

FM6

L1~L2 Service Manual



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Revision

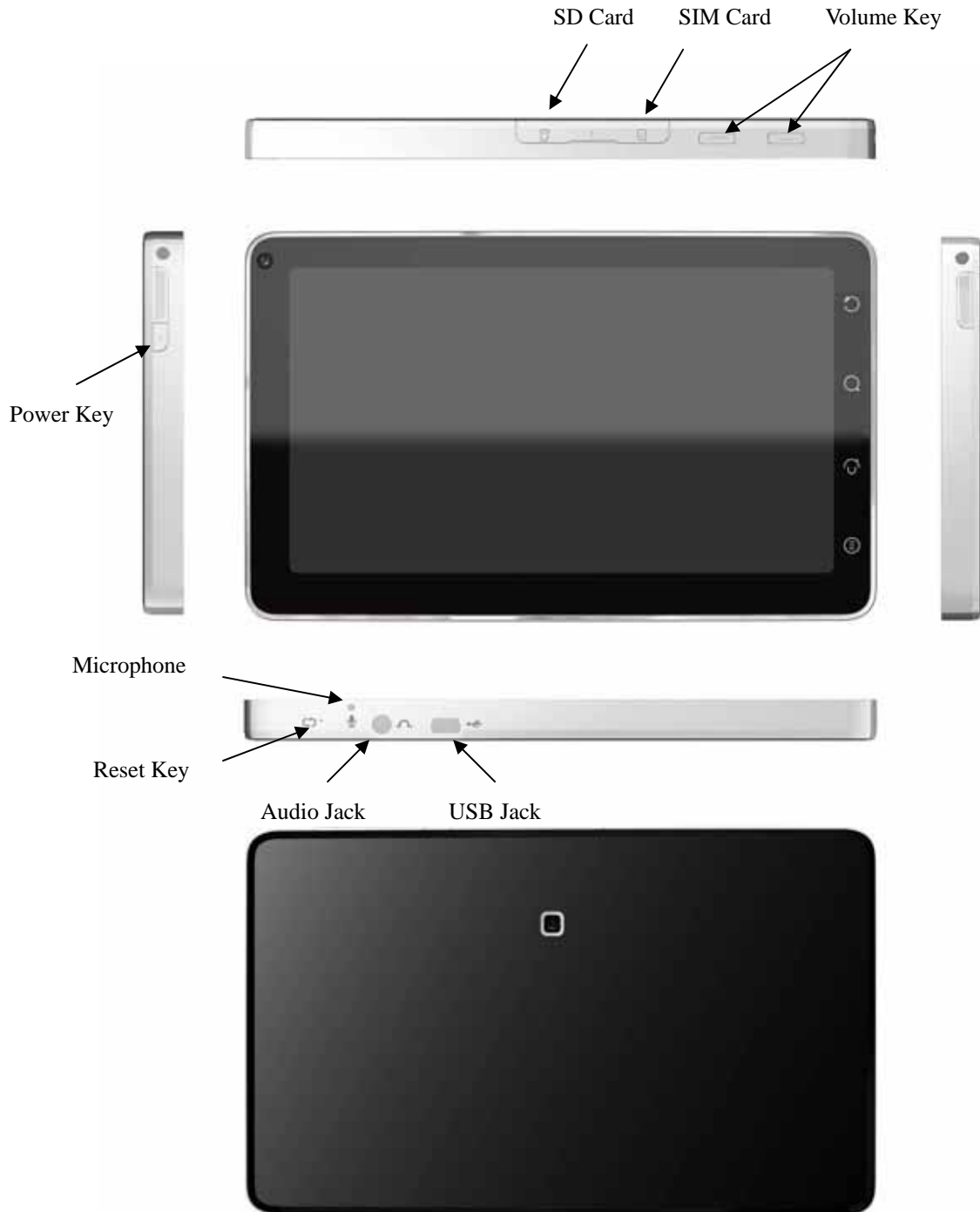
Date	Version	Comment	Owner
2010-07-09	1.0	Initial release of document	TKPan
2010-07-13	2.0	Modify exploded view and spare part list	Linda

1. Specification

Feather	Platform Specification
Operating System	Android Donut
Dimension	Size: 179.4 mm (H) x 110 mm (W) x 11.5 mm (T) Weight: 375g with battery pack
Processor/Chipset	Qualcomm MSM7227 (App: ARM11 600MHz)
Memory	ROM: 512 MB NAND Flash RAM: 512 MB DDR
Display	Size: 7" Type: TFT transmissive LCD Resolution: 800 x 480, WVGA Color: 16M; 24 bits, 65K color depth by Android OS Touch panel: Capacitive -type touch lens
Radio Band & Standard	GSM/GPRS/EDGE/UMTS/HSDPA GSM bands: 850/900/1800/1900 UMTS bands: 900/1900/2100 or 850/1900/2100 GPRS: GPRS Class 12 EGPRS/EDGE: Multi-Slot Class 12 UMTS: DL/UL, HSDPA 7.2Mbps
Connectivity	GPS/AGPS WiFi: 802.11b/g Bluetooth 2.1 + EDR USB 2.0 High-Speed client; and OTG mode
Audio	Built-in microphone and loudspeaker 3.5mm audio jack for stereo headset interface Advanced Echo Cancellation for phone Decoder: AAC LC/LTP, HE-AACv1 (AAC+), HE-AACv2 (enhanced AAC+), AMR-NB, AMR-WB, MP3, MIDI, Ogg Vorbis, PCM / WAVE Encoder: AMR-NB
Video	Video playback: H.263, H.264 AVC, MPEG-4 SP
Picture	Still image: JPEG, GIF, BMP, PNG
Camera	CMOS 3MP AF

Interface	mini-USB connector with data sync, power charging features MicroSD card slot
Sensor	G-sensor E-compass sensor Ambient light sensor
Power	<p>Battery:</p> <ul style="list-style-type: none"> - 3240 mAH with hard-packed Li-Polymer - Standby time: <ul style="list-style-type: none"> ■ Up to 550 hours for WCDMA (TBD) ■ Up to 400 hours for GSM (TBD) - Video playback : <ul style="list-style-type: none"> ■ with external speakers (50% backlight and volume) (TBD) ■ with headset (50% backlight) (TBD) - Internet browsing: <ul style="list-style-type: none"> ■ via 3G (50% backlight) (TBD) ■ via WiFi (50% backlight) (TBD) - Full charged time: less than 4 hours(TBD) <p>AC adapter:</p> <ul style="list-style-type: none"> - AC input voltage: 100~240 Vac, 50/60Hz - AC input current: 300mAac max. - DC output voltage: 5Vdc (typical) - DC output current: 2A (typical)

2. General Introduction



3. Equipment

STANDARD TOOLS

- Plastic plate
- Screwdriver Phillips #00 cross-like head
- Slotted screwdriver



ESD EQUIPMENT

Protect the phone from ESD damages whenever it has been opened by using:

- ESD-wristband
- ESD-gloves



A screwdriver is needed to assemble/disassemble the FM6' Case-A, Case-B, metal frame . We should use electrical screwdriver with Phillips #00 cross-like head. **Please notice that the torque is 0.4 kg-cm.**

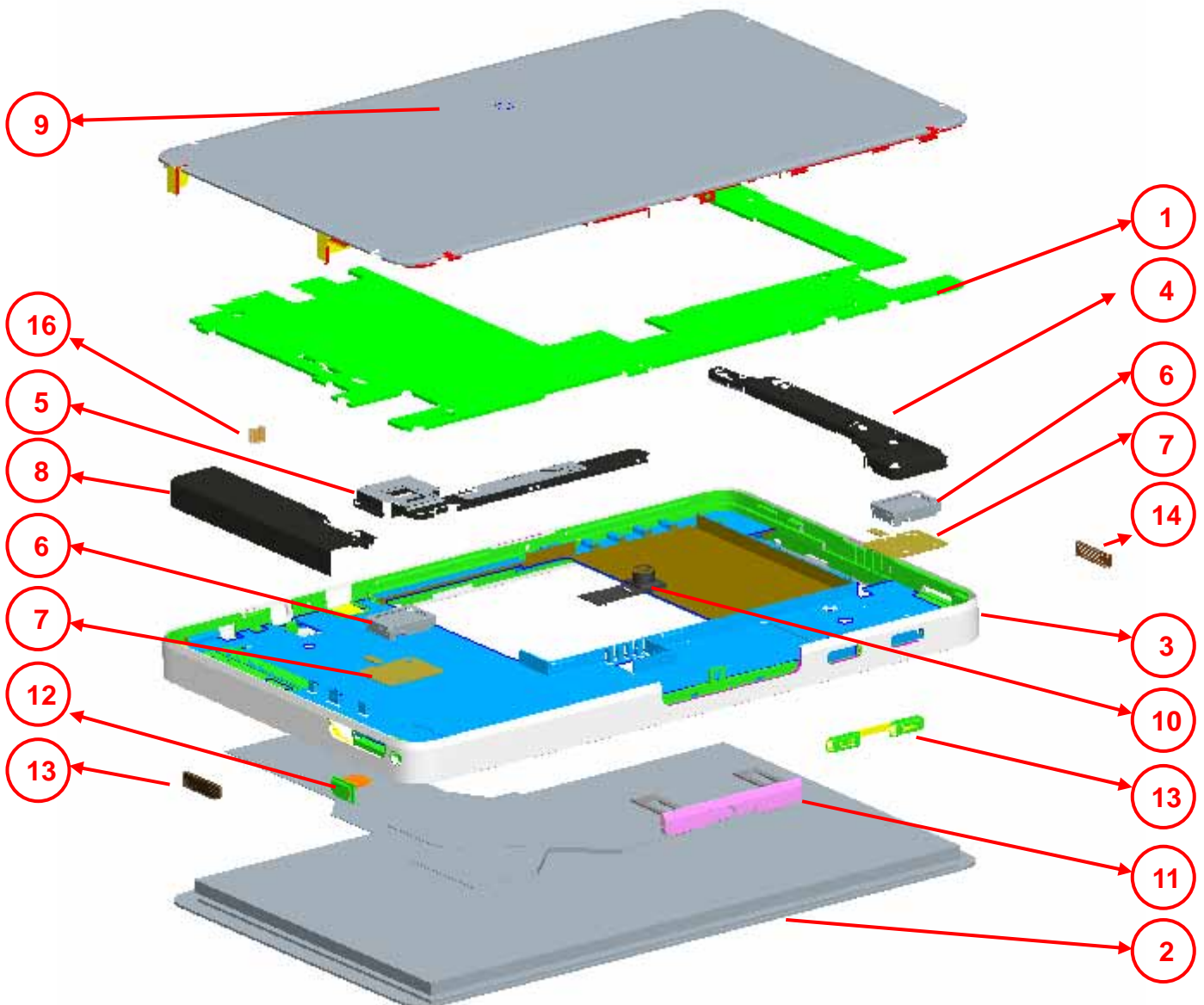
Electrical screwdriver with torque and rotation speed controller.



Screws type list

Part no.	Spec.	Length	Screw DriverType	Color	
				Screw Head / Body	
W1101141520	M1.4	1.5	Ph00	Bright Nickel	Flat Head
W2101163520	M1.6	3.5	Ph00	Black Nickel	Flat Head
W5101143220	1.4	3.2	Ph00	Black Nickel	Flat Head

4. Exploded View



#	Part Number	Description	Quantity
1	20FM60W001A	ASSY KIT_FM6/PCBA_MB	1
2	20FM60W002A	ASSY KIT_FM6/LTM_Module	1
3	20FM60W003A	ASSY KIT_FM6/Metal Sideband	1
4	20FM60W004A	ASSY KIT_FM6/ANT_BT/WIFI	1
5	20FM60W005A	ASSY KIT_FM6/ANT_GPS	1
6	20FM60W006A	ASSY KIT_FM6/Speaker	1
7	20FM60W007A	ASSY KIT_FM6/Sponge Speaker	1
8	S0A306560A0	ANT_GSM_EU_71.2*15.21*7.55mm_Black	1
9	MEMR761002A	Assy_Battery_Cover_MR7	1
10	S0C320A2040	CAM_3M AF QXGA_1/4"_MT9T112_DO-8012	1
11	MEMR771001A	Cap_SIM_SD_MR7	1
12	MEMR707002A	Key_Power_MR7	1
13	MEMR707001A	Key_Volume_MR7	1
14	MEFM638002A	Mesh_Speaker_Bottom_FM6	1
15	MEFM638001A	Mesh_Speaker_Power_FM6	1
16	MEFM636001A	Rubber_Mic_FM6	1

5. Disassembly



1. Open the sim cover and remove one screw by Phillips #00 screwdriver.



2. Remove the back cover. Start opening at top side.



3. Use plastic plate to open the back cover.









4. Remove the Power cable.



5. Remove the SIM cover



6. Remove one screw by PH#00 screwdriver.

	
<p>7. Pull out the BT antenna.</p>	<p>8. Remove GPS Antenna.</p>
	
<p>9. Use slotted screwdriver to remove main antenna.</p>	<p>10. Release two speaker FPC connectors.</p>
	
<p>11. Release Soft-Key FPC connector carefully.</p>	<p>12. Release touch-panel FPC connector.</p>



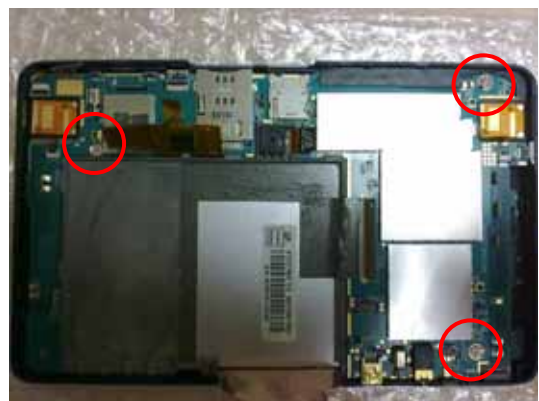
13. Release the SUB FPC BTB (Board to Board) connector.

14. Remove the battery.



15. Remove the Foil.

16. Release LCM FPC connector.



17. Remove the power key.

18. Remove three screws by Phillips #00 screwdriver.



19. Use slotted screwdriver to pull the PCB board up.



20. Pull up the PCB board carefully.



21. Remove the volume key.



22. Remove the camera.



23. Use plastic plate to open the touch-panel



24. Remove the touch-panel from the LCM carefully, especially in FPC connector.



25.Remove the LCM if necessary.

6. Assembly



1. Assemble .Adhesive_LCM at the back of LCM.

2. Assemble LCM into housing.



3. Remove all liner on the touch panel.

4. Assemble touch panel into housing carefully, especially at two FPC.



5. Place Touch panel FPC and soft-key FPC in correct place.

6. Assemble Volume key in the volume key hole.



7. Assemble Microphone rubber in the microphone hole.



8. Assemble PCB board carefully, especially in mark place.



9. Screw three screws at mark place by PH#00 screwdriver



10. Assemble Speaker FPC and Sponge



11. Stick the conductive adhesive at LCM connector.



12. Connect the LCM FPC to LCM Connector



13. Stick the LCM Mylar



14. Stick the LCM Foil



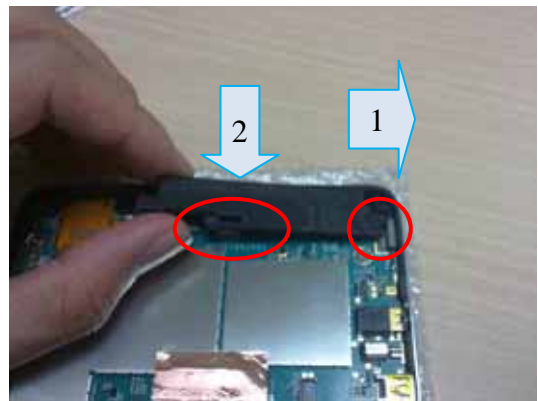
15. Assemble the camera in camera hole, according to the left & top side.



16. Connect Below FPC
 a. speaker FPC
 b. Touch panel FPC
 c. camera FPC
 d. Soft Key FPC



17. Assemble power key to power key hole.



18. Assemble the main antenna.



19. Assemble the GPS Antenna



20. Assemble the BT Antenna.



21. Screw at BT antenna as shown in figure.



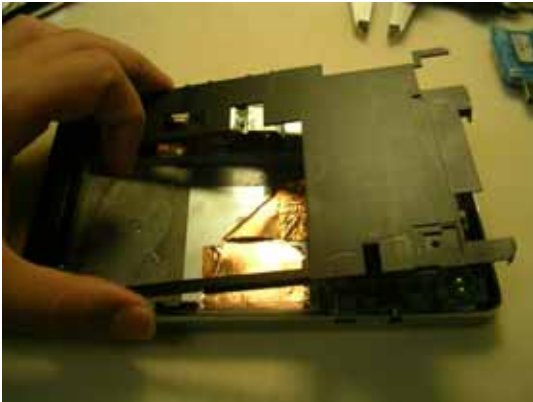
22. Assemble the SIM Cover.



23. Place the battery



24. Connect the battery connector



25. Assemble the back structure.

26. Stick the back_cover_adhesive.



27. Assemble the back cover

28. Screw at side structure as shown in figure.