

# XR-C9100R

## SERVICE MANUAL

AEP Model  
UK Model



Model Name Using Similar Mechanism	XR-C8100R
Tape Transport Mechanism Type	MG-25D-136

### SPECIFICATIONS

#### Cassette player section

Tape track	4-track 2-channel stereo
Wow and flutter	0.08 % (WRMS)
Frequency response	30 - 20,000 Hz
Signal-to-noise ratio	

Cassette type	Dolby B NR	Dolby C NR	Dolby NR off
TYPE II, IV	67 dB	73 dB	61 dB
TYPE I	64 dB	70 dB	58 dB

#### Tuner section

##### FM

Tuning range	87.5 - 108.0 MHz
Antenna terminal	External antenna connector
Intermediate frequency	10.7 MHz
Usable sensitivity	8 dBf
Selectivity	75 dB at 400 kHz
Signal-to-noise ratio	65 dB (stereo), 68 dB (mono)
Harmonic distortion at 1 kHz	0.7% (stereo), 0.4% (mono)
Separation	35 dB at 1 kHz
Frequency response	30 - 15,000 Hz

#### MW/LW (AEP, UK model)

Tuning range	MW: 531 - 1,602 kHz LW: 153 - 281 kHz
Aerial terminal	External aerial connector
Intermediate frequency	10.71 MHz/450 kHz
Sensitivity	MW: 30 $\mu$ V LW: 50 $\mu$ V

#### MW/SW (German model)

Tuning range	MW: 531 - 1,602 kHz SW: 5,950 - 6,205 kHz
Aerial terminal	External aerial connector
Intermediate frequency	10.71 MHz/450 kHz
Sensitivity	MW: 30 $\mu$ V SW: 50 $\mu$ V

#### Power amplifier section

Outputs	Speaker outputs (sure seal connectors)
Speaker impedance	4 - 8 ohms
Maximum power output	45 W $\times$ 4 (at 4 ohms)

– Continued on next page –

## FM/MW/LW CASSETTE CAR STEREO

AEP, UK Model

## FM/MW/SW CASSETTE CAR STEREO

German Model



# SONY®

### 6-3. IC PIN DESCRIPTION

#### • IC600 MB90574PFV-G-134-BND (SYSTEM CONTROL)

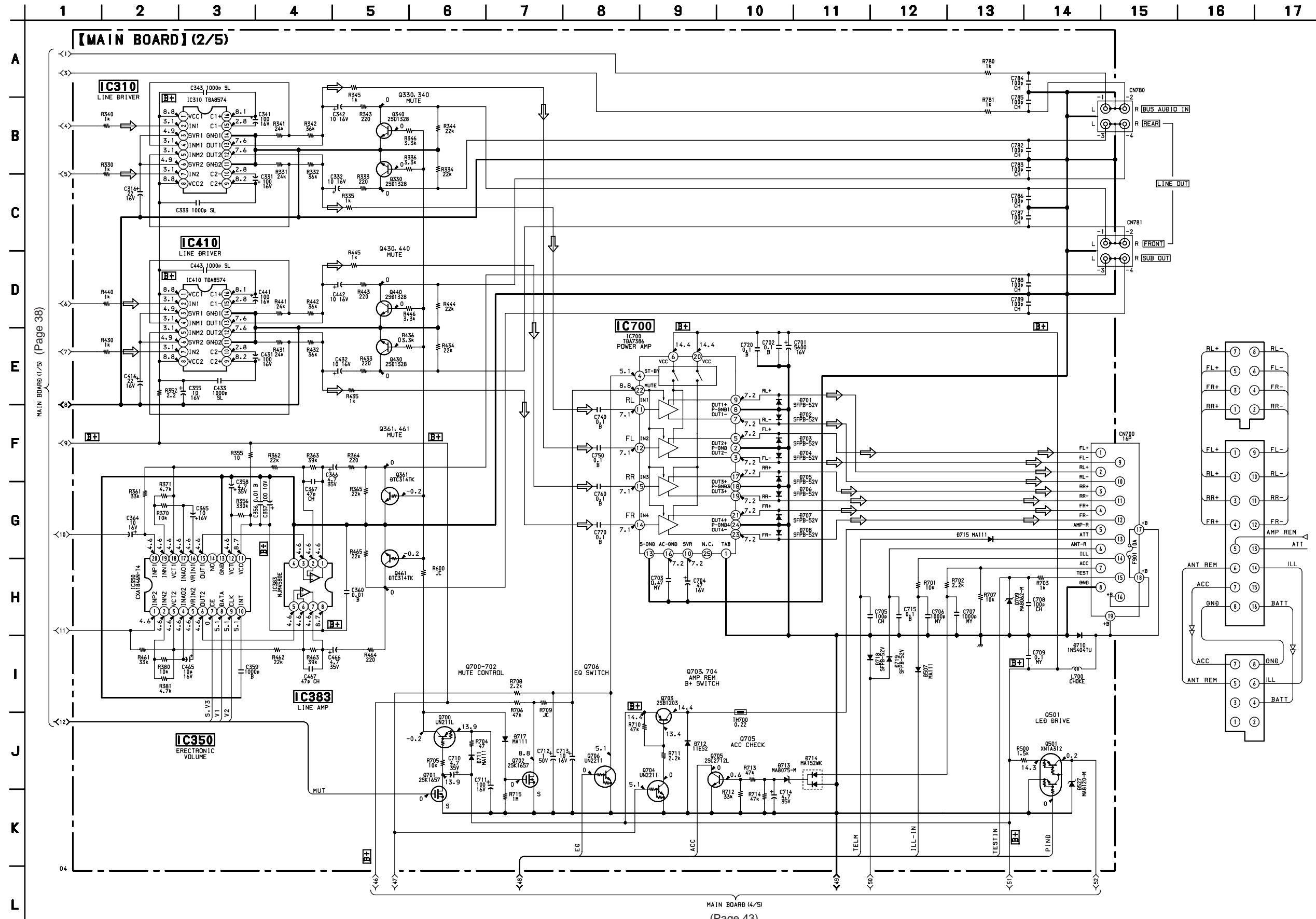
Pin No.	Pin Name	I/O	Pin Description
1	SEKOUT	O	SEEK OUT output
2	AF-SEEK	O	AF SEEK output
3	WIDE	O	WIDE/NARROW select output
4	ST-MONO	I/O	Use a thing both as ST-IND display input and force MONO output.
5	TUNMUTE	O	Tuner mute output
6	FM-ON	O	FM ON output
7	TU-ON	O	Tuner ON output
8	VCC	—	Power supply pin (+5 V)
9	ONNIN-RST	O	Audio composition IC reset output
10	BUSON	O	Bus ON control output
11	SYSRST	O	System reset output
12	DOORSW	I	Door OPEN/CLOSE detection input
13	LCDSO	O	LCD serial data output
14	LCDCKO	O	LCD serial clock output
15	BEEP	O	BEEP output
16	LCDCE	O	LCD chip enable output
17	UNISI	I	Serial data input
18	UNISO	O	Serial data output
19	UNICKI	I/O	Serial clock input/output
20	ONNIN-SI	I	Audio composition serial data input
21	ONNIN-SO	O	Audio composition serial data output
22	ONNIN-CKO	O	Audio composition serial clock output
23	ONNIN-CE	O	Audio composition chip enable output
24	SIRCS	I	Remote commander input
25	PLLSI	I	PLL data input
26	PLLSO	O	PLL data output
27	PLLCKO	O	PLL clock output
28	PLLCE	O	PLL chip enable output
29	ILL-ON	O	Illumination power control output
30	DIMMER	O	Dimmer control output
31	TIRIND	O	TIR indicator control output
32	LCDINH	O	LCD blank display control output
33	VSS	—	GND
34	C	—	Power stabilization capacitor pin
35	AD-ON	O	Power control output of A/D conversion.
36, 37	RE-IN0, 1	I	Rotary encoder input 0, 1
38	DVCC	—	D/A converter VREF input
39	DVSS	—	GND of D/A converter.
40	SD-IN	I	Signal director input
41	LCDANG	O	LCD view angle alignment output
42	AVCC	—	Analog power supply pin (+5 V)
43	AVRH	—	A/D converter VREF+ input
44	AVRL	—	A/D converter VREF- input
45	AVSS	—	Analog GND
46, 47	KEYIN0, 1	I	Key input 0, 1
48	RC-IN0	I	Rotary commander input 0
49	ONNIN-SW-ON	—	Audio composition IC power supply pin (+5V)
50	DSTSEL1	I	Function select input
51	DSTSEL2	I	Tuner destination setting input
52	MTP	I	Tuner multi-pass input (Not used in this set.)
53	VSM	I	S-Meter voltage detection input

Pin No.	Pin Name	I/O	Pin Description
54	VCC	—	Power supply pin (+5 V)
55	RAMBU	I	RAM reset detection input
56	POWSEL	I	Power select initial setting input
57	$\overline{\text{EQ-SEL}}$	O	Equalizer connection : "H"
58	$\overline{\text{TESTIN}}$	I	Test mode setting detection input
59	PACK-IND	O	Door indicator output
60	TIRPLAY	O	TIR playback audio line select output
61, 62	SUB-SW1, 0	O	Simple SUB WOOFER control output 1, 0
63	VSS	—	GND
64	VOLCE	O	Electric volume serial chip enable output
65	MUTE	O	System mute control output
66	VOLSO/SUBSO	O	Main/Sub volume serial data output
67	VOLCKO/SUBCKO	O	Main/Sub volume serial clock output
68	SUBCE	O	Sub volume serial chip enable output
69	$\overline{\text{FLASH-W}}$	I	Flash write in mode detection input
70	12CSIO	I/O	RDS serial data input/output
71	12CCKO	O	RDS serial clock output
72	RC-IN1	I	Rotary commander input
73	X1A	—	Low speed oscillation input (32.768 kHz)
74	X0A	—	Low speed oscillation input (32.768 kHz)
75	DAVN	I	RDS IC data taking in detection input (Not used in this set.)
76	KEYACK	I	Key input acknowledge
77	BU-IN	I	Back-up power detection input
78	$\overline{\text{ILLIN}}$	I	Illumination line detection input
79	TELMUTE	I	Telephone mute detection input
80	$\overline{\text{NOSESW}}$	I	Front panel detachable detection input
81	$\overline{\text{ACCIN}}$	I	Accessory power detection input
82 – 85	TIR-D0, D1, D2, D3	I/O	TIR IC command input/output D0, D1, D2, D3
86	HSTX	—	Connect to power supply pin.
87	MD2	I	Connect to GND.
88, 89	MD0, 1	I	Connect to power supply pin.
90	RST	I	Microcomputer reset input
91	VSS	—	GND
92	X0	—	High speed oscillation input (3.68 MHz)
93	X1	—	High speed oscillation input (3.68 MHz)
94	VCC	—	Power supply pin (+5 V)
95	TIR-BUSY	I	TIR IC BUSY output monitor pin
96	$\overline{\text{TIR-WR}}$	O	TIR IC data write pulse output
97	TIR-CE	O	TIR IC CE output
98	$\overline{\text{TIR-CE}}$	O	TIR IC CE output
99	TIR-RES	O	TIR IC reset/power down
100	$\overline{\text{TIR-PDOWN}}$	O	TIR IC power down
101	$\overline{\text{TIR-RD}}$	O	TIR IC data read pulse output
102	MTLIN	I	Auto METAL detection input
103	$\overline{\text{AMSIN}}$	I	Tape AMS music detection input
104	REEL	I	Tape reel table rotation detection input
105	POS0	I	Tape position detection input 0
106	POS1	I	Tape position detection input 1
107	POS2	I	Tape position detection input 2
108	POS3	I	Tape position detection input 3
109	LM-EJ	O	Tape loading motor control output (Eject direction)
110	LM-LOD	O	Tape loading motor control output (Loading direction)
111	CM-ON	O	Tape capstan motor control output

Pin No.	Pin Name	I/O	Pin Description
112	TAPEON	O	Tape power control output
113	N-ROUT	O	Tape forward/reverse detection output
114	AMSON	O	Tape AMS control output
115	DOLBC	O	Tape DOLBY B/C select control output
116	DOLBY	O	Tape DOLBY control output
117	ONNIN-REQ	I	Space condition indicate signal input for voice synthesizer IC.
118	LEDON	O	Front panel LED control output
119	VSS	—	GND
120	POWON	O	System power control output

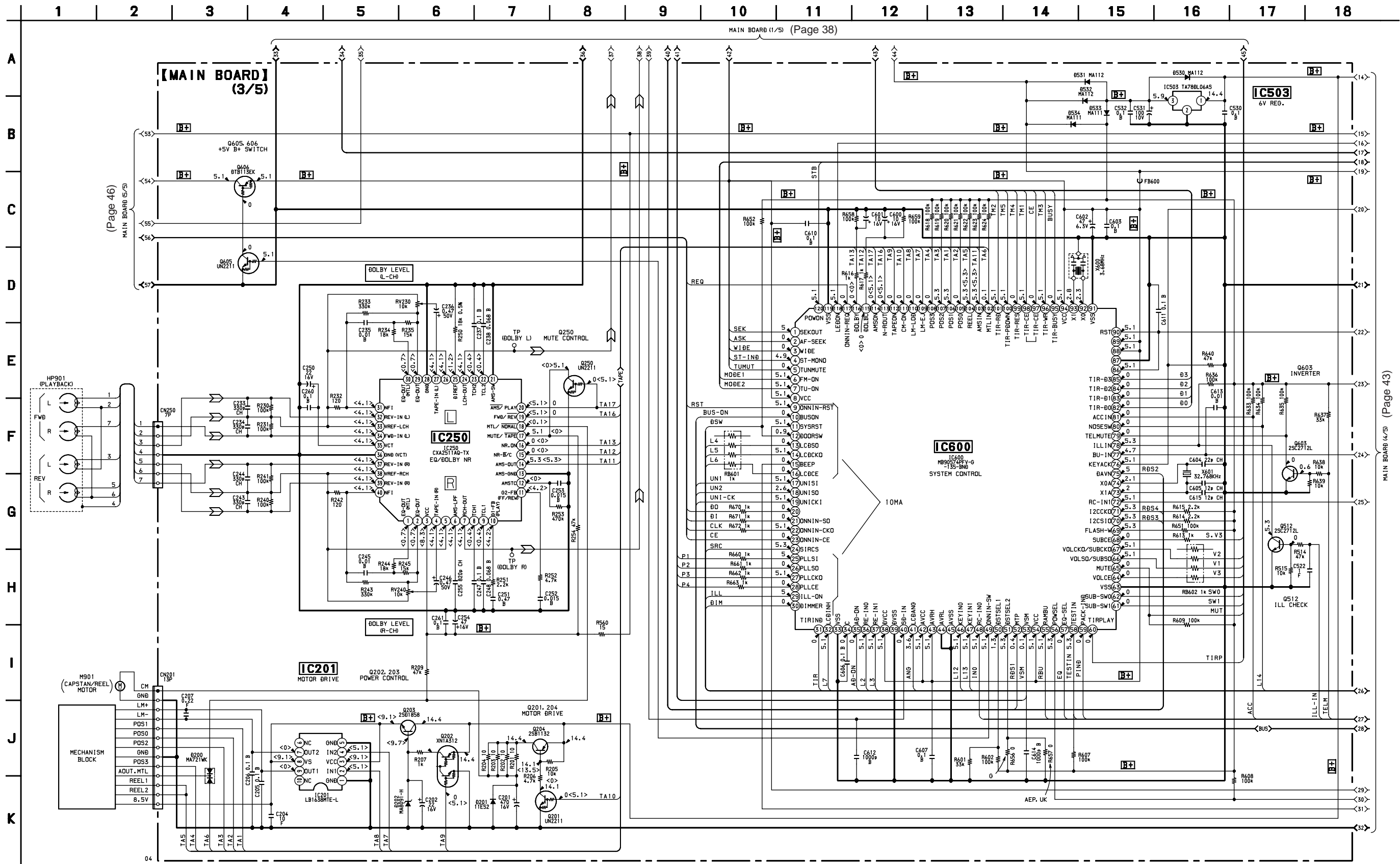


6-8. SCHEMATIC DIAGRAM — MAIN SECTION (2/5) — • Refer to page 53 for IC Block Diagrams.

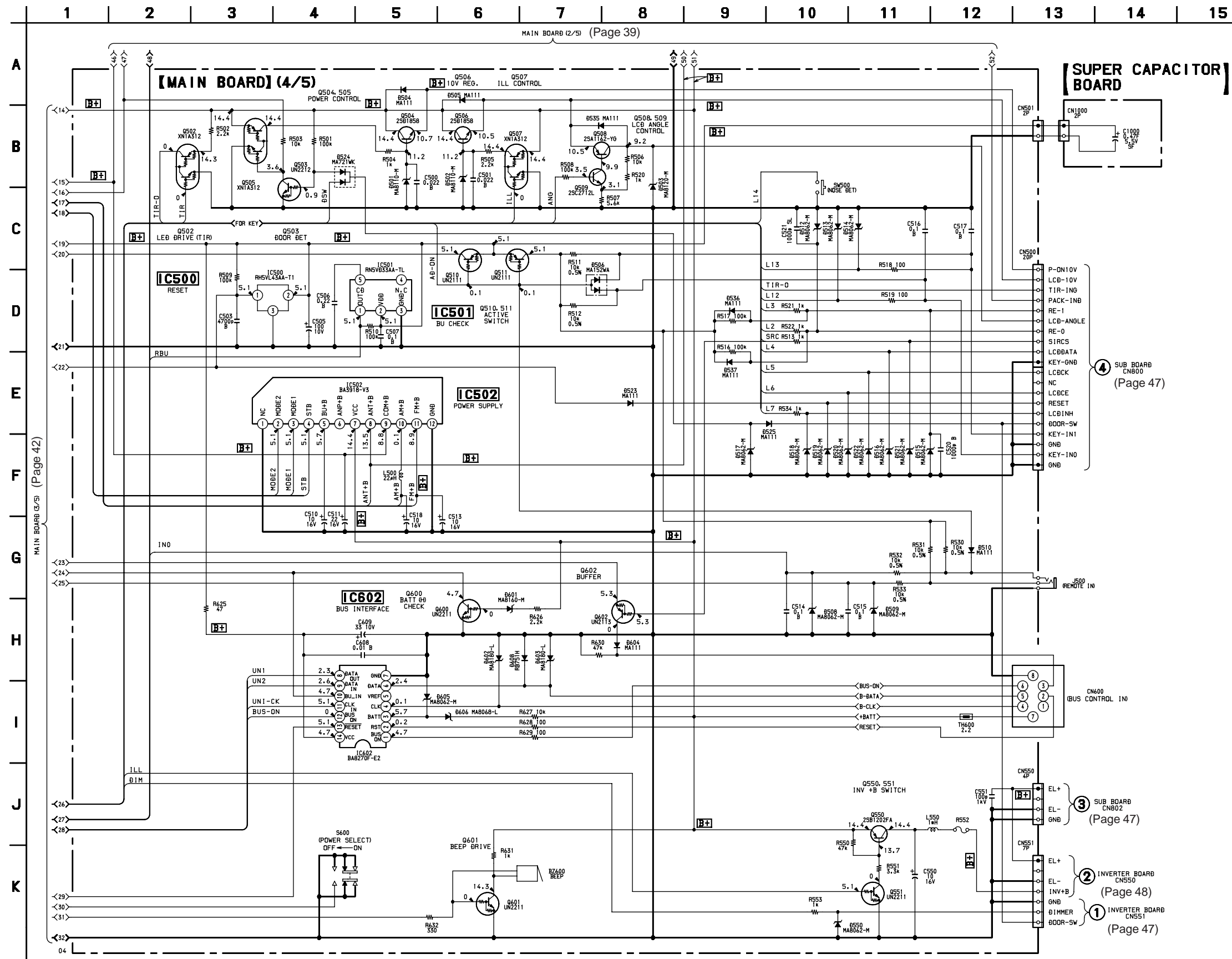


MAIN BOARD (4/5)  
(Page 43)

6-9. SCHEMATIC DIAGRAM — MAIN SECTION (3/5) — • Refer to page 53 for IC Block Diagrams.

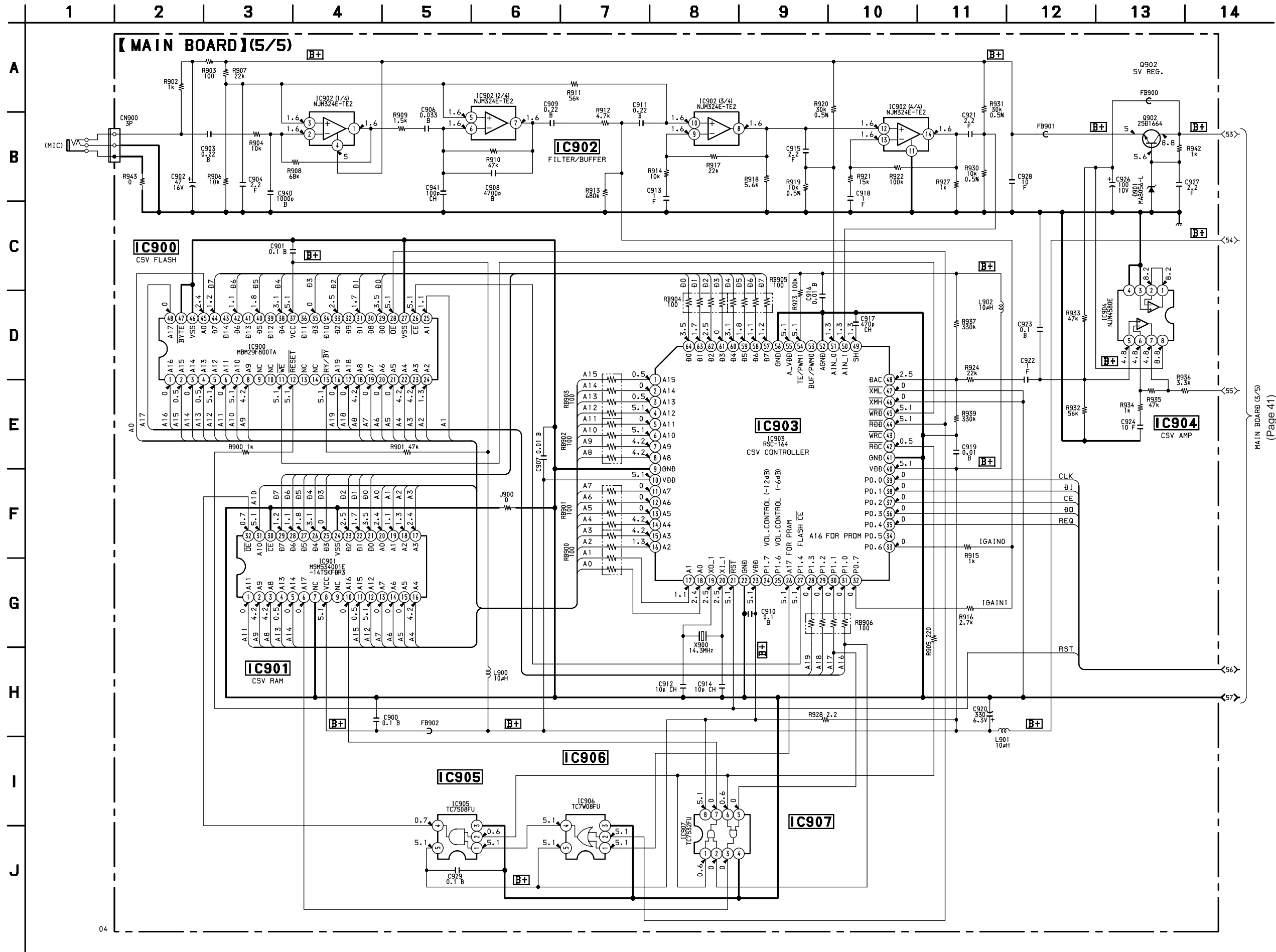


6-10. SCHEMATIC DIAGRAM — MAIN SECTION (4/5) — • Refer to page 53 for IC Block Diagrams.



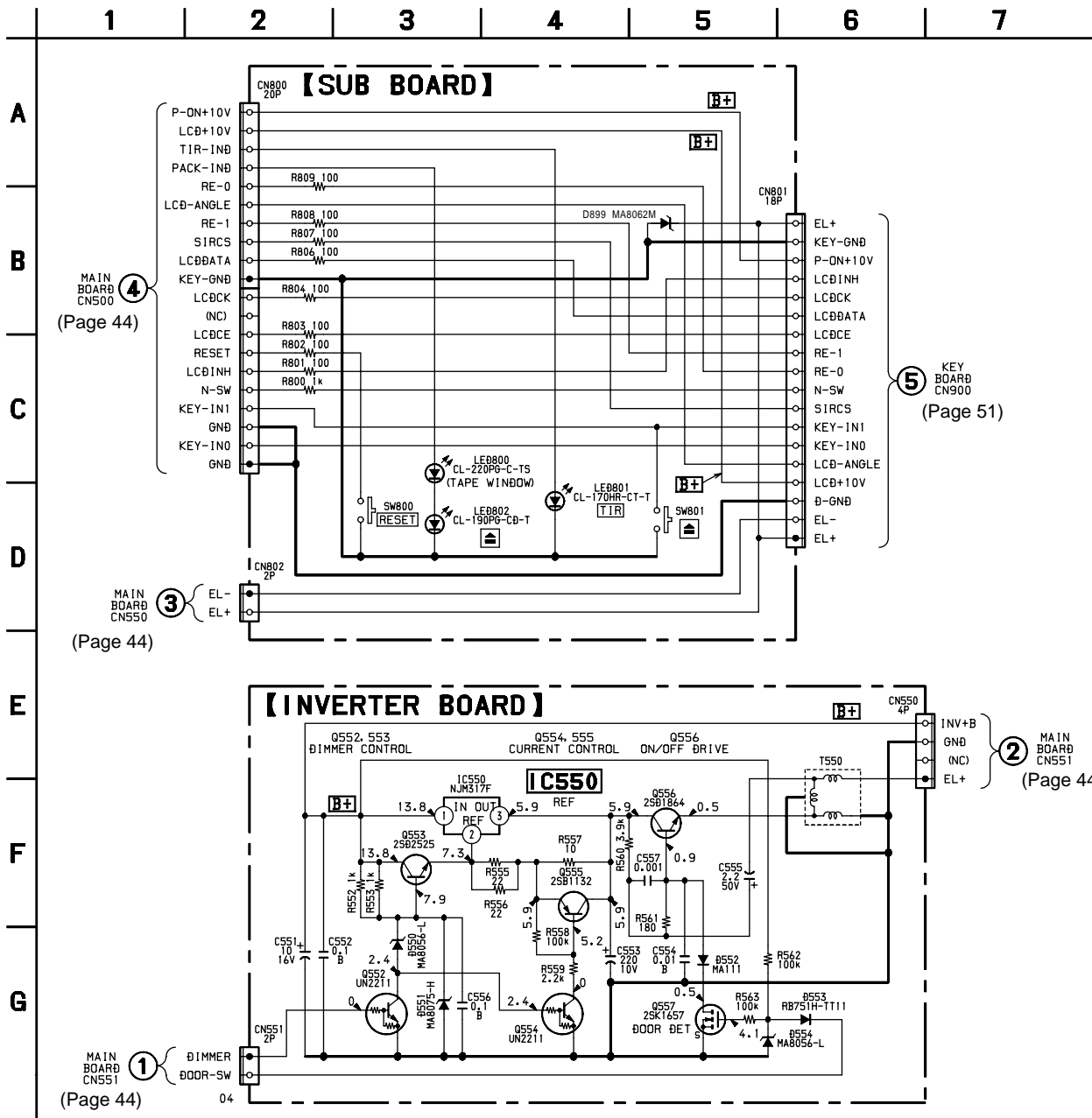


6-11. SCHEMATIC DIAGRAM — MAIN SECTION (5/5) — • Refer to page 53 for IC Block Diagrams.

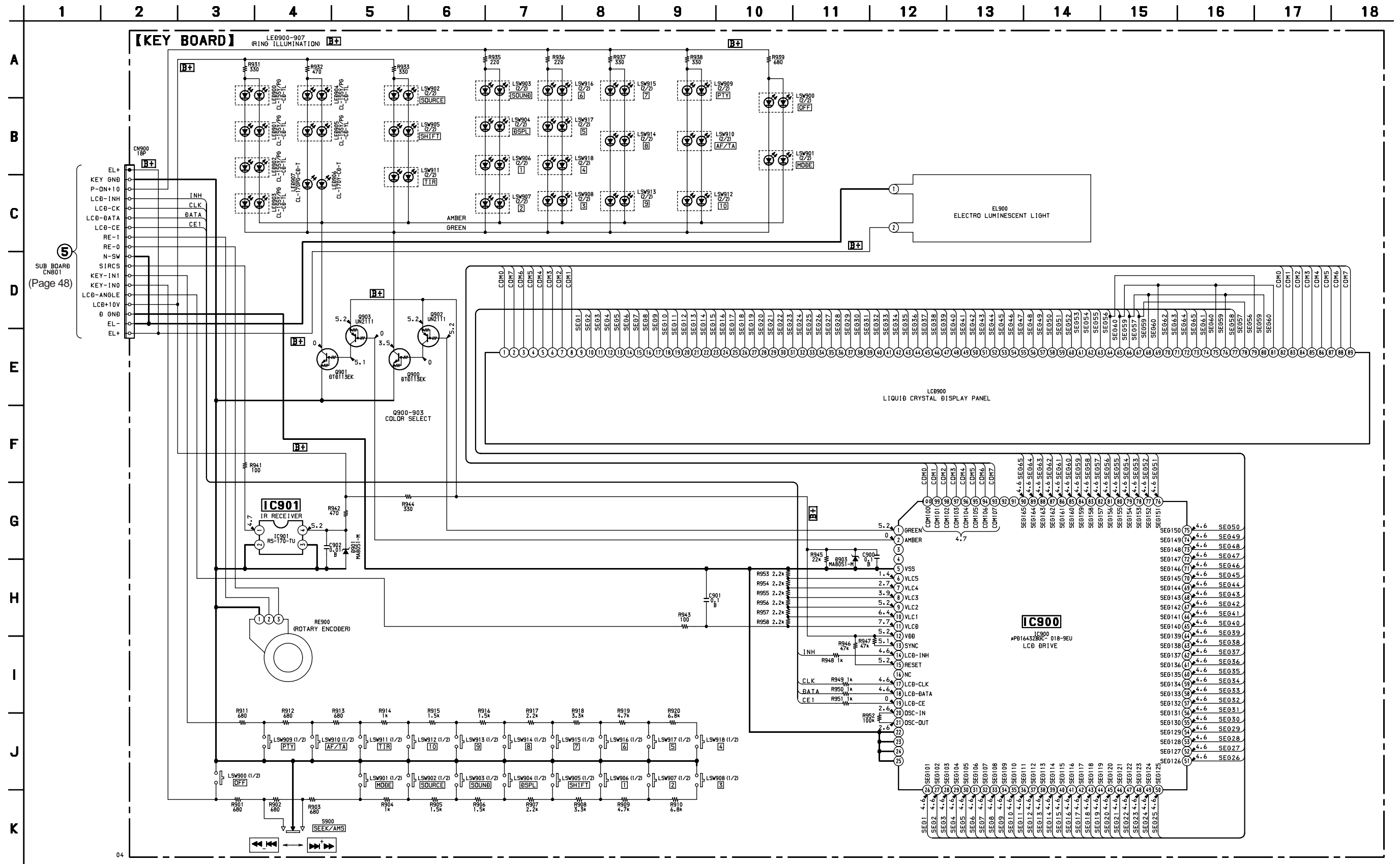


MAIN BOARD (5/5) (Page 41)

6-13. SCHEMATIC DIAGRAM — INVERTER/SUB SECTION —

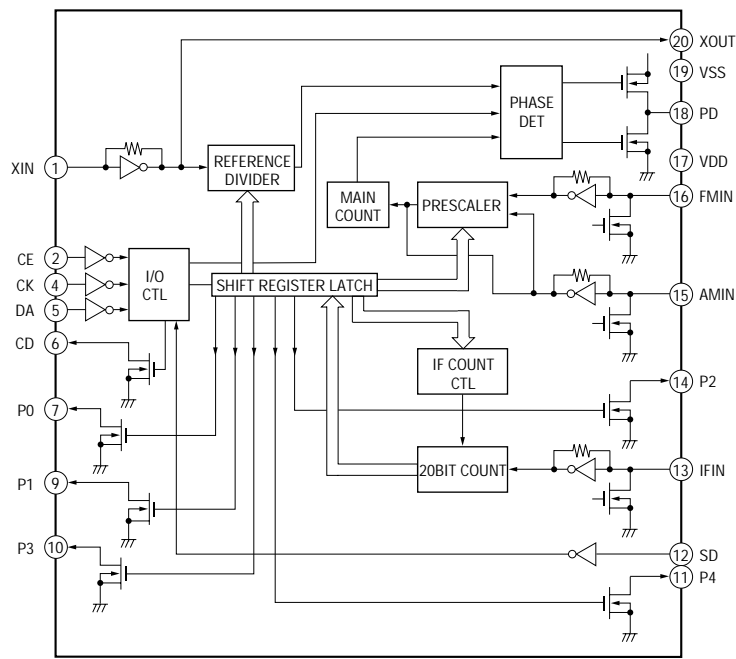


6-15. SCHEMATIC DIAGRAM — DISPLAY SECTION —

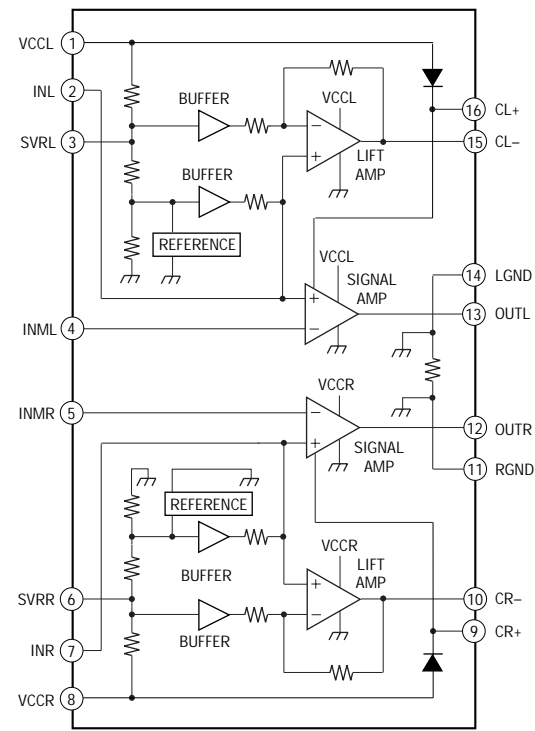


• IC Block Diagrams

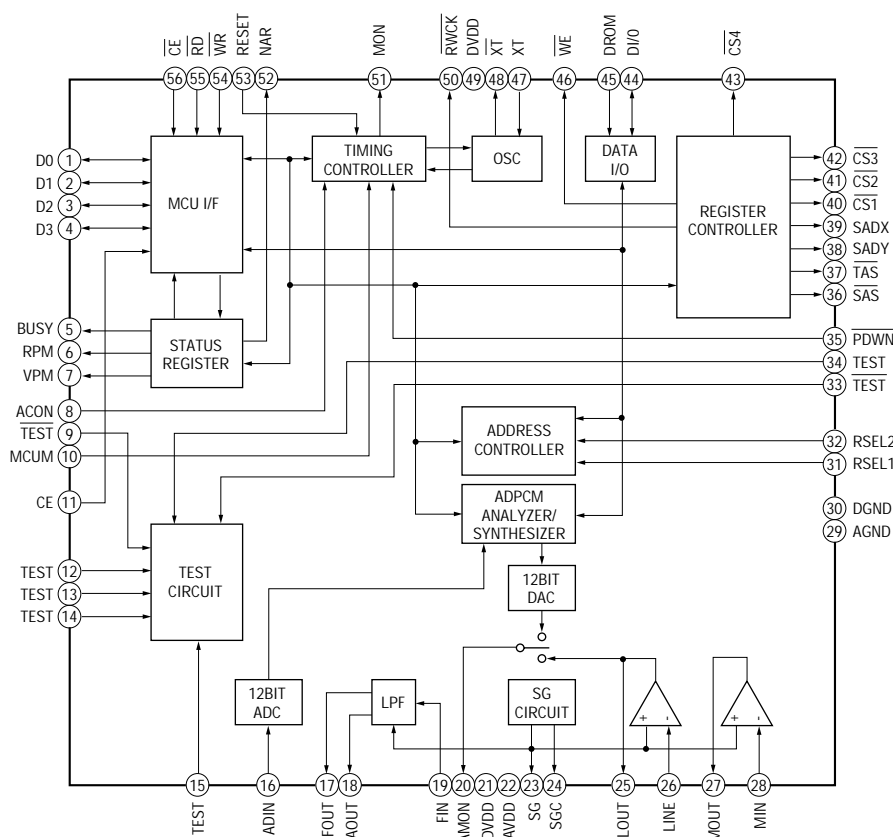
IC10 BU2624FV-E2



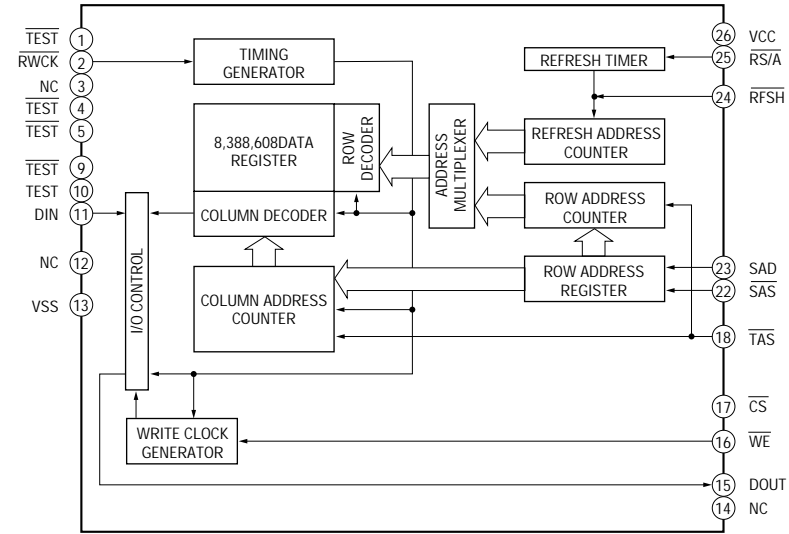
IC310, 410 TDA8574(T)



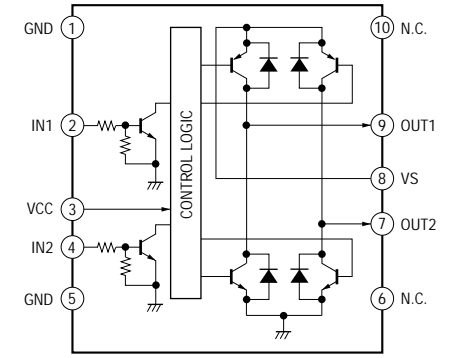
IC100 MSM6688GS



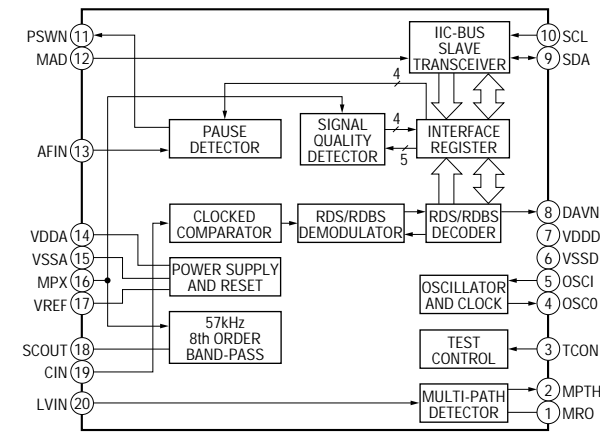
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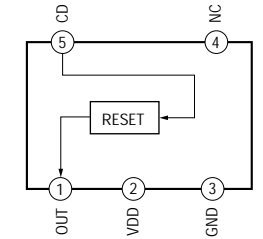
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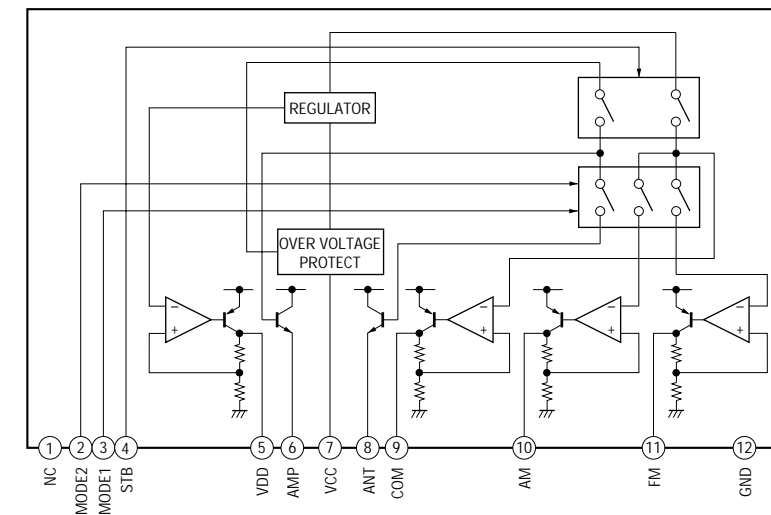
IC150 SAA6588



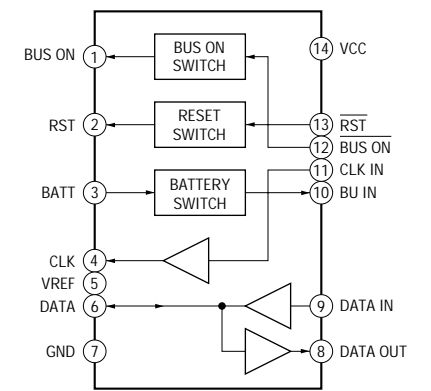
IC501 RN5VD33AA-TL



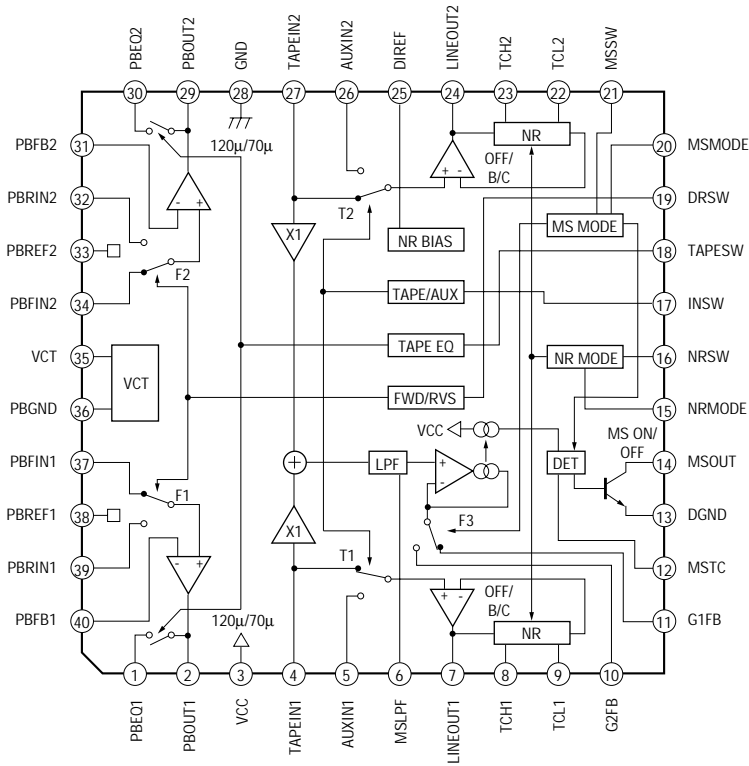
IC502 BA3918-V3



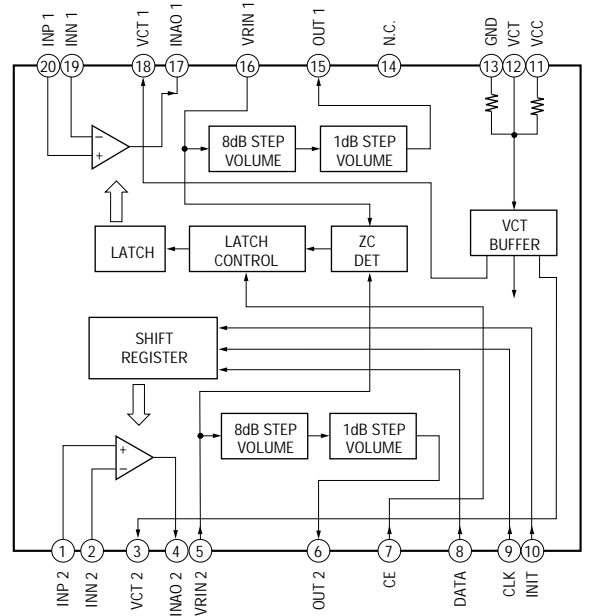
IC602 BA8270F-E2



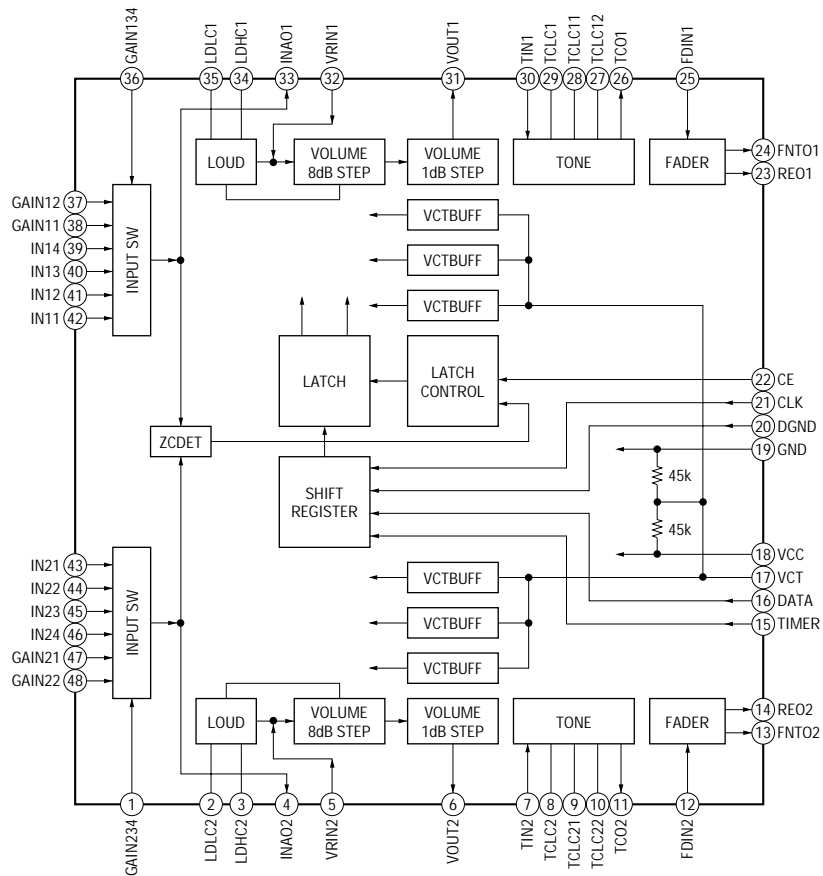
### IC250 CXA2511AQ



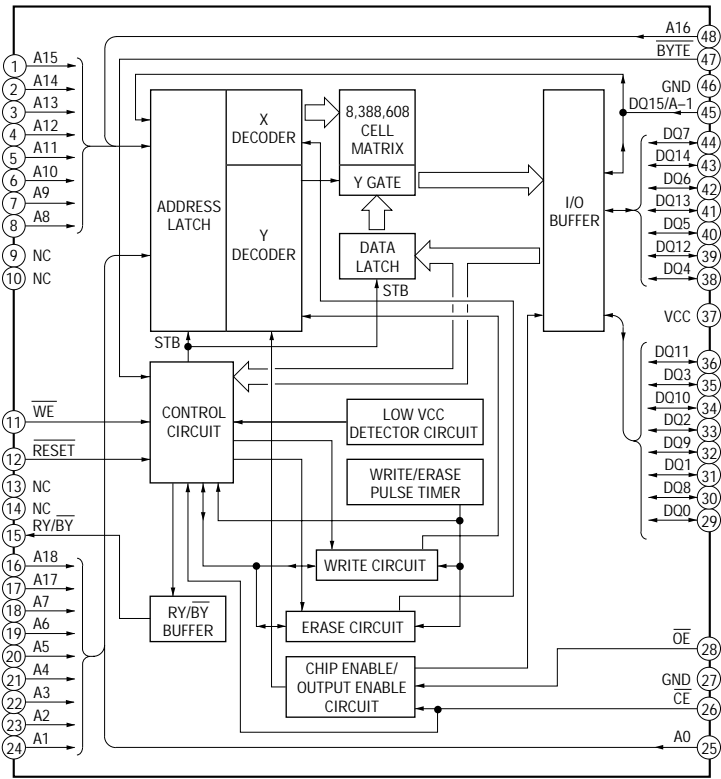
### IC350 CXA1846N-T4



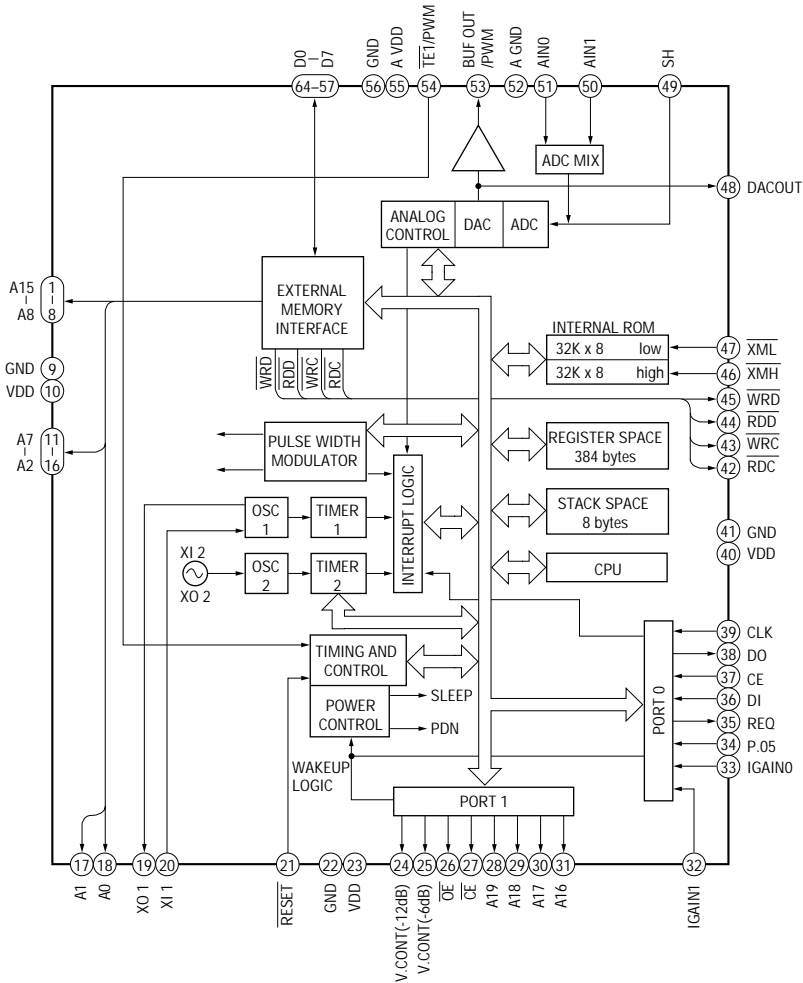
### IC301 CXA1946BQ-T6



### IC900 MBM29F800-DISPU



### IC903 RSC-164



IC901 MSM534001E-14TSKFDR3

