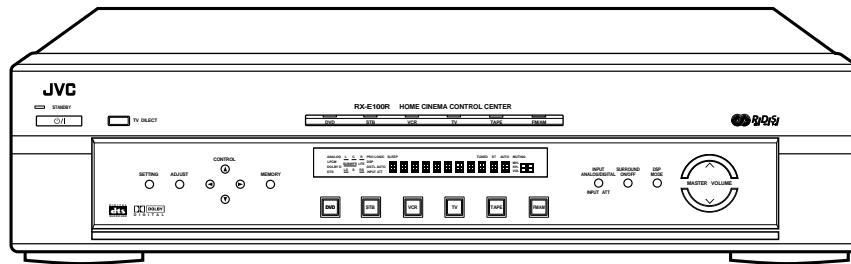
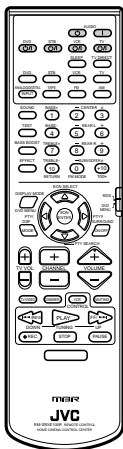


JVC

SERVICE MANUAL

AUDIO/VIDEO CONTROL RECEIVER

RX-E100RSL RX-E100RSB



Area Suffix	
RX-E100RSL	
B	U.K.
E	Continental Europe
EN	Northern Europe
RX-E100RSB	
E	Continental Europe
EN	Northern Europe



Each difference points

MODEL	Source indication lens colour
RX-E100RSL	SILVER
RX-E100RSB	SILVER BLACK

Contents

Safety precautions -----1- 2
 Disassembly method -----1- 3
 Adjustment method -----1- 8
 Description of major ICs -----1- 9 ~ 15

Safety Precautions

1. This design of this product contains special hardware and many circuits and components specially for safety purposes. For continued protection, no changes should be made to the original design unless authorized in writing by the manufacturer. Replacement parts must be identical to those used in the original circuits. Services should be performed by qualified personnel only.
2. Alterations of the design or circuitry of the product should not be made. Any design alterations of the product should not be made. Any design alterations or additions will void the manufacturer's warranty and will further relieve the manufacture of responsibility for personal injury or property damage resulting therefrom.
3. Many electrical and mechanical parts in the products have special safety-related characteristics. These characteristics are often not evident from visual inspection nor can the protection afforded by them necessarily be obtained by using replacement components rated for higher voltage, wattage, etc. Replacement parts which have these special safety characteristics are identified in the Parts List of Service Manual. Electrical components having such features are identified by shading on the schematics and by (\triangle) on the Parts List in the Service Manual. The use of a substitute replacement which does not have the same safety characteristics as the recommended replacement parts shown in the Parts List of Service Manual may create shock, fire, or other hazards.
4. The leads in the products are routed and dressed with ties, clamps, tubings, barriers and the like to be separated from live parts, high temperature parts, moving parts and/or sharp edges for the prevention of electric shock and fire hazard. When service is required, the original lead routing and dress should be observed, and it should be confirmed that they have been returned to normal, after re-assembling.

5. Leakage current check (Electrical shock hazard testing)

After re-assembling the product, always perform an isolation check on the exposed metal parts of the product (antenna terminals, knobs, metal cabinet, screw heads, headphone jack, control shafts, etc.) to be sure the product is safe to operate without danger of electrical shock.

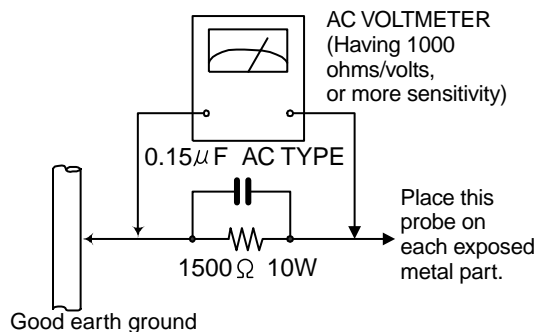
Do not use a line isolation transformer during this check.

- Plug the AC line cord directly into the AC outlet. Using a "Leakage Current Tester", measure the leakage current from each exposed metal parts of the cabinet, particularly any exposed metal part having a return path to the chassis, to a known good earth ground. Any leakage current must not exceed 0.5mA AC (r.m.s.).

- Alternate check method

Plug the AC line cord directly into the AC outlet. Use an AC voltmeter having, 1,000 ohms per volt or more sensitivity in the following manner. Connect a 1,500 Ω 10W resistor paralleled by a 0.15 μ F AC-type capacitor between an exposed metal part and a known good earth ground. Measure the AC voltage across the resistor with the AC voltmeter.

Move the resistor connection to each exposed metal part, particularly any exposed metal part having a return path to the chassis, and measure the AC voltage across the resistor. Now, reverse the plug in the AC outlet and repeat each measurement. Any voltage measured must not exceed 0.75 V AC (r.m.s.). This corresponds to 0.5 mA AC (r.m.s.).



Warning

1. This equipment has been designed and manufactured to meet international safety standards.
2. It is the legal responsibility of the repairer to ensure that these safety standards are maintained.
3. Repairs must be made in accordance with the relevant safety standards.
4. It is essential that safety critical components are replaced by approved parts.
5. If mains voltage selector is provided, check setting for local voltage.

CAUTION

Burrs formed during molding may be left over on some parts of the chassis. Therefore, pay attention to such burrs in the case of performing repair of this system.

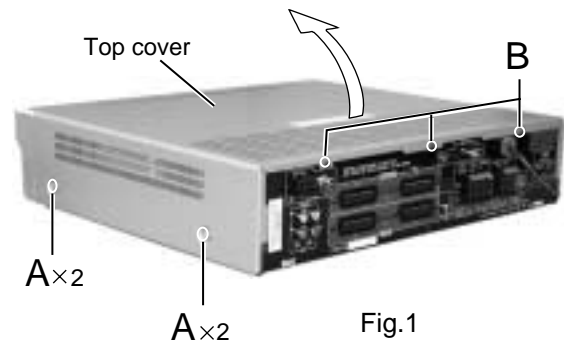
In regard with component parts appearing on the silk-screen printed side (parts side) of the PWB diagrams, the parts that are printed over with black such as the resistor (■), diode (▣) and ICP (●) or identified by the " \triangle " mark nearby are critical for safety.

When replacing them, be sure to use the parts of the same type and rating as specified by the manufacturer. (Except the JC version)

Disassembly method

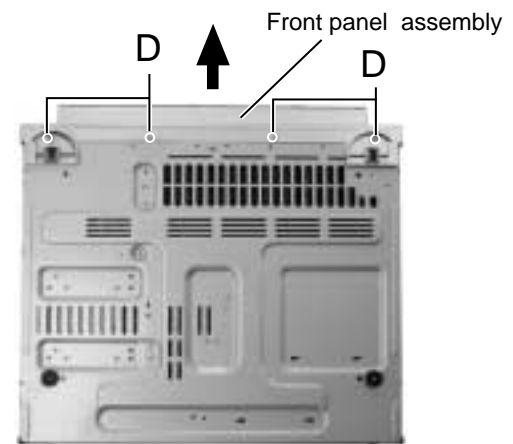
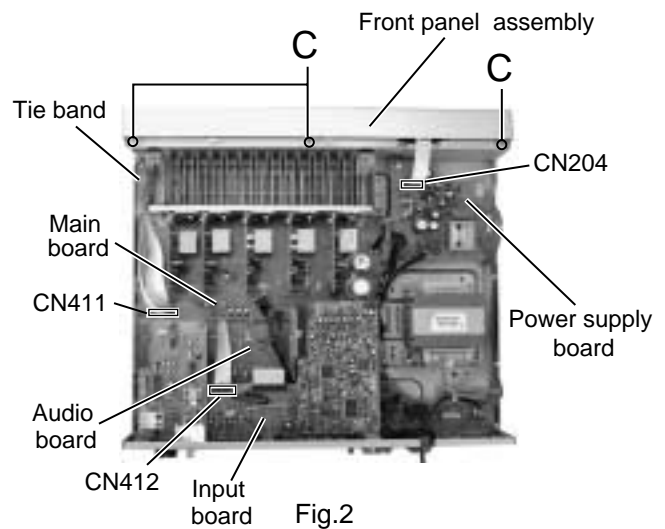
■ Removing the top cover (See Fig.1)

1. Remove the four screws A attaching the top cover on both sides of the body.
2. Remove the three screws B on the back of the body.
3. Remove the top cover from behind in the direction of the arrow while pulling both sides outward.



■ Removing the front panel assembly (See Fig.2 and 3)

- Prior to performing the following procedure, remove the top cover.
1. Disconnect the card wire from connector CN411 on the audio board, CN412 on the input board and CN204 on the power supply board in the front panel assembly.
 2. Cut off the tie band fixing the harness.
 3. Remove the three screws C attaching the front panel assembly.
 4. Remove the four screws D attaching the front panel assembly on the bottom of the body. Detach the front panel assembly toward the front.



■ Removing the rear panel (See Fig.4)

- Prior to performing the following procedure, remove the top cover.
1. Remove the power cord stopper from the rear panel by moving it in the direction of the arrow.
 2. Remove the twenty one screws E attaching the each boards to the rear panel on the back of the body.
 3. Remove the four screws F attaching the rear panel on the back of the body.

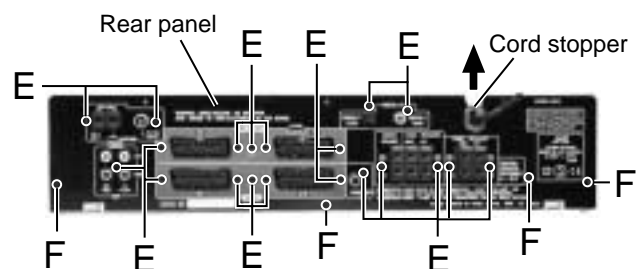


Fig.4

■ Removing each board connected to the rear side of the audio board
(See Fig.5 to 7)

• Prior to performing the following procedure, remove the top cover and the rear panel.

1. Cut off the tie band fixing the harness.
2. Disconnect the tuner board and DSP board from connector CN111, CN112 and CN681 on the each Relay board.
3. Disconnect the Relay board from connector CN503, CN504 and CN501 on the audio board.
4. Disconnect the card wire connected to connector CN412 and CN512 on the Input board.

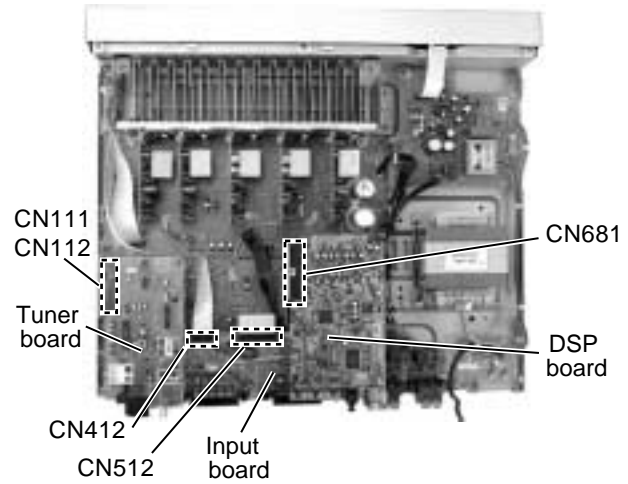


Fig.5

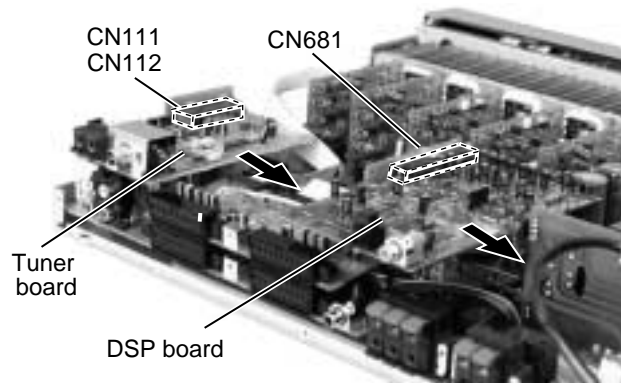


Fig.6

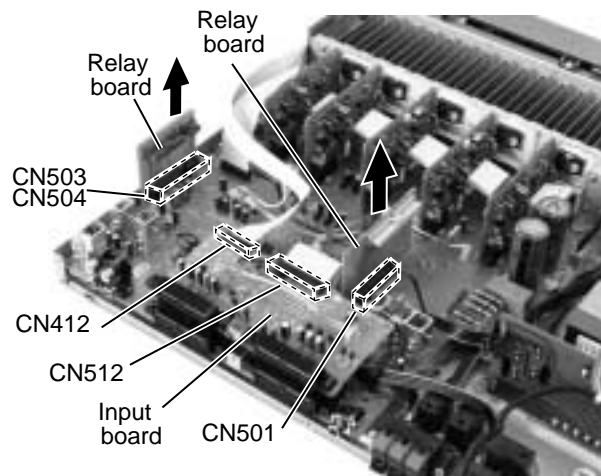


Fig.7

■ Removing the audio board (See Fig.8)

- Prior to performing the following procedure, remove the top cover , the rear panel and the each board.
1. Disconnect the card wire from connector CN411 on the audio board.
 2. Disconnect the harness from connector CN205 on the audio board.
 3. Disconnect the harness from connector CN515, CN516, and CN517 on the main board.
 4. Remove the harness band fixing the harness.
 5. Remove the three screws G attaching the audio board assembly.

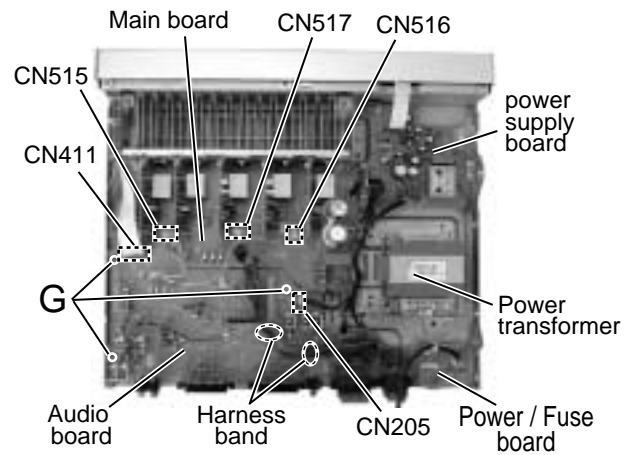


Fig.8

■ Removing the main board (See Fig.9)

- Prior to performing the following procedure, remove the top cover, the rear panel and audio board.
1. Remove the harness band fixing the harness.
 2. Disconnect the harness from connector CN707 on the power supply board .
 3. Disconnect the harness from connector CN202 and CN206 on the main board .
 4. Remove the five screws H and the two screws I attaching the main board.

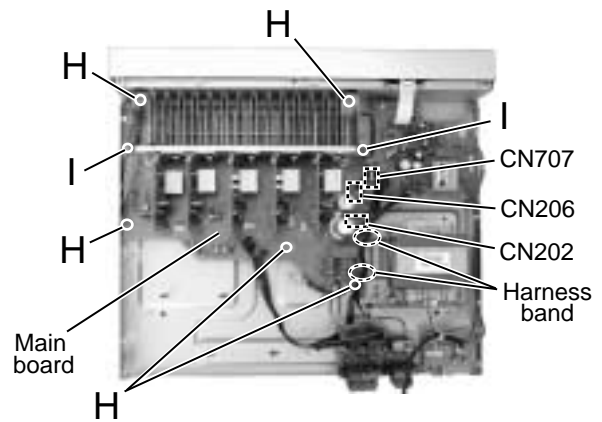


Fig.9

■ Removing the Heat sink (See Fig.10 to 11)

1. Remove the ten screws K and four screws L attaching the heat sink.
2. Remove the two screws J attaching the heat sink from the rear side of main board.

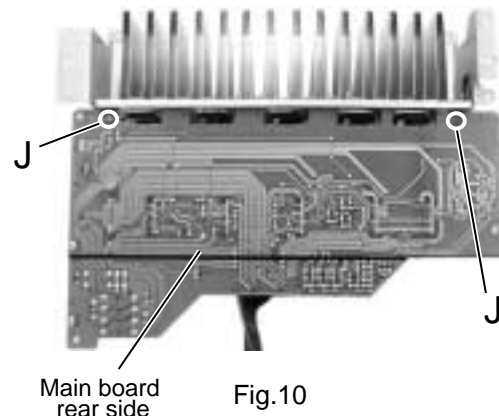


Fig.10

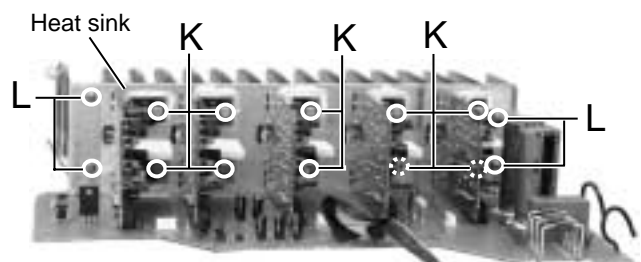


Fig.11

■ Removing the power supply board
(See Fig.12)

- Prior to performing the following procedure, remove the top cover.
1. Disconnect the card wire from connector CN204 on the power supply board.
 2. Disconnect the harness connected to connector CN707 and CN201 on the power supply board (If necessary, cut off the band fixing the harness on the side of the base chassis).
 3. Disconnect the harness connected to connector CN206 on the main board
 4. Remove the three screws N attaching the power supply board.
 5. Unsolder the three harnesses connected to the power supply board.

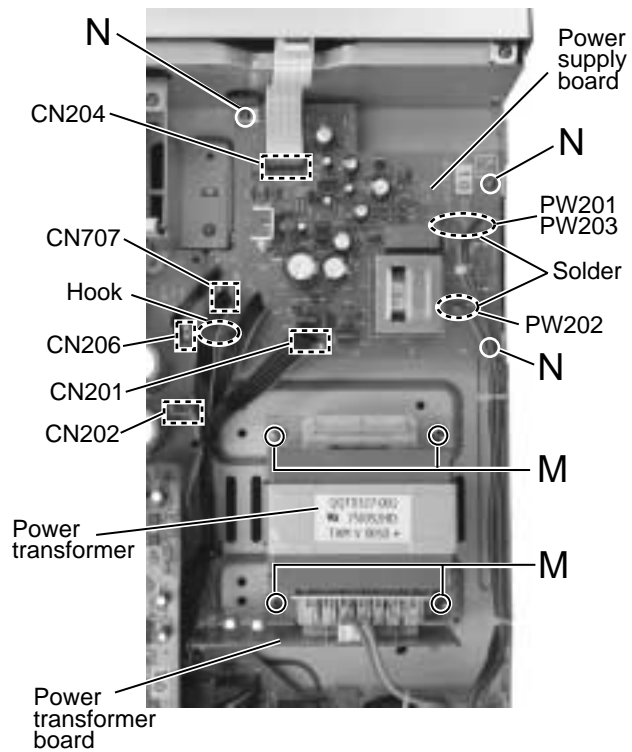


Fig.12

■ Removing the power transformer
(See Fig.12 and 13)

- Prior to performing the following procedures, remove the top cover.
1. Disconnect the harness from connector CN217 on the power / fuse board.
 2. Disconnect the harness from connector CN201 and CN202 on the power supply board and main board.
 3. Remove the four screws M attaching the power transformer.

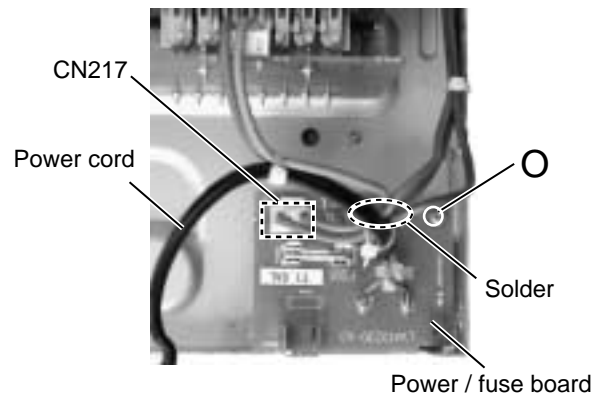


Fig.13

■ Removing the power / fuse board
(See Fig.13)

- Prior to performing the following procedure, remove the top cover and the rear panel.
1. Disconnect the harness connected to connector CN217 on the power / fuse board (If necessary, cut off the band fixing the harness on the side of the base chassis).
 2. Unsolder the power cord and other harnesses connected to the power / fuse board.
 3. Remove the screw O attaching the power / fuse board.

■ Removing the system control board / power switch board (See Fig.14)

- Prior to performing the following procedure, remove the top cover and the front panel assembly.
1. Remove the two screws P attaching the power switch board.
 2. Remove the eight screws Q attaching the system control board.

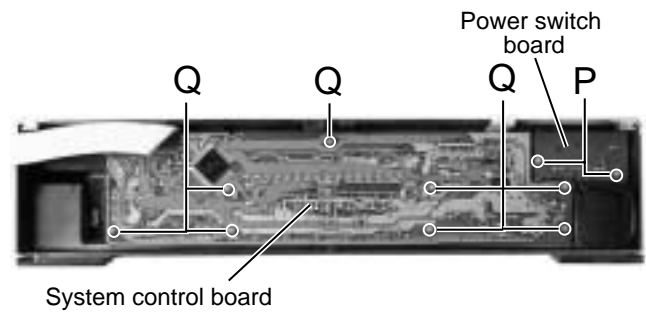


Fig.14

Adjustment method

■ Power amplifier section

Adjustment of idling current

Measurement terminal B451-B452(Lch) , B453-B454(Rch)

Adjustment volume VR301(Lch) , VR302(Rch)

Attention

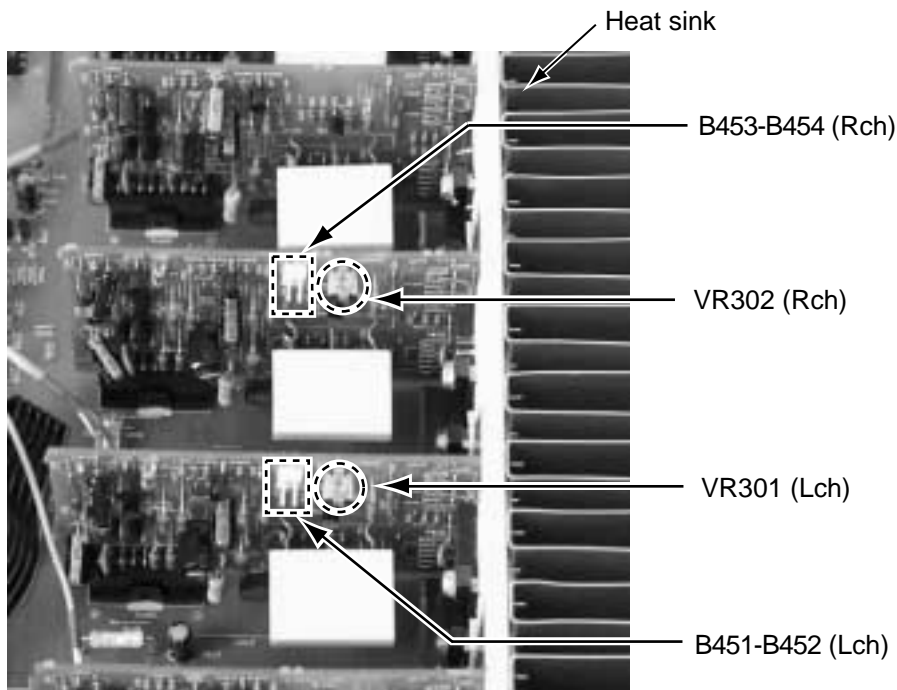
This adjustment does not obtain a correct adjustment value immediately after the amplifier is used (state that an internal temperature has risen).

Please adjust immediately after using the amplifier after turning off the power supply of the amplifier and falling an internal temperature.

<Adjustment method>

1. Prior to turning the power ON, fully turn the adjusting resistor (VR301(Lch),VR302(Rch)) counterclockwise direction and connect the DC voltmeter to the measuring terminal(B451-B452(Lch) , B453-B454(Rch)).
2. Set the surround mode OFF.
3. Adjust the resistor so that the measured value becomes 2mV immediately after turning the power ON.
4. When the idling current has been stable (about 30 minutes after the power is turned ON), confirm that the measured value falls within 1.0mV~10mV(2.3mV).

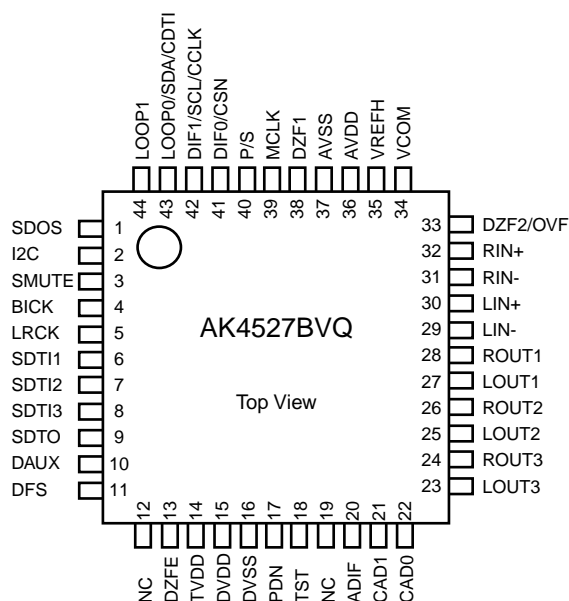
* It is not abnormal though the idling current might not become 0mA even if it is finished to turn variable resistance (VR301VR302) in the direction of counterclockwise.



Description of major ICs

■ AK4527B (IC601) : A/D,D/A Converter

1. Pin layout



2. Pin function (1/2)

AK4527(1/2)

No.	Pin name	I/O	Function
1	SDOS	I	SDTO Source Select Pin (Note 1) "L" : Internal ADC output, "H" : DAUX input
2	I2C	I	Control Mode Select Pin "L" : 3-wire Serial, "H" : I2C Bus
3	SMUTE	I	Soft Mute Pin (Note 1) When this pin goes to "H", soft mute cycle is initialized. When returning to "L", the output mute releases.
4	BICK	I	Audio Serial Data Clock Pin
5	LRCK	I/O	Input Channel Clock Pin
6	SDTI1	I	DAC1 Audio Serial Data Input Pin
7	SDTI2	I	DAC2 Audio Serial Data Input Pin
8	SDTI3	I	DAC3 Audio Serial Data Input Pin
9	SDTO	O	Audio Serial Data Output Pin
10	DAUX	I	Sub Audio Serial Data Input Pin
11	DFS	I	Double Speed Sampling Mode Pin (Note 1) "L" : Normal Speed, "H" : Double Speed
12	NC	-	No Connect No internal bonding.
13	DZEF	I	Zero Input Detect Enable Pin "L" : mode 7 (disable) at parallel mode, zero detect mode is selectable by DZFM2-0 bits at serial mode. "H" : mode 0 (DZF is AND of all six channels)
14	TVDD	-	Output Buffer Power supply Pin, 2.7V~5.5V
15	DVDD	-	Digital Power Supply Pin, 4.5V~5.5V
16	DVSS	-	De-emphasis Pin, 0V
17	PDN	I	Power-Down & Reset Pin When "L", the AK4527B is powered-down and the control registers are reset to default state. If the state of P/S or CAD0-1 changes, then the AK4527B must be reset by PDN.
18	TST	I	Test Pin This pin should be connected to DVSS.

Pin function (2/2)

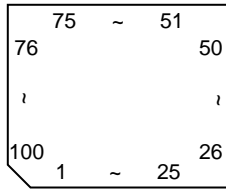
AK4527(1/2)

No.	Pin name	I/O	No Connect	Function
19	NC	-	No internal bonding.	Analog Input Format Select Pin
20	ADIF	I	"H" : Full-differential input, "L" : Single-ended input	Chip Address 1 Pin
21	CAD1	I		Chip Address 0 Pin
22	CAD0	I		DAC3 Lch Analog Output Pin
23	LOUT3	O		DAC3 Rch Analog Output Pin
24	ROUT3	O		DAC2 Lch Analog Output Pin
25	LOUT2	O		DAC2 Rch Analog Output Pin
26	ROUT2	O		DAC1 Lch Analog Output Pin
27	LOUT1	O		DAC1 Rch Analog Output Pin
28	ROUT1	O		Lch Analog Negative Input Pin
29	LIN-	I		Lch Analog Positive Input Pin
30	LIN+	I		Rch Analog Negative Input Pin
31	RIN-	I		Rch Analog Positive Input Pin
32	RIN+	I		Zero Input Detect 2 Pin (Note 2)
33	DZF2	O	When the input data of the group 1 follow total 8192LRCK cycles with "0" input data, this pin goes to "H".	Analog Input Overflow Detect Pin (Note 3)
	OVF	O	This pin goes to "H" if the analog input of Lch or Rch is overflows.	Common Voltage Output Pin,AVDD/2
34	VCOM	O	Large external capacitor around 2.2uF is used to reduce power-supply noise.	Positive Voltage Reference Input Pin,AVDD
35	VREFH	I		Analog Power Supply Pin,4.5V~5.5V
36	AVDD	-		Analog Ground Pin,0V
37	AVSS	-		Zero Input Detect 1 Pin (Note 2)
38	DZF1	O	When the input data of the group 1 follow total 8192 LRCK cycles with "0" input data, this pin goes to "H".	Master Clock Input Pin
39	MCLK	I		Parallel / Serial Select Pin
40	P/S	I	"L" : Serial control mode, "H" : Parallel control mode	Audio Data Interface Format 0 Pin in parallel mode
41	DIF0	I		Chip select pin in 3-wire serial control mode
	CSN	I		This pin should be connected to DVDD at I2C bus control mode Audio Data Interface Format 1 Pin in parallel mode
42	DIF1	I		Control Data Clock Pin in serial control mode
	SCL/CCLK	I	I2C = "L" : CCLK(3-wire Serial), I2C = "H" : SCL(I2C Bus)	Loopback Mode 0 Pin in parallel control mode
43	LOOP0	I	Enables digital loop-back from ADC to 3 DACs.	Control Data Input Pin in serial control mode
	SAD/CDTI	I/O	I2C = "L" : CDTI(3-wire Serial), I2C = "H" : SDA(I2C Bus)	Loopback Mode 1 Pin (Note 1)
44	LOOP1	I		Enable all 3 DAC channels to be input from SDTII.

- Notes : 1. SDOS, SMUTE, DFS, and LOOP1 pins are ORed with register data if P/S = "L".
2. The group 1 and 2 can be selected by DZFM2-0 bit if P/S = "L" and DZFME = "L".
3. This pin becomes OVF pin if OVFE bit is set to "1" at serial control mode.
4. All input pins should not be left floating.

■ UPD784215AGC103 (IC671) : UNIT CPU

1.Pin layout



2.Pin function

Pin No.	Symbol	I/O	Function
1-8		-	Non connect
9	VDD	-	Power supply terminal
10	X2	O	Connecting the crystal oscillator for system main clock
11	X1	I	Connecting the crystal oscillator for system main clock
12	VSS	-	Connect to GND
13	XT2	O	Connecting the crystal oscillator for system sub clock
14	XT1	I	Connecting the crystal oscillator for system sub clock
15	RESET	I	System reset signal input
16	AUTODATA	I	Output of DSP to general-purpose port
17	LOCK	I	Output of DSP to general-purpose port
18	DIGITAL0	I	Output of DSP to general-purpose port
19	FORMAT	I	Output of DSP to general-purpose port
20	CHANNEL	I	Output of DSP to general-purpose port
21	ERR	I	Output of DSP to general-purpose port
22	RSTDET	I	Reset signal input
23	AVDD	-	Power supply terminal
24	AVREF0	-	Connect to GND
25-32		-	Connect to GND
33	AVSS	-	Connect to GND
34,35		-	Non connect
36	AV REF1	-	Power supply terminal
37,38	RX,TX	-	Not use
39		-	Non connect
40	DSPCOM	I	Communication port from IC701
41	DSPSTS	O	Status communication port to IC701
42	DSPCLK	I	Clock input from IC701
43	DSPRDY	I	Ready signal input from IC701
44		-	Non connect
45,46	MIDIO_IN/OUT	I/O	Interface I/O terminal with microcomputer
47	MICK	O	Interface I/O terminal with microcomputer of clock signal
48	MICS	O	Interface I/O terminal with microcomputer of chip select
49	MILP	O	Interface I/O terminal with microcomputer
50	MIACK	O	Interface I/O terminal with microcomputer
51,52		-	Non connect
53	DSPRST	O	Reset signal output of DSP
54-63		-	Non connect
64,65	CDTI/CDTO	I/O	Interface I/O terminal with microcomputer
66	CCLK	O	Interface I/O terminal with microcomputer of clock signal
67	CS	O	Interface I/O terminal with microcomputer of chip select
68	XTS	O	OSC Select
69,70		-	Non connect
71	PD	O	Reset signal output
72	GND	-	Connect to GND
73-80		-	Non connect
81	VDD	-	Power supply
82	3D-ON	-	Non connect
83	3D-ON	O	Switch at output destination of surround channel
84	ANA/T-TONE	O	Test tone control
85	REF-MIX	O	Control at output destination of LFE channel
86		-	Non connect
87	D.MUTE	O	Mute of the digital out terminal is controlled
88	S.MUTE	O	Mute of the audio signal is controlled
89		-	Non connect
90-93	ASW1-4	O	Selection of digital input selector
94	TEST	-	Test terminal
95-100		-	Non connect

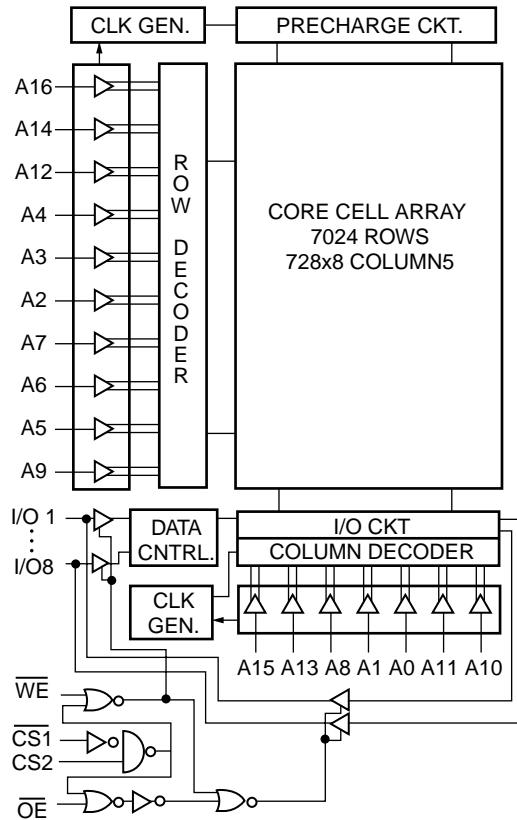
**■ TC9446F-014 (IC631) : Digital signal processor for dolby digital (AC-3)
/ MPEG2 audio decode**

Pin No.	Symbol	I/O	Function
1	RST	I	Reset signal input terminal (L:reset H:Operation usually)
2	MIMD	I	Microcomputer interface mode selection input terminal (L:serial H:IC bus)
3	MICS	I	Microcomputer interface chip select input terminal
4	MILP	I	Microcomputer interface latch pulse input
5	MIDIO	I/O	Microcomputer interface data I/O terminal
6	MICK	I	Microcomputer interface clock input terminal
7	MIACK	O	Microcomputer interface acknowledge output terminal
8~11	FI0~3	I	Flag input terminal 0~3
12	IRQ	I	Interrupt input terminal
13	VSS	-	Digital ground terminal
14	LRCKA	I	Audio interface LR clock input terminal A
15	BCKA	I	Audio interface bit clock input terminal A
16~18	SDO0~2	O	Audio interface data output terminal 0
19	SD03	-	Non connect
20	LRCKB	I	Audio interface LR clock input terminal B
21	BCKB	I	Audio interface bit clock input terminal B
22	SDT0	I	Audio interface data input terminal 0
23	SDT1	I	Audio interface data input terminal 1
24	VDD	-	Power supply for digital circuit
25	LRCKOA	O	Audio interface LR clock output terminal A
26	BCKOA	O	Audio interface bit clock output terminal A
27,28	TEST0,1	I	Test input terminal 0/1 (L:test H:operation usually)
29~31	LRCKOB,BCKOB,TXO	-	Non connect
32,33	TEST2,3	I	Test input terminal (L:test H:operation usually)
34	RX	I	SPDIF input terminal
35	VSS	-	Ground terminal for digital circuit
36	TSTSUB0	I	Test sub input terminal 0 (L:test H:operation usually)
37	FCONT	O	VCO Frequency control output terminal
38,39	TSTSUB1,TSTSUB2	I	Test sub input terminal 1,2 (L:test H:operation usually)
40	PDO	O	Phase error signal output terminal
41	VDDA	-	Power supply for analog circuit
42	PLON	I	Clock selection input terminal (L:external clock H:VCO clock)
43	AMPI	I	AMP.input terminal for LPF
44	AMPO	O	AMP.output terminal for LPF
45	CKI	I	External clock input terminal
46	VSSA	-	Ground terminal for analog circuit
47	CKO	O	DIR Clock output terminal
48	LOCK	O	VCO Lock detection output terminal
49	VSS	-	Ground terminal for digital circuit
50	WR	O	External SRAM writing signal output terminal
51	OE	O	External SRAM output enable signal output terminal
52	CE	O	External SRAM chip enable signal output terminal
53	VDD	-	Power supply terminal for digital circuit
54~61	IO7~0	I/O	External SRAM data I/O terminal 7~0
62	VSS	-	Ground terminal for digital circuit
63~70	AD0~7	O	External SRAM address output terminal 0~7
71	VDD	-	Power supply terminal for digital circuit
72~80	AD8~16	O	External SRAM address output terminal 8~16
81	VSS	-	Ground terminal for digital circuit
82~89	PO0~7	O	General purpose output terminal 0~7
90	VDDDL	-	Power supply terminal for DLL
91	LPFO	O	LPF output terminal for DLL
92,93	DLON,DLCKS	I	Refer to the undermentioned table
94	SCKO	-	Non connect
95	VSSDL	-	Ground terminal for DLL
96	SCKI	I	External system clock input terminal
97	VSSX	-	Ground terminal for oscillation circuit
98,99	XO,XI	I/O	Oscillation I/O terminal
100	VDDX	-	Power supply terminal for oscillation circuit

DLCKS terminal	DLONterminal	DLL clock setting
L	L	SCKI input (DLL circuit OFF)
L	H	Four times XI clock
H	L	Three times XI clock
H	H	Six times XI clock

■ W24L010AJ-12 (IC641) : CMOS SRAM

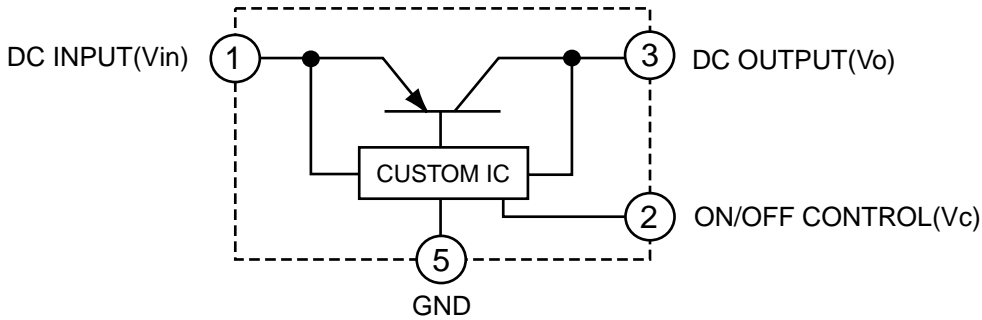
Block diagram



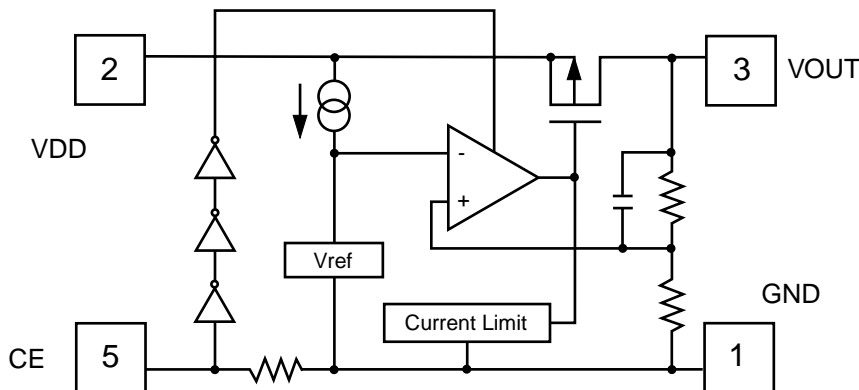
Pin layout

NC	1	32	VDD
A16	2	31	A15
A14	3	30	CS2
A12	4	29	WE
A7	5	28	A13
A6	6	27	A8
A5	7	26	A9
A4	8	25	A11
A3	9	24	OE
A2	10	23	A10
A1	11	22	CS2
A0	12	21	I/O8
I/O1	13	20	I/O7
I/O2	14	19	I/O6
I/O3	15	18	I/O5
Vss	16	17	I/O4

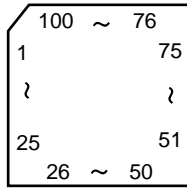
■ PQ3DZ53 (IC681) : Regulator IC



■ RN5RZ33BA (IC683) : Voltage regulator



■ MN101C35DHR (IC401) : System controller



Pin function (1/2)

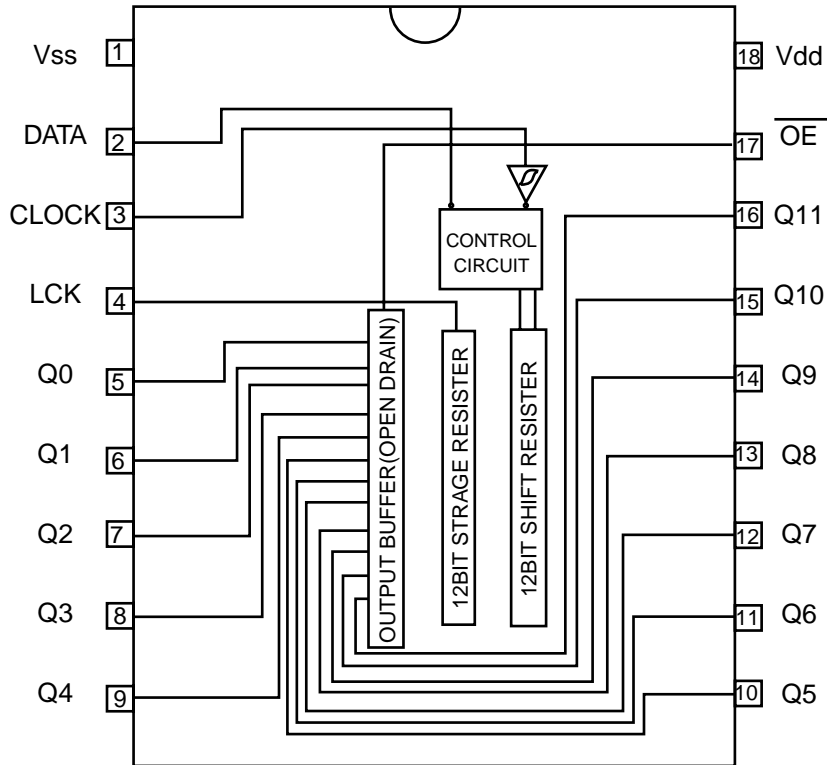
Pin No.	Symbol	I/O	Function
1	TXD/SB00/P00	-	GND
2	RXD/SBI0/P01	-	GND
3	SBT0/P02	I	PROTECTOR INPUT
4	SB01/P03	-	GND
5	SBI1/P04	-	GND
6	SBT1/P05	I	GND (TV LINK INPUT)
7	BUZZER/P06	I	SLOW SW L INPUT
8	VDD	-	POWER SUPPLY +5V
9,10	OSC1,2	I/O	OSC (8MHz)
11	VSS	-	GND
12	XI	-	GND
13	X0	O	OPEN
14	MMOD	-	GND
15	VREF-	-	GND
16	AN0/PA0	I	KEY INPUT 1 (7KEY)
17	AN1/PA1	I	KEY INPUT 2 (7KEY)
18	AN2/PA2	I	KEY INPUT 3 (7KEY)
19	AN3/PA3	I	CHIP SELECT 1
20	AN4/PA4	I	CHIP SELECT 2
21	AN5/PA5	I	SCART DVD INPUT
22	AN6/PA6	I	SCART STB INPUT
23	AN7/PA7	I	SCART VCR INPUT
24	VREF+	-	POWER SUPPLY +5V
25	P07	O	SLOW SW M OUTPUT
26	RST /P27	I	RESET INPUT
27	TM0IO/P10	O	RDS SDA IN/OUT
28	TM1IO/P11	I	RDS SCL IN/OUT
29	TM2IO/P12	O	TUNER CE
30	TM3IO/P13	I	TUNER MUTE
31	TM4IO/P14	O	TUNER CLK
32	P15	I/O	TUNER DATA IN/OUT
33	IRQ0/P20	-	GND
34	SENS/IRQ1/P21	I	REMOCON INPUT
35	IRQ2/P22	I	INH INPUT
36	IRQ3/P23	I	RDS DAVN INPUT
37	IRQ4/P24	I	TUNED INPUT
38	P25	I	STEREO INPUT
39	SB02/P30	O	DSP MICON COMMAND
40	SBI2/P31	I	DSP MICON STATUS

Pin function (2/2)

Pin No.	Symbol	I/O	Function
41	SBT2/P32	O	DSP MICON CLK
42	P50	O	DSP MICON READY
43	P51	O	DSP MICON RESET
44	P52	O	M61501 CLK
45	P53	O	M61501 DATA
46	P54	O	M61501 LATCH
47 50	DGT17/P67 DGT14/P64	O	VIDEO SELECT 1 VIDEO SELECT 4
51 54	DGT13/P63 DGT10/P60	O	GRID 1 GRID 4
55	DGT9/P41	O	GRID 5
56	DGT8/P40	O	GRID 6
57 63	SEG0/DGT7/P77 SEG6/DGT1/P71	O	GRID 7 GRID 13
64	SEG7/DGY0/P7	O	SEGMENT 17
65 72	SEG8/P87 SEG15/P80	O	SEGMENT 18 SEGMENT 25
73 88	SEG16/P97 SEG31/PB3	O	SEGMENT 1 SEGMENT 16
89	SEG32/PB2	O	STANDBY LED
90	SEG33/PB1	O	EXPANSION BU2092 LCK
91	SEG34/PB0	O	EXPANSION BU2092 DATA
92	SEG35/PD7	O	EXPANSION BU2092 CLK
93	SEG36/PD6	O	FRONT SPK RELAY
94	SEG37/PD5	O	CENTER SPK RELAY
95	SEG38/PD4	O	REAR SPK RELAY
96	SEG39/PD3	O	POWER ON
97	SEG40/PD2	O	SWITCH MODE ON
98	SEG41/PD1	O	SUBWFR MUTE
99	SEG42/PD0	O	SOURCE MUTE
100	VPP	O	VPP

■ BU2092 (IC642) : Port expander

1. Terminal Layout

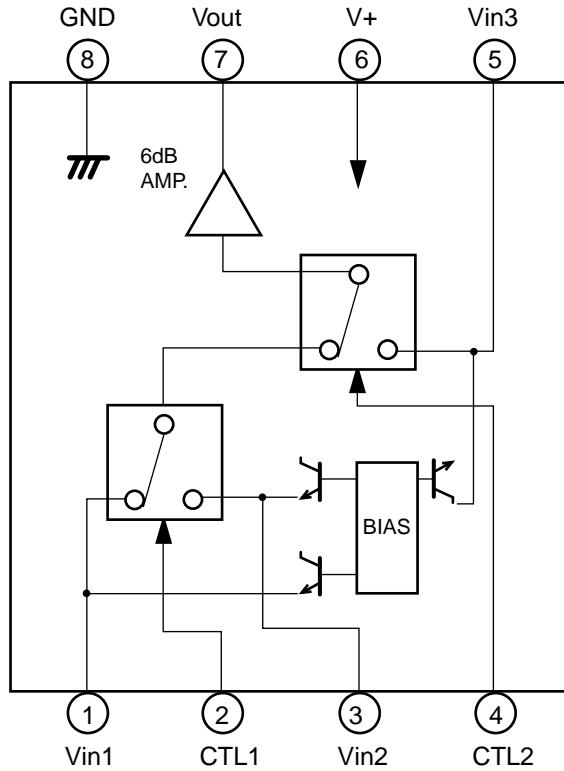


2. Pin Function

Pin No.	Symbol	I/O	Function						
1	Vss	-	Connect to GND						
2	DATA	I	Serial Data input						
3	CLOCK	I	Shift Clock of Data						
4	LCK	I	Latch Clock of Data						
5~16	Q0~Q11	O	Parallel Data Output <table border="1" style="margin-left: 20px;"> <tr> <td>Latch Data</td> <td>L</td> <td>H</td> </tr> <tr> <td>OUTPUT</td> <td>ON</td> <td>OFF</td> </tr> </table>	Latch Data	L	H	OUTPUT	ON	OFF
Latch Data	L	H							
OUTPUT	ON	OFF							
17	$\overline{\text{OE}}$	I	Output Enable						
18	Vdd	-	Power Supply						

■ NJM2246M (IC511,IC512,IC513) : Video switch

Block diagram

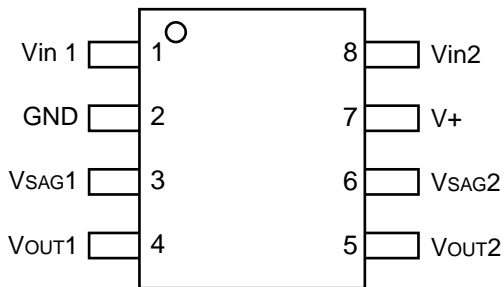


INPUT CONTROL SIGNAL- OUTPUT SIGNAL

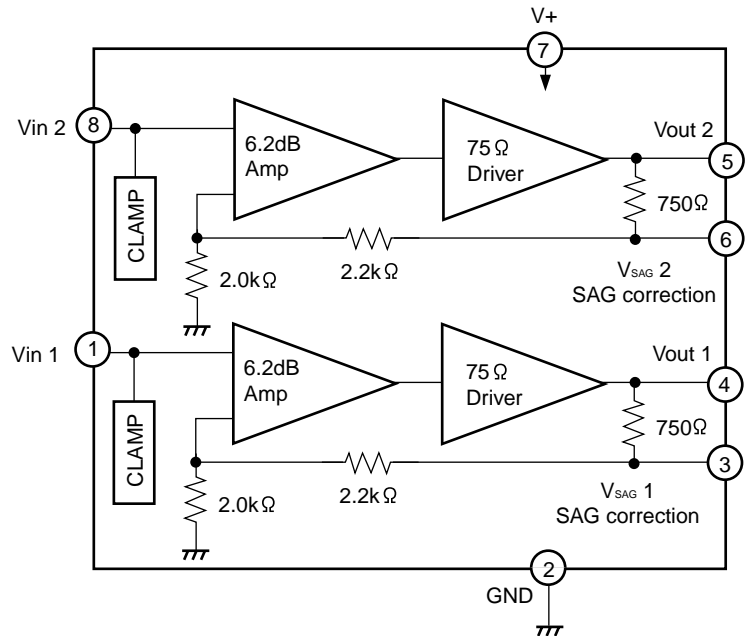
CTL1	CTL2	OUTPUT SIGNAL
L	L	Vin1
H	L	Vin2
L/H	H	Vin3

■ NJM2267M (IC516) : Video switch

1. Pin layout

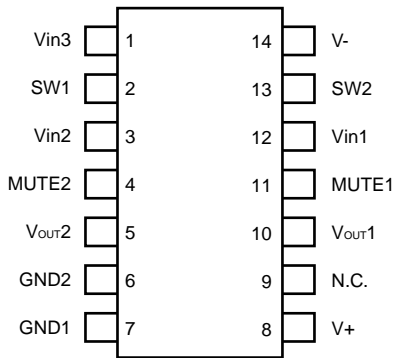


2. Block diagram

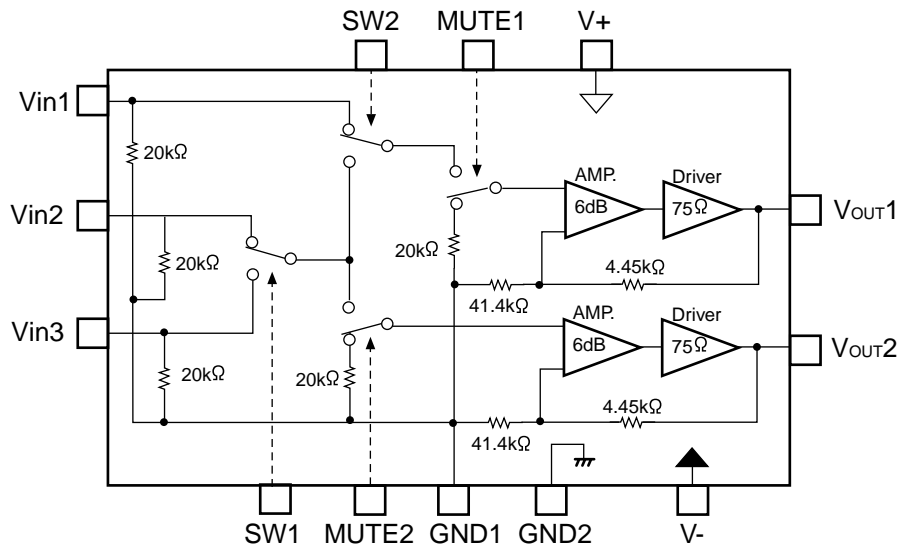


■ NJM2279M (IC515) : Video switch

1. Pin layout

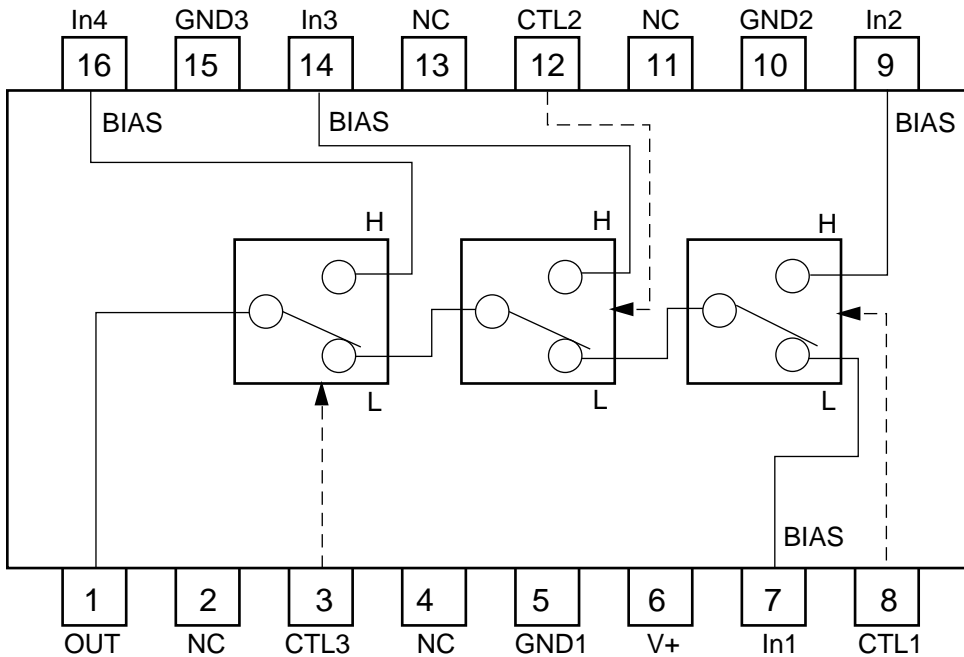


2. Block diagram



■ NJM2293 (IC514) : Video switch

Block diagram



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