

SECTION 4

CHARTS AND DIAGRAMS

NOTES OF SCHEMATIC DIAGRAM

Safety precautions

The Components identified by the symbol  are critical for safety. For continued safety, replace safety critical components only with manufacturer's recommended parts.

1. Units of components on the schematic diagram

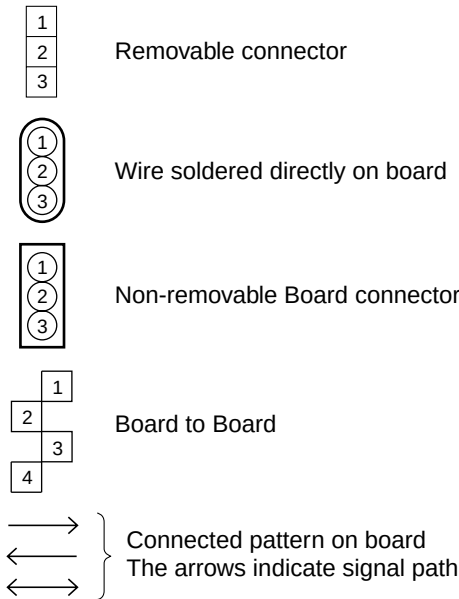
- Unless otherwise specified.
- 1) All resistance values are in ohm. 1/6 W, 1/8 W (refer to parts list).
Chip resistors are 1/16 W.
K: K Ω (1000 Ω), M: M Ω (1000K Ω)
 - 2) All capacitance values are in μ F, (P: PF).
 - 3) All inductance values are in μ H, (m: mH).
 - 4) All diodes are 1SS133, MA165 or 1N4148M (refer to parts list).

Note: The Parts Number, value and rated voltage etc. in the Schematic Diagram are for references only.
When replacing the parts, refer to the Parts List.

2. Indications of control voltage

- AUX : Active at high.
 $\overline{\text{AUX}}$ or AUX(L) : Active at low.

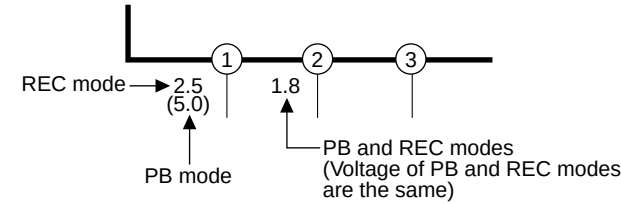
3. Interpreting Connector indications



Note: For the destination of each signal and further line connections that are cut off from the diagram, refer to "BOARD INTERCONNECTIONS"

4. Voltage measurement

- 1) Regulator (DC/DC CONV) circuits
REC : Colour bar signal.
PB : Alignment tape (Colour bar).
— : Unmeasurable or unnecessary to measure.
- 4) Indication on schematic diagram
Voltage Indications for REC and PB mode on the schematic diagram are as shown below.

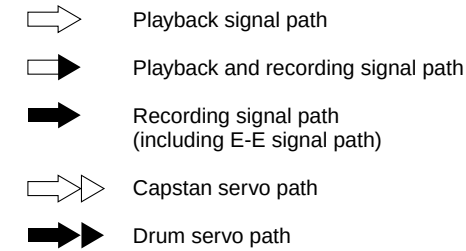


Note: If the voltages are not indicated on the schematic diagram, refer to the voltage charts.

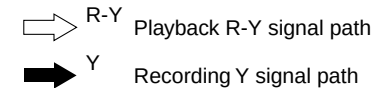
5. Signal path Symbols

The arrows indicate the signal path as follows.

NOTE : The arrow is DVC unique object.



(Example)



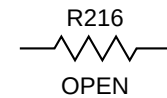
6. Indication of the parts for adjustments

The parts for the adjustments are surrounded with the circle as shown below.



7. Indication of the parts not mounted on the circuit board

"OPEN" is indicated by the parts not mounted on the circuit board.



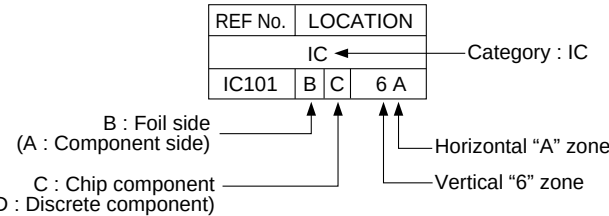
CIRCUIT BOARD NOTES

1. Foil and Component sides

- 1) Foil side (B side) :
Parts on the foil side seen from foil face (pattern face) are indicated.
- 2) Component side (A side) :
Parts on the component side seen from component face (parts face) indicated.

2. Parts location guides

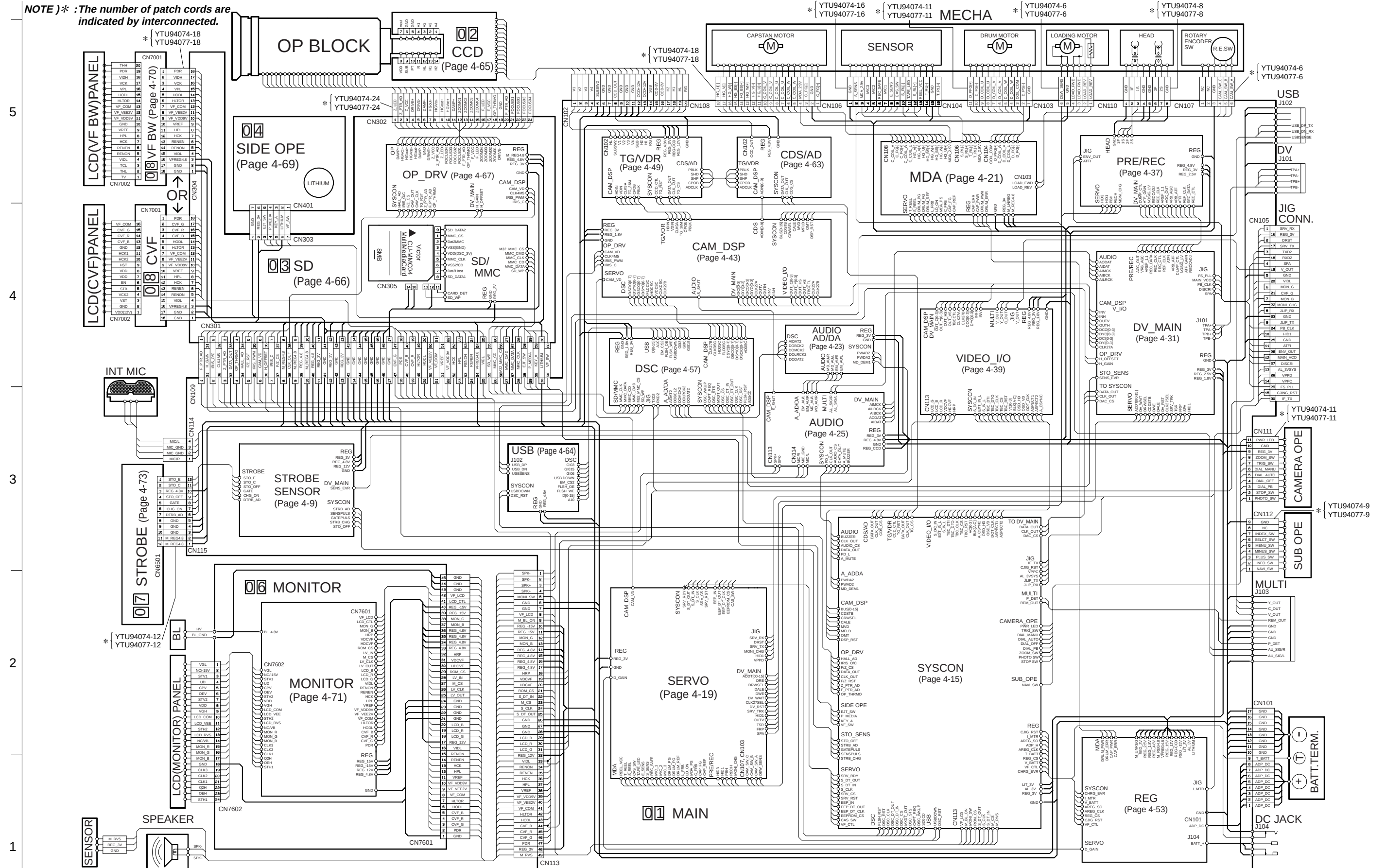
Parts location are indicated by guide scale on the circuit board.



Note: For general information in service manual, please refer to the Service Manual of GENERAL INFORMATION Edition 4 No. 82054D (January 1994).

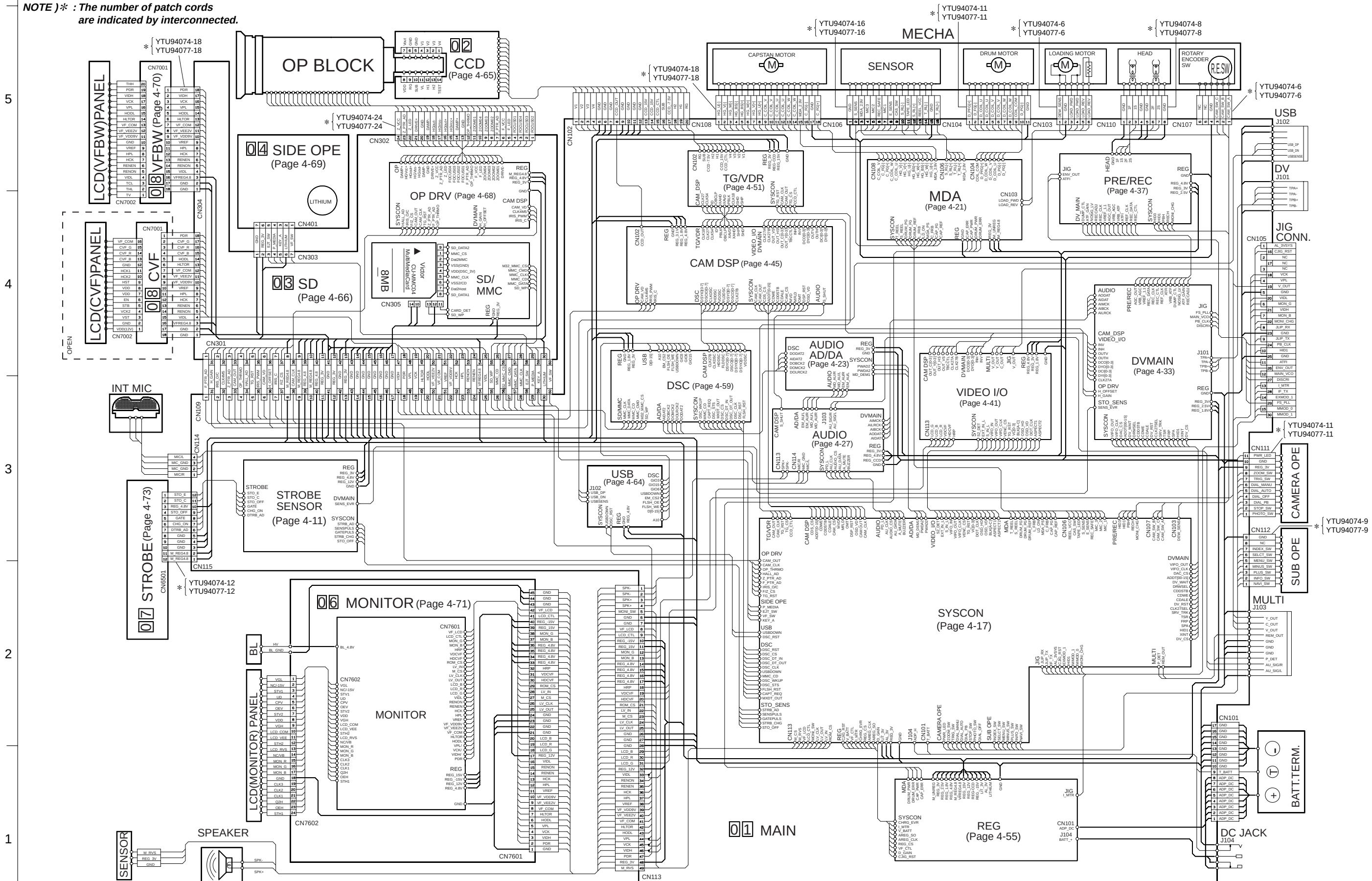
4.1 BOARD INTERCONNECTIONS [FOR MEGA PIXEL with DSC MODEL]

NOTE) * : The number of patch cords are indicated by interconnected.



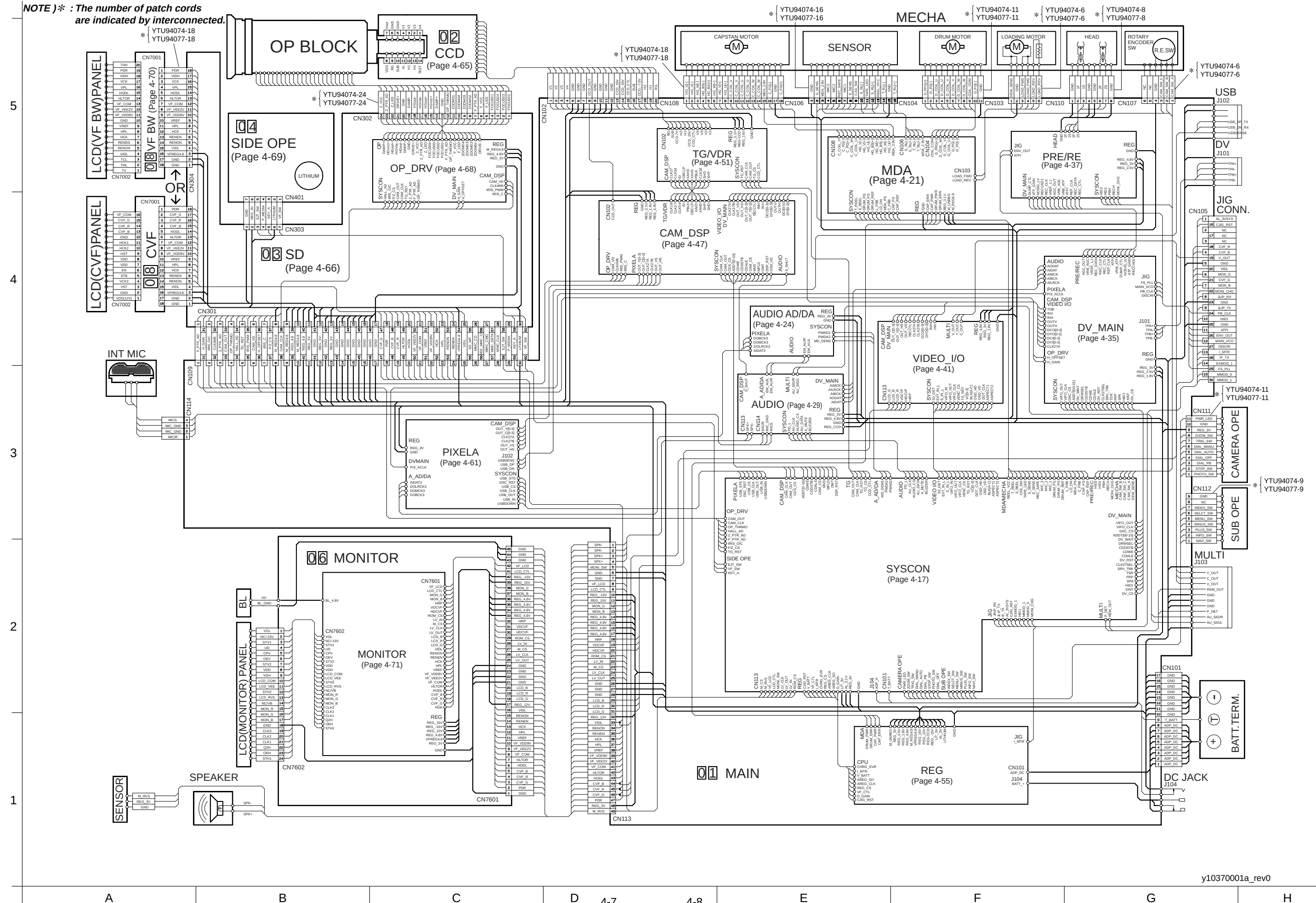
4.2 BOARD INTERCONNECTIONS [FOR NON-MEGA PIXEL with DSC MODEL]

NOTE)* : The number of patch cords are indicated by interconnected.

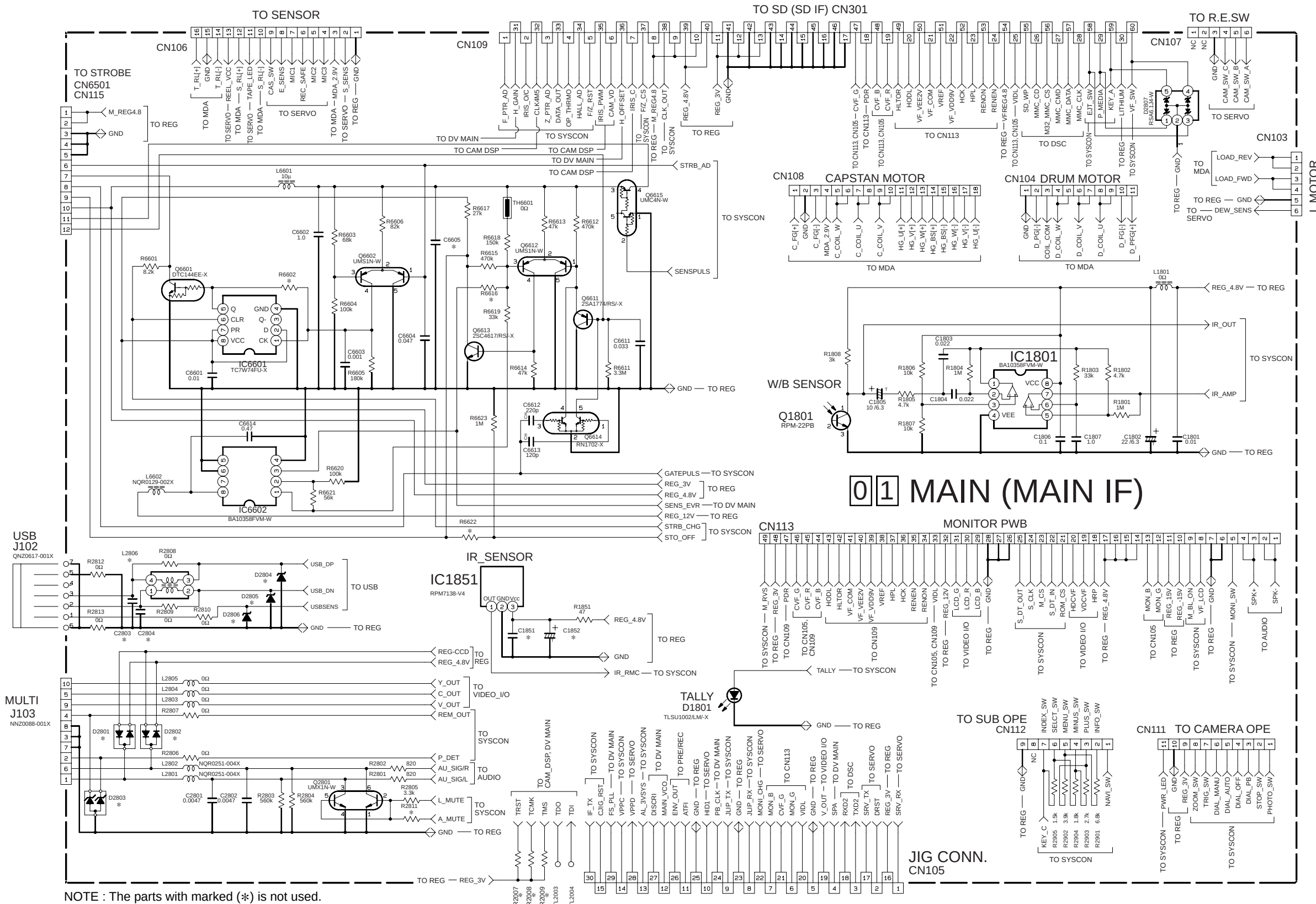


4.3 BOARD INTERCONNECTIONS [FOR NON-MEGA PIXEL without DSC MODEL]

NOTE)* : The number of patch cords are indicated by interconnected.



4.4 MAIN(MAIN IF) SCHEMATIC DIAGRAM [FOR MEGA PIXEL with DSC MODEL]



NOTES: UNLESS OTHERWISE SPECIFIED,
ALL RESISTANCE VALUES ARE IN OHMS.
ALL INDUCTANCE VALUES ARE IN H.
ALL CAPACITANCE VALUES ARE IN μ F.
T TANTAL
C CERAMIC

Symbol No. 1801 ~ 1850		Symbol No. 1851 ~ 1900		Symbol No. 2001 ~ 2100		Symbol No. 2801 ~ 2950		Symbol No. 6601 ~ 6700	
LAST No.	VACANT No.	LAST No.	VACANT No.	LAST No.	VACANT No.	LAST No.	VACANT No.	LAST No.	VACANT No.
R	1808	1851		2009	2001-2006	2905	2815-2900	6623	6607-6610,
C	1807	1852				2804		6614	6606-6610,
D	1801					2807			
Q	1801					2801		6615	6603-6610,
L	1801					2806		6602	
IC	1801	1851						6602	

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1

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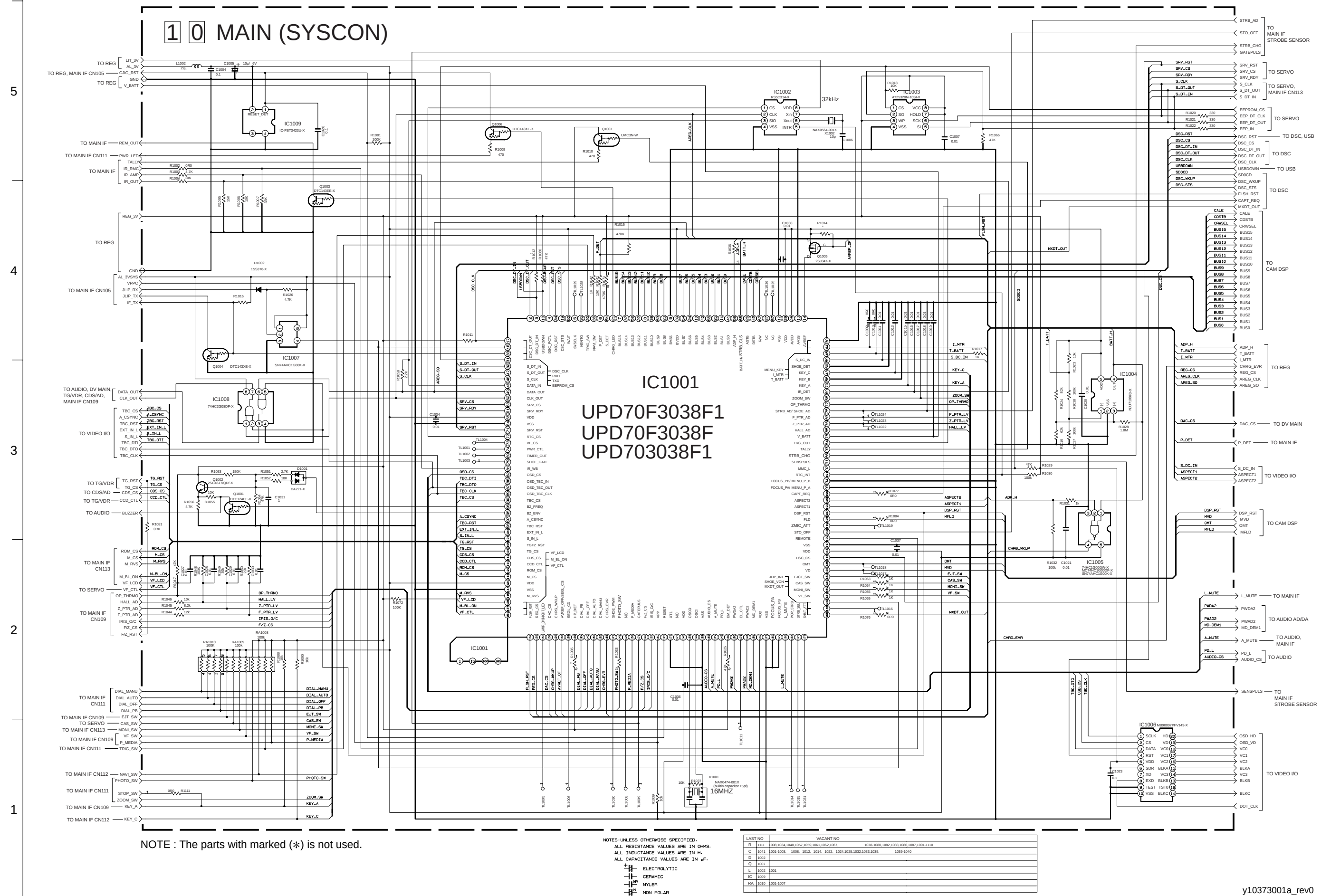


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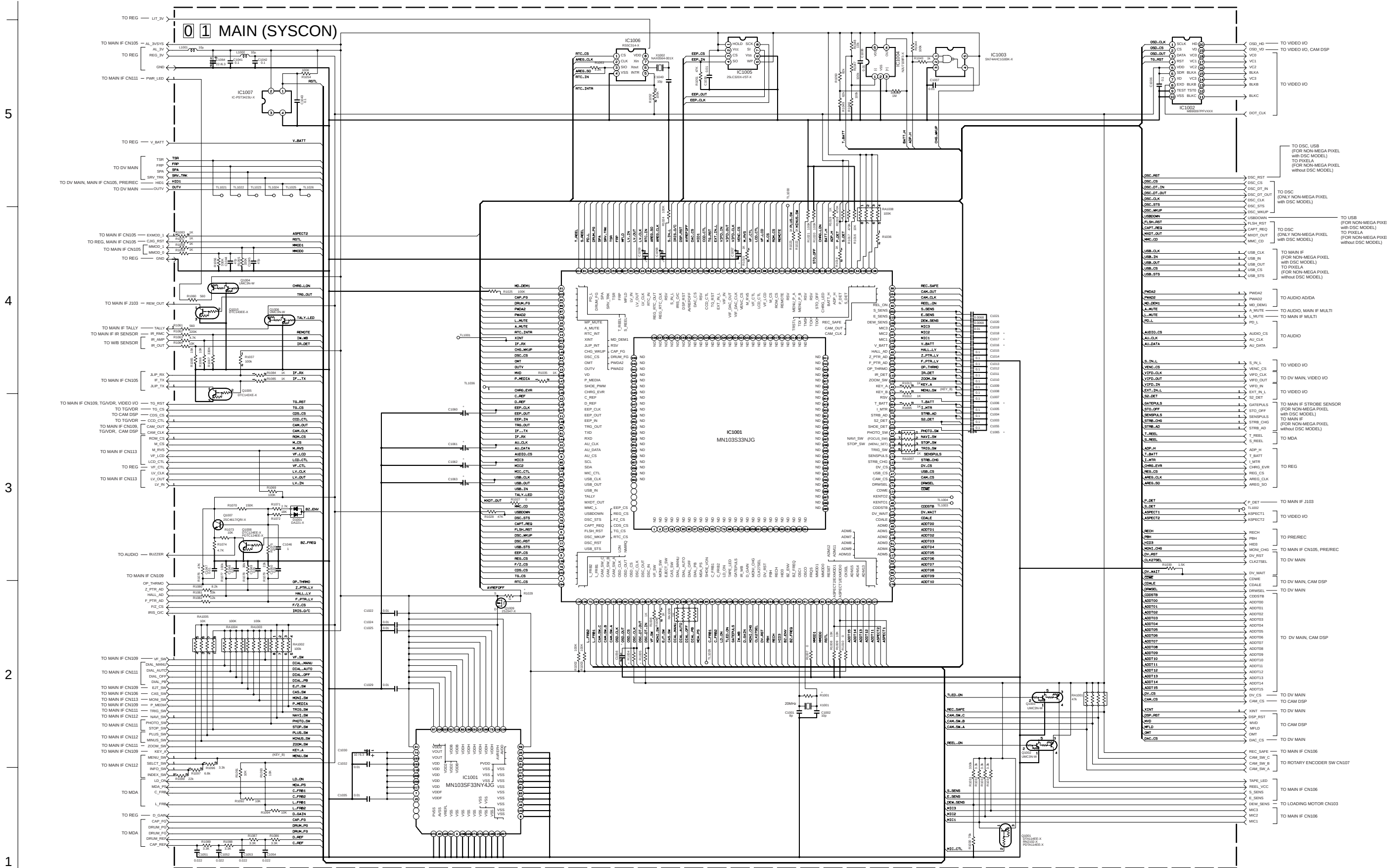
4-13 | 4-14

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4.7 MAIN(SYSCON) SCHEMATIC DIAGRAM [FOR MEGA PIXEL MODEL]



4.8 MAIN(SYSCON) SCHEMATIC DIAGRAM [FOR NON-MEGA PIXEL MODEL]



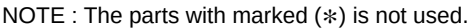
NOTE : The parts with marked (*) is not used.

NOTES: UNLESS OTHERWISE SPECIFIED:
ALL RESISTANCE VALUES ARE IN OHMS.
ALL INDUCTANCE VALUES ARE IN H.
ALL CAPACITANCE VALUES ARE IN μ F.

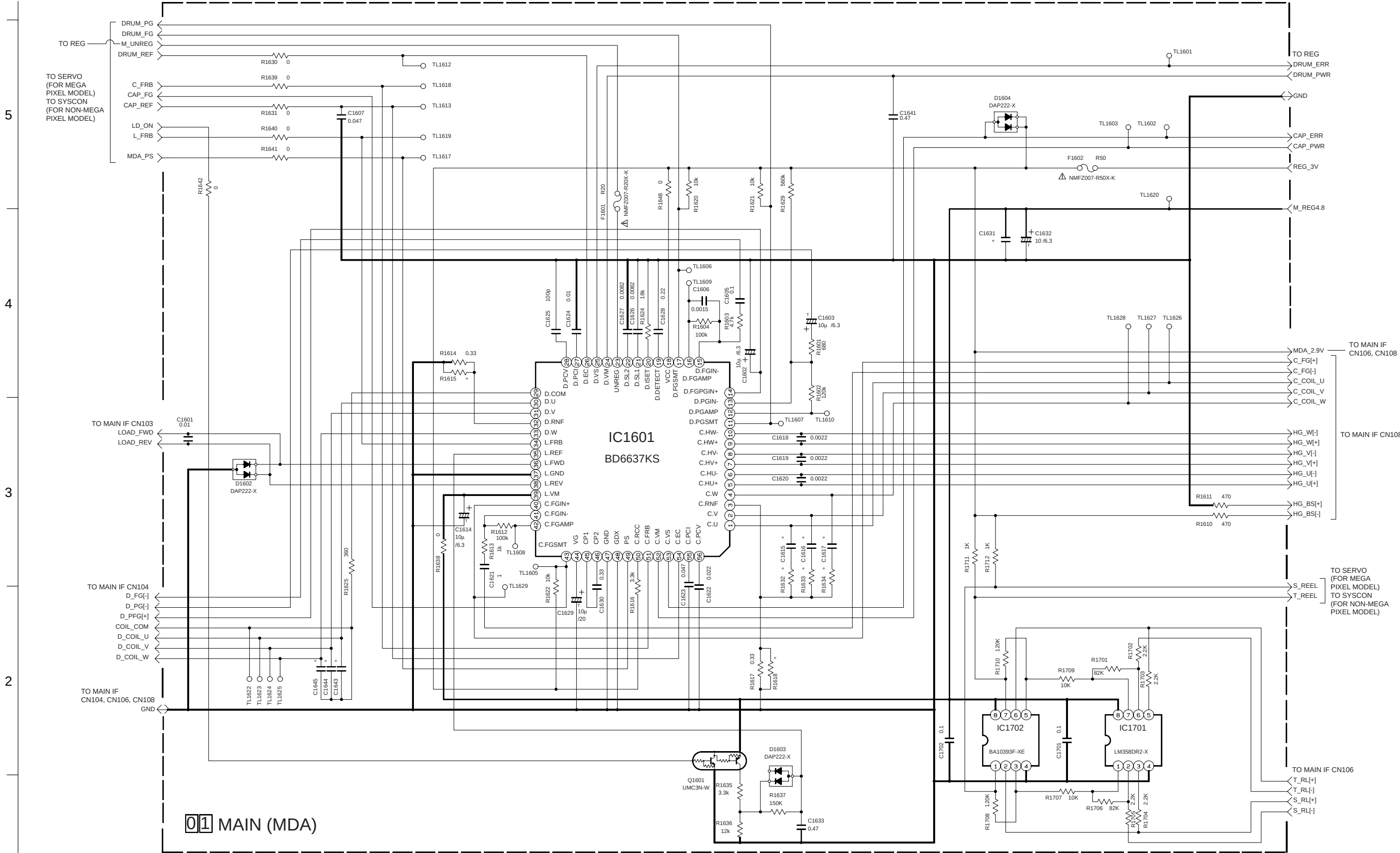
LAST NO	VACANT NO
R 1099	1011, 1028, 1038, 1040, 1041, 1042, 1042.
C 1065	1023, 1026, 1027, 1028, 1031, 1033, 1034.
D 1001	
Q 1010	
L 1002	
IC 1007	
RA 1008	
TL 1039	

⌊ ELECTROLYTIC
⌊ CERAMIC
⌊ MYLAR
⌊ NON POLAR

0 1 MAIN (SERVO)



4.10 MAIN(MDA) SCHEMATIC DIAGRAM



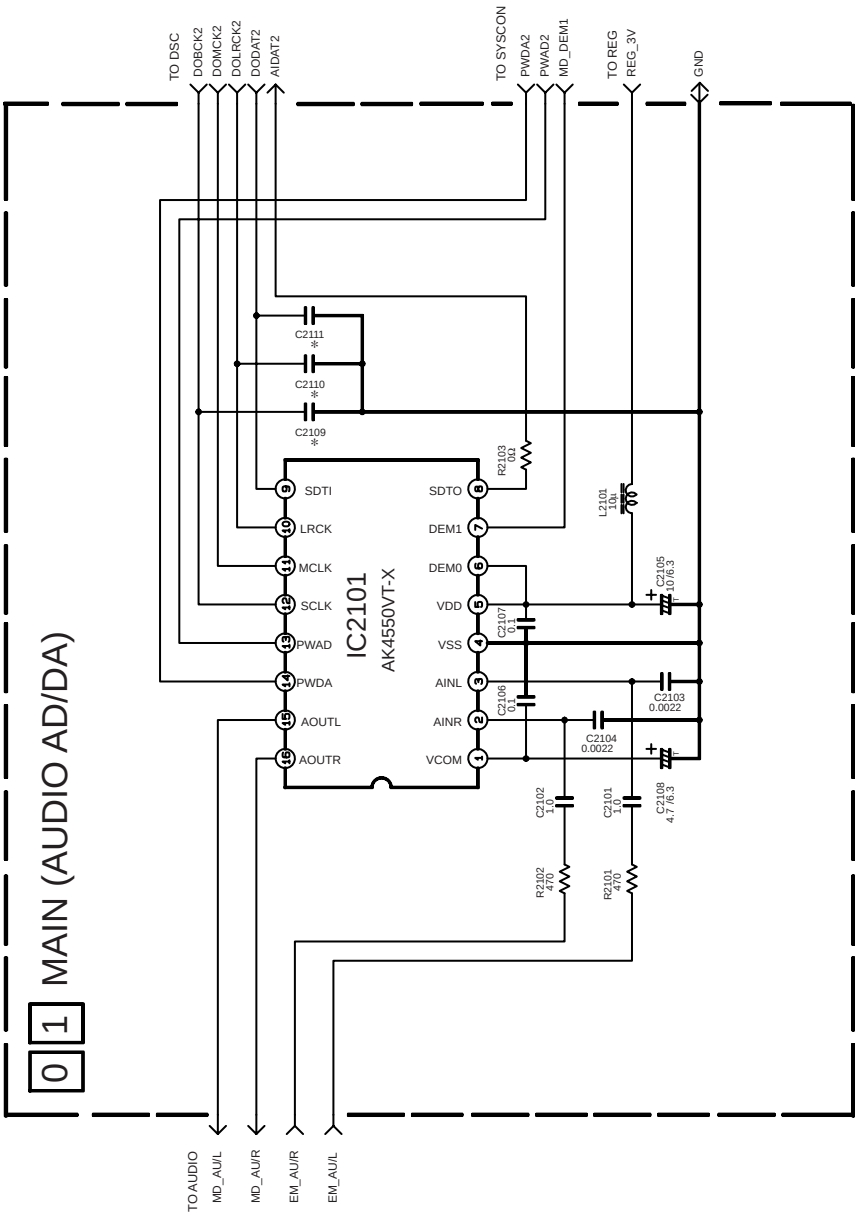
NOTE : The parts with marked (*) is not used.

NOTES:UNLESS OTHERWISE SPECIFIED.
ALL RESISTANCE VALUES ARE IN OHMS.
ALL INDUCTANCE VALUES ARE IN H.
ALL CAPACITANCE VALUES ARE IN μ F.

- ELECTROLYTIC
- CERAMIC
- MYLER
- NON POLAR

LAST NO	VACANT NO
R 1712	1605-1609,1619,1623,1626-1628,1643-1647,1649-1700
C 1702	1604,1608-1613,1634-1640,1642,1646-1700
D 1604	1601
Q 1601	
L —	
IC 1702	1602-1700
F 1602	

4.11 MAIN(AUDIO AD/DA) SCHEMATIC DIAGRAM [FOR with DSC MODEL]



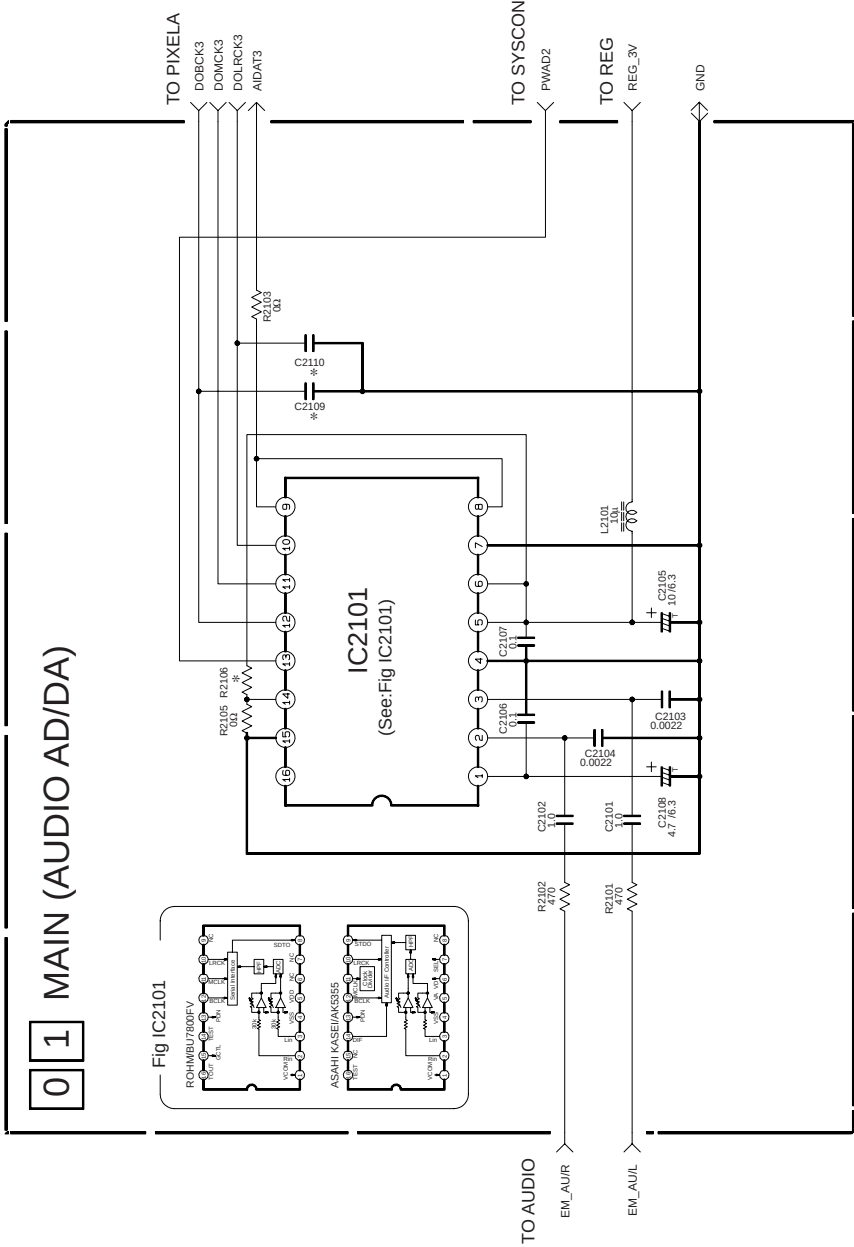
NOTE : The parts with marked (*) is not used.

SYMBOL No. 2101~ 2199

LAST No.	VACANT No.	VACANT No. (* NO USED)
R 2103		
C 2111	2109-2111	
IC 2103		
L 2101		
Q		
D		

NOTES: UNLESS OTHERWISE SPECIFIED.
ALL RESISTANCE VALUES ARE IN OHMS.
ALL INDUCTANCE VALUES ARE IN H.
ALL CAPACITANCE VALUES ARE IN #F.
CERAMIC
TANTAL

4.12 MAIN(AUDIO AD/DA) SCHEMATIC DIAGRAM [FOR without DSC MODEL]



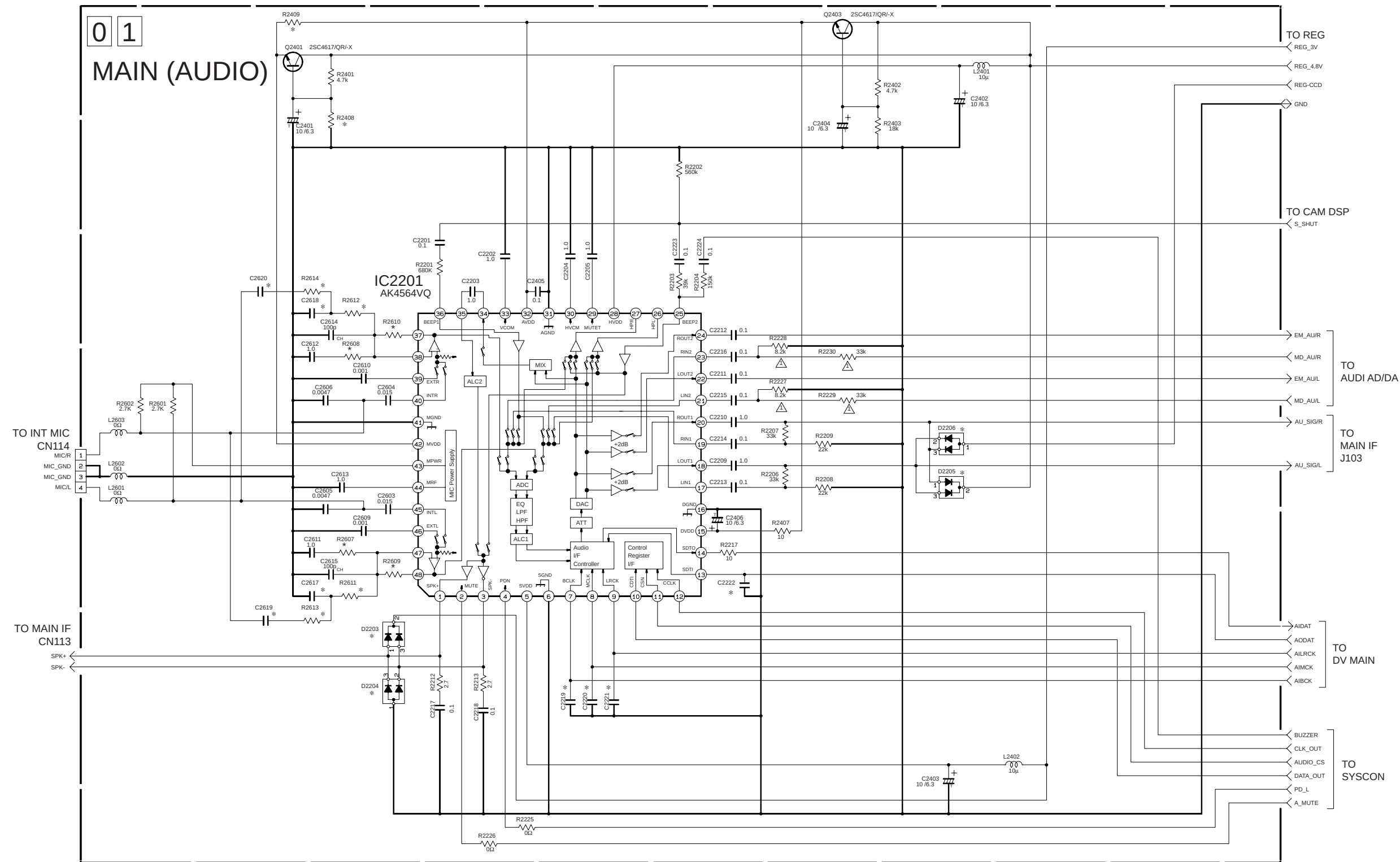
NOTE : The parts with marked (*) is not used.

SYMBOL No. 2101~ 2199

LAST No.	VACANT No.	VACANT No. (* NO USED)
R 2106	2104	
C 2110	2106	2109-2111
IC 2101		
L 2101		
Q		
D		

NOTES: UNLESS OTHERWISE SPECIFIED.
ALL RESISTANCE VALUES ARE IN OHMS.
ALL INDUCTANCE VALUES ARE IN H.
ALL CAPACITANCE VALUES ARE IN #F.
CERAMIC
TANTAL

4.13 MAIN(AUDIO) SCHEMATIC DIAGRAM [FOR MEGA PIXEL with DSC MODEL]



NOTE : The parts with marked (*) is not used.

NOTES: UNLESS OTHERWISE SPECIFIED.
ALL RESISTANCE VALUES ARE IN OHMS.
ALL INDUCTANCE VALUES ARE IN H.
ALL CAPACITANCE VALUES ARE IN μ F.
-||- CERAMIC $\frac{H}{I}$ TANTAL

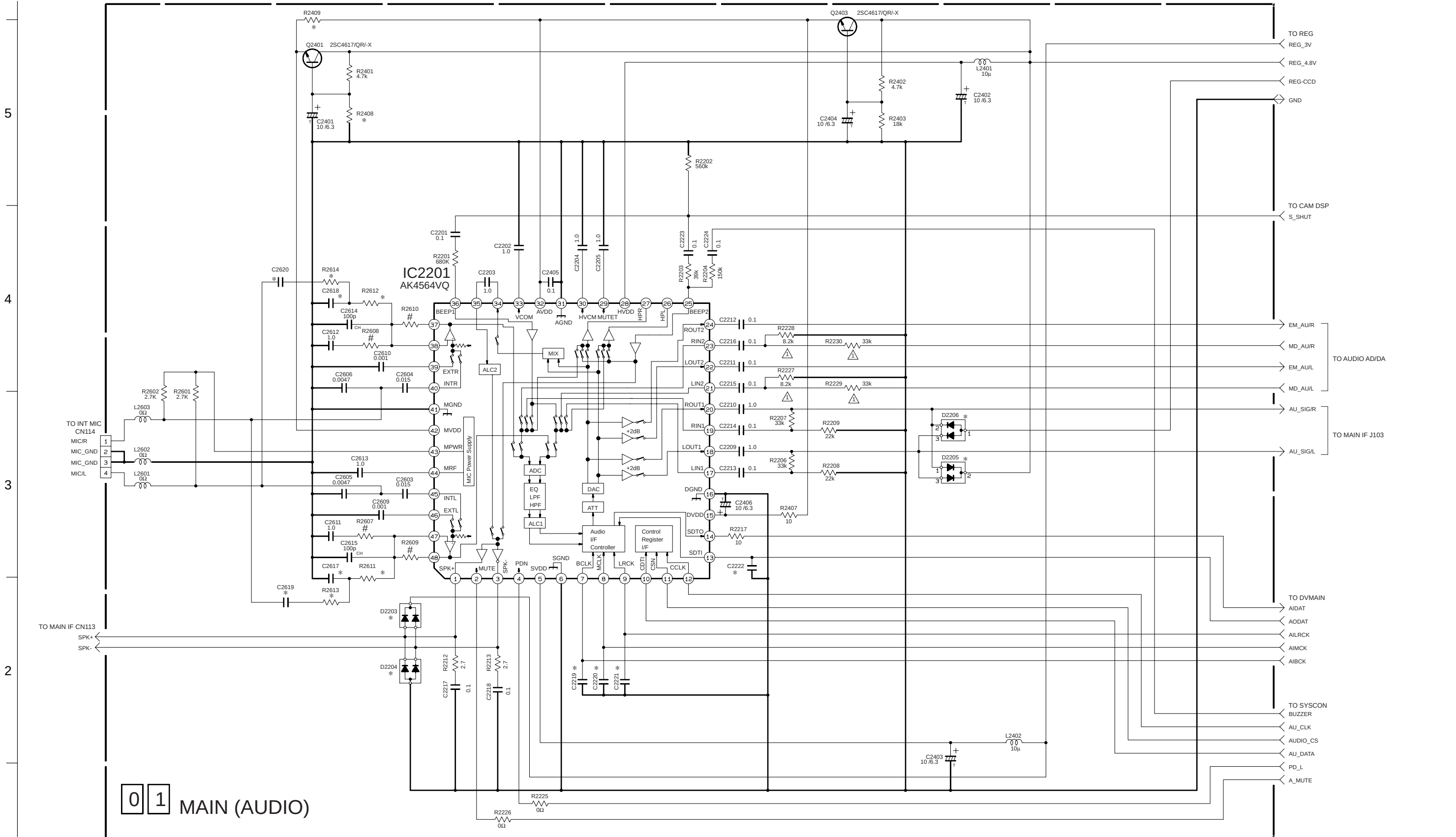
* VALUE CHANGE

*	NTSC	PAL
R2607	2.2K	22K
R2608	2.2K	22K
R2609	22K	220K
R2610	22K	220K

SYMBOL No. 2201-2699

LAST No.	VACANT No.	VACANT No. (NO WEAR)
R 2614	2205 2210-2211 2214-2216 2218-2224 2231-2400 2404-2406 2410-2600 2603-2606	2611-2614 2408-2409
C 2620	2206-2208 2225-2400 2407-2602 2616	2219-2222 2617-2620
IC 2201		
L 2603	2201-2400 2403-2600	
Q 2403	2201-2400 2402	
D 2206	2201-2202	2203-2206

4.14 MAIN(AUDIO) SCHEMATIC DIAGRAM [FOR NON-MEGA PIXEL with DSC MODEL]



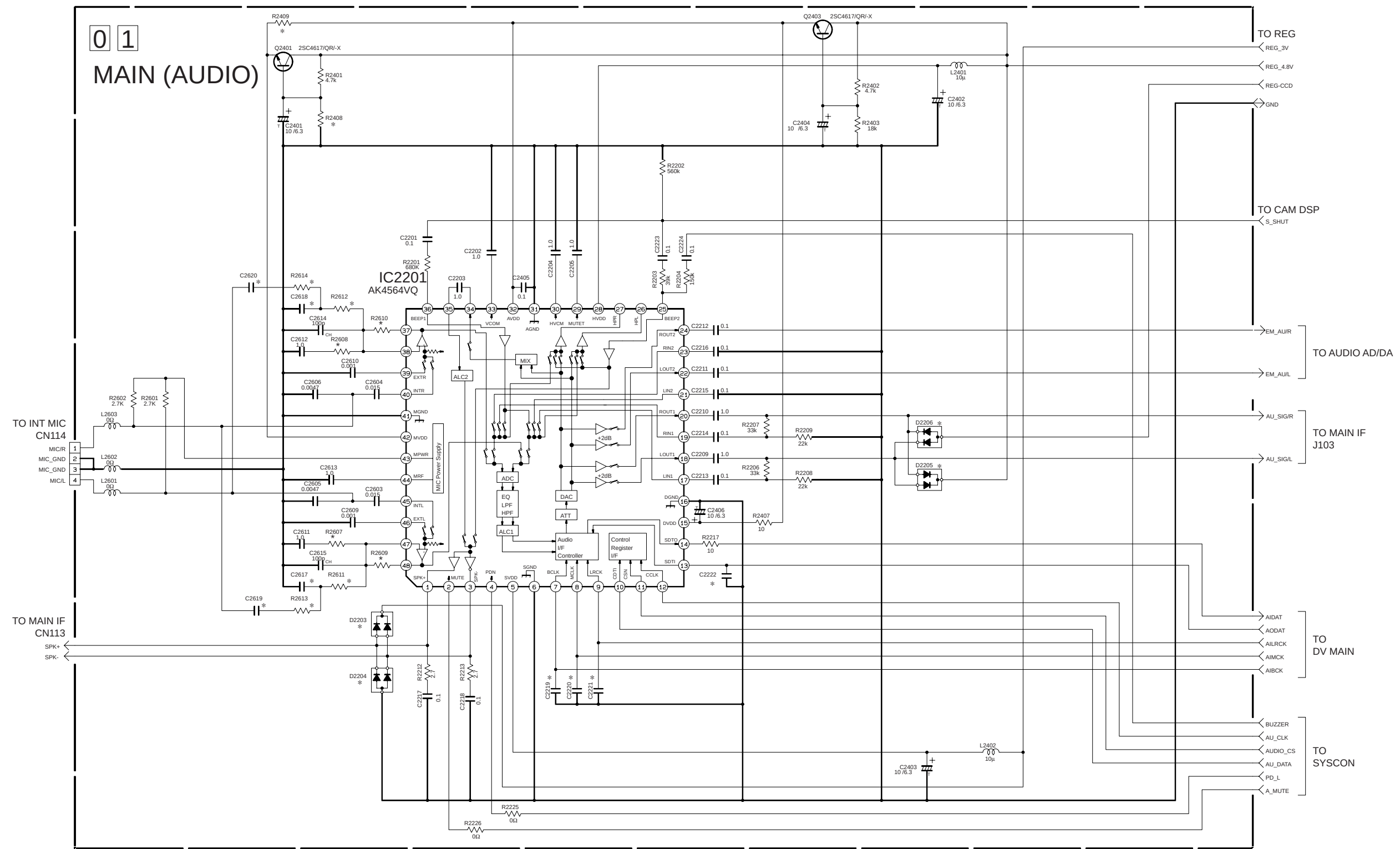
NOTE : The parts with marked (*) is not used.

NOTES: UNLESS OTHERWISE SPECIFIED.
ALL RESISTANCE VALUES ARE IN OHMS.
ALL INDUCTANCE VALUES ARE IN H.
ALL CAPACITANCE VALUES ARE IN μ F.
CERAMIC TANTAL

# EXCHANGE PARTS LIST				
	R2607	R2608	R2609	R2610
NTSC	2.2K	2.2K	22K	22K
PAL	22K	22K	220K	220K

SYMBOL No.		2201-2699										
LAST No.		VACANT No.							VACANT No. (* NOT USED)			
R	2614	2205	2210-2211	2214-2216	2218-2224	2231-2400	2404-2406	2410-2600	2603-2606	2611-2614	2408-2409	
C	2620	2206-2208	2225-2400	2407-2602	2616						2219-2222	2617-2620
IC	2201											
L	2603	2201-2400	2403-2600									
Q	2403	2201-2400	2402									
D	2206	2201-2202								2203-2206		

4.15 MAIN(AUDIO) SCHEMATIC DIAGRAM [FOR NON-MEGA PIXEL without DSC MODEL]



NOTE : The parts with marked (*) is not used.

NOTES: UNLESS OTHERWISE SPECIFIED.
ALL RESISTANCE VALUES ARE IN OHMS.
ALL INDUCTANCE VALUES ARE IN H.
ALL CAPACITANCE VALUES ARE IN μ F.

—|— CERAMIC $\pm$ TANTAL

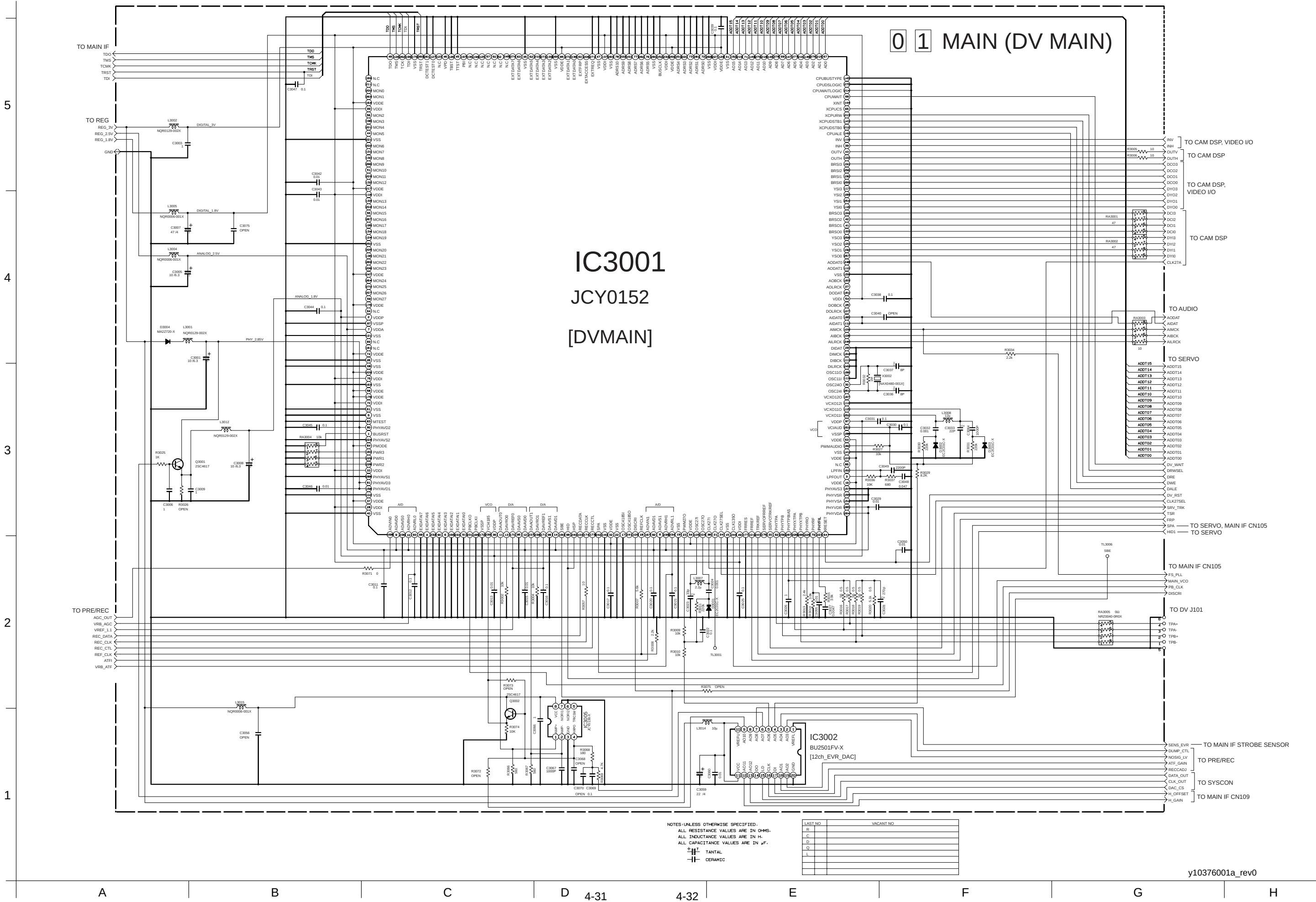
* VALUE CHANGE

*	NTSC	PAL
R2607	2.2K	22K
R2608	2.2K	22K
R2609	22K	220K
R2610	22K	220K

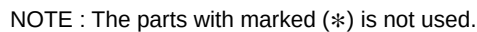
SYMBOL No. 2201-2699

LAST No.	VACANT No.	VACANT No. (NO-WEAR)
R 2614	2205 2210-2211 2214-2216 2219-2224 2227-2400 2404-2406 2410-2600 2603-2606	2611-2614 2408-2409
C 2620	2206-2208 2225-2400 2407-2602 2616	2219-2222 2617-2620
IC 2201		
L 2603	2201-2400 2403-2600	
Q 2403	2201-2400 2402	
D 2206	2201-2202	2203-2206

4.16 MAIN(DV MAIN) SCHEMATIC DIAGRAM [FOR MEGA PIXEL with DSC MODEL]

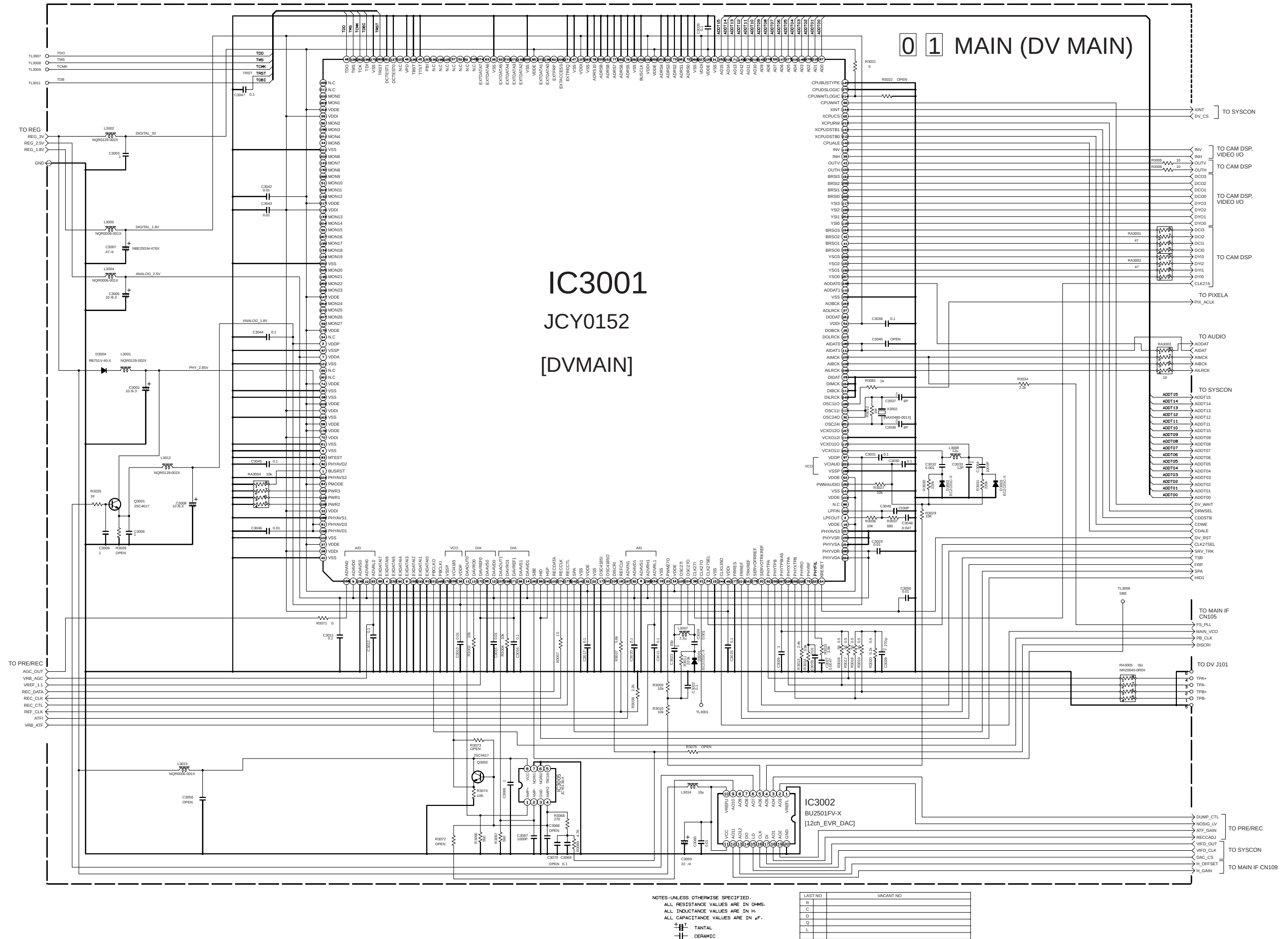


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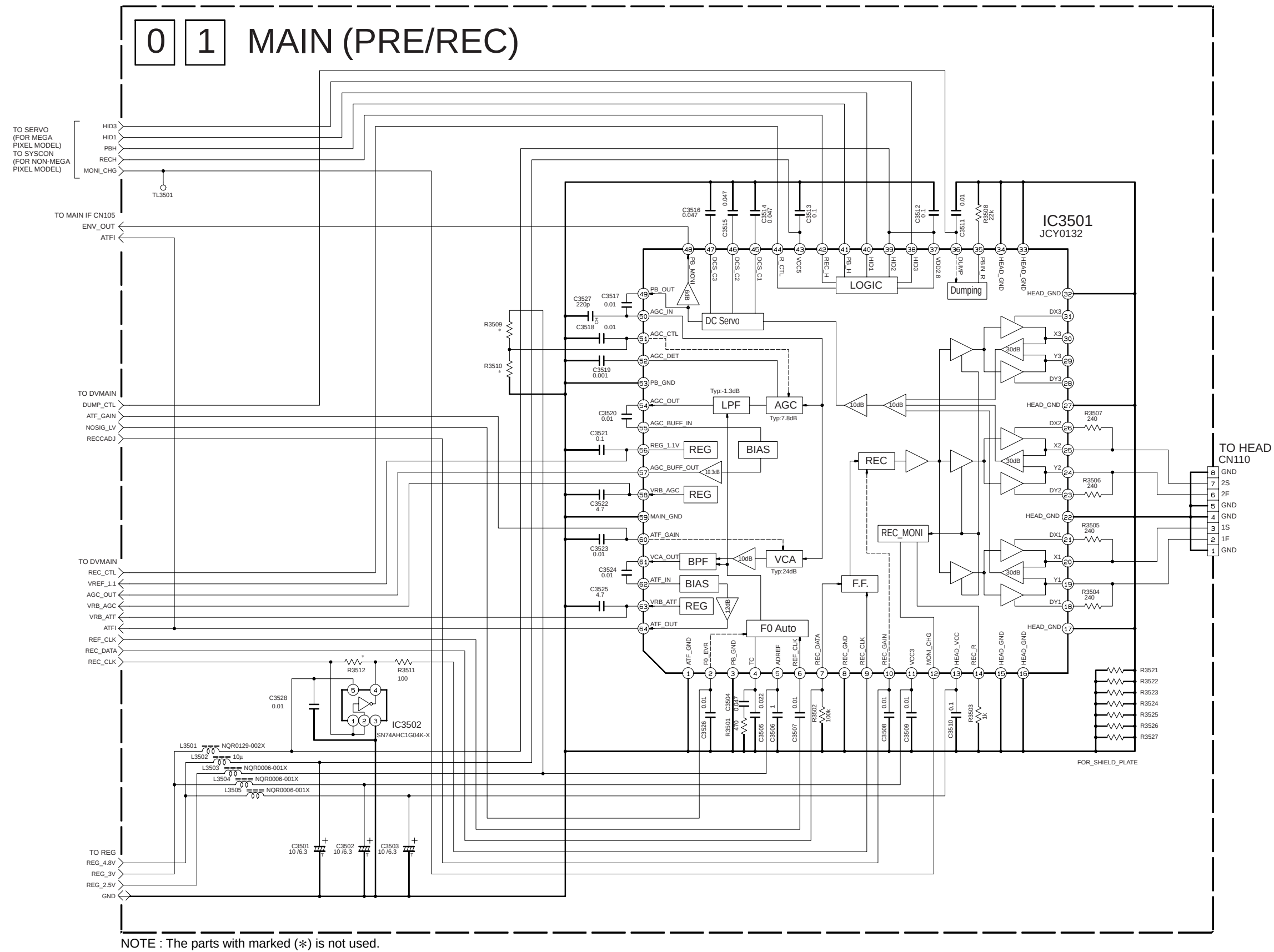


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4.18 MAIN(DV MAIN) SCHEMATIC DIAGRAM [FOR NON-MEGA PIXEL withput DSC MODEL]

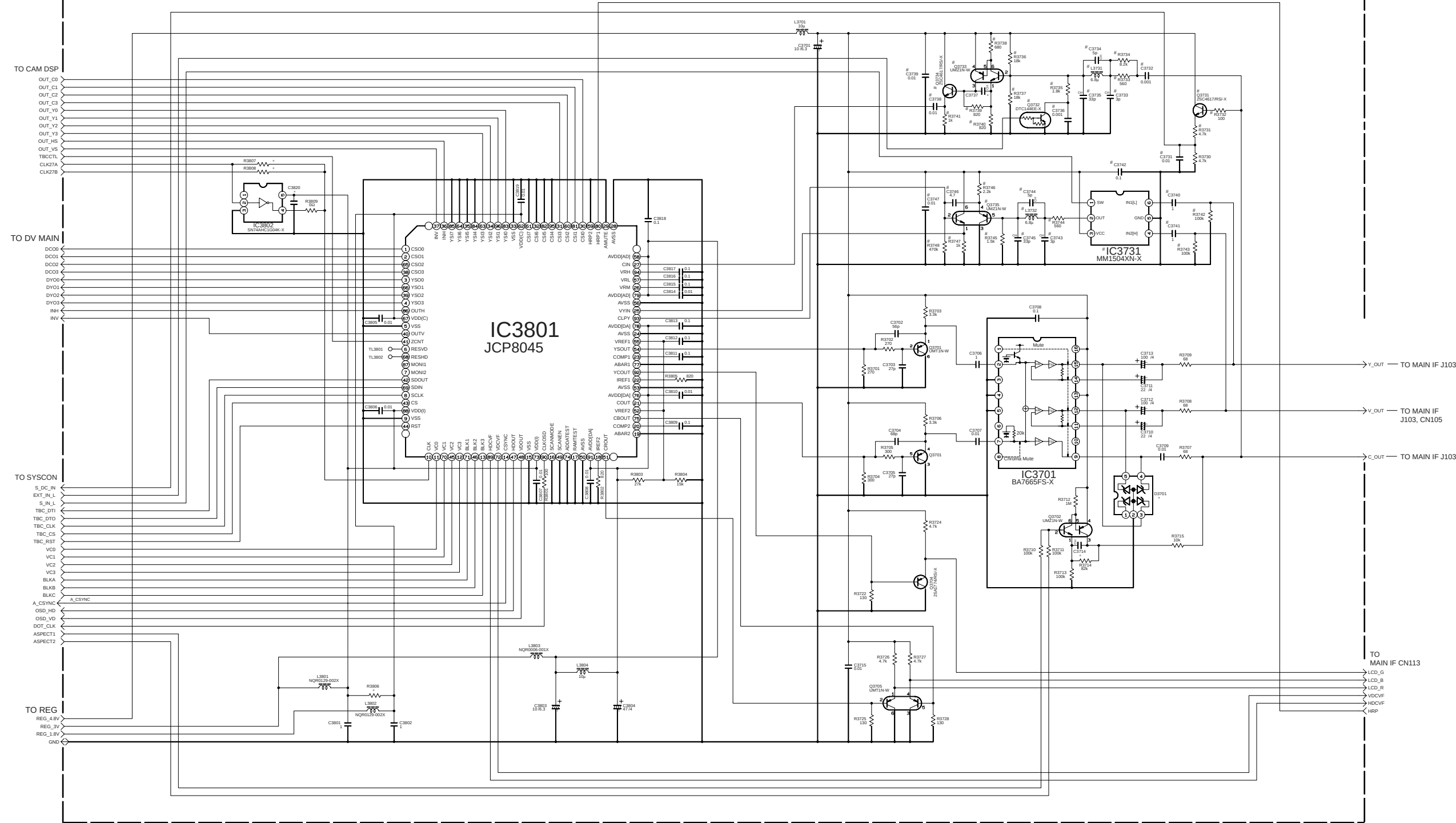


4.19 MAIN(PRE/REC) SCHEMATIC DIAGRAM



4.20 MAIN(VIDEO I/O) SCHEMATIC DIAGRAM [FOR MEGA PIXEL MODEL]

0 1 MAIN (VIDEO I/O)



NOTE : The parts with marked (*) is not used.

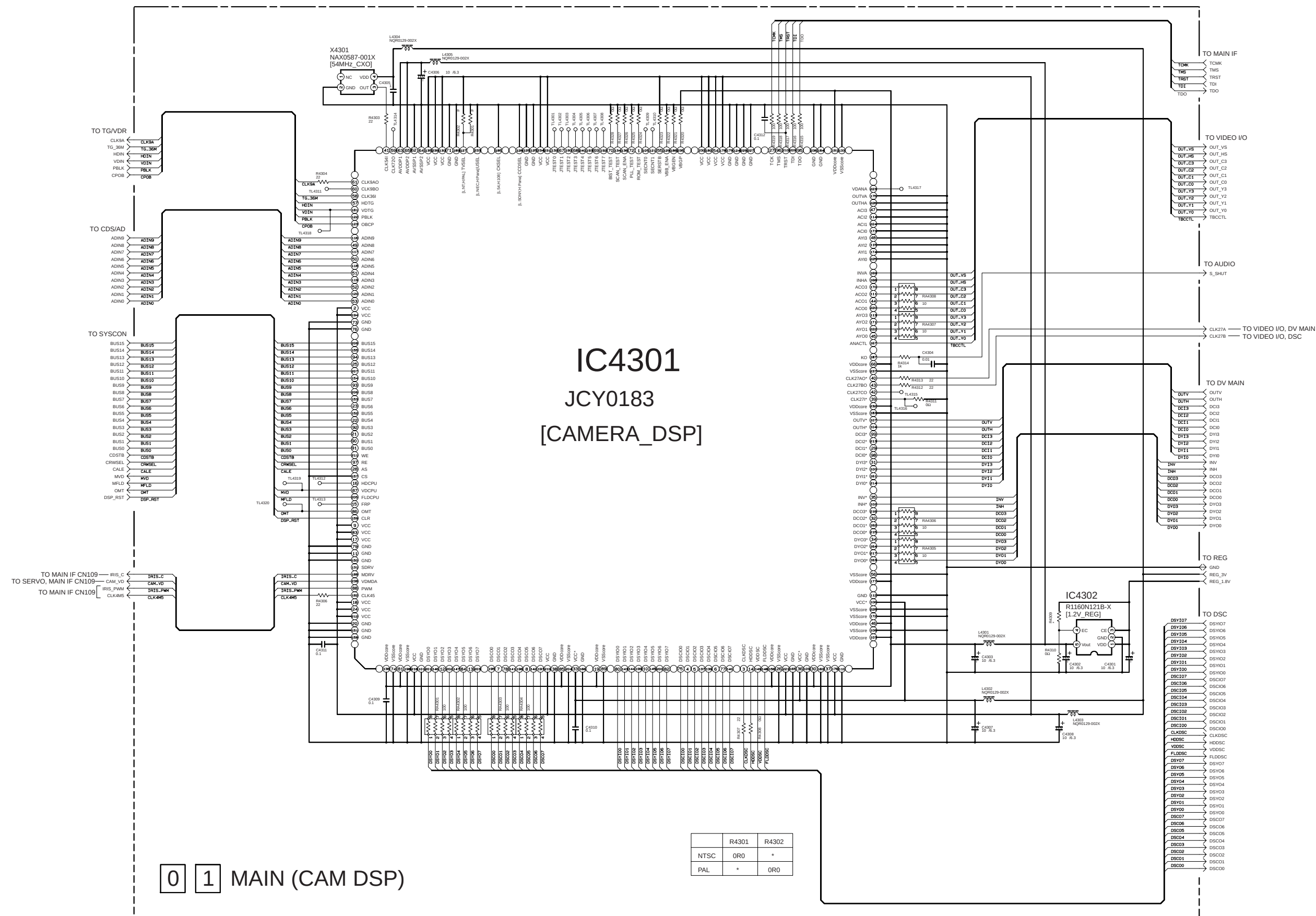
#: EXCHANGE PARTS LIST	WITH ANALOG INPUT	WITHOUT ANALOG INPUT
IC3731	WARE	NO WARE
Q3731-Q3735	WARE	NO WARE
L3731.L3732	WARE	NO WARE
R3731-R3748	WARE	NO WARE
C3731-C3747	WARE	NO WARE

NOTES: UNLESS OTHERWISE SPECIFIED.
ALL RESISTANCE VALUES ARE IN OHMS.
ALL INDUCTANCE VALUES ARE IN H.
ALL CAPACITANCE VALUES ARE IN μ F.
TANTAL
CERAMIC

LAST NO	VACANT NO
R	
C	
D	
Q	
L	

1

4.22 MAIN(CAM DSP) SCHEMATIC DIAGRAM [FOR MEGA PIXEL with DSC MODEL]



NOTES: UNLESS OTHERWISE SPECIFIED.
ALL RESISTANCE VALUES ARE IN OHMS
ALL INDUCTANCE VALUES ARE IN H.
ALL CAPACITANCE VALUES ARE IN μ F.

 ELECTROLYTIC
 CERAMIC
 MYLAR
 NON POLAR

LAST NO		VACANT NO
R	4328	4305
C	4312	
RA	4308	
IC	4302	
L	4305	
X	4301	

5



3

2

1

	R4302	R4303
NTSC	0Ω	OPEN
PAL	OPEN	0Ω

	ELECTROLYTIC
	CERAMIC
	MYLER
	NON POLAR

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4.24 MAIN(CAM DSP) SCHEMATIC DIAGRAM [FOR NON-MEGA PIXEL without DSC MODEL]

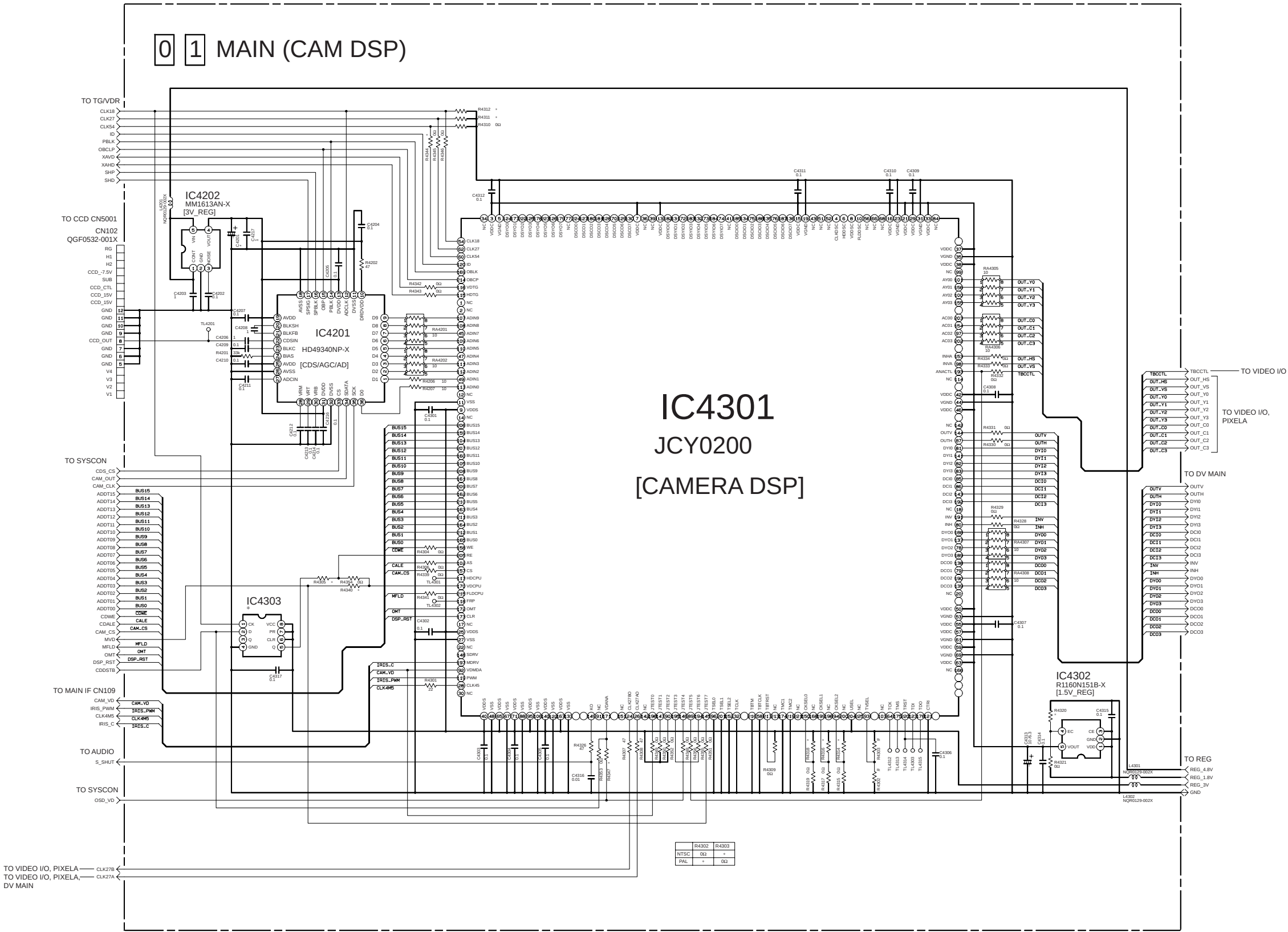
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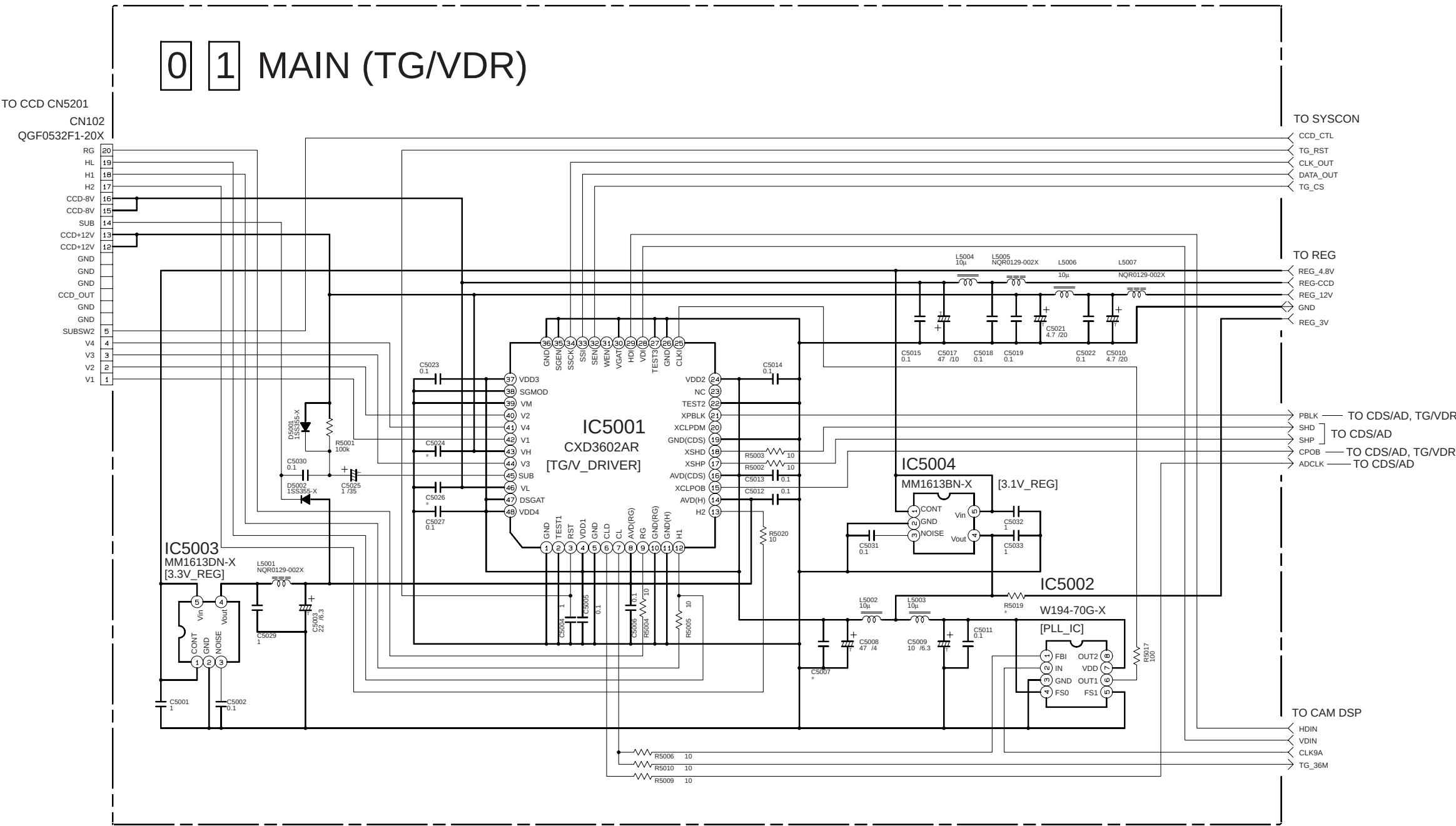
	R4302	R4303
NTSC	00	*
PAL	*	00

NOTES: UNLESS OTHERWISE SPECIFIED,
ALL RESISTANCE VALUES ARE IN OHMS.
ALL INDUCTANCE VALUES ARE IN H.
ALL CAPACITANCE VALUES ARE IN μ F.

+ ELECTROLYTIC
- CERAMIC
- MYLAR
- NON POLAR

	CDS/AD		CAM/DSP
LAST NO	VACANT NO	LAST NO	VACANT NO
R	4207	4203-4205	4396
C	4217	4215	4317
L	4201	4215	4302
IC	4202		4303
RA	4202		4308
CN	102		4301-4304

4.25 MAIN(TG/VDR) SCHEMATIC DIAGRAM [FOR MEGA PIXEL MODEL]

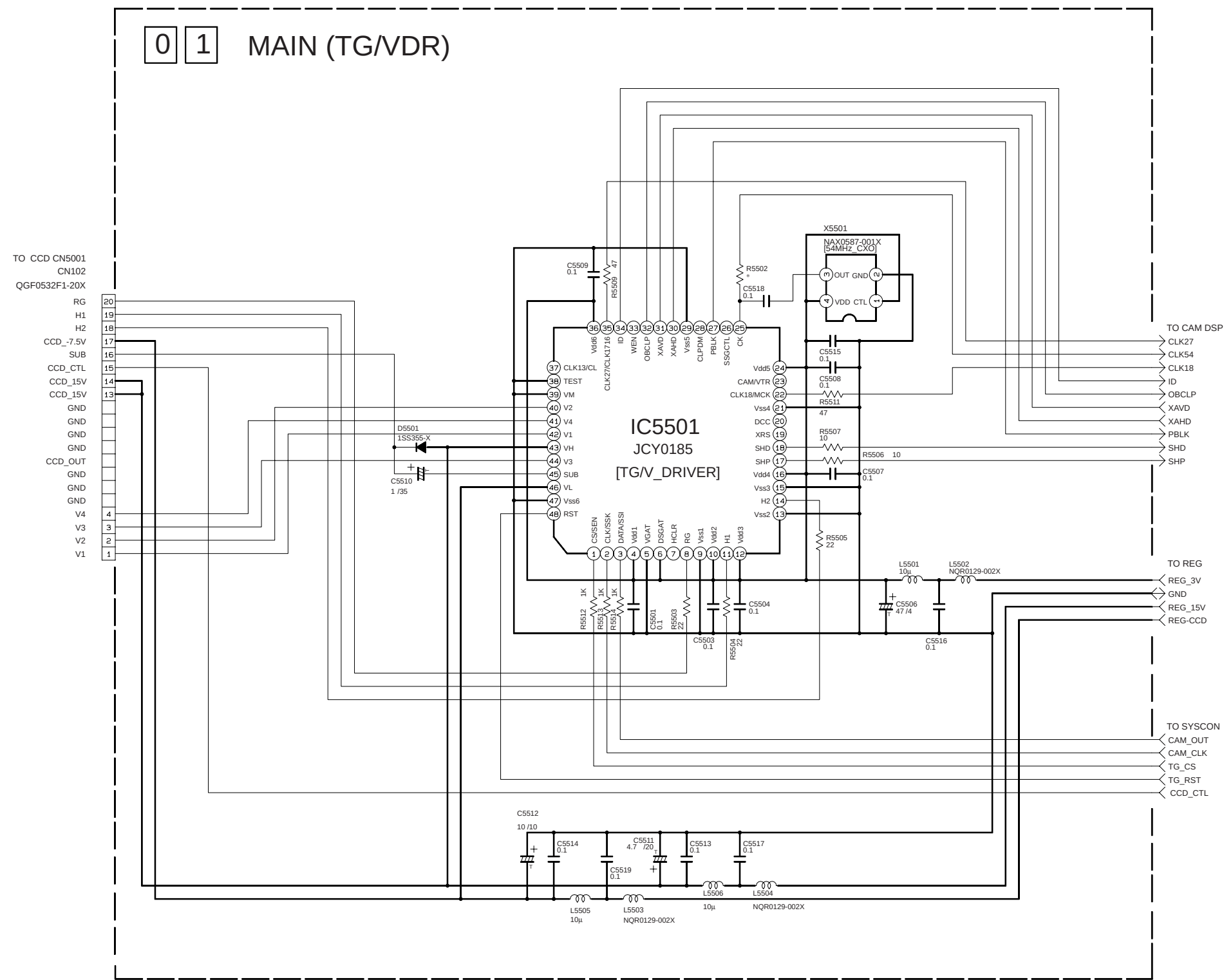


NOTES: UNLESS OTHERWISE SPECIFIED.
ALL RESISTANCE VALUES ARE IN OHMS.
ALL INDUCTANCE VALUES ARE IN H.
ALL CAPACITANCE VALUES ARE IN μ F.

⎓ ELECTROLYTIC
C CERAMIC
M MYLER
N NON POLAR

LAST NO		VACANT NO		
R	5020	5007-5008	5011-5016	5018
C	5033	5016	5020	5028
D	5002			
IC	5004			
L	5007			

4.26 MAIN(TG/VDR) SCHEMATIC DIAGRAM [FOR NON-MEGA PIXEL MODEL]



NOTE : The parts with marked (*) is not used.

NOTES: UNLESS OTHERWISE SPECIFIED.
ALL RESISTANCE VALUES ARE IN OHMS.
ALL INDUCTANCE VALUES ARE IN H.
ALL CAPACITANCE VALUES ARE IN μ F.

- ELECTROLYTIC
- CERAMIC
- MYLER
- NON POLAR

LAST NO	VACANT NO			
R	5514	5501	5508	5510
C	5519	5502	5505	
D	5501			
L	5506			
IC	5501			
X	5501			

5

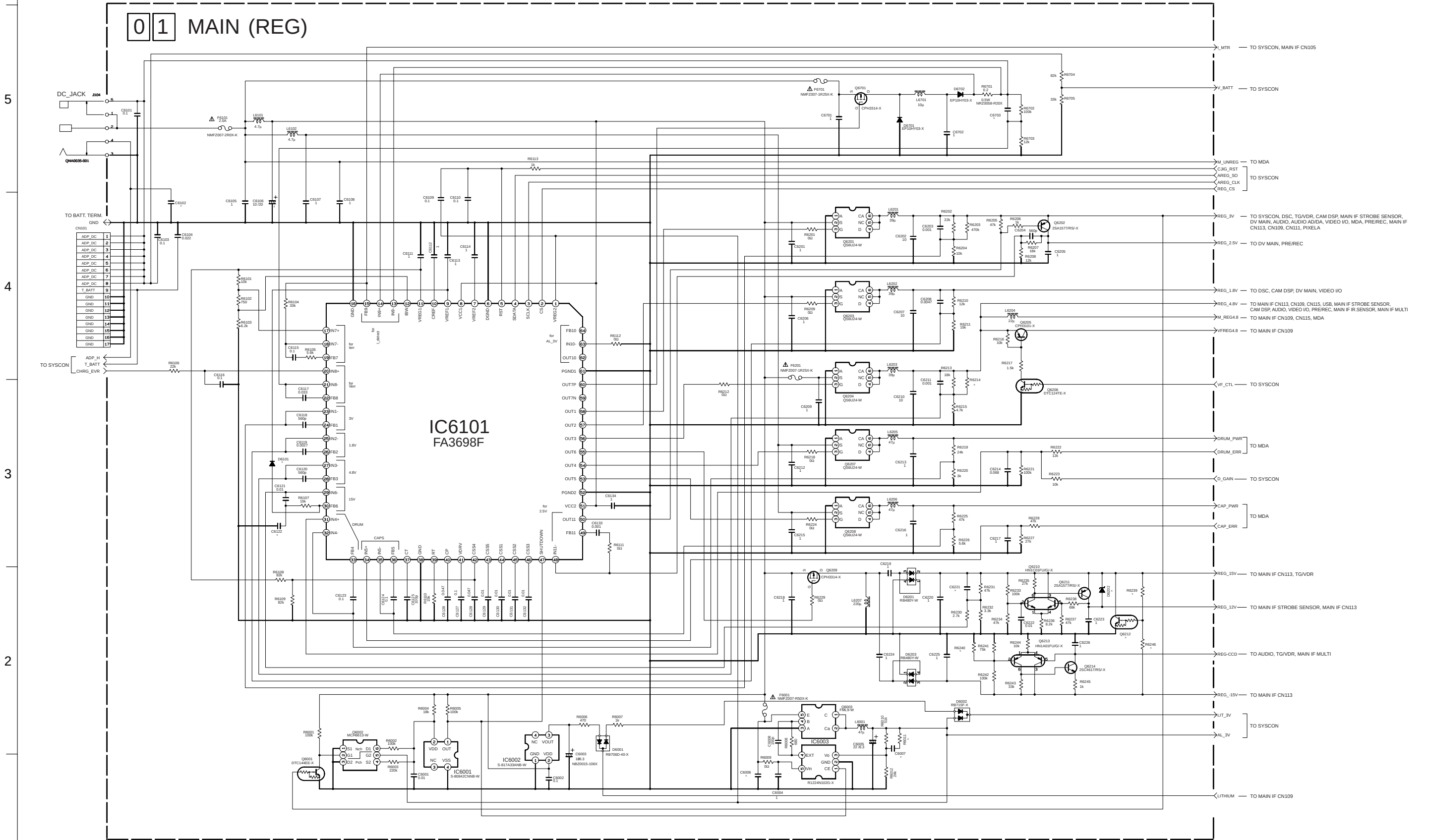


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4.28 MAIN(REG) SCHEMATIC DIAGRAM [FOR NON-MEGA PIXEL MODEL]

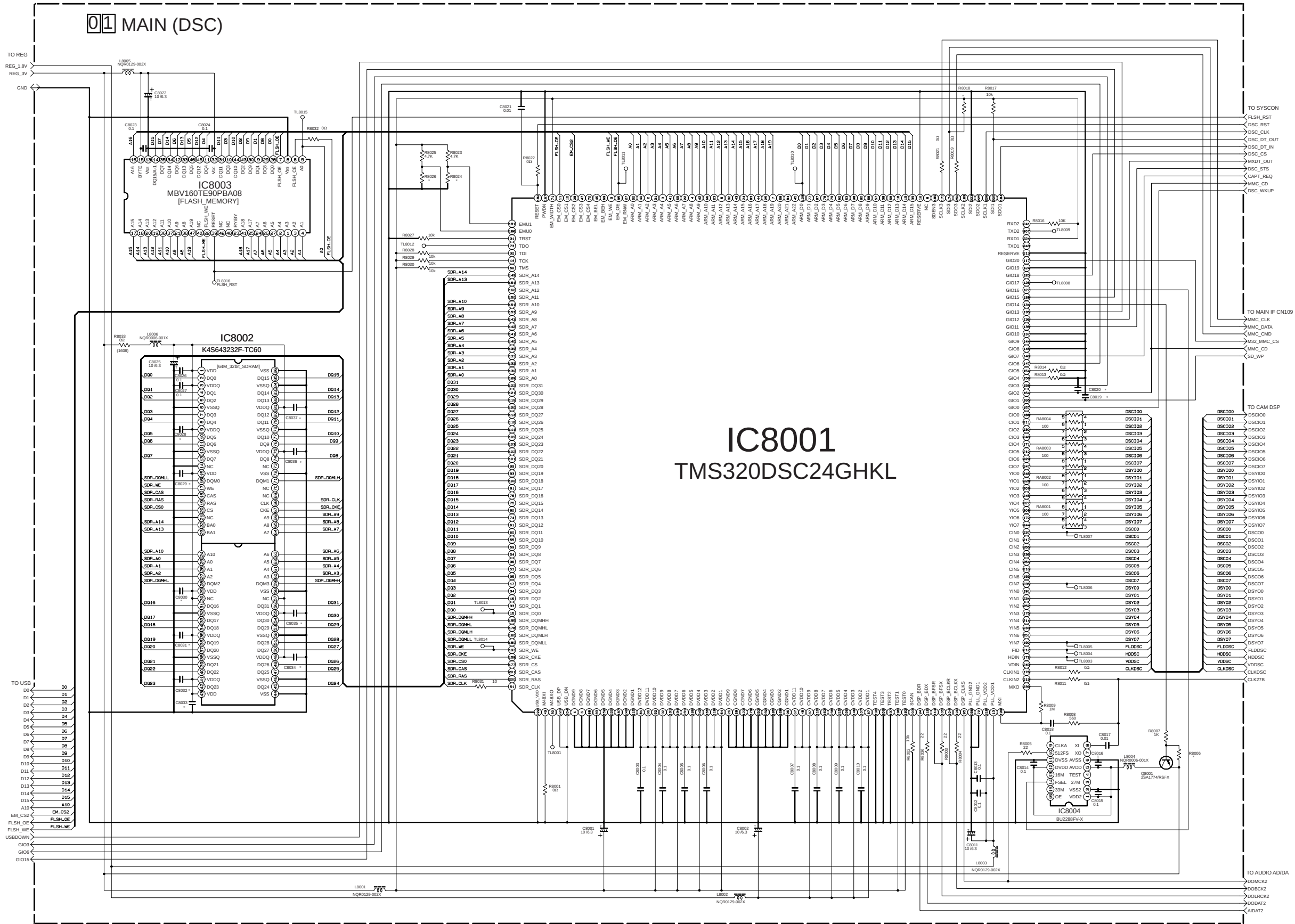


NOTES-UNLESS OTHERWISE SPECIFIED.
ALL RESISTANCE VALUES ARE IN OHMS.
ALL INDUCTANCE VALUES ARE IN H.
ALL CAPACITANCE VALUES ARE IN μ F.

TANTAL
CERAMIC

LAST NO	VACANT NO
R 6705	1-6000, 6013-6100, 6114-6200, 6247-6700
C 6705	1-6000, 6009-6100, 6139-6200, 6271-6700
D 6702	1-6000, 6003-6100, 6103-6200, 6204-6700
Q 6701	1-6000, 6004-6200, 6215-6700
L 6701	1-6000, 6002-6100, 6103-6200, 6206-6700

4.30 MAIN(DSC) SCHEMATIC DIAGRAM [FOR NON-MEGA PIXEL with DSC MODEL]



NOTES: UNLESS OTHERWISE SPECIFIED.
ALL RESISTANCE VALUES ARE IN OHMS.
ALL INDUCTANCE VALUES ARE IN H.
ALL CAPACITANCE VALUES ARE IN P.F.

TANTAL
CERAMIC

LAST NO	VACANT NO
R 8036	8010, 8015, 8020, 8034, 8035
C 8037	
Q 8041	
L 8006	
RA 8004	
IC 8004	

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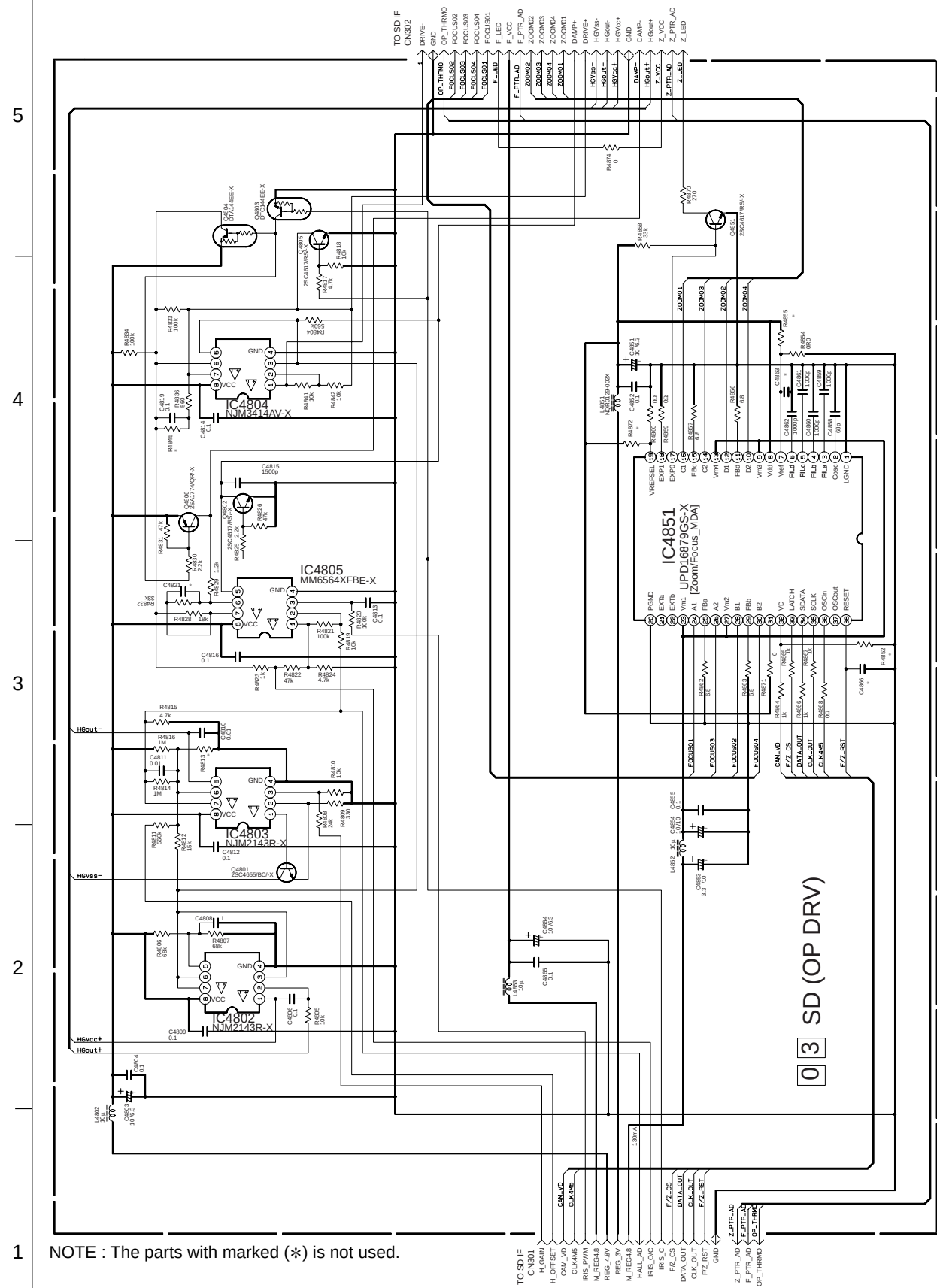


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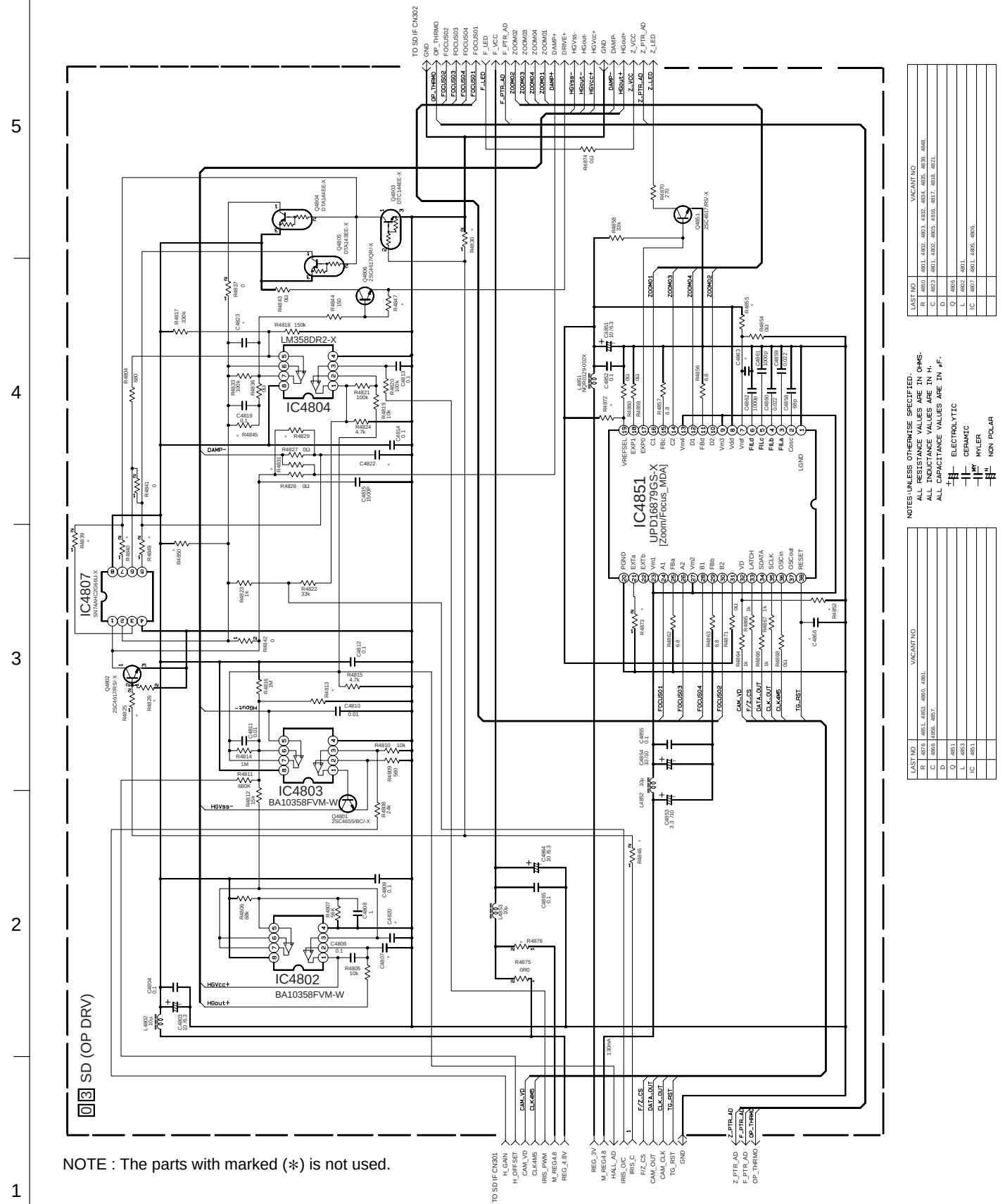
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4.36 SD(OP DRV) SCHEMATIC DIAGRAM [FOR MEGA PIXEL MODEL]



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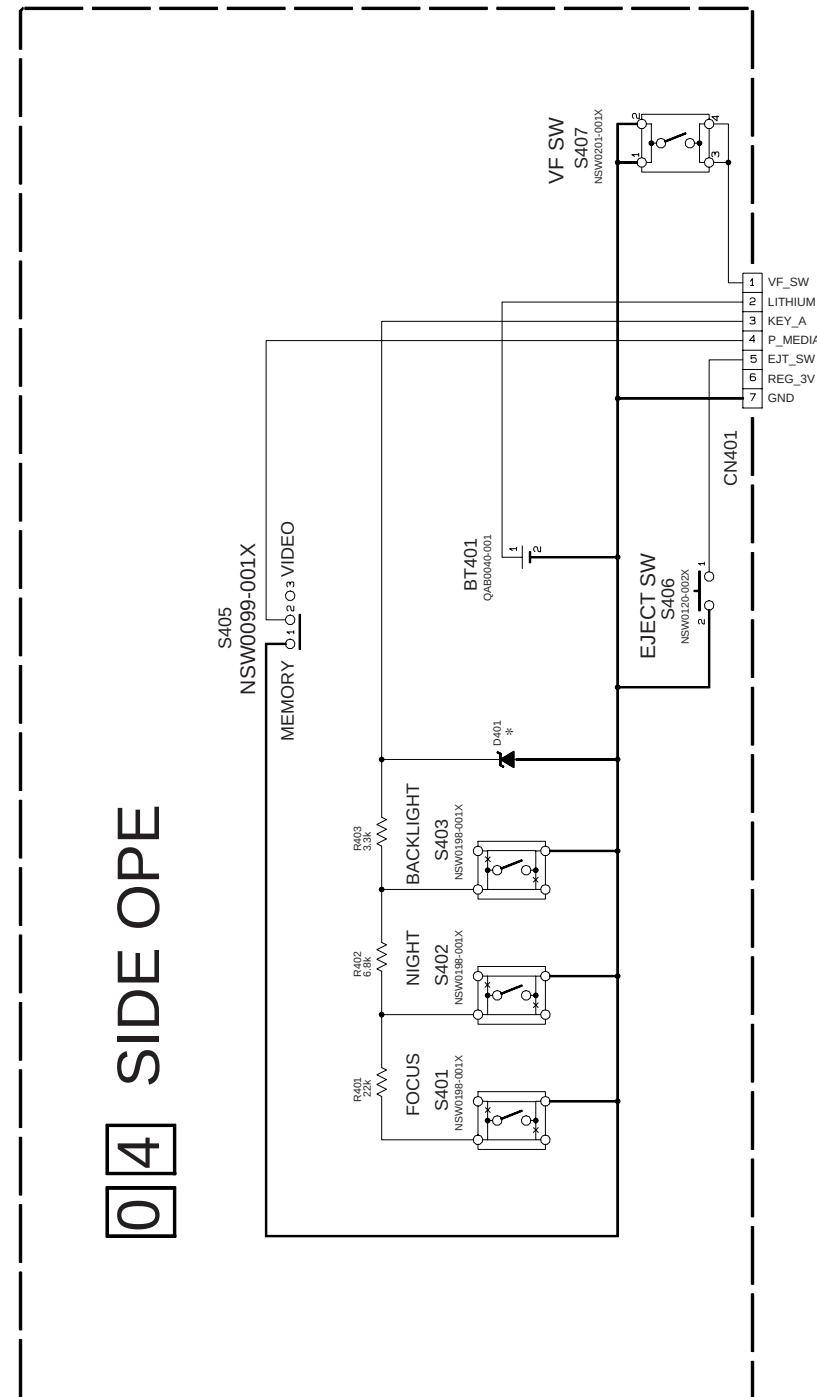
4.37 SD(OP DRV) SCHEMATIC DIAGRAM [FOR NON-MEGA PIXEL MODEL]



NOTE : The parts with marked (*) is not used.

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4.38 SIDE OPE SCHEMATIC DIAGRAM



NOTE : The parts with marked (*) is not used.

TO SD (SD IF) CN303

# EXCHANGE PARTS LIST		
	M3D3*7/D3*9 with DSC	M3D3*4/D3*5 without DSC

EXCHANGE PARTS LIST

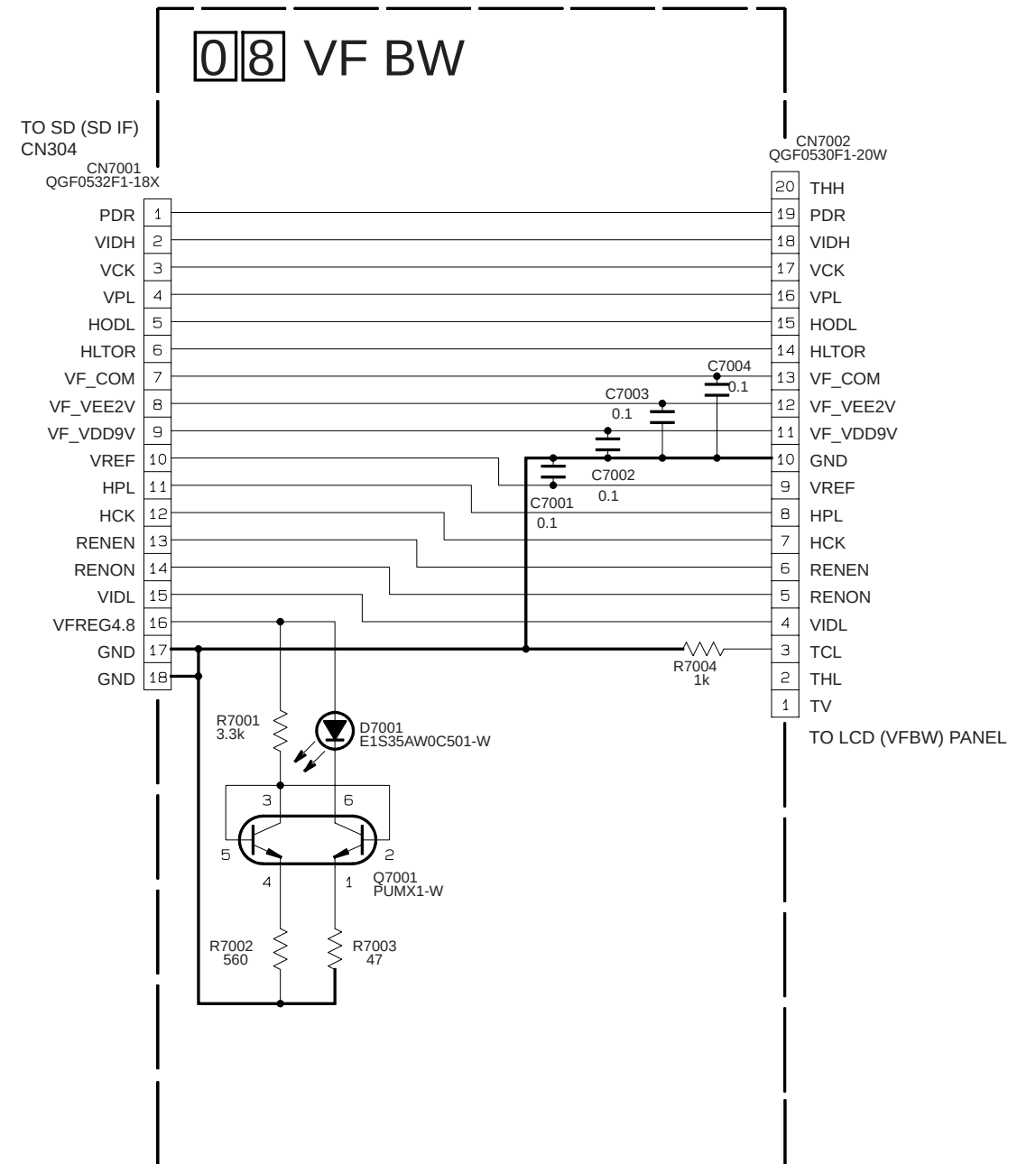
Symbol No.	401-500		VACANT NO
	LAST NO		
	R	403	
		—	
	C		
	D	401	
	S	407	404
	BT	401	

Symbol No. 401~500

NOTES: UNLESS OTHERWISE SPECIFIED:
ALL RESISTANCE VALUES ARE IN OHMS.
ALL INDUCTANCE VALUES ARE IN H.
ALL CAPACITANCE VALUES ARE IN μ F.

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4.39 VF BW SCHEMATIC DIAGRAM



NOTES: UNLESS OTHERWISE SPECIFIED.

ALL RESISTANCE VALUES ARE IN OHMS.

ALL INDUCTANCE VALUES ARE IN H.

ALL CAPACITANCE VALUES ARE IN μF .

 CERAMIC

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4.40 MONITOR SCHEMATIC DIAGRAM

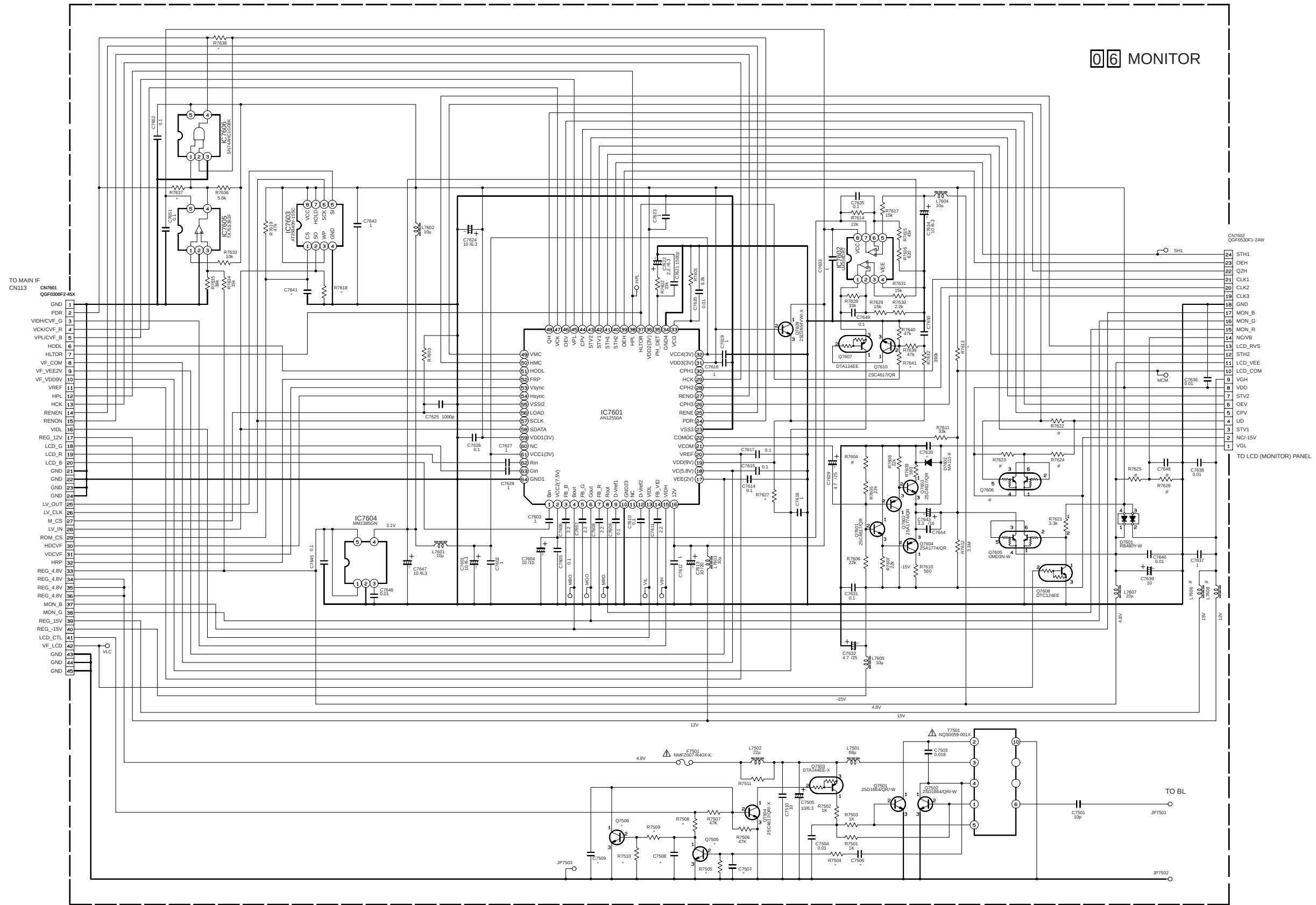
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NOTE : The parts with marked (*) is not used.

EXCHANGE PARTS LIST

LCD PANEL	Q7606	L7606	R7604	R7622	R7623	R7624	R7625	R7626	C7648
2.5"	OPEN	10u	OPEN	22k	0	OPEN	OPEN	OPEN	OPEN
3.0"	UMD3N	OPEN	10u	6.8k	OPEN	22k	0	22k	0.01

NOTES: UNLESS OTHERWISE SPECIFIED.
ALL RESISTANCE VALUES ARE IN OHMS.
ALL INDUCTANCE VALUES ARE IN H.
ALL CAPACITANCE VALUES ARE IN µF.

⎓ TANTAL
⎓ CERAMIC

A

B

C

D 4-71

4-72

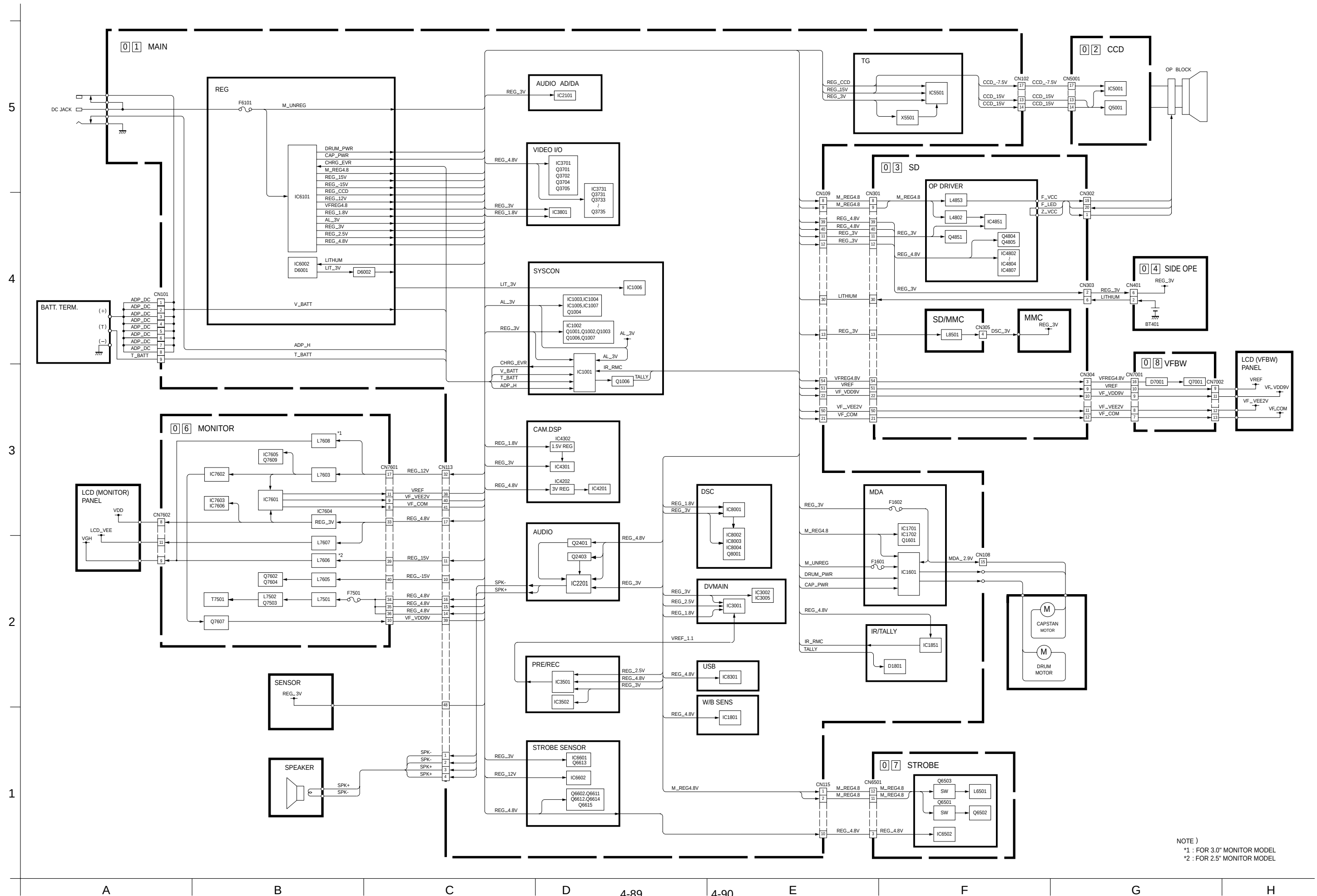
E

F

G

H

4.53 POWER SYSTEM BLOCK DIAGRAM

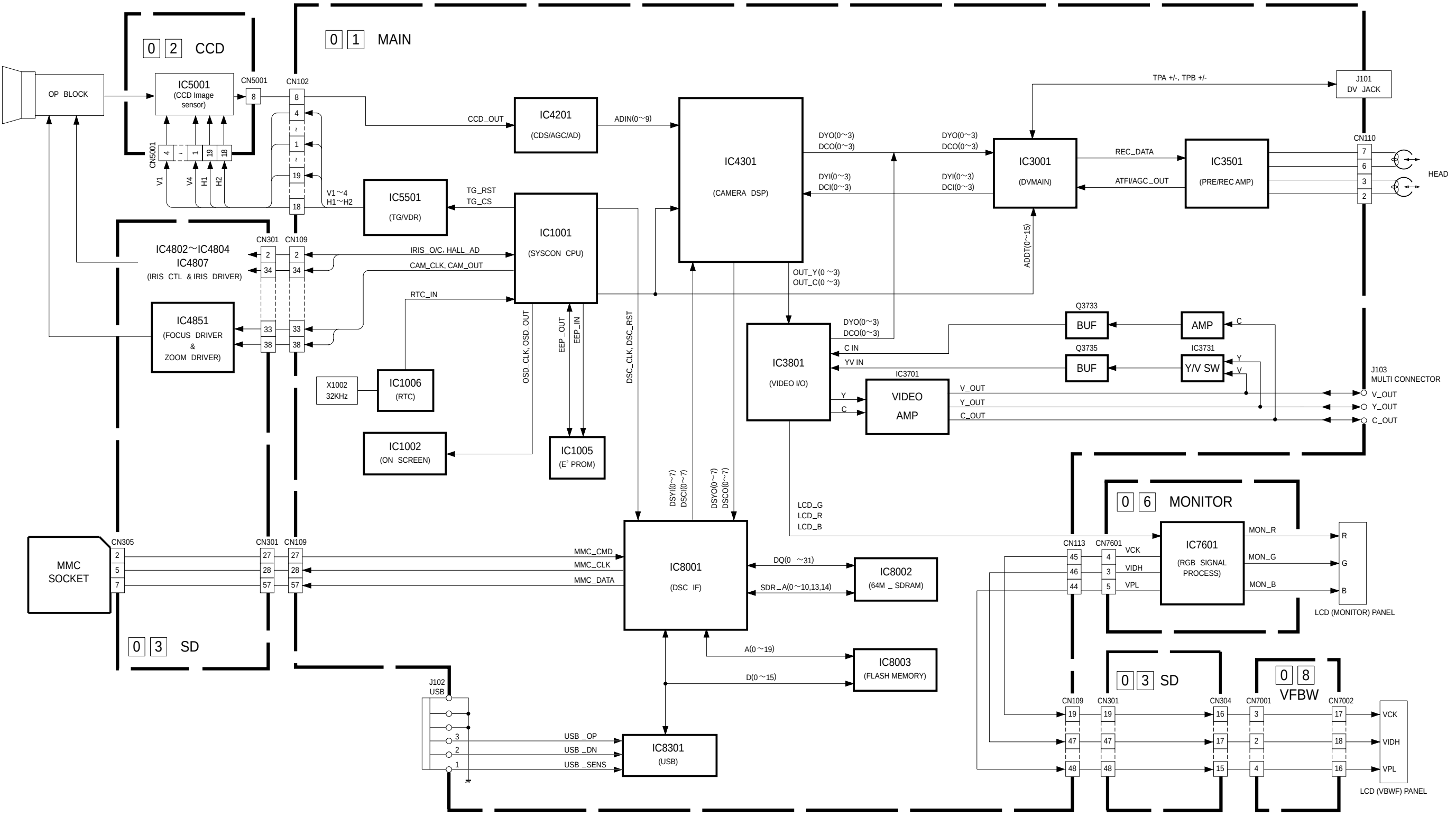


NOTE)

- *1 : FOR 3.0" MONITOR MODEL
- *2 : FOR 2.5" MONITOR MODEL

4.54 VIDEO SYSTEM BLOCK DIAGRAM

5
4
3
2
1



A B C D 4-91 4-92 E F G H