



CDMA Cellular Phone SCH-A101

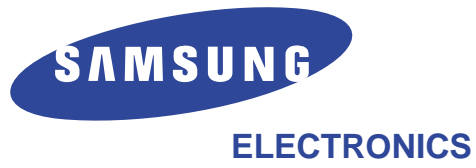
SERVICE *Manual*

CDMA Cellular Phone



CONTENTS

1. General Introduction
2. Specification
3. Installation
4. NAM Programming
5. Product Support Tools
6. Troubleshooting
7. Exploded view and its Part List
8. Electrical Parts List
9. Block diagram
10. PCB diagrams
11. Circuit diagrams



1. General Description

The SCH-A101 cellular phone functions as digital cellular phone working in CDMA (Code Division Multiple Access) mode.

CDMA type digital mode applies DSSS (Direct Sequential Spread Spectrum) mode which first came to be used in the military. The DSSS reduces channel cross talk and allow to use one frequency channel by multiple users in the same specific area, resulting in increase of channel capacity to about ten times compared to that of analog mode currently used.

Soft/Softer Handoff, Hard Handoff, and Dynamic RF Power Control technologies are combined into this phone to reduce the call drop while usage.

CDMA digital cellular network consists of MSO (Mobile Switching Office), BSC (Base Station Controller), BTS(Base Station Transmission System), and MS (Mobile Station). MS meets the specifications of the below:

- IS-95A : Mobile Station-Base Station Compatibility Standard for Dual-Mode Wideband Spread Spectrum Cellular System
- IS-96A : Speech Service Option 1 Standard for Dual-Mode Wideband Spread Spectrum Cellular Systems
- IS-98A : Standards for Dual-Mode Wideband Spread Spectrum Cellular Mobile Station
- IS-126 : Mobile Station Loopback Service Options Standard

2. Specification

2-1 General

Frequency Range	Digital Mode
Transmitter	: 824 ~ 849 MHz
Receiver	: 869 ~ 894 MHz
Channel Spacing	: 1.23 MHz
Number of Channels	: 20 EA
Duplex Spacing	: 45 MHz
Frequency Stability	: ± 2.5 ppm (-30°C ~ +60°C, -4°F ~ +140°F)
Operating Temperature	: -20°C ~ +60°C (-4°F ~ +140°F)
Operating Voltage	
HHP	: 3.6V DC ($\pm 10\%$)
Hands-free	: 13.7V DC ($\pm 10\%$)

Item	Size (mm)	Weight (g)
Including slim battery	80 x 42 x 23	87
Including standard battery	80 x 42 x 25	114

Operating Time (Digital Mode)

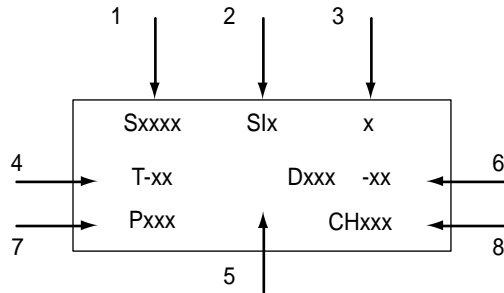
Item	Standby Time	Talk Time
Slim battery	up to 90 hours	up to 150 min
Standard battery	up to 180 hours	up to 250 min

2-2 Digital Mode

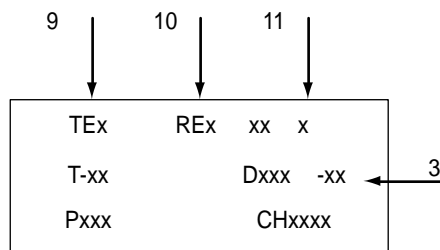
Waveform Quality	0.944 or more
Time Reference	±1uS or less
Rx Sensitivity and Dynamic Range	-104 dBm, FER=0.5 % or less -25 dBm, FER=0.5 % or less
Tx Output Power	280 mW (24.5 dBm)
Tx Frequency Deviation	±300 Hz or less
Occupied Band Width	1.32 MHz
Tx Conducted Spurious Emission	900 kHz : -42 dBc / 30 kHz below 1.98 MHz: -54 dBc / 30 kHz below
Minimum Tx Power Control	below -50 dBm
Open Loop Power Control	-25 dBm: -57.0 dBm ~ -38.5 dBm -65 dBm: -17.5 dBm ~ + 1.5 dBm -104 dBm: +18.0 dBm ~ +30.0 dBm
Standby Output Power	below -61 dBm
Closed Loop Tx Power Control Range	Test1: ±24 dB or less Test2: 0 mS ~ 2.5 mS Test3: ±24 dB or more Test4: ±24 dB or more Test5: ±24 dB or more

2-3 CDMA Debug Display Information (menu 8)

IN IDLE MODE



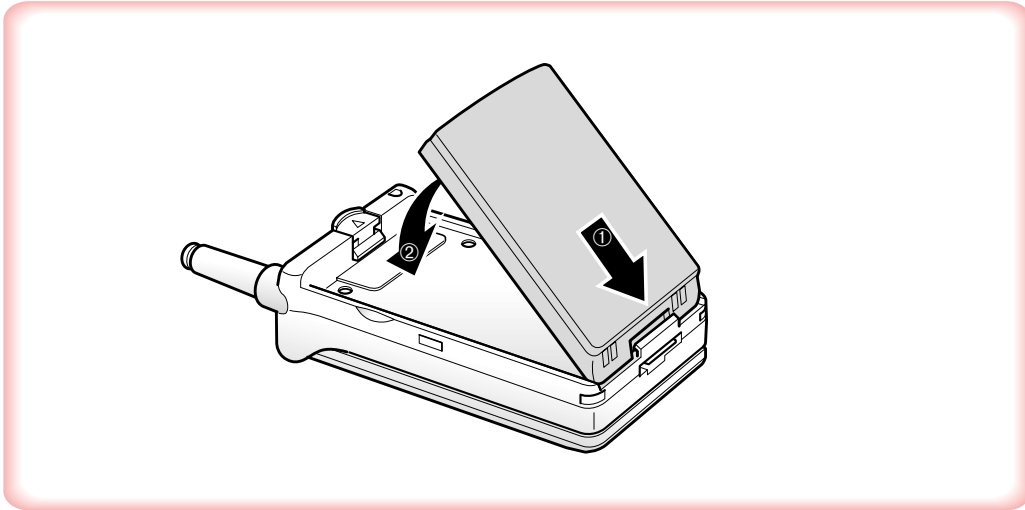
IN CONVERSATION MODE



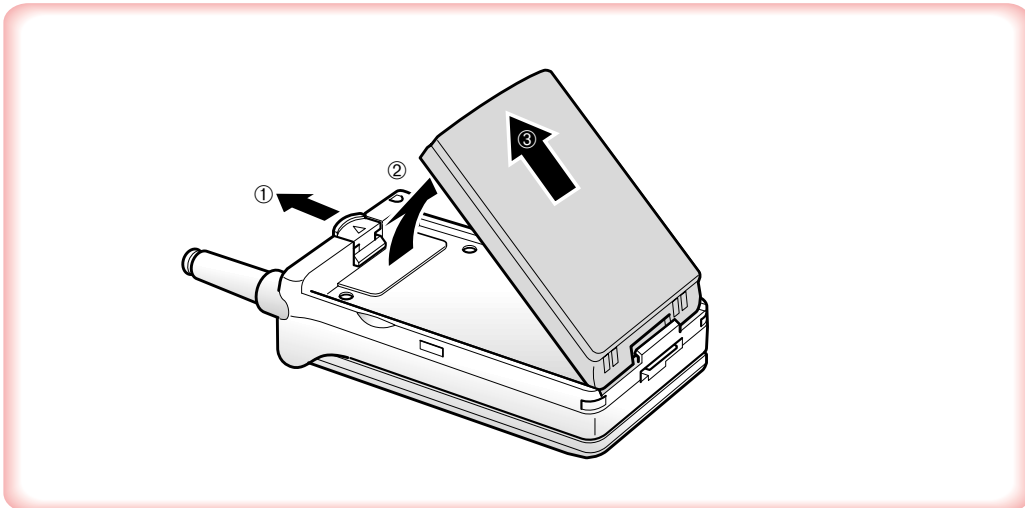
- 1 : Sxxxxx : SID (System Identification) toggle
Nxxxxx : NID (Network Identification) toggle
- 2 : Slx : Slot cycle index (lowest between the system and the phone will be used)
- 3 : Handset Status : 0 - Acquisition
 - 1 - Synchronization
 - 2 - Paging (Idle)
 - 3 - Traffic Initialization
 - 4 - Traffic Mode
 - 5 - Exit
- 4 : T-xx : Tx adjust, Value ranges from +63 ~ -63dB
- 5 : Dxxx : sector power in dBm
- 6 : -xx : Ec/Io
- 7 : Pxxx : PN offset
- 8 : CHxxxx : channel number
- 9 : TEx : Tx vocoder rate (8 is full rate, 1 is 1/8th rate)
 - E : EVRC
 - V : 13k or 8k
- 10 : REx : Rx vocoder rate (8 is full rate, 1 is 1/8th rate)
- 11 : xx : Walsh code used in traffic channel

3. Installation

3-1 Installing a Battery Pack



Insert the saw-toothed end on the bottom of the battery into the slots on the bottom of the phone (①), then slide the battery down (②).



Push up and hold the catch above the battery on the back of the phone (①) and lift the battery away. (② - ③)

3-2 For Desk Top Use

1. Choose a proper location to install the charger for Desk Top use.
2. Plug the power cord of the charger into an appropriate wall socket. When the power is connected correctly, the lamps turn on briefly.
3. To charge the battery pack, insert the battery pack into the rear slot of the charger. The lamp marked BAT on the front panel of the charger lights up red.
4. If you do not wish to use the phone while charging the battery, insert the phone with the battery pack attached into the front slot of the charger. The lamp marked PHONE on the front panel of the charger lights up red.

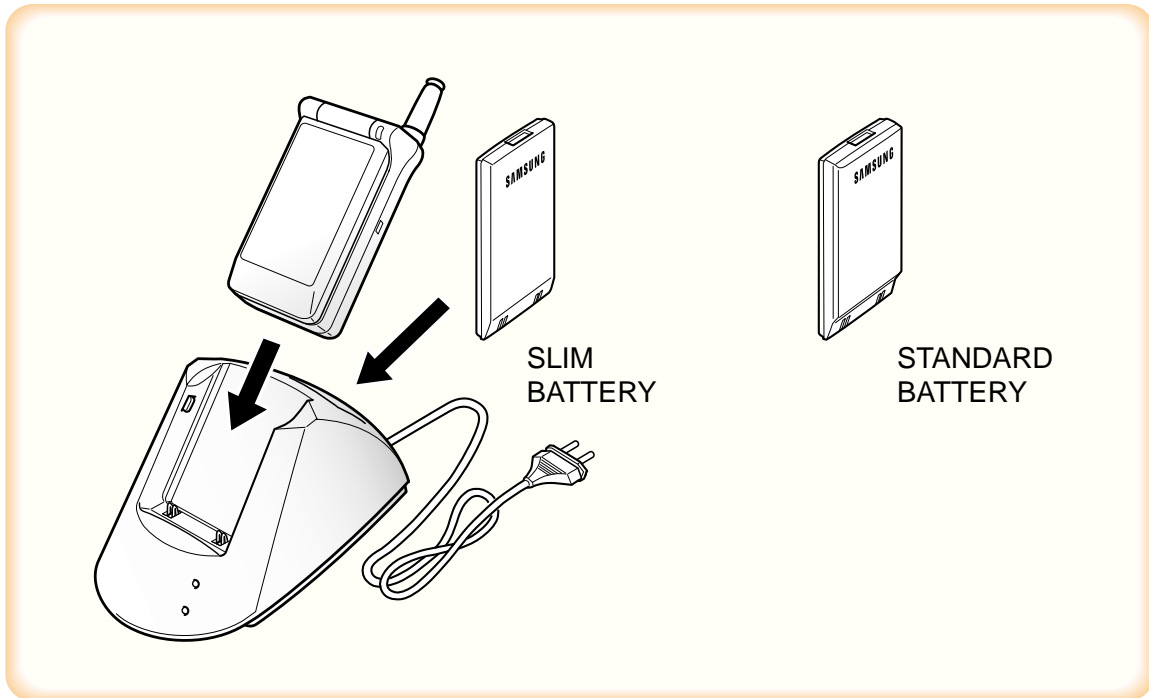


Figure 3-1 Charging the Phone and Battery

SPECIFICATIONS USING "DTCA10"

Battery Type	Slim Battery (Li-ion, 500 mAh)	Standard Battery (Li-ion, 1000 mAh)
Model Name	BTIA10AD	BTSA10AD
SEC Code	GH43-00179A	GH43-00180A
Charging Time	4 hours	4 hours

3-3 For Mobile Mount

3-3-1 Cradle

1. Choose a location where it is easy to reach and does not interfere with the driver's safe operation of the car.
2. Separate the two halves of the clamshell by removing the two large slotted screws. See the figure 3-2.
3. Drill holes and mount the lower half of the clamshell by using the screws.
4. Place the cradle onto the remaining half of the clamshell and assemble them by using the screws.
5. Reassemble the two halves of the clamshell together. Adjust the mounting angle and tighten the two slotted screws.

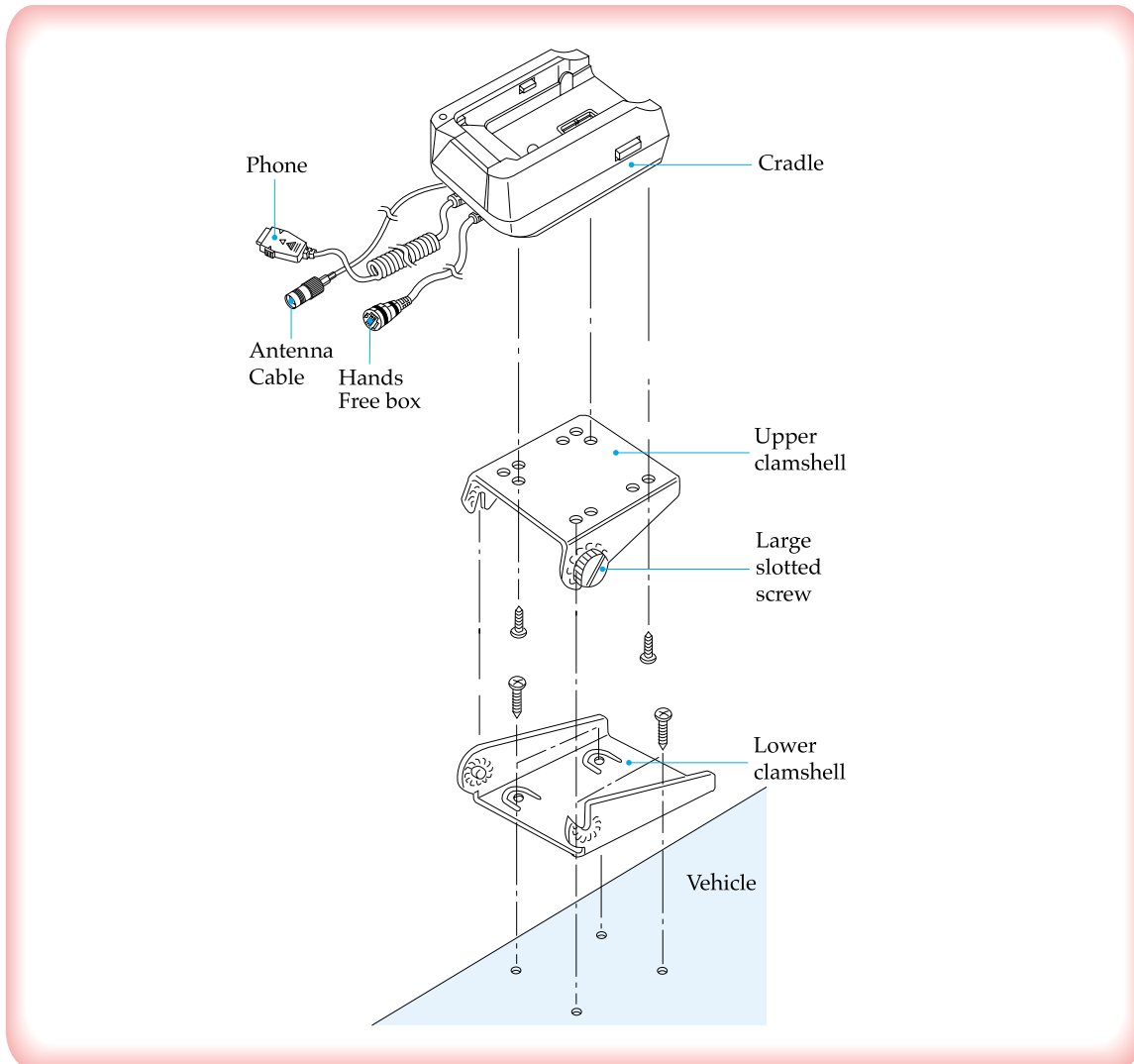


Figure 3-2 Cradle Installation

3-3-2 Hands-Free Box

1. Drill holes in a proper location for the hands-free box, attach the mounting bracket by using the screws. See the figure 3-3.
2. Install the hands-free box into the bracket.

3-3-3 Hands-Free Microphone

1. It is recommended to install the microphone where it is 30-45 cm (12-18inch away from the driver. Choose the location where is least susceptible to interference caused by external noise sources, ie, adjacent windows, radio speakers, etc. Normal place is the sun visor.
2. Once the microphone has been correctly positioned, connect the microphone wire to the MIC jack on the hands-free box.

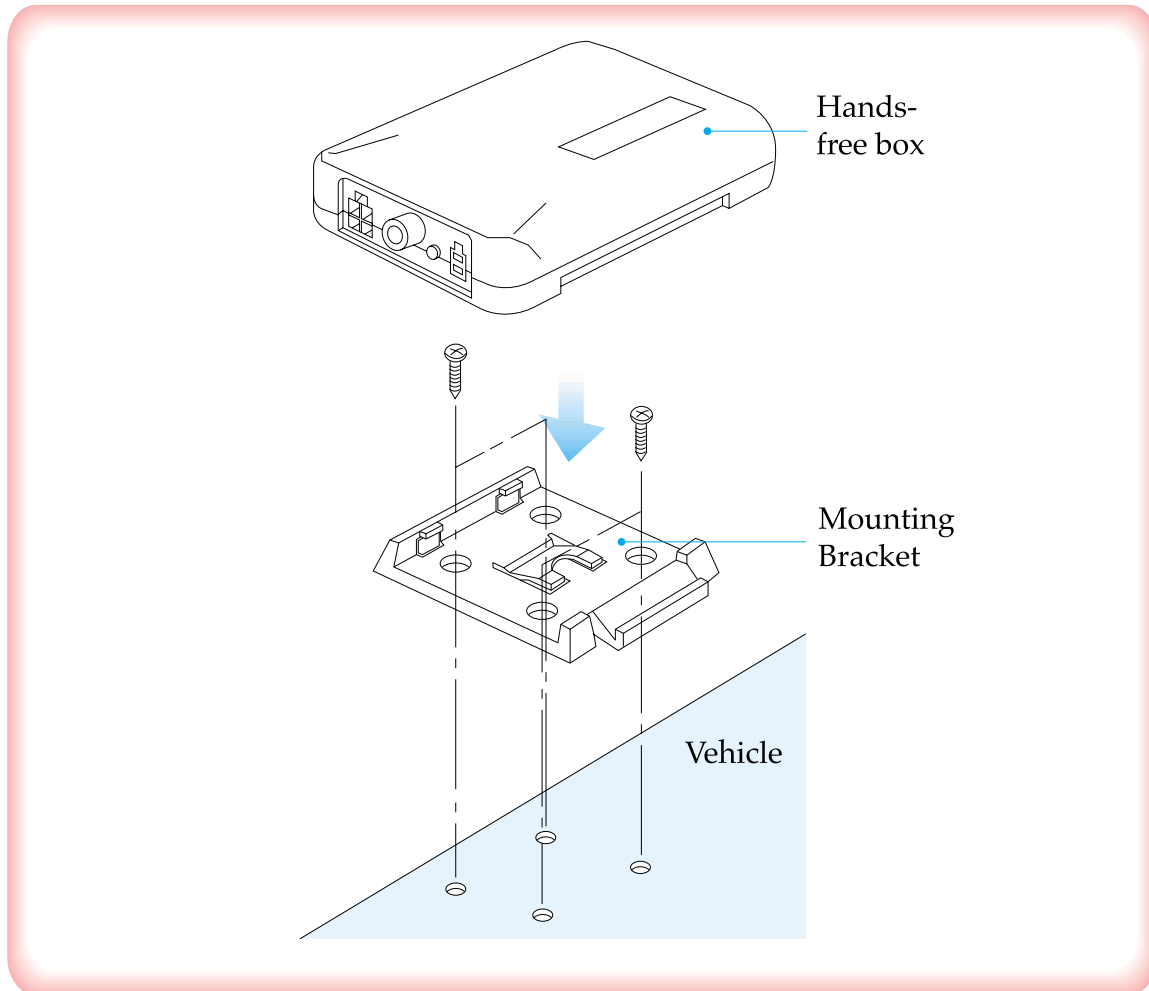


Figure 3-3 Hands-Free Box 1 Installation

3-3-4 Cables

1. Connect the cradle and the hands-free box with the data cable. See the figure 3-4.
2. Connect the antenna cable to the RF jack of the cradle.
3. Connect the power cable as follows:
Connect the red wire to the battery (+) terminal, black wire to the vehicle chassis. Then connect the battery (-) terminal to the vehicle chassis. Connect the yellow wire to the switched side of the ignition switch, and then connect the white to the stereo mute wire from your vehicle stereo.
4. Connect the other end of the power cable to the PWR jack of the hands-free box.

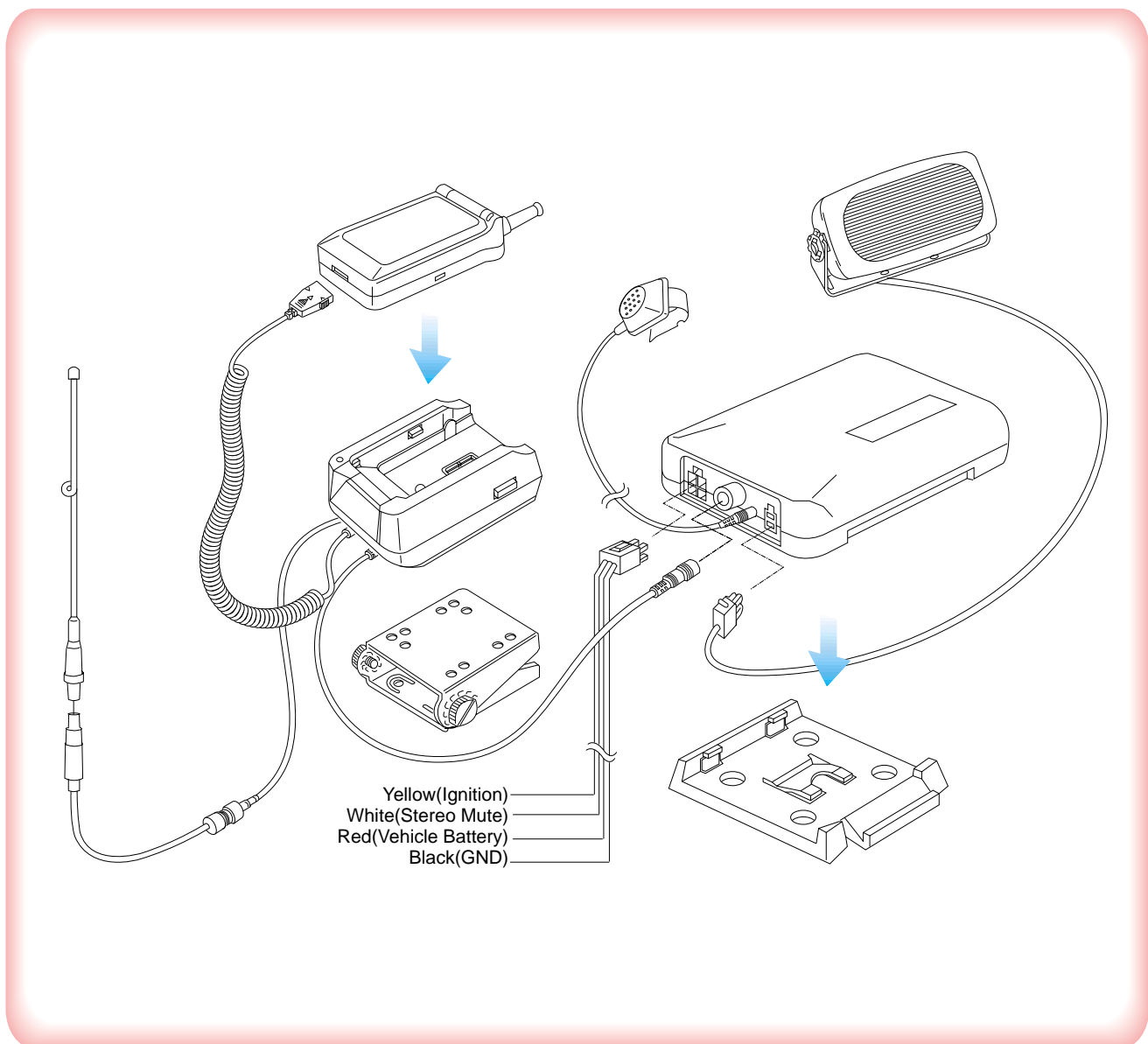
Notes:

It is recommended to connect the power cable directly to the battery to avoid power noise.

Make sure the connection, in the vehicle, between the battery (-) terminal and vehicle chassis is made correctly.

Make sure the fuse having a proper capacity is used on the power cable.

Make sure the cables do not pass over any sharp metal edge that may damage it.



4. NAM Programming

NAM features can be programmed as follows:

Notes:

- If you enter the NAM program mode, each item shows the currently stored data. Go to the next item by pressing OK/☑ .
- You can modify the data by entering a new data.
- If you enter a wrong digit, press CLR to delete the last digit. Press and hold CLR to delete all digits.
- To scroll items backwards or forwards, press the VOLUME button on the left side of the phone.

4-1 General Setup

LCD Display	Key in	Function
47*869#08#9 NAM program 1:General 2:Setup NAM1	47*869#08#9 1	-selects NAM programming -choose 'GENERAL'
ESN B0000000	Volume ▼	-Electronic Serial Number of the phone
CAI version 3	Volume ▼	-The version of Common Air Interface supported by the mobile
VOC8/13/EVRC SO_VOIC_EVRC	Volume ▼	-evrc, voice08k, voice13k
SCM 00101010	Volume ▼	-Station Class Mark displays the power class(bit0~1), transmission(bit2), slotted class(bit5), dual mode(bit6).
Lock Code 0000	(0000) 4-digit code OK/☑	-Lock code, current status is displayed to change, enter new code. -store it
Slot Mode Yes	<or> OK/☑	-Slot mode. 'Yes' indicates the slot mode. changes the status. -store it.
Slot Index 2	0-7 OK/☑	-Slot mode index. The higher, the longer sleeping time to change, enter new one. -store it.
Pref NAM1... Digital only	OK/☑	-Preferred system selection for NAM1 changes the system. -store it.
Pref NAM2... Digital only	OK/☑	-Preferred system selection for NAM3 changes the system. -store it.
Pref NAM4... Digital only	OK/☑	-Preferred system selection for NAM4 changes the system. -store it.

4-2 Setting Up NAM1

LCD Display	Key in	Function
NAM Program 1:General 2:Setup NAM1	2	-Choose 'Setup NAM1.'
Setup NAM1 1:Phone # 2:CDMA	1	-Choose 'Phone #'
Phone # 8520000000	Phone number OK/☑	-CDMA current number is displayed. to change, enter new one. -store it.
Mobile ID # 8520000000	Phone number OK/☑	-CDMA current number is displayed. to change, enter new one -store it.
Setup NAM1 1:Phone # 2:CDMA	2	-choose 'CDMA'
IMSI_MCC 454	number OK/☑	-IMSI Mobile Country Code, current code is displayed. to change, enter new one. -store it.
IMSI_MNC 05	number OK/☑	-IMSI Mobile Network Code, current code is displayed. to change, enter new one. -store it.
CDMA pref.. A pref	<or> OK/☑	-Preferred system selection, current system is displayed. to changes the system. -store it.
CDMA ACCOLC 0	class number OK/☑	CDMA Access Overload Class, current status is displayed. -to change, enter new one. -store it.
Pchn Sys A 283	channel number OK/☑	-Preferred channel currently used under system A to change, enter new one. -store it.
Pchn Sys B 384	channel number OK/☑	-Preferred channel currently used under system B to change, enter new one. -store it.

LCD Display	Key in	Function
Schn Sys A 691	channel number OK/☑	-Second channel currently used under system A to change, enter new one. -store it.
Schn Sys B 777	channel number OK/☑	-Second channel currently used under system B to change, enter new one. -store it.
CD Acq SID 1 0	ID number OK/☑	-1st Acquisition system ID, current status is displayed. to change, enter new one. -store it.
CD lockSID 1 10640	ID number OK/☑	-1st lock system ID,current status is displayed. to change, enter new one. -store it.
CDMA Home SID Yes	<or> OK/☑	-CDMA Home system ID, current status is displayed changes the status. -store it.
CDMA fSID Yes	<or> OK/☑	-CDMA foreign SID, current status is displayed. changes the system. -store it.
CDMA fNID Yes	<or> OK/☑	-CDMA foreign NID, current status is displayed. changes the system. -store it.
SID #1 10641	number OK/☑	-first SID written in the list, current status is displayed. to change, enter new one. -store it.
NID #1 65835	number OK/☑	-first NID written in the list, current status is displayed. to change, enter new one. -store it.
SID #2 13	number OK/☑	-2nd SID written in the list, current status is displayed. to change, enter new one. -store it.
NID #2 0	number OK/☑	-2nd NID written in the list, current status is displayed. to change, enter new one. -store it.
SID #3 0	number OK/☑	-3rd SID written in the list, current status is displayed. to change, enter new one. -store it.

LCD Display	Key in	Function
SNID #3 0	number OK/☑	-3rd SID written in the list, current status is displayed. to change, enter new one. -store it.
SID #4 0	number OK/☑	-4th SID written in the list, current status is displayed. to change, enter new one. -store it.
NID #4 0	number OK/☑	-4th NID written in the list, current status is displayed. to change, enter new one. -store it.

4-3 Setting Up NAM 2

LCD Display	Key in	Function
NAM Program 1:General 2:Setup NAM1 3:Setup NAM2	3	-Choose 'Setup NAM2'
The NAM2 setup program is the same as 'NAM1'		

4-4 Setting Up NAM 3

LCD Display	Key in	Function
NAM Program 3:Setup NAM2 3:Setup NAM3	4	-Choose 'Setup NAM3'
The NAM3 setup program is the same as 'NAM1'		

4-5 Setting Up NAM 4

LCD Display	Key in	Function
NAM Program 5:Setup NAM4	5	-Choose 'Setup NAM4'
The NAM4 setup program is the same as 'NAM1'		

5. Product Support Tools

5-1 General

IMPORTANT INFORMATION

Purpose

The Product Support Tool (PST) offers you the ability to interface with the SAMSUNG CDMA telephone using a PC. With this tool you can program the phones network system requirements and functionality, swap phone data, and download software upgrades. This document supports UniPST version 1.xx.

NOTE: This software must be executed in the Windows95/98 mode.

EQUIPMENT REQUIRED

Make sure you have the following equipment setup:

1. Minimum PC configuration: 586 CPU, 16MB RAM, Windows95/98, 5MB of disk space free for software upgrade.
2. PST Software with appropriate cable (DM Cable for SAMSUNG CDMA phone).
3. Serial Port (16550 Serial Interface Card).
4. Power Supply (3.8 V) or Battery

INSTALLATION

Software

1. Insert the PST floppy disk into drive (A:\).
2. Create an appropriate directory on the C:\ drive for PST software, Execute Setup.exe file, The installation program creates folder and task bar on the windows95/98 start bar.

SAMSUNG CDMA Phone

The serial port should be configured to COM1 or COM2.

Use the following procedure to connect the phone, cable, and PC .

Plug the female end of the DM Cable into the 16550 card.

Pull the black rubber connector away from the socket at the base of the phone.

Plug the special connector on the cable into the socket at the base of the phone.

5-2. PST (Product Support Tool)

5-2-1 Getting Started

MAIN MENU SCREEN

1. At the Windows95/98, Double Click “UniPst.exe”.
2. The Main Menu Screen will be displayed.
The Main Menu Screen shows the basic tasks that are available.

CAUTION: DO NOT attempt to program phone with a low battery.

PST SETUP

UniPst supports SAMSUNG CDMA portable telephone. You can select serial port COM1 or COM2.

5-2-2 Operation Procedure

Service Programming

The Service Programming screens enable you to set and change the service activation parameters of the phones. These items can be changed individually or as a group via the “Edit Items” Property Sheet of the PST. There are several pages on the Service Programming Property Sheet (See below Figure).

Read Data from File

Click “open” icon to select the name of a file whose extension is “mmc”. The values will be read from the named file, and will initialize the parameter values seen on the Service programming screen

Read Data from Phone

Click Read from the Phone icon to upload the current programmable parameters of the phone. The values are read from the phone, so the phone must have the power ON and be properly connected to the PST.

NOTE: To actually view the data you need to go to the Edit Items screens.

Edit Items

Click this icon to edit Number Assignment Module (NAM) items or UI items.

There are two types of screens:

1. Parameters associated with a particular Number Assignment Module (NAM)
2. UI items settings

Phone Book

Click this icon to edit Phone Book.

While you edit cell, you can use <Enter> and < UP , DOWN,LEFT,LIGHT Arrow> and <SPACE> key. If you want to edit phone number or name, you must move rectangle box to cell where you want to edit, Write it down. If <UP and DOWN Arrow> key is pressed, the cursor moves to next cell or previous cell.

Save Data to File

Click this icon to save the current parameters to a file. Once you enter a filename, Click <OK> button to write all current parameters to that file. This way the same information can be downloaded into multiple phones.

Write to Phone

Click this icon to write the selected parameter values to the phone. Writing the selected values to the phone may take up to a minute.

If there are dependencies in a field you can make all the changes in the proper fields and download the information all together.

If you intend to use this “Write to Phone” feature, it is recommended that you do a “Read Data from Phone” first, and then make the changes, so that nothing gets inadvertently overwritten.

NOTE: DO NOT TOUCH THE PHONE WHILE WRITING IS IN PROGRESS.

Software Download and Upgrade Screen

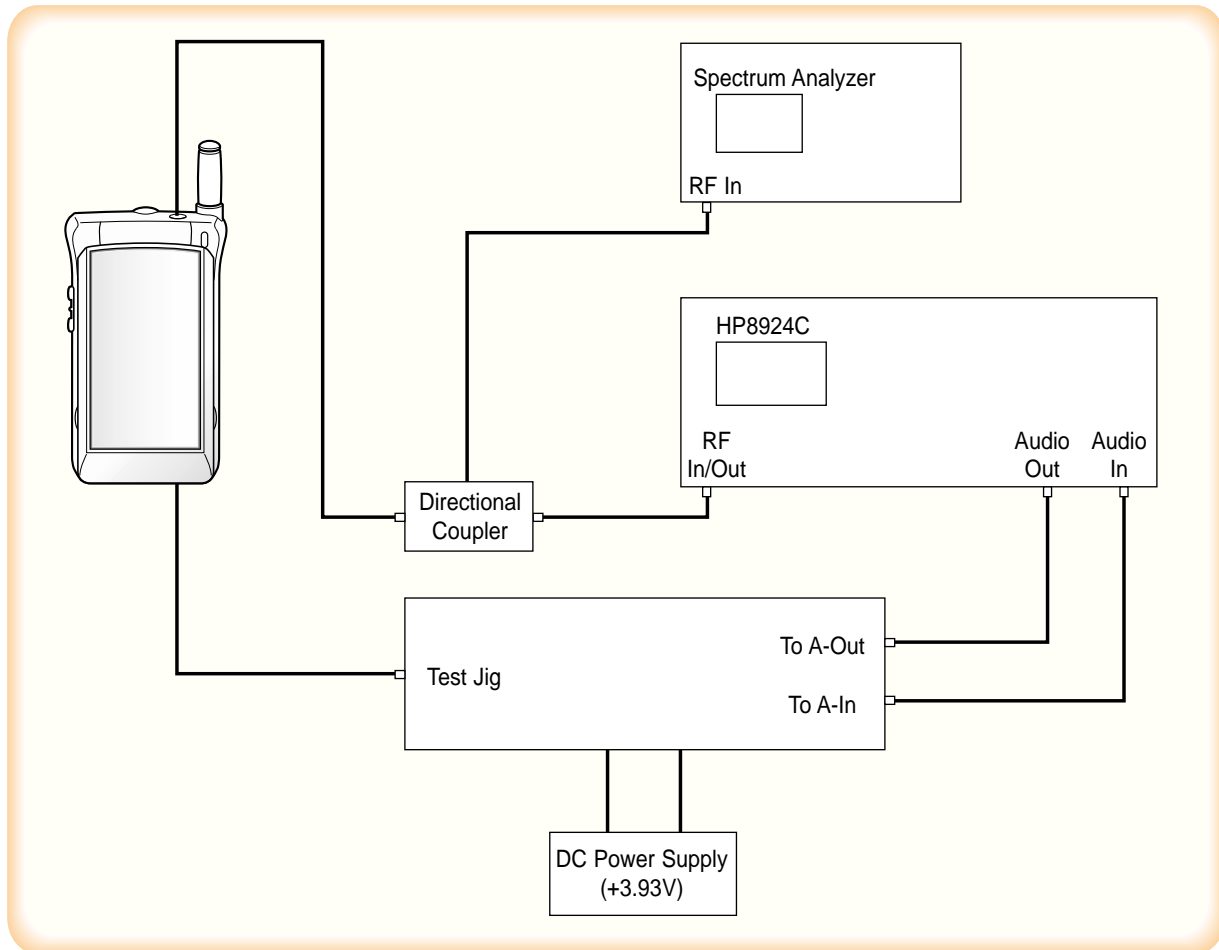
To begin a software upgrade or download, perform the following steps:

1. From the main menu screen choose DOWNLOAD MODE?
Click open icon to choose a BIN file of the new software to be loaded. Choose the appropriate BIN file, then Click <Open> (see below figure).
2. Click Download? to begin downloading the file. You will notice various messages and a progress bar that informs the user what percentage of the downloading has already occurred.
3. Click Mode Select box, then Select SERVICE MODE? to return to the Service Mode Screen.

NOTE: DO NOT POWER OFF WHILE THE PHONE IS BEING DOWNLOADED!

5-3 TEST PROCEDURE

5-3-1 Configuration of Test



* CAUTION : Because there is the loss (0.33V at Max Power) of the test jig and Data cable, you'd better input 3.93V to the DC Power Supply to use 3.6V (Battery normal voltage) at Cellular phone

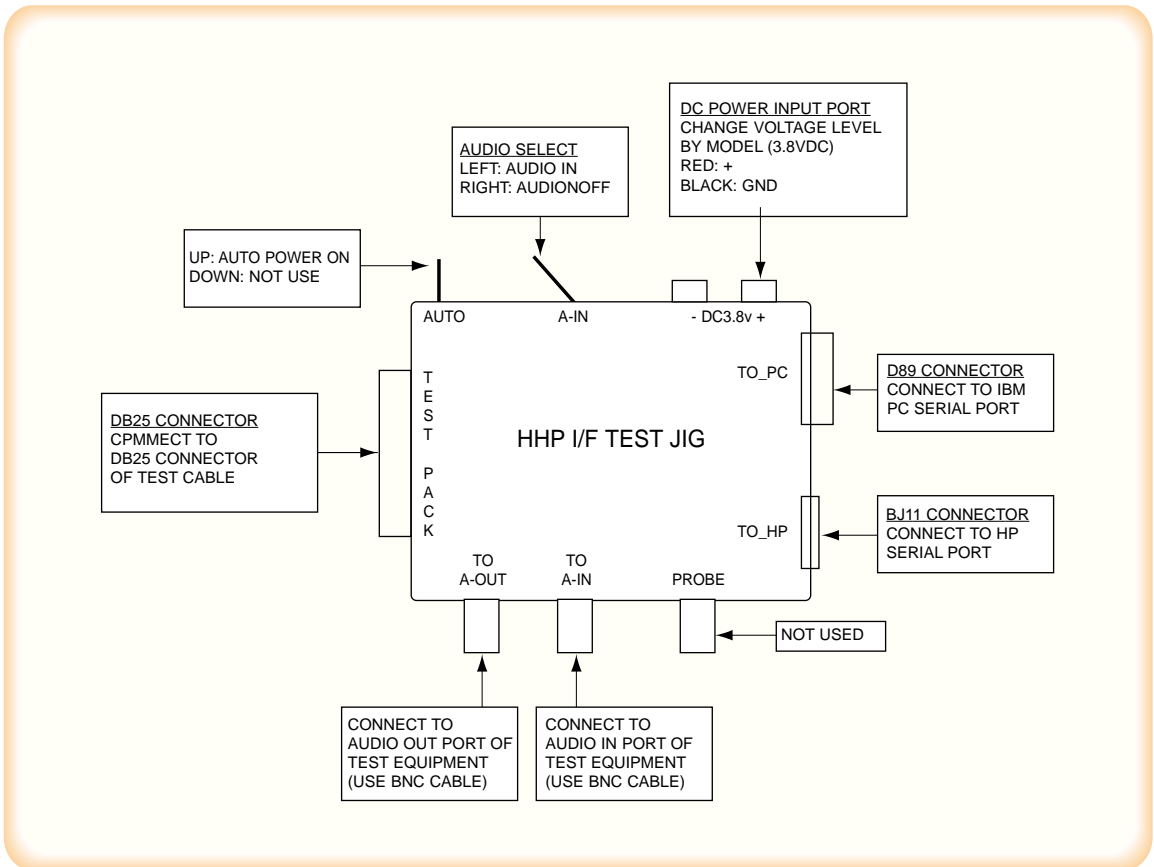
Items needed to purchase from SAMSUNG

ITEMS	PARTS #	REMARK
RF Cable	GH39-00026A	Including 1. Power Cable(Black,Red) 2. 9-pin RS232 data Cable
Test cable	GH39-00028A	
DM Cable	GH39-30525A	
Test JIG	GH80-00001A	
(RF Interface Pack Ass'y)		

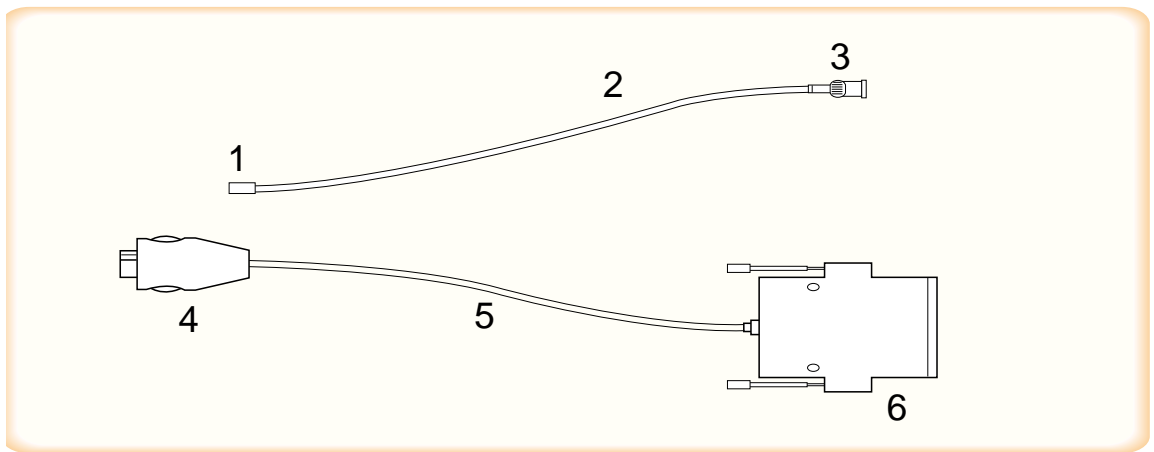
5-3-2 List of Equipment

- DC Power Supply
- Test Jig
- Test Cable
- CDMA Mobile Station Test Set HP8924C, HP83236A, CMD-80, etc
- Spectrum Analyzer(include CDMA Test Mode) HP8596E

TEST JIG



TEST CABLE

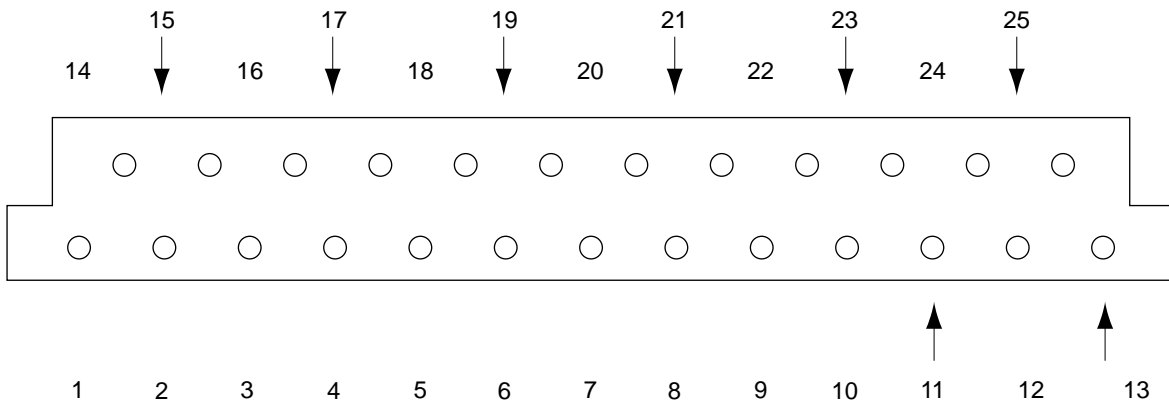


TEST CABLE CONNECTIONS

1	MHC 172
2	RF CABLE (1.4 dB Loss)
3	BNC CONNECTOR (RF)
4	PLUG CONNECT TO SCH-A101
5	DATA CABLE
6	Dsub 25PIN CONNECTOR (DATA)

Dsub 25 PIN CONNECTOR PIN DESCRIPTION (TEST CABLE 1, BACK SIDE)

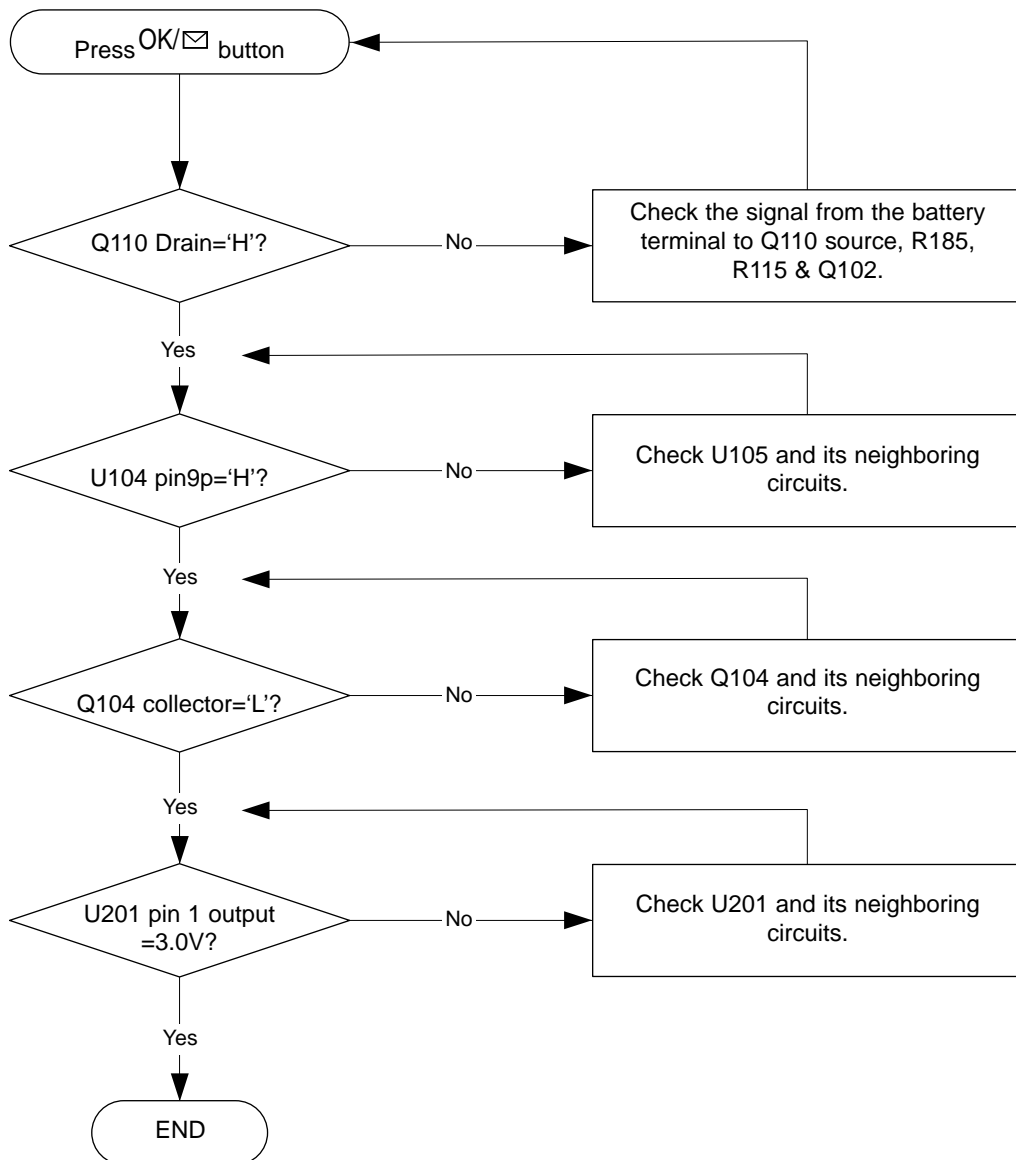
DATA DESCRIPTION	Dsub CONN. PIN NO.	DATA DESCRIPTION	Dsub CONN. PIN NO.
V_F	12,21	DP_RX_DATA	8
DGND	2,4,6,13,19	HP_PWR	9
BATT	15,16,22	RI	10
C_F	3,20	CD	11
TX_AUDIO	5	RTS	14
DP_TX_DATA	7	CTS	17
RX_AUDIO	1	DTR	18



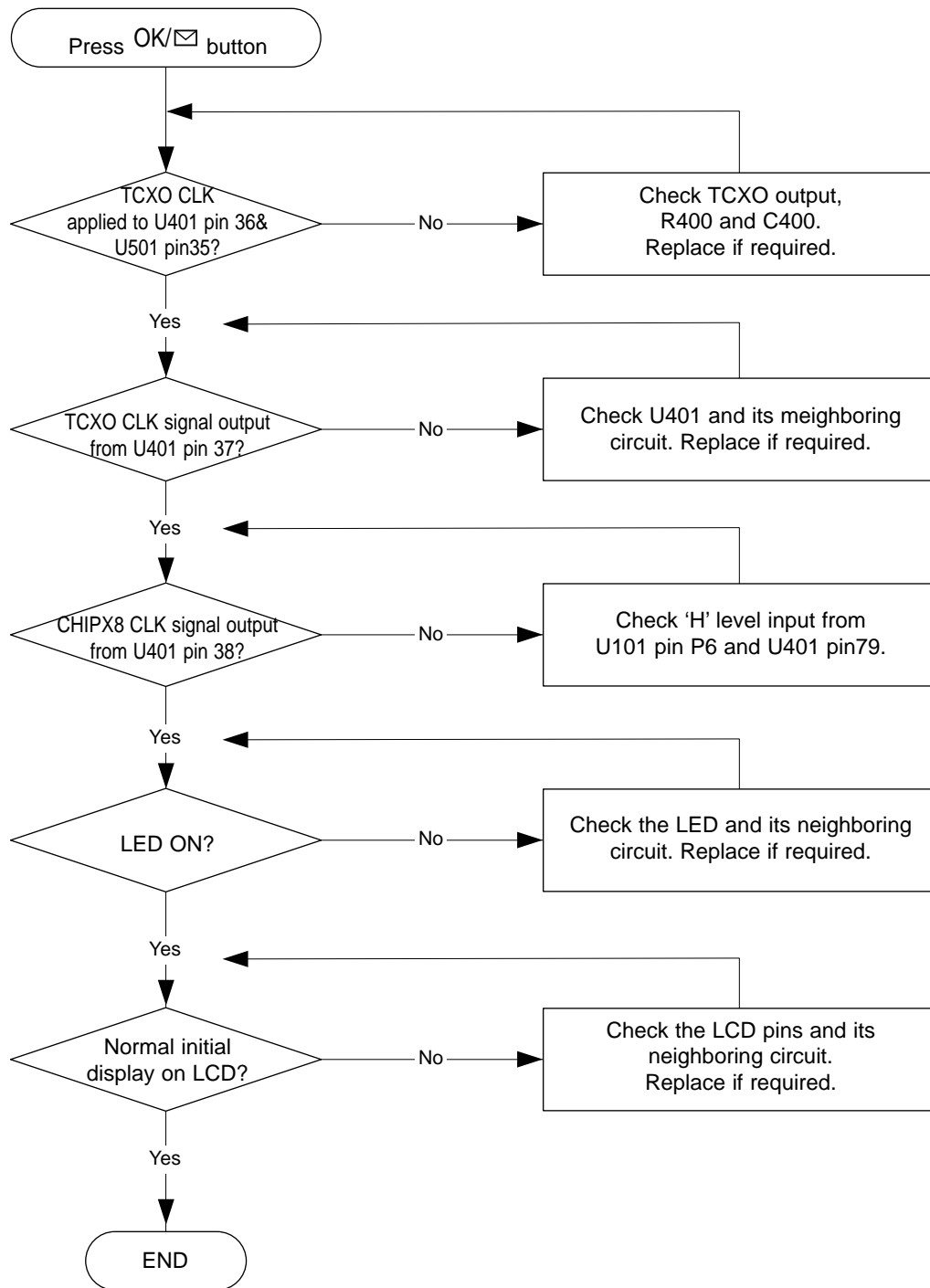
6. Troubleshooting

6-1 Logic Section

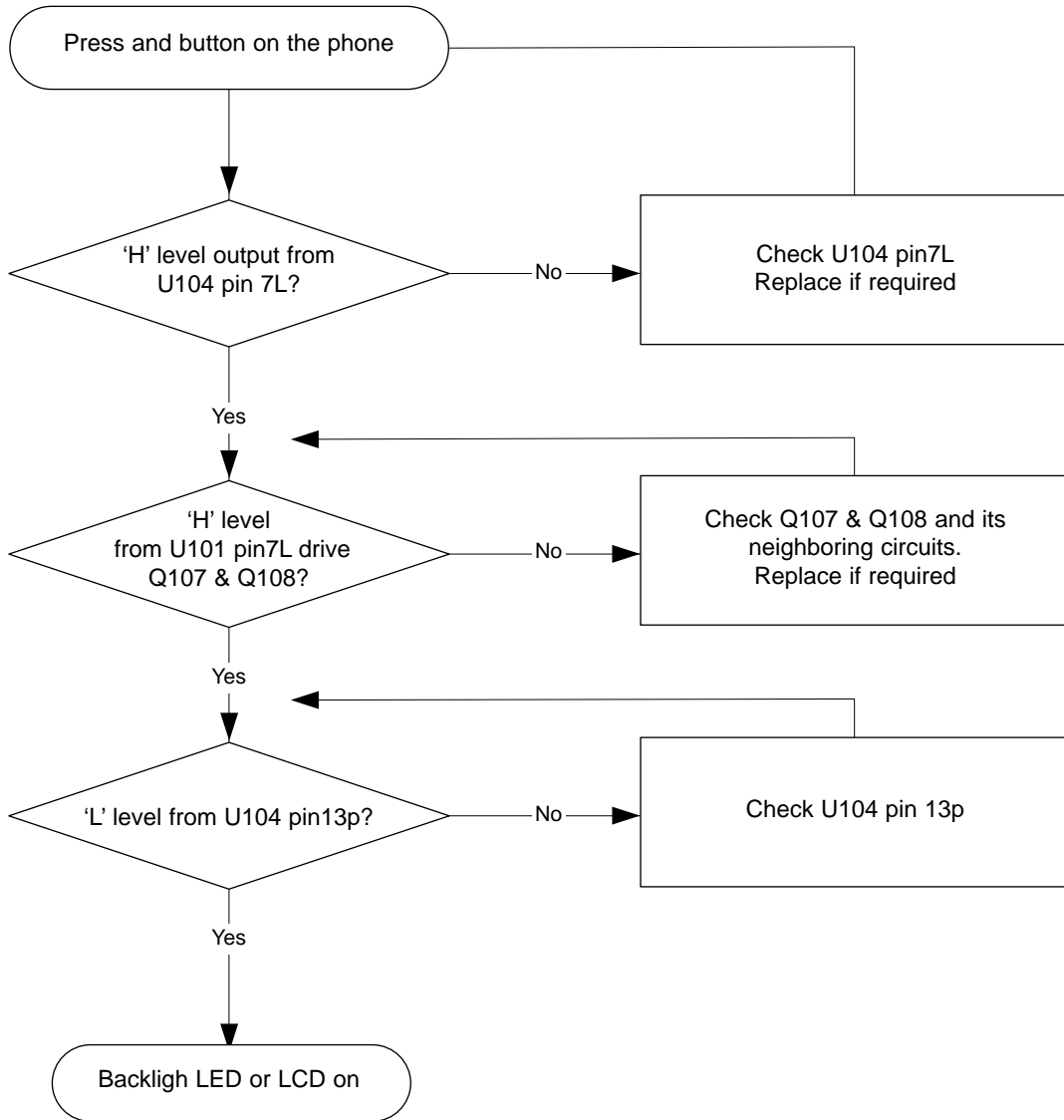
6-1-1 Power Failure



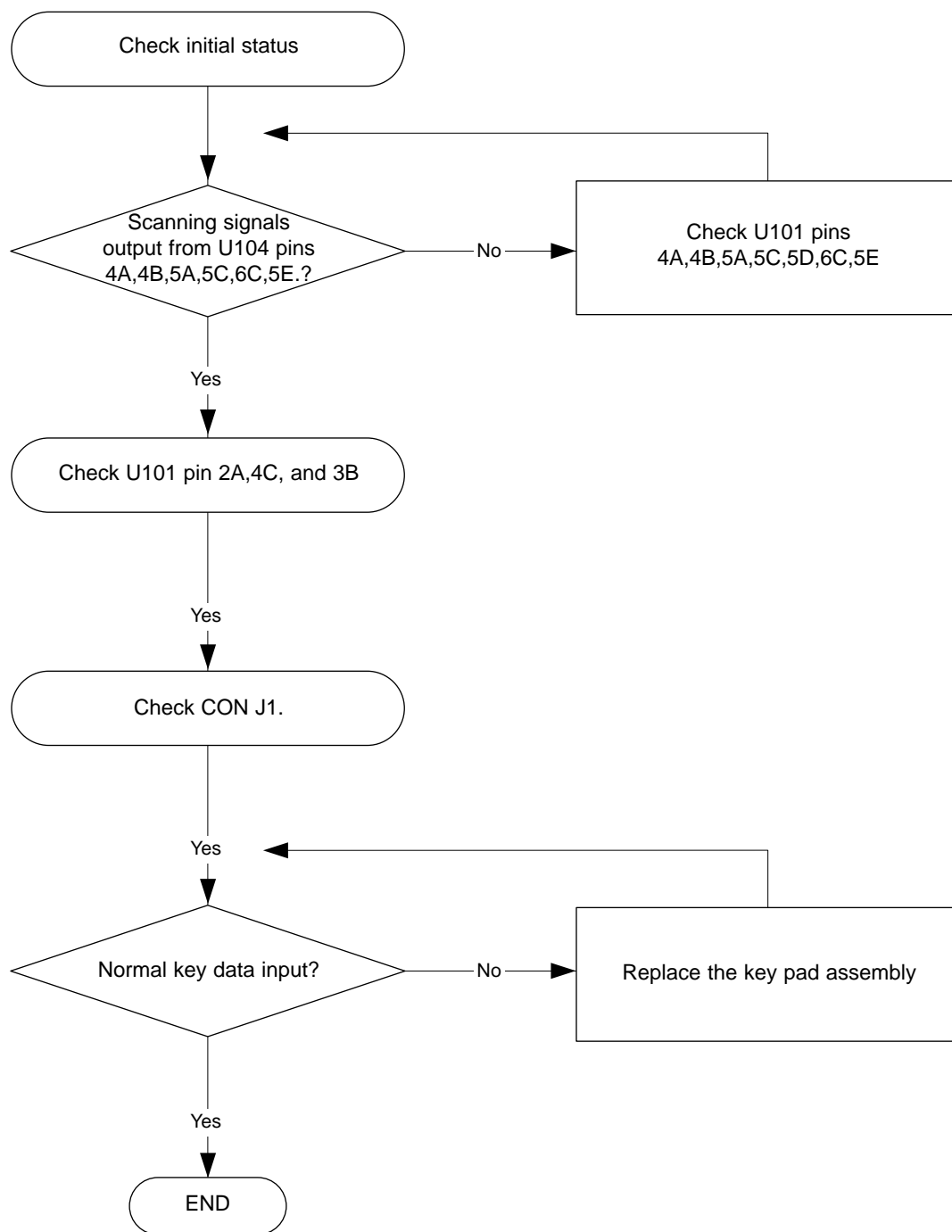
6-1-2 Abnormal Initial Operation (Normal +3.3V source)



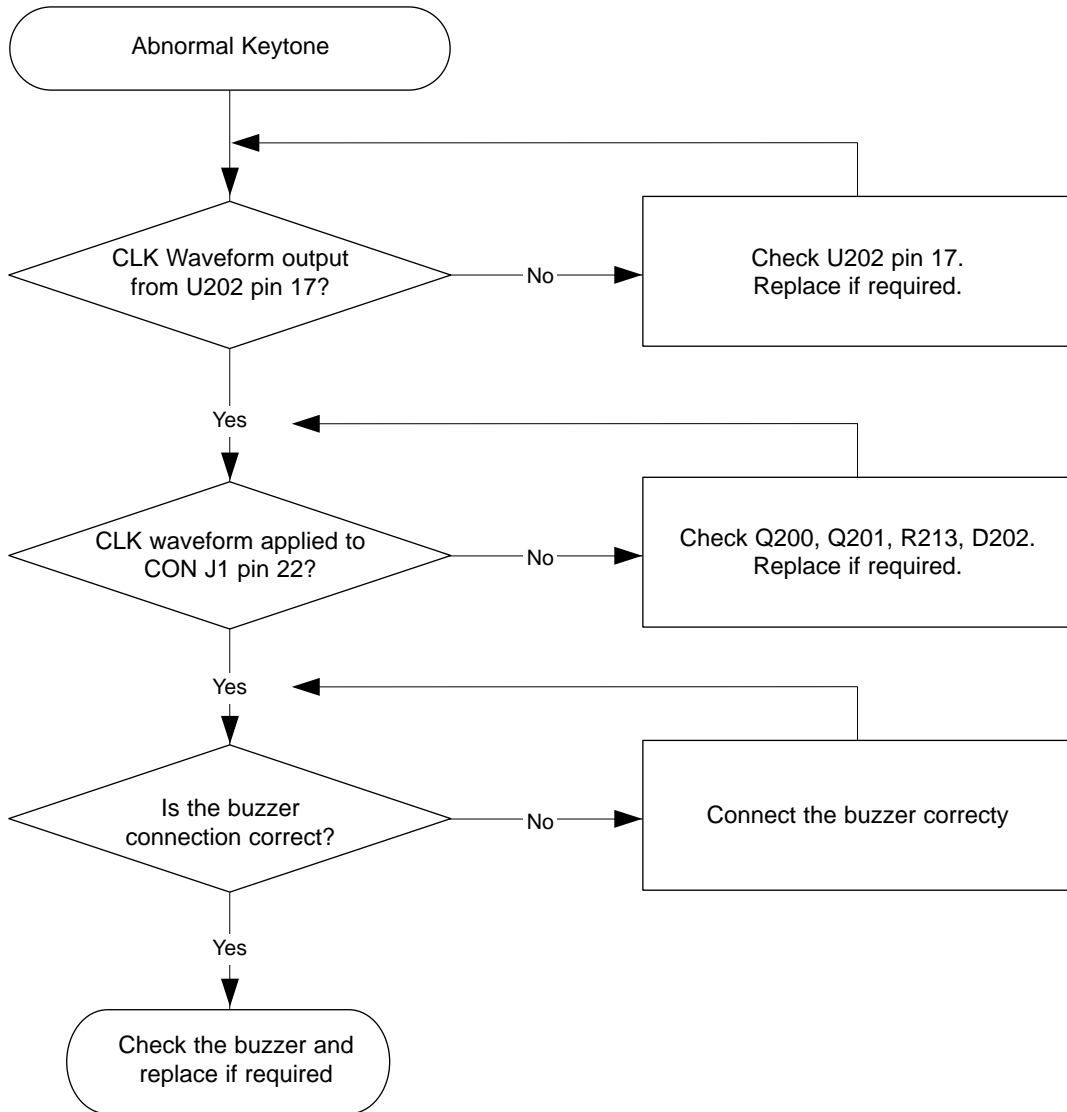
6-1-3 Abnormal Backlight,LCD or LED Operation



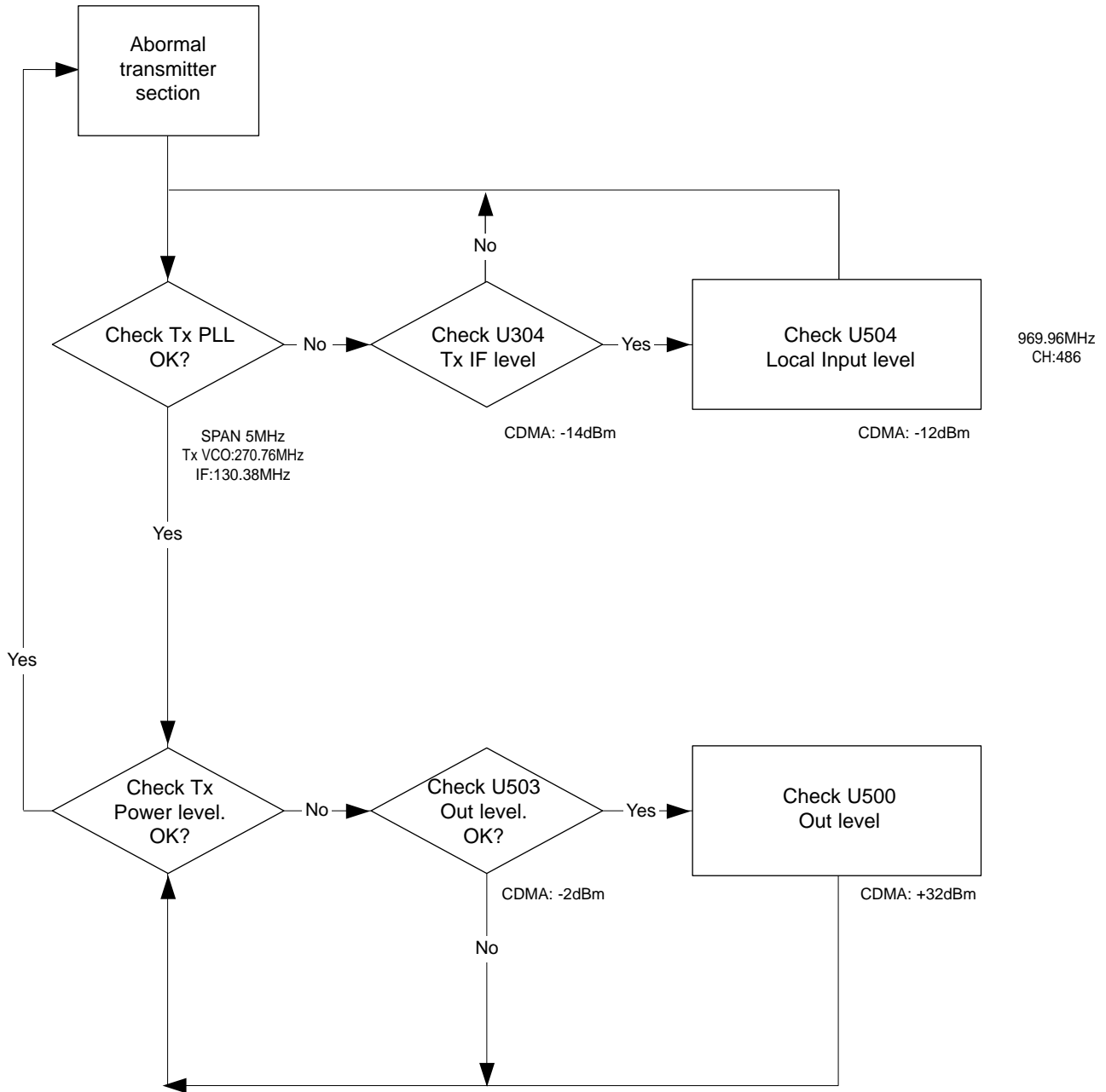
6-1-4 Abnormal Key Data input



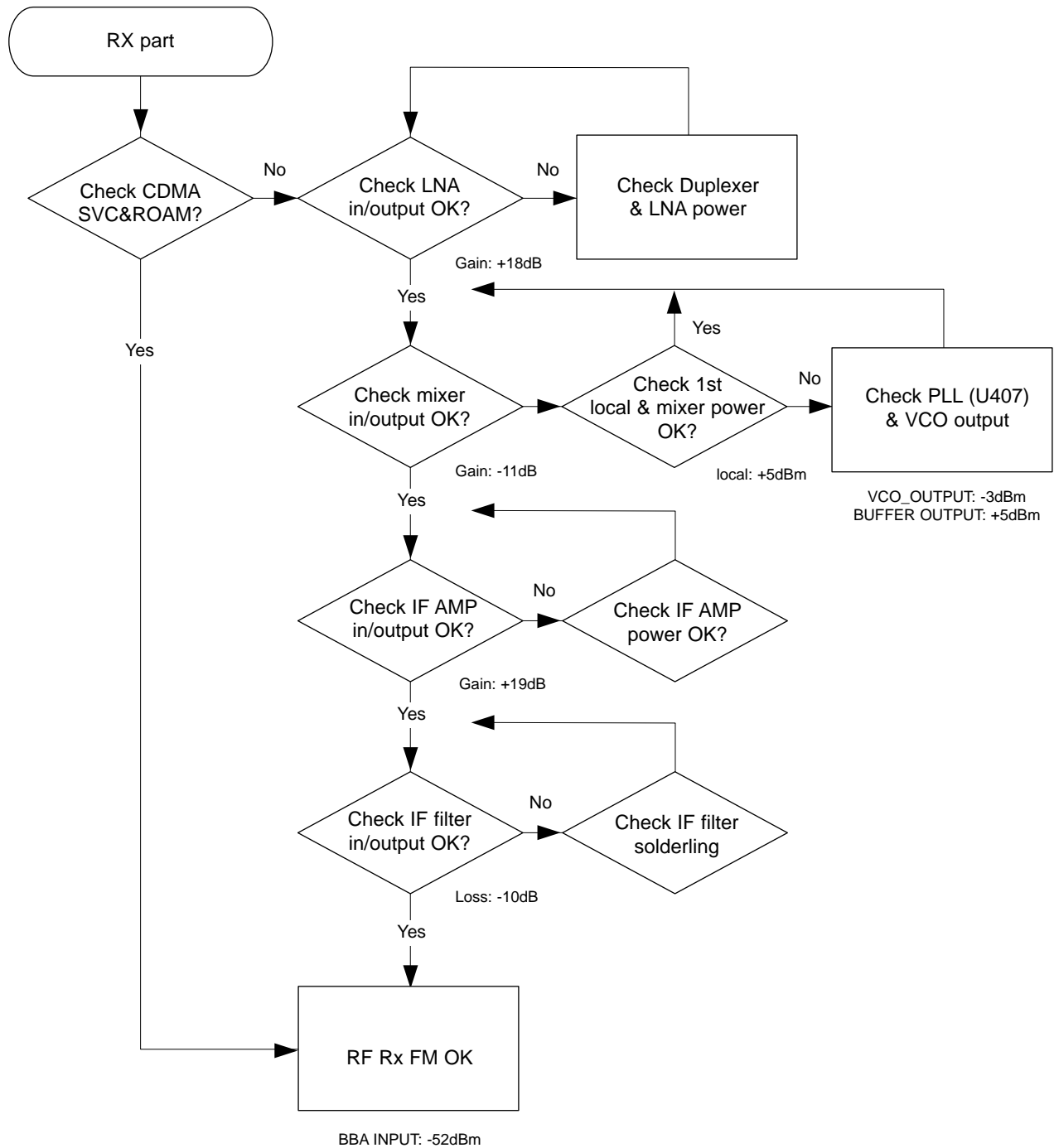
6-1-5 Abnormal Key tone



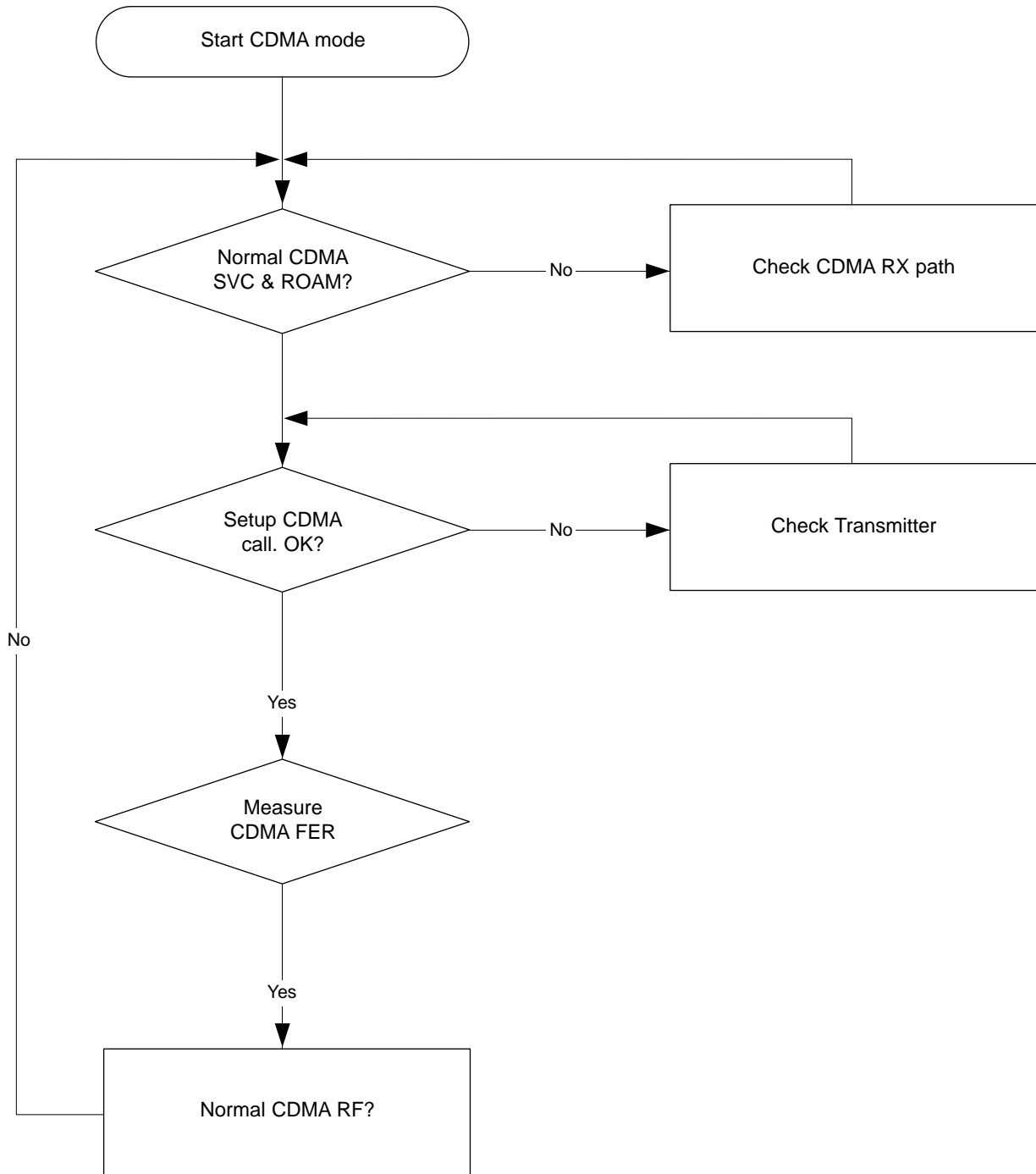
6-2 Transmitter Section



6-3 Receiver Section

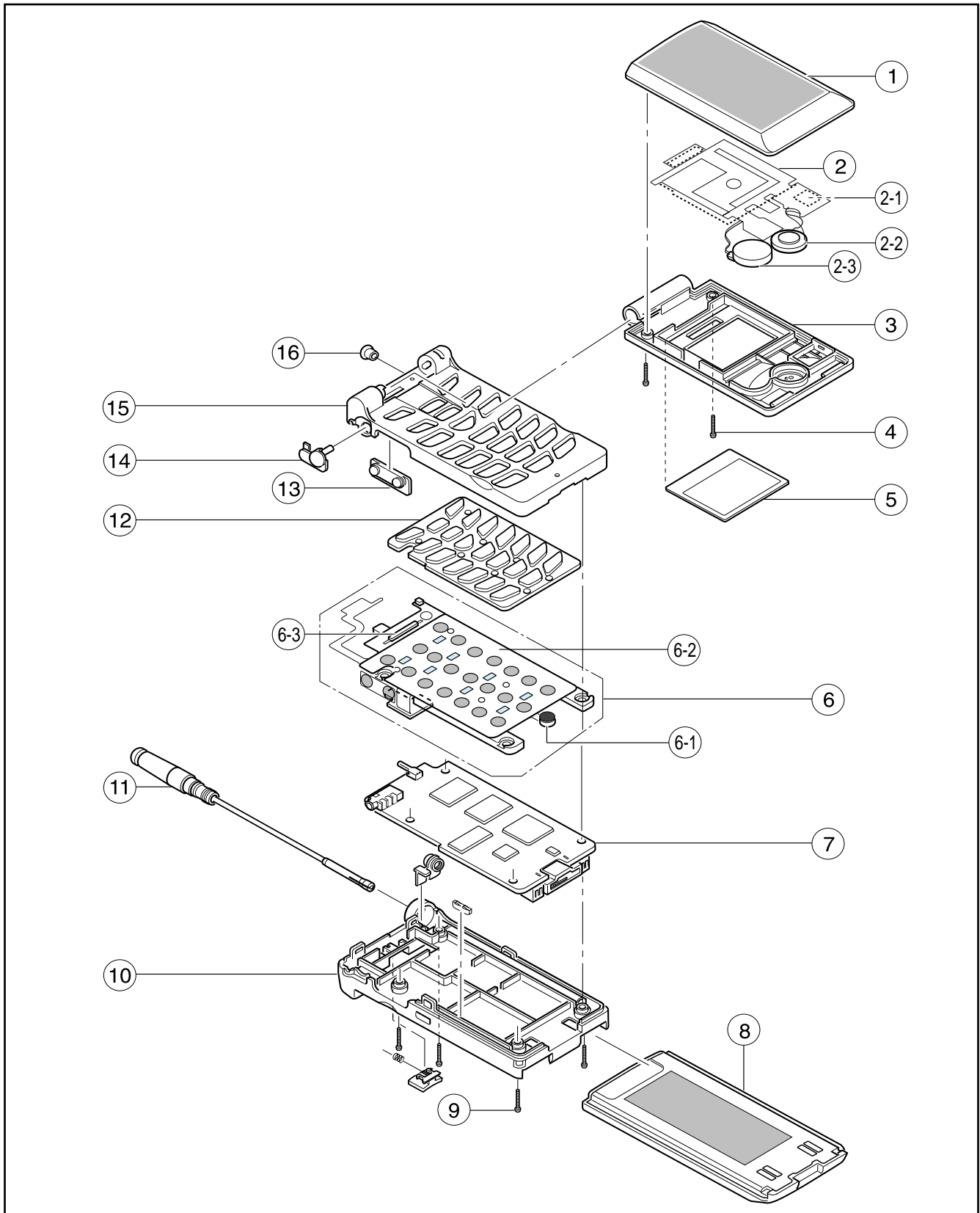


6-4 RF Section



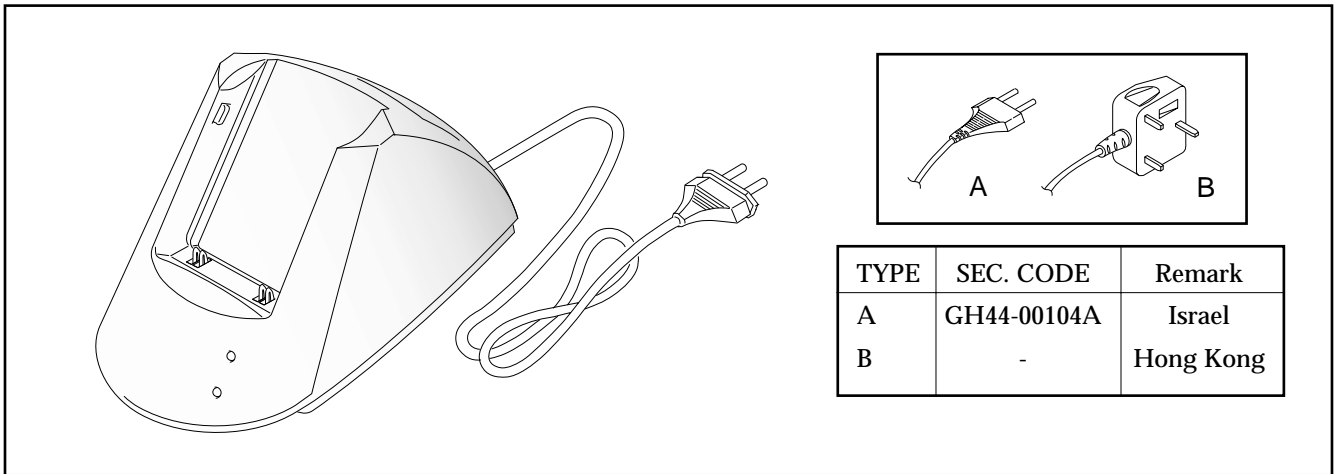
7. Exploded View and its Parts List

7-1 Cellular phone Exploded View

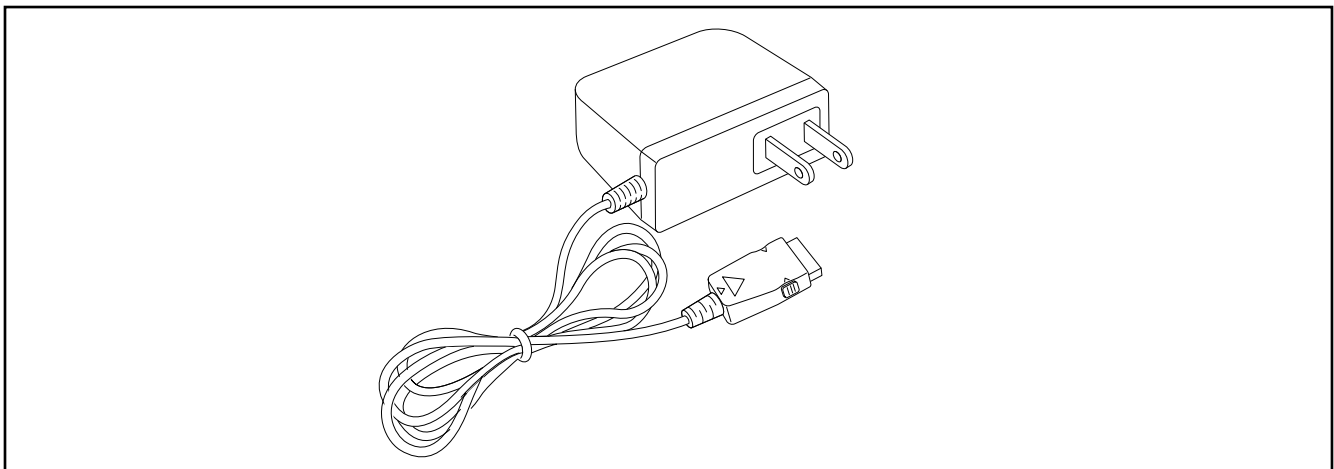


No	Description	SEC.CODE		REMARK
		Silver Gray	Champagne Gold	
1	SUA, FOLDER REAR	GH75-00148M	GH75-00148L	
2	LCD MODULE	GH96-00869A	GH96-00869A	
2-1	BUZZER	3002-001084	3002-001084	
2-2	SPEAKER	3001-001103	3001-001103	
2-3	VIBRATOR	3101-001169	3101-001169	
3	SUA, FOLDER FRONT COVER	GH97-01592B	GH97-01592A	
4	SCREW MACHINE	6001-000464	6001-000464	
5	LCD WINDOW	GH72-01045A	GH72-01045A	
6	KEY PCB	GH59-00085A	GH59-00085A	
6-1	MIC	3003-001034	3003-001034	
6-2	METAL DOME SHEET	GH74-00456A	GH74-00456A	
6-3	REED SWITCH	3409-001093	3409-001093	
7	MAIN PBA	GH92-00841A	GH92-00841A	
8	BATTERY	GH43-00179A	GH43-00173A	500 mAh
		GH43-00180A	GH43-00174A	1000 mAh
9	SCREW MACHINE	6001-001057	6001-001057	
10	SUA, REAR COVER	GH75-00149B	GH75-00149A	
11	ANTENNA	GH42-00015B	GH42-00015B	
12	KEY PAD	GH73-00085F	GH73-00085F	
13	VOLUME KEY	GH72-00300C	GH72-00300C	
14	EAR JACK COVER	GH72-00301A	GH72-00301A	
15	SUA, FRONT CASE	GH75-00525B	GH75-00525A	
16	RF JACK DUMMY	GH73-00083A	GH73-00083A	

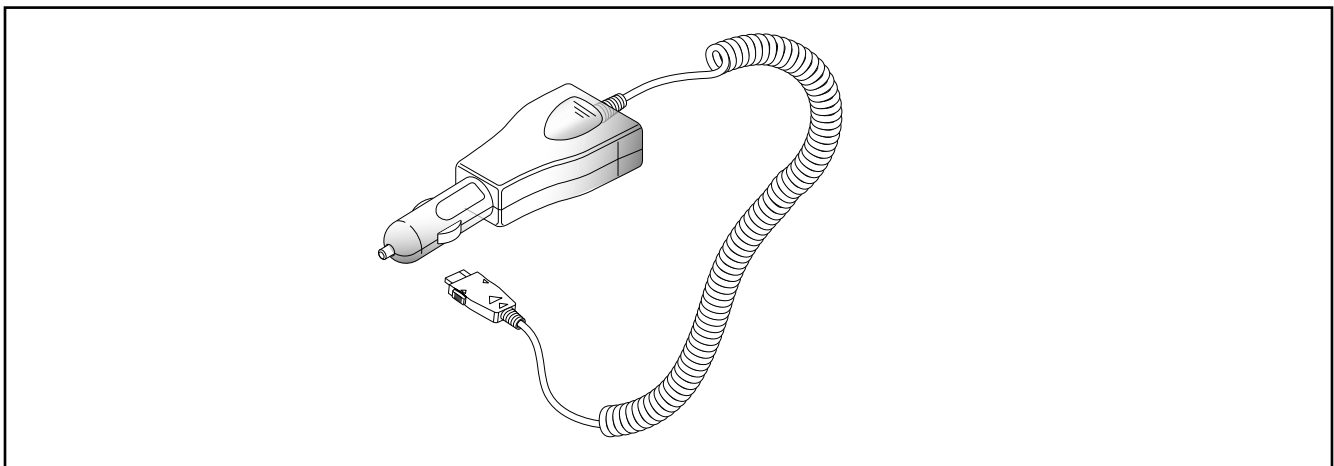
7-2 Desk-Top Rapid Charger Ass'y (DTCA10)



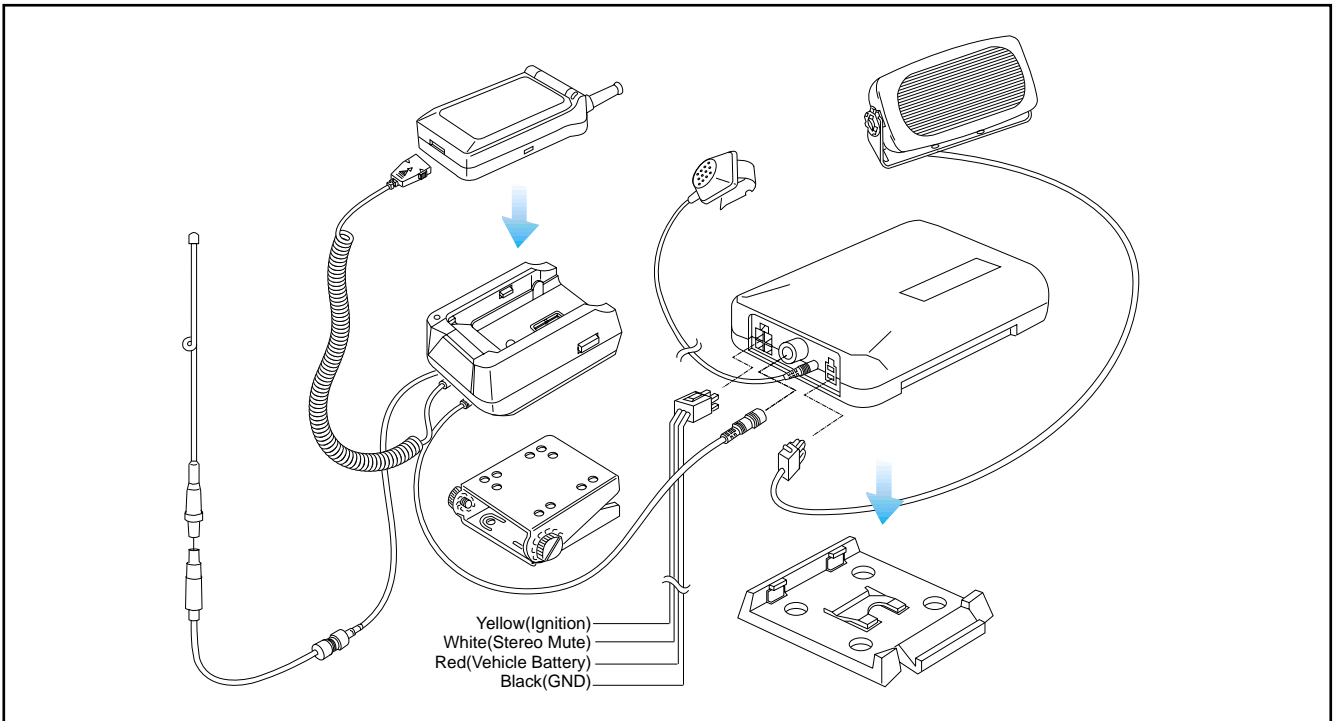
7-3 Travel Charger Ass'y (TC010, GH44-00080B)



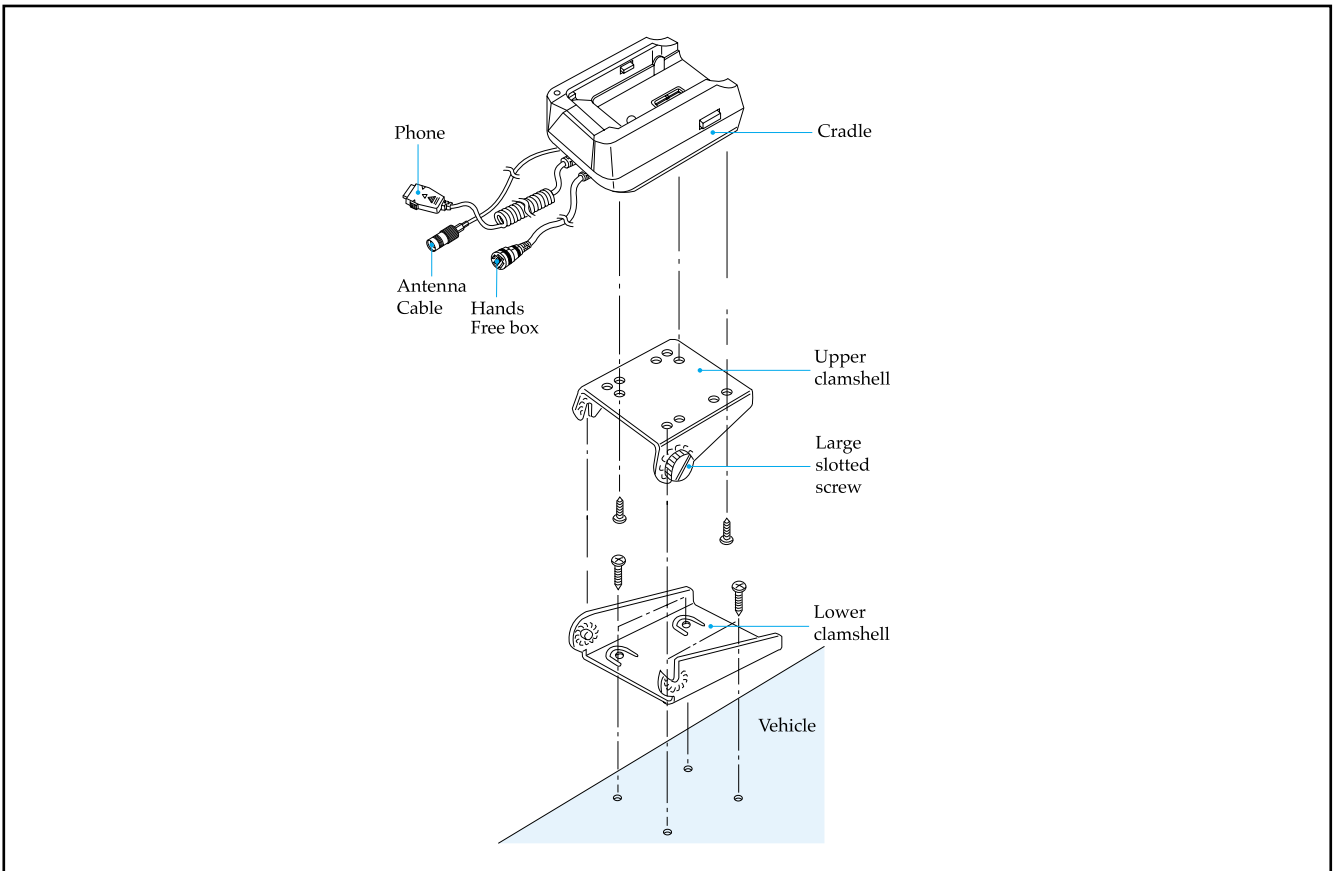
7-4 Cigarette Lighter Adaptor Ass'y (CLC020, GH44-00070A)



7-5 Hands Free Kit Ass'y (HFKA10, GH59-00096A)



7-6 Cradle Exploded View



8. Electrical Parts List

8-1 Main parts List

Level	Design LOC	SEC CODE	DESCRIPTIONS	Remark
0			SCH-A101G/PCL	
1	001	3001-001103	SPEAKER 0.05 W, 32 ohm, 111 dB,-	
1	001	3003-001034	MIC-CONDENSOR 2V,130UA-500UA,-44DB+-3DB,2.2 kohm	
1	002	6001-001057	SCREW-MACHINE PH,+,M1.4,L6,ZPC(BLK),MSWR20,-	
1	001	GH42-00015B	ANTENNA-SCHA100 SCH-A100,824-849MHZ,0/-3 DBD,50ohm	
1	001	GH43-00173A	BATTERY-SCHA101 BATT PACK 3.7V,540 mAh,-,540 mA, 4.2V	
1	001	GH43-00174A	BATTERY-SCHA101 1000 mA 3.6 V, 915 mAH,-,965 mAH,-	
1	001	GH44-00104A	CHARGER-DTC A101 SCH-A101,AC/DC,-,110-220VAC	
1	001	GH68-00996A	LABEL(R)-MAIN SCH-A101,MAT,40X30,T0.05,SIL	
1	001	GH68-01060A	LABEL(P)-SHIP(ISRAEL) SCH-A101,CRP,250X180,100G,YEL	
1	001	GH68-11057A	LABEL(P)-MS BAR CODE SCH-1900,ART,100X155,T0.1,WHT	
1	001	GH68-30963A	LABEL(R)-BAR CODE SP-D300,PR,34X6.5,T0.1,WHT	
1	001	GH71-00052A	NPR-ANT.CONTACT SCH-A100,BE-CU,T0.1,AU	
1	001	GH72-00297B	PMO-LCD WINDOW SCH-6900,ACRYL(T1),-,-,-	
1	001	GH72-00301A	PMO-EAR JACK COVER SCH-A100,PUR,L/GRY,-,-	
1	001	GH73-00083A	RMO-RF JACK DUMMY SCH-A100,RUBBER,-,GRY,50	
1	001	GH73-00214A	RMO-ANTENNA RUBBER SPH-A1000,RUBBER,2X3XT0.5,	
1	001	GH73-40673J	RMO-COVER CONNECTOR SCH-A100,RUBBER,-,D/GRY,50	
1	001	GH74-00151A	MPR-DECO PANNAL BOHOTAPE SCH-A100,VINYL,T0.2,-,-	
1	001	GH74-00152A	MPR-WINDOW BOHO TAPE SCH-A100,VINYL,T0.2,-,-	
1	001	GH75-00223A	MEC-HANGER ROPE SGH-2300,-,GRY	
1	001	GH75-00407B	MEC-NECKLACE SPH-8700,-,BLK	
1	001	GH75-00513A	MEC-LEADER CASE SCH-A101,-,BLK	
1	002	GH82-00008A	A/S MATERIAL ASSY-SCHA100 SCH-A100,-,KOR,	
2	001	3001-001103	SPEAKER 0.05W,32ohm,111dB,-	
2	001	3002-001062	BUZZER-MAGNETIC 88dB,3.6V,90mA,2.731KHz,TP	
2	001	3003-001034	MIC-CONDENSOR 2V,130UA-500UA,-44DB+-3DB,2.2 kohm	
2	001	3101-001169	MOTOR-DC 8500rpm,-,3V,110mA	
2	001	3409-001039	SWITCH-REED 100VDC,0.5A,1000US,1000US	
2	001	6001-000464	SCREW-MACHINE PH,+,M1.4,L4,BLACK,SM10C,-	
2	001	6001-001057	SCREW-MACHINE PH,+,M1.4,L6,ZPC(BLK),MSWR20,-	
2	001	GH39-00026A	CBF SIGNAL-SCHA100 SCH-A100,-,RF TEST CABLE,	
2	001	GH42-00015B	ANTENNA-SCHA100 SCH-A100,824-849MHZ,0/-3 DBD ,	

Level	Design LOC	SEC CODE	DESCRIPTIONS	Remark
2	001	GH68-00370A	LABEL(R)-FRONT DUMMY SHEET SCH-A100,PC	
2	001	GH72-00300C	PMO-VOLUME KEY SCH-A100,PC,GRY,-,-	
2	001	GH72-00301A	PMO-EAR JACK COVER SCH-A100,PUR,L/GRY,-,-	
2	001	GH72-01045A	PMO-LCD WINDOW(SVC) SCH-A101,ACRYL,BLK,-,-	
2	001	GH73-00083A	RMO-RF JACK DUMMY SCH-A100,RUBBER,-,GRY,50	
2	001	GH73-00085F	RMO-KEY PAD SCH-A100,RUBBER,-,-,-	
2	001	GH74-00456A	MPR-METAL DOME SHEET SCH-A101,PET FILM+SUS301,	
2	001	GH75-00148L	MEC-FOLDER REAR SCH-A100,-,BEG	
3	001	GH71-00049G	NPR-DECORATION PANNEL SCH-A100,AL,T0.6,GLD	
3	001	GH72-00293A	PMO-REAR FOLDER SCH-A100,PC,BEG,-,-	
3	001	GH74-00138A	MPR-DECO.PANNEL TAPE SCH-A100,TESA,T0.2,TRP,-	
3	001	GH74-00151A	MPR-DECO PANNAL BOHOTAPE SCH-A100,VINYL,T0.2,-,-	
2	001	GH75-00525A	MEC-SUA.FRONT SCH-A101(ISRL),-,BEG	
3	001	GH72-00286A	PMO-FRONT COVER SCH-A100,PC,BEG,-,-	
3	001	GH72-00287A	PMO-LED LENS SCH-A100,ACRYL,TRP,-,-	
3	001	GH72-00295A	PMO-HINGE DUMMY SCH-A100,POM,BLK,-,-	
3	001	GH73-00263A	RMO-FOLD HOLDER SGH-A100,RUBBER,-,D/GRY,-	
2	001	GH97-00925A	MEA REAR-COVER SCH-A100,-,KORA,GRY ,-,,-	
3	001	GH71-00050A	NPR-ANTENNA BRAKET SCH-A100,ZN GOLD PLT,-,AU	
3	001	GH71-10639A	NPR-SHIELD STRIP(A) SCH-1100,C1720S-1/2H,T0.1,GOLD	
3	001	GH75-00149A	MEC-SUA.REAR COVER SCH-A100,-,GRY	
4	001	GH68-00389A	LABEL(R)-DUPLEX DUMMY SCH-A100,MAT,22X11,T0.05,GRY	
4	001	GH70-00021A	IPR-SPRING LOCKER SCH-A100,STS304,T3.3,-	
4	001	GH72-00298A	PMO-REAR COVER SCH-A100,PC,GRY,-,-	
4	001	GH72-00299A	PMO-LOCKER SCH-A100,PC,GRY,-,G5295	
2	001	GH97-01591A	MEA ETC-KEY FPCB SCH-A101,-,ISRL,WHT,-,-,-	
3	001	GH71-00207A	NPR-SOLDER FINGER SCH-A120,C5210TS,T0.15,AU	
3	001	GH72-00294A	PMO-SHIELD COVER SCH-A100,ABS,BLK,-,-	
3	001	GH74-00331A	MPR-FPCB SPONGE SPH-A1000,SRS PORON,T1,BLK,-	
2	001	GH97-01592A	MEA ETC-FOLDER FRONT SCH-A101,-,ISRL,BEG,-,-,-	
3	001	GH72-00297B	PMO-LCD WINDOW SCH-6900,ACRYL(T1),-,,-	
3	001	GH74-00152A	MPR-WINDOW BOHO TAPE SCH-A100,VINYL,T0.2,-,-	
3	001	GH74-00566A	MPR-SPEAK NET SCH-A101,HIMERON,PI12.6XT1.65,-,-	
3	001	GH75-00146D	MEC-FOLDER FRONT SCH-A100,-,BEG	

Level	Design LOC	SEC CODE	DESCRIPTIONS	Remark
4	001	GH72-00288D	PMO-FOLDER FRONT SCH-A100(ISRL),PC,BEG,-,-	
4	001	GH72-00289A	PMO-EAR PIECE SCH-A100,PC,GRY,-,-	
4	001	GH74-00135A	MPR-LCD WINDOW TAPE SCH-A100,TESA,T0.2,TRP,-	
4	001	GH74-00137A	MPR-EAR PIECE TAPE SCH-A100,TESA,T0.2,TRP,-	
4	001	GH74-00600A	MPR-LCD SPONGE SCH-A101,SRS PORON,T0.5,BLK,-	
4	001	GH75-00414B	MEC-HINGE ASS'Y SCH-850,-,BLK	
5	001	GH70-00020A	IPR-SPRING HINGE SCH-A100,STS304,PI4.5XPI0.65X8.2,-	
5	001	GH72-00291A	PMO-SHAFT HINGE SCH-A100,POM,BLK,-,-	
5	001	GH72-00292A	PMO-CAM HINGE SCH-A100,POM,BLK,-,-	
5	001	GH72-00861A	PMO-HINGE HOUSING SCH-850,PC,SIL,-,-	
3	001	GH75-00164A	MEC-MAGNETIC HOLDER SCH-A100,SEC,BLK	
4	001	GH70-40005A	ICT-MAGNETIC SPH-7000,MAGNETIC,3x15XT1.0,-	
4	001	GH72-00296A	PMO-MAGNETIC HOLDER SCH-A100,PC,BLK,-,-	
4	001	GH74-00150A	MPR-TAPE MAGNETIC HODER SCH-A100,TESA,T0.2,TRP,-	
1	001	GH92-00841A	PBA MAIN-SCHA101 SCH-A101,-,HONG,MAIN PBA,-,-,-	
2	001	0405-001035	DIODE-VARACTOR 1SV279, 15 V, 3 nA, USC, TP	
2	002	0405-001035	DIODE-VARACTOR 1SV279, 15 V, 3 nA, USC, TP	
2	003	0405-001035	DIODE-VARACTOR 1SV279, 15 V, 3 nA, USC, TP	
2	004	0405-001035	DIODE-VARACTOR 1SV279, 15 V, 3 nA, USC, TP	
2	001	0406-001051	DIODE-TVS SMS05C, 6 V, 300 W, SOT-23-6	
2	002	0406-001051	DIODE-TVS SMS05C, 6 V, 300 W, SOT-23-6	
2	001	0407-000115	DIODE-ARRAY DAN202U, 80 V, 100 mA, CA2-3, SC-70,	
2	002	0407-000115	DIODE-ARRAY DAN202U, 80 V,100 mA,CA2-3,SC-70,	
2	001	0407-001006	DIODE-ARRAY DA221, 20 V,100 mA,C2-3,EM3,TR	
2	002	0407-001006	DIODE-ARRAY DA221, 20 V,100 mA,C2-3,EM3,TR	
2	003	0407-001006	DIODE-ARRAY DA221, 20 V,100 mA,C2-3,EM3,TR	
2	001	0409-001016	DIODE-PIN BAR63-02W, 50 V,100 mA,SCD-80,TP	
2	001	0501-000162	TR-SMALL SIGNAL 2SA1576,PNP,200MW,SOT-323,TP,180-390	
2	002	0501-000162	TR-SMALL SIGNAL 2SA1576,PNP,200MW,SOT-323,TP,180-390	
2	001	0501-000218	TR-SMALL SIGNAL 2SC4081,NPN,200mW,UMT,TP,180-3	
2	001	0501-000225	TR-SMALL SIGNAL 2SC4617,NPN,200mW,EM3,TP,120-5	
2	002	0501-000225	TR-SMALL SIGNAL 2SC4617,NPN,200mW,EM3,TP,120-5	
2	001	0501-002063	TR-SMALL SIGNAL 2SC4959,NPN,150MW,SOT-323,TP,75-150	
2	001	0501-002096	TR-SMALL SIGNAL BFP420,NPN,160MW,SOT-343,TP,50-150	

Level	Design LOC	SEC CODE	DESCRIPTIONS	Remark
2	001	0501-002202	TR-SMALL SIGNAL MMBT2222AWT1,NPN,150mW,SOT-323	
2	002	0501-002202	TR-SMALL SIGNAL MMBT2222AWT1,NPN,150mW,SOT-323	
2	001	0504-000167	TR-DIGITAL RN1102, NPN, 100 mW, 10 K/10 K, SSM, TP	
2	002	0504-000167	TR-DIGITAL RN1102, NPN, 100 mW, 10 K/10 K, SSM, TP	
2	003	0504-000167	TR-DIGITAL RN1102, NPN, 100 mW, 10 K/10 K, SSM, TP	
2	004	0504-000167	TR-DIGITAL RN1102, NPN, 100 mW, 10 K/10 K, SSM, TP	
2	005	0504-000167	TR-DIGITAL RN1102, NPN, 100 mW, 10 K/10 K, SSM, TP	
2	006	0504-000167	TR-DIGITAL RN1102, NPN, 100 mW, 10 K/10 K, SSM, TP	
2	001	0504-000168	TR-DIGITAL RN1104, NPN, 100 mW, 47 K/47 K, SSM, TP	
2	002	0504-000168	TR-DIGITAL RN1104, NPN, 100 mW, 47 K/47 K, SSM, TP	
2	001	0504-000172	TR-DIGITAL RN2104, PNP, 100 mW, 47 K/47 K, SSM, TP	
2	002	0504-000172	TR-DIGITAL RN2104, PNP, 100 mW, 47 K/47 K, SSM, TP	
2	001	0505-001037	FET-SILICON -,P, -12V, +-2.5 A, 0.1 ohm,1 W, TSSO	
2	001	0505-001119	FET-SILICON 2SK2685,P,6 V, 20 mA,-, 100 mW, CMPA	
2	001	0505-001165	FET-SILICON SI3443DV,P,-20 V, +-3.5 mA, 65 Mohm	
2	002	0505-001165	FET-SILICON SI3443DV,P,-20 V,+-3.5 mA,65 Mohm	
2	001	1103-001147	IC-EEPROM 24256,256KBIT,SOP,8P,150MIL,-,3 V,10 %,	
2	001	1109-001133	IC-ETC. MEMORY 4VD21194,2MX8/1MX16Bit,BGA,	
2	001	1201-001248	IC-CASCODE AMP 0916,SOT-143,4P,-,2.7V,-,6Vd	
2	002	1201-001248	IC-CASCODE AMP 0916,SOT-143,4P,-,2.7V,-,6Vd	
2	001	1201-001259	IC-POWER AMP 23124,LCC,8P,-,SINGLE,-,PLASTI	
2	001	1201-001384	IC-MMIC AMP MD57-0001,SOT-26,6P,114MIL,SIN	
2	001	1202-000192	IC-VOLFAGECOMP. 75W393,-,8P,-,DUAL,36V,CMOS,PL	
2	001	1203-001285	IC-SWITCH VOL. REG. 5205,SOT-23,5P,150MIL,PLASTIC,	
2	002	1203-001285	IC-SWITCH VOL. REG. 5205,SOT-23,5P,150MIL,PLASTIC,	
2	003	1203-001285	IC-SWITCH VOL. REG. 5205,SOT-23,5P,150MIL,PLASTIC,	
2	001	1203-001717	IC-VOLTAGE REGULATOR 5210,MSOP,8P,117MIL,PLASTIC,	
2	001	1203-001835	IC-RESET 3470,SOT23,5P,-,PLASTIC,0.99/1.01 V,300 mW,-	
2	001	1204-001375	IC-ENCODER/DECODER ST5092TQFPTR,QFP,44P,-,PLASTIC	
2	001	1204-001504	IC-IF CIRCUIT IFR3000,TQFP,48P,-,PLASTIC,3.5 V,-,	
2	001	1204-001505	IC-IF CIRCUIT IFT3000,TQFP,48P,-,PLASTIC,3.5 V,-,-	
2	001	1205-001535	IC-MIXER RF2628,MSOP,8P,190MIL,PLASTIC,	
2	001	1205-001670	IC-TRANSCEIVER MSM3000,PBGA,196P,-,PLASTIC,3.5 V,-,-	
2	001	1209-001197	IC-PLL LMX2332LSLB,CSP,20P,-,PLASTIC,	

Level	Design LOC	SEC CODE	DESCRIPTIONS	Remark
2	001	1404-001040	THERMISTOR-NTC 10 kohm, 5 %, 3650K,-,TP	
2	001	2007-000137	R-CHIP 2 kohm, 5 %, 1/16 W, DA, TP, 1005	
2	002	2007-000137	R-CHIP 2 kohm, 5 %, 1/16 W, DA, TP, 1005	
2	003	2007-000137	R-CHIP 2 kohm, 5 %, 1/16 W, DA, TP, 1005	
2	004	2007-000137	R-CHIP 2 kohm, 5 %, 1/16 W, DA, TP, 1005	
2	001	2007-000138	R-CHIP 100 ohm, 5 %, 1/16 W, DA, TP, 1005	
2	002	2007-000138	R-CHIP 100 ohm, 5 %, 1/16 W, DA, TP, 1005	
2	003	2007-000138	R-CHIP 100 ohm, 5 %, 1/16 W, DA, TP, 1005	
2	004	2007-000138	R-CHIP 100 ohm, 5 %, 1/16 W, DA, TP, 1005	
2	005	2007-000138	R-CHIP 100 ohm, 5 %, 1/16 W, DA, TP, 1005	
2	006	2007-000138	R-CHIP 100 ohm, 5 %, 1/16 W, DA, TP, 1005	
2	007	2007-000138	R-CHIP 100 ohm, 5 %, 1/16 W, DA, TP, 1005	
2	001	2007-000139	R-CHIP 220 ohm, 5 %, 1/16 W, DA, TP, 1005	
2	001	2007-000140	R-CHIP 1 kohm, 5 %, 1/16 W, DA, TP, 1005	
2	002	2007-000140	R-CHIP 1 kohm, 5 %, 1/16 W, DA, TP, 1005	
2	003	2007-000140	R-CHIP 1 kohm, 5 %, 1/16 W, DA, TP, 1005	
2	004	2007-000140	R-CHIP 1 kohm, 5 %, 1/16 W, DA, TP, 1005	
2	005	2007-000140	R-CHIP 1 kohm, 5 %, 1/16 W, DA, TP, 1005	
2	006	2007-000140	R-CHIP 1 kohm, 5 %, 1/16 W, DA, TP, 1005	
2	007	2007-000140	R-CHIP 1 kohm, 5 %, 1/16 W, DA, TP, 1005	
2	008	2007-000140	R-CHIP 1 kohm, 5 %, 1/16 W, DA, TP, 1005	
2	001	2007-000141	R-CHIP 2.2 kohm, 5 %, 1/16 W, DA, TP, 1005	
2	002	2007-000141	R-CHIP 2.2 kohm, 5 %, 1/16 W, DA, TP, 1005	
2	001	2007-000142	R-CHIP 2.7 kohm, 5 %, 1/16 W, DA, TP, 1005	
2	001	2007-000143	R-CHIP 4.7 kohm, 5 %, 1/16 W, DA, TP, 1005	
2	002	2007-000143	R-CHIP 4.7 kohm, 5 %, 1/16 W, DA, TP, 1005	
2	003	2007-000143	R-CHIP 4.7 kohm, 5 %, 1/16 W, DA, TP, 1005	
2	004	2007-000143	R-CHIP 4.7 kohm, 5 %, 1/16 W, DA, TP, 1005	
2	005	2007-000143	R-CHIP 4.7 kohm, 5 %, 1/16 W, DA, TP, 1005	
2	006	2007-000143	R-CHIP 4.7 kohm, 5 %, 1/16 W, DA, TP, 1005	
2	001	2007-000144	R-CHIP 5.1 kohm, 5 %, 1/16 W, DA, TP, 1005	
2	002	2007-000144	R-CHIP 5.1 kohm, 5 %, 1/16 W, DA, TP, 1005	
2	001	2007-000145	R-CHIP 6.2 kohm, 5 %, 1/16 W, DA, TP, 1005	
2	001	2007-000146	R-CHIP 6.8 kohm, 5 %, 1/16 W, DA, TP, 1005	

Level	Design LOC	SEC CODE	DESCRIPTIONS	Remark
2	001	2007-000147	R-CHIP 8.2 kohm, 5 %, 1/16 W, DA, TP, 1005	
2	001	2007-000148	R-CHIP 10 kohm, 5 %, 1/16 W, DA, TP, 1005	
2	002	2007-000148	R-CHIP 10 kohm, 5 %, 1/16 W, DA, TP, 1005	
2	003	2007-000148	R-CHIP 10 kohm, 5 %, 1/16 W, DA, TP, 1005	
2	004	2007-000148	R-CHIP 10 kohm, 5 %, 1/16 W, DA, TP, 1005	
2	005	2007-000148	R-CHIP 10 kohm, 5 %, 1/16 W, DA, TP, 1005	
2	006	2007-000148	R-CHIP 10 kohm, 5 %, 1/16 W, DA, TP, 1005	
2	007	2007-000148	R-CHIP 10 kohm, 5 %, 1/16 W, DA, TP, 1005	
2	008	2007-000148	R-CHIP 10 kohm, 5 %, 1/16 W, DA, TP, 1005	
2	009	2007-000148	R-CHIP 10 kohm, 5 %, 1/16 W, DA, TP, 1005	
2	010	2007-000148	R-CHIP 10 kohm, 5 %, 1/16 W, DA, TP, 1005	
2	011	2007-000148	R-CHIP 10 kohm, 5 %, 1/16 W, DA, TP, 1005	
2	012	2007-000148	R-CHIP 10 kohm, 5 %, 1/16 W, DA, TP, 1005	
2	001	2007-000151	R-CHIP 15 kohm, 5 %, 1/16 W, DA, TP, 1005	
2	001	2007-000153	R-CHIP 22 kohm, 5 %, 1/16 W, DA, TP, 1005	
2	002	2007-000153	R-CHIP 22 kohm, 5 %, 1/16 W, DA, TP, 1005	
2	003	2007-000153	R-CHIP 22 kohm, 5 %, 1/16 W, DA, TP, 1005	
2	004	2007-000153	R-CHIP 22 kohm, 5 %, 1/16 W, DA, TP, 1005	
2	005	2007-000153	R-CHIP 22 kohm, 5 %, 1/16 W, DA, TP, 1005	
2	006	2007-000153	R-CHIP 22 kohm, 5 %, 1/16 W, DA, TP, 1005	
2	001	2007-000155	R-CHIP 27 kohm, 5 %, 1/16 W, DA, TP, 1005	
2	001	2007-000157	R-CHIP 47 kohm, 5 %, 1/16 W, DA, TP, 1005	
2	002	2007-000157	R-CHIP 47 kohm, 5 %, 1/16 W, DA, TP, 1005	
2	003	2007-000157	R-CHIP 47 kohm, 5 %, 1/16 W, DA, TP, 1005	
2	001	2007-000159	R-CHIP 56 kohm, 5 %, 1/16 W, DA, TP, 1005	
2	001	2007-000160	R-CHIP 68 kohm, 5 %, 1/16 W, DA, TP, 1005	
2	001	2007-000162	R-CHIP 100 kohm, 5 %, 1/16 W, DA, TP, 1005	
2	002	2007-000162	R-CHIP 100 kohm, 5 %, 1/16 W, DA, TP, 1005	
2	003	2007-000162	R-CHIP 100 kohm, 5 %, 1/16 W, DA, TP, 1005	
2	004	2007-000162	R-CHIP 100 kohm, 5 %, 1/16 W, DA, TP, 1005	
2	005	2007-000162	R-CHIP 100 kohm, 5 %, 1/16 W, DA, TP, 1005	
2	006	2007-000162	R-CHIP 100 kohm, 5 %, 1/16 W, DA, TP, 1005	
2	007	2007-000162	R-CHIP 100 kohm, 5 %, 1/16 W, DA, TP, 1005	
2	008	2007-000162	R-CHIP 100 kohm, 5 %, 1/16 W, DA, TP, 1005	

Electrical Parts List

Level	Design LOC	SEC CODE	DESCRIPTIONS	Remark
2	009	2007-000162	R-CHIP 100 kohm, 5 %, 1/16 W, DA, TP, 1005	
2	010	2007-000162	R-CHIP 100 kohm, 5 %, 1/16 W, DA, TP, 1005	
2	016	2007-000162	R-CHIP 100 kohm, 5 %, 1/16 W, DA, TP, 1005	
2	011	2007-000162	R-CHIP 100 kohm, 5 %, 1/16 W, DA, TP, 1005	
2	012	2007-000162	R-CHIP 100 kohm, 5 %, 1/16 W, DA, TP, 1005	
2	013	2007-000162	R-CHIP 100 kohm, 5 %, 1/16 W, DA, TP, 1005	
2	014	2007-000162	R-CHIP 100 kohm, 5 %, 1/16 W, DA, TP, 1005	
2	015	2007-000162	R-CHIP 100 kohm, 5 %, 1/16 W, DA, TP, 1005	
2	001	2007-000163	R-CHIP 120 kohm, 5 %, 1/16 W, DA, TP, 1005	
2	002	2007-000163	R-CHIP 120 kohm, 5 %, 1/16 W, DA, TP, 1005	
2	001	2007-000165	R-CHIP 200 kohm, 5 %, 1/16 W, DA, TP, 1005	
2	001	2007-000168	R-CHIP 470 kohm, 5 %, 1/16 W, DA, TP, 1005	
2	001	2007-000170	R-CHIP 1 Mohm, 5 %, 1/16 W, DA, TP, 1005	
2	001	2007-000172	R-CHIP 10 ohm, 5 %, 1/16 W, DA, TP, 1005	
2	002	2007-000172	R-CHIP 10 ohm, 5 %, 1/16 W, DA, TP, 1005	
2	003	2007-000172	R-CHIP 10ohm, 5 %, 1/16 W, DA, TP, 1005	
2	004	2007-000172	R-CHIP 10 ohm, 5 %, 1/16 W, DA, TP, 1005	
2	005	2007-000172	R-CHIP 10 ohm, 5 %, 1/16 W, DA, TP, 1005	
2	006	2007-000172	R-CHIP 10 ohm, 5 %, 1/16 W, DA, TP, 1005	
2	001	2007-000174	R-CHIP 47 ohm, 5 %, 1/16 W, DA, TP, 1005	
2	002	2007-000174	R-CHIP 47 ohm, 5 %, 1/16 W, DA, TP, 1005	
2	001	2007-000242	R-CHIP 1.5 kohm, 5 %, 1/16 W, DA, TP, 1005	
2	003	2007-000242	R-CHIP 1.5 kohm, 5 %, 1/16 W, DA, TP, 1005	
2	004	2007-000242	R-CHIP 1.5 kohm, 5 %, 1/16 W, DA, TP, 1005	
2	001	2007-000775	R-CHIP 33 kohm, 5 %, 1/16 W, DA, TP, 1005	
2	001	2007-000932	R-CHIP 470 ohm, 5 %, 1/16 W, DA, TP, 1005	
2	001	2007-001284	R-CHIP 4.7 ohm, 5 %, 1/16 W, DA, TP, 1005	
2	002	2007-001284	R-CHIP 4.7 ohm, 5 %, 1/16 W, DA, TP, 1005	
2	001	2007-001294	R-CHIP 36 ohm, 5 %, 1/16 W, DA, TP, 1005	
2	002	2007-001294	R-CHIP 36 ohm, 5 %, 1/16 W, DA, TP, 1005	
2	003	2007-001294	R-CHIP 36 ohm, 5 %, 1/16 W, DA, TP, 1005	
2	001	2007-001311	R-CHIP 270 ohm, 5 %, 1/16 W, DA, TP, 1005	
2	002	2007-001311	R-CHIP 270 ohm, 5 %, 1/16 W, DA, TP, 1005	
2	001	2007-001313	R-CHIP 330 ohm, 5 %, 1/16 W, DA, TP, 1005	

Level	Design LOC	SEC CODE	DESCRIPTIONS	Remark
2	002	2007-001313	R-CHIP 330 ohm, 5 %, 1/16 W, DA, TP, 1005	
2	003	2007-001313	R-CHIP 330 ohm, 5 %, 1/16 W, DA, TP, 1005	
2	004	2007-001313	R-CHIP 330 ohm, 5 %, 1/16 W, DA, TP, 1005	
2	001	2007-001317	R-CHIP 910 ohm, 5 %, 1/16 W, DA, TP, 1005	
2	001	2007-001319	R-CHIP 1.2 kohm, 5 %, 1/16 W, DA, TP, 1005	
2	001	2007-001320	R-CHIP 1.8 kohm, 5 %, 1/16 W, DA, TP, 1005	
2	002	2007-001320	R-CHIP 1.8 kohm, 5 %, 1/16 W, DA, TP, 1005	
2	001	2007-001323	R-CHIP 3 kohm, 5 %, 1/16 W, DA, TP, 1005	
2	001	2007-001325	R-CHIP 3.3 kohm, 5 %, 1/16 W, DA, TP, 1005	
2	002	2007-001325	R-CHIP 3.3 kohm, 5 %, 1/16 W, DA, TP, 1005	
2	001	2007-003006	R-CHIP 16 ohm, 5 %, 1/16 W, DA, TP, 1005	
2	002	2007-003006	R-CHIP 16 ohm, 5 %, 1/16 W, DA, TP, 1005	
2	001	2007-003010	R-CHIP 20 ohm, 5 %, 1/16 W, DA, TP, 1005	
2	001	2007-003023	R-CHIP 62 kohm, 5 %, 1/16 W, DA, TP, 1005	
2	001	2007-003112	R-CHIP 27 ohm, 5 %, 1/16 W, DA, TP, 1005	
2	001	2007-007014	R-CHIP 51 kohm, 5 %, 1/16 W, DA, TP, 1005	
2	001	2007-007132	R-CHIP 15 kohm, 1 %, 1/16 W, DA, TP, 1005	
2	001	2007-007136	R-CHIP 4.7 kohm, 1 %, 1/16 W, DA, TP, 1005	
2	001	2007-007480	R-CHIP 130 kohm, 1 %, 1/16 W, DA, TP, 1005	
2	001	2007-007489	R-CHIP 150 kohm, 1 %, 1/16 W, DA, TP, 1005	
2	001	2007-007586	R-CHIP 470 ohm, 1 %, 1/16 W, DA, TP, 1005	
2	015	2007-007771	R-CHIP 0 ohm, 5 %, 1/16 W, DA, TP, 1005	
2	001	2007-007771	R-CHIP 0 ohm, 5 %, 1/16 W, DA, TP, 1005	
2	002	2007-007771	R-CHIP 0 ohm, 5 %, 1/16 W, DA, TP, 1005	
2	003	2007-007771	R-CHIP 0 ohm, 5 %, 1/16 W, DA, TP, 1005	
2	004	2007-007771	R-CHIP 0 ohm, 5 %, 1/16 W, DA, TP, 1005	
2	005	2007-007771	R-CHIP 0 ohm, 5 %, 1/16 W, DA, TP, 1005	
2	006	2007-007771	R-CHIP 0 ohm, 5 %, 1/16 W, DA, TP, 1005	
2	007	2007-007771	R-CHIP 0 ohm, 5 %, 1/16 W, DA, TP, 1005	
2	008	2007-007771	R-CHIP 0 ohm, 5 %, 1/16 W, DA, TP, 1005	
2	009	2007-007771	R-CHIP 0 ohm, 5 %, 1/16 W, DA, TP, 1005	
2	010	2007-007771	R-CHIP 0 ohm, 5 %, 1/16 W, DA, TP, 1005	
2	011	2007-007771	R-CHIP 0 ohm, 5 %, 1/16 W, DA, TP, 1005	
2	012	2007-007771	R-CHIP 0 ohm, 5 %, 1/16 W, DA, TP, 1005	

Level	Design LOC	SEC CODE	DESCRIPTIONS	Remark
2	013	2007-007771	R-CHIP 0 ohm, 5 %, 1/16 W, DA, TP, 1005	
2	014	2007-007771	R-CHIP 0 ohm, 5 %, 1/16 W, DA, TP, 1005	
2	001	2203-000233	C-CERAMIC,CHIP 0.1nF, 5 %, 50 V, NP0, TP, 1005	
2	002	2203-000233	C-CERAMIC,CHIP 0.1nF, 5 %, 50 V, NP0, TP, 1005	
2	003	2203-000233	C-CERAMIC,CHIP 0.1nF, 5 %, 50 V, NP0, TP, 1005	
2	004	2203-000233	C-CERAMIC,CHIP 0.1nF, 5 %, 50 V, NP0, TP, 1005	
2	005	2203-000233	C-CERAMIC,CHIP 0.1nF, 5 %, 50 V, NP0, TP, 1005	
2	006	2203-000233	C-CERAMIC,CHIP 0.1nF, 5 %, 50 V, NP0, TP, 1005	
2	007	2203-000233	C-CERAMIC,CHIP 0.1nF, 5 %, 50 V, NP0, TP, 1005	
2	008	2203-000233	C-CERAMIC,CHIP 0.1nF, 5 %, 50 V, NP0, TP, 1005	
2	009	2203-000233	C-CERAMIC,CHIP 0.1nF, 5 %, 50 V, NP0, TP, 1005	
2	010	2203-000233	C-CERAMIC,CHIP 0.1nF, 5 %, 50 V, NP0, TP, 1005	
2	011	2203-000233	C-CERAMIC,CHIP 0.1nF, 5 %, 50 V, NP0, TP, 1005	
2	012	2203-000233	C-CERAMIC,CHIP 0.1nF, 5 %, 50 V, NP0, TP, 1005	
2	013	2203-000233	C-CERAMIC,CHIP 0.1nF, 5 %, 50 V, NP0, TP, 1005	
2	014	2203-000233	C-CERAMIC,CHIP 0.1nF, 5 %, 50 V, NP0, TP, 1005	
2	015	2203-000233	C-CERAMIC,CHIP 0.1nF, 5 %, 50 V, NP0, TP, 1005	
2	016	2203-000233	C-CERAMIC,CHIP 0.1nF, 5 %, 50 V, NP0, TP, 1005	
2	017	2203-000233	C-CERAMIC,CHIP 0.1nF, 5 %, 50 V, NP0, TP, 1005	
2	018	2203-000233	C-CERAMIC,CHIP 0.1nF, 5 %, 50 V, NP0, TP, 1005	
2	019	2203-000233	C-CERAMIC,CHIP 0.1nF, 5 %, 50 V, NP0, TP, 1005	
2	020	2203-000233	C-CERAMIC,CHIP 0.1nF, 5 %, 50 V, NP0, TP, 1005	
2	021	2203-000233	C-CERAMIC,CHIP 0.1nF, 5 %, 50 V, NP0, TP, 1005	
2	022	2203-000233	C-CERAMIC,CHIP 0.1nF, 5 %, 50 V, NP0, TP, 1005	
2	023	2203-000233	C-CERAMIC,CHIP 0.1nF, 5 %, 50 V, NP0, TP, 1005	
2	024	2203-000233	C-CERAMIC,CHIP 0.1nF, 5 %, 50 V, NP0, TP, 1005	
2	025	2203-000233	C-CERAMIC,CHIP 0.1nF, 5 %, 50 V, NP0, TP, 1005	
2	026	2203-000233	C-CERAMIC,CHIP 0.1nF, 5 %, 50 V, NP0, TP, 1005	
2	027	2203-000233	C-CERAMIC,CHIP 0.1 nF, 5 %, 50 V, NP0, TP, 1005	
2	028	2203-000233	C-CERAMIC,CHIP 0.1 nF, 5 %, 50 V, NP0, TP, 1005	
2	029	2203-000233	C-CERAMIC,CHIP 0.1 nF, 5 %, 50 V, NP0, TP, 1005	
2	030	2203-000233	C-CERAMIC,CHIP 0.1 nF, 5 %, 50 V, NP0, TP, 1005	
2	031	2203-000233	C-CERAMIC,CHIP 0.1 nF, 5 %, 50 V, NP0, TP, 1005	
2	032	2203-000233	C-CERAMIC,CHIP 0.1 nF, 5 %, 50 V, NP0, TP, 1005	

Level	Design LOC	SEC CODE	DESCRIPTIONS	Remark
2	033	2203-000233	C-CERAMIC,CHIP 0.1 nF, 5 %, 50 V, NP0, TP, 1005	
2	034	2203-000233	C-CERAMIC,CHIP 0.1 nF, 5 %, 50 V, NP0, TP, 1005	
2	035	2203-000233	C-CERAMIC,CHIP 0.1 nF, 5 %, 50 V, NP0, TP, 1005	
2	036	2203-000233	C-CERAMIC,CHIP 0.1 nF, 5 %, 50 V, NP0, TP, 1005	
2	037	2203-000233	C-CERAMIC,CHIP 0.1 nF, 5 %, 50 V, NP0, TP, 1005	
2	038	2203-000233	C-CERAMIC,CHIP 0.1 nF, 5 %, 50 V, NP0, TP, 1005	
2	001	2203-000254	C-CERAMIC,CHIP 10 nF, 10 %, 16V, X7R, TP ,1005,-	
2	002	2203-000254	C-CERAMIC,CHIP 10 nF, 10 %, 16V, X7R, TP, 1005,-	
2	003	2203-000254	C-CERAMIC,CHIP 10 nF, 10 %,16V, X7R, TP, 1005,-	
2	004	2203-000254	C-CERAMIC,CHIP 10 nF, 10 %,16V, X7R, TP, 1005,-	
2	005	2203-000254	C-CERAMIC,CHIP 10 nF, 10 %, 16V, X7R, TP, 1005,-	
2	006	2203-000254	C-CERAMIC,CHIP 10 nF, 10 %, 16V, X7R, TP, 1005,-	
2	053	2203-000254	C-CERAMIC,CHIP 10 nF, 10 %, 16V, X7R, TP, 1005,-	
2	007	2203-000254	C-CERAMIC,CHIP 10 nF, 10 %, 16V, X7R, TP ,1005,-	
2	008	2203-000254	C-CERAMIC,CHIP 10 nF, 10 %, 16V, X7R, TP, 1005,-	
2	009	2203-000254	C-CERAMIC,CHIP 10 nF, 10 %, 16V, X7R, TP, 1005,-	
2	010	2203-000254	C-CERAMIC,CHIP 10 nF, 10 %, 16V, X7R, TP, 1005,-	
2	011	2203-000254	C-CERAMIC,CHIP 10 nF, 10 %, 16V, X7R, TP, 1005,-	
2	012	2203-000254	C-CERAMIC,CHIP 10 nF, 10 %, 16V, X7R, TP, 1005,-	
2	013	2203-000254	C-CERAMIC,CHIP 10 nF, 10%, 16V, X7R, TP, 1005,-	
2	014	2203-000254	C-CERAMIC,CHIP 10 nF, 10%, 16V, X7R, TP, 1005,-	
2	015	2203-000254	C-CERAMIC,CHIP 10 nF, 10%, 16V, X7R, TP, 1005,-	
2	016	2203-000254	C-CERAMIC,CHIP 10 nF, 10 %, 16V, X7R, TP, 1005,-	
2	017	2203-000254	C-CERAMIC,CHIP 10 nF, 10 %, 16V, X7R, TP, 1005,-	
2	018	2203-000254	C-CERAMIC,CHIP 10nF,10%,16V,X7R,TP,1005,-	
2	019	2203-000254	C-CERAMIC,CHIP 10nF,10%,16V,X7R,TP,1005,-	
2	020	2203-000254	C-CERAMIC,CHIP 10nF,10%,16V,X7R,TP,1005,-	
2	021	2203-000254	C-CERAMIC,CHIP 10nF,10%,16V,X7R,TP,1005,-	
2	022	2203-000254	C-CERAMIC,CHIP 10nF,10%,16V,X7R,TP,1005,-	
2	023	2203-000254	C-CERAMIC,CHIP 10nF,10%,16V,X7R,TP,1005,-	
2	024	2203-000254	C-CERAMIC,CHIP 10nF,10%,16V,X7R,TP,1005,-	
2	025	2203-000254	C-CERAMIC,CHIP 10nF,10%,16V,X7R,TP,1005,-	
2	026	2203-000254	C-CERAMIC,CHIP 10nF,10%,16V,X7R,TP,1005,-	
2	027	2203-000254	C-CERAMIC,CHIP 10nF,10%,16V,X7R,TP,1005,-	

Level	Design LOC	SEC CODE	DESCRIPTIONS
2	028	2203-000254	C-CERAMIC,CHIP 10nF,10%,16V,X7R,TP,1005,-
2	029	2203-000254	C-CERAMIC,CHIP 10nF,10%,16V,X7R,TP,1005,-
2	030	2203-000254	C-CERAMIC,CHIP 10nF,10%,16V,X7R,TP,1005,-
2	031	2203-000254	C-CERAMIC,CHIP 10nF,10%,16V,X7R,TP,1005,-
2	032	2203-000254	C-CERAMIC,CHIP 10nF,10%,16V,X7R,TP,1005,-
2	033	2203-000254	C-CERAMIC,CHIP 10nF,10%,16V,X7R,TP,1005,-
2	034	2203-000254	C-CERAMIC,CHIP 10nF,10%,16V,X7R,TP,1005,-
2	035	2203-000254	C-CERAMIC,CHIP 10nF,10%,16V,X7R,TP,1005,-
2	036	2203-000254	C-CERAMIC,CHIP 10nF,10%,16V,X7R,TP,1005,-
2	037	2203-000254	C-CERAMIC,CHIP 10nF,10%,16V,X7R,TP,1005,-
2	038	2203-000254	C-CERAMIC,CHIP 10nF,10%,16V,X7R,TP,1005,-
2	039	2203-000254	C-CERAMIC,CHIP 10nF,10%,16V,X7R,TP,1005,-
2	040	2203-000254	C-CERAMIC,CHIP 10nF,10%,16V,X7R,TP,1005,-
2	041	2203-000254	C-CERAMIC,CHIP 10nF,10%,16V,X7R,TP,1005,-
2	042	2203-000254	C-CERAMIC,CHIP 10nF,10%,16V,X7R,TP,1005,-
2	043	2203-000254	C-CERAMIC,CHIP 10nF,10%,16V,X7R,TP,1005,-
2	044	2203-000254	C-CERAMIC,CHIP 10nF,10%,16V,X7R,TP,1005,-
2	045	2203-000254	C-CERAMIC,CHIP 10nF,10%,16V,X7R,TP,1005,-
2	046	2203-000254	C-CERAMIC,CHIP 10nF,10%,16V,X7R,TP,1005,-
2	047	2203-000254	C-CERAMIC,CHIP 10nF,10%,16V,X7R,TP,1005,-
2	048	2203-000254	C-CERAMIC,CHIP 10nF,10%,16V,X7R,TP,1005,-
2	049	2203-000254	C-CERAMIC,CHIP 10nF,10%,16V,X7R,TP,1005,-
2	050	2203-000254	C-CERAMIC,CHIP 10nF,10%,16V,X7R,TP,1005,-
2	051	2203-000254	C-CERAMIC,CHIP 10nF,10%,16V,X7R,TP,1005,-
2	052	2203-000254	C-CERAMIC,CHIP 10nF,10%,16V,X7R,TP,1005,-
2	001	2203-000278	C-CERAMIC,CHIP 0.01nF,0.5pF,50V,NP0,TP,1005
2	001	2203-000311	C-CERAMIC,CHIP 0.12nF, 5 %, 50 V, NP0, TP, 1005
2	002	2203-000311	C-CERAMIC,CHIP 0.12nF, 5 %, 50 V, NP0, TP, 1005
2	003	2203-000311	C-CERAMIC,CHIP 0.12nF, 5 %, 50 V, NP0, TP, 1005
2	004	2203-000311	C-CERAMIC,CHIP 0.12nF, 5 %, 50 V, NP0, TP, 1005
2	001	2203-000386	C-CERAMIC,CHIP 0.015nF, 5 %, 50 V, NP0, TP, 1005
2	001	2203-000425	C-CERAMIC,CHIP 0.018nF, 5 %, 50 V, NP0, TP, 1005
2	001	2203-000438	C-CERAMIC,CHIP 1nF,10%,50V,X7R,TP,1005,-
2	002	2203-000438	C-CERAMIC,CHIP 1nF,10%,50V,X7R,TP,1005,-

Level	Design LOC	SEC CODE	DESCRIPTIONS	Remark
2	003	2203-000438	C-CERAMIC,CHIP 1nF,10%,50V,X7R,TP,1005,-	
2	032	2203-000438	C-CERAMIC,CHIP 1nF,10%,50V,X7R,TP,1005,-	
2	011	2203-000438	C-CERAMIC,CHIP 1nF,10%,50V,X7R,TP,1005,-	
2	012	2203-000438	C-CERAMIC,CHIP 1nF,10%,50V,X7R,TP,1005,-	
2	013	2203-000438	C-CERAMIC,CHIP 1nF,10%,50V,X7R,TP,1005,-	
2	014	2203-000438	C-CERAMIC,CHIP 1nF,10%,50V,X7R,TP,1005,-	
2	015	2203-000438	C-CERAMIC,CHIP 1nF,10%,50V,X7R,TP,1005,-	
2	016	2203-000438	C-CERAMIC,CHIP 1nF,10%,50V,X7R,TP,1005,-	
2	017	2203-000438	C-CERAMIC,CHIP 1nF,10%,50V,X7R,TP,1005,-	
2	018	2203-000438	C-CERAMIC,CHIP 1nF,10%,50V,X7R,TP,1005,-	
2	019	2203-000438	C-CERAMIC,CHIP 1nF,10%,50V,X7R,TP,1005,-	
2	020	2203-000438	C-CERAMIC,CHIP 1nF,10%,50V,X7R,TP,1005,-	
2	021	2203-000438	C-CERAMIC,CHIP 1nF,10%,50V,X7R,TP,1005,-	
2	022	2203-000438	C-CERAMIC,CHIP 1nF,10%,50V,X7R,TP,1005,-	
2	023	2203-000438	C-CERAMIC,CHIP 1nF,10%,50V,X7R,TP,1005,-	
2	024	2203-000438	C-CERAMIC,CHIP 1nF,10%,50V,X7R,TP,1005,-	
2	025	2203-000438	C-CERAMIC,CHIP 1nF,10%,50V,X7R,TP,1005,-	
2	026	2203-000438	C-CERAMIC,CHIP 1nF,10%,50V,X7R,TP,1005,-	
2	027	2203-000438	C-CERAMIC,CHIP 1nF,10%,50V,X7R,TP,1005,-	
2	028	2203-000438	C-CERAMIC,CHIP 1nF,10%,50V,X7R,TP,1005,-	
2	029	2203-000438	C-CERAMIC,CHIP 1nF,10%,50V,X7R,TP,1005,-	
2	030	2203-000438	C-CERAMIC,CHIP 1nF,10%,50V,X7R,TP,1005,-	
2	031	2203-000438	C-CERAMIC,CHIP 1nF,10%,50V,X7R,TP,1005,-	
2	033	2203-000438	C-CERAMIC,CHIP 1nF,10%,50V,X7R,TP,1005,-	
2	034	2203-000438	C-CERAMIC,CHIP 1nF,10%,50V,X7R,TP,1005,-	
2	035	2203-000438	C-CERAMIC,CHIP 1nF,10%,50V,X7R,TP,1005,-	
2	036	2203-000438	C-CERAMIC,CHIP 1nF,10%,50V,X7R,TP,1005,-	
2	037	2203-000438	C-CERAMIC,CHIP 1nF,10%,50V,X7R,TP,1005,-	
2	038	2203-000438	C-CERAMIC,CHIP 1nF,10%,50V,X7R,TP,1005,-	
2	039	2203-000438	C-CERAMIC,CHIP 1nF,10%,50V,X7R,TP,1005,-	
2	040	2203-000438	C-CERAMIC,CHIP 1nF,10%,50V,X7R,TP,1005,-	
2	041	2203-000438	C-CERAMIC,CHIP 1nF,10%,50V,X7R,TP,1005,-	
2	042	2203-000438	C-CERAMIC,CHIP 1nF,10%,50V,X7R,TP,1005,-	
2	001	2203-000466	C-CERAMIC,CHIP 0.001nF,0.25pF,50V,NP0,TP,1005	

Level	Design LOC	SEC CODE	DESCRIPTIONS	Remark
2	001	2203-000489	C-CERAMIC,CHIP 2.2nF,10%,50V,X7R,TP,1005,-	
2	001	2203-000585	C-CERAMIC,CHIP 220pF,10%,50V,X7R,TP,1005,-	
2	002	2203-000585	C-CERAMIC,CHIP 220pF,10%,50V,X7R,TP,1005,-	
2	003	2203-000585	C-CERAMIC,CHIP 220pF,10%,50V,X7R,TP,1005,-	
2	001	2203-000628	C-CERAMIC,CHIP 0.022nF, 5 %, 50 V, NP0, TP, 1005	
2	001	2203-000679	C-CERAMIC,CHIP 0.027nF, 5 %, 50 V, NP0, TP, 1005	
2	002	2203-000679	C-CERAMIC,CHIP 0.027nF, 5 %, 50 V, NP0, TP, 1005	
2	001	2203-000696	C-CERAMIC,CHIP 0.002nF,0.25pF,50V,NP0,TP,1005	
2	001	2203-000714	C-CERAMIC,CHIP 3.3nF,10%,50V,X7R,TP,1005,-	
2	001	2203-000725	C-CERAMIC,CHIP 3.9nF,10%,50V,X7R,TP,1005,-	
2	001	2203-000812	C-CERAMIC,CHIP 0.033nF, 5 %, 50 V, NP0, TP, 1005	
2	002	2203-000812	C-CERAMIC,CHIP 0.033nF, 5 %, 50 V, NP0, TP, 1005	
2	001	2203-000885	C-CERAMIC,CHIP 4.7nF,10%,25V,X7R,TP,1005,-	
2	002	2203-000885	C-CERAMIC,CHIP 4.7nF,10%,25V,X7R,TP,1005,-	
2	003	2203-000885	C-CERAMIC,CHIP 4.7nF,10%,25V,X7R,TP,1005,-	
2	001	2203-000940	C-CERAMIC,CHIP 470pF,10%,50V,X7R,TP,1005,-	
2	002	2203-000940	C-CERAMIC,CHIP 470pF,10%,50V,X7R,TP,1005,-	
2	003	2203-000940	C-CERAMIC,CHIP 470pF,10%,50V,X7R,TP,1005,-	
2	004	2203-000940	C-CERAMIC,CHIP 470pF,10%,50V,X7R,TP,1005,-	
2	001	2203-000995	C-CERAMIC,CHIP 0.047nF, 5 %, 50 V, NP0, TP, 1005	
2	002	2203-000995	C-CERAMIC,CHIP 0.047nF, 5 %, 50 V, NP0, TP, 1005	
2	002	2203-001072	C-CERAMIC,CHIP 0.056nF, 5 %, 50 V, NP0, TP, 1005	
2	001	2203-001072	C-CERAMIC,CHIP 0.056nF, 5 %, 50 V, NP0, TP, 1005	
2	001	2203-001153	C-CERAMIC,CHIP 0.068nF, 5 %, 50 V, NP0, TP, 1005	
2	002	2203-001153	C-CERAMIC,CHIP 0.068nF, 5 %, 50 V, NP0, TP, 1005	
2	003	2203-001153	C-CERAMIC,CHIP 0.068nF, 5 %, 50 V, NP0, TP, 1005	
2	004	2203-001153	C-CERAMIC,CHIP 0.068nF, 5 %, 50 V, NP0, TP, 1005	
2	005	2203-001153	C-CERAMIC,CHIP 0.068nF, 5 %, 50 V, NP0, TP, 1005	
2	006	2203-001153	C-CERAMIC,CHIP 0.068nF, 5 %, 50 V, NP0, TP, 1005	
2	007	2203-001153	C-CERAMIC,CHIP 0.068nF, 5 %, 50 V, NP0, TP, 1005	
2	008	2203-001153	C-CERAMIC,CHIP 0.068nF, 5 %, 50 V, NP0, TP, 1005	
2	009	2203-001153	C-CERAMIC,CHIP 0.068nF, 5 %, 50 V, NP0, TP, 1005	
2	010	2203-001153	C-CERAMIC,CHIP 0.068nF, 5 %, 50 V, NP0, TP, 1005	
2	001	2203-001383	C-CERAMIC,CHIP 0.0005nF,0.25pF,50V,NP0,TP,1005	

Level	Design LOC	SEC CODE	DESCRIPTIONS	Remark
2	002	2203-001383	C-CERAMIC,CHIP 0.0005nF,0.25pF,50V,NP0,TP,1005	
2	001	2203-001416	C-CERAMIC,CHIP 33nF,10%,16V,Y5V,TP,1005,1.0mm	
2	001	2203-005050	C-CERAMIC,CHIP 0.0018nF,0.25pF,50V,NP0,TP,1005	
2	002	2203-005050	C-CERAMIC,CHIP 0.0018nF,0.25pF,50V,NP0,TP,1005	
2	001	2203-005055	C-CERAMIC,CHIP 0.0056nF,0.25pF,50V,NP0,TP,1005	
2	001	2203-005061	C-CERAMIC,CHIP 100nF,+80-20%,16V,Y5V,TP,1005	
2	002	2203-005061	C-CERAMIC,CHIP 100nF,+80-20%,16V,Y5V,TP,1005	
2	003	2203-005061	C-CERAMIC,CHIP 100nF,+80-20%,16V,Y5V,TP,1005	
2	004	2203-005061	C-CERAMIC,CHIP 100nF,+80-20%,16V,Y5V,TP,1005	
2	005	2203-005061	C-CERAMIC,CHIP 100nF,+80-20%,16V,Y5V,TP,1005	
2	006	2203-005061	C-CERAMIC,CHIP 100nF,+80-20%,16V,Y5V,TP,1005	
2	007	2203-005061	C-CERAMIC,CHIP 100nF,+80-20%,16V,Y5V,TP,1005	
2	008	2203-005061	C-CERAMIC,CHIP 100nF,+80-20%,16V,Y5V,TP,1005	
2	009	2203-005061	C-CERAMIC,CHIP 100nF,+80-20%,16V,Y5V,TP,1005	
2	010	2203-005061	C-CERAMIC,CHIP 100nF,+80-20%,16V,Y5V,TP,1005	
2	011	2203-005061	C-CERAMIC,CHIP 100nF,+80-20%,16V,Y5V,TP,1005	
2	012	2203-005061	C-CERAMIC,CHIP 100nF,+80-20%,16V,Y5V,TP,1005	
2	013	2203-005061	C-CERAMIC,CHIP 100nF,+80-20%,16V,Y5V,TP,1005	
2	014	2203-005061	C-CERAMIC,CHIP 100nF,+80-20%,16V,Y5V,TP,1005	
2	015	2203-005061	C-CERAMIC,CHIP 100nF,+80-20%,16V,Y5V,TP,1005	
2	016	2203-005061	C-CERAMIC,CHIP 100nF,+80-20%,16V,Y5V,TP,1005	
2	017	2203-005061	C-CERAMIC,CHIP 100nF,+80-20%,16V,Y5V,TP,1005	
2	018	2203-005061	C-CERAMIC,CHIP 100nF,+80-20%,16V,Y5V,TP,1005	
2	019	2203-005061	C-CERAMIC,CHIP 100nF,+80-20%,16V,Y5V,TP,1005	
2	020	2203-005061	C-CERAMIC,CHIP 100nF,+80-20%,16V,Y5V,TP,1005	
2	001	2203-005393	C-CERAMIC,CHIP 0.005nF,0.1pF,50V,NP0,TP,1005	
2	001	2203-005480	C-CERAMIC,CHIP 33nF,10%,10V,X7R,TP,1005,-	
2	001	2404-001017	C-TA,CHIP 1uF,20%,10V,GP,TP,2012,2,0	
2	002	2404-001017	C-TA,CHIP 1uF,20%,10V,GP,TP,2012,2,0	
2	001	2404-001086	C-TA,CHIP 4.7uF,20%,6.3V,GP,TP,2012,-	
2	001	2404-001092	C-TA,CHIP 220nF,20%,20V,GP,TP,2012,-	
2	001	2404-001100	C-TA,CHIP 33uF,20%,6.3V,GP,TP,3719,-	
2	002	2404-001100	C-TA,CHIP 33uF,20%,6.3V,GP,TP,3719,-	
2	003	2404-001100	C-TA,CHIP 33uF,20%,6.3V,GP,TP,3719,-	

Electrical Parts List

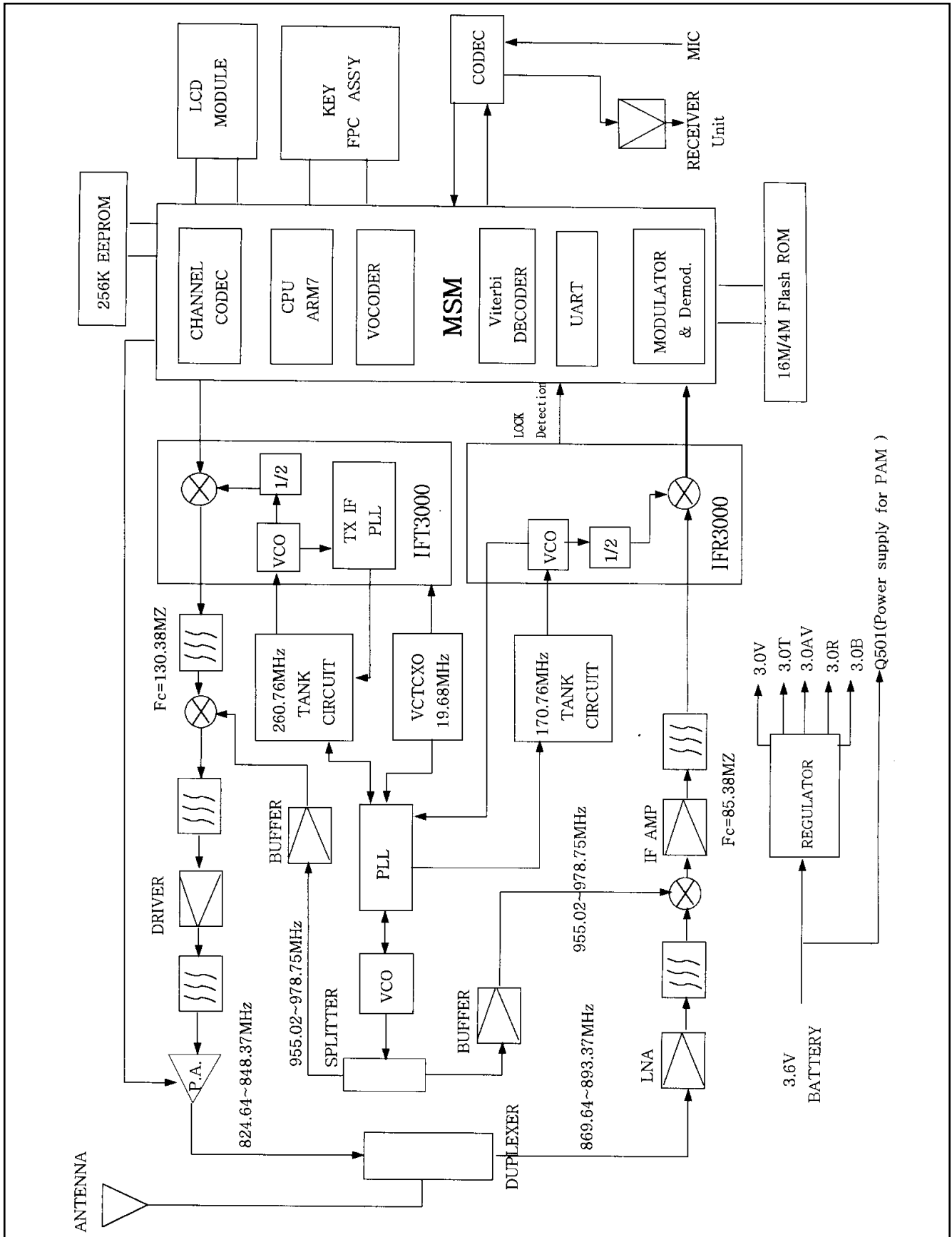
Level	Design LOC	SEC CODE	DESCRIPTIONS	Remark
2	004	2404-001100	C-TA,CHIP 33uF,20%,6.3V,GP,TP,3719,-	
2	005	2404-001100	C-TA,CHIP 33uF,20%,6.3V,GP,TP,3719,-	
2	005	2404-001105	C-TA,CHIP 10UF,20%,6.3V,GP,TP,2012	
2	006	2404-001105	C-TA,CHIP 10UF,20%,6.3V,GP,TP,2012	
2	007	2404-001105	C-TA,CHIP 10UF,20%,6.3V,GP,TP,2012	
2	008	2404-001105	C-TA,CHIP 10UF,20%,6.3V,GP,TP,2012	
2	009	2404-001105	C-TA,CHIP 10UF,20%,6.3V,GP,TP,2012	
2	010	2404-001105	C-TA,CHIP 10UF,20%,6.3V,GP,TP,2012	
2	011	2404-001105	C-TA,CHIP 10UF,20%,6.3V,GP,TP,2012	
2	012	2404-001105	C-TA,CHIP 10UF,20%,6.3V,GP,TP,2012	
2	013	2404-001105	C-TA,CHIP 10UF,20%,6.3V,GP,TP,2012	
2	014	2404-001105	C-TA,CHIP 10UF,20%,6.3V,GP,TP,2012	
2	015	2404-001105	C-TA,CHIP 10UF,20%,6.3V,GP,TP,2012	
2	016	2404-001105	C-TA,CHIP 10UF,20%,6.3V,GP,TP,2012	
2	004	2404-001105	C-TA,CHIP 10UF,20%,6.3V,GP,TP,2012	
2	001	2703-000144	INDUCTOR-SMD 180nH,10%,1.25x2x0.85mm	
2	001	2703-000295	INDUCTOR-SMD 220nH,10%,0.8x1.6x0.8mm	
2	002	2703-000295	INDUCTOR-SMD 220nH,10%,0.8x1.6x0.8mm	
2	001	2703-001045	INDUCTOR-SMD 100nH,5%,2.29x1.73x1.52mm	
2	001	2703-001079	INDUCTOR-SMD 220nH,5%,2.29x1.73x1.52mm	
2	001	2703-001134	INDUCTOR-SMD 150nH,10%,2.29x1.73x1.52mm	
2	001	2703-001172	INDUCTOR-SMD 100nH,5%,1.6x0.8x0.8mm	
2	001	2703-001178	INDUCTOR-SMD 3.3nH,0.3nH,1x0.5x0.5mm	
2	001	2703-001190	INDUCTOR-SMD 15nH,5%,1.6x0.8x0.8mm	
2	001	2703-001263	INDUCTOR-SMD 4.7nH,10%,1x0.5x0.5mm	
2	002	2703-001285	INDUCTOR-SMD 39nH,5%,1.6x0.8x0.8mm	
2	001	2703-001285	INDUCTOR-SMD 39nH,5%,1.6x0.8x0.8mm	
2	001	2703-001512	INDUCTOR-SMD 27nH,5%,1.8x1.12x1.02mm	
2	001	2703-001514	INDUCTOR-SMD 68nH,5%,1.8x1.12x1.02mm	
2	001	2703-001701	INDUCTOR-SMD 6.8nH,10%,1.0x0.5x0.5mm	
2	001	2703-001708	INDUCTOR-SMD 5.6nH,10%,1.0x0.5x0.5mm	
2	002	2703-001708	INDUCTOR-SMD 5.6nH,10%,1.0x0.5x0.5mm	
2	002	2703-001727	INDUCTOR-SMD 22nH,5%,1x0.5x0.5mm	
2	001	2703-001732	INDUCTOR-SMD 56nH,5%,1.8x1.12x1.02mm	

Level	Design LOC	SEC CODE	DESCRIPTIONS	Remark
2	001	2703-001950	INDUCTOR-SMD 12nH,10%,1.0x0.5x0.5mm	
2	001	2703-001953	INDUCTOR-SMD 6.8nH,5%,1.0x0.5x0.5mm	
2	002	2703-001953	INDUCTOR-SMD 6.8nH,5%,1.0x0.5x0.5mm	
2	003	2703-001953	INDUCTOR-SMD 6.8nH,5%,1.0x0.5x0.5mm	
2	001	2703-001956	INDUCTOR-SMD 100nH,5%,1.6x0.8x0.8mm	
2	001	2703-001969	INDUCTOR-SMD 8.2nH,10%,1.0x0.5x0.5mm	
2	002	2703-001969	INDUCTOR-SMD 8.2nH,10%,1.0x0.5x0.5mm	
2	003	2703-001969	INDUCTOR-SMD 8.2nH,10%,1.0x0.5x0.5mm	
2	001	2703-001970	INDUCTOR-SMD 18nH,5%,1.0x0.5x0.5mm	
2	001	2801-003747	CRYSTAL-SMD .032768MHZ,30PPM,28-ACM,9PF,50OHM,TP	
2	001	2802-001104	RESONATOR-CERAMIC 27MHZ,0.5%,TP,2.5X2X1.2	
2	001	2806-001200	OSCILLATOR-VCO 967MHZ,-,50,TP,3V,8.5MA	
2	001	2809-001225	OSCILLATOR-VCTCXO 19.68MHZ,2.5PPM,10 KOHM//10PF,	
2	001	2904-001140	FILTER-SAW 85.38MHz,0.6MHz,+0.3MHz/1dB,TP,	
2	001	2904-001171	FILTER-SAW 836.5MHz,25MHz,+12.5MHz/2dB,TP,	
2	001	2904-001172	FILTER-SAW 836.5MHz,25MHz,+12.5MHz/1.5,TP,	
2	001	2904-001173	FILTER-SAW 881.5MHz,25MHz,+12.5MHz/2dB,TP,	
2	001	2904-001174	FILTER-SAW 130.38MHz,1.26MHz,+0.63MHz/1dB,TP,	
2	001	2909-001094	FILTER-DUPLEXER 881.5MHz,836.5MHz,3.5/1.6dB,TP,824-	
2	001	3301-001105	CORE-FERRITE AB,1.6x0.8x0.8mm,-,-	
2	002	3301-001105	CORE-FERRITE AB,1.6x0.8x0.8mm,-,-	
2	003	3301-001105	CORE-FERRITE AB,1.6x0.8x0.8mm,-,-	
2	004	3301-001105	CORE-FERRITE AB,1.6x0.8x0.8mm,-,-	
2	005	3301-001105	CORE-FERRITE AB,1.6x0.8x0.8mm,-,-	
2	006	3301-001105	CORE-FERRITE AB,1.6x0.8x0.8mm,-,-	
2	007	3301-001105	CORE-FERRITE AB,1.6x0.8x0.8mm,-,-	
2	008	3301-001105	CORE-FERRITE AB,1.6x0.8x0.8mm,-,-	
2	001	3301-001120	CORE-FERRITE BEAD AB,2.0x1.25x0.9mm,-,-	
2	001	3705-001178	CONNECTOR-COAXIAL SMC,JACK,100MOHM,50OHM,.5DB	
2	001	3710-001447	CONNECTOR-SOCKET 40P,2R,0.5mm,SMD-S,AUF	
2	001	3710-001510	CONNECTOR-SOCKET 18P,1R,0.5MM,SMD-A,AUF	
2	001	3722-001456	JACK-PHONE 2P,2.6PI,AUF,BLK,-	
2	001	4709-001080	RF POWER SPLITTER 2WAY,955-979MHz,12dB,-,TP	
2	001	GH41-00072A	PCB-SCHA101 SCH-A101,FR-4,6L,0.7T,118X90	

Level	Design LOC	SEC CODE	DESCRIPTIONS	Remark
1	001	GH96-01124A	ELA ETC-EARPHONE SCH-2000,SPRINT,USA,20mW,32ohm	
1	001	GH97-00924G	MEA FRONT-COVER SCH-A100,-,ISRL,BEG,-,-,-	
2	002	6001-000464	SCREW-MACHINE PH,+,M1.4,L4,BLACK,SM10C,-	
2	001	GH59-00085A	UNIT-SCHA101 KEY PAD SCH-A101,KBSCHA101,	
2	002	GH68-00370A	LABEL(R)-FRONT DUMMY SHEET SCH-A100,PC	
2	001	GH68-00659A	LABEL(R)-QUALCOMM SCH-A100,-,14X5.8,T0.12,TRP	
2	001	GH71-00207A	NPR-SOLDER FINGER SCH-A120,C5210TS,T0.15,AU	
2	001	GH72-00294A	PMO-SHIELD COVER SCH-A100,ABS,BLK,-,-	
2	001	GH72-00300C	PMO-VOLUME KEY SCH-A100,PC,GRY,-,-	
2	001	GH73-00081A	RMO-MIC HOLDER SCH-A100,RUBBER,-,BLK,50	
2	001	GH73-00082B	RMO-BUZZER HOLDER SPH-A1000,RUBBER,-,BLK,50	
2	001	GH73-00085F	RMO-KEY PAD SCH-A100,RUBBER,-,-,-	
2	001	GH74-00152A	MPR-WINDOW BOHO TAPE SCH-A100,VINYL,T0.2,-,-	
2	001	GH74-00271A	MPR-SPONDGE MIC SCH-A100,CR SPONGE,7.5X7.5XT1,-,-	
2	001	GH74-00290A	MPR-LCD TAPE 2 SCH-A100,DK-1011,-,-,-	
2	001	GH74-00291B	MPR-ESD COPPER TAPE SCH-A101,DK-101,-,-,-	
2	001	GH74-00331A	MPR-FPCB SPONGE SPH-A1000,SRS PORON,T1,BLK,-	
2	001	GH74-00457A	MPR-FRONT BOHO TAPE SCH-A100,VINYL,T0.2,-,-	
2	001	GH74-00566A	MPR-SPEAK NET SCH-A101,HIMERON,PI12.6XT1.65,-,-	
2	001	GH74-00599A	MPR-BUZZER SPONGE SCH-A101,SRS PORON,T0.3,BLK,-	
2	001	GH75-00146D	MEC-FOLDER FRONT SCH-A100,-,BEG	
3	001	GH72-00288D	PMO-FOLDER FRONT SCH-A100(ISRL),PC,BEG,-,-	
3	001	GH72-00289A	PMO-EAR PIECE SCH-A100,PC,GRY,-,-	
3	001	GH74-00135A	MPR-LCD WINDOW TAPE SCH-A100,TESA,T0.2,TRP,-	
3	001	GH74-00137A	MPR-EAR PIECE TAPE SCH-A100,TESA,T0.2,TRP,-	
3	001	GH74-00600A	MPR-LCD SPONGE SCH-A101,SRS PORON,T0.5,BLK,-	
3	001	GH75-00414B	MEC-HINGE ASS'Y SCH-850,-,BLK	
4	001	GH70-00020A	IPR-SPRING HINGE SCH-A100,STS304,PI4.5XPI0.65X8.2,-	
4	001	GH72-00291A	PMO-SHAFT HINGE SCH-A100,POM,BLK,-,-	
4	001	GH72-00292A	PMO-CAM HINGE SCH-A100,POM,BLK,-,-	
4	001	GH72-00861A	PMO-HINGE HOUSING SCH-850,PC,SIL,-,-	
2	001	GH75-00148L	MEC-FOLDER REAR SCH-A100,-,BEG	
3	001	GH71-00049G	NPR-DECORATION PANNEL SCH-A100,AL,T0.6,GLD	
3	001	GH72-00293A	PMO-REAR FOLDER SCH-A100,PC,BEG,-,-	

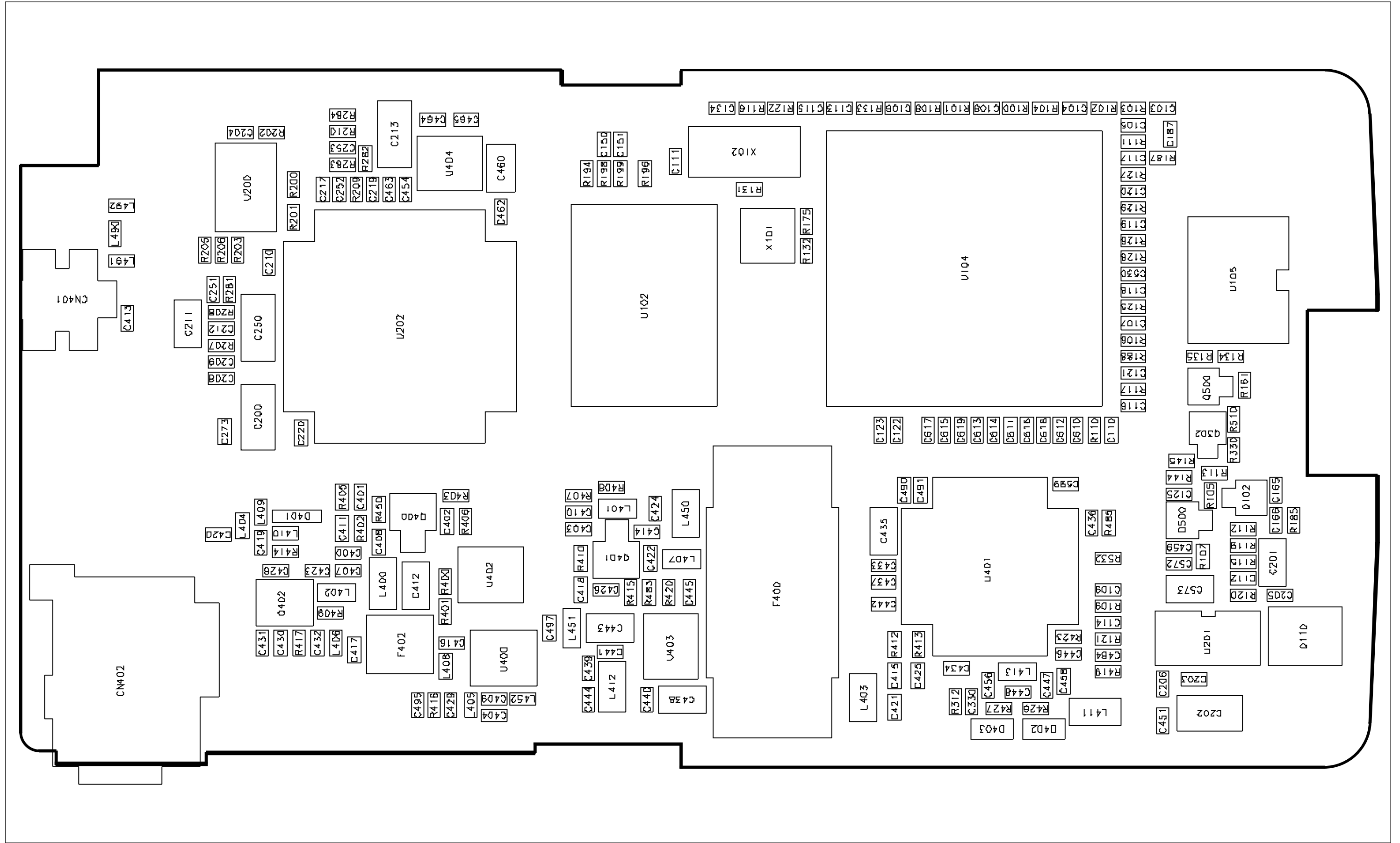
Level	Design LOC	SEC CODE	DESCRIPTIONS	Remark
3	001	GH74-00138A	MPR-DECO.PANNEL TAPE SCH-A100,TESA,T0.2,TRP,-	
3	001	GH74-00151A	MPR-DECO PANNAL BOHOTAPE SCH-A100,VINYL,T0.2,-,-	
2	001	GH75-00164A	MEC-MAGNETIC HOLDER SCH-A100,SEC,BLK	
3	001	GH70-40005A	ICT-MAGNETIC SPH-7000,MAGNETIC,3x15XT1.0,-	
3	001	GH72-00296A	PMO-MAGNETIC HOLDER SCH-A100,PC,BLK,-,-	
3	001	GH74-00150A	MPR-TAPE MAGNETIC HODER SCH-A100,TESA,T0.2,TRP,-	
2	001	GH75-00525A	MEC-SUA.FRONT SCH-A101(ISRL),-,BEG	
3	001	GH72-00286A	PMO-FRONT COVER SCH-A100,PC,BEG,-,-	
3	001	GH72-00287A	PMO-LED LENS SCH-A100,ACRYL,TRP,-,-	
3	001	GH72-00295A	PMO-HINGE DUMMY SCH-A100,POM,BLK,-,-	
3	001	GH73-00263A	RMO-FOLD HOLDER SGH-A100,RUBBER,-,D/GRY,-	
2	001	GH96-00869A	ELA UNIT-SCHA101 LCD SCH-A105,-,LCD ASS'Y,-,-,-,-	
1	001	GH97-00925A	MEA REAR-COVER SCH-A100,-,KORA,GRY ,-,,-	
2	001	GH71-00050A	NPR-ANTENNA BRAKET SCH-A100,ZN GOLD PLT,-,AU	
2	001	GH71-10639A	NPR-SHIELD STRIP(A) SCH-1100,C1720S-1/2H,T0.1,GOLD	
2	001	GH75-00149A	MEC-SUA.REAR COVER SCH-A100,-,GRY	
3	001	GH68-00389A	LABEL(R)-DUPLEX DUMMY SCH-A100,MAT,22X11,T0.05,GRY	
3	001	GH70-00021A	IPR-SPRING LOCKER SCH-A100,STS304,T3.3,-	
3	001	GH72-00298A	PMO-REAR COVER SCH-A100,PC,GRY,-,-	
3	001	GH72-00299A	PMO-LOCKER SCH-A100,PC,GRY,-,G5295	
1	001	GH99-02254A	PAA MAIN-ISRL SCH-A101,PELE PHONE,ISRL,-,-,-,-	
2	001	GG68-10705A	LABEL(P)-SEAL SP-R912,CRP,65.0x95.0,-,ORG	
2	001	GH69-00469A	BOX(P)-CARTON MAIN ISRL,SCH-A101,SW3,460X284X193,-	
2	001	GH69-00471A	BOX(P)-UNIT MAIN ISRL,SCH-A101,IVORY300,227X184X89,-	
2	001	GH69-00473A	CUSHION-COVER MAIN SCH-A101,HIPS0.8T,225X182X40	
2	001	GH69-00474A	CUSHION-CASE MAIN SCH-A101,HIPS0.8T,225X182X51	
2	001	GH69-30503A	BAG-STD BATT. PE,T0.06,70X170,SCH-1011	

9. Block Diagrams

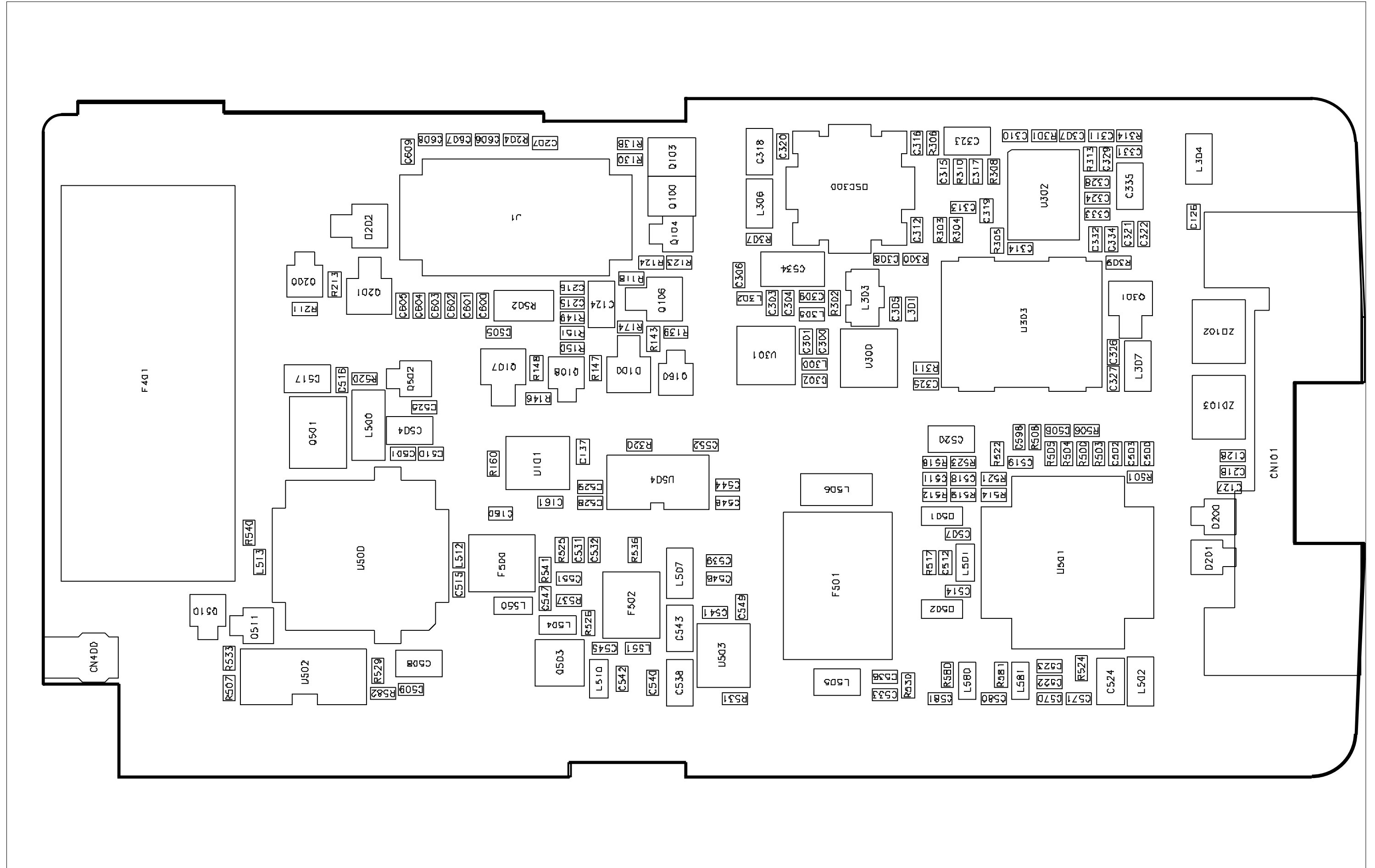


10. PCB Diagrams

10-1 Main PCB Top View

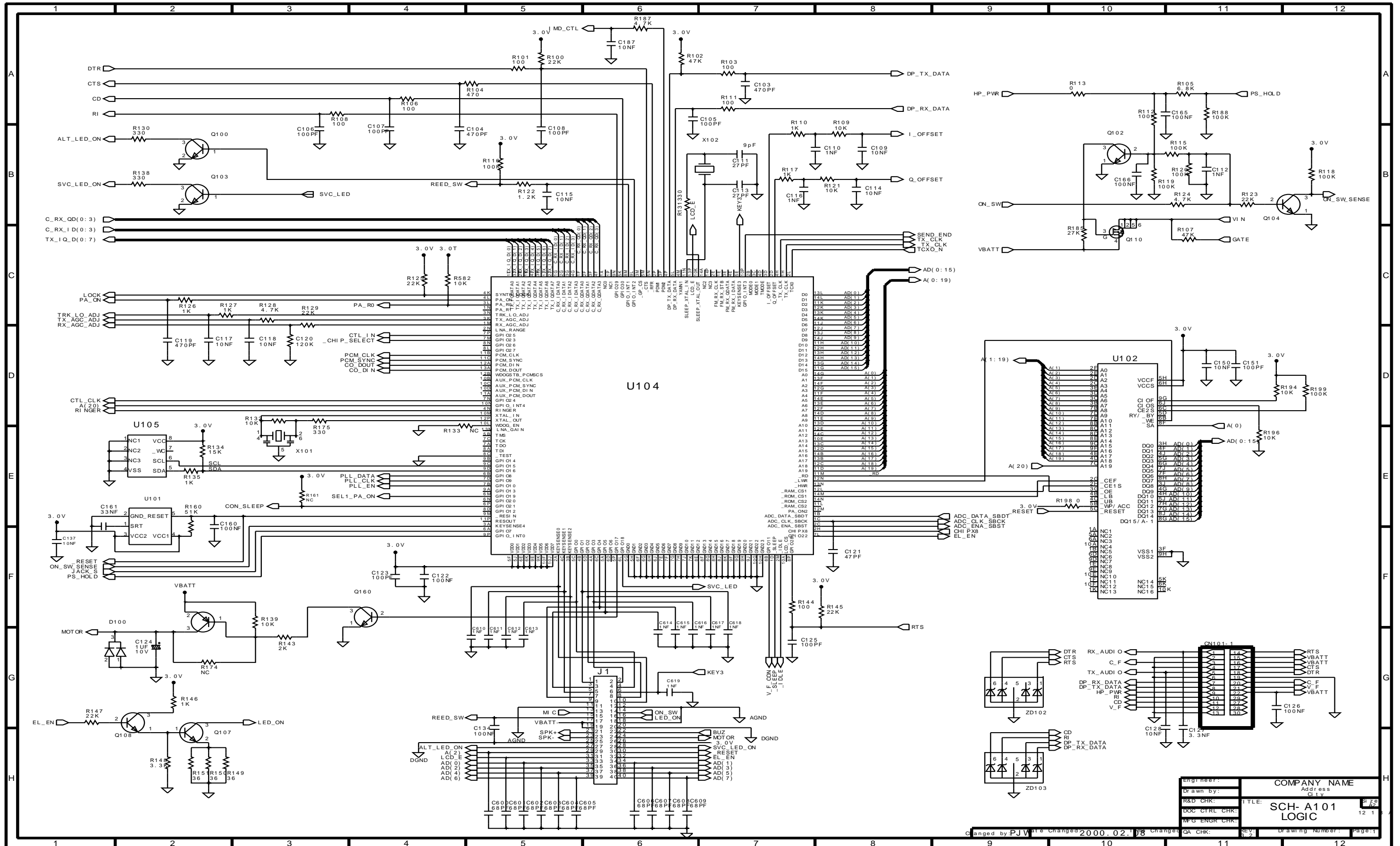


10-2 Main PCB Bottom View

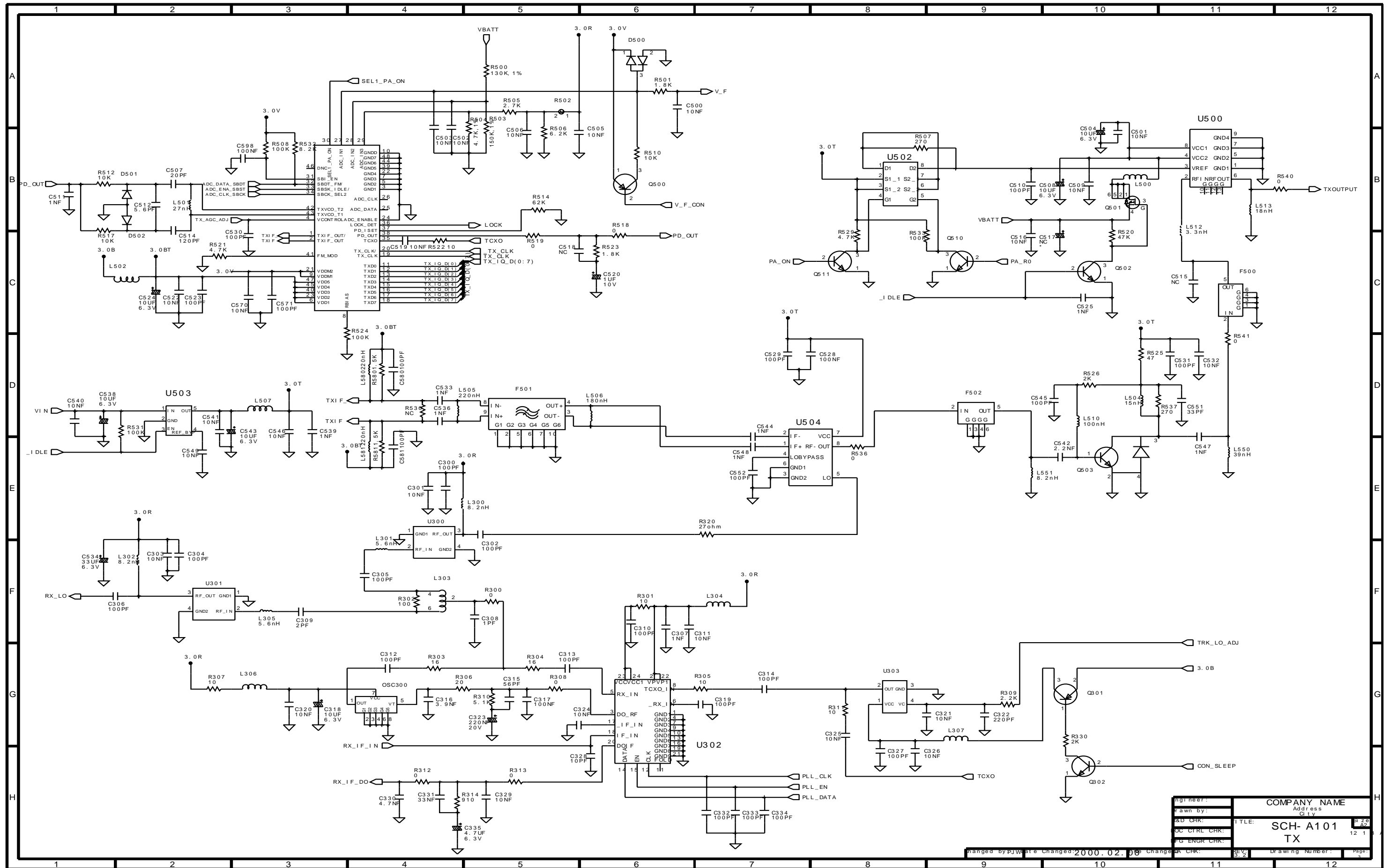


11. Circuit Diagrams

11-1 LOGIC Circuit Diagram

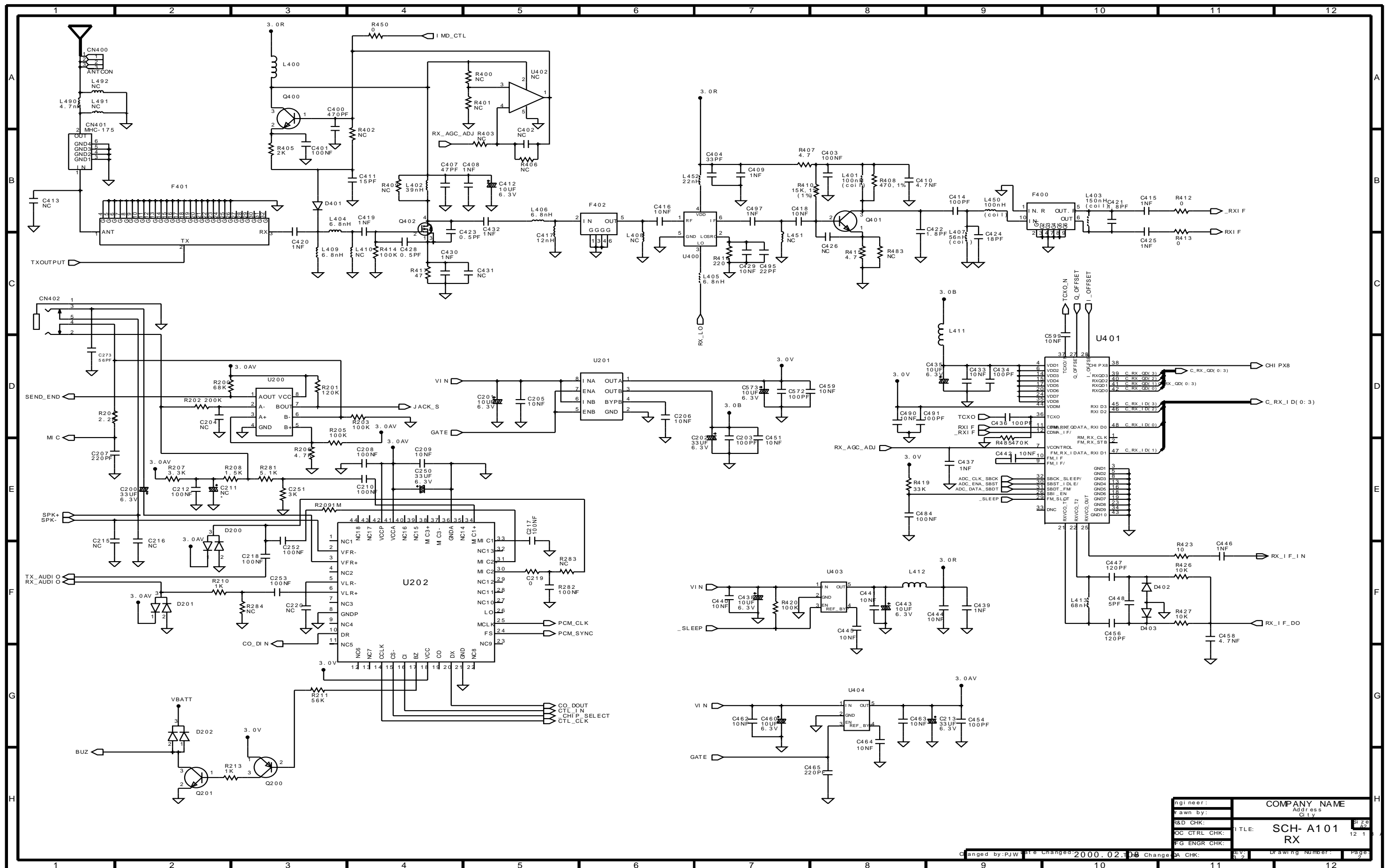


11-2 TX Circuit Diagram



Drawn By:	COMPANY NAME
Checked By:	Address
Approved By:	City
DATE:	TITLE: SCH- A101
DATE:	TX
DATE:	Page: 12

11-3 RX Circuit Diagram



Engineer:	COMPANY NAME
Drawn by:	Address
R&D CHK:	City
QC CTRL CHK:	TITLE: SCH- A101
FIG ENGR CHK:	RX

Changed by: PJW Date Changed: 2000.02.08 Change No: 12.1