

CDX-605

SERVICE MANUAL

US Model



Model Name Using Similar Mechanism	CDX-505RF
CD Drive Mechanism Type	MG-250C-137
Optical Pick-up Name	KSS-521A/J2N

SPECIFICATIONS

System	Compact disc digital audio system
Frequency response	10 – 20,000 Hz
Wow and flutter	Below the measurable limit
Signal-to-noise ratio	94 dB
Outputs	BUS control output (8 pins) Analog audio output (RCA pin)
Current drain	800 mA (during CD playback) 800 mA (during loading or ejecting a disc)
Operating temperature	– 10 °C to + 55 °C (14 °F to 131 °F)
Dimensions	Approx. 262 × 90 × 181.5 mm (10 ³ / ₈ × 3 ⁵ / ₈ × 7 ¹ / ₄ in.) (w/h/d) not incl. projecting parts and controls
Mass	Approx. 2.1 kg (4 lb 10 oz)
Power requirement	12 V DC car battery (negative ground)
Supplied accessories	Disc magazine (1) Parts for installation and connections (1 set)

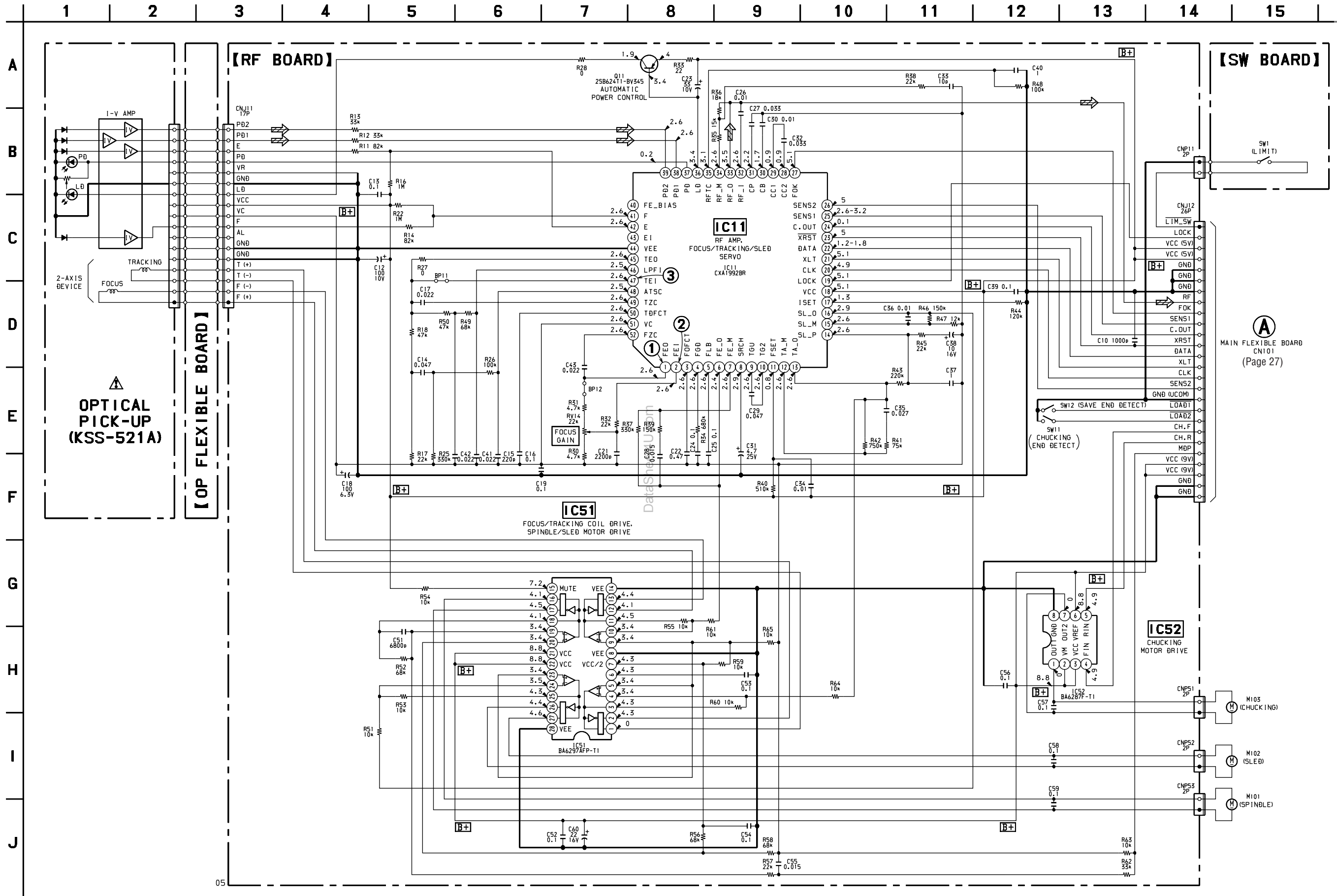
Design and specifications subject to change without notice.

COMPACT DISC CHANGER

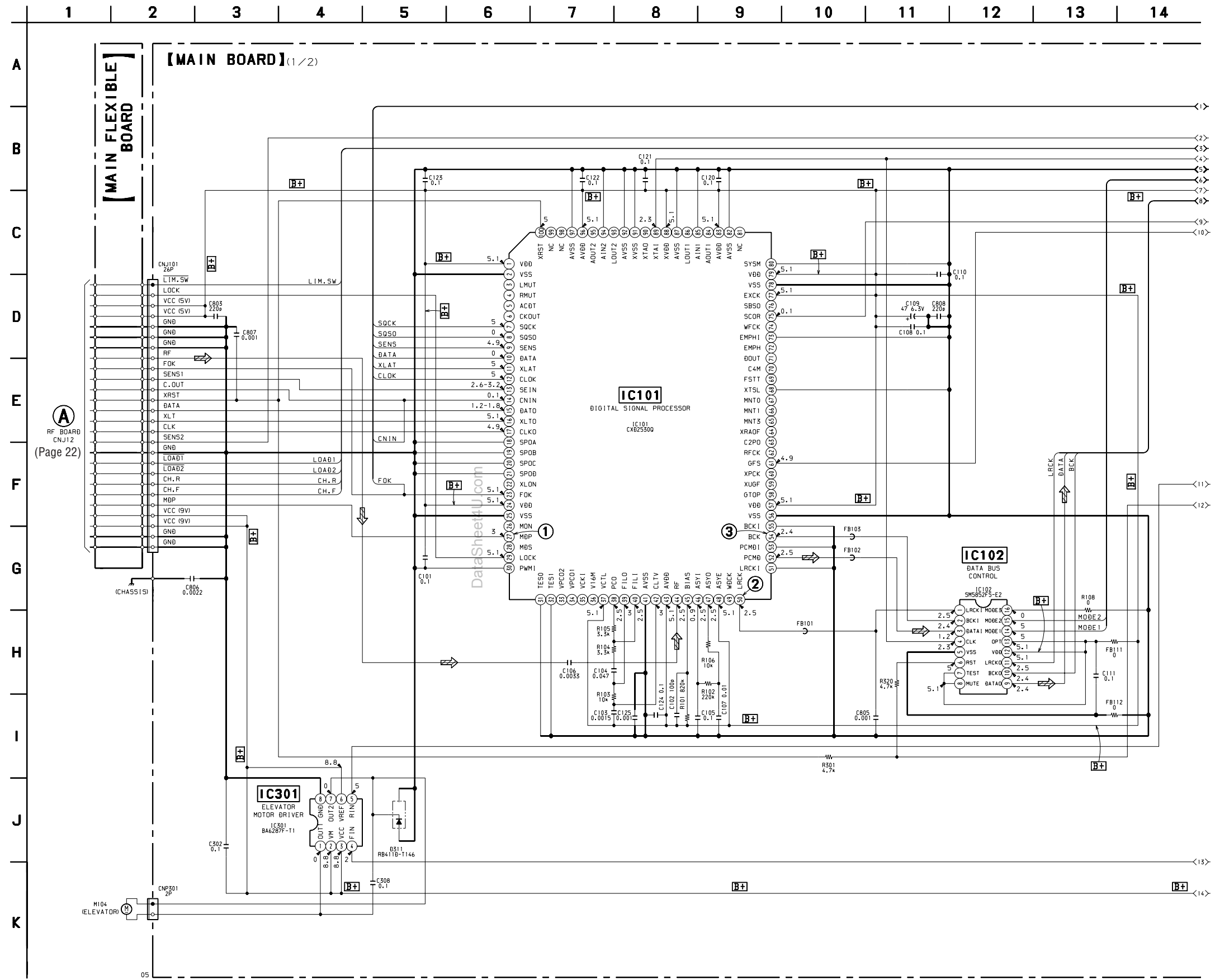
SONY®



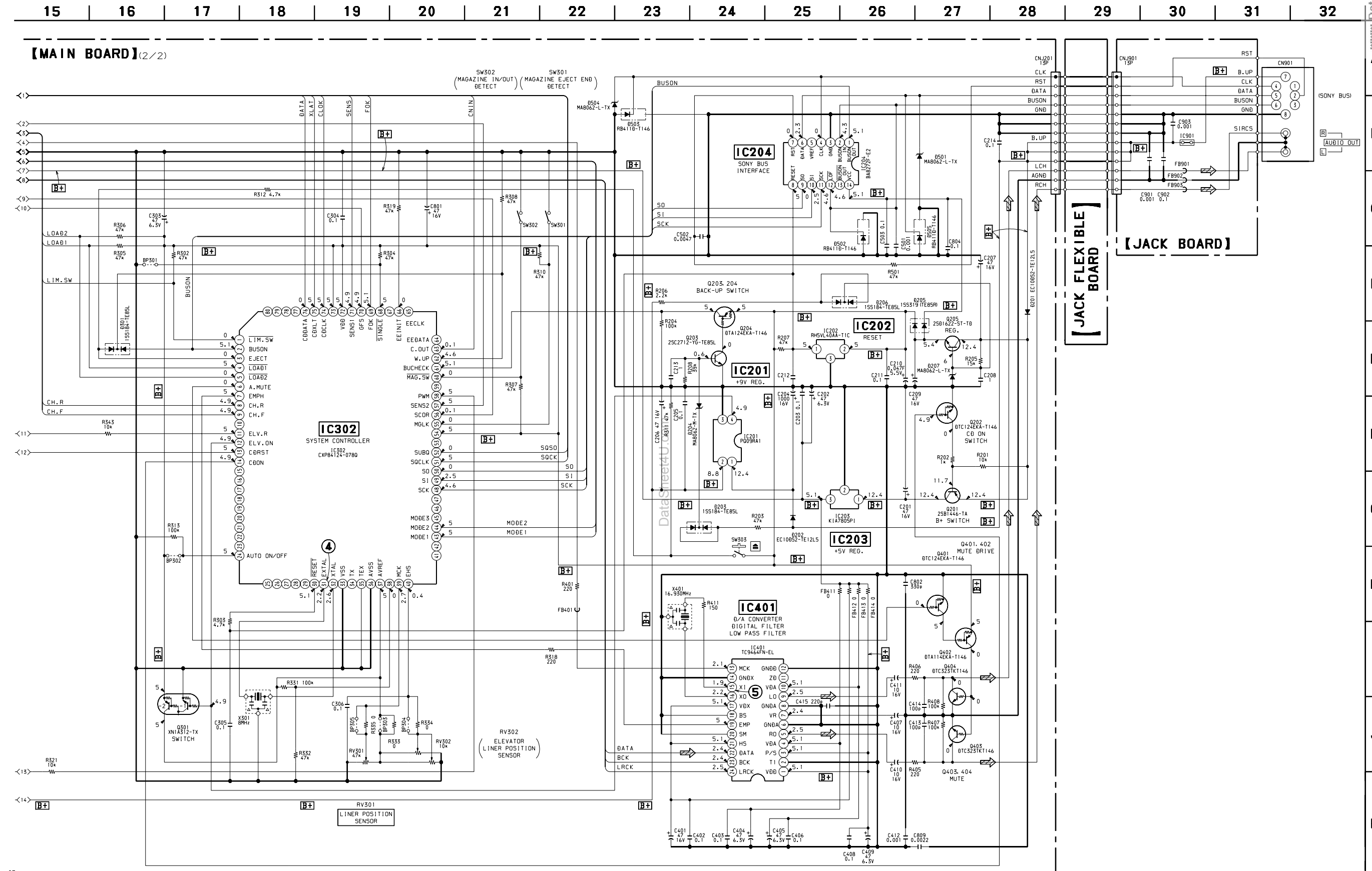
7-3. SCHEMATIC DIAGRAM – RF Section – • See page 17 for Waveforms. • See page 31 for IC Block Diagrams.



7-6. SCHEMATIC DIAGRAM – MAIN Section (1/2) – • See page 17 for Waveforms. • See page 31 for IC Block Diagrams.

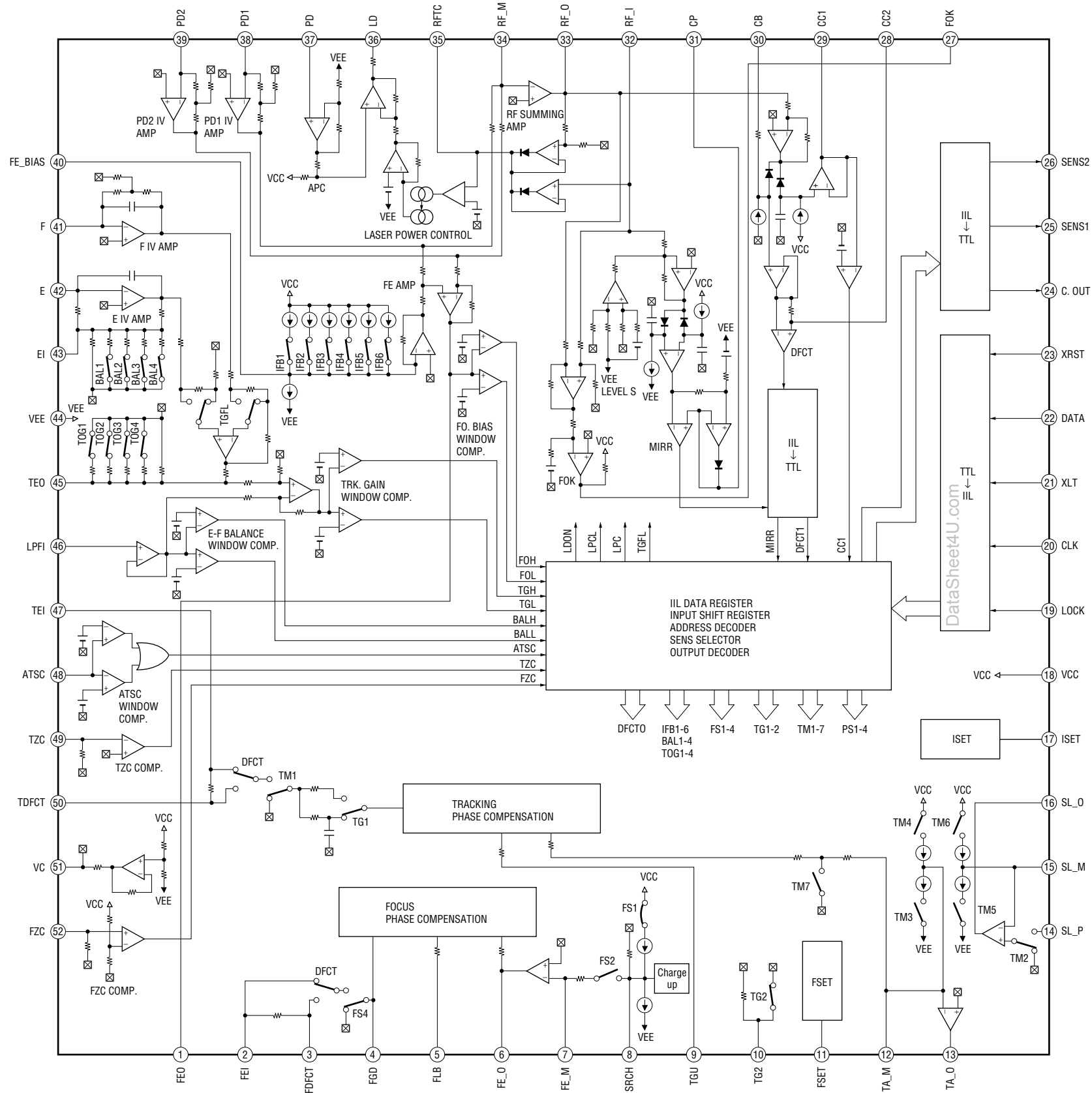


7-7. SCHEMATIC DIAGRAM – MAIN Section (2/2) – • See page 17 for Waveforms. • See page 31 for IC Block Diagrams.

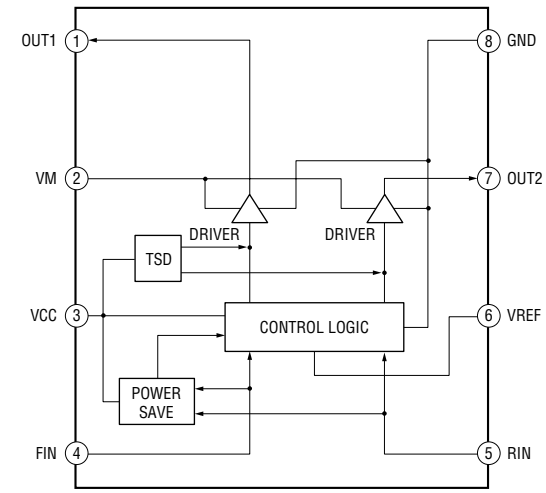


• IC Block Diagrams

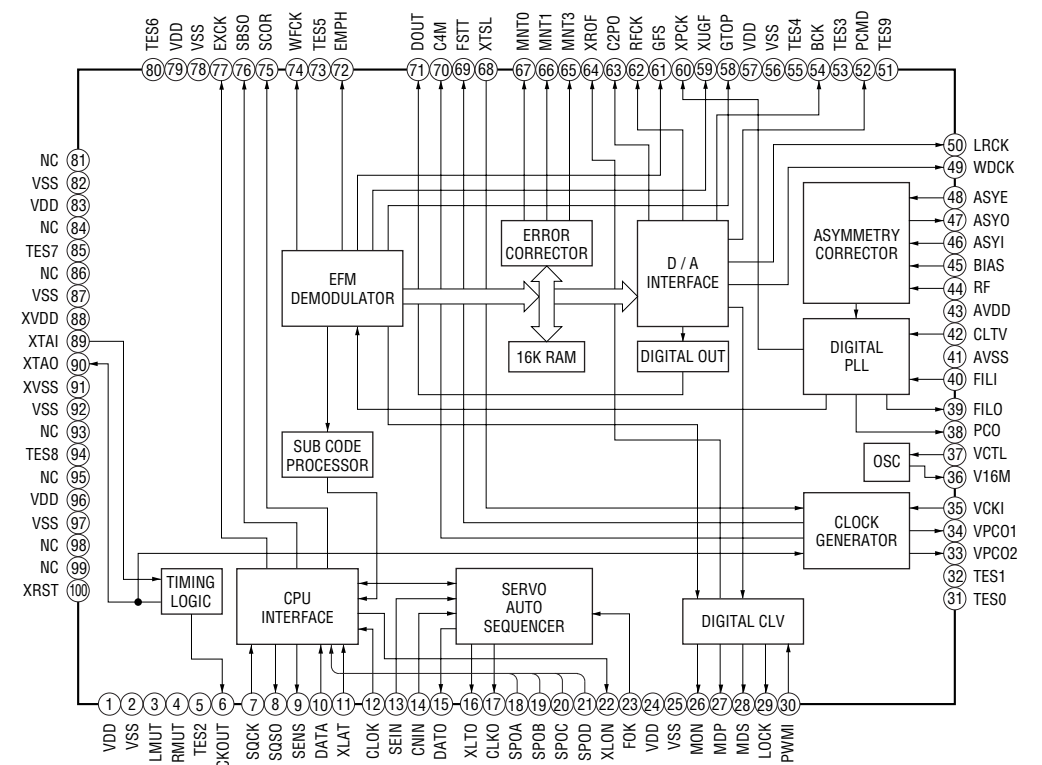
IC11 CXA1992BR (RF BOARD)



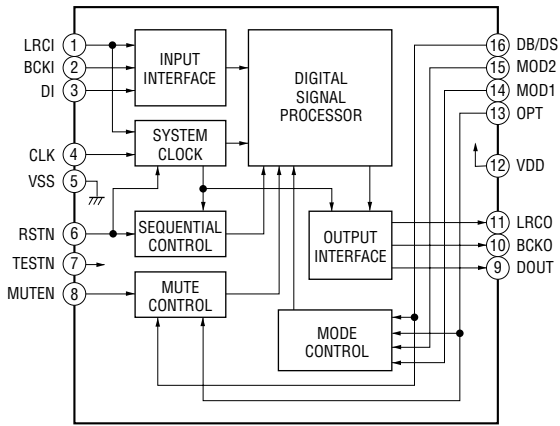
IC52 BA6287F (RF BOARD)
IC301 BA6287F (MAIN BOARD)



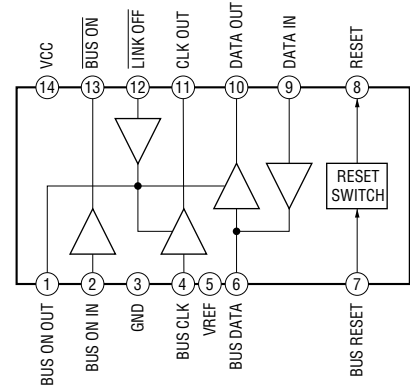
IC101 CXD2530Q (MAIN BOARD)



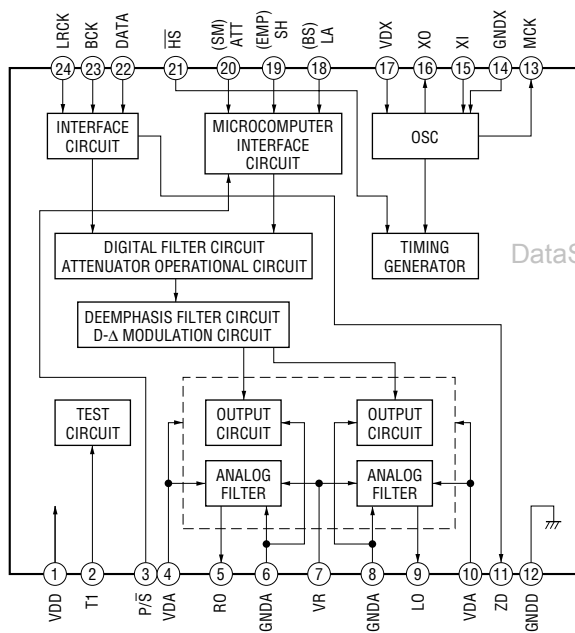
IC102 SM5852FS-E2 (MAIN BOARD)



IC204 BA8272F-E2 (MAIN BOARD)



IC401 TC9464FN-EL (MAIN BOARD)



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7-8. IC PIN FUNCTION DESCRIPTION

• MAIN BOARD IC302 CXP84124-078Q (SYSTEM CONTROLLER)

Pin No.	Pin Name	I/O	Function
1	$\overline{\text{LIM.SW}}$	I	Sled limit in detect switch (SW1) input terminal “L”: When the optical pick-up is inner position
2	BUSON	I	Bus on/off control signal input from the SONY bus interface (IC204) “H”: bus on
3	EJECT	I	Eject switch (SW303) input terminal “H” active
4	$\overline{\text{LOAD1}}$	I	Save end detect switch (SW12) input terminal “L”: When completion of the disc chucking operation
5	$\overline{\text{LOAD2}}$	I	Chucking end detect switch (SW11) input terminal “L”: When completion of the disc chucking operation
6	A.MUTE	O	Audio line muting on/off control signal output terminal “H”: muting on
7	EMPH	O	Emphasis mode output to the D/A converter (IC401) “L”: emphasis on
8	CH.R	O	Motor drive signal (save direction) output to the chucking motor drive (IC52) “H” active *1
9	CH.F	O	Motor drive signal (load chucking direction) output to the chucking motor drive (IC52) “H” active *1
10	—	O	Not used (open)
11	ELV.R	O	Motor drive signal (elevator down direction) output to the elevator motor drive (IC301) “L” active *2
12	ELV.ON	O	Mechanism deck section power supply on/off control signal output “H”: power on
13	$\overline{\text{CD RST}}$	O	System reset signal output to the CXA1992AR (IC11), CXD2530Q (IC101) and SM5852FS (IC102) “L”: reset
14	CDON	O	D/A converter and servo section power supply on/off control signal output “H”: power on
15 to 23	—	O	Not used (open)
24	AUTO ON/OFF	I	Setting terminal for the automatic adjustment “L”: automatic adjustment, “H”: manual adjustment (solder across the BP302 terminal) Normally: fixed at “L”
25 to 29	—	O	Not used (open)
30	$\overline{\text{RESET}}$	I	System reset signal input from the reset signal generator (IC202) and SONY bus interface (IC204) “L”: reset For several hundreds msec. after the power supply rises, “L” is input, then it changes to “H”
31	EXTAL	I	Main system clock input terminal (8 MHz)
32	XTAL	O	Main system clock output terminal (8 MHz)
33	VSS	—	Ground terminal
34	TX	O	Sub system clock output terminal Not used (open)
35	TEX	I	Sub system clock input terminal Not used (fixed at “L”)
36	AVSS	—	Ground terminal (for A/D converter)
37	AVREF	I	Reference voltage (+5V) input terminal (for A/D converter)
38	ATRIBT	I	Selection input of the custom file, D-BASS, etc.
39	MCK	I	Input of signal for the fine adjustment (linear position sensor adjustment; RV301) of elevator position (A/D input)
40	EHS	I	Elevator height position detect input from the RV302 (elevator height sensor) (A/D input)
41	H.TEMP	I	High temperature sensor input terminal Not used (open)
42	—	O	Not used (open)
43	MODE1	O	D-BASS control signal output to the SM5852FS (IC102)
44	MODE2	O	D-BASS control signal output to the SM5852FS (IC102)
45	MODE3	O	D-BASS control signal output Not used (open)
46, 47	—	O	Not used (open)
48	SCK	I	Serial data transfer clock signal input from the SONY bus interface (IC204)
49	SI	I	Serial data input from the SONY bus interface (IC204)

Pin No.	Pin Name	I/O	Function
50	SO	O	Serial data output to the SONY bus interface (IC204)
51	SQCLK	O	Subcode Q data reading clock signal output to the CXD2530Q (IC101)
52	SUBQ	I	Subcode Q data input from the CXD2530Q (IC101)
53	—	O	Not used (open)
54	—	I	Not used (fixed at “H”)
55	MGLK	I	Magazine eject operation completion detect switch (SW301) input terminal “L”: eject completed
56	SCOR	I	Subcode sync (S0+S1) detection signal input from the CXD2530Q (IC101)
57	SENS2	I	Internal status signal (sense signal) input from the CXA1992AR (IC11)
58	PWM	O	Motor drive signal (elevator up direction) output to the elevator motor drive (IC301) “L” active *2
59	—	O	Not used (open)
60	MAG.SW	I	Magazine in/out detect switch (SW302) input terminal “L”: magazine detected
61	BUCHECK	I	Battery detection signal input terminal “H”: battery on
62	W.UP	I	Bus on or eject switch (SW303) input terminal “H”: bus on or eject switch pushing
63	C.OUT	I	Track number count signal input from the CXA1992AR (IC11)
64	EEDATA	I/O	Two-way data bus with the EEPROM Not used (open)
65	EECLK	O	Serial clock signal output to the EEPROM Not used (open)
66	EEINIT	I	Initialize signal input for the EEPROM “H”: format Fixed at “L” in this set
67	—	O	Not used (open)
68	SINGLE	I	Setting terminal for the single disc/multiple discs mode “L”: single mode, “H”: multiple discs mode (fixed at “H”)
69	FOK	I	Focus OK signal input from the CXA1992AR (IC11) “L”: NG, “H”: OK
70	GFS	I	Guard frame sync signal input from the CXD2530Q (IC101) “L”: NG, “H”: OK
71	SENS1	I	Internal status signal (sense signal) input from the CXD2530Q (IC101)
72	VDD	—	Power supply terminal (+5V)
73	NC (VDD)	—	Connected to the power supply (+5V)
74	CDCLK	O	Serial data transfer clock signal output to the CXD2530Q (IC101)
75	CDXLT	O	Serial data latch pulse signal output to the CXD2530Q (IC101)
76	CDDATA	O	Serial data output to the CXD2530Q (IC101)
77 to 80	—	O	Not used (open)

*1 chucking motor (M103) control

Terminal	Mode	STOP	LOAD CHUCKING	SAVE	BRAKE
	CH.F (pin ⑨)	“L”	“L”	“H”	“L”
CH.R (pin ⑧)	“L”	“L”	“L”	“H”	“H”

*2 elevator motor (M104) control

Terminal	Mode	STOP	ELEVATOR UP	ELEVATOR DOWN	BRAKE
	PWM (pin ⑥)	“H”	“H”	“L”	“H”
ELV.R (pin ⑩)	“H”	“H”	“H”	“L”	“L”