

50/144/430 MHz Triple-Band
Heavy Duty FM Transceiver

VX-5R

Technical Supplement

©2003 VERTEX STANDARD CO., LTD.

E126990A

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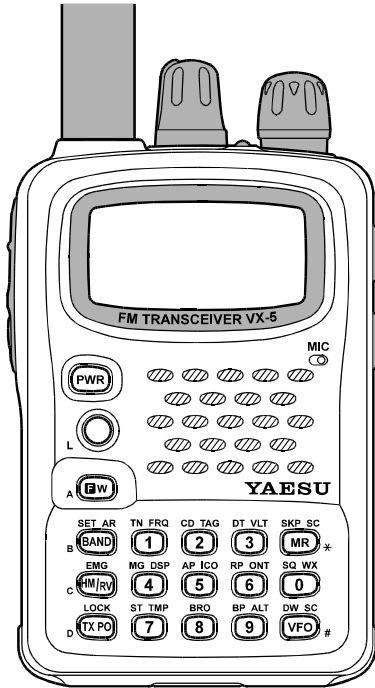
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Introduction

This manual provides the technical information necessary for servicing the VX-5R Triple-Band Heavy Duty FM 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 provided for each double-sided board in this transceiver. Each side of the board is referred to by the type of the majority of components installed on that side ("Side A" or "Side B"). 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 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

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Frequency Ranges:	Rx: 0.5 - 1.8 MHz (BC Band) 1.8 - 16 MHz (SW Band) 48 - 59 MHz (50 MHz HAM) 59 - 108 MHz (FM) 108 - 137 MHz (Air Band) 137 - 174 MHz (144 MHz HAM) 174 - 222 MHz (VHF-TV) 222 - 420 MHz (ACT1: Action Band 1) 420 - 470 MHz (430 MHz HAM) 470 - 729 MHz (UHF-TV) 800 - 999 MHz (ACT2: Action Band 2, Cellular Blocked)
	Tx: 50 - 54 MHz 144 - 146 MHz or 144 - 148 MHz 430 - 440 MHz or 430 - 450 MHz
Channel Steps:	5/9/10/12.5/15/20/25/50/100 kHz
Frequency Stability:	±5 ppm (-10°C to +60°C)
Repeater Shift (default):	±600 kHz (144 MHz) ±1.6/5.0/7.6 MHz (430 MHz)
Emission Type:	F2, F3
Antenna Impedance:	50 Ω
Supply Voltage:	Nominal: 7.2 V DC, Negative Ground Operating: 10 - 16 V DC, Negative Ground (EXT DC jack)
Current Consumption:	150 mA (Receive) 55 mA (Standby, Saver Off) 25 mA (Standby, Saver On) 400 μA (Auto Power Off) 1.6 A (5 W Tx, 50 MHz) 1.7 A (5 W Tx, 144 MHz) 1.9 A (4.5 W Tx, 430 MHz)
Operating Temperature:	-20°C to +60°C
Case Size:	58 (W) x 88 (H) x 27 (D) mm (w/o knob & antenna)
Weight:	255 g

Transmitter

RF Power Output:	5 W (@ 13.8 V EXT DC IN) 5 W (@ 7.2 V, 50 MHz/144 MHz) 4.5 W (@ 7.2 V, 430 MHz)
Modulation Type:	Variable Reactance
Maximum Deviation:	±5 kHz
Spurious Emission:	At least 60 dB below
Microphone Impedance:	2 kΩ

Receiver

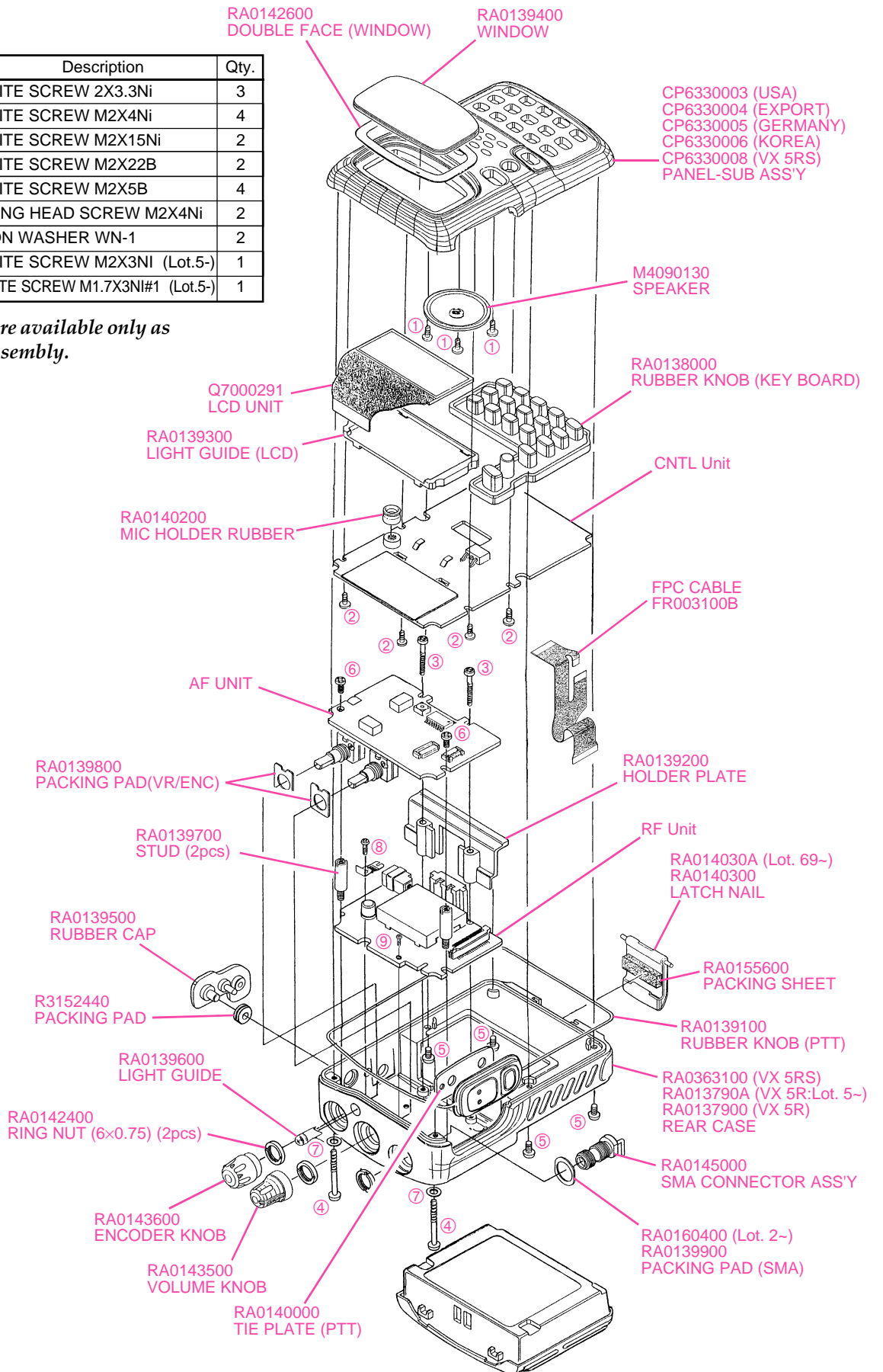
Circuit Type:	Double-Conversion Superheterodyne
Intermediate Frequencies:	1st: 47.25 MHz (N-FM) 45.8 MHz (W-FM) 2nd: 450 kHz (N-FM) 10.7 MHz (W-FM)
Sensitivity:	0.16 μV for 12 dB SINAD (50 - 54 MHz/144-148 MHz, N-FM) 0.9 μV for 12 dB SINAD (76 - 108 MHz/174 - 222 MHz, W-FM) 0.18 μV for 12 dB SINAD (430 - 450 MHz, N-FM) 3 μV for 12 dB SINAD (470 - 729 MHz, except 540-630 MHz, W-FM)
Selectivity:	15 kHz/35 kHz (-6 dB/-60 dB: N-FM)
AF Output:	400 mW @ 8 Ω for 10 % THD (@ 7.2V DC)

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

Exploded View & Miscellaneous Parts

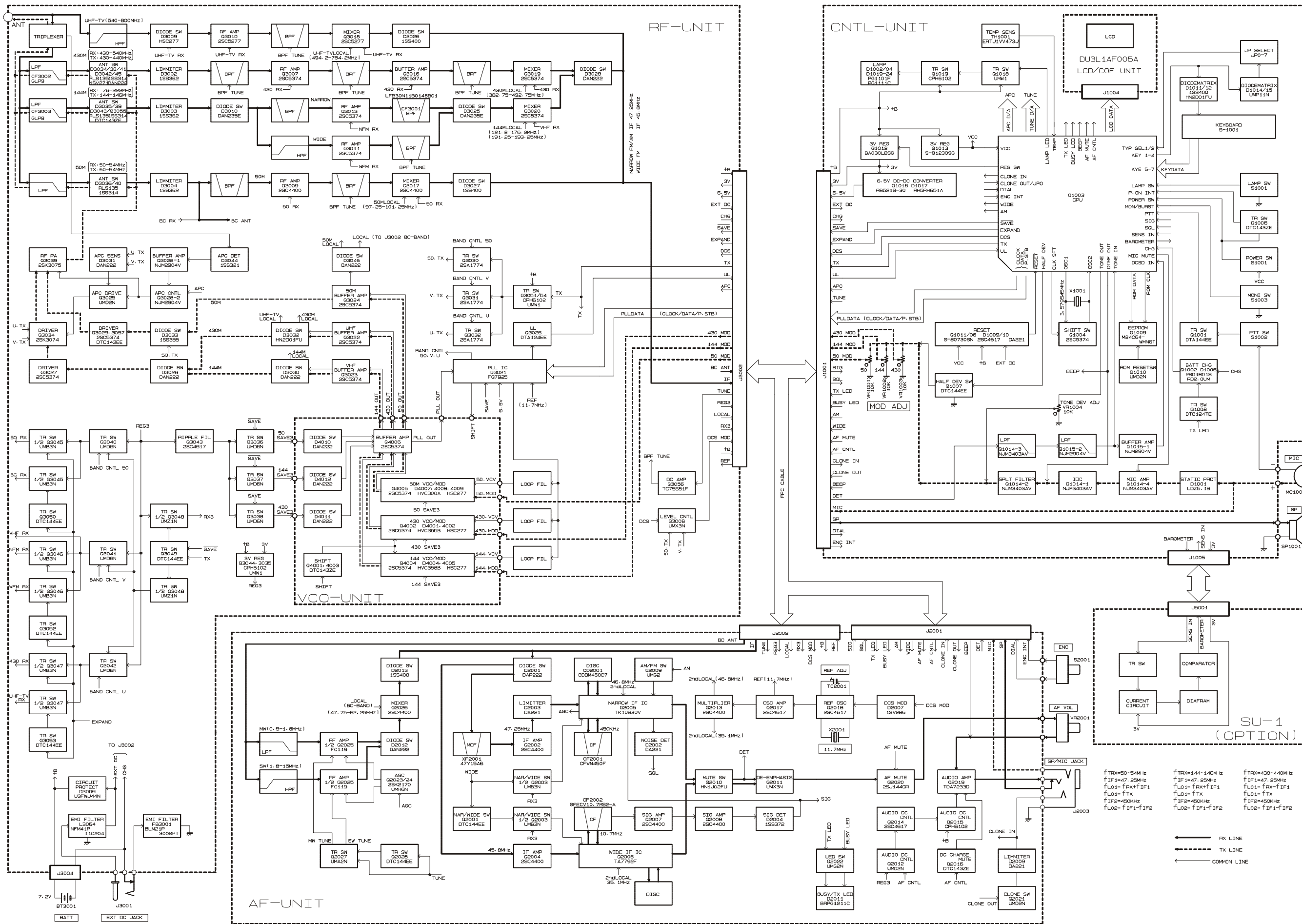
No.	YAESU P/N	Description	Qty.
①	U9900063	TAPTITE SCREW 2X3.3Ni	3
②	U44104002	TAPTITE SCREW M2X4Ni	4
③	U44115002	TAPTITE SCREW M2X15Ni	2
④	U9900089	TAPTITE SCREW M2X22B	2
⑤	U44105007	TAPTITE SCREW M2X5B	4
⑥	U20104002	BINDING HEAD SCREW M2X4Ni	2
⑦	U9900088	NYLON WASHER WN-1	2
⑧	U9900090	TAPTITE SCREW M2X3NI (Lot.5-)	1
⑨	U9900066	TAPTITE SCREW M1.7X3NI#1 (Lot.5-)	1

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

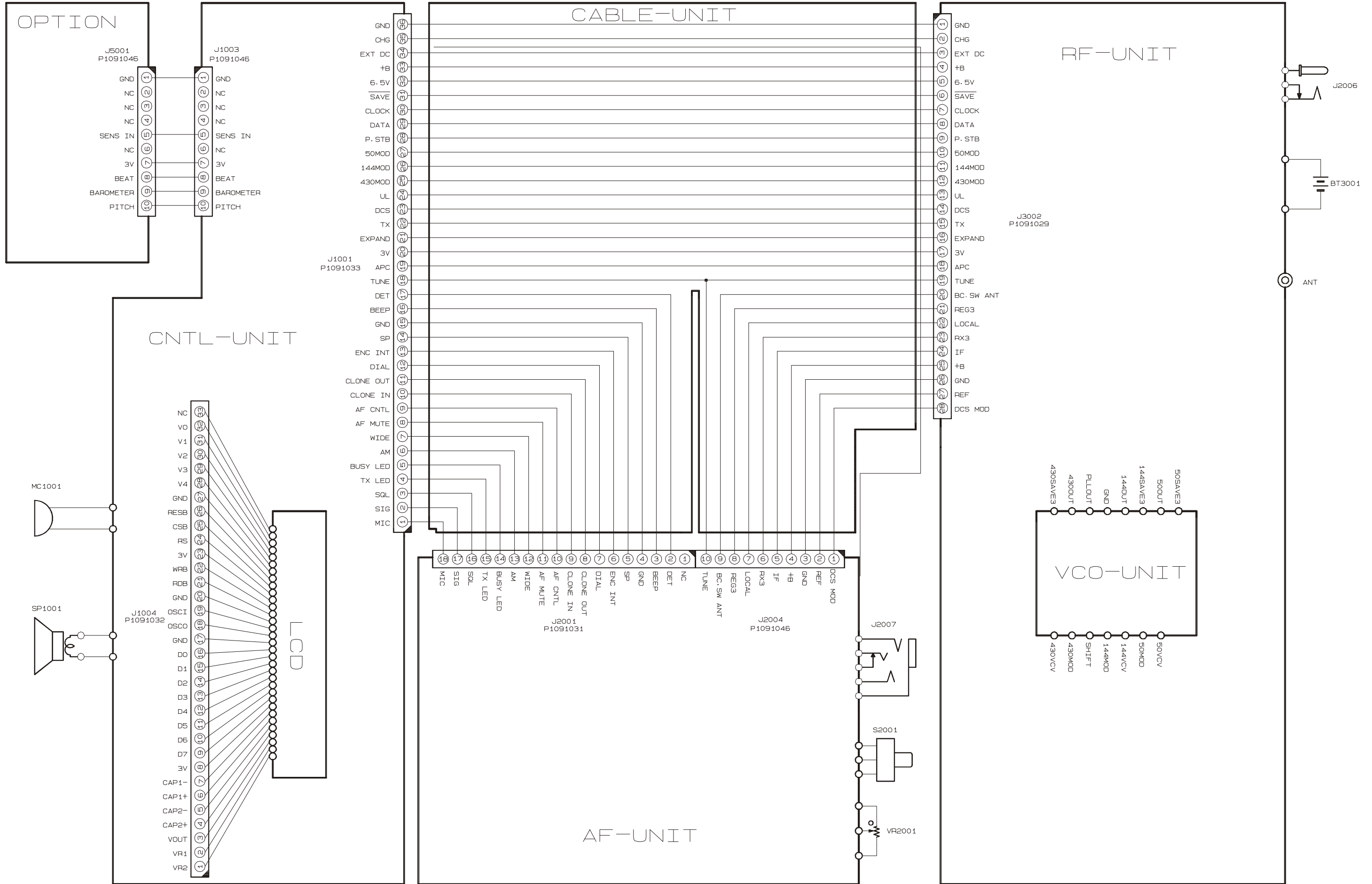


Note:

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Interconnection Diagram



Circuit Description

The VX-5R internal assembly consists of the RF Unit, Control (CNTL) Unit, and the AF Unit. The RF Unit contains the receiver front end, PLL IC, power and switching circuits, and the VCO Unit for transmit and receive local signal oscillation. The CNTL Unit contains the CPU and audio ICs, as well as the power circuitry for the LCD. The AF Unit contains the IF, plus audio ICs.

Receiver Signal Flow

The VX-5R includes five receiver front ends, each optimized for a particular frequency range and mode combination.

(1) Triplexer

Signals between 0.5 and 540 MHz received at the antenna terminal pass through an input low-pass filter composed of L3059, L3060, C3176, and C3175.

Received 430 MHz signals then pass through a low-pass filter, CF3002 (**GLP9-450M**), to the UHF T/R switch circuit composed of diode switch D3034 (**RLS135**), D3038 (**1SV307**), and D3041 (**1SV271**).

Received 145 MHz signals, after passing through the first low-pass filter, are passed through low-pass filter CF3003 (**GLP8-148M**) to the VHF T/R switch circuit, composed of diode switch D3035 (**RLS135**), D3039 (**1SV307**), D3043 (**1SV271**), and Q3055 (**DTC143ZE**).

On the 6-meter band, the 50 MHz signals, after passing through the first low-pass filter, are passed through low-pass filter L3055, C3164, C3169, and C3163 to the 50 MHz T/R switch circuit composed of diode switches D3036 (**RLS135**) and D3040 (**1SV307**).

(2) 145 MHz Band Reception

Received signals between 140 and 150 MHz pass through the Triplexer circuit, VHF T/R switch circuit, protector diode D3003 (**1SS362**), and 1st VHF band switch D3010 (**DAN235E**) before additional filtering by a band-pass filter consisting of C3023, L3010, and C3032. The signals are then applied to RF amplifier Q3013 (**2SC5374**). The amplified RF signal is band-pass filtered by CF3001 (**LFB30N11B0146B010PT**) and applied through the 2nd VHF band switch circuit D3025 (**DAN235E**) to the first mixer, Q3020 (**2SC5374**).

Meanwhile, VHF output from pin 5 of the VCO Unit is amplified by Q3023 (**2SC5374**) and applied through diode T/R switch D3030 (**DAN222**) to mixer Q3020 as the first local signal.

The 47.25 MHz intermediate frequency product of the mixer is delivered to the AF Unit.

(3) 435 MHz Band and 222 ~ 540 MHz Reception

Received signals between 430 and 450 MHz pass through the Triplexer circuit, UHF T/R switch circuit, protector diode D3002 (**1SS362**), and a variable band-pass filter composed of L3006, D3008 (**HVC358B**), and C3017 before application to RF amplifier Q3007 (**2SC5374**).

The amplified RF signal is then filtered by a two-stage variable band-pass filter composed of L3014, D3012 (**HVC358B**), C3040, C3044, D3015 (**HVC358B**), C3054, and L3020, then further amplified by Q3016 (**2SC5374**). The output of Q3016 is applied to a variable band pass filter composed of L3029, D3024 (**HVC358B**), and C3079 so that only signals within the desired frequency range are delivered to the first mixer, Q3019 (**2SC5374**).

Meanwhile, UHF output from pin 2 of the VCO Unit is amplified by Q3022 (**2SC5374**) and applied through diode T/R switch D3032 (**HN2D01FU**) to mixer Q3019 as the “430 Local” first local signal. The 47.25 MHz intermediate frequency product of the mixer is delivered to the AF Unit.

The “TUNE” voltage from the CPU on the CNTL Unit is amplified by DC amplifier Q3056 (**TC75S51F**) and applied to varactors D3008, D3012, D3015, and D3024 in the variable frequency band-pass filters. By changing the electrostatic capacitance of the varactors, optimum filter characteristics are provided for each specific operating frequency.

(4) 50 MHz Band and 47 ~ 76 MHz Reception

Received signals between 50 and 54 MHz pass through the Triplexer circuit, T/R switch circuit, protector diode D3004 (**1SS362**), and a variable band-pass filter composed of L3007, C3015, C3021, L3009, and C3025 before application to RF amplifier Q3009 (**2SC4400**).

The amplified RF signal is then filtered by a two-stage variable band-pass filter composed of L3017, D3013 (**HVC300A**), C3047, C3048, D3016 (**HVC300A**), C3055, and L3021, then further amplified by Q3009, so that only signals within the desired frequency range are delivered to the first mixer, Q3017 (**2SC4400**).

Meanwhile, 50 MHz output from pin 7 of the VCO Unit is amplified by Q3024 (**2SC5374**) and applied through diode T/R switch D3046 (**DAN222**) to mixer Q3017 as the “50 Local” first local signal. The 47.25 MHz intermediate frequency product of the mixer is delivered to the AF Unit.

The “TUNE” voltage from the CPU on the CNTL Unit is amplified by DC amplifier Q3056 (**TC75S51F**) and applied to varactors D3013 and D3016 in the variable fre-

Circuit Description

quency band-pass filters. By changing the electrostatic capacitance of the varactors, optimum filter characteristics are provided for each specific operating frequency.

(5) 0.5 ~ 16 MHz Reception

Received signals in the MF and HF bands pass through the Triplexer circuit, T/R switch circuit, and protector diode D3004 (**1SS362**), then they flow to the AF Unit.

The RF signal is then filtered by a low-pass filter composed of L2014 and C2018 (0.5 ~ 1.8 MHz) or a high-pass filter composed of C2109 and L2016 (1.8 ~ 16 MHz), then further amplified by Q2025 (**FC119**), so that only signals within the desired frequency range are delivered to the first mixer, Q2026 (**2SC4400**).

Meanwhile, 50 MHz output from pin 7 of the VCO Unit is amplified by Q3024 (**2SC5374**) and applied through diode T/R switch D3046 (**DAN222**) to mixer Q2026 as the "BC Local" first local signal. The 47.25 MHz intermediate frequency product of the mixer is delivered to pin 24 of "Narrow IF" IC Q2005.

(6) 76 ~ 222 MHz Reception

Received signals between 76 and 140 MHz or 150 to 222 MHz pass through the Triplexer circuit, VHF T/R switch circuit, protector diode D3003 (**1SS362**), and 1st VHF band switch D3010 (**DAN235E**) before additional filtering by a band-pass filter composed of C3024, L3007, and C3033 prior to application to RF amplifier Q3011 (**2SC5374**).

The amplified RF signal is then filtered by a variable band-pass filter composed of D3018, D3019 (**HVC362×2**), L3023, D3021 (**1T412**), C3068, L3026, D3022, and D3023 (**HVC362**). The output of D3023 is applied to a variable band pass filter so that only signals within the desired frequency range are delivered to the first mixer, Q3020 (**2SC5374**).

Meanwhile, VHF output from pin 5 of the VCO Unit is amplified by Q3023 (**2SC5374**) and applied through diode T/R switch D3030 (**DAN222**) to mixer Q3020 as the first local signal.

The 45.8 MHz intermediate frequency product of the mixer is delivered to the AF Unit.

(7) 540 ~ 800 MHz Reception

Received signals between 540 and 800 MHz are high-pass filtered by C3001, L3003, C3007, L3005, C3014, and L3008, and then passed through high-band diode switch D3009 (**HSC277**) before application to high-band RF amplifier Q3010 (**2SC5277**). The amplified RF signal is then

filtered by a variable band-pass filter composed of D3018, D3019 (**HVC362×2**), L3023, D3021 (**1T412**), C3068, L3026, D3022, and D3023 (**HVC362×2**). The output of the filter is applied to first mixer Q3018 (**2SC5277**), along with the 800 Local first local signal derived from UHF OUT pin 2 of the VCO Unit, which was amplified by Q3022 (**2SC5374**) and applied through diode T/R switch D3032. The 47.25 MHz intermediate frequency product of the mixer is delivered to the AF Unit.

(8) 47.25 MHz First Intermediate Frequency

The 47.25 MHz first intermediate frequency from the first mixers is delivered from the RF Unit to the AF Unit through jacks J3002 and J2002. On the AF Unit, the IF for AM and FM-narrow signals is passed through NAR/WIDE switch D2001 (**DAP222**) and 47.25 MHz monolithic crystal filter XF2001 to Narrow-IF amplifier Q2002 (**2SC4400**) for input to pin 24 of Narrow IF IC Q2005 (**TK10930V**) after amplitude limiting by D2003 (**DA221**).

Meanwhile, a portion of the output of reference oscillator Q2018 (**2SC4617**) and 11.7 MHz crystal X2001 is multiplied fourfold by Q2013 (**2SC4400**) to provide the 46.8 MHz second local signal, which is applied to the Narrow-IF IC. Within the IC, this signal is mixed with the 47.25 MHz first intermediate frequency signal to produce the 450 kHz second intermediate frequency.

This second IF is filtered by ceramic filter CF2001 (**CFWM450F**) and amplified by the limiting amplifier within the Narrow IF IC before quadrature detection by ceramic discriminator CD2001 (**CDBM450C7**).

Demodulated audio exits from pin 12 of the Narrow IF IC through Narrow-IF mute analog switch Q2010 (**HN1J02FU**) and squelch gate Q2020 (**2SJ144GR**) before de-emphasis at Q2011 (**UMX3N**).

The resulting audio is amplified by AF amplifier Q2019 (**TDA7233D**) and passed through **MIC/EAR** jack J2003 to the internal speaker, SP1001, or an external earphone.

(9) Squelch Control

Signal components in the neighborhood of 15 kHz contained in the discriminator output pass through an active band-pass filter composed of R2019, R2021, R2014, C2025, and C2029, as well as the operational amplifier between pins 19 and 20 within Narrow-IF IC Q2005. They are then rectified by D2002 (**DA221**) to obtain a DC voltage corresponding to the level of noise. This voltage is applied to pin 99 of CPU Q1003 (**HD6473877UX**), which compares the input voltage with a previously set threshold. When

the input voltage drops below the threshold, normally due to the presence of a carrier, squelch gate Q2020 (**2SJ144GR**) turns on, allowing any demodulated audio to pass. At the same time, pin 73 of the CPU goes high, causing the green side of **BUSY/TX** lamp D2011 (**BRPG1211C**) to light up.

Transmitter Signal Flow

(1) Modulation

Voice signal input from either built-in microphone MC1001 (**EM-140**) on the CNTL Unit or external jack J2003 on the AF Unit is pre-emphasized by C1012 and R1010, and processed by microphone amplifier Q1014-4 (**NJM3403AV**) and IDC (instantaneous deviation control) circuit Q1014-1 to prevent over-modulation, then fed through an active low-pass filter at Q1014-2.

During CTCSS operation, the voice signal is mixed with the “TONE ENC” subaudible tone signal from pin 90 of the CPU and delivered to the RF Unit through jacks J1001 and J3002. During DTMF operation, the DTMF tones from pin 91 of the CPU are passed to the IDC stage.

(2) 145 MHz Band Transmission

Modulating audio from the CNTL Unit passes through deviation-setting potentiometer VR1002 to “VHF MOD” pin 4 of the VCO Unit, which is mounted on the RF Unit. This signal is applied to varactor D4004 (**HVC358B**) in the tank circuit of VHF VCO Q4004 (**2SC5374**), which oscillates at the desired VHF transmitting frequency. The modulated VCO signal is buffered by amplifier Q4006 (**2SC5374**) and Q3023, and delivered through VHF T/R diode switch D3030 to the RF Unit. The modulated low-level VHF transmit signal from the VCO is passed through diode switch D3029 (**DAN222**) to amplifier Q3027 (**2SC5374**). The modulated VHF transmit signal from the VCO is amplified by Q3034 (**2SK3074**) and RF power amplifier Q3039 (**2SK3075**) up to 0.1, 0.5, or 5 W (depending on the power level selected by the operator). The RF output passes through TX diode switch D3035 to low-pass filter CF3003, to suppress harmonics and spurious products before delivery to the antenna at the antenna terminal.

(3) 145 MHz Band Transmit/Receive Switching

Closing PTT switch S1002 on the CNTL Unit pulls the base of Q1001 (**DTA144EE**) low, causing the collector to go high. This signal is passed to pin 39 (“PTT”) of CPU Q1003, allowing the CPU to recognize that the PTT switch has been pushed. When the CPU detects closure of the

PTT switch, pin 13 (“TX”) goes high. This control signal is delivered to the RF Unit, where it switches Q3054 (**UMW1**) and Q3051 (**CPH6102**) to produce the “TX” control signal that activates Q3031 (**2SA1774**). At the same time, PLL division data is sent to PLL IC Q3021 (**FQ7925**) from the CPU, and “RX” pin 4 goes low, to disable the receiver power saver. Also, Q3041 (**UMD6N**) is switched so as to disable the receiver circuits. The red side of the BUSY/TX lamp D2011 also lights up.

(4) 435 MHz Band Transmission

Modulating audio from the CNTL Unit passes through deviation-setting potentiometer VR1003 to “VHF MOD” pin 2 of the VCO Unit, which is mounted on the RF Unit. This signal is applied to varactor D4001 (**HVC355B**) in the tank circuit of UHF VCO Q4002 (**2SC5374**), which oscillates at the desired UHF transmitting frequency. The modulated VCO signal is buffered by amplifier Q4006 (**2SC5374**) and Q3022, and delivered through UHF T/R diode switch D3032 to the RF Unit. The modulated low-level UHF transmit signal from the VCO is passed through diode switch D3029 (**DAN222**) to amplifier Q3027 (**2SC5374**), then amplified by driver Q3034 (**2SK3074**) and RF power amplifier Q3039 (**2SK3075**) up to 0.1, 0.5 or 4.5 W (depending on the power level selected by the operator). The RF output passes through TX diode switch D3034 and low-pass filtered at CF3002 to suppress harmonics and spurious products before delivery to the antenna at the antenna terminal.

(5) 435 MHz Band Transmit/Receive Switching

Closing “PTT” switch S1002 on the CNTL Unit pulls the base of Q1001 (**DTA144EE**) low, causing the collector to go high. This signal is passed to pin 39 (“PTT”) of CPU Q1003, allowing the CPU to recognize that the PTT switch has been pushed. When the CPU detects closure of the PTT switch, pin 13 (“TX”) goes high. This control signal is delivered to the RF Unit, where it switches Q3054 (**UMW1**) and Q3051 (**CPH6102**) to produce the “TX” control signal that activates Q3032 (**2SA1774**). At the same time, PLL division data is sent to PLL IC Q3021 (**FQ7925**) from the CPU, and “RX” pin 4 goes low, to (A) disable the receiver power saver and (B) switch Q3041 (**UMD6N**) to disable the receiver circuits. The red side of BUSY/TX lamp D2011 lights up under this condition.

Circuit Description

(6) 50 MHz Band Transmission

Modulating audio from the CNTL Unit passes through deviation-setting potentiometer VR1001 to “50 MHz MOD” pin 6 of the VCO Unit, which is mounted on the RF Unit. This signal is applied to varactors D4007 and D4008 (**HVC300A×2**) in the tank circuit of VHF VCO Q4005 (**2SC5374**), which oscillates at the desired 50 MHz transmitting frequency. The modulated VCO signal is buffered by amplifier Q4006 (**2SC5374**) and Q3024, and delivered through 50 MHz T/R diode switch D3033 (**1SS355**) to the RF Unit. The modulated low-level 50 MHz transmit signal from the VCO is passed through diode switch D3033 to amplifier Q3029 (**2SC5374**), then amplified by RF power amplifier Q3039 (**2SK3075**) up to 0.1, 0.5 or 5 W (depending on the power level selected by the operator). The RF output passes through TX diode switch D3036 and low-pass filtered by L3055, C3164, C3169, and C3163 to suppress harmonics and spurious products before delivery to the antenna at the antenna terminal.

(7) 50 MHz Band Transmit/Receive Switching

Closing “PTT” switch S1002 on the CNTL Unit pulls the base of Q1001 (**DTA144EE**) low, causing the collector to go high. This signal is passed to pin 39 (“PTT”) of CPU Q1003, allowing the CPU to recognize that the PTT switch has been pushed. When the CPU detects closure of the PTT switch, pin 13 (“TX”) goes high. This control signal is delivered to the RF Unit, where it switches Q3054 (**UMW1**) and Q3051 (**CPH6102**) to produce the TX control signal that activates Q3030 (**2SA1774**). At the same time, PLL division data is sent to PLL IC Q3021 (**FQ7925**) from the CPU, and “RX” pin 4 goes low, to (A) disable the receiver power saver and (B) switch Q3041 (**UMD6N**) to disable the receiver circuits. The red side of BUSY/TX lamp D2011 lights up under this condition.

PLL Frequency Synthesizer

PLL IC Q3021 on the RF Unit consists of a data shift register, reference frequency divider, phase comparator, charge pump, intermittent operation control circuit, and band selector switch. Serial PLL data from the CPU is converted into parallel data by the shift register in the PLL IC and is latched into the comparative frequency divider and reference frequency divider to set a frequency dividing ratio for each. An 11.7 MHz reference signal produced by X2001 and Q2018 (**2SC4617**) on the AF Unit is sent to “REF” pin 12 of the PLL IC. The internal reference frequency divider divides the 11.7 MHz reference by 2,050 (or 1,640) to obtain a reference frequency of 5 kHz (or 6.25 kHz), which is applied to the phase comparator. Meanwhile, a sample of the output of VHF VCO Q4004 (**2SC5374**), UHF VCO Q4002 (**2SC5374**), or 50 MHz VCO Q4005 (**2SC5374**) is buffered by Q4006 (**2SC5374**), then passed to pin 8 of the PLL IC, where it is frequency-divided by the internal comparative frequency divider to produce a comparative frequency which is applied to the phase comparator. The phase comparator compares the phase between the reference frequency and comparative frequency, producing an output pulse corresponding to the phase difference between them. This pulse is sent to the charge pump, and the output from the charge pump passes through a loop filter composed of L3034, R3079, C3097, and either R3084, C3104, R3088, and C3109 for VHF, or R3083, C3103, R3087 and C3108 for UHF, or C3099, R3085, C3105, R3089 and C3110 for 50 MHz, which convert the pulse into a corresponding smoothed varactor control voltage (VCV). The VCV is applied to varactor D4004 in the VHF VCO tank circuit, or to varactor D4001 in the UHF VCO tank circuit, or to varactors D4007 and D4008 in the 50 MHz VCO, to eliminate phase difference between the reference frequency and comparative frequency, thereby locking the VCO oscillation frequency to the reference crystal. The VCO frequency is determined by the frequency dividing ratio sent from the CPU to the PLL IC. During receiver power save operation, the PLL circuit operates intermittently to reduce current consumption, and the “intermittent operation control” circuit reduces the lock-up time in this mode of operation.

Introduction

The VX-5R is carefully aligned at the factory for the specified performance across the amateur band. Realignment should therefore not be necessary except in the event of a component failure. If a sudden problem occurs during normal operation, it is likely due to component failure; realignment should not be done until after the faulty component has been replaced.

The following procedures cover the adjustments that are not normally required once the transceiver has left the factory. However, if damage occurs and some parts subsequently are replaced, realignment may be required.

We recommend that servicing be performed only by authorized VERTEX STANDARD service technicians who are experienced with the circuitry and fully equipped for repair and alignment. If a fault is suspected, contact the dealer from whom the transceiver was purchased for instructions regarding repair. Authorized VERTEX STANDARD service technicians realign all circuits and make complete performance checks to ensure compliance with factory specifications after replacing any faulty components. Those who do undertake any of the following alignments are cautioned to proceed at their own risk. Problems caused by unauthorized attempts at realignment are not covered by the warranty policy. Also, Yaesu reserves the right to change circuits and alignment procedures in the interest of improved performance, without notifying owners.

Under no circumstances should any alignment be attempted unless the normal function and operation of the transceiver are clearly understood, the cause of the malfunction has been clearly pinpointed and any faulty components replaced, and realignment determined to be absolutely necessary.

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

Do not attempt to perform only a single step unless it is clearly isolated electrically from all other steps. Have all test equipment ready before beginning and, follow all of the steps in a section in the order presented.

Required Test Equipment

- RF Signal Generator with calibrated output level at 500 MHz
- Deviation Meter (linear detector)
- In-line Wattmeter with 5% accuracy at 500 MHz
- 50-ohm, 10-W RF Dummy Load
- 8-ohm AF Dummy Load
- Regulated DC Power Supply adjustable from 3 to 15 V DC, 2A
- Frequency Counter: 0.2-ppm accuracy at 500 MHz
- AF Signal Generator
- AC Voltmeter
- DC Voltmeter: high impedance
- UHF Sampling Coupler
- SINAD Meter

Alignment Preparation & Precautions

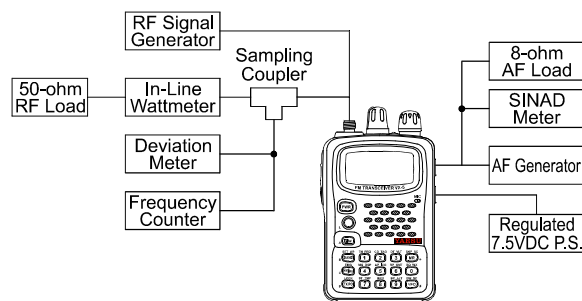
A 10-ohm RF load and in-line wattmeter must be connected to the main antenna jack in all procedures that call for transmission, as accurate alignment is not possible with an antenna. After completing one step, read the next step to see if the same test equipment is required. If not, remove the test equipment (except dummy load and wattmeter, if connected) before proceeding.

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

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

Test Setup

Set up the test equipment as shown below for transceiver alignment, and apply 7.5 V DC power to the transceiver. Refer to the drawings for Alignment Points.



Alignment Setup

Alignment

PLL Reference Frequency

With the wattmeter, dummy load, and frequency counter connected to the antenna jack, set the transceiver frequency to 435.000 MHz. Transmit, and adjust TC1001 on the AF Unit, if necessary, so the counter frequency is within 100 Hz of the displayed frequency on the VX-5R.

50 MHz band Tx Deviation Adjustment

- With the wattmeter, dummy load and deviation meter connected to the antenna jack, set the transceiver to 52.000 MHz. Inject a 1 kHz audio tone at a level of 80 mV (rms) to the MIC jack.
- Transmit, and adjust VR1001 to obtain ± 4.2 - 4.5 kHz deviation, as indicated on the deviation meter (± 3.7 - 4.0 kHz for A1, A2A, A2B, and A3 versions).

144 MHz band Tx Deviation Adjustment

- With the wattmeter, dummy load and deviation meter connected to the antenna jack, set the transceiver to the center of the 144 MHz band (145 MHz or 146 MHz). Inject a 1 kHz audio tone at a level of 80 mV (rms) to the MIC jack.
- Transmit, and adjust VR1002 to obtain ± 4.2 - 4.5 kHz deviation, as indicated on the deviation meter (± 3.7 - 4.0 kHz for A1, A2A, A2B and A3 versions).

430 MHz band Tx Deviation Adjustment

- With the wattmeter, dummy load and deviation meter connected to the antenna jack, set the transceiver to the center of the 430 MHz band (435 MHz or 440 MHz). Inject a 1 kHz audio tone at a level of 80 mV (rms) to the MIC jack.
- Transmit, and adjust VR1003 to obtain ± 4.2 - 4.5 kHz deviation, as indicated on the deviation meter (± 3.7 - 4.0 kHz for A1, A2A, A2B and A3 versions).

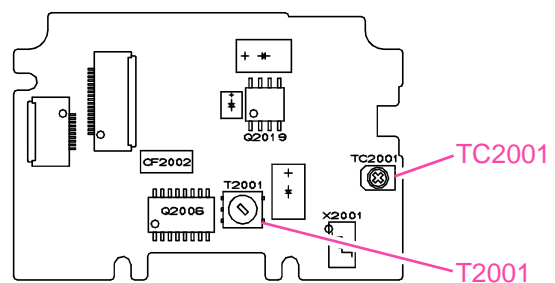
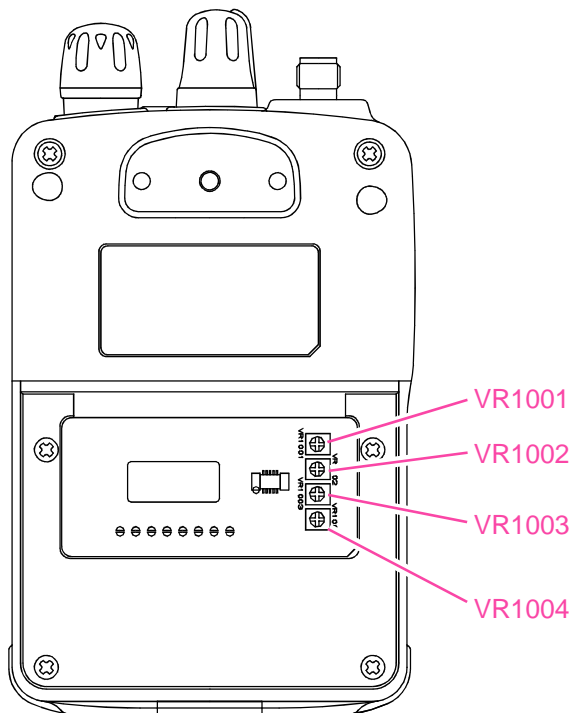
CTCSS Tx Deviation Adjustment

- With the wattmeter, dummy load and deviation meter connected to the antenna jack, set the transceiver to the center of 144 MHz band, and enable the CTCSS encoder at a frequency of 88.5 Hz.
- Transmit, and adjust VR1004 to obtain ± 0.6 - 0.8 kHz as indicated on the deviation meter.

FM Wide Alignment

- With the transceiver and RF signal generator both tuned to 78.1 MHz, modulate the RF signal generator with a 1 kHz tone at a deviation of ± 20 kHz, at a level of $+40$ dB μ at the antenna jack.
- Adjust T2001 for optimum quieting as indicated on the SINAD meter.

Back of the Transceiver Body



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Alignment Points

Internal System Alignment Routine

This uses a programmed routine in the transceiver which simplifies many previously complex discrete component settings and adjustments with digitally-controlled settings via front panel buttons and LCD indications. Transceiver adjustments include:

- Squelch Hysteresis
- Squelch Threshold & Tight Adjustment
- S-Meter Full Scale & S-1 Adjustment
- Wide-FM S-Meter Full Scale & S-1 Adjustment
- Power Output Adjustment (Hi/L3/L2/L1)

To begin, set the transceiver to the center of the 50 MHz, 144 MHz, and 430 MHz bands. Next, select the 50 MHz band, then turn the transceiver off.

Now, press and hold the BAND, TXPO and 0 button together while powering the radio on again. The display will show the first setting.

Note that the first few settings are not adjustable and are left as set from the factory.

In the alignment process, each adjustment is selected by rotating the DIAL. Alignment is performed by:

- Pressing the MR button;
- Injecting a signal of the required frequency and level; then
- Pressing the MR button after a level setting or adjustment is made. This second pressing of the MR button stores the entry.

To exit the alignment routine, press the HOME button. After performing the system alignment in its entirety, individual settings can be returned to and adjusted should the need arise.

In the section to follow, typical default values (as set at the factory) are shown in brackets (e.g. [119]), to serve as a general guideline. As each transceiver is individually optimized at the factory, the precise settings for the transceiver on your bench may be slightly different.

50 MHz Band Alignment

Squelch Hysteresis Adjustment (HIS SQL) [0]

- Press the MR button, then rotate the DIAL for minimum squelch hysteresis. Press the MR button, then rotate the DIAL to select the next setting.

Squelch Preset Threshold (THLD SQL) [88]

- Inject a -15.0 dB μ RF signal (1 kHz tone @ ± 3.5 kHz deviation), then presses the MR button twice. Rotate the

DIAL to select the next setting.

Squelch Preset Tight (TIGH SQL) [54]

- Adjust the generator level to -4.0 dB μ , then presses the MR button twice. Rotate the DIAL to select the next setting.

S-Meter S-1 Adjustment (S1 LEVEL) [12]

- Adjust the generator level to -7.0 dB μ (1 kHz tone @ ± 3.5 kHz deviation), then presses the MR button twice. Rotate the DIAL to select the next setting.

S-Meter Full-Scale Adjustment (S9 LEVEL) [106]

- Adjust the generator level to $+20$ dB μ (1 kHz tone @ ± 3.5 kHz deviation), then presses the MR button twice. Rotate the DIAL to select the next setting.

Wide-FM S-Meter S-1 Adjustment (S1 LEVEL) [13]

- Adjust the generator level to -0 dB μ (1 kHz tone @ ± 20 kHz deviation), then presses the MR button twice. Rotate the DIAL to select the next setting.

Wide-FM S-Meter Full-Scale Adjustment (S9 LEVEL) [131]

- Adjust the generator level to $+20$ dB μ (1 kHz tone @ ± 20 kHz deviation), then presses the MR button twice. Rotate the DIAL to select the next setting.

High TX Power Adjustment (HI POWER) [112]

- Transmit, and adjust the output power level for 5.1-5.5 W by rotating the DIAL, then presses the MR button twice. Rotate the DIAL to select the next setting.

L3 Tx Power Adjustment (L3 POWER) [74]

- Transmit, and adjust the output power level for 2.3-2.7 W by rotating the DIAL, then presses the MR button twice. Rotate the DIAL to select the next setting.

L2 Tx Power Adjustment (L2 POWER) [42]

- Transmit and adjust the output power level for 0.8-1.2 W by rotating the DIAL, then presses the MR button twice. Rotate the DIAL to select the next setting.

L1 Tx Power Adjustment (L1 POWER) [21]

- Transmit, and adjust the output power level for 0.2-0.4 W by rotating the DIAL, then presses the MR button twice.

This completes the 50 MHz band internal alignment routine; press the BAND button to activate the 144 MHz band internal alignment routine.

Alignment

144 MHz Band Alignment

Squelch Hysteresis Adjustment (HIS SQL) [0]

- Press the MR button, then rotate the DIAL for minimum squelch hysteresis. Press the MR button, then rotate the DIAL to select the next setting.

Squelch Preset Threshold (THLD SQL) [92]

- Inject a -15.0 dB μ RF signal (1 kHz tone @ ± 3.5 kHz deviation), then presses the MR button twice. Rotate the DIAL to select the next setting.

Squelch Preset Tight (TIGH SQL) [44]

- Adjust the generator level to -4.0 dB μ , then presses the MR button twice. Rotate the DIAL to select the next setting.

S-Meter S-1 Adjustment (S1 LEVEL) [24]

- Adjust the generator level to -7.0 dB μ (1 kHz tone @ ± 3.5 kHz deviation), then presses the MR button twice. Rotate the DIAL to select the next setting.

S-Meter Full-Scale Adjustment (S9 LEVEL) [120]

- Adjust the generator level to $+20$ dB μ (1 kHz tone @ ± 3.5 kHz deviation), then presses the MR button twice. Rotate the DIAL to select the next setting.

Wide-FM S-Meter S-1 Adjustment (S1 LEVEL) [51]

- Adjust the generator level to -0 dB μ (1 kHz tone @ ± 20 kHz deviation), then presses the MR button twice. Rotate the DIAL to select the next setting.

Wide-FM S-Meter Full-Scale Adjustment (S9 LEVEL) [170]

- Adjust the generator level to $+20$ dB μ (1 kHz tone @ ± 20 kHz deviation), then presses the MR button twice. Rotate the DIAL to select the next setting.

High TX Power Adjustment (HI POWER) [118]

- Transmit, and adjust the output power level for 5.1-5.5 W by rotating the DIAL, then presses the MR button twice. Rotate the DIAL to select the next setting.

L3 Tx Power Adjustment (L3 POWER) [76]

- Transmit, and adjust the output power level for 2.3-2.7 W by rotating the DIAL, then presses the MR button twice. Rotate the DIAL to select the next setting.

L2 Tx Power Adjustment (L2 POWER) [44]

- Transmit, and adjust the output power level for 0.8-1.2 W by rotating the DIAL, then presses the MR button twice. Rotate the DIAL to select the next setting.

L1 Tx Power Adjustment (L1 POWER) [21]

- Transmit, and adjust the output power level for 0.2-0.4 W by rotating the DIAL, then presses the MR button twice.

This completes the 144 MHz band internal alignment routine; press the BAND button to activate the 430 MHz band internal alignment routine.

UHF band Alignment

Squelch Hysteresis Adjustment (HIS SQL) [0]

- Press the MR button, then rotate the DIAL for minimum squelch hysteresis. Press the MR button, then rotate the DIAL to select the next setting.

Squelch Preset Threshold (THLD SQL) [86]

- Inject a -15.0 dB μ RF signal (1 kHz tone @ ± 3.5 kHz deviation), then presses the MR button twice. Rotate the DIAL to select the next setting.

Squelch Preset Tight (TIGH SQL) [55]

- Adjust the generator level to -4.0 dB μ , then presses the MR button twice. Rotate the DIAL to select the next setting.

S-Meter S-1 Adjustment (S1 LEVEL) [7]

- Adjust the generator level to -7.0 dB μ (1 kHz tone @ ± 3.5 kHz deviation), then presses the MR button twice. Rotate the DIAL to select the next setting.

S-Meter Full-Scale Adjustment (S9 LEVEL) [96]

- Adjust the generator level to $+20$ dB μ (1 kHz tone @ ± 3.5 kHz deviation), then presses the MR button twice. Rotate the DIAL to select the next setting.

Wide-FM S-Meter S-1 Adjustment (S1 LEVEL) [13]

- Adjust the generator level to 0 dB μ (1 kHz tone @ ± 20 kHz deviation), then presses the MR button twice. Rotate the DIAL to select the next setting.

Wide-FM S-Meter Full-Scale Adjustment (S9 LEVEL) [134]

- Adjust the generator level to $+20$ dB μ (1 kHz tone @ ± 20 kHz deviation), then presses the MR button twice. Rotate the DIAL to select the next setting.

High TX Power Adjustment (HI POWER) [172]

- Transmit, and adjust the output power level for 4.6-5.0 W by rotating the DIAL, then presses the MR button twice. Rotate the DIAL to select the next setting.

Alignment

L3 Tx Power Adjustment (L3 POWER) [119]

- Transmit, and adjust the output power level for 2.3-2.7 W by rotating the DIAL, then presses the MR button twice. Rotate the DIAL to select the next setting.

L2 Tx Power Adjustment (L2 POWER) [69]

- Transmit, and adjust the output power level for 0.8-1.2 W by rotating the DIAL, then presses the MR button twice. Rotate the DIAL to select the next setting.

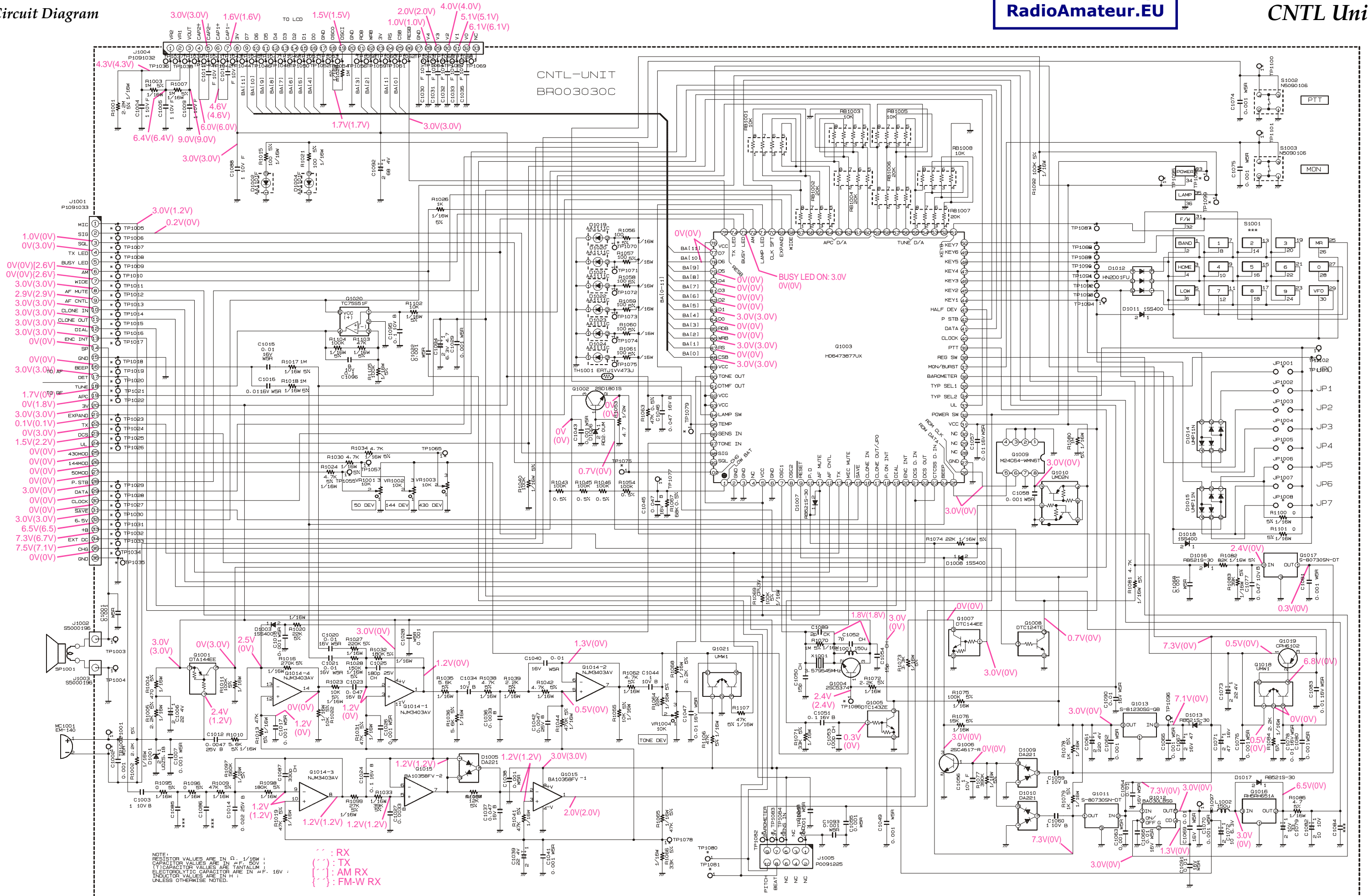
L1 Tx Power Adjustment (L1 POWER) [35]

- Transmit, and adjust the output power level for 0.2-0.4 W by rotating the DIAL, then presses the MR button twice.

This completes the internal alignment routine for all bands. To save all settings and exit, press the HOME button.

Alignment

Note:



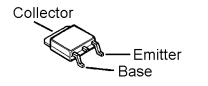
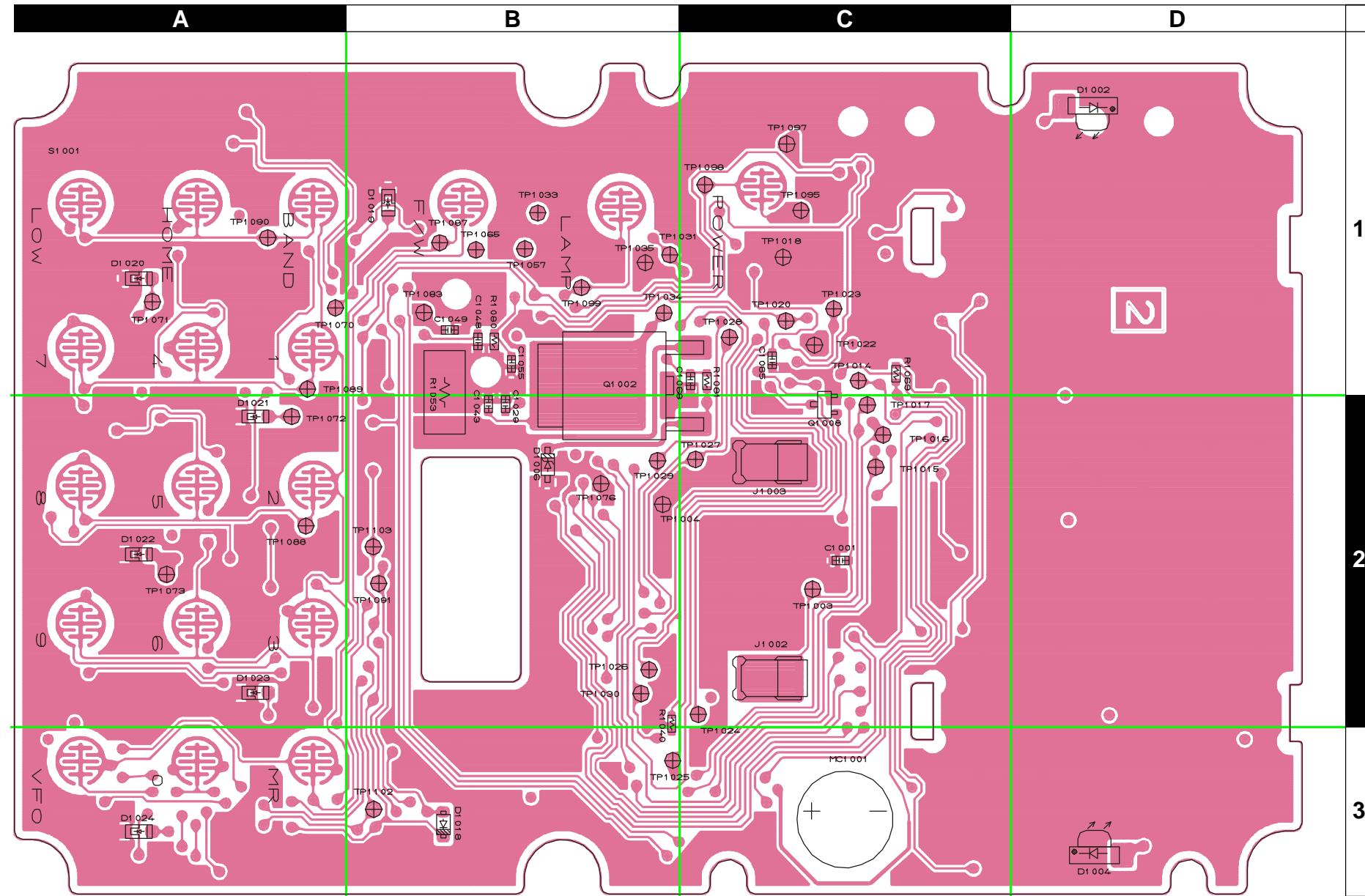
NOTE:
 RESISTOR VALUES ARE IN OHMS UNLESS OTHERWISE NOTED.
 CAPACITOR VALUES ARE IN PICO FARADS UNLESS OTHERWISE NOTED.
 ELECTROLYTIC CAPACITORS ARE IN MICRO FARADS UNLESS OTHERWISE NOTED.
 INDUCTOR VALUES ARE IN MICROHENRIES UNLESS OTHERWISE NOTED.

(---) : RX
 (---) : TX
 (---) : AM RX
 (---) : FM-W RX

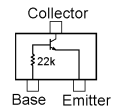
CNTL Unit

Note:

Parts Layout



2SD1801S
(Q1002)



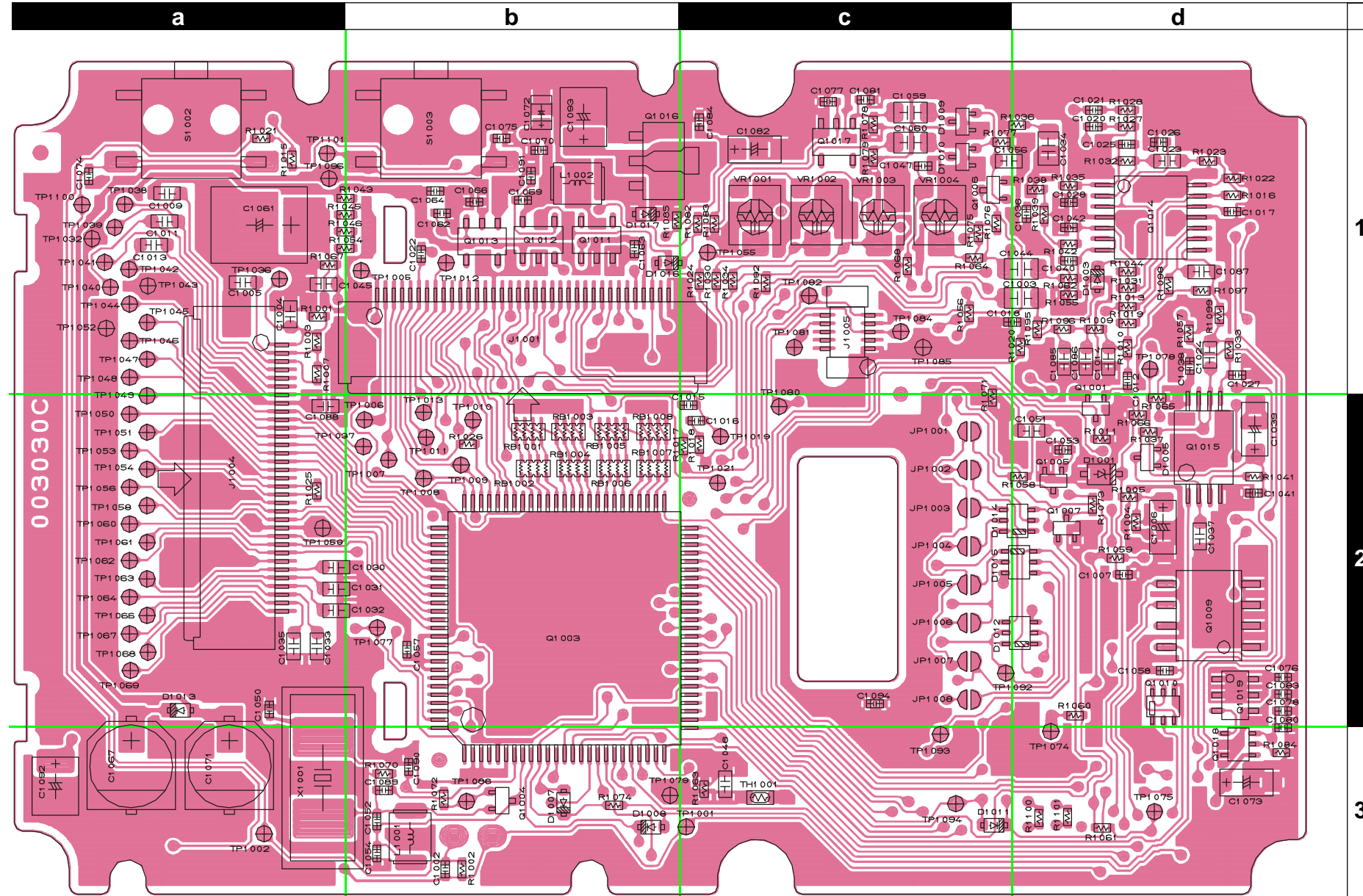
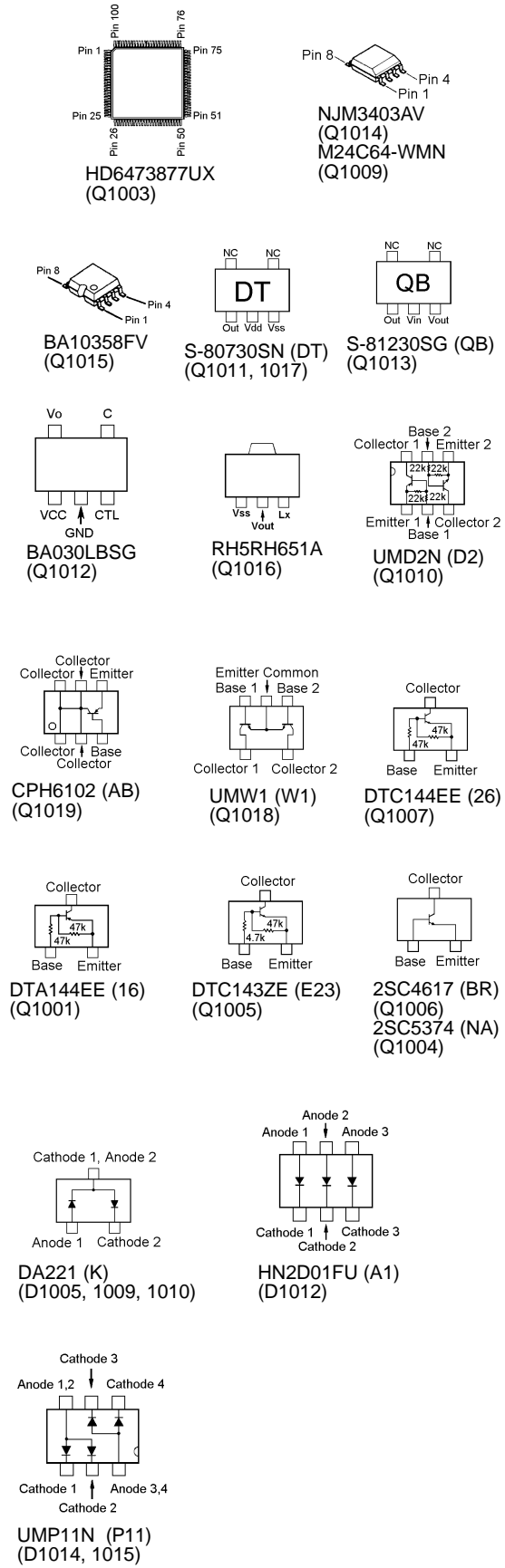
DTC124TE (05)
(Q1008)

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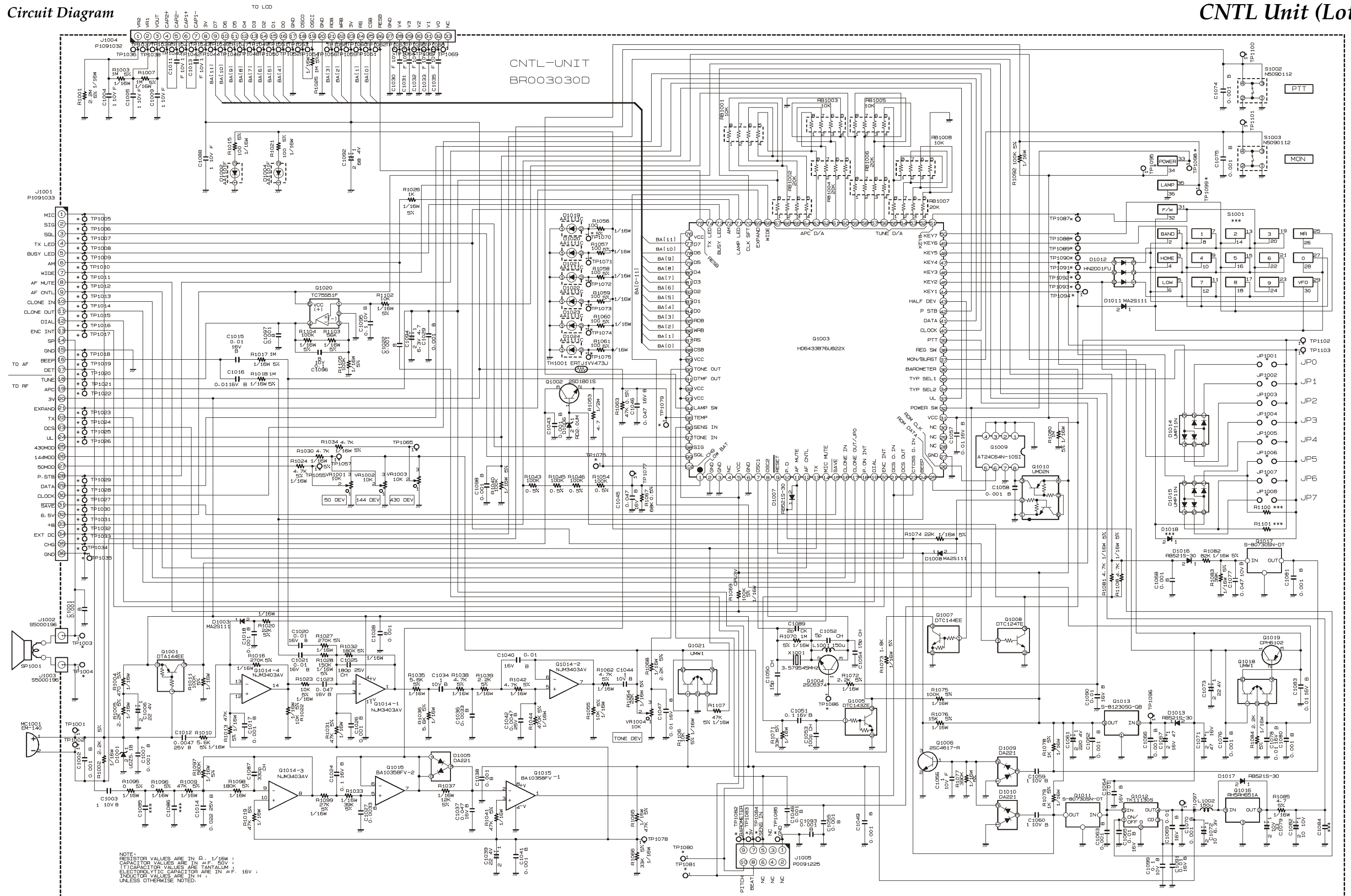
Side A

CNTL Unit

Parts Layout



Side B

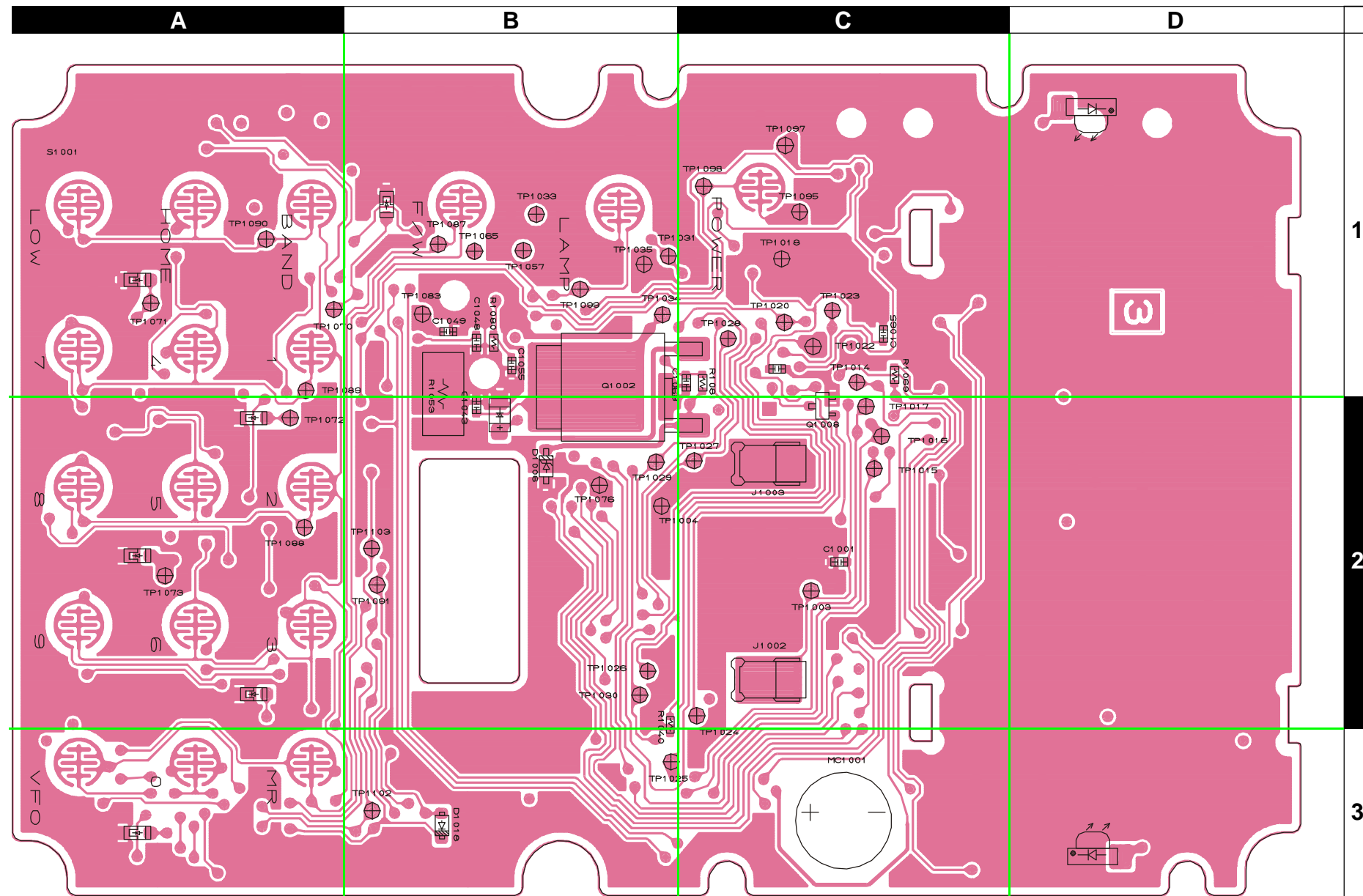


NOTE:
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 CAPACITOR VALUES ARE IN μF, 50V ;
 (T) CAPACITOR VALUES ARE TANTALUM ;
 ELECTROLYTIC CAPACITOR ARE IN μF, 16V ;
 INDUCTOR VALUES ARE IN H ;
 UNLESS OTHERWISE NOTED.

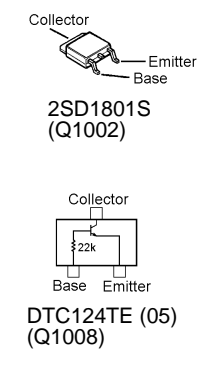
CNTL Unit (Lot 2 ~)

Note:

Parts Layout



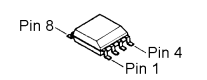
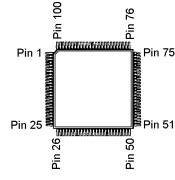
1
2
3



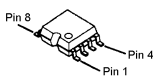
Side A

CNTL Unit (Lot 2 ~)

Parts Layout

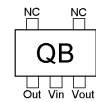


NJM3403AV (Q1014)
M24C64-WMN (Lot. 1~) (Q1009)
AT24C64N (Lot. 18~) (Q1009)

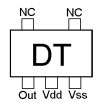


BA10358FV (Q1015)

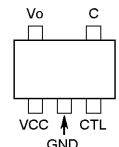
HD6473877UX (Lot. 1~)
HD6433876UB17X (Lot. 2~, USA)
HD6433876UB18X (Lot. 2~, EXP)
HD6433876UB18X (Lot. 4~, GER)
HD6433876UB25X (Lot. 6~, USA)
HD6433876UB23X (Lot. 12~, EXP, GER) (Q1003)



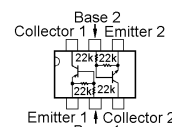
S-81230SG (QB) (Q1013)



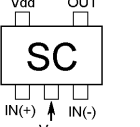
S-80730SN (DT) (Q1011, 1017)



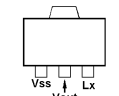
BA030LBSG (Q1012)



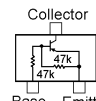
UMD2N (D2) (Q1010)



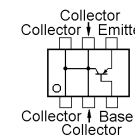
TC75S51F (SC) (Q1020)



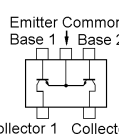
RH5RH651A (Q1016)



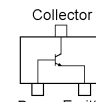
DTA144EE (16) (Q1001)



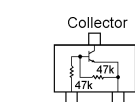
CPH6102 (AB) (Q1019)



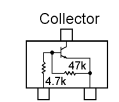
UMW1 (W1) (Q1018, 1021)



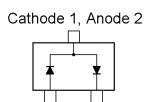
2SC4617 (BR) (Q1006)



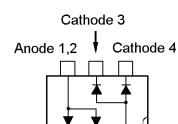
DTC144EE (26) (Q1007)



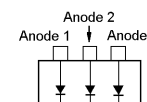
DTC143ZE (E23) (Q1005)



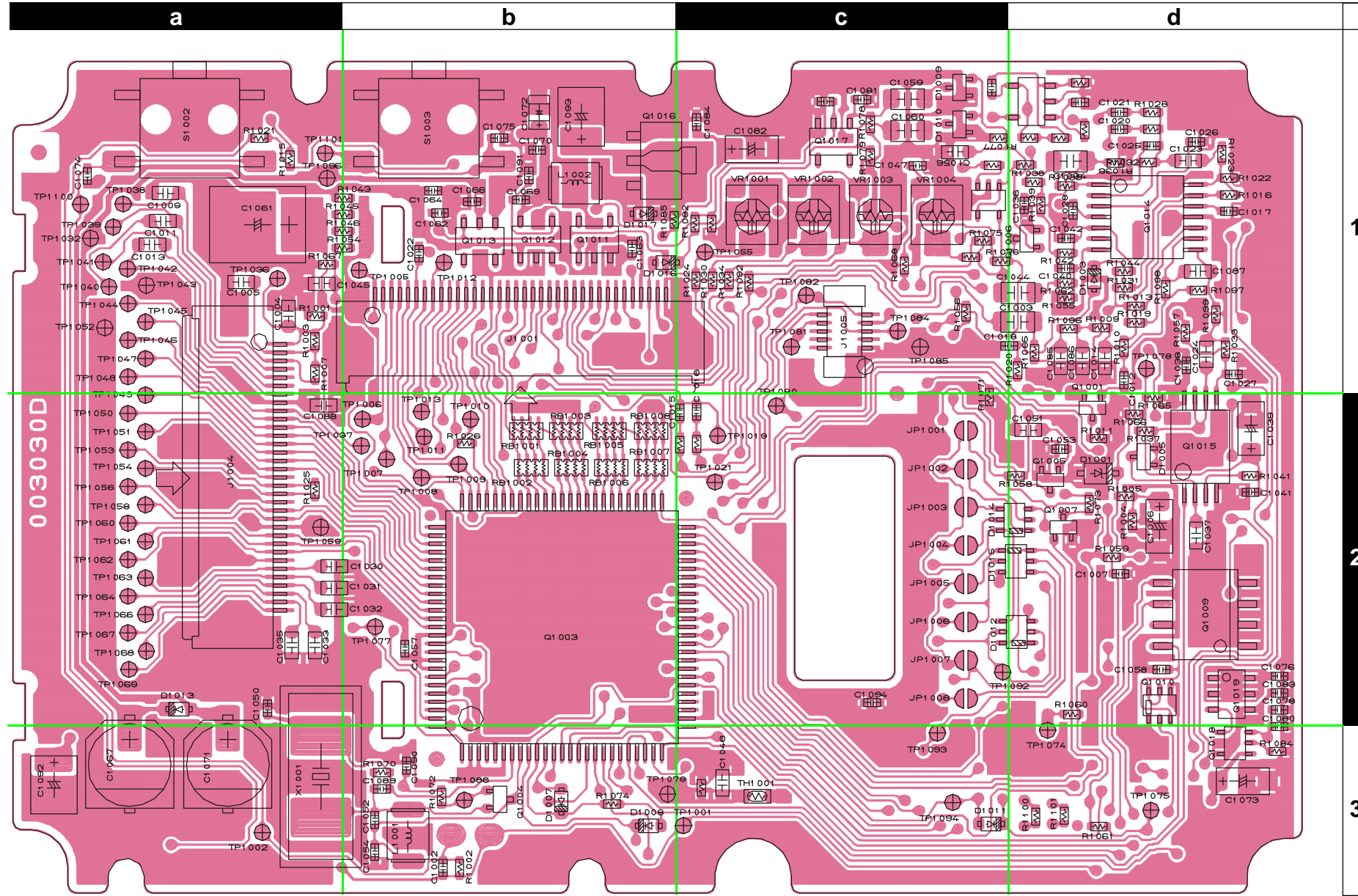
DA221 (K) (D1005, 1009, 1010)



UMP11N (P11) (D1014, 1015)



HN2D01FU (A1) (D1012)

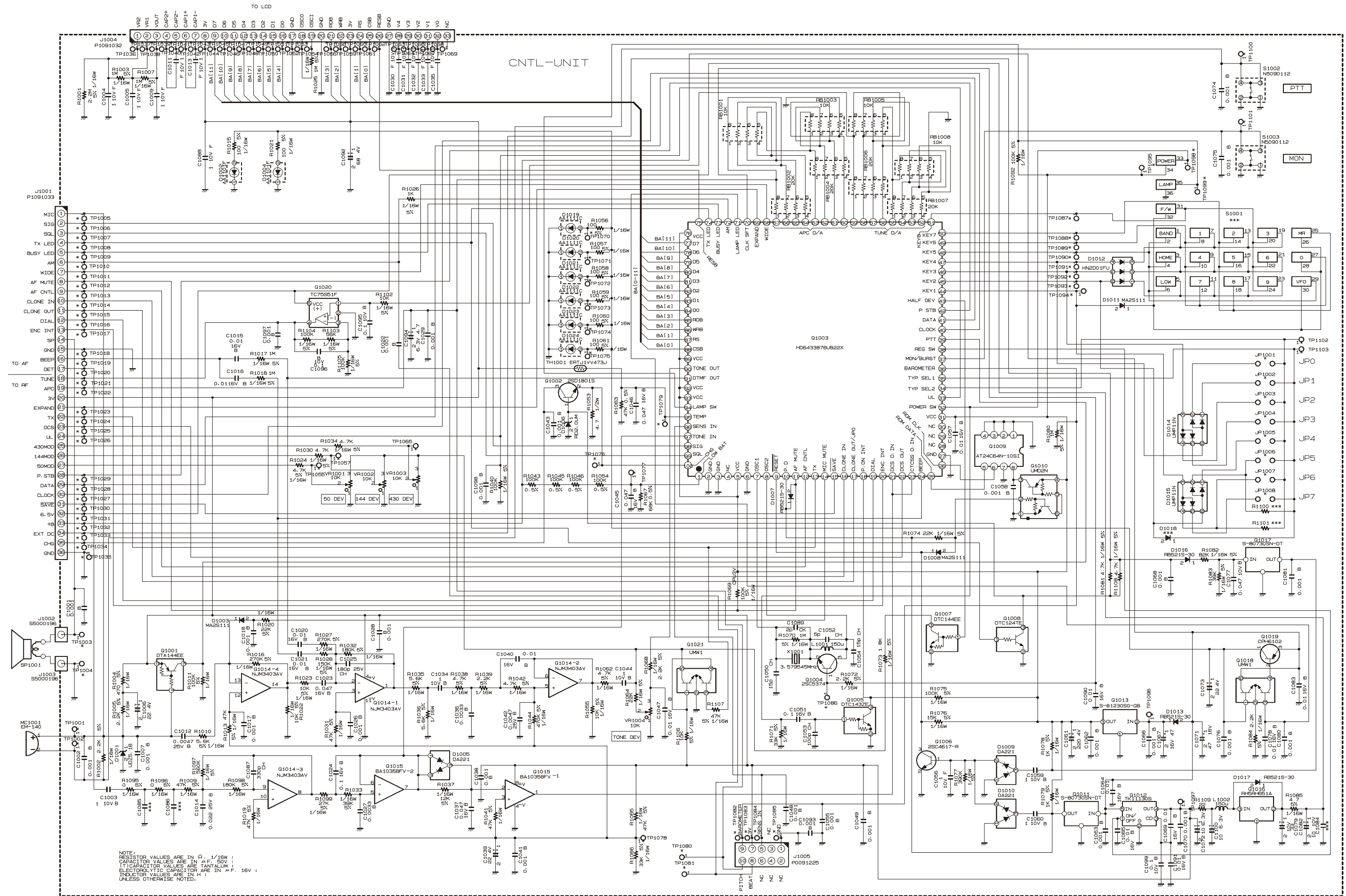


1

2

3

Side B

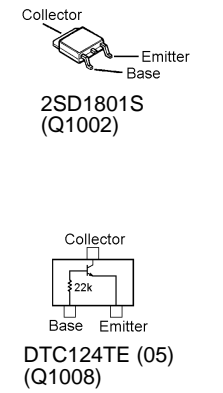
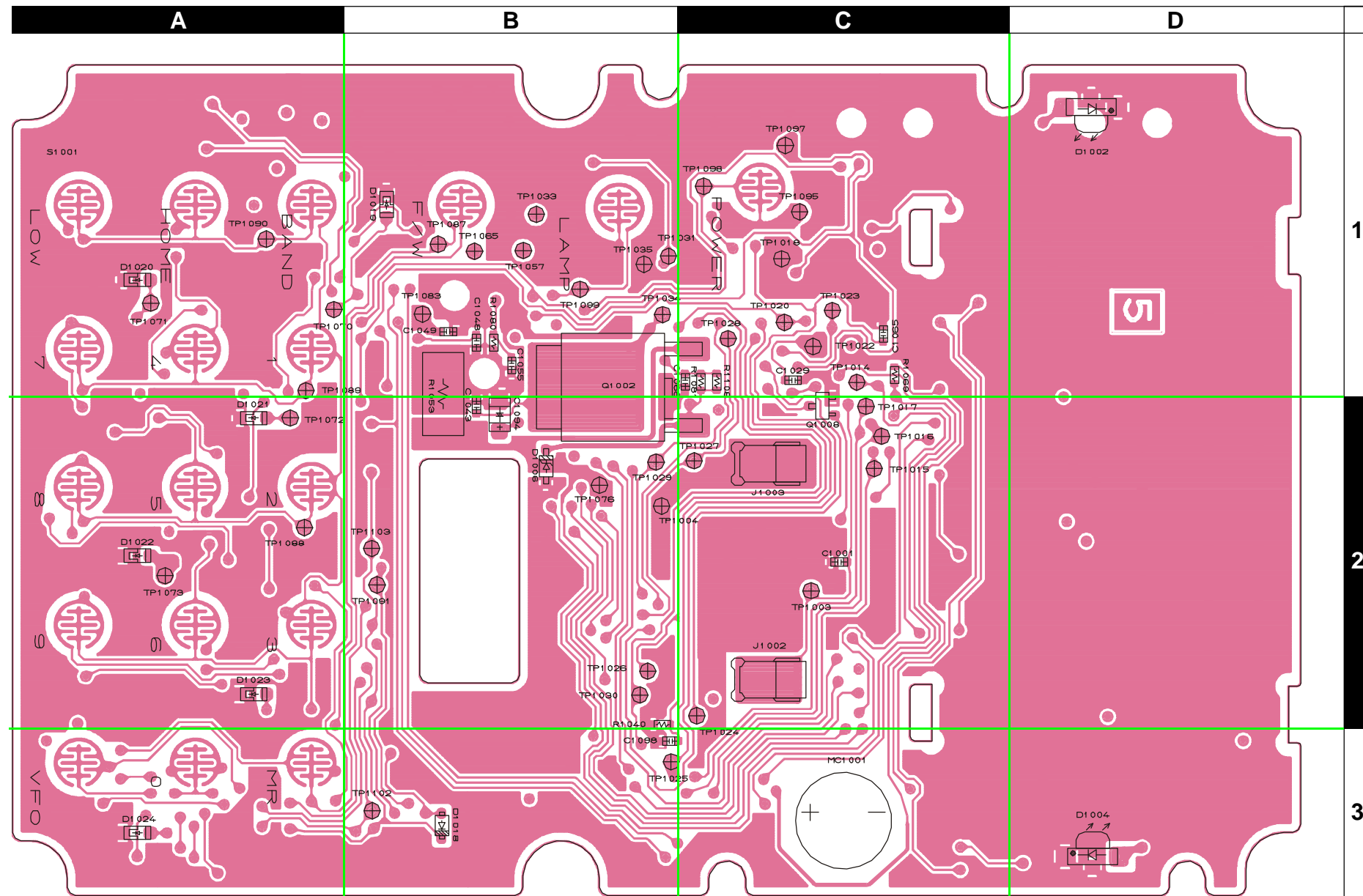


NOTE:
RESISTOR VALUES ARE IN Ω, 1/16W;
CAPACITOR VALUES ARE IN pF, 50V;
INDUCTOR VALUES ARE IN μH, 50V;
ELECTROLYTIC CAPACITOR ARE IN μF, 16V;
INDUCTOR VALUES ARE IN μH, 16V;
UNLESS OTHERWISE NOTED.

CNTL Unit (Lot 24 ~)

Note:

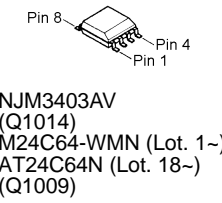
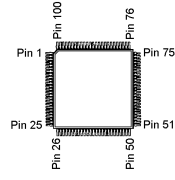
Parts Layout



Side A

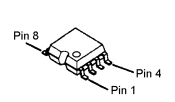
CNTL Unit (Lot 24 ~)

Parts Layout

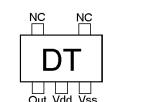


HD643877UX (Lot. 1~)
 HD643876UB17X (Lot. 2~, USA)
 HD643876UB18X (Lot. 2~, EXP)
 HD643876UB18X (Lot. 4~, GER)
 HD643876UB25X (Lot. 6~, USA)
 HD643876UB23X (Lot. 12~, EXP, GER)
 HD6473877UX (R0453) (Lot. 63~, KOR)
 (Q1003)

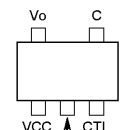
NJM3403AV
 (Q1014)
 M24C64-WMN (Lot. 1~)
 AT24C64N (Lot. 18~)
 (Q1009)



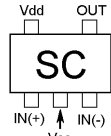
BA10358FV
 (Q1015)



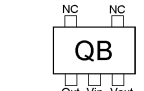
S-80730SN (DT)
 (Q1011, 1017)



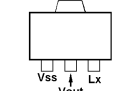
BA030LB5G (Lot. 1~)
 TK11130SCL (Lot. 24~)
 (Q1012)



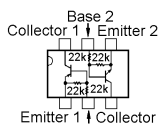
TC75S51F (SC)
 (Q1020)



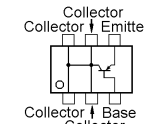
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 S-812C30AMC (Lot. 93~)
 (Q1013)



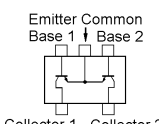
RH5RH651A
 (Q1016)



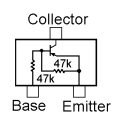
UMD2N (D2)
 (Q1010)



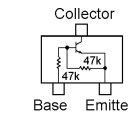
CPH6102 (AB)
 (Q1019)



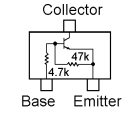
UMW1 (W1)
 (Q1018, 1021)



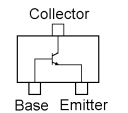
DTA144EE (16)
 (Q1001)



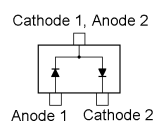
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 (Q1007)



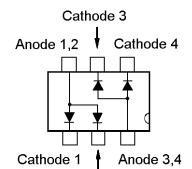
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 (Q1005)



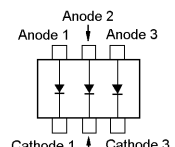
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 (Q1006)
 2SC5374 (NA)
 (Q1004)



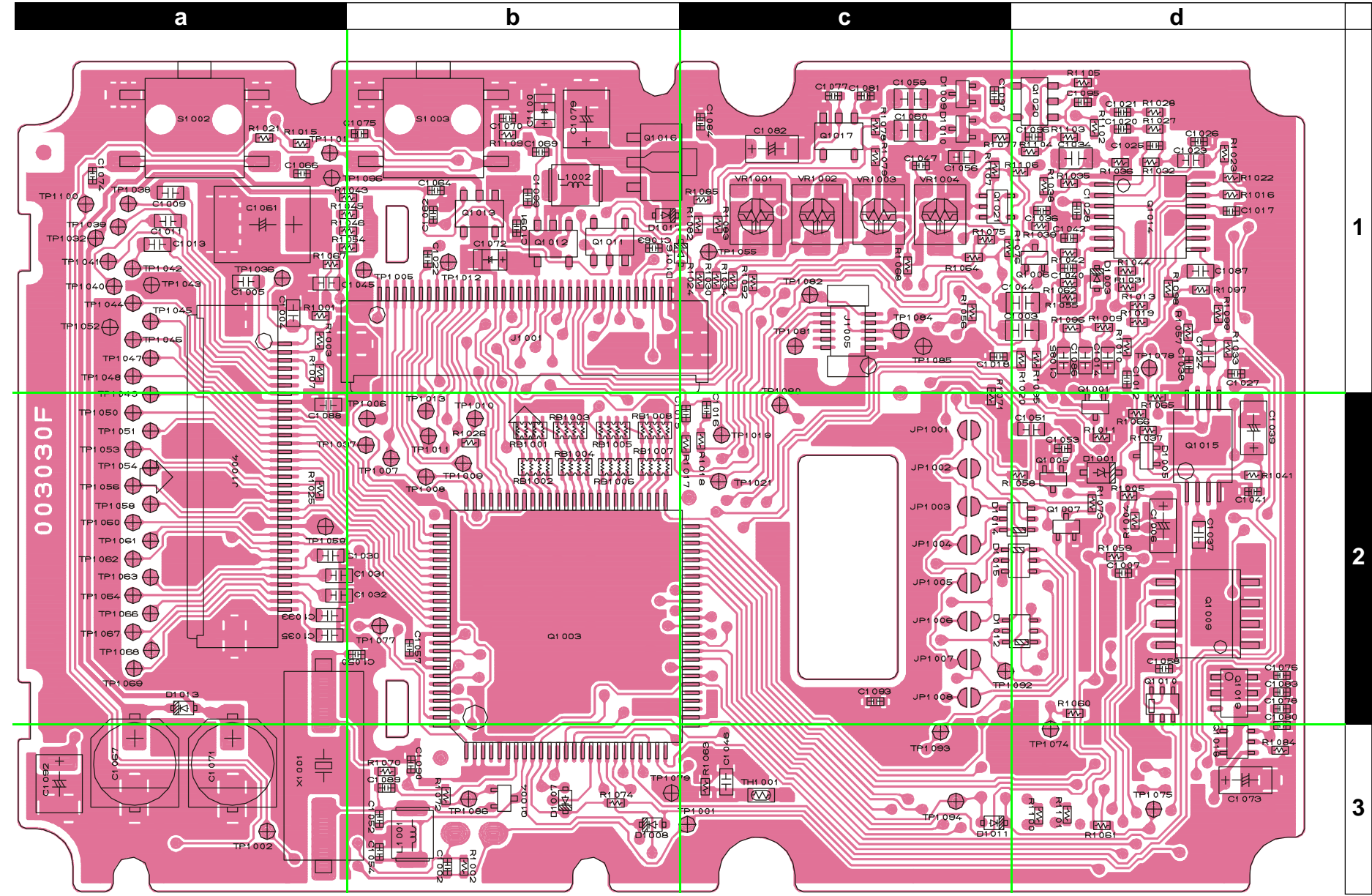
DA221 (K)
 (D1005, 1009, 1010)



UMP11N (P11)
 (D1014, 1015)



HN2D01FU (A1)
 (D1012)



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2

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Side B

Parts List

REF.	DESCRIPTION	VALUE	WV	TOL.	MFR'S DESIG	VXSTD P/N	VERS.	LOT.	SIDE	LAY ADR.
*** CNTL UNIT ***										
	PCB with Components	(USA)				CB0520002	VERSION A2			
	PCB with Components	(EXPORT)				CB0520003	VERSION A1			
	PCB with Components	(EXPORT)				CB0520004	VERSION A2			
	PCB with Components	(EXPORT)				CB0520005	VERSION A3			
	PCB with Components	(EXPORT)				CB0520006	VERSION B1			
	PCB with Components	(EXPORT)				CB0520007	VERSION B2			
	PCB with Components	(EXPORT)				CB0520008	VERSION B3			
	PCB with Components	(EXPORT)				CB0520009	VERSION C1			
	PCB with Components	(EXPORT)				CB0520010	VERSION C2			
	PCB with Components	(EXPORT)				CB0520011	VERSION C3			
	PCB with Components	(EXPORT)				CB0520012	VERSION D1			
	PCB with Components	(EXPORT)				CB0520013	VERSION D2			
	PCB with Components	(GERMANY)				CB0520014	VERSION B1G			
	PCB with Components	(GERMANY)				CB0520015	VERSION B2G			
	PCB with Components	(KOREA)				CB0520016	VERSION K1			
	Printed Circuit Board					FR003030C		1-		
	Printed Circuit Board					FR003030D		2-		
	Printed Circuit Board					FR003030F		24-		
C 1001	CHIP CAP.	0.001uF	50V	W5R	CM05W5R102K50AH	K22178820		1-	A	C2
C 1001	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		11-	A	C2
C 1002	CHIP CAP.	0.001uF	50V	W5R	CM05W5R102K50AH	K22178820		1-	B	b3
C 1002	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		11-	B	b3
C 1003	CHIP CAP.	1uF	10V	B	GRM40B105K10PT	K22100802		1-	B	d1
C 1004	CHIP CAP.	1uF	10V	F	GRM39F105Z10PT	K22105001		1-	B	a1
C 1005	CHIP CAP.	1uF	10V	F	GRM39F105Z10PT	K22105001		1-	B	a1
C 1006	CHIP TA.CAP.	22uF	4V		TEMSVAOG226M-8R	K78060023		1-	B	d2
C 1007	CHIP CAP.	0.001uF	50V	W5R	CM05W5R102K50AH	K22178820		1-	B	d2
C 1007	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		11-	B	d2
C 1009	CHIP CAP.	1uF	10V	F	GRM39F105Z10PT	K22105001		1-	B	a1
C 1011	CHIP CAP.	1uF	10V	F	GRM39F105Z10PT	K22105001		1-	B	a1
C 1012	CHIP CAP.	0.0047uF	25V	B	GRM36B472K25PT	K22148830		1-	B	d1
C 1013	CHIP CAP.	1uF	10V	F	GRM39F105Z10PT	K22105001		1-	B	a1
C 1014	CHIP CAP.	0.022uF	25V	B	GRM39B223K25PT	K22144807		1-	B	d1
C 1015	CHIP CAP.	0.01uF	16V	W5R	CM05W5R103K16AH	K22128805		1-	B	c2
C 1015	CHIP CAP.	0.01uF	16V	B	GRM36B103K16PT	K22128804		11-	B	c2
C 1016	CHIP CAP.	0.01uF	16V	W5R	CM05W5R103K16AH	K22128805		1-	B	c2
C 1016	CHIP CAP.	0.01uF	16V	B	GRM36B103K16PT	K22128804		11-	B	c2
C 1017	CHIP CAP.	0.001uF	50V	W5R	CM05W5R102K50AH	K22178820		1-	B	d1
C 1017	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		11-	B	d1
C 1018	CHIP CAP.	0.001uF	50V	W5R	CM05W5R102K50AH	K22178820		1-	B	c1
C 1018	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		11-	B	c1
C 1020	CHIP CAP.	0.01uF	16V	W5R	CM05W5R103K16AH	K22128805		1-	B	d1
C 1020	CHIP CAP.	0.01uF	16V	B	GRM36B103K16PT	K22128804		11-	B	d1
C 1021	CHIP CAP.	0.01uF	16V	W5R	CM05W5R103K16AH	K22128805		1-	B	d1
C 1021	CHIP CAP.	0.01uF	16V	B	GRM36B103K16PT	K22128804		11-	B	d1
C 1022	CHIP CAP.	0.001uF	50V	W5R	CM05W5R102K50AH	K22178820		1-	B	b1
C 1022	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		11-	B	b1
C 1023	CHIP CAP.	0.047uF	16V	B	GRM39B473K16PT	K22124804		1-	B	d1
C 1024	CHIP CAP.	0.1uF	16V	B	GRM39B104K16PT	K22124805		1-	B	d1
C 1025	CHIP CAP.	180pF	25V	CH	GRM36CH181J25PT	K22148201		1-	B	d1
C 1026	CHIP CAP.	0.001uF	50V	W5R	CM05W5R102K50AH	K22178820		1-	B	d1
C 1026	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		11-	B	d1
C 1027	CHIP CAP.	0.0033uF	50V	B	GRM36B332K50PT	K22178815		1-	B	d1
C 1028	CHIP CAP.	0.001uF	50V	W5R	CM05W5R102K50AH	K22178820		1-	B	d1
C 1028	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		11-	B	d1
C 1029	CHIP CAP.	0.1uF	16V	B	GRM39B104K16PT	K22124805		1	A	C1
C 1029	CHIP CAP.	0.001uF	50V	W5R	CM05W5R102K50AH	K22178820		2-	A	C1
C 1029	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		11-	A	C1
C 1030	CHIP CAP.	1uF	10V	F	GRM39F105Z10PT	K22105001		1-	B	a2

REF.	DESCRIPTION	VALUE	WV	TOL.	MFR'S DESIG	VXSTD P/N	VERS.	LOT.	SIDE.	LAY ADR.
C 1031	CHIP CAP.	1uF	10V	F	GRM39F105Z10PT	K22105001		1-	B	a2
C 1032	CHIP CAP.	1uF	10V	F	GRM39F105Z10PT	K22105001		1-	B	a2
C 1033	CHIP CAP.	1uF	10V	F	GRM39F105Z10PT	K22105001		1-	B	a2
C 1034	CHIP CAP.	1uF	10V	B	GRM40B105K10PT	K22100802		1-	B	d1
C 1035	CHIP CAP.	1uF	10V	F	GRM39F105Z10PT	K22105001		1-	B	a2
C 1036	CHIP CAP.	0.0033uF	50V	B	GRM36B332K50PT	K22178815		1-	B	d1
C 1037	CHIP CAP.	0.047uF	16V	B	GRM39B473K16PT	K22124804		1-	B	d2
C 1038	CHIP CAP.	0.001uF	50V	W5R	CM05W5R102K50AH	K22178820		1-	B	d1
C 1038	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		11-	B	d1
C 1039	CHIP TA.CAP.	22uF	4V		TEMSVA0G226M-8R	K78060023		1-	B	d2
C 1040	CHIP CAP.	0.01uF	16V	W5R	CM05W5R103K16AH	K22128805		1-	B	d1
C 1040	CHIP CAP.	0.01uF	16V	B	GRM36B103K16PT	K22128804		11-	B	d1
C 1041	CHIP CAP.	0.001uF	50V	W5R	CM05W5R102K50AH	K22178820		1-	B	d2
C 1041	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		11-	B	d2
C 1042	CHIP CAP.	0.0047uF	25V	B	GRM36B472K25PT	K22148830		1-	B	d1
C 1043	CHIP CAP.	0.001uF	50V	W5R	CM05W5R102K50AH	K22178820		1-	A	B2
C 1043	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		11-	A	B2
C 1044	CHIP CAP.	1uF	10V	B	GRM40B105K10PT	K22100802		1-	B	d1
C 1045	CHIP CAP.	0.047uF	16V	B	GRM39B473K16PT	K22124804		1-	B	a1
C 1046	CHIP CAP.	0.047uF	16V	B	GRM39B473K16PT	K22124804		1-	B	c3
C 1047	CHIP CAP.	0.01uF	16V	W5R	CM05W5R103K16AH	K22128805		1-	B	c1
C 1047	CHIP CAP.	0.01uF	16V	B	GRM36B103K16PT	K22128804		11-	B	c1
C 1048	CHIP CAP.	0.001uF	50V	W5R	CM05W5R102K50AH	K22178820		1-	A	B1
C 1048	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		11-	A	B1
C 1049	CHIP CAP.	0.001uF	50V	W5R	CM05W5R102K50AH	K22178820		1-	A	B1
C 1049	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		11-	A	B1
C 1050	CHIP CAP.	15pF	50V	CH	GRM36CH150J50PT	K22178216		1-	B	b2
C 1051	CHIP CAP.	0.1uF	16V	B	GRM39B104K16PT	K22124805		1-	B	d2
C 1052	CHIP CAP.	7pF	50V	CH	GRM36CH070D50PT	K22178209		1	B	b3
C 1052	CHIP CAP.	6pF	50V	CH	GRM36CH060D50PT	K22178208		2-	B	b3
C 1052	CHIP CAP.	5pF	50V	CH	GRM36CH050C50PT	K22178207		21-	B	b3
C 1053	CHIP CAP.	100pF	50V	CH	CM05CH101J50AH	K22178246		1-	B	d2
C 1053	CHIP CAP.	100pF	50V	CH	GRM36CH101J50PT	K22178236		18-	B	d2
C 1054	CHIP CAP.	15pF	50V	CH	GRM36CH150J50PT	K22178216		1-	B	b3
C 1055	CHIP CAP.	0.001uF	50V	W5R	CM05W5R102K50AH	K22178820		1-	A	B1
C 1055	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		11-	A	B1
C 1056	CHIP CAP.	1uF	10V	F	GRM39F105Z10PT	K22105001		1-	B	c1
C 1057	CHIP CAP.	0.01uF	16V	W5R	CM05W5R103K16AH	K22128805		1-	B	b2
C 1057	CHIP CAP.	0.01uF	16V	B	GRM36B103K16PT	K22128804		11-	B	b2
C 1058	CHIP CAP.	0.001uF	50V	W5R	CM05W5R102K50AH	K22178820		1-	B	d2
C 1058	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		11-	B	d2
C 1059	CHIP CAP.	1uF	10V	B	GRM40B105K10PT	K22100802		1-	B	c1
C 1060	CHIP CAP.	1uF	10V	B	GRM40B105K10PT	K22100802		1-	B	c1
C 1061	CHIP TA.CAP.	220uF	4V		SK4-0G227M-RD	K78060014		1-	B	a1
C 1062	CHIP CAP.	0.001uF	50V	W5R	CM05W5R102K50AH	K22178820		1-	B	b1
C 1062	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		11-	B	b1
C 1063	CHIP CAP.	0.001uF	50V	W5R	CM05W5R102K50AH	K22178820		1-	B	b1
C 1063	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		11-	B	b1
C 1064	CHIP CAP.	0.01uF	16V	W5R	CM05W5R103K16AH	K22128805		1-	B	b1
C 1064	CHIP CAP.	0.01uF	16V	B	GRM36B103K16PT	K22128804		11-	B	b1
C 1065	CHIP CAP.	0.01uF	16V	W5R	CM05W5R103K16AH	K22128805		1-	A	C1
C 1065	CHIP CAP.	0.01uF	16V	B	GRM36B103K16PT	K22128804		11-	A	C1
C 1066	CHIP CAP.	0.001uF	50V	W5R	CM05W5R102K50AH	K22178820		1-	B	a1
C 1066	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		11-	B	a1
C 1067	AL.ELECTRO.CAP.	47uF	16V		ECEV1CA470WR	K48120013		1-	B	a3
C 1068	CHIP CAP.	0.001uF	50V	W5R	CM05W5R102K50AH	K22178820		1-	A	C1
C 1068	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		11-	A	C1
C 1069	CHIP CAP.	0.01uF	16V	W5R	CM05W5R103K16AH	K22128805		1-	B	b1
C 1069	CHIP CAP.	0.01uF	16V	B	GRM36B103K16PT	K22128804		11-	B	b1
C 1070	CHIP CAP.	0.001uF	50V	W5R	CM05W5R102K50AH	K22178820		1-	B	b1

REF.	DESCRIPTION	VALUE	WV	TOL.	MFR'S DESIG	VXSTD P/N	VERS.	LOT.	SIDE	LAY ADR.
C 1070	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		11-	B	b1
C 1071	AL.ELECTRO.CAP.	47uF	16V		ECEV1CA470WR	K48120013		1-	B	a3
C 1072	CHIP TA.CAP.	10uF	6.3V		TESVSP0J106M-8R	K78080055		1-	B	b1
C 1073	CHIP TA.CAP.	22uF	4V		TEMSVA0G226M-8R	K78060023		1-	B	d3
C 1074	CHIP CAP.	0.001uF	50V	W5R	CM05W5R102K50AH	K22178820		1-	B	a1
C 1074	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		11-	B	a1
C 1075	CHIP CAP.	0.001uF	50V	W5R	CM05W5R102K50AH	K22178820		1-	B	b1
C 1075	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		11-	B	b1
C 1076	CHIP CAP.	0.001uF	50V	W5R	CM05W5R102K50AH	K22178820		1-	B	d2
C 1076	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		11-	B	d2
C 1077	CHIP CAP.	0.047uF	10V	B	GRM36B473K10PT	K22108801		1-	B	c1
C 1078	CHIP CAP.	0.01uF	16V	W5R	CM05W5R103K16AH	K22128805		1-	B	d2
C 1078	CHIP CAP.	0.01uF	16V	B	GRM36B103K16PT	K22128804		11-	B	d2
C 1079	CHIP TA.CAP.	33uF	10V		TEMSVB21A336M-8R	K78100047		1-	B	b1
C 1080	CHIP CAP.	0.001uF	50V	W5R	CM05W5R102K50AH	K22178820		1-	B	d2
C 1080	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		11-	B	d2
C 1081	CHIP CAP.	0.001uF	50V	W5R	CM05W5R102K50AH	K22178820		1-	B	c1
C 1081	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		11-	B	c1
C 1082	CHIP TA.CAP.	10uF	10V		TEMSVA1A106M-8R	K78100028		1-	B	c1
C 1083	CHIP CAP.	0.01uF	16V	W5R	CM05W5R103K16AH	K22128805		1-	B	d2
C 1083	CHIP CAP.	0.01uF	16V	B	GRM36B103K16PT	K22128804		11-	B	d2
C 1087	CHIP CAP.	330pF	50V	CH	GRM39CH331J50PT	K22174253		1-	B	d1
C 1088	CHIP CAP.	1uF	10V	F	GRM39F105Z10PT	K22105001		1-	B	a2
C 1089	CHIP CAP.	2pF	50V	CK	GRM36CK020C50PT	K22178204		1-	B	b3
C 1090	CHIP CAP.	0.01uF	16V	W5R	CM05W5R103K16AH	K22128805		1-	B	b3
C 1090	CHIP CAP.	0.01uF	16V	B	GRM36B103K16PT	K22128804		11-	B	b3
C 1091	CHIP CAP.	0.01uF	16V	W5R	CM05W5R103K16AH	K22128805		1-	B	b1
C 1091	CHIP CAP.	0.01uF	16V	B	GRM36B103K16PT	K22128804		11-	B	b1
C 1092	CHIP TA.CAP.	68uF			TEMSVB20G686M-8R	K78060033		1-	B	a3
C 1093	CHIP CAP.	0.001uF	50V	W5R	CM05W5R102K50AH	K22178820		1-	B	c2
C 1093	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		11-	B	c2
C 1094	CHIP TA.CAP.	4.7uF	6.3V		TESVSP0J475M-8R	K78080053		1-	A	B2
C 1095	CHIP CAP.	0.1uF	10V	B	GRM36B104K10PT	K22108802		2-	B	d1
C 1096	CHIP CAP.	0.1uF	10V	B	GRM36B104K10PT	K22108802		2-	B	d1
C 1097	CHIP CAP.	0.001uF	50V	W5R	CM05W5R102K50AH	K22178820		2-	B	c1
C 1097	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		11-	B	c1
C 1098	CHIP CAP.	0.001uF	50V	W5R	CM05W5R102K50AH	K22178820		3-	A	B3
C 1098	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		11-	A	B3
C 1099	CHIP CAP.	0.1uF	10V	B	GRM36B104K10PT	K22108802		24-	B	b1
C 1100	CHIP TA.CAP.	10uF	6.3V		TESVSP0J106M-8R	K78080055		24	B	b1
C 1100	CHIP TA.CAP.	22uF	4V		TESVSP0G226M-8R	K78060047		25-	B	b1
C 1101	CHIP CAP.	0.1uF	10V	B	GRM36B104K10PT	K22108802		26-		
C 1101	CHIP CAP.	1uF	10V	F	GRM39F105Z10PT	K22105001		74-		
D 1001	DIODE				UDZ TE-17 5.1B	G2070448		1-	B	d2
D 1001	DIODE				UDZS TE-17 5.1B	G2070908		92-	B	d2
D 1002	LED				AA1101F-TR	G2070658		1-	A	D1
D 1003	DIODE				1SS400 TE61	G2070634		1-	B	d1
D 1003	DIODE				MA2S111-(TX)	G2070614		17-	B	d1
D 1004	LED				AA1101F-TR	G2070658		1-	A	D3
D 1005	DIODE				DA221 TL	G2070178		1-	B	d2
D 1006	DIODE				RD2.0UM-T2	G2070190		1-	A	B2
D 1007	DIODE				RB521S-30 TE61	G2070642		1-	B	b3
D 1008	DIODE				1SS400 TE61	G2070634		1-	B	b3
D 1008	DIODE				MA2S111-(TX)	G2070614		17-	B	b3
D 1009	DIODE				DA221 TL	G2070178		1-	B	c1
D 1010	DIODE				DA221 TL	G2070178		1-	B	c1
D 1011	DIODE				1SS400 TE61	G2070634		1-	B	c3
D 1011	DIODE				MA2S111-(TX)	G2070614		17-	B	c3
D 1012	DIODE				HN2D01FUTE85R	G2070348		1-	B	d2
D 1013	DIODE				RB521S-30 TE61	G2070642		1-	B	a2

CNTL Unit

REF.	DESCRIPTION	VALUE	WV	TOL.	MFR'S DESIG	VXSTD P/N	VERS.	LOT.	SIDE.	LAY ADR.
D 1014	DIODE				UMP11N TN	G2070646		1-	B	d2
D 1015	DIODE				UMP11N TN	G2070646		1-	B	d2
D 1016	DIODE				RB521S-30 TE61	G2070642		1-	B	b1
D 1017	DIODE				RB521S-30 TE61	G2070642		1-	B	b1
D 1018	DIODE				1SS400 TE61	G2070634		1-3	A	B3
D 1018	DIODE				1SS400 TE61	G2070634		4	A	B3
D 1019	LED				AA1111C-TR	G2070660		1-	A	B1
D 1020	LED				AA1111C-TR	G2070660		1-	A	A1
D 1021	LED				AA1111C-TR	G2070660		1-	A	A2
D 1022	LED				AA1111C-TR	G2070660		1-	A	A2
D 1023	LED				AA1111C-TR	G2070660		1-	A	A2
D 1024	LED				AA1111C-TR	G2070660		1-	A	A3
DS1001	LCD UNIT				DU3L1AF005A	Q7000291		1-		
J 1001	CONNECTOR				IL-FHR-36S-HF-E3000	P1091033		1-	B	b1
J 1002	SHIELD FINGER				2026 3100012	S5000196		1-	A	C2
J 1003	SHIELD FINGER				2026 3100012	S5000196		1-	A	C2
J 1004	CONNECTOR				IL-FHR-33S-HF-E3000	P1091032		1-	B	a2
J 1005	CONNECTOR				AXK6F10335P	P0091225		1-	B	c1
L 1001	M.RFC	150uH			FLC32T-151J	L1690229		1-	B	b3
L 1002	M.RFC	150uH			FLC32P-T-151K	L1690661		1-	B	b1
MC1001	MIC. ELEMENT				EM-140	M3290032		1-	A	C3
Q 1001	TRANSISTOR				DTA144EE TL	G3070074		1-	B	d2
Q 1002	TRANSISTOR				2SD1801S-TL	G3418018S		1-	A	B1
Q 1003	IC				HD6473877UX	×		1	B	b2
Q 1003	IC				HD6433876UB18X	×	EXPORT	2-	B	b2
Q 1003	IC				HD6433876UB23X	×	EXPORT	12-	B	b2
Q 1003	IC				HD6433876UB18X	×	GERMANY	4-	B	b2
Q 1003	IC				HD6433876UB23X	×	GERMANY	12-	B	b2
Q 1003	IC				HD6473877UX R0453	G1093429	KOREA	63-	B	b2
Q 1003	IC				HD6433876UB17X	×	USA	2-	B	b2
Q 1003	IC				HD6433876UB25X	×	USA	6-	B	b2
Q 1004	TRANSISTOR				2SC5374-TL	G3353748		1-	B	b3
Q 1005	TRANSISTOR				DTC143ZE TL	G3070102		1-	B	d2
Q 1006	TRANSISTOR				2SC4617 TL R	G3346178R		1-	B	d1
Q 1007	TRANSISTOR				DTC144EE TL	G3070075		1-	B	d2
Q 1008	TRANSISTOR				DTC124TE TL	G3070128		1-	A	C2
Q 1009	IC				M24C64-WMN6T	G1092881		1-	B	d2
Q 1009	IC				AT24C64N-10SI-1.8-SL722A	G1093171		18-	B	d2
Q 1009	IC				AT24C64N-10SI-2.7-SL722A	G1093269		26-	B	d2
Q 1009	IC				AT24C64N-10SI-1.8-SL722A	G1093171		41-	B	d2
Q 1010	TRANSISTOR				UMD2N TR	G3070076		1-	B	d2
Q 1011	IC				S-80730SN-DT-T1	G1091875		1-	B	b1
Q 1012	IC				BA030LBSG-TR	G1092826		1-	B	b1
Q 1012	IC				TK11130SCL	G1093158		24-	B	b1
Q 1013	IC				S-81230SG-QB-T1	G1091826		1-	B	b1
Q 1013	IC				S-812C30AMC-C2K-T2	G1093670		93-	B	b1
Q 1014	IC				NJM3403AV(TE1)	G1092215		1-	B	d1
Q 1015	IC				BA10358FV-E2	G1092781		1-	B	d2
Q 1016	IC				RH5RH651A-T1	G1092598		1-	B	b1
Q 1017	IC				S-80730SN-DT-T1	G1091875		1-	B	c1
Q 1018	TRANSISTOR				UMW1 TR	G3070078		1-	B	d3
Q 1019	TRANSISTOR				CPH6102-TL	G3070223		1-	B	d2
Q 1020	IC				TC75S51F TE85R	G1092048		2-	B	d1
Q 1021	TRANSISTOR				UMW1 TR	G3070078		2-	B	c1
R 1001	CHIP RES.	2.2M	1/16W	5%	CR05-225J-H	J24189317		1-	B	a1
R 1002	CHIP RES.	2.2k	1/16W	5%	CR05-222J-H	J24189281		1-	B	b3
R 1003	CHIP RES.	1M	1/16W	5%	CR05-105J-H	J24189313		1-	B	a1
R 1004	CHIP RES.	470	1/16W	5%	CR05-471J-H	J24189273		1-	B	d2
R 1005	CHIP RES.	2.2k	1/16W	5%	CR05-222J-H	J24189281		1-	B	d2
R 1007	CHIP RES.	1M	1/16W	5%	CR05-105J-H	J24189313		1-	B	a1

※ Please contact VERTEX STANDARD.

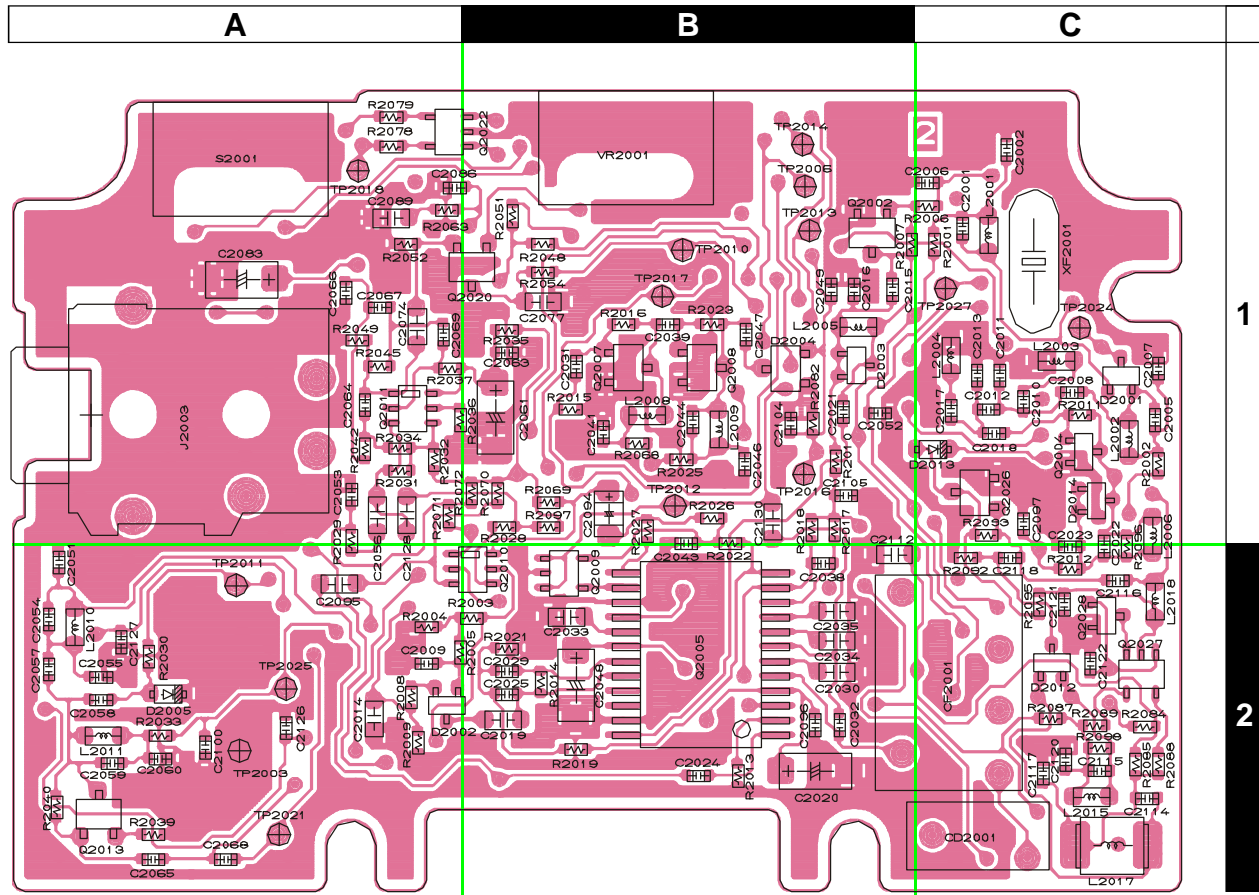
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R 1009	CHIP RES.	47k	1/16W	5%	CR05-473J-H	J24189297		1-	B	d1
R 1010	CHIP RES.	5.6k	1/16W	5%	CR05-562J-H	J24189286		1-	B	d1
R 1011	CHIP RES.	100k	1/16W	5%	CR05-104J-H	J24189301		1-	B	d2
R 1013	CHIP RES.	47k	1/16W	5%	CR05-473J-H	J24189297		1-	B	d1
R 1015	CHIP RES.	100	1/16W	5%	CR05-101J-H	J24189265		1-	B	a1
R 1016	CHIP RES.	270k	1/16W	5%	CR05-274J-H	J24189306		1-	B	d1
R 1017	CHIP RES.	1M	1/16W	5%	CR05-105J-H	J24189313		1-	B	c2
R 1018	CHIP RES.	1M	1/16W	5%	CR05-105J-H	J24189313		1-	B	c2
R 1019	CHIP RES.	47k	1/16W	5%	CR05-473J-H	J24189297		1-	B	d1
R 1020	CHIP RES.	22k	1/16W	5%	CR05-223J-H	J24189293		1-	B	d1
R 1021	CHIP RES.	100	1/16W	5%	CR05-101J-H	J24189265		1-	B	a1
R 1022	CHIP RES.	10k	1/16W	5%	CR05-103J-H	J24189289		1-	B	d1
R 1023	CHIP RES.	10k	1/16W	5%	CR05-103J-H	J24189289		1-	B	d1
R 1024	CHIP RES.	4.7k	1/16W	5%	CR05-472J-H	J24189285		1-	B	c1
R 1025	CHIP RES.	1M	1/16W	5%	CR05-105J-H	J24189313		1-	B	a2
R 1026	CHIP RES.	1k	1/16W	5%	CR05-102J-H	J24189277		1-	B	b2
R 1027	CHIP RES.	220k	1/16W	5%	CR05-224J-H	J24189305		1-	B	d1
R 1027	CHIP RES.	270k	1/16W	5%	CR05-274J-H	J24189306		5-	B	d1
R 1028	CHIP RES.	150k	1/16W	5%	CR05-154J-H	J24189303		1-	B	d1
R 1030	CHIP RES.	4.7k	1/16W	5%	CR05-472J-H	J24189285		1-	B	c1
R 1031	CHIP RES.	47k	1/16W	5%	CR05-473J-H	J24189297		1-	B	d1
R 1032	CHIP RES.	180k	1/16W	5%	CR05-184J-H	J24189304		1-	B	d1
R 1033	CHIP RES.	39k	1/16W	5%	CR05-393J-H	J24189296		1-	B	d1
R 1034	CHIP RES.	4.7k	1/16W	5%	CR05-472J-H	J24189285		1-	B	c1
R 1035	CHIP RES.	5.6k	1/16W	5%	CR05-562J-H	J24189286		1-	B	d1
R 1036	CHIP RES.	5.6k	1/16W	5%	CR05-562J-H	J24189286		1-	B	d1
R 1037	CHIP RES.	12k	1/16W	5%	CR05-123J-H	J24189290		1-	B	d2
R 1038	CHIP RES.	4.7k	1/16W	5%	CR05-472J-H	J24189285		1-	B	d1
R 1039	CHIP RES.	2.2k	1/16W	5%	CR05-222J-H	J24189281		1-	B	d1
R 1040	CHIP RES.	100k	1/16W	5%	CR05-104J-H	J24189301		1-	A	B2
R 1041	CHIP RES.	47k	1/16W	5%	CR05-473J-H	J24189297		1-	B	d2
R 1042	CHIP RES.	4.7k	1/16W	5%	CR05-472J-H	J24189285		1-	B	d1
R 1043	CHIP RES.	100k	1/16W	0.5%	RR0510R-104-D	J24189167		1-	B	a1
R 1044	CHIP RES.	470k	1/16W	5%	CR05-474J-H	J24189309		1-	B	d1
R 1045	CHIP RES.	100k	1/16W	0.5%	RR0510R-104-D	J24189167		1-	B	a1
R 1046	CHIP RES.	100k	1/16W	0.5%	RR0510R-104-D	J24189167		1-	B	a1
R 1053	CHIP RES.	4.7	1/2W	5%	RMC1/2 4R7JCTP	J24275479		1-	A	B1
R 1054	CHIP RES.	100k	1/16W	0.5%	RR0510R-104-D	J24189167		1-	B	a1
R 1055	CHIP RES.	10k	1/16W	5%	CR05-103J-H	J24189289		1-	B	d1
R 1056	CHIP RES.	100	1/16W	5%	CR05-101J-H	J24189265		1-	B	c1
R 1057	CHIP RES.	100	1/16W	5%	CR05-101J-H	J24189265		1-	B	d1
R 1058	CHIP RES.	100	1/16W	5%	CR05-101J-H	J24189265		1-	B	d2
R 1059	CHIP RES.	100	1/16W	5%	CR05-101J-H	J24189265		1-	B	d2
R 1060	CHIP RES.	100	1/16W	5%	CR05-101J-H	J24189265		1-	B	d2
R 1061	CHIP RES.	100	1/16W	5%	CR05-101J-H	J24189265		1-	B	d3
R 1062	CHIP RES.	4.7k	1/16W	5%	CR05-472J-H	J24189285		1-	B	d1
R 1062	CHIP RES.	2.7k	1/16W	5%	RMC1/16S 272JTH	J24189030		84-	B	d1
R 1063	CHIP RES.	47k	1/16W	0.5%	RR0510R-473-D	J24189159		1-	B	c3
R 1064	CHIP RES.	22k	1/16W	5%	CR05-223J-H	J24189293		1-	B	c1
R 1064	CHIP RES.	15k	1/16W	5%	RMC1/16S 153JTH	J24189039		84-	B	c1
R 1065	CHIP RES.	47k	1/16W	5%	CR05-473J-H	J24189297		1-	B	d2
R 1066	CHIP RES.	33k	1/16W	5%	CR05-333J-H	J24189295		1-	B	d2
R 1067	CHIP RES.	68k	1/16W	0.5%	RR0510R-683-D	J24189163		1-	B	a1
R 1068	CHIP RES.	2.2k	1/16W	5%	CR05-222J-H	J24189281		1-	B	c1
R 1069	CHIP RES.	100k	1/16W	5%	CR05-104J-H	J24189301		1-	A	C1
R 1070	CHIP RES.	1M	1/16W	5%	CR05-105J-H	J24189313		1-	B	b3
R 1071	CHIP RES.	33k	1/16W	5%	CR05-333J-H	J24189295		1-	B	c2
R 1072	CHIP RES.	10k	1/16W	5%	CR05-103J-H	J24189289		1	B	b3
R 1072	CHIP RES.	2.2k	1/16W	5%	CR05-222J-H	J24189281		2-	B	b3
R 1073	CHIP RES.	3.3k	1/16W	5%	CR05-332J-H	J24189283		1-	B	d2

CNTL Unit

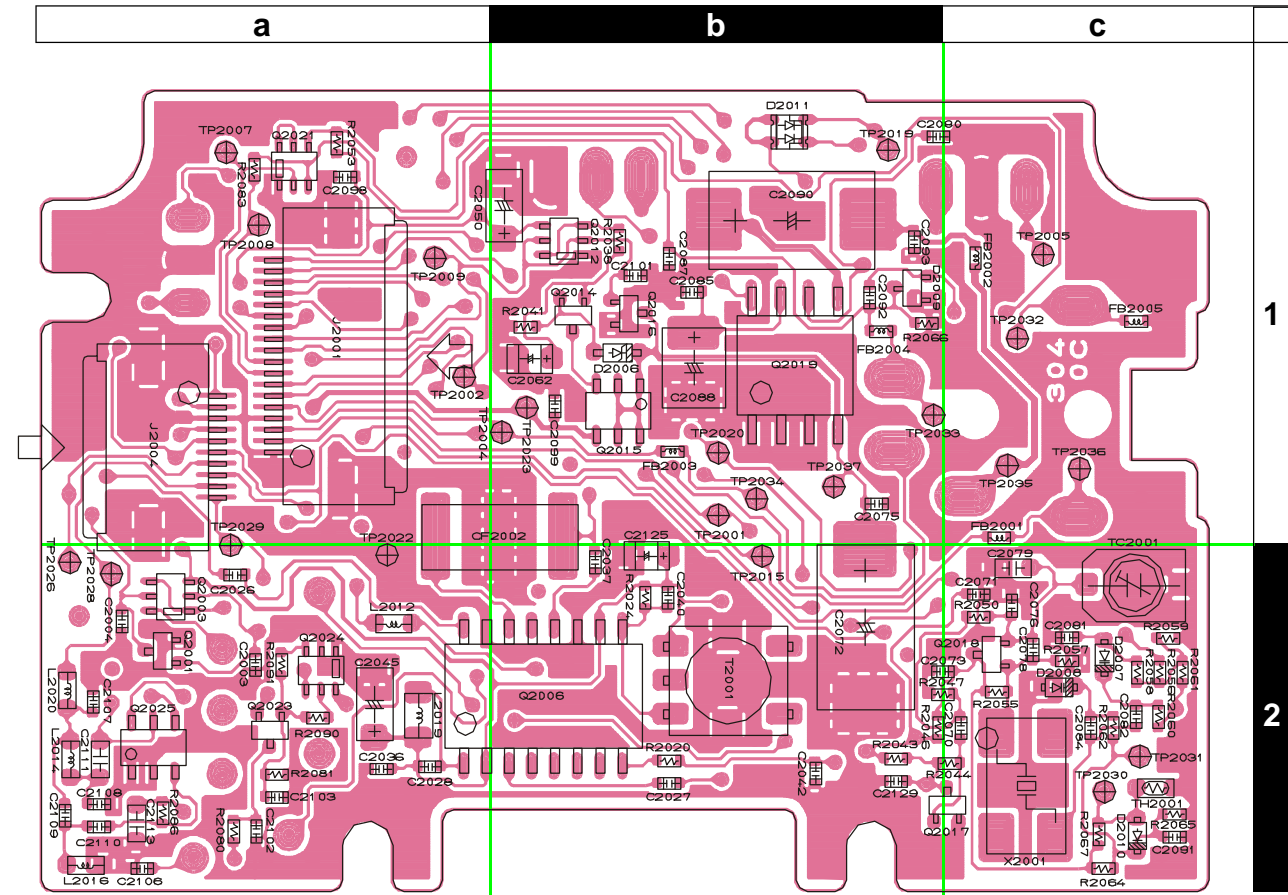
REF.	DESCRIPTION	VALUE	WV	TOL.	MFR'S DESIG	VXSTD P/N	VERS.	LOT.	SIDE.	LAY ADR.
R 1073	CHIP RES.	1.8k	1/16W	5%	CR05-182J-H	J24189280		10-	B	d2
R 1074	CHIP RES.	22k	1/16W	5%	CR05-223J-H	J24189293		1-	B	b3
R 1075	CHIP RES.	100k	1/16W	5%	CR05-104J-H	J24189301		1-	B	c1
R 1076	CHIP RES.	15k	1/16W	5%	CR05-153J-H	J24189291		1-	B	c1
R 1077	CHIP RES.	390k	1/16W	5%	CR05-394J-H	J24189308		1-	B	c1
R 1078	CHIP RES.	1k	1/16W	5%	CR05-102J-H	J24189277		1-	B	c1
R 1079	CHIP RES.	1k	1/16W	5%	CR05-102J-H	J24189277		1-	B	c1
R 1080	CHIP RES.	1M	1/16W	5%	CR05-105J-H	J24189313		1-	A	B1
R 1081	CHIP RES.	4.7k	1/16W	5%	CR05-472J-H	J24189285		1-	A	C1
R 1082	CHIP RES.	82k	1/16W	5%	CR05-823J-H	J24189300		1-	B	c1
R 1083	CHIP RES.	39k	1/16W	5%	CR05-393J-H	J24189296		1-	B	c1
R 1084	CHIP RES.	2.2k	1/16W	5%	CR05-222J-H	J24189281		1-	B	d3
R 1085	CHIP RES.	4.7	1/16W	5%	CR05-4R7J-H	J24189249		1-	B	c1
R 1092	CHIP RES.	100k	1/16W	5%	CR05-104J-H	J24189301		1-	B	c1
R 1095	CHIP RES.	0	1/16W		CR05-000-H	J24189248		1-	B	d1
R 1096	CHIP RES.	0	1/16W		CR05-000-H	J24189248		1-	B	d1
R 1097	CHIP RES.	560k	1/16W	5%	CR05-564J-H	J24189310		1-	B	d1
R 1098	CHIP RES.	180k	1/16W	5%	CR05-184J-H	J24189304		1-	B	d1
R 1099	CHIP RES.	27k	1/16W	5%	CR05-273J-H	J24189294		1-	B	d1
R 1100	CHIP RES.	0	1/16W		CR05-000-H	J24189248		1-3	B	d3
R 1100	CHIP RES.	0	1/16W		CR05-000-H	J24189248		4	B	d3
R 1101	CHIP RES.	0	1/16W		CR05-000-H	J24189248		1-3	B	d3
R 1101	CHIP RES.	0	1/16W		CR05-000-H	J24189248		4	B	d3
R 1102	CHIP RES.	3.3k	1/16W	5%	RMC1/16 332JATP	J24185332		1	B	d1
R 1102	CHIP RES.	10k	1/16W	5%	CR05-103J-H	J24189289		2-	B	d1
R 1103	CHIP RES.	47k	1/16W	5%	CR05-473J-H	J24189297		2-	B	d1
R 1103	CHIP RES.	68k	1/16W	5%	CR05-683J-H	J24189299		5-	B	d1
R 1103	CHIP RES.	56k	1/16W	5%	CR05-563J-H	J24189298		10-	B	d1
R 1104	CHIP RES.	100k	1/16W	5%	CR05-104J-H	J24189301		2-	B	d1
R 1105	CHIP RES.	100k	1/16W	5%	CR05-104J-H	J24189301		2-	B	d1
R 1106	CHIP RES.	10k	1/16W	5%	CR05-103J-H	J24189289		2-	B	d1
R 1107	CHIP RES.	47k	1/16W	5%	CR05-473J-H	J24189297		2-	B	c1
R 1108	CHIP RES.	4.7k	1/16W	5%	CR05-472J-H	J24189285		1-	A	C1
R 1109	CHIP RES.	4.7	1/16W	5%	RMC1/16S 4R7JTH	J24189066		24-	B	b1
RB1001	BLOCK RES.	10k			SR4E103JT	J42900027		1-	B	b2
RB1002	BLOCK RES.	20k			SR4E203JT	J42900028		1-	B	b2
RB1003	BLOCK RES.	10k			SR4E103JT	J42900027		1-	B	b2
RB1004	BLOCK RES.	20k			SR4E203JT	J42900028		1-	B	b2
RB1005	BLOCK RES.	10k			SR4E103JT	J42900027		1-	B	b2
RB1006	BLOCK RES.	20k			SR4E203JT	J42900028		1-	B	b2
RB1007	BLOCK RES.	20k			SR4E203JT	J42900028		1-	B	b2
RB1008	BLOCK RES.	10k			SR4E103JT	J42900027		1-	B	b2
S 1002	TACT SWITCH				JPM1990-1812	N5090106		1-	B	a1
S 1002	TACT SWITCH				JPM1990-2311	N5090112		12-	B	a1
S 1003	TACT SWITCH				JPM1990-1812	N5090106		1-	B	b1
S 1003	TACT SWITCH				JPM1990-2311	N5090112		12-	B	b1
TH1001	THERMISTOR				ERTJ1VV473J	G9090122		1-	B	c3
VR1001	POT.	10k			EVN-5ESX50B14	J51811103		1-	B	c1
VR1002	POT.	10k			EVN-5ESX50B14	J51811103		1-	B	c1
VR1003	POT.	10k			EVN-5ESX50B14	J51811103		1-	B	c1
VR1004	POT.	10k			EVN-5ESX50B14	J51811103		1-	B	c1
X 1001	XTAL SX-1315	3.579545MHz			3.579545MHZ	H0103185		1-	B	a3
X 1001	XTAL SX-1319	3.579545MHz			3.579545MHZ	H0103229		24-	B	a3
	MIC HOLDER RUBBER					RA0140200		1-		
	LIGHT GUIDE				(LCD)	RA0139300		1-		
	SHEET				(LCD)	RA0142300		1-		
	DOUBLE FACE				(LCD)	RA0142500		1		
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AF Unit

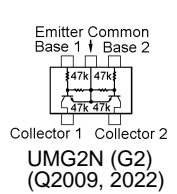
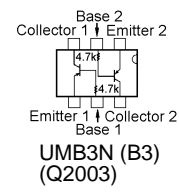
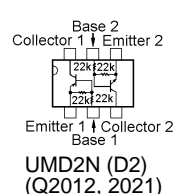
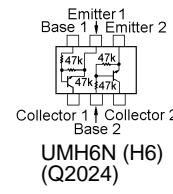
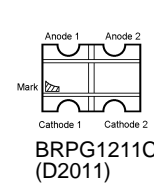
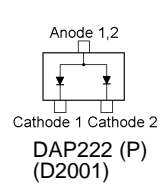
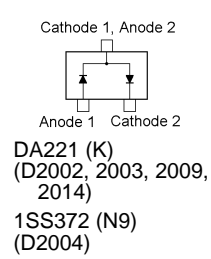
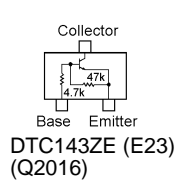
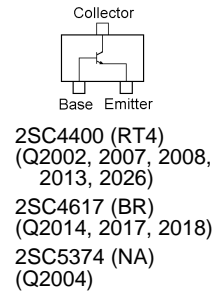
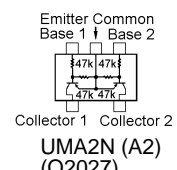
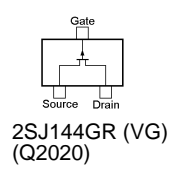
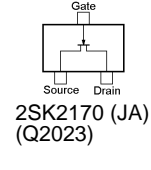
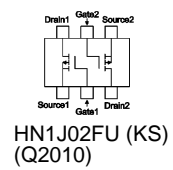
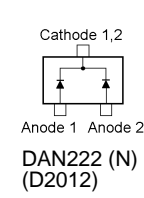
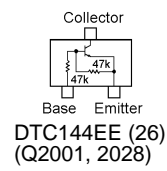
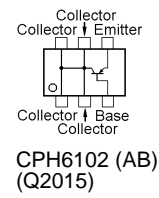
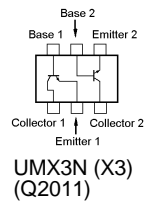
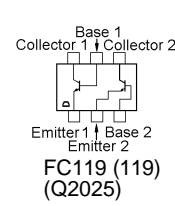
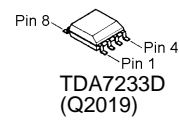
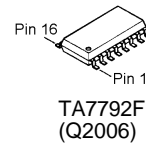
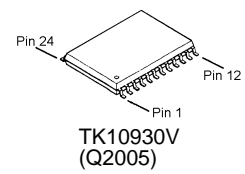
Parts Layout

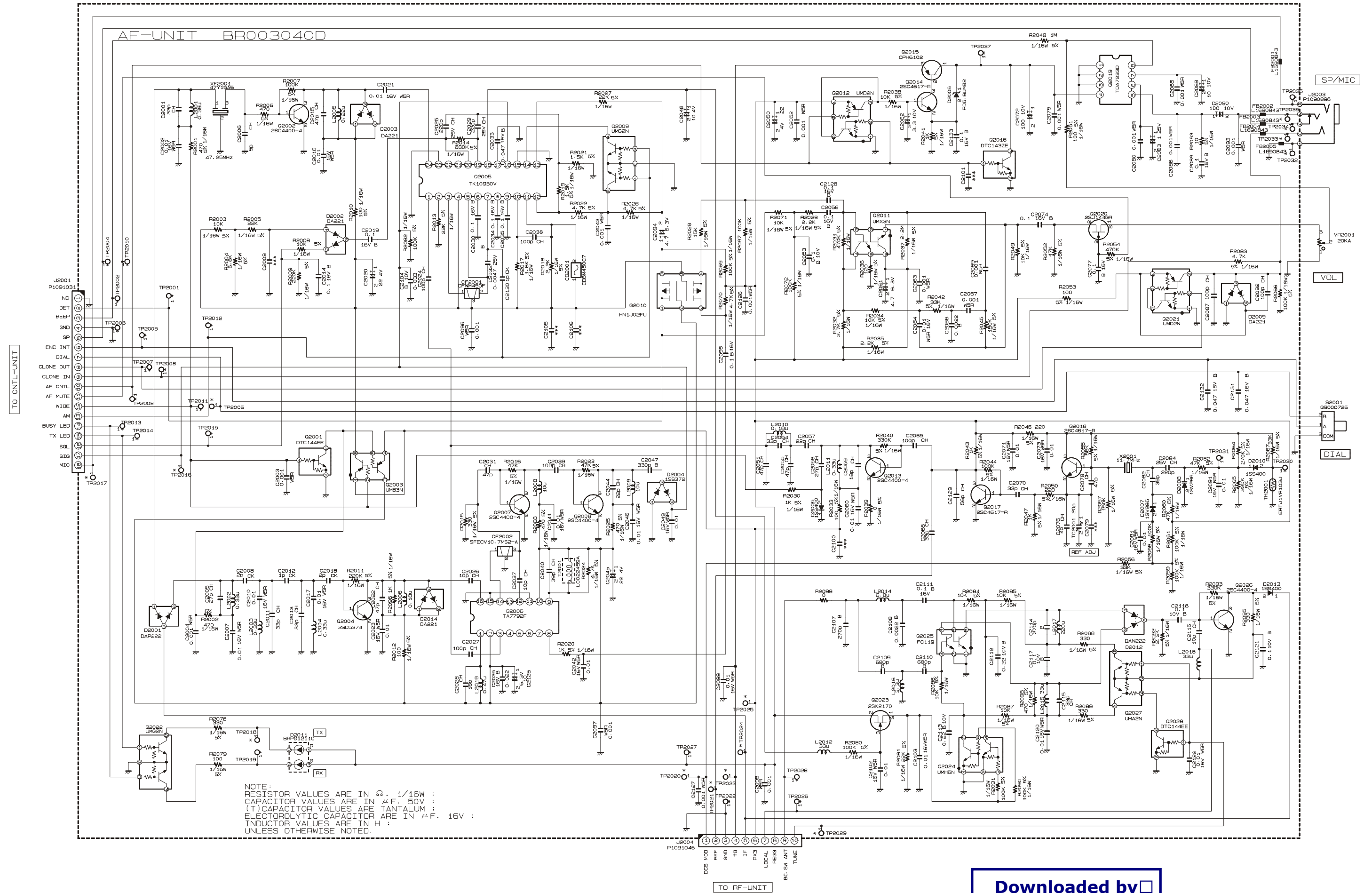


Side A



Side B



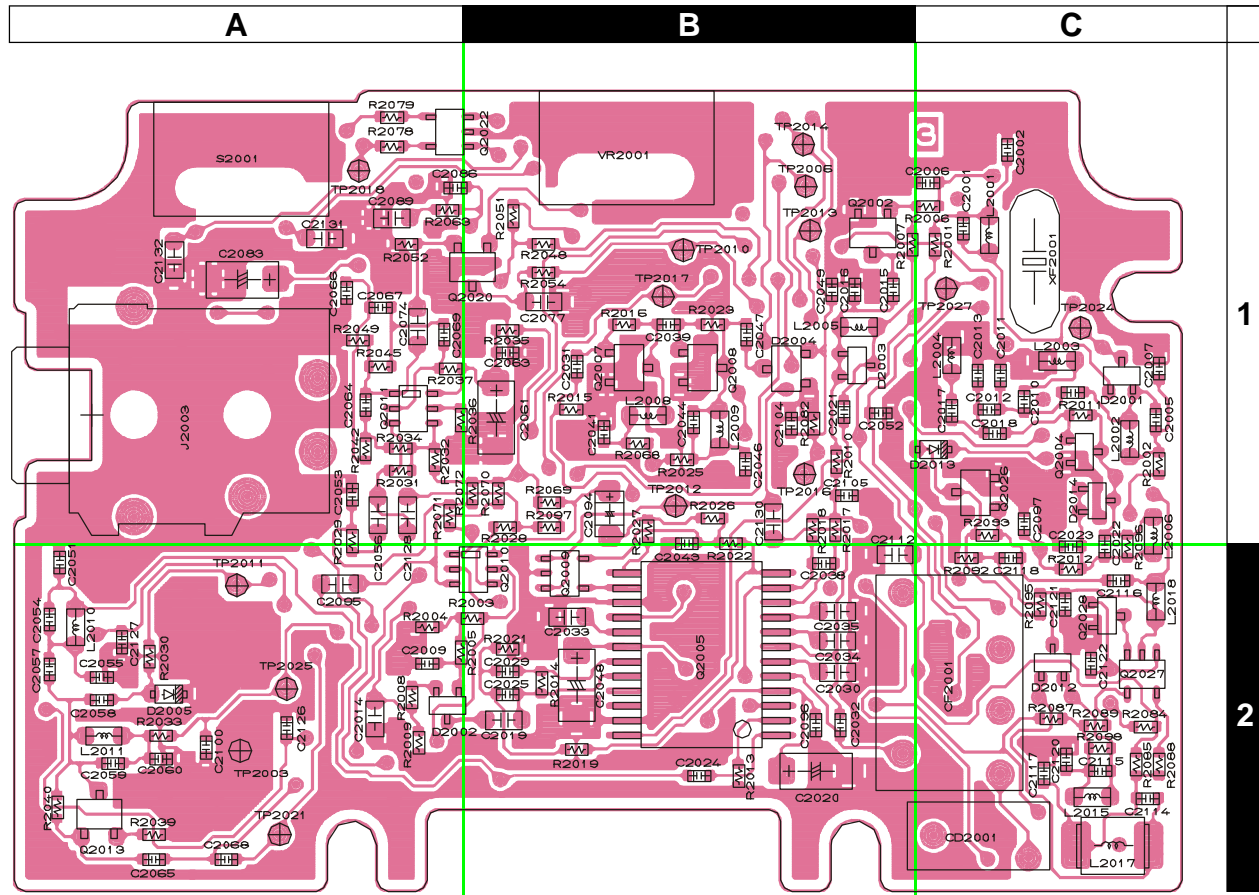


NOTE:
 RESISTOR VALUES ARE IN Ω, 1/16W ;
 CAPACITOR VALUES ARE IN μF, 50V ;
 (T)CAPACITOR VALUES ARE TANTALUM ;
 ELECTROLYTIC CAPACITOR ARE IN F, 16V ;
 INDUCTOR VALUES ARE IN H ;
 UNLESS OTHERWISE NOTED.

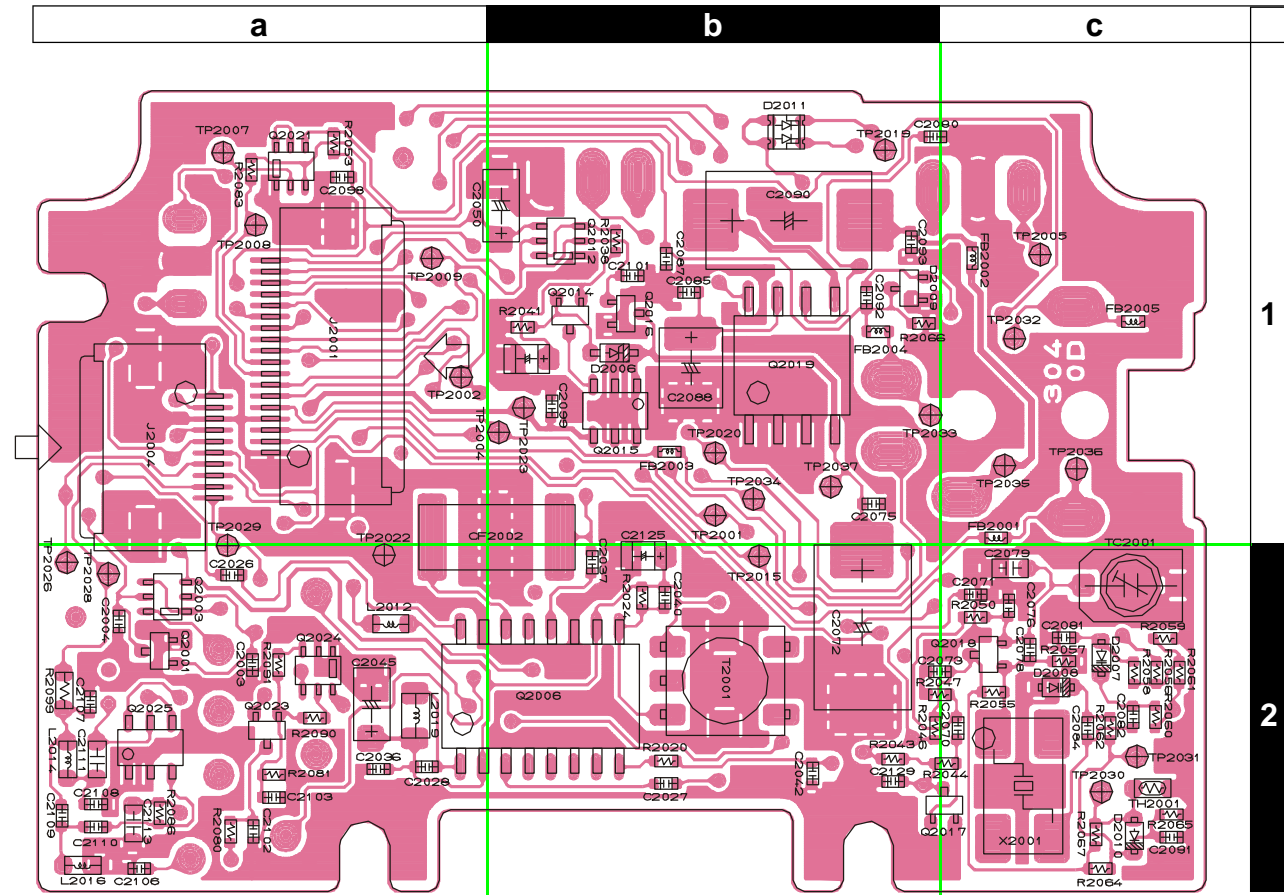
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AF Unit (Lot 2~)

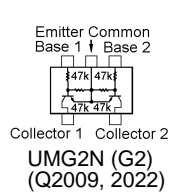
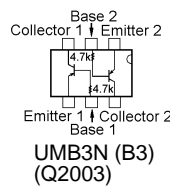
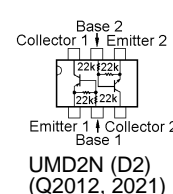
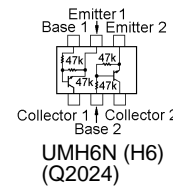
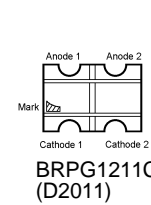
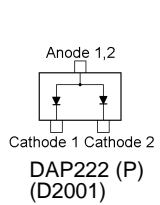
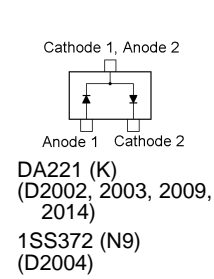
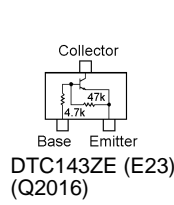
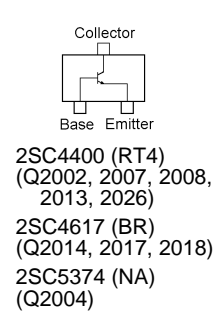
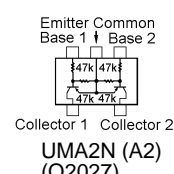
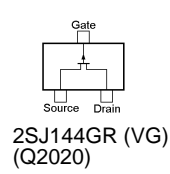
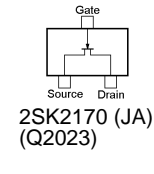
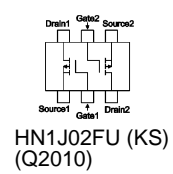
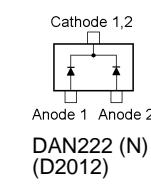
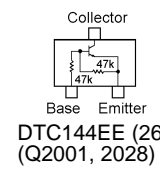
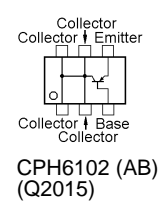
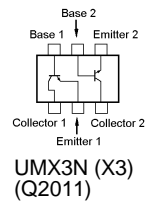
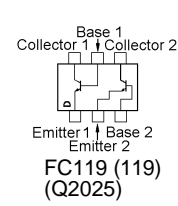
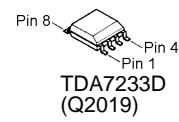
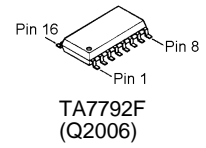
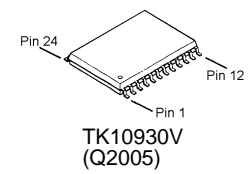
Parts Layout

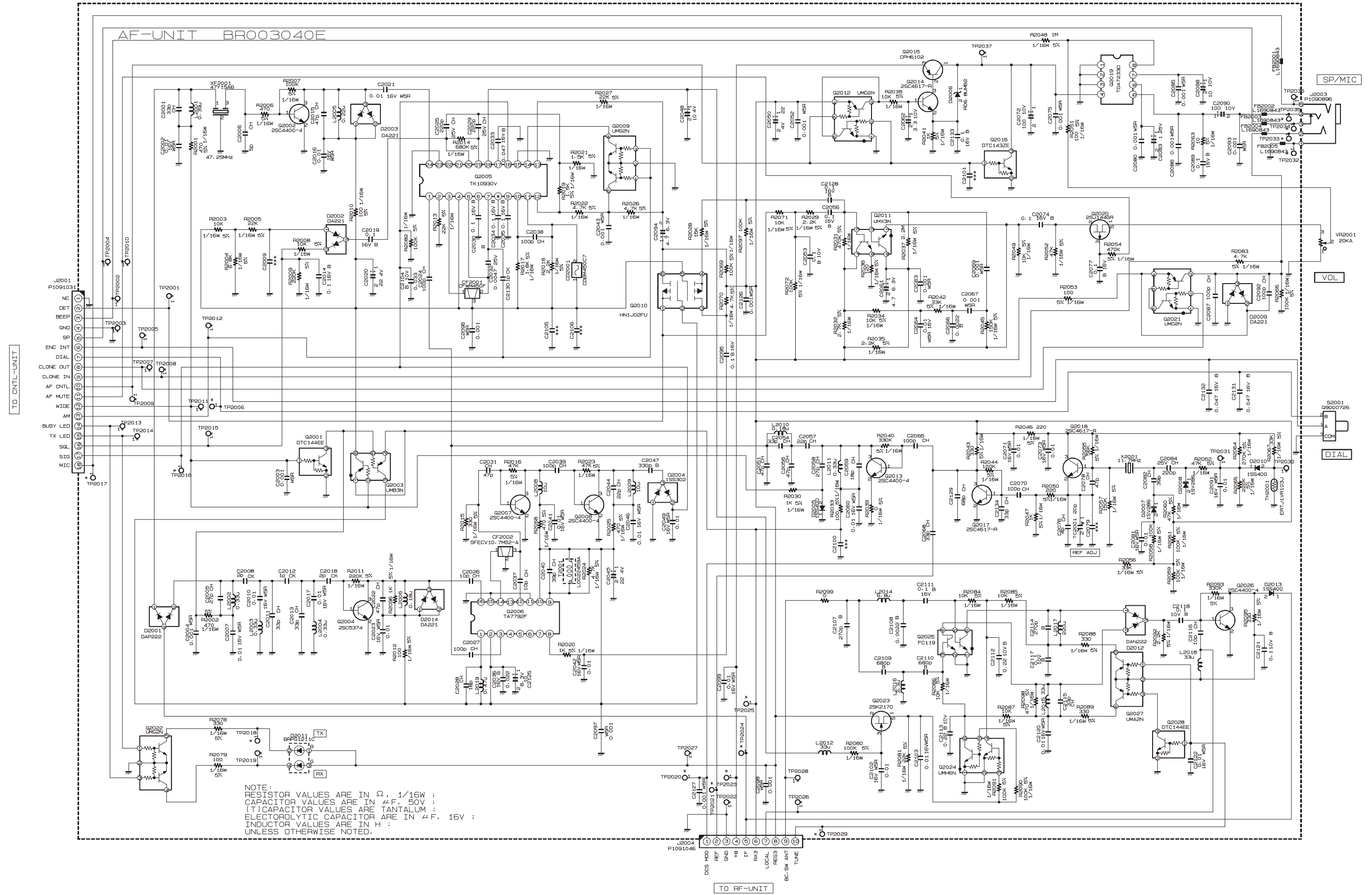


Side A



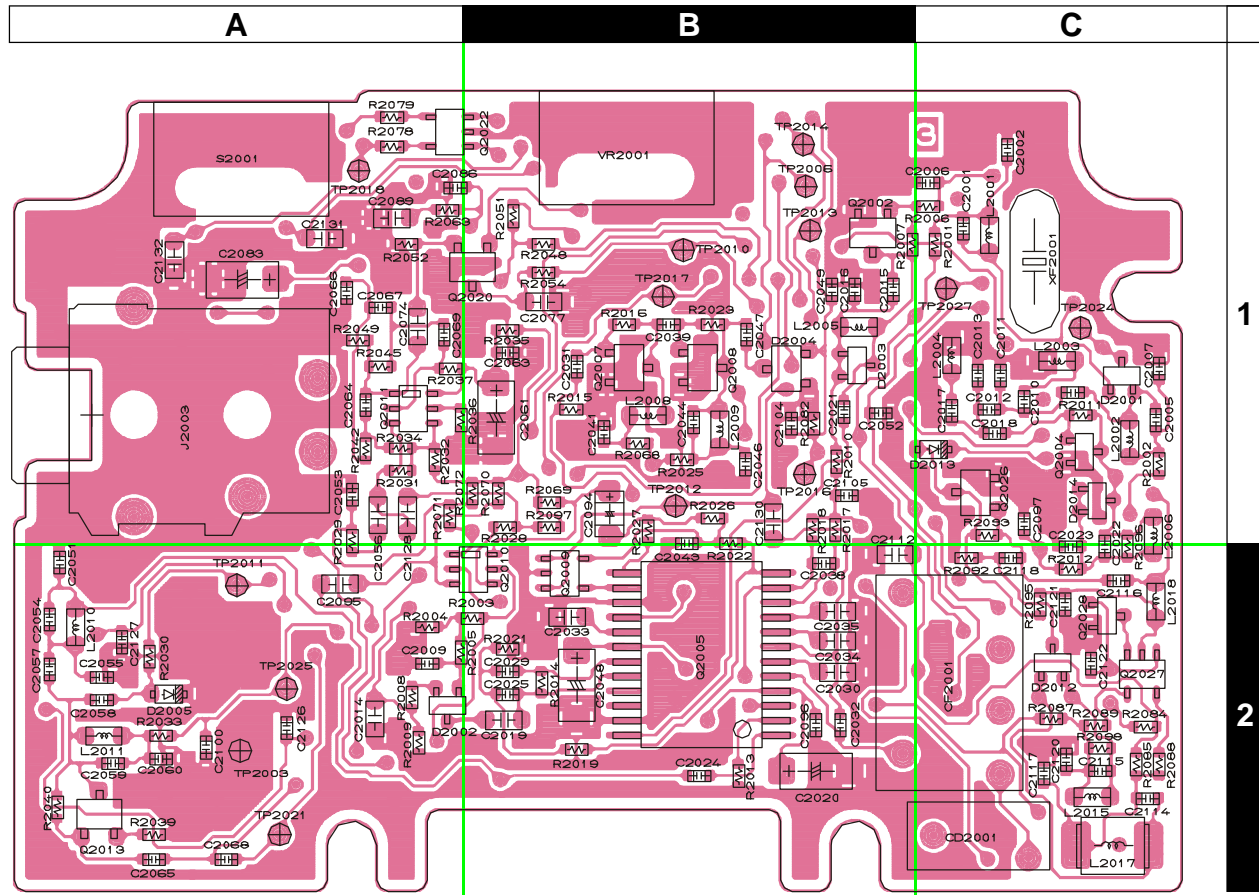
Side B



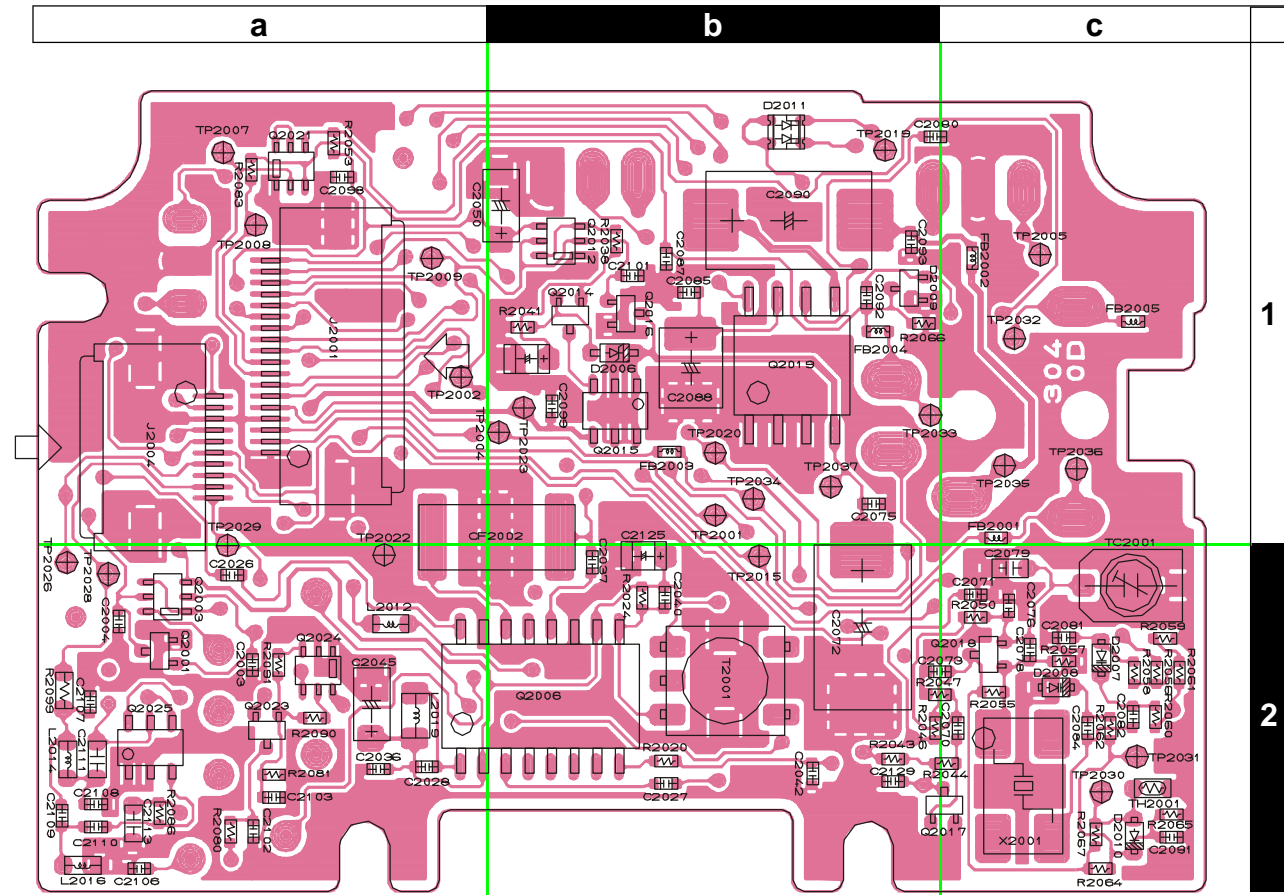


AF Unit (Lot 5~)

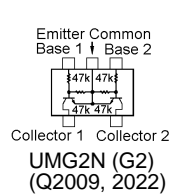
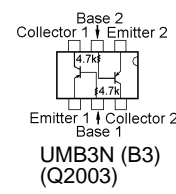
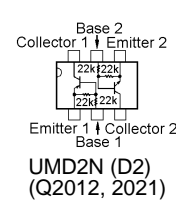
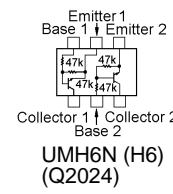
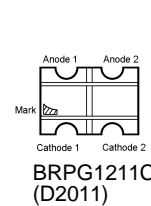
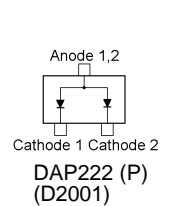
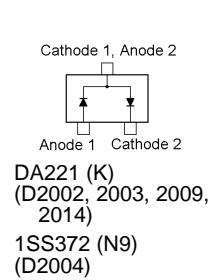
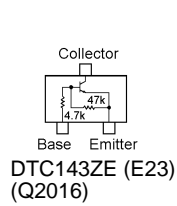
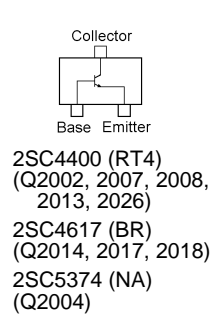
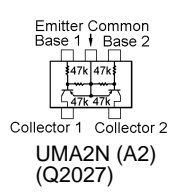
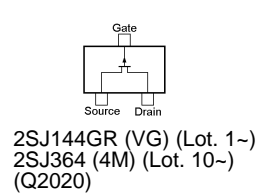
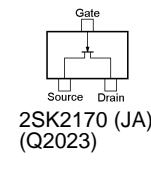
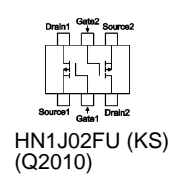
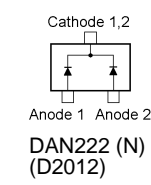
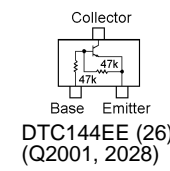
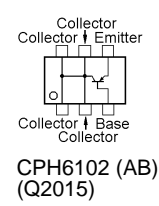
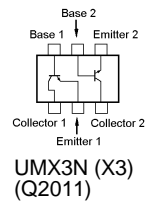
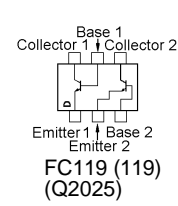
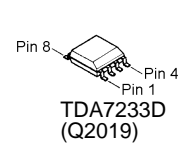
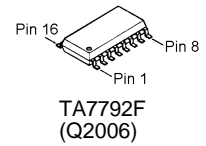
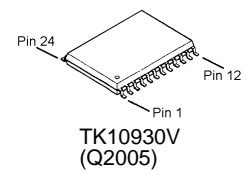
Parts Layout



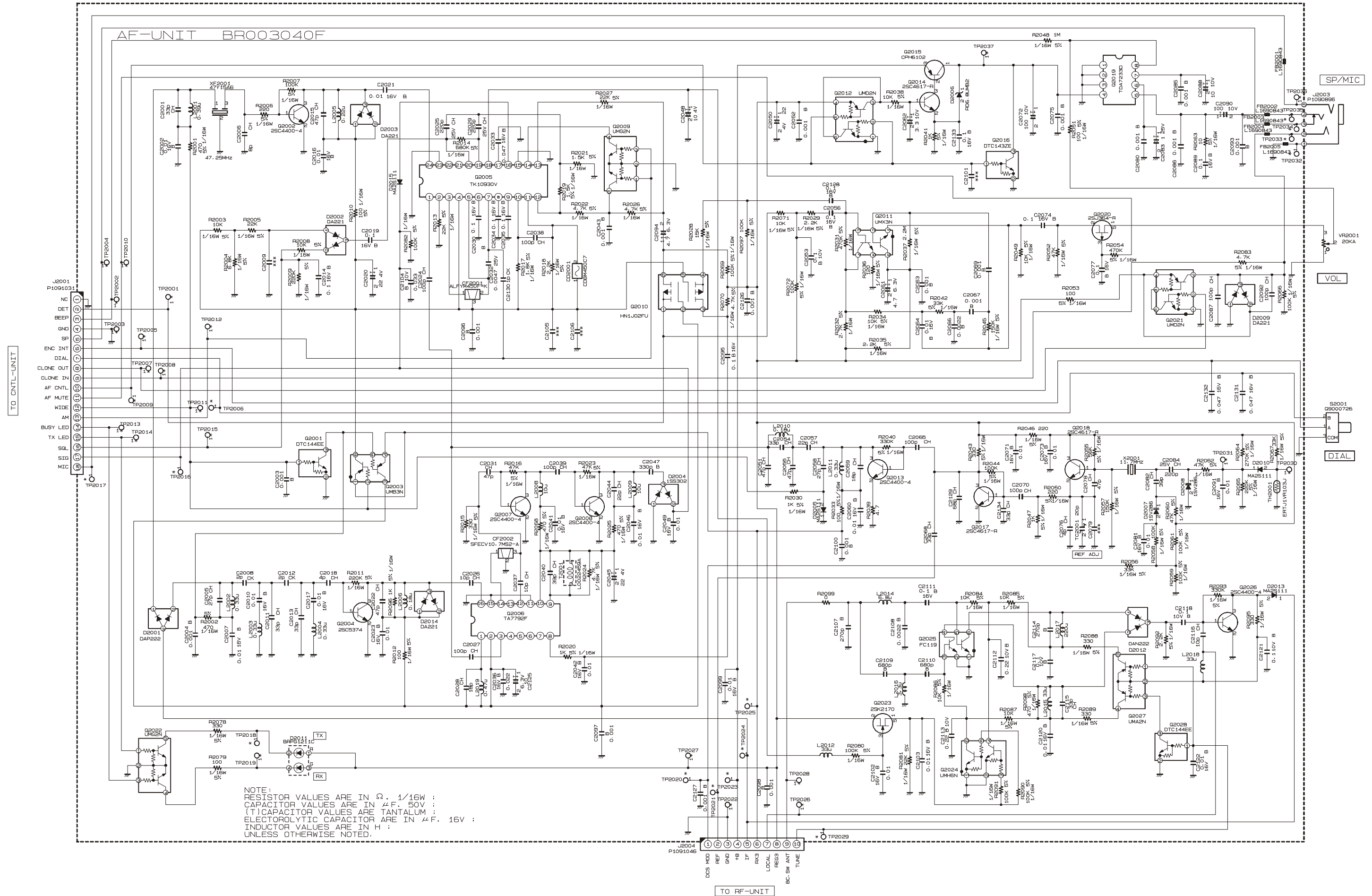
Side A



Side B

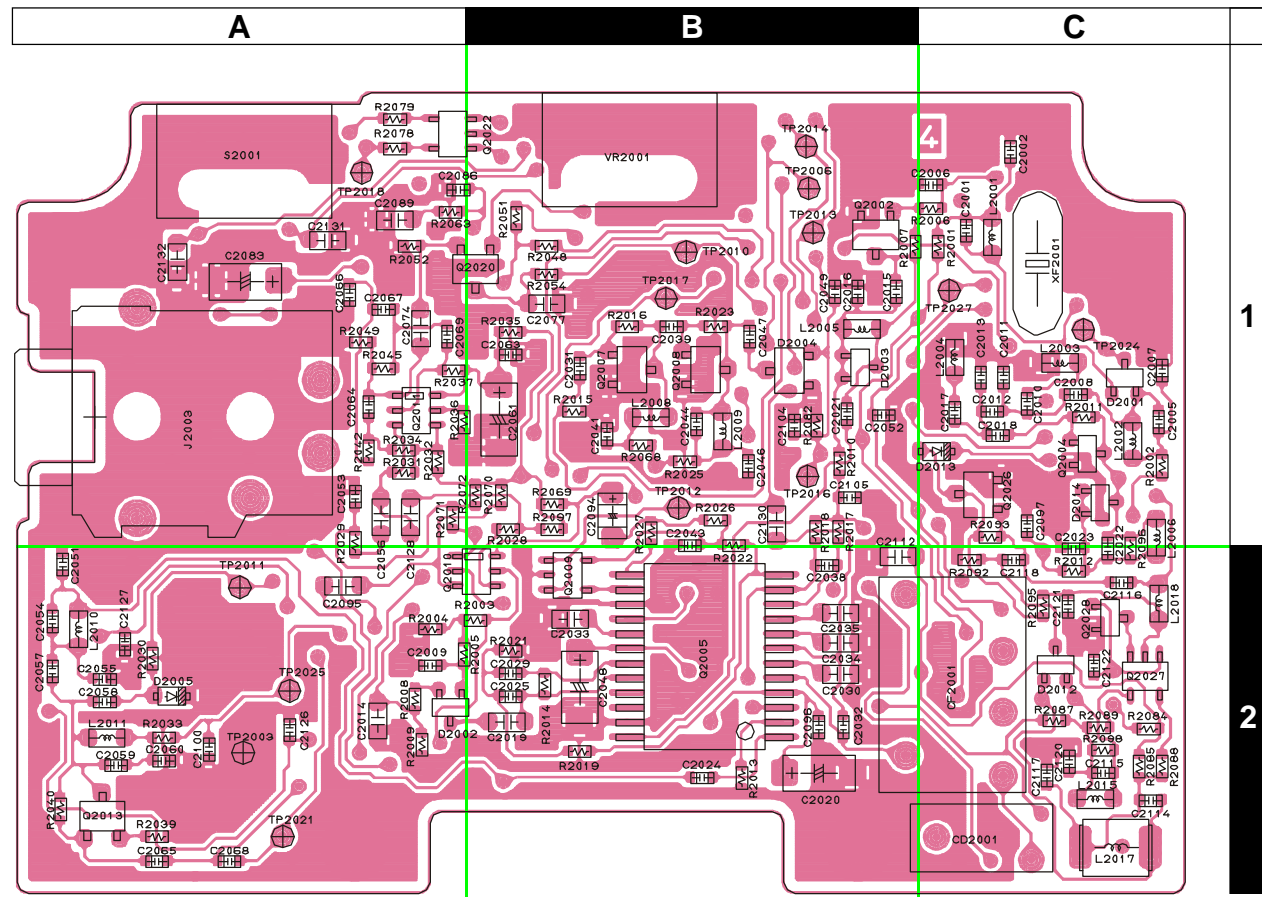


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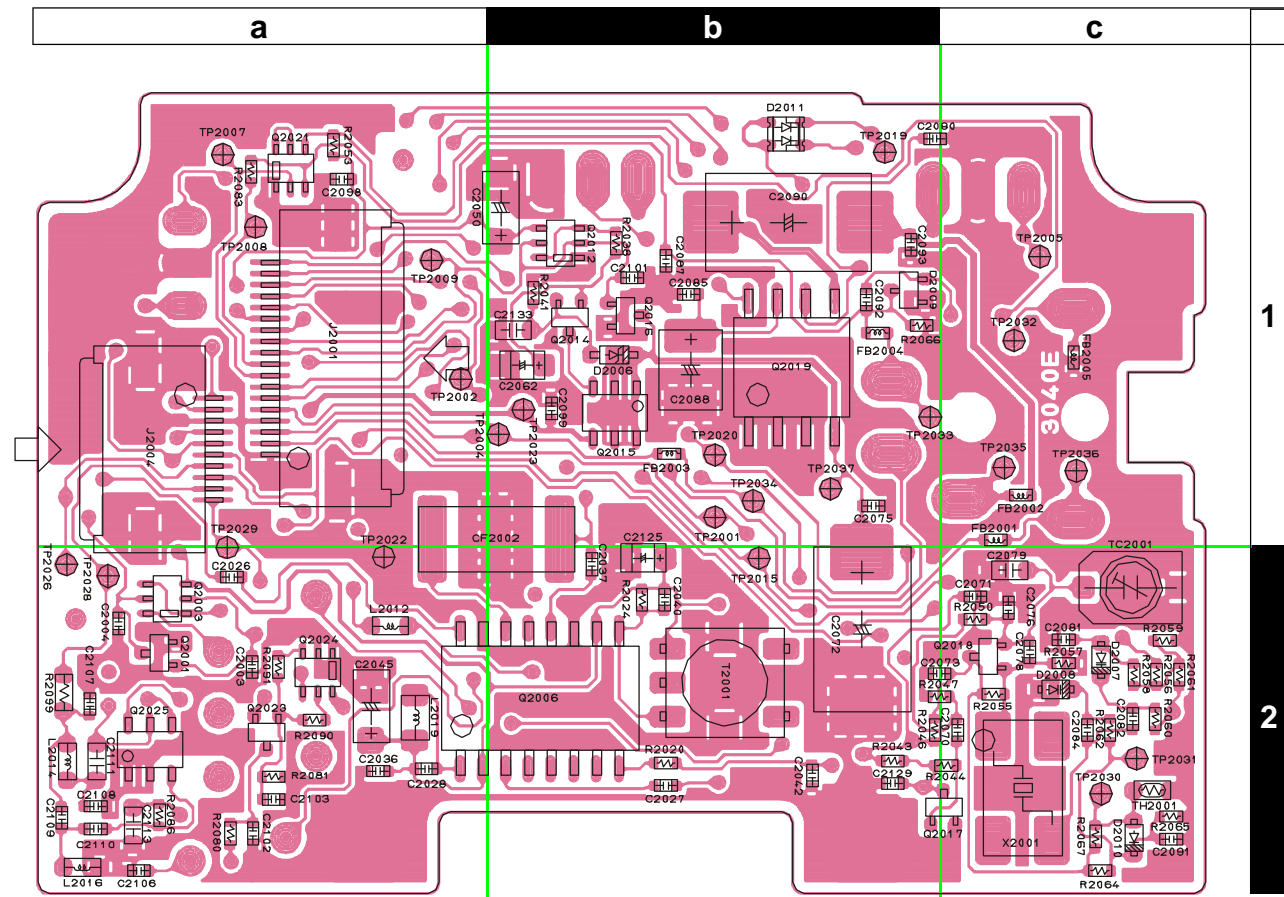


AF Unit (Lot 17~)

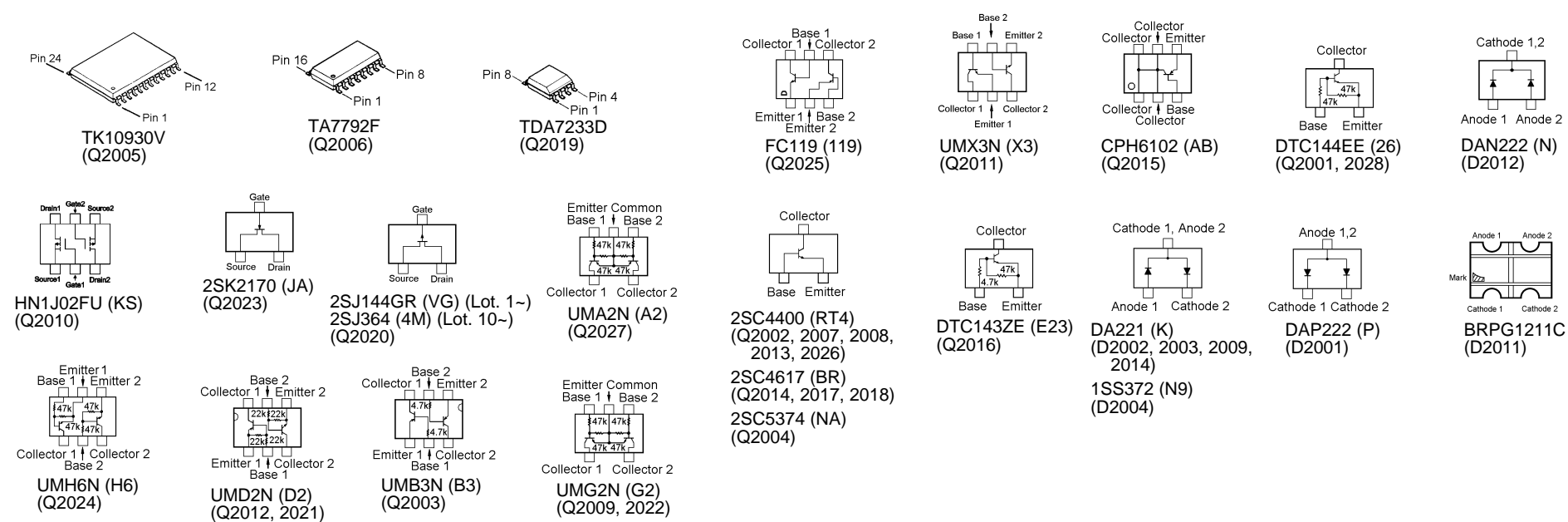
Parts Layout



Side A



Side B



Parts List

REF.	DESCRIPTION	VALUE	WV	TOL.	MFR'S DESIG	VXSTD P/N	VERS.	LOT.	SIDE	LAY ADR.
*** AF UNIT ***										
PCB with Components						CB0521001				
	Printed Circuit Board					FR003040C		1-		
	Printed Circuit Board					FR003040D		2-		
	Printed Circuit Board					FR003040E		5-		
	Printed Circuit Board					FR003040F		17-		
C 2001	CHIP CAP.	33pF	50V	CH	GRM36CH330J50PT	K22178224		1-	A	C1
C 2002	CHIP CAP.	0.01uF	16V	W5R	CM05W5R103K16AH	K22128805		1-	A	C1
C 2002	CHIP CAP.	0.01uF	16V	B	GRM36B103K16PT	K22128804		11-	A	C1
C 2003	CHIP CAP.	0.001uF	50V	W5R	CM05W5R102K50AH	K22178820		1-	B	a2
C 2003	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		11-	B	a2
C 2004	CHIP CAP.	0.001uF	50V	W5R	CM05W5R102K50AH	K22178820		1-	B	a2
C 2004	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		11-	B	a2
C 2005	CHIP CAP.	27pF	50V	CH	GRM36CH270J50PT	K22178222		1-	A	C1
C 2006	CHIP CAP.	5pF	50V	CH	GRM36CH050C50PT	K22178207		1-	A	C1
C 2006	CHIP CAP.	8pF	50V	CH	GRM36CH080D50PT	K22178210		11-	A	C1
C 2007	CHIP CAP.	0.01uF	16V	W5R	CM05W5R103K16AH	K22128805		1-	A	C1
C 2007	CHIP CAP.	0.01uF	16V	B	GRM36B103K16PT	K22128804		11-	A	C1
C 2008	CHIP CAP.	2pF	50V	CK	GRM36CK020C50PT	K22178204		1-	A	C1
C 2010	CHIP CAP.	0.01uF	16V	W5R	CM05W5R103K16AH	K22128805		1-	A	C1
C 2010	CHIP CAP.	0.01uF	16V	B	GRM36B103K16PT	K22128804		11-	A	C1
C 2011	CHIP CAP.	33pF	50V	CH	GRM36CH330J50PT	K22178224		1-	A	C1
C 2012	CHIP CAP.	1pF	50V	CK	GRM36CK010C50PT	K22178202		1-	A	C1
C 2012	CHIP CAP.	2pF	50V	CK	GRM36CK020C50PT	K22178204		37-	A	C1
C 2013	CHIP CAP.	33pF	50V	CH	GRM36CH330J50PT	K22178224		1-	A	C1
C 2014	CHIP CAP.	0.1uF	16V	B	GRM39B104K16PT	K22124805		1-	A	A2
C 2015	CHIP CAP.	47pF	50V	CH	GRM36CH470J50PT	K22178228		1-	A	B1
C 2016	CHIP CAP.	0.01uF	16V	W5R	CM05W5R103K16AH	K22128805		1-	A	B1
C 2016	CHIP CAP.	0.01uF	16V	B	GRM36B103K16PT	K22128804		11-	A	B1
C 2017	CHIP CAP.	0.01uF	16V	W5R	CM05W5R103K16AH	K22128805		1-	A	C1
C 2017	CHIP CAP.	0.01uF	16V	B	GRM36B103K16PT	K22128804		11-	A	C1
C 2018	CHIP CAP.	2pF	50V	CK	GRM36CK020C50PT	K22178204		1-	A	C1
C 2018	CHIP CAP.	4pF	50V	CH	GRM36CH040C50PT	K22178206		37-	A	C1
C 2019	CHIP CAP.	0.1uF	16V	B	GRM39B104K16PT	K22124805		1-	A	B2
C 2020	CHIP TA.CAP.	22uF	4V		TEMSVA0G226M-8R	K78060023		1-	A	B2
C 2021	CHIP CAP.	0.01uF	16V	W5R	CM05W5R103K16AH	K22128805		1-	A	B1
C 2021	CHIP CAP.	0.01uF	16V	B	GRM36B103K16PT	K22128804		11-	A	B1
C 2022	CHIP CAP.	47pF	50V	CH	GRM36CH470J50PT	K22178228		1-	A	C2
C 2023	CHIP CAP.	0.01uF	16V	W5R	CM05W5R103K16AH	K22128805		1-	A	C2
C 2023	CHIP CAP.	0.01uF	16V	B	GRM36B103K16PT	K22128804		11-	A	C2
C 2024	CHIP CAP.	100pF	50V	CH	CM05CH101J50AH	K22178246		1-	A	B2
C 2024	CHIP CAP.	100pF	50V	CH	GRM36CH101J50PT	K22178236		18-	A	B2
C 2025	CHIP CAP.	220pF	25V	CH	GRM36CH221J25PT	K22148203		1-	A	B2
C 2026	CHIP CAP.	10pF	50V	CH	GRM36CH100D50PT	K22178212		1-	B	a2
C 2027	CHIP CAP.	100pF	50V	CH	CM05CH101J50AH	K22178246		1-	B	b2
C 2027	CHIP CAP.	100pF	50V	CH	GRM36CH101J50PT	K22178236		18-	B	b2
C 2028	CHIP CAP.	18pF	50V	CH	GRM36CH180J50PT	K22178218		1-	B	a2
C 2029	CHIP CAP.	220pF	25V	CH	GRM36CH221J25PT	K22148203		1-	A	B2
C 2030	CHIP CAP.	0.1uF	16V	B	GRM39B104K16PT	K22124805		1-	A	B2
C 2031	CHIP CAP.	47pF	50V	CH	GRM36CH470J50PT	K22178228		1-	A	B1
C 2032	CHIP CAP.	0.0047uF	25V	B	GRM36B472K25PT	K22148830		1-	A	B2
C 2033	CHIP CAP.	0.047uF	16V	B	GRM39B473K16PT	K22124804		1-	A	B2
C 2034	CHIP CAP.	0.1uF	16V	B	GRM39B104K16PT	K22124805		1-	A	B2
C 2035	CHIP CAP.	0.1uF	16V	B	GRM39B104K16PT	K22124805		1-	A	B2
C 2036	CHIP CAP.	0.022uF	16V	B	GRM36B223K16PT	K22128806		1-	B	a2
C 2037	CHIP CAP.	10pF	50V	CH	GRM36CH100D50PT	K22178212		1-	B	b2
C 2038	CHIP CAP.	100pF	50V	CH	CM05CH101J50AH	K22178246		1-	A	B2
C 2038	CHIP CAP.	100pF	50V	CH	GRM36CH101J50PT	K22178236		18-	A	B2
C 2039	CHIP CAP.	100pF	50V	CH	CM05CH101J50AH	K22178246		1-	A	B1
C 2039	CHIP CAP.	100pF	50V	CH	GRM36CH101J50PT	K22178236		18-	A	B1

AF Unit

REF.	DESCRIPTION	VALUE	WV	TOL.	MFR'S DESIG	VXSTD P/N	VERS.	LOT.	SIDE.	LAY ADR.
C 2040	CHIP CAP.	39pF	50V	CH	GRM36CH390J50PT	K22178226		1-	B	b2
C 2041	CHIP CAP.	0.01uF	16V	W5R	CM05W5R103K16AH	K22128805		1-	A	B1
C 2041	CHIP CAP.	0.01uF	16V	B	GRM36B103K16PT	K22128804		11-	A	B1
C 2042	CHIP CAP.	0.01uF	16V	W5R	CM05W5R103K16AH	K22128805		1-	B	b2
C 2042	CHIP CAP.	0.01uF	16V	B	GRM36B103K16PT	K22128804		11-	B	b2
C 2043	CHIP CAP.	0.001uF	50V	W5R	CM05W5R102K50AH	K22178820		1-	A	B1
C 2043	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		11-	A	B1
C 2044	CHIP CAP.	22pF	50V	CH	GRM36CH220J50PT	K22178220		1-	A	B1
C 2045	CHIP TA.CAP.	22uF	4V		TEMSVA0G226M-8R	K78060023		1-	B	a2
C 2046	CHIP CAP.	0.01uF	16V	W5R	CM05W5R103K16AH	K22128805		1-	A	B1
C 2046	CHIP CAP.	0.01uF	16V	B	GRM36B103K16PT	K22128804		11-	A	B1
C 2047	CHIP CAP.	330pF	50V	B	GRM36B331K50PT	K22178803		1-	A	B1
C 2048	CHIP TA.CAP.	10uF	4V		TEMSVA0G106M-8R	K78060010		1-	A	B2
C 2049	CHIP CAP.	0.01uF	16V	W5R	CM05W5R103K16AH	K22128805		1-	A	B1
C 2049	CHIP CAP.	0.01uF	16V	B	GRM36B103K16PT	K22128804		11-	A	B1
C 2050	CHIP TA.CAP.	22uF	4V		TEMSVA0G226M-8R	K78060023		1-	B	b1
C 2051	CHIP CAP.	47pF	50V	CH	GRM36CH470J50PT	K22178228		1-	A	A2
C 2052	CHIP CAP.	0.001uF	50V	W5R	CM05W5R102K50AH	K22178820		1-	A	B1
C 2052	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		11-	A	B1
C 2053	CHIP CAP.	0.1uF	10V	B	GRM36B104K10PT	K22108802		1-	A	A1
C 2054	CHIP CAP.	33pF	50V	CH	GRM36CH330J50PT	K22178224		1-	A	A2
C 2055	CHIP CAP.	47pF	50V	CH	GRM36CH470J50PT	K22178228		1-	A	A2
C 2056	CHIP CAP.	0.1uF	16V	B	GRM39B104K16PT	K22124805		1-	A	A1
C 2057	CHIP CAP.	22pF	50V	CH	GRM36CH220J50PT	K22178220		1-	A	A2
C 2058	CHIP CAP.	27pF	50V	CH	GRM36CH270J50PT	K22178222		1-	A	A2
C 2059	CHIP CAP.	18pF	50V	CH	GRM36CH180J50PT	K22178218		1-	A	A2
C 2060	CHIP CAP.	0.01uF	16V	W5R	CM05W5R103K16AH	K22128805		1-	A	A2
C 2060	CHIP CAP.	0.01uF	16V	B	GRM36B103K16PT	K22128804		11-	A	A2
C 2061	CHIP TA.CAP.	4.7uF	6.3V		TEMSVA0J475M-8R	K78080017		1-	A	B1
C 2062	CHIP TA.CAP.	3.3uF	10V		SKF-1A335M-RP	K78100051		1-	B	b1
C 2063	CHIP CAP.	0.001uF	50V	W5R	CM05W5R102K50AH	K22178820		1-	A	B1
C 2063	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		11-	A	B1
C 2064	CHIP CAP.	0.01uF	16V	W5R	CM05W5R103K16AH	K22128805		1-	A	A1
C 2064	CHIP CAP.	0.01uF	16V	B	GRM36B103K16PT	K22128804		11-	A	A1
C 2065	CHIP CAP.	100pF	50V	CH	CM05CH101J50AH	K22178246		1-	A	A2
C 2065	CHIP CAP.	100pF	50V	CH	GRM36CH101J50PT	K22178236		18-	A	A2
C 2066	CHIP CAP.	0.0022uF	50V	B	GRM36B222K50PT	K22178813		1-	A	A1
C 2067	CHIP CAP.	0.001uF	50V	W5R	CM05W5R102K50AH	K22178820		1-	A	A1
C 2067	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		11-	A	A1
C 2068	CHIP CAP.	33pF	50V	CH	GRM36CH330J50PT	K22178224		1-	A	A2
C 2069	CHIP CAP.	0.001uF	50V	W5R	CM05W5R102K50AH	K22178820		1-	A	A1
C 2069	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		11-	A	A1
C 2070	CHIP CAP.	33pF	50V	CH	GRM36CH330J50PT	K22178224		1-	B	c2
C 2070	CHIP CAP.	100pF	50V	CH	CM05CH101J50AH	K22178246		7-	B	c2
C 2070	CHIP CAP.	100pF	50V	CH	GRM36CH101J50PT	K22178236		18-	B	c2
C 2071	CHIP CAP.	0.01uF	16V	W5R	CM05W5R103K16AH	K22128805		1-	B	c2
C 2071	CHIP CAP.	0.01uF	16V	B	GRM36B103K16PT	K22128804		11-	B	c2
C 2072	CHIP TA.CAP.	100uF	10V		TEMSVD1A107M12R	K78100031		1-	B	b2
C 2073	CHIP CAP.	0.01uF	16V	W5R	CM05W5R103K16AH	K22128805		1-	B	b2
C 2073	CHIP CAP.	0.01uF	16V	B	GRM36B103K16PT	K22128804		11-	B	b2
C 2074	CHIP CAP.	0.1uF	16V	B	GRM39B104K16PT	K22124805		1-	A	A1
C 2075	CHIP CAP.	0.001uF	50V	W5R	CM05W5R102K50AH	K22178820		1-	B	b1
C 2075	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		11-	B	b1
C 2076	CHIP CAP.	4pF	50V	CH	GRM36CH040C50PT	K22178206		1-	B	c2
C 2077	CHIP CAP.	0.1uF	16V	B	GRM39B104K16PT	K22124805		1-	A	B1
C 2078	CHIP CAP.	47pF	50V	CH	GRM36CH470J50PT	K22178228		1-	B	c2
C 2080	CHIP CAP.	0.001uF	50V	W5R	CM05W5R102K50AH	K22178820		1-	B	b1
C 2080	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		11-	B	b1
C 2081	CHIP CAP.	0.01uF	16V	W5R	CM05W5R103K16AH	K22128805		1-	B	c2
C 2081	CHIP CAP.	0.01uF	16V	B	GRM36B103K16PT	K22128804		11-	B	c2

REF.	DESCRIPTION	VALUE	WV	TOL.	MFR'S DESIG	VXSTD P/N	VERS.	LOT.	SIDE	LAY ADR.
C 2082	CHIP CAP.	39pF	50V	CH	GRM36CH390J50PT	K22178226		1-	B	c2
C 2083	CHIP TA.CAP.	1uF	25V		TEMSVA1E105M-8R	K78140013		1-	A	A1
C 2084	CHIP CAP.	220pF	25V	CH	GRM36CH221J25PT	K22148203		1-	B	c2
C 2085	CHIP CAP.	0.001uF	50V	W5R	CM05W5R102K50AH	K22178820		1-	B	b1
C 2085	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		11-	B	b1
C 2086	CHIP CAP.	0.001uF	50V	W5R	CM05W5R102K50AH	K22178820		1-	A	A1
C 2086	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		11-	A	A1
C 2087	CHIP CAP.	100pF	50V	CH	CM05CH101J50AH	K22178246		1-	B	b1
C 2087	CHIP CAP.	100pF	50V	CH	GRM36CH101J50PT	K22178236		18-	B	b1
C 2088	CHIP TA.CAP.	10uF	10V		TEMSVB21A106M-8R	K78100017		1-	B	b1
C 2089	CHIP CAP.	0.1uF	16V	B	GRM39B104K16PT	K22124805		1-	A	A1
C 2090	CHIP TA.CAP.	100uF	10V		TEMSVD1A107M12R	K78100031		1-	B	b1
C 2091	CHIP CAP.	0.01uF	16V	W5R	CM05W5R103K16AH	K22128805		1-	B	c2
C 2091	CHIP CAP.	0.01uF	16V	B	GRM36B103K16PT	K22128804		11-	B	c2
C 2092	CHIP CAP.	100pF	50V	CH	CM05CH101J50AH	K22178246		1-	B	b1
C 2092	CHIP CAP.	100pF	50V	CH	GRM36CH101J50PT	K22178236		18-	B	b1
C 2093	CHIP CAP.	0.001uF	50V	W5R	CM05W5R102K50AH	K22178820		1-	B	b1
C 2093	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		11-	B	b1
C 2094	CHIP TA.CAP.	4.7uF	6.3V		TESVSP0J475M-8R	K78080053		1-	A	B1
C 2095	CHIP CAP.	0.1uF	16V	B	GRM39B104K16PT	K22124805		1-	A	A2
C 2096	CHIP CAP.	0.001uF	50V	W5R	CM05W5R102K50AH	K22178820		1-	A	B2
C 2096	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		11-	A	B2
C 2097	CHIP CAP.	0.001uF	50V	W5R	CM05W5R102K50AH	K22178820		1-	A	C1
C 2097	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		11-	A	C1
C 2098	CHIP CAP.	0.001uF	50V	W5R	CM05W5R102K50AH	K22178820		1-	B	a1
C 2098	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		11-	B	a1
C 2099	CHIP CAP.	0.01uF	16V	W5R	CM05W5R103K16AH	K22128805		1-	B	b1
C 2099	CHIP CAP.	0.01uF	16V	B	GRM36B103K16PT	K22128804		11-	B	b1
C 2100	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		12-	A	A2
C 2102	CHIP CAP.	0.01uF	16V	W5R	CM05W5R103K16AH	K22128805		1-	B	a2
C 2102	CHIP CAP.	0.01uF	16V	B	GRM36B103K16PT	K22128804		11-	B	a2
C 2103	CHIP CAP.	0.01uF	16V	W5R	CM05W5R103K16AH	K22128805		1-	B	a2
C 2103	CHIP CAP.	0.01uF	16V	B	GRM36B103K16PT	K22128804		11-	B	a2
C 2104	CHIP CAP.	0.033uF	10V	B	GRM36B333K10PT	K22108803		1-	A	B1
C 2107	CHIP CAP.	270pF	50V	B	GRM36B271K50PT	K22178802		1-	B	a2
C 2108	CHIP CAP.	0.0022uF	50V	B	GRM36B222K50PT	K22178813		1-	B	a2
C 2109	CHIP CAP.	680pF	50V	B	GRM36B681K50PT	K22178807		1-	B	a2
C 2110	CHIP CAP.	680pF	50V	B	GRM36B681K50PT	K22178807		1-	B	a2
C 2111	CHIP CAP.	0.1uF	16V	B	GRM39B104K16PT	K22124805		1-	B	a2
C 2112	CHIP CAP.	0.22uF	10V	B	GRM39B224K10PT	K22104801		1-	A	B2
C 2113	CHIP CAP.	0.22uF	10V	B	GRM39B224K10PT	K22104801		1-	B	a2
C 2114	CHIP CAP.	270pF	50V	B	GRM36B271K50PT	K22178802		1-	A	C2
C 2115	CHIP CAP.	33pF	50V	CH	GRM36CH330J50PT	K22178224		1-	A	C2
C 2116	CHIP CAP.	10pF	50V	CH	GRM36CH100D50PT	K22178212		1-	A	C2
C 2117	CHIP CAP.	0.1uF	10V	B	GRM36B104K10PT	K22108802		1-	A	C2
C 2118	CHIP CAP.	0.1uF	10V	B	GRM36B104K10PT	K22108802		1-	A	C2
C 2120	CHIP CAP.	0.01uF	16V	W5R	CM05W5R103K16AH	K22128805		1-	A	C2
C 2120	CHIP CAP.	0.01uF	16V	B	GRM36B103K16PT	K22128804		11-	A	C2
C 2121	CHIP CAP.	0.1uF	10V	B	GRM36B104K10PT	K22108802		1-	A	C2
C 2122	CHIP CAP.	0.01uF	16V	W5R	CM05W5R103K16AH	K22128805		1-	A	C2
C 2122	CHIP CAP.	0.01uF	16V	B	GRM36B103K16PT	K22128804		11-	A	C2
C 2125	CHIP TA.CAP.	10uF	6.3V		TESVSP0J106M-8R	K78080055		1-	B	b2
C 2126	CHIP CAP.	0.001uF	50V	W5R	CM05W5R102K50AH	K22178820		1-	A	A2
C 2126	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		11-	A	A2
C 2127	CHIP CAP.	0.001uF	50V	W5R	CM05W5R102K50AH	K22178820		2-	A	A2
C 2127	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		11-	A	A2
C 2128	CHIP CAP.	0.1uF	16V	B	GRM39B104K16PT	K22124805		1-	A	A1
C 2129	CHIP CAP.	56pF	50V	CH	GRM36CH560J50PT	K22178230		1-	B	b2
C 2129	CHIP CAP.	68pF	50V	CH	GRM36CH680J50PT	K22178232		7-	B	b2
C 2130	CHIP CAP.	1pF	50V	CK	GRM39CK010C50PT	K22174202		1-	A	B1

AF Unit

REF.	DESCRIPTION	VALUE	WV	TOL.	MFR'S DESIG	VXSTD P/N	VERS.	LOT.	SIDE.	LAY ADR.
C 2131	CHIP CAP.	0.047uF	16V	B	GRM39B473K16PT	K22124804		1-	A	A1
C 2132	CHIP CAP.	0.047uF	16V	B	GRM39B473K16PT	K22124804		1-	A	A1
C 2133	CHIP CAP.	0.1uF	16V	B	GRM39B104K16PT	K22124805		1-	B	b1
C 2134	CHIP CAP.	33pF	50V	CH	GRM36CH330J50PT	K22178224		7-	B	c2
CD2001	CERAMIC DISC				CDBM450C7	H7900930		1-	A	C2
CF2001	CERAMIC FILTER				CFWM450F	H3900453		1-	A	B2
CF2001	CERAMIC FILTER				ALFYM450F=K	H3900531		35-	A	B2
CF2002	CERAMIC FILTER				SFECV10.7MS2-A-TC	H3900514		1-	B	b1
D 2001	DIODE				DAP222-TL	G2070432		1-	A	C1
D 2002	DIODE				DA221 TL	G2070178		1-	A	A2
D 2003	DIODE				DA221 TL	G2070178		1-	A	B1
D 2004	DIODE				1SS372(TE85R)	G2070632		1-	A	B1
D 2004	DIODE				1SS302 TE85R	G2070088		7-	A	B1
D 2005	DIODE				1SS400 TE61	G2070634		1-	A	A2
D 2005	DIODE				MA2S111-(TX)	G2070614		17-	A	A2
D 2006	DIODE				RD6.8UMB2-T1B	G2070438		1-	B	b1
D 2007	DIODE				1SV286(TPL3)	G2070610		1-	B	c2
D 2008	DIODE				1SV286(TPL3)	G2070610		1-	B	c2
D 2009	DIODE				DA221 TL	G2070178		1-	B	b1
D 2010	DIODE				1SS400 TE61	G2070634		1-	B	c2
D 2010	DIODE				MA2S111-(TX)	G2070614		17-	B	c2
D 2011	LED				BRPG1211C-TR	G2070654		1-	B	b1
D 2012	DIODE				DAN222 TL	G2070174		1-	A	C2
D 2013	DIODE				1SS400 TE61	G2070634		1-	A	C1
D 2013	DIODE				MA2S111-(TX)	G2070614		17-	A	C1
D 2014	DIODE				DA221 TL	G2070178		1-	A	C1
D 2015	DIODE				MA2S111-(TX)	G2070614		17-	A	B1
FB2001	CHIP COIL				BLM10A121SPT	L1690843		1-	B	c1
FB2002	CHIP COIL				BLM10A121SPT	L1690843		1-	B	c1
FB2003	CHIP COIL				BLM10A121SPT	L1690843		1-	B	b1
FB2004	CHIP COIL				BLM10A121SPT	L1690843		1-	B	b1
FB2005	CHIP COIL				BLM10A121SPT	L1690843		1-	B	c1
J 2001	CONNECTOR				IL-FHR-18S-HF-E3000	P1091031		1-	B	a1
J 2003	CONNECTOR				HSJ1594-010055	P1090896		1-	A	A1
J 2004	CONNECTOR				IL-FHR-10S-HF-E3000	P1091046		1-	B	a1
L 2001	M.RFC	0.39uH			LK1608 R39K-T	L1690413		1-	A	C1
L 2002	M.RFC	0.33uH			LK1608 R33K-T	L1690412		1-	A	C1
L 2003	M.RFC	0.33uH			LK1608 R33K-T	L1690412		1-	A	C1
L 2004	M.RFC	0.33uH			LK1608 R33K-T	L1690412		1-	A	C1
L 2005	M.RFC	0.22uH			LK1608 R22K-T	L1690410		1-	A	B1
L 2006	M.RFC	0.18uH			LK1608 R18K-T	L1690392		1-	A	C1
L 2008	M.RFC	10uH			LK1608 100K-T	L1690689		1-	A	B1
L 2009	M.RFC	10uH			LK1608 100K-T	L1690689		1-	A	B1
L 2010	M.RFC	0.18uH			LK1608 R18K-T	L1690392		1-	A	A2
L 2011	M.RFC	0.33uH			LK1608 R33K-T	L1690412		1-	A	A2
L 2012	M.RFC	33uH			LK1608 330M-T	L1690690		1-	B	a2
L 2014	M.RFC	6.8uH			LK1608 6R8K-T	L1690632		1-	B	a2
L 2015	M.RFC	33uH			LK1608 330M-T	L1690690		1-	A	C2
L 2016	M.RFC	3.3uH			LK1608 3R3K-T	L1690686		1-	B	a2
L 2017	M.RFC	220uH			ELJ-FA221KF	L1690685		1-	A	C2
L 2017	M.RFC	220uH			FLC32T-221J	L1690231		4-	A	C2
L 2018	M.RFC	33uH			LK1608 330M-T	L1690690		1-	A	C2
L 2019	M.RFC	0.47uH			ELJ-NDR47JF	L1690630		1-	B	a2
Q 2001	TRANSISTOR				DTC144EE TL	G3070075		1-	B	a2
Q 2002	TRANSISTOR				2SC4400-4-TL	G3344008D		1-	A	B1
Q 2003	TRANSISTOR				UMB3N TN	G3070158		1-	B	a2
Q 2004	TRANSISTOR				2SC5374-TL	G3353748		1-	A	C1
Q 2005	IC				TK10930VT1	G1091606		1-	A	B2
Q 2006	IC				TA7792F(TP1)	G1092467		1-	B	b2
Q 2007	TRANSISTOR				2SC4400-4-TL	G3344008D		1-	A	B1

REF.	DESCRIPTION	VALUE	WV	TOL.	MFR'S DESIG	VXSTD P/N	VERS.	LOT.	SIDE	LAY ADR.
Q 2008	TRANSISTOR				2SC4400-4-TL	G3344008D		1-	A	B1
Q 2009	TRANSISTOR				UMG2N TR	G3070088		1-	A	B2
Q 2010	FET				HN1J02FU(TE85L)	G3070221		1-	A	B2
Q 2011	TRANSISTOR				UMX3N TR	G3070218		1-	A	A1
Q 2012	TRANSISTOR				UMD2N TR	G3070076		1-	B	b1
Q 2013	TRANSISTOR				2SC4400-4-TL	G3344008D		1-	A	A2
Q 2014	TRANSISTOR				2SC4617 TL R	G3346178R		1-	B	b1
Q 2015	TRANSISTOR				CPH6102-TL	G3070223		1-	B	b1
Q 2016	TRANSISTOR				DTC143ZE TL	G3070102		1-	B	b1
Q 2017	TRANSISTOR				2SC4617 TL R	G3346178R		1-	B	b2
Q 2018	TRANSISTOR				2SC4617 TL R	G3346178R		1-	B	c2
Q 2019	IC				TDA7233D-TR	G1091112		1-	B	b1
Q 2020	FET				2SJ144GR TE85R	G3701447G		1-	A	B1
Q 2020	FET				2SJ364-R(TX)	G3703648R		10-	A	B1
Q 2021	TRANSISTOR				UMD2N TR	G3070076		1-	B	a1
Q 2022	TRANSISTOR				UMG2N TR	G3070088		1-	A	A1
Q 2023	FET				2SK2170-TL	G3821708		1-	B	a2
Q 2024	TRANSISTOR				UMH6N TR	G3070216		1-	B	a2
Q 2025	TRANSISTOR				FC119-TL	G3070214		1-	B	a2
Q 2026	TRANSISTOR				2SC4400-4-TL	G3344008D		1-	A	C1
Q 2027	TRANSISTOR				UMA2N TR	G3070213		1-	A	C2
Q 2028	TRANSISTOR				DTC144EE TL	G3070075		1-	A	C2
R 2001	CHIP RES.	470	1/16W	5%	CR05-471J-H	J24189273		1-	A	C1
R 2002	CHIP RES.	470	1/16W	5%	CR05-471J-H	J24189273		1-	A	C1
R 2003	CHIP RES.	10k	1/16W	5%	CR05-103J-H	J24189289		1-	A	B2
R 2004	CHIP RES.	6.8k	1/16W	5%	CR05-682J-H	J24189287		1-	A	A2
R 2005	CHIP RES.	22k	1/16W	5%	CR05-223J-H	J24189293		1-	A	A2
R 2006	CHIP RES.	470	1/16W	5%	CR05-471J-H	J24189273		1-	A	C1
R 2006	CHIP RES.	220	1/16W	5%	CR05-221J-H	J24189269		11-	A	C1
R 2007	CHIP RES.	100k	1/16W	5%	CR05-104J-H	J24189301		1-	A	B1
R 2008	CHIP RES.	10k	1/16W	5%	CR05-103J-H	J24189289		1-	A	A2
R 2009	CHIP RES.	220k	1/16W	5%	CR05-224J-H	J24189305		1-	A	A2
R 2010	CHIP RES.	100	1/16W	5%	CR05-101J-H	J24189265		1-	A	B1
R 2011	CHIP RES.	220k	1/16W	5%	CR05-224J-H	J24189305		1-	A	C1
R 2012	CHIP RES.	100	1/16W	5%	CR05-101J-H	J24189265		1-	A	C2
R 2013	CHIP RES.	22k	1/16W	5%	CR05-223J-H	J24189293		1-	A	B2
R 2014	CHIP RES.	680k	1/16W	5%	CR05-684J-H	J24189311		1-	A	B2
R 2015	CHIP RES.	330	1/16W	5%	CR05-331J-H	J24189271		1-	A	B1
R 2016	CHIP RES.	47k	1/16W	5%	CR05-473J-H	J24189297		1-	A	B1
R 2017	CHIP RES.	1.8k	1/16W	5%	CR05-182J-H	J24189280		1-	A	B1
R 2018	CHIP RES.	2.2k	1/16W	5%	CR05-222J-H	J24189281		1-	A	B1
R 2019	CHIP RES.	1.5k	1/16W	5%	CR05-152J-H	J24189279		1-	A	B2
R 2020	CHIP RES.	1k	1/16W	5%	CR05-102J-H	J24189277		1-	B	b2
R 2021	CHIP RES.	1.5k	1/16W	5%	CR05-152J-H	J24189279		1-	A	B2
R 2022	CHIP RES.	4.7k	1/16W	5%	CR05-472J-H	J24189285		1-	A	B1
R 2023	CHIP RES.	47k	1/16W	5%	CR05-473J-H	J24189297		1-	A	B1
R 2024	CHIP RES.	4.7k	1/16W	5%	CR05-472J-H	J24189285		1-	B	b2
R 2025	CHIP RES.	470	1/16W	5%	CR05-471J-H	J24189273		1-	A	B1
R 2026	CHIP RES.	4.7k	1/16W	5%	CR05-472J-H	J24189285		1-	A	B1
R 2027	CHIP RES.	22k	1/16W	5%	CR05-223J-H	J24189293		1-	A	B1
R 2028	CHIP RES.	15k	1/16W	5%	CR05-153J-H	J24189291		1-	A	B1
R 2029	CHIP RES.	2.2k	1/16W	5%	CR05-222J-H	J24189281		1-	A	A1
R 2030	CHIP RES.	1k	1/16W	5%	CR05-102J-H	J24189277		1-	A	A2
R 2031	CHIP RES.	470k	1/16W	5%	CR05-474J-H	J24189309		1-	A	A1
R 2032	CHIP RES.	2.7k	1/16W	5%	CR05-272J-H	J24189282		1-	A	A1
R 2033	CHIP RES.	100	1/16W	5%	CR05-101J-H	J24189265		1-	A	A2
R 2034	CHIP RES.	10k	1/16W	5%	CR05-103J-H	J24189289		1-	A	A1
R 2035	CHIP RES.	2.2k	1/16W	5%	CR05-222J-H	J24189281		1-	A	B1
R 2036	CHIP RES.	120	1/16W	5%	CR05-121J-H	J24189266		1-	A	A1
R 2037	CHIP RES.	2.2M	1/16W	5%	CR05-225J-H	J24189317		1-	A	A1

AF Unit

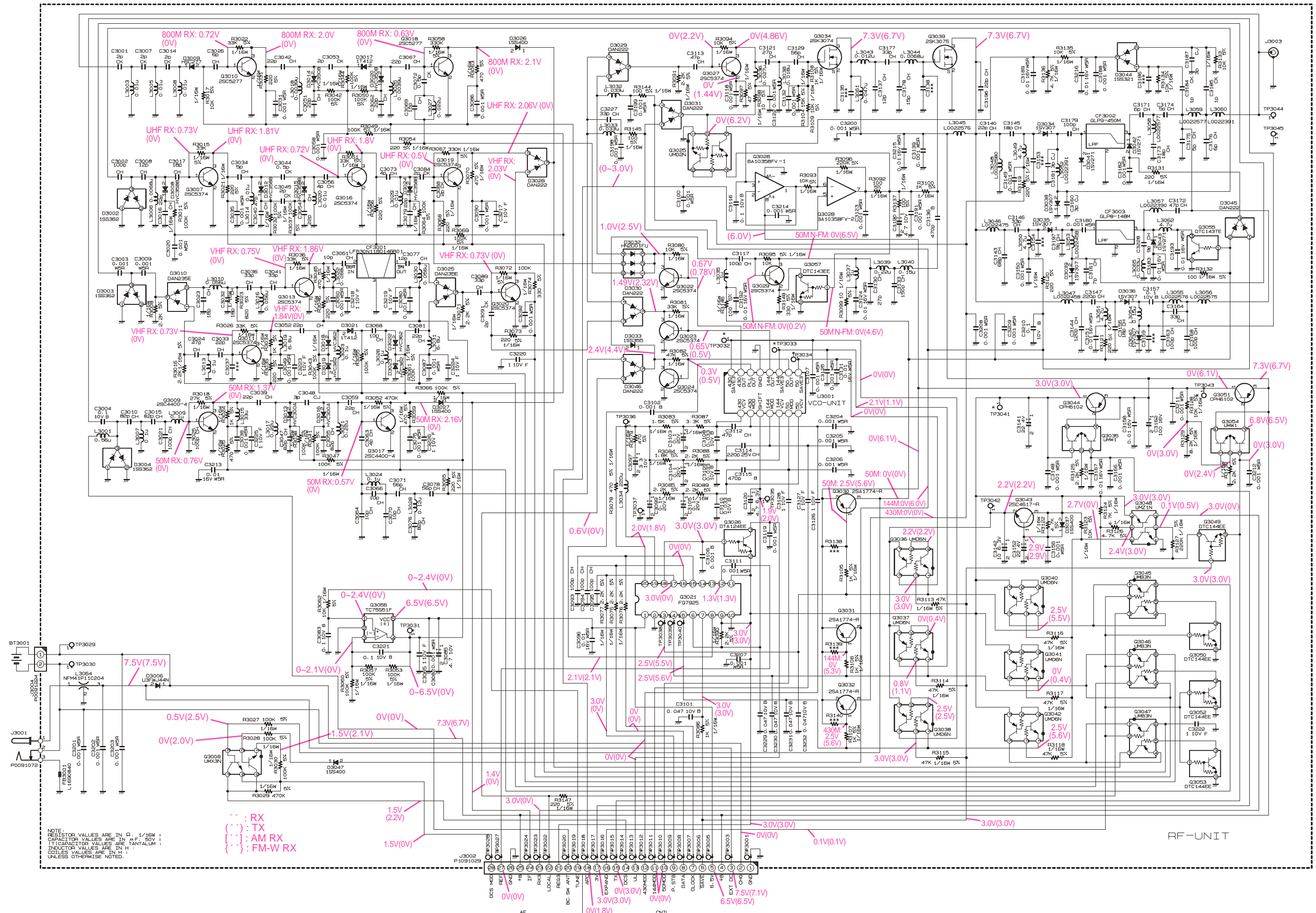
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R 2038	CHIP RES.	10k	1/16W	5%	CR05-103J-H	J24189289		1-	B	b1
R 2039	CHIP RES.	0	1/16W		CR05-000-H	J24189248		1-	A	A2
R 2039	CHIP RES.	10	1/16W	5%	CR05-100J-H	J24189253		12-	A	A2
R 2039	CHIP RES.	100	1/16W	5%	CR05-101J-H	J24189265		23-	A	A2
R 2039	CHIP RES.	4.7	1/16W	5%	RMC1/16S 4R7JTH	J24189066		37-	A	A2
R 2040	CHIP RES.	330k	1/16W	5%	CR05-334J-H	J24189307		1-	A	A2
R 2041	CHIP RES.	1k	1/16W	5%	CR05-102J-H	J24189277		1-	B	b1
R 2042	CHIP RES.	33k	1/16W	5%	CR05-333J-H	J24189295		1-	A	A1
R 2043	CHIP RES.	1k	1/16W	5%	CR05-102J-H	J24189277		1-	B	b2
R 2043	CHIP RES.	330	1/16W	5%	CR05-331J-H	J24189271		7-	B	b2
R 2044	CHIP RES.	100k	1/16W	5%	CR05-104J-H	J24189301		1-	B	c2
R 2045	CHIP RES.	150k	1/16W	5%	CR05-154J-H	J24189303		1-	A	A1
R 2046	CHIP RES.	220	1/16W	5%	CR05-221J-H	J24189269		1-	B	b2
R 2047	CHIP RES.	1k	1/16W	5%	CR05-102J-H	J24189277		1-	B	b2
R 2048	CHIP RES.	1M	1/16W	5%	CR05-105J-H	J24189313		1-	A	B1
R 2049	CHIP RES.	10k	1/16W	5%	CR05-103J-H	J24189289		1-	A	A1
R 2050	CHIP RES.	220	1/16W	5%	CR05-221J-H	J24189269		1-	B	c2
R 2051	CHIP RES.	100	1/16W	5%	CR05-101J-H	J24189265		1-	A	B1
R 2052	CHIP RES.	47k	1/16W	5%	CR05-473J-H	J24189297		1-	A	A1
R 2053	CHIP RES.	100	1/16W	5%	CR05-101J-H	J24189265		1-	B	a1
R 2054	CHIP RES.	470k	1/16W	5%	CR05-474J-H	J24189309		1-	A	B1
R 2055	CHIP RES.	56k	1/16W	5%	CR05-563J-H	J24189298		1-	B	c2
R 2056	CHIP RES.	33k	1/16W	5%	CR05-333J-H	J24189295		1-	B	c2
R 2057	CHIP RES.	150k	1/16W	5%	CR05-154J-H	J24189303		1-	B	c2
R 2058	CHIP RES.	100k	1/16W	5%	CR05-104J-H	J24189301		1-	B	c2
R 2059	CHIP RES.	100k	1/16W	5%	CR05-104J-H	J24189301		1-	B	c2
R 2060	CHIP RES.	47k	1/16W	5%	CR05-473J-H	J24189297		1-	B	c2
R 2061	CHIP RES.	100k	1/16W	5%	CR05-104J-H	J24189301		1-	B	c2
R 2062	CHIP RES.	47k	1/16W	5%	CR05-473J-H	J24189297		1-	B	c2
R 2063	CHIP RES.	10	1/16W	5%	CR05-100J-H	J24189253		1-	A	A1
R 2064	CHIP RES.	270k	1/16W	5%	CR05-274J-H	J24189306		1-	B	c2
R 2065	CHIP RES.	220k	1/16W	5%	CR05-224J-H	J24189305		1-	B	c2
R 2066	CHIP RES.	100k	1/16W	5%	CR05-104J-H	J24189301		1-	B	b1
R 2067	CHIP RES.	33k	1/16W	5%	CR05-333J-H	J24189295		1-	B	c2
R 2068	CHIP RES.	470	1/16W	5%	CR05-471J-H	J24189273		1-	A	B1
R 2069	CHIP RES.	100k	1/16W	5%	CR05-104J-H	J24189301		1-	A	B1
R 2070	CHIP RES.	4.7k	1/16W	5%	CR05-472J-H	J24189285		1-	A	B1
R 2071	CHIP RES.	10k	1/16W	5%	CR05-103J-H	J24189289		1-	A	A1
R 2072	CHIP RES.	100k	1/16W	5%	CR05-104J-H	J24189301		1-	A	B1
R 2078	CHIP RES.	330	1/16W	5%	CR05-331J-H	J24189271		1-	A	A1
R 2079	CHIP RES.	100	1/16W	5%	CR05-101J-H	J24189265		1-	A	A1
R 2080	CHIP RES.	100k	1/16W	5%	CR05-104J-H	J24189301		1-	B	a2
R 2081	CHIP RES.	22k	1/16W	5%	CR05-223J-H	J24189293		1-	B	a2
R 2082	CHIP RES.	100k	1/16W	5%	CR05-104J-H	J24189301		1-	A	B1
R 2083	CHIP RES.	4.7k	1/16W	5%	CR05-472J-H	J24189285		1-	B	a1
R 2084	CHIP RES.	10k	1/16W	5%	CR05-103J-H	J24189289		1-	A	C2
R 2085	CHIP RES.	10k	1/16W	5%	CR05-103J-H	J24189289		1-	A	C2
R 2086	CHIP RES.	10k	1/16W	5%	CR05-103J-H	J24189289		1-	B	a2
R 2087	CHIP RES.	10k	1/16W	5%	CR05-103J-H	J24189289		1-	A	C2
R 2088	CHIP RES.	330	1/16W	5%	CR05-331J-H	J24189271		1-	A	C2
R 2089	CHIP RES.	330	1/16W	5%	CR05-331J-H	J24189271		1-	A	C2
R 2090	CHIP RES.	68k	1/16W	5%	CR05-683J-H	J24189299		1-	B	a2
R 2090	CHIP RES.	100k	1/16W	5%	CR05-104J-H	J24189301		3-	B	a2
R 2091	CHIP RES.	68k	1/16W	5%	CR05-683J-H	J24189299		1-	B	a2
R 2091	CHIP RES.	100k	1/16W	5%	CR05-104J-H	J24189301		3-	B	a2
R 2092	CHIP RES.	2.2k	1/16W	5%	CR05-222J-H	J24189281		1-	A	C2
R 2093	CHIP RES.	330k	1/16W	5%	CR05-334J-H	J24189307		1-	A	C1
R 2095	CHIP RES.	330	1/16W	5%	CR05-331J-H	J24189271		1-	A	C2
R 2096	CHIP RES.	1k	1/16W	5%	CR05-102J-H	J24189277		1-	A	C2
R 2097	CHIP RES.	100k	1/16W	5%	CR05-104J-H	J24189301		1-	A	B1

REF.	DESCRIPTION	VALUE	WV	TOL.	MFR'S DESIG	VXSTD P/N	VERS.	LOT.	SIDE	LAY ADR.
R 2098	CHIP RES.	470	1/16W	5%	CR05-471J-H	J24189273		1-	A	C2
R 2099	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000		1-	B	a2
S 2001	ROTARY ENCODER				TP70N00E20	Q9000723		1	A	A1
S 2001	ROTARY ENCODER				TP70N17E20	Q9000726		2-	A	A1
T 2001	CHIP TRANS.	10.7MHz			CP-4LB/SW 5113-JPS-096	L0022459A		1-	B	b2
TC2001	TRIMMER CAP.	20pF			CTZ3S-20C-W1-P	K91000212		1-	B	c2
TC2001	TRIMMER CAP.	20pF			CTZ3S-20C-W1-PF	K91000266		22-	B	c2
TH2001	THERMISTOR				ERTJ1VR103J	G9090118		1-	B	c2
VR2001	POT.				TP76N00 20KA(A-70051)	J60800238		1-	A	B1
X 2001	XTAL TOP-B	11.7MHz			11.7MHZ	H0103203		1-	B	c2
XF2001	XTAL FILTER				47Y15A6	H1102327		1-	A	C1

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AF Unit

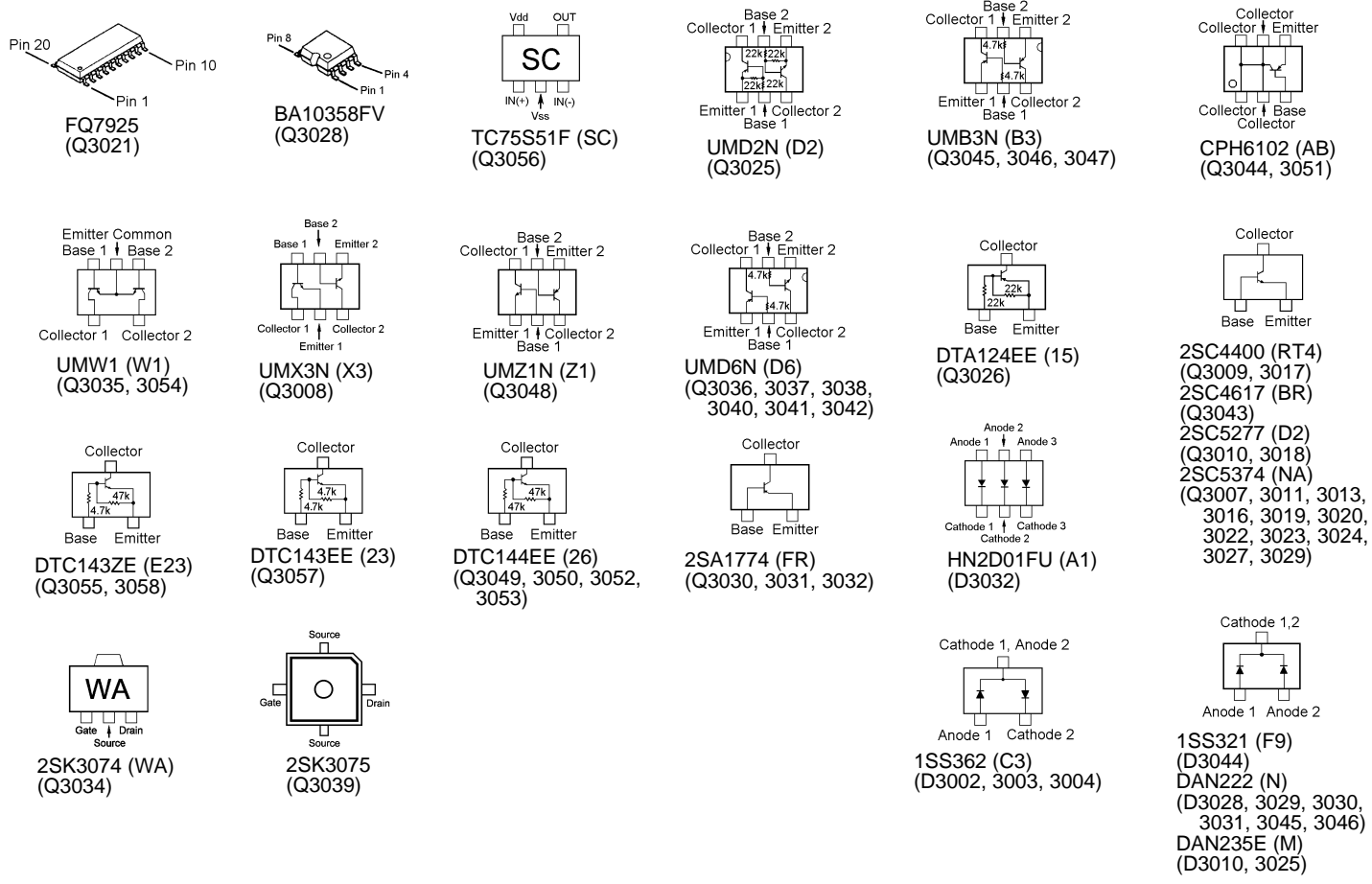
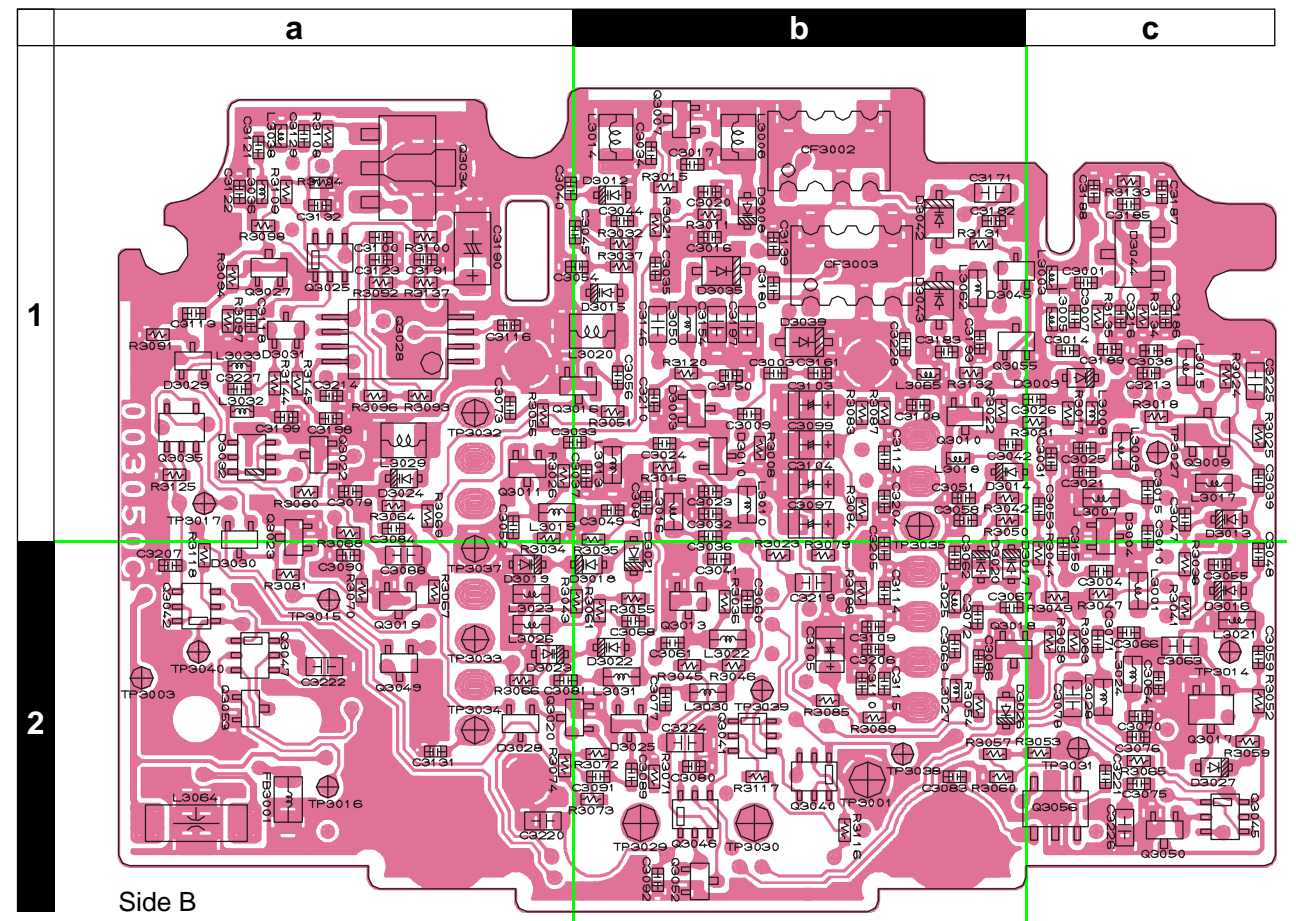
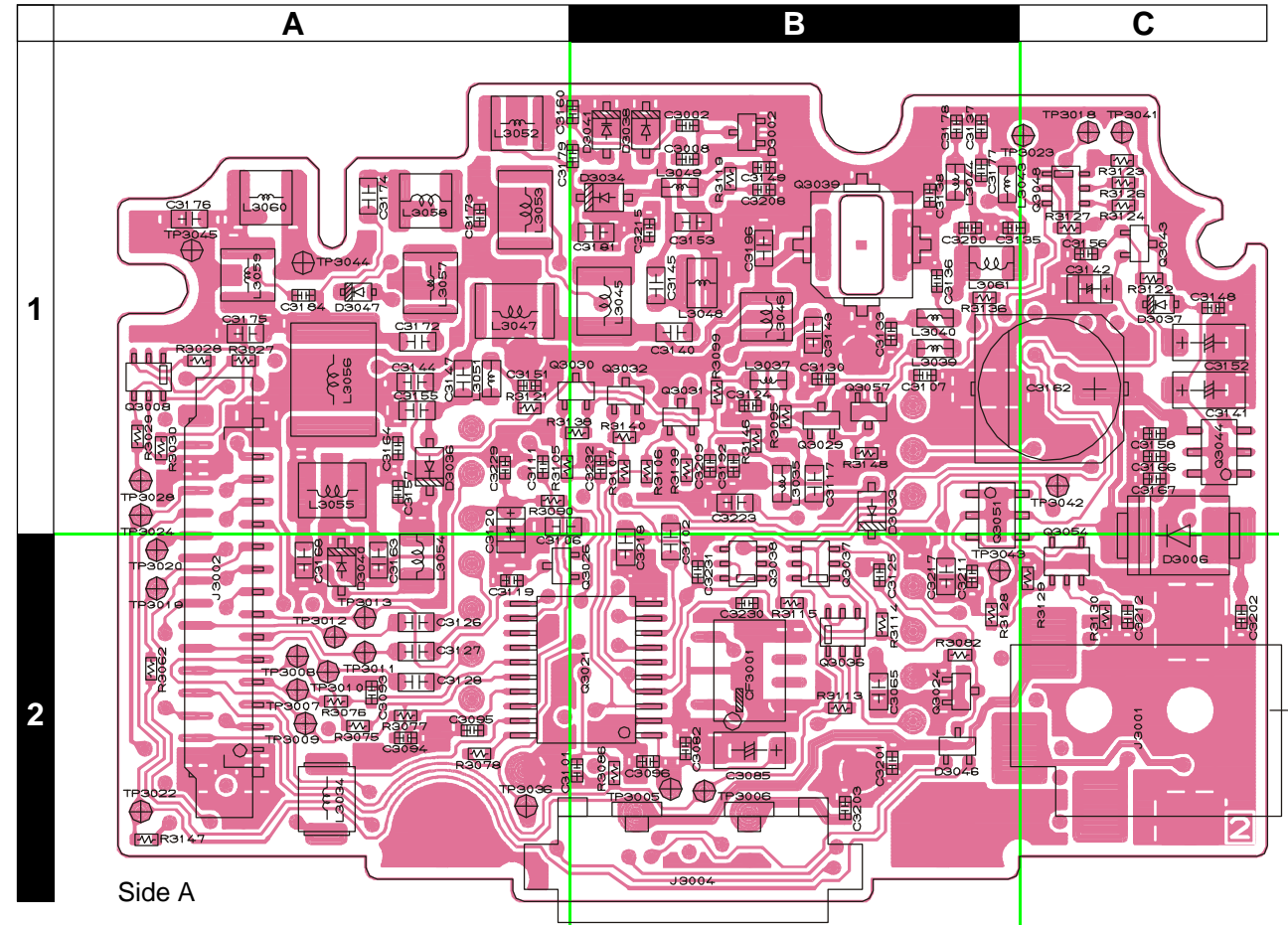
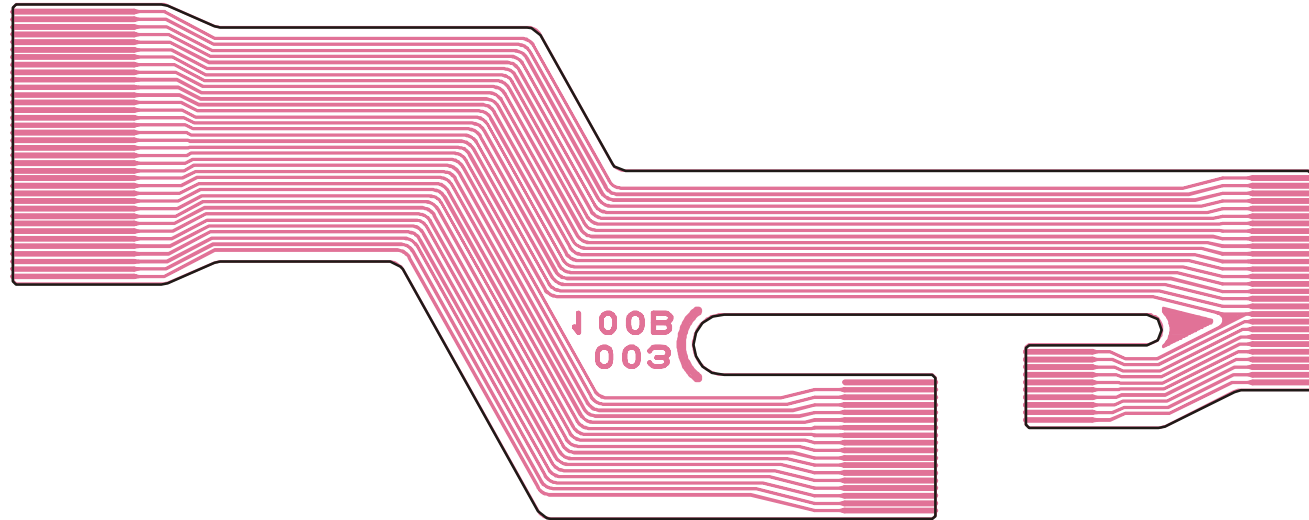
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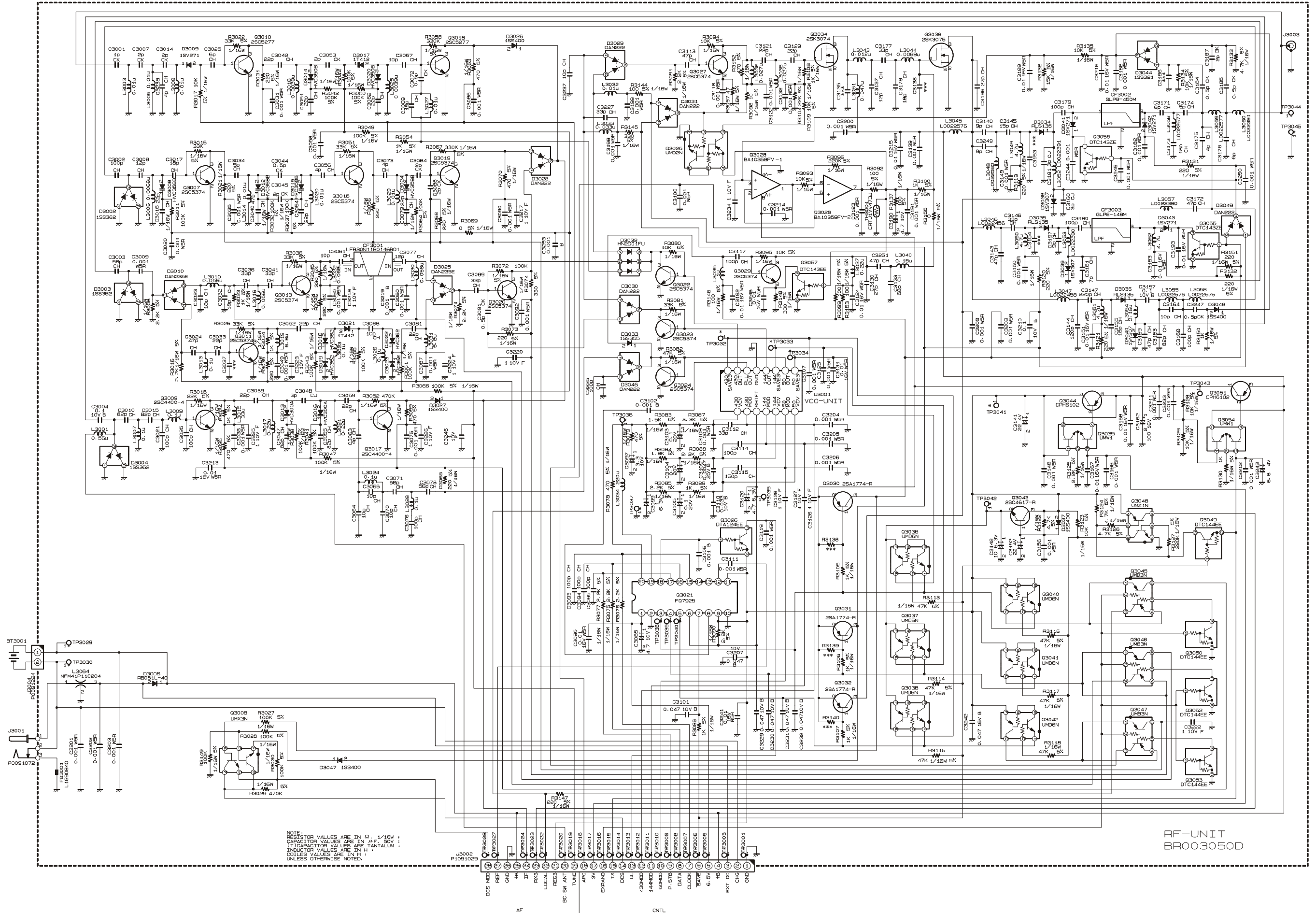


RF Unit

Parts Layout

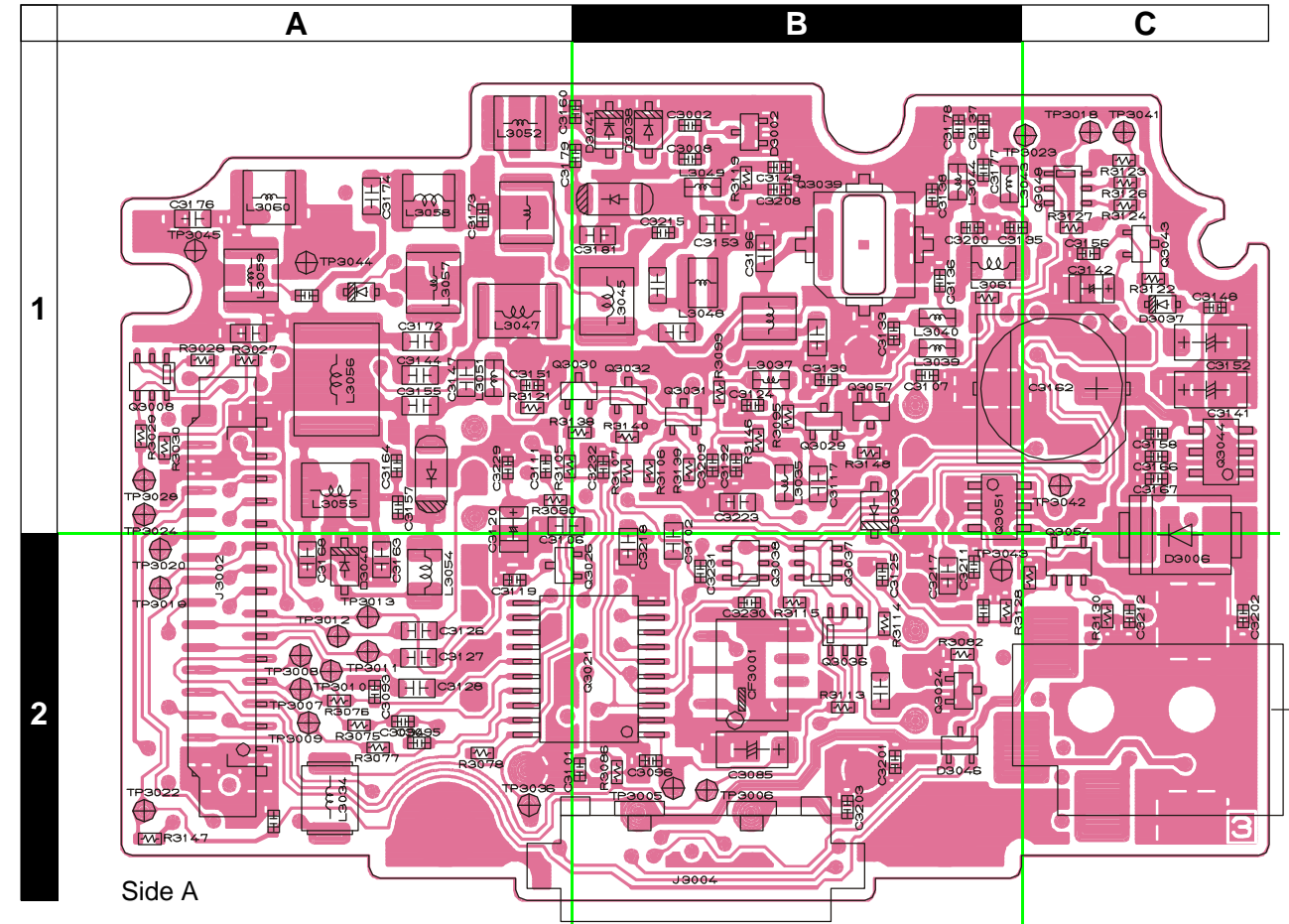
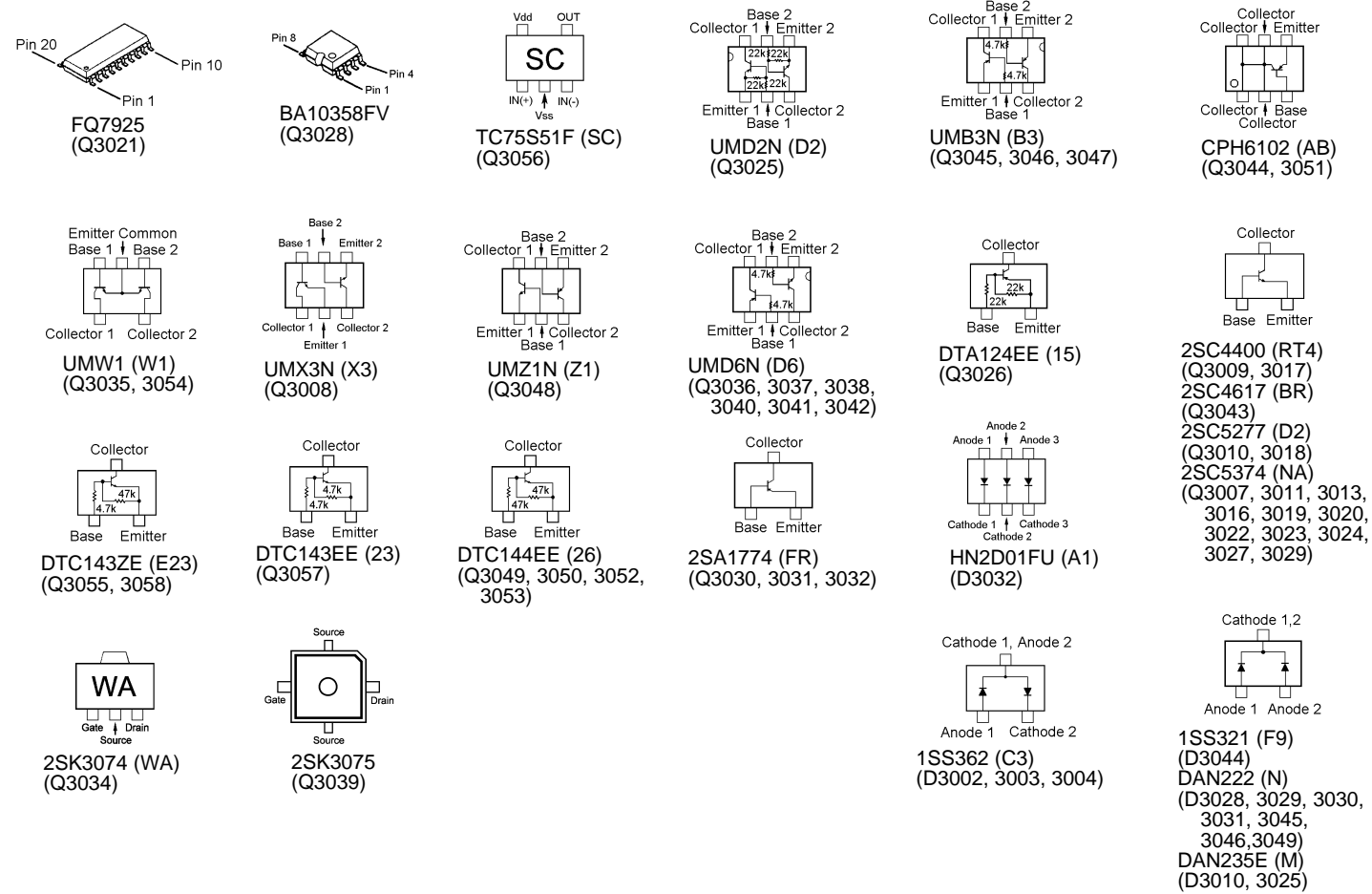
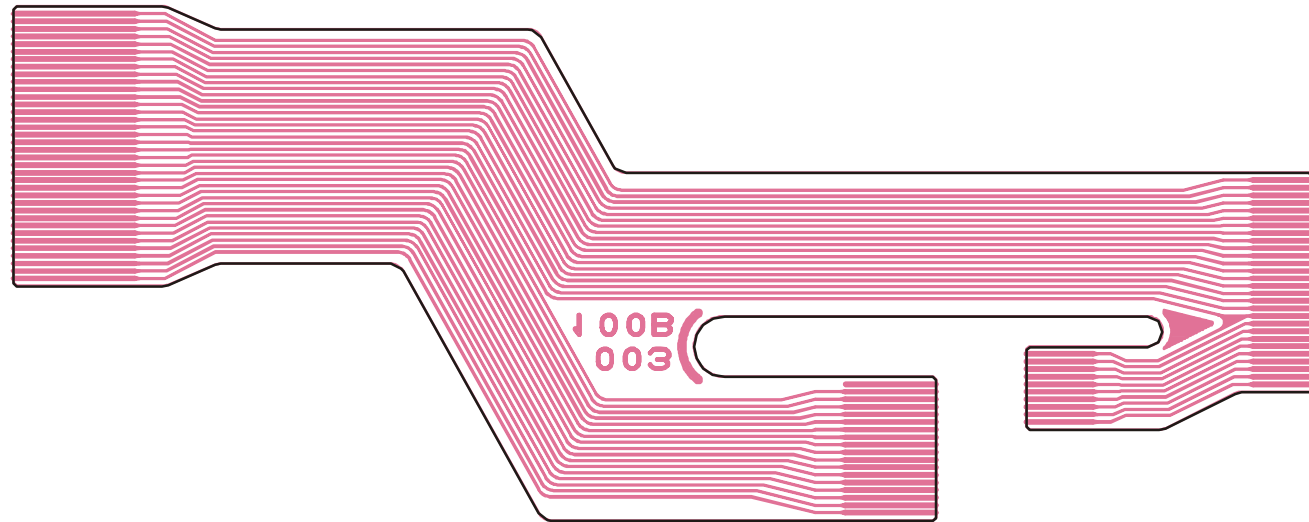
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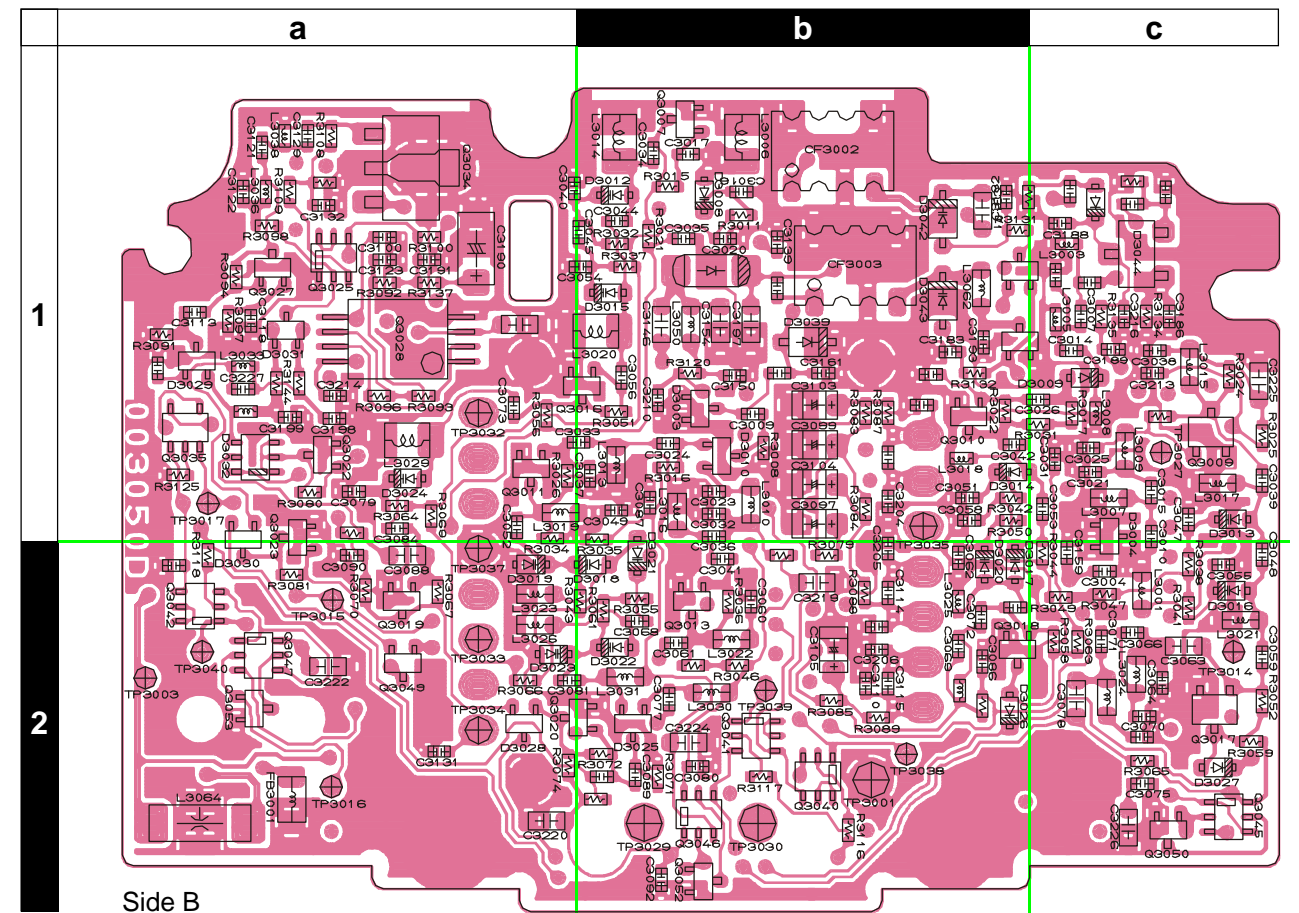


RF Unit (Lot 2 ~)

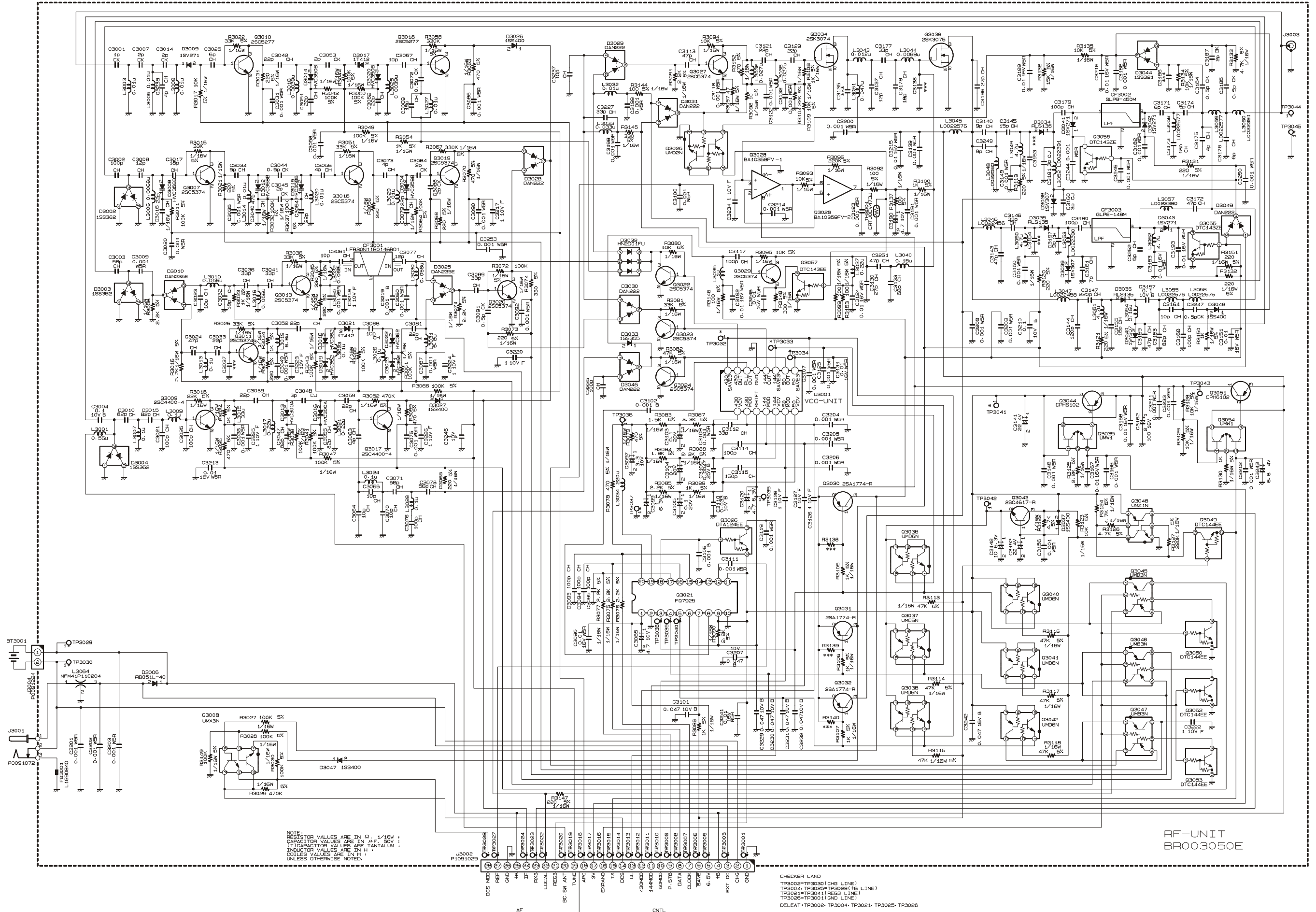
Parts Layout



Side A

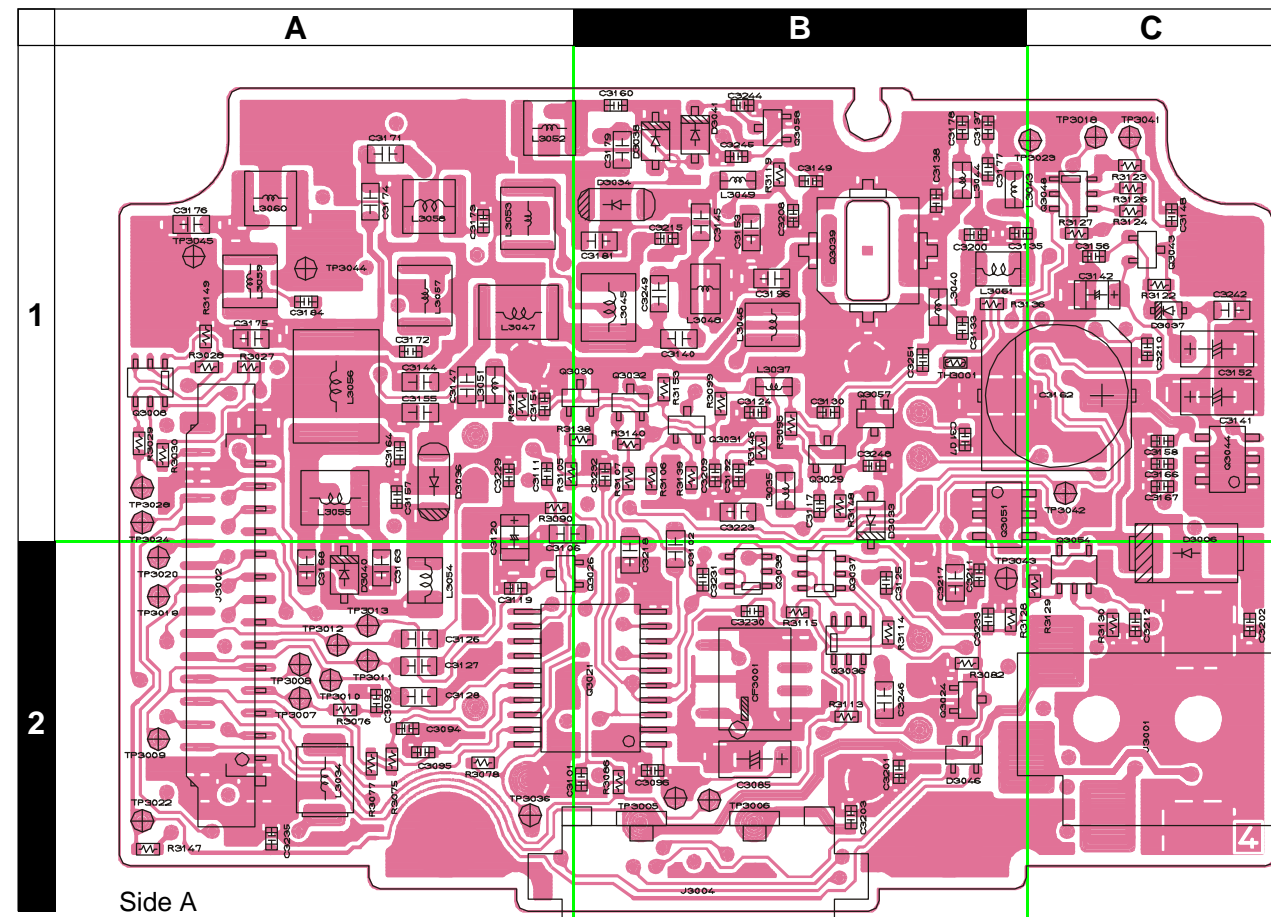
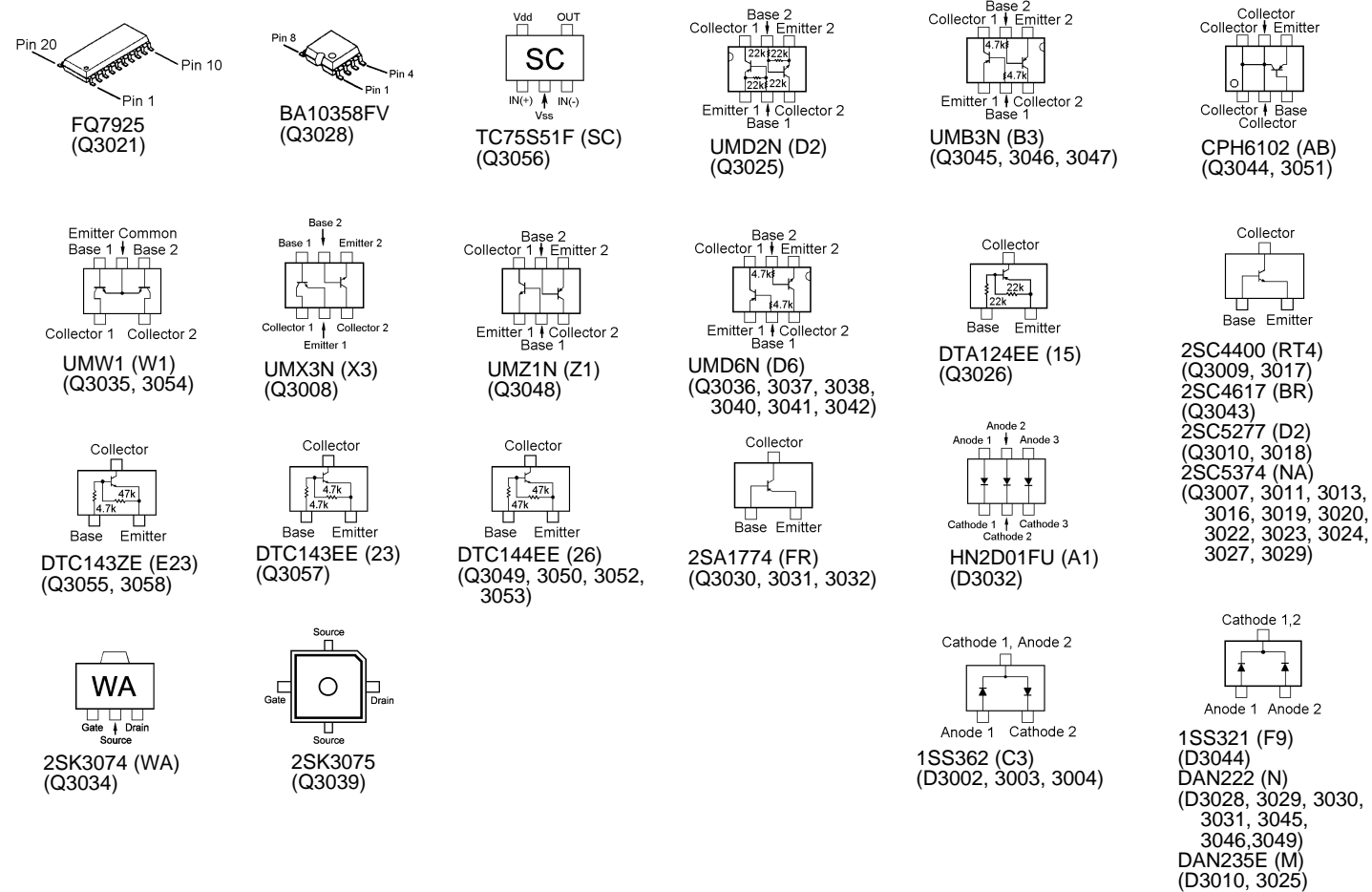
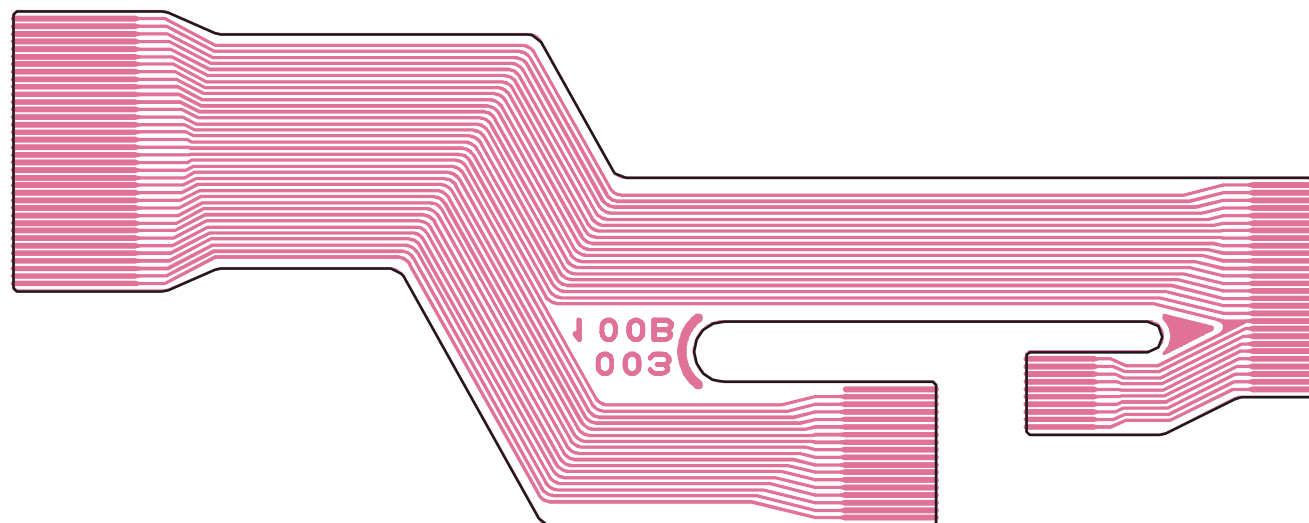


Side B

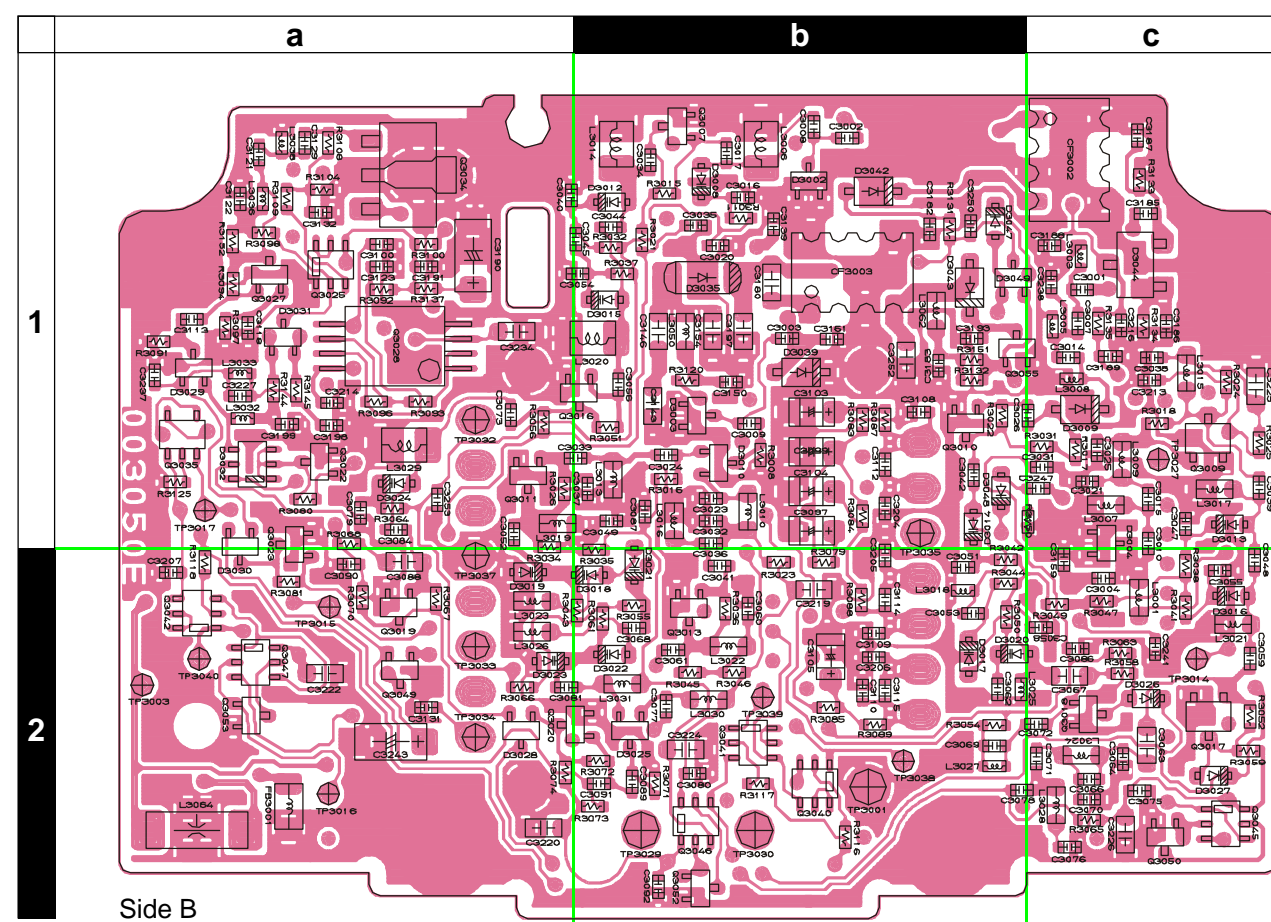


RF Unit (Lot 5 ~)

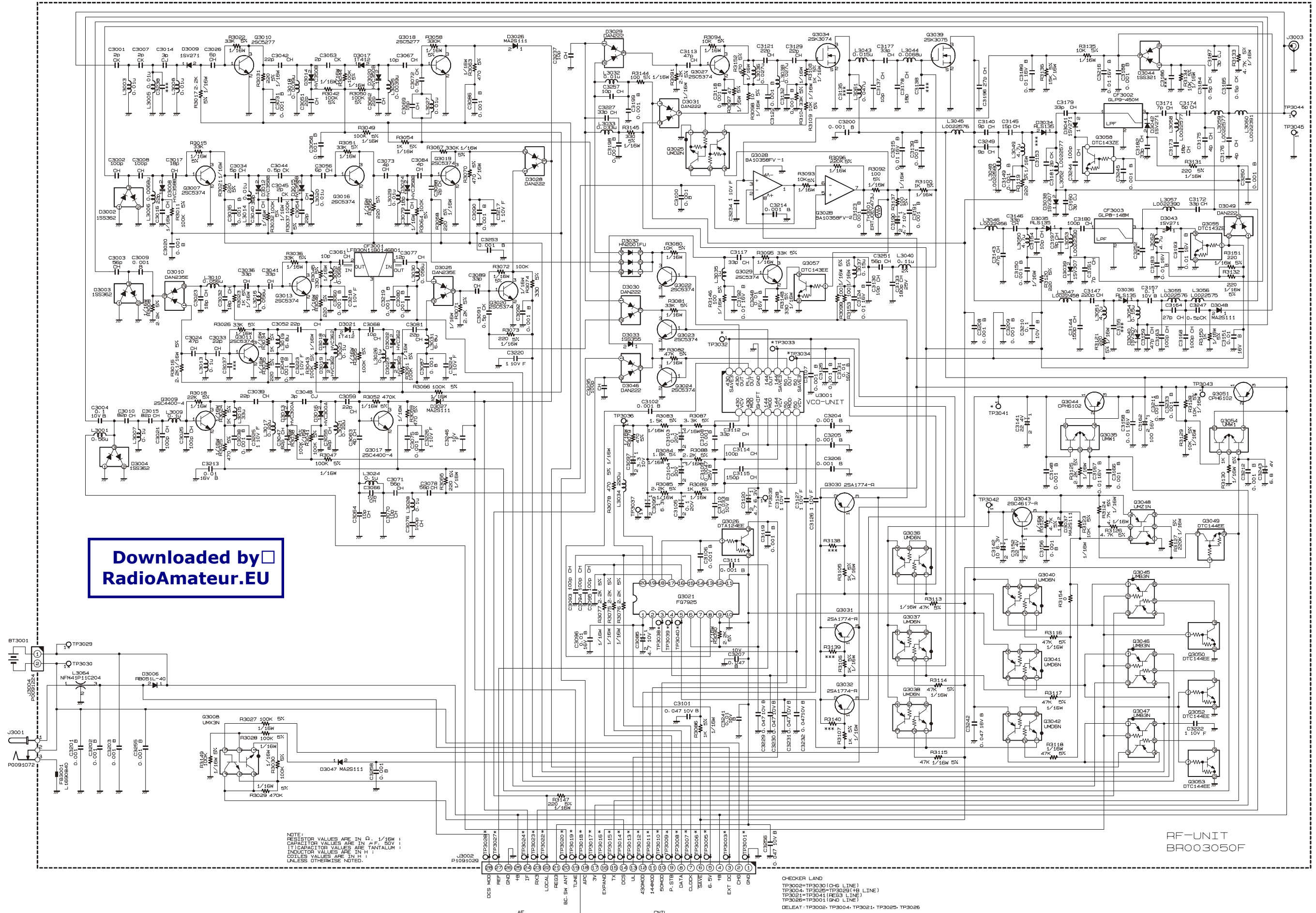
Parts Layout



Side A



Side B



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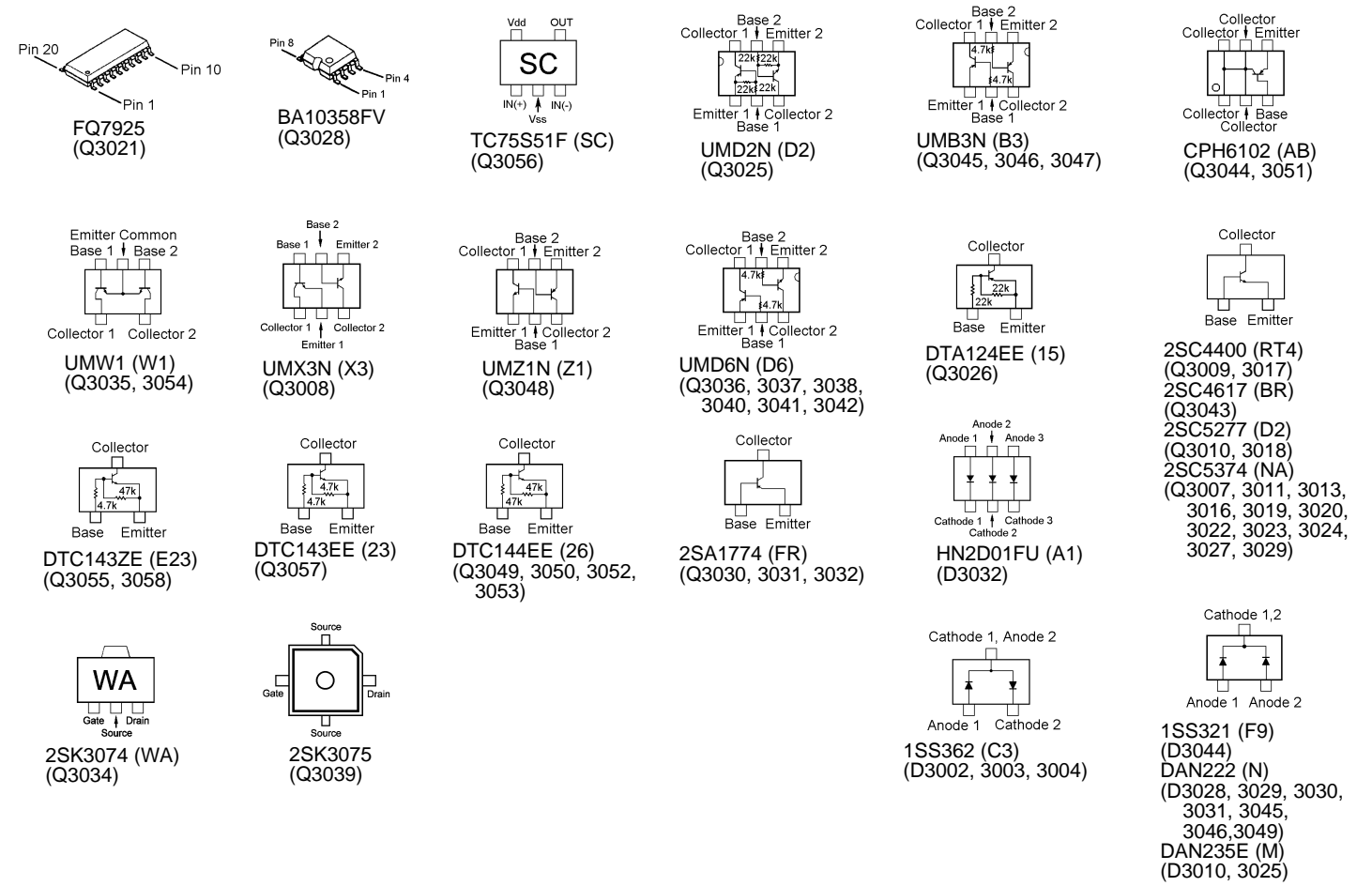
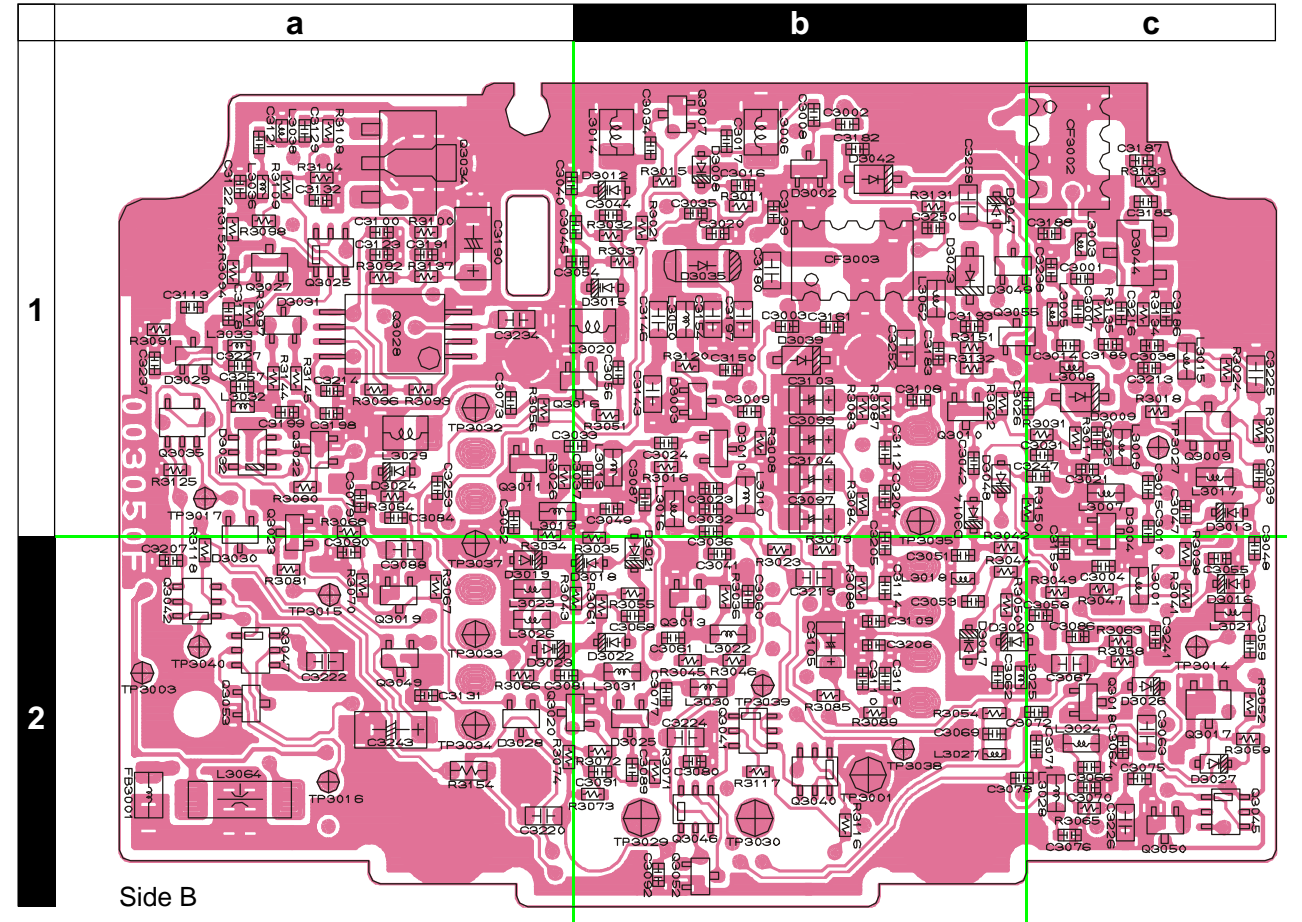
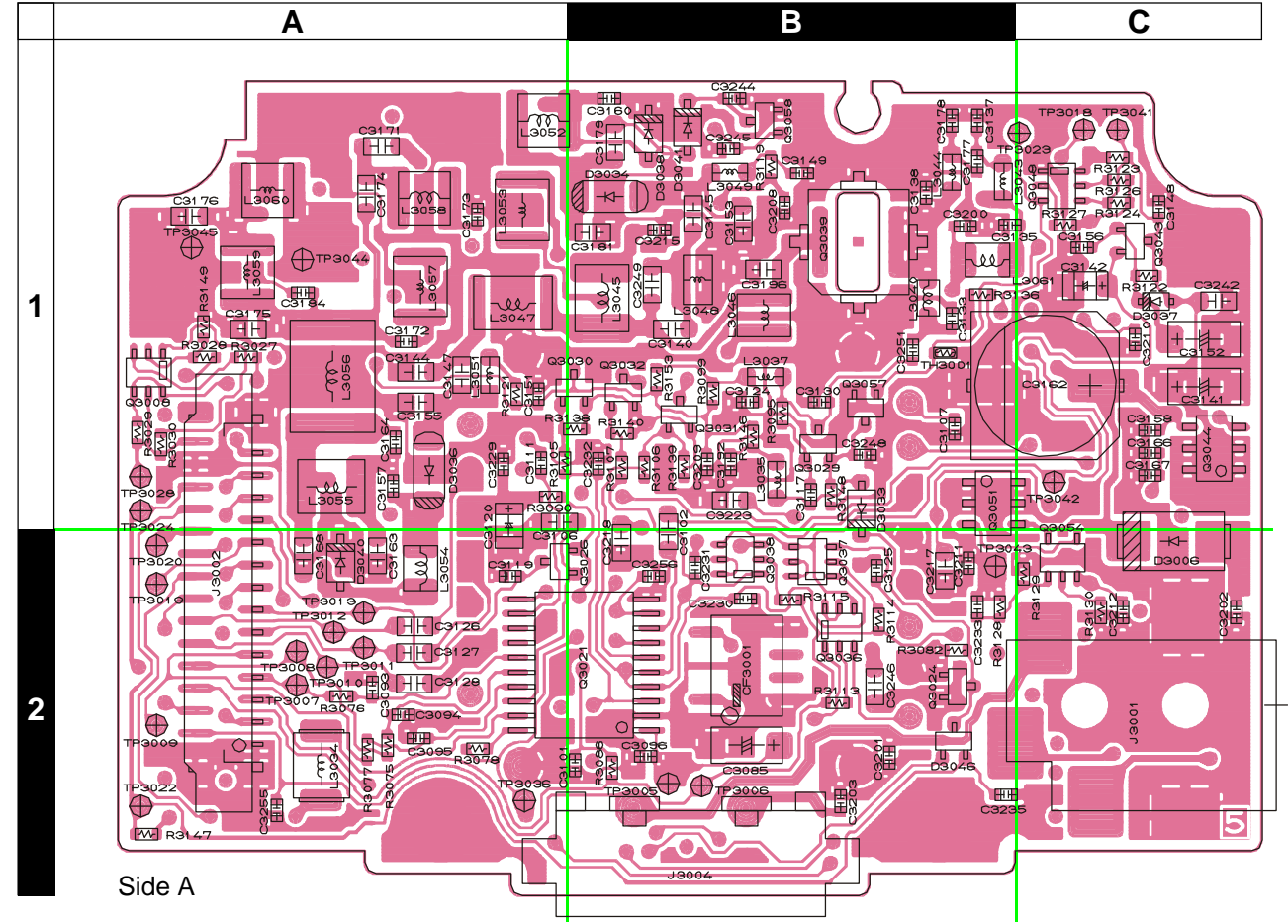
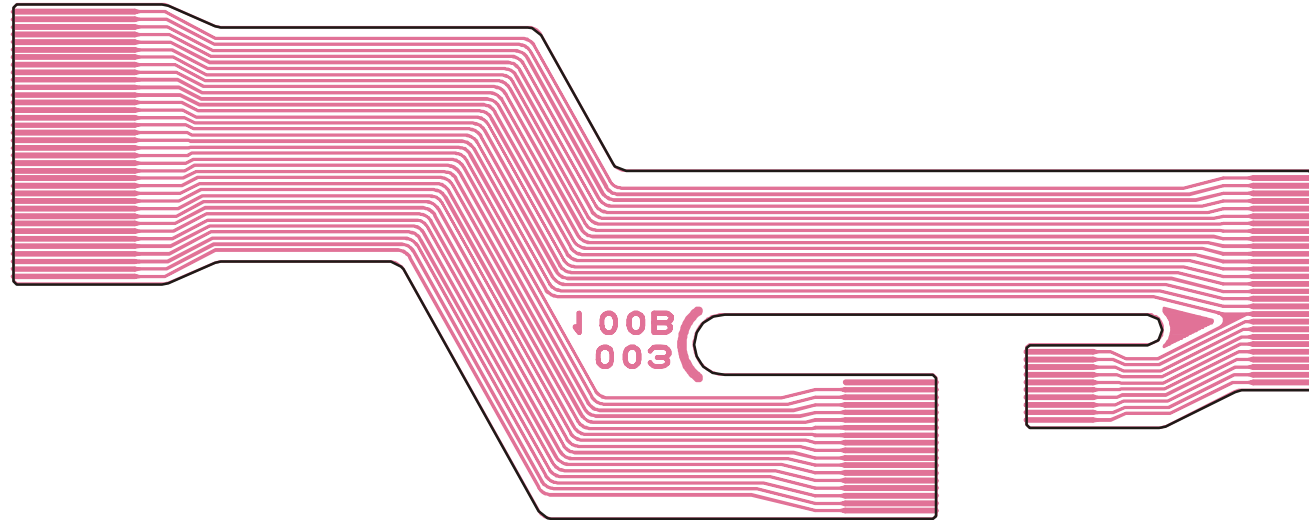
NOTE: RESISTOR VALUES ARE IN Ω, 1/16W
 CAPACITOR VALUES ARE IN μF, 50V DC
 INDUCTOR VALUES ARE IN mH, TANTALUM
 COILS VALUES ARE IN mH
 UNLESS OTHERWISE NOTED

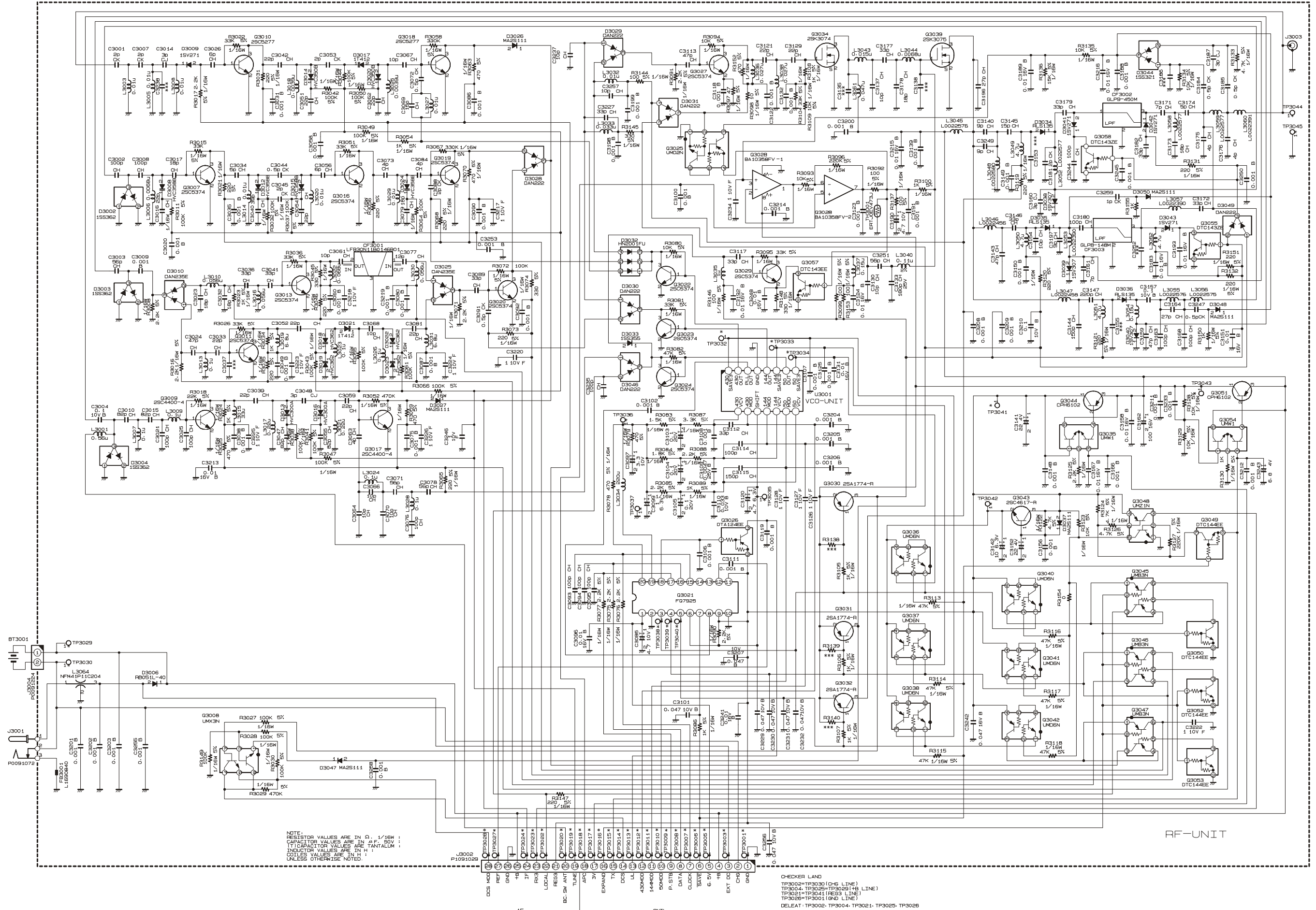
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- Q3002* 2SC5374
- Q3003* 2SC5374
- Q3004* 2SC5374
- Q3005* 2SC5374
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- Q3047* 2SC5374
- Q3048* 2SC5374

RF-UNIT
 BR003050F

RF Unit (Lot 17 ~)

Parts Layout

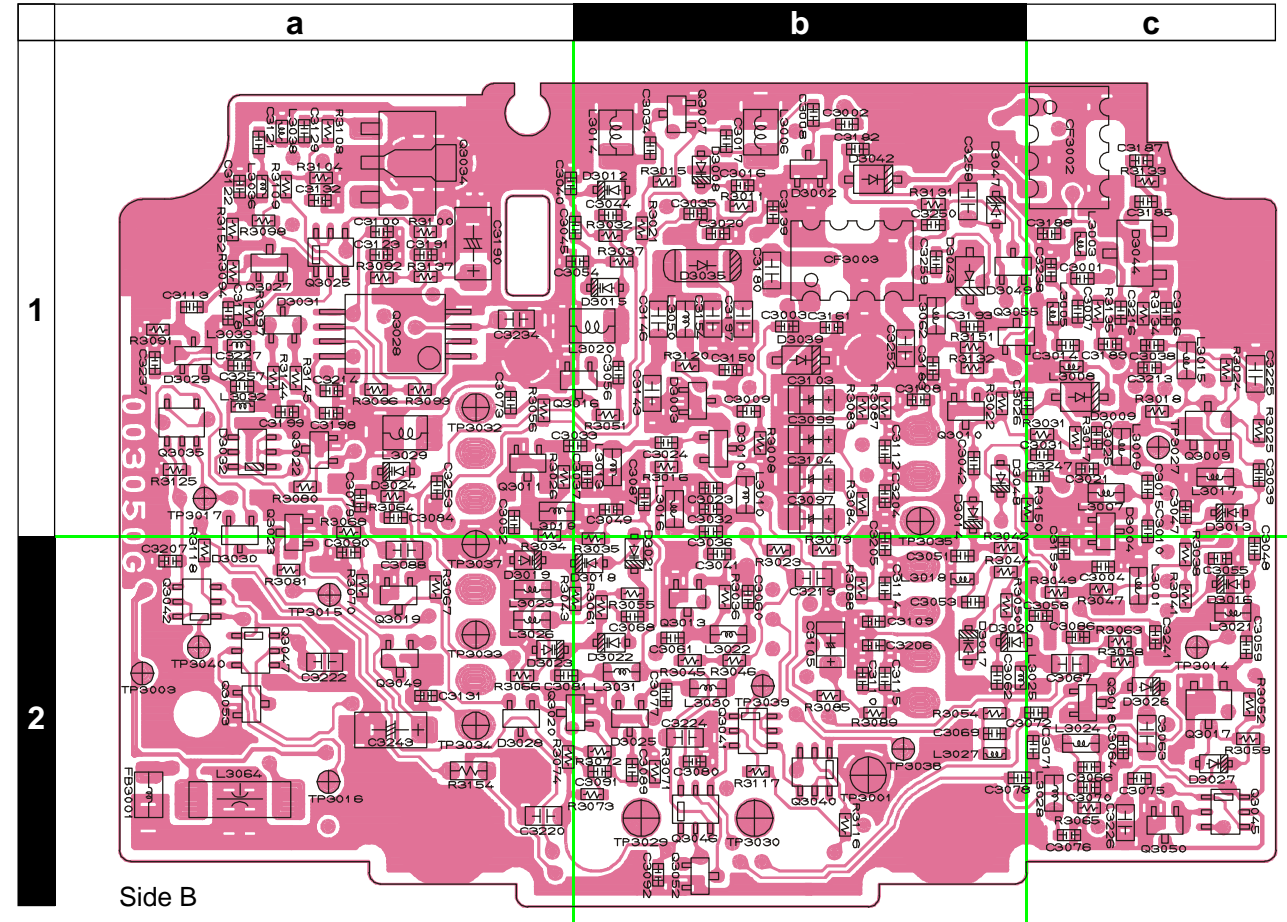
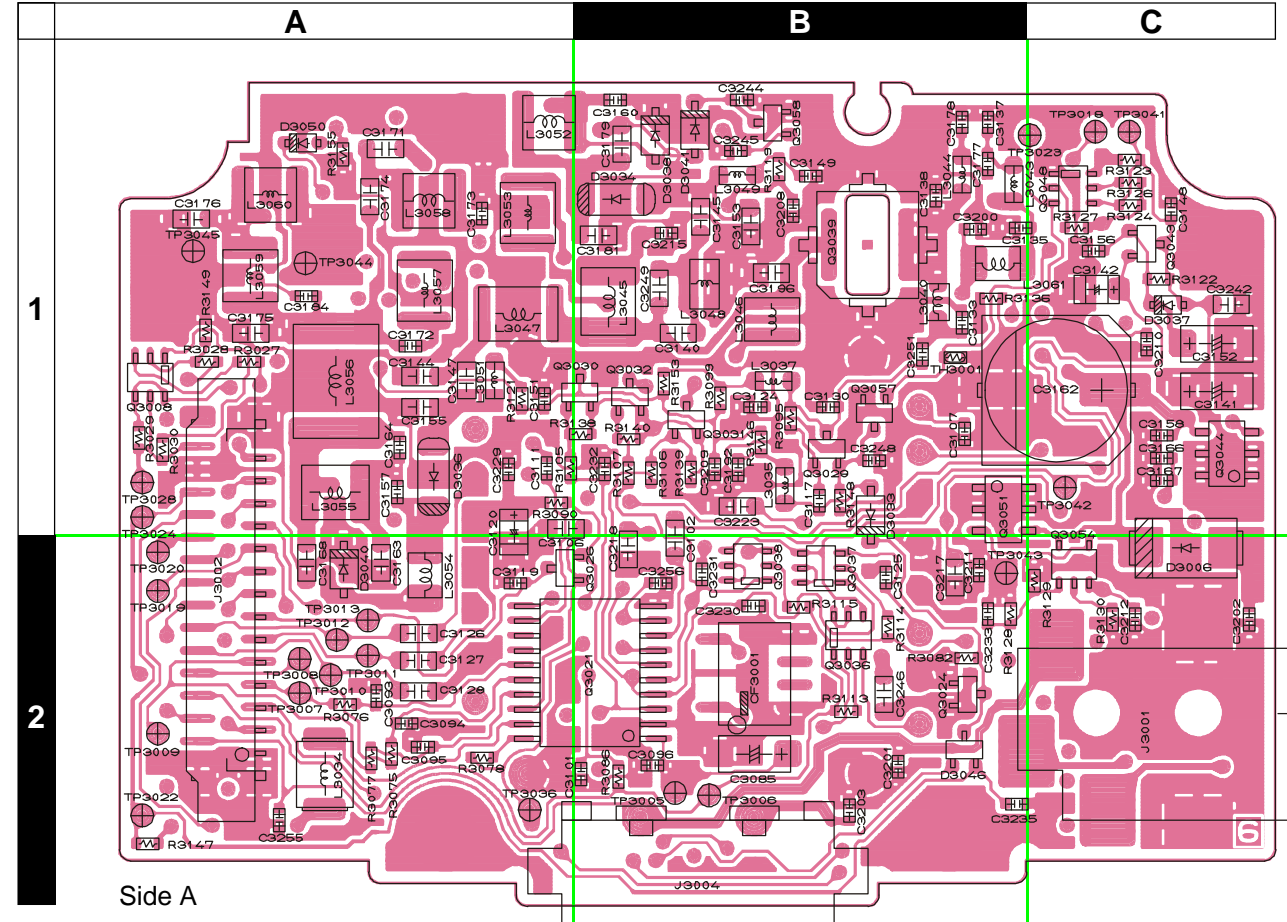
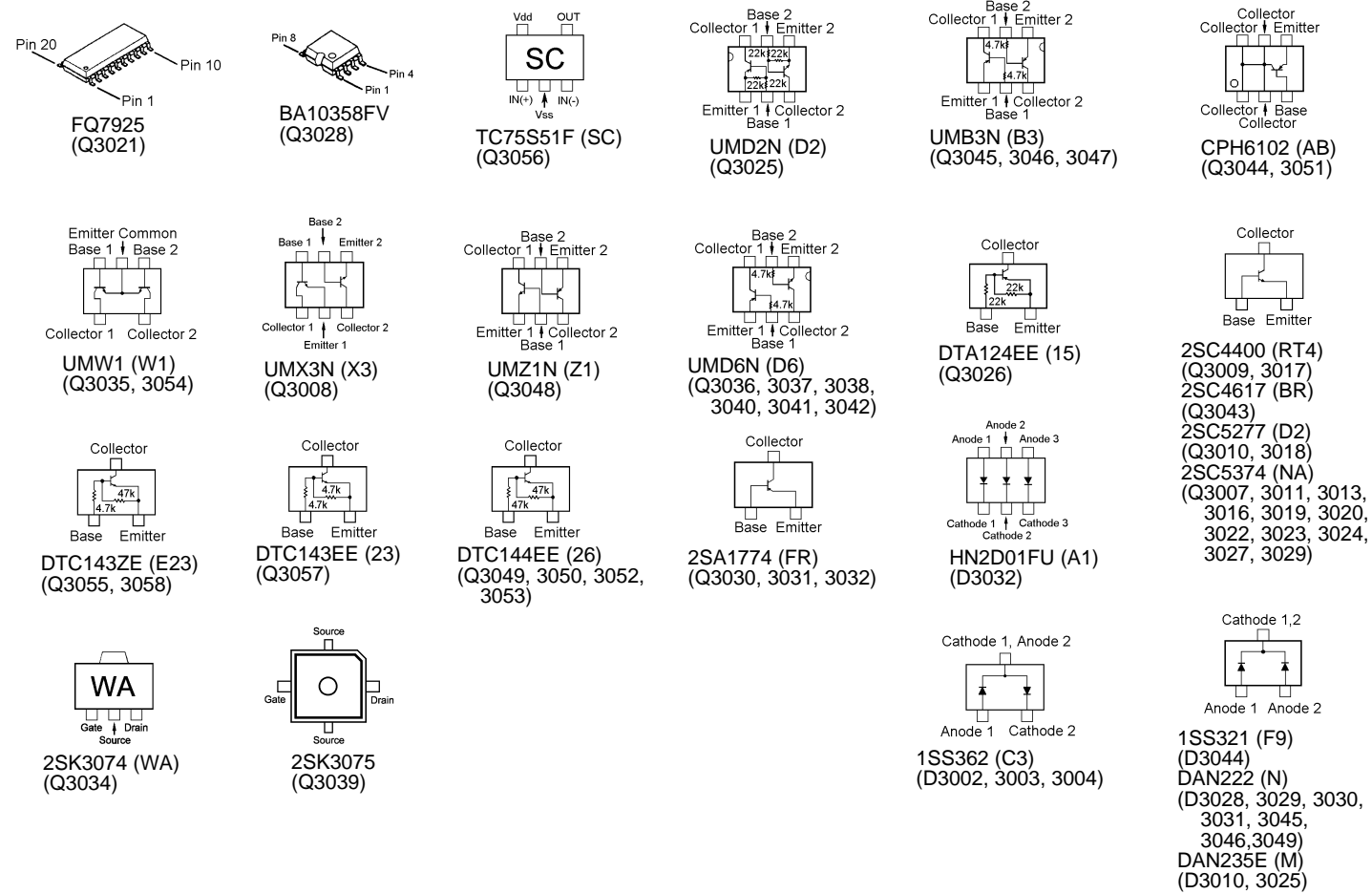
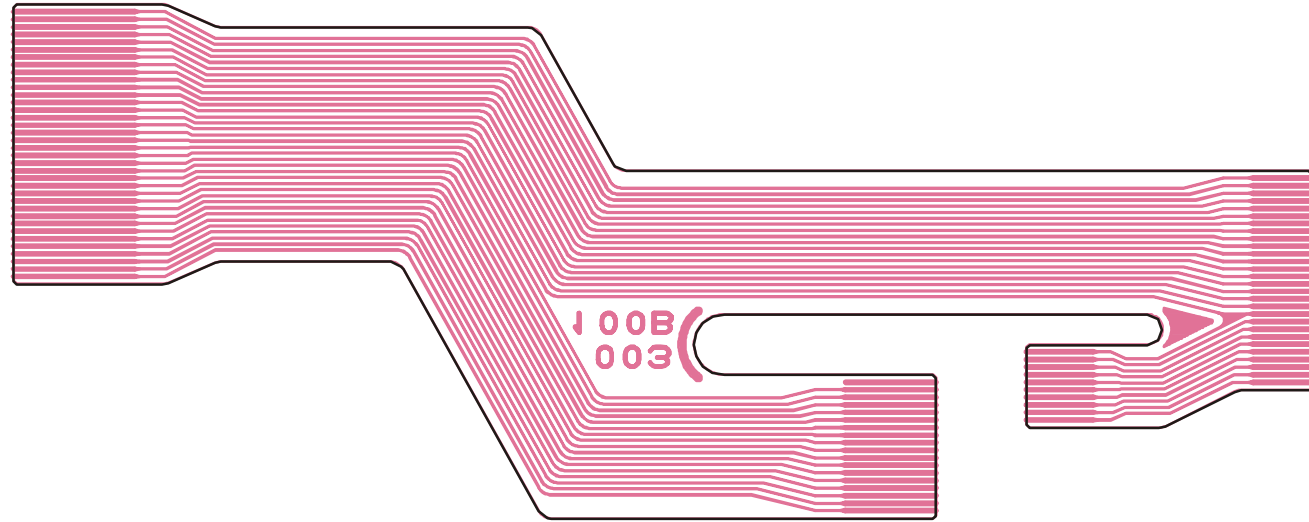




RF Unit (Lot 41~)

Parts Layout

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Parts List

REF.	DESCRIPTION	VALUE	WV	TOL.	MFR'S DESIG	VXSTD P/N	VERS.	LOT.	SIDE	LAY ADR.
*** RF UNIT ***										
	PCB with Components (w/ VCO UNIT)					CP6321001		1-6		
	PCB with Components (w/ VCO UNIT)					CP6321003	USA	7-		
	PCB with Components (w/ VCO UNIT)					CP6321004	EXPORT	7-		
	PCB with Components (w/ VCO UNIT)					CP6321005	GERMANY	7-		
	PCB with Components (w/ VCO UNIT)					CP6321006	KOREA	7-		
	Printed Circuit Board					FR003050C		1-		
	Printed Circuit Board					FR003050D		2-		
	Printed Circuit Board					FR003050E		5-		
	Printed Circuit Board					FR003050F		17-		
	Printed Circuit Board					FR003050G		41-		
C 3001	CHIP CAP.	1pF	50V	CK	GRM36CK010C50PT	K22178202		1-	B	c1
C 3001	CHIP CAP.	2pF	50V	CK	GRM36CK020C50PT	K22178204		9-	B	c1
C 3002	CHIP CAP.	100pF	50V	CH	CM05CH101J50AH	K22178246		1-	B	b1
C 3002	CHIP CAP.	100pF	50V	CH	GRM36CH101J50PT	K22178236		18-	B	b1
C 3003	CHIP CAP.	56pF	50V	CH	GRM36CH560J50PT	K22178230		1-	B	b1
C 3004	CHIP CAP.	0.1uF	10V	B	GRM36B104K10PT	K22108802		1-	B	c2
C 3007	CHIP CAP.	2pF	50V	CK	GRM36CK020C50PT	K22178204		1-	B	c1
C 3007	CHIP CAP.	3pF	50V	CJ	GRM36CJ030C50PT	K22178205		5-	B	c1
C 3007	CHIP CAP.	2pF	50V	CK	GRM36CK020C50PT	K22178204		9-	B	c1
C 3008	CHIP CAP.	12pF	50V	CH	GRM36CH120J50PT	K22178214		1-	B	b1
C 3008	CHIP CAP.	100pF	50V	CH	CM05CH101J50AH	K22178246		10-	B	b1
C 3008	CHIP CAP.	100pF	50V	CH	GRM36CH101J50PT	K22178236		18-	B	b1
C 3009	CHIP CAP.	0.001uF	50V	W5R	CM05W5R102K50AH	K22178820		1-	B	b1
C 3009	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		11-	B	b1
C 3010	CHIP CAP.	82pF	50V	CH	GRM36CH820J50PT	K22178234		1-	B	c1
C 3014	CHIP CAP.	2pF	50V	CK	GRM36CK020C50PT	K22178204		1-	B	c1
C 3014	CHIP CAP.	3pF	50V	CJ	GRM36CJ030C50PT	K22178205		5-	B	c1
C 3015	CHIP CAP.	82pF	50V	CH	GRM36CH820J50PT	K22178234		1-	B	c1
C 3016	CHIP CAP.	22pF	50V	CH	GRM36CH220J50PT	K22178220		1-	B	b1
C 3017	CHIP CAP.	18pF	50V	CH	GRM36CH180J50PT	K22178218		1-	B	b1
C 3020	CHIP CAP.	0.001uF	50V	W5R	CM05W5R102K50AH	K22178820		1-	B	b1
C 3020	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		11-	B	b1
C 3021	CHIP CAP.	100pF	50V	CH	CM05CH101J50AH	K22178246		1-	B	c1
C 3021	CHIP CAP.	100pF	50V	CH	GRM36CH101J50PT	K22178236		18-	B	c1
C 3023	CHIP CAP.	18pF	50V	CH	GRM36CH180J50PT	K22178218		1-	B	b1
C 3024	CHIP CAP.	47pF	50V	CH	GRM36CH470J50PT	K22178228		1-	B	b1
C 3025	CHIP CAP.	100pF	50V	CH	CM05CH101J50AH	K22178246		1-	B	c1
C 3025	CHIP CAP.	100pF	50V	CH	GRM36CH101J50PT	K22178236		18-	B	c1
C 3026	CHIP CAP.	6pF	50V	CH	GRM36CH060D50PT	K22178208		1-	B	c1
C 3031	CHIP CAP.	0.001uF	50V	W5R	CM05W5R102K50AH	K22178820		1-	B	c1
C 3031	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		11-	B	c1
C 3032	CHIP CAP.	18pF	50V	CH	GRM36CH180J50PT	K22178218		1-	B	b1
C 3033	CHIP CAP.	22pF	50V	CH	GRM36CH220J50PT	K22178220		1-	B	b1
C 3034	CHIP CAP.	5pF	50V	CH	GRM36CH050C50PT	K22178207		1-	B	b1
C 3035	CHIP CAP.	0.001uF	50V	W5R	CM05W5R102K50AH	K22178820		1-	B	b1
C 3035	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		11-	B	b1
C 3036	CHIP CAP.	33pF	50V	CH	GRM36CH330J50PT	K22178224		1-	B	b1
C 3038	CHIP CAP.	0.001uF	50V	W5R	CM05W5R102K50AH	K22178820		1-	B	c1
C 3038	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		11-	B	c1
C 3039	CHIP CAP.	22pF	50V	CH	GRM36CH220J50PT	K22178220		1-	B	c1
C 3040	CHIP CAP.	47pF	50V	CH	GRM36CH470J50PT	K22178228		1-	B	a1
C 3040	CHIP CAP.	39pF	50V	CH	GRM36CH390J50PT	K22178226		11-	B	a1
C 3041	CHIP CAP.	33pF	50V	CH	GRM36CH330J50PT	K22178224		1-	B	b2
C 3042	CHIP CAP.	22pF	50V	CH	GRM36CH220J50PT	K22178220		1-	B	b1
C 3044	CHIP CAP.	0.5pF	50V	CK	GRM36CK0R5C50PT	K22178201		1-	B	b1
C 3044	CHIP CAP.	0.5pF	50V	CK	GRM36CK0R5B50PT	K22178285		4-	B	b1
C 3045	CHIP CAP.	2pF	50V	CK	GRM36CK020C50PT	K22178204		1-	B	b1
C 3047	CHIP CAP.	82pF	50V	CH	GRM36CH820J50PT	K22178234		1-	B	c1
C 3048	CHIP CAP.	3pF	50V	CJ	GRM36CJ030C50PT	K22178205		1-	B	c2

RF Unit

REF.	DESCRIPTION	VALUE	WV	TOL.	MFR'S DESIG	VXSTD P/N	VERS.	LOT.	SIDE.	LAY ADR.
C 3049	CHIP CAP.	0.001uF	50V	W5R	CM05W5R102K50AH	K22178820		1-	B	b1
C 3049	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		11-	B	b1
C 3051	CHIP CAP.	22pF	50V	CH	GRM36CH220J50PT	K22178220		1-	B	b2
C 3052	CHIP CAP.	22pF	50V	CH	GRM36CH220J50PT	K22178220		1-	B	a1
C 3053	CHIP CAP.	2pF	50V	CK	GRM36CK020C50PT	K22178204		1-	B	b2
C 3054	CHIP CAP.	22pF	50V	CH	GRM36CH220J50PT	K22178220		1-	B	b1
C 3055	CHIP CAP.	82pF	50V	CH	GRM36CH820J50PT	K22178234		1-	B	c2
C 3056	CHIP CAP.	4pF	50V	CH	GRM36CH040C50PT	K22178206		1-	B	b1
C 3056	CHIP CAP.	6pF	50V	CH	GRM36CH060D50PT	K22178208		10-	B	b1
C 3058	CHIP CAP.	0.001uF	50V	W5R	CM05W5R102K50AH	K22178820		1-	B	c2
C 3058	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		11-	B	c2
C 3059	CHIP CAP.	22pF	50V	CH	GRM36CH220J50PT	K22178220		1-	B	c2
C 3060	CHIP CAP.	0.001uF	50V	W5R	CM05W5R102K50AH	K22178820		1-	B	b2
C 3060	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		11-	B	b2
C 3061	CHIP CAP.	10pF	50V	CH	GRM36CH100D50PT	K22178212		1-	B	b2
C 3062	CHIP CAP.	22pF	50V	CH	GRM36CH220J50PT	K22178220		1-	B	b2
C 3063	CHIP CAP.	4pF	50V	CH	GRM39CH040C50PT	K22174205		1-	B	c2
C 3064	CHIP CAP.	10pF	50V	CH	GRM36CH100D50PT	K22178212		1-	B	c2
C 3066	CHIP CAP.	10pF	50V	CH	GRM36CH100D50PT	K22178212		1-	B	c2
C 3067	CHIP CAP.	10pF	50V	CH	GRM36CH100D50PT	K22178212		1-	B	c2
C 3067	CHIP CAP.	10pF	50V	CH	GRM39CH100D50PT	K22174211		5-	B	c2
C 3068	CHIP CAP.	10pF	50V	CH	GRM36CH100D50PT	K22178212		1-	B	b2
C 3069	CHIP CAP.	15pF	50V	CH	GRM36CH150J50PT	K22178216		1-	B	b2
C 3070	CHIP CAP.	10pF	50V	CH	GRM36CH100D50PT	K22178212		1-	B	c2
C 3071	CHIP CAP.	56pF	50V	CH	GRM36CH560J50PT	K22178230		1-	B	c2
C 3072	CHIP CAP.	0.5pF	50V	CK	GRM36CK0R5C50PT	K22178201		1-	B	c2
C 3072	CHIP CAP.	0.5pF	50V	CK	GRM36CK0R5B50PT	K22178285		4-	B	c2
C 3073	CHIP CAP.	4pF	50V	CH	GRM36CH040C50PT	K22178206		1-	B	a1
C 3075	CHIP CAP.	0.001uF	50V	W5R	CM05W5R102K50AH	K22178820		1-	B	c2
C 3075	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		11-	B	c2
C 3076	CHIP CAP.	100pF	50V	CH	CM05CH101J50AH	K22178246		1-	B	c2
C 3076	CHIP CAP.	100pF	50V	CH	GRM36CH101J50PT	K22178236		18-	B	c2
C 3077	CHIP CAP.	12pF	50V	CH	GRM36CH120J50PT	K22178214		1-	B	b2
C 3078	CHIP CAP.	56pF	50V	CH	GRM39CH560J50PT	K22174229		1-	B	b2
C 3078	CHIP CAP.	56pF	50V	CH	GRM36CH560J50PT	K22178230		5-	B	b2
C 3079	CHIP CAP.	22pF	50V	CH	GRM36CH220J50PT	K22178220		1-	B	a1
C 3079	CHIP CAP.	18pF	50V	CH	GRM36CH180J50PT	K22178218		11-	B	a1
C 3080	CHIP CAP.	0.001uF	50V	W5R	CM05W5R102K50AH	K22178820		1-	B	b2
C 3080	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		11-	B	b2
C 3081	CHIP CAP.	22pF	50V	CH	GRM36CH220J50PT	K22178220		1-	B	a2
C 3082	CHIP CAP.	0.001uF	50V	W5R	CM05W5R102K50AH	K22178820		1		
C 3083	CHIP CAP.	0.1uF	10V	B	GRM36B104K10PT	K22108802		1		
C 3084	CHIP CAP.	2pF	50V	CK	GRM36CK020C50PT	K22178204		1-	B	a1
C 3084	CHIP CAP.	4pF	50V	CH	GRM36CH040C50PT	K22178206		5-	B	a1
C 3085	CHIP TA.CAP.	4.7uF	10V		TEMSVA21A475M-8R	K78100045		1-	A	B2
C 3086	CHIP CAP.	0.001uF	50V	W5R	CM05W5R102K50AH	K22178820		1-	B	c2
C 3086	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		11-	B	c2
C 3087	CHIP CAP.	0.001uF	50V	W5R	CM05W5R102K50AH	K22178820		1-	B	b1
C 3087	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		11-	B	b1
C 3088	CHIP CAP.	2pF	50V	CK	GRM39CK020C50PT	K22174203		1-	B	a2
C 3089	CHIP CAP.	33pF	50V	CH	GRM36CH330J50PT	K22178224		1-	B	b2
C 3090	CHIP CAP.	0.001uF	50V	W5R	CM05W5R102K50AH	K22178820		1-	B	a2
C 3090	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		11-	B	a2
C 3091	CHIP CAP.	0.5pF	50V	CK	GRM36CK0R5C50PT	K22178201		1-	B	b2
C 3091	CHIP CAP.	0.5pF	50V	CK	GRM36CK0R5B50PT	K22178285		4-	B	b2
C 3092	CHIP CAP.	0.001uF	50V	W5R	CM05W5R102K50AH	K22178820		1-	B	b2
C 3092	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		11-	B	b2
C 3093	CHIP CAP.	100pF	50V	CH	CM05CH101J50AH	K22178246		1-	A	A2
C 3093	CHIP CAP.	100pF	50V	CH	GRM36CH101J50PT	K22178236		18-	A	A2
C 3094	CHIP CAP.	100pF	50V	CH	CM05CH101J50AH	K22178246		1-	A	A2

REF.	DESCRIPTION	VALUE	WV	TOL.	MFR'S DESIG	VXSTD P/N	VERS.	LOT.	SIDE	LAY ADR.
C 3094	CHIP CAP.	100pF	50V	CH	GRM36CH101J50PT	K22178236		18-	A	A2
C 3095	CHIP CAP.	100pF	50V	CH	CM05CH101J50AH	K22178246		1-	A	A2
C 3095	CHIP CAP.	100pF	50V	CH	GRM36CH101J50PT	K22178236		18-	A	A2
C 3096	CHIP CAP.	0.01uF	16V	W5R	CM05W5R103K16AH	K22128805		1-	A	B2
C 3096	CHIP CAP.	0.01uF	16V	B	GRM36B103K16PT	K22128804		11-	A	B2
C 3097	CHIP TA.CAP.	3.3uF	10V		SKF-1A335M-RP	K78100051		1-	B	b1
C 3099	CHIP TA.CAP.	1uF	6.3V		TESVSP0J105M-8R	K78080028		1-	B	b1
C 3100	CHIP CAP.	0.001uF	50V	W5R	CM05W5R102K50AH	K22178820		1-	B	a1
C 3100	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		11-	B	a1
C 3101	CHIP CAP.	0.047uF	10V	B	GRM36B473K10PT	K22108801		1-	A	B2
C 3102	CHIP CAP.	0.001uF	50V	B	GRM39B102M50PT	K22174809		1-	A	B2
C 3103	CHIP TA.CAP.	0.1uF	20V		SKF-1D104M-RP	K78130049		1-	B	b1
C 3104	CHIP TA.CAP.	0.1uF	20V		SKF-1D104M-RP	K78130049		1-	B	b1
C 3105	CHIP TA.CAP.	0.1uF	20V		SKF-1D104M-RP	K78130049		1-	B	b2
C 3106	CHIP CAP.	0.001uF	50V	B	GRM39B102M50PT	K22174809		1-	A	A1
C 3107	CHIP CAP.	0.001uF	50V	W5R	CM05W5R102K50AH	K22178820		1-	A	B1
C 3107	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		11-	A	B1
C 3108	CHIP CAP.	0.001uF	50V	W5R	CM05W5R102K50AH	K22178820		1-	B	b1
C 3108	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		11-	B	b1
C 3109	CHIP CAP.	0.0047uF	25V	B	GRM36B472K25PT	K22148830		1-	B	b2
C 3110	CHIP CAP.	0.033uF	10V	B	GRM36B333K10PT	K22108803		1-	B	b2
C 3111	CHIP CAP.	0.001uF	50V	W5R	CM05W5R102K50AH	K22178820		1-	A	A1
C 3111	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		11-	A	A1
C 3112	CHIP CAP.	33pF	50V	CH	GRM36CH330J50PT	K22178224		1-	B	b1
C 3113	CHIP CAP.	47pF	50V	CH	GRM36CH470J50PT	K22178228		1-	B	a1
C 3114	CHIP CAP.	100pF	50V	CH	CM05CH101J50AH	K22178246		1-	B	b2
C 3114	CHIP CAP.	100pF	50V	CH	GRM36CH101J50PT	K22178236		18-	B	b2
C 3115	CHIP CAP.	470pF	50V	B	GRM36B471K50PT	K22178805		1	B	b2
C 3115	CHIP CAP.	150pF	50V	CH	GRM36CH151J50PT	K22178240		2-	B	b2
C 3117	CHIP CAP.	100pF	50V	CH	GRM39CH101J50PT	K22174235		1-	A	B1
C 3117	CHIP CAP.	100pF	50V	CH	CM05CH101J50AH	K22178246		5-	A	B1
C 3117	CHIP CAP.	33pF	50V	CH	GRM36CH330J50PT	K22178224		10-	A	B1
C 3118	CHIP CAP.	0.001uF	50V	W5R	CM05W5R102K50AH	K22178820		1-	B	a1
C 3118	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		11-	B	a1
C 3119	CHIP CAP.	0.001uF	50V	W5R	CM05W5R102K50AH	K22178820		1-	A	A2
C 3119	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		11-	A	A2
C 3120	CHIP TA.CAP.	4.7uF	6.3V		TESVSP0J475M-8R	K78080053		1-	A	A1
C 3121	CHIP CAP.	22pF	50V	CH	GRM36CH220J50PT	K22178220		1-	B	a1
C 3122	CHIP CAP.	0.001uF	50V	W5R	CM05W5R102K50AH	K22178820		1-	B	a1
C 3122	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		11-	B	a1
C 3123	CHIP CAP.	0.001uF	50V	W5R	CM05W5R102K50AH	K22178820		1-	B	a1
C 3123	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		11-	B	a1
C 3124	CHIP CAP.	0.01uF	16V	W5R	CM05W5R103K16AH	K22128805		1-	A	B1
C 3124	CHIP CAP.	0.01uF	16V	B	GRM36B103K16PT	K22128804		11-	A	B1
C 3125	CHIP CAP.	0.001uF	50V	W5R	CM05W5R102K50AH	K22178820		1-	A	B2
C 3125	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		11-	A	B2
C 3126	CHIP CAP.	1uF	10V	F	GRM39F105Z10PT	K22105001		1-	A	A2
C 3127	CHIP CAP.	1uF	10V	F	GRM39F105Z10PT	K22105001		1-	A	A2
C 3128	CHIP CAP.	1uF	10V	F	GRM39F105Z10PT	K22105001		1-	A	A2
C 3129	CHIP CAP.	22pF	50V	CH	GRM36CH220J50PT	K22178220		1-	B	a1
C 3130	CHIP CAP.	27pF	50V	CH	GRM36CH270J50PT	K22178222		1-	A	B1
C 3130	CHIP CAP.	10pF	50V	CH	GRM36CH100D50PT	K22178212		10-	A	B1
C 3131	CHIP CAP.	0.01uF	16V	W5R	CM05W5R103K16AH	K22128805		1-	B	a2
C 3131	CHIP CAP.	0.01uF	16V	B	GRM36B103K16PT	K22128804		11-	B	a2
C 3132	CHIP CAP.	0.001uF	50V	W5R	CM05W5R102K50AH	K22178820		1-	B	a1
C 3132	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		11-	B	a1
C 3133	CHIP CAP.	150pF	50V	CH	GRM36CH151J50PT	K22178240		1	A	B1
C 3133	CHIP CAP.	68pF	50V	CH	GRM36CH680J50PT	K22178232		2-	A	B1
C 3133	CHIP CAP.	220pF	25V	CH	GRM36CH221J25PT	K22148203		10-	A	B1
C 3133	CHIP CAP.	180pF	25V	CH	GRM36CH181J25PT	K22148201		12-	A	B1

RF Unit

REF.	DESCRIPTION	VALUE	WV	TOL.	MFR'S DESIG	VXSTD P/N	VERS.	LOT.	SIDE	LAY ADR.
C 3136	CHIP CAP.	0.001uF	50V	W5R	CM05W5R102K50AH	K22178820		1		
C 3137	CHIP CAP.	12pF	50V	CH	GRM36CH120J50PT	K22178214		1-	A	B1
C 3137	CHIP CAP.	10pF	50V	CH	GRM36CH100D50PT	K22178212		5-	A	B1
C 3138	CHIP CAP.	10pF	50V	CH	GRM36CH100D50PT	K22178212		1	A	B1
C 3139	CHIP CAP.	0.001uF	50V	W5R	CM05W5R102K50AH	K22178820		1-	B	b1
C 3139	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		11-	B	b1
C 3140	CHIP CAP.	9pF	50V	CH	GRM39CH090D50PT	K22174210		1-	A	B1
C 3141	CHIP TA.CAP.	22uF	4V		TEMSVA0G226M-8R	K78060023		1-	A	C1
C 3142	CHIP TA.CAP.	10uF	6.3V		TESVSP0J106M-8R	K78080055		1-	A	C1
C 3143	CHIP CAP.	47pF	50V	CH	GRM39CH470J50PT	K22174227		1-	B	b1
C 3144	CHIP CAP.	120pF	50V	CH	GRM39CH121J50PT	K22174237		1-	A	A1
C 3144	CHIP CAP.	150pF	50V	CH	GRM39CH151J50PT	K22174239		5-	A	A1
C 3145	CHIP CAP.	15pF	50V	CH	GRM39CH150J50PT	K22174215		1-	A	B1
C 3145	CHIP CAP.	12pF	50V	CH	GRM39CH120J50PT	K22174213		85-	A	B1
C 3146	CHIP CAP.	33pF	50V	CH	GRM39CH330J50PT	K22174223		1-	B	b1
C 3147	CHIP CAP.	220pF	50V	CH	GRM39CH221J50PT	K22174243		1-	A	A1
C 3148	CHIP CAP.	0.001uF	50V	W5R	CM05W5R102K50AH	K22178820		1-	A	C1
C 3148	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		11-	A	C1
C 3149	CHIP CAP.	0.001uF	50V	W5R	CM05W5R102K50AH	K22178820		1-	A	B1
C 3149	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		11-	A	B1
C 3150	CHIP CAP.	0.001uF	50V	W5R	CM05W5R102K50AH	K22178820		1-	B	b1
C 3150	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		11-	B	b1
C 3151	CHIP CAP.	0.01uF	16V	W5R	CM05W5R103K16AH	K22128805		1-	A	A1
C 3151	CHIP CAP.	0.01uF	16V	B	GRM36B103K16PT	K22128804		11-	A	A1
C 3152	CHIP TA.CAP.	22uF	4V		TEMSVA0G226M-8R	K78060023		1-	A	C1
C 3154	CHIP CAP.	10pF	50V	CH	GRM39CH100D50PT	K22174211		5-	B	b1
C 3155	CHIP CAP.	18pF	50V	CH	GRM39CH180J50PT	K22174217		1-4	A	A1
C 3156	CHIP CAP.	0.001uF	50V	W5R	CM05W5R102K50AH	K22178820		1-	A	C1
C 3156	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		11-	A	C1
C 3157	CHIP CAP.	0.1uF	10V	B	GRM36B104K10PT	K22108802		1-	A	A1
C 3158	CHIP CAP.	0.01uF	16V	W5R	CM05W5R103K16AH	K22128805		1-	A	C1
C 3158	CHIP CAP.	0.01uF	16V	B	GRM36B103K16PT	K22128804		11-	A	C1
C 3159	CHIP CAP.	47pF	50V	CH	GRM36CH470J50PT	K22178228		1-	B	c2
C 3160	CHIP CAP.	3pF	50V	CJ	GRM36CJ030C50PT	K22178205		1-	A	B1
C 3160	CHIP CAP.	3pF	50V	CJ	GRM36CJ030C50PT	K22178205		9-	A	B1
C 3161	CHIP CAP.	7pF	50V	CH	GRM36CH070D50PT	K22178209		1-	B	b1
C 3162	AL.ELECTRO.CAP.	100uF	16V		ECEV1CA101WP	K48120012		1-	A	C1
C 3163	CHIP CAP.	100pF	50V	CH	GRM39CH101J50PT	K22174235		1	A	A2
C 3163	CHIP CAP.	82pF	50V	CH	GRM39CH820J50PT	K22174233		2-	A	A2
C 3163	CHIP CAP.	100pF	50V	CH	GRM39CH101J50PT	K22174235		5-	A	A2
C 3164	CHIP CAP.	10pF	50V	CH	GRM36CH100D50PT	K22178212		1-	A	A1
C 3164	CHIP CAP.	27pF	50V	CH	GRM36CH270J50PT	K22178222		5-	A	A1
C 3166	CHIP CAP.	0.001uF	50V	W5R	CM05W5R102K50AH	K22178820		1-	A	C1
C 3166	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		11-	A	C1
C 3167	CHIP CAP.	0.01uF	16V	W5R	CM05W5R103K16AH	K22128805		1-	A	C1
C 3167	CHIP CAP.	0.01uF	16V	B	GRM36B103K16PT	K22128804		11-	A	C1
C 3168	CHIP CAP.	100pF	50V	CH	GRM39CH101J50PT	K22174235		1-	A	A2
C 3171	CHIP CAP.	6pF	50V	CH	GRM39CH060D50PT	K22174207		1-	A	A1
C 3171	CHIP CAP.	7pF	50V	CH	GRM39CH070D50PT	K22174208		5-	A	A1
C 3172	CHIP CAP.	47pF	50V	CH	GRM39CH470J50PT	K22174227		1-	A	A1
C 3172	CHIP CAP.	33pF	50V	CH	GRM36CH330J50PT	K22178224		5-	A	A1
C 3173	CHIP CAP.	18pF	50V	CH	GRM36CH180J50PT	K22178218		1-	A	A1
C 3174	CHIP CAP.	5pF	50V	CH	GRM39CH050C50PT	K22174206		1-	A	A1
C 3174	CHIP CAP.	4pF	50V	CH	GRM39CH040C50PT	K22174205		5-	A	A1
C 3174	CHIP CAP.	5pF	50V	CH	GRM39CH050C50PT	K22174206		11-	A	A1
C 3175	CHIP CAP.	4pF	50V	CH	GRM39CH040C50PT	K22174205		1-	A	A1
C 3176	CHIP CAP.	6pF	50V	CH	GRM39CH060D50PT	K22174207		1-	A	A1
C 3176	CHIP CAP.	4pF	50V	CH	GRM39CH040C50PT	K22174205		9-	A	A1
C 3177	CHIP CAP.	33pF	50V	CH	GRM36CH330J50PT	K22178224		1-	A	B1
C 3178	CHIP CAP.	18pF	50V	CH	GRM36CH180J50PT	K22178218		1-	A	B1

REF.	DESCRIPTION	VALUE	WV	TOL.	MFR'S DESIG	VXSTD P/N	VERS.	LOT.	SIDE	LAY ADR.
C 3178	CHIP CAP.	27pF	50V	CH	GRM36CH270J50PT	K22178222		85-	A	B1
C 3179	CHIP CAP.	100pF	50V	CH	CM05CH101J50AH	K22178246		1-	A	B1
C 3179	CHIP CAP.	100pF	50V	CH	GRM39CH101J50PT	K22174235		5-	A	B1
C 3179	CHIP CAP.	33pF	50V	CH	GRM39CH330J50PT	K22174223		9-	A	B1
C 3180	CHIP CAP.	100pF	50V	CH	CM05CH101J50AH	K22178246		1-	B	b1
C 3180	CHIP CAP.	100pF	50V	CH	GRM39CH101J50PT	K22174235		5-	B	b1
C 3181	CHIP CAP.	3pF	50V	CJ	GRM39CJ030C50PT	K22174204		1-	A	B1
C 3181	CHIP CAP.	2pF	50V	CK	GRM39CK020C50PT	K22174203		5-84	A	B1
C 3182	CHIP CAP.	0.001uF	50V	W5R	CM05W5R102K50AH	K22178820		1-	B	b1
C 3182	CHIP CAP.	33pF	50V	CH	GRM36CH330J50PT	K22178224		5-	B	b1
C 3183	CHIP CAP.	0.01uF	16V	W5R	CM05W5R103K16AH	K22128805		1-	B	b1
C 3183	CHIP CAP.	0.01uF	16V	B	GRM36B103K16PT	K22128804		11-	B	b1
C 3184	CHIP CAP.	0.5pF	50V	CK	GRM36CK0R5C50PT	K22178201		1-	A	A1
C 3184	CHIP CAP.	0.5pF	50V	CK	GRM36CK0R5B50PT	K22178285		4	A	A1
C 3184	CHIP CAP.	1pF	50V	CK	GRM36CK010C50PT	K22178202		5-	A	A1
C 3184	CHIP CAP.	0.5pF	50V	CK	GRM36CK0R5B50PT	K22178285		11-	A	A1
C 3185	CHIP CAP.	0.5pF	50V	CK	GRM36CK0R5C50PT	K22178201		1-	B	c1
C 3185	CHIP CAP.	0.5pF	50V	CK	GRM36CK0R5B50PT	K22178285		4-	B	c1
C 3186	CHIP CAP.	3pF	50V	CJ	GRM36CJ030C50PT	K22178205		5-10	B	c1
C 3187	CHIP CAP.	2pF	50V	CK	GRM36CK020C50PT	K22178204		1-	B	c1
C 3187	CHIP CAP.	3pF	50V	CJ	GRM36CJ030C50PT	K22178205		5-	B	c1
C 3188	CHIP CAP.	0.001uF	50V	W5R	CM05W5R102K50AH	K22178820		1-	B	c1
C 3188	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		11-	B	c1
C 3189	CHIP CAP.	0.01uF	16V	W5R	CM05W5R103K16AH	K22128805		1-	B	c1
C 3189	CHIP CAP.	0.01uF	16V	B	GRM36B103K16PT	K22128804		11-	B	c1
C 3190	CHIP TA.CAP.	4.7uF	10V		TEMSVA21A475M-8R	K78100045		1-	B	a1
C 3191	CHIP CAP.	0.001uF	50V	W5R	CM05W5R102K50AH	K22178820		1-	B	a1
C 3191	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		11-	B	a1
C 3192	CHIP CAP.	0.01uF	16V	W5R	CM05W5R103K16AH	K22128805		1-	A	B1
C 3192	CHIP CAP.	0.01uF	16V	B	GRM36B103K16PT	K22128804		11-	A	B1
C 3193	CHIP CAP.	0.01uF	16V	W5R	CM05W5R103K16AH	K22128805		1-	B	b1
C 3193	CHIP CAP.	0.01uF	16V	B	GRM36B103K16PT	K22128804		11-	B	b1
C 3196	CHIP CAP.	27pF	50V	CH	GRM39CH270J50PT	K22174221		1-	A	B1
C 3197	CHIP CAP.	9pF	50V	CH	GRM39CH090D50PT	K22174210		1-	B	b1
C 3198	CHIP CAP.	0.001uF	50V	W5R	CM05W5R102K50AH	K22178820		1-	B	a1
C 3198	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		11-	B	a1
C 3199	CHIP CAP.	0.001uF	50V	W5R	CM05W5R102K50AH	K22178820		1-	B	a1
C 3199	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		11-	B	a1
C 3200	CHIP CAP.	0.001uF	50V	W5R	CM05W5R102K50AH	K22178820		1-	A	B1
C 3200	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		11-	A	B1
C 3201	CHIP CAP.	0.001uF	50V	W5R	CM05W5R102K50AH	K22178820		1-	A	B2
C 3201	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		11-	A	B2
C 3202	CHIP CAP.	0.001uF	50V	W5R	CM05W5R102K50AH	K22178820		1-	A	C2
C 3202	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		11-	A	C2
C 3203	CHIP CAP.	0.001uF	50V	W5R	CM05W5R102K50AH	K22178820		1-	A	B2
C 3203	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		11-	A	B2
C 3204	CHIP CAP.	0.001uF	50V	W5R	CM05W5R102K50AH	K22178820		1-	B	b1
C 3204	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		11-	B	b1
C 3205	CHIP CAP.	0.001uF	50V	W5R	CM05W5R102K50AH	K22178820		1-	B	b2
C 3205	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		11-	B	b2
C 3206	CHIP CAP.	0.001uF	50V	W5R	CM05W5R102K50AH	K22178820		1-	B	b2
C 3206	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		11-	B	b2
C 3207	CHIP CAP.	0.047uF	10V	B	GRM36B473K10PT	K22108801		1-	B	a2
C 3208	CHIP CAP.	0.001uF	50V	W5R	CM05W5R102K50AH	K22178820		1-	A	B1
C 3208	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		11-	A	B1
C 3209	CHIP CAP.	0.001uF	50V	W5R	CM05W5R102K50AH	K22178820		1-	A	B1
C 3209	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		11-	A	B1
C 3210	CHIP CAP.	0.1uF	10V	B	GRM36B104K10PT	K22108802		1-	A	C1
C 3211	CHIP CAP.	0.001uF	50V	W5R	CM05W5R102K50AH	K22178820		1-	A	B2
C 3211	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		11-	A	B2

RF Unit

REF.	DESCRIPTION	VALUE	WV	TOL.	MFR'S DESIG	VXSTD P/N	VERS.	LOT.	SIDE.	LAY ADR.
C 3212	CHIP CAP.	0.001uF	50V	W5R	CM05W5R102K50AH	K22178820		1-	A	C2
C 3212	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		11-	A	C2
C 3213	CHIP CAP.	0.01uF	16V	W5R	CM05W5R103K16AH	K22128805		1-	B	c1
C 3213	CHIP CAP.	0.01uF	16V	B	GRM36B103K16PT	K22128804		11-	B	c1
C 3214	CHIP CAP.	0.001uF	50V	W5R	CM05W5R102K50AH	K22178820		1-	B	a1
C 3214	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		11-	B	a1
C 3215	CHIP CAP.	0.01uF	16V	W5R	CM05W5R103K16AH	K22128805		1-	A	B1
C 3215	CHIP CAP.	0.01uF	16V	B	GRM36B103K16PT	K22128804		11-	A	B1
C 3216	CHIP CAP.	0.01uF	16V	W5R	CM05W5R103K16AH	K22128805		1-	B	c1
C 3216	CHIP CAP.	0.01uF	16V	B	GRM36B103K16PT	K22128804		11-	B	c1
C 3217	CHIP CAP.	1uF	10V	F	GRM39F105Z10PT	K22105001		1-	A	B2
C 3218	CHIP CAP.	1uF	10V	F	GRM39F105Z10PT	K22105001		1-	A	B2
C 3219	CHIP CAP.	0.001uF	50V	W5R	CM05W5R102K50AH	K22178820		1	B	b2
C 3219	CHIP CAP.	0.001uF	50V	B	GRM39B102M50PT	K22174809		2-	B	b2
C 3220	CHIP CAP.	1uF	10V	F	GRM39F105Z10PT	K22105001		1-	B	a2
C 3221	CHIP CAP.	0.1uF	10V	B	GRM36B104K10PT	K22108802		1		
C 3222	CHIP CAP.	1uF	10V	F	GRM39F105Z10PT	K22105001		1-	B	a2
C 3223	CHIP CAP.	1uF	10V	F	GRM39F105Z10PT	K22105001		1-	A	B1
C 3224	CHIP CAP.	1uF	10V	F	GRM39F105Z10PT	K22105001		1-	B	b2
C 3225	CHIP CAP.	1uF	10V	F	GRM39F105Z10PT	K22105001		1-	B	c1
C 3226	CHIP CAP.	1uF	10V	F	GRM39F105Z10PT	K22105001		1-	B	c2
C 3227	CHIP CAP.	33pF	50V	CH	GRM36CH330J50PT	K22178224		1	B	a1
C 3227	CHIP CAP.	47pF	50V	CH	GRM36CH470J50PT	K22178228		2	B	a1
C 3227	CHIP CAP.	33pF	50V	CH	GRM36CH330J50PT	K22178224		3-	B	a1
C 3229	CHIP CAP.	0.047uF	10V	B	GRM36B473K10PT	K22108801		1-	A	A1
C 3230	CHIP CAP.	0.047uF	10V	B	GRM36B473K10PT	K22108801		1-	A	B2
C 3231	CHIP CAP.	0.047uF	10V	B	GRM36B473K10PT	K22108801		1-	A	B2
C 3232	CHIP CAP.	0.047uF	10V	B	GRM36B473K10PT	K22108801		1-	A	B1
C 3233	CHIP CAP.	0.001uF	50V	W5R	CM05W5R102K50AH	K22178820		1-	A	B2
C 3233	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		11-	A	B2
C 3234	CHIP CAP.	1uF	10V	F	GRM39F105Z10PT	K22105001		1-	B	a1
C 3235	CHIP CAP.	100pF	50V	CH	GRM39CH101J50PT	K22174235		1	A	B2
C 3235	CHIP CAP.	100pF	50V	CH	CM05CH101J50AH	K22178246		2-	A	B2
C 3235	CHIP CAP.	100pF	50V	CH	GRM36CH101J50PT	K22178236		18-	A	B2
C 3236	CHIP CAP.	10pF	50V	CH	GRM36CH100D50PT	K22178212		1-2		
C 3237	CHIP CAP.	10pF	50V	CH	GRM36CH100D50PT	K22178212		1-	B	a1
C 3238	CHIP CAP.	4pF	50V	CH	GRM36CH040C50PT	K22178206		1-4	B	c1
C 3239	CHIP CAP.	0.001uF	50V	W5R	CM05W5R102K50AH	K22178820		1		
C 3240	CERAMIC CAP.	0.001uF	50V	B	UP050B102K-A-B	K28179001		1		
C 3241	CHIP CAP.	0.01uF	16V	W5R	CM05W5R103K16AH	K22128805		1-	B	c2
C 3241	CHIP CAP.	0.01uF	16V	B	GRM36B103K16PT	K22128804		11-	B	c2
C 3242	CHIP CAP.	0.047uF	16V	B	GRM39B473K16PT	K22124804		1-	A	C1
C 3243	CHIP TA.CAP.	6.8uF	4V		TEMSVA20G685M-8R	K78060022		1-	B	a2
C 3244	CHIP CAP.	0.001uF	50V	W5R	CM05W5R102K50AH	K22178820		1-	A	B1
C 3244	CHIP CAP.	100pF	50V	CH	CM05CH101J50AH	K22178246		5-	A	B1
C 3244	CHIP CAP.	100pF	50V	CH	GRM36CH101J50PT	K22178236		18-	A	B1
C 3245	CHIP CAP.	0.001uF	50V	W5R	CM05W5R102K50AH	K22178820		1-	A	B1
C 3245	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		11-	A	B1
C 3246	CHIP CAP.	1uF	10V	F	GRM39F105Z10PT	K22105001		1-	A	B2
C 3247	CHIP CAP.	0.5pF	50V	CK	GRM36CK0R5C50PT	K22178201		2-	B	c1
C 3247	CHIP CAP.	0.5pF	50V	CK	GRM36CK0R5B50PT	K22178285		4-	B	c1
C 3248	CHIP CAP.	0.01uF	16V	W5R	CM05W5R103K16AH	K22128805		2-	A	B1
C 3248	CHIP CAP.	0.01uF	16V	B	GRM36B103K16PT	K22128804		11-	A	B1
C 3249	CHIP CAP.	9pF	50V	CH	GRM39CH090D50PT	K22174210		1-	A	B1
C 3250	CHIP CAP.	0.001uF	50V	W5R	CM05W5R102K50AH	K22178820		1-	B	b1
C 3250	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		11-	B	b1
C 3251	CHIP CAP.	47pF	50V	CH	GRM39CH470J50PT	K22174227		2-	A	B1
C 3251	CHIP CAP.	47pF	50V	CH	GRM36CH470J50PT	K22178228		5-	A	B1
C 3251	CHIP CAP.	56pF	50V	CH	GRM36CH560J50PT	K22178230		10-	A	B1
C 3253	CHIP CAP.	0.001uF	50V	B	GRM39B102M50PT	K22174809		3-	B	a1

REF.	DESCRIPTION	VALUE	WV	TOL.	MFR'S DESIG	VXSTD P/N	VERS.	LOT.	SIDE	LAY ADR.
C 3253	CHIP CAP.	0.001uF	50V	W5R	CM05W5R102K50AH	K22178820		5-	B	a1
C 3253	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		11-	B	a1
C 3254	CERAMIC CAP.	0.001uF	50V	B	UP050B102K-A-B	K28179001	EXPORT	5-		
C 3254	CERAMIC CAP.	0.001uF	50V	B	UP050B102K-A-B	K28179001	GERMANY	5-		
C 3255	CERAMIC CAP.	0.001uF	50V	B	UP050B102K-A-B	K28179001	EXPORT	5-16	A	A2
C 3255	CERAMIC CAP.	0.001uF	50V	B	UP050B102K-A-B	K28179001	GERMANY	5-16	A	A2
C 3255	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		17-	A	A2
C 3256	CHIP CAP.	0.047uF	16V	B	GRM39B473K16PT	K22124804		5-	A	B2
C 3256	CHIP CAP.	0.047uF	10V	B	GRM36B473K10PT	K22108801		17-	A	B2
C 3257	CHIP CAP.	10pF	50V	CH	GRM36CH100D50PT	K22178212		5-	B	a1
C 3258	CHIP CAP.	0.001uF	50V	W5R	CM05W5R102K50AH	K22178820		8-	B	b1
C 3258	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		11-	B	b1
C 3258	CHIP CAP.	0.001uF	50V	B	GRM39B102M50PT	K22174809		17-	B	b1
C 3259	CHIP CAP.	1pF	50V	CK	GRM36CK010C50PT	K22178202		41-	B	b1
CF3001	LC FILTER				LFB30N11B0146B010PT	H3900491		1-	A	B2
CF3002	LOW PASS FILTER				GLP9-450M	H3900492		1-84	B	c1
CF3002	LOW PASS FILTER				GLP9-450M	H3900492	EXPORT	85-92	B	c1
CF3002	LOW PASS FILTER				GLP9-450M	H3900492	GERMANY	85-92	B	c1
CF3002	LOW PASS FILTER				GLP9-450M	H3900492	KOREA	85-92	B	c1
CF3002	LOW PASS FILTER				GLP9-450M-2	H3900544	USA	85-92	B	c1
CF3002	LOW PASS FILTER				GLP9-450M-2	H3900544		93-	B	c1
CF3003	LOW PASS FILTER				GLP8-148M	H3900449		1-	B	b1
D 3002	DIODE				1SS362 TE85R	G2070268		1-	B	b1
D 3003	DIODE				1SS362 TE85R	G2070268		1-	B	b1
D 3004	DIODE				1SS362 TE85R	G2070268		1-	B	c1
D 3006	DIODE				U3FWJ44N(TE12R)	G2070644		1-	A	C2
D 3006	DIODE				RB051L-40TE25	G2070718		4-	A	C2
D 3008	DIODE				HVC358B(TAPE)	G2070590		1-	B	b1
D 3009	DIODE				HSC277TRF	G2070584		1	B	c1
D 3009	DIODE				1SV271 TPH3	G2070476		2-	B	c1
D 3010	DIODE				DAN235E TL	G2070612		1-	B	b1
D 3012	DIODE				HVC358B(TAPE)	G2070590		1-	B	b1
D 3013	DIODE				HVC300A(TAPE)	G2070586		1-	B	c1
D 3014	DIODE				HVC350B-TRF	G2070596		1-	B	b1
D 3015	DIODE				HVC358B(TAPE)	G2070590		1-	B	b1
D 3016	DIODE				HVC300A(TAPE)	G2070586		1-	B	c2
D 3017	DIODE				1T412-M20-T8A	G2070560		1-	B	b2
D 3018	DIODE				HVC362TRF	G2070636		1-	B	b2
D 3019	DIODE				HVC362TRF	G2070636		1-	B	a2
D 3020	DIODE				HVC350B-TRF	G2070596		1-	B	b2
D 3021	DIODE				1T412-M20-T8A	G2070560		1-	B	b2
D 3022	DIODE				HVC362TRF	G2070636		1-	B	b2
D 3023	DIODE				HVC362TRF	G2070636		1-	B	a2
D 3024	DIODE				HVC358B(TAPE)	G2070590		1-	B	a1
D 3025	DIODE				DAN235E TL	G2070612		1-	B	b2
D 3026	DIODE				1SS400 TE61	G2070634		1-	B	c2
D 3026	DIODE				MA2S111-(TX)	G2070614		17-	B	c2
D 3027	DIODE				1SS400 TE61	G2070634		1-	B	c2
D 3027	DIODE				MA2S111-(TX)	G2070614		17-	B	c2
D 3028	DIODE				DAN222 TL	G2070174		1-	B	a2
D 3029	DIODE				DAN222 TL	G2070174		1-	B	a1
D 3030	DIODE				DAN222 TL	G2070174		1-	B	a1
D 3031	DIODE				DAN222 TL	G2070174		1-	B	a1
D 3032	DIODE				HN2D01FUTE85R	G2070348		1-	B	a1
D 3033	DIODE				1SS355 TE-17	G2070470		1-	A	B1
D 3034	DIODE				RLS135 TE-11	G2070128		1-	A	B1
D 3035	DIODE				RLS135 TE-11	G2070128		1-	B	b1
D 3036	DIODE				RLS135 TE-11	G2070128		1-	A	A1
D 3037	DIODE				1SS400 TE61	G2070634		1-	A	C1
D 3037	DIODE				MA2S111-(TX)	G2070614		17-	A	C1

RF Unit

REF.	DESCRIPTION	VALUE	WV	TOL.	MFR'S DESIG	VXSTD P/N	VERS.	LOT.	SIDE.	LAY ADR.
D 3038	DIODE				1SV307(TPH3)	G2070638		1-	A	B1
D 3039	DIODE				1SV307(TPH3)	G2070638		1-	B	b1
D 3040	DIODE				1SV307(TPH3)	G2070638		1-	A	A2
D 3041	DIODE				1SV271 TPH3	G2070476		1-	A	B1
D 3042	DIODE				1SV271 TPH3	G2070476		1-	B	b1
D 3043	DIODE				1SV271 TPH3	G2070476		1-	B	b1
D 3044	DIODE				1SS321 TE85R	G2070076		1-	B	c1
D 3045	DIODE				DAN222 TL	G2070174		1	B	
D 3046	DIODE				DAN222 TL	G2070174		1-	A	B2
D 3047	DIODE				1SS400 TE61	G2070634		1-	B	b1
D 3047	DIODE				MA2S111-(TX)	G2070614		17-	B	b1
D 3048	DIODE				1SS400 TE61	G2070634		2-	B	b1
D 3048	DIODE				MA2S111-(TX)	G2070614		17-	B	b1
D 3049	DIODE				DAN222 TL	G2070174		2-	B	b1
D 3050	DIODE				MA2S111-(TX)	G2070614		41-	A	A1
FB3001	CHIP COIL				BLM21P300SPT	L1690840		1-	B	a2
J 3001	CONNECTOR				LGP3131-0111	P0091072		1-	A	C2
J 3002	CONNECTOR				IL-FPR-28S-VF-E1500	P1091029		1-	A	A2
J 3004	CONNECTOR				3900040-0102	P0091224		1-	A	B2
L 3001	M.RFC	0.56uH			LK1608 R56K-T	L1690415		1-	B	c2
L 3003	M.RFC	0.01uH			ELJ-RF10NJF2	L1690831		1-	B	c1
L 3005	M.RFC	0.01uH			ELJ-RF10NJF2	L1690831		1-	B	c1
L 3006	CHIP COIL	0.0068uH			LQN21A6N8D04	L1690607		1-	B	b1
L 3007	M.RFC	0.1uH			LK1608 R10K-T	L1690407		1-	B	c1
L 3008	M.RFC	0.01uH			ELJ-RF10NJF2	L1690831		1-	B	c1
L 3009	M.RFC	0.1uH			LK1608 R10K-T	L1690407		1-	B	c1
L 3010	M.RFC	0.056uH			HK1608 56NJ-T	L1690525		1-	B	b1
L 3013	M.RFC	0.1uH			LK1608 R10K-T	L1690407		1-	B	b1
L 3014	CHIP COIL	0.01uH			LQN21A10NJ04	L1690609		1-	B	b1
L 3015	M.RFC	33uH			LK1608 330M-T	L1690690		1-	B	c1
L 3016	M.RFC	0.056uH			HK1608 56NJ-T	L1690525		1-	B	b1
L 3017	M.RFC	0.22uH			LK1608 R22K-T	L1690410		1-	B	c1
L 3018	M.RFC	0.0039uH			ELJ-RF3N9DF2	L1690826		1-	B	b2
L 3019	M.RFC	6.8uH			LK1608 6R8K-T	L1690632		1-	B	a1
L 3020	CHIP COIL	0.01uH			LQN21A10NJ04	L1690609		1-	B	b1
L 3021	M.RFC	0.22uH			LK1608 R22K-T	L1690410		1-	B	c2
L 3022	M.RFC	0.068uH			LK1608 68NM-T	L1690406		1-	B	b2
L 3023	M.RFC	0.1uH			LK1608 R10K-T	L1690407		1-	B	a2
L 3024	M.RFC	0.1uH			LK1608 R10K-T	L1690407		1-	B	c2
L 3025	M.RFC	0.0039uH			ELJ-RF3N9DF2	L1690826		1-	B	b2
L 3026	M.RFC	0.1uH			LK1608 R10K-T	L1690407		1-	B	a2
L 3027	M.RFC	0.01uH			ELJ-RF10NJF2	L1690831		1-	B	b2
L 3028	M.RFC	0.1uH			LK1608 R10K-T	L1690407		1-	B	c2
L 3029	CHIP COIL	0.01uH			LQN21A10NJ04	L1690609		1-	B	a1
L 3030	M.RFC	0.056uH			HK1608 56NJ-T	L1690525		1-	B	b2
L 3031	M.RFC	6.8uH			LK1608 6R8K-T	L1690632		1-	B	b2
L 3032	M.RFC	0.01uH			ELJ-RF10NJF2	L1690831		1-	B	a1
L 3033	M.RFC	0.033uH			ELJ-RF33NJF2	L1690837		1-	B	a1
L 3034	M.RFC	220uH			FLC32T-221J	L1690231		1-	A	A2
L 3035	M.RFC	1uH			LK1608 1R0K-T	L1690687		1-	A	B1
L 3036	M.RFC	0.027uH			TFL0510-27N	L1690816		1-	B	a1
L 3037	M.RFC	1uH			LK1608 1R0K-T	L1690687		1	A	B1
L 3037	M.RFC	0.22uH			LK1608 R22K-T	L1690410		2-	A	B1
L 3037	M.RFC	0.15uH			LK1608 R15K-T	L1690409		10-	A	B1
L 3038	M.RFC	0.027uH			TFL0510-27N	L1690816		1-	B	a1
L 3039	M.RFC	0.22uH			LK1608 R22K-T	L1690410		1		
L 3040	M.RFC	0.1uH			LK1608 R10K-T	L1690407		1	A	B1
L 3040	M.RFC	0.15uH			LK1608 R15K-T	L1690409		2-	A	B1
L 3040	M.RFC	0.1uH			ELJ-RER10JF3	L1690631		10-	A	B1
L 3040	M.RFC	0.11uH		2%	C1608C-R11G	L1690955		12-	A	B1

REF.	DESCRIPTION	VALUE	WV	TOL.	MFR'S DESIG	VXSTD P/N	VERS.	LOT.	SIDE	LAY ADR.
L 3040	M.RFC	0.11uH		2%	C1608CA-R11G	L1691046		39-	A	B1
L 3043	M.RFC	0.012uH			ELJ-RE12NJF2	L1690715		1-	A	B1
L 3043	M.RFC	0.015uH			ELJ-RE15NJF2	L1690716		5-	A	B1
L 3043	M.RFC	0.012uH			ELJ-RE12NJF2	L1690715		85-	A	B1
L 3044	M.RFC	0.0068uH			ELJ-RE6N8JF2	L1690712		1-	A	B1
L 3044	M.RFC	0.0047uH			ELJ-RE4N7JF2	L1690710		85-	A	B1
L 3045	COIL				E2 0.25-1.85-8.5T-L	L0022576		1-	A	B1
L 3046	COIL				E2 0.35-1.6-4T-L	L0022456		1-	A	B1
L 3047	COIL				E2 0.35-1.6-8T-L	L0022458		1-	A	A1
L 3048	COIL				E2 0.4-1.3-2T-L	L0022580		1-	A	B1
L 3049	M.RFC	4.7uH			LK1608 4R7K-T	L1690688		1-	A	B1
L 3050	M.RFC	4.7uH			LK1608 4R7K-T	L1690688		1-	B	b1
L 3051	M.RFC	4.7uH			LK1608 4R7K-T	L1690688		1-	A	A1
L 3052	COIL				E2 0.45-1.4-4T-L	L0022391		1-	A	A1
L 3052	COIL				E2 0.35-1.6-4.5T-L	L0022577		5-	A	A1
L 3053	COIL				E2 0.35-1.6-7T-L	L0022390		1-	A	A1
L 3054	CHIP COIL	0.15uH			LQN21AR15J04	L1690622		1-	A	A2
L 3055	COIL				E2 0.25-1.85-8.5T-L	L0022576		1-	A	A1
L 3056	COIL				E2 0.4-3.0-9.5T-L	L0022575		1-	A	A1
L 3057	COIL				E2 0.35-1.6-7T-L	L0022390		1-	A	A1
L 3058	COIL				E2 0.35-1.6-4.5T-L	L0022577		1-	A	A1
L 3059	COIL				E2 0.35-1.6-4.5T-L	L0022577		1-	A	A1
L 3060	COIL				E2 0.45-1.4-4T-L	L0022391		1-	A	A1
L 3061	CHIP COIL	0.047uH			LQN21A47NJ04	L1690617		1-	A	B1
L 3062	M.RFC	4.7uH			LK1608 4R7K-T	L1690688		1-	B	b1
L 3064	EMI FILTER				NFM41P11C204	Q9000715		1-	B	a2
L 3064	EMI FILTER				NFM4516P13C204FT1	Q9000759		70-	B	a2
Q 3007	TRANSISTOR				2SC5374-TL	G3353748		1-	B	b1
Q 3008	TRANSISTOR				UMX3N TR	G3070218		1-	A	A1
Q 3009	TRANSISTOR				2SC4400-4-TL	G3344008D		1-	B	c1
Q 3010	TRANSISTOR				2SC5277-D2-TL	G3352778B		1-	B	b1
Q 3011	TRANSISTOR				2SC5374-TL	G3353748		1-	B	a1
Q 3013	TRANSISTOR				2SC5374-TL	G3353748		1-	B	b2
Q 3016	TRANSISTOR				2SC5374-TL	G3353748		1-	B	b1
Q 3017	TRANSISTOR				2SC4400-4-TL	G3344008D		1-	B	c2
Q 3018	TRANSISTOR				2SC5277-D2-TL	G3352778B		1-	B	c2
Q 3019	TRANSISTOR				2SC5374-TL	G3353748		1-	B	a2
Q 3020	TRANSISTOR				2SC5374-TL	G3353748		1-	B	b2
Q 3021	IC				FQ7925	G1091710		1-	A	B2
Q 3022	TRANSISTOR				2SC5374-TL	G3353748		1-	B	a1
Q 3023	TRANSISTOR				2SC5374-TL	G3353748		1-	B	a1
Q 3024	TRANSISTOR				2SC5374-TL	G3353748		1-	A	B2
Q 3025	TRANSISTOR				UMD2N TR	G3070076		1-	B	a1
Q 3026	TRANSISTOR				DTA124EE TL	G3070116		1-	A	A2
Q 3027	TRANSISTOR				2SC5374-TL	G3353748		1-	B	a1
Q 3028	IC				BA10358FV-E2	G1092781		1-	B	a1
Q 3029	TRANSISTOR				2SC5374-TL	G3353748		1-	A	B1
Q 3030	TRANSISTOR				2SA1774 TL R	G3117748R		1-	A	B1
Q 3031	TRANSISTOR				2SA1774 TL R	G3117748R		1-	A	B1
Q 3032	TRANSISTOR				2SA1774 TL R	G3117748R		1-	A	B1
Q 3034	FET				2SK3074(TE12L)	G3830748		1-	B	a1
Q 3035	TRANSISTOR				UMW1 TR	G3070078		1-	B	a1
Q 3036	TRANSISTOR				UMD6N TR	G3070215		1-	A	B2
Q 3037	TRANSISTOR				UMD6N TR	G3070215		1-	A	B2
Q 3038	TRANSISTOR				UMD6N TR	G3070215		1-	A	B2
Q 3039	FET				2SK3075(TE12L)	G3830758		1-	A	B1
Q 3040	TRANSISTOR				UMD6N TR	G3070215		1-	B	b2
Q 3041	TRANSISTOR				UMD6N TR	G3070215		1-	B	b2
Q 3042	TRANSISTOR				UMD6N TR	G3070215		1-	B	a2
Q 3043	TRANSISTOR				2SC4617 TL R	G3346178R		1-	A	C1

RF Unit

REF.	DESCRIPTION	VALUE	WV	TOL.	MFR'S DESIG	VXSTD P/N	VERS.	LOT.	SIDE.	LAY ADR.
Q 3044	TRANSISTOR				CPH6102-TL	G3070223		1-	A	C1
Q 3045	TRANSISTOR				UMB3N TN	G3070158		1-	B	c2
Q 3046	TRANSISTOR				UMB3N TN	G3070158		1-	B	b2
Q 3047	TRANSISTOR				UMB3N TN	G3070158		1-	B	a2
Q 3048	TRANSISTOR				UMZ1N TR	G3070220		1-	A	C1
Q 3049	TRANSISTOR				DTC144EE TL	G3070075		1-	B	a2
Q 3050	TRANSISTOR				DTC144EE TL	G3070075		1-	B	c2
Q 3051	TRANSISTOR				CPH6102-TL	G3070223		1-	A	B1
Q 3052	TRANSISTOR				DTC144EE TL	G3070075		1-	B	b2
Q 3053	TRANSISTOR				DTC144EE TL	G3070075		1-	B	a2
Q 3054	TRANSISTOR				UMW1 TR	G3070078		1-	A	C2
Q 3055	TRANSISTOR				DTC143ZE TL	G3070102		1-	B	b1
Q 3056	IC				TC75S51F TE85R	G1092048		1	B	
Q 3057	TRANSISTOR				DTC143EE TL	G3070114		1-	A	B1
Q 3058	TRANSISTOR				DTC143ZE TL	G3070102		1-	A	B1
R 3008	CHIP RES.	2.2k	1/16W	5%	CR05-222J-H	J24189281		1-	B	b1
R 3011	CHIP RES.	100k	1/16W	5%	CR05-104J-H	J24189301		1-	B	b1
R 3015	CHIP RES.	33k	1/16W	5%	CR05-333J-H	J24189295		1-	B	b1
R 3016	CHIP RES.	2.2k	1/16W	5%	CR05-222J-H	J24189281		1-	B	b1
R 3017	CHIP RES.	10k	1/16W	5%	CR05-103J-H	J24189289		1-	B	c1
R 3017	CHIP RES.	2.2k	1/16W	5%	CR05-222J-H	J24189281		5-	B	c1
R 3018	CHIP RES.	22k	1/16W	5%	CR05-223J-H	J24189293		1-	B	c1
R 3021	CHIP RES.	220	1/16W	5%	CR05-221J-H	J24189269		1-	B	b1
R 3022	CHIP RES.	33k	1/16W	5%	CR05-333J-H	J24189295		1-	B	b1
R 3023	CHIP RES.	1k	1/16W	5%	CR05-102J-H	J24189277		1-	B	b2
R 3024	CHIP RES.	1k	1/16W	5%	CR05-102J-H	J24189277		1-	B	c1
R 3025	CHIP RES.	470	1/16W	5%	CR05-471J-H	J24189273		1-	B	c1
R 3026	CHIP RES.	33k	1/16W	5%	CR05-333J-H	J24189295		1-	B	a1
R 3027	CHIP RES.	100k	1/16W	5%	CR05-104J-H	J24189301		1-	A	A1
R 3028	CHIP RES.	100k	1/16W	5%	CR05-104J-H	J24189301		1-	A	A1
R 3029	CHIP RES.	470k	1/16W	5%	CR05-474J-H	J24189309		1-	A	A1
R 3030	CHIP RES.	100k	1/16W	5%	CR05-104J-H	J24189301		1-	A	A1
R 3031	CHIP RES.	220	1/16W	5%	CR05-221J-H	J24189269		1-	B	c1
R 3032	CHIP RES.	100k	1/16W	5%	CR05-104J-H	J24189301		1-	B	b1
R 3034	CHIP RES.	1k	1/16W	5%	CR05-102J-H	J24189277		1-	B	a1
R 3035	CHIP RES.	220	1/16W	5%	CR05-221J-H	J24189269		1-	B	b2
R 3036	CHIP RES.	33k	1/16W	5%	CR05-333J-H	J24189295		1-	B	b2
R 3037	CHIP RES.	100k	1/16W	5%	CR05-104J-H	J24189301		1-	B	b1
R 3038	CHIP RES.	100k	1/16W	5%	CR05-104J-H	J24189301		1-	B	c2
R 3041	CHIP RES.	100k	1/16W	5%	CR05-104J-H	J24189301		1-	B	c2
R 3042	CHIP RES.	100k	1/16W	5%	CR05-104J-H	J24189301		1-	B	b2
R 3043	CHIP RES.	100k	1/16W	5%	CR05-104J-H	J24189301		1-	B	b2
R 3044	CHIP RES.	100k	1/16W	5%	CR05-104J-H	J24189301		1-	B	b2
R 3045	CHIP RES.	330	1/16W	5%	CR05-331J-H	J24189271		1-	B	b2
R 3046	CHIP RES.	220	1/16W	5%	CR05-221J-H	J24189269		1-	B	b2
R 3047	CHIP RES.	100k	1/16W	5%	CR05-104J-H	J24189301		1-	B	c2
R 3049	CHIP RES.	100k	1/16W	5%	CR05-104J-H	J24189301		1-	B	c2
R 3050	CHIP RES.	100k	1/16W	5%	CR05-104J-H	J24189301		1-	B	b2
R 3051	CHIP RES.	33k	1/16W	5%	CR05-333J-H	J24189295		1-	B	b1
R 3052	CHIP RES.	470k	1/16W	5%	CR05-474J-H	J24189309		1-	B	c2
R 3053	CHIP RES.	100k	1/16W	5%	CR05-104J-H	J24189301		1		
R 3054	CHIP RES.	1k	1/16W	5%	CR05-102J-H	J24189277		1-	B	b2
R 3055	CHIP RES.	100k	1/16W	5%	CR05-104J-H	J24189301		1-	B	b2
R 3056	CHIP RES.	220	1/16W	5%	CR05-221J-H	J24189269		1-	B	a1
R 3057	CHIP RES.	100k	1/16W	5%	CR05-104J-H	J24189301		1		
R 3058	CHIP RES.	330k	1/16W	5%	CR05-334J-H	J24189307		1-	B	c2
R 3059	CHIP RES.	470	1/16W	5%	CR05-471J-H	J24189273		1-	B	c2
R 3060	CHIP RES.	100k	1/16W	5%	CR05-104J-H	J24189301		1		
R 3061	CHIP RES.	100k	1/16W	5%	CR05-104J-H	J24189301		1-	B	b2
R 3062	CHIP RES.	10k	1/16W	5%	CR05-103J-H	J24189289		1		

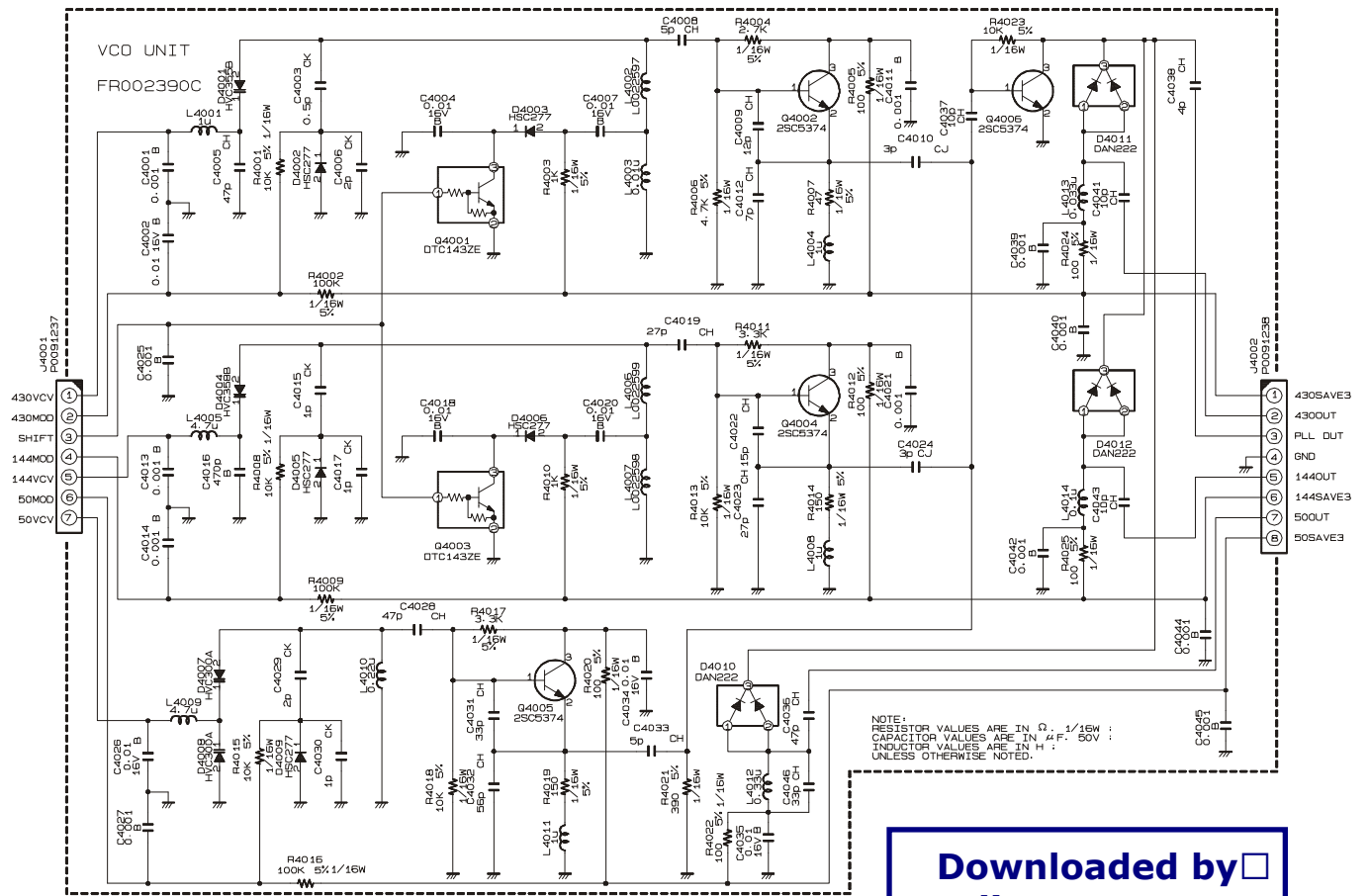
REF.	DESCRIPTION	VALUE	WV	TOL.	MFR'S DESIG	VXSTD P/N	VERS.	LOT.	SIDE	LAY ADR.
R 3063	CHIP RES.	470	1/16W	5%	CR05-471J-H	J24189273		1-	B	c2
R 3064	CHIP RES.	100k	1/16W	5%	CR05-104J-H	J24189301		1-	B	a1
R 3065	CHIP RES.	220	1/16W	5%	CR05-221J-H	J24189269		1-	B	c2
R 3066	CHIP RES.	100k	1/16W	5%	CR05-104J-H	J24189301		1-	B	a2
R 3067	CHIP RES.	330k	1/16W	5%	CR05-334J-H	J24189307		1-	B	a2
R 3068	CHIP RES.	220	1/16W	5%	CR05-221J-H	J24189269		1-	B	a1
R 3069	CHIP RES.	100k	1/16W	5%	CR05-104J-H	J24189301		1-		
R 3069	CHIP RES.	0	1/16W		CR05-000-H	J24189248		3-4		
R 3070	CHIP RES.	470	1/16W	5%	CR05-471J-H	J24189273		1-	B	a2
R 3071	CHIP RES.	2.2k	1/16W	5%	CR05-222J-H	J24189281		1-	B	b2
R 3072	CHIP RES.	100k	1/16W	5%	CR05-104J-H	J24189301		1-	B	b2
R 3073	CHIP RES.	220	1/16W	5%	CR05-221J-H	J24189269		1-	B	b2
R 3074	CHIP RES.	330	1/16W	5%	CR05-331J-H	J24189271		1-	B	a2
R 3075	CHIP RES.	2.2k	1/16W	5%	CR05-222J-H	J24189281		1-	A	A2
R 3076	CHIP RES.	2.2k	1/16W	5%	CR05-222J-H	J24189281		1-	A	A2
R 3077	CHIP RES.	2.2k	1/16W	5%	CR05-222J-H	J24189281		1-	A	A2
R 3078	CHIP RES.	470	1/16W	5%	CR05-471J-H	J24189273		1-	A	A2
R 3079	CHIP RES.	470	1/16W	5%	CR05-471J-H	J24189273		1-	B	b2
R 3080	CHIP RES.	10k	1/16W	5%	CR05-103J-H	J24189289		1-	B	a1
R 3081	CHIP RES.	33k	1/16W	5%	CR05-333J-H	J24189295		1-	B	a2
R 3082	CHIP RES.	47k	1/16W	5%	CR05-473J-H	J24189297		1-	A	B2
R 3083	CHIP RES.	1.5k	1/16W	5%	CR05-152J-H	J24189279		1-	B	b1
R 3084	CHIP RES.	1.8k	1/16W	5%	CR05-182J-H	J24189280		1-	B	b1
R 3085	CHIP RES.	2.2k	1/16W	5%	CR05-222J-H	J24189281		1-	B	b2
R 3086	CHIP RES.	1k	1/16W	5%	CR05-102J-H	J24189277		1-	A	B2
R 3087	CHIP RES.	3.3k	1/16W	5%	CR05-332J-H	J24189283		1-	B	b1
R 3088	CHIP RES.	2.2k	1/16W	5%	CR05-222J-H	J24189281		1-	B	b2
R 3089	CHIP RES.	2.2k	1/16W	5%	CR05-222J-H	J24189281		1	B	b2
R 3089	CHIP RES.	1k	1/16W	5%	CR05-102J-H	J24189277		2-	B	b2
R 3090	CHIP RES.	2.2k	1/16W	5%	CR05-222J-H	J24189281		1-	A	A1
R 3091	CHIP RES.	2.2k	1/16W	5%	CR05-222J-H	J24189281		1-	B	a1
R 3092	CHIP RES.	100	1/16W	5%	CR05-101J-H	J24189265		1-	B	a1
R 3093	CHIP RES.	10k	1/16W	5%	CR05-103J-H	J24189289		1-	B	a1
R 3094	CHIP RES.	10k	1/16W	5%	CR05-103J-H	J24189289		1-	B	a1
R 3095	CHIP RES.	10k	1/16W	5%	CR05-103J-H	J24189289		1-	A	B1
R 3095	CHIP RES.	33k	1/16W	5%	CR05-333J-H	J24189295		10-	A	B1
R 3096	CHIP RES.	220k	1/16W	5%	CR05-224J-H	J24189305		1-	B	a1
R 3097	CHIP RES.	47	1/16W	5%	CR05-470J-H	J24189261		1-	B	a1
R 3098	CHIP RES.	10	1/16W	5%	CR05-100J-H	J24189253		1-	B	a1
R 3099	CHIP RES.	10	1/16W	5%	CR05-100J-H	J24189253		1	A	B1
R 3099	CHIP RES.	100	1/16W	5%	CR05-101J-H	J24189265		2-	A	B1
R 3100	CHIP RES.	1k	1/16W	5%	CR05-102J-H	J24189277		1-	B	a1
R 3104	CHIP RES.	22k	1/16W	5%	CR05-223J-H	J24189293		1-	B	a1
R 3104	CHIP RES.	33k	1/16W	5%	CR05-333J-H	J24189295		11-	B	a1
R 3105	CHIP RES.	1k	1/16W	5%	CR05-102J-H	J24189277		1-	A	A1
R 3106	CHIP RES.	1k	1/16W	5%	CR05-102J-H	J24189277		1-	A	B1
R 3107	CHIP RES.	1k	1/16W	5%	CR05-102J-H	J24189277		1-	A	B1
R 3108	CHIP RES.	1k	1/16W	5%	CR05-102J-H	J24189277		1-	B	a1
R 3109	CHIP RES.	10k	1/16W	5%	CR05-103J-H	J24189289		1-	B	a1
R 3113	CHIP RES.	47k	1/16W	5%	CR05-473J-H	J24189297		1-	A	B2
R 3114	CHIP RES.	47k	1/16W	5%	CR05-473J-H	J24189297		1-	A	B2
R 3115	CHIP RES.	47k	1/16W	5%	CR05-473J-H	J24189297		1-	A	B2
R 3116	CHIP RES.	47k	1/16W	5%	CR05-473J-H	J24189297		1-	B	b2
R 3117	CHIP RES.	47k	1/16W	5%	CR05-473J-H	J24189297		1-	B	b2
R 3118	CHIP RES.	47k	1/16W	5%	CR05-473J-H	J24189297		1-	B	a2
R 3119	CHIP RES.	220	1/16W	5%	CR05-221J-H	J24189269		1-	A	B1
R 3120	CHIP RES.	220	1/16W	5%	CR05-221J-H	J24189269		1-	B	b1
R 3121	CHIP RES.	220	1/16W	5%	CR05-221J-H	J24189269		1-	A	A1
R 3122	CHIP RES.	4.7k	1/16W	5%	CR05-472J-H	J24189285		1-	A	C1
R 3123	CHIP RES.	10k	1/16W	5%	CR05-103J-H	J24189289		1-	A	C1

RF Unit

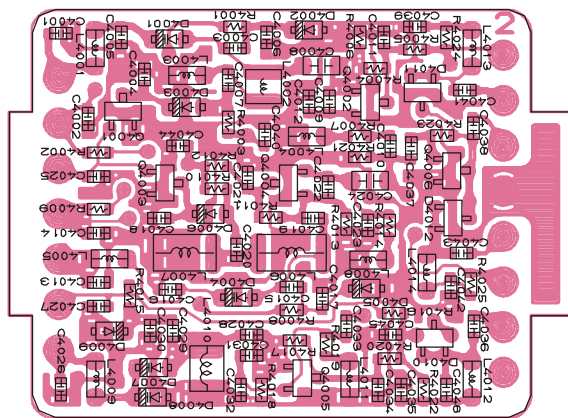
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R 3124	CHIP RES.	4.7k	1/16W	5%	CR05-472J-H	J24189285		1-	A	C1
R 3125	CHIP RES.	2.2k	1/16W	5%	CR05-222J-H	J24189281		1-	B	a1
R 3126	CHIP RES.	4.7k	1/16W	5%	CR05-472J-H	J24189285		1-	A	C1
R 3127	CHIP RES.	220k	1/16W	5%	CR05-224J-H	J24189305		1-	A	C1
R 3128	CHIP RES.	10k	1/16W	5%	CR05-103J-H	J24189289		1-	A	B2
R 3129	CHIP RES.	10k	1/16W	5%	CR05-103J-H	J24189289		1-	A	C2
R 3130	CHIP RES.	2.2k	1/16W	5%	CR05-222J-H	J24189281		1	A	C2
R 3130	CHIP RES.	1k	1/16W	5%	CR05-102J-H	J24189277		2-	A	C2
R 3131	CHIP RES.	220	1/16W	5%	CR05-221J-H	J24189269		1-	B	b1
R 3132	CHIP RES.	100	1/16W	5%	CR05-101J-H	J24189265		1	B	b1
R 3132	CHIP RES.	220	1/16W	5%	CR05-221J-H	J24189269		2-	B	b1
R 3133	CHIP RES.	4.7k	1/16W	5%	CR05-472J-H	J24189285		1-	B	c1
R 3134	CHIP RES.	10k	1/16W	5%	CR05-103J-H	J24189289		1-	B	c1
R 3135	CHIP RES.	10k	1/16W	5%	CR05-103J-H	J24189289		1-	B	c1
R 3136	CHIP RES.	15k	1/16W	5%	CR05-153J-H	J24189291		1-	A	B1
R 3137	CHIP RES.	100	1/16W	5%	CR05-101J-H	J24189265		1-	B	a1
R 3144	CHIP RES.	100	1/16W	5%	CR05-101J-H	J24189265		1-	B	a1
R 3145	CHIP RES.	330	1/16W	5%	CR05-331J-H	J24189271		1-	B	a1
R 3146	CHIP RES.	100	1/16W	5%	CR05-101J-H	J24189265		1-	A	B1
R 3147	CHIP RES.	220	1/16W	5%	CR05-221J-H	J24189269		1-	A	A2
R 3148	CHIP RES.	330	1/16W	5%	CR05-331J-H	J24189271		1-	A	B1
R 3149	CHIP RES.	100k	1/16W	5%	RMC1/16 104JATP	J24185104		1	A	A1
R 3149	CHIP RES.	100k	1/16W	5%	CR05-104J-H	J24189301		2-	A	A1
R 3150	CHIP RES.	1k	1/16W	5%	CR05-102J-H	J24189277		2-	B	c1
R 3151	CHIP RES.	220	1/16W	5%	CR05-221J-H	J24189269		2-	B	b1
R 3152	CHIP RES.	470	1/16W	5%	CR05-471J-H	J24189273		2-	B	a1
R 3153	CHIP RES.	100	1/16W	5%	CR05-101J-H	J24189265		2-	A	B1
R 3154	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000		17-	B	a2
R 3155	CHIP RES.	0	1/16W		CR05-000-H	J24189248		2-4	A	A1
R 3155	CHIP RES.	1k	1/16W	5%	RMC1/16S 102JTH	J24189025		41-	A	A1
TH3001	THERMISTOR				ERTJ1VV473J	G9090122		1-	A	B1
TH3001	THERMISTOR				ERTJ0EV473J	G9090120		5-	A	B1

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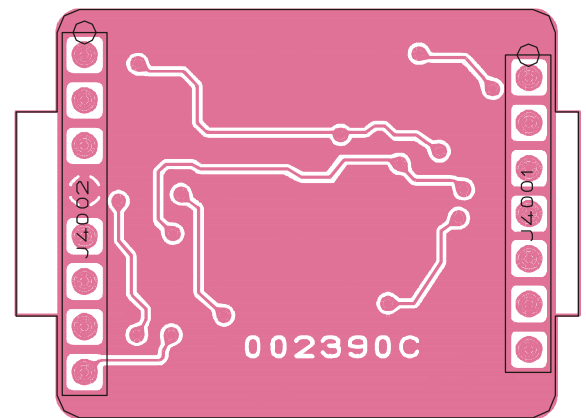
Circuit Diagram



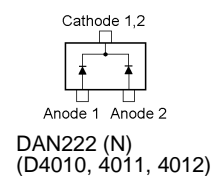
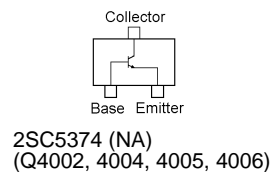
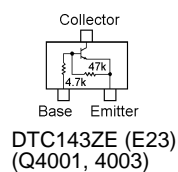
Parts Layout



Side A



Side B



VCO Unit

Parts List

REF.	DESCRIPTION	VALUE	WV	TOL.	MFR'S DESIG	VXSTD P/N	VERS.	LOT.	SIDE.	LAY ADR.	
*** VCO UNIT ***											
PCB with Components						CB0523001					
Printed Circuit Board						FR002390C				1-	
C 4001	CHIP CAP.	0.001uF	50V	W5R	CM05W5R102K50AH	K22178820		1-	A		
C 4001	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		11-	A		
C 4002	CHIP CAP.	0.01uF	16V	W5R	CM05W5R103K16AH	K22128805		1-	A		
C 4002	CHIP CAP.	0.01uF	16V	B	GRM36B103K16PT	K22128804		11-	A		
C 4003	CHIP CAP.	0.5pF	50V	CK	GRM36CK0R5C50PT	K22178201		1-	A		
C 4004	CHIP CAP.	0.01uF	16V	W5R	CM05W5R103K16AH	K22128805		1-	A		
C 4004	CHIP CAP.	0.01uF	16V	B	GRM36B103K16PT	K22128804		11-	A		
C 4005	CHIP CAP.	47pF	50V	CH	GRM36CH470J50PT	K22178228		1-	A		
C 4006	CHIP CAP.	2pF	50V	CK	GRM36CK020C50PT	K22178204		1-	A		
C 4007	CHIP CAP.	0.01uF	16V	W5R	CM05W5R103K16AH	K22128805		1-	A		
C 4007	CHIP CAP.	0.01uF	16V	B	GRM36B103K16PT	K22128804		11-	A		
C 4008	CHIP CAP.	5pF	50V	CH	GRM39CH050C50PT	K22174206		1-	A		
C 4009	CHIP CAP.	12pF	50V	CH	GRM36CH120J50PT	K22178214		1-	A		
C 4010	CHIP CAP.	3pF	50V	CJ	GRM36CJ030C50PT	K22178205		1-	A		
C 4011	CHIP CAP.	0.001uF	50V	W5R	CM05W5R102K50AH	K22178820		1-	A		
C 4011	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		11-	A		
C 4012	CHIP CAP.	7pF	50V	CH	GRM36CH070D50PT	K22178209		1-	A		
C 4013	CHIP CAP.	0.001uF	50V	W5R	CM05W5R102K50AH	K22178820		1-	A		
C 4013	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		11-	A		
C 4014	CHIP CAP.	0.001uF	50V	W5R	CM05W5R102K50AH	K22178820		1-	A		
C 4014	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		11-	A		
C 4015	CHIP CAP.	1pF	50V	CK	GRM36CK010C50PT	K22178202		1-	A		
C 4016	CHIP CAP.	470pF	50V	B	GRM36B471K50PT	K22178805		1-	A		
C 4017	CHIP CAP.	1pF	50V	CK	GRM36CK010C50PT	K22178202		1-	A		
C 4018	CHIP CAP.	0.01uF	16V	W5R	CM05W5R103K16AH	K22128805		1-	A		
C 4018	CHIP CAP.	0.01uF	16V	B	GRM36B103K16PT	K22128804		11-	A		
C 4019	CHIP CAP.	27pF	50V	CH	GRM36CH270J50PT	K22178222		1-	A		
C 4020	CHIP CAP.	0.01uF	16V	W5R	CM05W5R103K16AH	K22128805		1-	A		
C 4020	CHIP CAP.	0.01uF	16V	B	GRM36B103K16PT	K22128804		11-	A		
C 4021	CHIP CAP.	0.001uF	50V	W5R	CM05W5R102K50AH	K22178820		1-	A		
C 4021	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		11-	A		
C 4022	CHIP CAP.	15pF	50V	CH	GRM36CH150J50PT	K22178216		1-	A		
C 4023	CHIP CAP.	27pF	50V	CH	GRM36CH270J50PT	K22178222		1-	A		
C 4024	CHIP CAP.	3pF	50V	CJ	GRM39CJ030C50PT	K22174204		1-	A		
C 4025	CHIP CAP.	0.001uF	50V	W5R	CM05W5R102K50AH	K22178820		1-	A		
C 4025	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		11-	A		
C 4026	CHIP CAP.	0.01uF	16V	W5R	CM05W5R103K16AH	K22128805		1-	A		
C 4026	CHIP CAP.	0.01uF	16V	B	GRM36B103K16PT	K22128804		11-	A		
C 4027	CHIP CAP.	0.001uF	50V	W5R	CM05W5R102K50AH	K22178820		1-	A		
C 4027	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		11-	A		
C 4028	CHIP CAP.	47pF	50V	CH	GRM36CH470J50PT	K22178228		1-	A		
C 4029	CHIP CAP.	2pF	50V	CK	GRM36CK020C50PT	K22178204		1-	A		
C 4030	CHIP CAP.	1pF	50V	CK	GRM36CK010C50PT	K22178202		1-	A		
C 4031	CHIP CAP.	33pF	50V	CH	GRM36CH330J50PT	K22178224		1-	A		
C 4032	CHIP CAP.	56pF	50V	CH	GRM36CH560J50PT	K22178230		1-	A		
C 4033	CHIP CAP.	5pF	50V	CH	GRM36CH050C50PT	K22178207		1-	A		
C 4034	CHIP CAP.	0.01uF	16V	W5R	CM05W5R103K16AH	K22128805		1-	A		
C 4034	CHIP CAP.	0.01uF	16V	B	GRM36B103K16PT	K22128804		11-	A		
C 4035	CHIP CAP.	0.01uF	16V	W5R	CM05W5R103K16AH	K22128805		1-	A		
C 4035	CHIP CAP.	0.01uF	16V	B	GRM36B103K16PT	K22128804		11-	A		
C 4036	CHIP CAP.	47pF	50V	CH	GRM36CH470J50PT	K22178228		1-	A		
C 4037	CHIP CAP.	10pF	50V	CH	GRM36CH100D50PT	K22178212		1-	A		
C 4038	CHIP CAP.	4pF	50V	CH	GRM36CH040C50PT	K22178206		1-	A		
C 4039	CHIP CAP.	0.001uF	50V	W5R	CM05W5R102K50AH	K22178820		1-	A		
C 4039	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		11-	A		
C 4040	CHIP CAP.	0.001uF	50V	W5R	CM05W5R102K50AH	K22178820		1-	A		
C 4040	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		11-	A		

REF.	DESCRIPTION	VALUE	WV	TOL.	MFR'S DESIG	VXSTD P/N	VERS.	LOT.	SIDE	LAY ADR.
C 4041	CHIP CAP.	10pF	50V	CH	GRM36CH100D50PT	K22178212		1-	A	
C 4042	CHIP CAP.	0.001uF	50V	W5R	CM05W5R102K50AH	K22178820		1-	A	
C 4042	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		11-	A	
C 4043	CHIP CAP.	10pF	50V	CH	GRM36CH100D50PT	K22178212		1-	A	
C 4044	CHIP CAP.	0.001uF	50V	W5R	CM05W5R102K50AH	K22178820		1-	A	
C 4044	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		11-	A	
C 4045	CHIP CAP.	0.001uF	50V	W5R	CM05W5R102K50AH	K22178820		1-	A	
C 4045	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		11-	A	
C 4046	CHIP CAP.	33pF	50V	CH	GRM36CH330J50PT	K22178224		1-	A	
D 4001	DIODE				HVC355B(TAPE)	G2070588		1-	A	
D 4002	DIODE				HSC277TRF	G2070584		1-	A	
D 4003	DIODE				HSC277TRF	G2070584		1-	A	
D 4004	DIODE				HVC358B(TAPE)	G2070590		1-	A	
D 4005	DIODE				HSC277TRF	G2070584		1-	A	
D 4006	DIODE				HSC277TRF	G2070584		1-	A	
D 4007	DIODE				HVC300A(TAPE)	G2070586		1-	A	
D 4008	DIODE				HVC300A(TAPE)	G2070586		1-	A	
D 4009	DIODE				HSC277TRF	G2070584		1-	A	
D 4010	DIODE				DAN222 TL	G2070174		1-	A	
D 4011	DIODE				DAN222 TL	G2070174		1-	A	
D 4012	DIODE				DAN222 TL	G2070174		1-	A	
J 4001	CONNECTOR				9210B-1-07Z482-T	P0091237		1-	B	
J 4002	CONNECTOR				9210B-1-08Z482-T	P0091238		1-	B	
L 4001	M.RFC	1uH			LK1608 1R0K-T	L1690687		1-	A	
L 4002	COIL				E2 0.28-1.0-4T-R	L0022365		1-	A	
L 4002	COIL				E2 0.28-1.0-3.5T-R-S	L0022597		7-	A	
L 4003	M.RFC	0.01uH			HK1608 10NJ-T	L1690516		1-	A	
L 4004	M.RFC	1uH			LK1608 1R0K-T	L1690687		1-	A	
L 4005	M.RFC	4.7uH			LK1608 4R7K-T	L1690688		1-	A	
L 4006	COIL				E2 0.28-1.0-9TR	L0022424		1-	A	
L 4006	COIL				E2 0.28-1.0-8.5T-R-S	L0022599		7-	A	
L 4007	COIL				E2 0.28-1.0-8TR	L0022423		1-	A	
L 4007	COIL				E2 0.28-1.0-6.5T-R-S	L0022598		7-	A	
L 4008	M.RFC	1uH			LK1608 1R0K-T	L1690687		1-	A	
L 4009	M.RFC	4.7uH			LK1608 4R7K-T	L1690688		1-	A	
L 4010	CHIP COIL	0.22uH			LQN21AR22J04	L1690600		1-	A	
L 4011	M.RFC	1uH			LK1608 1R0K-T	L1690687		1-	A	
L 4012	M.RFC	0.33uH			LK1608 R33K-T	L1690412		1-	A	
L 4013	M.RFC	0.033uH			HK1608 33NJ-T	L1690522		1-	A	
L 4014	M.RFC	0.1uH			LK1608 R10K-T	L1690407		1-	A	
Q 4001	TRANSISTOR				DTC143ZE TL	G3070102		1-	A	
Q 4002	TRANSISTOR				2SC5374-TL	G3353748		1-	A	
Q 4003	TRANSISTOR				DTC143ZE TL	G3070102		1-	A	
Q 4004	TRANSISTOR				2SC5374-TL	G3353748		1-	A	
Q 4005	TRANSISTOR				2SC5374-TL	G3353748		1-	A	
Q 4006	TRANSISTOR				2SC5374-TL	G3353748		1-	A	
R 4001	CHIP RES.	10k	1/16W	5%	CR05-103J-H	J24189289		1-	A	
R 4002	CHIP RES.	100k	1/16W	5%	CR05-104J-H	J24189301		1-	A	
R 4003	CHIP RES.	1k	1/16W	5%	CR05-102J-H	J24189277		1-	A	
R 4004	CHIP RES.	2.7k	1/16W	5%	CR05-272J-H	J24189282		1-	A	
R 4005	CHIP RES.	100	1/16W	5%	CR05-101J-H	J24189265		1-	A	
R 4006	CHIP RES.	4.7k	1/16W	5%	CR05-472J-H	J24189285		1-	A	
R 4007	CHIP RES.	47	1/16W	5%	CR05-470J-H	J24189261		1-	A	
R 4008	CHIP RES.	10k	1/16W	5%	CR05-103J-H	J24189289		1-	A	
R 4009	CHIP RES.	100k	1/16W	5%	CR05-104J-H	J24189301		1-	A	
R 4010	CHIP RES.	1k	1/16W	5%	CR05-102J-H	J24189277		1-	A	
R 4011	CHIP RES.	3.3k	1/16W	5%	CR05-332J-H	J24189283		1-	A	
R 4012	CHIP RES.	100	1/16W	5%	CR05-101J-H	J24189265		1-	A	
R 4013	CHIP RES.	10k	1/16W	5%	CR05-103J-H	J24189289		1-	A	
R 4014	CHIP RES.	150	1/16W	5%	CR05-151J-H	J24189267		1-	A	

VCO Unit

REF.	DESCRIPTION	VALUE	WV	TOL.	MFR'S DESIG	VXSTD P/N	VERS.	LOT.	SIDE.	LAY ADR.
R 4015	CHIP RES.	10k	1/16W	5%	CR05-103J-H	J24189289		1-	A	
R 4016	CHIP RES.	100k	1/16W	5%	CR05-104J-H	J24189301		1-	A	
R 4017	CHIP RES.	3.3k	1/16W	5%	CR05-332J-H	J24189283		1-	A	
R 4018	CHIP RES.	10k	1/16W	5%	CR05-103J-H	J24189289		1-	A	
R 4019	CHIP RES.	150	1/16W	5%	CR05-151J-H	J24189267		1-	A	
R 4020	CHIP RES.	100	1/16W	5%	CR05-101J-H	J24189265		1-	A	
R 4021	CHIP RES.	390	1/16W	5%	CR05-391J-H	J24189272		1-	A	
R 4022	CHIP RES.	100	1/16W	5%	CR05-101J-H	J24189265		1-	A	
R 4023	CHIP RES.	10k	1/16W	5%	CR05-103J-H	J24189289		1-	A	
R 4024	CHIP RES.	100	1/16W	5%	CR05-101J-H	J24189265		1-	A	
R 4025	CHIP RES.	100	1/16W	5%	CR05-101J-H	J24189265		1-	A	
	SHIELD CASE VCO					RA0138500		1-		



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