LUITON

LUITON LT-308

SERVICE MANUAL

-TECNNICAL CHARACTERITICS

LUITON LT-308 (config: D,EU,EC,UK,PL,E,US,NZ,without ASQ)

1-GENERAL:

-Multiconfiguration(D,EU,EC,UK,PL,E,US,NZ)
-D ⇒ 80 channels FM 4W (from 26.565Mhz to 27.405Mhz)
-EU ⇒ 40 channels FM 4W/AM 1W (from 26.965Mhz to 27.405Mhz)
-EC ⇒ 40 channels FM 4W (from 26.965Mhz to 27.405Mhz)
-U ⇒ 40 channels FM 4W (from 26.965Mhz to 27.405Mhz)
-PL ⇒ 40 channels AM/FM 4W (from 26.960Mhz to 27.400Mhz)
-E1 ⇒ 40 channels AM/FM 4W (from 26.965Mhz to 27.405Mhz)
-US ⇒ 40 channels AM 4W (from 26.965Mhz to 27.405Mhz)
-NZ ⇒ 40 channels AM/FM 4W (from 26.330Mhz to 26.770Mhz)

-Channel step

-10KHz

-Class of emission
-AM(A3E)/FM(F3E)
-Power supply
-13,2V (from10,8V to 15,6V)
-Antenna impedance
-50Ω
-Dimensions(in mm)
-115(L)x150(H)x38(D)
-Weight
-0,8Kg

2-TRANSMISSION:

-Frequency allowance
-±300Hz
-Transmission interference
-Inferior to 4nW(-54dBm)
-Audio frequency response
-From 300Hz to 3kHz in AM/FM
-Emitted power in the adjacent channel
-Inferior to 20µW
-Microphone sensitivity
-Inferior to 10mV
-Current drain
-1,7A(in transmission mode with modulation)
-Modulated signal distortion
-Inferior to 2%

3-RECEPTION:

-Maximum sensitivity at 20dB sinad

-0,5µV(-113dBm) AM/FM

-Audio frequency response

-From 300Hz to 3kHz in AM/FM

-Adjacent channel selectivity

-Superior to 60dB

-Frequency image rejection

-Superior to 60dB

-Intermodulation response

-Superior to 54dB

-Maximum audio power

-5W

-Squelch sensitivity

-Threshold 0,2µV(-120dBm)/Tight 1mV(-47dBm)

-Current drain

-500mA nominal/800mA maximum

ALIGNMENT PROCEDURE
LUTION LT-308

* VCO/PLL PORTION

- Alignment procedure
- Test points
- Frequencies chart

* TRANSMITTER

- Alignment procedure
- Test points

* RECEIVER

- Alignment procedure
- Test points

Test equipement required

Frequency counter 200 Mhz	HF Generator
DC Volmeter	BF Volmeter
Distortiometer	HF Volmeter
Wattmeter - Dummy load	Osilloscope
FM linear detector	
AF generator	Load 8 Ω
	Sinad meter

Conditions of Measurements on HF Generator

Reception

AM mode: Level - 107 dBm Frequency 1 KHz with 80% of modulation.
FM mode: Level - 107 dBm Frequency 1 KHz with 1,2KHz of deviation.

Transmission

Frequency1 KHz 30mV.

ALIGNMENT VCO/PLL

1 - Alignment procedure(13,2V;configuration“PL”)

STEP	CONDITION	ADJUSTMENT	REMARKS OF ADJUSTMENT
1	FM(PL) TX mode Channel 19		Connecting a voltmeter to test TP6,to reach 2.2V±0,2V.
2	FM(PL) RX mode Channel 19		Connecting a voltmeter to test TP6,to reach 2.2V±0,2V
3	FM(PL) TX/ RX mode Channel 1		Connect a voltmeter to TP6,and check: Rx Channel 1=1.8V±0,2V Tx Channel 1=1.8V±0,2V
4	FM(PL) RX mode Channel 19		Connect a frequency counter to R23 37,880MHz.
5	FM(PL) TX/ RX mode Channel 1 to 40 or 1 to 80(d)		Connect a frequency counter to R23,and check frequencies.

- FREQUENCY LIST (PL)

CH	Channels Frequencies (MHz)	VCO Frequencies (MHz)
1	26,960	37,660
2	26,970	37,670
3	26,980	37,680
4	27,000	37,700
5	27,010	37,710
6	27,020	37,720
7	27,030	37,730
8	27,050	37,750
9	27,060	37,760
10	27,070	37,770
11	27,080	37,780
12	27,100	37,800
13	27,110	37,810
14	27,120	37,820
15	27,130	37,830
16	27,150	37,850
17	27,160	37,860
18	27,170	37,870
19	27,180	37,880
20	27,200	37,900
21	27,210	37,910
22	27,220	37,930
23	27,250	37,950
24	27,230	37,930
25	27,240	37,940
26	27,260	37,960
27	27,270	37,970
28	27,280	37,980
29	27,290	37,990
30	27,300	38,000
31	27,310	38,010
32	27,320	38,020
33	27,330	38,030
34	27,340	38,040
35	27,350	38,050
36	27,360	38,060
37	27,370	38,070
38	27,380	38,080
39	27,390	38,090
40	27,400	38,100

- FREQUENCY LIST (EC,E1,EU,US)

CH	Channels Frequencies (MHz)	VCO Frequencies (MHz)
1	26,965	37,655
2	26,975	37,665
3	26,985	37,675
4	27,005	37,695
5	27,015	37,705
6	27,025	37,715
7	27,035	37,725
8	27,055	37,745
9	27,065	37,755
10	27,075	37,765
11	27,085	37,775
12	27,105	37,795
13	27,115	37,805
14	27,125	37,815
15	27,135	37,825
16	27,155	37,845
17	27,165	37,855
18	27,175	37,865
19	27,185	37,875
20	27,205	37,895
21	27,215	37,905
22	27,225	37,915
23	27,255	37,945
24	27,235	37,925
25	27,245	37,935
26	27,265	37,955
27	27,275	37,965
28	27,285	37,975
29	27,295	37,985
30	27,305	37,995
31	27,315	38,005
32	27,325	38,015
33	27,335	38,025
34	27,345	38,035
35	27,355	38,045
36	27,365	38,055
37	27,375	38,065
38	27,385	38,075
39	27,395	38,085
40	27,405	38,095

- FREQUENCY LIST (NZ)

CH CEPT	Channels Frequencies (MHz)	VCO Frequencies (MHz)
1	26,330	37,030
2	26,340	37,040
3	26,350	37,050
4	26,370	37,070
5	26,380	37,080
6	26,390	37,090
7	26,400	37,100
8	26,420	37,120
9	26,430	37,130
10	26,440	37,140
11	26,450	37,150
12	26,470	37,170
13	26,480	37,180
14	26,490	37,190
15	26,500	37,200
16	26,520	37,220
17	26,530	37,230
18	26,540	37,240
19	26,550	37,250
20	26,570	37,270
21	26,580	37,280
22	26,590	37,290
23	26,620	37,320
24	26.600	37,300
25	26,610	37,310
26	26,630	37,330
27	26,640	37,340
28	26,650	37,350
29	26,660	37,360
30	26,670	37.370
31	26,680	37.380
32	26,690	37.390
33	26,700	37.400
34	26,710	37.410
35	26,720	37.420
36	26,730	37.430
37	26,740	37.440
38	26,750	37.450
39	26,760	37.460
40	26,770	37.470

- FREQUENCY LIST (U)

CH ENG	Channels Frequencies (MHz)	VCO Frequencies (MHz)
1	27,60125	38,30125
2	27,61125	38,31125
3	27,62125	38,32125
4	27,63125	38,33125
5	27,64125	38,34125
6	27,65125	38,35125
7	27,66125	38,36125
8	27,67125	38,37125
9	27,68125	38,38125
10	27,69125	38,39125
11	27,70125	38,40125
12	27,71125	38,41125
13	27,72125	38,42125
14	27,73125	38,43125
15	27,74125	38,44125
16	27,75125	38,45125
17	27,76125	38,46125
18	27,77125	38,47125
19	27,78125	38,48125
20	27,79125	38,49125
21	27,80125	38,50125
22	27,81125	38,51125
23	27,82125	38,52125
24	27,83125	38,53125
25	27,84125	38,54125
26	27,85125	38,55125
27	27,86125	38,56125
28	27,87125	38,57125
29	27,88125	38,58125
30	27,89125	38,59125
31	27,90125	38,60125
32	27,91125	38,61125
33	27,92125	38,62125
34	27,93125	38,63125
35	27,94125	38,64125
36	27,95125	38,65125
37	27,96125	38,66125
38	27,97125	38,67125
39	27,98125	38,68125
40	27,99125	38,69125

- FREQUENCY LIST (d)

CH D	Channels Frequencies (MHz)	VCO Frequencies (MHz)	CH D	Channels Frequencies (MHz)	VCO Frequencies (MHz)
1	26,965	37,665	41	26,565	37,265
2	26,975	37,675	42	26,575	37,275
3	26,985	37,685	43	26,585	37,285
4	27,005	37,055	44	26,595	37,295
5	27,015	37,715	45	26,605	37,305
6	27,025	37,725	46	26,615	37,315
7	27,035	37,735	47	26,625	37,325
8	27,055	37,755	48	26,635	37,335
9	27,065	37,765	49	26,645	37,345
10	27,075	37,775	50	26,655	37,355
11	27,085	37,785	51	26,665	37,365
12	27,105	37,805	52	26,675	37,375
13	27,115	37,815	53	26,685	37,385
14	27,125	37,825	54	26,695	37,395
15	27,135	37,835	55	26,705	37,405
16	27,155	37,855	56	26,715	37,415
17	27,165	37,865	57	26,725	37,425
18	27,175	37,875	58	26,735	37,435
19	27,185	37,885	59	26,745	37,445
20	27,205	37,905	60	26,755	37,455
21	27,215	37,915	61	26,765	37,465
22	27,225	37,935	62	26,775	37,475
23	27,255	37,955	63	26,785	37,485
24	27,235	37,935	64	26,795	37,495
25	27,245	37,945	65	26,805	37,505
26	27,265	37,965	66	26,815	37,515
27	27,275	37,975	67	26,825	37,525
28	27,285	37,985	68	26,835	37,535
29	27,295	37,995	69	26,845	37,545
30	27,305	38,005	70	26,855	37,555
31	27,315	38,015	71	26,865	37,565
32	27,325	38,025	72	26,875	37,575
33	27,335	38,035	73	26,885	37,585
34	27,345	38,045	74	26,895	37,595
35	27,355	38,055	75	26,905	37,605
36	27,365	38,065	76	26,915	37,615
37	27,375	38,075	77	26,925	37,625
38	27,385	38,085	78	26,935	37,635
39	27,395	38,095	79	26,945	37,645
40	27,405	38,105	80	26,955	37,655

ALIGNMENT TRANSMITTER

1 - Alignment procedure(13,2V;configuration”PL,EU”)

STEP	CONDITION	ADJUSTMENT	REMARKS OF ADJUSTMENT
1	AM(EU) Channel 20	VR2(LOW)	Connect a wattmeter to jack antenna, adjust VR2 to reach 1W on the wattmeter.
2	FM(PL) Channel 20	VR1(HI)	Connect a wattmeter to jack antenna, adjust VR1 to reach 4W on the wattmeter.
3	FM(UK) Channel 1		JP4 shorted the pin into the C22 there, then look at the first channel frequency transmitter,27.60125MHZ
3	FM(PL) Mod 30 mV 1 KHz CH 20	VR3(DEV)	Adjust VR3 to reach +/- 2KHz of deviation.
4	AM(PL) Mod 30 mV 1 KHz CH 20	VR6(AMC)	AdjustVR6 to reach +/- 60% of modulation.
5	AM(PL) Mod 30 mV 1 KHz CH 20	VR5ALC)	Adjust VR5 to reach +/- 90% of modulation.

ALIGNMENT RECEIVER

1 - Alignment procedure(13,2V;configuration”PL”)

STEP	CONDITION	ADJUSTMENT	REMARKS OF ADJUSTMENT
1	AM(PL) Channel 20 Middle volume level. No squelch active	T1-T2-T3 T4-T5	Connect HF generator to jack antenna adjusted at (–107dBm 1KHz 60%), connect sinad meter to jack EXT speaker and adjust coils for maximum sensitivity(≥ 20dB sinad).
2	FM(PL) Channel 20 Middle volume level No squelch active		Connect HF generator to jack antenna adjusted at (–107dBm 1KHz 1,2KHz Dev),connect sinad meter to jack EXT speaker and adjust sensitivity(≥ 20dB sinad).
3	AM(PL) Channel 20 Middle volume level No squelch active	RV2(S-METER)	Connect HF generator to jack antenna adjusted at (–67dBm 1KHz 60%) and adjust RV2 so that the 4th led is lighting.
4	AM(PL) Channel 20 Middle volume level Squelch maximum clockwise	RV4(SQ)	Connect HF generator to jack antenna adjusted at (–47dBm 1KHz 60%) and adjust VR4 so that the signal is audible .
5	AM(EU,E) Channel 20 Middle volume level Squelch maximum counterclockwise (ASQ)	VR1(ASQ)	The microphone in hand in the middle of ASQ open,Then radio PTT LED will light green,AM status, 1K / 80% will signal open -107DB, adjust VR1 so that the squelch open

Circuit brief

AM reception channels:

This 27M received signal is input through a high-pass filter after the transceiver switching diode D15,4 through T5 high level after adjusting the frequency selection transistor Q24, T4, T2. Into the mixer circuit Q13, Q12, T1. At the same time the local oscillator VCO shock Q4 signal to the D2, T1, generating an intermediate frequency signal 10.7MHZ, after FT3 input U3 16PIN evacuation second intermediate 450K through Q21, Q19, enter the AM frequency discriminator weeks T3.

FM Receive Channel:

This 27M received signal is input through a high-pass filter after the transceiver switching diode D15,4 through T5 high level after adjusting the frequency selection transistor Q24, T4, T2. Into the mixer circuit Q13, Q12, T1. At the same time the local oscillator VCO shock Q4 signal to the D2, T1, generating an intermediate frequency signal 10.7MHZ, after FT3 input U3 16PIN VCO second local oscillation signal transmitted by the U1 PIN9 U3 PIN1.

AM Audio output:

This AM audio output from the T5 through detector diodes D8, after D5, D6, Q18AM after / FM switch into U5 13PIN, after amplification by the U5 14PIN sent through Q37 transceiver volume potentiometer switch into U9 PIN1, the U9 PIN4 enlarge after C191, T6, C205, J3 reached speakers.

FM audio output:

This is the U3 PIN9 FM audio output through D7, Q22 transceiver into the switch by the U5 13PIN after U5 14PIN output amplification sent through Q37 transceiver volume potentiometer switch into U9 PIN1, the U9 PIN4 zoom through C191, T6, C205, J3 Biography to speakers.

PLL:

VCO by the U2PIN25, PIN26, PIN28 send data signals to U1 PIN6, PIN7, PIN8, U1 frequency input from the X1 U1PIN10, PIN11, by the U1PIN1 sent by the Q4 output local oscillator signal to the receiving circuit, the Q8 output to transmit channels.

Transmit signals:

VCO frequency vibration generated through Q9, Q8 Q5 transported to the first stage and amplified by the power transistor Q1 driven sent to Q10, the signal sent through a high-pass filter by the antenna.

AM modulation:

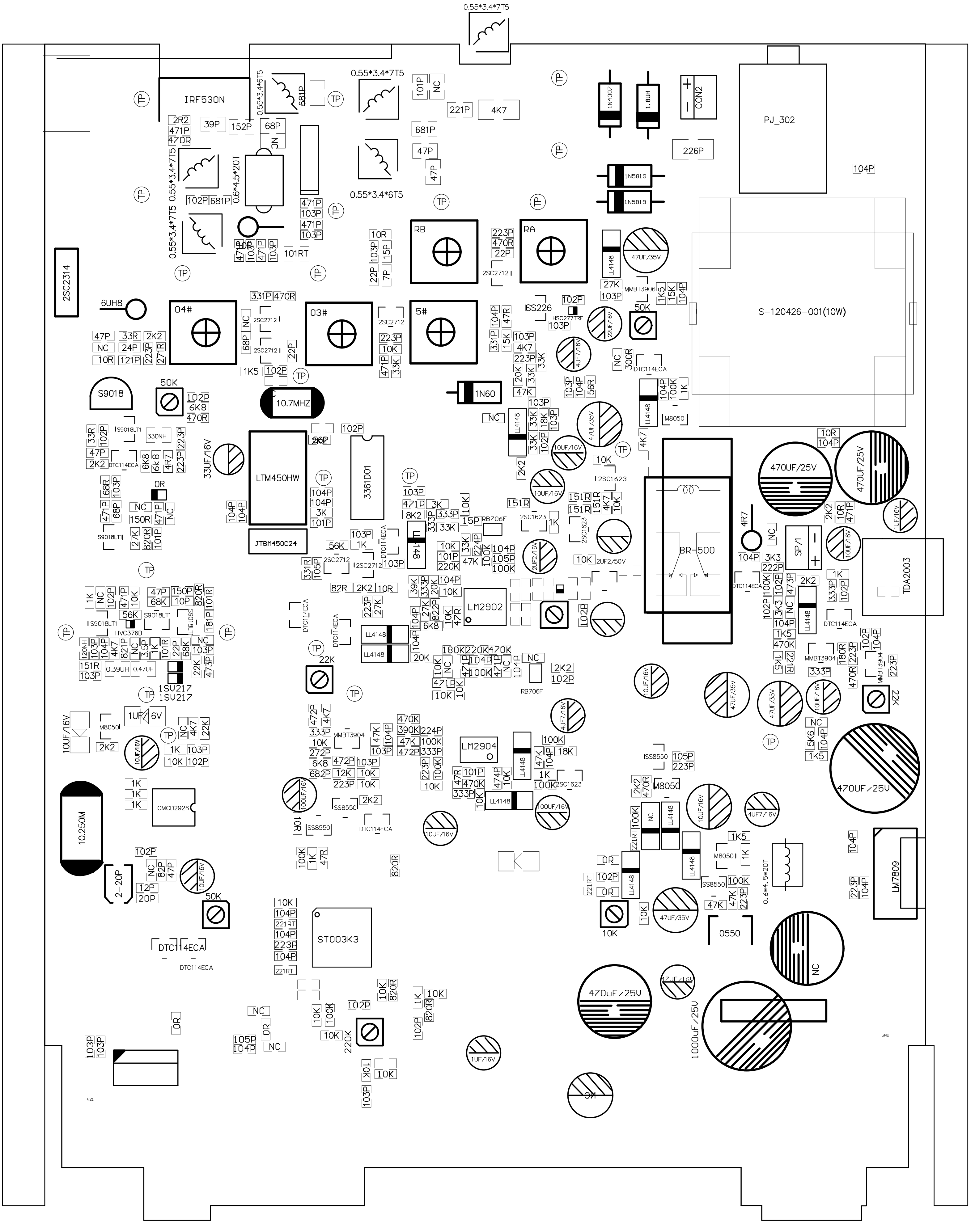
This voice signal input through the MIC VR6, Q40, Q31, Q38Q39 into U9 PIN1, the U9 PIN4 zoom out.

FM modulation:

This voice signal input through the MIC input U4 PIN5 PIN7 zoom through D11 U4 PIN3 Q26 Q17 After adjusting VR3 into VCO modulation.

LUITON LT-308

COMPONENT LAYOUT



0.55*3.4*7T5
IRF530N
0.55*3.4*6T5
0.55*3.4*7T5
681P
101P
NC
221P
4K7
1N4007
1.8UH
CON2
PJ_302
226P
1N5819
104P
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RB
RA
S-120426-001(10W)
6UH8
04#
03#
5#
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S9018
10.7MHZ
1N60
LL4148
M8050
LTM450HW
3361D01
JTBM450C24
33UF/16V
470UF/25V
470UF/25V
BR-500
SP/1
TDA2003
2SC1623
RB706F
LM2902
LM2904
MMBT3904
S9018LT1
HVC376B
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1SU217
ICMCD2926
10.250M
2-20P
SS8550
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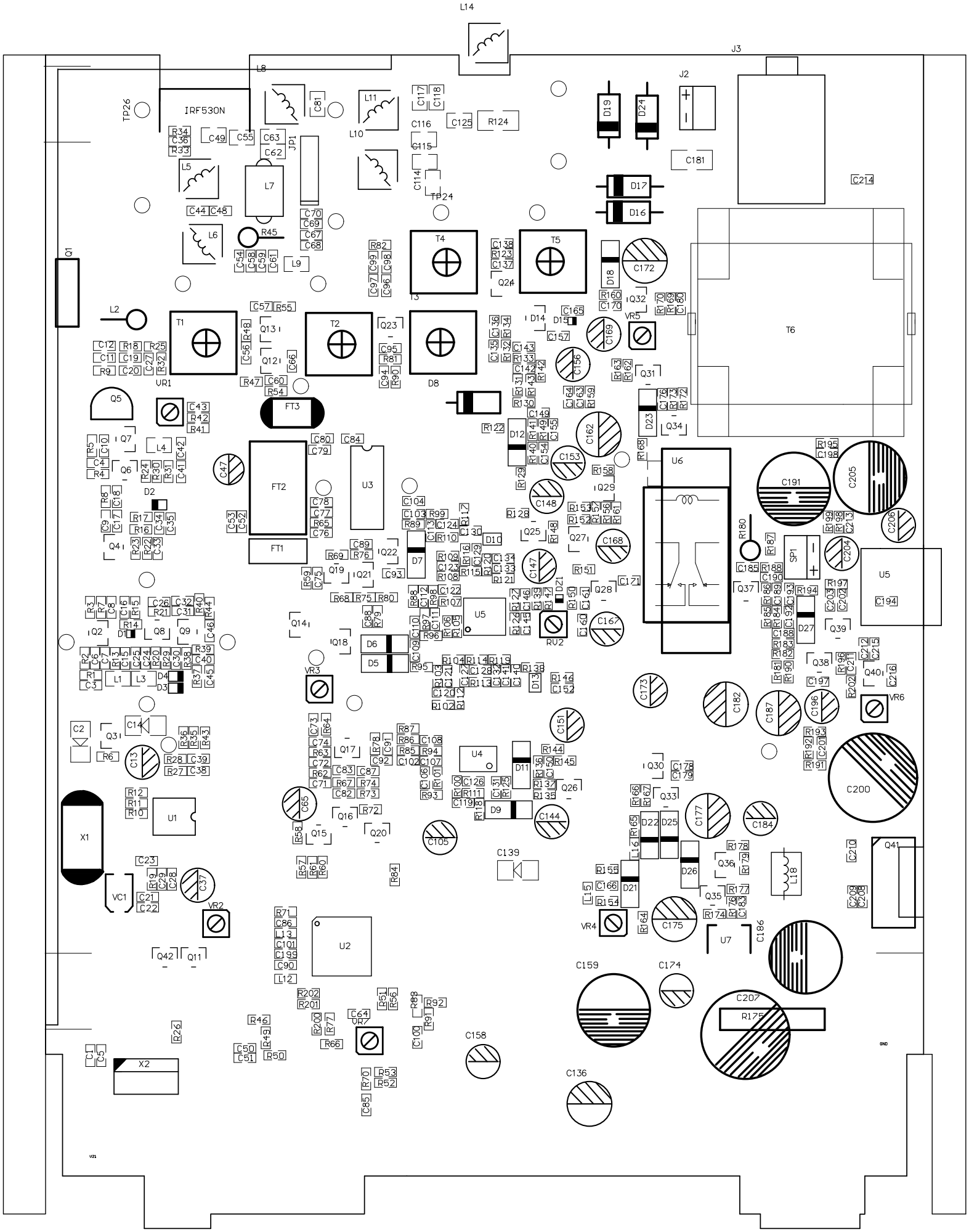
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L8
J2
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IRF530N
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C81
C117
C118
C115
C114
TP24
D17
D16
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L7
L6
R45
C44
C48
C70
C69
C67
C68
C54
C58
C59
C61
L9
T4
T5
T3
R82
C97
C99
C96
C98
R123
C137
Q24
D18
C172
R160
C170
Q32
R170
R169
C180
T6
Q1
L2
T1
T2
Q23
C95
R81
C94
R90
D8
C57
R55
C56
R48
Q13
Q12
C66
R47
C60
R54
VR1
C12
R18
R25
C11
C19
R27
R32
R9
C20
D14
D15
C165
C157
C135
C136
R132
R134
C133
C142
R142
R131
R143
R130
C164
C163
R159
VR5
C169
C156
R163
R162
Q31
C176
R173
R172
D23
Q34
C149
R122
D12
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R149
C155
R140
C154
C162
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R158
R165
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C211
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R116
R115
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R121
C89
R69
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Q21
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R59
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C110
R96
R106
R105
C109
D6
D5
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C127
C128
C124
C114
C141
R137
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R102
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R112
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C182
C187
C196
C200
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C100
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C131
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R166
R167
Q33
C177
C184
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D25
D26
D21
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C166
R154
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Q35
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Q18
Q16
Q15
Q20
C65
R58
R72
Q17
C73
R64
C74
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C83
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C82
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R86
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C1
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VC1
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R19
C29
C28
C37
C21
C22
VR2
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R12
R11
R10
U1
C2
Q31
C14
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R35
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Q42
VR1
VR2
VR3
VR4
VR5
VR6
VR7
RV2
FT1
FT2
FT3
X1
X2
JP1
SP1
VC1
TP24
TP26
GND

LUITON LT-298

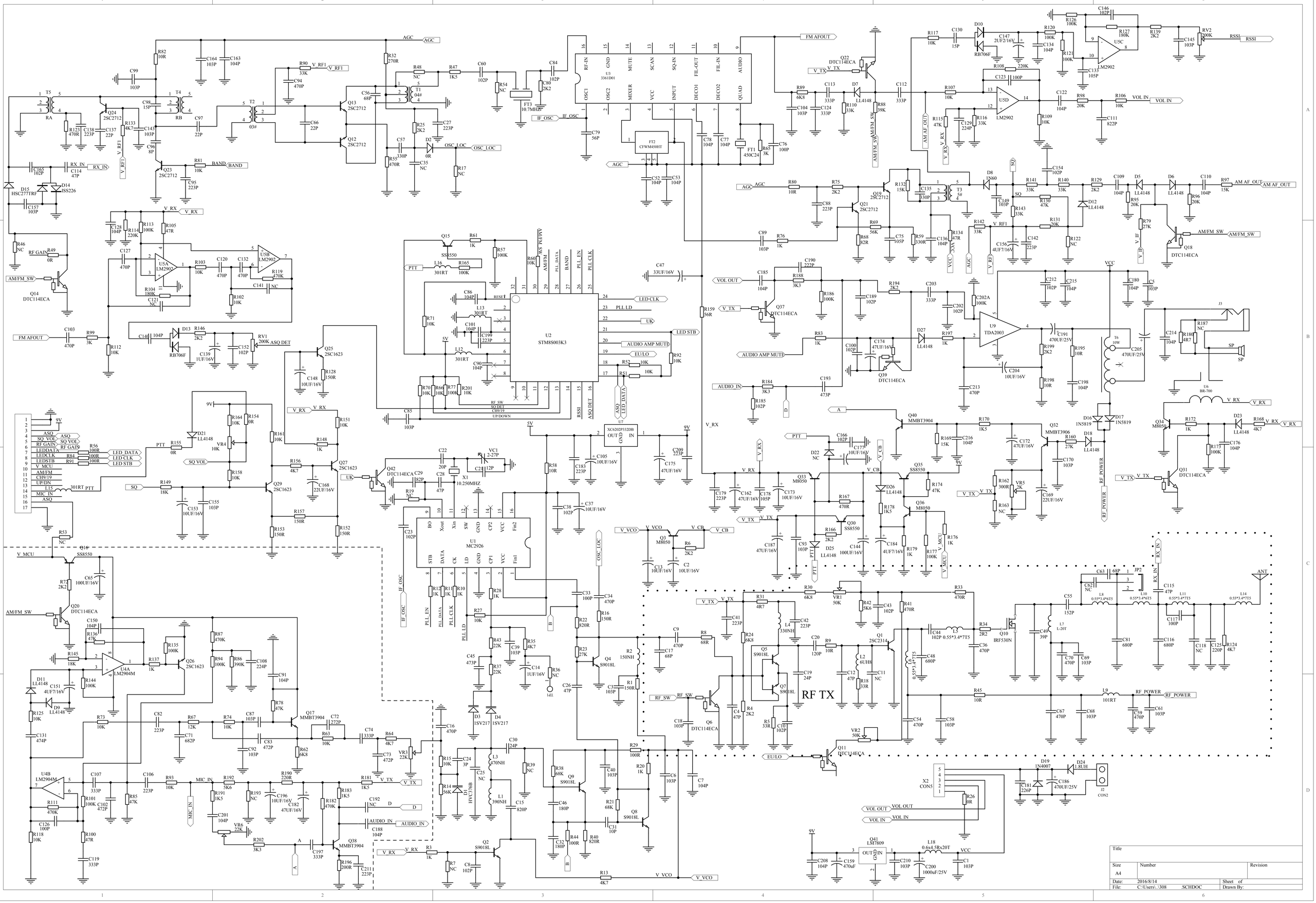
BLOCK DIAGRAM

ANT
RF ATT D14
AF AMP Q24
1ST MIX Q13 Q12
BPF FT3
ASQ DET U5
AM DET D8
AF AMP U5
VOL X2
AF PWR U9
J3
LPF L8 L10 L11 L14
RF GAIN RV3
BAND Q23
FM DET U3
AGC AMP Q21 Q22
RSSI U5
SP
SP
SP SW U6
FINAL Q10
RF_POWER
2ND MIX
BPF FT2
BPF FT1
SQ CONT Q29 Q27 Q25
SQ VOL RV4
RX METU Q39
DRIVE Q1
BUFFER Q4
T/R SW Q2
PLL U11
PLL CK
PLL DA
CPU U2
3V
AM MIC AMP W4
MIC
FM MIC AMP U4
PER DRIVE Q5 Q7
TX AMP Q4
BUFFER Q8
VCO Q9
3V
U800
MIC MC951
UP/DN SW1 SW2 W1 W2
CH9/19 SW3
AM/FM SW4
ASQ W3
PTT W4
9V
U10
5V
TX FM AM AQ
LO
RFG
SC
13.2V
REG Q41
9V
REG U7
PWR CONT T6
13.2V

RF_POWER

LUITON LT-298

SCHEMATIC DIAGRAM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U4A LM2904M
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U5C LM2902
U5D LM2902
U9 TDA2003
U6 BR-700
FT1 450C24
FT2 CFWM4450HT
FT3 10.7MHz
X1 10.250MHZ
X2 CON5
J2 CON2
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Number
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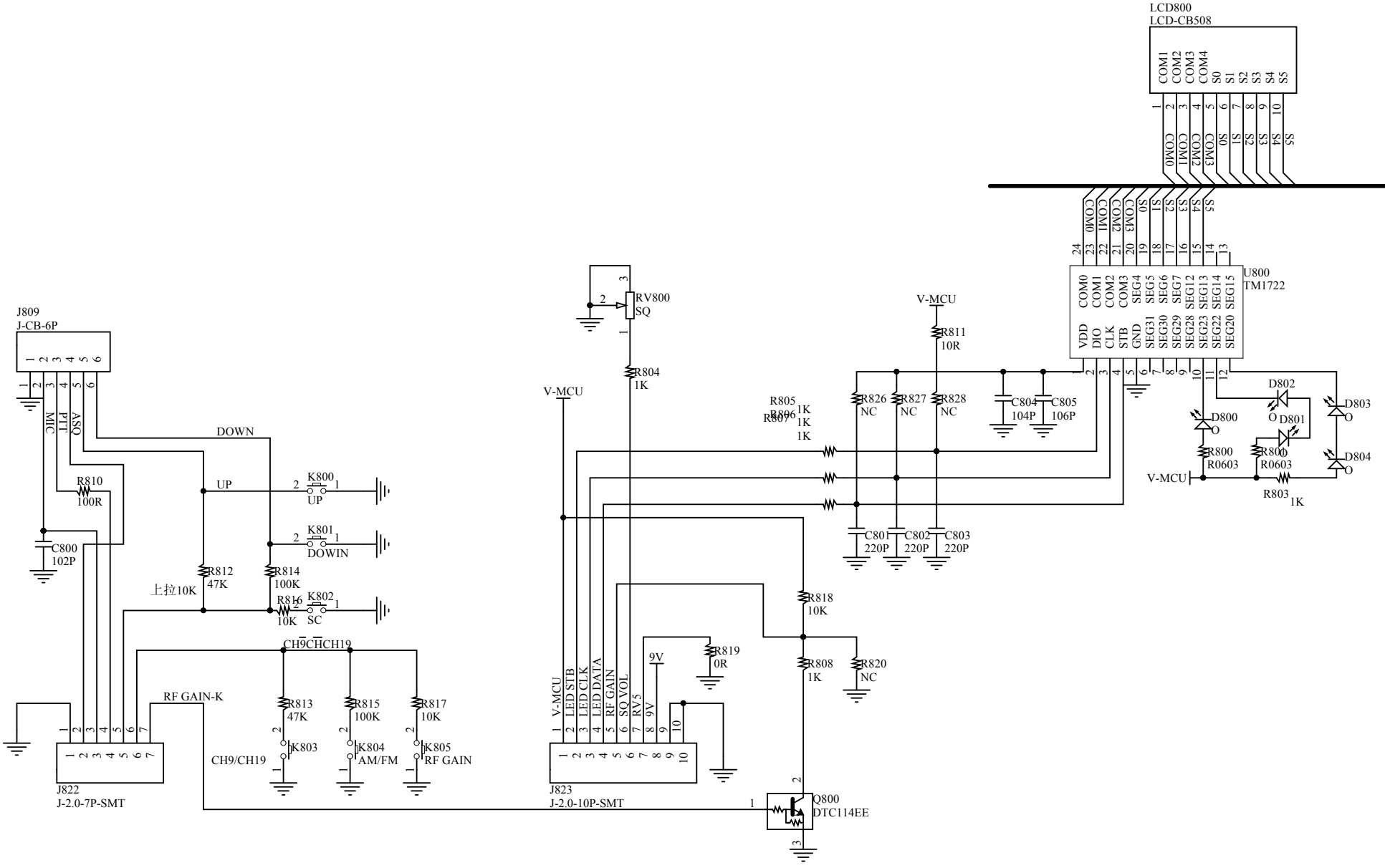
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COM2
COM3
COM4
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S2
S3
S4
S5
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TM1722
VDD
DIO
CLK
STB
GND
COM0
SEG4
SEG5
SEG6
SEG7
SEG12
SEG13
SEG14
SEG15
SEG31
SEG30
SEG29
SEG28
SEG23
SEG22
SEG20
V-MCU
R811
10R
R826
NC
R827
NC
R828
NC
R805
R806
R807
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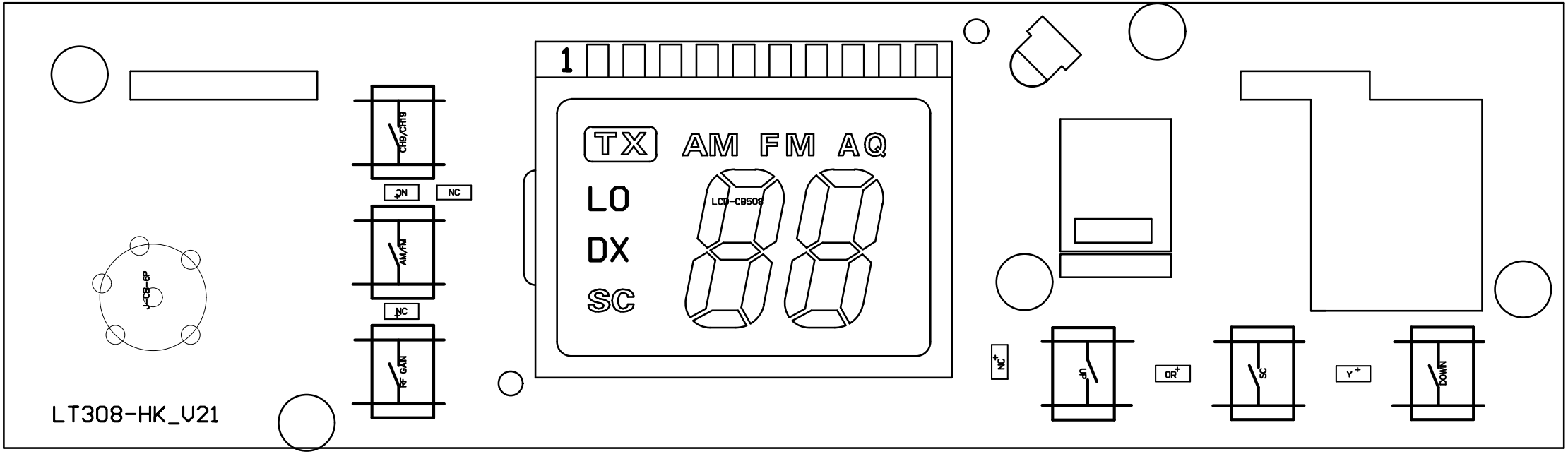
C804
104P
C805
106P
C801
220P
C802
220P
C803
220P
D800
D801
D802
D803
D804
R800
R0603
R803
1K
J809
J-CB-6P
MIC
PTT
ASO
DOWN
UP
K800
UP
K801
DOWIN
K802
SC
R810
100R
C800
102P
R812
47K
R814
100K
R816
10K
上拉10K
RV800
SQ
R804
1K
R818
10K
R819
0R
9V
R808
1K
R820
NC
CH9/CH19
RF GAIN-K
R813
47K
R815
100K
R817
10K
K803
K804
AM/FM
K805
RF GAIN
J822
J-2.0-7P-SMT
J823
J-2.0-10P-SMT
V-MCU
LED STB
LED CLK
LED DATA
RF GAIN
SQ VOL
RV5
9V
Q800
DTC114EE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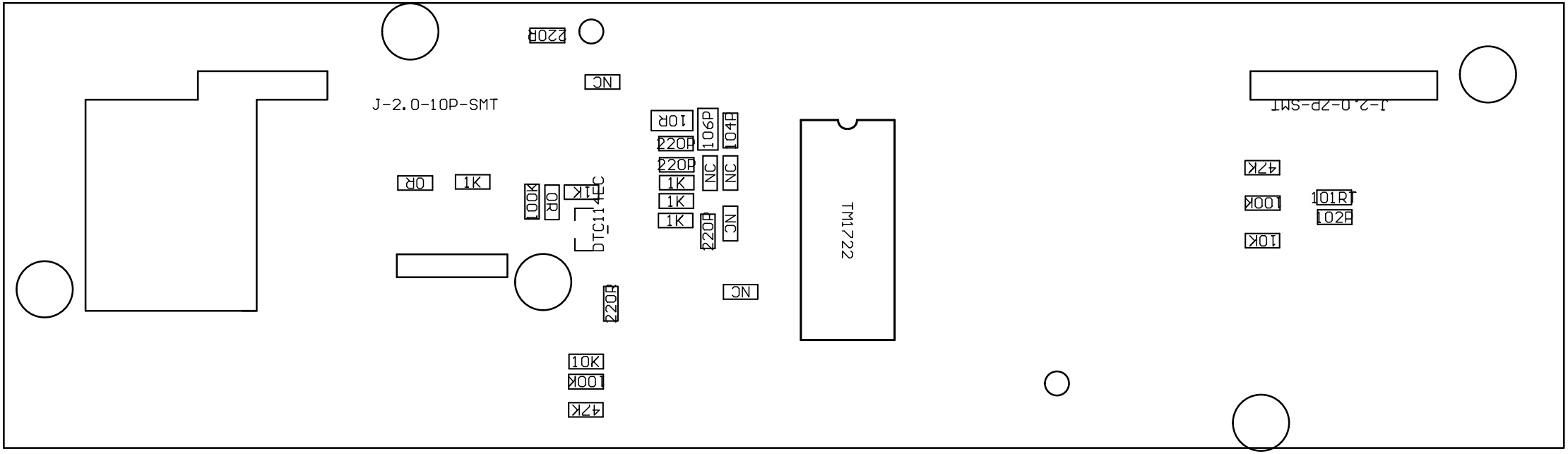
LT308-HK_V21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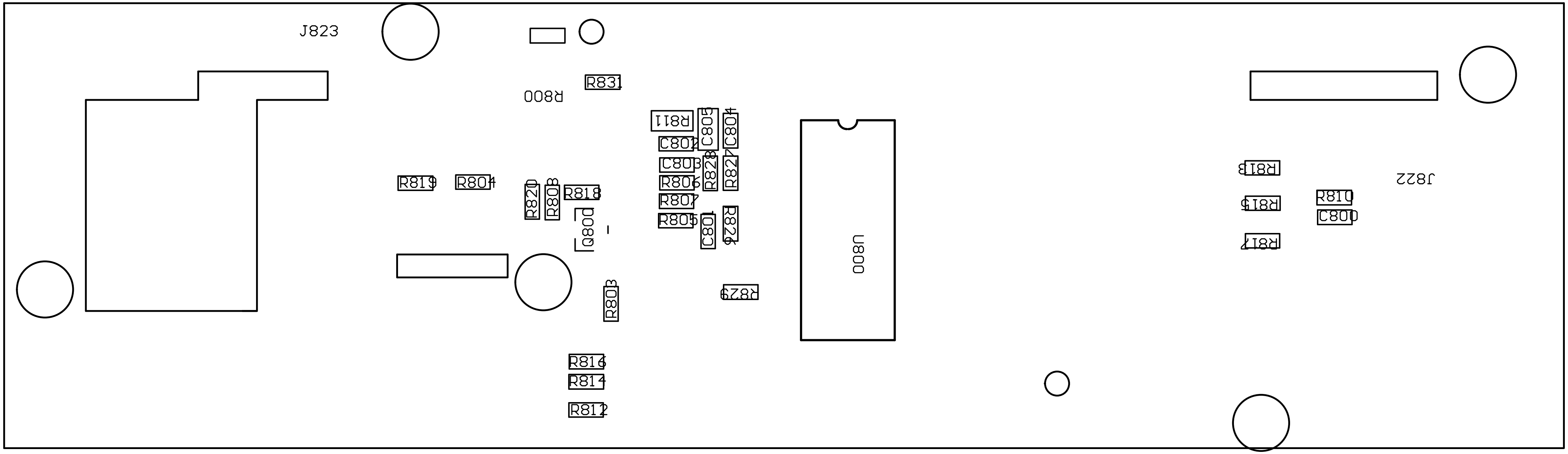
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Q800
U800
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C800
J822

LUITON LT-298

BOMPONENTS LIST

	Description / Specifications	Remark	
1	PCB HE-308(V22)	Double plate, thickness 1.6mm HASL process size: 114 * 139mm	1
2	Chip Resistors 0603 0Ω 5% 1/10W RoHS	R26, R49, R154, R155	4
3	Chip Resistors 0603 2R2 5% 1/10W RoHS	R34,	1
4	Chip Resistors 0805 0Ω 5% 1/8W RoHS	D2	1
5	Chip Resistors 0603 10Ω 5% 1/10W RoHS	R58, R80, R82, R195, R198,R9,	6
6	Chip Resistors 0603 100Ω 5% 1/10W RoHS	R29, R44	2
7	Chip Resistors 0603 1kΩ 5% 1/10W RoHS	R3, R10, R11, R12, R20, R28, R61, R76, R83, R137, R148, R172, R179, R197	14
8	Chip Resistors 0603 10kΩ 5% 1/10W RoHS	R15, R27, R51, R52, R63, R66, R70, R71, R73, R74, R81, R92, R93, R102, R103, R1	27
9	Chip Resistors 0603 100kΩ 5% 1/10W RoHS	R57, R77, R94, R101, R113, R120, R121, R126, R135, R144, R165, R173, R177, R186	14
10	Chip Resistors 0603 150Ω 5% 1/10W RoHS	R1, R128, R152, R153, R157, R16	6
11	Chip Resistors 0603 1.5kΩ 5% 1/10W RoHS	R47, R170, R178, R181, R183, R191	6
12	Chip Resistors 0603 15kΩ 5% 1/10W RoHS	R169,R132,	2
13	Chip Resistors 0603 18kΩ 5% 1/10W RoHS	R145, R149,	2
14	Chip Resistors 0603 180kΩ 5% 1/10W RoHS	R104, R127	2
15	Chip Resistors 0603 180Ω 5% 1/10W RoHS	R196	1
16	Chip Resistors 0603 20kΩ 5% 1/10W RoHS	R95, R98, R131	3
17	Chip Resistors 0603 220Ω 5% 1/10W RoHS	R190	1
18	Chip Resistors 0603 2.2kΩ 5% 1/10W RoHS	R54, R4, R6, R25, R72, R75, R129, R139, R146, R166, R194, R199	12
19	Chip Resistors 0603 22kΩ 5% 1/10W RoHS	R37, R43,	2
20	Chip Resistors 0603 220kΩ 5% 1/10W RoHS	R108, R114	2
21	Chip Resistors 0603 270Ω 5% 1/10W RoHS	R32	1
22	Chip Resistors 0603 27kΩ 5% 1/10W RoHS	R23, R79, R160,R97,	4
23	Chip Resistors 0603 3kΩ 5% 1/10W RoHS	R65, R99	2
24	Chip Resistors 0603 300Ω 5% 1/10W RoHS	R162	1
25	Chip Resistors 0603 33Ω 5% 1/10W RoHS	R5, R18	2
26	Chip Resistors 0603 330Ω 5% 1/10W RoHS	R59	1
27	Chip Resistors 0603 3.3kΩ 5% 1/10W RoHS	R188,R184,	2

28	Chip Resistors 0603 33kΩ 5% 1/10W RoHS	R90, R110, R116, R141, R142, R143,R140	7
29	Chip Resistors 0603 39kΩ 5% 1/10W RoHS	R88	1
30	Chip Resistors 0603 390kΩ 5% 1/10W RoHS	R86	1
31	Chip Resistors 0603 47Ω 5% 1/10W RoHS	R60, R100, R105, R134	4
32	Chip Resistors 0603 470Ω 5% 1/10W RoHS	R33, R167,R55,R123,R41,R202,	6
33	Chip Resistors 0603 4.7kΩ 5% 1/10W RoHS	R13, R35, R64, R133, R156, R168	6
34	Chip Resistors 1206 4.7kΩ 5% 1/4W RoHS	R124	1
35	Chip Resistors 0603 47kΩ 5% 1/10W RoHS	R78, R85, R115, R130, R136, R174,R176,	7
36	Chip Resistors 0603 470kΩ 5% 1/10W RoHS	R87, R111, R119, R182	4
37	Chip Resistors 0603 4.7Ω 5% 1/10W RoHS	R31	1
38	Chip Resistors 0603 56Ω 5% 1/10W RoHS	R159	1
39	Chip Resistors 0603 5.6kΩ 5% 1/10W RoHS	R192	1
40	Chip Resistors 0603 56kΩ 5% 1/10W RoHS	R14, R69	2
41	Chip Resistors 0603 68Ω 5% 1/10W RoHS	R8	1
42	Chip Resistors 0603 6.8kΩ 5% 1/10W RoHS	R24, R62, R96,R42,R30	5
43	Chip Resistors 0603 68kΩ 5% 1/10W RoHS	R21, R38	2
44	Chip Resistors 0603 82Ω 5% 1/10W RoHS	R68,	1
45	Chip Resistors 0603 820Ω 5% 1/10W RoHS	R22,R40,R56,R84,R91	5
46	Chip Resistors 0603 8.2kΩ 5% 1/10W RoHS	R30,R89	2
47	Chip capacitors 0603 10p±0.5p RoHS	C31	1
48	Chip capacitors 0603 100p±5% RoHS	C33, C76, C123, C126	4
49	Chip capacitors 0603 102p±10% RoHS	C8, C10, C23, C38, C43, C44, C60, C64, C84, C100, C146, C152, C154, C160, C165,	20
50	Chip capacitors 0603 103p±10% RoHS	C1, C3, C5, C6, C18, C39, C40, C58, C61, C68, C69, C85, C87, C89, C92, C93, C99	25
51	Chip capacitors 0603 104p±10% RoHS	C7, C51, C52, C53, C77, C78, C86, C90, C91, C101, C109, C110, C122, C128, C134,	29
52	Chip capacitors 0603 105p+80,-20% RoHS	C50, C75, C133, C178	4
53	Chip capacitors 0603 12p±5% RoHS	C21	1
54	Chip capacitors 0603 120p±10% RoHS	C20	1
55	Chip capacitors 0603 150p±10% RoHS	C32	1

56	Chip capacitors 0603 15p±5% RoHS	C130,C98,	2
57	Chip capacitors 0805 152p±10% RoHS	C55	1
58	Chip capacitors 0805 180p±10% RoHS	C46	1
59	Chip capacitors 0603 20p±5% RoHS	C22	1
60	Chip capacitors 0603 22p±5% RoHS	C66, C97, C137,C30	4
61	Chip capacitors 0805 220p±10% RoHS	C125	1
62	Chip capacitors 0603 222p±10% RoHS	C190	1
63	Chip capacitors 0603 223p±10% RoHS	C27, C41, C42, C82, C88, C95, C106, C138, C142, C179, C183, C199, C209, C211, C	15
64	Chip capacitors 0603 272p±10% RoHS	C72	1
65	Chip capacitors 0603 224p±10% RoHS	C108, C129	2
66	Chip capacitors 0603 24p±5% RoHS	C19,	1
67	Chip capacitors 1206 226p+80,-20% RoHS	C181	1
68	Chip capacitors 0805 39p±10% RoHS	C49	1
69	Chip capacitors 0603 3.5p±0.1p RoHS	C24	1
70	Chip capacitors 0603 333p±10% RoHS	C74, C107, C112, C113, C119, C124, C197, C203	8
71	Chip capacitors 0603 47p±5% RoHS	C4, C12, C26, C28,	4
72	Chip capacitors 0805 47p±5% RoHS	C114, C115	2
73	Chip capacitors 0603 470p±10% RoHS	C34, C36, C120, C9, C16, C54, C59, C67, C70, C94, C103, C127, C132, C213	14
74	Chip capacitors 0603 472p±10% RoHS	C73, C83, C102	3
75	Chip capacitors 0603 473p±10% RoHS	C45,C193,	2
76	Chip capacitors 0603 474p+80,-20% RoHS	C131,	1
77	Chip capacitors 0603 56p±5% RoHS	C79	1
78	Chip capacitors 0805 100p±5% RoHS	C117	1
79	Chip capacitors 0603 330p±10% RoHS	C57, C135	2
80	Chip capacitors 0603 68p±5% RoHS	C56,C17	2
81	Chip capacitors 0805 68p±5% RoHS	C63	1
82	Chip capacitors 0603 680p±10% RoHS	C48	1
83	Chip capacitors 0805 680p±10% RoHS	C81, C116	2

84	Chip capacitors 0603 682p±10% RoHS	C71	1
85	Chip capacitors 0603 7p±0.25p RoHS	C96	1
86	Chip capacitors 0603 82p±5% RoHS	C29	2
87	Chip capacitors 0603 820p±10% RoHS	C15	1
88	Chip capacitors 0603 822±10% RoHS	C111	1
89	Chip capacitors 1206 1uF/16V ±10% RoHS	C14,	1
90	Chip capacitors 1206 10uF/16V RoHS	C2	1
91	Chip inductance 0805 101 ±25% RoHS	L9	1
92	Chip inductance 0603 120nH ±5% RoHS	R2	1
93	Chip inductance 0603 221 ±25% 1A RoHS	L12, L13, L15, L16	4
94	Chip inductance 0805 330nH 2% RoHS	L4	1
95	Chip inductance 0805 390nH 2% RoHS	L1	1
96	Chip inductance 0805 470nH 2% RoHS	L3	1
97	Chip Resistors 3×3 10kΩ RoHS	VR4	1
98	Chip Resistors 3×3 22kΩ RoHS	VR3, VR6,	2
99	Chip Resistors 3×3 220kΩ RoHS	RV1.RV2	2
100	Chip Resistors 3×3 50kΩ RoHS	VR1,VR2,VR5	3
101	Chip inductance 3×4 2p/20p RoHS	VC1	1
102	Chip diode SOT523 RB706F-40 RoHS	D10, D13	2
103	Chip Varactor Diodes 0603 HVC376B(B9) RoHS	D1	1
104	Chip diode LL4148 ROHS	D5, D6, D7, D9, D11, D12, D18, D21, D23, D25, D26, D27	12
105	Chip diode 0603 HSC277TRF RoHS	D15	1
106	Chip Varactor Diodes SOT-323 1SV217 RoHS	D3, D4	2
107	Chip triode M8050 SOT23 RoHS	Q3, Q33, Q34, Q36	4
108	Chip triode ISS226 SOT23 RoHS	D14	1
109	Chip triode MMBT3904 SOT23 RoHS	Q17, Q38, Q40	3
110	Chip triode MMBT3906 SOT23 RoHS	Q32	1
111	Chip triode DTC114ECA SOT23 RoHS	Q6, Q14, Q18, Q20, Q22, Q31, Q37, Q39，Q11,Q42	10

112	Chip triode S9018L SOT23 RoHS	Q2, Q4, Q8, Q9, Q7,	5
113	Chip triode 2SC1623（L6） SOT23 RoHS	Q25, Q26, Q27, Q29	4
114	Chip triode 2SC2712（LY） SOT23 RoHS	Q12, Q13, Q19, Q21, Q23, Q24,	6
115	Chip triode SS8550 SOT23 RoHS	Q15, Q16, Q30, Q35	4
116	ntegrated circuit 3361D01 SOP16 RoHS	U3	1
117	ntegrated circuit ICMCD2926 SSOP16 RoHS	U1	1
118	ntegrated circuit NJM2902V-TE2 SSOP14 RoHS	U5	1
119	ntegrated circuit NJM2904V-TE2 SSOP8 RoHS	U4	1
120	ntegrated circuit STM8003K3 (LT308/CE V1.0)	U2	1
121	Chip Zener diode Q550(5V) SOT89 RoHS	U7	1
122	metal HE308 VCO Shielding box		1
123	Plug-resistance 10Ω 1% 1W RoHS	R45	1
124	Plug-resistance 4.7Ω 5% 1W RoHS	R180	1
125	Plug-electrolysis 4×7 1UF/25V±20% RoHS	C206,C158	2
126	Plug-electrolysis 4×7 10uF/25V±20% 低频	C13, C37, C105, C148, C153, C173, C196, C204,C177	9
127	Plug-electrolysis 5×11 100uF/16V±20% RoHS	C65, C144	2
128	Plug-electrolysis 10×16 1000uF/25V±20% Ro	C207	1
129	Plug-electrolysis 4×5 22uF/16V±20% RoHS	C169	1
130	Plug-electrolysis 4×7 33uF/16V±20% RoHS	C47	1
131	Plug-electrolysis 4×7 4.7uF/25V±20% RoHS	C151, C184,,C156	3
132	Plug-electrolysis 5×7 47uF/25V±20% RoHS	C162, C172, C175, C182, C187,C174	6
133	Plug-electrolysis 8×14 470uF/25V±20% RoHS	C159,C186, C191, C205	4
134	Plug-electrolysis 4×7 2.2uF/16V±20% RoHS	C147,C168	2
135	Plug-inductance 6.8UH/0.5W RoHS	L2	1
136	Plug-inductance 0.55×3.4×6.5T RoHS	L8, L10	2
137	Plug-inductance 0.55×3.4×7.5T RoHS	L5, L6,,L11, L14	4
138	Plug-inductance 0.6×4.5×20T RoHS	L7,L18	2
139	Plug-diode DO-35 IN4007 ROHS	D19	1

140	Plug-ntegrated circuit TDA2003 TO-220B ROHS	U5	1
141	Plug-inductance HE308 03# 7X7 非 RoHS	T2	1
142	Plug-inductance HE308 04# 7X7 非 RoHS	T1	1
143	Plug-inductance HE308 RA 7X7 非 RoHS	T5	1
144	Plug-inductance HE308 RB 7X7 非 RoHS	T4	1
145	Plug-inductance HE308 5# 7X7 非 RoHS	T3	1
146	Plug-crystal 10.25M RoHS	X1	1
147	plug-Crystal filter 10.7MHZ （±3.75KHZ/3dB）	FT3	1
148	plug-filter LTW450HT RoHS	FT2	1
149	Relays	U6	1
150	transformer 4W-HE308	T6	1
151	plug-Row seat 2.0X2P	SP-1	1
152	plug Headphone seat R3.5	J3	1
153	Plug-diode DO-35 1N5819 ROHS	D16, D17	2
154	Plug-triode S9018(H)	Q5	1
155	Plug-diode1N60 (RoHS)	D8	1
156	Plug-inductance WBRH-35908	D24	1
157	frequency discriminator JTBM450C24 (RoHS)	FT1	1
158	Plug-triode 2SC2314	Q1	1
159	Plug field-effect transistor IRF530N	Q10	1
160	Plug Zener diodeLM7809	Q41	1
161	Welding semi-finished panel		1
162	SMT semi-finished panel		1
163	PCB board panel HE508HK (V10)	Double plate, thickness 1.6mm HAL / gold plating	1
164	Chip Resistors 0603 0Ω 5% 1/10W RoHS	R808,R819,R803	3
165	Chip Resistors 0603 10Ω 5% 1/10W RoHS	R811	1
166	Chip Resistors 0603 1kΩ 5% 1/10W RoHS	R804,R805,R806,R807,R818	5
167	Chip Resistors 0603 10kΩ 5% 1/10W RoHS	R816,R817	1

168	Chip Resistors 0603 47kΩ 5% 1/10W RoHS	R812,R813	2
169	Chip Resistors 0603 100kΩ 5% 1/10W RoHs	R814,R815,R820	3
170	Chip capacitors 0603 220p±5% RoHS	C801,C802,C803	3
171	Chip capacitors 0603 102p±10% RoHS	C800,	1
172	Chip capacitors 0603 104p±10% RoHS	C804	1
173	Chip inductance 1206 301 ±25% RoHS	C805	1
174	Chip inductance 0603 101 ±25% RoHS	R810	1
175	Chip triode SOT-89 DTC114ECA ROHS	Q800	1
176	ntegrated circuit SOP-24 TM1722 ROHS	U800	1
177	Reflective paper		2
178	Chip Resistors 0603 47kΩ 5% 1/10W RoHS	R800 R803	2
179	Plug-LED hair 0603 ROHS	D804	1
180	SMD Tact Switch 7*7	K800,K801,K802,K803,K804,K805	6
181	Plug-LCD		1
182	Plug-in potentiometer 10K(With switch) R087D0NS-KQ15C6.0-A103-00AROHS		1
183	Plug-in potentiometer 10K R087D0NO-KQ15C6.0-B103-000ROHS	VR6	1
184	Backlight	VR5	1
185	Plug-pull switch 2P2T SS-22F006-AT8	SW7	1
186	Plug-pull switch 2P3T SS-23D02-AT8	SW8	1
187	Plug-digital FJS-4201E ROHS		1
188	Flat line 0.5-10 X120mm (RoHS)		1
189	speaker HE308 8R/3W 78*78 ROHS		1
190	2P line 120mm ROHS		1

191	RF Connectors SL16-KY ROHS		1
192	line UL2468-18AWG long:270mm ROHS		1
193	LT308 panel ABS ROHS		1
194	LT308 panel buttons ABS ROHS		2
195	LT308 Panel SQ / RF Knob ABS ROHS		2
196	LT308 panel VOL knob ABS ROHS		1
197	LT308308 panel LED mirror ROHS		2
198	Power clip buckle 2P-4 ROHS		1
199	Insulating spacer White ROHS		2
200	LT308 steel upper case 喷漆 ROHS		1
201	LT308 steel under the hood 喷漆 ROHS		1
202	Connector（16M-6B） ROHS		1
203	metal LT308 shield box A ROHS		1
204	metal LT308 shield box A ROHS		1
205	metal LT308 shield box ROHS		1
206	metal LT308 cooling copper ROHS		1
207	metal LT308 host box 非ROHS		1
208	metal Antenna grounding copper head ROHS		1
209	Screw Machine Teeth M3X5mm ROHS		4
210	Screw Machine Teeth M3.0×5.0mm		4
211	Screw Machine Teeth M3X8mm ROHS		14
212	Screw From work ST2.3X4.5 ROHS		5
213	Hex nuts ROHS		8
214	Potentiometer nut M701-2.0		3
215	Spring washer R3X1 ROHS		5
216	Dust network 110*85mm ROHS		1
217	Sponge mats 150*5*0.5MM ROHS		1
218	metal VCO shield cover LT308 ROHS		1

219	metal Power tube shield cover LT308 ROHS		1
220	Mica fins 18*13mm ROHS		1
221	Semi-finished microphone LT308		1
222	PCB microphone LT308		1
223	Chip capacitors 0603 102p±10% RoHS		1
224	Plug-touch switch 6X6		1
225	Plug switch PTT 6		3
226	Microphone in hand spring line CB-308 ROHS		1
227	red line 5CM ROHS		1
228	black line 5CM ROHS		1
229	Connector 6-pin female connector Airlines		1
230	MIC R9.7X6.8(59±2dB) ROHS		1
231	Black Foam 25(outer path)*14 (high) *9.5 (Inside path) mm ROHS		1
232	Dust network R25mm		1
233	LT308 microphone in hand silk screen front shell LT-308		1
234	LT308 microphone in hand before the shell is not printing		1
235	LT308 microphone in hand after painting the shell		1
236	LT308 hand microphone ABS unpainted rear		1
237	LT308 hand microphone hanging buckle		1
238	LT308PTT button ABS ROHS		1
239	LT308 front of the microphone button art silk screen ROHS		1
240	LT308 front of the microphone button is not printing ROHS		1
241	Self-tapping screws ST2.5X5.5 半 ROHS		1
242	End product LUITON LT-308 frequencyEU (26.965-27.405MHz) /CE 40CH		5
243	Semifinished product LT-308 frequencyEU (26.965-27.405MHz) /CE 40CH		1
244	LUITON LT-308 English box		1

245	LUITON LT-308 English manual		1
246	LT308 microphone in hand within a paper card		1
247	LT308 hosts in the paper card		1
248	transparent bag 30 X 15.5 CM		1
249	transparent bag 9 X 6CM		1
250	transparent bag 18.5X 8.5CM		1
251	fuse 2A250V R6 X 30mm		1
252	Cigarette lighter cable UL2468-18AWG		1
253	Rubber gasket 23(outer path)*7.5（Inside path）*2mm（thick） ROHS		2
254	LT308 Car mounting bracket ROHS		1
255	LT308 Hand microphone rack ROHS		1
256	ABS Injection Screw M4*8.5mm ROHS		2
257	Self-tapping screws ST3.0×12.0mm		2
258	Self-tapping screws ST5.0×20.0mm 丝 ROHS		2
259	Spring washer 3.2m*1.0mm		2
260	fuse 2A250V R6 X 30mm		1
261	LT308 double-sided adhesive mirror ROHS		1
262	lt308 transparent acrylic mirror		1
263	Semifinished product LT308		1
264	Scotch tape 11X 58CM		1
265	Serial Number Label LT308 26X12mm		1
266	Standard carton packing 20 boxes carton RoHS		1/20