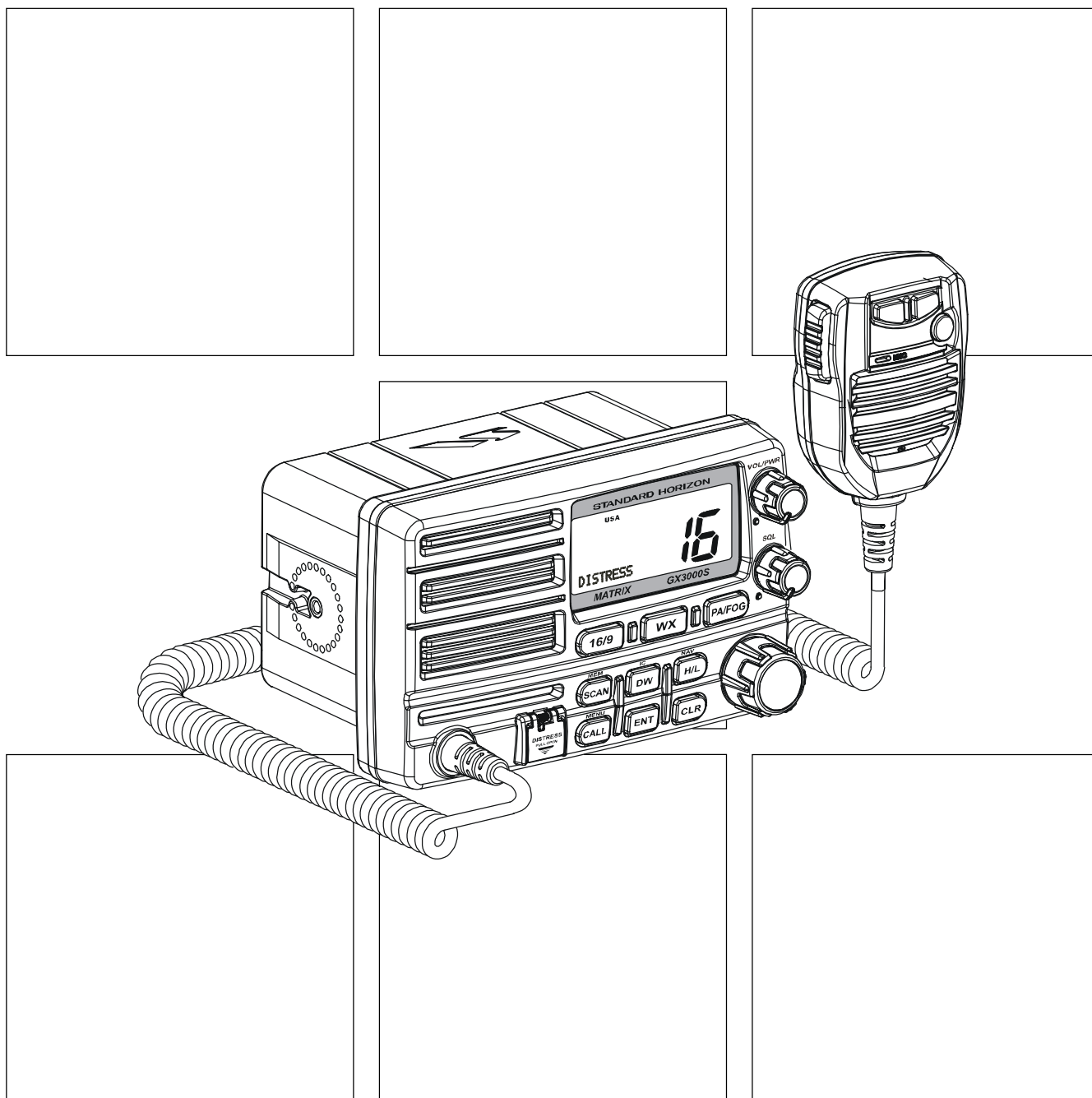




25 Watt VHF/FM Marine Transceiver

MATRIX GX3000S

SERVICE MANUAL



Specifications

GENERAL

Channels:	All USA, International, and Canadian
Input Voltage:	13.8 VDC $\pm 20\%$
Current Drain:	Standby 0.5 A Receive 1.5 A Transmit 5.5 A (Hi); 1.5 A (Lo)
Dimensions (H x W x D):	4.3" x 7.1" x 4.5" (110 x 180 x 115 mm)
Flush-Mount Dimensions (H x W x D):	3.6" x 6.5" x 6" (92 x 165 x 150 mm)
Weight:	3.3 lbs (1.5 kg)

TRANSMITTER

Frequency Range:	156.025 to 157.425 MHz
RF Output:	25 W (Hi); 1 W (Lo)
Conducted Spurious Emissions:	80 dB (Hi); 60 dB (Lo)
Audio Response:	within $\pm 1/-3$ of a 6 dB/octave pre-emphasis characteristic at 300 to 3000 Hz
Audio Distortion:	5 %
Modulation:	16K0G3E, for DSC 16K0G2B
Frequency Stability:	$\pm 0.0005\%$ (-20°C to $+50^{\circ}\text{C}$)
FM Hum and Noise:	50 dB

RECEIVER

Frequency Range:	156.050 to 163.275 MHz
Sensitivity:	12 dB SINAD 0.25 μV 12 dB SINAD (70 CH Receiver) 0.28 μV Squelch Sensitivity (Threshold) 0.15 μV
Modulation Acceptance Bandwidth:	± 7.5 kHz
Selectivity:	better than -80 dB (Spurious and Image Rejection) better than -80 dB (Intermodulation and Rejection at 12 dB SINAD)
Audio Output:	4.5 W
Audio Response:	within $\pm 1/-3$ of a 6 dB/octave de-emphasis characteristic at 300 to 3000 Hz (@Receiver Audio Control: Default)
Frequency Stability:	$\pm 0.0005\%$ (-20°C to $+50^{\circ}\text{C}$)
Channel Spacing:	25 kHz
DSC Format:	ITU Class D
NMEA Input/Output:	Output - DSC, DSE Input - GLL, GGA, RMC, and GNS

Performance specifications are nominal, unless otherwise indicated, and are subject to change without notice.

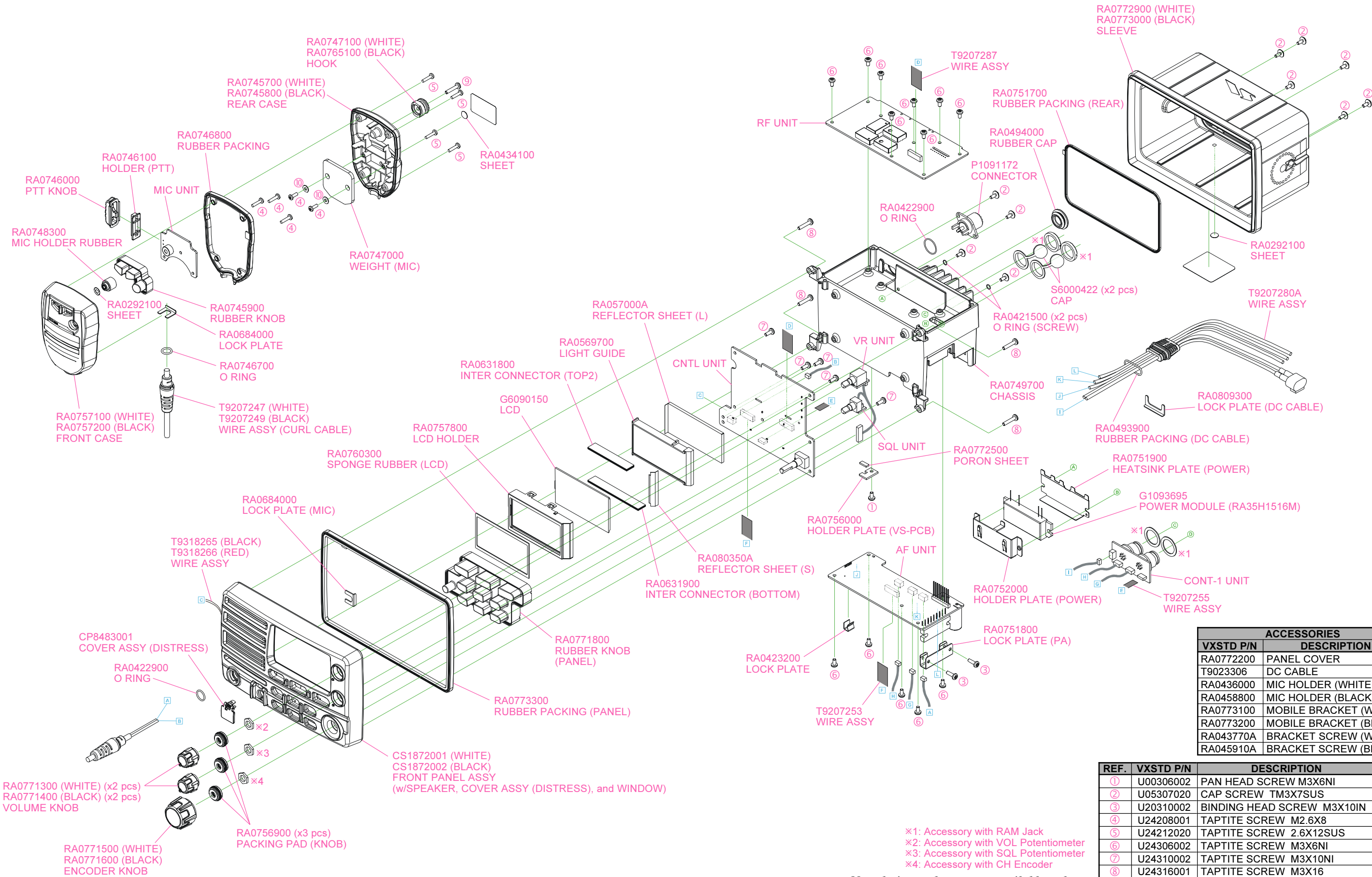
Measurements are made in accordance with EN301 025. All stated specifications are subject to change without notice or obligation.

Important Note

This transceiver was assembled using Pb (lead) free solder, based on the RoHS specification.

Only lead-free solder (Alloy Composition: Sn-3.0Ag-0.5Cu) should be used for repairs performed on this apparatus. The solder stated above utilizes the alloy composition required for compliance with the lead-free specification, and any solder with the above alloy composition may be used.

Exploded View & Miscellaneous Parts



Non-designated parts are available only as part of a designated assembly.

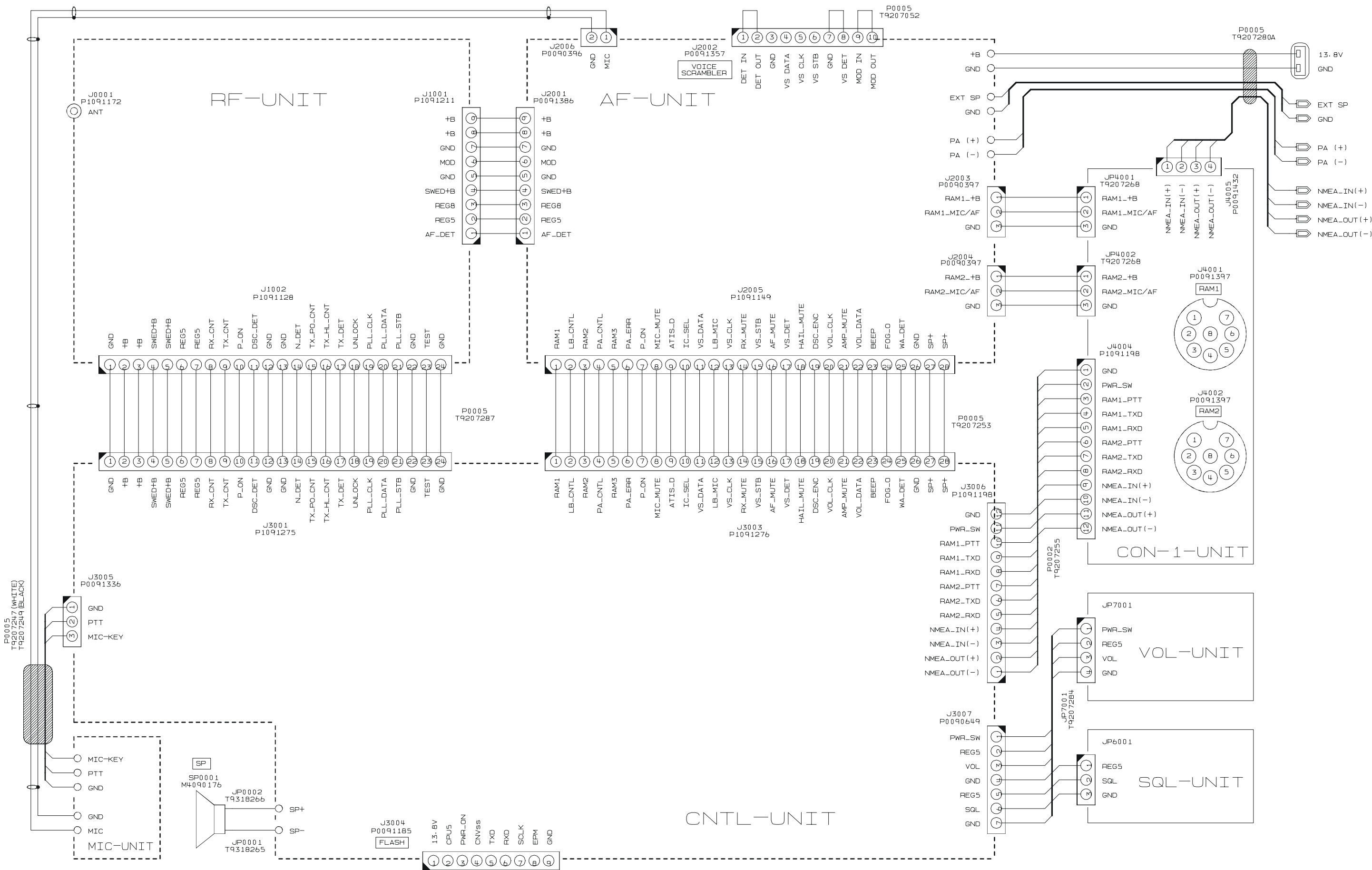
ACCESSORIES	
VXSTD P/N	DESCRIPTION
RA0772200	PANEL COVER
T9023306	DC CABLE
RA0436000	MIC HOLDER (WHITE)
RA0458800	MIC HOLDER (BLACK)
RA0773100	MOBILE BRACKET (WHITE)
RA0773200	MOBILE BRACKET (BLACK)
RA043770A	BRACKET SCREW (WHITE)
RA045910A	BRACKET SCREW (BLACK)

REF.	VXSTD P/N	DESCRIPTION	QTY.
①	U00306002	PAN HEAD SCREW M3X6NI	1
②	U05307020	CAP SCREW TM3X7SUS	10
③	U20310002	BINDING HEAD SCREW M3X10IN	2
④	U24208001	TAPTITE SCREW M2.6X8	5
⑤	U24212020	TAPTITE SCREW 2.6X12SUS	4
⑥	U24306002	TAPTITE SCREW M3X6NI	13
⑦	U24310002	TAPTITE SCREW M3X10NI	5
⑧	U24316001	TAPTITE SCREW M3X16	4
⑨	U24316020	TAPTITE SCREW M3X16SUS	1
⑩	U70002001	PLAIN WASHER FW2.6	2

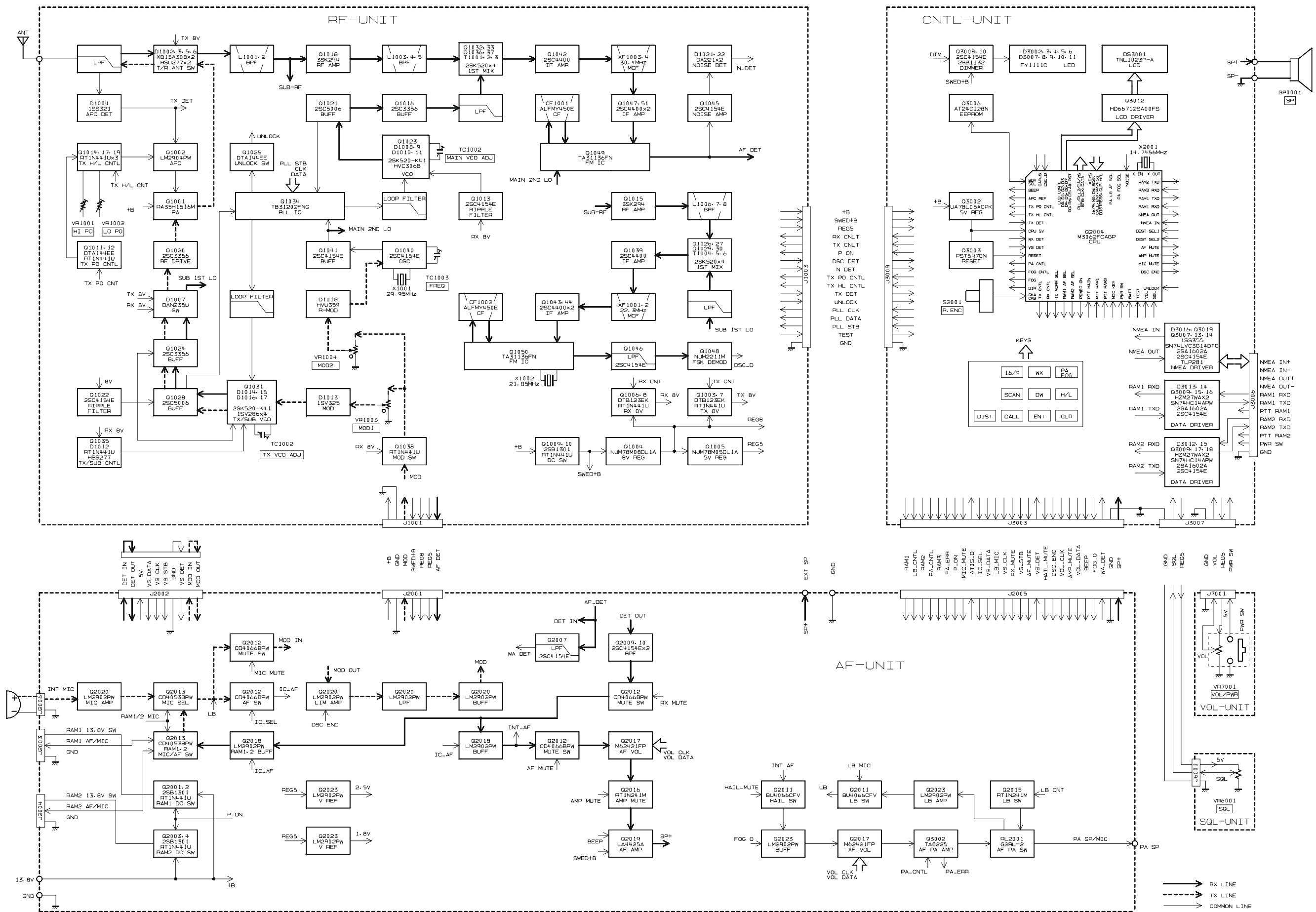
Exploded View & Miscellaneous Parts

Note

Connection Diagram



Block Diagram



Circuit Description

Reception and transmission are switched by 16-bit MPU IC **Q3004 (M30626FHPGP)** on the CNTL Unit. The receiver uses double-conversion superheterodyne circuitry, with a 30.4 MHz 1st IF and 450 kHz 2nd IF. The 1st local is produced by a PLL synthesizer, yielding the 30.4 MHz 1st IF. The 2nd local uses a 29.950 MHz crystal oscillator, yielding the 450 kHz 2nd IF. The 2nd mixer and other circuits use a custom IC to convert and amplify the 2nd IF and detect FM to obtain demodulated signals. During transmit, the PLL synthesizer oscillates at the desired frequency directly, for amplification to obtain RF power output. During transmit, voice modulation is applied to this synthesizer. Transceiver functions, such as TX/RX control, PLL synthesizer settings, and channel programming, are controlled using the MPU.

Receiver

Incoming RF signals from the antenna connector are delivered to the RF Unit, and pass through a low-pass filter (LPF) consisting of coils L1009 & L1010 and capacitors C1010, C1017, & C1038, and antenna switching diode **D1005 (XB15A308)** for delivery to the receiver front end.

Signals within the frequency range of the transceiver are then passed through a bandpass filter consisting of coils L1001 & L1002 and capacitors C1005, C1007, C1024, C1030, & C1044, before RF amplification by **Q1018 (3SK294)**.

The amplified RF is then passed through a bandpass filter again consisting of coils L1003, L1004, & L1005 and capacitors C1126, C1129, C1134, C1143, C1151, C1158, & C1165, the pure in-band input signal is delivered to the main 1st mixer which is composed of balun transformers (T1001, T1002, and T1003) and quadrate FETs **Q1032, Q1033, Q1036, and Q1037 (all 2SK520-K41)**.

Buffered output from the MAIN VCO is amplified by **Q1021 (2SC5006)** and **Q1016 (2SC3356-R25)** and low-pass filtered by coils L1034 and L1036 and capacitors C1179, C1180, C1182, C1183 and C1187, to provide a pure 1st local signal between 125.65 and 131.625 MHz for delivery to the main 1st mixer.

The 30.4 MHz 1st mixer product is amplified by **Q1042 (2SC4400-3)**, then passes through monolithic crystal filters XF1003 and XF1004 (± 6.5 kHz BW), and is amplified by **Q1047 and Q1051 (both 2SC4400-3)**.

After that, it delivered to the input of the FM IF subsystem IC **Q1049 (TA31136FN)**. This IC contains the 2nd mixer, 2nd local oscillator, limiter amplifier, FM detector, noise amplifier, and squelch gates.

The 2nd local in the FM IF subsystem IC is produced from crystal **X1001 (29.950 MHz)**, and the 1st IF is converted to 450 kHz by the 2nd mixer and stripped of unwanted components by ceramic filter **CF1001**.

After passing through a limiter amplifier, the signal is demodulated by the FM detector. Demodulated receive audio from the FM IF subsystem IC is delivered to the AF Unit, then amplified by **Q2009 and Q2010 (both 2SC4154E)**. The amplified signal is passed through the AF selector switch **Q2012 (CD4066BPW)** to the amplifier **Q2018 (LM2902PW)**. The amplified signal is passed through the AF mute switch **Q2012 (CD4066BPW)** and the electronic volume control IC **Q2017 (M62421FP)**. The adjusted audio signal is passed through the AF mute switch **Q2016 (RT1N441U)** to the AF power amplifier **Q2019 (LA4425A)**.

The amplified audio signal is delivered to the 8 Ohms internal loudspeaker and external Speaker terminal in the accessory cable.

PLL Synthesizer

The 1st Local signal maintains stability from the PLL synthesizer by using a 29.950 MHz reference signal from crystal **X1001**. PLL synthesizer IC **Q1034 (TB31202FNG)** consists of a prescaler, reference counter, swallow counter, programmable counter, a serial data input port to set these counters based on the external data, a phase comparator, and a charge pump.

The PLL synthesizer IC divides the 29.950 MHz reference signal by 2396 using the reference counter (12.5 kHz comparison frequency). The reference oscillator feeds to the PLL synthesizer IC **Q1034 (TB31202FNG)** for the 2nd local signal.

The VCO output is divided by the prescaler, swallow counter and programmable counter. These two signals are compared by the phase comparator, and applied to the charge pump.

A voltage proportional to their phase difference is delivered to the low-pass filter circuit, then fed back to the VCO as a voltage with phase error, controlling and stabilizing the oscillating frequency. This synthesizer also operates as a modulator during transmit.

The MAIN VCO is consisted of **Q1023 (2SK520-K41)** and varactor diodes **D1008, D1009, D1010, and D1011 (all HVC306B)**, which oscillates at 30.4 MHz below from the receiving frequency. The MAIN VCO output passes through buffer amplifier **Q1021 (2SC5006)** to obtain stable output, then applied to the main 1st mixer. The DC supply for the MAIN VCO is regulated by **Q1013 (2SC4154E)**.

The TX & SUB VCO is consisted of **Q1031 (2SK520-K41)** and varactor diodes **D1014, D1015, D1016, and D1017 (all 1SV286)**, which oscillates at 134.225 MHz for the CH70 receiving and the fundamental transmit frequency during a transmit, with direct frequency-modulation using

Circuit Description

varactor diode **D1013 (1SV325)**. The TX & SUB VCO output passes through buffer amplifier **Q1028 (2SC5006)** to obtain stable output. The TX & SUB VCO output is passed through another buffer amplifier **Q1024 (2SC3356-R25)** and diode switch **D1007 (DAN235U)** to the sub 1st mixer which is composed of balun transformers (T1004, T1005, and T1006) and quadrate FETs **Q1026, Q1027, Q1029, and Q1030** (all **2SK520-K41**) during receive, and to drive amplifiers **Q1020 (2SC3356-R25)** for transmit. The DC supply for the TX & SUB VCO is regulated by **Q1022 (2SC4154E)**.

Transmitter

Voice audio from the microphone is delivered to the AF Unit. After passing through microphone amplifier **Q2020 (LM2902PW)**, a pre-emphasis network, limiter (IDC: instantaneous deviation control), and low-pass filter network, the audio is adjusted for optimum deviation level and delivered to the next stage.

Voice or DSC (Digital Selective Calling) encode signal inputs from the low-pass filter network **Q2020 (LM2902PW)** is applied to the TX & SUB VCO **Q1031 (2SK520-K4)** and varactor diode **D1014, D1015, D1016, & D1017** (all **1SV286**), which oscillates the fundamental transmit frequency with direct frequency-modulation using varactor diode **D1013 (1SV325)**. The modulated signal is amplified by the buffer amplifier **Q1028 (2SC5006)** and **Q1024 (2SC3356-R25)**, then passed through the diode switch **D1007 (DAN235U)** to drive amplifiers **Q1020 (2SC3356-R25)** and RF power amplifier module **Q1001 (RA35H1516M)**.

The RF energy then passes through antenna switch **D1006 (XB15A30B)** and low-pass filter (LPF) consisting of coils L1009 and L1010 and capacitors C1010, C1017, & C1038, and finally to the antenna connector.

RF output power from the RF power amplifier module **Q1001 (RA35H1516M)** is sampled by C1023 and C1032 and is rectified by **D1004 (1SS321)**. The resulting DC is fed through Automatic Power Controllers **Q1002 (LM2904PW)** to RF power amplifier module **Q1001 (RA35H1516M)**, thus providing positive control of the power output.

Generation of spurious products by the transmitter is minimized by the fundamental carrier frequency being equal to the final transmitting frequency, modulated directly in the transmit VCO. Additional harmonic suppression is provided by a low-pass filter consisting of coils and capacitors, resulting in more than 70 dB of harmonic suppression prior to delivery of the RF energy to the antenna.

DSC Encoder/ Decoder

Encoder

The DSC (Digital Selective Calling) encode signal which D/A converted in the 16-bit MPU IC **Q3004 (M30626FHPGP)** on the CNTL Unit is fed through the low-pass filter **Q2020 (LM2902PW)** on the AF Unit to the TX & SUB VCO **Q1031 (2SK520-K41)** on the RF Unit.

Decoder

Incoming the receiving DSC code on the CH70 from the antenna connector are passed through a SUB-RX RF amplifier **Q1015 (3SK294)** to the bandpass filter consisting of coils L1006, L1007, & L1008 and capacitors C1122, C1127, C1132, C1139, C1146, C1154, and C1159, then the filtered signal deliver to the sub 1st mixer which is composed of balun transformers (T1004, T1005, and T1006) and quadrate FETs **Q1026, Q1027, Q1029, and Q1030** (all **2SK520-K41**).

Buffered output from the TX & SUB VCO **Q1031 (2SK520-K41)** is amplified by **Q1028 (2SC3356-R25)** and **Q1024 (2SC5006)** and bandpass filtered by coils L1028 & L1029 and capacitors C1145, C1148, C1153, C1155, & C1160, to provide a pure 1st local signal (134.225 MHz) for delivery to the sub 1st mixer.

The 22.3 MHz 1st mixer product then passes through monolithic crystal filters XF1001 and XF1002 (± 6.5 kHz BW) and buffer amplifier **Q1043** and **Q1044** (both **2SC4400-3**), then deliver to the SUB-RX FM IF subsystem IC **Q1050 (TA31136FN)**. This IC contains the 2nd mixer, 2nd local oscillator, limiter amplifier, FM detector, noise amplifier, and squelch gates.

The 2nd local is produced by crystal X1002 (21.850 MHz) then deliver to the 2nd mixer in the SUB-RX FM IF subsystem IC **Q1050 (TA31136FN)**. The 1st IF is converted to 450 kHz by the 2nd mixer and stripped of unwanted components by ceramic filter CF1002.

Filtered signal from the ceramic filter CF1002 is applied to the limiter amplifier in the SUB-RX FM IF subsystem IC **Q1050 (TA31136FN)**, and then demodulate by the FM detector in the SUB-RX FM IF subsystem IC **Q1050 (TA31136FN)**. Demodulated signal from the SUB-RX FM IF subsystem IC **Q1050 (TA31136FN)** is passes through the low-pass filter **Q1046 (2SC4154E)** to the DSC Decoder IC **Q1048 (NJM2211M)** which the receiving DCS code is decoded. The decoded DCS signal delivered to the 16-bit MPU IC **Q3004 (M30626FHPGP)**.

The SUB-RX 1st Local signal maintains stability from the PLL synthesizer by using a 29.950 MHz reference signal from crystal **X1001**. PLL synthesizer IC **Q1034 (TB31202FNG)** consists of a prescaler, reference counter,

swallow counter, programmable counter, a serial data input port to set these counters based on the external data, a phase comparator, and a charge pump.

The PLL synthesizer IC divides the 29.950 MHz reference signal by 2396 using the reference counter (12.5 kHz comparison frequency). The reference oscillator feeds to the PLL synthesizer IC **Q1034 (TB31202FNG)** for the 2nd local signal.

The VCO output is divided by the prescaler, swallow counter and programmable counter. These two signals are compared by the phase comparator, and applied to the charge pump.

A voltage proportional to their phase difference is delivered to the low-pass filter circuit, then fed back to the VCO as a voltage with phase error, controlling and stabilizing the oscillating frequency.

The TX & SUB VCO is consisted of **Q1031 (2SK520-K41)** and varactor diode **D1014, D1015, D1016, and D1017 (all 1SV286)**, which oscillates at 134.225 MHz. The TX & SUB VCO output passes through buffer amplifier **Q1028 (2SC5006)** to obtain stable output.

1050 Hz Weather Alert Decoder

1050 Hz Weather Alert signal from the FM IF subsystem IC **Q1049 (TA31136FN)** on the RF Unit is demodulated by **Q2007 (2SC4154E)** on the AF Unit, then is applied to 16-bit MPU IC **Q3004 (M30626FHGP)** on the CNTL Unit.

PA (Public Address) Circuit

A voice audio from the microphone is delivered to the AF Unit. A voice audio is amplified by **Q2020 (LM2902PW)**, then passes the AF/MIC select switch **Q2013 (CD4053BPW)** to the buffer amplifier **Q2023 (LM2902PW)**. The audio then passes through the LB/HAIL select switch **Q2011 (BU4066BCFV)** and MUTE switch **Q2012 (CD4066BPW)** to the buffer amplifier **Q2018 (NJM2904V)**. The amplified audio is passed through the LB/HAIL select switch **Q2011 (BU4066BCFV)** and buffer amplifier **Q2023 (NJM2902PW)** to the electronic volume control IC **Q2017 (M62421FP)** for volume control. The adjusted audio is delivered to the audio power amplifier **Q2014 (TA8225H)** which is amplified the voice audio up to 30 watts, and then passes through the relay switch **RL2001** to the external PA speaker.

LB (Listen Back) Circuit

The listen back audio from the PA speaker is delivered to the AF Unit. The audio is passed through the relay switch **RL2001** and buffer amplifier **Q2023 (LM2902PW)** to the LB/HAIL selector switch **Q2011 (CD4033BPW)**, then passes through the MUTE switch **Q2012 (CD4066BPW)** to the buffer amplifier **Q2018 (LM2902PW)**. The audio then passes through the AF/MIC select switch **Q2013 (CD4053BPW)** to the electronic volume control IC **Q2017 (M62421FP)** for volume control. The adjusted audio is delivered to the audio power amplifier **Q2019 (LA4425A)** which is amplified the voice audio up to 4.5 watts, and then deliver to the internal or external speaker.

A portion of the audio from the **Q2012 (CD4066BPW)** is passed through the buffer amplifier **Q2018 (LM2902PW)** and AF/MIC select switch **Q2013 (CD4053BPW)** to the RAM microphones, if connected.

Fog Horn Circuit

A 400 Hz square wave for foghorn is generated by the microprocessor **Q3004 (M30624FHPGA)** on the CNTL Unit, then deliver to the AF Unit. A 400 Hz square wave passes through the buffer amplifier **Q2023 (LM2902PW)** to the electronic volume control IC **Q2017 (M62421FP)** for volume control. The adjusted audio is delivered to the audio power amplifier **Q2014 (TA8225H)** which is amplified the voice audio up to 30 watts, and then passes through the relay switch **RL2001** to the external PA speaker.

MPU

Operation is controlled by 16-bit MPU IC **Q3004 (M30626FHGP)** on the CNTL Unit. The system clock uses a 14.74560 MHz crystal **X3001** for a time base. IC **Q3003 (PST597CN)** resets the MPU when the power is on, and monitors the voltage of the regulated 5V power supply line.

EEPROM

The EE-PROM **Q3006 (AT24C128N)** on the CNTL Unit retains TX and RX data for all memory channels, prescaler dividing, IF frequency, local oscillator injection side, and reference oscillator data.

Circuit Description

Note

The **GX3000S** has been carefully aligned at the factory for the specified performance across the marine band.

Realignment 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 Standard Horizon 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 Standard Horizon 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 Standard Horizon 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, Standard Horizon, a division of 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.

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.

Required Test Equipment

- ☐ RF Signal Generator with calibrated output level at 200 MHz
- ☐ Deviation Meter (linear detector)
- ☐ AF Millivoltmeter
- ☐ SINAD Meter
- ☐ Inline Wattmeter with 5% accuracy at 200 MHz
- ☐ Regulated DC Power Supply: 13.8 VDC, 10A
- ☐ 50-ohm Non-reactive Dummy Load: 30W at 200 MHz
- ☐ Frequency Counter: >0.1 ppm accuracy at 200 MHz
- ☐ AF Signal Generator
- ☐ DC Voltmeter: high impedance
- ☐ VHF Sampling Coupler
- ☐ AF Dummy Load: 4 Ohms, 10 W
- ☐ Oscilloscope
- ☐ Spectrum Analyzer
- ☐ CP160 GPS/Chart Plotter
- ☐ GX2360S Marine Transceiver

Alignment Preparation & Precautions

A dummy load and inline wattmeter must be connected to the main antenna jack in all procedures that call for transmission. 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.

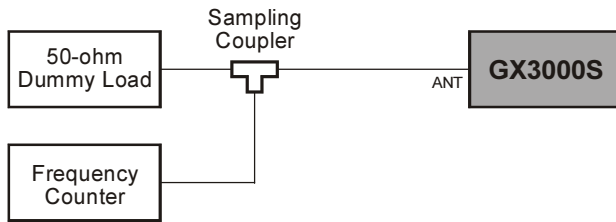
Correct alignment requires that the ambient temperature be the same as that of the transceiver and test equipment, and that this temperature be held constant between 68 °F and 86 °F (20 °C and 30 °C). When the transceiver is brought into the shop from hot or cold air it should be allowed some time for 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.

Note: Signal levels in dB referred to in this procedure are based on 0 dBμ = 0.5 μV (closed circuit).

Alignment

Reference Frequency Adjustment

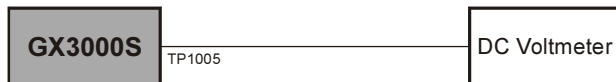
- Setup the test equipment as shown below.



- Set the channel to CH16.
- Use the [H/L(NAV)] key to set the transceiver to "LOW" power.
- With the PTT switch pressed, adjust **TC1003** so that the Frequency Counter reading is $156.800 \text{ MHz} \pm 100 \text{ Hz}$.
- Release the PTT switch.

Receiver VCV Adjustment

- Setup the test equipment as shown below.



- Set the channel to CH16.
- Adjust **TC1001** so that the DC voltmeter reading is $1.5 \text{ V} \pm 0.1 \text{ V}$.

Transmitter VCV Adjustment

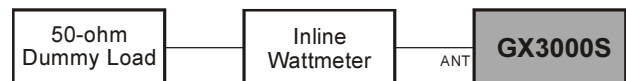
- Setup the test equipment as shown below.



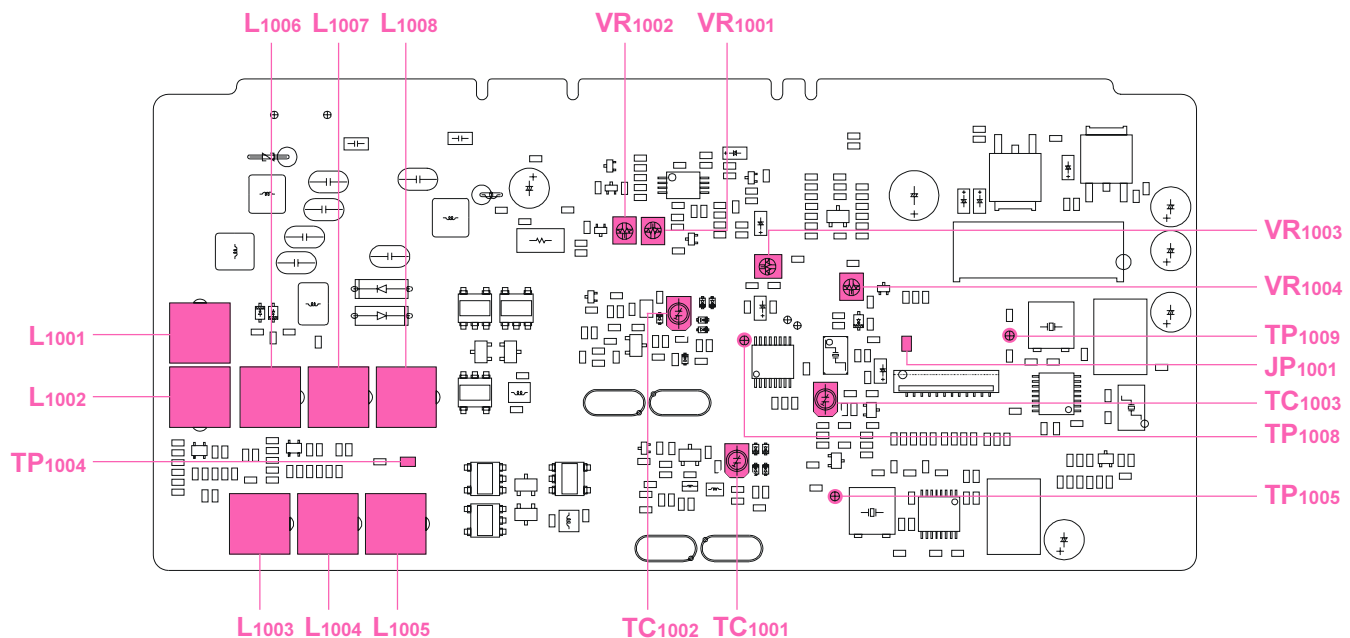
- Set the channel to CH16.
- With the PTT switch pressed, adjust **TC1002** so that the DC voltmeter reading is $3.0 \text{ V} \pm 0.1 \text{ V}$.
- Release the PTT switch.

Transmit Power Adjustment

- Setup the test equipment as shown below.



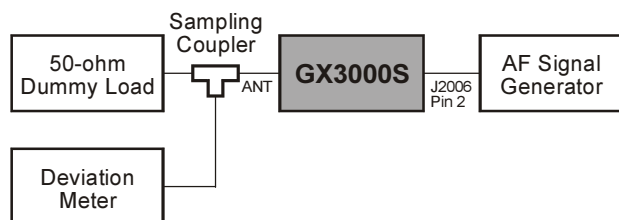
- Set the channel to CH16.
- Use the [H/L(NAV)] key to set the transceiver to "HI" power.
- With the PTT switch pressed, adjust **VR1001** so that RF output power is $24 \text{ W} \pm 0.3 \text{ W}$.
- Release the PTT switch, then set the transceiver to "LOW" power by the [H/L(NAV)] key.
- With the PTT switch pressed, adjust **VR1002** so that RF output power is $0.8 \text{ W} \pm 0.1 \text{ W}$.
- Release the PTT switch.



RF UNIT ALIGNMENT POINT

TX Deviation Adjustment

- Setup the test equipment as shown below.



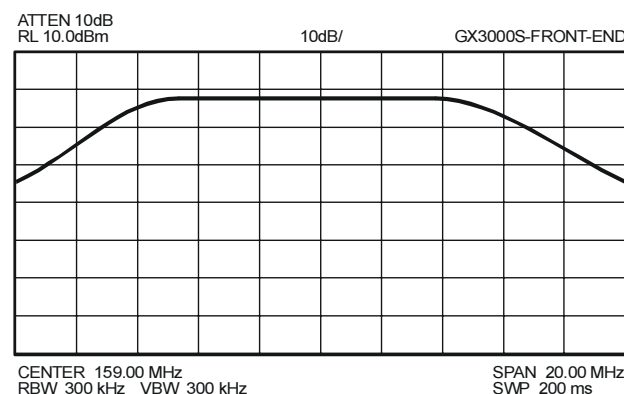
- Set the AF Signal Generator output to 200 mVrms at 1 kHz.
- Set the channel to CH16.
- With the PTT switch pressed, adjust **VR1003** so that the maximum deviation is 4.4 kHz $\pm$ 0.1 kHz.
- Release the PTT switch, then set the AF Signal Generator output to 1 Vrms at 100 Hz.
- With the PTT switch pressed, adjust **VR1004** so that the maximum deviation is 4.4 kHz $\pm$ 0.1 kHz.
- Release the PTT switch.

Receiver Front-end Adjustment

- Setup the test equipment as shown below.



- Set the spectrum analyzer as shown below:
 - CENTER: 159.000 MHz
 - SPAN: 20.000 MHz
 - RBW, VBW: 30 kHz
 - SWP: 200 ms
- Set the channel to CH01A.
- Adjust **L1001**, **L1002**, **L1003**, **L1004**, and **L1005** until the wave form shown in below is obtained.

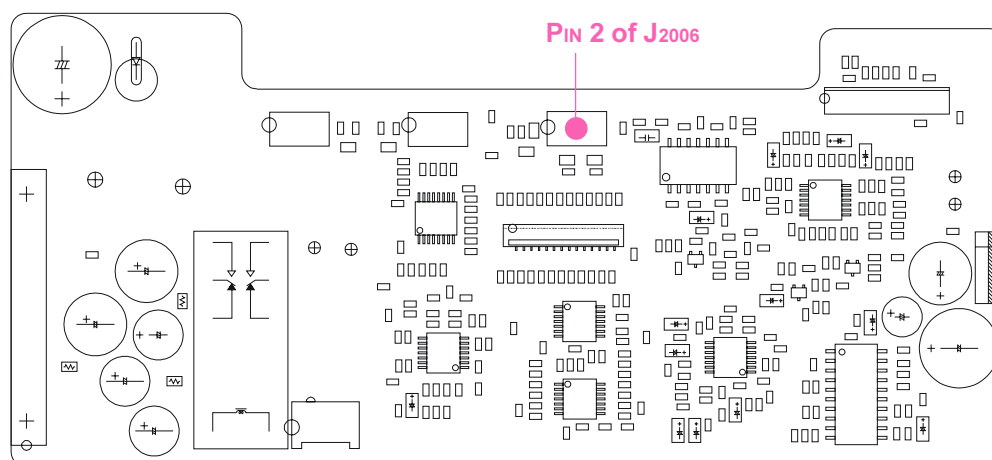


Sub Receiver Front-end Adjustment

- Setup the test equipment as shown below.



- Set the RF Signal Generator output to 156.525 MHz, at a level of +10dBμ, $\pm$ 3.0 kHz deviation with a 1 kHz audio tone.
- Adjust **L1006**, **L1007**, and **L1008** in order for maximum indication on the DC voltmeter.



AF UNIT ALIGNMENT POINT

Alignment

Software Alignment/Confirmation Mode

The “Software Alignment/Confirmation Mode” has been build in the microprocessor in order to adjust and confirm the performance of transceiver.

The purpose is to adjust transceiver simply and to confirm the performance of transceiver smoothly.

STARTING SOFTWARE ALIGNMENT MODE

- ❑ Confirm that the transceiver’s power is turned off.
- ❑ Short the TEST points (JP1001).
- ❑ Press and hold the **VOL/PWR** knob until the radio turns on while press and holding the **[CALL(MENU)]** and **[DISTRESS]** keys. The LCD will be as shown in the illustration at the right.

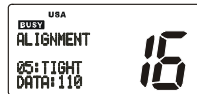


Squelch Adjustment

- ❑ Setup the test equipment as shown below.



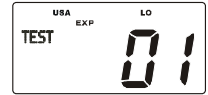
- ❑ Press the **[SCAN(MEM)]** key to recall the Alignment Item “04: THRESHOLD.”
- ❑ Set the RF Signal Generator output to 156.800 MHz, at a level of $-10 \text{ dB}\mu\text{V}$, $\pm 3.0 \text{ kHz}$ deviation with a 1 kHz audio tone.
- ❑ Press the **[DW(IC)]** key.
- ❑ Press the **[ENT]** key to save the new setting.
- ❑ Press the **[SCAN(MEM)]** key to recall the Alignment Item “05: TIGHT.”
- ❑ Set the RF Signal Generator output to 156.800 MHz, at a level of $+2 \text{ dB}\mu$ $\pm 3.0 \text{ kHz}$ deviation with a 1 kHz audio tone.
- ❑ Press the **[DW(IC)]** key.
- ❑ Press the **[ENT]** key to save the new setting.
- ❑ Press the **[SCAN(MEM)]** key to recall the Alignment Item “07: DC VOLT.”
- ❑ Set the DC Power Supply to 13.8 V.
- ❑ Press the **[DW(IC)]** key.
- ❑ Press the **[ENT]** key to save the new setting.



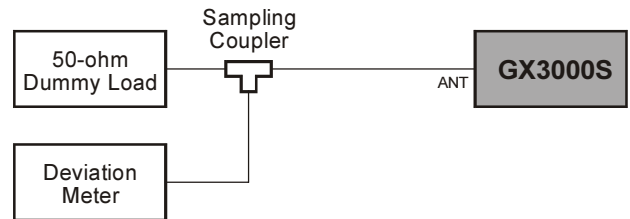
This completes the Software Alignment Mode. To save all settings and exit, press and hold the **[DISTRESS]** key for 2 seconds.

STARTING SOFTWARE CONFIRMATION MODE

- ❑ Confirm that the transceiver’s power is turned off.
- ❑ Short the TEST points (JP1001).
- ❑ Press and hold the **VOL/PWR** knob until the radio turns on while press and holding the **[DW(IC)]** and **[DISTRESS]** keys. Release the keys, the LCD will be as shown for one second in the illustration at the right.



DSC Encoder Confirmation



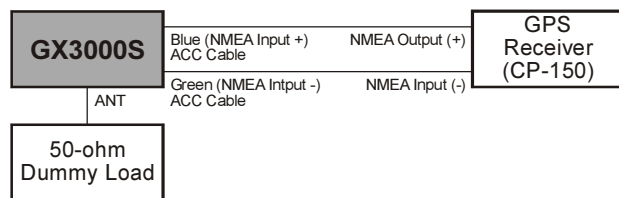
- ❑ Setup the test equipment as shown below.
 - ❑ Set the channel to CH70.
 - ❑ Press the PTT switch, confirm that the first tone deviation is $4.2 \text{ kHz} \pm 0.3 \text{ kHz}$.
- Note:** In CH70 while Software Confirmation Mode, ever time you are in transmit mode, (every time you press PTT), the following test tone can be outputted:
- 1st transmission: Synthetic tone of 1300 Hz and 2100 Hz
 - 2nd transmission: 1300 Hz
 - 3rd transmission: 2100 Hz
 - 4th transmission: No Modulation
 - 5th transmission: Return to 1st transmission

This completes the Software Alignment/Confirmation Mode. Turn the transceiver’s power off, then disconnect the Jumper from the TEST points (JP1001).

Confirmation of receive/transmit NMEA data

Input the NMEA format data output from the GPS receiver to NMEA Input terminal (Blue wire of the ACC Cable) of transceiver and display it to the LCD of the transceiver.

- ❑ Setup the test equipment as shown below.



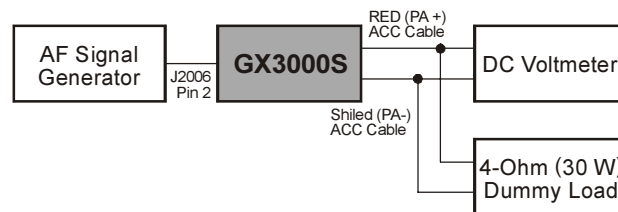
- ❑ Press and hold the **[H/L(NAV)]** key for 2 seconds, confirm that the position data is displayed on the LCD of transceiver.
- ❑ Press the **PTT** switch, confirm that the position data is transmitted.

Confirmation of DSC Operation

- ❑ Prepare the *confirmation* transceiver (GX2360S).
- ❑ Input below data to the *confirmation* transceiver in advance.
 - Input "TEST" to NAME of INDIVIDUAL DIRECTORY
 - Input "123456789" to MMSI of INDIVIDUAL DIRECTORY
 - Input "123456780" to local MMSI
 - Channel 13 in U.S.A. mode
- ❑ Send the INDIVIDUAL CALL from the *confirmation* transceiver.
- ❑ Confirm that the *test* transceiver receives the INDIVIDUAL CALL from the *confirmation* transceiver and outputs the beep.
- ❑ Press the **[ENT]** key of the *test* transceiver and turn off the beep.
- ❑ Simultaneously, confirm that "123456780" of *confirmation* transceiver's MMSI is displayed in the LCD of the test transceiver.
- ❑ Confirm that the *confirmation* transceiver receives the response from the *test* transceiver and outputs beep.
- ❑ Press the **[ENT]** key of the *confirmation* transceiver and turn off the beep.
- ❑ Press the **[ENT]** key of the *test* transceiver.
- ❑ Confirm that "TEST" of *test* transceiver's MMSI is displayed in the LCD of the *confirmation* transceiver.

Confirmation of PA Circuit

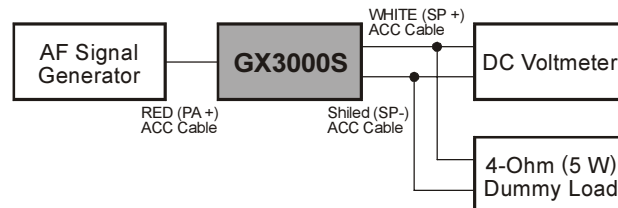
- ❑ Setup the test equipment as shown below.



- ❑ Set the AF Signal Generator output to 100 mVrms at 1 kHz.
- ❑ Press the **[PA(FOG)]** key, then select the "PA" mode with the **CHANNEL** selector knob.
- ❑ Press the **[ENT]** key.
- ❑ Press the **PTT** switch, then set the AF output level to "MAX" with the **CHANNEL** selector knob. Confirm that the DC voltmeter reading is more than 10 V.

Confirmation of Listen Back Circuit

- ❑ Setup the test equipment as shown below.



- ❑ Set the AF Signal Generator output to 3 mVrms at 1 kHz.
- ❑ Press the **[PA(FOG)]** key, then select the "PA" mode with the **CHANNEL** selector knob.
- ❑ Press the **[ENT]** key, then set the AF output level to "MAX" with the **CHANNEL** selector knob.
- ❑ Confirm that the DC voltmeter reading is more than 4.3 V.

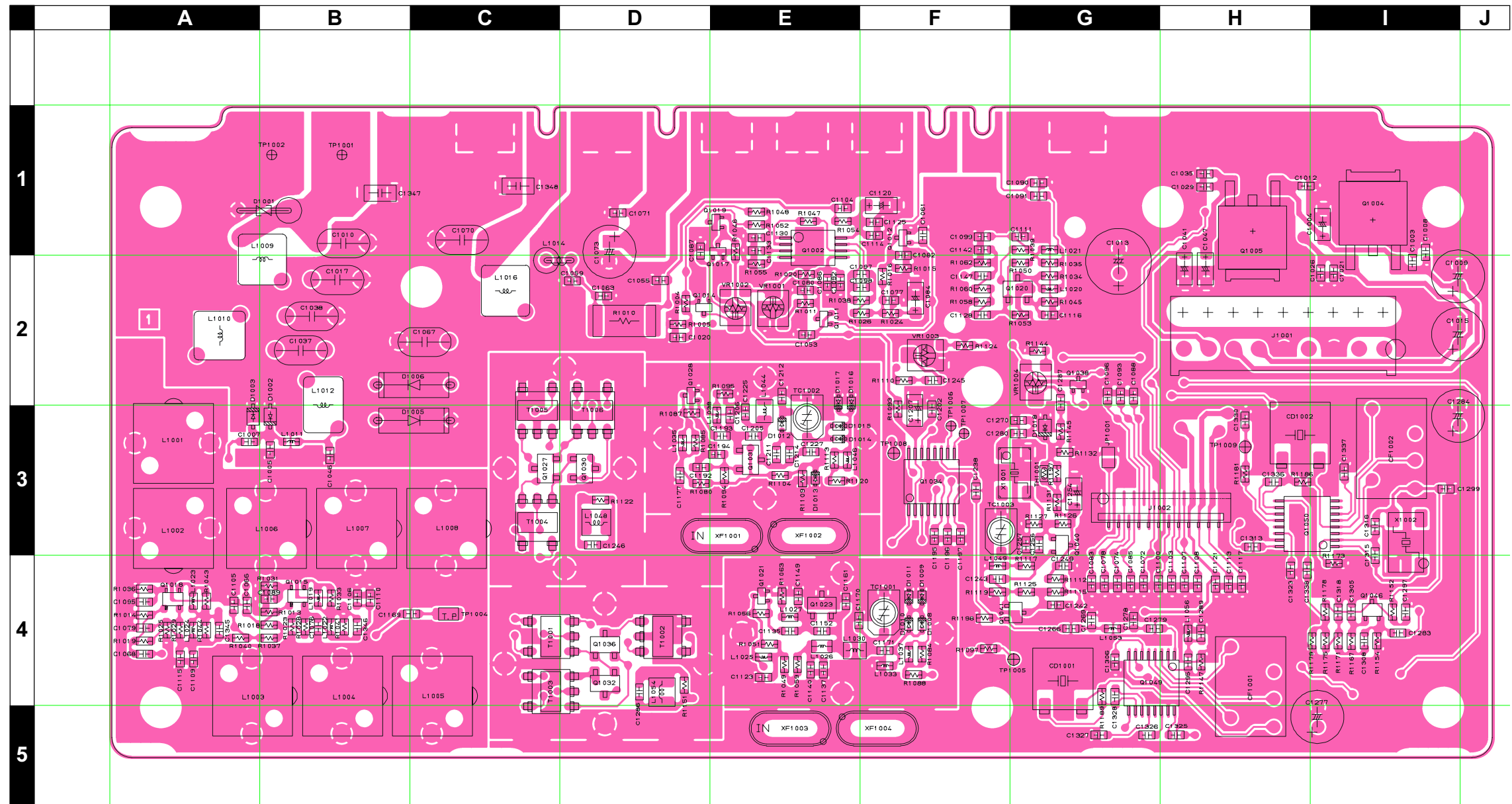
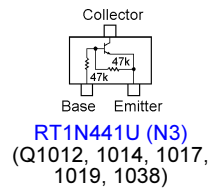
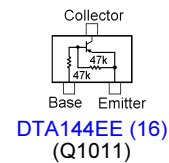
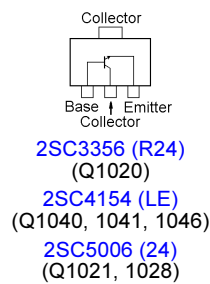
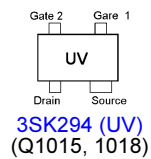
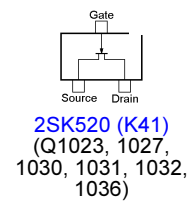
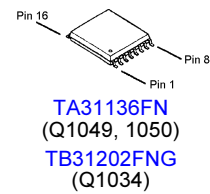
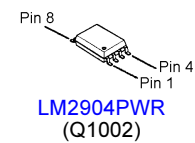
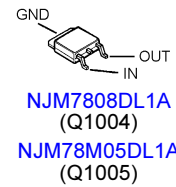
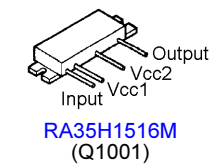
Alignment

Note



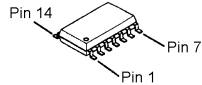
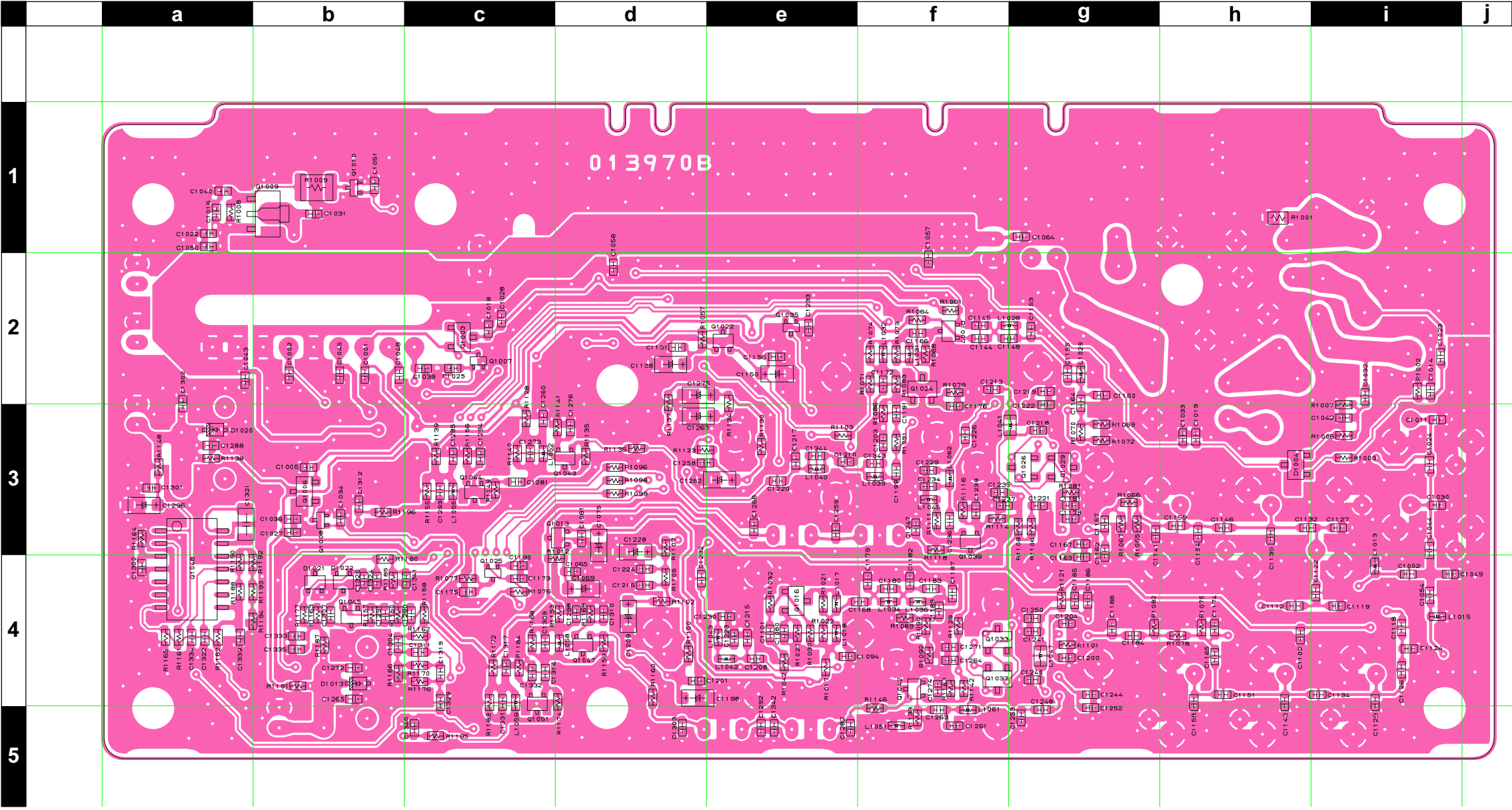
RF Unit

Note



RF Unit

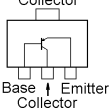
Parts Layout (Side B)



NJM2211M
(Q1048)



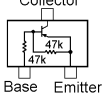
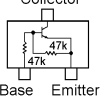
2SK520 (K41)
(Q1026, 1029,
1033, 1037)



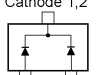
2SB1301 (ZC
(Q1009)



2SC3356 (R24)
(Q1016, 1024)
2SC4154 (LE)
(Q1013, 1022, 1045)
2SC4400 (RT4)
(Q1039, 1042, 1043,
1044, 1047, 1051)

DTA144EE (1
(Q1025)DTB123EK (R
(Q1003, 100

RT1N441U (N3)
(Q1007, 1008, 1010,
1035)



1SS321 (F9
(Q1004)
DAN235U (M
(Q1007)



MC2850 (A7)
(Q1021, 1022)

REF	DESCRIPTION	VALUE	V/W	TOL.	MFR'S DESIG	VXSTD P/N	VERS.	LOT	SIDE	LAY ADR
PCB with Components						CB3018001				
Printed Circuit Board						FR013970C		1-		
					AM014N000					
C 1003	CHIP CAP.	0.001uF	50V	B	GRM188B11H102KA01D	K22174821		1-	A	I2
C 1005	CHIP CAP.	47pF	50V	CH	GRM1882C1H470JA01D	K22174227		1-	A	B3
C 1007	CHIP CAP.	10pF	50V	CH	GRM1882C1H100JA01D	K22174211		1-	A	A3
C 1008	CHIP CAP.	0.01uF	50V	B	GRM188B11H103KA01D	K22174823		1-	A	I1
C 1009	AL.ELECTRO.CAP.	100uF	10V		RE2-10V101MMA	K40109024		1-	A	I2
C 1010	CERAMIC CAP.	15pF	50V	CH	CHU5 150J6	K02179104		1-	A	B1
C 1012	CHIP CAP.	0.001uF	50V	B	GRM188B11H102KA01D	K22174821		1-	A	H1
C 1013	AL.ELECTRO.CAP.	100uF	25V		RE2-25V101MMA	K40149028		1-	A	G2
C 1014	CHIP CAP.	4pF	50V	CH	GRM1882C1H4R0CZ01D	K22174205		1-	B	i2
C 1015	AL.ELECTRO.CAP.	100uF	10V		RE2-10V101MMA	K40109024		1-	A	I2
C 1016	CHIP CAP.	100pF	50V	CH	GRM1882C1H101JA01D	K22174235		1-	B	a1
C 1017	CERAMIC CAP.	27pF	50V	CH	CHU5 270J6	K02179107		1-	A	B2
C 1018	CHIP CAP.	0.01uF	50V	B	GRM188B11H103KA01D	K22174823		1-	B	c2
C 1019	CHIP CAP.	0.1uF	16V	B	GRM188B11C104KA01D	K22124805		1-	B	h3
C 1020	CHIP CAP.	0.1uF	16V	B	GRM188B11C104KA01D	K22124805		1-	A	D2
C 1021	CHIP CAP.	0.001uF	50V	B	GRM188B11H102KA01D	K22174821		1-	A	I2
C 1022	CHIP CAP.	0.001uF	50V	B	GRM188B11H102KA01D	K22174821		1-	B	a1
C 1023	CHIP CAP.	1pF	50V	CK	GRM1884C1H1R0CZ01D	K22174202		1-	B	i2
C 1024	CHIP CAP.	0.75pF	50V	CK	GRM1884C1HR75CZ01D	K22174260		1-	B	i3
C 1025	CHIP CAP.	0.001uF	50V	B	GRM188B11H102KA01D	K22174821		1-	B	c2
C 1026	CHIP CAP.	0.1uF	25V	F	GRM39F104Z25PT	K22145001		1-	A	I2
C 1027	CHIP CAP.	0.01uF	50V	B	GRM188B11H103KA01D	K22174823		1-	B	b3
C 1028	CHIP CAP.	0.001uF	50V	B	GRM188B11H102KA01D	K22174821		1-	B	c2
C 1029	CHIP CAP.	0.001uF	50V	B	GRM188B11H102KA01D	K22174821		1-	A	H1
C 1030	CHIP CAP.	4pF	50V	CH	GRM1882C1H4R0CZ01D	K22174205		1-	B	i3
C 1031	CHIP CAP.	0.1uF	25V	F	GRM39F104Z25PT	K22145001		1-	B	b1
C 1032	CHIP CAP.	1pF	50V	CK	GRM1884C1H1R0CZ01D	K22174202		1-	B	i2
C 1033	CHIP CAP.	0.001uF	50V	B	GRM188B11H102KA01D	K22174821		1-	B	h3
C 1034	CHIP CAP.	0.001uF	50V	B	GRM188B11H102KA01D	K22174821		1-	B	b3
C 1035	CHIP CAP.	0.01uF	50V	B	GRM188B11H103KA01D	K22174823		1-	A	H1
C 1036	CHIP CAP.	0.001uF	50V	B	GRM188B11H102KA01D	K22174821		1-	B	b3
C 1037	CERAMIC CAP.	47pF	50V	CH	CHU5 470J6	K02179110		1-	A	B2
C 1038	CERAMIC CAP.	7pF	50V	CH	CHU5 070D6	K02179119		1-	A	B2
C 1040	CHIP CAP.	0.1uF	25V	F	GRM39F104Z25PT	K22145001		1-	B	a1
C 1041	CHIP TA.CAP.	10uF	10V		TEMSVA1A106M-8R	K78100028		1-	A	H2
C 1042	CHIP CAP.	3pF	50V	CJ	GRM1883C1H3R0CZ01D	K22174204		1-	B	i3
C 1044	CHIP CAP.	10pF	50V	CH	GRM1882C1H100JA01D	K22174211		1-	B	i3
C 1046	CHIP CAP.	15pF	50V	CH	GRM1882C1H150JA01D	K22174215		1-	A	B3
C 1050	CHIP CAP.	0.001uF	50V	B	GRM188B11H102KA01D	K22174821		1-	B	a1
C 1051	CHIP CAP.	0.001uF	50V	B	GRM188B11H102KA01D	K22174821		1-	B	b1
C 1052	CHIP CAP.	10pF	50V	CH	GRM1882C1H100JA01D	K22174211		1-	B	i4
C 1054	CHIP CAP.	10pF	50V	CH	GRM1882C1H100JA01D	K22174211		1-	B	i4
C 1055	CHIP CAP.	0.001uF	50V	B	GRM188B11H102KA01D	K22174821		1-	A	D2
C 1057	CHIP CAP.	0.001uF	50V	B	GRM188B11H102KA01D	K22174821		1-	B	f2
C 1063	CHIP CAP.	0.001uF	50V	B	GRM188B11H102KA01D	K22174821		1-	A	D2
C 1065	CHIP CAP.	0.001uF	50V	B	GRM188B11H102KA01D	K22174821		1-	B	d4
C 1066	CHIP CAP.	0.001uF	50V	B	GRM188B11H102KA01D	K22174821		1-	A	A4
C 1067	CERAMIC CAP.	22pF	50V	CH	CHU5 220J6	K02179106		1-	A	B2
C 1068	CHIP CAP.	0.001uF	50V	B	GRM188B11H102KA01D	K22174821		1-	A	A4
C 1069	CHIP TA.CAP.	10uF	10V		TEMSVA1A106M-8R	K78100028		1-	B	d4
C 1070	CERAMIC CAP.	12pF	50V	CH	CHU5 120J6	K02179103		1-	A	C1
C 1071	CHIP CAP.	0.001uF	50V	B	GRM188B11H102KA01D	K22174821		1-	A	D1
C 1073	AL.ELECTRO.CAP.	10uF	25V		RC2-25V100ME1#	K40149012		1-	A	D1
C 1075	CHIP TA.CAP.	10uF	10V		TEMSVA1A106M-8R	K78100028		1-	B	d3
C 1076	CHIP CAP.	0.001uF	50V	B	GRM188B11H102KA01D	K22174809		1-	A	B4
C 1077	CHIP CAP.	0.001uF	50V	B	GRM188B11H102KA01D	K22174821		1-	A	F2
C 1079	CHIP CAP.	0.001uF	50V	B	GRM188B11H102KA01D	K22174809		1-	A	A4
C 1080	CHIP CAP.	0.001uF	50V	B	GRM188B11H102KA01D	K22174821		1-	B	e4
C 1081	CHIP CAP.	0.001uF	50V	B	GRM188B11H102KA01D	K22174821		1-	B	d3
C 1082	CHIP CAP.	0.001uF	50V	B	GRM188B11H102KA01D	K22174821		1-	A	F1
C 1084	CHIP TA.CAP.	4.7uF	10V		TEMSVA1A475M-8R	K78100022		1-	A	F2
C 1086	CHIP CAP.	0.22uF	10V	B	GRM188B11A224KA01D	K22104801		1-	A	E2
C 1089	CHIP CAP.	0.001uF	50V	B	GRM188B11H102KA01D	K22174821		1-	A	B4
C 1091	CHIP CAP.	10pF	50V	CH	GRM1882C1H100JA01D	K22174211		1-	A	G1
C 1092	CHIP CAP.	0.001uF	50V	B	GRM188B11H102KA01D	K22174821		1-	A	E2
C 1094	CHIP CAP.	0.001uF	50V	B	GRM188B11H102KA01D	K22174821		1-	B	e4
C 1095	CHIP CAP.	0.001uF	50V	B	GRM188B11H102KA01D	K22174821		1-	A	A4
C 1097	CHIP CAP.	0.22uF	10V	B	GRM188B11A224KA01D	K22104801		1-	A	E2
C 1098	CHIP CAP.	0.1uF	16V	B	GRM188B11C104KA01D	K22124805		1-	A	E2
C 1099	CHIP CAP.	0.1uF	16V	B	GRM188B11C104KA01D	K22124805		1-	A	F1
C 1101	CHIP CAP.	2pF	50V	CK	GRM1884C1H2R0CZ01D	K22174203		1-	B	e4

RF Unit

Parts List

REF	DESCRIPTION	VALUE	V/W	TOL.	MFR'S DESIG	VXSTD P/N	VERS.	LOT	SIDE	LAY ADR
C 1102	CHIP CAP.	0.001uF	50V	B	GRM188B11H102KA01D	K22174821		1-	B	h4
C 1105	CHIP CAP.	0.001uF	50V	B	GRM188B11H102KA01D	K22174821		1-	A	A4
C 1110	CHIP CAP.	0.001uF	50V	B	GRM188B11H102KA01D	K22174821		1-	A	B4
C 1111	CHIP CAP.	0.001uF	50V	B	GRM188B11H102KA01D	K22174821		1-	A	G1
C 1112	CHIP CAP.	0.001uF	50V	B	GRM188B11H102KA01D	K22174821		1-	B	h4
C 1114	CHIP CAP.	0.001uF	50V	B	GRM188B11H102KA01D	K22174821		1-	A	F1
C 1115	CHIP CAP.	0.001uF	50V	B	GRM188B11H102KA01D	K22174821		1-	A	A4
C 1116	CHIP CAP.	0.001uF	50V	B	GRM188B11H102KA01D	K22174821		1-	A	G2
C 1118	CHIP CAP.	0.001uF	50V	B	GRM188B11H102KA01D	K22174821		1-	B	i4
C 1120	CHIP TA.CAP.	10uF	10V		TEMSVA1A106M-8R	K78100028		1-	A	F1
C 1122	CHIP CAP.	2pF	50V	CK	GRM1884C1H2R0CZ01D	K22174203		1-	B	i4
C 1123	CHIP CAP.	0.001uF	50V	B	GRM188B11H102KA01D	K22174821		1-	A	E4
C 1125	CHIP CAP.	0.1uF	16V	B	GRM188B11C104KA01D	K22124805		1-	A	F1
C 1126	CHIP CAP.	5pF	50V	CH	GRM1882C1H5R0CZ01D	K22174206		1-	B	i4
C 1127	CHIP CAP.	6pF	50V	CH	GRM1882C1H6R0DZ01D	K22174207		1-	B	i3
C 1128	CHIP CAP.	100pF	50V	CH	GRM1882C1H101JA01D	K22174235		1-	A	F2
C 1129	CHIP CAP.	4pF	50V	CH	GRM1882C1H4R0CZ01D	K22174205		1-	B	i4
C 1130	CHIP CAP.	0.001uF	50V	B	GRM188B11H102KA01D	K22174821		1-	A	E1
C 1131	CHIP CAP.	0.001uF	50V	B	GRM188B11H102KA01D	K22174821		1-	B	d2
C 1132	CHIP CAP.	0.5pF	50V	CK	GRM1884C1HR50CZ01D	K22174201		1-	B	h3
C 1133	CHIP CAP.	0.01uF	50V	B	GRM188B11H103KA01D	K22174823		1-	A	E1
C 1134	CHIP CAP.	0.5pF	50V	CK	GRM1884C1HR50CZ01D	K22174201		1-	B	i4
C 1135	CHIP CAP.	1pF	50V	CK	GRM1884C1H1R0CZ01D	K22174202		1-	A	E4
C 1137	CHIP CAP.	0.001uF	50V	B	GRM188B11H102KA01D	K22174821		1-	A	E4
C 1138	CHIP TA.CAP.	10uF	10V		TEMSVA1A106M-8R	K78100028		1-	B	d2
C 1139	CHIP CAP.	6pF	50V	CH	GRM1882C1H6R0DZ01D	K22174207		1-	B	h3
C 1140	CHIP CAP.	0.1uF	16V	B	GRM188B11C104KA01D	K22124805		1-	A	E4
C 1142	CHIP CAP.	8pF	50V	CH	GRM1882C1H8R0DZ01D	K22174209		1-	A	F1
C 1143	CHIP CAP.	5pF	50V	CH	GRM1882C1H5R0CZ01D	K22174206		1-	B	h4
C 1144	CHIP CAP.	18pF	50V	CH		K22174217		1-	B	f2
C 1145	CHIP CAP.	33pF	50V	CH	GRM1882C1H330JA01D	K22174223		1-	B	f2
C 1146	CHIP CAP.	0.5pF	50V	CK	GRM1884C1HR50CZ01D	K22174201		1-	B	h3
C 1147	CHIP CAP.	5pF	50V	CH	GRM1882C1H5R0CZ01D	K22174206		1-	A	F2
C 1148	CHIP CAP.	10pF	50V	CH	GRM1882C1H100JA01D	K22174211		1-	B	f2
C 1149	CHIP CAP.	22pF	50V	CH	GRM1882C1H220JA01D	K22174219		1-	A	E4
C 1150	CHIP TA.CAP.	10uF	10V		TEMSVA1A106M-8R	K78100028		1-	B	e2
C 1151	CHIP CAP.	0.5pF	50V	CK	GRM1884C1HR50CZ01D	K22174201		1-	B	h4
C 1152	CHIP CAP.	22pF	50V	CH	GRM1882C1H220JA01D	K22174219		1-	A	E4
C 1153	CHIP CAP.	39pF	50V	CH	GRM1882C1H390JA01D	K22174225		1-	B	g2
C 1154	CHIP CAP.	3pF	50V	CJ	GRM1883C1H3R0CZ01D	K22174204		1-	B	h3
C 1155	CHIP CAP.	4pF	50V	CH	GRM1882C1H4R0CZ01D	K22174205		1-	B	g2
C 1156	CHIP CAP.	0.001uF	50V	B	GRM188B11H102KA01D	K22174821		1-	B	e2
C 1157	CHIP CAP.	22pF	50V	CH	GRM1882C1H220JA01D	K22174219		1-	B	g3
C 1158	CHIP CAP.	3pF	50V	CJ	GRM1883C1H3R0CZ01D	K22174204		1-	B	h4
C 1159	CHIP CAP.	4pF	50V	CH	GRM1882C1H4R0CZ01D	K22174205		1-	B	h3
C 1160	CHIP CAP.	39pF	50V	CH	GRM1882C1H390JA01D	K22174225		1-	B	g2
C 1161	CHIP CAP.	12pF	50V	CH	GRM1882C1H120JA01D	K22174213		1-	A	E4
C 1163	CHIP CAP.	0.01uF	50V	B	GRM188B11H103KA01D	K22174823		1-	B	g4
C 1164	CHIP CAP.	0.001uF	50V	B	GRM188B11H102KA01D	K22174821		1-	B	g2
C 1165	CHIP CAP.	3pF	50V	CJ	GRM1883C1H3R0CZ01D	K22174204		1-	B	h4
C 1166	CHIP CAP.	0.001uF	50V	B	GRM188B11H102KA01D	K22174821		1-	B	f2
C 1167	CHIP CAP.	0.001uF	50V	B	GRM188B11H102KA01D	K22174821		1-	B	g3
C 1168	CHIP CAP.	12pF	50V	CH	GRM1882C1H120JA01D	K22174213		1-	B	f4
C 1169	CHIP CAP.	1pF	50V	CK	GRM1884C1H1R0CZ01D	K22174202		1-	A	B4
C 1170	CHIP CAP.	5pF	50V	CH	GRM1882C1H5R0CZ01D	K22174206		1-	A	E4
C 1171	CHIP CAP.	56pF	50V	CH	GRM1882C1H560JA01D	K22174229		1-	A	F4
C 1172	CHIP CAP.	0.001uF	50V	B	GRM188B11H102KA01D	K22174821		1-	B	f2
C 1173	CHIP CAP.	0.01uF	50V	B	GRM188B11H103KA01D	K22174823		1-	B	c4
C 1175	CHIP CAP.	0.01uF	50V	B	GRM188B11H103KA01D	K22174823		1-	B	c4
C 1176	CHIP CAP.	0.001uF	50V	B	GRM188B11H102KA01D	K22174821		1-	B	f3
C 1177	CHIP CAP.	0.001uF	50V	B	GRM188B11H102KA01D	K22174821		1-	A	D3
C 1178	CHIP CAP.	0.01uF	50V	B	GRM188B11H103KA01D	K22174823		1-	B	g3
C 1179	CHIP CAP.	18pF	50V	CH		K22174217		1-	B	f4
C 1180	CHIP CAP.	10pF	50V	CH	GRM1882C1H100JA01D	K22174211		1-	B	f4
C 1181	CHIP CAP.	0.001uF	50V	B	GRM188B11H102KA01D	K22174821		1-	B	g3
C 1182	CHIP CAP.	39pF	50V	CH	GRM1882C1H390JA01D	K22174225		1-	B	f4
C 1183	CHIP CAP.	4pF	50V	CH	GRM1882C1H4R0CZ01D	K22174205		1-	B	f4
C 1184	CHIP CAP.	22pF	50V	CH	GRM1882C1H220JA01D	K22174219		1-	B	g4
C 1185	CHIP CAP.	0.01uF	50V	B	GRM188B11H103KA01D	K22174823		1-	B	g4
C 1186	CHIP CAP.	0.001uF	50V	B	GRM188B11H102KA01D	K22174821		1-	B	g4
C 1187	CHIP CAP.	27pF	50V	CH	GRM1882C1H270JA01D	K22174221		1-	B	f4
C 1189	CHIP CAP.	0.001uF	50V	B	GRM188B11H102KA01D	K22174821		1-	B	f4
C 1190	CHIP CAP.	0.1uF	16V	B	GRM188B11C104KA01D	K22124805		1-	B	c4

REF	DESCRIPTION	VALUE	V/W	TOL.	MFR'S DESIG	VXSTD P/N	VERS.	LOT	SIDE	LAY ADR
C 1191	CHIP CAP.	2pF	50V	CK	GRM1884C1H2R0CZ01D	K22174203		1-	B	f3
C 1192	CHIP CAP.	0.001uF	50V	B	GRM188B11H102KA01D	K22174821		1-	A	D3
C 1193	CHIP CAP.	1pF	50V	CK	GRM1884C1H1R0CZ01D	K22174202		1-	A	E3
C 1194	CHIP CAP.	0.1uF	16V	B	GRM188B11C104KA01D	K22124805		1-	A	E3
C 1198	CHIP TA.CAP.	0.33uF	35V		TESVA1V334M1-8R	K78160028		1-	B	d4
C 1199	CHIP CAP.	2pF	50V	CK	GRM1884C1H2R0CZ01D	K22174203		1-	B	f3
C 1200	CHIP CAP.	0.01uF	50V	B	GRM188B11H103KA01D	K22174823		1-	B	g4
C 1202	CHIP CAP.	0.001uF	50V	B	GRM188B11H102KA01D	K22174821		1-	A	F3
C 1203	CHIP CAP.	47pF	50V	CH	GRM1882C1H470JA01D	K22174227		1-	B	f3
C 1204	CHIP CAP.	0.001uF	50V	B	GRM188B11H102KA01D	K22174821		1-	B	g4
C 1205	CHIP CAP.	22pF	50V	CH	GRM1882C1H220JA01D	K22174219		1-	A	E3
C 1206	CHIP CAP.	18pF	50V	CH		K22174217		1-	A	E3
C 1207	CHIP TA.CAP.	10uF	10V		TEMSVA1A106M-8R	K78100028		1-	A	F3
C 1208	CHIP CAP.	2pF	50V	CK	GRM1884C1H2R0CZ01D	K22174203		1-	B	e4
C 1209	CHIP TA.CAP.	0.47uF	35V		TEMSVA1V474M-8R	K78160029		1-	B	d4
C 1210	CHIP CAP.	33pF	50V	CH	GRM1882C1H330JA01D	K22174223		1-	B	e3
C 1211	CHIP CAP.	12pF	50V	CH	GRM1882C1H120JA01D	K22174213		1-	A	E3
C 1212	CHIP CAP.	0.001uF	50V	B	GRM188B11H102KA01D	K22174821		1-	A	E2
C 1213	CHIP CAP.	0.01uF	50V	B	GRM188B11H103KA01D	K22174823		1-	B	f2
C 1215	CHIP CAP.	47pF	50V	CH	GRM1882C1H470JA01D	K22174227		1-	B	e4
C 1217	CHIP CAP.	10pF	50V	CH	GRM1882C1H100JA01D	K22174211		1-	B	e3
C 1218	CHIP CAP.	0.01uF	50V	B	GRM188B11H103KA01D	K22174823		1-	B	g3
C 1219	CHIP CAP.	0.01uF	50V	B	GRM188B11H103KA01D	K22174823		1-	B	g2
C 1220	CHIP CAP.	39pF	50V	CH	GRM1882C1H390JA01D	K22174225		1-	B	e3
C 1222	CHIP CAP.	0.001uF	50V	B	GRM188B11H102KA01D	K22174821		1-	B	g2
C 1223	CHIP CAP.	33pF	50V	CH	GRM1882C1H330JA01D	K22174223		1-	B	e4
C 1224	CHIP CAP.	0.1uF	16V	B	GRM188B11C104KA01D	K22124805		1-	B	d4
C 1226	CHIP CAP.	0.01uF	50V	B	GRM188B11H103KA01D	K22174823		1-	B	f3
C 1227	CHIP CAP.	1pF	50V	CK	GRM1884C1H1R0CZ01D	K22174202		1-	A	E3
C 1230	CHIP CAP.	10pF	50V	CH	GRM1882C1H100JA01D	K22174211		1-	B	e4
C 1232	CHIP CAP.	39pF	50V	CH	GRM1882C1H390JA01D	K22174225		1-	B	d4
C 1235	CHIP CAP.	0.01uF	50V	B	GRM188B11H103KA01D	K22174823		1-	B	f3
C 1236	CHIP CAP.	0.01uF	50V	B	GRM188B11H103KA01D	K22174823		1-	B	f3
C 1238	CHIP CAP.	100pF	50V	CH	GRM1882C1H101JA01D	K22174235		1-	A	F3
C 1239	CHIP CAP.	0.01uF	50V	B	GRM188B11H103KA01D	K22174823		1-	B	f3
C 1240	CHIP CAP.	0.01uF	50V	B	GRM188B11H103KA01D	K22174823		1-	B	g4
C 1241	CHIP CAP.	0.01uF	50V	B	GRM188B11H103KA01D	K22174823		1-	B	g4
C 1242	CHIP CAP.	0.01uF	50V	B	GRM188B11H103KA01D	K22174823		1-	A	G4
C 1243	CHIP CAP.	1pF	50V	CK	GRM1884C1H1R0CZ01D	K22174202		1-	A	F4
C 1244	CHIP CAP.	0.01uF	50V	B	GRM188B11H103KA01D	K22174823		1-	B	g4
C 1245	CHIP CAP.	1uF	6.3V	B	GRM188B10J105KA01D	K22084801		1-	A	F2
C 1246	CHIP CAP.	33pF	50V	CH	GRM1882C1H330JA01D	K22174223		1-	A	D3
C 1248	CHIP CAP.	0.01uF	50V	B	GRM188B11H103KA01D	K22174823		1-	B	g5
C 1249	CHIP CAP.	0.01uF	50V	B	GRM188B11H103KA01D	K22174823		1-	A	G4
C 1252	CHIP CAP.	0.001uF	50V	B	GRM188B11H102KA01D	K22174821		1-	B	g4
C 1254	CHIP TA.CAP.	10uF	10V		TEMSVA1A106M-8R	K78100028		1-	A	G3
C 1256	CHIP CAP.	22pF	50V	UJ	GRM1883U1H220JZ01D	K22174316		1-	A	G3
C 1257	CHIP CAP.	8pF	50V	UJ	GRM1883U1H8R0DZ01D	K22174308		1-	A	G3
C 1258	CHIP CAP.	0.22uF	10V	B	GRM188B11A224KA01D	K22104801		1-	B	d3
C 1259	CHIP CAP.	10pF	50V	CH	GRM1882C1H100JA01D	K22174211		1-	B	e3
C 1260	CHIP CAP.	0.01uF	50V	B	GRM188B11H103KA01D	K22174823		1-	B	c3
C 1263	CHIP CAP.	0.01uF	50V	B	GRM188B11H103KA01D	K22174823		1-	B	f5
C 1264	CHIP CAP.	0.01uF	50V	B	GRM188B11H103KA01D	K22174823		1-	B	f4
C 1265	CHIP CAP.	0.1uF	16V	B	GRM188B11C104KA01D	K22124805		1-	B	b4
C 1266	CHIP CAP.	10pF	50V	CH	GRM1882C1H100JA01D	K22174211		1-	A	G4
C 1267	CHIP TA.CAP.	2.2uF	6.3V		TESVA0J225M1-8R	K78080009		1-	B	d3
C 1269	CHIP CAP.	82pF	50V	CH	GRM1882C1H820JA01D	K22174233		1-	A	G4
C 1270	CHIP CAP.	5pF	50V	UJ	GRM1883U1H5R0CZ01D	K22174305		1-	A	G3
C 1272	CHIP CAP.	0.001uF	50V	B	GRM188B11H102KA01D	K22174821		1-	B	b4
C 1273	CHIP CAP.	33pF	50V	CH	GRM1882C1H330JA01D	K22174223		1-	B	c3
C 1274	CHIP CAP.	0.01uF	50V	B	GRM188B11H103KA01D	K22174823		1-	B	f4
C 1275	CHIP TA.CAP.	0.47uF	35V		TEMSVA1V474M-8R	K78160029		1-	B	d2
C 1276	CHIP CAP.	0.01uF	50V	B	GRM188B11H103KA01D	K22174823		1-	B	d3
C 1277	AL.ELECTRO.CAP.	47uF	16V		RE2-16V470MMA	K40129054		1-	A	I5
C 1278	CHIP CAP.	82pF	50V	CH	GRM1882C1H820JA01D	K22174233		1-	A	G4
C 1279	CHIP CAP.	10pF	50V	CH	GRM1882C1H100JA01D	K22174211		1-	A	G4
C 1280	CHIP CAP.	0.01uF	25V	B	GRM39B103M25PT	K22144802		1-	A	G3
C 1281	CHIP CAP.	15pF	50V	CH	GRM1882C1H150JA01D	K22174215		1-	B	c3
C 1282	CHIP CAP.	4pF	50V	CH	GRM1882C1H4R0CZ01D	K22174205		1-	B	e5
C 1283	CHIP CAP.	0.1uF	16V	B	GRM188B11C104KA01D	K22124805		1-	A	I4
C 1284	AL.ELECTRO.CAP.	47uF	16V		RE2-16V470MMA	K40129054		1-	A	I3
C 1285	CHIP CAP.	0.01uF	50V	B	GRM188B11H103KA01D	K22174823		1-	B	c3
C 1286	CHIP CAP.	18pF	50V	CH		K22174217		1-	A	D4

RF Unit

Parts List

REF	DESCRIPTION	VALUE	V/W	TOL.	MFR'S DESIG	VXSTD P/N	VERS.	LOT	SIDE	LAY ADR
C 1287	CHIP CAP.	1uF	6.3V	B	GRM188B10J105KA01D	K22084801		1-	A	G2
C 1288	CHIP CAP.	0.001uF	50V	B	GRM188B11H102KA01D	K22174821		1-	B	a3
C 1290	CHIP CAP.	0.1uF	16V	B	GRM188B11C104KA01D	K22124805		1-	B	c4
C 1291	CHIP CAP.	330pF	50V	B	GRM188B11H331KD01D	K22174803		1-	B	b4
C 1292	CHIP CAP.	10pF	50V	CH	GRM1882C1H100JA01D	K22174211		1-	B	e5
C 1293	CHIP CAP.	33pF	50V	CH	GRM1882C1H330JA01D	K22174223		1-	B	c3
C 1294	CHIP CAP.	0.01uF	50V	B	GRM188B11H103KA01D	K22174823		1-	B	c3
C 1296	CHIP TA.CAP.	10uF	10V		TEMSVA1A106M-8R	K78100028		1-	B	a3
C 1297	CHIP CAP.	0.01uF	50V	B	GRM188B11H103KA01D	K22174823		1-	A	l4
C 1298	CHIP CAP.	0.01uF	50V	B	GRM188B11H103KA01D	K22174823		1-	B	d4
C 1299	CHIP CAP.	0.01uF	50V	B	GRM188B11H103KA01D	K22174823		1-	A	l3
C 1300	CHIP CAP.	0.1uF	16V	B	GRM188B11C104KA01D	K22124805		1-	B	a4
C 1302	CHIP CAP.	0.1uF	16V	B	GRM188B11C104KA01D	K22124805		1-	B	a2
C 1304	CHIP CAP.	82pF	50V	CH	GRM1882C1H820JA01D	K22174233		1-	B	b4
C 1305	CHIP CAP.	820pF	50V	B	GRM188B11H821KA01D	K22174808		1-	A	l4
C 1306	CHIP CAP.	0.1uF	16V	B	GRM188B11C104KA01D	K22124805		1-	A	G4
C 1307	CHIP CAP.	0.1uF	16V	B	GRM188B11C104KA01D	K22124805		1-	B	b4
C 1308	CHIP CAP.	0.01uF	50V	B	GRM188B11H103KA01D	K22174823		1-	A	l4
C 1309	CHIP CAP.	22pF	50V	CH	GRM1882C1H220JA01D	K22174219		1-	B	c4
C 1310	CHIP CAP.	0.01uF	50V	B	GRM188B11H103KA01D	K22174823		1-	B	d4
C 1311	CHIP CAP.	82pF	50V	CH	GRM1882C1H820JA01D	K22174233		1-	B	c4
C 1313	CHIP CAP.	0.01uF	50V	B	GRM188B11H103KA01D	K22174823		1-	A	H3
C 1314	CHIP CAP.	10pF	50V	CH	GRM1882C1H100JA01D	K22174211		1-	B	c4
C 1315	CHIP CAP.	15pF	50V	CH	GRM1882C1H150JA01D	K22174215		1-	A	l3
C 1316	CHIP CAP.	18pF	50V	CH		K22174217		1-	A	l3
C 1317	CHIP CAP.	0.01uF	50V	B	GRM188B11H103KA01D	K22174823		1-	B	c4
C 1318	CHIP CAP.	0.0047uF	50V	B	GRM188B11H472KA01D	K22174833		1-	A	l4
C 1319	CHIP CAP.	0.001uF	50V	B	GRM188B11H102KA01D	K22174809		1-	B	c4
C 1320	CHIP CAP.	0.001uF	50V	B	GRM188B11H102KA01D	K22174821		1-	B	b4
C 1321	FILM CAP.	0.027uF	16V		ECHU1C273JX5	K57120041		1-	B	a3
C 1322	CHIP CAP.	0.1uF	16V	B	GRM188B11C104KA01D	K22124805		1-	B	a4
C 1323	CHIP CAP.	0.1uF	16V	B	GRM188B11C104KA01D	K22124805		1-	A	H4
C 1324	CHIP CAP.	0.1uF	16V	B	GRM188B11C104KA01D	K22124805		1-	B	b4
C 1325	CHIP CAP.	0.01uF	50V	B	GRM188B11H103KA01D	K22174823		1-	A	H5
C 1326	CHIP CAP.	0.1uF	16V	B	GRM188B11C104KA01D	K22124805		1-	A	G5
C 1327	CHIP CAP.	0.001uF	50V	B	GRM188B11H102KA01D	K22174821		1-	A	G5
C 1328	CHIP CAP.	82pF	50V	CH	GRM1882C1H820JA01D	K22174233		1-	A	G4
C 1329	CHIP CAP.	0.1uF	16V	B	GRM188B11C104KA01D	K22124805		1-	B	c4
C 1330	CHIP CAP.	0.001uF	50V	B	GRM188B11H102KA01D	K22174821		1-	A	H3
C 1331	CHIP CAP.	22pF	50V	CH	GRM1882C1H220JA01D	K22174219		1-	B	c4
C 1332	CHIP CAP.	0.01uF	50V	B	GRM188B11H103KA01D	K22174823		1-	B	c4
C 1333	CHIP CAP.	0.001uF	50V	B	GRM188B11H102KA01D	K22174821		1-	B	b4
C 1334	CHIP CAP.	0.0068uF	50V	B	GRM188B11H682KA01D	K22174834		1-	B	a4
C 1335	CHIP CAP.	1uF	10V	F	GRM188F11A105ZA01D	K22105001		1-	B	b4
C 1336	CHIP CAP.	82pF	50V	CH	GRM1882C1H820JA01D	K22174233		1-	A	H3
C 1337	CHIP CAP.	0.1uF	16V	B	GRM188B11C104KA01D	K22124805		1-	A	l3
C 1338	CHIP CAP.	0.1uF	16V	B	GRM188B11C104KA01D	K22124805		1-	A	H4
C 1339	CHIP CAP.	0.0022uF	50V	B	GRM188B11H222KA01D	K22174822		1-	B	a4
C 1341	CHIP CAP.	0.1uF	16V	B	GRM188B11C104KA01D	K22124805		1-	B	c4
C 1342	CHIP CAP.	4pF	50V	CH	GRM1882C1H4R0CZ01D	K22174205		1-	B	e5
C 1345	CHIP CAP.	10pF	50V	CH	GRM1882C1H100JA01D	K22174211		1-	A	A4
C 1346	CHIP CAP.	10pF	50V	CH	GRM1882C1H100JA01D	K22174211		1-	A	B4
C 1349	CHIP CAP.	0.001uF	50V	B	GRM188B11H102KA01D	K22174821		1-		
C 1350	CHIP CAP.	0.001uF	50V	B	GRM188B11H102KA01D	K22174821		1-		
CD1001	CERAMIC DISC				CDBC450KCAY24-R0	H7901340		1-	A	G4
CD1002	CERAMIC DISC				CDBC450KCAY24-R0	H7901340		1-	A	H3
CF1001	CERAMIC FILTER				ALFYM450E=K	H3900535		1-	A	H4
CF1002	CERAMIC FILTER				ALFYM450E=K	H3900535		1-	A	l3
D 1001	SURGE ABSORBER				DSP-141N-S00B	G9000586		1-	A	A1
D 1002	DIODE				HSU277TRF	G2070118		1-	A	B3
D 1003	DIODE				HSU277TRF	G2070118		1-	A	A3
D 1004	DIODE				1SS321 TE85R	G2070076		1-	B	h3
D 1005	DIODE				XB15A308A2GB	G2090742		1-	A	C3
D 1006	DIODE				XB15A308A2GB	G2090742		1-	A	B2
D 1007	DIODE				DAN235U TL	G2070176		1-	B	f2
D 1008	DIODE				HVC306B TRU	G2070918		1-	A	F4
D 1009	DIODE				HVC306B TRU	G2070918		1-	A	F4
D 1010	DIODE				HVC306B TRU	G2070918		1-	A	F4
D 1011	DIODE				HVC306B TRU	G2070918		1-	A	F4
D 1012	DIODE				HSC277TRF	G2070584		1-	A	E3
D 1013	DIODE				1SV325(TPH3)	G2070848		1-	A	E3
D 1014	DIODE				1SV286(TPL3)	G2070610		1-	A	E3
D 1015	DIODE				1SV286(TPL3)	G2070610		1-	A	E3

REF	DESCRIPTION	VALUE	V/W	TOL.	MFR'S DESIG	VXSTD P/N	VERS.	LOT	SIDE	LAY ADR
D 1016	DIODE				1SV286(TPL3)	G2070610		1-	A	E2
D 1017	DIODE				1SV286(TPL3)	G2070610		1-	A	E2
D 1018	DIODE				HVU359TRF	G2070452		1-	A	G3
D 1019	DIODE				UDZS TE-17 5.6B	G2070910		1-	B	b4
D 1020	DIODE				UDZS TE-17 5.6B	G2070910		1-	B	a3
D 1021	DIODE				MC2850-T11-1	G2070704		1-	B	b4
D 1022	DIODE				MC2850-T11-1	G2070704		1-	B	b4
J 1001	CONNECTOR				IMSA-9133S-09D	P1091211		1-	A	I2
J 1002	CONNECTOR				24FLT-SM1-TB	P1091128		1-	A	G3
L 1001	COIL	0.1uH			#E528SNAS-100075	L0190269		1-	A	A3
L 1002	COIL	0.1uH			#E528SNAS-100075	L0190269		1-	A	A3
L 1003	COIL	0.15uH			#E528SNAS-100076	L0190270		1-	A	B5
L 1004	COIL	0.15uH			#E528SNAS-100076	L0190270		1-	A	B5
L 1005	COIL	0.15uH			#E528SNAS-100076	L0190270		1-	A	C5
L 1006	COIL	0.15uH			#E528SNAS-100076	L0190270		1-	A	B3
L 1007	COIL	0.15uH			#E528SNAS-100076	L0190270		1-	A	B3
L 1008	COIL	0.15uH			#E528SNAS-100076	L0190270		1-	A	C3
L 1009	COIL A1				4.5T3.5D0.8UEW R	L0021149A		1-	A	A1
L 1010	COIL A1				4.5T3.5D0.8UEW R	L0021149A		1-	A	A2
L 1011	M.RFC	0.047uH			HK1608 47NJ-T	L1690524		1-	A	B3
L 1012	COIL A1				3.5T4.0D0.8UEW R	L0022245		1-	A	B3
L 1014	M.RFC	4.7uH			LAL03NA4R7K	L1190203		1-	A	D2
L 1016	COIL A1				4.5T3.5D0.8UEW R	L0021149A		1-	A	C2
L 1018	M.RFC	0.1uH			HK1608 R10J-T	L1690528		1-	B	e4
L 1020	M.RFC	0.15uH			HK1608 R15J-T	L1690938		1-	A	G2
L 1021	M.RFC	0.15uH			HK1608 R15J-T	L1690938		1-	A	G1
L 1022	M.RFC	0.1uH			HK1608 R10J-T	L1690528		1-	A	B4
L 1024	M.RFC	0.1uH			HK1608 R10J-T	L1690528		1-	A	A4
L 1025	M.RFC	0.22uH			HK1608 R22J-T	L1690940		1-	A	E4
L 1026	M.RFC	10uH			LK2125 100K-T	L1690331		1-	A	E4
L 1027	M.RFC	0.47uH			LK1608 R47K-T	L1690414		1-	A	E4
L 1028	M.RFC	0.033uH			HK1608 33NJ-T	L1690522		1-	B	f2
L 1029	M.RFC	0.039uH			HK1608 39NJ-T	L1690523		1-	B	g2
L 1030	M.RFC	0.1uH		2%	C2012C-R10G	L1690776		1-	A	E4
L 1032	M.RFC	0.1uH			HK1608 R10J-T	L1690528		1-	B	f2
L 1033	M.RFC	0.47uH			LK1608 R47K-T	L1690414		1-	A	F4
L 1034	M.RFC	0.033uH			HK1608 33NJ-T	L1690522		1-	B	f4
L 1035	M.RFC	0.22uH			HK1608 R22J-T	L1690940		1-	A	D3
L 1036	M.RFC	0.039uH			HK1608 39NJ-T	L1690523		1-	B	f4
L 1037	M.RFC	2.2uH			LK1608 2R2K-T	L1690634		1-	A	F4
L 1038	M.RFC	2.2uH			LK1608 2R2K-T	L1690634		1-	A	E3
L 1039	M.RFC	0.068uH			HK1608 68NJ-T	L1690526		1-	B	f3
L 1040	M.RFC	0.068uH			HK1608 68NJ-T	L1690526		1-	B	e3
L 1041	M.RFC	4.7uH			LK2125 4R7K-T	L1690327		1-	B	f3
L 1042	M.RFC	0.068uH			HK1608 68NJ-T	L1690526		1-	B	e4
L 1043	M.RFC	0.068uH			HK1608 68NJ-T	L1690526		1-	B	e4
L 1044	M.RFC	0.027uH		2%	C2012C-27NG	L1690769		1-	A	E3
L 1045	M.RFC	4.7uH			LK1608 4R7K-T	L1690688		1-	B	f3
L 1046	M.RFC	2.2uH			LK1608 2R2K-T	L1690634		1-	A	E3
L 1047	M.RFC	4.7uH			LK2125 4R7K-T	L1690327		1-	B	g4
L 1048	CHIP COIL	1.5uH		2%	C2520C-1R5G	L1691311		1-	A	D3
L 1049	M.RFC	2.2uH			LK1608 2R2K-T	L1690634		1-	A	F4
L 1051	M.RFC	4.7uH			LK1608 4R7K-T	L1690688		1-	B	f5
L 1052	M.RFC	1.5uH			LK1608 1R5K-T	L1690846		1-	B	c3
L 1053	M.RFC	0.47uH			LK1608 R47K-T	L1690414		1-	A	G4
L 1054	CHIP COIL	1.5uH		2%	C2520C-1R5G	L1691311		1-	A	D4
L 1055	M.RFC	1.5uH			LK1608 1R5K-T	L1690846		1-	B	c3
L 1058	M.RFC	1.5uH			LK1608 1R5K-T	L1690846		1-	B	d4
L 1059	M.RFC	1.5uH			LK1608 1R5K-T	L1690846		1-	B	c4
L 1061	M.RFC	0.15uH			HK1608 R15J-T	L1690938		1-	B	f5
L 1062	M.RFC	0.15uH			HK1608 R15J-T	L1690938		1-	B	f3
Q 1001	IC				RA35H1516M	G1093695		1-	A	E1
Q 1002	IC				LM2904PWR	G1094010		1-	A	c2
Q 1003	TRANSISTOR				DTB123EK T146	G3070022		1-	B	c2
Q 1004	IC				NJM7808DL1A-TE1	G1093802		1-	A	I1
Q 1005	IC				NJM78M05DL1A-TE1	G1093660		1-	A	H1
Q 1006	TRANSISTOR				DTB123EK T146	G3070022		1-	B	b3
Q 1007	TRANSISTOR				RT1N441U-T11-1	G3070247		1-	B	c2
Q 1008	TRANSISTOR				RT1N441U-T11-1	G3070247		1-	B	b3
Q 1009	TRANSISTOR				2SB1301-T2 ZQ	G3213017Q		1-	B	b1
Q 1010	TRANSISTOR				RT1N441U-T11-1	G3070247		1-	B	b1
Q 1011	TRANSISTOR				DTA144EE TL	G3070074		1-	A	E2
Q 1012	TRANSISTOR				RT1N441U-T11-1	G3070247		1-	A	F1

RF Unit

Parts List

REF	DESCRIPTION	VALUE	V/W	TOL.	MFR'S DESIG	VXSTD P/N	VERS.	LOT	SIDE	LAY ADR
Q 1013	TRANSISTOR				2SC4154-T11-1E	G3341548E		1-	B	d3
Q 1014	TRANSISTOR				RT1N441U-T11-1	G3070247		1-	A	D2
Q 1015	FET				3SK294(TE85L)	G4802948		1-	A	B4
Q 1016	TRANSISTOR				2SC3356-T2B R25	G3333567E		1-	B	e4
Q 1017	TRANSISTOR				RT1N441U-T11-1	G3070247		1-	A	E1
Q 1018	FET				3SK294(TE85L)	G4802948		1-	A	A4
Q 1019	TRANSISTOR				RT1N441U-T11-1	G3070247		1-	A	E1
Q 1020	TRANSISTOR				2SC3356-T2B R25	G3333567E		1-	A	G2
Q 1021	TRANSISTOR				2SC5006-T1	G3350068		1-	A	E4
Q 1022	TRANSISTOR				2SC4154-T11-1E	G3341548E		1-	B	e2
Q 1023	FET				2SK520-T2B K41	G3805207A		1-	A	E4
Q 1024	TRANSISTOR				2SC3356-T2B R25	G3333567E		1-	B	f2
Q 1025	TRANSISTOR				DTA144EE TL	G3070074		1-	B	c4
Q 1026	FET				2SK520-T2B K41	G3805207A		1-	B	g3
Q 1027	FET				2SK520-T2B K41	G3805207A		1-	A	C3
Q 1028	TRANSISTOR				2SC5006-T1	G3350068		1-	A	D2
Q 1029	FET				2SK520-T2B K41	G3805207A		1-	B	g3
Q 1030	FET				2SK520-T2B K41	G3805207A		1-	A	D3
Q 1031	FET				2SK520-T2B K41	G3805207A		1-	A	E3
Q 1032	FET				2SK520-T2B K41	G3805207A		1-	A	D4
Q 1033	FET				2SK520-T2B K41	G3805207A		1-	B	f4
Q 1034	IC				TB31202FNG(TAPE)	G1094103		1-	A	F3
Q 1035	TRANSISTOR				RT1N441U-T11-1	G3070247		1-	B	e2
Q 1036	FET				2SK520-T2B K41	G3805207A		1-	A	D4
Q 1037	FET				2SK520-T2B K41	G3805207A		1-	B	f4
Q 1038	TRANSISTOR				RT1N441U-T11-1	G3070247		1-	A	G2
Q 1039	TRANSISTOR				2SC4400-3-TL	G3344008C		1-	B	f3
Q 1040	TRANSISTOR				2SC4154-T11-1E	G3341548E		1-	A	G3
Q 1041	TRANSISTOR				2SC4154-T11-1E	G3341548E		1-	A	G4
Q 1042	TRANSISTOR				2SC4400-3-TL	G3344008C		1-	B	f4
Q 1043	TRANSISTOR				2SC4400-3-TL	G3344008C		1-	B	d3
Q 1044	TRANSISTOR				2SC4400-3-TL	G3344008C		1-	B	c3
Q 1045	TRANSISTOR				2SC4154-T11-1E	G3341548E		1-	B	b4
Q 1046	TRANSISTOR				2SC4154-T11-1E	G3341548E		1-	A	l4
Q 1047	TRANSISTOR				2SC4400-3-TL	G3344008C		1-	B	d4
Q 1048	IC				NJM2211M-TE1	G1092943		1-	B	a4
Q 1049	IC				TA31136FN(EL)	G1091605		1-	A	G4
Q 1050	IC				TA31136FN(EL)	G1091605		1-	A	H3
Q 1051	TRANSISTOR				2SC4400-3-TL	G3344008C		1-	B	c4
R 1001	CHIP RES.	56k	1/10W	5%	RMC1/10T 563J	J24205563		1-	B	h1
R 1002	CHIP RES.	4.7k	1/16W	5%	RMC1/16 472JATP	J24185472		1-	B	i2
R 1003	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000		1-	B	i3
R 1004	CHIP RES.	68k	1/16W	5%	RMC1/16 683JATP	J24185683		1-	A	D2
R 1005	CHIP RES.	100k	1/16W	5%	RMC1/16 104JATP	J24185104		1-	A	D2
R 1006	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000		1-	B	i3
R 1007	CHIP RES.	4.7k	1/16W	5%	RMC1/16 472JATP	J24185472		1-	B	i2
R 1008	CHIP RES.	4.7k	1/16W	5%	RMC1/16 472JATP	J24185472		1-	B	a1
R 1009	CHIP RES.	1k	1/4W	5%	RMC1/4 102JATP	J24245102		1-	B	b1
R 1010	CHIP RES.	100	1W	5%	RMC1 101JTE	J24305101		1-	A	D2
R 1011	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000		1-	A	E2
R 1012	CHIP RES.	1k	1/16W	5%	RMC1/16 102JATP	J24185102		1-	B	c4
R 1013	CHIP RES.	22k	1/16W	5%	RMC1/16 223JATP	J24185223		1-	A	B4
R 1014	CHIP RES.	22k	1/16W	5%	RMC1/16 223JATP	J24185223		1-	A	A4
R 1015	CHIP RES.	2.2k	1/16W	5%	RMC1/16 222JATP	J24185222		1-	A	F2
R 1016	CHIP RES.	1k	1/16W	5%	RMC1/16 102JATP	J24185102		1-	A	F2
R 1017	CHIP RES.	100	1/16W	5%	RMC1/16 101JATP	J24185101		1-	B	e4
R 1018	CHIP RES.	33k	1/16W	5%	RMC1/16 333JATP	J24185333		1-	A	B4
R 1019	CHIP RES.	33k	1/16W	5%	RMC1/16 333JATP	J24185333		1-	A	A4
R 1020	CHIP RES.	1k	1/16W	5%	RMC1/16 102JATP	J24185102		1-	A	E2
R 1021	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000		1-	B	e4
R 1022	CHIP RES.	1k	1/16W	5%	RMC1/16 102JATP	J24185102		1-	B	e4
R 1023	CHIP RES.	47k	1/16W	5%	RMC1/16 473JATP	J24185473		1-	A	B4
R 1024	CHIP RES.	220	1/16W	5%	RMC1/16 221JATP	J24185221		1-	A	F2
R 1025	CHIP RES.	47k	1/16W	5%	RMC1/16 473JATP	J24185473		1-	A	A4
R 1026	CHIP RES.	100	1/16W	5%	RMC1/16 101JATP	J24185101		1-	A	E2
R 1027	CHIP RES.	100	1/16W	5%	RMC1/16 101JATP	J24185101		1-	B	e4
R 1028	CHIP RES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103		1-	A	B4
R 1029	CHIP RES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103		1-	A	A4
R 1030	CHIP RES.	4.7k	1/16W	5%	RMC1/16 472JATP	J24185472		1-	B	e4
R 1031	CHIP RES.	39	1/16W	5%	RMC1/16 390JATP	J24185390		1-	A	B4
R 1032	CHIP RES.	3.9k	1/16W	5%	RMC1/16 392JATP	J24185392		1-	B	e4
R 1033	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000		1-	A	B4
R 1034	CHIP RES.	1k	1/16W	5%	RMC1/16 102JATP	J24185102		1-	A	G2

RF Unit

Parts List

REF	DESCRIPTION	VALUE	V/W	TOL.	MFR'S DESIG	VXSTD P/N	VERS.	LOT	SIDE	LAY ADR
R 1036	CHIP RES.	39	1/16W	5%	RMC1/16 390JATP	J24185390		1-	A	A4
R 1037	CHIP RES.	47	1/16W	5%	RMC1/16 470JATP	J24185470		1-	A	B4
R 1038	CHIP RES.	470k	1/16W	5%	RMC1/16 474JATP	J24185474		1-	A	E2
R 1039	CHIP RES.	39	1/16W	5%	RMC1/16 390JATP	J24185390		1-	A	G1
R 1040	CHIP RES.	47	1/16W	5%	RMC1/16 470JATP	J24185470		1-	A	A4
R 1041	CHIP RES.	2.2k	1/16W	5%	RMC1/16 222JATP	J24185222		1-	A	B4
R 1042	CHIP RES.	22	1/16W	5%	RMC1/16 220JATP	J24185220		1-	B	e4
R 1043	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000		1-	A	A4
R 1044	CHIP RES.	2.2k	1/16W	5%	RMC1/16 222JATP	J24185222		1-	A	A4
R 1045	CHIP RES.	56	1/16W	5%	RMC1/16 560JATP	J24185560		1-	A	G2
R 1046	CHIP RES.	2.2k	1/16W	5%	RMC1/16 222JATP	J24185222		1-	A	E1
R 1047	CHIP RES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103		1-	A	E1
R 1048	CHIP RES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103		1-	A	E1
R 1049	CHIP RES.	100	1/16W	5%	RMC1/16 101JATP	J24185101		1-	A	E4
R 1050	CHIP RES.	4.7k	1/16W	5%	RMC1/16 472JATP	J24185472		1-	A	G2
R 1052	CHIP RES.	22k	1/16W	5%	RMC1/16 223JATP	J24185223		1-	A	E1
R 1053	CHIP RES.	3.9k	1/16W	5%	RMC1/16 392JATP	J24185392		1-	A	G2
R 1054	CHIP RES.	47	1/16W	5%	RMC1/16 470JATP	J24185470		1-	A	E1
R 1055	CHIP RES.	22k	1/16W	5%	RMC1/16 223JATP	J24185223		1-	A	E2
R 1056	CHIP RES.	47k	1/16W	5%	RMC1/16 473JATP	J24185473		1-	A	E4
R 1057	CHIP RES.	1k	1/16W	5%	RMC1/16 102JATP	J24185102		1-	B	d2
R 1059	CHIP RES.	22	1/16W	5%	RMC1/16 220JATP	J24185220		1-	A	E4
R 1060	CHIP RES.	22	1/16W	5%	RMC1/16 220JATP	J24185220		1-	A	F2
R 1061	CHIP RES.	2.2k	1/16W	5%	RMC1/16 222JATP	J24185222		1-	B	f2
R 1063	CHIP RES.	220	1/16W	5%	RMC1/16 221JATP	J24185221		1-	A	E4
R 1064	CHIP RES.	2.2k	1/16W	5%	RMC1/16 222JATP	J24185222		1-	B	f2
R 1066	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000		1-	B	g3
R 1068	CHIP RES.	2.2k	1/16W	5%	RMC1/16 222JATP	J24185222		1-	B	f2
R 1070	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000		1-	B	g3
R 1071	CHIP RES.	100	1/16W	5%	RMC1/16 101JATP	J24185101		1-	B	f2
R 1073	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000		1-	B	f2
R 1074	CHIP RES.	1k	1/16W	5%	RMC1/16 102JATP	J24185102		1-	B	f2
R 1076	CHIP RES.	47	1/16W	5%	RMC1/16 470JATP	J24185470		1-	B	c4
R 1077	CHIP RES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103		1-	B	c4
R 1078	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000		1-	B	h4
R 1079	CHIP RES.	100	1/16W	5%	RMC1/16 101JATP	J24185101		1-	B	f2
R 1080	CHIP RES.	100	1/16W	5%	RMC1/16 101JATP	J24185101		1-	A	D3
R 1081	CHIP RES.	120	1/16W	5%	RMC1/16 121JATP	J24185121		1-	B	g3
R 1083	CHIP RES.	4.7k	1/16W	5%	RMC1/16 472JATP	J24185472		1-	B	f2
R 1084	CHIP RES.	1k	1/16W	5%	RMC1/16 102JATP	J24185102		1-	A	F4
R 1086	CHIP RES.	3.9k	1/16W	5%	RMC1/16 392JATP	J24185392		1-	B	f3
R 1087	CHIP RES.	47k	1/16W	5%	RMC1/16 473JATP	J24185473		1-	A	D3
R 1088	CHIP RES.	100	1/16W	5%	RMC1/16 101JATP	J24185101		1-	A	F4
R 1090	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000		1-	B	f4
R 1091	CHIP RES.	22	1/16W	5%	RMC1/16 220JATP	J24185220		1-	B	f3
R 1093	CHIP RES.	47	1/16W	5%	RMC1/16 470JATP	J24185470		1-	A	F3
R 1094	CHIP RES.	22	1/16W	5%	RMC1/16 220JATP	J24185220		1-	A	E3
R 1095	CHIP RES.	47	1/16W	5%	RMC1/16 470JATP	J24185470		1-	A	E2
R 1096	CHIP RES.	100	1/16W	5%	RMC1/16 101JATP	J24185101		1-	B	d3
R 1097	CHIP RES.	100k	1/16W	5%	RMC1/16 104JATP	J24185104		1-	A	F4
R 1098	CHIP RES.	100	1/16W	5%	RMC1/16 101JATP	J24185101		1-	B	d3
R 1099	CHIP RES.	100	1/16W	5%	RMC1/16 101JATP	J24185101		1-	B	d3
R 1100	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000		1-	B	d4
R 1101	CHIP RES.	120	1/16W	5%	RMC1/16 121JATP	J24185121		1-	B	g4
R 1102	CHIP RES.	5.6k	1/16W	5%	RMC1/16 562JATP	J24185562		1-	B	d4
R 1103	CHIP RES.	4.7k	1/16W	5%	RMC1/16 472JATP	J24185472		1-	B	e3
R 1104	CHIP RES.	47k	1/16W	5%	RMC1/16 473JATP	J24185473		1-	A	E3
R 1105	CHIP RES.	1k	1/16W	5%	RMC1/16 102JATP	J24185102		1-	B	d4
R 1106	CHIP RES.	100	1/16W	5%	RMC1/16 101JATP	J24185101		1-	B	g3
R 1107	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000		1-	B	d3
R 1108	CHIP RES.	47	1/16W	5%	RMC1/16 470JATP	J24185470		1-	B	g3
R 1109	CHIP RES.	47k	1/16W	5%	RMC1/16 473JATP	J24185473		1-	A	E3
R 1110	CHIP RES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103		1-	A	F2
R 1111	CHIP RES.	270	1/16W	5%	RMC1/16 271JATP	J24185271		1-	B	f3
R 1112	CHIP RES.	100	1/16W	5%	RMC1/16 101JATP	J24185101		1-	A	G4
R 1113	CHIP RES.	1k	1/16W	5%	RMC1/16 102JATP	J24185102		1-	A	E3
R 1114	CHIP RES.	3.9k	1/16W	5%	RMC1/16 392JATP	J24185392		1-	B	f3
R 1115	CHIP RES.	100	1/16W	5%	RMC1/16 101JATP	J24185101		1-	A	G4
R 1116	CHIP RES.	2.7k	1/16W	5%	RMC1/16 272JATP	J24185272		1-	B	f3
R 1117	CHIP RES.	330	1/16W	5%	RMC1/16 331JATP	J24185331		1-	A	G4
R 1118	CHIP RES.	100	1/16W	5%	RMC1/16 101JATP	J24185101		1-	B	f3
R 1119	CHIP RES.	22k	1/16W	5%	RMC1/16 223JATP	J24185223		1-	A	F4
R 1120	CHIP RES.	100	1/16W	5%	RMC1/16 101JATP	J24185101		1-	A	E3

RF Unit

Parts List

REF	DESCRIPTION	VALUE	V/W	TOL.	MFR'S DESIG	VXSTD P/N	VERS.	LOT	SIDE	LAY ADR
R 1121	CHIP RES.	100	1/16W	5%	RMC1/16 101JATP	J24185101		1-	B	g4
R 1122	CHIP RES.	4.7k	1/16W	5%	RMC1/16 472JATP	J24185472		1-	A	D3
R 1123	CHIP RES.	100k	1/16W	5%	RMC1/16 104JATP	J24185104		1-	B	d3
R 1124	CHIP RES.	330k	1/16W	5%	RMC1/16 334JATP	J24185334		1-	A	F2
R 1125	CHIP RES.	22k	1/16W	5%	RMC1/16 223JATP	J24185223		1-	A	G4
R 1126	CHIP RES.	22k	1/16W	5%	RMC1/16 223JATP	J24185223		1-	A	G3
R 1127	CHIP RES.	22k	1/16W	5%	RMC1/16 223JATP	J24185223		1-	A	G3
R 1128	CHIP RES.	3.3k	1/16W	5%	RMC1/16 332JATP	J24185332		1-	B	c3
R 1129	CHIP RES.	47	1/16W	5%	RMC1/16 470JATP	J24185470		1-	B	f4
R 1130	CHIP RES.	1k	1/16W	5%	RMC1/16 102JATP	J24185102		1-	B	e3
R 1131	CHIP RES.	180k	1/16W	5%	RMC1/16 184JATP	J24185184		1-	A	G3
R 1132	CHIP RES.	390k	1/16W	5%	RMC1/16 394JATP	J24185394		1-	A	G3
R 1133	CHIP RES.	270	1/16W	5%	RMC1/16 271JATP	J24185271		1-	B	f5
R 1134	CHIP RES.	1.8k	1/16W	5%	RMC1/16 182JATP	J24185182		1-	B	e2
R 1135	CHIP RES.	47k	1/16W	5%	RMC1/16 473JATP	J24185473		1-	B	d3
R 1136	CHIP RES.	1k	1/16W	5%	RMC1/16 102JATP	J24185102		1-	B	d3
R 1137	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000		1-	B	d2
R 1138	CHIP RES.	220	1/16W	5%	RMC1/16 221JATP	J24185221		1-	B	a3
R 1139	CHIP RES.	3.3k	1/16W	5%	RMC1/16 332JATP	J24185332		1-	B	c3
R 1140	CHIP RES.	4.7k	1/16W	5%	RMC1/16 472JATP	J24185472		1-	B	c3
R 1141	CHIP RES.	100	1/16W	5%	RMC1/16 101JATP	J24185101		1-	B	d3
R 1142	CHIP RES.	3.9k	1/16W	5%	RMC1/16 392JATP	J24185392		1-	B	f4
R 1143	CHIP RES.	2.7k	1/16W	5%	RMC1/16 272JATP	J24185272		1-	B	f4
R 1145	CHIP RES.	4.7k	1/16W	5%	RMC1/16 472JATP	J24185472		1-	A	G3
R 1146	CHIP RES.	220	1/16W	5%	RMC1/16 221JATP	J24185221		1-	B	f5
R 1147	CHIP RES.	100k	1/16W	5%	RMC1/16 104JATP	J24185104		1-	A	H4
R 1148	CHIP RES.	100	1/16W	5%	RMC1/16 101JATP	J24185101		1-	B	a3
R 1149	CHIP RES.	47k	1/16W	5%	RMC1/16 473JATP	J24185473		1-	B	c3
R 1151	CHIP RES.	4.7k	1/16W	5%	RMC1/16 472JATP	J24185472		1-	A	D4
R 1152	CHIP RES.	100	1/16W	5%	RMC1/16 101JATP	J24185101		1-	A	I4
R 1153	CHIP RES.	3.3k	1/16W	5%	RMC1/16 332JATP	J24185332		1-	B	d4
R 1154	CHIP RES.	2.2k	1/16W	5%	RMC1/16 222JATP	J24185222		1-	A	I4
R 1155	CHIP RES.	4.7k	1/16W	5%	RMC1/16 472JATP	J24185472		1-	B	c3
R 1156	CHIP RES.	100	1/16W	5%	RMC1/16 101JATP	J24185101		1-	B	c3
R 1157	CHIP RES.	560k	1/16W	5%	RMC1/16 564JATP	J24185564		1-	B	b4
R 1158	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000		1-	B	c4
R 1159	CHIP RES.	47k	1/16W	5%	RMC1/16 473JATP	J24185473		1-	B	d4
R 1160	CHIP RES.	560	1/16W	5%	RMC1/16 561JATP	J24185561		1-	B	d4
R 1161	CHIP RES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103		1-	B	a4
R 1162	CHIP RES.	220k	1/16W	5%	RMC1/16 224JATP	J24185224		1-	B	c4
R 1163	CHIP RES.	3.3k	1/16W	5%	RMC1/16 332JATP	J24185332		1-	B	b4
R 1164	CHIP RES.	470k	1/16W	5%	RMC1/16 474JATP	J24185474		1-	B	a3
R 1165	CHIP RES.	100k	1/16W	5%	RMC1/16 104JATP	J24185104		1-	B	a4
R 1166	CHIP RES.	1.8k	1/16W	5%	RMC1/16 182JATP	J24185182		1-	B	b4
R 1167	CHIP RES.	22k	1/16W	5%	RMC1/16 223JATP	J24185223		1-	A	I4
R 1168	CHIP RES.	4.7k	1/16W	5%	RMC1/16 472JATP	J24185472		1-	B	c4
R 1169	CHIP RES.	100	1/16W	5%	RMC1/16 101JATP	J24185101		1-	B	d4
R 1170	CHIP RES.	1.8k	1/16W	5%	RMC1/16 182JATP	J24185182		1-	B	c4
R 1171	CHIP RES.	22k	1/16W	5%	RMC1/16 223JATP	J24185223		1-	A	I4
R 1172	CHIP RES.	3.3k	1/16W	5%	RMC1/16 332JATP	J24185332		1-	B	c4
R 1173	CHIP RES.	22k	1/16W	5%	RMC1/16 223JATP	J24185223		1-	A	I4
R 1174	CHIP RES.	47k	1/16W	5%	RMC1/16 473JATP	J24185473		1-	B	d4
R 1175	CHIP RES.	22k	1/16W	5%	RMC1/16 223JATP	J24185223		1-	A	I4
R 1177	CHIP RES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103		1-	B	b4
R 1178	CHIP RES.	33k	1/16W	5%	RMC1/16 333JATP	J24185333		1-	A	I4
R 1179	CHIP RES.	56k	1/16W	5%	RMC1/16 563JATP	J24185563		1-	A	I4
R 1180	CHIP RES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103		1-	B	b4
R 1181	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000		1-	A	H3
R 1182	CHIP RES.	470k	1/16W	5%	RMC1/16 474JATP	J24185474		1-	B	a4
R 1183	CHIP RES.	4.7k	1/16W	5%	RMC1/16 472JATP	J24185472		1-	B	c4
R 1184	CHIP RES.	100	1/16W	5%	RMC1/16 101JATP	J24185101		1-	B	c4
R 1185	CHIP RES.	100k	1/16W	5%	RMC1/16 104JATP	J24185104		1-	B	b4
R 1186	CHIP RES.	1.5k	1/16W	5%	RMC1/16 152JATP	J24185152		1-	A	H3
R 1187	CHIP RES.	100	1/16W	5%	RMC1/16 101JATP	J24185101		1-	B	b4
R 1188	CHIP RES.	100k	1/16W	5%	RMC1/16 104JATP	J24185104		1-	B	a4
R 1189	CHIP RES.	1.5k	1/16W	5%	RMC1/16 152JATP	J24185152		1-	A	G4
R 1190	CHIP RES.	47k	1/16W	5%	RMC1/16 473JATP	J24185473		1-	B	a4
R 1191	CHIP RES.	220	1/16W	5%	RMC1/16 221JATP	J24185221		1-	B	b4
R 1192	CHIP RES.	10k	1/16W	1%	RMC1/16 103FTP	J24183103		1-	B	a4
R 1193	CHIP RES.	10k	1/16W	1%	RMC1/16 103FTP	J24183103		1-	B	a4
R 1194	CHIP RES.	1k	1/16W	1%	RMC1/16 102FTP	J24183102		1-	B	a4
R 1195	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000		1-	B	c5
R 1196	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000		1-	B	b3

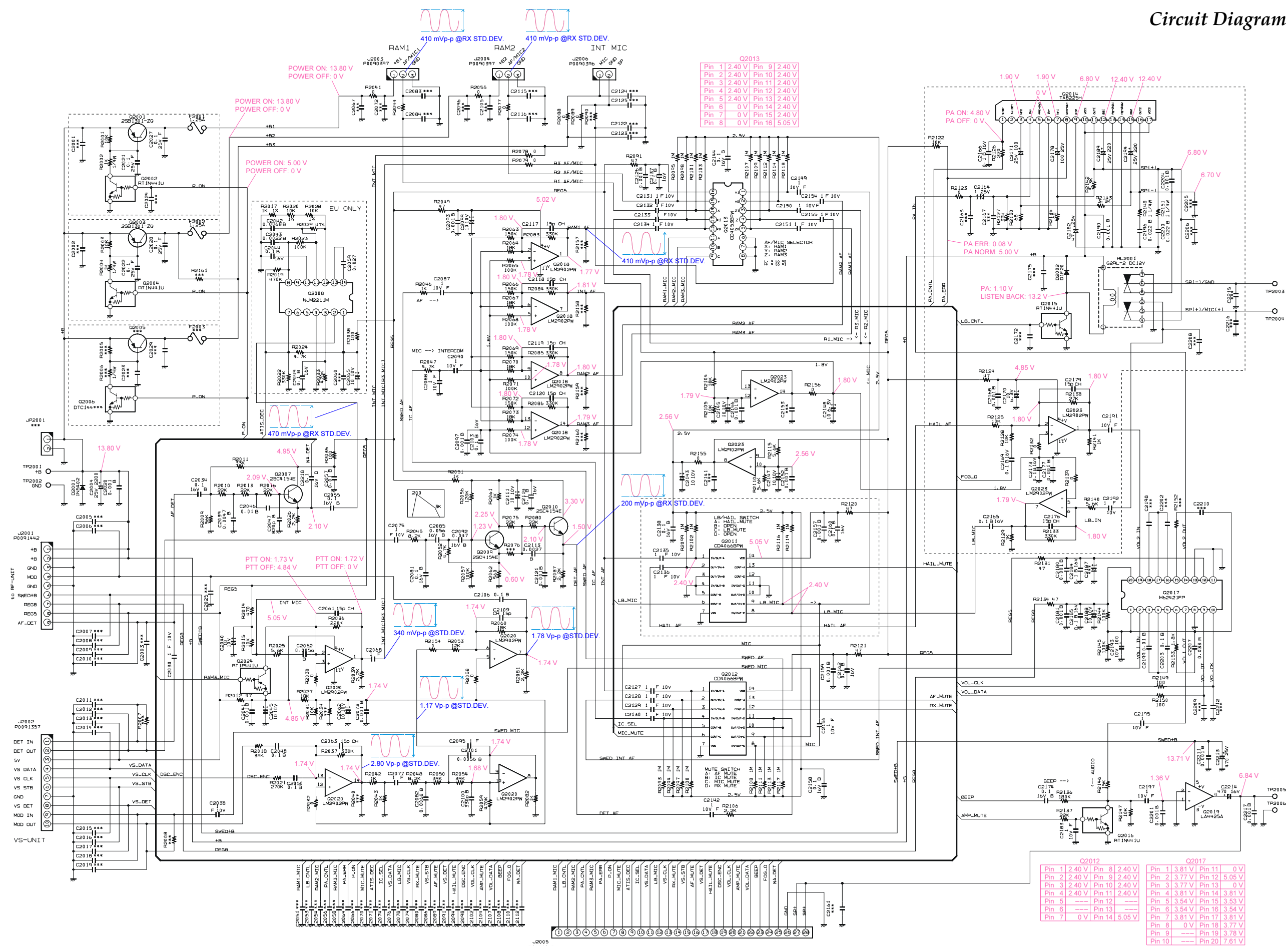
RF Unit

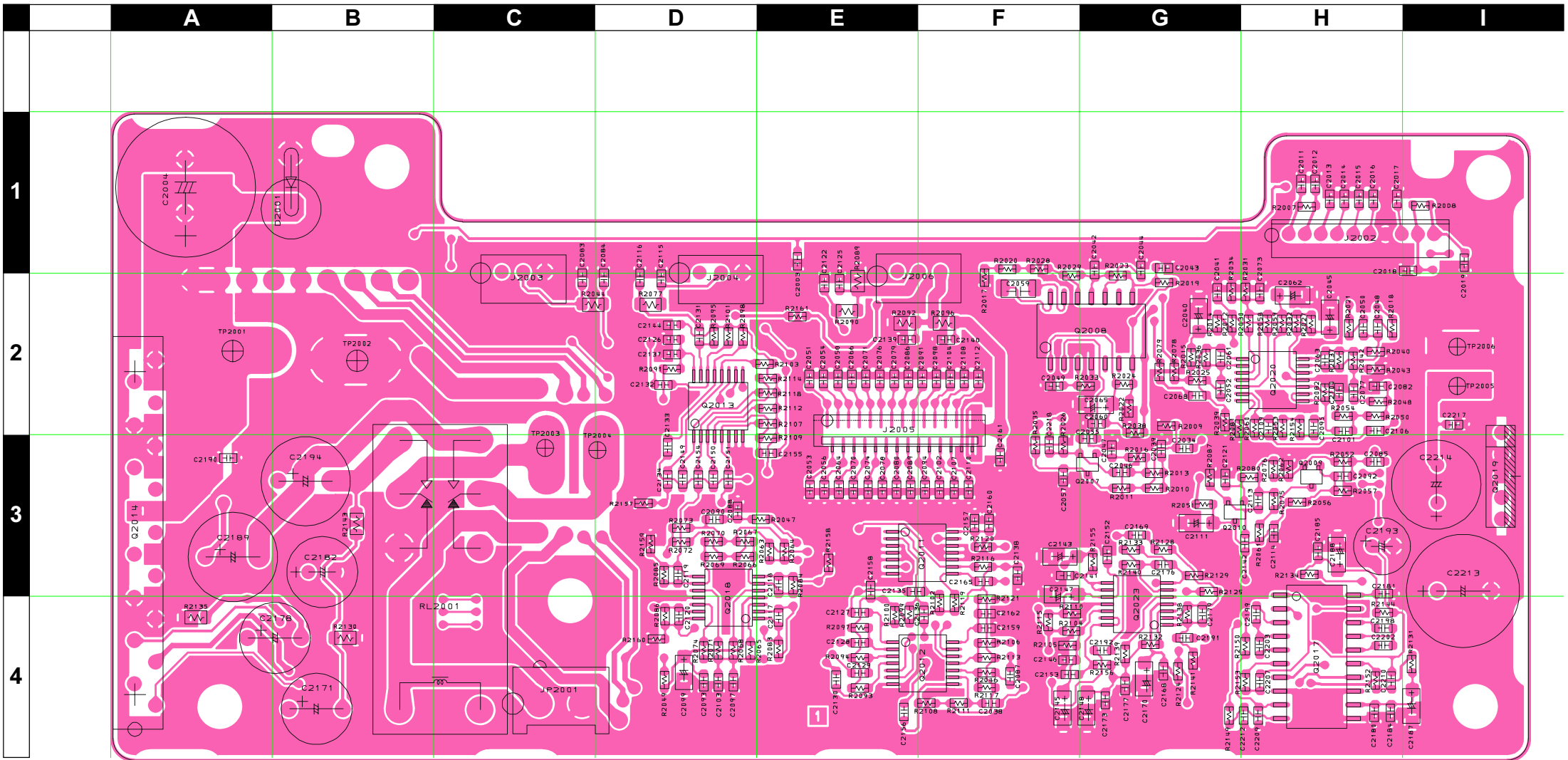
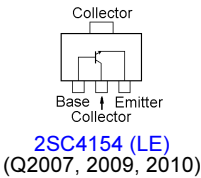
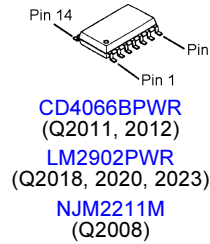
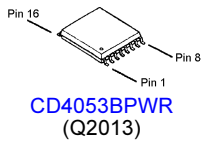
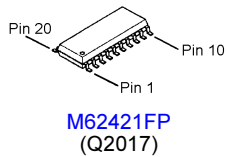
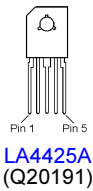
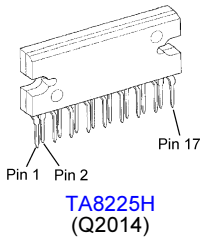
Parts List

REF	DESCRIPTION	VALUE	V/W	TOL.	MFR'S DESIG	VXSTD P/N	VERS.	LOT	SIDE	LAY ADR
R 1197	CHIP RES.	120k	1/16W	5%	RMC1/16 124JATP	J24185124		1-	A	G3
R 1198	CHIP RES.	150	1/16W	5%	RMC1/16 151JATP	J24185151		1-	A	F4
T 1001	BALUN TRANSFOMERS				#617DB-1714=PH3	L0190271		1-	A	C4
T 1002	BALUN TRANSFOMERS				#617DB-1714=PH3	L0190271		1-	A	D4
T 1003	BALUN TRANSFOMERS				#617DB-1714=PH3	L0190271		1-	A	C4
T 1004	BALUN TRANSFOMERS				#617DB-1714=PH3	L0190271		1-	A	C3
T 1005	BALUN TRANSFOMERS				#617DB-1714=PH3	L0190271		1-	A	C3
T 1006	BALUN TRANSFOMERS				#617DB-1714=PH3	L0190271		1-	A	D3
TC1001	TRIMMER CAP.	6pF			ECR-KN006A61X 6P	K91000225		1-	A	F4
TC1002	TRIMMER CAP.	3pF			ECR-KN003A61X 3P	K91000264		1-	A	E3
TC1003	TRIMMER CAP.	10pF			ECR-KN010C61X	K91000226		1-	A	F3
TH1001	THERMISTOR				TBPS1R104K475H5Q	G9090069		1-	A	G3
TP1004	CHECK TERMINAL				RCT00000C	Q5000103		1-	A	C4
VR1001	POT.	100k			EVN-5ESX50B15	J51811104		1-	A	E2
VR1002	POT.	10k			EVN-5ESX50B14	J51811103		1-	A	E2
VR1003	POT.	100k			EVN-5ESX50B15	J51811104		1-	A	F2
VR1004	POT.	50k			EVN-5ESX50B54	J51811503		1-	A	G2
X 1001	XTAL DSX531S	29.95MHz			DSX531S 29.950MHZ	H0103316		1-	A	G3
X 1002	XTAL TOP-B	21.85MHz			21.85000MHZ	H0103270		1-	A	I3
XF1001	XTAL FILTER				UM-5 22.300MHZ	H1102393		1-	A	D3
XF1002	XTAL FILTER				UM-5 22.300MHZ	H1102393		1-	A	E3
XF1003	XTAL FILTER				1Q30413BD1	H1102396		1-	A	E5
XF1004	XTAL FILTER				1Q30413BD1	H1102396		1-	A	E5
	SHIELD CASE VCO				(VCO2)	RA0752700		1-		
	SHIELD					RA0751200		1-		
	LEAF SPRING					R0140031		1-		
	SHIELD CASE COVER					RA0818800		1-		
	SHIELD PLATE					RA0818900		1-		
	GASKET				L=20	RA0797100		1-		

RF Unit

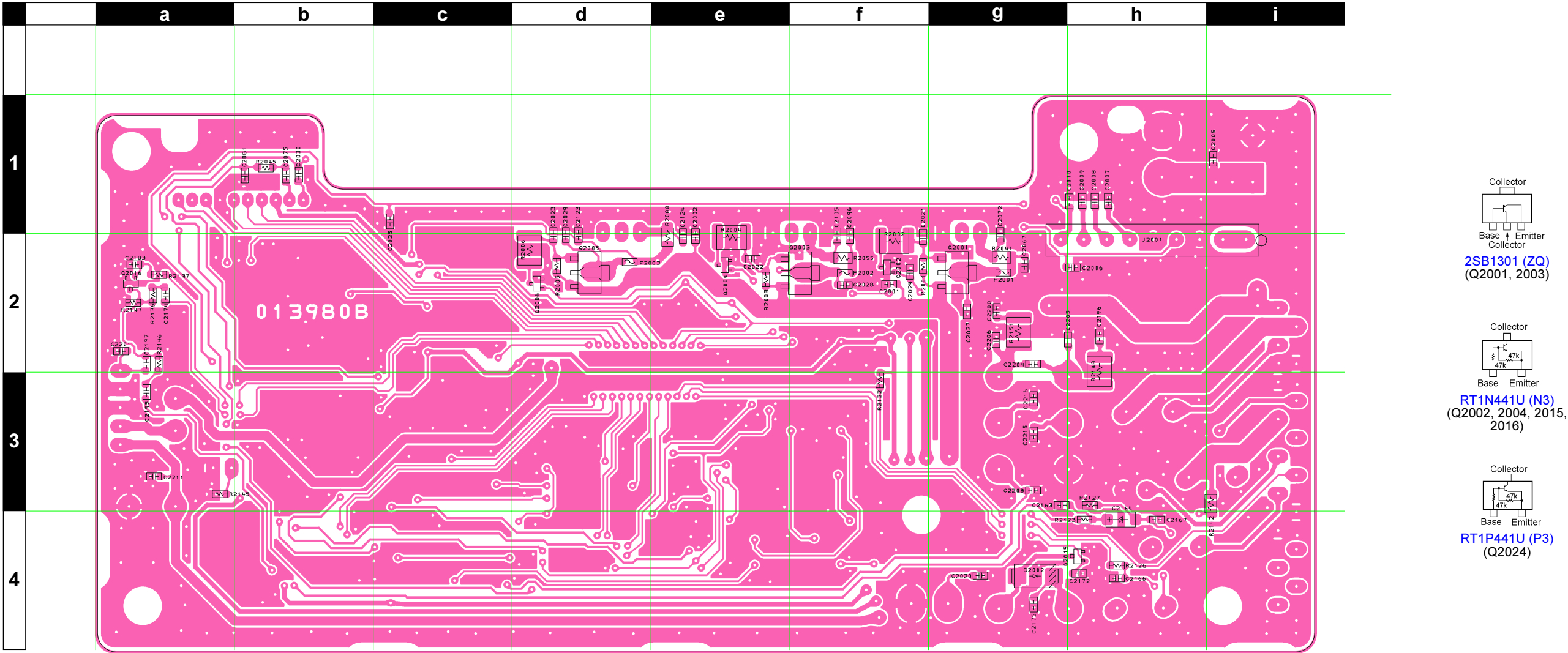
Note





AF Unit

Parts Layout (Side B)



REF	DESCRIPTION	VALUE	V/W	TOL.	MFR'S DESIG	VXSTD P/N	VERS.	LOT	SIDE	LAY ADR
PCB with Components						CB3019001	USA			
Printed Circuit Board						FR013980C		1-		
					AM014N000					
C 2004	AL.ELECTRO.CAP.	2200uF	25V		RE3-25V222M6#	K40149055		1-	A	A1
C 2020	CHIP CAP.	0.001uF	50V	B	GRM188B11H102KA01D	K22174821		1-	B	g4
C 2021	CHIP CAP.	0.1uF	25V	F	GRM39F104Z25PT	K22145001		1-	B	f2
C 2022	CHIP CAP.	0.1uF	25V	F	GRM39F104Z25PT	K22145001		1-	B	e2
C 2027	CHIP CAP.	0.1uF	25V	F	GRM39F104Z25PT	K22145001		1-	B	g2
C 2028	CHIP CAP.	0.1uF	25V	F	GRM39F104Z25PT	K22145001		1-	B	f2
C 2030	CHIP CAP.	1uF	10V	F	GRM188F11A105ZA01D	K22105001		1-	B	b1
C 2034	CHIP CAP.	0.1uF	16V	B	GRM188B11C104KA01D	K22124805		1-	A	G3
C 2038	CHIP CAP.	1uF	10V	F	GRM188F11A105ZA01D	K22105001		1-	A	F4
C 2039	CHIP CAP.	0.0047uF	50V	B	GRM188B11H472KA01D	K22174833		1-	A	G3
C 2040	CHIP TA.CAP.	10uF	10V		TEMSVA1A106M-8R	K78100028		1-	A	G2
C 2041	CHIP CAP.	0.001uF	50V	B	GRM188B11H102KA01D	K22174821		1-	A	G2
C 2042	CHIP CAP.	0.0068uF	50V	B	GRM188B11H682KA01D	K22174834	EUROPE	1-	A	G1
C 2043	CHIP CAP.	0.0022uF	50V	B	GRM188B11H222KA01D	K22174822	EUROPE	1-	A	G1
C 2044	CHIP CAP.	0.1uF	16V	B	GRM188B11C104KA01D	K22124805	EUROPE	1-	A	G1
C 2045	CHIP TA.CAP.	10uF	10V		TEMSVA1A106M-8R	K78100028		1-	A	H2
C 2046	CHIP CAP.	0.01uF	50V	B	GRM188B11H103KA01D	K22174823		1-	A	G3
C 2047	CHIP CAP.	820pF	50V	B	GRM188B11H821KA01D	K22174808		1-	A	G3
C 2048	CHIP CAP.	0.1uF	16V	B	GRM188B11C104KA01D	K22124805		1-	A	H2
C 2049	CHIP CAP.	0.1uF	16V	B	GRM188B11C104KA01D	K22124805	EUROPE	1-	A	F2
C 2050	CHIP CAP.	0.1uF	16V	B	GRM188B11C104KA01D	K22124805		1-	A	H2
C 2052	CHIP CAP.	0.0056uF	50V	B	GRM188B11H562KA01D	K22174818		1-	A	G2
C 2055	CHIP CAP.	0.1uF	16V	B	GRM188B11C104KA01D	K22124805		1-	A	G3
C 2057	CHIP CAP.	0.01uF	50V	B	GRM188B11H103KA01D	K22174823		1-	A	F3
C 2059	FILM CAP.	0.027uF	16V		ECHU1C273JX5	K57120041	EUROPE	1-	A	F2
C 2061	CHIP CAP.	15pF	50V	CH	GRM1882C1H150JA01D	K22174215		1-	A	G2
C 2062	CHIP TA.CAP.	10uF	10V		TEMSVA1A106M-8R	K78100028		1-	A	H2
C 2063	CHIP CAP.	15pF	50V	CH	GRM1882C1H150JA01D	K22174215		1-	A	H2
C 2065	CHIP TA.CAP.	10uF	10V		TEMSVA1A106M-8R	K78100028	EUROPE	1-	A	G2
C 2068	CHIP CAP.	1uF	10V	F	GRM188F11A105ZA01D	K22105001		1-	A	G2
C 2073	CHIP CAP.	0.001uF	50V	B	GRM188B11H102KA01D	K22174821		1-	A	H2
C 2075	CHIP CAP.	1uF	10V	F	GRM188F11A105ZA01D	K22105001		1-	B	b1
C 2077	CHIP CAP.	1uF	10V	F	GRM188F11A105ZA01D	K22105001		1-	A	H2
C 2081	CHIP CAP.	0.1uF	16V	B	GRM188B11C104KA01D	K22124805		1-	B	b1
C 2082	CHIP CAP.	0.0068uF	50V	B	GRM188B11H682KA01D	K22174834		1-	A	H2
C 2085	CHIP CAP.	0.1uF	16V	B	GRM188B11C104KA01D	K22124805		1-	A	H3
C 2087	CHIP CAP.	1uF	10V	F	GRM188F11A105ZA01D	K22105001		1-	A	F4
C 2088	CHIP CAP.	1uF	10V	F	GRM188F11A105ZA01D	K22105001		1-	A	D3
C 2090	CHIP CAP.	1uF	10V	F	GRM188F11A105ZA01D	K22105001		1-	A	D3
C 2092	CHIP CAP.	0.047uF	16V	B	GRM39B473K16PT	K22124804		1-	A	H3
C 2093	CHIP CAP.	0.001uF	50V	B	GRM188B11H102KA01D	K22174821		1-	A	D4
C 2095	CHIP CAP.	1uF	10V	F	GRM188F11A105ZA01D	K22105001		1-	A	H2
C 2097	CHIP CAP.	0.001uF	50V	B	GRM188B11H102KA01D	K22174821		1-	A	D4
C 2099	CHIP TA.CAP.	10uF	10V		TEMSVA1A106M-8R	K78100028		1-	A	D4
C 2100	CHIP CAP.	330pF	50V	B	GRM188B11H331KD01D	K22174820		1-	A	H2
C 2101	CHIP CAP.	0.0056uF	50V	B	GRM188B11H562KA01D	K22174818		1-	A	H2
C 2103	CHIP CAP.	0.1uF	16V	B	GRM188B11C104KA01D	K22124805		1-	A	D4
C 2106	CHIP CAP.	0.1uF	16V	B	GRM188B11C104KA01D	K22124805		1-	A	H2
C 2109	CHIP CAP.	15pF	50V	CH	GRM1882C1H150JA01D	K22174215		1-	A	H2
C 2111	CHIP TA.CAP.	10uF	10V		TEMSVA1A106M-8R	K78100028		1-	A	G3
C 2113	CHIP CAP.	0.0027uF	50V	B	GRM188B11H272KA01D	K22174814		1-	A	H3
C 2114	CHIP CAP.	0.1uF	16V	B	GRM188B11C104KA01D	K22124805		1-	A	H3
C 2117	CHIP CAP.	15pF	50V	CH	GRM1882C1H150JA01D	K22174215		1-	A	E4
C 2118	CHIP CAP.	15pF	50V	CH	GRM1882C1H150JA01D	K22174215		1-	A	E3
C 2119	CHIP CAP.	15pF	50V	CH	GRM1882C1H150JA01D	K22174215		1-	A	D3
C 2120	CHIP CAP.	15pF	50V	CH	GRM1882C1H150JA01D	K22174215		1-	A	D4
C 2121	CHIP CAP.	0.001uF	50V	B	GRM188B11H102KA01D	K22174809		1-	A	G3
C 2126	CHIP CAP.	0.001uF	50V	B	GRM188B11H102KA01D	K22174821		1-	A	D2
C 2127	CHIP CAP.	1uF	10V	F	GRM188F11A105ZA01D	K22105001		1-	A	E4
C 2128	CHIP CAP.	1uF	10V	F	GRM188F11A105ZA01D	K22105001		1-	A	E4
C 2129	CHIP CAP.	1uF	10V	F	GRM188F11A105ZA01D	K22105001		1-	A	E4
C 2130	CHIP CAP.	1uF	10V	F	GRM188F11A105ZA01D	K22105001		1-	A	E4
C 2131	CHIP CAP.	1uF	10V	F	GRM188F11A105ZA01D	K22105001		1-	A	D2
C 2132	CHIP CAP.	1uF	10V	F	GRM188F11A105ZA01D	K22105001		1-	A	D2
C 2133	CHIP CAP.	1uF	10V	F	GRM188F11A105ZA01D	K22105001		1-	A	D3
C 2134	CHIP CAP.	1uF	10V	F	GRM188F11A105ZA01D	K22105001		1-	A	D3
C 2135	CHIP CAP.	1uF	10V	F	GRM188F11A105ZA01D	K22105001		1-	A	E3
C 2136	CHIP CAP.	1uF	10V	F	GRM188F11A105ZA01D	K22105001		1-	A	F4
C 2137	CHIP CAP.	0.1uF	16V	B	GRM188B11C104KA01D	K22124805		1-	A	D2
C 2138	CHIP CAP.	0.1uF	16V	B	GRM188B11C104KA01D	K22124805		1-	A	F3
C 2142	CHIP CAP.	1uF	10V	F	GRM188F11A105ZA01D	K22105001		1-	A	H3

AF Unit

Parts List

REF	DESCRIPTION	VALUE	V/W	TOL.	MFR'S DESIG	VXSTD P/N	VERS.	LOT	SIDE	LAY ADR
C 2143	CHIP TA.CAP.	10uF	10V		TEMSVA1A106M-8R	K78100028		1-	A	F3
C 2144	CHIP CAP.	0.1uF	16V	B	GRM188B11C104KA01D	K22124805		1-	A	D2
C 2145	CHIP TA.CAP.	10uF	10V		TEMSVA1A106M-8R	K78100028		1-	A	F4
C 2146	CHIP CAP.	0.001uF	50V	B	GRM188B11H102KA01D	K22174821		1-	A	F4
C 2147	CHIP TA.CAP.	10uF	10V		TEMSVA1A106M-8R	K78100028		1-	A	F3
C 2148	CHIP TA.CAP.	10uF	6.3V		TEMSVA0J106M-8R	K78080027		1-	A	G4
C 2149	CHIP CAP.	1uF	10V	F	GRM188F11A105ZA01D	K22105001		1-	A	D3
C 2150	CHIP CAP.	1uF	10V	F	GRM188F11A105ZA01D	K22105001		1-	A	D3
C 2151	CHIP CAP.	1uF	10V	F	GRM188F11A105ZA01D	K22105001		1-	A	D3
C 2152	CHIP CAP.	0.001uF	50V	B	GRM188B11H102KA01D	K22174821		1-	A	G3
C 2154	CHIP CAP.	1uF	10V	F	GRM188F11A105ZA01D	K22105001		1-	A	D3
C 2155	CHIP CAP.	1uF	10V	F	GRM188F11A105ZA01D	K22105001		1-	A	E3
C 2156	CHIP CAP.	1uF	10V	F	GRM188F11A105ZA01D	K22105001		1-	A	E4
C 2157	CHIP CAP.	0.001uF	50V	B	GRM188B11H102KA01D	K22174821		1-	A	F3
C 2158	CHIP CAP.	0.1uF	16V	B	GRM188B11C104KA01D	K22124805		1-	A	E3
C 2159	CHIP CAP.	0.001uF	50V	B	GRM188B11H102KA01D	K22174821		1-	A	F4
C 2160	CHIP CAP.	0.1uF	16V	B	GRM188B11C104KA01D	K22124805		1-	A	F3
C 2162	CHIP CAP.	0.1uF	16V	B	GRM188B11C104KA01D	K22124805		1-	A	F4
C 2164	CHIP TA.CAP.	1uF	25V		TEMSVA1E105M-8R	K78140013		1-	B	h4
C 2165	CHIP CAP.	0.1uF	16V	B	GRM188B11C104KA01D	K22124805		1-	A	F3
C 2166	CHIP CAP.	0.1uF	16V	B	GRM188B11C104KA01D	K22124805		1-	B	h4
C 2168	CHIP CAP.	0.001uF	50V	B	GRM188B11H102KA01D	K22174821		1-	A	G4
C 2169	CHIP CAP.	0.1uF	16V	B	GRM188B11C104KA01D	K22124805		1-	A	G3
C 2170	CHIP TA.CAP.	10uF	6.3V		TEMSVA0J106M-8R	K78080027		1-	A	G4
C 2171	AL.ELECTRO.CAP.	100uF	25V		RE2-25V101MMA-T2	K46140005		1-	A	B4
C 2173	CHIP CAP.	0.1uF	16V	B	GRM188B11C104KA01D	K22124805		1-	A	G4
C 2174	CHIP CAP.	0.1uF	16V	B	GRM188B11C104KA01D	K22124805		1-	B	a2
C 2176	CHIP CAP.	15pF	50V	CH	GRM1882C1H150JA01D	K22174215		1-	A	G3
C 2177	CHIP CAP.	0.001uF	50V	B	GRM188B11H102KA01D	K22174821		1-	A	G4
C 2178	AL.ELECTRO.CAP.	100uF	25V		RE2-25V101MMA-T2	K46140005		1-	A	A4
C 2179	CHIP CAP.	15pF	50V	CH	GRM1882C1H150JA01D	K22174215		1-	A	G4
C 2180	CHIP CAP.	0.001uF	50V	B	GRM188B11H102KA01D	K22174821		1-	A	H4
C 2181	CHIP CAP.	0.001uF	50V	B	GRM188B11H102KA01D	K22174821		1-	A	H3
C 2182	AL.ELECTRO.CAP.	47uF	25V		RC2-25V470MF1#	K40149023		1-	A	B3
C 2183	CHIP CAP.	1uF	10V	F	GRM188F11A105ZA01D	K22105001		1-	B	a2
C 2184	CHIP CAP.	0.1uF	16V	B	GRM188B11C104KA01D	K22124805		1-	A	H4
C 2185	CHIP CAP.	0.1uF	16V	B	GRM188B11C104KA01D	K22124805		1-	A	H3
C 2188	CHIP TA.CAP.	10uF	10V		TEMSVA1A106M-8R	K78100028		1-	A	H3
C 2189	AL.ELECTRO.CAP.	220uF	25V		RE2-25V221MMA-T2	K46140006		1-	A	A3
C 2190	CHIP CAP.	0.001uF	50V	B	GRM188B11H102KA01D	K22174821		1-	A	A3
C 2191	CHIP CAP.	1uF	10V	F	GRM188F11A105ZA01D	K22105001		1-	A	G4
C 2192	CHIP CAP.	1uF	10V	F	GRM188F11A105ZA01D	K22105001		1-	A	G4
C 2193	AL.ELECTRO.CAP.	100uF	10V		RE2-10V101MMA	K40109024		1-	A	H3
C 2194	AL.ELECTRO.CAP.	220uF	25V		RE2-25V221MMA-T2	K46140006		1-	A	B3
C 2195	CHIP CAP.	1uF	10V	F	GRM188F11A105ZA01D	K22105001		1-	B	a3
C 2196	CHIP CAP.	0.022uF	25V	B	GRM39B223K25PT	K22144807		1-	B	h2
C 2197	CHIP CAP.	1uF	10V	F	GRM188F11A105ZA01D	K22105001		1-	B	a2
C 2199	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	A	H4
C 2200	CHIP CAP.	0.022uF	25V	B	GRM39B223K25PT	K22144807		1-	B	g2
C 2201	CHIP CAP.	0.001uF	50V	B	GRM188B11H102KA01D	K22174821		1-	B	a2
C 2203	CHIP CAP.	0.1uF	16V	B	GRM188B11C104KA01D	K22124805		1-	A	H4
C 2204	CHIP CAP.	0.001uF	50V	B	GRM188B11H102KA01D	K22174821		1-	B	g2
C 2207	CHIP CAP.	0.033uF	16V	R	GRM188R11C333KA01D	K22124801		1-	A	H4
C 2211	CHIP CAP.	0.001uF	50V	B	GRM188B11H102KA01D	K22174821		1-	B	a3
C 2213	AL.ELECTRO.CAP.	470uF	25V		RE3-25V471MH3#	K40149044		1-	A	I3
C 2214	AL.ELECTRO.CAP.	470uF	16V		RE3-16V471MG3#	K40129066		1-	A	I3
C 2217	CHIP CAP.	0.001uF	50V	B	GRM188B11H102KA01D	K22174821		1-	A	I2
C 2218	CHIP CAP.	0.1uF	16V	B	GRM188B11C104KA01D	K22124805		1-	A	F3
D 2001	DIODE				1N5402	G2090778		1-	A	B1
D 2002	DIODE				D1F20-4063	G2070474		1-	B	g4
F 2001	CHIP FUSE	1.25A			FCC16 132ABTP	Q0000109		1-	B	g2
F 2002	CHIP FUSE	1.25A			FCC16 132ABTP	Q0000109		1-	B	f2
J 2001	CONNECTOR				6065-09Z049-PT1	P0091442		1-	B	i2
J 2002	CONNECTOR				PI28A10M	P0091357		1-	A	H1
J 2003	CONNECTOR				B3B-PH-K-S	P0090397		1-	A	C1
J 2004	CONNECTOR				B3B-PH-K-S	P0090397		1-	A	D1
J 2005	CONNECTOR				28FLT-SM1-TB	P1091149		1-	A	E2
J 2006	CONNECTOR				B2B-PH-K-S	P0090396		1-	A	E1
Q 2001	TRANSISTOR				2SB1301-T2 ZQ	G3213017Q		1-	B	g2
Q 2002	TRANSISTOR				RT1N441U-T11-1	G3070247		1-	B	f2
Q 2003	TRANSISTOR				2SB1301-T2 ZQ	G3213017Q		1-	B	f2
Q 2004	TRANSISTOR				RT1N441U-T11-1	G3070247		1-	B	e2
Q 2007	TRANSISTOR				2SC4154-T11-1E	G3341548E		1-	A	G3

REF	DESCRIPTION	VALUE	V/W	TOL.	MFR'S DESIG	VXSTD P/N	VERS.	LOT	SIDE	LAY ADR
Q 2008	IC				NJM2211M-TE1	G1092943	EUROPE	1-	A	G2
Q 2009	TRANSISTOR				2SC4154-T11-1E	G3341548E		1-	A	H3
Q 2010	TRANSISTOR				2SC4154-T11-1E	G3341548E		1-	A	G3
Q 2011	IC				CD4066BPWR	G1093865		1-	A	F3
Q 2012	IC				CD4066BPWR	G1093865		1-	A	F4
Q 2013	IC				CD4053BPWR	G1093864		1-	A	D2
Q 2014	IC				TA8225H	G1093878		1-	A	A4
Q 2015	TRANSISTOR				RT1N441U-T11-1	G3070247		1-	B	h4
Q 2016	TRANSISTOR				RT1N441U-T11-1	G3070247		1-	B	a2
Q 2017	IC				M62421FP	G1094102		1-	A	H4
Q 2018	IC				LM2902PWR	G1094009		1-	A	D3
Q 2019	IC				LA4425A	G1092241		1-	A	I3
Q 2020	IC				LM2902PWR	G1094009		1-	A	H2
Q 2023	IC				LM2902PWR	G1094009		1-	A	G4
Q 2024	TRANSISTOR				RT1P441U-T11-1	G3070248		1-		
R 2001	CHIP RES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103	EUROPE	1-	B	f2
R 2002	CHIP RES.	1k	1/4W	5%	RMC1/4 102JATP	J24245102		1-	B	f2
R 2003	CHIP RES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103		1-	B	e2
R 2004	CHIP RES.	1k	1/4W	5%	RMC1/4 102JATP	J24245102		1-	B	e2
R 2009	CHIP RES.	56k	1/16W	5%	RMC1/16 563JATP	J24185563		1-	A	G2
R 2010	CHIP RES.	22k	1/16W	5%	RMC1/16 223JATP	J24185223		1-	A	G3
R 2011	CHIP RES.	33k	1/16W	5%	RMC1/16 333JATP	J24185333		1-	A	G3
R 2012	CHIP RES.	47	1/16W	5%	RMC1/16 470JATP	J24185470		1-	A	G2
R 2013	CHIP RES.	22k	1/16W	5%	RMC1/16 223JATP	J24185223		1-	A	G3
R 2014	CHIP RES.	470	1/16W	5%	RMC1/16 471JATP	J24185471		1-	A	G2
R 2015	CHIP RES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103		1-	A	G2
R 2016	CHIP RES.	22k	1/16W	5%	RMC1/16 223JATP	J24185223		1-	A	G3
R 2017	CHIP RES.	1k	1/16W	1%	RMC1/16 102FTP	J24183102		1-	A	F2
R 2018	CHIP RES.	39k	1/16W	5%	RMC1/16 393JATP	J24185393	EUROPE	1-	A	H2
R 2019	CHIP RES.	470k	1/16W	5%	RMC1/16 474JATP	J24185474		1-	A	G2
R 2020	CHIP RES.	10k	1/16W	1%	RMC1/16 103FTP	J24183103	EUROPE	1-	A	F1
R 2021	CHIP RES.	270k	1/16W	5%	RMC1/16 274JATP	J24185274	EUROPE	1-	A	H2
R 2022	CHIP RES.	330k	1/16W	5%	RMC1/16 334JATP	J24185334		1-	A	G2
R 2023	CHIP RES.	100k	1/16W	5%	RMC1/16 104JATP	J24185104	EUROPE	1-	A	G2
R 2024	CHIP RES.	4.7k	1/16W	5%	RMC1/16 472JATP	J24185472	EUROPE	1-	A	G2
R 2025	CHIP RES.	5.6k	1/16W	5%	RMC1/16 562JATP	J24185562	EUROPE	1-	A	G2
R 2026	CHIP RES.	2.2k	1/16W	5%	RMC1/16 222JATP	J24185222		1-	A	F3
R 2027	CHIP RES.	18k	1/16W	5%	RMC1/16 183JATP	J24185183		1-	A	H2
R 2028	CHIP RES.	10k	1/16W	1%	RMC1/16 103FTP	J24183103		1-	A	F1
R 2029	CHIP RES.	47k	1/16W	5%	RMC1/16 473JATP	J24185473		1-	A	F2
R 2030	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000		1-	A	H2
R 2031	CHIP RES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103		1-	A	H2
R 2032	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000		1-	A	H2
R 2033	CHIP RES.	470k	1/16W	5%	RMC1/16 474JATP	J24185474		1-	A	G2
R 2035	CHIP RES.	100	1/16W	5%	RMC1/16 101JATP	J24185101		1-	A	F3
R 2036	CHIP RES.	220k	1/16W	5%	RMC1/16 224JATP	J24185224		1-	A	G2
R 2037	CHIP RES.	330k	1/16W	5%	RMC1/16 334JATP	J24185334		1-	A	H2
R 2038	CHIP RES.	100	1/16W	5%	RMC1/16 101JATP	J24185101		1-	A	G2
R 2039	CHIP RES.	2.2k	1/16W	5%	RMC1/16 222JATP	J24185222		1-	A	G2
R 2041	CHIP RES.	0	1/10W	5%	RMC1/10T 000J	J24205000	EUROPE	1-	B	g2
R 2042	CHIP RES.	1k	1/16W	5%	RMC1/16 102JATP	J24185102		1-	A	H2
R 2043	CHIP RES.	1k	1/16W	5%	RMC1/16 102JATP	J24185102		1-	A	H2
R 2044	CHIP RES.	0	1/10W	5%	RMC1/10T 000J	J24205000		1-	A	C2
R 2045	CHIP RES.	8.2k	1/16W	5%	RMC1/16 822JATP	J24185822		1-	B	b1
R 2046	CHIP RES.	1k	1/16W	5%	RMC1/16 102JATP	J24185102		1-	A	F4
R 2047	CHIP RES.	4.7k	1/16W	5%	RMC1/16 472JATP	J24185472		1-	A	E3
R 2048	CHIP RES.	8.2k	1/16W	5%	RMC1/16 822JATP	J24185822		1-	A	H2
R 2049	CHIP RES.	47	1/16W	5%	RMC1/16 470JATP	J24185470		1-	A	D4
R 2050	CHIP RES.	39k	1/16W	5%	RMC1/16 393JATP	J24185393		1-	A	H2
R 2051	CHIP RES.	1k	1/16W	5%	RMC1/16 102JATP	J24185102		1-	A	G3
R 2052	CHIP RES.	4.7k	1/16W	5%	RMC1/16 472JATP	J24185472		1-	A	H3
R 2053	CHIP RES.	12k	1/16W	5%	RMC1/16 123JATP	J24185123		1-	A	H2
R 2054	CHIP RES.	39k	1/16W	5%	RMC1/16 393JATP	J24185393		1-	A	H2
R 2055	CHIP RES.	0	1/10W	5%	RMC1/10T 000J	J24205000	EUROPE	1-	B	f2
R 2056	CHIP RES.	120k	1/16W	5%	RMC1/16 124JATP	J24185124		1-	A	H3
R 2057	CHIP RES.	100k	1/16W	5%	RMC1/16 104JATP	J24185104		1-	A	H3
R 2058	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000		1-	A	H2
R 2059	CHIP RES.	470k	1/16W	5%	RMC1/16 474JATP	J24185474		1-	A	H2
R 2060	CHIP RES.	18k	1/16W	5%	RMC1/16 183JATP	J24185183		1-	A	H2
R 2061	CHIP RES.	1k	1/16W	5%	RMC1/16 102JATP	J24185102		1-	A	H3
R 2062	CHIP RES.	560	1/16W	5%	RMC1/16 561JATP	J24185561		1-	A	H3
R 2063	CHIP RES.	150k	1/16W	5%	RMC1/16 154JATP	J24185154		1-	A	E3
R 2064	CHIP RES.	18k	1/16W	5%	RMC1/16 183JATP	J24185183		1-	A	E3

AF Unit

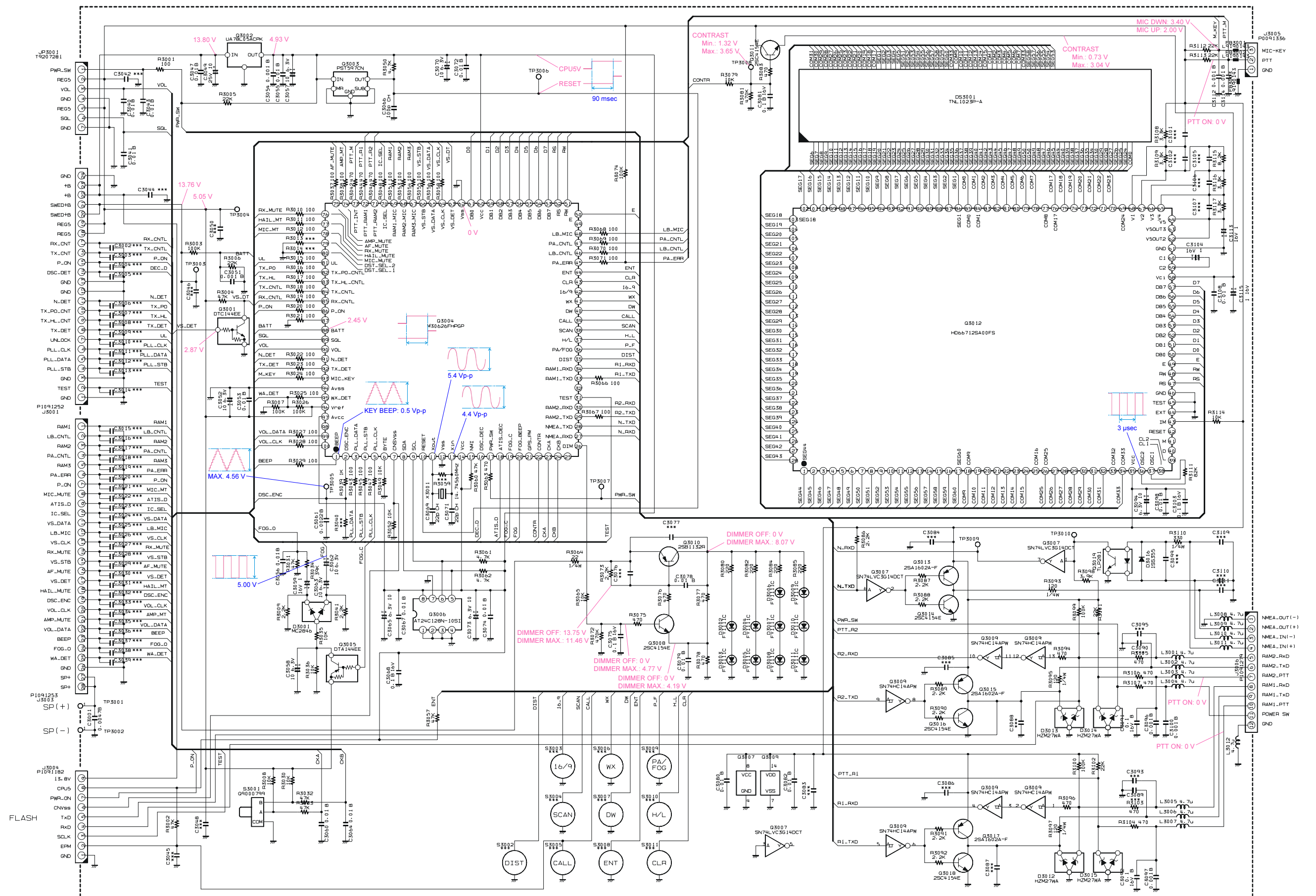
Parts List

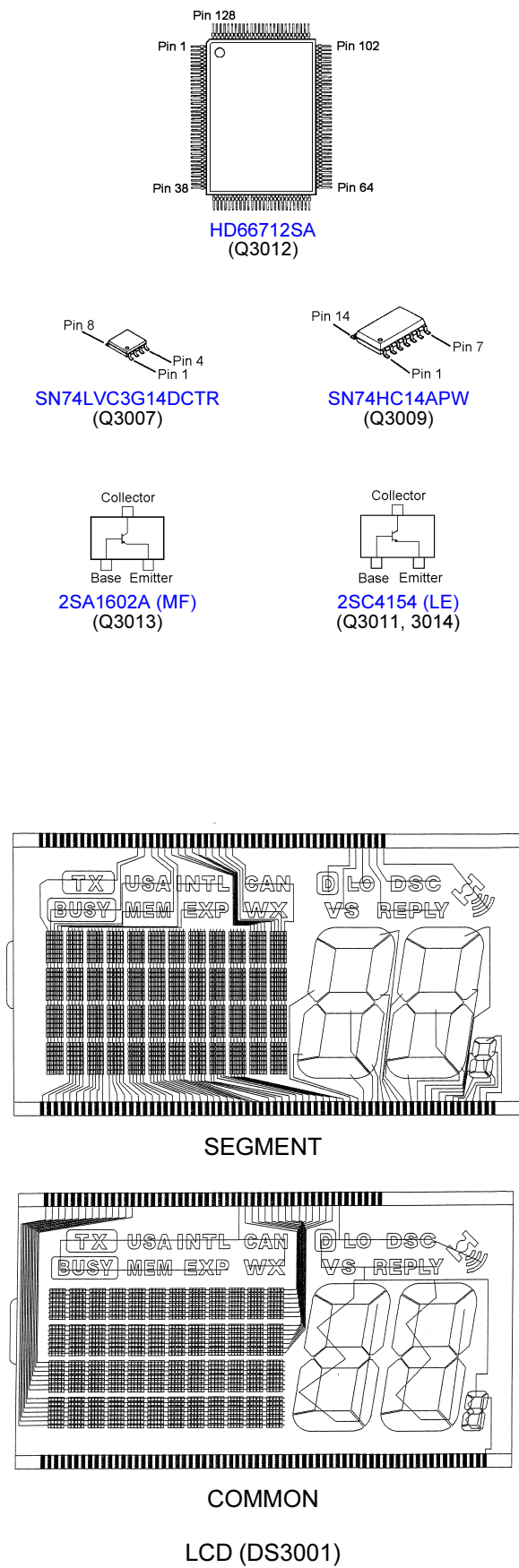
REF	DESCRIPTION	VALUE	V/W	TOL.	MFR'S DESIG	VXSTD P/N	VERS.	LOT	SIDE	LAY ADR
R 2065	CHIP RES.	100k	1/16W	5%	RMC1/16 104JATP	J24185104		1-	A	D4
R 2066	CHIP RES.	150k	1/16W	5%	RMC1/16 154JATP	J24185154		1-	A	D3
R 2067	CHIP RES.	18k	1/16W	5%	RMC1/16 183JATP	J24185183		1-	A	D3
R 2068	CHIP RES.	100k	1/16W	5%	RMC1/16 104JATP	J24185104		1-	A	D4
R 2069	CHIP RES.	150k	1/16W	5%	RMC1/16 154JATP	J24185154		1-	A	D3
R 2070	CHIP RES.	18k	1/16W	5%	RMC1/16 183JATP	J24185183		1-	A	D3
R 2071	CHIP RES.	100k	1/16W	5%	RMC1/16 104JATP	J24185104		1-	A	D4
R 2072	CHIP RES.	150k	1/16W	5%	RMC1/16 154JATP	J24185154		1-	A	D3
R 2073	CHIP RES.	18k	1/16W	5%	RMC1/16 183JATP	J24185183		1-	A	D3
R 2074	CHIP RES.	100k	1/16W	5%	RMC1/16 104JATP	J24185104		1-	A	D4
R 2075	CHIP RES.	22k	1/16W	5%	RMC1/16 223JATP	J24185223		1-	A	H3
R 2077	CHIP RES.	0	1/10W	5%	RMC1/10T 000J	J24205000		1-	A	D2
R 2078	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000		1-	A	G2
R 2079	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000		1-	A	G2
R 2080	CHIP RES.	22k	1/16W	5%	RMC1/16 223JATP	J24185223		1-	A	H3
R 2081	CHIP RES.	2.2k	1/16W	5%	RMC1/16 222JATP	J24185222		1-	A	G2
R 2082	CHIP RES.	1k	1/16W	5%	RMC1/16 102JATP	J24185102		1-	A	H2
R 2083	CHIP RES.	330k	1/16W	5%	RMC1/16 334JATP	J24185334		1-	A	E4
R 2084	CHIP RES.	330k	1/16W	5%	RMC1/16 334JATP	J24185334		1-	A	E3
R 2085	CHIP RES.	330k	1/16W	5%	RMC1/16 334JATP	J24185334		1-	A	D3
R 2086	CHIP RES.	330k	1/16W	5%	RMC1/16 334JATP	J24185334		1-	A	D4
R 2087	CHIP RES.	2.2k	1/16W	5%	RMC1/16 222JATP	J24185222		1-	A	G3
R 2088	CHIP RES.	0	1/10W	5%	RMC1/10T 000J	J24205000		1-	B	e2
R 2089	CHIP RES.	0	1/10W	5%	RMC1/10T 000J	J24205000		1-	A	E2
R 2091	CHIP RES.	47	1/16W	5%	RMC1/16 470JATP	J24185470		1-	A	D2
R 2093	CHIP RES.	1M	1/16W	5%	RMC1/16 105JATP	J24185105		1-	A	E4
R 2094	CHIP RES.	1M	1/16W	5%	RMC1/16 105JATP	J24185105		1-	A	E4
R 2095	CHIP RES.	1M	1/16W	5%	RMC1/16 105JATP	J24185105		1-	A	D2
R 2097	CHIP RES.	1M	1/16W	5%	RMC1/16 105JATP	J24185105		1-	A	E4
R 2098	CHIP RES.	1M	1/16W	5%	RMC1/16 105JATP	J24185105		1-	A	D2
R 2099	CHIP RES.	1M	1/16W	5%	RMC1/16 105JATP	J24185105		1-	A	E4
R 2100	CHIP RES.	1M	1/16W	5%	RMC1/16 105JATP	J24185105		1-	A	E4
R 2101	CHIP RES.	1M	1/16W	5%	RMC1/16 105JATP	J24185105		1-	A	D2
R 2102	CHIP RES.	1M	1/16W	5%	RMC1/16 105JATP	J24185105		1-	A	F4
R 2103	CHIP RES.	1M	1/16W	5%	RMC1/16 105JATP	J24185105		1-	A	E2
R 2104	CHIP RES.	18k	1/16W	5%	RMC1/16 183JATP	J24185183		1-	A	F4
R 2105	CHIP RES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103		1-	A	F4
R 2106	CHIP RES.	2.2k	1/16W	5%	RMC1/16 222JATP	J24185222		1-	A	F4
R 2107	CHIP RES.	1M	1/16W	5%	RMC1/16 105JATP	J24185105		1-	A	E2
R 2108	CHIP RES.	1M	1/16W	5%	RMC1/16 105JATP	J24185105		1-	A	F4
R 2109	CHIP RES.	1M	1/16W	5%	RMC1/16 105JATP	J24185105		1-	A	E3
R 2110	CHIP RES.	5.6k	1/16W	5%	RMC1/16 562JATP	J24185562		1-	A	F4
R 2111	CHIP RES.	1M	1/16W	5%	RMC1/16 105JATP	J24185105		1-	A	F4
R 2112	CHIP RES.	1M	1/16W	5%	RMC1/16 105JATP	J24185105		1-	A	E2
R 2113	CHIP RES.	1M	1/16W	5%	RMC1/16 105JATP	J24185105		1-	A	F4
R 2114	CHIP RES.	1M	1/16W	5%	RMC1/16 105JATP	J24185105		1-	A	E2
R 2115	CHIP RES.	5.6k	1/16W	5%	RMC1/16 562JATP	J24185562		1-	A	F4
R 2116	CHIP RES.	1M	1/16W	5%	RMC1/16 105JATP	J24185105		1-	A	F3
R 2117	CHIP RES.	1M	1/16W	5%	RMC1/16 105JATP	J24185105		1-	A	F4
R 2118	CHIP RES.	1M	1/16W	5%	RMC1/16 105JATP	J24185105		1-	A	E2
R 2119	CHIP RES.	1M	1/16W	5%	RMC1/16 105JATP	J24185105		1-	A	F4
R 2120	CHIP RES.	47	1/16W	5%	RMC1/16 470JATP	J24185470		1-	A	F3
R 2121	CHIP RES.	47	1/16W	5%	RMC1/16 470JATP	J24185470		1-	A	F4
R 2122	CHIP RES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103		1-	B	f3
R 2123	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000		1-	B	h4
R 2124	CHIP RES.	47	1/16W	5%	RMC1/16 470JATP	J24185470		1-	A	G4
R 2125	CHIP RES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103		1-	A	G3
R 2126	CHIP RES.	220	1/16W	5%	RMC1/16 221JATP	J24185221		1-	B	h4
R 2127	CHIP RES.	33k	1/16W	5%	RMC1/16 333JATP	J24185333		1-	B	h3
R 2128	CHIP RES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103		1-	A	G3
R 2129	CHIP RES.	1k	1/16W	5%	RMC1/16 102JATP	J24185102		1-	A	G3
R 2130	CHIP RES.	68	1/10W	5%	RMC1/10T 680J	J24205680		1-	A	B4
R 2131	CHIP RES.	47	1/16W	5%	RMC1/16 470JATP	J24185470		1-	A	I4
R 2132	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000		1-	A	G4
R 2133	CHIP RES.	330k	1/16W	5%	RMC1/16 334JATP	J24185334		1-	A	G3
R 2134	CHIP RES.	47	1/16W	5%	RMC1/16 470JATP	J24185470		1-	A	H3
R 2135	CHIP RES.	68	1/10W	5%	RMC1/10T 680J	J24205680		1-	A	A4
R 2136	CHIP RES.	470k	1/16W	5%	RMC1/16 474JATP	J24185474		1-	B	a2
R 2137	CHIP RES.	22k	1/16W	5%	RMC1/16 223JATP	J24185223		1-	B	a2
R 2138	CHIP RES.	27k	1/16W	5%	RMC1/16 273JATP	J24185273		1-	A	G4
R 2139	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000		1-	A	G4
R 2140	CHIP RES.	5.6k	1/16W	5%	RMC1/16 562JATP	J24185562		1-	A	G3
R 2141	CHIP RES.	1k	1/16W	5%	RMC1/16 102JATP	J24185102		1-	A	G4

REF	DESCRIPTION	VALUE	V/W	TOL.	MFR'S DESIG	VXSTD P/N	VERS.	LOT	SIDE	LAY ADR
R 2142	CHIP RES.	3.3k	1/10W	5%	RMC1/10T 332J	J24205332		1-	B	i3
R 2143	CHIP RES.	3.3k	1/10W	5%	RMC1/10T 332J	J24205332		1-	A	B3
R 2144	CHIP RES.	100k	1/16W	5%	RMC1/16 104JATP	J24185104		1-	A	H4
R 2145	CHIP RES.	100k	1/16W	5%	RMC1/16 104JATP	J24185104		1-	B	a3
R 2146	CHIP RES.	15k	1/16W	5%	RMC1/16 153JATP	J24185153		1-	B	a2
R 2147	CHIP RES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103		1-	B	a2
R 2148	CHIP RES.	1	1/4W	5%	RMC1/4 1R0JATP	J24245010		1-	B	h2
R 2149	CHIP RES.	100	1/16W	5%	RMC1/16 101JATP	J24185101		1-	A	G4
R 2150	CHIP RES.	100	1/16W	5%	RMC1/16 101JATP	J24185101		1-	A	H4
R 2151	CHIP RES.	1	1/4W	5%	RMC1/4 1R0JATP	J24245010		1-	B	g2
R 2153	CHIP RES.	1.8k	1/16W	5%	RMC1/16 182JATP	J24185182		1-	A	H4
R 2154	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000		1-	A	H2
R 2155	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000		1-	A	G3
R 2156	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000		1-	A	G4
RL2001	RELAY		DC12V		G2RL-2 DC12V	M1190178		1-	A	C4

AF Unit

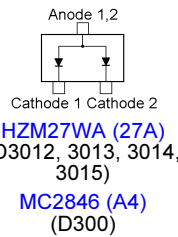
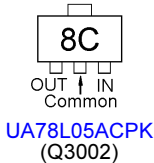
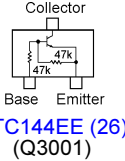
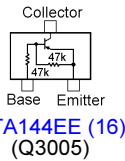
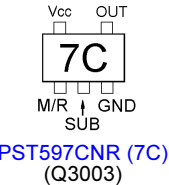
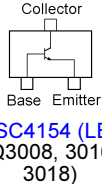
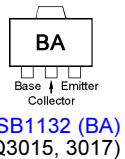
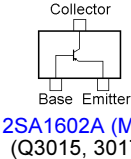
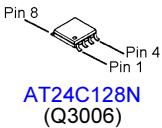
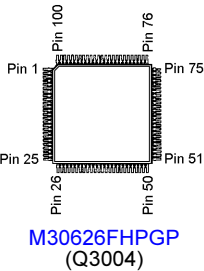
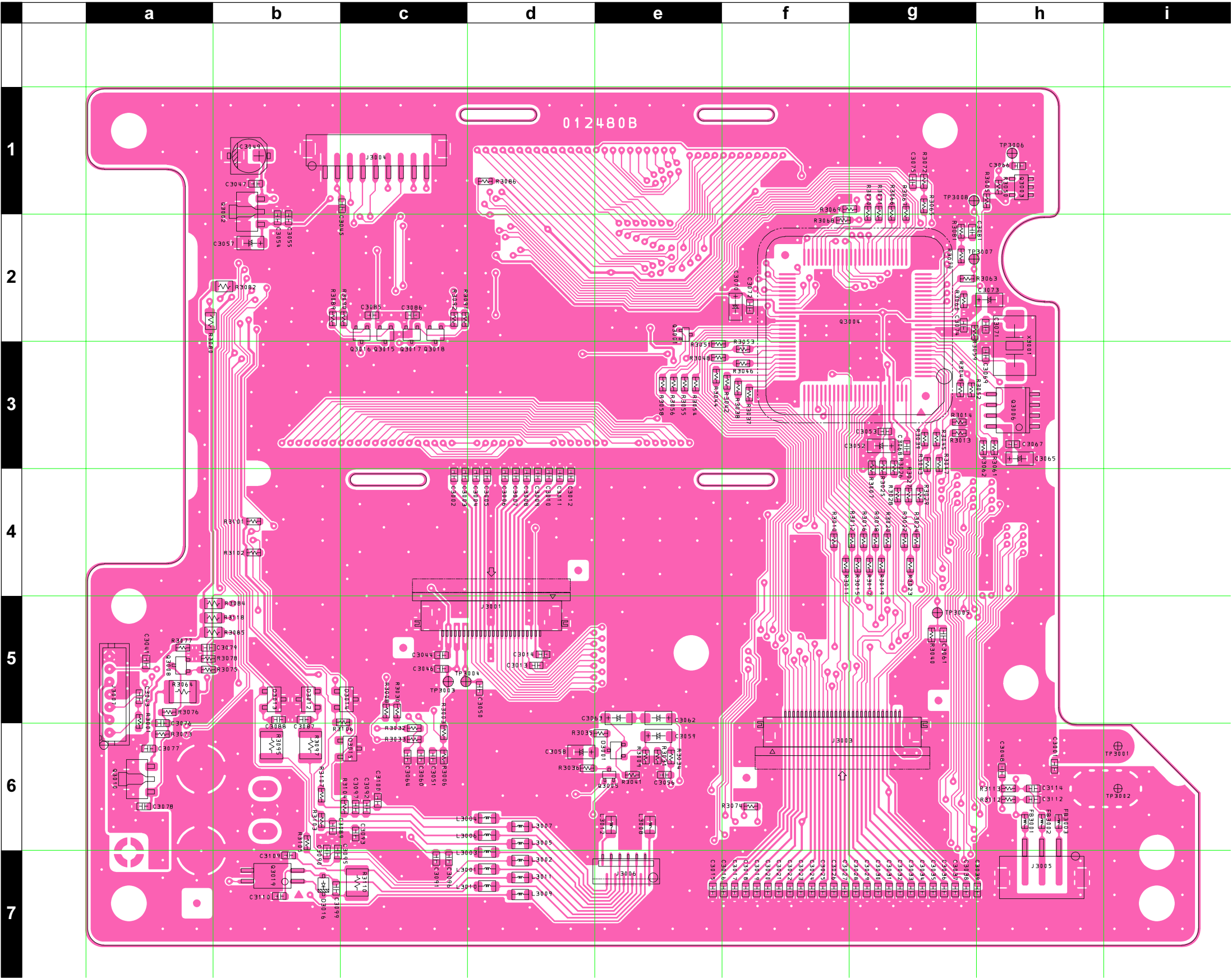
Note





CNTL Unit

Parts Layout (Side B)



Parts List

REF	DESCRIPTION	VALUE	V/W	TOL.	MFR'S DESIG	VXSTD P/N	VERS.	LOT	SIDE	LAY ADR
PCB with Components						CS1871001				
Printed Circuit Board						FR012480C		1-		
					AM014N000					
C 3001	CHIP CAP.	0.0047uF	50V	B	GRM188B11H472KA01D	K22174833		1-	B	h6
C 3040	CHIP CAP.	0.01uF	50V	B	GRM188B11H103KA01D	K22174823		1-	A	l5
C 3041	CHIP CAP.	0.01uF	50V	B	GRM188B11H103KA01D	K22174823		1-	B	a5
C 3043	CHIP CAP.	0.01uF	50V	B	GRM188B11H103KA01D	K22174823		1-	B	a5
C 3047	CHIP CAP.	0.01uF	50V	B	GRM188B11H103KA01D	K22174823		1-	B	b1
C 3049	AL.ELECTRO.CAP.	10uF	25V		EMVA250ADA100MD55G	K48140014		1-	B	b1
C 3051	CHIP CAP.	0.001uF	50V	B	GRM188B11H102KA01D	K22174809		1-	B	c6
C 3052	CHIP TA.CAP.	10uF	6.3V		TEMSVA0J106M-8R	K78080027		1-	B	g3
C 3053	CHIP CAP.	0.01uF	50V	B	GRM188B11H103KA01D	K22174823		1-	B	g3
C 3054	CHIP CAP.	0.001uF	50V	B	GRM188B11H102KA01D	K22174821		1-	B	b2
C 3055	CHIP CAP.	0.01uF	50V	B	GRM188B11H103KA01D	K22174823		1-	B	b2
C 3056	CHIP CAP.	0.01uF	50V	B	GRM188B11H103KA01D	K22174823		1-	B	e6
C 3057	CHIP TA.CAP.	10uF	6.3V		TEMSVA0J106M-8R	K78080027		1-	B	b2
C 3058	CHIP TA.CAP.	10uF	6.3V		TEMSVA0J106M-8R	K78080027		1-	B	d6
C 3059	CHIP TA.CAP.	1uF	16V		TESVA1C105M1-8R	K78120009		1-	B	e6
C 3060	CHIP CAP.	0.01uF	50V	B	GRM188B11H103KA01D	K22174823		1-	B	c6
C 3061	CHIP CAP.	0.0022uF	50V	B	GRM188B11H222KA01D	K22174822		1-	B	g5
C 3062	CHIP TA.CAP.	10uF	6.3V		TEMSVA0J106M-8R	K78080027		1-	B	e5
C 3063	CHIP TA.CAP.	10uF	6.3V		TEMSVA0J106M-8R	K78080027		1-	B	e5
C 3064	CHIP CAP.	0.01uF	50V	B	GRM188B11H103KA01D	K22174823		1-	B	c6
C 3065	CHIP TA.CAP.	10uF	6.3V		TEMSVA0J106M-8R	K78080027		1-	B	h3
C 3066	CHIP CAP.	100pF	50V	CH	GRM1882C1H101JA01D	K22174235		1-	B	h1
C 3067	CHIP CAP.	0.01uF	50V	B	GRM188B11H103KA01D	K22174823		1-	B	h3
C 3068	CHIP CAP.	0.1uF	16V	B	GRM188B11C104KA01D	K22124805		1-	B	g3
C 3069	CHIP CAP.	22pF	50V	CH	GRM1882C1H220JA01D	K22174219		1-	B	h3
C 3070	CHIP TA.CAP.	10uF	6.3V		TEMSVA0J106M-8R	K78080027		1-	B	f2
C 3071	CHIP CAP.	22pF	50V	CH	GRM1882C1H220JA01D	K22174219		1-	B	h2
C 3072	CHIP CAP.	0.01uF	50V	B	GRM188B11H103KA01D	K22174823		1-	B	f2
C 3073	CHIP TA.CAP.	10uF	6.3V		TEMSVA0J106M-8R	K78080027		1-	B	h2
C 3074	CHIP CAP.	0.01uF	50V	B	GRM188B11H103KA01D	K22174823		1-	B	g2
C 3075	CHIP CAP.	0.1uF	16V	B	GRM188B11C104KA01D	K22124805		1-	B	g1
C 3078	CHIP CAP.	0.01uF	50V	B	GRM188B11H103KA01D	K22174823		1-	B	a6
C 3079	CHIP CAP.	0.01uF	50V	B	GRM188B11H103KA01D	K22174823		1-	B	a5
C 3080	CHIP CAP.	0.01uF	50V	B	GRM188B11H103KA01D	K22174823		1-	A	l5
C 3081	CHIP CAP.	0.1uF	16V	B	GRM188B11C104KA01D	K22124805		1-	B	g2
C 3082	CHIP CAP.	0.01uF	50V	B	GRM188B11H103KA01D	K22174823		1-	A	G2
C 3091	CHIP CAP.	0.1uF	16V	B	GRM188B11C104KA01D	K22124805		1-	B	c7
C 3092	CHIP CAP.	0.1uF	16V	B	GRM188B11C104KA01D	K22124805		1-	B	c6
C 3094	CHIP TA.CAP.	10uF	6.3V		TEMSVA0J106M-8R	K78080027		1-	A	D1
C 3096	CHIP CAP.	0.001uF	50V	B	GRM188B11H102KA01D	K22174821		1-	B	c7
C 3097	CHIP CAP.	0.001uF	50V	B	GRM188B11H102KA01D	K22174821		1-	B	c6
C 3098	CHIP CAP.	0.01uF	50V	B	GRM188B11H103KA01D	K22174823		1-	A	D1
C 3100	CHIP CAP.	0.001uF	50V	B	GRM188B11H102KA01D	K22174821		1-	B	c6
C 3103	CHIP CAP.	0.1uF	16V	B	GRM188B11C104KA01D	K22124805		1-	A	D1
C 3104	CHIP TA.CAP.	1uF	16V		TESVA1C105M1-8R	K78120009		1-	A	C2
C 3108	CHIP CAP.	0.01uF	50V	B	GRM188B11H103KA01D	K22174823		1-	A	C2
C 3112	CHIP CAP.	0.001uF	50V	B	GRM188B11H102KA01D	K22174809		1-	B	h6
C 3113	CHIP TA.CAP.	1uF	16V		TESVA1C105M1-8R	K78120009		1-	A	C3
C 3114	CHIP CAP.	0.001uF	50V	B	GRM188B11H102KA01D	K22174809		1-	B	h6
C 3115	CHIP TA.CAP.	1uF	16V		TESVA1C105M1-8R	K78120009		1-	A	C2
D 3001	DIODE				MC2846-T11-1	G2070702		1-	B	e6
D 3002	LED				FY1111C-722-TR	G2070916		1-	A	H2
D 3003	LED				FY1111C-722-TR	G2070916		1-	A	H3
D 3004	LED				FY1111C-722-TR	G2070916		1-	A	H2
D 3005	LED				FY1111C-722-TR	G2070916		1-	A	H1
D 3006	LED				FY1111C-722-TR	G2070916		1-	A	G4
D 3007	LED				FY1111C-722-TR	G2070916		1-	A	E4
D 3008	LED				FY1111C-722-TR	G2070916		1-	A	F6
D 3009	LED				FY1111C-722-TR	G2070916		1-	A	E6
D 3010	LED				FY1111C-722-TR	G2070916		1-	A	C6
D 3011	LED				FY1111C-722-TR	G2070916		1-	A	B6
D 3012	DIODE				HZM27WA-TR	G2070530		1-	B	b5
D 3013	DIODE				HZM27WA-TR	G2070530		1-	B	b5
D 3014	DIODE				HZM27WA-TR	G2070530		1-	B	c5
D 3015	DIODE				HZM27WA-TR	G2070530		1-	B	c6
D 3016	DIODE				1SS355 TE-17	G2070470		1-	B	b7
DS3001	LCD				TNL1023P-A	G6090150		1-	A	F2
FB3001	FERRITE BEADS				BLM18BD601SN1D	L9190143		1-	B	h6
FB3002	FERRITE BEADS				BLM18BD601SN1D	L9190143		1-	B	h6
FB3003	FERRITE BEADS				BLM18BD601SN1D	L9190143		1-	B	h6
J 3001	CONNECTOR				52435-2472	P1091275		1-	B	d5

CNTL Unit

Parts List

REF	DESCRIPTION	VALUE	V/W	TOL.	MFR'S DESIG	VXSTD P/N	VERS.	LOT	SIDE	LAY ADR
J 3003	CONNECTOR				52435-2872	P1091276		1-	B	f6
J 3004	CONNECTOR				B9B-ZR-SM3-TF	P0091185		1-	B	c1
J 3005	CONNECTOR				B3B-PH-SM3-TB	P0091336		1-	B	h7
J 3006	CONNECTOR				12FLT-SM1-TB	P1091198		1-	B	e7
J 3007	CONNECTOR				B7B-ZR	P0090649		1-	B	a6
L 3001	M.RFC	4.7uH			LK2125 4R7K-T	L1690327		1-	B	d7
L 3002	M.RFC	4.7uH			LK2125 4R7K-T	L1690327		1-	B	d7
L 3003	M.RFC	4.7uH			LK2125 4R7K-T	L1690327		1-	B	d7
L 3004	M.RFC	4.7uH			LK2125 4R7K-T	L1690327		1-	B	d6
L 3005	M.RFC	4.7uH			LK2125 4R7K-T	L1690327		1-	B	d6
L 3006	M.RFC	4.7uH			LK2125 4R7K-T	L1690327		1-	B	d6
L 3007	M.RFC	4.7uH			LK2125 4R7K-T	L1690327		1-	B	d6
L 3008	M.RFC	4.7uH			LK2125 4R7K-T	L1690327		1-	B	e6
L 3009	M.RFC	4.7uH			LK2125 4R7K-T	L1690327		1-	B	d7
L 3010	M.RFC	4.7uH			LK2125 4R7K-T	L1690327		1-	B	d7
L 3011	M.RFC	4.7uH			LK2125 4R7K-T	L1690327		1-	B	d7
L 3012	M.RFC	4.7uH			LK2125 4R7K-T	L1690327		1-	B	e6
Q 3001	TRANSISTOR				DTC144EE TL	G3070075		1-	B	e2
Q 3002	IC				UA78L05ACPKE6(TAPE)	G1094229		1-	B	b1
Q 3003	IC				PST597CNR	G1092589		1-	B	h1
Q 3004	IC				M30626FHPGP(FLASH)	✖		1-	B	g2
Q 3005	TRANSISTOR				DTA144EE TL	G3070074		1-	B	e6
Q 3006	IC				AT24C128N-10SU-2.7	G1093516		1-	B	h3
Q 3007	IC				SN74LVC3G14DCTR	G1094258		1-	A	H6
Q 3008	TRANSISTOR				2SC4154-T11-1E	G3341548E		1-	B	a5
Q 3009	IC				SN74HC14APW(TAPE)	G1094227		1-	A	G2
Q 3010	TRANSISTOR				2SB1132 T100 R	G3211327R		1-	B	a6
Q 3011	TRANSISTOR				2SC4154-T11-1E	G3341548E		1-	A	C2
Q 3012	IC				HD66712SA00FS	G1093817		1-	A	E2
Q 3013	TRANSISTOR				2SA1602A-T11-1F	G3116028F		1-	A	H6
Q 3014	TRANSISTOR				2SC4154-T11-1E	G3341548E		1-	A	H6
Q 3015	TRANSISTOR				2SA1602A-T11-1F	G3116028F		1-	B	c2
Q 3016	TRANSISTOR				2SC4154-T11-1E	G3341548E		1-	B	c2
Q 3017	TRANSISTOR				2SA1602A-T11-1F	G3116028F		1-	B	c2
Q 3018	TRANSISTOR				2SC4154-T11-1E	G3341548E		1-	B	c2
Q 3019	PHOTO COUPLER				TLP281(GB-TP)	G0090037		1-	B	b7
R 3001	CHIP RES.	100	1/16W	5%	RMC1/16 101JATP	J24185101		1-	B	a5
R 3002	CHIP RES.	47k	1/16W	5%	RMC1/16 473JATP	J24185473		1-	A	G1
R 3003	CHIP RES.	100k	1/16W	5%	RMC1/16 104JATP	J24185104		1-	B	c6
R 3004	CHIP RES.	47k	1/16W	5%	RMC1/16 473JATP	J24185473		1-	A	D3
R 3005	CHIP RES.	22k	1/16W	5%	RMC1/16 223JATP	J24185223		1-	B	h1
R 3006	CHIP RES.	22k	1/16W	5%	RMC1/16 223JATP	J24185223		1-	B	c6
R 3007	CHIP RES.	100k	1/16W	5%	RMC1/16 104JATP	J24185104		1-	B	g3
R 3008	CHIP RES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103		1-	B	c5
R 3009	CHIP RES.	2.2k	1/16W	5%	RMC1/16 222JATP	J24185222		1-	B	e6
R 3010	CHIP RES.	100	1/16W	5%	RMC1/16 101JATP	J24185101		1-	B	f4
R 3011	CHIP RES.	100	1/16W	5%	RMC1/16 101JATP	J24185101		1-	B	f4
R 3012	CHIP RES.	100	1/16W	5%	RMC1/16 101JATP	J24185101		1-	B	g4
R 3015	CHIP RES.	100	1/16W	5%	RMC1/16 101JATP	J24185101		1-	B	g4
R 3016	CHIP RES.	100	1/16W	5%	RMC1/16 101JATP	J24185101		1-	B	g4
R 3017	CHIP RES.	100	1/16W	5%	RMC1/16 101JATP	J24185101		1-	B	g4
R 3018	CHIP RES.	100	1/16W	5%	RMC1/16 101JATP	J24185101		1-	B	g4
R 3019	CHIP RES.	100	1/16W	5%	RMC1/16 101JATP	J24185101		1-	B	g4
R 3020	CHIP RES.	100	1/16W	5%	RMC1/16 101JATP	J24185101		1-	B	g4
R 3021	CHIP RES.	100	1/16W	5%	RMC1/16 101JATP	J24185101		1-	A	C3
R 3022	CHIP RES.	100	1/16W	5%	RMC1/16 101JATP	J24185101		1-	B	g4
R 3023	CHIP RES.	100	1/16W	5%	RMC1/16 101JATP	J24185101		1-	B	g4
R 3024	CHIP RES.	100	1/16W	5%	RMC1/16 101JATP	J24185101		1-	B	g4
R 3025	CHIP RES.	100	1/16W	5%	RMC1/16 101JATP	J24185101		1-	B	g3
R 3026	CHIP RES.	100k	1/16W	5%	RMC1/16 104JATP	J24185104		1-	B	g3
R 3027	CHIP RES.	100	1/16W	5%	RMC1/16 101JATP	J24185101		1-	B	g4
R 3028	CHIP RES.	100	1/16W	5%	RMC1/16 101JATP	J24185101		1-	B	g4
R 3029	CHIP RES.	100	1/16W	5%	RMC1/16 101JATP	J24185101		1-	B	g4
R 3030	CHIP RES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103		1-	B	c5
R 3031	CHIP RES.	47k	1/16W	5%	RMC1/16 473JATP	J24185473		1-	B	e6
R 3032	CHIP RES.	47k	1/16W	5%	RMC1/16 473JATP	J24185473		1-	B	c6
R 3033	CHIP RES.	47k	1/16W	5%	RMC1/16 473JATP	J24185473		1-	B	c6
R 3034	CHIP RES.	39k	1/16W	5%	RMC1/16 393JATP	J24185393		1-	B	e6
R 3035	CHIP RES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103		1-	B	e6
R 3036	CHIP RES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103		1-	B	d6
R 3037	CHIP RES.	100	1/16W	5%	RMC1/16 101JATP	J24185101		1-	B	f3
R 3038	CHIP RES.	100	1/16W	5%	RMC1/16 101JATP	J24185101		1-	B	f3
R 3039	CHIP RES.	1k	1/16W	5%	RMC1/16 102JATP	J24185102		1-	B	g3

✖: Please contact Vertex Standard

CNTL Unit

Parts List

REF	DESCRIPTION	VALUE	V/W	TOL.	MFR'S DESIG	VXSTD P/N	VERS.	LOT	SIDE	LAY ADR
R 3041	CHIP RES.	2.2k	1/16W	5%	RMC1/16 222JATP	J24185222		1-	B	e6
R 3042	CHIP RES.	470	1/16W	5%	RMC1/16 471JATP	J24185471		1-	B	f3
R 3043	CHIP RES.	100	1/16W	5%	RMC1/16 101JATP	J24185101		1-	B	g3
R 3044	CHIP RES.	470	1/16W	5%	RMC1/16 471JATP	J24185471		1-	B	e3
R 3045	CHIP RES.	100	1/16W	5%	RMC1/16 101JATP	J24185101		1-	B	g3
R 3046	CHIP RES.	470	1/16W	5%	RMC1/16 471JATP	J24185471		1-	B	f3
R 3047	CHIP RES.	100	1/16W	5%	RMC1/16 101JATP	J24185101		1-	B	g3
R 3048	CHIP RES.	100	1/16W	5%	RMC1/16 101JATP	J24185101		1-	B	e3
R 3049	CHIP RES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103		1-	B	g3
R 3050	CHIP RES.	4.7k	1/16W	5%	RMC1/16 472JATP	J24185472		1-	B	h1
R 3051	CHIP RES.	100	1/16W	5%	RMC1/16 101JATP	J24185101		1-	B	e3
R 3052	CHIP RES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103		1-	B	g3
R 3053	CHIP RES.	100	1/16W	5%	RMC1/16 101JATP	J24185101		1-	B	f3
R 3054	CHIP RES.	100	1/16W	5%	RMC1/16 101JATP	J24185101		1-	B	e3
R 3055	CHIP RES.	100	1/16W	5%	RMC1/16 101JATP	J24185101		1-	B	e3
R 3056	CHIP RES.	100	1/16W	5%	RMC1/16 101JATP	J24185101		1-	B	e3
R 3057	CHIP RES.	47k	1/16W	5%	RMC1/16 473JATP	J24185473		1-	A	C2
R 3058	CHIP RES.	100	1/16W	5%	RMC1/16 101JATP	J24185101		1-	B	e3
R 3060	CHIP RES.	47k	1/16W	5%	RMC1/16 473JATP	J24185473		1-	B	g2
R 3061	CHIP RES.	4.7k	1/16W	5%	RMC1/16 472JATP	J24185472		1-	B	h3
R 3062	CHIP RES.	4.7k	1/16W	5%	RMC1/16 472JATP	J24185472		1-	B	h3
R 3063	CHIP RES.	470	1/16W	5%	RMC1/16 471JATP	J24185471		1-	B	g2
R 3064	CHIP RES.	22	1/4W	5%	RMC1/4 220JATP	J24245220		1-	B	a5
R 3065	CHIP RES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103		1-	B	g1
R 3066	CHIP RES.	100	1/16W	5%	RMC1/16 101JATP	J24185101		1-	B	g1
R 3067	CHIP RES.	100	1/16W	5%	RMC1/16 101JATP	J24185101		1-	B	g1
R 3068	CHIP RES.	100	1/16W	5%	RMC1/16 101JATP	J24185101		1-	B	f2
R 3069	CHIP RES.	100	1/16W	5%	RMC1/16 101JATP	J24185101		1-	B	f1
R 3070	CHIP RES.	100	1/16W	5%	RMC1/16 101JATP	J24185101		1-	B	g1
R 3071	CHIP RES.	100	1/16W	5%	RMC1/16 101JATP	J24185101		1-	B	g1
R 3072	CHIP RES.	470k	1/16W	5%	RMC1/16 474JATP	J24185474		1-	B	g1
R 3073	CHIP RES.	2.2k	1/16W	5%	RMC1/16 222JATP	J24185222		1-	B	a6
R 3074	CHIP RES.	100k	1/16W	5%	RMC1/16 104JATP	J24185104		1-	B	f6
R 3075	CHIP RES.	470	1/16W	5%	RMC1/16 471JATP	J24185471		1-	B	a5
R 3076	CHIP RES.	470	1/16W	5%	RMC1/16 471JATP	J24185471		1-	B	a5
R 3077	CHIP RES.	470	1/16W	5%	RMC1/16 471JATP	J24185471		1-	B	a5
R 3078	CHIP RES.	470	1/16W	5%	RMC1/16 471JATP	J24185471		1-	B	a5
R 3079	CHIP RES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103		1-	B	g2
R 3080	CHIP RES.	220	1/10W	5%	RMC1/10T 221J	J24205221		1-	B	a2
R 3081	CHIP RES.	470k	1/16W	5%	RMC1/16 474JATP	J24185474		1-	B	g2
R 3082	CHIP RES.	220	1/10W	5%	RMC1/10T 221J	J24205221		1-	B	b2
R 3083	CHIP RES.	470	1/16W	5%	RMC1/16 471JATP	J24185471		1-	A	C1
R 3084	CHIP RES.	220	1/10W	5%	RMC1/10T 221J	J24205221		1-	B	a5
R 3085	CHIP RES.	220	1/10W	5%	RMC1/10T 221J	J24205221		1-	B	a5
R 3086	CHIP RES.	2.2k	1/16W	5%	RMC1/16 222JATP	J24185222		1-	B	d1
R 3087	CHIP RES.	2.2k	1/16W	5%	RMC1/16 222JATP	J24185222		1-	A	H5
R 3088	CHIP RES.	2.2k	1/16W	5%	RMC1/16 222JATP	J24185222		1-	A	H6
R 3089	CHIP RES.	2.2k	1/16W	5%	RMC1/16 222JATP	J24185222		1-	B	b2
R 3090	CHIP RES.	2.2k	1/16W	5%	RMC1/16 222JATP	J24185222		1-	B	c2
R 3091	CHIP RES.	2.2k	1/16W	5%	RMC1/16 222JATP	J24185222		1-	B	c2
R 3092	CHIP RES.	2.2k	1/16W	5%	RMC1/16 222JATP	J24185222		1-	B	c2
R 3093	CHIP RES.	120	1/4W	5%	RMC1/4 121JATP	J24245121		1-	A	H7
R 3094	CHIP RES.	470	1/16W	5%	RMC1/16 471JATP	J24185471		1-	A	G2
R 3095	CHIP RES.	120	1/4W	5%	RMC1/4 121JATP	J24245121		1-	B	b6
R 3096	CHIP RES.	470	1/16W	5%	RMC1/16 471JATP	J24185471		1-	A	G2
R 3097	CHIP RES.	120	1/4W	5%	RMC1/4 121JATP	J24245121		1-	B	b6
R 3098	CHIP RES.	3.9k	1/16W	5%	RMC1/16 392JATP	J24185392		1-	A	H5
R 3099	CHIP RES.	100k	1/16W	5%	RMC1/16 104JATP	J24185104		1-	A	G2
R 3100	CHIP RES.	100k	1/16W	5%	RMC1/16 104JATP	J24185104		1-	A	G2
R 3101	CHIP RES.	22k	1/16W	5%	RMC1/16 223JATP	J24185223		1-	B	b4
R 3102	CHIP RES.	22k	1/16W	5%	RMC1/16 223JATP	J24185223		1-	B	b4
R 3103	CHIP RES.	470	1/16W	5%	RMC1/16 471JATP	J24185471		1-	B	b6
R 3104	CHIP RES.	470	1/16W	5%	RMC1/16 471JATP	J24185471		1-	B	c6
R 3105	CHIP RES.	470	1/16W	5%	RMC1/16 471JATP	J24185471		1-	B	b6
R 3106	CHIP RES.	470	1/16W	5%	RMC1/16 471JATP	J24185471		1-	B	c5
R 3107	CHIP RES.	470	1/16W	5%	RMC1/16 471JATP	J24185471		1-	B	b6
R 3108	CHIP RES.	3.3k	1/16W	5%	RMC1/16 332JATP	J24185332		1-	A	D3
R 3109	CHIP RES.	3.3k	1/16W	5%	RMC1/16 332JATP	J24185332		1-	A	D3
R 3110	CHIP RES.	330	1/4W	5%	RMC1/4 331JATP	J24245331		1-	B	c7
R 3111	CHIP RES.	82k	1/16W	5%	RMC1/16 823JATP	J24185823		1-	A	D1
R 3112	CHIP RES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103		1-	B	h6
R 3113	CHIP RES.	22k	1/16W	5%	RMC1/16 223JATP	J24185223		1-	B	h6
R 3114	CHIP RES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103		1-	A	D2

CNTL Unit

Parts List

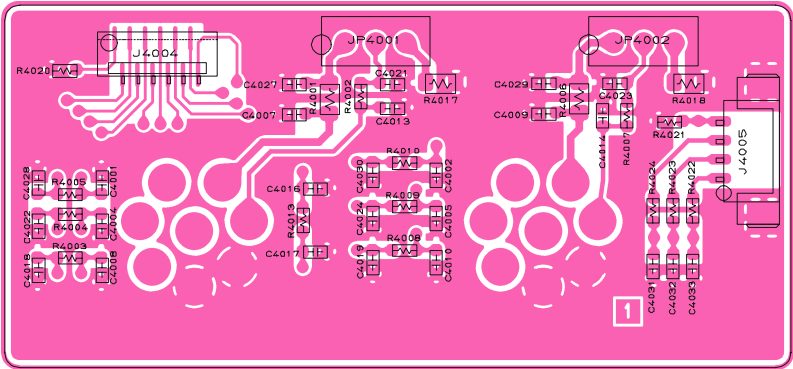
REF	DESCRIPTION	VALUE	V/W	TOL.	MFR'S DESIG	VXSTD P/N	VERS.	LOT	SIDE	LAY ADR
R 3115	CHIP RES.	8.2k	1/16W	5%	RMC1/16 822JATP	J24185822		1-	A	D3
R 3116	CHIP RES.	3.3k	1/16W	5%	RMC1/16 332JATP	J24185332		1-	A	D3
R 3117	CHIP RES.	3.3k	1/16W	5%	RMC1/16 332JATP	J24185332		1-	A	D3
R 3118	CHIP RES.	220	1/10W	5%	RMC1/10T 221J	J24205221		1-	B	a5
S 3001	ROTARY ENCODER				EC11B20204	Q9000799		1-	A	H6
X 3001	XTAL 94SMX	14.7456MHz			94M147-18(D) 14.74560MHZ	H0103271		1-	B	h3
	LCD HOLDER				(LCD)	RA0757800		1-		
	LIGHT GUIDE				(TOP2)	RA0569700		1-		
	INTER CONNECTOR				(BOTTOM2)	RA0631800		1-		
	INTER CONNECTOR				(L)	RA0631900		1-		
	REFLECTOR SHEET				(S)	RA057000A		1-		
	REFLECTOR SHEET				(LCD)	RA0803500		1-		
	SPONGE RUBBER					RA0760300		1-		
	INSULATOR SHEET					RA0811200		1-		

Circuit Diagram

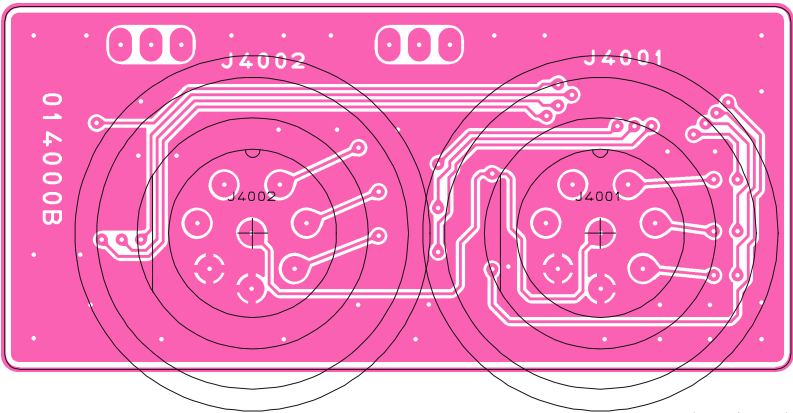


CONT-1 Unit

Parts Layout



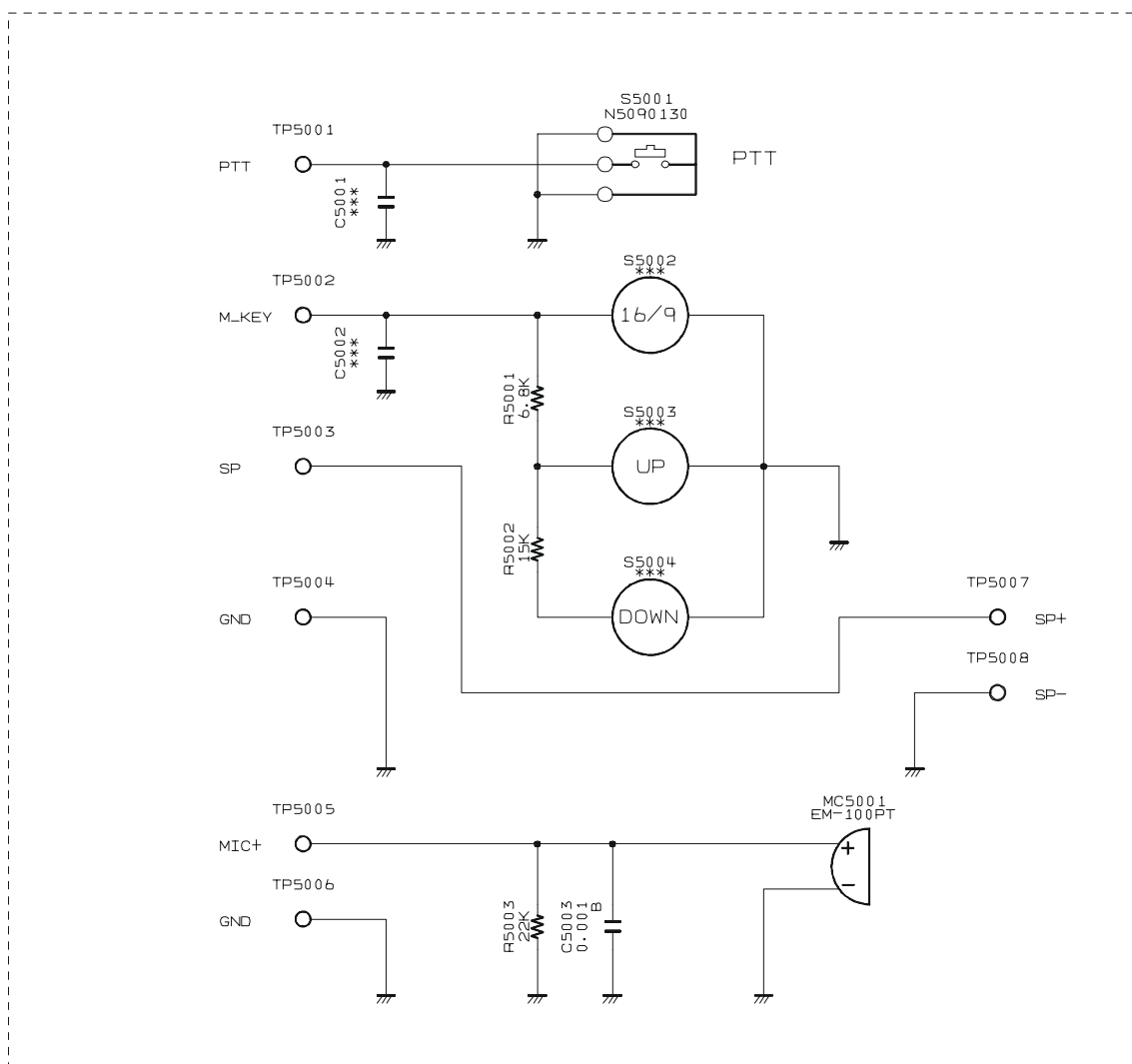
(Side A)



(Side B)

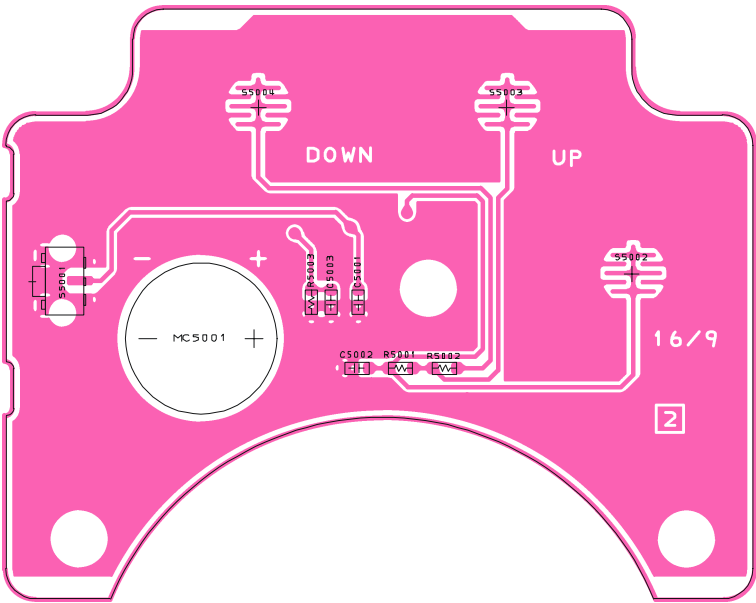
Parts List

REF	DESCRIPTION	VALUE	V/W	TOL.	MFR'S DESIG	VXSTD P/N	VERS.	LOT	SIDE	LAY ADR
PCB with Components						CB3021001				
Printed Circuit Board						FR014000B		1-		
J 4001	CONNECTOR				LTWBD-08PMMP-LC	P0091397		1-	B	c2
J 4002	CONNECTOR				LTWBD-08PMMP-LC	P0091397		1-	B	b2
J 4004	CONNECTOR				12FLT-SM1-TB	P1091198		1-	A	A1
J 4005	CONNECTOR				53398-0471	P0091432		1-	A	D1
JP4001	WIRE ASSY				AM017N RAM	T9207268		1-	A	B1
JP4002	WIRE ASSY				AM017N RAM	T9207268		1-	A	C1
R 4001	CHIP RES.	0	1/10W	5%	RMC1/10T 000J	J24205000		1-	A	B1
R 4002	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000		1-	A	B1
R 4003	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000		1-	A	A2
R 4004	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000		1-	A	A1
R 4005	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000		1-	A	A1
R 4006	CHIP RES.	0	1/10W	5%	RMC1/10T 000J	J24205000		1-	A	C1
R 4007	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000		1-	A	C1
R 4008	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000		1-	A	B2
R 4009	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000		1-	A	B1
R 4010	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000		1-	A	B1
R 4013	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000		1-	A	B1
R 4017	CHIP RES.	0	1/10W	5%	RMC1/10T 000J	J24205000		1-	A	B1
R 4018	CHIP RES.	0	1/10W	5%	RMC1/10T 000J	J24205000		1-	A	D1
R 4020	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000		1-	A	A1
R 4022	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000		1-	A	D1
R 4023	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000		1-	A	C1
R 4024	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000		1-	A	C1

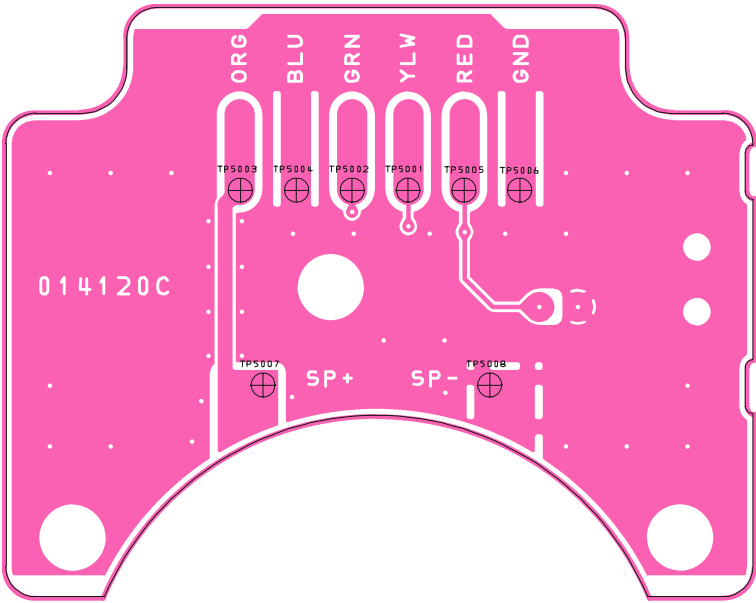


MIC Unit

Parts Layout



(Side A)

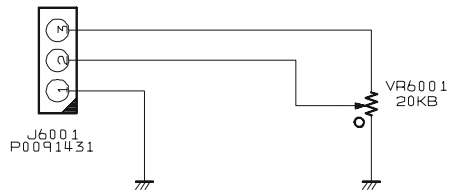


(Side B)

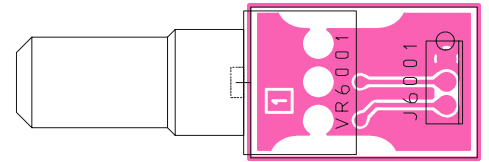
Parts List

REF	DESCRIPTION	VALUE	V/W	TOL.	MFR'S DESIG	VXSTD P/N	VERS.	LOT	SIDE	LAY ADR
PCB with Components						CB3022001				
Printed Circuit Board						FR014120C		1-		
C 5003	CHIP CAP.	0.001uF	50V	B	AM014N000	K22174809		1-	A	B2
MC5001	MIC. ELEMENT				GRM188B11H102KA01D	M3290029		1-	A	A2
R 5001	CHIP RES.	6.8k	1/16W	5%	EM-100PT	J24185682		1-	A	B2
R 5002	CHIP RES.	15k	1/16W	5%	RMC1/16 682JATP	J24185153		1-	A	B2
R 5003	CHIP RES.	22k	1/16W	5%	RMC1/16 153JATP	J24185223		1-	A	B2
S 5001	TACT SWITCH				RMC1/16 223JATP	N5090130		1-	A	A2
						SKRTLAE010				

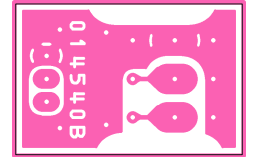
SQL Unit Circuit Diagram



SQL Unit Parts Layout



(Side A)

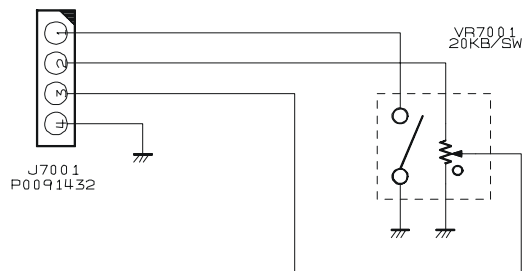


(Side B)

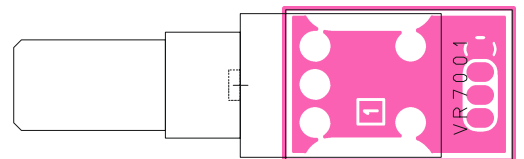
SQL Unit Parts List

REF	DESCRIPTION	VALUE	V/W	TOL.	MFR'S DESIG	VXSTD P/N	VERS.	LOT	SIDE	LAY ADR
	PCB with Components					CB3481001				
	Printed Circuit Board				AM014N000	FR014540B		1-		
VR6001	POT.				RK0971110 20KB	J60800261		1-	A	

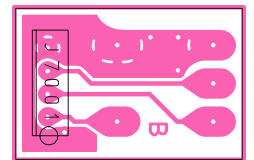
VR Unit Circuit Diagram



VR Unit Parts Layout



(Side A)



(Side B)

VR Unit Parts List

REF	DESCRIPTION	VALUE	V/W	TOL.	MFR'S DESIG	VXSTD P/N	VERS.	LOT	SIDE	LAY ADR
	PCB with Components					CB3482001				
	Printed Circuit Board				AM014N000	FR014550B		1-		
JP7001	WIRE ASSY				AM014N VOL #242548A	T9207284		1-		
VR7001	POT.				RK0971114Z16 20KB/SW	J60800290		1-	A	



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