

PRESIDENT

LINCOLN II

SERVICE MANUAL

-TECNNICAL CHARACTERITICS

1-GENERAL:

-Frequency coverage

From 28,000 to 29,699MHz

-Channel step

-100Hz, 1KHz, 10KHz, 100KHz, 1MHz

-Class of emission

-AM(A3E)/FM(F3E)/USB LSB(J3E)/CW

-Power supply

-13,2V (from 10,8V to 15,6V)

-Antenna impedance

-50Ω

-Dimensions (in mm)

-170(W) x 250(D) x 52(H)

-Weight

-1,4Kg

-Frequency allowance

-±200Hz

2-TRANSMISSION:

-Output power Max

12W AM/CW, 30W FM, 30W USB LSB

-SSB Carrier Suppression

- 55dBm

-Audio frequency response

-From 300Hz to 3kHz

-Microphone sensitivity

-Inferior to 3mV

-Current drain

-6A(in transmission mode with modulation)

-Modulated signal distortion

-Inferior to 2%

3-RECEPTION:

- Maximum sensitivity at 20dB sinad**

- 0,63 μ V(-111dBm) AM / 0,35 μ V(-116dBm) FM / 0,25 μ V(-119dBm) USB LSB

- Audio frequency response**

- From 300Hz to 3kHz

- Adjacent channel selectivity**

- Superior to 60dB

- Frequency image rejection**

- Superior to 65dB

- Intermodulation response**

- Superior to 54dB

- Maximum audio power**

- 3W

- Squelch sensitivity**

- Threshold 0,56 μ V(-112dBm)/Tight 1mV(-47dBm)

- Current drain**

- 300mA nominal/600mA maximum

ALIGNMENT PROCEDURE (LINCOLN II)

* VCO/PLL PORTION

- Alignment procedure
- Test points
- Frequencies chart

* TRANSMITTER

- Alignment procedure
- Test points

* RECEIVER

- Alignment procedure
- Test points

Test equipment required

Frequency counter 200 Mhz	HF Generator
DC Voltmeter & DC Amperemeter	BF Voltmeter
Distortimeter	HF Voltmeter
Wattmeter - Dummy load	Osilloscope
FM linear detector	Load 8 Ω
AF generator	Sinad meter

Conditions of Measurements on HF Generator

Reception

AM mode: Level - 107 dBm Frequency 1 KHz with 60% of modulation.
FM mode: Level - 107 dBm Frequency 1 KHz with 1,2KHz of deviation.
USB/LSB mode: Level - 107 dBm

Transmission

Frequency 1 KHz 30mV AM/FM
Frequency two tones 0,4 KHz 30mV & 2,5KHz 30mV

Remarks

CW = Clockwise / CCW = Counterclockwise

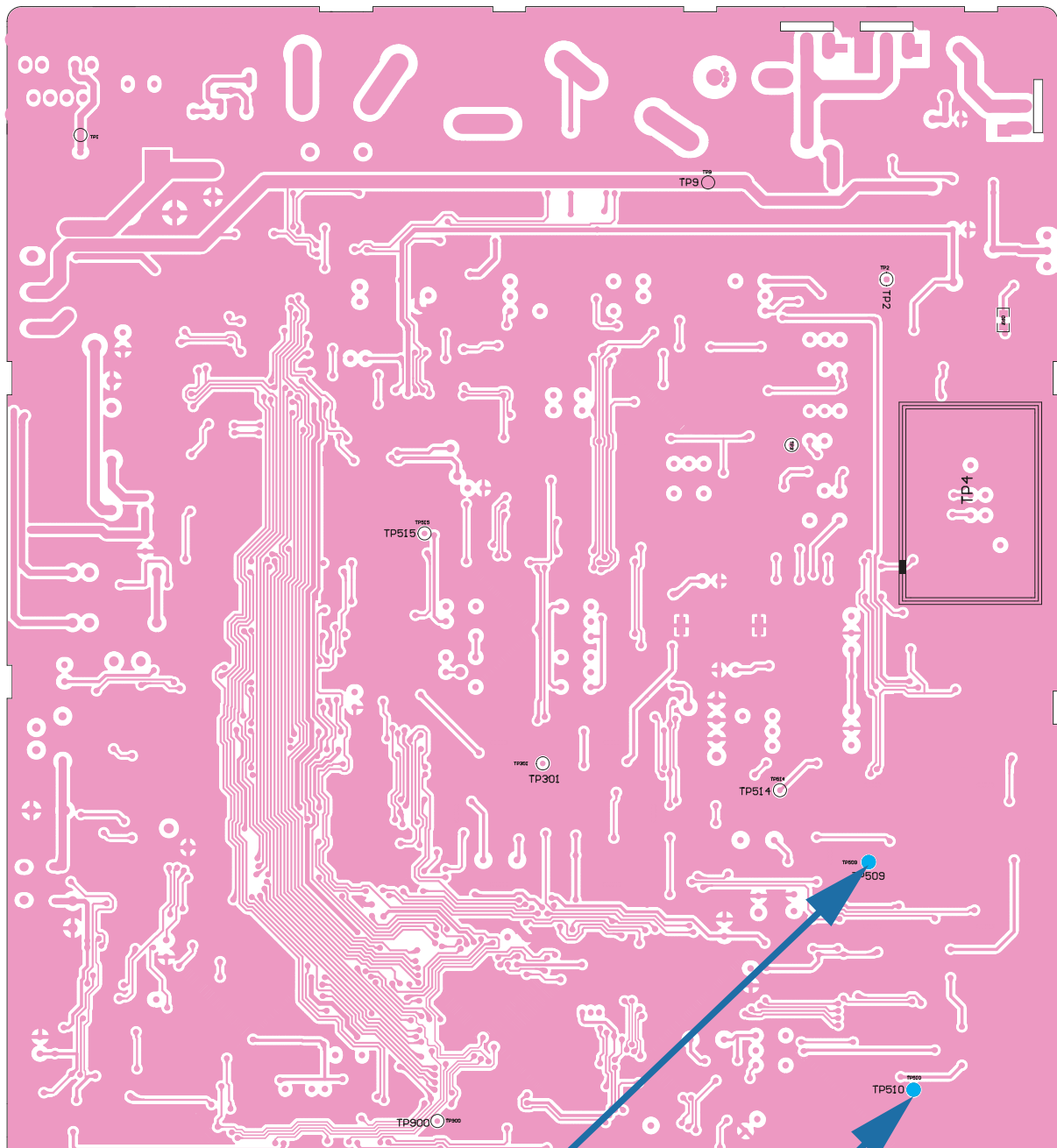
ALIGNMENT VCO/PLL

1 - Alignment procedure (13,2V)

STEP	CONDITION	ADJUSTMENT	REMARKS OF ADJUSTMENT
1	AM/FM RX mode 28,000Mhz	L807	Clarifier center position Connect a frequency counter To TP2 then adjust L807 to reach 38,695±10Hz.
2	AM/FM RX/TX mode 28,000Mhz		Clarifier center position. Connect a voltmeter to TP 510 and check: 28,000Mhz RX 2,4V±0,2V 28,000Mhz TX 2,6V±0,2V 29,695Mhz RX 3,3V±0,2V 29,695Mhz TX 3,5V±0,2V
3	AM/FM RX/TX mode 28,000Mhz		Clarifier center position. Connect a voltmeter to TP 509 and check: 28,000Mhz RX 2,4V±0,2V 28,000Mhz TX 2,6V±0,2V 29,695Mhz RX 3,8V±0,2V 29,695Mhz TX 4V±0,2V

PC BOARD VIEWS

ALIGNMENT VCO/PLL



Tp509

Tp510

ALIGNMENT TRANSMITTER

1 - Alignment procedure (13,2V)

STEP	CONDITION	ADJUSTMENT	REMARKS OF ADJUSTMENT
1	USB 28,000Mhz TX mode without modulation (Mic gain : CCW) RF power Max (RF power : CW)	W3	Adjust W3 to reach 12V on the voltmeter connected to TP9
2	USB 28,000Mhz TX mode without modulation (Mic gain : CCW) RF power Max (RF power : CW) L11 soldered L32 unsoldered	W9	Connect a DC amperemeter between the power supply and the transceiver. Set W9 to the minimum current value then adjust W9 to increase of 100mA above the minimum value($\pm 0,65A$).
3	USB 28,000Mhz TX mode without modulation (Mic gain : CCW) RF power Max (RF power : CW) L11 unsoldered L32 soldered	W7	Connect a DC amperemeter between the power supply and the transceiver. Set W7 to the minimum current value then adjust W7 to increase of 100mA above the minimum value($\pm 0,65A$).

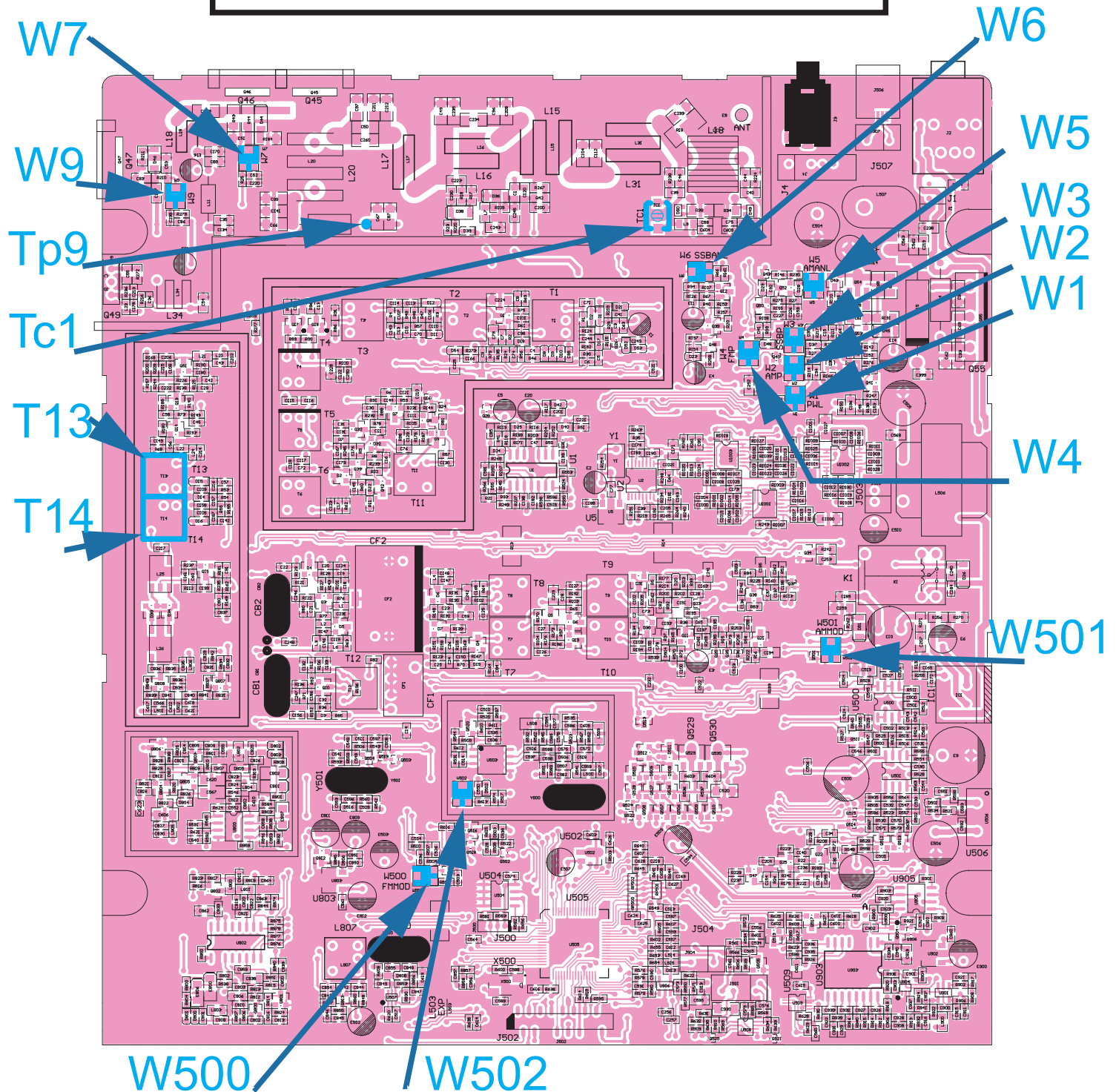
STEP	CONDITION	ADJUSTMENT	REMARKS OF ADJUSTMENT
4	AM 28,000Mhz TX mode without modulation (Mic gain : CCW) RF power Max (RF power : CW) L11 and L32 resoldered	T13,T14	Adjust T13 and T14 to get the maximum RF power.
5	AM 28,000Mhz TX mode without modulation (Mic gain : CCW) RF power Max (RF power : CW) L11 and L32 resoldered	W2	Adjust W2 to reach 12W±1W on the RF wattmeter.
6	FM 28,000Mhz TX mode without modulation (Mic gain : CCW) RF power Max (RF power : CW) L11 and L32 resoldered	W4	Adjust W4 to reach 30W±1W on the RF wattmeter.
7	USB/LSB 28,000Mhz TX mode with 2 tones modulation (2,5Khz&0,4Khz 30mV) (Mic gain : CW) RF power Max (RF power : CW) L11 and L32 resoldered	W6	Adjust W6 to reach 30W PEP ±1W on the RF wattmeter.

STEP	CONDITION	ADJUSTMENT	REMARKS OF ADJUSTMENT
8	FM 28,000Mhz TX mode without modulation (Mic gain : CCW) RF power Max (RF power : CCW) L11 and L32 resoldered	W1	Adjust W1 to reach $2W \pm 1W$ on the RF wattmeter.
9	FM 28,000Mhz TX mode with modulation (1Khz 30mV) (Mic gain : CW) RF power Max (RF power : CW) L11 and L32 resoldered	W500	Adjust W500 to reach $2Khz \pm 0,1Khz$ of deviation.
10	AM 28,000Mhz TX mode with modulation (1Khz 30mV) (Mic gain : CW) RF power Max (RF power : CW) L11 and L32 resoldered	W5 W501	1-Set W5 CCW 2-Adjust W501 to reach $95\% \pm 3\%$ of modulation. 3-Then adjust W5 to reach $90\% \pm 3\%$ of modulation.
11	USB/LSB 28,000Mhz TX mode without modulation (Mic gain : CCW) RF power Max (RF power : CW) L11 and L32 resoldered	W502	Adjust W502 to minimum reading on the RF wattmeter ($\leq -15dBm$).

STEP	CONDITION	ADJUSTMENT	REMARKS OF ADJUSTMENT
12	AM 28,000Mhz TX mode without modulation (Mic gain : CCW) RF power Max (RF power : CW) L11 and L32 resoldered		Check that the RF meter displays level 7 ± 1 "bar".
13	AM 28,000Mhz TX mode without modulation (Mic gain : CCW) RF power Max (RF power : CW) L11 and L32 resoldered	TC1	Connect two 50 Ω dummy loads in parallel to the antenna connector and adjust TC1 to get $1,7 \pm 0,1$ on the SWR display.

PC BOARD VIEWS

ALIGNMENT TRANSMITTER



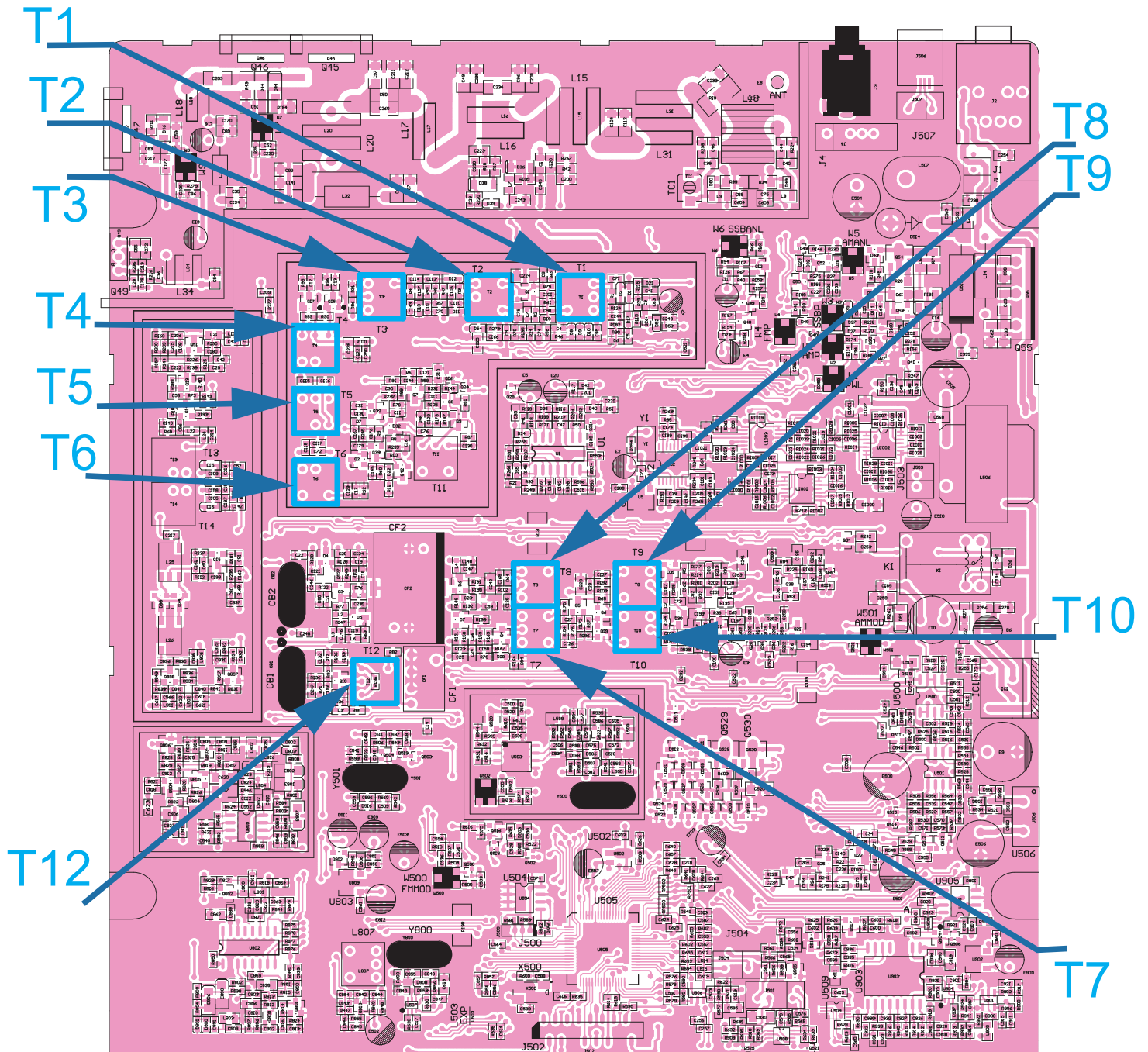
ALIGNMENT RECEIVER

1 - Alignment procedure (13,2V)

STEP	CONDITION	ADJUSTMENT	REMARKS OF ADJUSTMENT
1	USB 28,000Mhz RX mode (RF gain : CW) Clarifier center position. Middle volume level No squelch active NB, ANL, Hi Cut, OFF	T1, T2, T3, T4, T5, T6, T7, T10	Connect HF generator (28,001MHz) to jack antenna set at (-117dBm). Connect the sinad meter to jack EXT speaker and adjust coils (T1, T2, T3, T4, T5, T6, T7, T10) for maximum sensitivity ($\geq 20\text{dB}$ sinad).
2	AM 28,000Mhz RX mode (RF gain : CW) Middle volume level No squelch active NB, ANL, Hi Cut, OFF	T8, T9, T12	Connect HF generator (28,000MHz) to jack antenna set at (-107dBm 1Khz 60% mod). Connect the sinad meter to jack EXT speaker and adjust coils (T8, T9, T12) for maximum sensitivity ($\geq 20\text{dB}$ sinad).
3	FM 28,000Mhz RX mode (RF gain : CW) Middle volume level No squelch active NB, ANL, Hi Cut, OFF		Connect HF generator (28,000MHz) to jack antenna set at (-107dBm 1KHz 1,2KHz Dev) and check the sensitivity ($\geq 20\text{dB}$ sinad).
4	AM 28,000Mhz RX mode (RF gain : CW) Middle volume level No squelch active NB, ANL, Hi Cut, OFF		Connect HF generator (28,000MHz) to jack antenna set at (-67dBm 1KHz 60% mod) and check that the S-meter displays $S9 \pm 1''\text{bar''}$.

PC BOARD VIEWS

ALIGNMENT RECEIVER



LINCOLN II

- BLOCK DIAGRAM**
- SCHEMATIC DIAGRAM**
- COMPONENT LAYOUT**
- COMPONENT LIST**

LINCOLN II

- BLOCK DIAGRAM



CIRCUIT DESCRIPTION

1. Frequency Configuration

The receiver utilizes double conversion, the 1st intermediate frequency is 10.695MHz & the 2nd intermediate frequency is 455KHZ. The 1st local oscillator signal is generated by PLL circuit.

The PLL circuit in the transmitter generate the necessary frequency.

2. Receiver

The receiver is double conversion superheterodyne, designed to operate in the frequency range of 28.000-29.695MHz

1) Front-end RF amplifier

An incoming signal from the antenna is applied to TX/RX antenna switch diode circuit(D1,D2 and D36),the pass BPF D8,D9 and D10 and signal amplified by Q1.The signal is filter through a band pass filter D11,D12 and D13.BPF adjusted by D8, D9, D11, D12 and D13. The input voltage to the varicap diode is regulated by voltage output from the microprocessor (U505).

2) First Mixer

The signal from the RF amplifier is heterodyned with the first local oscillator signal from PLL frequency synthesizer circuit at the first mixer(Q17, Q18) to create a 10.695MHz first intermediate frequency(1st IF) signal. The first IF signal is then fed through CB1,CB2 MCF. The first IF signal remove adjacent channel signal by filter CB1,CB2,then go into 2nd mixer Q10. 2nd mixer mix first IF and 10.24MHz second IF output Y501,then occur 455KHZ second IF. 455KHZ CFI remove spurious signals.

3) IF amplifier

FM signal: the second IF signal is amplified by Q4,Q5,Q6,Q19,and then enters U2(FM processing IC). The second IF signal is then fed through a 455KHZ ceramic filter(Y1) to further eliminate unwanted signals before it is amplified and FM detected.

AM signal: the second IF signal is changed according to D31 diode DC and receive audio signal output.Q36 is AM mute switch

SSB signal: from the switch diode (D4) received signal through a buffer amplifier (Q3) amplified, and then enter the IF filter (CF2) is a signal obtained by filtering the intermediate frequency amplifier via the switching diode (D5) (Q4, Q5, Q6, Q19) amplified and output to Q11, Q11 and Q523 of the signal from the mixer in the demodulated audio signal Q11.

4) Audio signal amplifier

U2 discriminator in the audio signal demodulated by the U1003B (2/4) amplified by U1003C low pass filter (3/4) and U1003 high-pass filter, and by the de-emphasis. Then the audio signal through a switch (Q20). After the audio signal processing by the electronic volume control circuit (U905 1/2) and other circuits, through the audio amplifier (IC1) amplified to drive the speakers.

5) Squelch

Part of the AF signal output from the second intermediate frequency signal and then into the IC (U2), the noise component is amplified by the amplifier and the correction corresponding to the noise level generated with a DC voltage. DC signal is sent to the analog port of the microprocessor (U505) through

CIRCUIT DESCRIPTION

the IC (U2). U505 by detecting the input voltage is above or below a preset value to determine whether to output the sound from the speaker, when the speaker output sound, U505 sends a high signal to VOLC line through D51 and IC1 silent pin(IC1 2pin), open Audio Power Amplifier IC1.

6) CTCSS/DCS

300 Hz and higher audio frequencies of the output signal from IF IC are cut by a low-pass filter (U1000). The resulting signal enters the microprocessor (U505). U505 determines whether the CTCSS or DCS matches the preset value, and controls the MUTE and VOLC line and the speaker output sounds according to the squelch results.

3. PLL frequency synthesizer

The PLL circuit generates the first local oscillator signal for reception and the RF signal for transmission

1) PLL

10.1015MHz(Y800) reference oscillation signal being a fixed counter U802 divide. Oscillator (VCO) output signal is amplified by the buffer, then U802 module are a pair of programmable frequency counter. Comparing the frequency-divided signal of the phase comparator U802. After the transmission signal generated by a low-pass filter to the frequency-controlled oscillator VCO.

2) VCO

All receiving and transmitting frequencies used by Q800, Q801, Q802, Q803, Q804 generation, VCO by obtained from the phase comparator is fed to a variable control voltage diode (D800, D801, D802, and D803) to control the oscillation frequency, RF signal generated by Q806 Q803 amplified and transmitted to the RF amplifier.

3) Unlock detector

If a high level of LD appears on U802 pin, the resulting loss of lock status, DC voltage obtained from R844 and R875 microprocessor input voltage becomes low, the microprocessor detects this condition launch is disabled, ignoring PTT input signal switching.

4. Transmitter

Outline

The transmitter circuit produces and amplifies the desired frequency directly. It FM-modulates the carrier signal by means of a varicap diode.

1) Mic Amplifier

The signal from the microphone through U508, U901, U904, U905 microphone input signal is pre-emphasis circuit U501, IDC treatment for amplification, and signal through a low pass filter (U500) to filter frequencies higher than 3kHz portion.

FM signals: U500 output signal into a voltage controlled oscillator directly obtained from the FM modulator.

AM signal: The filtered signal is fed to U500 for amplitude modulation (Q41, Q43, Q52, Q53, Q54, Q55, Q56), and the amplified output to the RF power amplifier to the antenna terminal.

CIRCUIT DESCRIPTION

SSB signal: the signal into the SSB modulator (U503) to modulate the resulting signal is fed from the output of the IF filter U500 (CF2) after filtering and Q15 buffer amplifier mixer (D33, D34, L25, L26) after mixing to the RF amplifier output to the antenna terminals.

2) Driver and terminal amplifier

From the voltage controlled oscillator buffer amplifier (Q808) of the received RF signal is a pre-driver amplifier (Q14, Q13, Q51, Q49, Q47) amplified by the RF amplifier output driver amplifier (Q45 and Q46) amplification to FM/SSB: 30W , AM: 12W. RF power amplifier constituted by the two MOS FET. RF power amplifier output by the harmonic filter (LPF) and the antenna switch (D1,D2 and D36) and sent to the antenna terminal.

5. Power supply

A 5V(U502) reference power supply 5M for the control circuit is derived from an internal battery, if power off ,5M is off.

6. EEPROM System

CB radio with 128k-bit EEPROM (U504).EEPROM includes adjust data. MPU(U505) controlled EEPROM by two serials lines.

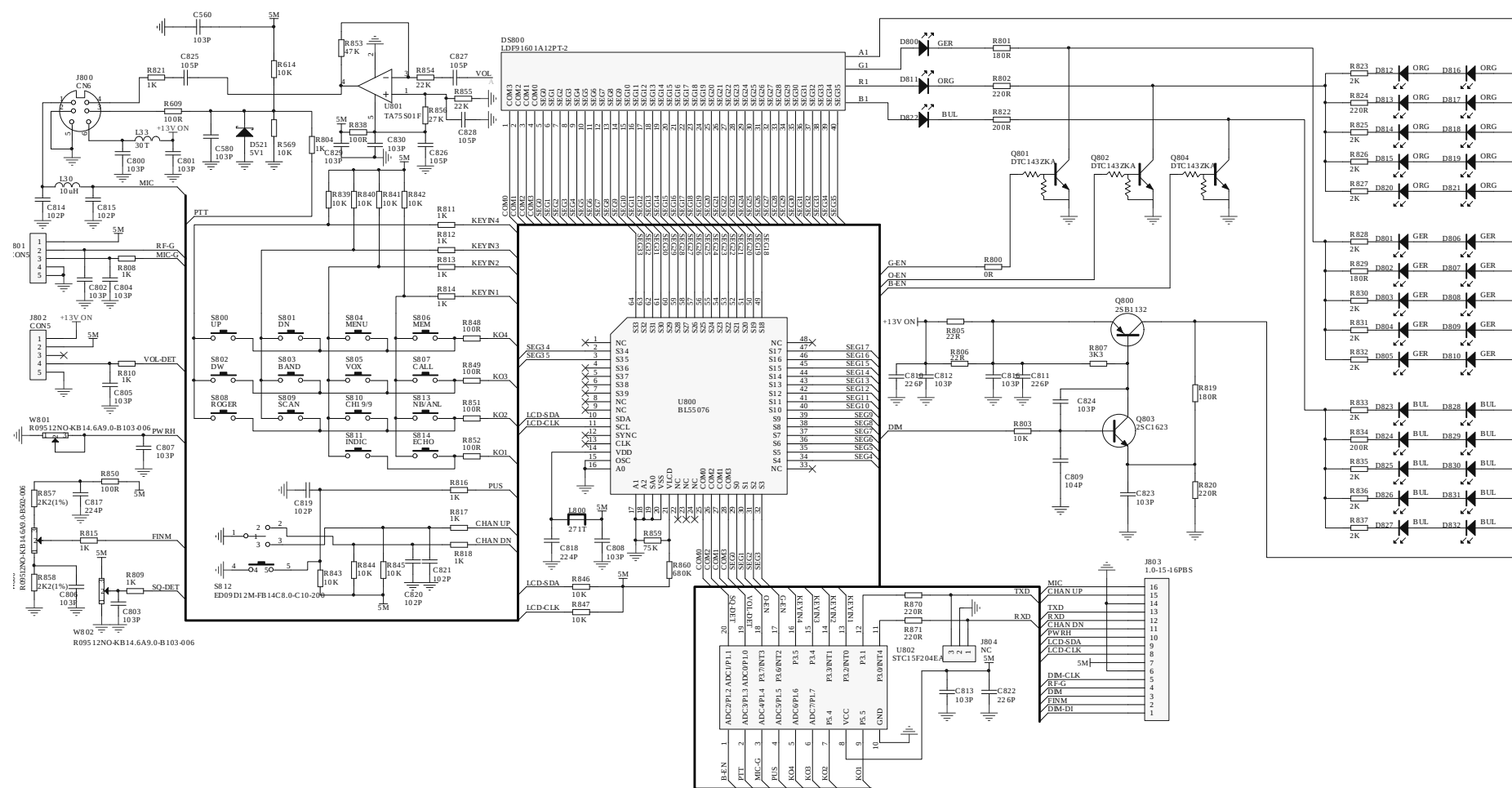
7. Control system

MPU(U505) operates at 19.200MHZ.This MPU control LCD display, key definition, PLL circuit and other functions.

LINCOLN II

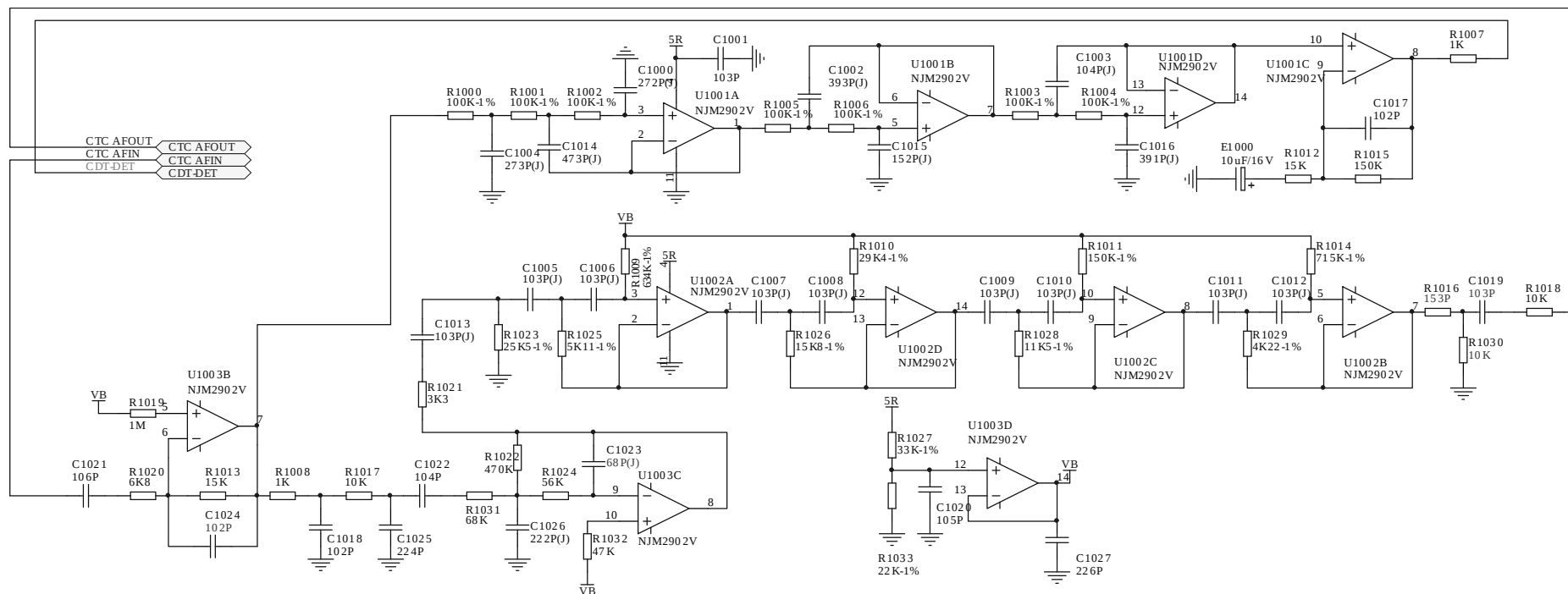
- SCHEMATIC DIAGRAM

SCHEMATIC DIAGRAM

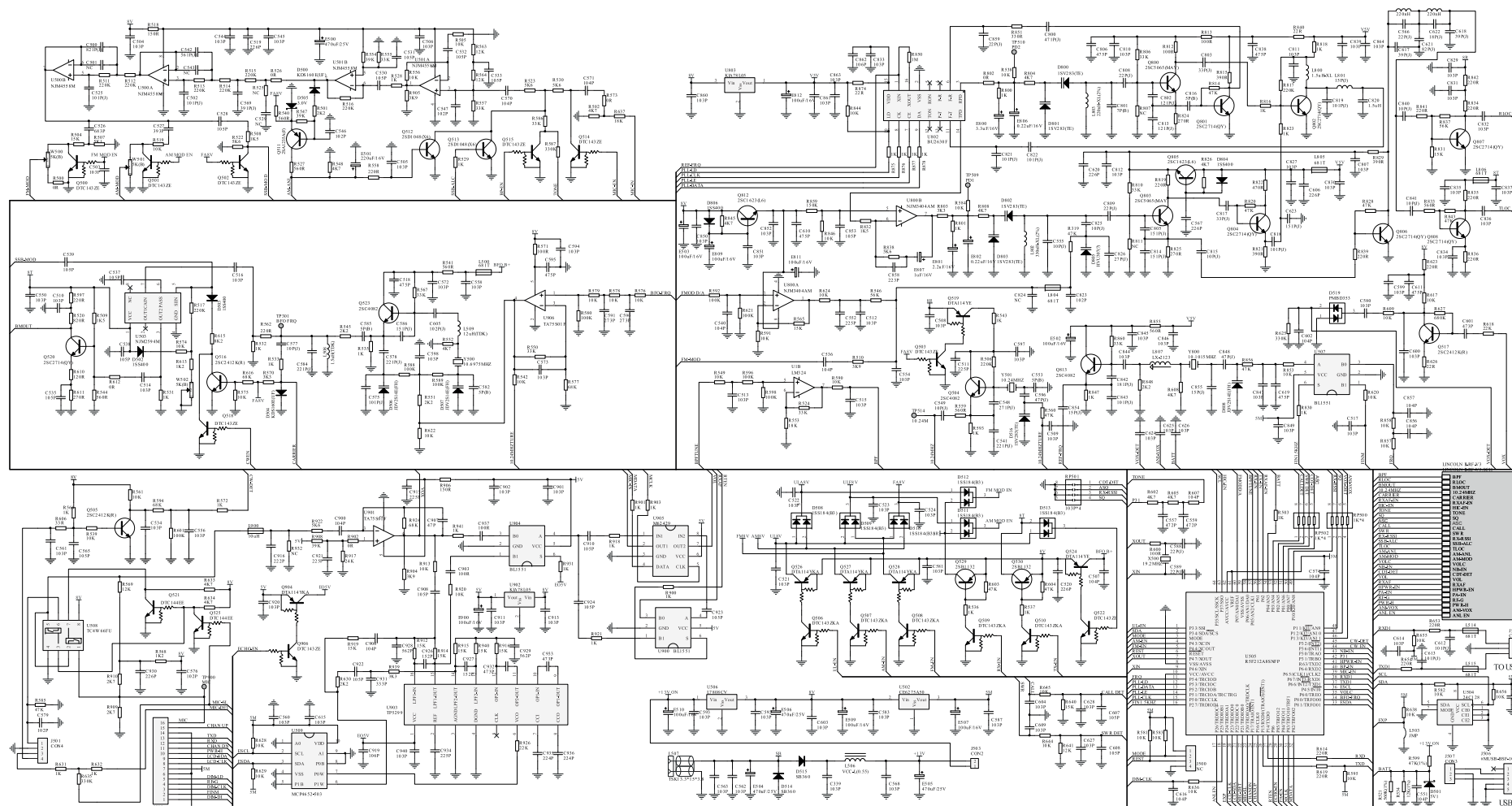




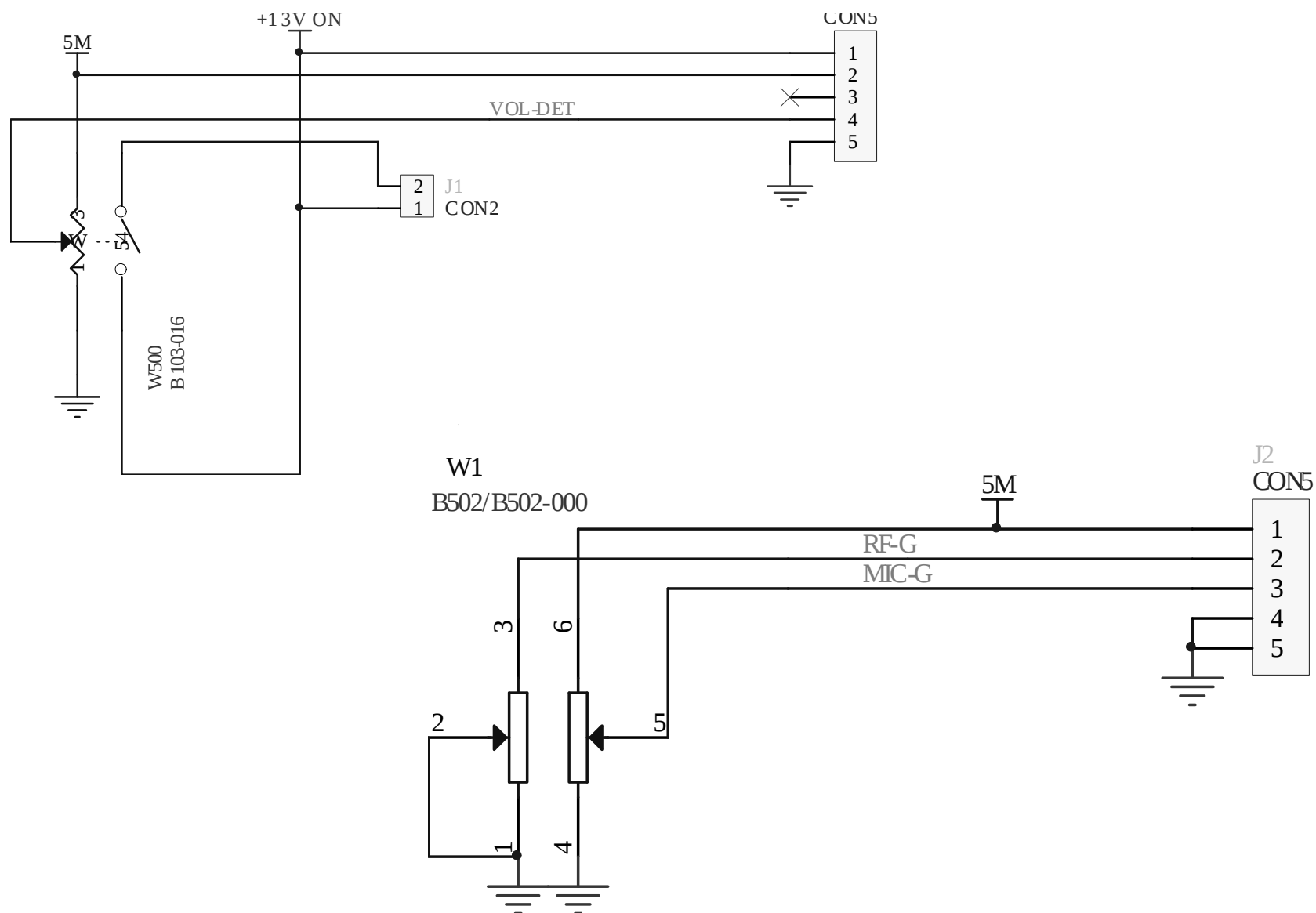
SCHEMATIC DIAGRAM



SCHEMATIC DIAGRAM



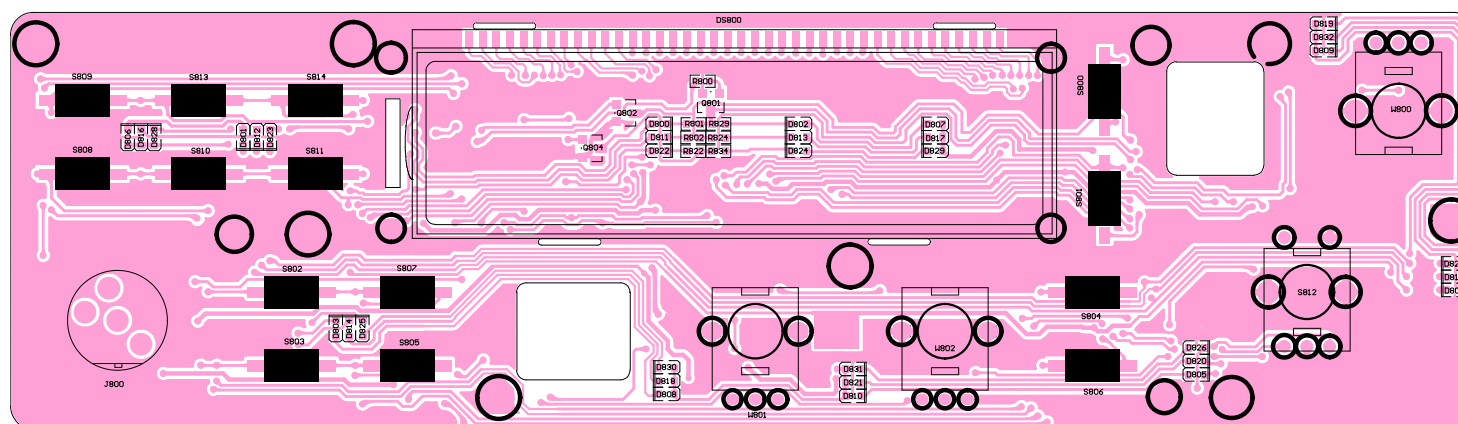
SCHEMATIC DIAGRAM



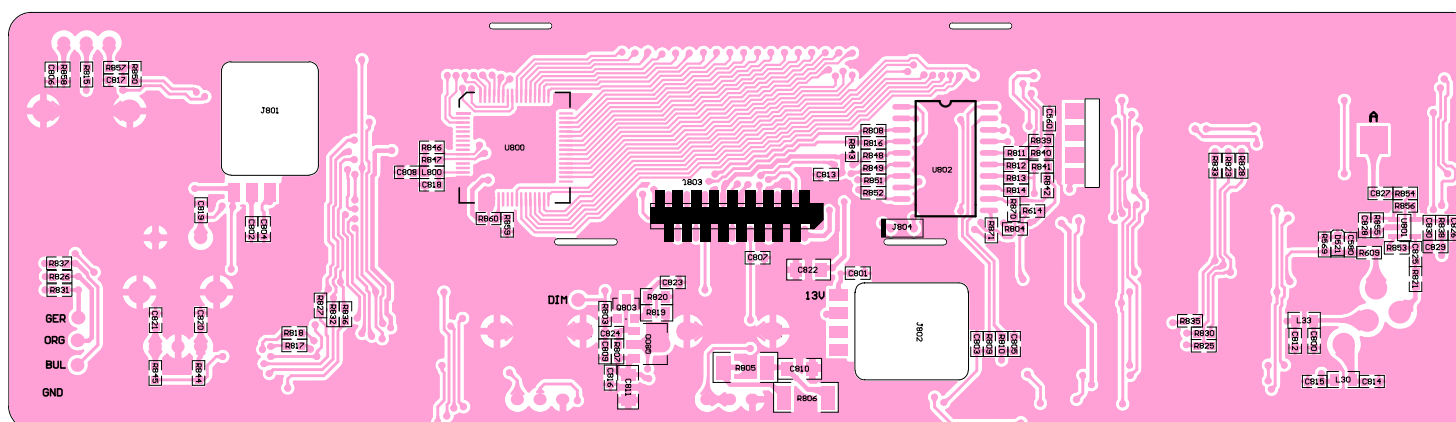
LINCOLN II

- COMPONENT LAYOUT

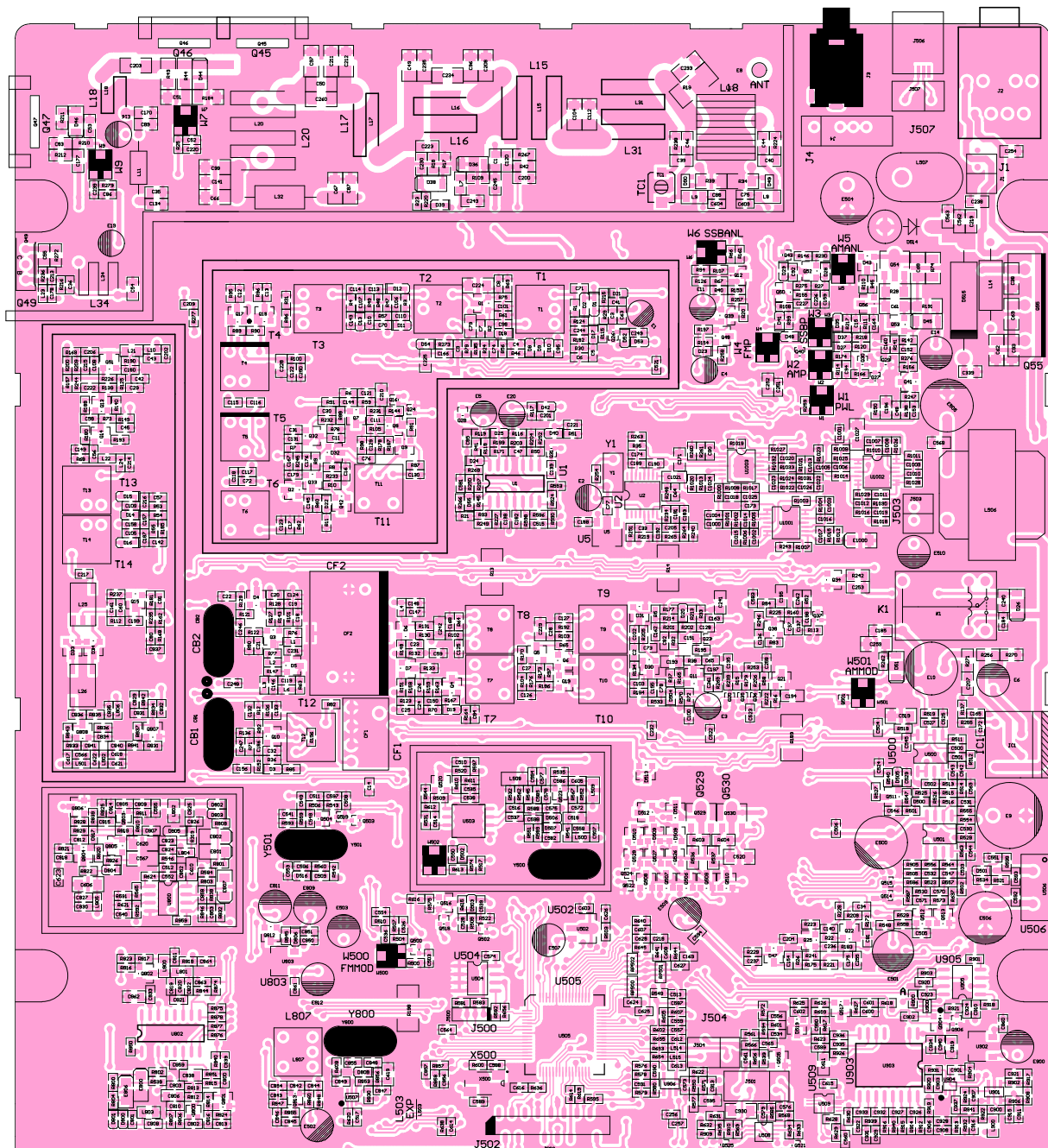
PC BOARD VIEWS



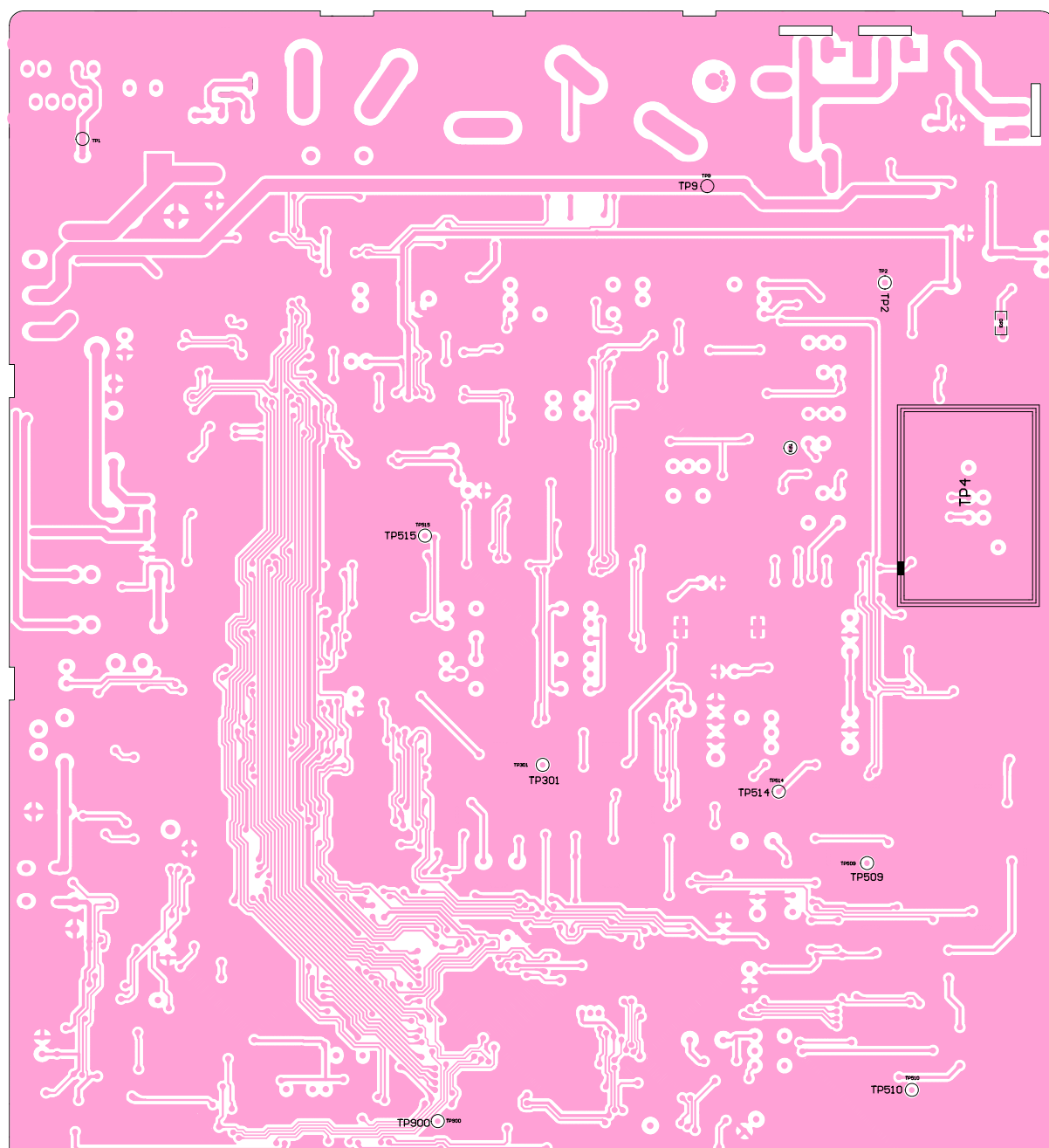
PC BOARD VIEWS



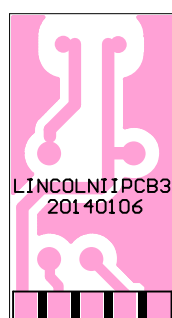
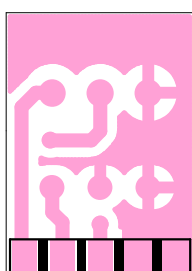
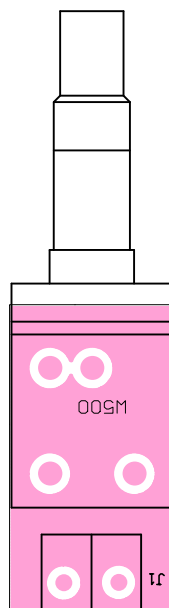
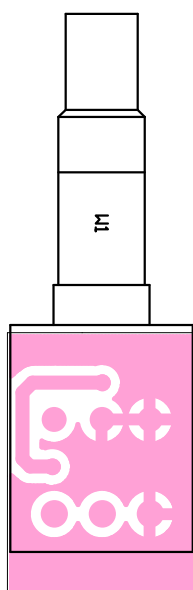
PC BOARD VIEWS



PC BOARD VIEWS



PC BOARD VIEWS



LINCOLN II

- COMPONENT LIST

LCD UNIT		
Designators	Comment	Footprint
C560	103P	,0603
C580	103P	,0603
C800	103P	,0603
C801	103P	,0603
C802	103P	,0603
C803	103P	,0603
C804	103P	,0603
C805	103P	,0603
C806	103P	,0603
C807	103P	,0603
C808	103P	,0603
C809	104P	,0603
C810	226P	1206
C811	226P	1206
C812	103P	,0603
C813	103P	,0603
C814	102P	,0603
C815	102P	,0603
C816	103P	,0603
C817	224P	,0603
C818	224P	,0603
C819	102P	,0603
C820	102P	,0603
C821	102P	,0603
C822	226P	1206
C823	103P	,0603
C824	103P	,0603
C825	105P	,0603
C826	105P	,0603
C827	105P	,0603
C828	105P	,0603
C829	103P	,0603
C830	103P	,0603
D521	5V1	M0603AK(1)
D800	GER	M0603AK(1)
D801	GER	M0603AK(1)
D802	GER	M0603AK(1)
D803	GER	M0603AK(1)
D804	GER	M0603AK(1)
D805	GER	M0603AK(1)
D806	GER	M0603AK(1)
D807	GER	M0603AK(1)
D808	GER	M0603AK(1)
D809	GER	M0603AK(1)
D810	GER	M0603AK(1)
D811	ORG	M0603AK(1)
D812	ORG	M0603AK(1)
D813	ORG	M0603AK(1)
D814	ORG	M0603AK(1)
D815	ORG	M0603AK(1)
D816	ORG	M0603AK(1)
D817	ORG	M0603AK(1)
D818	ORG	M0603AK(1)
D819	ORG	M0603AK(1)
D820	ORG	M0603AK(1)
D821	ORG	M0603AK(1)
D822	BUL	M0603AK(1)
D823	BUL	M0603AK(1)
D824	BUL	M0603AK(1)

Designators	Comment	Footprint
D825	BUL	M0603AK(1)
D826	BUL	M0603AK(1)
D827	BUL	M0603AK(1)
D828	BUL	M0603AK(1)
D829	BUL	M0603AK(1)
D830	BUL	M0603AK(1)
D831	BUL	M0603AK(1)
D832	BUL	M0603AK(1)
DS800	LDF91601A12PT-2	LINCOLNII-LCD
J800	CN6	SKY-6
J801	CON5	R094-4PIN
J802	CON5	R094-4PIN
J803	1.0-15-16PBS	1.0-15-16PB(S)
J804	NC	CON3-1.27
L30	10uH	,0805
L33	30T	,0805
L800	271T	,0603
Q800	2SB1132	SOT89
Q801	DTC143ZKA	SOT23
Q802	DTC143ZKA	SOT23
Q803	2SC1623	SOT23
Q804	DTC143ZKA	SOT23
R569	10K	,0603
R609	100R	,0603
R614	10K	,0603
R800	0R	,0603
R801	180R	,0603
R802	150R	,0603
R803	10K	,0603
R804	1K	,0603
R805	22R	2010
R806	22R	2010
R807	3K3	,0603
R808	1K	,0603
R809	1K	,0603
R810	1K	,0603
R811	1K	,0603
R812	1K	,0603
R813	1K	,0603
R814	1K	,0603
R815	1K	,0603
R816	1K	,0603
R817	1K	,0603
R818	1K	,0603
R819	180R	,0805
R820	220R	,0805
R821	1K	,0603
R822	200R	,0603
R823	2K	,0603
R824	150R	,0603
R825	2K	,0603
R826	2K	,0603
R827	2K	,0603
R828	2K	,0603
R829	180R	,0603
R830	2K	,0603
R831	2K	,0603
R832	2K	,0603
R833	2K	,0603
R834	200R	,0603
R835	2K	,0603

Designators	Comment	Footprint
R836	2K	,0603
R837	2K	,0603
R838	100R	,0603
R839	10K	,0603
R840	10K	,0603
R841	10K	,0603
R842	10K	,0603
R843	10K	,0603
R844	10K	,0603
R845	10K	,0603
R846	10K	,0603
R847	10K	,0603
R848	100R	,0603
R849	100R	,0603
R850	100R	,0603
R851	100R	,0603
R852	100R	,0603
R853	47K	,0603
R854	22K	,0603
R855	22K	,0603
R856	27K	,0603
R857	2K2(1%)	,0603
R858	2K2(1%)	,0603
R859	75K	,0603
R860	680K	,0603
R870	220R	,0603
R871	220R	,0603
S800	UP	SKW(6*3.5*5)
S801	DN	SKW(6*3.5*5)
S802	DW	SKW(6*3.5*5)
S803	BAND	SKW(6*3.5*5)
S804	MENU	SKW(6*3.5*5)
S805	VOX	SKW(6*3.5*5)
S806	MEM	SKW(6*3.5*5)
S807	CALL	SKW(6*3.5*5)
S808	ROGER	SKW(6*3.5*5)
S809	SCAN	SKW(6*3.5*5)
S810	CH19/9	SKW(6*3.5*5)
S811	INDIC	SKW(6*3.5*5)
S812	ED09D12M-FB14C8.0-C10-200	SW-R11NP
S813	NB/ANL	SKW(6*3.5*5)
S814	ECHO	SKW(6*3.5*5)
U800	BL55076	SQFP10X10-64
U801	TA75S01F	SOT25
U802	STC15F204EA	SOL-20
W800	R09512NO-KB14.6A9.0-B502-006	R095X2NO(1)
W801	R09512NO-KB14.6A9.0-B103-006	R095X2NO(1)
W802	R09512NO-KB14.6A9.0-B103-006	R095X2NO(1)
RF UNIT		
Designators	Comment	Footprint
C1	33P(J)	,0805
C10	103P	,0603
C100	103P	,0603
C1000	272P(J)	,0603
C1001	103P	,0603
C1002	393P(J)	,0603
C1003	104P(J)	,0603
C1004	273P(J)	,0603
C1005	103P(J)	,0603
C1006	103P(J)	,0603

Designators	Comment	Footprint
C1007	103P(J)	,0603
C1008	103P(J)	,0603
C1009	103P(J)	,0603
C101	47P(J)	,0603
C1010	103P(J)	,0603
C1011	103P(J)	,0603
C1012	103P(J)	,0603
C1013	103P(J)	,0603
C1014	473P(J)	,0603
C1015	152P(J)	,0603
C1016	391P(J)	,0603
C1017	102P	,0603
C1018	102P	,0603
C1019	103P	,0603
C102	47P(J)	,0603
C1020	105P	,0603
C1021	106P	,0805
C1022	104P	,0603
C1023	68P(J)	,0603
C1024	102P	,0603
C1025	224P	,0603
C1026	222P(J)	,0603
C1027	226P	1206
C103	68P(J)	,0603
C104	101P(HJ)	1206
C105	68P(J)	,0603
C106	56P(J)	,0603
C107	151P(J)	,0603
C108	36P(J)	,0603
C109	56P(J)	,0603
C11	103P	,0603
C110	11P(J)	,0603
C111	22P(J)	,0603
C112	121P(HJ)	1206
C113	5P(B)	,0603
C114	5P(B)	,0603
C115	5P(B)	,0603
C116	5P(B)	,0603
C117	5P(B)	,0603
C118	5P(B)	,0603
C119	5P(B)	,0603
C12	103P	,0603
C120	5P(B)	,0805
C121	104P	,0603
C122	103P	,0603
C123	104P	,0603
C124	104P	,0603
C125	104P	,0603
C126	104P	,0603
C127	104P	,0603
C128	104P	,0603
C129	104P	,0603
C13	103P	,0603
C130	104P	,0603
C131	104P	,0603
C132	104P	,0603
C133	104P	,0603
C134	473P	,0805
C135	562P	,0603
C136	103P	,0603
C137	104P	,0603

Designators	Comment	Footprint
C138	104P	,0603
C139	104P	,0603
C14	473P	,0603
C140	NC	,0603
C141	103P(J)	1206
C142	103P	,0603
C143	NC	,0603
C144	2P(B)	,0603
C145	331P	,0603
C146	NC	,0603
C147	7P(B)	,0603
C148	7P(B)	,0603
C149	6P(B)	,0603
C15	103P	,0603
C150	105P	,0603
C151	105P	,0805
C152	104P	,0603
C153	104P	,0603
C154	103P	,0603
C155	3P(B)	,0603
C156	3P(B)	,0603
C157	1P5(B)	,0603
C158	1P5(B)	,0603
C159	103P	,0603
C16	103P	,0603
C160	104P	,0603
C161	NC	,0603
C162	221P(J)	,0603
C163	222P	,0603
C164	225P	,0603
C165	104P	,0603
C166	103P	,0603
C167	101P(J)	,0603
C168	103P	,0603
C169	103P	,0603
C17	103P	,0603
C170	103P(J)	,0805
C171	103P	,0805
C172	472P	,0603
C173	103P	,0603
C174	224P	,0603
C175	103P	,0603
C176	391P(J)	,0603
C177	391P(J)	,0805
C178	391P(J)	,0603
C179	472P	,0603
C18	103P	,0603
C180	472P	,0603
C181	391P(J)	,0603
C182	103P	,0603
C183	101P(J)	,0603
C184	103P	,0603
C185	102P	,0805
C186	27P(J)	,0603
C187	NC	,0603
C188	103P	,0603
C189	224P	,0603
C19	103P	,0603
C190	101P(J)	,0603
C192	104P	,0603
C193	106P	,0805

Designators	Comment	Footprint
C194	475P	,0805
C195	106P	,0805
C196	106P	,0805
C197	153P	,0603
C198	223P	,0603
C199	223P	,0603
C2	27P(J)	,0603
C20	103P	,0603
C200	82P(J)	,0805
C201	103P	,0603
C202	103P(J)	,0603
C203	152P(HJ)	1206
C204	103P	,0603
C205	392P(J)	,0603
C206	82P(J)	,0603
C207	224P	,0805
C208	101P(HJ)	1206
C209	102P	,0603
C21	103P	,0603
C210	106P	,0805
C211	NC	1206
C212	NC	1206
C213	181P(J)	,0603
C214	12P(J)	,0603
C215	101P(J)	,0603
C216	NC	,0603
C217	39P(J)	,0603
C218	103P	,0603
C219	103P	,0805
C22	103P	,0603
C220	103P(J)	,0603
C221	103P	,0603
C222	101P(J)	,0603
C223	1P5(B)	,0805
C224	226P	1206
C225	106P	,0805
C226	103P	,0603
C227	103P	,0603
C228	106P	,0805
C229	475P	,0805
C23	103P	,0603
C230	105P	,0805
C231	NC	,0603
C232	103P	,0603
C233	101P(HJ)	1206
C234	47P(HJ)	1206
C235	221P(HJ)	1206
C236	473P	,0603
C237	104P	,0603
C238	102P	,0805
C239	103P(J)	,0603
C24	103P	,0603
C240	103P	,0805
C241	106P	,0805
C242	475P	,0805
C243	103P	,0805
C244	103P	,0603
C245	102P	,0805
C246	NC	,0603
C247	NC	,0603
C248	10P(J)	,0603

Designators	Comment	Footprint
C249	103P	,0603
C25	103P	,0603
C250	103P	,0603
C251	103P	,0603
C252	106P	,0805
C253	103P	,0805
C254	102P	,0805
C255	225P	,0603
C256	103P	,0603
C257	103P	,0603
C258	103P	,0603
C259	106P	1206
C26	103P	,0603
C260	152P(HJ)	1206
C261	103P	,0603
C262	153P	,0603
C27	103P	,0603
C28	103P	,0603
C29	103P	,0603
C3	103P	,0603
C30	103P	,0603
C31	103P	,0603
C32	103P	,0603
C33	103P	,0603
C339	103P	,0805
C34	15P(J)	,0603
C35	103P(J)	,0805
C36	103P(J)	,0603
C37	103P	,0603
C38	473P	1206
C39	47P(J)	,0805
C4	103P	,0603
C40	56P(J)	,0805
C41	103P	,0603
C42	103P	,0603
C43	103P	,0603
C44	3P(B)	,0805
C45	103P	,0603
C46	3P(B)	,0805
C47	103P	,0603
C48	103P	,0603
C49	151P(HJ)	1206
C5	103P	,0603
C50	152P(HJ)	1206
C500	821P(J)	,0603
C501	NC	,0603
C502	101P(J)	,0603
C503	103P	,0603
C504	103P	,0603
C505	103P	,0603
C506	103P	,0603
C507	104P	,0603
C508	103P	,0603
C509	103P	,0603
C51	103P(J)	1206
C510	103P	,0603
C511	225P	,0603
C512	103P	,0603
C513	103P	,0603
C514	103P	,0603
C515	103P	,0603

Designators	Comment	Footprint
C516	103P	,0603
C517	103P	,0603
C518	475P	,0805
C519	226P	1206
C52	103P(J)	,0603
C520	226P	1206
C521	103P	,0603
C522	103P	,0603
C523	103P	,0603
C524	103P	,0603
C525	101P(J)	,0603
C526	683P	,0603
C527	393P	,0603
C528	105P	,0603
C529	NC	,0603
C53	103P(J)	,0805
C530	105P	,0603
C531	105P	,0603
C532	105P	,0603
C533	105P	,0603
C534	103P	,0603
C535	105P	,0603
C536	104P	,0603
C537	105P	,0603
C538	105P	,0603
C539	105P	,0603
C54	103P	,0805
C540	104P	,0603
C541	221P(J)	,0603
C542	561P(J)	,0603
C543	NC	,0603
C544	103P	,0603
C545	103P	,0603
C546	102P	,0603
C547	102P	,0603
C548	271P(J)	,0603
C549	10P(J)	,0603
C55	103P	,0805
C550	103P	,0603
C551	104P	,0603
C552	225P	,0603
C553	5P(B)	,0603
C554	103P	,0603
C555	10P(J)	,0603
C556	103P	,0603
C557	472P	,0603
C558	103P	,0603
C559	472P	,0603
C56	103P	,0603
C560	103P	,0603
C561	103P	,0603
C562	103P	,0805
C563	103P	,0805
C564	103P	,0603
C565	105P	,0603
C566	22P(J)	,0603
C567	226P	1206
C568	103P	,0805
C569	391P(J)	,0603
C57	103P	,0603
C570	104P	,0603

Designators	Comment	Footprint
C571	104P	,0603
C572	103P	,0603
C573	103P	,0603
C574	104P	,0603
C575	101P(J)	,0603
C576	102P	,0603
C577	10P(J)	,0603
C578	221P(J)	,0603
C579	102P	,0603
C58	103P	,0603
C580	103P	,0603
C581	103P	,0603
C582	5P(B)	,0603
C583	103P	,0603
C584	221P(J)	,0603
C585	5P(B)	,0603
C586	151P(J)	,0603
C587	103P	,0603
C588	22P(J)	,0603
C589	22P(J)	,0603
C59	103P	,0603
C590	273P	,0603
C591	273P	,0603
C592	103P	,0603
C593	103P	,0603
C594	103P	,0603
C595	475P	,0805
C596	47P(J)	,0603
C597	103P	,0603
C598	103P	,0603
C599	103P	,0603
C6	103P	,0603
C60	103P	,0603
C600	103P	,0603
C601	473P	,0603
C602	104P	,0603
C603	103P	,0603
C604	103P	,0603
C605	102P(J)	,0603
C606	226P	1206
C607	105P	,0603
C608	105P	,0603
C609	103P	,0603
C61	102P	1206
C610	475P	,0805
C611	475P	,0805
C612	101P(J)	,0603
C613	101P(J)	,0603
C614	103P	,0603
C615	103P	,0603
C616	104P	,0603
C617	39P(J)	,0603
C618	39P(J)	,0603
C619	475P	,0805
C62	103P(J)	1206
C620	226P	1206
C621	82P(J)	,0603
C622	18P(J)	,0603
C623	151P(J)	,0603
C624	103P	,0603
C625	103P	,0603

Designators	Comment	Footprint
C626	103P	,0603
C627	103P	,0603
C628	103P	,0603
C63	473P	,0603
C64	221P	,0603
C65	563P	,0603
C66	103P(J)	1206
C67	103P(J)	1206
C68	473P	1206
C69	104P	1206
C7	103P	,0603
C70	103P	,0603
C71	102P	,0603
C72	102P	,0603
C73	102P	,0603
C74	103P	,0603
C75	221P(J)	,0603
C76	102P	,0603
C77	103P	,0603
C78	102P	,0603
C79	106P	,0805
C8	103P	,0603
C80	473P	,0603
C800	471P(J)	,0603
C801	7P(B)	,0603
C802	121P(J)	,0603
C803	33P(J)	,0603
C805	151P(J)	,0603
C806	475P	,0805
C807	103P	,0603
C808	22P(J)	,0603
C809	22P(J)	,0603
C81	0R	,0603
C810	103P	,0603
C811	103P	,0603
C812	103P	,0603
C813	121P(J)	,0603
C814	151P(J)	,0603
C815	10P(J)	,0603
C816	5P(B)	,0603
C817	33P(J)	,0603
C818	101P(J)	,0603
C819	101P(J)	,0603
C82	103P	,0603
C820	1.5uH	,0603
C821	101P(J)	,0603
C822	101P(J)	,0603
C823	102P	,0603
C824	NC	,0603
C825	10P(J)	,0603
C826	27P(J)	,0603
C827	103P	,0603
C829	103P	,0603
C83	271P(J)	,0805
C830	103P	,0603
C831	103P	,0603
C832	103P	,0603
C833	103P	,0603
C834	103P	,0603
C835	103P	,0603
C836	103P	,0603

Designators	Comment	Footprint
C837	103P	,0603
C838	475P	,0805
C839	103P	,0603
C84	103P	,0603
C840	10P(J)	,0603
C841	10P(J)	,0603
C842	181P(J)	,0603
C843	101P(J)	,0603
C844	103P	,0603
C845	103P	,0603
C846	103P	,0603
C847	103P	,0603
C848	47P(J)	,0603
C849	103P	,0603
C85	103P	,0603
C850	103P	,0603
C851	103P	,0603
C852	103P	,0603
C853	105P	,0603
C854	15P(J)	,0603
C855	15P(J)	,0603
C856	104P	,0603
C857	104P	,0603
C858	223P	,0603
C859	22P(J)	,0603
C86	103P(J)	,0603
C860	103P	,0603
C861	103P	,0603
C862	106P	,0805
C863	103P	,0603
C864	103P	,0603
C87	473P	1206
C88	221P(J)	,0603
C89	104P	,0805
C9	103P	,0603
C90	104P	,0603
C900	104P	,0603
C901	103P	,0603
C902	103P	,0603
C903	100R	,0603
C906	104P	,0603
C907	47P	,0603
C908	105P	,0603
C91	102P	,0603
C910	105P	,0603
C911	103P	,0603
C913	103P	,0603
C915	225P	,0603
C916	222P	,0603
C919	106P	,0805
C92	102P	,0603
C920	103P	,0603
C921	225P	,0603
C922	105P	,0603
C923	105P	,0603
C924	105P	,0603
C926	152P	,0603
C927	152P	,0603
C928	562P	,0603
C929	562P	,0603
C93	103P(J)	1206

Designators	Comment	Footprint
C930	226P	1206
C931	333P	,0603
C932	473P	,0603
C933	473P	,0603
C934	225P	,0603
C935	224P	,0603
C936	224P	,0603
C937	100R	,0603
C94	103P	,0603
C940	103P	,0603
C95	221P(J)	,0603
C96	101P(HJ)	1206
C97	NC	1206
C98	471P	,0603
C99	102P(J)	1206
CB1	10.695MHZ	M10.7
CB2	10.695MHZ	M10.7
CF1	CF455H	K455E5
CF2	10M04DS	10M04DS
D1	HVC131	M0805AK(1)
D10	NC	M0603AK(1)
D11	JDV2S14E(FH)	M0603AK(1)
D12	HVU307(7)	M0805AK(1)
D13	JDV2S14E(FH)	M0603AK(1)
D14	HVC350	M0603AK(1)
D15	HVU307(7)	M0805AK(1)
D16	HVU307(7)	M0805AK(1)
D17	1K2	M0603AK(1)
D18	1SS400	M0603AK(1)
D19	KDS160E(UF)	M0603AK(1)
D2	HVC131	M0805AK(1)
D20	KDS160E(UF)	M0603AK(1)
D21	1SS400	M0603AK(1)
D22	KDS160E(UF)	M0603AK(1)
D23	KDS160E(UF)	M0603AK(1)
D24	KDS160E(UF)	M0603AK(1)
D25	KDS160E(UF)	M0603AK(1)
D26	LL4148	SOD80
D27	1SS400	M0603AK(1)
D28	1SS400	M0603AK(1)
D29	1SS400	M0603AK(1)
D3	KDS160E(UF)	M0603AK(1)
D30	PMBD353	SOT23-123(1)
D31	PMBD353	SOT23-123(1)
D32	PMBD353	SOT23-123(1)
D33	PMBD353	SOT23-123(1)
D34	PMBD353	SOT23-123(1)
D35	1SS400	M0603AK(1)
D36	LL4148	SOD80
D37	1SS400	M0603AK(1)
D38	LL4148	SOD80
D39	1SS400	M0603AK(1)
D4	1SS184(B3)	SOT23-123(1)
D40	KDS160E(UF)	M0603AK(1)
D41	1SS400	M0603AK(1)
D42	1SS400	M0603AK(1)
D43	DAN217	SOT23-A
D44	LL4148	SOD80
D45	LL4148	SOD80
D46	LL4148	SOD80
D47	PMBD353	SOT23-123(1)

Designators	Comment	Footprint
D48	1SS400	M0603AK(1)
D49	DB3J314FOL	SOT323-123
D5	1SS184(B3)	SOT23-123(1)
D50	DB3J314FOL	SOT323-123
D500	KDS160E(UF)	M0603AK(1)
D501	5V1	M0603AK(1)
D502	1SS400	M0603AK(1)
D503	1SS400	M0603AK(1)
D504	KDS160E(UF)	M0603AK(1)
D505	3.0V	M0603AK(1)
D506	JDV2S14E(FH)	M0603AK(1)
D507	JDV2S14E(FH)	M0603AK(1)
D508	1SS184(B3)	SOT23-123(1)
D509	1SS184(B3)	SOT23-123(1)
D51	LL4148	SOD80
D510	1SS184(B3)	SOT23-123(1)
D511	1SS184(B3)	SOT23-123(1)
D512	1SS184(B3)	SOT23-123(1)
D513	1SS184(B3)	SOT23-123(1)
D514	SB360	DO-201AD
D515	SB360	DIODE0.7
D516	1SV283(TE)	M0603AK(1)
D519	PMBD353	SOT23-123(1)
D52	1SS400	M0603AK(1)
D53	1SS400	M0603AK(1)
D54	1SS400	M0603AK(1)
D55	NC	M0603AK(1)
D6	1SS184(B3)	SOT23-123(1)
D7	1SS184(B3)	SOT23-123(1)
D8	JDV2S14E(FH)	M0603AK(1)
D800	1SV283(TE)	M0603AK(1)
D801	1SV283(TE)	M0603AK(1)
D802	1SV283(TE)	M0603AK(1)
D803	1SV283(TE)	M0603AK(1)
D804	1SS400	M0603AK(1)
D805	HVU307(7)	M0805AK(1)
D806	1SS400	M0603AK(1)
D808	JDV2S14E(FH)	M0603AK(1)
D9	JDV2S14E(FH)	M0603AK(1)
E1	33uF/16V	SRB0.08
E10	470uF/25V	SRB.16/.32
E1000	10uF/16V	RBM1
E11	10uF/16V	SRB0.08
E14	100uF/16V	SRB0.10
E16	2.2uF/50V	SRB0.08
E19	10uF/16V	SRB0.08
E2	47uF/16V	SRB0.08
E20	47uF/16V	SRB0.08
E3	47uF/16V	SRB0.08
E4	47uF/16V	SRB0.08
E5	47uF/16V	SRB0.08
E500	470uF/25V	SRB.16/.32
E501	220uF/16V	SRB0.125
E502	100uF/16V	SRB0.10
E503	100uF/16V	SRB0.10
E504	470uF/25V	SRB.16/.32
E505	470uF/25V	SRB.16/.32
E506	470uF/25V	SRB.16/.32
E507	100uF/16V	SRB0.10
E509	100uF/16V	SRB0.10
E510	100uF/16V	SRB0.10

Designators	Comment	Footprint
E6	47uF/25V	SRB0.10
E8	ANT	ANT
E800	3.3uF/16V	RBM1
E801	2.2uF/16V	RBM1
E802	0.22uF/16V	RBM1
E806	0.22uF/16V	RBM1
E807	1uF/16V	RBM1
E809	100uF/16V	SRB0.10
E811	100uF/16V	SRB0.10
E812	100uF/16V	SRB0.10
E9	1000uF/25V	SRB.2/.4
E900	100uF/16V	SRB0.10
IC1	TDA2003V	TO-220B
J1	SP	SIP2T2
J2	PJ-31030	PJ-31030
J3	PJ-2020	PJ-2020
J4	CON6	SIP2T6
J500	NC	CON4-1.27
J501	CON4	SIP2T4
J502	1.0-15-16PBS	1.0-15-16PB(S)
J503	CON2	SIP2T2
J504	CON3	SIP2T3
J506	#MUSB-BSF-105	MUSB
J507	CON3	SIP2T3
K1	HLS6-4100H-DC12V	HLS6-4100H
L1	10uH	,0603
L10	681T	,0603
L11	DK3*5*1	AXIAL10
L13	SWRIND	SWR(SR655)
L14	WBRH-35908	AXIAL13
L15	7.5TR	
L16	5.5TR	
L17	3.5TR	
L18	4.5TR	
L2	0R	,0603
L20	3.5TR(2DU)	
L21	330nH-XL(2%)	,0805
L22	4.7uH	,0603
L23	100nH	,0603
L24	1.8uH	,0603
L25	SB0403TL-3330	BF4-1010
L26	SB0403TL-3330	BF4-1010
L3	10uH	,0603
L31	7.5TR	7.5TR
L32	WBRH-35908	AXIAL13
L34	H0.8*4*5.5TR	H0.8*4*6.5TR
L4	10uH	,0603
L500	681T	,0603
L501	220nH	,0603
L502	220nH	,0603
L503	JMP	JMP
L506	VCC-L(0.55)	T20X16-2
L507	TSK13.3*15*3.8	TSK13.3*15*3.8
L508	1.5uH(TDK)	M2520(1)
L509	12uH(TDK)	M2520(1)
L514	681T	,0603
L515	681T	,0603
L6	33uH	,0603
L7	10uH	,0805
L8	100uH(TDK)	M2520(1)
L800	1.5uH-XL	,0805

Designators	Comment	Footprint
L801	15P(J)	,0805
L802	330nH-XL(2%)	,0805
L803	220nH-XL(2%)	,0805
L804	681T	,0603
L805	681T	,0603
L806	681T	,0603
L807	LX-2123	T7.4*7.4*12(1)
L9	100uH(TDK)	M2520(1)
L900	10uH	,0805
OP3	OTP	,0805
Q1	2SC2714(QY)	SOT23
Q10	2SC2714(QY)	SOT23
Q11	2SC2714(QY)	SOT23
Q12	2SC2714(QY)	SOT23
Q13	2SC2714(QY)	SOT23
Q14	2SC2714(QY)	SOT23
Q15	2SC2714(QY)	sot23
Q16	DTA114YE	EMT3
Q17	2SK210(YG)	SOT23-D
Q18	2SK210(YG)	SOT23-D
Q19	2SD1048(X6)	SOT23
Q2	2SC2714(QY)	SOT23
Q20	DTC143ZE	EMT3
Q21	2SD1048(X7)	SOT23
Q22	NC	SOT23
Q23	DTC143ZE	EMT3
Q24	DTC143ZE	EMT3
Q25	2SC2412K(R)	SOT23
Q26	DTC143ZE	EMT3
Q27	DTC143ZE	EMT3
Q28	DTC143ZE	EMT3
Q29	DTC143ZE	EMT3
Q3	2SC2714(QY)	SOT23
Q30	DTC143ZE	EMT3
Q31	DTC143ZE	EMT3
Q32	2SC2412K(R)	SOT23
Q33	2SC2412K(R)	SOT23
Q34	DTC143ZKA	SOT23
Q35	DTC143ZE	EMT3
Q36	DTC143ZE	EMT3
Q37	DTC143ZE	EMT3
Q38	2SC2412K(R)	SOT23
Q39	2SC2412K(R)	SOT23
Q4	2SC2714(QY)	SOT23
Q40	DTC143ZE	EMT3
Q41	2SC2412K(R)	SOT23
Q42	2SA1235A(F)	SOT23
Q43	DTC143ZE	EMT3
Q45	FQP13N10	TO-220(CJZ)
Q46	FQP13N10	TO-220(CJZ)
Q47	FQP13N10	TO-220(CJZ)
Q48	2SA1235A(F)	SOT23
Q49	2SC2314(F)	TO126
Q5	2SC2714(QY)	SOT23
Q50	2SA1298(Y)	SOT23
Q500	DTC143ZE	EMT3
Q501	DTC143ZE	EMT3
Q502	DTC143ZE	EMT3
Q503	DTC143ZE	EMT3
Q504	2SC4082	SC70
Q505	2SC2412K(R)	SOT23

Designators	Comment	Footprint
Q506	DTC143ZKA	SOT23
Q507	DTC143ZKA	SOT23
Q508	DTC143ZKA	SOT23
Q509	DTC143ZKA	SOT23
Q51	2SC1623(L6)	SOT23
Q510	DTC143ZKA	SOT23
Q511	2SA1235A(F)	SOT23
Q512	2SD1048(X6)	SOT23
Q513	2SD1048(X6)	SOT23
Q514	DTC143ZE	EMT3
Q515	DTC143ZE	EMT3
Q516	2SC2412K(R)	SOT23
Q517	2SC2412K(R)	SOT23
Q518	DTC143ZE	EMT3
Q519	DTA114YE	EMT3
Q52	2SC2712(GR)	SOT23
Q520	2SC2714(QY)	SOT23
Q521	DTC144EE	EMT3
Q522	DTC143ZE	EMT3
Q523	2SC4082	SC70
Q524	DTA114YE	EMT3
Q525	DTC144EE	EMT3
Q526	DTA114YKA	SOT23
Q527	DTA114YKA	SOT23
Q528	DTA114YKA	SOT23
Q529	2SB1132	SOT89
Q53	2SC2712(GR)	SOT23
Q530	2SB1132	SOT89
Q54	2SB1132	SOT89
Q55	TIP36C	TO-247(3P)
Q56	2SC2712(GR)	SOT23
Q6	2SC2714(QY)	SOT23
Q7	2SC2714(QY)	SOT23
Q8	2SC2714(QY)	SOT23
Q800	2SC5065(MAY)	SC70
Q801	2SC2714(QY)	SOT23
Q802	2SC2714(QY)	SOT23
Q803	2SC5065(MAY)	SC70
Q804	2SC2714(QY)	SOT23
Q805	2SC1623(L6)	SOT23
Q806	2SC2714(QY)	SOT23
Q807	2SC2714(QY)	SOT23
Q808	2SC2714(QY)	SOT23
Q812	2SC1623(L6)	SOT23
Q813	2SC4082	SC70
Q9	2SC2714(QY)	SOT23
Q904	DTA114YKA	sot23
Q906	DTC143ZE	EMT3
R1	10K	,0603
R10	10K	,0603
R100	100R	,0603
R1000	100K-1%	,0603
R1001	100K-1%	,0603
R1002	100K-1%	,0603
R1003	100K-1%	,0603
R1004	100K-1%	,0603
R1005	100K-1%	,0603
R1006	100K-1%	,0603
R1007	1K	,0603
R1008	1K	,0603
R1009	634K-1%	,0603

Designators	Comment	Footprint
R101	100R	,0603
R1010	29K4-1%	,0603
R1011	150K-1%	,0603
R1012	15K	,0603
R1013	15K	,0603
R1014	715K-1%	,0603
R1015	150K	,0603
R1016	153P	,0603
R1017	10K	,0603
R1018	10K	,0603
R1019	1M	,0603
R102	100R	,0603
R1020	6K8	,0603
R1021	3K3	,0603
R1022	470K	,0603
R1023	25K5-1%	,0603
R1024	56K	,0603
R1025	5K11-1%	,0603
R1026	15K8-1%	,0603
R1027	33K-1%	,0603
R1028	11K5-1%	,0603
R1029	4K22-1%	,0603
R103	100R	,0603
R1030	10K	,0603
R1031	68K	,0603
R1032	47K	,0603
R1033	22K-1%	,0603
R104	100R	,0603
R105	100R	,0603
R106	100R	,0603
R107	100R	,0603
R108	1K2	,0603
R109	270R	,0805
R11	10K	,0603
R110	1K	,0603
R111	2K2	,0603
R112	330R	,0603
R113	1K	,0603
R114	0R	,0603
R115	0R	,0603
R116	680R	,0603
R117	3K9	,0603
R118	100K	,0603
R119	82K	,0603
R12	10K	,0603
R120	150R	,0603
R121	470R	,0603
R122	120R	,0603
R123	150R	,0603
R124	680R	,0603
R125	220R	,0603
R126	150R	,0603
R127	56R	,0603
R128	5K6	,0603
R129	5K6	,0603
R13	0R	2010
R130	5K6	,0603
R131	5K6	,0603
R132	5K6	,0603
R133	5K6	,0603
R134	5K6	,0603

Designators	Comment	Footprint
R135	2K2	,0603
R136	5K6	,0603
R137	0R	,0603
R138	5K6	,0603
R139	270R	,0603
R14	0R	2010
R140	15R	,0603
R141	5K6	,0603
R142	5K6	,0603
R143	1K5	,0603
R144	1K5	,0603
R145	330K	,0603
R146	680R	,0603
R147	390R	,0603
R148	180R	,0603
R149	180R	,0603
R15	68K	,0603
R150	180R	,0603
R151	470R	,0603
R152	1K	,0603
R153	470R	,0603
R154	470R	,0603
R155	470R	,0603
R156	470R	,0603
R157	680R	,0603
R158	4K7	,0603
R159	4K7	,0603
R16	10K	,0603
R160	4K7	,0603
R161	4K7	,0603
R162	2K2	,0603
R163	27K	,0603
R164	2K	,0603
R165	3K9	,0603
R166	10K	,0603
R167	22R	,0603
R168	22R	,0603
R169	22R	,0603
R17	560R	,0805
R170	0R	,0603
R171	0R	,0603
R172	5K6	,0603
R173	15R	,0603
R174	47R	,0603
R175	10K	,0603
R176	47K	,0603
R177	47K	,0603
R178	47K	,0603
R179	47K	,0603
R18	0R	,0805
R180	47K	,0603
R181	47K	,0603
R182	3K9	,0603
R183	10K	,0603
R184	330R	1206
R185	47K	,0603
R186	10R	,0603
R187	10R	,0603
R188	82K	,0603
R189	0R	2010
R19	10K	2010

Designators	Comment	Footprint
R190	10R	,0603
R191	15R	1206
R192	47R	,0603
R193	47R	,0603
R194	22K	,0603
R195	22K	,0603
R196	22K	,0603
R197	22K	,0603
R198	0R	2010
R199	270K	,0603
R2	10K	,0603
R20	10K	,0603
R200	220R	,0603
R201	100K	,0603
R202	100K	,0603
R203	100K	,0603
R204	100K	,0603
R205	100K	,0603
R206	27K	,0603
R207	100K	,0603
R208	330K	,0603
R209	220R	,0603
R21	27K	,0603
R210	330K	,0805
R211	820R	,0805
R212	330K	,0805
R213	2M2	,0603
R214	68K	,0603
R215	330R	,0603
R216	1K5	,0603
R217	10K	,0603
R218	100R	,0603
R219	3K3	,0603
R22	NC	,0603
R220	12K	,0603
R221	220R	,0603
R222	4K7	,0603
R223	22R	,0603
R224	56R	,0805
R225	3K3	,0603
R226	4K7	,0603
R227	470K	,0603
R228	NC	,0603
R229	330K	,0603
R23	15K	,0603
R230	3K3	,0603
R231	330R	,0603
R232	330R	,0603
R233	330R	,0603
R234	330K	,0603
R235	330R	,0603
R236	330R	,0603
R237	330R	,0603
R238	4R7	,0805
R239	3K9	,0603
R24	220R	,0603
R240	47K	,0603
R241	680K	,0603
R242	51R	,0805
R243	47K	,0603
R244	330R	,0603

Designators	Comment	Footprint
R245	470K	,0603
R246	470K	,0603
R247	470K	,0603
R248	3K3	,0603
R249	1K	,0603
R25	220R	,0603
R250	NC	,0603
R251	15K	,0603
R252	1K	,0603
R253	10K	,0603
R254	2K2	,0603
R255	22K	,0603
R256	33K	,0805
R257	1M	,0603
R258	2K7	,0603
R259	NC	,0603
R26	10K	,0603
R260	10K	,0603
R261	33K	,0603
R262	4K7	,0603
R263	470K	,0603
R264	120K	,0603
R265	82R	,0603
R266	75K	,0603
R267	0R	,0805
R268	39K	,0603
R269	4K7	,0603
R27	10K	,0603
R270	39R	,0805
R271	2R2	,0805
R272	5R6	,0805
R273	1K2	,0603
R275	8K2	,0603
R276	6K8	,0603
R277	1K	,0603
R279	330R	,0603
R28	10K	1206
R29	NC	,0603
R3	10K	,0603
R30	1K	,0603
R31	1K	,0603
R319	47K	,0603
R32	1K	,0603
R33	1K	,0603
R34	27R	1206
R35	10K	,0603
R36	1K	,0603
R37	1K	,0603
R38	1K	,0603
R39	27R	1206
R4	10K	,0603
R40	1K	,0603
R41	1K5	,0603
R42	1K	,0805
R43	1K2	1206
R44	1K	1206
R45	1K	,0603
R46	220K	,0603
R47	220K	,0603
R48	220K	,0603
R49	220K	,0603

Designators	Comment	Footprint
R5	10K	,0603
R50	220K	,0603
R500	0R	,0603
R501	2K2	,0603
R502	4K7	,0603
R503	1K	,0603
R504	15K	,0603
R505	10K	,0603
R506	220K	,0603
R507	5K1	,0603
R508	1K5	,0603
R509	1K5	,0603
R51	100K	,0603
R510	3K9	,0603
R511	220K	,0603
R512	220K	,0603
R513	220K	,0603
R514	220K	,0603
R515	220K	,0603
R516	220K	,0603
R517	220K	,0603
R518	150R	,0603
R519	10K	,0603
R52	220K	,0603
R520	820R	,0603
R521	560K(1%)	,0603
R522	5K6	,0603
R523	5K6	,0603
R524	33K	,0603
R525	NC	,0603
R526	0R	,0603
R527	560R	,0603
R528	1K	,0603
R529	1K	,0603
R53	220K	,0603
R530	5K6	,0603
R531	1K	,0603
R532	1K	,0603
R533	1K	,0603
R534	12K(1%)	,0603
R535	1K	,0603
R536	1K	,0805
R537	1K	,0805
R538	10K	,0603
R539	10K	,0603
R54	220K	,0603
R540	560R	,0603
R541	560R	,0603
R542	10K	,0603
R543	1K	,0603
R544	560R	,0603
R545	2K2	,0603
R546	56K	,0603
R547	39K	,0603
R548	4K7	,0603
R549	10K	,0603
R55	220K	,0603
R550	33K	,0603
R551	2K2	,0603
R552	4K7	,0603
R553	18K	,0603

Designators	Comment	Footprint
R554	39K	,0603
R555	33K	,0603
R556	10K	,0603
R557	33K	,0603
R558	220R	,0603
R559	560R	,0603
R56	33K	,0603
R560	47K	,0603
R561	10K	,0603
R562	220R	,0603
R563	12K	,0603
R564	12K	,0603
R565	15K	,0603
R566	1K	,0603
R567	33K	,0603
R568	1K2	,0603
R569	12K	,0603
R57	33K	,0603
R570	3K3	,0603
R571	100R	,0603
R572	1K	,0603
R573	0R	,0603
R574	10K	,0603
R575	10K	,0603
R576	10K	,0603
R577	68K	,0603
R578	10K	,0603
R579	10K	,0603
R58	0R	,0603
R580	100K	,0603
R581	10K	,0603
R582	10K	,0603
R583	10K	,0603
R584	10K	,0603
R585	47K	,0603
R586	33K	,0603
R587	330K	,0603
R588	100K	,0603
R589	100K	,0603
R59	33K	,0603
R590	10K	,0603
R591	10K	,0603
R592	100K	,0603
R593	1K	,0603
R594	68K	,0603
R595	10K	,0603
R596	100K	,0603
R597	220R	,0603
R598	100K	,0603
R599	47K(1%)	,0603
R6	10K	,0603
R60	33K	,0603
R600	100R	,0603
R601	100K	,0603
R602	4K7	,0603
R603	47K	,0805
R604	47K	,0805
R605	4K7	,0603
R606	33R	,0603
R607	104P	,0603
R608	4K7	,0603

Designators	Comment	Footprint
R609	10K	,0603
R61	2K2	,0603
R610	120R	,0603
R611	270R	,0603
R612	0R	,0603
R613	1K2	,0603
R614	220R	,0603
R615	8K2	,0603
R616	68K	,0603
R617	10K	,0603
R618	22K	,0603
R619	220R	,0603
R62	2K2	,0603
R620	10K	,0603
R621	100K	,0603
R622	10K	,0603
R623	220R	,0603
R624	10K	,0603
R625	330K	,0603
R626	22R	,0603
R627	680K	,0603
R628	10K	,0603
R629	10K	,0603
R63	2K2	,0603
R630	2K2	,0603
R631	1K	,0603
R632	1K	,0603
R633	4K7	,0603
R634	4K7	,0603
R635	330K	,0603
R636	10K	,0603
R637	18K	,0603
R638	10K	,0603
R64	2K4	,0603
R640	15K	,0603
R641	12K	,0603
R644	10K	,0603
R645	10K	,0603
R65	2K2	,0603
R653	220R	,0603
R654	220R	,0603
R655	10K	,0603
R656	10K	,0603
R66	1K	,0603
R67	NC	,0603
R68	2K2	,0603
R69	560R	,0603
R7	10K	,0603
R70	560R	,0603
R71	1K	,0603
R72	560R	,0603
R73	560R	,0603
R74	560R	1206
R75	560R	,0603
R76	1K5	,0603
R77	680R	,0603
R78	680R	,0603
R79	220R	,0603
R8	10K	,0603
R80	220R	,0603
R800	1K	,0603

Designators	Comment	Footprint
R801	1K	,0603
R802	0R	,0603
R803	3K3	,0603
R804	4K7	,0603
R806	33K	,0603
R807	NC	,0603
R808	4K7	,0603
R81	220R	,0603
R810	33K	,0603
R811	NC	,0603
R812	100R	,0603
R813	100R	,0603
R814	47K	,0603
R815	390R	,0603
R816	1K	,0603
R817	220K	,0603
R818	1K	,0603
R819	220R	,0603
R82	220R	,0603
R820	47K	,0603
R821	390R	,0603
R822	470R	,0603
R823	1K	,0603
R824	270R	,0603
R825	270R	,0603
R826	4K7	,0603
R828	47K	,0603
R829	390R	,0603
R83	220R	,0603
R830	1K	,0603
R831	15K	,0603
R832	1K5	,0603
R833	560R	,0603
R834	220R	,0603
R835	220R	,0603
R836	220R	,0603
R837	56K	,0603
R838	5K6	,0603
R839	220R	,0603
R84	220R	,0603
R840	22R	,0603
R841	220R	,0603
R842	220R	,0603
R843	47K	,0603
R844	10K	,0603
R845	4K7	,0603
R846	10K	,0603
R847	1K	,0603
R848	2K2	,0603
R85	820R	,0603
R850	1M	,0603
R851	330R	,0603
R853	10K	,0603
R855	560R	,0603
R856	47K	,0603
R857	10K	,0603
R858	10K	,0603
R859	150K	,0603
R86	27R	,0603
R860	33K	,0603
R87	68R	,0603

Designators	Comment	Footprint
R874	22R	,0603
R875	1K	,0603
R876	1K	,0603
R877	1K	,0603
R878	1K	,0603
R88	68R	,0603
R89	6K8	,0603
R9	10K	,0603
R90	6K8	,0603
R900	1K	,0603
R901	1K	,0603
R902	0R	,0603
R903	1K	,0603
R904	3K9	,0603
R905	3K9	,0603
R906	150R	,0603
R908	39K	,0603
R909	2K7	,0603
R91	6K8	,0603
R910	2K7	,0603
R912	15K	,0603
R913	10K	,0603
R914	15K	,0603
R915	15K	,0603
R916	15K	,0603
R917	24K	,0603
R918	1K	,0603
R919	15K	,0603
R92	6K8	,0603
R920	10K	,0603
R921	1K	,0603
R922	5K6	,0603
R924	68K	,0603
R926	22K	,0603
R93	10K	,0603
R931	1K	,0603
R932	NC	,0603
R939	3K3	,0603
R94	6K8	,0603
R940	15K	,0603
R941	1K	,0603
R95	270R	,0603
R96	270R	,0603
R97	270R	,0603
R98	270R	,0603
R99	NC	,0603
RP500	1K*4	SRP8(1608)
RP501	103P*4	SRP8(1608)
RP502	1K*4	SRP8(1608)
T1	LX-1268	T7.4*7.4*12(1)
T10	LX-1275	T7.4*7.4*12(1)
T11	LX-1273	T7.4*7.4*12(1)
T12	LX-1272	T7.4*7.4*12(1)
T13	LX-1268	T7.4*7.4*12(1)
T14	LX-1268	T7.4*7.4*12(1)
T2	LX-1237	T7.4*7.4*12(1)
T3	LX-1239	T7.4*7.4*12(1)
T4	LX-1266	T7.4*7.4*12-6
T5	LX-1266	T7.4*7.4*12-6
T6	LX-1252	T7.4*7.4*12(1)
T7	LX-1271	T7.4*7.4*12(1)

Designators	Comment	Footprint
T8	LX-1269	T7.4*7.4*12(1)
T9	LX-1272	T7.4*7.4*12(1)
TC1	10P	CAPVAR2X3
TP1	SP	TP
TP2	BPF	TP
TP3	NB DET	TP
TP301	BFO FRQ	TP
TP4	BPF	TG
TP509	PD1	TP
TP510	PD2	TP
TP514	10.24M	TP
TP515	2BPF	TP
TP9	AM MOD	TP
TP900	MIC	TP
U1	LM324	SOP14
U1001	NJM2902V	SSOP14
U1002	NJM2902V	SSOP14
U1003	NJM2902V	SSOP14
U2	TA31136FN	SSOP16
U5	KIA78L05	SOT89N(123)
U500	NJM4558M	sop8
U501	NJM4558M	sop8
U502	CE6275A50	SOT89N(123)
U503	NJM2594M	DMP8
U504	24C128	SOP8
U505	R5F212A8SNFP	SQFP10X10-64
U506	L7808CV	TO-220A
U507	BL1551	SOT363
U508	TC4W66FU	SSOP8-P-0.65N
U509	MCP4652-503	MSOP10(0.5)
U800	NJM3404AM	SOP8
U802	BU2630F	SOP16
U803	KIA78L05	SOT89N(123)
U900	BL1551	SOT363
U901	TA75S01F	SOT25
U902	KIA78L05	SOT89N(123)
U903	TP5299	SOL-16
U904	BL1551	SOT363
U905	M62429	SOP8
U906	TA75S01F	SOT25
W1	1K	VERM-3*3
W2	5K	VERM-3*3
W3	10K	VERM-3*3
W4	10K	VERM-3*3
W5	1K	VERM-3*3
W500	5K(B)	VERM-3*3
W501	5K(B)	VERM-3*3
W502	5K(B)	VERM-3*3
W6	2K	VERM-3*3
W7	1K	VERM-3*3
W9	100K	VERM-3*3
X500	19.2MHZ	XTAL6*3.5
Y1	JTBM455C24	K450V2
Y500	10.6975MHZ	XTAL
Y501	10.24MHZ	XTAL
Y800	10.1015MHZ	XTAL