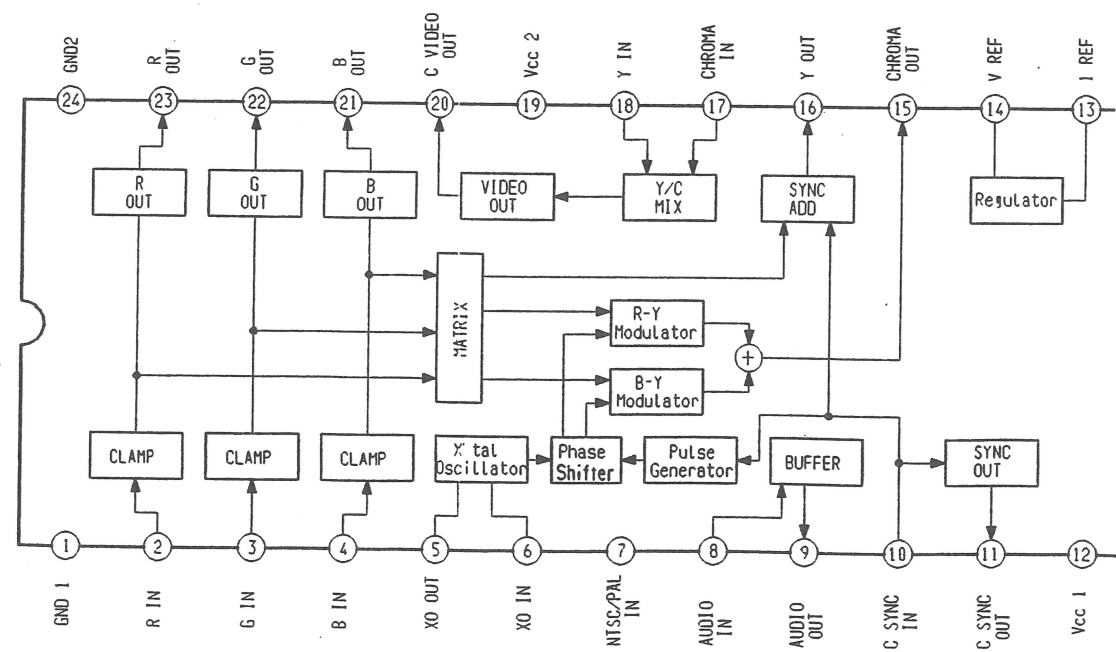
IC CXA1145M-T6
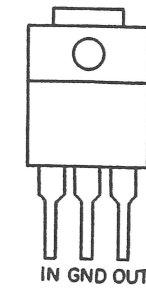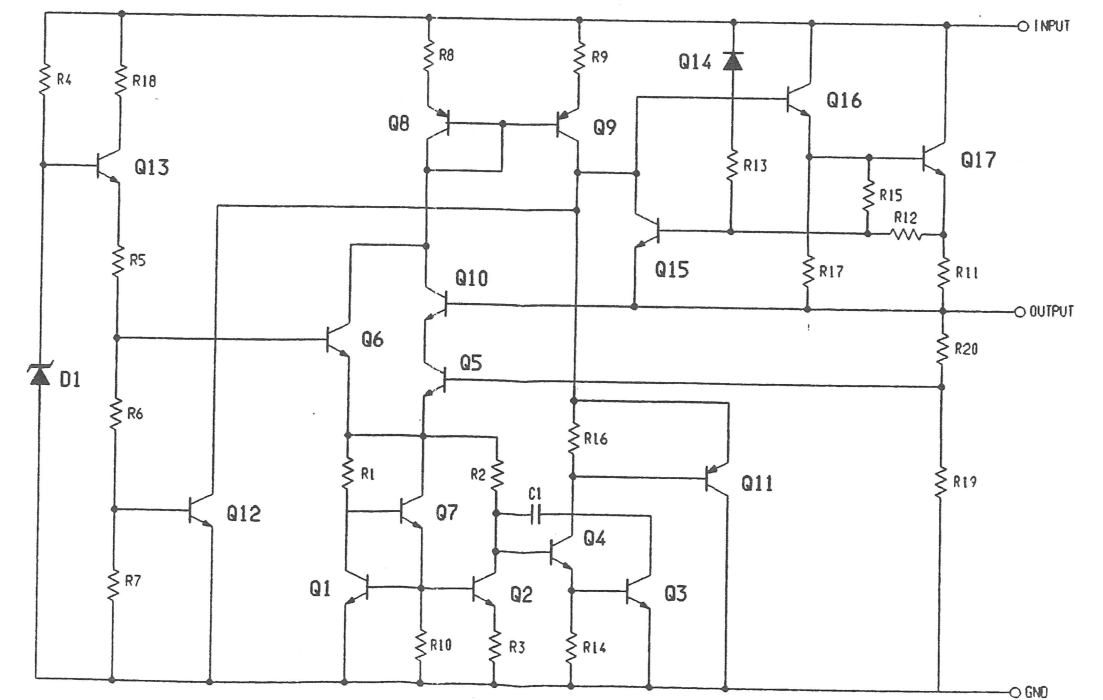Parts No. : 313-5213-A

IC KA2195D
Parts No. : 313-5236-A
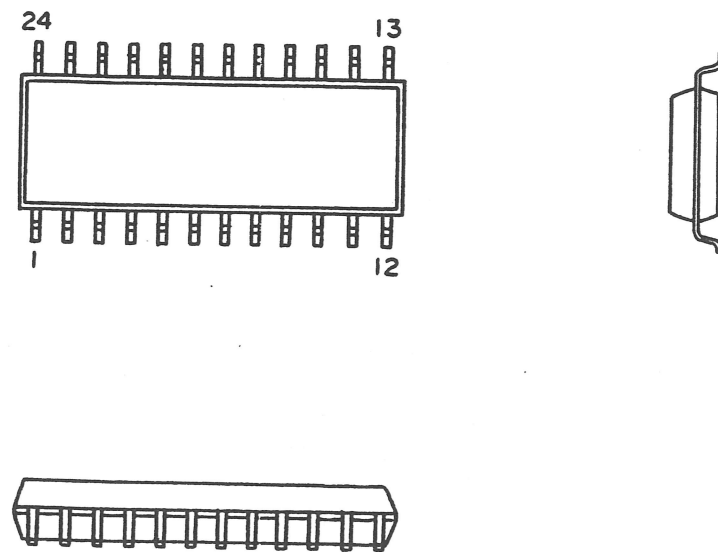
IC12 IC UPC7805HF
Parts No. : 313-5214

IC TA7805S
Parts No. : 313-5230

■ Outside View

24 13

1 12

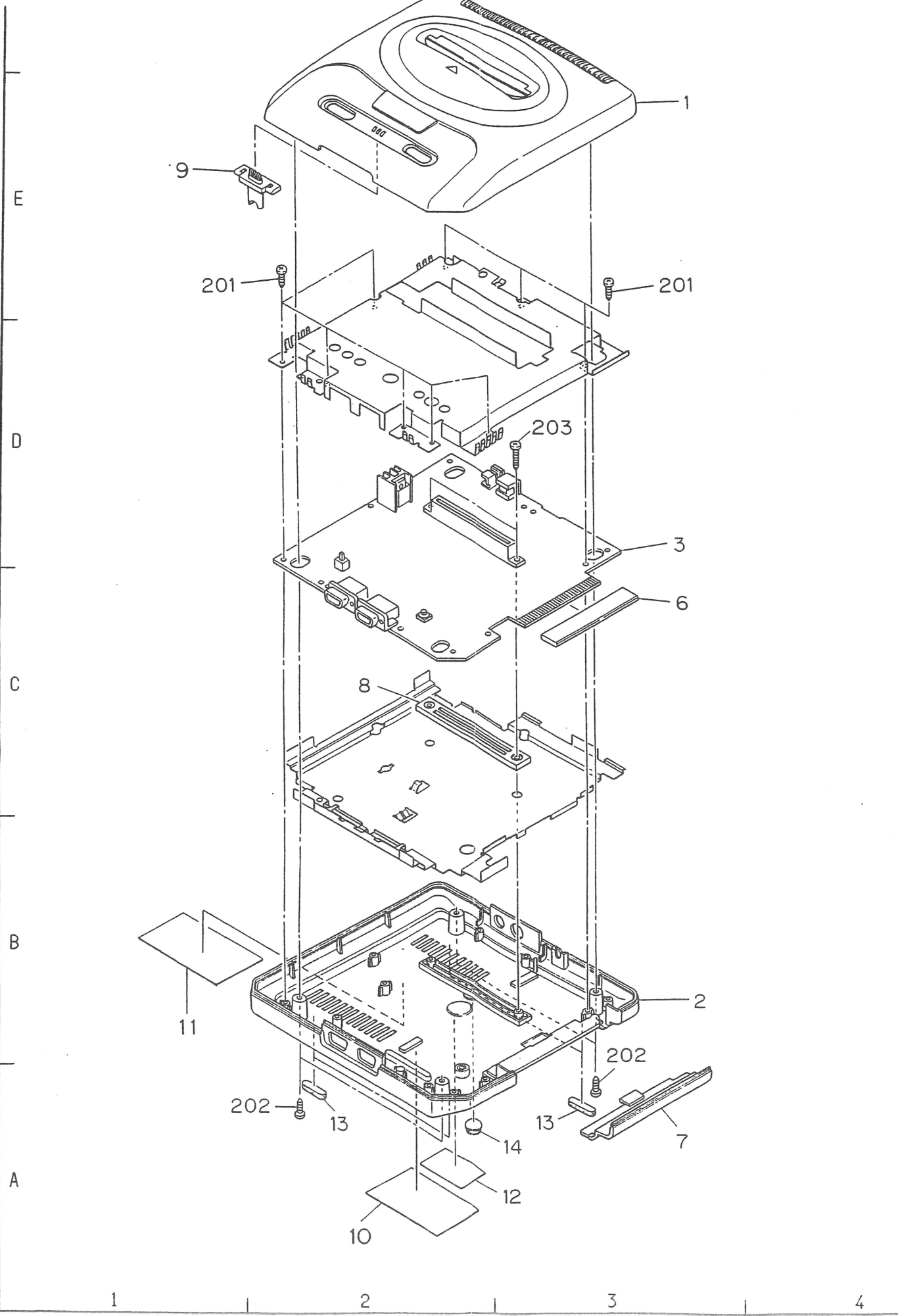■ Outside View

IN GND OUT

■ Pin Layout

■ Equivalent Block Diagram

8. EXPLODED VIEW & PARTS LIST

8-1. EXPLODED VIEW

8-2. MECHANICAL PARTS LIST

Notes: NTSC → GENESIS II
PAL, RGB → MEGA DRIVE II

Ref. No.	Parts No.	Description	Q'TY	Remarks
1	610-5479	ASSY TOP CASE GENESIS2 USA	1	NTSC
1	610-5480	ASSY TOP CASE MD2 EUR	1	PAL,RGB
2	253-6592	BOTTOM CASE MD2 EXPORT	1	
3	837-9602-S	IC BD MD2 VA0S USA (CBA)	1	NTSC-S
3	837-9602-F	IC BD MD2 VA0F USA (CBA)	1	NTSC-F
3	837-9602-SM	IC BD MD2 VA0SM USA (CBA)	1	NTSC-SM
3	837-9603	IC BD MD2 VA0 EUR (CBA)	1	PAL,RGB
6	253-6298	60P CARD EDGE COVER	1	
7	253-6504	LID MD2	1	
8	253-6599	64P COVER MD2 EXPORT	1	
9	253-6598	LED LENS MD2 EXPORT	1	
10	670-0248	SEAL CUSTOMER SERVICE	1	NTSC
11	670-3128	LABEL FCC & SMITH MK-1630 USA	1	NTSC
12	670-3129	LABEL SER. NO. MK-1630 USA	1	NTSC
12	670-3130	LABEL SER NO. MD2 MULTI	1	PAL,RGB
13	601-6973	RUBBER FOOT MD2	4	
14	601-6974	RUBBER FOOT SJ-5012 BLACK	1	
201	012-P00308	TAP SCR PH 3 × 8	9	
202	012-P00310	TAP SCR PH 3 × 10	4	
203	012-P00316-0B	TAP SCR PH BLK 3 × 16	2	