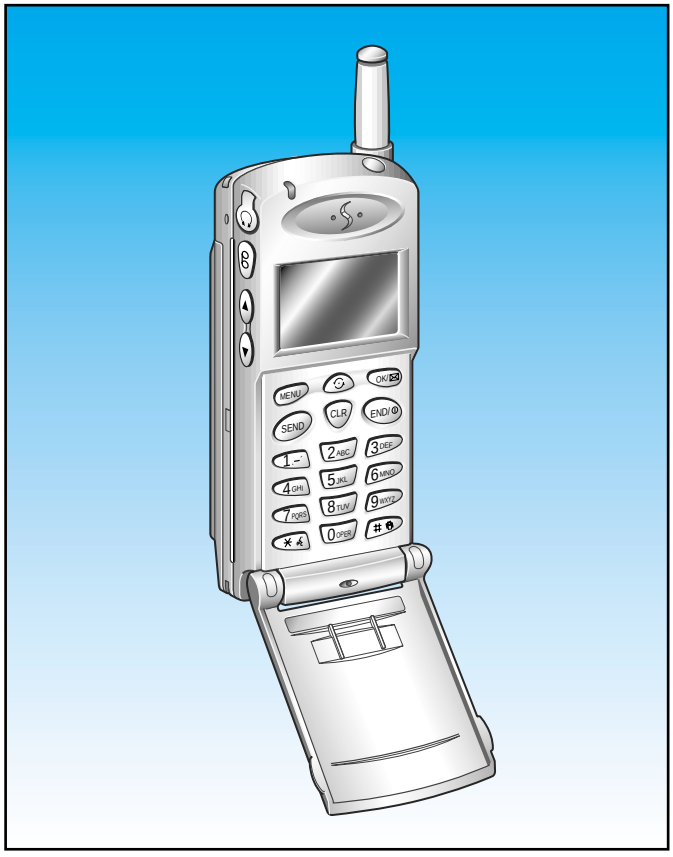
SAMSUNG

PORTABLE CELLULAR TELEPHONE

SCH-620

SERVICE *Manual*

PORTABLE CELLULAR TELEPHONE



CONTENTS

1. General Description

The SCH-620 cellular phone functions as both analog cellular phone working in AMPS (Advanced Mobile Phone Service) mode and 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

SCH-620 is composed of main handset, rapid charger, three batteries (1600 mAh, 1000 mAh, 550mAh), hands-free kit, car adaptor, and travel charger. Hands-Free Kit is designed to be operated in full-duplex mode taking turn-around delay between the phone and the system into account.

2. Specification

2-1 General

Frequency Range	Digital Mode	Analog Mode
Transmitter	: 824 ~ 849 MHz	824 ~ 849 MHz
Receiver	: 869 ~ 894 MHz	869 ~ 894 MHz
Channel Spacing	: 1.23 MHz	30 kHz
Number of Channels	: 20 FA	832 CHs
Duplex Spacing	: 45 MHz	45 MHz
Frequency Stability	: ±2.5 ppm (-30˚C ~ +60˚C, -4˚F ~ +140˚F)	
Operating Temperature	: -30˚C~+60˚C (-4˚F ~ +140˚F)	

Operating Voltage
HHP : 3.6V DC (±10%)
Hands-free : 13.7V DC (±10%)

Item	Size	Weight (g)
including slim battery	105 x 45 x 18	89
including standard battery	105 x 45 x 21	117
including extended battery	105 x 45 x 24	138

Operating Time
Digital Mode

Item	Standby Time	Talk Time
slim battery	up to 75 hours	up to 90 min
standard battery	up to 155 hours	up to 200 min
extended battery	up to 250 hours	up to 330 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
Colsed 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 ANALOG MODE

TRANSMITTER

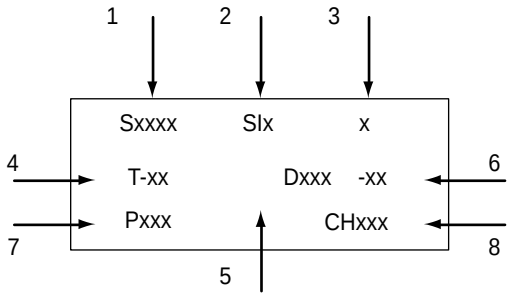
RF output power	0.6W (+2/-4dB)
Carrier ON/OFF conditions "ON" Condition "OFF" Condition	 within ±3dB of specification output (in 2mS) below-60dBm (in 2mS)
Compressor Compression Rate Attack Time Recovery Time Reference Input	 2:1 3mS 13.5mS Input level for producing a nominal ±2.9KHz peak freqency deviation of transmitted carrier
Preamphasis	6dB/OCT within 0.3 ~ 3KHz
Maximum Freqency Deviation F3 of G3 Supervisory Audio Tone Signaling Tone Wideband Data	 ±12KHz ±2KHz (±10%) ±8KHz (±10%) ±8KHz (±10%)
Post Deviation Limiter Filter 3.0 ~ 5.9KHz 5.9 ~ 6.1KHz 6.1 ~ 15KHz Over 15KHz	 above 40 LOG (F/3000) dB above 35 dB above 40 LOG (F/3000) dB above 28 dB
Spectrum Noise Suppression For all modulation f0+20KHz ~ f0+45KHz For modulation by voice and SAT f0 +45KHz For modulation by WBD(without SAT) and ST (with SAT) f0+45KHz ~ f0+60KHz f0+60KHz ~ f0+90KHz f0+90KHz ~ 2f0	 above 26 dB above 63 +10 LOG (PY) dB above 45 dB above 65 dB above 63 +10 LOG (PY) dB (where f0=carrier frequency PY=mean output power in watts)
Harmonic and conducted Spurious Emissions	below 43 + 10 LOG (PY) dB

RECEIVER

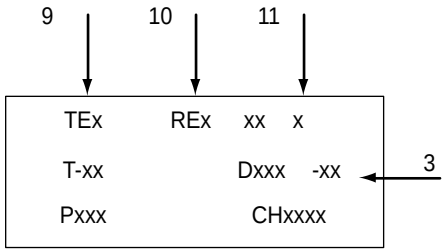
De-Emphasis	-6dB / OCT within 0.3 ~3KHz
Expander Expander Rate Attack Time Recovery Time Reference Input	 1:2 within 3mS within 13.5mS output level to a 1000Hz tone from a carrier within ±2.9KHz peak frequency deviation
Sensitivity	12dB SINAD / -116dBm
Intermodulation Spurious Response Attenuation	avove 65dB
RSSI Range	above 60dB
Protection Against Spurious Response Interference	above 60dB
In Band Conducted Spurious Emission Transmit Band Receive Band Other Band	 below -60dBm below -80dBm below -47dBm
Radiated Spurious Emission	
Frequency Range 25 ~ 70 MHz 70 ~ 130MHz 130 ~ 174 MHz 174 ~ 260 MHz 260 ~ 470 MHz 470 ~ 1GHz	Maximum Allowable EIRP -45dBm -41dBm -41 ~ -32dBm -32dBm -32 ~ -26dBm -21dBm

2-4 CDMA Debug Display Information (menu 8)

IN IDLE MODE



IN CONVERSATION MODE

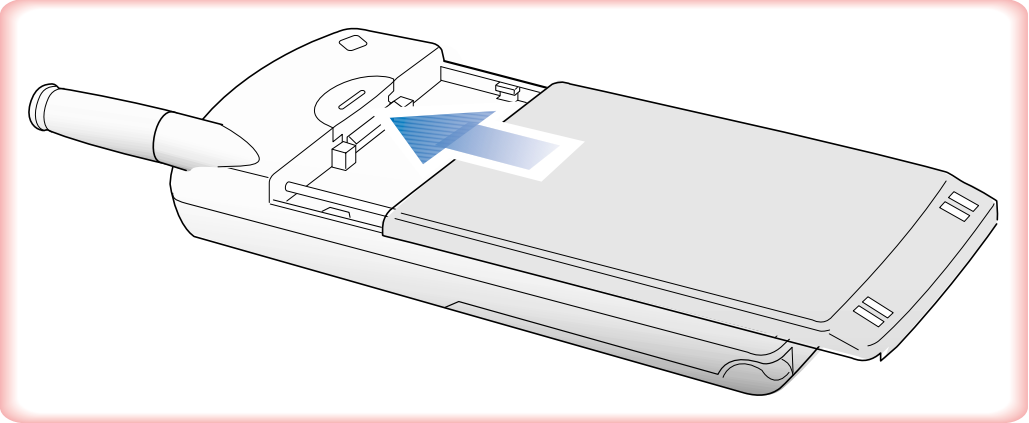


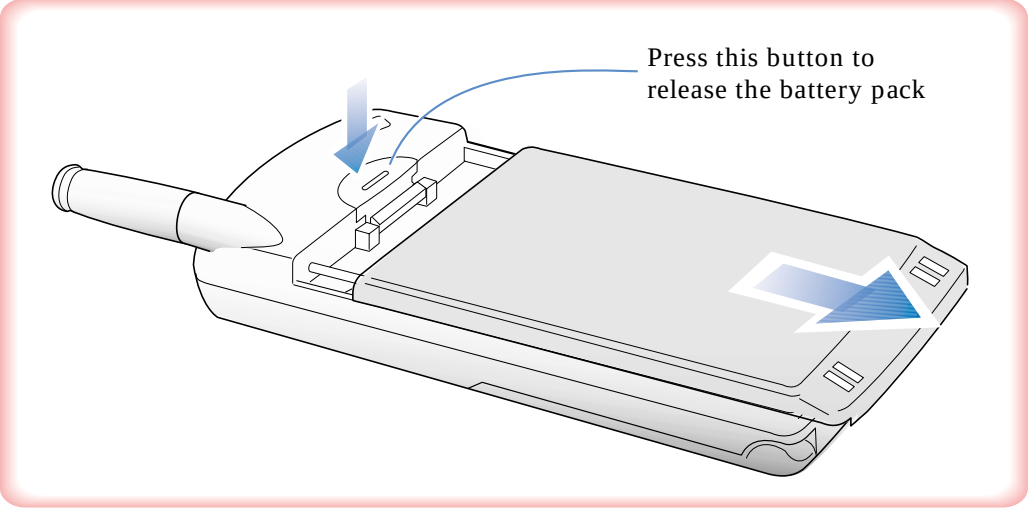
1 : Sxxxxx : SID (System Identification) toggle
Nxxxxx : NID (Network Identification) toggle
2 : SIx : Slot cycle index (lowest between the system and the phone will be used)
3 : Handset Status : 0 - Acquisition
1 - Synchronization
2 - Paging (Idle)
3 - Traffic Initialization
4 - Traffic Mode
5 - Exit
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

1. To attach the battery pack after charging, align it with the phone about 1cm (1/2 inch away from its place so that the two arrows on the phone are seen, the battery charge contacts pointing downward.
2. Slide the battery pack upwards until it clicks firmly into position. The phone is now ready to be turned on.
3. To remove the battery pack, release it by pressing the button on the rear of the phone.
4. Slide the battery pack downward about 1cm (1/2inch and lift it away from the phone.





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.

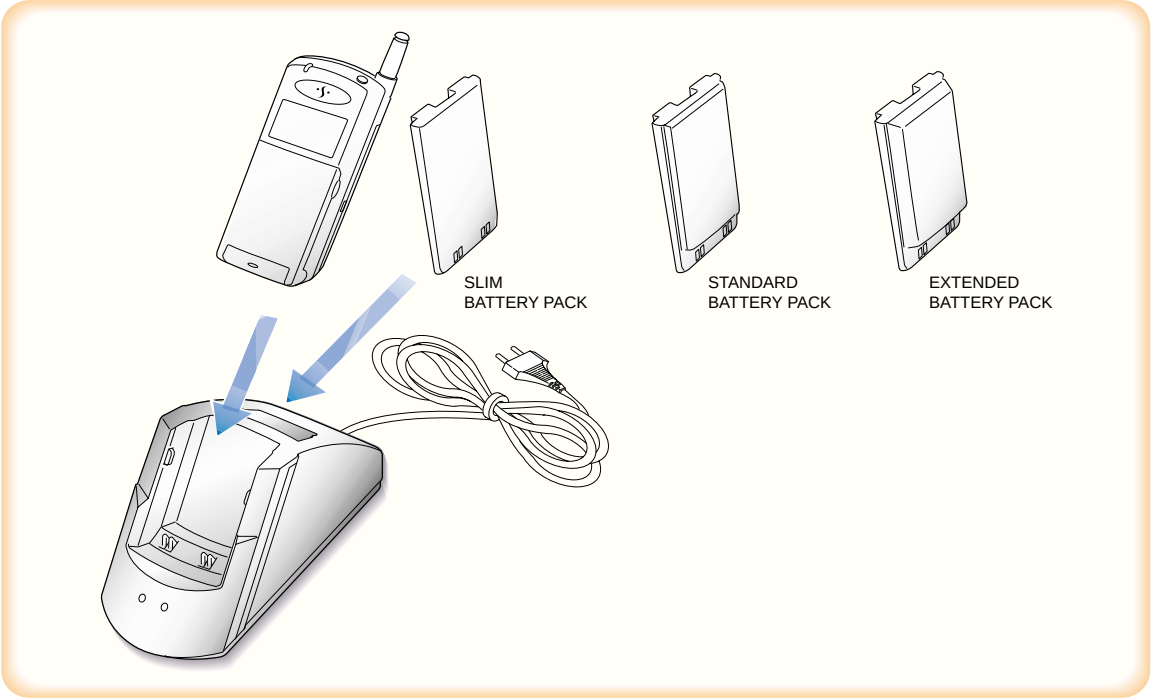


Figure 3-1 Charging the Phone and Battery

Item	Model Name	Service Part#
Desk Top Rapid Charger	DTC61AB	GH44-00063A
Slim Battery Pack	BTI61AB	GH43-00157A
Standard Battery Pack	BTS61AB	GH43-00140C
Extended Battery Pack	BTE61AB	GH43-00132D

SPECIFICATIONS USING “DTC 61AB”

Product	Charging time (hours)		Stand by time (hours)	Talking time(min)
	Front	Rear	Digital	Digital
Slim Battery Pack (Li-ion: 500mAh)	2	2	75	90
Standard Battery Pack (Li-ion: 1000mAh)	2	2	155	200
Extended Battery Pack (Li-ion: 1600mAh)	2.5	6	250	330

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.

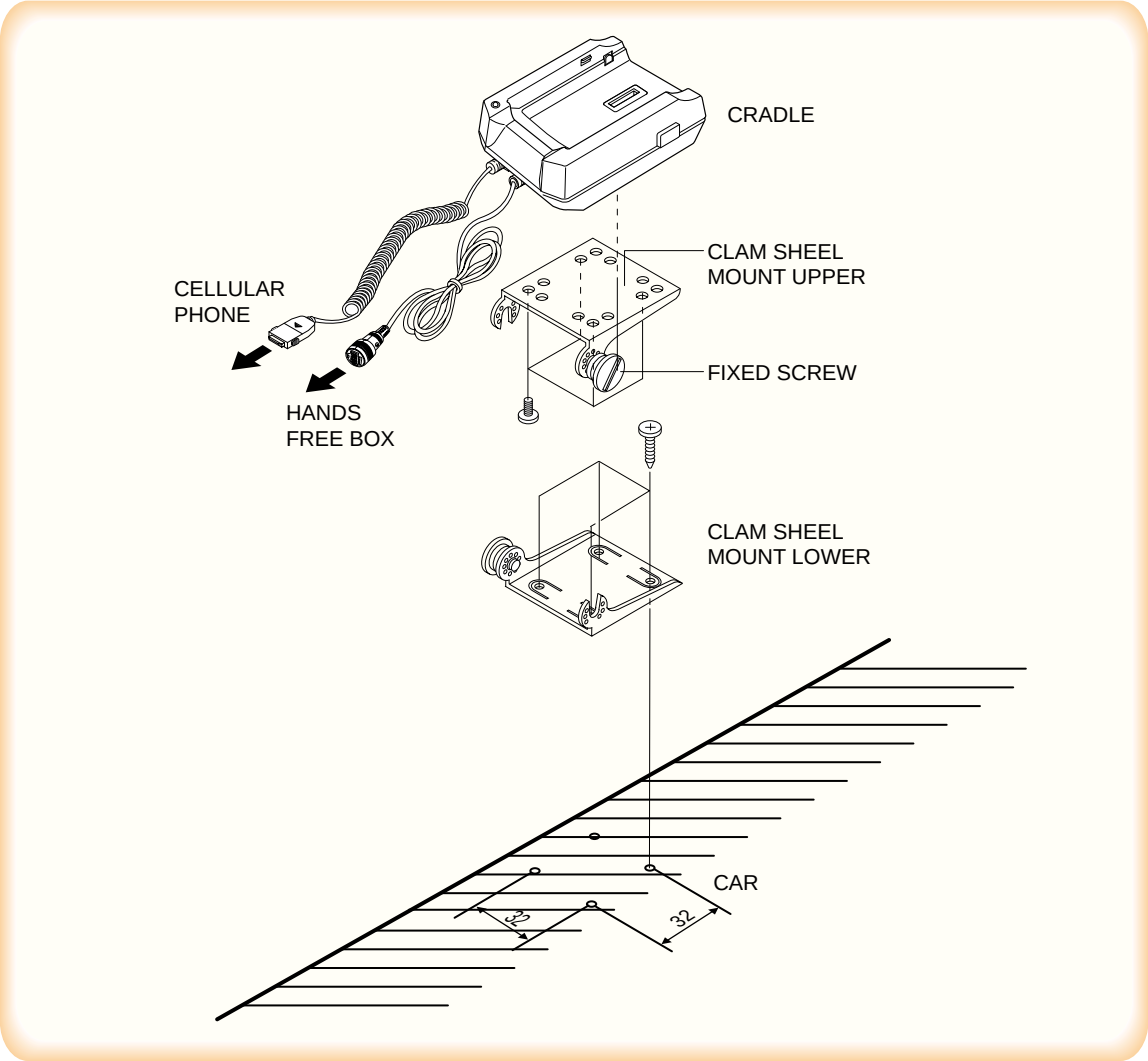


Figure 3-2 Cradle Installation

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.

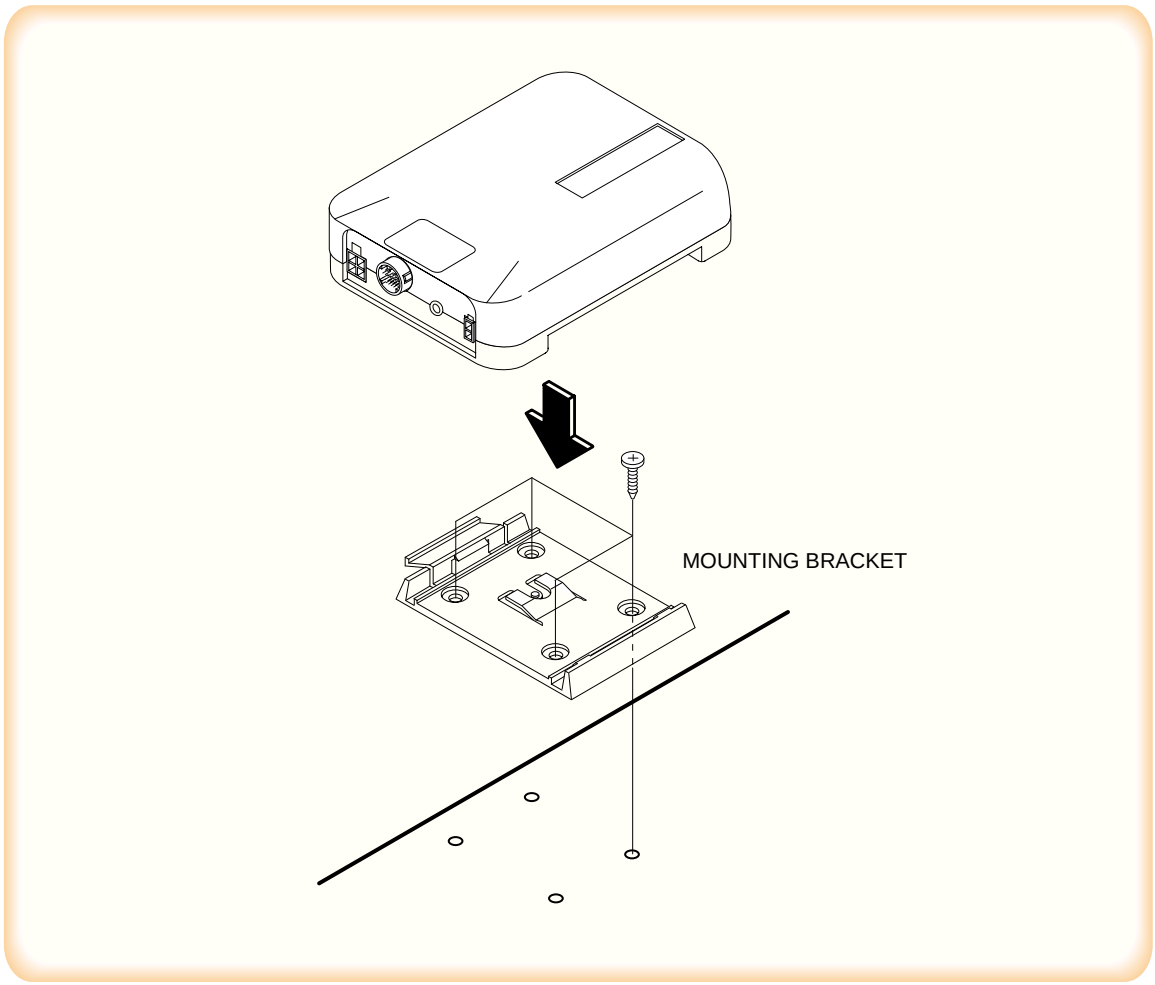
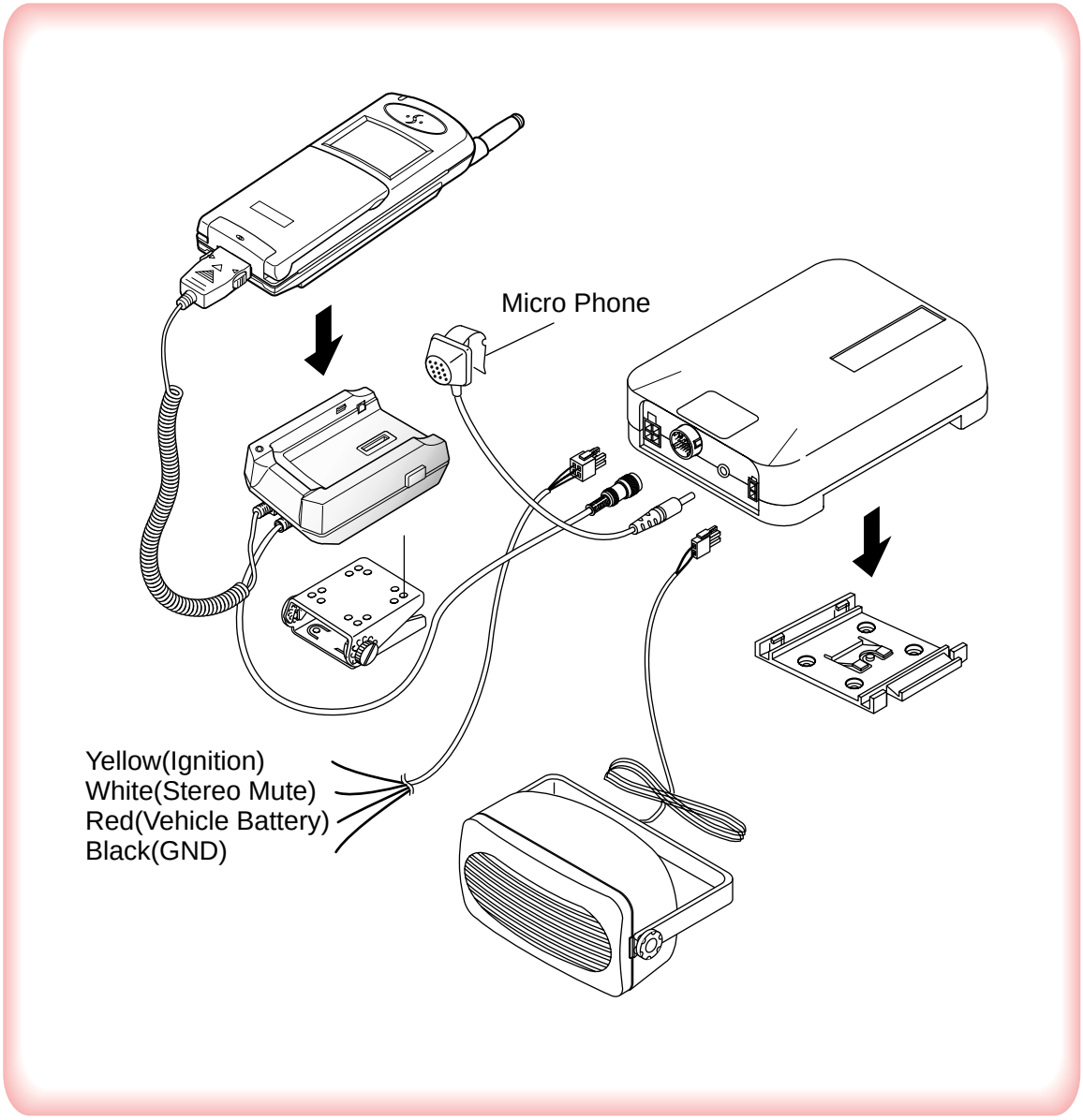


Figure 3-3 Hands-Free Box 1 Installation

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 currenly 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 3:Setup NAM2	47*869#08#9 1	-select NAM programming -choose 'GENERAL'
ESN B0000000	Volume▼	-Electronic Serial Number of the phone
CAI version 2	Volume▼ by the mobile	-The version of Common Air Interface supported
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. -stores it
Slot Mode Yes	* or # OK	-Slot mode. 'Yes' indicates the slot mode. changes the status. -stores it.
Slot Index 2	0-7 OK	-Slot mode index. The higher, the longer sleeping time to change, enter new one. -stores it.
Pref NAM1... Digital pref	OK	-Preferred system selection for NAM1 changes the system. -stores it.

LCD Display	Key in	Function
Pref NAM2... Digital pref	OK	-Preferred system selection for NAM2 changes the system. -stores it.

4-2 Setting Up NAM1

LCD Display	Key in	Function
NAM Program 1:General 2:Setup NAM1 3:Setup NAM2	2	Choose 'Setup NAM1.'
Setup NAM1 1:Phone # 2.FM 2:CDMA	1	Choose 'Phone #'
Phone # 1234567890 OK	phone number	Phone number currently used. - to change, enter new one. - store it.
Mobile ID # 3003003000	mobile ID number OK	Mobile ID number currently used. - to change, enter new one. - store it.
Setup NAM1 1:Phone # 2.FM 2:CDMA	2	- Choose 'FM'
FM Home SID 4369	ID number OK	System ID for home, current status is displayed. - to change, enter new one. - store it.
FM 1st Chn 333	Channel number OK	Current 1st paging channel. - to change, enter new one. - store it.
FM Acq SID1 4	ID number OK	Acquisition system ID 1, Current status is displayed. - to change, enter new one. - store it.
FM Acq SID2 0	ID number OK	Acquisition system ID 2, Current status is displayed. - to change, enter new one. - store it.

LCD Display	Key in	Function
FM Acq SID3 0	 ID number OK	Acquisition system ID 3, Current status is displayed. - to change, enter new one. - store it.
FM Acq SID4 0	 ID number OK	Acquisition system ID 4, Current status is displayed. - to change, enter new one. - store it.
FM Acq SID5 0	 ID number OK	Acquisition system ID 5, Current status is displayed. - to change, enter new one. - store it.
FM Acq SID6 0	 ID number OK	Acquisition system ID 6, Current status is displayed. - to change, enter new one. - store it.
FM LockSID 1 0	 ID number OK	Lock system ID 1, current status is displayed. - to change, enter new one. - store it.
FM LockSID 2 0	 ID number OK	Lock system ID 2, current status is displayed. - to change, enter new one. - store it.
FM LockSID 3 0	 ID number OK	Lock system ID 3, current status is displayed. - to change, enter new one. - store it.
FM LockSID 4 0	 ID number OK	Lock system ID 4, current status is displayed. - to change, enter new one. - store it.
FM LockSID 5 0	 ID number OK	Lock system ID 5, current status is displayed. - to change, enter new one. - store it.
FM LockSID 6 0	 ID number OK	Lock system ID 6, current status is displayed. - to change, enter new one. - store it.
Auto Reg Yes	 * or # OK	FM Registration, current status is displayed. - changes the status 'YES' to enable, 'NO' to disable - store it.
FM pref A only	 * or # OK	Preferred system selection, current status is displayed. - changes the status - store it.

LCD Display	Key in	Function
FM ACCOLC 0	* or # OK	Current Access Overload Class. - change the status. - store it.
Setup NAM1 1:Phone # 2.FM 2:CDMA	3	- Choose 'CDMA'
IMSI_MCC 000	number OK	IMSI Moble Country Code, current code is displayed. - to change, enter new one. - stores it.
IMSI_MNC 00	number OK	IMSI Mobile Network Code, current code is displayed. - to change, enter new one. - stores it.
CDMA pref.. A only	* or # OK	Preferred system selection, current system is displayed. - changes the system. - stores it.
CDMA ACCOLC 0	class number OK	CDMA Access Overload Class, current status is displayed. - to change, enter new one. - stores it.
Pchn Sys A 779	channel number OK	Preferred channel currently used under system A - to change, enter new one. - stores it.
Pchn Sys B 779	channel number OK	Preferred channel currently used under system B - to change, enter new one. - stores it.
Schn Sys A 738	channel number OK	Second channel currently used under system A - to change, enter new one. - stores it.
Schn Sys B 738	channel number OK	Second channel currently used under system B - to change, enter new one. - stores it.
CD Acq SID 1 0	ID number OK	1st Acquisition system ID, current status is displayed. - to change, enter new one. - stores it.
CD Acq SID 2 0	ID number OK	2nd Acquisition system ID, current status is displayed. - to change, enter new one. - stores it.

LCD Display	Key in	Function
CD Acq SID 3 0	 ID number OK	3rd Acquisition system ID, current status is displayed. - to change, enter new one. - stores it.
CD Acq SID 4 0	 ID number OK	4th Acquisition system ID, current status is displayed. - to change, enter new one. - stores it.
CD Acq SID 5 0	 ID number OK	5th Acquisition system ID, current status is displayed. - to change, enter new one. - stores it.
CD Acq SID 6 0	 ID number OK	6th Acquisition system ID, current status is displayed. - to change, enter new one. - stores it.
CD lockSID 1 0	 ID number OK	1st lock system ID,current status is displayed. - to change, enter new one. - stores it.
CD lockSID 2 0	 ID number OK	2nd lock system ID,current status is displayed. - to change, enter new one. - stores it.
CD lockSID 3 0	 ID number OK	3rd lock system ID,current status is displayed. - to change, enter new one. - stores it.
CD lockSID 4 0	 ID number OK	4th lock system ID,current status is displayed. - to change, enter new one. - stores it.
CD lockSID 5 0	 ID number OK	5th lock system ID,current status is displayed. - to change, enter new one. - stores it.
CD lockSID 6 0	 ID number OK	6th lock system ID,current status is displayed. - to change, enter new one. - stores it.
CDMA HomeSID Yes	 * or # OK	CDMA Home system ID, current status is displayed - changes the status. - stores it.
CDMA fSID Yes	 * or # OK	CDMA foreign SID, current status is displayed. - changes the system. - stores it.
CDMA fNID Yes	 * or # OK	CDMA foreign NID, current status is displayed. - changes the system. - stores it.

LCD Display	Key in	Function
SID #1 2222	 number OK	first SID written in the list, current status is displayed. - to change, enter new one. - stores it.
NID #1 1	 number OK	first NID written in the list, current status is displayed. - to change, enter new one. - stores it.
SID #2 2222	 number OK	2nd SID written in the list, current status is displayed. - to change, enter new one. - stores it.
NID #2 2	 number OK	2nd NID written in the list, current status is displayed - to change, enter new one. - stores it.
SID #3 2222	 number OK	3rd SID written in the list, current status is displayed. - to change, enter new one. - stores it.
NID #3 3	 number OK	3rd SID written in the list, current status is displayed. - to change, enter new one. - stores it.
SID #4 2222	 number OK	4th SID written in the list, current status is displayed. - to change, enter new one. - stores it.
NID #4 3	 number OK	4th NID written in the list, current status is displayed. - to change, enter new one. - stores it.
Setup NAM1 1:Phone # 2.FM 2:CDMA		LCD return to the NAM1 setup mode.

4-3 Setting Up NAM2

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’.		

Austria Only

1. Setting Up NAM1

LCD Display	Key in	Function
NAM Program 1:Setup NAM1 2:Setup NAM2	MEMU40654321 1	-select NAM programming -choose 'Setup NAM1'
NAM1 Phone # 1234567890	 Phone number OK	 -Phone number. -to change, enter new one. -store it.
NAM1 Directory # 1234567890	 Directory number OK	 -Directory number. -to change, enter new one. -store it.
NAM1 Activate PRL Yes	 * ↑or # ↓ OK	 -Activate the Prefered Roaming List. 'Yes' enables PRL. -changes the status. -store it.
NAM1 Anlg HomeSID ****	 ID number OK	 System ID for home, current ststus is displayed. -to change, enter new one. -store it.
NAM1 Dgti HomeSID ****	 ID number OK	 System ID for home, current status is displayed. -to change, enter new one. -store it.
NAM1 More Prog ? Yes	 * ↑or # ↓ OK	 -Setup Long NAM 'Yes'enables Long NAM. -changes the status. -store it.

2. Setting Up NAM2

LCD Display	Key in	Function
NAM Program 1:Setup NAM1 2:Setup NAM2	2	-Choose 'Setup NAM2'
The Quick NAM2 setup is the same as '1. Setting up Quick NAM1'		

3. Setting up General

LCD Display	Key in	Function
NAM Program 1:General 2:Setup NAM1 3:Setup NAM2	1	-Choose 'GENERAL'.
General ESN F1000000	Volume ▼	-Electronic Serial Number of the phone is displayed.
General CAI version 3	Volume ▼	-Common Air interface version is displayed.
General VOC Select SO_VOIC_EVRC	* ↑ or # ↓ OK	-Vocoder data rate.
General SCM 01101010	Volume ▼	-Station Class Mark displays the power class, transmission, slotted class, dual mode.
General Service Code 654321	6-digit code OK	-NAM service Lock code, current ststus is displayed -to change, enter new code. -store it.
General Lock Code ****	4-digit code OK	Lock code, current ststus is displayed -to change, enter new code. -store it.
General Slot Mode Yes	* ↑ or # ↓ OK	Slot mode 'Yes'indicates the slot mode. -changes the status. -store it.
General Slot Index 2	0-7 OK	Slot mode index. The higher, the Ionger sleeping time -to change, enter new one. -store it.

4. Setting up NAM1

LCD Display	Key in	Function
NAM Program 1:General 2:Setup NAM1 3:Setup NAM2	2	-Choose 'Setup NAM1'.
NAM1 Digital IMSI_MNC ***	3-digit number OK	IMSI Moble Country Code, current code is displayed. -to change, enter new one. -stores it.
NAM1 Digital IMSI_MNC **	2-digit number OK	IMSI Mobile Network Code, current code is displayed. -to change, enter new one. -stores it.
NAM1 Digital Phone # 1234567890	Phone number OK	-Phone number. -to change, enter new one. -stores it.
NAM1 Digital Directory # 1234567890	Directory number OK	-Directory number. -to change, enter new one. -stores it.
NAM1 Digital Home SID (01~20) ****	SID number OK	Digital Home System ID, current status is displayed -to change, enter new one. -stores it.
NAM1 Digital Home NID ()1~20) *	NID number OK	Lockout System ID (1~6), current status is displayed -to change, enter new one. -stores it.
NAM1 Digital LockoutSID(01~10)	ID number OK	Lockout System ID (1~6), current status is displayed. -to change, enter new one. -stores it.
NAM1 Digital CDMA Home SID Yes	* ↑ or # ↓ OK	CDMA Home System ID, current status is displayed -change the status. -store it.
NAM1 Digital CDMA fSID Yes	* ↑ or # ↓ OK	CDMA foreign SID, current status is displyed -change the system -store it.

LCD Display	Key in	Function
NAM1 Digital CDMA fNID Yes	* or # OK	CDMA foreign NID, current status is displayed -change the system. -store it.
NAM1 Digital ACCOLC 9	class number OK	CDMA Access Overload Class, current status is diplayed. -to change, enter new one. -store it.
NAM1 Analog Phone # 1234567890	Phone number OK	-Phone number. -to change, enter new one. -store it.
NAM1 Analog Home SID ****	SID number OK	Analog Home System ID, current status displayed -to change, enter new one. -store it.
NAM1 Analolg Auto Reg Yes	* or # OK	Analog Registration, current status is displayed. -change the status ‘YES’ to enable, ‘NO’ to disable. -store it.
NAM1 Analog Accolc 9	* or # OK	Current Access Overload Class. -change the system. -store it.

5. Setting Up NAM2

LCD Display	Key in	Function
NAM Program 1:Setup NAM1 2:Setup NAM2	3	-Choose ‘Setup NAM2’
The Quick NAM2 setup is the same as ‘4. Setting up Quick 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

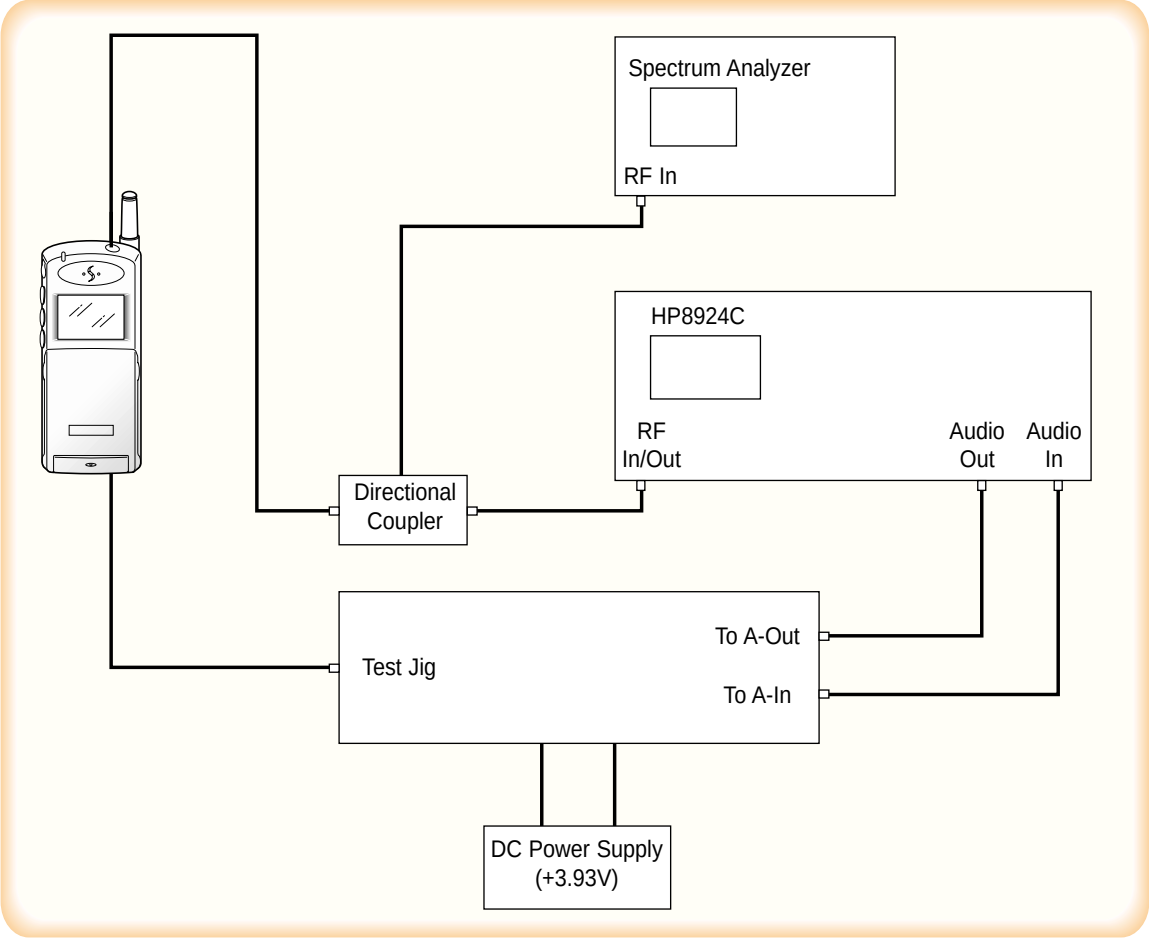
To begin a software upgrade or download, perform the following steps:

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

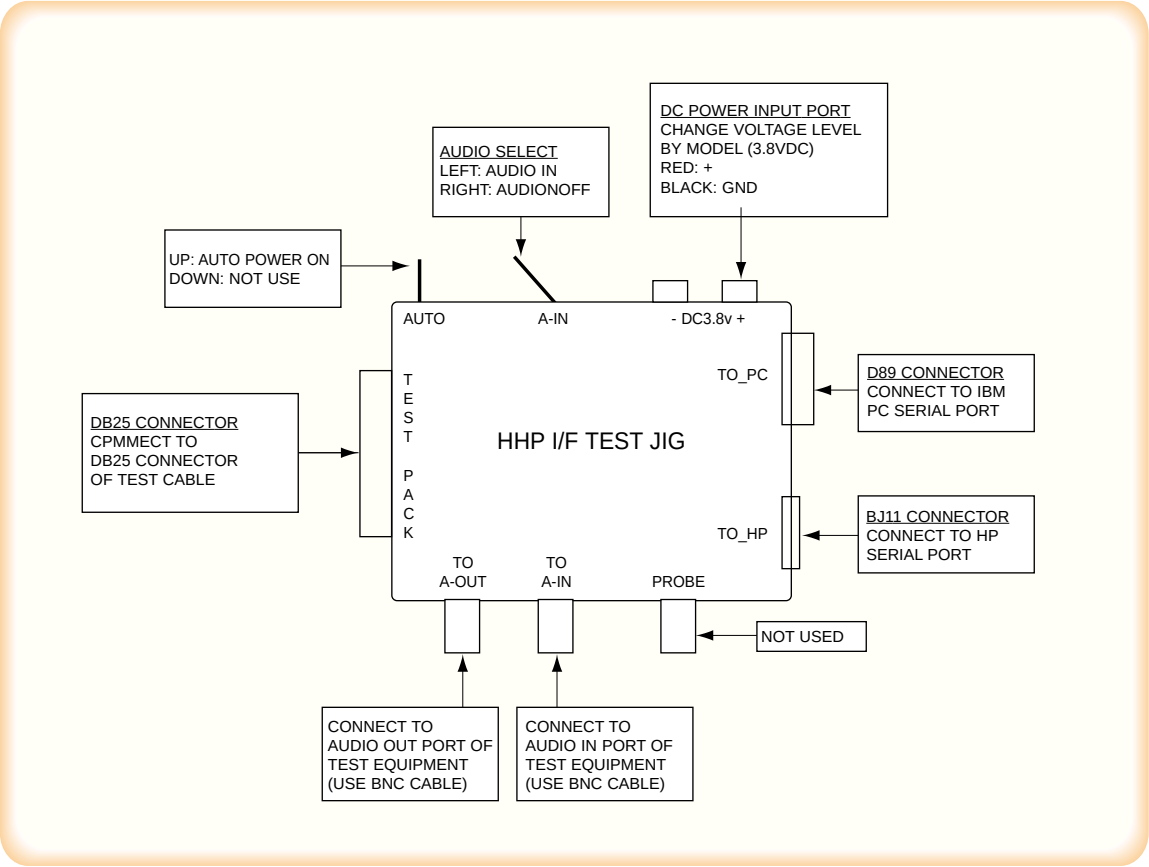
Items needed to purchase from SAMSUNG

ITEMS	PARTS #	REMARK
RF test Cable	GH39-00002A	
Test cable	GH39-30516A	
DM Cable	GH39-30525A	
Test JIG (RF Interface Pack Ass'y)	GH80-10502A	Including 1. Power Cable(Black,Red) 2. 9-pin RS232 data Cable

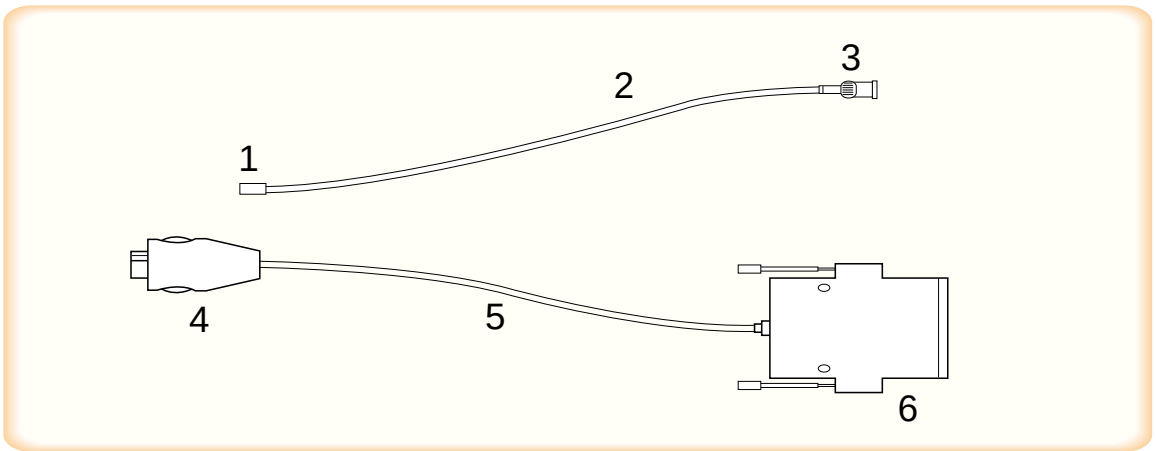
5-3-2 List of Equipment

- 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

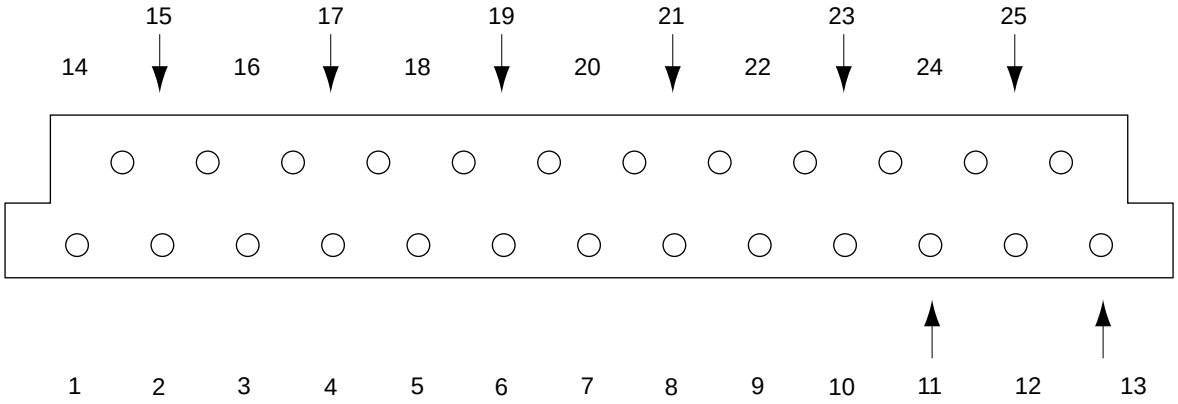


TEST CABLE CONNECTIONS

1	MHC 172
2	RF CABLE (1.4 dB Loss)
3	BNC CONNECTOR (RF)
4	PLUG CONNECT TO SCH-611
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



5-4. CONVERSION TABLE OF FREQUENCY vs CHANNEL

T Y P E	CHANNEL	CONVERSION EQUATION	REMARK
TX	1 ≤ N≤ 799	F=0.03 × N + 825.00	
FREQUENCY	990 ≤N≤1023	F=0.03 × (N-1023) + 825.00	N ; CH NUMBER
RX	1 ≤N≤ 799	F=0.03 × N + 870.00	F ; FREQUENCY
FREQUENCY	990 ≤N≤1023	F=0.03 × (N-1023) + 870.00	

Change to Test Mode

A. To change the phone's state from Normal Mode to Test Mode, You should enter the following keys.
" * 7 5 9 # 8 1 3 5 8 0 "

B. The command "0 1" is Suspend.

C. To finish the Test Mode, You should enter the command "0 2".

*** Note**: Make sure to change to "Digital only" or "Analog only" mode in NAM1,
EST MODE. (Refer to 4. NAM Programming)

Channel Selection and Tx Power Output Level Control

1. Digital Mode (CDMA)

A. Enter to Test Mode (* 7 5 9 # 8 1 3 5 8 0).

B. "0 1" : Suspend.

C. "0 9 0 3 6 3 #" : Set to '0363' channel.

D. "0 7" : Carrier On.

E. "3 4" : Spread spectrum to 1.23MHz band width.

F. "7 1 2 7 5 #" : Output RF power level setting.
"275" means AGC level and AGC level range is from 0 to 511.

2. Analog Mode (FM)

A. Enter to Test Mode (* 7 5 9 # 8 1 3 5 8 0).

B. "0 1" : Suspend.

C. "4 6" : Vocoder initial to Analog mode.

D. "0 9 0 3 8 3 #" : Set to '0383' channel.

E. "0 7" : Carrier On.
F. "7 2 2 7 5 #" : Output RF power level setting.
"275" means AGC level and AGC level range is from 0 to 511.

G. "1 0 2" : RF Power level control, 2(0~7) means power level .

5-5 TEST COMMAND TABLE

Command No.	Signal. Name	Description
1	SUSPEND	enter to test menu
2	RESTART	escape from test menu
3	SAVE_VAL	Save values in e2prom only in auto test
4	GET_MODE	Get mode CDMAFM AUTO TEST
5	SET_MODE	Set mode CDMAFM AUTO TEST
6	WRITE_NV	Write the EEPROM item
7	CARRIERON	turn on the carrier
8	CARRIEROFF	turn off the carrier
9	LOADSYN	load the synthesizer for locking
10	PWRLEVEL	change RF power level
11	RXMUTE	mute rx audio
13	RXMUTE	mute tx audio
16	STON	turn on ST
17	STOFF	turn off ST
18	LCD_CONTRAST	index up key JOJ_98.11.23(contrast)
19	INDEX_DECR	index dn key JOJ_98.07.07
20	LNA_GAIN_WR	
22	SNDNAM	Send NAM Information
23	SNDVERSION	Send Software Version
24	SNDESN	Send ESN
25	BACKLIGHT_ON	Backlight on
26	BACKLIGHT_OFF	Backlight off
27	LAMP_ON	LAMP on
28	LAMP_OFF	LAMP off
29	REBUILD	Rebuilding EEPROM
30	PLINE	Product lile information
32	SATON	turn on SAT
33	SATOFF	turn off SAT
34	CDATA	continuously sen TX Control data
35	VOLUME_UP	Electric Volume Up
36	VOLUME_DOWN	Electric Volume Down
40	VOC_CDMA_UNITY_GAIN	Vocoder CDMA unity gain
41	VOC_FM_HFRX_UPGAIN	Vocoder fm hfrx upgain
42	DTMFON	turn on DTMF
43	DTMFOFF	turn off DTMF
44	COMPANDORON	turn on compandor

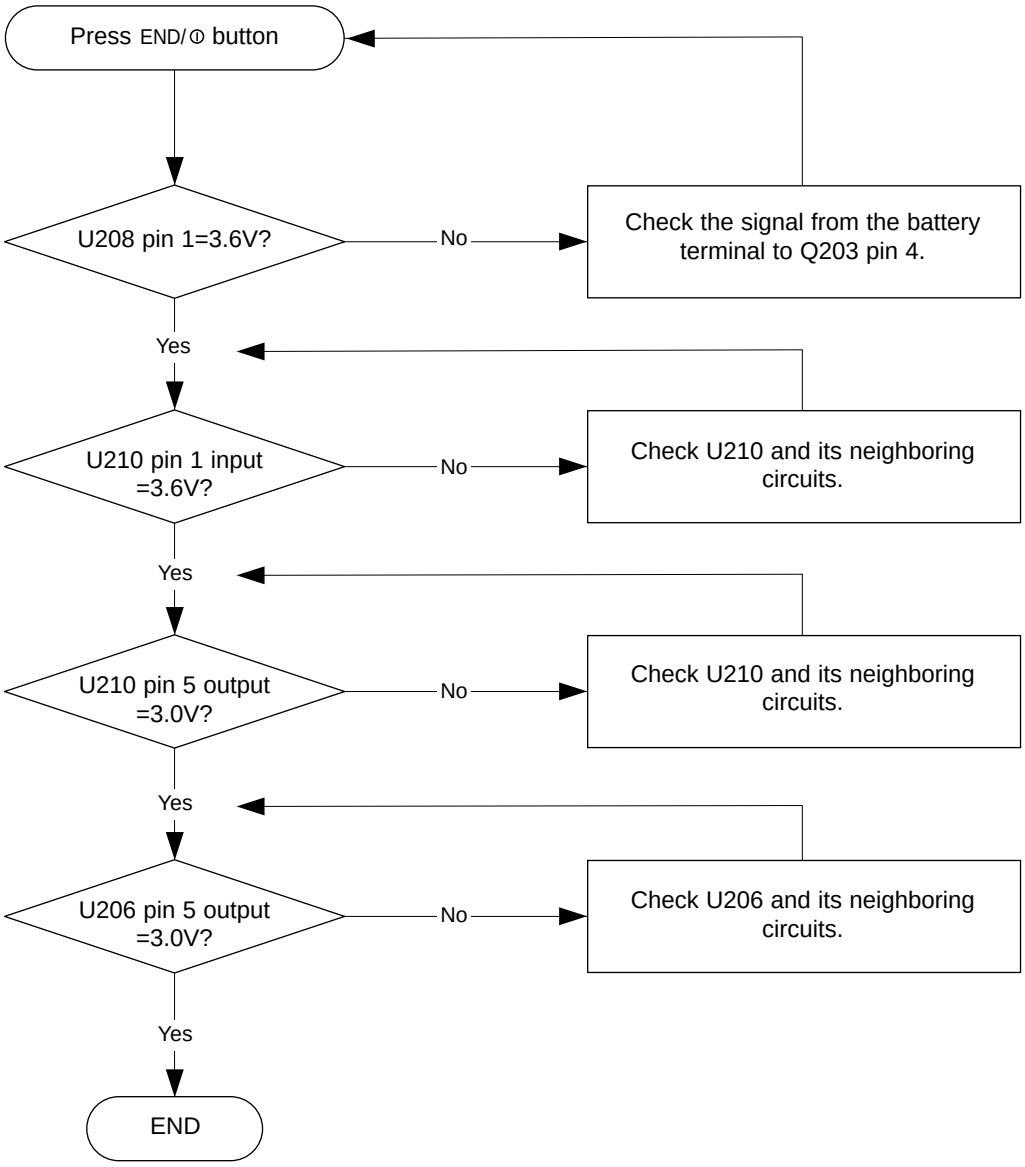
Command No.	Signal. Name	Description
45	COMPANDOROFF	turn off compandor
47	FM_AUD_GAIN	FM audio gain
48	VIBRATOR_ON	activate a vibrator
49	VIBRATOR_OFF	inactivate a vibrator
50	BATT_TYPE	Battery Type
51	BBA	BBASIC supplier
52	HW_VERSION	HW version hmk_96.12.09
53	CARRIER	Target Carrier option
54	VOC13K	Target Service option
55	EXT_AUDIO	External Audio Path OnOff
57	MIC_ON	mute MIC Path
58	MIC_OFF	unmute MIC Path
59	ALLPATH	tune on the all audio path
60	FM_TX_GAIN	
61	FM_RX_GAIN	
62	DTMF_VOL_TX	
63	TX_LIMITER	
64	FM_SAT_LEVEL	
65	FM_FREQ_SGAIN	
66	FM_ST_GAIN	
67	READ_BATT	Saved Low battery value read
68	VBATT1	set the low battery position in the standby
69	VBATT2	set the low battery position in the talking
70	WRITE_BATT	write a BATT
71	CDMA_TXADJ	sets tx_agc_adj for cdma mode
72	FM_TXADJ	sets tx_agc_adj for fm mode
73	SET_PA_RO	set TX power AMP ctrl RO JOJ_98.06.29
74	OFF_PA_RO	off TX power AMP ctrl RO JOJ_98.06.29
75	READ_RSSI	read a RSSI
77	READ_TEMP	read a TEMP
78	RXRAS_AUTO	adj RXRAS from 8924C JOJ_98.06.20
79	BUZZER_ON	Buzzer on
80	BUZZER_OFF	Buzzer off
81	VOC_PCMLPON	turn on to play a PCM LOOP BACK
82	VOC_PCMLPOFF	turn off to play a PCM LOOP BACK

Command No.	Signal. Name	Description
85	SPEAKER_ON	turn on the speaker path
86	SPEAKER_OFF	turn off the speaker path
87	FM_LOOP_TEST	FM loop back
88	TRK_ADJ	TRK LOCAL ADJUST
89	CDTRK_ADJ	CDMA TRK LOCAL ADJUST
92	TXRAS_ADJ	TX RAS adj = TXRAS offset arry
93	RXRAS_ADJ	RX RAS adj = RXRAS offset arry
94	HW_CHANFLAT	
95	SW_CHANFLAT	
96	CH_FLATNESS	
97	FM_TX_PWR	setting the volume for power Level 2-7
99	TEMP	
100	MAX	

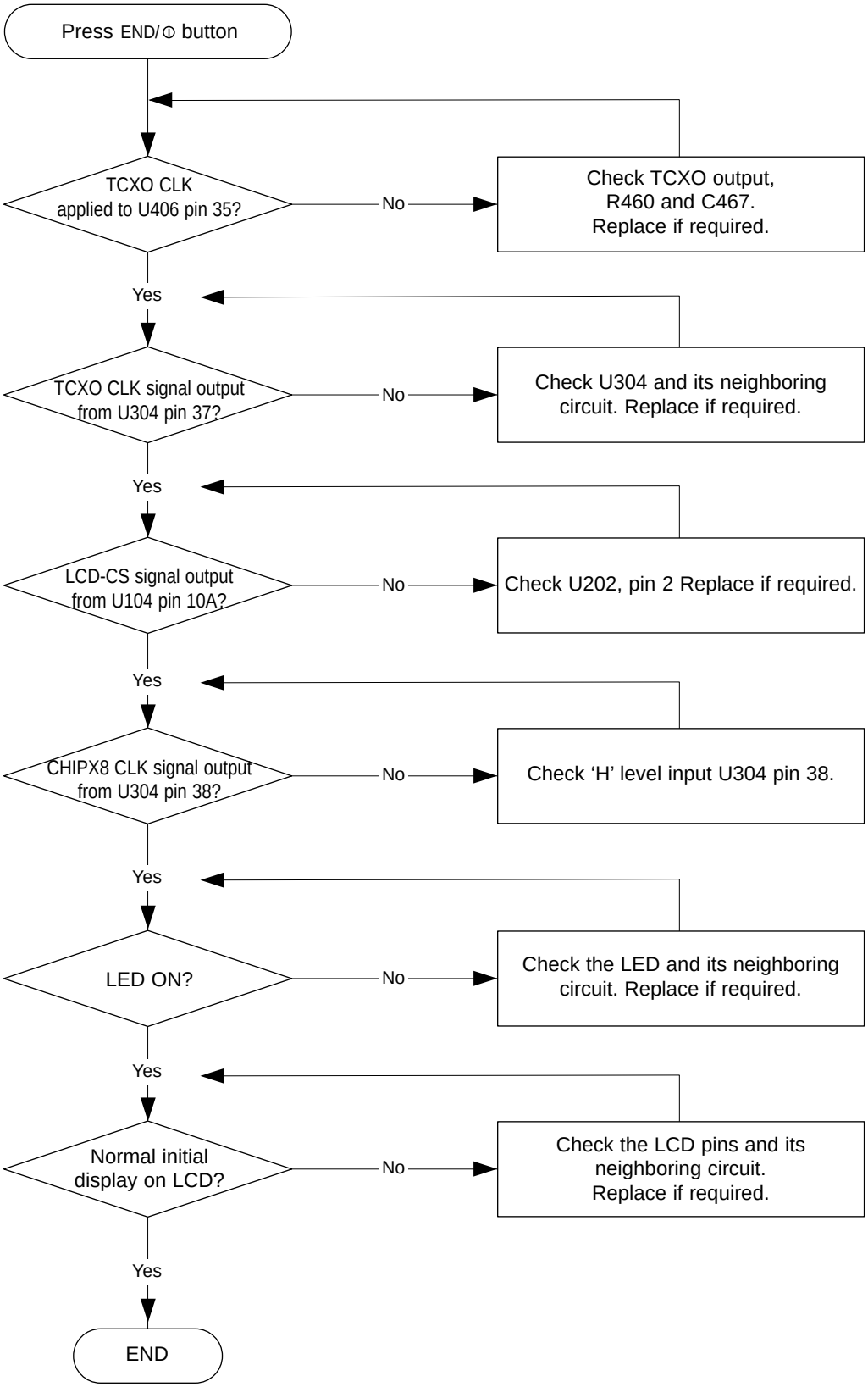
6. Troubleshooting

6-1 Logic Section

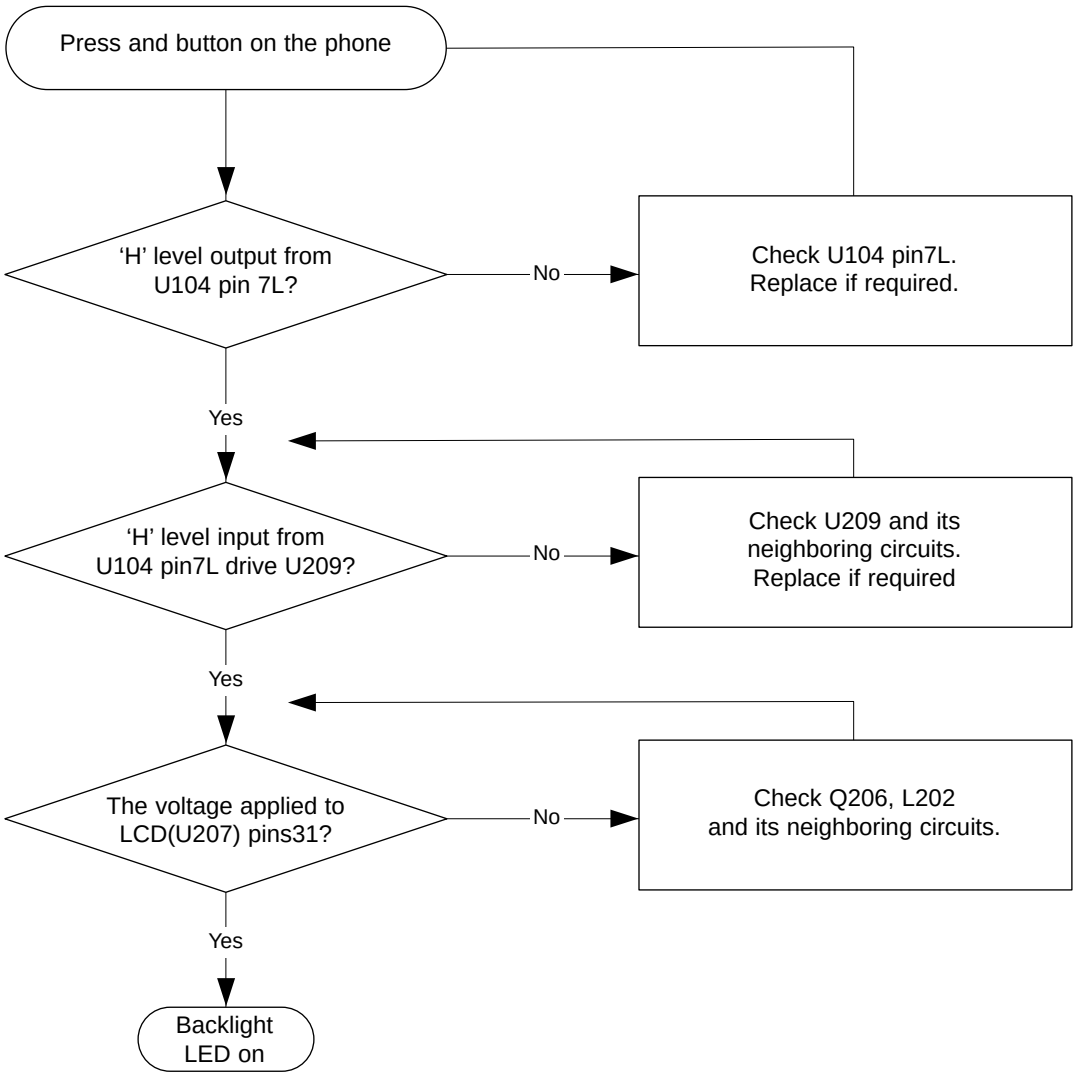
6-1-1 No Power



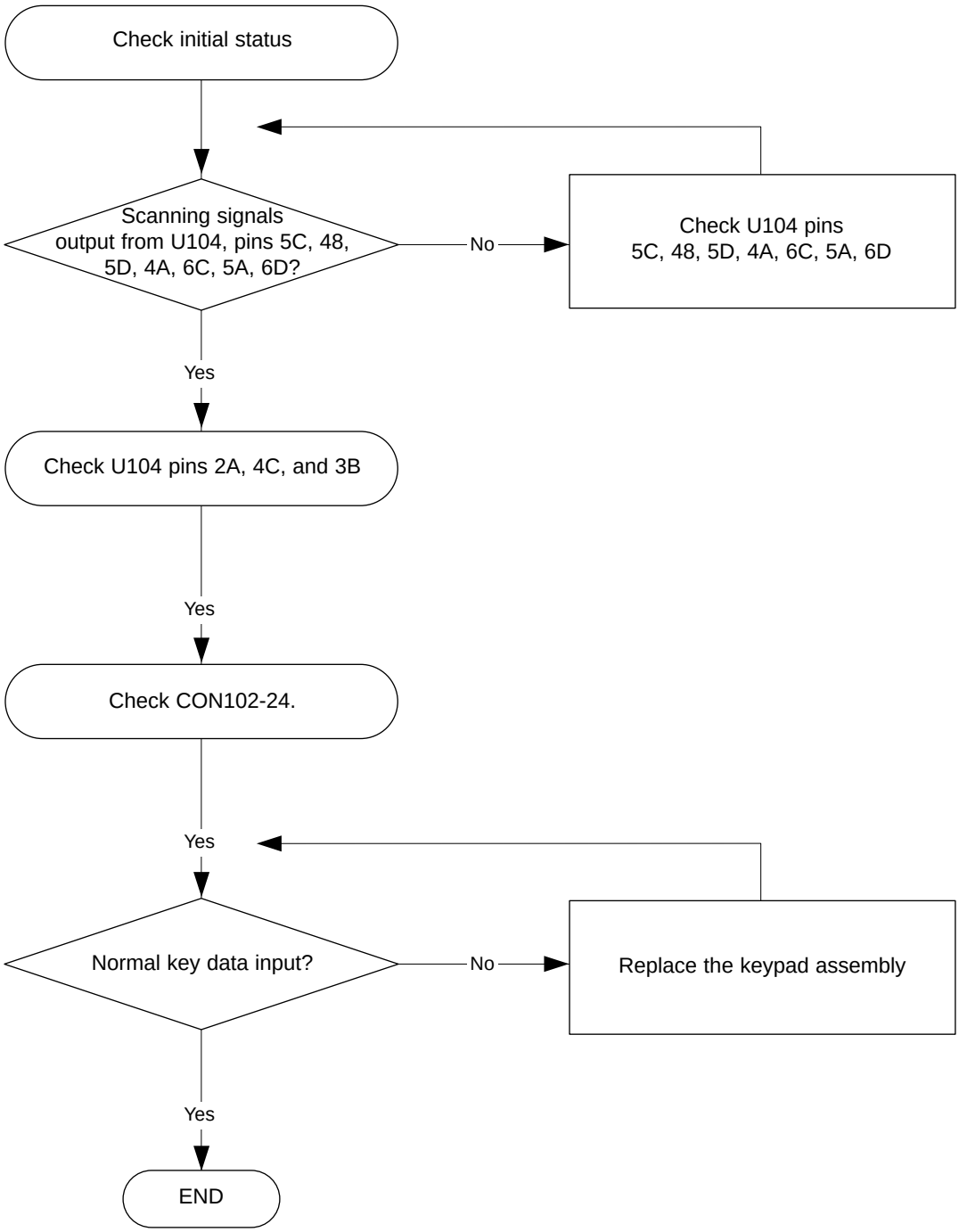
6-1-2 Abnormal Initial Operation (Normal +3.0V voltage source)



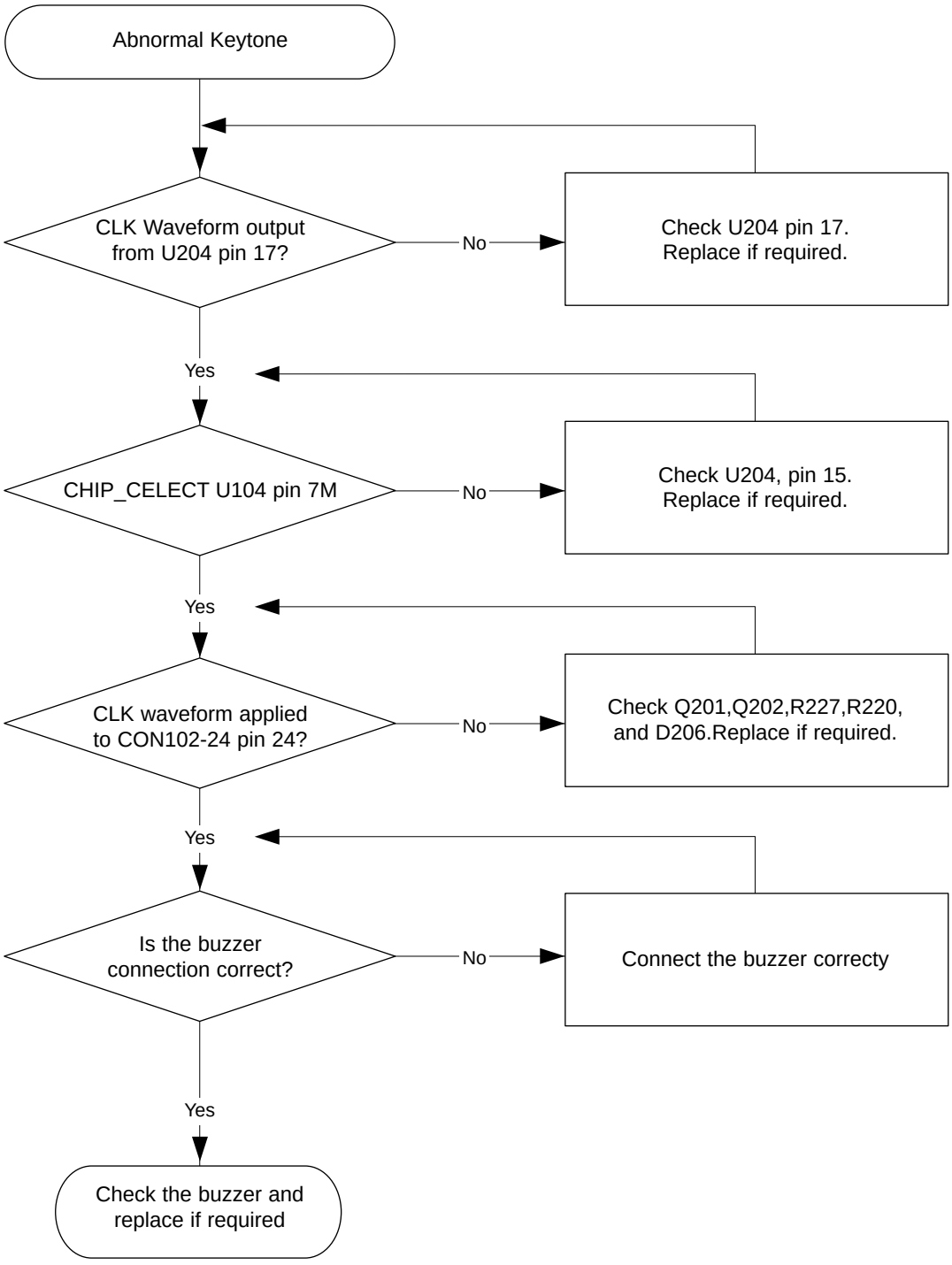
6-1-3 Abnormal Backlight Operation



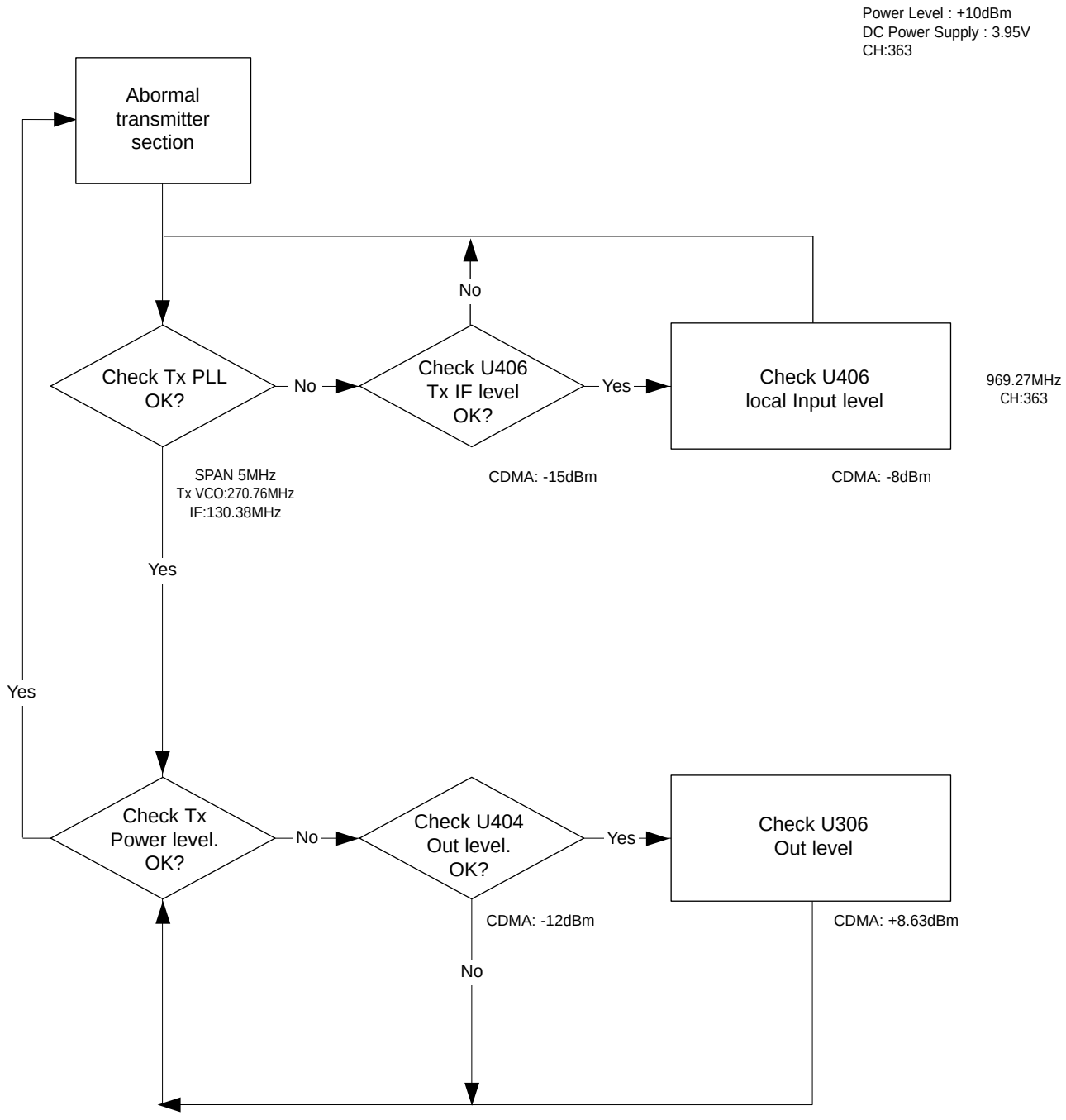
6-1-4 Abnormal Key Data input



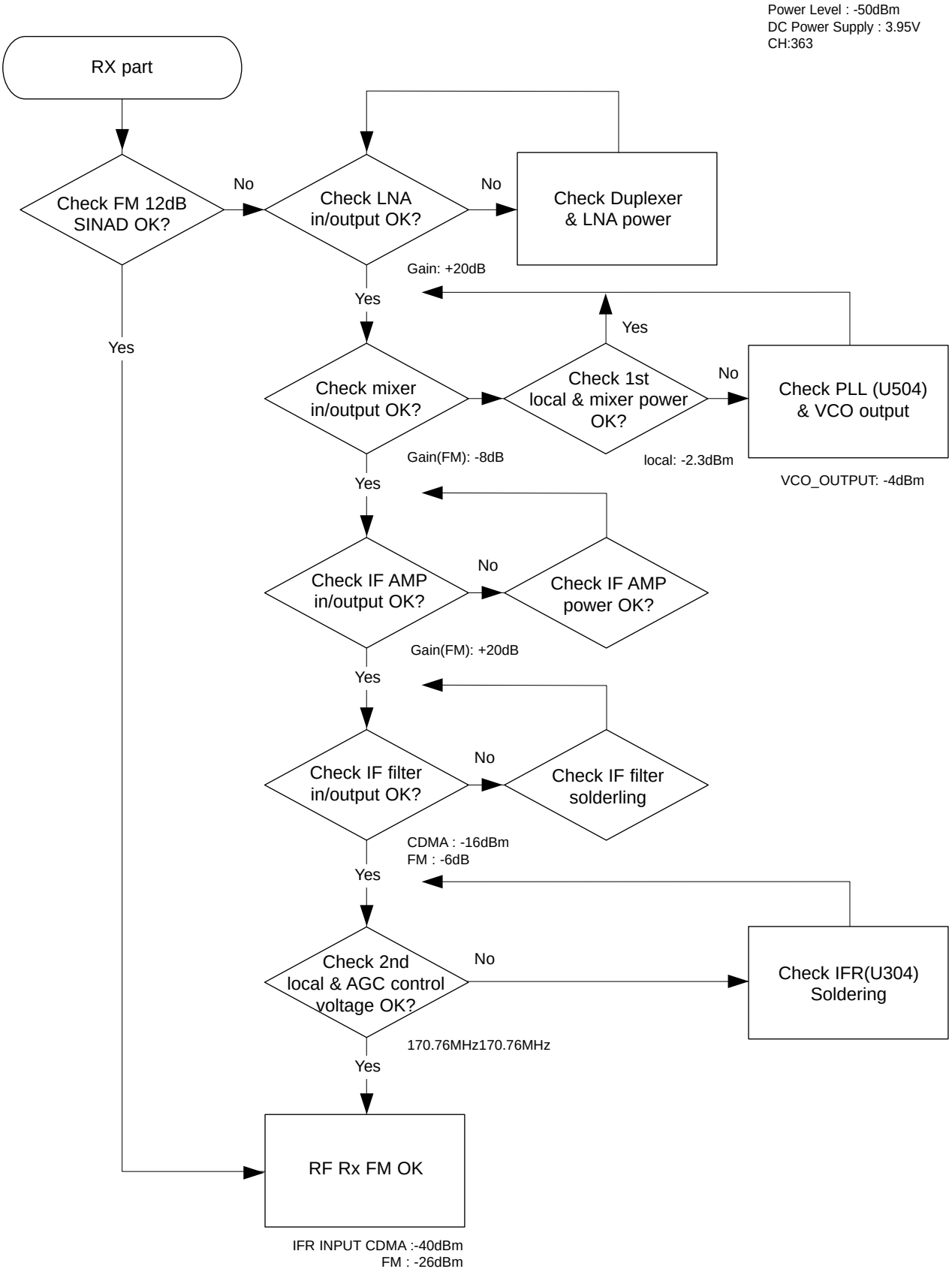
6-1-5 Abnormal Key tone



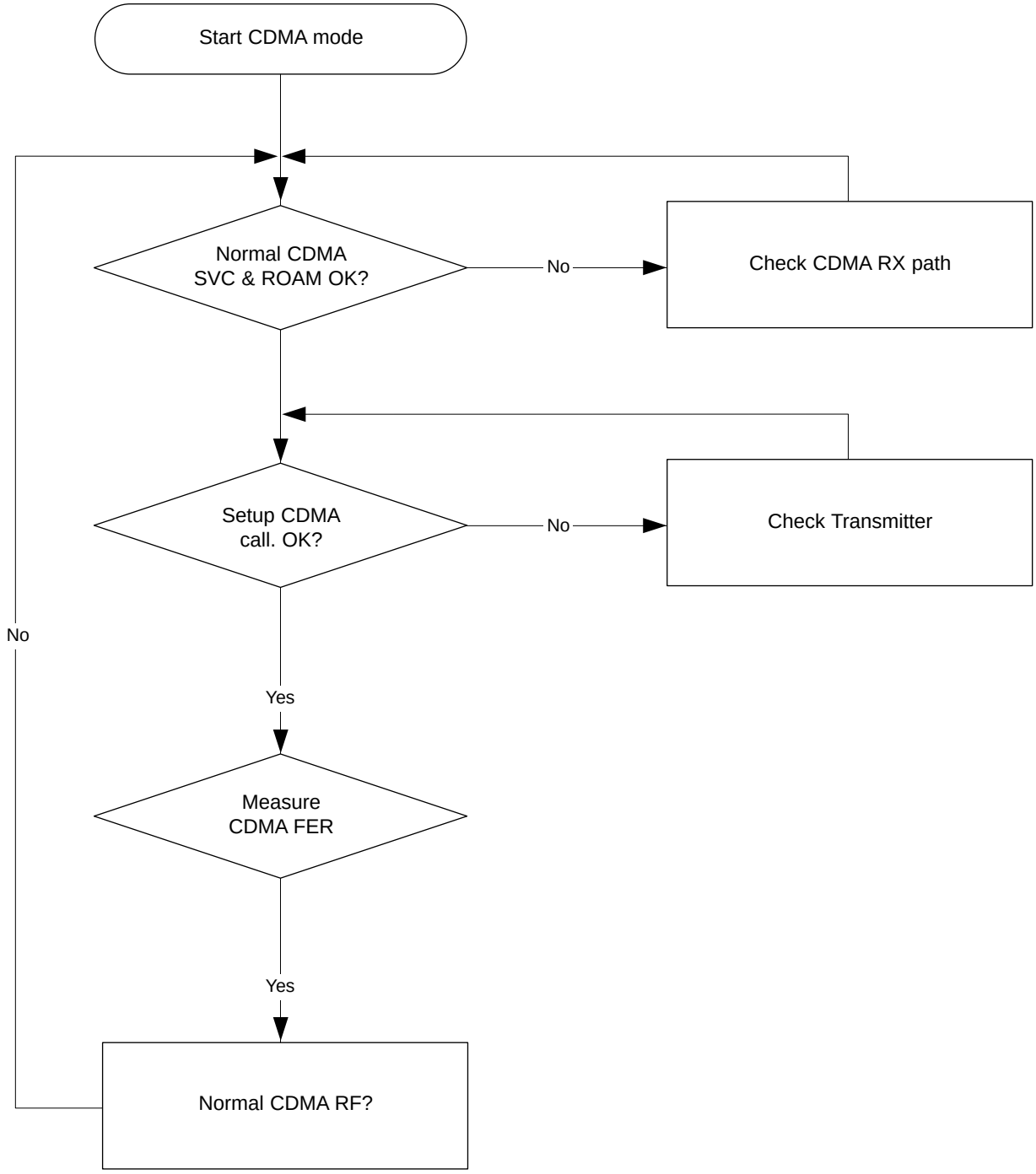
6-2 Transmitter Section



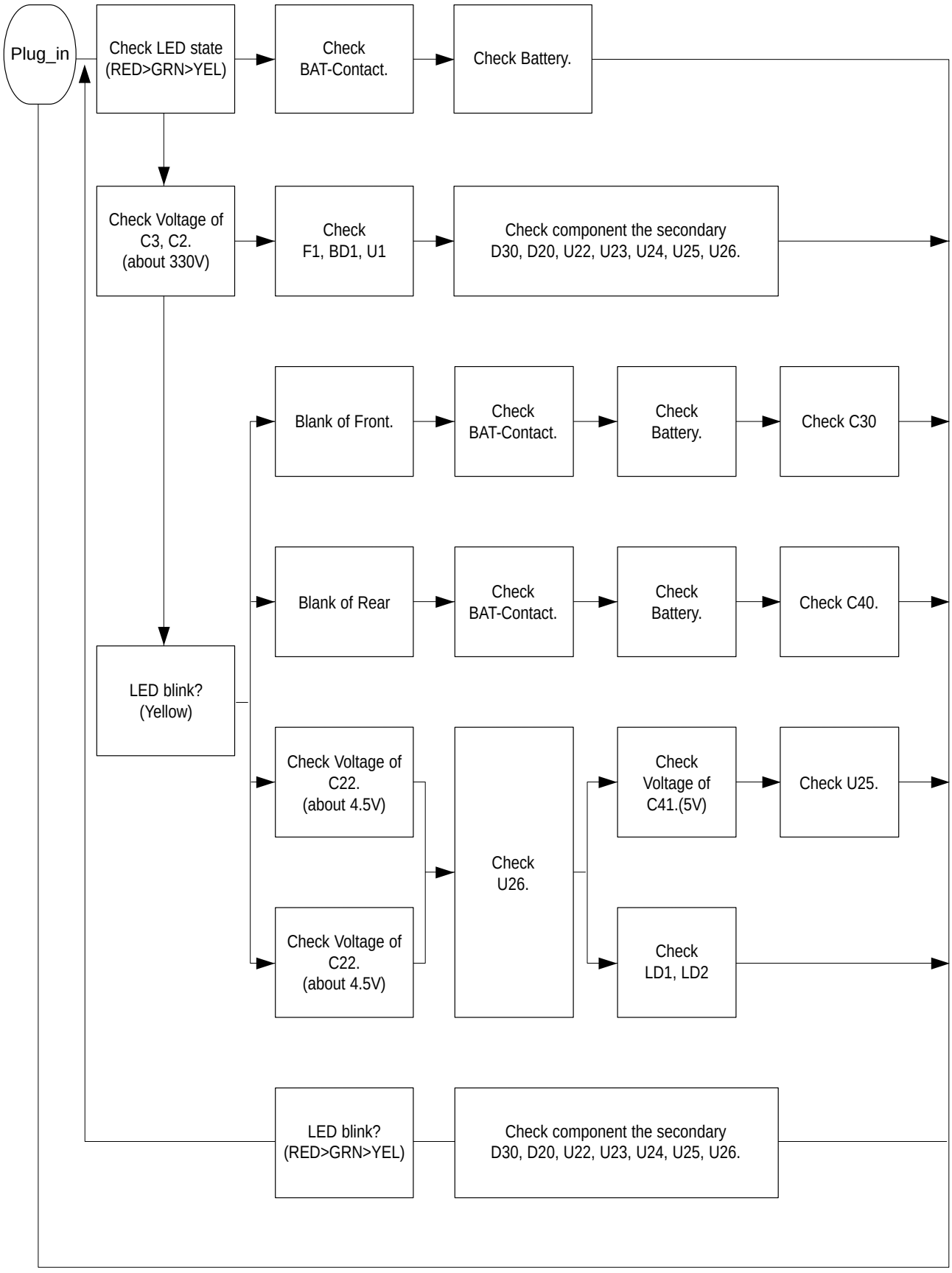
6-3 FM Receiver Section



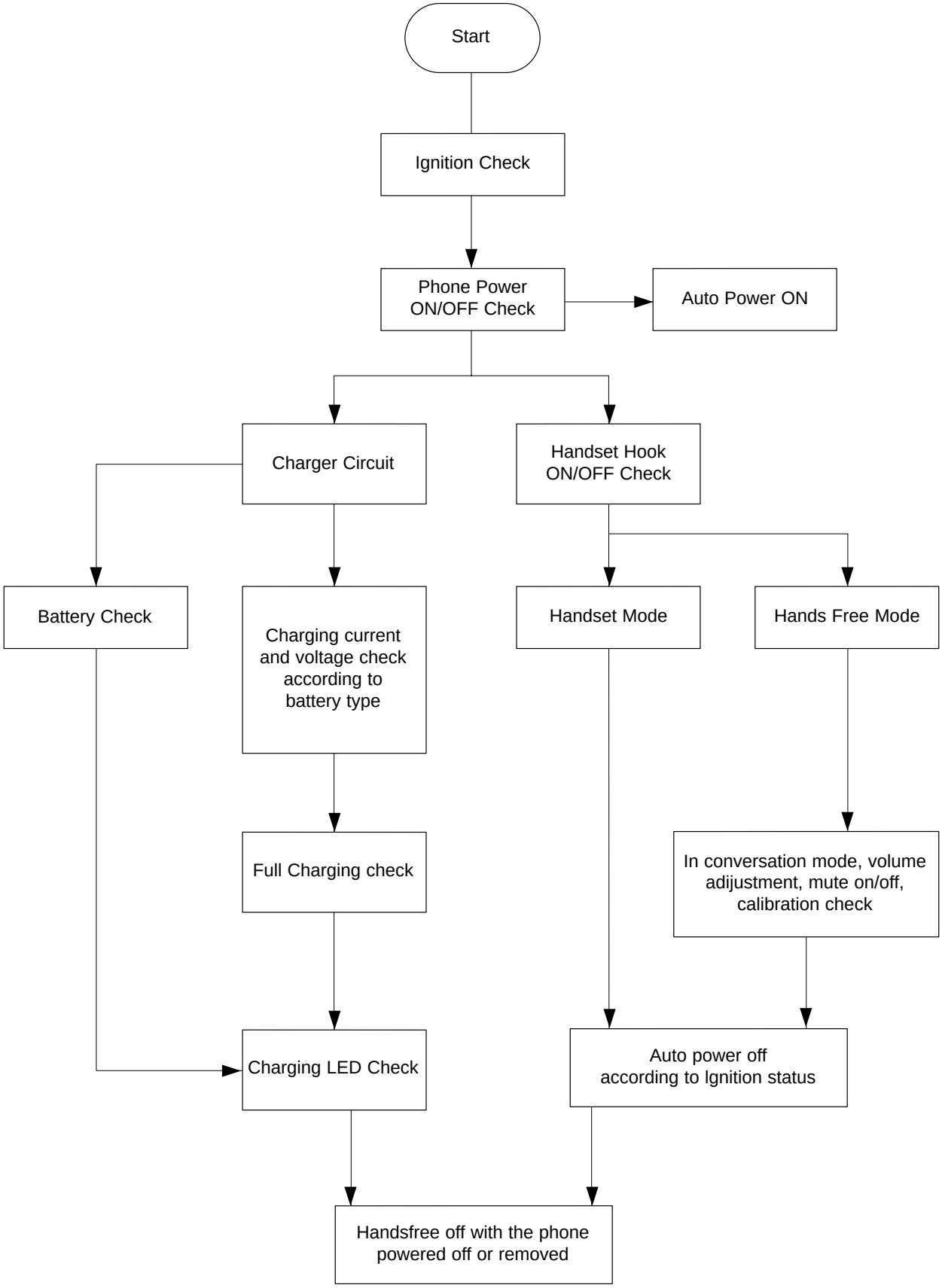
6-4 CDMA Receiver Section



6-5 Desk-Top Rapid Charger

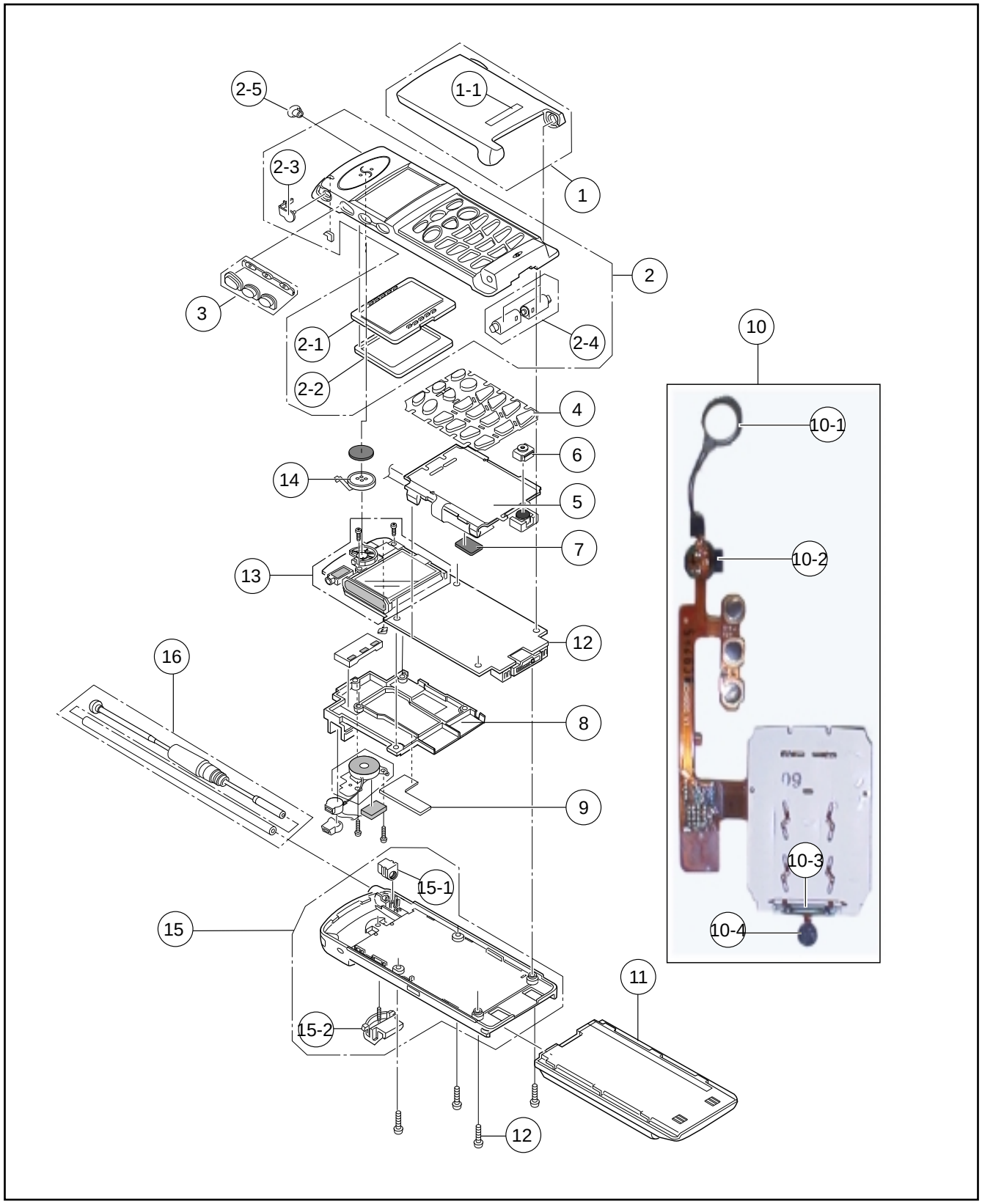


6-6 Hands-Free Kit 1



7. Exploded View and its Parts List

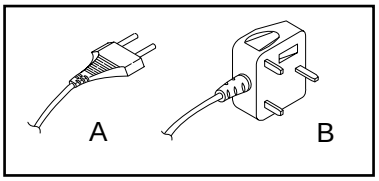
7-1 Cellular phone Exploded View



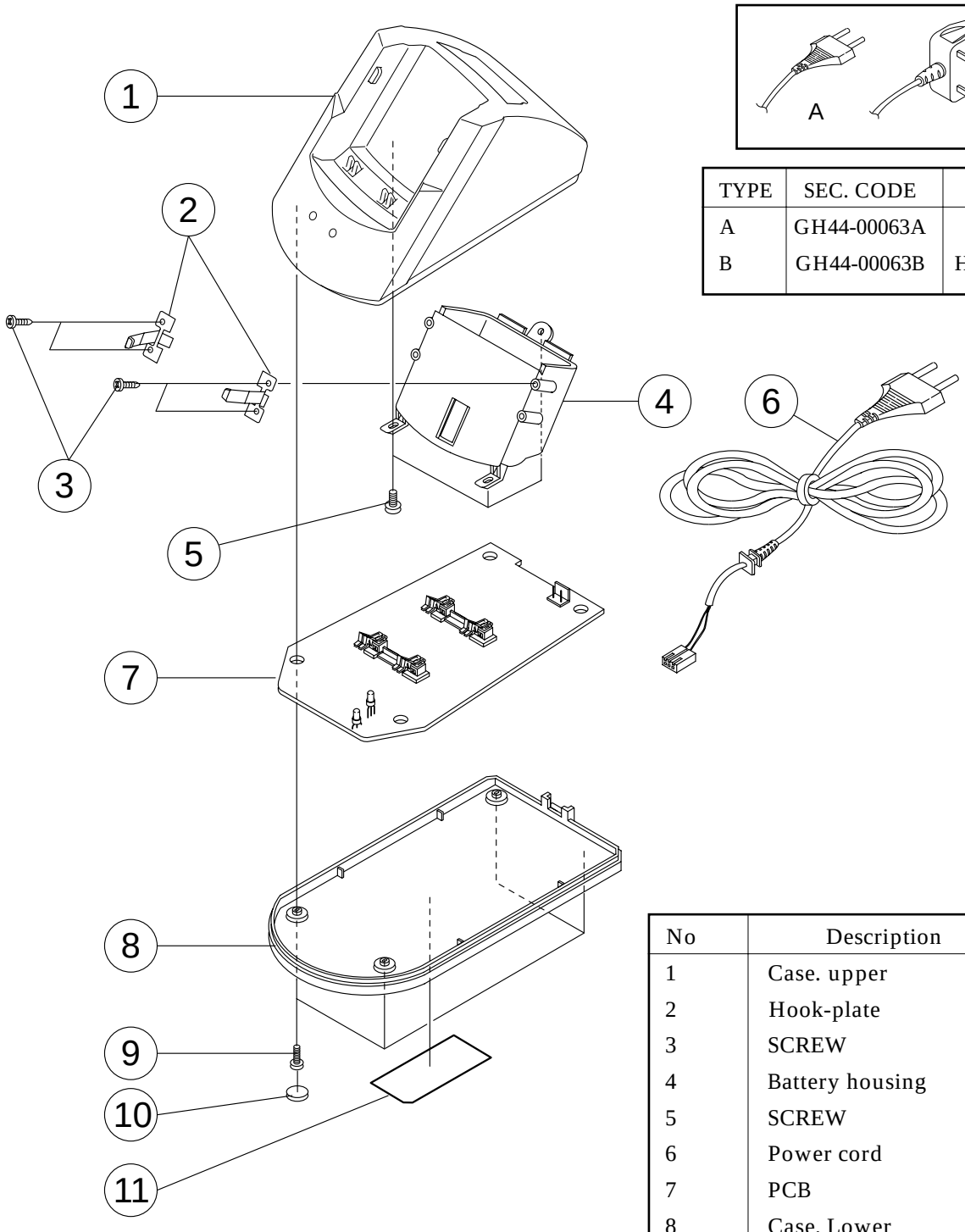
7-2 Cellular phone Exploded List

Location No.	Description	SEC Code	Remark
1	FLIP COVER ASS'Y	GH75-00428A	
1-1	LOGO BADGE	GH68-20008A	SNA
2	FRONT ASS'Y	GH75-00426A	
2-1	LCD WINDOW	GH72-00180A	SNA
2-2	LCD BOHO SPONGE	GH74-00492A	SNA
2-3	EAR JACK HOLDER	GH72-00148A	SNA
2-4	HINGE ASS'Y	GH75-00046A	SNA
2-5	ANTENNA CAP	GH73-00094A	
3	SIDE KEY ASS'Y	GH75-00088A	
4	KEY PAD	GH72-00588A	
5	KEY SHIELD CAN	GH72-00554A	
6	MIC. HOLDER	GH73-00046A	
7	SPONGE REAR CONNECTOR	GH74-00094A	SNA
8	REAR SHIELD CAN	GH72-00555A	
9	SHIELD RF SPONGE	GH74-00272A	
10	KEY PCB ASS'Y	GH59-00039A	
10-1	MOTOR	GH31-00003A	
10-2	BUZZER MAGNETIC	3002-001064	
10-3	READ SWITCH	3409-001084	
10-4	MICROPHONE	GH96-00772A	
11	BATTERY	GH43-00140C	
12	SCREW(MAIN)	6001-001148	
13	LCD MODULE	GH07-00015A	
14	SPEAKER	3001-001138	
15	REAR ASS'Y	GH75-00451A	
15-1	ANTENNA BRACKET	GH71-00013A	SNA
15-2	BATTERY LOCKER	GH72-00147A	SNA
16	ANTENNA	GH42-00036A	

7-3 Desk-Top Rapid charger Exploded View

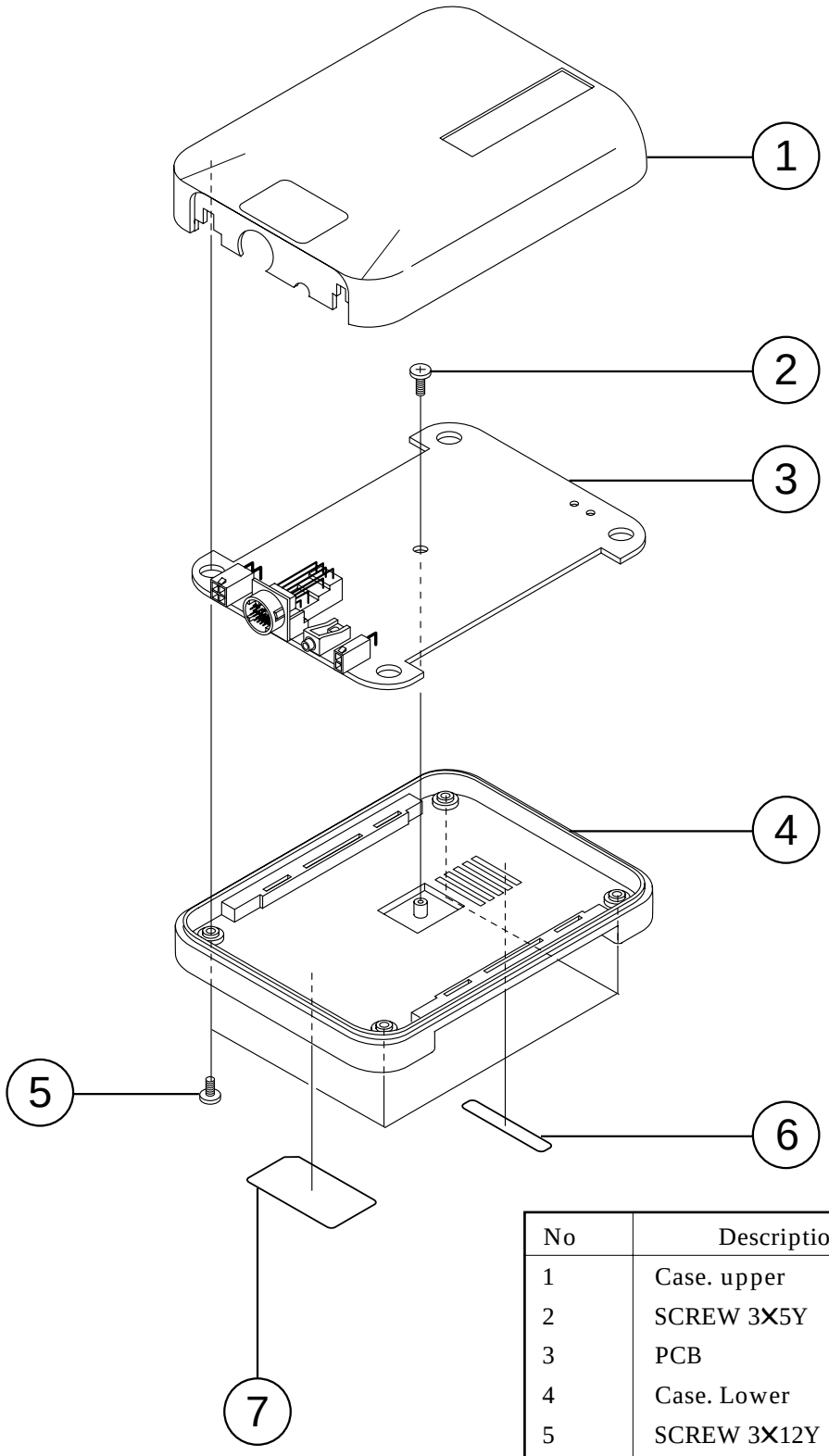


TYPE	SEC. CODE	Remark
A	GH44-00063A	Israel
B	GH44-00063B	Hong Kong



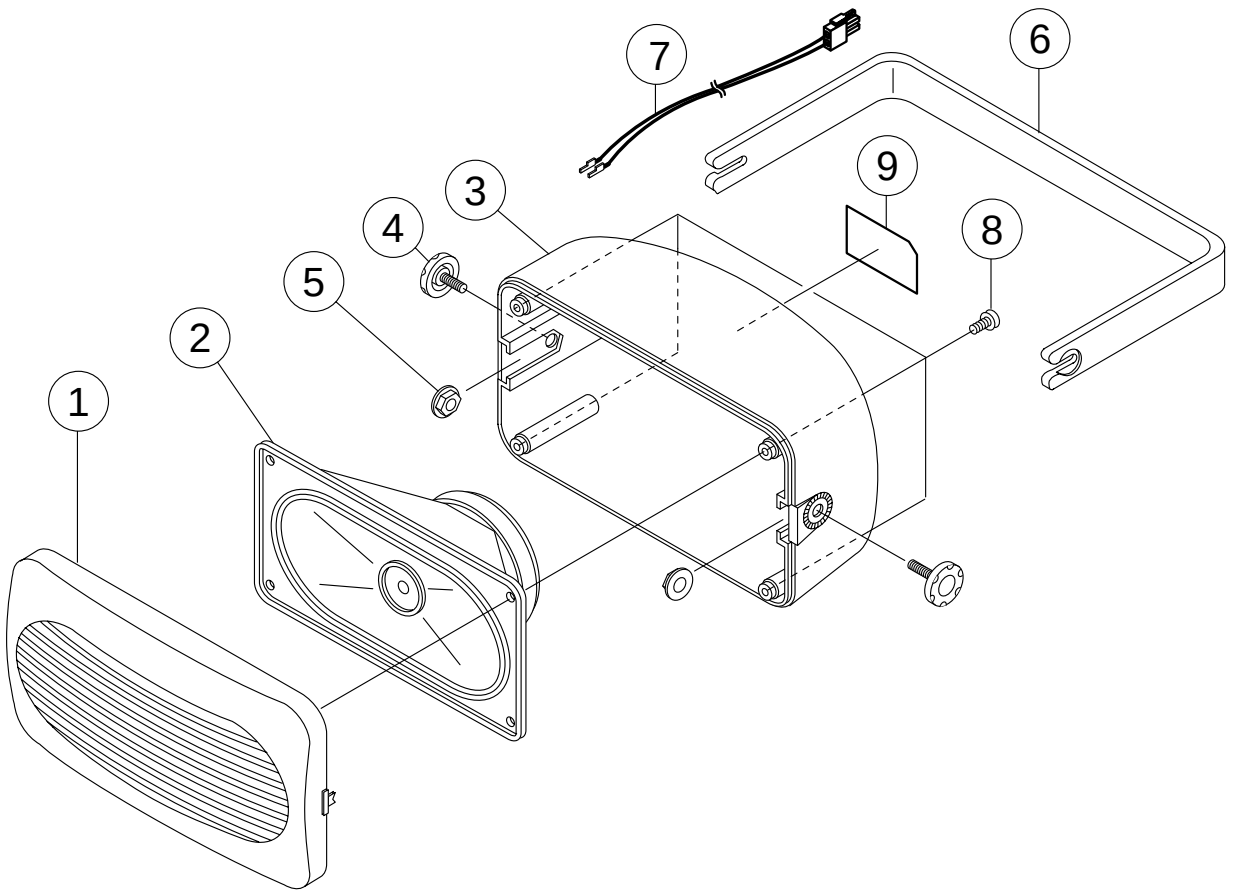
No	Description	Q'TY
1	Case. upper	1
2	Hook-plate	2
3	SCREW	4
4	Battery housing	1
5	SCREW	1
6	Power cord	1
7	PCB	1
8	Case. Lower	1
9	SCREW	4
10	BUM PON	4
11	Label	1

7-4 Hands-free Kit 1 Exploded View



No	Description	Q'TY
1	Case. upper	1
2	SCREW 3X5Y	1
3	PCB	1
4	Case. Lower	1
5	SCREW 3X12Y	4
6	Sponge	2
7	Label	1

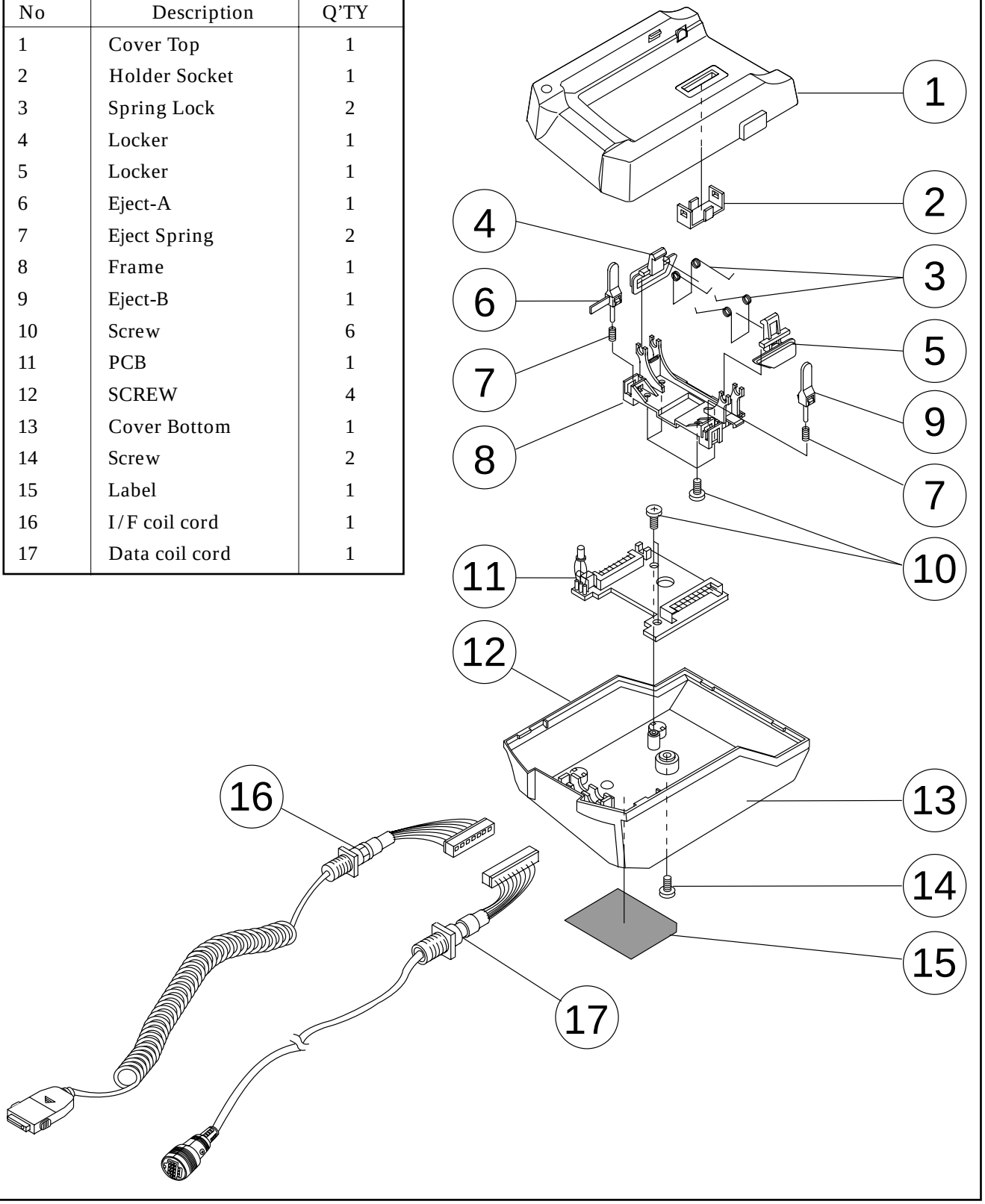
7-5 Speaker Exploded View



No	Description	Q'TY
1	Case. Front	1
2	Speaker	1
3	Case. Rear	1
4	Bolt	2
5	HEX. NUT	2
6	Hamdle	1
7	Speaker wire	1
8	Screw	4
9	Label	1

7-6 Cradle Exploded View

No	Description	Q'TY
1	Cover Top	1
2	Holder Socket	1
3	Spring Lock	2
4	Locker	1
5	Locker	1
6	Eject-A	1
7	Eject Spring	2
8	Frame	1
9	Eject-B	1
10	Screw	6
11	PCB	1
12	SCREW	4
13	Cover Bottom	1
14	Screw	2
15	Label	1
16	I/F coil cord	1
17	Data coil cord	1



8. Electrical Parts List

8-1 Main parts List

Level	Design LOC	ITEMS	DESCRIPTIONS	SEC CODE
0				SCH-620B/TRJ
1		SCREW-MACHINE	“BH,*,M2,L5,ZPC(BLK),SM20C,FDP”	6001-001148
1		SCREW-MACHINE	“PH,+,M1.7,L5,ZPC(BLK),SWRCH18A,FP”	6001-001204
1		ANTENNA-SCH620	“SCH-620,824~895MHz,-,50ohm”	GH42-00036A
1		“BATTERY-1000M,BLK,POT	“3.6V,1000mAh,-,2CmA,4.1V”	GH43-00140C
1		“CHARGER-SCH620,TC010A”	“SCH-620,AC/DC,12W,220VAC”	GH44-00113A
1		LABEL(P)-COLOR	“SCH-611,ART,PI9,100G,BLK”	GH68-00157F
1		MAN(CARD)-SERVICES(BRAZ)	“SCH-811,TELEFONICA,BRAZ”	GH68-00556A
1		LABEL(R)-B/C RIBBON	“SCH-2500,POLYESTER,60X450,-,BLK”	GH68-00639B
1		LABEL(P)-BAR CODE	“SCH-611,WHITE POLYESTER,61X50,100G	GH68-00662A
1		LABEL(R)-MAIN	“SCH-620,MAT,39.7X29.8,T0.05,SIL”	GH68-00787A
1		LABEL(P)-SHIP(BRAZ-3)	“SCH-620,CRP,250X180,100G,YEL”	GH68-00791A
1		MAN(BOOK)-USER’S	“SCH-620,SAMSUNG,BRAZ”	GH68-00893A
1		LABEL(P)-MS BAR CODE	“SCH-1900,ART,100X155,T0.1,WHT”	GH68-11057A
1		LABEL(R)-BAR CODE	“SP-D300,PR,34X6.5,T0.1,WHT”	GH68-30963A
1		BAG-VINYL	“POLYPROPYLEN,T0.06,105X230,SGH-A100”	GH69-00393A
1		PMO-KEY PAD	“SCH-620,FE TYPE,BLK,-,-”	GH72-00588A
1		RMO-RUBBER REAR	“SCH-900,RUBBER,12X12X1.3,BLK,60”	GH73-00050A
1		RMO-EAR JACK RUBBER	“SCH-900,RUBBER,9X7X0.8,BLK,70”	GH73-00064A
1		RMO-ANT.CAP(BLK)	“SCH-900,SILICON,6X6X9,BLK,50”	GH73-00094A
1		RMO-COVER CONNECT	“SPH-6000,SI,17X4.2X5,BLK,80HB”	GH73-40673A
1		MPR-WINDOW VINYL	“SCH-900,PE4187,34.6X24XT0.2,TRP,-”	GH74-00078A
1		MEC-SIDE KEY	“SCH-900,SEC,IVR”	GH75-00088A
2		PMO-SIDE KEY	“SCH-900,ABS,IVR,-,-”	GH72-00181A
2		RMO-SIDE KEY RUBBER	“SCH-900,RUBBER,28.65X3.2X2.1,BLK,50”	GH73-00044A
1		MEC-HANGER ROPE	“SGH-2300,-,BLK”	GH75-00223E
1		PBA MAIN-SCH620	“SCH-620,TELSEL,BRAZ,-,-,-,-”	GH92-00780A
2	D302	DIODE-VARACTOR	“1SV279,15V,3nA,USC,TP”	0405-001035
2	D303	DIODE-VARACTOR	“1SV279,15V,3nA,USC,TP”	0405-001035
2	D402	DIODE-VARACTOR	“1SV279,15V,3nA,USC,TP”	0405-001035
2	D403	DIODE-VARACTOR	“1SV279,15V,3nA,USC,TP”	0405-001035
2	ZD206	DIODE-TVS	“SM05,6V/1mA,300,SOT-23”	0406-001005
2	ZD101	DIODE-TVS	“SMS05C,6V,300W,SOT-23-6”	0406-001051
2	ZD102	DIODE-TVS	“SMS05C,6V,300W,SOT-23-6”	0406-001051
2	ZD103	DIODE-TVS	“SMS05C,6V,300W,SOT-23-6”	0406-001051
2	D206	DIODE-ARRAY	“DAN202U,80V,100mA,CA2-3,SC-70,”	0407-000115
2	D204	DIODE-ARRAY	“DA221,20V,100mA,C2-3,EM3,TR”	0407-001006
2	D205	DIODE-ARRAY	“DA221,20V,100mA,C2-3,EM3,TR”	0407-001006
2	D401	DIODE-ARRAY	“DA221,20V,100mA,C2-3,EM3,TR”	0407-001006

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2	ZD104	DIODE-ARRAY	“DA221,20V,100mA,C2-3,EM3,TR”	0407-001006
2	ZD202	DIODE-ARRAY	“DA221,20V,100mA,C2-3,EM3,TR”	0407-001006
2	ZD203	DIODE-ARRAY	“DA221,20V,100mA,C2-3,EM3,TR”	0407-001006
2	D301	DIODE-PIN	“BAR63-02W,50V,100mA,SCD-80,TP”	0409-001016
2	Q301	TR-SMALL SIGNAL	“2SC4081,NPN,200mW,UMT,TP,180-3”	0501-000218
2	Q205	TR-SMALL SIGNAL	“2SC4617,NPN,200mW,EM3,TP,120-5”	0501-000225
2	Q207	TR-SMALL SIGNAL	“2SC4617,NPN,200mW,EM3,TP,120-5”	0501-000225
2	Q504	TR-SMALL SIGNAL	“2SC4617,NPN,200mW,EM3,TP,120-5”	0501-000225
2	Q303	TR-SMALL SIGNAL	“AT32033,NPN,200mW,SOT-23,TP,70”	0501-002110
2	Q505	TR-SMALL SIGNAL	“AT32033,NPN,200mW,SOT-23,TP,70”	0501-002110
2	Q202	TR-SMALL SIGNAL	“MMBT2222AWT1,NPN,150mW,SOT-323”	0501-002202
2	Q204	TR-SMALL SIGNAL	“MMBT2222AWT1,NPN,150mW,SOT-323”	0501-002202
2	Q206	TR-SMALL SIGNAL	“2SA1579,PNP,200MW,SC-70,TP,180-390”	0501-002250
2	Q402	TR-DIGITAL	“RN1102,NPN,100MW,10K/10K,SSM,TP”	0504-000167
2	Q101	TR-DIGITAL	“RN1104,NPN,100MW,47K/47K,SSM,TP”	0504-000168
2	Q208	TR-DIGITAL	“RN1104,NPN,100MW,47K/47K,SSM,TP”	0504-000168
2	Q304	TR-DIGITAL	“RN1104,NPN,100MW,47K/47K,SSM,TP”	0504-000168
2	Q502	TR-DIGITAL	“RN1104,NPN,100MW,47K/47K,SSM,TP”	0504-000168
2	Q201	TR-DIGITAL	“RN2104,PNP,100MW,47K/47K,SSM,TP”	0504-000172
2	Q404	TR-DIGITAL	“RN2104,PNP,100MW,47K/47K,SSM,TP”	0504-000172
2	Q501	TR-DIGITAL	“RN2104,PNP,100MW,47K/47K,SSM,TP”	0504-000172
2	Q203	FET-SILICON	“SI3443DV,P,-20V,+-3.5mA,65mohm”	0505-001165
2	Q401	FET-SILICON	“SI3443DV,P,-20V,+-3.5mA,65mohm”	0505-001165
2	Q503	FET-SILICON	“SI3443DV,P,-20V,+-3.5mA,65mohm”	0505-001165
2	Q302	FET-GAAS	“NE34018,5V,-3V,80mA,125mW,SOT-343,TP”	0505-001183
2	LED101	LED	“CHIP,RED,1.2x0.8mm,660nm”	0601-001226
2	U202	IC-CMOS LOGIC	“7S04FU,INVERTER,SOP,5P,-,-,TP,”	0801-002345
2	U303	IC-ANALOG SWITCH	“SW395TR,SPDP,SOT-26,6P,-,DUAL,”	1001-001048
2	U209	IC-POWER DRIVER	“D361A,SOP,8P,120MIL,SINGLE,90MA,TP,	1003-001226
2	U105	IC-EEPROM	“24256,256KBIT,SOP,8P,150MIL,-,3V,10%,	1103-001147
2	U110	IC-SRAM	“68U4100,512KX8BIT,BGA,48P,-,100NS,3.3V,	1106-001287
2	U111	IC-FLASH MEMORY	“29LV800,512Kx16BIT,BGA,48P,354”	1107-001111
2	U112	IC-FLASH MEMORY	“29LV160,2MX8BIT,FBGA,48P,-,90NS,3V,10%	1107-001164
2	U503	IC-CASCODE AMP	“0916,SOT-143,4P,-,-,2.7V,-,6Vd”	1201-001248
2	U401	IC-POWER AMP	“23124,LCC,8P,-,SINGLE,-,PLASTI”	1201-001259
2	U403	IC-OP AMP	“821,SOT23-5,5P,63MIL,SINGLE,-,”	1201-001348
2	U302	IC-MMIC AMP	“MD57-0001,SOT-26,6P,114MIL,SIN”	1201-001384
2	U201	IC-VOLTAGE COMP.	“75W56,SSOP,8P,110MIL,DUAL,7V,C”	1202-001022
2	U208	IC-SWITCH VOL. REG.	“5205,SOT-23,5P,150MIL,PLASTIC,”	1203-001285
2	U305	IC-SWITCH VOL. REG.	“5205,SOT-23,5P,150MIL,PLASTIC,”	1203-001285
2	U306	IC-SWITCH VOL. REG.	“5205,SOT-23,5P,150MIL,PLASTIC,”	1203-001285

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2	U407	IC-SWITCH VOL. REG.	“5205,SOT-23,5P,150MIL,PLASTIC,”	1203-001285
2	U210	IC-VOLTAGE REGULATOR	“5219,SOT-23,5P,63MIL,PLASTIC,2.91/3.09V	1203-001720
2	U206	IC-RESET	“3470,SOT23,5P,-,PLASTIC,0.99/1.01V,300mW	1203-001835
2	U204	IC-ENCODER/DECODER	“ST5092TQFPTR,QFP,44P,-,PLASTIC”	1204-001375
2	U304	IC-IF CIRCUIT	“IFR3000,TQFP,48P,-,PLASTIC,3.5V,-,-	1204-001504
2	U406	IC-IF CIRCUIT	“IFT3000,TQFP,48P,-,PLASTIC,3.5V,-,-	1204-001505
2	U104	IC-TRANSCEIVER	“MSM3000,PBGA,196P,-,PLASTIC,3.5V,-,-	1205-001670
2	U404	IC-MIXER	“MRFIC0954,TSSOP,20P,173MIL,PLASTIC,	1205-001747
2	U504	IC-PLL	“LMX2332LSLB,CSP,20P,-,PLASTIC,”	1209-001197
2	R411	THERMISTOR-NTC	“10KOHM,3%,4100K,30MW/C,TP”	1404-001165
2	R412	THERMISTOR-NTC	“10KOHM,3%,4100K,30MW/C,TP”	1404-001165
2	R451	THERMISTOR-NTC	“10KOHM,3%,4100K,30MW/C,TP”	1404-001165
2	L502	R-CHIP	“0ohm,5%,1/16W,DA,TP,1608”	2007-000070
2	R556	R-CHIP	“0ohm,5%,1/16W,DA,TP,1608”	2007-000070
2	R218	R-CHIP	“2Kohm,5%,1/16W,DA,TP,1005”	2007-000137
2	L430	R-CHIP	“100ohm,5%,1/16W,DA,TP,1005”	2007-000138
2	R103	R-CHIP	“100ohm,5%,1/16W,DA,TP,1005”	2007-000138
2	R105	R-CHIP	“100ohm,5%,1/16W,DA,TP,1005”	2007-000138
2	R107	R-CHIP	“100ohm,5%,1/16W,DA,TP,1005”	2007-000138
2	R109	R-CHIP	“100ohm,5%,1/16W,DA,TP,1005”	2007-000138
2	R113	R-CHIP	“100ohm,5%,1/16W,DA,TP,1005”	2007-000138
2	R144	R-CHIP	“100ohm,5%,1/16W,DA,TP,1005”	2007-000138
2	R424	R-CHIP	“100ohm,5%,1/16W,DA,TP,1005”	2007-000138
2	R565	R-CHIP	“100ohm,5%,1/16W,DA,TP,1005”	2007-000138
2	R314	R-CHIP	“220ohm,5%,1/16W,DA,TP,1005”	2007-000139
2	R112	R-CHIP	“1Kohm,5%,1/16W,DA,TP,1005”	2007-000140
2	R121	R-CHIP	“1Kohm,5%,1/16W,DA,TP,1005”	2007-000140
2	R128	R-CHIP	“1Kohm,5%,1/16W,DA,TP,1005”	2007-000140
2	R129	R-CHIP	“1Kohm,5%,1/16W,DA,TP,1005”	2007-000140
2	R137	R-CHIP	“1Kohm,5%,1/16W,DA,TP,1005”	2007-000140
2	R160	R-CHIP	“1Kohm,5%,1/16W,DA,TP,1005”	2007-000140
2	R227	R-CHIP	“1Kohm,5%,1/16W,DA,TP,1005”	2007-000140
2	R232	R-CHIP	“1Kohm,5%,1/16W,DA,TP,1005”	2007-000140
2	R248	R-CHIP	“1Kohm,5%,1/16W,DA,TP,1005”	2007-000140
2	R253	R-CHIP	“1Kohm,5%,1/16W,DA,TP,1005”	2007-000140
2	R255	R-CHIP	“1Kohm,5%,1/16W,DA,TP,1005”	2007-000140
2	R301	R-CHIP	“1Kohm,5%,1/16W,DA,TP,1005”	2007-000140
2	R503	R-CHIP	“2.2Kohm,5%,1/16W,DA,TP,1005”	2007-000141
2	R450	R-CHIP	“2.7Kohm,5%,1/16W,DA,TP,1005”	2007-000142
2	R101	R-CHIP	“4.7Kohm,5%,1/16W,DA,TP,1005”	2007-000143
2	R131	R-CHIP	“4.7Kohm,5%,1/16W,DA,TP,1005”	2007-000143

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2	R568	R-CHIP	“5.1Kohm,5%,1/16W,DA,TP,1005”	2007-000144
2	R452	R-CHIP	“6.2Kohm,5%,1/16W,DA,TP,1005”	2007-000145
2	R143	R-CHIP	“6.8Kohm,5%,1/16W,DA,TP,1005”	2007-000146
2	R239	R-CHIP	“6.8Kohm,5%,1/16W,DA,TP,1005”	2007-000146
2	R454	R-CHIP	“8.2Kohm,5%,1/16W,DA,TP,1005”	2007-000147
2	R110	R-CHIP	“10Kohm,5%,1/16W,DA,TP,1005”	2007-000148
2	R119	R-CHIP	“10Kohm,5%,1/16W,DA,TP,1005”	2007-000148
2	R123	R-CHIP	“10Kohm,5%,1/16W,DA,TP,1005”	2007-000148
2	R127	R-CHIP	“10Kohm,5%,1/16W,DA,TP,1005”	2007-000148
2	R139	R-CHIP	“10Kohm,5%,1/16W,DA,TP,1005”	2007-000148
2	R171	R-CHIP	“10Kohm,5%,1/16W,DA,TP,1005”	2007-000148
2	R175	R-CHIP	“10Kohm,5%,1/16W,DA,TP,1005”	2007-000148
2	R224	R-CHIP	“10Kohm,5%,1/16W,DA,TP,1005”	2007-000148
2	R453	R-CHIP	“10Kohm,5%,1/16W,DA,TP,1005”	2007-000148
2	R136	R-CHIP	“15Kohm,5%,1/16W,DA,TP,1005”	2007-000151
2	R130	R-CHIP	“20Kohm,5%,1/16W,DA,TP,1005”	2007-000152
2	R102	R-CHIP	“22Kohm,5%,1/16W,DA,TP,1005”	2007-000153
2	R142	R-CHIP	“22Kohm,5%,1/16W,DA,TP,1005”	2007-000153
2	R225	R-CHIP	“22Kohm,5%,1/16W,DA,TP,1005”	2007-000153
2	R234	R-CHIP	“22Kohm,5%,1/16W,DA,TP,1005”	2007-000153
2	R252	R-CHIP	“22Kohm,5%,1/16W,DA,TP,1005”	2007-000153
2	R552	R-CHIP	“22Kohm,5%,1/16W,DA,TP,1005”	2007-000153
2	R215	R-CHIP	“24Kohm,5%,1/16W,DA,TP,1005”	2007-000154
2	R311	R-CHIP	“24Kohm,5%,1/16W,DA,TP,1005”	2007-000154
2	R104	R-CHIP	“47Kohm,5%,1/16W,DA,TP,1005”	2007-000157
2	R330	R-CHIP	“47Kohm,5%,1/16W,DA,TP,1005”	2007-000157
2	R331	R-CHIP	“47Kohm,5%,1/16W,DA,TP,1005”	2007-000157
2	R402	R-CHIP	“47Kohm,5%,1/16W,DA,TP,1005”	2007-000157
2	R462	R-CHIP	“47Kohm,5%,1/16W,DA,TP,1005”	2007-000157
2	R550	R-CHIP	“47Kohm,5%,1/16W,DA,TP,1005”	2007-000157
2	R553	R-CHIP	“47Kohm,5%,1/16W,DA,TP,1005”	2007-000157
2	R554	R-CHIP	“47Kohm,5%,1/16W,DA,TP,1005”	2007-000157
2	R220	R-CHIP	“56Kohm,5%,1/16W,DA,TP,1005”	2007-000159
2	R210	R-CHIP	“68Kohm,5%,1/16W,DA,TP,1005”	2007-000160
2	R145	R-CHIP	“100Kohm,5%,1/16W,DA,TP,1005”	2007-000162
2	R146	R-CHIP	“100Kohm,5%,1/16W,DA,TP,1005”	2007-000162
2	R147	R-CHIP	“100Kohm,5%,1/16W,DA,TP,1005”	2007-000162
2	R148	R-CHIP	“100Kohm,5%,1/16W,DA,TP,1005”	2007-000162
2	R149	R-CHIP	“100Kohm,5%,1/16W,DA,TP,1005”	2007-000162
2	R150	R-CHIP	“100Kohm,5%,1/16W,DA,TP,1005”	2007-000162
2	R151	R-CHIP	“100Kohm,5%,1/16W,DA,TP,1005”	2007-000162

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2	R152	R-CHIP	“100Kohm,5%,1/16W,DA,TP,1005”	2007-000162
2	R170	R-CHIP	“100Kohm,5%,1/16W,DA,TP,1005”	2007-000162
2	R173	R-CHIP	“100Kohm,5%,1/16W,DA,TP,1005”	2007-000162
2	R208	R-CHIP	“100Kohm,5%,1/16W,DA,TP,1005”	2007-000162
2	R235	R-CHIP	“100Kohm,5%,1/16W,DA,TP,1005”	2007-000162
2	R245	R-CHIP	“100Kohm,5%,1/16W,DA,TP,1005”	2007-000162
2	R247	R-CHIP	“100Kohm,5%,1/16W,DA,TP,1005”	2007-000162
2	R249	R-CHIP	“100Kohm,5%,1/16W,DA,TP,1005”	2007-000162
2	R250	R-CHIP	“100Kohm,5%,1/16W,DA,TP,1005”	2007-000162
2	R251	R-CHIP	“100Kohm,5%,1/16W,DA,TP,1005”	2007-000162
2	R315	R-CHIP	“100Kohm,5%,1/16W,DA,TP,1005”	2007-000162
2	R320	R-CHIP	“100Kohm,5%,1/16W,DA,TP,1005”	2007-000162
2	R455	R-CHIP	“100Kohm,5%,1/16W,DA,TP,1005”	2007-000162
2	R563	R-CHIP	“100Kohm,5%,1/16W,DA,TP,1005”	2007-000162
2	R209	R-CHIP	“120Kohm,5%,1/16W,DA,TP,1005”	2007-000163
2	R341	R-CHIP	“150Kohm,5%,1/16W,DA,TP,1005”	2007-000164
2	R205	R-CHIP	“200Kohm,5%,1/16W,DA,TP,1005”	2007-000165
2	R133	R-CHIP	“1Mohm,5%,1/16W,DA,TP,1005”	2007-000170
2	R310	R-CHIP	“10ohm,5%,1/16W,DA,TP,1005”	2007-000172
2	R313	R-CHIP	“10ohm,5%,1/16W,DA,TP,1005”	2007-000172
2	R460	R-CHIP	“10ohm,5%,1/16W,DA,TP,1005”	2007-000172
2	R502	R-CHIP	“10ohm,5%,1/16W,DA,TP,1005”	2007-000172
2	R505	R-CHIP	“10ohm,5%,1/16W,DA,TP,1005”	2007-000172
2	R569	R-CHIP	“10ohm,5%,1/16W,DA,TP,1005”	2007-000172
2	R570	R-CHIP	“10ohm,5%,1/16W,DA,TP,1005”	2007-000172
2	R571	R-CHIP	“10ohm,5%,1/16W,DA,TP,1005”	2007-000172
2	R572	R-CHIP	“10ohm,5%,1/16W,DA,TP,1005”	2007-000172
2	R212	R-CHIP	“1.5Kohm,5%,1/16W,DA,TP,1005”	2007-000242
2	R430	R-CHIP	“1.5Kohm,5%,1/16W,DA,TP,1005”	2007-000242
2	R431	R-CHIP	“1.5Kohm,5%,1/16W,DA,TP,1005”	2007-000242
2	R226	R-CHIP	“3.3Mohm,5%,1/16W,DA,TP,1005”	2007-000690
2	R305	R-CHIP	“3.3Mohm,5%,1/16W,DA,TP,1005”	2007-000690
2	R106	R-CHIP	“470ohm,5%,1/16W,DA,TP,1005”	2007-000932
2	R551	R-CHIP	“5.6Kohm,5%,1/16W,DA,TP,1005”	2007-000982
2	R135	R-CHIP	“680ohm,5%,1/16W,DA,TP,1005”	2007-001119
2	R304	R-CHIP	“82ohm,5%,1/16W,DA,TP,1005”	2007-001217
2	R242	R-CHIP	“36ohm,5%,1/16W,DA,TP,1005”	2007-001294
2	R243	R-CHIP	“36ohm,5%,1/16W,DA,TP,1005”	2007-001294
2	R244	R-CHIP	“36ohm,5%,1/16W,DA,TP,1005”	2007-001294
2	R116	R-CHIP	“150ohm,5%,1/16W,DA,TP,1005”	2007-001306
2	R176	R-CHIP	“330ohm,5%,1/16W,DA,TP,1005”	2007-001313

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2	R180	R-CHIP	“330ohm,5%,1/16W,DA,TP,1005”	2007-001313
2	R181	R-CHIP	“330ohm,5%,1/16W,DA,TP,1005”	2007-001313
2	R182	R-CHIP	“330ohm,5%,1/16W,DA,TP,1005”	2007-001313
2	R183	R-CHIP	“330ohm,5%,1/16W,DA,TP,1005”	2007-001313
2	R184	R-CHIP	“330ohm,5%,1/16W,DA,TP,1005”	2007-001313
2	R185	R-CHIP	“330ohm,5%,1/16W,DA,TP,1005”	2007-001313
2	R186	R-CHIP	“330ohm,5%,1/16W,DA,TP,1005”	2007-001313
2	R187	R-CHIP	“330ohm,5%,1/16W,DA,TP,1005”	2007-001313
2	R188	R-CHIP	“330ohm,5%,1/16W,DA,TP,1005”	2007-001313
2	R189	R-CHIP	“330ohm,5%,1/16W,DA,TP,1005”	2007-001313
2	R501	R-CHIP	“910ohm,5%,1/16W,DA,TP,1005”	2007-001317
2	R124	R-CHIP	“1.2Kohm,5%,1/16W,DA,TP,1005”	2007-001319
2	R457	R-CHIP	“1.2Kohm,5%,1/16W,DA,TP,1005”	2007-001319
2	R441	R-CHIP	“1.8Kohm,5%,1/16W,DA,TP,1005”	2007-001320
2	R211	R-CHIP	“3.3Kohm,5%,1/16W,DA,TP,1005”	2007-001325
2	R240	R-CHIP	“3.3Kohm,5%,1/16W,DA,TP,1005”	2007-001325
2	R312	R-CHIP	“510ohm,5%,1/16W,DA,TP,1005”	2007-002796
2	R566	R-CHIP	“16OHM,5%,1/16W,DA,TP,1005”	2007-003006
2	R567	R-CHIP	“16OHM,5%,1/16W,DA,TP,1005”	2007-003006
2	R217	R-CHIP	“20OHM,5%,1/16W,DA,TP,1005”	2007-003010
2	R459	R-CHIP	“62KOHM,5%,1/16W,DA,TP,1005”	2007-003023
2	R228	R-CHIP	“620KOHM,5%,1/16W,DA,TP,1005”	2007-003024
2	R461	R-CHIP	“100Kohm,1%,1/16W,DA,TP,1005”	2007-007107
2	R456	R-CHIP	“13Kohm,1%,1/16W,DA,TP,1005”	2007-007131
2	R426	R-CHIP	“15Kohm,1%,1/16W,DA,TP,1005”	2007-007132
2	R458	R-CHIP	“15Kohm,1%,1/16W,DA,TP,1005”	2007-007132
2	R435	R-CHIP	“18Kohm,1%,1/16W,DA,TP,1005”	2007-007135
2	R404	R-CHIP	“27Kohm,1%,1/16W,DA,TP,1005”	2007-007138
2	R221	R-CHIP	“47Kohm,1%,1/16W,DA,TP,1005”	2007-007139
2	R309	R-CHIP	“10Kohm,1%,1/16W,DA,TP,1005”	2007-007142
2	R322	R-CHIP	“10Kohm,1%,1/16W,DA,TP,1005”	2007-007142
2	R323	R-CHIP	“10Kohm,1%,1/16W,DA,TP,1005”	2007-007142
2	R405	R-CHIP	“10Kohm,1%,1/16W,DA,TP,1005”	2007-007142
2	R440	R-CHIP	“10Kohm,1%,1/16W,DA,TP,1005”	2007-007142
2	R403	R-CHIP	“100ohm,1%,1/16W,DA,TP,1005”	2007-007306
2	R407	R-CHIP	“20Kohm,1%,1/16W,DA,TP,1005”	2007-007312
2	R427	R-CHIP	“20Kohm,1%,1/16W,DA,TP,1005”	2007-007312
2	R436	R-CHIP	“3.9Kohm,1%,1/16W,DA,TP,1005”	2007-007315
2	R408	R-CHIP	“3.3Kohm,1%,1/16W,DA,TP,1005”	2007-007316
2	R306	R-CHIP	“1Kohm,1%,1/16W,DA,TP,1005”	2007-007318
2	R437	R-CHIP	“390ohm,1%,1/16W,DA,TP,1005”	2007-007319

Level	Design LOC	ITEMS	DESCRIPTIONS	SEC CODE
2	R564	R-CHIP	“68Kohm,1%,1/16W,DA,TP,1005”	2007-007589
2	R438	R-CHIP	“2KOHM,1%,1/16W,DA,TP,1005”	2007-007766
2	L350	R-CHIP	“0OHM,5%,1/16W,DA,TP,1005”	2007-007771
2	R174	R-CHIP	“0OHM,5%,1/16W,DA,TP,1005”	2007-007771
2	R203	R-CHIP	“0OHM,5%,1/16W,DA,TP,1005”	2007-007771
2	R207	R-CHIP	“0OHM,5%,1/16W,DA,TP,1005”	2007-007771
2	R223	R-CHIP	“0OHM,5%,1/16W,DA,TP,1005”	2007-007771
2	R321	R-CHIP	“0OHM,5%,1/16W,DA,TP,1005”	2007-007771
2	R557	R-CHIP	“0OHM,5%,1/16W,DA,TP,1005”	2007-007771
2	R558	R-CHIP	“0OHM,5%,1/16W,DA,TP,1005”	2007-007771
2	R560	R-CHIP	“0OHM,5%,1/16W,DA,TP,1005”	2007-007771
2	C105	“C-CERAMIC,CHIP”	“0.1nF,5%,50V,NP0,TP,1005”	2203-000233
2	C106	“C-CERAMIC,CHIP”	“0.1nF,5%,50V,NP0,TP,1005”	2203-000233
2	C107	“C-CERAMIC,CHIP”	“0.1nF,5%,50V,NP0,TP,1005”	2203-000233
2	C108	“C-CERAMIC,CHIP”	“0.1nF,5%,50V,NP0,TP,1005”	2203-000233
2	C128	“C-CERAMIC,CHIP”	“0.1nF,5%,50V,NP0,TP,1005”	2203-000233
2	C130	“C-CERAMIC,CHIP”	“0.1nF,5%,50V,NP0,TP,1005”	2203-000233
2	C262	“C-CERAMIC,CHIP”	“0.1nF,5%,50V,NP0,TP,1005”	2203-000233
2	C270	“C-CERAMIC,CHIP”	“0.1nF,5%,50V,NP0,TP,1005”	2203-000233
2	C305	“C-CERAMIC,CHIP”	“0.1nF,5%,50V,NP0,TP,1005”	2203-000233
2	C308	“C-CERAMIC,CHIP”	“0.1nF,5%,50V,NP0,TP,1005”	2203-000233
2	C311	“C-CERAMIC,CHIP”	“0.1nF,5%,50V,NP0,TP,1005”	2203-000233
2	C324	“C-CERAMIC,CHIP”	“0.1nF,5%,50V,NP0,TP,1005”	2203-000233
2	C341	“C-CERAMIC,CHIP”	“0.1nF,5%,50V,NP0,TP,1005”	2203-000233
2	C351	“C-CERAMIC,CHIP”	“0.1nF,5%,50V,NP0,TP,1005”	2203-000233
2	C354	“C-CERAMIC,CHIP”	“0.1nF,5%,50V,NP0,TP,1005”	2203-000233
2	C356	“C-CERAMIC,CHIP”	“0.1nF,5%,50V,NP0,TP,1005”	2203-000233
2	C357	“C-CERAMIC,CHIP”	“0.1nF,5%,50V,NP0,TP,1005”	2203-000233
2	C361	“C-CERAMIC,CHIP”	“0.1nF,5%,50V,NP0,TP,1005”	2203-000233
2	C364	“C-CERAMIC,CHIP”	“0.1nF,5%,50V,NP0,TP,1005”	2203-000233
2	C370	“C-CERAMIC,CHIP”	“0.1nF,5%,50V,NP0,TP,1005”	2203-000233
2	C408	“C-CERAMIC,CHIP”	“0.1nF,5%,50V,NP0,TP,1005”	2203-000233
2	C409	“C-CERAMIC,CHIP”	“0.1nF,5%,50V,NP0,TP,1005”	2203-000233
2	C419	“C-CERAMIC,CHIP”	“0.1nF,5%,50V,NP0,TP,1005”	2203-000233
2	C421	“C-CERAMIC,CHIP”	“0.1nF,5%,50V,NP0,TP,1005”	2203-000233
2	C422	“C-CERAMIC,CHIP”	“0.1nF,5%,50V,NP0,TP,1005”	2203-000233
2	C427	“C-CERAMIC,CHIP”	“0.1nF,5%,50V,NP0,TP,1005”	2203-000233
2	C428	“C-CERAMIC,CHIP”	“0.1nF,5%,50V,NP0,TP,1005”	2203-000233
2	C429	“C-CERAMIC,CHIP”	“0.1nF,5%,50V,NP0,TP,1005”	2203-000233
2	C441	“C-CERAMIC,CHIP”	“0.1nF,5%,50V,NP0,TP,1005”	2203-000233
2	C469	“C-CERAMIC,CHIP”	“0.1nF,5%,50V,NP0,TP,1005”	2203-000233

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2	C472	“C-CERAMIC,CHIP”	“0.1nF,5%,50V,NP0,TP,1005”	2203-000233
2	C474	“C-CERAMIC,CHIP”	“0.1nF,5%,50V,NP0,TP,1005”	2203-000233
2	C477	“C-CERAMIC,CHIP”	“0.1nF,5%,50V,NP0,TP,1005”	2203-000233
2	C479	“C-CERAMIC,CHIP”	“0.1nF,5%,50V,NP0,TP,1005”	2203-000233
2	C483	“C-CERAMIC,CHIP”	“0.1nF,5%,50V,NP0,TP,1005”	2203-000233
2	C485	“C-CERAMIC,CHIP”	“0.1nF,5%,50V,NP0,TP,1005”	2203-000233
2	C487	“C-CERAMIC,CHIP”	“0.1nF,5%,50V,NP0,TP,1005”	2203-000233
2	C503	“C-CERAMIC,CHIP”	“0.1nF,5%,50V,NP0,TP,1005”	2203-000233
2	C509	“C-CERAMIC,CHIP”	“0.1nF,5%,50V,NP0,TP,1005”	2203-000233
2	C510	“C-CERAMIC,CHIP”	“0.1nF,5%,50V,NP0,TP,1005”	2203-000233
2	C511	“C-CERAMIC,CHIP”	“0.1nF,5%,50V,NP0,TP,1005”	2203-000233
2	C512	“C-CERAMIC,CHIP”	“0.1nF,5%,50V,NP0,TP,1005”	2203-000233
2	C515	“C-CERAMIC,CHIP”	“0.1nF,5%,50V,NP0,TP,1005”	2203-000233
2	C522	“C-CERAMIC,CHIP”	“0.1nF,5%,50V,NP0,TP,1005”	2203-000233
2	C525	“C-CERAMIC,CHIP”	“0.1nF,5%,50V,NP0,TP,1005”	2203-000233
2	C541	“C-CERAMIC,CHIP”	“0.1nF,5%,50V,NP0,TP,1005”	2203-000233
2	C554	“C-CERAMIC,CHIP”	“0.1nF,5%,50V,NP0,TP,1005”	2203-000233
2	C555	“C-CERAMIC,CHIP”	“0.1nF,5%,50V,NP0,TP,1005”	2203-000233
2	C556	“C-CERAMIC,CHIP”	“0.1nF,5%,50V,NP0,TP,1005”	2203-000233
2	C557	“C-CERAMIC,CHIP”	“0.1nF,5%,50V,NP0,TP,1005”	2203-000233
2	C558	“C-CERAMIC,CHIP”	“0.1nF,5%,50V,NP0,TP,1005”	2203-000233
2	C559	“C-CERAMIC,CHIP”	“0.1nF,5%,50V,NP0,TP,1005”	2203-000233
2	L314	“C-CERAMIC,CHIP”	“0.1nF,5%,50V,NP0,TP,1005”	2203-000233
2	C101	“C-CERAMIC,CHIP”	“10nF,10%,16V,X7R,TP,1005,-”	2203-000254
2	C111	“C-CERAMIC,CHIP”	“10nF,10%,16V,X7R,TP,1005,-”	2203-000254
2	C117	“C-CERAMIC,CHIP”	“10nF,10%,16V,X7R,TP,1005,-”	2203-000254
2	C121	“C-CERAMIC,CHIP”	“10nF,10%,16V,X7R,TP,1005,-”	2203-000254
2	C122	“C-CERAMIC,CHIP”	“10nF,10%,16V,X7R,TP,1005,-”	2203-000254
2	C126	“C-CERAMIC,CHIP”	“10nF,10%,16V,X7R,TP,1005,-”	2203-000254
2	C133	“C-CERAMIC,CHIP”	“10nF,10%,16V,X7R,TP,1005,-”	2203-000254
2	C254	“C-CERAMIC,CHIP”	“10nF,10%,16V,X7R,TP,1005,-”	2203-000254
2	C255	“C-CERAMIC,CHIP”	“10nF,10%,16V,X7R,TP,1005,-”	2203-000254
2	C263	“C-CERAMIC,CHIP”	“10nF,10%,16V,X7R,TP,1005,-”	2203-000254
2	C277	“C-CERAMIC,CHIP”	“10nF,10%,16V,X7R,TP,1005,-”	2203-000254
2	C375	“C-CERAMIC,CHIP”	“10nF,10%,16V,X7R,TP,1005,-”	2203-000254
2	C378	“C-CERAMIC,CHIP”	“10nF,10%,16V,X7R,TP,1005,-”	2203-000254
2	C380	“C-CERAMIC,CHIP”	“10nF,10%,16V,X7R,TP,1005,-”	2203-000254
2	C381	“C-CERAMIC,CHIP”	“10nF,10%,16V,X7R,TP,1005,-”	2203-000254
2	C384	“C-CERAMIC,CHIP”	“10nF,10%,16V,X7R,TP,1005,-”	2203-000254
2	C403	“C-CERAMIC,CHIP”	“10nF,10%,16V,X7R,TP,1005,-”	2203-000254
2	C412	“C-CERAMIC,CHIP”	“10nF,10%,16V,X7R,TP,1005,-”	2203-000254

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2	C414	“C-CERAMIC,CHIP”	“10nF,10%,16V,X7R,TP,1005,-”	2203-000254
2	C420	“C-CERAMIC,CHIP”	“10nF,10%,16V,X7R,TP,1005,-”	2203-000254
2	C423	“C-CERAMIC,CHIP”	“10nF,10%,16V,X7R,TP,1005,-”	2203-000254
2	C425	“C-CERAMIC,CHIP”	“10nF,10%,16V,X7R,TP,1005,-”	2203-000254
2	C460	“C-CERAMIC,CHIP”	“10nF,10%,16V,X7R,TP,1005,-”	2203-000254
2	C461	“C-CERAMIC,CHIP”	“10nF,10%,16V,X7R,TP,1005,-”	2203-000254
2	C463	“C-CERAMIC,CHIP”	“10nF,10%,16V,X7R,TP,1005,-”	2203-000254
2	C464	“C-CERAMIC,CHIP”	“10nF,10%,16V,X7R,TP,1005,-”	2203-000254
2	C466	“C-CERAMIC,CHIP”	“10nF,10%,16V,X7R,TP,1005,-”	2203-000254
2	C467	“C-CERAMIC,CHIP”	“10nF,10%,16V,X7R,TP,1005,-”	2203-000254
2	C478	“C-CERAMIC,CHIP”	“10nF,10%,16V,X7R,TP,1005,-”	2203-000254
2	C482	“C-CERAMIC,CHIP”	“10nF,10%,16V,X7R,TP,1005,-”	2203-000254
2	C486	“C-CERAMIC,CHIP”	“10nF,10%,16V,X7R,TP,1005,-”	2203-000254
2	C506	“C-CERAMIC,CHIP”	“10nF,10%,16V,X7R,TP,1005,-”	2203-000254
2	C513	“C-CERAMIC,CHIP”	“10nF,10%,16V,X7R,TP,1005,-”	2203-000254
2	C516	“C-CERAMIC,CHIP”	“10nF,10%,16V,X7R,TP,1005,-”	2203-000254
2	C564	“C-CERAMIC,CHIP”	“10nF,10%,16V,X7R,TP,1005,-”	2203-000254
2	C501	“C-CERAMIC,CHIP”	“0.01nF,0.5pF,50V,NP0,TP,1005”	2203-000278
2	C362	“C-CERAMIC,CHIP”	“11pF,5%,50V,NPO,TP,1005,-”	2203-000300
2	C210	“C-CERAMIC,CHIP”	“0.12nF,5%,50V,NP0,TP,1005”	2203-000311
2	C452	“C-CERAMIC,CHIP”	“0.012nF,5%,50V,NP0,TP,1005”	2203-000330
2	C306	“C-CERAMIC,CHIP”	“0.018nF,5%,50V,NP0,TP,1005”	2203-000425
2	C110	“C-CERAMIC,CHIP”	“1nF,10%,50V,X7R,TP,1005,-”	2203-000438
2	C115	“C-CERAMIC,CHIP”	“1nF,10%,50V,X7R,TP,1005,-”	2203-000438
2	C170	“C-CERAMIC,CHIP”	“1nF,10%,50V,X7R,TP,1005,-”	2203-000438
2	C249	“C-CERAMIC,CHIP”	“1nF,10%,50V,X7R,TP,1005,-”	2203-000438
2	C307	“C-CERAMIC,CHIP”	“1nF,10%,50V,X7R,TP,1005,-”	2203-000438
2	C312	“C-CERAMIC,CHIP”	“1nF,10%,50V,X7R,TP,1005,-”	2203-000438
2	C313	“C-CERAMIC,CHIP”	“1nF,10%,50V,X7R,TP,1005,-”	2203-000438
2	C314	“C-CERAMIC,CHIP”	“1nF,10%,50V,X7R,TP,1005,-”	2203-000438
2	C315	“C-CERAMIC,CHIP”	“1nF,10%,50V,X7R,TP,1005,-”	2203-000438
2	C326	“C-CERAMIC,CHIP”	“1nF,10%,50V,X7R,TP,1005,-”	2203-000438
2	C327	“C-CERAMIC,CHIP”	“1nF,10%,50V,X7R,TP,1005,-”	2203-000438
2	C331	“C-CERAMIC,CHIP”	“1nF,10%,50V,X7R,TP,1005,-”	2203-000438
2	C332	“C-CERAMIC,CHIP”	“1nF,10%,50V,X7R,TP,1005,-”	2203-000438
2	C345	“C-CERAMIC,CHIP”	“1nF,10%,50V,X7R,TP,1005,-”	2203-000438
2	C347	“C-CERAMIC,CHIP”	“1nF,10%,50V,X7R,TP,1005,-”	2203-000438
2	C349	“C-CERAMIC,CHIP”	“1nF,10%,50V,X7R,TP,1005,-”	2203-000438
2	C359	“C-CERAMIC,CHIP”	“1nF,10%,50V,X7R,TP,1005,-”	2203-000438
2	C360	“C-CERAMIC,CHIP”	“1nF,10%,50V,X7R,TP,1005,-”	2203-000438
2	C410	“C-CERAMIC,CHIP”	“1nF,10%,50V,X7R,TP,1005,-”	2203-000438

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2	C432	“C-CERAMIC,CHIP”	“1nF,10%,50V,X7R,TP,1005,-”	2203-000438
2	C434	“C-CERAMIC,CHIP”	“1nF,10%,50V,X7R,TP,1005,-”	2203-000438
2	C442	“C-CERAMIC,CHIP”	“1nF,10%,50V,X7R,TP,1005,-”	2203-000438
2	C443	“C-CERAMIC,CHIP”	“1nF,10%,50V,X7R,TP,1005,-”	2203-000438
2	C451	“C-CERAMIC,CHIP”	“1nF,10%,50V,X7R,TP,1005,-”	2203-000438
2	C457	“C-CERAMIC,CHIP”	“1nF,10%,50V,X7R,TP,1005,-”	2203-000438
2	C453	“C-CERAMIC,CHIP”	“2.2nF,10%,50V,X7R,TP,1005,-”	2203-000489
2	C140	“C-CERAMIC,CHIP”	“220pF,10%,50V,X7R,TP,1005,-”	2203-000585
2	C265	“C-CERAMIC,CHIP”	“220pF,10%,50V,X7R,TP,1005,-”	2203-000585
2	C514	“C-CERAMIC,CHIP”	“220pF,10%,50V,X7R,TP,1005,-”	2203-000585
2	C328	“C-CERAMIC,CHIP”	“0.022nF,5%,50V,NP0,TP,1005”	2203-000628
2	C160	“C-CERAMIC,CHIP”	“0.027nF,5%,50V,NP0,TP,1005”	2203-000679
2	C161	“C-CERAMIC,CHIP”	“0.027nF,5%,50V,NP0,TP,1005”	2203-000679
2	C340	“C-CERAMIC,CHIP”	“0.027nF,5%,50V,NP0,TP,1005”	2203-000679
2	C342	“C-CERAMIC,CHIP”	“0.027nF,5%,50V,NP0,TP,1005”	2203-000679
2	C543	“C-CERAMIC,CHIP”	“0.027nF,5%,50V,NP0,TP,1005”	2203-000679
2	C132	“C-CERAMIC,CHIP”	“3.3nF,10%,50V,X7R,TP,1005,-”	2203-000714
2	C322	“C-CERAMIC,CHIP”	“4.7nF,10%,25V,X7R,TP,1005,-”	2203-000885
2	C323	“C-CERAMIC,CHIP”	“4.7nF,10%,25V,X7R,TP,1005,-”	2203-000885
2	C329	“C-CERAMIC,CHIP”	“4.7nF,10%,25V,X7R,TP,1005,-”	2203-000885
2	C363	“C-CERAMIC,CHIP”	“4.7nF,10%,25V,X7R,TP,1005,-”	2203-000885
2	C376	“C-CERAMIC,CHIP”	“4.7nF,10%,25V,X7R,TP,1005,-”	2203-000885
2	C382	“C-CERAMIC,CHIP”	“4.7nF,10%,25V,X7R,TP,1005,-”	2203-000885
2	C484	“C-CERAMIC,CHIP”	“4.7nF,10%,25V,X7R,TP,1005,-”	2203-000885
2	C507	“C-CERAMIC,CHIP”	“4.7nF,10%,25V,X7R,TP,1005,-”	2203-000885
2	C102	“C-CERAMIC,CHIP”	“470pF,10%,50V,X7R,TP,1005,-”	2203-000940
2	C104	“C-CERAMIC,CHIP”	“470pF,10%,50V,X7R,TP,1005,-”	2203-000940
2	C120	“C-CERAMIC,CHIP”	“470pF,10%,50V,X7R,TP,1005,-”	2203-000940
2	C320	“C-CERAMIC,CHIP”	“470pF,10%,50V,X7R,TP,1005,-”	2203-000940
2	C114	“C-CERAMIC,CHIP”	“0.047nF,5%,50V,NP0,TP,1005”	2203-000995
2	C116	“C-CERAMIC,CHIP”	“0.047nF,5%,50V,NP0,TP,1005”	2203-000995
2	C124	“C-CERAMIC,CHIP”	“0.047nF,5%,50V,NP0,TP,1005”	2203-000995
2	C203	“C-CERAMIC,CHIP”	“0.047nF,5%,50V,NP0,TP,1005”	2203-000995
2	C204	“C-CERAMIC,CHIP”	“0.047nF,5%,50V,NP0,TP,1005”	2203-000995
2	C219	“C-CERAMIC,CHIP”	“0.047nF,5%,50V,NP0,TP,1005”	2203-000995
2	C220	“C-CERAMIC,CHIP”	“0.047nF,5%,50V,NP0,TP,1005”	2203-000995
2	C226	“C-CERAMIC,CHIP”	“0.047nF,5%,50V,NP0,TP,1005”	2203-000995
2	C405	“C-CERAMIC,CHIP”	“0.047nF,5%,50V,NP0,TP,1005”	2203-000995
2	C563	“C-CERAMIC,CHIP”	“0.056nF,5%,50V,NP0,TP,1005”	2203-001072
2	C228	“C-CERAMIC,CHIP”	“6.8nF,10%,25V,X7R,TP,1005,-”	2203-001101
2	C229	“C-CERAMIC,CHIP”	“6.8nF,10%,25V,X7R,TP,1005,-”	2203-001101

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2	C231	“C-CERAMIC,CHIP”	“6.8nF,10%,25V,X7R,TP,1005,-”	2203-001101
2	C232	“C-CERAMIC,CHIP”	“6.8nF,10%,25V,X7R,TP,1005,-”	2203-001101
2	C248	“C-CERAMIC,CHIP”	“6.8nF,10%,25V,X7R,TP,1005,-”	2203-001101
2	C551	“C-CERAMIC,CHIP”	“6.8nF,10%,25V,X7R,TP,1005,-”	2203-001101
2	C119	“C-CERAMIC,CHIP”	“8.2nF,10%,16V,X7R,TP,1005,-”	2203-001210
2	C413	“C-CERAMIC,CHIP”	“8.2nF,10%,16V,X7R,TP,1005,-”	2203-001210
2	C450	“C-CERAMIC,CHIP”	“0.082nF,5%,50V,NP0,TP,1005”	2203-001239
2	C455	“C-CERAMIC,CHIP”	“0.082nF,5%,50V,NP0,TP,1005”	2203-001239
2	C526	“C-CERAMIC,CHIP”	“0.008nF,0.5pF,50V,NP0,TP,1005”	2203-001259
2	C505	“C-CERAMIC,CHIP”	“33nF,10%,16V,Y5V,TP,1005,1.0mm”	2203-001416
2	C309	“C-CERAMIC,CHIP”	“0.0005nF,0.1pF,50V,NP0,TP,1005”	2203-002668
2	C523	“C-CERAMIC,CHIP”	“0.0005nF,0.1pF,50V,NP0,TP,1005”	2203-002668
2	C544	“C-CERAMIC,CHIP”	“0.0005nF,0.1pF,50V,NP0,TP,1005”	2203-002668
2	C348	“C-CERAMIC,CHIP”	“0.009nF,0.25pF,50V,NP0,TP,1005”	2203-003054
2	C125	“C-CERAMIC,CHIP”	“100nF,+80-20%,16V,Y5V,TP,1005”	2203-005061
2	C127	“C-CERAMIC,CHIP”	“100nF,+80-20%,16V,Y5V,TP,1005”	2203-005061
2	C131	“C-CERAMIC,CHIP”	“100nF,+80-20%,16V,Y5V,TP,1005”	2203-005061
2	C171	“C-CERAMIC,CHIP”	“100nF,+80-20%,16V,Y5V,TP,1005”	2203-005061
2	C173	“C-CERAMIC,CHIP”	“100nF,+80-20%,16V,Y5V,TP,1005”	2203-005061
2	C207	“C-CERAMIC,CHIP”	“100nF,+80-20%,16V,Y5V,TP,1005”	2203-005061
2	C212	“C-CERAMIC,CHIP”	“100nF,+80-20%,16V,Y5V,TP,1005”	2203-005061
2	C214	“C-CERAMIC,CHIP”	“100nF,+80-20%,16V,Y5V,TP,1005”	2203-005061
2	C217	“C-CERAMIC,CHIP”	“100nF,+80-20%,16V,Y5V,TP,1005”	2203-005061
2	C222	“C-CERAMIC,CHIP”	“100nF,+80-20%,16V,Y5V,TP,1005”	2203-005061
2	C223	“C-CERAMIC,CHIP”	“100nF,+80-20%,16V,Y5V,TP,1005”	2203-005061
2	C224	“C-CERAMIC,CHIP”	“100nF,+80-20%,16V,Y5V,TP,1005”	2203-005061
2	C225	“C-CERAMIC,CHIP”	“100nF,+80-20%,16V,Y5V,TP,1005”	2203-005061
2	C227	“C-CERAMIC,CHIP”	“100nF,+80-20%,16V,Y5V,TP,1005”	2203-005061
2	C230	“C-CERAMIC,CHIP”	“100nF,+80-20%,16V,Y5V,TP,1005”	2203-005061
2	C238	“C-CERAMIC,CHIP”	“100nF,+80-20%,16V,Y5V,TP,1005”	2203-005061
2	C242	“C-CERAMIC,CHIP”	“100nF,+80-20%,16V,Y5V,TP,1005”	2203-005061
2	C246	“C-CERAMIC,CHIP”	“100nF,+80-20%,16V,Y5V,TP,1005”	2203-005061
2	C247	“C-CERAMIC,CHIP”	“100nF,+80-20%,16V,Y5V,TP,1005”	2203-005061
2	C250	“C-CERAMIC,CHIP”	“100nF,+80-20%,16V,Y5V,TP,1005”	2203-005061
2	C251	“C-CERAMIC,CHIP”	“100nF,+80-20%,16V,Y5V,TP,1005”	2203-005061
2	C253	“C-CERAMIC,CHIP”	“100nF,+80-20%,16V,Y5V,TP,1005”	2203-005061
2	C261	“C-CERAMIC,CHIP”	“100nF,+80-20%,16V,Y5V,TP,1005”	2203-005061
2	C280	“C-CERAMIC,CHIP”	“100nF,+80-20%,16V,Y5V,TP,1005”	2203-005061
2	C281	“C-CERAMIC,CHIP”	“100nF,+80-20%,16V,Y5V,TP,1005”	2203-005061
2	C302	“C-CERAMIC,CHIP”	“100nF,+80-20%,16V,Y5V,TP,1005”	2203-005061
2	C304	“C-CERAMIC,CHIP”	“100nF,+80-20%,16V,Y5V,TP,1005”	2203-005061

Level	Design LOC	ITEMS	DESCRIPTIONS	SEC CODE
2	C321	“C-CERAMIC,CHIP”	“100nF,+80-20%,16V,Y5V,TP,1005”	2203-005061
2	C333	“C-CERAMIC,CHIP”	“100nF,+80-20%,16V,Y5V,TP,1005”	2203-005061
2	C334	“C-CERAMIC,CHIP”	“100nF,+80-20%,16V,Y5V,TP,1005”	2203-005061
2	C352	“C-CERAMIC,CHIP”	“100nF,+80-20%,16V,Y5V,TP,1005”	2203-005061
2	C353	“C-CERAMIC,CHIP”	“100nF,+80-20%,16V,Y5V,TP,1005”	2203-005061
2	C355	“C-CERAMIC,CHIP”	“100nF,+80-20%,16V,Y5V,TP,1005”	2203-005061
2	C358	“C-CERAMIC,CHIP”	“100nF,+80-20%,16V,Y5V,TP,1005”	2203-005061
2	C372	“C-CERAMIC,CHIP”	“100nF,+80-20%,16V,Y5V,TP,1005”	2203-005061
2	C374	“C-CERAMIC,CHIP”	“100nF,+80-20%,16V,Y5V,TP,1005”	2203-005061
2	C383	“C-CERAMIC,CHIP”	“100nF,+80-20%,16V,Y5V,TP,1005”	2203-005061
2	C407	“C-CERAMIC,CHIP”	“100nF,+80-20%,16V,Y5V,TP,1005”	2203-005061
2	C424	“C-CERAMIC,CHIP”	“100nF,+80-20%,16V,Y5V,TP,1005”	2203-005061
2	C440	“C-CERAMIC,CHIP”	“100nF,+80-20%,16V,Y5V,TP,1005”	2203-005061
2	C456	“C-CERAMIC,CHIP”	“100nF,+80-20%,16V,Y5V,TP,1005”	2203-005061
2	C462	“C-CERAMIC,CHIP”	“100nF,+80-20%,16V,Y5V,TP,1005”	2203-005061
2	C470	“C-CERAMIC,CHIP”	“100nF,+80-20%,16V,Y5V,TP,1005”	2203-005061
2	C471	“C-CERAMIC,CHIP”	“100nF,+80-20%,16V,Y5V,TP,1005”	2203-005061
2	C473	“C-CERAMIC,CHIP”	“100nF,+80-20%,16V,Y5V,TP,1005”	2203-005061
2	C488	“C-CERAMIC,CHIP”	“100nF,+80-20%,16V,Y5V,TP,1005”	2203-005061
2	C490	“C-CERAMIC,CHIP”	“100nF,+80-20%,16V,Y5V,TP,1005”	2203-005061
2	C491	“C-CERAMIC,CHIP”	“100nF,+80-20%,16V,Y5V,TP,1005”	2203-005061
2	C504	“C-CERAMIC,CHIP”	“100nF,+80-20%,16V,Y5V,TP,1005”	2203-005061
2	C521	“C-CERAMIC,CHIP”	“100nF,+80-20%,16V,Y5V,TP,1005”	2203-005061
2	C530	“C-CERAMIC,CHIP”	“100nF,+80-20%,16V,Y5V,TP,1005”	2203-005061
2	C542	“C-CERAMIC,CHIP”	“100nF,+80-20%,16V,Y5V,TP,1005”	2203-005061
2	C552	“C-CERAMIC,CHIP”	“100nF,+80-20%,16V,Y5V,TP,1005”	2203-005061
2	C553	“C-CERAMIC,CHIP”	“100nF,+80-20%,16V,Y5V,TP,1005”	2203-005061
2	C561	“C-CERAMIC,CHIP”	“100nF,+80-20%,16V,Y5V,TP,1005”	2203-005061
2	R201	“C-CERAMIC,CHIP”	“100nF,+80-20%,16V,Y5V,TP,1005”	2203-005061
2	R202	“C-CERAMIC,CHIP”	“100nF,+80-20%,16V,Y5V,TP,1005”	2203-005061
2	C141	“C-CERAMIC,CHIP”	“1000nF,+80-20%,10V,Y5V,TP,1608”	2203-005065
2	C211	“C-CERAMIC,CHIP”	“1000nF,+80-20%,10V,Y5V,TP,1608”	2203-005065
2	C234	“C-CERAMIC,CHIP”	“1000nF,+80-20%,10V,Y5V,TP,1608”	2203-005065
2	C237	“C-CERAMIC,CHIP”	“1000nF,+80-20%,10V,Y5V,TP,1608”	2203-005065
2	C546	“C-CERAMIC,CHIP”	“1000nF,+80-20%,10V,Y5V,TP,1608”	2203-005065
2	C565	“C-CERAMIC,CHIP”	“1000nF,+80-20%,10V,Y5V,TP,1608”	2203-005065
2	C476	“C-CERAMIC,CHIP”	“0.0015nF,0.1pF,50V,NP0,TP,1005”	2203-005281
2	C489	“C-CERAMIC,CHIP”	“0.0015nF,0.1pF,50V,NP0,TP,1005”	2203-005281
2	C562	“C-CERAMIC,CHIP”	“0.001nF,0.1pF,50V,NP0,TP,1005”	2203-005288
2	C430	“C-CERAMIC,CHIP”	“7pF,0.1pF,50V,NPO,TP,1005,-”	2203-005383
2	C431	“C-CERAMIC,CHIP”	“7pF,0.1pF,50V,NPO,TP,1005,-”	2203-005383

Level	Design LOC	ITEMS	DESCRIPTIONS	SEC CODE
2	L307	“C-CERAMIC,CHIP”	“0.005nF,0.1pF,50V,NP0,TP,1005”	2203-005393
2	C426	“C-CERAMIC,CHIP”	“0.0047nF,0.1pF,50V,NP0,TP,1005”	2203-005395
2	C325	“C-CERAMIC,CHIP”	“0.003nF,0.1pF,50V,NP0,TP,1005”	2203-005444
2	C344	“C-CERAMIC,CHIP”	“0.003nF,0.1pF,50V,NP0,TP,1005”	2203-005444
2	C343	“C-CERAMIC,CHIP”	“0.0056nF,0.1pF,50V,NP0,TP,1005”	2203-005450
2	C218	“C-CERAMIC,CHIP”	“33nF,10%,10V,X7R,TP,1005,-”	2203-005480
2	C301	“C-CERAMIC,CHIP”	“47nF,10%,10V,X7R,TP,1005,-”	2203-005481
2	C475	“C-CERAMIC,CHIP”	“0.0022nF,0.1pF,50V,NP0,TP,1005”	2203-005552
2	C310	“C-CERAMIC,CHIP”	“10000NF,+80-20%,6.3V,Y5V,TP,2012”	2203-005571
2	C549	“C-CERAMIC,CHIP”	“10000NF,+80-20%,6.3V,Y5V,TP,2012”	2203-005571
2	C550	“C-CERAMIC,CHIP”	“10000NF,+80-20%,6.3V,Y5V,TP,2012”	2203-005571
2	C239	“C-CERAMIC,CHIP”	“1000NF,10%,16V,X5R,TP,3216(0.95T)”	2203-005634
2	C240	“C-CERAMIC,CHIP”	“1000NF,10%,16V,X5R,TP,3216(0.95T)”	2203-005634
2	C129	“C-TA,CHIP”	“1uF,20%,10V,GP,TP,2012,2,0”	2404-001017
2	C233	“C-TA,CHIP”	“1uF,20%,10V,GP,TP,2012,2,0”	2404-001017
2	C458	“C-TA,CHIP”	“1uF,20%,10V,GP,TP,2012,2,0”	2404-001017
2	C492	“C-TA,CHIP”	“1uF,20%,10V,GP,TP,2012,2,0”	2404-001017
2	C241	“C-TA,CHIP”	“220uF,20%,6.3V,LZ,TP,7132”	2404-001083
2	C508	“C-TA,CHIP”	“4.7uF,20%,6.3V,GP,TP,2012,-”	2404-001086
2	C560	“C-TA,CHIP”	“220nF,20%,20V,GP,TP,2012,-”	2404-001092
2	C213	“C-TA,CHIP”	“33uF,20%,6.3V,GP,TP,3719,-”	2404-001100
2	C274	“C-TA,CHIP”	“33uF,20%,6.3V,GP,TP,3719,-”	2404-001100
2	C215	“C-TA,CHIP”	“10UF,20%,6.3V,GP,TP,2012”	2404-001105
2	C216	“C-TA,CHIP”	“10UF,20%,6.3V,GP,TP,2012”	2404-001105
2	C221	“C-TA,CHIP”	“10UF,20%,6.3V,GP,TP,2012”	2404-001105
2	C235	“C-TA,CHIP”	“10UF,20%,6.3V,GP,TP,2012”	2404-001105
2	C252	“C-TA,CHIP”	“10UF,20%,6.3V,GP,TP,2012”	2404-001105
2	C260	“C-TA,CHIP”	“10UF,20%,6.3V,GP,TP,2012”	2404-001105
2	C276	“C-TA,CHIP”	“10UF,20%,6.3V,GP,TP,2012”	2404-001105
2	C303	“C-TA,CHIP”	“10UF,20%,6.3V,GP,TP,2012”	2404-001105
2	C350	“C-TA,CHIP”	“10UF,20%,6.3V,GP,TP,2012”	2404-001105
2	C371	“C-TA,CHIP”	“10UF,20%,6.3V,GP,TP,2012”	2404-001105
2	C373	“C-TA,CHIP”	“10UF,20%,6.3V,GP,TP,2012”	2404-001105
2	C377	“C-TA,CHIP”	“10UF,20%,6.3V,GP,TP,2012”	2404-001105
2	C379	“C-TA,CHIP”	“10UF,20%,6.3V,GP,TP,2012”	2404-001105
2	C402	“C-TA,CHIP”	“10UF,20%,6.3V,GP,TP,2012”	2404-001105
2	C404	“C-TA,CHIP”	“10UF,20%,6.3V,GP,TP,2012”	2404-001105
2	C406	“C-TA,CHIP”	“10UF,20%,6.3V,GP,TP,2012”	2404-001105
2	C468	“C-TA,CHIP”	“10UF,20%,6.3V,GP,TP,2012”	2404-001105
2	C480	“C-TA,CHIP”	“10UF,20%,6.3V,GP,TP,2012”	2404-001105
2	C481	“C-TA,CHIP”	“10UF,20%,6.3V,GP,TP,2012”	2404-001105

Level	Design LOC	ITEMS	DESCRIPTIONS	SEC CODE
2	C502	“C-TA,CHIP”	“10UF,20%,6.3V,GP,TP,2012”	2404-001105
2	L411	INDUCTOR-SMD	“180nH,10%,0.8x1.6x0.8mm”	2703-000143
2	L412	INDUCTOR-SMD	“180nH,10%,0.8x1.6x0.8mm”	2703-000143
2	L312	INDUCTOR-SMD	“470nH,10%,0.8x1.6x0.8mm”	2703-000213
2	L323	INDUCTOR-SMD	“470nH,10%,0.8x1.6x0.8mm”	2703-000213
2	R140	INDUCTOR-SMD	“220nH,10%,1.25x2x0.85mm”	2703-000266
2	L414	INDUCTOR-SMD	“220nH,5%,2.29x1.73x1.52mm”	2703-001079
2	L324	INDUCTOR-SMD	“560nH,10%,1.6x0.8x0.8mm”	2703-001221
2	L321	INDUCTOR-SMD	“100nH,5%,1.8x1.12x1.02mm”	2703-001513
2	L302	INDUCTOR-SMD	“10nH,5%,1.8x1.12x1.02mm”	2703-001547
2	L413	INDUCTOR-SMD	“120nH,5%,1.8x1.12x1.02mm”	2703-001673
2	L401	INDUCTOR-SMD	“27nH,5%,1x0.5x0.5mm”	2703-001726
2	L304	INDUCTOR-SMD	“15nH,5%,1x0.5x0.5mm”	2703-001730
2	L420	INDUCTOR-SMD	“22nH,5%,1.8x1.12x1.02mm”	2703-001731
2	L332	INDUCTOR-SMD	“56nH,5%,1.8x1.12x1.02mm”	2703-001732
2	L320	INDUCTOR-SMD	“120nH,2%,2.29x1.73x1.52mm”	2703-001744
2	L202	INDUCTOR-SMD	“4.7mH,20%,4.45x6.6x2.92mm”	2703-001775
2	L305	INDUCTOR-SMD	“82NH,5%,1005”	2703-001868
2	L435	INDUCTOR-SMD	“4.7nH,10%,1.0x0.5x0.5mm”	2703-001949
2	L434	INDUCTOR-SMD	“12nH,10%,1.0x0.5x0.5mm”	2703-001950
2	C524	INDUCTOR-SMD	“8.2nH,5%,1.0x0.5x0.5mm”	2703-001952
2	L311	INDUCTOR-SMD	“8.2nH,5%,1.0x0.5x0.5mm”	2703-001952
2	L313	INDUCTOR-SMD	“8.2nH,5%,1.0x0.5x0.5mm”	2703-001952
2	L516	INDUCTOR-SMD	“8.2nH,5%,1.0x0.5x0.5mm”	2703-001952
2	L522	INDUCTOR-SMD	“8.2nH,5%,1.0x0.5x0.5mm”	2703-001952
2	L431	INDUCTOR-SMD	“6.8nH,5%,1.0x0.5x0.5mm”	2703-001953
2	L432	INDUCTOR-SMD	“6.8nH,5%,1.0x0.5x0.5mm”	2703-001953
2	L433	INDUCTOR-SMD	“6.8nH,5%,1.0x0.5x0.5mm”	2703-001953
2	L511	INDUCTOR-SMD	“6.8nH,5%,1.0x0.5x0.5mm”	2703-001953
2	L501	INDUCTOR-SMD	“18nH,5%,1.0x0.5x0.5mm”	2703-001970
2	X102	CRYSTAL-SMD	“.032768MHZ,30PPM,28-ACM,9PF,50OHM,TP”	2801-003747
2	X101	RESONATOR-CERAMIC	“27MHZ,0.5%,TP,2.5X2X1.2”	2802-001104
2	OSC1	OSCILLATOR-VCO	“967MHZ,-,50,TP,3V,8.5MA”	2806-001200
2	U502	OSCILLATOR-VCTCXO	“19.68MHZ,2PPM,10KOHM//10PF,TP,3V,1.5MA”	2809-001230
2	F304	FILTER-SAW	“85.380MHz,13KHz,+-13KHz/1.5dB,”	2904-001074
2	F303	FILTER-SAW	“85.38MHz,0.6MHz,+-0.3MHz/0.8dB,TP,+-	2904-001128
2	F402	FILTER-SAW	“836.5MHz,25MHz,+-12.5MHz/1.6dB,TP,+-	2904-001135
2	F301	FILTER-SAW	“881.5MHz,25MHz,+-12.5MHz/1.6dB,TP,+-	2904-001136
2	F401	FILTER-SAW	“836.5MHz,25MHz,+-12.5MHz/2dB,TP,+-	2904-001138
2	F403	FILTER-SAW	“130.38MHz,1.26MHz,+-0.63MHz/1dB,TP,+-	2904-001174
2	F501	FILTER-DUPLEXER	“881.5MHZ,836.5MHZ,3.3/2.4DB,TP,824-	2909-001094

Level	Design LOC	ITEMS	DESCRIPTIONS	SEC CODE
2	SPK	SPEAKER	“0.075W,32ohm,104dB,-”	3001-001138
2	L403	CORE-FERRITE BEAD	“AB,120OHM,1X0.5X0.5MM,150MA,TP,M	3301-001341
2	L405	CORE-FERRITE BEAD	“AB,120OHM,1X0.5X0.5MM,150MA,TP,M	3301-001341
2	L409	CORE-FERRITE BEAD	“AB,120OHM,1X0.5X0.5MM,150MA,TP,M	3301-001341
2	L440	CORE-FERRITE BEAD	“AB,120OHM,1X0.5X0.5MM,150MA,TP,M	3301-001341
2	L443	CORE-FERRITE BEAD	“AB,120OHM,1X0.5X0.5MM,150MA,TP,M	3301-001341
2	F502	CORE-FERRITE BEAD	“AB,1.5KOHM,1X0.5X0.5MM,100MA,TP,M	3301-001342
2	L203	CORE-FERRITE BEAD	“AB,1.5KOHM,1X0.5X0.5MM,100MA,TP,M	3301-001342
2	L210	CORE-FERRITE BEAD	“AB,1.5KOHM,1X0.5X0.5MM,100MA,TP,M	3301-001342
2	L301	CORE-FERRITE BEAD	“AB,1.5KOHM,1X0.5X0.5MM,100MA,TP,M	3301-001342
2	L310	CORE-FERRITE BEAD	“AB,1.5KOHM,1X0.5X0.5MM,100MA,TP,M	3301-001342
2	L331	CORE-FERRITE BEAD	“AB,1.5KOHM,1X0.5X0.5MM,100MA,TP,M	3301-001342
2	L341	CORE-FERRITE BEAD	“AB,1.5KOHM,1X0.5X0.5MM,100MA,TP,M	3301-001342
2	L422	CORE-FERRITE BEAD	“AB,1.5KOHM,1X0.5X0.5MM,100MA,TP,M	3301-001342
2	L509	CORE-FERRITE BEAD	“AB,1.5KOHM,1X0.5X0.5MM,100MA,TP,M	3301-001342
2	L510	CORE-FERRITE BEAD	“AB,1.5KOHM,1X0.5X0.5MM,100MA,TP,M	3301-001342
2	L521	CORE-FERRITE BEAD	“AB,1.5KOHM,1X0.5X0.5MM,100MA,TP,M	3301-001342
2	CN501	CONNECTOR-COAXIAL	“SMC,JACK,100mohm,50ohm,0.5dB”	3705-001163
2	CN102	CONNECTOR-SOCKET	“24P,2R,0.5mm,SMD-S,AUF”	3710-001428
2	CN101	CONNECTOR-SOCKET	“18P,1R,0.5mm,SMD-A,AUF”	3710-001429
2	J201	JACK-AC POWER	“2P,2.6PI,AU,BLK,NO”	3722-001172
2	T1	RF POWER SPLITTER	“2WAY,955-979MHz,12dB,-,TP”	4709-001080
2	U207	DISPLAY LCD-SCH611	“SCH-611,UG-12T09-FGHTX-A,BLACK/LIGHT	GH07-00015A
2	PCB	PCB-SCH620 MAIN	“SCH-620,FR-4,6LAYER,0.8T,118X138mm”	GH41-00063A
1		ELA ETC-EARPHONE	“SCH-2000,SPRINT,USA,20mW,32ohm”	GH96-01124A
1		MEA ETC-ANT.LUG	“SCH-900,SEC,KORA,BLK,-,-,-”	GH97-00961A
2		NPR-ANT.CONTACT	“SCH-5100.KOR,C1720S-1/2H,T0.1,”	GH71-10728A
2		RMO-LCD BOHO RUBBER	“SPH-3400,CR,5X3XT1.4,BLK,60HB”	GH73-40727A
1		MEA FRONT-BLK	“SCH-620,TELEFONICA,BRAZ,BLK,-,-,-”	GH97-01557A
2		MEC-SUA. FRONT	“SCH-620,TELEFONICA,BLK”	GH75-00426A
3		PMO-EAR JACK HOLDER	“SCH-900,PUR,BLK,-,-”	GH72-00148A
3		PMO-LCD WINDOW	“SCH-900,ACRYL,TRP,-,-”	GH72-00180A
3		PMO-LED CAP	“SCH-900,ACRYL,M/WHT,-,-”	GH72-00182A
3		PMO-FRONT COVER	“SCH-620,PC,BLK,-,K2261”	GH72-00901A
3		MPR-WINDOW VINYL	“SCH-900,PE4187,34.6X24XT0.2,TRP,-”	GH74-00078A
3		MPR-LCD WINDOW FOAM TAPE	“SCH-900,TESA,26.45X36XT0.4,BLK,-”	GH74-00109A
3		MPR-REED S/W SPONGE	“SCH-900,EVA SPONGE,12X3,BLK,-”	GH74-00123A
3		MPR-LCD BOHO SPONGE	“SCH-620,SRS PORON,36X27.95XT0.5,-,-”	GH74-00492A
3		MCT-WINDOW BOHO	“SH800,3M336,-,-,-”	GH74-40107A
3		MEC-HINGE	“SPH-8000,SEC,BLK”	GH75-00046A
4		NPR-HINGE SPRING	“SPH-8000,PW1,PI0.6,BLK”	GH71-00011A

Level	Design LOC	ITEMS	DESCRIPTIONS	SEC CODE
4		PMO-HOUSING CAP	“SPH-8000,POM,BLK,-,-”	GH72-00059A
4		PMO-HINGE CAM	“SPH-8000,POM,BLK,-,-”	GH72-00060A
4		PMO-HINGE SHAFT	“SPH-8000,POM,BLK,-,-”	GH72-00061A
4		PMO-HINGE HOUSING	“SPH-8000,POM,BLK,-,-”	GH72-00064A
3		MEC-SUA. FLIP	“SCH-620,TELEFONICA,BLK”	GH75-00428A
4		LABEL(R)-FLIP(BLK)	“SCH-900,PC EMBO,30X4,T0.125,BLK”	GH68-00278A
4		LABEL(M)-LOGO BADGE	“SCH-500,NI,20.0X4.4,T0.3,BLK”	GH68-20008A
4		PMO-FLIP COVER	“SCH-620(TELEFONICA),PC,BLK,-,K2261”	GH72-00903A
1		MEA ETC-FRONT SHIELD	“SCH-620,-,BRAZ,TRP,-,-,-”	GH97-01559A
2		PMO-FRONT SHIELD CAN	“SCH-620,ABS,IVR,-,-”	GH72-00553A
2		RMO-LCD UNDER	“SCH-900,RUBBER,32X1.7X0.8,BLK,60”	GH73-00052A
2		RMO-SHIELD FRONT CUSHION	“SCH-620,RUBBER,9.2X5.5XT0.5,BLK,50”	GH73-00322A
1		MEA ETC-REAR SHIELD	“SCH-620,-,BRAZ,TRP,-,-,-”	GH97-01560A
2		SCREW-TAPTITE	“CH,+,B,M1.7,L3.5,ZPC(BLK),SWRCH18A”	6003-001085
2	key pad	UNIT-SCH611 KEY PAD	“SCH-611,KBSCH611,KEY PAD,-,-,-,-”	GH59-00039A
3	BUZZER	BUZZER-MAGNETIC	“99dB,3.6V,80mA,2630Hz,BK”	3002-001064
3	S/W	SWITCH-REED	“200V,0.5A,500US,200US”	3409-001084
3	CON	CONNECTOR-HEADER	“NOWALL,24P,2R,0.5MM,SMD-S,AUF”	3711-004234
3	MOT	MOTOR-SCH990	“SCH-990,3.0V,-,10-55HZ,-,-”	GH31-00003A
3	MIC	ELA UNIT-SPH8000 MIC ASS’Y	“SPH-8000,-,-,MIC ASS’Y,OB-22L44,-,-”	GH96-00772A
2		NPR-MOTOR BRACKET	“SCH-990,STS301,T0.3,-”	GH71-00068A
2		PMO-MOTOR SHEET	“SCH-900,PC SHEET,-,-,-”	GH72-00376A
2		PMO-KEY SHIELD CAN	“SCH-620,ABS,IVR,-,-”	GH72-00554A
2		PMO-REAR SHIELD CAN	“SCH-620,ABS,IVR,-,-”	GH72-00555A
2		RMO-MIC HOLDER	“SCH-900,RUBBER,7.2X6.8X4.5,BLK,50”	GH73-00046A
2		RMO-BUZZER HOLDER	“SCH-900,RUBBER,11.2X4.6X4.2,BLK,50”	GH73-00047A
2		RMO-MIC DUMMY	“SCH-900,RUBBER,6X2.5X0.5,BLK,50”	GH73-00048A
2		RMO-RUBBER CONNECTOR	“SCH-900,RUBBER,7X5.5XT1.0,BLK,60”	GH73-00051A
2		RMO-KEY SHIELD RUBBER	“SCH-900,RUBBER,12X2XT0.4,BLK,-”	GH73-00073A
2		RMO-MOTOR RUBBER	“SCH-990,RUBBER,PI12XT0.3,BLK,-”	GH73-00187A
2		RMO-DUPLEXER RUBBER	“SCH-620,RUBBER,19.4X7.5XT0.3,BLK,-”	GH73-00339A
2		MPR-SPONGE CONNECTOR	“SCH-900,SPONGE,12X10,BLK,60”	GH74-00094A
2		MPR-SHIELD RF SPONE	“SCH-620,SPONGE(SSP010),23.8X16.2X0.5	GH74-00272A
2		MPR-SHIELD MOTOR SPONGE	“SCH-620,SPONGE(SSP-010),15X9XT0.5,-,-”	GH74-00421A
2		MPR-MIC SPONGE NEW	“SCH-620,SRS PORON TAPE,5X5XT0.7,-,-”	GH74-00422A
1		MEA REAR-GLOBAL TELECOM	“SCH-620,GLOBAL TELECOM,BRAZ,BLK,-,-,-”	GH97-01576A
2		MEC-SUA. REAR	“SCH-620,GLOBAL TELECOM,BLK”	GH75-00451A
3		LABEL(R)-QUALCOMM	“SCH-100F,VINYL,12X6,0.12,TRP”	GH68-30846A
3		IPR-SPRING LOCKER MA	“SH-700,STS304,T0.3,-”	GH70-10516A
3		NPR-ANT BRACKET	“SCH-2500,ZN GOLD PLT,-,AU”	GH71-00013A
3		PMO-BATTERY LOCKER	“SCH-900,PC,BLK,-,-”	GH72-00147A

Level	Design LOC	ITEMS	DESCRIPTIONS	SEC CODE
3		PMO-REAR COVER	“SCH-620,PC,BLK,-,K2261”	GH72-00902A
3		MPR-REAR GASKET LEFT	“SCH-611,BUJICPO,17X4.7,BLK,-”	GH74-00360A
3		MPR-REAR GASKET RIGHT	“SCH-611,BUJICPO,18.4X7.3,BLK,-”	GH74-00361A
1		PAA MAIN-SCH620(BRAZ)	“SCH-620,GLOBAL-TELECOM,BRAZ,-,-,-,-”	GH99-02226A
2		LABEL(P)-SEAL	“SP-R912,CRP,65.0x95.0,-,ORG”	GG68-10705A
2		BOX(P)-CARTON MAIN	“-,SGH-A100,SW-3 A(KOL),330X278X210,-”	GH69-00381A
2		CUSHION-MAIN CASE	“SCH-620,HIPS(T0.8),195X130X58”	GH69-00414A
2		BOX(P)-UNIT MAIN	“-,SCH-620,IVORY,135X63X200,-”	GH69-00437A
2		BAG-STD BATT.	“PE,T0.06,70X170,SCH-1011”	GH69-30503A

8-2 Desk-top charger parts List

No.	Design LOC	DESCRIPTIONS		SEC CODE	REMARKS
1	C7, C8	Y-CAP	2, 2nF, 20%, 250V	2201-001004	
2	C1	X-CAP	100nF, 20%, 250V	2301-001092	
3	C2, C3	CAP-FELECTRONIC	10uF, 400V, 85°C 10x16	2401-00	
4	C21, C332	CAP-FELECTRONIC	680uF, 16V, 105°C 10x13	2401-003090	
5	C23, C33	CAP-FELECTRONIC	220uF, 16V, 85°C 6x11	2401-000804	
6	C36	CAP-FELECTRONIC	47uF, 16V, 85°C 5x7	2401-00	
7	C6, C41	CAP-FELECTRONIC	10uF, 50V, 105°C 5x11	2401-00	
8					
9	F1	FUSE	250VAC, 2A 5x15 BLACK-	3601-001125	
10	LD1, LD2	LED	TUBING	0601-00	
11	BD1	DIODE-BRIDGE	RED/GRN-DUAL 3 (ROUND)	0402-000003	
12	D2, D3	DIODE-FR	600V, 1A	0402-000012	
13	D21, D31, D32	DIODE-SCHOTKY	1000V, 1A	0402-000358	
			40V, 1A	0402-000124	
14	D30	DIODE-FR		0402-000205	
15	D20	DIODE-SCHOTKY	200V, 1.5A/2A	0402-000467	
16	TH1	THERMISTER	60V, 5A	1404-000128	
			5Ω, 10Ø	1404-001083	
17	D1	TRANSIENT VOLTAGE		0403-001028	
18	U1	SUPPESSOR	160V, 600W	0505-00	
19	U26	IC-pemto	TO-220, 700V, 1A	1203-000391	
20	U21	IC-SWITCHING	35V, 1.5A, DIP-8P	1203-000542	
21	PC1	IC-VOLTAGE	5V, 100mA, TO-92	0604-001098	
		REGULATER	120-180%, 200mW	0604-000191	
22	R21		DIP-4P, ST	2003-000327	
23	R15, R16	PHOTO-OOUPLER	51Ω, 2W, 5%	2009-001039	
24	R51	R-METAL OXIDE	1/2W, 4.7MΩ, 5%	1404-000215	
		R-SURGE	10KΩ, 25°C	1404-001014	
25	VR1, VR2			2103-000210	
26	TNR1	R-NTC	1KΩ, 1/10W, 30% TOP, TP	1405-000001	
		R-SEMIFIX	470V, 2500A, 300V, 3000A	1405-000193	
27	J01-15			3811-000545	
28	R26, R27, R45, R16	VARISTOR	0.6*52mm, SDACW		
29	R35, R52	WIRE-NO SHEATH	1Ω, 1/4W, 1%, TP		
30	R33, R47	R-METAL FILM	47KΩ, 1/8W, 5%, TP		
31	CHT009	R-CARBON FILM	4.7KΩ, 1/8W, 1%, TP	ML26-00274A	

No.	Design LOC	DESCRIPTIONS		SEC CODE	REMARKS
32	LF1	R-METAL FILM	CHT09, 0.8mA, EE1916	ML29-00023K	
33	L22	S/W TRANS	UU1014-V, 22mH(MIN)	ML27-00	
34	L21	LINE-FILTER	120uH, 10X5, 0, 40	ML27-00252A	
35	C25	COIL-	7uH 5X7,5	2203-000206	
35		CHOKE(TROIDAL)	2012, 104K, X7R, 50V	2203-000204	
36	C4, C23, C24	COIL-CHOKE (DRUM)		2203-000922	
37	C44		2012, 474Z, Y5V, 50V	2203-000985	
		CAP-CHIP	2012, 474K, X7R, 50V	2203-000979	
38	C34	CAP-CHIP		2203-002278	
39	C5, C7		2012, 101J, NPO, 50V	2203-001458	
40	C28, C30, C33,	CAP-CHIP	2012, 103K, X7R, 50V	2203-000192	
	C42, C43, C45	CAP-CHIP	2012, 104Z, Y52, 50V		
41	C26	CAP-CHIP		2203-001604	
			2012, 224K, X7R, 25V	2203-000575	
42	U25	CAP-CHIP		0903-001148	
43	U22		u-com, 8bit, SOP-32P	1201-000166	
		u-com	28V, 150pA, DUAL	1201-000167	
44	U23, U24	IC-OP AMP	SOP-8P	1202-000188	
			36V, 1mA, DUAL	1202-000104	
		IC-COMPERATER	SOP-8P	1202-000187	
45	Q23			0505-001180	
			12V, 5A, 0.05		
46	Q21, Q22, Q24	FET-DUAL	SO-8P	0501-000462	
47	D33	P-CHANNEL	SOT-23, 60V, 600mA	0407-000114	
48		TR-PNP	SOT-23, 80V, 100mW		
49	R24, R44	DIODE-ULTRA HIGH		2007-000	
50	R25	SPEED	2012, 620Ω, 1%	2007-000	
51	R28, R31, R32, R48,		2012, 680Ω, 1%	2007-000297	
52	R63	R-CHIP	2012, 10KΩ, 1%	2007-000922	
53	R36, R53	R-CHIP	2012, 470KΩ, 1%	2007-000	
54	R34, R51	R-CHIP	2012, 150KΩ, 1%	2007-000352	
55	R40, R49	R-CHIP	2012, 12KΩ, 1%	2007-00	
56	R61	R-CHIP	2012, 27KΩ, 1%	2007-001677	
57	R23, R43, R60	R-CHIP	2012, 91Ω, 1%	2007-00	
58	R64, R65, R66, R7	R-CHIP	2012, 470Ω, 1%	2007-000868	
59	R41	R-CHIP	2012, 4.7KΩ, 1%	2007-00508	
60	R37, R54	R-CHIP	2012, 2.4KΩ, 1%		
61		R-CHIP		2007-000	
62	R38, R55, R69, R70	R-CHIP	2012, 47KΩ, 5%	2007-000	
63	R1, R2		2012, 10Ω, 5%	2007-000493	
64	R29, R47	R-CHIP	2012, 2.2KΩ, 5%	2007-000	
65	R30, R42, R68	R-CHIP	2012, 1KΩ, 5%	2007-000	
66	R4	R-CHIP	2012, 750Ω, 5%	2007-000	
67	R22	R-CHIP	2012, 180Ω, 5%	2007-000	
68	R3	R-CHIP	2012, 5.6Ω, 5%		
69		R-CHIP		3301-000329	
70	B1, B2	R-CHIP	3x4, CHIP-BEAD	ML74-001411	
	CN21		4P, 3.0mm		
71		CHIP-BEAD	30x9x10	3711-000203	
72	CON1	BAIT-CONNENTOR-	3.9mm, 3(2)P	ML72-00	
		FRONT, REAR	COVER (1)		
		CONNECTOR-C/B	GATE LABEL (1)		
		CASE ASS'Y-COVER	BATT HOUSING (1)		
			BATT LOCKER (1)		
73			TH+M3x8, BLK (1)	ML72-00	
74			BOTTOM (1), BOMPON (4)	ML68-0	
75			30x50x0.15	ML60-00001A	
76	(BOTTBM)	CASE ASS'Y-BOTTOM	PH+, 2.6x12, BLK	ML41-00	
77		LABEL, DTC81	FR-1, loz, 125x64x1.2	ML39-00	
78		SCREW-TAP		ML62-00133A	
79	(U1)	PCB-MAIN DTC81	15x13x5x1.0	6001-000563	

No.	Design LOC	DESCRIPTIONS		SEC CODE	REMARKS
80	(U1)	PWR-CORD	PH+, M3x6	0201-001029	
		HEAT-SINK(U1)	DC739, 40RTV	0201-000303	
81		SCREW-TAP)U1)			
82		ADHESIVE-SEALANT	170x350x0.05, WHITE	0202-000178	
			KR-19, S60A, D1.0	0202-000193	
83		VINIL SACK		0204-000429	
84		SOLDER-WIRE	(CH3)2CHOM	MF02-00020A	
			920-CFX	0202-000226	
85		ALCOHL		ML74-00113A	
		FLUX-SOLDER	D3, 0, Sn60%		
		SOLDER-WIRE			

8-3 Hands-Free Kit Part List

No.	Design LOC	DESCRIPTIONS	SEC CODE	REMARKS
1	UPPER C/D	FOR CRADLE		
2	LOWER C/D	FOR CRADLE		
3	FRAME	FOR CRADLE		
4	HOLDER SOCKET	FOR CRADLE		
5	LOCKER	FOR CRADLE		
6	EJECTOR	FOR CRADLE		
7	SPRING LOCK	FOR CRADLE		
8	SPRING EJECT	FOR CRADLE		
9	HOLDER C/D	FOR CRADLE		
10	COVER GATE	FOR CRADLE		
11	SCREW	#2 BT 2.6x6B		
12	SCREW	BM 3x6B		
13	SCREW	#2 BT 2x8Y		
14	CASE CONN UPPER	FOR CONNECTOR		
15	CASE CONN LOWER	JACK		
16	BUTTON PUSH	FOR CONNECTOR		
17	CURL CORD ASS'Y	JACK		
18	CONNECTOR	FOR CONNECTOR		
19	SPRING PLATE	JACK		
20	CABLE DATA ASS'Y	FOR CONNECTOR		
21	SCREW	JACK		
22	CASE UPPER	FOR CONNECTOR		
23	CASE LOWER	JACK		
24	BRACKET INSTALL	FOR CONNECTOR		
25	RIVET	JACK		
26	HEAT SINK	HIROCE 15P		
27	SCREW	#2 FT2x6B		
28	SCREW	CONTROL BOX CASE		
29	CASE UPPER	CONTROL BOX CASE		
30	CASE LOWER	CONTROL BOX CASE		
31	SPRING FIXING	CONTROL BOX CASE		
32	SCREW	CONTROL BOX CASE		
33	CABLE MIC	#2 PS 3x6 Y		
34	CUSHION MIC.	#2 PS 3x12 B		
35	MIC CONDENSOR	MICROPHONE		
36	CABLE POWER	MICROPHONE		
37	LABEL	MICROPHONE		
38	LABEL	#1 FT 2x8 B		
39	LABEL	1P+1SCHIELD		

No.	Design LOC	DESCRIPTIONS	SEC CODE	REMARKS
40	LABEL BAR CODE	WIRE+PLUG		
41	LABEL BAR CODE	MICROPHONE		
42	MANUAL	CMP-68(NP)		
43	POLYBAG	4P, RED-BLK-YLW-		
44	POLYBAG	WHITE		
45	CABLE TIE	FOR CRADLE		
46	POWER LOG	FOR CONTROL BOX		
47	SCREW	FOR SPEAKER		
48	SCREW	FOR SERIAL NO.		
49	BOX ACCESSORY	FOR PRODUCT		
50	UNIT BOX	4-COLOR PRINT		
51	PACKING PAD	15x27, PE		
52	OUTER BOX	6x9, PE		
53	CASE FRONT	80mm		
54	CASE REAR	ø6		
55	HANDLE SPEAKER	#1 BT4x16B		
56	BOLT	PM 4x6B		
57	HEX. NUT	FOR ACCESSORY		
58	SPEAKER	ASS'Y		
59	SPEAKER WIRE	FOR PACKING		
60	SCREW	FOR PACKING		
61	LABEL	FOR PACKING		
62	LABEL 3 SORTS	FOR EXTERNAL SPEAKER FOR EXTERNAL SPEAKER FOR EXTERNAL SPEAKER FOR FIXING HANDLE WITH WASHER LEEWON 9050F 2P #1 PT 3x12B		

No.	Design LOC	DESCRIPTIONS		SEC CODE	REMARKS
1	ZD201, ZD202	ZENER DIODE	5.1V 0.5W - DIP		
2	ZD1	TVS DIODE	P6KE33 - DIP		
3	D5, D7, D101, D102	DIODE	1N4148 - DIP		
4	D1, D2, D3	DIODE	1N5818 - DIP		
5	D100	DIODE	SDS7000 - CHIP		
6	R278	RESISTOR	CH2012 1ohm-J 5%		
7	R9	RESISTOR	CH2012 91oohm-F 1%		
8	R8	RESISTOR	CH2012 8.2K-F 1%		
9	R3, R13, R131	RESISTOR	CH2012 100ohm-J 5%		
10	R51, R52, R139, R272	RESISTOR	CH2012 220ohm-J 5%		
11	R279	RESISTOR	CH2012 270ohm-J 5%		
12	R137, R138	RESISTOR	CH2012 330ohm-J 5%		
13	R31, R32, R225, R251, R257, R270	RESISTOR	CH2012 1K-J 5%		
14	R132	RESISTOR	CH2012 1.8K-J 5%		
15	R213, R217, R228, R229, R230, R231	RESISTOR	CH2012 2.2K-J 5%		
16	R271	RESISTOR	CH2012 2.4K-J 5%		
17	R1, R7, R112	RESISTOR	CH2012 2.7K-J 5%		
18	R18	RESISTOR	CH2012 3K-J 5%		
19	R12	RESISTOR	CH2012 3.9K-J 5%		
20	R38, R110, R113, R117,	RESISTOR	CH2012 4.7K-J 5%		

No.	Design LOC	DESCRIPTIONS		SEC CODE	REMARKS
	R119, R268				
	R275				
21	R57, R233, R248	RESISTER	CH2012 5.1K-J 5%		
22	R5, R10, R17, R20,	RESISTER	CH 2012 10K-J 5%		
	R23,R27 R30, R33, R41,				
	R44 R45, R46, R55, R56,				
	R100. R104, R108, R109,				
	R111, R115, R116, R120,				
	R122, R123, R124, R135,				
	R201, R202, R203, R204,				
	R205, R207, R208, R210,				
	R211, R212, R215, R252,				
	R253, R254, R255, R258,				
	R260, R266, R270, R274,				
23	R276, R114	RESISTER	CH 2012 560 ohm-J 5%		
24	R269	RESISTER	CH 3216 10K-J 5%		
25	R102	RESISTER	CH 3216 12K-J 5%		
26	R43	RESISTER	CH 3216 10K-J 5%		
27	R54, R267	RESISTER	CH 2012 12K-J 5%		
28	R19, R128, R266	RESISTER	CH 2012 15K-J 5%		
29	R24	RESISTER	CH 2012 18K-J 5%		
30	R106, R107, R121, R127,	RESISTER	CH 2012 22K-J 5%		
31	R277	RESISTER	CH 2012 27K-J 5%		
32	R16, R126	RESISTER	CH 2012 33K-J 5%		
	R40, R222, R223, R224				
33	R4, R21, R37, R101, R105	RESISTER	CH 2012 47K-J 5%		
34	R136, R140, R259, R273	RESISTER	CH 2012 56K-J 5%		
35	R133, R134	RESISTER	CH 2012 68K-J 5%		
36	R227	RESISTER	CH 2012 82K-J 5%		
	R216, R226				
	R36, R42, R53, R103,				
37	R125, R129	RESISTER	CH 2012 100K-J 5%		
38	R141, R214, R261	RESISTOR	CH 2012 220K-J 5%		
39	R26	RESISTOR	CH 2012 1M-J 5%		
40	R39	RESISTOR	CH 2012 5.6K-J 5%		
41	R29	RESISTOR	0.1 ohm/1W-F-DIP		
42	R14	RESISTOR	22 ohm/1W-J-DIP		
43	R50	VAR. RESISTOR	0.2 ohm/1W-J-DIP		
44	L6	ELEC. CAPACITOR	MVR32 5K		
45	VR1	ELEC. CAPACITOR	0.47UF/50V (5*11)85˚C		
46	C255, C256	ELEC. CAPACITOR	2.2UF/16V (5*11)85˚C		
47	C257	ELEC. CAPACITOR	10UF/16V (5*11)85˚C		
48	C15, C204, C205, C206,	ELEC. CAPACITOR	10UF/25V (5*11)85˚C		
49	C259	ELEC. CAPACITOR	22UF/35V (5*11)85˚C		
50	C104	ELEC. CAPACITOR	47UF/16V (5*11)85˚C		
51	C106	ELEC. CAPACITOR	100UF/35V (6.3*11)85˚C		
52	C258	ELEC. CAPACITOR	470UF/16V (8*11.5)85˚C		
	C207				
53	C1	ELEC. CAPACITOR	470UF/35V (10*18)85˚C		
54	C7, C18, C23, C29, C40,	TAN. CAPACITOR	4.7UF/16V (5*11)85˚C		
55	C43, C45, C260	CERAMIC CAPACITOR	CH 2012 B330P-J (330)		
	C4				
	C221				
	C32, C101, C105, C107				
	C108, C109, C110, C111,				
	C112, C111133,, C114,				
56	C115, C1116, C117, C118,	CERAMIC CAPACITOR	CH 2012 B470P-K (471)		
57	C119, C201, C202, C215.	CERAMIC CAPACITOR	CH2012 B102-K (102)		
	C216, C217				
58	C17	CERAMIC CAPACITOR	CH 2012 B152-K (152)		
59	C5, C25, C209, C218,	CERAMIC CAPACITOR	CH 2012 B103-K (103)		

No.	Design LOC	DESCRIPTIONS		SEC CODE	REMARKS
60	C222, C223, C261	CERAMIC CAPACITOR	CH 2012 B472-K (472)		
61	C250	CERAMIC CAPACITOR	CH 2012 B104-Z (104)		
	C100				
	C219, C220				
	C2, C3, C6, C13, C14, C16, C22, C24, C26, C30, C31, C41, C42, C44,C46, C103, C120, C121, C2224, C226,				
62	C228, C237, C238, C239,	CERAMIC CAPACITOR	CH 2012 B105-Z (105)		
63	C241, C242, C243, C244,	CERAMIC CAPACITOR	CH 3216 B104-Z (104)		
64	C245, C246, C247, C248,	CERAMIC CAPACITOR	CH 2012 B224-Z (224)		
65	C249, C251, C252, C253,	INDUCTOR (COIL)	220UH (18ø)		
66	C254, R209	INDUCTOR (COIL)	220UH (13ø)		
67	C208, C213	INDUCTOR (COIL)	10UH		
68	C263	INDUCTOR (COIL)	20UH		
69	C262	CONNECTOR-DATA	20P (RP13A-12RC-20PB)		
70	L2	MIC JACK	TC38-001-01		
71	L4	CONNECTOR-SPEAKER	LAD-1140-02 (2 PIN)		
72	L1	CONNECTOR-POWERR	LAD-1140-04 (4 PIN)		
	L3				
73	J100	TRANSISTOR	B772-DIP		
74	J201	TRANSISTOR	KST2222A - CHIP		
	J203 FOR SPEAKER				
	J1				
75	Q20, Q21	TRANSISTOR	KST2907A - CHIP		
76	Q1, Q2, Q6, Q11, Q12, Q13,	FET	IRF9540 OR 2SJ176 - DIP		
77	Q14, Q15, Q16, Q100, Q101,	X-TAL	I2.288Mhz - DIP		
78	Q102, Q103, Q104, Q105,	RESONATOR	3.58Mhz - DIP		
79	Q107, Q108, Q109, Q110,	IC	LM358 - CHIP		
80	Q208	IC	AD1845 - CHIP		
81	Q3, Q8, Q106, Q202	IC	ADSP-2176 - CHIP		
82	Q4, Q5	IC	74111C14D - CHIP		
83	BT201	IC	93C66 - CHIP		
84	BT100	IC	HEF4051B - CHIP		
85	U201, U207	IC	PIC6C73 - CHIP		
86	U202	IC	NJM2360 OR KA34063 -		
87	U204	IC	CHIP		
88	U205	IC	LM2576 - DIP		
89	U206	IC	LM7805 - CHIP		
90	U208	IC	LP2951CM		
91	U100	IC	LM3403 - CHIP		
92	U1	SWITCH	LM2904 - CHIP		
93	U4	IC	TACT SWITCH		
94	U2		TDA1905 - DIP		
	U3		MAIN PCB SCH 811		
	U5				
	U101				
	S201				
	U209				
	P.C.B				

No.	Design LOC	DESCRIPTIONS	SEC CODE	REMARKS
1	MIC ASS'Y	CMP-68		
2	SPEAKER ASS'Y	4 ohm 5W		
3	POWER CABLE	4 PIN POWER CABLE ASS'Y		

No.	Design LOC	DESCRIPTIONS	SEC CODE	REMARKS
1	RESISTOR	CH 2012 330 ohm-J 5%		
2	RESISTOR	CH 2012 2.2K-J 5%		
3	RESISTOR	CH 2012 1K-J 5%		
4	CONNECTOR WAFER	13 PIN 2mm PITCH ANGLE		
5	CONNECTOR WAFER	15 PIN 2mm PITCH ANGLE		
6	PHOTO INT.	SG215 - DIP		
7	THERMOSTOR	C103JF4C (10K 1%)		
8	LED (LED TACK)	KARG138 (5 , 3 COLOR)		
9	COILD CORD CABLE	13 PIN 2mm PITCH ANGLE		
10	DATA CABLE	15 PIN 2mm PITCH ANGLE		
11	P.C.B	SUB PCB SCH-811		

8-4 Travel charger

No.	Design LOC	DESCRIPTIONS		SEC CODE	REMARKS
1	U2	IC OPTP	LTV817V		
			TLP621GRH		
2	U1	IC PWM P/S	TOP222P		
3	U4	IC V.REF TO -92	KA431AZ		
			TL431ACLP		
			KIA431		
4	D1, 2, 3, 4	DIODE REC	1N4007		
5	D21	DIODE SCHOTKY	SR560		
			SR560		
6	D7, 20	DIODE SW	RLS4148		
7	D5	T.V.S DIODE	P6KE160A		
			P6KE1600A		
8	D6	DIODE UF	UF40007		
			UF4007		
9	D24	DIODE ZENER	RLZJ4.3		
10	LED	LED CONNECTOR	352111-0310		
11	LED		ALL-153GW		
12	MOV1	VARISTOR	D62Z0V300RA65		
		M.O.V	TNR12G471K		
13	VR1	SEMI-FIXEED RES	RG06P102		
14	L1, 2	INDUCCTOR			
15	PTF1	SGH500 TRANS	SCH500		
16	L20	CHOKE ASS'Y			
17	R4, 5	SURGE RESISTOR	PPSR0.5W		
18	C1, 2	CAP EL	SHL400V10UF		
19	C22	CAP EL	KMF16V330UF		
20	C21	CAP EL	AG10V1000UF		
21	C4, 20, 24	CAP EL	1SK1C476M05007		

No.	Design LOC	DESCRIPTIONS		SEC CODE	REMARKS
22	C8	CE. CAP	440DL472 SDE472M		
23	C3	CE. CAP	ECSL3A220K06BS5		
24	C6	MY. CAP	S/M2A152J		
25	TH	THERMISTOR	FTG-310H37		
26	F1	MICRO FUSE	MST		
27	SK2	CONN. HEADER	5267-04A		
28	Q7	S.S. TR	KTA1273		
29	R2	CHIP RESI	MCR18EZHJ6R2		
30	R14, 15, 16	CHIP RESI	MCR18EZHF1R0		
31	JP1, 2, 3	CHIP RESI	MCR18EZHJ0R0 CR180R0JM		
32	R66, 67	CHIP RESI	MCR18EZHJ511 CR18511JM		
33	JP4, 5	CHIP RESI	MCR10EZHJORO		
34	R57	CHIP RESI	MCR10EZHF1501 CR10150FM		
35	R58	CHIP RESI	MCR10EZHF2201 CR102201FM		
36	R17	CHIP RESI	MCR10EZHJ470 CR10470JM		
37	R1	CHIP RESI	MCR18EZHJ103 CR18103JM		
38	R59	CHIP RESI	MCR10EZHJ102		
39	C23	CHIP CAPACITOR	CM21COG331J50AT		
40	C5	CHIP CAPACITOR	CM316Y5V224Z50AT		
41	C25, 26, 27, 28, 29, 30	CHIP CAPACITOR	CM21Y5V104Z50AT		
42	U3	IC HYBRID	AH1504F		
43	MICOM IC		PIC16C711		
44	P.C.B		TC30		
45	AC PLUG ASS'Y				
46	PLUG TERMINAL				
47	CONTACT TERMINAL				
48	CONTACT TERMINAL				
49	CASE BOTTOM				
50	CASE TOP				
51	SCREW				
52	SCREW				
53	OUTPUT CABLE ASS'Y		AXR324100201		
54	LABEL				
55	CARTON BOX				
56	MAIN BOARD				
57	CARD BOARD(A)				
58	CARD BOARD(B)				
59	PAD				
60	VINYL SACK				

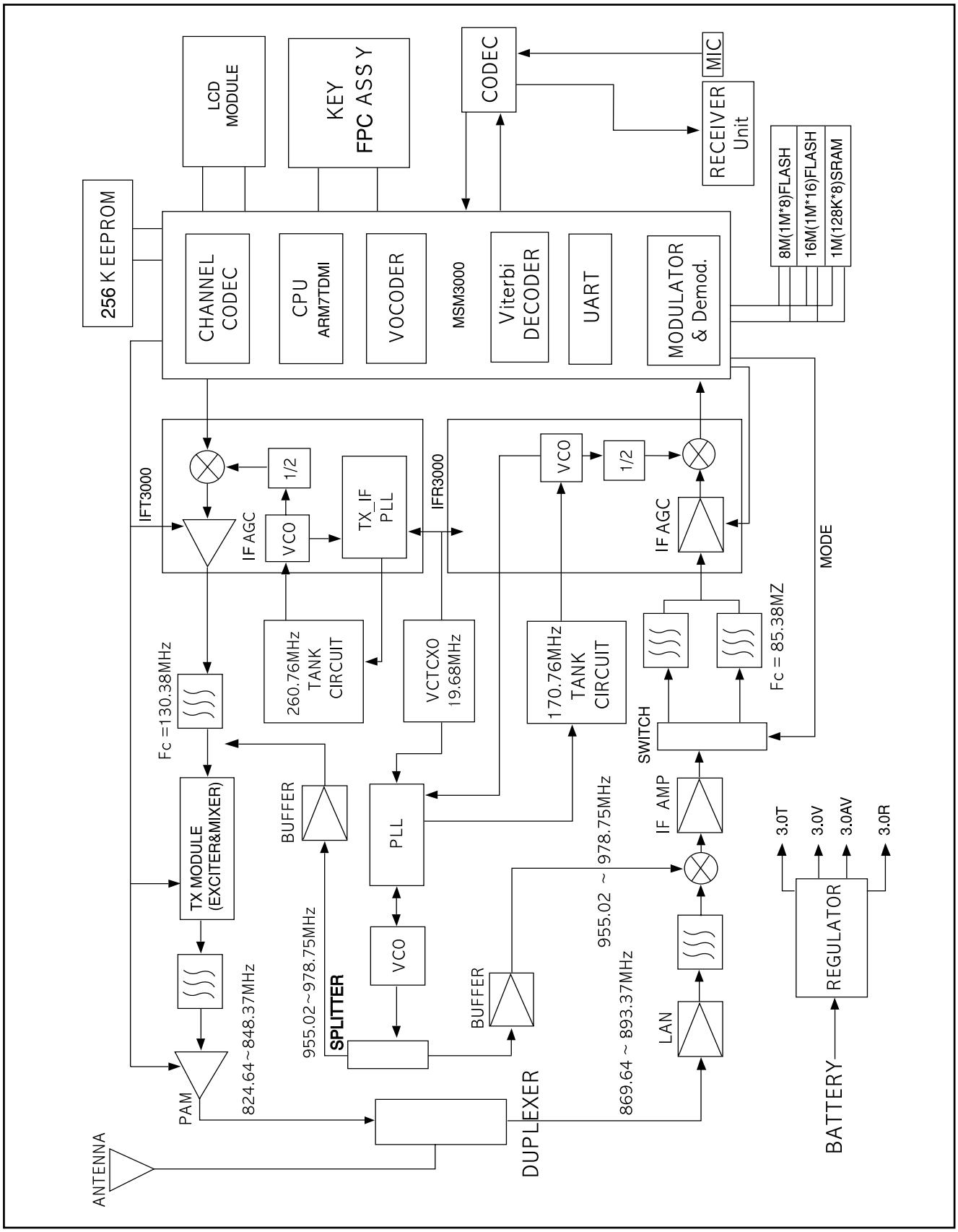
8-5 CLA Parts List

No.	Design LOC	DESCRIPTIONS		SEC CODE	REMARKS
			MAIN SMD ASS'Y		
1	C6, C9	CERAMIC CAPACITOR	CL21B04JBNCS/0.1U		
2	C3	CERAMIC CAPACITOR	CL21B103JBNCS/0.01U		
3	C5, C10	CERAMIC CAPACITOR	CL21B224JBNCS/0.22U		
4	D7	CHIP DIODE	KDS181		
5	D5, D6	CHIP DIODE	KDS184		
6	R21	CHIP RESISTOR	RC1608J102CS/1K OHM		
7	R111, R12, R22, R34	CHIP RESISTOR	RC1608J104CS/100K OHM		
8	R31	CHIP RESISTOR	RC1608J134CS/130K OHM		
9	R33	CHIP RESISTOR	RC1608J182CS/1.8K OHM		
10	R15	CHIP RESISTOR	RC1608J222CS/2.2K OHM		
11	R29	CHIP RESISTOR	RC1608J272CS/2.7K OHM		
12	R35	CHIP RESISTOR	RC1608J304CS/300K OHM		
13	R13	CHIP RESISTOR	RC1608J333CS/33K OHM		
14	R14	CHIP RESISTOR	RC1608J335CS/3.3M OHM		
15	R5	CHIP RESISTOR	RC1608J392CS/3.9K OHM		
16	R16, R17	CHIP RESISTOR	RC1608J431CS/430 OHM		
17	R27	CHIP RESISTOR	RC1608J432CS/4.3K OHM		
18	R6, R24	CHIP RESISTOR	RC1608J562CS/5.6K OHM		
19	R7, R18, R19, R20, R26, R28, R30, R32	CHIP RESISTOR	RC1608J912CS/9.1K OHM		
20	Q3, Q5, Q7, Q9, Q10, Q11	CHIP TRANSISTOR	KSR1104/NPN		
21	Q4, Q8	CHIP TRANSISTOR	KSR2104		
22	Q1, Q6	CHIP TRANSISTOR	KTA1504		
			INSERT ASS'Y		
23	J1	7 PIN CONNECTOR	GILS-7P-S2T2-EF		
24	L1	CHOKE COIL	RF-300/300UH		
25	D2, D4	SCHOTTKY DIODE	1N5819		
26	D1	TRANSIENT DIODE	P6KE36A		
27	U4	DIODE	KA431		
28	C7	ELECT CAPACITOR	CESSL1C100MAAT/10U16V		
29	C2, C4	ELECT CAPACITOR	105˚C		
30	C1	ELECT CAPACITOR	CESSL1C331MAAT/330U16V		
31	F1	FUSE	105˚C		
32	U1	ADJUST REGULATOR	CESSX1V101MAAT/100U35		
33	U2	I.C.	V 105˚C		
34	U3	O.P AMP	250V/2A		
35	LED 1, 2	O.P AMP(14P)	LM2576T-ADJ		
36	R4	DUALL COLOR LED	KA358D		
37	R2	LAMP	KA324D		
38	R1	CARBON FILM	SAM3270		
39	R3	RESISTOR	0.5 OHM 11/2W		
40	VR1	CARBON FILM	11K OHM 1/4W		
		RESISTOR	470 OHM 1/4W		
41	CURL CORD ASS'Y	CARBON FILM	680 OHM 1/4W		
42	CLA PCB	RESISTOR	1K OHM/VOLUME/GF06P		
43	OUTER GND	CARBON FILM	ELECTRIC ASS'Y		
44	WIREJUMPER	RESISTOR	7 PIN/MQ179		
45	UPPER COVER	V. RESISTOR	FR-4 (T=1.6)		
46	LOWER COVER		1.68PIE/25MM		
47	FUSE COVER		PC/BLACK		
48	OUTER SPRING		PC/BLACK		
49	POWER CONTACT		PC/BLACK		
50	SPRING		CLA OUTER SPRING		
51	FUSE HOLDER		CLA POWER CONTACT		
52	FUSE PLATE		CLA		
53	UPPER+LOWER		FUSE HOLDER/CLA		
			FUSE PLATE/CLA		

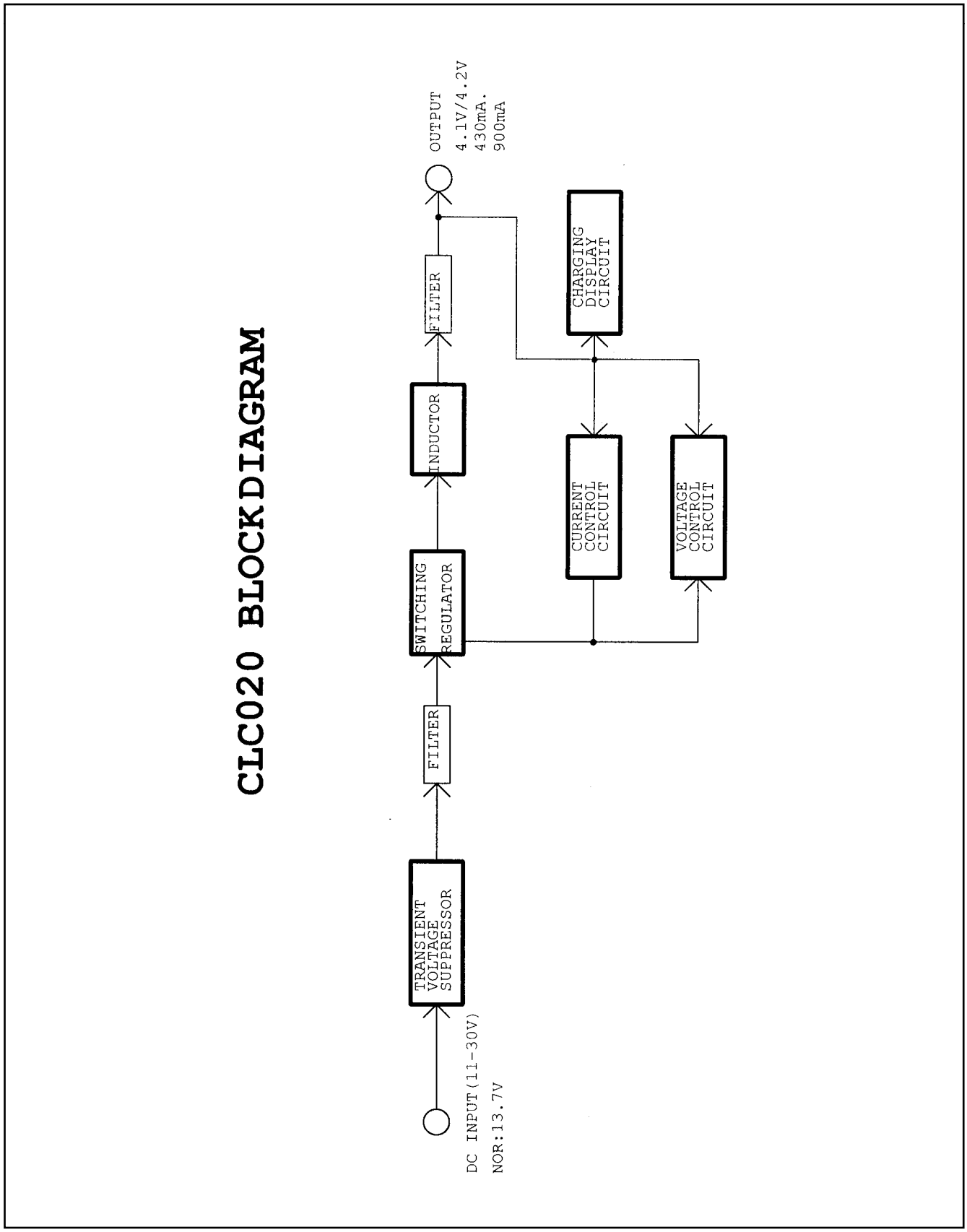
No.	Design LOC	DESCRIPTIONS		SEC CODE	REMARKS
54	HANISHELLL		+PH (2.6x14-2S) BLACK		
55	OUT BOX		CLA010A		
56	CURRUGATED PAD		PACKING ASS'Y		
57	CLA SPONGE	TAPPING SCREW			
		NAME LABEL	CARTON BOX		
			CLA CORRUGATED PAD		

9. Block Diagrams

9-1 Main Diagram



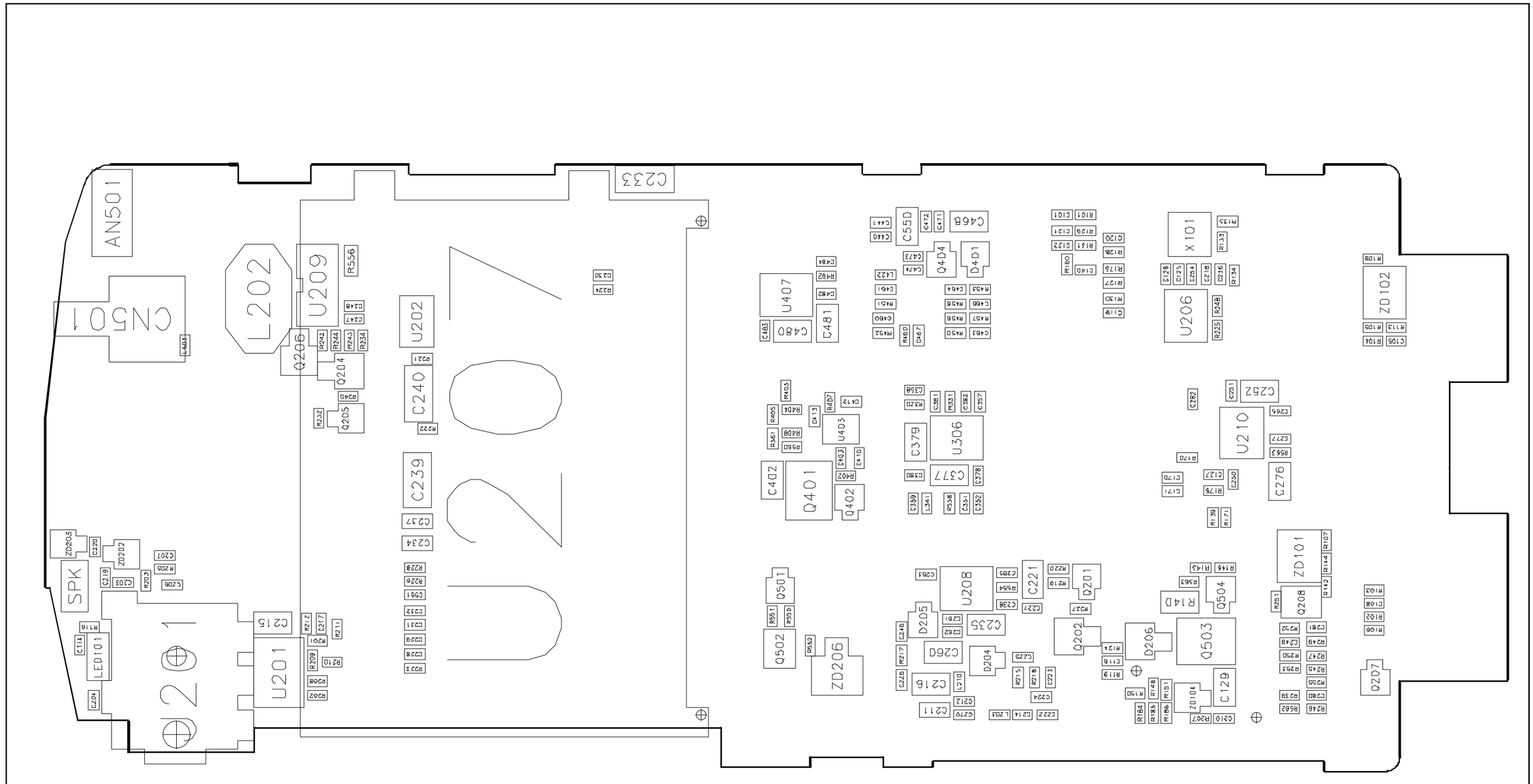
9-2 CLC BLOCK DIRGRAM



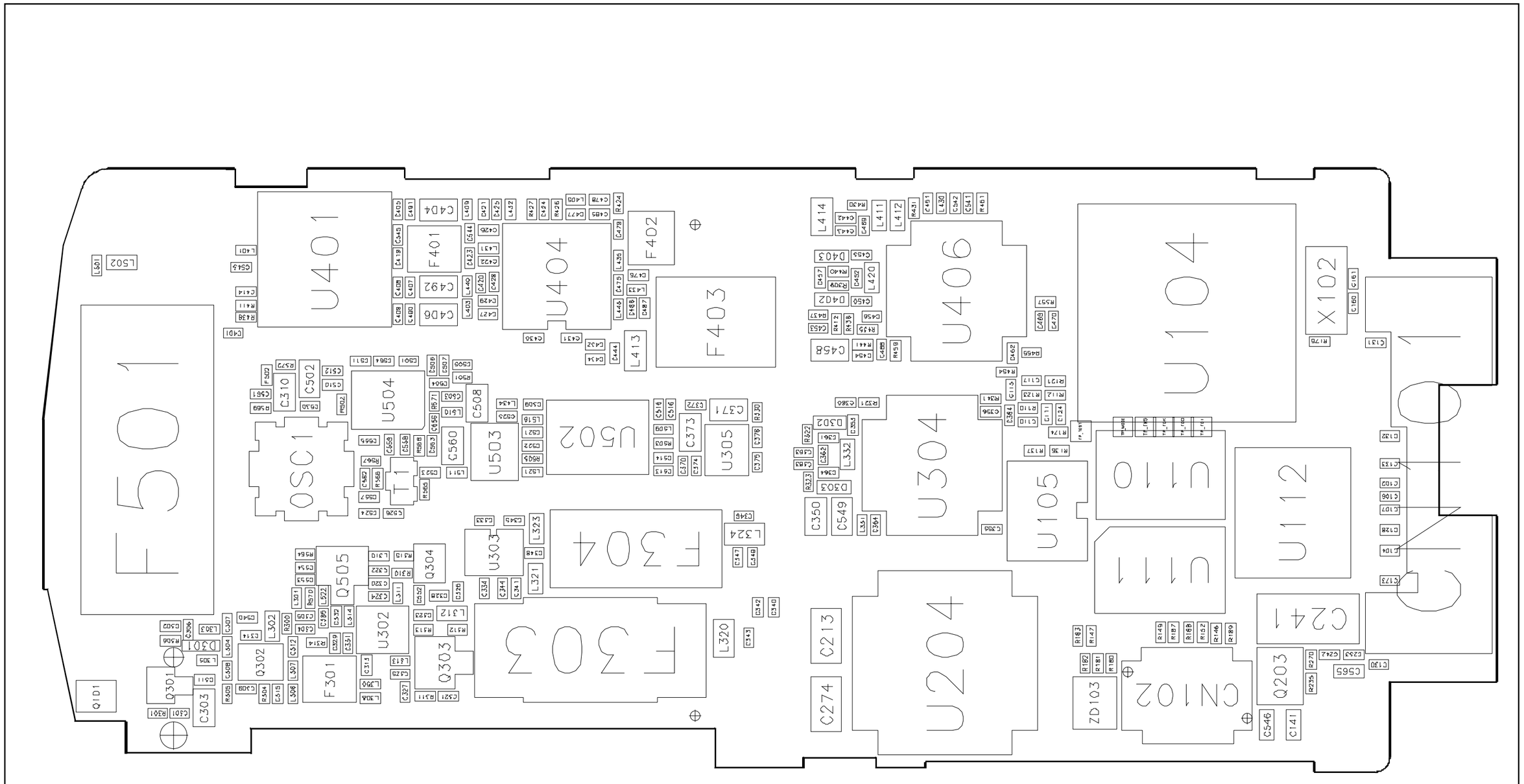
MEMO

10. PCB Diagrams

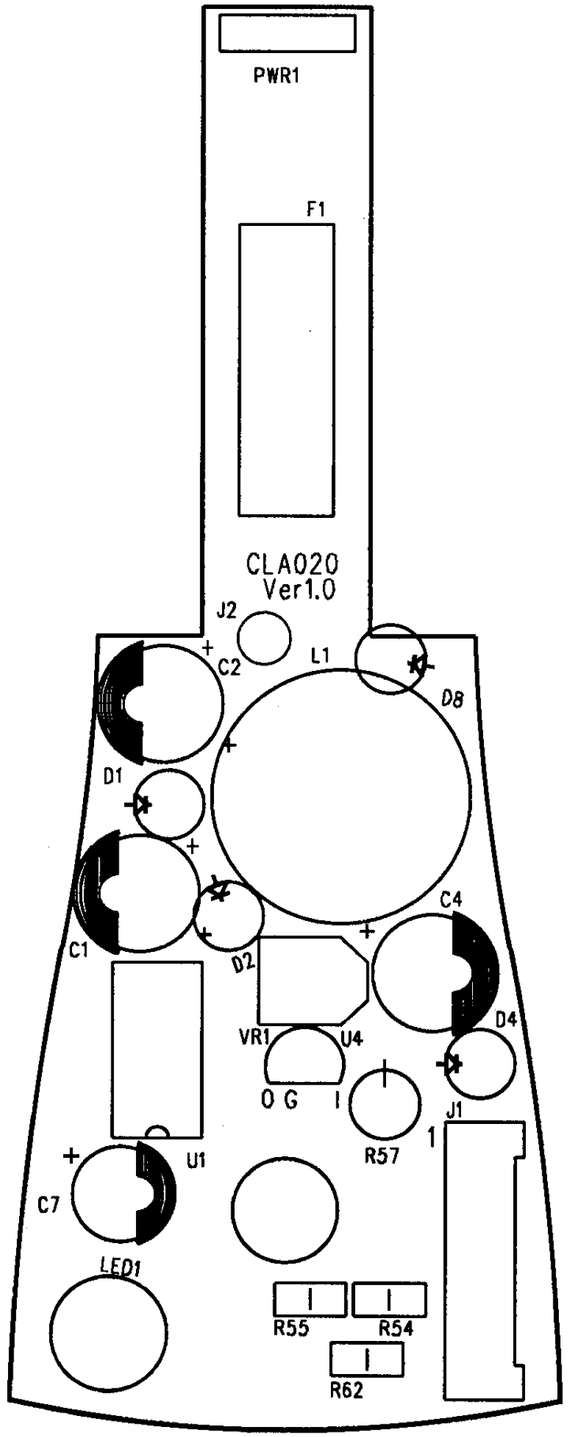
10-1 Main PCB Top Diagram



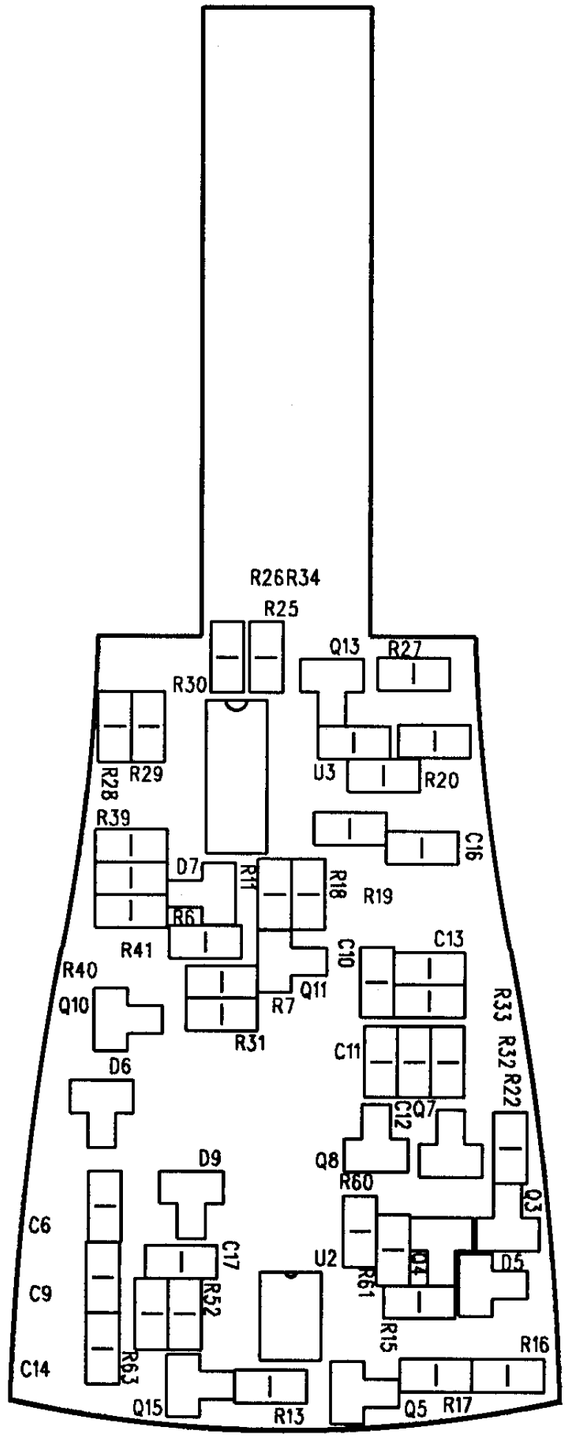
10-2 Main PCB Bottom Diagram



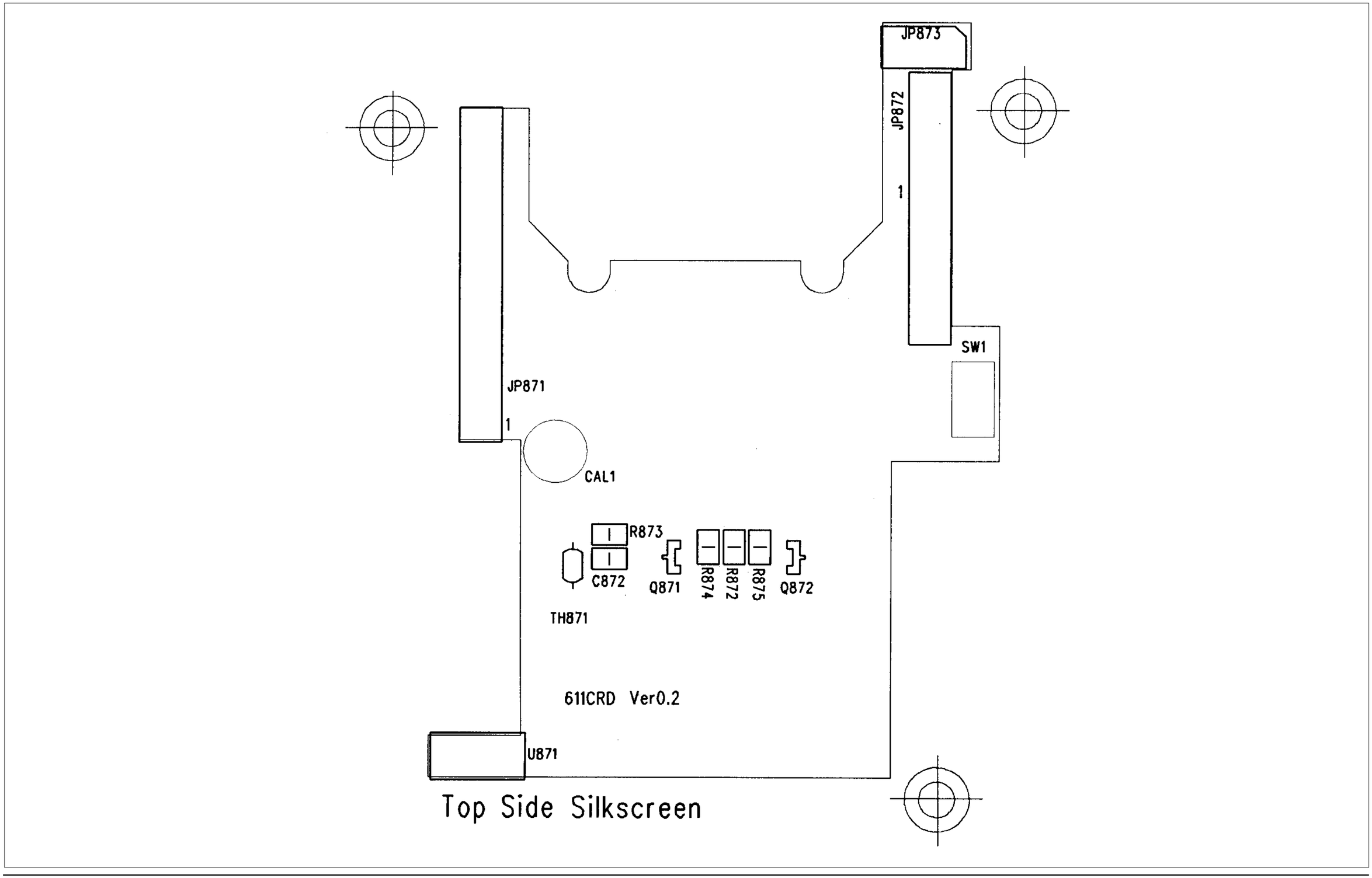
10-3 CLC PCB Top Diagram



10-4 CLC PCB Bottom Diagram

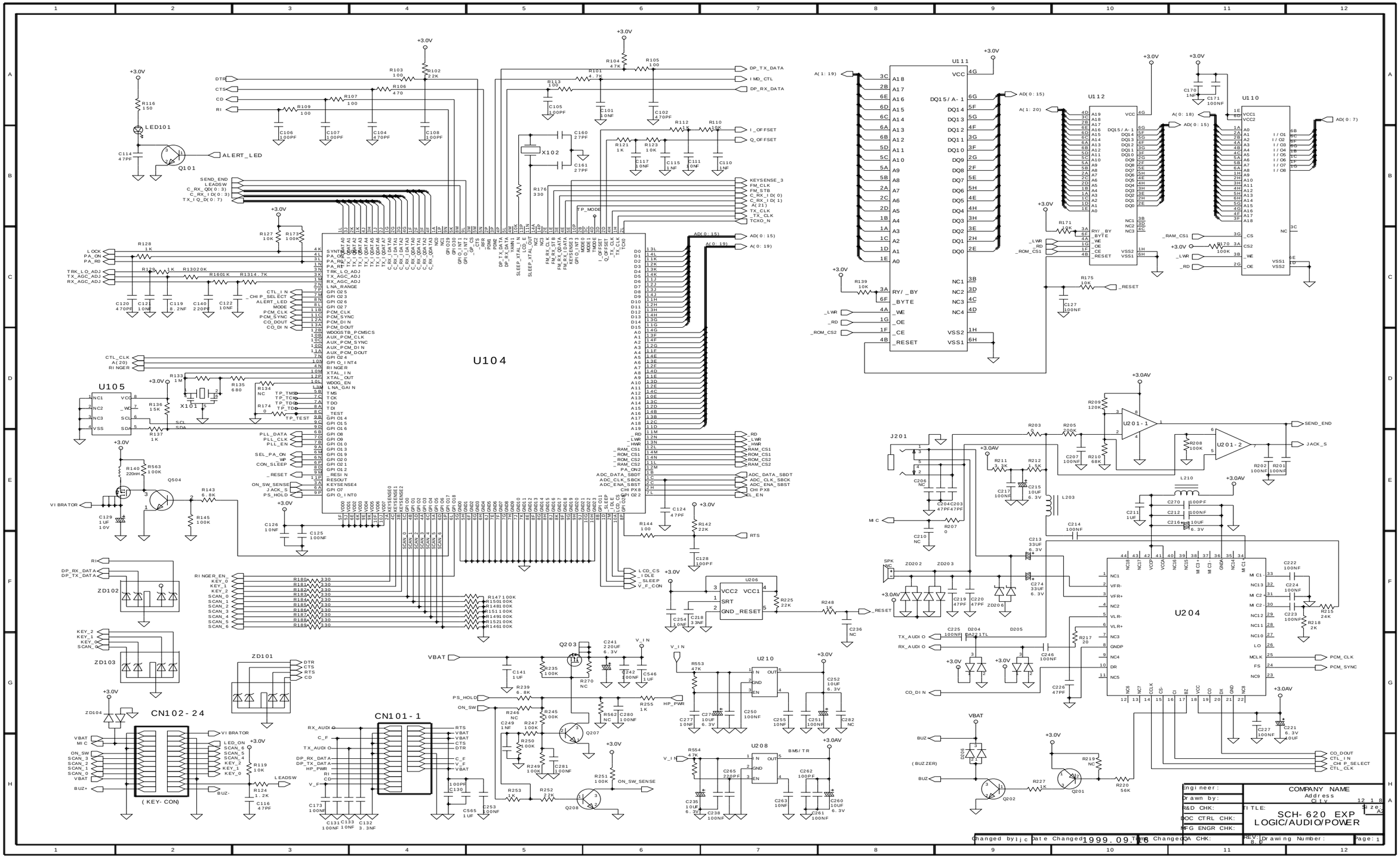


10-5 Hands-free Kit PCB Top Diagram

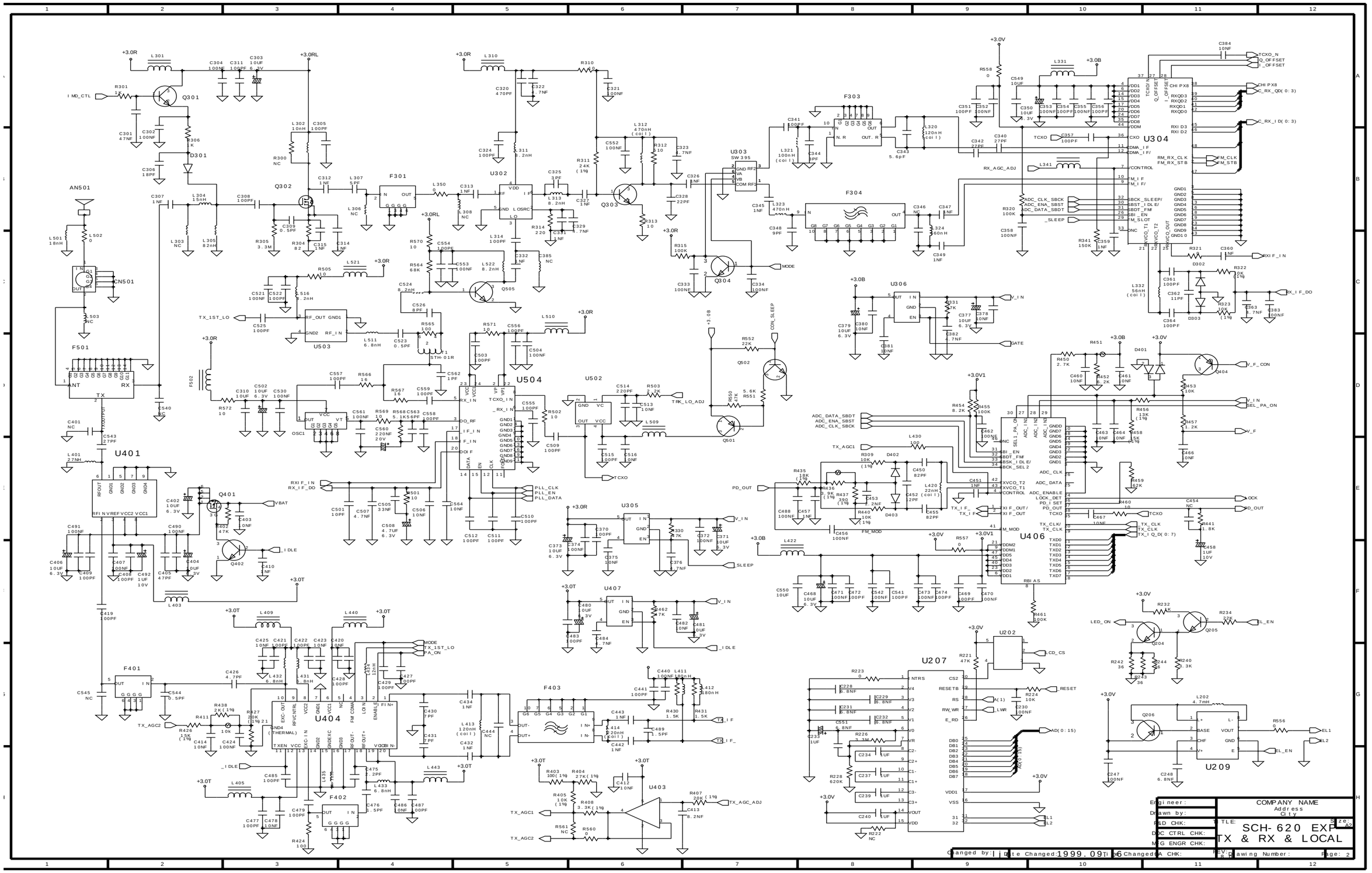


11. Circuit Diagrams

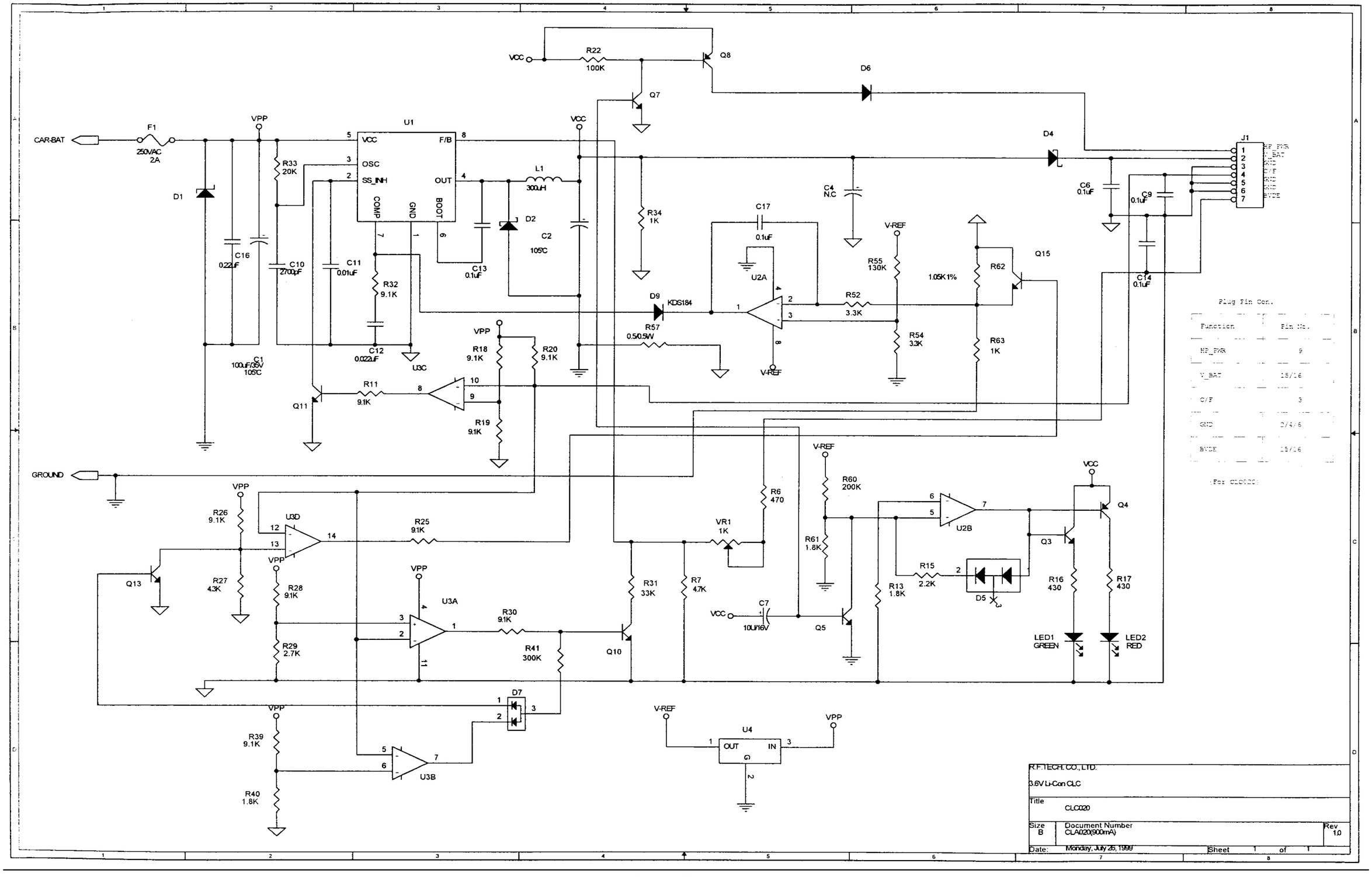
11-1 Logic & Audio & Power Circuit Diagram



11-2 TX & RX & LOCAL Circuit Diagram



11-3 CLC Circuit Diagram



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