



ARIA II SERVICE MANUAL

CAUTIONS

- 1. Please read this service manual carefully and make sure all elements of anti-static are in place before the repair work is carried out.
- 2. Servicing and alignment **MUST** be undertaken by qualified personnel only.
- 3. Please use specified tools and equipments for servicing, in which the parameters need to be calibrated with specified criteria.

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Aria II Features & Functions

- ♦ Dual SIM
- ♦ MT 6260M
- ♦ Fashion bar phone
- ♦ FM
- ♦ Moner detector flash
- ♦ Multi-Media application
- ♦ 0.08M sw upgarde to 0.3M by sw
- ♦ T-Flash (Support 8G T Card)
- ♦ 1.8"TFT 128*160
- ♦ MP3、MP4、AVI

Specification:

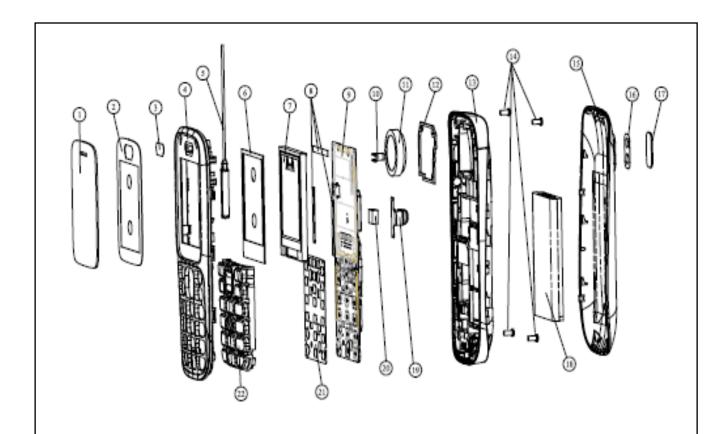
Network: 900MHz/1800MHz, 850MHz/1900MHz

Display: 1.8"TFT 128*160

Camera: 0.08M sw upgarde to 0.3M by sw;

Travel Charger AC Adaptor: 5V 500mah Lithium Battery: Standard (900mAh) Bluetooth Version: BT 3.0, HFG, OPP

Chapter 2 Exploded View



1. Lens

5. FM antenna

13 Back cover

22 Keypad

3. Receiver

7. LCD

18 Battery

4. Front cover

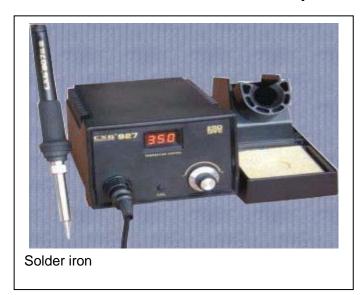
9. PCBA

19 Camera

11. Speaker

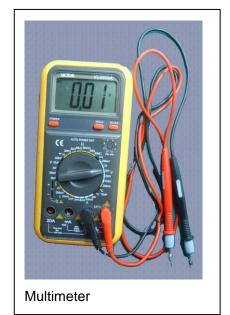
21 DOME

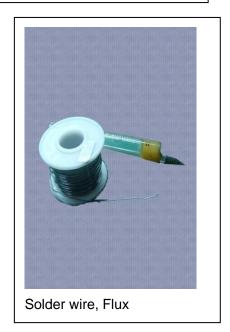
Chapter 3 Tools

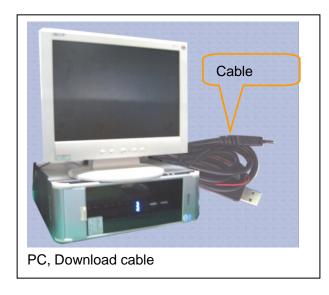


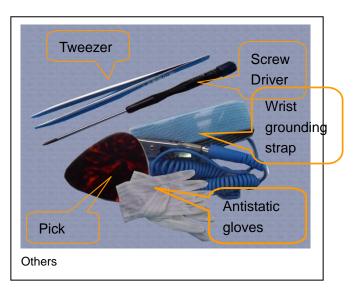








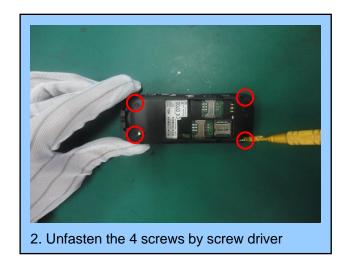




Chapter 4 Disassembly & Assembly

1. Disassembly Process



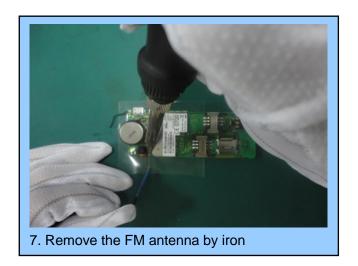


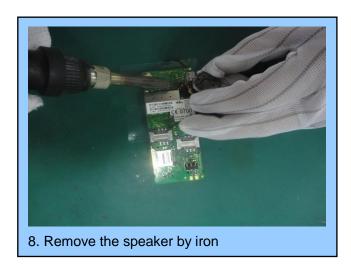


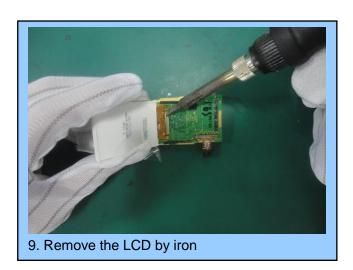


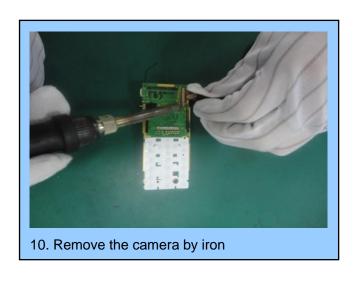


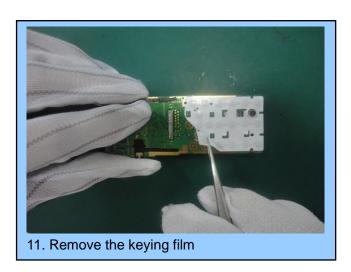






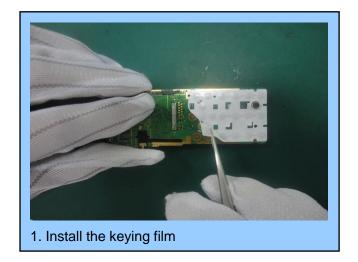


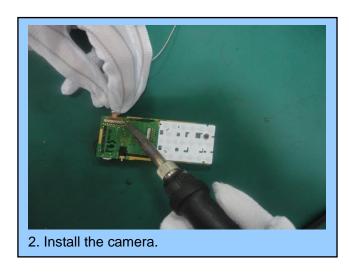




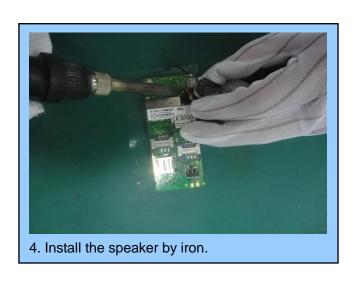
Finished.

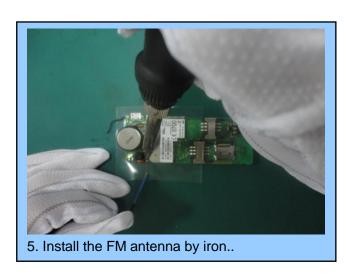
2. Assembly Process



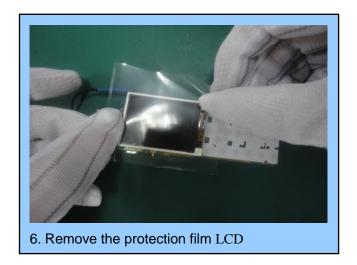






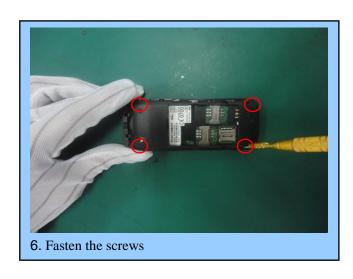








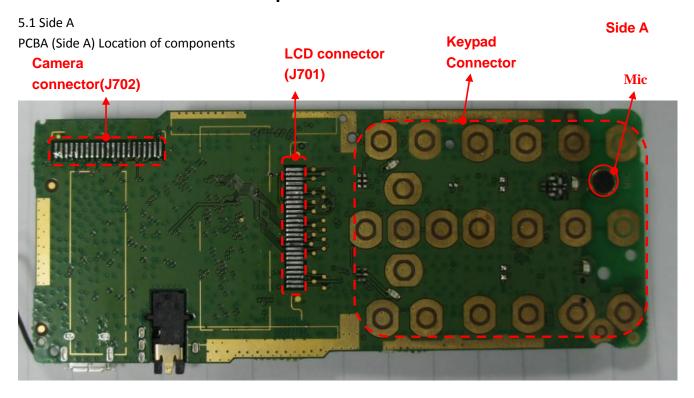






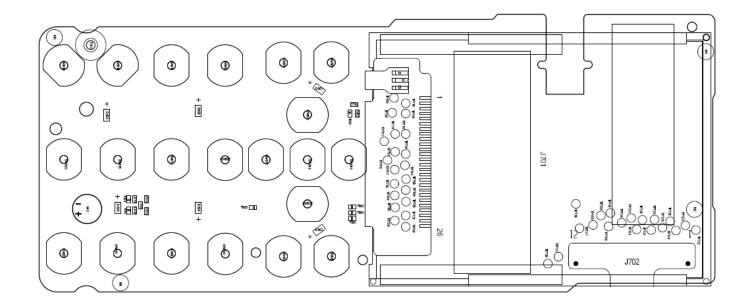
Finished.

Chapter 5 Picture of PCBA

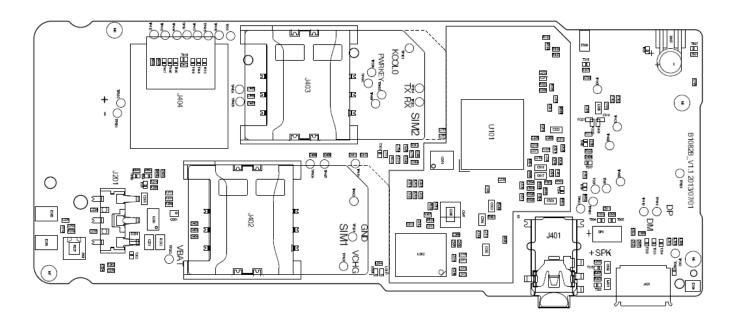


5.2 Side B Side B PCBA (Side B) Location of Components **SIM** connector **T-flash connector** 26Mhz Light (J403)(J404) (U301) **Emitting diodes U101 CPU Battery conector RF PA** I/O connector Earphone **SIM** conector (J201) (U302) (J405)connector (J402)(J401)

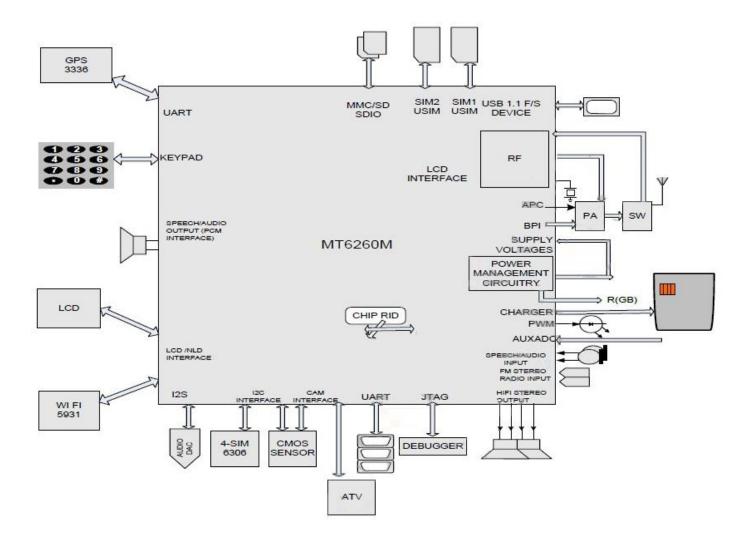
5.3 PCBA Layout side A



5.4 PCB Layout Side B



Chapter 6 System Block Chart



Chapter 7 Unit Circuit

7.1.1 System Overview

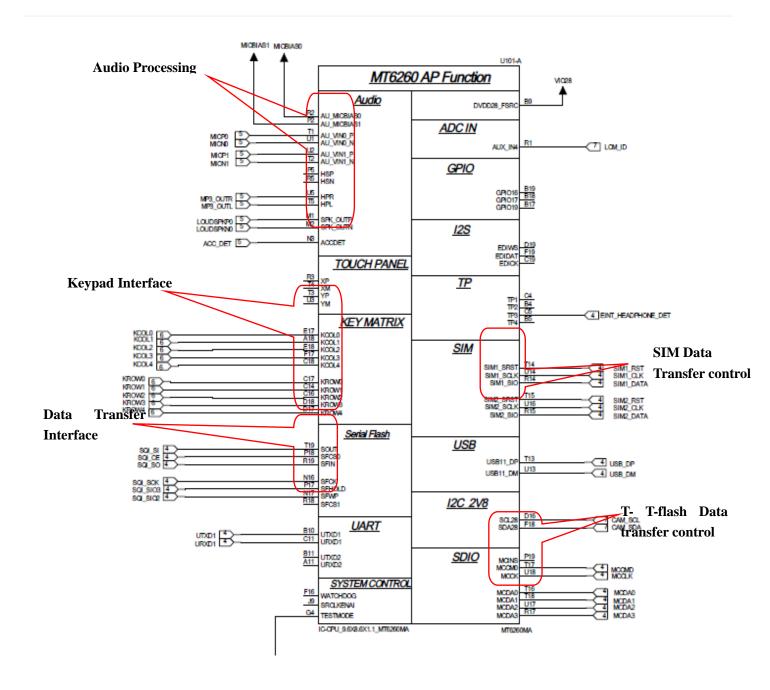
MT6260M is a monolithic chip integrating leading edge power management unit, analog baseband and radio circuitry based on the low power CMOS process.

MT6260M is a feature-rich and extremely powerful single-chip solution for high-end GSM/GPRS and EDGE-Rx capability. Based on the 32-bit ARM7EJ-S RISC processor, MT6260M's superb processing power, along with high bandwidth architecture and dedicated hardware support, provides a platform for high-performance GPRS/EDGE-Rx Class 12 MODEM application and leading-edge multimedia applications.

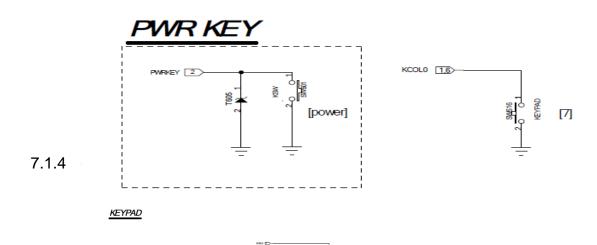
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	
Α	AV88_28	RXLB_P	RXLB_N	X	AVSS_28	XTAL1	\overline{X}	X	DVDD28	X	URXD2	CMPCLK	X	CMPDN	CMDAT5	X	CMMCLK	KCOL1	GND	А
В	RXHB_P	RXHB_N	X	TP2	TP4	XTAL2	AVSS_BT	BT_LNA	DYCODE, FSRE	UTXD1	UTXD2	CMRST	CMDAT3	CMDATO	CMDAT4	CMVREF	GPI019	GPIO17	GPIO16	В
С	TXO_LB	тхо_нв	AVES_2G	TP1	TP3	X	CLK_SEL	AVSS_BT	BPI_BUS1	BPI_BUSD	URXD1	X	CMDAT2	KR0W1	CMDAT7	KROW2	KR0W0	KCOL4	EDICK	С
D	AVSS_2G	AVS5_2G	\times	AVSS_2G	\times	FREF1	\times	\times	BPI_BU32	\times	BPI_BUS3	CMDAT6	\times	DVDD28	\times	SCL28	KROW4	KROW3	EDIWS	D
Ε	VCAMA	VRF	VBAT_VA	\times	AVSS43LPHU	\times	AV88_28	\times	X	\times	CMHREF	CMDAT1	\times	\times	\times	\times	KCOL0	KCOL2	\times	Е
F	\geq	VCAMD	\times	VREF	\geq	BATSNS		\geq	AVCCIC_CIAMA	VDDK	\geq	\times	\times	000048.600	01/00/15_51/1	WATCHDOG	KCOL3	SDA28	EDIDAT	F
G	\geq	ISINKO	ISINK1	тектикове	AGND	ISENSE		\geq	\geq	GND	\geq	GND	\geq			NLD1	NLD0	\times	GND	G
Н	KPLED	ISINK2	ISINK3	PWRKEY	\geq	\times		\geq	\mathbb{X}	\times	GND	\geq	\geq			NLD7	NLD2	LSRSTB	\times	Н
J	DRV	BATDET	CHR_LDO	VCDT	\geq	BATON	AVSS43JPNU	\geq	BROUKENA	GND	\geq	GND	\boxtimes			LSCE1_B	LPTE	NLD3	NLD8	J
К	FLYN	FLYP	\times	AV6843_CP			AVSS43_PILL	$\geq \langle$	XTAL SEL	RESETB	\geq	VDDK	\boxtimes			LPA0	NLD4	LPRSTB	NLD6	К
L	\geq	VBOOST	AVDD13_CP	AVES13_EPK	AVSELS_RIU			VRTC	XIN	XOUT			\times			LWR_B	LRD_B	LPCEO_B	\times	L
М	SPK_OUTP	SPK_DUTN	VBAT_SPK	\geq		AV8845LPWU										DVDD86_SF	LPCE1_B	GND	GND	M
N	\geq	\times	ACCDET	\geq				VUSE	VSIM2	VSIM1						SCK	SWP	NLD5	\times	N
Р	APC	AU_HIOBIAS1	\times	\geq	HSP											\times		SFCS0	MCINS	Р
R	AUX_IN4	AU_MOBIASO	ΧP	\times	HSN	\times	VSF	VMC						SIM1_SIO	SIM2_SIO	eveess_vites	MCDA3	SFCS1	SIN	R
Т	AU_VINO_P	AU_VINI_N	YP	XM	HPL	VIBR	$\stackrel{\textstyle{\sim}}{\sim}$	VIO18	VCORE	AV88_FM	TM_ANT_N	AVOD25_FM	U3811_DP	SIMI_SRST	SM2_SMST			MCDA1		T
U	AU_VINO_N		YM	AV8020_A88	HPR	VA	X	VIO28	VEATIDISITAL	\cong	FN_ANT_P	GND	UB811_DM	BINH_BCLK	\cong			мсск		U
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	

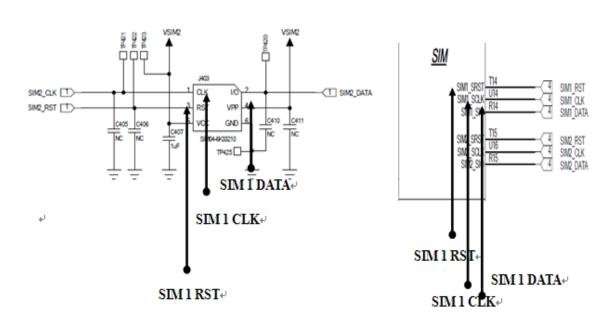
Chapter 7 Unit Circuit

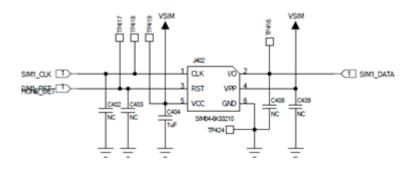
7.1.2 Baseband & CPU



7.1.3 Keypad Input Interface

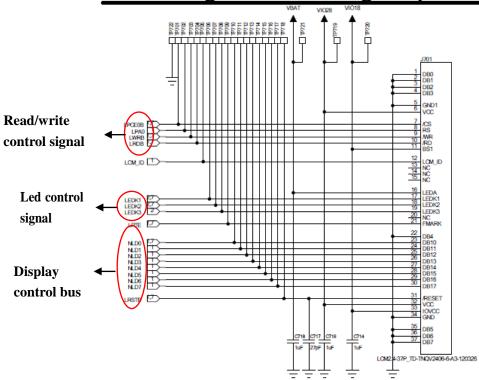




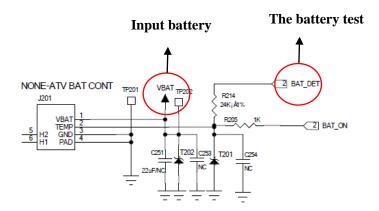


7.1.5 Display interface circuit

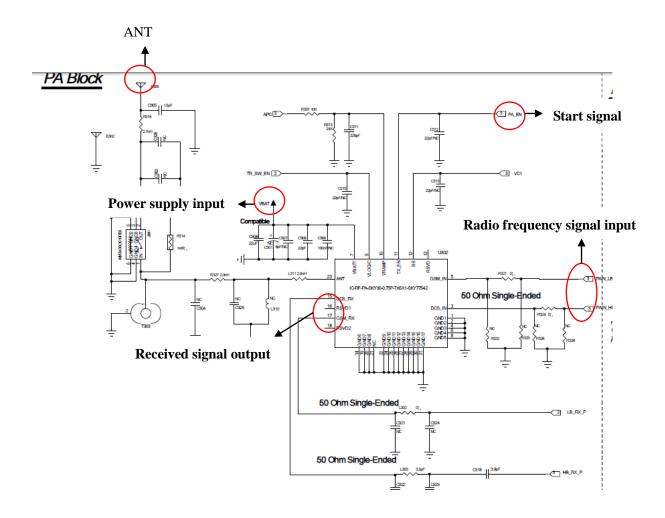
The Backlight can be configured; £24mA/48mA



Battery Connector

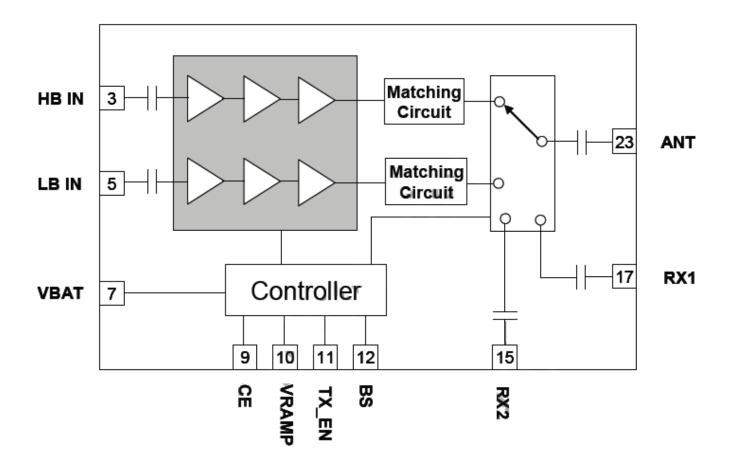


7.1.6 Power amplifier

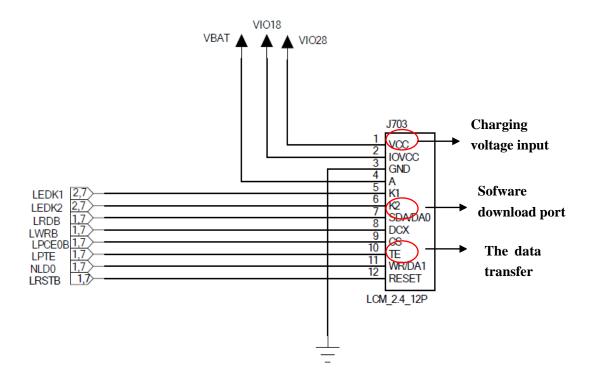


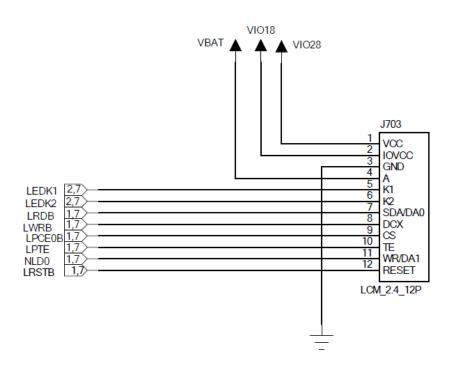
System Overview

The AP5200 is a dual-band frond-end module for GSM900 and DCS1800 operation. It offers complete handset transmitting and receiving function including, transmitting RF transceiver-to-antenna and receiving antenna-to-SAW filter, in a compact module. It also supports GPRS Class 12 multi-slot operation.



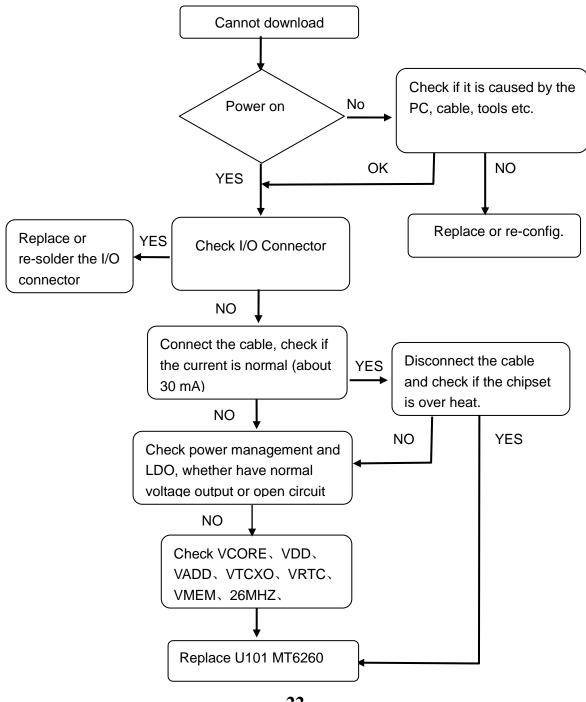
7.1.7 I/O Interface (5PIN)



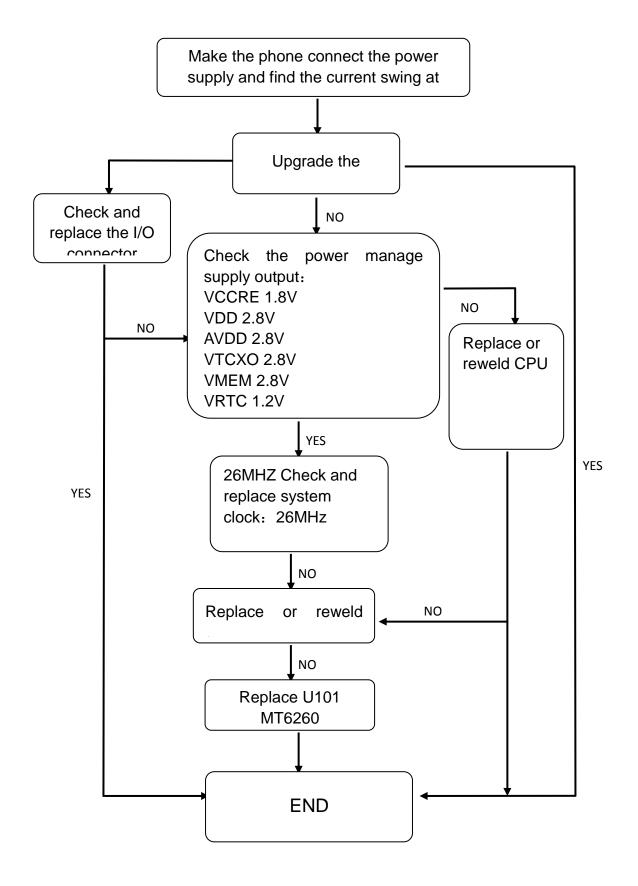


Chapter 8 Trouble shooting guide

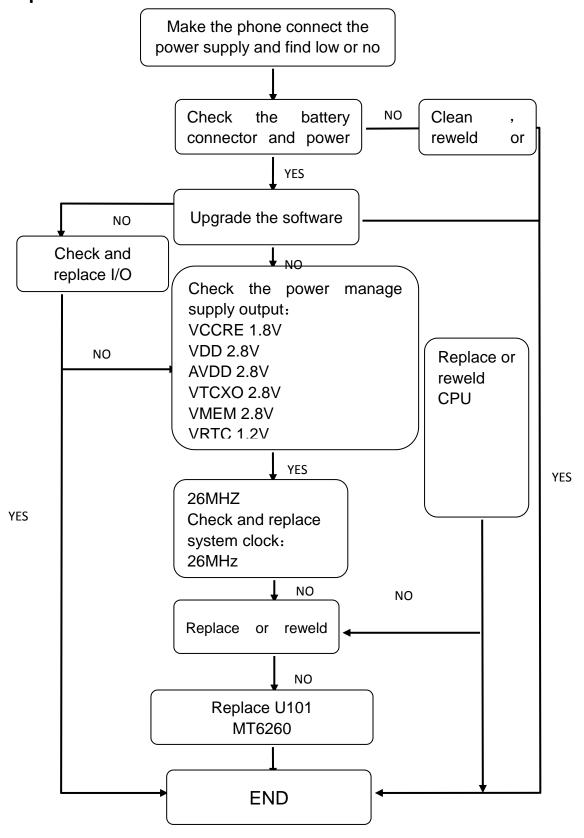
Can't Download



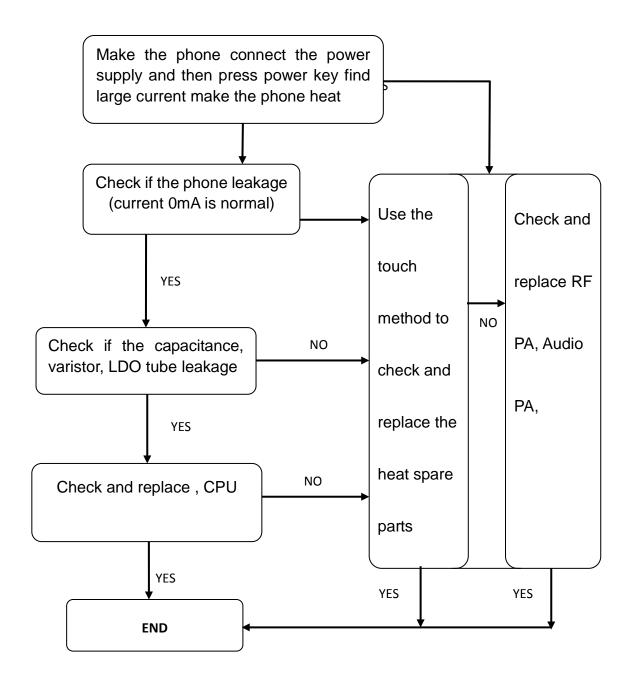
Cannot power on-current swing instability



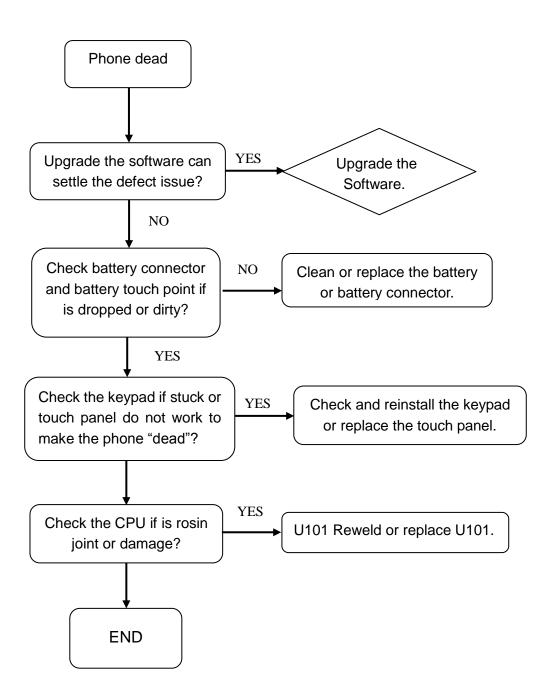
Cannot power on-low or no current



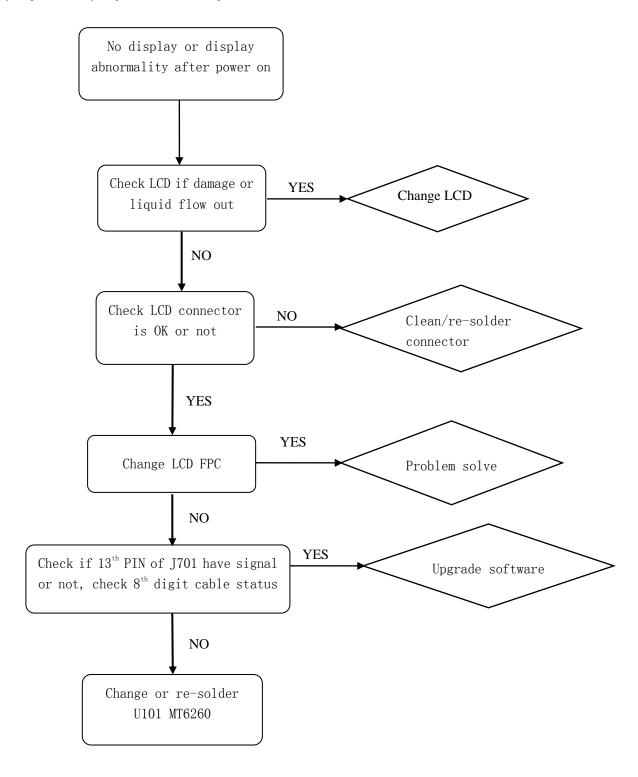
Cannot Power on-large current



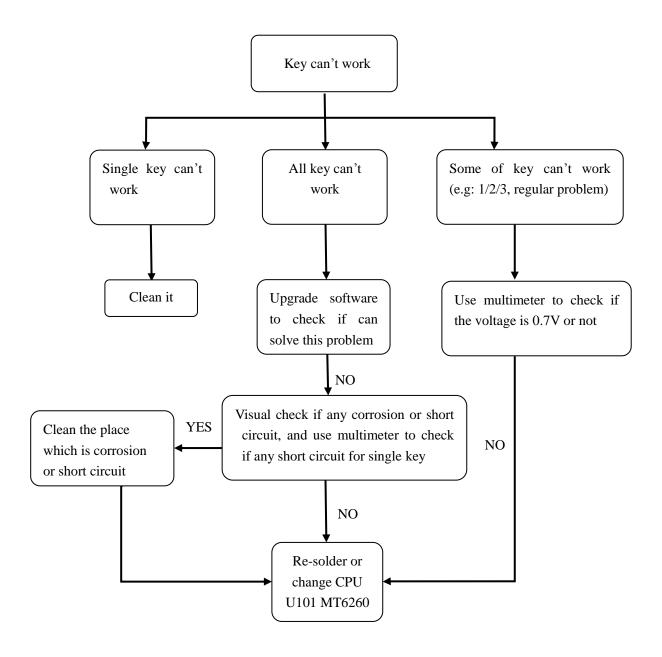
Repair flow for phone dead



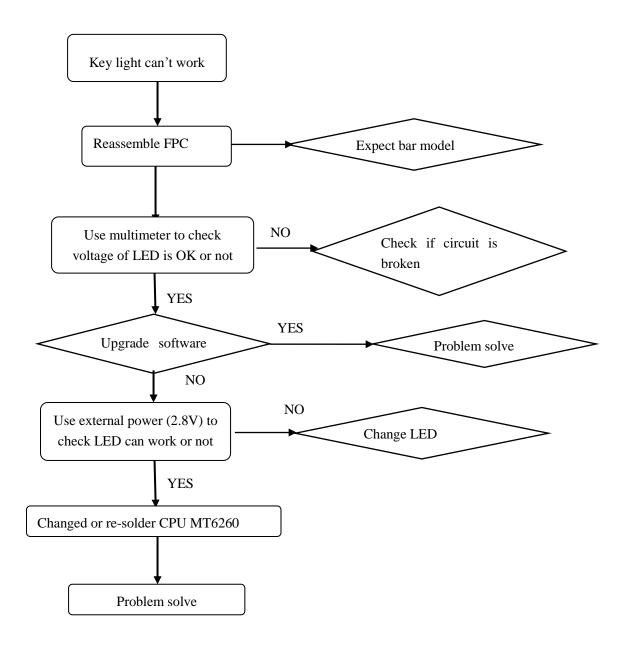
No display or display abnormality



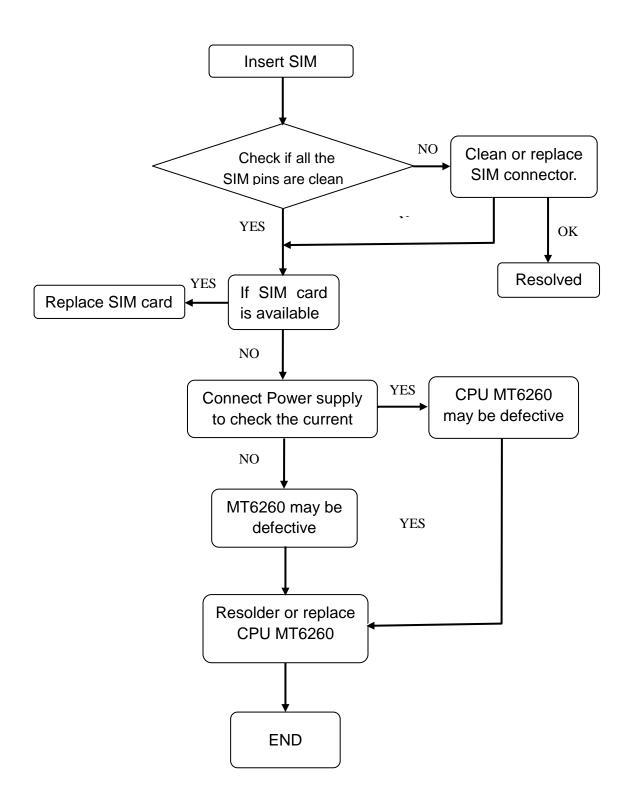
Test process for Key can't work



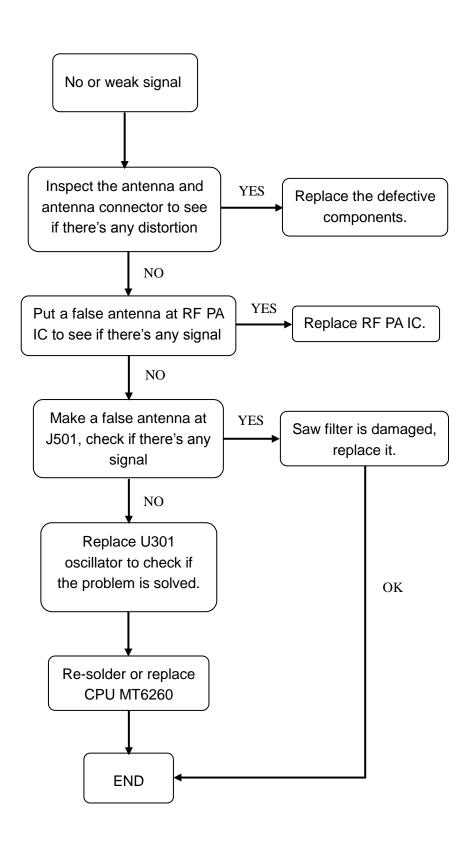
Key light can't work



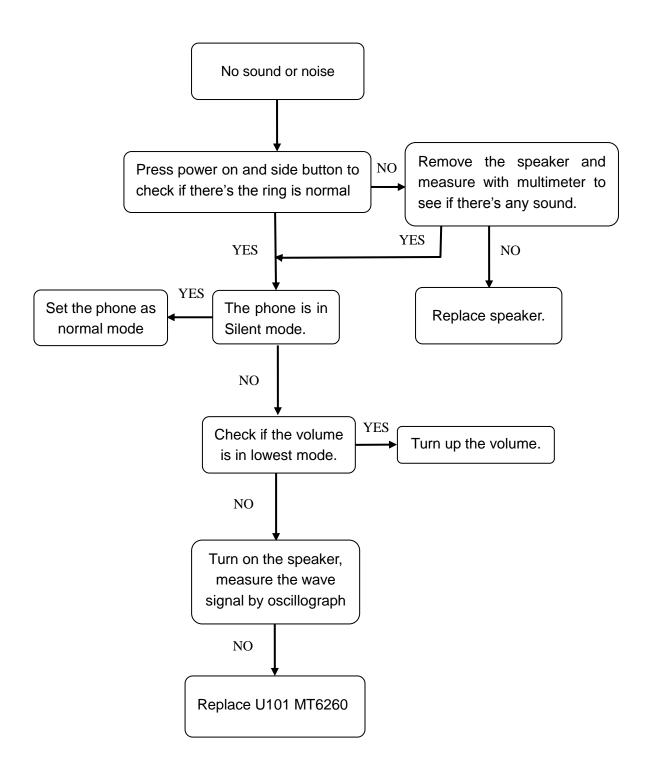
Insert SIM Repair Process



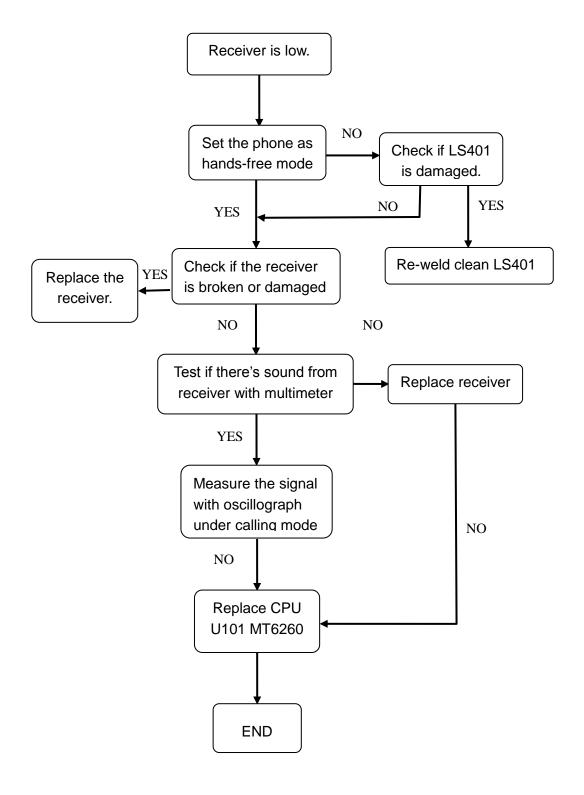
N0/weak signal trouble shooing



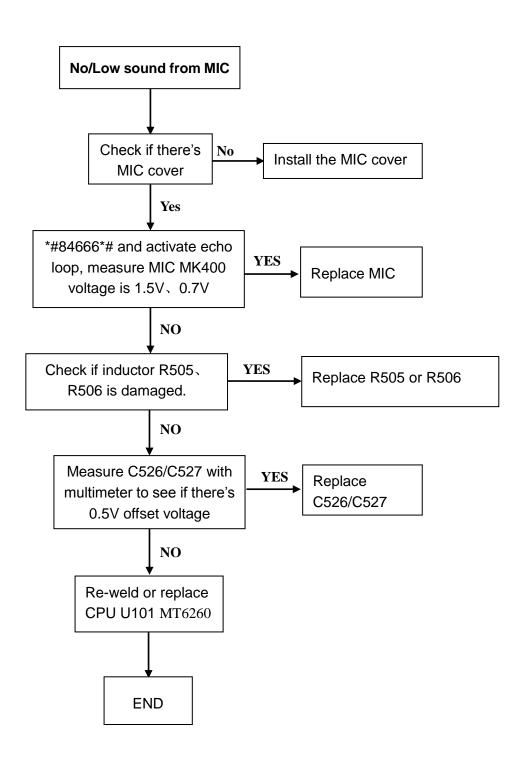
No/Low sound from Speaker



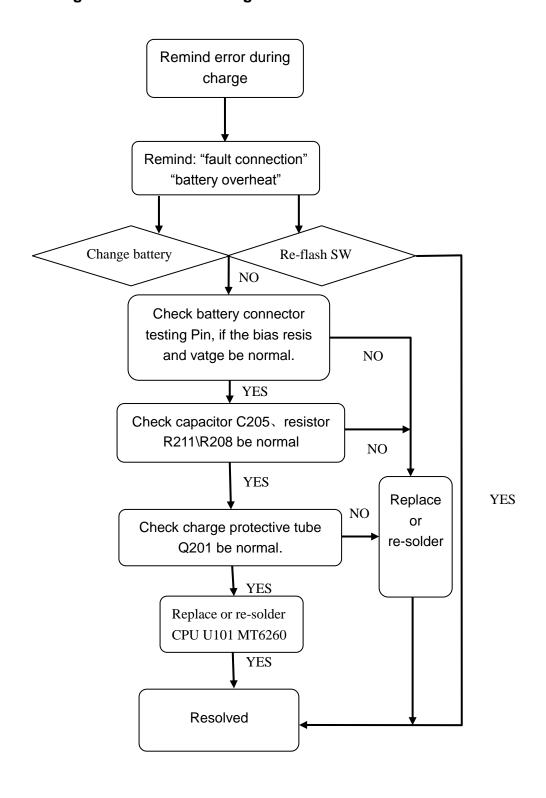
Receiver low voice or no voice



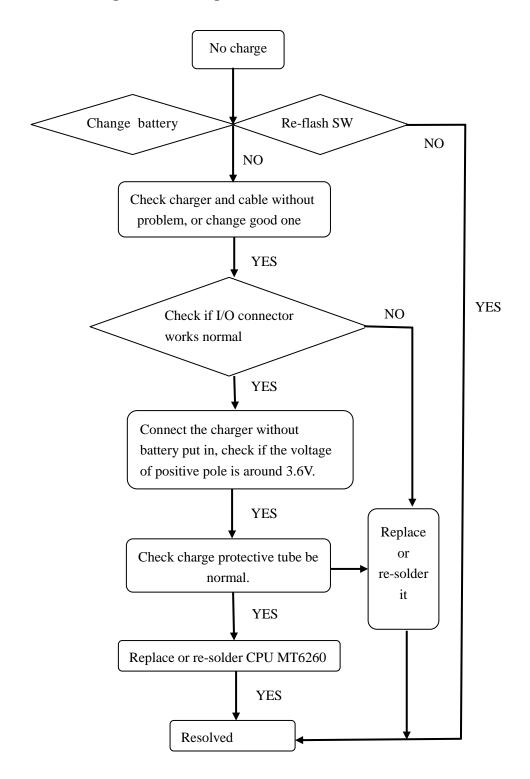
No/Low sound from MIC



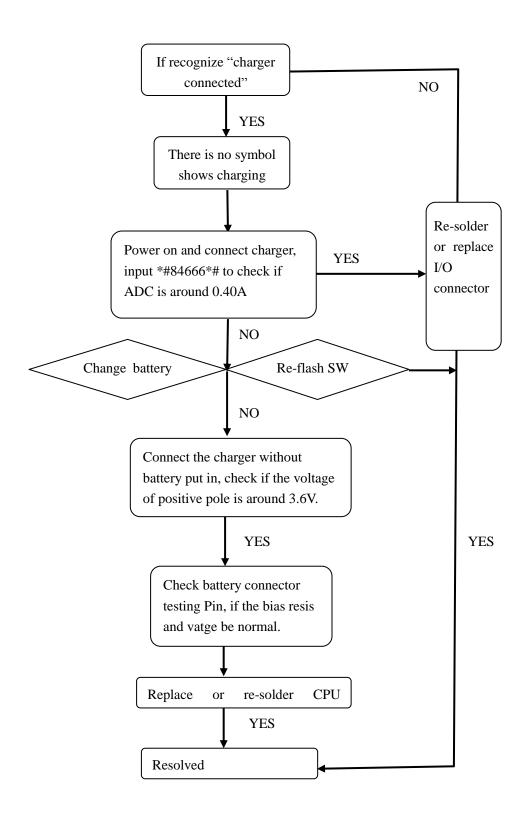
Does not charge - remind error charge



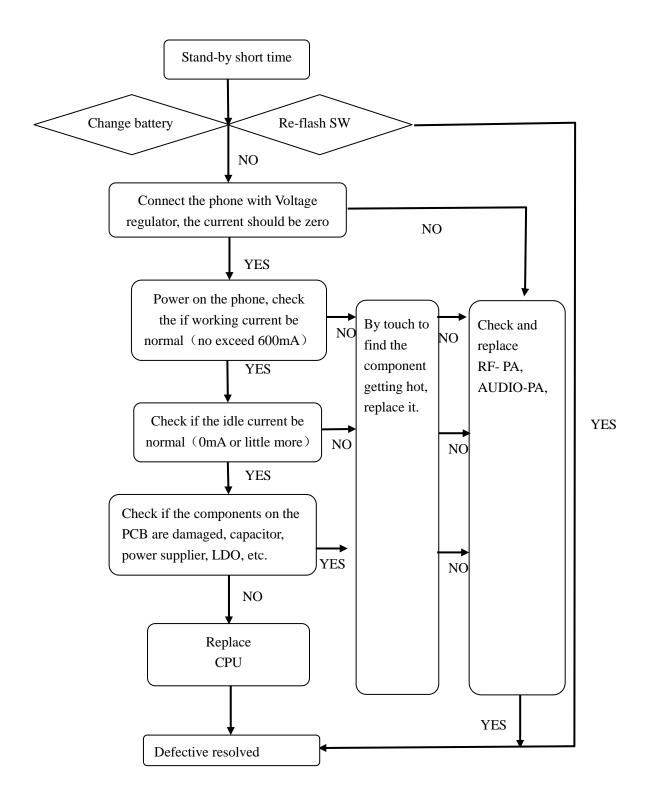
Does not charge - no charge



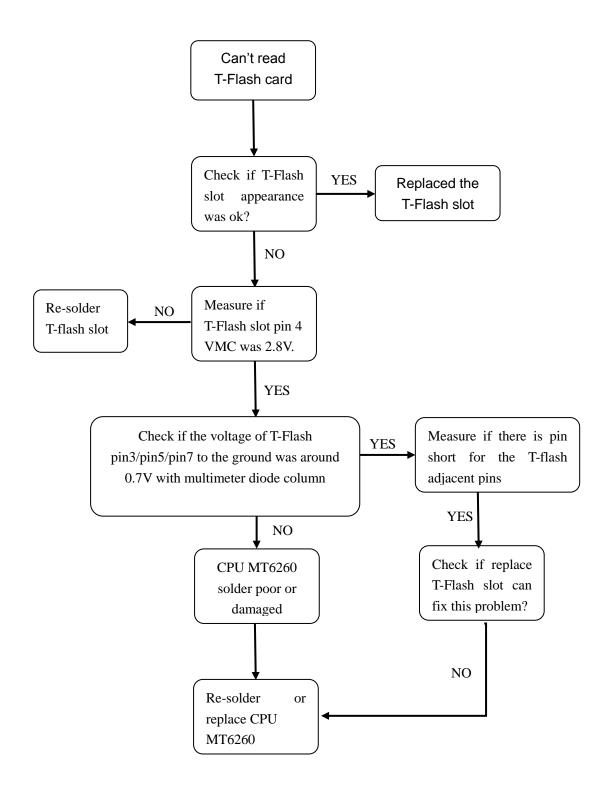
Does not charge – does not recognize charging



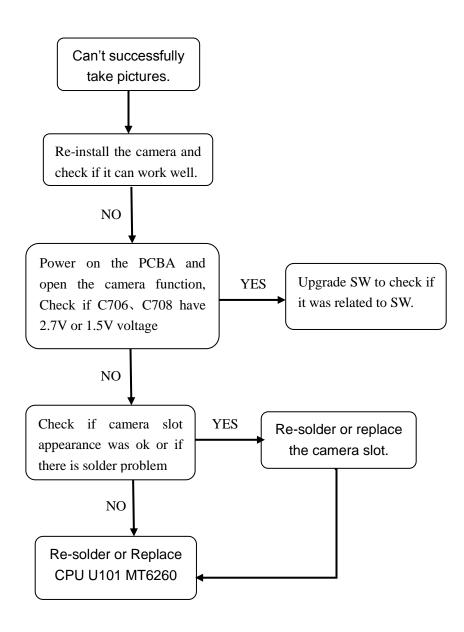
Stand-by short time



Can't read T-Flash card



Can't successfully take picture



Chapter 9 Firmware Upgrading Guide

9.1 Firmware Upgrading

9.1.1 Install USB driver

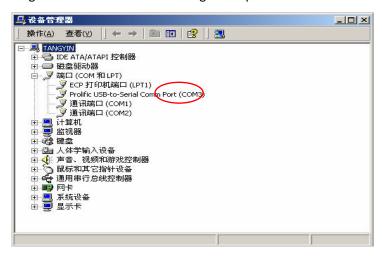
The maximum downloading speed can be up to 921600bit/s when using USB-Serial cable.

The driver need to be installed before using the USB cable.



Please keep the USB cable unplugged when installing the driver.

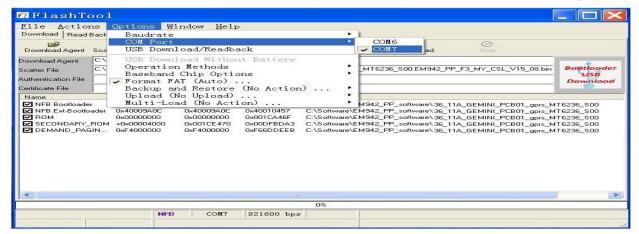
Plug the USB cable when installing is completed. And check device manager of the PC.



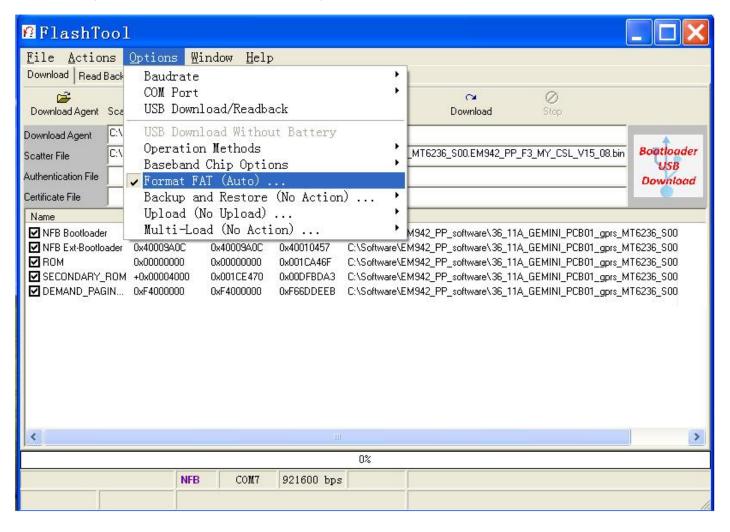
9.1.2 Run the "Flash_tool.exe" of FlashTool_v5.1112.00



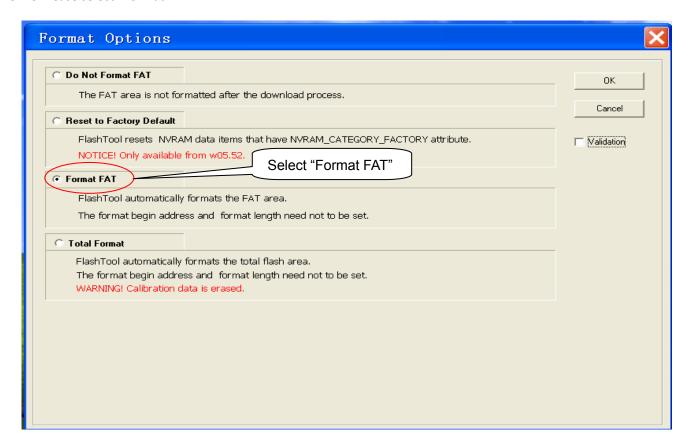
9.1.3 Please select "Options"-"COM port"-Choose the port which is same as the one in "Device Manager".



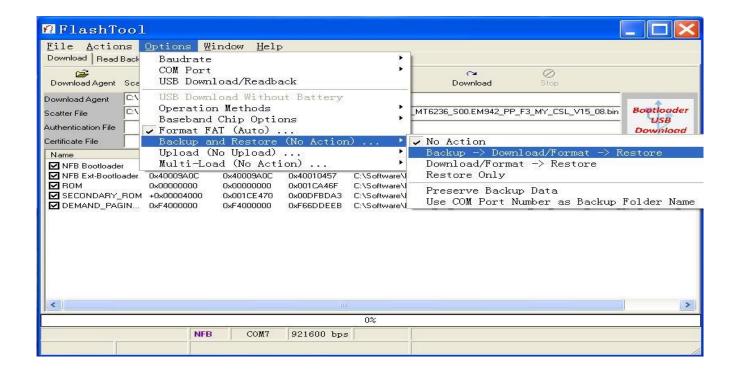
9.1.4 Select "Options"-"Format FAT (DISABLED)..." and please do NOT select "validation".



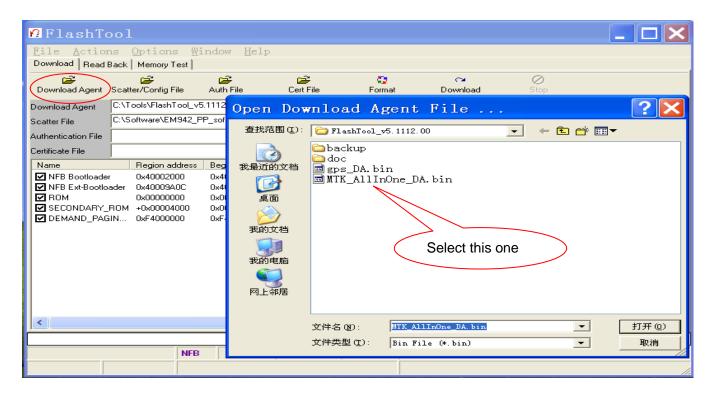
9.1.5 Please select "Format FAT".

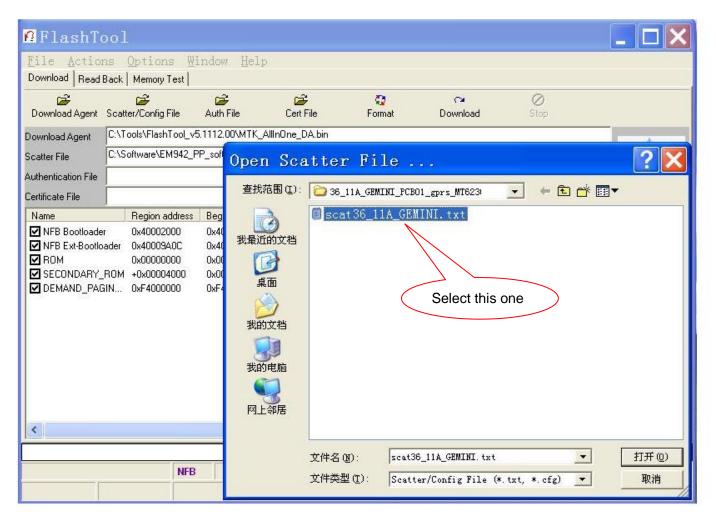


9.1.6 Select "Options" - "Backup and Restore", then select the "Backup -> Download/format -> Restore".



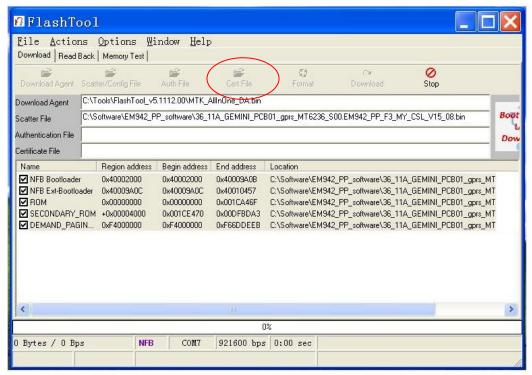
9.1.7 Click the "Download Agent" and select the file "MTK-ALLInOne-DA.bin".



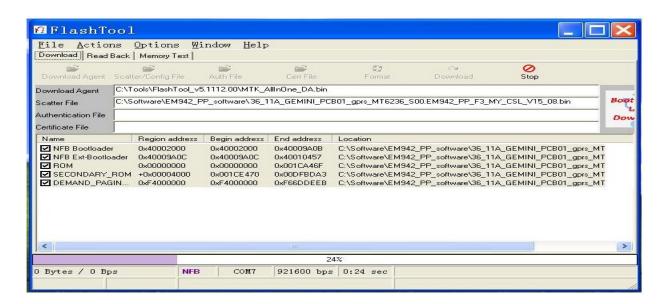


9.1.8 Click the "Scatter/config file" and select the "scat36 11A GEMINI.txt".

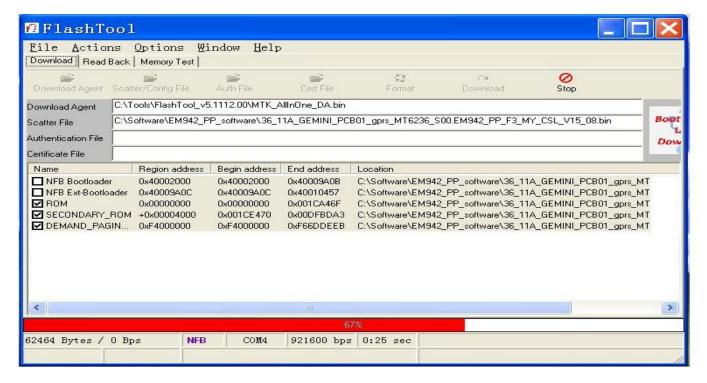
9.1.9 Power off the handset, remove the battery, click "Download", and connect the cable with handset, then insert the battery, press the power on button, the gray, red, blue, green and gray progress bar shall appear. Then upgrade would be completed when appear "OK".



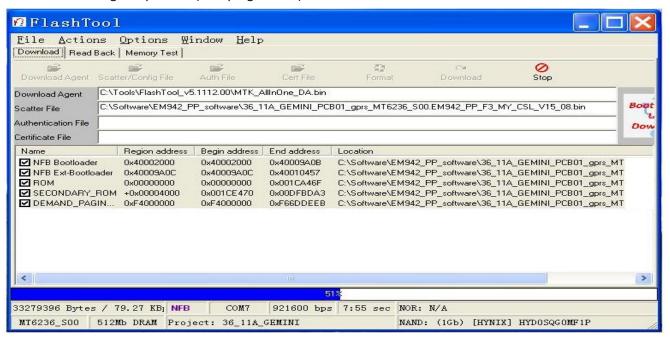
9.1.10 Backup the data. (gray progress bar)



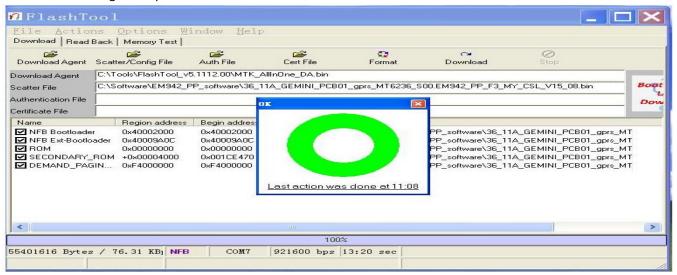
9.1.11 Connect to phone. (red progress bar)



9.1.12 Downloading is in process. (blue progress bar)



9.1.13 Downloading is completed.



9.1.14 Power on phone and input "*#84666*#", select "one key Restore", phone will be reboot, then the user's setting could be eliminated entirely.

Description: can't power on(also upgrade software fail)

Root cause: red scroll 100% run completely when upgrade software, the detail as figure 1, also it prove power supply, clock is normal and defective typical issue is focus on CPU or FLASH poor soldering or damage, and maybe software do not fit for hardware.

Corrective action: check software fit for hardware whether or not, resolding CPU and FLASH or exchange new CPU and FLASH.



(figure 1)

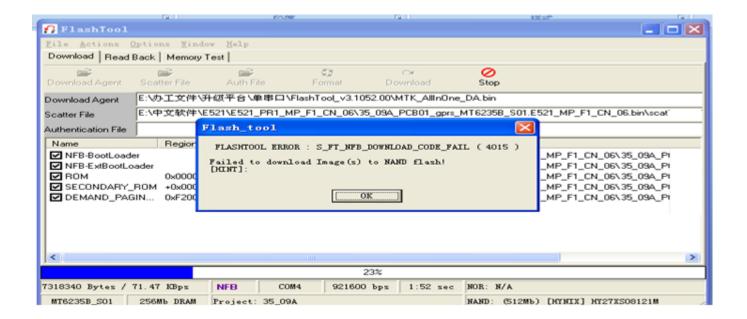
Description: E930 can't power on (handset is dead when upgrade software.) details as figure 2.

Root cause: the power supply and clock both work on as common during upgrade software.

The typical defective issue as poor soldering or go to fall, other way as exchange

CPU or Flash.

Corrective action: re-solder CPU and Flash, or replace them.



Chapter 10 CIT Testing

Input "*#84666*#" in the standby mode.

- 1. Version: Confirm the firmware version.
- 2. Echo Loop: Receiver shall produce sound when blowing over the mic.
- 3. Keypad: Press every button on the handset until the screen is clear.
- 4. Vibrator: Press "start" then the vibration shall start.
- 5. Loud SPK: Press "start" the speaker shall work.
- 6. Ringtone: Press "start" the ringtone shall be played.
- 7. LED: Press "OK" to test the LED.
- 8. LCD: Select "Auto Display" LCD shall perform the self-testing.
- 9. Receiver: Press "start" the receiver shall produce a sound.
- 10. Camera: Menu- Camera, test the capture and shooting, no need to save.