
maxon®

SD-125E

SERVICE MANUAL



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SPECIFICATIONS

GENERAL

Equipment Type	Data radio
Performance Specifications.....	TIA/EIA -603 / IC, RSS212
Band	VHF(SD-125VEV2) / UHF(SD-125VEU)
Channel Spacings	25 kHz, 12.5 kHz programmable
RF Output Power	1 watt, 5 watt programmable
Modulation Type	F3D, F3E
Intermediate Frequency	45.1 MHz & 455 kHz
Number of Channels	16
Frequency Source	Synthesizer
Operation Rating	Intermittent 90 : 5 : 5 (Standby: RX: TX)
Power Supply	Ext. Power Supply(12 VDC Nominal) 9.0V - 15.0V DC EXTREME
Temperature Range	
Storage	from - 40°C to + 80°C
Operating	from - 30°C to + 60°C
Current Consumption	
Standby (Muted)	< 65 mA
Transmit 5 Watt RF power	< 2.0 A
Transmit 1 Watt RF power	< 1.0 A
Frequency Bands:	
RX	TX
VHF : V1 136.000 – 162.000MHz	136.000 – 162.000 MHz
V2 148.000 - 174.000 MHz	148.000 - 174.000 MHz
UHF : U1 400.000 - 430.000 MHz	400.000 - 430.000 MHz
U2 440.000 - 470.000 MHz	440.000 - 470.000 MHz
U3 470.000 - 490.000 MHz	470.000 - 490.000 MHz
U4 490.000 – 512.000 MHz	490.000 – 512.000 MHz
U5 420.000 – 450.000 MHz	420.000 – 450.000 MHz
Lock Time	< 10 mS
TX to RX attack time	< 20 mS (No Power Saving)
RX to TX attack time	< 20 mS
Dimensions.....	(30mm)H x (62mm)W x (118mm)D
Weight	242grams

TRANSMITTER Specification

Carrier Power:	Nom.	Max.	Min.
Hi	5W	< 6W	> 4.5W
Low	1W	< 1.5W	> 0.8W
Sustained Transmission	Nominal conditions		
Time : 5 10 30 Sec.			
Power: >90% >85% >80%			
Frequency Error	< 0.5 kHz Nominal condition for VHF		
	< 0.75 kHz Nominal condition for UHF		
±3.0 ppm Extreme condition for UHF			
±5.0 ppm Extreme condition for VHF			
Frequency Deviation:			
25 kHz Channel Spacing.....	Peak ±5.0, Min. ±3.8		
12.5 kHz Channel Spacing.....	Peak ±2.5, Min. ±1.9		
Audio Frequency Response.....	Within +1/-3dB of 6dB octave		
@ 300 Hz to 2.55 kHz for 12.5 kHz C.S.			
@ 300 Hz to 3.0 kHz for 25 kHz C.S.			
Adjacent Channel Power			
25 kHz	< 70 dBc @ Nominal Condition		
	< 65 dBc @ Extreme Condition		
12.5 kHz	< 60 dBc @ Nominal Condition		
	< 55 dBc @ Extreme Condition		
Conducted Spurious Emission	< -57dBc		
Modulation Sensitivity	100mV RMS @ 60 % Peak Dev.		
Hum & Noise:			
25 kHz Channel Spacing	> 40 dB (with no PSOPH)		
12.5 kHz Channel Spacing	> 40 dB (with PSOPH)		
Modulation Symmetry	< 10 % Peak Dev @ 1 kHz input		
	for nominal dev +20dB		
Load Stability	No osc at ≥ 10:1 VSWR all phase angles and suitable antenna		
No destroy at ≥ 20:1 all phase angle			
Peak Deviation Range Adjustment @ 1 kHz, Nom. Dev +20dB:			
25 kHz Channel Spacing	Min. 3.5, Max. 6.0		
12.5 kHz Channel Spacing	Min. 1.5, Max. 4.0		

RECEIVER Specification

Sensitivity (12dB Sinad) @ Nom. Condition	Standard B.W < -117 dBm, Narrow B.W <-118 dBm
Standard B.W < -115 dBm, Narrow B.W <-116 dBm @ Extreme Condition	
Amplitude Characteristic.	< ±3 dB
Adjacent Channel Selectivity:	
25 kHz Channel Spacing	> 70 dB @ Nom., > 60 dB @ Extreme Condition
12.5 kHz Channel Spacing	> 60 dB @ Nom., > 50 dB @ Extreme Condition
Spurious Response Rejection	> 70 dB (100 kHz - 4 GHz)
Image Response	> 60 dB
IF Response.....	> 70 dB
Others.	> 70 dB
Intermodulation Response Rejection:	
±25 kHz/ 50 kHz	65 dB
±50 kHz/ 100 kHz	65 dB
Conducted Spurious Emission @ Nominal Conditions:	
9 kHz - 1 GHz	< -57 dBm
1 GHz - 4 GHz.	< -47 dBm
RX Spurious Emissions (Radiated) @ Nominal Conditions	
9 kHz - 1 GHz	< -57 dBm
1 GHz - 12.75 GHz	< -47 dBm
AF Distortion.	< 5% @ Nom., < 10 % @ Extreme condition
RX Hum & Noise:	
25.0 kHz CP	< 40 dB No PSOPH
12.5 kHz CP	< 40 dB with PSOPH
Receiver Response Time	< 16 mS
Squelch Opening Range:	RF level for 6 to 14 dB Sinad
Squelch Closing Range (Hysteresis):	0 - 6 dB Sinad @ Nominal Condition
Squelch Attack Time:	
RF Level at Threshold	< 40 mS
RF Level at Threshold + 20 dB	< 30 mS
Squelch Decay Time	5 mS Min., 20 mS Max.
Antenna Socket Input Match	> 10 dB Return Loss
L.O. Frequency Temperature Stability	1st < 5 ppm, 2nd < 15 ppm from -30° to + 60° C
L.O. Frequency Aging Rate	±2 ppm/ year

Environmental (performance without degradation unless stated)

Temperature.....	deg C
Operating	-30°C to +60°C Degradation Specified @Extreme
Storage.....	-40°C to +80°C
Recharging	-10°C to +55 °C
ESD	20kV (C-MIC ≥ 15KV)
Vibration	MIL STD 810 C Procedures I , II , V and IEC68 26

PROGRAMMER

Programmer (Software)	ACC-900E
Programmer (Interface Cable)	ACC-2125 (PC Program)
Programmer (Interface Cable)	TAJ-521D (SQ Program)

- **Due to continuing research and development the company reserves the right to alter these specifications without prior notice.**

SD-125E RF LINK MODULE

UNPACKING

The SD-125 RF Link Module is the only item included in the shipping container.



INTRODUCTION

FCC RF Exposure Compliance Requirements.

The Federal Communications Commission (FCC), with its action in General Docket 93-62, November 7, 1997, has adopted a safety standard for human exposure to Radio Frequency (RF) electromagnetic energy emitted by FCC regulated equipment. Maxon subscribes to the same safety standard for the use of its products. Proper operation of this radio will result in user exposure far below the Occupational Safety and Health Act (OSHA) and Federal Communications Commission limits.

Power listed is conducted. This device must not exceed a maximum transmitting duty factor of 50%. The antenna(s) used for this transmitter must be installed to provide a separation distance of at least 60cm (20inches) from all persons. Must not be co-located or operating in conjunction with any other antenna or transmitter, and must not exceed a gain of 6 dBi. Failure to observe these restrictions will result in exceeding the FCC RF exposure limits.

About your SD-125E Series Data Radio

The Maxon SD-125E Series of RF Link Modules from Maxon utilizes the latest technology in its design and manufacturing. Both the UHF and VHF models are PLL (Phase Lock Loop Synthesizer) / microprocessor controlled, and offer one to five watts of power with 16 channel capability. Multiple functions including 1200 to 2400 baud rates, AC and/or DC audio coupling, FFSK and FSK modulation are standard in these fully programmable wide bandwidth RF Link Module units.

The radios are programmed using an IBM® Personal Computer, DOS® or WINDOWS® based software, an interface module and a programming cable. This allows the radio to be tailored to meet the requirements of the individual user and of the System(s) it is operating within.



FEATURES

Busy Channel Lockout

16 Channels

TX Time-out

Power Save

1 / 5 Watt Programmable Output

12.5 / 25 kHz Programmable Channel Spacing

Busy Channel Lockout

The Busy Channel Lockout feature, when enabled, disables the transmitter when the receiving channel is busy and the user attempts to transmit.

16 Channels

The SD-125 Series radio can store up to 16 channels within the same band.

TX Time-out

The TX Time-out feature, when enabled, limits the amount of time that the user can continuously transmit. This time can be set in increments of 10 seconds from 10 seconds to 990 seconds.

Power Save

The Power Save feature is used when an external battery is used as the power source. When Power Save is enabled, the receiver "ON" and "OFF" time can be programmed into the radio and allows the operator to set the length of time the receiver is asleep.

THEORY OF OPERATION

6.1 INTRODUCTION

The VHF and UHF radios are comprised of two PCB's (an RF PCB and a digital PCB). These boards are connected with an 18 pin female and male connector . The digital board is interfaced with external data equipment through the 9 pin d-sub male connector, which controls the radio and data receiving and sending .

6.2 DIGITAL CIRCUITS

The Digital circuit contains the CPU, the channel select switch, and associated digital circuits.

TX-SIGNAL CIRCUIT

The TX data signal comes from Pin 2 of Con 401, and goes through U404D. The TX-signal is amplified by U406C. The TX-signal is filtered by U405A & B and U409A & B. which is a 4'th order low pass filter, the output of U409A is then fed to the RF board for TX modulation.

RX-SIGNAL CIRCUIT

The RX-data signal comes from the RF board, which is connected with pin 10 of Con 403. The RX-signal is switched by U404A and adjusted by RV403 and amplified by U407. The amplified signal goes to pin10 of Con 401.

RSSI DETECTOR

From the RF board, the RSSI (Received Signal Strength Indicator) signal flows to U403A & E through R461. The pulse is injected from pin 5 of U403B every 1 mS and C451 is discharged. It is then charged by R464. The RSSI signal is simultaneously input to pin 7 of U403A and those signals are compared. The compared signal is output from U403A. Pin 1 of U403A and the CPU detects the pulse width. The pulse width is varied by RSSI DC voltage, therefore, the carrier detection is controlled by the CPU.

EEPROM

RX / TX channel and RSSI detection level as well as other data from the programmer are stored in the EEPROM. The data stored is retained without power supplied. This is a non-volatile memory. The EEPROM may have information re-programmed or erased. U402 is an EEPROM with 2048 (8 x 256) capacity and data is written and read serially.

CHANNEL SELECTOR

One of 16 channels may be selected using the Dip Switch (SW401). SW401 encodes the channel number, selected into 4-bit binary code. The binary code plus one equals the channel number. The binary code is decoded by the CPU enabling the appropriate RX or TX frequency and associated data to be selected from the EEPROM.

DC TO DC CONVERTER

The main DC power is injected to the DC to DC converter . The DC to DC converter regulates the various input power supply voltage and outputs a constant voltage of 7.5 Volts. It is a source for all of the RF and digital circuits. The DC to DC converter is formed by IC801, Q801, Q802, L801 and R804. IC801 is a switch mode DC to DC Converter IC. Input DC various appears as a voltage various through R804. IC801 detects the voltage and controls the switching pulse. As the switching pulses, Q801and Q802 switches the input DC of various supply voltages and generates the constant DC of supply voltage.

6.3 RF CIRCUITS

TRANSMITTER

The transmitter is comprised of:

- 1 Buffer
- 2 P.A. Module
- 3 Low Pass Filter
- 4 Antenna Switch
- 5 A.P.C. Circuits

BUFFER

VCO output level is -6dBm and amplified to $+10\text{dBm}$ (UHF), $+6\text{dBm}$ (VHF). The buffer consists of Q8 and Q9 for isolation and gain.

P.A. BLOCK

The P.A Block uses a three stage amplifier and contains Q701, Q702, and Q703. Three stage amplifier Q701 amplifies the TX signal from $+10\text{ dBm}$ to 100 mW . Q702 is amplified to 0.5W . Q503 amplifies to 6W and then matched to 50 Ohms using the L.C. network, thereby reducing the harmonics by -30 dB .

LOW PASS FILTER

L7, L8, L9, C36, C37, C38 and C39 are the 7th order Chebyshev low pass filter. Unwanted harmonics are reduced by -70 dBc .

ANTENNA SWITCH

When transmitting, the diodes D3 and D5 are forward biased enabling the RF signal passage to the antenna. D5 is shorted to ground inhibiting the RF signal to front end. In receive the diodes D5 is reversed biased passing the signal from the antenna through L10 and C61 to the front end without signal loss.

AUTOMATIC CURRENT CONTROL (ACC) CIRCUITS

The ACC circuit consists of R63, variable resistor RV4, IC5(B) and transistors Q11 and Q12. The supply current is monitored by the difference voltage on R63 (0.1 Ohm). If the current varies by RF power output or other reasons, it produces some bias voltage by IC5A and Q15. The differential signal at the output of IC5(B) is passed to Q11 and Q12 that produces a constant power output to the antenna. RV4 is used to adjust the RF power level.

6.4 RF CIRCUITS PLL SYNTHESIZER

12.8 MHz TCXO

The TCXO contains the 3-stage thermistor network compensation and crystal oscillator and modulation ports. Compensation is ± 5 PPM or less from -30°C to $+60^{\circ}\text{C}$.

PLL IC DUAL MODULES PRESCALER

Input frequency of 12.8 MHz to Pin 1 of IC2 MB15E03SL is divided to 6.25 kHz or 5 kHz or 2.5kHz by the reference counter, and then supplied to the comparator. RF signal input from VCO is divided to 1/64 at the prescaler in IC2, divided by A and N counter in IC2 to determine frequency steps, and then supplied to the comparator. PLL comparison frequency is 6.25/5/2.5kHz so that minimum programmable frequency step is 2.5/5/6.25 kHz. The A and N counter is programmed to obtain the desired frequency by serial data in the CPU. In the comparator, the phase difference between reference and VCO signal is compared. When the phase of the reference frequency is leading, Φ_P is the output, but when VCO frequency is leading, Φ_R is the output. When, $\Phi_P = \Phi_R$, phase detector out is a very small pulse.

EXTERNAL CHARGE PUMP

This is used to increase dynamic range of VCO. Voltage range is decided by the supply voltage of the charge pump and the DC to DC converter which supplies that voltage. 0–12V is necessary for controlling the VCO. In addition the radio adopts a current mode charge pump to take direct control of such parameters as charge pump voltage swing, current magnitude, TRI-STATE leakage, and temperature compensation. $\Phi_P = \Phi_R$, logic signals are converted into current pulses to enable either charging or discharging of the loop filter components to control the output frequency of the PLL.

REFERENCE FREQUENCY LPF

The Loop Filter contains R9, C1 and C2. LPF settling time is 12mS with 1 kHz frequency. This also reduces the residual side-band noise for the best signal-to-noise ratio.

DC TO DC CONVERTER

The DC to DC converter convert the 5v to 14–16v to supply the necessary voltage for wide range frequency in the VCO.

VCO

The radio adopts a two VCO system for RX and TX in order to maximize each performance. The TX and RX VCO generates RF carrier and local frequency and each VCO is switched by a TX/RX power source. It is configured as a Colpitts oscillator and connected to the buffer as a cascade, the bias circuit is a cascade configuration to save power. The varicap diode D201/D301 are low-resistance elements and have different capacitance for reverse bias voltage. Using the change of reverse bias voltage (2~11V), the wanted frequency for each channel can be obtained. L203/L303 are resonant coils and C208/C308 are used to change the control voltage by the tuning core. D202 modulation diode modulates the audio signal. C204 compensates the non-linearity of the VCO due to the modulation diode and maintains a constant modulation regardless of frequency.

6.5 RECEIVER

FRONT-END

The receive signal is routed backward through the low pass filter, then onward to C601 of the Hybrid Receiver Front End Module to a bandpass filter consisting of (VHF C622 through C608, L607 through L604) and (UHF C601 through C610, L601 through L603) is coupled to the base of Q601 which serves as an RF amplifier. Diode D601 serves as protection from static RF overload from nearby transmitters. The output of Q601 is then coupled to a second bandpass filter consisting of (VHF C607 through C623 and L604 through L607). The output of C623 is then coupled to the doubly balanced mixer Q16. The receiver front end module is factory pre-tuned and requires no adjustment. Repair is effected by replacement of the entire module of the proper banded module. These are VHF 148MHz to 174 MHz and UHF 400 MHz to 490 MHz. The receiver front end module signal pins are as follows:

- | | |
|---|--------------|
| 1 | RF Input |
| 2 | Input Ground |
| 3 | N/A |
| 4 | Receive + 5V |
| 5 | Ground |
| 6 | Output |

SD-125E RF LINK MODULE

FIRST MIXER

Q16, L15 and C77 are Dual gate FET mixers which provide the 45.1 MHz intermediate frequency output. The filtered frequency from the front end module is coupled to C131. The 45.1 MHz IF output is matched to the input of the 2-pole monolithic filter by C65 and C66. The crystal filter provides a bandwidth of ± 7.5 kHz from the operating frequency providing a high degree of spurious and intermodulation protection. The IF filter provides additional attenuation for the image frequency of the second mixer. The output impedance of the filter is matched with the base of the post amplifier Q17 by C67 and C72.

SECOND OSCILLATOR MIXER LIMITER AND FM DETECTOR

The output of the post filter amplifier, Q17, is coupled via C73 to the input of IC6(TA31136FN). IC6 is a monolithic single conversion FM transceiver, containing a mixer, the second local oscillator, limiter and quadrature detector. Crystal X1 44.645 MHz is used to provide resultant 455kHz signal from the output of the

second mixer. The mixer output is then routed to CF1 (455F) or CF2 (455HT). These ceramic filters provide the adjacent channel selectivity of 25 kHz or 12.5KHz bandwidth.

RSSI (RECEIVER SIGNAL STRENGTH INDICATOR)

The RSSI signal is output from IC6 on pin 12. As the receiver signals the output, DC voltage is varied as much as receiver signal strength. Also, the DC signal is temperature compensated with a thermistor (TH1). would cause the CD (Carrier Detect) to act intermittently.

MAINTENANCE AND REPAIR**7.1 GENERAL**

When removing or fitting, use the Exploded View and Parts List, located on page 28 in conjunction with the following procedures:

- **WARNING:** Disconnect the SD-125E from all external equipment at the D-Sub connector prior to disassembly.

7.2 REMOVING & REPLACING THE UPPER COVER**Removing the Upper Cover:**

1. Unscrew the four upper cover mounting screws located on the upper cover of the radio.

To replace the Upper Cover:

1. Reverse the steps taken to remove the Upper Cover.

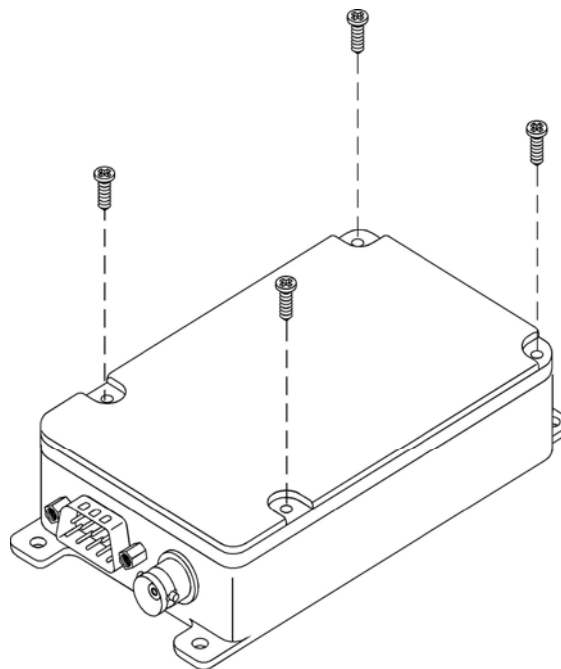


Figure 1-Upper Cover Removal

7.3 REMOVING & REPLACING THE DIGITAL BOARD & SHIELD PLATE

Removing the Digital Board Assembly & Shield Plate:

- 1 Remove the Upper Cover (refer to Removing & Replacing the Upper Cover).
- 2 Disconnect the DB9 pin connector on CON401.
- 3 Unscrew the 4 mounting screws.
- 4 Remove the Digital Board Assembly.
- 5 Remove the Shield Plate.

To replace the Digital Board Assembly:

1. Reverse the steps taken to remove the Digital Board Assembly & Shield Plate.

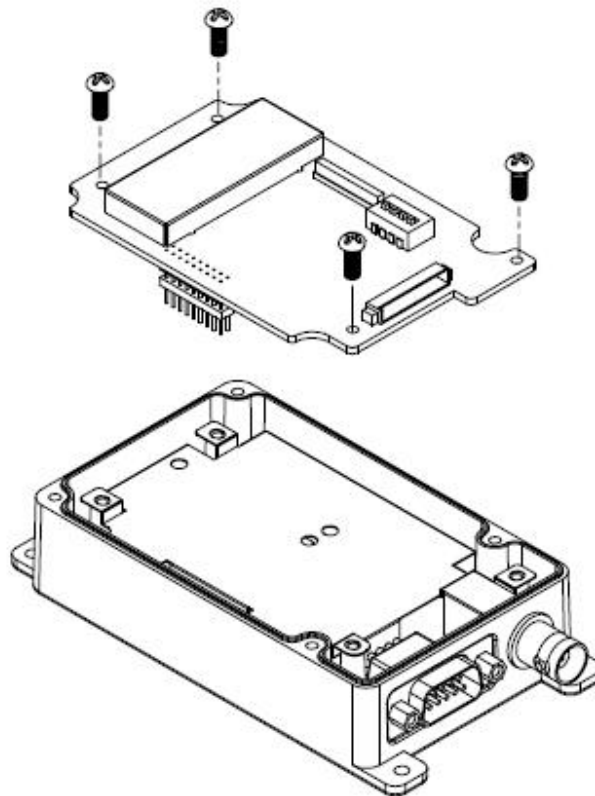


Figure 2-Digital Board Assembly Removal

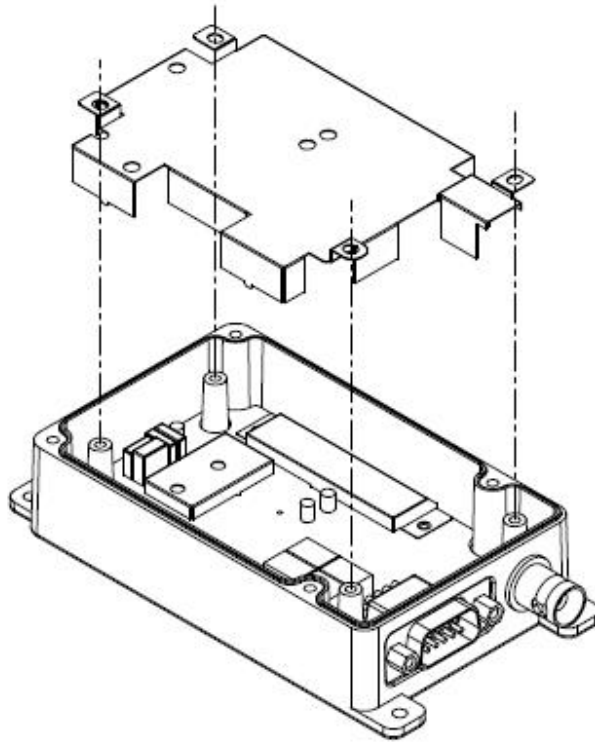


Figure 3-Shield Plate Removal

7.4 REMOVING & REPLACING THE RF BOARD

Removing the RF Board Assembly:

- 1 Remove the Upper Cover (refer to Removing & Replacing the Upper Cover).
- 2 Remove the Digital Board Assembly and Shield Plate (refer to Removing & Replacing the Digital Board Assembly & Shield Plate).
- 3 Unscrew the 4 mounting standoffs.
- 4 Unsolder the antenna connector cable.
- 5 Remove the RF Board Assembly.

To replace the RF Board Assembly:

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1. Reverse the steps taken to remove the RF Board Assembly.

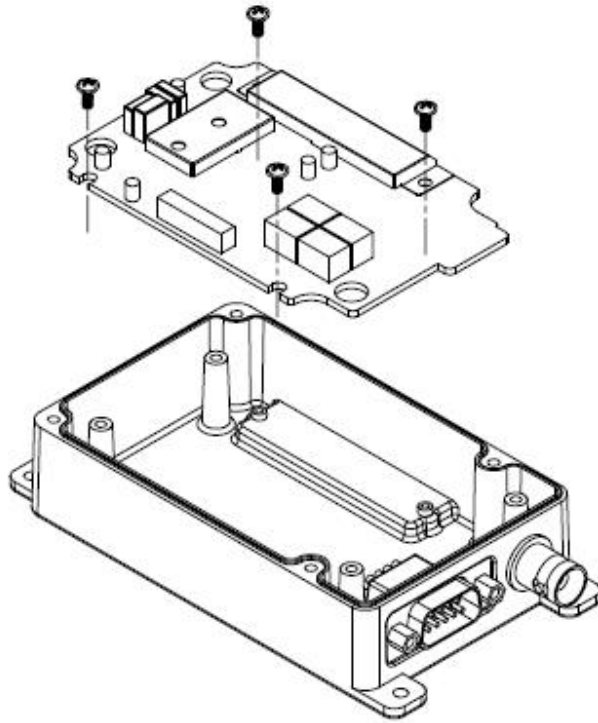


Figure 4-Rf Board removal

PROGRAMMING

The SD-125E Series radio requires the ACC-900E Programming Software, ACC-2125 Interface Cable, 9-15 VDC 200mA Power Supply. Refer to the ACC-900E Programming User's Manual for detailed information on programming the SD-125E Series radio.

ALIGNMENT PROCEDURE

The SD-125E UHF/VHF Receiver is by design, broad band covering UHF(400-430 MHz & 440-470 MHz & 470-490 MHz) and VHF(148-174 MHz) and should require no special alignment, unless repairs are performed on the receiver portion.

Should repairs be necessary, use the "Test Equipment Diagram" on page 23& the "Alignment Points Diagram" on page 24, in conjunction with the following procedures:

- After just opening the upper cover, Power High/Low, Modulation level, Modulation balance and Frequency can be directly controlled through holes at the digital PCB' s.

9.1 RECEIVER

- 1 Apply a standard test signal to the receiver antenna terminals.
- 2 Adjust RV403 for the specific audio output level.

RX VCO

- 1 Set the unit to the highest receive frequency 430MHz(UHF1), 470MHz(UHF2), 490MHz(UFH3), 174MHz(VHF) and verify the VCO control voltage is under 9.0 Volts. If it's over 9.0 Volts, adjust C308 of RX VCO to 9.0 Volts
 - 2 Set the unit to the lowest receive frequency 400MHz(UHF2), 440MHz(UHF2), 470MHz(UFH3), 148MHz(VHF) and verify that the VCO voltage is above 2.0 Volts. Adjust C308 to 2.0Volts.
- Note: Use TP1 to measure the voltage.

9.2 TRANSMITTER

Connect the unit to a Service Monitor with the power meter setting to the 10 W scale (or autorange)

TCXO

Set the channel selector to the mid-range frequency 460 MHz, adjust RV1 for a reading of 460 MHz $\pm$ 200Hz (155 MHz VHF models).

SD-125E RF LINK MODULE

TX VCO

1. Set the unit to the highest receive frequency 430MHz(UHF1), 470MHz(UHF2), 490MHz(UFH3), 174MHz(VHF) and verify the VCO control voltage is under 9.0 Volts. If it's over 9.0 Volts, adjust C308 of RX VCO to 9.0 Volts
 2. Set the unit to the lowest receive frequency 400MHz(UHF2), 440MHz(UHF2), 470MHz(UFH3), 148MHz(VHF) and verify that the VCO voltage is above 2.0 Volts. Adjust C308 to 2.0Volts.
- Note: use TP1 to measure the voltage.

TX Deviation and Balance Adjustment

- 1 Set the unit to a mid-frequency and input the TX data with 400 Hz standard audio level.
- 2 Increase the signal level to 20 dB from standard level.
- 3 Monitor the demodulated signal from service monitor. Adjust RV7 to make the monitored signal to be a balanced square wave.
- 4 Reduce input signal to the standard level and adjust RV2 for the standard deviation.

APC

- 1 Adjust RV4 for High Power (5W)
- 2 Adjust RV3 for Low Power (1W)
- 3 This completes the transmitter alignment procedures.

SD-125E RF LINK MODULE

SD-125 Squelch setting using the ACC-900E PC Program and TAJ-521D Interface Cable.

Maxon's wide range of data radio products since the crystal control module (DM-0500 series) had their squelch level setting by hardware touch up. With the SD-125E series, the squelch level to open or close (unmute or mute) is set up by software control.

The RSSI utilizes the A/D conversion that will be fed to the microprocessor, which in turn will use this input to determine the squelch level setting to control the mute and unmute of the receiver.

Default setting of squelch level for all the SD-125 from our manufacture and workshop is approximately set at:

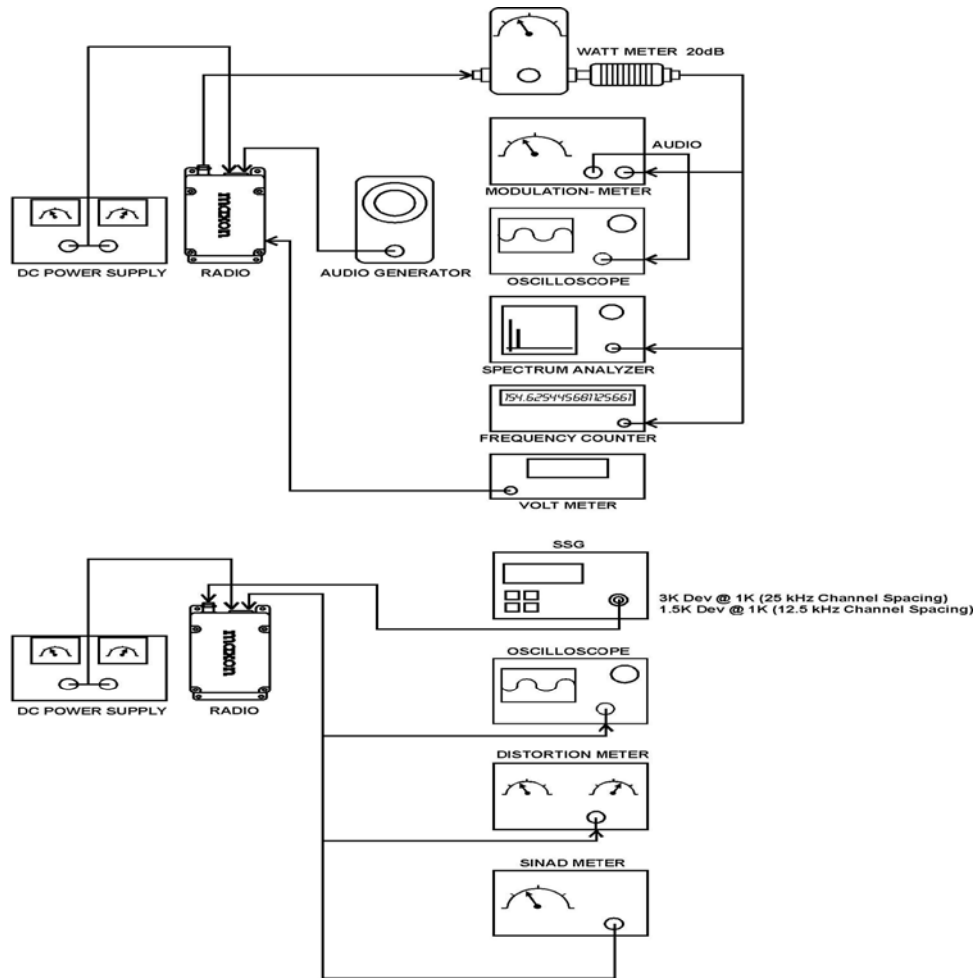
1. Squelch open (unmute) at -114dBm to -113dBm (0.45 - 0.5mV of the RX signal strength)
2. Squelch close (mute) at -117dBm to -116dBm (0.3 - 0.35mV of the RX signal strength)

Changing the default squelch settings requires use of the programming cable and software Those are designed for use not only as part of the programming kit but also as a tool of squelch level setting.

The minimum equipment required for squelch level setting is a RF signal generator. Radio communication test equipment is recommended.

- 1 Connect DB-9 with power cable to the Radio and DB-9 without power cable to the PC
- 2 Its antenna connector to the RF input port of the RF signal generator.
- 3 Execute ACC-900E and then select Squelch to the tool bar.
- 4 Power up the ACC-900E by plugging power plug to the power supply.
(use the DC supply of 9-15 Volts 200mA).
- 5 Select " user" menu of squelch program menu of ACC-900E
- 6 Reset the power supply and press the next button.
- 7 Adjust the RF signal generator for the desired signal strength to unmute level and press the next button (e.g. default setting is -113dBm, that is equivalent to 0.5mV)
- 8 Configure mute level and press the next button.
- 9 Press the next button to confirm
- It is recommended you should step other jobs while configuration.

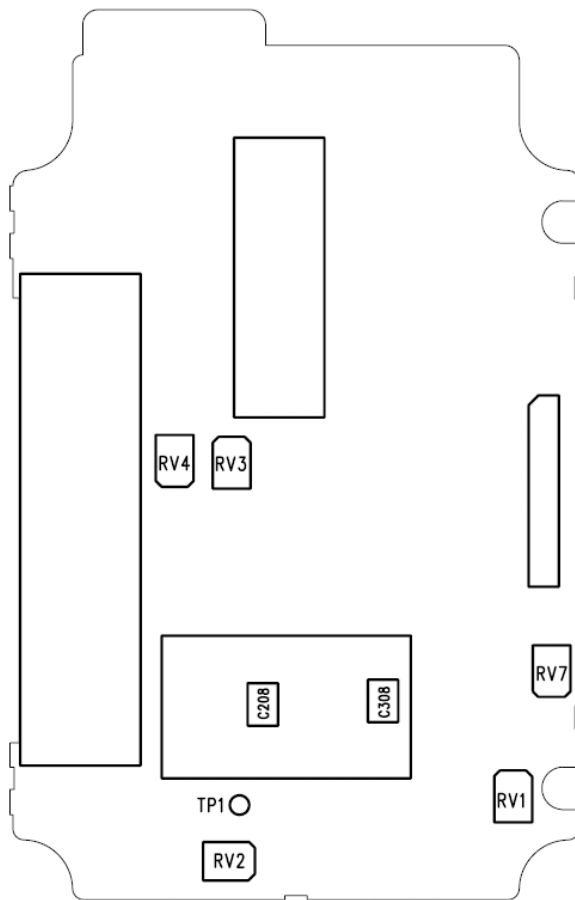
• NOTE: The difference of RF signal strength between the unmute and mute levels must be greater than or at least equal to 0.15mV (i.e. at least -123.5dBm) for the squelch setting to work properly. If they are too close to one another, RSSI through the A/D conversion can not differentiate between the mute and unmute level properly. As a result, it would cause the CD (Carrier Detect) to act intermittently.

TEST EQUIPMENT SETUP**1. S.S.G. : @ 1kHz Audio:**

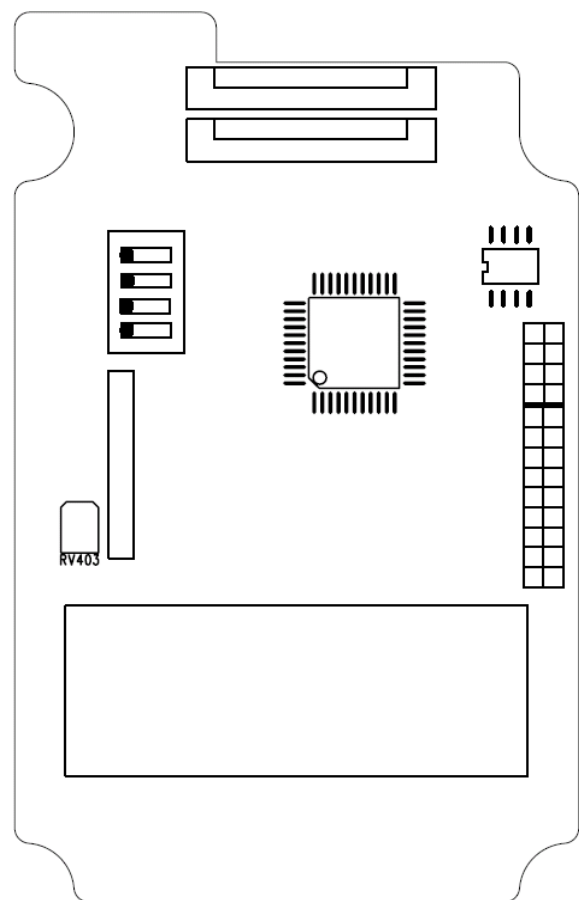
**3 kHz Deviation (25 kHz Channel Spacing)
1.5 kHz Deviation (12.5 kHz Channel Spacing)**

2. AF Generator : 10mV & 20dB Up.

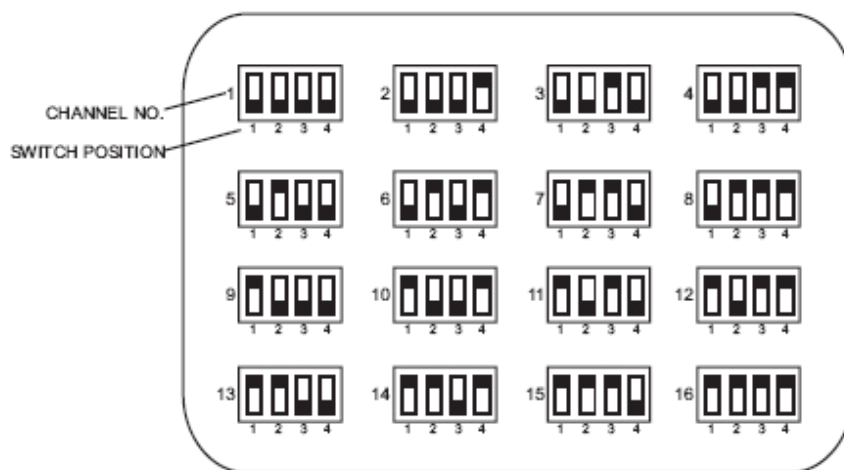
ALIGNMENT POINTS DIAGRAM



**RF BOARD
ALIGNMENT POINTS**



**DIGITAL BOARD
ALIGNMENT POINTS**



**SW401
CHANNEL SELECT SWITCH**

COMPONENT REPLACEMENT

Surface Mount Components

Surface mount components should always be replaced using a temperature controlled soldering system. The soldering tools may be either a temperature controlled soldering iron or a temperature controlled hot-air soldering station. A hot-air system is recommended for the removal of components on these boards. With either soldering system, a temperature of 700° F (371° C) should be maintained.

The following procedures outline the removal and replacement of surface mount components. If a hot-air soldering system is employed, see the manufacturer's operating instructions for detailed information on the use of your system.

CAUTION: Avoid applying heat to the body of any surface mount component using standard soldering methods. Heat should be applied only to the metalized terminals of the components. Hot-air systems do not damage the components since the heat is quickly and evenly distributed to the external surface of the component.

CAUTION: The CMOS Integrated Circuit devices used in this equipment can be destroyed by static discharges. Before handling one of these devices, service technicians should discharge themselves by touching the case of a bench test instrument that has a 3-prong power cord connected to an outlet with a known good earth ground. When soldering or desoldering a CMOS device, the soldering equipment should have a known good earth ground.

Surface Mount Removal

- 1 Grip the component with tweezers or small needle nose pliers.
 - 2 Alternately heat the metalized terminal ends of the surface mount component with the soldering iron. If a hot-air system is used, direct the heat to the terminals of the component. Use extreme care with the soldering equipment to prevent damage to the printed circuit board (PCB) and the surrounding components.
 - 3 When the solder on all terminals is liquefied, gently remove the component. Excessive force may cause the PCB pads to separate from the board if all solder is not completely liquefied.
- It may be necessary to remove excess solder using a vacuum de-soldering tool or Solder wick . Again, use great care when de-soldering or soldering on the printed circuit boards. It may also be necessary to remove the epoxy adhesive that was under the surface mount component and any flux on the printed circuit board.

Surface Mount Component Replacement

- 1 "Tin" one terminal end of the new component and the corresponding pad of the PCB. Use as little solder as possible.
- 2 Place the component on the PCB pads, observing proper polarity for capacitors, diodes, transistors, etc.
- 3 Simultaneously touch the "tinned" terminal end and the "tinned" pad with the soldering iron. Slightly press the component down on the board as the solder liquefies. Solder all terminals, allowing the component time to cool between each application of heat. Do not apply heat for an excessive length of time and do not use excessive solder.

With a hot-air system, apply hot air until all "tinned" areas are melted and the component is seated in place. It may be necessary to slightly press the component down on the board. Touch up the soldered connections with a standard soldering iron if needed. Do not use excessive solder.

- CAUTION: Some chemicals may damage the internal and external plastic parts of the radio.
4. Allow the component and the board to cool and then remove all flux from the area using alcohol or another approved flux remover.

Surface Mounted Integrated Circuit Replacement

Soldering and de-soldering techniques of the surface mounted IC's are similar to the above outlined procedures for the surface mounted chip components. Use extreme care and observe static precautions when removing or replacing the defective (or suspect) IC's. This will prevent any damage to the printed circuit board or the surrounding circuitry. The hot-air soldering system is the best method of replacing surface mount IC's. The IC's can easily be removed and installed using the hot-air system. See the manufacturer's instructions for complete details on tip selection and other operating instructions unique to your system. If a hot-air system is not available, the service technician may wish to clip the pins near the body of the defective IC and remove it. The pins can then be removed from the PCB with a standard soldering iron and tweezers, and the new IC installed following the Surface Mount Component Replacement procedures. It may not be necessary to "tin" all (or any) of the IC pins before the installation process.

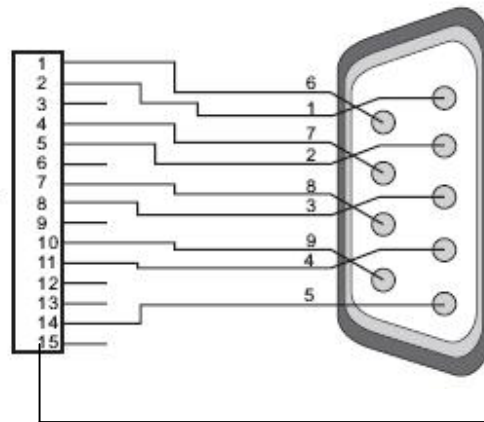
TROUBLESHOOTING GUIDE

SYMPTOMS	CAUSES	COUNTERMEASURES
Unit does not work	1. Incomplete connection 2. Defective DC/DC VCC 3. 5v voltage source 4. PLL error 5. EEPROM fail	1. Check CON401 connection 2. Check IC801 3. IC1 (5v $\pm$ 0.2v) 4. Check VTCXO/VCO/PLL IC 5. Re-programming
Bad RX Sensitivity (-10 to -80dBm)	1. Defective ANT Switch 2. Defective Front-End 3. Defective Dual Gate FET 4. IF IC 5. VCO level drop 6. Change of 1st local frequency	1. Check D3, D5 2. Check Q601 3. Check Q16 4. Replace IC6 5. RX VCO level > -2dBm 6. Check 12.8MHz
Defective RX	1. VCO frequency change or level drop 2. Defective voltage source	1. Repair RX VCO Defective IF IC (IC6) 3. IC1, Q2
PLL Error	1. Defective 12.8 MHz VTCXO 2. Voltage source for RX VCO/ TX VCO 3. Defective PLL IC	1. Replace VTCXO 2. Check RX VCO/TX VCO 3. Replace IC2
Low TX Power Output	1. APC	1. Re-adjust RV4
No TX Power	1. TX Buffer 2. Power Module 3. APC control	1. Check Q9, 10 2. Check Q701, 702, 703 3. Check Q11
No Modulation	1. SW IC & Mic Amp IC	1. Check U404, 405, 406
No Programming	1. Short protector VCC	1. Defective programming lead

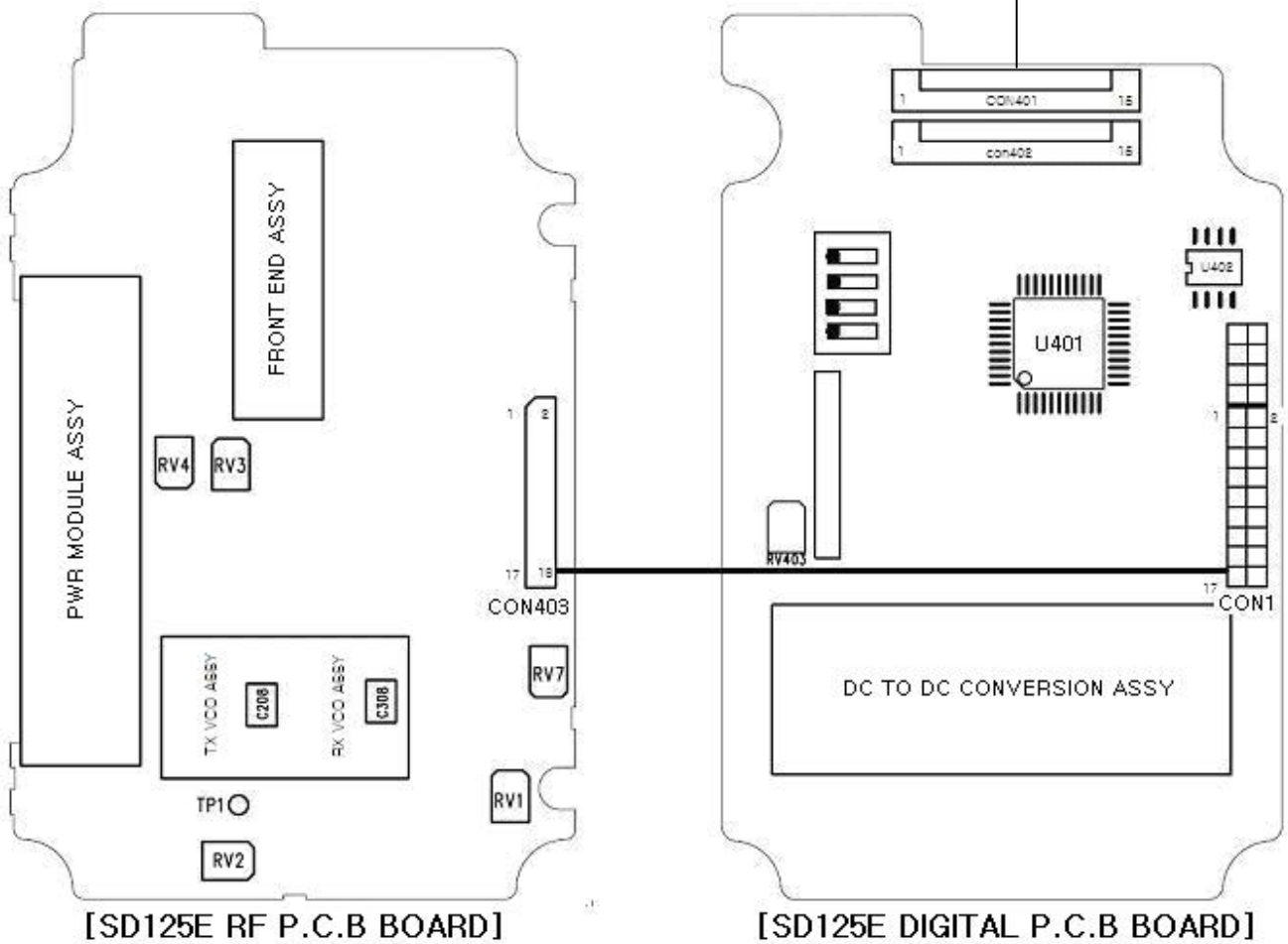
SD-125E RF LINK MODULE

WIRING DIAGRAM

- Pin1..... Audio In (Data RX)
- Pin2..... Audio Out (Data TX)
- Pin3..... PTT
- Pin4..... GND (Ground)
- Pin5..... B+ (8-18 Volts DC)
- Pin6..... Carrier Detect (Squelch)
- Pin7..... Mic Input
- Pin8..... Switch
- Pin9..... Speaker



D-SUB 9 CONNECTOR
(P/N : 501-394001BA)

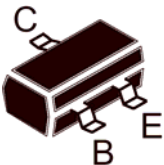
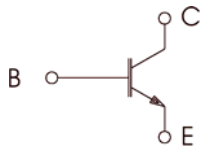
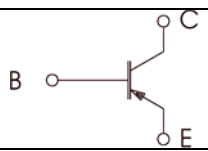
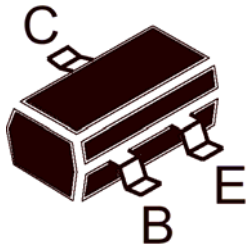
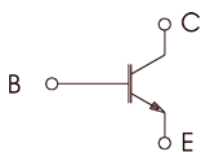
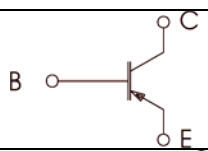
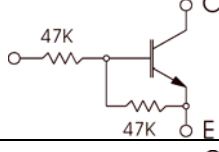
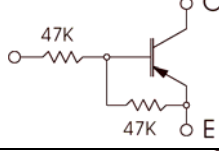
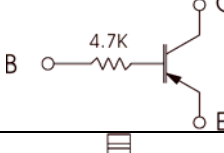
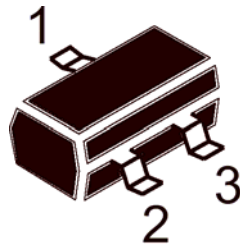
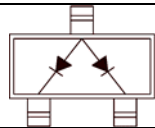
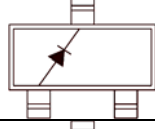
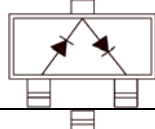
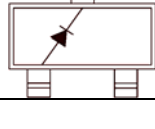


SD125E RF BOARD P.C.B.

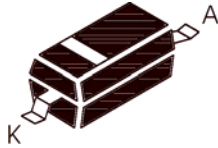
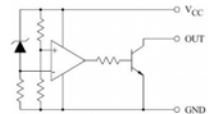
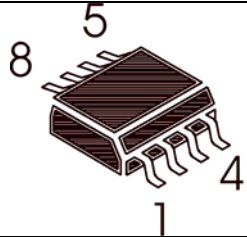
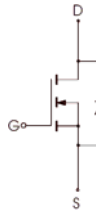
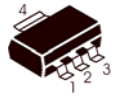
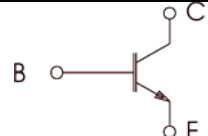
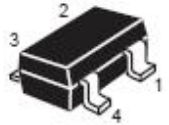
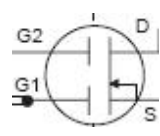
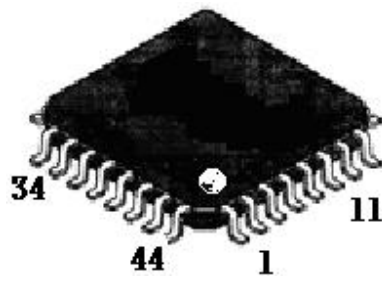
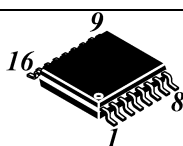
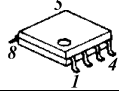
SD125E DIGITAL BOARD P.C.B
(P/N : 932-558193AB)

SD-125E RF LINK MODULE

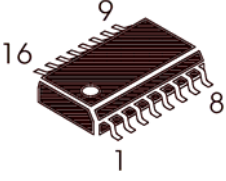
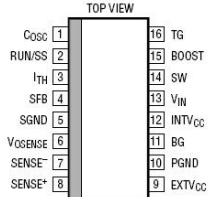
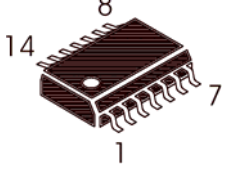
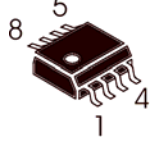
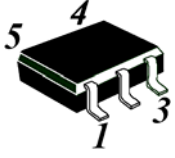
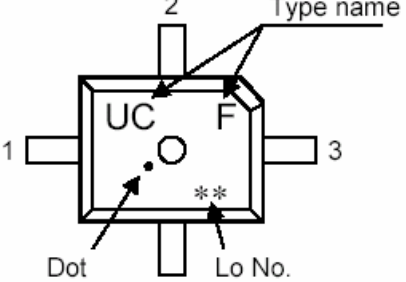
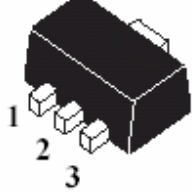
COMPONENT PINOUT

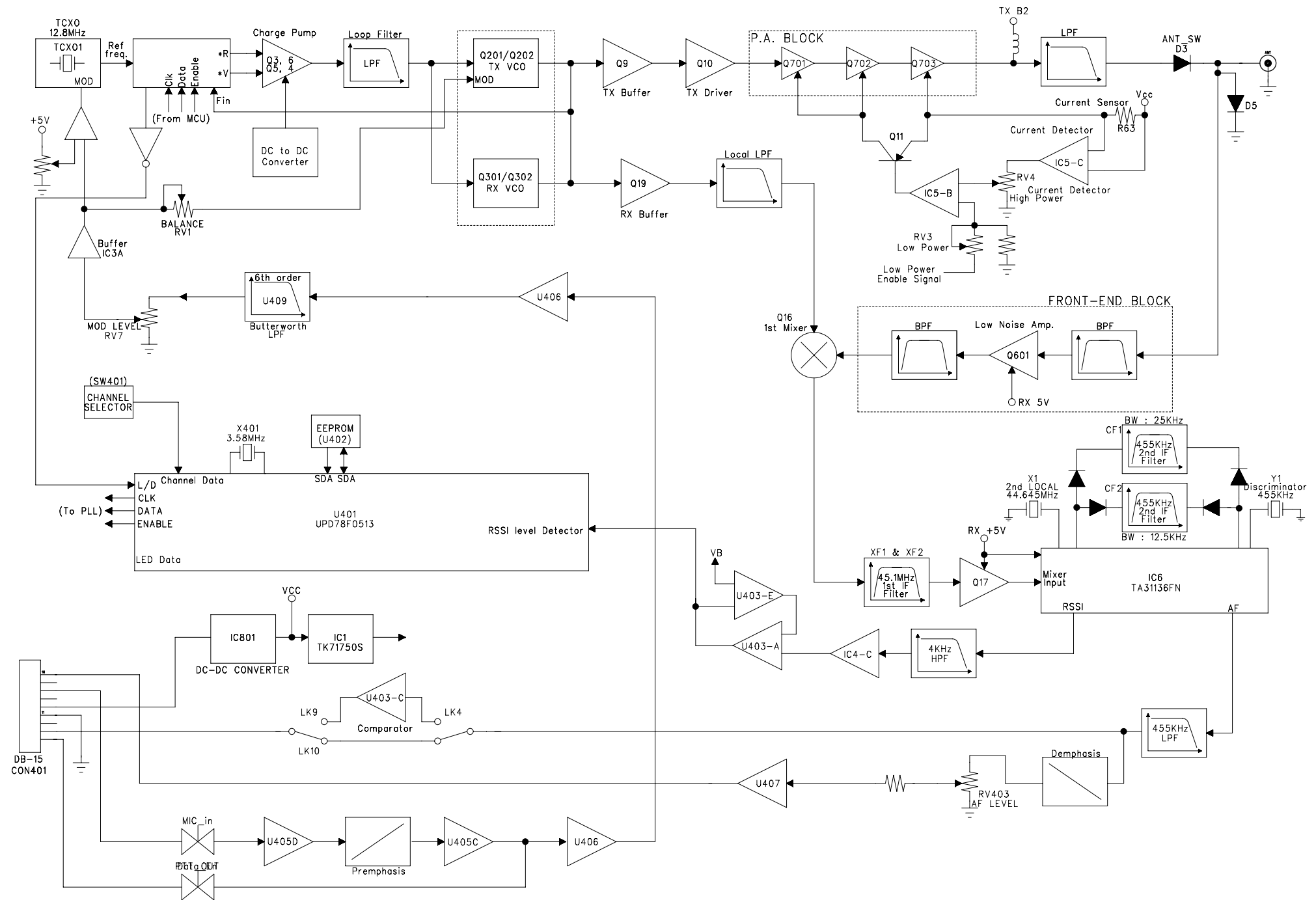
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	2SC5086-Y	Q201.202.301.302	
	KTA2014	Q5.6.905	
	PBR951	Q10.701	
	BFR92A	Q7.17.19	
	KTC3875S	Q8.12.15.20	
	KTA1504S	Q407	
	KRC104S (ND)	Q13.14.18.21.22.24 404.406.408	
	KRA104S (PD)	Q7.23.401.402.403.405	
	KRA110S (PK)	Q1.Q2	
	KDS181	D1.8.9.701	
	KDS193	D2.406	
	KDS226	D601.901.902	
	ZENER (5.6V)	D401.402.403.404 405.407.408.409.410	

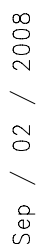
SD-125E RF LINK MODULE

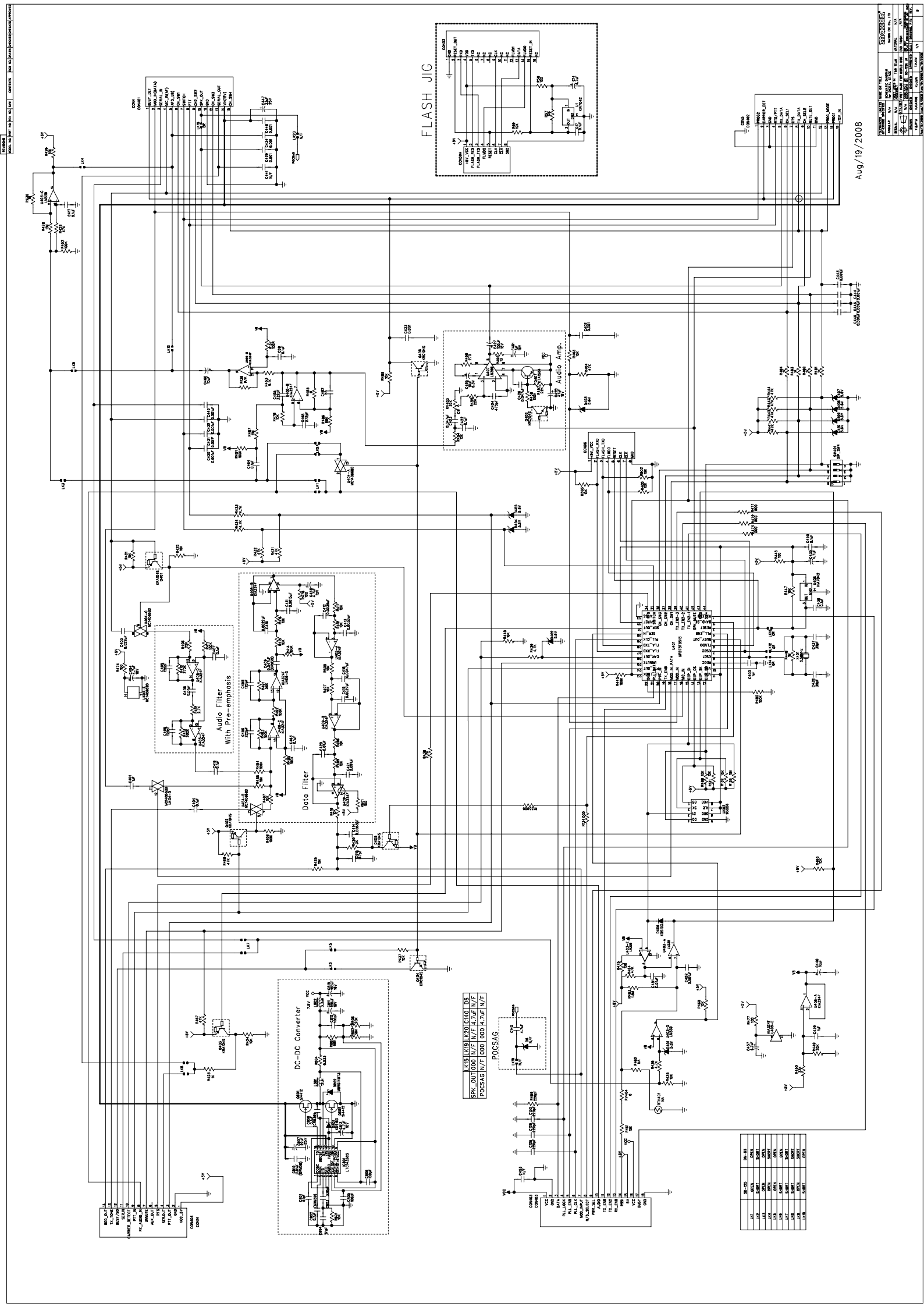
	1SV229 1SV217	D201.202.301	
	KDS160	D801	
	UPP9401	D3.D5	
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	SI4412DY	Q801.802	
 1.EMITTER 2.BASE 3.EMITTER 4.COLLECTOR	BLT50	Q702	
 1. Source 2. Gate1 3. Gate2 4. Drain	3SK324UG	Q16	
	UPD78F0513	U401	MCU
	MB15E03SL	IC2	PLL IC
	TA31136FN	IC6	IF IC
	NJM12903V		Comparator
	NJM12904V	IC3.4.5	OP AMP

SD-125E RF LINK MODULE

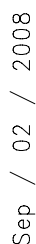
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	MC14066BD	U404	Analog S/W IC
	KIA324F	U405.406.409	OP AMP COMPANDER
	LM339	U403	Quad Voltage COMPARATOR
	AT93C56-10SI	U402	EEPROM
	LM386MX	U407	AUDIO AMP
	TK71750SCL TK71733SCL	IC7 IC1	
	2SK3476 1(Gate) 2(Source) 3(Drain)	Q703	Silicon N-Channel MOS TYPE Amplifier
1. BASE 2. COLLECTOR 3. EMITTER 	KTA1663	Q11	PNP Epitaxial Planar Transistor

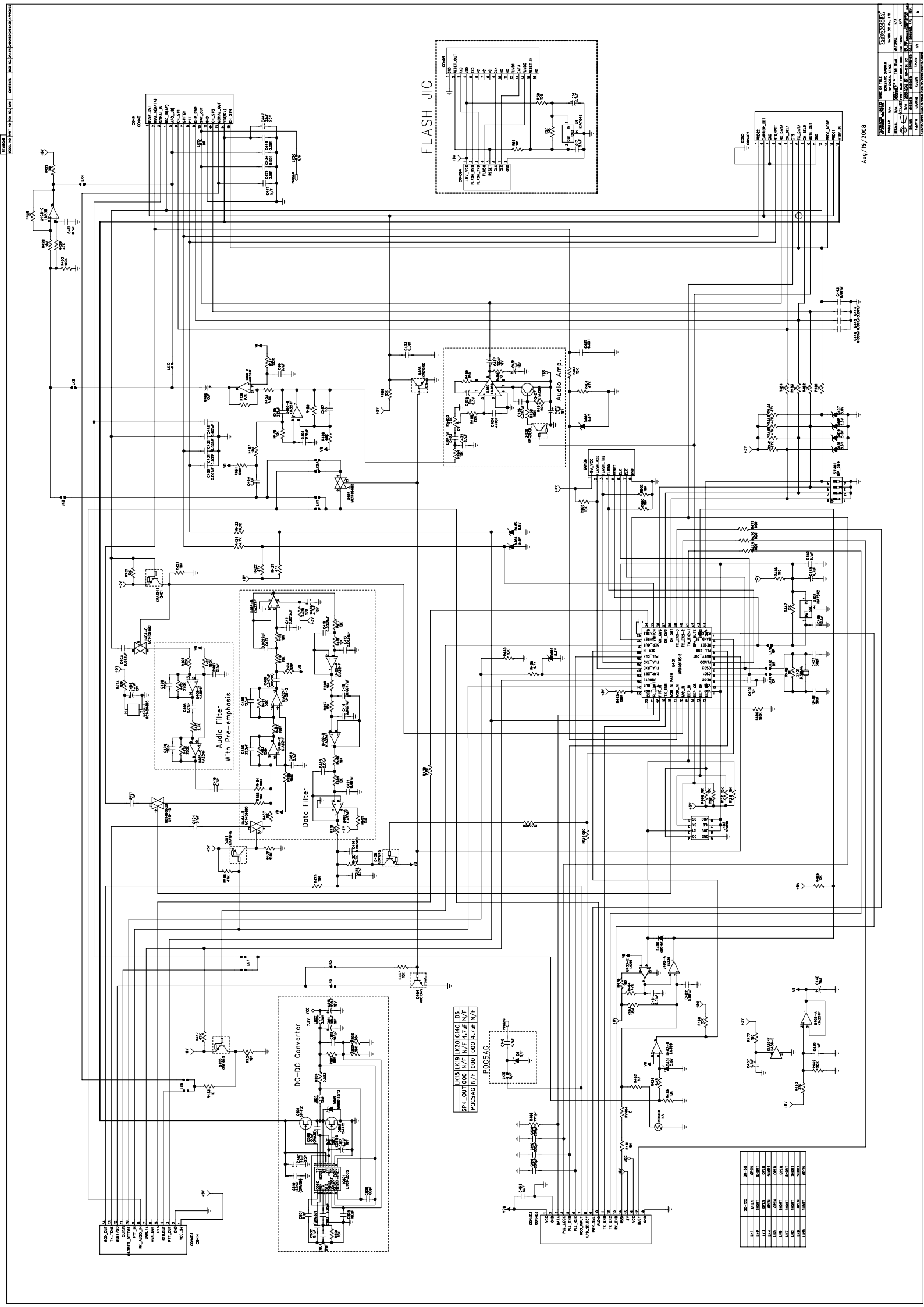






Aug/19/2008





FLASH JIG

Aug/19/2008

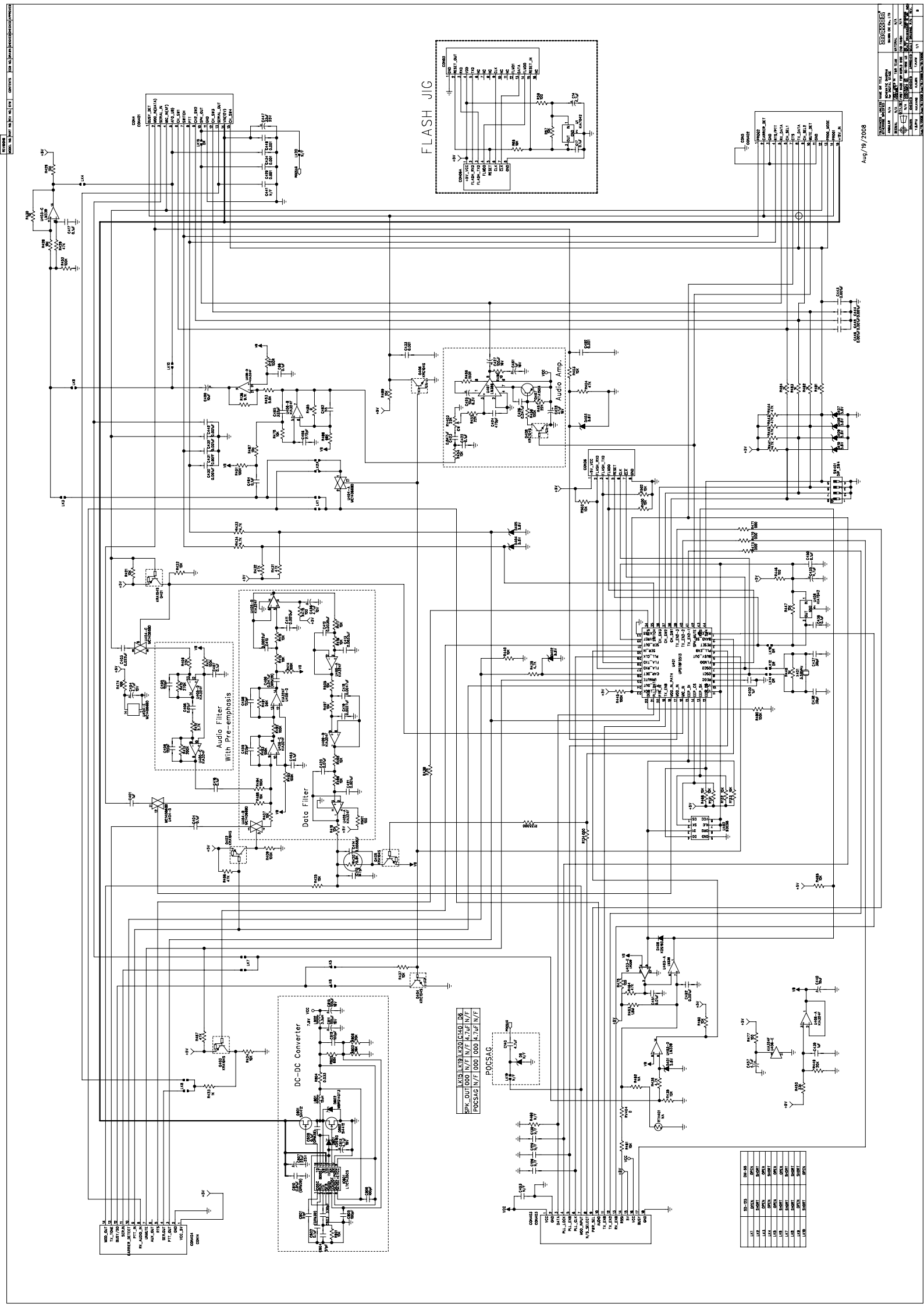
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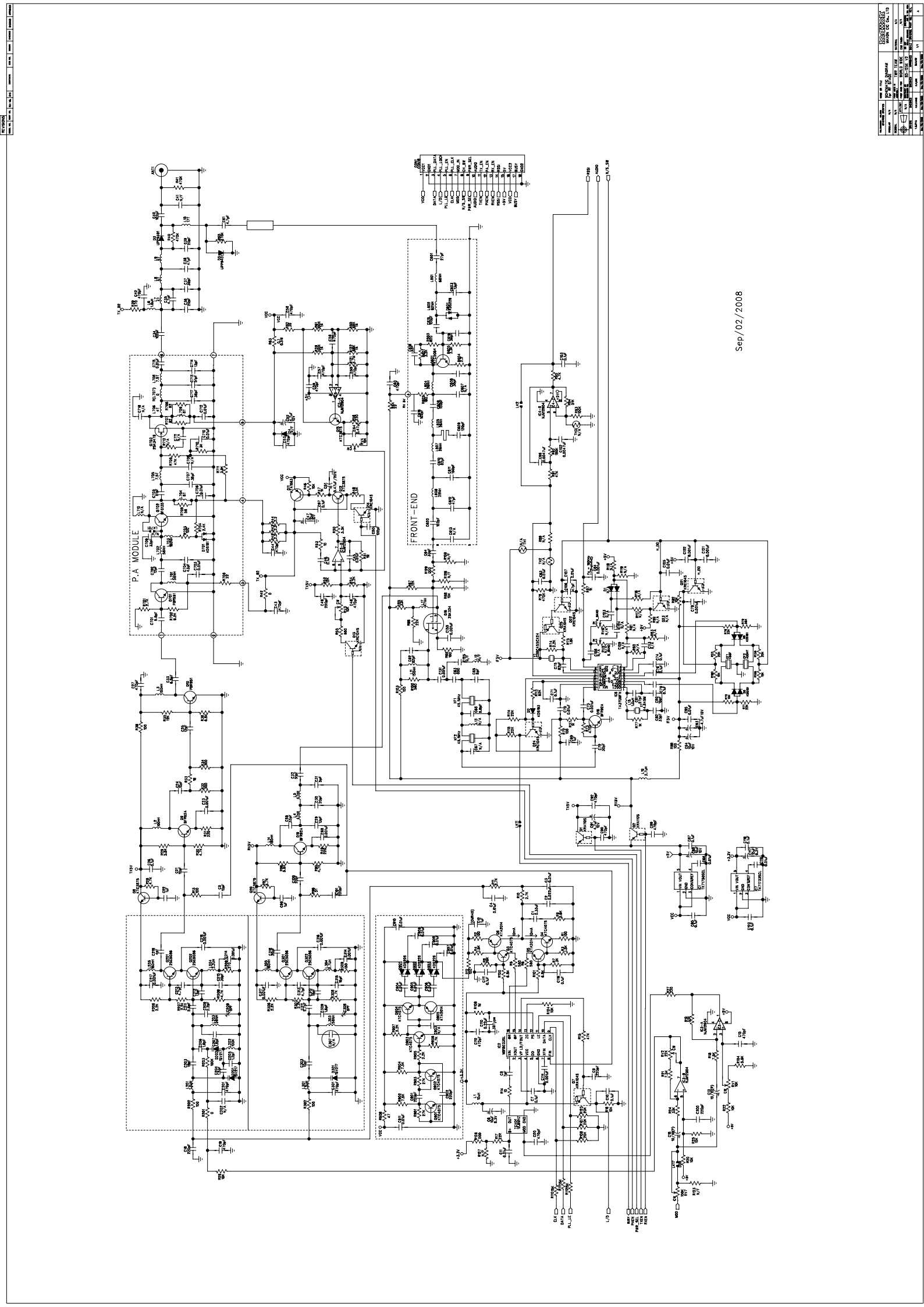
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POCSAG

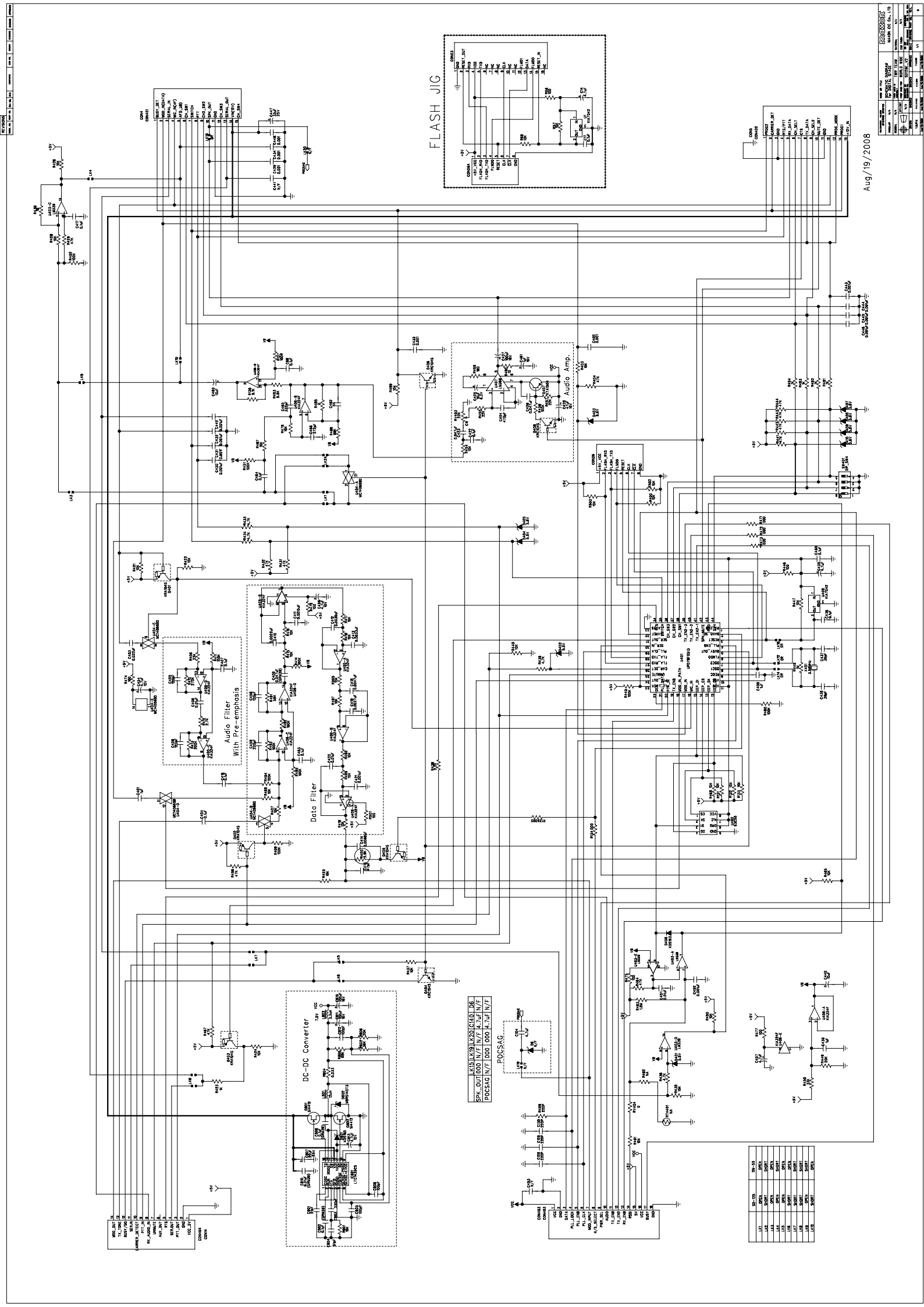
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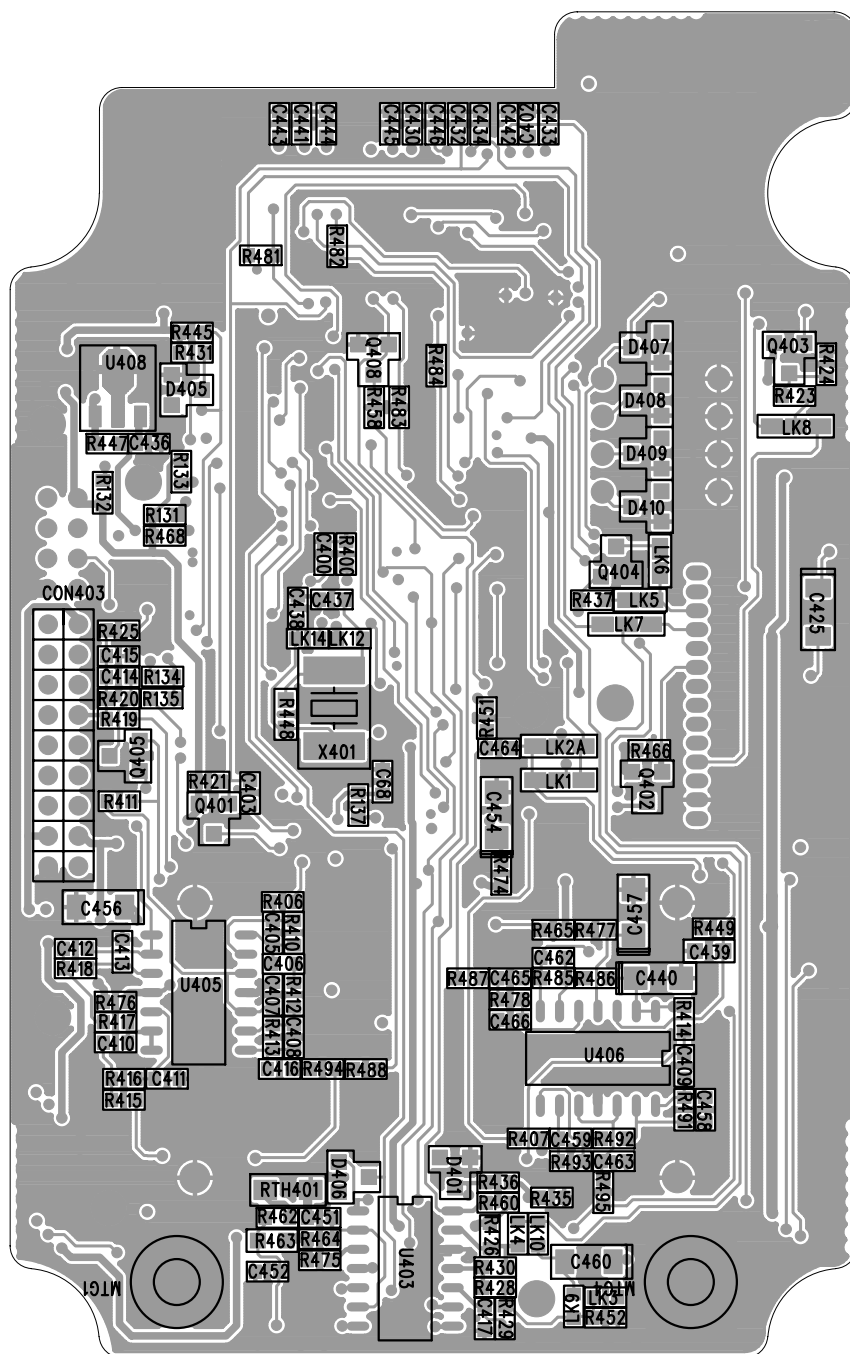


Sep/02/2008



Aug/19/2008

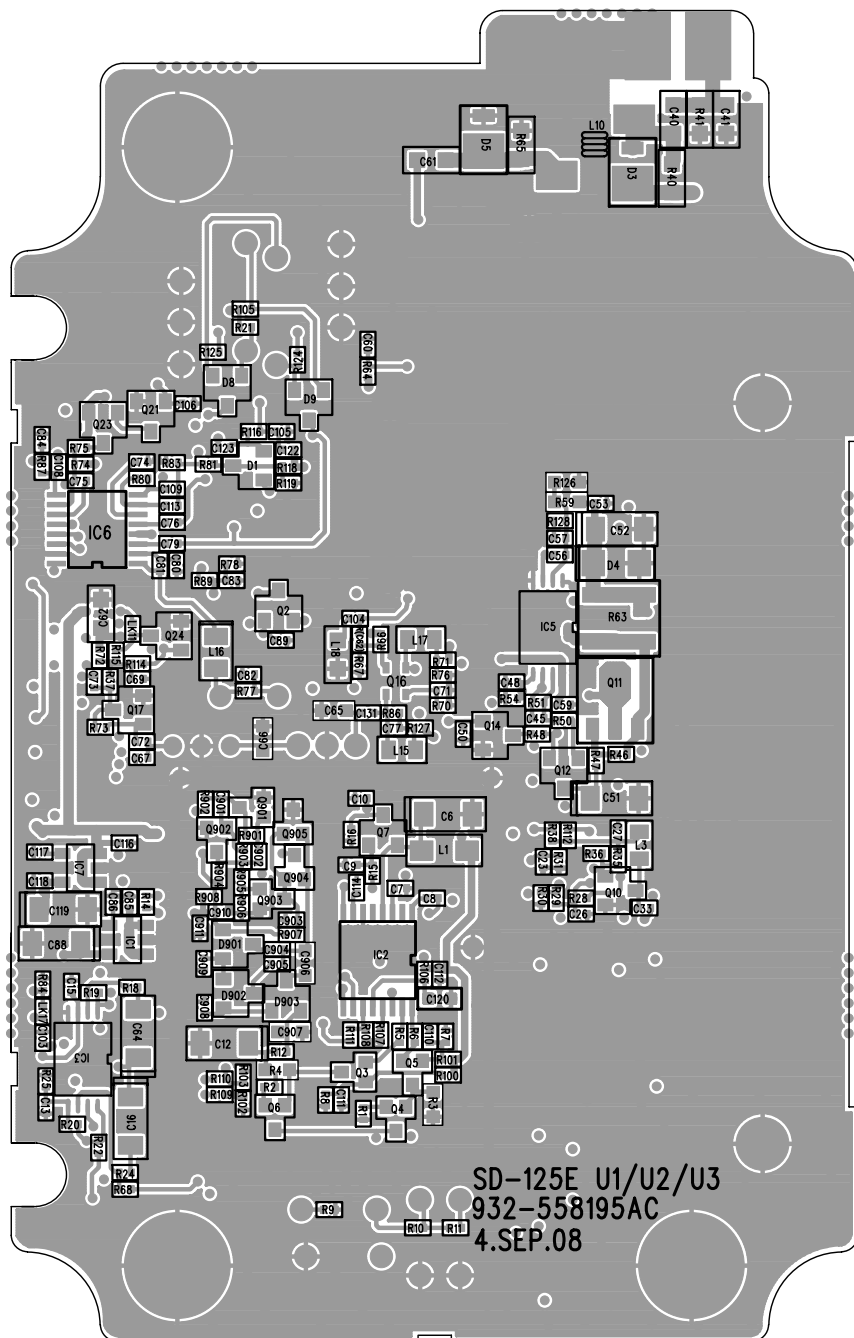
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100	100.0	100	100	100	100



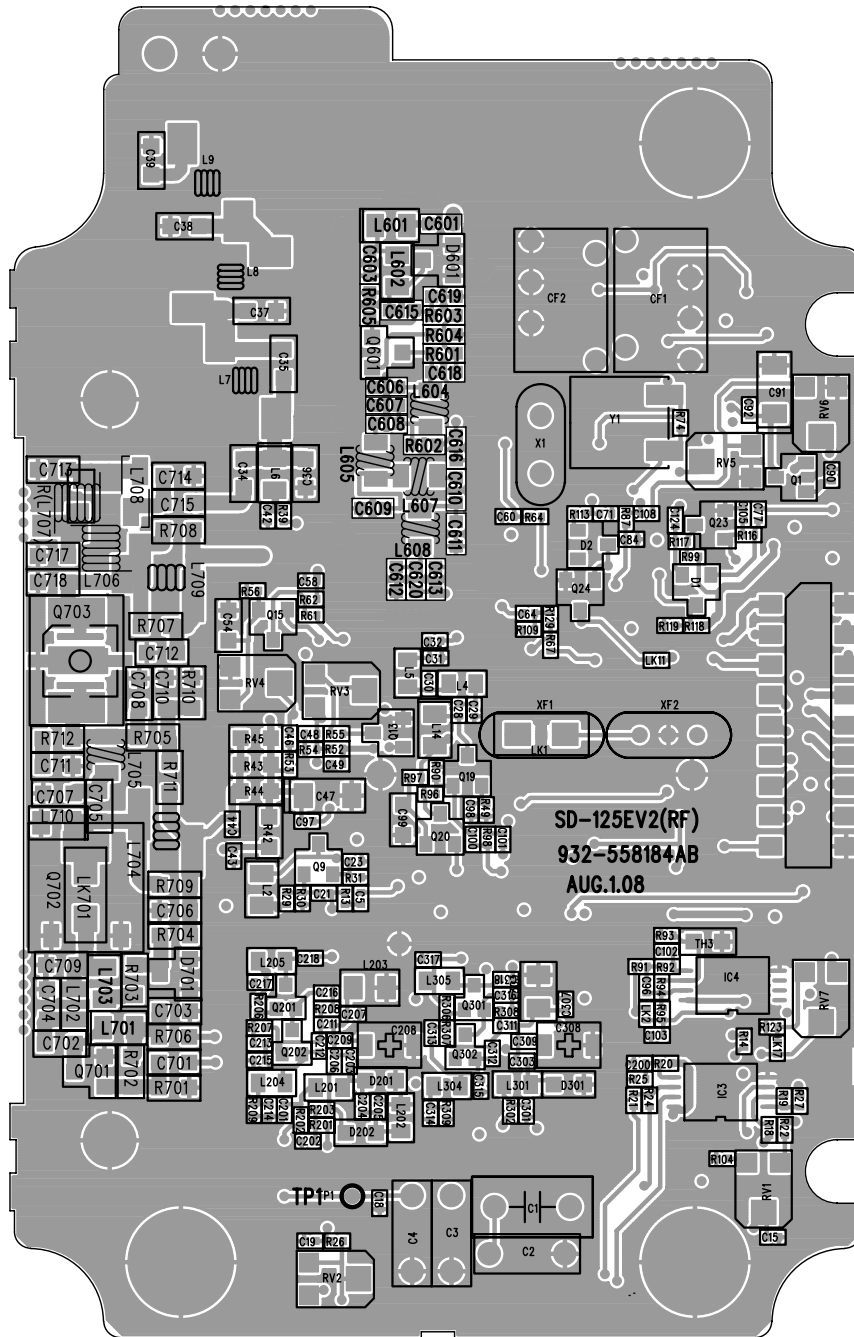
BOTTOM PATTERN

**** SD-125EV2 DIG PCB**

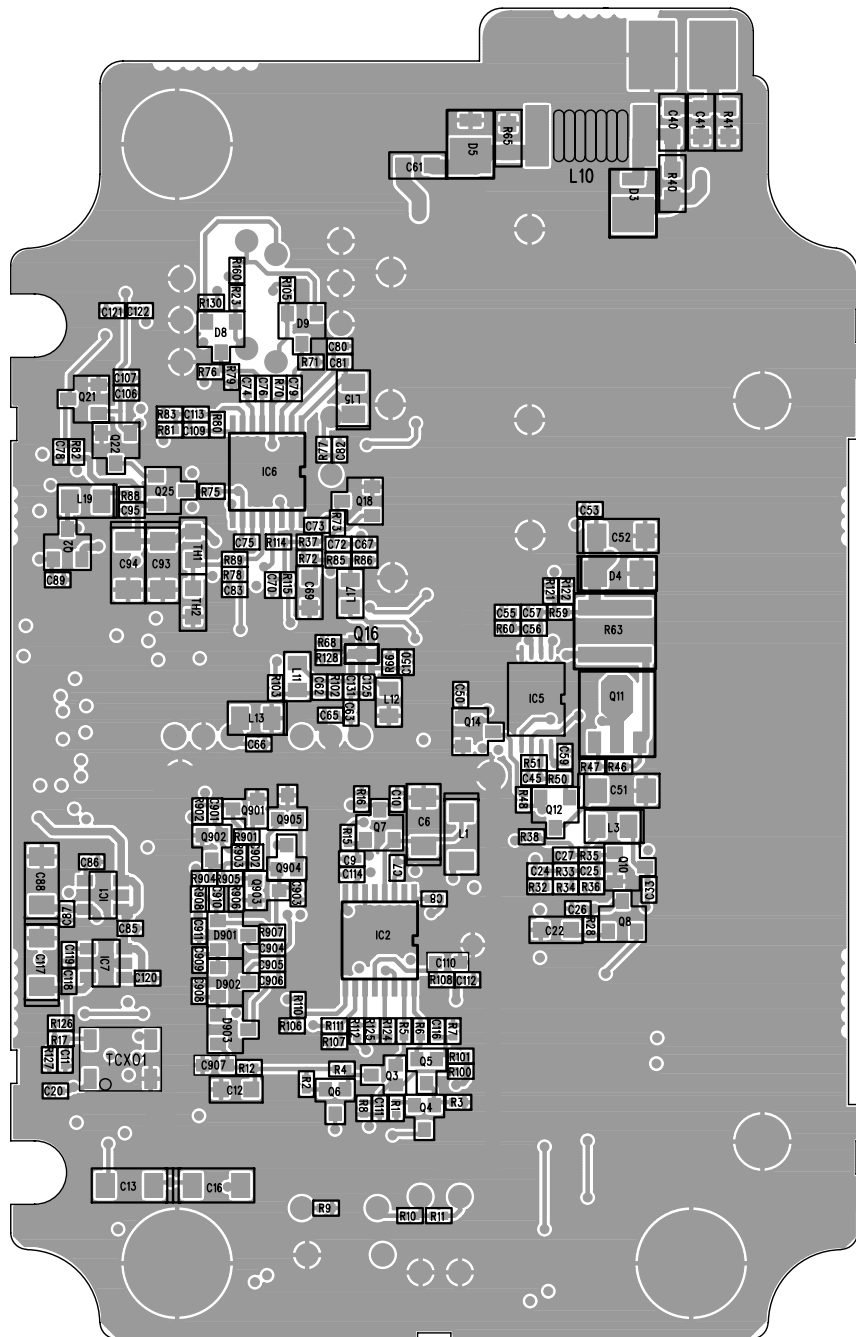
P/N: 932-558193AB



BOTTOM PATTERN
MODEL : SD-125E U1/U2/U3
PART NO.(CODE) : 932-558195AC



TOP PATTERN
 MODEL :SD-125EV2 (RF)
 P/N :932-558184AB



BOTTOM PATTERN
MODEL :SD-125EV2 (RF)
P/N :932-558184AB

SD-125E RF LINK MODULE

SD-125E COMMON PARTS LIST					
COVER ASSY (501-502121CB)					
Reference No	Description	Code No	Reference No	Description	Code No
	M2.6X6 NI-PLAT	838-602606NI		SPTE 0.3T	832-501337AA
	M3X10 (+)BH ZN-PLAT WHT	838-600310ZN		CHANNEL SELECTION LABEL	835-130084AA
	PH(+), M2X4 WD=4.7 NI-PLAT	838-320204NI		POLYESTER 48X8	835-130036AA
	NSP T0.2	832-501175AA		POLYESTER 40X21	835-130048AA
	SD-125, ALDC12	832-501268AA		POLYESTER 39.5X20.5	835-130040AA
	NEOPRENE 3M4262	833-501060AA		SHD-60503	922-620001AB
	0.4&1.2&X260 SILI.RUBB BLK	833-501064AA		UG-1094/U(W)	925-990002ZA
	SD-125E, ALDC12	832-501032BB		15P+9P SHD-7B03	501-394001BA
PACKING ASSY(501-902121PA)					
Reference No	Description	Code No	Reference No	Description	Code No
	SKE 136(W)X72(D)X42(H)	836-120072AA		ART PAPER 60X25	835-130083AA
	MANILA 73.5(W)X140(D)X42.5(H)	836-120073BB		ART PAPER STICKER	835-130226AA
	P.E 100X150XT0.05	836-140011AA		DW1E 281(W)X372(D)X187(H)	836-120071AA
CH SPACING ASSY(501-502121SA)					
Reference No	Description	Code No	Reference No	Description	Code No
Y1	CDBC455KCAY24-R0	928-290455KC	X1	44.645MHZ -30 15PPM 32PF	928-130001AL
XF1.2	45.1MHz, 45N15B4	929-300045NC	CF2	LTWM455HT(2.832.689)	929-310455HTAC
	SILICONE RUBBER HS50 GRAY	833-501042AA	CF1	LTM455FW(2.832.685)	929-310455FWAC

SD-125E U1 PARTS LIST

SD-125E U1(400MHz~430MHz) DIGITAL BOARD(932-558193AA) PARTS LIST					
DC TO DC CONVERSION ASSY (501-902128AA)					
Reference No	Description	Code No	Reference No	Description	Code No
R801	10K 1/16W 5% 1608	911-610057BG	C810	0.01UF GRM39X7R103K25V	913-421004EK
R802	36K 1/16W 5% 1608	911-636057BG	C802.808	0.1UF GRM39 X7R104K50V	913-421005HH
R804	0.033 1/10W 1% 2012	911-603307CA	C805.806.812	100PF GRM39 U2J101J 50V	913-421002HGAB
R805	68K 1/16W 5% T 1608	911-668057BG	C803	330PF GRM39COG331J50V	913-423302HG
R806	20K 1/16W 5% T 1608	911-620057BG	C801.804	51PF GRM39COG510J50V	913-425101HG
C811.815	100UF 16V D 20%	915-611008ZC	D801	KDS160	882-190160AA
C807	22UF 35V D 20%	915-612207FKLG	D802	MBRS140T3	882-690140TA
C813	4.7UF 10V A 20%	915-6114706	L801	12UH DA104-120M	919-922120AB
Q801.802	SI4412DY	881-694412DY	L802	3.3UH SD73-3R3M	919-921330AB
IC801	LTC1435CS(SO-16)	875-401435SP		NSP T0.3	832-501180AA
DIGITAL PCB MANUAL ASSY (501-402128AA)					
Reference No	Description	Code No	Reference No	Description	Code No
CON403	2.0MM DUAL ROW DOUBLE (2X9)	925-990016AA	SW401	KSD-04	924-150004AA
CON404	TDI7-14SG	925-990100AA	CON06	TDH2-08SG	925-990101AA
CON401.402	53261-1571	925-990015AB			

SD-125E RF LINK MODULE

SD-125E U1(400MHz~430MHz) DIGITAL BOARD(932-558193AA) PARTS LIST						
DIGITAL PCB SMD ASSY (501-402128AB)						
Reference No	Description	Code No	Reference No	Description	Code No	
R134.135.471	0 1/16W 5% 1608	911-600007BG	C411	0.0015UF CM105X7R152K50V	913-421503HHAA	
R472.473.485	0 1/16W 5% 1608	911-600007BG	C406.420.451	0.01UF GRM39X7R103K25V	913-421004EK	
LK6.7.8.10.12	0 1/16W 5% 1608	911-600007BG	C68.404.407.416	0.1UF GRM39Y5V104Z25V	913-421005EX	
LK14.15.18	0 1/16W 5% 1608	911-600007BG	C417.422.436.450	0.1UF GRM39Y5V104Z25V	913-421005EX	
R490	10 1/16W 5% T 1608	911-610027BG	C463.464	0.1UF GRM39Y5V104Z25V	913-421005EX	
R49.137.446.474	100 1/16W 5% T 1608	911-610037BG	C402.421.429.430	0.001UF GRM39 X7R102K 50V	913-421003HH	
R475.476.477.501	100 1/16W 5% T 1608	911-610037BG	C431.433.434.448	0.001UF GRM39 X7R102K 50V	913-421003HH	
R423.481.482.483	1K 1/16W 5% 1608	911-610047BG	C452.442.443.444	0.001UF GRM39 X7R102K 50V	913-421003HH	
R484	1K 1/16W 5% 1608	911-610047BG	C445.446.432	0.001UF GRM39 X7R102K 50V	913-421003HH	
R403.419.421.424	10K 1/16W 5% 1608	911-610057BG	C410	0.0022UF GRM39X7R222J50V	913-422203HG	
R425.435.437.440	10K 1/16W 5% 1608	911-610057BG	C419.466	0.0027UF GRM39X7R272J50V	913-422703HG	
R505.465.468.489	10K 1/16W 5% 1608	911-610057BG	C403	0.022UF GRM39X7R223K50V	913-422204HH	
R407.415.131.132	10K 1/16W 5% 1608	911-610057BG	C412	0.0039UF GRM39X7R392K50V	913-423903HH	
R133.416.417.418	10K 1/16W 5% 1608	911-610057BG	C413.465	0.0033UF GRM39X7R332K50V	913-423303HHAA	
R447.454.497.461	10K 1/16W 5% 1608	911-610057BG	C418	0.0047UF GRM39X7R472K50V	913-424703HH	
R426.428.460.478	10K 1/16W 5% 1608	911-610057BG	C409.423.426	0.047UF GRM39Y5V473Z25V	913-424704EX	
R487.488.422.400	10K 1/16W 5% 1608	911-610057BG	C414	0.0068UF GRM39X7R682K50V	913-426803HH	
R498.499.502.503	10K 1/16W 5% 1608	911-610057BG	C400.401.439	1UF GRM40Y5V105Z16V	913-431006CX	
R409.411.414.445	100K 1/16W 5% 1608	911-610067BG	C405.408.458	120PF GRM39COG121J50V	913-421202HG	
R451.452.458.480	100K 1/16W 5% 1608	911-610067BG	C126.129.130.459	220PF GRM39COG221J 50V	913-422202HG	
R492.493.494.495	100K 1/16W 5% 1608	911-610067BG	R469	220PF GRM39COG221J 50V	913-422202HG	
R448.430	1M 1/16W 5% 1608	911-610077BG	C437.438	39PF GRM39COG390J50V	913-423901HG	
R456	150 1/16W 5% T 1608	911-615037BGAA	C415	47PF GRM39COG470J50V	913-424701HG	
R449	20K 1/16W 5% T 1608	911-620057BG	C424	470PF GRM39X7R471K50V	913-424702HH	
R413	200K 1/16W 5% 1608	911-620067BG	C427	100UF 6.3V D 20%	915-611008ZA	
R438	2.2K 1/16W 5% T 1608	911-622047BG	C425.440.460	10UF 6.3V A 20%	915-611007AKLC	
R406.455.457	22K 1/16W 5% T 1608	911-622057BG	C461	1UF 25V A 20%	915-611006EKLC	
R412	2.7K 1/16W 5% T 1608	911-627047BG	C447	33UF 25V D 20%	915-613307EKLK	
R410	270K 1/16W 5% 1608	911-627067BG	C435.454.456.457	4.7UF 10V A 20%	915-6114706	
R450	33K 1/16W 5% 1608	911-633057BG	C428	47UF 16V D 20%	915-614707	
R420	3.9K 1/16W 5% 1608	911-639047BG				
R433.434.436.439	4.7K 1/16W 5% 1608	911-647047BG	U401	UPD 78F0513	874-180513LQ	
R404.431.432.441	47K 1/16W 5% 1608	911-647057BG	U405.406.409	KIA324F-EL	875-100324FL	
R442.443.444.464	47K 1/16W 5% 1608	911-647057BG	U408	KIA7042AF	875-907042SO	
R466.467.429	47K 1/16W 5% 1608	911-647057BG	U403	LM339	875-900339AA	
R453	5.6K 1/16W 5% 1608	911-656047BG	U404	MC14066BDR2G	874-114066BD	
R491.494	56K 1/16W 5% 1608	911-656057BG	U402	AT93C56-10SI	876-609356AA	
R473.486	68K 1/16W 5% T 1608	911-668057BG	U407	LM386MX-1 (SO-08)	875-100386SP	
R136	9.1K 1/16W 5% 1608	911-691047BG	U401.402.403.404	BZX84C5V6LT1	882-290084CB	
RV404	0 1/10W 5% 2012	911-600007CA	U405.407.408.409	BZX84C5V6LT1	882-290084CB	
R463	1.8M 1/10W 5% 2012	911-618077CA	U410	BZX84C5V6LT1	882-290084CB	
Q404.406.408	KRC104SND(SOT-23)	881-390104SN	X401	ZTTCC3.58MG	928-210358MG	
Q407	KTA1504SY(SOT-23)	881-191504SY				
Q401.402.403.405	KRA104S(SOT-23)	881-190104SPAA	D406	KDS193	882-190193KD	

SD-125E U1(400MHz~430MHz) RF BOARD(932-558195AB) PARTS LIST						
PWR MODULE U1 ASSY (501-902128AE)						
Reference No	Description	Code No	Reference No	Description	Code No	
R705	10K 1/16W 5% 1608	911-610057BG	C711	0.001UF GRM40 X7R102K 50V	913-431003HH	
R706	100 1/16W 5% T 1005	911-610037BF	C709	0.01UF GRM36X7R103K16V	913-411004CH	
R707	220 1/16W 5% 1005	911-622037BF	C702	10PF GRM36COG100D50V	913-411001HC	
R704	2.2K 1/16W 5% T 1005	911-622047BF	C705	15PF GRM40COG150J50V	913-431501HG	
R701	2.7K 1/16W 5% 1005	911-627047BF	C713	20PF GRM40COG200J50V	913-432001HG	
R709	330 1/16W 5% 1005	911-633037BF	C712	220pF, GRM40COG221J50V	913-432202HG	
R702	6.8K 1/16W 5% 1005	911-668047BF	C708	43PF GRM40COG430J50V	913-434301HG	
R703	6.8 1/16W 5% 1005	911-668017BF	C716	27PF GRM40COG270J50V	913-432701HG	
Q701	PBR951	881-990951AA	C704	3PF GRM36COG030C50V	913-413000HB	
D701	KDS181S	882-190181SA	C714.722	6PF GRM40COG060D50V	913-436000HC	
L705	1.0X0.45X4T:R(SMD)	919-490024AA	C707	7PF GRM40COG070D50V	913-437000HC	
L701.703	14NH 03095TL	919-420046AA	C701	22PF GRM36COG220J50V	913-412201HGAA	
L702	1.2UH SWI0805FT1R2	919-920120AB	Q702	BLT50(SOT-223)	881-990050AA	
L704	3.9NH SWI0603CT3N9	919-920003AA	Q703	2SK3476 (TE12L,Q)	881-883476AA	
			C721	9PF GRM40COG090D50V	913-439000HC	
NSP T0.2	832-501170AA		C700.703.706	220PF GRM36X7R221J50V	913-412202HGAA	

SD-125E RF LINK MODULE

SD-125E U1(400MHz~430MHz) RF BOARD(932-558195AB) PARTS LIST							
FRONT END U1 BAND ASSY (501-372128AA)							
Reference No	Description	Code No	Reference No	Description	Code No		
R(C607.C603)	0 1/16W 5% 1005	911-600007BF	C609.617	12PF GRM36COG120J50V		913-411201HG	
R(C604,C605)	0 1/16W 5% 1005	911-600007BF	C619	15PF GRM36 COG150J 50V		913-411501HG	
R602	47 1/16W 5% T 1005	911-647027BF	C620	18PF GRM36COG180J50V		913-411801HG	
R601	47K 1/16W 5% T 1005	911-647057BF	C616.623	20PF GRM36COG200J50V		913-412001HGAA	
			C615	3.3PF GRM36COG3R3C50V		913-413300HB	
Q601	AT-41532	881-394153AA	C614.621	4PF GRM36COG040C50V		913-414000HBAA	
D601	KDS226	882-190226AA	C601.613	4.7PF GRM36COG4R7		913-414700	
L607.608	14NH 03095TL	919-420046AA	C611	470PF GRM36X7R471K50V		913-414702HH	
L601.602.605	0.30X0.90X4T:R(SMD)	919-420052AA	C618	5.6PF GRM36COG5R6D50V		913-415600HC	
L606.609	0.30X0.90X4T:R(SMD)	919-420052AA	C622	8PF GRM36COG080D50V		913-418000HC	
VOLTAGE DOUBLER ASSY (501-392128AA)							
R908	10 1/16W 5% 1005	911-610027BF	C911	0.1UF GRM36Y5V104Z16V		913-411005CK	
R905.907	2.2K 1/16W 5% T 1005	911-622047BF	C904.905.908.909	0.022UF GRM36X5R223K16V		913-412204CH	
R901.903	27K 1/16W 5% 1005	911-627057BF	C910	0.022UF GRM36X5R223K16V		913-412204CH	
R906	4.7K 1/16W 5% T 1005	911-647047BF	C901.902	220PF GRM36X7R221J50V		913-412202HGAA	
R902.904	7.5K 1/16W 5% 1005	911-675047BF	Q901.902.903.904	KTC4075-Y		881-394075YA	
			Q905	KTA2014-Y		881-192014YA	
D903	0 1/10W 5% 2012	911-600007CA	D901.902	KDS226		882-190226AA	
RF CIRCUIT ASSY (501-382128AA)							
R3.4	910 1/16W 5% 1608	911-691037BG	C73.78.84.114	0.001UF GRM36X7R102K50V		913-411003HH	
R59.61	100K 1/16W 1% T 1608	911-610065BG	C121.131	0.001UF GRM36X7R102K50V		913-411003HH	
R60.126	68K 1/16W 1% 1608	911-668055BG	C11.45.69.83.86.95	0.01UF GRM36X7R103K16V		913-411004CH	
R(C62).R79.LK17	0 1/16W 5% 1005	911-600007BF	C105.107.117.123	0.01UF GRM36X7R103K16V		913-411004CH	
R14.53	10 1/16W 5% 1005	911-610027BF	C124	0.01UF GRM36X7R103K16V		913-411004CH	
R1.2.12.38.49.72	100 1/16W 5% T 1005	911-610037BF	C7.10.85.87.97.103	0.1UF GRM36Y5V104Z16V		913-411005CK	
R88.127	100 1/16W 5% T 1005	911-610037BF	C110.111	0.1UF GRM36Y5V104Z16V		913-411005CK	
R37.47.77.87	1K 1/16W 5% T 1005	911-610047BF	C46.74.76.79.115	0.1UF GRM36X5R104K10V		913-411005BH	
R7.8.16.20.22.25	10K 1/16W 5% T 1005	911-610057BF	C116.118	0.1UF GRM36X5R104K10V		913-411005BH	
R26.46.67.81.82.99	10K 1/16W 5% T 1005	911-610057BF	C120	0.22UF GRM39X7R224K10V		913-422205BH	
R105.109.107.110	10K 1/16W 5% T 1005	911-610057BF	C54	0.47UF GRM40Y5V474Z16V		913-434705CX	
R111.121.124	10K 1/16W 5% T 1005	911-610057BF	C96.102	0.0047UF GRM36X7R472K25V		913-414703EH	
R93	100K 1/16W 5% T 1005	911-610067BF	C22.62.99	1UF GRM40Y5V105Z16V		913-431006CX	
R51.106	1M 1/16W 5% T 1005	911-610077BF	C61	10PF GRM40COG100C50V		913-431001HB	
R39	120 1/16W 5% 1005	911-612037BF	C66	11PF GRM39COG110J50V		913-421101HG	
R28.97	1.2K 1/16W 5% T 1005	911-612047BF	C80	15PF GRM36 COG150J 50V		913-411501HG	
R52.35.66	12K 1/16W 5% 1005	911-612057BF	C24	2.4pF, GRM36COG2R4C 50V		913-412400HB	
R48	1.5K 1/16W 5% T 1005	911-615047BF	C71	220PF GRM36X7R221J50V		913-412202HGAA	
R100	15K 1/16W 5% T 1005	911-615057BF	C5.9.13.18.23.49	220PF GRM36COH221J25V		911-412201EG	
R80	150K 1/16W 5% 1005	911-615067BF	C98.101.108.109	220PF GRM36COH221J25V		911-412201EG	
R13.33	18 1/16W 5% 1005	911-618027BF	C113	220PF GRM36COH221J25V		911-412201EG	
R75	1.8K 1/16W 5% 1005	911-618047BF	C81	27PF GRM36COG270J50V		913-412701HG	
R24	18K 1/16W 5% T 1005	911-618057BF	C21	3PF GRM36COG030C50V		913-413000HB	
R92	180K 1/16W 5% 1005	911-618067BF	C72	30PF GRM36COG300J50V		913-413001HG	
R19.102.103.108	20K 1/16W 5% T 1005	911-620057BF	C82	33PF GRM36COG330J50V		913-413301HG	
R17	22 1/16W 5% T 1005	911-622027BF	C33	3.9PF GRM36COG3R9C50V		913-413900HB	
R27.31.56	220 1/16W 5% 1005	911-622037BF	C34.40	470PF GRM40COG471J50V		913-434702HG	
R54.74	2.2K 1/16W 5% T 1005	911-622047BF	C106	47PF GRM36COG470J50V		913-414701HG	
R21.23.76.114.115	22K 1/16W 5% 1005	911-622057BF	C15.19.20.6.7.42	470PF GRM36X7R471K50V		913-414702HH	
R116.117.118.119	22K 1/16W 5% 1005	911-622057BF	C43.4.8.50.3.55.56	470PF GRM36X7R471K50V		913-414702HH	
R122.125	22K 1/16W 5% 1005	911-622057BF	C57.58.59.60.89.90	470PF GRM36X7R471K50V		913-414702HH	
R10.11	2.7K 1/16W 5% 1005	911-627047BF	C92.112	470PF GRM36X7R471K50V		913-414702HH	
R32.34	300 1/16W 5% 1005	911-630037BF	C25.100	5PF GRM36COG050C50V		913-415000HB	
R98	33 1/16W 5% 1005	911-633027BF	C65	5PF GRM39COG050C50V		913-425000HB	
R50	3.3K 1/16W 5% 1005	911-633047BF	C8	7PF GRM36COG070D50V		913-417000HC	
R71	33K 1/16W 5% T 1005	911-633057BF	C75.77	82PF GRM36COG820J50V		913-418201HG	
R62	39 1/16W 5% 1005	911-639027BF	C51	0.47UF 20V A 20%		915-614704DKLG	
R101	3.9K 1/16W 5% 1005	911-639047BF	C6.88.94.119	10UF 6.3V A 20%		915-611007AKLC	
R64	47 1/16W 5% T 1005	911-647027BF	C16.47.64.88	10UF 10V A 20%		915-611007BKLC	
R30.90.95	4.7K 1/16W 5% T 1005	911-647047BF	C52.91.93	4.7UF 10V A 20%		915-6114706	
R15.91	47K 1/16W 5% T 1005	911-647057BF	C12	2.2UF 16V A 20%		915-612206ZA	
R73.78	470K 1/16W 5% T 1005	911-647067BF	C3.4	0.01UF 63V 5%		914-331004JG	
R128	4.7M 1/16W 5% 1005	911-647077BF	C2	0.022UF 63V 5%		914-332204JG	

SD-125E RF LINK MODULE

SD-125E U1(400MHz~430MHz) RF BOARD(932-558195AB) PARTS LIST							
RF CIRCUIT ASSY (501-382128AA)							
R5.6.70	51 1/16W 5% 1005	911-651027BF	C1	0.33UF 63V 5%	914-333305JG		
R94	51K 1/16W 5% 1005	911-651057BF	C41	2.7PF GRM40COG2R7C50V	913-432700HB		
R86	560 1/16W 5% T 1005	911-656037BF	C39	6PF GRM40COG060D50V	913-436000HC		
R9.29.83.96.104	5.6K 1/16W 5% 1005	911-656047BF	C38	16pF GRM40COG160J50V	913-431601HG		
R123	56K 1/16W 5% 1005	911-656057BF	C35	2.2PF GRM40COG2R2C50V	913-432200HB		
R55	680 1/16W 5% 1005	911-668037BF	C37	16PF GRM39COG160J50V	913-421601HG		
R36	6.8K 1/16W 5% 1005	911-668047BF	C36	3.3PF GRM39COG3R3C50V	913-423300HB		
R18.68	7.5K 1/16W 5% 1005	911-675047BF	C30	22PF GRM36COG220J50V	913-412201HGAA		
R113	82K 1/16W 5% 1005	911-682057BF	C32	33PF GRM36COG330J50V	913-413301HG		
R63	0.1 1W 1% 1218	911-610100AA	C28	5.6PF GRM36COG5R6D50V	913-415600HC		
R42	0 1/10W 5% 2012	911-600007CA	C29.31	6PF GRM36COG060D50V	913-416000HC		
R43.44.45	2.2 1/10W 5% 2012	911-622017CA					
R40.41.65	470K 1/10W 5% 2012	911-647067CA	Q9.17.19	BFR92A REEL	881-390092AA		
RV1.3.4.5.6	10K VG039NCHXT	917-990003AA	Q3.4	KTC4075-Y	881-394075YA		
RV7	100K VG039NCHXT	917-990004AA	Q5.6	KTA2014-Y	881-192014YA		
RV2	22K VG039NCHXT	917-990005AA	Q1.2	KRA110SPK	881-190110SP		
			Q13.14.18.21.22.24	KRC104SND(SOT-23)	881-390104SN		
IC7	TK71733SCL	875-371733SP	Q8.12.15.20	KTC3875S(BL)SOT-23	881-393875SB		
IC1	TK71750SCL	875-371750SP	Q11	KTA1663(Y)SOT-89	881-191663YA		
IC3.4.5	NJM12904V	875-112904VA	Q10	PBR951	881-990951AA		
IC2	MB15E03SL	875-901503SL	Q16	3SK324UG SC-82A	881-810324UG		
			IC6	TA31136FN	872-331136SS		
L4.5	18NH LL2012-F18NM	919-920018AA	Q7.23	KRA104S(SOT-23)	881-190104SPAA		
L1	10UH L9-100JF-10	919-922100AC					
L6	0.82UH SWI0805FTR82	919-920820AB	CON1	TDH2-18SG-SMD	925-990014AA		
L16	1UH SWI0805FT1RO	919-921100AB					
L19	2.7UH SWI0805FT2R7	919-920270AA		NSP T0.2	832-501201AA		
L2.3.14	18NH SW10603CT18N	919-920018AD	D2	KDS193	882-190193KD		
L15	150NH SWI0603CTR15	919-920015AB	D1.8.9	KDS181S	882-190181SA		
L17	47NH CIH10T47NJNC	919-920047AD	D3.5	UPP9401(T&R) 50V 2.5W	882-999401AA		
L10	1X0.35X7T:R	919-420028AA	TCX01	12.800MHz, DV-5-2.5H1	928-150001AE		
L7.8.9	2X0.75X3T:L(SMD)	919-420042AA					
TX VCO U1 BAND ASSY (501-362128AB)							
R201	0 1/16W 5% 1005	911-600007BF	C214	0.001UF GRM36X7R102K50V	913-411003HH		
R202	100 1/16W 5% T 1005	911-610037BF	C206	0.5PF GRM36COG0R5C50V	913-410500HBAA		
R203	100K 1/16W 5% T 1005	911-610067BF	C204	0.75PF GRM36COG0R75C50V	913-410750HB		
R206.207	2.2K 1/16W 5% T 1005	911-622047BF	C203	12PF GRM36COG120J50V	913-411201HG		
R209	270 1/16W 5% 1005	911-627037BF	C212	14PF GRM1555C1H140J	913-411401HG		
R208	4.7K 1/16W 5% T 1005	911-647047BF	C216.217	220PF GRM36X7R221J50V	913-412202HGAA		
Q201.202	2SC5086-Y	881-395086YA	C205	2.7PF GRM36COG2R7C50V	913-412700HB		
D201.202	1SV229	882-591229AA	C209	5.6PF GRM36COG5R6D50V	913-415600HC		
C218	4PF GRM36COG040C50V	913-414000HBAA	C215	8PF GRM36COG080D50V	913-418000HC		
C201	470PF GRM36X7R471K50V	913-414702HH	C213	3PF GRM36COG030C50V	913-413000HB		
L203	1.0X0.45X4T:R(SMD)	919-490024AA	C208	6PF, TZV02Z060A100	917-156000AB		
L202	0.47UH SWI0805FTR47	919-920470AA	C211	3.3PF GRM36COG3R3C50V	913-413300HB		
L204	0.82UH SWI0805FTR82	919-920820AB	C207	3.6pF, GRM36COG3R6C 50V	913-413600HB		
L205	22NH SWI0603CT22N	919-920022AD					
L201	100NH SWI0603CTR10	919-920010AB					
RX VCO U1 BAND ASSY (501-362128AA)							
R302	0 1/16W 5% 1005	911-600007BF	C314	0.001UF CM105 X7R102K 50V AT	913-421003HHAA		
R309	180 1/16W 5% 1005	911-618037BF	C312.315	13PF GRM36COG130J50V	913-411301HG		
R306.307	2.2K 1/16W 5% T 1005	911-622047BF	C303	16PF GRM36COG160J50V	913-411601HG		
R308	4.7K 1/16W 5% T 1005	911-647047BF	C301.316.317	220PF GRM36X7R221J50V	913-412202HGAA		
			C309	5.6PF GRM36COG5R6D50V	913-415600HC		
L303	56NH LQN21A56N04	919-920056AB	C313	3PF GRM36COG030C50V	913-413000HB		
L301	1.2UH SWI0805FT1R2	919-920120AB	C307	9PF GRM36COG090D50V	913-419000HC		
L304	2.7UH SWI0805FT2R7	919-920270AA	C308	6PF, TZV02Z060A100	917-156000AB		
L305	180NH SWI0805CTR18	919-920018AC	C311.318	4PF GRM36COG040C50V	913-414000HBAA		
D301	1SV229	882-591229AA	L303	1.0X0.45X4T:R(SMD)	919-490024AA		
			L304	0.82UH SWI0805FTR82	919-920820AB		
Q301.302	2SC5086-Y	881-395086YA	L305	33NH SWI0603CT33N	919-920033AG		
			L301	100NH SWI0603CTR10	919-920010AB		

SD-125E RF LINK MODULE

SD-125E U2 PARTS LIST

SD-125E U2(440MHz~470MHz) DIGITAL BOARD(932-558193AA) PARTS LIST					
DC TO DC CONVERSION ASSY (501-902122AA)					
Reference No	Description	Code No	Reference No	Description	Code No
R801	10K 1/16W 5% 1608	911-610057BG	C810	0.01UF GRM39X7R103K25V	913-421004EK
R806	20K 1/16W 5% T 1608	911-620057BG	C802.808	0.1UF GRM39 X7R104K50V	913-421005HH
R804	0.033 1/10W 1% 2012	911-603307CA	C805.806.812	100PF GRM39 U2J101J 50V	913-421002HGAB
R802	36K 1/16W 5% 1608	911-636057BG	C803	330PF GRM39COG331J50V	913-423302HG
R805	68K 1/16W 5% T 1608	911-668057BG	C801.804	51PF GRM39COG51QJ50V	913-425101HG
Q801.802	SI4412DY	881-694412DY	C811.815	100UF 16V D 20%	915-611008ZC
IC801	LTC1435CS(SO-16)	875-401435SP	C807	22UF 35V D 20%	915-612207FKLG
D801	KDS160	882-190160AA	C813	4.7UF 10V A 20%	915-6114706
D802	MBRS140T3	882-690140TA	SUB;	NSP T0.3	832-501180AA
L801	12UH DA104-120M	919-922120AB	L802	3.3UH SD73-3R3M	919-921330AB
DIGITAL PCB MANUAL ASSY (501-402122AA)					
Reference No	Description	Code No	Reference No	Description	Code No
CON403	2.0MM (2X9)	925-990016AA	SW401	KSD-04	924-150004AA
CON404	TDI7-14SG	925-990100AA	CON06	TDH2-08SG	925-990101AA
CON401.402	53261-1571	925-990015AB			
DIGITAL PCB SMD ASSY (501-402122AB)					
Reference No	Description	Code No	Reference No	Description	Code No
R134.135.471.472	0 1/16W 5% 1608	911-600007BG	C411	0.0015UF CM105X7R152K50V	913-421503HHAA
R473.485	0 1/16W 5% 1608	911-600007BG	C406.420.451	0.01UF GRM39X7R103K25V	913-421004EK
LK6.7.8.10.12.14	0 1/16W 5% 1608	911-600007BG	C68.404.407.416.417.422	0.1UF GRM39Y5V104Z25V	913-421005EX
LK15.18	0 1/16W 5% 1608	911-600007BG	C436.450.463.464	0.1UF GRM39Y5V104Z25V	913-421005EX
R490	10 1/16W 5% T 1608	911-610027BG	C402.421.429.430.431.433	0.001UF GRM39 X7R102K	913-421003HH
R49.137.446.474	100 1/16W 5% T 1608	911-610037BG	C434.448.452.442.443.444	0.001UF GRM39 X7R102K	913-421003HH
R475.476.477.501	100 1/16W 5% T 1608	911-610037BG	C445.446.432	0.001UF GRM39 X7R102K	913-421003HH
R423.481.482.483	1K 1/16W 5% 1608	911-610047BG	C410	0.0022UF GRM39X7R222J50V	913-422203HG
R484	1K 1/16W 5% 1608	911-610047BG	C419.466	0.0027UF GRM39X7R272J50V	913-422703HG
R403.419.421.424	10K 1/16W 5% 1608	911-610057BG	C403	0.022UF GRM39X7R223K50V	913-422204HH
R425.435.437.440	10K 1/16W 5% 1608	911-610057BG	C412	0.0039UF GRM39X7R392K	913-423903HH
R505.465.468.489	10K 1/16W 5% 1608	911-610057BG	C413.465	0.0033UF GRM39X7R332K	913-423303HHAA
R407.415.131.132	10K 1/16W 5% 1608	911-610057BG	C418	0.0047UF GRM39X7R472K	913-424703HH
R133.416.417.418	10K 1/16W 5% 1608	911-610057BG	C409.423.426	0.047UF GRM39Y5V473Z	913-424704EX
R447.454.497.461	10K 1/16W 5% 1608	911-610057BG	C414	0.0068UF GRM39X7R682K	913-426803HH
R426.428.460.478	10K 1/16W 5% 1608	911-610057BG	C400.401.439	1UF GRM40Y5V105Z16V	913-431006CX
R487.488.422.400	10K 1/16W 5% 1608	911-610057BG	C405.408.458	120PF GRM39COG121J50V	913-421202HG
R498.499.502.503	10K 1/16W 5% 1608	911-610057BG	C437.438	39PF GRM39COG390J50V	913-423901HG
R409.411.414.445	100K 1/16W 5% 1608	911-610067BG	C126.129.130.459.R469	220PF GRM39COG221J	913-422202HG
R451.452.458.480	100K 1/16W 5% 1608	911-610067BG	C415	47PF GRM39COG470J50V	913-424701HG
R492.493.494.495	100K 1/16W 5% 1608	911-610067BG	C424	470PF GRM39X7R471K50V	913-424702HH
R448.430	1M 1/16W 5% 1608	911-610077BG	C427	100UF 6.3V D 20%	915-611008ZA
R456	150 1/16W 5% T 1608	911-615037BGAA	C425.440.460	10UF 6.3V A 20%	915-611007AKLC
R449	20K 1/16W 5% T 1608	911-620057BG	C461	1UF 25V A 20%	915-611006EKLC
R413	200K 1/16W 5% 1608	911-620067BG	C447	33UF 25V D 20%	915-613307EKLK
R438	2.2K 1/16W 5% T 1608	911-622047BG	C435.454.456.457	4.7UF 10V A 20%	915-6114706
R406.455.457	22K 1/16W 5% T 1608	911-622057BG	C428	47UF 16V D 20%	915-614707
R412	2.7K 1/16W 5% T 1608	911-627047BG	Q404.406.408	KRC104SND(SOT-23)	881-390104SN
R410	270K 1/16W 5% 1608	911-627067BG	Q407	KTA1504SY(SOT-23)	881-191504SY
R450	33K 1/16W 5% 1608	911-633057BG	Q401.402.403.405	KRA104S(SOT-23)	881-190104SPAA
R420.433.434.436	4.7K 1/16W 5% 1608	911-647047BG	U401	UPD 78F0513	874-180513LQ
R439	4.7K 1/16W 5% 1608	911-647047BG	U405.406.409	KIA324F-EL	875-100324FL
R404.431.432.441	47K 1/16W 5% 1608	911-647057BG	U408	KIA7042AF	875-907042SO
R442.443.444.464	47K 1/16W 5% 1608	911-647057BG	U403	LM339	875-900339AA
R466.467.429	47K 1/16W 5% 1608	911-647057BG	U404	MC14066BDR2G	874-114066BD
R453	5.6K 1/16W 5% 1608	911-656047BG	U402	AT93C56-10SI	876-609356AA
R491.494	56K 1/16W 5% 1608	911-656057BG	U407	LM386MX-1 (SO-08)	875-100386SP
R473.486	68K 1/16W 5% T 1608	911-668057BG	D401.402.403.404	BZX84C5V6LT1	882-290084CB
R136	9.1K 1/16W 5% 1608	911-691047BG	D405.407	BZX84C5V6LT1	882-290084CB
RV404	0 1/10W 5% 2012	911-600007CA	D408.409.410	BZX84C5V6LT1	882-290084CB
R463	1.8M 1/10W 5% 2012	911-618077CA	D406	KDS193	882-190193KD
RV403	22K VG039NCHXT	917-990005AA	X401	ZTTCC3.58MG	928-210358MG

SD-125E RF LINK MODULE

SD-125E U2(440MHz~470MHz) RF BOARD(932-558195AB) PARTS LIST					
PWR MODULE U2 ASSY (501-902122AC)					
Reference No	Description	Code No	Reference No	Description	Code No
R705	10K 1/16W 5% 1608	911-610057BG	C711	0.001UF GRM40 X7R102K 50V	913-431003HH
R706	100 1/16W 5% T 1005	911-610037BF	C709	0.01UF GRM36X7R103K16V	913-411004CH
R707	220 1/16W 5% 1005	911-622037BF	C702	10PF GRM36COG100D50V	913-411001HC
R704	2.2K 1/16W 5% T 1005	911-622047BF	C713	16pF GRM40COG160J50V	913-431601HG
R701	2.7K 1/16W 5% 1005	911-627047BF	C716	18PF GRM40 COG180J 50V	913-431801HG
R709	330 1/16W 5% 1005	911-633037BF	C712	220pF, GRM40COG221J50V	913-432202HG
R702	6.8K 1/16W 5% 1005	911-668047BF	C701	22PF GRM36COG220J50V	913-412201HGAA
R703	6.8 1/16W 5% 1005	911-668017BF	C700.703.706	220PF GRM36X7R221J50V	913-412202HGAA
Q702	BLT50(SOT-223)	881-990050AA	C708	30PF GRM40COG300J50V	913-433001HG
Q703	2SK3476 (TE12L,Q)	881-883476AA	C704	3PF GRM36COG030C50V	913-413000HB
Q701	PBR951	881-990951AA	C721	4.7PF GRM40COG4R7C50V	913-434700HB
D701	KDS181S	882-190181SA	C714.722	6PF GRM40COG060D50V	913-436000HC
L705	1.0X0.45X4T:R(SMD)	919-490024AA	C705	8PF GRM40COG080D50V	913-438000HC
L701.703	14NH 03095TL	919-420046AA			
L702	1.2UH SWI0805FT1R2	919-920120AB			
L704	3.9NH SWI0603CT3N9	919-920003AA	SUB:	NSP T0.2	832-501170AA
FRONT END U2 BAND ASSY (501-372122AA)					
Reference No	Description	Code No	Reference No	Description	Code No
R(C607)	0 1/16W 5% 1005	911-600007BF	C613.617	10PF GRM36COG100D50V	913-411001HC
R602	47 1/16W 5% T 1005	911-647027BF	C603.618	12PF GRM36COG120J50V	913-411201HG
R601	47K 1/16W 5% T 1005	911-647057BF	C608.619.616.620	13PF GRM36COG130J50V	913-411301HG
			C(L603)	20PF GRM40COG200J50V	913-432001HG
Q601	AT-41532	881-394153AA	C622	3.3PF GRM36COG3R3C50V	913-413300HB
C624	9PF GRM36COG090D50V	913-419000HC	C605	33PF GRM36COG330J50V	913-413301HG
D601	KDS226	882-190226AA	C602	4.7PF GRM36COG4R7	913-414700
L604.607.608	14NH 03095TL	919-420046AA	C609	47PF GRM36COG470J50V	913-414701HG
L601.602.605	0.30X0.90X4T:R(SMD)	919-420052AA	C611	470PF GRM36X7R471K50V	913-414702HH
L606.609	0.30X0.90X4T:R(SMD)		C623	5PF GRM36COG050C50V	913-415000HB
C604.614.615	7PF GRM36COG070D50V	913-417000HC	C601.621	5.6PF GRM36COG5R6D50V	913-415600HC
VOLTAGE DOUBLER ASSY (501-392122AA)					
Reference No	Description	Code No	Reference No	Description	Code No
R908	10 1/16W 5% 1005	911-610027BF	C911	0.1UF GRM36Y5V104Z16V	913-411005CK
R905.907	2.2K 1/16W 5% T 1005	911-622047BF	C904.905.908.909.910	0.022UF GRM36X5R223K16V	913-412204CH
R901.903	27K 1/16W 5% 1005	911-627057BF	C901.902	220PF GRM36X7R221J50V	913-412202HGAA
R906	4.7K 1/16W 5% T 1005	911-647047BF	Q901.902.903.904	KTC4075-Y	881-394075YA
R902.904	7.5K 1/16W 5% 1005	911-675047BF	Q905	KTA2014-Y	881-192014YA
D903	0 1/10W 5% 2012	911-600007CA	D901.902	KDS226	882-190226AA
RF CIRCUIT ASSY (501-382122AA)					
Reference No	Description	Code No	Reference No	Description	Code No
R3.4	910 1/16W 5% 1608	911-691037BG	C71.73.78.84	0.001UF GRM36X7R102K50V	913-411003HH
R59.61	100K 1/16W 1% T 1608	911-610065BG	C114.121.122	0.001UF GRM36X7R102K50V	913-411003HH
R60.126	68K 1/16W 1% 1608	911-668055BG	C131	0.001UF GRM36X7R102K50V	913-411003HH
R(C62).79.LK17	0 1/16W 5% 1005	911-600007BF	C11.45.69.83	0.01UF GRM36X7R103K16V	913-411004CH
R14.53	10 1/16W 5% 1005	911-610027BF	C86.95.105	0.01UF GRM36X7R103K16V	913-411004CH
R1.2.12.38.49.70	100 1/16W 5% T 1005	911-610037BF	C107.117.123.124	0.01UF GRM36X7R103K16V	913-411004CH
R72.88	100 1/16W 5% T 1005	911-610037BF	C7.10.85.87.97	0.1UF GRM36Y5V104Z16V	913-411005CK
R127.C72	100 1/16W 5% T 1005	911-610037BF	C103.110.111	0.1UF GRM36Y5V104Z16V	913-411005CK
R37.47.77.87	1K 1/16W 5% T 1005	911-610047BF	C46.74.76.79	0.1UF GRM36X5R104K10V	913-411005BH
R7.8.16.20.22.25	10K 1/16W 5% T 1005	911-610057BF	C115.116.118	0.1UF GRM36X5R104K10V	913-411005BH
R26.46.67.81.82	10K 1/16W 5% T 1005	911-610057BF	C120	0.22UF GRM39X7R224K50V	913-422205 H
R99.105.107.109	10K 1/16W 5% T 1005	911-610057BF	C54	0.47UF GRM40Y5V474Z16V	913-434705CX
R107.109.110.111	10K 1/16W 5% T 1005	911-610057BF	C96.102	0.0047UF GRM36X7R472K25V	913-414703EH
R121.124	10K 1/16W 5% T 1005	911-610057BF	C22.62.99	1UF GRM40Y5V105Z16V	913-431006CX
R93	100K 1/16W 5% T 1005	911-610067BF	C65	12PF GRM39COG120J50V	913-421201HGAA
R51.106	1M 1/16W 5% T 1005	911-610077BF	C80	15PF GRM36 COG150J 50V	913-411501HG
R39	120 1/16W 5% 1005	911-612037BF	C5.9.13.18.23	220PF GRM36COH221J25V	911-412201EG
R28.97	1.2K 1/16W 5% T 1005	911-612047BF	C49.98.101	220PF GRM36COH221J25V	911-412201EG
R52.35.66	12K 1/16W 5% 1005	911-612057BF	C108.109.113	220PF GRM36COH221J25V	911-412201EG
R48	1.5K 1/16W 5% T 1005	911-615047BF	C24	2.4pF, GRM36COG2R4C 50V	913-412400HB
R100	15K 1/16W 5% T 1005	911-615057BF	C81	27PF GRM36COG270J50V	913-412701HG
R80	150K 1/16W 5% 1005	911-615067BF	C21	3PF GRM36COG030C50V	913-413000HB
R13.33	18 1/16W 5% 1005	911-618027BF	C82	33PF GRM36COG330J50V	913-413301HG
R75	1.8K 1/16W 5% 1005	911-618047BF	C34.40	470PF GRM40COG471J50V	913-434702HG
R24	18K 1/16W 5% T 1005	911-618057BF	C104	3.6pF, GRM36COG3R6C 50V	913-413600HB
R92	180K 1/16W 5% 1005	911-618067BF	C33	3.9PF GRM36COG3R9C50V	913-413900HB
R19.102.103.108	20K 1/16W 5% T 1005	911-620057BF	C106	47PF GRM36COG470J50V	913-414701HG
R17	22 1/16W 5% T 1005	911-622027BF	C15.19.20.26.27	470PF GRM36X7R471K50V	913-414702HH

SD-125E RF LINK MODULE

SD-125E U2(440MHz~470MHz) RF BOARD(932-558195AB) PARTS LIST						
RF CIRCUIT ASSY (501-382122AA)						
Reference No	Description	Code No	Reference No	Description	Code No	
R27.31.56	220 1/16W 5% 1005	911-622037BF	C42,43,44,48.50	470PF GRM36X7R471K50V	913-414702HH	
R54.74	2.2K 1/16W 5% T 1005	911-622047BF	C53.55.56.57.58	470PF GRM36X7R471K50V	913-414702HH	
R21.23.76.114	22K 1/16W 5% 1005	911-622057BF	C59.60.89	470PF GRM36X7R471K50V	913-414702HH	
R115.116.117.118	22K 1/16W 5% 1005	911-622057BF	C90,2.112	470PF GRM36X7R471K50V	913-414702HH	
R119.122.125	22K 1/16W 5% 1005	911-622057BF	C25.100	5PF GRM36COG050C50V	913-415000HB	
R10.11	2.7K 1/16W 5% 1005	911-627047BF	C8	7PF GRM36COG070D50V	913-417000HC	
R32.34	300 1/16W 5% 1005	911-630037BF	C75.77	82PF GRM36COG820J50V	913-418201HG	
R98	33 1/16W 5% 1005	911-633027BF	C66	6.8PF GRM39COG6R8D50V	913-426800HC	
R50	3.3K 1/16W 5% 1005	911-633047BF	C12	2.2UF 16V A 20%	915-612206ZA	
R71	33K 1/16W 5% T 1005	911-633057BF	C51	0.47UF 20V A 20%	915-614704DKLG	
R62	39 1/16W 5% 1005	911-639027BF	C6.94.119	10UF 6.3V A 20%	915-611007AKLC	
R101	3.9K 1/16W 5% 1005	911-639047BF	C16.47.64.88	10UF 10V A 20%	915-611007BKLC	
R64	47 1/16W 5% T 1005	911-647027BF	C52.91.93	4.7UF 10V A 20%	915-6114706	
R30.90.95	4.7K 1/16W 5% T 1005	911-647047BF	C3.4	0.01UF 63V 5%	914-331004JG	
R15.91	47K 1/16W 5% T 1005	911-647057BF	C2	0.022UF 63V 5%	914-332204JG	
R73.78	470K 1/16W 5% T 1005	911-647067BF	C1	0.33UF 63V 5%	914-333305JG	
R128	4.7M 1/16W 5% 1005	911-647077BF	C41	0.75PF GRM40COG0R75C50V	913-430750HB	
R5.6	51 1/16W 5% 1005	911-651027BF	C35	1PF GRM40COG010C50V	913-431000HB	
R94	51K 1/16W 5% 1005	911-651057BF	C38	10PF GRM40COG100C50V	913-431001HB	
R86	560 1/16W 5% T 1005	911-656037BF	C37	11PF GRM40COG110J50V	913-431101HG	
R9.29.83.96.104	5.6K 1/16W 5% 1005	911-656047BF	C36	4.7PF GRM40COG4R7C50V	913-434700HB	
R123	56K 1/16W 5% 1005	911-656057BF	C39	5.6PF GRM40COG5R6C50V	913-435600HB	
R55	680 1/16W 5% 1005	911-668037BF	C61	10PF GRM40COG100C50V	913-431001HB	
R36	6.8K 1/16W 5% 1005	911-668047BF	C29	10PF GRM36COG100D50V	913-411001HC	
R18.68	7.5K 1/16W 5% 1005	911-675047BF	C30	20PF GRM36COG200J50V	913-412001HGAA	
R113	82K 1/16W 5% 1005	911-682057BF	C32	27PF GRM36COG270J50V	913-412701HG	
R63	0.1 1W 1% 1218	911-610100AA	C28	6.8PF GRM36COG6R8D50V	913-416800HC	
R42	0 1/10W 5% 2012	911-600007CA	C31	7PF GRM36COG070D50V	913-417000HC	
R43.44.45	2.2 1/10W 5% 2012	911-622017CA				
R65.40.41	470K 1/10W 5% 2012	911-647067CA	L10	1X0.35X7T:R	919-420028AA	
			L7.8.9	2X0.75X3T:L(SMD)	919-420042AA	
RV1.3.4.5.6	10K VG039NCHXT	917-990003AA	CON1	TDH2-18SG-SMD	925-990014AA	
RV7	100K VG039NCHXT	917-990004AA	IC6	TA31136FN	872-331136SS	
RV2	22K VG039NCHXT	917-990005AA	Q7.23	KRA104S(SOT-23)	881-190104SPAA	
L1	10UH L9-100JF-10	919-922100AC	IC7	TK71733SCL	875-371733SP	
L6	0.82UH SWI0805FTR82	919-920820AB	IC1	TK71750SCL	875-371750SP	
L16	1UH SWI0805FT1RO	919-921100AB	IC3.4.5	NJM12904V	875-112904VA	
L19	2.7UH SWI0805FT2R7	919-920270AA	IC2	MB15E03SL	875-901503SL	
L2.3.14	18NH SW10603CT18N	919-920018AD	D2	KDS193	882-190193KD	
L18	8.2NH HK16088N2J-T	919-920008AA	D1.8.9	KDS181S	882-190181SA	
L15	150NH SWI0603CTR15	919-920015AB	D3.5	UPP9401(T&R) 50V 2.5W	882-999401AA	
L17	47NH CIH10T47NJNC	919-920047AD	L4.5	18NH LL2012-F18NM	919-920018AA	
			TCXO1	12.800MHz, DV-5-2.5H1	928-150001AE	
Q9.17.19	BFR92A REEL	881-390092AA	SUB;	NSP T0.2	832-501201AA	
Q3.4	KTC4075-Y	881-394075YA				
Q5.6	KTA2014-Y	881-192014YA				
Q1.2	KRA110SPK	881-190110SP	Q11	KTA1663(Y)SOT-89	881-191663YA	
Q13.14.18.21.22.24	KRC104SND(SOT-23)	881-390104SN	Q10	PBR951	881-990951AA	
Q8.12.15.20	KTC3875S(BL)SOT-23	881-393875SB	Q16	3SK324UG SC-82A	881-810324UG	

SD-125E RF LINK MODULE

SD-125E U2(440MHz~470MHz) RF BOARD(932-558184AB) PARTS LIST						
TX VCO U2 BAND ASSY (501-362122AB)						
R201	0 1/16W 5% 1005	911-600007BF	C214	0.001UF GRM36X7R102K50V	913-411003HH	
R202	100 1/16W 5% T 1005	911-610037BF	C206	0.5PF GRM36COG0R5C50V	913-410500HBAA	
R203	100K 1/16W 5% T 1005	911-610067BF	C204	0.75PF GRM36COG0R75C50V	913-410750HB	
R206.207	2.2K 1/16W 5% T 1005	911-622047BF	C212	12PF GRM36COG120J50V	913-411201HG	
R209	270 1/16W 5% 1005	911-627037BF	C216.217	220PF GRM36X7R221J50V	913-412202HGAA	
R208	4.7K 1/16W 5% T 1005	911-647047BF	C209.213	2.7PF GRM36COG2R7C50V	913-412700HB	
			C205	3PF GRM36COG030C50V	913-413000HB	
L203	1.0X0.45X4T:R(SMD)	919-490024AA	C207.211	3.3PF GRM36COG3R3C50V	913-413300HB	
L202	0.47UH SWI0805FTR47	919-920470AA	C218	4PF GRM36COG040C50V	913-414000HBAA	
L204	0.82UH SWI0805FTR82	919-920820AB	C201	470PF GRM36X7R471K50V	913-414702HH	
L205	22NH SWI0603CT22N	919-920022AD	C215	6PF GRM36COG060D50V	913-416000HC	
L201	100NH SWI0603CTR10	919-920010AB	C203	8PF GRM36COG080D50V	913-418000HC	
			C208	6PF, TZV02Z060A100	917-156000AB	
D201.202	1SV229	882-591229AA	Q201.202	2SC5086-Y	881-395086YA	

RX VCO U2 BAND ASSY (501-362122AA)						
R302	0 1/16W 5% 1005	911-600007BF	C315	10PF GRM36COG100D50V	913-411001HC	
R306.307	2.2K 1/16W 5% T 1005	911-622047BF	C314	0.001UF CM105 X7R102K 50V AT	913-421003HHAA	
R309	180 1/16W 5% 1005	911-618037BF	C312	11PF GRM36COG110J 50V	913-411101HG	
R308	4.7K 1/16W 5% T 1005	911-647047BF	C303	12PF GRM36COG120J50V	913-411201HG	
			C301.316.317	220PF GRM36X7R221J50V	913-412202HGAA	
L303	1.0X0.45X4T:R(SMD)	919-490024AA	C313	2.7PF GRM36COG2R7C50V	913-412700HB	
L304	0.82UH SWI0805FTR82	919-920820AB	C309	3.9PF GRM36COG3R9C50V	913-413900HB	
L305	33NH SWI0603CT33N	919-920033AG	C311.318	4PF GRM36COG040C50V	913-414000HBAA	
L301	100NH SWI0603CTR10	919-920010AB	C307	5PF GRM36COG050C50V	913-415000HB	
			C308	6PF, TZV02Z060A100	917-156000AB	
Q301.302	2SC5086-Y	881-395086YA	D301	1SV229	882-591229AA	

SD-125E RF LINK MODULE

SD-125E U3 PARTS LIST

SD-125E U3(470MHz~490MHz) DIGITAL BOARD(932-558193AA) PARTS LIST					
DC TO DC CONVERSION ASSY (501-902129AA)					
Reference No	Description	Code No	Reference No	Description	Code No
R801	10K 1/16W 5% 1608	911-610057BG	C810	0.01UF GRM39X7R103K25V	913-421004EK
R806	20K 1/16W 5% T 1608	911-620057BG	C802.808	0.1UF GRM39 X7R104K50V	913-421005HH
R804	0.033 1/10W 1% 2012	911-603307CA	C805.806.812	100PF GRM39 U2J101J	913-421002HGAB
R802	36K 1/16W 5% 1608	911-636057BG	C803	330PF GRM39COG331J50V	913-423302HG
R805	68K 1/16W 5% T 1608	911-668057BG	C801.804	51PF GRM39COG510J50V	913-425101HG
Q801.802	SI4412DY	881-694412DY	C811.815	100UF 16V D 20%	915-611008ZC
IC801	LTC1435CS(SO-16)	875-401435SP	C807	22UF 35V D 20%	915-612207FKLG
D801	KDS160	882-190160AA	C813	4.7UF 10V A 20%	915-6114706
D802	MBRS140T3	882-690140TA	L802	3.3UH SD73-3R3M	919-921330AB
L801	12UH DA104-120M	919-922120AB		NSP T0.3	832-501180AA
DIGITAL PCB MANUAL ASSY (501-402129AA)					
Reference No	Description	Code No	Reference No	Description	Code No
CON403	2.0MM (2X9)	925-990016AA	SW401	KSD-04	924-150004AA
CON404	TDI7-14SG	925-990100AA	CON06	TDH2-08SG	925-990101AA
CON401.402	53261-1571	925-990015AB			
DIGITAL PCB SMD ASSY (501-402129AB)					
Reference No	Description	Code No	Reference No	Description	Code No
R134.135.471.472	0 1/16W 5% 1608	911-600007BG	C406.420.451	0.01UF GRM39X7R103K25V	913-421004EK
R473.485.LK6.7.8	0 1/16W 5% 1608	911-600007BG	C411	0.0015UF CM105X7R152K50V	913-421503HHAA
LK10.12.14.15.18	0 1/16W 5% 1608	911-600007BG	C68.404.407.416	0.1UF GRM39Y5V104Z25V	913-421005EX
R490	10 1/16W 5% T 1608	911-610027BG	C417.422.436.450	0.1UF GRM39Y5V104Z25V	913-421005EX
R49.137.446.474	100 1/16W 5% T 1608	911-610037BG	C463.464	0.1UF GRM39Y5V104Z25V	913-421005EX
R475.476.477.501	100 1/16W 5% T 1608	911-610037BG	C402.421.429.430	0.001UF GRM39 X7R102K	913-421003HH
R423.481.482.483	1K 1/16W 5% 1608	911-610047BG	C431.433.434.448	0.001UF GRM39 X7R102K	913-421003HH
R484	1K 1/16W 5% 1608	911-610047BG	C452.442.443.444	0.001UF GRM39 X7R102K	913-421003HH
R403.419.421.424	10K 1/16W 5% 1608	911-610057BG	C445.446.432	0.001UF GRM39 X7R102K	913-421003HH
R425.435.437.440	10K 1/16W 5% 1608	911-610057BG	C410	0.0022UF GRM39X7R222J50V	913-422203HG
R505.465.468.489	10K 1/16W 5% 1608	911-610057BG	C419.466	0.0027UF GRM39X7R222J50V	913-422703HG
R407.415.131.132	10K 1/16W 5% 1608	911-610057BG	C403	0.022UF GRM39X7R223K50V	913-422204HH
R133.416.417.418	10K 1/16W 5% 1608	911-610057BG	C412	0.0039UF GRM39X7R392K	913-423903HH
R447.454.497.461	10K 1/16W 5% 1608	911-610057BG	C413.465	0.0033UF GRM39X7R332K	913-423303HHAA
R426.428.460.478	10K 1/16W 5% 1608	911-610057BG	C418	0.0047UF GRM39X7R472K	913-424703HH
R487.488.422.400	10K 1/16W 5% 1608	911-610057BG	C409.423.426	0.047UF GRM39Y5V473Z	913-424704EX
R498.499.502.503	10K 1/16W 5% 1608	911-610057BG	C414	0.0068UF GRM39X7R682K	913-426803HH
R409.411.414.445	100K 1/16W 5% 1608	911-610067BG	C400.401.439	1UF GRM40Y5V105Z16V	913-431006CX
R451.452.458.480	100K 1/16W 5% 1608	911-610067BG	C405.408.458	120PF GRM39COG121J50V	913-421202HG
R492.493.494.495	100K 1/16W 5% 1608	911-610067BG	C126.129.130.459	220PF GRM39COG221J 50V	913-422202HG
R448.430	1M 1/16W 5% 1608	911-610077BG	R469	220PF GRM39COG221J 50V	913-422202HG
R456	150 1/16W 5% T 1608	911-615037BGAA	C437.438	39PF GRM39COG390J50V	913-423901HG
R449	20K 1/16W 5% T 1608	911-620057BG	C415	47PF GRM39COG470J50V	913-424701HG
R413	200K 1/16W 5% 1608	911-620067BG	C424	470PF GRM39X7R471K50V	913-424702HH
R438	2.2K 1/16W 5% T 1608	911-622047BG	C427	100UF 6.3V D 20%	915-611008ZA
R406.455.457	22K 1/16W 5% T 1608	911-622057BG	C425.440.460	10UF 6.3V A 20%	915-611007AKLC
R412	2.7K 1/16W 5% T 1608	911-627047BG	C461	1UF 25V A 20%	915-611006EKLC
R410	270K 1/16W 5% 1608	911-627067BG	C447	33UF 25V D 20%	915-613307EKLG
R450	33K 1/16W 5% 1608	911-633057BG	C435.454.456.457	4.7UF 10V A 20%	915-6114706
R433.434.436.439	4.7K 1/16W 5% 1608	911-647047BG	C428	47UF 16V D 20%	915-614707
R404.431.432.441	47K 1/16W 5% 1608	911-647057BG	Q404.406.408	KRC104SND(SOT-23)	881-390104SN
R442.443.444	47K 1/16W 5% 1608	911-647057BG	Q407	KTA1504SY(SOT-23)	881-191504SY
R464.6.7.429	47K 1/16W 5% 1608	911-647057BG	Q401.402.403.405	KRA104S(SOT-23)	881-190104SPAA
R491.494	56K 1/16W 5% 1608	911-656057BG	U401	UPD 78F0513	874-180513LQ
R473.486	68K 1/16W 5% T 1608	911-668057BG	U405.406.409	KIA324F-EL	875-100324FL
R420.453	5.6K 1/16W 5% 1608	911-656047BG	U408	KIA7042AF	875-907042SO
			U403	LM339	875-900339AA
RV404	0 1/10W 5% 2012	911-600007CA	U404	MC14066BDR2G	874-114066BD
R136	9.1K 1/16W 5% 1608	911-691047BG	U402	AT93C56-10SI	876-609356AA
R463	1.8M 1/10W 5% 2012	911-618077CA	U407	LM386MX-1 (SO-08)	875-100386SP
RV403	22K VG039NCHXT	917-990005AA	D401.402.403.404	BZX84C5V6LT1	882-290084CB
			D405.407.408.409	BZX84C5V6LT1	882-290084CB
X401	ZTTCC3.58MG	928-210358MG	D410	BZX84C5V6LT1	882-290084CB
			D406	KDS193	882-190193KD

SD-125E RF LINK MODULE

SD-125E U3(470MHz~490MHz) RF BOARD(932-558195AB) PARTS LIST					
PWR MODULE U2 ASSY (501-902129AE)					
Reference No	Description	Code No	Reference No	Description	Code No
R705	10K 1/16W 5% 1608	911-610057BG	C711	0.001UF GRM40 X7R102K 50V	913-431003HH
R706	100 1/16W 5% T 1005	911-610037BF	C709	0.01UF GRM36X7R103K16V	913-411004CH
R707	220 1/16W 5% 1005	911-622037BF	C702	10PF GRM36COG100D50V	913-411001HC
R704	2.2K 1/16W 5% T 1005	911-622047BF	C713	16pF GRM40COG160J50V	913-431601HG
R701	2.7K 1/16W 5% 1005	911-627047BF	C705.716	18PF GRM40 COG180J 50V	913-431801HG
R709	330 1/16W 5% 1005	911-633037BF	C722	22PF GRM40COG220J 50V	913-432201HH
R702	6.8K 1/16W 5% 1005	911-668047BF	C712	220pF, GRM40COG221J50V	913-432202HG
R703	6.8 1/16W 5% 1005	911-668017BF	C717	2.2PF GRM40COG2R2C50V	913-432200HB
Q702	BLT50(SOT-223)	881-990050AA	C701	22PF GRM36COG220J50V	913-412201HGAA
Q703	2SK3476 (TE12L,Q)	881-883476AA	C700.703.706	220PF GRM36X7R221J50V	913-412202HGAA
Q701	PBR951	881-990951AA	C704	3PF GRM36COG030C50V	913-413000HB
D701	KDS181S	882-190181SA	C708	30PF GRM40COG300J50V	913-433001HG
L705	1.0X0.45X4T:R(SMD)	919-490024AA	C721	4.7PF GRM40COG4R7C50V	913-434700HB
L701.703	14NH 03095TL	919-420046AA	C714	6PF GRM40COG060D50V	913-436000HC
L702	1.2UH SWI0805FT1R2	919-920120AB			
L704	3.9NH SWI0603CT3N9	919-920003AA	SUB;	NSP T0.2	832-501170AA
FRONT END U2 BAND ASSY (501-372129AA)					
Reference No	Description	Code No	Reference No	Description	Code No
R(C607)	0 1/16W 5% 1005	911-600007BF	C613.617	10PF GRM36COG100D50V	913-411001HC
R602	47 1/16W 5% T 1005	911-647027BF	C603.616	12PF GRM36COG120J50V	913-411201HG
R601	47K 1/16W 5% T 1005	911-647057BF	C608.620	13PF GRM36COG130J50V	913-411301HG
			C619	15PF GRM36 COG150J 50V	913-411501HG
Q601	AT-41532	881-394153AA	C(L603)	20PF GRM40COG200J50V	913-432001HG
D601	KDS226	882-190226AA	C622	3.3PF GRM36COG3R3C50V	913-413300HB
L604.607.608	14NH 03095TL	919-420046AA	C605	33PF GRM36COG330J50V	913-413301HG
L601.602.605.606	0.30X0.90X4T:R(SMD)	919-420052AA	C602	4.7PF GRM36COG4R7	913-414700
L609	0.30X0.90X4T:R(SMD)	919-420052AA	C609	47PF GRM36COG470J50V	913-414701HG
			C611	470PF GRM36X7R471K50V	913-414702HH
C604.614.615	7PF GRM36COG070D50V	913-417000HC	C623	5PF GRM36COG050C50V	913-415000HB
C618.624	9PF GRM36COG090D50V	913-419000HC	C601.621	5.6PF GRM36COG5R6D50V	913-415600HC
VOLTAGE DOUBLER ASSY (501-392129AA)					
R908	10 1/16W 5% 1005	911-610027BF	C911	0.1UF GRM36Y5V104Z16V	913-411005CK
R905.907	2.2K 1/16W 5% T 1005	911-622047BF	C904.905.908.909	0.022UF GRM36X5R223K16V	913-412204CH
R901.903	27K 1/16W 5% 1005	911-627057BF	C910	0.022UF GRM36X5R223K16V	913-412204CH
R906	4.7K 1/16W 5% T 1005	911-647047BF	C901.902	220PF GRM36X7R221J50V	913-412202HGAA
R902.904	7.5K 1/16W 5% 1005	911-675047BF	Q901.902.903.904	KTC4075-Y	881-394075YA
D903	0 1/10W 5% 2012	911-600007CA	Q905	KTA2014-Y	881-192014YA
			D901.902	KDS226	882-190226AA
RF CIRCUIT ASSY (501-382129AA)					
R3.4	910 1/16W 5% 1608	911-691037BG	C71.73.78.84.114	0.001UF GRM36X7R102K50V	913-411003HH
R59.61	100K 1/16W 1% T 1608	911-610065BG	C121.122.131	0.001UF GRM36X7R102K50V	913-411003HH
R60.126	68K 1/16W 1% 1608	911-668055BG	C11.45.69.83.86	0.01UF GRM36X7R103K16V	913-411004CH
R(C62).R79.LK17	0 1/16W 5% 1005	911-600007BF	C95.105.107.117	0.01UF GRM36X7R103K16V	913-411004CH
R14.53	10 1/16W 5% 1005	911-610027BF	C123.124	0.01UF GRM36X7R103K16V	913-411004CH
R1.2.12.38.49.70	100 1/16W 5% T 1005	911-610037BF	C7.10.85.87.97	0.1UF GRM36Y5V104Z16V	913-411005CK
R72.88.127	100 1/16W 5% T 1005	911-610037BF	C103.110.111	0.1UF GRM36Y5V104Z16V	913-411005CK
R37.47.77.87	1K 1/16W 5% T 1005	911-610047BF	C46.74.76.79	0.1UF GRM36X5R104K10V	913-411005BH
R7.8.16.20.22.25	10K 1/16W 5% T 1005	911-610057BF	C115.116.118	0.1UF GRM36X5R104K10V	913-411005BH
R26.46.67.81.82	10K 1/16W 5% T 1005	911-610057BF	C120	0.22UF GRM39X7R224K50V	913-422205 H
R99.105.109.107	10K 1/16W 5% T 1005	911-610057BF	C54	0.47UF GRM40Y5V474Z16V	913-434705CX
R110.111.121.124	10K 1/16W 5% T 1005	911-610057BF	C66	4.7PF GRM39COG4R7C50V	913-424700HB
R93	100K 1/16W 5% T 1005	911-610067BF	C96.102	0.0047UF GRM36X7R472K25V	913-414703EH
R51.106	1M 1/16W 5% T 1005	911-610077BF	C22.62.99	1UF GRM40Y5V105Z16V	913-431006CX
R39	120 1/16W 5% 1005	911-612037BF	C65	12PF GRM39COG120J50V	913-421201HGAA
R28.97	1.2K 1/16W 5% T 1005	911-612047BF	C80	15PF GRM36 COG150J 50V	913-411501HG
R52.35.66	12K 1/16W 5% 1005	911-612057BF	C5.9.13.18.23	220PF GRM36COH221J25V	911-412201EG
R48	1.5K 1/16W 5% T 1005	911-615047BF	C49.98.101.108	220PF GRM36COH221J25V	911-412201EG
R100	15K 1/16W 5% T 1005	911-615057BF	C109.113	220PF GRM36COH221J25V	911-412201EG
R80	150K 1/16W 5% 1005	911-615067BF	C81	27PF GRM36COG270J50V	913-412701HG
R13.33	18 1/16W 5% 1005	911-618027BF	C24	2.4pF, GRM36COG2R4C 50V	913-412400HB
R75	1.8K 1/16W 5% 1005	911-618047BF	C21	3PF GRM36COG030C50V	913-413000HB
R24	18K 1/16W 5% T 1005	911-618057BF	C72	30PF GRM36COG300J50V	913-413001HG
R92	180K 1/16W 5% 1005	911-618067BF	C82	33PF GRM36COG330J50V	913-413301HG
R19.102.103.108	20K 1/16W 5% T 1005	911-620057BF	C104	3.6pF, GRM36COG3R6C 50V	913-413600HB
R17	22 1/16W 5% T 1005	911-622027BF	C33	3.9PF GRM36COG3R9C50V	913-413900HB

SD-125E RF LINK MODULE

SD-125E U3(470MHz~490MHz) RF BOARD(932-558195AB) PARTS LIST						
RF CIRCUIT ASSY (501-382129AA)						
Reference No	Description	Code No	Reference No	Description	Code No	
R27.31.56	220 1/16W 5% 1005	911-622037BF	C34.40	470PF GRM40COG471J50V	913-434702HG	
R54.74	2.2K 1/16W 5% T 1005	911-622047BF	C106	47PF GRM36COG470J50V	913-414701HG	
R21.23.76.114	22K 1/16W 5% 1005	911-622057BF	C15.19.20.26.27	470PF GRM36X7R471K50V	913-414702HH	
R115.116.117.118	22K 1/16W 5% 1005	911-622057BF	C42.43.44.48	470PF GRM36X7R471K50V	913-414702HH	
R119.122.125	22K 1/16W 5% 1005	911-622057BF	C50.53.55.56	470PF GRM36X7R471K50V	913-414702HH	
R10.11	2.7K 1/16W 5% 1005	911-627047BF	C57.58.59.60	470PF GRM36X7R471K50V	913-414702HH	
R32.34	300 1/16W 5% 1005	911-630037BF	C89.90.92.112	470PF GRM36X7R471K50V	913-414702HH	
R98	33 1/16W 5% 1005	911-633027BF	C25.100	5PF GRM36COG050C50V	913-415000HB	
R50	3.3K 1/16W 5% 1005	911-633047BF	C8	7PF GRM36COG070D50V	913-417000HC	
R71	33K 1/16W 5% T 1005	911-633057BF	C75.77	82PF GRM36COG820J50V	913-418201HG	
R62	39 1/16W 5% 1005	911-639027BF	C51	0.47UF 20V A 20%	915-614704DKLG	
R101	3.9K 1/16W 5% 1005	911-639047BF	C6.94.119	10UF 6.3V A 20%	915-611007AKLC	
R64	47 1/16W 5% T 1005	911-647027BF	C16.47.64.88	10UF 10V A 20%	915-611007BKLC	
R30.90.95	4.7K 1/16W 5% T 1005	911-647047BF	C52.91.93	4.7UF 10V A 20%	915-6114706	
R15.91	47K 1/16W 5% T 1005	911-647057BF	C12	2.2UF 16V A 20%	915-612206ZA	
R73.78	470K 1/16W 5% T 1005	911-647067BF	C3.4	0.01UF 63V 5%	914-331004JG	
R128	4.7M 1/16W 5% 1005	911-647077BF	C2	0.022UF 63V 5%	914-332204JG	
R5.6	51 1/16W 5% 1005	911-651027BF	C1	0.33UF 63V 5%	914-333305JG	
R94	51K 1/16W 5% 1005	911-651057BF	C61	10PF GRM40COG100C50V	913-431001HB	
R86	560 1/16W 5% T 1005	911-656037BF	C29	10PF GRM36COG100D50V	913-411001HC	
R9.29.83.96.104	5.6K 1/16W 5% 1005	911-656047BF	C30	20PF GRM36COG200J50V	913-412001HGAA	
R123	56K 1/16W 5% 1005	911-656057BF	C32	27PF GRM36COG270J50V	913-412701HG	
R55	680 1/16W 5% 1005	911-668037BF	C31	6PF GRM36COG060D50V	913-416000HC	
R36	6.8K 1/16W 5% 1005	911-668047BF	C28	6.8PF GRM36COG6R8D50V	913-416800HC	
R18.68	7.5K 1/16W 5% 1005	911-675047BF	C41	0.75PF GRM40COG0R75C	913-430750HB	
R113	82K 1/16W 5% 1005	911-682057BF	C38	10PF GRM40COG100C50V	913-431001HB	
R63	0.1 1W 1% 1218	911-610100AA	C35	1.5PF GRM40COG1R5C50V	913-431500HB	
R42	0 1/10W 5% 2012	911-600007CA	C39	5.6PF GRM40COG5R6C50V	913-435600HB	
R43.44.45	2.2 1/10W 5% 2012	911-622017CA	C36	6PF GRM40COG060D50V	913-436000HC	
R40.41.65	470K 1/10W 5% 2012	911-647067CA	C37	9PF GRM40COG090D50V	913-439000HC	
			Q9.17.19	BFR92A REEL	881-390092AA	
RV1.3.4.5.6	10K VG039NCHXT	917-990003AA	Q3.4	KTC4075-Y	881-394075YA	
RV7	100K VG039NCHXT	917-990004AA	Q5.6	KTA2014-Y	881-192014YA	
RV2	22K VG039NCHXT	917-990005AA	Q1.2	KRA110SPK	881-190110SP	
			Q13.14.18.21	KRC104SND(SOT-23)	881-390104SN	
			Q22.24	KRC104SND(SOT-23)	881-390104SN	
CON1	TDH2-18SG-SMD	925-990014AA	Q8.12.15.20	KTC3875S(BL)SOT-23	881-393875SB	
SUB;	NSP T0.2	832-501201AA	Q11	KTA1663(Y)SOT-89	881-191663YA	
			Q10	PBR951	881-990951AA	
L16	1UH SWI0805FT1RO	919-921100AB	Q16	3SK324UG SC-82A	881-810324UG	
L19	2.7UH SWI0805FT2R7	919-920270AA	IC6	TA31136FN	872-331136SS	
L2.3.14	18NH SWI0603CT18N	919-920018AD	Q7.23	KRA104S(SOT-23)	881-190104SPAA	
L15	150NH SWI0603CTR15	919-920015AB	IC7	TK71733SCL	875-371733SP	
L10	1X0.35X7T-R	919-420028AA	IC1	TK71750SCL	875-371750SP	
L7.8.9	2X0.75X3T:L(SMD)	919-420042AA	IC3.4.5	NJM12904V	875-112904VA	
L18	8.2NH HK16088N2J-T	919-920008AA	IC2	MB15E03SL	875-901503SL	
L4.5	18NH LL2012-F18NM	919-920018AA	D2	KDS193	882-190193KD	
L17	47NH CIH10T47NJNC	919-920047AD	D1.8.9	KDS181S	882-190181SA	
L1	10UH L9-100JF-10	919-922100AC	D3.5	UPP9401(T&R) 50V 2.5W	882-999401AA	
L6	0.82UH SWI0805FTR82	919-920820AB	TCXO1	12.800MHz, DV-5-2.5H1	928-150001AE	

SD-125E RF LINK MODULE

SD-125E U3(470MHz~490MHz) RF BOARD(932-558184AB) PARTS LIST						
TX VCO U2 BAND ASSY (501-362129AB)						
Reference No	Description	Code No	Reference No	Description	Code No	
R201	0 1/16W 5% 1005	911-600007BF	C214	0.001UF GRM36X7R102K50V	913-411003HH	
R202	100 1/16W 5% T 1005	911-610037BF	C204.206	0.5PF GRM36COG0R5C50V	913-410500HBAA	
R203	100K 1/16W 5% T 1005	911-610067BF	C212	12PF GRM36COG120J50V	913-411201HG	
R206.207	2.2K 1/16W 5% T 1005	911-622047BF	C205	1.5PF GRM36COG1R5C50V	913-411500HB	
R209	270 1/16W 5% 1005	911-627037BF	C209	2.2PF GRM36COG2R2C50V	913-412200HB	
R208	4.7K 1/16W 5% T 1005	911-647047BF	C207	2PF GRM36COG020C50V	913-412000HB	
			C216.217	220PF GRM36X7R221J50V	913-412202HGAA	
			C213	2.7PF GRM36COG2R7C50V	913-412700HB	
L203	1.0X0.45X4T:R(SMD)	919-490024AA	C211	3.3PF GRM36COG3R3C50V	913-413300HB	
L202	0.47UH SWI0805FTR47	919-920470AA	C218	4PF GRM36COG040C50V	913-414000HBAA	
L204	0.82UH SWI0805FTR82	919-920820AB	C201	470PF GRM36X7R471K50V	913-414702HH	
L205	22NH SWI0603CT22N	919-920022AD	C215	6PF GRM36COG060D50V	913-416000HC	
L201	100NH SWI0603CTR10	919-920010AB	C203	7PF GRM36COG070D50V	913-417000HC	
			C208	6PF, TZV02Z060A100	917-156000AB	
D201.202	1SV229	882-591229AA	Q201.202	2SC5086-Y	881-395086YA	

RX VCO U2 BAND ASSY (501-362129AA)						
R302	0 1/16W 5% 1005	911-600007BF	C315	10PF GRM36COG100D50V	913-411001HC	
R309	180 1/16W 5% 1005	911-618037BF	C314	0.001UF CM105 X7R102K 50V AT	913-421003HHAA	
R306.307	2.2K 1/16W 5% T 1005	911-622047BF	C312	11PF GRM36COG110J 50V	913-411101HG	
R308	4.7K 1/16W 5% T 1005	911-647047BF	C309	2PF GRM36COG020C50V	913-412000HB	
			C301.316.317	220PF GRM36X7R221J50V	913-412202HGAA	
L303	1.0X0.45X4T:R(SMD)	919-490024AA	C313	2.7PF GRM36COG2R7C50V	913-412700HB	
L304	0.82UH SWI0805FTR82	919-920820AB	C311.318	4PF GRM36COG040C50V	913-414000HBAA	
L305	33NH SWI0603CT33N	919-920033AG	C307	6PF GRM36COG060D50V	913-416000HC	
L301	100NH SWI0603CTR10	919-920010AB	C303	7PF GRM36COG070D50V	913-417000HC	
			C308	6PF, TZV02Z060A100	917-156000AB	
Q301.302	2SC5086-Y	881-395086YA	D301	1SV229	882-591229AA	

SD-125E RF LINK MODULE

SD-125E V2 PARTS LIST

SD-125E V2(148MHz~174MHz) DIGITAL BOARD(932-558193AB) PARTS LIST					
DC TO DC CONVERSION ASSY (501-902121AA)					
Reference No	Description	Code No	Reference No	Description	Code No
R801	10K 1/16W 5% 1608	911-610057BG	C810	0.01UF GRM39X7R103K25V	913-421004EK
R802	36K 1/16W 5% 1608	911-636057BG	C802.808	0.1UF GRM39 X7R104K50V	913-421005HH
R804	0.033 1/10W 1% 2012	911-603307CA	C805.806.812	100PF GRM39 U2J101J 50V	913-421002HGAB
R805	68K 1/16W 5% T 1608	911-668057BG	C803	330PF GRM39COG331J50V	913-423302HG
R806	20K 1/16W 5% T 1608	911-620057BG	C801.804	51PF GRM39COG510J50V	913-425101HG
C811.815	100UF 16V D 20%	915-611008ZC	D801	KDS160	882-190160AA
C807	22UF 35V D 20%	915-612207FKLG	D802	MBRS140T3	882-690140TA
C813	4.7UF 10V A 20%	915-6114706	L801	12UH DA104-120M	919-922120AB
Q801.802	SI4412DY	881-694412DY	L802	3.3UH SD73-3R3M	919-921330AB
IC801	LTC1435CS(SO-16)	875-401435SP		NSP T0.3	832-501180AA

DIGITAL PCB MANUAL ASSY (501-402121AA)					
Reference No	Description	Code No	Reference No	Description	Code No
CON403	2.0MM DUAL ROW DOUBLE (2X9)	925-990016AA	SW401	KSD-04	924-150004AA
CON404	TDI7-14SG	925-990100AA	CON06	TDH2-08SG	925-990101AA
CON401.402	53261-1571	925-990015AB			

DIGITAL PCB SMD ASSY (501-402121AB)					
Reference No	Description	Code No	Reference No	Description	Code No
R134.135.471.472	0 1/16W 5% 1608	911-600007BG	C411	0.0015UF CM105X7R152K50V	913-421503HHAA
R473.485.LK6.7.8	0 1/16W 5% 1608	911-600007BG	C406.420.451	0.01UF GRM39X7R103K25V	913-421004EK
R490	10 1/16W 5% T 1608	911-610027BG	C68.404.407.416	0.1UF GRM39Y5V104Z25V	913-421005EX
R49.137.446.474	100 1/16W 5% T 1608	911-610037BG	C417.422.436.450	0.1UF GRM39Y5V104Z25V	913-421005EX
R475.476.477.501	100 1/16W 5% T 1608	911-610037BG	C463.464	0.1UF GRM39Y5V104Z25V	913-421005EX
R423.481.482.483	1K 1/16W 5% 1608	911-610047BG	C402.421.429.430	0.001UF GRM39 X7R102K 50V	913-421003HH
R484	1K 1/16W 5% 1608	911-610047BG	C431.433.434.448	0.001UF GRM39 X7R102K 50V	913-421003HH
R403.419.421.424	10K 1/16W 5% 1608	911-610057BG	C452.442.443.444	0.001UF GRM39 X7R102K 50V	913-421003HH
R425.435.437.440	10K 1/16W 5% 1608	911-610057BG	C445.446.432	0.001UF GRM39 X7R102K 50V	913-421003HH
R465.505.468.489	10K 1/16W 5% 1608	911-610057BG	C410	0.0022UF GRM39X7R222J50V	913-422203HG
R407.415.131.132	10K 1/16W 5% 1608	911-610057BG	C419.466	0.0027UF GRM39X7R272J50V	913-422703HG
R133.416.417.418	10K 1/16W 5% 1608	911-610057BG	C403	0.022UF GRM39X7R223K50V	913-422204HH
R447.454.461.426	10K 1/16W 5% 1608	911-610057BG	C412	0.0039UF GRM39X7R392K50V	913-423903HH
R422.400.497.498	10K 1/16W 5% 1608	911-610057BG	C413.465	0.0033UF GRM39X7R332K50V	913-423303HHAA
R499.502.503	10K 1/16W 5% 1608	911-610057BG	C418	0.0047UF GRM39X7R472K50V	913-424703HH
R409.411.414.445	100K 1/16W 5% 1608	911-610067BG	C409.423.426	0.047UF GRM39Y5V473Z25V	913-424704EX
R451.452.458.480	100K 1/16W 5% 1608	911-610067BG	C414	0.0068UF GRM39X7R682K50V	913-426803HH
R492.493494.495	100K 1/16W 5% 1608	911-610067BG	C400.401.439	1UF GRM40Y5V105Z16V	913-431006CX
R448.430	1M 1/16W 5% 1608	911-610077BG	C405.408.458	120PF GRM39COG121J50V	913-421202HG
R456	180 1/16W 5% T 1608	911-618037BG	C126.129.130.459	220PF GRM39COG221J 50V	913-422202HG
R449	20K 1/16W 5% T 1608	911-620057BG	R469	220PF GRM39COG221J 50V	913-422202HG
R413	200K 1/16W 5% 1608	911-620067BG	C437.438	39PF GRM39COG390J50V	913-423901HG
R438	2.2K 1/16W 5% T 1608	911-622047BG	C415	47PF GRM39COG470J50V	913-424701HG
R406.455.457	22K 1/16W 5% T 1608	911-622057BG	C424	470PF GRM39X7R471K50V	913-424702HH
R412	2.7K 1/16W 5% T 1608	911-627047BG	C427	100UF 6.3V D 20%	915-611008ZA
R410	270K 1/16W 5% 1608	911-627067BG	C425.440.460	10UF 6.3V A 20%	915-611007AKLC
R450	33K 1/16W 5% 1608	911-633057BG	C461	1UF 25V A 20%	915-611006EKLC
R420	3.9K 1/16W 5% 1608	911-639047BG	C447	33UF 25V D 20%	915-613307EKLG
R433.434.436.439	4.7K 1/16W 5% 1608	911-647047BG	C435.454.456.457	4.7UF 10V A 20%	915-6114706
R404.431.432.441	47K 1/16W 5% 1608	911-647057BG	C428	47UF 16V D 20%	915-614707
R442.443.444.464	47K 1/16W 5% 1608	911-647057BG			
R466.7.429	47K 1/16W 5% 1608	911-647057BG	U401	UPD 78F0513	874-180513LQ
R453	5.6K 1/16W 5% 1608	911-656047BG	U405.406.409	KIA324F-EL	875-100324FL
R491.494	56K 1/16W 5% 1608	911-656057BG	U408	KIA7042AF	875-907042SO
R473.486	68K 1/16W 5% T 1608	911-668057BG	U403	LM339	875-900339AA
R136	9.1K 1/16W 5% 1608	911-691047BG	U404	MC14066BDR2G	874-114066BD
RV404	0 1/10W 5% 2012	911-600007CA	U402	AT93C56-10SI	876-609356AA
R463	1.8M 1/10W 5% 2012	911-618077CA	U407	LM386MX-1 (SO-08)	875-100386SP
RV403	22K VG039NCHXT	917-990005AA			
LK10.12.14.15.18	0 1/16W 5% 1608	911-600007BG			
Q404.406.408	KRC104SND(SOT-23)	881-390104SN	D401.402.403.404	BZX84C5V6LT1	882-290084CB
Q407	KTA1504SY(SOT-23)	881-191504SY	D405.407.408.409	BZX84C5V6LT1	882-290084CB
Q401.402.403.405	KRA104S(SOT-23)	881-190104SPAA	D410	BZX84C5V6LT1	882-290084CB

SD-125E RF LINK MODULE

SD-125E V2(148MHz~174MHz) RF BOARD(932-558184AB) PARTS LIST 1/3						
PWR MODULE V2 ASSY (501-902121AC)						
Reference No	Description	Code No	Reference No	Description	Code No	
R(L707)	0 1/10W 5% 2012	911-600007CA	C703.706.710.712	0.01UF GRM40X7R103K50V	913-431004HK	
R703	100 1/10W 5% 2012	911-610037CA	C715	0.01UF GRM40X7R103K50V	913-431004HK	
R706	22 1/10W 5% T 2012	911-622027CA	C702	12PF GRM40COG120J50V	913-431201HG	
R704	2.4K 1/10W 5% 2012	911-624047CA	C714	13PF GRM40COG130J50V	913-431301HG	
R701	2.7K 1/10W 5% 2012	911-627047CA	C709	33PF GRM40COG330J50V	913-433301HG	
R710	3K 1/10W 5% T 2012	911-630047CA	C707.717	36PF GRM40COG360J50V	913-433601HH	
R711	3.9K 1/10W 5% 2012	911-639047CA	C704	43PF GRM40COG430J50V	913-434301HG	
R705	47K 1/10W 5% 2012	911-647057CA	C705.713	51PF GRM40COG510J50V	913-4351001HG	
R709	56 1/10W 5% 2012	911-656027CA	C701	5.6PF GRM40COG5R6C50V	913-435600HB	
R707.708	82 1/10W 5% T 2012	911-682027CA				
R702	8.2K 1/10W 5% 2012	911-682047CA				
Q702	BFG135(SOT-223)	881-390135AA				
Q703	2SK3476 (TE12L,Q)	881-883476AA	L704.709	2X0.45X8T:L(SMD)	919-420040AA	
Q701	PBR951	881-990951AA	L705.708	0.26X0.9X7.5T:L	919-420061AA	
			L701.702	56NH SWI0805CT56N	919-920056AD	
D701	KDS181S	882-190181SA	L703	180NH SWI0805CTR18	919-920018AC	
	NSP T0.2	832-501170AA				

FRONT END V2 BAND ASSY (501-372121AA)					
Reference No	Description	Code No	Reference No	Description	Code No
R602	180 1/16W 5% T 1608	911-618037BG	C616.620	0.001UF GRM39 X7R102K 50V PT	913-421003HH
R604	2.2 1/16W 5% T 1608	911-622017BG	C608.615	100PF GRM39 COG101J 50V PT	913-421002HG
R601.605	3.3K 1/16W 5% 1608	911-633047BG	C609	120PF GRM39COG121J50V	913-421202HG
R603	820 1/16W 5% 1608	911-682037BG	C603	13PF GRM39COG130J50V	913-421301HG
			C611	150PF GRM39COG151J50V	913-421502HG
Q601	KTC5084-O	881-395084AB	C601	27PF GRM39 COG270J 50V PT	913-422701HG
			C606	30PF GRM39 COG300J 50V	913-423001HG
D601	KDS226	882-190226AA	C618	33PF GRM39COG330J50V	913-423301HG
			C619	36PF GRM39COG360J50V	913-423601HH
L604.605.607.608	0.26X0.9X7.5T:L	919-420061AA	C612	47PF GRM39COG470J50V	913-424701HG
L601	68NH SWI0805CT68N	919-920068AB	C610	62PF GRM39COG620J50V	913-426001HG
L602	82NH SWI0805CT82N	919-920082AA			

VOLTAGE DOUBLER ASSY (501-392121AA)					
R905.907	2.2K 1/16W 5% T 1005	911-622047BF	C904.905.906.907.908	0.01UF GRM36X7R103K16V	913-411004CH
R901.903	27K 1/16W 5% 1005	911-627057BF	C909.910.911	0.01UF GRM36X7R103K16V	913-411004CH
R908	47 1/16W 5% T 1005	911-647027BF	C901.902	220PF GRM36X7R221J50V	913-412202HGAA
R906	4.7K 1/16W 5% T 1005	911-647047BF			
R902.904	7.5K 1/16W 5% 1005	911-675047BF	Q901.902.903.904	KTC4075-Y	881-394075YA
			Q905	KTA2014-Y	881-192014YA
D901.902.903	KDS226	882-190226AA			

SD-125E RF LINK MODULE

SD-125E V2(148MHz~174MHz) RF BOARD(932-558184AB) PARTS LIST 2/3									
RF CIRCUIT ASSY (501-382121AA)									
R126.C63.LK17	0	1/16W	5%	1005	911-600007BF	C34.40	0.001UF	GRM40 X7R102K 50V	913-431003HH
R14.53	10	1/16W	5%	1005	911-610027BF	C23.50.73.78.84.98	0.001UF	GRM36X7R102K50V	913-411003HH
R1.2.12.13.38.66	100	1/16W	5%	T 1005	911-610037BF	C114.121.122.131	0.001UF	GRM36X7R102K50V	913-411003HH
R72.84	100	1/16W	5%	T 1005	911-610037BF	C150	0.001UF	GRM36X7R102K50V	913-411003HH
R88.103.120	100	1/16W	5%	T 1005	911-610037BF	C11.45.70.77.83	0.01UF	GRM36X7R103K16V	913-411004CH
R37.47.77.87	1K	1/16W	5%	T 1005	911-610047BF	C86.95.105.107	0.01UF	GRM36X7R103K16V	913-411004CH
R16.20.22.25	10K	1/16W	5%	T 1005	911-610057BF	C119.124	0.01UF	GRM36X7R103K16V	913-411004CH
R26.46.68	10K	1/16W	5%	T 1005	911-610057BF	C7.10.26.46.71.74.76	0.1UF	GRM36X5R104K10V	913-411005BH
R70.81.82.99	10K	1/16W	5%	T 1005	911-610057BF	C79.85.87.97.103.111	0.1UF	GRM36X5R104K10V	913-411005BH
R105.124	10K	1/16W	5%	T 1005	911-610057BF	C116.118.120	0.1UF	GRM36X5R104K10V	913-411005BH
R160	10K	1/16W	5%	T 1005	911-610057BF	C110	0.22UF	GRM39X7R224K50V	913-422205 H
R93	100K	1/16W	5%	T 1005	911-610067BF	C54	0.47UF	GRM40Y5V474Z16V	913-434705CX
R51.108	1M	1/16W	5%	T 1005	911-610077BF	C96.102	0.0047UF	GRM36X7R472K25V	913-414703EH
R35.52.67	12K	1/16W	5%	1005	911-612057BF	C12.22.69.99	1UF	GRM40Y5V105Z16V	913-431006CX
R3.4.48	1.5K	1/16W	5%	T 1005	911-615047BF	C5.21.24	10PF	GRM36COG100D50V	913-411001HC
R110.111.112	15K	1/16W	5%	T 1005	911-615057BF	C25	12PF	GRM36COG120J50V	913-411201HG
R80	150K	1/16W	5%	1005	911-615067BF	C80	15PF	GRM36 COG150J 50V	913-411501HG
R33	18	1/16W	5%	1005	911-618027BF	C100	20PF	GRM36COG200J50V	913-412001HGAA
R75	1.8K	1/16W	5%	1005	911-618047BF	C9.18.49.101.108.109	220PF	GRM36COH221J25V	911-412201EG
R92	180K	1/16W	5%	1005	911-618067BF	C113.200	220PF	GRM36COH221J25V	911-412201EG
R8.106.107.125	20K	1/16W	5%	T 1005	911-620057BF	C81	27PF	GRM36COG270J50V	913-412701HG
R17	22	1/16W	5%	T 1005	911-622027BF	C72	30PF	GRM36COG300J50V	913-413001HG
R27.31.49.56	220	1/16W	5%	1005	911-622037BF	C64.82	33PF	GRM36COG330J50V	913-413301HG
R54.74	2.2K	1/16W	5%	T 1005	911-622047BF	C61	4.7PF	GRM40COG4R7C50V	913-434700HB
R23.71.76.86	22K	1/16W	5%	1005	911-622057BF	C106	47PF	GRM36COG470J50V	913-414701HG
R114.115.116.117	22K	1/16W	5%	1005	911-622057BF	C15.19.20.27.42.43.44	470PF	GRM36X7R471K50V	913-414702HH
R118.119.130	22K	1/16W	5%	1005	911-622057BF	C48.53.55.56.57.58.59	470PF	GRM36X7R471K50V	913-414702HH
R39	270	1/16W	5%	1005	911-627037BF	C60.89.90.92.112	470PF	GRM36X7R471K50V	913-414702HH
R10.11	2.7K	1/16W	5%	1005	911-627047BF	C31	5PF	GRM36COG050C50V	913-415000HB
R32.34	300	1/16W	5%	1005	911-630037BF	C66	6.8PF	GRM39COG6R8D50V	913-426800HC
R7	3K	1/16W	5%	1005	911-630047BF	C33	6.8PF	GRM36COG6R8D50V	913-416800HC
R50	3.3K	1/16W	5%	1005	911-633047BF	C8	7PF	GRM36COG070D50V	913-417000HC
R19.24.85	33K	1/16W	5%	T 1005	911-633057BF	C62.75	82PF	GRM36COG820J50V	913-418201HG
R62	39	1/16W	5%	1005	911-639027BF	C65	8PF	GRM39COG080D50V	913-428000HC
R28.30.90.95.97	4.7K	1/16W	5%	T 1005	911-647047BF	C36.39	20PF	GRM40COG200J50V	913-432001HG
R15.91	47K	1/16W	5%	T 1005	911-647057BF	C37	39PF	GRM40 COG390J 50V	913-433901HG
R73.78	470K	1/16W	5%	T 1005	911-647067BF	C35	4.7PF	GRM40COG4R7C50V	913-434700HB
R121	4.7M	1/16W	5%	1005	911-647077BF	C38	47PF	GRM40COG470J50V	913-434701HG
R98	51	1/16W	5%	1005	911-651027BF	C51	0.47UF	20V A 20%	915-614704DKLG
R94	51K	1/16W	5%	1005	911-651057BF	C13.16.47.88.94	10UF	10V A 20%	915-611007BKLC
R5.6.102	560	1/16W	5%	T 1005	911-656037BF	C6.117	10UF	6.3V A 20%	915-611007AKLC
R9.29.83.96.104	5.6K	1/16W	5%	1005	911-656047BF	C52.91.93	4.7UF	10V A 20%	915-6114706
R79	56K	1/16W	5%	1005	911-656057BF	C3.4	0.01UF	63V 5%	914-331004JG
R55	680	1/16W	5%	1005	911-668037BF	C2	0.022UF	63V 5%	914-332204JG
R36.100.101	6.8K	1/16W	5%	1005	911-668047BF	C1	0.33UF	63V 5%	914-333305JG
R18.21	7.5K	1/16W	5%	1005	911-675047BF				
R113	82K	1/16W	5%	1005	911-682057BF	Q9.18.19	BFR92A REEL		881- 390092AA
R59.61	100K	1/16W	1%	T 1005	911-610065BF	Q3.4	KTC4075-Y		881-394075YA
R60.122	68K	1/16W	1%	T 1005	911-668055BF	Q5.6	KTA2014-Y		881-192014YA
R63	0.1	1W	1%	1218	911-610100AA	Q1.2	KRA110SPK		881-190110SP
R42.129	0	1/10W	5%	2012	911-600007CA	Q13.14.21.22.23.24	KRC104SND(SOT-23)		881-390104SN
R64	22	1/10W	5%	T 2012	911-622027CA	Q8.12.15.20	KTC3875S(BL)SOT-23		881-393875SB
R43.44.45	2.2	1/10W	5%	2012	911-622017CA	Q11	KTA1663(Y)SOT-89		881-191663YA
R40.41.65	470K	1/10W	5%	2012	911-647067CA	Q10	PBR951		881-990951AA
RV1.3.4.5.6	10K	VG039NCHXT			917-990003AA	Q16	3SK324UG SC-82A		881-810324UG
RV7	100K	VG039NCHXT			917-990004AA	Q7.25	KRA104S(SOT-23)		881-190104SPAA
RV2	22K	VG039NCHXT			917-990005AA	L10	E2L 0.35X2.0X17TL		919-422017AA
IC6	TA31136FN				872-331136SS	L1	10UH L9-100JF-10		919-922100AC
IC7	TK71733SCL				875-371733SP	L6.15	1UH SWI0805FT1RO		919-921100AB
IC1	TK71750SCL				875-371750SP	L19	2.7UH SWI0805FT2R7		919-920270AA
IC3.4.5	NJM12904V				875-112904VA	L2	100NH SWI0805CTR10		919-920010AC
IC2	MB15E03SL				875-901503SL	L3.11	150nH, SWI0805CTR15		919-920015AD
D2	KDS193				882-190193KD	L14	180NH SWI0805CTR18		919-920018AC
D1.8.9	KDS181S				882-190181SA	L17	47NH CIH10T47NJNC		919-920047AD
D3.5	UPP9401(T&R) 50V 2.5W				882-999401AA	L8.9	3X0.55X5T:L(SMD)		919-420038AA
TCX01	12.800MHz, DV-5-2.5H1				928-150001AE	L7	3X0.55X4T:L(SMD)		919-420039AA
CON1	TDH2-18SG-SMD				925-990014AA	SUB;	NSP T0.2		832-501201AA

SD-125E RF LINK MODULE

SD-125E V2(148MHz~174MHz) RF BOARD(932-558184AB) PARTS LIST 3/3						
TX VCO V2 BAND ASSY (501-362121AB)						
R201	0 1/16W 5% 1005	911-600007BF	C214.216.217	0.001UF GRM36X7R102K50V		913-411003HH
R202	100 1/16W 5% T 1005	911-610037BF	C205	1.2PF GRM36COG1R2C50V		913-411200HB
R203	100K 1/16W 5% T 1005	911-610067BF	C212	13PF GRM36COG130J50V		913-411301HG
R206.207	2.2K 1/16W 5% T 1005	911-622047BF	C204	1.5PF GRM36COG1R5C50V		913-411500HB
R209	270 1/16W 5% 1005	911-627037BF	C203	18PF GRM36COG180J50V		913-411801HG
R208	4.7K 1/16W 5% T 1005	911-647047BF	C206.207	1.8PF GRM36COG1R8C50V		913-411800HB
R(L202)	100K 1/10W 5% 2012	911-610067CA	C209	2.2PF GRM36COG2R2C50V		913-412200HB
			C215	30PF GRM36COG300J50V		913-413001HG
L203	56NH LQN21A56N04	919-920056AB	C218	4PF GRM36COG040C50V		913-414000HBAA
L201	1.2UH SWI0805FT1R2	919-920120AB	C213	4.7PF GRM36COG4R7		913-414700
L204	2.2UH SWI0805FT2R2	919-920220AC	C201	470PF GRM36X7R471K50V		913-414702HH
L205	180NH SWI0805CTR18	919-920018AC	C211	5.6PF GRM36COG5R6D50V		913-415600HC
			C208	6PF, TZV02Z060A100		917-156000AB
D201.202	1SV217	882-591217AA	Q201.202	2SC5086-Y		881-395086YA

RX VCO V2 BAND ASSY (501-362121AA)						
R302	100 1/16W 5% T 1005	911-610037BF	C314.316.317	0.001UF GRM36X7R102K50V		913-411003HH
R309	150 1/16W 5% 1005	911-615037BF	C307	0.5PF GRM36 C0G0R5C 50V		913-410500HA
R306.307	2.2K 1/16W 5% T 1005	911-622047BF	C303	10PF GRM36COG100D50V		913-411001HC
R308	4.7K 1/16W 5% T 1005	911-647047BF	C312.315	16PF GRM36COG160J50V		913-411601HG
			C309	1.8PF GRM36COG1R8C50V		913-411800HB
L303	56NH LQN21A56N04	919-920056AB	C318	20PF GRM36COG200J50V		913-412001HGAA
L301	1.2UH SWI0805FT1R2	919-920120AB	C311	2.7PF GRM36COG2R7C50V		913-412700HB
L304	2.7UH SWI0805FT2R7	919-920270AA	C313	4.7PF GRM36COG4R7		913-414700
L305	180NH SWI0805CTR18	919-920018AC	C301	470PF GRM36X7R471K50V		913-414702HH
			C308	6PF, TZV02Z060A100		917-156000AB
Q301.302	2SC5086-Y	881-395086YA	D301	1SV217		882-591217AA

