# o ICOM

# SERVICE MANUAL

# COMMUNICATIONS RECEIVER

Icom Inc.

## INTRODUCTION

This service manual describes the latest information for the IC-R10 at the time of publication.

MODEL	VERSION	SYMBOL
	U.S.A.	USA
	France	FRA
IC-R10	U.K.	UK
	Europe	EUR

# DANGER

NEVER connect the receiver to an AC outlet or to a DC power supply that uses more than 16 V. Such a connection could cause a fire hazard and/or electric shock.

DO NOT expose the receiver to rain, snow or any liquids.

DO NOT reverse the polarities of the power supply when connecting the receiver.

DO NOT apply an RF signal of more than 20 dBm (100 mW) to the antenna connector. This could damage the receiver's front end.

# **ORDERING PARTS**

Be sure to include the following four points when ordering replacement parts:

- 1. 10-digit order numbers
- 2. Component part number and name
- 3. Equipment model name and unit name
- 4. Quantity required

## <SAMPLE ORDER>

1110001810 S.IC TA7368F IC-R10 MAIN UNIT 1 piece 8810009560 Screw FH M2 x 6 ZK (BT) IC-R10 CHASSIS 7 pieces

Addresses are provided on the inside back cover for your convenience.



## **REPAIR NOTES**

- 1. Make sure a problem is internal before disassembling the receiver.
- 2. DO NOT open the receiver until the receiver is disconnected from its power source.
- DO NOT force any of the variable components. Turn them slowly and smoothly.
- DO NOT short any circuits or electronic parts. An insulated tuning tool MUST be used for all adjustments.
- DO NOT keep power ON for a long time when the receiver is defective.
- READ the instructions of test equipment thoroughly before connecting equipment to the receiver.

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#### **SPECIFICATIONS SECTION 1**

## ■ GENERAL

<ul> <li>Frequency range</li> </ul>	VERSION	FREQUENCY RANGE			
	Europe, U.K.		500 kHz-130	0 MHz	
	France		500 kHz-87.		
	500 kHz–823.9999 MHz U.S.A. 849.0001–868.9999 MHz				
	U.S.A.		349.0001-868 394.0001-130		
<b>N</b> A 1					10.4 million (1990)
• Mode	: FM, WFM, AM, USB, LSB,		E 00 E0 100		
Tuning steps	: 0.1, 0.5, 1, 5, 6.25, 8, 9, 10, user-programmable (0.1–99	9.9 kHz/0.1 kH	z steps)		
<ul> <li>Power supply requirement</li> </ul>	: 4.8 V DC (4 AA (R6) Ni-Cd		6 V DC accep	otable (negativ	ve ground)
Current drain (at 13.5 V DC)	: Rated audio 180 mA typ Standby 110 mA typ Power saved 38 mA typ.	).			
Usable temperature range	: –10°C to +50°C; +14°F to +	122°F			
Antenna connector	: BNC (50 Ω)				
Scan speed	: 16.7 ch/sec. (programmed s	scan), 6.25 ch/s	ec. (memory	scan)	
CI-V connector	: 3-conductor 3.5 (d) mm (1/8	')			
Dimensions (projections not include	ed): 58.5 (W) $ imes$ 130 (H) $ imes$ 31.3 (	(D) mm; 2.3 (W)	) $\times$ 5.1 (H) $\times$	1.2 (D) in	
• Weight	: 310 g; 10.9 oz.				
<ul> <li>RECEIVER</li> <li>Receive system</li> </ul>	: Triple-conversion superhete	rodyne			
	: 1st 266.7 MHz (340.0	000-999.9999 N	MHz)		
Receive system	: 1st 266.7 MHz (340.00 429.1 MHz (excep	000-999.9999 N	MHz)		
Receive system	: 1st 266.7 MHz (340.0) 429.1 MHz (excep 2nd 10.7 MHz	000-999.9999 N	MHz)		
<ul><li>Receive system</li><li>Intermediate freq.</li></ul>	: 1st 266.7 MHz (340.0) 429.1 MHz (excep 2nd 10.7 MHz 3rd 455 kHz	000–999.9999 M t above freq.)			CORION
<ul><li>Receive system</li><li>Intermediate freq.</li></ul>	: 1st 266.7 MHz (340.0 429.1 MHz (excep 2nd 10.7 MHz 3rd 455 kHz : FREQUENCY (MHz)	000–999.9999 N t above freq.)	WHz)	<b>AM</b>	SSB/CW
<ul> <li>Receive system</li> <li>Intermediate freq.</li> <li>Sensitivity</li> </ul>	1st       266.7 MHz (340.00 429.1 MHz (excep)         2nd       10.7 MHz         3rd       455 kHz         FREQUENCY (MHz)         0.5 -       4.9999	000–999.9999 Ν t above freq.) <b>FM</b> 0.50 μV		1.6 µV	<b>SSB/CW</b> 0.40 μV
<ul> <li>Receive system</li> <li>Intermediate freq.</li> <li>Sensitivity</li> </ul>	1st       266.7 MHz (340.00 429.1 MHz (excep)         2nd       10.7 MHz         3rd       455 kHz         FREQUENCY (MHz)         0.5 -       4.9999         5.0 -       74.9999	000–999.9999 N t above freq.)	WFM 		
<ul> <li>Receive system</li> <li>Intermediate freq.</li> <li>Sensitivity</li> </ul>	1st       266.7 MHz (340.00 429.1 MHz (excep)         2nd       10.7 MHz         3rd       455 kHz         FREQUENCY (MHz)         0.5 -       4.9999	000–999.9999 Ν t above freq.) FM 0.50 μV 0.32 μV		1.6 µV	0.40 µV
<ul> <li>Receive system</li> <li>Intermediate freq.</li> <li>Sensitivity</li> </ul>	<ul> <li>1st 266.7 MHz (340.0) 429.1 MHz (excep 2nd 10.7 MHz 3rd 455 kHz</li> <li>FREQUENCY (MHz) 0.5 - 4.9999 5.0 - 74.9999 75.0 - 199.9999</li> </ul>	000–999.9999 Ν t above freq.) <b>FM</b> 0.50 μV	<b>WFM</b> — — 1.0 μV	1.6 μV 1.0 μV	0.40 μV 0.25 μV
<ul> <li>Receive system</li> <li>Intermediate freq.</li> <li>Sensitivity</li> </ul>	1st       266.7 MHz (340.00 429.1 MHz (excep)         2nd       10.7 MHz         3rd       455 kHz         FREQUENCY (MHz)         0.5 -       4.9999         5.0 -       74.9999         75.0 -       199.9999         200.0 -       339.9999	<b>FM</b> 0.50 μV 0.32 μV 0.45 μV	<b>WFM</b> — 1.0 μV 2.2 μV	1.6 μV 1.0 μV 1.6 μV	0.40 μV 0.25 μV 0.40 μV
<ul> <li>Receive system</li> <li>Intermediate freq.</li> <li>Sensitivity</li> </ul>	: 1st       266.7 MHz (340.00 429.1 MHz (excep)         2nd       10.7 MHz         3rd       455 kHz         FREQUENCY (MHz)         0.5 -       4.9999         5.0 -       74.9999         75.0 -       199.9999         200.0 -       339.9999         340.0 -       699.9999         700.0 -       799.9999         800.0 -       899.9999	FM           0.50 μV           0.32 μV           0.35 μV           0.35 μV	<b>WFM</b> — 1.0 μV 2.2 μV 1.3 μV	1.6 μV 1.0 μV 1.6 μV 1.4 μV 2.0 μV	0.40 μV 0.25 μV 0.40 μV 0.32 μV 0.63 μV
<ul> <li>Receive system</li> <li>Intermediate freq.</li> <li>Sensitivity</li> </ul>	1st       266.7 MHz (340.00 429.1 MHz (excep)         2nd       10.7 MHz         3rd       455 kHz         FREQUENCY (MHz)         0.5 -       4.9999         5.0 -       74.9999         75.0 -       199.9999         200.0 -       339.9999         340.0 -       699.9999         700.0 -       799.9999         800.0 -       899.9999         900.0 -       1300.0000	FM           0.50 μV           0.32 μV           0.35 μV           0.35 μV           0.35 μV           0.35 μV	<b>WFM</b> — 1.0 μV 2.2 μV 1.3 μV 2.0 μV 1.6 μV —	1.6 μV 1.0 μV 1.6 μV 1.4 μV 2.0 μV 1.6 μV	0.40 μV 0.25 μV 0.40 μV 0.32 μV 0.63 μV 0.40 μV
<ul> <li>Receive system</li> <li>Intermediate freq.</li> <li>Sensitivity</li> </ul>	: 1st       266.7 MHz (340.00 429.1 MHz (excep)         2nd       10.7 MHz         3rd       455 kHz         FREQUENCY (MHz)         0.5 -       4.9999         5.0 -       74.9999         75.0 -       199.9999         200.0 -       339.9999         340.0 -       699.9999         700.0 -       799.9999         800.0 -       899.9999	FM           0.50 μV           0.32 μV           0.35 μV           0.35 μV           0.35 μV           0.35 μV	<b>WFM</b> — 1.0 μV 2.2 μV 1.3 μV 2.0 μV 1.6 μV —	1.6 μV 1.0 μV 1.6 μV 1.4 μV 2.0 μV 1.6 μV	0.40 μV 0.25 μV 0.40 μV 0.32 μV 0.63 μV 0.40 μV
<ul> <li>Receive system</li> <li>Intermediate freq.</li> <li>Sensitivity (typical, except spurious points)</li> </ul>	1st       266.7 MHz (340.00 429.1 MHz (excep)         2nd       10.7 MHz         3rd       455 kHz         FREQUENCY (MHz)         0.5 -       4.9999         5.0 -       74.9999         75.0 -       199.9999         200.0 -       339.9999         340.0 -       699.9999         700.0 -       799.9999         800.0 -       899.9999         900.0 -       1300.0000	FM           0.50 μV           0.32 μV           0.35 μV           0.35 μV           0.35 μV           0.35 μV	<b>WFM</b> — 1.0 μV 2.2 μV 1.3 μV 2.0 μV 1.6 μV —	1.6 μV 1.0 μV 1.6 μV 1.4 μV 2.0 μV 1.6 μV	0.40 μV 0.25 μV 0.40 μV 0.32 μV 0.63 μV 0.40 μV
<ul> <li>Receive system</li> <li>Intermediate freq.</li> <li>Sensitivity (typical, except spurious points)</li> </ul>	1st       266.7 MHz (340.00 429.1 MHz (excep)         2nd       10.7 MHz         3rd       455 kHz         FREQUENCY (MHz)         0.5 -       4.9999         5.0 -       74.9999         75.0 -       199.9999         200.0 -       339.9999         340.0 -       699.9999         700.0 -       799.9999         800.0 -       899.9999         900.0 -       1300.0000         *FM and WFM are measured a	FM           0.50 μV           0.32 μV           0.35 μV           0.35 μV           0.35 μV           0.50 μV	WFM — 1.0 μV 2.2 μV 1.3 μV 2.0 μV 1.6 μV — 	1.6 μV 1.0 μV 1.6 μV 1.4 μV 2.0 μV 1.6 μV W are measure	0.40 μV 0.25 μV 0.40 μV 0.32 μV 0.63 μV 0.40 μV
<ul> <li>Receive system</li> <li>Intermediate freq.</li> <li>Sensitivity (typical, except spurious points)</li> </ul>	1st       266.7 MHz (340.00 429.1 MHz (excep)         2nd       10.7 MHz         3rd       455 kHz         FREQUENCY (MHz)         0.5 -       4.9999         5.0 -       74.9999         75.0 -       199.9999         200.0 -       339.9999         340.0 -       699.9999         700.0 -       799.9999         800.0 -       899.9999         900.0 -       1300.0000         *FM and WFM are measured a	FM           0.50 μV           0.32 μV           0.35 μV           0.35 μV           0.35 μV           0.35 μV           0.50 μV           0.35 μV           0.50 μV           0.35 μV           0.79 μV           0.50 μV           0.50 μV	WFM — 1.0 μV 2.2 μV 1.3 μV 2.0 μV 1.6 μV — 	1.6 μV 1.0 μV 1.6 μV 1.4 μV 2.0 μV 1.6 μV W are measure <b>AM</b> 1.6 μV	0.40 μV 0.25 μV 0.40 μV 0.32 μV 0.63 μV 0.40 μV
<ul> <li>Receive system</li> <li>Intermediate freq.</li> <li>Sensitivity (typical, except spurious points)</li> </ul>	1st       266.7 MHz (340.04 429.1 MHz (excep)         2nd       10.7 MHz         3rd       455 kHz         FREQUENCY (MHz)         0.5 -       4.9999         5.0 -       74.9999         75.0 -       199.9999         200.0 -       339.9999         340.0 -       699.9999         700.0 -       799.9999         800.0 -       899.9999         900.0 -       1300.0000         *FM and WFM are measured a         FREQUENCY (MHz)         0.5 -       4.9999         5.0 -       74.9999         75.0 -       199.9999	FM           0.50 μV           0.32 μV           0.35 μV           0.79 μV           0.50 μV           0.35 μV           0.79 μV           0.50 μV           0.35 μV           0.79 μV           0.50 μV           0.50 μV           0.50 μV           0.50 μV	WFM — 1.0 μV 2.2 μV 1.3 μV 2.0 μV 1.6 μV — M, SSB and CV WFM — — 1.0 μV	1.6 μV 1.0 μV 1.6 μV 1.4 μV 2.0 μV 1.6 μV W are measure <b>AM</b> 1.6 μV 1.0 μV	0.40 μV 0.25 μV 0.40 μV 0.32 μV 0.63 μV 0.40 μV
<ul> <li>Receive system</li> <li>Intermediate freq.</li> <li>Sensitivity (typical, except spurious points)</li> </ul>	1st       266.7 MHz (340.0)         429.1 MHz (excep)         2nd       10.7 MHz         3rd       455 kHz         FREQUENCY (MHz)         0.5 -       4.9999         5.0 -       74.9999         75.0 -       199.9999         340.0 -       699.9999         300.0 -       799.9999         800.0 -       899.9999         90.0 -       1300.0000         *FM and WFM are measured a         FREQUENCY (MHz)         0.5 -       4.9999         5.0 -       74.9999         900.0 -       1300.0000         *FM and WFM are measured a         FREQUENCY (MHz)         0.5 -       4.9999         5.0 -       74.9999         75.0 -       199.9999         200.0 -       339.9999	FM           0.50 μV           0.32 μV           0.35 μV           0.50 μV           0.50 μV           0.50 μV           0.32 μV           0.32 μV           0.32 μV	WFM — 1.0 μV 2.2 μV 1.3 μV 2.0 μV 1.6 μV — M, SSB and CV WFM — 1.0 μV 2.2 μV	1.6 μV 1.0 μV 1.6 μV 2.0 μV 1.6 μV W are measure <b>AM</b> 1.6 μV 1.6 μV 1.6 μV	0.40 μV 0.25 μV 0.40 μV 0.32 μV 0.63 μV 0.40 μV
<ul> <li>Receive system</li> <li>Intermediate freq.</li> <li>Sensitivity (typical, except spurious points)</li> </ul>	1st       266.7 MHz (340.00 429.1 MHz (excep)         2nd       10.7 MHz         3rd       455 kHz         FREQUENCY (MHz)         0.5 -       4.9999         5.0 -       74.9999         75.0 -       199.9999         200.0 -       339.9999         340.0 -       699.9999         700.0 -       799.9999         800.0 -       899.9999         900.0 -       1300.0000         *FM and WFM are measured a         FREQUENCY (MHz)         0.5 -       4.9999         5.0 -       74.9999         75.0 -       199.9999         900.0 -       1300.0000	FM           0.50 μV           0.50 μV           0.32 μV           0.35 μV           0.35 μV           0.35 μV           0.50 μV           0.35 μV           0.35 μV           0.35 μV           0.50 μV           0.32 μV           0.32 μV           0.32 μV           0.35 μV	WFM — 1.0 μV 2.2 μV 1.3 μV 2.0 μV 1.6 μV — M, SSB and CV WFM — 1.0 μV 2.2 μV 1.3 μV	1.6 μV 1.0 μV 1.6 μV 1.4 μV 2.0 μV 1.6 μV M are measure <b>AM</b> 1.6 μV 1.0 μV 1.6 μV 1.4 μV	0.40 μV 0.25 μV 0.40 μV 0.32 μV 0.63 μV 0.40 μV
<ul> <li>Receive system</li> <li>Intermediate freq.</li> <li>Sensitivity</li> </ul>	1st       266.7 MHz (340.04         429.1 MHz (excep)         2nd       10.7 MHz         3rd       455 kHz         FREQUENCY (MHz)         0.5 -       4.9999         5.0 -       74.9999         75.0 -       199.9999         200.0 -       339.9999         340.0 -       699.9999         900.0 -       7300.0000         *FM and WFM are measured a         FREQUENCY (MHz)         0.5 -       4.9999         5.0 -       74.9999         700.0 -       799.9999         900.0 -       1300.0000         *FM and WFM are measured a         FREQUENCY (MHz)         0.5 -       4.9999         5.0 -       74.9999         75.0 -       199.9999         200.0 -       339.9999         340.0 -       699.9999         340.0 -       699.9999         340.0 -       799.9999         340.0 -       799.9999	FM           0.50 μV           0.32 μV           0.35 μV           0.50 μV           0.50 μV           0.50 μV           0.32 μV           0.32 μV           0.32 μV	WFM — 1.0 μV 2.2 μV 1.3 μV 2.0 μV 1.6 μV — M, SSB and CV WFM — 1.0 μV 2.2 μV 1.3 μV 2.0 μV	1.6 μV 1.0 μV 1.6 μV 2.0 μV 1.6 μV W are measure <b>AM</b> 1.6 μV 1.6 μV 1.6 μV	0.40 μV 0.25 μV 0.40 μV 0.32 μV 0.63 μV 0.40 μV
<ul> <li>Receive system</li> <li>Intermediate freq.</li> <li>Sensitivity (typical, except spurious points)</li> </ul>	1st       266.7 MHz (340.00 429.1 MHz (excep)         2nd       10.7 MHz         3rd       455 kHz         FREQUENCY (MHz)         0.5 -       4.9999         5.0 -       74.9999         75.0 -       199.9999         200.0 -       339.9999         340.0 -       699.9999         700.0 -       799.9999         800.0 -       899.9999         900.0 -       1300.0000         *FM and WFM are measured a         FREQUENCY (MHz)         0.5 -       4.9999         5.0 -       74.9999         75.0 -       199.9999         900.0 -       1300.0000	FM           0.50 μV           0.50 μV           0.32 μV           0.35 μV           0.35 μV           0.35 μV           0.50 μV           0.35 μV           0.35 μV           0.35 μV           0.50 μV           0.32 μV           0.32 μV           0.32 μV           0.35 μV	WFM — 1.0 μV 2.2 μV 1.3 μV 2.0 μV 1.6 μV — M, SSB and CV WFM — 1.0 μV 2.2 μV 1.3 μV	1.6 μV 1.0 μV 1.6 μV 1.4 μV 2.0 μV 1.6 μV M are measure <b>AM</b> 1.6 μV 1.0 μV 1.6 μV 1.4 μV	0.40 μV 0.25 μV 0.40 μV 0.32 μV 0.63 μV 0.40 μV

External speaker connector

• Audio output power (at 13.5 V DC)  $\therefore$  More than 120 mW at 10% distortion with an 8  $\Omega$  load

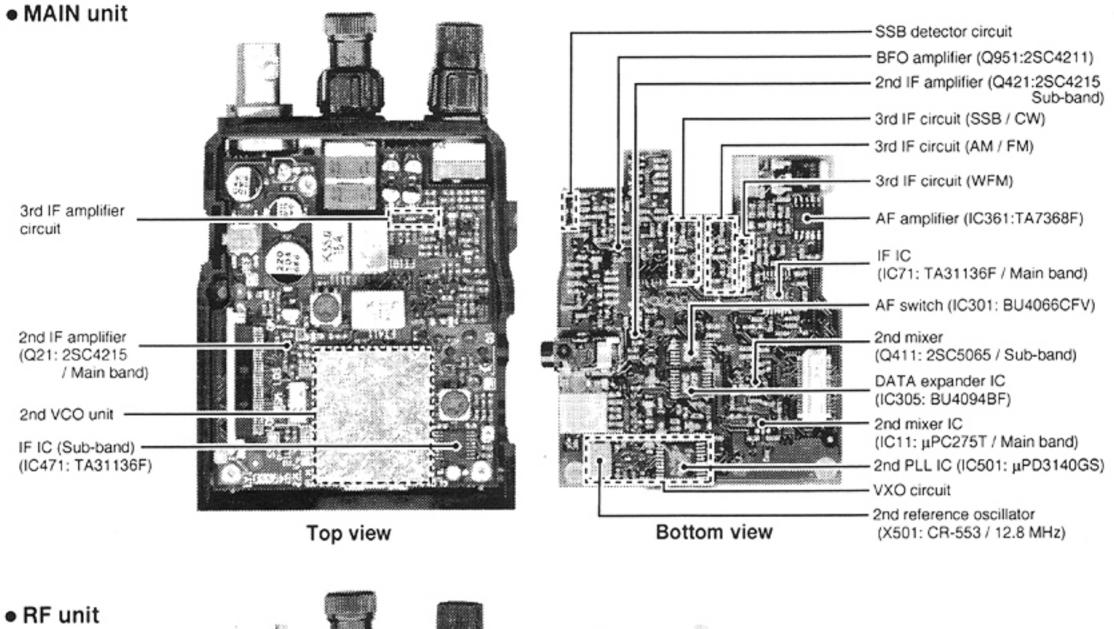
More than 15 kHz/6 dB

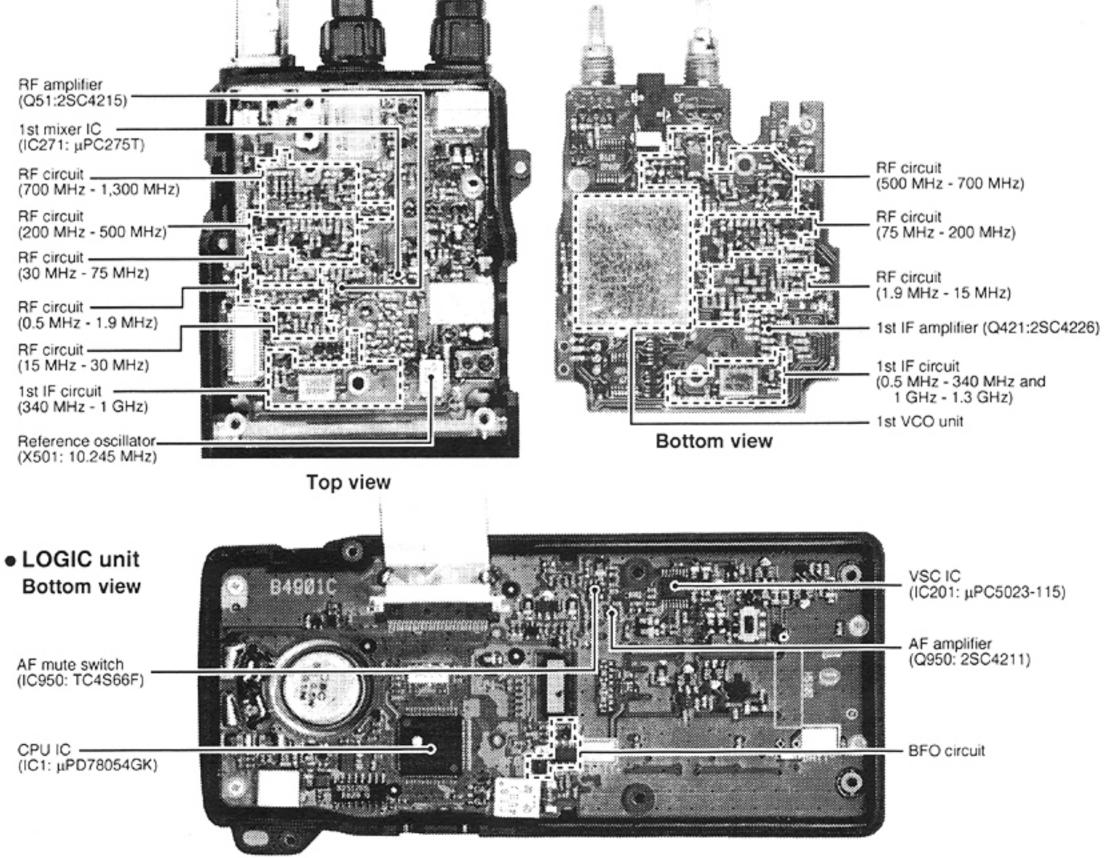
More than 150 kHz/6 dB

: 3-conductor 3.5 (d) mm (1/8")/8  $\Omega$ 

AM, FM WFM

# SECTION 2 INSIDE VIEWS

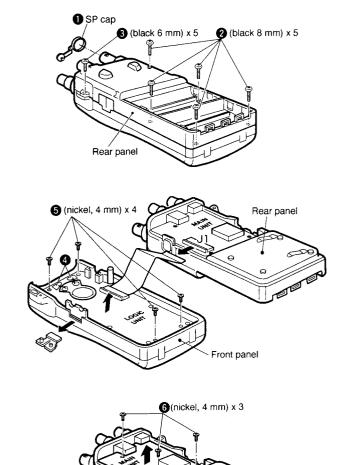




## SECTION 3 DISASSEMBLY INSTRUCTIONS

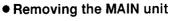
## • Opening the case

- (1) Remove the SP cap, ①.
- (2) Unscrew 6 screws, (2) and (3) to open the case.



## • Removing the LOGIC unit

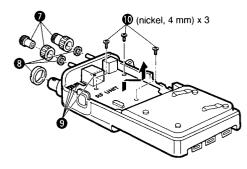
- ① Unplug J1 to separate the front panel and rear panel.
- 0 Unsolder 2 points 0 and unscrew 4 screws 0 .
- ③ Remove the LOGIC unit in the direction of the arrow.
   ※Be careful when pulling, pull up, LCD components are on the opposite side.

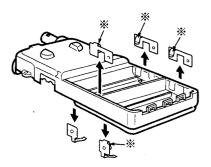


- ① Unscrew 3 screws 6.
- 2 Remove the MAIN unit in the direction of the arrow.

## Removing the RF unit

- 1) Remove 3 knobs 7) and unscrew 3 nuts 8).
- (2) Unsolder 4 points (9) and unscrew 3 screws (1).
- 3 Remove the RF unit in the direction of the arrow.





## Note

%When pulling the terminals, the  $\ominus$  side of each terminals has a piece of rubber affixed.

## SECTION 4 CIRCUIT DESCRIPTION

## **4-1 RECEIVER CIRCUITS**

#### 4-1-1 ANTENNA SWITCHING CIRCUIT (RF UNIT)

Received signals enter the RF unit from the antenna connector (J1) and pass through a limiter (D1) and an attenuator circuit (D2). The signals are then applied to the RF circuit via the antenna switching circuit (D51, D151, D171, D211, D231) which suppress out-of-band signals.

#### 4-1-2 RF CIRCUIT (RF UNIT)

The RF circuit amplifies the received signals within the range of frequency coverage and filters out-of-band signals.

#### (1) 0.5 MHz-74.9999 MHz signals

RF signals (0.5 MHz–74.9999 MHz) from an antenna switching circuit (D51) pass through a low-pass filter (L51, L52). The filtered signals are amplified at an RF amplifier (Q51) through each bandpass filter depending on the receiving frequency. The amplified signals are then applied to the 1st mixer circuit (IC271) through the band switching diode (D253).

The signals below 1.9 MHz pass through a low-pass filter (L55, L56) via the band switching diode (D52), and are then applied to the RF amplifier circuit (Q51) via the band switching diode (D53).

The 1.9 MHz–29.9999 MHz signals pass through the band switching diode (D61) and low-pass filter (L61, L62). The 1.9 MHz–14.9999 MHz signals pass through the band switching diode (D81) and bandpass filter (L82, L83, L91, L92), and are then applied to the RF amplifier circuit (Q51) via the band switching diode (D82).

The 15.0 MHz–29.9999 MHz signals pass through the band switching diode (D101) and high-pass filter (L102, L103) and are then applied to the RF amplifier circuit (Q51) via the band switching diode (D102).

#### RF filters

Receive frequency [MHz]	SW diodes	BPF select signal	Components
0.5 - 1.8999	D52, D53	B0	L55, L56
1.9 - 14.9999	D81, D82	B1	L82, L83, L91, L92
15.0 - 29.9999	D101, D102	B2	L102, L103
30.0 - 74.9999	D121, D122	B3	L122, L123

The 30.0 MHz–74.9999 MHz signals pass through the band switching diode (D121) and high-pass filter (L122, L123), and are then applied to the RF amplifier circuit (Q51) via the band switching diode (D122).

#### (2) 75.0 MHz-199.9999 MHz

The 75.0 MHz–199.9999 MHz signals pass through the tunable bandpass filter (D152, L152) via the band switching diode (D151), and are then amplified at the RF amplifier (Q151) and pass through another tunable bandpass filter (D153, L155). The filtered signals are applied to the 1st mixer circuit (IC271) via the band switching diode (D154).

#### (3) 200.0 MHz-499.9999 MHz

The 200.0 MHz–499.9999 MHz signals pass through the tunable bandpass filter (D172, L172) via the band switching diode (D171), and are then amplified at the RF amplifier (Q171) and pass through another tunable bandpass filter (D173, L175). The filtered signals are applied to the 1st mixer circuit (IC271) via the band switching diode (D174).

#### (4) 500.0 MHz-699.9999 MHz

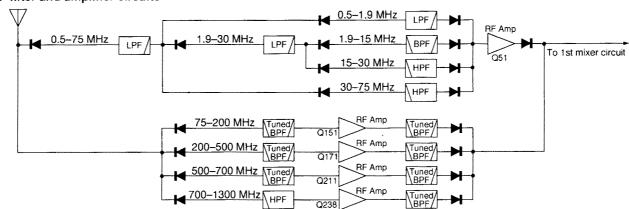
The 500.0 MHz-699.9999 MHz signals pass through a tunable band pass filter (D213, L213, L214) via the band switching diode (D211), and are then amplified at an RF amplifier (Q211) and pass through another tunable bandpass filter (D214, L216, L217). The filtered signals are applied to the 1st mixer circuit (IC271) via the band switching diode (D154).

#### (5) 700.0 MHz-1300.0000 MHz

The 700.0 MHz–1300 MHz signals pass through a highpass filter (L232, L233) via the band switching diode (D231), and are then amplified at the RF amplifier (Q231) and pass through a tunable bandpass filter (D238, L240). The filtered signals are applied to the 1st mixer circuit (IC271) via the band switching diode (D236).

#### Tunable band pass filters and RF amplifiers

Receive frequency [MHz]	BPF select signal	Varactor diodes	RF amplifier
75.0 - 199.9999	B4	D152, D153	Q151
200.0 - 499.9999	B5	D172, D173	Q171
500.0 - 699.9999	B6	D213, D214	Q211
700.0 - 1300.0000	B7	D238	Q231



#### RF filter and amplifier circuits

D152, D153, D172, D173, D213, D214 and D238 employ varactor diodes that are controlled by the CPU (LOGIC unit; IC1) to track the bandpass filter. These varactor diodes tune the center frequency of an RF passband for wide width receiving and good image response rejection.

#### 4-1-3 1ST MIXER AND 1ST IF CIRCUITS (RF UNIT)

The 1st mixer circuit converts the received RF signals to a fixed frequency of the 1st IF signal with the PLL output frequency. By changing the PLL frequency, only the desired frequency will pass through the band pass filters at the next stage of the 1st mixer.

The amplified signals are mixed with 1st LO signals from the 1st VCO unit at a 1st mixer (IC271) to produce 1st IF signals (266.7 MHz; 340.0 MHz–999.9999 MHz, 429.1 MHz; 0.5 MHz–339.9999 MHz and 1.0 GHz–1.3 GHz).

The 1st IF signals are applied to each IF filter (FI401 for 266.7 MHz IF signal, FI411 for 429.1 MHz IF signal) to suppress out-of-band signals. The 1st IF signals are amplified at the 1st IF amplifier (Q421) and then applied to the 2nd mixer on the MAIN unit.

• 1st LO frequency and 1st IF frequency

Receive frequency [MHz]	1st LO frequency [MHz]	1st IF frequency [MHz]
0.5 - 339.9999	429.6 - 769.0999	429.1
340.0 - 609.9999	606.7 - 876.6999	266.7
610.0 - 999.9999	343.3 - 733.2999	266.7
1000.0 - 1300.0000	733.3 – 870.9000	429.1

#### 4-1-4 2ND MIXER AND 2ND IF CIRCUIT (MAIN UNIT)

The 2nd mixer circuit converts the 1st IF signal to a 2nd IF signal.

The 1st IF signals (266.7 MHz or 429.1 MHz) from the RF unit are applied to the 2nd mixer circuit (IC11) for mixing with the 2nd LO signals to be converted into a 10.7 MHz 2nd IF signal. The 2nd IF signal is applied to the IF filter (FI11) to suppress out-of-band signals, and is then amplified at the 2nd IF amplifier (Q21).

### 4-1-5 3RD IF AND DEMODULATOR CIRCUIT (MAIN UNIT)

The 3rd mixer circuit converts the 2nd IF signal to a 3rd IF signal.

IC71 contains the 3rd mixer, limiter amplifier, quadrature detector, s-meter detector and noise detector circuits.

The 2nd IF signal (10.7 MHz) from the 2nd IF amplifier (Q21) is applied to the 3rd mixer section of IF IC (IC71, pin 16) and is then mixed with a 10.245 MHz 3rd LO signal generated by X501 on the RF unit for conversion to a 455 kHz 3rd IF signal. The 3rd IF signal is demodulated at each demodulator circuit.

#### (1) FM

The 3rd IF signal from the 3rd mixer (IC71, pin 3) passes through the ceramic filter (FI111) to suppress unwanted heterodyned frequency signals. It is fed back to IC71, then amplified at the limiter amplifier section (pin 5) and applied to the quadrature detector section (pin 10) to demodulate the 3rd IF signal into AF signals. The AF signals are output from pin 9 and passed through the de-emphasis circuit (R79, C86) with frequency characteristics of -6 dB/octave, and then applied to the AF switch (IC301c, pin 4).

A portion of the AF signals from pin 9 (IC71) passes through the low-pass filter (R78, C84) and is applied to the CPU (LOGIC unit; IC1) as AFC control signals.

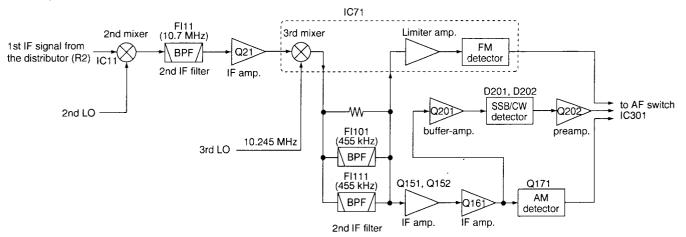
#### (2) WFM

The signal from the 3rd mixer is applied to the limiter amplifier section (IC71, pin 5). The amplified signals are demodulated at the quadrature detector section (IC71, pin 5). The AF signals are output from pin 9 (IC71) and are applied to the AF switch (IC301c, pin 4) the same as in FM mode.

By connecting R81 to R72 in parallel, the output characterstics of pin 12, "RSSI", change gradually. Therefore, the FM IF IC can detect WFM components.

#### (3) AM

The signal from the 3rd mixer passes through the ceramic filter (FI111) and is amplified at the 3rd IF amplifiers (Q151, Q161). The amplified signal is demodulated at the AM detector (Q171). The demodulated AF signals are applied to the AF switch (IC301d, pin 8) via the ANL control circuit (Q172).



#### • 2nd IF, 3rd IF and demodulator circuit

#### (4) SSB/CW

The signal from the 3rd mixer passes through the ceramic filter (FI101) and is amplified at the 3rd IF amplifiers (Q151, Q161) and buffer amplifier (Q201). The amplified signals are applied to the SSB/CW detector (D201, D202) and mixed with BFO signals from the BFO circuit (LOGIC unit; X231) via the BFO amplifier (Q951) to demodulate AF signals. The demodulated AF signals are applied to the AF switch (IC301b, pin 11) after being pre-amplified at the AF pre-amplifier (Q202).

		-			
٠	Band	lpass	filter	selec	tion

Mode(s)	Bandpass filter(s)	Passband width
NFM / AM	FI111	15 kHz
SSB / CW	FI101	4 kHz
WFM		

#### 4-1-6 SUB-BAND RECEIVER CIRCUIT (MAIN UNIT)

The sub-band receiver circuit is employed by the band scope and SIGNAVI functions.

A portion of the 1st IF signals from the RF unit is mixed with the sub 2nd LO signals at the 2nd mixer circuit (Q411) to be converted into 455 kHz sub 2nd IF signal. The 2nd IF signal is applied to the IF IC (IC471, pin 5) via the IF filter (FI411) and 2nd IF amplifier (Q421). The IF IC (IC471) outputs signals to lead the CPU (LOGIC unit; IC1) under conditions of RSSI or noise squelch.

#### 4-1-7 AF AMPLIFIER CIRCUIT (MAIN UNIT)

The AF amplifier circuit amplifies the demodulated AF signals to drive a speaker.

The AF signals from the AF switch (IC301) are applied to the LOGIC unit through a "DETOM" line. The AF signals are amplified at the AF amplifier (LOGIC unit; Q950), and are then applied to the AF mute switch (LOGIC unit; IC950). The output signals from the AF mute switch (LOGIC unit; IC950) are applied to the [VOL] control (RF unit; R11), and are then power-amplified at the AF amplifier (MAIN unit; IC361, pin 4) to drive a speaker.

#### 4-1-8 SQUELCH CIRCUIT (MAIN UNIT)

A noise squelch circuit cuts out AF signals when no RF signal is received. By detecting noise components in the AF signals, the CPU switches the AF mute switch.

Some of the noise components in the AF signals from IC71 (pin 9) are passed through the active filter (IC71, pins 8, 7), and then applied to the noise detector section. The squelch control pot (RF unit; R11) adjusts the input level of the active filter, and the level is used for the squelch threshold reference. The detected noise signals are applied to the CPU (LOGIC unit; IC1, pin 65) via the "SQL" line. The CPU then analyzes the noise condition and controls the "MUTE" port to cut off the AF signal using the AF mute switch (LOGIC unit; IC950).

#### 4-1-9 VSC CIRCUIT (LOGIC UNIT)

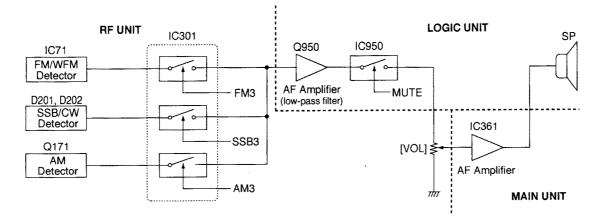
The VSC (Voice Scan Control) detects AF signals and mutes undesired signals such as unmodulated, beat and noise component signals. When the VSC function is ON and an unmodulated signal is received, squelch functions the same as closed (no signal condition) even when it's open, or the scan function resumes for a short period on any scan setting during scanning.

A portion of the AF signals from the low-pass filter (Q950) is applied to the VSC control circuit (IC201) to detect demodulated signals while the VSC function is ON. When audio component signals are included in the AF signals, the VSC IC (IC201) outputs a low level signal from pin 13 to the CPU (IC1, pin 1) to release the mute switch (IC950).

#### 4-1-10 BFO CIRCUIT (LOGIC UNIT)

The BFO (Beat Frequency Oscillator) circuit consists of X231, IC231 and D231. The oscillator provides a beat frequency signal (USB; 456.5 kHz, LSB; 453.5 kHz) to the SSB/CW detector circuit (MAIN unit; D201, D202) for demodulating the 3rd IF signal into AF signals.

The oscillating frequency for each mode (LSB/USB/CW) is switched by changing the capacitance of a varactor diode (D231). When USB mode is selected, the CPU (IC1, pin 3) outputs "LOW" level voltage to D231 to change the BFO frequency to 456.5 kHz.



#### · Squeich and AF amplifier circuits

#### 4-1-11 AGC CIRCUIT (MAIN UNIT)

The AGC (Auto Gain Control) circuit reduces IF/RF amplifier gain to keep the audio output at a constant level. The receiver gain is determined by the voltage on the IF-AGC line (Q182 collector) and RF-AGC line (RF unit; Q901 collector).

The 3rd IF signals from the 3rd IF amplifier (Q161) are detected at the AM detector (Q171). A portion of the detected signals is applied to the AGC amplifiers (Q182 and RF unit; Q901) as the AGC control voltage. The AM detector (Q171) is used for the AGC detector in the AGC circuit.

When receiving strong signals, the detected voltage increases and the AGC voltage decreases via the AGC amplifiers (Q182 and RF unit; Q901). As the AGC voltage is used for the bias voltage of the IF/RF amplifiers, IF/RF amplifier gain is decreased.

#### 4-1-12 NOISE BLANKER CIRCUIT (MAIN UNIT)

The noise blanker circuit detects pulse-type noise, and stops IF amplifier operation during detection.

A portion of the 2nd IF signals from the 2nd IF amplifier for the sub-band (Q421) is amplified at the noise amplifier circuit (Q801, Q802). The amplified signal is recified at the noise detector circuit (Q805) for conversion into DC voltage. The DC voltage is applied to the NB control circuit (Q806, Q807) to control the NB switch (Q810).

Some DC voltage is fed back to the noise amplifier circuit (Q801, Q802) via the DC amplifier (Q808). The DC amplifier functions as an AGC circuit to reduce averaged noise. Therefore, the noise blanker function shuts off pulse-type noise only.

### 4-2 PLL CIRCUITS 4-2-1 GENERAL

1ST/2ND LO PLL circuits (RF/MAIN units) provide stable oscillation of the receive LO frequencies. The PLL circuit consists of the PLL IC (IC501 on the RF/MAIN units), charge pump, loop filter and reference oscillator and employs a pulse swallow counter.

## 4-2-2 1ST LO PLL CIRCUIT (RF UNIT)

Signals from the 1ST VCO unit pass through the buffer amplifier (Q551) and are prescaled in the PLL IC (IC501, pin 10) based on the divided ratio (N-data). The PLL IC detects the out-of-step phase using the reference frequency and outputs it from pin 6. The output signal is passed through the charge pump (Q521, Q522) and is applied to the loop filter (R527, C527) to be converted into DC voltage as a PLL lock voltage. The PLL lock voltage is applied to the 1ST VCO unit via the V1L line.

A portion of the signal from the loop filter (R527, C527) is amplified at the buffer amplifier (Q502) and is then applied to the CPU (LOGIC unit; IC1) as the lock voltage information (LVI). The CPU (pin 6) outputs a "TUNE" signal based on the lock voltage; the voltage is amplified at the buffer amplifiers (LOGIC unit; Q181, Q182) and is then applied to the RF unit as the tunable bandpass filter control signal (VTUNE). This signal (VTUNE) is used for the RF tunable bandpass filters to match the filter's center frequency to the desired receive frequency.

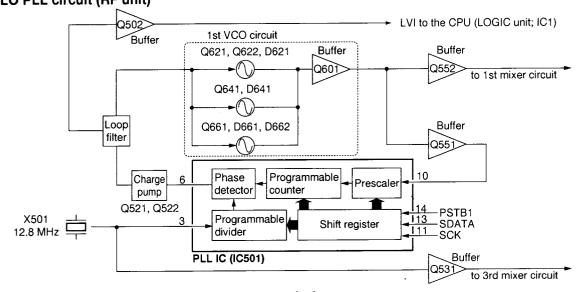
### 4-2-3 REFERENCE OSCILLATOR CIRCUIT (RF UNIT)

The reference oscillator circuit (X501, IC501) generates a 10.245 MHz reference frequency which is stabilized within the temperature range  $-10^{\circ}$ C (+14°F) to +50°C (+122°F). The reference frequency is applied to the PLL IC and also applied to the MAIN unit as the 3rd LO signal via the buffer amplifier (Q531).

## 4-2-4 1ST VCO CIRCUIT (1ST VCO UNIT)

The 1ST VCO circuit contains three separate VCO circuits depending on the receive frequency. The oscillated signal at one of the three VCO circuits is applied to the buffer amplifier (Q601). The amplified signal is applied to the RF unit via the V1O line and is then applied to the 1st mixer circuit (RF unit; IC271, pin 3) as the 1st LO signal after being amplified at the buffer amplifier (RF unit; Q552).

A portion of the signal from the V10 terminal (1ST VCO unit; J601) is amplified at the buffer amplifier (Q551) and is then fed back to the PLL IC (IC501, pin 10) as the comparison signal.



## • 1st LO PLL circuit (RF unit)

1st VCO

Receive frequency [MHz]	VCO select signal	VCO components	VCO frequency [MHz]
0.5 - 199.9999	V11	Q621, Q622, D621	429.6 - 629.0999
200.0 - 533.2999	V12	Q641, D641	629.1 – 799.9999
533.3 - 609.9999	V13	Q661, D661, D662	800.0 - 876.6999
610.0 - 895.7999	V11	Q621, Q622, D621	343.3 - 629.0999
895.8 - 999.9999	V12	Q641, D641	629.1 - 733.2999
1000.0 - 1058.1999	V11	Q621, Q622, D621	570.9 - 629.0999
1058.2 - 1229.0999	V12	Q641, D641	629.1 - 799.9999
1229.1 - 1300.0000	V13	Q661, D661, D662	800.0 - 870.9000

#### 4-2-5 2ND LO PLL CIRCUIT (MAIN UNIT)

The 2ND LO PLL circuit generates the 2nd LO frequency for the main band (receive signal) and sub-band (band scope and SIGNAVI functions).

Signals from the 2ND VCO unit pass through the buffer amplifier (Q531 for main band, Q551 for the sub-band) and are applied to the PLL IC (IC501; pin 2 and pin 19 respectively) and prescaled in the PLL IC based on the divided ratio (N-data). The PLL IC detects the out-of-step phase using the reference frequency and outputs it from pins 8 and 13. The output signal from pin 8 is passed through the loop filter (R511, R512, R514, C511, C512), and is then applied to the 2ND VCO circuit for the main band (2ND VCO unit) via the 21LV terminal (2ND VCO unit; J601) as the lock voltage. The output signal from pin 13 is passed through the loop filter (R521–R523, C521, C522), and is then applied to the 2ND VCO circuit for the sub-band (2ND VCO unit) via the 22LV terminal (2ND VCO unit; J601) as the lock voltage.

#### 4-2-6 VXO CIRCUIT (MAIN UNIT)

The VXO (Variable Crystal Oscillator) circuit (IC501, X501 and D501) generates a 12.8 MHz 2nd reference frequency. The 2nd reference frequency is stabilized within the temperature range  $-10^{\circ}$ C (+14°F) to +50°C (+122°F). For tuning the 100 Hz frequency step, the VXO circuit changes the capacitance of a varactor diode (D501) via the voltage of the "VXO" line from the CPU (LOGIC unit; IC1), and controls the 2nd reference frequency.

## 4-2-7 2ND VCO CIRCUIT (2ND VCO UNIT)

The 2ND VCO unit contains two VCO circuits for the main band and sub-band. The VCO circuit for the main band consists of Q602, Q604 and D601, and the VCO circuit for the sub-band consists of Q702, Q704 and D701. The oscillated signal is amplified at the buffer amplifiers (Q603 for the main band, Q703 for the sub-band). Then the 2nd LO signal for the main band is applied to the 2nd mixer (IC11, pin 3) via the buffer amplifier (Q532), and the 2nd LO signal for the sub-band is input to the 2nd mixer for the subband (Q411) after being amplified at the buffer amplifier (Q552). The switching transistors (Q601 and Q701) shift the oscillating frequencies via the "IFH" signal from the RF unit.

## 4-3 POWER SUPPLY CIRCUITS VOLTAGE LINE (LOGIC UNIT)

Line	Description
нν	The voltage coming from the external DC jack.
vcc	The same voltage as the installed battery cells or HV line passed through the charge control circuit (Q101, D104).
+3CPU	Common 3 V for the CPU (IC1) produced at the +3CPU regulator IC (IC81). The circuit outputs the voltage regardless of the power ON/OFF condition.
+3S	Common 3 V converted from the VCC line by the +3S regulator circuit (Q121, Q122) using a control signal (+3SC) from the CPU.
+3C	Common 3 V converted from the VCC line by the +3C regulator circuit (Q111, Q112) using a control signal (3LCON) from the CPU.
+3L	Common 3 V converted from the VCC line by the +3L regulator circuit (Q91, Q92) using a control signal (3LCON) from the CPU.
+15	Common 15 V converted from the +3L line by the DC-DC convertor IC (IC151).

## 4-4 CPU PORT ALLOCATIONS 4-4-1 CPU (IC1 on the LOGIC unit)

Pin number	Port name	Description
1	VSC	Input port for VSC detected signals. High: Unmodulated or beat signals are received. Low : Modulated signals are received.
3	BFOS2	Output port for BFO control signal. Low : LSB/CW mode (453.5 kHz) High: USB mode (456.5 kHz)
5	vxo	Output port for VXO frequency control voltage.
6	TUNE	Outputs tunable band pass filter control voltage.
8	CLIN	Input port for the cloning or CI-V control signals.
9	CLOUT	Output port for the cloning or CI-V control signals.
10	BFO3	Output port for BFO regulator control signal. Low : While SSB/CW mode is selected.
12	SDATA	Outputs serial data signals to the PLL ICs, EEPROM (LOGIC unit, IC41) and I/O expander ICs, etc.
13	SCK	Outputs serial clock signal to the PLL ICs, EEPROM (LOGIC unit, IC41) and I/O expander ICs, etc.
14	ISTB	Outputs strobe signals for the I/O expander ICs.
15	VSCS	Outputs VSC-time constant control signal. High: While unmodulated signal or no RF signal is received Low : While receiving modulated signals.
16	ESO	Output port for serial data signals to the EEPROM IC (LOGIC unit, IC41).
17	ESI	Input port for serial data signals from the EEPROM IC (LOGIC unit, IC41).
18	ESCK	Output port for clock signal to the EEPROM IC (LOGIC unit, IC41).
19–22	KS0-KS3	Output strobe signals to the key matrix.
25, 26	PSTB1, PSTB2	Output strobe signals to the PLL ICs.
27-31	K0K4	Input ports for the key matrix.
32, 34	M0, M1	Input ports for the initial matrix.
44	3LCON	Outputs control signal for the +3C and +3L regulator circuits. High: While turning power ON.
45	LAMP0	Outputs LCD and key backlight control signal. Low : While backlight is ON.

## CPU (IC1) — continued

Pin number	Port name	Description
46	+3SC	Outputs control signal for the +3S regulator circuit. Low: During PLL unlock or power save.
48	VSCC	Outputs VSC control signals. Low : When the VSC function is ON.
49	MUTE	Outputs AF mute switch (IC950) control signals. Low : While muted.
50	BEEP	Output port for beep audio signals.
51	AFONC	Outputs a control signal for AF amplifier regulator circuit. High: When squelch is open. (FM mode only)
52-59	1/00-1/07	Ouput ports for the LCD control data.
60	RESET	Input port for the reset signal.
61	FUNC	Input port for the [FUNC] switch. Low : While [FUNC] switch is pushed.
62	POWSW	Input port for the [PWR] switch. Low: While [PWR] switch is pushed.
63	D-UD	Input port for the [DIAL].
64	D-CK	
65	SQL	Input port for the main band noise signals.
66	S-SQL	Input port for the sub-band noise signals.
73	UL	Input port for PLL unlock signal from the PLL ICs.
76	RSSI	Input port for the main band receive signal strength level.
77	CENT	Input port for the AFC control voltage.
78	S-RSSI	Input port for the sub-band receive signal strength level.
79	BATT	Input port for connected voltage low battery detection.
80	LVI	Input port for the PLL lock voltage information.

## 4-4-2 OUTPUT EXPANDER IC (1) MAIN UNIT, IC305

Pin number	Port name	Description
4	WFMC	Outputs WFM mode select signals. Low : When WFM is selected.
5	NFMC	Outputs NFM mode select signals. Low : When NFM is selected.
6	AMC	Outputs AM mode select signals. Low : When AM is selected.
7	SSBC	Outputs SSB mode select signals. Low : When SSB is selected.
11	NBC	Outputs NB control signals. Low : When NB function is ON. (SSB/CW mode only)
12	ANLC	Outputs ANL control signals. Low : When ANL function is ON. (AM mode only)
14	S-PWC	Outputs sub-band regulator control signals. Low : While the bandscope or SIGNAVI functionis activated.

## (2) RF UNIT, IC1

Pin number	Port name	Description
4	B0C	Outputs low-pass filter select signal . Low : When frequencies below 1.9 MHz are displayed.
5	B1C	Outputs bandpass filter select signal. Low : When frequencies from 1.9 to 14.9999 MHz are displayed.
6	B2C	Outputs bandpass filter select signal. Low : When frequencies from 15.0 to 29.9999 MHz are displayed.
7	B3C	Outputs bandpass filter select signal. Low : When frequencies from 30.0 to 74.9999 MHz are displayed.
11	B7C	Outputs bandpass filter select signal. Low : When frequencies from 700.0 to 1300.0000 MHz are displayed.
12	B6C	Outputs bandpass filter select signal. Low : When frequencies from 500.0 to 699.9999 MHz are displayed.
13	B5C	Outputs bandpass filter select signal. Low : When frequencies from 200.0 to 499.9999 MHz are displayed.
14	B4C	Outputs bandpass filter select signal. Low : When frequencies from 75.0 to 199.9999 MHz are displayed.

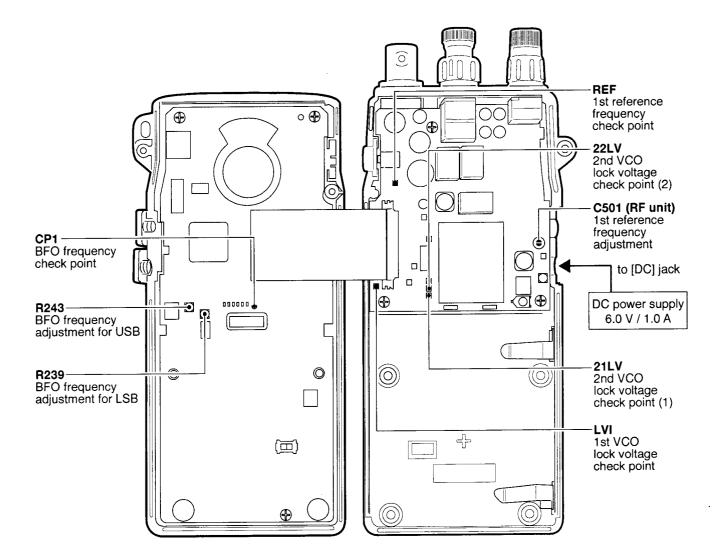
## (3) RF UNIT, IC2

Pin number	Port name	Description
4	V11C	Outputs VCO1 select signals. Low : VCO1 (343.3–629.0999 MHz) is activated.
5	V12C	Outputs VCO2 select signals. Low : VCO2 (629.1–799.9999 MHz) is activated.
6	V13C	Outputs VCO3 select signals. Low : VCO3 (800.0–876.7 MHz) is activated.
7	N1HC	Outputs 1st mixer input select signals. Low : When frequencies from 0.5 to 75 MHz are displayed.
11	SHIFT	Outputs 2nd VCO shift control signal for VCO1.
12	ATTC	Outputs attenuator control signals. Low : Attenuator function is ON.
14	IFHC	Outputs 1st IF select signals. High: When frequencies from 340.0 to 999.9999 MHz are displayed. Low : When frequencies from 0.5 to 339.9999 MHz or 1000.0 to 1300.0 MHz are displayed.

## SECTION 5 ADJUSTMENT PROCEDURES

## 5-1 PLL AND BFO ADJUSTMENT

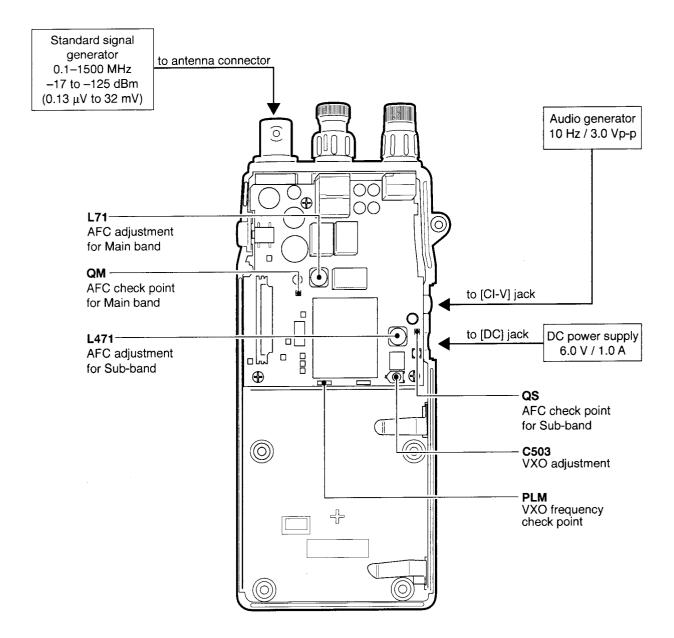
ADJUSTMENT				MEASUREMENT	VALUE	ADJUSTMENT	
		ADJUSTMENT CONDITIONS	UNIT LOCATION		VALUE	UNIT	ADJUST
1ST VCO LOCK VOLTAGE	1	• Displayed frequency: 200 MHz : 534 MHz : 610 MHz : 846 MHz • Receiving	MAIN	Connect a voltmeter (1 $M\Omega$ impedance) to the check point LVI.	More than 0.2 V		Verify
	2	• Displayed frequency: 533 MHz : 609 MHz : 845 MHz : 895 MHz • Receiving			Less than 3.3 V		
2ND VCO LOCK VOLTAGE	1	Displayed frequency: 100 MHz     Mode     SSB     Noise Blanker     CN     Receiving	MAIN	Connect a voltmeter (1 $M\Omega$ impedance) to the check point 21LV.	Less than 2.5 V		Verify
	2	<ul> <li>Displayed frequency: 500 MHz</li> <li>Receiving</li> </ul>			More than 0.6 V		
	3	Displayed frequency: 100 MHz     Mode     SSB     Noise Blanker     CN     Receiving		Connect a voltmeter (1 M $\Omega$ impedance) to the check point 22LV.	Less than 2.5 V		
	4	<ul> <li>Displayed frequency: 500 MHz</li> <li>Receiving</li> </ul>			More than 0.6 V		
1ST REFERENCE FREQUENCY	1	Displayed frequency: Any     Mode : Any     Receiving	MAIN	Connect a frequency counter to the check point REF.	10.24500 MHz	RF	C501
BFO FREQUENCY	1	Displayed frequency: 144.0000 MHz     Mode     ESB     Receiving	LOGIC	Connect a frequency counter to the check point CP1.	453.500 kHz	LOGIC	R239
	2	Mode : USB     Receiving			456.500 kHz		R243



## 5-2 COMMAND ADJUSTMENT (ADJUSTMENT SET MODE)

ADJUSTMEN	١T	ADJUSTMENT CONDITIONS	DISPLAY	OPERATION
ADJUSTMENT SET MODE	1	<ul> <li>Apply square wave form signals (10 Hz, 3 V p-p) to the [CI-V] connector.</li> </ul>	UXOチョウセイ EDITキーラオス	While pushing [EDIT], turn power ON.
VXO (2ND REFERENCE FREQUENCY)	1	<ul> <li>Turn [DIAL] to select the VXO adjustment.</li> </ul>	UX0チョウセイ EDITキー⇒オス	Push [EDIT] to enter the VXO adjustment.
	2	<ul> <li>Connect a frequency counter via</li> <li>0.001 µF capacitor to the check point</li> <li>PLM,</li> <li>Frequency : 512.0000 MHz</li> </ul>	VXO-HC トリマ 512.0 MHz	Adjust C503 on the MAIN unit to 512.00000 MHz.
	3	<ul> <li>Push [EDIT] to select adjustment frequency.</li> <li>Frequency : 511.9950 MHz</li> </ul>	VXO-LL 080 511.9950 MHz	Turn [DIAL] to set correction level closest to the display frequency, and then push [ENT] to program into memory.
	4	<ul> <li>Push [EDIT] to select adjustment frequency.</li> <li>Frequency : 512.0050 MHz</li> </ul>	VXO-LH 193 512.0050 MHz	Turn [DIAL] to set correction level closest to the display frequency, and then push [ENT] to program into memory.
	5	<ul> <li>Push [EDIT] to select adjustment frequency.</li> <li>Frequency : 418.3975 MHz</li> </ul>	UXO-HL 099 418.3975 MHz	Turn [DIAL] to set correction level closest to the display frequency, and then push [ENT] to program into memory.
	6	<ul> <li>Push [EDIT] to select adjustment frequency.</li> <li>Frequency : 418.4025 MHz</li> </ul>	VXO-LH 162 418.4025 MHz	Turn [DIAL] to set correction level closest to the display frequency, and then push [ENT] to program into memory.
				Push [EDIT] to return to the same condition as that in step 1.
AFC	1	Turn [DIAL] to select the AFC adjustment.	AFCチョウセイ EDITキーラオス	Push [EDIT] to enter the AFC adjustment.
	2	<ul> <li>Connect an SSG to the antenna connector and set as: Frequency : 145.00000 MHz Level : 1 mV* (-47 dBm) Mode : FM Modulation : OFF</li> <li>Connect a voltmeter (100 kΩ impedance) to the check point QM on the MAIN unit.</li> <li>Receiving</li> </ul>		Adjust L71 on the MAIN unit to 1.0 V.
	3	<ul> <li>Connect a voltmeter (100 kΩ impedance) to the check point QS on the MAIN unit.</li> <li>Receiving</li> </ul>		Adjust L471 on the MAIN unit to 1.0 V.
	4	Push [ENT] to program into memory.	0K	Verify that "OK" appears on the display.
				Push [EDIT] to return to the same condition as that in step 1.

\*This output level of a standard signal generator (SSG) is indicated as SSG's open circuit.



## COMMAND ADJUSTMENT (CONTINUED)

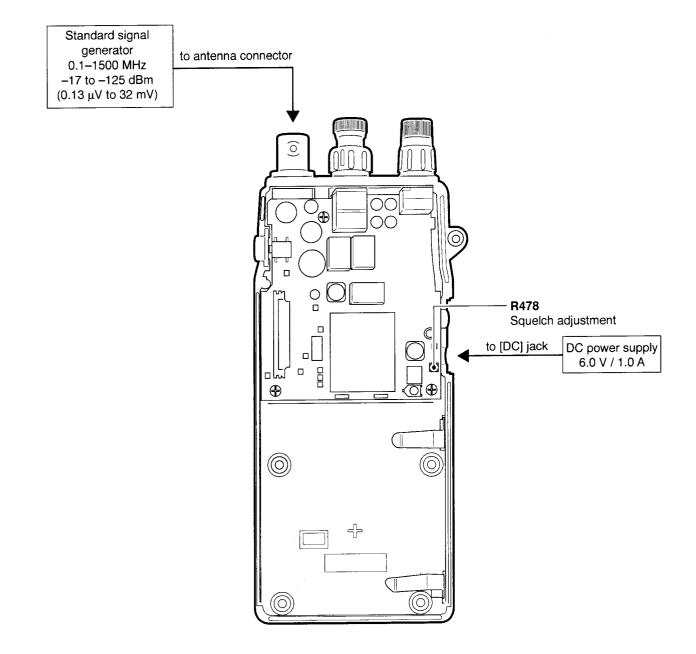
ADJUSTME	NT	ADJUSTMENT CONDITIONS	DISPLAY	OPERATION
BPF	1	<ul> <li>Turn [DIAL] to select the BPF adjustment.</li> </ul>	BPFチョウセイ EDITキーラオス	Push [EDIT] to enter the BPF adjustment.
	2	<ul> <li>Connect an SSG to the antenna connector and set as: Frequency : 75.0100 MHz Level : 1 mV* (-77 dBm) or less</li> <li>Note: When the S-meter indicats more than 5 segments, reduce SSG's level.</li> <li>Mode : Any Modulation : OFF</li> <li>Receiving</li> </ul>	- 75.0100 	Turn [DIAL] to set maximum S- meter level, and then push [ENT] to program into memory.
	3	<ul> <li>Push [EDIT] to select adjustment frequency, then repeat step 2 for frequencies below.</li> <li>Set an SSG as : Frequency : 120.0200 MHz, 149.9900 MHz 150.0100 MHz, 199.9900 MHz 200.0100 MHz, 339.9900 MHz 340.0100 MHz, 430.0100 MHz 340.0100 MHz, 610.0100 MHz 533.2900 MHz, 610.0100 MHz 609.9900 MHz, 610.0100 MHz 700.0100 MHz, 845.7900 MHz 845.8100 MHz, 895.7900 MHz 1000.0100 MHz, 1008.1900 MHz 1008.2100 MHz, 1058.1900 MHz 1058.2100 MHz, 1229.0900 MHz</li> <li>Receiving</li> </ul>	The display shows frequencies listed at left in sequence.	
S-METER/ SQUELCH	1	<ul> <li>Turn [DIAL] to select the S-METER/ SQUELCH adjustment.</li> </ul>	Sメータチョウセイ EDITキーラオス	Push [EDIT] to enter the S- METER adjustment.
	2	<ul> <li>Connect an SSG to the antenna connector and set as: Frequency : 14.5000 MHz Level : 0.5 μV* (-113 dBm) Mode : FM Modulation : 1 kHz Deviation : 3.5 kHz</li> <li>Receiving</li> </ul>	14.5000 076 096	Push [ENT] to program into memory.
	3	<ul> <li>Push [EDIT] to select adjustment frequency.</li> <li>Set an SSG as : Frequency : 144.5000 MHz</li> <li>Receiving</li> </ul>	144.5000 061 081	Push [ENT] to program into memory.
	4	<ul> <li>Push [EDIT] to select adjustment frequency.</li> <li>Set an SSG as : Frequency : 324.5000 MHz</li> <li>Receiving</li> </ul>	324.5000 061 081	Push [ENT] to program into memory.
	5	<ul> <li>Push [EDIT] to select adjustment frequency.</li> <li>Set an SSG as : Frequency : 679.9000 MHz</li> <li>Receiving</li> </ul>	679.9000 061 081	Push [ENT] to program into memory.

\*This output level of a standard signal generator (SSG) is indicated as SSG's open circuit.

## COMMAND ADJUSTMENT (CONTINUED)

ADJUSTMENT		ADJUSTMENT CONDITIONS	DISPLAY	OPERATION
S-METER/ SQUELCH	5	<ul> <li>Set an SSG as : Frequency : 1264.5000 MHz Level : 0.71 μV* (–110 dBm)</li> <li>Receiving</li> </ul>	1264.5000 061 081	Push [ENT] to program into memory.
	6	<ul> <li>Push [EDIT] to enter the SQUELCH adjustment.</li> <li>Set an SSG as :</li> </ul>	144.5000 SQL-CLOSE	Adjust R478 on the MAIN unit so that the display changes from "CLOSE" to "OPEN" and "OPEN"
		Frequency : 144.5000 MHz Level : 0.18 μV* (–122 dBm) • Receiving	144.5000 SQL-OPEN	stays on.
	7	Set an SSG as : Level : OFF     Receiving	144.5000 SQL-CLOSE	Verify that the display returns to "CLOSE".
				Push [EDIT] to return to the same as that in step 1.

\*This output level of a standard signal generator (SSG) is indicated as SSG's open circuit.



#### **PARTS LIST SECTION 6**

## **ILOGIC UNITI**

## **ILOGIC UNITI**

LOUI	C UNIT]			[LOG			
REF NO.	ORDER NO.	DES	SCRIPTION	REF NO.	ORDER NO.	D	ESCRIPTION
IC1	1140006510	S.IC	µPD78054GK-532-BE9	R79	7030005970	S.RESISTOR	RR0816R-
IC41	1130008400	S.IC	X25128SI-2.7T6	R91	7030003480	S.RESISTOR	ERJ3GEY.
IC42	1130005720	S.IC	TC7W04F (TE12L)	R101	7030000180	S.RESISTOR	MCR10EZ
IC71	1110003380	S.IC	S-80730SL-AT-T1	R102	7030000180	S.RESISTOR	MCR10EZ
IC81	1180001240	S.IC	S-81335HG-KI-T1	R103	7030003560	S.RESISTOR	ERJ3GEY.
IC151	1180001630	S.IC	TK11812MTL	R111	7030003560	S.RESISTOR	ERJ3GEY.
	1140006210	S.IC	µPC5023GR-115-GJG-E1	R112	7030003560	S.RESISTOR	ERJ3GEY
IC201				R121	7030003560	S.RESISTOR	ERJ3GEY.
IC231	1130004830	S.IC	TC7SU04F (TE85R)		7030003520		ERJ3GEY
IC950	1130004200	S.IC	TC4S66F (TE85R)	R122		S.RESISTOR	
			1	R131	7030003640	S.RESISTOR	ERJ3GEY.
				R132	7030003600	S.RESISTOR	ERJ3GEY.
Q71	1530003280	S.TRANSISTOR	2SC4211-6-TL	R133	7030003580	S.RESISTOR	ERJ3GEY.
Q91	1520000460	S.TRANSISTOR	2SB1132 T100 R	R134	7030003540	S.RESISTOR	ERJ3GEY.
Q92	1590001170	S.TRANSISTOR	XP1501-(TX).AB	R135	7030003640	S.RESISTOR	ERJ3GEY.
Q101	1520000460	S.TRANSISTOR	2SB1132 T100 R	R141	7030003410	S.RESISTOR	ERJ3GEY.
Q111	1520000460	S.TRANSISTOR	2SB1132 T100 R	R142	7030003410	S.RESISTOR	ERJ3GEY.
Q112	1590001170	S.TRANSISTOR	XP1501-(TX).AB	R143	7030003410	S.RESISTOR	ERJ3GEY.
Q121	1520000460	S.TRANSISTOR	2SB1132 T100 R	R144	7030003410	S.RESISTOR	ERJ3GEY.
Q122	1590001170	S.TRANSISTOR	XP1501-(TX).AB	R145	7030003410	S.RESISTOR	ERJ3GEY.
Q131	1530003280	S.TRANSISTOR	2SC4211-6-TL	R146	7030003410	S.RESISTOR	ERJ3GEY.
Q132	1510000880	S.TRANSISTOR	2SA1622-6-TL	R147	7030003360	S.RESISTOR	ERJ3GEY.
Q141	1590000720	S.TRANSISTOR	DTA144EU T107	R148	7030003360	S.RESISTOR	ERJ3GEY.
Q142	1540000550	S.TRANSISTOR	2SD1664 T100Q	R149	7030003360	S.RESISTOR	ERJ3GEY.
				R150	7030003360	S.RESISTOR	ERJ3GEY
Q181	1530003280	S.TRANSISTOR	2SC4211-6-TL		7030003560	S.RESISTOR	ERJ3GEY
Q182	1510000880	S.TRANSISTOR	2SA1622-6-TL	R151	1	1	
Q201	1590000720	S.TRANSISTOR	DTA144EU T107	R152	7030003600	S.RESISTOR	ERJ3GEY
Q202	1590001130	S.TRANSISTOR	UN9110 (TX)	R153	7030003810	S.RESISTOR	ERJ3GEY.
Q203	1590001140	S.TRANSISTOR	UN9210 (TX)	R154	7030003680	S.RESISTOR	ERJ3GEY.
Q204	1590001130	S.TRANSISTOR	UN9110 (TX)	R155	7030003560	S.RESISTOR	ERJ3GEY.
Q243	1590000720	S.TRANSISTOR	DTA144EU T107	R156	7030003570	S.RESISTOR	ERJ3GEY.
Q950	1530003280	S.TRANSISTOR	2SC4211-6-TL	R181	7030003600	S.RESISTOR	ERJ3GEY.
		1		R183	7030003680	S.RESISTOR	ERJ3GEY.
			1	R201	7030003580	S.RESISTOR	ERJ3GEY.
D51	1790001280	S.DIODE	MA111 (TX)	R202	7030003580	S.RESISTOR	ERJ3GEY.
D52	1790001200	S.DIODE	MA6S121 (TX)	R203	7030003700	S.RESISTOR	ERJ3GEY.
D53	1160000050	S.DIODE	DAP202U T107 [FRA]	R204	7030003460	S.RESISTOR	ERJ3GEY.
000	1750000220	S.DIODE	DA113W T107 [EUR], [UK]	R205	7030003710	S.RESISTOR	ERJ3GEY.
	1750000220	S.DIODE	DA112 T107 [USA]	R206	7030003560	S.RESISTOR	ERJ3GEY.
DEA	1750000240	S.DIODE	DA112 T107 [USA]	R207	7030003580	S.RESISTOR	ERJ3GEY.
D54				R208	7030003740	S.RESISTOR	ERJ3GEY
D71	1790001280	S.DIODE	MA111 (TX)		1	4	ERJ3GEY
D72	1730002320	S.ZENER	MA8051-M (TX)	R211	7030003680	S.RESISTOR	ERJ3GEY
D101	1790000670	S.DIODE	SB07-03C-TB	R212	7030003680	S.RESISTOR	ERJ3GEY
D103	1790001280	S.DIODE	MA111 (TX)	R231	1 ( ) ( )		
D104	1750000130	S.DIODE	DA204U T107	R234	7030003580	S.RESISTOR	ERJ3GEY.
D131	1790001280	S.DIODE	MA111 (TX)	R235	7030003800	S.RESISTOR	ERJ3GEY
D151	1790000660	S.DIODE	MA728 (TW)	R236	7030003840	S.RESISTOR	ERJ3GEY.
D231	1720000600	S.VARICAP	HN2V02H-B (TE12R)	R237	7030003840	S.RESISTOR	ERJ3GEY.
D232	1790001280	S.DIODE	MA111 (TX) [UK]	R238	7030003720	S.RESISTOR	ERJ3GEY.
				R239	7310003600	S.TRIMMER	EVM-1XSX
				R240	7030003580	S.RESISTOR	ERJ3GEY.
X1	6060000610	S.CERAMIC	EFOS4914E3	R243	7310003590	S.TRIMMER	EVM-1XSX
X231	6060000660	S.CERAMIC	CSBF458J	R950	7030003520	S.RESISTOR	ERJ3GEY.
				R951	7030003620	S.RESISTOR	ERJ3GEYJ
				R952	7030003700	S.RESISTOR	ERJ3GEYJ
L151	6200003620	S.COIL	LQH 3C 331K04	R953	7030003740	S.RESISTOR	ERJ3GEYJ
L152	6200006720	S.COIL	5CA-395KN-0369AQ=P3	R954	7030003740	S.RESISTOR	ERJ3GEY.
L153	6200003550	S.COIL	MLF1608A 4R7K-T	R955	7030003590	S.RESISTOR	ERJ3GEY.
L100	02000000000	0.001L	MEI TOUDA HITTRET	R956	7030003560	S.RESISTOR	ERJ3GEY.
				R957	7030003620	S.RESISTOR	ERJ3GEYJ
	7020002640	e prejetop	ED 120EV 1 472 V (47 kO)	R958	7030003720	S.RESISTOR	ERJ3GEYJ
R4	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 kΩ)	R959	7030003620	S.RESISTOR	ERJ3GEYJ
R5	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)			1	
R6	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)	R961	7030003520	S.RESISTOR	ERJ3GEYJ
R7	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)				
R8	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 kΩ)				
R11	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 kΩ)	C1	4030007010	S.CERAMIC	C1608 CH
R12	7030003680	S.RESISTOR	ERJ3GEYJ 104 V (100 kΩ)	C2	4030007010	S.CERAMIC	C1608 CH
R13	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 kΩ)	C3	4030011600	S.CERAMIC	C1608 JB 1
R14	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 kΩ)	C4	4030006860	S.CERAMIC	C1608 JB
R24	7030003880	S.RESISTOR	ERJ3GEYJ 244 V (240 kΩ)	C21	4550006300	S.TANTALUM	ECST1AY4
R25	7030003820	S.RESISTOR	ERJ3GEYJ 155 V (1.5 MΩ)	C22	4550006300	S.TANTALUM	ECST1AY4
R41	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 kΩ)	C23	4030011600	S.CERAMIC	C1608 JB 1
R71	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 kΩ)	C24	4030011600	S.CERAMIC	C1608 JB 1
R72	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 kΩ)	C25	4030011600	S,CERAMIC	C1608 JB 1
R73	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 kΩ)	C26	4030011600	S.CERAMIC	C1608 JB 1
	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 kΩ)	C27	4030011600	S.CERAMIC	C1608 JB 1
B74				1 021	1.000011000	1	
R74 R78	7030005520	S.RESISTOR	RR0816R-334-D (330 kΩ)	C41	4030006900	S.CERAMIC	C1608 JB 1

ERJ3GEYJ 103 V (10 kΩ) ERJ3GEYJ 472 V (4.7 kΩ) ERJ3GEYJ 473 V (47 kΩ) ERJ3GEYJ 223 V (22 kΩ) ERJ3GEYJ 153 V (15 kΩ) ERJ3GEYJ 682 V (6.8 kΩ) ERJ3GEYJ 473 V (47 kΩ) ERJ3GEYJ 561 V (560 Ω) ERJ3GEYJ 221 V (220 Ω) ERJ3GEYJ 103 V (10 kΩ) ERJ3GEYJ 223 V (22 kΩ) ERJ3GEYJ 125 V (1.2 MΩ) ERJ3GEYJ 104 V (100 kΩ) ERJ3GEYJ 103 V (10 kΩ) ERJ3GEYJ 123 V (12 kΩ) ERJ3GEYJ 223 V (22 kΩ) ERJ3GEYJ 104 V (100 kΩ) ERJ3GEYJ 153 V (15 kΩ) ERJ3GEYJ 153 V (15 kΩ) ERJ3GEYJ 154 V (150 kΩ) ERJ3GEYJ 152 V (1.5 kΩ) ERJ3GEYJ 184 V (180 kΩ) ERJ3GEYJ 103 V (10 kΩ) ERJ3GEYJ 153 V (15 kΩ) ERJ3GEYJ 334 V (330 kΩ) ERJ3GEYJ 104 V (100 kΩ) ERJ3GEYJ 104 V (100 kΩ) ERJ3GEYJ 101 V (100 Ω) ERJ3GEYJ 153 V (15 kΩ) ERJ3GEYJ 105 V (1 MΩ) ERJ3GEYJ 225 V (2.2 MΩ) ERJ3GEYJ 225 V (2.2 MΩ) ERJ3GEYJ 224 V (220 kΩ) EVM-1XSX50 B54 (503) ERJ3GEYJ 153 V (15 kΩ) EVM-1XSX50 B24 (203) ERJ3GEYJ 472 V (4.7 kΩ) ERJ3GEYJ 333 V (33 kΩ) ERJ3GEYJ 154 V (150 kΩ) ERJ3GEYJ 334 V (330 kΩ) ERJ3GEYJ 334 V (330 kΩ) ERJ3GEYJ 183 V (18 kΩ) ERJ3GEYJ 103 V (10 kΩ) ERJ3GEYJ 333 V (33 kΩ) ERJ3GEYJ 224 V (220 kΩ) ERJ3GEYJ 333 V (33 kΩ) ERJ3GEYJ 472 V (4.7 kΩ) C1608 CH 1H 100D-T-A C1608 CH 1H 100D-T-A C1608 JB 1C 104KT-N C1608 JB 1H 102K-T-A ECST1AY475R ECST1AY475R C1608 JB 1C 104KT-N C1608 JB 1C 104KT-N C1608 JB 1C 104KT-N C1608 JB 1C 104KT-N

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RR0816R-683-D (68 kΩ) ERJ3GEYJ 222 V (2.2 kΩ) MCR10EZHJ 22 Ω (220) MCR10EZHJ 22 Ω (220)

S.=Surface mount

C1608 JB 1C 104KT-N C1608 JB 1E 103K-T-A

## [LOGOC UNIT]

REF	ORDER	DESCRIPTION				
NO.	NO.	C OF BANKO	C1608 JB 1H 102K-T-A			
C71	4030006860	S.CERAMIC S.CERAMIC	C1608 JB 1E 103K-T-A			
C72 C81	4030006900 4550006830	S.TANTALUM	ECST1DY475R			
C81	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A			
C83	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A			
C84	4550006320	S.TANTALUM	ECST0JY475R			
C91	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A			
C92	4550006200	S.TANTALUM	ECST0JY106R			
C101	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A			
C111	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N C1608 JB 1H 102K-T-A			
C112	4030006860 4550006320	S.CERAMIC S.TANTALUM	ECST0JY475R			
C113 C121	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N			
C122	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A			
C123	4550006320	S.TANTALUM	ECST0JY475R			
C151	4550006320	S.TANTALUM	ECST0JY475R			
C152	4030006900	S.CERAMIC	C1608 JB 1E 103K-T-A			
C153	4030006900	S.CERAMIC	C1608 JB 1E 103K-T-A ECST0JY106R			
C154 C155	4550006200 4030008650	S.TANTALUM S.CERAMIC	C1608 JB 1H 332K-T-A			
C155	4030006900	S.CERAMIC	C1608 JB 1E 103K-T-A			
C157	4550006820	S.TANTALUM	ECST1DX106R			
C158	4030006900	S.CERAMIC	C1608 JB 1E 103K-T-A			
C159	4550006820	S.TANTALUM	ECST1DX106R			
C160	4030006900	S.CERAMIC	C1608 JB 1E 103K-T-A			
C201	4030009000	S.CERAMIC	C2012 JB 1C 224K-T-A			
C202	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A C1608 CH 1H 221J-T-A			
C203 C204	4030007170 4030007110	S.CERAMIC S.CERAMIC	C1608 CH 1H 680J-T-A			
C204	4550006140	S.TANTALUM	ECST1EY474R			
C206	4030008650	S.CERAMIC	C1608 JB 1H 332K-T-A			
C207	4550006680	S.TANTALUM	ECST0JY156R			
C208	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N			
C209	4550006130	S.TANTALUM	ECST1VY224R			
C210	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N ECST0JY475R			
C211	4550006320 4550006130	S.TANTALUM	ECST1VY224R			
C212 C213	4550006320	STANTALUM	ECST0JY475R			
C214	4550006320	S.TANTALUM	ECST0JY475R			
C233	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N			
C234	4030006850	S.CERAMIC	C1608 JB 1H 471K-T-A			
C235	4030006900	S.CERAMIC	C1608 JB 1E 103K-T-A			
C237	4030006900	S.CERAMIC	C1608 JB 1E 103K-T-A C1608 JB 1E 103K-T-A			
C238	4030006900	S.CERAMIC S.CERAMIC	C1608 JB 1H 471K-T-A			
C239 C245	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A			
C246	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N			
C950	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N			
C951	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A			
C953	4030006900	S.CERAMIC	C1608 JB 1E 103K-T-A C1608 JB 1H 102K-T-A			
C954	4030006860	S.CERAMIC S.CERAMIC	C1608 JB 1C 104KT-N			
C955 C956	4030011600	S.CERAMIC	C1608 CH 1H 680J-T-A			
C957	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N			
C958	4550006140	S.TANTALUM	ECST1EY474R			
1	5010000500	0.5005				
F1	5210000530	S.FUSE	TR3216FF3A			
DS1	5030001490	LCD	EDMCU06F00			
DS141	5010000120	S.LED	LN1371G-(TR)			
DS142	5010000120	S.LED	LN1371G-(TR)			
DS143	5010000120	S.LED	LN1371G-(TR) LN1371G-(TR)			
DS144	5010000120	S.LED S.LED	LN1371G-(TR)			
DS145 DS146	5010000120 5010000120	S.LED	LN1371G-(TR)			
DS140	5040002230	S.LED	CL-200YG-C-TS			
DS148	5040002230	S.LED	CL-200YG-C-TS			
DS149	5040002230	S.LED	CL-200YG-C-TS			
DS150	5040002230	S.LED	CL-200YG-C-TS			
S101	2220000330	S.SWITCH	HSW0880-01-210			
	2220000000					
			0.50 700			
W1	8900007370		OPC-720			
W3	7030003860	S.JUMPER	ERJ3GE JPW V except [USA] ERJ3GE JPW V except [USA]			
W4 W5	7030003860	S.JUMPER	ERJ3GE JPW V			
W7	7120000470	JUMPER	ERDS2T0 [UK]			
W8	7120000470	JUMPER	ERDS2T0 [UK]			
	1	L				

## [LOGIC UNIT]

REF NO.	ORDER NO.	DESCRIPTION				
W201	7030003860	S.JUMPER	ERJ3GE JPW V			
SP1	2510000960	SPEAKER	K036NA500-26			
EP1	0910048045	PCB	B 4901E			

## [MAIN UNIT]

REF NO.	ORDER NO.	DES	CRIPTION
IC11 IC71 IC301 IC305 IC361 IC471 IC501	1110004020 1110003490 1130008090 1130007510 1110001810 1110003490 1130007610	S.IC S.IC S.IC S.IC S.IC S.IC S.IC	μPC2757T-E3 TA31136FN (D,EL) BU4066BCFV-E1 BU4094BCFV-E1 TA7368F (TP1) TA31136FN (D,EL) μPD3140GS-E1 (DS8)
Q21 Q71 Q151 Q152 Q161 Q172 Q182 Q183 Q184 Q201 Q202 Q301 Q302 Q303 Q304 Q305 Q304 Q351 Q352 Q411 Q551 Q551 Q551 Q552 Q573 Q574 Q551 Q552 Q573 Q574 Q555 Q801 Q805 Q806 Q807 Q808 Q809 Q810 Q951	1530002600 159000720 1530003280 1530003280 1530003280 159000430 1590000430 1590000430 1590000810 1590001810 1590001810 1590001810 1590001810 1590001810 1590001810 1590003280 1530003280 1530003500 1530003500 1530003500 1530003500 1530003500 1530003500 1530003500 1530003500 1530003500 1530003280 1590001170 1530002600 1590001170 1530003280 159000120 1530003280 1530003280	S.TRANSISTOR S.TRANSISTOR	2SC4215-O (TE85R) DTA144EU T107 2SC4211-6-TL 2SC4211-6-TL 2SC4211-6-TL DTC144EU T107 2SC4211-6-TL DTC144EU T107 2SC4211-6-TL DTA144EU T107 2SC4211-6-TL 2SC4211-6-TL 2SC4211-6-TL 2SC4211-6-TL 2SC4211-6-TL 2SC5065-O (TE85R) 2SC4215-O (TE85R) 2SC5065-O (TE85R) 2SC506
D101 D102 D111 D122 D121 D122 D171 D202 D301 D302 D304 D305 D501 D571	1790001280 1790001280 1790001280 1790001280 1790001280 1790001280 1750000370 1750000370 1750000140 1160000140 1160000140 1160000140 1790001290 1720000360	S.DIODE S.DIODE S.DIODE S.DIODE S.DIODE S.DIODE S.DIODE S.DIODE S.DIODE S.DIODE S.DIODE S.DIODE S.DIODE S.VARICAP S.DIODE	MA111 (TX) MA111 (TX) MA111 (TX) MA111 (TX) MA111 (TX) MA111 (TX) MA111 (TX) DA221 TL DA222 TL DAP222 TL DAP222 TL DAP222 TL DAP222 TL MA304 (TX) HSU88TRF

S.=Surface mount

## [MAIN UNIT]

## [MAIN UNIT]

Ref         ORDER         DESCRIPTION         Ref         DESCRIPTION           FIT         202000140         6.CEFAMIC         SFEDATOTAL-6.4         FIT         SFEDATOTAL-6.4           FIT         202001140         6.CEFAMIC         SFEDATOTAL-6.4         FIT         SFEDATOTAL-6.4           FIT         202001130         CEFAMIC         SFEDATOTAL-6.4         FIT         SFEDATOTAL-6.4           FIT         202001130         CEFAMIC         KP4-698-51A         FIT         SFEDATOTAL-6.4           FIT         202001130         CEFAMIC         KP4-698-51A         FIT         SFEDATOTAL-6.4           KU1         SFEDATOTAL-6.4         FIT         SFEDATOTAL-6.4         FIT						-		
First         Sezubli 170         CERAMIC         First			DES	CRIPTION			D	ESCRIPTION
First         Sezubli 170         CERAMIC         First	5144	0000001140		SEECA 10 7MA-5-A	B214	7030003610	S RESISTOR	ERJ3GEYJ 273 V (27 kΩ)
Hint         202001090         CERNANC         Ref 4006-15.4         F216         700003000         S.RESISTOR         ERJSGRV 102 V (10 kg)           KV01         0650009300         S.XTAL         CR 450 (12.0000 MHz)         R00         700003000         S.RESISTOR         ERJSGRV 10V (10 kg)           KV01         0650009300         S.XTAL         CR 450 (12.0000 MHz)         R00         700003000         S.RESISTOR         ERJSGRV 10V (10 kg)           LV1         16000440         S.COL         LS-10         R00         700002000         S.RESISTOR         ERJSGRV 10V (10 kg)           LV1         16000440         S.COL         LS-10         R00         700002000         S.RESISTOR         ERJSGRV 10V (10 kg)           LV1         16000440         S.COL         LLHE 200447         R00         700002000         S.RESISTOR         ERJSGRV 10V (10 kg)           LS3         62000570         S.COL         LLHE 200447         R00         700002000         S.RESISTOR         ERJSGRV 10V (10 kg)           LS3         62000570         S.COL         LLHE 20047         R00         R000000         S.RESISTOR         ERJSGRV 10V (10 kg)           LS4         E20005700         S.COL         LLHE 20047         R0417         R00000000         S.RESI			+···					
Funt         220001300         CERAUIC         VBH-69R5-56.         Rate         Form         PLADE         PLADE         PLADE         VIO XL0         VIO XL0           X501         0600008430         S XTAL         CR-653 (12.8000 MHz)         Rate         T00000580         S RESISTOR         PLADEX/VIO XL0         VIO XL0           L11         6150001440         S COL         L5-10         PLADEX/VIO XL0         P								
PH11         DECKNING         FLANSE VAL         PR02         P703003888         Selection         EAUGEV104 V100 V100 V00           X601         66000800         S.TAL         CR-650 (12.000 MHz)         400         700003800         S.EBISTOR         EAUGEV104 V100 V100 V00           L1         61000440         S.COLL         LS-510         BAS         700003800         S.EBISTOR         EAUGEV104 V100 V100 V10           L1         S.COLL         LS-510         BAS         700003800         S.EBISTOR         EAUGEV104 V100 V100 V100 V100 V100 V100 V100					1			
Xon1         650006303         S.YTAL         CR-550 (12.800 MHz)         R330         702003680         S.RESISTOR         ERJSGY (10 V (10 Ac))           L471         615000440         S.OUL         L5-10         R352         702003680         S.RESISTOR         ERJSGY (10 V (10 Ac))           L471         615000440         S.OUL         L5-10         R352         70200360         S.RESISTOR         ERJSGY (10 V (10 Ac))           L471         615000440         S.OUL         L5-10         R352         70200340         S.RESISTOR         ERJSGY (10 V (10 Ac))           L491         615000470         S.OUL         LL1RE 2WAFF         R354         7020002005         S.RESISTOR         ERJSGY (10 V (10 Ac))           L503         62000570         S.OUL         ELLRE 2WAFF         R364         7020002005         S.RESISTOR         ERJSGY (10 V (10 Ac))           L504         62000570         S.OUL         ELLRE 2WAFF         R364         7020002005         S.RESISTOR         ERJSGY (10 V (10 Ac))           L505         62000570         S.OUL         ELLRE 2WAFF         R412         7020002005         S.RESISTOR         ERJSGY (10 V (10 Ac))           L516         62000570         S.OUL         ELLRE 2WAFF         R412         7020002005	FI411	2020001360	CERAMIC	KBF455RS-15A				
X801         66000900         X.YAL         CP-650 (12 0000 MFz)         E304 F307         E30002580 F307         F30002580 F307         FS0507 F307         EPJ.GEV (10 V (10 V) F307           LP F50002600         5.COL         LS-510         F307         F30002580 F307         FS150707         EPJ.GEV (10 V (10 V) F307         FS150707         FS150707         FS150707         FS150707         FS150707         FS150707         FS150707         FS150707        FS150707								
ADD         BODOLBAC         DATA         Concept Less on Apple         Rat         FORD Selection Apple         FLASS (V) 10 V (10 Apple)           L/1         615000440         S.OCIL         L.S-510         FLASS (V) 10 V (10 Apple)         FLASS (V) 10 V (10 Apple)           L/1         615000440         S.OCIL         L.S-510         FLASS (V) 10 V (10 Apple)         FLASS (V) 10 V (10 Apple)           L/1         615000440         S.OCIL         L.H.FE 2000477         FLASS (V) 10 V (10 Apple)         FLASS (V) 10 V (10 Apple)           L/2         620000509         S.OCIL         L.H.FE 20047         FLASS (V) 10 V (10 Apple)         FLASS (V) 10 V (10 Apple)           L/2         620000570         S.OCIL         L.H.RE 20047         FLASS FLASS (V) 10 V (10 Apple)         FLASS (V) 10 V (10 Apple)           L/2         620000570         S.OCIL         L.H.RE 20047         FLASS FLASS (V) 10 V (10 Apple)         FLASS (V) 10 V (10 Apple)           L/2         S.EESISTOR         FLASS (V) 110 V (10 Apple)         FLASS (V) 10 V (10 Apple)         FLASS (V) 10 V (10 Apple)           L/3         S.COLL         FLASS (V) 110 V (10 Apple)           L/3         S.RESS TOR         FLASS (V) 110 V (10 Apple)         FLASS (V) 110 V (			a.v. <del></del>	OD 559 (10 8000 MUR)				
L/1         B150004840         S.COL         LS-10         R35         T030002801         S.RESISTOR         ENJSSEV.10         CH 100141           L/1         B150004840         S.COL         LS-10         R35         T030002801         S.RESISTOR         ENJSSEV.10         CH 10014           L/2         B150004840         S.COL         LLS-10         R35         T03000280         S.RESISTOR         MC/H 10214         B2 (4001           LS31         E200005700         S.COL         ELLIFE SINGF         R35         T03000220         S.RESISTOR         MC/H 10214         B2 (4001           LS32         E200005700         S.COL         ELLIFE SINGF         R38         T03000220         S.RESISTOR         ENJSECV (10 V (10 A))           LS32         E200005700         S.COL         ELLIFE SINGF         R417         T03000220         S.RESISTOR         ENJSECV (10 V (10 A))           R1         T03000220         S.RESISTOR         ELJSESV (10 V (10 A))         R417         T03000220         S.RESISTOR         ELJSESV (10 V (10 A))           R1         T030000200         S.RESISTOR         ELJSESV (10 V (10 A))         R447         T03000400         S.RESISTOR         ELJSEV (10 A)           R1         T030000200         S.RESISTOR	X501	6050009930	S.X IAL	CR-553 (12.8000 MHZ)				
17.1         6150002440         S.COLL         L5-10         R383         700002440         S.RESISTOR         EH.306FV 102 V (1 k0)           L501         620002840         S.COLL         M.1400A HRM-T         R383         700002440         S.RESISTOR         EH.306FV 102 V (1 k0)           L501         620002840         S.COLL         M.14600A HRM-T         R383         700002440         S.RESISTOR         EH.306FV 102 V (1 k0)           L501         62000270         S.COLL         EL.44E 224.64         R380         700000250         S.RESISTOR         EH.306FV 102 V (1 k0)           L561         E00002700         S.COLL         EL.44E 224.64         R381         700000250         S.RESISTOR         EH.306FV 100 V (1 6 0)           L561         E00002700         S.COLL         EL.44E 224.64         R381         700000250         S.RESISTOR         EH.306FV 100 V (1 6 0)           L583         E00002700         S.COLL         EL.44E 227.04         R412         700000240         S.RESISTOR         EH.306FV 100 V (1 6 0)           R17         700000230         S.RESISTOR         EH.306FV 100 V (1 6 0)         R412         700000240         S.RESISTOR         EH.306FV 100 V (1 6 0)           R18         700000230         S.RESISTOR         EH.306FV 100 V (1 6 0) <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>								
Lyft         Histonsako         Sacoli         Lission         Histonsako         Sacesiston         Market         Market           L600         Prozonsako         S.Coli         Market         Histonsako         Market         Histonsako           L601         Prozonsako         S.Coli         Market         Histonsako         Market         Histonsako           L602         Prozonsako         S.Coli         E.L.H.E.Shift         Market         Histonsako         Market         Histonsako           L611         Brozonsako         S.Coli         E.L.H.E.Shift         Market         Histonsako         Histonsakoo				10.510				
Lond         Hotz         Hotz <th< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></th<>								
Ling         controlsmed         Social         Min Height (H)         Frag         Transmission         Ministry (H)           Liss         controlsmed         Social         Euline SNA-F         R886         Transmission         Ministry (H)         Ministry (H)           Liss         controlsmed         Social         Euline SNA-F         R886         Transmission         Ministry (H)								
Last         Bottomorrad         Social         ELINE SING-F         PR36         Transconcess         SPRESTOR         PRADERY of 24 (80)           LS32         E200005700         S.COL         ELINE ZYRG-F         PR36         Transconcess         SPRESTOR         PLADERY of 24 (80)           LS35         E200005700         S.COL         ELINE ZYRG-F         PR36         Transconcess         SPRESTOR         PLADERY of 24 (80)           LS35         E200005700         S.COL         ELINE ZYRG-F         PR31         Transconcess         SPRESTOR         PLADERY of 24 (80) (10)           LS36         E200005700         S.COL         ELINE ZYRG-F         PR41         Transconcess         SPRESTOR         PLADERY of 24 (80) (10)           R1         T7300005200         S RESISTOR         PLADERY of 24 (80) (10)         PR44         Transconcess         SPRESTOR         PLADERY of 24 (80) (10)           R1         T7300005200         S RESISTOR         PLADERY of 24 (70) (10)         PR42         Transconcess         SPRESTOR         PLADERY of 24 (72) (72) (72) (72) (72)           R1         T7300005200         S RESISTOR         PLADERY of 27 (72) (72) (72) (72) (72) (72) (72) (								
Ling         Construction         Construction         End of the con		1						
Liss         Resource         Page								· · ·
Lissi Baroologica         Coolin.         ELJIRE BANG-F BALL         Radii Pala         Prostory Cool Display         Resistron Balance         Endley Ut 00 / 10 a) Balance           L652         BODORTOD         S.COL.         ELJIRE ZANG-F         Ratii         7030003800         S.RESISTOR         Endley Ut 00 / 10 a) Balance           L653         BODORTOD         S.COL.         ELJIRE ZANG-F         Ratii         7030003800         S.RESISTOR         Endley Ut 00 / 10 a) Balance           R1         7030003200         S.RESISTOR         ENJIGEV, 150 / 15 a) Ratii         Ratii         7030003200         S.RESISTOR         ENJIGEV, 150 / 15 a) Ratii         Ratii         Ratii         7030003200         S.RESISTOR         ENJIGEV, 150 / 15 a) Ratii         Ratii         Rat					1			
Ling         2020005700         S.COLL         ELJRE ZNNG-F         H411         7020003200         S.RESISTOR         EHJGEY 33 V (33 kg)           1553         620005700         S.COLL         ELJRE ZNNG-F         H412         7020003800         S.RESISTOR         EHJGEY 31 0V (10 G)           17         7020003200         S.RESISTOR         EHJGEY 31 0V (15 G)         H417         7020003400         S.RESISTOR         EHJGEY 31 0V (10 G)           18         7020003400         S.RESISTOR         EHJGEY 31 0V (17 G)         H417         7020003400         S.RESISTOR         EHJGEY 32 V (12 Kg)           18         7020003400         S.RESISTOR         EHJGEY 32 V (12 Kg)         H417         7020003400         S.RESISTOR         EHJGEY 32 V (12 Kg)           18         7020003500         S.RESISTOR         EHJGEY 32 V (12 Kg)         H417         7020003400         S.RESISTOR         EHJGEY 32 V (12 Kg)           18         7020003500         S.RESISTOR         EHJGEY 32 V (12 Kg)         H417         7020003400         S.RESISTOR         EHJGEY 32 V (12 Kg)           17         7020003400         S.RESISTOR         EHJGEY 32 V (12 Kg)         H417         7020003400         S.RESISTOR         EHJGEY 32 V (12 Kg)           17         7020003400         S.RESISTOR								
Lass         Geodological         S.COL         EL,RE 22NG-F         Frid         703000320         S.RESISTOR         ENJORY 10 V (10 AU)           R1         7030003220         S.RESISTOR         ENJORY 150 V (15 AU)         FRIJ         FRIJ <td< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></td<>								
Loss         Display         Display         End of Links         Fraids         F000003200         SRESISTOR         End of Links           R1         7030003200         SRESISTOR         End of Links         Fraids         Fraids </td <td>L552</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>	L552							
R416         7200003220         S. RESISTOR         ER.J3GEV.1150.V (15.0)         R417         7200003400         S. RESISTOR         ER.J3GEV.1150.V (15.0)           R3         7200003220         S. RESISTOR         ER.J3GEV.1150.V (15.0)         R421         7200003400         S. RESISTOR         ER.J3GEV.1151.V (12.0)           R15         7200003400         S. RESISTOR         ER.J3GEV.127.V (470.0)         R425         7200003400         S. RESISTOR         ER.J3GEV.1151.V (12.0)           R16         7700003400         S. RESISTOR         ER.J3GEV.127.V (470.0)         R426         7200003200         S. RESISTOR         ER.J3GEV.1151.V (12.0)           R16         7700003300         S. RESISTOR         ER.J3GEV.127.V (47.0)         R477         7200003207         S. RESISTOR         ER.J3GEV.147.V (47.40)           R26         7200003400         S. RESISTOR         ER.J3GEV.127.V (47.40)         R477         7200003207         S. RESISTOR         ER.J3GEV.147.V (47.40)           R27         7200003400         S. RESISTOR         ER.J3GEV.147.V (47.40)         R477         7200003206         S. RESISTOR         ER.J3GEV.147.V (47.40)           R27         7200003400         S. RESISTOR         ER.J3GEV.147.V (47.40)         R477         R47.700003300         S. RESISTOR         ER.J3GEV.147.V (47.40)	L553	6200005700	S.COIL	ELJRE 22NG-F				
H         720003220         S.RESISTOR         ERJGEV 116 V (15 k)         FAIT         720003270         S.RESISTOR         ERJGEV 112 V (12 k)           R1         720003220         S.RESISTOR         ERJGEV 116 V (16 k)         R424         703003400         S.RESISTOR         ERJGEV 122 V (22 k)           R1         720003220         S.RESISTOR         ERJGEV 127 V (17 k)         R424         703003400         S.RESISTOR         ERJGEV 121 V (12 k)           R16         720003250         S.RESISTOR         ERJGEV 121 V (17 k)         R472         7730003400         S.RESISTOR         ERJGEV 121 V (16 k)           R21         7730003400         S.RESISTOR         ERJGEV 121 V (17 k)         R473         7730003400         S.RESISTOR         ERJGEV 124 V (17 k)           R24         7700003400         S.RESISTOR         ERJGEV 112 V (17 k)         R477         7730003400         S.RESISTOR         ERJGEV 147 V (47 k)           R24         7700003400         S.RESISTOR         ERJGEV 147 V (47 k)         R477         720003260         S.RESISTOR         ERJGEV 147 V (47 k)           R27         720003400         S.RESISTOR         ERJGEV 147 V (47 k)         R477         720003400         S.RESISTOR         ERJGEV 147 V (47 k)           R74         720003400         S.RES								
Page         Processory         End Service         Final Service	1							
Act         TODOUSSED         Similar VID         FR32         TODOUSSED         Sheesiston         Enudge VID         Enudge VID         VID         R42         TODOUSSED         Sheesiston         Enudge VID         VID         R12         TODOUSSED         Sheesiston         Enudge VID         VID         R14         VID	R1	7030003220	S.RESISTOR	ERJ3GEYJ 150 V (15 Ω)				
Rat         Totogonzazo         S.RESISTOR         ERJ3GEV 15 V (15 AL)         PA24         Totogonzado         S.RESISTOR         ERJ3GEV 12 V (12 AL)           R15         Totogonzado         S.RESISTOR         ERJ3GEV 12 V (12 AL)         R12         Totogonzado         S.RESISTOR         ERJ3GEV 12 V (12 AL)           R16         Totogonzado         S.RESISTOR         ERJ3GEV 12 V (12 AL)         R12         Totogonzado         S.RESISTOR         ERJ3GEV 12 V (12 AL)           R16         Totogonzado         S.RESISTOR         ERJ3GEV 12 V (17 AL)         R147         Totogonzado         S.RESISTOR         ERJ3GEV 12 V (17 AL)           R24         Totogonzado         S.RESISTOR         ERJ3GEV 14 V (17 AL)         R476         Totogonzado         S.RESISTOR         ERJ3GEV 14 V (17 AL)           R24         Totogonzado         S.RESISTOR         ERJ3GEV 14 73 V (17 AL)         R477         Totogonzado         S.RESISTOR         ERJ3GEV 13 V (10 AL)           R27         Totogonzado         S.RESISTOR         ERJ3GEV 12 V (12 AL)         R474         Totogonzado         S.RESISTOR         ERJ3GEV 12 V (12 AL)           R72         Totogonzado         S.RESISTOR         ERJ3GEV 12 V (12 AL)         R474         Totogonzado         S.RESISTOR         ERJ3GEV 12 V (12 AL)           R72 <td></td> <td>7030003220</td> <td>S.RESISTOR</td> <td></td> <td></td> <td></td> <td></td> <td></td>		7030003220	S.RESISTOR					
R115         T030003400         S.RESISTOR         EHJGEV 171 V (7D D)         R425         T03000330         S.RESISTOR         EHJGEV 120 V (72 LA)           R16         T03000340         S.RESISTOR         EHJGEV 120 V (7D D)         R472         T030000340         S.RESISTOR         EHJGEV 120 V (72 LA)           R11         T030003400         S.RESISTOR         EHJGEV 171 V (47 D)         R477         T03000340         S.RESISTOR         EHJGEV 172 V (72 H)           R23         T030003400         S.RESISTOR         EHJGEV 171 V (47 D)         R477         T03000370         S.RESISTOR         EHJGEV 172 V (47 Ka)           R24         T030003400         S.RESISTOR         EHJGEV 171 V (47 D)         R477         T03000360         S.RESISTOR         EHJGEV 172 V (47 Ka)           R27         T030003400         S.RESISTOR         EHJGEV 173 V (47 Ka)         R477         T03000360         S.RESISTOR         EHJGEV 142 V (18 Ka)           R27         T030003400         S.RESISTOR         EHJGEV 142 V (47 Ka)         R47         T030003400         S.RESISTOR         EHJGEV 142 V (47 Ka)           R74         T030003400         S.RESISTOR         EHJGEV 122 V (47 Ka)         R63         T030003400         S.RESISTOR         EHJGEV 122 V (47 Ka)           R77         R700003400			S.RESISTOR	ERJ3GEYJ 150 V (15 Ω)				, , ,
R16         703000320         S.RESISTOR         EH.JGEY. 227 (V (27.4))         R472         703000300         S.RESISTOR         EH.JGEY. 228 (V (22.44))           R21         703000300         S.RESISTOR         EH.JGEY. 217 (V (27.4))         R474         703000300         S.RESISTOR         EH.JGEY. 218 (V (22.44))           R21         7030003400         S.RESISTOR         EH.JGEY. 470 (V (27.4))         R474         703000340         S.RESISTOR         EH.JGEY. 471 (V (47.4))           R24         703000340         S.RESISTOR         EH.JGEY. 473 (V (47.4))         R477         703000340         S.RESISTOR         EH.JGEY. 473 (V (47.4))           R25         703000340         S.RESISTOR         EH.JGEY. 423 (V (22.44)         R477         703000360         S.RESISTOR         EH.JGEY. 473 (V (47.4))           R47         703000340         S.RESISTOR         EH.JGEY. 423 (V (22.44)         R47         703000360         S.RESISTOR         EH.JGEY. 473 (V (47.4))           R74         703000340         S.RESISTOR         EH.JGEY. 473 (V (47.4))         R51         703000360         S.RESISTOR         EH.JGEY. 473 (V (47.4))           R74         703000340         S.RESISTOR         EH.JGEY. 472 (V (4.4))         R51         703000340         S.RESISTOR         EH.JGEY. 472 (V (4.4))	1 C			ERJ3GEYJ 471 V (470 Ω)				
Rife         T030003400         S.RESISTOR         ERJAGEV 21 V (27 Ω)         RA73         T030003400         S.RESISTOR         ERJAGEV 141 V (47 Ω)           R21         T030003400         S.RESISTOR         ERJAGEV 141 V (47 Ω)         RA75         T030003400         S.RESISTOR         ERJAGEV 142 V (47 4Ω)           R24         T030003400         S.RESISTOR         ERJAGEV 147 V (47 Ω)         RA77         T030003400         S.RESISTOR         ERJAGEV 147 V (47 Ω)           R17         T030003400         S.RESISTOR         ERJAGEV 147 V (47 Ω)         RA77         T030003400         S.RESISTOR         ERJAGEV 147 V (47 Ω)           R17         T030003400         S.RESISTOR         ERJAGEV 142 V (22 AQ)         RA77         T030003400         S.RESISTOR         ERJAGEV 147 V (47 Q)           R77         T030003400         S.RESISTOR         ERJAGEV 147 V (47 Q)         R47         T030003400         S.RESISTOR         ERJAGEV 147 V (47 Q)           R77         T030003400         S.RESISTOR         ERJAGEV 147 V (47 Q)         R47         R030003400         S.RESISTOR         ERJAGEV 147 V (47 Q)           R77         T030003400         S.RESISTOR         ERJAGEV 147 V (47 Q)         R11         T030003600         S.RESISTOR         ERJAGEV 147 V (47 Q)           R77         T0				ERJ3GEYJ 270 V (27 Ω)		1		
Paint         Trotscoppedies         S.RESISTOR         ERJAGEV/ 489 V (#6 KD)         PA74         Trotscoppedies         S.RESISTOR         ERJAGEV/ 1194 V (18) KD)           R24         Trotscoppedies         S.RESISTOR         ERJAGEV/ 1194 V (120 KD)         PA76         Trotscoppedies         S.RESISTOR         ERJAGEV/ 1194 V (120 KD)           R24         Trotscoppedies         S.RESISTOR         ERJAGEV/ 1194 V (120 KD)         PA77         Trotscoppedies         S.RESISTOR         ERJAGEV/ 1194 V (120 KD)           R27         Trotscoppedies         S.RESISTOR         ERJAGEV/ 1194 V (120 KD)         PA77         Trotscoppedies         ERJAGEV/ 1194 V (120 KD)           R77         Trotscoppedies         S.RESISTOR         ERJAGEV/ 1194 V (140 KD)         PA76         Trotscoppedies         S.RESISTOR         ERJAGEV/ 1194 V (100 KD)           R77         Trotscoppedies         S.RESISTOR         ERJAGEV/ 1194 V (140 KD)         PA16         Trotscoppedies         S.RESISTOR         ERJAGEV/ 1194 V (100 KD)           R78         Trotscoppedies         S.RESISTOR         ERJAGEV/ 1194 V (140 KD)         PA16         Trotscoppedies         S.RESISTOR         ERJAGEV/ 1194 V (100 KD)           R78         Trotscoppedies         S.RESISTOR         ERJAGEV/ 1194 V (140 KD)         RE32         Trotscoppedies         S.RESISTOR </td <td></td> <td></td> <td></td> <td>ERJ3GEYJ 271 V (270 Ω)</td> <td></td> <td></td> <td></td> <td></td>				ERJ3GEYJ 271 V (270 Ω)				
R28         7030003400         S.RESISTOR         En.JSGEV J47 V (47 (4)         R475         7030003500         S.RESISTOR         En.JSGEV J47 V (47 (4)           R28         7030003400         S.RESISTOR         En.JSGEV J47 V (47 (4)         R477         7030003400         S.RESISTOR         En.JSGEV J47 V (47 (4)           R17         7030003400         S.RESISTOR         En.JSGEV J47 V (47 (4)         R477         7030003400         S.RESISTOR         En.JSGEV J47 V (47 (4)           R17         7030003500         S.RESISTOR         En.JSGEV J47 V (47 (4)         R477         7030003500         S.RESISTOR         En.JSGEV J47 V (47 (4)         R478         7030003500         S.RESISTOR         En.JSGEV J47 V (47 (4)         R478         7030003500         S.RESISTOR         En.JSGEV J47 V (7 (4)         R478         7030003500         S.RESISTOR         En.JSGEV J47 V (7 (4)         R51         7030003500         S.RESISTOR         En.JSGEV J47 V (7 (4)         R51         703000340         S.RESISTOR         En.JSGEV J47 V (47	1							
PR26         7030003400         S.RESISTOR         En.3GEV 1102 V (1 K0)         PA76         7030003700         S.RESISTOR         En.3GEV 47 V (47 k0)           PR17         7030003600         S.RESISTOR         En.3GEV 47 V (47 k0)         PA77         703000360         S.RESISTOR         En.3GEV 47 V (47 k0)           PR17         7030003600         S.RESISTOR         En.3GEV 123 V (27 k0)         PR06         PR03GEV 139 V (10 k0)           PR17         7030003400         S.RESISTOR         En.3GEV 124 V (27 k0)         PR07         PR03GEV 139 V (10 k0)         PR03GEV 139 V (10 k0)           PR17         7030003400         S.RESISTOR         En.3GEV 124 V (27 k0)         PR17         PR03GEV 139 V (10 k10)         PR13GEV 121 V (22 0 L0)         PR13GEV 121 V (10 k10)         PR13GEV 121 V (10 k10)         PR13GEV 121 V (22 0 L0)         PR13GEV 121 V (22 0 L0)         PR13GEV 121 V (22 0 L0)         PR13GEV 122 V				ERJ3GEYJ 471 V (470 Ω)	R475			
PR57         7030003400         S.RESISTOR         ERJ3GEVJ 471 V (47 kg)         PA77         7030003600         S.RESISTOR         ERJ3GEVJ 473 V (47 kg)           PR72         7030003600         S.RESISTOR         ERJ3GEVJ 223 V (22 kg)         PR27         7030003600         S.RESISTOR         ERJ3GEVJ 233 V (22 kg)         PR26         7030003600         S.RESISTOR         ERJ3GEVJ 202 V (22 kg)         PR36         7030003290         S.RESISTOR         ERJ3GEVJ 202 V (22 kg)         PR36         7030003290         S.RESISTOR         ERJ3GEVJ 202 V (22 kg)         PR36         7030003290         S.RESISTOR         ERJ3GEVJ 202 V (22 kg)         PR36         T030003290         S.RESISTOR         ERJ3GEVJ 202 V (22 kg)         PR36         PR36         PR36         PR36         PR36 V (22 kg)         PR36         PR36         PR36         PR36         PR36         PR36         PR36         PR36         PR336         PR336         PR336 V (2			-		R476			
PT2         T030003400         S.RESISTOR         EH.3GEYL 473 V (47 kG)         P476         T03000360 S         S.RESISTOR         EH.3GEYL 128 V (22 kG)           PT3         T030003600 S         S.RESISTOR         EH.3GEYL 228 V (22 kG)         PS07         PS03003290 S         S.RESISTOR         EH.3GEYL 128 V (16 kG)           PT3         T030003290 S         S.RESISTOR         EH.3GEYL 22 V (22 kG)         PS07         T030003290 S         S.RESISTOR         EH.3GEYL 128 V (16 kG)           PT6         T030003290 S         S.RESISTOR         EH.3GEYL 22 V (22 kG)         PS17         T030003400 S         RESISTOR         EH.3GEYL 128 V (10 kG)           PT7         T03000360 S         S.RESISTOR         EH.3GEYL 24 V (22 kG)         PS17         T03000380 S         RESISTOR         EH.3GEYL 21 V (22 0 G)           PT7         T03000360 S         S.RESISTOR         EH.3GEYL 47 V (47 kG)         PS17         T03000320 S         RESISTOR         EH.3GEYL 21 V (22 0 G)           PT3         T03000320 S         S.RESISTOR         EH.3GEYL 47 V (47 kG)         PS37         T03000320 S         RESISTOR         EH.3GEYL 21 V (22 G)           PT3         PS18 STOR         EH.3GEYL 47 V (47 kG)         PS37         T03000330 S         RESISTOR         EH.3GEYL 47 V (47 KG)           PT3 <t< td=""><td></td><td></td><td></td><td></td><td>R477</td><td>7030003640</td><td>S.RESISTOR</td><td></td></t<>					R477	7030003640	S.RESISTOR	
PT2         T030003600         S.RESISTOR         ERJ3GEV J 223 V (22 ku)         R502         T03000370         S.RESISTOR         ERJ3GEV J 560 V (56 ku)           R74         T030003700         S.RESISTOR         ERJ3GEV J 224 V (28 ku)         R503         T03000370         S.RESISTOR         ERJ3GEV J 360 V (56 ku)           R76         T030003490         S.RESISTOR         ERJ3GEV J 224 V (27 ku)         R511         T030003400         S.RESISTOR         ERJ3GEV J 224 V (27 ku)           R77         T030003400         S.RESISTOR         ERJ3GEV J 224 V (27 ku)         R512         T030003400         S.RESISTOR         ERJ3GEV J 224 V (27 ku)           R77         T030003400         S.RESISTOR         ERJ3GEV J 104 V (100 ku)         R512         T030003400         S.RESISTOR         ERJ3GEV J 104 V (100 ku)           R81         T030003400         S.RESISTOR         ERJ3GEV J 104 V (100 ku)         R622         T030003400         S.RESISTOR         ERJ3GEV J 104 V (100 ku)           R10         T030003400         S.RESISTOR         ERJ3GEV J 472 V (47 ku)         R623         T030003400         S.RESISTOR         ERJ3GEV J 472 V (47 ku)           R11         T030003400         S.RESISTOR         ERJ3GEV J 472 V (47 ku)         R630         T030003400         S.RESISTOR         ERJ3GEV J 472 V (47 ku)					R478	7310003610	S.TRIMMER	EVM-1XSX50 B14 (103)
PT3         703003503         S.RESISTOR         ERJGEV/J 669 V (56 1)           PT4         7030003701         S.RESISTOR         ERJGEV/J 664 V (56 1)           PT7         7030003700         S.RESISTOR         ERJGEV/J 664 V (27 V					R502	7030003560	S.RESISTOR	ERJ3GEYJ 103 V (10 kΩ)
PT7         703000340         S.RESISTOR         ERJGEV J 69 V (160.)           R76         703000340         S.RESISTOR         ERJGEV J 22 V (27 ku)         R511         703000340         S.RESISTOR         ERJGEV J 22 V (27 ku)           R77         703000340         S.RESISTOR         ERJGEV J 22 V (27 ku)         R511         703000340         S.RESISTOR         ERJGEV J 10 V (100 ku)           R77         703000340         S.RESISTOR         ERJGEV J 22 V (27 ku)         R511         703000340         S.RESISTOR         ERJGEV J 22 V (22 ku)           R78         7030003500         S.RESISTOR         ERJGEV J 10 V (100 ku)         R521         703000340         S.RESISTOR         ERJGEV J 22 V (22 ku)           R10         7030003500         S.RESISTOR         ERJGEV J 472 V (4.7 ku)         R523         703000340         S.RESISTOR         ERJGEV J 10 V (100 ku)           R102         7030003500         S.RESISTOR         ERJGEV J 472 V (4.7 ku)         R533         703000340         S.RESISTOR         ERJGEV J 10 V (100 ku)           R111         7030003500         S.RESISTOR         ERJGEV J 472 V (4.7 ku)         R534         703000340         S.RESISTOR         ERJGEV J 472 V (4.7 ku)           R111         7030003400         S.RESISTOR         ERJGEV J 472 V (4.7 ku)         R53						7030003290	S.RESISTOR	ERJ3GEYJ 560 V (56 Ω)
PTS         T030003400         S.RESISTOR         ERJGE/Y J32Y (27 kg)         R611         T030003400         S.RESISTOR         ERJGE/Y J32Y (23 kg)           R77         T030003400         S.RESISTOR         ERJGE/Y J32Y (22 kg)         R11         T030003400         S.RESISTOR         ERJGE/Y J02Y (14 kg)           R77         T030003400         S.RESISTOR         ERJGE/Y J02Y (14 kg)         R14         T030003400         S.RESISTOR         ERJGE/Y J02Y (14 kg)           R78         T030003400         S.RESISTOR         ERJGE/Y J02Y (14 kg)         R14         T030003400         S.RESISTOR         ERJGE/Y J02Y (14 kg)           R80         T030003400         S.RESISTOR         ERJGE/Y J02Y (14 kg)         R522         T030003400         S.RESISTOR         ERJGE/Y J02Y (14 kg)           R101         T030003200         S.RESISTOR         ERJGE/Y J12Y (14 kg)         R523         T030003300         S.RESISTOR         ERJGE/Y J11Y (10 kg)           R111         T030003200         S.RESISTOR         ERJGE/Y J12Y (14 kg)         R533         T030003400         S.RESISTOR         ERJGE/Y J11Y (10 kg)           R112         T030003200         S.RESISTOR         ERJGE/Y J11Y (14 kg)         R533         T030003400         S.RESISTOR         ERJGE/Y J11Y (10 kg)           R111         T						7030003290	S.RESISTOR	ERJ3GEYJ 560 V (56 Ω)
P70         P700003200         S.R.ESISTOR         EPU3GEV J 22 V (22 V (27 V)         PF12         P700003640         S.R.ESISTOR         EPU3GEV J 12 V (17 VQ)           P77         P700003500         S.R.ESISTOR         EPU3GEV J 12 V (17 VQ)         PF14         P700000360         S.R.ESISTOR         EPU3GEV J 12 V (100 VQ)           P77         P700003500         S.R.ESISTOR         EPU3GEV J 12 V (17 VQ)         PF14         P700000360         S.R.ESISTOR         EPU3GEV J 12 V (12 V(100 VQ)           P78         P700003500         S.R.ESISTOR         EPU3GEV J 12 V (17 VQ)         PR12         P7000003600         S.R.ESISTOR         EPU3GEV J 12 V (17 VQ)         PV (120 VQ)           P101         P7000003500         S.R.ESISTOR         EPU3GEV J 12 V (17 VQ)         PR53         P700003200         S.R.ESISTOR         EPU3GEV J 12 V (17 VQ)         PR53         P700003200         S.R.ESISTOR         EPU3GEV J 12 V (17 VQ)         PR53         P700003200         S.R.ESISTOR         EPU3GEV J 12 V (17 VQ)         PR53         P700003200         S.R.ESISTOR         EPU3GEV J 12 V (17 VQ)         PR53         P700003200         S.R.ESISTOR         EPU3GEV J 12 V (17 VQ)         PR53         P700003200         S.R.ESISTOR         EPU3GEV J 12 V (17 VQ)         PR53         P700003200         S.R.ESISTOR         EPU3GEV J 12 V (17 VQ)         PR53						7030003500	S.RESISTOR	ERJ3GEYJ 332 V (3.3 kΩ)
RT7         T03000360         S.RESISTOR         EHJGEV J 473 V (47 kQ)         R513         T03000360         S.RESISTOR         EHJGEV J (10 kQ)           R78         T03000360         S.RESISTOR         EHJGEV J 21 V (10 kQ)         R514         T03000360         S.RESISTOR         EHJGEV J (12 V (14 kQ)           R80         T03000370         S.RESISTOR         EHJGEV J (12 V (14 kQ)         R521         T03000360         S.RESISTOR         EHJGEV J (12 V (14 kQ)           R101         T030003500         S.RESISTOR         EHJGEV J (12 V (17 kQ)         R521         T030003200         S.RESISTOR         EHJGEV J (12 V (17 kQ)           R102         T030003500         S.RESISTOR         EHJGEV J (12 V (17 kQ)         R521         T030003200         S.RESISTOR         EHJGEV J (14 V (10 kQ)           R111         T030003500         S.RESISTOR         EHJGEV J (14 V (14 kQ)         R532         T030003300         S.RESISTOR         EHJGEV J (14 V (10 kQ)           R111         7030003600         S.RESISTOR         EHJGEV J (14 V (10 kQ)         R534         T030003400         S.RESISTOR         EHJGEV J (14 V (10 kQ)           R111         7030003600         S.RESISTOR         EHJGEV J (14 V (14 T kQ)         R534         T030003400         S.RESISTOR         EHJGEV J (14 V (17 kQ)         R547					R512	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
P78         703000350         S.RESISTOR         ERJ3GEV J 132 V (10 kg)         R514         703000360         S.RESISTOR         ERJ3GEV J 21 V (220 g)           R78         703000360         S.RESISTOR         ERJ3GEV J 22 V (47 kg)         R521         703000360         S.RESISTOR         ERJ3GEV J 22 V (220 g)           R81         703000350         S.RESISTOR         ERJ3GEV J 22 V (47 kg)         R521         703000360         S.RESISTOR         ERJ3GEV J 22 V (220 g)           R101         7030003520         S.RESISTOR         ERJ3GEV J 22 V (47 kg)         R531         703000320         S.RESISTOR         ERJ3GEV J 47 V (47 kg)           R102         7030003520         S.RESISTOR         ERJ3GEV J 47 V (47 kg)         R533         703000360         S.RESISTOR         ERJ3GEV J 47 V (47 kg)           R112         7030003620         S.RESISTOR         ERJ3GEV 47 V (47 kg)         R533         7030003400         S.RESISTOR         ERJ3GEV 47 V (47 kg)           R112         7030003400         S.RESISTOR         ERJ3GEV 47 V (47 kg)         R533         7030003400         S.RESISTOR         ERJ3GEV 47 V (47 kg)           R121         7030003400         S.RESISTOR         ERJ3GEV 47 V (47 kg)         R536         7030003400         S.RESISTOR         ERJ3GEV 47 V (47 kg)           R121<							S.RESISTOR	ERJ3GEYJ 104 V (100 kΩ)
PT30000520         S.RESISTOR         ERJ3GEV 472 V (47 Ku)         R521         T030003400         S.RESISTOR         ERJ3GEV 122 V (15X)           R81         T030003400         S.RESISTOR         ERJ3GEV 1422 V (14X)         R521         T030003400         S.RESISTOR         ERJ3GEV 122 V (242 Q)           R101         T030003520         S.RESISTOR         ERJ3GEV 1472 V (47 Ku)         R521         T030003200         S.RESISTOR         ERJ3GEV 1472 V (47 Ku)           R102         T030003520         S.RESISTOR         ERJ3GEV 1472 V (47 Ku)         R532         T030003200         S.RESISTOR         ERJ3GEV 1472 V (47 Ku)           R111         T030003520         S.RESISTOR         ERJ3GEV 1472 V (47 Ku)         R532         T030003600         S.RESISTOR         ERJ3GEV 1472 V (47 Ku)           R111         T030003520         S.RESISTOR         ERJ3GEV 1472 V (47 Ku)         R533         T030003400         S.RESISTOR         ERJ3GEV 1471 V (470 L)           R112         T030003520         S.RESISTOR         ERJ3GEV 1472 V (47 Ku)         R538         T030003400         S.RESISTOR         ERJ3GEV 1471 V (470 L)           R121         T030003600         S.RESISTOR         ERJ3GEV 1471 V (470 L)         R538         T030003200         S.RESISTOR         ERJ3GEV 1471 V (470 L)           R152							S.RESISTOR	ERJ3GEYJ 221 V (220 Ω)
Radi         Trabinovskage         S.R.ESISTOR         E.R.JSGEV.1 104 V (100 KG)         R522         Trable V (14 KL)         R521         Trable V (14 KL)           Rei         Trabonovskage         S.R.ESISTOR         ERJJSGEV.1 128 V (14 KL)         R531         Trabonovskage         ERJJSGEV.1 22 V (22 Q) (22 Q)           R101         Trabonovskage         S.R.ESISTOR         ERJJSGEV.1 472 V (4,7 KL)         R532         Trabonovskage         ERJJSGEV.1 100 V (100 Q)           R102         Trabonovskage         S.R.ESISTOR         ERJJSGEV.1 472 V (4,7 KL)         R533         Trabonovskage         ERJJSGEV.1 471 V (470 Q)           R111         Trabonovskage         S.R.ESISTOR         ERJJSGEV.1 472 V (4,7 KL)         R543         Trabonovskage         ERJJSGEV.1 471 V (470 Q)           R111         Trabonovskage         S.R.ESISTOR         ERJJSGEV.1 471 V (470 Q)         R553         Trabonovskage         ERJJSGEV.1 471 V (470 Q)           R121         Trabonovskage         S.R.ESISTOR         ERJJSGEV.1 471 V (470 Q)         R553         Trabonovskage         S.R.ESISTOR         ERJJSGEV.1 471 V (470 Q)           R122         Trabonovskage         S.R.ESISTOR         ERJJSGEV.1 471 V (470 Q)         R553         Trabonovskage         S.R.ESISTOR         ERJJSGEV.1 471 V (470 Q)           R121         Trabonovskage		1					S.RESISTOR	ERJ3GEYJ 332 V (3.3 kΩ)
Rel         T03000370         S.RESISTOR         EnJ3GEV 182 V (18 kD)         R523         T030003320         S.RESISTOR         ENJ3GEV 122 V (22 0.)           R101         T030003520         S.RESISTOR         ENJ3GEV 172 V (17 kD)         R631         T03000320         S.RESISTOR         ENJ3GEV 101 V (100 L)           R102         T030003520         S.RESISTOR         ENJ3GEV 172 V (17 kD)         R632         T030003380         S.RESISTOR         ENJ3GEV 173 V (17 kD)           R111         T030003520         S.RESISTOR         ENJ3GEV 172 V (17 kD)         R533         T03000380         S.RESISTOR         ENJ3GEV 171 V (470 L)           R112         T030003520         S.RESISTOR         ENJ3GEV 172 V (17 kD)         R533         T030003400         S.RESISTOR         ENJ3GEV 171 V (470 D)           R122         T030003600         S.RESISTOR         ENJ3GEV 122 V (12 kD)         R533         T030003400         S.RESISTOR         ENJ3GEV 171 V (470 D)           R151         T030003600         S.RESISTOR         ENJ3GEV 122 V (12 kD)         R533         T030003200         S.RESISTOR         ENJ3GEV 171 V (470 D)           R152         T030003600         S.RESISTOR         ENJ3GEV 147 V (470 L)         R553         T030003300         S.RESISTOR         ENJ3GEV 147 V (470 L)         R154								ERJ3GEYJ 102 V (1 kΩ)
H101         T030003220         S.RESISTOR         ENJGEY J 150 V (15 µ)           H101         T03000320         S.RESISTOR         ENJGEY J 160 V (15 µ)           H102         T030003520         S.RESISTOR         ENJGEY J 172 V (47 kµ)         R53         T030003800         S.RESISTOR         ENJGEY J 171 V (10 µ)           H111         T030003520         S.RESISTOR         ENJGEY J 172 V (47 kµ)         R53         T030003800         S.RESISTOR         ENJGEY J 171 V (47 kµ)           H111         T030003520         S.RESISTOR         ENJGEY J 472 V (47 kµ)         R536         T030003400         S.RESISTOR         ENJGEY J 473 V (47 kµ)           H111         T030003400         S.RESISTOR         ENJGEY J 472 V (47 kµ)         R537         T030003400         S.RESISTOR         ENJGEY J 473 V (47 kµ)           H112         T030003400         S.RESISTOR         ENJGEY J 120 V (15 µ)         R537         T030003400         S.RESISTOR         ENJGEY J 150 V (15 µ)           H151         T030003600         S.RESISTOR         ENJGEY J 10 V (10 µ)         R552         T030003400         S.RESISTOR         ENJGEY J 150 V (15 µ)           H151         T030003200         S.RESISTOR         ENJGEY J 10 V (10 µ)         R553         T030003400         S.RESISTOR         ENJGEY J 10 V (10 µ)								ERJ3GEYJ 221 V (220 Ω)
Tito         Tosocoss20         S.RESISTOR         ERJ3GEYJ 472 V (4.7 kG)         R53         Tosocoss20         S.RESISTOR         ERJ3GEYJ 370 V (100 G)           R102         T030003520         S.RESISTOR         ERJ3GEYJ 472 V (4.7 kG)         R53         TO3000340         S.RESISTOR         ERJ3GEYJ 370 V (47 G)           R111         T030003520         S.RESISTOR         ERJ3GEYJ 472 V (4.7 kG)         R55         TO3000340         S.RESISTOR         ERJ3GEYJ 473 V (47 kG)           R112         T030003520         S.RESISTOR         ERJ3GEYJ 472 V (4.7 kG)         R55         TO3000340         S.RESISTOR         ERJ3GEYJ 473 V (47 kG)           R121         T030003520         S.RESISTOR         ERJ3GEYJ 472 V (4.7 kG)         R553         TO3000340         S.RESISTOR         ERJ3GEYJ 471 V (470 G)           R121         T03000350         S.RESISTOR         ERJ3GEYJ 471 V (470 G)         R551         TO3000320         S.RESISTOR         ERJ3GEYJ 471 V (470 G)           R151         T030003400         S.RESISTOR         ERJ3GEYJ 472 V (4.7 kG)         R553         TO30003340         S.RESISTOR         ERJ3GEYJ 473 V (47 kG)           R151         T030003400         S.RESISTOR         ERJ3GEYJ 471 V (47 kG)         R553         TO30003400         S.RESISTOR         ERJ3GEYJ 471 V (47 kG)								ERJ3GEYJ 150 V (15 Ω)
H103         T03000320         S.RESISTOR         ER.J3GEY, 472 (4.7 KG)         FS33         F03000380         S.RESISTOR         ER.J3GEY, 472 (4.7 KG)           R111         7030003520         S.RESISTOR         ER.J3GEY, 472 (4.7 KG)         R533         703000340         S.RESISTOR         ER.J3GEY, 472 (4.7 KG)           R112         7030003520         S.RESISTOR         ER.J3GEY, 472 (4.7 KG)         R537         703000340         S.RESISTOR         ER.J3GEY, 472 (4.7 KG)           R121         7030003402         S.RESISTOR         ER.J3GEY, 472 (4.7 KG)         R538         703000340         S.RESISTOR         ER.J3GEY, 471 (47 G)           R122         703000360         S.RESISTOR         ER.J3GEY, 472 (4.7 KG)         R538         7030003400         S.RESISTOR         ER.J3GEY, 471 (47 G)           R152         703000360         S.RESISTOR         ER.J3GEY, 472 (4.7 KG)         R558         7030003400         S.RESISTOR         ER.J3GEY, 471 (47 G)           R153         703000340         S.RESISTOR         ER.J3GEY, 471 (47 G)         R557         703000340         S.RESISTOR         ER.J3GEY, 471 (47 G)           R154         703000340         S.RESISTOR         ER.J3GEY, 471 (47 KG)         R557         7030003640         S.RESISTOR         ER.J3GEY, 473 (47 KG)           R154<								ERJ3GEYJ 101 V (100 Ω)
R1101         T030003220         S.RESISTOR         ERJ3GEYJ 472 V (47, Kg)         R534         T03000340         S.RESISTOR         ERJ3GEYJ 472 V (47, Kg)           R1112         7030003520         S.RESISTOR         ERJ3GEYJ 472 V (47, Kg)         R536         T030003400         S.RESISTOR         ERJ3GEYJ 472 V (47, Kg)           R111         7030003520         S.RESISTOR         ERJ3GEYJ 472 V (47, Kg)         R537         T030003400         S.RESISTOR         ERJ3GEYJ 472 V (47, Kg)           R122         7030003520         S.RESISTOR         ERJ3GEYJ 472 V (47, Kg)         R537         T030003400         S.RESISTOR         ERJ3GEYJ 471 V (470 G)           R122         7030003600         S.RESISTOR         ERJ3GEYJ 471 V (470 G)         R537         T030003400         S.RESISTOR         ERJ3GEYJ 471 V (470 G)           R153         7030003400         S.RESISTOR         ERJ3GEYJ 472 V (47, Kg)         R551         T030003360         S.RESISTOR         ERJ3GEYJ 472 V (47, Kg)           R153         7030003400         S.RESISTOR         ERJ3GEYJ 472 V (47, Kg)         R554         7030003400         S.RESISTOR         ERJ3GEYJ 473 V (47, Kg)           R155         7030003400         S.RESISTOR         ERJ3GEYJ 473 V (47, Kg)         R554         7030003400         S.RESISTOR         ERJ3GEYJ 473 V (47, Kg)								ERJ3GEYJ 331 V (330 Ω)
R1112         7030003420         S.RESISTOR         ERJ3GEYJ 472 V (4.7 kg)         F638         7030003400         S.RESISTOR         ERJ3GEYJ 472 V (4.7 kg)           R112         7030003520         S.RESISTOR         ERJ3GEYJ 472 V (4.7 kg)         R537         7030003400         S.RESISTOR         ERJ3GEYJ 471 V (470 g)           R121         7030003520         S.RESISTOR         ERJ3GEYJ 472 V (4.7 kg)         R537         7030003400         S.RESISTOR         ERJ3GEYJ 471 V (470 g)           R121         7030003520         S.RESISTOR         ERJ3GEYJ 472 V (4.7 kg)         R538         7030003400         S.RESISTOR         ERJ3GEYJ 471 V (470 g)           R151         7030003600         S.RESISTOR         ERJ3GEYJ 472 V (4.7 kg)         R551         703000320         S.RESISTOR         ERJ3GEYJ 471 V (470 g)           R153         7030003400         S.RESISTOR         ERJ3GEYJ 472 V (4.7 kg)         R553         7030003400         S.RESISTOR         ERJ3GEYJ 472 V (4.7 kg)           R154         7030003400         S.RESISTOR         ERJ3GEYJ 472 V (4.7 kg)         R554         7030003400         S.RESISTOR         ERJ3GEYJ 473 V (47 kg)           R154         7030003400         S.RESISTOR         ERJ3GEYJ 473 V (47 kg)         R554         7030003400         S.RESISTOR         ERJ3GEYJ 473 V (47 kg)								ERJ3GEYJ 473 V (47 kΩ)
R113         7030003520         S.RESISTOR         EHJ3GEVJ 472 V (4.7 kg)         R537         7030003640         S.RESISTOR         EHJ3GEVJ 472 V (4.7 kg)           R121         7030003500         S.RESISTOR         EHJ3GEVJ 472 V (4.7 kg)         R538         7030003400         S.RESISTOR         EHJ3GEVJ 472 V (4.7 kg)           R121         7030003600         S.RESISTOR         EHJ3GEVJ 472 V (4.7 kg)         R538         7030003400         S.RESISTOR         EHJ3GEVJ 101 V (170 g)           R151         7030003600         S.RESISTOR         EHJ3GEVJ 101 V (170 g)         R538         7030003400         S.RESISTOR         EHJ3GEVJ 101 V (170 g)           R155         7030003400         S.RESISTOR         EHJ3GEVJ 102 V (1 kQ)         R554         7030003400         S.RESISTOR         EHJ3GEVJ 102 V (1 kQ)           R155         7030003400         S.RESISTOR         EHJ3GEVJ 102 V (1 kQ)         R554         7030003400         S.RESISTOR         EHJ3GEVJ 102 V (1 kQ)           R151         7030003400         S.RESISTOR         EHJ3GEVJ 102 V (1 kQ)         R567         7030003400         S.RESISTOR         EHJ3GEVJ 102 V (1 kQ)           R157         7030003500         S.RESISTOR         EHJ3GEVJ 102 V (1 kQ)         R567         7030003600         S.RESISTOR         EHJ3GEVJ 102 V (1 kQ) <tr< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td>1</td><td>ERJ3GEYJ 471 V (470 Ω)</td></tr<>							1	ERJ3GEYJ 471 V (470 Ω)
R121         7030003400         S.RESISTOR         ERJ3GEV J 22 V (2.2 kΩ)         R538         703003400         S.RESISTOR         ERJ3GEV J 472 V (4.7 kΩ)           R122         7030003620         S.RESISTOR         ERJ3GEV J 472 V (4.7 kΩ)         R539         7030003400         S.RESISTOR         ERJ3GEV J 471 V (470 Ω)           R151         7030003660         S.RESISTOR         ERJ3GEV J 421 V (470 Ω)         R551         7030003300         S.RESISTOR         ERJ3GEV J 417 V (470 Ω)           R152         7030003400         S.RESISTOR         ERJ3GEV J 427 V (4.7 kΩ)         R553         7030003300         S.RESISTOR         ERJ3GEV J 417 V (470 Ω)           R155         7030003400         S.RESISTOR         ERJ3GEV J 417 V (470 Ω)         R553         7030003400         S.RESISTOR         ERJ3GEV J 417 V (47 kΩ)           R156         7030003400         S.RESISTOR         ERJ3GEV J 417 V (47 kΩ)         R556         7030003400         S.RESISTOR         ERJ3GEV J 417 V (47 kΩ)           R161         7030003400         S.RESISTOR         ERJ3GEV J 417 V (47 kΩ)         R557         7030003400         S.RESISTOR         ERJ3GEV J 417 V (47 kΩ)           R171         703000360         S.RESISTOR         ERJ3GEV J 417 V (47 kΩ)         R572         703000360         S.RESISTOR         ERJ3GEV J 417 V (47 kΩ) <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>1</td> <td>ERJ3GEYJ 473 V (47 kΩ)</td>							1	ERJ3GEYJ 473 V (47 kΩ)
Π122         7030003600         S.RESISTOR         ERJ3GEY J 472 V (47 kg)         R539         7030003400         S.RESISTOR         ERJ3GEY J 471 V (470 g)           R151         7030003670         S.RESISTOR         ERJ3GEY J 823 V (82 kg)         R551         703000320         S.RESISTOR         ERJ3GEY J 160 V (15 g)           R152         7030003400         S.RESISTOR         ERJ3GEY J 17 V (470 g)         R552         703000320         S.RESISTOR         ERJ3GEY J 31 V (30 g)           R154         7030003400         S.RESISTOR         ERJ3GEY J 472 V (47 kg)         R554         7030003400         S.RESISTOR         ERJ3GEY J 473 V (47 kg)           R156         7030003400         S.RESISTOR         ERJ3GEY J 472 V (47 kg)         R556         7030003400         S.RESISTOR         ERJ3GEY J 473 V (47 kg)           R161         7030003400         S.RESISTOR         ERJ3GEY J 472 V (47 kg)         R557         7030003400         S.RESISTOR         ERJ3GEY J 473 V (47 kg)           R172         7030003640         S.RESISTOR         ERJ3GEY J 473 V (47 kg)         R567         7030003600         S.RESISTOR         ERJ3GEY J 472 V (47 kg)           R173         7030003600         S.RESISTOR         ERJ3GEY J 472 V (47 kg)         R571         7030003600         S.RESISTOR         ERJ3GEY J 102 V (10 kg)			-					ERJ3GEYJ 471 V (470 Ω)
R151         7030003670         S.RESISTOR         ERJ3GEYJ 823 V (82 k0)         R551         7030003220         S.RESISTOR         ERJ3GEYJ 63 V (68 k2)           R152         7030003600         S.RESISTOR         ERJ3GEYJ 63 V (68 k2)         R552         7030003320         S.RESISTOR         ERJ3GEYJ 102 V (17 k2)           R154         7030003400         S.RESISTOR         ERJ3GEYJ 102 V (17 k2)         R554         7030003400         S.RESISTOR         ERJ3GEYJ 473 V (47 k2)           R155         7030003400         S.RESISTOR         ERJ3GEYJ 1102 V (1 k1)         R554         7030003400         S.RESISTOR         ERJ3GEYJ 473 V (47 k2)           R161         7030003400         S.RESISTOR         ERJ3GEYJ 1102 V (1 k1)         R556         7030003400         S.RESISTOR         ERJ3GEYJ 473 V (47 k2)           R171         7030003640         S.RESISTOR         ERJ3GEYJ 473 V (47 k2)         R571         7030003600         S.RESISTOR         ERJ3GEYJ 473 V (47 k2)           R173         7030003500         S.RESISTOR         ERJ3GEYJ 473 V (47 k2)         R571         7030003600         S.RESISTOR         ERJ3GEYJ 102 V (10 k2)           R173         7030003500         S.RESISTOR         ERJ3GEYJ 172 V (47 k2)         R571         7030003500         S.RESISTOR         ERJ3GEYJ 102 V (10 k2)      <							S.RESISTOR	ERJ3GEYJ 471 V (470 Ω)
Π152         703000360         S.RESISTOR         ERJ3GEVJ 683 V (68 kΩ)         R552         7030003320         S.RESISTOR         ERJ3GEVJ 101 V (100 μ)           R153         7030003400         S.RESISTOR         ERJ3GEVJ 12V (1 kΩ)         R553         7030003800         S.RESISTOR         ERJ3GEVJ 132 V (17 kΩ)           R154         7030003400         S.RESISTOR         ERJ3GEVJ 142 V (1 kΩ)         R554         7030003400         S.RESISTOR         ERJ3GEVJ 142 V (47 kΩ)           R161         7030003400         S.RESISTOR         ERJ3GEVJ 142 V (150 kΩ)         R555         7030003400         S.RESISTOR         ERJ3GEVJ 473 V (47 kΩ)           R172         7030003640         S.RESISTOR         ERJ3GEVJ 473 V (47 kΩ)         R565         7030003640         S.RESISTOR         ERJ3GEVJ 473 V (47 kΩ)           R173         7030003640         S.RESISTOR         ERJ3GEVJ 473 V (47 kΩ)         R571         7030003520         S.RESISTOR         ERJ3GEVJ 472 V (4.7 kΩ)           R174         7030003560         S.RESISTOR         ERJ3GEVJ 103 V (10 kΩ)         R803         7030003660         S.RESISTOR         ERJ3GEVJ 103 V (10 kΩ)           R174         7030003660         S.RESISTOR         ERJ3GEVJ 103 V (10 kΩ)         R803         7030003660         S.RESISTOR         ERJ3GEVJ 103 V (10 kΩ) <t< td=""><td></td><td></td><td></td><td></td><td></td><td>7030003220</td><td>S.RESISTOR</td><td>ERJ3GEYJ 150 V (15 Ω)</td></t<>						7030003220	S.RESISTOR	ERJ3GEYJ 150 V (15 Ω)
Π152         T03000340         S.RESISTOR         ERJ3GEYJ 471 V (470 Ω)         R553         T03000380         S.RESISTOR         ERJ3GEYJ 31 V (30 Ω)           R154         T03000340         S.RESISTOR         ERJ3GEYJ 102 V (1 kΩ)         R554         T03000360         S.RESISTOR         ERJ3GEYJ 473 V (47 kΩ)           R165         T030003700         S.RESISTOR         ERJ3GEYJ 473 V (47 kΩ)         R556         T030003640         S.RESISTOR         ERJ3GEYJ 473 V (47 kΩ)           R161         T030003400         S.RESISTOR         ERJ3GEYJ 473 V (47 kΩ)         R557         T030003640         S.RESISTOR         ERJ3GEYJ 473 V (47 kΩ)           R171         T030003640         S.RESISTOR         ERJ3GEYJ 473 V (47 kΩ)         R557         T030003500         S.RESISTOR         ERJ3GEYJ 473 V (47 kΩ)           R172         T030003560         S.RESISTOR         ERJ3GEYJ 473 V (47 kΩ)         R571         T030003560         S.RESISTOR         ERJ3GEYJ 172 V (4.7 kΩ)           R173         T030003560         S.RESISTOR         ERJ3GEYJ 173 V (10 kΩ)         R571         T030003610         S.RESISTOR         ERJ3GEYJ 172 V (4.7 kΩ)           R174         T030003600         S.RESISTOR         ERJ3GEYJ 103 V (10 kΩ)         R801         T030003600         S.RESISTOR         ERJ3GEYJ 102 V (1.5 kΩ) <tr< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>ERJ3GEYJ 101 V (100 Ω)</td></tr<>								ERJ3GEYJ 101 V (100 Ω)
Π154         T03000340         S.RESISTOR         ERJ3GEYJ 102 V (1 kΩ)         R554         T030003640         S.RESISTOR         ERJ3GEYJ 472 V (47 kΩ)           R155         T030003520         S.RESISTOR         ERJ3GEYJ 472 V (47 kΩ)         R556         T030003000         S.RESISTOR         ERJ3GEYJ 471 V (470 Ω)           R161         T030003640         S.RESISTOR         ERJ3GEYJ 473 V (47 kΩ)         R557         T030003400         S.RESISTOR         ERJ3GEYJ 471 V (470 Ω)           R162         T030003640         S.RESISTOR         ERJ3GEYJ 473 V (47 kΩ)         R557         T030003400         S.RESISTOR         ERJ3GEYJ 471 V (470 Ω)           R172         T030003520         S.RESISTOR         ERJ3GEYJ 473 V (47 kΩ)         R571         T030003500         S.RESISTOR         ERJ3GEYJ 473 V (47 kΩ)           R173         T030003520         S.RESISTOR         ERJ3GEYJ 473 V (47 kΩ)         R572         T030003500         S.RESISTOR         ERJ3GEYJ 472 V (4.7 kΩ)           R176         T030003600         S.RESISTOR         ERJ3GEYJ 103 V (10 kΩ)         R801         T030003600         S.RESISTOR         ERJ3GEYJ 102 V (10 kΩ)           R176         T030003600         S.RESISTOR         ERJ3GEYJ 103 V (10 kΩ)         R803         T030003600         S.RESISTOR         ERJ3GEYJ 102 V (1.6 kΩ)						7030003380	S.RESISTOR	ERJ3GEYJ 331 V (330 Ω)
Π155         7030003500         S.RESISTOR         ERJ3GEYJ 472 V (4.7 kΩ)         R556         7030003400         S.RESISTOR         ERJ3GEYJ 471 V (470 Ω)           R161         7030003700         S.RESISTOR         ERJ3GEYJ 154 V (150 kΩ)         R557         7030003400         S.RESISTOR         ERJ3GEYJ 471 V (470 Ω)           R161         7030003400         S.RESISTOR         ERJ3GEYJ 473 V (47 kΩ)         R557         7030003400         S.RESISTOR         ERJ3GEYJ 471 V (470 Ω)           R171         7030003400         S.RESISTOR         ERJ3GEYJ 473 V (47 kΩ)         R559         7030003400         S.RESISTOR         ERJ3GEYJ 471 V (470 Ω)           R172         7030003500         S.RESISTOR         ERJ3GEYJ 472 V (4.7 kΩ)         R571         7030003500         S.RESISTOR         ERJ3GEYJ 103 V (10 kΩ)           R173         7030003560         S.RESISTOR         ERJ3GEYJ 133 V (15 kΩ)         R801         7030003360         S.RESISTOR         ERJ3GEYJ 104 V (100 kΩ)           R176         7030003560         S.RESISTOR         ERJ3GEYJ 122 V (22 kΩ)         R807         7030003360         S.RESISTOR         ERJ3GEYJ 121 V (120 Ω)           R178         7030003600         S.RESISTOR         ERJ3GEYJ 147 V (47 kΩ)         R807         R807         R30003300         S.RESISTOR         ERJ3GEYJ 122 V (								ERJ3GEYJ 473 V (47 kΩ)
Π161         7030003700         S.RESISTOR         ERJ3GEYJ 154 V (150 kg)         R557         7030003640         S.RESISTOR         ERJ3GEYJ 174 V (47 kg)           R161         7030003400         S.RESISTOR         ERJ3GEYJ 102 V (1 kg)         R558         7030003400         S.RESISTOR         ERJ3GEYJ 473 V (47 kg)           R171         7030003640         S.RESISTOR         ERJ3GEYJ 473 V (47 kg)         R557         7030003600         S.RESISTOR         ERJ3GEYJ 471 V (470 g)           R172         7030003640         S.RESISTOR         ERJ3GEYJ 473 V (47 kg)         R571         7030003600         S.RESISTOR         ERJ3GEYJ 473 V (47 kg)           R174         7030003560         S.RESISTOR         ERJ3GEYJ 472 V (47 kg)         R572         7030003610         S.RESISTOR         ERJ3GEYJ 103 V (10 kg)           R175         703000360         S.RESISTOR         ERJ3GEYJ 103 V (10 kg)         R804         7030003360         S.RESISTOR         ERJ3GEYJ 122 V (27 kg)           R177         703000360         S.RESISTOR         ERJ3GEYJ 103 V (10 kg)         R807         7030003360         S.RESISTOR         ERJ3GEYJ 122 V (120 g)           R177         703000360         S.RESISTOR         ERJ3GEYJ 473 V (47 kg)         R817         7030003360         S.RESISTOR         ERJ3GEYJ 122 V (12 kg) <t< td=""><td></td><td></td><td></td><td></td><td></td><td>1</td><td>1</td><td>ERJ3GEYJ 471 V (470 Ω)</td></t<>						1	1	ERJ3GEYJ 471 V (470 Ω)
Π162         7030003400         S.RESISTOR         ERJ3GEYJ 102 V (1 kΩ)         R558         7030003400         S.RESISTOR         ERJ3GEYJ 473 V (47 kΩ)           R171         7030003640         S.RESISTOR         ERJ3GEYJ 473 V (47 kΩ)         R559         7030003600         S.RESISTOR         ERJ3GEYJ 473 V (47 kΩ)           R172         7030003500         S.RESISTOR         ERJ3GEYJ 472 V (4.7 kΩ)         R572         7030003560         S.RESISTOR         ERJ3GEYJ 103 V (10 kΩ)           R173         7030003560         S.RESISTOR         ERJ3GEYJ 103 V (10 kΩ)         R801         7030003680         S.RESISTOR         ERJ3GEYJ 102 V (4.7 kΩ)           R174         7030003560         S.RESISTOR         ERJ3GEYJ 103 V (10 kΩ)         R801         7030003680         S.RESISTOR         ERJ3GEYJ 102 V (10 kΩ)           R176         7030003600         S.RESISTOR         ERJ3GEYJ 103 V (10 kΩ)         R804         7030003300         S.RESISTOR         ERJ3GEYJ 122 V (12 kΩ)           R177         7030003600         S.RESISTOR         ERJ3GEYJ 104 V (100 kΩ)         R804         703000330         S.RESISTOR         ERJ3GEYJ 122 V (12 kΩ)           R177         7030003600         S.RESISTOR         ERJ3GEYJ 143 V (47 kΩ)         R811         703000330         S.RESISTOR         ERJ3GEYJ 122 V (12 kΩ)								ERJ3GEYJ 473 V (47 kΩ)
Π171         7030003640         S.RESISTOR         ERJ3GEYJ 473 V (47 kΩ)         R559         7030003400         S.RESISTOR         ERJ3GEYJ 473 V (47 kΩ)           R172         7030003640         S.RESISTOR         ERJ3GEYJ 473 V (47 kΩ)         R571         703000350         S.RESISTOR         ERJ3GEYJ 472 V (47 kΩ)         R571         703000350         S.RESISTOR         ERJ3GEYJ 103 V (10 kΩ)           R174         7030003500         S.RESISTOR         ERJ3GEYJ 173 V (17 kΩ)         R571         7030003500         S.RESISTOR         ERJ3GEYJ 172 V (47 kΩ)           R174         7030003500         S.RESISTOR         ERJ3GEYJ 103 V (10 kΩ)         R801         703000360         S.RESISTOR         ERJ3GEYJ 127 V (47 kΩ)           R176         7030003600         S.RESISTOR         ERJ3GEYJ 103 V (10 kΩ)         R801         703000360         S.RESISTOR         ERJ3GEYJ 121 V (120 Ω)           R177         7030003600         S.RESISTOR         ERJ3GEYJ 472 V (47 kΩ)         R807         7030003360         S.RESISTOR         ERJ3GEYJ 121 V (120 Ω)           R177         7030003600         S.RESISTOR         ERJ3GEYJ 472 V (47 kΩ)         R807         7030003360         S.RESISTOR         ERJ3GEYJ 121 V (120 Ω)           R178         703000360         S.RESISTOR         ERJ3GEYJ 472 V (47 kΩ)         R807 </td <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>S.RESISTOR</td> <td>ERJ3GEYJ 471 V (470 Ω)</td>							S.RESISTOR	ERJ3GEYJ 471 V (470 Ω)
Π17       7030003640       S.RESISTOR       ERJ3GEYJ 473 V (47 kΩ)       R571       7030003560       S.RESISTOR       ERJ3GEYJ 472 V (4.7 kΩ)         R173       7030003520       S.RESISTOR       ERJ3GEYJ 472 V (4.7 kΩ)       R572       7030003520       S.RESISTOR       ERJ3GEYJ 472 V (4.7 kΩ)         R174       7030003560       S.RESISTOR       ERJ3GEYJ 103 V (10 kΩ)       R672       7030003620       S.RESISTOR       ERJ3GEYJ 103 V (10 kΩ)         R175       7030003560       S.RESISTOR       ERJ3GEYJ 103 V (10 kΩ)       R803       7030003600       S.RESISTOR       ERJ3GEYJ 103 V (10 kΩ)         R176       7030003600       S.RESISTOR       ERJ3GEYJ 103 V (10 kΩ)       R803       7030003600       S.RESISTOR       ERJ3GEYJ 121 V (10 kΩ)         R177       7030003600       S.RESISTOR       ERJ3GEYJ 103 V (10 kΩ)       R804       7030003360       S.RESISTOR       ERJ3GEYJ 122 V (1.5 kΩ)         R178       7030003600       S.RESISTOR       ERJ3GEYJ 104 V (100 kΩ)       R807       7030003300       S.RESISTOR       ERJ3GEYJ 104 V (100 kΩ)         R181       7030003600       S.RESISTOR       ERJ3GEYJ 132 V (17 kΩ)       R811       7030003600       S.RESISTOR       ERJ3GEYJ 104 V (100 kΩ)         R186       7030003600       S.RESISTOR       ERJ3GEYJ 132 V (17 kΩ) </td <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>								
Int2         District of the second sec								ERJ3GEYJ 103 V (10 kΩ)
Π173         Π030003500         S.RESISTOR         ERJ3GEYJ 153 V (15 kΩ)         R801         7030003610         S.RESISTOR         ERJ3GEYJ 273 V (27 kΩ)           R175         7030003560         S.RESISTOR         ERJ3GEYJ 103 V (10 kΩ)         R804         7030003600         S.RESISTOR         ERJ3GEYJ 123 V (12 kΩ)           R176         7030003600         S.RESISTOR         ERJ3GEYJ 123 V (10 kΩ)         R804         703000360         S.RESISTOR         ERJ3GEYJ 122 V (22 kΩ)           R177         7030003600         S.RESISTOR         ERJ3GEYJ 122 V (22 kΩ)         R807         7030003360         S.RESISTOR         ERJ3GEYJ 122 V (22 0Ω)           R178         7030003600         S.RESISTOR         ERJ3GEYJ 122 V (4.7 kΩ)         R807         703000340         S.RESISTOR         ERJ3GEYJ 124 V (100 kΩ)           R185         7030003600         S.RESISTOR         ERJ3GEYJ 393 V (39 kΩ)         R812         703000340         S.RESISTOR         ERJ3GEYJ 120 V (1.5 kΩ)           R186         7030003500         S.RESISTOR         ERJ3GEYJ 393 V (39 kΩ)         R814         703000360         S.RESISTOR         ERJ3GEYJ 120 V (1.5 kΩ)           R186         7030003500         S.RESISTOR         ERJ3GEYJ 322 V (2.8 kΩ)         R817         7030003600         S.RESISTOR         ERJ3GEYJ 120 V (1.5 kΩ)				•				ERJ3GEYJ 472 V (4.7 kΩ)
Π174         Π03000360         S.RESISTOR         ERJ3GEYJ 103 V (10 kΩ)         R803         7030003600         S.RESISTOR         ERJ3GEYJ 103 V (10 kΩ)           R176         7030003600         S.RESISTOR         ERJ3GEYJ 103 V (10 kΩ)         R804         703000360         S.RESISTOR         ERJ3GEYJ 122 V (120 Ω)           R177         7030003600         S.RESISTOR         ERJ3GEYJ 223 V (22 kΩ)         R807         703000360         S.RESISTOR         ERJ3GEYJ 122 V (120 Ω)           R178         7030003620         S.RESISTOR         ERJ3GEYJ 472 V (47 kΩ)         R807         7030003740         S.RESISTOR         ERJ3GEYJ 122 V (120 Ω)           R181         7030003600         S.RESISTOR         ERJ3GEYJ 472 V (47 kΩ)         R811         7030003400         S.RESISTOR         ERJ3GEYJ 132 V (100 kΩ)           R185         7030003600         S.RESISTOR         ERJ3GEYJ 393 V (39 kΩ)         R811         7030003400         S.RESISTOR         ERJ3GEYJ 104 V (100 kΩ)           R186         7030003600         S.RESISTOR         ERJ3GEYJ 393 V (39 kΩ)         R811         7030003400         S.RESISTOR         ERJ3GEYJ 122 V (15 kΩ)           R186         7030003600         S.RESISTOR         ERJ3GEYJ 322 V (22 kΩ)         R814         7030003400         S.RESISTOR         ERJ3GEYJ 102 V (1 kΩ)      <			1					ERJ3GEYJ 273 V (27 kΩ)
H173T030003560S.RESISTORERJ3GEYJ 103 V (10 kΩ)R804T030003460S.RESISTORERJ3GEYJ 122 V (12 kΩ)R176T030003600S.RESISTORERJ3GEYJ 223 V (22 kΩ)R807T030003300S.RESISTORERJ3GEYJ 221 V (220 Ω)R178T030003600S.RESISTORERJ3GEYJ 104 V (100 kΩ)R808T030003300S.RESISTORERJ3GEYJ 221 V (220 Ω)R178T030003600S.RESISTORERJ3GEYJ 472 V (4.7 kΩ)R801T030003740S.RESISTORERJ3GEYJ 472 V (4.7 kΩ)R181T030003600S.RESISTORERJ3GEYJ 472 V (4.7 kΩ)R811T030003740S.RESISTORERJ3GEYJ 152 V (1.5 kΩ)R185T030003600S.RESISTORERJ3GEYJ 393 V (39 kΩ)R814T030003740S.RESISTORERJ3GEYJ 104 V (100 kΩ)R186T030003600S.RESISTORERJ3GEYJ 322 V (3.3 kΩ)R816T03000370S.RESISTORERJ3GEYJ 104 V (100 kΩ)R187T030003600S.RESISTORERJ3GEYJ 322 V (3.3 kΩ)R816T030003600S.RESISTORERJ3GEYJ 102 V (1 kΩ)R202T030003420S.RESISTORERJ3GEYJ 681 V (680 Ω)R821T030003600S.RESISTORERJ3GEYJ 122 V (2 kΩ)R203T030003440S.RESISTORERJ3GEYJ 102 V (1 kΩ)R822T030003600S.RESISTORERJ3GEYJ 122 V (2 kΩ)R204T030003440S.RESISTORERJ3GEYJ 102 V (1 kΩ)R827T030003800S.RESISTORERJ3GEYJ 123 V (22 kΩ)R204T030003440S.RESISTORERJ3GEYJ 102 V (1 kΩ)R827T030003800S.RESISTOR			1					ERJ3GEYJ 104 V (100 kΩ)
R170R00003600S.RESISTORERJ3GEYJ 223 V (22 kΩ)R807703000360S.RESISTORERJ3GEYJ 221 V (220 Ω)R1777030003600S.RESISTORERJ3GEYJ 104 V (100 kΩ)R8087030003300S.RESISTORERJ3GEYJ 321 V (22 0Ω)R1797030003620S.RESISTORERJ3GEYJ 472 V (4.7 kΩ)R8117030003740S.RESISTORERJ3GEYJ 334 V (30 kΩ)R1817030003640S.RESISTORERJ3GEYJ 473 V (47 kΩ)R8127030003460S.RESISTORERJ3GEYJ 164 V (100 kΩ)R1867030003630S.RESISTORERJ3GEYJ 332 V (39 kΩ)R8147030003460S.RESISTORERJ3GEYJ 104 V (100 kΩ)R1867030003600S.RESISTORERJ3GEYJ 322 V (3.3 kΩ)R8157030003700S.RESISTORERJ3GEYJ 164 V (100 kΩ)R1877030003500S.RESISTORERJ3GEYJ 322 V (2.3 kΩ)R8177030003680S.RESISTORERJ3GEYJ 164 V (100 kΩ)R1897030003400S.RESISTORERJ3GEYJ 323 V (2.2 kΩ)R8177030003610S.RESISTORERJ3GEYJ 174 V (170 kΩ)R2027030003420S.RESISTORERJ3GEYJ 681 V (680 Ω)R8217030003600S.RESISTORERJ3GEYJ 223 V (2.2 kΩ)R2047030003440S.RESISTORERJ3GEYJ 102 V (1 kΩ)R8257030003600S.RESISTORERJ3GEYJ 102 V (1 kΩ)R2057030003440S.RESISTORERJ3GEYJ 102 V (1 kΩ)R826703000360S.RESISTORERJ3GEYJ 102 V (1 kΩ)R2047030003440S.RESISTORERJ3GEYJ 102 V (1 kΩ)R826703000360S.RESISTOR		F						ERJ3GEYJ 152 V (1.5 kΩ)
H1777030003600S.RESISTORERJ3GEVJ 104 V (100 kΩ)R8087030003330S.RESISTORERJ3GEYJ 121 V (120 Ω)R1787030003600S.RESISTORERJ3GEYJ 472 V (4.7 kΩ)R8117030003740S.RESISTORERJ3GEYJ 334 V (330 kΩ)R1817030003600S.RESISTORERJ3GEYJ 473 V (47 kΩ)R8127030003400S.RESISTORERJ3GEYJ 152 V (1.5 kΩ)R1857030003600S.RESISTORERJ3GEYJ 393 V (39 kΩ)R8147030003400S.RESISTORERJ3GEYJ 104 V (100 kΩ)R1867030003600S.RESISTORERJ3GEYJ 322 V (3.3 kΩ)R8167030003700S.RESISTORERJ3GEYJ 102 V (1 kΩ)R1877030003600S.RESISTORERJ3GEYJ 223 V (22 kΩ)R8177030003600S.RESISTORERJ3GEYJ 223 V (22 kΩ)R2017030003400S.RESISTORERJ3GEYJ 681 V (680 Ω)R8177030003600S.RESISTORERJ3GEYJ 273 V (27 kΩ)R2027030003400S.RESISTORERJ3GEYJ 102 V (1 kΩ)R8217030003600S.RESISTORERJ3GEYJ 102 V (1 kΩ)R2037030003440S.RESISTORERJ3GEYJ 102 V (1 kΩ)R8227030003600S.RESISTORERJ3GEYJ 102 V (1 kΩ)R2047030003440S.RESISTORERJ3GEYJ 102 V (1 kΩ)R8227030003600S.RESISTORERJ3GEYJ 31 V (300 Ω)R2057030003440S.RESISTORERJ3GEYJ 102 V (1 kΩ)R8267030003600S.RESISTORERJ3GEYJ 102 V (1 kΩ)R2067030003440S.RESISTORERJ3GEYJ 102 V (1 kΩ)R826703000360S.RESISTOR <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>								
R1797030003520S.RESISTORERJ3GEYJ 472 V (4.7 kΩ)R8117030003740S.RESISTORERJ3GEYJ 334 V (330 kΩ)R1817030003640S.RESISTORERJ3GEYJ 472 V (4.7 kΩ)R8127030003460S.RESISTORERJ3GEYJ 152 V (1.5 kΩ)R1857030003630S.RESISTORERJ3GEYJ 393 V (39 kΩ)R8147030003680S.RESISTORERJ3GEYJ 104 V (100 kΩ)R1867030003600S.RESISTORERJ3GEYJ 104 V (100 kΩ)R8157030003400S.RESISTORERJ3GEYJ 102 V (1 kΩ)R1877030003500S.RESISTORERJ3GEYJ 332 V (3.3 kΩ)R8167030003700S.RESISTORERJ3GEYJ 104 V (100 kΩ)R1897030003500S.RESISTORERJ3GEYJ 332 V (3.3 kΩ)R8177030003600S.RESISTORERJ3GEYJ 104 V (100 kΩ)R2017030003420S.RESISTORERJ3GEYJ 681 V (680 Ω)R8177030003600S.RESISTORERJ3GEYJ 273 V (27 kΩ)R2037030003440S.RESISTORERJ3GEYJ 681 V (680 Ω)R8217030003600S.RESISTORERJ3GEYJ 223 V (22 kΩ)R2047030003440S.RESISTORERJ3GEYJ 102 V (1 kΩ)R8257030003440S.RESISTORERJ3GEYJ 102 V (1 kΩ)R2067030003440S.RESISTORERJ3GEYJ 102 V (1 kΩ)R8267030003600S.RESISTORERJ3GEYJ 103 V (10 kΩ)R2087030003640S.RESISTORERJ3GEYJ 102 V (1 kΩ)R8267030003600S.RESISTORERJ3GEYJ 103 V (10 kΩ)R2097030003640S.RESISTORERJ3GEYJ 102 V (1 kΩ)R8267030003600S.RESIST							S.RESISTOR	ERJ3GEYJ 121 V (120 Ω)
R1817030003640S.RESISTORERJ3GEYJ 473 V (47 kΩ)R8127030003460S.RESISTORERJ3GEYJ 152 V (1.5 kΩ)R1857030003630S.RESISTORERJ3GEYJ 393 V (39 kΩ)R8147030003680S.RESISTORERJ3GEYJ 104 V (100 kΩ)R1867030003680S.RESISTORERJ3GEYJ 104 V (100 kΩ)R8157030003440S.RESISTORERJ3GEYJ 102 V (1 kΩ)R1877030003500S.RESISTORERJ3GEYJ 332 V (3.3 kΩ)R8167030003700S.RESISTORERJ3GEYJ 104 V (100 kΩ)R1897030003600S.RESISTORERJ3GEYJ 233 V (23 kΩ)R8177030003600S.RESISTORERJ3GEYJ 104 V (100 kΩ)R2017030003420S.RESISTORERJ3GEYJ 681 V (680 Ω)R8177030003610S.RESISTORERJ3GEYJ 273 V (27 kΩ)R2027030003440S.RESISTORERJ3GEYJ 102 V (1 kΩ)R8207030003610S.RESISTORERJ3GEYJ 273 V (27 kΩ)R2047030003440S.RESISTORERJ3GEYJ 102 V (1 kΩ)R8227030003600S.RESISTORERJ3GEYJ 331 V (330 Ω)R2057030003440S.RESISTORERJ3GEYJ 102 V (1 kΩ)R8267030003600S.RESISTORERJ3GEYJ 103 V (10 kΩ)R2067030003440S.RESISTORERJ3GEYJ 102 V (1 kΩ)R8267030003600S.RESISTORERJ3GEYJ 331 V (330 Ω)R2087030003640S.RESISTORERJ3GEYJ 102 V (1 kΩ)R8267030003600S.RESISTORERJ3GEYJ 103 V (10 kΩ)R2087030003640S.RESISTORERJ3GEYJ 102 V (1 kΩ)R8277030003600S.RESISTOR <td></td> <td></td> <td></td> <td></td> <td></td> <td>1</td> <td>S.RESISTOR</td> <td>ERJ3GEYJ 334 V (330 kΩ)</td>						1	S.RESISTOR	ERJ3GEYJ 334 V (330 kΩ)
R1817030003640S.RESISTORERJ3GEYJ 393 V (39 kΩ)R8147030003680S.RESISTORERJ3GEYJ 104 V (100 kΩ)R1857030003630S.RESISTORERJ3GEYJ 104 V (100 kΩ)R8157030003680S.RESISTORERJ3GEYJ 102 V (1 kΩ)R1877030003500S.RESISTORERJ3GEYJ 332 V (3.3 kΩ)R8167030003680S.RESISTORERJ3GEYJ 154 V (100 kΩ)R1897030003600S.RESISTORERJ3GEYJ 223 V (22 kΩ)R8177030003680S.RESISTORERJ3GEYJ 472 V (4.7 kΩ)R2017030003420S.RESISTORERJ3GEYJ 681 V (680 Ω)R8197030003610S.RESISTORERJ3GEYJ 273 V (27 kΩ)R2027030003420S.RESISTORERJ3GEYJ 102 V (1 kΩ)R8217030003600S.RESISTORERJ3GEYJ 273 V (27 kΩ)R2047030003440S.RESISTORERJ3GEYJ 102 V (1 kΩ)R8227030003440S.RESISTORERJ3GEYJ 331 V (330 Ω)R2057030003440S.RESISTORERJ3GEYJ 102 V (1 kΩ)R826703000360S.RESISTORERJ3GEYJ 331 V (330 Ω)R2067030003440S.RESISTORERJ3GEYJ 102 V (1 kΩ)R826703000360S.RESISTORERJ3GEYJ 103 V (10 kΩ)R2087030003600S.RESISTORERJ3GEYJ 102 V (1 kΩ)R827703000360S.RESISTORERJ3GEYJ 334 V (300 kΩ)R2087030003640S.RESISTORERJ3GEYJ 102 V (1 kΩ)R826703000360S.RESISTORERJ3GEYJ 34 V (300 kΩ)R2087030003640S.RESISTORERJ3GEYJ 103 V (10 kΩ)R828703000360S.RESISTOR <td< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></td<>								
R1857030003600S.RESISTORERJ3GEYJ 104 V (100 kΩ)R8157030003400S.RESISTORERJ3GEYJ 102 V (1 kΩ)R1867030003500S.RESISTORERJ3GEYJ 332 V (3.3 kΩ)R8167030003700S.RESISTORERJ3GEYJ 154 V (150 kΩ)R1897030003500S.RESISTORERJ3GEYJ 332 V (3.3 kΩ)R8177030003600S.RESISTORERJ3GEYJ 104 V (100 kΩ)R2017030003600S.RESISTORERJ3GEYJ 223 V (22 kΩ)R8197030003600S.RESISTORERJ3GEYJ 273 V (27 kΩ)R2027030003420S.RESISTORERJ3GEYJ 681 V (680 Ω)R8207030003600S.RESISTORERJ3GEYJ 273 V (27 kΩ)R2037030003440S.RESISTORERJ3GEYJ 102 V (1 kΩ)R8217030003600S.RESISTORERJ3GEYJ 273 V (27 kΩ)R2047030003440S.RESISTORERJ3GEYJ 102 V (1 kΩ)R8227030003600S.RESISTORERJ3GEYJ 273 V (27 kΩ)R2057030003440S.RESISTORERJ3GEYJ 102 V (1 kΩ)R8257030003600S.RESISTORERJ3GEYJ 331 V (30 Ω)R206703003440S.RESISTORERJ3GEYJ 102 V (1 kΩ)R8267030003600S.RESISTORERJ3GEYJ 103 V (10 kΩ)R2087030003600S.RESISTORERJ3GEYJ 102 V (1 kΩ)R8277030003600S.RESISTORERJ3GEYJ 334 V (30 kΩ)R2087030003640S.RESISTORERJ3GEYJ 103 V (10 kΩ)R8277030003600S.RESISTORERJ3GEYJ 34 V (30 kΩ)R2087030003640S.RESISTORERJ3GEYJ 103 V (10 kΩ)R8287030003600S.RESISTOR<								
R180         7030003500         S.RESISTOR         ERJ3GEYJ 332 V (3.3 kΩ)         R816         7030003700         S.RESISTOR         ERJ3GEYJ 154 V (150 kΩ)           R189         7030003500         S.RESISTOR         ERJ3GEYJ 332 V (3.3 kΩ)         R816         7030003600         S.RESISTOR         ERJ3GEYJ 332 V (3.3 kΩ)           R201         7030003600         S.RESISTOR         ERJ3GEYJ 223 V (22 kΩ)         R819         7030003520         S.RESISTOR         ERJ3GEYJ 273 V (27 kΩ)           R202         7030003420         S.RESISTOR         ERJ3GEYJ 681 V (680 Ω)         R820         7030003600         S.RESISTOR         ERJ3GEYJ 223 V (22 kΩ)           R203         7030003440         S.RESISTOR         ERJ3GEYJ 102 V (1 kΩ)         R820         7030003600         S.RESISTOR         ERJ3GEYJ 233 V (27 kΩ)           R204         7030003440         S.RESISTOR         ERJ3GEYJ 102 V (1 kΩ)         R822         7030003800         S.RESISTOR         ERJ3GEYJ 31 V (30 Ω)           R205         703003440         S.RESISTOR         ERJ3GEYJ 102 V (1 kΩ)         R826         7030003600         S.RESISTOR         ERJ3GEYJ 102 V (1 kΩ)           R206         703003440         S.RESISTOR         ERJ3GEYJ 102 V (1 kΩ)         R827         7030003600         S.RESISTOR         ERJ3GEYJ 103 V (10 kΩ)								
R1877030003500S.RESISTORERJ3GEYJ 332 V (3.3 kΩ)R8177030003680S.RESISTORERJ3GEYJ 104 V (100 kΩ)R2017030003600S.RESISTORERJ3GEYJ 223 V (22 kΩ)R8197030003620S.RESISTORERJ3GEYJ 472 V (4.7 kΩ)R2027030003420S.RESISTORERJ3GEYJ 681 V (680 Ω)R8207030003610S.RESISTORERJ3GEYJ 273 V (27 kΩ)R2037030003440S.RESISTORERJ3GEYJ 681 V (680 Ω)R8217030003600S.RESISTORERJ3GEYJ 223 V (22 kΩ)R2047030003440S.RESISTORERJ3GEYJ 102 V (1 kΩ)R8227030003600S.RESISTORERJ3GEYJ 331 V (330 Ω)R2057030003440S.RESISTORERJ3GEYJ 102 V (1 kΩ)R8257030003600S.RESISTORERJ3GEYJ 102 V (1 kΩ)R2067030003440S.RESISTORERJ3GEYJ 102 V (1 kΩ)R8267030003600S.RESISTORERJ3GEYJ 102 V (1 kΩ)R2077030003440S.RESISTORERJ3GEYJ 102 V (1 kΩ)R8267030003600S.RESISTORERJ3GEYJ 103 V (10 kΩ)R2087030003600S.RESISTORERJ3GEYJ 103 V (10 kΩ)R8267030003600S.RESISTORERJ3GEYJ 103 V (10 kΩ)R2097030003600S.RESISTORERJ3GEYJ 473 V (47 kΩ)R8297030003600S.RESISTORERJ3GEYJ 473 V (47 kΩ)R2117030003460S.RESISTORERJ3GEYJ 152 V (1.5 kΩ)R8307030003600S.RESISTORERJ3GEYJ 223 V (22 kΩ)R2127030003440S.RESISTORERJ3GEYJ 102 V (1 kΩ)R8317030003600S.RESISTOR				• •				
R1037030003600S.RESISTORERJ3GEYJ 223 V (22 kΩ)R8197030003520S.RESISTORERJ3GEYJ 472 V (4.7 kΩ)R2017030003420S.RESISTORERJ3GEYJ 681 V (680 Ω)R8207030003610S.RESISTORERJ3GEYJ 273 V (27 kΩ)R2037030003420S.RESISTORERJ3GEYJ 681 V (680 Ω)R8217030003600S.RESISTORERJ3GEYJ 273 V (27 kΩ)R2047030003440S.RESISTORERJ3GEYJ 168 V (680 Ω)R8217030003600S.RESISTORERJ3GEYJ 223 V (22 kΩ)R2057030003440S.RESISTORERJ3GEYJ 102 V (1 kΩ)R8227030003600S.RESISTORERJ3GEYJ 331 V (330 Ω)R2067030003440S.RESISTORERJ3GEYJ 102 V (1 kΩ)R8267030003600S.RESISTORERJ3GEYJ 102 V (1 kΩ)R2077030003440S.RESISTORERJ3GEYJ 102 V (1 kΩ)R8267030003600S.RESISTORERJ3GEYJ 103 V (10 kΩ)R2087030003600S.RESISTORERJ3GEYJ 103 V (10 kΩ)R8267030003600S.RESISTORERJ3GEYJ 104 V (100 kΩ)R2097030003600S.RESISTORERJ3GEYJ 103 V (14 kΩ)R8287030003640S.RESISTORERJ3GEYJ 334 V (30 kΩ)R2117030003600S.RESISTORERJ3GEYJ 152 V (1.5 kΩ)R8307030003600S.RESISTORERJ3GEYJ 223 V (22 kΩ)R2127030003440S.RESISTORERJ3GEYJ 102 V (1 kΩ)R8317030003600S.RESISTORERJ3GEYJ 223 V (22 kΩ)R2127030003440S.RESISTORERJ3GEYJ 102 V (1 kΩ)R8317030003600S.RESISTOR								
R201       7030003420       S.RESISTOR       ERJ3GEYJ 681 V (680 Ω)       R820       7030003610       S.RESISTOR       ERJ3GEYJ 273 V (27 kΩ)         R202       7030003420       S.RESISTOR       ERJ3GEYJ 681 V (680 Ω)       R821       7030003600       S.RESISTOR       ERJ3GEYJ 273 V (27 kΩ)         R204       7030003440       S.RESISTOR       ERJ3GEYJ 102 V (1 kΩ)       R822       7030003800       S.RESISTOR       ERJ3GEYJ 273 V (27 kΩ)         R205       7030003440       S.RESISTOR       ERJ3GEYJ 102 V (1 kΩ)       R825       703000340       S.RESISTOR       ERJ3GEYJ 102 V (1 kΩ)         R206       7030003440       S.RESISTOR       ERJ3GEYJ 102 V (1 kΩ)       R826       7030003600       S.RESISTOR       ERJ3GEYJ 103 V (10 kΩ)         R207       7030003600       S.RESISTOR       ERJ3GEYJ 102 V (1 kΩ)       R826       7030003600       S.RESISTOR       ERJ3GEYJ 103 V (10 kΩ)         R208       7030003640       S.RESISTOR       ERJ3GEYJ 103 V (10 kΩ)       R827       7030003740       S.RESISTOR       ERJ3GEYJ 334 V (300 kΩ)         R209       7030003640       S.RESISTOR       ERJ3GEYJ 103 V (47 kΩ)       R828       7030003740       S.RESISTOR       ERJ3GEYJ 34 V (300 kΩ)         R211       7030003640       S.RESISTOR       ERJ3GEYJ 152 V (1.5 kΩ)								
R202       7030003420       S.RESISTOR       ERJ3GEVJ 681 V (680 Ω)       R821       7030003600       S.RESISTOR       ERJ3GEVJ 223 V (22 kΩ)         R203       7030003420       S.RESISTOR       ERJ3GEVJ 102 V (1 kΩ)       R821       7030003600       S.RESISTOR       ERJ3GEVJ 331 V (330 Ω)         R205       7030003440       S.RESISTOR       ERJ3GEVJ 102 V (1 kΩ)       R825       7030003440       S.RESISTOR       ERJ3GEVJ 102 V (1 kΩ)         R206       7030003440       S.RESISTOR       ERJ3GEVJ 102 V (1 kΩ)       R826       7030003600       S.RESISTOR       ERJ3GEVJ 103 V (10 kΩ)         R207       7030003440       S.RESISTOR       ERJ3GEVJ 102 V (1 kΩ)       R826       7030003600       S.RESISTOR       ERJ3GEVJ 103 V (10 kΩ)         R208       7030003640       S.RESISTOR       ERJ3GEVJ 102 V (1 kΩ)       R827       7030003600       S.RESISTOR       ERJ3GEVJ 104 V (100 kΩ)         R208       7030003640       S.RESISTOR       ERJ3GEVJ 103 V (10 kΩ)       R828       7030003740       S.RESISTOR       ERJ3GEVJ 334 V (30 kΩ)         R211       7030003640       S.RESISTOR       ERJ3GEVJ 152 V (1.5 kΩ)       R830       7030003600       S.RESISTOR       ERJ3GEVJ 223 V (22 kΩ)         R212       7030003440       S.RESISTOR       ERJ3GEVJ 102 V (1 kΩ)       <								
R203         7030003440         S.RESISTOR         ERJ3GEVJ 102 V (1 kΩ)         R822         703000380         S.RESISTOR         ERJ3GEYJ 31 V (330 Ω)           R205         7030003440         S.RESISTOR         ERJ3GEYJ 102 V (1 kΩ)         R825         7030003400         S.RESISTOR         ERJ3GEYJ 102 V (1 kΩ)           R206         7030003440         S.RESISTOR         ERJ3GEYJ 102 V (1 kΩ)         R825         703000360         S.RESISTOR         ERJ3GEYJ 102 V (1 kΩ)           R207         7030003440         S.RESISTOR         ERJ3GEYJ 102 V (1 kΩ)         R826         703000360         S.RESISTOR         ERJ3GEYJ 103 V (10 kΩ)           R208         7030003640         S.RESISTOR         ERJ3GEYJ 103 V (10 kΩ)         R827         703000360         S.RESISTOR         ERJ3GEYJ 104 V (100 kΩ)           R208         7030003640         S.RESISTOR         ERJ3GEYJ 103 V (10 kΩ)         R827         703000360         S.RESISTOR         ERJ3GEYJ 334 V (300 kΩ)           R209         7030003640         S.RESISTOR         ERJ3GEYJ 103 V (17 kΩ)         R829         7030003640         S.RESISTOR         ERJ3GEYJ 473 V (47 kΩ)           R211         7030003440         S.RESISTOR         ERJ3GEYJ 152 V (1.5 kΩ)         R831         7030003600         S.RESISTOR         ERJ3GEYJ 223 V (22 kΩ)								
R204       7030003440       S.RESISTOR       ERJ3GEYJ 102 V (1 kΩ)         R205       7030003440       S.RESISTOR       ERJ3GEYJ 102 V (1 kΩ)         R206       7030003440       S.RESISTOR       ERJ3GEYJ 102 V (1 kΩ)         R207       7030003440       S.RESISTOR       ERJ3GEYJ 102 V (1 kΩ)         R208       7030003440       S.RESISTOR       ERJ3GEYJ 102 V (1 kΩ)         R208       7030003440       S.RESISTOR       ERJ3GEYJ 102 V (1 kΩ)         R208       7030003660       S.RESISTOR       ERJ3GEYJ 102 V (1 kΩ)         R209       7030003640       S.RESISTOR       ERJ3GEYJ 103 V (10 kΩ)         R211       7030003460       S.RESISTOR       ERJ3GEYJ 152 V (1.5 kΩ)         R212       7030003440       S.RESISTOR       ERJ3GEYJ 102 V (1 kΩ)								
R205         7030003440         S.RESISTOR         ERJ3GEVJ 102 V (1 kΩ)         R826         7030003560         S.RESISTOR         ERJ3GEYJ 102 V (1 kΩ)           R206         7030003440         S.RESISTOR         ERJ3GEVJ 102 V (1 kΩ)         R826         703000360         S.RESISTOR         ERJ3GEYJ 102 V (1 kΩ)           R208         7030003440         S.RESISTOR         ERJ3GEYJ 102 V (1 kΩ)         R827         703000360         S.RESISTOR         ERJ3GEYJ 104 V (100 kΩ)           R209         7030003640         S.RESISTOR         ERJ3GEYJ 473 V (47 kΩ)         R829         7030003640         S.RESISTOR         ERJ3GEYJ 473 V (47 kΩ)           R211         7030003440         S.RESISTOR         ERJ3GEYJ 102 V (1 kΩ)         R830         7030003600         S.RESISTOR         ERJ3GEYJ 223 V (22 kΩ)           R212         7030003440         S.RESISTOR         ERJ3GEYJ 102 V (1 kΩ)         R831         7030003600         S.RESISTOR         ERJ3GEYJ 223 V (22 kΩ)								
R206         7030003440         S.RESISTOR         ERJ3GEYJ 102 V (1 kΩ)         R827         7030003680         S.RESISTOR         ERJ3GEYJ 104 V (100 kΩ)           R207         7030003440         S.RESISTOR         ERJ3GEYJ 102 V (1 kΩ)         R827         7030003680         S.RESISTOR         ERJ3GEYJ 104 V (100 kΩ)           R209         7030003640         S.RESISTOR         ERJ3GEYJ 473 V (47 kΩ)         R829         7030003640         S.RESISTOR         ERJ3GEYJ 473 V (47 kΩ)           R211         7030003460         S.RESISTOR         ERJ3GEYJ 152 V (1.5 kΩ)         R830         7030003600         S.RESISTOR         ERJ3GEYJ 223 V (22 kΩ)           R212         7030003440         S.RESISTOR         ERJ3GEYJ 102 V (1 kΩ)         R831         7030003680         S.RESISTOR         ERJ3GEYJ 104 V (100 kΩ)								
R207         7030003440         S.RESISTOR         ERJ3GEYJ 103 V (10 kΩ)         R828         7030003740         S.RESISTOR         ERJ3GEYJ 334 V (330 kΩ)           R208         7030003640         S.RESISTOR         ERJ3GEYJ 103 V (10 kΩ)         R828         7030003740         S.RESISTOR         ERJ3GEYJ 473 V (47 kΩ)           R211         7030003460         S.RESISTOR         ERJ3GEYJ 152 V (1.5 kΩ)         R830         7030003600         S.RESISTOR         ERJ3GEYJ 223 V (22 kΩ)           R212         7030003440         S.RESISTOR         ERJ3GEYJ 102 V (1 kΩ)         R831         7030003600         S.RESISTOR         ERJ3GEYJ 104 V (100 kΩ)								
R209         7030003640         S.RESISTOR         ERJ3GEYJ 473 V (47 kΩ)           R211         7030003460         S.RESISTOR         ERJ3GEYJ 152 V (1.5 kΩ)           R212         7030003440         S.RESISTOR         ERJ3GEYJ 102 V (1 kΩ)								
R209         7030003640         S.RESISTOR         ERJ3GEYJ 152 V (1.5 kΩ)         R830         7030003600         S.RESISTOR         ERJ3GEYJ 223 V (22 kΩ)           R212         7030003440         S.RESISTOR         ERJ3GEYJ 102 V (1 kΩ)         R831         7030003680         S.RESISTOR         ERJ3GEYJ 104 V (100 kΩ)								ERJ3GEYJ 473 V (47 kΩ)
R211         7030003460         S.RESISTOR         ERJ3GEYJ 102 V (1 kΩ)         R831         7030003680         S.RESISTOR         ERJ3GEYJ 104 V (100 kΩ)								ERJ3GEYJ 223 V (22 kΩ)
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		1000003440					L	S.=Surface mount

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REF NO.	ORDER NO.	DESCRIPTION		
R951	7030003720	S.RESISTOR	ERJ3GEYJ 224 V (220 kΩ)	
R953	7030003400	S.RESISTOR	ERJ3GEYJ 471 V (470 Ω)	
R954	7030003320	S.RESISTOR	ERJ3GEYJ 101 V (100 Ω)	
C1	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A	
C2	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A	
C11	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A	
C12	4030006860 4030006900	S.CERAMIC S.CERAMIC	C1608 JB 1H 102K-T-A C1608 JB 1E 103K-T-A	
C13 C15	4030006900	S.CERAMIC	C1608 JB 1E 103K-T-A	
C21	4030006900	S.CERAMIC	C1608 JB 1E 103K-T-A	
C23	4030006900	S.CERAMIC	C1608 JB 1E 103K-T-A	
C24	4030006900	S.CERAMIC S.CERAMIC	C1608 JB 1E 103K-T-A C1608 JB 1E 103K-T-A	
C25 C25	4030006900 4030006900	S.CERAMIC	C1608 JB 1E 103K-T-A	
C71	4030006900	S.CERAMIC	C1608 JB 1E 103K-T-A	
C72	4030006900	S.CERAMIC	C1608 JB 1E 103K-T-A	
C73	4030007070	S.CERAMIC S.CERAMIC	C1608 CH 1H 330J-T-A C1608 JB 1C 104KT-N	
C74 C75	4030011600 4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A	
C76	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A	
C77	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A	
C78	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A	
C79 C80	4030011600 4030011600	S.CERAMIC S.CERAMIC	C1608 JB 1C 104KT-N C1608 JB 1C 104KT-N	
C80 C81	4030006900	S.CERAMIC	C1608 JB 1E 103K-T-A	
C82	4030006900	S.CERAMIC	C1608 JB 1E 103K-T-A	
C83	4030006900	S.CERAMIC	C1608 JB 1E 103K-T-A	
C84	4510006120	S.ELECTROLYTIC	ECEV1ES4R7SR ECST0JY475R	
C85 C86	4550006320 4030011600	S.TANTALUM S.CERAMIC	C1608 JB 1C 104KT-N	
C87	4030006900	S.CERAMIC	C1608 JB 1E 103K-T-A	
C88	4030006900	S.CERAMIC	C1608 JB 1E 103K-T-A	
C89	4030008920	S.CERAMIC	C1608 JB 1C 473K-T-A	
C90 C91	4030008920 4550006680	S.CERAMIC S.TANTALUM	C1608 JB 1C 473K-T-A ECST0JY156R	
C101	4030006900	S.CERAMIC	C1608 JB 1E 103K-T-A	
C102	4030006900	S.CERAMIC	C1608 JB 1E 103K-T-A	
C103	4030006900	S.CERAMIC	C1608 JB 1E 103K-T-A	
C104 C111	4030011600 4030006900	S.CERAMIC S.CERAMIC	C1608 JB 1C 104KT-N C1608 JB 1E 103K-T-A	
C112	4030006900	S.CERAMIC	C1608 JB 1E 103K-T-A	
C113	4030006900	S.CERAMIC	C1608 JB 1E 103K-T-A	
C114	4030006900	S.CERAMIC	C1608 JB 1E 103K-T-A C1608 JB 1C 104KT-N	
C121 C151	4030011600 4030011600	S.CERAMIC S.CERAMIC	C1608 JB 1C 104KT-N	
C152	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N	
C153	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N	
C154	4030006900	S.CERAMIC	C1608 JB 1E 103K-T-A C1608 CH 1H 101J-T-A	
C161 C162	4030007130 4030011600	S.CERAMIC S.CERAMIC	C1608 JB 1C 104KT-N	
C163	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N	
C171	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N	
C172	4030006900	S.CERAMIC	C1608 JB 1E 103K-T-A ECEV1ES4R7SR	
C173 C174	4510006120 4030011600	S.ELECTROLYTIC S.CERAMIC	C1608 JB 1C 104KT-N	
C176	4550006130	S.TANTALUM	ECST1VY224R	
C177	4030006900	S.CERAMIC	C1608 JB 1E 103K-T-A	
C178 C181	4030006900 4510006120	S.CERAMIC S.ELECTROLYTIC	C1608 JB 1E 103K-T-A ECEV1ES4R7SR	
C181	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N	
C185	4510006120	S.ELECTROLYTIC	ECEV1ES4R7SR	
C186	4510006120	S.ELECTROLYTIC	ECEV1ES4R7SR	
C187 C202	4030006900	S.CERAMIC S.CERAMIC	C1608 JB 1E 103K-T-A C1608 JB 1E 103K-T-A	
C202	4030006900	S.CERAMIC	C1608 JB 1E 103K-T-A	
C204	4030006900	S.CERAMIC	C1608 JB 1E 103K-T-A	
C205	4030006900	S.CERAMIC	C1608 JB 1E 103K-T-A	
C206 C207	4030006860	S.CERAMIC S.CERAMIC	C1608 JB 1H 102K-T-A C1608 JB 1C 333K-T-A	
C207	4030006900	S.CERAMIC	C1608 JB 1E 103K-T-A	
C209	4030006900	S.CERAMIC	C1608 JB 1E 103K-T-A	
C210	4550006680	S.TANTALUM	ECSTOJY156R	
C211 C302	4030006850 4030006900	S.CERAMIC S.CERAMIC	C1608 JB 1H 471K-T-A C1608 JB 1E 103K-T-A	
C302	4030006900	S.CERAMIC	C1608 JB 1E 103K-T-A	
C304	4030006900	S.CERAMIC	C1608 JB 1E 103K-T-A	
C351	4510004650	S.ELECTROLYTIC	ECEV1EA4R7SR C1608 JB 1E 103K-T-A	
C352 C353	4030006900 4510006220	S.CERAMIC S.ELECTROLYTIC	ECEV1CA101UP	
C354	4030006900	S.CERAMIC	C1608 JB 1E 103K-T-A	
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REF NO.	ORDER NO.	DES	CRIPTION
C355	4510006220	S.ELECTROLYTIC	ECEV1CA101UP
C361	4030008920	S.CERAMIC	C1608 JB 1C 473K-T-A
C362	4030007090	S.CERAMIC	C1608 CH 1H 470J-T-A
C363	4550006320	S.TANTALUM	ECST0JY475R C1608 JB 1C 104KT-N
C364 C365	4030011600 4510005370	S.CERAMIC S.ELECTROLYTIC	ECEV1AA221P
C303 C411	4030007130	S.CERAMIC	C1608 CH 1H 101J-T-A
C412	4030009500	S.CERAMIC	C1608 CH 1H 0R5B-T-A
C413	4030011600 4030011600	S.CERAMIC S.CERAMIC	C1608 JB 1C 104KT-N C1608 JB 1C 104KT-N
C414 C416	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C421	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C423	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N C1608 JB 1C 104KT-N
C424 C471	4030011600 4030006900	S.CERAMIC S.CERAMIC	C1608 JB 1E 103K-T-A
C473	4030007010	S.CERAMIC	C1608 CH 1H 100D-T-A
C474	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N C1608 JB 1H 102K-T-A
C475 C476	4030006860 4030006860	S.CERAMIC S.CERAMIC	C1608 JB 1H 102K-T-A
C477	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C478	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C479	4030006900	S.CERAMIC S.CERAMIC	C1608 JB 1E 103K-T-A C1608 JB 1E 103K-T-A
C480 C481	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C482	4030006900	S.CERAMIC	C1608 JB 1E 103K-T-A
C483	4030006900	S.CERAMIC	C1608 JB 1E 103K-T-A
C489 C501	4030011600 4030007080	S.CERAMIC S.CERAMIC	C1608 JB 1C 104KT-N C1608 CH 1H 390J-T-A
C503	4610001890	S.TRIMMER	CTZ3E-20C-W1
C504	4030007080	S.CERAMIC	C1608 CH 1H 390J-T-A
C505	4030006900 4030006860	S.CERAMIC S.CERAMIC	C1608 JB 1E 103K-T-A C1608 JB 1H 102K-T-A
C506 C507	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C509	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C510	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A ECST1CY105R
C511 C512	4550006150 4550006360	S.TANTALUM S.TANTALUM	ECST1VY104R
C513	4030009920	S.CERAMIC	C1608 CH 1H 050B-T-A
C521	4550006150	S.TANTALUM	ECST1CY105R
C522 C523	4550006360 4030006860	S.TANTALUM S.CERAMIC	ECST1VY104R C1608 JB 1H 102K-T-A
C531	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C532	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C533 C534	4030006860 4030006860	S.CERAMIC S.CERAMIC	C1608 JB 1H 102K-T-A C1608 JB 1H 102K-T-A
C536	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C537	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C538 C539	4030006860 4030009920	S.CERAMIC S.CERAMIC	C1608 JB 1H 102K-T-A C1608 CH 1H 050B-T-A
C540	4030006980	S.CERAMIC	C1608 CH 1H 070D-T-A
C551	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C552	4030009920 4030006860	S.CERAMIC S.CERAMIC	C1608 CH 1H 050B-T-A C1608 JB 1H 102K-T-A
C553 C554	4030006860	S.CERAMIC	C1608 JB 1H 102K TA
C556	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C557	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A C1608 JB 1H 102K-T-A
C558 C559	4030006860	S.CERAMIC S.CERAMIC	C1608 CH 1H 070D-T-A
C560	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C571	4550006200	S.TANTALUM	ECST0JY106R ECST0JY106R
C573 C574	4550006200 4030006860	S.TANTALUM S.CERAMIC	C1608 JB 1H 102K-T-A
C801	4030006900	S.CERAMIC	C1608 JB 1E 103K-T-A
C802	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A C1608 JB 1E 103K-T-A
C806 C808	4030006900	S.CERAMIC S.CERAMIC	C1608 JB 1E 103K-T-A
C809	4030006900	S.CERAMIC	C1608 JB 1E 103K-T-A
C810	4030006900	S.CERAMIC	C1608 JB 1E 103K-T-A
C811	4030006860	S.CERAMIC S.CERAMIC	C1608 JB 1H 102K-T-A C1608 JB 1C 104KT-N
C812 C813	4030011600 4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C814	4550006140	S.TANTALUM	ECST1EY474R
C815	4030006900	S.CERAMIC	C1608 JB 1E 103K-T-A C1608 JB 1E 103K-T-A
C816 C817	4030006900 4550006320	S.CERAMIC S.TANTALUM	ECST0JY475R
C901	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C902	4030007090	S.CERAMIC S.CERAMIC	C1608 CH 1H 470J-T-A C1608 CH 1H 470J-T-A
C903 C951	4030007090 4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C952	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C953	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
1	I		

S.=Surface mount

## [MAIN UNIT]

REF NO.	ORDER NO.	DESCRIPTION		
S1	2230000900	S.SWITCH	JPM1990-2013R	
J1	6510017680	S.CONNECTOR	IL-FPR-38S-HF-E3000 AXK6S40545P	
J2 J3	6510020120 6450001690	S.CONNECTOR CONNECTOR	HSJ1456-01-220	
W420	7030003860	SJUMPER	ERJ3GE JPW V	
W420 W421	7030003860	S.JUMPER	ERJ3GE JPW V	
W551	7030003860	S.JUMPER	ERJ3GE JPW V	
W801	7030003860	S.JUMPER	ERJ3GE JPW V	
EP1	0910048035	PCB	B 4900E	

## [2ND VCO UNIT]

REF NO.	ORDER NO.	DESCRIPTION			
Q601	1590000430	S.TRANSISTOR	DTC144EU T107		
Q602	1530002920	S.TRANSISTOR	2SC4226-T2 R25		
Q603	1530002920	S.TRANSISTOR	2SC4226-T2 R25		
Q604	1530002920	S.TRANSISTOR	2SC4226-T2 R25		
Q701	1590000430	S.TRANSISTOR	DTC144EU T107		
Q702	1530002920	S.TRANSISTOR	2SC4226-T2 R25		
Q703	1530002920	S.TRANSISTOR	2SC4226-T2 R25		
Q704	1530002920	S.TRANSISTOR	2SC4226-T2 R25		
Q704	100002920	0.114.03.01011	2004220121120		
D601	1720000370	S.VARICAP	HVU350TRF		
D602	1790000620	S.DIODE	MA77 (TW)		
D701	1720000370	S.VARICAP	HVU350TRF		
D702	1790000620	S.DIODE	MA77 (TW)		
BIOL	1100000020	0.0.02			
L601	6200004480	S.COIL	MLF1608D R82K-T		
L602	6200002360	S.COIL	LQN 1A 33NJ04		
L603	6200005720	S.COIL	ELJRE 33NG-F		
L701	6200004480	S.COIL	MLF1608D R82K-T		
L702	6200002360	S.COIL	LQN 1A 33NJ04		
L702	6200005720	S.COIL	ELJRE 33NG-F		
2,00					
R601	7030003360	S.RESISTOR	ERJ3GEYJ 221 V (220 Ω)		
R602	7030003460	S.RESISTOR	ERJ3GEYJ 152 V (1.5 kΩ)		
R603	7030003540	S.RESISTOR	ERJ3GEYJ 682 V (6.8 kΩ)		
R604	7030003310	S.RESISTOR	ERJ3GEYJ 820 V (82 Ω)		
R605	7030003550	S.RESISTOR	ERJ3GEYJ 822 V (8.2 kΩ)		
R606	7030003350	S.RESISTOR	ERJ3GEYJ 181 V (180 Ω)		
R608	7030003720	S.RESISTOR	ERJ3GEYJ 224 V (220 kΩ)		
R610	7030003720	S.RESISTOR	ERJ3GEYJ 224 V (220 kΩ)		
	7030003400	S.RESISTOR	ERJ3GEYJ 471 V (470 Ω)		
R611					
R701	7030003360	S.RESISTOR	ERJ3GEYJ 221 V (220 Ω)		
R702	7030003460	S.RESISTOR	ERJ3GEYJ 152 V (1.5 kΩ)		
R703	7030003540	S.RESISTOR	ERJ3GEYJ 682 V (6.8 kΩ)		
R704	7030003310	S.RESISTOR	ERJ3GEYJ 820 V (82 Ω)		
R705	7030003550	S.RESISTOR	ERJ3GEYJ 822 V (8.2 kΩ)		
R706	7030003350	S.RESISTOR	ERJ3GEYJ 181 V (180 Ω)		
R708	7030003720	S.RESISTOR	ERJ3GEYJ 224 V (220 kΩ)		
R710	7030003720	S.RESISTOR	ERJ3GEYJ 224 V (220 kΩ)		
R711	7030003400	S.RESISTOR	ERJ3GEYJ 471 V (470 Ω)		
C601	4030007040	S.CERAMIC	C1608 CH 1H 180J-T-A		
C602	4030007110	S.CERAMIC	C1608 CH 1H 680J-T-A		
C603	4030009520	S.CERAMIC	C1608 CH 1H 020B-T-A		
C604	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A		
C605	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A		
C606	4030009520	S.CERAMIC	C1608 CH 1H 020B-T-A		
C607	4030009520	S.CERAMIC	C1608 CH 1H 020B-T-A		
C608	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A		
C609	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A		
C610	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A		
C612	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A		
C612 C613	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A		
C613	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A		
	4030007040	S.CERAMIC	C1608 CH 1H 180J-T-A		
C701	4030007040	S.CERAIVIIC	UTOUD OF TH TOUS-TA		

## [2ND VCO UNIT]

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REF NO.	ORDER NO.	DE	SCRIPTION
C702	4030007110	S.CERAMIC	C1608 CH 1H 680J-T-A
C703	4030009520	S.CERAMIC	C1608 CH 1H 020B-T-A
C704	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C705	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C706	4030009520	S.CERAMIC	C1608 CH 1H 020B-T-A
C707	4030009520	S.CERAMIC	C1608 CH 1H 020B-T-A
C708	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C709	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C710	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C712	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C713	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C714	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
J601	6910010830	CONNECTOR	IMSA-9230B-1-08Z014-T
W601 W701	7030003860 7030003860	S.JUMPER S.JUMPER	ERJ3GE JPW V ERJ3GE JPW V
EP1	0910048062	PCB	B 4903B

### [RF UNIT]

REF NO.	ORDER NO.	DES	
IC1	1130007510	S.IC	BU4094BCFV-E1
IC2	1130007510	S.IC	BU4094BCFV-E1
IC271	1110004020	S.IC	µPC2757T-E3
IC501	1130008390	S.IC	HD155001BTEL
Q1	1530003280	S.TRANSISTOR	2SC4211-6-TL
Q2	1590000720	STRANSISTOR	DTA144EU T107
Q3	1590001810	S.TRANSISTOR	XP1113 (TX)
Q4	1590001810	S.TRANSISTOR	XP1113 (TX)
Q5	1590002010	S.TRANSISTOR	XP1114 (TX)
QŠ	1590002010	S.TRANSISTOR	XP1114 (TX)
Q14	1590000430	S.TRANSISTOR	DTC144EU T107
Q51	1530002600	S.TRANSISTOR	2SC4215-O (TE85R)
Q151	1580000690	S.FET	3SK291 (TE85R)
Q171	1580000690	S.FET	3SK291 (TE85R)
Q211	1580000710	S.FET	3SK274 (TE85R)
Q231	1580000710	S.FET	3SK274 (TE85R)
Q253	1590000720	S.TRANSISTOR	DTA144EU T107
Q401	1590000430	S.TRANSISTOR	DTC144EU T107
Q411	1590000430	S.TRANSISTOR	DTC144EU T107
Q412	1590000720	S.TRANSISTOR	DTA144EU T107
Q421	1530002920	S.TRANSISTOR	2SC4226-T2 R25
Q502	1560000540	S.FET	2SK880-Y (TE85R)
Q521	1560000540	S.FET	2SK880-Y (TE85R)
Q522	1530003280	S.TRANSISTOR	2SC4211-6-TL
Q531	1530003280	S.TRANSISTOR	2SC4211-6-TL XP1501-(TX).AB
Q541 Q542	1590001170 1590001810	S.TRANSISTOR	XP1113 (TX)
Q542 Q543	159000720	S.TRANSISTOR	DTA144EU T107
Q543 Q544	1510000880	S.TRANSISTOR	2SA1622-6-TL
Q551	1530002900	S.TRANSISTOR	2SC4228-T2 R45
Q552	1530002900	S.TRANSISTOR	2SC4228-T2 R45
Q901	1530003280	S.TRANSISTOR	2SC4211-6-TL
D1	1720000240	S.DIODE	1SV172 (TE85R)
D2	1790000620	S.DIODE	MA77(TW)
D51	1750000530	S.DIODE	1SV271 (TPH3)
D52	1790000620	S.DIODE	MA77(TW)
D53	1790000620	S.DIODE	MA77(TW)
D61	1790000620	S.DIODE	MA77(TW)
D81	1790000620	S.DIODE S.DIODE	MA77(TW) MA77(TW)
D82 D101	1790000620	S.DIODE	MA77(TW) MA77(TW)
D101	1790000620	S.DIODE	MA77(TW)
D102	1790000620	S.DIODE	MA77(TW)
D122	1790000620	S.DIODE	MA77(TW)
D151	1750000530	S.DIODE	1SV271 (TPH3)
D152	1720000660	S.VARICAP	1SV288 (TPH2)
D153	1720000660	S.VARICAP	1SV288 (TPH2)

S.=Surface mount

## [RF UNIT]

REF NO.	ORDER NO.		DESCRIPTION	
D154	1750000530	S.DIODE	1SV271 (TPH3)	1 Г
D171	1750000530	S.DIODE	1SV271 (TPH3)	
D172	1720000650	S.VARICAP	1SV286 (TPH3)	
D173	1720000650	S.VARICAP	1SV286 (TPH3)	
D174	1750000530	S.DIODE	1SV271 (TPH3)	
D211	1750000530	S.DIODE	1SV271 (TPH3)	
0213	1720000400	S.VARICAP	1SV245 (TPH3)	
0214	1720000400	S.VARICAP	1SV245 (TPH3)	
0216	1790000620	S.DIODE	MA77 (TW)	
0231	1790000620	S.DIODE S.DIODE	MA77 (TW) MA77 (TW)	
D236 D238	1720000470	S.VARICAP	1SV239 (TPH3)	
D253	1750000530	S.DIODE	1SV271 (TPH3)	
D401	1790000620	S.DIODE	MA77 (TW)	
D402	1790000620	S.DIODE	MA77 (TW)	
D411	1790000620	S.DIODE	MA77 (TW)	
D412	1790000620	S.DIODE	MA77 (TW)	
D541	1720000360	S.DIODE	HSU88TRF	
D901	1790000670	S.DIODE	SB07-03C-TB	
-1401	2040001200	S.SAW	EFCH266MKQP1	
FI411	2040001190	S.SAW	EFCH429MKQP1	
1504	605000040	S.XTAL	CR-555 (10.24500 MHz)	
(501	6050009940	J.A IAL	UN-000 (10.24000 MITZ)	
.51	6200004720	S.COIL	MLF1608D R10K-T	
L52	6200004470	S.COIL	MLF1608D R12K-T	
.54	6200002040	S.COIL	NL 252018T-101J	
L55	6200006970	S.COIL	MLF1608A 3R9K-T	
L56	6200003550	S.COIL	MLF1608A 4R7K-T	
_61	6200004940	S.COIL	MLF1608D R27K-T	
-62	6200005140	S.COIL	MLF1608D R33K-T	
_81	6200003550	S.COIL	MLF1608A 4R7K-T	
_82	6200006970	S.COIL	MLF1608A 3R9K-T	
L83	6200006970	S.COIL S.COIL	MLF1608A 3R9K-T MLF1608D R47K-T	
_91 _92	6200004790 6200003630	S.COIL	MLF1608D R68K-T	
L92	6200005190	S.COIL	MLF1608D R56K-T	
L102	6200003190	S.COIL	MLF1608D R47K-T	
L103	6200004790	S.COIL	MLF1608D R47K-T	
122	6200003540	S.COIL	MLF1608D R22K-T	
123	6200004940	S.COIL	MLF1608D R27K-T	
151	6200007110	S.COIL	ELJND 39NJ	
.152	6200007110	S.COIL	ELJND 39NJ	
L153	6200007120	S.COIL	ELJND 1R0J 1U	
.154	6200007110	S.COIL	ELJND 39NJ	
155	6200007110	S.COIL	ELJND 39NJ	
156	6200007050	S.COIL S.COIL	ELJND 27NKF ELJND 10NKF	
_171 _172	6200007210 6200007100	S.COIL	ELJND TUNKF ELJND 8N2NKF	
.172	6200007100	S.COIL	ELJND 10NKF	
.174	6200007210	S.COIL	ELJND 8N2NKF	
.176	6200005620	S.COIL	ELJRE 4N7Z-F	
.177	6200005620	S.COIL	ELJRE 4N7Z-F	
211	6200004720	S.COIL	MLF1608D R10K-T	
.212	6200005640	S.COIL	ELJRE 6N8Z-F	
213	6200005640	S.COIL	ELJRE 6N8Z-F	
214	6200005640	S.COIL	ELJRE 6N8Z-F	
215	6200007130	S.COIL	ELJND R15J 0.15U	
216	6200005640	S.COIL	ELJRE 6N8Z-F	
L217	6200005640	S.COIL	ELJRE 6N8Z-F	
_218	6200005640	S.COIL	ELJRE 6N8Z-F	
219	6200004720	S.COIL	MLF1608D R10K-T	
.232	6200005670 6200005650	S.COIL S.COIL	ELJRE 12NG-F ELJRE 8N2Z-F	
_233 _234	6200005690	S.COIL	ELJRE 18NG-F	
_234 _235	6200005590	S.COIL	ELJRE 2N7Z-F	
L239	6200004720	S.COIL	MLF1608D R10K-T	
L240	6200005590	S.COIL	ELJRE 2N7Z-F	
L252	6200004600	S.COIL	MLF1608D R15K-T	
L253	6200004600	S.COIL	MLF1608D R15K-T	
L401	6200003550	S.COIL	MLF1608A 4R7K-T	
_402	6200005700	S.COIL	ELJRE 22NG-F	
	6200005730	S.COIL	ELJRE 39NG-F	
	0000005740	S.COIL	ELJRE 47NG-F	
L403 L404	6200005740			
L403 L404 L411	6200003550	S.COIL	MLF1608A 4R7K-T	
L403 L404 L411 L412	6200003550 6200005640	S.COIL	ELJRE 6N8Z-F	
L403 L404 L411 L412 L413 L415	6200003550			

## [RF UNIT]

		r	
REF NO.	ORDER NO.	DESCRIPTION	
L420	6200005670	S.COIL	ELJRE 12NG-F
L511	6200003550	S.COIL	MLF1608A 4R7K-T
L541	6200004600	S.COIL	MLF1608D R15K-T
L542	6200004600	S.COIL	MLF1608D R15K-T
R2	7030003310	S.RESISTOR	ERJ3GEYJ 820 V (82 Ω)
R3	7030003380	S.RESISTOR	ERJ3GEYJ 331 V (330 Ω) ERJ3GEYJ 820 V (82 Ω)
R4 R5	7030003310 7030003490	S.RESISTOR S.RESISTOR	ERJ3GETJ 620 V (62 Ω) ERJ3GEYJ 272 V (2.7 kΩ)
R6	7030003490	S.RESISTOR	ERJ3GEYJ 272 V (2.7 kΩ)
R7	7030003560	S.RESISTOR	ERJ3GEYJ 103 V (10 kΩ)
R8 R9	7030003440 7030003680	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ) ERJ3GEYJ 104 V (100 kΩ)
R9 R11	7210002930	VARIABLE	RV-311
R51	7030003660	S.RESISTOR	ERJ3GEYJ 683 V (68 kΩ)
R53	7030003320	S.RESISTOR	ERJ3GEYJ 101 V (100 Ω)
R55 R80	7030003400 7030003400	S.RESISTOR S.RESISTOR	ERJ3GEYJ 471 V (470 Ω) ERJ3GEYJ 471 V (470 Ω)
R100	7030003400	S.RESISTOR	ERJ3GEYJ 471 V (470 Ω)
R120	7030003400	S.RESISTOR	ERJ3GEYJ 471 V (470 Ω)
R121	7030003400	S.RESISTOR	ERJ3GEYJ 471 V (470 Ω)
R151 R152	7030003680 7030003640	S.RESISTOR S.RESISTOR	ERJ3GEYJ 104 V (100 kΩ) ERJ3GEYJ 473 V (47 kΩ)
R152	7030003660	S.RESISTOR	ERJ3GEYJ 683 V (68 kΩ)
R154	7030003320	S.RESISTOR	ERJ3GEYJ 101 V (100 Ω)
R155	7030003320	S.RESISTOR	ERJ3GEYJ 101 V (100 Ω)
R156 R171	7030003680 7030003680	S.RESISTOR S.RESISTOR	ERJ3GEYJ 104 V (100 kΩ) ERJ3GEYJ 104 V (100 kΩ)
R172	7030003660	S.RESISTOR	ERJ3GEYJ 683 V (68 kΩ)
R173	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 kΩ)
R174	7030003320	S.RESISTOR	ERJ3GEYJ 101 V (100 Ω) ERJ3GEYJ 101 V (100 Ω)
R175 R176	7030003320 7030003680	S.RESISTOR	ERJ3GEYJ 104 V (100 Ω)
R177	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R212	7030003680	S.RESISTOR	ERJ3GEYJ 104 V (100 kΩ)
R213 R215	7030003640 7030003320	S.RESISTOR	ERJ3GEYJ 473 V (47 kΩ) ERJ3GEYJ 101 V (100 Ω)
R216	7030003320	S.RESISTOR	ERJ3GEYJ 101 V (100 Ω)
R217	7030003680	S.RESISTOR	ERJ3GEYJ 104 V (100 kΩ)
R218	7030003720	S.RESISTOR	ERJ3GEYJ 224 V (220 kΩ) ERJ3GEYJ 473 V (47 kΩ)
R233 R235	7030003640 7030003320	S.RESISTOR S.RESISTOR	ERJ3GEYJ 101 V (100 Ω)
R237	7030003680	S.RESISTOR	ERJ3GEYJ 104 V (100 kΩ)
R239	7030003720	S.RESISTOR	ERJ3GEYJ 224 V (220 kΩ)
R240 R241	7030003660 7030003440	S.RESISTOR S.RESISTOR	ERJ3GEYJ 683 V (68 kΩ) ERJ3GEYJ 102 V (1 kΩ)
R251	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R259	7030003520	S.RESISTOR	ERJ3GEYJ 472 V (4.7 kΩ)
R277 R279	7030003520 7030003520	S.RESISTOR S.RESISTOR	ERJ3GEYJ 472 V (4.7 kΩ) ERJ3GEYJ 472 V (4.7 kΩ)
R411	7030003680	S.RESISTOR	ERJ3GEYJ 104 V (100 kΩ)
R412	7030003680	S.RESISTOR	ERJ3GEYJ 104 V (100 kΩ)
R421	7030003520	S.RESISTOR	ERJ3GEYJ 472 V (4.7 kΩ) ERJ3GEYJ 473 V (47 kΩ)
R422 R423	7030003640 7030003660	S.RESISTOR S.RESISTOR	ERJ3GEYJ 473 V (47 K2) ERJ3GEYJ 683 V (68 kΩ)
R425	7030003360	S.RESISTOR	ERJ3GEYJ 221 V (220 Ω)
R501	7030003400	S.RESISTOR	ERJ3GEYJ 471 V (470 Ω)
R503 R504	7030003520 7030003580	S.RESISTOR S.RESISTOR	ERJ3GEYJ 472 V (4.7 kΩ) ERJ3GEYJ 153 V (15 kΩ)
R505	7030003280	S.RESISTOR	ERJ3GEYJ 470 V (47 Ω)
R506	7030003560	S.RESISTOR	ERJ3GEYJ 103 V (10 kΩ)
R521 R522	7030003440 7030003440	S.RESISTOR S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ) ERJ3GEYJ 102 V (1 kΩ)
R522	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R524	7030003570	S.RESISTOR	ERJ3GEYJ 123 V (12 kΩ)
R525	7030003580	S.RESISTOR S.RESISTOR	ERJ3GEYJ 153 V (15 kΩ) ERJ3GEYJ 102 V (1 kΩ)
R526 R527	7030003440 7030003610	S.RESISTOR	ERJ3GEYJ 102 V (1 KΩ) ERJ3GEYJ 273 V (27 kΩ)
R529	7030003370	S.RESISTOR	ERJ3GEYJ 271 V (270 Ω)
R531	7030003620	S.RESISTOR	ERJ3GEYJ 333 V (33 kΩ)
R532 R533	7030003640 7030003440	S.RESISTOR S.RESISTOR	ERJ3GEYJ 473 V (47 kΩ) ERJ3GEYJ 102 V (1 kΩ)
R534	7030003440	S.RESISTOR	ERJ3GEYJ 221 V (220 Ω)
R535	7030003520	S.RESISTOR	ERJ3GEYJ 472 V (4.7 kΩ)
R541 R542	7030003560 7030003240	S.RESISTOR S.RESISTOR	ERJ3GEYJ 103 V (10 kΩ) ERJ3GEYJ 220 V (22 Ω)
R542 R545	7030003240	S.RESISTOR	ERJ3GEYJ 472 V (4.7 kΩ)
R551	7030003220	S.RESISTOR	ERJ3GEYJ 150 V (15 Ω)
R552 R553	7030003380 7030003400	S.RESISTOR S.RESISTOR	ERJ3GEYJ 331 V (330 Ω) ERJ3GEYJ 471 V (470 Ω)
R554	7030003400	S.RESISTOR	ERJ3GEYJ 223 V (22 kΩ)
			1

S.=Surface mount

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### [RF UNIT]

## [RF UNIT]

REF NO.	ORDER NO.	D	ESCRIPTION		REF NO.	ORDER NO.		DESCRIPTION
R556	7030003320	S.RESISTOR	ERJ3GEYJ 101 V (100 Ω)	7 1	C162	4030006860	S.CERAMIC	C1608 JB 1H 102K
R557	7030003600	S.RESISTOR	ERJ3GEYJ 223 V (22 kΩ)		C171	4030006860	S.CERAMIC	C1608 JB 1H 102K
R559	7030003320	S.RESISTOR	ERJ3GEYJ 101 V (100 Ω)		C172	4030006860	S.CERAMIC	C1608 JB 1H 102K
R901	7030003630	S.RESISTOR	ERJ3GEYJ 393 V (39 kΩ)		C173	4030006860	S.CERAMIC	C1608 JB 1H 102K
R902	7030003680	S.RESISTOR	ERJ3GEYJ 104 V (100 kΩ)		C174	4030006860	S.CERAMIC	C1608 JB 1H 102K
R903	7030003520	S.RESISTOR	ERJ3GEYJ 472 V (4.7 kΩ)		C175	4030006860	S.CERAMIC	C1608 JB 1H 102K
R904	7030003380	S.RESISTOR	ERJ3GEYJ 331 V (330 Ω)		C176	4030006860	S.CERAMIC	C1608 JB 1H 102K
1904	1030003360	13.NE31310N	E11030E10 001 V (000 32)	1 1	C178	4030006860	S.CERAMIC	C1608 JB 1H 102K
				1 1	C180	4030006860	S.CERAMIC	C1608 JB 1H 102K
		0.050440	04000 JB 40 404KT N		C180	4030006860	S.CERAMIC	C1608 JB 1H 102K
C2	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N			4030006860	S.CERAMIC	C1608 JB 1H 102K
C4	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N		C182			C1608 JB 1H 102K
C6	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N	1	C183	4030006860	S.CERAMIC	
C8	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N	1 1	C184	4030006860	S.CERAMIC	C1608 JB 1H 102K C1608 JB 1H 102K
C11	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A		C211	4030006860	S.CERAMIC	
C12	4030006900	S.CERAMIC	C1608 JB 1E 103K-T-A		C213	4030006860	S.CERAMIC	C1608 JB 1H 102K
C13	4030006900	S.CERAMIC	C1608 JB 1E 103K-T-A		C214	4030006860	S.CERAMIC	C1608 JB 1H 102K
C14	4030006900	S.CERAMIC	C1608 JB 1E 103K-T-A		C215	4030006860	S.CERAMIC	C1608 JB 1H 102K
C15	4030007090	S.CERAMIC	C1608 CH 1H 470J-T-A		C216	4030006860	S.CERAMIC	C1608 JB 1H 102K
C16	4030007090	S.CERAMIC	C1608 CH 1H 470J-T-A		C217	4030006860	S.CERAMIC	C1608 JB 1H 102K
C17	4030007090	S.CERAMIC	C1608 CH 1H 470J-T-A		C218	4030006860	S.CERAMIC	C1608 JB 1H 102K
C18	4030007090	S.CERAMIC	C1608 CH 1H 470J-T-A		C219	4030006860	S.CERAMIC	C1608 JB 1H 102K
C19	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A		C221	4030006860	S.CERAMIC	C1608 JB 1H 102K
C25	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A		C222	4030006860	S.CERAMIC	C1608 JB 1H 102K
C26	4030007090	S.CERAMIC	C1608 CH 1H 470J-T-A		C223	4030006860	S.CERAMIC	C1608 JB 1H 102K
	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A		C224	4030006860	S.CERAMIC	C1608 JB 1H 102K
C27			C1608 JB 1H 102K-T-A		C225	4030006860	S.CERAMIC	C1608 JB 1H 102K
C28	4030006860	S.CERAMIC			C225 C226	4030006860	S.CERAMIC	C1608 JB 1H 102K
C35	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A				S.CERAMIC	C1608 CH 1H 050E
C36	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A		C231	4030009920		
C37	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A		C232	4030007020	S.CERAMIC	C1608 CH 1H 120.
C51	4030007060	S.CERAMIC	C1608 CH 1H 270J-T-A		C234	4030009910	S.CERAMIC	C1608 CH 1H 0408
C52	4030007040	S.CERAMIC	C1608 CH 1H 180J-T-A		C235	4030006860	S.CERAMIC	C1608 JB 1H 102K
C53	4030007100	S.CERAMIC	C1608 CH 1H 560J-T-A		C236	4030006860	S.CERAMIC	C1608 JB 1H 102K
C54	4030006970	S.CERAMIC	C1608 CH 1H 060D-T-A		C237	4030006860	S.CERAMIC	C1608 JB 1H 102K
C55	4030007080	S.CERAMIC	C1608 CH 1H 390J-T-A		C238	4030006860	S.CERAMIC	C1608 JB 1H 102K
C56	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N		C242	4030006860	S.CERAMIC	C1608 JB 1H 102K
C57	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N		C243	4030006860	S.CERAMIC	C1608 JB 1H 102K
	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A		C244	4030006860	S.CERAMIC	C1608 JB 1H 102K
C58 C59	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N		C245	4030006860	S.CERAMIC	C1608 JB 1H 102K
		S.CERAMIC	C1608 JB 1C 104KT-N	11	C246	4030006860	S.CERAMIC	C1608 JB 1H 102K
C60	4030011600		C1608 CH 1H 820J-T-A		C247	4030009530	S.CERAMIC	C1608 CH 1H 030
C61	4030007120	S.CERAMIC			C247	4030007070	S.CERAMIC	C1608 CH 1H 330
C62	4030007070	S.CERAMIC	C1608 CH 1H 330J-T-A				S.CERAMIC	C1608 JB 1H 102K
C63	4030007150	S.CERAMIC	C1608 CH 1H 151J-T-A		C249	4030006860		
C64	4030007020	S.CERAMIC	C1608 CH 1H 120J-T-A		C251	4030011600	S.CERAMIC	C1608 JB 1C 104K
C65	4030007130	S.CERAMIC	C1608 CH 1H 101J-T-A		C256	4030006900	S.CERAMIC	C1608 JB 1E 103K
C71	4030006870	S.CERAMIC	C1608 JB 1H 222K-T-A		C257	4030006860	S.CERAMIC	C1608 JB 1H 102K
C72	4030007160	S.CERAMIC	C1608 CH 1H 181J-T-A		C271	4030011600	S.CERAMIC	C1608 JB 1C 104K
C73	4030009980	S.CERAMIC	C1608 JB 1H 152K-T-A		C275	4030006860	S.CERAMIC	C1608 JB 1H 102K
C81	4030006870	S.CERAMIC	C1608 JB 1H 222K-T-A		C276	4030006860	S.CERAMIC	C1608 JB 1H 102K
C82	4030006900	S.CERAMIC	C1608 JB 1E 103K-T-A		C277	4030006860	S.CERAMIC	C1608 JB 1H 102K
C83	4030009980	S.CERAMIC	C1608 JB 1H 152K-T-A		C401	4030009910	S.CERAMIC	C1608 CH 1H 040
C84	4030008860	S.CERAMIC	C1608 JB 1C 153K-T-A		C402	4030009910	S.CERAMIC	C1608 CH 1H 040
C85	4030006870	S.CERAMIC	C1608 JB 1H 222K-T-A		C403	4030011600	S.CERAMIC	C1608 JB 1C 104k
C86	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N		C404	4030006860	S.CERAMIC	C1608 JB 1H 102K
C91	4030007150	S.CERAMIC	C1608 CH 1H 151J-T-A		C405	4030007090	S.CERAMIC	C1608 CH 1H 470.
	1		C1608 CH 1H 820J-T-A		C400	4030006860	S.CERAMIC	C1608 JB 1H 102K
C92	4030007120	S.CERAMIC			C412	4030006860	S.CERAMIC	C1608 JB 1H 102K
C93	4030010760	S.CERAMIC	C1608 CH 1H 331J-T-A		C412 C413	4030011600	S.CERAMIC	C1608 JB 1C 104k
C94	4030007060	S.CERAMIC	C1608 CH 1H 270J-T-A					C1608 JB 1H 102k
C95	4030007160	S.CERAMIC	C1608 CH 1H 181J-T-A		C414	4030006860	S.CERAMIC	
C101	4030007170	S.CERAMIC	C1608 CH 1H 221J-T-A		C415	4030009520	S.CERAMIC	C1608 CH 1H 020
C102	4030009980	S.CERAMIC	C1608 JB 1H 152K-T-A		C421	4030006860	S.CERAMIC	C1608 JB 1H 102K
C103	4030007160	S.CERAMIC	C1608 CH 1H 181J-T-A		C422	4030006860	S.CERAMIC	C1608 JB 1H 102K
C104	4030006900	S.CERAMIC	C1608 JB 1E 103K-T-A		C423	4030006860	S.CERAMIC	C1608 JB 1H 102K
C105	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A		C424	4030006860	S.CERAMIC	C1608 JB 1H 102K
C106	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N		C425	4030011600	S.CERAMIC	C1608 JB 1C 104k
C121	4030007170	S.CERAMIC	C1608 CH 1H 221J-T-A		C501	4610001890	S.TRIMMER	CTZ3E-20C-W1
C122	4030009980	S.CERAMIC	C1608 JB 1H 152K-T-A	1	C502	4030007040	S.CERAMIC	C1608 CH 1H 180.
C123	4030007110	S.CERAMIC	C1608 CH 1H 680J-T-A		C503	4030007070	S.CERAMIC	C1608 CH 1H 330.
C123	4030006850	S.CERAMIC	C1608 JB 1H 471K-T-A		C504	4030006860	S.CERAMIC	C1608 JB 1H 102K
			C1608 CH 1H 121J-T-A		C505	4550006320	S.TANTALUM	ECST0JY475R
C125	4030007140	S.CERAMIC			C505	4030006860	S.CERAMIC	C1608 JB 1H 102K
C126	4030006900	S.CERAMIC	C1608 JB 1E 103K-T-A				S.CERAMIC	C1608 JB 1E 103K
C127	4030006900	S.CERAMIC	C1608 JB 1E 103K-T-A		C508	4030006900		C1608 JB 1H 102k
C151	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A		C509	4030006860	S.CERAMIC	
C152	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A		C510	4030006860	S.CERAMIC	C1608 JB 1H 102K
C153	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A		C521	4030011600	S.CERAMIC	C1608 JB 1C 104k
C154	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A		C522	4030006880	S.CERAMIC	C1608 JB 1H 472k
C155	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A		C523	4030006860	S.CERAMIC	C1608 JB 1H 102
C156	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A		C524	4550006820	S.TANTALUM	ECST1DX106R
C157	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A		C525	4550006450.	S.TANTALUM	ECST1EY105R
C158	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A		C526	4550006450	S.TANTALUM	ECST1EY105R
		S.CERAMIC	C1608 JB 1H 102K-T-A		C527	4550006810	S.TANTALUM	ECST1VY473R
	403000000000					1		
C159 C160	4030006860 4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A		C528	4550006680	S.TANTALUM	ECST0JY156R

S.=Surface mount

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## [RF UNIT]

REF NO.	ORDER NO.	DESCRIPTION		
C531	4030009530	S.CERAMIC	C1608 CH 1H 030B-T-A	
C532	4030006900	S.CERAMIC	C1608 JB 1E 103K-T-A	
C533	4030006900	S.CERAMIC	C1608 JB 1E 103K-T-A	
C541	4550006200	S.TANTALUM	ECST0JY106R	
C544	4550006200	S.TANTALUM	ECST0JY106R	
C545	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A	
C546	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A	
C551	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A	
C552	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A	
C553	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A	
C554	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A	
C555	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A	
C556	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A	
C557	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A	
C901	4550006360	S.TANTALUM	ECST1VY104R	
C902	4550006680	S.TANTALUM	ECST0JY156R	
C904	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A	
C905	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A	
C906	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A	
C907	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A	
C908	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A	
C909	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A	
C910	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A	
C911	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A	
C912	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A	
C913	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A	
S11	7600000160	ENCODER	TP90N00E2014F	
J3	6450001690	CONNECTOR	HSJ1456-01-220	
J4	6450000870	CONNECTOR	HEC2711-01-020	
J11	6510019870	S.CONNECTOR	AXK5S40045P	
W50	7030003860	S.JUMPER	ERJ3GE JPW V	
W241	7030003860	S.JUMPER	ERJ3GE JPW V	
W242	7030003860	S.JUMPER	ERJ3GE JPW V	
W270	7030003860	S.JUMPER	ERJ3GE JPW V	
W421	7030003860	S.JUMPER	ERJ3GE JPW V	
W541	7030003860	S.JUMPER	ERJ3GE JPW V	
W901	7030003860	S.JUMPER	ERJ3GE JPW V	
EP1	0910048027	РСВ	B 4899G	

## [1ST VCO UNIT]

REF NO.	ORDER NO.	DES	CRIPTION
Q601 Q621 Q622 Q623 Q641 Q661	1530002900 1530002900 1530002900 1590000430 1530002920 1530002920	S.TRANSISTOR S.TRANSISTOR S.TRANSISTOR S.TRANSISTOR S.TRANSISTOR S.TRANSISTOR S.TRANSISTOR	2SC4228-T2 R45 2SC4228-T2 R45 2SC4228-T2 R45 DTC144EU T107 2SC4226-T2 R25 2SC4228-T2 R45
D621 D622 D641 D661 D662	1720000500 1790000620 1720000400 1720000400 1720000400	S.VARICAP S.DIODE S.VARICAP S.VARICAP S.VARICAP	1SV230(TPH3) MA77(TW) 1SV245 (TPH3) 1SV245 (TPH3) 1SV245 (TPH3)
L601 L621 L622 L641 L642 L661 L662	6200005650 6200007190 6200005100 6200005480 6200004480 6200004480	S.COIL S.COIL S.COIL S.COIL S.COIL S.COIL S.COIL	ELJRE 8N2Z-F NLU201205T-3N3C NLU201205T-3N3C NLU201205T-18NG 18N MLF1608D R82K-T MLF1608D R82K-T
 R601 R602 R603	7030003600 7030003320 7030003280	S.RESISTOR S.RESISTOR S.RESISTOR	ERJ3GEYJ 223 V (22 kΩ) ERJ3GEYJ 101 V (100 Ω) ERJ3GEYJ 470 V (47 Ω)

## [1ST VCO UNIT]

REF NO.	ORDER NO.	C	DESCRIPTION
R621	7030003540	S.RESISTOR	ERJ3GEYJ 682 V (6.8 kΩ)
R622	7030003280	S.RESISTOR	ERJ3GEYJ 470 V (47 Ω)
R623	7030003540	S.RESISTOR	ERJ3GEYJ 682 V (6.8 kΩ)
R624	7030003320	S.RESISTOR	ERJ3GEYJ 101 V (100 Ω) ERJ3GEYJ 222 V (2.2 kΩ)
R625 R626	7030003480 7030003680	S.RESISTOR	ERJ3GEYJ 104 V (100 kΩ)
R627	7030003460	S.RESISTOR	ERJ3GEYJ 152 V (1.5 kΩ)
R641	7030003460	S.RESISTOR	ERJ3GEYJ 152 V (1.5 kΩ)
R642	7030003280	S.RESISTOR	ERJ3GEYJ 470 V (47 Ω)
R643	7030003360	S.RESISTOR	ERJ3GEYJ 221 V (220 Ω)
R644	7030003550 7030003520	S.RESISTOR S.RESISTOR	ERJ3GEYJ 822 V (8.2 kΩ) ERJ3GEYJ 472 V (4.7 kΩ)
R645 R647	7030003240	S.RESISTOR	ERJ3GEYJ 220 V (22 Ω)
R661	7030003460	S.RESISTOR	ERJ3GEYJ 152 V (1.5 kΩ)
R662	7030003280	S.RESISTOR	ERJ3GEYJ 470 V (47 Ω)
R663 R664	7030003360 7030003550	S.RESISTOR	ERJ3GEYJ 221 V (220 Ω) ERJ3GEYJ 822 V (8.2 kΩ)
R665	7030003520	S.RESISTOR	ERJ3GEYJ 472 V (4.7 kΩ)
R666	7030003460	S.RESISTOR	ERJ3GEYJ 152 V (1.5 kΩ)
R667	7030003240	S.RESISTOR	ERJ3GEYJ 220 V (22 Ω)
C601	4030009910	S.CERAMIC	C1608 CH 1H 040B-T-A
C602	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C603	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C621	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C622	4030009540 4030006860	S.CERAMIC S.CERAMIC	C1608 CH 1H 1R5B-T-A C1608 JB 1H 102K-T-A
C623 C624	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C625	4030009540	S.CERAMIC	C1608 CH 1H 1R5B-T-A
C626	4030009510	S.CERAMIC	C1608 CH 1H 010B-T-A
C627	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C628	4030006860 4030006860	S.CERAMIC S.CERAMIC	C1608 JB 1H 102K-T-A C1608 JB 1H 102K-T-A
C629 C644	4030006970	S.CERAMIC	C1608 CH 1H 060D-T-A
C645	4030009520	S.CERAMIC	C1608 CH 1H 020B-T-A
C646	4030009510	S.CERAMIC	C1608 CH 1H 010B-T-A
C647	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C648 C649	4550006320 4030006860	S.TANTALUM S.CERAMIC	ECST0JY475R C1608 JB 1H 102K-T-A
C650	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C651	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C664	4030009520	S.CERAMIC	C1608 CH 1H 020B-T-A
C665	4030009520	S.CERAMIC	C1608 CH 1H 020B-T-A
C666 C667	4030009500	S.CERAMIC	C1608 CH 1H 0R5B-T-A C1608 JB 1H 102K-T-A
C668	4550006320	S.TANTALUM	ECST0JY475R
C669	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C670	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C671	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
J601	6910010830	CONNECTOR	IMSA-9230B-1-08Z014-T
001	0910010050		
W641	7030003860	S.JUMPER	ERJ3GE JPW V
EP1	0910048055	РСВ	B 4902E
	•		
			S.=Surface moun

S.=Surface mount

## SECTION 7 MECHANICAL PARTS AND DISASSEMBLY

## 7-1 CABINET PARTS

### [CHASSIS PARTS]

REF. NO.	ORDER NO.	DESCRIPTION	QTY.
<b>J</b> 1	6510020210	BNC-R146	1
MP2	8210014041	1891 REAR PANEL-1	1
MP3	8110005950	1891 COVER	1
MP5	8930041470	1891 SP CAP	1
MP6	8930019790	891 Terminal rubber	4
MP7	8930026530	1349 A-TERMINAL	2
MP8	8930038010	1775 A-TERMINAL	1
MP9	8610009830	Knob N225(A)	1
MP10	8610010511	Knob N226(A)-1	1
MP11	8930041700	1891 A-terminal	1
MP12	8930041710	1891 B-terminal	1
MP13	8930041450	1891 FUNC button	1
MP14	8930041730	1891 FUNC Plate	1
MP15	8930042950	1891 Plate	1
MP18	8610010280	Knob N254	1
MP20	8830000570	Nut (A) FX643	2
MP21	8810008640	Screw FH B0 M2 x 4 NI-ZU (BT)	7
MP22	8810009560	Scerw FH M2 x 6 ZK (BT)	1
MP23	8810009220	Screw FH B0 M2 x 8 ZK (BT)	5
MP24	8810005700	Screw FH B0 M2 x 4 ZK	1
MP28	8830001270	Nut BNC-R146	1
MP29	8930043350	Rubber sheet (AH)	1
MP30	8930045090	Sponge (FK)	1

REF. ORDER NO. NO.		DESCRIPTION		
W 1	8900007370	Cable OPC-720	1	
DS1	5030001490	LCD EDMCU06F00	1	
SP 1	2510000960	Speaker K036NA500-26	1	
MP1	8930041480	1891 10-Key	1	
MP2	8210014050	1891 Reflector		
MP3	8930042180	1891 Sheet	1	
MP4	8930042640	Isolating Sheet EV	1	
MP5	8510011090	1891 Coil case	1	
MP6	8210014031	1891 Front panel-1 R10	1	
MP7	8930041460	1891 Jack cap	1	
MP10	8810008640	Screw FH B0 M2 x 4 NI-ZU (BT)	4	
MP11	8310039170	1891 Window plate	1	
MP14	8860001070	1891 LOGIC rug	1	

## [1ST VCO UNIT]

REF. NO.	ORDER NO.	DESCRIPTION	QTY.
MP1	8510010860	1891 VCO case	1
MP2	8930042920	Isolating sheet EW	1

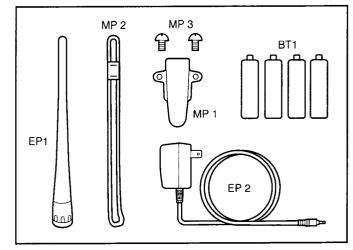
## [2ND VCO UNIT]

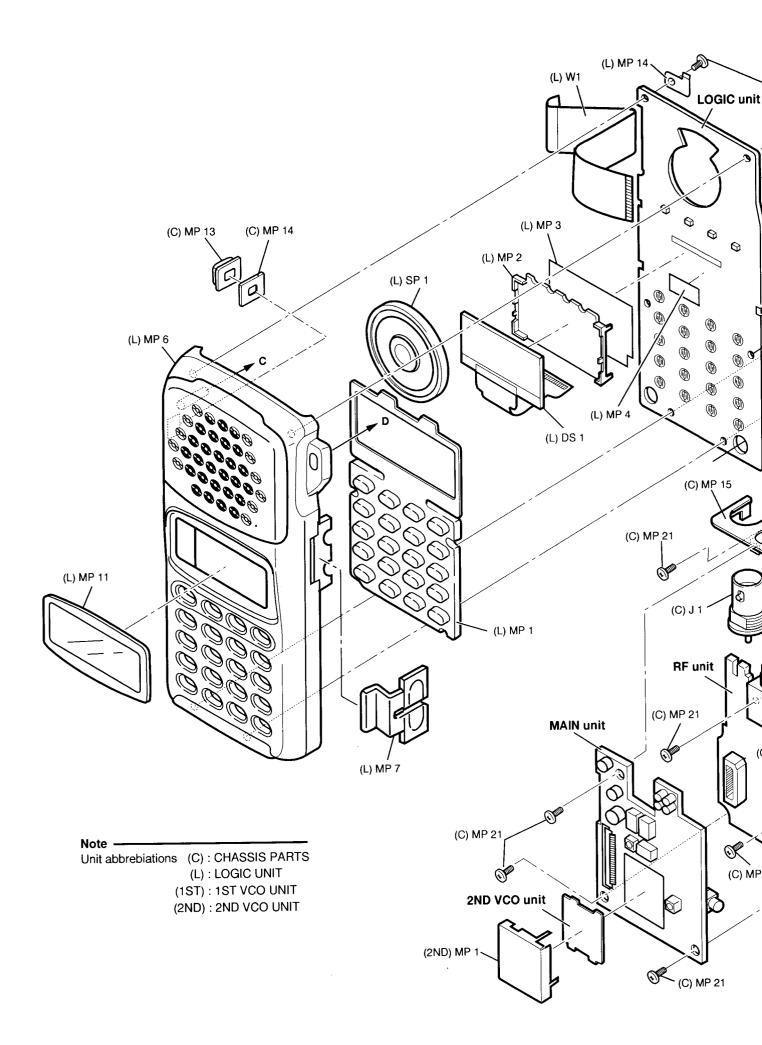
REF. NO.	ORDER NO.	DESCRIPTION	QTY.
MP1	8510010860	1891 VCO case	1

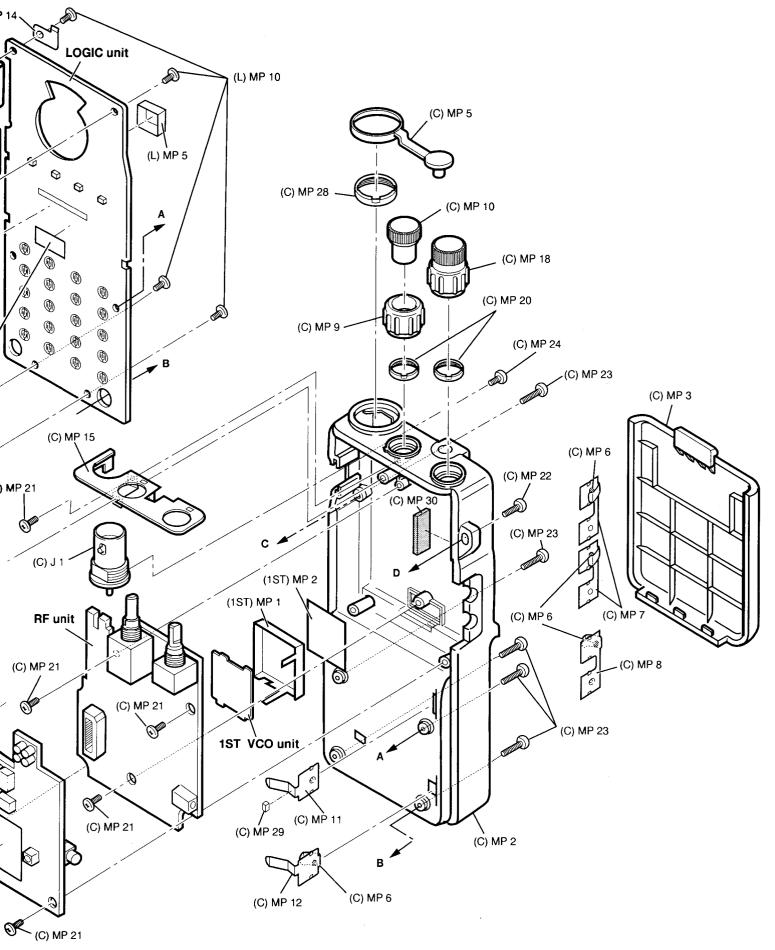
Screw abbreviations: FH: Flat head B0: self-tapping NI: Nickel ZK: Black

## 7-2 ACCESSORIES

REF. NO.	ORDER NO.	DESCRIPTION	QTY.
BT 1	3030000420	Battery NICD CEL KR0.7AAUR SAFT	4
EP1 EP2	Optional product Optional product	Antenna FA-B01RE Charger BC-110A [USA]	1
	Optional product	Charger BC-110D [EUR, FRA]	1
MP1	8930039290	1757 Belt clip	1
MP2	8010011960	Strap belt HK-005	1
MP3	8810009270	Screw M3 X 4 SUS ZK	2







# SECTION 8 SEMICONDUCTOR INFORMATION

## 8-1 TRANSISTORS

NAME	SYMBOL	INSIDE VIEW
2SA1622-6	M6	
2SB1132 - R	BAR	
2SB1201 - S	2M	
2SC4211-6 2SC4215-O 2SC4226-R25 2SC4228(M)-R45 2SC5065-O 2SD1664-Q	L6 QO R25 R45 MAO DAQ	
2SK1069-4 2SK880-Y	FJ XY	G G G G C C C C C C C C C C C C C C C C
3SK274 3SK291	UN UF	
DTA144EU	16	

NAME	SYMBOL	INSIDE VIEW
DTC144EU	26	
UN9110 UN911F	6L 6O	
UN9210	8L	C C C C C C C C C C C C C C C C C C C
XP1113 XP1114	7L 7Q	
ХР1501 - АВ	5R	

## 8-2 DIDOES

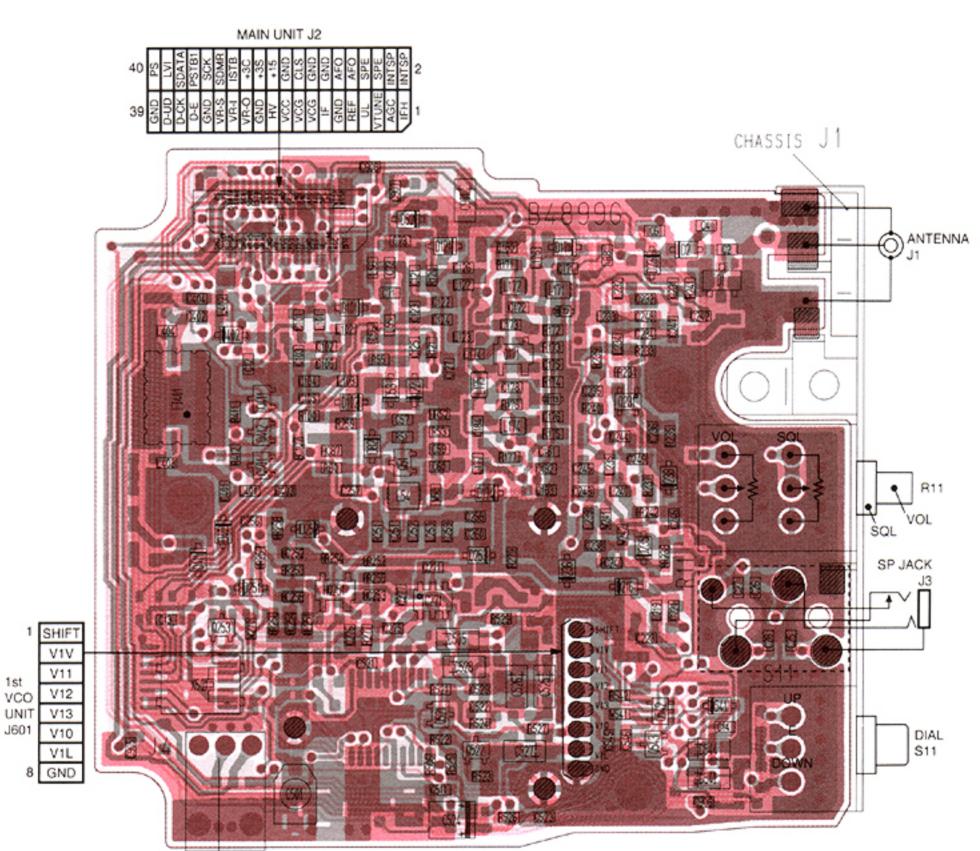
NAME	SYMBOL	INSIDE VIEW
DA112	AZ	
DA113W	AY	
DA204U DA221	ĸĸ	A K
DAP202U	Ρ	A K1 K2
DAP222	Р	
HVU350TRF ISV245 ISV286 ISV288	4 T3 T7 TJ	A □ K →IF
HSU88TRF MA111 MA728	9 1B 2A	A द <b>ा</b> ∋ K -→-

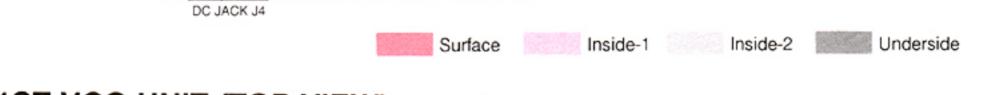
NAME	SYMBOL	INSIDE VIEW
MA6S121	M2D	K3 K2 K1
MA304	7R	pink A □□□□□□ K →II-
MA6S121	M2D	K3 K2 K1
MA77	4B	a <b>d</b> ∎tota ->t-
MA8051-M	5-1	A de table k →
MA77	4B	A □
SB07-03C-TB	J	

# SECTION 9 BOARD LAYOUTS

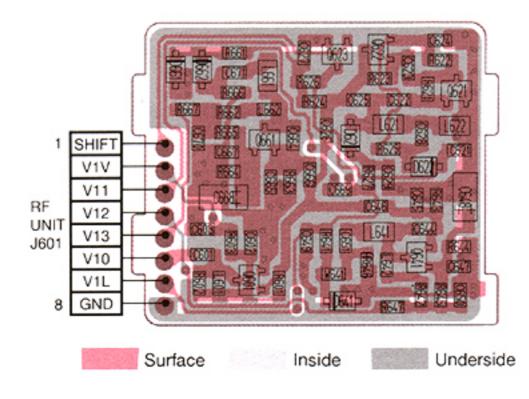
# **RF UNIT (TOP VIEW)**

The combination of this page and the next page shows the unit layout in the same configuration as the actual P.C. Board.

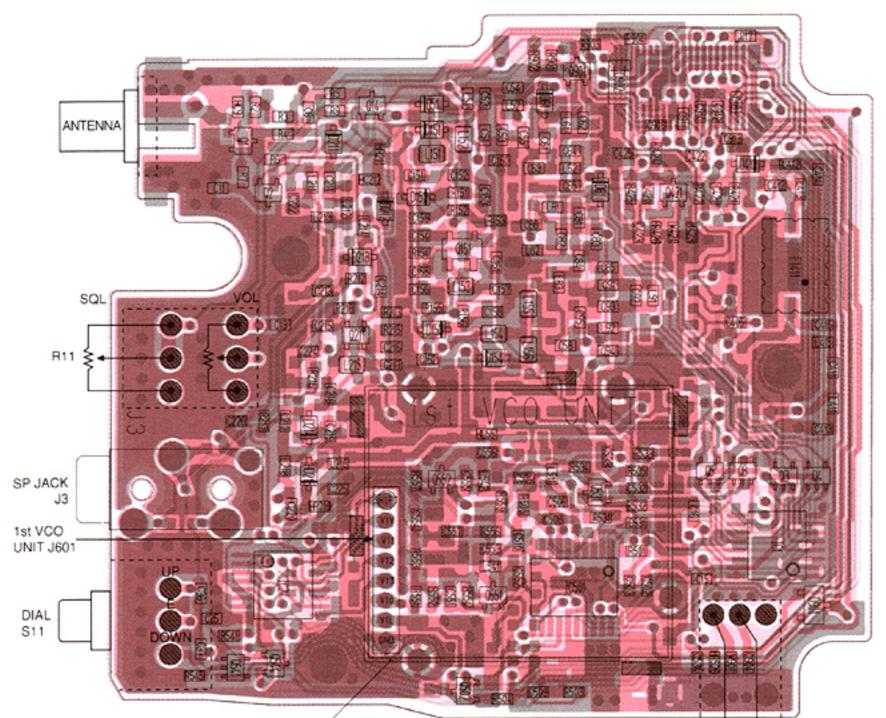


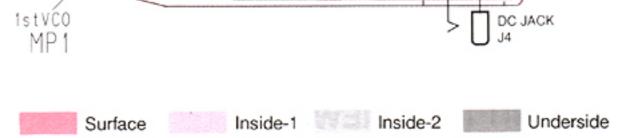


# **1ST VCO UNIT (TOP VIEW)**



# **RF UNIT (BOTTOM VIEW)**





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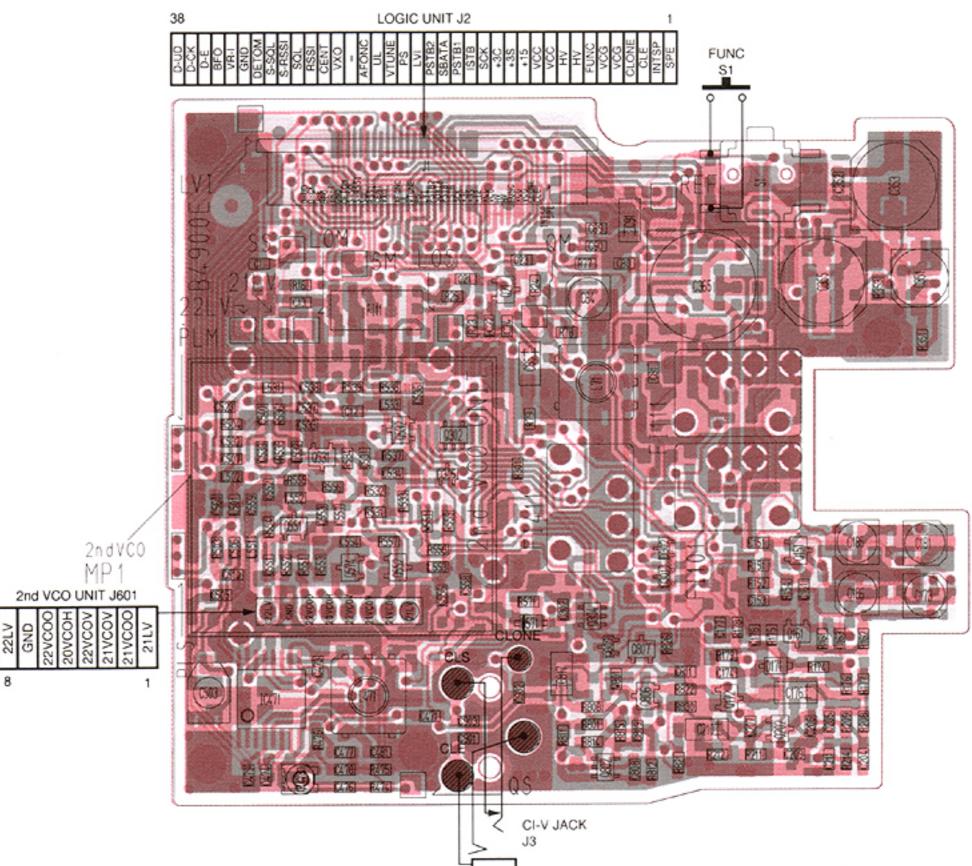
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# MAIN UNIT (TOP VIEW)

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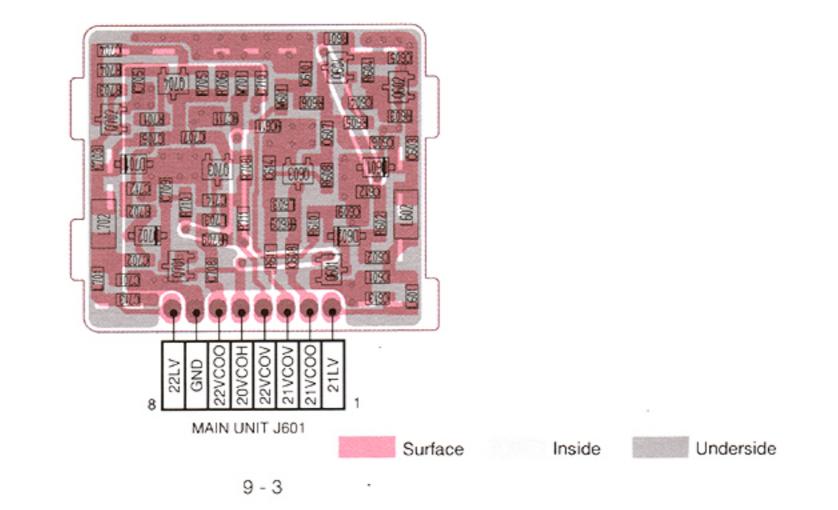


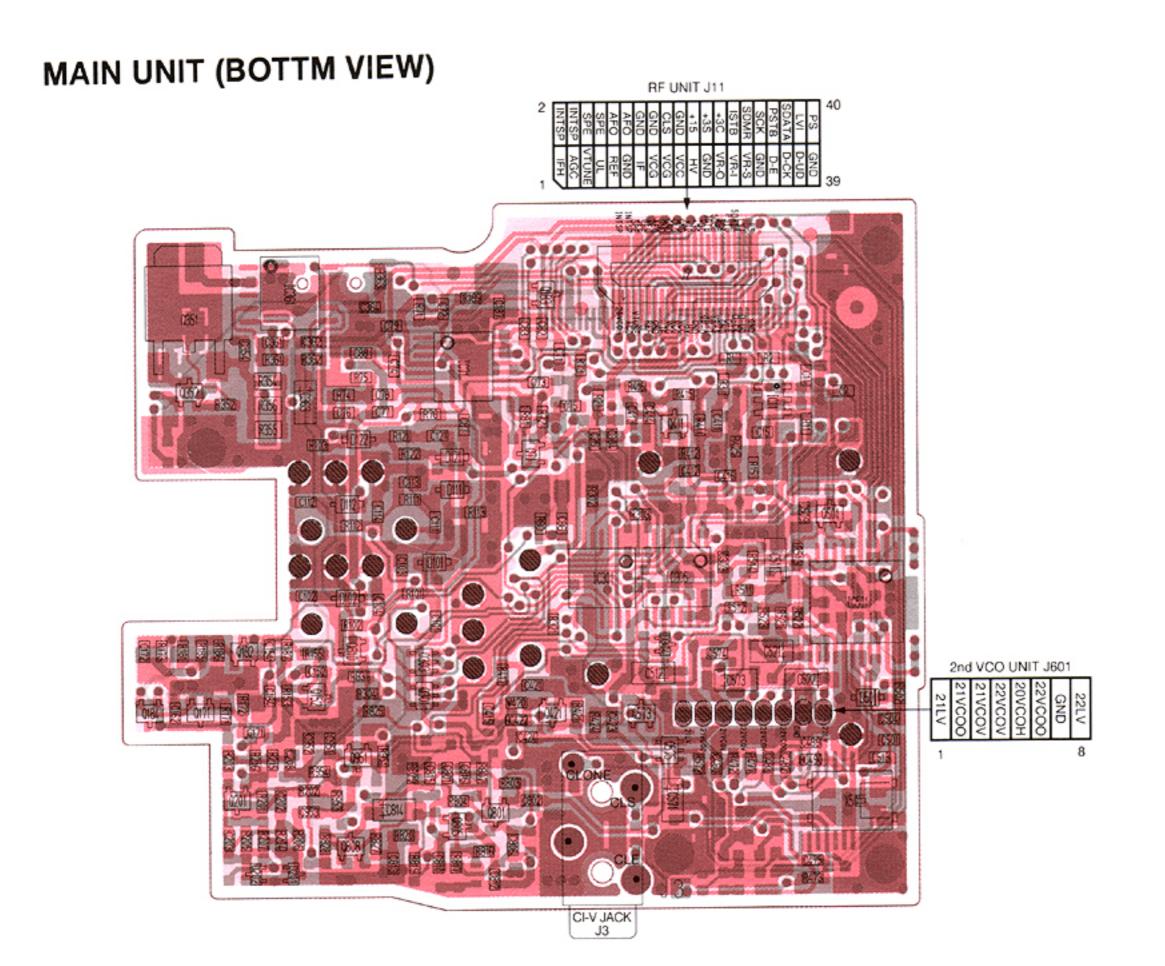
Surface Inside-1

Inside-2

Underside

# 2ND VCO UNIT (TOP VIEW)







1

Surface Inside-1 Inside-2 Underside

-

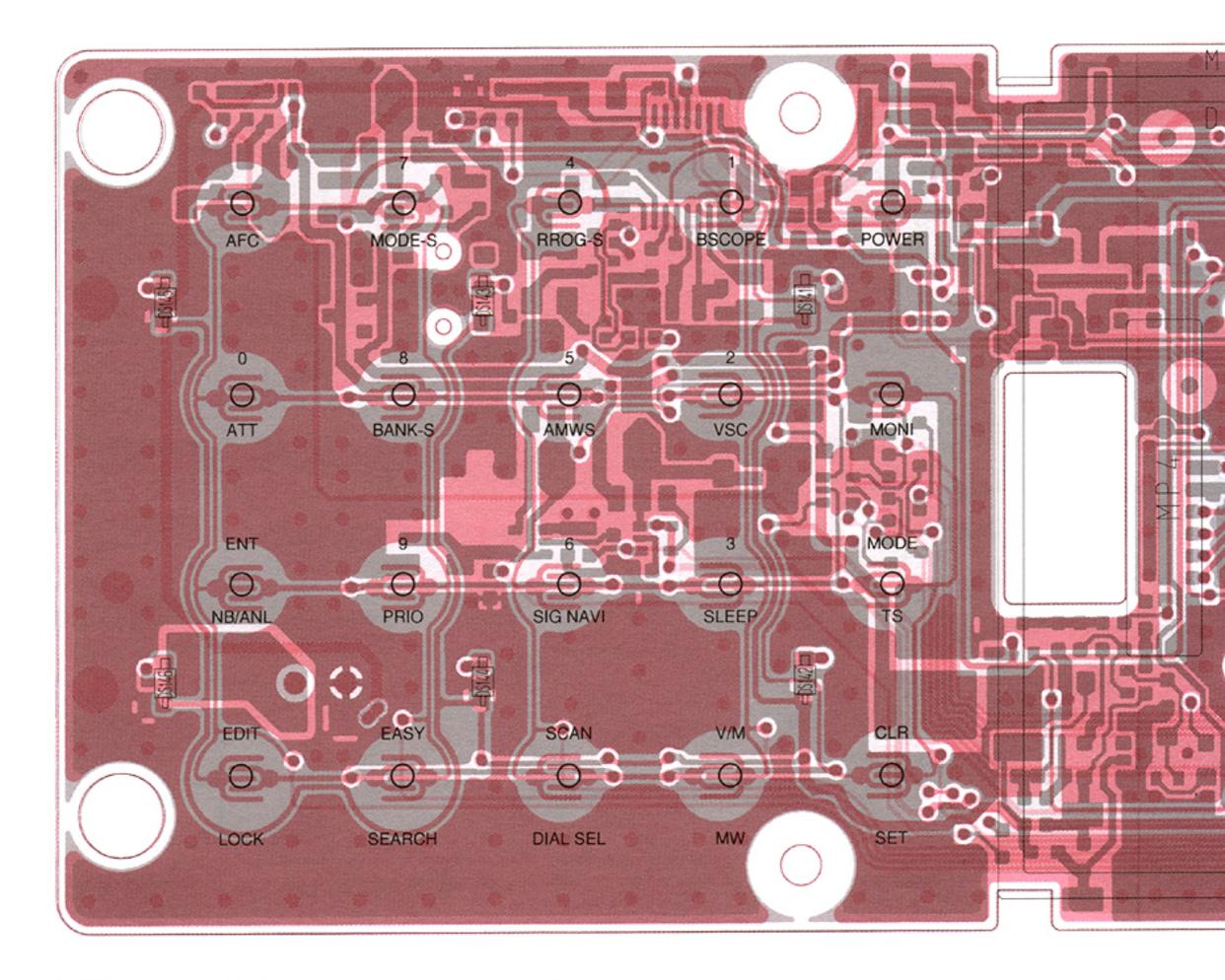
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LOGIC UNIT (TOP VIEW)





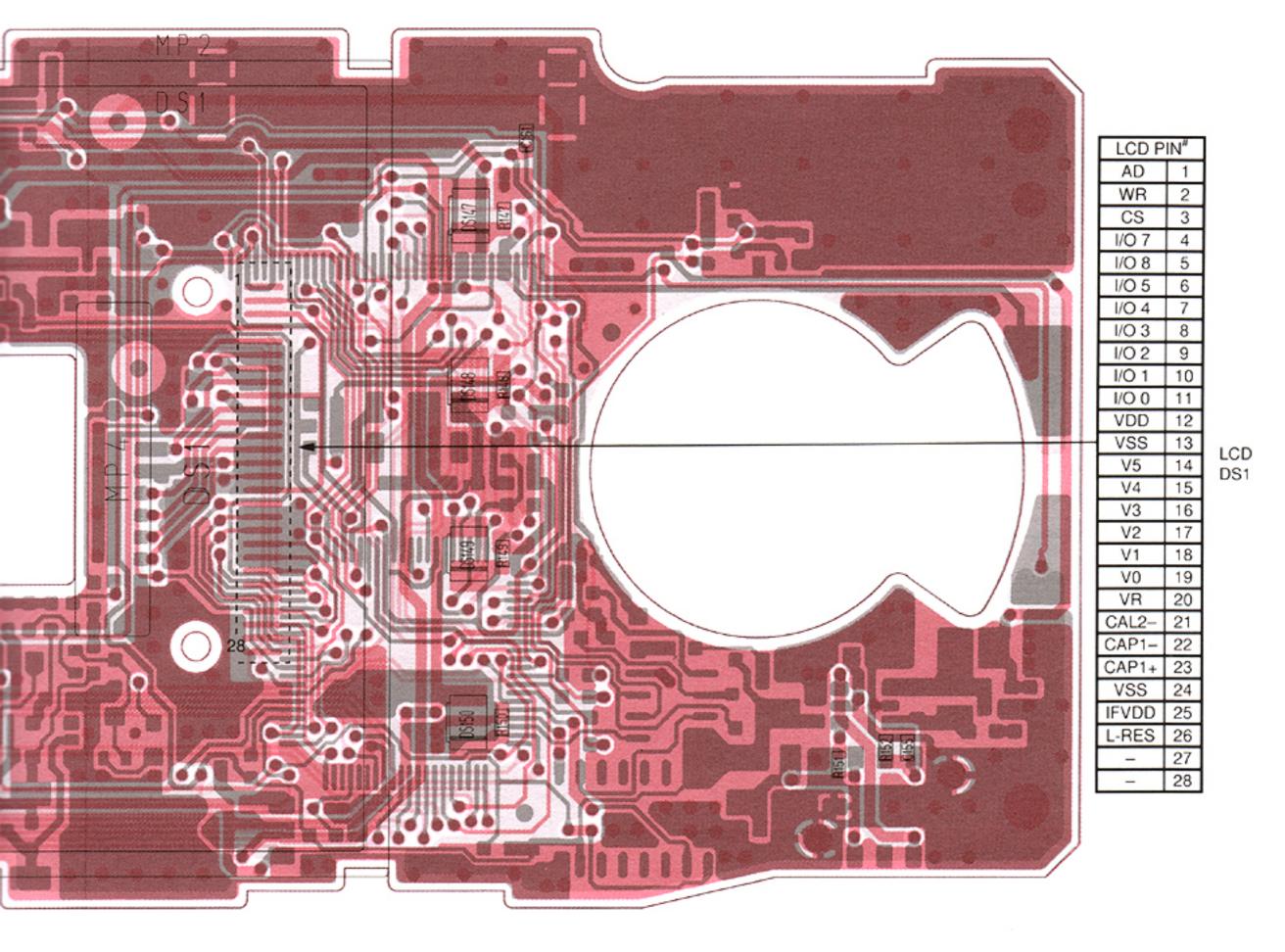
Inside-1

Inside-2

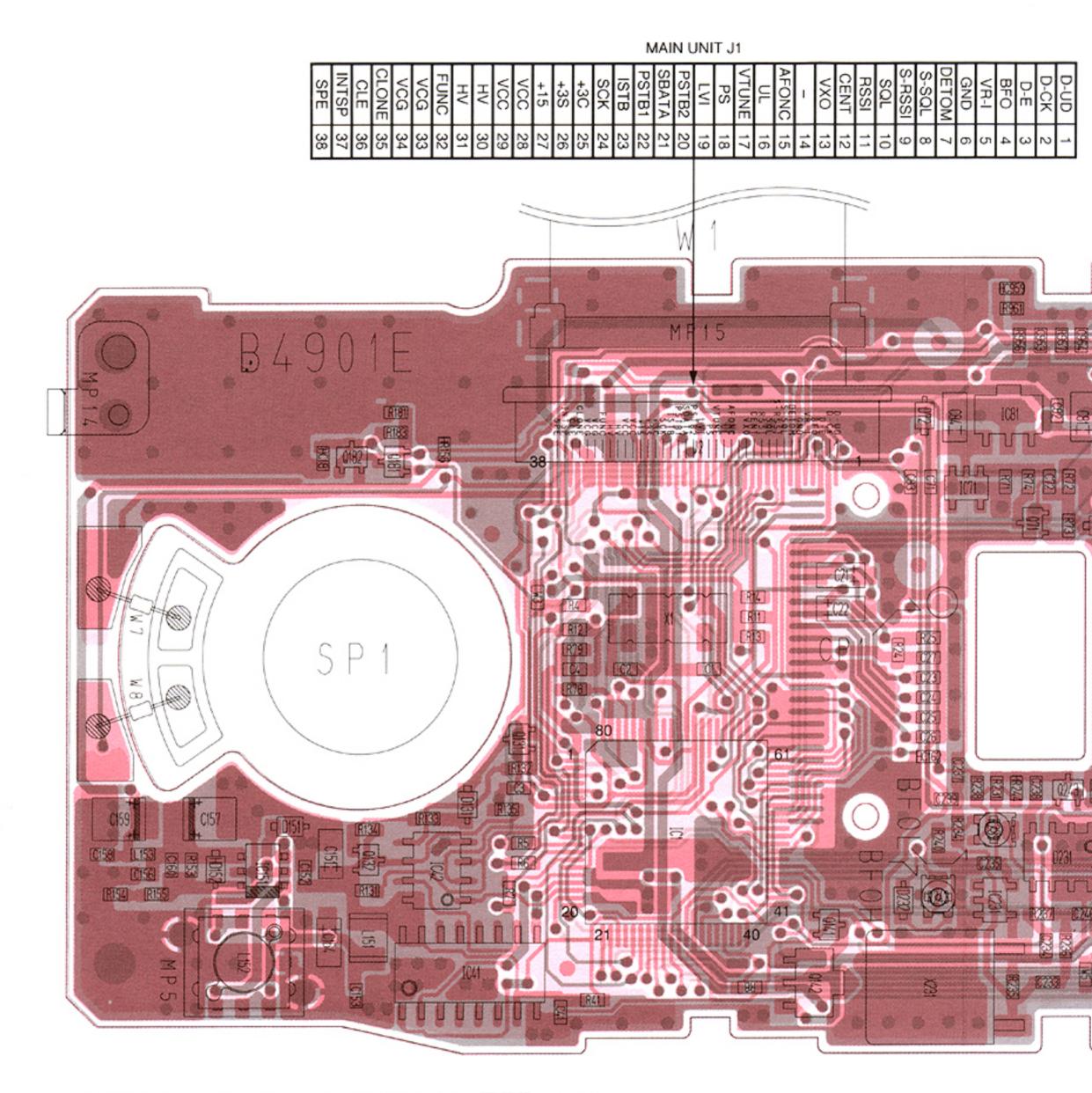
Underside

9 - 5

The combination of this page and the next page shows the unit layout in the same configuration as the actual P.C. Board.







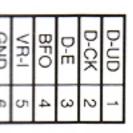


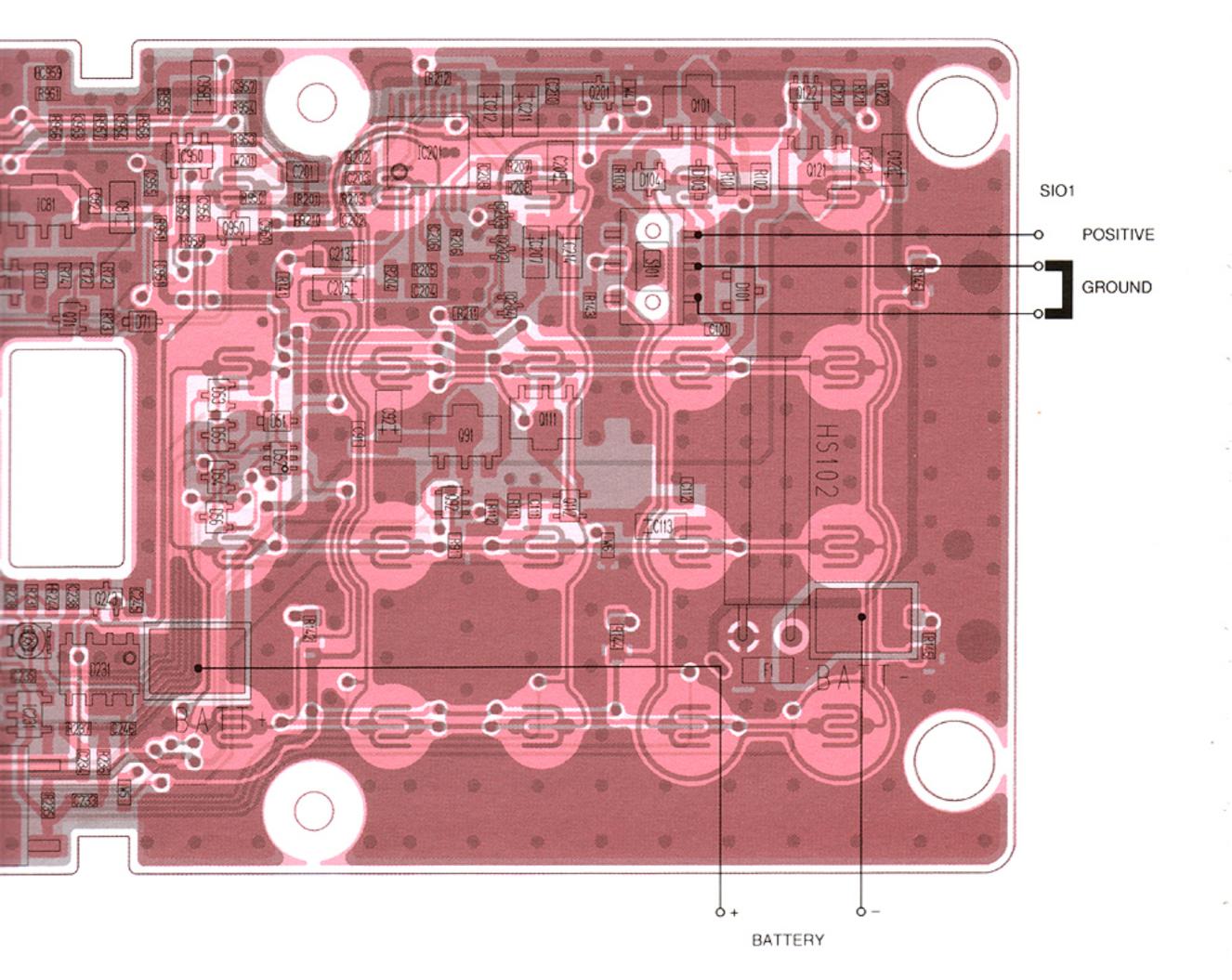
Surface Inside-1

Inside-2

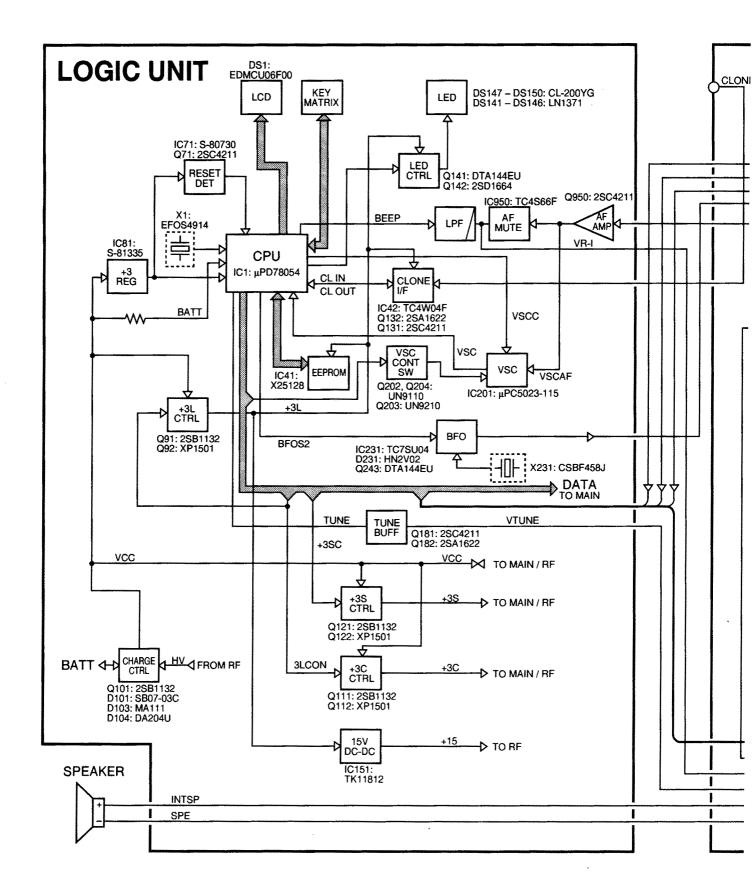
Underside

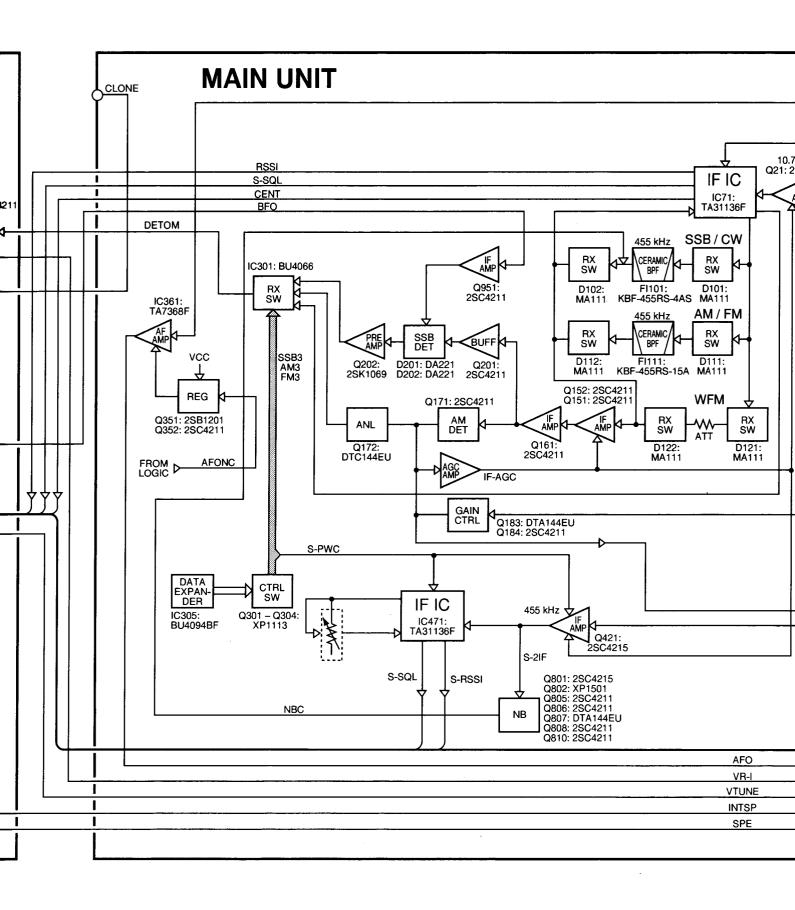
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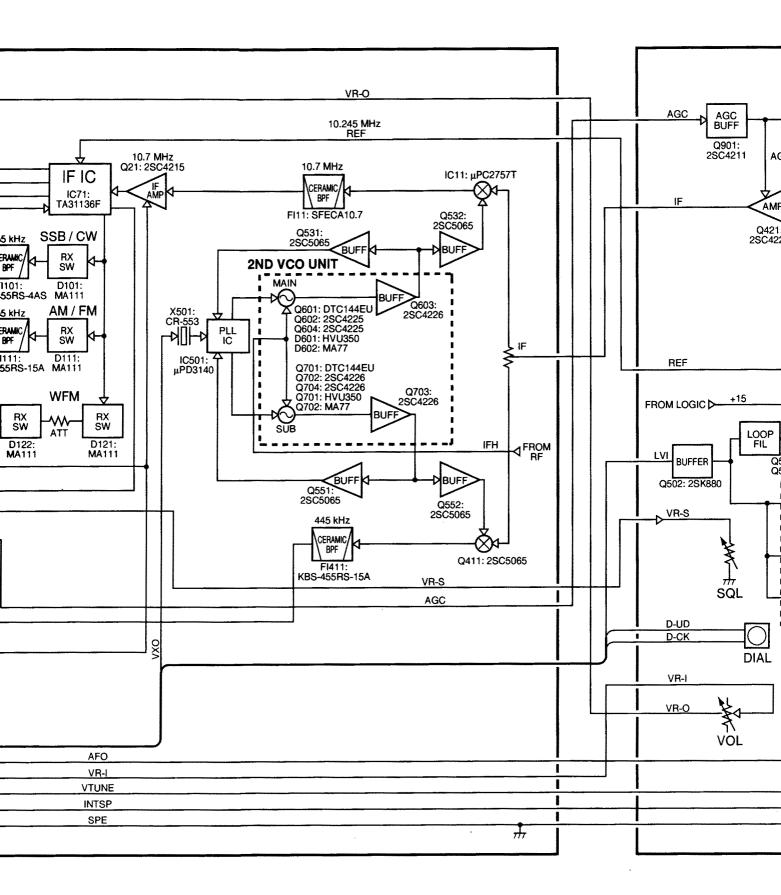


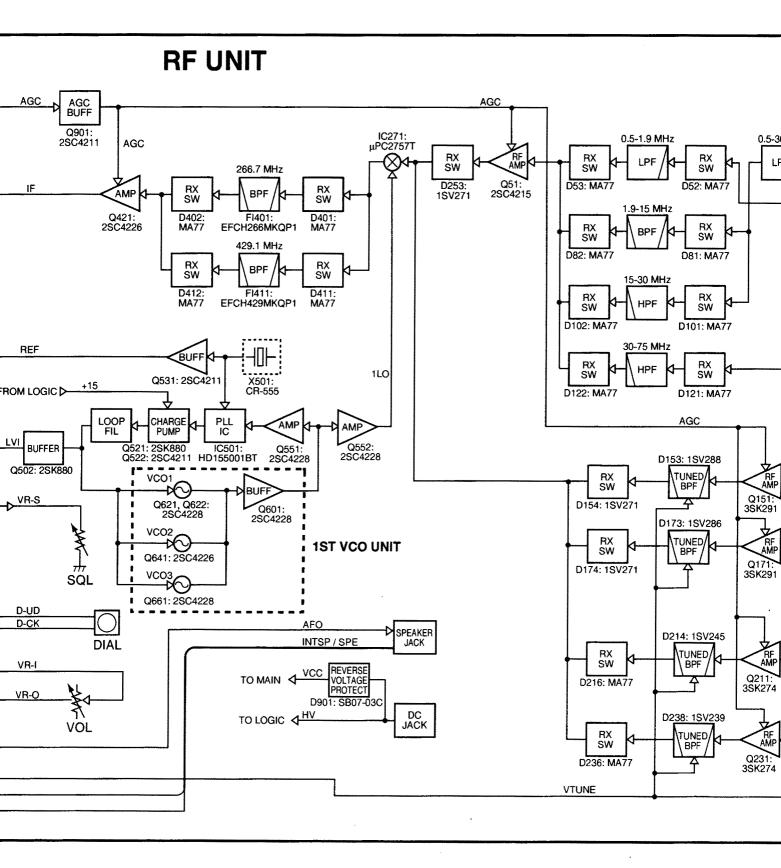


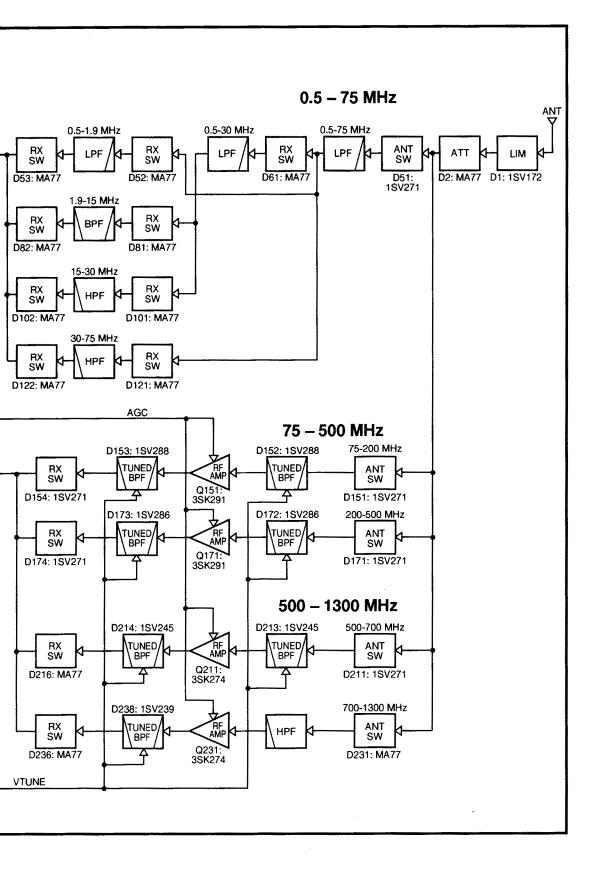
# SECTION 10 BLOCK DIAGRAM



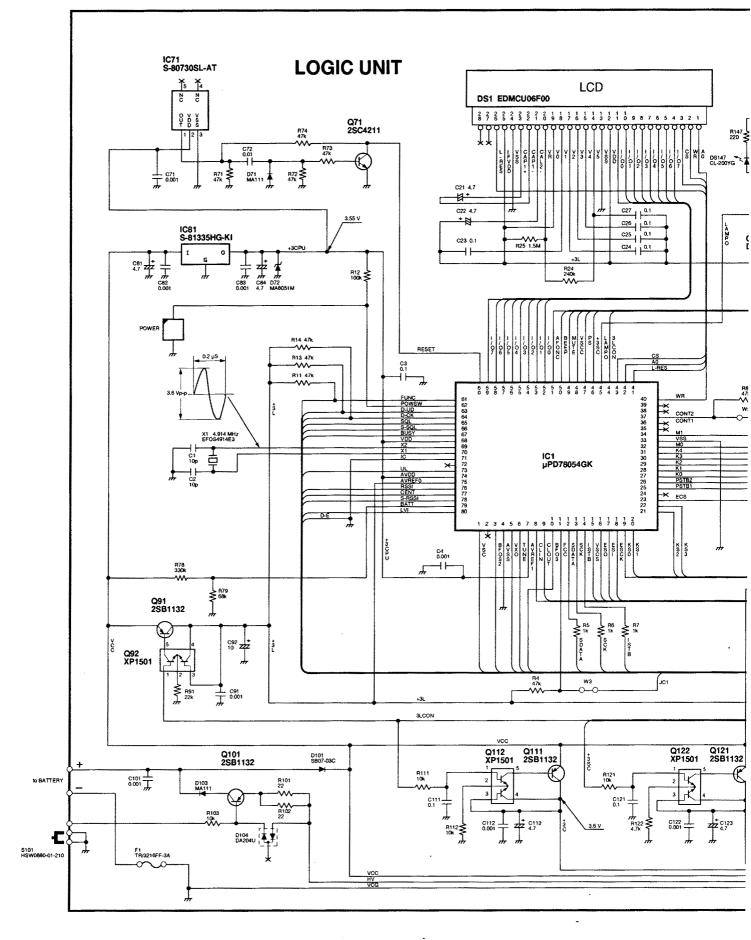


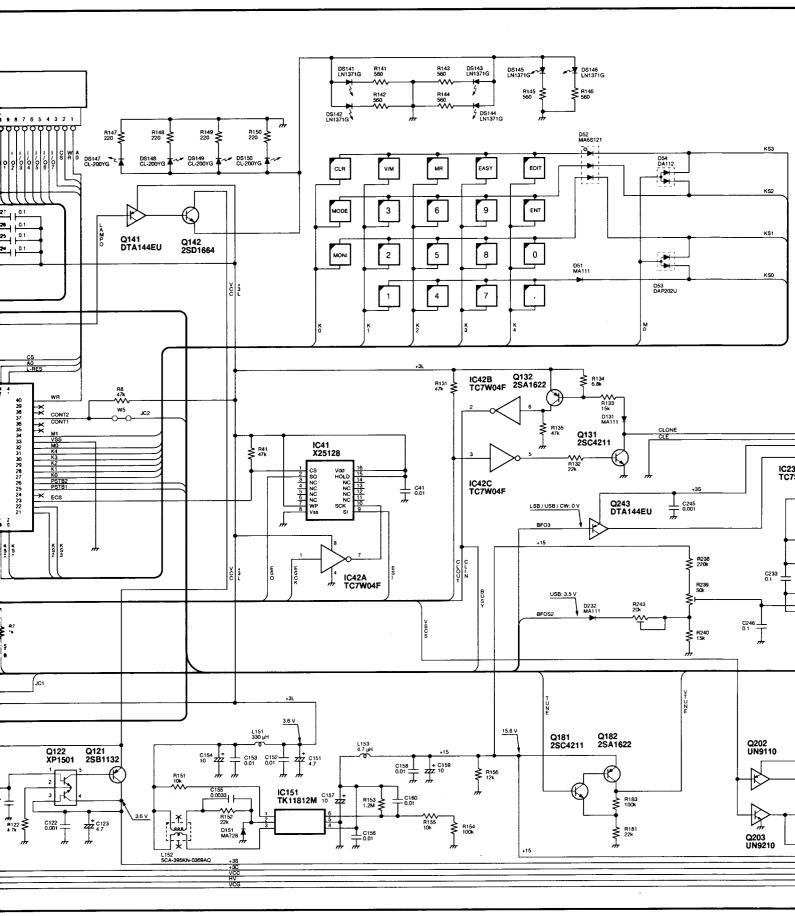




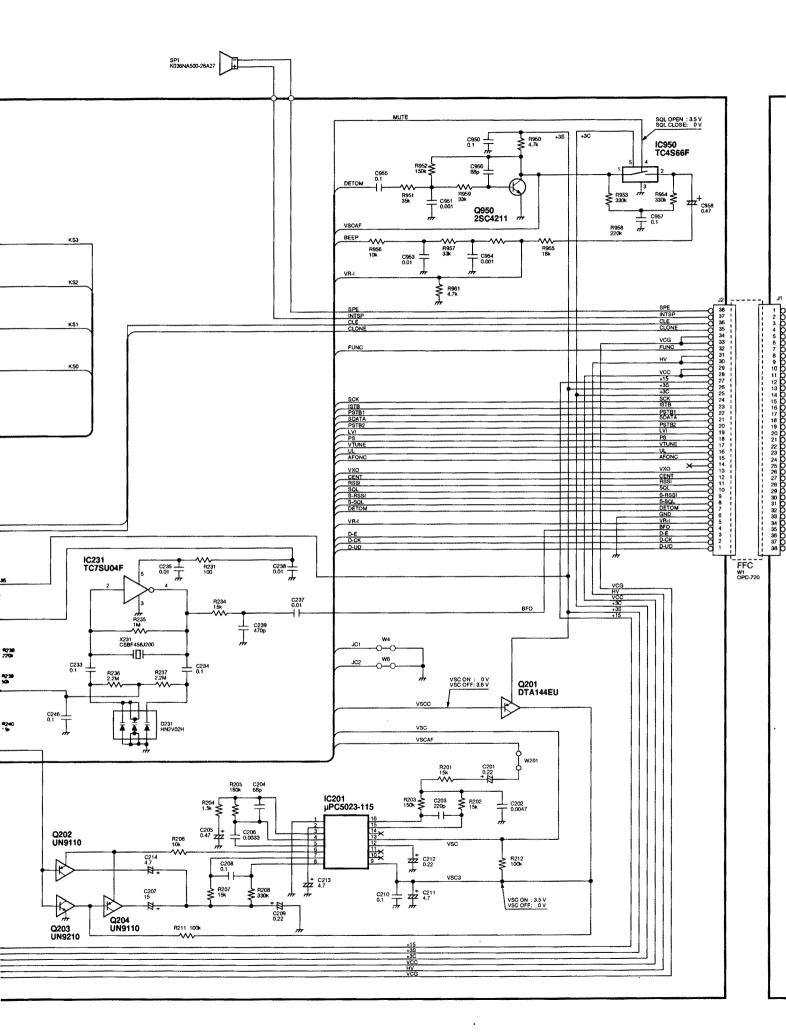


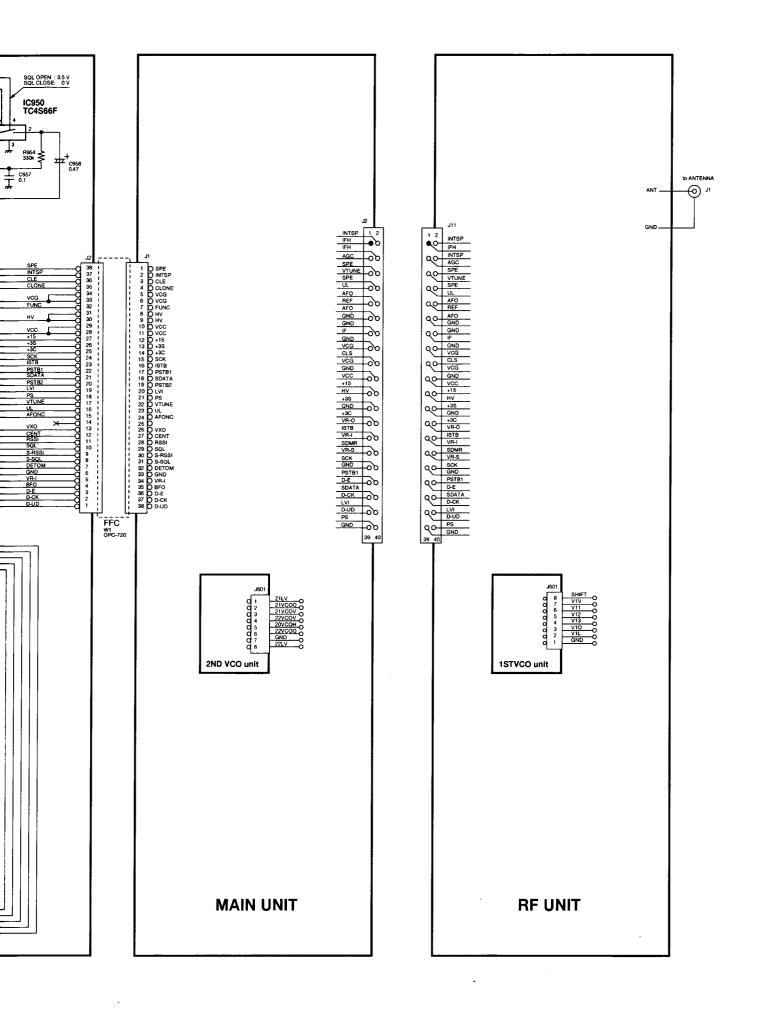
# SECTION 11 VOLTAGE DIAGRAM

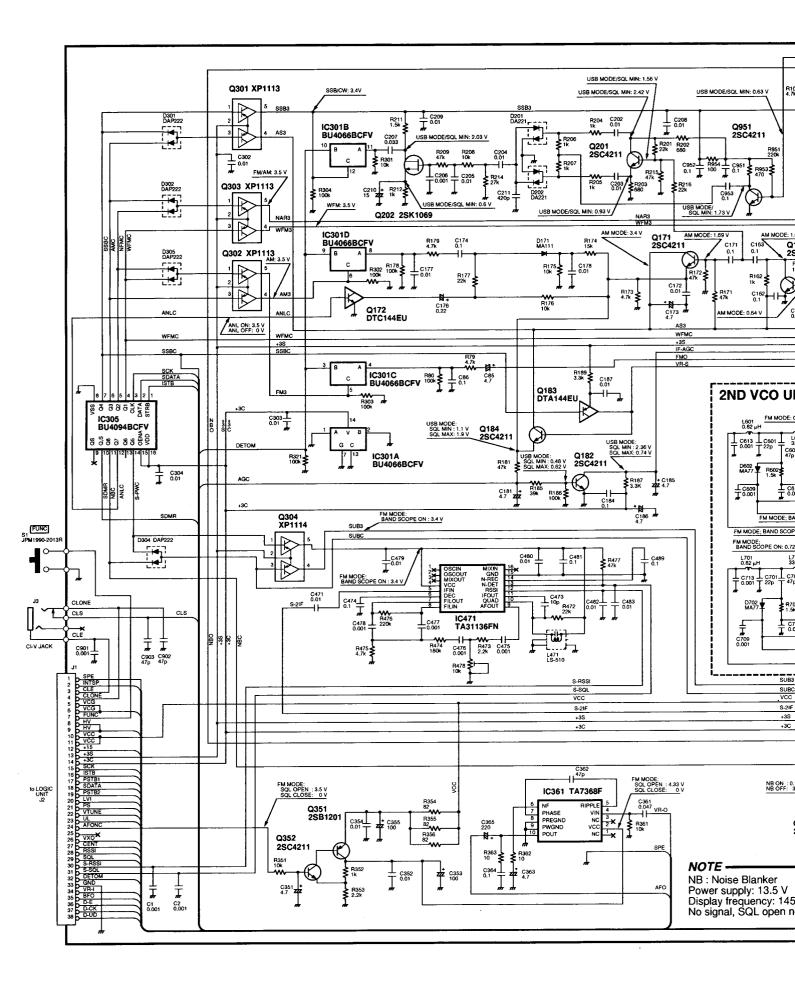


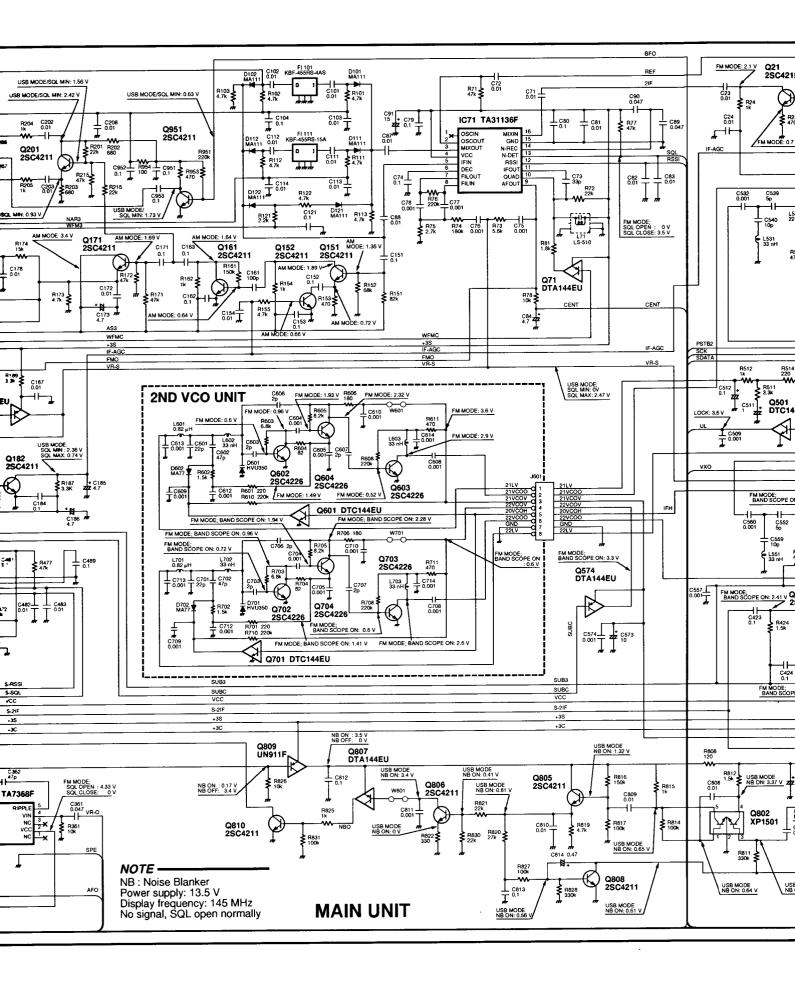


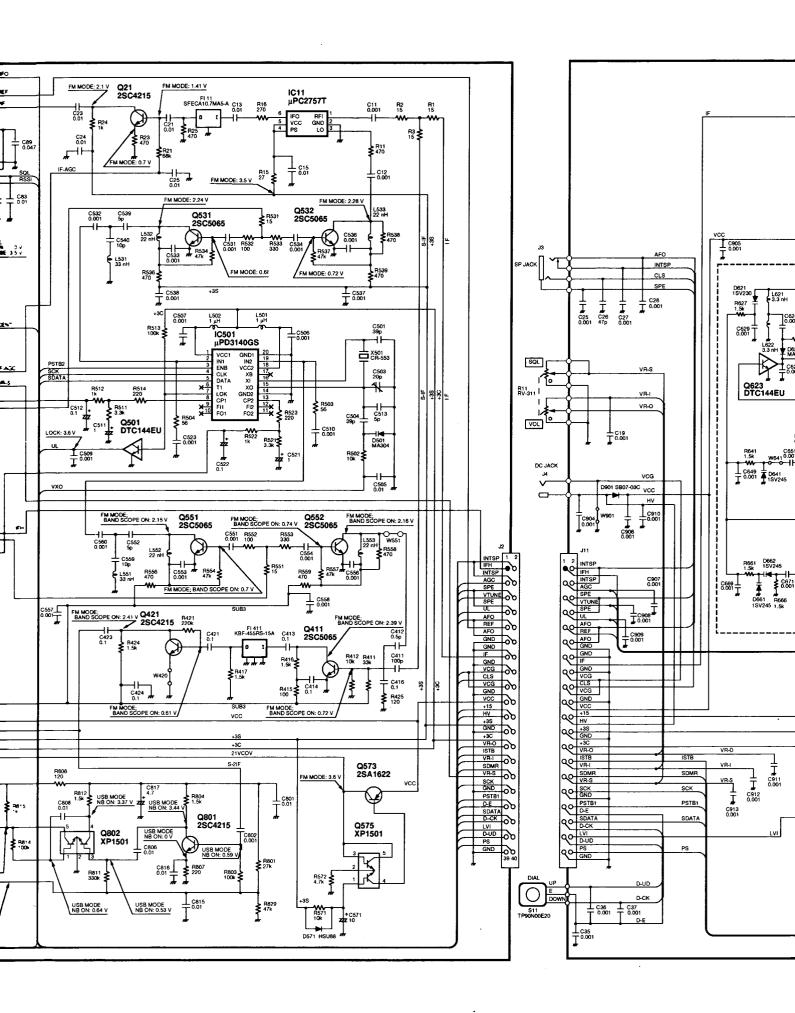
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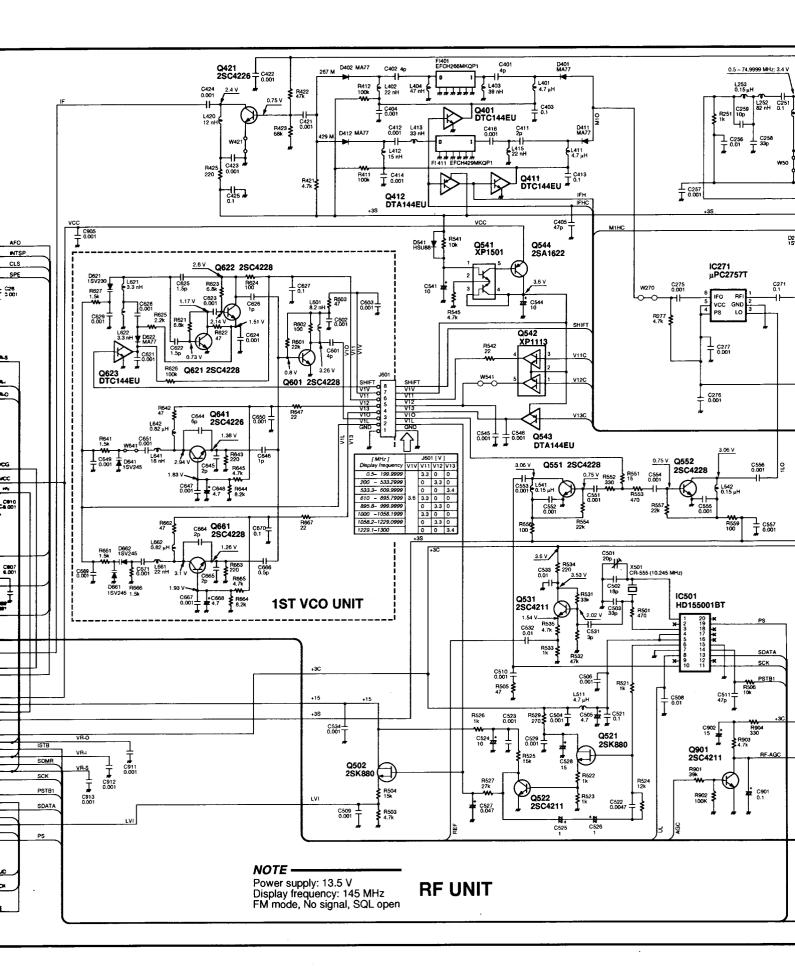


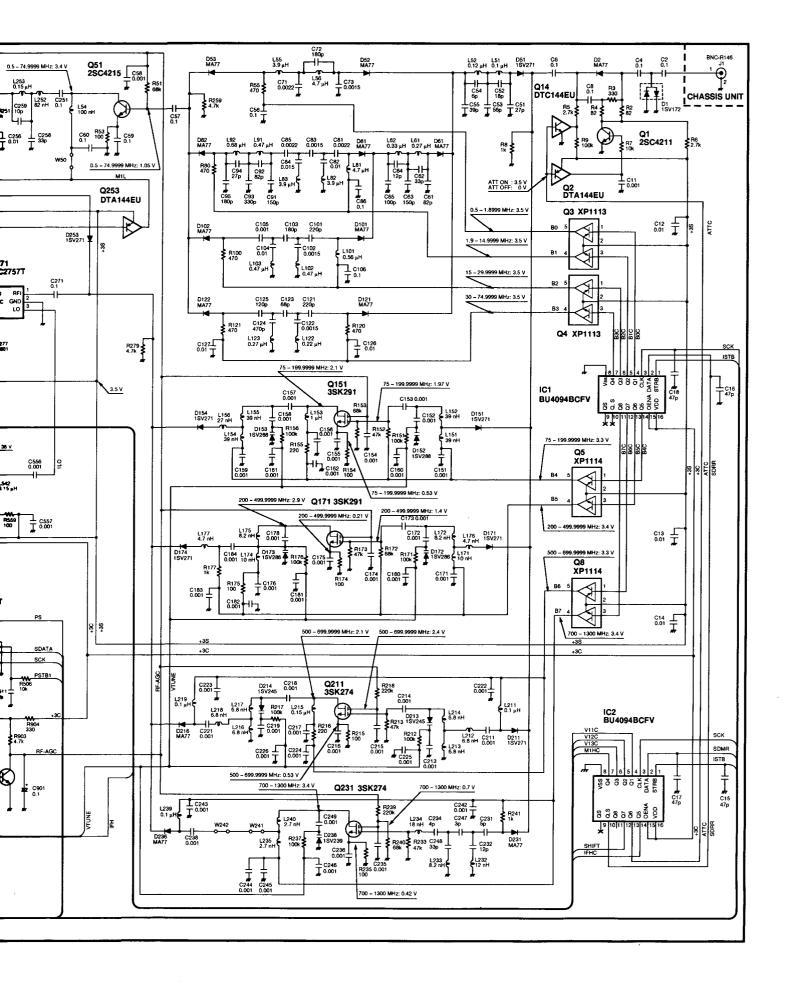












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