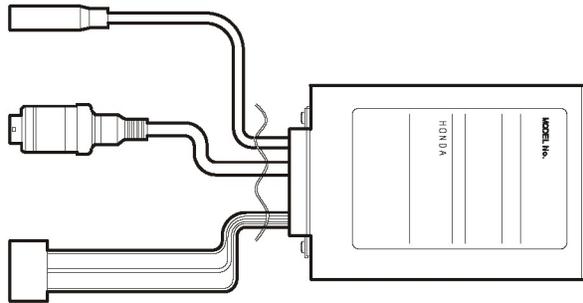


# Service Manual



HONDA Motorcycle Genuine  
 CB Radio

Model **JC-215H-51**  
 (Genuine No. 08E95-MBY-10001)

## SPECIFICATIONS

### General

Power supply voltage: 13.8V DC

Ground: Negative

Consumption current: 2.0A or below

(at transmission)

Back-up consumption current:

1.0mA or below

Frequency range: 26.965MHz to 27.405MHz(40ch)

Frequency tolerance: 0.005% or less

Radio wave type: A3E

Antenna impedance: 50Ω

Dimensions(mm): 105(W)×35(H)×150(D)

Weight: 620g

### Transmitter section

Power output: 4.0W

Transmission S/N: 40dB or higher

Modulation sensitivity: 40dBV/3dB

### Receiver section

Practical sensitivity: 6dBμV or below(S/N 10dB)

S/N: 35dB or higher

Distortion factor: 8% or below

Squelch sensitivity: Threshold; 8dBμV or below

Tight; 25dBμV or higher

Audio output level: 0.5V or higher

ch	MHz	ch	MHz
1	26.965	21	27.215
2	26.975	22	27.225
3	26.985	23	27.255
4	27.005	24	27.235
5	27.015	25	27.245
6	27.025	26	27.265
7	27.035	27	27.275
8	27.055	28	27.285
9	27.065	29	27.295
10	27.075	30	27.305
11	27.085	31	27.315
12	27.105	32	27.325
13	27.115	33	27.335
14	27.125	34	27.345
15	27.135	35	27.355
16	27.155	36	27.365
17	27.165	37	27.375
18	27.175	38	27.385
19	27.185	39	27.395
20	27.205	40	27.405

## NOTE

We cannot supply PWB with component parts in principle. When a circuit on PWB has failure, please repair it by component parts base. Parts which are not mentioned in service manual are not supplied.

Specification and design are subject to change without notice for further improvement.

## COMPONENT

JC-215H-51

Main unit

## To engineers in charge of repair or inspection of our products.

Before repair or inspection, make sure to follow the instructions so that customers and Engineers in charge of repair or inspection can avoid suffering any risk or injury.

### 1. Use specified parts.

The system uses parts with special safety features against fire and voltage. Use only parts with equivalent characteristics when replacing them.

The use of unspecified parts shall be regarded as remodeling for which we shall not be liable. The onus of product liability (PL) shall not be our responsibility in cases where an accident or failure is as a result of unspecified parts being used.

### 2. Place the parts and wiring back in their original positions after replacement or re-wiring.

For proper circuit construction, use of insulation tubes, bonding, gaps to PWB, etc, is involved. The wiring connection and routing to the PWB are specially planned using clamps to keep away from heated and high voltage parts. Ensure that they are placed back in their original positions after repair or inspection.

If extended damage is caused due to negligence during repair, the legal responsibility shall be with the repairing company.

### 3. Check for safety after repair.

Check that the screws, parts and wires are put back securely in their original position after repair. Ensure

for safety reasons there is no possibility of secondary problems around the repaired spots.

If extended damage is caused due to negligence of repair, the legal responsibility shall be with the repairing company.

### 4. Caution in removal and making wiring connection to the parts for the automobile.

Disconnect the battery terminal after turning the ignition key off. If wrong wiring connections are made with the battery connected, a short circuit and/or fire may occur. If extensive damage is caused due to negligence of repair, the legal responsibility shall be with the repairing company.

### 5. Cautions regarding chips.

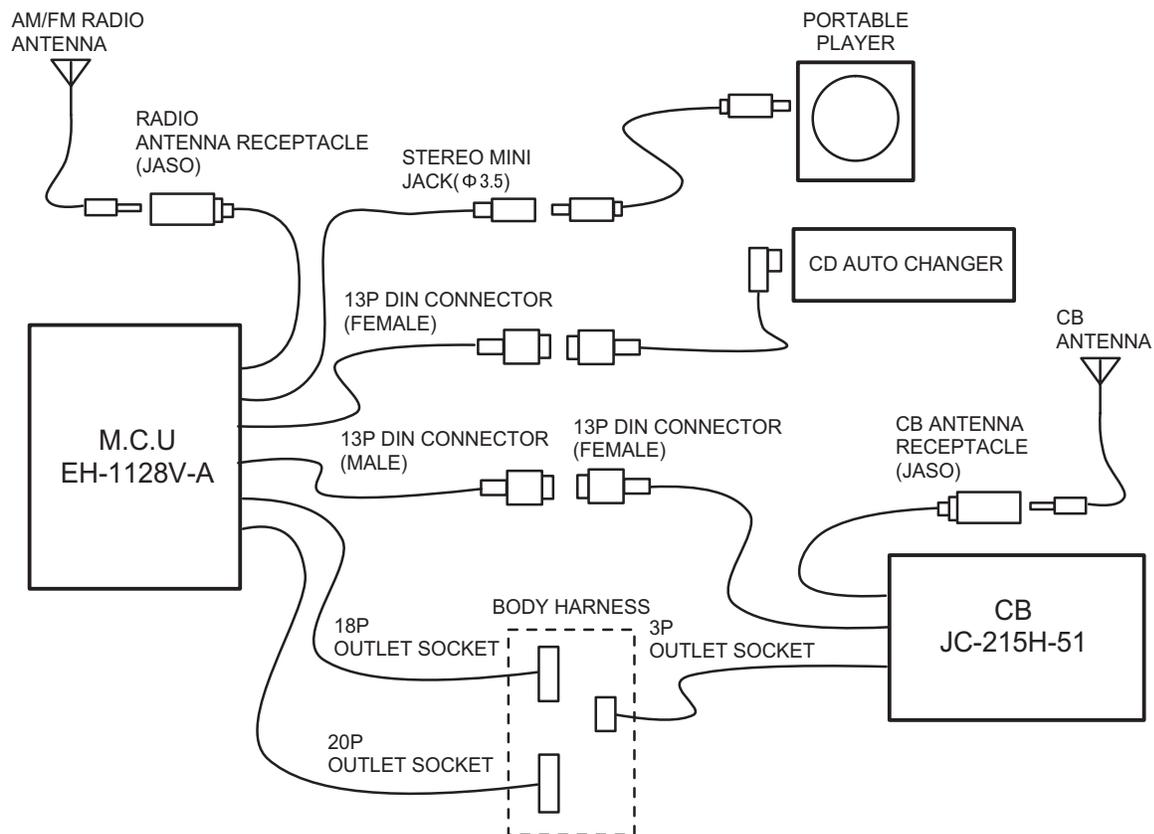
Do not reuse removed chips even when no abnormality is observed in their appearance. Always replace them with new ones. (The chip parts include resistors, capacitors, diodes, transistors, etc). The negative pole of tantalum capacitors is highly susceptible to heat, so use special care when replacing them and check the operation afterwards.

### 6. Cautions in handling flexible PWB

Before working with a soldering iron, make sure that the iron tip temperature is around 270 . Take care not to apply the iron tip repeatedly (more than three times) to the same patterns. Also take care not to apply the tip with force.

### 7. Turn the unit OFF during disassembly and parts replacement. Recheck all work before you apply power to the unit.

## WIRE CONNECTIONS



# EXPLANATION OF IC

MB89133APFM-G449 052-9203-01 CB Transceiver Control

## 1. Outward Form : 48 pins QFP

## 2. Terminal Description

pin 1 : AVCC	: -	: Positive supply voltage for A/D converter.	pin 26 : PLL CLK	: O	: PLL clock output.
pin 2 : RST	: IN	: Reset signal input.	pin 27 : PLL LOCK	: IN	: PLL lock signal input.
pin 3 : MOD0	: -	: Not in use.	pin 28 : PTT	: IN	: PTT signal input.
pin 4 : MOD1	: -	: Not in use.	pin 29 : N.C.	: -	: Not in use.
pin 5 : X0	: -	: Clock	pin 30 : N.C.	: -	: Not in use.
pin 6 : X1	: -	: 4.194MHz	pin 31 : N.C.	: -	: Not in use.
pin 7 : VCC	: -	: Positive supply voltage.	pin 32 : N.C.	: -	: Not in use.
pin 8 : X0A	: -	: Not in use.	pin 33 : CB KEY_	: IN	: CB Key request signal input. Negative logic.
pin 9 : X1A	: -	: Not in use.	pin 34 : AUDIO MUTE	: O	: Audio mute signal output.
pin 10 : N.C.	: -	: Not in use.	pin 35 : BEEP	: O	: Beep sound output.
pin 11 : N.C.	: -	: Not in use.	pin 36 : START KEY_	: IN	: Start key signal input. Negative logic.
pin 12 : N.C.	: -	: Not in use.	pin 37 : CB RESET	: IN	: CB reset signal input.
pin 13 : N.C.	: -	: Not in use.	pin 38 : IGNIT SW_	: IN	: Ignition switch signal input. Negative logic.
pin 14 : N.C.	: -	: Not in use.	pin 39 : C2B CE	: O	: Chip enable signal output of Serial data communication line.
pin 15 : POP SW	: O	: Pop noise killer control signal output.	pin 40 : C2B SI	: IN	: Serial data input.
pin 16 : RX SW	: O	: RX audio switch control signal output.	pin 41 : C2B SO	: O	: Serial data output.
pin 17 : POWER 8V	: O	: 8V power supply control signal output.	pin 42 : C2B CLK	: O	: Clock out of Serial data communication line.
pin 18 : TEST OUT	: O	: Not in use.	pin 43 : AVSS	: -	: Ground for A/D converter.
pin 19 : GND	: -	: Ground.	pin 44 : AVREF	: -	: Reference voltage for A/D converter.
pin 20 : TEST IN	: IN	: Not in use.	pin 45 : POWER 5V	: O	: 5V power supply control signal output.
pin 21 : VCO SHIFT	: O	: VCO sift signal output. "H"= TX , "L"= RX	pin 46 : N.C.	: -	: Not in use.
pin 22 : TX ON	: O	: TX ON signal output.	pin 47 : N.C.	: -	: Not in use.
pin 23 : RX ON	: O	: RX ON signal output.	pin 48 : SQ LEVEL	: IN	: Input terminal of SQ level detector.
pin 24 : PLL LE	: O	: PLL load enable signal output.			
pin 25 : PLL DATA	: O	: PLL data output.			

## ADJUSTMENTS

### Adjusting VCO

1. Set CB channel to CH20(27.205MHz).
2. Connect a DC voltmeter to TP101(V.CONT).
3. Adjust L113 so that the voltmeter reading becomes  $2.0 \pm 0.05V$  while trasmitting(TX), and adjust L114 so that the volmeter reading becomes  $2.0 \pm 0.05V$  while receiving a signal(RX).

### Adjusting TX power

1. Set CB channel to CH20(27.205MHz), and connect a power meter to ANT.
2. Turn the core of L106 so that it moves top.
3. Adjust VR101 so that the power becomes maximun.
4. Adjust IFT105,L111 and L109 in this order so that the power becomes maximun.
5. Adjust L104 so that the power becomes maximum.
6. Adjust VR101 so that the powermeter reading becomes  $3.7 \pm 0.05W$ .
7. Make sure that the power is 3.2 to 4.0W when CB channel is set CH1 and CH40.

### Adjusting modulation

1. Set CB channel to CH20(27.205MHz).
2. Connect low frequency oscillator to the MIC-IN terminal of the DIN connector, and set the oscillator's output to 1kHz,100mV.
3. Adjust VR102 so that the depth of modulation at this time becomes 70%.
4. Set the cscillator's output to 1kHz,10mV.
5. Adjust VR103 so that the depth of modulation at this time becomes 50%.

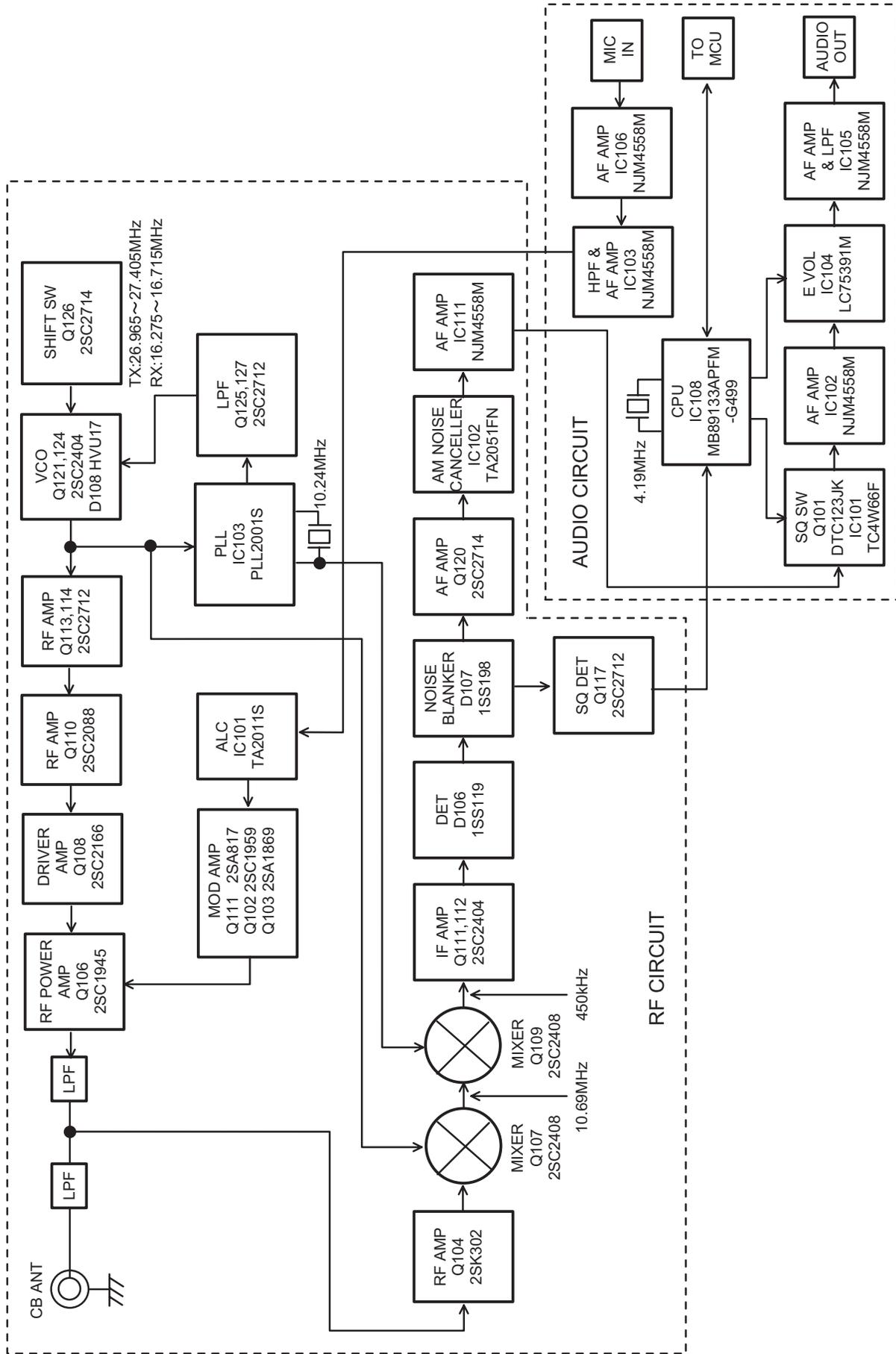
### Adjusting receive sensitivity

1. Set CB channel to 20CH(27.205MH), set SQ level to 1, and set VOL level to 10.
2. Connect SSG to ANT(set SSG output to 70dB  $\mu$ ), and connect an AC voltmeter(synchroscope) to the audio output. Adjust IFT4,IFT103,IFT106,IFT101 and L102 in this order so that the audio output becomes maximum.
3. Make sure that S/N is more than 10dB when CB channel is set CH20 and SSG output is set 5dB  $\mu$ .

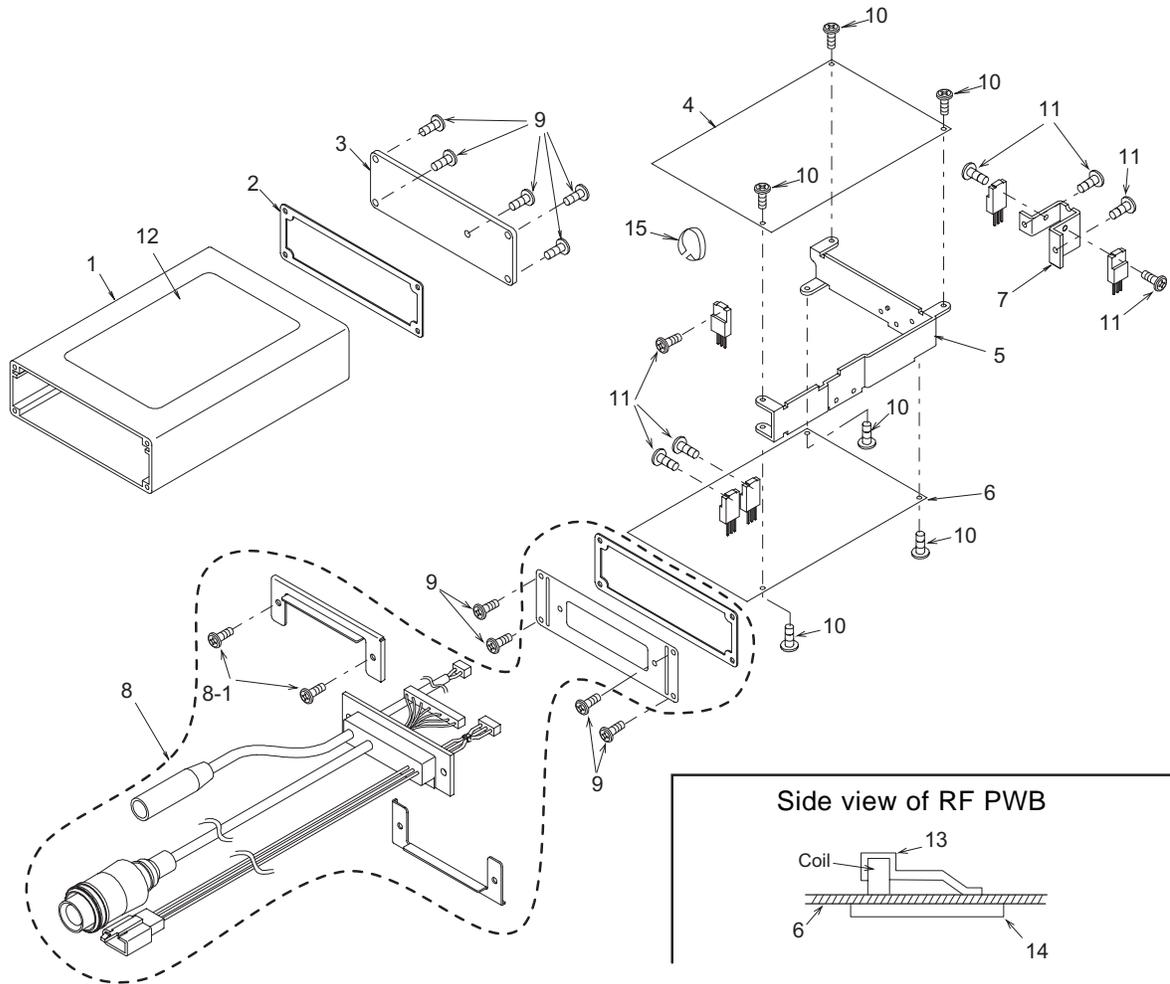
### Adjusting squelch

1. Set CB channel to CH20(27.205MHz), and set SSG output to 10dB  $\mu$ .
2. Connect a DC voltmeter to TP102(SQ).
3. Adjust VR104 so that the voltmeter reading becomes  $1.6 \pm 0.05V$ .
4. Threshold sensitivity  
Set CB channel to CH20(27.205MHz), set VOL level to 10, and set SSG output to 4dB  $\mu$   
Make sure that the waveform disappears when SQ level is set 1 to 2.
5. Tight sensitivity  
Set CB channel to CH20(27.205MHz), set SQ level to 20, set VOL level to 10, and set SSG output to 0dB  $\mu$ . Increase SSG output, and make sure that the waveform appears when SSG output is et 25dB  $\mu$ .

# BLOCK DIAGRAM



# EXPLODED VIEW · PARTS LIST



NO.	PART NO.	DESCRIPTION	Q'TY
1	313-1671-00	CASE	1
2	347-5347-00	GASKET	1
3	331-1965-00	BOTTOM PLATE	1
4	039-1344-00	AUDIO PWB (WITHOUT COMPONENT)	1
5	313-1672-00	HEATSINK A	1
6	039-1345-00	RF PWB (WITHOUT COMPONENT)	1
7	313-1673-00	HEATSINK B	1
8	855-3432-01	EXTENSION LEAD	1

NO.	PART NO.	DESCRIPTION	Q'TY
8-1	714-3010-87	MACHINE SCREW(M3 × 10)	2
9	716-1779-00	SCREW(M3 × 8)	9
10	732-3006-11	SEMS SCREW(M3 × 6)	6
11	714-3006-11	MACHINE SCREW(M3 × 6)	7
12	286-9159-00	SETPLATE	1
13	331-2064-00	SHIELD CASE A	1
14	331-2065-00	SHIELD CASE B	1
15	335-0833-01	LEAD HOLDER	1

# ELECTRICAL PARTS LIST

## RF PWB section(B1)

REF No.	PART No.	DESCRIPTION	REF No.	PART No.	DESCRIPTION	REF No.	PART No.	DESCRIPTION
C101	176-7097-00	7pF CH	C179	178-2212-78	220pF	C620	163-4753-50	35V4.7 μ F
C102	043-0298-00	120pF	C181	178-4732-78	0.047 μ F	C642	178-1032-78	0.01 μ F
C103	042-0397-06	35V0.1 μ F	C182	178-3332-78	0.033 μ F	C643	178-6832-78	0.068 μ F
C104	043-0298-03	330pF	C183	042-0397-00	16V1 μ F TAN	C645	184-1073-41	25V100 μ F
C105	176-3901-00	39pF CH	C184	178-1032-78	0.01 μ F	C665	178-3932-78	0.039 μ F
C107	173-6821-11	6800pF J	C185	176-1511-00	150pF CH	D101	001-0330-00	1SS119
C108	178-1022-78	1000pF	C186	176-5601-00	56pF CH	D102	001-0330-00	1SS119
C109	043-0298-02	270pF	C187	178-1032-78	0.01 μ F	D103	001-0330-00	1SS119
C110	184-2273-21	10V220 μ F	C188	042-0397-00	16V1 μ F TAN	D104	001-0516-00	MA111
C111	178-4732-78	0.047 μ F	C189	178-1055-79	1 μ F	D105	001-0516-00	MA111
C112	178-4732-78	0.047 μ F	C190	042-0403-01	16V10 μ F TAN	D106	001-0330-00	1SS119
C113	043-0299-00	470pF	C191	178-1022-78	1000pF	D107	001-0361-10	1SS198
C114	178-4732-78	0.047 μ F	C192	178-8222-78	8200pF	D108	001-3204-90	HVU17-TR
C115	043-0298-02	270pF	C193	178-1032-78	0.01 μ F	D117	001-0360-00	S5566B
C116	043-0298-01	150pF	C194	176-1011-00	100pF CH	D118	001-0601-00	DE3L2OU
C117	178-4732-78	0.047 μ F	C195	176-1501-00	15pF CH	D120	001-0330-00	1SS119
C119	178-1022-78	1000pF	C196	176-6801-00	68pF CH	D121	001-0330-00	1SS119
C120	178-4732-78	0.047 μ F	C197	176-3301-00	33pF CH	D122	001-0330-00	1SS119
C121	176-5601-00	56pF CH	C198	176-1011-00	100pF CH	D123	001-0574-43	DTZ8.2A
C122	178-1022-78	1000pF	C199	176-2201-00	22pF CH	D130	001-0330-00	1SS119
C123	178-2232-78	0.022 μ F	C200	178-3312-78	330pF	D131	001-0360-00	S5566B
C124	178-1242-78	0.12 μ F	C201	178-1032-78	0.01 μ F	D132	001-0601-00	DE3L2OU
C125	178-4712-78	470pF	C202	176-3901-00	39pF CH	D133	001-0330-00	1SS119
C126	043-0299-00	470pF	C203	176-3301-00	33pF CH	D134	001-0330-00	1SS119
C127	178-1042-78	0.1 μ F	C204	042-0423-01	16V2.2 μ F	FIL101	060-0264-10	0.01 μ F EMI
C128	178-5632-78	0.056 μ F	C205	178-3332-78	0.033 μ F	IC101	051-5808-00	TA2011S
C129	178-1022-78	1000pF	C207	178-1032-78	0.01 μ F	IC102	051-4200-90	TA2051FN
C130	178-1032-78	0.01 μ F	C208	178-1032-78	0.01 μ F	IC103	051-6207-08	PLL2001S-ET
C131	178-8232-78	0.082 μ F	C209	178-1042-78	0.1 μ F	IC109	051-0352-01	TA78L05F
C132	042-0472-00	10V47 μ F	C210	178-1042-78	0.1 μ F	IC110	051-0718-10	NJM7808FA
C133	178-1022-78	1000pF	C265	178-1032-78	0.01 μ F	IC111	051-0350-55	NJM4558M
C134	042-0398-03	16V3.3 μ F TAN	C266	178-1022-78	1000pF	IC112	051-1461-00	NJU7201U50
C135	042-0403-01	16V10 μ F TAN	C268	163-4763-30	16V47 μ F	IFT101	005-0922-00	27MHz
C136	176-2201-00	22pF CH	C269	163-4763-30	16V47 μ F	IFT102	005-0967-00	10.7MHz
C137	178-4732-78	0.047 μ F	C276	178-1032-78	0.01 μ F	IFT103	005-0750-00	IFT
C138	178-1032-78	0.01 μ F	C277	178-1032-78	0.01 μ F	IFT104	005-2503-00	SFSP450H6 450kHz
C139	178-2732-78	0.027 μ F	C279	184-1073-41	25V100 μ F	IFT105	005-0922-00	27MHz
C140	042-0397-00	16V1 μ F TAN	C286	184-1083-41	25V1000 μ F	IFT106	005-0922-00	27MHz
C141	178-4712-78	470pF	C300	178-1055-79	1 μ F	IFT4	005-0753-00	IFT
C142	178-4712-78	470pF	C301	178-1032-78	0.01 μ F	L101	010-2046-00	0.22 μ H
C143	176-5601-00	56pF CH	C302	178-1022-78	1000pF	L102	010-2039-00	27MHz
C144	176-4701-00	47pF CH	C303	178-1022-78	1000pF	L103	010-2159-00	COIL
C145	176-5096-00	5pF CH	C304	178-1032-78	0.01 μ F	L104	010-2159-00	COIL
C146	178-6832-78	0.068 μ F	C305	042-0397-06	35V0.1 μ F	L105	010-2159-00	COIL
C147	178-1022-78	1000pF	C306	178-1022-78	1000pF	L106	010-1792-00	COIL
C148	178-1032-78	0.01 μ F	C307	178-1055-79	1 μ F	L107	010-2160-00	9 μ H
C150	178-1032-78	0.01 μ F	C308	178-6832-78	0.068 μ F	L108	010-2052-00	2.2mH
C151	178-1032-78	0.01 μ F	C309	042-0403-01	16V10 μ F TAN	L109	010-2158-00	0.32mH
C152	178-4732-78	0.047 μ F	C310	178-1032-78	0.01 μ F	L110	010-2046-24	22 μ H
C153	184-4763-41	25V47 μ F	C311	042-0423-04	10V 4.7 μ F	L111	010-4209-00	0.32 μ H
C154	178-1022-78	1000pF	C312	178-1032-78	0.01 μ F	L113	010-4207-00	1 μ H
C155	178-1032-78	0.01 μ F	C313	178-1022-78	1000pF	L114	010-4208-00	1.2 μ H
C156	178-4732-78	0.047 μ F	C314	042-0403-01	16V10 μ F TAN	L115	010-2199-74	10 μ H J
C157	042-0416-00	16V4.7 μ F	C315	178-1032-78	0.01 μ F	L125	010-2046-31	82 μ H
C158	178-2232-78	0.022 μ F	C316	178-1032-78	0.01 μ F	L130	010-2199-59	0.56 μ H J
C159	042-0416-00	16V4.7 μ F	C340	178-1022-78	1000pF	L133	010-2285-05	BLM21A102S
C160	176-1811-00	180pF CH	C341	176-1096-00	1pF CK	L134	010-2285-05	BLM21A102S
C161	178-3332-78	0.033 μ F	C400	178-3312-78	330pF	L135	010-2285-05	BLM21A102S
C162	178-2232-78	0.022 μ F	C401	178-1055-79	1 μ F	L136	060-0198-00	2BF113T-01
C163	178-5632-78	0.056 μ F	C600	042-0423-04	10V 4.7 μ F	P100	076-0232-02	2P
C164	176-2201-00	22pF CH	C601	184-1073-41	25V100 μ F	P101	076-0232-03	3P
C165	178-4732-78	0.047 μ F	C602	178-1022-78	1000pF	P105	076-0533-08	8P
C166	178-3332-78	0.033 μ F	C603	176-3301-00	33pF CH	P106	076-0533-08	8P
C167	042-0406-03	16V22 μ F	C610	176-3301-00	33pF CH	Q101	100-0817-00	2SA8170
C168	178-1032-78	0.01 μ F	C611	176-1201-00	12pF CH	Q102	102-1959-00	2SC1959
C169	178-2232-78	0.022 μ F	C612	178-4732-78	0.047 μ F	Q103	100-1869-25	2SA1869Y
C170	176-1511-00	150pF CH	C613	042-0472-00	10V47 μ F	Q104	108-0302-50	2SK302Y.GR
C172	178-4732-78	0.047 μ F	C614	176-5096-00	5pF CH	Q105	102-2712-00	2SC2712
C175	178-3332-78	0.033 μ F	C617	178-2232-78	0.022 μ F	Q106	102-1945-00	2SC1945
C177	178-1032-78	0.01 μ F	C618	178-3912-78	390pF	Q107	192-2480-00	2SC2480-T,S-TX
C178	178-6832-78	0.068 μ F	C619	042-0397-02	35V0.33 μ F	Q108	102-2166-00	2SC2166

REF No.	PART No.	DESCRIPTION	REF No.	PART No.	DESCRIPTION	REF No.	PART No.	DESCRIPTION
Q109	192-2480-00	2SC2480-T,S-TX	R136	117-3311-10	1/10W 330	R199	117-2721-10	1/10W 2.7k
Q110	102-2086-00	2SC2086	R137	117-1011-10	1/10W 100	R202	117-1021-10	1/10W 1k
Q111	102-2404-00	2SC2404B,C,D	R138	117-3311-10	1/10W 330	R203	117-1021-10	1/10W 1k
Q112	102-2404-00	2SC2404B,C,D	R139	117-3331-10	1/10W 33k	R204	117-1021-10	1/10W 1k
Q113	102-2714-25	2SC2714Y	R140	117-2221-10	1/10W 2.2k	R205	117-5631-10	1/10W 56k
Q114	102-2712-00	2SC2712	R141	117-2221-10	1/10W 2.2k	R206	117-1021-10	1/10W 1k
Q115	100-1313-00	2SA1313O,Y	R142	117-5601-10	1/10W 56	R207	117-8221-10	1/10W 8.2k
Q116	102-2714-25	2SC2714Y	R143	117-2221-10	1/10W 2.2k	R208	117-2221-10	1/10W 2.2k
Q117	102-2712-00	2SC2712	R144	117-4721-10	1/10W 4.7k	R210	117-5621-10	1/10W 5.6k
Q118	100-1313-00	2SA1313O,Y	R145	117-1021-10	1/10W 1k	R211	117-5621-10	1/10W 5.6k
Q119	125-2020-05	DTC123JK	R146	117-2221-10	1/10W 2.2k	R290	117-1031-10	1/10W 10k
Q120	102-2712-00	2SC2712	R147	117-8221-10	1/10W 8.2k	R300	117-4711-10	1/10W 470
Q121	102-2404-00	2SC2404B,C,D	R148	117-1231-10	1/10W 12k	R301	117-1041-10	1/10W 100k
Q122	100-1313-00	2SA1313O,Y	R149	117-1231-10	1/10W 12k	R303	117-1031-10	1/10W 10k
Q123	125-2020-05	DTC123JK	R150	117-6811-10	1/10W 680	R304	117-4721-10	1/10W 4.7k
Q124	102-2404-00	2SC2404B,C,D	R151	117-3311-10	1/10W 330	R305	117-1011-10	1/10W 100
Q125	102-2712-00	2SC2712	R152	117-1011-10	1/10W 100	R307	117-5621-10	1/10W 5.6k
Q126	102-2714-25	2SC2714Y	R153	117-3931-10	1/10W 39k	R308	117-1831-10	1/10W 18k
Q127	102-2712-00	2SC2712	R154	117-3321-10	1/10W 3.3k	R309	117-6831-10	1/10W 68k
Q140	100-1869-25	2SA1869Y	R155	117-4721-10	1/10W 4.7k	R310	117-4711-10	1/10W 470
Q141	125-2020-05	DTC123JK	R156	117-5621-10	1/10W 5.6k	R311	117-2231-10	1/10W 22k
Q142	100-1313-00	2SA1313O,Y	R158	117-3921-10	1/10W 3.9k	R312	117-1031-10	1/10W 10k
Q143	125-2020-05	DTC123JK	R159	117-4721-10	1/10W 4.7k	R313	117-1841-10	1/10W 180k
Q144	102-2712-00	2SC2712	R160	117-6831-10	1/10W 68k	R314	117-2241-10	1/10W 220k
Q600	102-2712-00	2SC2712	R161	117-1831-10	1/10W 18k	R315	117-3331-10	1/10W 33k
R101	117-1021-10	1/10W 1k	R163	117-4741-10	1/10W 470k	R316	117-1531-10	1/10W 15k
R102	117-5601-10	1/10W 56	R164	117-8231-10	1/10W 82k	R317	117-1041-10	1/10W 100k
R103	117-2711-10	1/10W 270	R167	117-1011-10	1/10W 100	R318	117-1041-10	1/10W 100k
R104	117-4791-10	1/10W 4.7	R168	117-1011-10	1/10W 100	R319	117-4731-10	1/10W 47k
R105	117-1231-10	1/10W 12k	R170	117-5631-10	1/10W 56k	R320	117-1841-10	1/10W 180k
R106	117-1011-10	1/10W 100	R172	117-8221-10	1/10W 8.2k	R321	117-4731-10	1/10W 47k
R107	117-3921-10	1/10W 3.9k	R175	117-6821-10	1/10W 6.8k	R322	117-1831-10	1/10W 18k
R108	117-2221-10	1/10W 2.2k	R176	117-5631-10	1/10W 56k	R323	117-4721-10	1/10W 4.7k
R112	117-3301-10	1/10W 33	R177	117-4721-10	1/10W 4.7k	R324	117-8221-10	1/10W 8.2k
R113	117-3921-10	1/10W 3.9k	R178	117-4701-10	1/10W 47	R330	111-1211-91	1/4WS 120
R115	117-1031-10	1/10W 10k	R179	117-1831-10	1/10W 18k	R353	117-1011-10	1/10W 100
R116	117-1001-10	1/10W 10	R180	117-2231-10	1/10W 22k	R354	117-4721-10	1/10W 4.7k
R117	117-3311-10	1/10W 330	R181	117-2231-10	1/10W 22k	R600	117-5601-10	1/10W 56
R119	117-1011-10	1/10W 100	R182	117-2211-10	1/10W 220	R601	117-1031-10	1/10W 10k
R120	117-3311-10	1/10W 330	R183	117-2721-10	1/10W 2.7k	R602	117-5631-10	1/10W 56k
R121	117-1031-10	1/10W 10k	R184	117-3321-10	1/10W 3.3k	R614	117-5631-10	1/10W 56k
R122	117-1031-10	1/10W 10k	R185	117-1021-10	1/10W 1k	R615	117-4731-10	1/10W 47k
R123	117-1211-10	1/10W 120	R186	117-4701-10	1/10W 47	R620	111-2221-91	1/4WS 2.2k
R124	117-1231-10	1/10W 12k	R187	117-1211-10	1/10W 120	R621	111-2221-91	1/4WS 2.2k
R125	117-1531-10	1/10W 15k	R188	117-3311-10	1/10W 330	R801	117-1231-10	1/10W 12k
R126	117-2221-10	1/10W 2.2k	R189	117-4721-10	1/10W 4.7k	T300	009-0603-00	CHOKE
R127	117-6821-10	1/10W 6.8k	R190	117-1831-10	1/10W 18k	TH101	002-0186-10	DTN-D501K
R129	117-2741-10	1/10W 270k	R191	117-3931-10	1/10W 39k	TH102	002-0216-08	DTN-T203T333KS
R130	117-5621-10	1/10W 5.6k	R194	117-1211-10	1/10W 120	VR101	012-4864-11	220k
R131	117-4711-10	1/10W 470	R195	117-3311-10	1/10W 330	VR102	012-4864-05	4.7k
R133	117-6831-10	1/10W 68k	R196	117-4731-10	1/10W 47k	VR103	012-4864-05	4.7k
R134	117-2711-10	1/10W 270	R197	117-2731-10	1/10W 27k	VR104	012-4864-11	220k
R135	117-1821-10	1/10W 1.8k	R198	117-5621-10	1/10W 5.6k	X101	061-1070-00	10.24MHZ

Audio PWB section(B2)

REF No.	PART No.	DESCRIPTION	REF No.	PART No.	DESCRIPTION	REF No.	PART No.	DESCRIPTION
C101	178-1055-79	1 $\mu$ F	C118	178-3322-78	3300pF	C135	178-1032-78	0.01 $\mu$ F
C102	178-1055-79	1 $\mu$ F	C119	178-1032-78	0.01 $\mu$ F	C136	178-1032-78	0.01 $\mu$ F
C103	178-1032-78	0.01 $\mu$ F	C120	042-0403-01	16V10 $\mu$ F TAN	C137	178-1032-78	0.01 $\mu$ F
C104	042-0403-01	16V10 $\mu$ F TAN	C121	178-1055-79	1 $\mu$ F	C138	178-1032-78	0.01 $\mu$ F
C105	042-0416-02	10V10 $\mu$ F	C122	178-8222-78	8200pF	C139	178-1032-78	0.01 $\mu$ F
C106	178-1032-78	0.01 $\mu$ F	C123	178-1822-78	1800pF	C140	178-1032-78	0.01 $\mu$ F
C107	178-1032-78	0.01 $\mu$ F	C124	178-1055-79	1 $\mu$ F	C141	178-1022-78	1000pF
C108	042-0403-01	16V10 $\mu$ F TAN	C125	178-3912-78	390pF	C142	178-1032-78	0.01 $\mu$ F
C109	178-1022-78	1000pF	C126	042-0416-02	10V10 $\mu$ F	C143	178-1022-78	1000pF
C110	042-0416-02	10V10 $\mu$ F	C127	178-1032-78	0.01 $\mu$ F	C144	178-1032-78	0.01 $\mu$ F
C111	178-1032-78	0.01 $\mu$ F	C128	178-1055-79	1 $\mu$ F	C145	042-0416-02	10V10 $\mu$ F
C112	178-3322-78	3300pF	C129	178-1055-79	1 $\mu$ F	C146	178-1032-78	0.01 $\mu$ F
C113	178-1055-79	1 $\mu$ F	C130	042-0403-01	16V10 $\mu$ F TAN	C147	178-1042-78	0.1 $\mu$ F
C114	042-0403-01	16V10 $\mu$ F TAN	C131	178-1032-78	0.01 $\mu$ F	C148	178-1042-78	0.1 $\mu$ F
C115	178-1032-78	0.01 $\mu$ F	C132	178-1055-79	1 $\mu$ F	C149	178-1822-78	1800pF
C116	163-4763-30	16V47 $\mu$ F	C133	178-1032-78	0.01 $\mu$ F	C150	178-4732-78	0.047 $\mu$ F
C117	178-1032-78	0.01 $\mu$ F	C134	178-1032-78	0.01 $\mu$ F	C151	042-0403-01	16V10 $\mu$ F TAN

REF No.	PART No.	DESCRIPTION	REF No.	PART No.	DESCRIPTION	REF No.	PART No.	DESCRIPTION
C152	178-1032-78	0.01 $\mu$ F	L105	010-2285-05	BLM21A102S	R148	117-4721-10	1/10W 4.7k
C153	176-6801-00	68pF CH	L106	010-2285-05	BLM21A102S	R149	117-1031-10	1/10W 10k
C154	176-6801-00	68pF CH	L107	010-2285-05	BLM21A102S	R150	117-1031-10	1/10W 10k
C155	042-0397-06	35V0.1 $\mu$ F	L108	010-2285-05	BLM21A102S	R151	117-4731-10	1/10W 47k
C156	178-2212-78	220pF	L109	010-2285-05	BLM21A102S	R152	117-4731-10	1/10W 47k
C157	178-2212-78	220pF	L110	010-2285-05	BLM21A102S	R153	117-4721-10	1/10W 4.7k
C158	178-2212-78	220pF	P101	076-0232-14	14P	R154	117-4721-10	1/10W 4.7k
C159	178-2212-78	220pF	Q101	125-2020-05	DTC123JK	R155	117-1031-10	1/10W 10k
C160	178-2212-78	220pF	Q102	100-1313-00	2SA1313O,Y	R156	117-1031-10	1/10W 10k
C161	178-2212-78	220pF	Q103	125-2017-07	RN1427	R157	117-1831-10	1/10W 18k
C162	178-2212-78	220pF	Q104	125-2017-07	RN1427	R158	117-3321-10	1/10W 3.3k
C163	178-2212-78	220pF	Q105	125-2017-07	RN1427	R159	117-1031-10	1/10W 10k
C164	178-2212-78	220pF	Q106	102-2712-00	2SC2712	R160	117-1031-10	1/10W 10k
C165	178-2212-78	220pF	Q107	102-2712-00	2SC2712	R161	117-1031-10	1/10W 10k
C166	178-2222-78	2200pF	Q108	102-2712-00	2SC2712	R162	117-1031-10	1/10W 10k
C167	178-2222-78	2200pF	Q109	102-2712-00	2SC2712	R163	117-1031-10	1/10W 10k
C168	178-1055-79	1 $\mu$ F	Q110	102-2712-00	2SC2712	R164	117-1031-10	1/10W 10k
C169	178-6812-78	680pF	Q111	102-3326-00	2SC3326	R165	117-1031-10	1/10W 10k
C170	178-1055-79	1 $\mu$ F	R101	117-4731-10	1/10W 47k	R166	117-4721-10	1/10W 4.7k
C171	178-1032-78	0.01 $\mu$ F	R102	117-4731-10	1/10W 47k	R167	117-4721-10	1/10W 4.7k
C172	178-1032-78	0.01 $\mu$ F	R103	117-4731-10	1/10W 47k	R168	117-1041-10	1/10W 100k
C173	178-1032-78	0.01 $\mu$ F	R104	117-1031-10	1/10W 10k	R169	117-1031-10	1/10W 10k
C174	042-0416-02	10V10 $\mu$ F	R105	117-1031-10	1/10W 10k	R170	117-3331-10	1/10W 33k
C175	178-1032-78	0.01 $\mu$ F	R106	117-2231-10	1/10W 22k	R171	117-4721-10	1/10W 4.7k
C176	042-0403-01	16V10 $\mu$ F TAN	R107	117-2231-10	1/10W 22k	R172	117-4721-10	1/10W 4.7k
C177	178-1032-78	0.01 $\mu$ F	R108	117-4731-10	1/10W 47k	R173	117-8231-10	1/10W 82k
C178	178-1032-78	0.01 $\mu$ F	R109	117-1031-10	1/10W 10k	R174	117-1041-10	1/10W 100k
C179	178-1055-79	1 $\mu$ F	R110	117-1031-10	1/10W 10k	R175	117-1041-10	1/10W 100k
C180	178-1032-78	0.01 $\mu$ F	R111	117-1031-10	1/10W 10k	R176	117-5631-10	1/10W 56k
C181	178-1032-78	0.01 $\mu$ F	R112	117-8231-10	1/10W 82k	R177	117-1011-10	1/10W 100
C182	178-1522-78	1500pF	R113	117-8231-10	1/10W 82k	R178	117-6821-10	1/10W 6.8k
C183	178-1032-78	0.01 $\mu$ F	R114	117-8231-10	1/10W 82k	R179	117-2231-10	1/10W 22k
C184	042-0416-02	10V10 $\mu$ F	R115	117-8231-10	1/10W 82k	R180	117-1021-10	1/10W 1k
C185	178-1055-79	1 $\mu$ F	R116	117-8231-10	1/10W 82k	R181	117-2731-10	1/10W 27k
C186	178-2222-78	2200pF	R117	117-8231-10	1/10W 82k	R182	117-1241-10	1/10W 120k
C190	178-1055-79	1 $\mu$ F	R118	117-8231-10	1/10W 82k	R183	117-1031-10	1/10W 10k
D101	001-0516-00	MA111	R119	117-8231-10	1/10W 82k	R184	117-1031-10	1/10W 10k
D102	001-0528-30	MA8051-H	R120	117-1031-10	1/10W 10k	R185	117-4731-10	1/10W 47k
D103	001-0516-00	MA111	R121	117-1031-10	1/10W 10k	R186	117-4731-10	1/10W 47k
D104	001-0528-30	MA8051-H	R122	117-1031-10	1/10W 10k	R187	117-1021-10	1/10W 1k
D105	001-0516-00	MA111	R123	117-8231-10	1/10W 82k	R188	117-3311-10	1/10W 330
D106	001-0367-00	1SS226	R124	117-8231-10	1/10W 82k	R189	117-1031-10	1/10W 10k
D107	001-0516-00	MA111	R125	117-8231-10	1/10W 82k	R190	117-1031-10	1/10W 10k
D108	001-0516-00	MA111	R126	117-8231-10	1/10W 82k	R191	117-2221-10	1/10W 2.2k
D109	001-0516-00	MA111	R127	117-8231-10	1/10W 82k	R192	117-4721-10	1/10W 4.7k
D110	001-0528-23	MA8043-M	R128	117-8231-10	1/10W 82k	R193	117-1011-10	1/10W 10k
D111	001-0584-25	MA8091	R129	117-8231-10	1/10W 82k	R194	117-2231-10	1/10W 22k
D112	001-0584-25	MA8091	R130	117-8231-10	1/10W 82k	R195	117-2231-10	1/10W 22k
D113	001-0584-25	MA8091	R131	117-1031-10	1/10W 10k	R196	117-2231-10	1/10W 22k
IC101	051-7100-08	TC4W66F-TE12L	R132	117-1031-10	1/10W 10k	R197	117-4701-10	1/10W 47
IC102	051-0350-55	NJM4558M	R133	117-1031-10	1/10W 10k	R198	117-4701-10	1/10W 47
IC103	051-0350-55	NJM4558M	R134	117-2721-10	1/10W 2.7k	R199	117-4701-10	1/10W 47
IC104	051-5010-90	LC75391M	R135	117-6831-10	1/10W 68k	R200	117-4701-10	1/10W 47
IC105	051-0350-55	NJM4558M	R136	117-2221-10	1/10W 2.2k	R201	117-4701-10	1/10W 47
IC106	051-0350-55	NJM4558M	R137	117-2221-10	1/10W 2.2k	R202	117-4701-10	1/10W 47
IC107	051-5403-08	S-80725-SN-DN-T1	R138	117-1031-10	1/10W 10k	R203	117-4721-10	1/10W 4.7k
IC108	052-9203-01	MB89133APFM-G499	R139	117-1231-10	1/10W 12k	R204	117-1011-10	1/10W 100
J101	074-1142-08	8P	R140	117-2231-10	1/10W 22k	R205	117-1011-10	1/10W 100
J102	074-1142-08	8P	R141	117-2231-10	1/10W 22k	R206	117-1011-10	1/10W 100
L101	010-2285-05	BLM21A102S	R142	117-2231-10	1/10W 22k	R210	117-1841-10	1/10W 180k
L102	010-2285-05	BLM21A102S	R144	117-4731-10	1/10W 47k	R211	114-2711-21	2W 270
L103	010-2285-05	BLM21A102S	R145	117-1031-10	1/10W 10k	X101	060-0130-50	LST4.19MGW
L104	010-2285-05	BLM21A102S	R146	114-2711-21	2W 270			
			R147	117-4721-10	1/10W 4.7k			





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## RF PWB section(B1)

