# **Technical Document**

Document Title: WP826B CDMA After-sales Services

Manual Venezuela Version (Level 2)

All 35 Pages

(Cover Included)

Drafted <u>Kuang Fengzhi</u> Checked <u>Zhong Yapeng</u> Signed \_\_\_\_\_\_ Standardize \_\_\_\_\_\_ Approved \_\_\_\_\_\_

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# **Modification Record**

Document No.	Version	Drafted	Date	Reason	Main Modification Points
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Notice:					
1. Once you modify the document, you need to fill in the table.					

2. Please fill "none" in the modification reason and main modification points during the initial document making.



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# 1. Product Overview

No.	Part Name	Qty
1	FWP	1
2	Battery	1
3	Power Adapter	1
4	Handle	1
5	Phone Cable	1

#### **1.1 Standard Configuration**

#### 1.2 Specifications

- Dimension: 176mm\*213mm\*76. 5mm
- Weight: about 900g
- Talking Time: About 2~4 hours
- Standby Time: About 80~160 hrs
- Battery: 1800mAh; NiMH Battery

#### **1.3 Feature Introduction**

- Supporting incoming/outgoing call prompts query
- Supporting call transferring and call waiting
- Supporting three-party call
- Supporting alarm clock setting indication
- Supporting 16KHZ/12KHZ pulse billing
- Supporting indoor and outdoor antenna
- Supporting PC fax (additionally requires fax software)
- Supporting integrated or separated telephone and card
- Supporting circuit data service of 14. 4K



#### 1.4 Internal Number

Internal Model	External Model
WP826B	WP826B

# 2. Internal Structure and Principle

#### 2.1 Function Test

Version Check Instruction: \*983\*837#

ESN Check Instruction: \*#06#

#### **Testing Functions:**

Input "\*983\*0#", perform LCD, keypad, audio circuit test in order.

- LCD test: check whether there are missing lines or points on LCD while LCD displays black
   → black and white square → white and black square in order.
- Keypad test: check each of the keys except the handfree key to ensure correct input and homogeneous elasticity of keys.
- Audio circuit test: press the handfree key to check whether the volume under handfree status is normal and whether there is noise. Speak something to the fixed station to decide whether there is echo. Pick up the handle and speak to it to check whether there is echo.

#### 2.2 Downloading Software

• About software downloading

Make sure that the software of every FWP sent to repair is updated to the latest version. In other words, each repaired FWP is updated to have the latest version. During downloading the software, keep the FWP powered on and do not take down the FWP until the downloading ends up and the PASS prompt appears

 Cables for downloading data Name of the cable: WP806A FWP serial-port-to-serial-port data cable Part number of the cable: 052621600102.



Name of the cable: WP806A FWP USB-to-serial-port data cable
 Part number of the cable: 052621600103

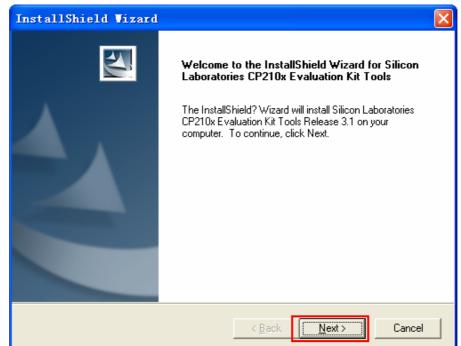


Notice: When using WP806A FWP USB-to-serial-port data cable to download software, it is necessary to install the driver for the data download cable. In case of WP806A FWP

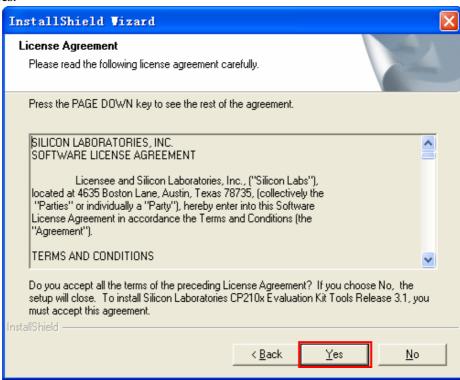
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serial-port-to-serial-port data cable is used, the driver installation is unneeded. This document only introduces the operation process while downloading software using WP806A FWP USB-to-serial-port data cable.

- Double-click the following icon for data download cable driver installation.
   Cp210x\_Drivers
- Connect the cable with the computer:
- In the driver program wizard interface, click **Next**.



• Click **Yes**.



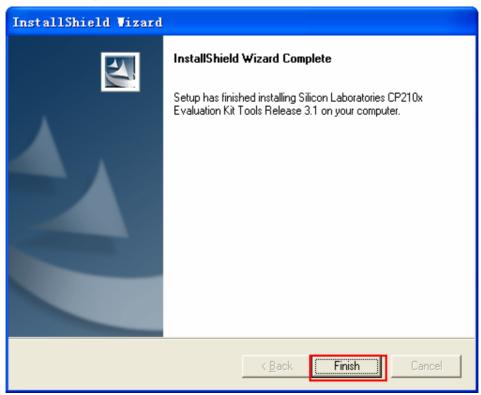
• Click Next.

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InstallShield Vizard	×
Choose Destination Location Select folder where Setup will install files.	
Setup will install Silicon Laboratories CP210x Evaluation Kit Tools Release 3.1 in the following folder.	
To install to this folder, click Next. To install to a different folder, click Browse and select another folder.	
Destination Folder	
C:\SiLabs\MCU\CP210x Browse	
nstallShield	
< <u>B</u> ack Cancel	]

• Click **Finish** to end up the installation of the data-download cable driver.





◆ Connect the data-download cable with the computer. An interface as shown below appears. Then click **No, not this time→Next.** 

Found New Hardware Wizard		
	Welcome to the Found New Hardware Wizard         Windows will search for current and updated software by looking on your computer, on the hardware installation CD, or on the Windows Update Web site (with your permission).         Read our privacy policy         Can Windows connect to Windows Update to search for software?         Yes, this time only         Yes, now and every time I connect a device         No, not this time         Click Next to continue.	
	< <u>Back</u> Cancel	

• Click Next.

Found New Hardware Wizard
Please choose your search and installation options.
<ul> <li>Search for the best driver in these locations.</li> <li>Use the check boxes below to limit or expand the default search, which includes local paths and removable media. The best driver found will be installed.</li> <li>Search removable media (floppy, CD-ROM)</li> <li>Include this location in the search:</li> <li>C:\SiLabs\MCU\CP210x\WIN</li> <li>Browse</li> <li>Don't search. I will choose the driver to install.</li> <li>Choose this option to select the device driver from a list. Windows does not guarantee that the driver you choose will be the best match for your hardware.</li> </ul>
< <u>B</u> ack Next > Cancel

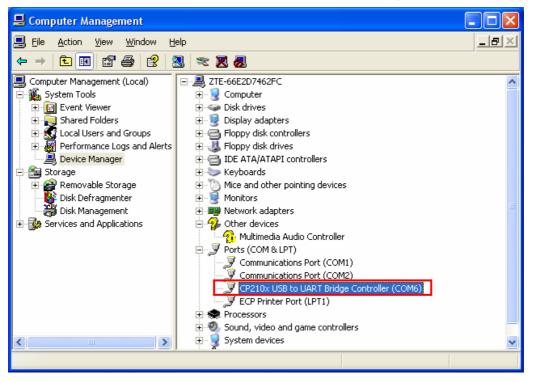


• When the installation finishes, click **Finish**.

Found New Hardware Wizard		
	Completing the Found New Hardware Wizard	
	The wizard has finished installing the software for:	
	USB Serial Port	
	Click Finish to close the wizard.	
	< <u>B</u> ack <b>Finish</b> Cancel	

Note: If the Wizard interface appears again, repeat the steps above.

◆ Click **My Computer → Device Manager → Ports** to view the serial port.





- Install the data-download platform: DL\_MULTI\_C6000\_FWPV1.00.07
   DL\_MULTI\_C6000\_FWPV1.00.07setup.exe
- After the installation is finished, double-click the shortcut icon.
   DL\_MULTI\_C6000\_FWPV1.00.07. exe
- Double-click the shortcut icon to open the **Welcome** interface. Click **OK**.

Welcome	
Rease input	t user name and password
User Name:	Operator !
Pass:	
OK	Cancel

• The interfaces appear during downloading are as shown below.

B DL_MULTI_C6000_FWPV1.00.07	
1: COM1 PREADY!	[>]
2: COM2 P Ready!	>
3: COM3 Searching COM port open error!	>
4: COM4 Searching	>
5: COM5 Searching	>
6: COM6 Searching	>
7: COM7 Searching	>
8: COM8 Searching	>
Backup and Restore NV Download mode set: Line1~Line	.8-
C Not restore and reserve NV C Not restore and erase NV C Only restore RF @ Restore RF and E5N Set Info Speed 115200 V (bps) Set C Auto Download C Repair 4: © Download C Repair 4: © Download C Repair 4: © Download C Repair	
Path Select C Repair 6: © Download C Repair	
Phone Image File         Browse         7: © Download         C Repair           Boot Image File         C:\Program Files\ZTE\DL_MULTI_C6000_FWPV1.00.07\APR         Browse         8: © Download         C Repair	
Heip         Backup NV Path         C:\Program Files\ZTE\DL_MULTI_C6000_FWPV1.00.07\NV_         Browse           Auto         Exit	



• Connect the data cable, FWP, serial port to read the information about version of the fixed station.

의 DL_MULTI_C6000_FWPV1.00.07	
1: COM1 Pready!	[>]
2: COM2 Ready I	>
3: COM3 Searching	>
4: COM4 Searching COM port open error!	>
5: COM5 Searching	>
6: COM6 Ready I SW:(MOV_WPSep 16 200615:07:32 MOV_WP826BFV1.0.0	B02)>
7: COM7 Searching COM port open error!	>
8: COM8 Searching	>
Backup and Restore NV C Not restore and erase NV C Only restore RF C Restore RF and ESN Speed 115200 (bps) Set C Auto Download C Auto Download C Manual Download C Manual Download	C Repair C Repair C Repair
Path Select 6: © Download 6: © Download	C Repair C Repair C Repair
Phone Image File     Browse       Boot Image File     C:\Program Files\ZTE\DL_MULTI_C6000_FWPV1.00.07\APR       Browse     C:\Program Files\ZTE\DL_MULTI_C6000_FWPV1.00.07\APR	C Repair C Repair
Help         Backup NV Path         C:\Program Files\ZTE\DL_MULTI_C6000_FWPV1.00.07\WV_         Browse	Exit

◆ Click Update Version File, select\*bin file type→proper version file→Open.

A DL_MULTI_C6000_FWPV1.00.07	
1: COM1 Ready ! Communication with phone failed!	>
2: COM2 Ready ! Communication with phone failed!	>
3: COM3 Searching	>
4: COM4 Searching	>
5: COM5 Searct Open ?X	>
6: COM6 Read) Look in: Download Soffware G: COM6 Read) MOV_WP826BFV1.0.1B01 MOV_WP826BFV1.0	0.0802)>
7: COM7 Search	>
8: COMB Search	>
4	set: Line1~Line8
C Not restore and rese	
Set Info File name: MOVP_WP826BFV1.0.1B01 Open 2: @ Download	
Speed 115200 V (bps) Files of type: Bin Files (",bin) V Cancel 4: © Download	Sector and the sector of the s
5: C Download	
Path Select	
7T도 뉴	g C Repair
Boot Image File C:\Program Files\ZTE\DL_MULTI_C6000_FWPV1.00.07\APR Browse 8: C Download	d C Repair
Help         Backup NV Path         C:\Program Files\ZTE\DL_MULTI_C6000_FWPV1.00.07\NV_         Browse           Auto	Exit



• Select Download Manually and then click button 🗁 to start downloading the software.

L_MULTI_C6000_FWPV1.00.07		
1: COM1 Peadyl	Communication with phone failed!	>
2: COM2 Ready!	Communication with phone failed!	>
з: сомз 💭 Searching	COM port open error!	>
4: COM4 Searching	COM port open error!	>
5: COM5 P Searching	COM port open error!	>
6: COM6 Ready I	SW:(MOV_WPSep 16 200615:07:32 MOV_WP826BFV1.0.0B02)	>
7: COM7 Searching	COM port open error!	>
8: COM8 Searching	COM port open error!	>
Backup and Restore NV	Download mode set: Line1~Line	- 8
Not restore and reserve NV     Not restore and erase NV     Only restore and erase NV     O	C Repair     C Repair     C Manual Download	
Path Select	6:   Download  C Repair	
ZTE中兴         Phone Image File         D:\Documents and Settings\kfz\Deskto           Boot Image File         C:\Program Files\ZTE\DL_MULTI_C6000		
Help Backup NV Path C:\Program Files\ZTE\DL_MULTI_C6000	_FWPV1.00.07\NV_ Browse Auto Exit	

• During downloading, the interfaces are as shown below:

L_MULTI_C6000_FWPV1.00.07		
1: COM1 PREADY I	Communication with phone failed!	>
2: COM2 Ready 1	Communication with phone failed!	>
з: сомз 🖉 Searching	COM port open error!	>
4: COM4 Searching	COM port open error!	>
5: COM5 Searching	COM port open error!	>
6: COM6 Running	Backuping NV item	>]
7: COM7 Searching	COM port open error!	>
8: COM8 Searching	COM port open error!	>
Backup and Restore NV		Download mode set: Line1~Line8
C Not restore and reserve NV C Not restore and erase NV C Only re	store RF 🖲 Restore RF and ESN	1: © Download C Repair
Set Info		2: C Download C Repair
Speed 115200 - (bps) Set C Auto Download	Manual Download	3: © Download C Repair
		4: C Download C Repair
- Path Select		5: C Download C Repair
	p\Download Sotfware Browse	6: © Download C Repair 7: © Download C Repair
	· · · · · · · · · · · · · · · · · · ·	8: C Download C Repair
Boot Image File C:\Program Files\ZTE\DL_MULTI_C600	0_FWPV1.00.07\APR Browse	
Help Backup NV Path C:\Program Files\ZTE\DL_MULTI_C600	0_FWPV1.00.07\NV_ Browse	Auto Exit



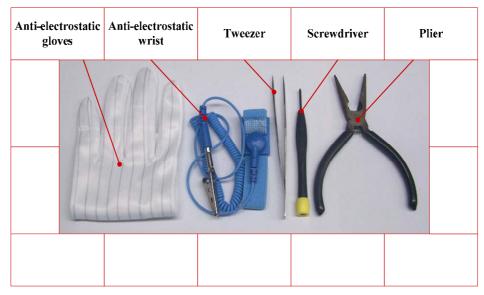
• After the downloading is finished, click **Exit** to end up the downloading.

A DL_MULTI_C6000_FWPV1.00.07	
1: COM1 Communication with phone failed!	[>]
2: COM2 Ready.l	>
3: COM3 Searching	>
4: COM4 Searching	>
5: COM5 COM port open error!	>
6: COM6 PASS 1 SW:(MOV_WP5ep 16 200615:07:32 MOV_WP826BFV1.0.0B02)	>
7: COM7 Searching	>
8: COM8 Searching	>
Backup and Restore NV Download mode set; Line1~Line	ne8
C Not restore and reserve NV C Not restore and erase NV C Only restore RF C Restore RF and ESN Set Info Speed 115200 (bps) Set C Auto Download C Auto Download C Manual Download C Manual Download C Repai C Manual Download C Repai C Repai	r r
Path Select 6: © Download © Repair	
Phone Image File         D:\Documents and Settings\kfz\Desktop\Download Sotfware         Browse         7:         © Download         © Repair           Boot Image File         C:\Program Files\ZTE\DL_MULTI_C6000_FWPV1.00.07\APR         Browse         8:         © Download         © Repair	
Help         Backup NV Path         C:\Program Files\ZTE\DL_MULTI_C6000_FWPV1.00.07\NV_         Browse           Auto         Exit	

#### 2.3 Disassembling Flow

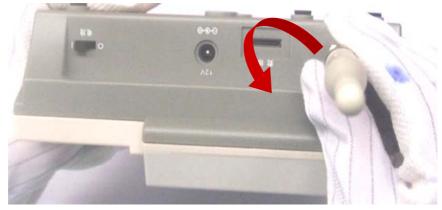
Notice: WP826B FWP is available in two colors, black and while. WP826B FWP for Venezuela is black. In this document, white WP826B FWP is used to describe the disassembling flow of WP826B FWP for Venezuela.

• Tools used to disassemble the fixed station.





• Screw off the antenna.



• Screw off the antenna ring using the plier.



◆ Find the positions of the interfaces from the left to the right, antenna interface→data interface
 →power interface→battery switch.





• Pay attention to the positions of five screws.



• Take down the battery cover and the card cover.



• Separate the surface shell and the bottom shell with the disassembly.



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• Take out the battery using the tweezers, paying attention to the position of the battery interface.





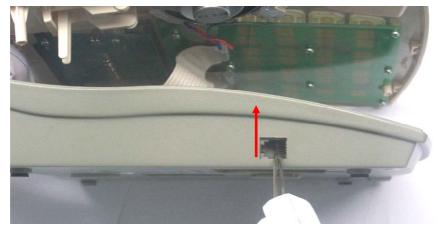
• Take down MIC using the tweezers.



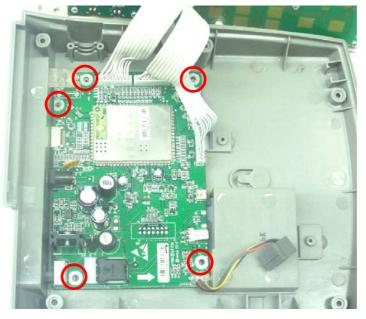




• Take the handle interface out from the slot using the tweezers.



• Pay attention to the positions of five screws used to fasten the main board.

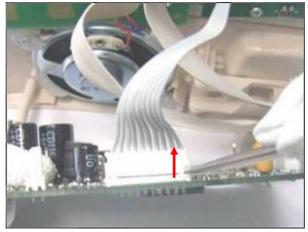




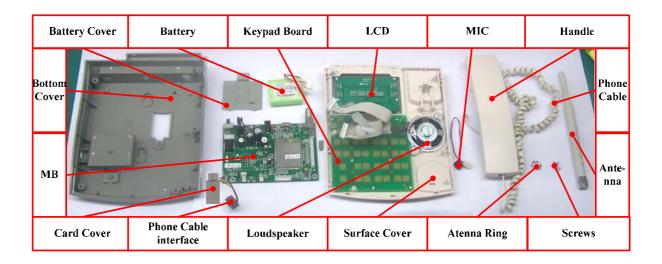
• Pay attention to the connection of LCD and keypad cable.



• Take out the cable interface using the tweezers.

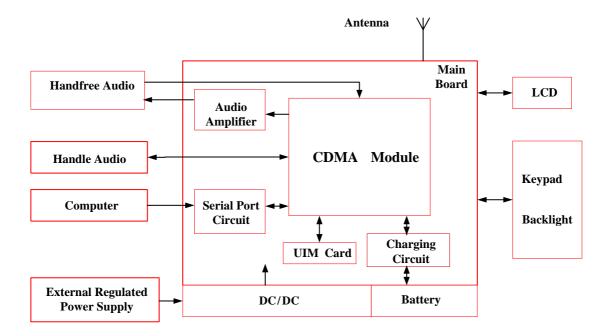


# 2.4 Components

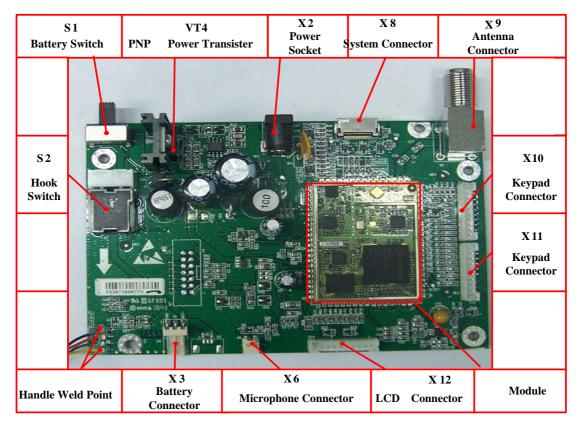




### **2.5** .Block Diagram for Principle

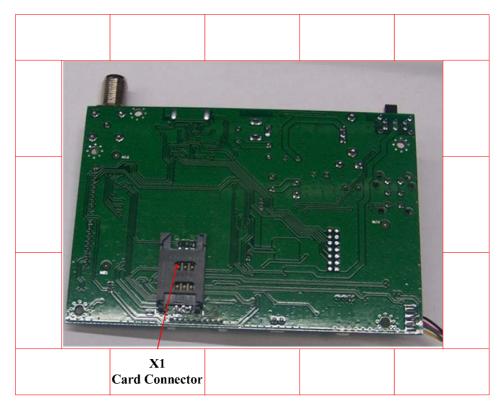


#### 2.6 Basic Device Distributing

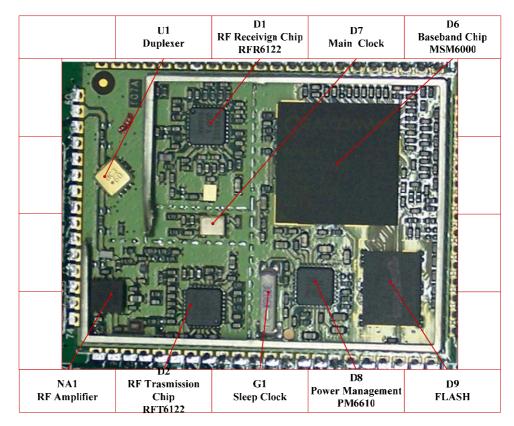


MB Top Distributing Picture





MB Top Distributing Picture

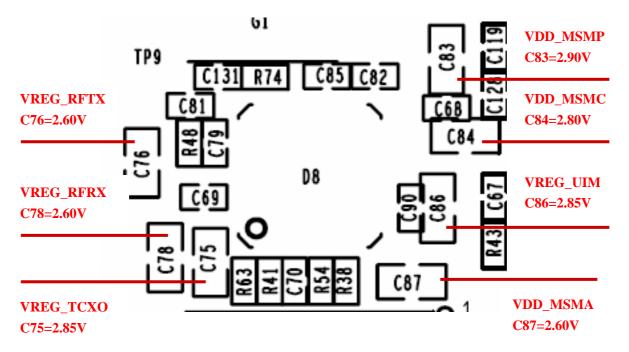


Material Object Picture of RFMB Module



# 2.7 Main Test Points

Name	Voltage	<b>Test Points</b>	Function	
	Value			
VREG_TCXO	2.85V	C75	Providing power supply for TCXO of	
			RF circuit	
VREG_UIM	2.85V	C86	Providing power supply for UIM card	
VREG_RFTX	2.60V	C76	Providing power supply for RF	
			transmission loop.	
VREG_RFRX	2.60V	C78	Providing power supply for receiving	
			front-end of RF	
VDD_MSMP	2.90V	C83	Providing power supply for peripheral	
			devices in system	
VDD_MSMA	2.60V	C87	Providing power supply for analog	
			circuit of baseband part of system	
VDD_MSMC	2.80V	C84	Providing power supply for core of	
			MSM6000	



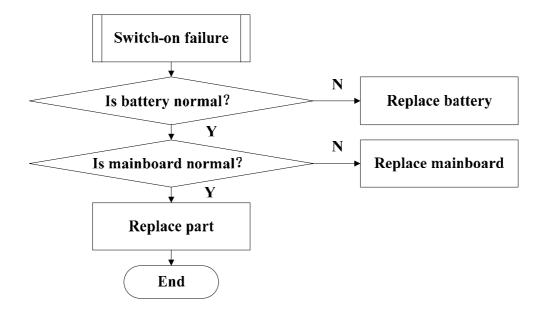
# 3. Flow Chart of Familiar Troubleshooting (Level 1)

#### 3.1 Components Failure

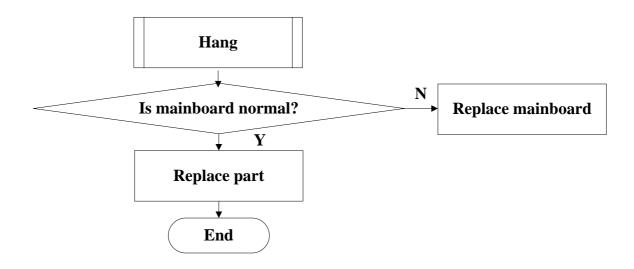
Please replace the faulty components referring to the disassembling steps.



#### 3.2 Switch-on Failure

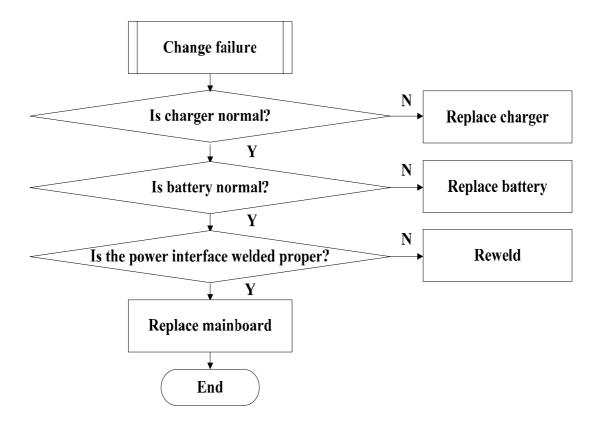


#### 3.3 Hang

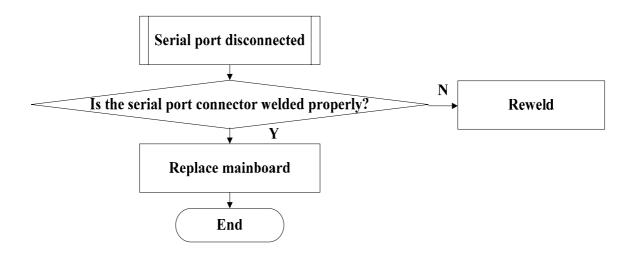




# 3.4 Change Failure

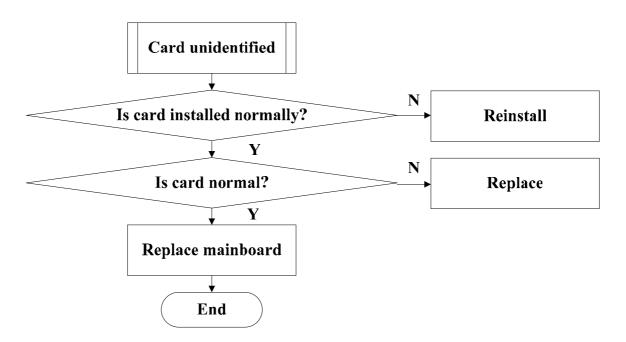


#### 3.5 Serial Port Disconnected

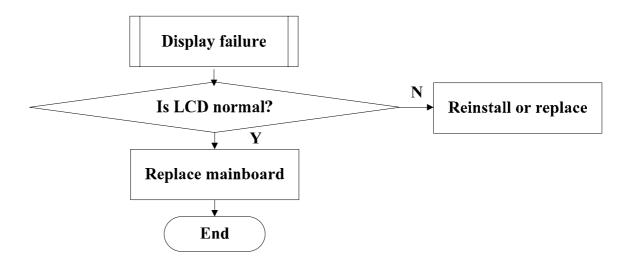




#### 3.6 Card Unidentified

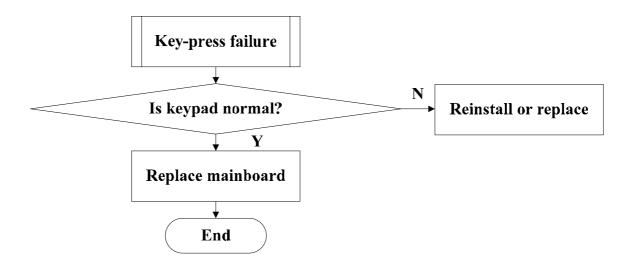


3.7 Display failure

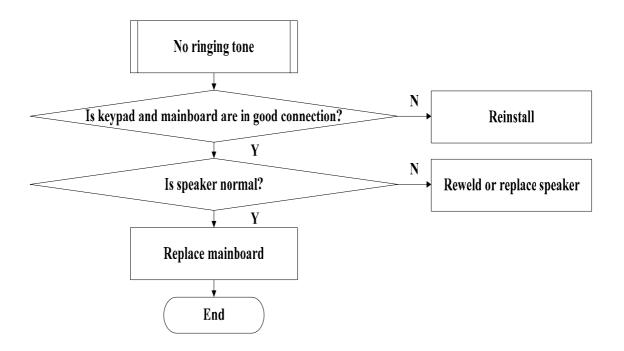




# 3.8 Key-press failure

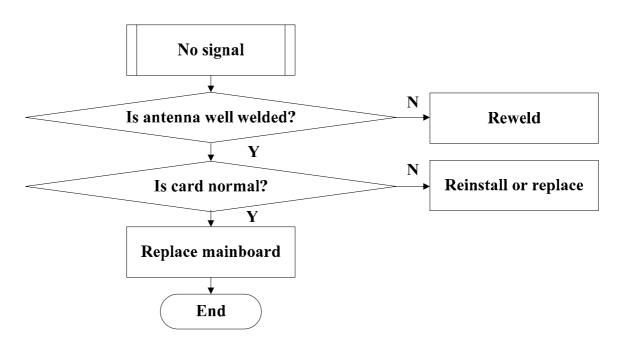


#### 3.9 No Ringing Tone



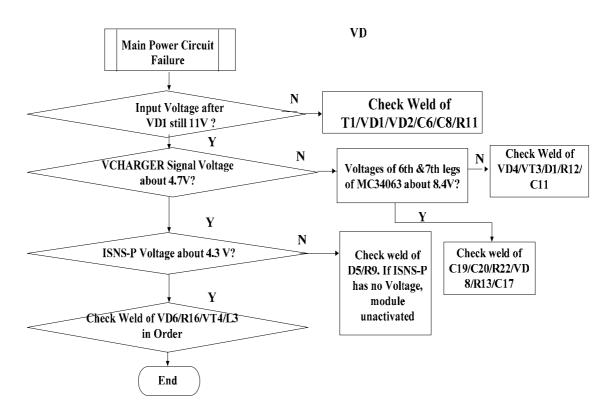


#### 3.10 NO Signal



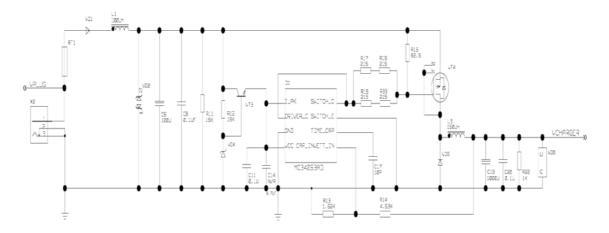
# 4. Flow Chart of Familiar Troubleshooting (Level 2)

#### 4.1. Main Power Circuit Failure

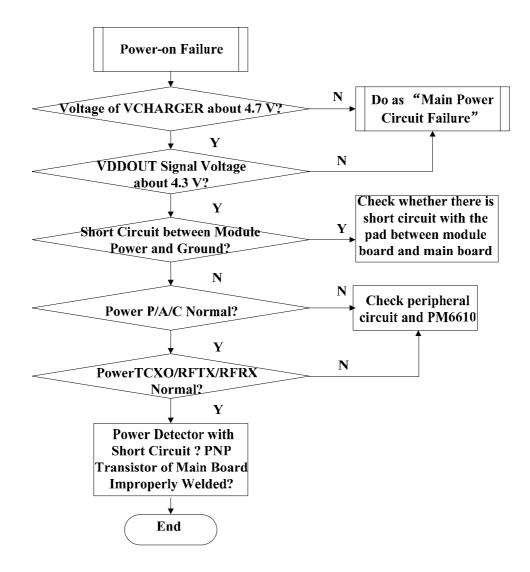


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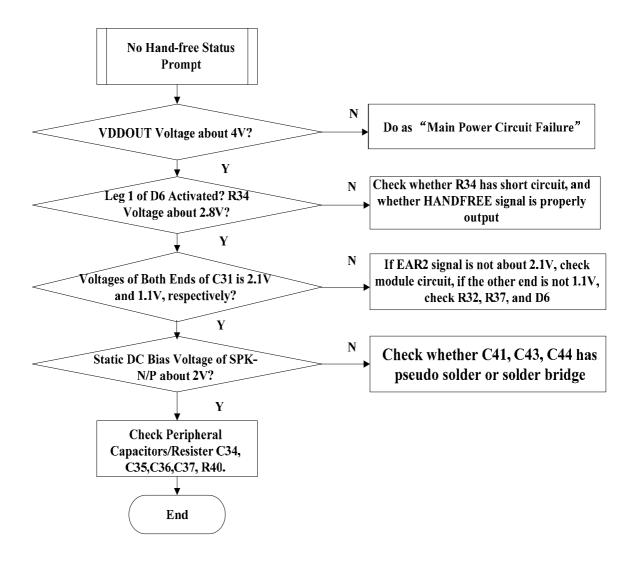


#### 4.2. Power-on Failure



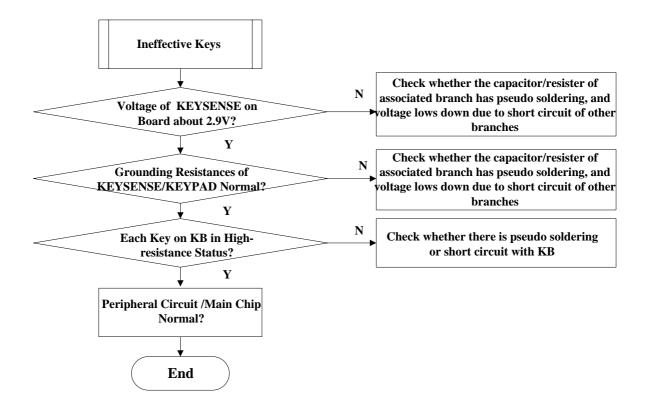


#### 4.3. No Hand-free Status Prompt

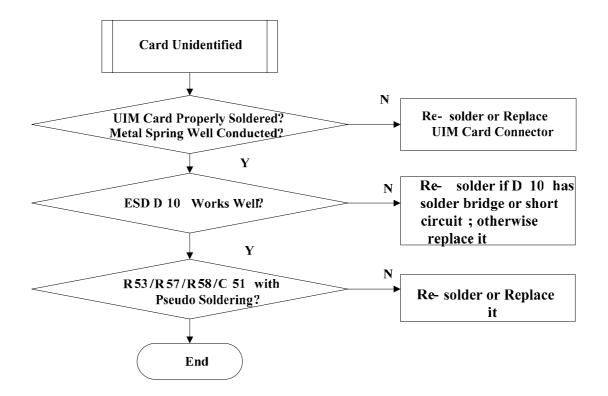




#### 4.4. Ineffective Keys



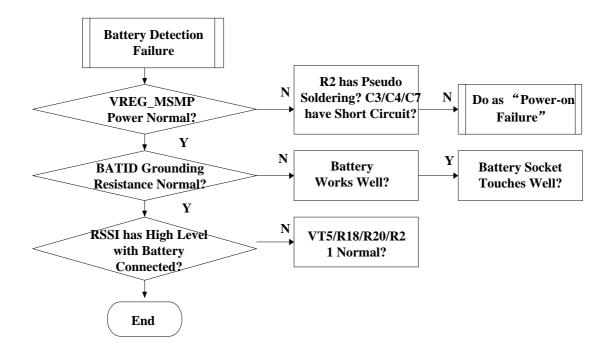
#### 4.5. Card Unidentified



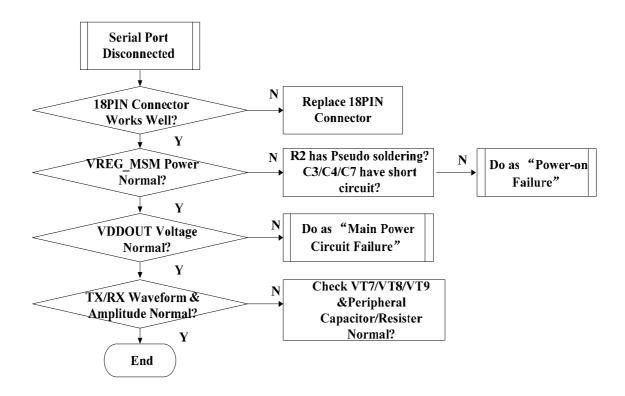
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#### 4.6. Battery Detection Failure

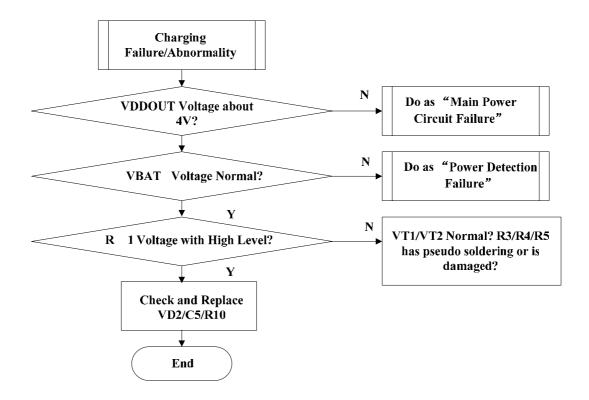


#### 4.7. Serial Port Disconnected



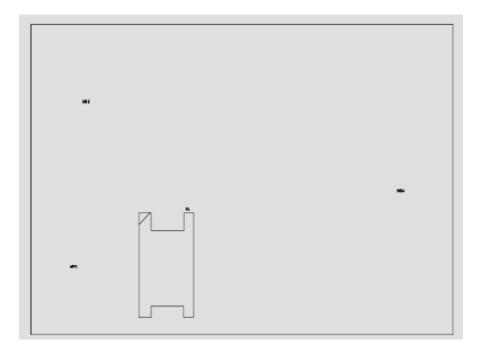


#### 4.8. Charging Failure/Abnormality

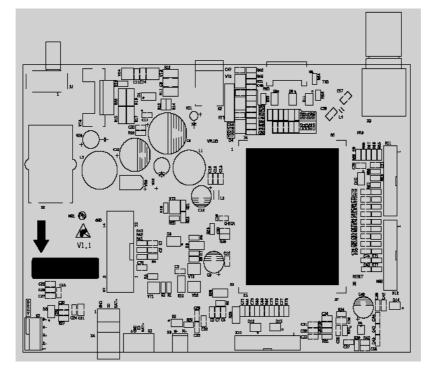


# 5. Schematic Diagram for Main Board and Module

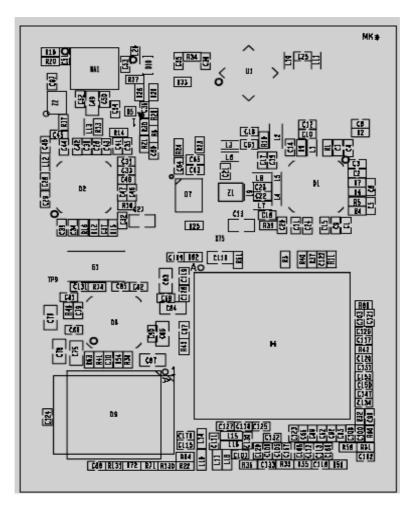
#### 5.1. Schematic Diagram for Main Board







#### 5.2. Schematic Diagram for Module





# 6. Part List

# 6.1 FWP Part List

WP82	WP826B CDMA Wireless Access Fixed Station Parts List (Black for Venezuela)		
No.	P/N	Part Name	
1	035040100027	Loudspeaker	
2	035040300010	Microphone (Video Phone)	
3	035040400007	Receiver (Video Phone)	
4	035030100119	WP806 LCD Module	
5	055401001291	WP806A Upper Cover (Black)	
6	050603400002	Fixed Station 1800mAh Ni Battery (Customized by Venezuela)	
7	055401100031	WP826B SIM Card Cover (Black)	
8	055401100030	WP826B Battery Cover (Black)	
9	055401100029	WP826B Bottom Cover(Black Outboard)	
10	055401001301	WP806A Digital Key	

# 6.2 MB Part List

WP826B CDMA Wireless Access Fixed Station Board Parts List			
No.	P/N	Part Name	Board Number
1	002010500006	Audio Amplifier	D6
2	003030100037	Switch-mode Power Converter	D1
3	004020100007	Bidirectional Transient Voltage Suppressor	VD2
4	042011900029	TNC Connector	X9
5	042120200005	SIM Card Connector	X1
6	042090100002	470 Power Socket	X2
7	042120300002	System Connector jack (slice pin)	X8
8	044010800007	DP2T type lateral slide switch	S1
9	128542150005D	WP826B RFMB	D4



#### 6.2. Module Part List

V	WP826B CDMA Wireless Access Fixed Station Module Parts List			
No.	P/N	Part Name	<b>Board Number</b>	
1	002030200008	SPDT Analog Switch	VT4	
2	006030200043	FLASH	D1	
3	012090200039	QUALCOMM Single Chip	D2	
4	014010100031	Dual (NPN+ PNP) Digital Transistor	VT2,VT3	
5	015010200072	RF Power Amplifier	NA1	
6	015020200063	Directional Coupler	D3	
7	036010200019	SAW Duplexer	DP1	

Notice: This is the main parts list. If you need a detail one please apply it from local after-sales Service manager.