

MEX-5DI

SERVICE MANUAL

Ver 1.0 2002. 04

US Model
Canadian Model
AEP Model
UK Model
E Model



- The tuner and CD sections have no adjustments.

Model Name Using Similar Mechanism	CDX-MP70
CD Drive Mechanism Type	MG-550T-156
Optical Pick-up Name	DAX-23E

SPECIFICATIONS

CD player section

Signal-to-noise ratio	95 dB
Frequency response	10 – 20,000 Hz
Wow and flutter	Below measurable limit

MS section

Signal-to-noise ratio	90 dB
Frequency response	10 – 20,000 Hz

Tuner section

FM

Tuning range	87.5 – 107.9 MHz (US, Canadian Model) 87.5 – 108.0 MHz (AEP, UK, E Model)
Antenna terminal	External antenna connector
Intermediate frequency	10.7 MHz/450 kHz
Usable sensitivity	8 dBf
Selectivity	75 dB at 400 kHz
Signal-to-noise ratio	66 dB (stereo), 72 dB (mono)
Harmonic distortion at 1 kHz	0.6% (stereo), 0.3% (mono)
Separation	35 dB at 1 kHz
Frequency response	30 – 15,000 Hz

AM (US, Canadian Model)

Tuning range	530 – 1,710 kHz
Antenna terminal	External antenna connector
Intermediate frequency	10.7 MHz/450 kHz
Sensitivity	30 μ V

MW/LW (AEP, UK, E Model)

Tuning range	MW : 531 – 1,602 kHz LW : 153 – 279 kHz
Aerial terminal	External aerial connector
Intermediate frequency	10.7 MHz/450 kHz
Sensitivity	MW : 30 μ V LW : 40 μ V

General

Outputs	Audio outputs (front/rear) Subwoofer output (mono) Power antenna relay control terminal Power amplifier control terminal Telephone ATT control terminal Illumination control terminal BUS control input terminal BUS audio input/AUX IN terminal Antenna input terminal
Inputs	Bass $\pm$ 8 dB at 100 Hz Treble $\pm$ 8 dB at 10 kHz
Loudness	+8 dB at 100 Hz +2 dB at 10 kHz
Power requirements	12 V DC car battery (negative ground)
Dimensions	Approx. 178 $\times$ 50 $\times$ 178 mm (7 1/8 $\times$ 2 $\times$ 7 1/8 in.) (w/h/d)
Mounting dimensions	Approx. 182 $\times$ 53 $\times$ 157 mm (7 1/4 $\times$ 2 1/8 $\times$ 6 1/4 in.) (w/h/d)

– Continued on next page –

MG-MS/FM/AM COMPACT DISC PLAYER

US, Canadian Model

MG-MS/FM/MW/LW COMPACT DISC PLAYER

AEP, UK, E Model

9-874-009-01

2002D0400-1

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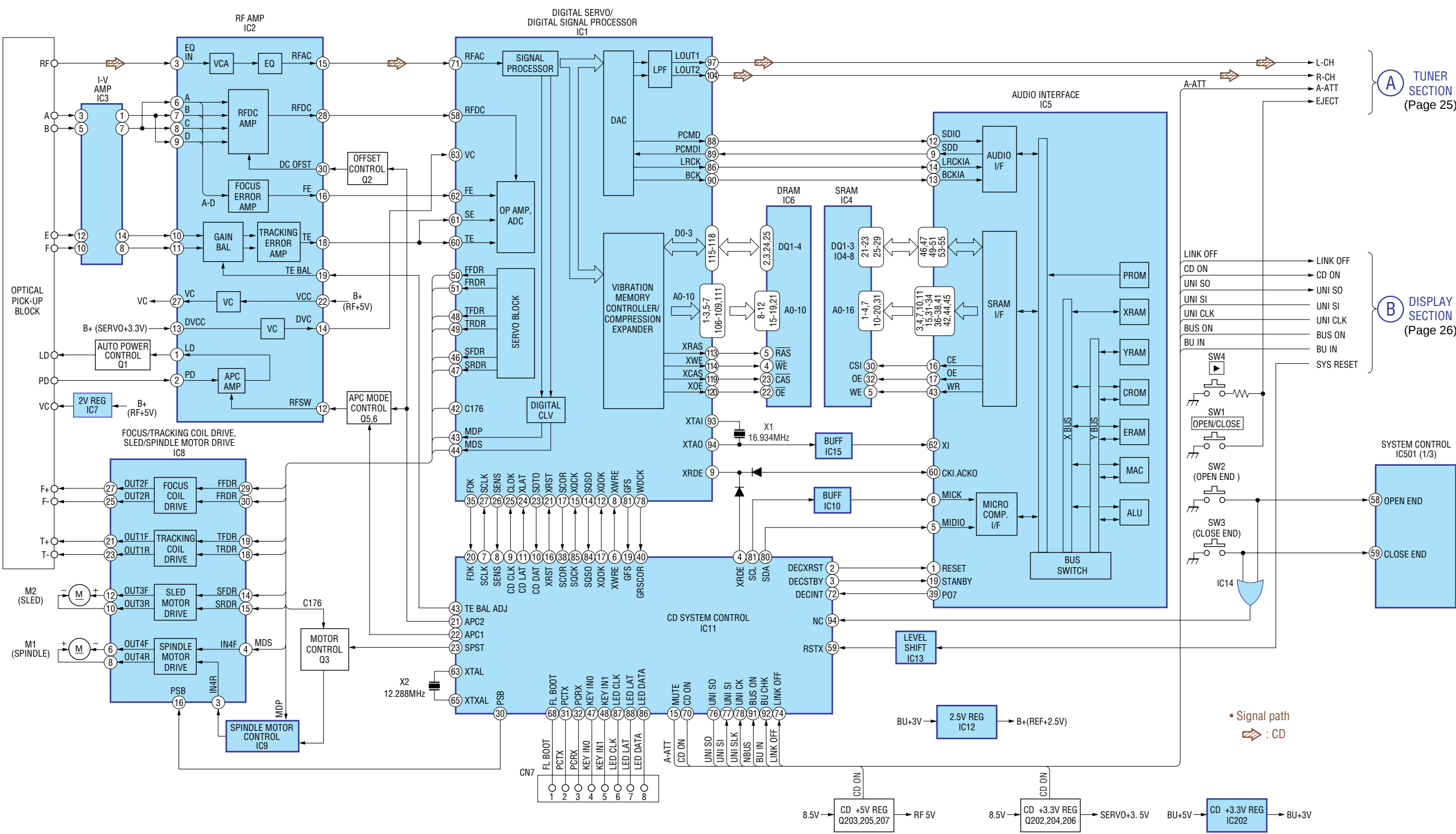
Sony Corporation

e Vehicle Company

Published by Sony Engineering Corporation

SONY®

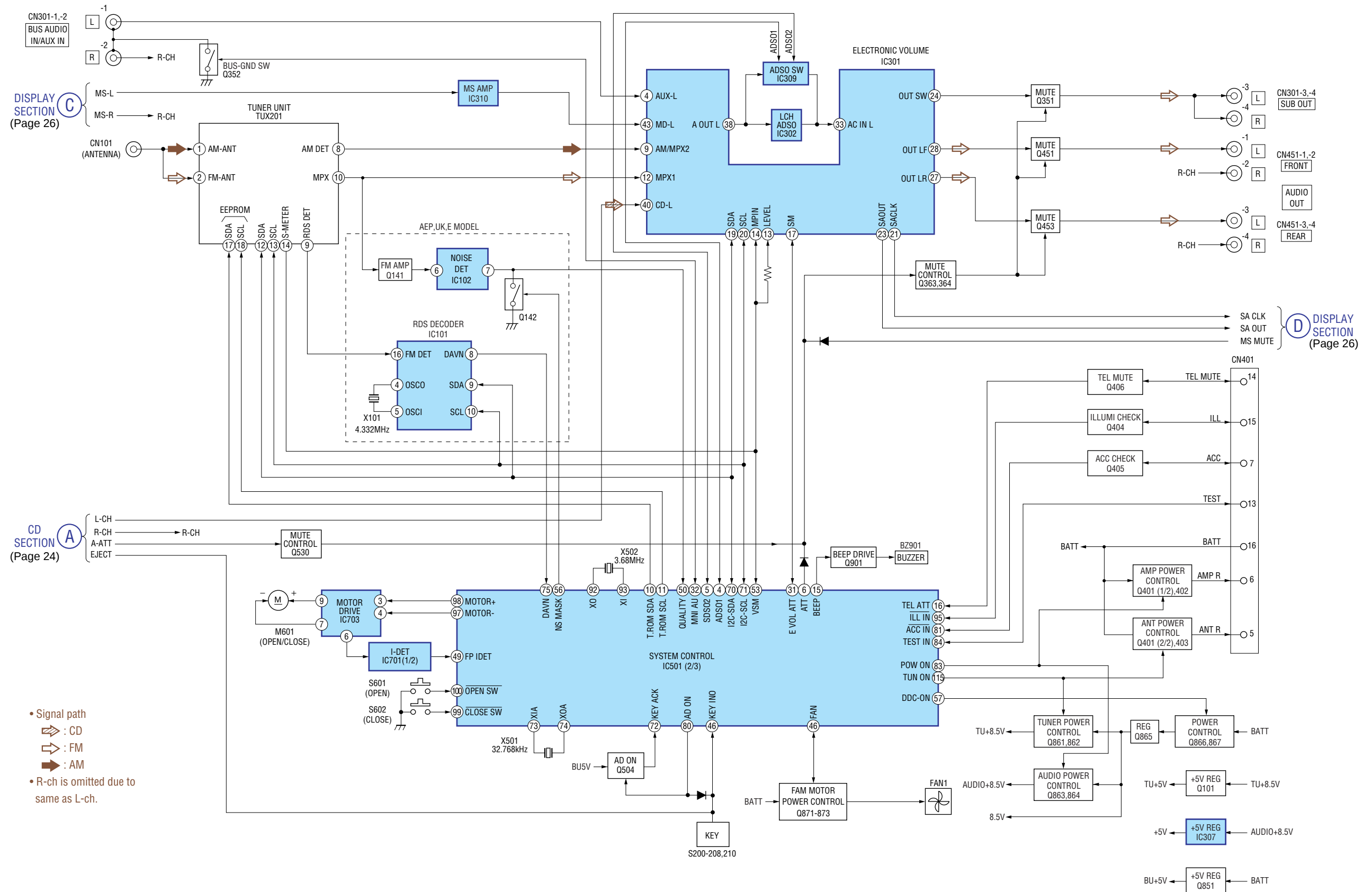
4-3. BLOCK DIAGRAM — CD SECTION —



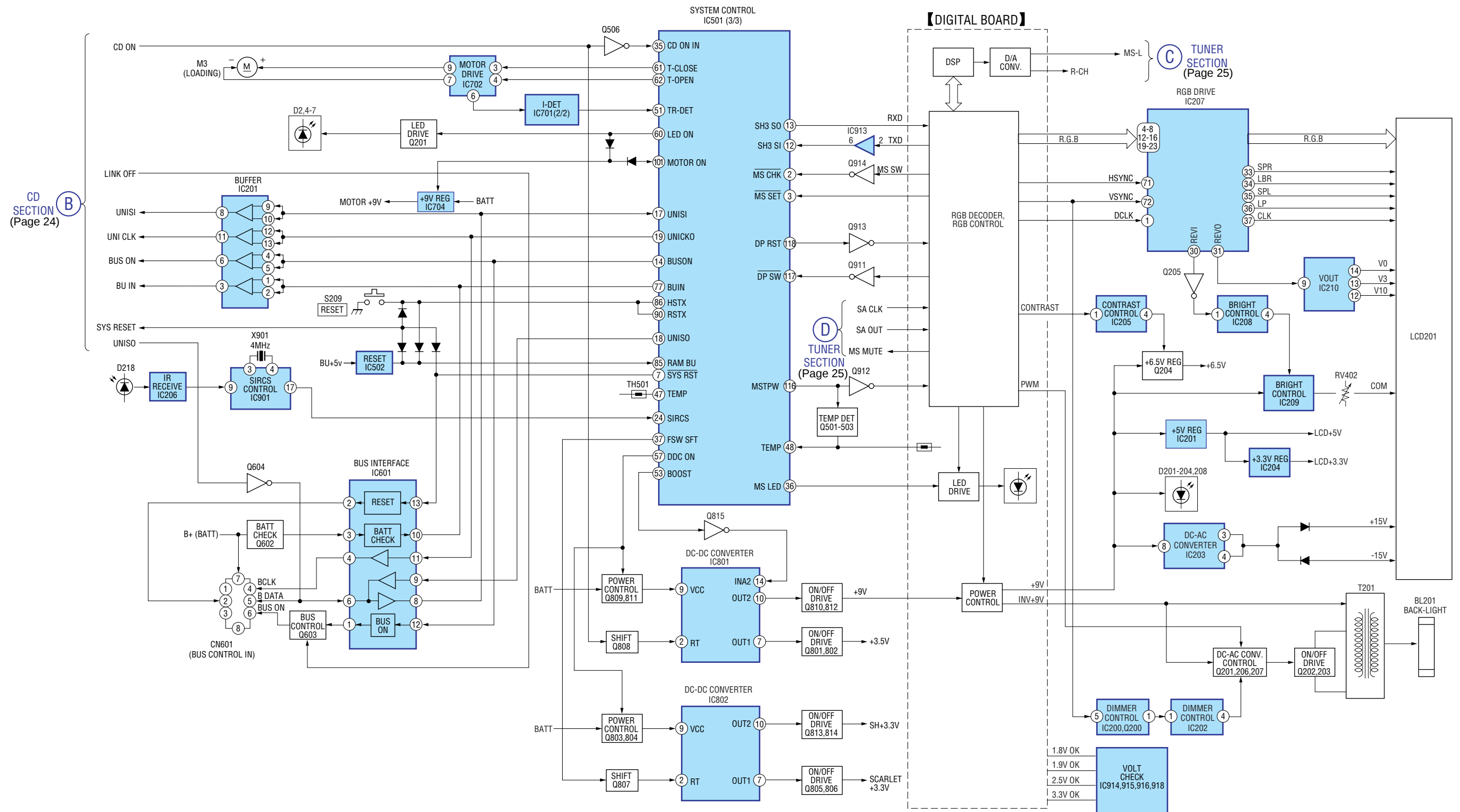
A TUNER SECTION (Page 25)

B DISPLAY SECTION (Page 26)

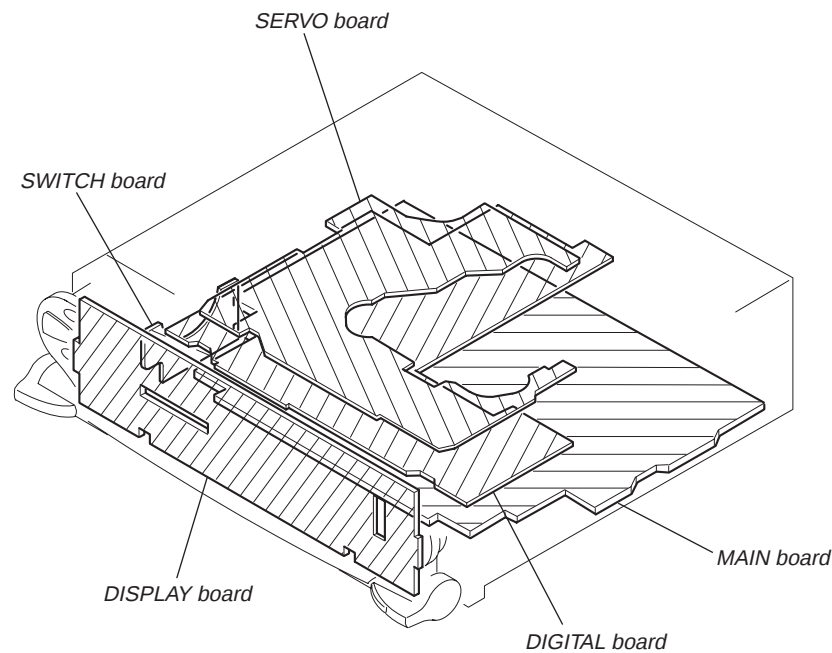
4-4. BLOCK DIAGRAM — TUNER SECTION —



4-5. BLOCK DIAGRAM — DISPLAY SECTION —



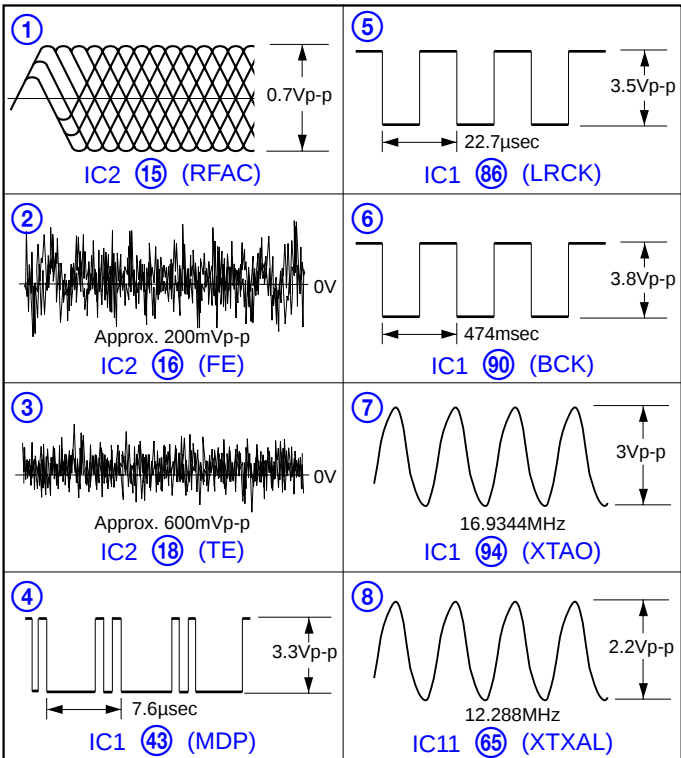
4-6. CIRCUIT BOARDS LOCATION



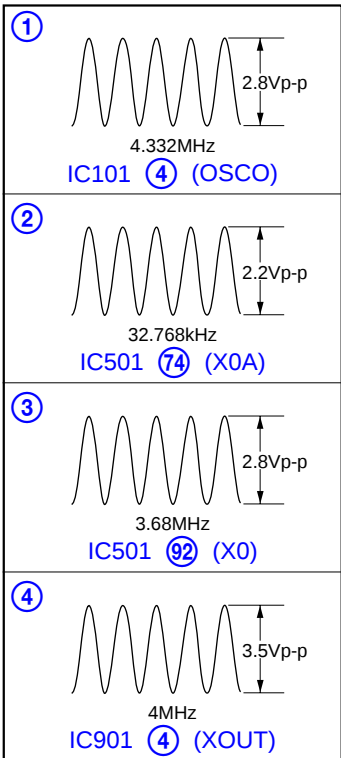
• Waveforms

— Servo Board —

(MODE: CD PLAY)



— Main Board —



THIS NOTE IS COMMON FOR PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAMS.
(In addition to this, the necessary note is printed in each block.)

for schematic diagram:

- All capacitors are in μF unless otherwise noted. pF: μF 50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and $\frac{1}{4}\text{W}$ or less unless otherwise specified.
- % : indicates tolerance.
- Δ : internal component.
- $\square$: panel designation.

Note:

The components identified by mark Δ or dotted line with mark Δ are critical for safety.
Replace only with part number specified.

Note:

Les composants identifiés par une marque Δ sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

- — : B+ Line.
- Power voltage is dc 14.4V and fed with regulated dc power supply from ACC and BATT cords.
- Voltages are taken with a VOM (Input impedance 10 M Ω). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope. Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Signal path.
 - : FM
 - : AM/MW/LW
 - : CD

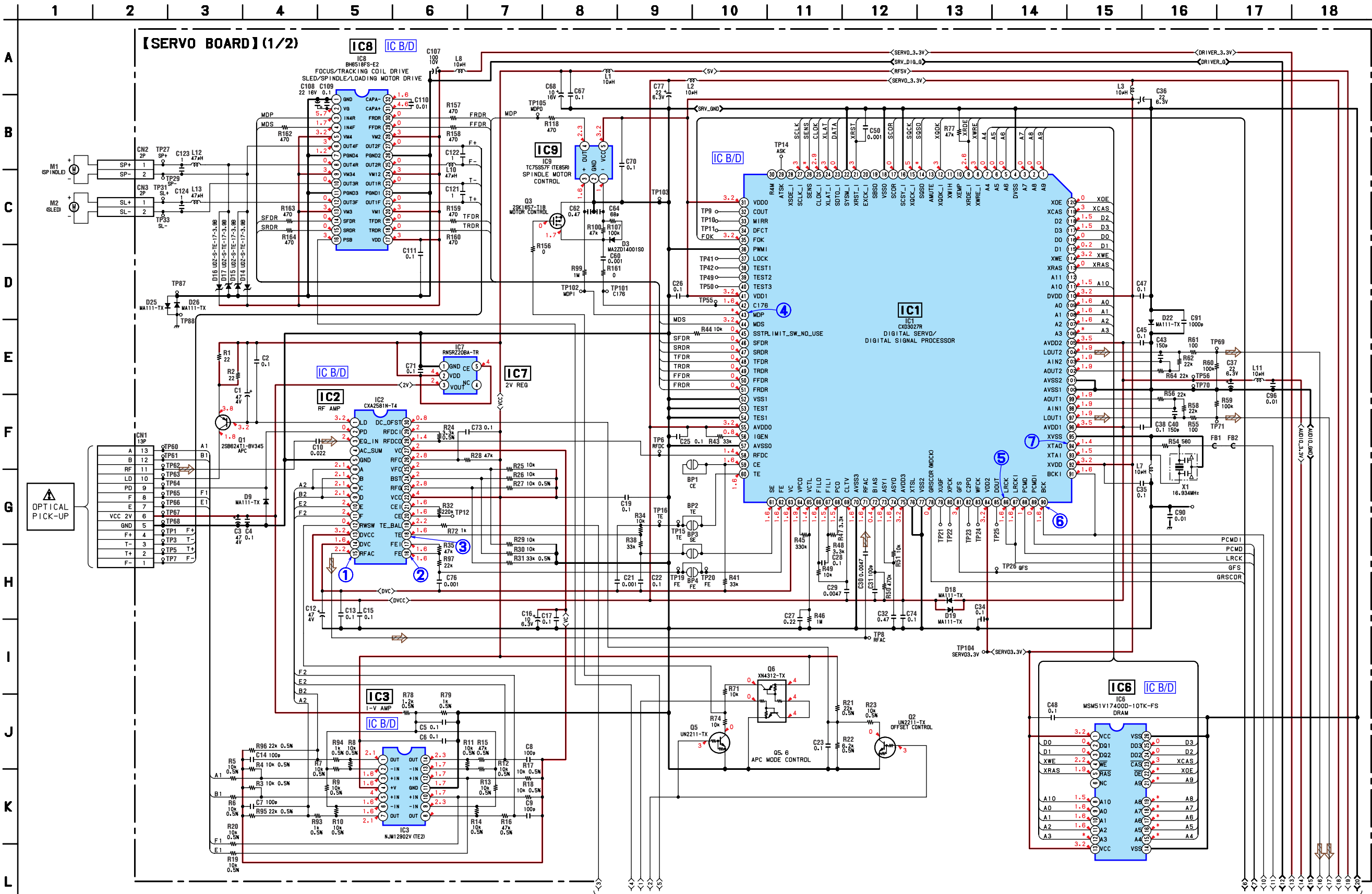
for printed wiring boards:

- $\circ$: parts extracted from the component side.
- $\square$: parts extracted from the conductor side.
- $\blacksquare$: parts mounted on the conductor side.
- $\circ$: Through hole.
- ■ : Pattern from the side which enables seeing. (The other layer's patterns are not indicated.)

Caution:

Pattern face side: Parts on the pattern face side seen from the (Side B) pattern face are indicated.
Parts face side: Parts on the parts face side seen from the (Side A) parts face are indicated.

• Refer to page 27 for Waveforms.
4-8. SCHEMATIC DIAGRAM — CD MECHANISM SECTION (1/2) — • Refer to page 40 for IC Block Diagrams.

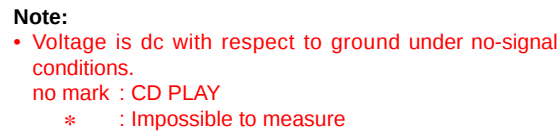


Note:
• Voltage is dc with respect to ground under no-signal conditions.
no mark : CD PLAY
* : Impossible to measure

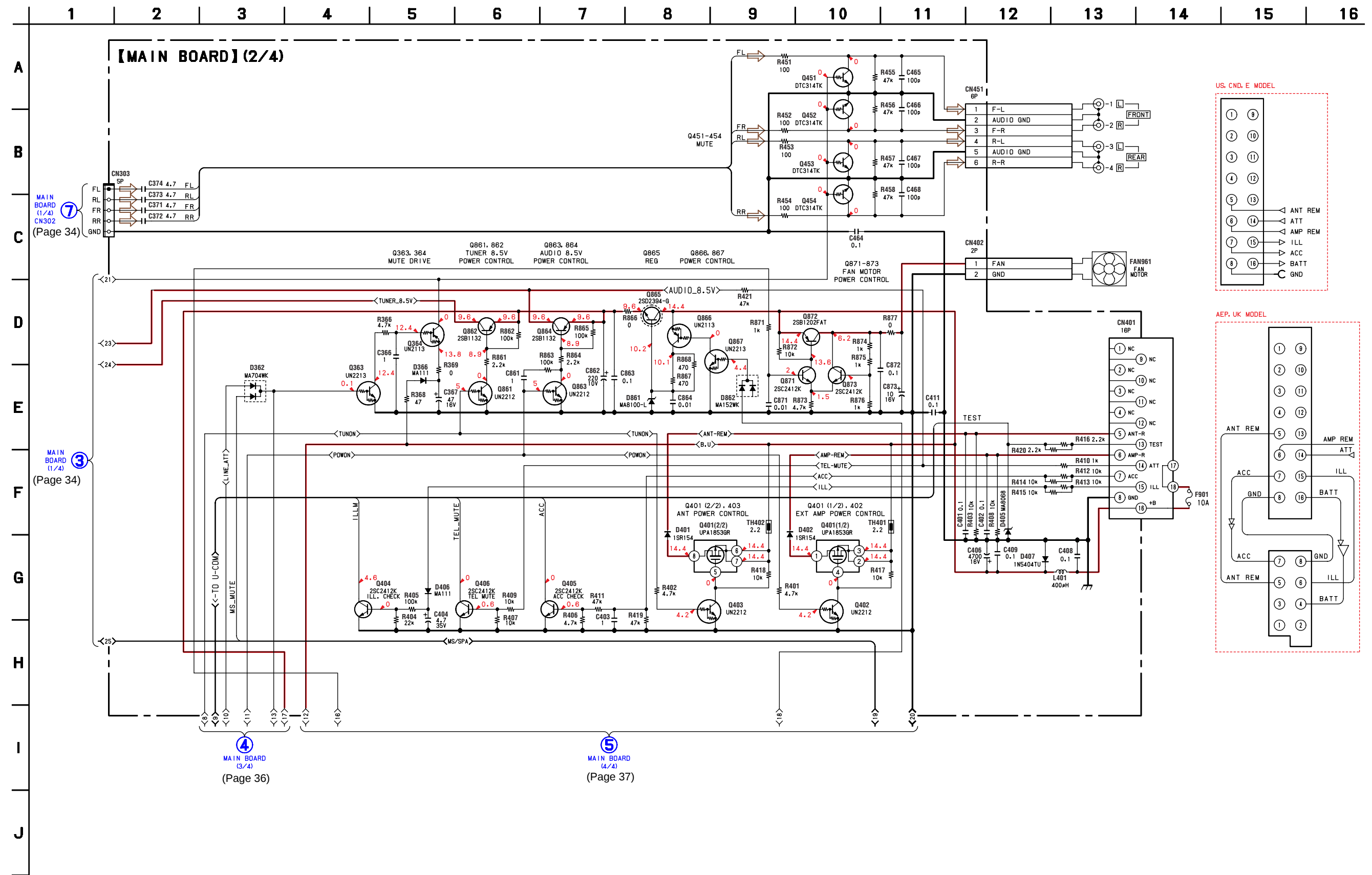
①
SERVO BOARD (2/2)
(Page 31)

- Refer to page 42 for IC Block Diagrams.

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
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4-12. SCHEMATIC DIAGRAM — MAIN SECTION (2/4) —

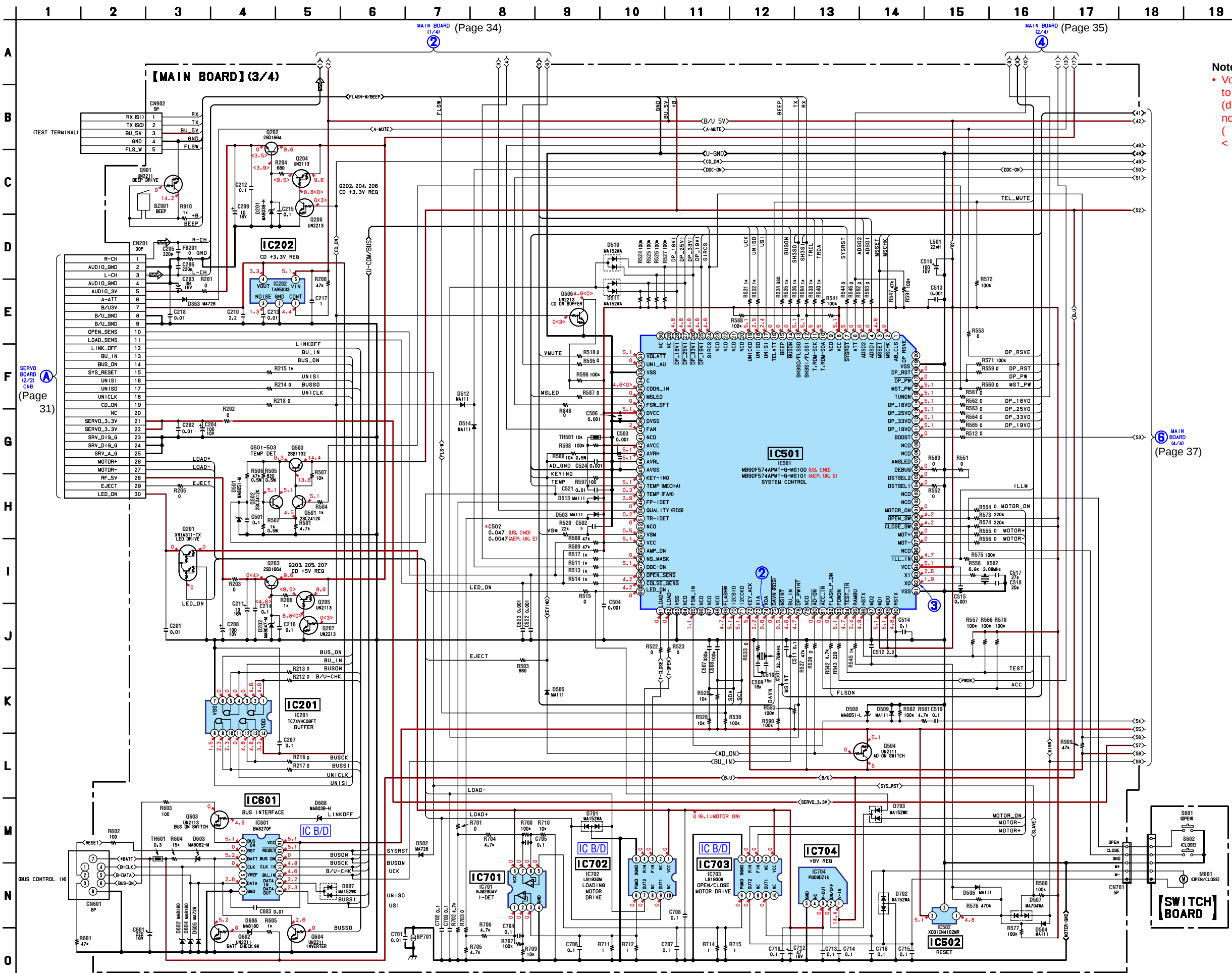


Note:

- Note:**
- Voltage is dc with respect to ground under no-signal (detuned) condition.
- no mark : FM

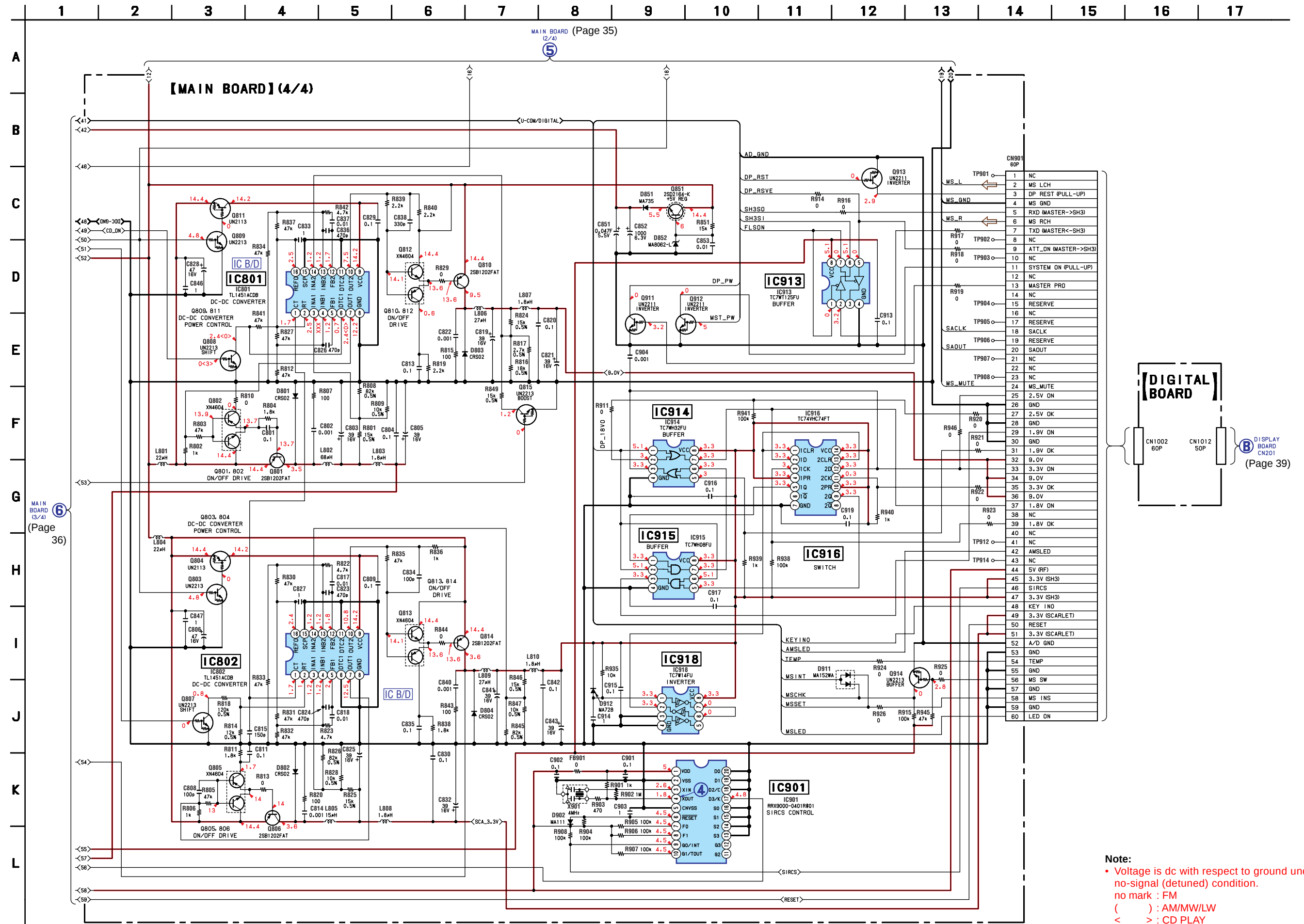
• Refer to page 27 for Waveforms.

4-13. SCHEMATIC DIAGRAM — MAIN SECTION (3/4) — • Refer to page 45 for IC Block Diagrams.



Note:
• Voltage is dc with respect to ground under no-signal (detuned) condition.
no mark : FM
() : AM/MW/LW
< > : CD PLAY

4-14. SCHEMATIC DIAGRAM — MAIN SECTION (4/4) — • Refer to page 45 for IC Block Diagrams.

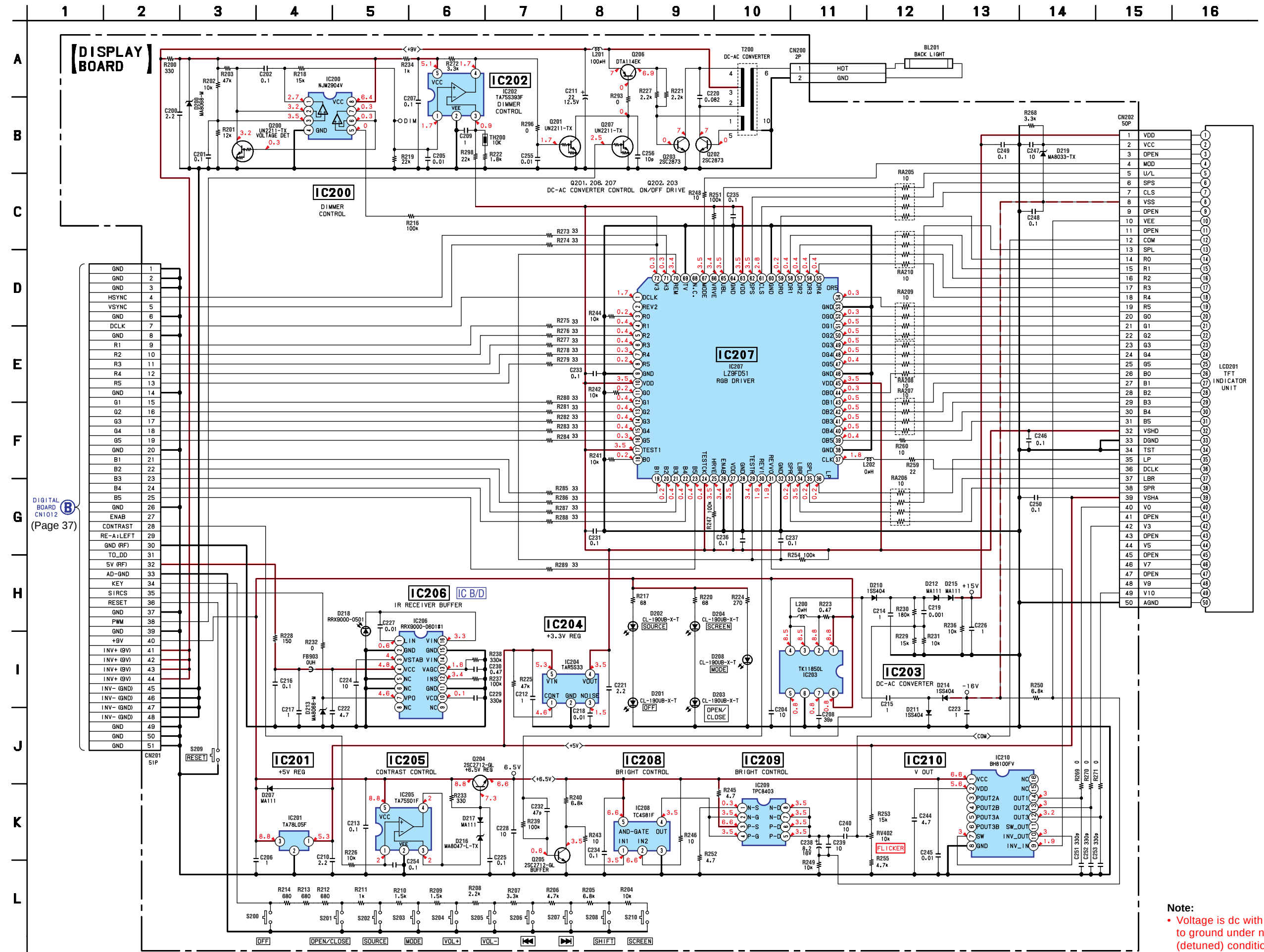


Note:

- Voltage is dc with respect to ground under no-signal (detuned) condition.

no mark : FM
 () : AM/MW/LW
 < > : CD PLAY

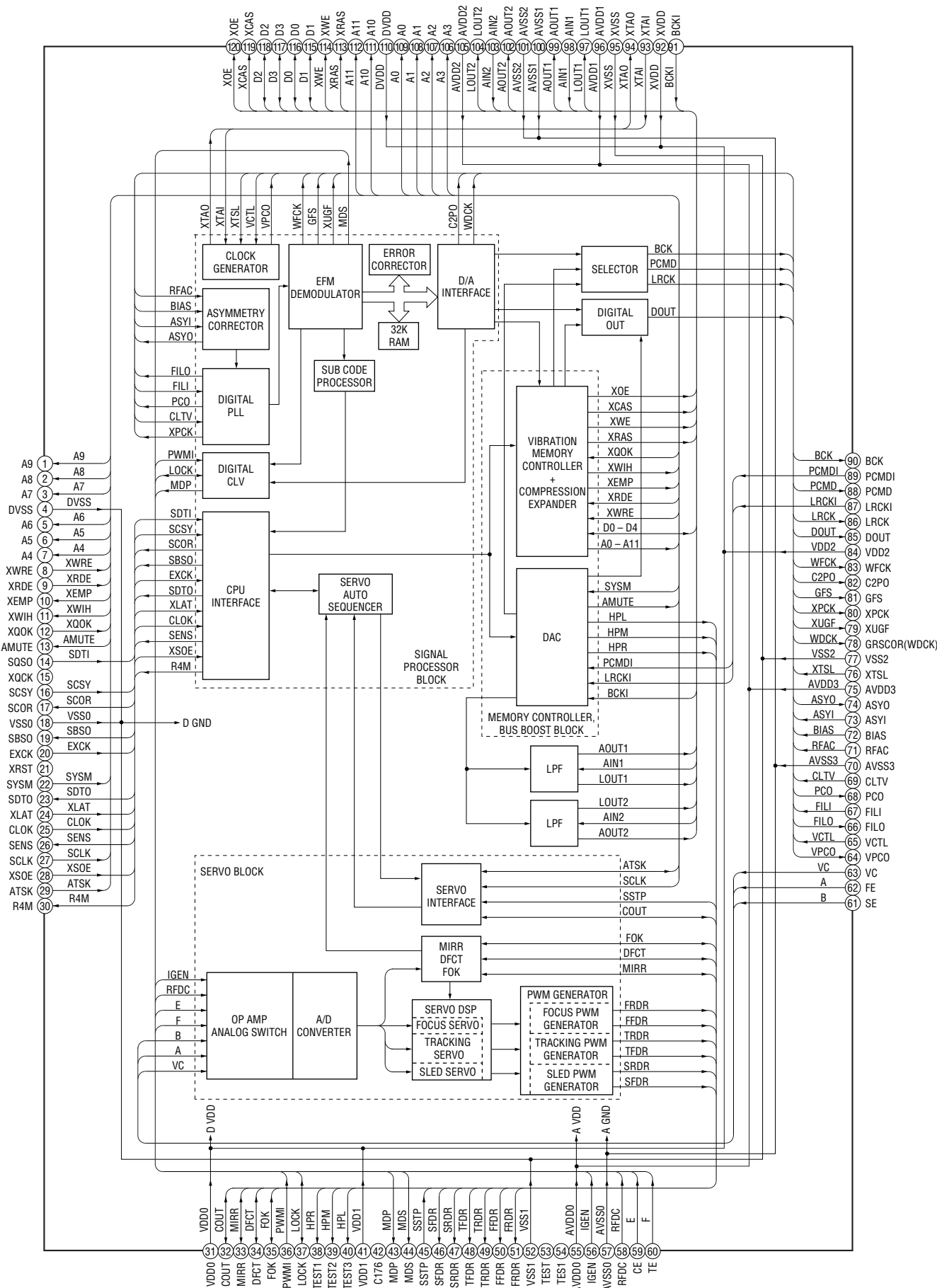
4-16. SCHEMATIC DIAGRAM — DISPLAY SECTION — • Refer to page 45 for IC Block Diagram.



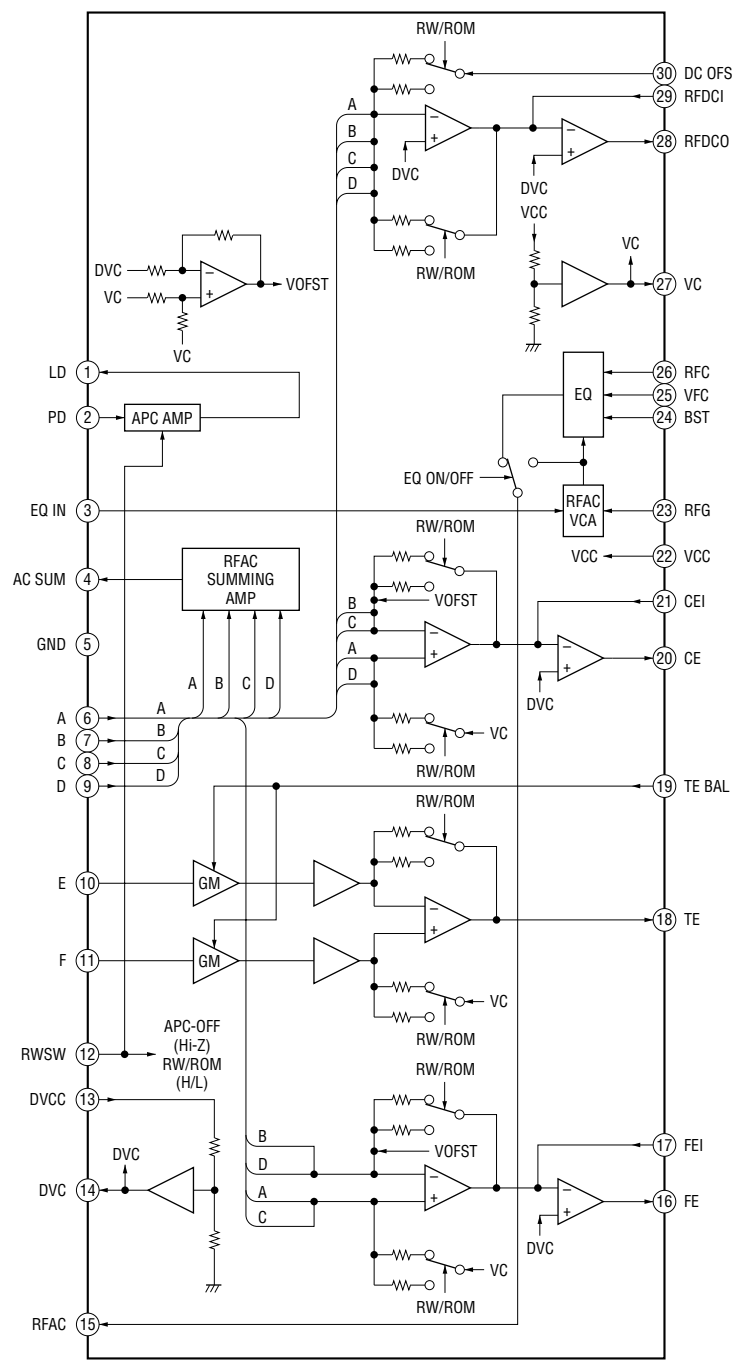
Note:
• Voltage is dc with respect to ground under no-signal (detuned) condition.
no mark : FM

• IC BLOCK DIAGRAMS

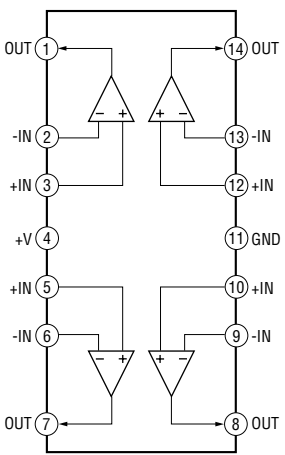
IC1 CXD3027R



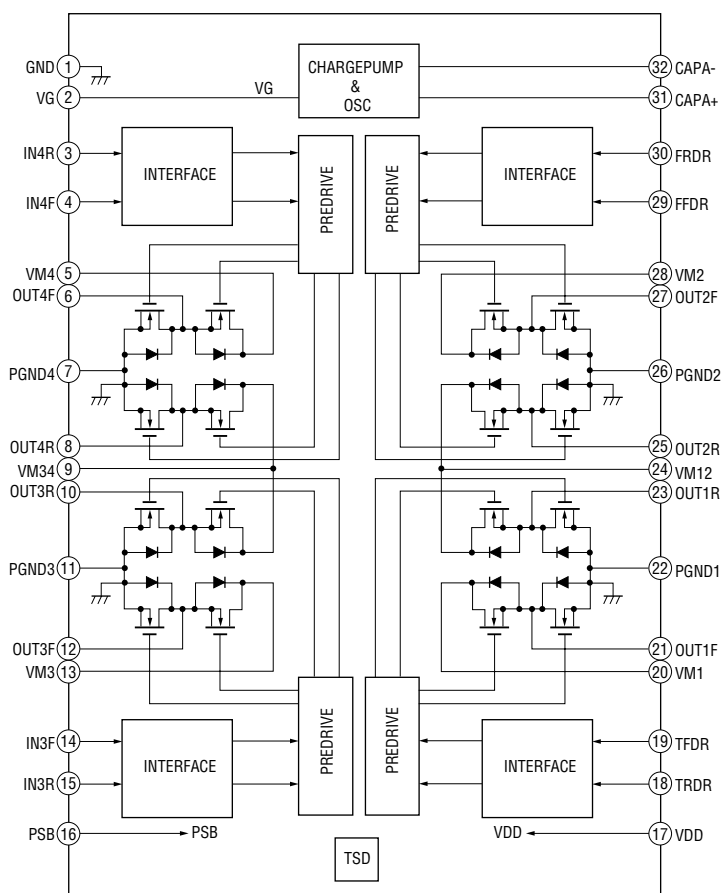
IC2 CXA2581N-T4



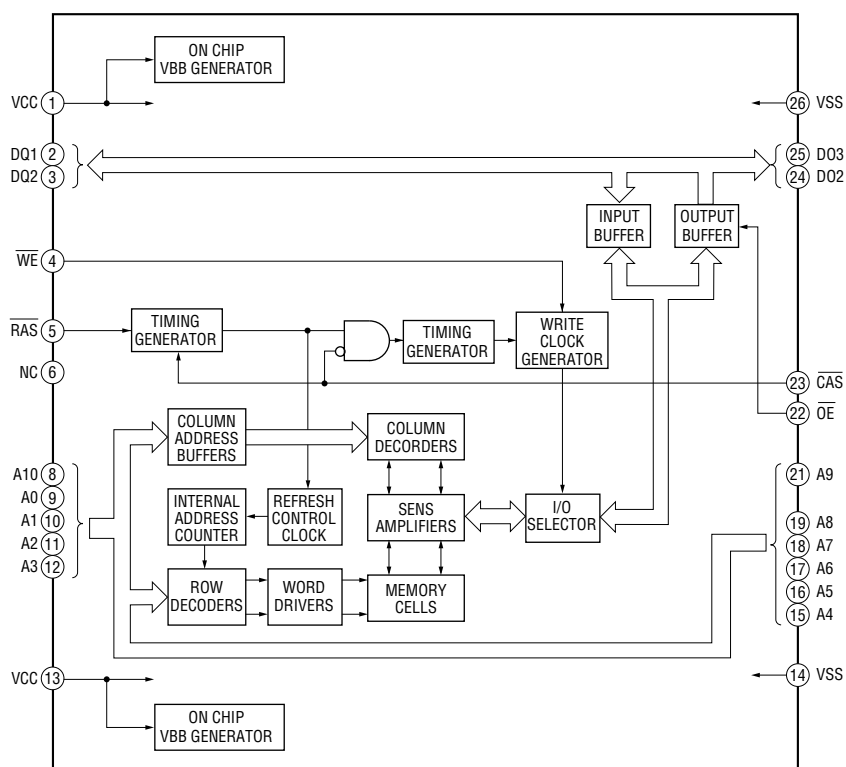
IC3 NJM12902V (TE2)



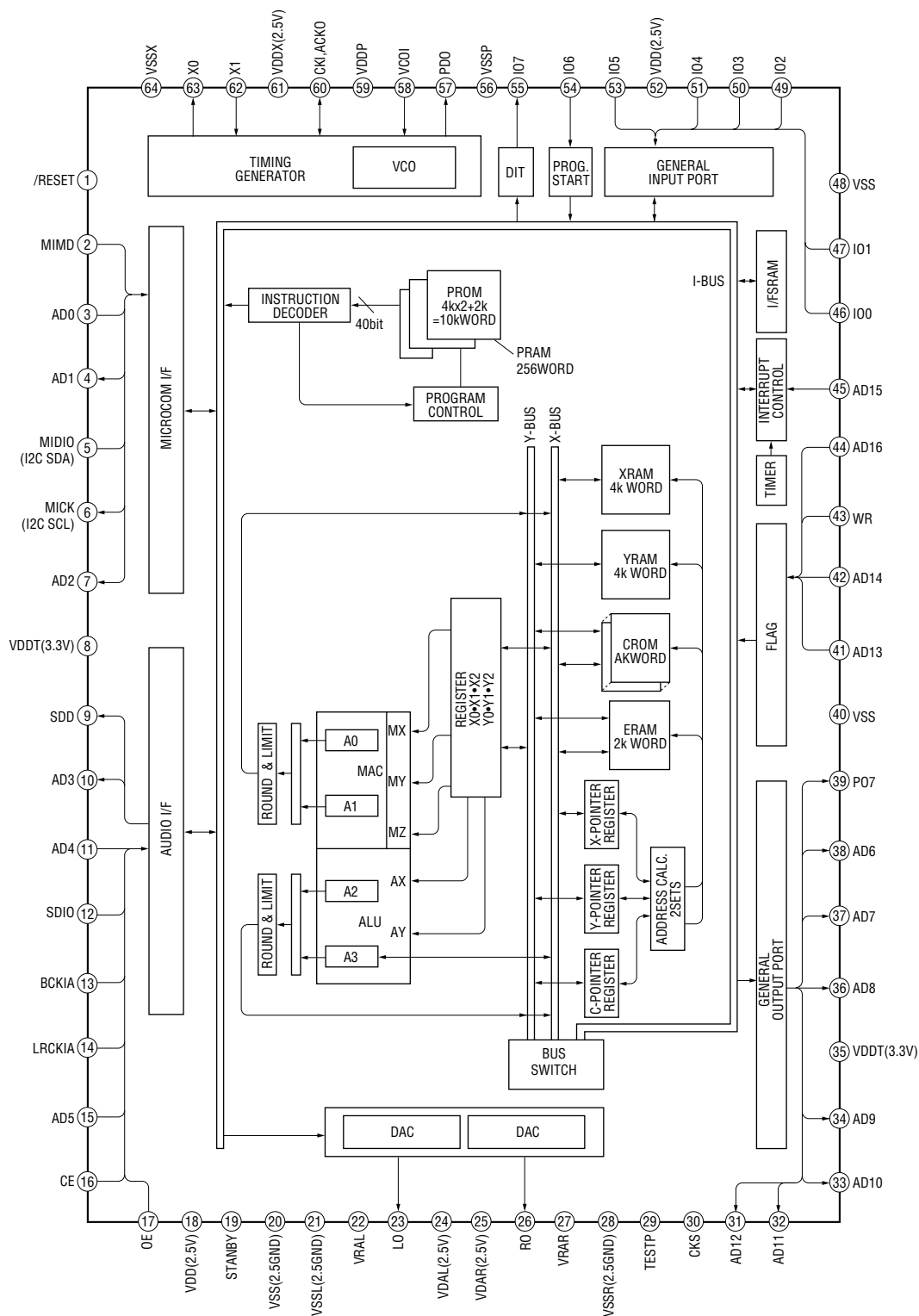
IC8 BH6518FS-E2



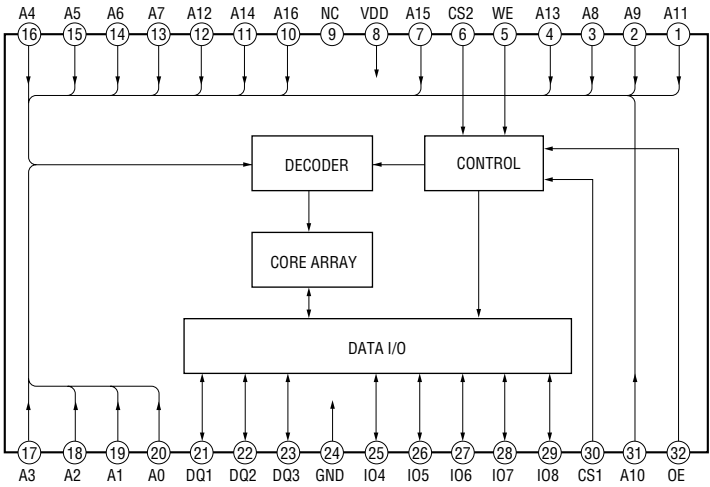
IC6 MSM51V17400D-10TK-FS



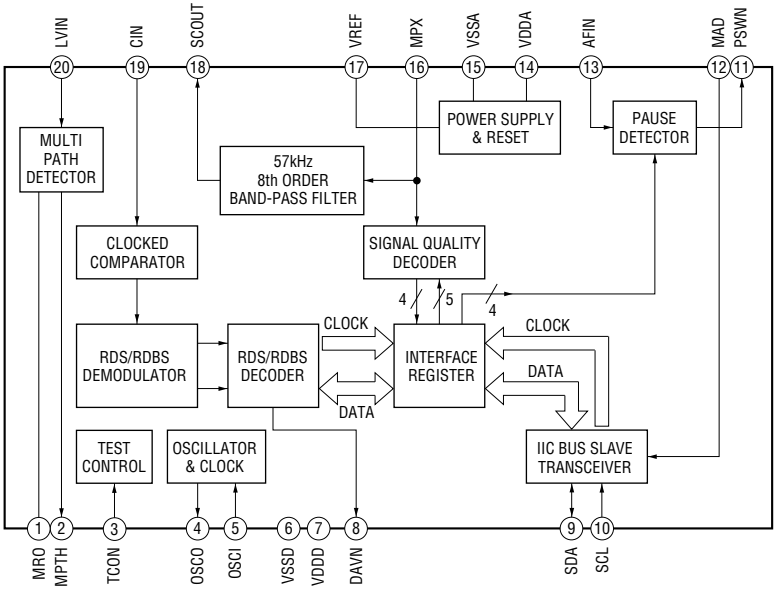
IC5 CXD9684R-004



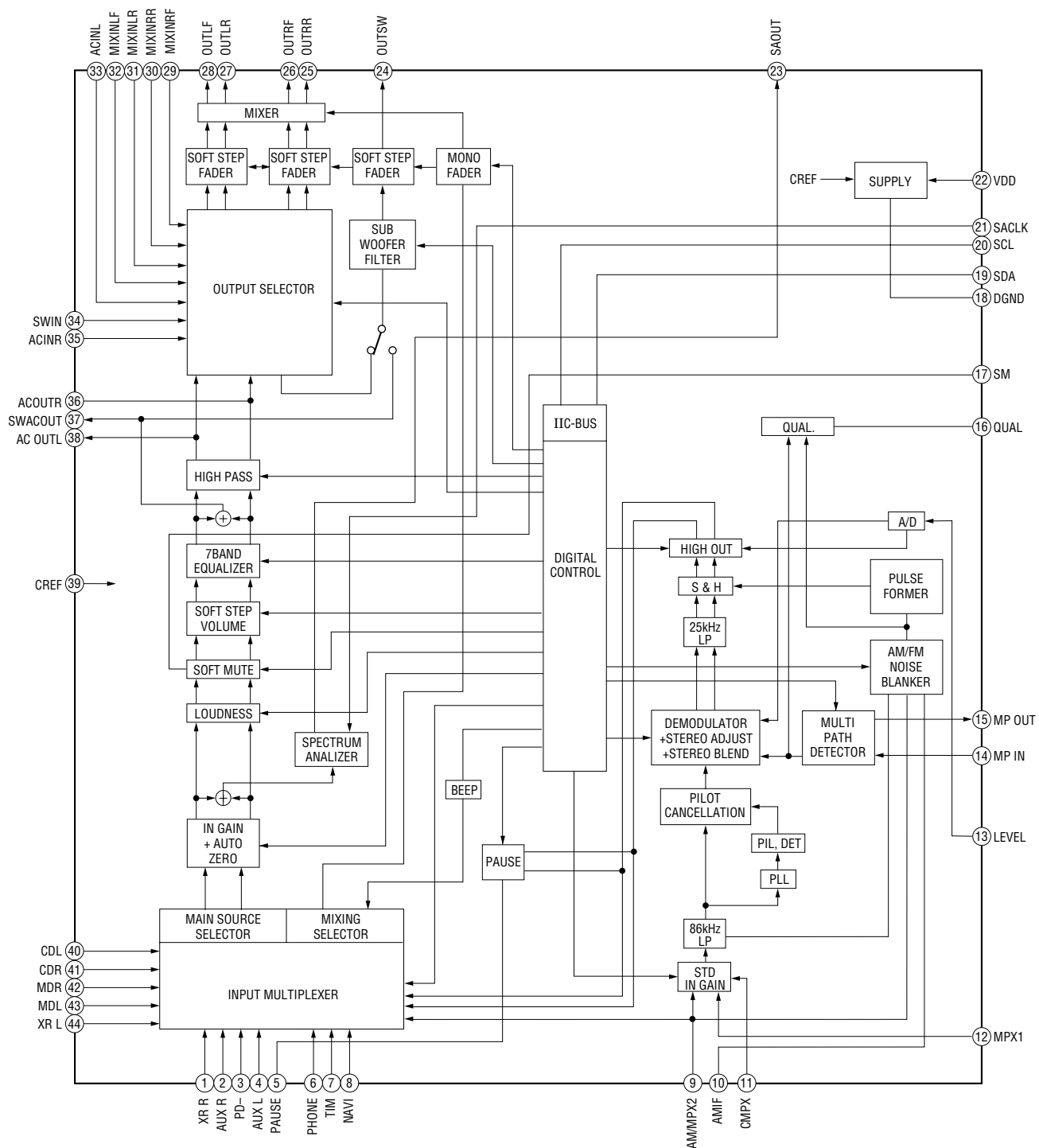
IC4 W24L010AT-12-EL15



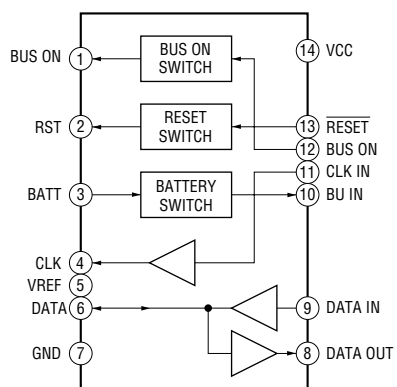
IC101 SAA6588T/V2



IC301 TDA7406T

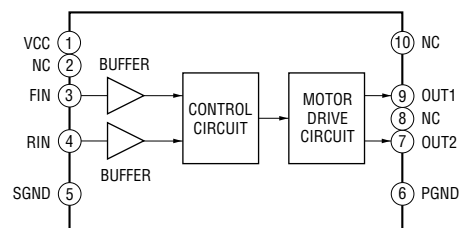


IC601 BA8270F



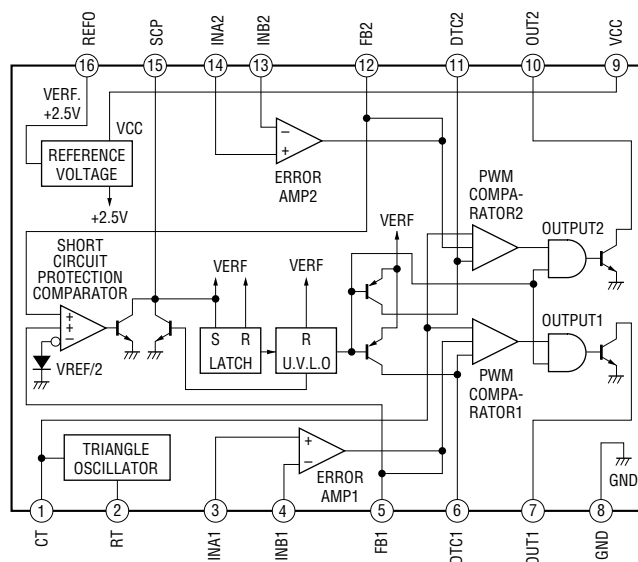
IC702 LB1930M

IC703 LB1930M



IC801 TL1451ACDB

IC802 TL1451ACDB



IC206 RRX9000-0601#1

