

YAESU
HF/50 MHz TRANSCEIVER
FT-450
Technical Supplement

©2007 VERTEX STANDARD CO., LTD.

EH024H90A

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Introduction

This manual provides technical information necessary for servicing the FT-450 HF/50 MHz Transceiver.

Servicing this equipment requires expertise in handling surface-mount chip components. Attempts by non-qualified persons to service this equipment may result in permanent damage not covered by the warranty, and may be illegal in some countries.

Two PCB layout diagrams are provided for each double-sided circuit board in the Transceiver. Each side of is referred to by the type of the majority of components installed on that side ("leaded" or "chip-only"). In most cases one side has only chip components, and the other has either a mixture of both chip and leaded components (trimmers, coils, electrolytic capacitors, ICs, etc.), or leaded components only.

While we believe the technical information in this manual to be correct, VERTEX STANDARD assumes no liability for damage that may occur as a result of typographical or other errors that may be present. Your cooperation in pointing out any inconsistencies in the technical information would be appreciated.



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Specifications

General

Rx Frequency Range:	30 kHz - 56 MHz (operating) 160 - 6 m (specified performance, Amateur bands only)
Tx Frequency Ranges:	160 - 6 m (Amateur bands only)
Frequency Stability:	±1 ppm/hour (@+25 °C, after warmup)
Operating Temperature Range:	-10 °C ~ +50 °C
Emission Modes:	A1A (CW), A3E (AM), J3E (LSB, USB), F3E (FM), F2D (DTMF TONE)
Frequency Steps:	10 Hz (SSB & CW), 100 Hz (AM & FM)
Antenna Impedance:	50 Ohms, unbalanced
Power Consumption:	Rx (signal present) 1.5 A Tx (100 W) 22 A
Supply Voltage:	DC 13.8 V ± 10%
Dimensions (WxHxD):	9" x 3.3" x 8.5" (229 x 84 x 217 mm)
Weight (approx.):	7.9 lb (3.6 kg)

Transmitter

Power Output:	100 watts (25 watts AM carrier)
Modulation Types:	J3E (SSB): Balanced, A3E (AM): Low-Level (Early Stage), F3E (FM): Variable Reactance
Maximum FM Deviation:	±5.0 kHz / ±2.5 kHz
Harmonic Radiation:	Better than -60 dB (160 - 10m Amateur bands) Better than -70 dB (6m Amateur band)
SSB Carrier Suppression:	At least 60 dB below peak output
Undesired Sideband Suppression:	At least 60 dB below peak output
Audio Response (SSB):	Not more than -6 dB from 400 to 2600 Hz
3rd-order IMD:	-31 dB @14 MHz 100 watts PEP
Microphone Impedance:	600 Ohms (200 to 10 kOhms)

Receiver

Circuit Type:	Double-conversion superheterodyne	
Intermediate Frequencies:	67.899 MHz / 24 kHz	
Sensitivity (IPO "OFF", ATT: OFF):	SSB (2.4 kHz, 10 dB S+N/N)	
	0.25 μ V (1.8 - 2.0 MHz)	
	0.25 μ V (3.5 - 30 MHz)	
	0.20 μ V (50 - 54 MHz)	
	AM (6 kHz, 10 dB S+N/N, 30 % modulation @400 Hz)	
	2.00 μ V (1.8 - 2.0 MHz)	
	2.00 μ V (3.5 - 30 MHz)	
	1.00 μ V (50 - 54 MHz)	
	FM (BW: 15 kHz, 12 dB SINAD)	
	0.50 μ V (28 - 30 MHz)	
	0.30 μ V (50 - 54 MHz)	
Squelch Sensitivity: (IPO "OFF", ATT: OFF)	There is no specification in frequency ranges not listed.	
	SSB/CW/AM	
	2.50 μ V (1.8 - 30 MHz)	
	1.00 μ V (50 - 54 MHz)	
	FM	
	0.32 μ V (28 - 30 MHz)	
Selectivity (-6/-60 dB):	There is no specification in frequency ranges not listed.	
	Mode	-6 dB -60 dB
	CW	0.5 kHz or better 2.0 Hz or less
	SSB	2.2 kHz or better 4.5 kHz or less
	AM	6 kHz or better 20 kHz or less
	FM	15 kHz or better 30 kHz or less
	FM-N	9 kHz or better 25 kHz or less
	80 dB or better (160 - 10m Amateur bands)	
	65 dB or better (6m Amateur band)	
	65 dB or better (6m Amateur band)	
Maximum Audio Output:	SSB/CW	1.5 W into 8 Ohms with 10% THD
	AM/FM	0.6 W into 8 Ohms with 10% THD
Audio Output Impedance:	4 to 16 Ohms (8 Ohms: nominal)	
Conducted Radiation:	Less than 4000 μ W	

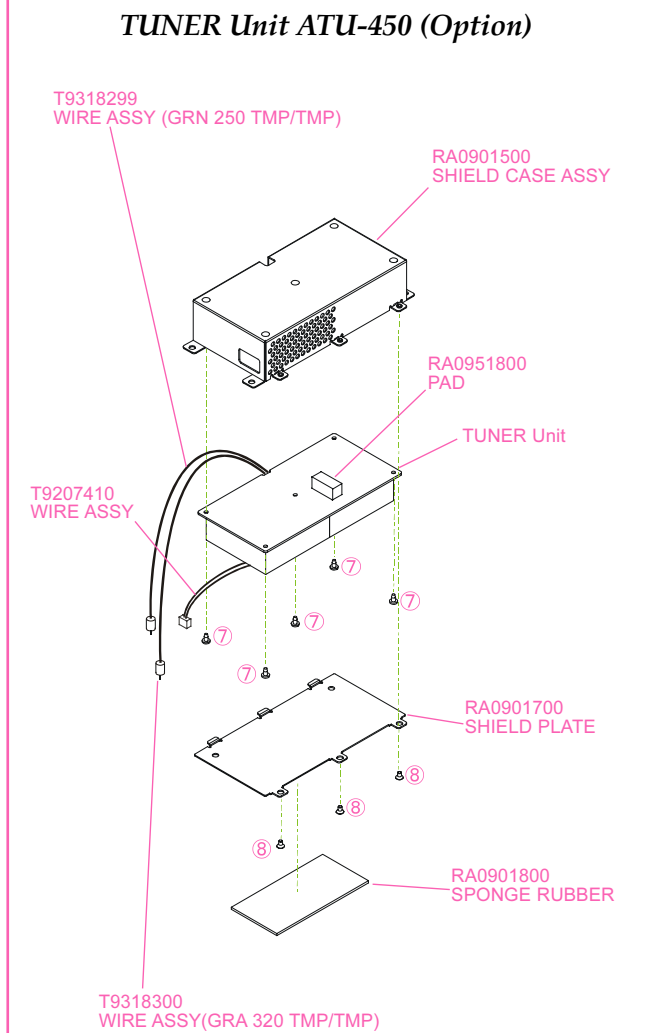
Specifications are subject to change, in the interest of technical improvement, without notice or obligation, and are guaranteed only within the amateur bands.

Specifications

Note

No.	VXSTD P/N	Description	Qty.
①	U31306007	OVAL HEAD SCREW M3X6B	20
②	U20420007	BINDING HEAD SCREW M4X20B	4
③	U24306002	BIND HEAD TAPTITE-B M3X6NI	20
④	U03310002	SEMS SCREW ASM3X10NI	9
⑤	U04410002	SEMS SCREW HSM4X10NI	1
⑥	U24108002	BIND HEAD TAPTITE-B M2X8NI	9
⑦	U20306002	BINDING HEAD SCREW M3X6NI	5
⑧	U30305002	FLAT HEAD SCREW M3X5NI	7

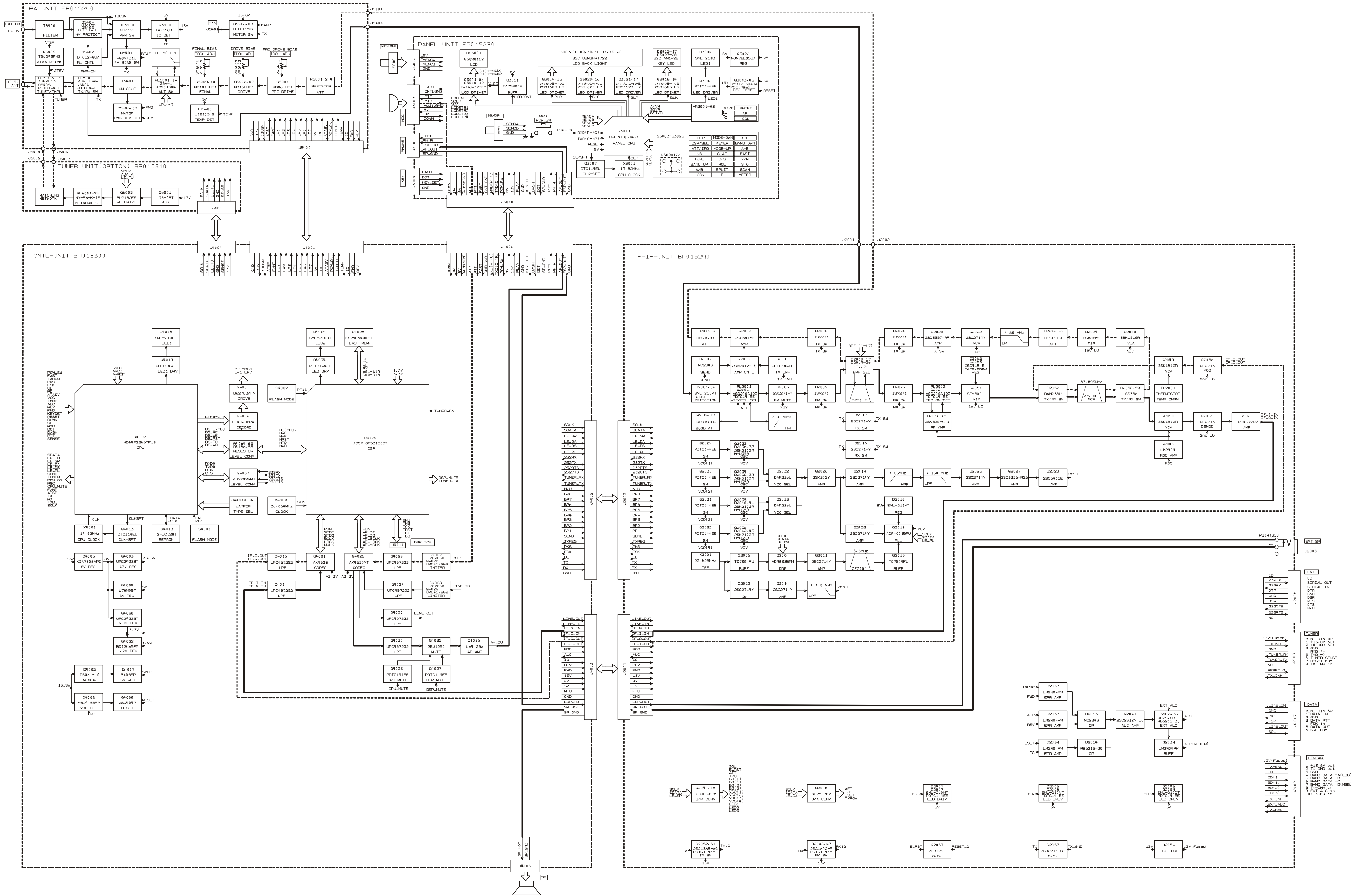
VXSTD P/N	Description	Qty.
Q0000074	BLADE FUSE 25A	1
M3090122A	MICROPHONE MH-67A8J W/CLIP	1
T9023725	DC CABLE 04P 25AX2 3000MM	1



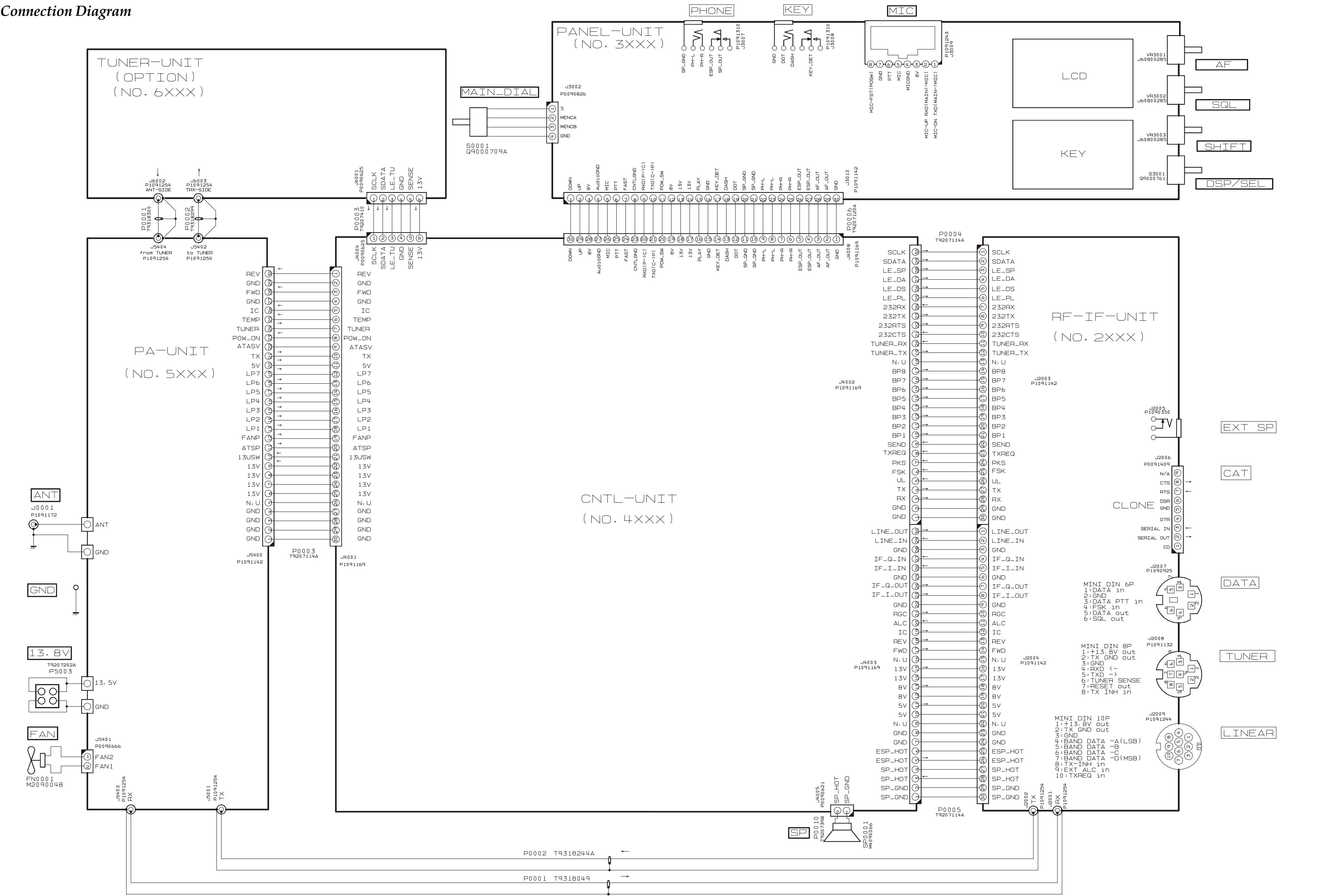
Exploded View & Miscellaneous Parts

Note

BLOCK-DIAGRAM



Connection Diagram



CONNECTION DIAGRAM-1

Introduction and Precautions

The following procedures cover adjustments that are not normally required once the transceiver has left the factory. However, if a problem occurs during normal operation due to component failure; realignment may be required after the faulty components have been replaced.

We recommend that authorized Vertex Standard Technicians, who are experienced with the circuitry and fully equipped to repair and align our products, perform repairs. If a fault is suspected, contact the selling dealer for instructions regarding repair. Authorized Vertex Standard Technicians have the latest information to align all circuits and make complete performance checks to ensure compliance with factory specifications after repairs.

Those who undertake the following alignments are cautioned to proceed at their own risk. Problems caused by unauthorized attempts at realignment are not covered by the warranty policy.

Vertex Standard must reserve the right to change circuits and alignment procedures in the interest of improved performance, without notifying owners.

Under no circumstances should any alignment be attempted unless the normal functions and operation of the transceiver are clearly understood, the cause of the malfunction has been clearly identified and all faulty components replaced. The need for realignment should be determined to be necessary.

The following test equipment (and a thorough familiarity with its correct use) is necessary for correct alignment. Most steps do not require all of the equipment listed. The interactions of some adjustments may require that several adjustments be performed in a sequence. Do not attempt to perform only a single step unless it is clearly isolated electrically from all other steps. Have all test equipment ready before beginning, and follow all of the steps in a section in the order they are presented.

Required Test Equipment

- ☐ RF Signal Generator
- ☐ AF Signal Generator
- ☐ Spectrum Analyzer good to at least 1 GHz.
- ☐ Frequency Counter
- ☐ SINAD Meter
- ☐ RF Millivoltmeter
- ☐ Digital DC Voltmeter (high-Z, 1 M-Ohm/V)
- ☐ DC Voltmeter
- ☐ DC Ammeter (20 A)
- ☐ Ohmmeter
- ☐ 50-Ohm Dummy Load (100 watts)
- ☐ 16.6-Ohm Dummy Load (100 watts)
- ☐ In-Line Wattmeter (100 watts, 50-Ohm)
- ☐ Linear Detector
- ☐ RF Coupler
- ☐ 4-Ohm AF Dummy Load (3 watts)

Alignment Preparation & Precautions

A 50-ohm RF Dummy load and in-line wattmeter must be connected to the "ANT" jack in all procedures that call for transmission, except where specified otherwise. Correct alignment is not possible with an antenna.

After completing one step, read the following step to determine whether the same test equipment will be required. If not, remove the unneeded test equipment before proceeding (except the dummy load and wattmeter).

Correct alignment requires that the ambient temperature be maintained constant between 68 °F ~ 86 °F (20 °C ~ 30 °C). When the transceiver is brought into the shop from a hot or cold environment, it should be allowed time to come to room temperature before alignment. Also, the test equipment must be thoroughly warmed up before beginning.

Whenever possible, alignments should be made with oscillator shields and circuit boards firmly affixed in place.

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

Alignment

Reference Frequency

- ❑ Connect the Frequency Counter to TP2001 on the RF-IF-Unit.
- ❑ Adjust X2001 so that the Frequency Counter reading is 22.625 MHz $\pm$ 10 Hz.

2nd Local Carrier Output Level

- ❑ Connect the RF millivoltmeter to TP2009 on the RF-IF-Unit.
- ❑ Adjust T2017 on the RF-IF-Unit for maximum deflection on the RF millivoltmeter (more than 25 mVrms).

PLL VCV Voltage

- ❑ Connect the Digital DC voltmeter (high-Z) to TP2006 on the RF-IF-Unit.
- ❑ Set the [MODE] switch to FM.
- ❑ Referring to the table below, adjust the listed components for the required voltage, or confirm that the correct voltage is present on each frequency listed.

VFO-A FREQUENCY	ADJUST / CONFIRM	DC VOLTMETER
13.499 MHz	Adjust L2065	5.2 V $\pm$ 0.1 V
0.030 MHz	Confirm	At least 0.5 V
29.999 MHz	Adjust L2066	5.2 V $\pm$ 0.1 V
13.500 MHz	Confirm	At least 0.5 V
44.499 MHz	Adjust L2067	5.2 V $\pm$ 0.1 V
30.000 MHz	Confirm	At least 0.7 V
55.999 MHz	Adjust L2068	5.2 V $\pm$ 0.1 V
44.500 MHz	Confirm	At least 0.7 V

TX IF Circuit (SSB/CW)

- ❑ Connect the 50-Ohm Dummy Load and Wattmeter to the "ANT" jack.
- ❑ Disconnect the TMP plug from J2002 on the RF-IF-Unit, and then connect the RF millivoltmeter and 50 Ohm dummy load to J2002.
- ❑ Inject the 1 mV, 1 kHz audio signal to pin 5 of MIC jack.
- ❑ Set the transceiver to 7.000 MHz, USB mode.
- ❑ Press the PTT button; adjust T2018, T2019, T2021, and T2022 on the RF-IF-Unit for maximum deflection on the RF millivoltmeter.
- ❑ Disconnect the RF millivoltmeter and 50 Ohm dummy load from J2002 on the RF-IF-Unit, then re-connect the TMP plug to J2002.

RX IF Circuit (SSB/CW)

- ❑ Set the following controls as indicated:
[IPO]: OFF
[ATT]: OFF
[RF GAIN] knob: Fully clockwise
- ❑ Connect the AF millivoltmeter and 4 Ohm dummy load to the EXT SPKR jack.
- ❑ Connect the RF Signal Generator to the "ANT" jack, and then set the output level to 0 dB μ V at the 51.995 MHz.
- ❑ Set the transceiver to 51.995 MHz in the CW mode.
- ❑ Adjust T2020 on the RF-IF-Unit for maximum deflection on the AF millivoltmeter.

RX IF Circuit (FM)

- ❑ Set the following controls as indicated:
[IPO]: OFF
[ATT]: OFF
[RF GAIN] knob: Fully clockwise
- ❑ Connect the SINAD meter and 4-Ohm dummy load to the EXT SPKR jack.
- ❑ Connect the RF Signal Generator to the "ANT" jack, and then set the RF Signal Generator to 51.995 MHz at the level of 0 dB μ V, $\pm$ 3.0 kHz deviation with a 1 kHz audio tone.
- ❑ Set the transceiver to 51.995 MHz in the FM mode.
- ❑ Adjust T2021 and T2022 on the RF-IF-Unit for maximum deflection on the SINAD meter.



Alignment

PA Unit

Preparation

- ☐ Connect the 50-Ohm Dummy Load and Wattmeter to the "ANT" jack.
- ☐ Cut the lead of L5008 on the PA Unit.
- ☐ Set VR5401, VR5402, VR5403, and VR5404 on the PA Unit to fully counter clockwise position.
- ☐ Set the transceiver to 14.150 MHz in the USB mode.

Pre-Drive Stage Idling Current

- ☐ Disconnect the jumper plug from J5003 on the PA Unit, and then connect the DC ammeter to J5003.
- ☐ Press the PTT button; adjust VR5401 on the PA Unit so the DC ammeter reading is $100 \text{ mA} \pm 10 \text{ mA}$.
- ☐ Release the PTT button.

Drive Stage Idling Current

- ☐ Disconnect the jumper plug from J5004 on the PA Unit, and then connect the DC ammeter to J5004.
- ☐ Press the PTT button; adjust VR5402 on the PA Unit so that the DC ammeter reading is $0.5 \text{ A} \pm 50 \text{ mA}$.
- ☐ Release the PTT button.
- ☐ Press the PTT button; adjust VR5403 on the PA Unit so the DC ammeter reading is $1.0 \text{ A} \pm 50 \text{ mA}$.
- ☐ Release the PTT button.

Final Stage Idling Current

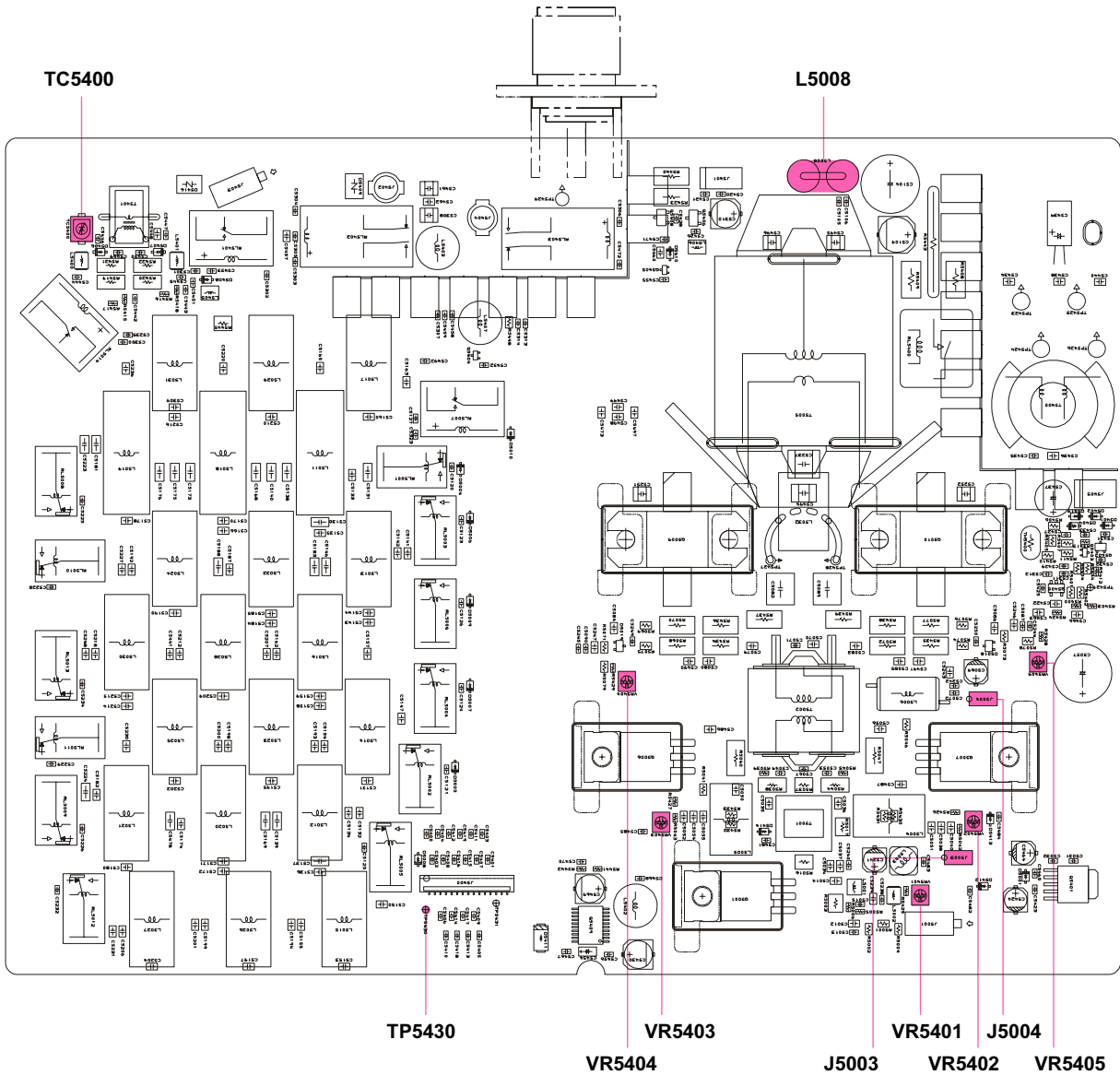
- ☐ Connect the DC ammeter to the lead of L5008.
- ☐ Press the PTT button; adjust VR5404 on the PA Unit so the DC ammeter reading is $1.0 \text{ A} \pm 100 \text{ mA}$.
- ☐ Release the PTT button.
- ☐ Press the PTT button; adjust VR5405 on the PA Unit so the DC ammeter reading is $2.0 \text{ A} \pm 100 \text{ mA}$.
- ☐ Release the PTT button.

Concluding

- ☐ Re-connect the jumper plugs to J5003 and J5004, and then solder the lead of L5008.

CM Coupler Balance

- ☐ Connect the DC voltmeter between TP5430 (+ lead) on the PA Unit and Chassis (- lead).
- ☐ Set the transceiver to 29.200 MHz in the CW mode.
- ☐ Press the PTT switch; adjust TC5400 on the PA Unit for minimum deflection on the DC voltmeter (less than 0.1 V).
- ☐ Release the PTT switch.



PA UNIT ALIGNMENT POINTS

Alignment

Software Adjustment

Preparation

- ❑ Set the VFO frequency for each band as indicated:

OPERATING BAND	FREQUENCY
General Band	1.200 MHz
1.8 MHz Band	1.900 MHz
3.5 MHz Band	3.750 MHz
7 MHz Band	7.150 MHz
14 MHz Band	14.175 MHz
21 MHz Band	21.255 MHz
28 MHz Band	28.850 MHz
50 MHz Band	52.000 MHz

- ❑ Set the following controls as indicated:

[**IPO**] button: OFF

[**ATT**] button: OFF

[**AGC**] button: AUTO

[**SHIFT**] knob: 12-o'clock position

[**AF GAIN**] knob: 12-o'clock position

[**RF GAIN**] knob: Fully clockwise

MODE: CW

CONTOUR: OFF

NOTCH: OFF

DNR: OFF

S-meter Adjustment

- ❑ Connect the RF Signal Generator to the "ANT" jack.
- ❑ Press and hold in the [**ATT/IPO**], [**NB**], and [**AGC**] buttons, while turning the radio on, to enter the alignment mode.
- ❑ Select the appropriate "Alignment Parameter" using the [**DSP/SEL**] knob per the chart below, then set the RF Signal Generator output to each level, and adjust the [**MAIN DIAL**] knob for the corresponding S-meter deflection.

ALIGNMENT PARAMETER	RF SIGNAL GENERATOR	S-METER
SMADJ0	1.200 MHz, 32 dBμ	S-1 (3 dots)
SMADJ1	1.900 MHz, 12 dBμ	S-1 (3 dots)
SMADJ2	3.750 MHz, 12 dBμ	S-1 (3 dots)
SMADJ3	7.150 MHz, 12 dBμ	S-1 (3 dots)
SMADJ4	14.175 MHz, 12 dBμ	S-1 (3 dots)
SMADJ5	21.255 MHz, 12 dBμ	S-1 (3 dots)
SMADJ6	28.850 MHz, 12 dBμ	S-1 (3 dots)
SMADJ	52.000 MHz, 12 dBμ	S-1 (3 dots)

- ❑ Press and hold in the [**F**] button for 2 seconds to save the new settings and exit from the alignment mode.

ALC Adjustment

- ❑ Connect the 50-Ohm Dummy Load and Wattmeter to the "ANT" jack.
- ❑ Press and hold in the [**ATT/IPO**], [**NB**], and [**AGC**] buttons, while turning the radio on, to enter the alignment mode.
- ❑ Rotate the [**DSP/SEL**] knob to select the alignment parameter "I-ALC1".
- ❑ Press the PTT switch, then rotate the [**MAIN DIAL**] knob for $140\text{ W} \pm 10\text{ W}$ on the Wattmeter. Note the alignment value which is displayed on the frequency display area of the LCD.
- ❑ Release the PTT switch.
- ❑ Rotate the [**DSP/SEL**] knob to select the alignment parameter "I-ALC2".
- ❑ Press the PTT switch, then rotate the [**MAIN DIAL**] knob for $110\text{ W} \pm 5\text{ W}$ on the Wattmeter. Release the PTT switch.
- ❑ Rotate the [**DSP/SEL**] knob to select the alignment parameter "I-ALC3".
- ❑ Rotate the [**MAIN DIAL**] knob to set an alignment value to same value, which was noted in the previous step ("I-ALC1").
- ❑ Press and hold in the [**F**] button for 2 seconds to save the new setting and exit from the alignment mode.

Power Adjustment (100 W)

- ❑ Connect the 50-Ohm Dummy Load and Wattmeter to the "ANT" jack.
- ❑ Press and hold in the [**ATT/IPO**], [**NB**], and [**AGC**] buttons, while turning the radio on, to enter the alignment mode.
- ❑ Select the appropriate "Alignment Parameter" using the [**DSP/SEL**] knob per the chart below, and adjust the [**MAIN DIAL**] knob for the corresponding Wattmeter deflection while pressing the PTT switch.

ALIGNMENT PARAMETER	WATTMETER
1PO100	$100\text{ W} \pm 2\text{ W}$
2PO100	$100\text{ W} \pm 2\text{ W}$
3PO100	$100\text{ W} \pm 2\text{ W}$
4PO100	$100\text{ W} \pm 2\text{ W}$
5PO100	$100\text{ W} \pm 2\text{ W}$
6PO100	$90\text{ W} \pm 2\text{ W}$
7PO100	$100\text{ W} \pm 2\text{ W}$

- ❑ Press and hold in the [**F**] button for 2 seconds to save the new settings and exit from the alignment mode.

Power Adjustment (50 W)

- ❑ Connect the 50-Ohm Dummy Load and Wattmeter to the "ANT" jack.
- ❑ Press and hold in the [ATT/IPO], [NB], and [AGC] buttons, while turning the radio on, to enter the alignment mode.
- ❑ Select the appropriate "Alignment Parameter" using the [DSP/SEL] knob per the chart below, and adjust the [MAIN DIAL] knob for the corresponding Wattmeter deflection while pressing the PTT switch.

ALIGNMENT PARAMETER	WATTMETER
1PO 50	50 W $\pm$ 2 W
2PO 50	50 W $\pm$ 2 W
3PO 50	50 W $\pm$ 2 W
4PO 50	50 W $\pm$ 2 W
5PO 50	50 W $\pm$ 2 W
6PO 50	50 W $\pm$ 2 W
7PO 50	50 W $\pm$ 2 W

- ❑ Press and hold in the [F] button for 2 seconds to save the new settings and exit from the alignment mode.

Power Adjustment (20 W)

- ❑ Connect the 50-Ohm Dummy Load and Wattmeter to the "ANT" jack.
- ❑ Press and hold in the [ATT/IPO], [NB], and [AGC] buttons, while turning the radio on, to enter the alignment mode.
- ❑ Select the appropriate "Alignment Parameter" using the [DSP/SEL] knob per the chart below, and adjust the [MAIN DIAL] knob for the corresponding Wattmeter deflection while pressing the PTT switch.

ALIGNMENT PARAMETER	WATTMETER
1PO 20	20 W $\pm$ 2 W
2PO 20	20 W $\pm$ 2 W
3PO 20	20 W $\pm$ 2 W
4PO 20	20 W $\pm$ 2 W
5PO 20	20 W $\pm$ 2 W
6PO 20	20 W $\pm$ 2 W
7PO 20	20 W $\pm$ 2 W

- ❑ Press and hold in the [F] button for 2 seconds to save the new settings and exit from the alignment mode.

Power Adjustment (10 W)

- ❑ Connect the 50-Ohm Dummy Load and Wattmeter to the "ANT" jack.
- Press and hold in the [ATT/IPO], [NB], and [AGC] buttons, while turning the radio on, to enter the alignment mode.
- Select the appropriate "Alignment Parameter" using the [DSP/SEL] knob per the chart below, and adjust the [MAIN DIAL] knob for the corresponding Wattmeter deflection while pressing the PTT switch.

ALIGNMENT PARAMETER	WATTMETER
1PO 10	10 W $\pm$ 1 W
2PO 10	10 W $\pm$ 1 W
3PO 10	10 W $\pm$ 1 W
4PO 10	10 W $\pm$ 1 W
5PO 10	10 W $\pm$ 1 W
6PO 10	10 W $\pm$ 1 W
7PO 10	10 W $\pm$ 1 W

- ❑ Press and hold in the [F] button for 2 seconds to save the new settings and exit from the alignment mode.

Power Adjustment (5 W)

- ❑ Connect the 50-Ohm Dummy Load and Wattmeter to the "ANT" jack.
- ❑ Press and hold in the [ATT/IPO], [NB], and [AGC] buttons, while turning the radio on, to enter the alignment mode.
- ❑ Select the appropriate "Alignment Parameter" using the [DSP/SEL] knob per the chart below, and adjust the [MAIN DIAL] knob for the corresponding Wattmeter deflection while pressing the PTT switch.

ALIGNMENT PARAMETER	WATTMETER
1PO 5	5 W $\pm$ 1 W
2PO 5	5 W $\pm$ 1 W
3PO 5	5 W $\pm$ 1 W
4PO 5	5 W $\pm$ 1 W
5PO 5	5 W $\pm$ 1 W
6PO 5	5 W $\pm$ 1 W
7PO 5	5 W $\pm$ 1 W

- ❑ Press and hold in the [F] button for 2 seconds to save the new settings and exit from the alignment mode.

Alignment

TX Gain Adjustment

- ❑ Connect the 50-Ohm Dummy Load and Wattmeter to the "ANT" jack.
- ❑ Connect the Audio Generator to pin 5 of the MIC jack (pin 7: GND), then set the output level to 1 mV @1 kHz.
- ❑ Press and hold in the [ATT/IPO], [NB], and [AGC] buttons, while turning the radio on, to enter the alignment mode.

ALIGNMENT PARAMETER	WATTMETER
TXG1H	50 W $\pm$ 10 W
TXG2H	50 W $\pm$ 10 W
TXG3H	50 W $\pm$ 10 W
TXG4H	50 W $\pm$ 10 W
TXG5H	50 W $\pm$ 10 W
TXG6H	50 W $\pm$ 10 W
TXG7H	50 W $\pm$ 10 W
TXG1L	10 W $\pm$ 2 W
TXG2L	10 W $\pm$ 2 W
TXG3L	10 W $\pm$ 2 W
TXG4L	10 W $\pm$ 2 W
TXG5L	10 W $\pm$ 2 W
TXG6L	10 W $\pm$ 2 W
TXG7L	10 W $\pm$ 2 W

- ❑ Press and hold in the [F] button for 2 seconds to save the new settings and exit from the alignment mode.

AM Carrier Level Adjustment

- ❑ Connect the 50-Ohm Dummy Load and Wattmeter to the "ANT" jack.
- ❑ Press and hold in the [ATT/IPO], [NB], and [AGC] buttons, while turning the radio on, to enter the alignment mode.
- ❑ Set the [MODE] switch to "AM".
- ❑ Rotate the [DSP/SEL] knob to select the alignment parameter "AM-CAR".
- ❑ Press the PTT switch, then rotate the [MAIN DIAL] knob for 25 W $\pm$ 2 W on the Wattmeter.
- ❑ Release the PTT switch.
- ❑ Press and hold in the [F] button for 2 seconds to save the new setting and exit from the alignment mode.

ALC Meter Adjustment

- ❑ Connect the 50-Ohm Dummy Load and Wattmeter to the "ANT" jack.
- ❑ Press and hold in the [ATT/IPO], [NB], and [AGC] buttons, while turning the radio on, to enter the alignment mode.
- ❑ Rotate the [DSP/SEL] knob to select the alignment parameter "ALCM L".
- ❑ Press the PTT switch, then press the [STO] button.
- ❑ Connect the Audio Generator to pin 5 of the MIC jack (pin 7: GND), then set the output level to 4 mV @1 kHz.
- ❑ Rotate the [DSP/SEL] knob to select the alignment parameter "ALCM H". Press the PTT switch, then press the [STO] button.
- ❑ Press and hold in the [F] button for 2 seconds to save the new setting and exit from the alignment mode.

Reverse ALC Adjustment

- ❑ Connect the 16.6-Ohm Dummy Load (parallel connections of the three 50-Ohm Dummy Loads) to the "ANT" jack.
- ❑ Press and hold in the [ATT/IPO], [NB], and [AGC] buttons, while turning the radio on, to enter the alignment mode.
- ❑ Rotate the [DSP/SEL] knob to select the alignment parameter "1-RALC".
- ❑ Press the PTT switch, then rotate the [MAIN DIAL] knob for 50 W on the PO meter of the FT-450.
- ❑ Release the PTT switch.
- ❑ Rotate the [DSP/SEL] knob to select the alignment parameter "2-RALC".
- ❑ Press the PTT switch, then rotate the [MAIN DIAL] knob for 50 W on the PO meter of the FT-450.
- ❑ Release the PTT switch.
- ❑ Rotate the [DSP/SEL] knob to select the alignment parameter "3-RALC".
- ❑ Press the PTT switch, then rotate the [MAIN DIAL] knob for 50 W on the PO meter of the FT-450.
- ❑ Release the PTT switch.
- ❑ Rotate the [DSP/SEL] knob to select the alignment parameter "50RALC".
- ❑ Press the PTT switch, then rotate the [MAIN DIAL] knob for 50 W on the PO meter of the FT-450. Release the PTT switch. Press and hold in the [F] button for 2 seconds to save the new settings and exit from the alignment mode.

Voltmeter Adjustment

- ☐ Press and hold in the **[ATT/IPO]**, **[NB]**, and **[AGC]** buttons, while turning the radio on, to enter the alignment mode.
- ☐ Adjust the DC Power Supply voltage is exactly 13.8 V.
- ☐ Rotate the **[DSP/SEL]** knob to select the alignment parameter "VM-ADJ".
- ☐ Press the **[STO]** button.
- ☐ Press and hold in the **[F]** button for 2 seconds to save the new setting and exit from the alignment mode.

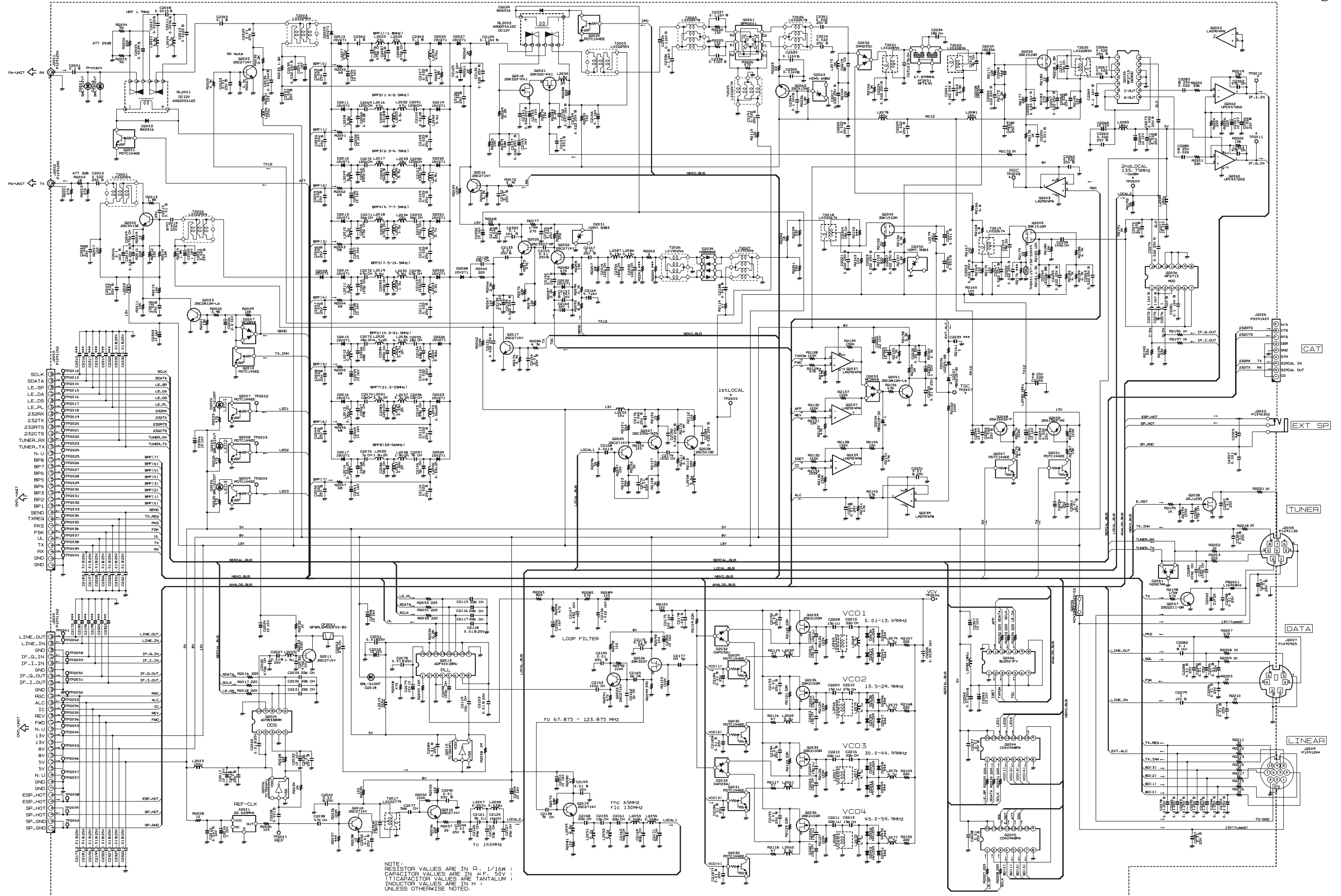
ATAS Controller Adjustment

- ☐ Connect the Digital DC voltmeter (high-Z) to the "ANT" jack.
- ☐ Press and hold in the **[ATT/IPO]**, **[NB]**, and **[AGC]** buttons, while turning the radio on, to enter the alignment mode.
- ☐ Rotate the **[DSP/SEL]** knob to select the alignment parameter "ATAS DN".
- ☐ Press the **[STO]** button, then rotate the **[MAIN DIAL]** knob for 8.0 V on the DC Voltmeter.
- ☐ Rotate the **[DSP/SEL]** knob to select the alignment parameter "ATAS BK".
- ☐ Press the **[STO]** button, then rotate the **[MAIN DIAL]** knob for 9.5 V on the DC Voltmeter.
- ☐ Rotate the **[DSP/SEL]** knob to select the alignment parameter "ATAS UP".
- ☐ Press the **[STO]** button, confirm that the DC Voltmeter reading is more than 10.5 V.
- ☐ Press and hold in the **[F]** button for 2 seconds to save the new settings and exit from the alignment mode.

Alignment

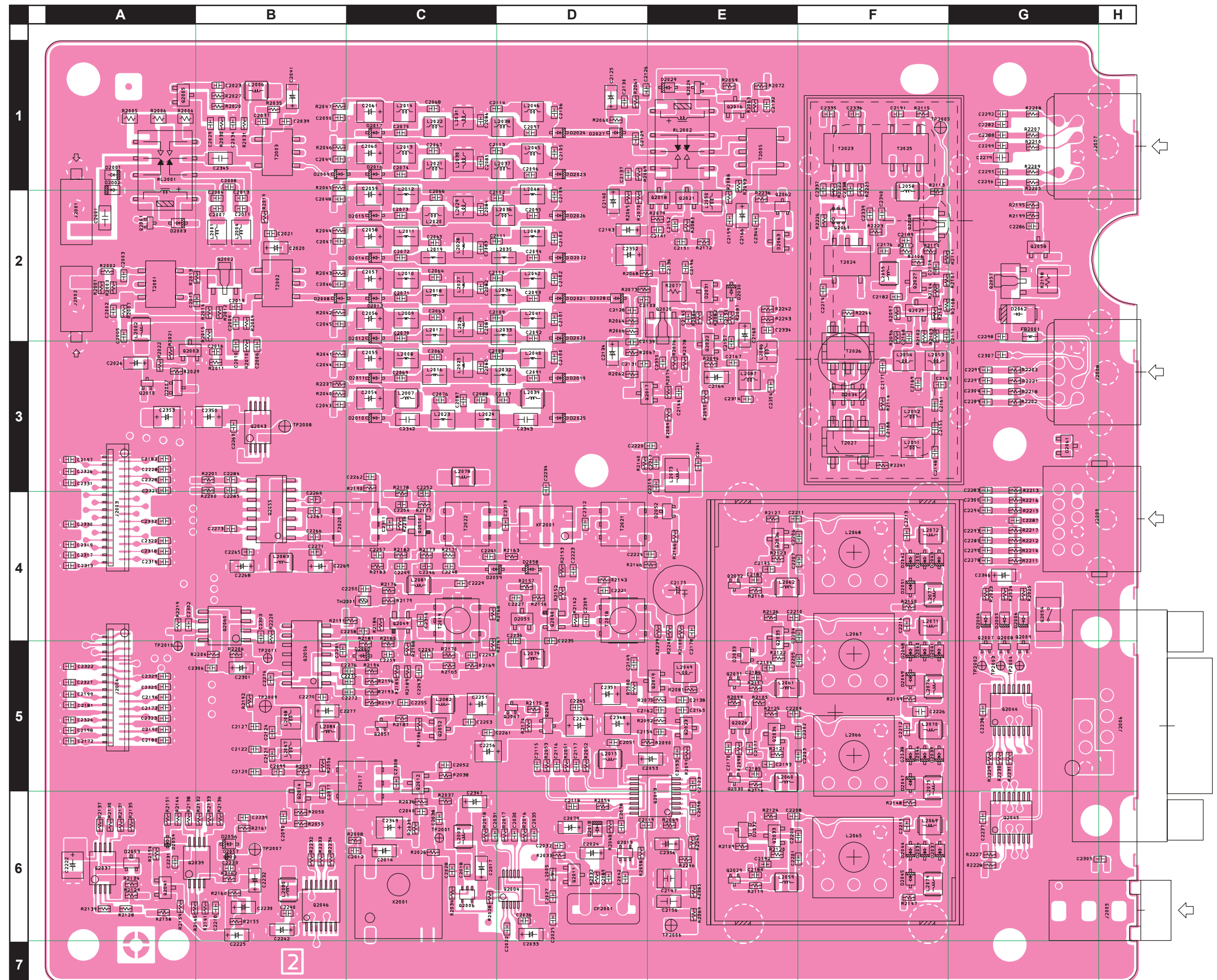
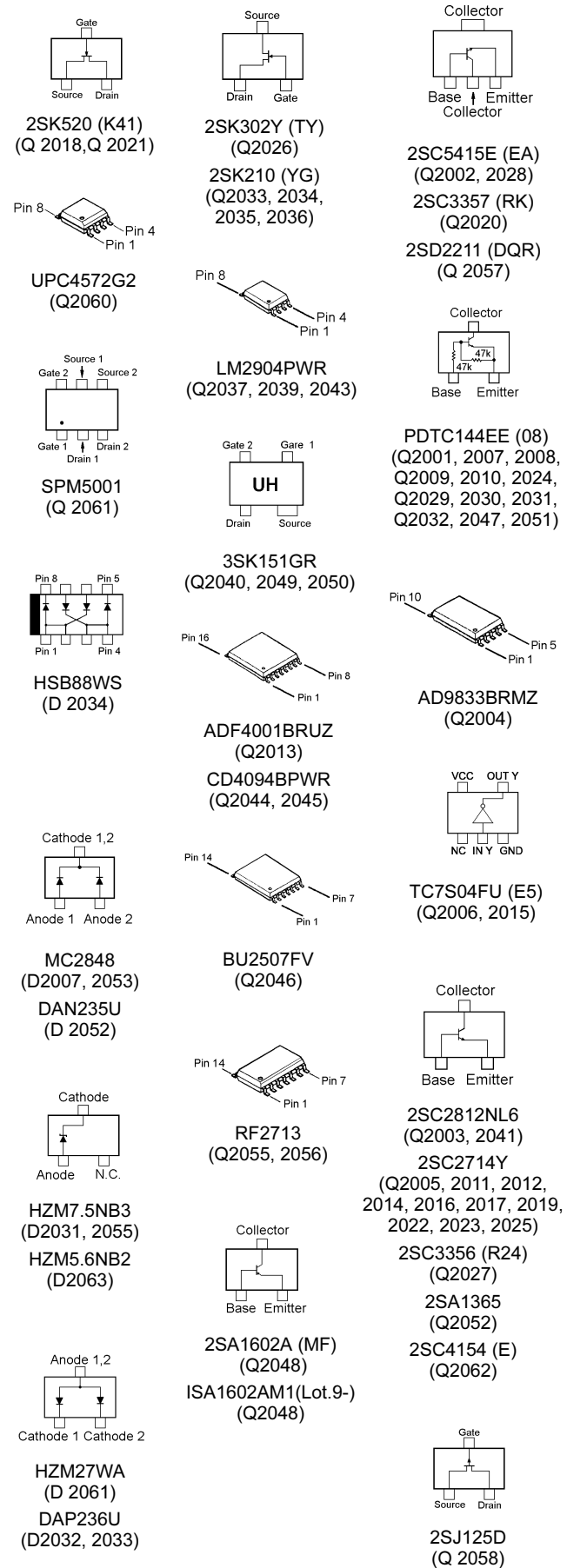
Note

RF-IF-UNIT (BR0 15290C) (2001-2499)



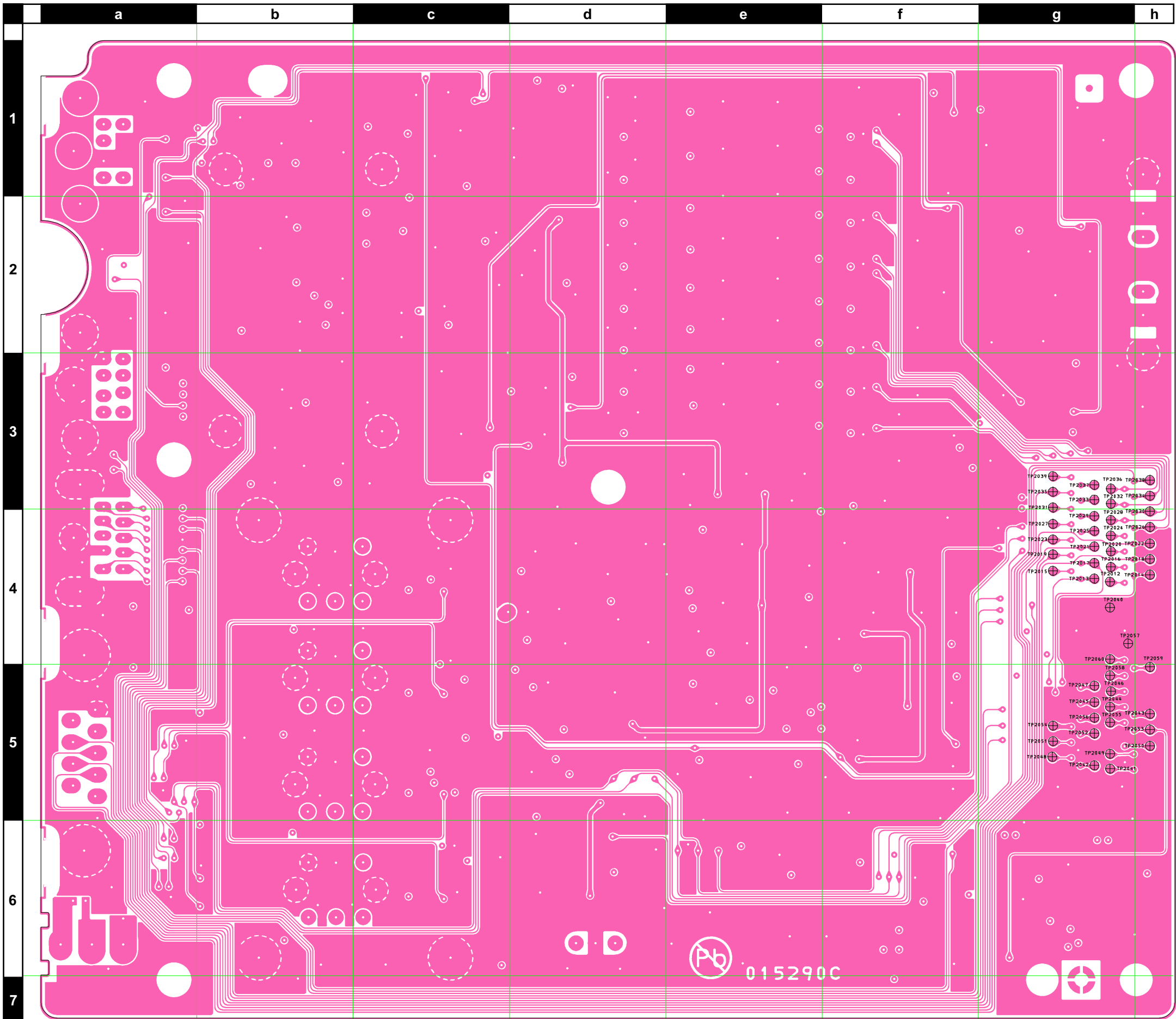
Note

Parts Layout (Side A)



RF-IF Unit

Parts Layout (Side B)



REF	DESCRIPTION	VALUE	V/W	TOL.	MFR'S DESIG	VXSTD P/N	VERS.	LOT	SIDE	LAY ADR
PCB with Components						CB3663001				
	Printed Circuit Board					FR015290C		1-		
C 2001	CHIP CAP.	0.1uF	50V	B	GRM42-6B104K50PT	K22171820		1-	A	A2
C 2002	CHIP CAP.	0.022uF	25V	B	GRM39B223K25PT	K22144807		1-	A	A2
C 2003	CHIP CAP.	0.022uF	25V	B	GRM39B223K25PT	K22144807		1-	A	A2
C 2004	CHIP CAP.	0.0039uF	50V	B	GRM188B11H392KA01D	K22174830		1-	A	B2
C 2005	CHIP CAP.	0.022uF	25V	B	GRM39B223K25PT	K22144807		1-	A	A2
C 2006	CHIP CAP.	0.1uF	16V	B	GRM188B11C104KA01D	K22124805		1-	A	B3
C 2007	CHIP CAP.	0.0022uF	50V	B	GRM188B11H222KA01D	K22174813		1-	A	B2
C 2008	CHIP CAP.	0.0015uF	50V	B	GRM188B11H152KA01D	K22174811		1-	A	B1
C 2009	CHIP CAP.	470pF	50V	CH	GRM1882C1H471JA01D	K22174249		1-	A	B2
C 2010	CHIP CAP.	0.022uF	25V	B	GRM39B223K25PT	K22144807		1-	A	B3
C 2011	CHIP CAP.	0.0056uF	50V	B	GRM188B11H562KA01D	K22174818		1-	A	B2
C 2012	CHIP CAP.	0.047uF	16V	B	GRM39B473K16PT	K22124804		1-	A	C6
C 2013	CHIP CAP.	0.0022uF	50V	B	GRM188B11H222KA01D	K22174813		1-	A	B2
C 2014	CHIP TA.CAP.	1uF	16V		TESVA1C105M1-8R	K78120009		1-	A	C6
C 2015	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	A	B2
C 2016	CHIP CAP.	0.022uF	25V	B	GRM39B223K25PT	K22144807		1-	A	B3
C 2017	CHIP TA.CAP.	10uF	10V		TEMSVA1A106M-8R	K78100028		1-	A	C6
C 2018	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	A	C6
C 2019	CHIP CAP.	0.022uF	25V	B	GRM39B223K25PT	K22144807		1-	A	B2
C 2020	CHIP TA.CAP.	1uF	16V		TESVA1C105M1-8R	K78120009		1-	A	B2
C 2021	CHIP CAP.	0.022uF	25V	B	GRM39B223K25PT	K22144807		1-	A	B2
C 2022	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	A	D6
C 2023	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	A	B1
C 2024	CHIP TA.CAP.	10uF	10V		TEMSVA1A106M-8R	K78100028		1-	A	D6
C 2025	CHIP CAP.	470pF	50V	CH	GRM1882C1H471JA01D	K22174249		1-	A	D6
C 2026	CHIP TA.CAP.	2.2uF	16V		TEMSVA1C225M-8R	K78120015		1-	A	A3
C 2027	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	A	D6
C 2028	CHIP CAP.	0.001uF	50V	B	GRM188B11H102KA01D	K22174821		1-	A	C6
C 2029	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	A	B1
C 2030	CHIP CAP.	22pF	50V	CH	GRM1882C1H220JA01D	K22174219		1-	A	D6
C 2031	CHIP CAP.	22pF	50V	CH	GRM1882C1H220JA01D	K22174219		1-	A	C6
C 2032	CHIP CAP.	470pF	50V	CH	GRM1882C1H471JA01D	K22174249		1-	A	D6
C 2033	CHIP TA.CAP.	10uF	10V		TEMSVA1A106M-8R	K78100028		1-	A	D6
C 2034	CHIP CAP.	0.047uF	16V	B	GRM39B473K16PT	K22124804		1-	A	B1
C 2035	CHIP CAP.	22pF	50V	CH	GRM1882C1H220JA01D	K22174219		1-	A	D6
C 2036	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	A	D6
C 2037	CHIP CAP.	0.022uF	25V	B	GRM39B223K25PT	K22144807		1-	A	B1
C 2038	CHIP CAP.	47pF	50V	CH	GRM1882C1H470JA01D	K22174227		1-	A	C6
C 2039	CHIP CAP.	0.022uF	25V	B	GRM39B223K25PT	K22144807		1-	A	B1
C 2040	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	A	C6
C 2041	CHIP TA.CAP.	1uF	16V		TESVA1C105M1-8R	K78120009		1-	A	B1
C 2042	CHIP CAP.	27pF	50V	CH	GRM1882C1H270JA01D	K22174221		1-	A	D6
C 2043	CHIP CAP.	0.022uF	25V	B	GRM39B223K25PT	K22144807		1-	A	B3
C 2044	CHIP CAP.	0.022uF	25V	B	GRM39B223K25PT	K22144807		1-	A	B3
C 2045	CHIP CAP.	0.022uF	25V	B	GRM39B223K25PT	K22144807		1-	A	B2
C 2046	CHIP CAP.	0.022uF	25V	B	GRM39B223K25PT	K22144807		1-	A	B2
C 2047	CHIP CAP.	0.022uF	25V	B	GRM39B223K25PT	K22144807		1-	A	B2
C 2048	CHIP CAP.	0.022uF	25V	B	GRM39B223K25PT	K22144807		1-	A	B2
C 2049	CHIP CAP.	0.022uF	25V	B	GRM39B223K25PT	K22144807		1-	A	B1
C 2050	CHIP CAP.	0.022uF	25V	B	GRM39B223K25PT	K22144807		1-	A	B1
C 2051	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	A	D5
C 2052	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	A	C5
C 2053	CHIP TA.CAP.	10uF	10V		TEMSVA1A106M-8R	K78100028		1-	A	E5
C 2054	CHIP TA.CAP.	10uF	16V		TEMSVB21C106M-8R	K78120025		1-	A	C3
C 2055	CHIP TA.CAP.	10uF	16V		TEMSVB21C106M-8R	K78120025		1-	A	C3
C 2056	CHIP TA.CAP.	10uF	16V		TEMSVB21C106M-8R	K78120025		1-	A	C2
C 2057	CHIP TA.CAP.	10uF	16V		TEMSVB21C106M-8R	K78120025		1-	A	C2
C 2058	CHIP TA.CAP.	10uF	16V		TEMSVB21C106M-8R	K78120025		1-	A	C2
C 2059	CHIP TA.CAP.	10uF	16V		TEMSVB21C106M-8R	K78120025		1-	A	C2
C 2060	CHIP TA.CAP.	10uF	16V		TEMSVB21C106M-8R	K78120025		1-	A	C1
C 2061	CHIP TA.CAP.	10uF	16V		TEMSVB21C106M-8R	K78120025		1-	A	C1
C 2062	CHIP CAP.	0.001uF	50V	B	GRM188B11H102KA01D	K22174809		1-	A	C3
C 2063	CHIP CAP.	330pF	50V	CH	GRM1882C1H331JA01D	K22174253		1-	A	C2
C 2064	CHIP CAP.	270pF	50V	CH	GRM1882C1H271JA01D	K22174251		1-	A	C2
C 2065	CHIP CAP.	100pF	50V	CH	GRM1882C1H101JA01D	K22174235		1-	A	C2
C 2066	CHIP CAP.	68pF	50V	CH	GRM1882C1H680JA01D	K22174231		1-	A	C2
C 2067	CHIP CAP.	39pF	50V	CH	GRM1882C1H390JA01D	K22174225		1-	A	C1
C 2068	CHIP CAP.	5pF	50V	CH	GRM1882C1H5R0CZ01D	K22174206		1-	A	C1
C 2069	CHIP CAP.	120pF	50V	CH	GRM1882C1H121JA01D	K22174237		1-	A	C3
C 2070	CHIP CAP.	120pF	50V	CH	GRM1882C1H121JA01D	K22174237		1-	A	C2
C 2071	CHIP CAP.	56pF	50V	CH	GRM1882C1H560JA01D	K22174229		1-	A	C2

RF-IF Unit

Parts List

REF	DESCRIPTION	VALUE	V/W	TOL.	MFR'S DESIG	VXSTD P/N	VERS.	LOT	SIDE	LAY ADR
C 2072	CHIP CAP.	47pF	50V	CH	GRM1882C1H470JA01D	K22174227		1-	A	C2
C 2073	CHIP CAP.	18pF	50V	CH	GRM1882C1H180JA01D	K22174217		1-	A	C2
C 2074	CHIP CAP.	12pF	50V	CH	GRM1882C1H120JA01D	K22174213		1-	A	C1
C 2075	CHIP CAP.	7pF	50V	CH	GRM1882C1H7R0DZ01D	K22174208		1-	A	C1
C 2076	CHIP CAP.	470pF	50V	CH	GRM1882C1H471JA01D	K22174249		1-	A	C3
C 2077	CHIP CAP.	56pF	50V	CH	GRM1882C1H560JA01D	K22174229		1-	A	B5
C 2078	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	A	D6
C 2079	CHIP TA.CAP.	10uF	10V		TEMSVA1A106M-8R	K78100028		1-	A	D6
C 2080	CHIP CAP.	0.0018uF	50V	B	GRM188B11H182KA01D	K22174828		1-	A	C3
C 2081	CHIP CAP.	560pF	50V	B	GRM188B11H561KA01D	K22174806		1-	A	C2
C 2082	CHIP CAP.	470pF	50V	CH	GRM1882C1H471JA01D	K22174249		1-	A	C2
C 2083	CHIP CAP.	180pF	50V	CH	GRM1882C1H181JA01D	K22174241		1-	A	C2
C 2084	CHIP CAP.	180pF	50V	CH	GRM1882C1H181JA01D	K22174241		1-	A	C2
C 2085	CHIP CAP.	120pF	50V	CH	GRM1882C1H121JA01D	K22174237		1-	A	C1
C 2086	CHIP CAP.	56pF	50V	CH	GRM1882C1H560JA01D	K22174229		1-	A	C1
C 2087	CHIP CAP.	680pF	50V	B	GRM188B11H681KA01D	K22174807		1-	A	C3
C 2088	CHIP CAP.	470pF	50V	CH	GRM1882C1H471JA01D	K22174249		1-	A	C3
C 2089	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	A	D6
C 2090	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	A	B6
C 2091	CHIP CAP.	120pF	50V	CH	GRM1882C1H121JA01D	K22174237		1-	A	D3
C 2092	CHIP CAP.	120pF	50V	CH	GRM1882C1H121JA01D	K22174237		1-	A	D2
C 2093	CHIP CAP.	56pF	50V	CH	GRM1882C1H560JA01D	K22174229		1-	A	D2
C 2094	CHIP CAP.	47pF	50V	CH	GRM1882C1H470JA01D	K22174227		1-	A	D2
C 2095	CHIP CAP.	18pF	50V	CH	GRM1882C1H180JA01D	K22174217		1-	A	D2
C 2096	CHIP CAP.	12pF	50V	CH	GRM1882C1H120JA01D	K22174213		1-	A	D1
C 2097	CHIP CAP.	7pF	50V	CH	GRM1882C1H7R0DZ01D	K22174208		1-	A	D1
C 2098	CHIP CAP.	100pF	50V	CH	GRM1882C1H101JA01D	K22174235		1-	A	E6
C 2099	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	A	B5
C 2100	CHIP CAP.	0.001uF	50V	B	GRM188B11H102KA01D	K22174809		1-	A	D3
C 2101	CHIP CAP.	330pF	50V	CH	GRM1882C1H331JA01D	K22174253		1-	A	D2
C 2102	CHIP CAP.	270pF	50V	CH	GRM1882C1H271JA01D	K22174251		1-	A	D2
C 2103	CHIP CAP.	100pF	50V	CH	GRM1882C1H101JA01D	K22174235		1-	A	D2
C 2104	CHIP CAP.	68pF	50V	CH	GRM1882C1H680JA01D	K22174231		1-	A	D2
C 2105	CHIP CAP.	39pF	50V	CH	GRM1882C1H390JA01D	K22174225		1-	A	D1
C 2106	CHIP CAP.	5pF	50V	CH	GRM1882C1H5R0CZ01D	K22174206		1-	A	D1
C 2107	CHIP CAP.	0.022uF	25V	B	GRM39B223K25PT	K22144807		1-	A	D3
C 2108	CHIP CAP.	0.022uF	25V	B	GRM39B223K25PT	K22144807		1-	A	C3
C 2109	CHIP CAP.	0.022uF	25V	B	GRM39B223K25PT	K22144807		1-	A	C2
C 2110	CHIP CAP.	0.022uF	25V	B	GRM39B223K25PT	K22144807		1-	A	C2
C 2111	CHIP CAP.	0.022uF	25V	B	GRM39B223K25PT	K22144807		1-	A	C2
C 2112	CHIP CAP.	0.022uF	25V	B	GRM39B223K25PT	K22144807		1-	A	D2
C 2113	CHIP CAP.	0.022uF	25V	B	GRM39B223K25PT	K22144807		1-	A	C1
C 2114	CHIP CAP.	0.022uF	25V	B	GRM39B223K25PT	K22144807		1-	A	C1
C 2115	CHIP CAP.	22pF	50V	CH	GRM1882C1H220JA01D	K22174219		1-	A	D5
C 2116	CHIP CAP.	22pF	50V	CH	GRM1882C1H220JA01D	K22174219		1-	A	D5
C 2117	CHIP CAP.	22pF	50V	CH	GRM1882C1H220JA01D	K22174219		1-	A	D5
C 2118	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	A	D6
C 2119	CHIP CAP.	10pF	50V	CH	GRM1882C1H100JA01D	K22174211		1-	A	D6
C 2120	CHIP CAP.	24pF	50V	CH	GRM1882C1H240JZ01D	K22174220		1-	A	B5
C 2121	CHIP CAP.	3pF	50V	CJ	GRM1883C1H3R0CZ01D	K22174204		1-	A	B5
C 2122	CHIP CAP.	33pF	50V	CH	GRM1882C1H330JA01D	K22174223		1-	A	B5
C 2123	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	A	E5
C 2124	CHIP CAP.	10pF	50V	CH	GRM1882C1H100JA01D	K22174211		1-	A	B5
C 2125	CHIP TA.CAP.	2.2uF	16V		TEMSVA1C225M-8R	K78120015		1-	A	D1
C 2126	CHIP CAP.	0.022uF	25V	B	GRM39B223K25PT	K22144807		1-	A	D1
C 2127	CHIP CAP.	20pF	50V	CH	GRM1882C1H200JZ01D	K22174218		1-	A	B5
C 2128	CHIP CAP.	33pF	50V	CH	GRM1882C1H330JA01D	K22174223		1-	A	D2
C 2129	CHIP CAP.	0.1uF	16V	B	GRM188B11C104KA01D	K22124805		1-	A	D1
C 2130	CHIP CAP.	0.022uF	25V	B	GRM39B223K25PT	K22144807		1-	A	D1
C 2131	CHIP CAP.	0.022uF	25V	B	GRM39B223K25PT	K22144807		1-	A	D3
C 2132	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	A	E1
C 2133	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	A	D2
C 2134	CHIP TA.CAP.	2.2uF	16V		TEMSVA1C225M-8R	K78120015		1-	A	D3
C 2136	CHIP CAP.	0.022uF	25V	B	GRM39B223K25PT	K22144807		1-	A	E2
C 2137	CHIP CAP.	0.022uF	25V	B	GRM39B223K25PT	K22144807		1-	A	D1
C 2138	CHIP CAP.	7pF	50V	CH	GRM1882C1H7R0DZ01D	K22174208		1-	A	E5
C 2139	CHIP CAP.	0.022uF	25V	B	GRM39B223K25PT	K22144807		1-	A	D3
C 2140	CHIP TA.CAP.	1uF	16V		TESVA1C105M1-8R	K78120009		1-	A	D2
C 2141	CHIP CAP.	0.022uF	25V	B	GRM39B223K25PT	K22144807		1-	A	E2
C 2143	CHIP TA.CAP.	10uF	10V		TEMSVA1A106M-8R	K78100028		1-	A	D2
C 2144	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	A	E3
C 2145	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	A	E2
C 2146	CHIP CAP.	0.022uF	25V	B	GRM39B223K25PT	K22144807		1-	A	E2

Parts List

REF	DESCRIPTION	VALUE	V/W	TOL.	MFR'S DESIG	VXSTD P/N	VERS.	LOT	SIDE	LAY ADR
C 2147	FILM CAP.	0.082uF	16V		ECHU1C823JX5	K57120024		1-	A	E6
C 2148	CHIP CAP.	22pF	50V	CH	GRM1882C1H220JA01D	K22174219		1-	A	F3
C 2149	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	A	D5
C 2150	CHIP CAP.	0.047uF	16V	B	GRM39B473K16PT	K22124804		1-	A	E2
C 2151	CHIP CAP.	0.001uF	50V	B	GRM188B11H102KA01D	K22174821		1-	A	E2
C 2152	CHIP CAP.	0.047uF	16V	B	GRM39B473K16PT	K22124804		1-	A	E2
C 2153	CHIP CAP.	100pF	50V	CH	GRM1882C1H101JA01D	K22174235		1-	A	E5
C 2154	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	A	E5
C 2155	CHIP CAP.	15pF	50V	CH	GRM1882C1H150JA01D	K22174215		1-	A	F3
C 2156	FILM CAP.	0.012uF	16V		ECHU1C123JX5	K57120031		1-	A	E6
C 2157	CHIP CAP.	0.047uF	16V	B	GRM39B473K16PT	K22124804		1-	A	E3
C 2159	CHIP CAP.	0.022uF	25V	B	GRM39B223K25PT	K22144807		1-	A	E2
C 2160	CHIP TA.CAP.	1uF	16V		TESVA1C105M1-8R	K78120009		1-	A	E2
C 2161	CHIP CAP.	22pF	50V	CH	GRM1882C1H220JA01D	K22174219		1-	A	F3
C 2162	CHIP CAP.	1pF	50V	CK	GRM1884C1H1R0CZ01D	K22174202		1-	A	E5
C 2163	CHIP CAP.	56pF	50V	CH	GRM1882C1H560JA01D	K22174229		1-	A	F3
C 2164	CHIP TA.CAP.	4.7uF	16V		TEMSVA1C475M-8R	K78120031		1-	A	E3
C 2165	CHIP CAP.	2pF	50V	CK	GRM1884C1H2R0CZ01D	K22174203		1-	A	E5
C 2166	CHIP TA.CAP.	4.7uF	16V		TEMSVA1C475M-8R	K78120031		1-	A	E2
C 2167	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	A	E3
C 2168	CHIP CAP.	0.001uF	50V	B	GRM188B11H102KA01D	K22174821		1-	A	F2
C 2169	CHIP CAP.	82pF	50V	CH	GRM1882C1H820JA01D	K22174233		1-	A	F3
C 2170	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	A	E5
C 2171	CHIP CAP.	56pF	50V	CH	GRM1882C1H560JA01D	K22174229		1-	A	F3
C 2173	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	A	A5
C 2174	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	A	F2
C 2175	AL.ELECTRO.CAP.	100uF	16V		RC2-16V101MF1#-T58	K46120007		1-	A	E4
C 2176	CHIP CAP.	0.022uF	25V	B	GRM39B223K25PT	K22144807		1-	A	F2
C 2177	CHIP CAP.	5pF	50V	CH	GRM1882C1H5R0CZ01D	K22174206		1-	A	E5
C 2178	CHIP CAP.	0.001uF	50V	B	GRM188B11H102KA01D	K22174821		1-	A	E4
C 2179	CHIP CAP.	100pF	50V	CH	GRM1882C1H101JA01D	K22174235		1-	A	F2
C 2181	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	A	A5
C 2182	CHIP CAP.	0.022uF	25V	B	GRM39B223K25PT	K22144807		1-	A	F2
C 2183	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	A	A3
C 2184	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	A	E6
C 2185	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	A	E5
C 2186	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	A	E5
C 2187	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	A	E4
C 2188	CHIP CAP.	0.001uF	50V	B	GRM188B11H102KA01D	K22174821		1-	A	F3
C 2189	CHIP CAP.	0.022uF	25V	B	GRM39B223K25PT	K22144807		1-	A	F2
C 2191	CHIP CAP.	0.022uF	25V	B	GRM39B223K25PT	K22144807		1-	A	F1
C 2192	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	A	E6
C 2193	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	A	E5
C 2194	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	A	E5
C 2195	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	A	E4
C 2196	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	A	A5
C 2197	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	A	A3
C 2199	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	A	A5
C 2200	CHIP CAP.	10pF	50V	UJ	GRM1883U1H100JZ01D	K22174301		1-	A	F6
C 2201	CHIP CAP.	10pF	50V	CH	GRM1882C1H100JA01D	K22174211		1-	A	F6
C 2202	CHIP CAP.	15pF	50V	UJ	GRM1883U1H150JZ01D	K22174312		1-	A	F5
C 2203	CHIP CAP.	10pF	50V	CH	GRM1882C1H100JA01D	K22174211		1-	A	F5
C 2204	CHIP CAP.	15pF	50V	UJ	GRM1883U1H150JZ01D	K22174312		1-	A	F4
C 2205	CHIP CAP.	10pF	50V	CH	GRM1882C1H100JA01D	K22174211		1-	A	F5
C 2206	CHIP CAP.	15pF	50V	UJ	GRM1883U1H150JZ01D	K22174312		1-	A	F4
C 2207	CHIP CAP.	10pF	50V	CH	GRM1882C1H100JA01D	K22174211		1-	A	F4
C 2208	CHIP CAP.	15pF	50V	UJ	GRM1883U1H150JZ01D	K22174312		1-	A	E6
C 2209	CHIP CAP.	15pF	50V	UJ	GRM1883U1H150JZ01D	K22174312		1-	A	E5
C 2210	CHIP CAP.	22pF	50V	UJ	GRM1883U1H220JZ01D	K22174316		1-	A	E4
C 2211	CHIP CAP.	22pF	50V	UJ	GRM1883U1H220JZ01D	K22174316		1-	A	E4
C 2212	CHIP CAP.	27pF	50V	CH	GRM1882C1H270JA01D	K22174221		1-	A	F5
C 2213	CHIP CAP.	15pF	50V	CH	GRM1882C1H150JA01D	K22174215		1-	A	F4
C 2214	CHIP CAP.	0.022uF	25V	B	GRM39B223K25PT	K22144807		1-	A	F2
C 2215	CHIP CAP.	22pF	50V	CH	GRM1882C1H220JA01D	K22174219		1-	A	F6
C 2216	CHIP CAP.	22pF	50V	CH	GRM1882C1H220JA01D	K22174219		1-	A	F4
C 2217	CHIP CAP.	0.022uF	25V	B	GRM39B223K25PT	K22144807		1-	A	E3
C 2218	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	A	B6
C 2219	CHIP CAP.	2pF	50V	CK	GRM1884C1H2R0CZ01D	K22174203		1-	A	E3
C 2220	CHIP CAP.	0.022uF	25V	B	GRM39B223K25PT	K22144807		1-	A	E3
C 2221	CHIP CAP.	0.022uF	25V	B	GRM39B223K25PT	K22144807		1-	A	D4
C 2222	CHIP TA.CAP.	22uF	10V		TEMSVB21A226M-8R	K78100029		1-	A	A6
C 2223	CHIP CAP.	0.022uF	25V	B	GRM39B223K25PT	K22144807		1-	A	D4
C 2224	CHIP CAP.	0.022uF	25V	B	GRM39B223K25PT	K22144807		1-	A	E4

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REF	DESCRIPTION	VALUE	V/W	TOL.	MFR'S DESIG	VXSTD P/N	VERS.	LOT	SIDE	LAY ADR
C 2225	CHIP TA.CAP.	10uF	10V		TEMSVA1A106M-8R	K78100028		1-	A	B6
C 2226	FILM CAP.	0.0039uF	16V		ECHU1C392JX5	K57120026		1-	A	F5
C 2227	CHIP CAP.	0.022uF	25V	B	GRM39B223K25PT	K22144807		1-	A	D4
C 2228	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	A	A3
C 2229	CHIP CAP.	0.022uF	25V	B	GRM39B223K25PT	K22144807		1-	A	C4
C 2230	CHIP TA.CAP.	0.22uF	35V		TESVA1V224M1-8R	K78160027		1-	A	B6
C 2231	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	A	A6
C 2232	CHIP TA.CAP.	1uF	35V		TEMSVA1V105M-8R	K78160032		1-	A	B6
C 2233	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	A	B6
C 2234	CHIP CAP.	18pF	50V	CH	GRM1882C1H180JA01D	K22174217		1-	A	D3
C 2235	CHIP CAP.	0.001uF	50V	B	GRM188B11H102KA01D	K22174821		1-	A	D4
C 2236	CHIP CAP.	0.001uF	50V	B	GRM188B11H102KA01D	K22174821		1-	A	D4
C 2237	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	A	G6
C 2238	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	A	G5
C 2240	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	A	B6
C 2241	CHIP CAP.	0.022uF	25V	B	GRM39B223K25PT	K22144807		1-	A	C4
C 2242	CHIP TA.CAP.	10uF	10V		TEMSVA1A106M-8R	K78100028		1-	A	B6
C 2243	CHIP CAP.	0.022uF	25V	B	GRM39B223K25PT	K22144807		1-	A	C5
C 2244	CHIP TA.CAP.	10uF	16V		TEMSVB21C106M-8R	K78120025		1-	A	D5
C 2245	CHIP CAP.	0.022uF	25V	B	GRM39B223K25PT	K22144807		1-	A	D5
C 2246	CHIP CAP.	0.022uF	25V	B	GRM39B223K25PT	K22144807		1-	A	C4
C 2247	CHIP CAP.	0.022uF	25V	B	GRM39B223K25PT	K22144807		1-	A	C5
C 2249	CHIP CAP.	0.022uF	25V	B	GRM39B223K25PT	K22144807		1-	A	C4
C 2250	CHIP CAP.	0.022uF	25V	B	GRM39B223K25PT	K22144807		1-	A	C4
C 2251	CHIP TA.CAP.	10uF	16V		TEMSVB21C106M-8R	K78120025		1-	A	C5
C 2252	CHIP CAP.	0.033uF	16V	R	GRM188R11C333KA01D	K22124801		1-	A	C4
C 2253	CHIP CAP.	0.022uF	25V	B	GRM39B223K25PT	K22144807		1-	A	C5
C 2254	CHIP CAP.	0.001uF	50V	B	GRM188B11H102KA01D	K22174821		1-	A	C4
C 2255	CHIP CAP.	0.022uF	25V	B	GRM39B223K25PT	K22144807		1-	A	C5
C 2256	CHIP TA.CAP.	4.7uF	25V		TEMSVB21E475M-8R	K78140019		1-	A	C5
C 2257	CHIP CAP.	0.022uF	25V	B	GRM39B223K25PT	K22144807		1-	A	C4
C 2258	CHIP CAP.	100pF	50V	CH	GRM1882C1H101JA01D	K22174235		1-	A	C4
C 2259	CHIP CAP.	0.022uF	25V	B	GRM39B223K25PT	K22144807		1-	A	C5
C 2260	CHIP CAP.	0.022uF	25V	B	GRM39B223K25PT	K22144807		1-	A	B3
C 2261	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	A	C5
C 2262	CHIP CAP.	0.022uF	25V	B	GRM39B223K25PT	K22144807		1-	A	C3
C 2263	CHIP CAP.	0.022uF	25V	B	GRM39B223K25PT	K22144807		1-	A	C5
C 2264	CHIP CAP.	0.1uF	16V	B	GRM188B11C104KA01D	K22124805		1-	A	B4
C 2265	CHIP CAP.	0.022uF	25V	B	GRM39B223K25PT	K22144807		1-	A	B4
C 2266	CHIP CAP.	0.022uF	25V	B	GRM39B223K25PT	K22144807		1-	A	B4
C 2267	CHIP CAP.	0.022uF	25V	B	GRM39B223K25PT	K22144807		1-	A	B4
C 2268	CHIP TA.CAP.	10uF	10V		TEMSVA1A106M-8R	K78100028		1-	A	B4
C 2269	CHIP TA.CAP.	10uF	10V		TEMSVA1A106M-8R	K78100028		1-	A	B4
C 2270	CHIP CAP.	0.022uF	25V	B	GRM39B223K25PT	K22144807		1-	A	B5
C 2271	CHIP CAP.	0.022uF	25V	B	GRM39B223K25PT	K22144807		1-	A	B4
C 2272	CHIP CAP.	0.1uF	16V	B	GRM188B11C104KA01D	K22124805		1-	A	C5
C 2273	CHIP CAP.	0.022uF	25V	B	GRM39B223K25PT	K22144807		1-	A	B4
C 2274	CHIP CAP.	0.022uF	25V	B	GRM39B223K25PT	K22144807		1-	A	B5
C 2275	CHIP CAP.	0.1uF	16V	B	GRM188B11C104KA01D	K22124805		1-	A	C5
C 2276	CHIP CAP.	0.1uF	16V	B	GRM188B11C104KA01D	K22124805		1-	A	C5
C 2277	CHIP TA.CAP.	10uF	10V		TEMSVA1A106M-8R	K78100028		1-	A	B5
C 2278	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	A	G4
C 2279	CHIP CAP.	1uF	10V	B	GRM40B105K10PT	K22100802		1-	A	G1
C 2280	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	A	G4
C 2281	CHIP CAP.	0.1uF	16V	B	GRM188B11C104KA01D	K22124805		1-	A	B5
C 2282	CHIP CAP.	0.1uF	16V	B	GRM188B11C104KA01D	K22124805		1-	A	G1
C 2283	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	A	G3
C 2284	CHIP CAP.	0.022uF	25V	B	GRM39B223K25PT	K22144807		1-	A	B3
C 2285	CHIP CAP.	0.022uF	25V	B	GRM39B223K25PT	K22144807		1-	A	B3
C 2286	CHIP CAP.	470pF	50V	CH	GRM1882C1H471JA01D	K22174249		1-	A	G2
C 2287	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	A	G4
C 2288	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	A	G1
C 2289	CHIP CAP.	100pF	50V	CH	GRM1882C1H101JA01D	K22174235		1-	A	G3
C 2290	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	A	G4
C 2291	CHIP CAP.	100pF	50V	CH	GRM1882C1H101JA01D	K22174235		1-	A	G3
C 2292	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	A	G1
C 2293	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	A	G4
C 2294	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	A	G4
C 2295	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	A	G1
C 2296	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	A	G1
C 2297	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	A	G3
C 2298	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	A	G2
C 2299	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	A	G1

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Parts List

REF	DESCRIPTION	VALUE	V/W	TOL.	MFR'S DESIG	VXSTD P/N	VERS.	LOT	SIDE	LAY ADR
C 2300	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	A	G4
C 2301	CHIP TA.CAP.	10uF	10V		TEMSVA1A106M-8R	K78100028		1-	A	B5
C 2302	CHIP CAP.	47pF	50V	CH	GRM1882C1H470JA01D	K22174227		1-	A	A4
C 2303	CHIP CAP.	47pF	50V	CH	GRM1882C1H470JA01D	K22174227		1-	A	B4
C 2304	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	A	G3
C 2306	CHIP CAP.	0.022uF	25V	B	GRM39B223K25PT	K22144807		1-	A	B5
C 2307	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	A	G3
C 2308	CHIP CAP.	15pF	50V	CH	GRM1882C1H150JA01D	K22174215		1-	A	C5
C 2309	CHIP CAP.	18pF	50V	CH	GRM1882C1H180JA01D	K22174217		1-	A	D4
C 2310	CHIP CAP.	18pF	50V	CH	GRM1882C1H180JA01D	K22174217		1-	A	C4
C 2311	CHIP CAP.	15pF	50V	CH	GRM1882C1H150JA01D	K22174215		1-	A	C4
C 2312	CHIP CAP.	27pF	50V	CH	GRM1882C1H270JA01D	K22174221		1-	A	D4
C 2313	CHIP CAP.	9pF	50V	CH	GRM1882C1H9R0DZ01D	K22174210		1-	A	D4
C 2314	CHIP CAP.	120pF	50V	CH	GRM1882C1H121JA01D	K22174237		1-	A	E3
C 2321	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	A	A3
C 2322	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	A	A5
C 2325	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	A	A5
C 2326	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	A	A3
C 2327	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	A	A5
C 2328	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	A	A3
C 2329	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	A	A5
C 2330	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	A	A4
C 2331	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	A	A3
C 2332	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	A	A4
C 2334	CHIP CAP.	120pF	50V	CH	GRM1882C1H121JA01D	K22174237		1-	A	E2
C 2335	CHIP CAP.	0.1uF	16V	B	GRM188B11C104KA01D	K22124805		1-	A	F1
C 2336	CHIP CAP.	0.1uF	16V	B	GRM188B11C104KA01D	K22124805		1-	A	F1
C 2337	CHIP CAP.	0.1uF	16V	B	GRM188B11C104KA01D	K22124805		1-	A	F1
C 2338	CHIP CAP.	0.1uF	16V	B	GRM188B11C104KA01D	K22124805		1-	A	F1
C 2339	CHIP CAP.	0.1uF	16V	B	GRM188B11C104KA01D	K22124805		1-	A	F2
C 2340	CHIP CAP.	0.1uF	16V	B	GRM188B11C104KA01D	K22124805		1-	A	F2
C 2341	CHIP CAP.	0.022uF	25V	B	GRM39B223K25PT	K22144807		1-	A	E3
C 2342	CHIP CAP.	0.1uF	50V	B	GRM42-6B104K50PT	K22171820		1-	A	C3
C 2343	CHIP CAP.	0.1uF	50V	B	GRM42-6B104K50PT	K22171820		1-	A	D3
C 2344	CHIP CAP.	0.1uF	16V	B	GRM188B11C104KA01D	K22124805		1-	A	E2
C 2345	CHIP CAP.	0.1uF	50V	B	GRM42-6B104K50PT	K22171820		1-	A	B1
C 2346	CHIP TA.CAP.	10uF	10V		TEMSVA1A106M-8R	K78100028		1-	A	G4
C 2347	CHIP TA.CAP.	10uF	10V		TEMSVA1A106M-8R	K78100028		1-	A	C6
C 2348	CHIP TA.CAP.	10uF	16V		TEMSVB21C106M-8R	K78120025		1-	A	D5
C 2349	CHIP TA.CAP.	10uF	16V		TEMSVB21C106M-8R	K78120025		1-	A	C6
C 2350	CHIP TA.CAP.	10uF	16V		TEMSVB21C106M-8R	K78120025		1-	A	B3
C 2351	CHIP TA.CAP.	10uF	16V		TEMSVB21C106M-8R	K78120025		1-	A	D5
C 2352	CHIP TA.CAP.	10uF	16V		TEMSVB21C106M-8R	K78120025		1-	A	D2
C 2353	CHIP TA.CAP.	10uF	16V		TEMSVB21C106M-8R	K78120025		1-	A	A3
C 2354	CHIP CAP.	180pF	50V	CH	GRM1882C1H181JA01D	K22174241		1-	A	E3
C 2355	CHIP CAP.	0.1uF	16V	B	GRM188B11C104KA01D	K22124805		1-	A	E3
C 2356	CHIP TA.CAP.	1uF	16V		TESVA1C105M1-8R	K78120009		1-	A	E6
C 2357	CHIP CAP.	0.001uF	50V	B	GRM188B11H102KA01D	K22174821		3-		
CF2001	CERAMIC FILTER				SFSRA6M50DF00-B0	H3900560		1-	A	D6
D 2001	LED				SML-210VTT86	G2070768		1-	A	A1
D 2002	LED				SML-210VTT86	G2070768		1-	A	A1
D 2003	DIODE				BAS316	G2070716		1-	A	A2
D 2004	LED				SML-210MTT86	G2070524		1-	A	G4
D 2005	LED				SML-210VTT86	G2070768		1-	A	G4
D 2006	LED				SML-210DTT86	G2070772		1-	A	G4
D 2007	DIODE				MC2848-T11-1	G2070694		1-	A	A3
D 2008	DIODE				1SV271(TPH3.F)	G2070476		1-	A	B2
D 2009	DIODE				1SV271(TPH3.F)	G2070476		1-	A	B1
D 2010	DIODE				1SV271(TPH3.F)	G2070476		1-	A	C3
D 2011	DIODE				1SV271(TPH3.F)	G2070476		1-	A	C3
D 2012	DIODE				1SV271(TPH3.F)	G2070476		1-	A	C2
D 2013	DIODE				1SV271(TPH3.F)	G2070476		1-	A	C2
D 2014	DIODE				1SV271(TPH3.F)	G2070476		1-	A	C2
D 2015	DIODE				1SV271(TPH3.F)	G2070476		1-	A	C2
D 2016	DIODE				1SV271(TPH3.F)	G2070476		1-	A	C1
D 2017	DIODE				1SV271(TPH3.F)	G2070476		1-	A	C1
D 2018	LED				SML-210MTT86	G2070524		1-	A	D6
D 2019	DIODE				1SV271(TPH3.F)	G2070476		1-	A	D3
D 2020	DIODE				1SV271(TPH3.F)	G2070476		1-	A	D2
D 2021	DIODE				1SV271(TPH3.F)	G2070476		1-	A	D2
D 2022	DIODE				1SV271(TPH3.F)	G2070476		1-	A	D2
D 2023	DIODE				1SV271(TPH3.F)	G2070476		1-	A	D1
D 2024	DIODE				1SV271(TPH3.F)	G2070476		1-	A	D1

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REF	DESCRIPTION	VALUE	V/W	TOL.	MFR'S DESIG	VXSTD P/N	VERS.	LOT	SIDE	LAY ADR
D 2025	DIODE				1SV271(TPH3.F)	G2070476		1-	A	D3
D 2026	DIODE				1SV271(TPH3.F)	G2070476		1-	A	D2
D 2027	DIODE				1SV271(TPH3.F)	G2070476		1-	A	D1
D 2028	DIODE				1SV271(TPH3.F)	G2070476		1-	A	D2
D 2029	DIODE				BAS316	G2070716		1-	A	E1
D 2030	DIODE				1SV271(TPH3.F)	G2070476		1-	A	E2
D 2031	DIODE				HZM7.5NB3-TL-E	G2070786		1-	A	E2
D 2032	DIODE				DAP236U T106	G2070592		1-	A	E6
D 2033	DIODE				DAP236U T106	G2070592		1-	A	E5
D 2034	DIODE				HSB88WS TR-E	G2070290		1-	A	F3
D 2036	DIODE				HVU359 TRF-E	G2070452		1-	A	F6
D 2037	DIODE				HVU359 TRF-E	G2070452		1-	A	F6
D 2038	DIODE				HVU359 TRF-E	G2070452		1-	A	F5
D 2039	DIODE				HVU359 TRF-E	G2070452		1-	A	F5
D 2040	DIODE				HVU359 TRF-E	G2070452		1-	A	F5
D 2041	DIODE				HVU359 TRF-E	G2070452		1-	A	F5
D 2042	DIODE				HVU359 TRF-E	G2070452		1-	A	F4
D 2043	DIODE				HVU359 TRF-E	G2070452		1-	A	F4
D 2052	DIODE				DAN235U TL	G2070176		1-	A	E4
D 2053	DIODE				MC2848-T11-1	G2070694		1-	A	A6
D 2054	DIODE				RB521S-30 TE61	G2070642		1-	A	A6
D 2055	DIODE				HZM7.5NB3-TL-E	G2070786		1-	A	D4
D 2056	DIODE				UDZS TE-17 5.6B	G2070910		1-	A	B6
D 2057	DIODE				RB521S-30 TE61	G2070642		1-	A	B6
D 2058	DIODE				1SS356TW11	G2070468		1-	A	D4
D 2059	DIODE				1SS356TW11	G2070468		1-	A	C4
D 2060	DIODE				UDZS TE-17 6.8B	G2070888		1-	A	C5
D 2061	DIODE				HZM27WA TR-E	G2070530		1-	A	G3
D 2062	DIODE				D1F20-5063	G2070474		1-	A	G2
D 2063	DIODE				HZM5.6NB2 TR	G2070722		1-	A	E2
FB2001	CHIP COIL				BLM21PG300SN1D	L1690840		1-	A	G2
J 2001	CONNECTOR				TMP-S01X-C1	P1091254		1-	A	A2
J 2002	CONNECTOR				TMP-S01X-C1	P1091254		1-	A	A2
J 2003	CONNECTOR				30FLT-SM2-TB(LF)(SN)	P1091142		1-	A	A4
J 2004	CONNECTOR				30FLT-SM2-TB(LF)(SN)	P1091142		1-	A	A5
J 2005	CONNECTOR				SG8035#01	P1090350		1-	A	H6
J 2006	CONNECTOR				XM2C-0942-232L	P0091409		1-	A	H5
J 2007	CONNECTOR				M50006020-IIBA R41-9553D	P1090925		1-	A	H1
J 2008	CONNECTOR				M50-008-020 R41-9553F	P1091132		1-	A	H3
J 2009	CONNECTOR				TCS7705-5120177	P1091244		1-	A	H4
L 2001	M.RFC	6.8uH			LLM3225-6R8J	L1691131		1-	A	B2
L 2002	M.RFC	180uH			FLC32T-181J	L1690230		1-	A	A2
L 2003	M.RFC	100uH			FLC32T-101J	L1690227		1-	A	C6
L 2004	M.RFC	4.7uH			LLM3225-4R7J	L1691129		1-	A	B2
L 2005	M.RFC	1.5uH			LK1608 1R5K-T	L1690846		1-	A	D6
L 2006	M.RFC	100uH			FLC32T-101J	L1690227		1-	A	B1
L 2007	M.RFC	470uH			FLC32T-471J	L1690235		1-	A	C3
L 2008	CHIP COIL	5.6uH			LQH32MN5R6K23L	L1690084		1-	A	C3
L 2009	CHIP COIL	6.8uH			LQH32MN6R8K23L	L1690085		1-	A	C2
L 2010	CHIP COIL	2.7uH			LQH32MN2R7K23L	L1690080		1-	A	C2
L 2011	CHIP COIL	2.2uH			LQH32MN2R2K23L	L1690079		1-	A	C2
L 2012	CHIP COIL	0.82uH			LQH32MNR82M23L	L1690074		1-	A	C2
L 2013	CHIP COIL	0.56uH		2%	C2520C-R56G	L1691303		1-	A	C1
L 2014	CHIP COIL	0.33uH		2%	C2520C-R33G	L1691300		1-	A	C1
L 2015	M.RFC	100uH			FLC32T-101J	L1690227		1-	A	D5
L 2016	CHIP COIL	47uH			LQH32MN470K23L	L1690095		1-	A	C3
L 2017	CHIP COIL	18uH			LQH32MN180K23L	L1690090		1-	A	C2
L 2018	CHIP COIL	12uH			LQH32MN120K23L	L1690088		1-	A	C2
L 2019	CHIP COIL	5.6uH			LQH31MN5R6J03L	L1690999		1-	A	C2
L 2020	CHIP COIL	4.7uH		2%	C2520C-4R7G	L1691317		1-	A	C2
L 2021	CHIP COIL	3.3uH		2%	C2520C-3R3G	L1691315		1-	A	C1
L 2022	CHIP COIL	1.8uH		2%	C2520C-1R8G	L1691312		1-	A	C1
L 2023	CHIP COIL	27uH			LQH32MN270K23L	L1690092		1-	A	C3
L 2024	CHIP COIL	27uH			LQH32MN270K23L	L1690092		1-	A	C3
L 2025	CHIP COIL	3.3uH			LQH32MN3R3K23L	L1690081		1-	A	C3
L 2026	CHIP COIL	3.9uH			LQH32MN3R9M23L	L1690082		1-	A	C2
L 2027	CHIP COIL	1.5uH			LQH32MN1R5K23L	L1690077		1-	A	C2
L 2028	CHIP COIL	1.5uH			LQH32MN1R5K23L	L1690077		1-	A	C2
L 2029	CHIP COIL	0.47uH		2%	C2520C-R47G	L1691302		1-	A	C2
L 2030	CHIP COIL	0.33uH		2%	C2520C-R33G	L1691300		1-	A	C1
L 2031	CHIP COIL	0.22uH		2%	C2520C-R22G	L1691298		1-	A	C1
L 2032	CHIP COIL	47uH			LQH32MN470K23L	L1690095		1-	A	D3
L 2033	CHIP COIL	18uH			LQH32MN180K23L	L1690090		1-	A	D2

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REF	DESCRIPTION	VALUE	V/W	TOL.	MFR'S DESIG	VXSTD P/N	VERS.	LOT	SIDE	LAY ADR
L 2034	CHIP COIL	12uH			LQH32MN120K23L	L1690088		1-	A	D2
L 2035	CHIP COIL	5.6uH			LQH31MN5R6J03L	L1690999		1-	A	D2
L 2036	CHIP COIL	4.7uH		2%	C2520C-4R7G	L1691317		1-	A	D2
L 2037	CHIP COIL	3.3uH		2%	C2520C-3R3G	L1691315		1-	A	D1
L 2038	CHIP COIL	1.8uH		2%	C2520C-1R8G	L1691312		1-	A	D1
L 2039	M.RFC	470uH			FLC32T-471J	L1690235		1-	A	D3
L 2040	CHIP COIL	5.6uH			LQH32MN5R6K23L	L1690084		1-	A	D3
L 2041	CHIP COIL	6.8uH			LQH32MN6R8K23L	L1690085		1-	A	D2
L 2042	CHIP COIL	2.7uH			LQH32MN2R7K23L	L1690080		1-	A	D2
L 2043	CHIP COIL	2.2uH			LQH32MN2R2K23L	L1690079		1-	A	D2
L 2044	CHIP COIL	0.82uH			LQH32MNR82M23L	L1690074		1-	A	D2
L 2045	CHIP COIL	0.56uH		2%	C2520C-R56G	L1691303		1-	A	D1
L 2046	CHIP COIL	0.33uH		2%	C2520C-R33G	L1691300		1-	A	D1
L 2047	CHIP COIL	0.047uH			C2520C-47NK	L1690540		1-	A	B5
L 2048	CHIP COIL	0.033uH			C2520C-33NK	L1690538		1-	A	B5
L 2049	CHIP COIL	2.2uH			C2520C-2R2K	L1690731		1-	A	E5
L 2050	CHIP COIL	1.8uH		2%	C2520C-1R8G	L1691312		1-	A	E2
L 2051	CHIP COIL	0.1uH			C2520C-R10J	L1690544		1-	A	F3
L 2052	CHIP COIL	0.1uH			C2520C-R10J	L1690544		1-	A	F3
L 2053	CHIP COIL	0.068uH			C2520C-68NK	L1690542		1-	A	F3
L 2054	CHIP COIL	0.068uH			C2520C-68NK	L1690542		1-	A	F3
L 2055	M.RFC	10uH			FLC32T-100J	L1690215		1-	A	F2
L 2058	M.RFC	5.6uH			FLC32T-5R6K	L1690212		1-	A	F2
L 2059	M.RFC	3.3uH			FLC32T-3R3K	L1690209		1-	A	E6
L 2060	M.RFC	3.3uH			FLC32T-3R3K	L1690209		1-	A	E5
L 2061	M.RFC	3.3uH			FLC32T-3R3K	L1690209		1-	A	E5
L 2062	M.RFC	3.3uH			FLC32T-3R3K	L1690209		1-	A	E4
L 2065	COIL 10RF				0.36U	L0021400		1-	A	F6
L 2066	COIL 10RF	0.19uH			0.19U	L0022999		1-	A	F5
L 2067	COIL 10RF	0.12uH			0.12U	L0023000		1-	A	F5
L 2068	COIL 10RF	0.11uH			0.11U	L0023001		1-	A	F4
L 2069	M.RFC	4.7uH			FLC32T-4R7K	L1690211		1-	A	F6
L 2070	M.RFC	4.7uH			FLC32T-4R7K	L1690211		1-	A	F5
L 2071	M.RFC	4.7uH			FLC32T-4R7K	L1690211		1-	A	F4
L 2072	M.RFC	4.7uH			FLC32T-4R7K	L1690211		1-	A	F4
L 2073	CHIP COIL	1mH			LQH43MN102K03L	L1690108		1-	A	E3
L 2074	M.RFC	4.7uH			FLC32T-4R7K	L1690211		1-	A	F6
L 2075	M.RFC	4.7uH			FLC32T-4R7K	L1690211		1-	A	F5
L 2076	M.RFC	4.7uH			FLC32T-4R7K	L1690211		1-	A	F5
L 2077	M.RFC	4.7uH			FLC32T-4R7K	L1690211		1-	A	F4
L 2078	M.RFC	180uH			FLC32T-181J	L1690230		1-	A	C3
L 2079	M.RFC	180uH			FLC32T-181J	L1690230		1-	A	D5
L 2080	M.RFC	180uH			FLC32T-181J	L1690230		1-	A	B6
L 2081	M.RFC	180uH			FLC32T-181J	L1690230		1-	A	C4
L 2082	M.RFC	180uH			FLC32T-181J	L1690230		1-	A	C5
L 2083	M.RFC	180uH			FLC32T-181J	L1690230		1-	A	B4
L 2084	M.RFC	180uH			FLC32T-181J	L1690230		1-	A	B5
L 2086	CHIP COIL	0.15uH			C2520C-R15J	L1690546		1-	A	E3
L 2087	CHIP COIL	0.15uH			C2520C-R15J	L1690546		1-	A	E3
Q 2001	TRANSISTOR				PDTC144EE	G3070244		1-	A	A2
Q 2002	TRANSISTOR				2SC5415E-TD-E	G3354158E		1-	A	B2
Q 2003	TRANSISTOR				2SC2812NL6-TB	G3328128F		1-	A	A3
Q 2004	IC				AD9833BRMZ-REEL7	G1093580		1-	A	D6
Q 2005	TRANSISTOR				2SC2714Y(TE85R.F)	G3327147Y		1-	A	A1
Q 2006	IC				TC7S04FU(TE85R.F)	G1091530		1-	A	C6
Q 2007	TRANSISTOR				PDTC144EE	G3070244		1-	A	G5
Q 2008	TRANSISTOR				PDTC144EE	G3070244		1-	A	G5
Q 2009	TRANSISTOR				PDTC144EE	G3070244		1-	A	G5
Q 2010	TRANSISTOR				PDTC144EE	G3070244		1-	A	A3
Q 2011	TRANSISTOR				2SC2714Y(TE85R.F)	G3327147Y		1-	A	D6
Q 2012	TRANSISTOR				2SC2714Y(TE85R.F)	G3327147Y		1-	A	C5
Q 2013	IC				ADF4001BRUZ-REEL7	G1093977		1-	A	E6
Q 2014	TRANSISTOR				2SC2714Y(TE85R.F)	G3327147Y		1-	A	B5
Q 2015	IC				TC7S04FU(TE85R.F)	G1091530		1-	A	D6
Q 2016	TRANSISTOR				2SC2714Y(TE85R.F)	G3327147Y		1-	A	E1
Q 2017	TRANSISTOR				2SC2714Y(TE85R.F)	G3327147Y		1-	A	D3
Q 2018	FET				2SK520-T2B K41	G3805207A		1-	A	E2
Q 2019	TRANSISTOR				2SC2714Y(TE85R.F)	G3327147Y		1-	A	E5
Q 2020	TRANSISTOR				2SC3357-T2 RF	G3333577F		1-	A	E2
Q 2021	FET				2SK520-T2B K41	G3805207A		1-	A	E2
Q 2022	TRANSISTOR				2SC2714Y(TE85R.F)	G3327147Y		1-	A	E3
Q 2023	TRANSISTOR				2SC2714Y(TE85R.F)	G3327147Y		1-	A	E5
Q 2024	TRANSISTOR				PDTC144EE	G3070244		1-	A	E1

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REF	DESCRIPTION	VALUE	V/W	TOL.	MFR'S DESIG	VXSTD P/N	VERS.	LOT	SIDE	LAY ADR
Q 2025	TRANSISTOR				2SC2714Y(TE85R.F)	G3327147Y		1-	A	F2
Q 2026	FET				2SK302Y(TE85R.F)	G3803027Y		1-	A	E5
Q 2027	TRANSISTOR				2SC3356-T2B R25	G3333567E		1-	A	F2
Q 2028	TRANSISTOR				2SC5415E-TD-E	G3354158E		1-	A	F2
Q 2029	TRANSISTOR				PDTC144EE	G3070244		1-	A	E6
Q 2030	TRANSISTOR				PDTC144EE	G3070244		1-	A	E5
Q 2031	TRANSISTOR				PDTC144EE	G3070244		1-	A	E5
Q 2032	TRANSISTOR				PDTC144EE	G3070244		1-	A	E4
Q 2033	FET				2SK210-GR(TE85R.F)	G3802107G		1-	A	E6
Q 2034	FET				2SK210-GR(TE85R.F)	G3802107G		1-	A	E5
Q 2035	FET				2SK210-GR(TE85R.F)	G3802107G		1-	A	E4
Q 2036	FET				2SK210-GR(TE85R.F)	G3802107G		1-	A	E4
Q 2037	IC				LM2904PWR	G1094010		1-	A	A6
Q 2039	IC				LM2904PWR	G1094010		1-	A	B6
Q 2040	FET				3SK151GR(TE85R.F)	G4801517G		1-	A	D4
Q 2041	TRANSISTOR				2SC2812NL6-TB	G3328128F		1-	A	A6
Q 2043	IC				LM2904PWR	G1094010		1-	A	B3
Q 2044	IC				CD4094BPWR	G1093866		1-	A	G5
Q 2045	IC				CD4094BPWR	G1093866		1-	A	G6
Q 2046	IC				BU2507FV-E2	G1093773		1-	A	B6
Q 2047	TRANSISTOR				PDTC144EE	G3070244		1-	A	D5
Q 2048	TRANSISTOR				2SA1602A-T11-1F	G3116028F		1-	A	D5
Q 2048	TRANSISTOR				ISA1602AM1	G3070380		9-	A	D5
Q 2049	FET				3SK151GR(TE85R.F)	G4801517G		1-	A	C4
Q 2050	FET				3SK151GR(TE85R.F)	G4801517G		1-	A	C4
Q 2051	TRANSISTOR				PDTC144EE	G3070244		1-	A	C5
Q 2052	TRANSISTOR				2SA1365-T12-2G	G3113657G		1-	A	C5
Q 2054	POLY SWITCH				MINISMDC0505-02	G9090143		1-	A	G4
Q 2055	IC				RF2713(TAPE)	G1093831		1-	A	B4
Q 2056	IC				RF2713(TAPE)	G1093831		1-	A	B5
Q 2057	TRANSISTOR				2SD2211 T100 QR	G3422117Q		1-	A	G2
Q 2058	FET				2SJ125D-T12-1D	G3701257D		1-	A	G2
Q 2060	IC				UPC4572G2-E2	G1092042		1-	A	B4
Q 2061	IC				SPM5001-TL-E	G1093686		1-	A	F2
Q 2062	TRANSISTOR				2SC4154-T11-1E	G3341548E		1-	A	E2
R 2001	CHIP RES.	270	1/16W	5%	RMC1/16 271JATP	J24185271		1-	A	A2
R 2002	CHIP RES.	18	1/16W	5%	RMC1/16 180JATP	J24185180		1-	A	A2
R 2003	CHIP RES.	270	1/16W	5%	RMC1/16 271JATP	J24185271		1-	A	A2
R 2004	CHIP RES.	56	1/10W	5%	RMC1/10T 560J	J24205560		1-	A	A1
R 2005	CHIP RES.	56	1/10W	5%	RMC1/10T 560J	J24205560		1-	A	A1
R 2006	CHIP RES.	220	1/10W	5%	RMC1/10T 221J	J24205221		1-	A	A1
R 2007	CHIP RES.	100	1/16W	5%	RMC1/16 101JATP	J24185101		1-	A	A2
R 2008	CHIP RES.	10	1/16W	5%	RMC1/16 100JATP	J24185100		1-	A	C6
R 2009	CHIP RES.	10	1/16W	5%	RMC1/16 100JATP	J24185100		1-	A	B2
R 2010	CHIP RES.	220	1/16W	5%	RMC1/16 221JATP	J24185221		1-	A	B3
R 2011	CHIP RES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103		1-	A	B3
R 2012	CHIP RES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103		1-	A	B2
R 2013	CHIP RES.	1.8k	1/16W	5%	RMC1/16 182JATP	J24185182		1-	A	B2
R 2014	CHIP RES.	12k	1/16W	5%	RMC1/16 123JATP	J24185123		1-	A	B2
R 2015	CHIP RES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103		1-	A	B2
R 2016	CHIP RES.	220	1/16W	5%	RMC1/16 221JATP	J24185221		1-	A	D6
R 2017	CHIP RES.	220	1/16W	5%	RMC1/16 221JATP	J24185221		1-	A	D6
R 2018	CHIP RES.	220	1/16W	5%	RMC1/16 221JATP	J24185221		1-	A	C6
R 2019	CHIP RES.	1.8k	1/16W	5%	RMC1/16 182JATP	J24185182		1-	A	B2
R 2020	CHIP RES.	4.7k	1/16W	5%	RMC1/16 472JATP	J24185472		1-	A	B1
R 2021	CHIP RES.	15k	1/16W	5%	RMC1/16 153JATP	J24185153		1-	A	A3
R 2022	CHIP RES.	3.9k	1/16W	5%	RMC1/16 392JATP	J24185392		1-	A	A3
R 2023	CHIP RES.	470	1/16W	5%	RMC1/16 471JATP	J24185471		1-	A	G4
R 2024	CHIP RES.	470	1/16W	5%	RMC1/16 471JATP	J24185471		1-	A	G4
R 2025	CHIP RES.	470	1/16W	5%	RMC1/16 471JATP	J24185471		1-	A	G4
R 2026	CHIP RES.	100	1/16W	5%	RMC1/16 101JATP	J24185101		1-	A	C6
R 2027	CHIP RES.	4.7k	1/16W	5%	RMC1/16 472JATP	J24185472		1-	A	B1
R 2028	CHIP RES.	100	1/16W	5%	RMC1/16 101JATP	J24185101		1-	A	C6
R 2029	CHIP RES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103		1-	A	A3
R 2030	CHIP RES.	2.2k	1/16W	5%	RMC1/16 222JATP	J24185222		1-	A	B1
R 2031	CHIP RES.	100	1/16W	5%	RMC1/16 101JATP	J24185101		1-	A	B1
R 2032	CHIP RES.	1k	1/16W	5%	RMC1/16 102JATP	J24185102		1-	A	D6
R 2033	CHIP RES.	100k	1/16W	5%	RMC1/16 104JATP	J24185104		1-	A	D6
R 2034	CHIP RES.	1M	1/16W	5%	RMC1/16 105JATP	J24185105		1-	A	C6
R 2035	CHIP RES.	1.8k	1/16W	5%	RMC1/16 182JATP	J24185182		1-	A	B1
R 2036	CHIP RES.	100k	1/16W	5%	RMC1/16 104JATP	J24185104		1-	A	C6
R 2038	CHIP RES.	10	1/16W	5%	RMC1/16 100JATP	J24185100		1-	A	C5
R 2039	CHIP RES.	100	1/16W	5%	RMC1/16 101JATP	J24185101		1-	A	C6

REF	DESCRIPTION	VALUE	V/W	TOL.	MFR'S DESIG	VXSTD P/N	VERS.	LOT	SIDE	LAY ADR
R 2040	CHIP RES.	68	1/16W	5%	RMC1/16 680JATP	J24185680		1-	A	B3
R 2041	CHIP RES.	68	1/16W	5%	RMC1/16 680JATP	J24185680		1-	A	B3
R 2042	CHIP RES.	68	1/16W	5%	RMC1/16 680JATP	J24185680		1-	A	B2
R 2043	CHIP RES.	68	1/16W	5%	RMC1/16 680JATP	J24185680		1-	A	B2
R 2044	CHIP RES.	68	1/16W	5%	RMC1/16 680JATP	J24185680		1-	A	B2
R 2045	CHIP RES.	68	1/16W	5%	RMC1/16 680JATP	J24185680		1-	A	B1
R 2046	CHIP RES.	68	1/16W	5%	RMC1/16 680JATP	J24185680		1-	A	B1
R 2047	CHIP RES.	68	1/16W	5%	RMC1/16 680JATP	J24185680		1-	A	B1
R 2048	CHIP RES.	470	1/16W	5%	RMC1/16 471JATP	J24185471		1-	A	D6
R 2049	CHIP RES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103		1-	A	E6
R 2050	CHIP RES.	100k	1/16W	5%	RMC1/16 104JATP	J24185104		1-	A	B6
R 2051	CHIP RES.	220	1/16W	5%	RMC1/16 221JATP	J24185221		1-	A	D5
R 2052	CHIP RES.	220	1/16W	5%	RMC1/16 221JATP	J24185221		1-	A	D5
R 2053	CHIP RES.	220	1/16W	5%	RMC1/16 221JATP	J24185221		1-	A	D5
R 2054	CHIP RES.	2.2k	1/16W	5%	RMC1/16 222JATP	J24185222		1-	A	D6
R 2055	CHIP RES.	100	1/16W	5%	RMC1/16 101JATP	J24185101		1-	A	B6
R 2056	CHIP RES.	220	1/16W	5%	RMC1/16 221JATP	J24185221		1-	A	B5
R 2057	CHIP RES.	22	1/16W	5%	RMC1/16 220JATP	J24185220		1-	A	B5
R 2058	CHIP RES.	1M	1/16W	5%	RMC1/16 105JATP	J24185105		1-	A	D6
R 2059	CHIP RES.	100k	1/16W	5%	RMC1/16 104JATP	J24185104		1-	A	E1
R 2060	CHIP RES.	1k	1/16W	5%	RMC1/16 102JATP	J24185102		1-	A	D1
R 2061	CHIP RES.	1k	1/16W	5%	RMC1/16 102JATP	J24185102		1-	A	D1
R 2062	CHIP RES.	100k	1/16W	5%	RMC1/16 104JATP	J24185104		1-	A	D3
R 2063	CHIP RES.	4.7k	1/16W	5%	RMC1/16 472JATP	J24185472		1-	A	E1
R 2064	CHIP RES.	220	1/16W	5%	RMC1/16 221JATP	J24185221		1-	A	D2
R 2065	CHIP RES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103		1-	A	D2
R 2066	CHIP RES.	2.2k	1/16W	5%	RMC1/16 222JATP	J24185222		1-	A	D2
R 2067	CHIP RES.	100	1/16W	5%	RMC1/16 101JATP	J24185101		1-	A	D3
R 2068	CHIP RES.	22	1/16W	5%	RMC1/16 220JATP	J24185220		1-	A	D2
R 2069	CHIP RES.	2.2k	1/16W	5%	RMC1/16 222JATP	J24185222		1-	A	D1
R 2070	CHIP RES.	68k	1/16W	5%	RMC1/16 683JATP	J24185683		1-	A	D2
R 2072	CHIP RES.	4.7k	1/16W	5%	RMC1/16 472JATP	J24185472		1-	A	E1
R 2073	CHIP RES.	470	1/16W	5%	RMC1/16 471JATP	J24185471		1-	A	D2
R 2074	CHIP RES.	4.7k	1/16W	5%	RMC1/16 472JATP	J24185472		1-	A	E3
R 2075	CHIP RES.	68k	1/16W	5%	RMC1/16 683JATP	J24185683		1-	A	E5
R 2076	CHIP RES.	22k	1/16W	5%	RMC1/16 223JATP	J24185223		1-	A	E3
R 2077	CHIP RES.	270	1/4W	5%	RMC1/4 271JATP	J24245271		1-	A	E2
R 2078	CHIP RES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103		1-	A	E3
R 2079	CHIP RES.	150	1/16W	5%	RMC1/16 151JATP	J24185151		1-	A	E2
R 2080	CHIP RES.	47	1/16W	5%	RMC1/16 470JATP	J24185470		1-	A	D5
R 2081	CHIP RES.	100	1/16W	5%	RMC1/16 101JATP	J24185101		1-	A	E5
R 2082	CHIP RES.	470	1/16W	5%	RMC1/16 471JATP	J24185471		1-	A	E2
R 2083	CHIP RES.	2.2M	1/16W	5%	RMC1/16 225JATP	J24185225		1-	A	E2
R 2084	CHIP RES.	4.7k	1/16W	5%	RMC1/16 472JATP	J24185472		1-	A	E3
R 2085	CHIP RES.	470	1/16W	5%	RMC1/16 471JATP	J24185471		1-	A	E6
R 2086	CHIP RES.	390	1/16W	5%	RMC1/16 391JATP	J24185391		1-	A	E2
R 2087	CHIP RES.	2.2k	1/16W	5%	RMC1/16 222JATP	J24185222		1-	A	E2
R 2088	CHIP RES.	820	1/16W	5%	RMC1/16 821JATP	J24185821		1-	A	E2
R 2089	CHIP RES.	100	1/16W	5%	RMC1/16 101JATP	J24185101		1-	A	E6
R 2090	CHIP RES.	100	1/16W	5%	RMC1/16 101JATP	J24185101		1-	A	E5
R 2091	CHIP RES.	470	1/16W	5%	RMC1/16 471JATP	J24185471		1-	A	E5
R 2092	CHIP RES.	100k	1/16W	5%	RMC1/16 104JATP	J24185104		1-	A	E5
R 2093	CHIP RES.	100	1/16W	5%	RMC1/16 101JATP	J24185101		1-	A	E1
R 2094	CHIP RES.	4.7k	1/16W	5%	RMC1/16 472JATP	J24185472		1-	A	E3
R 2095	CHIP RES.	8.2k	1/16W	5%	RMC1/16 822JATP	J24185822		1-	A	E3
R 2096	CHIP RES.	56	1/16W	5%	RMC1/16 560JATP	J24185560		1-	A	F2
R 2097	CHIP RES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103		1-	A	F2
R 2098	CHIP RES.	100	1/16W	5%	RMC1/16 101JATP	J24185101		1-	A	E5
R 2099	CHIP RES.	390	1/16W	5%	RMC1/16 391JATP	J24185391		1-	A	E5
R 2100	CHIP RES.	100	1/16W	5%	RMC1/16 101JATP	J24185101		1-	A	E4
R 2101	CHIP RES.	560	1/16W	5%	RMC1/16 561JATP	J24185561		1-	A	F2
R 2102	CHIP RES.	56	1/16W	5%	RMC1/16 560JATP	J24185560		1-	A	F2
R 2103	CHIP RES.	390	1/16W	5%	RMC1/16 391JATP	J24185391		1-	A	F2
R 2104	CHIP RES.	100	1/16W	5%	RMC1/16 101JATP	J24185101		1-	A	F2
R 2105	CHIP RES.	100k	1/16W	5%	RMC1/16 104JATP	J24185104		1-	A	E5
R 2106	CHIP RES.	10	1/16W	5%	RMC1/16 100JATP	J24185100		1-	A	F2
R 2107	CHIP RES.	560	1/16W	5%	RMC1/16 561JATP	J24185561		1-	A	F2
R 2108	CHIP RES.	1k	1/16W	5%	RMC1/16 102JATP	J24185102		1-	A	F2
R 2109	CHIP RES.	22k	1/16W	5%	RMC1/16 223JATP	J24185223		1-	A	E6
R 2110	CHIP RES.	5.6k	1/16W	5%	RMC1/16 562JATP	J24185562		1-	A	F2
R 2111	CHIP RES.	3.3k	1/16W	5%	RMC1/16 332JATP	J24185332		1-	A	F2
R 2112	CHIP RES.	100	1/16W	5%	RMC1/16 101JATP	J24185101		1-	A	F2
R 2113	CHIP RES.	220	1/16W	5%	RMC1/16 221JATP	J24185221		1-	A	F2

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REF	DESCRIPTION	VALUE	V/W	TOL.	MFR'S DESIG	VXSTD P/N	VERS.	LOT	SIDE	LAY ADR
R 2114	CHIP RES.	47	1/16W	5%	RMC1/16 470JATP	J24185470		1-	A	F3
R 2115	CHIP RES.	120	1/16W	5%	RMC1/16 121JATP	J24185121		1-	A	F1
R 2116	CHIP RES.	47	1/16W	5%	RMC1/16 470JATP	J24185470		1-	A	E5
R 2117	CHIP RES.	47	1/16W	5%	RMC1/16 470JATP	J24185470		1-	A	E5
R 2118	CHIP RES.	47	1/16W	5%	RMC1/16 470JATP	J24185470		1-	A	E4
R 2119	CHIP RES.	47	1/16W	5%	RMC1/16 470JATP	J24185470		1-	A	E6
R 2120	CHIP RES.	22k	1/16W	5%	RMC1/16 223JATP	J24185223		1-	A	E6
R 2121	CHIP RES.	22k	1/16W	5%	RMC1/16 223JATP	J24185223		1-	A	E5
R 2122	CHIP RES.	22k	1/16W	5%	RMC1/16 223JATP	J24185223		1-	A	E5
R 2123	CHIP RES.	22k	1/16W	5%	RMC1/16 223JATP	J24185223		1-	A	E4
R 2124	CHIP RES.	100k	1/16W	5%	RMC1/16 104JATP	J24185104		1-	A	E6
R 2125	CHIP RES.	100k	1/16W	5%	RMC1/16 104JATP	J24185104		1-	A	E5
R 2126	CHIP RES.	100k	1/16W	5%	RMC1/16 104JATP	J24185104		1-	A	E4
R 2127	CHIP RES.	100k	1/16W	5%	RMC1/16 104JATP	J24185104		1-	A	E4
R 2128	CHIP RES.	100k	1/16W	5%	RMC1/16 104JATP	J24185104		1-	A	A6
R 2129	CHIP RES.	47k	1/16W	5%	RMC1/16 473JATP	J24185473		1-	A	A6
R 2130	CHIP RES.	100k	1/16W	5%	RMC1/16 104JATP	J24185104		1-	A	A6
R 2131	CHIP RES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103		1-	A	A6
R 2132	CHIP RES.	100k	1/16W	5%	RMC1/16 104JATP	J24185104		1-	A	B6
R 2133	CHIP RES.	100k	1/16W	5%	RMC1/16 104JATP	J24185104		1-	A	B6
R 2134	CHIP RES.	47k	1/16W	5%	RMC1/16 473JATP	J24185473		1-	A	A6
R 2135	CHIP RES.	47k	1/16W	5%	RMC1/16 473JATP	J24185473		1-	A	A6
R 2136	CHIP RES.	150k	1/16W	5%	RMC1/16 154JATP	J24185154		1-	A	B6
R 2137	CHIP RES.	150k	1/16W	5%	RMC1/16 154JATP	J24185154		1-	A	A6
R 2138	CHIP RES.	150k	1/16W	5%	RMC1/16 154JATP	J24185154		1-	A	A6
R 2139	CHIP RES.	150k	1/16W	5%	RMC1/16 154JATP	J24185154		1-	A	A6
R 2140	CHIP RES.	220	1/16W	5%	RMC1/16 221JATP	J24185221		1-	A	D3
R 2141	CHIP RES.	47k	1/16W	5%	RMC1/16 473JATP	J24185473		1-	A	B6
R 2143	CHIP RES.	100	1/16W	5%	RMC1/16 101JATP	J24185101		1-	A	D4
R 2144	CHIP RES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103		1-	A	A6
R 2145	CHIP RES.	47k	1/16W	5%	RMC1/16 473JATP	J24185473		1-	A	A6
R 2146	CHIP RES.	3.3k	1/16W	5%	RMC1/16 332JATP	J24185332		1-	A	E4
R 2147	CHIP RES.	220	1/16W	5%	RMC1/16 221JATP	J24185221		1-	A	F6
R 2148	CHIP RES.	220	1/16W	5%	RMC1/16 221JATP	J24185221		1-	A	F6
R 2149	CHIP RES.	220	1/16W	5%	RMC1/16 221JATP	J24185221		1-	A	F5
R 2150	CHIP RES.	220	1/16W	5%	RMC1/16 221JATP	J24185221		1-	A	F4
R 2151	CHIP RES.	47k	1/16W	5%	RMC1/16 473JATP	J24185473		1-	A	A6
R 2152	CHIP RES.	22	1/16W	5%	RMC1/16 220JATP	J24185220		1-	A	D4
R 2153	CHIP RES.	820	1/16W	5%	RMC1/16 821JATP	J24185821		1-	A	D4
R 2154	CHIP RES.	47k	1/16W	5%	RMC1/16 473JATP	J24185473		1-	A	A6
R 2155	CHIP RES.	4.7k	1/16W	5%	RMC1/16 472JATP	J24185472		1-	A	B6
R 2156	CHIP RES.	4.7k	1/16W	5%	RMC1/16 472JATP	J24185472		1-	A	D4
R 2157	CHIP RES.	1.2k	1/16W	5%	RMC1/16 122JATP	J24185122		1-	A	D4
R 2158	CHIP RES.	3.3k	1/16W	5%	RMC1/16 332JATP	J24185332		1-	A	A6
R 2159	CHIP RES.	1M	1/16W	5%	RMC1/16 105JATP	J24185105		1-	A	A6
R 2160	CHIP RES.	4.7k	1/16W	5%	RMC1/16 472JATP	J24185472		1-	A	B6
R 2161	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000		1-	A	B6
R 2162	CHIP RES.	100k	1/16W	5%	RMC1/16 104JATP	J24185104		1-	A	B6
R 2163	CHIP RES.	3.9k	1/16W	5%	RMC1/16 392JATP	J24185392		1-	A	D4
R 2165	CHIP RES.	100	1/16W	5%	RMC1/16 101JATP	J24185101		1-	A	C5
R 2166	CHIP RES.	6.8	1/16W	5%	RMC1/16 6R8JATP	J24185689		1-	A	E4
R 2167	CHIP RES.	150	1/16W	5%	RMC1/16 151JATP	J24185151		1-	A	C5
R 2168	CHIP RES.	6.8	1/16W	5%	RMC1/16 6R8JATP	J24185689		1-	A	C4
R 2169	CHIP RES.	150	1/16W	5%	RMC1/16 151JATP	J24185151		1-	A	C5
R 2170	CHIP RES.	100	1/16W	5%	RMC1/16 101JATP	J24185101		1-	A	C5
R 2171	CHIP RES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103		1-	A	C4
R 2172	CHIP RES.	1k	1/16W	5%	RMC1/16 102JATP	J24185102		1-	A	E2
R 2173	CHIP RES.	2.2k	1/16W	5%	RMC1/16 222JATP	J24185222		1-	A	C4
R 2174	CHIP RES.	100k	1/16W	5%	RMC1/16 104JATP	J24185104		1-	A	D5
R 2175	CHIP RES.	6.8k	1/16W	5%	RMC1/16 682JATP	J24185682		1-	A	D5
R 2177	CHIP RES.	68k	1/16W	5%	RMC1/16 683JATP	J24185683		1-	A	C4
R 2178	CHIP RES.	1k	1/16W	5%	RMC1/16 102JATP	J24185102		1-	A	C4
R 2179	CHIP RES.	22	1/16W	5%	RMC1/16 220JATP	J24185220		1-	A	C4
R 2180	CHIP RES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103		1-	A	C5
R 2181	CHIP RES.	1.5k	1/16W	5%	RMC1/16 152JATP	J24185152		1-	A	C5
R 2182	CHIP RES.	10	1/16W	5%	RMC1/16 100JATP	J24185100		1-	A	C4
R 2183	CHIP RES.	270	1/16W	5%	RMC1/16 271JATP	J24185271		1-	A	C4
R 2184	CHIP RES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103		1-	A	C4
R 2185	CHIP RES.	4.7k	1/16W	5%	RMC1/16 472JATP	J24185472		1-	A	C5
R 2186	CHIP RES.	100k	1/16W	5%	RMC1/16 104JATP	J24185104		1-	A	C5
R 2187	CHIP RES.	15k	1/16W	5%	RMC1/16 153JATP	J24185153		1-	A	C5
R 2188	CHIP RES.	4.7k	1/16W	5%	RMC1/16 472JATP	J24185472		1-	A	C5
R 2189	CHIP RES.	4.7k	1/16W	5%	RMC1/16 472JATP	J24185472		1-	A	C5

RF-IF Unit

Parts List

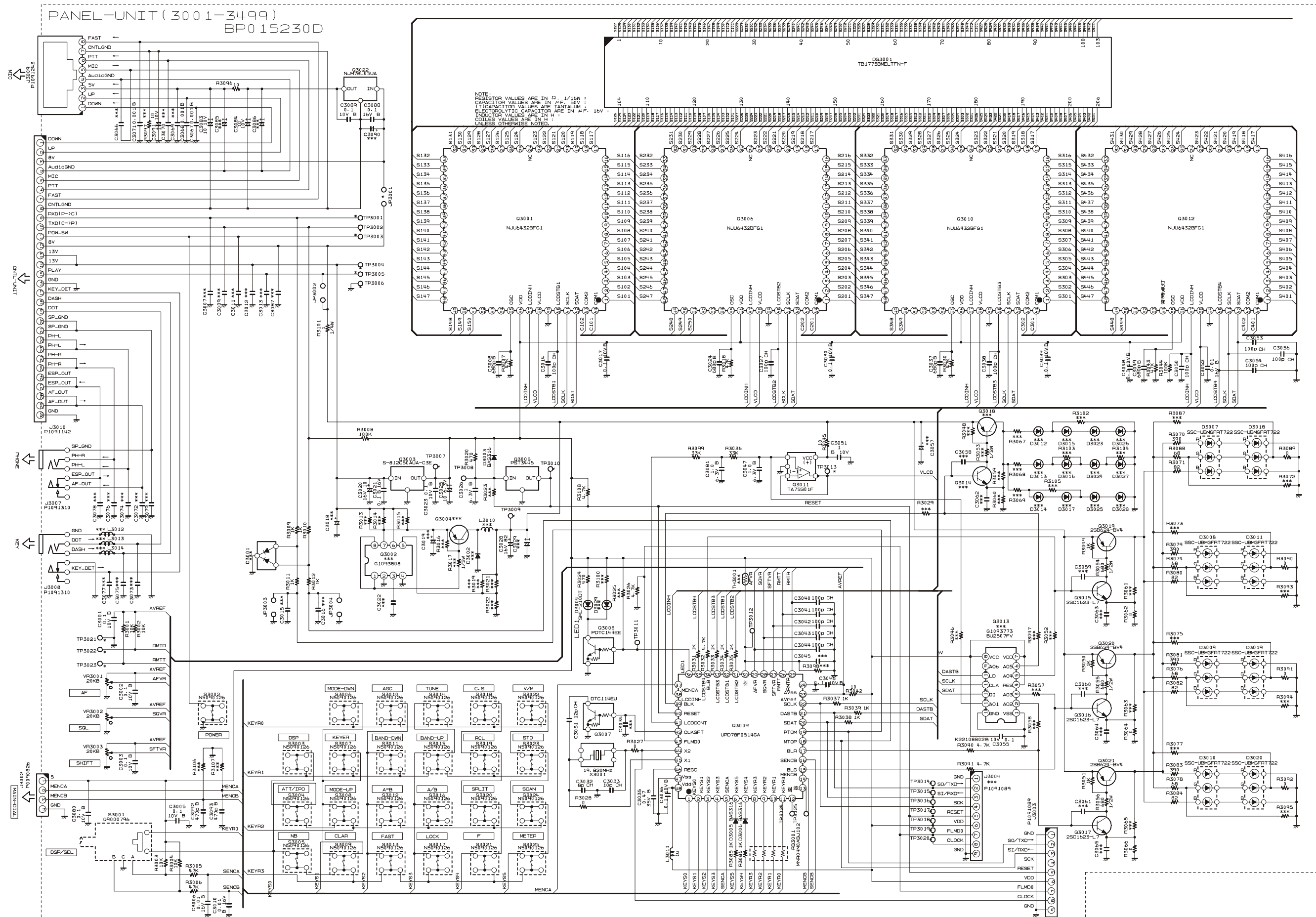
REF	DESCRIPTION	VALUE	V/W	TOL.	MFR'S DESIG	VXSTD P/N	VERS.	LOT	SIDE	LAY ADR
R 2190	CHIP RES.	100	1/16W	5%	RMC1/16 101JATP	J24185101		1-	A	C3
R 2191	CHIP RES.	1k	1/16W	5%	RMC1/16 102JATP	J24185102		1-	A	C4
R 2192	CHIP RES.	56	1/16W	5%	RMC1/16 560JATP	J24185560		1-	A	B5
R 2193	CHIP RES.	330	1/16W	5%	RMC1/16 331JATP	J24185331		1-	A	C5
R 2194	CHIP RES.	330	1/16W	5%	RMC1/16 331JATP	J24185331		1-	A	C5
R 2195	CHIP RES.	1k	1/16W	5%	RMC1/16 102JATP	J24185102		1-	A	G2
R 2196	CHIP RES.	1k	1/16W	5%	RMC1/16 102JATP	J24185102		1-	A	C5
R 2197	CHIP RES.	1k	1/16W	5%	RMC1/16 102JATP	J24185102		1-	A	C5
R 2198	CHIP RES.	470	1/4W	5%	RMC1/4 471JATP	J24245471		1-	A	G2
R 2199	CHIP RES.	100k	1/16W	5%	RMC1/16 104JATP	J24185104		1-	A	G2
R 2200	CHIP RES.	33k	1/16W	5%	RMC1/16 333JATP	J24185333		1-	A	B3
R 2201	CHIP RES.	33k	1/16W	5%	RMC1/16 333JATP	J24185333		1-	A	B3
R 2202	CHIP RES.	1k	1/16W	5%	RMC1/16 102JATP	J24185102		1-	A	G3
R 2203	CHIP RES.	220	1/16W	5%	RMC1/16 221JATP	J24185221		1-	A	G3
R 2204	CHIP RES.	220	1/16W	5%	RMC1/16 221JATP	J24185221		1-	A	B5
R 2205	CHIP RES.	1k	1/16W	5%	RMC1/16 102JATP	J24185102		1-	A	G1
R 2206	CHIP RES.	220	1/16W	5%	RMC1/16 221JATP	J24185221		1-	A	B5
R 2207	CHIP RES.	470	1/16W	5%	RMC1/16 471JATP	J24185471		1-	A	G1
R 2208	CHIP RES.	1k	1/16W	5%	RMC1/16 102JATP	J24185102		1-	A	G1
R 2209	CHIP RES.	1k	1/16W	5%	RMC1/16 102JATP	J24185102		1-	A	G1
R 2210	CHIP RES.	1k	1/16W	5%	RMC1/16 102JATP	J24185102		1-	A	G1
R 2211	CHIP RES.	1k	1/16W	5%	RMC1/16 102JATP	J24185102		1-	A	G4
R 2212	CHIP RES.	1k	1/16W	5%	RMC1/16 102JATP	J24185102		1-	A	G4
R 2213	CHIP RES.	1k	1/16W	5%	RMC1/16 102JATP	J24185102		1-	A	G3
R 2214	CHIP RES.	1k	1/16W	5%	RMC1/16 102JATP	J24185102		1-	A	G4
R 2215	CHIP RES.	1k	1/16W	5%	RMC1/16 102JATP	J24185102		1-	A	G4
R 2216	CHIP RES.	1k	1/16W	5%	RMC1/16 102JATP	J24185102		1-	A	G4
R 2217	CHIP RES.	1k	1/16W	5%	RMC1/16 102JATP	J24185102		1-	A	G4
R 2218	CHIP RES.	1k	1/16W	5%	RMC1/16 102JATP	J24185102		1-	A	G3
R 2219	CHIP RES.	15k	1/16W	5%	RMC1/16 153JATP	J24185153		1-	A	A4
R 2220	CHIP RES.	15k	1/16W	5%	RMC1/16 153JATP	J24185153		1-	A	B4
R 2221	CHIP RES.	1k	1/16W	5%	RMC1/16 102JATP	J24185102		1-	A	G3
R 2222	CHIP RES.	150	1/16W	5%	RMC1/16 151JATP	J24185151		1-	A	F1
R 2223	CHIP RES.	33	1/16W	5%	RMC1/16 330JATP	J24185330		1-	A	F2
R 2225	CHIP RES.	150	1/16W	5%	RMC1/16 151JATP	J24185151		1-	A	F1
R 2226	CHIP RES.	470	1/16W	5%	RMC1/16 471JATP	J24185471		1-	A	F2
R 2227	CHIP RES.	220	1/16W	5%	RMC1/16 221JATP	J24185221		1-	A	G6
R 2228	CHIP RES.	220	1/16W	5%	RMC1/16 221JATP	J24185221		1-	A	G6
R 2229	CHIP RES.	220	1/16W	5%	RMC1/16 221JATP	J24185221		1-	A	G5
R 2230	CHIP RES.	220	1/16W	5%	RMC1/16 221JATP	J24185221		1-	A	G5
R 2231	CHIP RES.	220	1/16W	5%	RMC1/16 221JATP	J24185221		1-	A	G5
R 2232	CHIP RES.	220	1/16W	5%	RMC1/16 221JATP	J24185221		1-	A	B6
R 2233	CHIP RES.	220	1/16W	5%	RMC1/16 221JATP	J24185221		1-	A	B6
R 2234	CHIP RES.	220	1/16W	5%	RMC1/16 221JATP	J24185221		1-	A	B6
R 2236	CHIP RES.	1.8k	1/16W	5%	RMC1/16 182JATP	J24185182		1-	A	E2
R 2237	CHIP RES.	1.8k	1/16W	5%	RMC1/16 182JATP	J24185182		1-	A	B3
R 2238	CHIP RES.	1.8k	1/16W	5%	RMC1/16 182JATP	J24185182		1-	A	C4
R 2239	CHIP RES.	330	1/16W	5%	RMC1/16 331JATP	J24185331		1-	A	E4
R 2240	CHIP RES.	18	1/16W	5%	RMC1/16 180JATP	J24185180		1-	A	E4
R 2241	CHIP RES.	330	1/16W	5%	RMC1/16 331JATP	J24185331		1-	A	F3
R 2242	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000		1-	A	E2
R 2245	CHIP RES.	820	1/16W	5%	RMC1/16 821JATP	J24185821		1-	A	E6
R 2246	CHIP RES.	470	1/16W	5%	RMC1/16 471JATP	J24185471		1-	A	E6
R 2247	CHIP RES.	68	1/16W	5%	RMC1/16 680JATP	J24185680		1-		
R 2248	CHIP RES.	15k	1/16W	5%	RMC1/16 153JATP	J24185153		1-		
RL2001	RELAY		DC12V		AGQ200A12Z DC12V	M1190188		1-	A	A1
RL2002	RELAY		DC12V		AGQ200A12Z DC12V	M1190188		1-	A	E1
T 2001	COIL WIDE-TRANS.				040812480	L0022904		1-	A	A2
T 2002	COIL WIDE-TRANS.				040812480	L0022904		1-	A	B2
T 2003	COIL WIDE-TRANS.				040812480	L0022904		1-	A	B1
T 2005	COIL WIDE-TRANS.				040812480	L0022904		1-	A	E1
T 2017	COIL 05RF				100M 010812300A	L0022779		1-	A	C5
T 2018	COIL 05RF				M5-N1 R12-T661Y	L0022674		1-	A	D4
T 2019	COIL 05RF				M5-N1 R12-T661Y	L0022674		1-	A	C4
T 2020	COIL 05RF	74.62MHz			74.62M 030812396C	L0022854		1-	A	C4
T 2021	COIL 05RF	74.62MHz			74.62M 030812396C	L0022854		1-	A	D4
T 2022	COIL 05RF	74.62MHz			74.62M 030812396C	L0022854		1-	A	C4
T 2023	COIL WIDE-TRANS.				3-317611	L0022478		1-	A	F1
T 2024	COIL WIDE-TRANS.				3-317611	L0022478		1-	A	F2
T 2025	COIL WIDE-TRANS.				3-317610	L0022479		1-	A	F1
T 2026	BALUN TRANSFORMERS				#458DB-1616=P3	L0190246		1-	A	F3
T 2027	BALUN TRANSFORMERS				#458DB-1616=P3	L0190246		1-	A	F3
TH2001	THERMISTOR				157-152-53009-TP	G9090123		1-	A	C4

Parts List

[illegible]

PANEL Unit

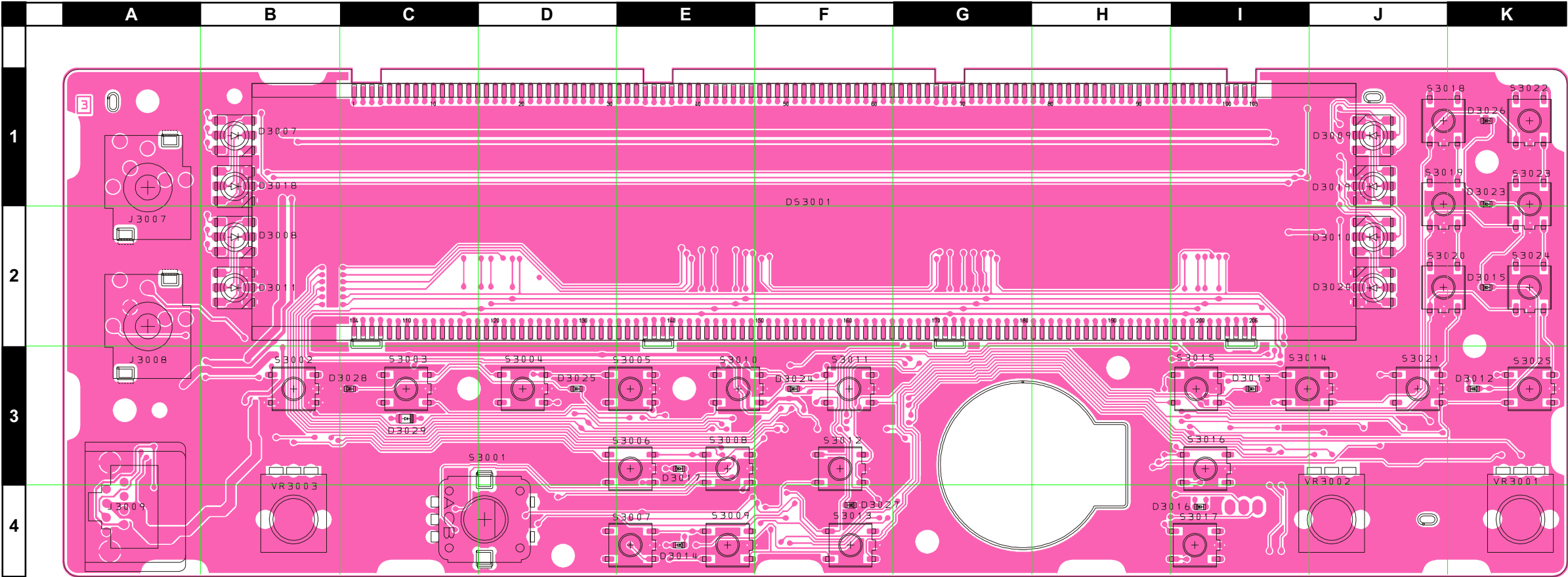
Circuit Diagram



PANEL Unit

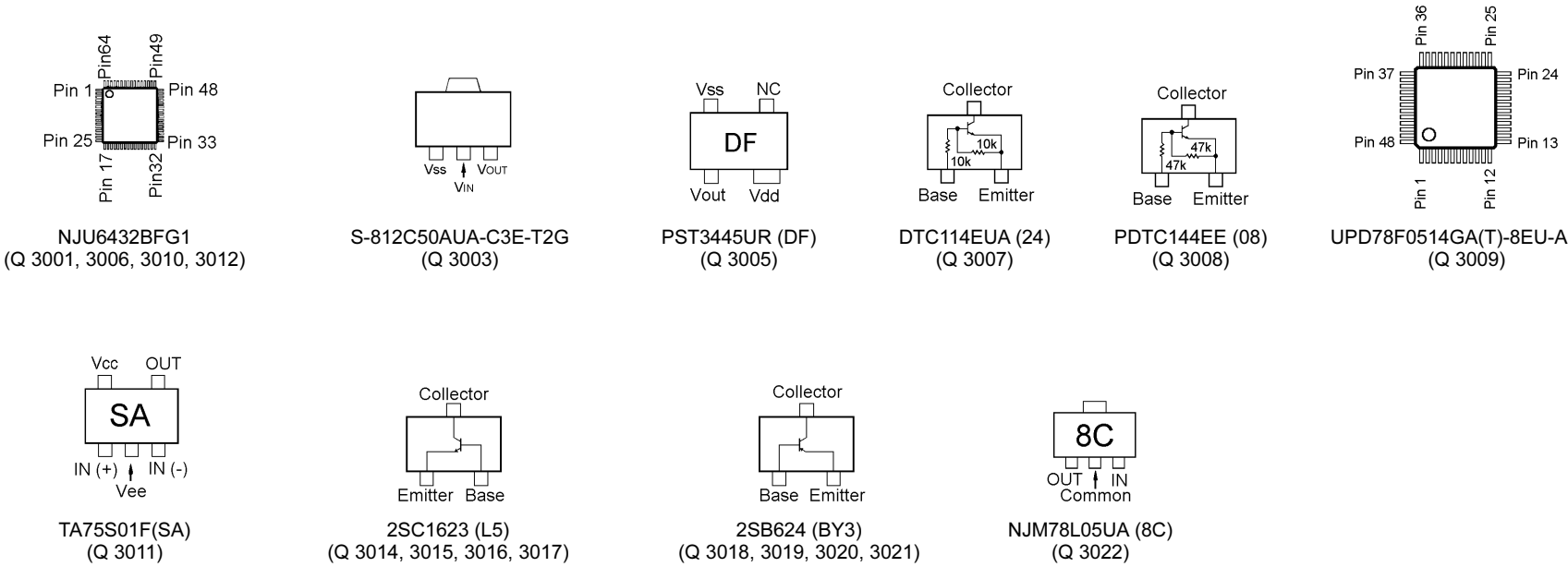
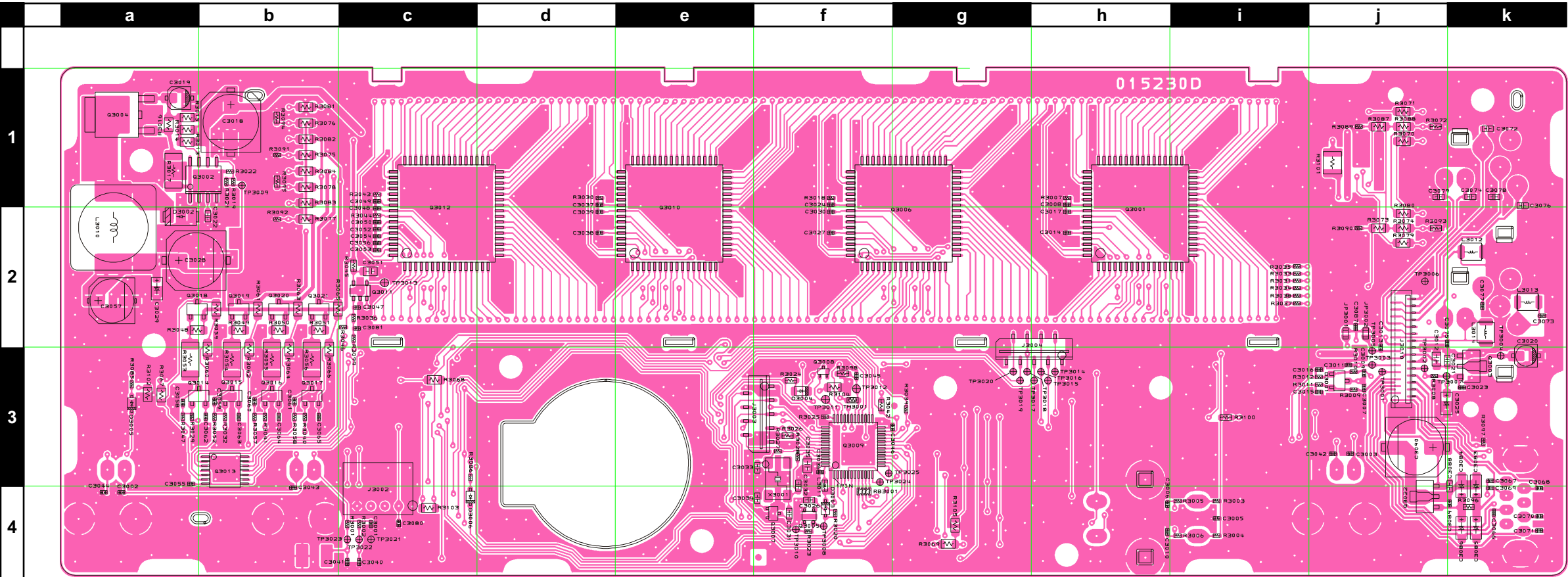
Note

Parts Layout (Side A)



PANEL Unit

Parts Layout (Side B)



PANEL Unit

Parts List

REF	DESCRIPTION	VALUE	V/W	TOL.	MFR'S DESIG	VXSTD P/N	VERS.	LOT	SIDE	LAY ADR
PCB with Components						CS1922001				
	Printed Circuit Board					FR015230D		1-		
C 3001	CHIP CAP.	0.1uF	10V	B	GRM155B11A104KA01D	K22108802		1-	B	c4
C 3002	CHIP CAP.	0.1uF	10V	B	GRM155B11A104KA01D	K22108802		1-	B	a4
C 3003	CHIP CAP.	0.1uF	10V	B	GRM155B11A104KA01D	K22108802		1-	B	j3
C 3005	CHIP CAP.	0.1uF	10V	B	GRM155B11A104KA01D	K22108802		1-	B	i4
C 3006	CHIP CAP.	0.01uF	16V	B	GRM36B103K16PT	K22128804		1-	B	h4
C 3008	CHIP CAP.	680pF	50V	B	GRM155B11H681KA01D	K22178807		1-	B	h1
C 3010	CHIP CAP.	0.01uF	16V	B	GRM36B103K16PT	K22128804		1-	B	h4
C 3014	CHIP CAP.	100pF	50V	CH	GRM1552C1H101JD01D	K22178236		1-	B	h2
C 3017	CHIP CAP.	0.1uF	10V	B	GRM155B11A104KA01D	K22108802		1-	B	h2
C 3020	AL.ELECTRO.CAP.	10uF	16V		RV2-16V100MB55U-R	K48120014		1-	B	k3
C 3021	CHIP CAP.	0.1uF	16V	B	GRM188B11C104KA01D	K22124805		1-	B	j3
C 3023	CHIP CAP.	0.1uF	10V	B	GRM155B11A104KA01D	K22108802		1-	B	k3
C 3024	CHIP CAP.	680pF	50V	B	GRM155B11H681KA01D	K22178807		1-	B	f1
C 3025	CHIP TA.CAP.	10uF	6.3V		TEMSVA0J106M-8R	K78080027		1-	B	j3
C 3026	CHIP CAP.	1uF	6.3V	B	GRM188B10J105KA01D	K22084801		1-	B	f4
C 3027	CHIP CAP.	100pF	50V	CH	GRM1552C1H101JD01D	K22178236		1-	B	f2
C 3028	AL.ELECTRO.CAP.	82uF	16V		APXA160ARA820MH70G	K48120022		1-	B	a2
C 3030	CHIP CAP.	0.1uF	10V	B	GRM155B11A104KA01D	K22108802		1-	B	f2
C 3031	CHIP CAP.	12pF	50V	CH	GRM1882C1H120JA01D	K22174213		1-	B	f4
C 3032	CHIP CAP.	8pF	50V	CH	GRM1882C1H8R0DZ01D	K22174209		1-	B	f4
C 3033	CHIP CAP.	10pF	50V	CH	GRM1882C1H100JA01D	K22174211		1-	B	f3
C 3035	CHIP CAP.	0.47uF	35V	B	GMK212BJ474KG-T	K22168081		1-	B	f3
C 3036	CHIP CAP.	0.1uF	10V	B	GRM155B11A104KA01D	K22108802		1-	B	f3
C 3037	CHIP CAP.	680pF	50V	B	GRM155B11H681KA01D	K22178807		1-	B	d1
C 3038	CHIP CAP.	100pF	50V	CH	GRM1552C1H101JD01D	K22178236		1-	B	d2
C 3039	CHIP CAP.	0.1uF	10V	B	GRM155B11A104KA01D	K22108802		1-	B	d2
C 3040	CHIP CAP.	100pF	50V	CH	GRM1552C1H101JD01D	K22178236		1-	B	c4
C 3041	CHIP CAP.	100pF	50V	CH	GRM1552C1H101JD01D	K22178236		1-	B	c4
C 3042	CHIP CAP.	100pF	50V	CH	GRM1552C1H101JD01D	K22178236		1-	B	j3
C 3043	CHIP CAP.	100pF	50V	CH	GRM1552C1H101JD01D	K22178236		1-	B	b4
C 3044	CHIP CAP.	100pF	50V	CH	GRM1552C1H101JD01D	K22178236		1-	B	a4
C 3046	CHIP CAP.	0.1uF	10V	B	GRM155B11A104KA01D	K22108802		1-	B	f3
C 3047	CHIP CAP.	1uF	6.3V	B	GRM155B30J105KE18D	K22088803		1-	B	c2
C 3048	CHIP CAP.	0.1uF	10V	B	GRM155B11A104KA01D	K22108802		1-	B	c2
C 3049	CHIP CAP.	680pF	50V	B	GRM155B11H681KA01D	K22178807		1-	B	c1
C 3050	CHIP CAP.	100pF	50V	CH	GRM1552C1H101JD01D	K22178236		1-	B	c2
C 3051	CHIP CAP.	1uF	10V	B	GRM40B105K10PT(0.85)	K22100803		1-	B	c2
C 3052	CHIP CAP.	0.01uF	16V	B	GRM36B103K16PT	K22128804		1-	B	c2
C 3053	CHIP CAP.	100pF	50V	CH	GRM1552C1H101JD01D	K22178236		1-	B	c2
C 3054	CHIP CAP.	100pF	50V	CH	GRM1552C1H101JD01D	K22178236		1-	B	c2
C 3055	CHIP CAP.	0.1uF	10V	B	GRM155B11A104KA01D	K22108802		1-	B	a3
C 3056	CHIP CAP.	100pF	50V	CH	GRM1552C1H101JD01D	K22178236		1-	B	c2
C 3067	CHIP CAP.	0.001uF	50V	B	GRM155B11H102KA01D	K22178809		3-	B	k3
C 3068	CHIP CAP.	0.001uF	50V	B	GRM155B11H102KA01D	K22178809		3-	B	k4
C 3071	CHIP CAP.	0.001uF	50V	B	GRM155B11H102KA01D	K22178809		3-	B	k4
C 3080	CHIP CAP.	0.1uF	10V	B	GRM155B11A104KA01D	K22108802		1-	B	c4
C 3081	CHIP CAP.	1uF	6.3V	B	GRM155B30J105KE18D	K22088803		1-	B	c2
C 3083	CHIP TA.CAP.	10uF	10V		TEMSVA1A106M-8R	K78100028		1-	B	k4
C 3084	CHIP TA.CAP.	10uF	10V		TEMSVA1A106M-8R	K78100028		1-	B	k4
C 3088	CHIP CAP.	0.1uF	16V	B	GRM188B11C104KA01D	K22124805		1-	B	j4
C 3089	CHIP CAP.	0.1uF	10V	B	GRM155B11A104KA01D	K22108802		1-	B	j4
C 3091	CHIP TA.CAP.	10uF	10V		TEMSVA1A106M-8R	K78100028		1-		
C 3092	CHIP CAP.	470pF	50V	B	GRM155B11H471KA01D	K22178805		3-		
C 3093	CERAMIC CAP.	470pF	50V	B	UP050B471K-A-B	K28179043		3-		
D 3003	DIODE				BAS316	G2070716		1-	B	f4
D 3004	LED				SML-210DTT86	G2070772		1-	B	f3
D 3005	DIODE				BAS316	G2070716		1-	B	a3
D 3006	DIODE				BAS316	G2070716		1-	B	c4
D 3007	LED				SSC-UBMGFRT722	G2071158		1-	A	B1
D 3008	LED				SSC-UBMGFRT722	G2071158		1-	A	B2
D 3009	LED				SSC-UBMGFRT722	G2071158		1-	A	J1
D 3010	LED				SSC-UBMGFRT722	G2071158		1-	A	J2
D 3011	LED				SSC-UBMGFRT722	G2071158		1-	A	B2
D 3012	LED				19-213/S2C-AN1P2B/3T	G2071096		1-	A	K3
D 3013	LED				19-213/S2C-AN1P2B/3T	G2071096		1-	A	I3
D 3014	LED				19-213/S2C-AN1P2B/3T	G2071096		1-	A	E4
D 3015	LED				19-213/S2C-AN1P2B/3T	G2071096		1-	A	K2
D 3016	LED				19-213/S2C-AN1P2B/3T	G2071096		1-	A	I4
D 3017	LED				19-213/S2C-AN1P2B/3T	G2071096		1-	A	E3
D 3018	LED				SSC-UBMGFRT722	G2071158		1-	A	B1
D 3019	LED				SSC-UBMGFRT722	G2071158		1-	A	J1

PANEL Unit

Parts List

REF	DESCRIPTION	VALUE	V/W	TOL.	MFR'S DESIG	VXSTD P/N	VERS.	LOT	SIDE	LAY ADR
D 3020	LED				SSC-UBMGFRT722	G2071158		1-	A	J2
D 3023	LED				19-213/S2C-AN1P2B/3T	G2071096		1-	A	K1
D 3024	LED				19-213/S2C-AN1P2B/3T	G2071096		1-	A	F3
D 3025	LED				19-213/S2C-AN1P2B/3T	G2071096		1-	A	D3
D 3026	LED				19-213/S2C-AN1P2B/3T	G2071096		1-	A	K1
D 3027	LED				19-213/S2C-AN1P2B/3T	G2071096		1-	A	F4
D 3028	LED				19-213/S2C-AN1P2B/3T	G2071096		1-	A	C3
DS3001	LCD				TB1775BMELTFN-F	G6090182		1-	A	F2
DS3001	LCD				TB1775BMELTFN-F	G6090182A		6-	A	F2
J 3002	CONNECTOR				SB20-04VWL	P0090826		1-	B	c4
J 3003	CONNECTOR				09FMN-BMTTN-TFT(LF)(SN)	P1091089		1-	B	f3
J 3007	CONNECTOR				LGM1509-0202F	P1091310		1-	A	A1
J 3008	CONNECTOR				LGM1509-0202F	P1091310		1-	A	A2
J 3009	CONNECTOR				R41-2509R	P1091243		1-	A	A4
J 3010	CONNECTOR				30FLT-SM2-TB(LF)(SN)	P1091142		1-	B	j3
L 3011	M.RFC	1uH			LK1608 1R0K-T	L1690687		1-	B	f4
Q 3001	IC				NJU6432BFG1	G1094354		1-	B	h2
Q 3003	IC				S-812C50AUA-C3E-T2G	G1093652		1-	B	k3
Q 3005	IC				PST3445UR	G1093232		1-	B	f4
Q 3006	IC				NJU6432BFG1	G1094354		1-	B	g2
Q 3007	TRANSISTOR				DTC114EUA T106	G3070084		1-	B	f4
Q 3008	TRANSISTOR				PDTC144EE	G3070244		1-	B	f3
Q 3009	IC				UPD78F0514GA(T)-8EU-A	✖		1-	B	f3
Q 3010	IC				NJU6432BFG1	G1094354		1-	B	e2
Q 3011	IC				TA75S01F(TE85R.F)	G1091593		1-	B	c2
Q 3012	IC				NJU6432BFG1	G1094354		1-	B	c2
Q 3014	TRANSISTOR				2SC1623-T2BL7	G3316237G		1-	B	a3
Q 3015	TRANSISTOR				2SC1623-T2BL7	G3316237G		1-	B	b3
Q 3016	TRANSISTOR				2SC1623-T2BL7	G3316237G		1-	B	b3
Q 3017	TRANSISTOR				2SC1623-T2BL7	G3316237G		1-	B	b3
Q 3018	TRANSISTOR				2SB624-T2B BV4	G3206247D		1-	B	a2
Q 3019	TRANSISTOR				2SB624-T2B BV4	G3206247D		1-	B	b2
Q 3020	TRANSISTOR				2SB624-T2B BV4	G3206247D		1-	B	b2
Q 3021	TRANSISTOR				2SB624-T2B BV4	G3206247D		1-	B	b2
Q 3022	IC				NJM78L05UA-TE1	G1091325		1-	B	j4
R 3001	CHIP RES.	10k	1/16W	5%	RMC1/16S 103JTH	J24189037		1-	B	c4
R 3002	CHIP RES.	10k	1/16W	5%	RMC1/16S 103JTH	J24189037		1-	B	c4
R 3003	CHIP RES.	10k	1/16W	5%	RMC1/16S 103JTH	J24189037		1-	B	i4
R 3004	CHIP RES.	10k	1/16W	5%	RMC1/16S 103JTH	J24189037		1-	B	i4
R 3005	CHIP RES.	47k	1/16W	5%	RMC1/16S 473JTH	J24189045		1-	B	i4
R 3006	CHIP RES.	47k	1/16W	5%	RMC1/16S 473JTH	J24189045		1-	B	i4
R 3007	CHIP RES.	47k	1/16W	5%	RMC1/16S 473JTH	J24189045		1-	B	h1
R 3008	CHIP RES.	100k	1/16W	5%	RMC1/16S 104JTH	J24189049		1-	B	j3
R 3009	CHIP RES.	1k	1/16W	5%	RMC1/16S 102JTH	J24189025		1-	B	j3
R 3010	CHIP RES.	1k	1/16W	5%	RMC1/16S 102JTH	J24189025		1-	B	j3
R 3011	CHIP RES.	1k	1/16W	5%	RMC1/16S 102JTH	J24189025		1-	B	j3
R 3012	CHIP RES.	1k	1/16W	5%	RMC1/16S 102JTH	J24189025		1-	B	j3
R 3018	CHIP RES.	47k	1/16W	5%	RMC1/16S 473JTH	J24189045		1-	B	f1
R 3020	CHIP RES.	470	1/16W	5%	RMC1/16S 471JTH	J24189021		1-	B	f4
R 3023	CHIP RES.	100k	1/16W	5%	RMC1/16S 104JTH	J24189049		1-2	B	f4
R 3024	CHIP RES.	470	1/16W	5%	RMC1/16 471JATP	J24185471		1-	B	f3
R 3026	CHIP RES.	4.7k	1/16W	5%	RMC1/16 472JATP	J24185472		1-	B	f3
R 3027	CHIP RES.	0	1/16W	5%	RMC1/16S JPTH	J24189070		1-	B	f3
R 3028	CHIP RES.	0	1/16W	5%	RMC1/16S JPTH	J24189070		1-	B	f3
R 3029	CHIP RES.	4.7k	1/16W	5%	RMC1/16S 472JTH	J24189033		1-	B	a3
R 3030	CHIP RES.	47k	1/16W	5%	RMC1/16S 473JTH	J24189045		1-	B	d1
R 3031	CHIP RES.	1k	1/16W	5%	RMC1/16S 102JTH	J24189025		1-	B	i2
R 3032	CHIP RES.	4.7k	1/16W	5%	RMC1/16S 472JTH	J24189033		1-	B	b3
R 3033	CHIP RES.	1k	1/16W	5%	RMC1/16S 102JTH	J24189025		1-	B	i2
R 3034	CHIP RES.	1k	1/16W	5%	RMC1/16S 102JTH	J24189025		1-	B	i2
R 3035	CHIP RES.	1k	1/16W	5%	RMC1/16S 102JTH	J24189025		1-	B	i2
R 3036	CHIP RES.	33k	1/16W	5%	RMC1/16S 333JTH	J24189043		1-	B	c2
R 3037	CHIP RES.	1k	1/16W	5%	RMC1/16S 102JTH	J24189025		1-	B	i2
R 3038	CHIP RES.	1k	1/16W	5%	RMC1/16S 102JTH	J24189025		1-	B	i2
R 3039	CHIP RES.	1k	1/16W	5%	RMC1/16S 102JTH	J24189025		1-	B	g3
R 3040	CHIP RES.	4.7k	1/16W	5%	RMC1/16S 472JTH	J24189033		1-	B	b3
R 3041	CHIP RES.	4.7k	1/16W	5%	RMC1/16S 472JTH	J24189033		1-	B	b3
R 3042	CHIP RES.	10	1/16W	5%	RMC1/16 100JATP	J24185100		1-	B	f3
R 3043	CHIP RES.	47k	1/16W	5%	RMC1/16S 473JTH	J24189045		1-	B	c1
R 3044	CHIP RES.	100k	1/16W	5%	RMC1/16S 104JTH	J24189049		1-	B	c2
R 3045	CHIP RES.	10	1/16W	5%	RMC1/16 100JATP	J24185100		1-	B	c2
R 3048	CHIP RES.	1k	1/10W	5%	RMC1/10T 102J	J24205102		1-	B	a2
R 3049	CHIP RES.	1k	1/10W	5%	RMC1/10T 102J	J24205102		1-	B	b2

PANEL Unit

Parts List

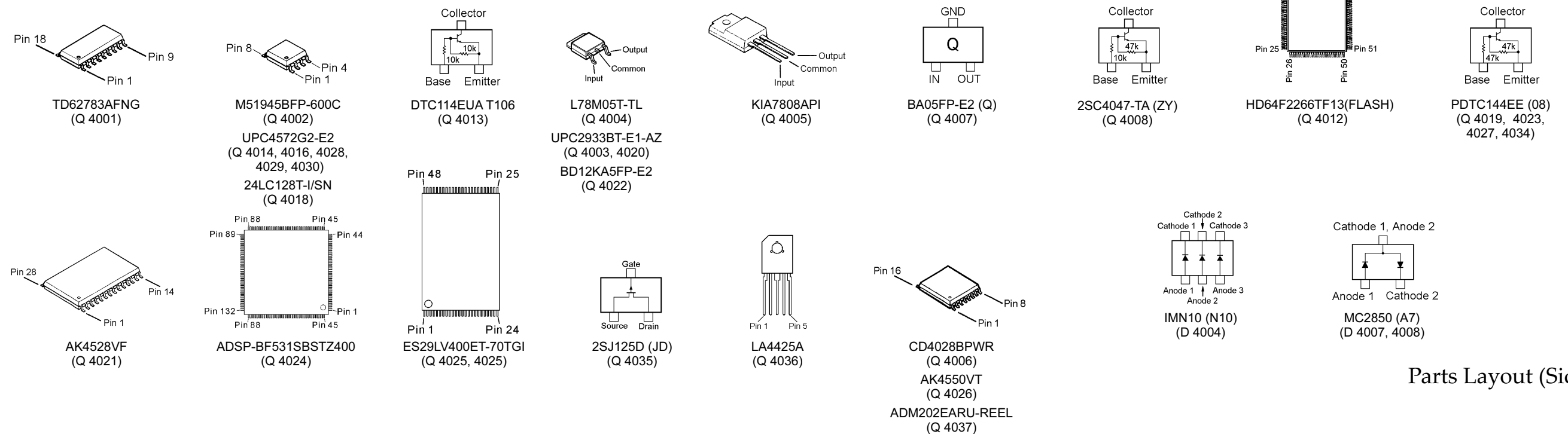
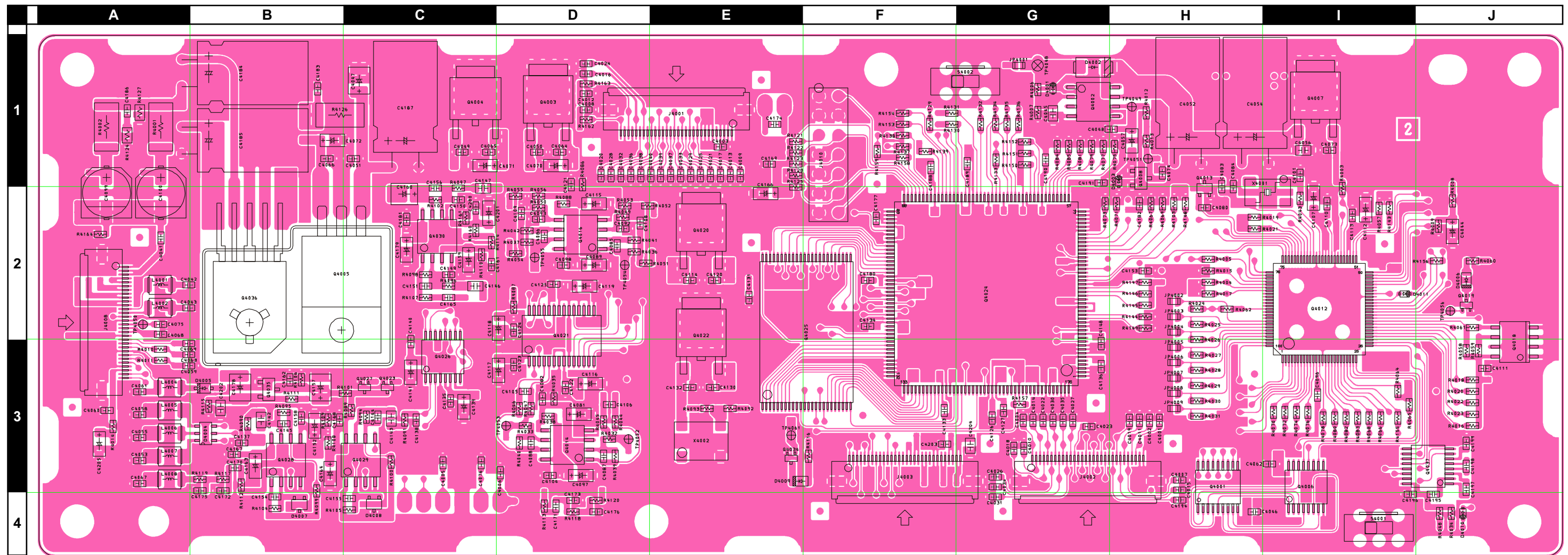
REF	DESCRIPTION	VALUE	V/W	TOL.	MFR'S DESIG	VXSTD P/N	VERS.	LOT	SIDE	LAY ADR
R 3050	CHIP RES.	1k	1/10W	5%	RMC1/10T 102J	J24205102		1-	B	b2
R 3051	CHIP RES.	1k	1/10W	5%	RMC1/10T 102J	J24205102		1-	B	b2
R 3053	CHIP RES.	680	1/2W	5%	RMC1/2 681JCTP	J24275681		1-	B	a3
R 3054	CHIP RES.	680	1/2W	5%	RMC1/2 681JCTP	J24275681		1-	B	b3
R 3055	CHIP RES.	680	1/2W	5%	RMC1/2 681JCTP	J24275681		1-	B	b3
R 3056	CHIP RES.	680	1/2W	5%	RMC1/2 681JCTP	J24275681		1-	B	b3
R 3060	CHIP RES.	0	1/10W	5%	RMC1/10T 000J	J24205000		1-	B	b3
R 3062	CHIP RES.	0	1/10W	5%	RMC1/10T 000J	J24205000		1-	B	b3
R 3064	CHIP RES.	0	1/10W	5%	RMC1/10T 000J	J24205000		1-	B	b3
R 3066	CHIP RES.	0	1/10W	5%	RMC1/10T 000J	J24205000		1-	B	b3
R 3067	CHIP RES.	100	1/10W	5%	RMC1/10T 101J	J24205101		1-	B	a3
R 3068	CHIP RES.	100	1/10W	5%	RMC1/10T 101J	J24205101		1-	B	c3
R 3069	CHIP RES.	100	1/10W	5%	RMC1/10T 101J	J24205101		1-	B	g4
R 3070	CHIP RES.	390	1/10W	5%	RMC1/10T 391J	J24205391		1-	B	j1
R 3071	CHIP RES.	82	1/10W	5%	RMC1/10T 820J	J24205820		1-	B	j1
R 3074	CHIP RES.	68	1/10W	5%	RMC1/10T 680J	J24205680		1-	B	j2
R 3076	CHIP RES.	68	1/10W	5%	RMC1/10T 680J	J24205680		1-	B	b1
R 3078	CHIP RES.	68	1/10W	5%	RMC1/10T 680J	J24205680		1-	B	b1
R 3079	CHIP RES.	390	1/10W	5%	RMC1/10T 391J	J24205391		1-	B	j2
R 3080	CHIP RES.	82	1/10W	5%	RMC1/10T 820J	J24205820		1-	B	j2
R 3081	CHIP RES.	390	1/10W	5%	RMC1/10T 391J	J24205391		1-	B	b1
R 3082	CHIP RES.	82	1/10W	5%	RMC1/10T 820J	J24205820		1-	B	b1
R 3083	CHIP RES.	390	1/10W	5%	RMC1/10T 391J	J24205391		1-	B	b1
R 3084	CHIP RES.	82	1/10W	5%	RMC1/10T 820J	J24205820		1-	B	b1
R 3085	CHIP RES.	1k	1/16W	5%	RMC1/16S 102JTH	J24189025		1-	B	a3
R 3086	CHIP RES.	1k	1/16W	5%	RMC1/16S 102JTH	J24189025		1-	B	c3
R 3088	CHIP RES.	68	1/10W	5%	RMC1/10T 680J	J24205680		1-	B	j1
R 3089	CHIP RES.	0	1/16W	5%	RMC1/16S JPTH	J24189070		1-	B	j1
R 3090	CHIP RES.	0	1/16W	5%	RMC1/16S JPTH	J24189070		1-	B	j2
R 3091	CHIP RES.	0	1/16W	5%	RMC1/16S JPTH	J24189070		1-	B	b1
R 3092	CHIP RES.	0	1/16W	5%	RMC1/16S JPTH	J24189070		1-	B	b2
R 3096	CHIP RES.	10	1/16W	5%	RMC1/16 100JATP	J24185100		1-	B	k4
R 3099	CHIP RES.	33k	1/16W	5%	RMC1/16S 333JTH	J24189043		1-	B	c2
R 3101	CHIP RES.	1	1/4W	5%	RMC1/4 1R0JATP	J24245010		1-	B	j1
R 3102	CHIP RES.	1.8k	1/10W	5%	RMC1/10T 182J	J24205182		1-	B	a3
R 3103	CHIP RES.	2.7k	1/10W	5%	RMC1/10T 272J	J24205272		1-	B	c4
R 3104	CHIP RES.	2.7k	1/10W	5%	RMC1/10T 272J	J24205272		1-	B	f3
R 3105	CHIP RES.	1.8k	1/10W	5%	RMC1/10T 182J	J24205182		1-	B	g4
R 3108	CARBON FILM RES.	4.7k	1/6W	5%	RD16TPJ472 4.7K	J07225472		3-		
RB3001	BLOCK RES.				MNR04M0ABJ102	J42900039		1-	B	f4
S 3001	ROTARY ENCODER				EC12E24244A4	Q9000796		1-	A	D4
S 3002	TACT SWITCH				SKHUPDE010	N5090126		1-	A	B3
S 3003	TACT SWITCH				SKHUPDE010	N5090126		1-	A	C3
S 3004	TACT SWITCH				SKHUPDE010	N5090126		1-	A	D3
S 3005	TACT SWITCH				SKHUPDE010	N5090126		1-	A	E3
S 3006	TACT SWITCH				SKHUPDE010	N5090126		1-	A	E3
S 3007	TACT SWITCH				SKHUPDE010	N5090126		1-	A	E4
S 3008	TACT SWITCH				SKHUPDE010	N5090126		1-	A	E3
S 3009	TACT SWITCH				SKHUPDE010	N5090126		1-	A	E4
S 3010	TACT SWITCH				SKHUPDE010	N5090126		1-	A	E3
S 3011	TACT SWITCH				SKHUPDE010	N5090126		1-	A	F3
S 3012	TACT SWITCH				SKHUPDE010	N5090126		1-	A	F3
S 3013	TACT SWITCH				SKHUPDE010	N5090126		1-	A	F4
S 3014	TACT SWITCH				SKHUPDE010	N5090126		1-	A	I3
S 3015	TACT SWITCH				SKHUPDE010	N5090126		1-	A	I3
S 3016	TACT SWITCH				SKHUPDE010	N5090126		1-	A	I3
S 3017	TACT SWITCH				SKHUPDE010	N5090126		1-	A	I4
S 3018	TACT SWITCH				SKHUPDE010	N5090126		1-	A	J1
S 3019	TACT SWITCH				SKHUPDE010	N5090126		1-	A	J1
S 3020	TACT SWITCH				SKHUPDE010	N5090126		1-	A	J2
S 3021	TACT SWITCH				SKHUPDE010	N5090126		1-	A	J3
S 3022	TACT SWITCH				SKHUPDE010	N5090126		1-	A	K1
S 3023	TACT SWITCH				SKHUPDE010	N5090126		1-	A	K1
S 3024	TACT SWITCH				SKHUPDE010	N5090126		1-	A	K2
S 3025	TACT SWITCH				SKHUPDE010	N5090126		1-	A	K3
VR3001	POT.				RH96N74 23F B103 RY-7862	J60800285		1-	A	K4
VR3002	POT.				RH96N74 23F B103 RY-7862	J60800285		1-	A	J4
VR3003	POT.				RH96N74 23F B103 RY-7862	J60800285		1-	A	B4
X 3001	XTAL TSS-6035B	19.82MHz			19.820MHZ	H0103262A		1-	B	f3
	LCD HOLDER				(LCD)	RA0899500		1-		
	SPONGE RUBBER				(LCD)	RA0899600		1		
	SPONGE RUBBER					RA089960A		2-		
	LIGHT GUIDE					RA089970A		1-		

Parts List

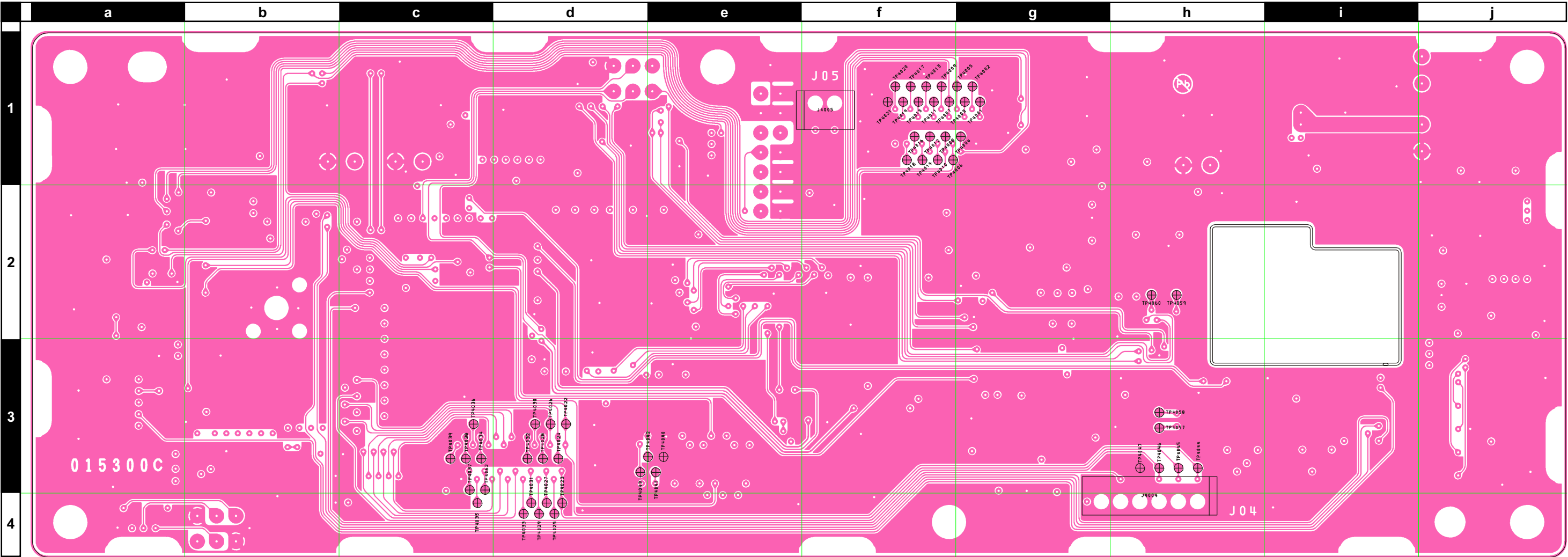
FT-450 Technical Supplement

Circuit Diagram





Parts Layout (Side A)



Parts Layout (Side B)

REF	DESCRIPTION	VALUE	V/W	TOL.	MFR'S DESIG	VXSTD P/N	VERS.	LOT	SIDE	LAY ADR
	PCB with Components					CS1923004	USA			
	PCB with Components					CS1923005	EXPORT			
	PCB with Components					CS1923006	EUROPE			
	PCB with Components					CS1923007	UNITED KINGDOM			
	PCB with Components					CS1923008	FRANCE			
	PCB with Components					CS1923009	AUSTRALIA			
	Printed Circuit Board					FR015300C		1-		
C 4001	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	A	H3
C 4002	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	A	H3
C 4006	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	A	D3
C 4007	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	A	H3
C 4008	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	A	D1
C 4011	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	A	H3
C 4012	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	A	D1
C 4015	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	A	H3
C 4016	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	A	D1
C 4019	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	A	H3
C 4020	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	A	D1
C 4021	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	A	E1
C 4023	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	A	G3
C 4024	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	A	D1
C 4025	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	A	E1
C 4027	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	A	G3
C 4028	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	A	D1
C 4029	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	A	E1
C 4030	CHIP CAP.	100pF	50V	CH	GRM1882C1H101JA01D	K22174235		1-	A	G3
C 4031	CHIP CAP.	100pF	50V	CH	GRM1882C1H101JA01D	K22174235		1-	A	G4
C 4033	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	A	E1
C 4034	CHIP CAP.	100pF	50V	CH	GRM1882C1H101JA01D	K22174235		1-	A	G3
C 4035	CHIP CAP.	100pF	50V	CH	GRM1882C1H101JA01D	K22174235		1-	A	G3
C 4036	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	A	D1
C 4037	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	A	E1
C 4038	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	A	D1
C 4039	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	A	E1
C 4040	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	A	D1
C 4042	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	A	A2
C 4043	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	A	A2
C 4044	CHIP TA.CAP.	4.7uF	16V		TEMSVA1C475M-8R	K78120031		1-	A	J2
C 4045	CHIP CAP.	0.1uF	25V	B	GRM40B104M25PT	K22140811		1-	A	G1
C 4046	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	A	H4
C 4047	CHIP TA.CAP.	4.7uF	25V		TEMSVB21E475M-8R	K78140019		1-	A	C1
C 4048	CHIP CAP.	0.1uF	16V	B	GRM188B11C104KA01D	K22124805		1-	A	H1
C 4049	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	A	C1
C 4050	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	A	D1
C 4051	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	A	C1
C 4052	AL.ELECTRO.CAP.	470uF	16V		RE3-16V471MG3#	K40129066		1-	A	H1
C 4053	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	A	A3
C 4054	AL.ELECTRO.CAP.	470uF	16V		RE3-16V471MG3#	K40129066		1-	A	H1
C 4055	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	A	A3
C 4056	CHIP CAP.	0.1uF	25V	B	GRM40B104M25PT	K22140811		1-	A	I1
C 4057	CHIP TA.CAP.	1.5uF	16V		TESVA1C155M1-8R	K78120020		1-	A	H1
C 4058	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	A	A3
C 4059	CHIP CAP.	0.001uF	50V	B	GRM188B11H102KA01D	K22174809		1-	A	A3
C 4060	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	A	A3
C 4061	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	A	A3
C 4062	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	A	I3
C 4063	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	A	A3
C 4064	CHIP CAP.	0.047uF	16V	B	GRM39B473K16PT	K22124804		1-	A	D1
C 4065	CHIP CAP.	0.047uF	16V	B	GRM39B473K16PT	K22124804		1-	A	C1
C 4066	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	A	B1
C 4068	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	A	A2
C 4069	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	A	A3
C 4070	CHIP TA.CAP.	10uF	10V		TEMSVA1A106M-8R	K78100028		1-	A	D1
C 4071	CHIP TA.CAP.	10uF	10V		TEMSVA1A106M-8R	K78100028		1-	A	C1
C 4072	CHIP TA.CAP.	4.7uF	16V		TEMSVA1C475M-8R	K78120031		1-	A	B1
C 4073	CHIP CAP.	0.1uF	16V	B	GRM188B11C104KA01D	K22124805		1-	A	I1
C 4074	CHIP CAP.	0.1uF	16V	B	GRM188B11C104KA01D	K22124805		1-	A	H1
C 4075	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	A	A2
C 4081	CHIP TA.CAP.	10uF	10V		TEMSVA1A106M-8R	K78100028		1-	A	D3
C 4082	CHIP CAP.	0.022uF	25V	B	GRM39B223K25PT	K22144807		1-	A	D3
C 4083	CHIP CAP.	12pF	50V	CH	GRM1882C1H120JA01D	K22174213		1-	A	H1
C 4084	CHIP CAP.	8pF	50V	CH	GRM1882C1H8R0DZ01D	K22174209		1-	A	H1
C 4085	CHIP CAP.	430pF	50V	CH	GRM1882C1H431JA01D	K22174256		1-	A	D2

CNTL Unit

Parts List

REF	DESCRIPTION	VALUE	V/W	TOL.	MFR'S DESIG	VXSTD P/N	VERS.	LOT	SIDE	LAY ADR
C 4086	CHIP CAP.	430pF	50V	CH	GRM1882C1H431JA01D	K22174256		1-	A	D2
C 4087	CHIP CAP.	47pF	50V	CH	GRM1882C1H470JA01D	K22174227		1-	A	D3
C 4088	CHIP CAP.	47pF	50V	CH	GRM1882C1H470JA01D	K22174227		1-	A	D3
C 4089	CHIP TA.CAP.	10uF	10V		TEMSVA1A106M-8R	K78100028		1-	A	D2
C 4092	CHIP CAP.	430pF	50V	CH	GRM1882C1H431JA01D	K22174256		1-	A	D2
C 4093	CHIP CAP.	430pF	50V	CH	GRM1882C1H431JA01D	K22174256		1-	A	D2
C 4096	CHIP CAP.	0.22uF	10V	B	GRM188B11A224KA01D	K22104801		1-	A	I3
C 4097	CHIP TA.CAP.	10uF	10V		TEMSVA1A106M-8R	K78100028		1-	A	D3
C 4098	CHIP CAP.	0.022uF	25V	B	GRM39B223K25PT	K22144807		1-	A	D2
C 4099	AL.ELECTRO.CAP.	22uF	50V		EEE1HA220WP	K48170026		1-	A	A2
C 4100	AL.ELECTRO.CAP.	22uF	50V		EEE1HA220WP	K48170026		1-	A	A2
C 4101	CHIP CAP.	10pF	50V	CH	GRM1882C1H100JA01D	K22174211		1-	A	I1
C 4104	CHIP CAP.	0.022uF	25V	B	GRM39B223K25PT	K22144807		1-	A	D3
C 4105	CHIP CAP.	0.0012uF	50V	B	GRM188B11H122KA01D	K22174810		1-	A	D3
C 4106	CHIP CAP.	0.0012uF	50V	B	GRM188B11H122KA01D	K22174810		1-	A	D3
C 4107	CHIP TA.CAP.	10uF	10V		TEMSVA1A106M-8R	K78100028		1-	A	I2
C 4108	CHIP CAP.	0.0033uF	50V	B	GRM188B11H332KA01D	K22174831		1-	A	D2
C 4109	CHIP CAP.	0.0033uF	50V	B	GRM188B11H332KA01D	K22174831		1-	A	D2
C 4110	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	A	I2
C 4111	CHIP CAP.	0.1uF	16V	B	GRM188B11C104KA01D	K22124805		1-	A	J3
C 4112	CHIP TA.CAP.	10uF	10V		TEMSVA1A106M-8R	K78100028		1-	A	I2
C 4113	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	A	I2
C 4114	CHIP CAP.	0.1uF	16V	B	GRM188B11C104KA01D	K22124805		1-	A	E2
C 4115	CHIP TA.CAP.	10uF	10V		TEMSVA1A106M-8R	K78100028		1-	A	D2
C 4116	CHIP TA.CAP.	10uF	10V		TEMSVA1A106M-8R	K78100028		1-	A	D3
C 4117	CHIP TA.CAP.	10uF	10V		TEMSVA1A106M-8R	K78100028		1-	A	D3
C 4118	CHIP TA.CAP.	10uF	10V		TEMSVA1A106M-8R	K78100028		1-	A	D2
C 4119	CHIP TA.CAP.	10uF	10V		TEMSVA1A106M-8R	K78100028		1-	A	D2
C 4120	CHIP CAP.	0.1uF	16V	B	GRM188B11C104KA01D	K22124805		1-	A	E2
C 4121	CHIP CAP.	0.022uF	25V	B	GRM39B223K25PT	K22144807		1-	A	D1
C 4122	CHIP CAP.	0.022uF	25V	B	GRM39B223K25PT	K22144807		1-	A	D3
C 4123	CHIP CAP.	0.022uF	25V	B	GRM39B223K25PT	K22144807		1-	A	D3
C 4124	CHIP CAP.	0.022uF	25V	B	GRM39B223K25PT	K22144807		1-	A	D2
C 4125	CHIP CAP.	0.022uF	25V	B	GRM39B223K25PT	K22144807		1-	A	D2
C 4126	CHIP CAP.	0.1uF	16V	B	GRM188B11C104KA01D	K22124805		1-	A	G3
C 4127	CHIP CAP.	0.1uF	16V	B	GRM188B11C104KA01D	K22124805		1-	A	G3
C 4130	CHIP CAP.	0.1uF	16V	B	GRM188B11C104KA01D	K22124805		1-	A	E3
C 4131	CHIP CAP.	0.1uF	16V	B	GRM188B11C104KA01D	K22124805		1-	A	E2
C 4132	CHIP CAP.	0.022uF	25V	B	GRM39B223K25PT	K22144807		1-	A	E3
C 4133	CHIP CAP.	0.1uF	16V	B	GRM188B11C104KA01D	K22124805		1-	A	F3
C 4134	CHIP CAP.	0.1uF	16V	B	GRM188B11C104KA01D	K22124805		1-	A	F2
C 4135	CHIP CAP.	0.1uF	16V	B	GRM188B11C104KA01D	K22124805		1-	A	C3
C 4136	CHIP CAP.	0.1uF	16V	B	GRM188B11C104KA01D	K22124805		1-	A	G3
C 4137	CHIP CAP.	0.0022uF	50V	B	GRM188B11H222KA01D	K22174813		1-	A	B3
C 4138	CHIP CAP.	0.0022uF	50V	B	GRM188B11H222KA01D	K22174813		1-	A	C3
C 4139	CHIP TA.CAP.	10uF	10V		TEMSVA1A106M-8R	K78100028		1-	A	C3
C 4140	CHIP CAP.	0.1uF	16V	B	GRM188B11C104KA01D	K22124805		1-	A	C3
C 4141	CHIP TA.CAP.	10uF	10V		TEMSVA1A106M-8R	K78100028		1-	A	C3
C 4142	CHIP CAP.	1uF	10V	B	GRM40B105K10PT	K22100802		1-	A	B3
C 4143	CHIP CAP.	1uF	10V	B	GRM40B105K10PT	K22100802		1-	A	C3
C 4144	CHIP CAP.	0.0082uF	25V	B	GRM39B822M25PT	K22144801		1-	A	C3
C 4145	CHIP CAP.	0.0082uF	25V	B	GRM39B822M25PT	K22144801		1-	A	B3
C 4146	CHIP CAP.	1uF	10V	B	GRM40B105K10PT	K22100802		1-	A	C2
C 4147	CHIP CAP.	1uF	10V	B	GRM40B105K10PT	K22100802		1-	A	C1
C 4148	CHIP CAP.	0.1uF	16V	B	GRM188B11C104KA01D	K22124805		1-	A	G3
C 4149	CHIP CAP.	0.0033uF	50V	B	GRM188B11H332KA01D	K22174831		1-	A	C2
C 4150	CHIP CAP.	0.0033uF	50V	B	GRM188B11H332KA01D	K22174831		1-	A	C2
C 4151	CHIP CAP.	0.0039uF	50V	B	GRM188B11H392KA01D	K22174830		1-	A	C2
C 4152	CHIP TA.CAP.	10uF	10V		TEMSVA1A106M-8R	K78100028		1-	A	B3
C 4153	CHIP CAP.	0.1uF	16V	B	GRM188B11C104KA01D	K22124805		1-	A	H2
C 4154	CHIP CAP.	390pF	50V	CH	GRM1882C1H391JA01D	K22174255		1-	A	B4
C 4155	CHIP CAP.	390pF	50V	CH	GRM1882C1H391JA01D	K22174255		1-	A	C4
C 4156	CHIP CAP.	0.0039uF	50V	B	GRM188B11H392KA01D	K22174830		1-	A	C1
C 4157	CHIP TA.CAP.	3.3uF	16V		TESVB21C335M8R	K78120010		1-	A	B3
C 4158	CHIP CAP.	0.022uF	25V	B	GRM39B223K25PT	K22144807		1-	A	B3
C 4159	CHIP TA.CAP.	47uF	4V		SK7-0G476M-RA	K78060048		1-	A	C2
C 4160	CHIP TA.CAP.	3.3uF	16V		TESVB21C335M8R	K78120010		1-	A	C2
C 4161	CHIP CAP.	0.022uF	25V	B	GRM39B223K25PT	K22144807		1-	A	C2
C 4162	CHIP CAP.	0.001uF	50V	B	GRM188B11H102KA01D	K22174809		1-	A	B3
C 4163	CHIP TA.CAP.	10uF	10V		TEMSVA1A106M-8R	K78100028		1-	A	B3
C 4164	CHIP TA.CAP.	10uF	10V		TEMSVA1A106M-8R	K78100028		1-	A	B3
C 4165	CHIP CAP.	0.22uF	10V	B	GRM188B11A224KA01D	K22104801		1-	A	C2
C 4166	CHIP TA.CAP.	1uF	16V		TESVA1C105M1-8R	K78120009		1-	A	E2

REF	DESCRIPTION	VALUE	V/W	TOL.	MFR'S DESIG	VXSTD P/N	VERS.	LOT	SIDE	LAY ADR
C 4167	CHIP CAP.	0.022uF	25V	B	GRM39B223K25PT	K22144807		1-	A	B3
C 4168	CHIP CAP.	0.022uF	25V	B	GRM39B223K25PT	K22144807		1-	A	B3
C 4169	CHIP CAP.	0.1uF	16V	B	GRM188B11C104KA01D	K22124805		1-	A	E1
C 4170	CHIP CAP.	0.22uF	10V	B	GRM188B11A224KA01D	K22104801		1-	A	B3
C 4171	CHIP CAP.	0.22uF	10V	B	GRM188B11A224KA01D	K22104801		1-	A	D4
C 4172	CHIP CAP.	100pF	50V	CH	GRM1882C1H101JA01D	K22174235		1-	A	B3
C 4173	CHIP CAP.	100pF	50V	CH	GRM1882C1H101JA01D	K22174235		1-	A	D4
C 4175	CHIP CAP.	100pF	50V	CH	GRM1882C1H101JA01D	K22174235		1-	A	B3
C 4176	CHIP CAP.	100pF	50V	CH	GRM1882C1H101JA01D	K22174235		1-	A	D4
C 4177	CHIP CAP.	0.1uF	16V	B	GRM188B11C104KA01D	K22124805		1-	A	F2
C 4178	CHIP TA.CAP.	3.3uF	16V		TESVB21C335M8R	K78120010		1-	A	B3
C 4179	CHIP TA.CAP.	10uF	10V		TEMSVA1A106M-8R	K78100028		1-	A	C2
C 4180	CHIP CAP.	0.1uF	16V	B	GRM188B11C104KA01D	K22124805		1-	A	F2
C 4181	CHIP CAP.	0.022uF	25V	B	GRM39B223K25PT	K22144807		1-	A	C2
C 4182	CHIP CAP.	0.1uF	16V	B	GRM188B11C104KA01D	K22124805		1-	A	H2
C 4183	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	A	B1
C 4184	AL.ELECTRO.CAP.	470uF	16V		RE3-16V471MG3#	K40129066		1-	A	A1
C 4185	AL.ELECTRO.CAP.	470uF	16V		RE3-16V471MG3#	K40129066		1-	A	A1
C 4186	CHIP CAP.	0.1uF	16V	B	GRM188B11C104KA01D	K22124805		1-	A	A1
C 4187	AL.ELECTRO.CAP.	470uF	16V		RE3-16V471MG3#	K40129066		1-	A	C1
C 4188	CHIP CAP.	0.1uF	16V	B	GRM188B11C104KA01D	K22124805		1-	A	F1
C 4189	CHIP CAP.	0.1uF	16V	B	GRM188B11C104KA01D	K22124805		1-	A	G1
C 4190	CHIP CAP.	0.1uF	16V	B	GRM188B11C104KA01D	K22124805		1-	A	G1
C 4191	CHIP CAP.	0.1uF	16V	B	GRM188B11C104KA01D	K22124805		1-	A	G1
C 4194	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	A	H4
C 4195	CHIP CAP.	0.1uF	16V	B	GRM188B11C104KA01D	K22124805		1-	A	J3
C 4196	CHIP CAP.	0.1uF	16V	B	GRM188B11C104KA01D	K22124805		1-	A	I3
C 4197	CHIP CAP.	0.1uF	16V	B	GRM188B11C104KA01D	K22124805		1-	A	J3
C 4198	CHIP CAP.	0.1uF	16V	B	GRM188B11C104KA01D	K22124805		1-	A	J3
C 4199	CHIP CAP.	0.1uF	16V	B	GRM188B11C104KA01D	K22124805		1-	A	J3
C 4200	CHIP CAP.	0.022uF	25V	B	GRM39B223K25PT	K22144807		1-	A	C2
C 4201	CHIP TA.CAP.	47uF	4V		SK7-0G476M-RA	K78060048		1-	A	C2
C 4202	FILM CAP.	0.0056uF	16V		ECHU1C562JX5	K57120022		1-	A	B3
C 4203	CHIP CAP.	120pF	50V	CH	GRM1882C1H121JA01D	K22174237		1-	A	F3
C 4204	CHIP CAP.	470pF	50V	SL	GRM40SL471J50PT	K22170151		1-	A	G3
C 4205	CHIP TA.CAP.	4.7uF	16V		TEMSVA1C475M-8R	K78120031		1-	A	A3
D 4001	DIODE				RB521S-30 TE61	G2070642		1-	A	G1
D 4002	DIODE				RB060L-40 TE25	G2070744		1-	A	G1
D 4003	DIODE				RB521S-30 TE61	G2070642		1-	A	H1
D 4004	DIODE				1MN10 T108	G2070078		1-	A	B3
D 4005	DIODE				1SS355 TE-17	G2070470		1-	A	B3
D 4006	LED				SML-210DTT86	G2070772		1-	A	J2
D 4007	DIODE				MC2850-T11-1	G2070704		1-	A	B4
D 4008	DIODE				MC2850-T11-1	G2070704		1-	A	C4
D 4009	LED				SML-210DTT86	G2070772		1-	A	E3
D 4010	DIODE				RB521S-30 TE61	G2070642		1-	A	J4
D 4011	DIODE				RB521S-30 TE61	G2070642		1-	A	I2
J 4001	CONNECTOR				9637S-30-Y905	P1091169		1-	A	E1
J 4002	CONNECTOR				9637S-30-Y905	P1091169		1-	A	G3
J 4003	CONNECTOR				9637S-30-Y905	P1091169		1-	A	F3
J 4004	CONNECTOR				SC25-06WS	P0090625		1-	B	h4
J 4005	CONNECTOR				SC25-02WS	P0090621		1-	B	f1
J 4008	CONNECTOR				9637S-30-Y905	P1091169		1-	A	A2
J 4010	CONNECTOR				A1-14PA-2.54DSA(71)	P0091448		1-	A	F1
JP4001	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000		1-	A	G1
JP4003	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000		1-	A	H2
JP4004	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000		1-	A	H2
JP4008	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000		1-	A	H3
JP4008	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000		1-	A	H3
JP4008	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000		1-	A	H3
JP4008	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000		1-	A	H3
JP4008	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000		1-	A	H3
JP4008	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000		1-	A	H3
L 4001	M.RFC	100uH			FLC32T-101J	L1690227		1-	A	A2
L 4002	M.RFC	100uH			FLC32T-101J	L1690227		1-	A	A2
L 4004	M.RFC	100uH			FLC32T-101J	L1690227		1-	A	A3
L 4005	M.RFC	100uH			FLC32T-101J	L1690227		1-	A	A3
L 4006	M.RFC	100uH			FLC32T-101J	L1690227		1-	A	A3
L 4007	M.RFC	100uH			FLC32T-101J	L1690227		1-	A	A3
L 4008	M.RFC	100uH			FLC32T-101J	L1690227		1-	A	A3
Q 4001	IC				TD62783AFNG(5.S.EL)	G1092700		1-	A	H3
Q 4002	IC				M51945BFP-600C	G1091990		1-	A	G1
Q 4003	IC				UPC2933BT-E1-AZ	G1094338		1-	A	D1

CNTL Unit

Parts List

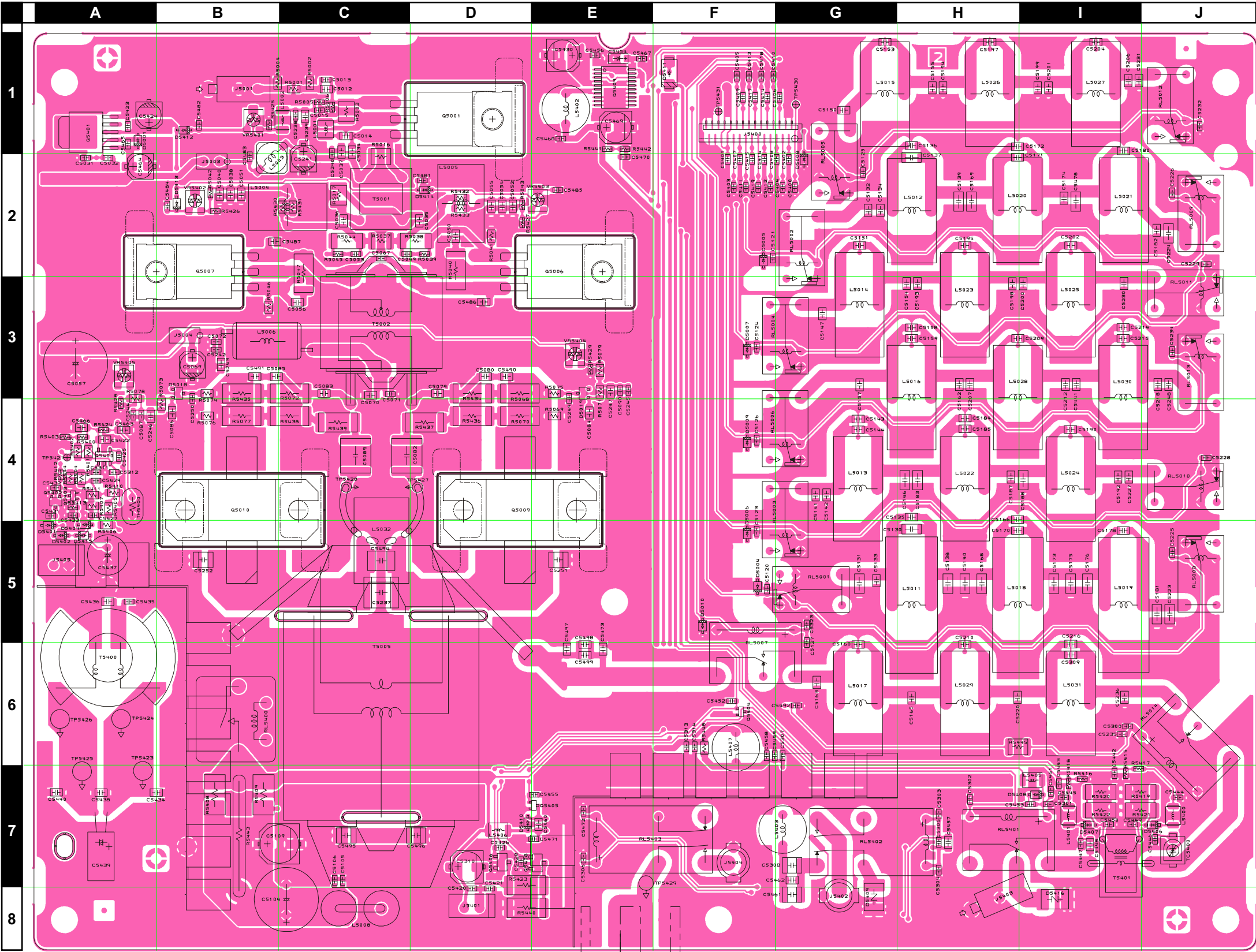
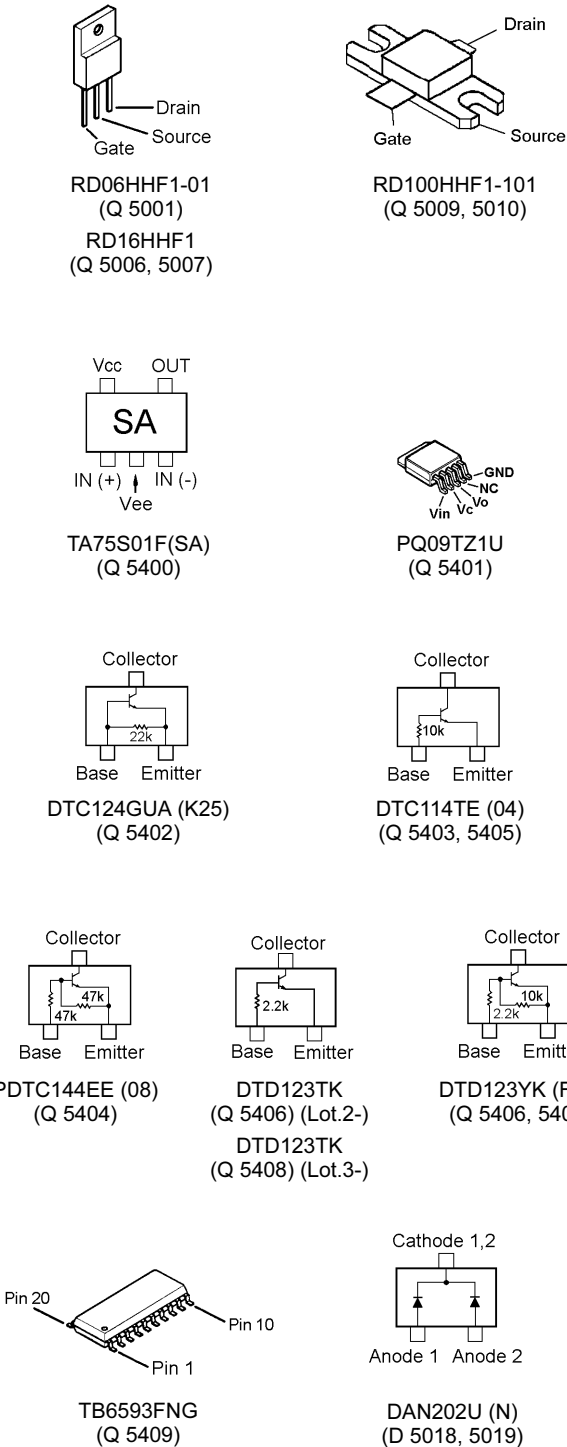
REF	DESCRIPTION	VALUE	V/W	TOL.	MFR'S DESIG	VXSTD P/N	VERS.	LOT	SIDE	LAY ADR
Q 4004	IC				L78M05T-TL	G1091731		1-	A	C1
Q 4005	IC				KIA7808API	G1093164		1-	A	B2
Q 4006	IC				CD4028BPWR	G1093861		1-	A	I3
Q 4007	IC				BA05FP-E2	G1093209		1-	A	I1
Q 4008	TRANSISTOR				2SC4047-TA	G3340477		1-	A	H1
Q 4012	IC				HD64F2266TF13	✖		1-	A	I2
Q 4013	TRANSISTOR				DTC114EUA T106	G3070084		1-	A	H2
Q 4014	IC				UPC4572G2-E2	G1092042		1-	A	D3
Q 4016	IC				UPC4572G2-E2	G1092042		1-	A	D2
Q 4018	IC				24LC128T-I/SN	G1093668		1-	A	J3
Q 4019	TRANSISTOR				PDTC144EE	G3070244		1-	A	J2
Q 4020	IC				UPC2933BT-E1-AZ	G1094338		1-	A	E2
Q 4021	IC				AK4528VF E2	G1093829		1-	A	D2
Q 4022	IC				BD12KA5FP-E2	G1094315		1-	A	E2
Q 4023	TRANSISTOR				PDTC144EE	G3070244		1-	A	C3
Q 4024	IC				ADSP-BF531SBSTZ400	G1094302		1-	A	G2
Q 4025	IC				ES29LV400ET-70TGI	✖		1-	A	F2
Q 4025	IC				ES29LV400ET-70TGI	✖		3-	A	F2
Q 4026	IC				AK4550VT	G1094072		1-	A	C3
Q 4027	TRANSISTOR				PDTC144EE	G3070244		1-	A	C3
Q 4028	IC				UPC4572G2-E2	G1092042		1-	A	B3
Q 4029	IC				UPC4572G2-E2	G1092042		1-	A	C3
Q 4030	IC				UPC4572G2-E2	G1092042		1-	A	C2
Q 4034	TRANSISTOR				PDTC144EE	G3070244		1-	A	E3
Q 4035	FET				2SJ125D-T12-1D	G3701257D		1-	A	B3
Q 4036	IC				LA4425A	G1092241		1-	A	B2
Q 4037	IC				ADM202EARU-REEL	G1092958		1-	A	J3
R 4001	CHIP RES.	120	1W	5%	RMC1 121JTE	J24305121		1-	A	A1
R 4002	CHIP RES.	120	1W	5%	RMC1 121JTE	J24305121		1-	A	A1
R 4003	CHIP RES.	47k	1/16W	5%	RMC1/16 473JATP	J24185473		1-	A	I2
R 4004	CHIP RES.	47k	1/16W	5%	RMC1/16 473JATP	J24185473		1-	A	H2
R 4005	CHIP RES.	47k	1/16W	5%	RMC1/16 473JATP	J24185473		1-	A	H2
R 4006	CHIP RES.	15k	1/16W	5%	RMC1/16 153JATP	J24185153		1-	A	G1
R 4007	CHIP RES.	2.2k	1/16W	5%	RMC1/16 222JATP	J24185222		1-	A	G1
R 4008	CHIP RES.	22k	1/16W	5%	RMC1/16 223JATP	J24185223		1-	A	J2
R 4009	CHIP RES.	6.8k	1/16W	5%	RMC1/16 682JATP	J24185682		1-	A	J2
R 4010	CHIP RES.	100	1/16W	5%	RMC1/16 101JATP	J24185101		1-	A	A3
R 4011	CHIP RES.	100	1/16W	5%	RMC1/16 101JATP	J24185101		1-	A	A3
R 4012	CHIP RES.	47k	1/16W	5%	RMC1/16 473JATP	J24185473		1-	A	H1
R 4013	CHIP RES.	47k	1/16W	5%	RMC1/16 473JATP	J24185473		1-	A	H1
R 4014	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000		1-	A	A3
R 4015	CHIP RES.	47k	1/16W	5%	RMC1/16 473JATP	J24185473		1-	A	H2
R 4016	CHIP RES.	4.7k	1/16W	5%	RMC1/16 472JATP	J24185472		1-	A	J3
R 4017	CHIP RES.	100k	1/16W	5%	RMC1/16 104JATP	J24185104		1-	A	H2
R 4018	CHIP RES.	100k	1/16W	5%	RMC1/16 104JATP	J24185104		1-	A	J3
R 4019	CHIP RES.	100k	1/16W	5%	RMC1/16 104JATP	J24185104		1-	A	H2
R 4020	CHIP RES.	100k	1/16W	5%	RMC1/16 104JATP	J24185104		1-	A	J3
R 4021	CHIP RES.	100k	1/16W	5%	RMC1/16 104JATP	J24185104		1-	A	H2
R 4022	CHIP RES.	100k	1/16W	5%	RMC1/16 104JATP	J24185104		1-	A	J3
R 4023	CHIP RES.	100k	1/16W	5%	RMC1/16 104JATP	J24185104		1-	A	J3
R 4024	CHIP RES.	47k	1/16W	5%	RMC1/16 473JATP	J24185473		1-	A	H2
R 4025	CHIP RES.	47k	1/16W	5%	RMC1/16 473JATP	J24185473		1-	A	H2
R 4026	CHIP RES.	47k	1/16W	5%	RMC1/16 473JATP	J24185473		1-	A	H2
R 4027	CHIP RES.	47k	1/16W	5%	RMC1/16 473JATP	J24185473		1-	A	H3
R 4028	CHIP RES.	47k	1/16W	5%	RMC1/16 473JATP	J24185473		1-	A	H3
R 4029	CHIP RES.	47k	1/16W	5%	RMC1/16 473JATP	J24185473		1-	A	H3
R 4030	CHIP RES.	47k	1/16W	5%	RMC1/16 473JATP	J24185473		1-	A	H3
R 4031	CHIP RES.	47k	1/16W	5%	RMC1/16 473JATP	J24185473		1-	A	H3
R 4032	CHIP RES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103		1-	A	D3
R 4033	CHIP RES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103		1-	A	D3
R 4034	CHIP RES.	3.3k	1/16W	5%	RMC1/16 332JATP	J24185332		1-	A	J4
R 4035	CHIP RES.	220	1/16W	5%	RMC1/16 221JATP	J24185221		1-	A	D3
R 4036	CHIP RES.	4.7k	1/16W	5%	RMC1/16 472JATP	J24185472		1-	A	D2
R 4037	CHIP RES.	4.7k	1/16W	5%	RMC1/16 472JATP	J24185472		1-	A	D2
R 4038	CHIP RES.	220	1/16W	5%	RMC1/16 221JATP	J24185221		1-	A	D3
R 4039	CHIP RES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103		1-	A	D3
R 4040	CHIP RES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103		1-	A	D3
R 4041	CHIP RES.	180	1/16W	5%	RMC1/16 181JATP	J24185181		1-	A	D2
R 4042	CHIP RES.	180	1/16W	5%	RMC1/16 181JATP	J24185181		1-	A	D2
R 4043	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000		1-	A	I2
R 4044	CHIP RES.	330	1/16W	5%	RMC1/16 331JATP	J24185331		1-	A	D3
R 4045	CHIP RES.	330	1/16W	5%	RMC1/16 331JATP	J24185331		1-	A	D3
R 4046	CHIP RES.	330	1/16W	5%	RMC1/16 331JATP	J24185331		1-	A	D3

REF	DESCRIPTION	VALUE	V/W	TOL.	MFR'S DESIG	VXSTD P/N	VERS.	LOT	SIDE	LAY ADR
R 4047	CHIP RES.	330	1/16W	5%	RMC1/16 331JATP	J24185331		1-	A	D3
R 4048	CHIP RES.	47k	1/16W	5%	RMC1/16 473JATP	J24185473		1-	A	J4
R 4049	CHIP RES.	180	1/16W	5%	RMC1/16 181JATP	J24185181		1-	A	D2
R 4050	CHIP RES.	180	1/16W	5%	RMC1/16 181JATP	J24185181		1-	A	D2
R 4051	CHIP RES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103		1-	A	D2
R 4052	CHIP RES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103		1-	A	D2
R 4053	CHIP RES.	4.7k	1/16W	5%	RMC1/16 472JATP	J24185472		1-	A	D2
R 4054	CHIP RES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103		1-	A	D2
R 4055	CHIP RES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103		1-	A	D2
R 4056	CHIP RES.	4.7k	1/16W	5%	RMC1/16 472JATP	J24185472		1-	A	D2
R 4057	CHIP RES.	10	1/16W	5%	RMC1/16 100JATP	J24185100		1-	A	I2
R 4058	CHIP RES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103		1-	A	J3
R 4059	CHIP RES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103		1-	A	J3
R 4060	CHIP RES.	470	1/16W	5%	RMC1/16 471JATP	J24185471		1-	A	J2
R 4061	CHIP RES.	470	1/16W	5%	RMC1/16 471JATP	J24185471		1-	A	J2
R 4062	CHIP RES.	47k	1/16W	5%	RMC1/16 473JATP	J24185473		1-	A	H2
R 4064	CHIP RES.	3.3k	1/16W	5%	RMC1/16 332JATP	J24185332		1-	A	I3
R 4065	CHIP RES.	5.6k	1/16W	5%	RMC1/16 562JATP	J24185562		1-	A	I3
R 4066	CHIP RES.	3.3k	1/16W	5%	RMC1/16 332JATP	J24185332		1-	A	I3
R 4067	CHIP RES.	5.6k	1/16W	5%	RMC1/16 562JATP	J24185562		1-	A	H2
R 4068	CHIP RES.	3.3k	1/16W	5%	RMC1/16 332JATP	J24185332		1-	A	I3
R 4069	CHIP RES.	5.6k	1/16W	5%	RMC1/16 562JATP	J24185562		1-	A	H2
R 4070	CHIP RES.	3.3k	1/16W	5%	RMC1/16 332JATP	J24185332		1-	A	I3
R 4071	CHIP RES.	5.6k	1/16W	5%	RMC1/16 562JATP	J24185562		1-	A	H2
R 4072	CHIP RES.	3.3k	1/16W	5%	RMC1/16 332JATP	J24185332		1-	A	I3
R 4073	CHIP RES.	5.6k	1/16W	5%	RMC1/16 562JATP	J24185562		1-	A	G2
R 4074	CHIP RES.	3.3k	1/16W	5%	RMC1/16 332JATP	J24185332		1-	A	I3
R 4075	CHIP RES.	5.6k	1/16W	5%	RMC1/16 562JATP	J24185562		1-	A	H1
R 4076	CHIP RES.	3.3k	1/16W	5%	RMC1/16 332JATP	J24185332		1-	A	I3
R 4077	CHIP RES.	5.6k	1/16W	5%	RMC1/16 562JATP	J24185562		1-	A	G1
R 4078	CHIP RES.	3.3k	1/16W	5%	RMC1/16 332JATP	J24185332		1-	A	I3
R 4079	CHIP RES.	5.6k	1/16W	5%	RMC1/16 562JATP	J24185562		1-	A	G1
R 4080	CHIP RES.	3.3k	1/16W	5%	RMC1/16 332JATP	J24185332		1-	A	I3
R 4081	CHIP RES.	5.6k	1/16W	5%	RMC1/16 562JATP	J24185562		1-	A	G1
R 4082	CHIP RES.	3.3k	1/16W	5%	RMC1/16 332JATP	J24185332		1-	A	I3
R 4083	CHIP RES.	3.3k	1/16W	5%	RMC1/16 332JATP	J24185332		1-	A	I3
R 4084	CHIP RES.	5.6k	1/16W	5%	RMC1/16 562JATP	J24185562		1-	A	G1
R 4085	CHIP RES.	5.6k	1/16W	5%	RMC1/16 562JATP	J24185562		1-	A	G1
R 4086	CHIP RES.	220	1/16W	5%	RMC1/16 221JATP	J24185221		1-	A	D1
R 4087	CHIP RES.	10	1/16W	5%	RMC1/16 100JATP	J24185100		1-	A	D2
R 4088	CHIP RES.	220	1/16W	5%	RMC1/16 221JATP	J24185221		1-	A	D2
R 4089	CHIP RES.	4.7k	1/16W	5%	RMC1/16 472JATP	J24185472		1-	A	C3
R 4090	CHIP RES.	470	1/16W	5%	RMC1/16 471JATP	J24185471		1-	A	B3
R 4091	CHIP RES.	470	1/16W	5%	RMC1/16 471JATP	J24185471		1-	A	C3
R 4092	CHIP RES.	100	1/16W	5%	RMC1/16 101JATP	J24185101		1-	A	E3
R 4093	CHIP RES.	47	1/16W	5%	RMC1/16 470JATP	J24185470		1-	A	E3
R 4094	CHIP RES.	3.9k	1/16W	5%	RMC1/16 392JATP	J24185392		1-	A	C3
R 4095	CHIP RES.	3.9k	1/16W	5%	RMC1/16 392JATP	J24185392		1-	A	B3
R 4096	CHIP RES.	15k	1/16W	5%	RMC1/16 153JATP	J24185153		1-	A	C2
R 4097	CHIP RES.	27k	1/16W	5%	RMC1/16 273JATP	J24185273		1-	A	C1
R 4098	CHIP RES.	12k	1/16W	5%	RMC1/16 123JATP	J24185123		1-	A	C2
R 4099	CHIP RES.	3.3k	1/16W	5%	RMC1/16 332JATP	J24185332		1-	A	B3
R 4100	CHIP RES.	3.3k	1/16W	5%	RMC1/16 332JATP	J24185332		1-	A	C3
R 4101	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000		1-	A	C3
R 4102	CHIP RES.	18k	1/16W	5%	RMC1/16 183JATP	J24185183		1-	A	C2
R 4103	CHIP RES.	47k	1/16W	5%	RMC1/16 473JATP	J24185473		1-	A	H2
R 4104	CHIP RES.	100k	1/16W	5%	RMC1/16 104JATP	J24185104		1-	A	B4
R 4105	CHIP RES.	100k	1/16W	5%	RMC1/16 104JATP	J24185104		1-	A	C4
R 4106	CHIP RES.	100k	1/16W	5%	RMC1/16 104JATP	J24185104		1-	A	B3
R 4107	CHIP RES.	100	1/16W	5%	RMC1/16 101JATP	J24185101		1-	A	C2
R 4108	CHIP RES.	220	1/16W	5%	RMC1/16 221JATP	J24185221		1-	A	B3
R 4109	CHIP RES.	220	1/16W	5%	RMC1/16 221JATP	J24185221		1-	A	B3
R 4110	CHIP RES.	220	1/16W	5%	RMC1/16 221JATP	J24185221		1-	A	C2
R 4111	CHIP RES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103		1-	A	B3
R 4112	CHIP RES.	1.8k	1/16W	5%	RMC1/16 182JATP	J24185182		1-	A	B3
R 4113	CHIP RES.	5.6k	1/16W	5%	RMC1/16 562JATP	J24185562		1-	A	D4
R 4114	CHIP RES.	220	1/16W	5%	RMC1/16 221JATP	J24185221		1-	A	C2
R 4115	CHIP RES.	27k	1/16W	5%	RMC1/16 273JATP	J24185273		1-	A	B3
R 4116	CHIP RES.	220	1/16W	5%	RMC1/16 221JATP	J24185221		1-	A	F3
R 4117	CHIP RES.	1k	1/16W	5%	RMC1/16 102JATP	J24185102		1-	A	B3
R 4118	CHIP RES.	1k	1/16W	5%	RMC1/16 102JATP	J24185102		1-	A	D4
R 4119	CHIP RES.	1k	1/16W	5%	RMC1/16 102JATP	J24185102		1-	A	B3
R 4120	CHIP RES.	1k	1/16W	5%	RMC1/16 102JATP	J24185102		1-	A	D4

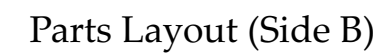
Parts List

REF	DESCRIPTION	VALUE	V/W	TOL.	MFR'S DESIG	VXSTD P/N	VERS.	LOT	SIDE	LAY ADR
R 4121	CHIP RES.	47k	1/16W	5%	RMC1/16 473JATP	J24185473		1-	A	E1
R 4122	CHIP RES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103		1-	A	E1
R 4123	CHIP RES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103		1-	A	E1
R 4124	CHIP RES.	4.7	1/10W	5%	RMC1/10T 4R7J	J24205479		1-	A	A1
R 4125	CHIP RES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103		1-	A	E1
R 4126	CHIP RES.	1	1W	5%	RMC1 1R0JTE	J24305010		1-	A	B1
R 4127	CHIP RES.	220	1/10W	5%	RMC1/10T 221J	J24205221		1-	A	A1
R 4128	CHIP RES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103		1-	A	E1
R 4129	CHIP RES.	47	1/16W	5%	RMC1/16 470JATP	J24185470		1-	A	F1
R 4130	CHIP RES.	47	1/16W	5%	RMC1/16 470JATP	J24185470		1-	A	F1
R 4131	CHIP RES.	47	1/16W	5%	RMC1/16 470JATP	J24185470		1-	A	F1
R 4132	CHIP RES.	47	1/16W	5%	RMC1/16 470JATP	J24185470		1-	A	G1
R 4133	CHIP RES.	47	1/16W	5%	RMC1/16 470JATP	J24185470		1-	A	G1
R 4134	CHIP RES.	47	1/16W	5%	RMC1/16 470JATP	J24185470		1-	A	G1
R 4135	CHIP RES.	47	1/16W	5%	RMC1/16 470JATP	J24185470		1-	A	G1
R 4136	CHIP RES.	47	1/16W	5%	RMC1/16 470JATP	J24185470		1-	A	G1
R 4137	CHIP RES.	220	1/16W	5%	RMC1/16 221JATP	J24185221		1-	A	F1
R 4138	CHIP RES.	220	1/16W	5%	RMC1/16 221JATP	J24185221		1-	A	F1
R 4139	CHIP RES.	47	1/16W	5%	RMC1/16 470JATP	J24185470		1-	A	F1
R 4143	CHIP RES.	47k	1/16W	5%	RMC1/16 473JATP	J24185473		1-	A	I2
R 4144	CHIP RES.	47k	1/16W	5%	RMC1/16 473JATP	J24185473		1-	A	H2
R 4145	CHIP RES.	47k	1/16W	5%	RMC1/16 473JATP	J24185473		1-	A	H2
R 4146	CHIP RES.	47k	1/16W	5%	RMC1/16 473JATP	J24185473		1-	A	H2
R 4147	CHIP RES.	47k	1/16W	5%	RMC1/16 473JATP	J24185473		1-	A	H2
R 4148	CHIP RES.	47k	1/16W	5%	RMC1/16 473JATP	J24185473		1-	A	H2
R 4149	CHIP RES.	47k	1/16W	5%	RMC1/16 473JATP	J24185473		1-	A	H2
R 4150	CHIP RES.	47k	1/16W	5%	RMC1/16 473JATP	J24185473		1-	A	G1
R 4151	CHIP RES.	47k	1/16W	5%	RMC1/16 473JATP	J24185473		1-	A	G1
R 4152	CHIP RES.	47k	1/16W	5%	RMC1/16 473JATP	J24185473		1-	A	G1
R 4153	CHIP RES.	47k	1/16W	5%	RMC1/16 473JATP	J24185473		1-	A	F1
R 4154	CHIP RES.	47k	1/16W	5%	RMC1/16 473JATP	J24185473		1-	A	F1
R 4155	CHIP RES.	330	1/16W	5%	RMC1/16 331JATP	J24185331		1-	A	I3
R 4156	CHIP RES.	330	1/16W	5%	RMC1/16 331JATP	J24185331		1-	A	J2
R 4157	CHIP RES.	47k	1/16W	5%	RMC1/16 473JATP	J24185473		1-	A	G3
R 4158	CHIP RES.	47k	1/16W	5%	RMC1/16 473JATP	J24185473		1-	A	F1
R 4159	CHIP RES.	47k	1/16W	5%	RMC1/16 473JATP	J24185473		1-	A	F1
R 4160	CHIP RES.	220	1/16W	5%	RMC1/16 221JATP	J24185221		1-	A	C2
R 4161	CHIP RES.	220	1/16W	5%	RMC1/16 221JATP	J24185221		1-	A	C2
R 4162	CHIP RES.	1k	1/16W	5%	RMC1/16 102JATP	J24185102		1-	A	D1
R 4163	CHIP RES.	1k	1/16W	5%	RMC1/16 102JATP	J24185102		1-	A	D1
R 4164	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000		1-	A	A2
R 4165	CHIP RES.	47k	1/16W	5%	RMC1/16 473JATP	J24185473		3-		
R 4166	CHIP RES.	4.7k	1/16W	5%	RMC1/16 472JATP	J24185472		3-		
R 4167	CHIP RES.	4.7k	1/16W	5%	RMC1/16 472JATP	J24185472		3-		
R 4168	CHIP RES.	4.7k	1/16W	5%	RMC1/16 472JATP	J24185472		3-		
S 4001	SLIDE SWITCH				SSSS22	N6090057		1-	A	I4
S 4002	SLIDE SWITCH				SSSS22	N6090057		1-	A	G1
X 4001	XTAL TSS-6035B	19.82MHz			19.820MHZ	H0103262A		1-	A	I2
X 4002	XTAL OSC	36.864MHz			TPS11XC 36.864MHZ	H9500770		1-	A	E3





Parts Layout (Side A)



REF	DESCRIPTION	VALUE	V/W	TOL.	MFR'S DESIG	VXSTD P/N	VERS.	LOT	SIDE	LAY ADR
PCB with Components						CS1924001	CE:OFF			
PCB with Components						CS1924002	CE:ON			
Printed Circuit Board						FR015240C		1-		
C 5012	CHIP CAP.	0.001uF	50V	B	GRM40B102K50PT	K22170825		1-	A	C1
C 5013	CHIP CAP.	0.047uF	25V	F	GRM39F473Z25PT	K22145002		1-	A	C1
C 5014	CHIP CAP.	0.047uF	50V	B	GRM40B473M50PT	K22170823		1-	A	C1
C 5015	CHIP CAP.	0.047uF	25V	F	GRM39F473Z25PT	K22145002		1-	A	C1
C 5032	CHIP CAP.	0.1uF	16V	B	GRM188B11C104KA01D	K22124805		1-	A	A2
C 5034	CHIP CAP.	27pF	50V	CH	GRM2162C1H270JZ01D	K22170221		1-	A	C1
C 5035	CHIP CAP.	0.1uF	25V	B	GRM40B104M25PT	K22140811		1-	A	D2
C 5036	CHIP CAP.	0.1uF	25V	B	GRM40B104M25PT	K22140811		1-	A	C2
C 5037	CHIP CAP.	0.1uF	25V	B	GRM40B104M25PT	K22140811		1-	A	C1
C 5038	CHIP CAP.	0.001uF	50V	B	GRM40B102K50PT	K22170825		1-	A	B2
C 5040	CHIP CAP.	0.01uF	50V	B	GRM40B103K50PT	K22170826		1-	A	B2
C 5049	CHIP CAP.	68pF	50V	CH	GRM1882C1H680JA01D	K22174231		1-	A	D2
C 5050	CHIP CAP.	0.047uF	50V	B	GRM40B473M50PT	K22170823		1-	A	D2
C 5051	CHIP CAP.	0.1uF	25V	B	GRM40B104M25PT	K22140811		1-	A	B2
C 5052	CHIP CAP.	0.1uF	25V	B	GRM40B104M25PT	K22140811		1-	A	D2
C 5053	CHIP CAP.	68pF	50V	CH	GRM1882C1H680JA01D	K22174231		1-	A	C2
C 5054	CHIP CAP.	0.01uF	50V	B	GRM40B103K50PT	K22170826		1-	A	D2
C 5055	CHIP CAP.	0.001uF	50V	B	GRM40B102K50PT	K22170825		1-	A	D2
C 5056	CHIP CAP.	0.047uF	50V	B	GRM40B473M50PT	K22170823		1-	A	C3
C 5057	AL.ELECTRO.CAP.	1000uF	16V		RE3-16V102MH3#	K40129096		1-2	A	A3
C 5067	CHIP CAP.	470pF	50V	B	GRM188B11H471KA01D	K22174805		1-	A	C2
C 5069	AL.ELECTRO.CAP.	10uF	25V		EMVA250ADA100MD55G	K48140014		1-	A	B3
C 5070	CHIP CAP.	0.1uF	25V	B	GRM40B104M25PT	K22140811		1-	A	C3
C 5072	CHIP CAP.	0.047uF	25V	F	GRM39F473Z25PT	K22145002		1-	A	B3
C 5079	CHIP CAP.	0.01uF	250V	X7R	GRM21BR72E103KW03L	K22240801		1-	A	D3
C 5080	CHIP CAP.	0.0068uF	50V	B	GRM40B682M50PT	K22170815		1-3	A	D3
C 5082	CERAMIC CAP.	0.0068uF	200V	SL	GRM55R1X2D682JV01L	K22236101		1-	A	D4
C 5083	CHIP CAP.	0.01uF	250V	X7R	GRM21BR72E103KW03L	K22240801		1-	A	C3
C 5084	CHIP CAP.	0.1uF	25V	B	GRM40B104M25PT	K22140811		1-	A	E4
C 5085	CHIP CAP.	0.0068uF	50V	B	GRM40B682M50PT	K22170815		1-3	A	B3
C 5086	CHIP CAP.	0.1uF	25V	B	GRM40B104M25PT	K22140811		1-	A	B4
C 5087	CHIP CAP.	0.1uF	25V	F	GRM188F11E104ZA01D	K22145001		1-	A	A4
C 5089	CERAMIC CAP.	0.0068uF	200V	SL	GRM55R1X2D682JV01L	K22236101		1-	A	C4
C 5090	CHIP CAP.	0.1uF	25V	F	GRM188F11E104ZA01D	K22145001		1-	A	E3
C 5104	AL.ELECTRO.CAP.	1000uF	16V		RE3-16V102MH3#	K40129096		1-	A	C8
C 5105	CHIP CAP.	0.01uF	50V	B	GRM188B11H103KA01D	K22174823		1-	A	C7
C 5106	CHIP CAP.	0.01uF	50V	B	GRM188B11H103KA01D	K22174823		1-	A	C7
C 5109	AL.ELECTRO.CAP.	100uF	16V		EEE1CA101WP	K48120012		1-	A	C7
C 5120	CHIP CAP.	0.047uF	16V	B	GRM39B473K16PT	K22124804		1-	A	F5
C 5121	CHIP CAP.	0.047uF	16V	B	GRM39B473K16PT	K22124804		1-	A	G2
C 5123	CHIP CAP.	0.047uF	16V	B	GRM39B473K16PT	K22124804		1-	A	F5
C 5124	CHIP CAP.	0.047uF	16V	B	GRM39B473K16PT	K22124804		1-	A	F3
C 5125	CHIP CAP.	0.047uF	16V	B	GRM39B473K16PT	K22124804		1-	A	G2
C 5126	CHIP CAP.	0.047uF	16V	B	GRM39B473K16PT	K22124804		1-	A	F4
C 5127	CHIP CAP.	0.047uF	16V	B	GRM39B473K16PT	K22124804		1-	A	G5
C 5130	CHIP CAP.	330pF	500V	CH	1206N331J501LT	K22278227		1-	A	H5
C 5131	CHIP CAP.	0.001uF	200V	SL	GRM31M1X2D102JV01L	K22231104		1-	A	G5
C 5132	CHIP CAP.	220pF	200V	CH	GRM21B2C2D221JY21L	K22230232		1-	A	G2
C 5133	CHIP CAP.	120pF	200V	CH	GRM21B2C2D121JV01L	K22230229		1-	A	G5
C 5134	CHIP CAP.	120pF	200V	CH	GRM21B2C2D121JV01L	K22230229		1-	A	G2
C 5135	CHIP CAP.	150pF	200V	CH	GRM21B2C2D151JV01L	K22230230		1-	A	H4
C 5136	CHIP CAP.	82pF	200V	CH	GRM21B2C2D820JV01L	K22230227		1-	A	H1
C 5137	CHIP CAP.	330pF	500V	CH	1206N331J501LT	K22278227		1-	A	H2
C 5138	CHIP CAP.	0.001uF	200V	SL	GRM31M1X2D102JV01L	K22231104		1-	A	H5
C 5139	CHIP CAP.	390pF	500V	CH	1206N391J501LT	K22278228		1-	A	H2
C 5140	CHIP CAP.	390pF	500V	CH	1206N391J501LT	K22278228		1-	A	H5
C 5141	CHIP CAP.	120pF	200V	CH	GRM21B2C2D121JV01L	K22230229		1-	A	G4
C 5142	CHIP CAP.	120pF	200V	CH	GRM21B2C2D121JV01L	K22230229		1-	A	G4
C 5143	CHIP CAP.	220pF	200V	CH	GRM21B2C2D221JY21L	K22230232		1-	A	G4
C 5144	CHIP CAP.	68pF	200V	CH	GRM21B2C2D680JV01L	K22230226		1-	A	G4
C 5146	CHIP CAP.	270pF	500V	CH	1206N271J501LT	K22278226		1-	A	H4
C 5147	CHIP CAP.	120pF	200V	CH	GRM21B2C2D121JV01L	K22230229		1-	A	G3
C 5150	CHIP CAP.	100pF	200V	CH	GRM21B2C2D101JV01L	K22230228		1-	A	G1
C 5151	CHIP CAP.	150pF	200V	CH	GRM21B2C2D151JV01L	K22230230		1-	A	G2
C 5153	CHIP CAP.	47pF	200V	CH	GRM2192C2D470JV01D	K22230224		1-	A	G1
C 5154	CHIP CAP.	82pF	200V	CH	GRM21B2C2D820JV01L	K22230227		1-	A	H3
C 5155	CHIP CAP.	100pF	200V	CH	GRM21B2C2D101JV01L	K22230228		1-	A	H1
C 5157	CHIP CAP.	5pF	200V	CH	GRM2192C2D5R0CY21D	K22230207		1-	A	G3
C 5158	CHIP CAP.	33pF	200V	CH	GRM2192C2D330JV01D	K22230222		1-	A	H3
C 5159	CHIP CAP.	33pF	200V	CH	GRM2192C2D330JV01D	K22230222		1-	A	H3

PA Unit

Parts List

REF	DESCRIPTION	VALUE	V/W	TOL.	MFR'S DESIG	VXSTD P/N	VERS.	LOT	SIDE	LAY ADR
C 5160	CHIP CAP.	3pF	200V	CJ	GRM2193C2D3R0CY21D	K22230210		1-	A	G6
C 5162	CHIP CAP.	10pF	200V	CH	GRM2192C2D100JV01D	K22230216		1-	A	H3
C 5163	CHIP CAP.	47pF	200V	CH	GRM2192C2D470JV01D	K22230224		1-	A	G6
C 5163	CHIP CAP.	22pF	200V	CH	GRM2192C2D220JV01D	K22230220		4-	A	G6
C 5165	CHIP CAP.	68pF	200V	CH	GRM21B2C2D680JV01L	K22230226		1-	A	H6
C 5166	CHIP CAP.	150pF	200V	CH	GRM21B2C2D151JV01L	K22230230		1-	A	I4
C 5168	CHIP CAP.	0.001uF	200V	SL	GRM31M1X2D102JV01L	K22231104		1-	A	H5
C 5169	CHIP CAP.	470pF	500V	CH	1206N471J501LT	K22278229		1-	A	H2
C 5170	CHIP CAP.	100pF	200V	CH	GRM21B2C2D101JV01L	K22230228		1-	A	I5
C 5171	CHIP CAP.	150pF	200V	CH	GRM21B2C2D151JV01L	K22230230		1-	A	I2
C 5172	CHIP CAP.	47pF	200V	CH	GRM2192C2D470JV01D	K22230224		1-	A	I1
C 5173	CHIP CAP.	0.001uF	200V	SL	GRM31M1X2D102JV01L	K22231104		1-	A	I5
C 5175	CHIP CAP.	820pF	500V	CH	1206N821J501LT	K22278232		1-	A	I5
C 5176	CHIP CAP.	820pF	500V	CH	1206N821J501LT	K22278232		1-	A	I5
C 5178	CHIP CAP.	82pF	200V	CH	GRM21B2C2D820JV01L	K22230227		1-	A	I5
C 5180	CHIP CAP.	68pF	200V	CH	GRM21B2C2D680JV01L	K22230226		1-	A	I1
C 5181	CHIP CAP.	820pF	500V	CH	1206N821J501LT	K22278232		1-	A	J5
C 5182	CHIP CAP.	100pF	200V	CH	GRM21B2C2D101JV01L	K22230228		1-	A	J2
C 5183	CHIP CAP.	330pF	500V	CH	1206N331J501LT	K22278227		1-	A	H4
C 5184	CHIP CAP.	82pF	200V	CH	GRM21B2C2D820JV01L	K22230227		1-	A	H4
C 5185	CHIP CAP.	33pF	200V	CH	GRM2192C2D330JV01D	K22230222		1-	A	H4
C 5187	CHIP CAP.	22pF	200V	CH	GRM2192C2D220JV01D	K22230220		1-	A	H4
C 5188	CHIP CAP.	680pF	500V	CH	1206N681J501LT	K22278231		1-	A	I4
C 5190	CHIP CAP.	47pF	200V	CH	GRM2192C2D470JV01D	K22230224		1-	A	I4
C 5192	CHIP CAP.	180pF	200V	CH	GRM21B2C2D181JY21L	K22230231		1-	A	I4
C 5193	CHIP CAP.	150pF	200V	CH	GRM21B2C2D151JV01L	K22230230		1-	A	H3
C 5194	CHIP CAP.	120pF	200V	CH	GRM21B2C2D121JV01L	K22230229		1-	A	H1
C 5195	CHIP CAP.	68pF	200V	CH	GRM21B2C2D680JV01L	K22230226		1-	A	H2
C 5197	CHIP CAP.	27pF	200V	CH	GRM2192C2D270JV01D	K22230221		1-	A	H1
C 5198	CHIP CAP.	100pF	200V	CH	GRM21B2C2D101JV01L	K22230228		1-	A	I3
C 5199	CHIP CAP.	82pF	200V	CH	GRM21B2C2D820JV01L	K22230227		1-	A	I1
C 5200	CHIP CAP.	220pF	200V	CH	GRM21B2C2D221JY21L	K22230232		1-	A	I3
C 5201	CHIP CAP.	180pF	200V	CH	GRM21B2C2D181JY21L	K22230231		1-	A	I1
C 5202	CHIP CAP.	22pF	200V	CH	GRM2192C2D220JV01D	K22230220		1-	A	I2
C 5204	CHIP CAP.	9pF	200V	CH	GRM2192C2D9R0DV01D	K22230215		1-	A	I1
C 5206	CHIP CAP.	150pF	200V	CH	GRM21B2C2D151JV01L	K22230230		1-	A	I1
C 5207	CHIP CAP.	120pF	200V	CH	GRM21B2C2D121JV01L	K22230229		1-	A	H3
C 5209	CHIP CAP.	27pF	200V	CH	GRM2192C2D270JV01D	K22230221		1-	A	I3
C 5210	CHIP CAP.	7pF	200V	CH	GRM2192C2D7R0DY21D	K22230213		1-	A	H6
C 5212	CHIP CAP.	180pF	200V	CH	GRM21B2C2D181JY21L	K22230231		1-	A	I3
C 5214	CHIP CAP.	10pF	200V	CH	GRM2192C2D100JV01D	K22230216		1-	A	I3
C 5216	CHIP CAP.	10pF	200V	CH	GRM2192C2D100JV01D	K22230216		1-	A	I5
C 5218	CHIP CAP.	82pF	200V	CH	GRM21B2C2D820JV01L	K22230227		1-	A	J3
C 5220	CHIP CAP.	82pF	200V	CH	GRM21B2C2D820JV01L	K22230227		1-	A	I6
C 5223	CHIP CAP.	680pF	500V	CH	1206N681J501LT	K22278231		1-	A	J5
C 5224	CHIP CAP.	470pF	500V	CH	1206N471J501LT	K22278229		1-	A	J2
C 5225	CHIP CAP.	0.047uF	16V	B	GRM39B473K16PT	K22124804		1-	A	J5
C 5226	CHIP CAP.	0.047uF	16V	B	GRM39B473K16PT	K22124804		1-	A	J2
C 5227	CHIP CAP.	220pF	200V	CH	GRM21B2C2D221JY21L	K22230232		1-	A	I4
C 5228	CHIP CAP.	0.047uF	16V	B	GRM39B473K16PT	K22124804		1-	A	J4
C 5229	CHIP CAP.	0.047uF	16V	B	GRM39B473K16PT	K22124804		1-	A	J2
C 5230	CHIP CAP.	82pF	200V	CH	GRM21B2C2D820JV01L	K22230227		1-	A	I3
C 5232	CHIP CAP.	0.047uF	16V	B	GRM39B473K16PT	K22124804		1-	A	J1
C 5234	CHIP CAP.	0.047uF	16V	B	GRM39B473K16PT	K22124804		1-	A	J3
C 5235	CHIP CAP.	0.047uF	16V	B	GRM39B473K16PT	K22124804		1-	A	I6
C 5236	CHIP CAP.	39pF	200V	CH	GRM2192C2D390JV01D	K22230223		1-	A	I6
C 5237	FILM CAP.	680pF	500V		UC552H6800J-T	K33279042		1-	A	C5
C 5237	FILM CAP.	560pF	500V		UC552H5600J-T	K33279041		4-	A	C5
C 5248	CHIP CAP.	10pF	200V	CH	GRM2192C2D100JV01D	K22230216		1-	A	J3
C 5249	CHIP CAP.	220pF	50V	CH	GRM1882C1H221JA01D	K22174243		1-	A	E3
C 5250	CHIP CAP.	220pF	50V	CH	GRM1882C1H221JA01D	K22174243		1-	A	B3
C 5251	FILM CAP.	82pF	500V		UC232H0820J-T	K33279033		1-	A	E5
C 5252	FILM CAP.	82pF	500V		UC232H0820J-T	K33279033		1-	A	B5
C 5300	CHIP CAP.	220pF	50V	CH	GRM1882C1H221JA01D	K22174243		1-	A	I6
C 5301	CHIP CAP.	220pF	50V	CH	GRM1882C1H221JA01D	K22174243		1-	A	I7
C 5302	CHIP CAP.	220pF	50V	CH	GRM1882C1H221JA01D	K22174243		1-	A	H7
C 5303	CHIP CAP.	220pF	50V	CH	GRM1882C1H221JA01D	K22174243		1-	A	H7
C 5304	CHIP CAP.	220pF	50V	CH	GRM1882C1H221JA01D	K22174243		1-	A	H7
C 5305	CHIP CAP.	220pF	50V	CH	GRM1882C1H221JA01D	K22174243		1-	A	H7
C 5306	CHIP CAP.	220pF	50V	CH	GRM1882C1H221JA01D	K22174243		1-	A	E7
C 5309	CHIP CAP.	10pF	200V	CH	GRM2192C2D100JV01D	K22230216		1-	A	I6
C 5310	AL.ELECTRO.CAP.	4.7uF	50V		EEE1HA4R7SR	K48170025		1-	A	D7
C 5311	CHIP CAP.	0.1uF	16V	B	GRM188B11C104KA01D	K22124805		1-	A	A4

REF	DESCRIPTION	VALUE	V/W	TOL.	MFR'S DESIG	VXSTD P/N	VERS.	LOT	SIDE	LAY ADR
C 5312	CHIP CAP.	0.1uF	16V	B	GRM188B11C104KA01D	K22124805		1-	A	A4
C 5313	CHIP CAP.	0.1uF	16V	B	GRM188B11C104KA01D	K22124805		1-	A	F6
C 5314	CHIP CAP.	0.01uF	50V	B	GRM188B11H103KA01D	K22174823		1-	A	F6
C 5323	CHIP CAP.	220pF	50V	CH	GRM1882C1H221JA01D	K22174243		1-	A	G5
C 5400	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	A	G2
C 5402	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	A	G2
C 5404	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	A	G2
C 5406	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	A	G1
C 5408	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	A	G2
C 5409	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	A	F1
C 5410	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	A	G1
C 5411	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	A	F2
C 5412	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	A	G2
C 5413	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	A	F1
C 5414	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	A	G1
C 5415	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	A	F2
C 5416	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	A	F2
C 5417	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	A	F1
C 5418	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	A	F1
C 5419	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	A	F2
C 5420	CHIP CAP.	0.01uF	50V	B	GRM188B11H103KA01D	K22174823		1-	A	D7
C 5421	CHIP CAP.	0.1uF	16V	B	GRM188B11C104KA01D	K22124805		1-	A	D7
C 5422	CHIP CAP.	0.1uF	25V	B	GRM40B104M25PT	K22140811		1-	A	A4
C 5423	CHIP CAP.	0.1uF	16V	B	GRM188B11C104KA01D	K22124805		1-	A	A1
C 5424	AL.ELECTRO.CAP.	10uF	25V		EMVA250ADA100MD55G	K48140014		1-	A	A1
C 5425	CHIP CAP.	0.001uF	50V	B	GRM188B11H102KA01D	K22174821		1-	A	A4
C 5426	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	A	D7
C 5427	CHIP CAP.	0.01uF	50V	B	GRM188B11H103KA01D	K22174823		1-	A	A4
C 5428	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	A	D7
C 5429	CHIP CAP.	0.01uF	50V	B	GRM188B11H103KA01D	K22174823		1-	A	A4
C 5430	AL.ELECTRO.CAP.	22uF	16V		EEE1CA220SR	K48120024		1-	A	E1
C 5431	CHIP CAP.	0.01uF	50V	B	GRM188B11H103KA01D	K22174823		1-	A	A4
C 5432	CHIP CAP.	0.001uF	50V	B	GRM188B11H102KA01D	K22174821		1-	A	A4
C 5433	CHIP CAP.	0.01uF	50V	B	GRM188B11H103KA01D	K22174823		1-	A	A4
C 5436	CHIP CAP.	0.1uF	25V	B	GRM40B104M25PT	K22140811		1-	A	A5
C 5438	CHIP CAP.	0.1uF	25V	B	GRM40B104M25PT	K22140811		1-	A	A7
C 5441	CHIP CAP.	15pF	200V	CH	GRM2192C2D150JV01D	K22230218		1-	A	I3
C 5442	CHIP CAP.	0.001uF	50V	B	GRM188B11H102KA01D	K22174821		1-	A	I7
C 5443	CHIP CAP.	0.001uF	50V	B	GRM188B11H102KA01D	K22174821		1-	A	I7
C 5444	CHIP CAP.	0.022uF	25V	B	GRM39B223K25PT	K22144807		1-	A	J7
C 5445	CHIP CAP.	0.022uF	25V	B	GRM39B223K25PT	K22144807		1-	A	I7
C 5446	CHIP CAP.	220pF	50V	CH	GRM1882C1H221JA01D	K22174243		1-	A	J7
C 5447	CHIP CAP.	220pF	50V	CH	GRM1882C1H221JA01D	K22174243		1-	A	I7
C 5448	CHIP CAP.	10pF	200V	CH	GRM2192C2D100JV01D	K22230216		1-	A	I7
C 5449	CHIP CAP.	39pF	50V	CH	GRM1882C1H390JA01D	K22174225		1-	A	I7
C 5451	CHIP CAP.	0.01uF	50V	B	GRM188B11H103KA01D	K22174823		1-	A	I7
C 5452	CHIP CAP.	0.01uF	50V	B	GRM188B11H103KA01D	K22174823		1-	A	F6
C 5453	CHIP CAP.	0.047uF	16V	B	GRM39B473K16PT	K22124804		1-	A	I7
C 5454	CHIP TA.CAP.	10uF	10V		TEMSVA1A106M-8R	K78100028		1-	A	E1
C 5455	CHIP CAP.	0.01uF	50V	B	GRM188B11H103KA01D	K22174823		1-	A	E7
C 5456	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	A	E1
C 5457	CHIP CAP.	0.1uF	25V	B	GRM40B104M25PT	K22140811		1-	A	H7
C 5458	CHIP CAP.	0.1uF	16V	B	GRM188B11C104KA01D	K22124805		1-	A	F6
C 5459	CHIP CAP.	0.01uF	50V	B	GRM188B11H103KA01D	K22174823		1-	A	G6
C 5460	CHIP CAP.	0.1uF	25V	B	GRM40B104M25PT	K22140811		1-	A	E7
C 5461	CHIP CAP.	0.1uF	250V	X7R	GRM32DR72E104KW01L	K22245801		1-	A	G8
C 5462	CHIP CAP.	0.01uF	250V	X7R	GRM21BR72E103KW03L	K22240801		1-	A	G7
C 5463	CHIP CAP.	0.1uF	25V	B	GRM40B104M25PT	K22140811		1-	A	A4
C 5464	AL.ELECTRO.CAP.	10uF	25V		EMVA250ADA100MD55G	K48140014		1-	A	A2
C 5465	CHIP CAP.	0.1uF	16V	B	GRM188B11C104KA01D	K22124805		1-	A	A1
C 5466	CHIP CAP.	0.1uF	25V	B	GRM40B104M25PT	K22140811		1-	A	A4
C 5467	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	A	E1
C 5468	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	A	E1
C 5469	AL.ELECTRO.CAP.	22uF	16V		EEE1CA220SR	K48120024		1-	A	E1
C 5470	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	A	E2
C 5471	CHIP CAP.	0.01uF	50V	B	GRM188B11H103KA01D	K22174823		1-	A	E7
C 5472	CHIP CAP.	220pF	50V	CH	GRM1882C1H221JA01D	K22174243		1-	A	E7
C 5478	CHIP CAP.	0.001uF	200V	SL	GRM31M1X2D102JV01L	K22231104		1-	A	I2
C 5481	CHIP CAP.	0.1uF	16V	B	GRM188B11C104KA01D	K22124805		1-	A	D2
C 5486	CHIP CAP.	180pF	50V	CH	GRM2162C1H181JA01D	K22170241		1-	A	D3
C 5487	CHIP CAP.	180pF	50V	CH	GRM2162C1H181JA01D	K22170241		1-	A	B2
C 5490	CHIP CAP.	0.0068uF	50V	B	GRM40B682M50PT	K22170815		1-3	A	D3
C 5491	CHIP CAP.	0.0068uF	50V	B	GRM40B682M50PT	K22170815		1-3	A	B3

PA Unit

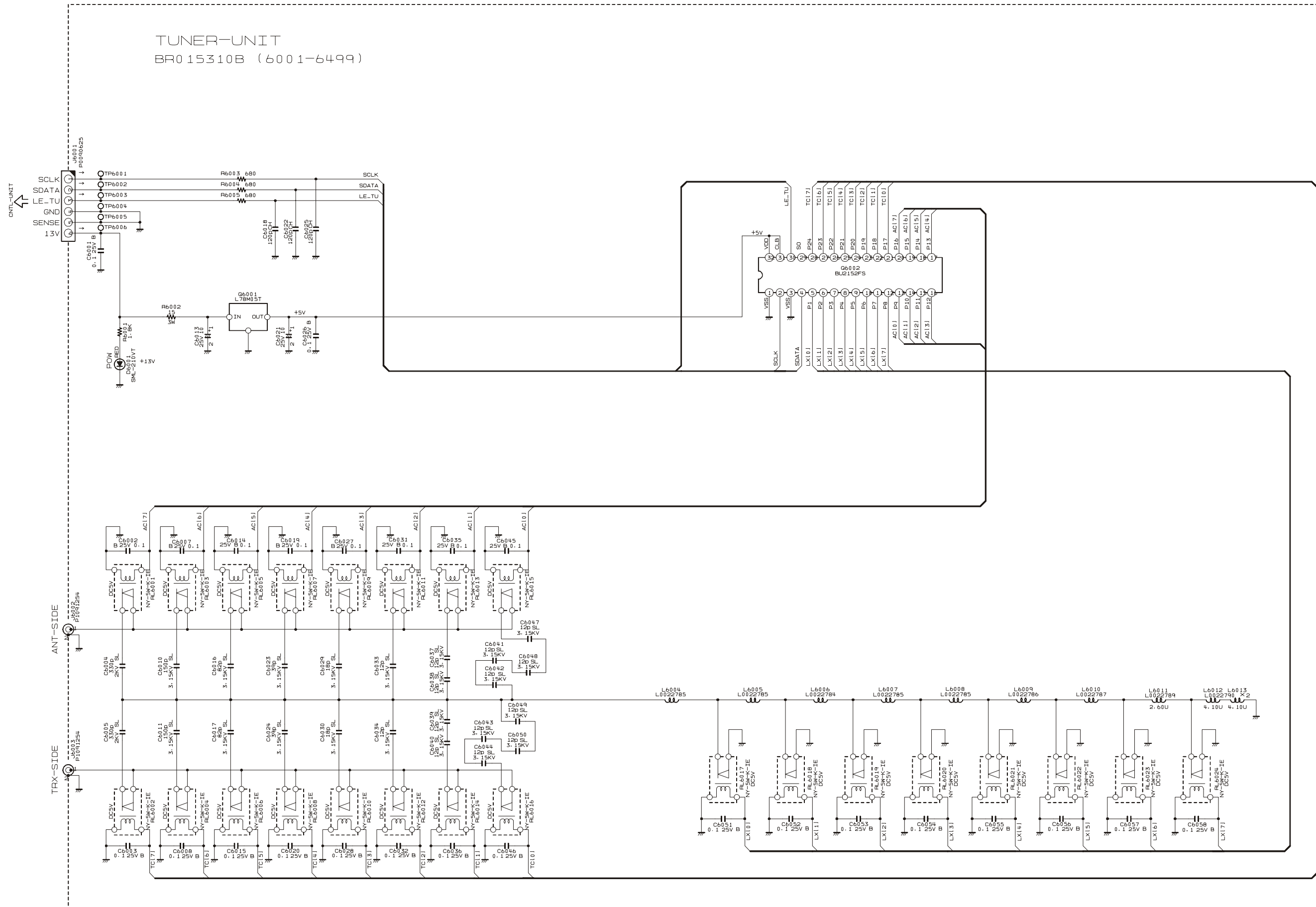
Parts List

REF	DESCRIPTION	VALUE	V/W	TOL.	MFR'S DESIG	VXSTD P/N	VERS.	LOT	SIDE	LAY ADR
C 5492	CHIP CAP.	0.047uF	16V	B	GRM39B473K16PT	K22124804		1-	A	G6
D 5001	DIODE				BAS316	G2070716		1-	A	A1
D 5018	DIODE				DAN202U T106	G2070162		1-	A	B3
D 5019	DIODE				DAN202U T106	G2070162		1-	A	E3
D 5401	DIODE				BAS316	G2070716		1-	A	A5
D 5402	DIODE				BAS316	G2070716		1-	A	A5
D 5404	DIODE				UDZS TE-17 16B	G2070914		1-	A	A5
D 5406	DIODE				MA729-(TX)	G2070320		1-	A	J7
D 5407	DIODE				MA729-(TX)	G2070320		1-	A	I7
D 5408	DIODE				BAS316	G2070716		1-	A	I7
D 5409	SURGE ABSORBER				RHCA-301Q43U	Q9000827		1-	A	G8
D 5410	DIODE				BAS316	G2070716		1-	A	E7
D 5411	DIODE				SM240LA-T	G2071156		1-	A	F1
D 5412	DIODE				BAS316	G2070716		1-	A	B1
D 5413	DIODE				BAS316	G2070716		1-	A	B2
D 5414	DIODE				BAS316	G2070716		1-	A	D2
D 5415	DIODE				BAS316	G2070716		1-	A	A5
J 5001	CONNECTOR				TMP-S01X-C1	P1091254		1-	A	B1
J 5003	CONNECTOR				IMSA-9202B-1-02-T	P0091174		1-	A	B2
J 5004	CONNECTOR				IMSA-9202B-1-02-T	P0091174		1-	A	B3
J 5400	CONNECTOR				30FLT-SM2-TB(LF)(SN)	P1091142		1-	A	F1
J 5401	CONNECTOR				B2B-EH(LF)(SN)	P0090666		1-	A	D8
J 5402	CONNECTOR				TMP-J01X-V6	P1090210		1-	A	G8
J 5403	CONNECTOR				TMP-S01X-C1	P1091254		1-	A	H8
J 5404	CONNECTOR				TMP-J01X-V6	P1090210		1-	A	F7
L 5001	CHIP COIL	2.2uH			C2520C-2R2K	L1690731		1-	A	C1
L 5002	M.RFC	220uH			ELJ-FA221KF	L1690685		1-	A	C1
L 5003	M.RFC	10uH			7E05NB-100M	L1691221		1-	A	B2
L 5004	TOROIDAL COIL	41uH			41.00U 3A FR9.5°5	L0021432		4-	A	C2
L 5005	TOROIDAL COIL	41uH			41.00U 3A FR9.5°5	L0021432		4-	A	D2
L 5006	RFC WITH BEADS				FB-43-5111	L1020015		1-	A	B3
L 5008	RFC WITH BEADS				3A RI5.8X6.4-2	L1020734		1-	A	C8
L 5011	TOROIDAL COIL	3.85uH			3.85U T68-2	L0022963		1-	A	H5
L 5012	TOROIDAL COIL	1.21uH			1.21U T50-2	L0022965		1-	A	H2
L 5013	TOROIDAL COIL	0.85uH			0.85U T50-6	L0022968		1-	A	G4
L 5014	TOROIDAL COIL	0.42uH			0.42U T50-6	L0022971		1-	A	G3
L 5015	TOROIDAL COIL	0.4uH			0.40U T50-6	L0022974		1-	A	G1
L 5016	TOROIDAL COIL	0.25uH			0.25U T50-6	L0022976		1-	A	H3
L 5017	TOROIDAL COIL	0.21uH			0.21U T68-10	L0023007		1-	A	G6
L 5018	TOROIDAL COIL	5.1uH			5.10U T68-2	L0022964		1-	A	H5
L 5019	TOROIDAL COIL	5.1uH			5.10U T68-2	L0022964		1-	A	I5
L 5020	TOROIDAL COIL	1.85uH			1.85U T50-2	L0022966		1-	A	H2
L 5021	TOROIDAL COIL	2uH			2.00U T50-2	L0022967		1-	A	I2
L 5022	TOROIDAL COIL	1.31uH			1.31U T50-6	L0022969		1-	A	H4
L 5023	TOROIDAL COIL	0.63uH			0.63U T50-10	L0023005		1-	A	H3
L 5024	TOROIDAL COIL	1.39uH			1.39U T50-6	L0022970		1-	A	I4
L 5025	TOROIDAL COIL	0.7uH			0.70U T50-6	L0022973		1-	A	I3
L 5026	TOROIDAL COIL	0.5uH			0.50U T50-6	L0022975		1-	A	H1
L 5027	TOROIDAL COIL	0.5uH			0.50U T50-6	L0022975		1-	A	I1
L 5028	TOROIDAL COIL	0.34uH			0.34U T50-6	L0022977		1-	A	H3
L 5029	TOROIDAL COIL	0.21uH			0.21U T68-10	L0023007		1-	A	H6
L 5030	TOROIDAL COIL	0.34uH			0.34U T50-6	L0022977		1-	A	I3
L 5031	TOROIDAL COIL	0.18uH			0.18U T68-10	L0023006		1-	A	I6
L 5032	TOROIDAL COIL	6uH			U 6H3 10X5X5	L0022039		1-	A	C5
L 5400	M.RFC	470uH			FLC32T-471J	L1690235		1-	A	J7
L 5401	M.RFC	470uH			FLC32T-471J	L1690235		1-	A	I7
L 5402	M.RFC	120uH			RCH-875 121K	L1190396		1-	A	E1
L 5403	M.RFC	120uH			RCH-875 121K	L1190396		1-	A	G7
L 5405	M.RFC	56uH			LLM3225-560J	L1691142		1-	A	I7
L 5406	M.RFC	56uH			LLM3225-560J	L1691142		1-	A	D7
L 5407	M.RFC	22uH			RCR875DNP-220L	L1190397		1-	A	F6
P 5001	CONNECTOR				IMSA-9206H-T	P1090988		1-		
P 5002	CONNECTOR				IMSA-9206H-T	P1090988		1-		
P 5003	WIRE ASSY				AC051H	T9207202A		1-		
Q 5001	FET				RD06HHF1-01	G3090145		1-	A	D1
Q 5006	FET				RD16HHF1	G3090148		1-	A	E2
Q 5007	FET				RD16HHF1	G3090148		1-	A	B2
Q 5009	FET				RD100HHF1-101	G3090151		1-	A	D4
Q 5010	FET				RD100HHF1-101	G3090151		1-	A	B4
Q 5400	IC				TA75S01F(TE85R.F)	G1091593		1-	A	A4
Q 5401	IC				PQ09TZ1U	G1092599		1-	A	A1
Q 5402	TRANSISTOR				DTC124GUA T106	G3070184		1-	A	A4
Q 5403	TRANSISTOR				DTC114TE TL	G3070225		1-	A	A4

REF	DESCRIPTION	VALUE	V/W	TOL.	MFR'S DESIG	VXSTD P/N	VERS.	LOT	SIDE	LAY ADR
Q 5404	TRANSISTOR				PDTC144EE	G3070244		1-	A	F6
Q 5405	TRANSISTOR				DTC114TE TL	G3070225		1-	A	E7
Q 5406	TRANSISTOR				DTD123YK T146	G3070157		1	A	D7
Q 5406	TRANSISTOR				DTD123TK T146	G3070378		2-	A	D7
Q 5408	TRANSISTOR				DTD123YK T146	G3070157		1-	A	E7
Q 5408	TRANSISTOR				DTD123TK T146	G3070378		3-	A	E7
Q 5409	IC				TB6593FNG(O.EL)	G1094317		1-	A	E1
R 5001	CHIP RES.	18	1/10W	5%	RMC1/10T 180J	J24205180		1-	A	C1
R 5002	CHIP RES.	330	1/10W	5%	RMC1/10T 331J	J24205331		1-	A	C1
R 5003	CHIP RES.	680	1/4W	5%	RMC1/4 681JATP	J24245681		1-	A	C1
R 5004	CHIP RES.	330	1/10W	5%	RMC1/10T 331J	J24205331		1-	A	B1
R 5005	CHIP RES.	820	1/16W	5%	RMC1/16 821JATP	J24185821		1-	A	C1
R 5006	CHIP RES.	1.8k	1/16W	5%	RMC1/16 182JATP	J24185182		1-	A	C1
R 5017	CHIP RES.	470	1/4W	5%	RMC1/4 471JATP	J24245471		4-	A	C2
R 5038	CHIP RES.	47	1/2W	5%	RK73K2HTE47-OHMJ	J24279013		1-	A	D2
R 5039	CHIP RES.	100	1/16W	5%	RMC1/16 101JATP	J24185101		1-	A	D2
R 5040	CHIP RES.	470	1W	5%	RMC1 471JTE	J24305471		1-	A	D2
R 5041	CHIP RES.	1k	1/10W	5%	RMC1/10T 102J	J24205102		1-	A	D2
R 5042	CHIP RES.	100	1/16W	5%	RMC1/16 101JATP	J24185101		1-	A	B2
R 5043	CHIP RES.	100	1/16W	5%	RMC1/16 101JATP	J24185101		1-	A	D2
R 5044	CHIP RES.	47	1/2W	5%	RK73K2HTE47-OHMJ	J24279013		1-	A	C2
R 5045	CHIP RES.	100	1/16W	5%	RMC1/16 101JATP	J24185101		1-	A	C2
R 5046	CHIP RES.	1k	1/10W	5%	RMC1/10T 102J	J24205102		1-	A	B3
R 5047	CHIP RES.	470	1W	5%	RMC1 471JTE	J24305471		1-	A	C2
R 5068	CHIP RES.	1.8	1W	5%	RMC1 1R8JTE	J24305189		1-	A	D3
R 5069	CHIP RES.	1k	1/10W	5%	RMC1/10T 102J	J24205102		1-	A	E4
R 5070	CHIP RES.	6.8	1W	5%	RMC1 6R8JTE	J24305689		1-	A	D4
R 5071	CHIP RES.	100	1/10W	5%	RMC1/10T 101J	J24205101		1-	A	E3
R 5072	CHIP RES.	1.5	1W	5%	RMC1 1R5JTE	J24305159		1-	A	C3
R 5073	CHIP RES.	100	1/10W	5%	RMC1/10T 101J	J24205101		1-	A	B4
R 5074	METAL FILM RES.	22	1W	5%	ERG-1SJ220 22	J22305220		1-	A	B3
R 5075	METAL FILM RES.	22	1W	5%	ERG-1SJ220 22	J22305220		1-	A	E3
R 5076	CHIP RES.	1k	1/10W	5%	RMC1/10T 102J	J24205102		1-	A	B4
R 5077	CHIP RES.	6.8	1W	5%	RMC1 6R8JTE	J24305689		1-	A	B4
R 5078	CHIP RES.	100	1/10W	5%	RMC1/10T 101J	J24205101		1-	A	A3
R 5079	CHIP RES.	100	1/10W	5%	RMC1/10T 101J	J24205101		1-	A	E3
R 5400	CHIP RES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103		1-	A	A4
R 5401	CHIP RES.	330k	1/10W	0.5%	RR1220R-334-D-T5	J24209231		1-	A	A4
R 5403	CHIP RES.	4.7k	1/16W	5%	RMC1/16 472JATP	J24185472		1-	A	A4
R 5404	CHIP RES.	1.5k	1/10W	0.1%	RR1220P-152-B	J24209078		1-	A	A4
R 5405	CHIP RES.	1.5k	1/10W	0.1%	RR1220P-152-B	J24209078		1-	A	A4
R 5406	CHIP RES.	10k	1/10W	0.1%	RR1220P-103-B	J24209098		1-	A	A5
R 5407	CHIP RES.	1.5k	1/10W	0.1%	RR1220P-152-B	J24209078		1-	A	A4
R 5410	CHIP RES.	10k	1/10W	0.1%	RR1220P-103-B	J24209098		1-	A	A4
R 5411	CHIP RES.	1.5k	1/10W	0.1%	RR1220P-152-B	J24209078		1-	A	A4
R 5412	CHIP RES.	3.3k	1/16W	5%	RMC1/16 332JATP	J24185332		1-	A	A4
R 5413	CHIP RES.	1k	1/16W	5%	RMC1/16 102JATP	J24185102		1-	A	A4
R 5415	CHIP RES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103		1-	A	I7
R 5416	CHIP RES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103		1-	A	I7
R 5417	CHIP RES.	1k	1/16W	5%	RMC1/16 102JATP	J24185102		1-	A	J7
R 5418	CHIP RES.	4.7k	1/16W	5%	RMC1/16 472JATP	J24185472		1-	A	I7
R 5419	CHIP RES.	56	1/2W	5%	RMC1/2 560JTE	J24275560		1-	A	J7
R 5420	CHIP RES.	56	1/2W	5%	RMC1/2 560JTE	J24275560		1-	A	I7
R 5421	CHIP RES.	56	1/2W	5%	RMC1/2 560JTE	J24275560		1-	A	J7
R 5422	CHIP RES.	56	1/2W	5%	RMC1/2 560JTE	J24275560		1-	A	I7
R 5423	CHIP RES.	22	1W	5%	RMC1 220JTE	J24305220		1-	A	E7
R 5424	CHIP RES.	2.7k	1/16W	5%	RMC1/16 272JATP	J24185272		1-	A	A4
R 5430	CHIP RES.	470	1/10W	5%	RMC1/10T 471J	J24205471		1-3	A	C2
R 5431	CHIP RES.	470	1/10W	5%	RMC1/10T 471J	J24205471		1-3	A	C2
R 5432	CHIP RES.	470	1/10W	5%	RMC1/10T 471J	J24205471		1-3	A	D2
R 5433	CHIP RES.	470	1/10W	5%	RMC1/10T 471J	J24205471		1-3	A	D2
R 5434	CHIP RES.	1.5	1W	5%	RMC1 1R5JTE	J24305159		1-	A	D3
R 5435	CHIP RES.	1.8	1W	5%	RMC1 1R8JTE	J24305189		1-	A	B3
R 5436	CHIP RES.	5.6	1W	5%	RMC1 5R6JTE	J24305569		1-	A	D4
R 5437	CHIP RES.	5.6	1W	5%	RMC1 5R6JTE	J24305569		1-	A	D4
R 5438	CHIP RES.	5.6	1W	5%	RMC1 5R6JTE	J24305569		1-	A	C4
R 5439	CHIP RES.	5.6	1W	5%	RMC1 5R6JTE	J24305569		1-	A	C4
R 5440	CHIP RES.	220	1W	5%	RMC1 221JTE	J24305221		1-	A	E8
R 5441	CHIP RES.	22k	1/16W	5%	RMC1/16 223JATP	J24185223		1-	A	E1
R 5442	CHIP RES.	6.8k	1/16W	5%	RMC1/16 682JATP	J24185682		1-	A	E1
R 5443	SHUNT RES.	0.006		5%	R006J	J32009019		1-	A	B7
R 5444	CHIP RES.	330k	1/10W	0.5%	RR1220R-334-D-T5	J24209231		1-	A	A4
R 5445	CHIP RES.	0	1/4W	5%	RMC1/4 000JATP	J24245000		1-	A	I6

Parts List

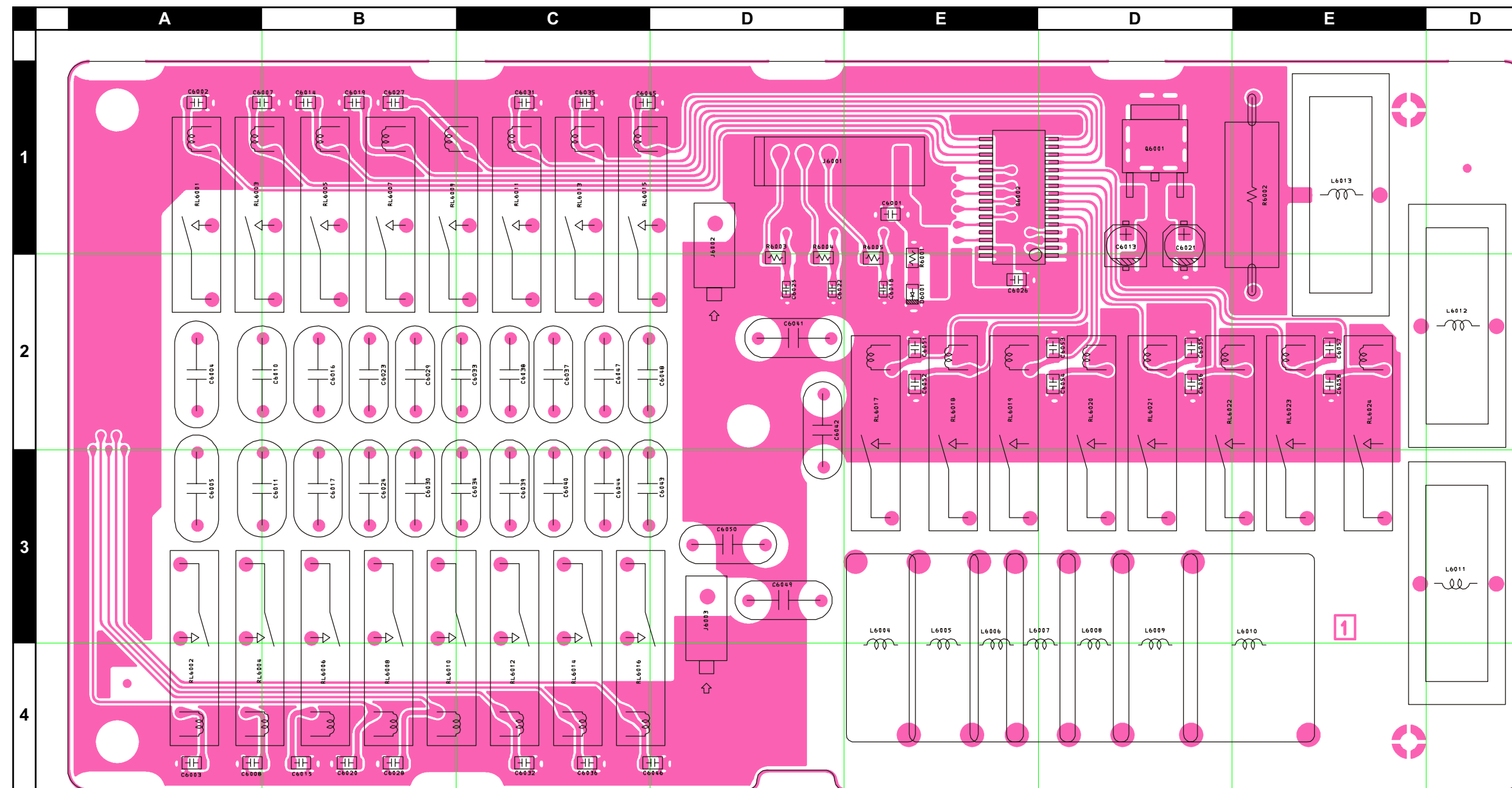
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TUNER Unit ATU-450 (Option)

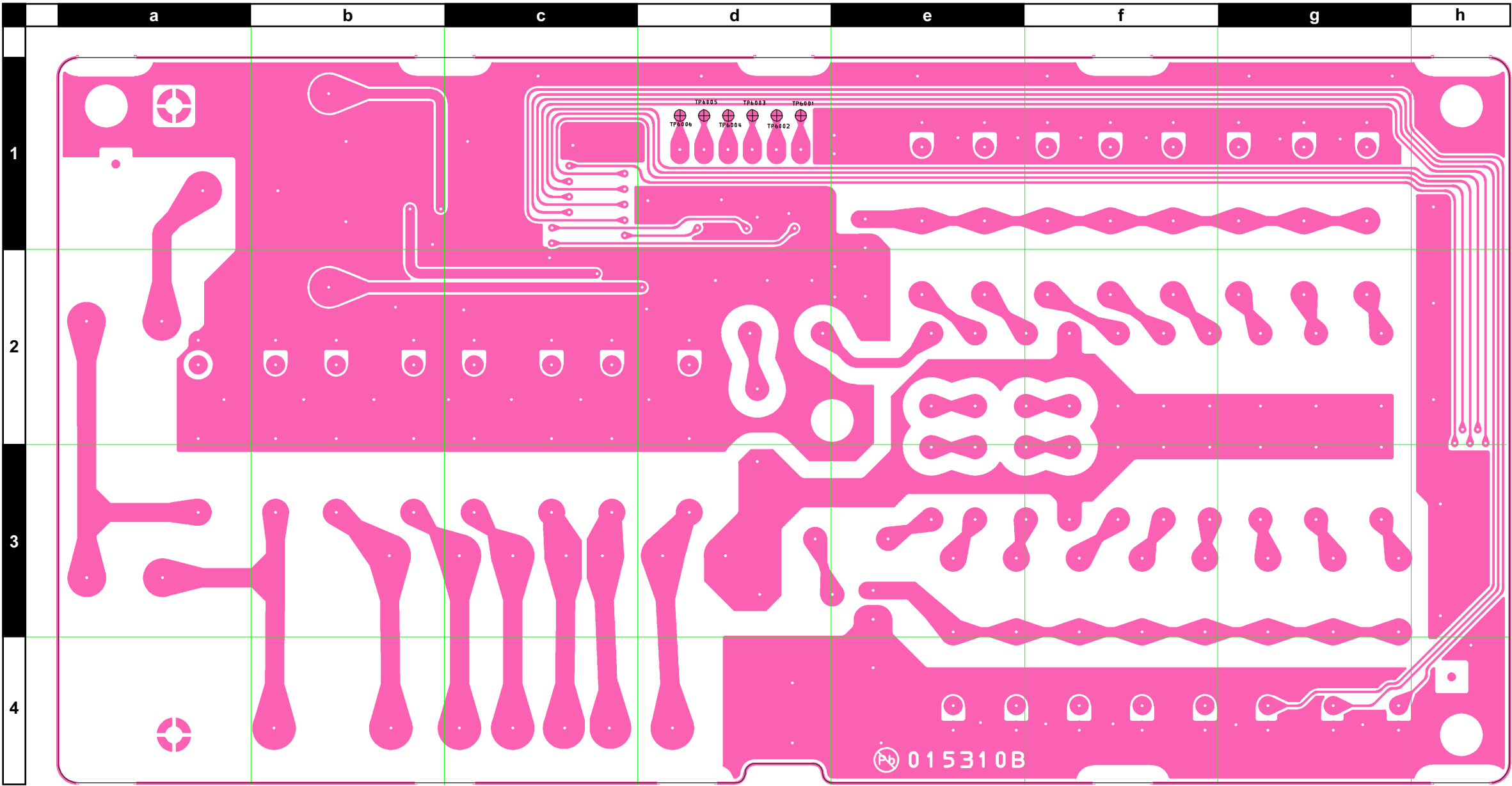
Note

Parts Layout (Side A)



TUNER Unit ATU-450 (Option)

Parts Layout (Side B)



TUNER Unit ATU-450

Parts List

REF	DESCRIPTION	VALUE	V/W	TOL.	MFR'S DESIG	VXSTD P/N	VERS.	LOT	SIDE	LAY ADR
PCB with Components						AAF28X001				
	Printed Circuit Board					FR015310B		1-		
C 6001	CHIP CAP.	0.1uF	25V	B	GRM40B104M25PT	K22140811		1-	A	E1
C 6002	CHIP CAP.	0.1uF	25V	B	GRM40B104M25PT	K22140811		1-	A	A1
C 6003	CHIP CAP.	0.1uF	25V	B	GRM40B104M25PT	K22140811		1-	A	A4
C 6004	CERAMIC CAP.	330pF	2KV	SL	DEA1X3D331JA3B	K00339003		1-	A	A2
C 6005	CERAMIC CAP.	330pF	2KV	SL	DEA1X3D331JA3B	K00339003		1-	A	A3
C 6007	CHIP CAP.	0.1uF	25V	B	GRM40B104M25PT	K22140811		1-	A	B1
C 6008	CHIP CAP.	0.1uF	25V	B	GRM40B104M25PT	K22140811		1-	A	A4
C 6010	CERAMIC CAP.	150pF	3.15KV	SL	DEA1X3F151JA3B	K00539008		1-	A	B2
C 6011	CERAMIC CAP.	150pF	3.15KV	SL	DEA1X3F151JA3B	K00539008		1-	A	B3
C 6013	AL.ELECTRO.CAP.	10uF	25V		EMVA250ADA100MD55G	K48140014		1-	A	F1
C 6014	CHIP CAP.	0.1uF	25V	B	GRM40B104M25PT	K22140811		1-	A	B1
C 6015	CHIP CAP.	0.1uF	25V	B	GRM40B104M25PT	K22140811		1-	A	B4
C 6016	CERAMIC CAP.	82pF	3.15KV	SL	DEA1X3F820JA3B	K00539006		1-	A	B2
C 6017	CERAMIC CAP.	82pF	3.15KV	SL	DEA1X3F820JA3B	K00539006		1-	A	B3
C 6018	CHIP CAP.	120pF	50V	CH	GRM1882C1H121JA01D	K22174237		1-	A	E2
C 6019	CHIP CAP.	0.1uF	25V	B	GRM40B104M25PT	K22140811		1-	A	B1
C 6020	CHIP CAP.	0.1uF	25V	B	GRM40B104M25PT	K22140811		1-	A	B4
C 6021	AL.ELECTRO.CAP.	10uF	25V		EMVA250ADA100MD55G	K48140014		1-	A	F1
C 6022	CHIP CAP.	120pF	50V	CH	GRM1882C1H121JA01D	K22174237		1-	A	D2
C 6023	CERAMIC CAP.	39pF	3.15KV	SL	DEA1X3F390JC3B	K00539004		1-	A	B2
C 6024	CERAMIC CAP.	39pF	3.15KV	SL	DEA1X3F390JC3B	K00539004		1-	A	B3
C 6025	CHIP CAP.	120pF	50V	CH	GRM1882C1H121JA01D	K22174237		1-	A	D2
C 6026	CHIP CAP.	0.1uF	25V	B	GRM40B104M25PT	K22140811		1-	A	E2
C 6027	CHIP CAP.	0.1uF	25V	B	GRM40B104M25PT	K22140811		1-	A	B1
C 6028	CHIP CAP.	0.1uF	25V	B	GRM40B104M25PT	K22140811		1-	A	B4
C 6029	CERAMIC CAP.	18pF	3.15KV	SL	DEA1X3F180JCDB	K00539002		1-	A	B2
C 6030	CERAMIC CAP.	18pF	3.15KV	SL	DEA1X3F180JCDB	K00539002		1-	A	B3
C 6031	CHIP CAP.	0.1uF	25V	B	GRM40B104M25PT	K22140811		1-	A	C1
C 6032	CHIP CAP.	0.1uF	25V	B	GRM40B104M25PT	K22140811		1-	A	C4
C 6033	CERAMIC CAP.	12pF	3.15KV	SL	DEA1X3F120JCDB	K00539001		1-	A	C2
C 6034	CERAMIC CAP.	12pF	3.15KV	SL	DEA1X3F120JCDB	K00539001		1-	A	C3
C 6035	CHIP CAP.	0.1uF	25V	B	GRM40B104M25PT	K22140811		1-	A	C1
C 6036	CHIP CAP.	0.1uF	25V	B	GRM40B104M25PT	K22140811		1-	A	C4
C 6037	CERAMIC CAP.	12pF	3.15KV	SL	DEA1X3F120JCDB	K00539001		1-	A	C2
C 6038	CERAMIC CAP.	12pF	3.15KV	SL	DEA1X3F120JCDB	K00539001		1-	A	C2
C 6039	CERAMIC CAP.	12pF	3.15KV	SL	DEA1X3F120JCDB	K00539001		1-	A	C3
C 6040	CERAMIC CAP.	12pF	3.15KV	SL	DEA1X3F120JCDB	K00539001		1-	A	C3
C 6041	CERAMIC CAP.	12pF	3.15KV	SL	DEA1X3F120JCDB	K00539001		1-	A	D2
C 6042	CERAMIC CAP.	12pF	3.15KV	SL	DEA1X3F120JCDB	K00539001		1-	A	D2
C 6043	CERAMIC CAP.	12pF	3.15KV	SL	DEA1X3F120JCDB	K00539001		1-	A	C3
C 6044	CERAMIC CAP.	12pF	3.15KV	SL	DEA1X3F120JCDB	K00539001		1-	A	C3
C 6045	CHIP CAP.	0.1uF	25V	B	GRM40B104M25PT	K22140811		1-	A	C1
C 6046	CHIP CAP.	0.1uF	25V	B	GRM40B104M25PT	K22140811		1-	A	D4
C 6047	CERAMIC CAP.	12pF	3.15KV	SL	DEA1X3F120JCDB	K00539001		1-	A	C2
C 6048	CERAMIC CAP.	12pF	3.15KV	SL	DEA1X3F120JCDB	K00539001		1-	A	C2
C 6049	CERAMIC CAP.	12pF	3.15KV	SL	DEA1X3F120JCDB	K00539001		1-	A	D3
C 6050	CERAMIC CAP.	12pF	3.15KV	SL	DEA1X3F120JCDB	K00539001		1-	A	D3
C 6051	CHIP CAP.	0.1uF	25V	B	GRM40B104M25PT	K22140811		1-	A	E2
C 6052	CHIP CAP.	0.1uF	25V	B	GRM40B104M25PT	K22140811		1-	A	E2
C 6053	CHIP CAP.	0.1uF	25V	B	GRM40B104M25PT	K22140811		1-	A	F2
C 6054	CHIP CAP.	0.1uF	25V	B	GRM40B104M25PT	K22140811		1-	A	F2
C 6055	CHIP CAP.	0.1uF	25V	B	GRM40B104M25PT	K22140811		1-	A	F2
C 6056	CHIP CAP.	0.1uF	25V	B	GRM40B104M25PT	K22140811		1-	A	F2
C 6057	CHIP CAP.	0.1uF	25V	B	GRM40B104M25PT	K22140811		1-	A	G2
C 6058	CHIP CAP.	0.1uF	25V	B	GRM40B104M25PT	K22140811		1-	A	G2
D 6001	LED				SML-210VTT86	G2070768		1-	A	E2
J 6001	CONNECTOR				SC25-06WS	P0090625		1-	A	D1
J 6002	CONNECTOR				TMP-S01X-C1	P1091254		1-	A	D1
J 6003	CONNECTOR				TMP-S01X-C1	P1091254		1-	A	D3
L 6004	COIL A1				2.5T16D1.6PEW R	L0022785		1-	A	E3
L 6005	COIL A1				2.5T16D1.6PEW R	L0022785		1-	A	E3
L 6006	COIL A1				1.5T16D1.6PEW R	L0022784		1-	A	E3
L 6007	COIL A1				2.5T16D1.6PEW R	L0022785		1-	A	E3
L 6008	COIL A1				2.5T16D1.6PEW R	L0022785		1-	A	F3
L 6009	COIL A1				3.5T16D1.6PEW R	L0022786		1-	A	F3
L 6010	COIL A1				6.5T16D1.6PEW R	L0022787		1-	A	F3
L 6011	TOROIDAL COIL	2.6uH			2.60U T80-6	L0022789		1-	A	H3
L 6012	TOROIDAL COIL	4.1uH			4.10U T80-2	L0022790		1-	A	G2
L 6013	TOROIDAL COIL	4.1uH			4.10U T80-2	L0022790		1-	A	G1
Q 6001	IC				L78M05T-TL	G1091731		1-	A	F1
Q 6002	IC				BU2152FS(TAPE)	G1093942		1-	A	E1

Parts List

FT-450 Technical Supplement



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