

HF / VHF / UHF  
All Mode Transceiver

# FT-817

## Technical Supplement

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### Introduction

This manual provides technical information necessary for servicing the Yaesu FT-817 HF & V/UHF-Bands Transceiver. It does not include information on installation and operation, which are described in the FT-817 Operating Manual provided with the transceiver, or on accessories which are described in their manuals.

The FT-817 is carefully designed to allow the knowledgeable operator to make nearly all adjustments required for various station conditions, modes and operator preferences simply from the controls on the panels, without opening the case of the transceiver. The FT-817 Operating Manual describes these adjustments, plus certain internal settings.

Servicing this equipment requires expertise in handling surface mount chip components. Attempts by unqualified persons to service this equipment may result in permanent damage not covered by warranty. For the major circuit boards, each side of the board is identified by the type of the majority of components installed on that side. In most cases one side has only chip components, and the other has either a mixture of both chip and lead compo-



nents (trimmers, coils, electrolytic capacitors, packaged ICs, etc.), or lead components only.

While we believe the technical information in this manual is correct, VERTEX STANDARD assumes no liability for damage that may occur as a result of typographical or other errors that may be present. Your cooperation in pointing out any inconsistencies in the technical information would be appreciated. VERTEX STANDARD reserves the right to make changes in this transceiver and the alignment procedures, in the interest of technological improvement, without notification of owners.

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# Specifications

## General

### Frequency Range:

Receive: 100 kHz-30 MHz  
50 MHz-54 MHz  
76 MHz-108 MHz (WFM only)  
87.5 MHz-108 MHz (EU)  
108 MHz-154 MHz (USA)  
144 MHz-148 (146) MHz (Other markets)  
430 (420) MHz-450 (440) MHz  
  
Transmit: 160-6 Meters  
2 Meters  
70 Centimeters (Amateur bands only)  
5.1675 MHz Alaska Emergency Frequency  
(USA only)

### Emission Modes:

A1 (CW), A3 (AM), A3J (LSB/USB), F3 (FM),  
F1 (9600 bps packet), F2 (1200 bps packet)

### Synthesizer Steps (Min.):

10 Hz (CW/SSB), 100 Hz (AM/FM)

### Antenna Impedance:

50 Ohms, Unbalanced (Front: Type BNC, Rear: Type M)

### Operating Temp. Range:

-10 °C to +60 °C (+14 °F to +140 °F)

### Frequency Stability:

±4 ppm from 1 min. to 60 min after power on.  
@25 °C: 1 ppm/hour  
±0.5 ppm/1 hour @25 °C, after warmup  
(with optional **TCXO-9**)

### Supply Voltage:

Normal: 13.8 VDC ± 15 %, Negative Ground

Operating: 8.0-16.0 V, Negative Ground

**FBA-28** (w/8 "AA" Alkaline Cells): 12.0 V

**FNB-72** (Ni-Cd Battery Pack): 9.6 V (Option)

### Current Consumption:

Squelched: 250 mA (Approx.)  
Receive: 450 mA

Transmit: 2.0 A

### Case Size (W x H x D):

135 x 38 x 165 mm (5.31" x 1.5" x 6.50")

### Weight (Approx.):

1.17 kg (2.58 lb)  
w/Alkaline battery, antenna, w/o Microphone

## Transmitter

### RF Power Output:

5 W (SSB/CW/FM), 1.5 W (AM Carrier) @13.8 V

### Modulation Types:

SSB: Balanced Modulator

AM: Early Stage (Low Level)

FM: Variable Reactance

### FM Maximum Deviation:

±5 kHz (FM-N: ±2.5 kHz)

### Spurious Radiation:

-50 dB (1.8-29.7 MHz)

-60 dB (50/144/430 MHz)

### Carrier Suppression:

>40 dB

### Opp. Sideband Supp.:

>50 dB

### SSB Frequency Response:

400 Hz-2600 Hz (-6 dB)

### Microphone Impedance:

200-10k Ohms (Nominal: 600 Ohms)

## Receiver

### Circuit Type:

Double-Conversion Superheterodyne

### Intermediate Frequencies:

1st: 68.33 MHz (SSB/CW/AM/FM); 10.7 MHz (WFM)

2nd: 455 kHz

Sensitivity:	<u>SSB/CW</u>	<u>AM</u>	<u>FM</u>
100 kHz-500 kHz	-	-	-
500 kHz-1.8 MHz	-	32 μV	-
1.8 MHz-28 MHz	0.25 μV	2 μV	-
28 MHz-30 MHz	0.25 μV	2 μV	0.5 μV
50 MHz-54 MHz	0.2 μV	2 μV	0.32 μV
144/430 MHz	0.125 μV	-	0.2 μV

(IPO, ATT off, SSB/CW/AM = 10 dB S/N, FM = 12 dB SINAD)

### Squelch Sensitivity:

SSB/CW/AM      FM

1.8 MHz-28 MHz	2.5 μV	-
28 MHz-30 MHz	2.5 μV	0.32 μV
50 MHz-54 MHz	1 μV	0.2 μV
144/430 MHz	0.5 μV	0.16 μV

(IPO, ATT off)

### Image Rejection:

HF/50 MHz: 70 dB

144/430 MHz: 60 dB

### IF Rejection:

60 dB

### Selectivity (-6/-60 dB):

SSB/CW: 2.2 kHz/4.5 kHz

AM: 6 kHz/20 kHz

FM: 15 kHz/30 kHz

FM-N: 9 kHz/25 kHz

SSB (optional **YF-122S** installed): 2.3 kHz/4.7 kHz (-66 dB)

CW (optional **YF-122C** installed): 500 Hz/2.0 kHz

### AF Output:

1.0 W (8 Ohms, 10% THD or less)

### AF Output Impedance:

4-16 Ohms

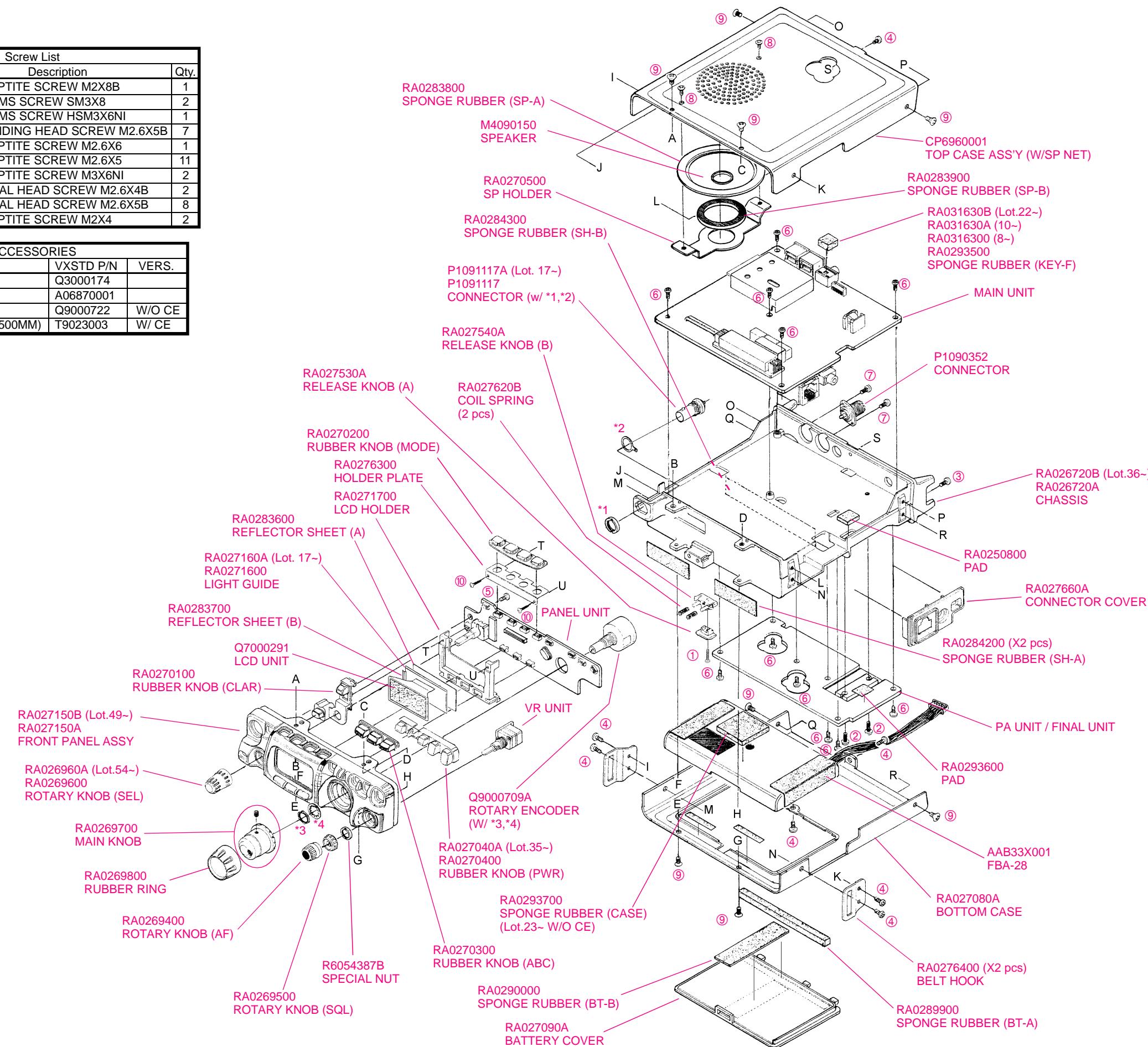
**Specifications are subject to change without notice, and are guaranteed within amateur bands only.**

**Frequency ranges vary according to transceiver version; check with your dealer.**

# Exploded View & Miscellaneous Parts

Screw List			
No.	VXSTD P/N	Description	Qty.
①	U9900112	TAPTITE SCREW M2X8B	1
②	U02308001	SEMS SCREW SM3X8	2
③	U04306002	SEMS SCREW HSM3X6NI	1
④	U20205007	BINDING HEAD SCREW M2.6X5B	7
⑤	U23206001	TAPTITE SCREW M2.6X6	1
⑥	U24205001	TAPTITE SCREW M2.6X5	11
⑦	U24306002	TAPTITE SCREW M3X6NI	2
⑧	U31204007	OVAL HEAD SCREW M2.6X4B	2
⑨	U31205007	OVAL HEAD SCREW M2.6X5B	8
⑩	U9900012	TAPTITE SCREW M2X4	2

ACCESSORIES		
Description	VXSTD P/N	VERS.
ANTENNA (YHA-63)	Q3000174	
MIC (MH-31A8J)	A06870001	
CABLE (E-DC-6)	Q9000722	W/O CE
DC CABLE (DC 3A 1500MM)	T9023003	W/ CE

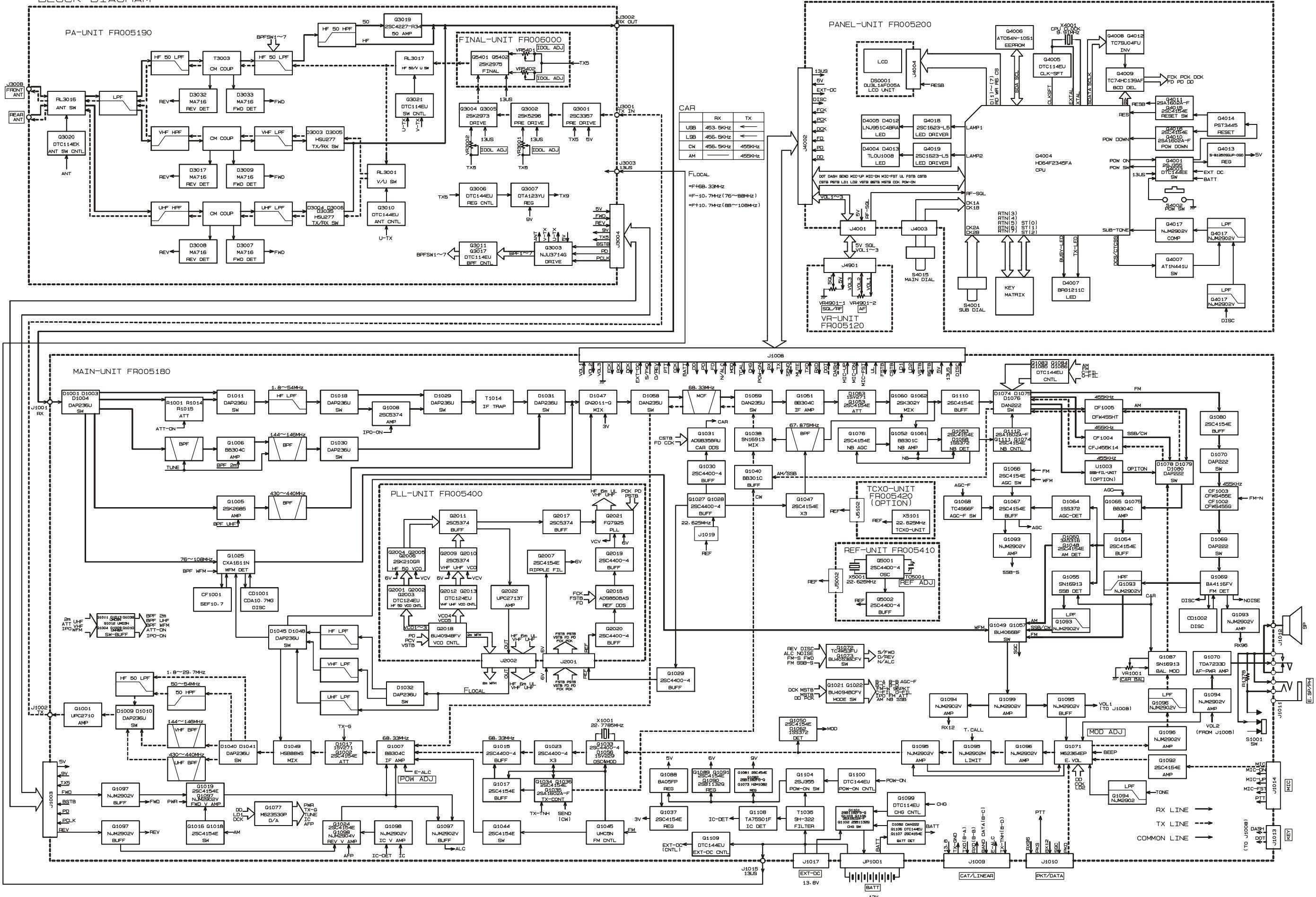


## **Exploded View & Miscellaneous Parts**

REF.	DESCRIPTION	VALUE	V/W	TOL.	MFR'S DESIG	VS P/N	VERS.	LOT.	SIDE
*** MAIN ASSY ***									
P 0004	WIRE ASSY				J1012 to SP	T9206744	1-		
P 0005	WIRE ASSY				J1008 to J4002	T9206919	1-		
P 0006	WIRE ASSY				J1003 to J3004	T9206920	1-		
P 0007	WIRE ASSY				BATTERY CASE	T9206940	1-		
P 0007	WIRE ASSY				BATTERY CASE	T9206932A	3-		

# Block Diagram

BLOCK-DIAGRAM



## ***Block Diagram***

**Note:**

# **Circuit Description**

The FT-817 internal assembly consists of the MAIN Unit, Control (PANEL) Unit, and the PA Unit. The MAIN Unit contains the receiver front end, PLL IC, and switching circuits, as well as the VCO Unit (local oscillator for transmission and reception). The PANEL Unit contains the CPU and reset circuits, as well as the power circuitry for the LCD.

## **Receive Signal Circuitry**

### **High-Frequency Circuit**

The receive signal enters from the Front (J1001) or Rear (J1002) ANT connector, as selected by relay RL3016 on the PA Unit.

Signals between 0.1 and 154 MHz received at the antenna terminal pass through an input low-pass filter composed of L3081, L3082, C3264, and C3265.

Received 430 MHz signals, after passing through a high-pass filter composed of L3071, L3076, C3245, and C3254 are passed through low-pass filter composed of L3028, L3032, L3035, C076, C3082, C3088, and C3093, and then are fed through the directional coupler to the UHF T/R switch circuit composed of diode switch D3004/D3035 (both HSU277). The signal then is fed to MAIN Unit via J3002.

Received 145 MHz signals, after passing through a high-pass filter composed of L3071, L3075, L3079, C3234, C3245, C3252, and C3260 are passed through low-pass filter composed of L3027, L3031, L3034, C3075, C3081, and C3092, and then are fed through the directional coupler to the VHF T/R switch circuit, composed of diode switch D3003/D3005 (both HSU277). The signal then is fed to MAIN Unit via J3002.

Received 0.1-54 MHz signals, after passing through the first low-pass filter, are passed through another low-pass filter composed of L3069, L3070, L3074, L3077, C3239, C3242, and C3248, plus LPFs 1-7 (5th or 7th-order Chebyschev type filter) and HPFs 1-7, utilizing seven different sections to create optimized bandpass responses for the various amateur bands at 0.1-54 MHz. The signal then is fed to the 50MHz pre-amplifier (when engaged) and on to the MAIN Unit via J3002.

The receive signal then passes through the input attenuator (-10dB) which consists of resistors R1001, R1014, and

R1015 plus diodes D1003/D1011 (both DAP236U) on the MAIN Unit .

Incoming wideband FM (76-108 MHz) signals, after passing through a high-pass filter composed of L3071, L3075, L3079, C3234, C3245, C3252, and C3260 are passed through a low-pass filter composed of L3027, L3031, L3034, C3075, C3081, and C3092 , and through a directional coupler, to the VHF T/R switch circuit, composed of diode switch D3003/D3005 (both HSU277) . Then it is fed to the MAIN Unit via J3002. The signal is delivered to IC Q1025 (CXA1611N) which contains the front-end and discriminator circuits for Wide-FM demodulation. Then the audio signal is passed to analog switch IC Q1049 (BU4066BF).

The FT-817 includes four receiver front ends, each optimized for a particular frequency range and mode combination.

### **1st Mixer Circuit/1st IF Circuit**

The 1st mixer on the MAIN Unit consists of a quad MES FET, D1047 (GN2011). The 1st local signal (68.430-538.330 MHz) from the PLL Unit is applied to the gates of each FET in the 1st mixer.

The resulting output signal (the difference between the local signal and receive signal) passes through a monolithic crystal filter (MCF) XF1001 (MF68R, BW: $\pm$ 7.5 kHz) to obtain the 1st IF signal having a center frequency of 68.33 MHz. The signal is then fed to the 2nd mixer circuit on the MAIN Unit after it is amplified by FET Q1051 (BB304C).

### **2nd Mixer Circuit/2nd IF Circuit**

The 2nd mixer consists of FETs Q1060 and Q1062 (both 2SK302Y) on the MAIN Unit. The 2nd local signal (67.875 MHz) is amplified by Q1047 (2SC4154E) and is applied to each FET's gate in the 2nd mixer.

The signal output from the 2nd mixer passes through a ceramic filter, or optional mechanical filter (U1003), to become the 455-kHz 3rd IF signal.

### **Noise Blanker Circuit**

A sample of the 2nd IF circuit is amplified by FETs Q1052 and Q1061 (both BB301C) on the MAIN Unit, and then is rectified by D1068 (1SS372). The resulting DC voltage passes through R1343 and R1345, C1360 and C1362, and Q1076 (2SC4154E) to yield an average AGC voltage for

# Circuit Description

controlling the amplification gain of the above FETs. Noise pulses contained in the output from D1075 are detected by Q1074 (2SC4154E) and are used to control the NB Gate.

## AGC Circuit

The AGC circuit consists of D1064 (1SS372), transistor Q1066 (2SC4154E), and associated parts on the MAIN Unit. Output from the AGC circuit is fed back to the RF and IF stages, controlling their gain levels.

## FM IF Circuit/FM Demodulator Circuit

The 2nd IF signal is fed to IC Q1069 (BA4116FV) for FM demodulation.

The FM demodulator IC contains a mixer, limiter amplifier, filter amplifier, squelch trigger, and demodulator. The IF input signal is band-limited by ceramic filter CD1002 (CDBC455CX24, BW: $\pm 4$  kHz), amplified by the limiter amplifier, and demodulated into an audio signal by the demodulator; it then passes through a filter (R1308 and C1293). The signal next passes through a de-emphasis circuit which consists of R1256 and C1286.

The squelch circuit selectively amplifies the noise component of the demodulator output using the filter amplifier inside the FM IC and the active band-pass filter consisting of an externally attached resistor and capacitor. This circuit uses a signal detected by D1065 (DA221).

## SSB/CW Demodulator Circuit

The 2nd IF signal is applied to the SSB demodulator Q1055 (SN16913) on the MAIN Unit, which produces audio by applying a carrier signal from the CAR-DDS IC (Q1031). Similarly, the CW signal is demodulated using a carrier signal which is offset by the "Pitch" frequency.

The demodulated SSB and CW signals are each stripped of high-frequency components by an active low-pass filter which consists of op-amp IC Q1093-1 (NJM2902V). Then, they enter the VR Unit via J1008.

## AM Demodulator Circuit

The 2nd IF signal from the IF Unit is applied to diode D1060 (BAS316) for AM demodulation.

The output from the detector passes through analog switch Q1049 (BU4066BF). Then, it enters the VR Unit via J1008.

## Audio Amplifier Circuit

The demodulated signal that is selected by one of analog switches IC Q1057 (according to the reception mode) passes through the audio amplifier IC Q1094 (NJM2902V),

volume control VR4901, and IC Q1070 (TDA7233D) to drive the internal or external speaker with a maximum output of approximately 1.0 Watt.

## Transmit Signal Circuitry

### Microphone Amplifier Circuit

The audio signal from microphone jack J1014 on the MAIN Unit is amplified by transistor Q1092 (2SC4154E) on the MAIN Unit, and then is applied to electronic volume IC Q1071 (M62364EP), which is controlled via the User Menu (Item #46: SSB MIC).

The output (audio signal) from the electronic volume IC is amplified by Q1096 (NJM2902V) and fed to balanced modulator IC Q1087 (SN16913) through the low-pass filter IC Q1096 (NJM2902V).

During FM transmission, the audio signal is adjusted via the User Menu (Item# 29 : FM MIC) . The audio signal that has passed through the pre-emphasis circuit (C2201 and R2228 on the MAIN Unit) may be mixed with a tone signal from CPU IC Q4004, and is then amplified and limited by op-amp IC Q1095-4 (NJM2902V) of the IDC circuit. The audio then passes through the splatter filter (secondary active low-pass filter) formed by op-amp IC Q1095-1 (NJM2902V), R1321, and R1322, plus C1344, and is then fed to the frequency-modulator circuit on the MAIN Unit through R1183 and R1477 for setting of the frequency deviation.

### SSB Modulator Circuit

The carrier signal appropriate to the transmitting mode (LSB or USB) is applied from the CAR-DDS Unit to balanced modulator IC Q1087 (SN16913) on the MAIN Unit, and is modulated by microphone audio.

The balanced modulator produces the upper and lower side bands and carrier signal. The carrier and audio signal are suppressed and the carrier balance is adjusted by VR1001. As a result, the output signal obtained is a DSB signal with a carrier suppression of 30 dB or more (additional carrier suppression is supplied by the SSB filter).

The DSB modulated signal (1st IF signal: 455 kHz) then passes through ceramic filter CF1004 (CFJ455K14) or the optional mechanical filter U1003 on the MAIN Unit, stripping residual carrier and the undesired sideband; the signal then passes as an SSB signal through buffer-amplifier Q1040 (BB301C).

# Circuit Description

## AM Modulator Circuit

As in the SSB modulator circuit, a carrier signal from the CAR-DDS Unit and an audio signal from the microphone are applied to balanced modulator IC Q1087 (SN16913) on the MAIN Unit.

The control signal from MODE SW IC Q1021 (BU4094BCFV) on the MAIN Unit causes a voltage labeled "AM 5V" to be sent from transistor Q1079 (2SC4154E). This voltage is applied to IC Q1087 via D1077 (BAS316), causing the balanced modulator to lose balance. The restored carrier signal and modulated signal are then fed to the Tx mixer via ceramic filter CF1004 (CFJ455K14) on the MAIN Unit.

## Frequency Modulation Circuit

The FM circuit uses a voltage controlled crystal oscillator (VCXO) which consists mainly of Q1033 (2SC4400), X1001 on the MAIN-Unit, varactor diode D1056 (HVC362), and T1018. The VCXO has a center frequency of 22.7785MHz.

The FM signal is produced by applying a signal from the FM microphone amplifier circuit to varactor diode D1056 and varying the crystal oscillator load capacity in proportion to the signal voltage.

## CW (A1) Signal Generator Circuit

When the transmitting mode is CW (A1), the control signal from D-A converter IC Q1077 (M62353GP) on the MAIN Unit creates a "CW 5V" voltage. The voltage is applied to balanced modulator IC Q1087 via D1071, providing a carrier from the balanced modulator for the input to the transmit signal circuit of the MAIN Unit.

## 1st IF Circuit/1st Mixer Circuit

The 455 kHz 1st IF signal from the modulator circuit is band-limited by the MAIN Unit's ceramic (CF1004) or optional mechanical filter U1003 (XF5201 or XF5301) according to the selected mode (CW, SSB, or AM). It is then buffer-amplified by FET Q1040 (BB301C) and fed to 1st mixer IC Q1038 (SN16913).

The IF Unit's double balanced mixer IC Q1038 (DBM) is used as the 1st mixer. A local signal (67.875MHz) is produced by tripling the Reference frequency at Q1047 (2SC4154E), and this local signal is fed to the "local" port of the doubly-balanced mixer IC, where it is mixed with the 455 kHz 1st IF signal to produce a 68.33MHz 2nd IF signal.

## 2nd IF Circuit/2nd Mixer Circuit

The 2nd IF signal passes through crystal filter XF1001 and then is fed to the 2nd mixer circuit.

The 2nd mixer consists of the MAIN Unit's D1049 (HSB88WS). The 2nd local signal (68.430-538.330MHz) from the PLL Unit is applied to the gates of each FET in the 2nd mixer.

## High-Frequency Transmit Preamplifier Circuit

The transmit signal is passed through a low-pass filter (1.8-29.7 MHz), a high-pass filter (50-54 MHz), a band-pass filter (144-146 MHz), or a band-pass filter (430-440 MHz) and then is amplified by Q1001 (UPC2710), and passed onward to the PA Unit via J1002.

## Power Amplifier Circuit

The transmit signal from the MAIN Unit arrives at connector J3001 on the PA Unit.

The transmit signal (1.8 MHz to 430 MHz) delivered to the PA Unit is amplified by pre-driver Q3001 (2SC3357), driver Q3002 (2SK5296) and final amplifiers Q5401/Q5402 (2SK2975).

## Low-Pass Filter (LPF) Circuit

The transmission signal from the power amplifier circuit is passed through a low-pass filter which consist mainly of RL3001-RL3015, RL3017, and corresponding inductor and capacitor networks. The LPF is a 5th or 7th-order Chebyshev type filter, utilizing nine different sections for the various amateur bands at 1.8 ~ 430 MHz.

The low-pass filtered transmission signal is fed to the FRONT ANT connector (J0001) or REAR ANT connector (J0002) through the triplexer and directional coupler.

The directional coupler samples a part of the transmission power to detect forward power and reflected power. A DC voltage corresponding to the relative forward/reflected power is produced by D3032/D3033 (both MA716, 1.8 to 54 MHz), D3009/D3017 (both MA716, 144 to 148 MHz), or D3007/D3008 (both MA716, 430 to 450 MHz), and is used for automatic level control (ALC).

## ALC Circuit

The output from the directional coupler is routed from connector J3004 and applied to the ALC circuit via connector J1003 on the MAIN Unit.

The ALC circuit consists of an op-amplifier circuit for amplifying the forward and reflected voltage, a time-con-

# Circuit Description

stant ALC amplifier, and a transmit signal control circuit on the MAIN Unit.

The forward voltage from connector J1003 on the MAIN Unit is added with a DC control voltage and is then applied to op-amp IC Q1097 (NJM2902V).

The reflected voltage is added with a DC control voltage and is then applied to op-amp IC Q1098 (NJM2904V). In the event of high SWR conditions (SWR of 3:1 or more), transmitter output is reduced and a "High SWR" warning appears, thus protecting the PA Unit from potential damage and alerting the operator to the high SWR situation.

The ALC amplifier amplifies the "forward" DC output via transistor Q1019 (2SC4154). This output then passes through a fast-attack, slow-delay RC time-constant circuit which consists of R1097 and C1113 for the input to the Tx signal control circuit on the MAIN Unit.

The TX control circuit adjusts the IF amplifier gain via gate 2 of FET Q1007 (BB304C) of the 68.33 MHz IF amplifier circuit to prevent the power output from exceeding the preset level.

## PLL Frequency Synthesizer

The PLL Frequency Synthesizer consists mainly of a master reference oscillator circuit, 2nd local oscillator circuit, plus the PLL IC, CAR-DDS, and REF-DDS units, which digitally synthesize carrier outputs, and a PLL circuit which contains a voltage controlled oscillator (VCO).

## Master Reference Oscillator Circuit

The master reference oscillator uses a crystal oscillator (oscillation frequency: 22.625MHz) composed of Q5001 (2SC4400-4), X5001, TC5001, C5001, R5005, and associated components. The reference oscillator signal passes through buffer amplifier Q5002 (2SC4400-4), C5004, C5007, R5003, R5004, R5007, and is then fed to the MAIN Unit via J5002.

## CAR-DDS Circuit /REF-DDS Circuit

DDS ICs Q1031 (AD9835BRU) and Q2016 (AD9850BAS) each contain a shift register, selector, phase accumulator, and ROM.

The reference oscillation frequency (22.625MHz) that is delivered to each of the DDS Units is applied to each DDS IC after amplification by transistors Q1028/Q2020 (both 2SC4400-4).

The DDS outputs contain digital amplitude data corresponding to serial frequency data from CPU IC Q4004 of the PANEL Unit. The DDS frequency range is 453.5 ~ 466.5 kHz (cf = 455.0 kHz) for the CAR-DDS, and 7.2-8.0 MHz for the REF DDS.

## 2nd Local Oscillator Circuit

The 2nd L.O. circuit is a Hartley-type overtone oscillator circuit (frequency: 67.875 MHz) composed of Q1047 (2SC4400) on the MAIN Unit.

## 1st Local Oscillator Circuit

VCO output is buffer-amplified by Q2008 (2SC4400), Q2011, Q2014, and Q2016(all 2SC5374) and passes through a low-pass filter. It is then fed to the Tx/Rx frequency mixer circuitry on the MAIN Unit.

## PLL Circuit

The PLL circuit is a frequency mixing type composed of a VCO, mixer, PLL IC, and loop filter.

The VCO consists of five circuits (VCO1, VCO2, VCO3, VCO4, and VCO5), with a frequency range of 68.430-538.330 MHz divided into five bands, allocated to the five VCO circuits. VCO1-VCO5 consist mainly of FETs Q2004, Q2005, and Q2006 (all 2SK210GR), transistors Q2009, Q2010 (both 2SC5374), diodes D2001-D2006 (all HVC362), D2007 (1SV282), D2008 (1SV281), and D2009 (1SV286), and coils T2001-T2003, L2010, and L2011.

The VCO switching signal from connector J2002 is used to drive switching transistors Q2001, Q2002, Q2003, Q2012, and Q2013 (all DTC124EU) to switch the source terminal of the oscillator FET.

The 68.430-538.330 MHz VCO signal is fed to mixer D1047 (GN2011-Q).

The REF-DDS signal (7.2-8.0 MHz) is fed to PLL IC Q2022 (FQ7925) after it passes through a LPF composed of C2064, C2067, C2069, C2071, C2075, L2014, L2015, and L2016 , and buffer amplifier Q2019 (2SC4400-4) .

The phase of the reference frequency and that of the signal input to PLL IC are compared, and a signal whose pulse corresponds to the phase difference is produced. The VCO frequency is controlled by a first lag filter which consists of R2057, R2065, R2062, and C2090 and a secondary lag filter composed of C2085, C2088, and R2053.

# **Circuit Description**

## **Control Circuitry**

### **Microprocessor Circuit**

The microprocessor circuit, which is composed of CPU IC Q4004 (HD64F2345) and EEPROM IC Q4004 (ATC64N-10S1), performs various types of processing, such as control signals, serial I/O, A/D conversion, dial counter circuit control, key input, and display functions.

The EEPROM memorizes various parameters and settings (transmission frequency range, transmission output control) and carrier points according to the transceiver version and the contents of memory channels.

### **Reset Circuit**

The reset circuit consists mainly of PANEL Unit ICs Q4014 (PST3445), Q4015 (2SC4154E), Q4011 (2SA1602A), Q4016 (2SC4154E), and Q4010 (2SA1602A), and associated capacitors and resistors. This circuit controls the power-down input port, CPU reset input, keyer CPU, and related circuits.

### **Dial Counter Circuit**

The dial counter circuit consists of Main Dial and SEL (Selector) Knob. This circuit detects a two-phase pulse having a phase difference of 90 degrees and delivers it to CPU IC Q4006 .

### **Serial Data Communication Circuit**

The Serial Data Communication Circuit consists of ICs Q4008, Q4009, Q4010, etc. on the PANEL-Unit. These ICs distribute a set of serial data (Data/Clock/Strobe) generated by CPU to various devices, such as CAR-DDS, REF-DDS, E.VOL, D/A, or Shift-Register for controlling analog switching , band switching, VCO selection, etc. Serial data communication is clock synchronous for the above purposes, whereas the serial data is transferred to an asynchronous signal for the CAT system for external computer control of the transceiver).

Various types of data, such as operating frequency, mode, and display data, are processed by CPU IC Q4004 .

The CAT (external computer control) signals are converted to RS232 interface standard levels by the optional CAT Interface Cable (CT-62).

### **Key Matrix Circuit**

The key matrix circuit consists of PANEL Unit diodes D4001-D4003 and D4006 (all IMN10) and the panel key switches arranged on the matrix. When a key is pressed,

this circuit reads the input data for processing by the CPU.

### **Analog-Digital Converter Circuitry**

Forward and reflected voltage, ALC, DISC, S-meter, etc. metering options are selected by MAIN Unit IC Q1073 (BU4053BCF) and are fed to the A/D port of CPU IC Q4004 for conversion into digital values to be processed prior to display on the LCD. The individual voltages, converted into digital values, are displayed as PO, SWR, ALC, VCC, and S-meter indications on the LCD panel.

### **LED Drive Circuit**

The LED drive circuit consists of PANEL Unit transistors Q4018 and Q4019 (both 2SC1623) and the LEDs. This circuitry drives (turns on/off) the appropriate LEDs.

### **LCD Circuit**

Data processed by the CPU IC is sent as parallel data to LCD Unit DS4001 .

### **CTCSS Tone Generator Circuit**

The CTCSS tone generator circuit consists mainly of CPU IC Q4004 and active filter IC Q1094 (NJM2902).

### **Electronic Keyer Circuit**

The electronic keyer circuit consists of CPU IC Q4004. When the CW mode is selected, this circuit controls the generation of Morse characters.

## ***Circuit Description***

**Note:**

## **Introduction**

The FT-817 has been carefully aligned at the factory for the specified performance across the amateur band. Re-alignment should therefore not be necessary except in the event of a component failure. All component replacement and service should be performed only by an authorized VERTEX STANDARD representative, or the warranty policy may be voided.

The following procedures cover the sometimes critical and tedious adjustments that are not normally required once the transceiver has left the factory. However, if damage occurs and some parts are replaced, realignment may be required. If a sudden problem occurs during normal operation, it is likely due to component failure; realignment should not be done until after the faulty component has been replaced.

We recommend that servicing be performed only by authorized VERTEX STANDARD service technicians who are experienced with the circuitry and fully equipped for repair and alignment. Therefore, if a fault is suspected, contact the dealer from whom the transceiver was purchased for instructions regarding repair. Authorized VERTEX STANDARD service technicians realign all circuits and make complete performance checks to ensure compliance with factory specifications after replacing any faulty components. Those who do undertake any of the following alignments are cautioned to proceed at their own risk. Problems caused by unauthorized attempts at realignment are not covered by the warranty policy. Also, VERTEX STANDARD must reserve the right to change circuits and alignment procedures in the interest of improved performance, without notifying owners. Under no circumstances should any alignment be attempted unless the normal function and operation of the transceiver are clearly understood, the cause of the malfunction has been clearly pinpointed and any faulty components replaced, and the need for realignment determined to be absolutely necessary.

## **Required Test Equipment**

The following test equipment (and thorough familiarity with its correct use) is necessary for complete realignment. Correction of problems caused by misalignment resulting from use of improper test equipment is not covered under the warranty policy. While most steps do not require all of the equipment listed, the interactions of some

adjustments may require that more complex adjustments be performed afterwards. Do not attempt to perform only a single step unless it is clearly isolated electrically from all other steps. Have all test equipment ready before beginning, and follow all of the steps in a section in the order presented.

- RF Signal Generator with calibrated output level at 500 MHz
- Deviation Meter (linear detector)
- AC Voltmeter
- SINAD Meter
- Inline Wattmeter with 5% accuracy at 500 MHz
- Regulated DC Power Supply: adjustable from 8 to 16.5 VDC, 5A
- 50-Ohm Non-reactive Dummy Load: 5 W at 500 MHz
- 150-Ohm Dummy Load: 5 W at 500 MHz
- FM Linear Detector
- Frequency Counter:  $\pm 0.1$  ppm accuracy at 500 MHz
- AF Signal Generator
- DC Voltmeter: high impedance
- VHF Sampling Coupler
- AF Dummy Load: 4 Ohms, 5 W

## **Alignment Preparation & Precautions**

A dummy load and inline wattmeter must be connected to the main antenna jack in all procedures that call for transmission, except where specified otherwise. Correct alignment is not possible with an antenna. After completing one step, read the following step to determine whether the same test equipment will be required. If not, remove the test equipment (except dummy load and wattmeter, if connected) before proceeding.

Correct alignment requires that the ambient temperature in the repair shop be the same as that of the transceiver and test equipment, and that this temperature be held constant between 20° and 30°C (68° ~ 86°F). When the transceiver is brought into the shop from hot or cold air it should be allowed some time for thermal equalization with the environment before alignment. If possible, alignments should be made with oscillator shields and circuit boards firmly affixed in place. Also, the test equipment must be thoroughly warmed up before beginning.

## *Alignment*

The alignment procedure for the FT-817 involves several steps requiring that the case be opened to gain access to the components to be adjusted. These procedures are described first in the pages to follow. A number of alignment categories, however, may be accomplished without opening the transceiver case, utilizing the Alignment Menu feature which allows adjustments to be accomplished using the front panel controls.

Please survey the pages to follow. Depending on the problem(s) needing correction, you may be able to skip to the software-based alignment section.

Use external DC input of +13.8 Volts via the rear panel DC input jack, for all alignment steps.

## ***Local Oscillator Adjustment***

## **Reference Frequency Adjustment**

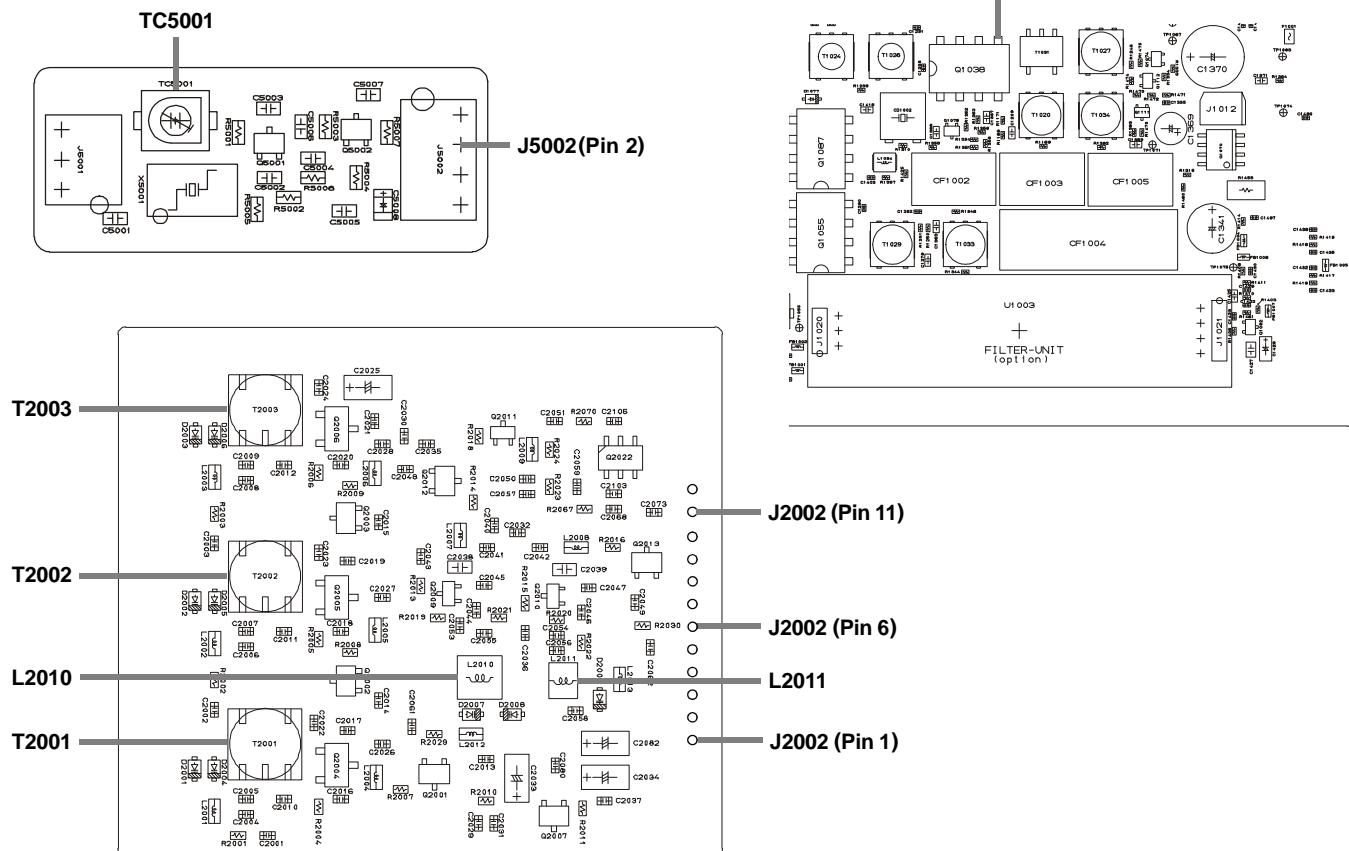
1. Connect the frequency counter to **Q1038** (pin 5).
  2. Adjust trimmer capacitor **TC5001** (on the REF-Unit) for a reading of 67.875 MHz ( $\pm 10$  Hz) on the frequency counter.
  3. Connect the RF millivoltmeter or an oscilloscope to **J5002** (pin 2) and confirm that the output level is at least 60 mVrms or 169 mVp-p.

## ***PLL Adjustment***

# VCO VCV Adjustment

Connect the DC voltmeter to **J2002** (pin 6) and referring to the table below, tune the transceiver to each frequency listed. Then confirm that the correct voltage is present, or adjust the listed components for the required voltage.

Tune to :	Adjust / Confirm	For
13.895 MHz, CW mode	Adjust T2001	4.6 V $\pm 0.2$ V
76.000 MHz, CW mode	Confirm	At least 0.5 V
29.995 MHz, CW mode	Adjust T2002	4.2 V $\pm 0.2$ V
13.900 MHz, CW mode	Confirm	At least 0.8 V
53.995 MHz, CW mode	Adjust T2003	4.4 V $\pm 0.2$ V
88.000 MHz, CW mode	Confirm	At least 0.8 V
146.000 MHz, CW mode	Adjust L2010	3.8 V $\pm 0.2$ V
144.000 MHz, CW mode	Confirm	At least 3.0 V
440.000 MHz, CW mode	Adjust L2011	2.4 V $\pm 0.2$ V
430.000 MHz, CW mode	Confirm	At least 1.0 V



# Alignment

## 1<sup>st</sup> Local Output Level

1. Connect the RF millivoltmeter to **J2002** (pin 11) and tune the transceiver to 28.000 MHz in the CW mode.
2. Confirm that the RF level is at least +5 dBm (or 400 mVrms).

## PLL "Unlock" Display Alert

1. Connect the DC voltmeter to **J2002** (pin 1).
2. Disconnect the 4-pin plug connected to **J5002** (REF-Unit), and confirm that (A) the voltmeter shows less than 0.5 V and (B) that "UNLOCK" is displayed on the LCD.
3. Re-connect the 4-pin plug to **J5002**, and confirm that the voltmeter shows at least 3.5 V and that LCD display has returned to normal.

## PA Unit Adjustment

Before alignment, set the mode to CW and tune the transceiver to 1.800 MHz. Nothing should be connected to the CW Key Jack.

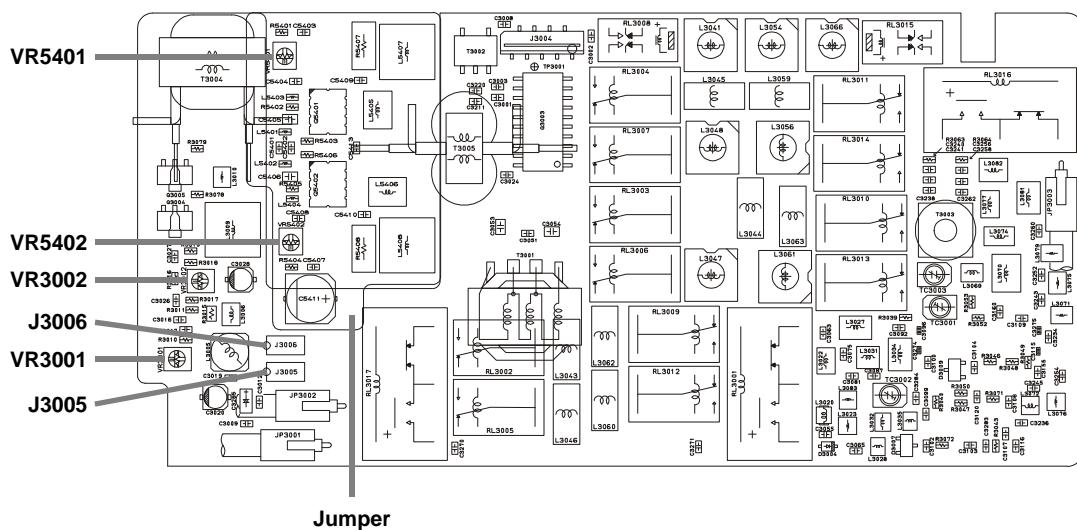
## Driver Stage Idling Current

1. Remove the jumper connector at **J3005**, and insert an ammeter in its place.
2. Press the microphone's PTT switch, and adjust **VR3001** for an indication of 30 mA ( $\pm 2$  mA) on the ammeter.
3. Disconnect the ammeter and reinstall the jumper connector at **J3005**
4. Remove the jumper connector at **J3006** and insert the ammeter in its place.

5. Press the PTT switch, and adjust **VR3002** for an indication of 20 mA ( $\pm 2$  mA) on the ammeter.
6. Disconnect the ammeter and reinstall the jumper connector at **J3006**.

## Final Stage Idling Current

1. Connect the ammeter between the "13US" pin on PA Unit and the "13US" pin of the Final Unit. The "13US" line is currently connected by a wire; remove it so you can connect the ammeter.
2. Turn both **VR5401** and **VR5402** fully counterclockwise.
3. Press the PTT switch, and adjust **VR5401** for an indication of 45 mA ( $\pm 2$  mA) on the ammeter.
4. Press the PTT switch, and adjust **VR5402** for an indication of 76 mA ( $\pm 4$  mA) on the ammeter.
5. Release the PTT switch. Re-connect the "13US" line between PA unit and Final Unit.



# Alignment

## Local Oscillator Adjustment

### 2<sup>nd</sup> Local Adjustment

1. Connect the RF millivoltmeter or an oscilloscope to **Q1038** (pin 5).
2. Adjust **T1024** and **T1026** alternately for maximum indication on the millivoltmeter or for maximum amplitude on the oscilloscope.
3. Confirm the indicated voltage is at least 120 mVrms or 330 mVp-p.

### 3<sup>rd</sup> Local Adjustment

1. Connect the RF millivoltmeter or an oscilloscope to pin 5 of **Q1055**.
2. Key the transceiver in the CW mode, and adjust **T1021** for maximum indication on the RF millivoltmeter.
3. Confirm that the indicated voltage is at least 70 mVrms or 200 mVp-p.

## TX IF Adjustment

### CW TX IF Adjustment

1. Tune the frequency to 1.8 MHz in the CW mode. Connect the RF millivoltmeter to **J1002**, terminated by a 50 Ohm dummy load.
2. Key the transceiver, and adjust **T1020**, **T1012**, and **T1005** alternately for maximum indication on the RF millivoltmeter.

### FM TX IF Adjustment

1. Tune the frequency to the 29 MHz band in the FM mode. Leave the RF millivoltmeter connected to **J1002**, still terminated by the 50 Ohm dummy load.
2. Key the transceiver, and adjust **T1012** and **T1013** alternately for the maximum indication on the RF millivoltmeter.
3. Connect the frequency counter to **T1022** (pin 5).
4. Again key the transceiver in the FM mode (without microphone audio input). Adjust **T1018** for a reading of 68.3300 MHz ( $\pm 50$  Hz).

## Carrier Balance Adjustment

1. Terminate **J1002** with a 50 Ohm dummy load, and connect a spectrum analyzer or a RF millivoltmeter to **J1002**.
2. Key the transceiver in the USB mode on the 28 MHz band (without microphone input). Adjust **VR1001** for the maximum carrier suppression on the spectrum analyzer, or for the minimum indication on the RF millivoltmeter.

## VHF TX BPF Adjustment

1. Set the frequency at 145.995 MHz. Connect the RF millivoltmeter to **J1002** terminated by a 50ohm dummy load.
2. Key the transceiver on FM mode and adjust **T1011**, **T1010**, and **T1009** alternately for the maximum indication on RF millivoltmeter.

## UHF TX BPF Adjustment

1. Set the frequency to 439.995 MHz. Connect the RF millivoltmeter to **J1002**, which still should be terminated by the 50 Ohm dummy load.
2. Key the transceiver in the FM mode, and adjust **TC1005**, **TC1004** and **TC1002** alternately for maximum indication on the RF millivoltmeter.

## RX Adjustment

The PA Unit must be connected during RX adjustment. Note that the signal generator should not be connected to **J1008** (pin 15) because DC voltage is present there.

### RX IF Adjustments

Connect the signal generator to the antenna connector, and a SINAD meter to the speaker jack.

### SSB IF Adjustment

1. Connect the DC voltmeter to **J1008** (pin 15).
2. Tune the transceiver to 51.995 MHz. Inject an RF signal from the signal generator at a level of 40 dB $\mu$ .
3. Adjust **T1033**, and **T1029** alternately for the minimum indication on the DC voltmeter.
4. Now select the FM mode. Turn off the RF injection from the signal generator output.
5. Adjust **T1034** for maximum indication on the DC voltmeter.

### FM IF Adjustment

1. Tune the transceiver to 51.995 MHz. Inject an RF signal from the signal generator at a level of 10 dB $\mu$ , with 1 kHz of FM modulation at  $\pm 3.5$  kHz deviation.
2. Adjust **T1023**, **T1025**, **T1028**, **T1030** and **T1034** alternately for the best SINAD sensitivity.

## VHF Band Alignment

1. Connect the DC voltmeter to **J1008** (pin 15).
2. Tune the transceiver to 145.995 MHz. Inject an RF signal from the signal generator at a level of 40dB $\mu$ .
3. Adjust **T1002**, **T1004**, and **T1008** alternately for the minimum indication on the DC voltmeter.

## **UHF Band Alignment**

1. Connect the DC voltmeter to **J1008** (pin 15).
  2. Tune the transceiver to 439.995 MHz. Inject an RF signal from the signal generator at a level of 40dB $\mu$ .
  3. Adjust **TC1001** for minimum indication on the DC voltmeter.

## **W-FM Reception Adjustment**

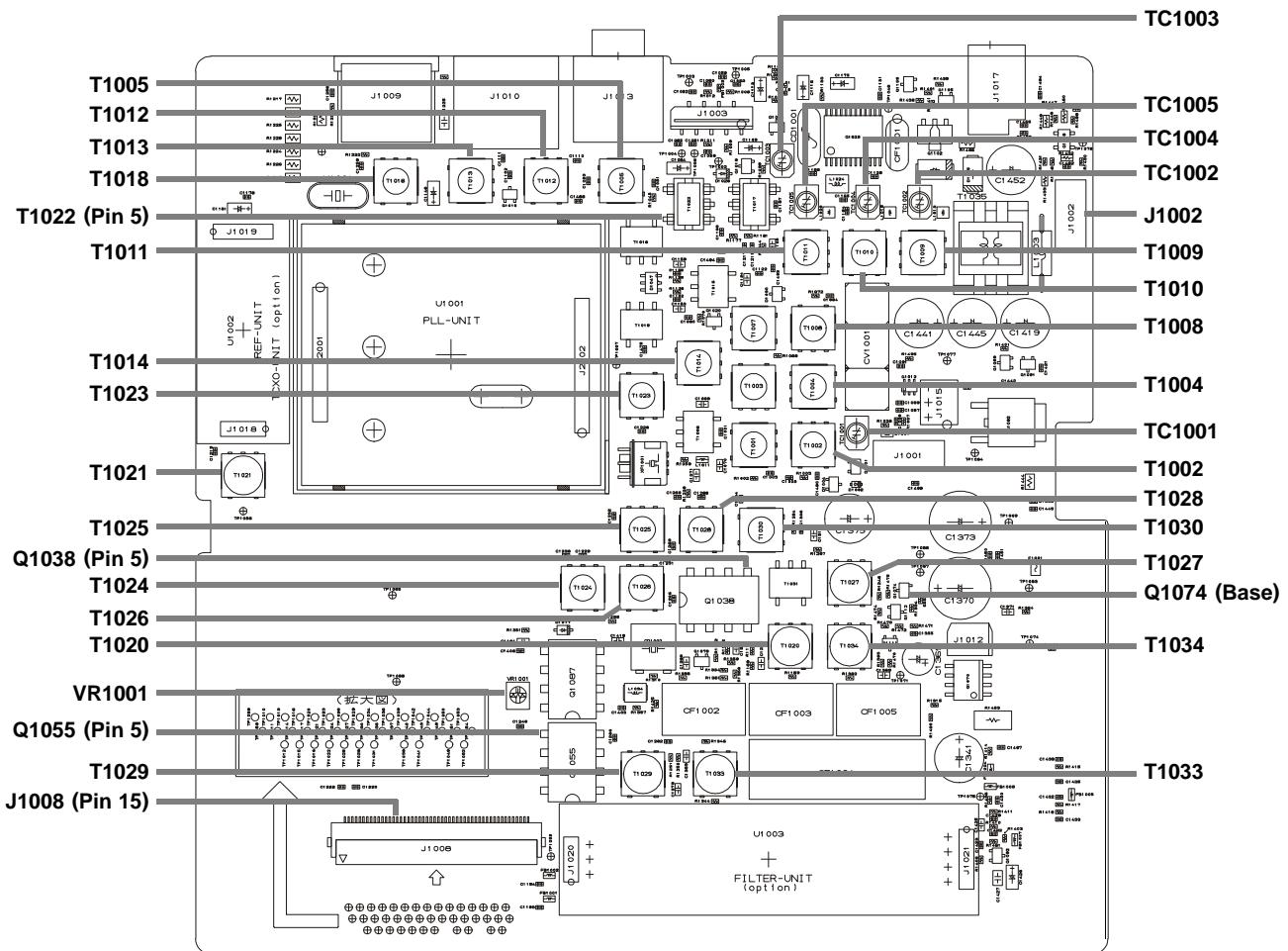
1. Connect a SINAD meter to the speaker jack.
  2. Tune the transceiver to 88.000 MHz. Inject an RF signal from a signal generator at a level of 30dB $\mu$ , with  $\pm 22.5$ KHz deviation of a 1 kHz audio tone.
  3. Adjust **TC1003** for the best SINAD sensitivity. Then reduce the output level of the signal generator and adjust **TC1003** again, as minor improvements of SINAD may be difficult to observe if the SINAD reading is high.

## **Image Rejection Trap Adjustment**

1. Connect the AF millivoltmeter to the speaker jack.
  2. Tune the transceiver to 51.995 MHz in the CW mode.  
Inject an RF signal from the signal generator at 68.330 MHz, with 50dB $\mu$  output.
  3. Adjust **T1014** for minimum indication on the AF millivoltmeter. Then increase the output level of the signal generator slightly, and adjust **T1014** again (to ensure maximum rejection).

## Noise Blanker Adjustment

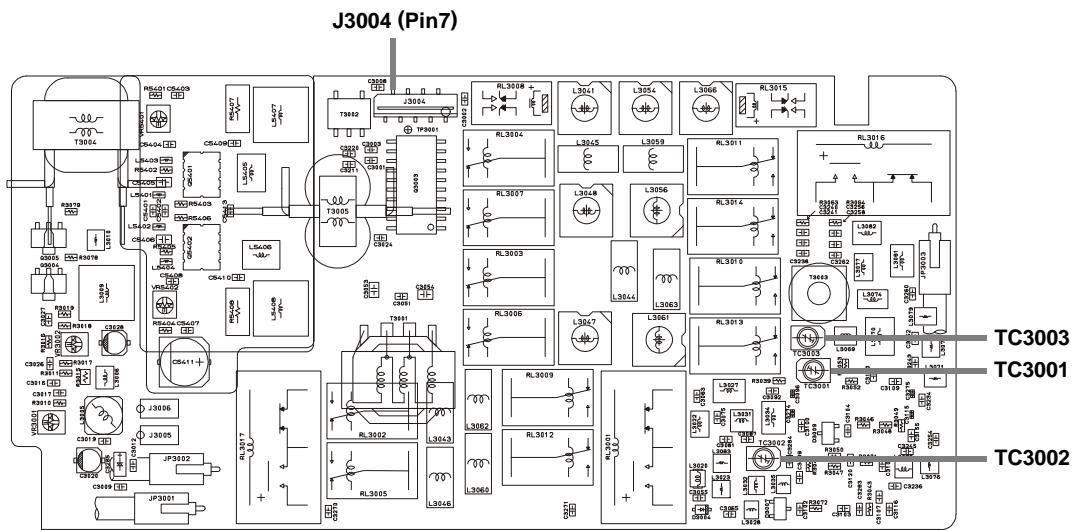
1. Connect the DC voltmeter to the base of **Q1074**. Tune the transceiver to 51.995 MHz, and inject an RF signal from the signal generator at a level of 6 dB<sub>P</sub>u.
  2. Activate the noise blower, and adjust **T1027** for minimum indication on the DC voltmeter.



# Alignment

## CM Coupler Balance Adjustment

1. Terminate the antenna jack with a 50 Ohm dummy load.  
Set the mode to CW, and connect the DC voltmeter to **J3004** (pin 7).
2. Tune the transceiver to 28.000 MHz, and key the transceiver.
3. Adjust **TC3003** for minimum indication on the DC voltmeter.
4. Tune the transceiver to 145.995 MHz (CW), and key the transceiver.
5. Adjust **TC3001** for minimum indication on the DC voltmeter.
6. Tune the transceiver to 439.995 MHz (CW), and key the transceiver.
7. Adjust **TC3002** for minimum indication on the DC voltmeter.



# Alignment

## Software Menu Alignment

For all the following alignment procedures, the antenna connector should be connected to a dummy load and wattmeter in all procedures requiring transmission, and the signal generator should be connected when receiver alignment is involved. General alignment conditions are as follows, unless otherwise noted.

**AF-gain knob** : Center

**RF-gain knob** : Fully clockwise

**SQL** : Fully counterclockwise

**ATT / IPO / CTCSS / DCS** : Off

**Output power** : High

**AGC** : Auto

**Break-in** : On **CW Keyer** : Off

**VOX** : Off

## Entering the Alignment Mode

To enter the Alignment Mode, press and hold in the **[A]**, **[B]**, and **[C]** keys simultaneously; while holding them in, turn on the transceiver. Once the transceiver comes on, you may release the three keys. Now press and hold in the **[F]** key for  $\frac{1}{2}$  second to activate the Menu, which will be observed to contain a large number of selections not normally available during regular Menu operation.

In the alignment procedures to follow, each alignment item is selected by rotating the **SEL** knob, while adjustment of the selected alignment parameter is accomplished by rotating the main dial.. Press the **[A]** key to "set" certain designated parameters where a signal reading is made by the microprocessor (for automatic setting of the parameter).

To store the alignment parameters after all items have been adjusted, press the **[F]** key for at least  $\frac{1}{2}$  second; this will cause the transceiver to save all settings and exit the Menu mode.

## RF Gain Adjustment

1. Tune the transceiver to 1.909 MHz (CW mode). Select "01 HF1RXG" in the Alignment Menu by rotating the SEL knob. Now inject an RF signal from the signal generator at 1.909 MHz at about 32dB $\mu$  output, and peak the S-meter reading on the incoming signal by rotating the main dial. When the peak is found, reduce the signal generator level to 12 dB $\mu$ .
2. Set the parameter "01 HF1RXG," such that the first dot of the S-meter (S1) on the LCD is illuminated, by rotating the main dial. Rotating the main dial adjusts the receiver's IF Gain around 1.9 MHz.

3. The remaining five RF gain adjustment points should be aligned as shown in steps (1) and (2) above. The output levels of the signal generator (for one "dot" of S-meter deflection) at each frequency are shown below.

Frequency	Select Menu #	Output Level of SG
1.909 MHz	01 HF1RXG	15 dB $\mu$
7.010 MHz	02 HF2RXG	15 dB $\mu$
21.105 MHz	03 HF3RXG	12 dB $\mu$
51.050 MHz	04 50MRXG	3 dB $\mu$
145.940 MHz	05 VHFRXG	3 dB $\mu$
440.000 MHz	06 UHFRXG	3 dB $\mu$

## SSB S-Meter Adjustment

1. Tune the transceiver to 21.105 MHz on CW mode. Inject an RF signal from the signal generator at a level of 39dB $\mu$ , and peak the S-meter deflection on the incoming signal.
2. Set the parameter "07 SSB-S9" so that exactly 6 dots of the S-meter (S9) appear on the LCD by rotating the main dial.
3. Now inject a signal on the same frequency at a level of 86dB $\mu$ .
4. Set the Alignment Menu parameter "08 SSB-FS" such that all the dots of the S-meter on the LCD appear by rotating the main dial.

## FM S-Meter Adjustment

1. Tune the transceiver to 145.940 MHz (FM mode). Inject an RF signal from the signal generator at a level of -3 dB $\mu$ , with  $\pm 3.5$  kHz deviation of 1 kHz audio tone.
2. Select Alignment Menu item "09 FM-S1," and press the **[A]** key to set this parameter.
3. Increase the output level of the signal generator up to 22dB $\mu$ . Select Alignment Menu item "10 FM-FS," and press the **[A]** key to set this parameter.

## FM Center Meter Adjustment

1. Tune the transceiver to 145.937 MHz (FM mode). Inject an RF signal from the signal generator at a level of 10dB $\mu$ , with  $\pm 3.5$  kHz deviation of a 1 kHz audio tone.
2. Set the frequency of the signal generator to 145.934 MHz (3 kHz below the receiving frequency of the transceiver). Select Alignment Menu item "11 DISC-L," and press **[A]** to set this parameter.

# **Alignment**

3. Tune the transceiver to 145.943 MHz (FM mode). leave the signal generator at 10dB $\mu$  output, as before.
4. Set the frequency of the signal generator to 145.946 MHz (3 kHz above the receiving frequency of the transceiver). Select Alignment Menu item "12 DISC-H," and press [A] to set this parameter.

## **FM Squelch Adjustment**

1. Tune the transceiver to 145.940 MHz (FM mode). Confirm that the squelch knob is turned fully counterclockwise.
2. Select Alignment Menu item "13 FM-TH1," and press the [A] key (without any RF input from the signal generator) to set this parameter.
3. Select Alignment Menu item "14 FM-TH2," and press the [A] key again.
4. Inject an RF signal from the signal generator at 3 dB $\mu$  output, with  $\pm 3.5$  kHz deviation FM of a 1 kHz tone. Select Alignment Menu item "15 FM-TI1," and press the [A] key to set this parameter.
5. Select Alignment Menu item "16 FM-TI2," leave the signal generator level unchanged, and press the [A] key again.

## **Power Supply Voltage Display Adjustment**

1. Tune the transceiver to the 144 MHz band (FM mode). Confirm that the power supply voltage is 13.8V  $\pm 0.1$ V (using the DC voltmeter).
2. Select the Alignment Menu item "VCC," and adjust the parameter so that "138" is displayed on the LCD.

## **Over-Current Protection Adjustment**

1. Select Alignment Menu item "18 HF1-IC." Tune the transceiver to the 1.8 MHz band (CW mode), and key the transceiver. Adjust this parameter for 7.0 W of transmission power as measured on the external wattmeter.
2. The over-current protection Alignment Menu items, "19 HF2-IC," "20 HF3-IC," "21 50M-IC," "22 VHF-IC," and "23 UHF IC" should be adjusted in the same manner on the 7 MHz, 21 MHz, 50 MHz, 144 MHz, and 430 MHz bands, respectively. Use the CW mode, and the precise frequency is not critical.

## **RF Power Adjustment**

1. Tune the transceiver to the 1.8 MHz band (CW mode). Select Alignment Menu item "24 HF1-HI." Key the transmitter, and adjust this parameter for 5.0 W ( $\pm 0.1$  W) of output power.
2. Select Alignment Menu item "25 HF1-L3." Key the transmitter, and adjust this parameter for 2.5 W ( $\pm 0.2$  W) of

output power.

3. Select Alignment Menu item "26 HF1-L2". Key down and adjust the parameter for 1.0W ( $\pm 0.2$ W) transmission power.
4. Select the menu item "27 HF1-L1." Key the transmitter, and adjust this parameter for 0.5 W ( $\pm 0.1$  W) of output power.
5. Other RF power adjustment menu, designated [HF2-\*\*], [HF3-\*\*], [50M-\*\*], [VHF-\*\*], and [UHF-\*\*] (four adjustments each) should be adjusted in exactly the same manner on the 7 MHz, 21 MHz, 50 MHz, 144 MHz and 430 MHz bands, respectively. Use the CW mode, and the precise frequency is not critical.

## **TX Gain Adjustment**

1. Select the USB mode. Inject a 1 mV audio signal at 1 kHz from the AF generator into the microphone jack (pin 4).
2. Tune the transceiver to the 1.8 MHz band and key the transmitter. Select Alignment Menu item "48 HF1TXG," and adjust this parameter for 2.5 W ( $\pm 0.1$  W) of output power. Note: to "key the transmitter" with no microphone connected, you may connect pin 3 of the Mic jack to ground (pin 2).
3. The other TX gain Alignment Menu selections, designated [49 HF2TXG], [50 HF3TXG], [51 50MTXG], [52 VHFTXG], and [53 UHFTXG,] should be adjusted in the same manner on the 7 MHz, 21 MHz, 50 MHz, 144 MHz, and 430 MHz bands, respectively.

## **Power Meter Sensitivity Adjustment**

1. Set the mode to CW, and the output power to HIGH. Select Alignment Menu item "54 HF1POM," and key the transceiver.
2. Set this parameter such that 8 dots of the power meter scale are displayed on the LCD.
3. The other power meter sensitivity Alignment Menu selections, designated [55 HF2POM], [56 HF3POM], [57 50MPOM], [58 VHFPO], and [59 UHFPO], should be adjusted in the same manner on the 7 MHz, 21 MHz, 50 MHz, 144 MHz, and 430MHz bands, respectively. Use the CW mode, and the precise frequency is not critical.

## **ALC Meter Adjustment**

1. Tune the transceiver to the 21 MHz band on USB. Select Alignment Menu item "60 ALC-1." Key the transceiver (without microphone input), and press the [A] key. A measurement value which microprocessor has computed will be displayed on the LCD; make a note of this value.

# **Alignment**

2. Rotate the main dial to set this parameter four digits below the value displayed in step 1.
3. After setting this parameter, confirm that all the dots of the ALC meter have gone out.
4. Select Alignment Menu item "61 ALC-M." Inject a 4.0 mV AF signal at 1 kHz from the audio generator to the microphone jack (pin 4), and key the transceiver.
5. Press the [A] key, and confirm that 5 dots on the ALC meter scale are present.

## **Reverse ALC Adjustment**

1. Set the mode to CW, and connect the 150-Ohm dummy load to the antenna connector. Tune the transceiver to the 1.8 MHz band, and select Alignment Menu item "62 HF1-RV."
2. Key the transceiver, and set the parameter such that 6 dots of the power meter scale appear on the LCD.
3. The other reverse ALC adjustment menu, designated [63 HF2-RV], [64 HF3-RV], [65 50M-RV], [66 VHF-RV], and [67 UHF-RV], should be adjusted in the same manner on the 7 MHz, 21 MHz, 50 MHz, 144 MHz, and 430 MHz bands, respectively. Use the CW mode, and the precise frequency is not critical.

## **Carrier Level Adjustment**

1. Tune the transceiver to the 21 MHz band. Connect the 50-Ohm dummy load to the antenna connector. Set the mode to CW. Select Alignment Menu item "68 CW-CAR," and key the transceiver.
2. Set this parameter such that 5 dots of the ALC meter scale appear on the LCD.
3. Connect the oscilloscope to the antenna connector via an appropriate attenuator.
4. Set the mode on AM. Select Alignment Menu item "69 AM-CAR." Inject a 1.0 mV audio signal at 1 kHz from the audio generator into the microphone jack (pin 4).
5. Key the transceiver, and adjust this parameter for 33% (AM) modulation on the oscilloscope.

## **FM Modulation Adjustment**

1. Tune the transceiver to the 144 MHz band (FM mode). Connect the FM linear detector to the antenna connector via an appropriate attenuator. Select Alignment Menu item "70 DEV-W." Inject a 15 mV audio signal at 1 kHz from the audio generator to the microphone jack (pin 4).
2. Key the transceiver, and adjust this parameter for a maximum deviation of  $\pm 4.5$  kHz ( $\pm 0.2$  kHz) on the FM linear detector.

3. Change the menu item to "71 DEV-N." Key the transceiver, and adjust this parameter for a maximum deviation of  $\pm 2.25$  kHz ( $\pm 0.1$  kHz) on the FM linear detector.
4. Change the menu item to "72 M-MTR." Key the transceiver, and set this parameter such that 5 dots of the MOD meter scale appear on the LCD.
5. Change the menu item to "73 CTCSS." Key the transceiver without microphone input, and adjust this parameter for a maximum deviation of  $\pm 0.7$  kHz ( $\pm 0.1$  kHz) on the FM linear detector.
6. Change the menu item to "74 DCS." Key the transceiver without microphone input, and adjust the parameter for a maximum deviation of  $\pm 0.7$  kHz ( $\pm 0.2$  kHz) on the FM linear detector.

## **SSB Carrier Point Adjustment**

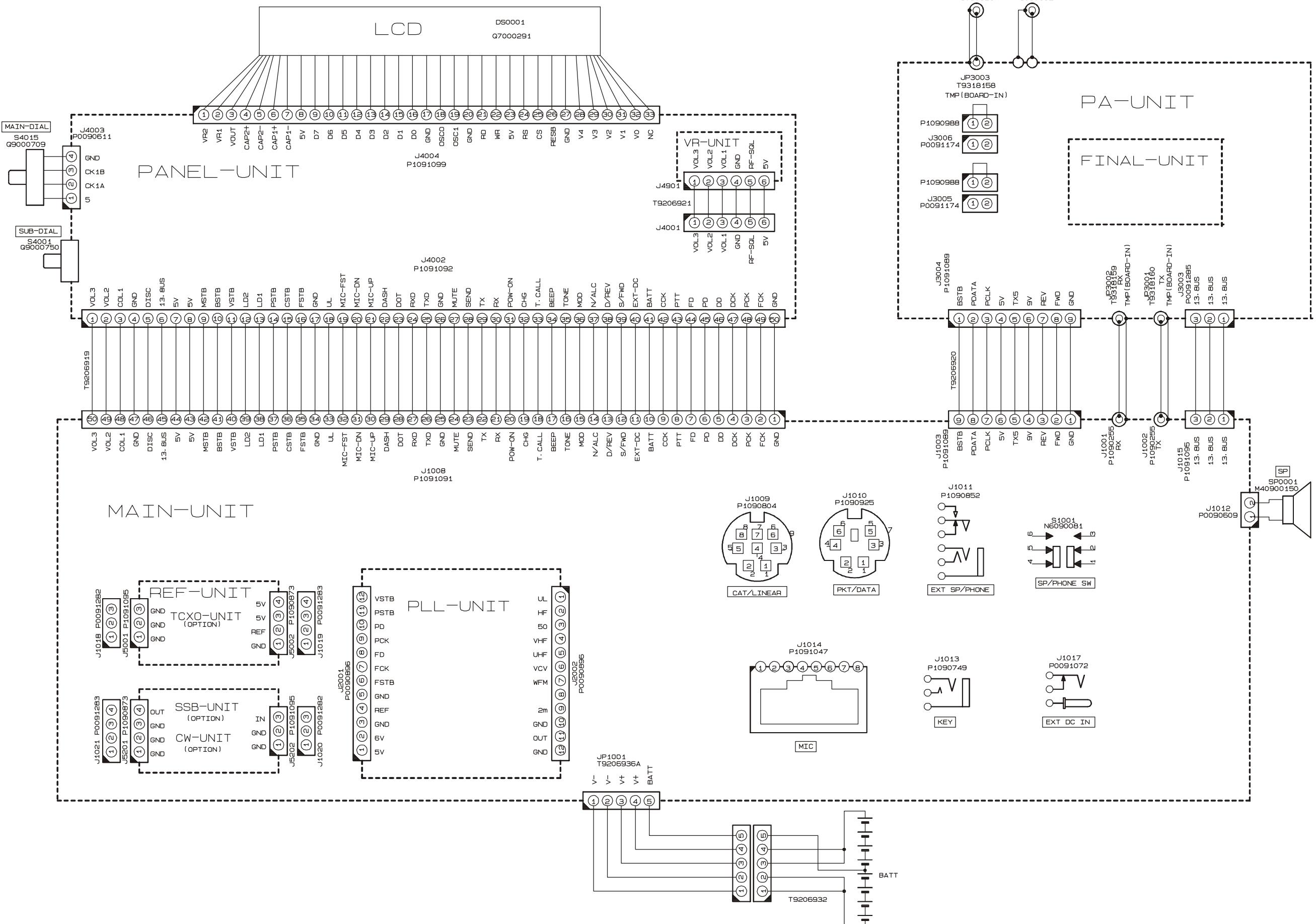
1. Tune the transceiver to the 21 MHz band. Select Alignment Menu item "75 LSB-CP." Set the mode to LSB, and inject a 1 mV AF from an audio generator into the microphone jack (pin 4).
2. Key the transmitter, and vary the audio frequency of the audio generator to find the frequency at which you achieve the maximum output power of the transceiver. Confirm that the output power is at least 2.5W; then adjust the AF output level of the audio generator for 2.0 W ( $\pm 0.1$  W) output power from the transceiver.
3. Lower the audio frequency down to 400 Hz, and adjust this parameter for 0.6 W ( $\pm 0.1$  W) output power from the transceiver.
4. Change the audio frequency to 2600 Hz, and confirm that the output power is at least 0.5 W.
5. The adjustment for the USB carrier point is performed in the same manner as done for LSB, by changing the transmission mode to USB and the Alignment Menu item to "76 USB-CP."

## ***Alignment***

**Note:**

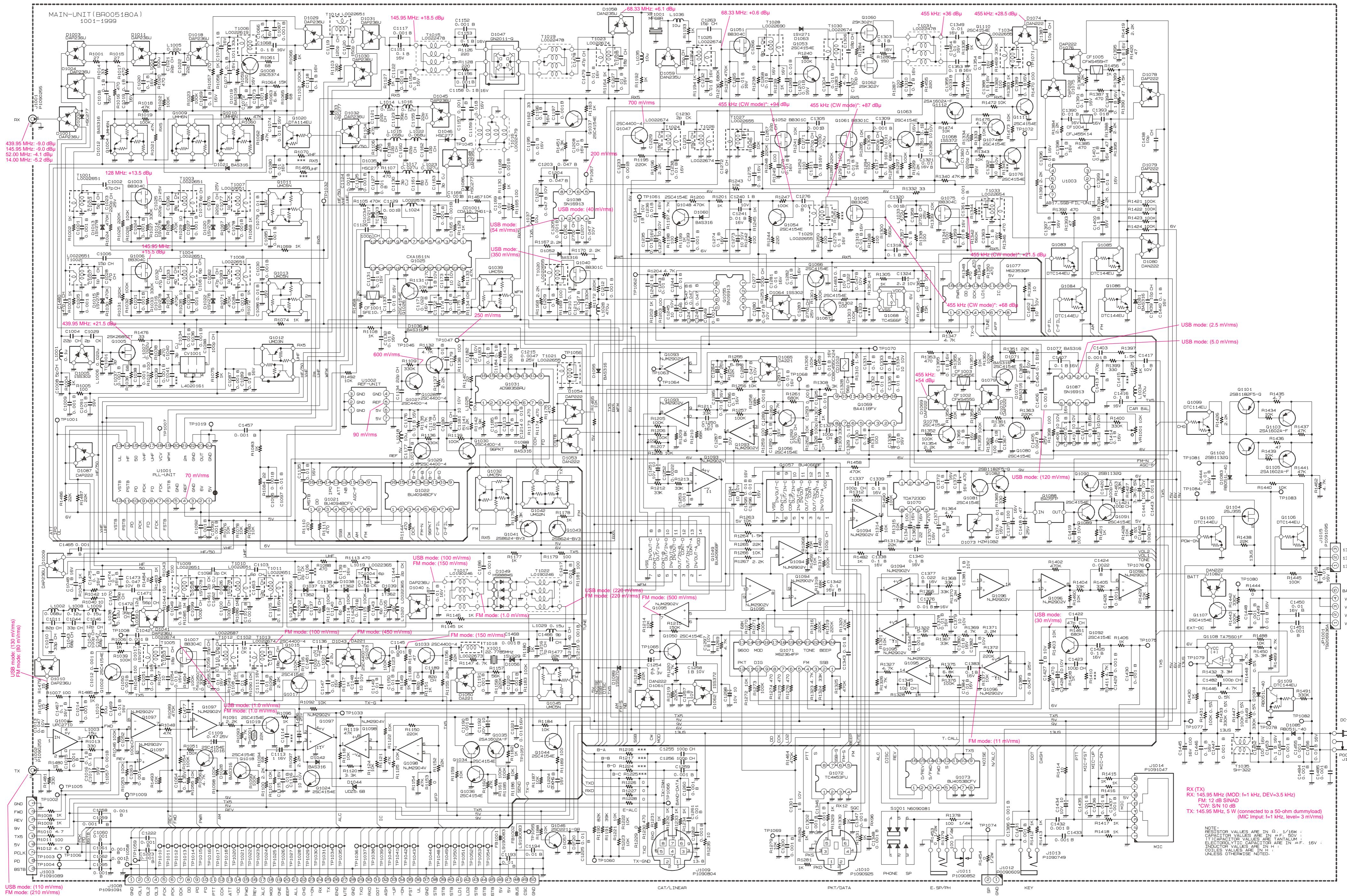
# Interconnection Diagram

## CONNECTION-DIAGRAM



## ***Interconnection Diagram***

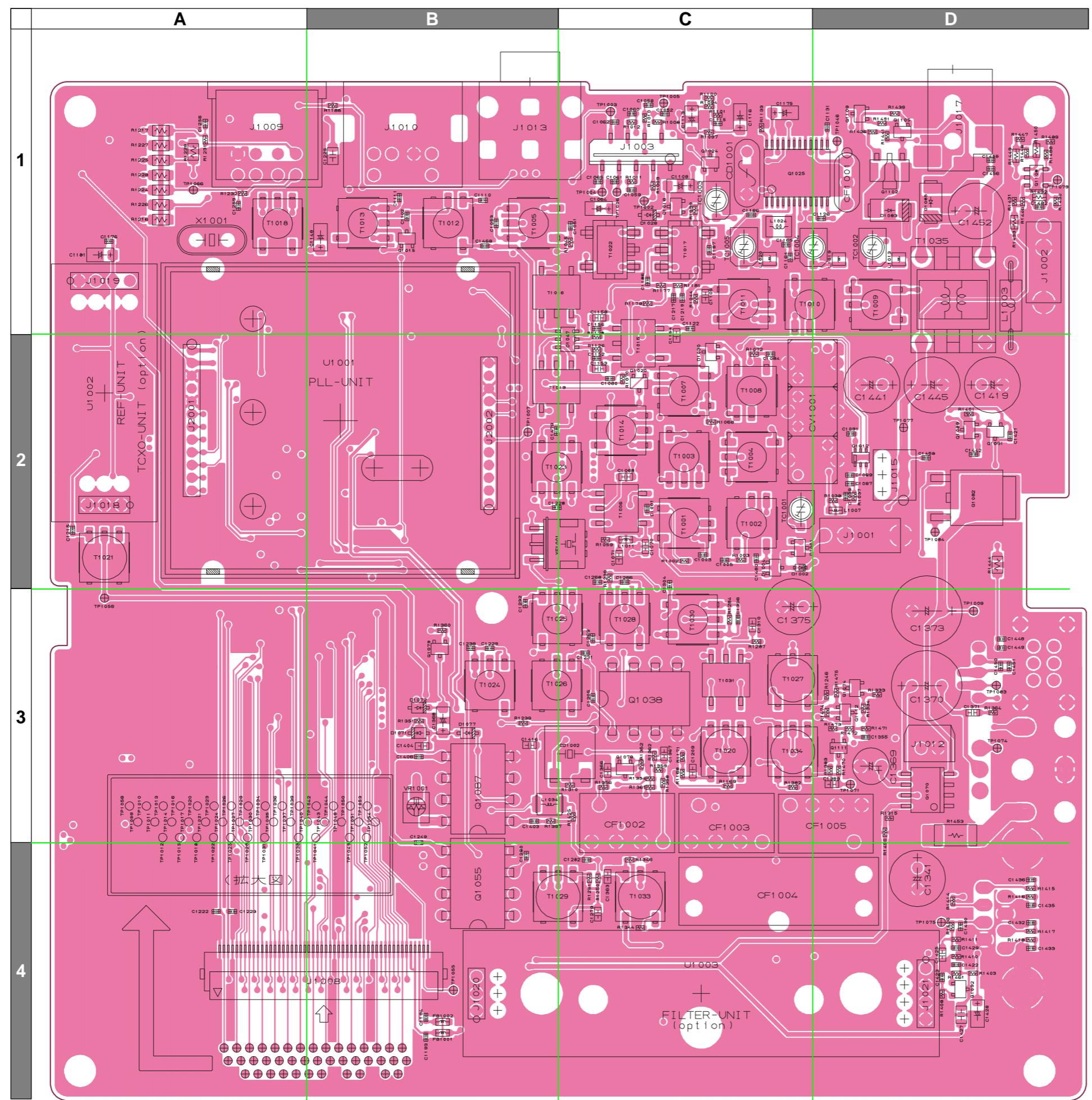
**Note:**



## **MAIN Unit**

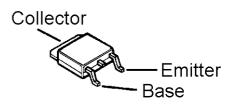
**Note:**

## Parts Layout

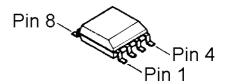


## MAIN Unit

Base 2  
Collector 1 ↓ Emitter 2  
10k ↑ 10k  
Emitter 1 ↓ Collector 2  
Base 1  
10k ↑ 10k  
UMD3N (D3)  
(Q1012)

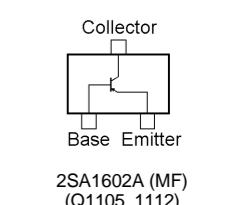
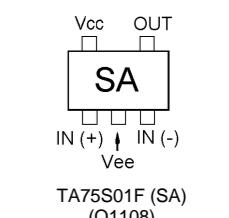


2SB1182F5  
(Q1082)  
2SB1132  
(Q1102)

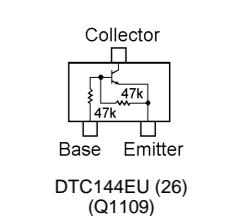


2SC4154 (LE)  
(Q1018, 1024, 1074, 1078,  
1079, 1089, 1091, 1092, 1111)  
2SC4400 (RT4)  
(Q1015)

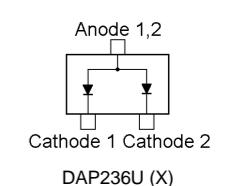
TDA7233D  
(Q1070)



2SA1602A (MF)  
(Q1105, 1112)

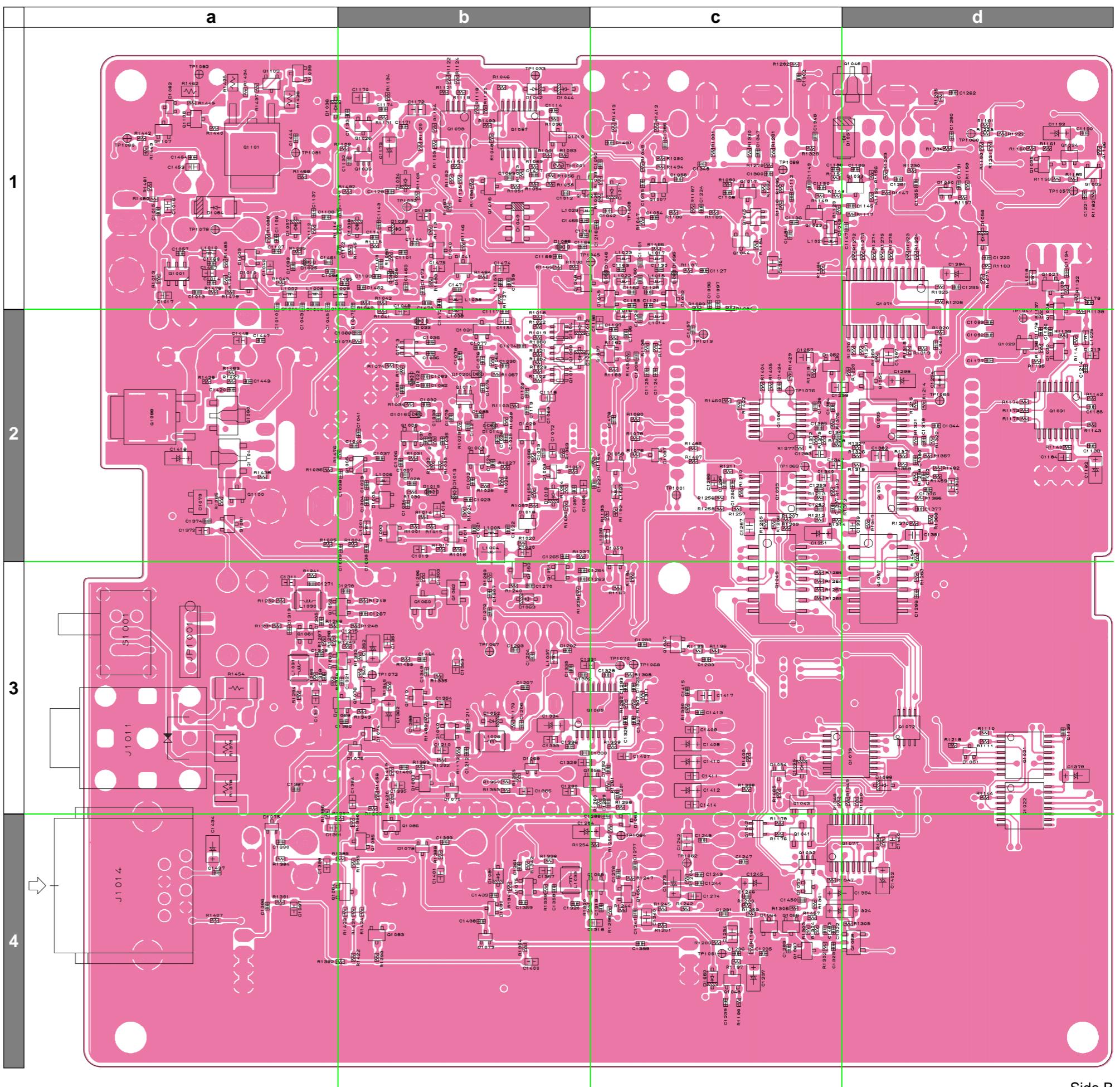
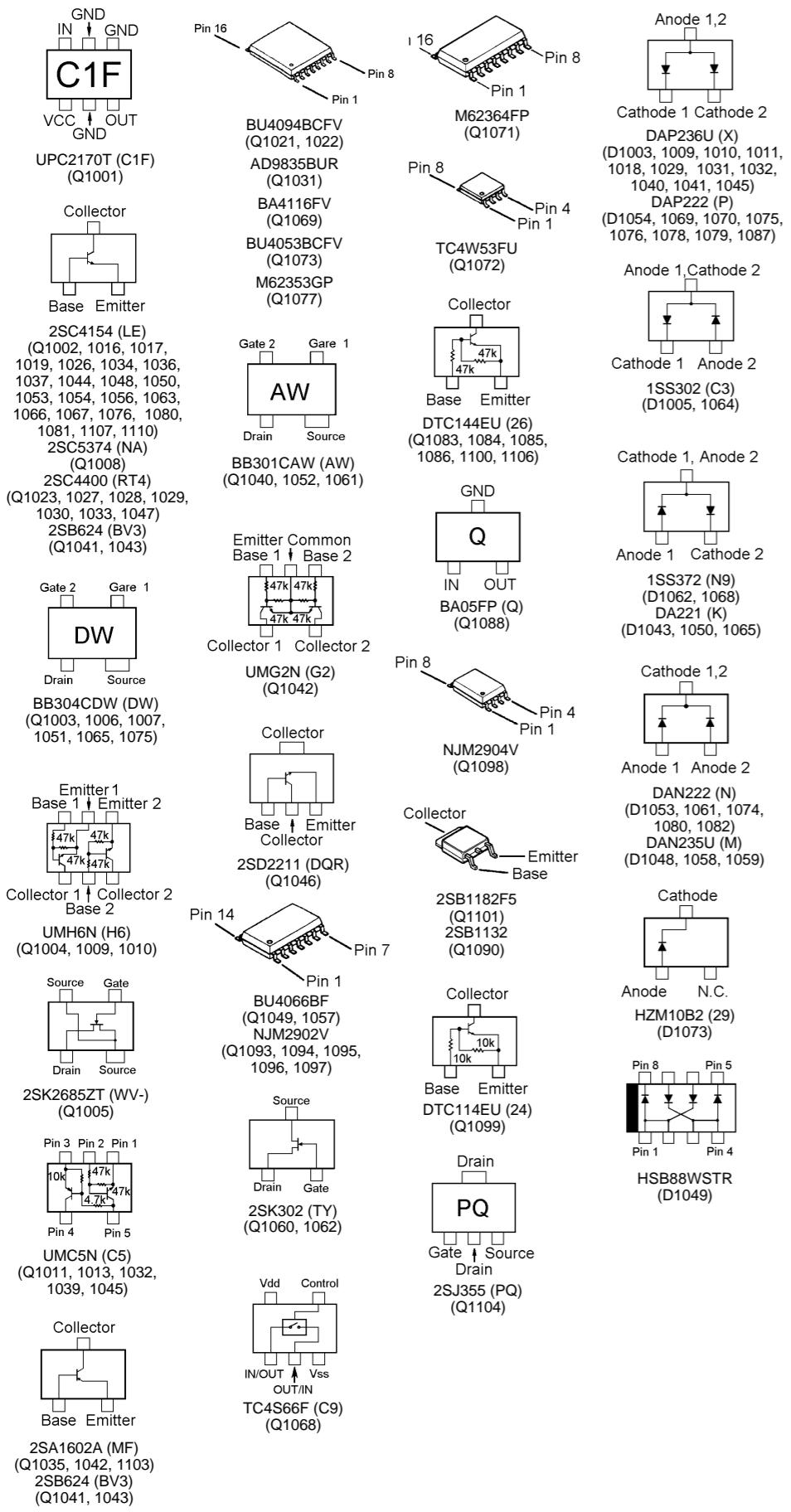


SN16913P  
(Q1038, 1055, 1087)

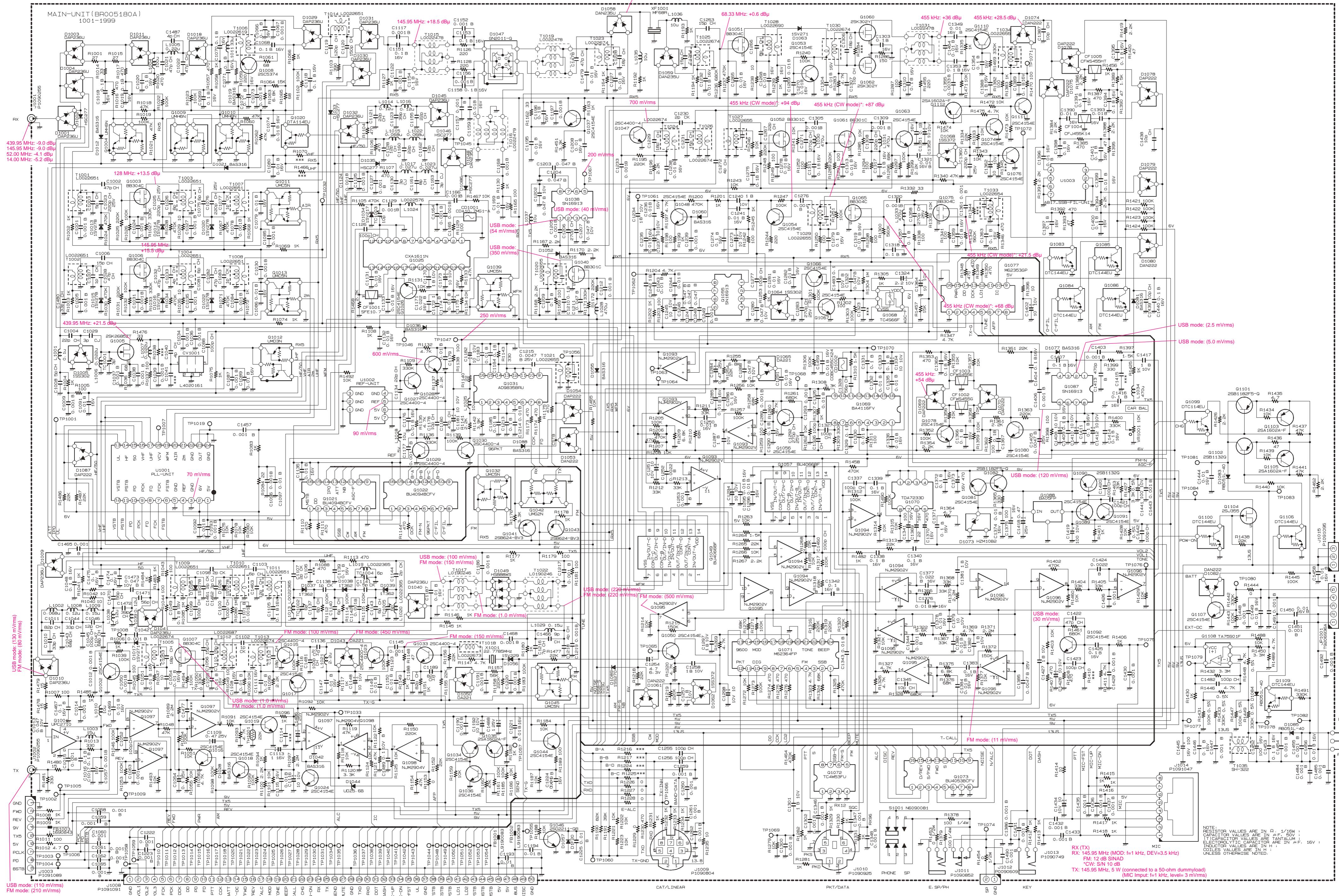


DAP236U (X)  
(D1001, 1004, 1030)

# MAIN Unit



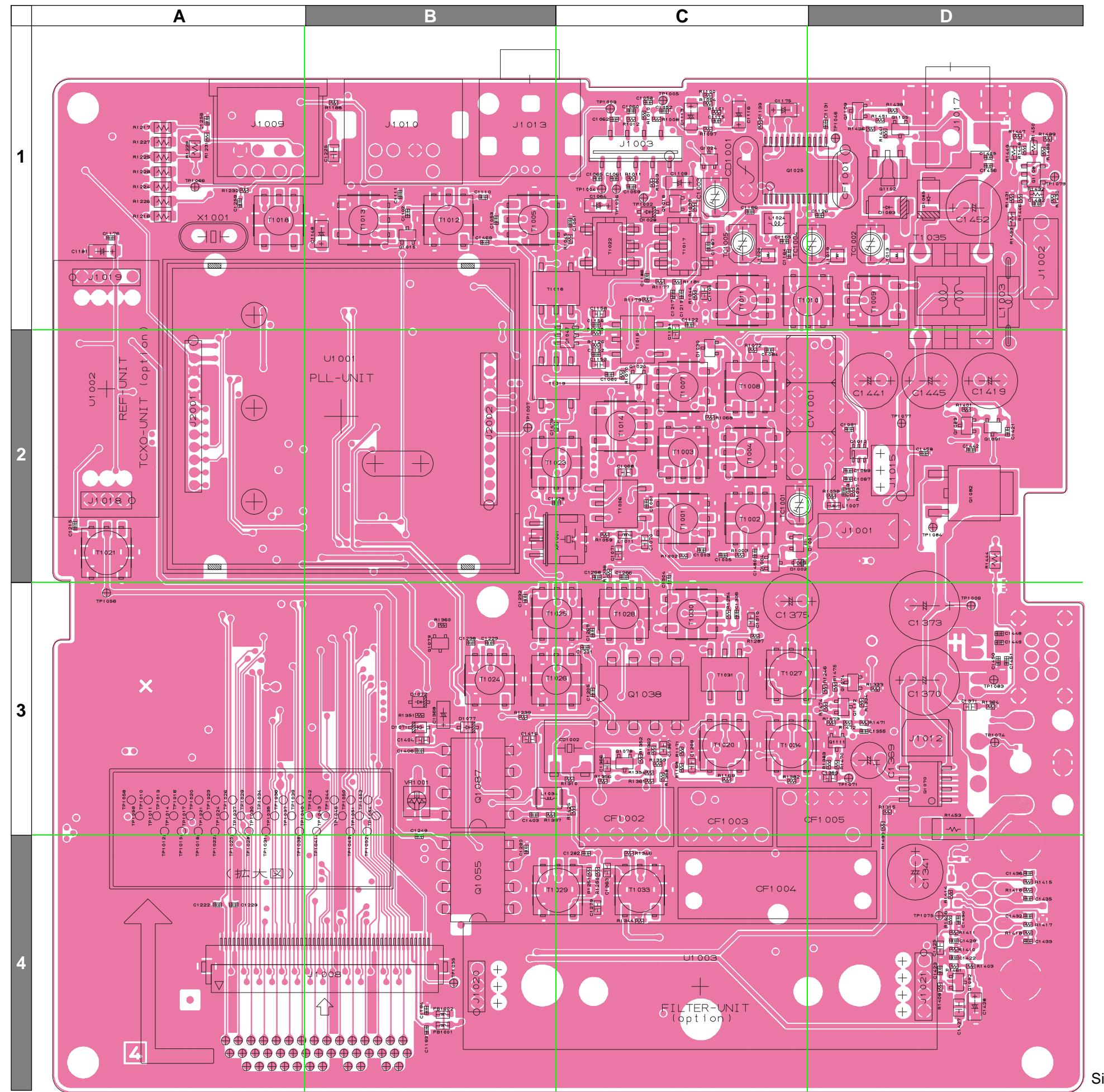
**MAIN Unit (Lot. 30~)**



**MAIN Unit (Lot. 30~)**

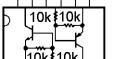
**Note:**

## Parts Layout



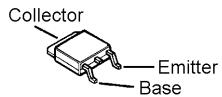
## MAIN Unit (Lot. 30~)

Base 2  
Collector 1 ↑ Emitter 2

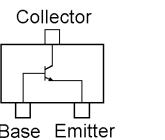


Emitter 1 ↓ Collector 2  
Base 1

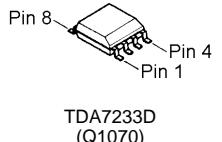
UMD3N (D3)  
(Q1012)



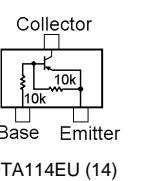
2SB1182F5  
(Q1082)  
2SB1132  
(Q1102)



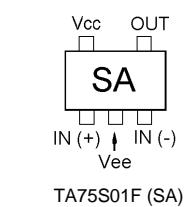
2SC4154 (LE)  
(Q1018, 1024, 1074,  
1078, 1079, 1089, 1091,  
1092, 1111)  
2SC4400 (RT4)  
(Q1015)



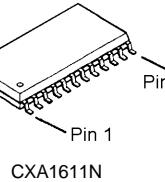
TDA7233D  
(Q1070)



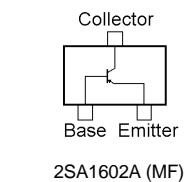
DTA114EU (14)  
(Q1020)



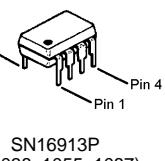
TA75S01F (SA)  
(Q1108)



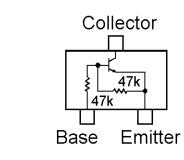
CXA1611N  
(Q1025)



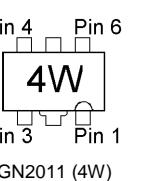
2SA1602A (MF)  
(Q1105, 1112)



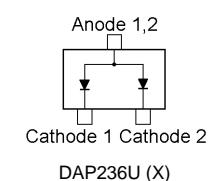
SN16913P  
(Q1038, 1055, 1087)



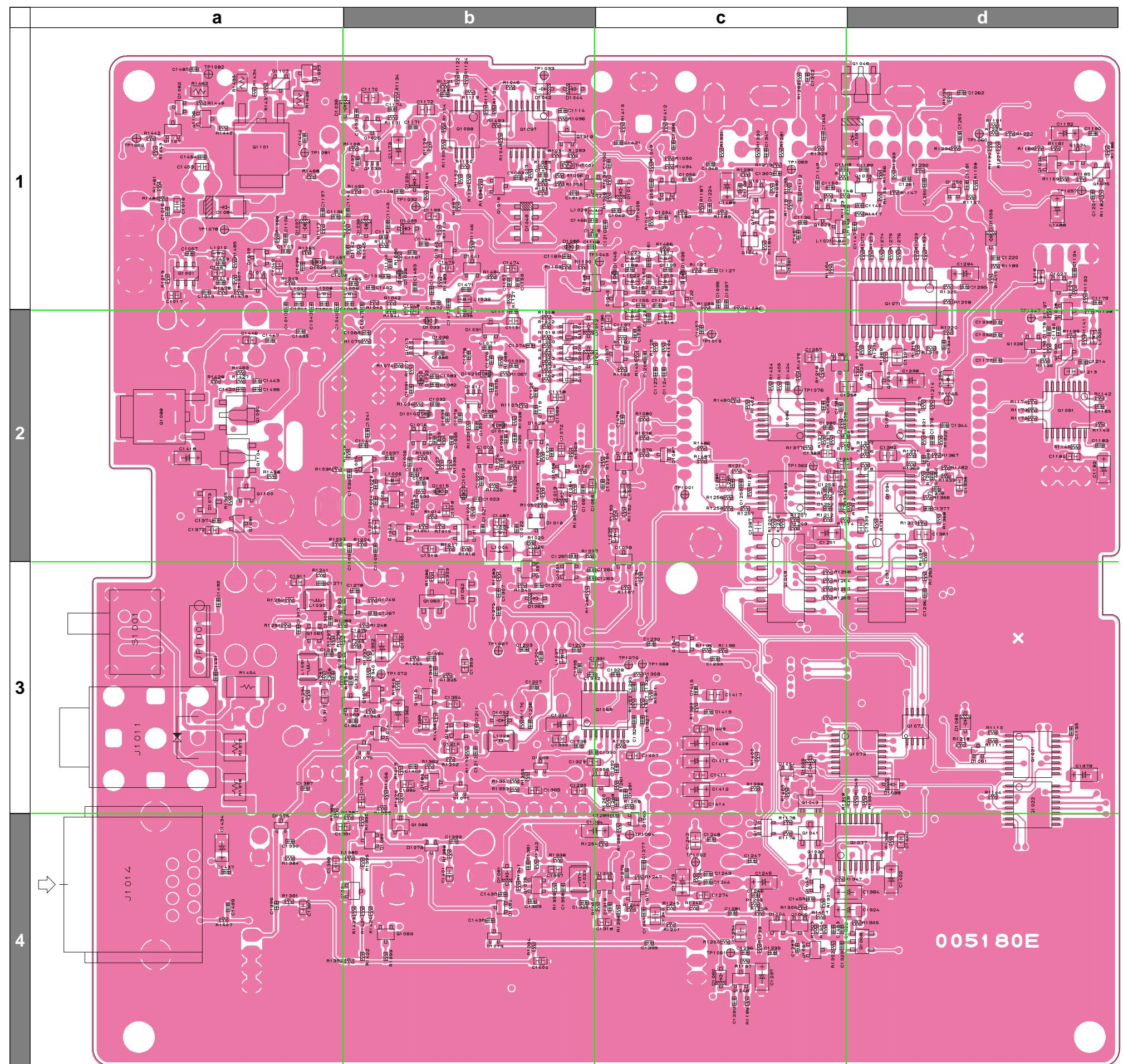
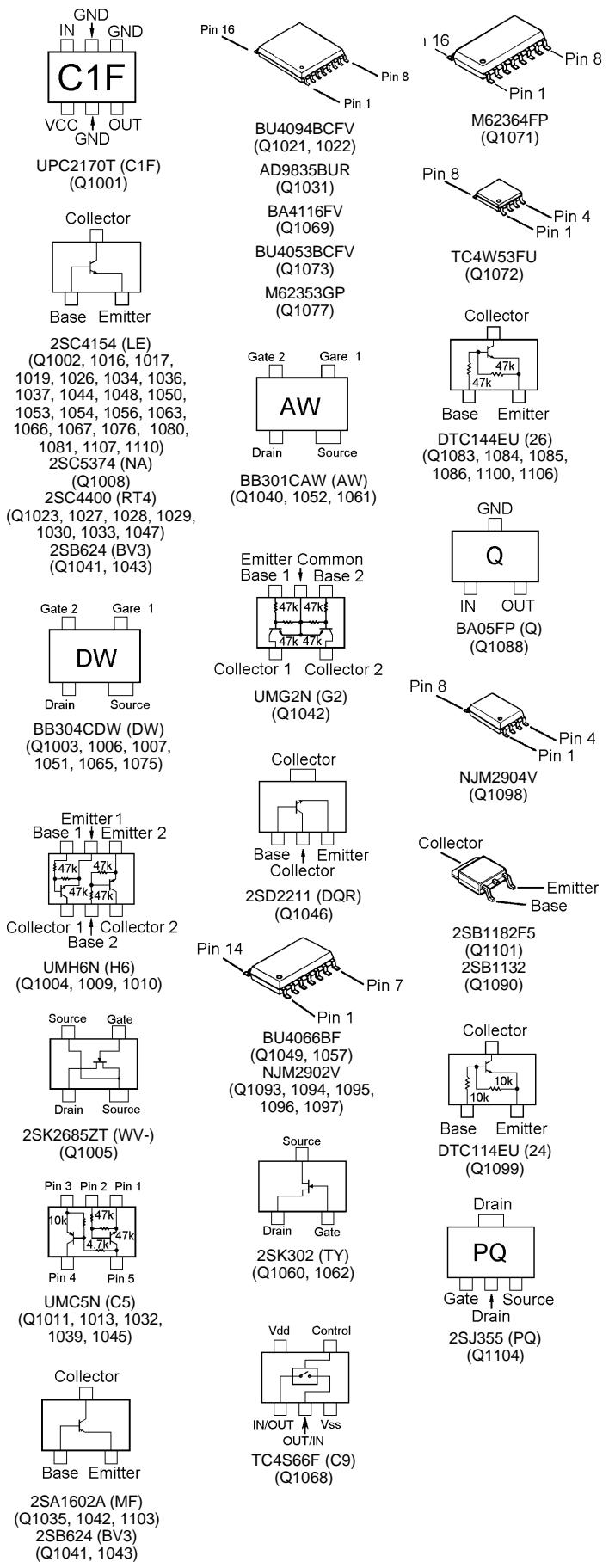
DTC144EU (26)  
(Q1109)



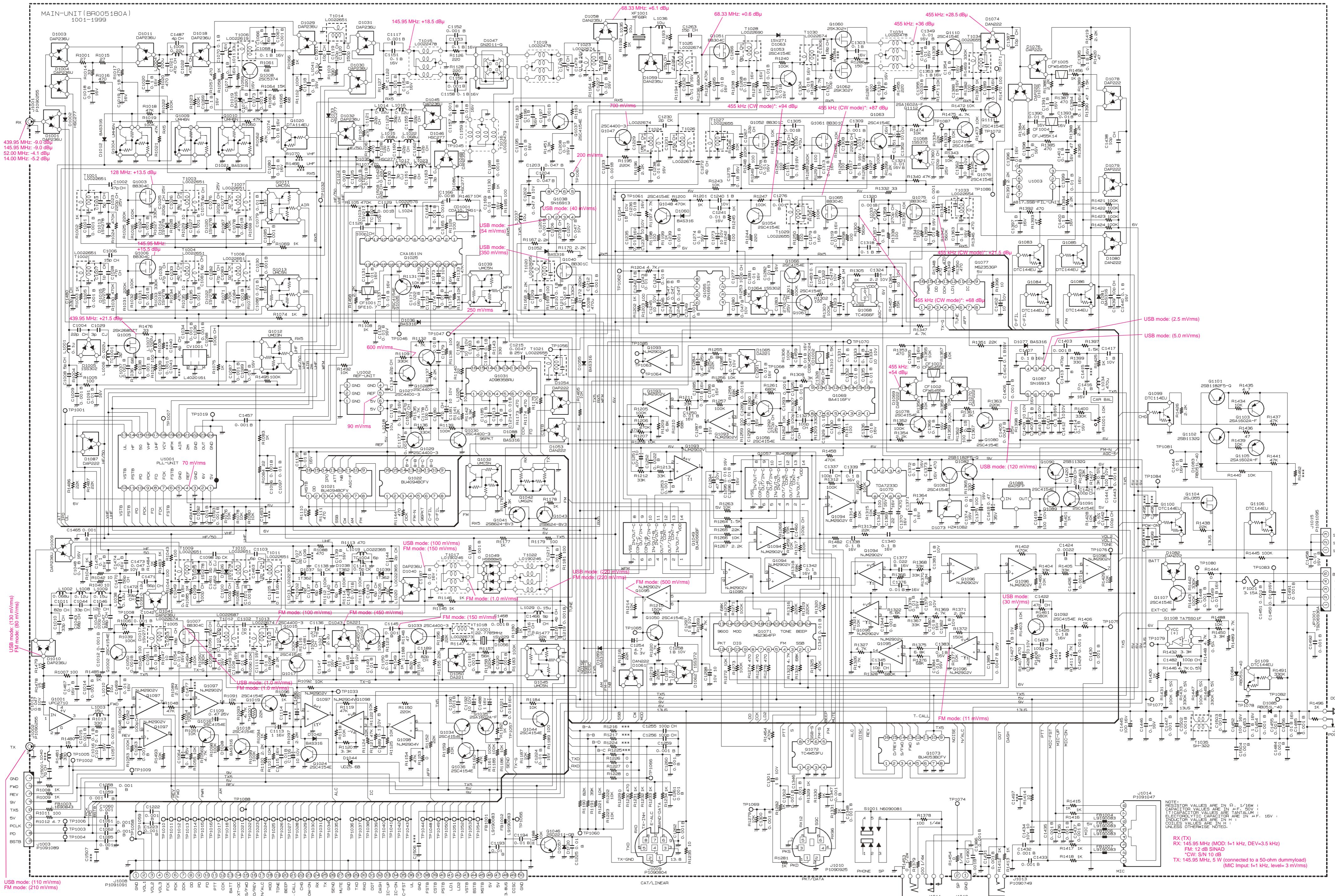
GN2011 (4W)  
(D1047)



# MAIN Unit (Lot. 30~)



**MAIN Unit (Lot. 32~)**



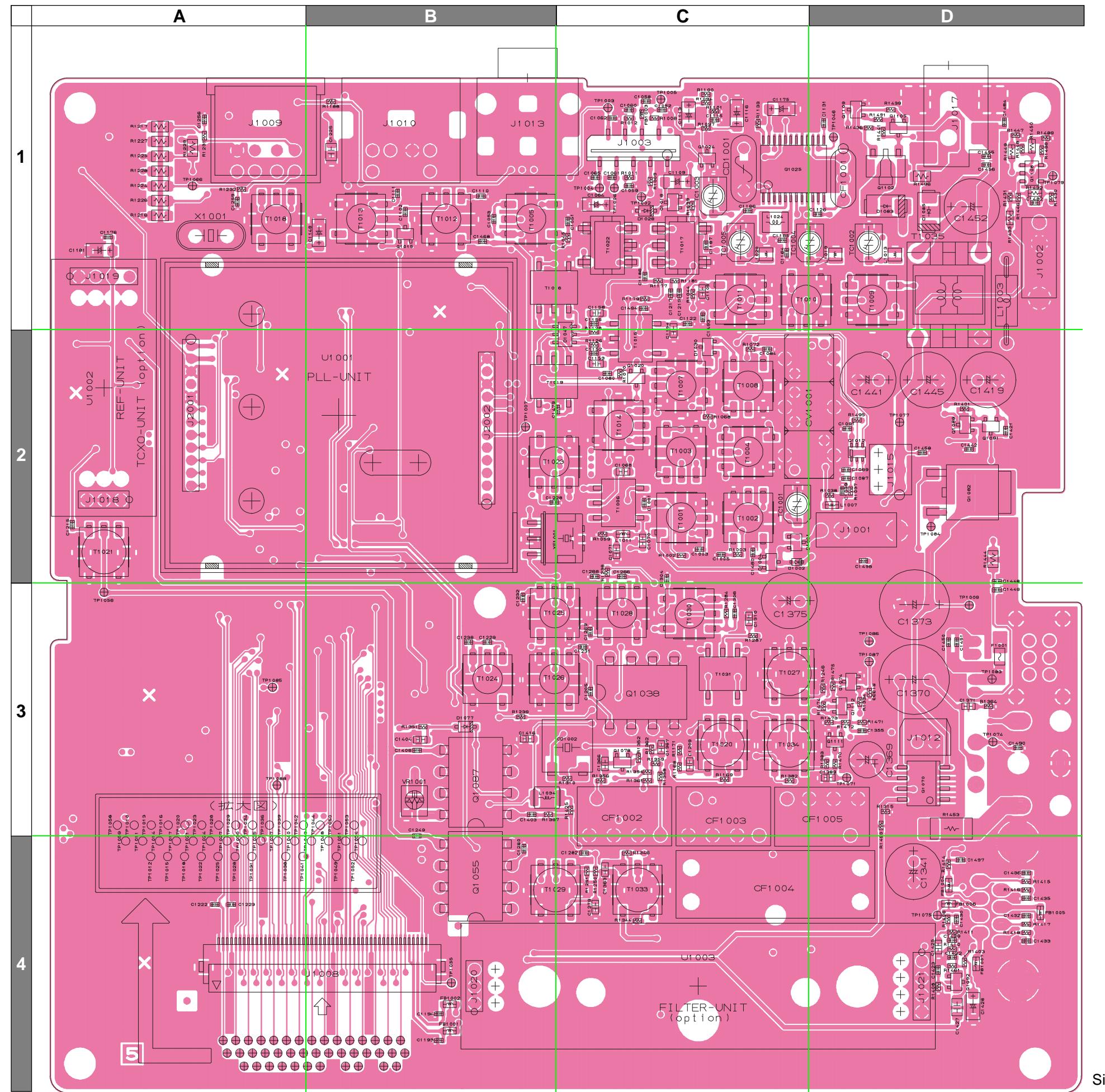
:  
: STOR VALUES ARE IN  $\Omega$  1/16W :  
: CITOR VALUES ARE IN  $\mu F$ . 50V :  
: CAPACITOR VALUES ARE TANTALUM :  
: TORSOLYTIC CAPACITOR ARE IN  $\mu F$ . 15V :  
: CITOR VALUES ARE IN H :  
:ES VALUES ARE IN H :  
:ES OTHERWISE NOTED.

X (TX)  
X: 145.95 MHz (MOD: f=1 kHz, DEV=3.5 kHz)  
FM: 12 dB SINAD  
\*CW: S/N 10 dB  
X: 145.95 MHz, 5 W (connected to a 50-ohm dummyload)  
(MIC Input: f=1 kHz, level= 3 mVrms)

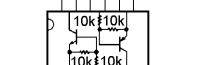
**MAIN Unit (Lot. 32~)**

**Note:**

## Parts Layout

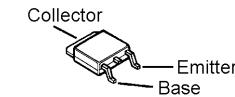


Base 2  
Collector 1 ↑ Emitter 2



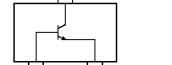
Emitter 1 ↓ Collector 2  
Base 1

UMD3N (D3)  
(Q1012)



2SB1182F5  
(Q1082)  
2SB1132  
(Q1102)

Collector

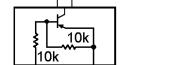


2SC4154 (LE)  
(Q1018, 1024, 1074, 1078,  
1079, 1089, 1091, 1092, 1111)  
2SC4400 (RT4)  
(Q1015)



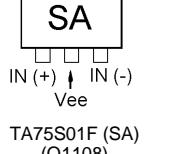
TDA7233D  
(Q1070)

Collector

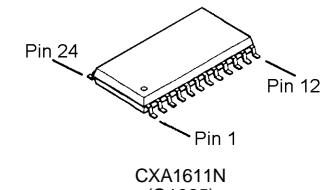


DTA114EU (14)  
(Q1020)

Vcc OUT  
IN (+) ↓ IN (-)  
Vee

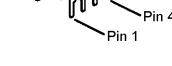


2SA1602A (MF)  
(Q1105, 1112)



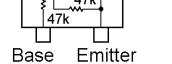
CXA1611N  
(Q1025)

Collector

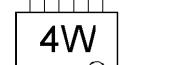


SN16913P  
(Q1038, 1055, 1087)

DTC144EU (26)  
(Q1109)

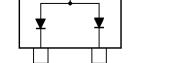


Pin 4 Pin 6



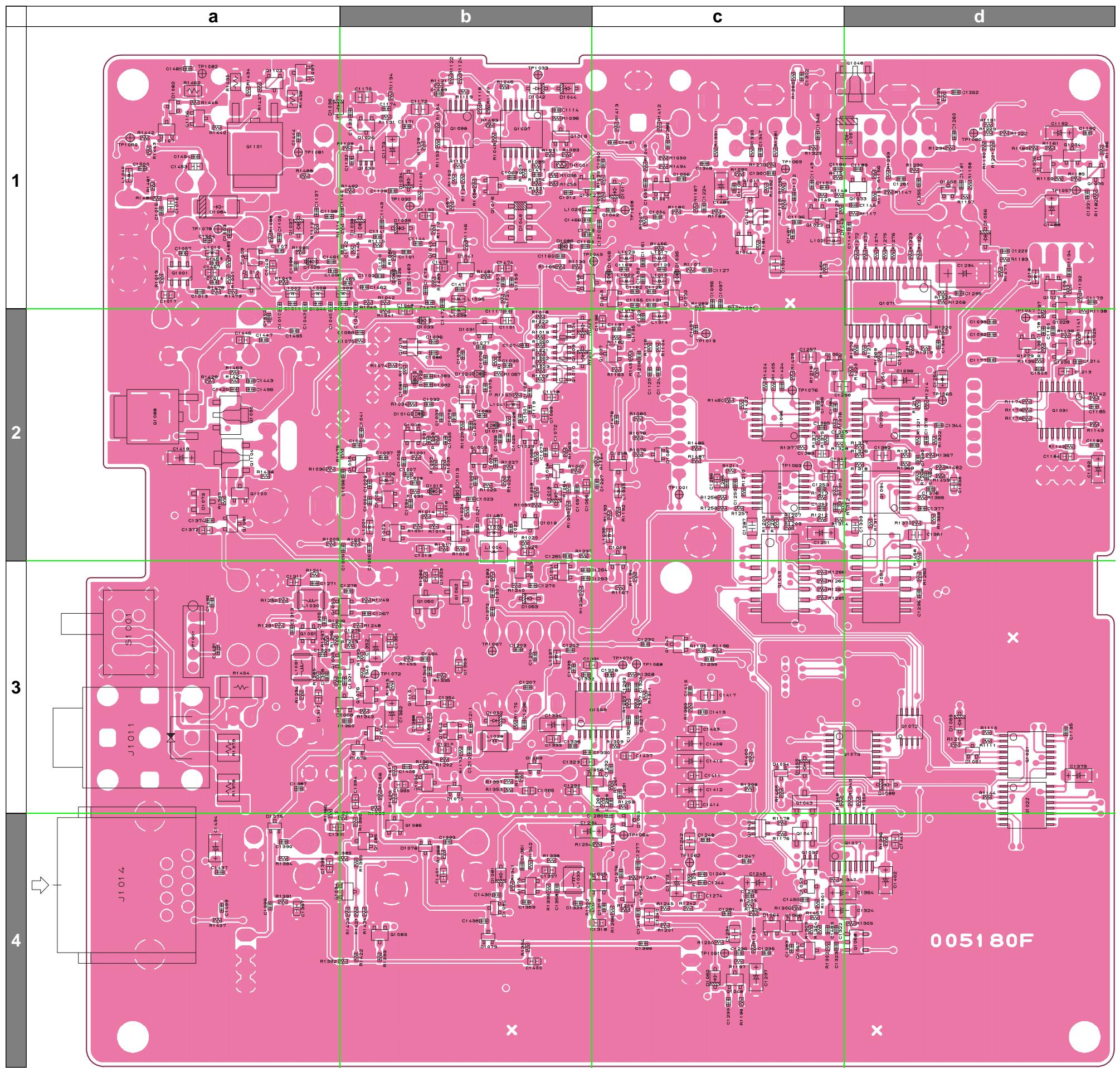
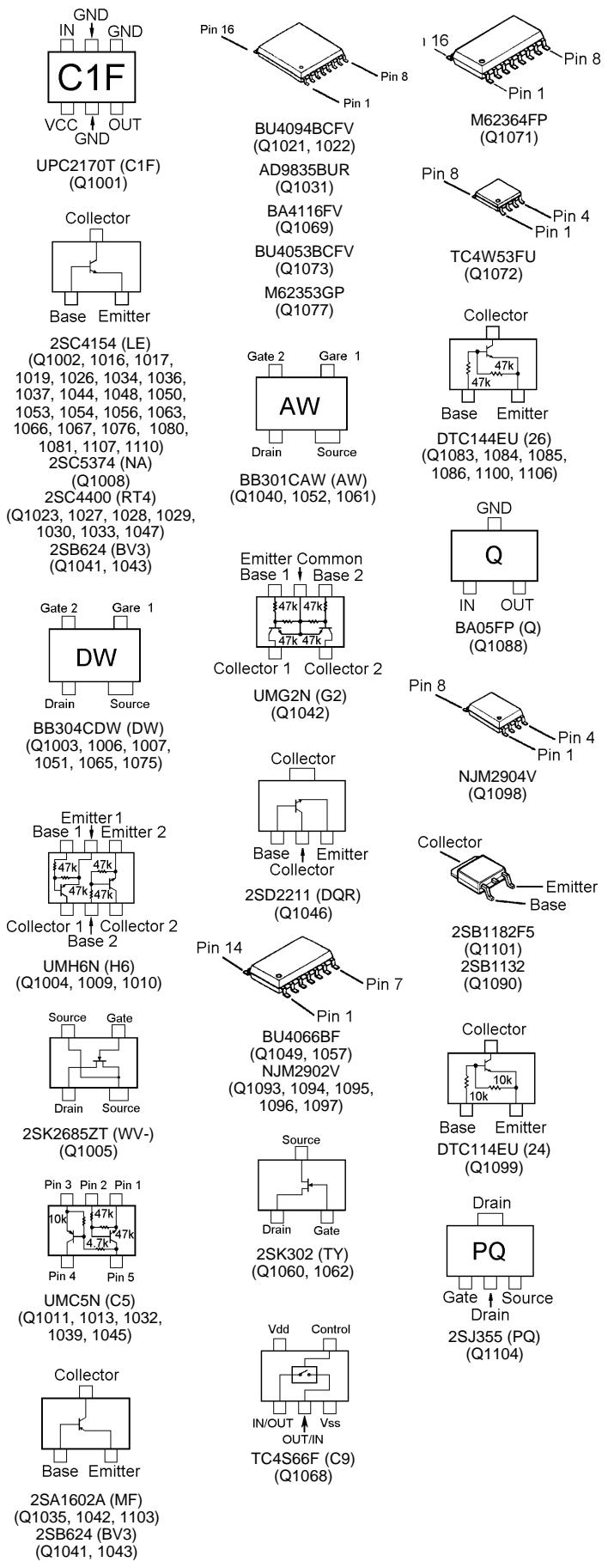
GN2011 (4W)  
(D1047)

Anode 1,2  
Cathode 1 Cathode 2



DAP236U (X)  
(D1001, 1004, 1030)

# MAIN Unit (Lot. 32~)



## Parts List

# Main Unit

REF.	DESCRIPTION	VALUE	V/W	TOL.	MFR'S DESIG	VXSTD P/N	VERS.	LOT.	SIDE	LAY ADR
*** MAIN UNIT ***										
	PCB with Components					CP6778002	USA, W/O CE LABEL			
	PCB with Components					CP6778003	EXPORT, W/O CE LABEL			
	PCB with Components					CP6778004	AUSTRALIA, W/O CE LABEL			
	PCB with Components					CP6778005	FRANCE, W/ CE LABEL			
	PCB with Components					CP6778006	EXPORT, W/ CE LABEL			
	PCB with Components					CP6778007	FRANCE, W/O CE LABEL			
	Printed Circuit Board					FR005180D	1-			
	Printed Circuit Board					FR005180E	30-			
	Printed Circuit Board					FR005180F	32-			
C 1001	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	A	C2
C 1002	CHIP CAP.	47pF	50V	CH	GRM36CH470J50PT	K22178228		1-	B	b2
C 1003	CHIP CAP.	5pF	50V	CH	GRM36CH050C50PT	K22178207		1-	A	C2
C 1004	CHIP CAP.	22pF	50V	CH	GRM36CH220J50PT	K22178220		1-	B	b2
C 1005	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	A	C2
C 1006	CHIP CAP.	15pF	50V	CH	GRM36CH150J50PT	K22178216		1-	B	b2
C 1007	CHIP CAP.	1pF	50V	CK	GRM36CK010C50PT	K22178202		1-	B	b2
C 1008	CHIP CAP.	5pF	50V	CH	GRM36CH050C50PT	K22178207		1-	B	b2
C 1009	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	B	b2
C 1010	CHIP CAP.	33pF	50V	CH	GRM36CH330J50PT	K22178224		1-	B	a1
C 1011	CHIP CAP.	82pF	50V	CH	GRM36CH820J50PT	K22178234		1-	B	a1
C 1012	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	B	b1
C 1013	CHIP CAP.	0.047uF	10V	B	GRM36B473K10PT	K22108801		1-	B	a1
C 1014	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	B	a1
C 1015	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	B	a1
C 1015	CHIP CAP.	15pF	50V	CH	GRM36CH150J50PT	K22178216	47-	B	a1	
C 1016	CHIP CAP.	0.1uF	16V	B	GRM39B104K16PT	K22124805	1-46	B	a1	
C 1017	CHIP CAP.	0.1uF	16V	B	GRM39B104K16PT	K22124805	1-	B	a1	
C 1018	CHIP CAP.	0.1uF	16V	B	GRM39B104K16PT	K22124805	1-	B	b2	
C 1019	CHIP CAP.	0.1uF	16V	B	GRM39B104K16PT	K22124805	1-	B	b2	
C 1020	CHIP CAP.	0.1uF	16V	B	GRM39B104K16PT	K22124805	1-	B	b2	
C 1021	CHIP CAP.	22pF	50V	CH	GRM36CH220J50PT	K22178220	1-	B	b2	
C 1021	CHIP CAP.	47pF	50V	CH	GRM36CH470J50PT	K22178228	6-	B	b2	
C 1022	CHIP CAP.	22pF	50V	CH	GRM36CH220J50PT	K22178220	1-	B	b2	
C 1022	CHIP CAP.	47pF	50V	CH	GRM36CH470J50PT	K22178228	6-	B	b2	
C 1023	CHIP CAP.	220pF	25V	CH	GRM36CH221J25PT	K22148203	1-	B	b2	
C 1024	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809	1-	B	b2	
C 1025	CHIP CAP.	220pF	25V	CH	GRM36CH221J25PT	K22148203	1-	B	b2	
C 1026	CHIP CAP.	8pF	50V	CH	GRM36CH080D50PT	K22178210	1-	B	b2	
C 1027	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809	1-	B	b2	
C 1028	CHIP CAP.	47pF	50V	CH	GRM36CH470J50PT	K22178228	1-	B	b2	
C 1029	CHIP CAP.	2pF	50V	CK	GRM36CK020C50PT	K22178204	1-	B	b2	
C 1029	CHIP CAP.	3pF	50V	CJ	GRM36CJ030C50PT	K22178205	4-	B	b2	
C 1030	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809	1-	B	b2	
C 1031	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809	1-	B	b2	
C 1032	CHIP CAP.	47pF	50V	CH	GRM36CH470J50PT	K22178228	1-	B	b2	
C 1033	CHIP CAP.	4pF	50V	CH	GRM36CH040C50PT	K22178206	1-	B	b2	
C 1034	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809	1-	B	b2	
C 1035	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809	1-	B	b2	
C 1036	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809	1-	B	b2	
C 1037	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809	1-	B	b2	
C 1038	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809	1-	B	b2	
C 1039	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809	1-	A	D2	
C 1040	CHIP CAP.	3pF	50V	CJ	GRM36CJ030C50PT	K22178205	1-	B	b2	
C 1040	CHIP CAP.	4pF	50V	CH	GRM36CH040C50PT	K22178206	5-	B	b2	
C 1042	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809	1-	B	c1	
C 1043	CHIP CAP.	68pF	50V	CH	GRM36CH680J50PT	K22178232	1-	B	a1	
C 1044	CHIP CAP.	33pF	50V	CH	GRM36CH330J50PT	K22178224	1-	B	a1	
C 1045	CHIP CAP.	100pF	50V	CH	GRM36CH101J50PT	K22178236	1-	B	a1	
C 1046	CHIP CAP.	12pF	50V	CH	GRM36CH120J50PT	K22178214	1-	B	b1	
C 1047	CHIP CAP.	68pF	50V	CH	GRM36CH680J50PT	K22178232	1-	B	b1	
C 1048	CHIP CAP.	0.1uF	16V	B	GRM39B104K16PT	K22124805	1-	B	b2	
C 1049	CHIP CAP.	0.1uF	16V	B	GRM39B104K16PT	K22124805	1-	B	a1	
C 1050	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809	1-	B	c1	
C 1051	CHIP CAP.	0.01uF	16V	B	GRM36B103K16PT	K22128804	1-	A	C1	
C 1052	CHIP CAP.	100pF	50V	CH	GRM36CH101J50PT	K22178236	1-	A	C1	
C 1053	CHIP CAP.	18pF	50V	CH	GRM36CH180J50PT	K22178218	1-	A	B1	

# Main Unit

REF.	DESCRIPTION	VALUE	V/W	TOL.	MFR'S DESIG	VXSTD P/N	VERS.	LOT.	SIDE	LAY ADR
C 1054	CHIP CAP.	0.01uF	16V	B	GRM36B103K16PT	K22128804		1-	B	c1
C 1055	CHIP CAP.	0.01uF	16V	B	GRM36B103K16PT	K22128804		1-	B	c1
C 1056	CHIP CAP.	15pF	50V	CH	GRM36CH150J50PT	K22178216		1-	B	c1
C 1057	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	B	a1
C 1058	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	A	C1
C 1059	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	A	C1
C 1060	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	A	C1
C 1061	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	A	C1
C 1062	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	A	C1
C 1063	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	B	b1
C 1064	CHIP TA.CAP.	0.1uF	35V		TESVA1V104M1-8R	K78160025		1-	A	C1
C 1065	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	A	C1
C 1066	CHIP CAP.	0.1uF	16V	B	GRM39B104K16PT	K22124805		1-	B	b2
C 1067	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	B	b2
C 1068	CHIP CAP.	0.1uF	16V	B	GRM39B104K16PT	K22124805		1-	A	C2
C 1069	CHIP CAP.	0.1uF	16V	B	GRM39B104K16PT	K22124805		1-	B	b2
C 1070	CHIP CAP.	0.1uF	16V	B	GRM39B104K16PT	K22124805		1-	A	C2
C 1071	CHIP CAP.	0.1uF	16V	B	GRM39B104K16PT	K22124805		1-	A	C2
C 1072	CHIP CAP.	0.1uF	16V	B	GRM39B104K16PT	K22124805		1-	B	b2
C 1073	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	B	b2
C 1074	CHIP CAP.	0.01uF	16V	B	GRM36B103K16PT	K22128804		1-	B	b2
C 1075	CHIP CAP.	6pF	50V	CH	GRM36CH060D50PT	K22178208		1-	B	b2
C 1076	CHIP CAP.	220pF	25V	CH	GRM36CH221J25PT	K22148203		1-	B	b2
C 1077	CHIP CAP.	1pF	50V	CK	GRM36CK010C50PT	K22178202		1-	B	b2
C 1078	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	B	b2
C 1079	CHIP CAP.	0.01uF	16V	B	GRM36B103K16PT	K22128804		1-	B	b2
C 1080	CHIP CAP.	0.01uF	16V	B	GRM36B103K16PT	K22128804		1-	A	C2
C 1081	CHIP CAP.	6pF	50V	CH	GRM36CH060D50PT	K22178208		1-	B	b2
C 1082	CHIP CAP.	47pF	50V	CH	GRM36CH470J50PT	K22178228		1-	B	b2
C 1083	CHIP CAP.	1pF	50V	CK	GRM36CK010C50PT	K22178202		1-	B	b2
C 1084	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	A	C2
C 1085	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	B	b2
C 1086	CHIP CAP.	0.01uF	16V	B	GRM36B103K16PT	K22128804		1-	B	b2
C 1087	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	A	D2
C 1088	CHIP CAP.	100pF	50V	CH	GRM36CH101J50PT	K22178236		1-	B	b2
C 1089	CHIP CAP.	0.01uF	16V	B	GRM36B103K16PT	K22128804		1-	A	D2
C 1091	CHIP CAP.	0.01uF	16V	B	GRM36B103K16PT	K22128804		1-	A	D2
C 1092	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	B	d2
C 1093	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	B	d2
C 1096	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	B	c1
C 1097	CHIP CAP.	0.01uF	16V	B	GRM36B103K16PT	K22128804		1-	B	c1
C 1098	CHIP CAP.	2pF	50V	CK	GRM36CK020C50PT	K22178204		1-	B	a1
C 1099	CHIP CAP.	100pF	50V	CH	GRM36CH101J50PT	K22178236		1-	B	a1
C 1100	CHIP CAP.	100pF	50V	CH	GRM36CH101J50PT	K22178236		1-	B	b1
C 1101	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	B	b1
C 1102	CHIP CAP.	1pF	50V	CK	GRM36CK010C50PT	K22178202		1-	A	B1
C 1103	CHIP CAP.	6pF	50V	CH	GRM36CH060D50PT	K22178208		1-	B	b1
C 1105	CHIP CAP.	0.1uF	16V	B	GRM39B104K16PT	K22124805		1-	A	C1
C 1107	CHIP CAP.	2pF	50V	CK	GRM36CK020C50PT	K22178204		1-	B	a1
C 1108	CHIP CAP.	0.01uF	16V	B	GRM36B103K16PT	K22128804		1-	B	c1
C 1109	CHIP TA.CAP.	0.47uF	25V		TESVA1E474M1-8R	K78140009		1-	A	C1
C 1110	CHIP CAP.	15pF	50V	CH	GRM36CH150J50PT	K22178216		1-	A	B1
C 1111	CHIP CAP.	0.01uF	16V	B	GRM36B103K16PT	K22128804		1-	A	B1
C 1112	CHIP CAP.	18pF	50V	CH	GRM36CH180J50PT	K22178218		1-	B	c1
C 1113	CHIP TA.CAP.	1uF	16V		TESVA1C105M1-8R	K78120009		1-	A	C1
C 1115	CHIP CAP.	0.01uF	16V	B	GRM36B103K16PT	K22128804		1-	A	C1
C 1116	CHIP TA.CAP.	10uF	10V		TEMSVA1A106M-8R	K78100028		1-	A	C1
C 1117	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	B	b2
C 1118	CHIP CAP.	0.1uF	16V	B	GRM39B104K16PT	K22124805		1-	B	b2
C 1119	CHIP CAP.	120pF	50V	CH	GRM36CH121J50PT	K22178238		1-	B	b2
C 1120	CHIP CAP.	150pF	50V	CH	GRM36CH151J50PT	K22178240		1-	B	b2
C 1121	CHIP CAP.	22pF	50V	CH	GRM36CH220J50PT	K22178220		1-	B	c1
C 1122	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	A	C1
C 1123	CHIP CAP.	39pF	50V	CH	GRM36CH390J50PT	K22178226		1-	B	c2
C 1124	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	B	c2
C 1125	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	B	c2
C 1126	CHIP CAP.	100pF	50V	CH	GRM36CH101J50PT	K22178236		1-	A	D1

# Main Unit

REF.	DESCRIPTION	VALUE	V/W	TOL.	MFR'S DESIG	VXSTD P/N	VERS.	LOT.	SIDE	LAY ADR
C 1127	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	B	c1
C 1128	CHIP CAP.	12pF	50V	CH	GRM36CH120J50PT	K22178214		1-	B	c1
C 1129	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	B	b1
C 1130	CHIP CAP.	3pF	50V	CJ	GRM36CJ030C50PT	K22178205		1-	B	c1
C 1131	CHIP CAP.	0.01uF	16V	B	GRM36B103K16PT	K22128804		1-	A	D1
C 1132	CHIP CAP.	0.01uF	16V	B	GRM36B103K16PT	K22128804		1-	B	b1
C 1133	CHIP CAP.	0.01uF	16V	B	GRM36B103K16PT	K22128804		1-	B	b1
C 1134	CHIP CAP.	22pF	50V	CH	GRM36CH220J50PT	K22178220		1-	B	d1
C 1135	CHIP CAP.	0.01uF	16V	B	GRM36B103K16PT	K22128804		1-	B	d3
C 1136	CHIP CAP.	27pF	50V	CH	GRM36CH270J50PT	K22178222		1-	B	c1
C 1137	CHIP CAP.	6pF	50V	CH	GRM36CH060D50PT	K22178208		1-	B	a1
C 1138	CHIP CAP.	1pF	50V	CK	GRM36CK010C50PT	K22178202		1-	B	a1
C 1139	CHIP CAP.	0.1uF	16V	B	GRM39B104K16PT	K22124805		1-	B	b1
C 1140	CHIP CAP.	6pF	50V	CH	GRM36CH060D50PT	K22178208		1-	B	b1
C 1141	CHIP CAP.	0.5pF	50V	CK	GRM36CK0R5B50PT	K22178285		1-	B	b1
C 1142	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	B	b1
C 1143	CHIP CAP.	6pF	50V	CH	GRM36CH060D50PT	K22178208		1-	B	b1
C 1144	CHIP CAP.	2pF	50V	CK	GRM36CK020C50PT	K22178204		1-	B	b1
C 1145	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	B	d1
C 1147	CHIP CAP.	0.01uF	16V	B	GRM36B103K16PT	K22128804		1-	B	d1
C 1148	CHIP TA.CAP.	10uF	10V		TEMSVA1A106M-8R	K78100028		1-	A	B1
C 1149	CHIP CAP.	0.01uF	16V	B	GRM36B103K16PT	K22128804		1-	B	c1
C 1150	CHIP CAP.	0.01uF	16V	B	GRM36B103K16PT	K22128804		1-	B	c1
C 1151	CHIP CAP.	0.1uF	16V	B	GRM39B104K16PT	K22124805		1-	B	b2
C 1152	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	A	C2
C 1153	CHIP CAP.	0.1uF	16V	B	GRM39B104K16PT	K22124805		1-	A	C2
C 1154	CHIP CAP.	0.1uF	16V	B	GRM39B104K16PT	K22124805		1-	A	C1
C 1155	CHIP CAP.	22pF	50V	CH	GRM36CH220J50PT	K22178220		1-	B	c1
C 1156	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	A	C1
C 1157	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	B	b1
C 1158	CHIP CAP.	0.1uF	16V	B	GRM39B104K16PT	K22124805		1-	A	C1
C 1159	CHIP CAP.	0.01uF	16V	B	GRM36B103K16PT	K22128804		1-	B	b1
C 1160	CHIP CAP.	22pF	50V	CH	GRM36CH220J50PT	K22178220		1-	B	c1
C 1161	CHIP CAP.	8pF	50V	CH	GRM36CH080D50PT	K22178210		1-	B	c1
C 1162	CHIP CAP.	12pF	50V	CH	GRM36CH120J50PT	K22178214		1-	B	c1
C 1163	CHIP CAP.	3pF	50V	CJ	GRM36CJ030C50PT	K22178205		1-	B	c1
C 1164	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	A	C1
C 1165	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	A	C1
C 1166	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	A	C1
C 1168	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	B	b1
C 1169	CHIP CAP.	0.01uF	16V	B	GRM36B103K16PT	K22128804		1-	B	b1
C 1170	CHIP CAP.	1uF	10V	B	GRM40B105K10PT	K22100802		1-	B	b1
C 1171	CHIP CAP.	0.022uF	16V	B	GRM36B223K16PT	K22128806		1-	B	b1
C 1172	CHIP CAP.	1uF	10V	B	GRM40B105K10PT	K22100802		1-	B	b1
C 1173	CHIP TA.CAP.	10uF	10V		TEMSVA1A106M-8R	K78100028		1-	B	b1
C 1174	CHIP CAP.	0.01uF	16V	B	GRM36B103K16PT	K22128804		1-	B	b1
C 1175	AL.ELECTRO.CAP.	1uF	50V		RC2-50V010M(4X7)	K40179001		1	A	C1
C 1175	CHIP TA.CAP.	1uF	16V		TESVA1C105M1-8R	K78120009		2-	A	C1
C 1176	CHIP CAP.	0.01uF	16V	B	GRM36B103K16PT	K22128804		1-	A	A1
C 1177	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	B	d2
C 1178	CHIP CAP.	10pF	50V	CH	GRM36CH100D50PT	K22178212		1-	B	d2
C 1179	CHIP CAP.	0.01uF	16V	B	GRM36B103K16PT	K22128804		1-	B	d1
C 1180	CHIP CAP.	47pF	50V	CH	GRM36CH470J50PT	K22178228		1-	B	d2
C 1181	CHIP TA.CAP.	10uF	10V		TEMSVA1A106M-8R	K78100028		1-	A	A1
C 1182	CHIP TA.CAP.	10uF	10V		TEMSVA1A106M-8R	K78100028		1-	B	e2
C 1183	CHIP CAP.	0.01uF	16V	B	GRM36B103K16PT	K22128804		1-	B	d2
C 1184	CHIP CAP.	0.1uF	16V	B	GRM39B104K16PT	K22124805		1-	B	d2
C 1185	CHIP CAP.	0.01uF	16V	B	GRM36B103K16PT	K22128804		1-	B	d2
C 1186	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	A	C1
C 1187	CHIP CAP.	0.01uF	16V	B	GRM36B103K16PT	K22128804		1-	A	C1
C 1188	CHIP CAP.	82pF	50V	CH	GRM36CH820J50PT	K22178234		1-	B	c1
C 1189	CHIP CAP.	82pF	50V	CH	GRM36CH820J50PT	K22178234		1-	B	d1
C 1190	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	B	d1
C 1191	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	B	d1
C 1192	CHIP TA.CAP.	10uF	10V		TEMSVA1A106M-8R	K78100028		1-	B	d1
C 1193	CHIP CAP.	0.01uF	16V	B	GRM36B103K16PT	K22128804		1-	A	B4
C 1194	CHIP CAP.	0.01uF	16V	B	GRM36B103K16PT	K22128804		1-	A	B4

# Main Unit

REF.	DESCRIPTION	VALUE	V/W	TOL.	MFR'S DESIG	VXSTD P/N	VERS.	LOT.	SIDE	LAY ADR
C 1195	CHIP CAP.	0.01uF	16V	B	GRM36B103K16PT	K22128804		1-	B	c2
C 1196	CHIP CAP.	0.1uF	16V	B	GRM39B104K16PT	K22124805		1-	B	c2
C 1197	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	B	c2
C 1202	CHIP CAP.	0.047uF	10V	B	GRM36B473K10PT	K22108801		1-	B	b3
C 1203	CHIP CAP.	0.047uF	10V	B	GRM36B473K10PT	K22108801		1-	B	b3
C 1204	CHIP CAP.	0.047uF	10V	B	GRM36B473K10PT	K22108801		1-	B	b3
C 1205	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	A	C3
C 1206	CHIP CAP.	270pF	25V	CH	GRM36CH271J25PT	K22148248		1-	B	b3
C 1207	CHIP CAP.	0.047uF	10V	B	GRM36B473K10PT	K22108801		1-	B	b3
C 1208	CHIP CAP.	0.01uF	16V	B	GRM36B103K16PT	K22128804		1-	B	c2
C 1209	CHIP CAP.	0.1uF	16V	B	GRM39B104K16PT	K22124805		1-	A	C3
C 1210	CHIP CAP.	0.1uF	16V	B	GRM39B104K16PT	K22124805		1-	B	b3
C 1211	CHIP CAP.	0.047uF	10V	B	GRM36B473K10PT	K22108801		1-	B	b3
C 1212	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	B	b3
C 1213	CHIP CAP.	0.1uF	16V	B	GRM39B104K16PT	K22124805		1-	B	d2
C 1214	CHIP CAP.	0.01uF	16V	B	GRM36B103K16PT	K22128804		1-	B	d2
C 1215	CHIP CAP.	0.0047uF	25V	B	GRM36B472K25PT	K22148830		1-	A	A2
C 1216	CHIP CAP.	7pF	50V	CH	GRM36CH070D50PT	K22178209		1-	B	c1
C 1217	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	A	C1
C 1218	CHIP CAP.	4pF	50V	CH	GRM36CH040C50PT	K22178206		1-	B	b1
C 1219	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	A	C1
C 1220	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	B	d1
C 1221	CHIP CAP.	0.01uF	16V	B	GRM36B103K16PT	K22128804		1-	B	d1
C 1222	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	A	A4
C 1223	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	A	A4
C 1224	CHIP CAP.	0.01uF	16V	B	GRM36B103K16PT	K22128804		1-	B	c1
C 1225	CHIP CAP.	0.01uF	50V	B	GRM40B103M50PT	K22170817		1-	A	B1
C 1225	CHIP CAP.	0.01uF	50V	B	GRM40B103K50PT	K22170826		3-	A	B1
C 1227	CHIP CAP.	0.01uF	16V	B	GRM36B103K16PT	K22128804		1-	B	c2
C 1228	CHIP CAP.	18pF	50V	CH	GRM36CH180J50PT	K22178218		1-	A	B2
C 1229	CHIP CAP.	18pF	50V	CH	GRM36CH180J50PT	K22178218		1-	A	B3
C 1230	CHIP CAP.	2pF	50V	CK	GRM36CK020C50PT	K22178204		1-	B	c3
C 1231	CHIP CAP.	15pF	50V	CH	GRM36CH150J50PT	K22178216		1-	A	C3
C 1232	CHIP CAP.	0.01uF	16V	B	GRM36B103K16PT	K22128804		1-	A	B3
C 1233	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	B	c3
C 1234	CHIP CAP.	1uF	10V	B	GRM40B105K10PT	K22100802		1-	B	c4
C 1235	CHIP CAP.	0.01uF	16V	B	GRM36B103K16PT	K22128804		1-	B	c4
C 1236	CHIP CAP.	0.01uF	16V	B	GRM36B103K16PT	K22128804		1-	B	c4
C 1237	CHIP TA.CAP.	10uF	10V		TEMSVA1A106M-8R	K78100028		1-	B	c4
C 1238	CHIP CAP.	0.01uF	16V	B	GRM36B103K16PT	K22128804		1-	A	B3
C 1239	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	B	c4
C 1240	CHIP CAP.	1uF	10V	B	GRM40B105K10PT	K22100802		1-	B	c4
C 1241	CHIP CAP.	0.01uF	16V	B	GRM36B103K16PT	K22128804		1-	B	c4
C 1242	CHIP CAP.	1uF	10V	B	GRM40B105K10PT	K22100802		1-	B	c4
C 1243	CHIP CAP.	0.01uF	16V	B	GRM36B103K16PT	K22128804		1-	B	c4
C 1244	CHIP CAP.	0.01uF	16V	B	GRM36B103K16PT	K22128804		1-	B	c4
C 1245	CHIP TA.CAP.	10uF	10V		TEMSVA1A106M-8R	K78100028		1-	B	c4
C 1246	CHIP CAP.	0.047uF	10V	B	GRM36B473K10PT	K22108801		1-	B	c4
C 1247	CHIP CAP.	0.047uF	10V	B	GRM36B473K10PT	K22108801		1-	B	c4
C 1248	CHIP CAP.	0.047uF	10V	B	GRM36B473K10PT	K22108801		1-	B	c4
C 1249	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	A	B3
C 1250	CHIP CAP.	0.01uF	16V	B	GRM36B103K16PT	K22128804		1-	B	c2
C 1251	CHIP TA.CAP.	10uF	10V		TEMSVA1A106M-8R	K78100028		1-	B	c2
C 1252	CHIP CAP.	0.0022uF	50V	B	GRM36B222K50PT	K22178813		1-	B	c2
C 1253	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	B	c2
C 1254	CHIP TA.CAP.	4.7uF	6.3V		TESVSP0J475M-8R	K78080053		1-	B	d2
C 1255	CHIP CAP.	100pF	50V	CH	GRM36CH101J50PT	K22178236		1-	B	d1
C 1256	CHIP CAP.	100pF	50V	CH	GRM36CH101J50PT	K22178236		1-	A	A1
C 1257	CHIP CAP.	1uF	10V	B	GRM40B105K10PT	K22100802		1-	B	c2
C 1258	CHIP CAP.	1uF	10V	B	GRM40B105K10PT	K22100802		1-	B	c2
C 1259	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	A	A1
C 1260	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	B	d1
C 1261	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	B	d1
C 1262	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	B	d1
C 1263	CHIP CAP.	15pF	50V	CH	GRM36CH150J50PT	K22178216		1-	B	b3
C 1264	CHIP CAP.	15pF	50V	CH	GRM36CH150J50PT	K22178216		1-	B	b3
C 1265	CHIP CAP.	0.01uF	16V	B	GRM36B103K16PT	K22128804		1-	B	b2

# Main Unit

REF.	DESCRIPTION	VALUE	V/W	TOL.	MFR'S DESIG	VXSTD P/N	VERS.	LOT.	SIDE	LAY ADR
C 1266	CHIP CAP.	8pF	50V	CH	GRM36CH080D50PT	K22178210		1-	A	C2
C 1267	CHIP CAP.	22pF	50V	CH	GRM36CH220J50PT	K22178220		1-	B	b3
C 1268	CHIP CAP.	0.01uF	16V	B	GRM36B103K16PT	K22128804		1-	A	C2
C 1269	CHIP CAP.	0.01uF	16V	B	GRM36B103K16PT	K22128804		1-	A	C3
C 1270	CHIP CAP.	0.01uF	16V	B	GRM36B103K16PT	K22128804		1-	B	b3
C 1271	CHIP CAP.	270pF	25V	CH	GRM36CH271J25PT	K22148248		1-	B	a3
C 1272	CHIP CAP.	4pF	50V	CH	GRM36CH040C50PT	K22178206		1-	B	b3
C 1273	CHIP TA.CAP.	10uF	10V		TEMSVA1A106M-8R	K78100028		1-	B	c4
C 1274	CHIP CAP.	0.1uF	16V	B	GRM39B104K16PT	K22124805		1-	B	c4
C 1275	CHIP CAP.	0.1uF	16V	B	GRM39B104K16PT	K22124805		1-	B	b3
C 1276	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	B	c4
C 1277	CHIP CAP.	100pF	50V	CH	GRM36CH101J50PT	K22178236		1-	B	c4
C 1278	CHIP CAP.	0.01uF	16V	B	GRM36B103K16PT	K22128804		1-	B	b3
C 1279	CHIP CAP.	0.1uF	16V	B	GRM39B104K16PT	K22124805		1-	A	C4
C 1280	CHIP CAP.	0.047uF	10V	B	GRM36B473K10PT	K22108801		1-	A	B4
C 1281	CHIP CAP.	0.01uF	16V	B	GRM36B103K16PT	K22128804		1-	B	c4
C 1282	CHIP CAP.	0.01uF	16V	B	GRM36B103K16PT	K22128804		1-	A	C4
C 1283	CHIP CAP.	270pF	25V	CH	GRM36CH271J25PT	K22148248		1-	B	c4
C 1284	CHIP TA.CAP.	0.47uF	25V		TESVA1E474M1-8R	K78140009		1-	B	b4
C 1285	CHIP CAP.	0.01uF	16V	B	GRM36B103K16PT	K22128804		1-	B	c2
C 1286	CHIP CAP.	0.1uF	16V	B	GRM39B104K16PT	K22124805		1-	B	c2
C 1287	CHIP CAP.	1uF	10V	B	GRM40B105K10PT	K22100802		1-	B	c2
C 1288	CHIP CAP.	0.047uF	10V	B	GRM36B473K10PT	K22108801		1-	B	c4
C 1289	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	B	c3
C 1290	CHIP CAP.	0.1uF	16V	B	GRM39B104K16PT	K22124805		1-	B	b3
C 1291	CHIP CAP.	0.01uF	16V	B	GRM36B103K16PT	K22128804		1-	B	c3
C 1292	CHIP CAP.	270pF	25V	CH	GRM36CH271J25PT	K22148248		1-	B	c3
C 1293	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	B	c3
C 1294	CHIP TA.CAP.	10uF	10V		TEMSVA1A106M-8R	K78100028		1-	B	d1
C 1294	CHIP TA.CAP.	47uF	10V		TEMSCV1A476M12R	K78100024	32-	B	d1	
C 1295	CHIP CAP.	0.01uF	16V	B	GRM36B103K16PT	K22128804		1-	B	d1
C 1296	CHIP CAP.	0.01uF	16V	B	GRM36B103K16PT	K22128804		1-	B	d3
C 1297	CHIP CAP.	1uF	10V	B	GRM40B105K10PT	K22100802		1-	B	d2
C 1298	CHIP TA.CAP.	10uF	10V		TEMSVA1A106M-8R	K78100028		1-	B	d2
C 1300	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	B	c1
C 1301	CHIP CAP.	1uF	10V	B	GRM40B105K10PT	K22100802		1-	B	c1
C 1302	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	B	c1
C 1303	CHIP CAP.	0.1uF	16V	B	GRM39B104K16PT	K22124805		1-	B	b3
C 1304	CHIP CAP.	0.01uF	16V	B	GRM36B103K16PT	K22128804		1-	A	C2
C 1305	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	B	a3
C 1306	CHIP CAP.	18pF	50V	CH	GRM36CH180J50PT	K22178218		1-	A	C3
C 1307	CHIP CAP.	10pF	50V	CH	GRM36CH100D50PT	K22178212		1-	B	b3
C 1308	CHIP CAP.	220pF	25V	CH	GRM36CH221J25PT	K22148203		1-	B	a3
C 1309	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	B	a3
C 1310	CHIP CAP.	0.1uF	16V	B	GRM39B104K16PT	K22124805		1-	A	C3
C 1311	CHIP CAP.	0.1uF	16V	B	GRM39B104K16PT	K22124805		1-	B	a3
C 1313	CHIP CAP.	0.01uF	16V	B	GRM36B103K16PT	K22128804		1-	B	a3
C 1317	CHIP CAP.	0.1uF	16V	B	GRM39B104K16PT	K22124805		1-	B	a3
C 1318	CHIP CAP.	0.1uF	16V	B	GRM39B104K16PT	K22124805		1-	B	c4
C 1319	CHIP CAP.	0.01uF	16V	B	GRM36B103K16PT	K22128804		1-	B	c4
C 1320	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	B	b4
C 1321	CHIP CAP.	0.01uF	16V	B	GRM36B103K16PT	K22128804		1-	B	b3
C 1322	CHIP CAP.	0.047uF	10V	B	GRM36B473K10PT	K22108801		1-	B	c4
C 1324	CHIP TA.CAP.	2.2uF	10V		TESVA1A225M1-8R	K78100021		1-	B	c4
C 1325	CHIP CAP.	0.01uF	16V	B	GRM36B103K16PT	K22128804		1-	B	c3
C 1326	CHIP CAP.	100pF	50V	CH	GRM36CH101J50PT	K22178236		1-	B	c3
C 1327	CHIP CAP.	100pF	50V	CH	GRM36CH101J50PT	K22178236		1-	B	c3
C 1328	CHIP CAP.	56pF	50V	CH	GRM36CH560J50PT	K22178230		1-	B	c3
C 1329	CHIP CAP.	0.1uF	16V	B	GRM39B104K16PT	K22124805		1-	B	b3
C 1330	CHIP CAP.	0.01uF	16V	B	GRM36B103K16PT	K22128804		1-	B	b3
C 1331	CHIP CAP.	0.1uF	16V	B	GRM39B104K16PT	K22124805		1-	B	b3
C 1332	CHIP CAP.	0.01uF	16V	B	GRM36B103K16PT	K22128804		1-	B	b3
C 1333	CHIP CAP.	0.1uF	16V	B	GRM39B104K16PT	K22124805		1-	B	b3
C 1334	CHIP TA.CAP.	10uF	10V		TEMSVA1A106M-8R	K78100028		1-	B	b3
C 1335	CHIP CAP.	0.01uF	16V	B	GRM36B103K16PT	K22128804		1-	B	b3
C 1336	CHIP CAP.	0.01uF	16V	B	GRM36B103K16PT	K22128804		1-	B	b3
C 1337	CHIP CAP.	100pF	50V	CH	GRM36CH101J50PT	K22178236		1-	B	c2

# Main Unit

REF.	DESCRIPTION	VALUE	V/W	TOL.	MFR'S DESIG	VXSTD P/N	VERS.	LOT.	SIDE	LAY ADR
C 1338	CHIP CAP.	0.1uF	16V	B	GRM39B104K16PT	K22124805		1-	B	d2
C 1339	CHIP CAP.	0.1uF	16V	B	GRM39B104K16PT	K22124805		1-	B	d2
C 1340	CHIP CAP.	0.1uF	16V	B	GRM39B104K16PT	K22124805		1-	B	c2
C 1341	AL.ELECTRO.CAP.	100uF	16V		RC2-16V101MS(6X7)	K40129038		1-	A	D4
C 1342	CHIP CAP.	0.1uF	16V	B	GRM39B104K16PT	K22124805		1-	B	c2
C 1343	CHIP CAP.	0.01uF	16V	B	GRM36B103K16PT	K22128804		1-	B	d2
C 1344	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	B	d2
C 1345	CHIP CAP.	10pF	50V	CH	GRM36CH100D50PT	K22178212		1-	B	c2
C 1346	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	B	c1
C 1347	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	B	c1
C 1348	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	B	c1
C 1349	CHIP CAP.	0.01uF	16V	B	GRM36B103K16PT	K22128804		1-	B	b3
C 1351	CHIP CAP.	0.1uF	16V	B	GRM39B104K16PT	K22124805		1-	B	b3
C 1352	CHIP TA.CAP.	10uF	10V		TEMSVA1A106M-8R	K78100028		1-	B	b3
C 1353	CHIP CAP.	0.1uF	16V	B	GRM39B104K16PT	K22124805		1-	B	b3
C 1354	CHIP CAP.	0.1uF	16V	B	GRM39B104K16PT	K22124805		1-	B	b3
C 1355	CHIP CAP.	0.0033uF	50V	B	GRM36B332K50PT	K22178815		1-	A	D3
C 1357	CHIP CAP.	0.1uF	16V	B	GRM39B104K16PT	K22124805		1-	B	b4
C 1358	CHIP CAP.	270pF	25V	CH	GRM36CH271J25PT	K22148248		1-	B	b4
C 1359	CHIP CAP.	0.01uF	16V	B	GRM36B103K16PT	K22128804		1-	B	b4
C 1360	CHIP CAP.	220pF	25V	CH	GRM36CH221J25PT	K22148203		1-	B	b3
C 1361	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	B	b4
C 1362	CHIP TA.CAP.	10uF	10V		TEMSVA1A106M-8R	K78100028		1-	B	b3
C 1363	CHIP CAP.	0.1uF	16V	B	GRM39B104K16PT	K22124805		1-	A	C4
C 1364	CHIP TA.CAP.	10uF	10V		TEMSVA1A106M-8R	K78100028		1-	B	c4
C 1365	CHIP CAP.	0.1uF	16V	B	GRM39B104K16PT	K22124805		1-	B	b3
C 1366	CHIP CAP.	0.1uF	16V	B	GRM39B104K16PT	K22124805		1-	A	C3
C 1367	CHIP CAP.	0.1uF	16V	B	GRM39B104K16PT	K22124805		1-	A	C3
C 1368	CHIP TA.CAP.	2.2uF	10V		TESVA1A225M1-8R	K78100021	1-12			
C 1369	AL.ELECTRO.CAP.	22uF	16V		RC2-16V220M-T34(4X7)	K46120008		1-	A	D3
C 1370	AL.ELECTRO.CAP.	470uF	16V		RE3-16V471M 470UF	K40129066		1-	A	D3
C 1371	CHIP CAP.	0.1uF	16V	B	GRM39B104K16PT	K22124805		1-	A	D3
C 1372	CHIP CAP.	0.1uF	16V	B	GRM39B104K16PT	K22124805		1-	B	a2
C 1373	AL.ELECTRO.CAP.	470uF	16V		RE3-16V471M 470UF	K40129066		1-	A	D3
C 1374	CHIP CAP.	0.01uF	16V	B	GRM36B103K16PT	K22128804		1-	B	a2
C 1375	AL.ELECTRO.CAP.	100uF	16V		RC2-16V101MS(6X7)	K40129038		1-	A	C3
C 1376	CHIP CAP.	0.01uF	16V	B	GRM36B103K16PT	K22128804		1-	B	d2
C 1377	CHIP CAP.	0.022uF	16V	B	GRM36B223K16PT	K22128806		1-	B	d2
C 1378	CHIP CAP.	0.01uF	16V	B	GRM36B103K16PT	K22128804		1-	B	d2
C 1379	CHIP TA.CAP.	10uF	10V		TEMSVA1A106M-8R	K78100028		1-	B	d3
C 1380	CHIP CAP.	0.01uF	16V	B	GRM36B103K16PT	K22128804		1-	B	d2
C 1381	CHIP CAP.	1uF	10V	B	GRM40B105K10PT	K22100802		1-	B	d2
C 1382	CHIP CAP.	1uF	10V	B	GRM40B105K10PT	K22100802		1-	B	d2
C 1383	CHIP CAP.	0.1uF	16V	B	GRM39B104K16PT	K22124805		1-	B	c2
C 1384	CHIP CAP.	0.01uF	16V	B	GRM36B103K16PT	K22128804		1-	B	c2
C 1385	CHIP CAP.	0.0047uF	25V	B	GRM36B472K25PT	K22148830		1-	B	c2
C 1386	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	B	c1
C 1387	CHIP CAP.	10pF	50V	CH	GRM36CH100D50PT	K22178212		1-	B	a3
C 1388	CHIP CAP.	0.1uF	16V	B	GRM39B104K16PT	K22124805		1-	B	b3
C 1389	CHIP CAP.	0.1uF	16V	B	GRM39B104K16PT	K22124805		1-	A	D3
C 1390	CHIP CAP.	0.01uF	16V	B	GRM36B103K16PT	K22128804		1-	B	a4
C 1391	CHIP CAP.	0.1uF	16V	B	GRM39B104K16PT	K22124805		1-	B	a4
C 1393	CHIP CAP.	0.01uF	16V	B	GRM36B103K16PT	K22128804		1-	B	b4
C 1394	CHIP CAP.	0.1uF	16V	B	GRM39B104K16PT	K22124805		1-	B	b3
C 1395	CHIP CAP.	0.1uF	16V	B	GRM39B104K16PT	K22124805		1-	B	b3
C 1396	CHIP CAP.	0.01uF	16V	B	GRM36B103K16PT	K22128804		1-	B	a4
C 1397	CHIP CAP.	0.1uF	16V	B	GRM39B104K16PT	K22124805		1-	B	a4
C 1398	CHIP CAP.	0.1uF	16V	B	GRM39B104K16PT	K22124805		1-	B	a4
C 1399	CHIP CAP.	0.01uF	16V	B	GRM36B103K16PT	K22128804		1-	B	c4
C 1400	CHIP CAP.	0.1uF	16V	B	GRM39B104K16PT	K22124805		1-	B	b4
C 1401	CHIP CAP.	0.1uF	16V	B	GRM39B104K16PT	K22124805		1-	B	b4
C 1402	CHIP TA.CAP.	10uF	10V		TEMSVA1A106M-8R	K78100028		1-	B	d4
C 1403	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	A	B3
C 1404	CHIP CAP.	0.1uF	16V	B	GRM39B104K16PT	K22124805		1-	A	B3
C 1405	CHIP CAP.	0.0047uF	25V	B	GRM36B472K25PT	K22148830		1-	B	b3
C 1406	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	A	B3
C 1407	CHIP CAP.	0.1uF	16V	B	GRM39B104K16PT	K22124805		1-	B	c3

# Main Unit

REF.	DESCRIPTION	VALUE	V/W	TOL.	MFR'S DESIG	VXSTD P/N	VERS.	LOT.	SIDE	LAY ADR
C 1408	CHIP TA.CAP.	10uF	10V		TEMSVA1A106M-8R	K78100028		1-	B	c3
C 1409	CHIP CAP.	0.1uF	16V	B	GRM39B104K16PT	K22124805		1-	B	c3
C 1410	CHIP TA.CAP.	10uF	10V		TEMSVA1A106M-8R	K78100028		1-	B	c3
C 1411	CHIP CAP.	0.1uF	16V	B	GRM39B104K16PT	K22124805		1-	B	c3
C 1412	CHIP TA.CAP.	10uF	10V		TEMSVA1A106M-8R	K78100028		1-	B	c3
C 1413	CHIP CAP.	470pF	50V	B	GRM36B471K50PT	K22178805		1-	B	c3
C 1414	CHIP CAP.	0.1uF	16V	B	GRM39B104K16PT	K22124805		1-	B	c3
C 1416	CHIP CAP.	0.1uF	16V	B	GRM39B104K16PT	K22124805		1-	A	B3
C 1417	CHIP CAP.	1uF	10V	B	GRM40B105K10PT	K22100802		1-	B	c3
C 1418	CHIP TA.CAP.	0.47uF	25V		TESVA1E474M1-8R	K78140009		1-	B	a2
C 1418	CHIP TA.CAP.	0.47uF	35V		TEMSVA1V474M-8R	K78160029	24-	B	a2	
C 1419	AL.ELECTRO.CAP.	100uF	10V		RC2-10V101M(6X7)	K40109015		1-	A	D2
C 1420	CHIP CAP.	100pF	50V	CH	GRM36CH101J50PT	K22178236		1-	B	a2
C 1421	CHIP CAP.	100pF	50V	CH	GRM36CH101J50PT	K22178236		1-	A	D2
C 1422	CHIP CAP.	47pF	50V	CH	GRM36CH470J50PT	K22178228		1-	A	D4
C 1423	CHIP CAP.	100pF	50V	CH	GRM36CH101J50PT	K22178236		1-	A	D4
C 1424	CHIP CAP.	0.0022uF	50V	B	GRM36B222K50PT	K22178813		1-	B	c2
C 1425	CHIP CAP.	0.1uF	16V	B	GRM39B104K16PT	K22124805		1-	A	D4
C 1426	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	B	c2
C 1427	CHIP CAP.	1uF	10V	B	GRM40B105K10PT	K22100802		1-	A	D4
C 1428	CHIP TA.CAP.	10uF	10V		TEMSVA1A106M-8R	K78100028		1-	A	D4
C 1429	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	A	D4
C 1430	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	A	D4
C 1431	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	B	c1
C 1432	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	A	D4
C 1433	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	A	D4
C 1434	CHIP TA.CAP.	10uF	10V		TEMSVA1A106M-8R	K78100028		1-	B	a4
C 1435	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	A	D4
C 1436	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	A	D4
C 1437	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	B	a4
C 1438	CHIP CAP.	10pF	50V	CH	GRM36CH100D50PT	K22178212		1-	B	b4
C 1439	CHIP CAP.	10pF	50V	CH	GRM36CH100D50PT	K22178212		1-	B	b4
C 1440	CHIP CAP.	0.1uF	16V	B	GRM39B104K16PT	K22124805		1-	B	d4
C 1441	AL.ELECTRO.CAP.	100uF	10V		RC2-10V101M(6X7)	K40109015		1-	A	D2
C 1442	CHIP CAP.	100pF	50V	CH	GRM36CH101J50PT	K22178236		1-	A	D2
C 1443	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	B	a2
C 1444	CHIP CAP.	0.01uF	16V	B	GRM36B103K16PT	K22128804		1-	B	a1
C 1445	AL.ELECTRO.CAP.	100uF	16V		RC2-16V101MS(6X7)	K40129038		1-	A	D2
C 1446	CHIP CAP.	0.1uF	16V	B	GRM39B104K16PT	K22124805		1-	B	a2
C 1447	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	B	a2
C 1448	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	A	D2
C 1449	CHIP CAP.	0.01uF	16V	B	GRM36B103K16PT	K22128804		1-	A	D3
C 1450	CHIP CAP.	0.01uF	16V	B	GRM36B103K16PT	K22128804		1-	A	D3
C 1451	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	A	D3
C 1452	AL.ELECTRO.CAP.	100uF	16V		RC2-16V101MS(6X7)	K40129038		1-	A	D1
C 1453	CHIP CAP.	0.1uF	16V	B	GRM39B104K16PT	K22124805		1-	B	a1
C 1454	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	B	a1
C 1455	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	A	D1
C 1456	CHIP CAP.	0.01uF	16V	B	GRM36B103K16PT	K22128804		1-	A	D1
C 1457	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	B	c2
C 1458	CHIP CAP.	0.01uF	16V	B	GRM36B103K16PT	K22128804		1-	A	D2
C 1459	CHIP CAP.	0.01uF	16V	B	GRM36B103K16PT	K22128804		1-	B	c4
C 1460	CHIP CAP.	100pF	50V	CH	GRM36CH101J50PT	K22178236		1-	B	d2
C 1461	CHIP CAP.	2pF	50V	CK	GRM36CK020C50PT	K22178204		1-	B	a1
C 1462	CHIP CAP.	3pF	50V	CJ	GRM36CJ030C50PT	K22178205		1-	B	b1
C 1463	CHIP CAP.	12pF	50V	CH	GRM36CH120J50PT	K22178214		1-	B	b1
C 1464	CHIP CAP.	0.01uF	16V	B	GRM36B103K16PT	K22128804		1-	B	b3
C 1465	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	B	b1
C 1466	CHIP CAP.	9pF	50V	CH	GRM36CH090D50PT	K22178211		1-	B	b1
C 1467	CHIP CAP.	0.1uF	16V	B	GRM39B104K16PT	K22124805		1-	B	a1
C 1468	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	A	B1
C 1469	CHIP CAP.	0.01uF	16V	B	GRM36B103K16PT	K22128804		1-	B	a1
C 1470	CHIP CAP.	56pF	50V	CH	GRM36CH560J50PT	K22178230		1-	B	b1
C 1471	CHIP CAP.	56pF	50V	CH	GRM36CH560J50PT	K22178230		1-	B	b1
C 1472	CHIP CAP.	39pF	50V	CH	GRM36CH390J50PT	K22178226		1-	B	b1
C 1473	CHIP CAP.	0.047uF	10V	B	GRM36B473K10PT	K22108801		1-	B	b1
C 1474	CHIP CAP.	0.1uF	16V	B	GRM39B104K16PT	K22124805		1-	B	b1

# Main Unit

REF.	DESCRIPTION	VALUE	V/W	TOL.	MFR'S DESIG	VXSTD P/N	VERS.	LOT.	SIDE	LAY ADR
C 1475	CHIP CAP.	0.1uF	16V	B	GRM39B104K16PT	K22124805		1-	B	b1
C 1478	CERAMIC CAP.	47pF	50V	SL	DD104SL470J50	K00175470		1-	B	c2
C 1478	CHIP CAP.	47pF	50V	CH	GRM36CH470J50PT	K22178228		3-	B	c2
C 1479	CHIP CAP.	0.01uF	16V	B	GRM36B103K16PT	K22128804		1-	A	C2
C 1480	CHIP CAP.	47pF	50V	CH	GRM36CH470J50PT	K22178228		1-	A	C2
C 1480	CHIP CAP.	33pF	50V	CH	GRM36CH330J50PT	K22178224		4-	A	C2
C 1481	CHIP CAP.	100pF	50V	CH	GRM36CH101J50PT	K22178236		1-	B	c1
C 1482	CHIP CAP.	100pF	50V	CH	GRM39CH101J50PT	K22174235		1-	A	D1
C 1482	CHIP CAP.	100pF	50V	CH	GRM36CH101J50PT	K22178236		3-	A	D1
C 1483	CHIP CAP.	0.1uF	10V	B	GRM36B104K10PT	K22108802		1-	B	c4
C 1484	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	A	D1
C 1484	CHIP CAP.	0.001uF	50V	B	GRM39B102K50PT	K22174821		3-	A	D1
C 1484	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		30-	A	D1
C 1485	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	B	a1
C 1485	CHIP CAP.	0.001uF	50V	B	GRM39B102K50PT	K22174821		3-	B	a1
C 1485	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		30-	B	a1
C 1486	CHIP TA.CAP.	1uF	10V		TESVSP1A105M-8R	K78100032		1-	B	c1
C 1486	TANTALUM CAP.	1uF	25V		TPDN1E010M8S(MX0)	K76140013		3-	B	c1
C 1486	CHIP TA.CAP.	1uF	16V		TESVA1C105M1-8R	K78120009		30-	B	c1
C 1487	CHIP CAP.	4pF	50V	CH	GRM39CH040C50PT	K22174205		6-	B	b2
C 1488	TANTALUM CAP.	1uF	25V		TPDN1E010M8S(MX0)	K76140013		4-	B	d1
C 1488	CHIP TA.CAP.	1uF	16V		TESVA1C105M1-8R	K78120009		30-	B	d1
C 1489	CHIP CAP.	0.1uF	10V	B	GRM36B104K10PT	K22108802		13-	B	b1
C 1490	CHIP CAP.	0.001uF	50V	B	GRM39B102K50PT	K22174821		11-	A	D3
C 1490	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		30-	A	D3
C 1491	CHIP CAP.	0.001uF	50V	B	GRM40B102M50PT	K22170805		11-	B	a3
C 1491	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		30-	B	a3
C 1492	CHIP CAP.	0.001uF	50V	B	GRM39B102K50PT	K22174821		11-	B	a3
C 1492	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		30-	B	a3
C 1500	CHIP CAP.	7pF	50V	CH	GRM36CH070B50PT	K22178294		32-46	B	a1
C 1501	CHIP CAP.	10pF	50V	CH	GRM36CH100D50PT	K22178212		32-	B	b2
C 1502	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		32-	B	a2
C 1503	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		32-	B	a1
C 1504	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		32-	B	a1
C 1505	CHIP CAP.	47pF	50V	CH	GRM36CH470J50PT	K22178228		32-	B	d2
C 1506	CHIP CAP.	100pF	50V	CH	GRM39CH101J50PT	K22174235		W/ CE LABEL	35-	
C 1507	CHIP CAP.	100pF	50V	CH	GRM36CH101J50PT	K22178236		W/ CE LABEL	35-	
C 1508	CHIP CAP.	22pF	50V	CH	GRM39CH220J50PT	K22174219			34-	
C 1509	CHIP CAP.	3pF	50V	CJ	GRM36CJ030C50PT	K22178205			47-	
C 1510	CHIP CAP.	0.1uF	10V	B	GRM36B104K10PT	K22108802			47-	
C 1511	CHIP CAP.	3pF	50V	CJ	GRM36CJ030C50PT	K22178205			47-	
CD1001	CERAMIC DISC				CDA10.7MG1-A	H7900890		1-	A	C1
CD1002	CERAMIC DISC				CDBC455CX24-TC	H7900980		1-	A	C3
CF1001	CERAMIC FILTER				SFE10.7MA5-A	H3900408		1-	A	D1
CF1002	CERAMIC FILTER				CFWS455G	H3900507		1-	A	C3
CF1003	CERAMIC FILTER				CFWS455E	H3900505		1-	A	C3
CF1004	CERAMIC FILTER				CFJ455K14	H3900386		1-	A	D4
CF1005	CERAMIC FILTER				CFWS455HT	H3900508		1-	A	D3
CV1001	HELICAL RESONATOR	440MHz			H5T-440 440M	L4020161		1-	A	C2
D 1001	DIODE				DAP236U T106	G2070592		1-	A	C2
D 1002	DIODE				HSC277TRF	G2070584		1-	A	C2
D 1003	DIODE				DAP236U T106	G2070592		1-	B	b2
D 1004	DIODE				DAP236U T106	G2070592		1-	A	C2
D 1005	DIODE				1SS302 TE85R	G2070088		1-	B	b2
D 1009	DIODE				DAP236U T106	G2070592		1-	B	a1
D 1010	DIODE				DAP236U T106	G2070592		1-	B	a1
D 1011	DIODE				DAP236U T106	G2070592		1-	B	b2
D 1012	DIODE				BAS316	G2070716		1-	B	b2
D 1013	DIODE				1SV278(TPH2)	G2070616		1-	B	b2
D 1014	DIODE				1SV278(TPH2)	G2070616		1-	B	b2
D 1015	DIODE				1SV278(TPH2)	G2070616		1-	B	b2
D 1016	DIODE				1SV278(TPH2)	G2070616		1-	B	b2
D 1017	DIODE				1SV271 TPH3	G2070476		1-	B	c1
D 1018	DIODE				DAP236U T106	G2070592		1-	B	b2
D 1019	DIODE				BAS316	G2070716		1-	B	b2
D 1020	DIODE				1SV278(TPH2)	G2070616		1-	B	b2
D 1021	DIODE				BAS316	G2070716		1-	B	b2

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REF.	DESCRIPTION	VALUE	V/W	TOL.	MFR'S DESIG	VXSTD P/N	VERS.	LOT.	SIDE	LAY ADR
D 1022	DIODE				1SV278(TPH2)	G2070616		1-	B	b2
D 1025	DIODE				1SV278(TPH2)	G2070616		1-	B	a1
D 1026	DIODE				1SV278(TPH2)	G2070616		1-	B	b1
D 1028	DIODE				BAS316	G2070716		1-	A	C1
D 1029	DIODE				DAP236U T106	G2070592		1-	B	b2
D 1030	DIODE				DAP236U T106	G2070592		1-	A	C2
D 1031	DIODE				DAP236U T106	G2070592		1-	B	b2
D 1032	DIODE				DAP236U T106	G2070592		1-	B	c1
D 1033	DIODE				HSC277TRF	G2070584		1-	B	b2
D 1034	DIODE				1SV217(TPH3)	G2070568		1-	B	b1
D 1035	DIODE				HSC277TRF	G2070584		1-	B	c1
D 1036	DIODE				BAS316	G2070716		1-	B	a1
D 1037	DIODE				1T362-01-T8A	G2070102		1-	B	a1
D 1038	DIODE				1T362-01-T8A	G2070102		1-	B	b1
D 1039	DIODE				1T362-01-T8A	G2070102		1-	B	b1
D 1040	DIODE				DAP236U T106	G2070592		1-	B	b1
D 1041	DIODE				DAP236U T106	G2070592		1-	B	b1
D 1042	DIODE				BAS316	G2070716		1-	B	b1
D 1043	DIODE				DA221 TL	G2070178		1-	B	c1
D 1044	DIODE				UDZ TE-17 5.6B	G2070552		1-	B	b1
D 1044	DIODE				UDZS TE-17 5.6B	G2070910	59-	B	b1	
D 1045	DIODE				DAP236U T106	G2070592		1-	B	c1
D 1046	DIODE				HSC277TRF	G2070584		1-	B	c1
D 1047	IC				GN2011-Q(TX)	G1092183		1-	A	C2
D 1048	DIODE				DAN235U TL	G2070176		1-	B	b1
D 1049	DIODE				HSB88WSTR	G2070290		1-	B	b1
D 1050	DIODE				DA221 TL	G2070178		1-	B	d1
D 1052	DIODE				BAS316	G2070716		1-	B	b3
D 1053	DIODE				DAN222 TL	G2070174		1-	B	c4
D 1054	DIODE				DAP222-TL	G2070432		1-	B	c3
D 1055	DIODE				BAS316	G2070716		1-	B	c3
D 1056	DIODE				1SV229 TPH3	G2070256		1-	B	d1
D 1057	DIODE				D1F20-4063	G2070474		1-	B	d1
D 1058	DIODE				DAN235U TL	G2070176		1-	B	c2
D 1059	DIODE				DAN235U TL	G2070176		1-	B	c2
D 1060	DIODE				BAS316	G2070716		1-	B	c4
D 1061	DIODE				DAN222 TL	G2070174		1-	B	d3
D 1062	DIODE				1SS372(TE85R)	G2070632		1-	B	c2
D 1063	DIODE				1SV271 TPH3	G2070476		1-	B	b3
D 1064	DIODE				1SS302 TE85R	G2070088		1-	B	c4
D 1065	DIODE				DA221 TL	G2070178		1-	B	c4
D 1068	DIODE				1SS372(TE85R)	G2070632		1-	B	b3
D 1069	DIODE				DAP222-TL	G2070432		1-	B	b3
D 1070	DIODE				DAP222-TL	G2070432		1-	B	b3
D 1071	DIODE				BAS316	G2070716	1-12			
D 1072	DIODE				BAS316	G2070716	1-12			
D 1073	DIODE				HZM10B2 TR	G2070214		1-	B	a2
D 1074	DIODE				DAN222 TL	G2070174		1-	B	b3
D 1075	DIODE				DAP222-TL	G2070432		1-	B	a4
D 1076	DIODE				DAP222-TL	G2070432		1-	B	b3
D 1077	DIODE				BAS316	G2070716		1-	A	B3
D 1078	DIODE				DAP222-TL	G2070432		1-	B	b4
D 1079	DIODE				DAP222-TL	G2070432		1-	B	b4
D 1080	DIODE				DAN222 TL	G2070174		1-	B	b4
D 1081	DIODE				BAS316	G2070716		1-	B	b4
D 1082	DIODE				DAN222 TL	G2070174		1-	B	a1
D 1083	DIODE				RB051L-40TE25	G2070718		1-	A	D1
D 1084	DIODE				RB051L-40TE25	G2070718	1-16	B	a1	
D 1084	DIODE				RB051L-40TE25	G2070718		W/O CE LABEL	17-29	B
D 1084	DIODE				RB051L-40TE25	G2070718		30-	B	a1
D 1085	DIODE				RB051L-40TE25	G2070718		1-	A	D1
D 1086	DIODE				HSC277TRF	G2070584		1-	B	b1
D 1087	DIODE				DAP222-TL	G2070432		1-	B	c2
D 1088	DIODE				1SS270TJ	G2060004		1-	B	d3
D 1088	DIODE				BAS316	G2070716	3-	B	d3	
D 1089	DIODE				1SS270TJ	G2060004		EXPORT	2	B
D 1089	DIODE				1SS270TJ	G2060004		3-	B	d3

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REF.	DESCRIPTION	VALUE	V/W	TOL.	MFR'S DESIG	VXSTD P/N	VERS.	LOT.	SIDE	LAY ADR
D 1089	DIODE				BAS316	G2070716		30-	B	d3
F 1001	CHIP FUSE	3.15A			KAB-2402-322NA31	Q0000087		30-	A	D3
FB1001	FERRITE BEADS				BK1608HS601-T	L9190083		1-	A	B4
FB1002	FERRITE BEADS				BK1608HS601-T	L9190083		1-	A	B4
FB1003	CHIP COIL				BLM10A121SPT	L1690843		10-	A	C1
FB1004	FERRITE BEADS				BK1608HS601-T	L9190083		30-	A	D4
FB1005	FERRITE BEADS				BK1608HS601-T	L9190083		30-	A	D4
FB1006	FERRITE BEADS				BK1608HS601-T	L9190083		30-	A	D4
FB1007	FERRITE BEADS				BK1608HS601-T	L9190083		30-	A	D4
J 1001	CONNECTOR				TMP-J01X-A2	P1090255		1-	A	D2
J 1002	CONNECTOR				TMP-J01X-A2	P1090255		1-	A	D1
J 1003	CONNECTOR				09FMN-BMTTN-TFT	P1091089		1-	A	C1
J 1008	CONNECTOR				FH12-50S-0.5SH	P1091091		1-	A	B4
J 1009	CONNECTOR				CSK-M50-08 R41-0576F	P1090804		1-	A	A1
J 1010	CONNECTOR				CSK-M50-06 R41-0599D	P1090925		1-	A	B1
J 1011	CONNECTOR				HSJ0917-01-140	P1090852		1-	B	a3
J 1012	CONNECTOR				SB20-02WS	P0090609		1-	A	D3
J 1013	CONNECTOR				HSJ0912-01-041	P1090749		1-	A	B1
J 1014	CONNECTOR				R41-4904H	P1091047		1-	B	a4
J 1015	CONNECTOR				9117S-03D	P1091095		1-	A	D2
J 1017	CONNECTOR				LGP3131-0111	P0091072		1-	A	D1
J 1018	CONNECTOR				9210B-1-03Z172-T	P0091282		1-		
J 1019	CONNECTOR				9210B-1-04Z172-T	P0091283		1-		
J 1020	CONNECTOR				9210B-1-03Z172-T	P0091282		1-		
J 1021	CONNECTOR				9210B-1-04Z172-T	P0091283		1-		
JP1001	WIRE ASSY				A1377	T9206936A		1-	B	a3
L 1001	M.RFC	0.1uH			HK1608 R10J-T	L1690528		1-	B	b2
L 1002	M.RFC	0.068uH			HK1608 68NJ-T	L1690526		1-	B	a1
L 1003	M.RFC	15uH			LAL03TA150K	L1790097		1-	A	D1
L 1004	CHIP COIL	100uH			LQH3N101K02M00-	L1690099		1-	B	b2
L 1005	M.RFC	0.22uH			HK1608 R22J-T	L1690940		1-	B	b2
L 1006	M.RFC	0.022uH			HK1608 22NJ-T	L1690520		1-	B	b2
L 1007	M.RFC	0.022uH			HK1608 22NJ-T	L1690520		1-	A	D2
L 1008	M.RFC	0.12uH			HK1608 R12J-T	L1690937		1-	B	a1
L 1009	M.RFC	0.15uH			HK1608 R15J-T	L1690938		1-	B	b1
L 1010	M.RFC	10uH			LK1608 100K-T	L1690689		1-	B	a1
L 1011	M.RFC	33uH			LK1608 330M-T	L1690690		1-	A	C2
L 1013	COIL				E2 0.28-1.0-4T-R	L0022365		1-	A	D1
L 1014	M.RFC	0.12uH			HK1608 R12J-T	L1690937		1-	B	c2
L 1015	M.RFC	0.068uH			HK1608 68NJ-T	L1690526		1-	B	c1
L 1016	M.RFC	0.12uH			HK1608 R12J-T	L1690937		1-	B	c2
L 1017	M.RFC	0.027uH			HK1608 27NJ-T	L1690521		1-	B	c1
L 1018	M.RFC	10uH			LK1608 100K-T	L1690689		1-	B	d1
L 1019	COIL				E2 0.28-1.0-4T-R	L0022365		1-	A	D1
L 1020	COIL				E2 0.28-1.0-4T-R	L0022365		1-	A	C1
L 1021	M.RFC	2.2uH			LK1608 2R2K-T	L1690634		1-	B	c1
L 1022	M.RFC	0.068uH			HK1608 68NJ-T	L1690526		1-	B	c1
L 1023	M.RFC	0.027uH			HK1608 27NJ-T	L1690521		1-	B	c1
L 1024	COIL				E2 0.25-1.85-8.5T-L	L0022576		1-	A	C1
L 1025	M.RFC	10uH			LK1608 100K-T	L1690689		1-	B	d2
L 1028	M.RFC	470uH			FLC32T-471J	L1690235		1-	B	b3
L 1029	M.RFC	0.15uH			HK1608 R15J-T	L1690938		1-	B	b1
L 1030	M.RFC	470uH			FLC32T-471J	L1690235		1-	B	a3
L 1031	M.RFC	470uH			FLC32T-471J	L1690235		1-	B	a3
L 1033	M.RFC	470uH			FLC32T-471J	L1690235		1-	B	b4
L 1034	M.RFC	470uH			FLC32T-471J	L1690235		1-	A	B3
L 1035	M.RFC	10uH			LK1608 100K-T	L1690689		1-	B	c2
L 1036	M.RFC	10uH			LK1608 100K-T	L1690689		1-	B	c2
L 1037	M.RFC	10uH			LK1608 100K-T	L1690689		1-	B	b3
L 1038	M.RFC	0.12uH			HK1608 R12J-T	L1690937		1-	B	b2
L 1039	M.RFC	0.12uH			HK1608 R12J-T	L1690937		1-	B	b1
L 1041	M.RFC	0.1uH			HK1608 R10J-T	L1690528		32-	B	b2
L 1042	M.RFC	0.22uH			HK1608 R22J-T	L1690940		34-		
L 1043	M.RFC	0.0056uH			LBH1608T5N6D	L1691183		47-		
Q 1001	IC				UPC2710T-E3	G1091844		1-	B	a1
Q 1002	TRANSISTOR				2SC4154-T11-1E	G3341548E		1-	B	b1
Q 1003	IC				BB304CDW-TL	G1093324		1-	B	b2

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REF.	DESCRIPTION	VALUE	V/W	TOL.	MFR'S DESIG	VXSTD P/N	VERS.	LOT.	SIDE	LAY ADR
Q 1004	TRANSISTOR				UMH6N TR	G3070216		1-	B	b2
Q 1005	FET				2SK2685ZT-TR	G3826857	1-	B	b2	
Q 1006	IC				BB304CDW-TL	G1093324	1-	B	b2	
Q 1007	IC				BB304CDW-TL	G1093324	1-	B	c1	
Q 1008	TRANSISTOR				2SC5374-TL	G3353748	1-	B	b2	
Q 1009	TRANSISTOR				UMH6N TR	G3070216	1-	B	b2	
Q 1010	TRANSISTOR				UMH6N TR	G3070216	1-	B	b2	
Q 1011	TRANSISTOR				UMC5N TR	G3070137	1-	B	b2	
Q 1012	TRANSISTOR				UMD3N TR	G3070211	1-	A	D2	
Q 1013	TRANSISTOR				UMC5N TR	G3070137	1-	B	b2	
Q 1015	TRANSISTOR				2SC4400-4-TL	G3344008D	1-	A	B1	
Q 1015	TRANSISTOR				2SC4400-3-TL	G3344008C	17-	A	B1	
Q 1016	TRANSISTOR				2SC4154-T11-1E	G3341548E	1-	B	b1	
Q 1017	TRANSISTOR				2SC4154-T11-1E	G3341548E	1-	B	c1	
Q 1018	TRANSISTOR				2SC4154-T11-1E	G3341548E	1-	A	C1	
Q 1019	TRANSISTOR				2SC4154-T11-1E	G3341548E	1-	B	b1	
Q 1020	TRANSISTOR				DTA114EU T106	G3070083	1-	A	C2	
Q 1021	IC				BU4094BCFV-E1	G1092128	1-	B	d3	
Q 1021	IC				BU4094BCFV-E2	G1093527	41-	B	d3	
Q 1022	IC				BU4094BCFV-E1	G1092128	1-	B	d3	
Q 1022	IC				BU4094BCFV-E2	G1093527	41-	B	d3	
Q 1023	TRANSISTOR				2SC4400-4-TL	G3344008D	1-	B	c1	
Q 1023	TRANSISTOR				2SC4400-3-TL	G3344008C	17-	B	c1	
Q 1024	TRANSISTOR				2SC4154-T11-1E	G3341548E	1-	A	C1	
Q 1025	IC				CXA1611N-T4	G1092695	1-	A	C1	
Q 1026	TRANSISTOR				2SC4154-T11-1E	G3341548E	1-	B	b1	
Q 1027	TRANSISTOR				2SC4400-4-TL	G3344008D	1-	B	d1	
Q 1027	TRANSISTOR				2SC4400-3-TL	G3344008C	17-	B	d1	
Q 1028	TRANSISTOR				2SC4400-4-TL	G3344008D	1-	B	d2	
Q 1028	TRANSISTOR				2SC4400-3-TL	G3344008C	17-	B	d2	
Q 1029	TRANSISTOR				2SC4400-4-TL	G3344008D	1-	B	d2	
Q 1029	TRANSISTOR				2SC4400-3-TL	G3344008C	17-	B	d2	
Q 1030	TRANSISTOR				2SC4400-4-TL	G3344008D	1-	B	d2	
Q 1030	TRANSISTOR				2SC4400-3-TL	G3344008C	17-	B	d2	
Q 1031	IC				AD9835BRU	G1093142	1-	B	d2	
Q 1032	TRANSISTOR				UMC5N TR	G3070137	1-	B	c4	
Q 1033	TRANSISTOR				2SC4400-4-TL	G3344008D	1-	B	d1	
Q 1033	TRANSISTOR				2SC4400-3-TL	G3344008C	17-	B	d1	
Q 1034	TRANSISTOR				2SC4154-T11-1E	G3341548E	1-	B	d1	
Q 1035	TRANSISTOR				2SA1602A-T11-1F	G3116028F	1-	B	d1	
Q 1036	TRANSISTOR				2SC4154-T11-1E	G3341548E	1-	B	d1	
Q 1037	TRANSISTOR				2SC4154-T11-1E	G3341548E	1-	B	c2	
Q 1038	IC				SN16913P	G1090012	1-	A	C3	
Q 1039	TRANSISTOR				UMC5N TR	G3070137	1-	B	b1	
Q 1040	IC				BB301CAW-TL	G1093186	1-	B	b3	
Q 1041	TRANSISTOR				2SB624-T2B BV3	G3206247C	1-	B	c4	
Q 1042	TRANSISTOR				UMG2N TR	G3070088	1-	B	c4	
Q 1043	TRANSISTOR				2SB624-T2B BV3	G3206247C	1-	B	c3	
Q 1044	TRANSISTOR				2SC4154-T11-1E	G3341548E	1-	B	c1	
Q 1045	TRANSISTOR				UMC5N TR	G3070137	1-	B	c1	
Q 1046	TRANSISTOR				2SD2211 T100 QR	G3422117Q	1-	B	d1	
Q 1047	TRANSISTOR				2SC4400-4-TL	G3344008D	1-	B	c3	
Q 1047	TRANSISTOR				2SC4400-3-TL	G3344008C	17-	B	c3	
Q 1048	TRANSISTOR				2SC4154-T11-1E	G3341548E	1-	B	c4	
Q 1049	IC				BU4066BF-E2	G1092593	1-	B	c3	
Q 1050	TRANSISTOR				2SC4154-T11-1E	G3341548E	1-	B	d2	
Q 1051	IC				BB304CDW-TL	G1093324	1-	B	b3	
Q 1052	IC				BB301CAW-TL	G1093186	1-	B	b3	
Q 1053	TRANSISTOR				2SC4154-T11-1E	G3341548E	1-	B	b3	
Q 1054	TRANSISTOR				2SC4154-T11-1E	G3341548E	1-	B	c4	
Q 1055	IC				SN16913P	G1090012	1-	A	B4	
Q 1056	TRANSISTOR				2SC4154-T11-1E	G3341548E	1-	B	c3	
Q 1057	IC				BU4066BF-E2	G1092593	1-	B	d3	
Q 1060	FET				2SK302Y TE85R	G3803027Y	1-	B	b3	
Q 1061	IC				BB301CAW-TL	G1093186	1-	B	a3	
Q 1062	FET				2SK302Y TE85R	G3803027Y	1-	B	b3	
Q 1063	TRANSISTOR				2SC4154-T11-1E	G3341548E	1-	B	b3	

# Main Unit

REF.	DESCRIPTION	VALUE	V/W	TOL.	MFR'S DESIG	VXSTD P/N	VERS.	LOT.	SIDE	LAY ADR
Q 1065	IC				BB304CDW-TL	G1093324		1-	B	c4
Q 1066	TRANSISTOR				2SC4154-T11-1E	G3341548E		1-	B	c4
Q 1067	TRANSISTOR				2SC4154-T11-1E	G3341548E		1-	B	c4
Q 1068	IC				TC4S66F TE85R	G1090893		1-	B	d4
Q 1069	IC				BA4116FV-E2	G1092616		1-	B	c3
Q 1070	IC				TDA7233D-TR	G1091112		1-	A	D3
Q 1071	IC				M62364FP 600D	G1093033		1-	B	d1
Q 1072	IC				TC4W53FU TE12L	G1091675		1-	B	d3
Q 1073	IC				BU4053BCFV-E1	G1092064		1-	B	d3
Q 1073	IC				BU4053BCFV-E2	G1093422	30-	B	d3	
Q 1074	TRANSISTOR				2SC4154-T11-1E	G3341548E		1-	A	D3
Q 1075	IC				BB304CDW-TL	G1093324		1-	B	b4
Q 1076	TRANSISTOR				2SC4154-T11-1E	G3341548E		1-	B	b3
Q 1077	IC				M62353GP 70ED	G1092621		1-	B	d4
Q 1078	TRANSISTOR				2SC4154-T11-1E	G3341548E		1-	A	C3
Q 1079	TRANSISTOR				2SC4154-T11-1E	G3341548E	1-12			
Q 1080	TRANSISTOR				2SC4154-T11-1E	G3341548E		1-	B	b3
Q 1081	TRANSISTOR				2SC4154-T11-1E	G3341548E		1-	B	a2
Q 1082	TRANSISTOR				2SB1182-TLQ	G3070063		1-	A	D2
Q 1083	TRANSISTOR				DTC144EU T106	G3070041		1-	B	b4
Q 1084	TRANSISTOR				DTC144EU T106	G3070041		1-	B	b4
Q 1085	TRANSISTOR				DTC144EU T106	G3070041		1-	B	b4
Q 1086	TRANSISTOR				DTC144EU T106	G3070041		1-	B	b4
Q 1087	IC				SN16913P	G1090012		1-	A	B3
Q 1088	IC				BA05FP-E2	G1093209		1-	B	a2
Q 1089	TRANSISTOR				2SC4154-T11-1E	G3341548E		1-	A	D2
Q 1090	TRANSISTOR				2SB1132 T100 Q	G3211327Q		1-	B	a2
Q 1091	TRANSISTOR				2SC4154-T11-1E	G3341548E		1-	A	D2
Q 1092	TRANSISTOR				2SC4154-T11-1E	G3341548E		1-	A	D4
Q 1093	IC				NJM2902V-TE1	G1091679		1-	B	c2
Q 1094	IC				NJM2902V-TE1	G1091679		1-	B	d2
Q 1095	IC				NJM2902V-TE1	G1091679		1-	B	d2
Q 1096	IC				NJM2902V-TE1	G1091679		1-	B	c2
Q 1097	IC				NJM2902V-TE1	G1091679		1-	B	b1
Q 1098	IC				NJM2904V-TE1	G1091677		1-	B	b1
Q 1099	TRANSISTOR				DTC114EU T106	G3070084		1-	B	a1
Q 1100	TRANSISTOR				DTC144EU T106	G3070041		1-	B	a2
Q 1101	TRANSISTOR				2SB1182-TLQ	G3070063		1-	B	a1
Q 1102	TRANSISTOR				2SB1132 T100 Q	G3211327Q		1-	A	D1
Q 1103	TRANSISTOR				2SA1602A-T11-1F	G3116028F		1-	B	a1
Q 1104	FET				2SJ355-T1	G3703558		1-	B	a2
Q 1105	TRANSISTOR				2SA1602A-T11-1F	G3116028F		1-	A	D1
Q 1106	TRANSISTOR				DTC144EU T106	G3070041		1-	B	a1
Q 1107	TRANSISTOR				2SC4154-T11-1E	G3341548E		1-	B	a1
Q 1108	IC				TA75S01F TE85R	G1091593		1-	A	D1
Q 1109	TRANSISTOR				DTC144EU T106	G3070041		1-	A	D1
Q 1110	TRANSISTOR				2SC4154-T11-1E	G3341548E		1-	B	b3
Q 1111	TRANSISTOR				2SC4154-T11-1E	G3341548E		1-	A	D3
Q 1112	TRANSISTOR				2SA1602A-T11-1F	G3116028F		1-	A	D3
R 1001	CHIP RES.	27	1/16W	5%	RMC1/16S 270JTH	J24189006		1-	B	b2
R 1002	CHIP RES.	1k	1/16W	5%	RMC1/16S 102JTH	J24189025		1-	A	C2
R 1003	CHIP RES.	1k	1/16W	5%	RMC1/16S 102JTH	J24189025		1-	A	C2
R 1004	CHIP RES.	1k	1/16W	5%	RMC1/16S 102JTH	J24189025		1-	B	b2
R 1005	CHIP RES.	100	1/16W	5%	RMC1/16S 101JTH	J24189013		1-	B	a2
R 1006	CHIP RES.	1k	1/16W	5%	RMC1/16S 102JTH	J24189025		1-	B	c1
R 1007	CHIP RES.	100	1/16W	5%	RMC1/16S 101JTH	J24189013		1-	B	a1
R 1007	CHIP RES.	120	1/16W	5%	RMC1/16S 121JTH	J24189014	47-	B	a1	
R 1008	CHIP RES.	1k	1/16W	5%	RMC1/16S 102JTH	J24189025		1-	A	C1
R 1009	CHIP RES.	1k	1/16W	5%	RMC1/16S 102JTH	J24189025		1-	A	C1
R 1010	CHIP RES.	4.7	1/16W	5%	RMC1/16S 4R7JTH	J24189066		1-9		
R 1011	CHIP RES.	100	1/16W	5%	RMC1/16S 101JTH	J24189013		1-	A	C1
R 1012	CHIP RES.	4.7	1/16W	5%	RMC1/16S 4R7JTH	J24189066		1-	A	C1
R 1013	CHIP RES.	330	1/16W	5%	RMC1/16S 331JTH	J24189019		1-46	B	a1
R 1014	CHIP RES.	33	1/16W	5%	RMC1/16S 330JTH	J24189007		1-	B	b2
R 1015	CHIP RES.	27	1/16W	5%	RMC1/16S 270JTH	J24189006		1-	B	b2
R 1016	CHIP RES.	470	1/16W	5%	RMC1/16S 471JTH	J24189021		1-	B	b2
R 1017	CHIP RES.	470	1/16W	5%	RMC1/16S 471JTH	J24189021		1-	B	b2

# Main Unit

REF.	DESCRIPTION	VALUE	V/W	TOL.	MFR'S DESIG	VXSTD P/N	VERS.	LOT.	SIDE	LAY ADR
R 1018	CHIP RES.	47k	1/16W	5%	RMC1/16S 473JTH	J24189045		1-	B	b2
R 1019	CHIP RES.	100k	1/16W	5%	RMC1/16S 104JTH	J24189049		1-	B	b2
R 1020	CHIP RES.	470	1/16W	5%	RMC1/16S 471JTH	J24189021		1-	B	b2
R 1021	CHIP RES.	47k	1/16W	5%	RMC1/16S 473JTH	J24189045		1-	B	b2
R 1022	CHIP RES.	100k	1/16W	5%	RMC1/16S 104JTH	J24189049		1-	B	b2
R 1023	CHIP RES.	100k	1/16W	5%	RMC1/16S 104JTH	J24189049		1-	B	b2
R 1024	CHIP RES.	470k	1/16W	5%	RMC1/16S 474JTH	J24189057		1-	B	b2
R 1025	CHIP RES.	220k	1/16W	5%	RMC1/16S 224JTH	J24189053		1-	B	b2
R 1026	CHIP RES.	100k	1/16W	5%	RMC1/16S 104JTH	J24189049		1-	B	b2
R 1027	CHIP RES.	330k	1/16W	5%	RMC1/16S 334JTH	J24189055		1-	B	b2
R 1028	CHIP RES.	470k	1/16W	5%	RMC1/16S 474JTH	J24189057		1-	B	b2
R 1029	CHIP RES.	10	1/16W	5%	RMC1/16S 100JTH	J24189001		1-	B	b2
R 1030	CHIP RES.	470k	1/16W	5%	RMC1/16S 474JTH	J24189057		1-	B	b2
R 1031	CHIP RES.	220k	1/16W	5%	RMC1/16S 224JTH	J24189053		1-	B	b2
R 1032	CHIP RES.	100k	1/16W	5%	RMC1/16S 104JTH	J24189049		1-	B	b2
R 1033	CHIP RES.	330k	1/16W	5%	RMC1/16S 334JTH	J24189055		1-	B	b2
R 1034	CHIP RES.	470k	1/16W	5%	RMC1/16S 474JTH	J24189057		1-	B	b2
R 1035	CHIP RES.	10	1/16W	5%	RMC1/16S 100JTH	J24189001		1-	B	b2
R 1036	CHIP RES.	68	1/16W	5%	RMC1/16S 680JTH	J24189011		1-	B	a2
R 1037	CHIP RES.	100	1/16W	5%	RMC1/16S 101JTH	J24189013		1-	A	D2
R 1038	CHIP RES.	470	1/16W	5%	RMC1/16S 471JTH	J24189021		1-3	A	D2
R 1039	CHIP RES.	100k	1/16W	5%	RMC1/16S 104JTH	J24189049		1-	B	c1
R 1040	CHIP RES.	10	1/16W	5%	RMC1/16S 100JTH	J24189001		1-	B	b1
R 1041	CHIP RES.	150	1/16W	5%	RMC1/16S 151JTH	J24189015		1	B	b2
R 1041	CHIP RES.	1k	1/16W	5%	RMC1/16S 102JTH	J24189025		2-	B	b2
R 1042	CHIP RES.	10	1/16W	5%	RMC1/16S 100JTH	J24189001		1-	B	b1
R 1043	CHIP RES.	100	1/16W	5%	RMC1/16S 101JTH	J24189013		1-	B	a1
R 1044	CHIP RES.	100	1/16W	5%	RMC1/16S 101JTH	J24189013		1-	A	C1
R 1045	CHIP RES.	100	1/16W	5%	RMC1/16S 101JTH	J24189013		1-	A	C1
R 1046	CHIP RES.	100k	1/16W	5%	RMC1/16S 104JTH	J24189049		1-	B	b1
R 1047	CHIP RES.	10	1/16W	5%	RMC1/16S 100JTH	J24189001		1-	B	c1
R 1048	CHIP RES.	47k	1/16W	5%	RMC1/16S 473JTH	J24189045		1-	B	b1
R 1049	CHIP RES.	100	1/16W	5%	RMC1/16S 101JTH	J24189013		1-	B	c1
R 1050	CHIP RES.	330k	1/16W	5%	RMC1/16S 334JTH	J24189055		1-	B	c1
R 1051	CHIP RES.	150k	1/16W	5%	RMC1/16S 154JTH	J24189051		1-	B	b1
R 1051	CHIP RES.	10k	1/16W	5%	RMC1/16S 103JTH	J24189037		13-	B	b1
R 1053	CHIP RES.	100k	1/16W	5%	RMC1/16S 104JTH	J24189049		1-	B	b1
R 1054	CHIP RES.	100k	1/16W	5%	RMC1/16S 104JTH	J24189049		1-	B	b1
R 1055	CHIP RES.	10k	1/16W	5%	RMC1/16S 103JTH	J24189037		1-	B	b1
R 1056	CHIP RES.	4.7k	1/16W	5%	RMC1/16S 472JTH	J24189033		1-	B	b1
R 1057	CHIP RES.	470	1/16W	5%	RMC1/16S 471JTH	J24189021		1-	B	b2
R 1058	CHIP RES.	1k	1/16W	5%	RMC1/16S 102JTH	J24189025		1-	B	b2
R 1059	CHIP RES.	220	1/16W	5%	RMC1/16S 221JTH	J24189017		1-	A	C2
R 1060	CHIP RES.	47k	1/16W	5%	RMC1/16S 473JTH	J24189045		1-	B	b2
R 1061	CHIP RES.	68	1/16W	5%	RMC1/16S 680JTH	J24189011		1-	B	b2
R 1062	CHIP RES.	47k	1/16W	5%	RMC1/16S 473JTH	J24189045		1-	B	b2
R 1063	CHIP RES.	6.8k	1/16W	5%	RMC1/16S 682JTH	J24189035		1-	B	b2
R 1064	CHIP RES.	15k	1/16W	5%	RMC1/16S 153JTH	J24189039		1-	B	b2
R 1065	CHIP RES.	68	1/16W	5%	RMC1/16S 680JTH	J24189011		1-	B	b2
R 1066	CHIP RES.	1k	1/16W	5%	RMC1/16S 102JTH	J24189025		1-	B	b2
R 1067	CHIP RES.	470k	1/16W	5%	RMC1/16S 474JTH	J24189057		1-	B	b2
R 1068	CHIP RES.	1k	1/16W	5%	RMC1/16S 102JTH	J24189025		1-	A	C2
R 1069	CHIP RES.	1k	1/16W	5%	RMC1/16S 102JTH	J24189025		1-	B	b2
R 1071	CHIP RES.	470k	1/16W	5%	RMC1/16S 474JTH	J24189057		1-	B	b2
R 1072	CHIP RES.	1k	1/16W	5%	RMC1/16S 102JTH	J24189025		1-	A	C2
R 1074	CHIP RES.	1k	1/16W	5%	RMC1/16S 102JTH	J24189025		1-	B	b2
R 1075	CHIP RES.	1k	1/16W	5%	RMC1/16S 102JTH	J24189025		1-	B	b2
R 1076	CHIP RES.	10k	1/16W	5%	RMC1/16S 103JTH	J24189037		1-	B	c2
R 1078	CHIP RES.	10k	1/16W	5%	RMC1/16S 103JTH	J24189037		1-	B	c2
R 1080	CHIP RES.	10k	1/16W	5%	RMC1/16S 103JTH	J24189037		1-	B	c2
R 1083	CHIP RES.	1k	1/16W	5%	RMC1/16S 102JTH	J24189025		1-	B	c2
R 1084	CHIP RES.	22	1/16W	5%	RMC1/16S 220JTH	J24189005		1-	B	c2
R 1085	CHIP RES.	1M	1/16W	5%	RMC1/16S 105JTH	J24189061		1-	B	a1
R 1086	CHIP RES.	1M	1/16W	5%	RMC1/16S 105JTH	J24189061		1-	B	b1
R 1088	CHIP RES.	470	1/16W	5%	RMC1/16S 471JTH	J24189021		1-	B	a1
R 1089	CHIP RES.	470k	1/16W	5%	RMC1/16S 474JTH	J24189057		1-	B	b1
R 1089	CHIP RES.	2.2M	1/16W	5%	RMC1/16S 225JTH	J24189065		13-	B	b1

# Main Unit

REF.	DESCRIPTION	VALUE	V/W	TOL.	MFR'S DESIG	VXSTD P/N	VERS.	LOT.	SIDE	LAY ADR
R 1090	CHIP RES.	10K	1/16W	5%	RMC1/16S 103JTH	J24189037		1-	B	c1
R 1091	CHIP RES.	2.2k	1/16W	5%	RMC1/16S 222JTH	J24189029		1-	B	b1
R 1091	CHIP RES.	10k	1/16W	5%	RMC1/16S 103JTH	J24189037		13-	B	b1
R 1092	CHIP RES.	10k	1/16W	5%	RMC1/16S 103JTH	J24189037		1-	B	c1
R 1093	CHIP RES.	4.7k	1/16W	5%	RMC1/16S 472JTH	J24189033		1-	B	b1
R 1094	CHIP RES.	68	1/16W	5%	RMC1/16S 680JTH	J24189011		1-	A	C1
R 1094	CHIP RES.	1k	1/16W	5%	RMC1/16S 102JTH	J24189025		13-	A	C1
R 1095	CHIP RES.	2.2k	1/16W	5%	RMC1/16S 222JTH	J24189029		1-	B	c1
R 1096	CHIP RES.	1k	1/16W	5%	RMC1/16S 102JTH	J24189025		1-	B	b1
R 1097	CHIP RES.	2.2M	1/16W	5%	RMC1/16S 225JTH	J24189065		1-	A	C1
R 1098	CHIP RES.	100k	1/16W	5%	RMC1/16S 104JTH	J24189049		1-	B	b1
R 1099	CHIP RES.	100k	1/16W	5%	RMC1/16S 104JTH	J24189049		1-	A	C1
R 1100	CHIP RES.	2.2k	1/16W	5%	RMC1/16S 222JTH	J24189029		1-	A	C1
R 1101	CHIP RES.	10k	1/16W	5%	RMC1/16S 103JTH	J24189037		1-	A	C1
R 1102	CHIP RES.	100k	1/16W	5%	RMC1/16S 104JTH	J24189049		1-	B	b2
R 1103	CHIP RES.	390	1/16W	5%	RMC1/16S 391JTH	J24189020		1-	B	b2
R 1104	CHIP RES.	470	1/16W	5%	RMC1/16S 471JTH	J24189021		1-	B	c2
R 1105	CHIP RES.	470k	1/16W	5%	RMC1/16S 474JTH	J24189057		1-	B	b1
R 1106	CHIP RES.	470	1/16W	5%	RMC1/16S 471JTH	J24189021		1-	B	c2
R 1107	CHIP RES.	470	1/16W	5%	RMC1/16S 471JTH	J24189021		1-	B	c1
R 1108	CHIP RES.	1k	1/16W	5%	RMC1/16S 102JTH	J24189025		1-	B	b1
R 1109	CHIP RES.	330k	1/16W	5%	RMC1/16S 334JTH	J24189055		1-	B	d1
R 1110	CHIP RES.	470	1/16W	5%	RMC1/16S 471JTH	J24189021		1-	B	d3
R 1111	CHIP RES.	470	1/16W	5%	RMC1/16S 471JTH	J24189021		1-	B	d3
R 1112	CHIP RES.	100k	1/16W	5%	RMC1/16S 104JTH	J24189049		1-	B	a1
R 1113	CHIP RES.	470	1/16W	5%	RMC1/16S 471JTH	J24189021		1-	B	b1
R 1114	CHIP RES.	100k	1/16W	5%	RMC1/16S 104JTH	J24189049		1-	B	b1
R 1115	CHIP RES.	100k	1/16W	5%	RMC1/16S 104JTH	J24189049		1-	B	b1
R 1116	CHIP RES.	100k	1/16W	5%	RMC1/16S 104JTH	J24189049		1-	B	c1
R 1117	CHIP RES.	1k	1/16W	5%	RMC1/16S 102JTH	J24189025		1-	B	d1
R 1118	CHIP RES.	10k	1/16W	5%	RMC1/16S 103JTH	J24189037		1-	B	b1
R 1119	CHIP RES.	47k	1/16W	5%	RMC1/16S 473JTH	J24189045		1-	B	b1
R 1120	CHIP RES.	3.3k	1/16W	5%	RMC1/16S 332JTH	J24189031		1-	B	b1
R 1121	CHIP RES.	47k	1/16W	5%	RMC1/16S 473JTH	J24189045		1-	B	b1
R 1122	CHIP RES.	10k	1/16W	5%	RMC1/16S 103JTH	J24189037		1-	B	b1
R 1123	CHIP RES.	100k	1/16W	5%	RMC1/16S 104JTH	J24189049		1-	B	c1
R 1124	CHIP RES.	10k	1/16W	5%	RMC1/16S 103JTH	J24189037		1-	B	b1
R 1125	CHIP RES.	10k	1/16W	5%	RMC1/16S 103JTH	J24189037		1-	B	b1
R 1126	CHIP RES.	220	1/16W	5%	RMC1/16S 221JTH	J24189017		1-	A	C2
R 1127	CHIP RES.	1k	1/16W	5%	RMC1/16S 102JTH	J24189025		1-	B	b1
R 1128	CHIP RES.	220	1/16W	5%	RMC1/16S 221JTH	J24189017		1-	A	C2
R 1129	CHIP RES.	1k	1/16W	5%	RMC1/16S 102JTH	J24189025		1-	B	b1
R 1129	CHIP RES.	100	1/16W	5%	RMC1/16S 101JTH	J24189013		4-	B	b1
R 1130	CHIP RES.	1k	1/16W	5%	RMC1/16S 102JTH	J24189025		1-	B	b1
R 1131	CHIP RES.	10k	1/16W	5%	RMC1/16S 103JTH	J24189037		1-	B	b1
R 1132	CHIP RES.	4.7k	1/16W	5%	RMC1/16S 472JTH	J24189033		1-	B	d1
R 1133	CHIP RES.	47k	1/16W	5%	RMC1/16S 473JTH	J24189045		1-	A	C1
R 1134	CHIP RES.	10k	1/16W	5%	RMC1/16S 103JTH	J24189037		1-	B	b1
R 1135	CHIP RES.	4.7k	1/16W	5%	RMC1/16S 472JTH	J24189033		1-	B	d2
R 1136	CHIP RES.	330k	1/16W	5%	RMC1/16S 334JTH	J24189055		1-	B	d2
R 1137	CHIP RES.	2.2k	1/16W	5%	RMC1/16S 222JTH	J24189029		1-	B	d2
R 1138	CHIP RES.	100	1/16W	5%	RMC1/16S 101JTH	J24189013		1-	B	d2
R 1139	CHIP RES.	100k	1/16W	5%	RMC1/16S 104JTH	J24189049		1-	B	d2
R 1140	CHIP RES.	22	1/16W	5%	RMC1/16S 220JTH	J24189005		1-	B	d2
R 1141	CHIP RES.	2.2k	1/16W	5%	RMC1/16S 222JTH	J24189029		1-	B	d2
R 1142	CHIP RES.	3.9k	1/16W	5%	RMC1/16S 392JTH	J24189032		1-	B	d2
R 1143	CHIP RES.	330	1/16W	5%	RMC1/16S 331JTH	J24189019		1-	B	d2
R 1144	CHIP RES.	470	1/16W	5%	RMC1/16S 471JTH	J24189021		1-	B	d3
R 1145	CHIP RES.	1k	1/16W	5%	RMC1/16S 102JTH	J24189025		1-	B	b1
R 1146	CHIP RES.	1k	1/16W	5%	RMC1/16S 102JTH	J24189025		1-	B	b1
R 1147	CHIP RES.	4.7k	1/16W	5%	RMC1/16S 472JTH	J24189033		1-	B	d1
R 1148	CHIP RES.	47	1/16W	5%	RMC1/16S 470JTH	J24189009		1-	B	c1
R 1149	CHIP RES.	1k	1/16W	5%	RMC1/16S 102JTH	J24189025		1-	B	c1
R 1150	CHIP RES.	220k	1/16W	5%	RMC1/16S 224JTH	J24189053		1-	B	b1
R 1151	CHIP RES.	1k	1/16W	5%	RMC1/16S 102JTH	J24189025		1-	B	c1
R 1152	CHIP RES.	22k	1/16W	5%	RMC1/16S 223JTH	J24189041		1-	B	b1
R 1153	CHIP RES.	0	1/16W	5%	RMC1/16S JPTH	J24189070		1-	B	b1

# Main Unit

REF.	DESCRIPTION	VALUE	V/W	TOL.	MFR'S DESIG	VXSTD P/N	VERS.	LOT.	SIDE	LAY ADR
R 1154	CHIP RES.	47k	1/16W	5%	RMC1/16S 473JTH	J24189045		1-	B	b1
R 1155	CHIP RES.	22k	1/16W	5%	RMC1/16S 223JTH	J24189041		1-	B	d1
R 1156	CHIP RES.	22k	1/16W	5%	RMC1/16S 223JTH	J24189041		1-	B	d1
R 1157	CHIP RES.	56k	1/16W	5%	RMC1/16S 563JTH	J24189046		1-	B	d1
R 1158	CHIP RES.	220k	1/16W	5%	RMC1/16S 224JTH	J24189053		1-	B	d1
R 1159	CHIP RES.	10k	1/16W	5%	RMC1/16S 103JTH	J24189037		1-	B	d1
R 1160	CHIP RES.	47k	1/16W	5%	RMC1/16S 473JTH	J24189045		1-	B	d1
R 1161	CHIP RES.	100k	1/16W	5%	RMC1/16S 104JTH	J24189049		1-	B	d1
R 1162	CHIP RES.	33	1/16W	5%	RMC1/16S 330JTH	J24189007		1-	B	c2
R 1163	CHIP RES.	1k	1/16W	5%	RMC1/16S 102JTH	J24189025		1-	B	c2
R 1164	CHIP RES.	1k	1/16W	5%	RMC1/16S 102JTH	J24189025		1-	B	c2
R 1165	CHIP RES.	100	1/16W	5%	RMC1/16S 101JTH	J24189013		1-	B	b1
R 1167	CHIP RES.	2.2k	1/16W	5%	RMC1/16S 222JTH	J24189029		1-	B	c3
R 1168	CHIP RES.	2.2k	1/16W	5%	RMC1/16S 222JTH	J24189029		1-	A	C3
R 1169	CHIP RES.	100	1/16W	5%	RMC1/16S 101JTH	J24189013		1-	A	C3
R 1170	CHIP RES.	2.2k	1/16W	5%	RMC1/16S 222JTH	J24189029		1-	B	b3
R 1171	CHIP RES.	330k	1/16W	5%	RMC1/16S 334JTH	J24189055		1-	A	C3
R 1172	CHIP RES.	220k	1/16W	5%	RMC1/16S 224JTH	J24189053		1-	B	b3
R 1173	CHIP RES.	470	1/16W	5%	RMC1/16S 471JTH	J24189021		1-	B	d2
R 1174	CHIP RES.	470	1/16W	5%	RMC1/16S 471JTH	J24189021		1-	B	d2
R 1175	CHIP RES.	470	1/16W	5%	RMC1/16S 471JTH	J24189021		1-	B	d2
R 1176	CHIP RES.	3.3k	1/16W	5%	RMC1/16S 332JTH	J24189031		1-	B	c4
R 1177	CHIP RES.	1k	1/16W	5%	RMC1/16S 102JTH	J24189025		1-	A	C1
R 1178	CHIP RES.	1k	1/16W	5%	RMC1/16S 102JTH	J24189025		1-	B	c4
R 1179	CHIP RES.	100	1/16W	5%	RMC1/16S 101JTH	J24189013		1-	A	C1
R 1180	CHIP RES.	1k	1/16W	5%	RMC1/16S 102JTH	J24189025		1-	B	c1
R 1181	CHIP RES.	100	1/16W	5%	RMC1/16S 101JTH	J24189013		1-	A	C1
R 1182	CHIP RES.	1k	1/16W	5%	RMC1/16S 102JTH	J24189025		1-	B	d1
R 1183	CHIP RES.	100k	1/16W	5%	RMC1/16S 104JTH	J24189049		1-	B	d1
R 1184	CHIP RES.	10k	1/16W	5%	RMC1/16S 103JTH	J24189037		1-	B	c1
R 1185	CHIP RES.	100k	1/16W	5%	RMC1/16S 104JTH	J24189049		1-	B	d1
R 1186	CHIP RES.	10k	1/16W	5%	RMC1/16S 103JTH	J24189037		1-	B	e1
R 1187	CHIP RES.	10k	1/16W	5%	RMC1/16S 103JTH	J24189037		1-	B	c1
R 1188	CHIP RES.	10k	1/16W	5%	RMC1/16S 103JTH	J24189037		1-	A	B1
R 1189	CHIP RES.	100	1/16W	5%	RMC1/16S 101JTH	J24189013		1-	B	c1
R 1190	CHIP RES.	82k	1/16W	5%	RMC1/16S 823JTH	J24189048		1-	B	d1
R 1191	CHIP RES.	39k	1/16W	5%	RMC1/16S 393JTH	J24189044		1-	B	d1
R 1192	CHIP RES.	1k	1/16W	5%	RMC1/16S 102JTH	J24189025		1-	B	c2
R 1193	CHIP RES.	1k	1/16W	5%	RMC1/16S 102JTH	J24189025		1-	B	c2
R 1194	CHIP RES.	1k	1/16W	5%	RMC1/16S 102JTH	J24189025		1-	B	c3
R 1195	CHIP RES.	220k	1/16W	5%	RMC1/16S 224JTH	J24189053		1-	B	c3
R 1196	CHIP RES.	2.2k	1/16W	5%	RMC1/16S 222JTH	J24189029		1-	B	c3
R 1197	CHIP RES.	4.7k	1/16W	5%	RMC1/16S 472JTH	J24189033		1-	B	c4
R 1198	CHIP RES.	100	1/16W	5%	RMC1/16S 101JTH	J24189013		1-	B	c4
R 1199	CHIP RES.	1k	1/16W	5%	RMC1/16S 102JTH	J24189025		1-	B	c4
R 1200	CHIP RES.	470k	1/16W	5%	RMC1/16S 474JTH	J24189057		1-	B	c4
R 1201	CHIP RES.	1k	1/16W	5%	RMC1/16S 102JTH	J24189025		1-	B	c4
R 1202	CHIP RES.	1k	1/16W	5%	RMC1/16S 102JTH	J24189025		1-	B	b3
R 1203	CHIP RES.	100	1/16W	5%	RMC1/16S 101JTH	J24189013		1-	B	c4
R 1204	CHIP RES.	4.7k	1/16W	5%	RMC1/16S 472JTH	J24189033		1-	B	c4
R 1205	CHIP RES.	100k	1/16W	5%	RMC1/16S 104JTH	J24189049		1-	B	c2
R 1206	CHIP RES.	100k	1/16W	5%	RMC1/16S 104JTH	J24189049		1-	B	c2
R 1206	CHIP RES.	470k	1/16W	5%	RMC1/16S 474JTH	J24189057		6-	B	c2
R 1207	CHIP RES.	100k	1/16W	5%	RMC1/16S 104JTH	J24189049		1-	B	c2
R 1207	CHIP RES.	470k	1/16W	5%	RMC1/16S 474JTH	J24189057		6-	B	c2
R 1208	CHIP RES.	10k	1/16W	5%	RMC1/16S 103JTH	J24189037		1-	B	d1
R 1209	CHIP RES.	6.8k	1/16W	5%	RMC1/16S 682JTH	J24189035		1-	B	c2
R 1210	CHIP RES.	68k	1/16W	5%	RMC1/16S 683JTH	J24189047		1-	B	c2
R 1211	CHIP RES.	33k	1/16W	5%	RMC1/16S 333JTH	J24189043		1-	B	c2
R 1212	CHIP RES.	33k	1/16W	5%	RMC1/16S 333JTH	J24189043		1-	B	c2
R 1213	CHIP RES.	33k	1/16W	5%	RMC1/16S 333JTH	J24189043		1-	B	c2
R 1214	CHIP RES.	10k	1/16W	5%	RMC1/16S 103JTH	J24189037		1-	B	d2
R 1215	CHIP RES.	150k	1/16W	5%	RMC1/16S 154JTH	J24189051		1-	B	d2
R 1218	CHIP RES.	22k	1/16W	5%	RMC1/16S 223JTH	J24189041		1-	B	d3
R 1219	CHIP RES.	220k	1/16W	5%	RMC1/16S 224JTH	J24189053		1-	B	c2
R 1220	CHIP RES.	4.7k	1/16W	5%	RMC1/16S 472JTH	J24189033		1-	B	d2
R 1221	CHIP RES.	10k	1/16W	5%	RMC1/16S 103JTH	J24189037		1-	B	d1

# Main Unit

REF.	DESCRIPTION	VALUE	V/W	TOL.	MFR'S DESIG	VXSTD P/N	VERS.	LOT.	SIDE	LAY ADR
R 1222	CHIP RES.	10k	1/16W	5%	RMC1/16S 103JTH	J24189037		1-	B	d1
R 1223	CHIP RES.	10k	1/16W	5%	RMC1/16S 103JTH	J24189037		1-	B	d1
R 1226	CHIP RES.	0	1/10W	5%	RMC1/10T 000J	J24205000		1-	A	A1
R 1227	CHIP RES.	0	1/10W	5%	RMC1/10T 000J	J24205000		1-	A	A1
R 1228	CHIP RES.	0	1/10W	5%	RMC1/10T 000J	J24205000		1-	A	A1
R 1229	CHIP RES.	0	1/10W	5%	RMC1/10T 000J	J24205000		1-	A	A1
R 1230	CHIP RES.	470	1/16W	5%	RMC1/16S 471JTH	J24189021		1-	B	d1
R 1231	CHIP RES.	1k	1/16W	5%	RMC1/16S 102JTH	J24189025		1-	A	A1
R 1232	CHIP RES.	1k	1/16W	5%	RMC1/16S 102JTH	J24189025		1-	A	A1
R 1233	CHIP RES.	1k	1/16W	5%	RMC1/16S 102JTH	J24189025		1-	B	d1
R 1234	CHIP RES.	1k	1/16W	5%	RMC1/16S 102JTH	J24189025		1-	B	d1
R 1235	CHIP RES.	10	1/16W	5%	RMC1/16S 100JTH	J24189001		1-	B	d1
R 1236	CHIP RES.	330k	1/16W	5%	RMC1/16S 334JTH	J24189055		1-	B	b3
R 1236	CHIP RES.	680k	1/16W	5%	RMC1/16S 684JTH	J24189059		3-	B	b3
R 1237	CHIP RES.	470k	1/16W	5%	RMC1/16S 474JTH	J24189057		1-	B	b2
R 1238	CHIP RES.	10	1/16W	5%	RMC1/16S 100JTH	J24189001		1-	A	C2
R 1239	CHIP RES.	1k	1/16W	5%	RMC1/16S 102JTH	J24189025		1-	A	B3
R 1240	CHIP RES.	100k	1/16W	5%	RMC1/16S 104JTH	J24189049		1-	B	b3
R 1241	CHIP RES.	10k	1/16W	5%	RMC1/16S 103JTH	J24189037		1-	B	a3
R 1242	CHIP RES.	100	1/16W	5%	RMC1/16S 101JTH	J24189013		1-	B	c4
R 1243	CHIP RES.	10k	1/16W	5%	RMC1/16S 103JTH	J24189037		1-	B	b3
R 1244	CHIP RES.	220	1/16W	5%	RMC1/16S 221JTH	J24189017		1-	B	c4
R 1245	CHIP RES.	1k	1/16W	5%	RMC1/16S 102JTH	J24189025		1-	B	c4
R 1246	CHIP RES.	10k	1/16W	5%	RMC1/16S 103JTH	J24189037		1-	A	D3
R 1247	CHIP RES.	100k	1/16W	5%	RMC1/16S 104JTH	J24189049		1-	B	c4
R 1248	CHIP RES.	220k	1/16W	5%	RMC1/16S 224JTH	J24189053		1-	B	b3
R 1249	CHIP RES.	100	1/16W	5%	RMC1/16S 101JTH	J24189013		1-	B	b3
R 1250	CHIP RES.	100	1/16W	5%	RMC1/16S 101JTH	J24189013		1-	A	C4
R 1251	CHIP RES.	100k	1/16W	5%	RMC1/16S 104JTH	J24189049		5-	A	C4
R 1252	CHIP RES.	100	1/16W	5%	RMC1/16S 101JTH	J24189013		1-	B	a3
R 1253	CHIP RES.	1k	1/16W	5%	RMC1/16S 102JTH	J24189025		1-	B	c4
R 1254	CHIP RES.	22k	1/16W	5%	RMC1/16S 223JTH	J24189041		1-	B	c4
R 1255	CHIP RES.	6.8k	1/16W	5%	RMC1/16S 682JTH	J24189035		1-	B	c4
R 1256	CHIP RES.	10k	1/16W	5%	RMC1/16S 103JTH	J24189037		1-	B	c2
R 1257	CHIP RES.	100k	1/16W	5%	RMC1/16S 104JTH	J24189049		1-	B	c2
R 1258	CHIP RES.	68k	1/16W	5%	RMC1/16S 683JTH	J24189047		1-	B	c2
R 1259	CHIP RES.	100	1/16W	5%	RMC1/16S 101JTH	J24189013		1-	B	c3
R 1260	CHIP RES.	4.7k	1/16W	5%	RMC1/16S 472JTH	J24189033		1-	B	c3
R 1261	CHIP RES.	680k	1/16W	5%	RMC1/16S 684JTH	J24189059		1-	B	c3
R 1262	CHIP RES.	10k	1/16W	5%	RMC1/16S 103JTH	J24189037		1-	B	c3
R 1263	CHIP RES.	10k	1/16W	5%	RMC1/16S 103JTH	J24189037		1-	B	d3
R 1264	CHIP RES.	1.5k	1/16W	5%	RMC1/16S 152JTH	J24189027		1-	B	c3
R 1265	CHIP RES.	22k	1/16W	5%	RMC1/16S 223JTH	J24189041		1-	B	c3
R 1266	CHIP RES.	10k	1/16W	5%	RMC1/16S 103JTH	J24189037		1-	B	c3
R 1267	CHIP RES.	2.2k	1/16W	5%	RMC1/16S 222JTH	J24189029		1-	B	c3
R 1268	CHIP RES.	15k	1/16W	5%	RMC1/16S 153JTH	J24189039		1-	B	d2
R 1269	CHIP RES.	4.7k	1/16W	5%	RMC1/16S 472JTH	J24189033		1-	B	d2
R 1270	CHIP RES.	33k	1/16W	5%	RMC1/16S 333JTH	J24189043	AUSTRALIA	1-	B	d2
R 1270	CHIP RES.	33k	1/16W	5%	RMC1/16S 333JTH	J24189043	EXPORT	1-	B	d2
R 1270	CHIP RES.	33k	1/16W	5%	RMC1/16S 333JTH	J24189043	FRANCE	1-	B	d2
R 1270	CHIP RES.	33k	1/16W	5%	RMC1/16S 333JTH	J24189043	USA	1-	B	d2
R 1271	CHIP RES.	100k	1/16W	5%	RMC1/16S 104JTH	J24189049		1-	B	d2
R 1272	CHIP RES.	10k	1/16W	5%	RMC1/16S 103JTH	J24189037		1-	B	d1
R 1273	CHIP RES.	100k	1/16W	5%	RMC1/16S 104JTH	J24189049		1-	B	d1
R 1274	CHIP RES.	470	1/16W	5%	RMC1/16S 471JTH	J24189021		1-	B	d1
R 1275	CHIP RES.	470	1/16W	5%	RMC1/16S 471JTH	J24189021		1-	B	d1
R 1276	CHIP RES.	470	1/16W	5%	RMC1/16S 471JTH	J24189021		1-	B	d1
R 1279	CHIP RES.	10k	1/16W	5%	RMC1/16S 103JTH	J24189037		1-	B	c1
R 1281	CHIP RES.	1k	1/16W	5%	RMC1/16S 102JTH	J24189025		1-	B	c1
R 1282	CHIP RES.	1k	1/16W	5%	RMC1/16S 102JTH	J24189025		1-	B	c1
R 1283	CHIP RES.	4.7k	1/16W	5%	RMC1/16S 472JTH	J24189033		1-	B	b3
R 1285	CHIP RES.	10k	1/16W	5%	RMC1/16S 103JTH	J24189037		1-	B	a3
R 1286	CHIP RES.	150	1/16W	5%	RMC1/16S 151JTH	J24189015		1-	B	b3
R 1287	CHIP RES.	100	1/16W	5%	RMC1/16S 101JTH	J24189013		1-	A	C3
R 1289	CHIP RES.	220k	1/16W	5%	RMC1/16S 224JTH	J24189053		1-	B	a3
R 1291	CHIP RES.	100	1/16W	5%	RMC1/16S 101JTH	J24189013		1-	B	a3
R 1294	CHIP RES.	100	1/16W	5%	RMC1/16S 101JTH	J24189013		1-	B	a3

# Main Unit

REF.	DESCRIPTION	VALUE	V/W	TOL.	MFR'S DESIG	VXSTD P/N	VERS.	LOT.	SIDE	LAY ADR
R 1296	CHIP RES.	68k	1/16W	5%	RMC1/16S 683JTH	J24189047		1-	B	a3
R 1297	CHIP RES.	100k	1/16W	5%	RMC1/16S 104JTH	J24189049		1-	B	a3
R 1298	CHIP RES.	100	1/16W	5%	RMC1/16S 101JTH	J24189013		1-	B	c4
R 1299	CHIP RES.	2.2k	1/16W	5%	RMC1/16S 222JTH	J24189029		1-	B	a3
R 1300	CHIP RES.	680k	1/16W	5%	RMC1/16S 684JTH	J24189059		1-	B	c4
R 1300	CHIP RES.	560k	1/16W	5%	RMC1/16S 564JTH	J24189058		3-	B	c4
R 1301	CHIP RES.	100k	1/16W	5%	RMC1/16S 104JTH	J24189049		1-	B	c4
R 1302	CHIP RES.	100	1/16W	5%	RMC1/16S 101JTH	J24189013		1-	B	c4
R 1303	CHIP RES.	100k	1/16W	5%	RMC1/16S 104JTH	J24189049		1-	B	c4
R 1304	CHIP RES.	1M	1/16W	5%	RMC1/16S 105JTH	J24189061		1-	B	c4
R 1305	CHIP RES.	1k	1/16W	5%	RMC1/16S 102JTH	J24189025		1-	B	d4
R 1306	CHIP RES.	100k	1/16W	5%	RMC1/16S 104JTH	J24189049		1-	B	c4
R 1307	CHIP RES.	1k	1/16W	5%	RMC1/16S 102JTH	J24189025		1-	B	c3
R 1308	CHIP RES.	3.3k	1/16W	5%	RMC1/16S 332JTH	J24189031		1-	B	c3
R 1309	CHIP RES.	330k	1/16W	5%	RMC1/16S 334JTH	J24189055		1-	B	c3
R 1310	CHIP RES.	1.5k	1/16W	5%	RMC1/16S 152JTH	J24189027		1-	A	C3
R 1311	CHIP RES.	100	1/16W	5%	RMC1/16S 101JTH	J24189013		1-	B	c3
R 1312	CHIP RES.	100k	1/16W	5%	RMC1/16S 104JTH	J24189049		1-	B	c2
R 1313	CHIP RES.	22k	1/16W	5%	RMC1/16S 223JTH	J24189041		1-	B	c2
R 1314	CHIP RES.	10k	1/16W	5%	RMC1/16S 103JTH	J24189037		1-	B	c2
R 1315	CHIP RES.	10k	1/16W	5%	RMC1/16S 103JTH	J24189037		1-	A	D3
R 1316	CHIP RES.	220k	1/16W	5%	RMC1/16S 224JTH	J24189053		1-	B	d2
R 1317	CHIP RES.	100k	1/16W	5%	RMC1/16S 104JTH	J24189049		1-	B	d2
R 1318	CHIP RES.	68k	1/16W	5%	RMC1/16S 683JTH	J24189047		1-	B	d2
R 1319	CHIP RES.	220k	1/16W	5%	RMC1/16S 224JTH	J24189053		1-	B	d2
R 1320	CHIP RES.	470k	1/16W	5%	RMC1/16S 474JTH	J24189057		1-	B	d2
R 1321	CHIP RES.	10k	1/16W	5%	RMC1/16S 103JTH	J24189037		1-	B	d2
R 1322	CHIP RES.	5.6k	1/16W	5%	RMC1/16S 562JTH	J24189034		1-	B	d2
R 1323	CHIP RES.	4.7k	1/16W	5%	RMC1/16S 472JTH	J24189033		1-	B	d1
R 1324	CHIP RES.	33k	1/16W	5%	RMC1/16S 333JTH	J24189043		1-	B	d1
R 1324	CHIP RES.	68k	1/16W	5%	RMC1/16S 683JTH	J24189047	4-	B	d1	
R 1325	CHIP RES.	470k	1/16W	5%	RMC1/16S 474JTH	J24189057	1-	B	d1	
R 1326	CHIP RES.	4.7k	1/16W	5%	RMC1/16S 472JTH	J24189033	1-	B	d2	
R 1327	CHIP RES.	4.7k	1/16W	5%	RMC1/16S 472JTH	J24189033	1-	B	d2	
R 1328	CHIP RES.	1M	1/16W	5%	RMC1/16S 105JTH	J24189061	1-	B	c2	
R 1328	CHIP RES.	680k	1/16W	5%	RMC1/16S 684JTH	J24189059	4-	B	c2	
R 1329	CHIP RES.	1k	1/16W	5%	RMC1/16S 102JTH	J24189025	1-	B	c1	
R 1330	CHIP RES.	1k	1/16W	5%	RMC1/16S 102JTH	J24189025	1-	B	c1	
R 1331	CHIP RES.	1k	1/16W	5%	RMC1/16S 102JTH	J24189025	1-	B	c1	
R 1332	CHIP RES.	33	1/16W	5%	RMC1/16S 330JTH	J24189007	1-	B	b3	
R 1333	CHIP RES.	10k	1/16W	5%	RMC1/16S 103JTH	J24189037	1-	A	D3	
R 1334	CHIP RES.	22k	1/16W	5%	RMC1/16S 223JTH	J24189041	1-	A	D3	
R 1335	CHIP RES.	1k	1/16W	5%	RMC1/16S 102JTH	J24189025	1-	B	b3	
R 1338	CHIP RES.	100	1/16W	5%	RMC1/16S 101JTH	J24189013	1-	B	b4	
R 1339	CHIP RES.	10k	1/16W	5%	RMC1/16S 103JTH	J24189037	1-	B	b4	
R 1340	CHIP RES.	47k	1/16W	5%	RMC1/16S 473JTH	J24189045	1-	B	b3	
R 1341	CHIP RES.	100	1/16W	5%	RMC1/16S 101JTH	J24189013	1-	B	b4	
R 1342	CHIP RES.	680k	1/16W	5%	RMC1/16S 684JTH	J24189059	1-	B	b4	
R 1342	CHIP RES.	560k	1/16W	5%	RMC1/16S 564JTH	J24189058	3-	B	b4	
R 1343	CHIP RES.	10k	1/16W	5%	RMC1/16S 103JTH	J24189037	1-	B	b3	
R 1346	CHIP RES.	470	1/16W	5%	RMC1/16S 471JTH	J24189021	1-	A	C4	
R 1347	CHIP RES.	4.7k	1/16W	5%	RMC1/16S 472JTH	J24189033	1-	B	c4	
R 1348	CHIP RES.	470	1/16W	5%	RMC1/16S 471JTH	J24189021	1-	B	c3	
R 1349	CHIP RES.	470	1/16W	5%	RMC1/16S 471JTH	J24189021	1-	B	d3	
R 1350	CHIP RES.	470	1/16W	5%	RMC1/16S 471JTH	J24189021	1-	B	d3	
R 1351	CHIP RES.	22k	1/16W	5%	RMC1/16S 223JTH	J24189041	1-	A	B3	
R 1352	CHIP RES.	100k	1/16W	5%	RMC1/16S 104JTH	J24189049	1-	A	C3	
R 1353	CHIP RES.	470	1/16W	5%	RMC1/16S 471JTH	J24189021	1-	B	b3	
R 1354	CHIP RES.	2.2k	1/16W	5%	RMC1/16S 222JTH	J24189029	1-	A	C3	
R 1355	CHIP RES.	10k	1/16W	5%	RMC1/16S 103JTH	J24189037	1-	B	b3	
R 1356	CHIP RES.	10k	1/16W	5%	RMC1/16S 103JTH	J24189037	1-	A	C3	
R 1357	CHIP RES.	10k	1/16W	5%	RMC1/16S 103JTH	J24189037	1-	B	b3	
R 1358	CHIP RES.	10k	1/16W	5%	RMC1/16S 103JTH	J24189037	1-	A	C3	
R 1359	CHIP RES.	100k	1/16W	5%	RMC1/16S 104JTH	J24189049	1-	A	C3	
R 1360	CHIP RES.	100k	1/16W	5%	RMC1/16S 104JTH	J24189049	1-12	A	C3	
R 1361	CHIP RES.	2.2k	1/16W	5%	RMC1/16S 222JTH	J24189029	1-	A	C3	
R 1362	CHIP RES.	100	1/16W	5%	RMC1/16S 101JTH	J24189013	1-	A	C3	

# Main Unit

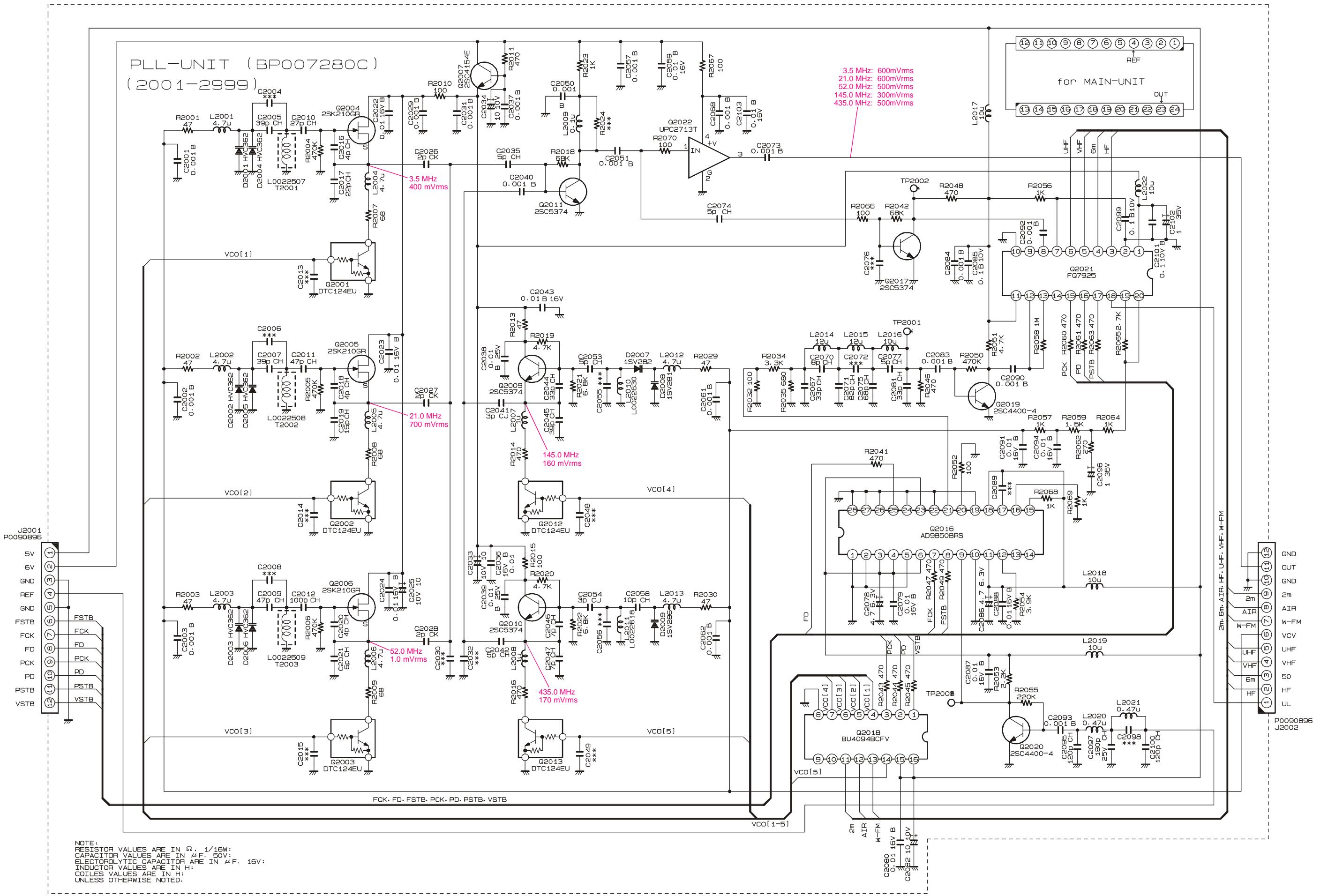
REF.	DESCRIPTION	VALUE	V/W	TOL.	MFR'S DESIG	VXSTD P/N	VERS.	LOT.	SIDE	LAY ADR
R 1363	CHIP RES.	220k	1/16W	5%	RMC1/16S 224JTH	J24189053		1-	B	b3
R 1364	CHIP RES.	4.7	1/16W	5%	RMC1/16S 4R7JTH	J24189066		1-	A	D3
R 1365	CHIP RES.	330	1/16W	5%	RMC1/16S 331JTH	J24189019		1-	B	a2
R 1366	CHIP RES.	33k	1/16W	5%	RMC1/16S 333JTH	J24189043		1-	B	d2
R 1367	CHIP RES.	33k	1/16W	5%	RMC1/16S 333JTH	J24189043		1-	B	d2
R 1368	CHIP RES.	33k	1/16W	5%	RMC1/16S 333JTH	J24189043		1-	B	d2
R 1369	CHIP RES.	4.7k	1/16W	5%	RMC1/16S 472JTH	J24189033		1-	B	d2
R 1370	CHIP RES.	2.2M	1/16W	5%	RMC1/16S 225JTH	J24189065		1-	B	d2
R 1371	CHIP RES.	2.2M	1/16W	5%	RMC1/16S 225JTH	J24189065		1-	B	d2
R 1372	CHIP RES.	220k	1/16W	5%	RMC1/16S 224JTH	J24189053		1-	B	c2
R 1372	CHIP RES.	150k	1/16W	5%	RMC1/16S 154JTH	J24189051		4-	B	c2
R 1375	CHIP RES.	6.8k	1/16W	5%	RMC1/16S 682JTH	J24189035		1-	B	c2
R 1376	CHIP RES.	470k	1/16W	5%	RMC1/16S 474JTH	J24189057		1-1	B	c2
R 1376	CHIP RES.	100k	1/16W	5%	RMC1/16S 104JTH	J24189049	EXPORT	2	B	c2
R 1376	CHIP RES.	100k	1/16W	5%	RMC1/16S 104JTH	J24189049		3	B	c2
R 1376	CHIP RES.	68k	1/16W	5%	RMC1/16S 683JTH	J24189047		4-	B	c2
R 1377	CHIP RES.	10k	1/16W	5%	RMC1/16S 103JTH	J24189037		1-	B	c2
R 1378	CHIP RES.	100	1/4W	5%	RMC1/4 101JATP	J24245101		1-	B	a3
R 1379	CHIP RES.	100	1/4W	5%	RMC1/4 101JATP	J24245101		1-	B	a3
R 1382	CHIP RES.	100	1/16W	5%	RMC1/16S 101JTH	J24189013		1-	A	C3
R 1383	CHIP RES.	1k	1/16W	5%	RMC1/16S 102JTH	J24189025		1-	A	D3
R 1384	CHIP RES.	2.2k	1/16W	5%	RMC1/16S 222JTH	J24189029		1-	B	a4
R 1385	CHIP RES.	470	1/16W	5%	RMC1/16S 471JTH	J24189021		1-	B	b4
R 1386	CHIP RES.	2.2k	1/16W	5%	RMC1/16S 222JTH	J24189029		1-	B	a4
R 1387	CHIP RES.	470	1/16W	5%	RMC1/16S 471JTH	J24189021		1-	B	b4
R 1388	CHIP RES.	2.2k	1/16W	5%	RMC1/16S 222JTH	J24189029		1-	B	b4
R 1389	CHIP RES.	1.5k	1/16W	5%	RMC1/16S 152JTH	J24189027		1-	B	b3
R 1390	CHIP RES.	47	1/16W	5%	RMC1/16S 470JTH	J24189009		1-	B	b4
R 1391	CHIP RES.	2.2k	1/16W	5%	RMC1/16S 222JTH	J24189029		1-	B	a4
R 1392	CHIP RES.	470	1/16W	5%	RMC1/16S 471JTH	J24189021		1-	B	b4
R 1393	CHIP RES.	47	1/16W	5%	RMC1/16S 470JTH	J24189009		1-	B	b4
R 1394	CHIP RES.	2.2k	1/16W	5%	RMC1/16S 222JTH	J24189029		1-	B	b4
R 1395	CHIP RES.	47	1/16W	5%	RMC1/16S 470JTH	J24189009		1-	B	b4
R 1396	CHIP RES.	10	1/16W	5%	RMC1/16S 100JTH	J24189001		1-	B	d4
R 1397	CHIP RES.	1.5k	1/16W	5%	RMC1/16S 152JTH	J24189027		1-	A	B3
R 1398	CHIP RES.	100	1/16W	5%	RMC1/16S 101JTH	J24189013		1-	B	c3
R 1399	CHIP RES.	330	1/16W	5%	RMC1/16S 331JTH	J24189019		1-	B	c3
R 1400	CHIP RES.	330k	1/16W	5%	RMC1/16S 334JTH	J24189055		1-	B	c3
R 1401	CHIP RES.	1k	1/16W	5%	RMC1/16S 102JTH	J24189025		1-	A	D2
R 1402	CHIP RES.	470k	1/16W	5%	RMC1/16S 474JTH	J24189057		1-	B	c2
R 1403	CHIP RES.	10k	1/16W	5%	RMC1/16S 103JTH	J24189037		1-	A	D4
R 1404	CHIP RES.	33k	1/16W	5%	RMC1/16S 333JTH	J24189043		1-	B	c2
R 1405	CHIP RES.	33k	1/16W	5%	RMC1/16S 333JTH	J24189043		1-	B	c2
R 1406	CHIP RES.	1k	1/16W	5%	RMC1/16S 102JTH	J24189025		1-	A	D4
R 1407	CHIP RES.	470	1/16W	5%	RMC1/16S 471JTH	J24189021		1-	B	a4
R 1408	CHIP RES.	1k	1/16W	5%	RMC1/16S 102JTH	J24189025		1-	A	D4
R 1408	CHIP RES.	470	1/16W	5%	RMC1/16S 471JTH	J24189021		4-	A	D4
R 1411	CHIP RES.	4.7k	1/16W	5%	RMC1/16S 472JTH	J24189033		1-	A	D4
R 1412	CHIP RES.	1k	1/16W	5%	RMC1/16S 102JTH	J24189025		1-	B	c1
R 1413	CHIP RES.	1k	1/16W	5%	RMC1/16S 102JTH	J24189025		1-	B	c1
R 1414	CHIP RES.	10	1/16W	5%	RMC1/16S 100JTH	J24189001		1-	A	D4
R 1415	CHIP RES.	1k	1/16W	5%	RMC1/16S 102JTH	J24189025		1-	A	D4
R 1416	CHIP RES.	1k	1/16W	5%	RMC1/16S 102JTH	J24189025		1-	A	D4
R 1417	CHIP RES.	1k	1/16W	5%	RMC1/16S 102JTH	J24189025		1-	A	D4
R 1418	CHIP RES.	1k	1/16W	5%	RMC1/16S 102JTH	J24189025		1-	A	D4
R 1419	CHIP RES.	2.2k	1/16W	5%	RMC1/16S 222JTH	J24189029		1-	B	b3
R 1420	CHIP RES.	47	1/16W	5%	RMC1/16S 470JTH	J24189009		1-	B	b3
R 1421	CHIP RES.	100k	1/16W	5%	RMC1/16S 104JTH	J24189049		1-	B	b4
R 1422	CHIP RES.	100k	1/16W	5%	RMC1/16S 104JTH	J24189049		1-	B	b4
R 1423	CHIP RES.	100k	1/16W	5%	RMC1/16S 104JTH	J24189049		1-	B	b4
R 1424	CHIP RES.	100k	1/16W	5%	RMC1/16S 104JTH	J24189049		1-	B	b4
R 1425	CHIP RES.	1k	1/16W	5%	RMC1/16S 102JTH	J24189025		1-	A	C3
R 1426	CHIP RES.	2.2k	1/10W	5%	RMC1/10T 222J	J24205222		1-	B	a1
R 1427	CHIP RES.	3.3k	1/16W	0.5%	RR0510P-332-D	J24189131		1-	B	a2
R 1428	CHIP RES.	10k	1/16W	0.5%	RR0510P-103-D	J24189143		1-	B	a2
R 1429	CHIP RES.	10k	1/16W	5%	RMC1/16S 103JTH	J24189037		1-	B	c2
R 1430	CHIP RES.	1k	1/16W	5%	RMC1/16S 102JTH	J24189025		1-	A	D1

# Main Unit

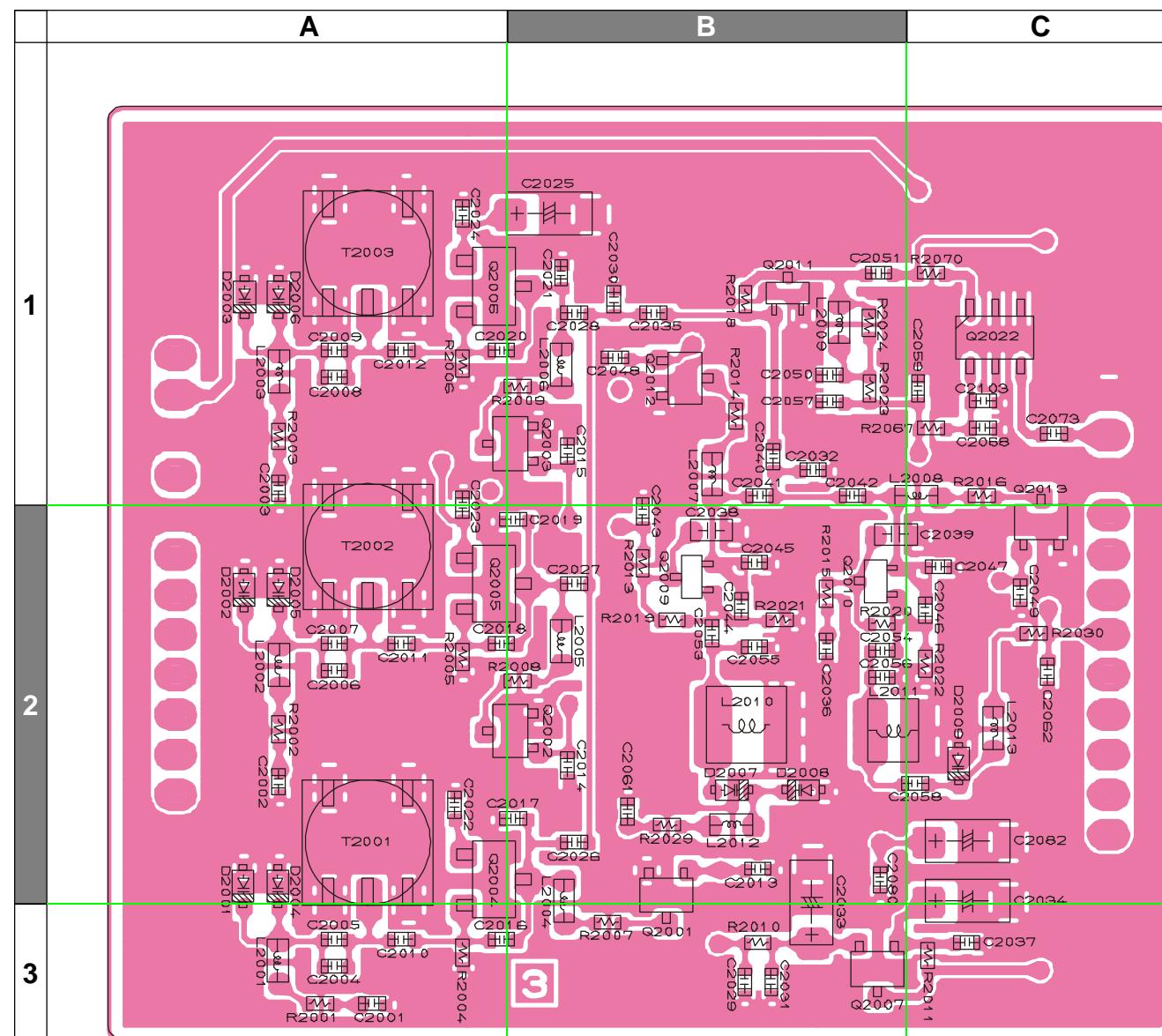
REF.	DESCRIPTION	VALUE	V/W	TOL.	MFR'S DESIG	VXSTD P/N	VERS.	LOT.	SIDE	LAY ADR
R 1431	CHIP RES.	100k	1/16W	0.5%	RR0510R-104-D	J24189167		1-	A	D1
R 1432	CHIP RES.	3.3M	1/16W	5%	RMC1/16 335JATP	J24185335		1-	A	D1
R 1433	CHIP RES.	330k	1/16W	0.5%	RR0816R-334-D	J24189172		1-	A	D1
R 1434	CHIP RES.	10k	1/16W	5%	RMC1/16S 103JTH	J24189037		1-	B	a1
R 1435	CHIP RES.	4.7	1/10W	5%	RMC1/10T 4R7J	J24205479		1-	B	a1
R 1436	CHIP RES.	47	1/16W	5%	RMC1/16S 470JTH	J24189009		1-	A	D1
R 1437	CHIP RES.	47k	1/16W	5%	RMC1/16S 473JTH	J24189045		1-	B	a1
R 1438	CHIP RES.	22k	1/16W	5%	RMC1/16S 223JTH	J24189041		1-	B	a2
R 1439	CHIP RES.	10k	1/16W	5%	RMC1/16S 103JTH	J24189037		1-	A	D1
R 1440	CHIP RES.	10k	1/16W	5%	RMC1/16S 103JTH	J24189037		1-	B	a1
R 1441	CHIP RES.	47k	1/16W	5%	RMC1/16S 473JTH	J24189045		1-	A	D1
R 1442	CHIP RES.	330k	1/16W	5%	RMC1/16S 334JTH	J24189055		1-	B	a1
R 1443	CHIP RES.	100k	1/16W	5%	RMC1/16S 104JTH	J24189049		1-	B	a1
R 1444	CHIP RES.	0	1/10W	5%	RMC1/10T 000J	J24205000		1-	A	D2
R 1445	CHIP RES.	100k	1/16W	5%	RMC1/16S 104JTH	J24189049		1-	B	a1
R 1446	CHIP RES.	4.7k	1/16W	0.5%	RR0510P-472-D	J24189135		1-	A	D1
R 1447	CHIP RES.	100k	1/16W	0.5%	RR0510R-104-D	J24189167		1-	A	D1
R 1448	CHIP RES.	4.7k	1/16W	0.5%	RR0510P-472-D	J24189135		1-	A	D1
R 1449	CHIP RES.	330k	1/16W	0.5%	RR0816R-334-D	J24189172		1-	A	D1
R 1450	CHIP RES.	3.3M	1/16W	5%	RMC1/16 335JATP	J24185335		1-	A	D1
R 1451	CHIP RES.	3.3k	1/16W	5%	RMC1/16S 332JTH	J24189031		1-	B	c2
R 1453	CHIP RES.	0	1/2W	5%	RMC1/2 JPATE	J24275000		1-	A	D3
R 1454	CHIP RES.	0	1/2W	5%	RMC1/2 JPATE	J24275000		1-	B	a3
R 1455	CHIP RES.	220	1/16W	5%	RMC1/16S 221JTH	J24189017		1-	B	b3
R 1456	CHIP RES.	1k	1/16W	5%	RMC1/16S 102JTH	J24189025		1-	B	b3
R 1457	CHIP RES.	15k	1/16W	5%	RMC1/16S 153JTH	J24189039		1-	B	c4
R 1458	CHIP RES.	470k	1/16W	5%	RMC1/16S 474JTH	J24189057		1-	B	d2
R 1459	CHIP RES.	10k	1/16W	5%	RMC1/16S 103JTH	J24189037		1-	B	d2
R 1460	CHIP RES.	10k	1/16W	5%	RMC1/16S 103JTH	J24189037		1-	B	c2
R 1461	CHIP RES.	680k	1/16W	5%	RMC1/16S 684JTH	J24189059		1-	A	D4
R 1462	CHIP RES.	4.7k	1/10W	5%	RMC1/10T 472J	J24205472		1-	B	a1
R 1462	CHIP RES.	2.2k	1/10W	5%	RMC1/10T 222J	J24205222	10-31	B	a1	
R 1463	CHIP RES.	33k	1/16W	5%	RMC1/16S 333JTH	J24189043		1-	B	a2
R 1464	CHIP RES.	470k	1/16W	5%	RMC1/16S 474JTH	J24189057		1-	B	c1
R 1465	CHIP RES.	10k	1/16W	5%	RMC1/16S 103JTH	J24189037		1-	B	c3
R 1467	CHIP RES.	10k	1/16W	5%	RMC1/16S 103JTH	J24189037		1-	B	b1
R 1468	CHIP RES.	2.2k	1/16W	5%	RMC1/16S 222JTH	J24189029		1-	B	a1
R 1469	CHIP RES.	330k	1/16W	5%	RMC1/16S 334JTH	J24189055		1-	B	b3
R 1470	CHIP RES.	100	1/16W	5%	RMC1/16S 101JTH	J24189013		1-	A	D3
R 1471	CHIP RES.	10k	1/16W	5%	RMC1/16S 103JTH	J24189037		1-	A	D3
R 1472	CHIP RES.	10k	1/16W	5%	RMC1/16S 103JTH	J24189037		1-	A	D3
R 1473	CHIP RES.	10k	1/16W	5%	RMC1/16S 103JTH	J24189037		1-	A	D3
R 1474	CHIP RES.	10k	1/16W	5%	RMC1/16S 103JTH	J24189037		1-	A	D3
R 1475	CHIP RES.	4.7k	1/16W	5%	RMC1/16S 472JTH	J24189033		1-	A	D3
R 1476	CHIP RES.	33	1/16W	5%	RMC1/16S 330JTH	J24189007		1-	B	b2
R 1477	CHIP RES.	22k	1/16W	5%	RMC1/16S 223JTH	J24189041		1-	B	d1
R 1478	CHIP RES.	15	1/16W	5%	RMC1/16S 150JTH	J24189003		1-	B	a1
R 1478	CHIP RES.	10	1/16W	5%	RMC1/16S 100JTH	J24189001	47-	B	a1	
R 1479	CHIP RES.	15	1/16W	5%	RMC1/16S 150JTH	J24189003		1-	B	a1
R 1479	CHIP RES.	10	1/16W	5%	RMC1/16S 100JTH	J24189001	47-	B	a1	
R 1480	CHIP RES.	15	1/16W	5%	RMC1/16S 150JTH	J24189003	4-46	B	a1	
R 1481	CHIP RES.	330	1/16W	5%	RMC1/16S 331JTH	J24189019	4-46	B	a1	
R 1482	CHIP RES.	1k	1/16W	5%	RMC1/16S 102JTH	J24189025		1-	B	d2
R 1483	CHIP RES.	1k	1/16W	5%	RMC1/16S 102JTH	J24189025		1-	B	b1
R 1484	CHIP RES.	1k	1/16W	5%	RMC1/16S 102JTH	J24189025		1-	B	b1
R 1485	CHIP RES.	1k	1/16W	5%	RMC1/16S 102JTH	J24189025		1-	B	a1
R 1486	CHIP RES.	22k	1/16W	5%	RMC1/16S 223JTH	J24189041		1-	B	c2
R 1487	CHIP RES.	22k	1/16W	5%	RMC1/16S 223JTH	J24189041		1-	B	c2
R 1488	CHIP RES.	10k	1/16W	5%	RMC1/16S 103JTH	J24189037		1-	A	D1
R 1489	CHIP RES.	4.7k	1/16W	5%	RMC1/16S 472JTH	J24189033		1-	A	D1
R 1490	CHIP RES.	100k	1/16W	5%	RMC1/16 104JATP	J24185104		1-	A	D3
R 1490	CHIP RES.	100k	1/16W	5%	RMC1/16S 104JTH	J24189049	3-	A	D3	
R 1491	CHIP RES.	330k	1/16W	5%	RMC1/16 334JATP	J24185334		1-	A	D1
R 1491	CHIP RES.	330k	1/16W	5%	RMC1/16S 334JTH	J24189055	3-	A	D1	
R 1492	CHIP RES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103		1-	B	b1
R 1492	CHIP RES.	10k	1/16W	5%	RMC1/16S 103JTH	J24189037	3-	B	b1	
R 1493	CHIP RES.	10k	1/16W	5%	RMC1/16S 103JTH	J24189037		1-	B	b1

# Main Unit

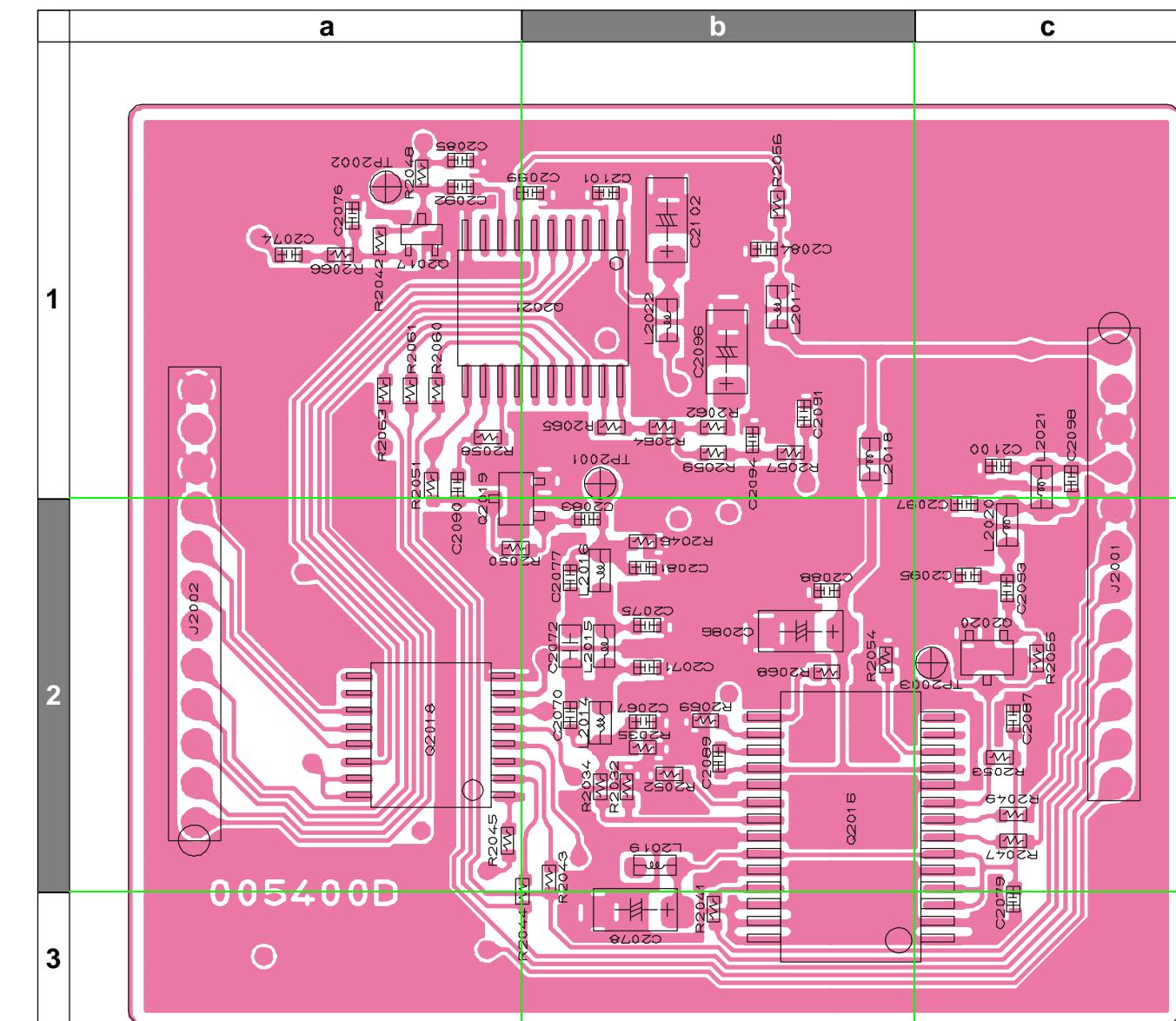
REF.	DESCRIPTION	VALUE	V/W	TOL.	MFR'S DESIG	VXSTD P/N	VERS.	LOT.	SIDE	LAY ADR
R 1494	CARBON FILM RES.	100k	1/6W	5%	RD16PJ104 100K	J01225104		1-	B	c1
R 1494	CHIP RES.	100k	1/16W	5%	RMC1/16S 104JTH	J24189049		3-	B	c1
R 1495	CHIP RES.	100k	1/16W	5%	RMC1/16S 104JTH	J24189049		32-	A	D2
R 1496	CHIP RES.	1k	1/10W	5%	RMC1/10T 102J	J24205102		32-	A	D1
S 1001	SLIDE SWITCH				HSW0805-01-010	N6090081		1-	B	a3
T 1001	COIL 05RF				M5-N1 R12-T635Y	L0022651		1-	A	C2
T 1002	COIL 05RF				M5-N1 R12-T635Y	L0022651		1-	A	C2
T 1003	COIL 05RF				M5-N1 R12-T635Y	L0022651		1-	A	C2
T 1004	COIL 05RF				M5-N1 R12-T635Y	L0022651		1-	A	C2
T 1005	COIL 05RF				M5-N1 R12-T661Y	L0022674		1-	A	B1
T 1006	COIL WIDE-TRANS.				990812213	L0022619		1-	A	C2
T 1007	COIL 05RF				M5-N1 R12-T635Y	L0022651		1-	A	C2
T 1008	COIL 05RF				M5-N1 R12-T635Y	L0022651		1-	A	C2
T 1009	COIL 05RF				M5-N1 R12-T635Y	L0022651		1-	A	D1
T 1010	COIL 05RF				M5-N1 R12-T635Y	L0022651		1-	A	C1
T 1011	COIL 05RF				M5-N1 R12-T635Y	L0022651		1-	A	C1
T 1012	COIL 05RF				R12-S972Y	L0022687		1-	A	B1
T 1013	COIL 05RF				M5-N1 R12-T661Y	L0022674		1-	A	B1
T 1014	COIL 05RF				M5-N1 R12-T635Y	L0022651		1-	A	C2
T 1015	COIL WIDE-TRANS.				960812088	L0022478		1-	A	C2
T 1016	COIL WIDE-TRANS.				950812004	L0022479		1-	A	B1
T 1017	BALUN TRANSFOMERS				B5F458DB-1011=P3	L0190246		1-	A	C1
T 1018	COIL 05RF				M5-N1 R12-T660Y	L0022673		1-	A	A1
T 1019	COIL WIDE-TRANS.				960812088	L0022478		1-	A	B2
T 1020	COIL 05RF				K5-N1 R12-T639B	L0022655		1-	A	C3
T 1021	COIL 05RF				K5-N1 R12-T639B	L0022655		1-	A	A2
T 1022	BALUN TRANSFOMERS				B5F458DB-1011=P3	L0190246		1-	A	C1
T 1023	COIL 05RF				M5-N1 R12-T661Y	L0022674		1-	A	B2
T 1024	COIL 05RF				M5-N1 R12-T661Y	L0022674		1-	A	B3
T 1025	COIL 05RF				M5-N1 R12-T661Y	L0022674		1-	A	B3
T 1026	COIL 05RF				M5-N1 R12-T661Y	L0022674		1-	A	B3
T 1027	COIL 05RF				K5-N1 R12-T639B	L0022655		1-	A	C3
T 1028	COIL 05RF				R12-S978Y	L0022501		1-	A	C3
T 1028	COIL 05RF				M5-N1 R12-T804Y	L0022690	3-	A	C3	
T 1029	COIL 05RF				K5-N1 R12-T639B	L0022655	1-	A	B4	
T 1030	COIL 05RF				M5-N1 R12-T661Y	L0022674	1-	A	C3	
T 1031	COIL WIDE-TRANS.				960812088	L0022478	1-	A	C3	
T 1033	COIL 05RF				K5-N1 R12-T638B	L0022654	1-	A	C4	
T 1034	COIL 05RF				K5-N1 R12-T639B	L0022655	1-	A	C3	
T 1035	EMI FILTER				SH-322	Q9000752	1-	A	D1	
TC1001	TRIMMER CAP.	3pF			ECR-KN003A61X 3P	K91000264		1-	A	C2
TC1002	TRIMMER CAP.	6pF			ECR-KN006A61X 6P	K91000225		1-	A	D1
TC1003	TRIMMER CAP.	10pF			ECR-KN010C61X	K91000226		1-	A	C1
TC1004	TRIMMER CAP.	6pF			ECR-KN006A61X 6P	K91000225		1-	A	C1
TC1005	TRIMMER CAP.	6pF			ECR-KN006A61X 6P	K91000225		1-	A	C1
TH1001	THERMISTOR				TBPS1R223K460H5Q	G9090085		1-	B	b1
TH1002	THERMISTOR				ERTJ0EV473J	G9090120		47-		
VR1001	POT.	10k			EVN-5ESX50B14	J51811103		1-	A	B3
X 1001	XTAL UM-1	68.33MHz			68.33MHz	H0103242		1-	A	A1
XF1001	XTAL FILTER				MF68R TR-6(3)	H1102337		1-	A	B2
	SHIELD CASE PLL					RA0271100		1-		
	SHIELD CASE COVER					RA0271200		1-		
	LEAF SPRING					R0132100		1-		
	LEAF SPRING					R0132100		1-22		
	LEAF SPRING					R0132100		W/O CE LABEL	23-	
	LEAF SPRING					R0132100		W/ CE LABEL	23-	
	LEAF SPRING					R0132100		W/ CE LABEL	35-	
	LEAF SPRING					R0152180		W/ CE LABEL	23-	
	INSULATOR WASHER					RA0335300		W/ CE LABEL	23-	
	INSULATOR WASHER					RA033530A		W/ CE LABEL	35-	
	LEAF SPRING					R0132100		32-		
*** FUSE-UNIT ***										
Printed Circuit Board						FR007440A		17-		
D 9001	DIODE				RB051L-40TE25	G2070718		17-	B	
F 9001	CHIP FUSE	3.15A			KAB-2402-322NA31	Q0000087		17-	B	



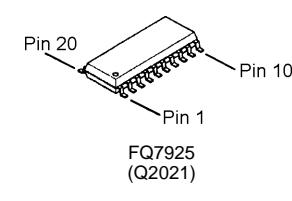
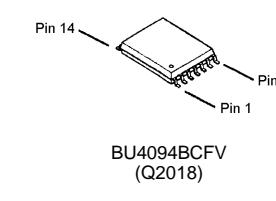
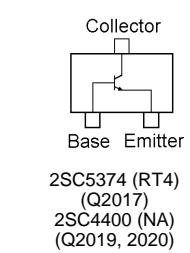
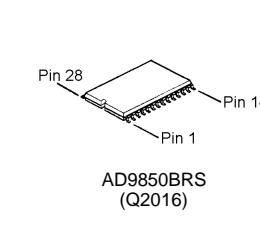
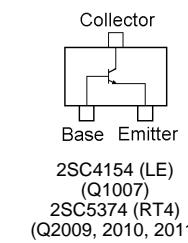
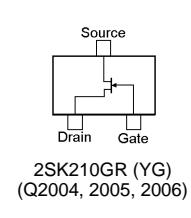
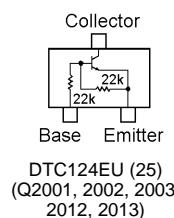
# PLL Unit



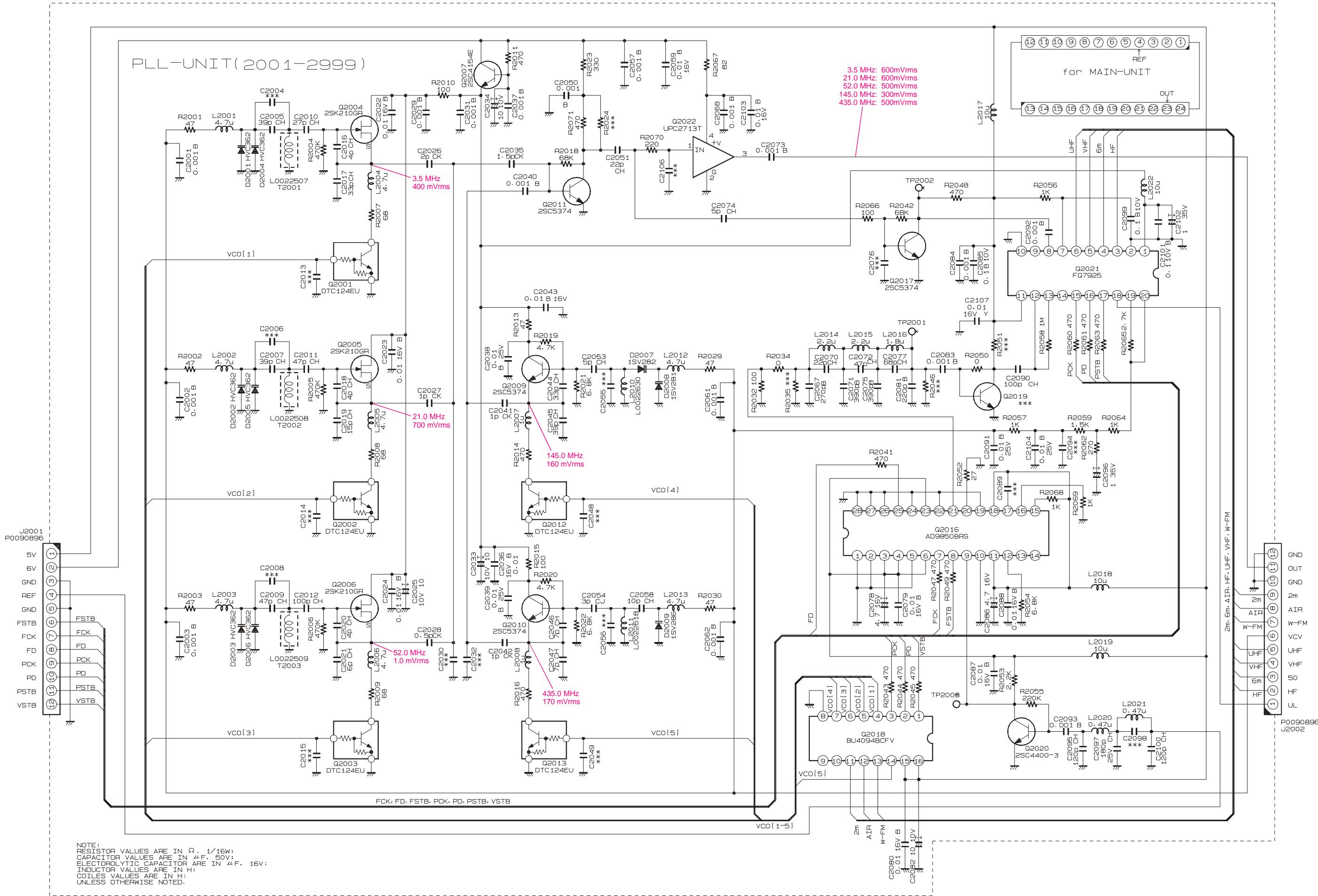
Side A



Side B

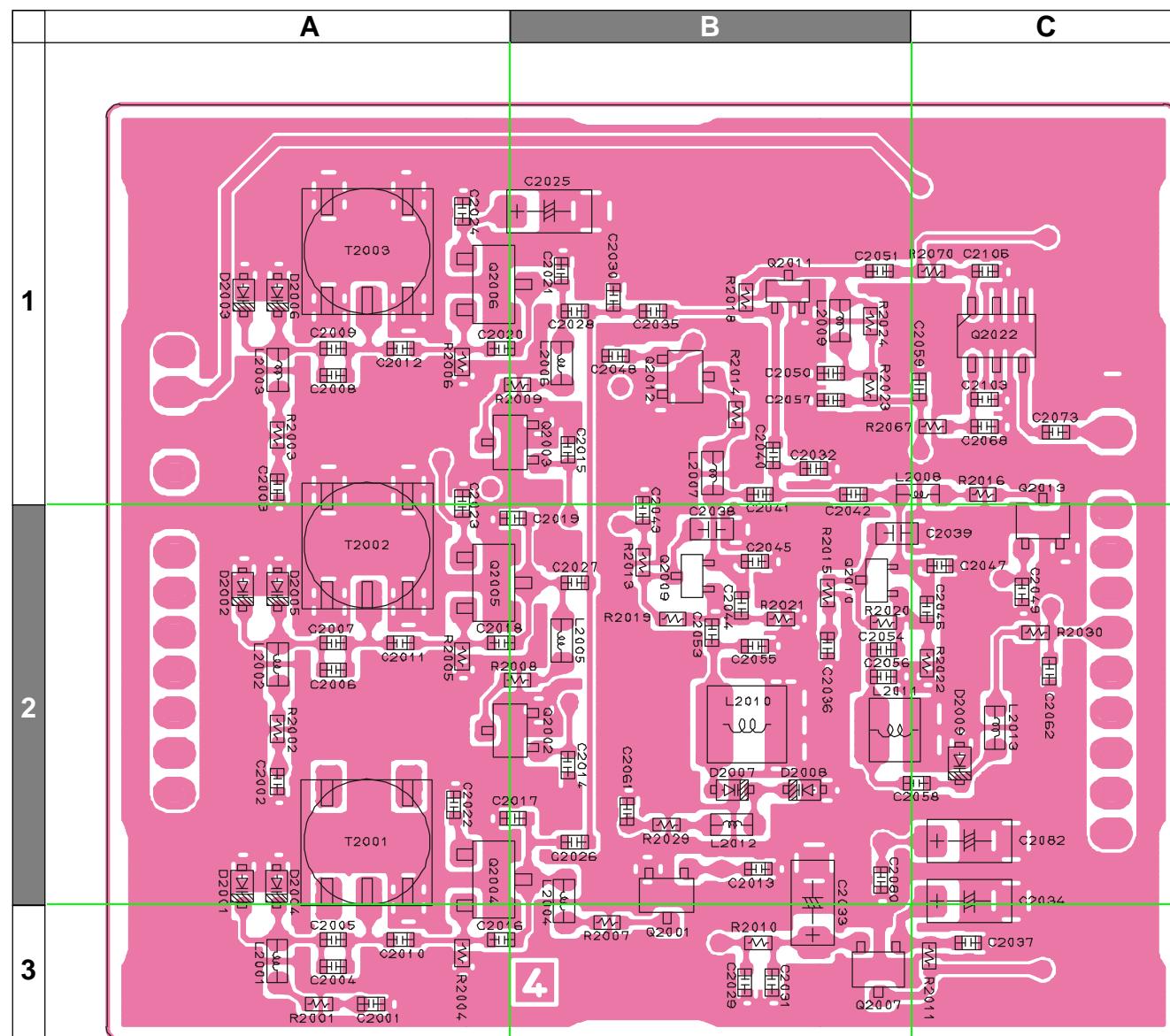


### **PLL Unit (Lot. 13~)**

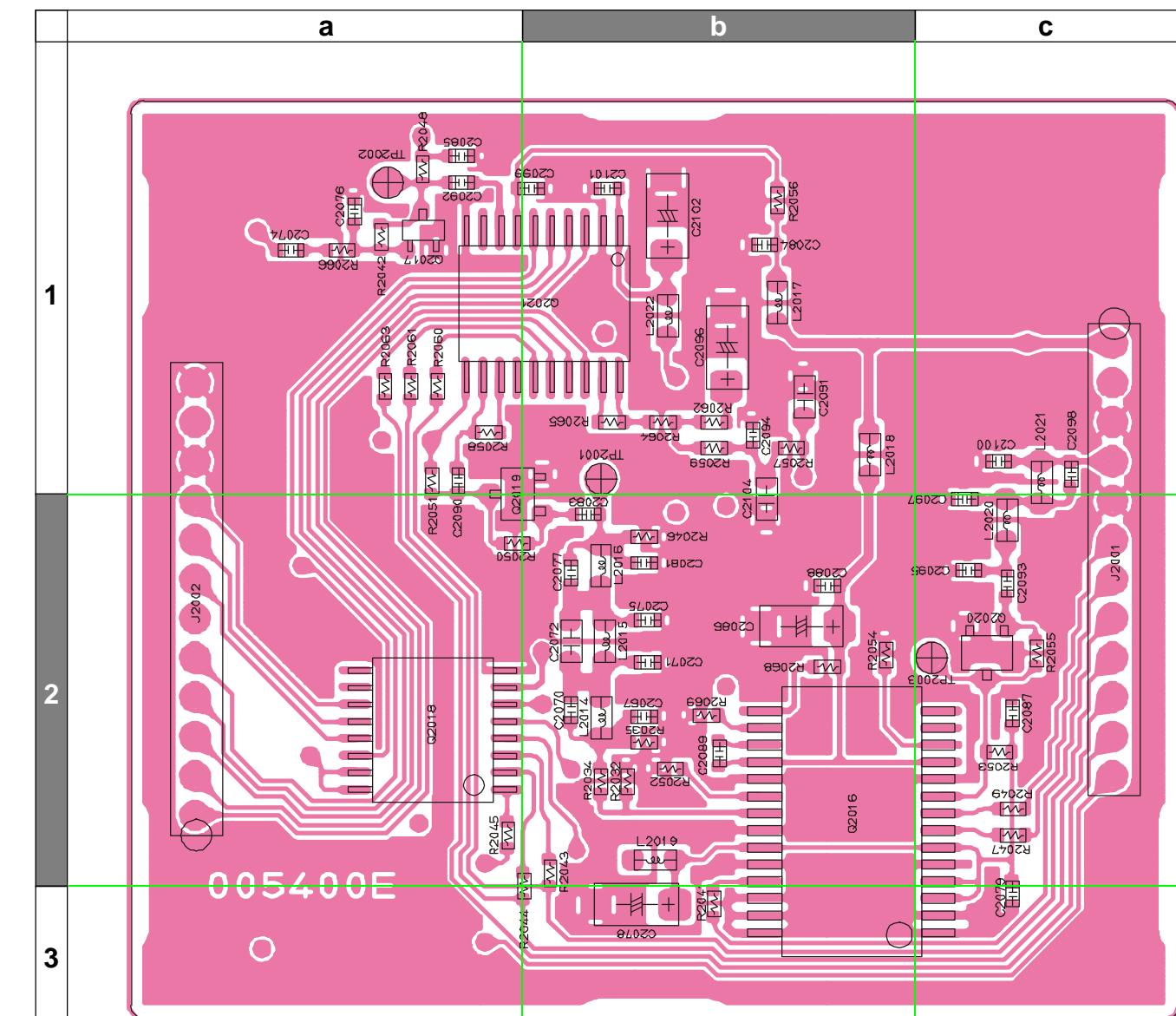


NOTE:  
RESISTOR VALUES ARE IN  $\Omega$ . 1/16W;  
CAPACITOR VALUES ARE IN  $\mu F$ . 50V;  
ELECTROLYTIC CAPACITOR ARE IN  $\mu F$ . 16V;  
INDUCTOR VALUES ARE IN H;  
COILS VALUES ARE IN H;  
UNLESS OTHERWISE NOTED.

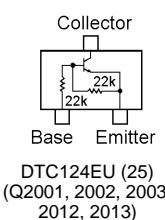
# PLL Unit (Lot. 13~)



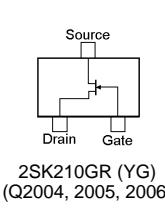
Side A



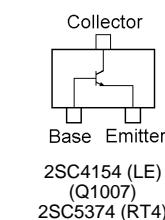
Side B



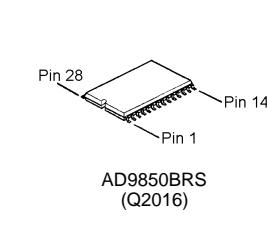
DTC124EU (25)  
(Q2001, 2002, 2003,  
2012, 2013)



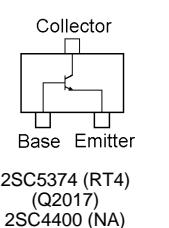
2SK210GR (YG)  
(Q2004, 2005, 2006)



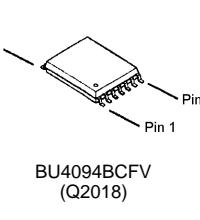
2SC4154 (LE)  
(Q1007)  
2SC5374 (RT4)  
(Q2009, 2010, 2011)



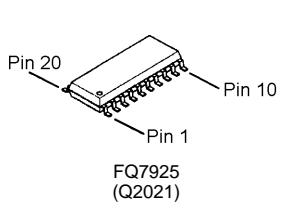
AD9850BRS  
(Q2016)



2SC5374 (RT4)  
(Q2017)  
2SC4400 (NA)  
(Q2019, 2020)



BU4094BCFV  
(Q2018)



FQ7925  
(Q2021)

# PLL Unit

## Parts List

REF.	DESCRIPTION	VALUE	V/W	TOL.	MFR'S DESIG	VXSTD P/N	VERS.	LOT.	SIDE	LAY ADR
*** PLL UNIT ***										
PCB with Components								CB1151001 W/O CE LABEL		
PCB with Components								CB1151002 W/ CE LABEL		
Printed Circuit Board								FR005400D 1-		
Printed Circuit Board								FR005400E 13-		
C 2001	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	A	A3
C 2002	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	A	A2
C 2003	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	A	A1
C 2005	CHIP CAP.	39pF	50V	CH	GRM36CH390J50PT	K22178226		1-	A	A3
C 2007	CHIP CAP.	39pF	50V	CH	GRM36CH390J50PT	K22178226		1-	A	A2
C 2009	CHIP CAP.	47pF	50V	CH	GRM36CH470J50PT	K22178228		1-	A	A1
C 2010	CHIP CAP.	27pF	50V	CH	GRM36CH270J50PT	K22178222		1-	A	A3
C 2011	CHIP CAP.	47pF	50V	CH	GRM36CH470J50PT	K22178228		1-	A	A2
C 2012	CHIP CAP.	100pF	50V	CH	GRM36CH101J50PT	K22178236		1-	A	A1
C 2016	CHIP CAP.	4pF	50V	CH	GRM36CH040C50PT	K22178206		1-	A	A3
C 2017	CHIP CAP.	33pF	50V	CH	GRM36CH330J50PT	K22178224		1-	A	B2
C 2018	CHIP CAP.	4pF	50V	CH	GRM36CH040C50PT	K22178206		1-	A	A2
C 2019	CHIP CAP.	15pF	50V	CH	GRM36CH150J50PT	K22178216		1-	A	B2
C 2020	CHIP CAP.	4pF	50V	CH	GRM36CH040C50PT	K22178206		1-	A	A1
C 2021	CHIP CAP.	6pF	50V	CH	GRM36CH060D50PT	K22178208		1-	A	B1
C 2022	CHIP CAP.	0.01uF	16V	B	GRM36B103K16PT	K22128804		1-	A	A2
C 2023	CHIP CAP.	0.01uF	16V	B	GRM36B103K16PT	K22128804		1-	A	A1
C 2024	CHIP CAP.	0.01uF	16V	B	GRM36B103K16PT	K22128804		1-	A	A1
C 2025	CHIP TA.CAP.	10uF	10V		TEMSVA1A106M-8R	K78100028		1-	A	B1
C 2026	CHIP CAP.	2pF	50V	CK	GRM36CK020C50PT	K22178204		1-	A	B2
C 2026	CHIP CAP.	1pF	50V	CK	GRM36CK010C50PT	K22178202		3-	A	B2
C 2026	CHIP CAP.	1pF	50V	CK	GRM36CK010C50PT	K22178202		15-	A	B2
C 2026	CHIP CAP.	2pF	50V	CK	GRM36CK020C50PT	K22178204		35-	A	B2
C 2027	CHIP CAP.	1pF	50V	CK	GRM36CK010C50PT	K22178202		1-	A	B2
C 2028	CHIP CAP.	1pF	50V	CK	GRM36CK010C50PT	K22178202		1-	A	B1
C 2028	CHIP CAP.	0.5pF	50V	CK	GRM36CK0R5B50PT	K22178285		35-	A	B1
C 2029	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	A	B3
C 2031	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	A	B3
C 2033	CHIP TA.CAP.	10uF	10V		TEMSVA1A106M-8R	K78100028		1-	A	B2
C 2034	CHIP TA.CAP.	10uF	10V		TEMSVA1A106M-8R	K78100028		1-	A	C2
C 2035	CHIP CAP.	5pF	50V	CH	GRM36CH050C50PT	K22178207		1-	A	B1
C 2035	CHIP CAP.	1.5pF	50V	CK	GRM36CK1R5B50PT	K22178288		35-	A	B1
C 2036	CHIP CAP.	0.01uF	16V	B	GRM36B103K16PT	K22128804		1-	A	B2
C 2037	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	A	C3
C 2038	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	A	B2
C 2039	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	A	B2
C 2040	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	A	B1
C 2041	CHIP CAP.	1pF	50V	CK	GRM36CK010C50PT	K22178202		1-	A	B1
C 2042	CHIP CAP.	1pF	50V	CK	GRM36CK010C50PT	K22178202		1-	A	B1
C 2043	CHIP CAP.	0.01uF	16V	B	GRM36B103K16PT	K22128804		1-	A	B2
C 2044	CHIP CAP.	33pF	50V	CH	GRM36CH330J50PT	K22178224		1-	A	B2
C 2045	CHIP CAP.	39pF	50V	CH	GRM36CH390J50PT	K22178226		1-	A	B2
C 2046	CHIP CAP.	7pF	50V	CH	GRM36CH070D50PT	K22178209		1-	A	C2
C 2047	CHIP CAP.	7pF	50V	CH	GRM36CH070D50PT	K22178209		1-	A	C2
C 2050	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	A	B1
C 2051	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	A	B1
C 2051	CHIP CAP.	22pF	50V	CH	GRM36CH220J50PT	K22178220		35-	A	B1
C 2053	CHIP CAP.	5pF	50V	CH	GRM36CH050C50PT	K22178207		1-	A	B2
C 2054	CHIP CAP.	3pF	50V	CJ	GRM36CJ030C50PT	K22178205		1-	A	B2
C 2057	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	A	B1
C 2058	CHIP CAP.	10pF	50V	CH	GRM36CH100D50PT	K22178212		1-	A	C2
C 2059	CHIP CAP.	0.01uF	16V	B	GRM36B103K16PT	K22128804		1-	A	C1
C 2061	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	A	B2
C 2062	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	A	C2
C 2067	CHIP CAP.	33pF	50V	CH	GRM36CH330J50PT	K22178224		1-	B	b2
C 2067	CHIP CAP.	270pF	50V	B	GRM36B271K50PT	K22178802		38-	B	b2
C 2068	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	A	C1
C 2070	CHIP CAP.	8pF	50V	CH	GRM36CH080D50PT	K22178210		1-	B	b2
C 2070	CHIP CAP.	22pF	50V	CH	GRM36CH220J50PT	K22178220		38-	B	b2
C 2071	CHIP CAP.	82pF	50V	CH	GRM36CH820J50PT	K22178234		1-	B	b2
C 2071	CHIP CAP.	390pF	50V	B	GRM36B391K50PT	K22178804		38-	B	b2
C 2072	CHIP CAP.	47pF	50V	CH	GRM36CH470J50PT	K22178228		38-	B	b2

# PLL Unit

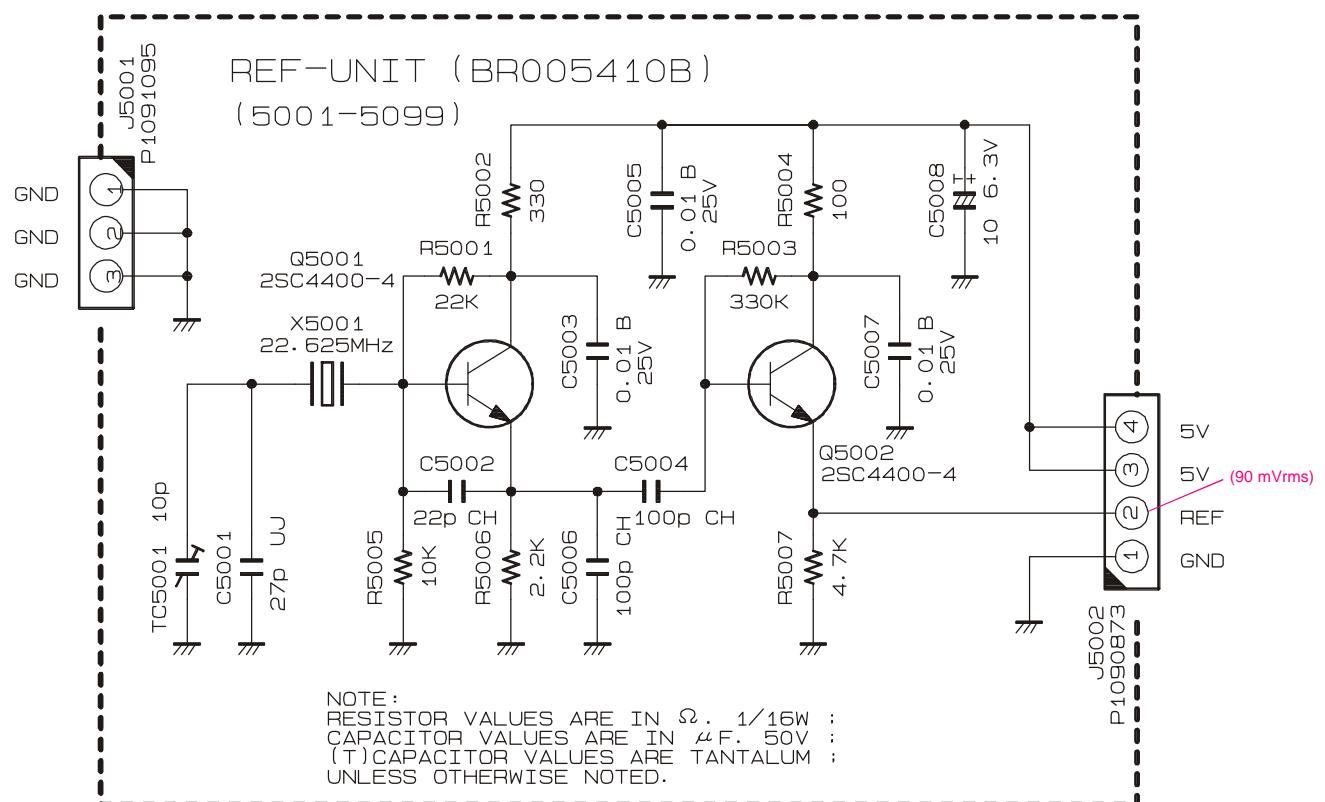
REF.	DESCRIPTION	VALUE	V/W	TOL.	MFR'S DESIG	VXSTD P/N	VERS.	LOT.	SIDE	LAY ADR
C 2072	CHIP CAP.	47pF	50V	CH	GRM39CH470J50PT	K22174227	W/O CE LABEL	40-	B	b2
C 2073	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-34	A	C1
C 2073	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		35-	A	C1
C 2074	CHIP CAP.	5pF	50V	CH	GRM36CH050C50PT	K22178207		1-	B	a1
C 2074	CHIP CAP.	5pF	50V	CH	GRM36CH050C50PT	K22178207		15-	B	a1
C 2075	CHIP CAP.	68pF	50V	CH	GRM36CH680J50PT	K22178232		1-	B	b2
C 2075	CHIP CAP.	390pF	50V	B	GRM36B391K50PT	K22178804		38-	B	b2
C 2077	CHIP CAP.	5pF	50V	CH	GRM36CH050C50PT	K22178207		1-	B	b2
C 2077	CHIP CAP.	68pF	50V	CH	GRM36CH680J50PT	K22178232		38-	B	b2
C 2078	CHIP TA.CAP.	4.7uF	6.3V		TEMSVA20J475M-8R	K78080031		1-	B	b3
C 2078	CHIP TA.CAP.	4.7uF	16V		TEMSVA1C475M-8R	K78120031		30-	B	b3
C 2079	CHIP CAP.	0.01uF	16V	B	GRM36B103K16PT	K22128804		1-	B	c3
C 2080	CHIP CAP.	0.01uF	16V	B	GRM36B103K16PT	K22128804		1-	A	B2
C 2081	CHIP CAP.	33pF	50V	CH	GRM36CH330J50PT	K22178224		1-	B	b2
C 2081	CHIP CAP.	220pF	50V	B	GRM36B221K50PT	K22178801		38-	B	b2
C 2082	CHIP TA.CAP.	10uF	10V		TEMSVA1A106M-8R	K78100028		1-	A	C2
C 2083	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	B	b2
C 2084	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	B	b1
C 2085	CHIP CAP.	0.1uF	10V	B	GRM36B104K10PT	K22108802		1-	B	a1
C 2086	CHIP TA.CAP.	4.7uF	6.3V		TEMSVA20J475M-8R	K78080031		1-	B	b2
C 2086	CHIP TA.CAP.	4.7uF	16V		TEMSVA1C475M-8R	K78120031		30-	B	b2
C 2087	CHIP CAP.	0.01uF	16V	B	GRM36B103K16PT	K22128804		1-	B	c2
C 2088	CHIP CAP.	0.01uF	16V	B	GRM36B103K16PT	K22128804		1-	B	b2
C 2090	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	B	a1
C 2090	CHIP CAP.	100pF	50V	CH	GRM36CH101J50PT	K22178236		38-	B	a1
C 2091	CHIP CAP.	0.01uF	16V	B	GRM36B103K16PT	K22128804		1-	B	b1
C 2091	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		3-	B	b1
C 2092	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	B	a1
C 2093	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	B	c2
C 2094	CHIP CAP.	0.01uF	16V	B	GRM36B103K16PT	K22128804		1-	B	b1
C 2094	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		3-12	B	b1
C 2095	CHIP CAP.	120pF	50V	CH	GRM36CH121J50PT	K22178238		1-	B	c2
C 2096	CHIP TA.CAP.	1uF	35V		TEMSVA1V105M-8R	K78160032		1-	B	b1
C 2097	CHIP CAP.	180pF	25V	CH	GRM36CH181J25PT	K22148201		1-	B	c2
C 2099	CHIP CAP.	0.1uF	10V	B	GRM36B104K10PT	K22108802		1-	B	b1
C 2100	CHIP CAP.	120pF	50V	CH	GRM36CH121J50PT	K22178238		1-	B	c1
C 2101	CHIP CAP.	0.1uF	10V	B	GRM36B104K10PT	K22108802		1-	B	b1
C 2102	CHIP TA.CAP.	1uF	35V		TEMSVA1V105M-8R	K78160032		1-	B	b1
C 2103	CHIP CAP.	0.01uF	16V	B	GRM36B103K16PT	K22128804		1-	A	C1
C 2104	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		13-	B	b2
C 2106	CHIP CAP.	3pF	50V	CJ	GRM36CJ030C50PT	K22178205	W/ CE LABEL	23-	A	C1
C 2107	CERAMIC CAP.	0.01uF	16V	Y	EP050Y103N-A	K28129001		6-		
C 2108	CHIP CAP.	8pF	50V	CH	GRM36CH080D50PT	K22178210		W/ CE LABEL	35-	
C 2109	CHIP CAP.	8pF	50V	CH	GRM36CH080D50PT	K22178210		W/ CE LABEL	35-	
D 2001	DIODE				HVC362TRF	G2070636	W/ CE LABEL	1-	A	A2
D 2002	DIODE				HVC362TRF	G2070636		1-	A	A2
D 2003	DIODE				HVC362TRF	G2070636		1-	A	A1
D 2004	DIODE				HVC362TRF	G2070636		1-	A	A2
D 2005	DIODE				HVC362TRF	G2070636		1-	A	A2
D 2006	DIODE				HVC362TRF	G2070636		1-	A	A1
D 2007	DIODE				1SV282(TPH3)	G2070778		1-	A	B2
D 2008	DIODE				1SV281(TPH3)	G2070620		1-	A	B2
D 2009	DIODE				1SV286(TPL3)	G2070610		1-	A	C2
J 2001	CONNECTOR				9230B-1-12Z003-T	P0090896	W/ CE LABEL	1-	B	c1
J 2002	CONNECTOR				9230B-1-12Z003-T	P0090896		1-	B	a2
L 2001	M.RFC	4.7uH			LK1608 4R7K-T	L1690688	1-	A		A3
L 2002	M.RFC	4.7uH			LK1608 4R7K-T	L1690688	1-	A		A2
L 2003	M.RFC	4.7uH			LK1608 4R7K-T	L1690688	1-	A		A1
L 2004	M.RFC	4.7uH			LK1608 4R7K-T	L1690688	1-	A		B2
L 2005	M.RFC	4.7uH			LK1608 4R7K-T	L1690688	1-	A		B2
L 2006	M.RFC	4.7uH			LK1608 4R7K-T	L1690688	1-	A		B1
L 2007	M.RFC	1uH			LK1608 1R0K-T	L1690687	1-	A		B1
L 2008	M.RFC	1uH			LK1608 1R0K-T	L1690687	1-	A		C1
L 2009	M.RFC	0.1uH			LK1608 R10K-T	L1690407	1-34	A		B1
L 2010	COIL				E2 0.4-2.0-5.5T-L	L0022630	1-	A		B2
L 2011	COIL				E2 0.45-1.4-2.5T-L	L0022618	1-	A		B2
L 2012	M.RFC	4.7uH			LK1608 4R7K-T	L1690688	1-	A		B2

# PLL Unit

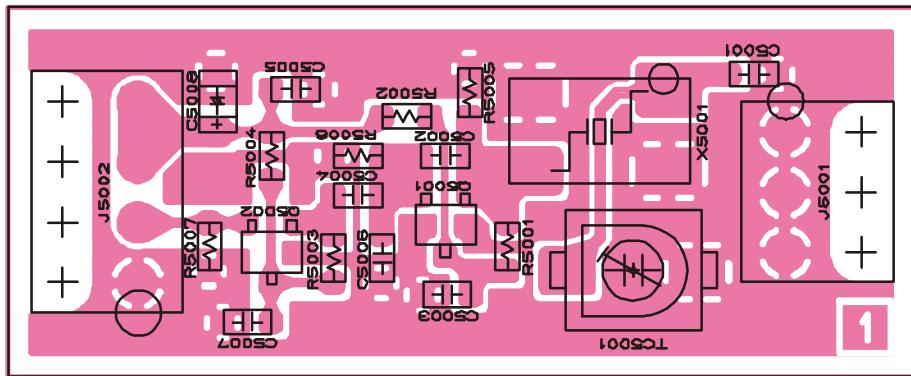
REF.	DESCRIPTION	VALUE	V/W	TOL.	MFR'S DESIG	VXSTD P/N	VERS.	LOT.	SIDE	LAY ADR
L 2013	M.RFC	4.7uH			LK1608 4R7K-T	L1690688		1-	A	C2
L 2014	M.RFC	12uH			LK1608 120K-T	L1691027		1-	B	b2
L 2014	M.RFC	2.2uH			LK1608 2R2K-T	L1690634		38-	B	b2
L 2015	M.RFC	12uH			LK1608 120K-T	L1691027		1-	B	b2
L 2015	M.RFC	2.2uH			LK1608 2R2K-T	L1690634		38-	B	b2
L 2016	M.RFC	10uH			LK1608 100K-T	L1690689		1-	B	b2
L 2016	M.RFC	1.8uH			LK1608 1R8K-T	L1690847		38-	B	b2
L 2017	M.RFC	10uH			LK1608 100K-T	L1690689		1-	B	b1
L 2018	M.RFC	10uH			LK1608 100K-T	L1690689		1-	B	b1
L 2019	M.RFC	10uH			LK1608 100K-T	L1690689		1-	B	b2
L 2020	M.RFC	0.47uH			LK1608 R47K-T	L1690414		1-	B	c2
L 2021	M.RFC	0.47uH			LK1608 R47K-T	L1690414		1-	B	c1
L 2022	M.RFC	10uH			LK1608 100K-T	L1690689		1-	B	b1
L 2023	M.RFC	0.018uH			HK1005 18NJ-T	L1691105	W/ CE LABEL	35-		
Q 2001	TRANSISTOR				DTC124EU T106	G3070045		1-	A	B2
Q 2002	TRANSISTOR				DTC124EU T106	G3070045		1-	A	B2
Q 2003	TRANSISTOR				DTC124EU T106	G3070045		1-	A	B1
Q 2004	FET				2SK210GR TE85R	G3802107G		1-	A	A2
Q 2005	FET				2SK210GR TE85R	G3802107G		1-	A	A2
Q 2006	FET				2SK210GR TE85R	G3802107G		1-	A	A1
Q 2007	TRANSISTOR				2SC4154-T11-1E	G3341548E		1-	A	B3
Q 2009	TRANSISTOR				2SC5374-TL	G3353748		1-	A	B2
Q 2010	TRANSISTOR				2SC5374-TL	G3353748		1-	A	B2
Q 2011	TRANSISTOR				2SC5374-TL	G3353748		1-	A	B1
Q 2012	TRANSISTOR				DTC124EU T106	G3070045		1-	A	B1
Q 2013	TRANSISTOR				DTC124EU T106	G3070045		1-	A	C2
Q 2016	IC				AD9850BRS-REEL	G1092567		1-	B	b2
Q 2017	TRANSISTOR				2SC5374-TL	G3353748		1-	B	a1
Q 2018	IC				BU4094BCFV-E1	G1092128		1-	B	a2
Q 2018	IC				BU4094BCFV-E2	G1093527		41-	B	a2
Q 2019	TRANSISTOR				2SC4400-4-TL	G3344008D		1-	B	a2
Q 2019	TRANSISTOR				2SC4400-3-TL	G3344008C		17-37	B	a2
Q 2020	TRANSISTOR				2SC4400-4-TL	G3344008D		1-	B	c2
Q 2020	TRANSISTOR				2SC4400-3-TL	G3344008C		17-	B	c2
Q 2021	IC				FQ7925	G1091710		1-	B	b1
Q 2022	IC				UPC2713T-E3	G1092862		1-	A	C1
R 2001	CHIP RES.	47	1/16W	5%	RMC1/16S 470JTH	J24189009		1-	A	A3
R 2002	CHIP RES.	47	1/16W	5%	RMC1/16S 470JTH	J24189009		1-	A	A2
R 2003	CHIP RES.	47	1/16W	5%	RMC1/16S 470JTH	J24189009		1-	A	A1
R 2004	CHIP RES.	470k	1/16W	5%	RMC1/16S 474JTH	J24189057		1-	A	A3
R 2005	CHIP RES.	470k	1/16W	5%	RMC1/16S 474JTH	J24189057		1-	A	A2
R 2006	CHIP RES.	470k	1/16W	5%	RMC1/16S 474JTH	J24189057		1-	A	A1
R 2007	CHIP RES.	68	1/16W	5%	RMC1/16S 680JTH	J24189011		1-	A	B3
R 2008	CHIP RES.	68	1/16W	5%	RMC1/16S 680JTH	J24189011		1-	A	B2
R 2009	CHIP RES.	68	1/16W	5%	RMC1/16S 680JTH	J24189011		1-	A	B1
R 2010	CHIP RES.	100	1/16W	5%	RMC1/16S 101JTH	J24189013		1-	A	B3
R 2011	CHIP RES.	470	1/16W	5%	RMC1/16S 471JTH	J24189021		1-	A	C3
R 2013	CHIP RES.	47	1/16W	5%	RMC1/16S 470JTH	J24189009		1-	A	B2
R 2014	CHIP RES.	470	1/16W	5%	RMC1/16S 471JTH	J24189021		1-	A	B1
R 2015	CHIP RES.	100	1/16W	5%	RMC1/16S 101JTH	J24189013		1-	A	B2
R 2016	CHIP RES.	470	1/16W	5%	RMC1/16S 471JTH	J24189021		1-	A	C1
R 2018	CHIP RES.	68k	1/16W	5%	RMC1/16S 683JTH	J24189047		1-	A	B1
R 2019	CHIP RES.	4.7k	1/16W	5%	RMC1/16S 472JTH	J24189033		1-	A	B2
R 2020	CHIP RES.	4.7k	1/16W	5%	RMC1/16S 472JTH	J24189033		1-	A	B2
R 2021	CHIP RES.	6.8k	1/16W	5%	RMC1/16S 682JTH	J24189035		1-	A	B2
R 2022	CHIP RES.	6.8k	1/16W	5%	RMC1/16S 682JTH	J24189035		1-	A	C2
R 2023	CHIP RES.	1k	1/16W	5%	RMC1/16S 102JTH	J24189025		1-	A	B1
R 2023	CHIP RES.	330	1/16W	5%	RMC1/16S 331JTH	J24189019		35-	A	B1
R 2029	CHIP RES.	47	1/16W	5%	RMC1/16S 470JTH	J24189009		1-	A	B2
R 2030	CHIP RES.	47	1/16W	5%	RMC1/16S 470JTH	J24189009		1-	A	C2
R 2032	CHIP RES.	100	1/16W	5%	RMC1/16S 101JTH	J24189013		1-	B	b2
R 2034	CHIP RES.	3.3k	1/16W	5%	RMC1/16S 332JTH	J24189031		1-	B	b2
R 2034	CHIP RES.	0	1/16W	5%	RMC1/16S JPTH	J24189070		38-	B	b2
R 2035	CHIP RES.	680	1/16W	5%	RMC1/16S 681JTH	J24189023		1-37	B	b2
R 2041	CHIP RES.	470	1/16W	5%	RMC1/16S 471JTH	J24189021		1-	B	b3
R 2042	CHIP RES.	68k	1/16W	5%	RMC1/16S 683JTH	J24189047		1-	B	a1
R 2043	CHIP RES.	470	1/16W	5%	RMC1/16S 471JTH	J24189021		1-	B	b2

# PLL Unit

REF.	DESCRIPTION	VALUE	V/W	TOL.	MFR'S DESIG	VXSTD P/N	VERS.	LOT.	SIDE	LAY ADR
R 2044	CHIP RES.	470	1/16W	5%	RMC1/16S 471JTH	J24189021		1-	B	b2
R 2045	CHIP RES.	470	1/16W	5%	RMC1/16S 471JTH	J24189021		1-	B	a2
R 2046	CHIP RES.	470	1/16W	5%	RMC1/16S 471JTH	J24189021		1-37	B	b2
R 2047	CHIP RES.	470	1/16W	5%	RMC1/16S 471JTH	J24189021		1-	B	c2
R 2048	CHIP RES.	470	1/16W	5%	RMC1/16S 471JTH	J24189021		1-	B	a1
R 2049	CHIP RES.	470	1/16W	5%	RMC1/16S 471JTH	J24189021		1-	B	c2
R 2050	CHIP RES.	470k	1/16W	5%	RMC1/16S 474JTH	J24189057		1-	B	a2
R 2050	CHIP RES.	0	1/16W	5%	RMC1/16S JPTH	J24189070		38-	B	a2
R 2051	CHIP RES.	4.7k	1/16W	5%	RMC1/16S 472JTH	J24189033		1-37	B	a1
R 2052	CHIP RES.	100	1/16W	5%	RMC1/16S 101JTH	J24189013		1-	B	b2
R 2052	CHIP RES.	27	1/16W	5%	RMC1/16S 270JTH	J24189006		38-	B	b2
R 2053	CHIP RES.	2.2k	1/16W	5%	RMC1/16S 222JTH	J24189029		1-	B	c2
R 2054	CHIP RES.	3.9k	1/16W	5%	RMC1/16S 392JTH	J24189032		1-	B	b2
R 2054	CHIP RES.	6.8k	1/16W	5%	RMC1/16S 682JTH	J24189035		38-	B	b2
R 2055	CHIP RES.	220k	1/16W	5%	RMC1/16S 224JTH	J24189053		1-	B	c2
R 2056	CHIP RES.	1k	1/16W	5%	RMC1/16S 102JTH	J24189025		1-	B	b1
R 2057	CHIP RES.	1k	1/16W	5%	RMC1/16S 102JTH	J24189025		1-	B	b1
R 2058	CHIP RES.	1M	1/16W	5%	RMC1/16S 105JTH	J24189061		1-	B	a1
R 2059	CHIP RES.	1.5k	1/16W	5%	RMC1/16S 152JTH	J24189027		1-	B	b1
R 2060	CHIP RES.	470	1/16W	5%	RMC1/16S 471JTH	J24189021		1-	B	a1
R 2061	CHIP RES.	470	1/16W	5%	RMC1/16S 471JTH	J24189021		1-	B	a1
R 2062	CHIP RES.	270	1/16W	5%	RMC1/16S 271JTH	J24189018		1-	B	b1
R 2063	CHIP RES.	470	1/16W	5%	RMC1/16S 471JTH	J24189021		1-	B	a1
R 2064	CHIP RES.	1k	1/16W	5%	RMC1/16S 102JTH	J24189025		1-	B	b1
R 2065	CHIP RES.	2.7k	1/16W	5%	RMC1/16S 272JTH	J24189030		1-	B	b1
R 2066	CHIP RES.	100	1/16W	5%	RMC1/16S 101JTH	J24189013		1-	B	a1
R 2067	CHIP RES.	100	1/16W	5%	RMC1/16S 101JTH	J24189013		1-	A	C1
R 2067	CHIP RES.	82	1/16W	5%	RMC1/16S 820JTH	J24189012		35-	A	C1
R 2068	CHIP RES.	1k	1/16W	5%	RMC1/16S 102JTH	J24189025		1-	B	b2
R 2069	CHIP RES.	1k	1/16W	5%	RMC1/16S 102JTH	J24189025		1-	B	b2
R 2070	CHIP RES.	470	1/16W	5%	RMC1/16S 471JTH	J24189021		1-	A	C1
R 2070	CHIP RES.	220	1/16W	5%	RMC1/16S 221JTH	J24189017		9-	A	C1
R 2070	CHIP RES.	220	1/16W	5%	RMC1/16S 221JTH	J24189017		15-22	A	C1
R 2070	CHIP RES.	470	1/16W	5%	RMC1/16S 471JTH	J24189021		23-34	A	C1
R 2070	CHIP RES.	220	1/16W	5%	RMC1/16S 221JTH	J24189017		23-34	A	C1
R 2070	CHIP RES.	220	1/16W	5%	RMC1/16S 221JTH	J24189017		35-	A	C1
R 2071	CHIP RES.	470	1/16W	5%	RMC1/16 471JATP	J24185471		35-		
T 2001	COIL 05RF				CS-4N 5203-JPS-076	L0022507		1-	A	A2
T 2002	COIL 05RF				CS-4N 5203-JPS-077	L0022508		1-	A	A2
T 2003	COIL 05RF				CS-4N 5203-JPS-078	L0022509		1-	A	A1
	LEAF SPRING LEAF SPRING MYLAR SHEET SPONGE RUBBER				(PLL) (PLL)	R0132100 R0132100 RA0335100 RA0352900	W/ CE LABEL W/ CE LABEL W/ CE LABEL W/ CE LABEL	23- 47- 23-34 35-		



# **REF UNIT**

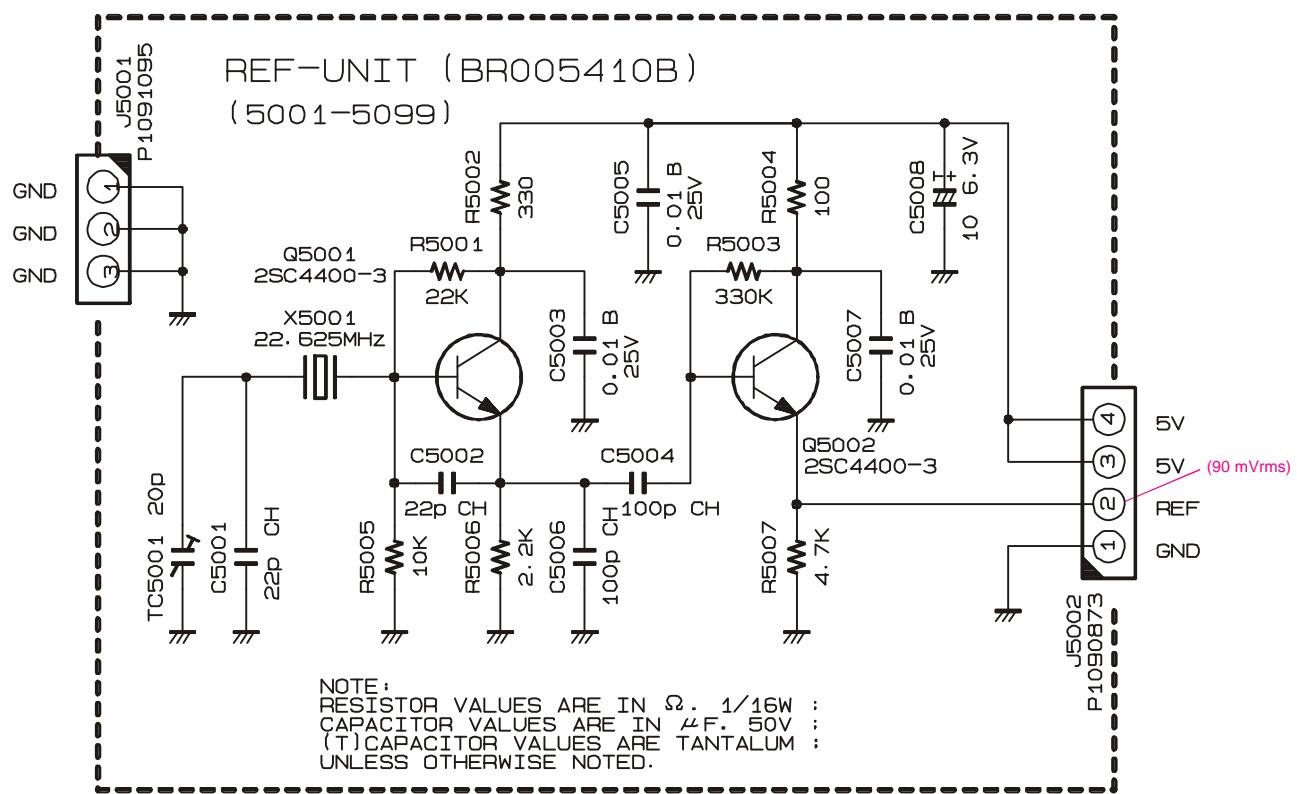


Side A

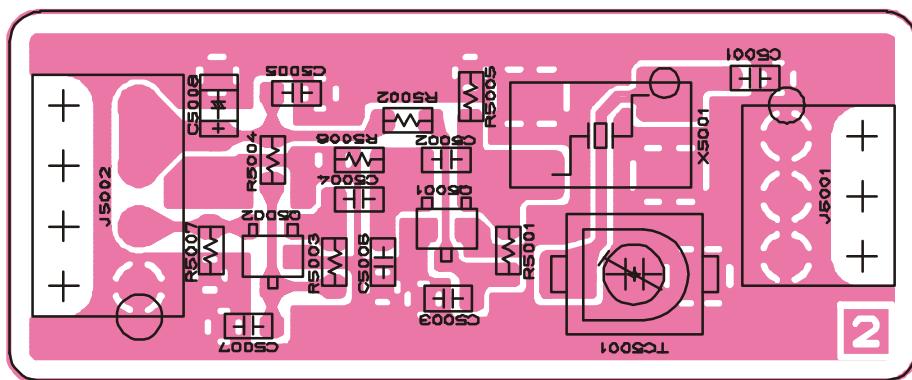
Collector  
Base Emitter  
2SC4400 (NA)  
(Q5001, 5002)



Side B



## **REF UNIT (Lot. 41~)**



Side A

Collector  
Base Emitter  
2SC4400 (NA)  
(Q5001, 5002)



Side B

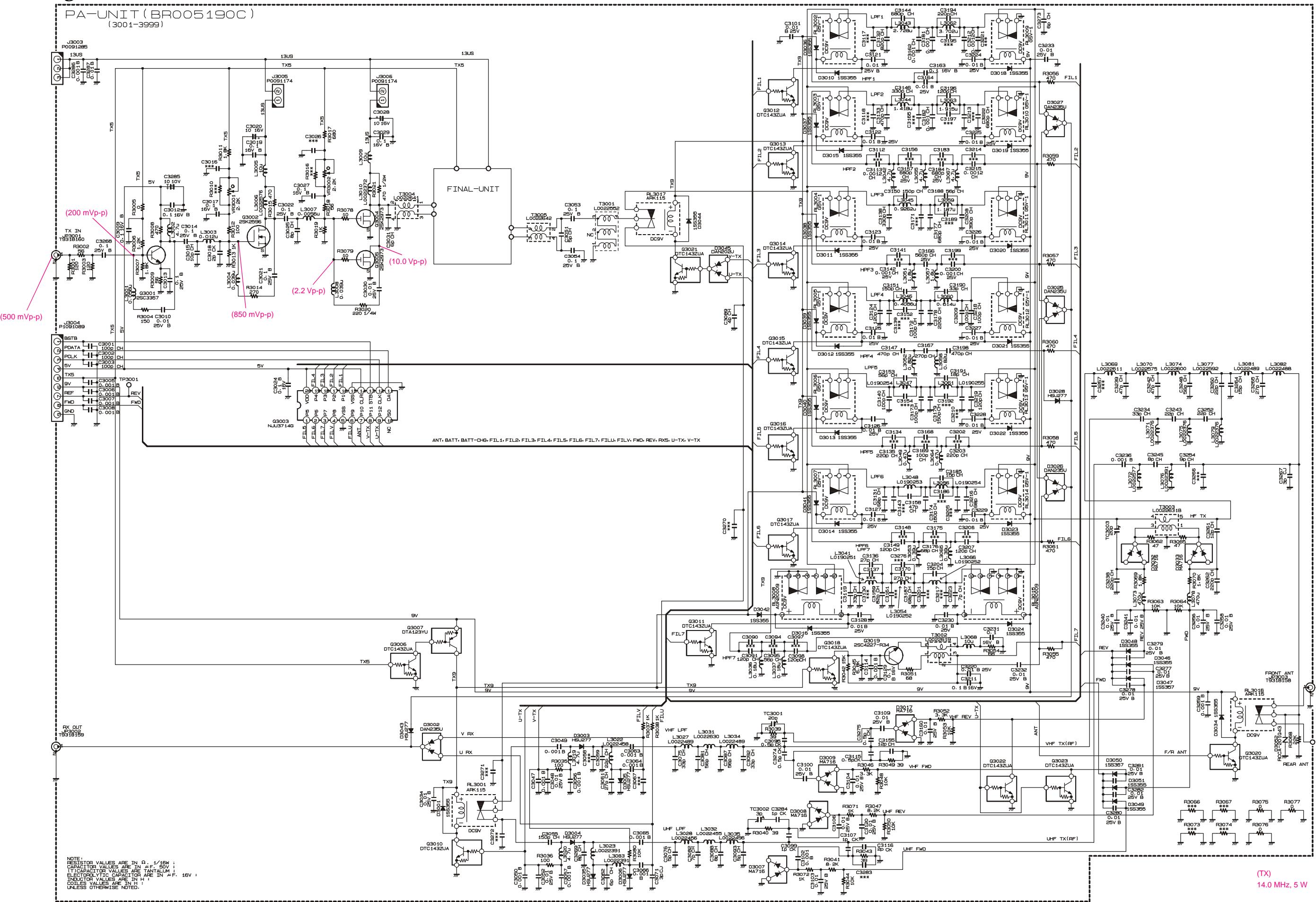
## Parts List

REF.	DESCRIPTION	VALUE	V/W	TOL.	MFR'S DESIG	VXSTD P/N	VERS.	LOT.	SIDE	LAY ADR
*** REF UNIT ***										
PCB with Components								CB1154001		
Printed Circuit Board								FR005410B		
Printed Circuit Board								1- 41-		
C 5001	CHIP CAP.	27pF	50V	UJ	GRM39UJ270J50PT	K22174318		1-	A	
C 5001	CHIP CAP.	30pF	50V	UJ	GRM39UJ300J50PT	K22174319		6-	A	
C 5001	CHIP CAP.	22pF	50V	CH	GRM39CH220J50PT	K22174219		59-	A	
C 5002	CHIP CAP.	22pF	50V	CH	GRM39CH220J50PT	K22174219		1-	A	
C 5003	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	A	
C 5004	CHIP CAP.	100pF	50V	CH	GRM39CH101J50PT	K22174235		1-	A	
C 5005	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	A	
C 5006	CHIP CAP.	100pF	50V	CH	GRM39CH101J50PT	K22174235		1-	A	
C 5007	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	A	
C 5008	CHIP TA.CAP.	10uF	6.3V		TESVSP0J106M-8R	K78080055		1-	A	
J 5001	CONNECTOR				9117S-03D	P1091095		1-	A	
J 5002	CONNECTOR				9117S-04D	P1090873		1-	A	
Q 5001	TRANSISTOR				2SC4400-4-TL	G3344008D		1-	A	
Q 5001	TRANSISTOR				2SC4400-3-TL	G3344008C		17-	A	
Q 5002	TRANSISTOR				2SC4400-4-TL	G3344008D		1-	A	
Q 5002	TRANSISTOR				2SC4400-3-TL	G3344008C		17-	A	
R 5001	CHIP RES.	22k	1/16W	5%	RMC1/16 223JATP	J24185223		1-	A	
R 5002	CHIP RES.	330	1/16W	5%	RMC1/16 331JATP	J24185331		1-	A	
R 5003	CHIP RES.	330k	1/16W	5%	RMC1/16 334JATP	J24185334		1-	A	
R 5004	CHIP RES.	100	1/16W	5%	RMC1/16 101JATP	J24185101		1-	A	
R 5005	CHIP RES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103		1-	A	
R 5006	CHIP RES.	2.2k	1/16W	5%	RMC1/16 222JATP	J24185222		1-	A	
R 5007	CHIP RES.	4.7k	1/16W	5%	RMC1/16 472JATP	J24185472		1-	A	
TC5001	TRIMMER CAP.	10pF			ECR-JA010A11X	K9100227		1-	A	
TC5001	TRIMMER CAP.	20pF			ECR-JA020E11X	K9100228		59-	A	
X 5001	XTAL TOP-B	22.625MHz			22.625MHZ	H0103235		1-	A	

# ***REF Unit***

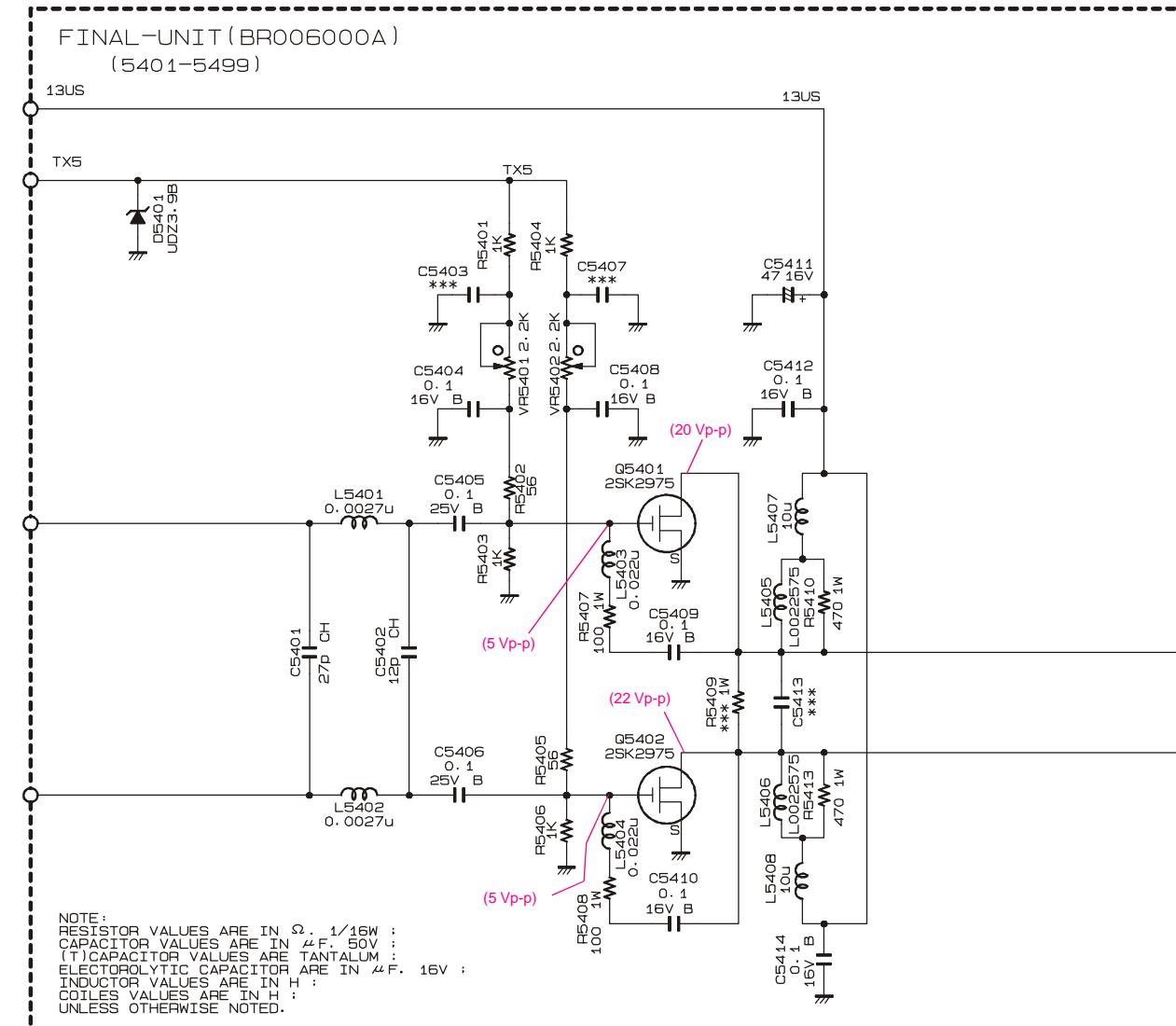
***Note:***

## Circuit Diagram



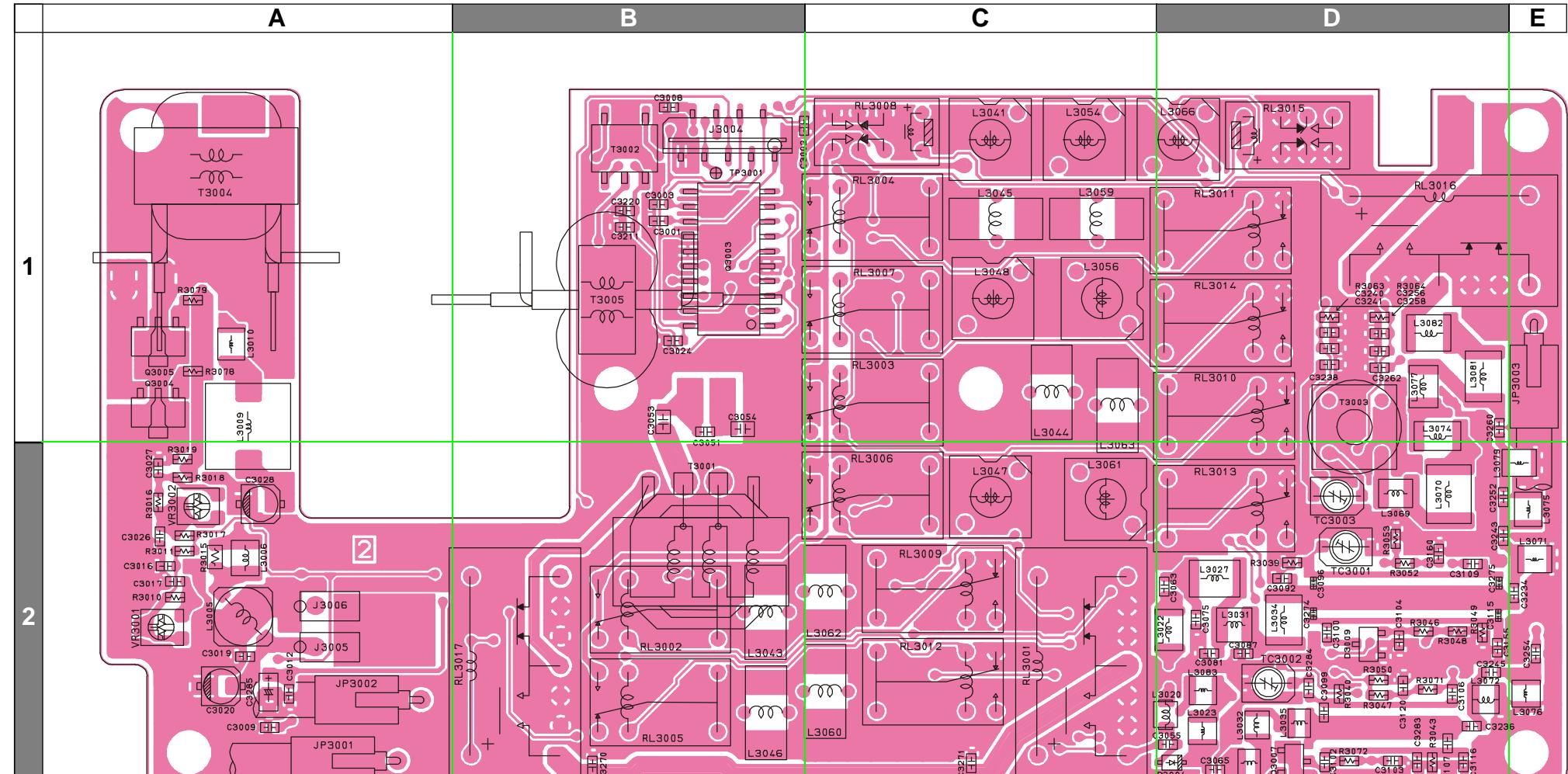
# FINAL Unit

## Circuit Diagram



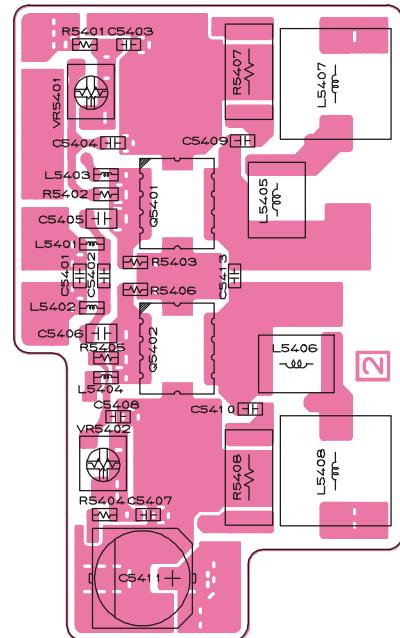
# PA Unit / FINAL Unit

## PA Unit Parts Layout



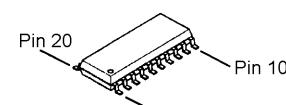
Side A

## FINAL Unit Parts Layout

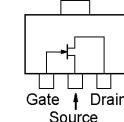


Side A

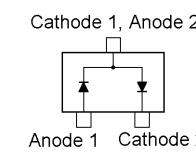
2SK2975  
(Q5401, 5402)



NJU3714G  
(Q3003)



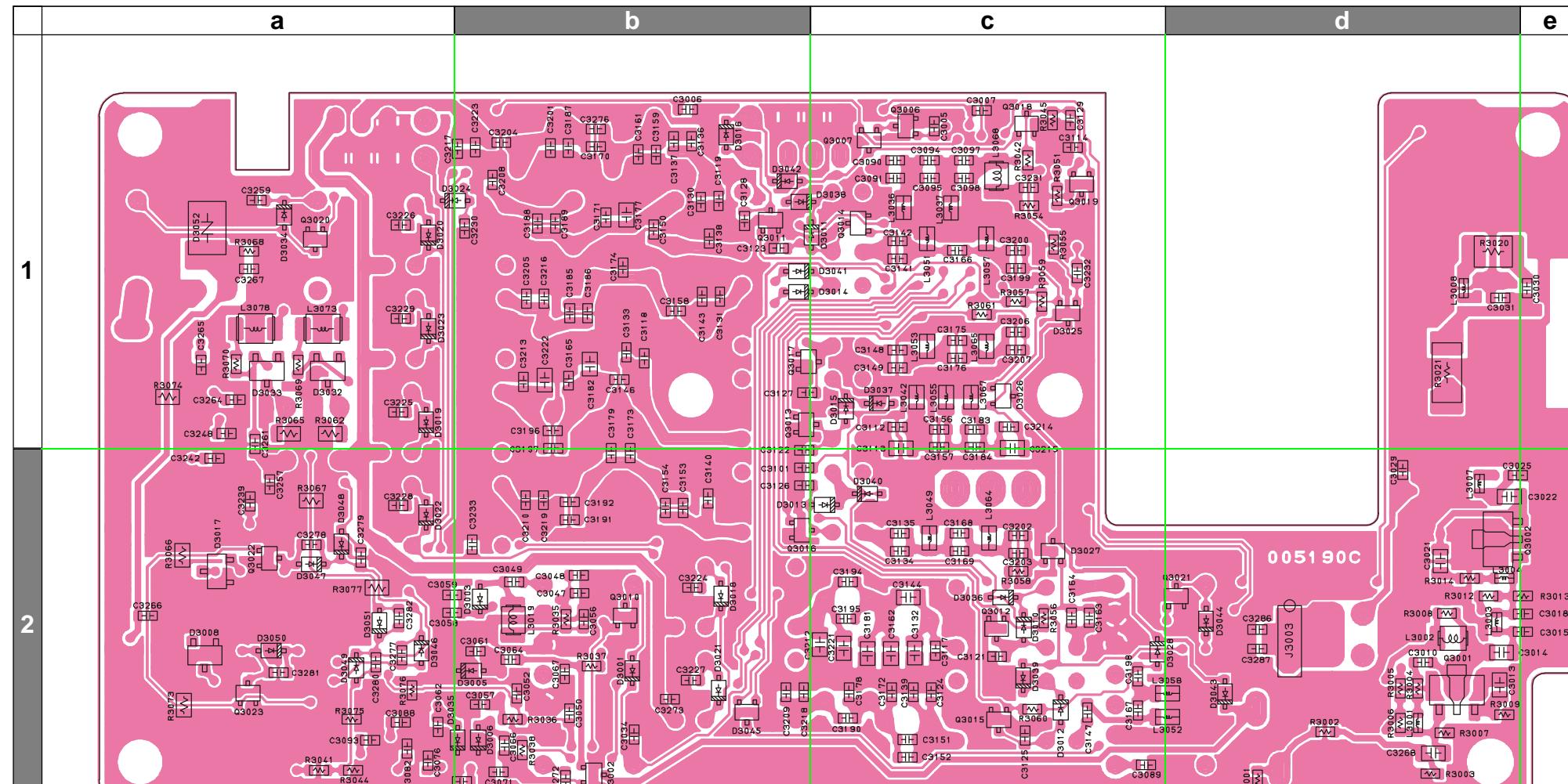
2SK2973 (K1)  
(Q3004, 3005)



MA716 (M1U)  
(Q3007, 3009)

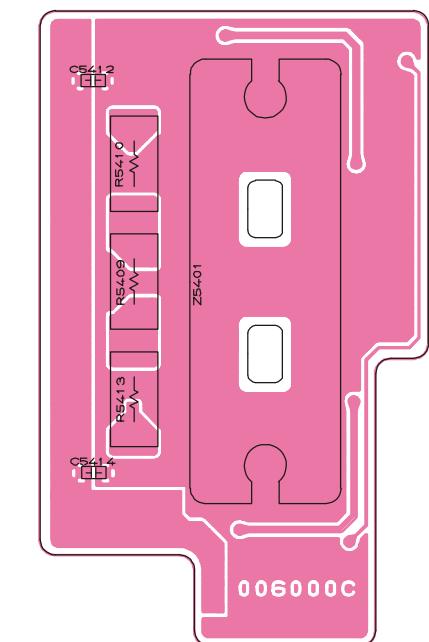
# PA Unit / FINAL Unit

## PA Unit Parts Layout

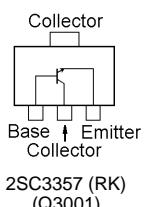


Side B

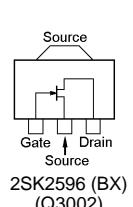
## FINAL Unit Parts Layout



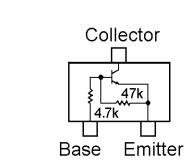
Side B



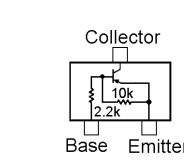
2SC3357 (RK)  
(Q3001)



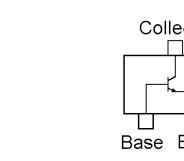
2SK2596 (BX)  
(Q3002)



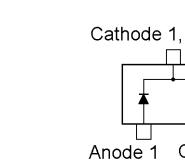
DTC143ZUA (123)  
(Q3006, 3010, 3011, 3012,  
3013, 3014, 3015, 3016, 3017,  
3018, 3020, 3021, 3022, 3023)



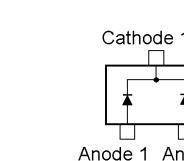
DTA123YU (52)  
(Q3007)



2SC4227 (R32)  
(Q3019)



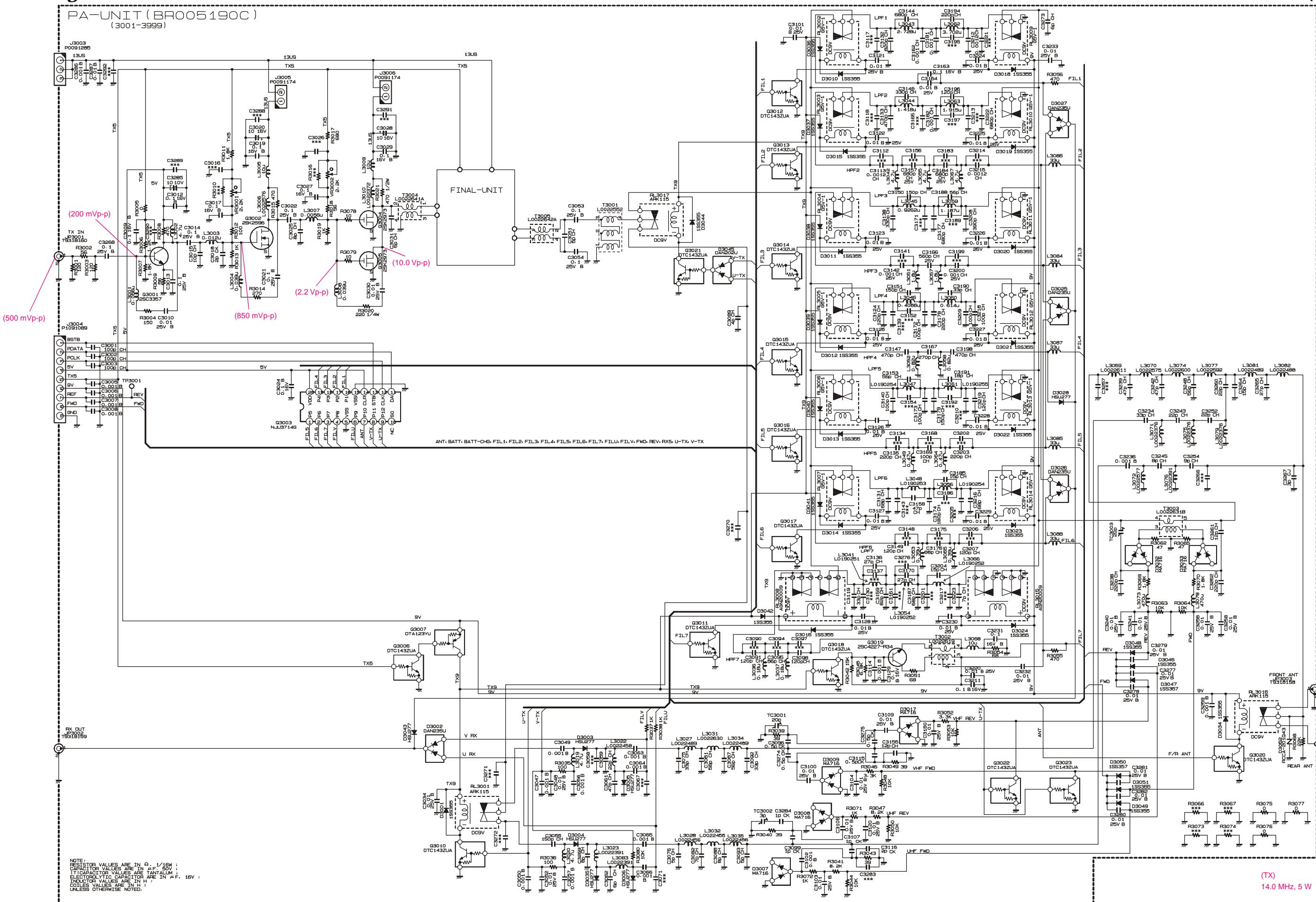
MA716 (M1U)  
(Q3008, 3017, 3032, 3033)



DAN235U (M)  
(Q3002, 3025, 3026, 3027)  
DAN202U (M)  
(Q3045)

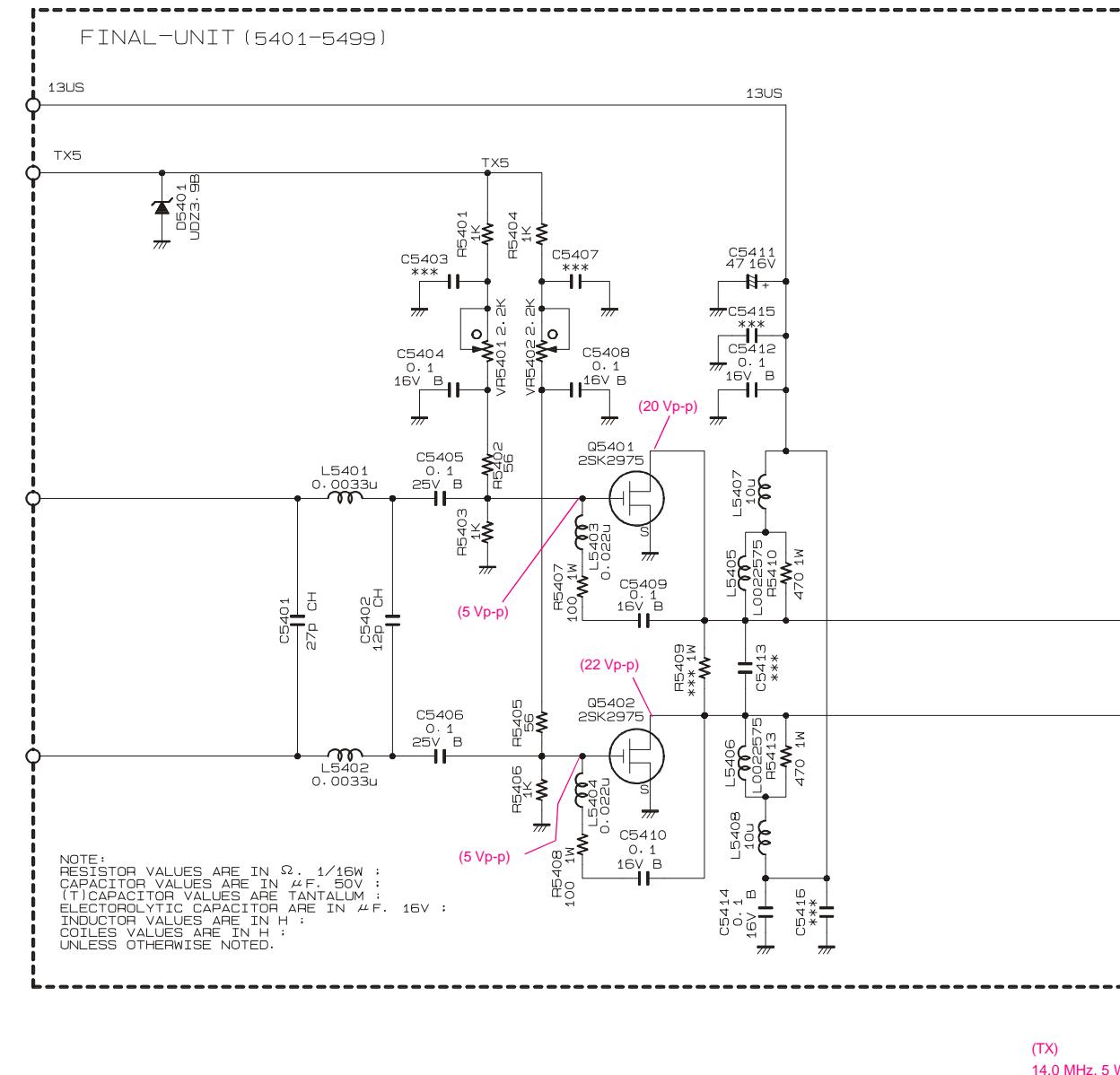
## Circuit Diagram

## PA Unit (Lot. 15~)



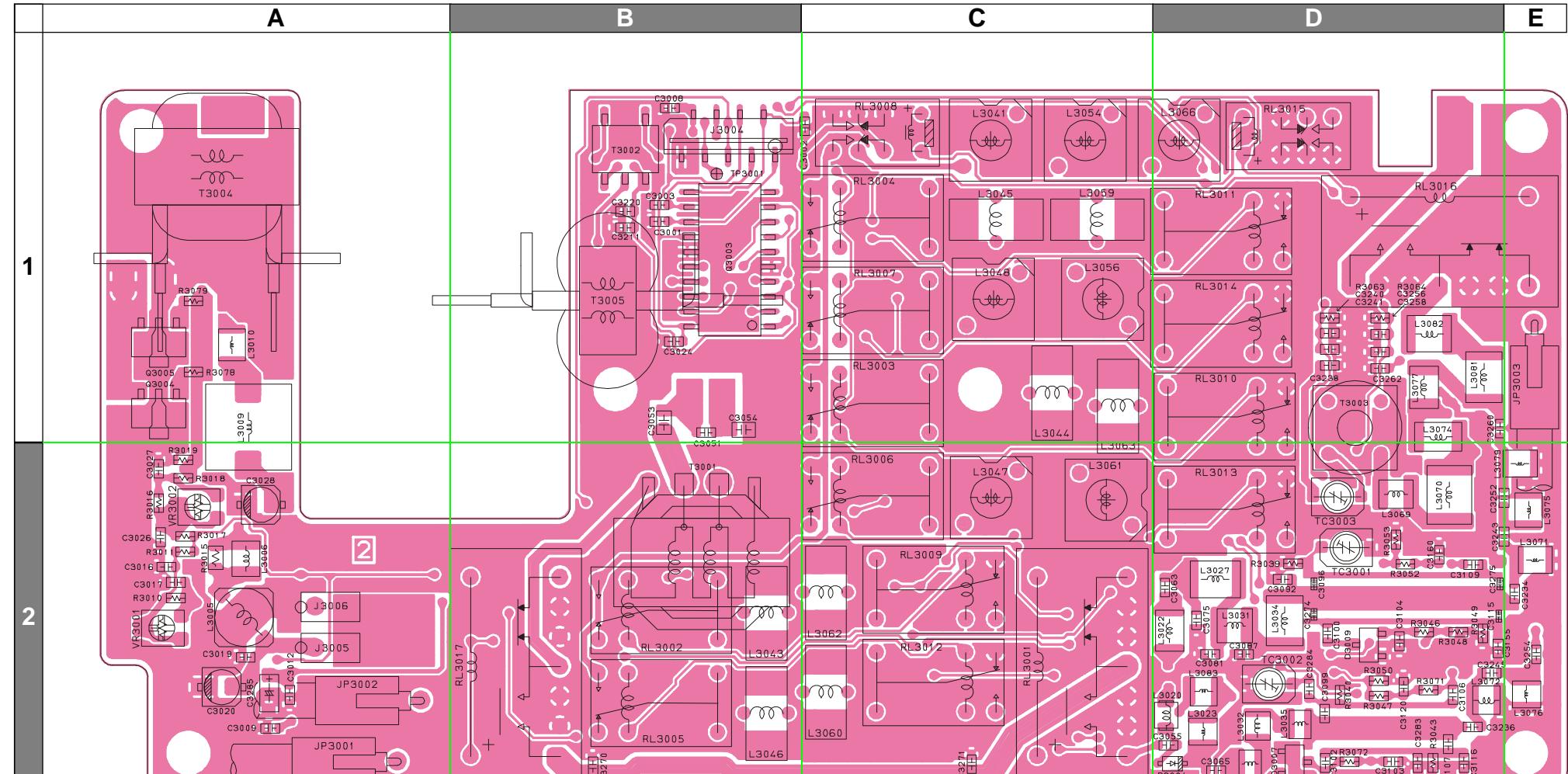
# **FINAL Unit**

## **Circuit Diagram**

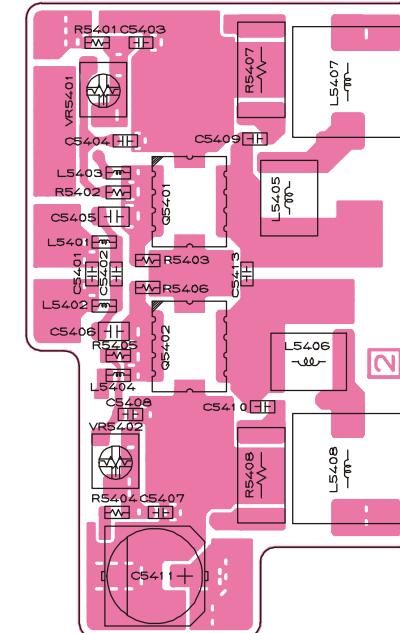


# **PA Unit (Lot. 15~) / FINAL Unit**

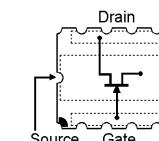
## ***PA Unit Parts Layout***



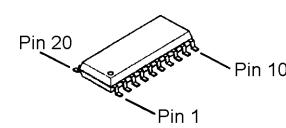
Side A



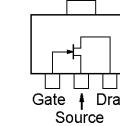
Side A



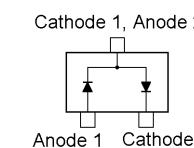
2SK2975  
(Q5401, 5402)



NJU3714G  
(Q3003)



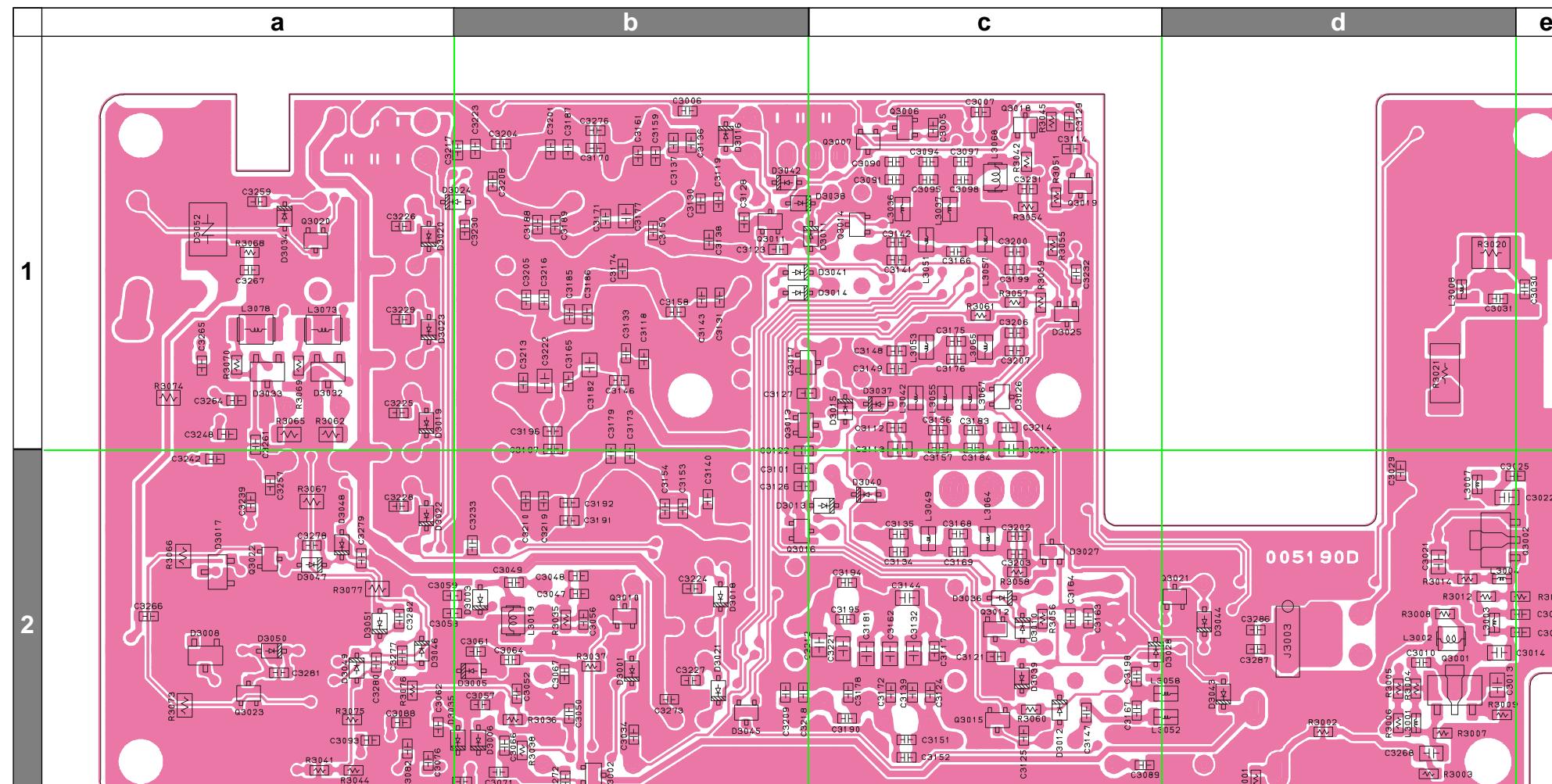
2SK2973 (K1)  
(Q3004, 3005)



MA716 (M1U)  
(Q3007, 3009)

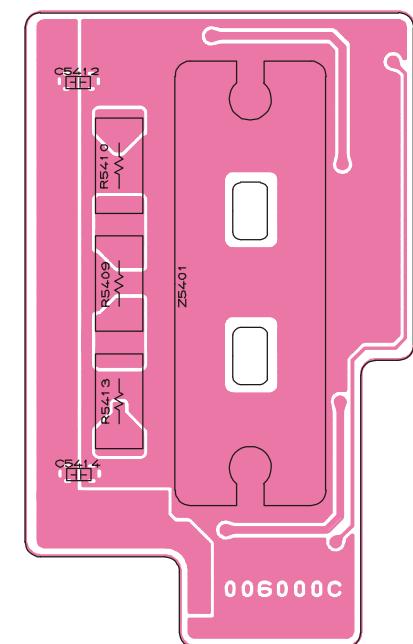
# PA Unit (Lot. 15~) / FINAL Unit

## PA Unit Parts Layout

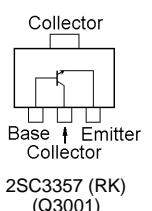


Side B

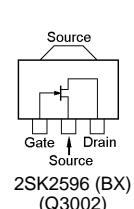
## FINAL Unit Parts Layout



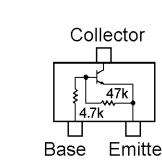
Side B



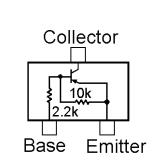
2SC3357 (RK)  
(Q3001)



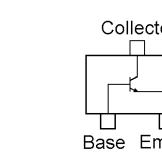
2SK2596 (BX)  
(Q3002)



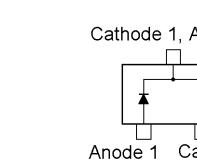
DTC143ZUA (123)  
(Q3006, 3010, 3011, 3012,  
3013, 3014, 3015, 3016, 3017,  
3018, 3020, 3021, 3022, 3023)



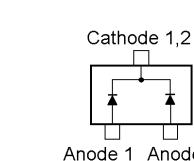
DTA123YU (52)  
(Q3007)



2SC4227 (R32)  
(Q3019)



MA716 (M1U)  
(Q3008, 3017, 3032, 3033)



DAN235U (M)  
(Q3002, 3025, 3026, 3027)  
DAN202U (M)  
(Q3045)

## Parts List

REF.	DESCRIPTION	VALUE	V/W	TOL.	MFR'S DESIG	VXSTD P/N	VERS.	LOT.	SIDE	LAY ADR	
*** PA UNIT ***											
PCB with Components								CB1152001	W/O CE LABEL		
PCB with Components								CB1152002	W/ CE LABEL		
Printed Circuit Board								FR005190C	1-		
Printed Circuit Board								FR005190D	15-		
C 3001	CHIP CAP.	100pF	50V	CH	GRM39CH101J50PT	K22174235			1-	A	B1
C 3002	CHIP CAP.	100pF	50V	CH	GRM39CH101J50PT	K22174235			1-	A	C1
C 3003	CHIP CAP.	100pF	50V	CH	GRM39CH101J50PT	K22174235			1-	A	B1
C 3005	CHIP CAP.	0.001uF	50V	B	GRM39B102K50PT	K22174821			1-	B	c1
C 3006	CHIP CAP.	0.001uF	50V	B	GRM39B102K50PT	K22174821			1-	B	b1
C 3007	CHIP CAP.	0.001uF	50V	B	GRM39B102K50PT	K22174821			1-	B	c1
C 3008	CHIP CAP.	0.001uF	50V	B	GRM39B102K50PT	K22174821			1-	A	B1
C 3009	CHIP CAP.	0.1uF	16V	B	GRM39B104K16PT	K22124805			1-	A	A2
C 3010	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803			1-	B	d2
C 3010	CHIP CAP.	0.01uF	50V	B	GRM39B103M50PT	K22174823			41-	B	d2
C 3012	CHIP CAP.	0.1uF	16V	B	GRM39B104K16PT	K22124805			1-	A	A2
C 3013	CHIP CAP.	0.1uF	25V	B	GRM40B104M25PT	K22140811			1-	B	d2
C 3014	CHIP CAP.	0.1uF	25V	B	GRM40B104M25PT	K22140811			1-	B	d2
C 3015	CHIP CAP.	10pF	50V	CH	GRM39CH100D50PT	K22174211			1-	B	e2
C 3016	CHIP CAP.	100pF	50V	CH	GRM39CH101J50PT	K22174235			23-	A	A2
C 3017	CHIP CAP.	0.1uF	16V	B	GRM39B104K16PT	K22124805			1-	A	A2
C 3018	CHIP CAP.	2pF	50V	CK	GRM39CK020C50PT	K22174203			1-	B	e2
C 3019	CHIP CAP.	0.1uF	16V	B	GRM39B104K16PT	K22124805			1-	A	A2
C 3020	AL.ELECTRO.CAP.	10uF	16V		RV2-16V100MB55-R	K48120014			1-	A	A2
C 3021	CHIP CAP.	0.1uF	25V	B	GRM40B104M25PT	K22140811			1-	B	d2
C 3022	CHIP CAP.	0.1uF	25V	B	GRM40B104M25PT	K22140811			1-	B	d2
C 3024	CHIP CAP.	0.1uF	16V	B	GRM39B104K16PT	K22124805			1-	A	B1
C 3025	CHIP CAP.	8pF	50V	CH	GRM39CH080D50PT	K22174209			1-	B	d2
C 3026	CHIP CAP.	100pF	50V	CH	GRM39CH101J50PT	K22174235			23-	A	A2
C 3027	CHIP CAP.	0.1uF	16V	B	GRM39B104K16PT	K22124805			1-	A	A2
C 3028	AL.ELECTRO.CAP.	10uF	16V		RV2-16V100MB55-R	K48120014			1-	A	A2
C 3029	CHIP CAP.	0.1uF	16V	B	GRM39B104K16PT	K22124805			1-	B	d2
C 3030	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803			1-	B	e1
C 3030	CHIP CAP.	0.01uF	50V	B	GRM39B103M50PT	K22174823			41-	B	e1
C 3031	CHIP CAP.	6pF	50V	CH	GRM39CH060D50PT	K22174207			1-	B	d1
C 3034	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803			1-	B	b2
C 3034	CHIP CAP.	0.01uF	50V	B	GRM39B103M50PT	K22174823			41-	B	b2
C 3047	CHIP CAP.	0.001uF	50V	B	GRM39B102K50PT	K22174821			1-	B	b2
C 3048	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803			1-	B	b2
C 3048	CHIP CAP.	0.01uF	50V	B	GRM39B103M50PT	K22174823			41-	B	b2
C 3049	CHIP CAP.	0.001uF	50V	B	GRM39B102K50PT	K22174821			1-	B	b2
C 3050	CHIP CAP.	0.001uF	50V	B	GRM39B102K50PT	K22174821			1-	B	b2
C 3051	CHIP CAP.	5pF	50V	CH	GRM39CH050C50PT	K22174206			1-	A	B1
C 3052	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803			1-	B	b2
C 3052	CHIP CAP.	0.01uF	50V	B	GRM39B103M50PT	K22174823			41-	B	b2
C 3053	CHIP CAP.	0.1uF	25V	B	GRM40B104M25PT	K22140811			1-	A	B1
C 3054	CHIP CAP.	0.1uF	25V	B	GRM40B104M25PT	K22140811			1-	A	B1
C 3055	CHIP CAP.	150pF	50V	CH	GRM39CH151J50PT	K22174239			1-	A	D2
C 3056	CHIP CAP.	0.001uF	50V	B	GRM39B102K50PT	K22174821			1-	B	b2
C 3057	CHIP CAP.	0.001uF	50V	B	GRM39B102K50PT	K22174821			1-	B	b2
C 3059	CHIP CAP.	22pF	50V	CH	GRM39CH220J50PT	K22174219			1-	B	a2
C 3061	CHIP CAP.	22pF	50V	CH	GRM39CH220J50PT	K22174219			1-	B	b2
C 3061	CHIP CAP.	27pF	50V	CH	GRM39CH270J50PT	K22174221			4-	B	b2
C 3061	CHIP CAP.	47pF	50V	CH	GRM39CH470J50PT	K22174227			6-	B	b2
C 3062	CHIP CAP.	6pF	50V	CH	GRM39CH060D50PT	K22174207			1-	B	a2
C 3063	CHIP CAP.	0.001uF	50V	B	GRM39B102K50PT	K22174821			1-	A	D2
C 3064	CHIP CAP.	0.001uF	50V	B	GRM39B102K50PT	K22174821			1-	B	b2
C 3065	CHIP CAP.	0.001uF	50V	B	GRM39B102K50PT	K22174821			1-	A	D2
C 3066	CHIP CAP.	0.001uF	50V	B	GRM39B102K50PT	K22174821			1-	B	b2
C 3071	CHIP CAP.	3pF	50V	CJ	GRM39CJ030C50PT	K22174204			4-5	B	b2
C 3075	CHIP CAP.	33pF	50V	CH	GRM39CH330J50PT	K22174223			1-	A	D2
C 3076	CHIP CAP.	5pF	50V	CH	GRM39CH050C50PT	K22174206			1-	B	a2
C 3081	CHIP CAP.	56pF	50V	CH	GRM39CH560J50PT	K22174229			1-	A	D2
C 3082	CHIP CAP.	7pF	50V	CH	GRM39CH070D50PT	K22174208			1-	B	a2
C 3087	CHIP CAP.	56pF	50V	CH	GRM39CH560J50PT	K22174229			1-	A	D2
C 3088	CHIP CAP.	8pF	50V	CH	GRM39CH080D50PT	K22174209			1-	B	a2
C 3089	CHIP CAP.	4pF	50V	CH	GRM39CH040C50PT	K22174205			1-	B	c2

# PA Unit

REF.	DESCRIPTION	VALUE	V/W	TOL.	MFR'S DESIG	VXSTD P/N	VERS.	LOT.	SIDE	LAY ADR
C3091	CHIP CAP.	120pF	50V	CH	GRM39CH121J50PT	K22174237		1-	B	c1
C3092	CHIP CAP.	33pF	50V	CH	GRM39CH330J50PT	K22174223		1-	A	D2
C3093	CHIP CAP.	5pF	50V	CH	GRM39CH050C50PT	K22174206		1-	B	a2
C3095	CHIP CAP.	56pF	50V	CH	GRM39CH560J50PT	K22174229		1-	B	c1
C3096	CHIP CAP.	0.5pF	50V	CK	GRM36CK0R5B50PT	K22178285		1-	A	D2
C3098	CHIP CAP.	120pF	50V	CH	GRM39CH121J50PT	K22174237		1-	B	c1
C3099	CHIP CAP.	1pF	50V	CK	GRM39CK010C50PT	K22174202		1-	A	D2
C3100	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	A	D2
C3100	CHIP CAP.	0.01uF	50V	B	GRM39B103M50PT	K22174823	41-	A	D2	
C3101	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	B	b2
C3101	CHIP CAP.	0.01uF	50V	B	GRM39B103M50PT	K22174823	41-	B	b2	
C3102	CHIP CAP.	0.001uF	50V	B	GRM39B102K50PT	K22174821		1-	A	D2
C3103	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	A	D2
C3103	CHIP CAP.	0.01uF	50V	B	GRM39B103M50PT	K22174823	41-	A	D2	
C3104	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	A	D2
C3104	CHIP CAP.	0.01uF	50V	B	GRM39B103M50PT	K22174823	41-	A	D2	
C3106	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	A	D2
C3106	CHIP CAP.	0.01uF	50V	B	GRM39B103M50PT	K22174823	41-	A	D2	
C3107	CHIP CAP.	1pF	50V	CK	GRM39CK010C50PT	K22174202		1-	A	D2
C3109	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	A	D2
C3109	CHIP CAP.	0.01uF	50V	B	GRM39B103M50PT	K22174823	41-	A	D2	
C3113	CHIP CAP.	0.0012uF	50V	CH	GRM40CH122J50PT	K22170290		1-	B	c2
C3114	CHIP CAP.	0.001uF	50V	B	GRM39B102K50PT	K22174821		1-	B	c1
C3115	CHIP CAP.	0.5pF	50V	CK	GRM36CK0R5B50PT	K22178285		1-	A	D2
C3116	CHIP CAP.	2pF	50V	CK	GRM39CK020C50PT	K22174203		1-	A	D2
C3119	CHIP CAP.	33pF	50V	CH	GRM39CH330J50PT	K22174223		1-	B	b1
C3120	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	A	D2
C3120	CHIP CAP.	0.01uF	50V	B	GRM39B103M50PT	K22174823	41-	A	D2	
C3121	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	B	c2
C3121	CHIP CAP.	0.01uF	50V	B	GRM39B103M50PT	K22174823	41-	B	c2	
C3122	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	B	b2
C3122	CHIP CAP.	0.01uF	50V	B	GRM39B103M50PT	K22174823	41-	B	b2	
C3123	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	B	b1
C3123	CHIP CAP.	0.01uF	50V	B	GRM39B103M50PT	K22174823	41-	B	b1	
C3124	CHIP CAP.	120pF	50V	CH	GRM39CH121J50PT	K22174237		1-	B	c2
C3125	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	B	c2
C3125	CHIP CAP.	0.01uF	50V	B	GRM39B103M50PT	K22174823	41-	B	c2	
C3126	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	B	b2
C3126	CHIP CAP.	0.01uF	50V	B	GRM39B103M50PT	K22174823	41-	B	b2	
C3127	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	B	b1
C3127	CHIP CAP.	0.01uF	50V	B	GRM39B103M50PT	K22174823	41-	B	b1	
C3128	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	B	b1
C3128	CHIP CAP.	0.01uF	50V	B	GRM39B103M50PT	K22174823	41-	B	b1	
C3129	CHIP CAP.	0.1uF	16V	B	GRM39B104K16PT	K22124805		1-	B	c1
C3131	CHIP CAP.	68pF	50V	CH	GRM39CH680J50PT	K22174231		1-	B	b1
C3132	CHIP CAP.	820pF	50V	CH	GRM40CH821J50PT	K22170289		1-	B	c2
C3133	CHIP CAP.	470pF	50V	CH	GRM39CH471J50PT	K22174249		1-	B	b1
C3135	CHIP CAP.	220pF	50V	CH	GRM39CH221J50PT	K22174243		1-	B	c2
C3136	CHIP CAP.	27pF	50V	CH	GRM39CH270J50PT	K22174221		1-	B	b1
C3138	CHIP CAP.	330pF	50V	CH	GRM39CH331J50PT	K22174253		1-	B	b1
C3140	CHIP CAP.	100pF	50V	CH	GRM39CH101J50PT	K22174235		1-	B	b2
C3142	CHIP CAP.	0.001uF	25V	CH	GRM39CH102J25PT	K22144204		1-	B	c1
C3144	CHIP CAP.	680pF	50V	CH	GRM40CH681J50PT	K22170287		1-	B	c2
C3146	CHIP CAP.	330pF	50V	CH	GRM39CH331J50PT	K22174253		1-	B	b1
C3147	CHIP CAP.	470pF	50V	CH	GRM39CH471J50PT	K22174249		1-	B	c2
C3149	CHIP CAP.	120pF	50V	CH	GRM39CH121J50PT	K22174237		1-	B	c1
C3150	CHIP CAP.	150pF	50V	CH	GRM39CH151J50PT	K22174239		1-	B	b1
C3151	CHIP CAP.	150pF	50V	CH	GRM39CH151J50PT	K22174239		1-	B	c2
C3153	CHIP CAP.	56pF	50V	CH	GRM39CH560J50PT	K22174229		1-	B	b2
C3155	CHIP CAP.	12pF	50V	CH	GRM39CH120J50PT	K22174213		1-	A	D2
C3157	CHIP CAP.	680pF	25V	CH	GRM39CH681J25PT	K22144203		1-	B	c1
C3158	CHIP CAP.	47pF	50V	CH	GRM39CH470J50PT	K22174227		1-	B	b1
C3159	CHIP CAP.	82pF	50V	CH	GRM39CH820J50PT	K22174233		1-	B	b1
C3160	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	A	D2
C3160	CHIP CAP.	0.01uF	50V	B	GRM39B103M50PT	K22174823	41-	A	D2	
C3162	CHIP CAP.	0.001uF	50V	CH	GRM40CH102J50PT	K22170288		1-	B	c2
C3163	CHIP CAP.	0.1uF	16V	B	GRM39B104K16PT	K22124805		1-	B	c2

REF.	DESCRIPTION	VALUE	V/W	TOL.	MFR'S DESIG	VXSTD P/N	VERS.	LOT.	SIDE	LAY ADR
C 3164	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	B	c2
C 3164	CHIP CAP.	0.01uF	50V	B	GRM39B103M50PT	K22174823		41-	B	c2
C 3166	CHIP CAP.	560pF	25V	CH	GRM39CH561J25PT	K22144201		1-	B	c1
C 3167	CHIP CAP.	270pF	50V	CH	GRM39CH271J50PT	K22174251		1-	B	c2
C 3169	CHIP CAP.	100pF	50V	CH	GRM39CH101J50PT	K22174235		1-	B	c2
C 3170	CHIP CAP.	27pF	50V	CH	GRM39CH270J50PT	K22174221		1-	B	b1
C 3172	CHIP CAP.	100pF	50V	CH	GRM39CH101J50PT	K22174235		1-	B	c2
C 3173	CHIP CAP.	100pF	50V	CH	GRM39CH101J50PT	K22174235		1-	B	b2
C 3174	CHIP CAP.	180pF	50V	CH	GRM39CH181J50PT	K22174241		1-	B	b1
C 3176	CHIP CAP.	68pF	50V	CH	GRM39CH680J50PT	K22174231		1-	B	c1
C 3177	CHIP CAP.	680pF	50V	CH	GRM40CH681J50PT	K22170287		1-	B	b1
C 3178	CHIP CAP.	220pF	50V	CH	GRM39CH221J50PT	K22174243		1-	B	c2
C 3179	CHIP CAP.	150pF	50V	CH	GRM39CH151J50PT	K22174239		1-	B	b2
C 3181	CHIP CAP.	0.001uF	50V	CH	GRM40CH102J50PT	K22170288		1-	B	c2
C 3182	CHIP CAP.	0.001uF	50V	CH	GRM40CH102J50PT	K22170288		1-	B	b1
C 3184	CHIP CAP.	680pF	25V	CH	GRM39CH681J25PT	K22144203		1-	B	c1
C 3185	CHIP CAP.	15pF	50V	CH	GRM39CH150J50PT	K22174215		1-	B	b1
C 3187	CHIP CAP.	68pF	50V	CH	GRM39CH680J50PT	K22174231		1-	B	b1
C 3188	CHIP CAP.	56pF	50V	CH	GRM39CH560J50PT	K22174229		1-	B	b1
C 3190	CHIP CAP.	33pF	50V	CH	GRM39CH330J50PT	K22174223		1-	B	c2
C 3191	CHIP CAP.	18pF	50V	CH	GRM39CH180J50PT	K22174217		1-	B	b2
C 3192	CHIP CAP.	7pF	50V	CH	GRM39CH070D50PT	K22174208	W/ CE LABEL	45-	B	b2
C 3194	CHIP CAP.	220pF	50V	CH	GRM39CH221J50PT	K22174243		1-	B	c2
C 3196	CHIP CAP.	120pF	50V	CH	GRM39CH121J50PT	K22174237		1-	B	b1
C 3198	CHIP CAP.	470pF	50V	CH	GRM39CH471J50PT	K22174249		1-	B	c2
C 3200	CHIP CAP.	0.001uF	25V	CH	GRM39CH102J25PT	K22144204		1-	B	c1
C 3203	CHIP CAP.	220pF	50V	CH	GRM39CH221J50PT	K22174243		1-	B	c2
C 3204	CHIP CAP.	15pF	50V	CH	GRM39CH150J50PT	K22174215		1-	B	b1
C 3207	CHIP CAP.	120pF	50V	CH	GRM39CH121J50PT	K22174237		1-	B	c1
C 3208	CHIP CAP.	390pF	50V	CH	GRM39CH391J50PT	K22174255		1-	B	b1
C 3209	CHIP CAP.	100pF	50V	CH	GRM39CH101J50PT	K22174235		1-	B	b2
C 3211	CHIP CAP.	0.1uF	16V	B	GRM39B104K16PT	K22124805		1-	A	B1
C 3212	CHIP CAP.	0.0012uF	50V	CH	GRM40CH122J50PT	K22170290		1-	B	c2
C 3215	CHIP CAP.	0.0012uF	50V	CH	GRM40CH122J50PT	K22170290		1-	B	c2
C 3216	CHIP CAP.	68pF	50V	CH	GRM39CH680J50PT	K22174231		1-	B	b1
C 3218	CHIP CAP.	100pF	50V	CH	GRM39CH101J50PT	K22174235		1-	B	b2
C 3219	CHIP CAP.	120pF	50V	CH	GRM39CH121J50PT	K22174237		1-	B	b2
C 3220	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	A	B1
C 3220	CHIP CAP.	0.01uF	50V	B	GRM39B103M50PT	K22174823		41-	A	B1
C 3222	CHIP CAP.	680pF	50V	CH	GRM40CH681J50PT	K22170287		1-	B	b1
C 3223	CHIP CAP.	7pF	50V	CH	GRM39CH070D50PT	K22174208		1-	B	b1
C 3224	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	B	b2
C 3224	CHIP CAP.	0.01uF	50V	B	GRM39B103M50PT	K22174823		41-	B	b2
C 3225	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	B	a1
C 3225	CHIP CAP.	0.01uF	50V	B	GRM39B103M50PT	K22174823		41-	B	a1
C 3226	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	B	a1
C 3226	CHIP CAP.	0.01uF	50V	B	GRM39B103M50PT	K22174823		41-	B	a1
C 3227	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	B	b2
C 3227	CHIP CAP.	0.01uF	50V	B	GRM39B103M50PT	K22174823		41-	B	b2
C 3228	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	B	a2
C 3228	CHIP CAP.	0.01uF	50V	B	GRM39B103M50PT	K22174823		41-	B	a2
C 3229	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	B	a1
C 3229	CHIP CAP.	0.01uF	50V	B	GRM39B103M50PT	K22174823		41-	B	a1
C 3230	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	B	b1
C 3230	CHIP CAP.	0.01uF	50V	B	GRM39B103M50PT	K22174823		41-	B	b1
C 3231	CHIP CAP.	0.1uF	16V	B	GRM39B104K16PT	K22124805		1-	B	c1
C 3232	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	B	c1
C 3232	CHIP CAP.	0.01uF	50V	B	GRM39B103M50PT	K22174823		41-	B	c1
C 3233	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	B	b2
C 3233	CHIP CAP.	0.01uF	50V	B	GRM39B103M50PT	K22174823		41-	B	b2
C 3234	CHIP CAP.	33pF	50V	CH	GRM39CH330J50PT	K22174223		1-	A	E2
C 3236	CHIP CAP.	0.001uF	50V	B	GRM39B102K50PT	K22174821		1-	A	D2
C 3238	CHIP CAP.	220pF	50V	CH	GRM39CH221J50PT	K22174243		1-	A	D1
C 3239	CHIP CAP.	47pF	50V	CH	GRM39CH470J50PT	K22174227		1-	B	a2
C 3240	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	A	D1
C 3240	CHIP CAP.	0.01uF	50V	B	GRM39B103M50PT	K22174823		41-	A	D1
C 3241	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	A	D1

# PA Unit

REF.	DESCRIPTION	VALUE	V/W	TOL.	MFR'S DESIG	VXSTD P/N	VERS.	LOT.	SIDE	LAY ADR
C3241	CHIP CAP.	0.01uF	50V	B	GRM39B103M50PT	K22174823		41-	A	D1
C3242	CHIP CAP.	47pF	50V	CH	GRM39CH470J50PT	K22174227		1-	B	a2
C3243	CHIP CAP.	22pF	50V	CH	GRM39CH220J50PT	K22174219		1-	A	D2
C3245	CHIP CAP.	8pF	50V	CH	GRM39CH080D50PT	K22174209		1-	A	D2
C3248	CHIP CAP.	56pF	50V	CH	GRM39CH560J50PT	K22174229		1-	B	a1
C3252	CHIP CAP.	22pF	50V	CH	GRM39CH220J50PT	K22174219		1-	A	D2
C3254	CHIP CAP.	9pF	50V	CH	GRM39CH090D50PT	K22174210		1-	A	E2
C3256	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	A	D1
C3256	CHIP CAP.	0.01uF	50V	B	GRM39B103M50PT	K22174823	41-	A	D1	
C3258	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	A	D1
C3258	CHIP CAP.	0.01uF	50V	B	GRM39B103M50PT	K22174823	41-	A	D1	
C3259	CHIP CAP.	0.001uF	50V	B	GRM39B102K50PT	K22174821		1-	B	a1
C3260	CHIP CAP.	22pF	50V	CH	GRM39CH220J50PT	K22174219		1-	A	D1
C3261	CHIP CAP.	12pF	50V	CH	GRM39CH120J50PT	K22174213		1-	B	a1
C3262	CHIP CAP.	220pF	50V	CH	GRM39CH221J50PT	K22174243		1-	A	D1
C3264	CHIP CAP.	15pF	50V	CH	GRM39CH150J50PT	K22174215		1-	B	a1
C3265	CHIP CAP.	27pF	50V	CH	GRM39CH270J50PT	K22174221		1-	B	a1
C3267	CHIP CAP.	3pF	50V	CJ	GRM39CJ030C50PT	K22174204		1-	B	a1
C3268	CHIP CAP.	0.1uF	25V	B	GRM40B104M25PT	K22140811		1-	B	d2
C3269	CHIP CAP.	8pF	50V	CH	GRM39CH080D50PT	K22174209		1-	B	b2
C3273	CHIP CAP.	6pF	50V	CH	GRM39CH060D50PT	K22174207		1-	B	b2
C3274	CHIP CAP.	0.5pF	50V	CK	GRM36CK0R5B50PT	K22178285		1-	A	D2
C3275	CHIP CAP.	0.5pF	50V	CK	GRM36CK0R5B50PT	K22178285		1-	A	D2
C3277	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	B	a2
C3277	CHIP CAP.	0.01uF	50V	B	GRM39B103M50PT	K22174823	41-	B	a2	
C3278	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	B	a2
C3278	CHIP CAP.	0.01uF	50V	B	GRM39B103M50PT	K22174823	41-	B	a2	
C3279	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	B	a2
C3279	CHIP CAP.	0.01uF	50V	B	GRM39B103M50PT	K22174823	41-	B	a2	
C3280	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	B	a2
C3280	CHIP CAP.	0.01uF	50V	B	GRM39B103M50PT	K22174823	41-	B	a2	
C3281	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	B	a2
C3281	CHIP CAP.	0.01uF	50V	B	GRM39B103M50PT	K22174823	41-	B	a2	
C3282	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	B	a2
C3282	CHIP CAP.	0.01uF	50V	B	GRM39B103M50PT	K22174823	41-	B	a2	
C3284	CHIP CAP.	1pF	50V	CK	GRM39CK010C50PT	K22174202		1-	A	D2
C3285	CHIP TA.CAP.	10uF	10V		TEMSVA1A106M-8R	K78100028		1-	A	A2
C3286	CHIP CAP.	0.001uF	50V	B	GRM39B102K50PT	K22174821		1-	B	d2
C3287	CHIP CAP.	0.01uF	50V	B	GRM39B103M50PT	K22174823		1-	B	d2
C3288	CHIP CAP.	100pF	50V	CH	GRM39CH101J50PT	K22174235	W/ CE LABEL	23-		
C3289	CHIP CAP.	100pF	50V	CH	GRM39CH101J50PT	K22174235	W/ CE LABEL	23-		
C3290	CHIP CAP.	100pF	50V	CH	GRM39CH101J50PT	K22174235	W/ CE LABEL	23-		
C3291	CHIP CAP.	100pF	50V	CH	GRM39CH101J50PT	K22174235	W/ CE LABEL	23-		
C3292	CHIP CAP.	100pF	50V	CH	GRM39CH101J50PT	K22174235	W/ CE LABEL	23-		
C3293	CHIP CAP.	5pF	200V	CH	GRM40CH050C200PT	K22230207	W/ CE LABEL	45-		
C3293	CERAMIC CAP.	27pF	50V	SL	UP050SL270J-A-B	K28179028	W/ CE LABEL	47-		
D3001	DIODE				1SS355 TE-17	G2070470		1-	B	b2
D3002	DIODE				DAN235U TL	G2070176		1-	B	b2
D3003	DIODE				HSU277TRF	G2070118		1-	B	b2
D3004	DIODE				HSU277TRF	G2070118		1-	A	D2
D3005	DIODE				HSU277TRF	G2070118		1-	B	b2
D3006	DIODE				HSU277TRF	G2070118		1-	B	b2
D3007	DIODE				MA716-(TX)	G2070342		1-	A	D2
D3008	DIODE				MA716-(TX)	G2070342		1-	B	a2
D3009	DIODE				MA716-(TX)	G2070342		1-	A	D2
D3010	DIODE				1SS355 TE-17	G2070470		1-	B	c2
D3011	DIODE				1SS355 TE-17	G2070470		1-	B	c1
D3012	DIODE				1SS355 TE-17	G2070470		1-	B	c2
D3013	DIODE				1SS355 TE-17	G2070470		1-	B	c2
D3014	DIODE				1SS355 TE-17	G2070470		1-	B	b1
D3015	DIODE				1SS355 TE-17	G2070470		1-	B	c1
D3016	DIODE				1SS355 TE-17	G2070470		1-	B	b1
D3017	DIODE				MA716-(TX)	G2070342		1-	B	a2
D3018	DIODE				1SS355 TE-17	G2070470		1-	B	b2
D3019	DIODE				1SS355 TE-17	G2070470		1-	B	a1
D3020	DIODE				1SS355 TE-17	G2070470		1-	B	a1
D3021	DIODE				1SS355 TE-17	G2070470		1-	B	b2

REF.	DESCRIPTION	VALUE	V/W	TOL.	MFR'S DESIG	VXSTD P/N	VERS.	LOT.	SIDE	LAY ADR
D 3022	DIODE				1SS355 TE-17	G2070470		1-	B	a2
D 3023	DIODE				1SS355 TE-17	G2070470		1-	B	a1
D 3024	DIODE				1SS355 TE-17	G2070470		1-	B	b1
D 3025	DIODE				DAN235U TL	G2070176		1-	B	c1
D 3026	DIODE				DAN235U TL	G2070176		1-	B	c1
D 3027	DIODE				DAN235U TL	G2070176		1-	B	c2
D 3028	DIODE				HSU277TRF	G2070118		1-	B	c2
D 3032	DIODE				MA716-(TX)	G2070342		1-	B	a1
D 3033	DIODE				MA716-(TX)	G2070342		1-	B	a1
D 3034	DIODE				1SS355 TE-17	G2070470		1-	B	a1
D 3035	DIODE				HSU277TRF	G2070118		1-	B	b2
D 3036	DIODE				1SS355 TE-17	G2070470		1-	B	c2
D 3037	DIODE				1SS355 TE-17	G2070470		1-	B	c1
D 3038	DIODE				1SS355 TE-17	G2070470		1-	B	b1
D 3039	DIODE				1SS355 TE-17	G2070470		1-	B	c2
D 3040	DIODE				1SS355 TE-17	G2070470		1-	B	c2
D 3041	DIODE				1SS355 TE-17	G2070470		1-	B	b1
D 3042	DIODE				1SS355 TE-17	G2070470		1-	B	b1
D 3043	DIODE				HSU277TRF	G2070118		1-	B	d2
D 3044	DIODE				1SS355 TE-17	G2070470		1-	B	d2
D 3045	DIODE				DAN202U T106	G2070162		1-	B	b2
D 3046	DIODE				1SS355 TE-17	G2070470		1-	B	a2
D 3047	DIODE				1SS355 TE-17	G2070470		1	B	a2
D 3047	DIODE				1SS357 TPH3	G2070346		2-	B	a2
D 3048	DIODE				1SS355 TE-17	G2070470		1-	B	a2
D 3049	DIODE				1SS355 TE-17	G2070470		1-	B	a2
D 3050	DIODE				1SS355 TE-17	G2070470		1	B	a2
D 3050	DIODE				1SS357 TPH3	G2070346		2-	B	a2
D 3051	DIODE				1SS355 TE-17	G2070470		1-	B	a2
D 3052	SURGE ABSORBER				RCCA-201Q43UA	Q9000755		1-	B	a1
J 3003	CONNECTOR				9210B-1-03Z711-T	P0091285		1-	B	d2
J 3004	CONNECTOR				09FMN-BMTTN-TFT	P1091089		1-	A	B1
J 3005	CONNECTOR				IMSA-9202B-1-02-T	P0091174		1-	A	A2
J 3006	CONNECTOR				IMSA-9202B-1-02-T	P0091174		1-	A	A2
JP3001	WIRE ASSY				RED 105 TMP/TMP(B1)	T9318160		1-	A	A2
JP3002	WIRE ASSY				GRN 100 TMP/TMP(B1)	T9318159		1-	A	A2
JP3003	WIRE ASSY				GRA 145 TMP(B1)/*	T9318158		1-	A	E1
JP3004	WIRE ASSY				GRN 20 2/2	T50502000	W/ CE LABEL	47-		
L 3001	M.RFC	0.056uH			HK1608 56NJ-T	L1690525		1-	B	d2
L 3002	M.RFC	4.7uH			ELJ-FC4R7KF	L1690348		1-	B	d2
L 3003	M.RFC	0.012uH			HK1608 12NJ-T	L1690517		1-	B	d2
L 3004	M.RFC	0.039uH			HK1608 39NJ-T	L1690523		1-	B	d2
L 3005	M.RFC	10uH			7B05NB-100M	L1690988		1-	A	A2
L 3006	COIL				E2 0.25-1.85-8.5T-L	L0022576		1-	A	A2
L 3007	M.RFC	0.0056uH			HK1608 5N6S-T	L1690513		1-	B	d2
L 3008	M.RFC	0.039uH			HK1608 39NJ-T	L1690523		1-	B	d1
L 3009	M.RFC	10uH			CDRH74-100MC	L1690599		1-	A	A1
L 3010	COIL				E2 0.3-1.7-7T-R	L0022372		1-	A	A1
L 3019	M.RFC	4.7uH			ELJ-FC4R7KF	L1690348		1-	B	b2
L 3020	M.RFC	4.7uH			ELJ-FC4R7KF	L1690348		1-	A	D2
L 3022	COIL				E2 0.35-1.6-8T-L	L0022458		1-	A	D2
L 3023	COIL				E2 0.45-1.4-4T-L	L0022391		1-	A	D2
L 3027	COIL				E2 0.5-2.0-7T-R	L0022489		1-	A	D2
L 3028	COIL				E2 0.35-1.6-4T-L	L0022456		1-	A	D2
L 3031	COIL				E2 0.4-2.0-5.5T-L	L0022630		1-	A	D2
L 3032	COIL				E2 0.3-1.4-6T-L	L0022455		1-	A	D2
L 3034	COIL				E2 0.5-2.0-7T-R	L0022489		1-	A	D2
L 3035	COIL				E2 0.35-1.6-4T-L	L0022456		1-	A	D2
L 3036	M.RFC	0.18uH			LK2125 R18K-T	L1690310		1-	B	c1
L 3037	M.RFC	0.18uH			LK2125 R18K-T	L1690310		1-	B	c1
L 3041	COIL				S7-T3 R12-T726X	L0190251		1-	A	C1
L 3042	M.RFC	4.7uH			LK2125 4R7K-T	L1690327		1-	B	c1
L 3043	TOROIDAL COIL	2.728uH			2.728U T25-15	L0022657		1-	A	B2
L 3044	TOROIDAL COIL	1.418uH			1.418U T25-2	L0022659		1-	A	C1
L 3045	TOROIDAL COIL	0.9262uH			0.9262U T25-2	L0022661		1-	A	C1
L 3046	TOROIDAL COIL	0.4086uH			0.4086U T25-2	L0022663		1-	A	B2
L 3047	COIL				S7-T3 R12-T729X	L0190254		1-	A	C2

# PA Unit

REF.	DESCRIPTION	VALUE	V/W	TOL.	MFR'S DESIG	VXSTD P/N	VERS.	LOT.	SIDE	LAY ADR
L 3048	COIL				S7-T3 R12-T728X	L0190253		1-	A	C1
L 3049	M.RFC	0.47uH			LK2125 R47K-T	L1690315		1-	B	c2
L 3051	M.RFC	1.8uH			LK2125 1R8K-T	L1690322		1-	B	c1
L 3052	M.RFC	0.82uH			LK2125 R82K-T	L1690318		1-	B	d2
L 3053	M.RFC	0.39uH			LK2125 R39K-T	L1690314		1-	B	c1
L 3054	COIL				S7-T3 R12-T727X	L0190252		1-	A	C1
L 3055	M.RFC	4.7uH			LK2125 4R7K-T	L1690327		1-	B	c1
L 3056	COIL				S7-T3 R12-T729X	L0190254		1-	A	C1
L 3057	M.RFC	1.8uH			LK2125 1R8K-T	L1690322		1-	B	c1
L 3058	M.RFC	0.82uH			LK2125 R82K-T	L1690318		1-	B	d2
L 3059	TOROIDAL COIL	1.187uH			1.187U T25-2	L0022662		1-	A	C1
L 3060	TOROIDAL COIL	0.614uH			0.614U T25-2	L0022664		1-	A	B2
L 3061	COIL				S7-T3 R12-T730X	L0190255		1-	A	C2
L 3062	TOROIDAL COIL	3.702uH			3.702U T25-15	L0022658		1-	A	B2
L 3063	TOROIDAL COIL	1.915uH			1.915U T25-2	L0022660		1-	A	C1
L 3064	M.RFC	0.47uH			LK2125 R47K-T	L1690315		1-	B	c2
L 3065	M.RFC	0.39uH			LK2125 R39K-T	L1690314		1-	B	c1
L 3066	COIL				S7-T3 R12-T727X	L0190252		1-	A	D1
L 3067	M.RFC	4.7uH			LK2125 4R7K-T	L1690327		1-	B	c1
L 3068	M.RFC	10uH			ELJ-FC100K	L1690200		1-	B	c1
L 3069	COIL				E2 0.25-1.9-8.5T-L	L0022611		1-	A	D2
L 3070	COIL				E2 0.4-3.0-9.5T-L	L0022575		1-	A	D2
L 3071	COIL				E2 0.3-1.7-8T-L	L0022376		1-	A	E2
L 3072	COIL				E2 0.35-1.6-4.5T-L	L0022577		1-	A	D2
L 3073	M.RFC	470uH			FLC32T-471J	L1690235		1-	B	a1
L 3074	COIL				E2 0.25-1.9-12.5T-L	L0022600		1-	A	D1
L 3075	COIL				E2 0.3-1.7-8T-L	L0022376		1-	A	E2
L 3076	COIL				E2 0.45-1.4-4T-L	L0022391		1-	A	E2
L 3077	COIL				E2 0.25-1.9-12T-L	L0022592		1-	A	D1
L 3078	M.RFC	470uH			FLC32T-471J	L1690235		1-	B	a1
L 3079	COIL				E2 0.3-1.7-8T-L	L0022376		1-	A	E2
L 3081	COIL				E2 0.5-2.0-7T-R	L0022489		1-	A	D1
L 3082	COIL				E2 0.5-2.0-6T-R	L0022488		1-	A	D1
L 3083	COIL				E2 0.45-1.4-4T-L	L0022391		1-	A	D2
L 3084	M.RFC	33uH			LK1608 330M-T	L1690690	6-			
L 3085	M.RFC	33uH			LK1608 330M-T	L1690690	6-			
L 3086	M.RFC	33uH			LK1608 330M-T	L1690690	6-			
L 3087	M.RFC	33uH			LK1608 330M-T	L1690690	6-			
L 3088	M.RFC	33uH			LK1608 330M-T	L1690690	6-			
P 3001	CONNECTOR				IMSA-9206H-T	P1090988		1-		
P 3002	CONNECTOR				IMSA-9206H-T	P1090988		1-		
Q 3001	TRANSISTOR				2SC3357-T2	G3333577		1-	B	d2
Q 3002	FET				2SK2596BXTL	G3825967		1-	B	d2
Q 3003	IC				NJU3714G-TE1	G1092768		1-	A	B1
Q 3004	FET				2SK2973-T13	G3829738		1-	A	A1
Q 3005	FET				2SK2973-T13	G3829738		1-	A	A1
Q 3006	TRANSISTOR				DTC143ZUA T106	G3070188		1-	B	c1
Q 3007	TRANSISTOR				DTA123YU T106	G3070038		1-	B	c1
Q 3010	TRANSISTOR				DTC143ZUA T106	G3070188		1-	B	b2
Q 3011	TRANSISTOR				DTC143ZUA T106	G3070188		1-	B	b1
Q 3012	TRANSISTOR				DTC143ZUA T106	G3070188		1-	B	c2
Q 3013	TRANSISTOR				DTC143ZUA T106	G3070188		1-	B	b1
Q 3014	TRANSISTOR				DTC143ZUA T106	G3070188		1-	B	c1
Q 3015	TRANSISTOR				DTC143ZUA T106	G3070188		1-	B	c2
Q 3016	TRANSISTOR				DTC143ZUA T106	G3070188		1-	B	b2
Q 3017	TRANSISTOR				DTC143ZUA T106	G3070188		1-	B	b1
Q 3018	TRANSISTOR				DTC143ZUA T106	G3070188		1-	B	c1
Q 3019	TRANSISTOR				2SC4227-T2 R34	G3342277D		1-	B	c1
Q 3020	TRANSISTOR				DTC143ZUA T106	G3070188		1-	B	a1
Q 3021	TRANSISTOR				DTC143ZUA T106	G3070188		1-	B	d2
Q 3022	TRANSISTOR				DTC143ZUA T106	G3070188		1-	B	a2
Q 3023	TRANSISTOR				DTC143ZUA T106	G3070188		1-	B	a2
Q 3024	TRANSISTOR				BA1A4M-T	G3050001	W/ CE LABEL	47-		
R 3001	CHIP RES.	120	1/16W	5%	RMC1/16 121JATP	J24185121		1-	B	d2
R 3002	CHIP RES.	56	1/16W	5%	RMC1/16 560JATP	J24185560		1-	B	d2
R 3003	CHIP RES.	120	1/16W	5%	RMC1/16 121JATP	J24185121		1-	B	d2
R 3004	CHIP RES.	150	1/16W	5%	RMC1/16 151JATP	J24185151		1-	B	d2

REF.	DESCRIPTION	VALUE	V/W	TOL.	MFR'S DESIG	VXSTD P/N	VERS.	LOT.	SIDE	LAY ADR
R 3005	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000		1-	B	d2
R 3006	CHIP RES.	1.2k	1/16W	5%	RMC1/16 122JATP	J24185122		1-	B	d2
R 3007	CHIP RES.	1.8k	1/16W	5%	RMC1/16 182JATP	J24185182		1-	B	d2
R 3008	CHIP RES.	470	1/16W	5%	RMC1/16 471JATP	J24185471		1-	B	d2
R 3009	CHIP RES.	56	1/16W	5%	RMC1/16 560JATP	J24185560		1-	B	d2
R 3011	CHIP RES.	1.8k	1/16W	5%	RMC1/16 182JATP	J24185182		1-	A	A2
R 3012	CHIP RES.	100	1/16W	5%	RMC1/16 101JATP	J24185101		1-	B	d2
R 3013	CHIP RES.	1k	1/16W	5%	RMC1/16 102JATP	J24185102		1-	B	e2
R 3014	CHIP RES.	270	1/16W	5%	RMC1/16 271JATP	J24185271		1-	B	d2
R 3015	CHIP RES.	470	1/10W	5%	RMC1/10T 471J	J24205471		1-	A	A2
R 3017	CHIP RES.	680	1/16W	5%	RMC1/16 681JATP	J24185681		1-	A	A2
R 3018	CHIP RES.	56	1/16W	5%	RMC1/16 560JATP	J24185560		1-	A	A2
R 3019	CHIP RES.	1k	1/16W	5%	RMC1/16 102JATP	J24185102		1-	A	A2
R 3020	CHIP RES.	220	1/4W	5%	RMC1/4 221JATP	J24245221		1-	B	d1
R 3021	CHIP RES.	470	1/2W	5%	RMC1/2 471JCTP	J24275471		1-	B	d1
R 3035	CHIP RES.	100	1/16W	5%	RMC1/16 101JATP	J24185101		1-	B	b2
R 3036	CHIP RES.	100	1/16W	5%	RMC1/16 101JATP	J24185101		1-	B	b2
R 3037	CHIP RES.	1k	1/16W	5%	RMC1/16 102JATP	J24185102		1-	B	b2
R 3038	CHIP RES.	1k	1/16W	5%	RMC1/16 102JATP	J24185102		1-	B	b2
R 3039	CHIP RES.	39	1/16W	5%	RMC1/16 390JATP	J24185390		1-	A	D2
R 3040	CHIP RES.	39	1/16W	5%	RMC1/16 390JATP	J24185390		1-	A	D2
R 3041	CHIP RES.	8.2k	1/16W	5%	RMC1/16 822JATP	J24185822		1-	B	a2
R 3042	CHIP RES.	15k	1/16W	5%	RMC1/16 153JATP	J24185153		1-	B	c1
R 3043	CHIP RES.	39	1/16W	5%	RMC1/16 390JATP	J24185390		1-	A	D2
R 3044	CHIP RES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103		1-	B	a2
R 3045	CHIP RES.	6.8k	1/16W	5%	RMC1/16 682JATP	J24185682		1-	B	c1
R 3046	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000		1-	A	D2
R 3046	CHIP RES.	3.3k	1/16W	5%	RMC1/16 332JATP	J24185332		3-	A	D2
R 3047	CHIP RES.	8.2k	1/16W	5%	RMC1/16 822JATP	J24185822		1-	A	D2
R 3048	CHIP RES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103		1-	A	D2
R 3049	CHIP RES.	39	1/16W	5%	RMC1/16 390JATP	J24185390		1-	A	D2
R 3050	CHIP RES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103		1-	A	D2
R 3051	CHIP RES.	68	1/16W	5%	RMC1/16 680JATP	J24185680		1-	B	c1
R 3052	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000		1-	A	D2
R 3052	CHIP RES.	3.3k	1/16W	5%	RMC1/16 332JATP	J24185332		3-	A	D2
R 3053	CHIP RES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103		1-	A	D2
R 3054	CHIP RES.	68	1/16W	5%	RMC1/16 680JATP	J24185680		1-	B	c1
R 3055	CHIP RES.	470	1/16W	5%	RMC1/16 471JATP	J24185471		1-	B	c1
R 3056	CHIP RES.	470	1/16W	5%	RMC1/16 471JATP	J24185471		1-	B	c2
R 3057	CHIP RES.	470	1/16W	5%	RMC1/16 471JATP	J24185471		1-5	B	c1
R 3058	CHIP RES.	470	1/16W	5%	RMC1/16 471JATP	J24185471		1-5	B	c2
R 3059	CHIP RES.	470	1/16W	5%	RMC1/16 471JATP	J24185471		1-5	B	c1
R 3060	CHIP RES.	470	1/16W	5%	RMC1/16 471JATP	J24185471		1-5	B	c2
R 3061	CHIP RES.	470	1/16W	5%	RMC1/16 471JATP	J24185471		1-5	B	c1
R 3062	CHIP RES.	47	1/10W	5%	RMC1/10T 470J	J24205470		1-	B	a1
R 3063	CHIP RES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103		1-	A	D1
R 3064	CHIP RES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103		1-	A	D1
R 3065	CHIP RES.	47	1/10W	5%	RMC1/10T 470J	J24205470		1-	B	a1
R 3068	CHIP RES.	22k	1/16W	5%	RMC1/16 223JATP	J24185223		1-	B	a1
R 3069	CHIP RES.	1.8k	1/16W	5%	RMC1/16 182JATP	J24185182		1-	B	a1
R 3070	CHIP RES.	1.8k	1/16W	5%	RMC1/16 182JATP	J24185182		1-	B	a1
R 3071	CHIP RES.	1k	1/16W	5%	RMC1/16 102JATP	J24185102		1-	A	D2
R 3072	CHIP RES.	1k	1/16W	5%	RMC1/16 102JATP	J24185102		1-	A	D2
R 3075	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000		1-	B	a2
R 3076	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000		1-	B	a2
R 3077	CHIP RES.	0	1/10W	5%	RMC1/10T 000J	J24205000		1-	B	a2
R 3078	CHIP RES.	10	1/16W	5%	RMC1/16 100JATP	J24185100		1-	A	A1
R 3079	CHIP RES.	10	1/16W	5%	RMC1/16 100JATP	J24185100		1-	A	A1
R 3080	CARBON FILM RES.	10k	1/6W	5%	RD16TPJ103 10K	J07225103		1-		
RL3001	RELAY		DC9V		ARK115 DC9V	M1190094		1-	A	C2
RL3002	RELAY		DC9V		G5V-1 DC9V	M1190165		1-	A	B2
RL3003	RELAY		DC9V		G5V-1 DC9V	M1190165		1-	A	C1
RL3004	RELAY		DC9V		G5V-1 DC9V	M1190165		1-	A	C1
RL3005	RELAY		DC9V		G5V-1 DC9V	M1190165		1-	A	B2
RL3006	RELAY		DC9V		G5V-1 DC9V	M1190165		1-	A	C2
RL3007	RELAY		DC9V		G5V-1 DC9V	M1190165		1-	A	C1
RL3008	RELAY		DC9V		AGN20009 DC9V	M1190164		1-	A	C1

*PA Unit*

REF.	DESCRIPTION	VALUE	V/W	TOL.	MFR'S DESIG	VXSTD P/N	VERS.	LOT.	SIDE	LAY	ADR
RL3009	RELAY		DC9V		G5V-1 DC9V	M1190165		1-	A	C2	
RL3010	RELAY		DC9V		G5V-1 DC9V	M1190165		1-	A	D1	
RL3011	RELAY		DC9V		G5V-1 DC9V	M1190165		1-	A	D1	
RL3012	RELAY		DC9V		G5V-1 DC9V	M1190165		1-	A	C2	
RL3013	RELAY		DC9V		G5V-1 DC9V	M1190165		1-	A	D2	
RL3014	RELAY		DC9V		G5V-1 DC9V	M1190165		1-	A	D1	
RL3015	RELAY		DC9V		AGN20009 DC9V	M1190164		1-	A	D1	
RL3016	RELAY		DC9V		ARK115 DC9V	M1190094		1-	A	E1	
RL3017	RELAY		DC9V		ARK115 DC9V	M1190094		1-	A	B2	
T 3001	COIL PWR-WIDE				A0898	L0022552		1-	A	B2	
T 3002	COIL WIDE-TRANS.				990812213	L0022619		1-	A	B1	
T 3003	COIL 07WIDE				TR-266C	L0022631B		1-	A	D1	
T 3004	COIL PWR-WIDE				3A6 RIB8X14X6.5	L0022641		1-	A	A1	
T 3004	COIL PWR-WIDE				3A6 RIB8X14X6.5	L0022641A		9-	A	A1	
T 3005	COIL PWR-WIDE				3A TR9.3X4.8X5.0	L0022642		1-	A	B1	
T 3005	COIL PWR-WIDE				3A TR9.3X4.8X5.0	L0022642A		17-	A	B1	
TC3001	TRIMMER CAP.	20pF			ECR-KN020E61X	K91000213		1-	A	D2	
TC3002	TRIMMER CAP.	3pF			ECR-KN003A61X 3P	K91000264		1-	A	D2	
TC3003	TRIMMER CAP.	20pF			ECR-KN020E61X	K91000213		1-	A	D2	
VR3001	POT.	2.2k			EVN-5ESX50BE3	J51811222		1-	A	A2	
VR3002	POT.	2.2k			EVN-5ESX50BE3	J51811222		1-	A	A2	
	LEAF SPRING					R0132100		1-			
	LEAF SPRING					R0132100		9-			
	LEAF SPRING					R0132100	W/ CE LABEL	23-			

# Final Unit

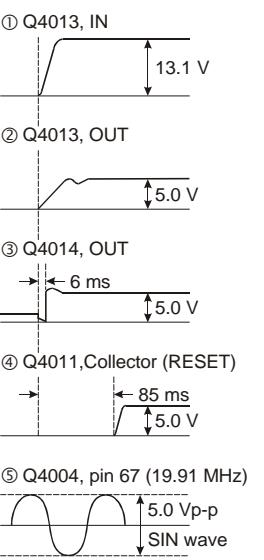
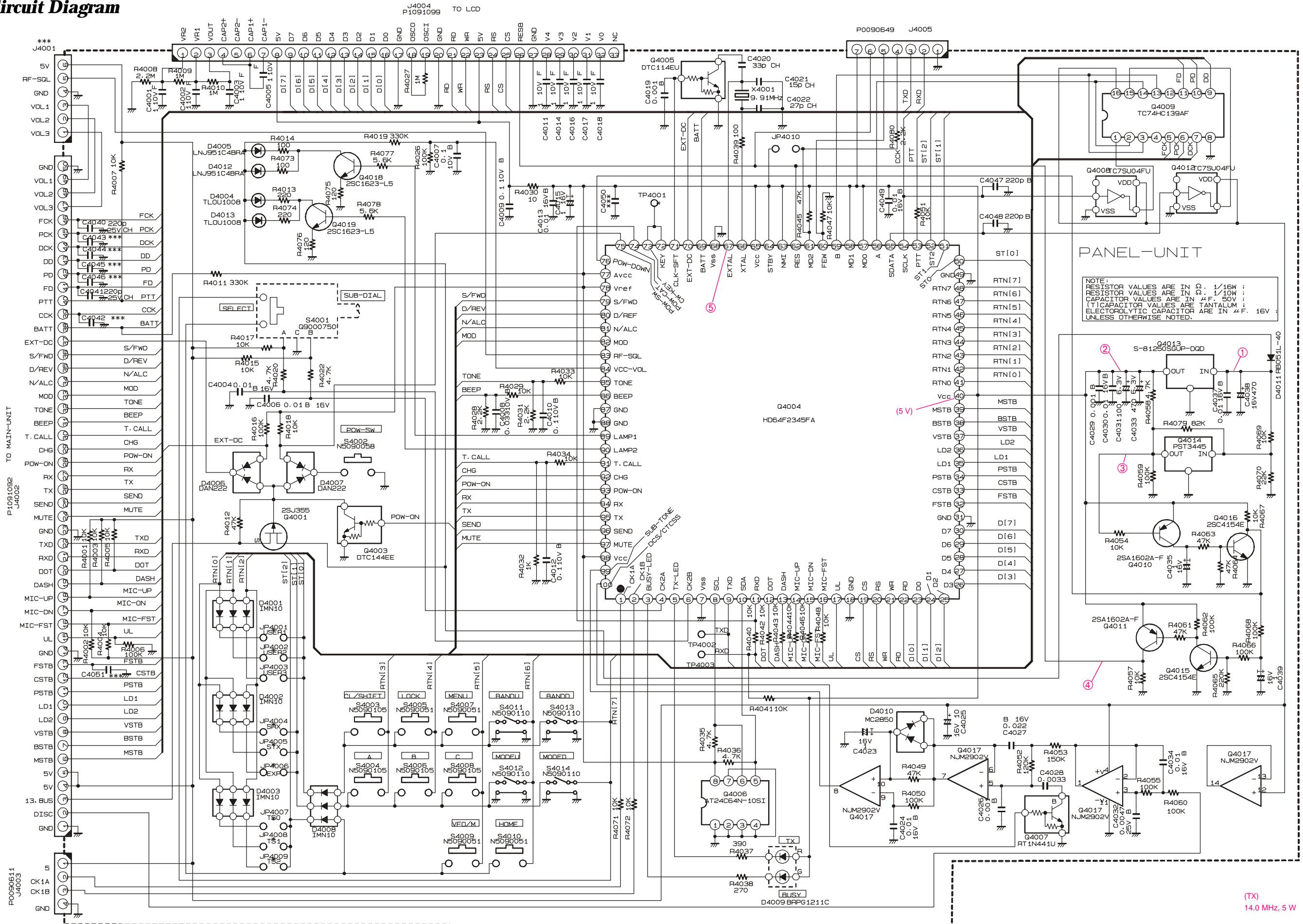
REF.	DESCRIPTION	VALUE	V/W	TOL.	MFR'S DESIG	VXSTD P/N	VERS.	LOT.	SIDE	LAY ADR
*** FINAL UNIT ***										
PCB with Components								CB1333001	W/O CE LABEL	
PCB with Components								CB1333002	W/ CE LABEL	
Printed Circuit Board										
C 5401	CHIP CAP.	27pF	50V	CH	GRM39CH270J50PT	K22174221	W/ CE LABEL	FR006000C	1-	A A1
C 5402	CHIP CAP.	12pF	50V	CH	GRM39CH120J50PT	K22174213		1-	A A1	
C 5403	CHIP CAP.	100pF	50V	CH	GRM39CH101J50PT	K22174235		23-	A A1	
C 5404	CHIP CAP.	0.1uF	16V	B	GRM39B104K16PT	K22124805		1-	A A1	
C 5405	CHIP CAP.	0.1uF	25V	B	GRM40B104M25PT	K22140811		1-	A A1	
C 5406	CHIP CAP.	0.1uF	25V	B	GRM40B104M25PT	K22140811		1-	A A1	
C 5407	CHIP CAP.	100pF	50V	CH	GRM39CH101J50PT	K22174235		23-	A A2	
C 5408	CHIP CAP.	0.1uF	16V	B	GRM39B104K16PT	K22124805		1-	A A1	
C 5409	CHIP CAP.	0.1uF	16V	B	GRM39B104K16PT	K22124805		1-	A A1	
C 5410	CHIP CAP.	0.1uF	16V	B	GRM39B104K16PT	K22124805		1-	A A1	
C 5411	AL.ELECTRO.CAP.	47uF	16V		ECEV1CA470SP	K48120005	W/ CE LABEL	1-	A A2	
C 5412	CHIP CAP.	0.1uF	16V	B	GRM39B104K16PT	K22124805		1-	B a1	
C 5414	CHIP CAP.	0.1uF	16V	B	GRM39B104K16PT	K22124805		1-	B a2	
C 5415	CHIP CAP.	100pF	50V	CH	GRM39CH101J50PT	K22174235		23-		
C 5416	CHIP CAP.	100pF	50V	CH	GRM39CH101J50PT	K22174235	W/ CE LABEL	23-		
D 5401	DIODE				UDZ TE-17 3.9B	G2070576		1-		
D 5401	DIODE				UDZS TE-17 3.9B	G2070906		54-		
L 5401	M.RFC	0.0033uH			HK1608 3N3S-T	L1690510		1-	A A1	
L 5402	M.RFC	0.0033uH			HK1608 3N3S-T	L1690510		1-	A A1	
L 5403	M.RFC	0.022uH			HK1608 22NJ-T	L1690520		1-	A A1	
L 5404	M.RFC	0.022uH			HK1608 22NJ-T	L1690520		1-	A A1	
L 5405	COIL				E2 0.4-3.0-9.5T-L	L0022575		1-	A A1	
L 5406	COIL				E2 0.4-3.0-9.5T-L	L0022575		1-	A A1	
L 5407	M.RFC	10uH			CDRH74-100MC	L1690599		1-	A A1	
L 5408	M.RFC	10uH			CDRH74-100MC	L1690599		1-	A A2	
Q 5401	FET				2SK2975-T11	G3829757		1-	A A1	
Q 5402	FET				2SK2975-T11	G3829757		1-	A A1	
R 5401	CHIP RES.	1k	1/16W	5%	RMC1/16 102JATP	J24185102		1-	A A1	
R 5402	CHIP RES.	56	1/16W	5%	RMC1/16 560JATP	J24185560		1-	A A1	
R 5403	CHIP RES.	1k	1/16W	5%	RMC1/16 102JATP	J24185102		1-	A A1	
R 5404	CHIP RES.	1k	1/16W	5%	RMC1/16 102JATP	J24185102		1-	A A2	
R 5405	CHIP RES.	56	1/16W	5%	RMC1/16 560JATP	J24185560		1-	A A1	
R 5406	CHIP RES.	1k	1/16W	5%	RMC1/16 102JATP	J24185102		1-	A A1	
R 5407	CHIP RES.	100	1W	5%	RMC1 101JTE	J24305101		1-	A A1	
R 5408	CHIP RES.	100	1W	5%	RMC1 101JTE	J24305101		1-	A A2	
R 5410	CHIP RES.	470	1W	5%	RMC1 471JTE	J24305471		1-	B a1	
R 5413	CHIP RES.	470	1W	5%	RMC1 471JTE	J24305471		1-	B a1	
VR5401	POT.	2.2k			EVN-5ESX50BE3	J51811222		1-	A A1	
VR5402	POT.	2.2k			EVN-5ESX50BE3	J51811222		1-	A A2	
	HEATSINK PLATE LEAF SPRING					RA0247900 R0140030	W/ CE LABEL	1- 23-	B	a1

## ***Final Unit***

**Note:**

## **PANEL Unit**

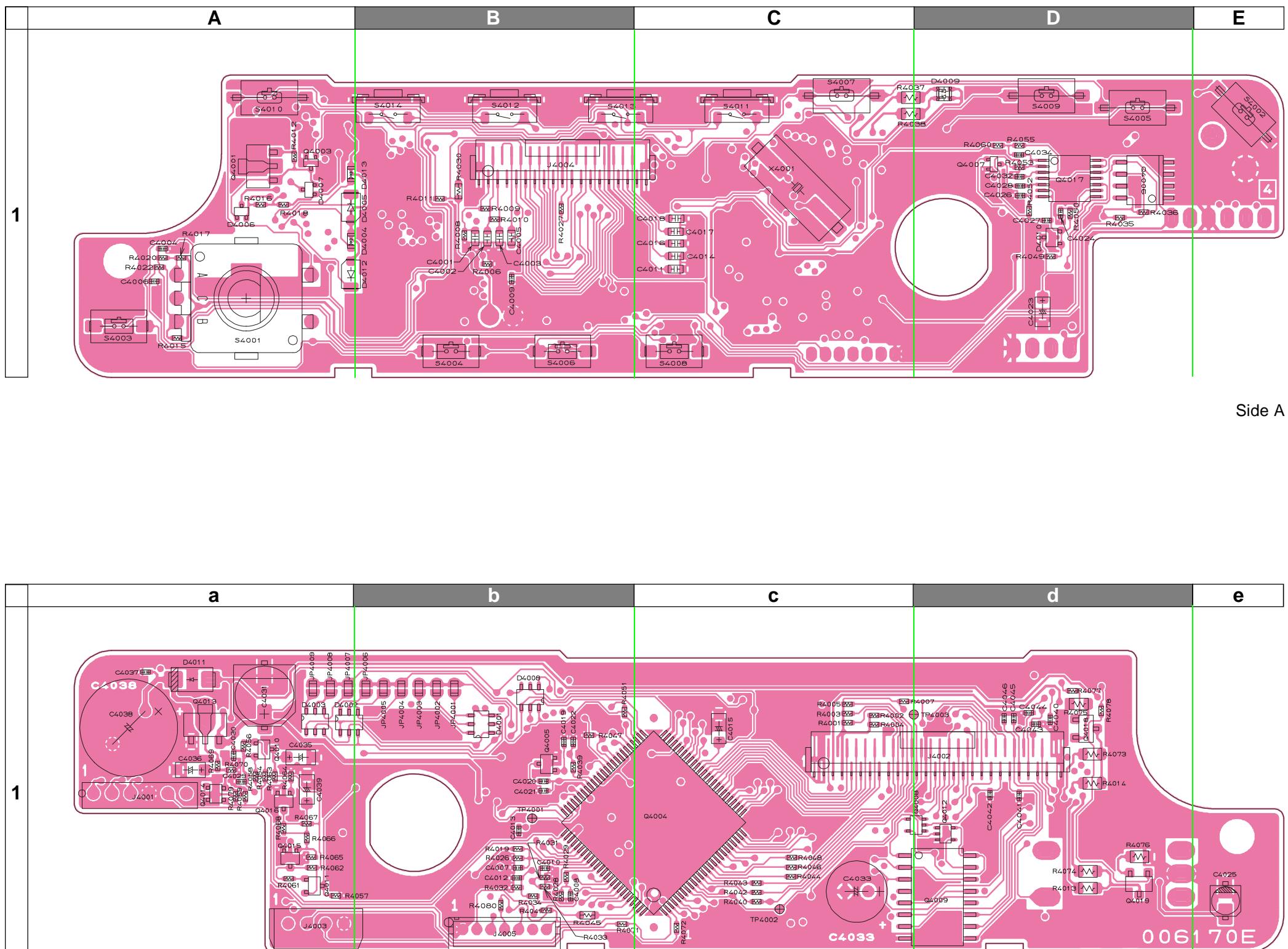
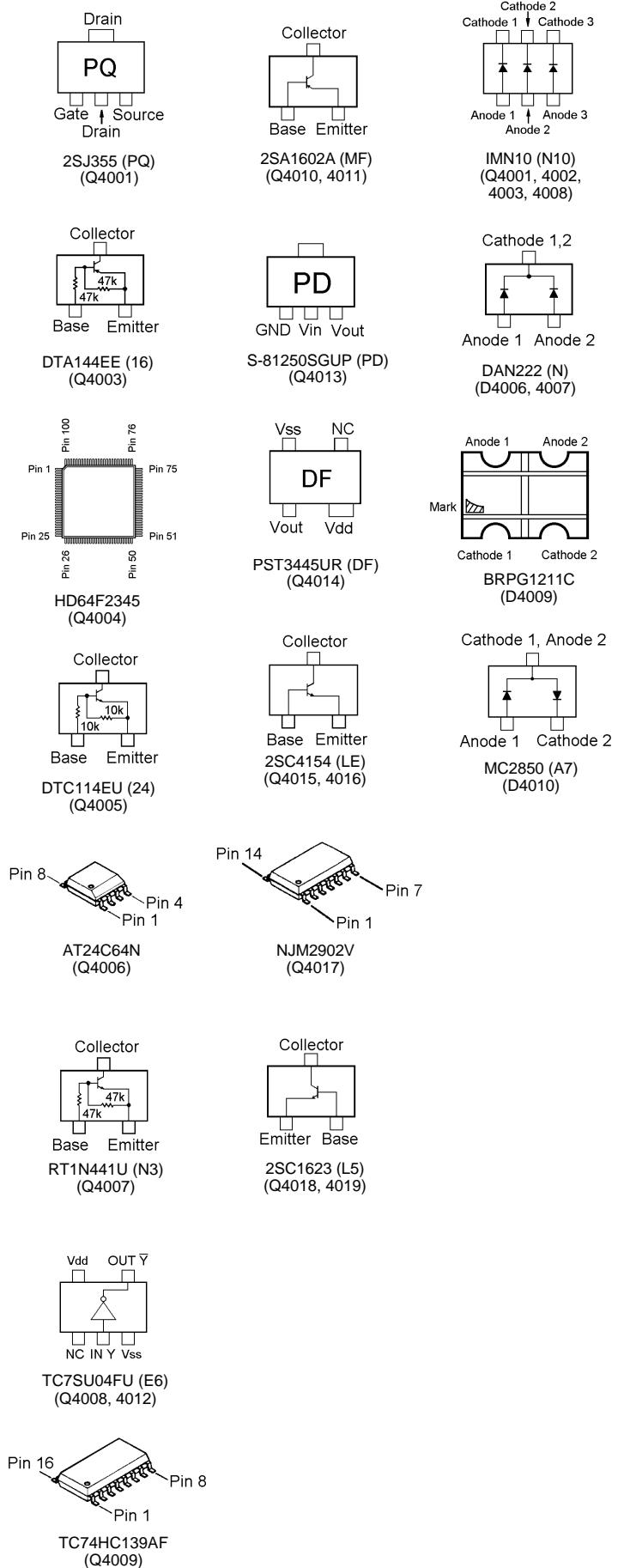
## ***Circuit Diagram***



(TX)  
14.0 MHz, 5 W

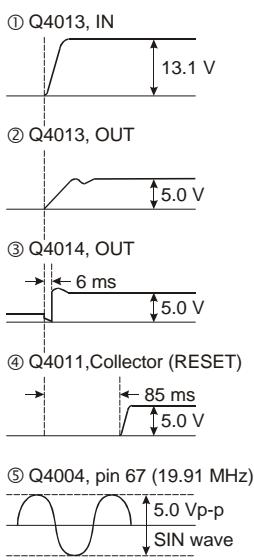
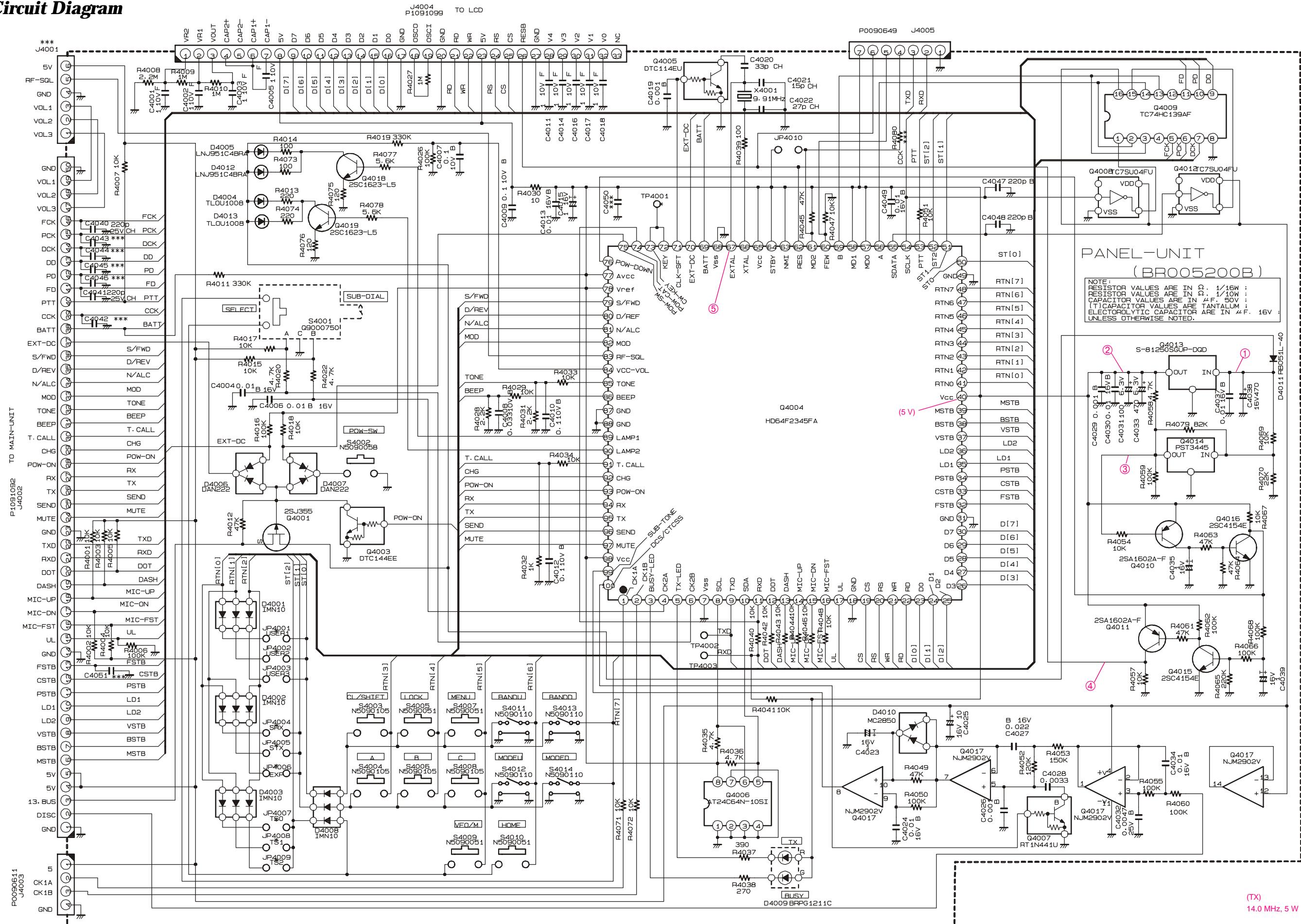
# PANEL Unit

## Parts Layout



## **PANEL Unit (Lot. 30~)**

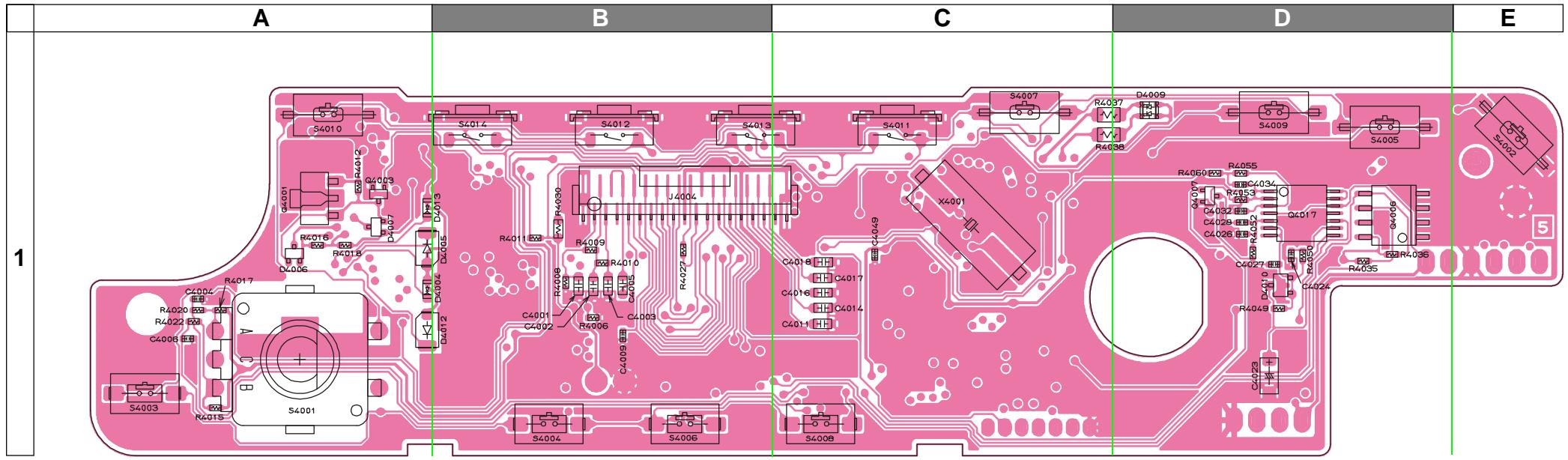
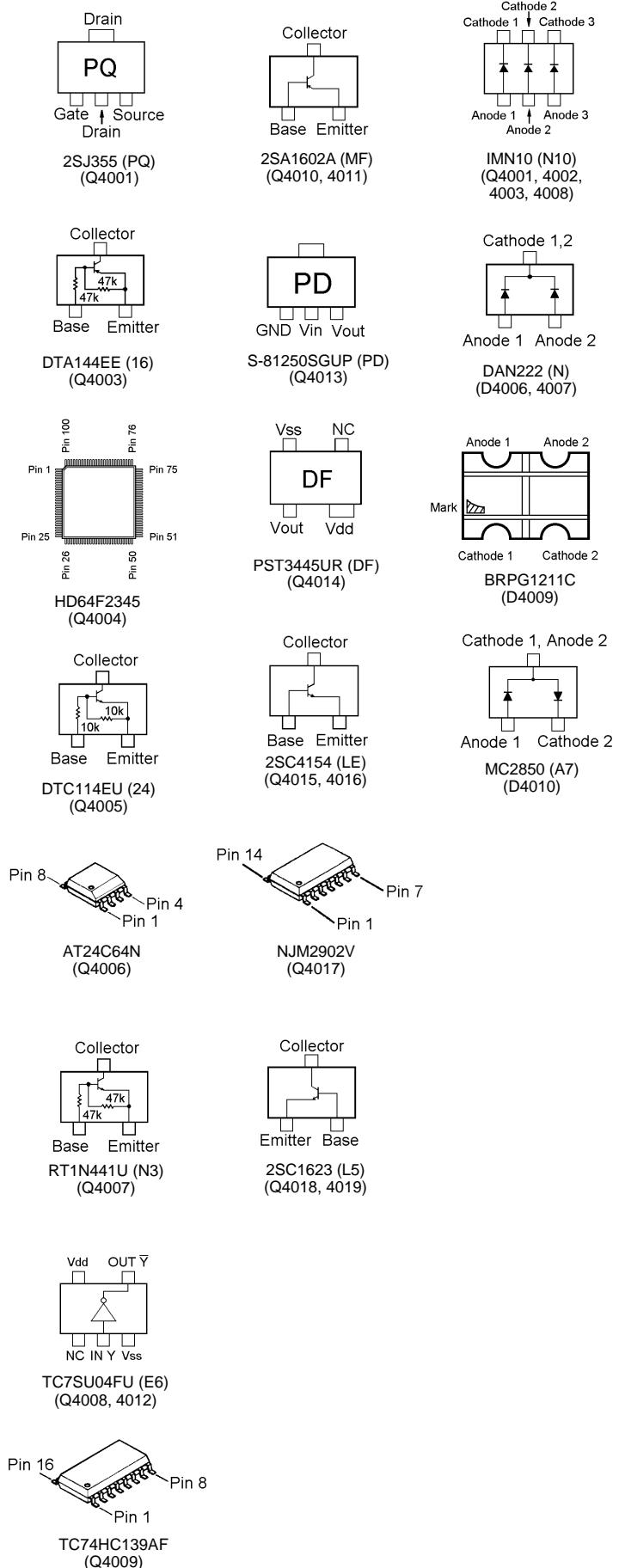
## ***Circuit Diagram***



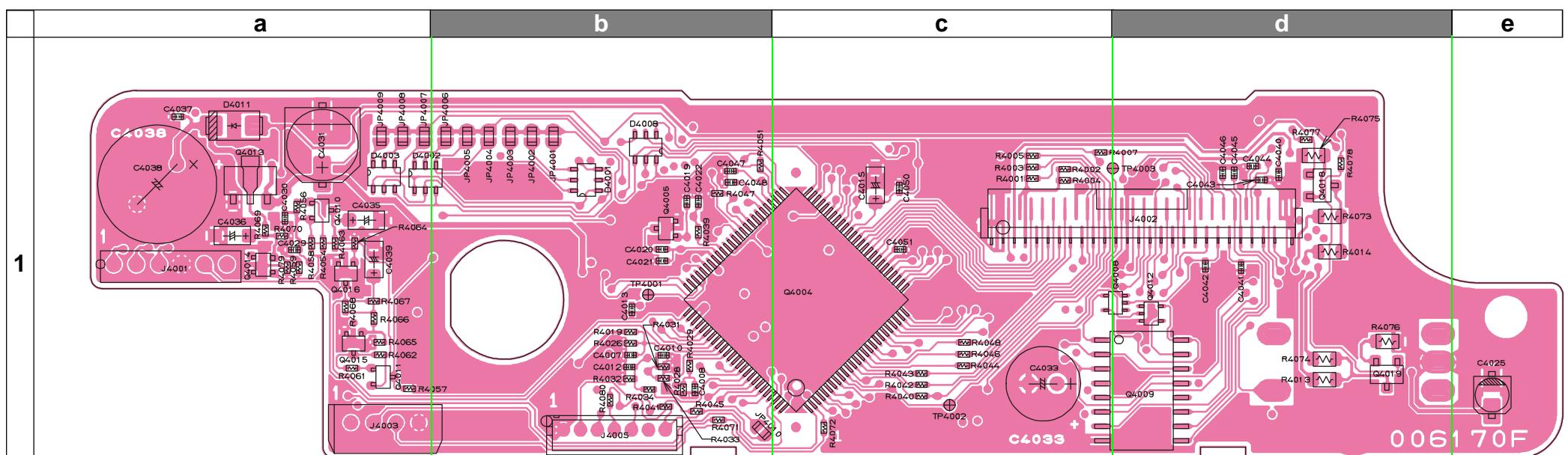
(TX)  
14.0 MHz, 5 W

# PANEL Unit (Lot. 30~)

## Parts Layout



Side A



Side B

# PANEL Unit

## Parts List

REF.	DESCRIPTION	VALUE	V/W	TOL.	MFR'S DESIG	VXSTD P/N	VERS.	LOT.	SIDE	LAY ADR
*** PANEL UNIT ***										
	PCB with Components					CB1153002	VERSION A2, USA			
	PCB with Components					CB1153003	VERSION A1			
	PCB with Components					CB1153004	VERSION A3			
	PCB with Components					CB1153005	VERSION B1			
	PCB with Components					CB1153006	VERSION B2			
	PCB with Components					CB1153007	VERSION B3			
	PCB with Components					CB1153008	VERSION C1			
	PCB with Components					CB1153009	VERSION C2			
	PCB with Components					CB1153010	VERSION C3			
	PCB with Components					CB1153011	VERSION D1			
	PCB with Components					CB1153012	VERSION D2			
	PCB with Components					CB1153013	VERSION H1, AUSTRALIA			
	PCB with Components					CB1153014	VERSION H2, AUSTRALIA			
	PCB with Components					CB1153015	VERSION E1, FRANCE			
	PCB with Components					CB1153016	VERSION E2, FRANCE			
	PCB with Components					CB1153017	VERSION E3, FRANCE			
	PCB with Components					CB1153018	VERSION A2			
	Printed Circuit Board					FR006170E		1-		
	Printed Circuit Board					FR006170F		30-		
C 4001	CHIP CAP.	1uF	10V	F	GRM39F105Z10PT	K22105001			A	B1
C 4002	CHIP CAP.	1uF	10V	F	GRM39F105Z10PT	K22105001			A	B1
C 4003	CHIP CAP.	1uF	10V	F	GRM39F105Z10PT	K22105001			A	B1
C 4004	CHIP CAP.	0.01uF	16V	B	GRM36B103K16PT	K22128804			A	A1
C 4005	CHIP CAP.	1uF	10V	F	GRM39F105Z10PT	K22105001			A	B1
C 4006	CHIP CAP.	0.01uF	16V	B	GRM36B103K16PT	K22128804			A	A1
C 4007	CHIP CAP.	0.1uF	10V	B	GRM36B104K10PT	K22108802			B	b1
C 4008	CHIP CAP.	0.033uF	10V	B	GRM36B333K10PT	K22108803			B	b1
C 4009	CHIP CAP.	0.1uF	10V	B	GRM36B104K10PT	K22108802			A	B1
C 4010	CHIP CAP.	0.1uF	10V	B	GRM36B104K10PT	K22108802			B	b1
C 4011	CHIP CAP.	1uF	10V	F	GRM39F105Z10PT	K22105001			A	C1
C 4012	CHIP CAP.	0.1uF	10V	B	GRM36B104K10PT	K22108802			B	b1
C 4013	CHIP CAP.	0.01uF	16V	B	GRM36B103K16PT	K22128804			B	b1
C 4014	CHIP CAP.	1uF	10V	F	GRM39F105Z10PT	K22105001			A	C1
C 4015	CHIP TA.CAP.	1uF	16V		TESVA1C105M1-8R	K78120009			B	c1
C 4016	CHIP CAP.	1uF	10V	F	GRM39F105Z10PT	K22105001			A	C1
C 4017	CHIP CAP.	1uF	10V	F	GRM39F105Z10PT	K22105001			A	C1
C 4018	CHIP CAP.	1uF	10V	F	GRM39F105Z10PT	K22105001			A	C1
C 4019	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809			B	b1
C 4020	CHIP CAP.	33pF	50V	CH	GRM36CH330J50PT	K22178224			B	b1
C 4021	CHIP CAP.	15pF	50V	CH	GRM36CH150J50PT	K22178216			B	b1
C 4022	CHIP CAP.	27pF	50V	CH	GRM36CH270J50PT	K22178222			B	b1
C 4023	CHIP TA.CAP.	1uF	16V		TESVA1C105M1-8R	K78120009			A	D1
C 4024	CHIP CAP.	0.01uF	16V	B	GRM36B103K16PT	K22128804			A	D1
C 4025	AL.ELECTRO.CAP.	10uF	16V		RV2-16V100MB55-R	K48120014			B	e1
C 4026	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809			A	D1
C 4027	CHIP CAP.	0.022uF	16V	B	GRM36B223K16PT	K22128806			A	D1
C 4028	CHIP CAP.	0.0033uF	50V	B	GRM36B332K50PT	K22178815			A	D1
C 4029	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809			B	a1
C 4030	CHIP CAP.	0.01uF	16V	B	GRM36B103K16PT	K22128804			B	a1
C 4031	AL.ELECTRO.CAP.	100uF	6.3V		RV2-6V101M-R	K48080005			B	a1
C 4032	CHIP CAP.	0.0047uF	25V	B	GRM36B472K25PT	K22148830			A	D1
C 4033	AL.ELECTRO.CAP.	470uF	6.3V		RE2-6V471M 470UF	K40089025			B	c1
C 4033	AL.ELECTRO.CAP.	470uF	6.3V		RE3-6V471M 470UF	K40089034			B	c1
C 4034	CHIP CAP.	0.01uF	16V	B	GRM36B103K16PT	K22128804			A	D1
C 4035	CHIP TA.CAP.	1uF	16V		TESVA1C105M1-8R	K78120009			B	a1
C 4036	CHIP TA.CAP.	1uF	16V		TESVA1C105M1-8R	K78120009		1-31	B	a1
C 4037	CHIP CAP.	0.01uF	16V	B	GRM36B103K16PT	K22128804			B	a1
C 4038	AL.ELECTRO.CAP.	470uF	16V		RE3-16V471M 470UF	K40129066			B	a1
C 4038	AL.ELECTRO.CAP.	470uF	16V		RE3-16V471M 470UF	K40129066	3		B	a1
C 4038	AL.ELECTRO.CAP.	470uF	16V		URS1C471MNA	K40129097	4-		B	a1
C 4039	CHIP TA.CAP.	1uF	16V		TESVA1C105M1-8R	K78120009			B	a1
C 4040	CHIP CAP.	220pF	25V	CH	GRM36CH221J25PT	K22148203			B	d1
C 4041	CHIP CAP.	220pF	25V	CH	GRM36CH221J25PT	K22148203			B	d1
C 4042	CHIP CAP.	220pF	25V	CH	GRM36CH221J25PT	K22148203	1-9		B	d1
C 4047	CERAMIC CAP.	220pF	50V	B	UP050B221K-A-B	K28179083	10-		B	b1
C 4047	CHIP CAP.	220pF	50V	B	GRM36B221K50PT	K22178801	30-		B	b1
C 4048	CERAMIC CAP.	220pF	50V	B	UP050B221K-A-B	K28179083	10-		B	b1

# PANEL Unit

REF.	DESCRIPTION	VALUE	V/W	TOL.	MFR'S DESIG	VXSTD P/N	VERS.	LOT.	SIDE	LAY ADR
C 4048	CHIP CAP.	220pF	50V	B	GRM36B221K50PT	K22178801		30-	B	b1
C 4049	CHIP CAP.	0.01uF	16V	B	GRM36B103K16PT	K22128804		30-	A	C1
D 4001	DIODE				IMN10 T108	G2070078		1-	B	b1
D 4002	DIODE				IMN10 T108	G2070078		1-	B	a1
D 4003	DIODE				IMN10 T108	G2070078		1-	B	a1
D 4004	LED				TLOU1008(T4)	G2070796		1-	A	A1
D 4005	LED				LNJ951C4BRA	G2070806		1-	A	A1
D 4006	DIODE				DAN222 TL	G2070174		1-	A	A1
D 4007	DIODE				DAN222 TL	G2070174		1-	A	A1
D 4008	DIODE				IMN10 T108	G2070078		1-	B	b1
D 4009	LED				BRPG1211C-TR	G2070654		1-	A	D1
D 4010	DIODE				MC2850-T11-1	G2070704		1-	A	D1
D 4011	DIODE				RB051L-40TE25	G2070718		1-	B	a1
D 4012	LED				LNJ951C4BRA	G2070806		1-	A	A1
D 4013	LED				TLOU1008(T4)	G2070796		1-	A	A1
DS4001	LCD UNIT				DU3L1AF005A	Q7000291		1-		
J 4002	CONNECTOR				FH12-50S-0.5SV	P1091092		1-	B	d1
J 4003	CONNECTOR				SB20-04WS	P0090611		1-	B	a1
J 4004	CONNECTOR				FH12-33S-0.5SV	P1091099		1-	A	B1
J 4005	CONNECTOR				B7B-ZR	P0090649		1-	B	b1
J 4005	CONNECTOR				B7B-ZR	P0090649		41-	B	b1
JP4004	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000	VERSION A1	1-	B	b1
JP4004	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000	VERSION B1	1-	B	b1
JP4004	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000	VERSION C1	1-	B	b1
JP4004	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000	VERSION D1	1-	B	b1
JP4004	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000	VERSION E1	1-	B	b1
JP4004	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000	VERSION F	1-	B	b1
JP4004	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000	VERSION H1	1-	B	b1
JP4005	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000	VERSION A1	1-	B	b1
JP4005	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000	VERSION A2	1-	B	b1
JP4005	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000	VERSION B1	1-	B	b1
JP4005	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000	VERSION B2	1-	B	b1
JP4005	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000	VERSION C1	1-	B	b1
JP4005	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000	VERSION C2	1-	B	b1
JP4005	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000	VERSION D1	1-	B	b1
JP4005	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000	VERSION D2	1-	B	b1
JP4005	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000	VERSION E1	1-	B	b1
JP4005	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000	VERSION E2	1-	B	b1
JP4005	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000	VERSION F	1-	B	b1
JP4005	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000	VERSION H1	1-	B	b1
JP4005	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000	VERSION H2	1-	B	b1
JP4006	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000	VERSION A1	1-	B	b1
JP4006	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000	VERSION A2	1-	B	b1
JP4006	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000	VERSION A3	1-	B	b1
JP4006	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000	VERSION B1	1-	B	b1
JP4006	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000	VERSION B2	1-	B	b1
JP4006	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000	VERSION B3	1-	B	b1
JP4006	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000	VERSION C1	1-	B	b1
JP4006	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000	VERSION C2	1-	B	b1
JP4006	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000	VERSION C3	1-	B	b1
JP4006	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000	VERSION D1	1-	B	b1
JP4006	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000	VERSION D2	1-	B	b1
JP4006	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000	VERSION E1	1-	B	b1
JP4006	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000	VERSION E2	1-	B	b1
JP4006	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000	VERSION E3	1-	B	b1
JP4006	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000	VERSION F	1-	B	b1
JP4006	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000	VERSION H1	1-	B	b1
JP4006	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000	VERSION H2	1-	B	b1
JP4007	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000	VERSION A1	1-	B	a1
JP4007	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000	VERSION A2	1-	B	a1
JP4007	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000	VERSION A3	1-	B	a1
JP4007	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000	VERSION C1	1-	B	a1
JP4007	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000	VERSION C2	1-	B	a1
JP4007	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000	VERSION C3	1-	B	a1
JP4007	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000	VERSION H1	1-	B	a1
JP4007	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000	VERSION H2	1-	B	a1
JP4008	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000	VERSION B1	1-	B	a1
JP4008	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000	VERSION B2	1-	B	a1

# PANEL Unit

REF.	DESCRIPTION	VALUE	V/W	TOL.	MFR'S DESIG	VXSTD P/N	VERS.	LOT.	SIDE	LAY ADR
JP4008	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000	VERSION B3	1-	B	a1
JP4008	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000	VERSION C1	1-	B	a1
JP4008	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000	VERSION C2	1-	B	a1
JP4008	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000	VERSION C3	1-	B	a1
JP4008	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000	VERSION E1	1-	B	a1
JP4008	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000	VERSION E2	1-	B	a1
JP4008	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000	VERSION E3	1-	B	a1
JP4009	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000	VERSION D1	1-	B	a1
JP4009	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000	VERSION D2	1-	B	a1
JP4009	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000	VERSION E1	1-	B	a1
JP4009	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000	VERSION E2	1-	B	a1
JP4009	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000	VERSION E3	1-	B	a1
JP4009	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000	VERSION H1	1-	B	a1
JP4009	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000	VERSION H2	1-	B	a1
JP4010	WIRE ASSY				A1377	T9206921		1-	B	b2
Q 4001	FET				2SJ355-T1	G3703558		1-	A	A1
Q 4003	TRANSISTOR				DTC144EE TL	G3070075		1-	A	A1
Q 4004	IC				HD6432345A20FA	G1093519	AUSTRALIA	1-	B	c1
Q 4004	IC				HD6432345A20FA	G1093519	EXPORT	1-	B	c1
Q 4004	IC				HD6432345A20FA	G1093519	USA	1-	B	c1
Q 4005	TRANSISTOR				DTC114EU T106	G3070084		1-	B	b1
Q 4006	IC				AT24C64N-10SI-1.8-SL722A	G1093171		1-	A	D1
Q 4007	TRANSISTOR				RT1N441U-T11-1	G3070247		1-	A	D1
Q 4008	IC				TC7SU04FU(TE85L)	G1093085		1-	B	d1
Q 4009	IC				TC74HC139AF EL	G1091447		1-	B	d1
Q 4010	TRANSISTOR				2SA1602A-T11-1F	G3116028F		1-	B	a1
Q 4011	TRANSISTOR				2SA1602A-T11-1F	G3116028F		1-	B	a1
Q 4012	IC				TC7SU04FU(TE85L)	G1093085		1-	B	d1
Q 4013	IC				S-81250SGUP-DQD-T1	G1092939		1-	B	a1
Q 4013	IC				S-812C50AUA-C3E-T2	G1093652		51-	B	a1
Q 4014	IC				PST3445UR	G1093232		1-	B	a1
Q 4015	TRANSISTOR				2SC4154-T11-1E	G3341548E		1-	B	a1
Q 4016	TRANSISTOR				2SC4154-T11-1E	G3341548E		1-	B	a1
Q 4017	IC				NJM2902V-TE1	G1091679		1-	A	D1
Q 4018	TRANSISTOR				2SC1623-T2BL5	G3316237E		1-	B	d1
Q 4019	TRANSISTOR				2SC1623-T2BL5	G3316237E		1-	B	d1
R 4001	CHIP RES.	10k	1/16W	5%	RMC1/16S 103JTH	J24189037		1-	B	c1
R 4002	CHIP RES.	10k	1/16W	5%	RMC1/16S 103JTH	J24189037		1-	B	c1
R 4003	CHIP RES.	10k	1/16W	5%	RMC1/16S 103JTH	J24189037		1-	B	c1
R 4004	CHIP RES.	10k	1/16W	5%	RMC1/16S 103JTH	J24189037		1-	B	c1
R 4005	CHIP RES.	10k	1/16W	5%	RMC1/16S 103JTH	J24189037		1-	B	c1
R 4006	CHIP RES.	100k	1/16W	5%	RMC1/16S 104JTH	J24189049		1-	A	B1
R 4007	CHIP RES.	10k	1/16W	5%	RMC1/16S 103JTH	J24189037		1-	B	c1
R 4008	CHIP RES.	2.2M	1/16W	5%	RMC1/16S 225JTH	J24189065		1-	A	B1
R 4009	CHIP RES.	1M	1/16W	5%	RMC1/16S 105JTH	J24189061		1-	A	B1
R 4010	CHIP RES.	1M	1/16W	5%	RMC1/16S 105JTH	J24189061		1-	A	B1
R 4011	CHIP RES.	330k	1/16W	5%	RMC1/16S 334JTH	J24189055		1-	A	B1
R 4012	CHIP RES.	47k	1/16W	5%	RMC1/16S 473JTH	J24189045		1-	A	A1
R 4013	CHIP RES.	220	1/10W	5%	RMC1/10T 221J	J24205221		1-	B	d1
R 4014	CHIP RES.	100	1/10W	5%	RMC1/10T 101J	J24205101		1-	B	d1
R 4015	CHIP RES.	10k	1/16W	5%	RMC1/16S 103JTH	J24189037		1-	A	A1
R 4016	CHIP RES.	100k	1/16W	5%	RMC1/16S 104JTH	J24189049		1-	A	A1
R 4017	CHIP RES.	10k	1/16W	5%	RMC1/16S 103JTH	J24189037		1-	A	A1
R 4018	CHIP RES.	10k	1/16W	5%	RMC1/16S 103JTH	J24189037		1-	A	A1
R 4019	CHIP RES.	330k	1/16W	5%	RMC1/16S 334JTH	J24189055		1-	B	b1
R 4020	CHIP RES.	4.7k	1/16W	5%	RMC1/16S 472JTH	J24189033		1-	A	A1
R 4022	CHIP RES.	4.7k	1/16W	5%	RMC1/16S 472JTH	J24189033		1-	A	A1
R 4026	CHIP RES.	100k	1/16W	5%	RMC1/16S 104JTH	J24189049		1-	B	b1
R 4027	CHIP RES.	1M	1/16W	5%	RMC1/16S 105JTH	J24189061		1-	A	B1
R 4028	CHIP RES.	2.2k	1/16W	5%	RMC1/16S 222JTH	J24189029		1-	B	b1
R 4029	CHIP RES.	10k	1/16W	5%	RMC1/16S 103JTH	J24189037		1-	B	b1
R 4030	CHIP RES.	10	1/16W	5%	RMC1/16 100JATP	J24185100		1-	A	B1
R 4031	CHIP RES.	2.2k	1/16W	5%	RMC1/16S 222JTH	J24189029		1-	B	b1
R 4032	CHIP RES.	1k	1/16W	5%	RMC1/16S 102JTH	J24189025		1-	B	b1
R 4033	CHIP RES.	10k	1/16W	5%	RMC1/16S 103JTH	J24189037		1-	B	b1
R 4034	CHIP RES.	10k	1/16W	5%	RMC1/16S 103JTH	J24189037		1-	B	b1
R 4035	CHIP RES.	4.7k	1/16W	5%	RMC1/16S 472JTH	J24189033		1-	A	D1
R 4036	CHIP RES.	4.7k	1/16W	5%	RMC1/16S 472JTH	J24189033		1-	A	D1

# PANEL Unit

REF.	DESCRIPTION	VALUE	V/W	TOL.	MFR'S DESIG	VXSTD P/N	VERS.	LOT.	SIDE	LAY ADR
R 4037	CHIP RES.	390	1/10W	5%	RMC1/10T 391J	J24205391		1-	A	C1
R 4038	CHIP RES.	270	1/10W	5%	RMC1/10T 271J	J24205271		1-	A	C1
R 4039	CHIP RES.	100	1/16W	5%	RMC1/16S 101JTH	J24189013		1-	B	b1
R 4040	CHIP RES.	10k	1/16W	5%	RMC1/16S 103JTH	J24189037		1-	B	c1
R 4041	CHIP RES.	10k	1/16W	5%	RMC1/16S 103JTH	J24189037		1-	B	b1
R 4042	CHIP RES.	10k	1/16W	5%	RMC1/16S 103JTH	J24189037		1-	B	c1
R 4043	CHIP RES.	10k	1/16W	5%	RMC1/16S 103JTH	J24189037		1-	B	c1
R 4044	CHIP RES.	10k	1/16W	5%	RMC1/16S 103JTH	J24189037		1-	B	c1
R 4045	CHIP RES.	47k	1/16W	5%	RMC1/16S 473JTH	J24189045		1-	B	b1
R 4045	CHIP RES.	47k	1/16W	5%	RMC1/16 473JATP	J24185473		3-	B	b1
R 4045	CHIP RES.	47k	1/16W	5%	RMC1/16S 473JTH	J24189045		30-	B	b1
R 4046	CHIP RES.	10k	1/16W	5%	RMC1/16S 103JTH	J24189037		1-	B	c1
R 4047	CHIP RES.	10k	1/16W	5%	RMC1/16S 103JTH	J24189037		1-	B	b1
R 4048	CHIP RES.	10k	1/16W	5%	RMC1/16S 103JTH	J24189037		1-	B	c1
R 4049	CHIP RES.	47k	1/16W	5%	RMC1/16S 473JTH	J24189045		1-	A	D1
R 4050	CHIP RES.	100k	1/16W	5%	RMC1/16S 104JTH	J24189049		1-	A	D1
R 4051	CHIP RES.	10k	1/16W	5%	RMC1/16S 103JTH	J24189037		1-	B	b1
R 4052	CHIP RES.	120k	1/16W	5%	RMC1/16S 124JTH	J24189050		1-	A	D1
R 4053	CHIP RES.	150k	1/16W	5%	RMC1/16S 154JTH	J24189051		1-	A	D1
R 4054	CHIP RES.	10k	1/16W	5%	RMC1/16S 103JTH	J24189037		1-	B	a1
R 4055	CHIP RES.	100k	1/16W	5%	RMC1/16S 104JTH	J24189049		1-	A	D1
R 4056	CHIP RES.	3.3k	1/16W	5%	RMC1/16S 332JTH	J24189031		1-31	B	a1
R 4057	CHIP RES.	10k	1/16W	5%	RMC1/16S 103JTH	J24189037		1-	B	a1
R 4058	CHIP RES.	4.7k	1/16W	5%	RMC1/16S 472JTH	J24189033		1-	B	a1
R 4059	CHIP RES.	100k	1/16W	5%	RMC1/16S 104JTH	J24189049		1-	B	a1
R 4060	CHIP RES.	100k	1/16W	5%	RMC1/16S 104JTH	J24189049		1-	A	D1
R 4061	CHIP RES.	47k	1/16W	5%	RMC1/16S 473JTH	J24189045		1-	B	a1
R 4062	CHIP RES.	100k	1/16W	5%	RMC1/16S 104JTH	J24189049		1-	B	a1
R 4063	CHIP RES.	47k	1/16W	5%	RMC1/16S 473JTH	J24189045		1-	B	a1
R 4064	CHIP RES.	47k	1/16W	5%	RMC1/16S 473JTH	J24189045		1-	B	a1
R 4065	CHIP RES.	220k	1/16W	5%	RMC1/16S 224JTH	J24189053		1-	B	a1
R 4065	CHIP RES.	100k	1/16W	5%	RMC1/16S 104JTH	J24189049		3-	B	a1
R 4065	CHIP RES.	220k	1/16W	5%	RMC1/16S 224JTH	J24189053		32-	B	a1
R 4066	CHIP RES.	100k	1/16W	5%	RMC1/16S 104JTH	J24189049		1-	B	a1
R 4067	CHIP RES.	10k	1/16W	5%	RMC1/16S 103JTH	J24189037		1-	B	a1
R 4068	CHIP RES.	100k	1/16W	5%	RMC1/16S 104JTH	J24189049		1-	B	a1
R 4069	CHIP RES.	10k	1/16W	5%	RMC1/16S 103JTH	J24189037		1-	B	a1
R 4070	CHIP RES.	22k	1/16W	5%	RMC1/16S 223JTH	J24189041		1-	B	a1
R 4071	CHIP RES.	10k	1/16W	5%	RMC1/16S 103JTH	J24189037		1-	B	b1
R 4072	CHIP RES.	10k	1/16W	5%	RMC1/16S 103JTH	J24189037		1-	B	c1
R 4073	CHIP RES.	100	1/10W	5%	RMC1/10T 101J	J24205101		1-	B	d1
R 4074	CHIP RES.	220	1/10W	5%	RMC1/10T 221J	J24205221		1-	B	d1
R 4075	CHIP RES.	120	1/10W	5%	RMC1/10T 121J	J24205121		1-	B	d1
R 4076	CHIP RES.	120	1/10W	5%	RMC1/10T 121J	J24205121		1-	B	d1
R 4077	CHIP RES.	5.6k	1/16W	5%	RMC1/16S 562JTH	J24189034		1-	B	d1
R 4078	CHIP RES.	5.6k	1/16W	5%	RMC1/16S 562JTH	J24189034		1-	B	d1
R 4079	CHIP RES.	82k	1/16W	5%	RMC1/16S 823JTH	J24189048		1-	B	a1
R 4080	CHIP RES.	2.2k	1/16W	5%	RMC1/16S 222JTH	J24189029		1-40	B	b1
R 4898	CHIP RES.	220k	1/16W	5%	RMC1/16S 224JTH	J24189053		1-2		
R 4899	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000	VERSION F	1-29		
S 4001	ROTARY ENCODER				EC11E18244A3	Q9000750		1-	A	A1
S 4001	ROTARY ENCODER				EC11E18244AE	Q9000795		54-	A	A1
S 4002	TACT SWITCH				SKQDAA	N5090051		1-	A	E1
S 4002	TACT SWITCH				SKQDAB	N5090058		3-	A	E1
S 4003	TACT SWITCH				SKQMAL	N5090105		1-	A	A1
S 4004	TACT SWITCH				SKQMAL	N5090105		1-	A	B1
S 4005	TACT SWITCH				SKQDAA	N5090051		1-	A	D1
S 4006	TACT SWITCH				SKQMAL	N5090105		1-	A	B1
S 4007	TACT SWITCH				SKQDAA	N5090051		1-	A	C1
S 4008	TACT SWITCH				SKQMAL	N5090105		1-	A	C1
S 4009	TACT SWITCH				SKQDAA	N5090051		1-	A	D1
S 4010	TACT SWITCH				SKQDAA	N5090051		1-	A	A1
S 4011	TACT SWITCH				SKQTLA	N5090110		1-	A	C1
S 4012	TACT SWITCH				SKQTLA	N5090110		1-	A	B1
S 4013	TACT SWITCH				SKQTLA	N5090110		1-	A	B1
S 4014	TACT SWITCH				SKQTLA	N5090110		1-	A	B1
S 4015	ROTARY ENCODER				RES20D50-201-1D	Q9000709		1-		
S 4015	ROTARY ENCODER				RES20D50-201-1D	Q9000709		3		

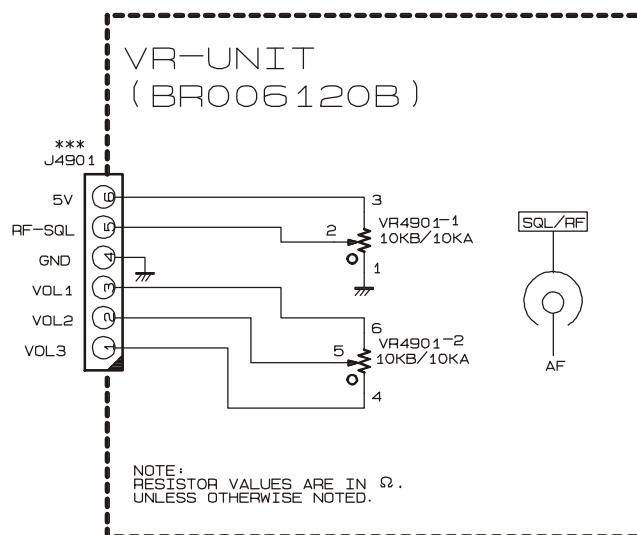
# **PANEL Unit**

REF.	DESCRIPTION	VALUE	V/W	TOL.	MFR'S DESIG	VXSTD P/N	VERS.	LOT.	SIDE	LAY ADR
S 4015	ROTARY ENCODER				RES20D50-201-1G	Q9000709A		4-		
X 4001	XTAL SD3 LIGHT GUIDE LIGHT GUIDE LCD HOLDER LCD HOLDER HOLDER PLATE HOLDER PLATE LEAF SPRING PLATE	9.91MHz			9.91MHZ	H0103251 RA0271600 RA027160A RA0271700 RA027170A RA0276300 RA027630A R0132100 R0154650		1- 1- 17- 1- 42- 1- 42- 23- 23-	A	C1

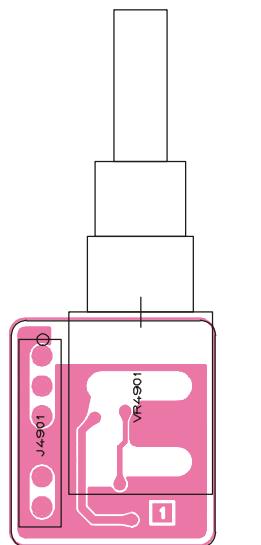
## **PANEL Unit**

**Note:**

## Circuit Diagram



## Parts Layout



Side A



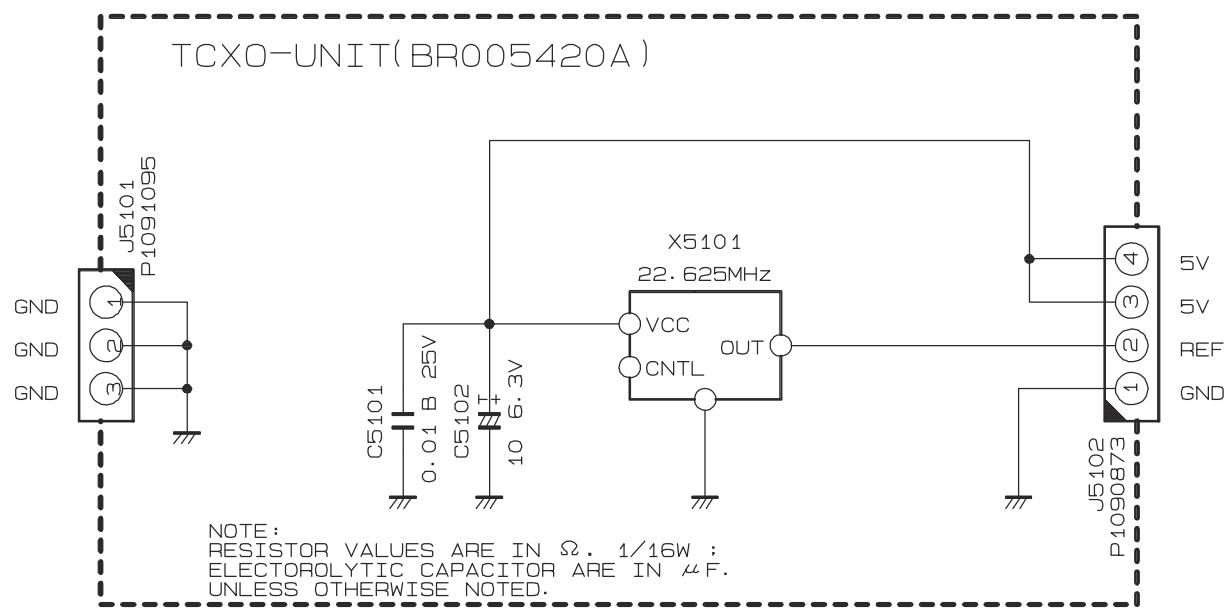
Side B

## Parts List

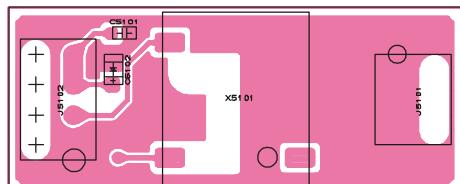
REF.	DESCRIPTION	VALUE	V/W	TOL.	MFR'S DESIG	VXSTD P/N	VERS.	LOT.	SIDE	LAY ADR
*** VR UNIT ***										
	PCB with Components					CB1359001				
	P.C.B. W/O COMP.					FR0061200			1-	
VR4901	POT.				RK0972210 10KB/10KA	J62800139			1-	A

# TCXO-9 Unit (Option)

## Circuit Diagram



## Parts Layout



Side A



Side B

## Parts List

REF	DESCRIPTION	VALUE	V/W	TOL.	MFR'S DESIG	VXSTD P/N	VERS.	LOT	SIDE	LAY ADR
Printed Circuit Board						FR005860C	1-			
C5101	CHIP CAP.	0.01uF	25V		GRM39B103K25PT	K22144803			1-	
C5102	CHIP TA.CAP.	10uF	6.3V	B	TESVSP0J106M-8R	K78080055			1-	
J5101	CONNECTOR				9117S-03D	P1091095			1-	
J5102	CONNECTOR				9117S-04D	P1090873			1-	
X5101	XTAL OSC	22.625MHz			NTO-801BS 22.625MHZ	H9500560			1-	





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