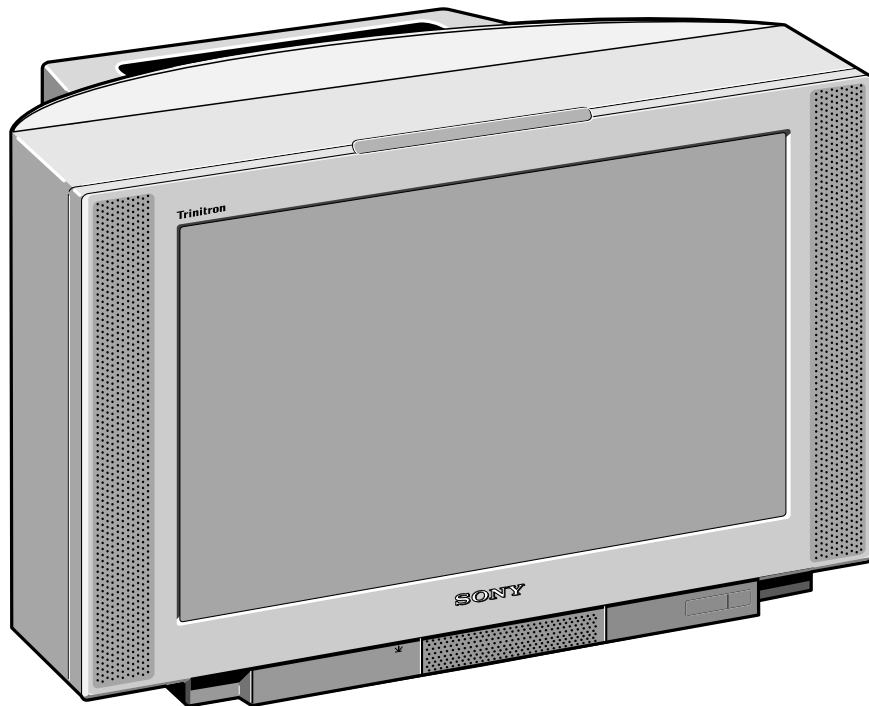


Self Diagnosis
Supported model

SERVICE MANUAL

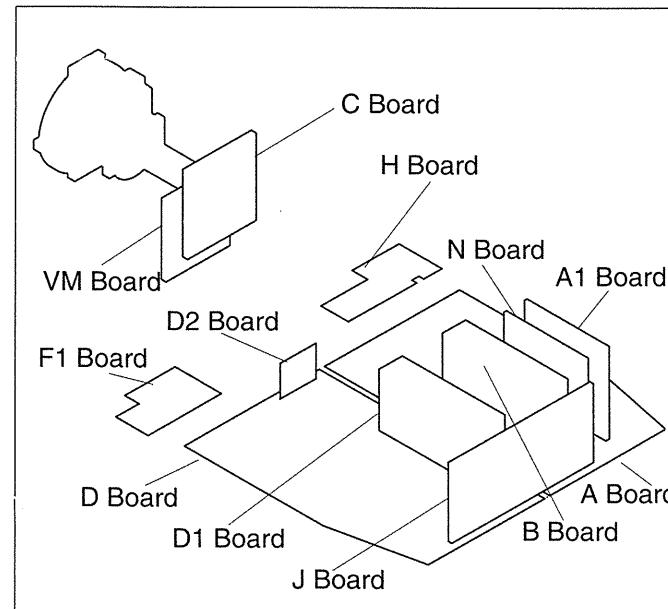
GE-1A CHASSIS

MODEL	COMMANDER	DEST	CHASSIS NO.	MODEL	COMMANDER	DEST	CHASSIS NO.
KV-28DS60U	RM-891	UK	SCC-Q21A-A	KV-32DS60U	RM-891	UK	SCC-Q21B-A



TRINITRON® COLOR TV
SONY®

5-2. CIRCUIT BOARD LOCATION



5-3. SCHEMATIC DIAGRAMS AND PRINTED WIRING BOARDS

Note :

- All capacitors are in μF unless otherwise noted.
- pF : μF 50WV or less are not indicated except for electrolytic types.
- Indication of resistance, which does not have one for rating electrical power, is as follows.

Pitch : 5mm
Electrical power rating : 1/4W

- Chip resistors are 1/10W
- All resistors are in ohms.
- k = 1000 ohms, M = 1000,000 ohms

- : nonflammable resistor.
- : fusible resistor.
- : internal component.
- : panel designation or adjustment for repair.

- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.
- All voltages are in Volts.
- Readings are taken with a 10Mohm digital multimeter.
- Readings are taken with a color bar input signal.
- Voltage variations may be noted due to normal production tolerances.

- : B + bus.
- : B - bus.
- : RF signal path.
- : earth - ground.
- : earth - chassis.

Reference Information

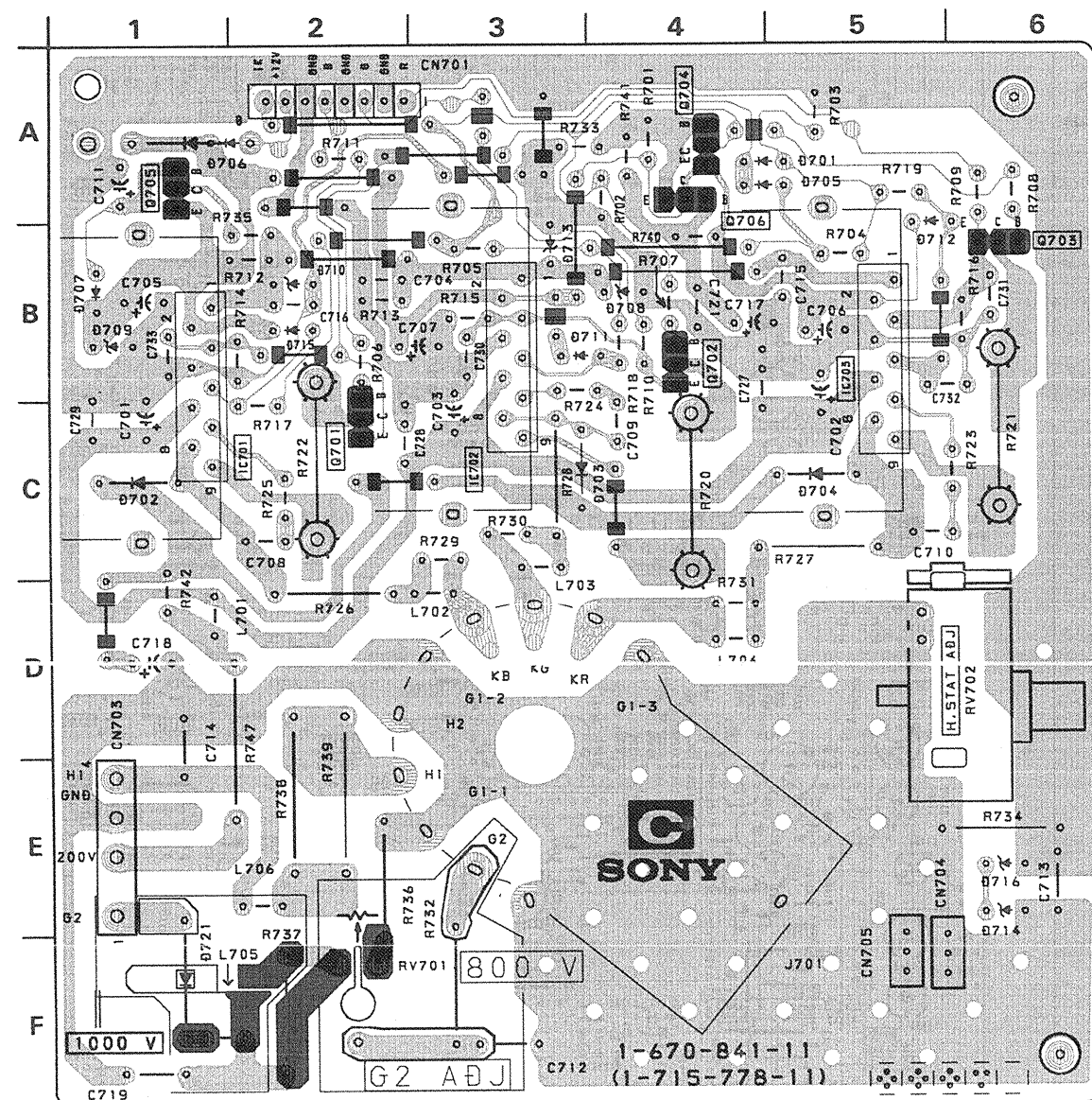
RESISTOR	RN	: METAL FILM
	RC	: SOLID
	FPRD	: NON FLAMMABLE CARBON
	FUSE	: NON FLAMMABLE FUSIBLE
	RS	: NON FLAMMABLE METAL OXIDE
	RB	: NON FLAMMABLE CEMENT
	RW	: NON FLAMMABLE WIREWOUND
		: ADJUSTMENT RESISTOR
COIL	LF-8L	: MICRO INDUCTOR
CAPACITOR	TA	: TANTALUM
	PS	: STYROL
	PP	: POLYPROPYLENE
	PT	: MYLAR
	MPS	: METALIZED POLYESTER
	MPP	: METALIZED POLYPROPYLENE
	ALB	: BIPOLAR
	ALT	: HIGH TEMPERATURE
	ALR	: HIGH RIPPLE

Note : The components identified by shading and marked are critical for safety. Replace only with the part numbers specified in the parts list.

Note : Les composants identifiés par une trame et par une marque sont d'une importance critique pour la sécurité. Ne les remplacer que par des pièces de numéro spécifié.

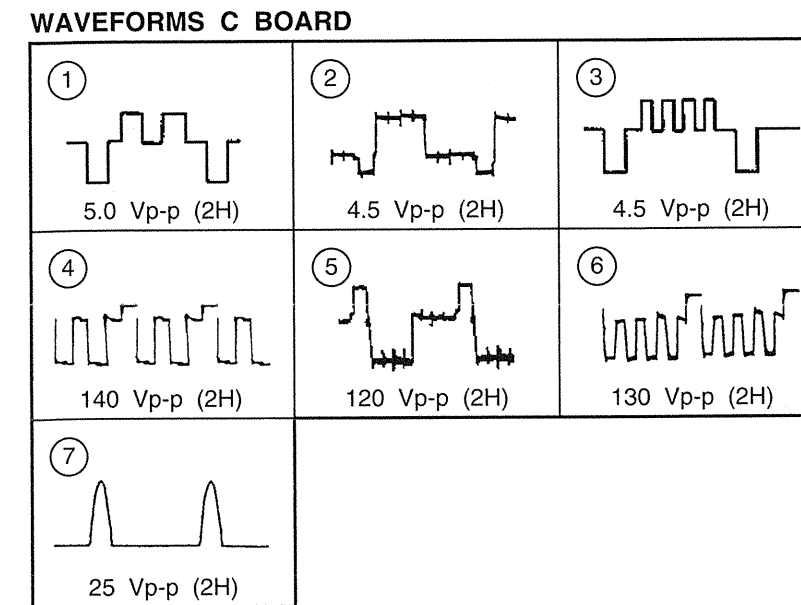
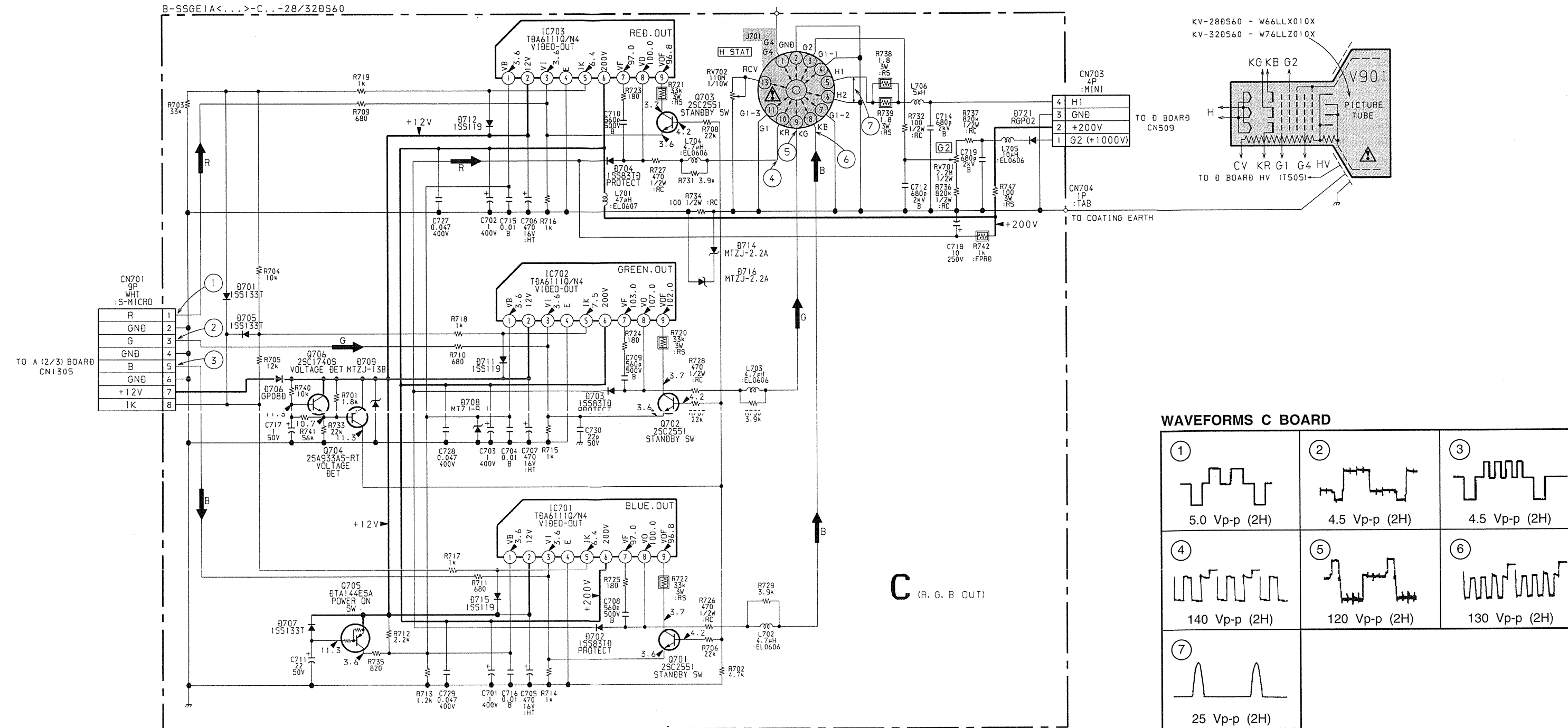
C [RGB OUT]

C Board

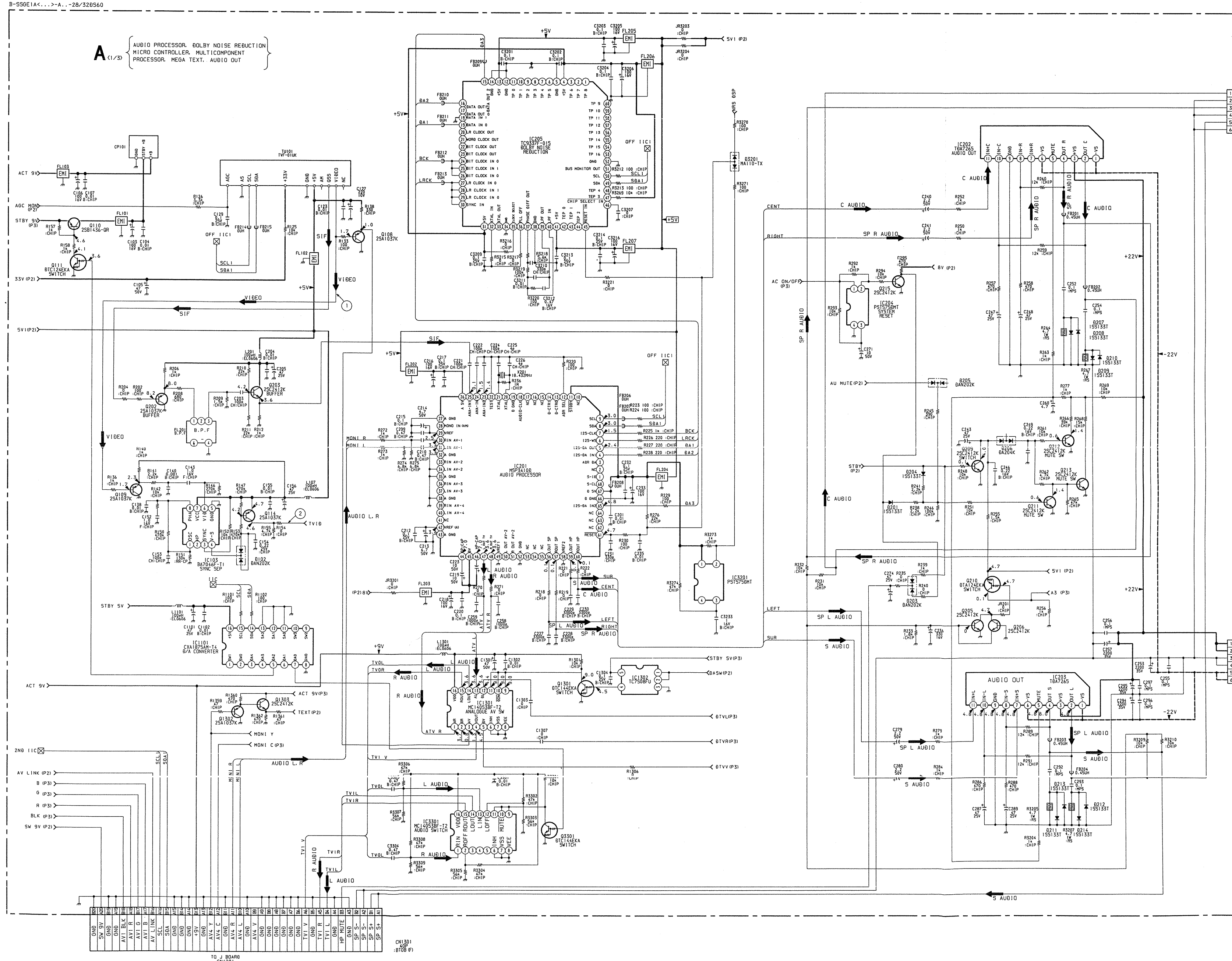


C BOARD

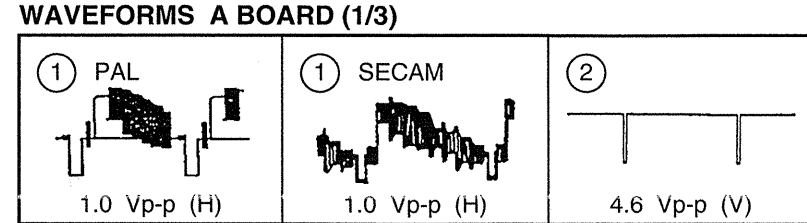
IC	
IC701	C - 1
IC702	C - 3
IC703	C - 5
TRANSISTOR	
Q701	C - 2
Q702	B - 4
Q703	A - 4
Q704	A - 4
Q705	A - 1
Q706	A - 4
DIODE	
D701	A - 4
D702	C - 1
D703	C - 3
D704	C - 5
D705	A - 4
D706	A - 1
D707	B - 1
D712	B - 5
D714	E - 5
D715	B - 2
D716	E - 5
D721	E - 1
VARIABLE RESISTOR	
RV701	E - 2
RV702	D - 5



A
B
C
D
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F
G
H
I
J
K
L
M
N
O



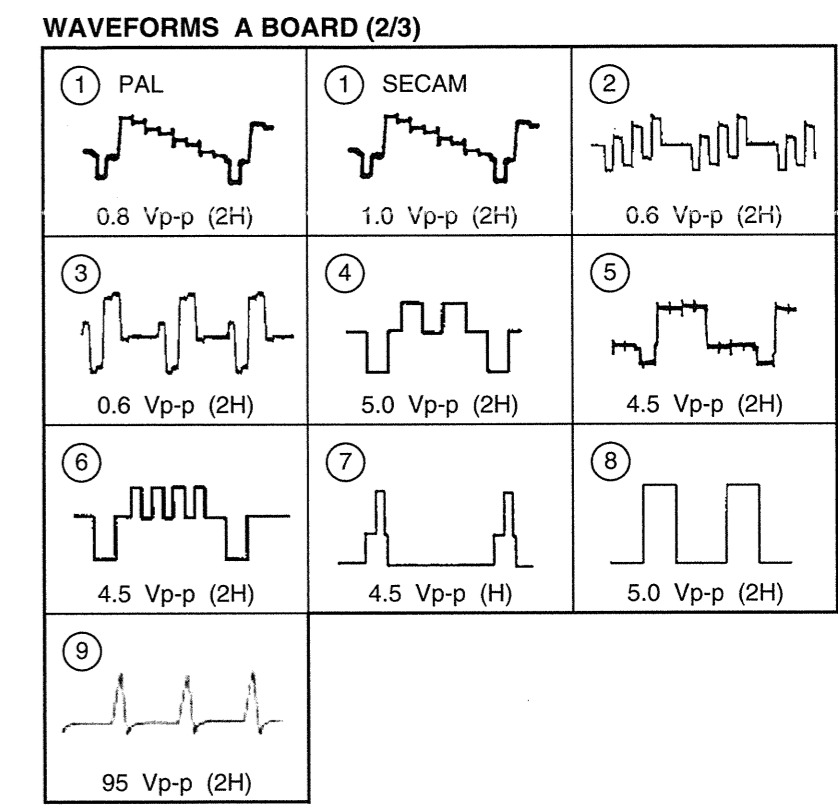
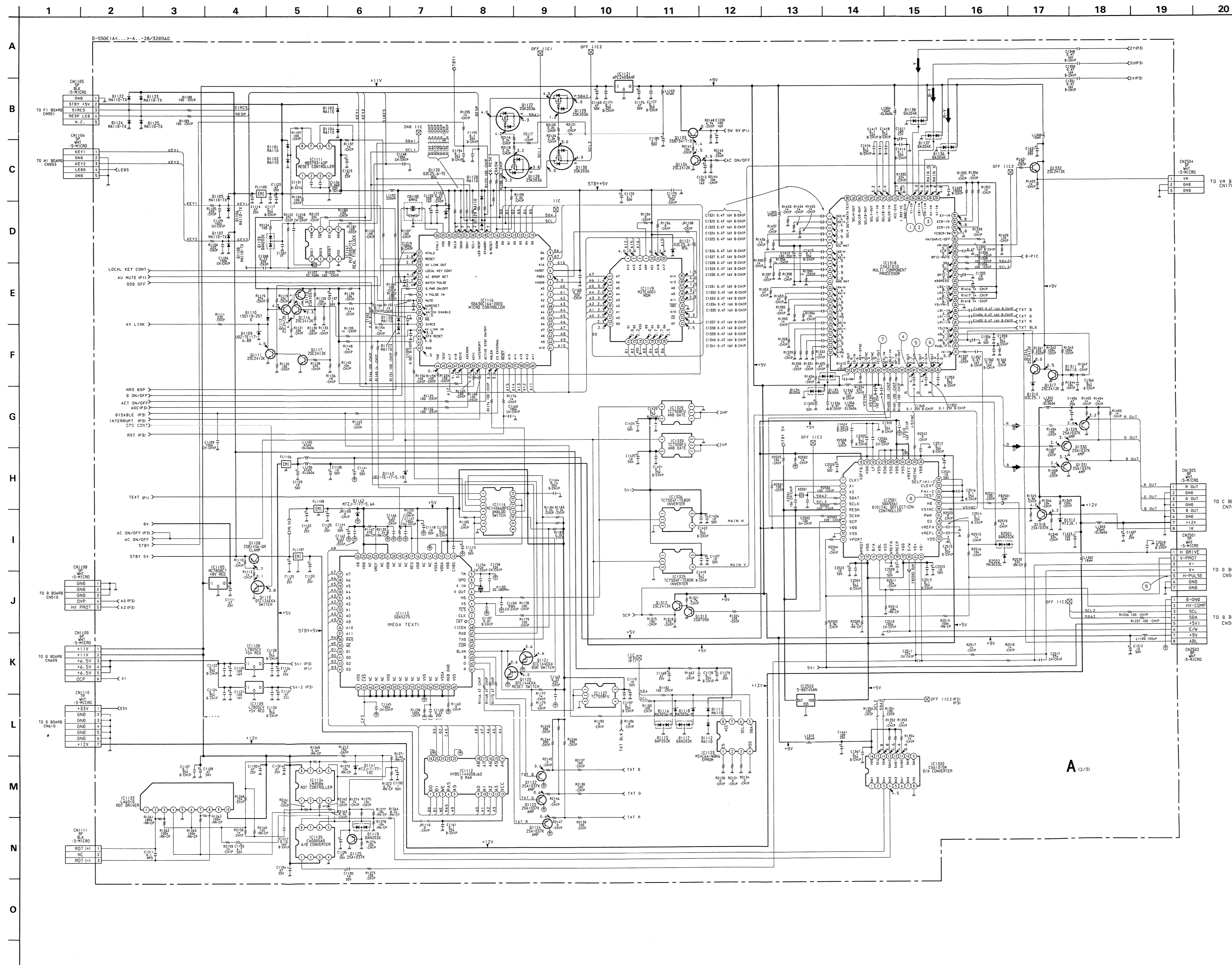
A1(1/2) {
AUDIO PROCESSOR, DOLBY NOISE REDUCTION
MICRO CONTROLLER, MULTICOMPONENT
PROCESSOR, MEGA TEXT, AUDIO OUT

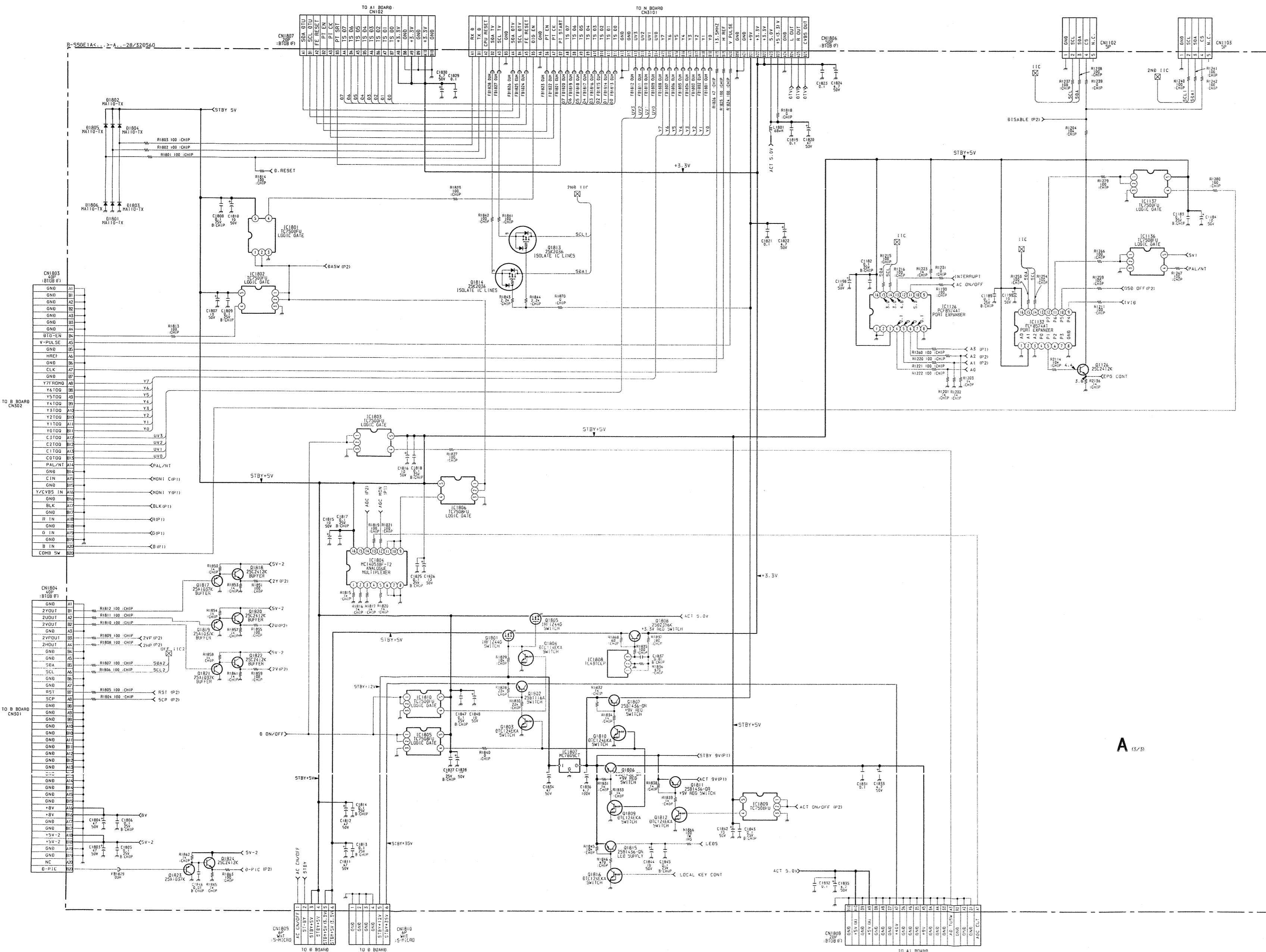


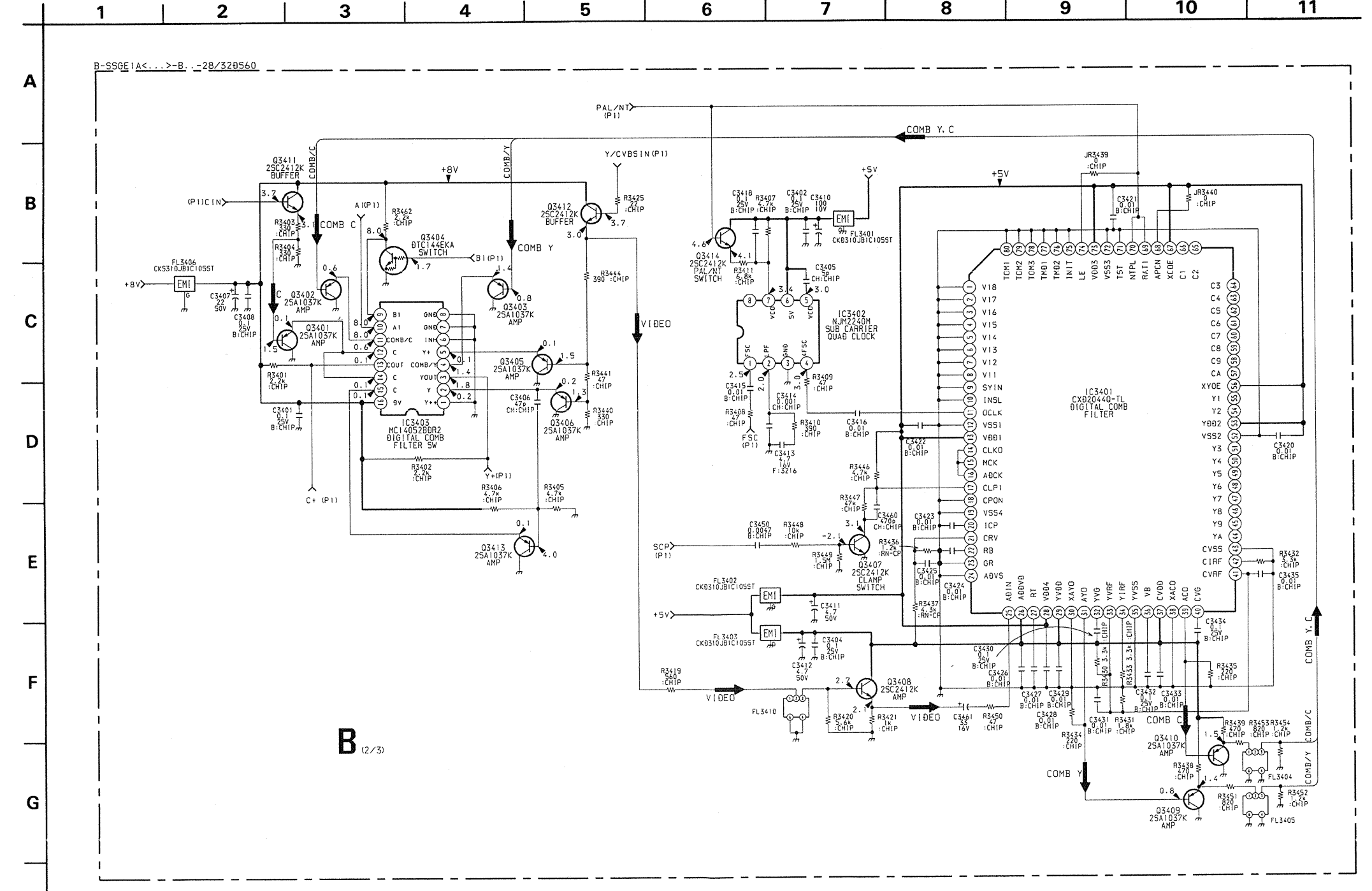
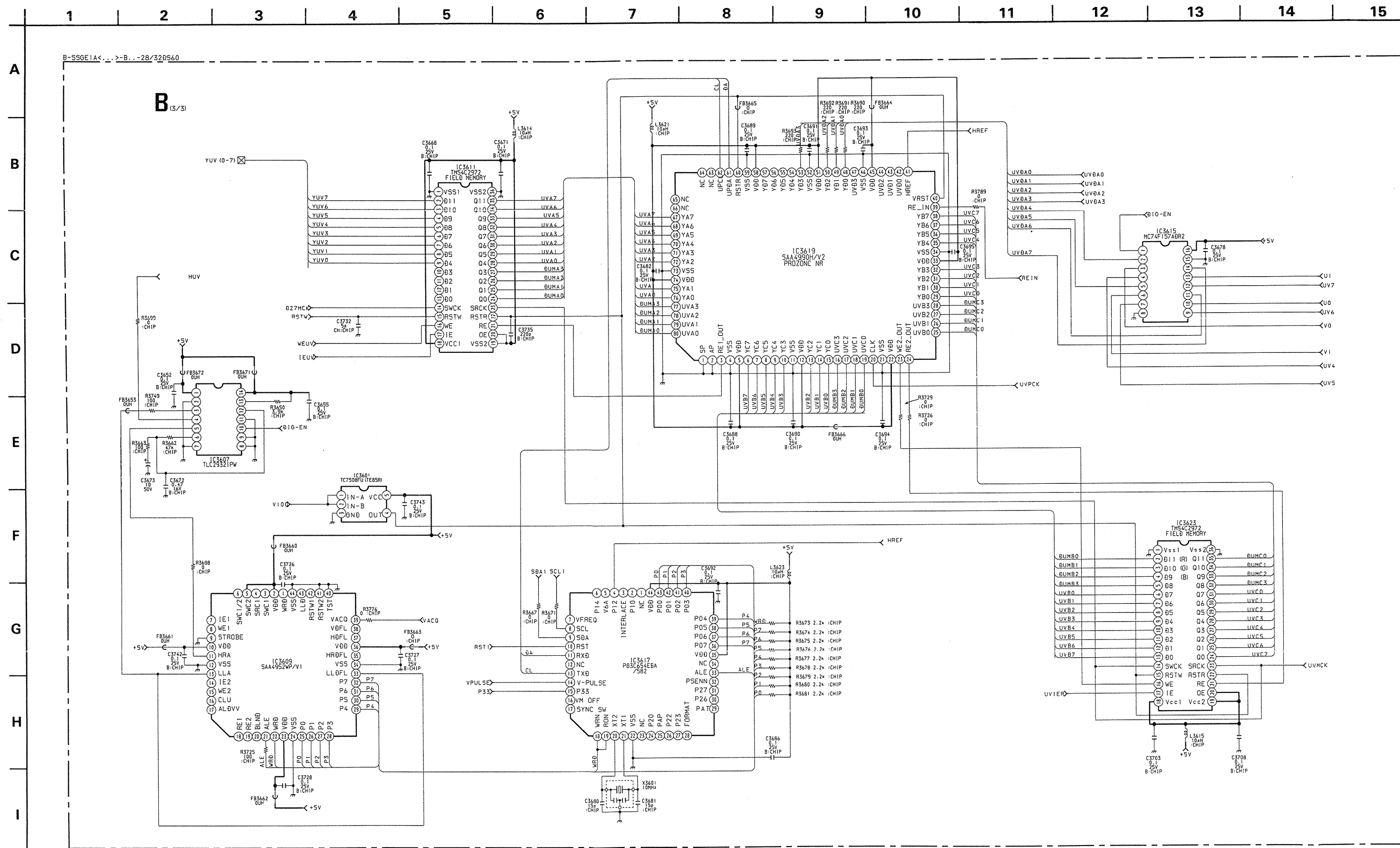
TO J BOARD CN421

TO J BOARD CN427

TO S BOARD CN427





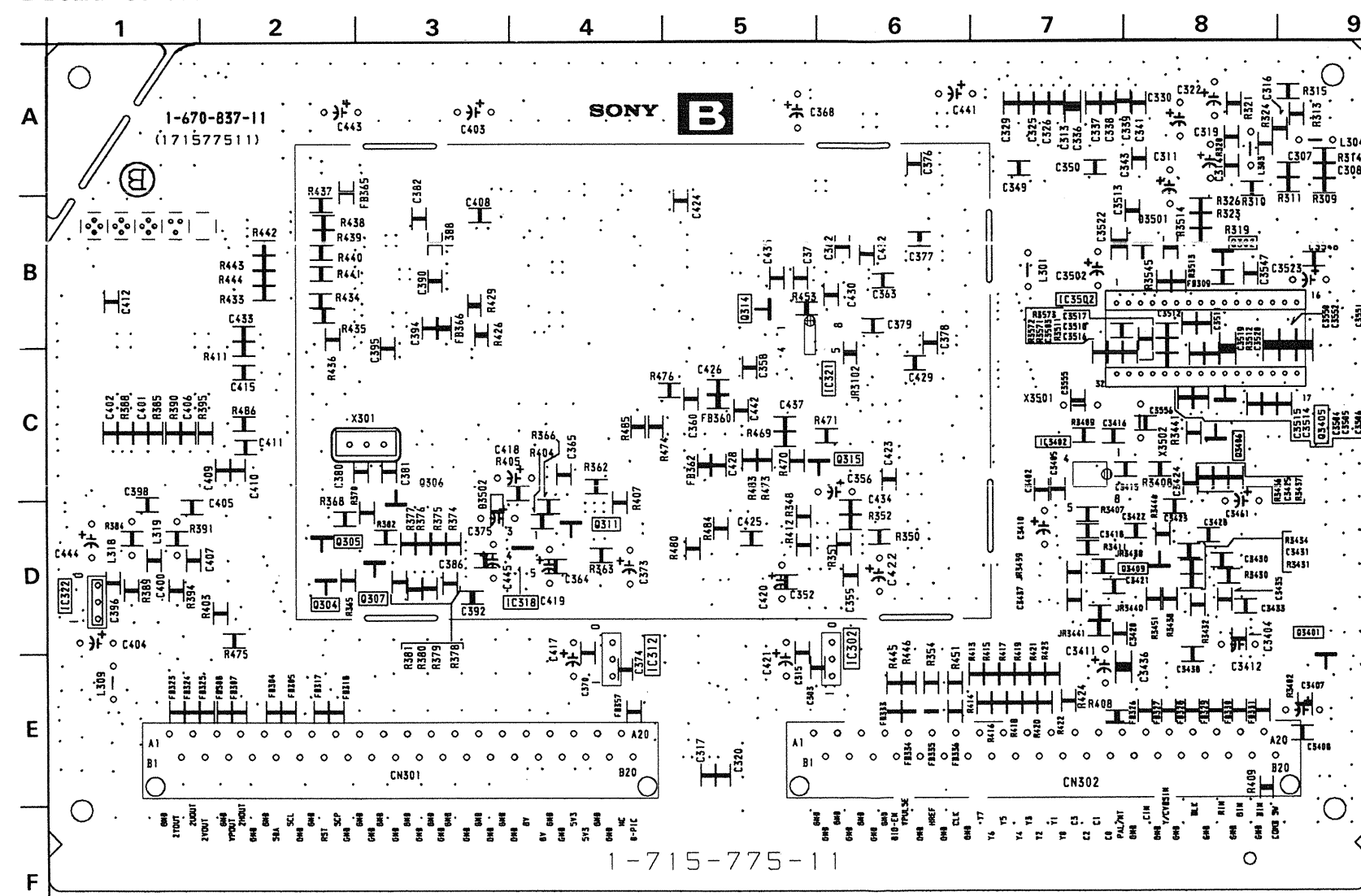


B BOARD

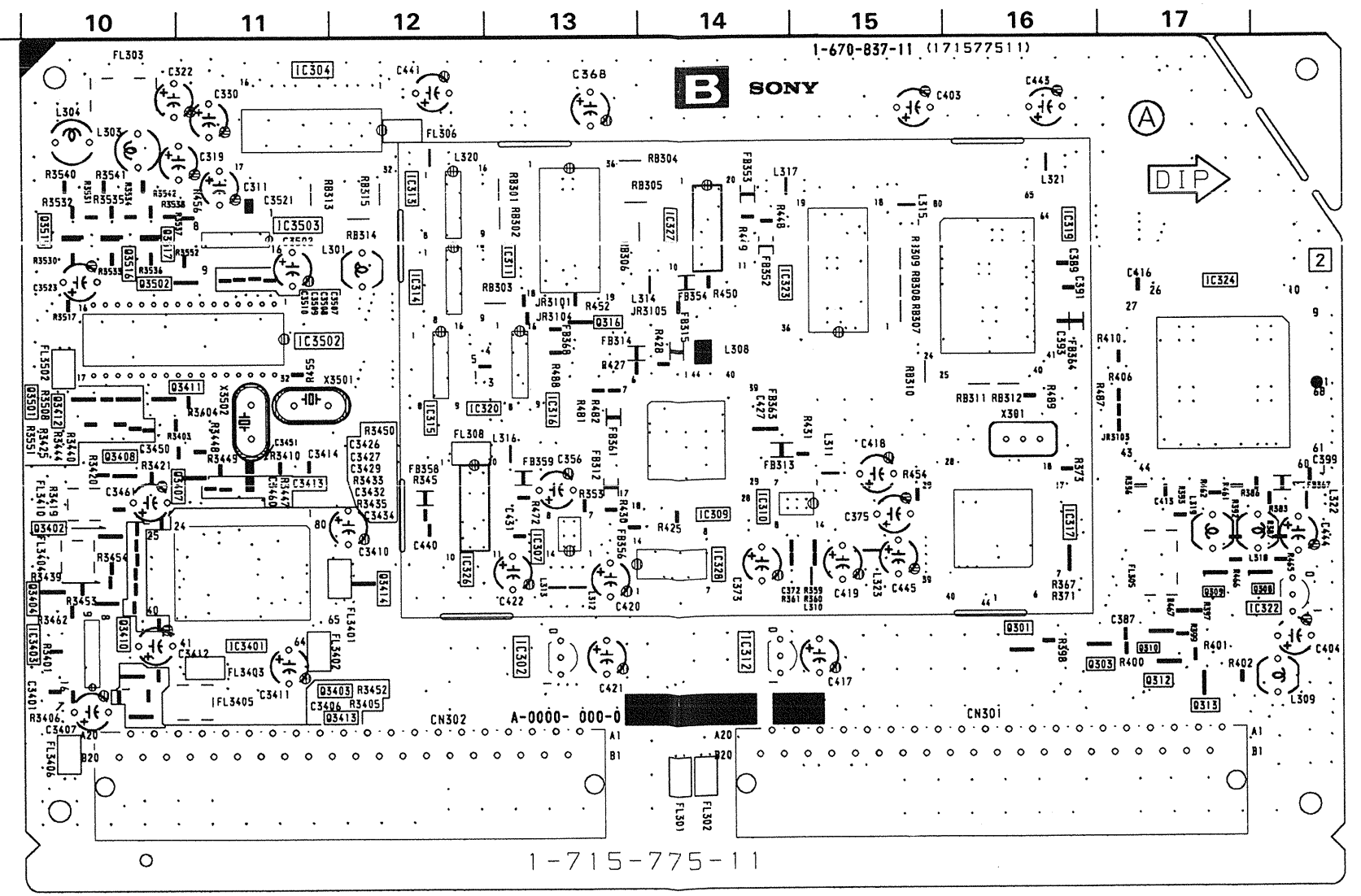
IC	Q304	D-2
IC302	E-14	Q305
IC304	A-12	Q307
IC307	D-14	Q308
IC309	C-15	Q309
IC311	D-16	Q300
IC311	B-14	Q311
IC312	E-15	Q312
IC313	B-13	Q313
IC314	B-14	Q314
IC315	C-13	Q315
IC316	C-14	Q316
IC317	D-17	Q3401
IC318	D-4	Q3402
IC319	B-17	Q3403
IC320	C-14	Q3404
IC321	C-6	Q3405
IC323	B-16	Q3406
IC324	C-18	Q3407
IC326	D-13	Q3408
IC327	B-15	Q3409
IC328	D-15	Q3410
IC3401	D-12	Q3411
IC3402	C-7	Q3412
IC3403	D-11	Q3413
IC3502	B-12	Q3414
IC3503	B-12	Q3501
TRANSISTOR		
Q301	D-17	Q3502
Q302	B-8	Q3515
Q303	E-18	Q3516
		Q3517

B MAIN COLOR DECODER A/D, D/A CONVERTER/DIGITAL NOISE REDUCER

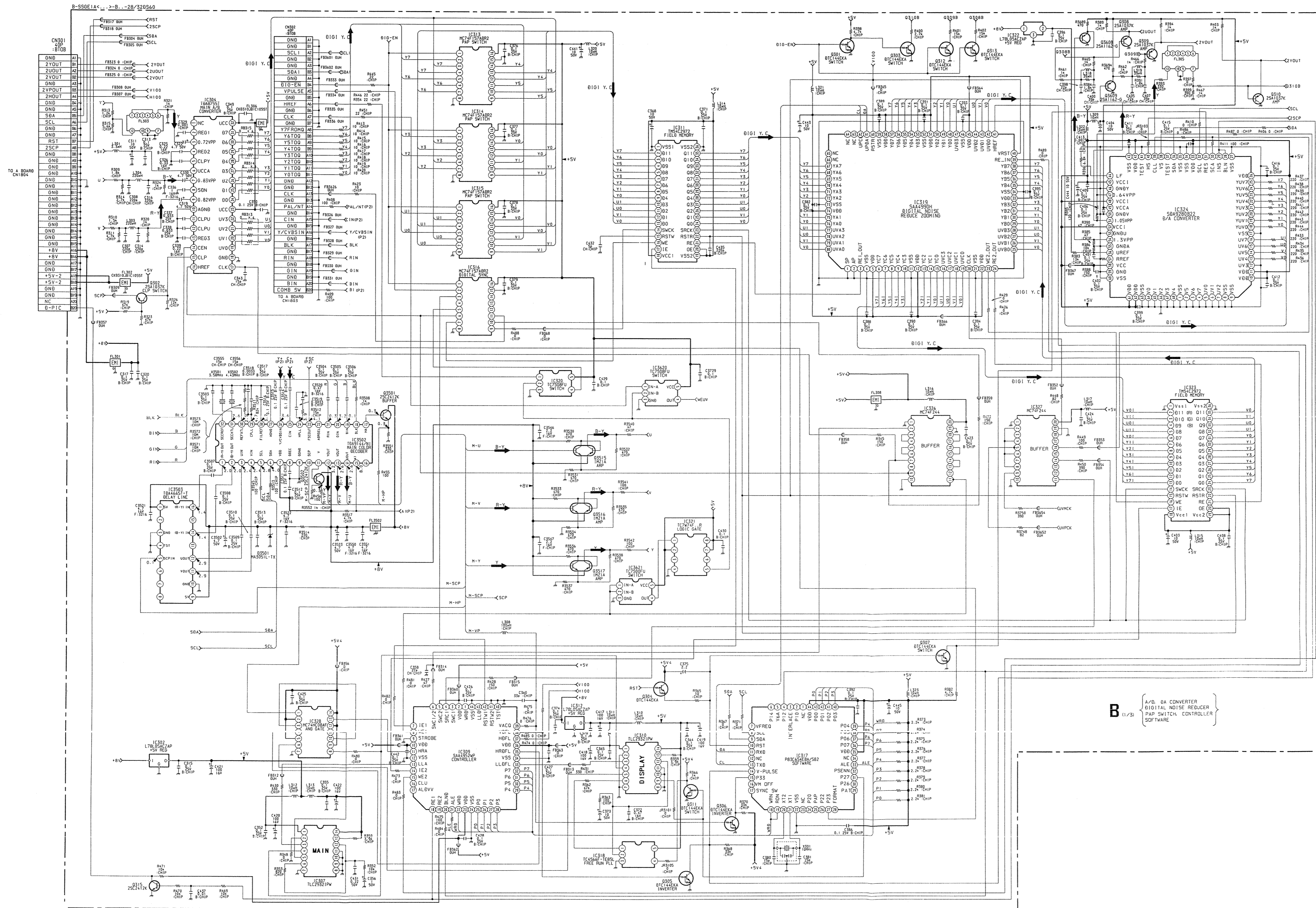
B Board <Conductor Side>



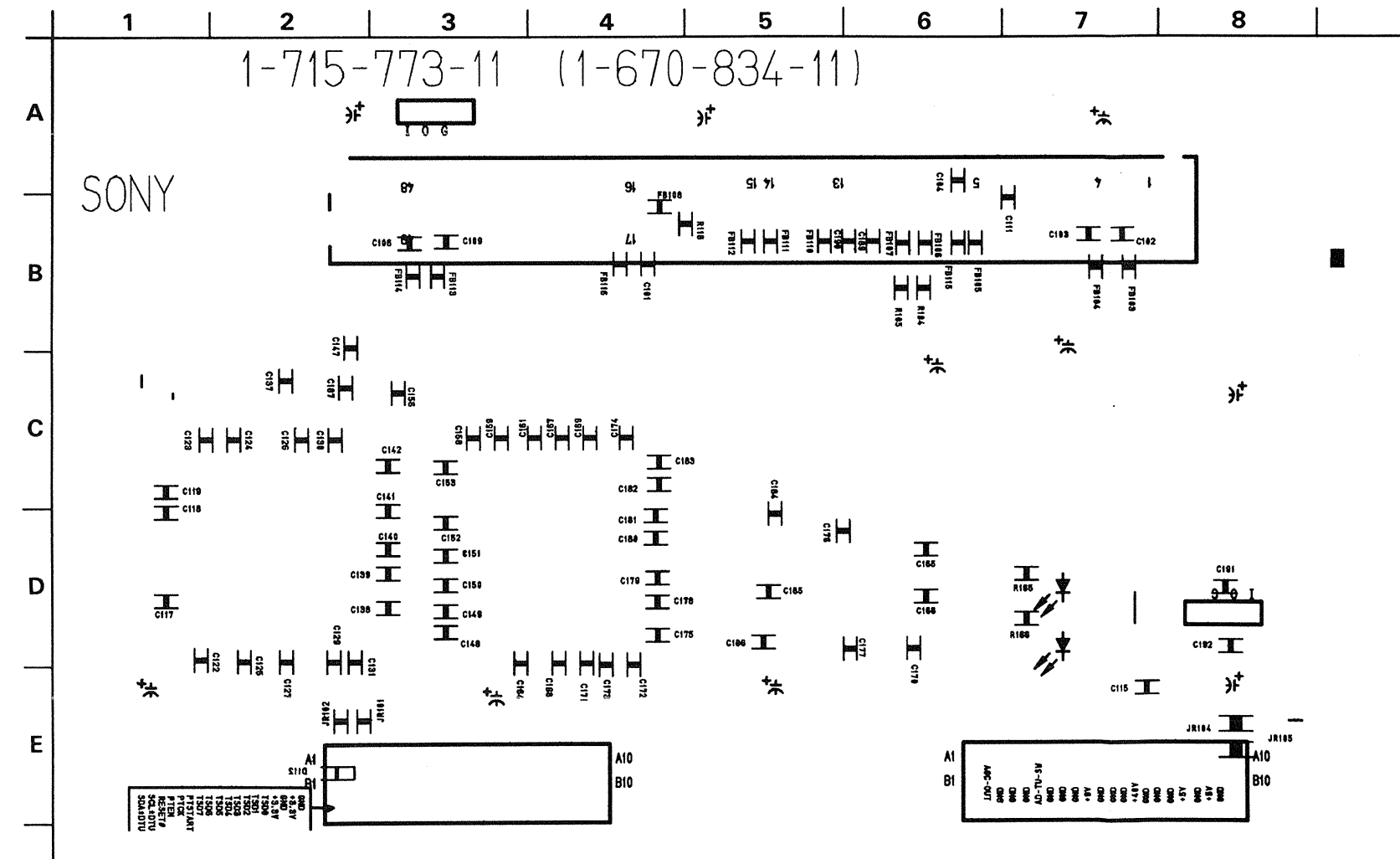
B Board <Component Side>



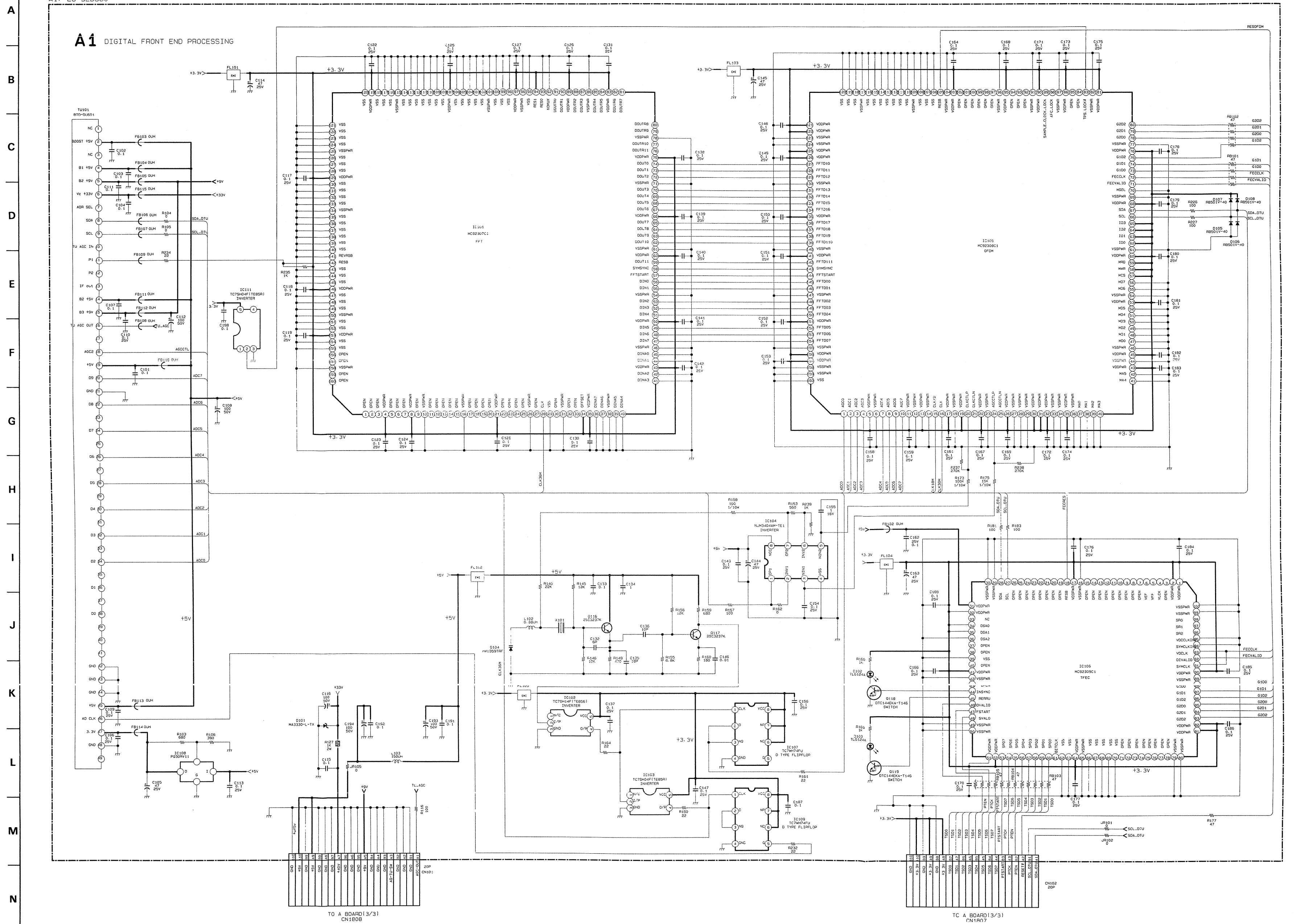
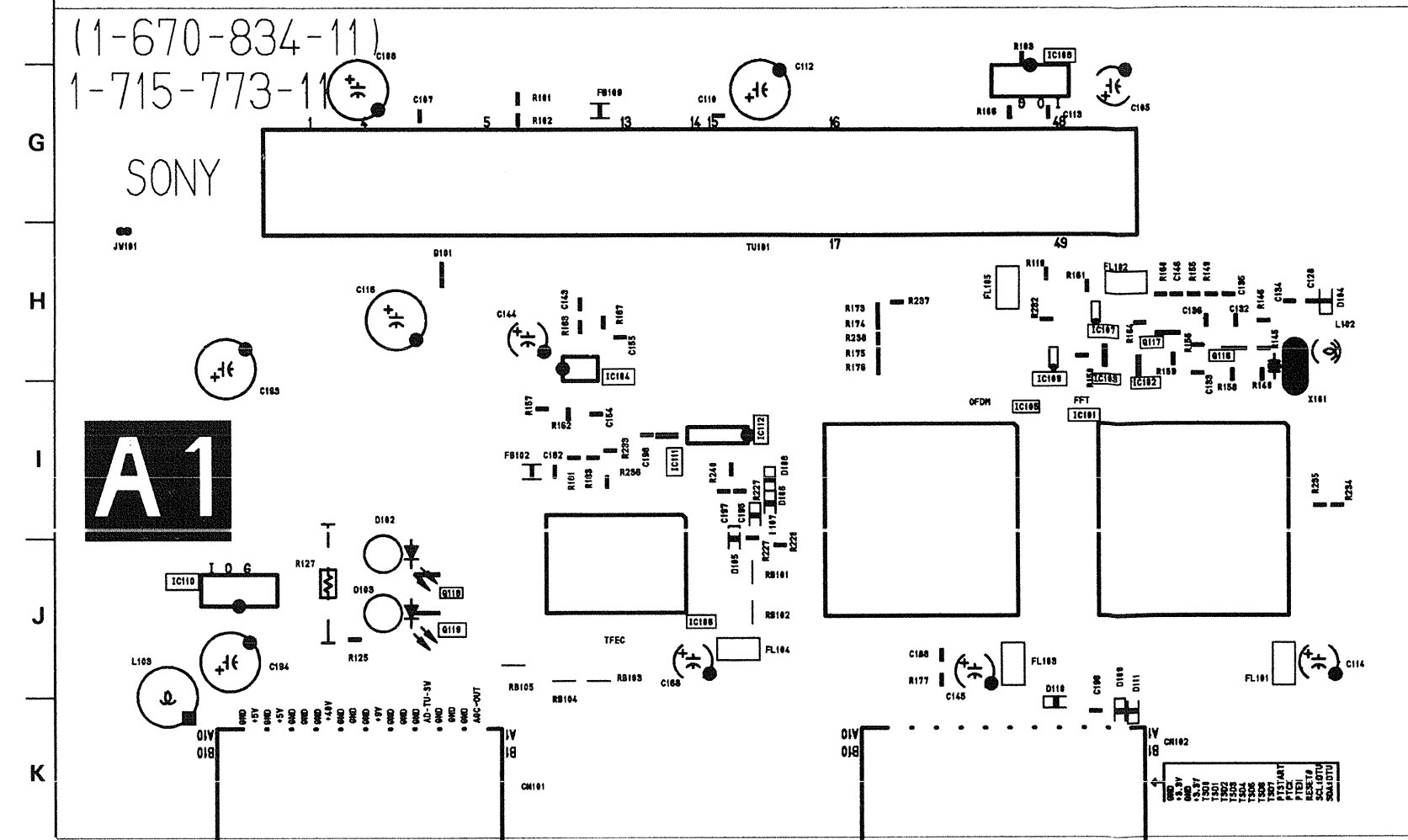
A
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A1 Board <Conductor Side>

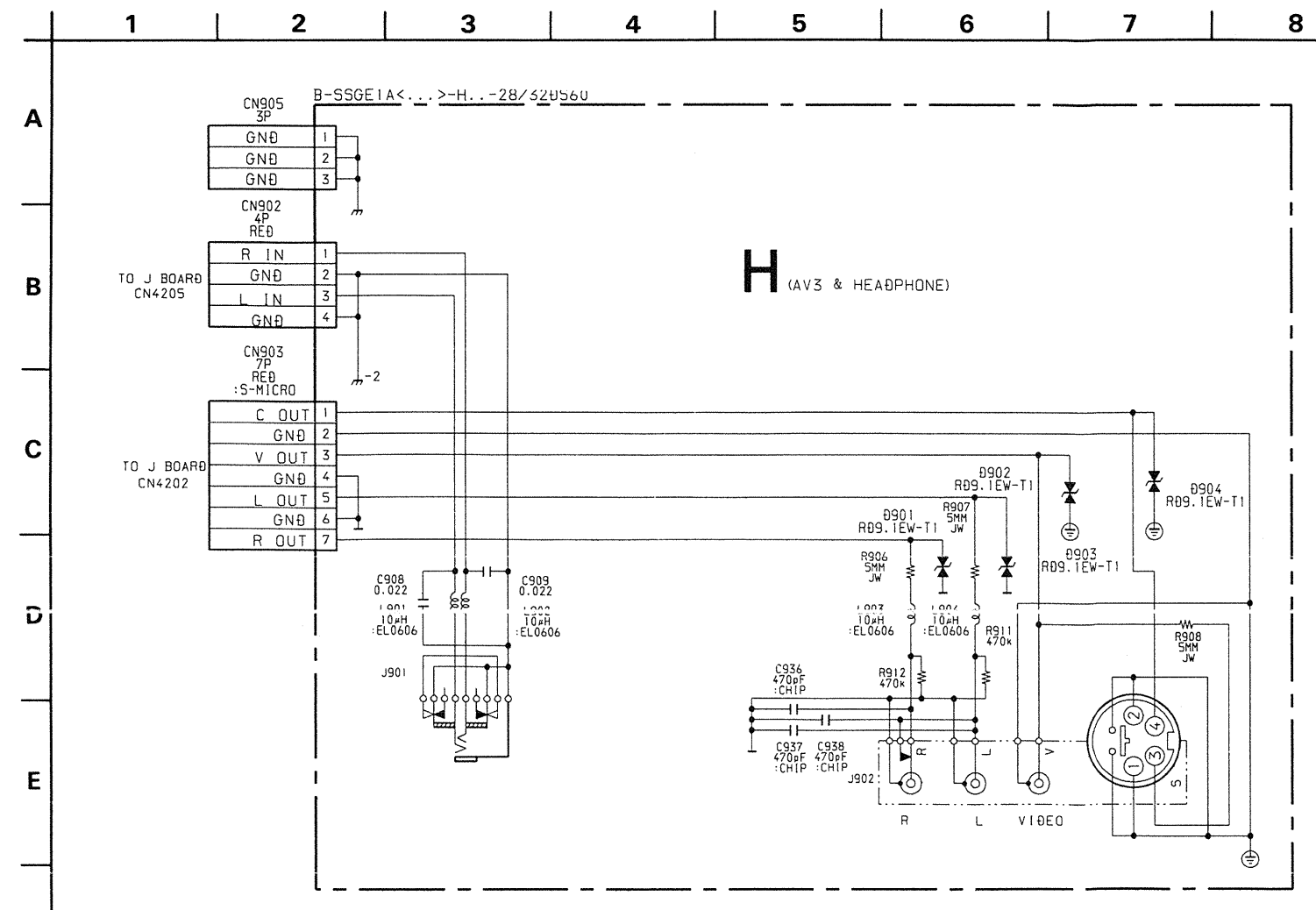
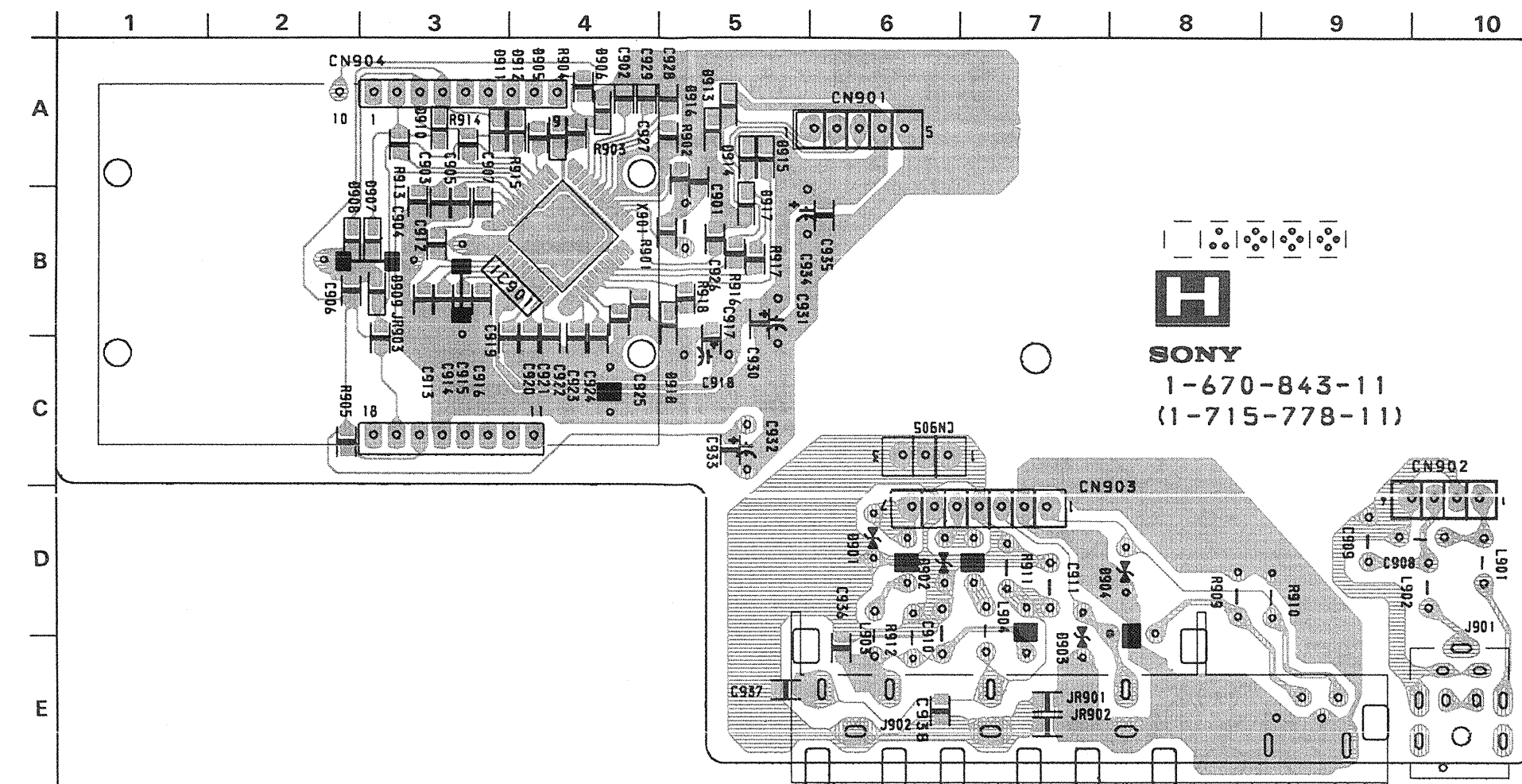


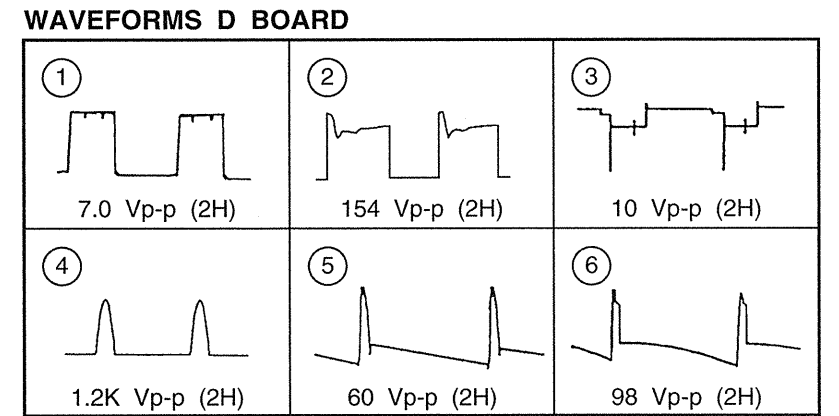
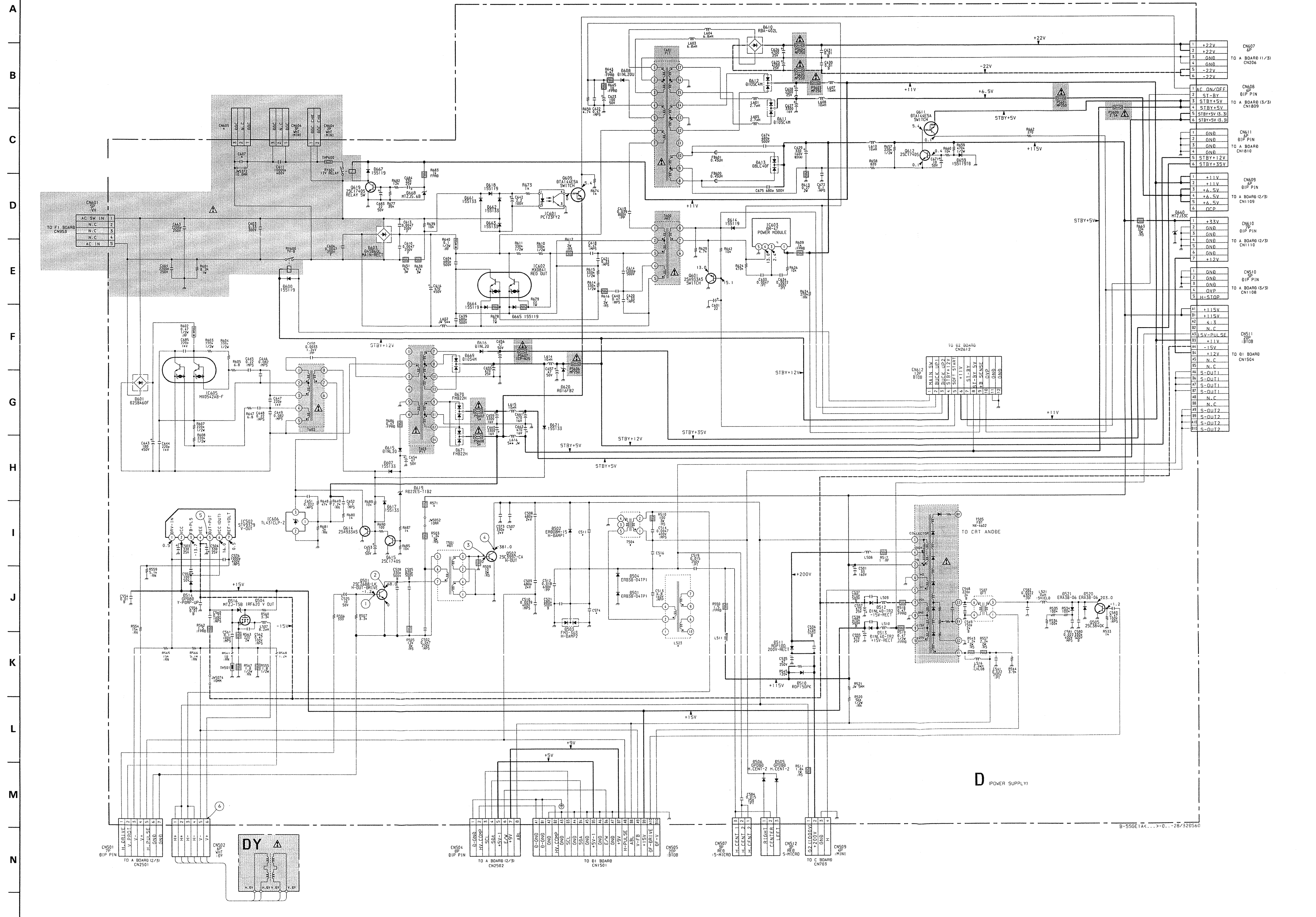
A1 Board <Component Side>



H [AV3 & HEADPHONE]

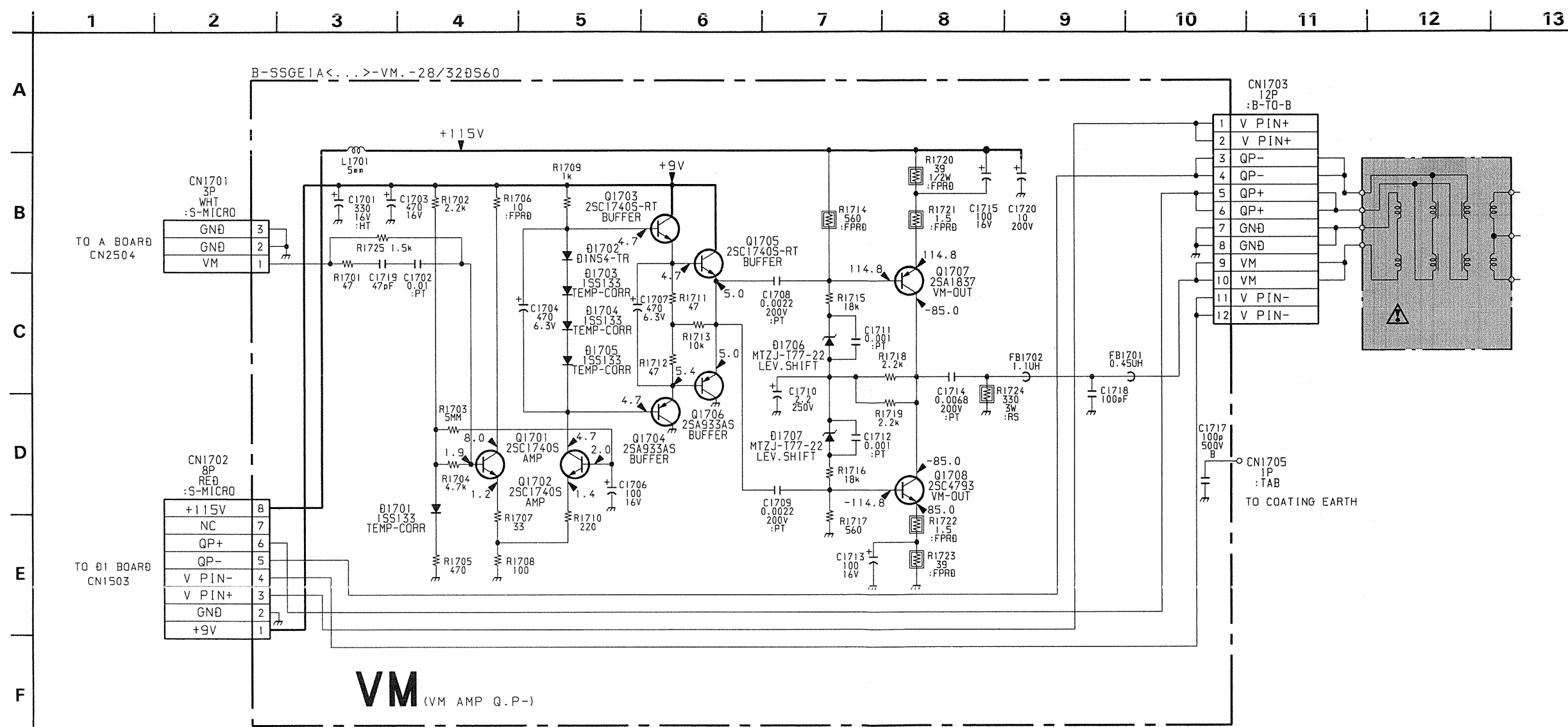
H Board





D BOARD * MARK

Ref	28DS60U	32DS60U
C507	-	330PF
C511	18000PF	0.017MF
C516	0.56MF	0.39MF
C574	0.0047MF	0.0033MF
C607	JW 10.0MM	0.01MF
CN605	-	3P
LS23	1-416-447-11	1-416-448-11
RS71	1K	1.2K
T504	1-431-599-11	1-431-600-11

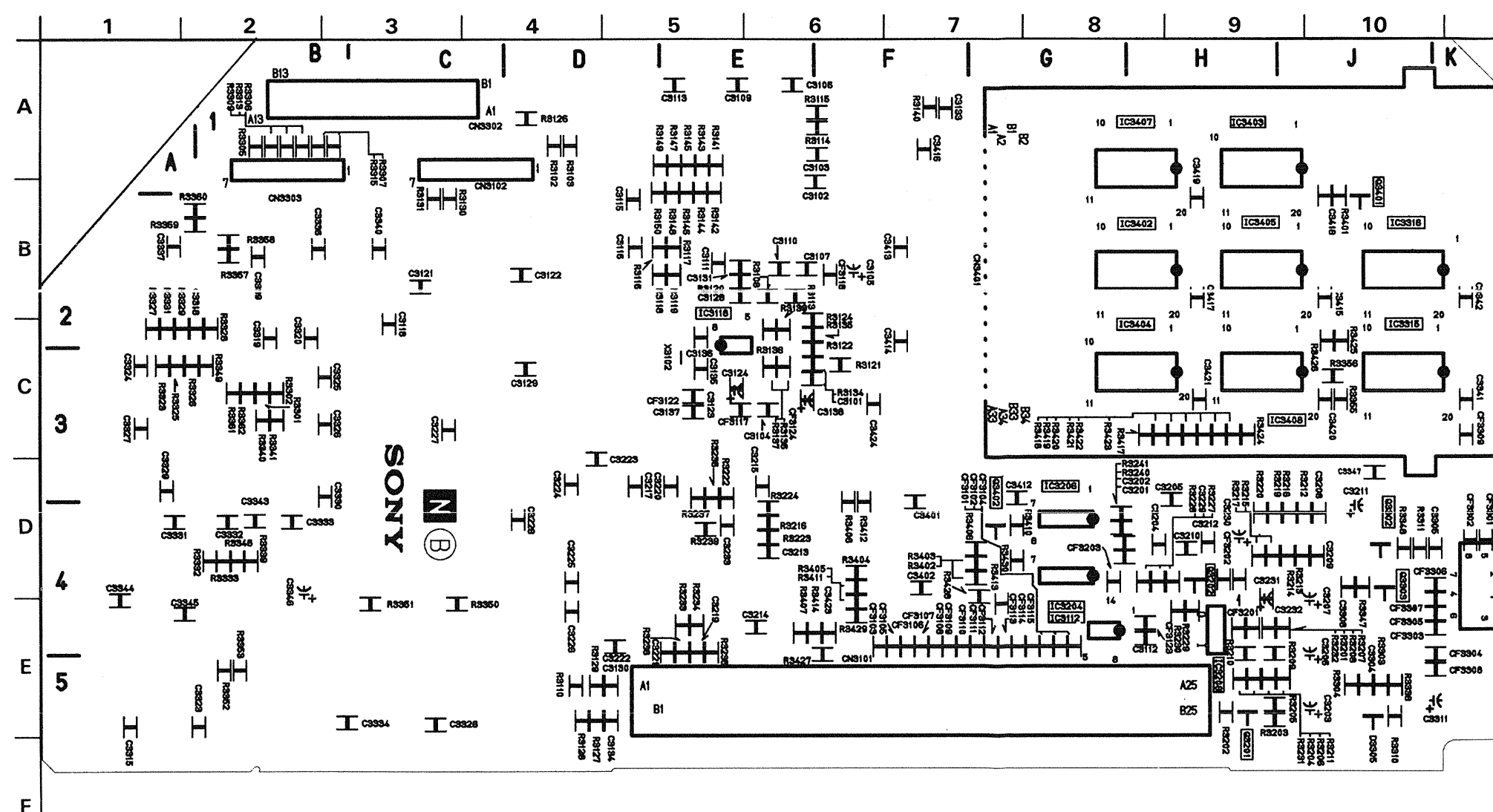


N BOARD

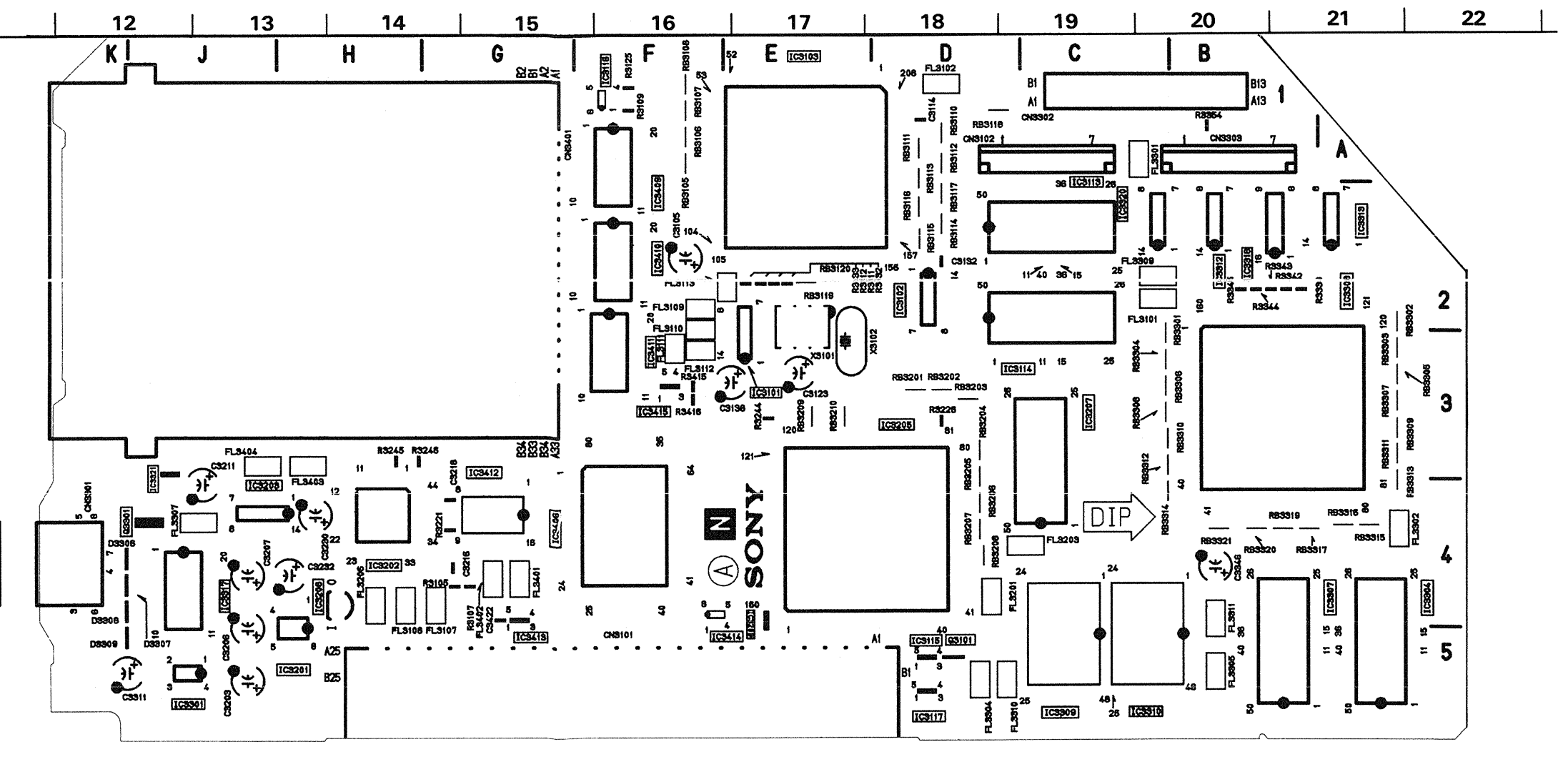
IC	Location	IC	Location
IC3101	C - 18	IC3402	B - 8
IC3102	B - 19	IC3403	A - 9
IC3103	A - 18	IC3404	C - 9
IC3112	E - 8	IC3405	B - 9
IC3115	C - 10	IC3407	B - 17
IC3201	E - 14	IC3408	C - 9
IC3202	D - 15	IC3409	B - 17
IC3203	D - 14	IC3410	B - 17
IC3204	D - 8	IC3411	C - 17
IC3205	C - 19	IC3412	D - 16
IC3206	D - 8	IC3413	E - 16
TRANSISTOR			
IC3207	D - 20	Q3101	E - 19
IC3208	E - 9	Q3201	E - 9
IC3301	E - 13	Q3202	D - 9
IC3304	E - 22	Q3301	D - 13
IC3307	E - 22	Q3302	D - 10
IC3308	B - 22	Q3303	D - 10
IC3309	E - 21	Q3401	A - 10
IC3310	E - 21	Q3402	D - 7
DIODE			
IC3312	B - 22	D3305	E - 10
IC3313	B - 22	D3306	D - 13
IC3315	E - 19	D3307	D - 13
IC3316	B - 10	D3308	E - 13
IC3317	E - 13	D3309	E - 13
IC3318	C - 10		
IC3320	B - 20		

N [DIGITAL PROCESSING]

N Board <Conductor Side>

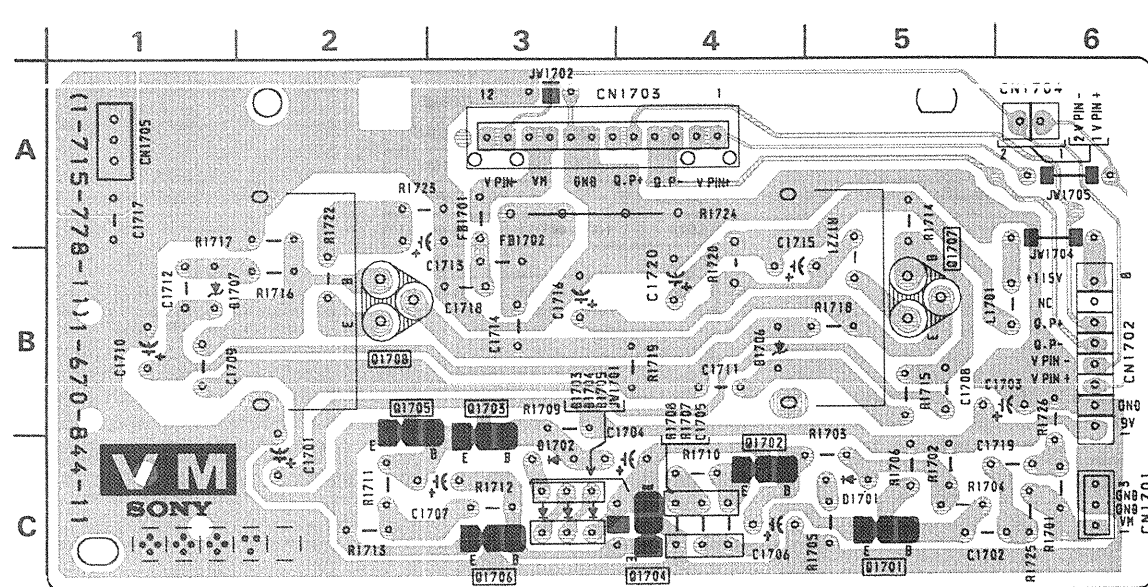


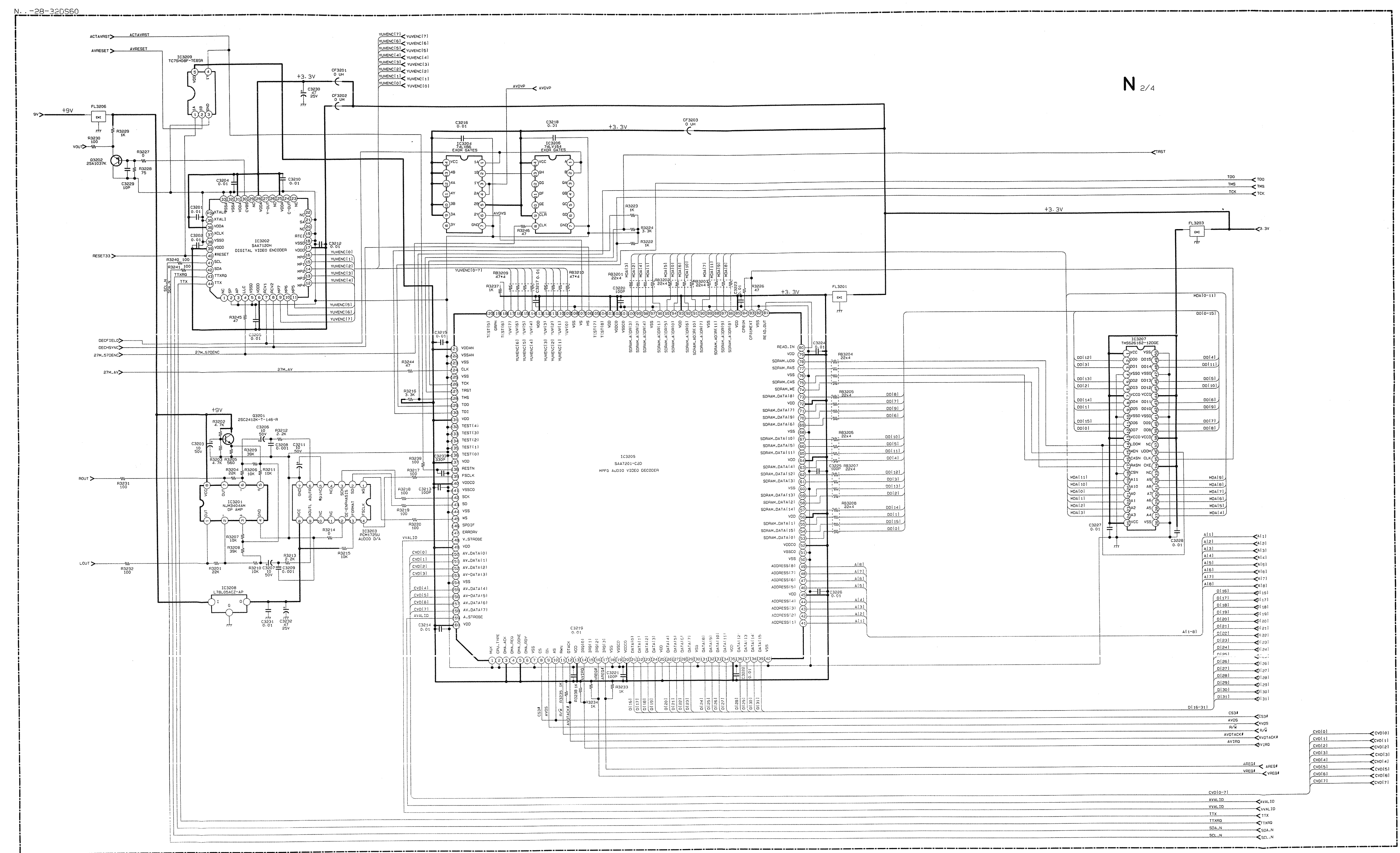
N Board <Component Side>



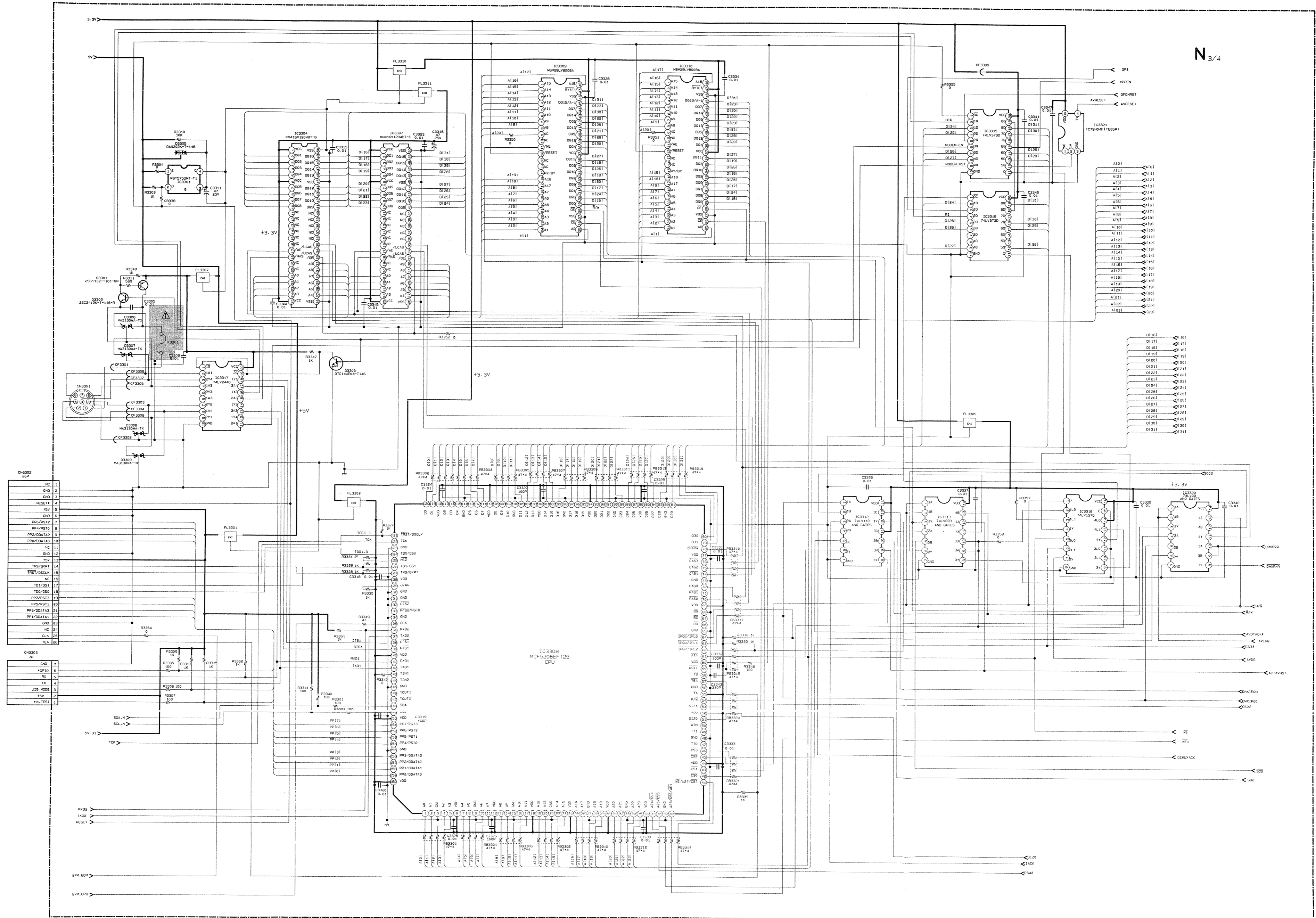
VM [VM AMP, QP]

VM Board

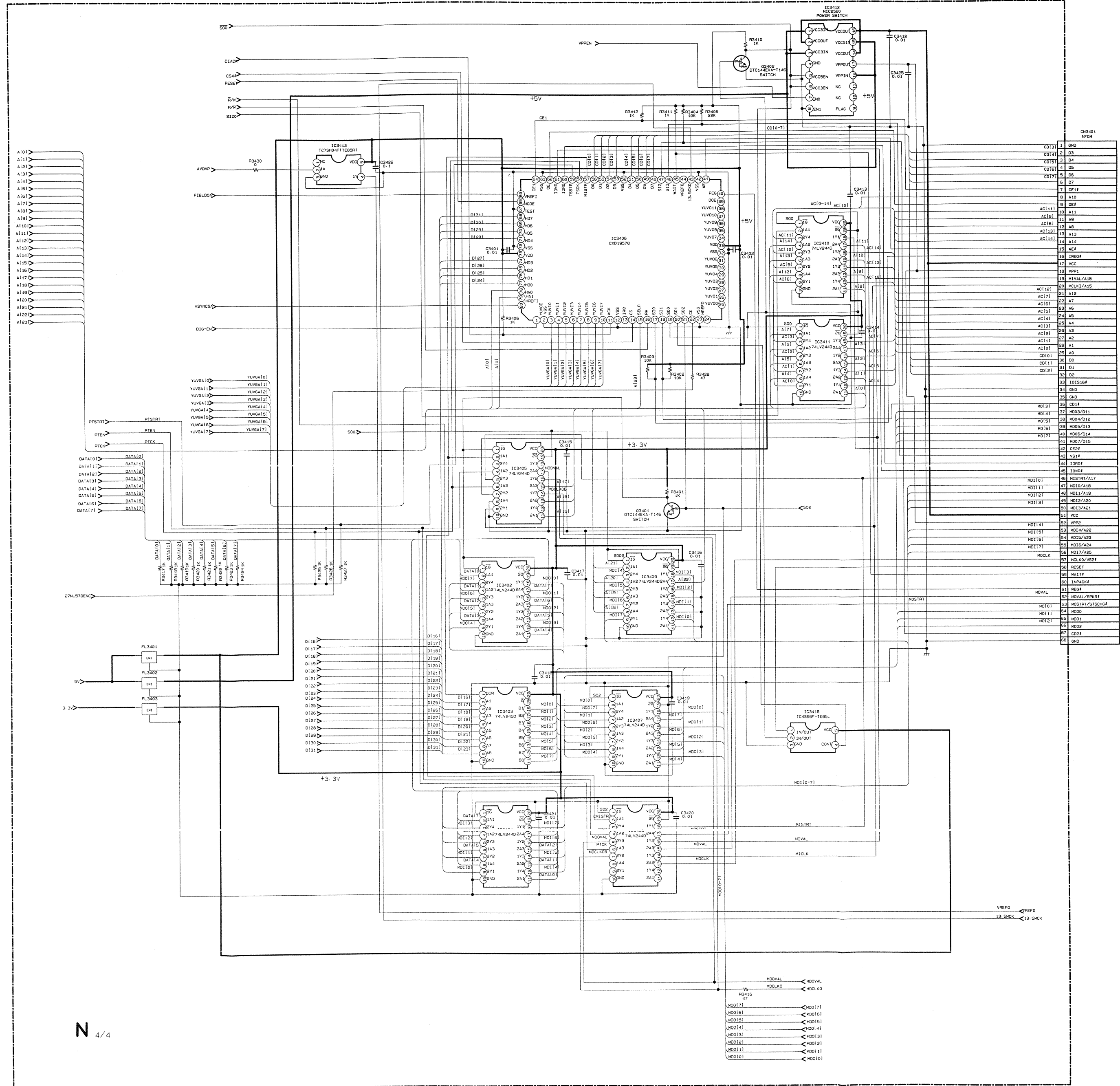




N 2/4



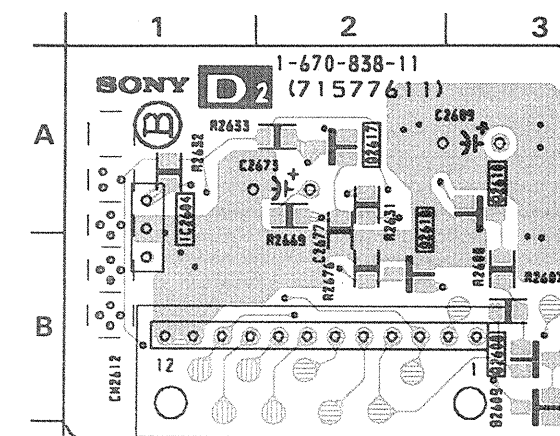
N. . -28-32FS60



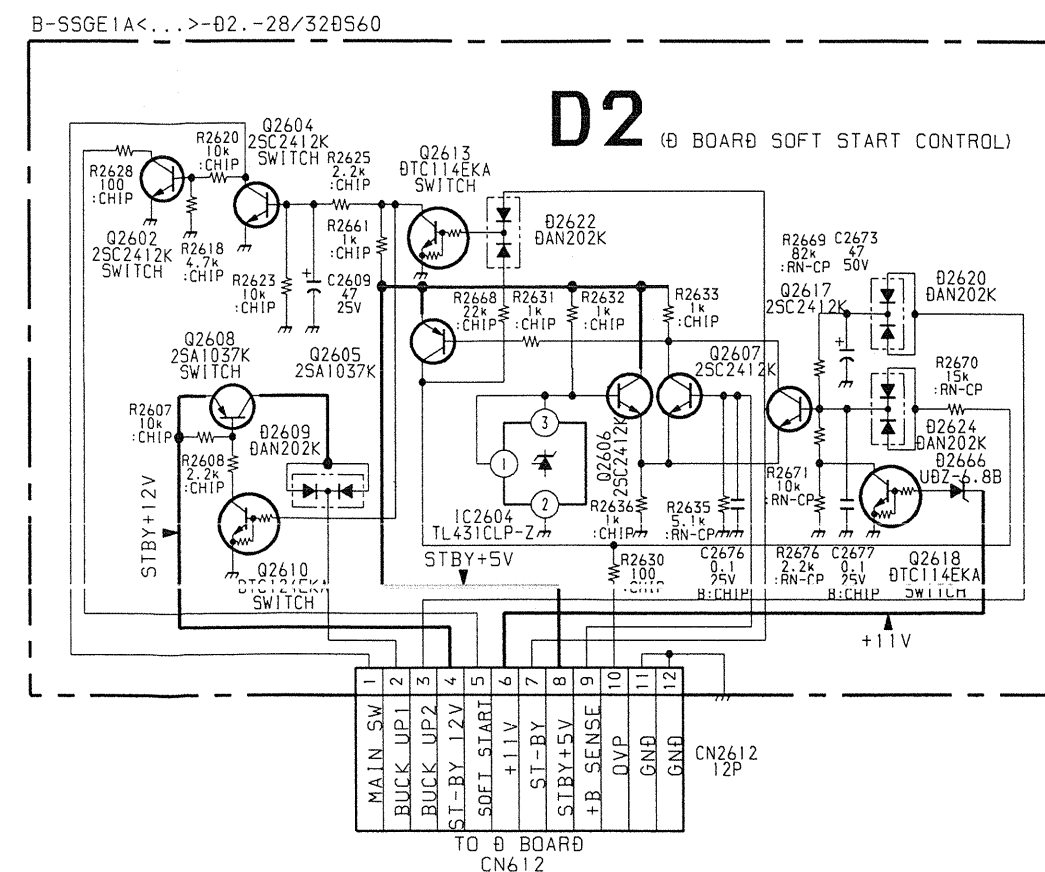
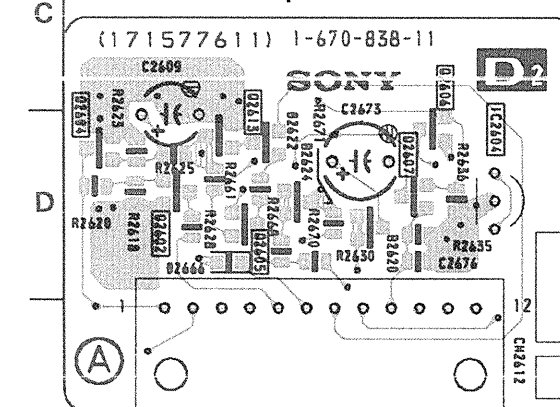
N 4/4

D2 [SOFT START CONTROL]

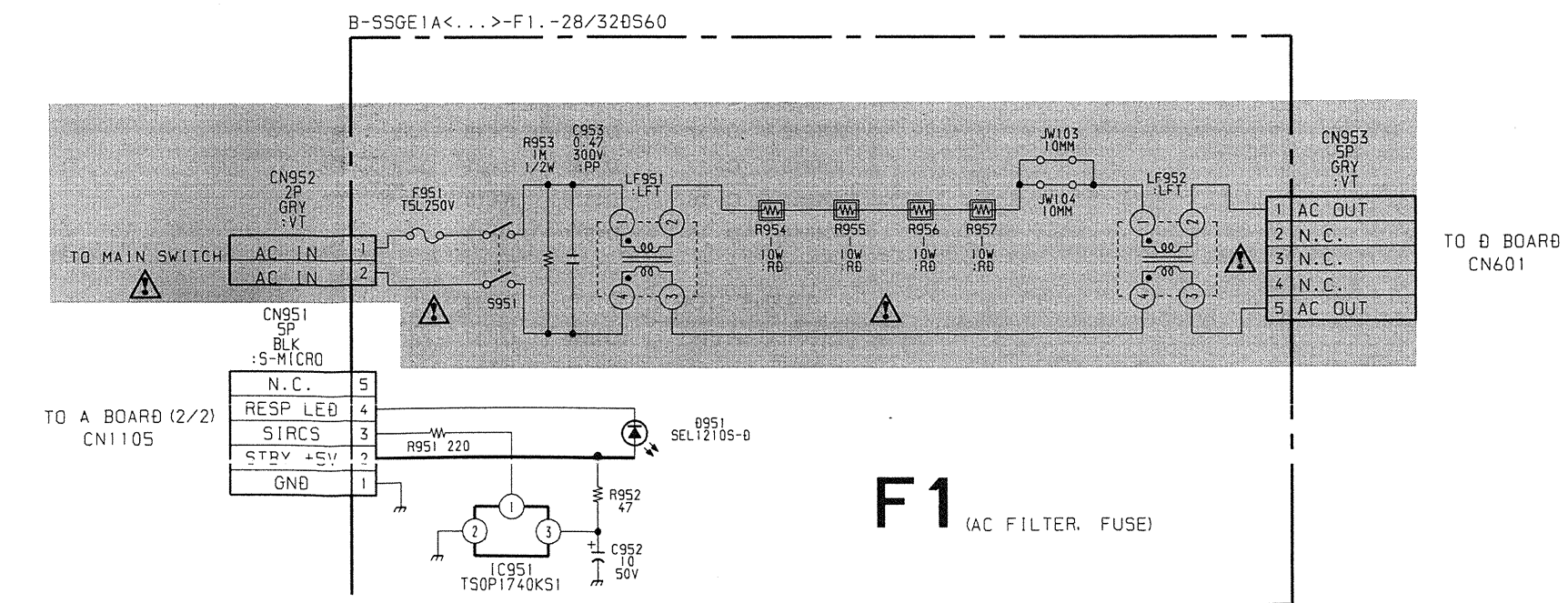
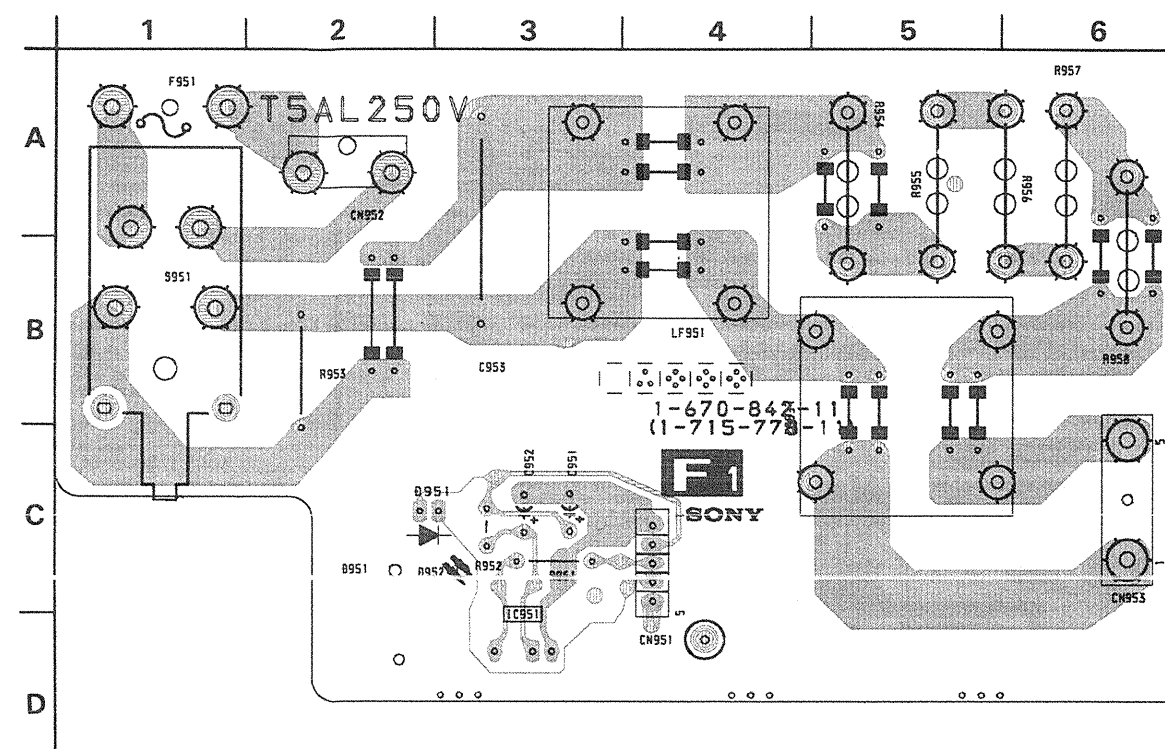
D2 Board <Conductor Side>

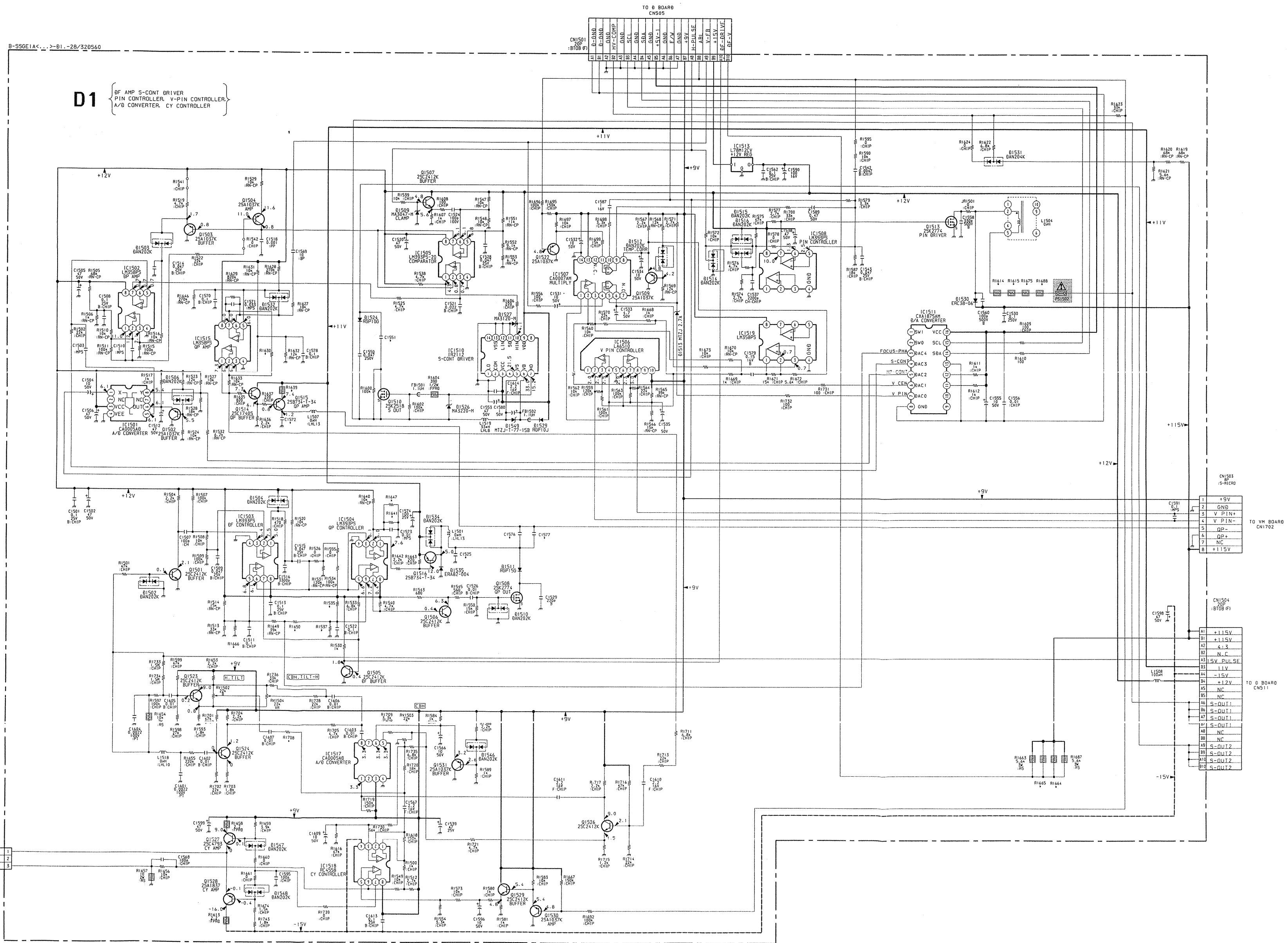


D2 Board <Component Side>



F1 [AC FILTER FUSE]



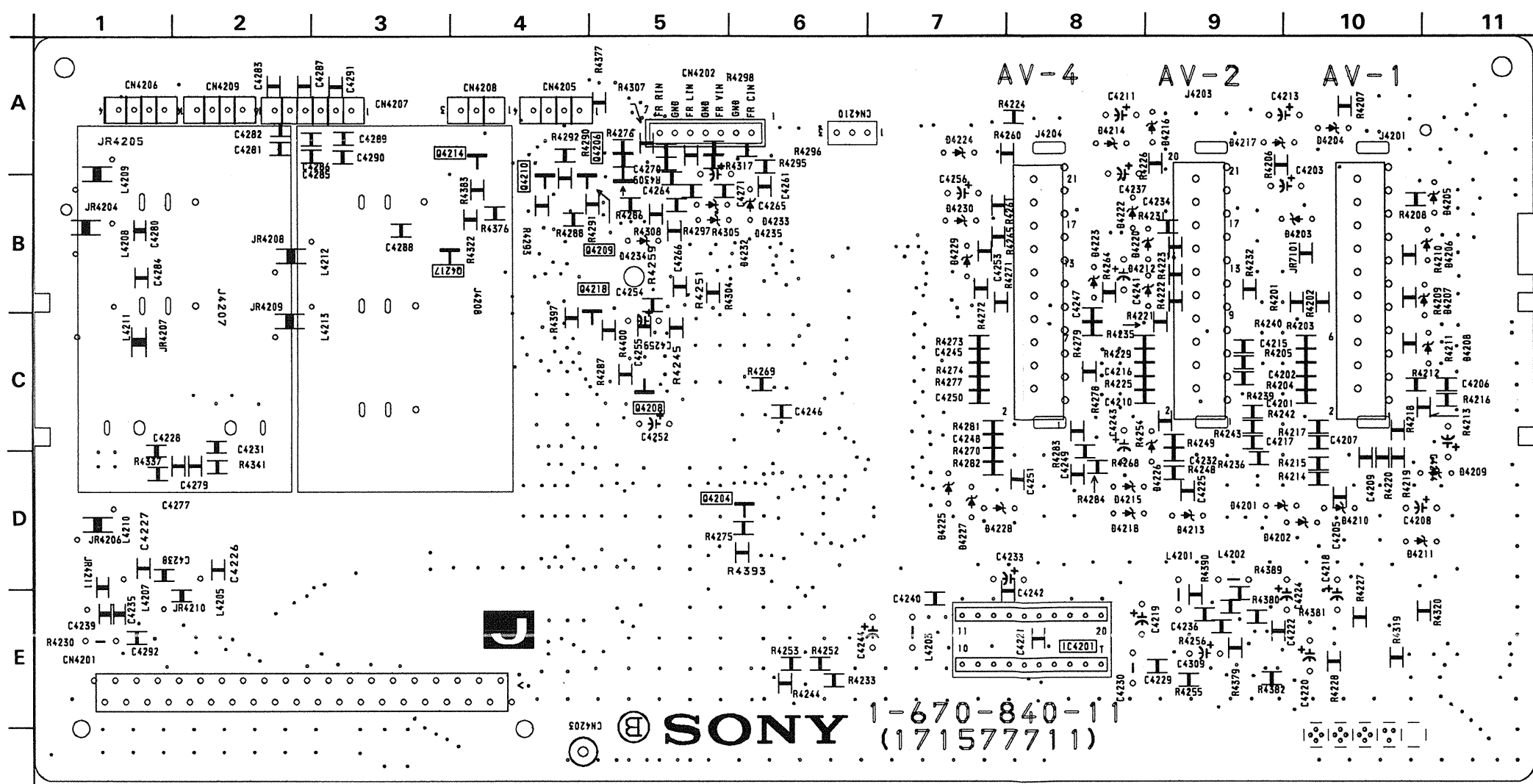


D1 BOARD * MARK

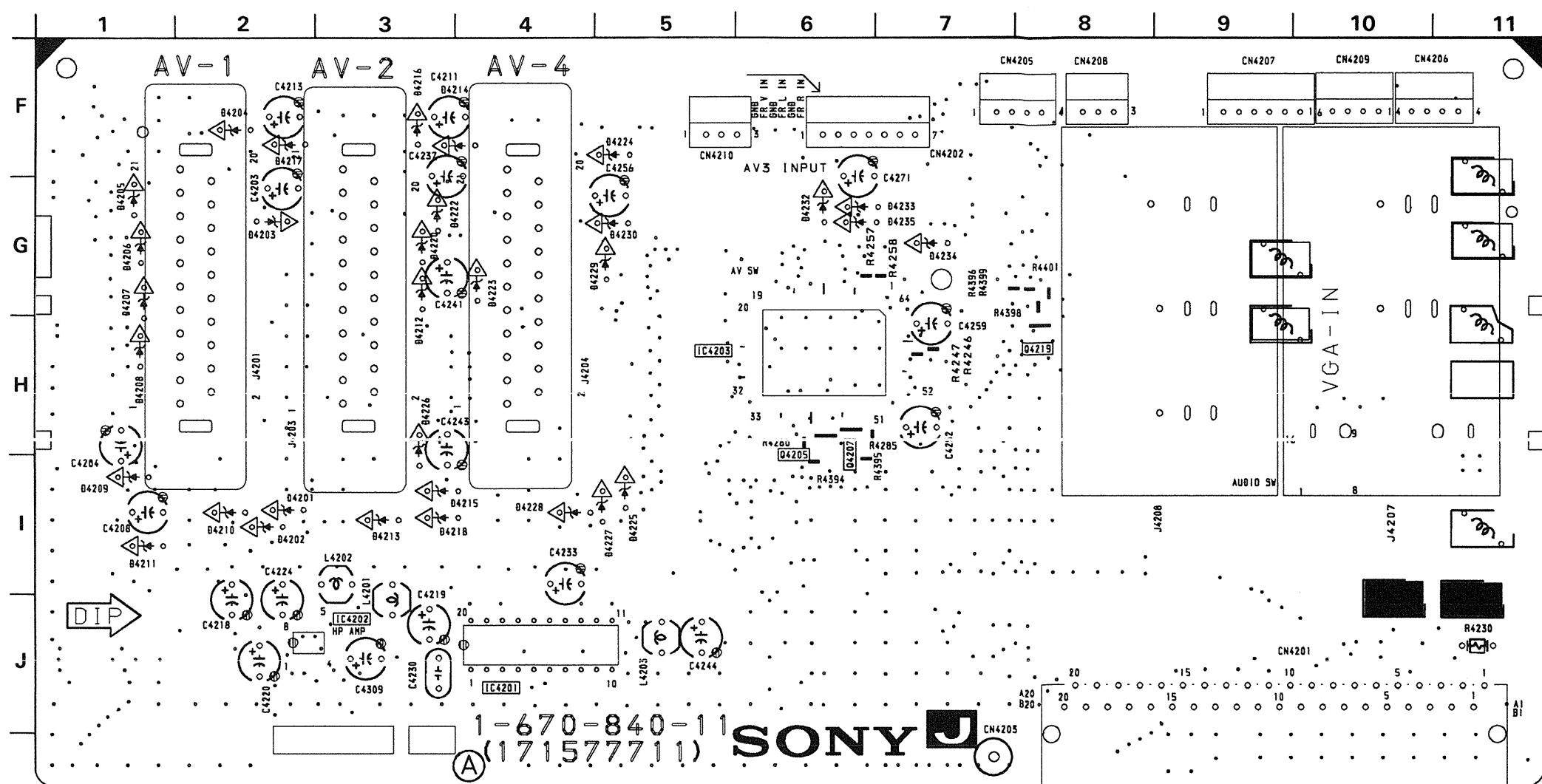
Ref	28DS60U	32DS60U
C1525	0.0015MF	0.0047MF
C1551	0.33MF	0.43MF
C1572	1MF	0.1MF
C1576	0.0022MF	0.0015MF
C1577	-	0.0047MF
R1535	15K	12K
R1537	22K	27K
R1614	2.7	0
R1615	2.7	0
R1630	8.2K	6.8K
R1639	100	82
R1641	12K	10K
R1647	-	220K
R1650	36K	39K
R1664	6.8K	5.6K
R1665	6.8K	5.6K
R1666	-	270K
R1675	2.7	0
R1688	2.7	0
R1708	150K	220K

J AV INPUT INTERFACE/AUTO SELECTOR/
H.P AMP/AUDIO SWITCH

J Board <Conductor Side>

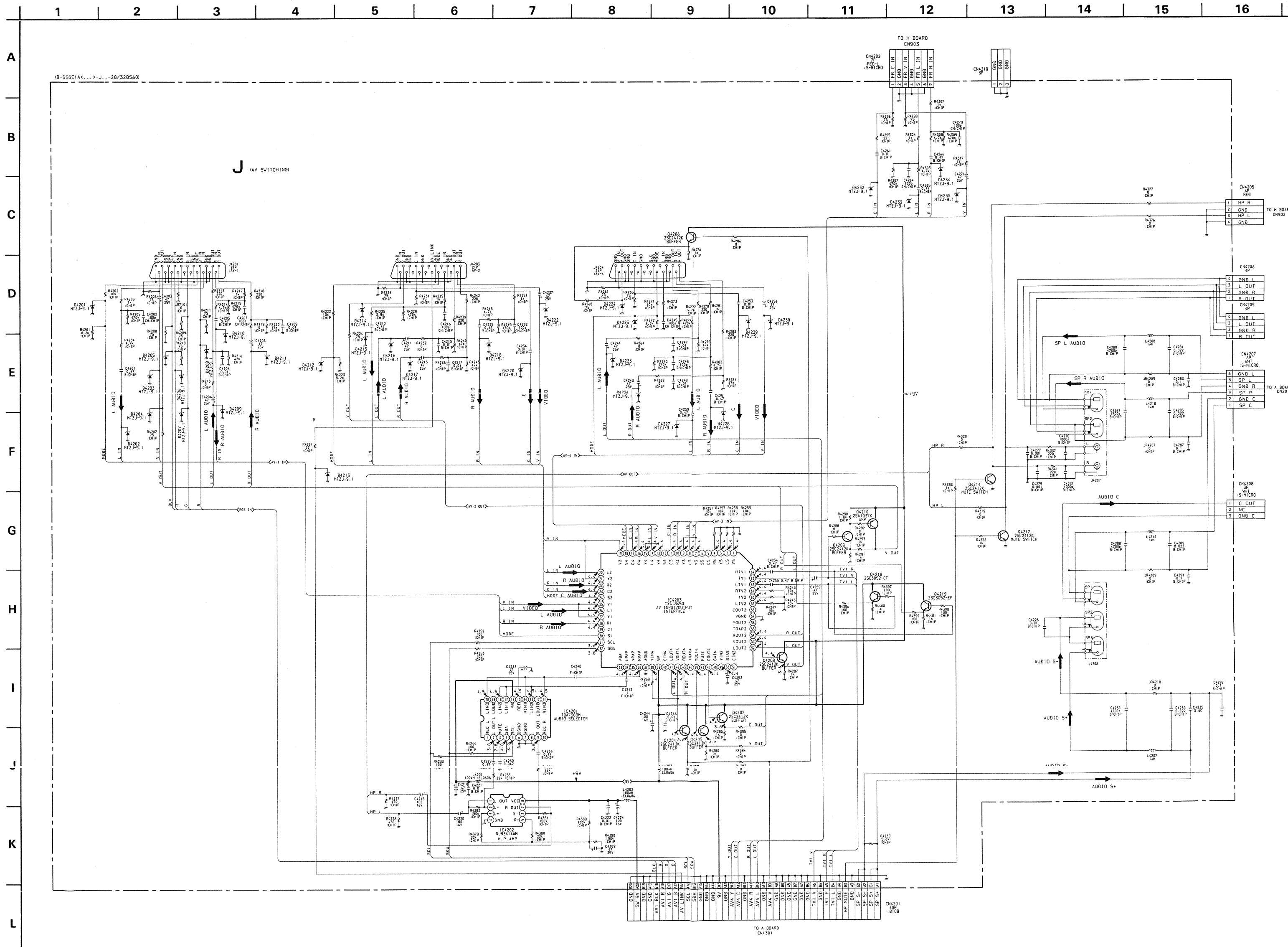


J Board <Component Side>

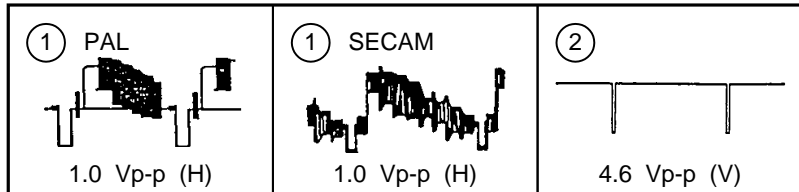


J BOARD

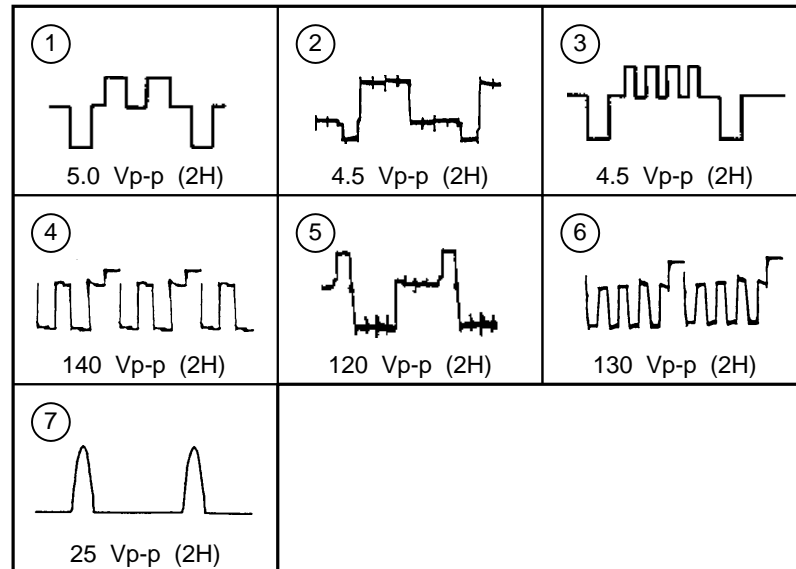
IC	D4209	D - 11	
IC4201	J - 4	D4210	I - 2
IC4202	J - 3	D4211	J - 1
IC4203	H - 6	D4212	H - 3
TRANSISTOR	D4213	D - 9	
Q4204	D - 6	D4214	G - 3
Q4205	I - 6	D4215	D - 8
Q4206	A - 5	D4216	F - 3
Q4207	I - 6	D4217	G - 2
Q4208	C - 5	D4218	D - 8
Q4209	B - 5	D4220	G - 3
Q4210	A - 4	D4222	G - 3
Q4214	A - 4	D4223	H - 4
Q4217	B - 4	D4224	G - 4
DIODE	D4225	D - 7	
D4201	D - 10	D4227	D - 7
D4202	D - 10	D4228	D - 8
D4203	G - 2	D4229	G - 5
D4204	A - 10	D4230	G - 4
D4205	B - 11	D4232	G - 6
D4206	B - 11	D4233	G - 6
D4207	H - 1	D4234	G - 7
D4208	C - 11	D4235	G - 6



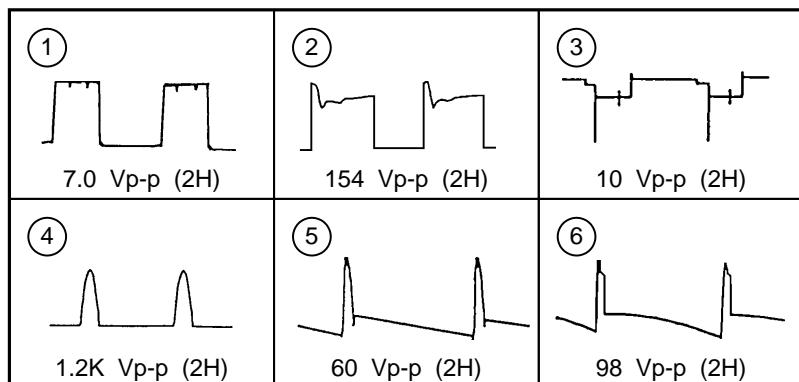
WAVEFORMS A BOARD (1/3)



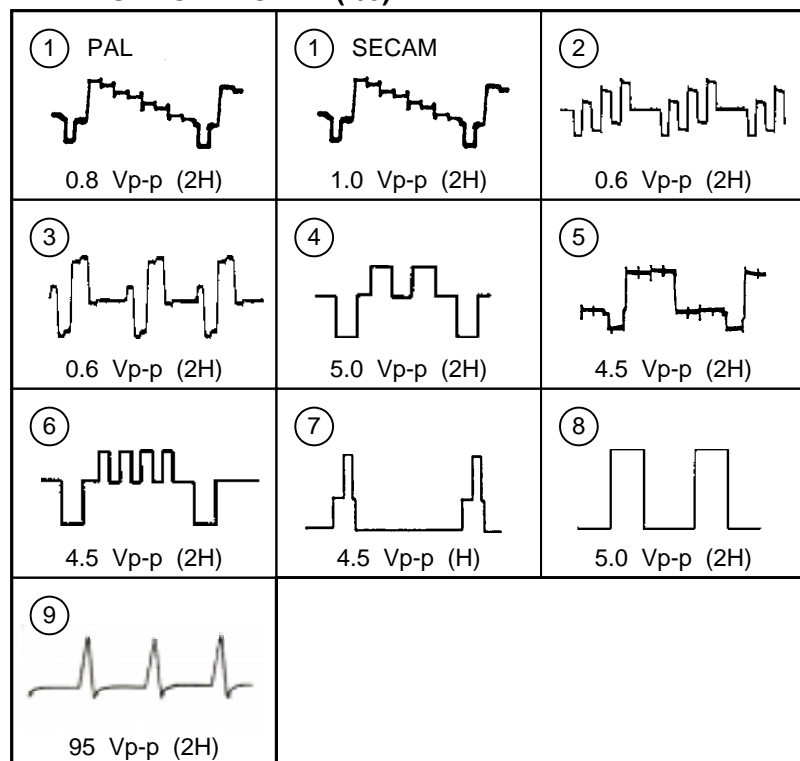
WAVEFORMS C BOARD



WAVEFORMS D BOARD

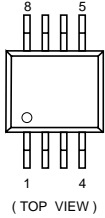


WAVEFORMS A BOARD (2/3)

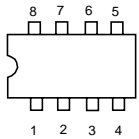


5-4 SEMICONDUCTORS

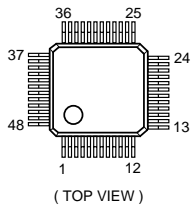
BA7046F
BA7046F-T1
MB3793-42NF
MB3793-42NF-ER
MC14066BFEL
NJM2240M
NJM2240M(TE2)
NJM3404AM-TE1



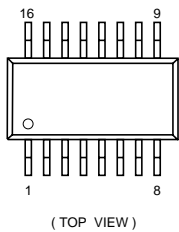
CAD005AD
LM358N
LM358PS
LM393P
M5216P
ST24C16FB6
TDA2822M
UPC393C



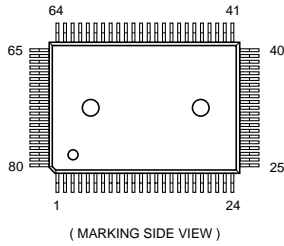
CXA1855Q-T6



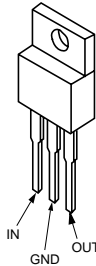
CXA1875AM-T4
HEF4053BT
MC14052BDR2
MC14053BF-T2
MC74F157ADR2
SN74LS221D
74HCT4046AD/S470



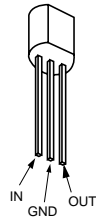
CXD2044Q-TL
SAA4990H/V2



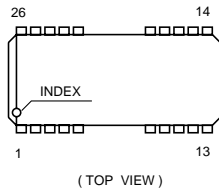
L7805CV
LM2940CT-9.0
LM2940T-8.0
LM2940T-9.0
L4941BV
TEA7605
MC7808CT



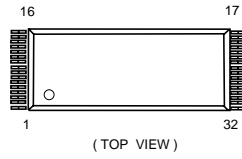
LM78L05ACZ
LM78L12ACZ
L78L05ACZ-AP
L78L12ACZ-AP
MC78L05AC PRP



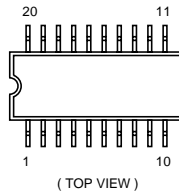
MB814400C-70P-JN-ER



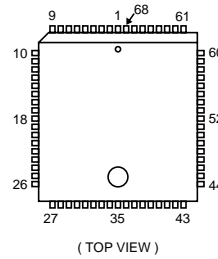
MBM29F04DA-90PFN



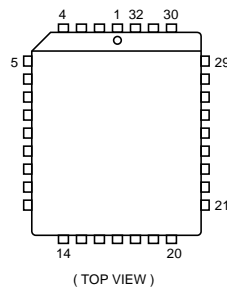
MC74F240DWR2
MC74F244MEL



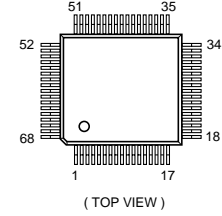
MSP3400C-PS-C6-T
MSP3410D-PS-B4-T
SAA7185WP
SDA30C164-2-GEG
SDA30C164-2GEG
SDA5273P-C26-GEG
SDA5275
SDA9280B22



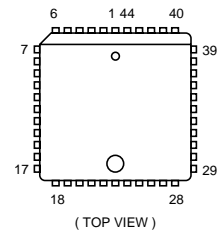
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M27C4001-15C1-GE101



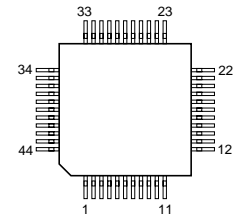
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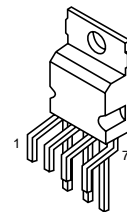
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SAA7165WP



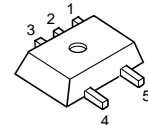
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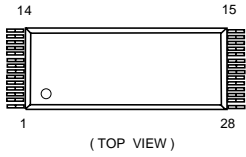
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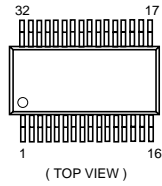
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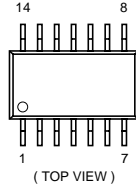
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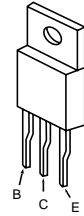
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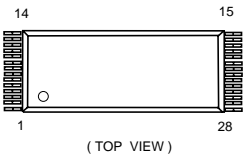
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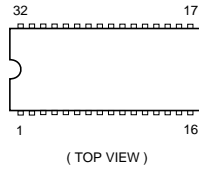
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TDA9144/N1
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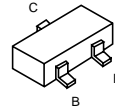
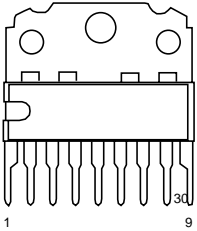


DTA114EK
DTA114EK-T146
DTA144EK
DTA144EK-T146
DTC114EK
DTC114EKA-T146
DTC124EKA-T146
DTC144EK
DTC144EK-T146
DTC144EKA-T146
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2SA1162-G
2SC2412K-QR
2SC2412K-T-146-R

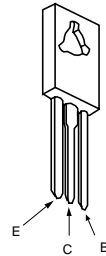
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2SC2552O-TPE2



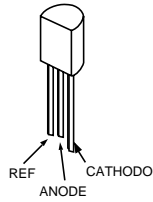
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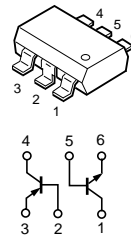
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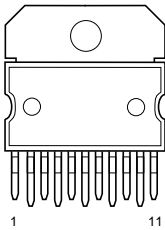
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TL431CZ



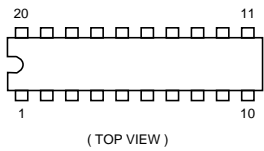
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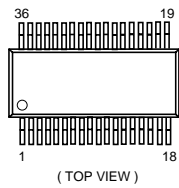
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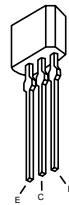
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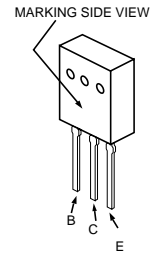
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TMS4C2972-28DTR



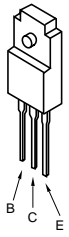
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DTC144ESA-TP
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2SC1740S-RT
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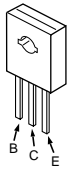
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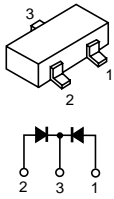
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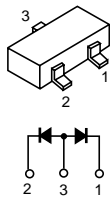
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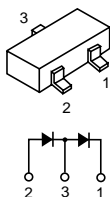
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DAN202K-T-146



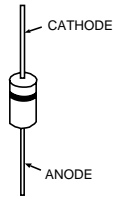
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DAP202K-T-146



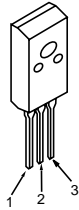
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DA204K-T-146



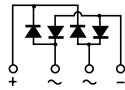
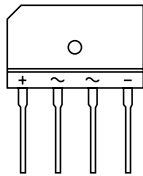
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D1NL20-TA	RGP02-20EG23
D1NL20-TR	RGP02-20EL-6394
EGP20G	RGP10GPKG23
EL1Z	RGP15GPKG23
GP08D	S2LA20F
GP08DPKG23	1SS133T-77
MTZJ-T-77-9.1	1SS83
MTZJ-T-77-9.1A	1SS83TD



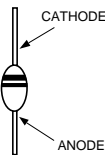
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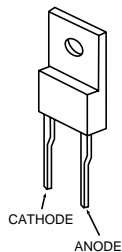
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D4SB60L-F
RBA-402L



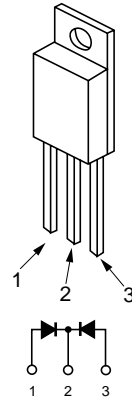
ERC38-06



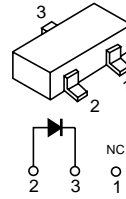
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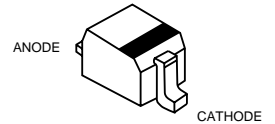
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ESAD39M-06CF38



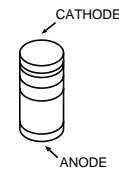
MA3033-L	02CZ5.1-TEBSL
MA3033L-TX	MA3062M-TX
MA3056M-TX	MA3030-H(TX)
MA3130WA-TX	RD5.6M-B2
02CZ5.6-TEBSL	



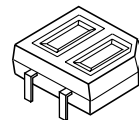
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RD22ESB2
UDZ-TE-17-12B
UDZ-TE-17-6.8B



MA3051L-TX

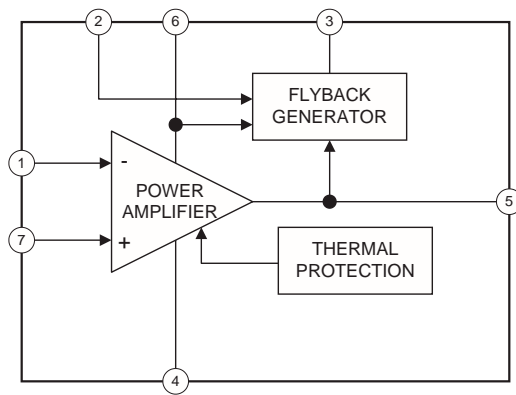


MA73-TX

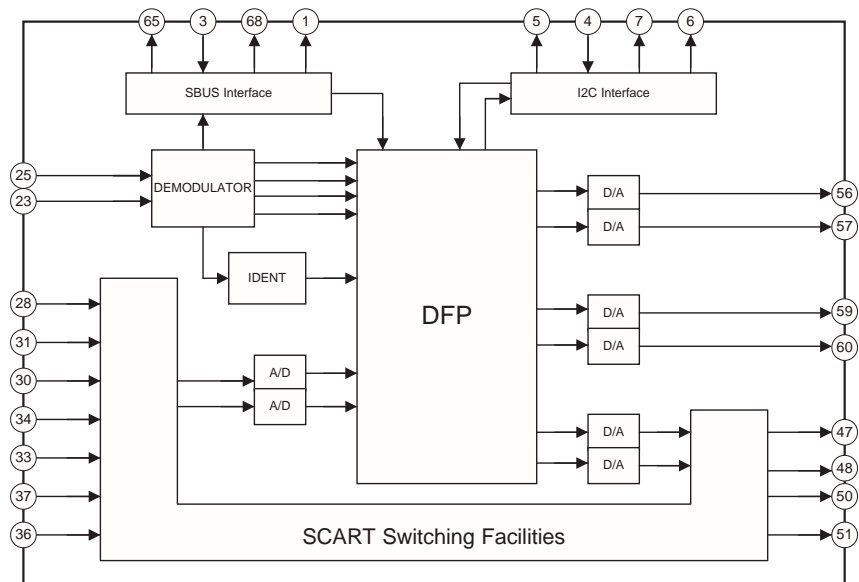


5-5. IC BLOCK DIAGRAMS

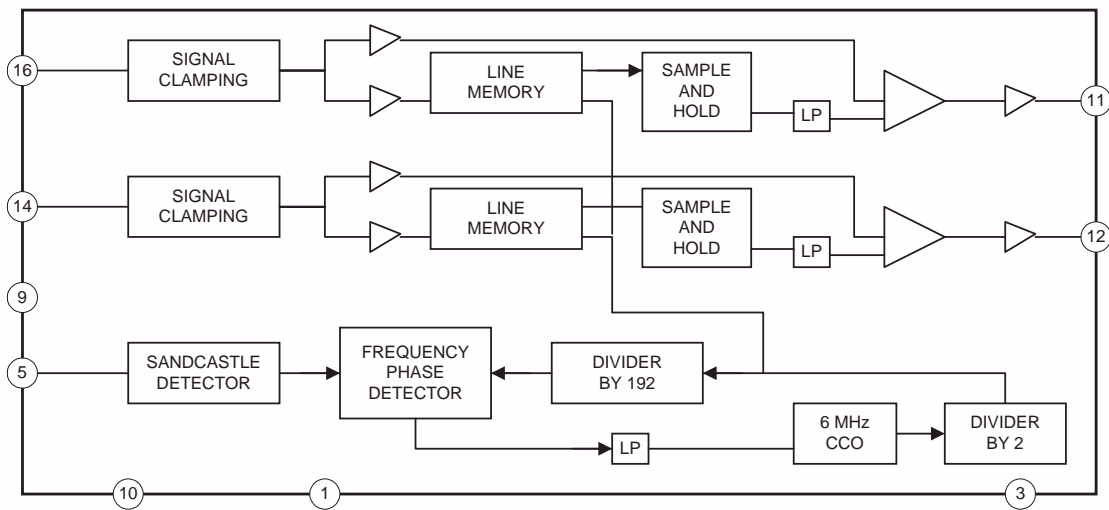
D BOARD IC502 STV9379



A BOARD IC201 MSP3410B-PS-B4-T



B BOARD IC3503,3602 TDA4665T-T



C BOARD IC701,702,703 TDA6111Q/N4

