

# MA-20D

DIGITAL STEREO MICRO MONITOR

## SERVICE NOTES *Issued by RJA*

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# SPECIFICATIONS

## MA-20D: DIGITAL STEREO MICRO MONITOR

- Rated Power Output  
40 W (20 W + 20 W)
- Speaker Units  
Woofer: 12 cm / 4-3/4 inch (Magnetically-Shielded)  
Tweeter: 4 cm / 1-5/8 inch (Magnetically-Shielded)
- Frequency Range  
50 Hz to 22 kHz
- Nominal Input Level  
Line 1: -10 dBu  
Line 2: -10 dBu
- Input Impedance  
18 k ohms
- Controls
- Power Supply  
AC 117 V, AC 230 V or AC 240 V
- Current Draw  
230 mA (AC 117 V) x 2  
120 mA (AC 230 V) x 2  
110 mA (AC 240 V) x 2
- Dimensions

### < R Channel >

- BASS Control Knob
- TREBLE Control Knob
- VOLUME Knob x 2
- VOLUME 1 (digital input + RCA phono)
- VOLUME 2 (1/4 inch phono)

- POWER Switch  
Digital Input Select Switch

### < L Channel >

- POWER Switch

- Indicators

### < R Channel/L Channel >

- Power Indicator

- Connectors

### < R Channel >

- Front: PHONES Jack (stereo 1/4 inch phone type)
- Rear: LINE 1 Jacks (L, R) (RCA phono type)
- LINE 2 Jacks (L (MONO), R) (1/4 inch phone type)
- L Channel Output Jack (RCA phono type)
- Digital Input Connector (Optical)
- Digital Input Connector (Coaxial)

### < L Channel >

- Rear: L Channel Input Jack (RCA phono type)

- Digital Input Section  
Sampling Rate: 32/44.1/48/96 kHz  
D/A Converter: 24 bits

- Enclosure  
2-way Bass-reflex type (Wooden Cabinet)

### < R Channel >

- 170 (W) x 261 (D) x 280 (H) mm  
6-3/4 (W) x 10-5/16 (D) x 11-1/16 (H) inches

### < L Channel >

- 170 (W) x 256 (D) x 280 (H) mm  
6-3/4 (W) x 10-1/8 (D) x 11-1/16 (H) inches

- Weight

### < R Channel >

- 4.5 kg / 9 lbs 15 oz

### < L Channel >

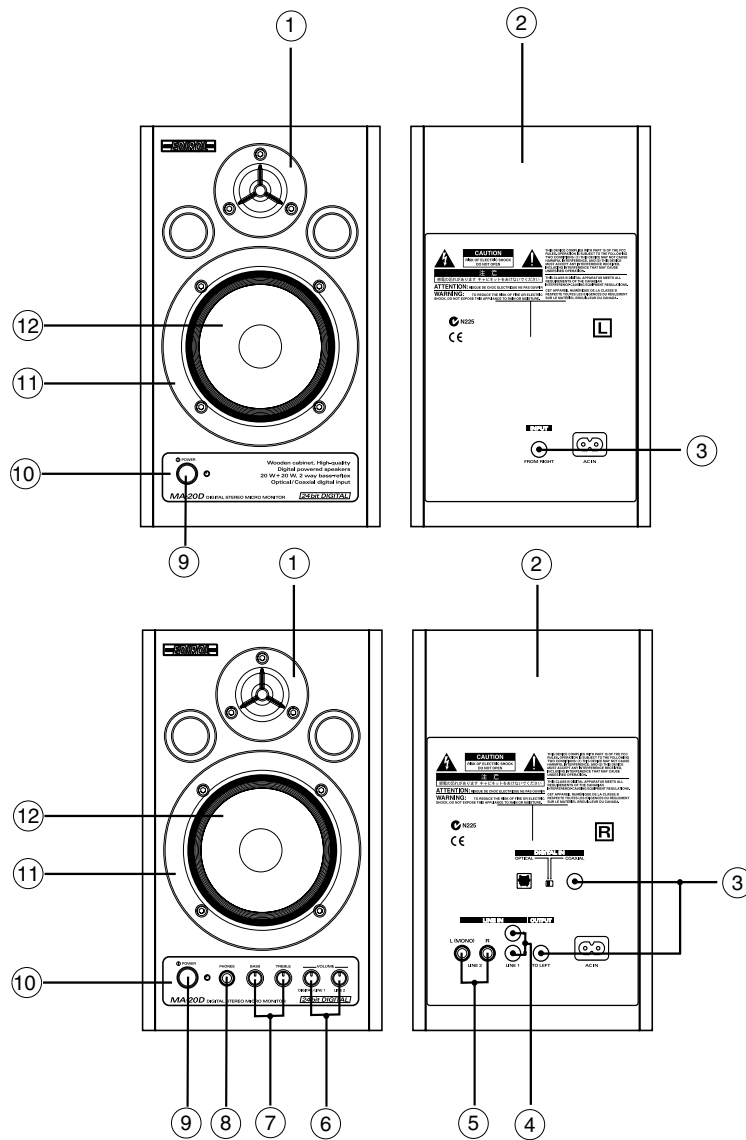
- 4.2 kg / 9 lbs 5 oz

- Accessories  
Owner's Manual 5-Language (#03234634)  
AC Cord 120V (#03345078)  
AC Cord 230V (#03345045)  
AC Cord 230VE (#03345056)  
AC Cord 240VA (#03345067)  
Speaker Cable (RCA phono type) (#03346101)  
Rubber Foot x8 (#03346123)

\* 0 dBu = 0.775 V rms

\* In the interest of product improvement, the specifications and/or appearance of this unit are subject to change without prior notice.

# LOCATION OF LONTROLS



# LOCATION OF CONTROLS PARTS LIST

No.	PART CODE	PART NAME	DESCRIPTION	Q'TY
1	C5700002	SPEAKER TWEETER	FH25G 38-1	2
2	C6500008	SPEAKER BOX	(INC. EDIROL BAGE & PORT)	2
3	C2300005	RCA PIN JACK	RJ-108-01-0541A	3
4	C2300004	RCA PIN JACK	RJ-1060-09-0521A	1
5	*****	6.5MM JACK	JY-6313-02-1301	2
6	C6200011	R-KNOB		2
	C2200001	9M/M POTENTIOMETER	RK097 1220(203A)	2
7	01340412	P R-KNOB	SF-A BLK/LCG	2
	C2200002	9M/M POTENTIOMETER	RK097 1210(203B)	2
8	*****	6.5MM JACK	JY-6359-01-090	1
9	C6200010	R-KEYTOP		2
	C2400002	POWER SWITCH	SDKLA10200	2
10	C6200007	FRONT PANEL L		1
	C6200008	FRONT PANEL R		1
11	C6200001	SPEAKER GRILLE RING		2
12	C5700001	SPEAKER WOOFER	F120G 112-1	2

# PARTS LIST

**SAFETY PRECAUTIONS:**

The parts marked  $\Delta$  have safety-related characteristics. Use only listed parts for replacement.

**CONSIDERATION ON PARTS ORDRING**

When ordering any parts listed in the parts list, please specify the following items in the order sheet.

	QTY	PART NUMBER	DESCRIPTION	MODEL NUMBER
Ex.	10	22575241	Sharp Key	C-20/50
	15	2247017300	Knob (orange)	DAC-15D

Failure to completely fill the above items with correct number and description will result in delayed or even undelivered replacement.

NOTE: The parts marked # are new. (initial parts)

DB -> PWB DIGITAL PCB ASSY, AB -> PWB ANALOG PCB ASSY

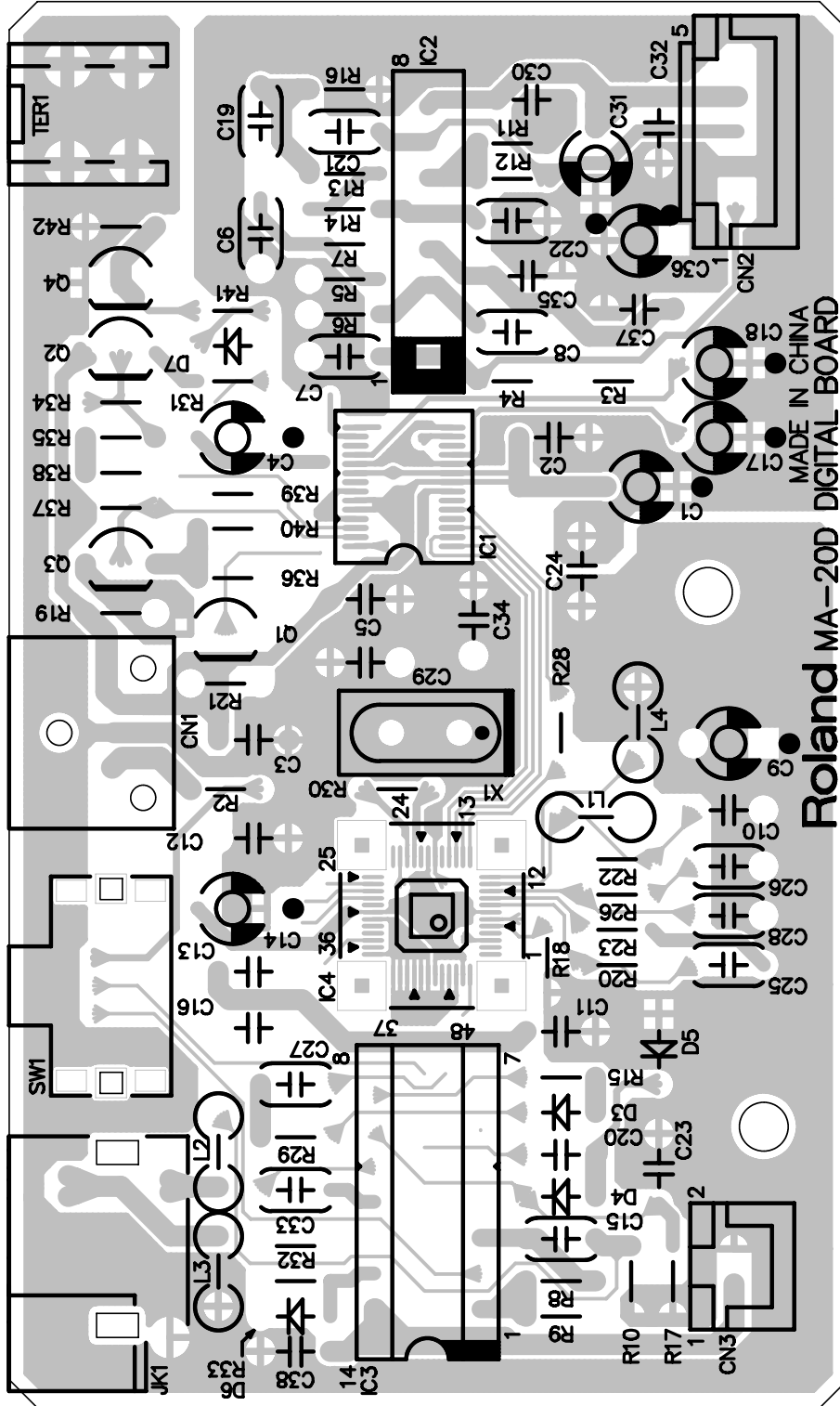
<b>CASING</b>					<b>Q'TY</b>
#	C6200007	FRONT PANEL L			1
#	C6200008	FRONT PANEL R			1
#	C6200010	R-KEYTOP			2
#	C6200011	R-KNOB			4
#	C6500008	SPEAKER BOX	(INC. EDIROL BAGE & PORT)		2
#	C6200001	SPEAKER GRILLE RING			2
<b>SWITCH</b>					
$\Delta$ #	C2400002	SDKLA10200	POWER SWITCH	SW1	2
<b>JACK, EXT TERMINAL</b>					
#	C2300004	RJ-1060-09-0521A	RCA PIN JACK	JK4 on AB	1
#	C2300005	RJ-108-01-0541A	RCA PIN JACK	JK5, JK7 on AB. JK1 on DB	3
<b>PCB ASSY</b>					
#	03346389	PWB DIGITAL PCB ASSY			1
#	03346378	PWB ANALOG PCB ASSY			1
<b>IC</b>					
$\Delta$	F5189113	TDA7298	IC (POWER)	IC7, IC10 on AB	2
<b>POTENTIOMETER</b>					
#	C2200001	RK097 1220(203A)	9M/M POTENTIOMETER	VR2, VR4 on AB	2
#	C2200002	RK097 1210(203B)	9M/M POTENTIOMETER	VR1, VR3 on AB	2
<b>SPEAKER, BUZZER</b>					
$\Delta$ #	C5700001	F120G 112-1	SPEAKER WOOFER		2
$\Delta$ #	C5700002	FH25G 38-1	SPEAKER TWEETER		2
<b>TRANSFORMER</b>					
$\Delta$ #	C5800001	TF-G069 100V/50Hz	POWER TRANSFORMER		1
$\Delta$ #	C5800002	TF-G078 117V/60Hz	POWER TRANSFORMER		1
$\Delta$ #	C5800003	TF-G079 230V/50Hz	POWER TRANSFORMER		1
$\Delta$ #	C5800004	TF-G080 240V/50Hz	POWER TRANSFORMER		1
<b>FUSE</b>					
$\Delta$ #	C2600001	5ST2 2A/250V	FUSE	F1 on AB	1
$\Delta$ #	F2559124	5TI750 750mA/250V	FUSE	F2, F3 on AB	2
$\Delta$ #	F2559503	5ST315 315mA/250V	FUSE	F2, F3 on AB	2
<b>PACKING</b>					
#	03234656	PACKING CASE GIFT BOX			1
#	40562201	GIFT BOX LABEL FRONT	for JAPANESE		1
#	40562212	GIFT BOX LABEL REAR	for JAPANESE		1
<b>ACCESSORIES (STANDARD)</b>					
#	03234623	OWNER'S MANUAL	JAPANESE		1
#	03234634	OWNER'S MANUAL	5-LANGUAGE		1
$\Delta$ #	03346212	AC CORD 100V			1
$\Delta$ #	03345078	AC CORD 120V			1
$\Delta$ #	03345045	AC CORD 230V			1

**ACCESSORIES (STANDARD)**

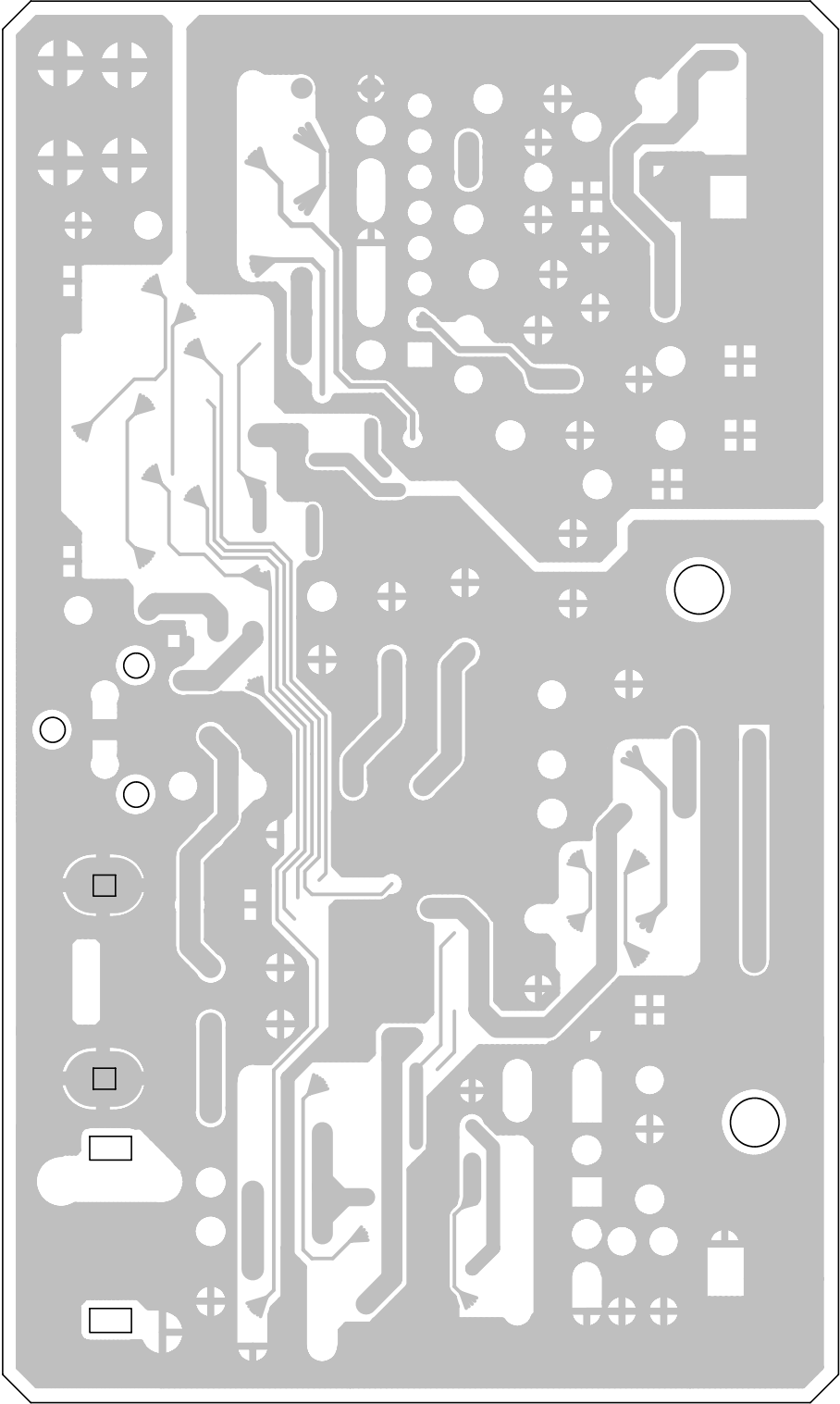
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△	#	03345056	AC CORD 230VE		1
△	#	03345067	AC CORD 240VA		1
	#	03346101	RCA PIN SPEAKER CABLE		1
	#	03346123	RUBBER FOOT		8
		40348001	WARANNTY CARD	(JAPAN ONLY)	1

# CIRCUIT BOARD (DIGITAL)

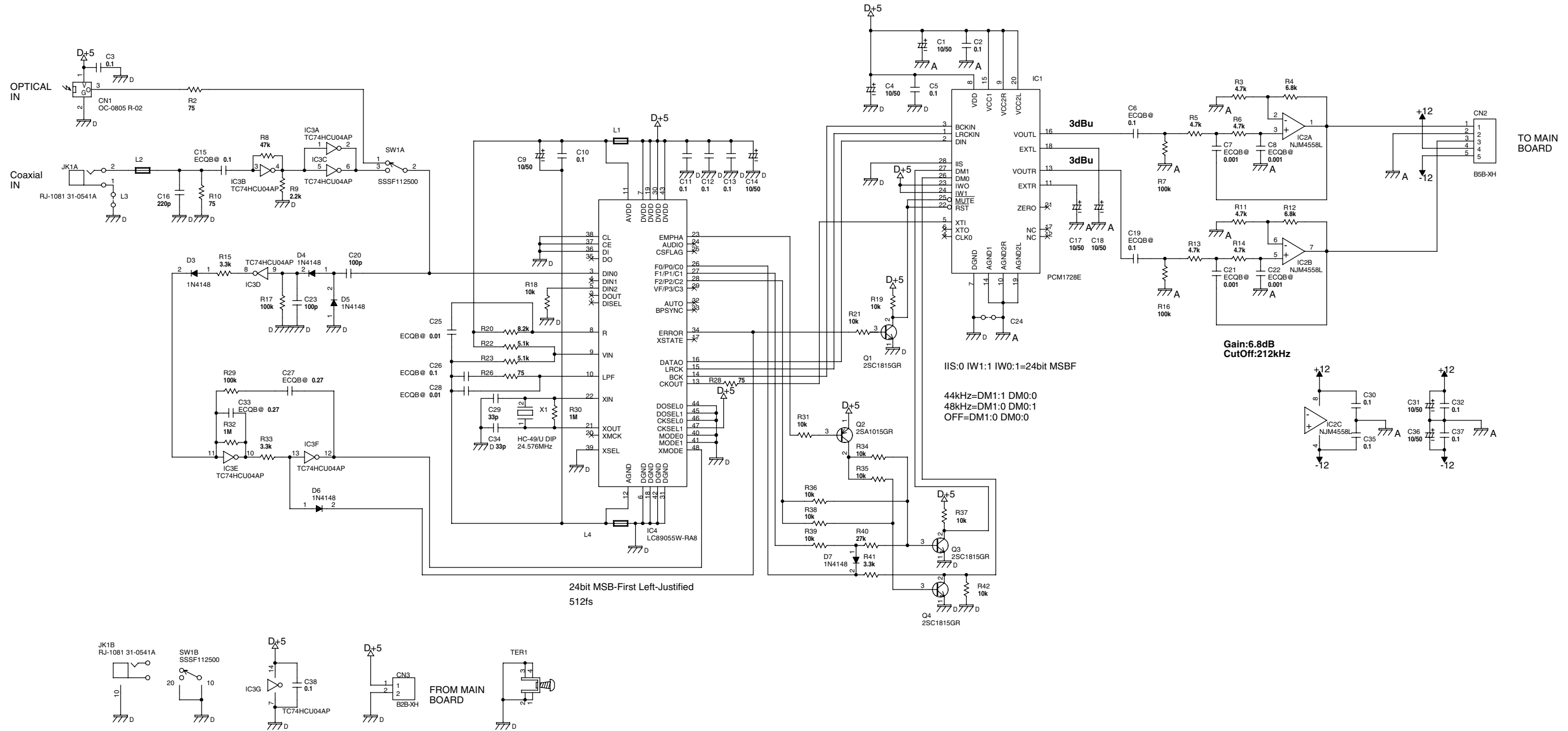


View from components side



View from foil side

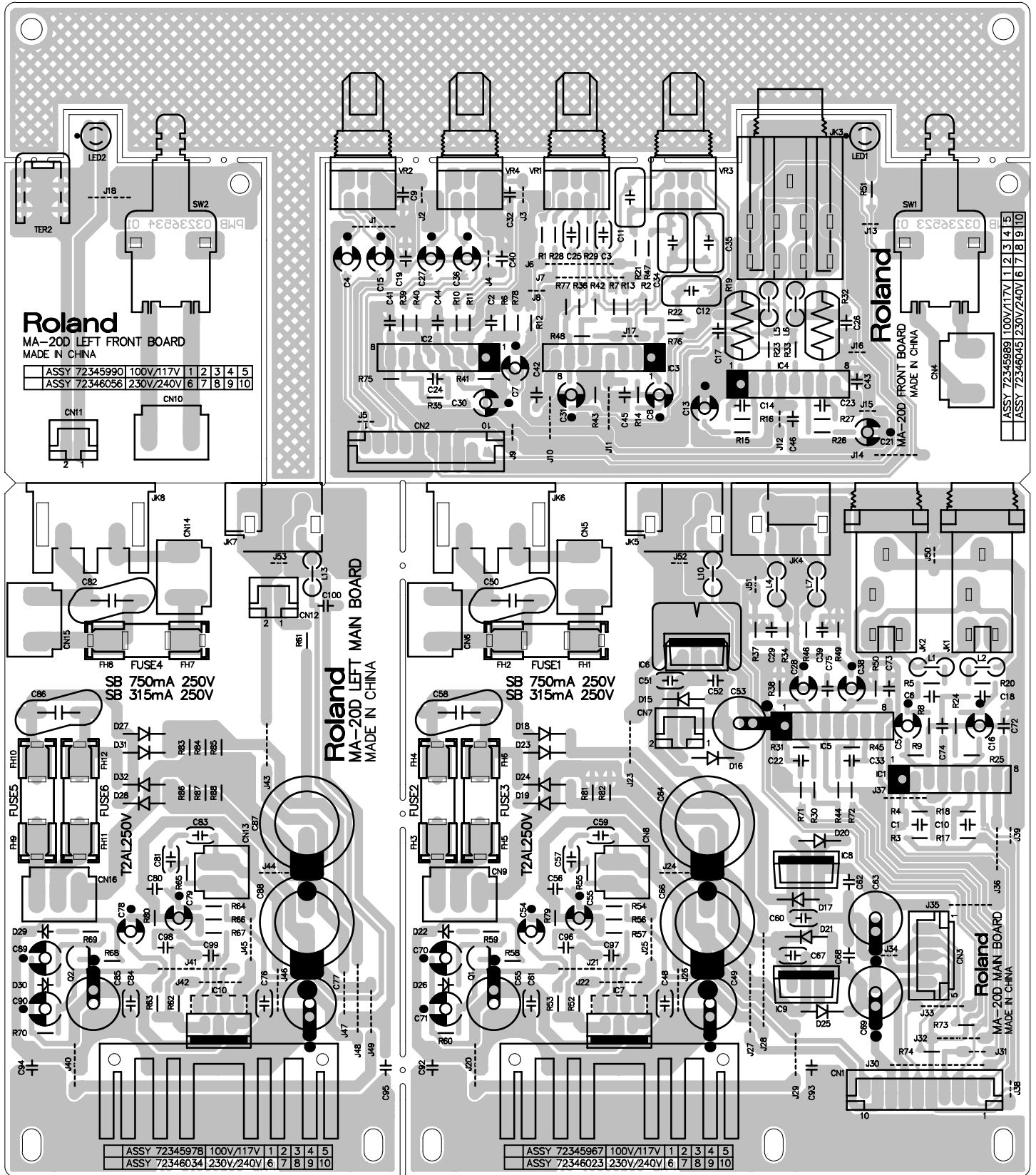
# CIRCUIT DIAGRAM (DIGITAL)



## DIGITAL BOARD



# CIRCUIT BOARD (MAIN)

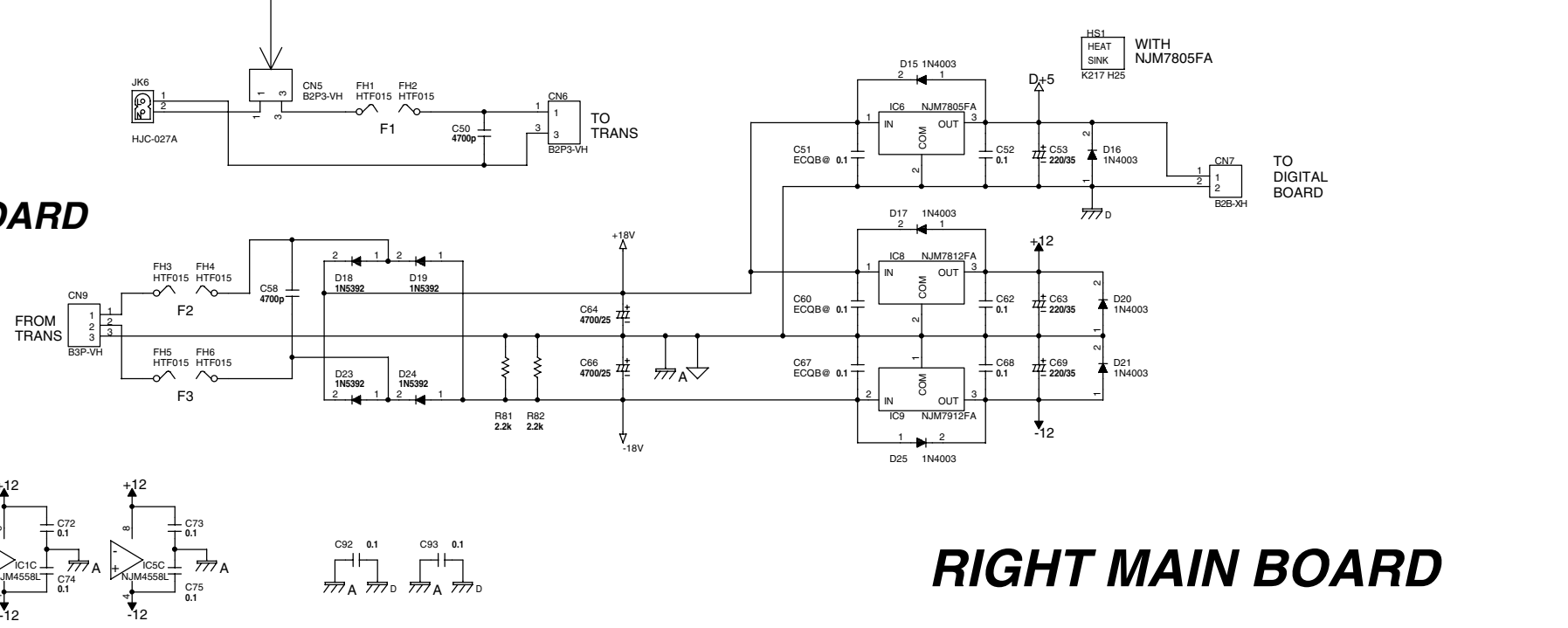
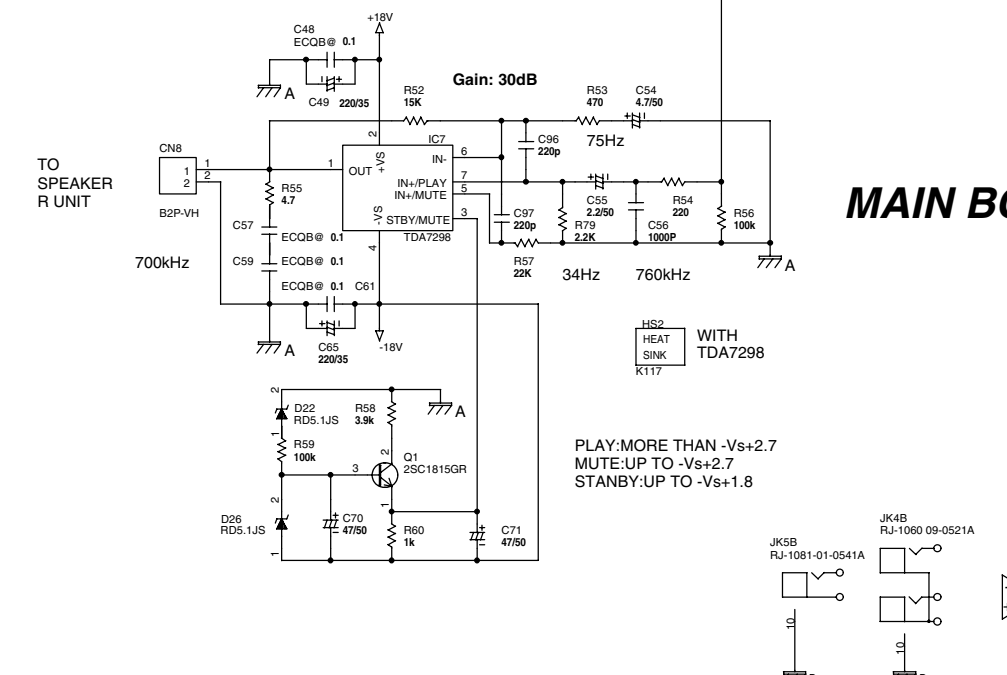
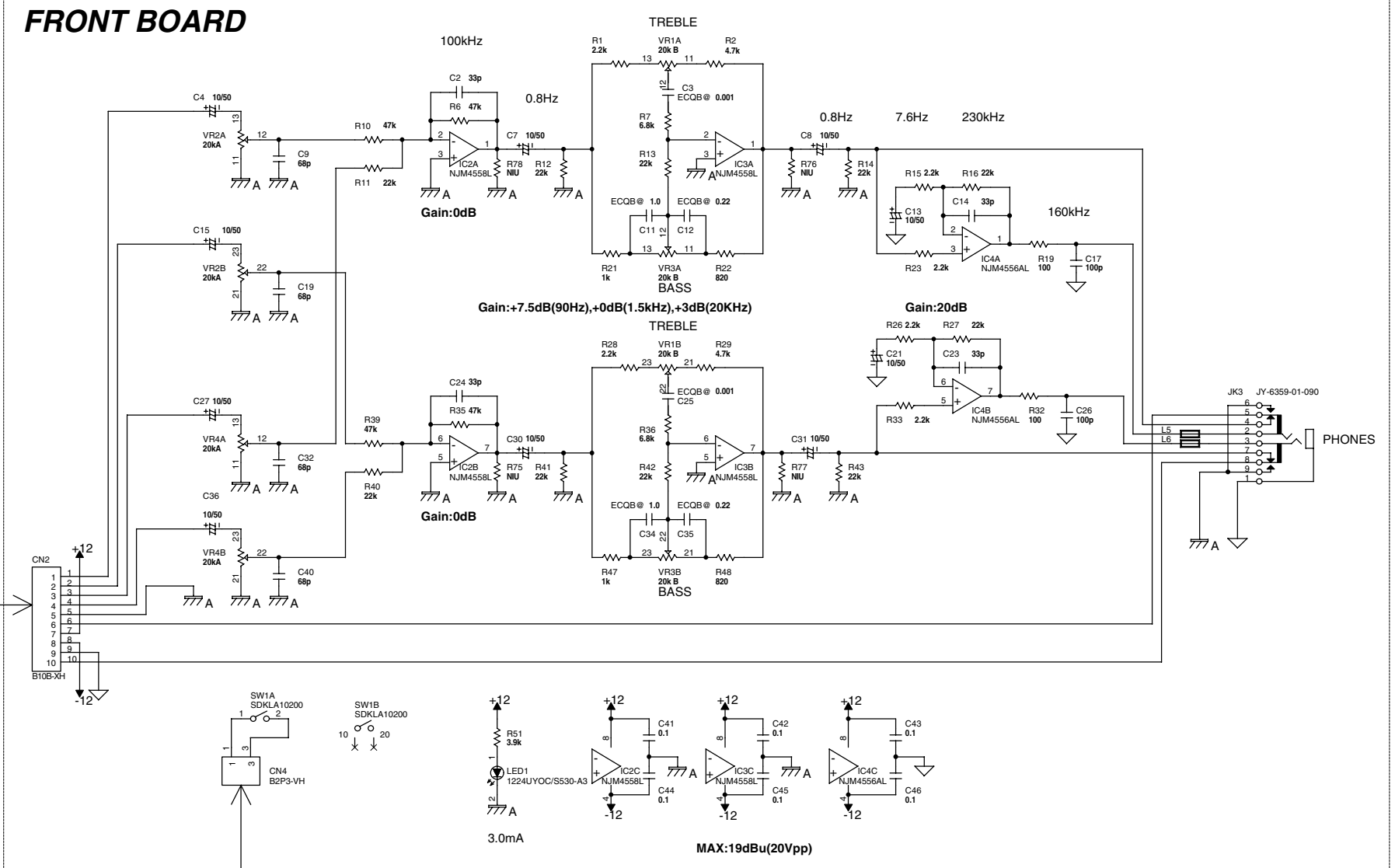
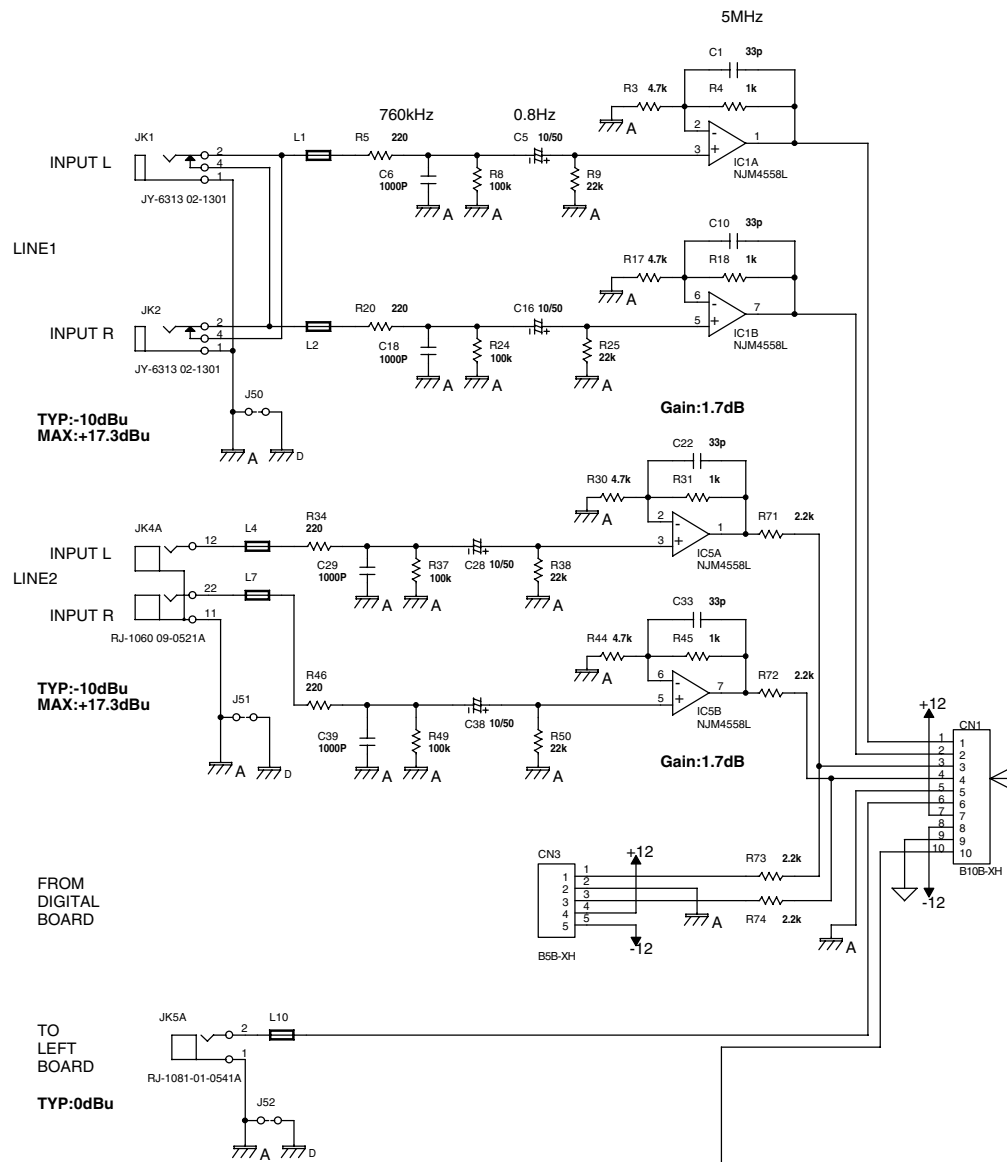


View from components side

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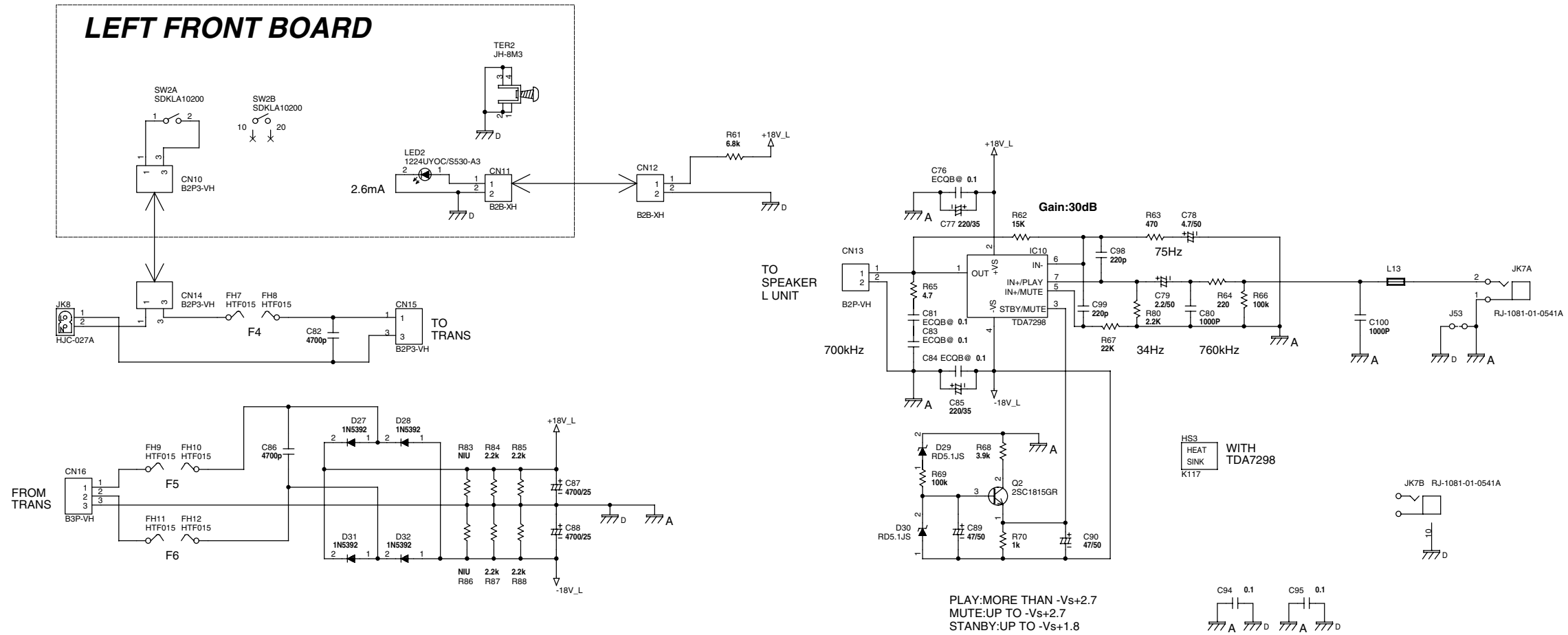


# CIRCUIT DIAGRAM (MAIN)



## RIGHT MAIN BOARD

# CIRCUIT DIAGRAM (MAIN)



# LEFT MAIN BOARD