ICONIA TAB A210

SERVICE GUIDE

acer

Table of Contents

Revision History

Please refer to the table below for the updates made on this service guide.

Date	Chapter	Updates

Copyright

Disclaimer

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Conventions

The following conventions are used in this manual:

WARNING:

Indicates a potential for personal injury.

CAUTION:

Indicates a potential loss of data or damage to equipment.

IMPORTANT:

Indicates information that is important to know for the proper completion of a procedure, choice of an option, or completing a task.

NOTE:

Gives bits and pieces of additional information related to the current topic.

The following typographical conventions are used in this document:

- Book titles, directory names, file names, path names, and program/process names are shown in *italics*.

  Example:

  the DRS5 User's Guide
  /usr/local/bin/fd
  the /TPH15spool_M program

- Computer output (text that represents information displayed on a computer screen, such as menus, prompts, responses to input, and error messages) are shown in constant width.

  Example:

  ```
  [01] The server has been stopped
  ```

- User input (text that represents information entered by a computer user, such as command names, option letters, and words) are shown in constant width **bold**. Variables contained within user input are shown in angle brackets (< >).

  Example:

  At the prompt, type run **`<file name> -m`**

- Keyboard keys are shown in bold italics.

  Example:

  After entering data, press ***Enter***.

- Screen output (text that represents information displayed on the system, such as menus, prompts, responses to input, and error messages) are shown in bold.

  Example:

  On the main menu, select **OK**.

General Information

This Service Guide provides you with all technical information relating to the basic configuration for Acer's global product offering. To better fit local market requirements and enhance product competitiveness, your regional office may have decided to extend the functionality of a machine (e.g. add-on card, modem, or extra memory capabilities). These localized features are not covered in this generic service guide. In such cases, contact your regional offices or the responsible personnel/channel to provide you with further technical details.

When ordering FRU parts:

Check the most up-to-date information available on your regional web or channel. If, for whatever reason, a part number change is made, it may not be noted in this printed service guide.

For Acer-authorized service providers:

Your Acer office may have a different part number code than those given in the FRU list of this printed service guide. The list provided by your regional Acer office must be used to order FRU parts for repair and service of customer machines.

CHAPTER 1

Hardware Specifications and Configurations

Hardware Specifications and Configurations

Features

The following is a summary of the computer's many features:

Form Factor

- 10.1" Tablet

Operating System

- Android Ice Cream Sandwich

Platform

- Tegra T30L 1.2GHz (Quad-core)
- GPU Ultra Low Power GeForce® GPU

System Memory

- RAM: DDR3L 1G
- eMMC: 8G/16G

Display

LCM

- 10.1" WXGA 16:10 262K LCM (1280 X 800 AUO)
  - Wide view angle
  - LVDS interface

Graphics

- Ultra Low Power GeForce®

Audio Subsystem

- Far-Talk-HD audio (Audience eS305)
  - Single analog Microphone
  - Wideband
  - Stationary noise suppression and echo control
  - ASR Assist
- Stereo Speaker
- 3.5mm Audio Jack 4-ring (with Mic)

Camera

- 2M Camera

Connectivity

Wi-Fi

- IEEE 802.11 b/g/n

Bluetooth

- Bluetooth® 2.1+EDR

USB

- Micro USB 2.0 Type B for Client
- USB 2.0 Host

GPS/A-GPS

- Standalone GPS and GLONASS (Broadcom BCM47511)
- A-GPS: Wi-Fi Positioning

Expansion Slot

- MicroSD memory card up to 32G (SDHC 2.0 compatible)

Special Keys and Controls

- Capacitive Multi-Touch Screen
- Function buttons
  - Side (mechanical key):
    - Volume Up, Volume Down, Screen Lock
    - Power
  - Sensors
    - G-Sensor
    - Gyro-meter

I/O Ports

- MicroSD memory card slot
- USB
  - Micro USB 2.0 type B for Client
  - USB 2.0 Host

Dimensions and Weight

Dimension

- 260.0 (H) x 175 (W) x 12.4 (D) mm (with bezel)

Weight

- < 685g

Power Adapter and Battery

Battery

- Rechargeable Lithium-Ion polymer battery
- Capacity 24.1 W (3260mAh cell *2, 2S1P)

Power Adapter

- Voltage range/frequency: 100 ~ 240V AC, 50/60 Hz
- DC output: 12V and 1.5 A, 18W

Others

- Reset hole

Green Requirement

- Rohs compliance
- WEEE compliance
- Halogen free, including BFRs, PVC
- SMT Green process

Accessory

In Box

- USB cable
- Charger + Plug
- QSG

Optional

- MicroSD card
- Pouch
- Bluetooth keyboard

Tablet tour

Front View

Figure 1-1. Front View

#	Item	Description
1	Camera	A 2-megapixel camera for video chatting and self-portrait images.
2	Touch Screen	10.1-inch, 1280 x 800 capacitive touch screen.

Rear View

Figure 1-2. Rear View

#	Item	Description
1	Speakers	Emits stereo audio.

Top View

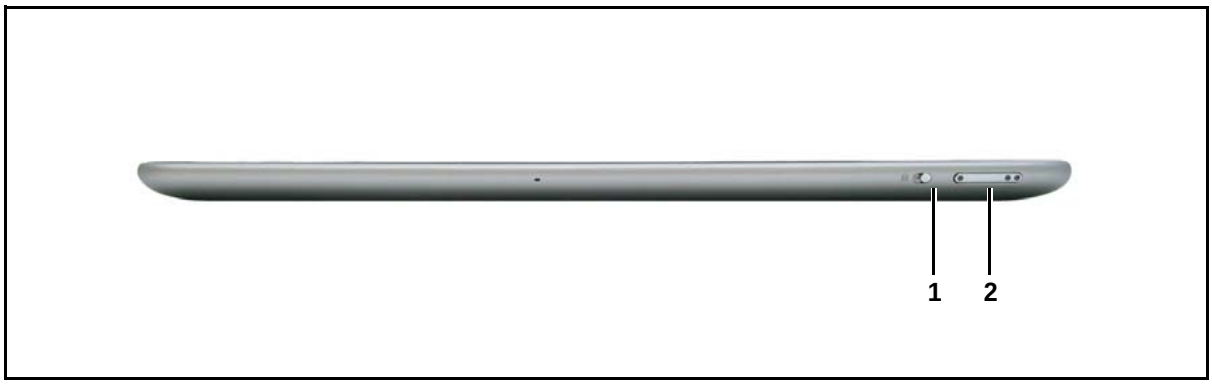

Figure 1-3. Top View

#	Icon	Item	Description
1		Screen Rotation Lock Switch	Use this switch to lock the screen rotation or allow the screen to match the tablet's orientation.
2		Volume Control	Increases or decreases the tablet volume.

Left View

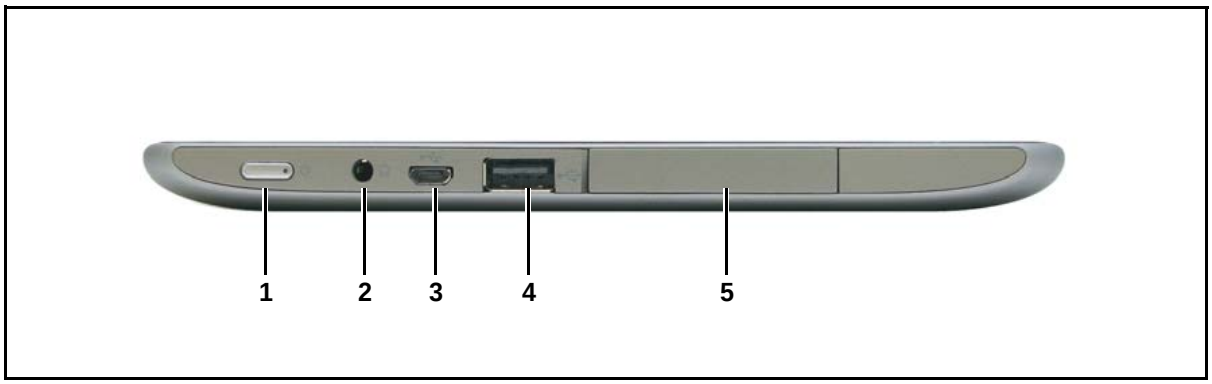

Figure 1-4. Left View

#	Icon	Item	Description
1	⏻	Power Button	• Long press to turn the tablet on. • Press briefly to turn the screen on/off or enter sleep mode. • Press and hold to turn the tablet off.
2	🎧	Headset Jack	Connects to stereo headphones.
3	⇢	Micro USB Port (slave)	Connects to a computer with a USB cable.
4	⇢	USB Port (host)	Connects USB devices to the tablet.
5		Card Slot and Reset Hole Cover	• Insert a microSD card into the slot under this cover. • Insert a pointed object, such as a paper clip, into the reset hole to reset the tablet to its factory defaults.

Right View

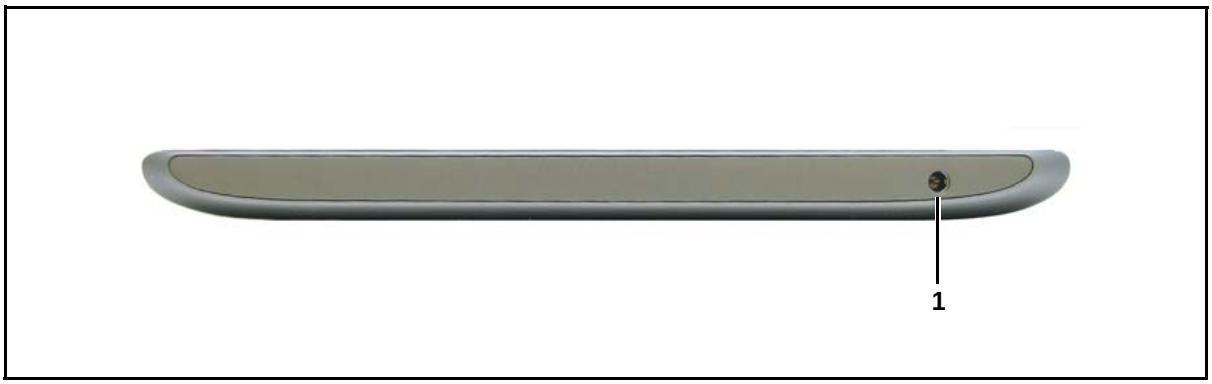

Figure 1-5. Right View

#	Icon	Item	Description
1	⎓	AC Adapter Jack	Connects to the power adapter.

System Block Diagram

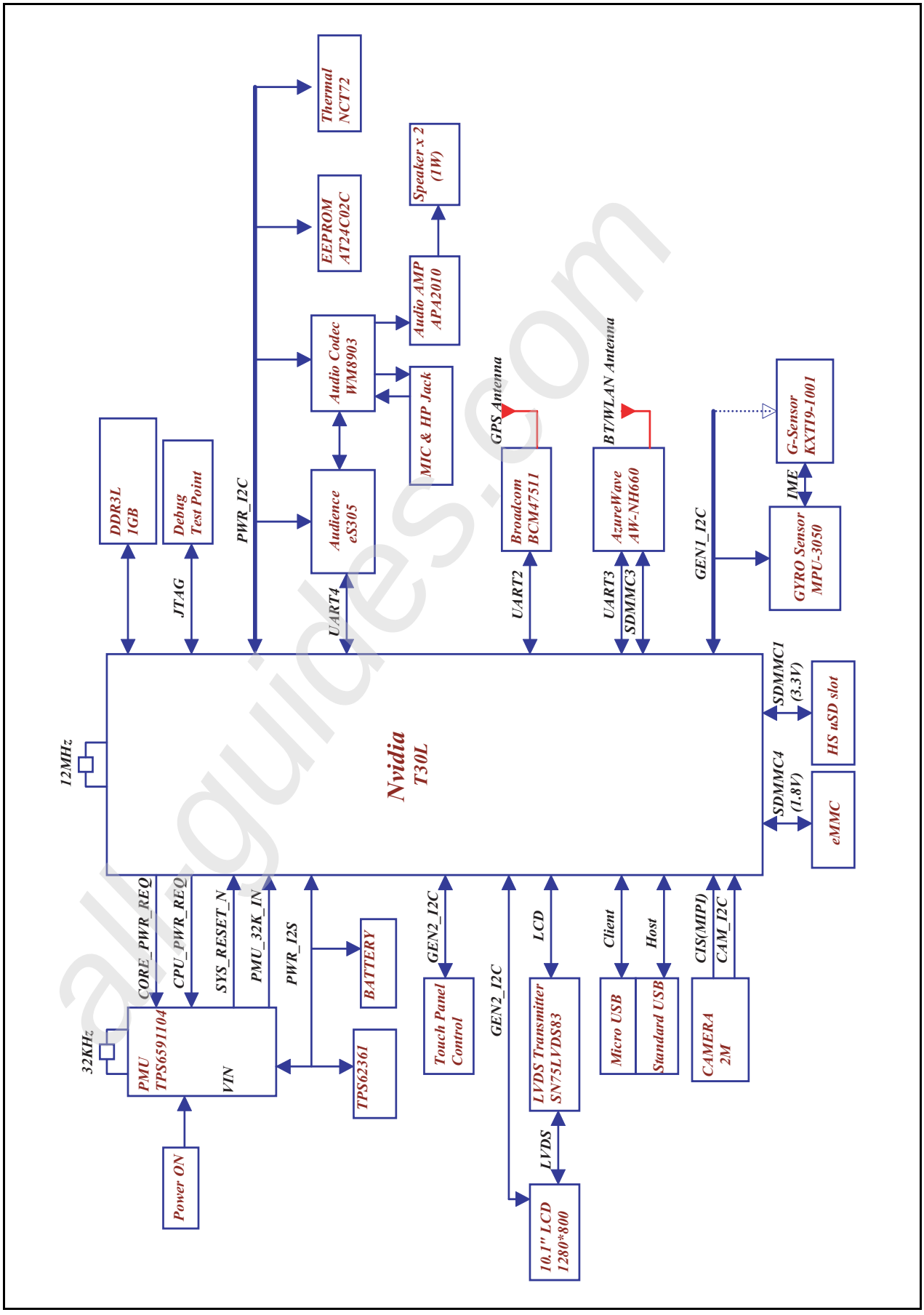

Figure 1-6. System Block Diagram

Specifications Table

Computer specifications

Item	Metric	Imperial
Dimensions		
Length	260 mm	10.24 in
Width	175 mm	6.89 in
Height (front to rear)	12.4 mm	0.49 in
Weight (equipped with optical drive, flash drive, and battery)	< 685g	Under 1.5 lbs
Weight (equipped with optical drive, flash drive, and without battery)	N/A	N/A
Input power		
Operating voltage	AC Input: 100V ~ 240V DC Output: 18W, 12V/1.5A	
Operating current	DC Output: 1.5A	
Temperature		
Operating	-25º ~ 60ºC	-13º ~ 140ºF
Non-operating	-30º ~ 70ºC	-22º ~ 158ºF
Relative humidity		
Operating	5% ~ 90%	
Non-operating	0% ~ 90%	
Maximum altitude (unpressurized)		
Operating	0 cm ~ 63 cm	0 ~ 2.07 ft.
Non-operating	0 cm ~ 63 cm free drop on wood	0 ~ 2.07 ft. free drop on wood
Shock		
Operating	Amplitude: 105 g	
Non-operating	Amplitude: 220 g	
Random vibration		
Operating	1.644 g	
Non-operating	1.644 g	

NOTE:
Applicable product safety standards specify thermal limits for plastic surfaces. The computer operates well within this range of temperatures.

System Board Major Chips

Item	Specification
CPU	T30L Quad-core Cortex A9 Ultra Low Power GeForce® GPU
Graphics Processor	Ultra Low Power Nvidia GeForce® GPU with OpenGL® ES 2.0
LVDS transmitter	SN75LVDS83DGGRG4
PMU	TPS6591104A2ZRCR
DDR3L	1G (Base on Acer's AVL)
ULPI Phy for USB	N/A
Bluetooth	Azureware AW-NH660
Wireless	Azureware AW-NH660
GPS	BCM4751IFBG_FBGA100
GPS Low-Noise Amplifier	APL5603-28BI-TRG_SOT23-5
TOUCH controller	FT5816
eMMC	8G / 16G (Base on Acer's AVL)
CAMERA	2M pixel (Image sensor: Aptina SOC 2031)
Thermal Sensor	NCT72CMNR2G DFN
Audio codec	WM8903LGEFK-RV
Audio Amplifier	APA2010HAI-TRG WLCSP 9P CLASS D AMP
Echo Cancellation	Audience ES305_BGA32
Battery Charger	BQ24171RGYR_VQFN24_3P5X5P5
Embedded Controller IC	N/A
Compass	N/A
Gyro	MPU-3050
G-Sensor	KXTI9-1001
ALS/Proximity	N/A

Processor

Item	Specification
CPU	ARM® Cortex-A9 MPCore™ (Quad-Core) Processor with NEON technology
CPU package	782 Ball 24.5 x 24.5 mm IHS-FCBGA
NOTE: No CPU Fan in this product.	

Processor Specifications

Item	CPU Speed	Cores	Bus Speed (FSB/DMI/ QBI)	Mfg Tech	Cache Size	Package	Core Voltage
T30L	1.2 GHz	Quad Core	N/A	40nm TSMC	L1:32KB L2:Unified 1MByte	14 x 14 mm FCBGA	0.95~1.2V

System Memory-DDR3L

Item	Specification
Memory controller	Embedded in CPU
Memory size	Up to 1 GB DDR3L

System Memory-eMMC

Item	Specification	
Vendor & Model Name	Samsung KLM8G2FE3B-B001	Samsung KLMAG2GE4A-A001
Capacity (GB)	8G	16G
DC Power Requirements		
Voltage tolerance	VCC: 2.85V VCCQ: 1.8V	

No Graphics Controller

No BIOS Setup Menu for this product

LAN Interface

Item	Specification
LAN Chipset	No support on board LAN
LAN connector type	N/A
LAN connector location	N/A

No Keyboard for this product

Bluetooth Interface

Item	Specification
Chipset	AW-NH660
Data throughput	Bluetooth 2.1+EDR data rates of 1,2, and 3Mbps
Protocol	TBD
Interface	UART
Connector type	I-PEX
Supported protocol	TBD

LED 10.1”

Item	Specification
Vendor/model name	AUO _ B101EVT05
Screen Diagonal (mm)	255.85 mm (10.01W”)
Active Area (mm)	216.96 mm (H) x 135.6 mm (V)
Display resolution (pixels)	1280 x 3(RGB) x 800
Pixel Pitch (mm)	0.1695 mm x 0.1695 mm
Typical White Luminance (cd/m^2) also called Brightness	250
Contrast Ratio	1300
Response Time (Optical Rise Time/Fall Time) misc.	25
Typical Power Consumption (watt)	3.52
Weight (without inverter/touch screen)	297
Physical Size (mm)	253.15 mm x 167.75 mm x 6.46 mm
Electrical Interface	LVDS
Viewing Angle (degree) Horizontal (Right) CR = 10 (Left) Vertical (Upper) CR = 10 (Lower)	85/85 85/85

No LCD Inverter for this product

Display Supported Resolution (LCD Panel Supported Resolution)

Resolution			16 bits	32 bits	NVIDIA
1280 X 800p/60Hz 16:10			X	X	V
Legend: V = Supported; X = Not supported					
⇛ **NOTE:** Resolution fixed at 1280 x 800. Not adjustable by end user.					

Camera

Item	Specification
Vendor and model	Chicony CJFB23320003350LH
Type	2M

Mini Card

Item	Specification
Number supported	N/A
Features	N/A

3G Card

Item	Specification
Features	N/A

Audio Codec and Amplifier

Item	Specification
Audio Controller	WM8903LGEFK
Audio onboard or optional	On board
Mono or Stereo	Stereo
Resolution	24-bit data resolution
Compatibility	I2S Interface;
Sampling rate	Sample rate up to 44.1KHz
Internal microphone	Yes
Internal speaker/quantity	Yes / (0.5W stereo speakers x2)
Phone Jack	HP_Out + MIC

Feature	• 4.5mW power consumption for DAC to headphone playback
	• DAC SNR 96dB typical, THD -86dB typical
	• ADC SNR 92dB typical, THD -80dB typical
	• Control sequencer for pop minimized start-up and shut-down
	• Single register write for default start-up sequence
	• Integrated FLL provides all necessary clocks
	  • Self-clocking modes allow processor to sleep
	  • All standard sample rates from 8kHz to 96kHz
	• Stereo digital microphone input
	• 3 single ended inputs per stereo channel
	• 1 fully differential mic / line input per stereo channel
	• Digital Dynamic Range Controller (compressor / limiter)
	• Digital side tone mixing
	• Ground-referenced headphone driver
	• Ground-referenced line outputs
	• Stereo differential line driver for direct interface to WM9001 speaker driver
	• 40-pin QFN package (5x5mm)

Audio Codec and Amplifier

Item	Specification
Amplifier IC	APA2010HAI-TRG WLCSP 9P CLASS D AMP

Feature	• Operating Voltage: 2.4V-5.5V
	• High Efficiency up to 90%
	• Low SupplyCurrent
	  • IDD=2mA at VDD=5V
	  • IDD=1.6mA at VDD=3.6V
	• Low Shutdown Current
	  • IDD=1mA at VDD=5V
	• Output Power
	at 1%THD+N (TDFN3x3-8)
	  • – 1.3W, at VDD=5V, RL=8W
	  • – 0.6W, at VDD=3.6V, RL=8W
	  • – 2.4W, at VDD=5V, RL=4W (WLCSP-9)
	  • – 2.1W, at VDD=5V, RL=4W
	  • – 1.2W, at VDD=3.6V, RL=4W
	at 10%THD+N (TDFN3x3-8)
	  • 1.6W, at VDD=5V, RL=8W
	  • 0.8W, at VDD=3.6V, RL=8W
	  • 3.1W, at VDD=5V, RL=4W (WLCSP-9)
	  • 2.65W, at VDD=5V, RL=4W
	  • 1.3W, at VDD=3.6V, RL=4W
	• Less External Components Required
	• Fast Startup Time (4ms)
	• High PSRR: 80 dB at 217 Hz
	• Thermal and Over-Current Protections
	• Space Saving Packages
	• WLCSP-9 Bump, 3mmx3mm TDFN-8
	• Lead Free and Green Devices Available (RoHS Compliant)

Wireless Module 802.11b/g/n

Item	Specification
Chipset	AW-NH600
Data throughput	802.11b: 1, 2, 5.5, 11Mbps 802.11g: 6, 9, 12, 18, 24, 36, 48, 54Mbps 802.11n: MCS 0~7 HT20
Protocol	CCXv2/CCXv3/CCXv4/CCXv5, WFAEC
Interface	SDIO/SPI

Battery

Item	Specification
Vendor & model name	SANYO
Battery Type	Li-polymer
Pack capacity	3400mAh (typical)
Number of battery cell	2 cell
Package configuration	2S1P

Video Interface

Item	Specification
Chipset	N/A (Graphic function is embedded in CPU)
Package	N/A
Interface	N/A
Compatibility	N/A
Sampling rate	N/A

USB Port

Item	Specification
USB compliance level	USB2.0
Modes	Host & Device
Speed	Low, Full and High
Number of USB port(s)	2 ports (1 port for Host, 1 port for Device)
Location	two at the right side
Output Current	0A (micro USB port, Device mode) 1.5A (USB port, Host mode)

HDMI Port

Item	Specification
Compliance level	N/A (Not supported)
Data throughput	N/A
Number of HDMI port(s)	N/A
Location	N/A

AC Adapter

Item	Specification
Total output power	100Vac to 240Vac
Maximum input AC current	0.5A(RMS)Max. @120Vac 0.25A(RMS)Max. @240Vac
Inrush current	40A Max. for 120VAC at Max load 60A Max. for 240VAC at Max load (At cold start)
Efficiency	79% Min. at max. load and 120Vac/60Hz

Card Reader

Item	Specification
Chipset	SD function is supported by CPU.
Package	N/A
Interface	SDIO
Maximum supported size	Follow up SD card spec
Features	Storage cards with adapter: microSD™

System LED Indicator

Item	Specification
System state	• White color solid on: System on • White color and amber color off: System off • Amber color: Battery in charging

CHAPTER 2

Diagnostic Utilities

Diagnostic Utilities

Introduction

The ICONIA TAB A210 has a software tool designed to diagnose problems with its hardware components.

Diagnostic Tool SOP

Preparation

- Diagnostic Tool - ACTP.zip
- USB Driver of A210 for PC
- USB cable
- MicroSD card

Tool Installation

1. Install the USB driver in PC/NB.
2. Connect the device to the PC/NB using a USB cable.
3. Enable **USB debugging** on the device (**Settings** → **Developer options** → **USB debugging**).

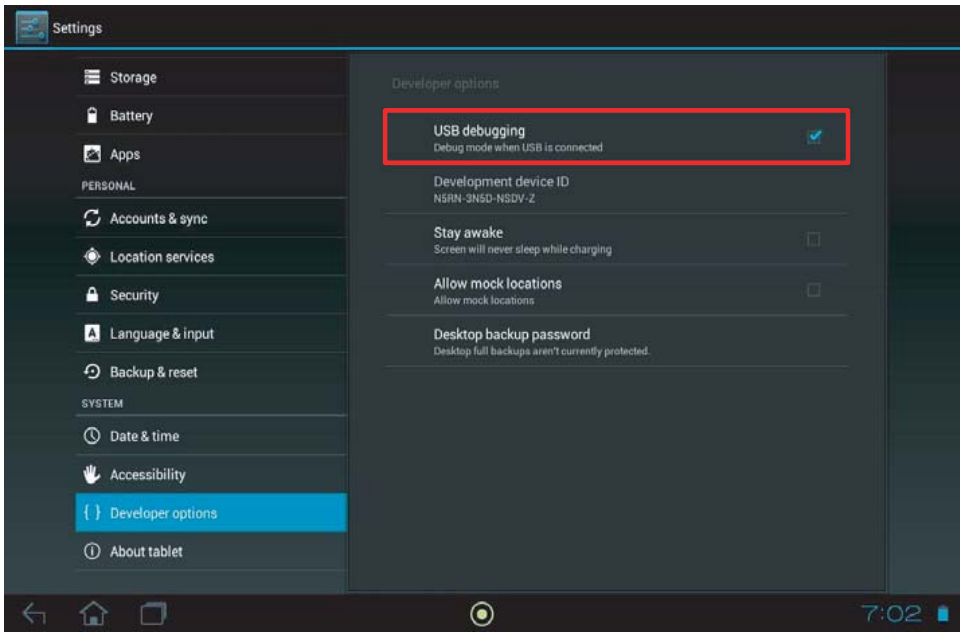

Figure 2-1. USB Debugging Mode

4. On the PC/NB, unzip "**ACTP.zip**".
5. Add the current directory to windows class path.

6. Run “**Install V0JETACTP.bat**”.

Figure 2-2. ACTP Folder Directory

7. On the device, go to the applications screen and look for the diagnostic tool named “**ACTP**”.

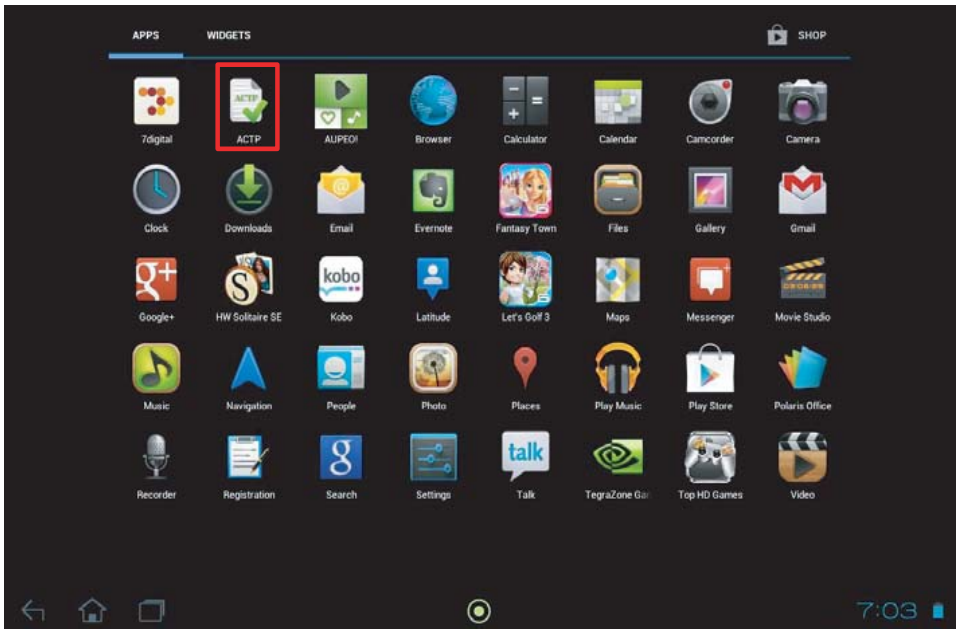

Figure 2-3. Device Applications Screen

8. Tap the **ACTP** icon to start the testing process. (**Figure 2-3**)

Main Menu

The diagnostic tool tests the Touch Panel, Display, Buttons, Speaker, Microphone, Camera, SD card and Vibrator functionality. Select the function(s) you want to test.

Tap **OK** to start.

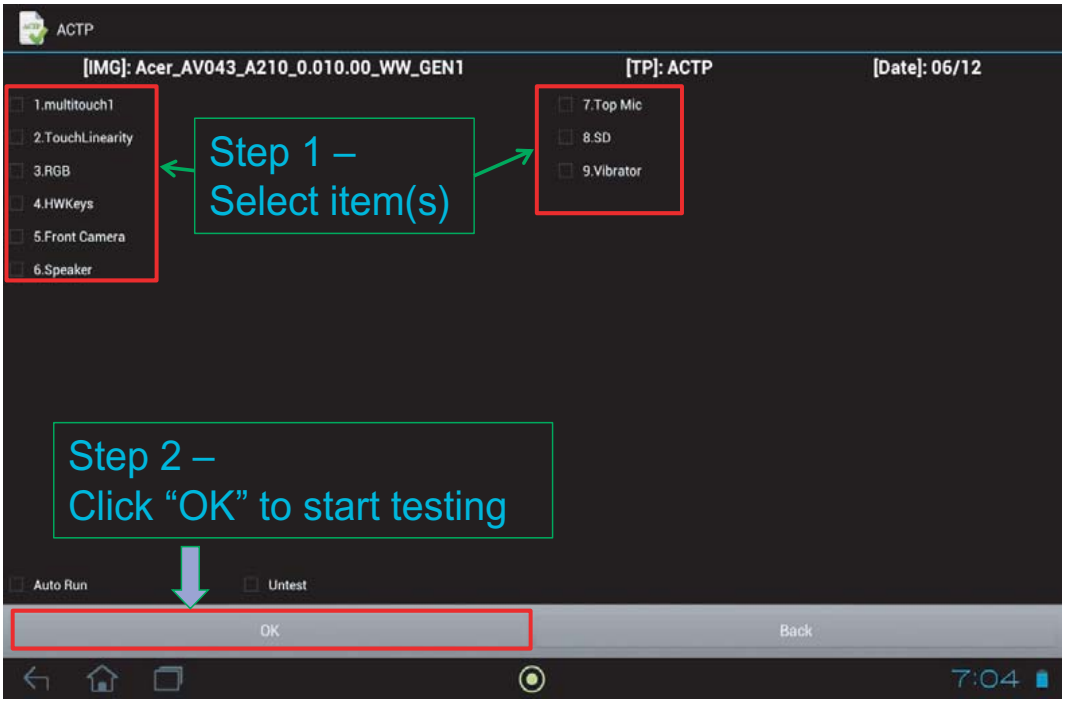

Figure 2-4. Diagnostic Tool Main Menu

1. Multi-touch Test (Touch Panel)

Draw your finger along the yellow squares.

The result is a “Pass” if you fill all the yellow squares and a “Fail” if you do not. The program returns to the main menu after the test is finished.

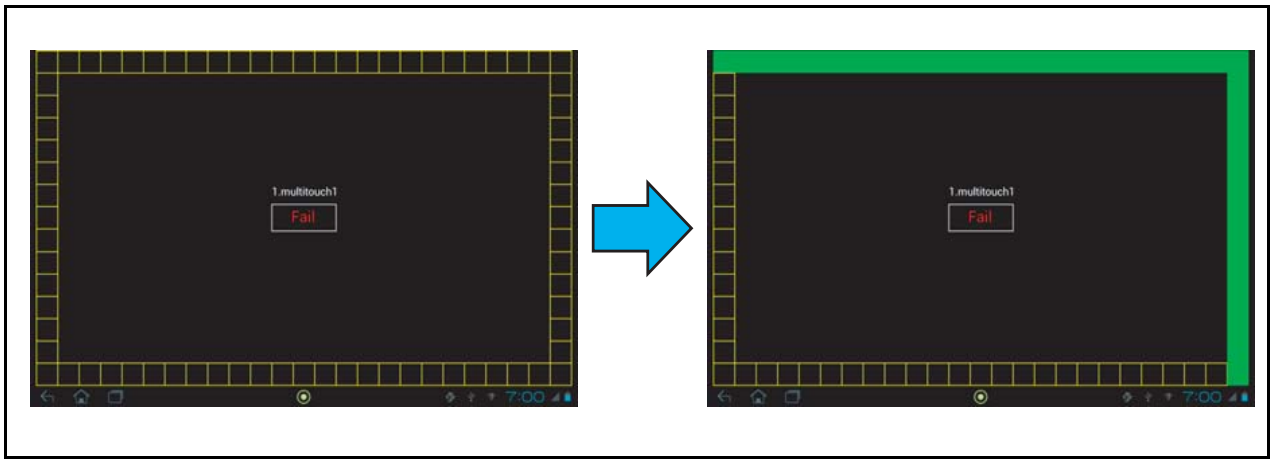

Figure 2-5. Multi-touch Test

2. Touch Linearity Test (Touch Panel)

Draw your finger along the yellow squares.

The result is a “Pass” if you fill all the yellow squares and a “Fail” if you do not. The program returns to the main menu after the test is finished.

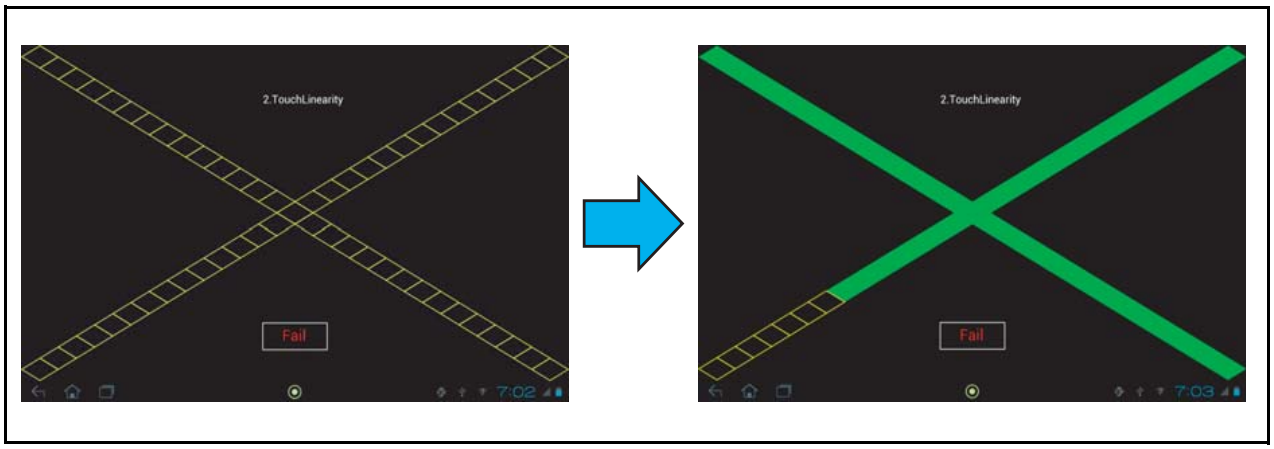

Figure 2-6. Touch Linearity Test

3. RGB (Display)

Continue to tap the screen to display changes. Use this test to verify abnormal lines or dead pixels on LCD screen.

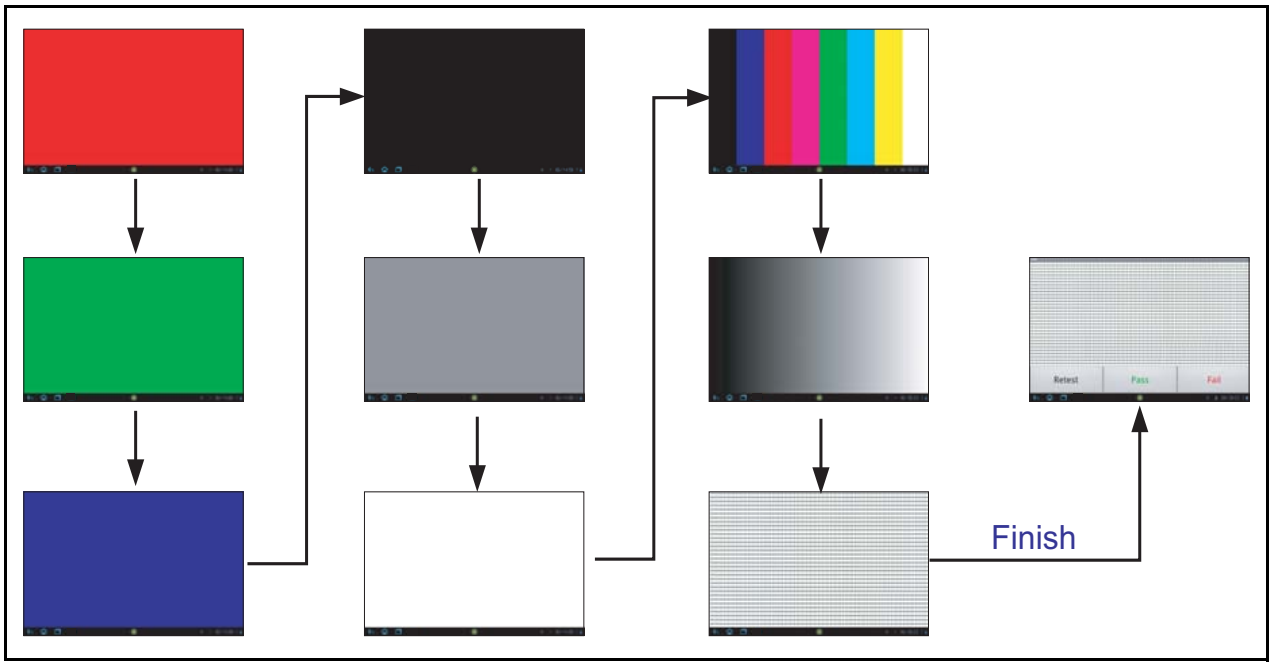

Figure 2-7. RGB Test

4. Hardware Keys Test (Keys)

Press the volume up, volume down and lock keys to verify if all keys work. A color change to green means key function works.

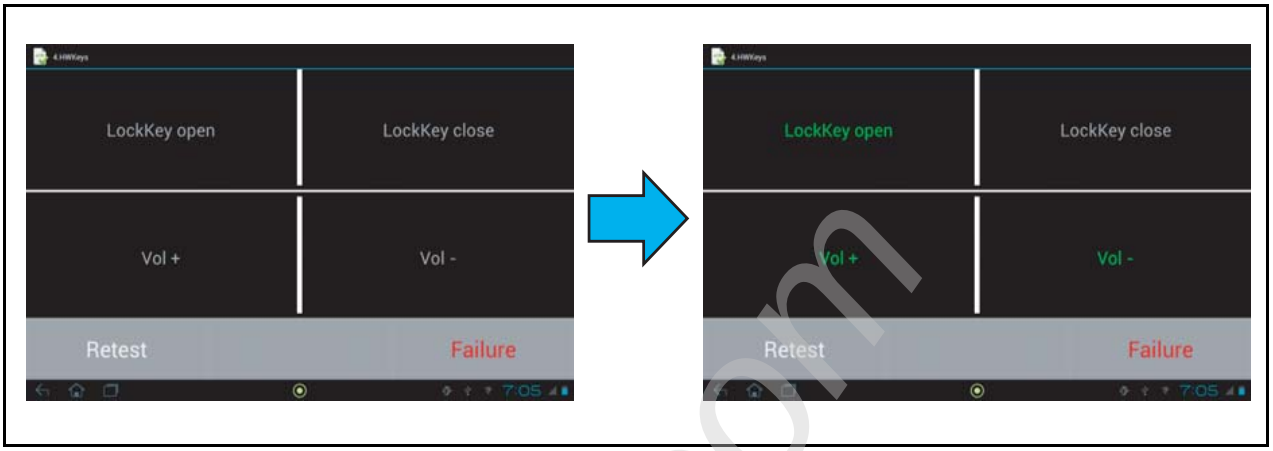

Figure 2-8. Hardware Keys Test

5. Front Camera

Aim the front side of the device at an object. Tap the “Photograph” icon to test the picture taking functionality.

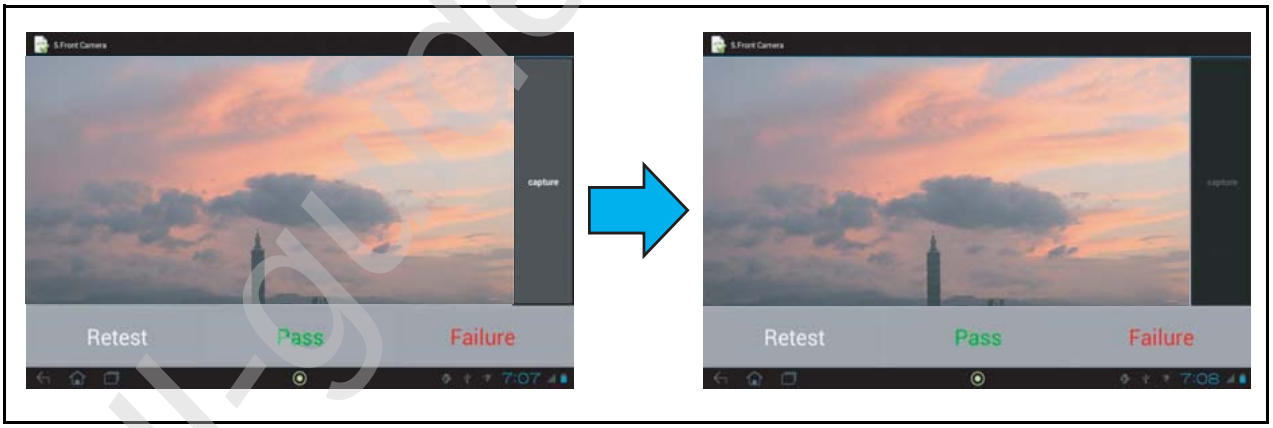

Figure 2-9. Front Camera Test

6. Speakers

Loud tone sounds in the left speaker and then switches to the right speaker.

Figure 2-10. Speakers Test

7. Microphone

Tap the screen to start the test. When the “Recording” screen appears, speak into the device. Check if the voice is recorded when the screen switches to the “Playing” screen.

Figure 2-11. Microphone Test

8. SD Card (SD Read/Write Test)

Insert a microSD card into the device. Touch the screen to start the SD read and write test.

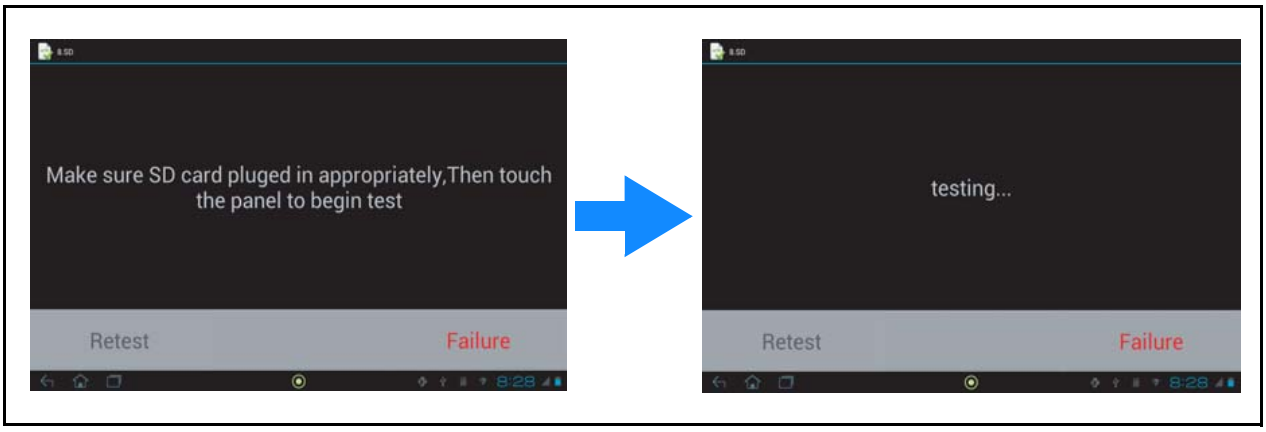

Figure 2-12. SD Card Test

The screen shows success if the test is passed.

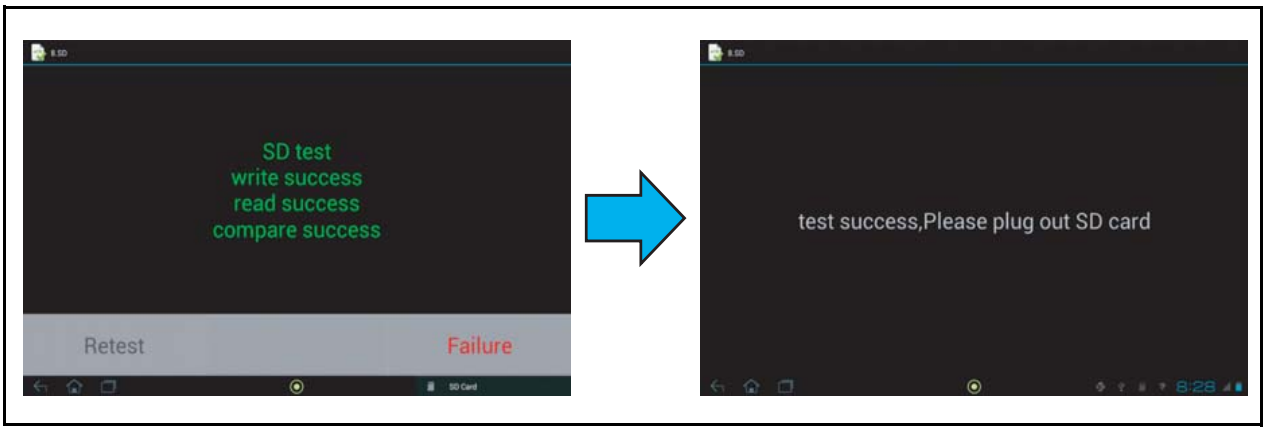

Figure 2-13. SD Card Test Result

9. Vibrator

The device starts vibrating three times every half a second and then displays the final screen as below.

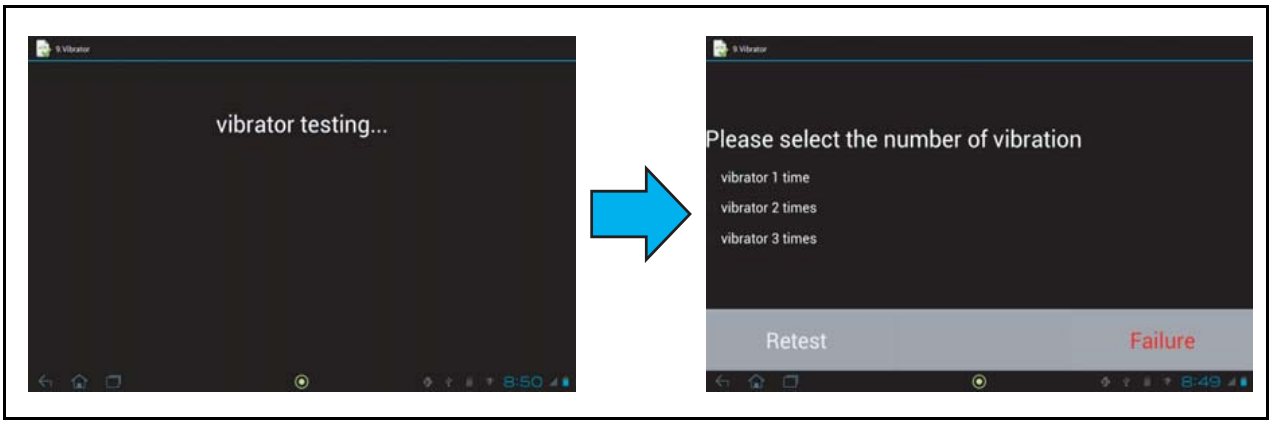

Figure 2-14. Vibrator Test

Uninstallation Procedures

The diagnostic tool **MUST** be uninstalled once testing is done.

IMPORTANT:
DO NOT distribute this tool outside of the service center.

1. On the device, go to **Settings** → **Apps** → **Downloaded**. Touch the "**V0JETACTP**" icon.

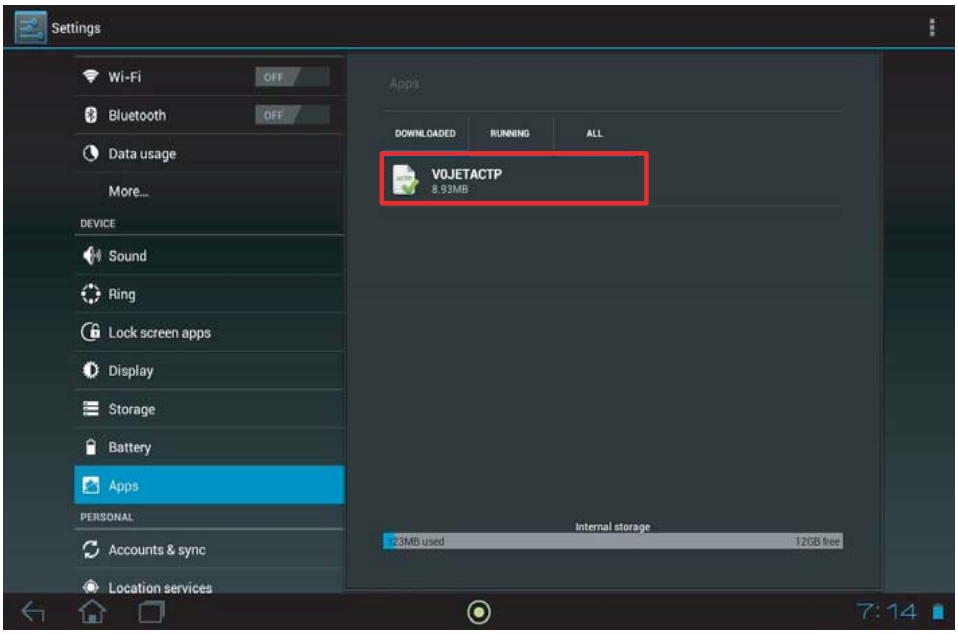

Figure 2-15. Apps Screen

2. Touch **Uninstall**. The click **OK** to confirm.

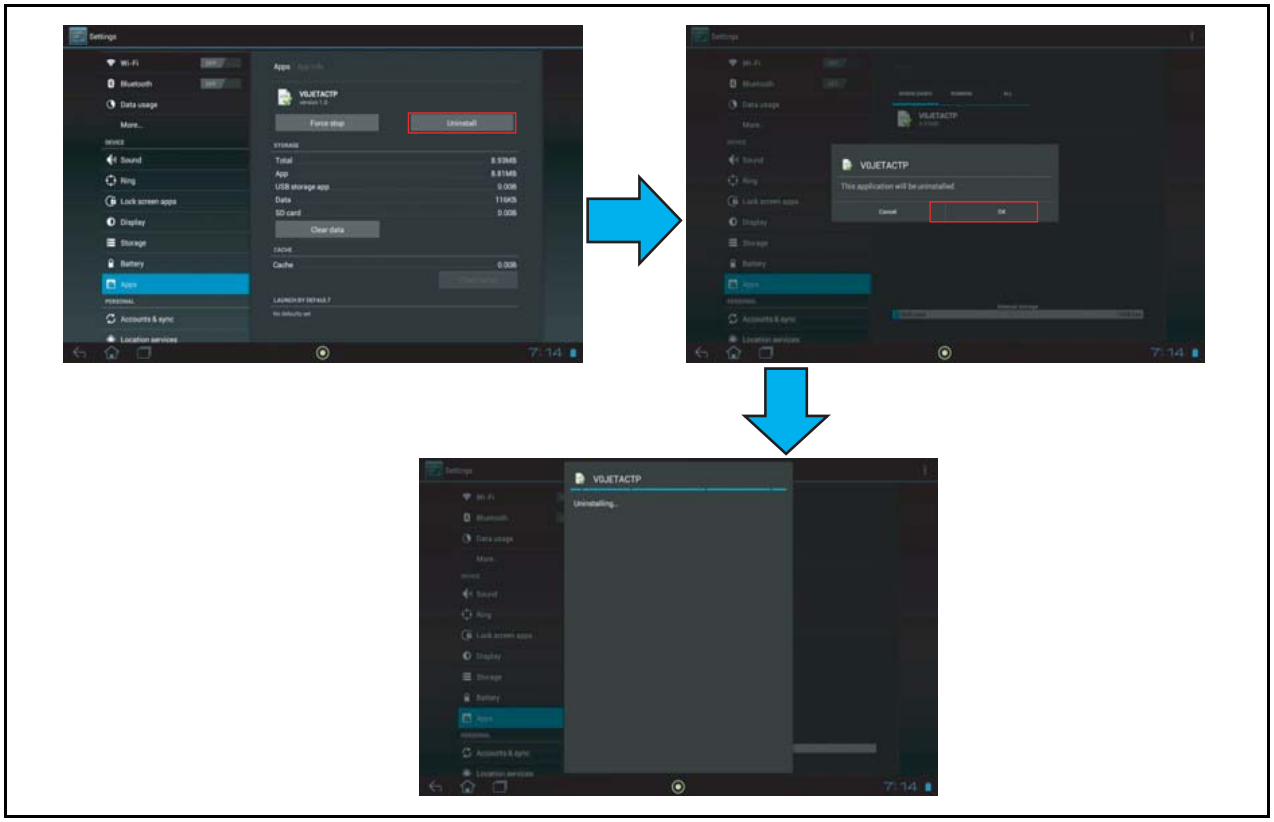

Figure 2-16. Confirm Uninstall Screen

CHAPTER 3

Jumper and Connector Locations

Jumper and Connector Locations

Mainboard Top View

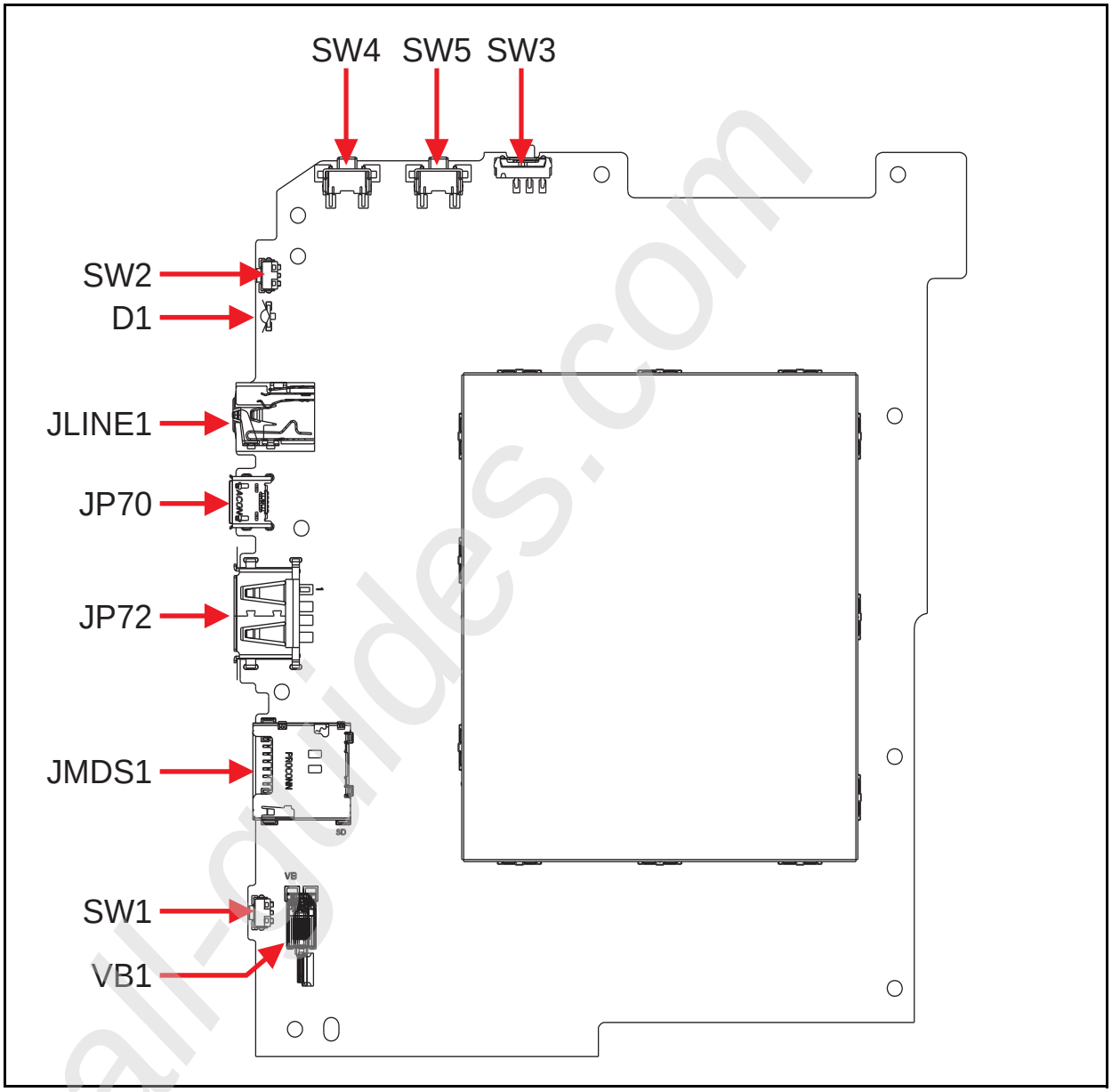

Figure 3-1. Mainboard Top

Table 3-1. Mainboard Top Jumper and Connectors

Item	Description	Item	Description
SW4, SW5	Volume Keys	JP70	USB (Client) Connector
SW3	Lock Key	JP72	USB (Host) Connector
SW2	Power Button	JMDS1	MicroSD connector
D1	Power LED	SW1	Reset Button
JLINE1	Audio Jack	VB1	Vibrator

Mainboard Bottom View

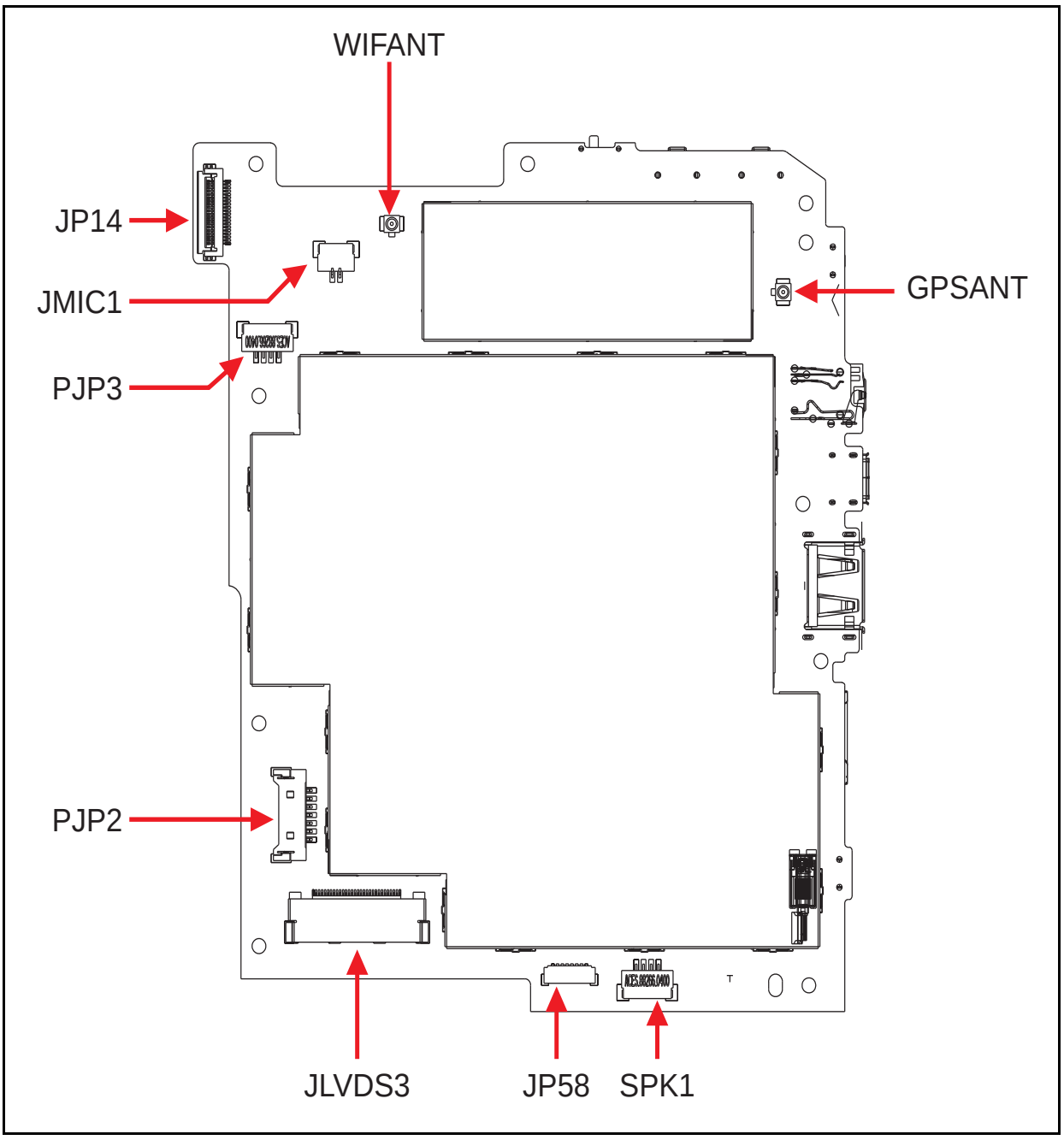

Figure 3-2. Mainboard Bottom

Table 3-2. Mainboard Bottom Jumper and Connectors

Item	Description	Item	Description
WIFANT	Wi-Fi Antenna	JLVDS3	Panel Connector
JP14	Camera Connector	JP58	Touch Panel Control Connector
JMIC1	MIC Connector	SPK1	Speaker Connector
PJP3	DC-IN Connector	GPSANT	GPS Antenna
PJP2	Battery Connector		

CHAPTER 4

Troubleshooting

Troubleshooting

This chapter contains information about troubleshooting common problems associated with the tablet.

General Information

The following procedures are a guide for troubleshooting computer problems. The step by step procedures are designed to be performed as described.

NOTE:

The diagnostic tests are intended to test only Acer products. Non-Acer products, prototype cards, or modified options can give false errors and invalid system responses.

1. Obtain as much detail as possible about the problem.
2. If possible, verify the symptoms by re-creating the failure through diagnostic tests or by repeating the operation that led to the problem.
3. Use Table 4-1 with the verified symptom(s) to determine the solution.

Table 4-1. Verified Symptoms

Symptoms	See
Power on Issues	**Figure 4-1. Power On Issues** on page **4-3**
No Display Issues	**Figure 4-2. No Display Issues** on page **4-4**
LCD Picture Failure	**Figure 4-3. LCD Picture Failure** on page **4-5**
Touch Screen Failure	**Figure 4-4. Touch Screen Failure** on page **4-6**
Internal Speaker Failure	**Figure 4-5. Internal Speaker Failure** on page **4-7**
Internal Microphone Failure	**Figure 4-6. Internal Microphone Failure** on page **4-8**
Extend Earphone Failure	**Figure 4-7. Extend Earphone Failure** on page **4-9**
USB Test Failure	**Figure 4-8. USB Failure** on page **4-10**
Front Camera Failure	**Figure 4-9. Front Camera Failure** on page **4-11**
WiFi and BT Function Test Failure	**Figure 4-10. WiFi and BT Function Test Failure** on page **4-12**
GPS Function Test Failure	**Figure 4-11. GPS Function Test Failure** on page **4-13**
Other Functions Failure	Page **4-14**

4. If the issue is still not resolved, see **Online Support Information** on page **8-2**.

Power On Issues

If the system does not power on, perform the following:

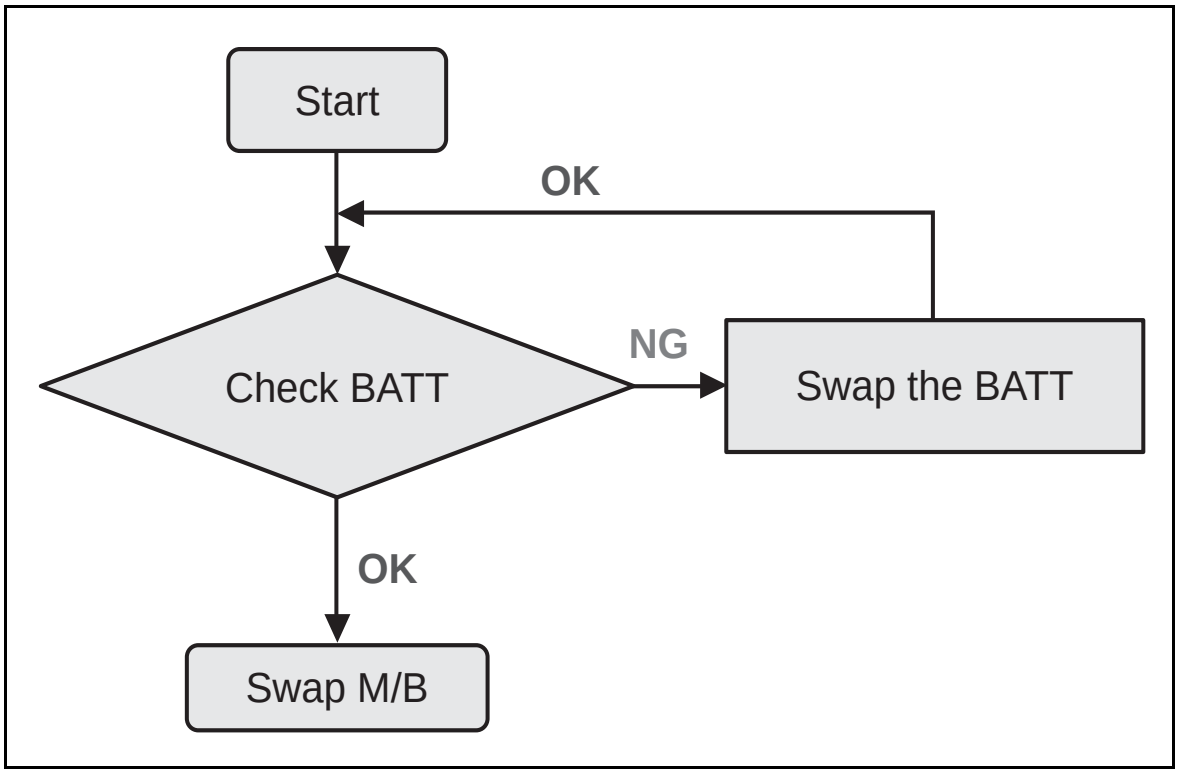

Figure 4-1. Power On Issues

No Display Issues

If the system does not display, perform the following:

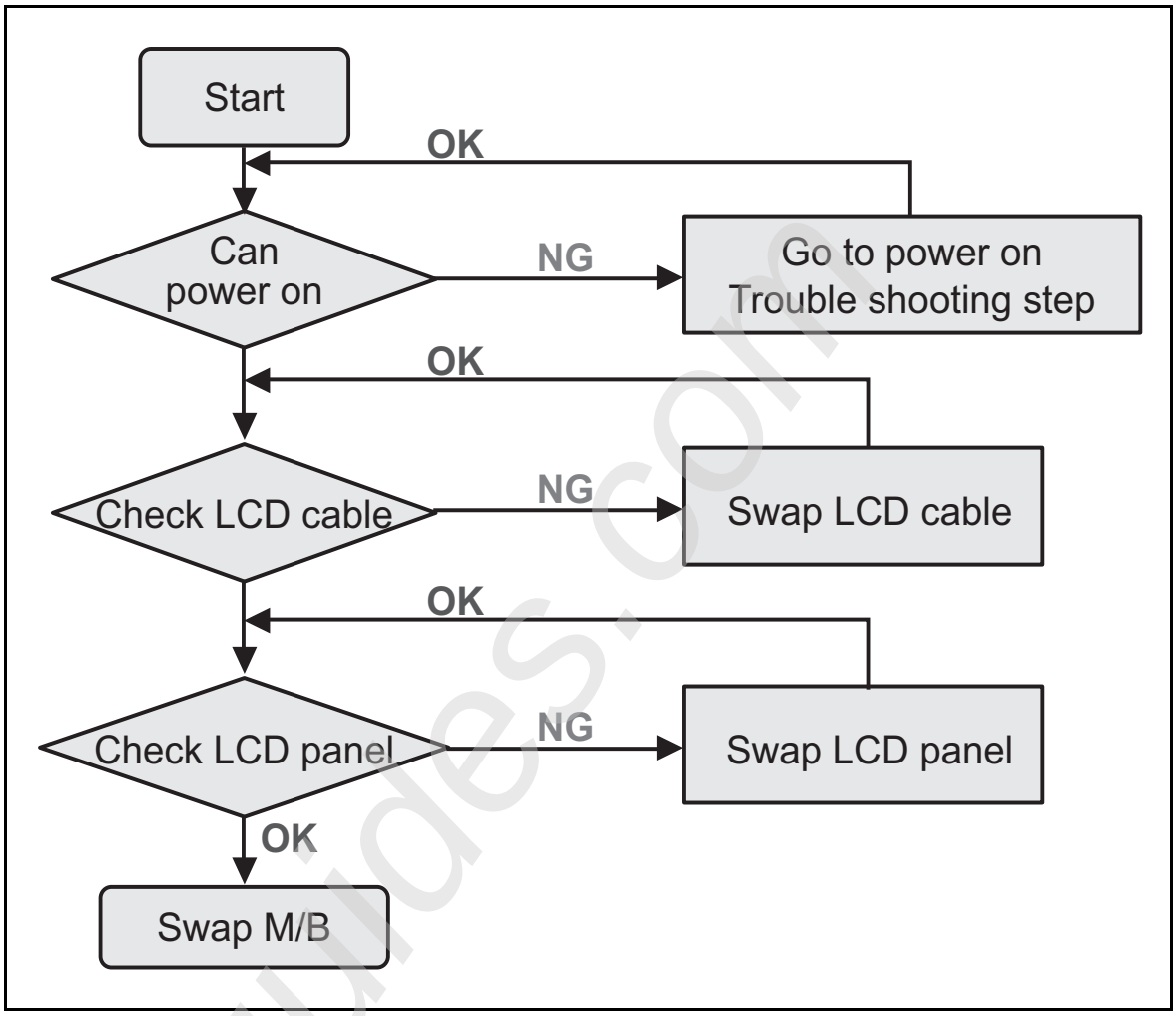

Figure 4-2. No Display Issues

LCD Picture Failure

If the LCD picture fails, perform the following:

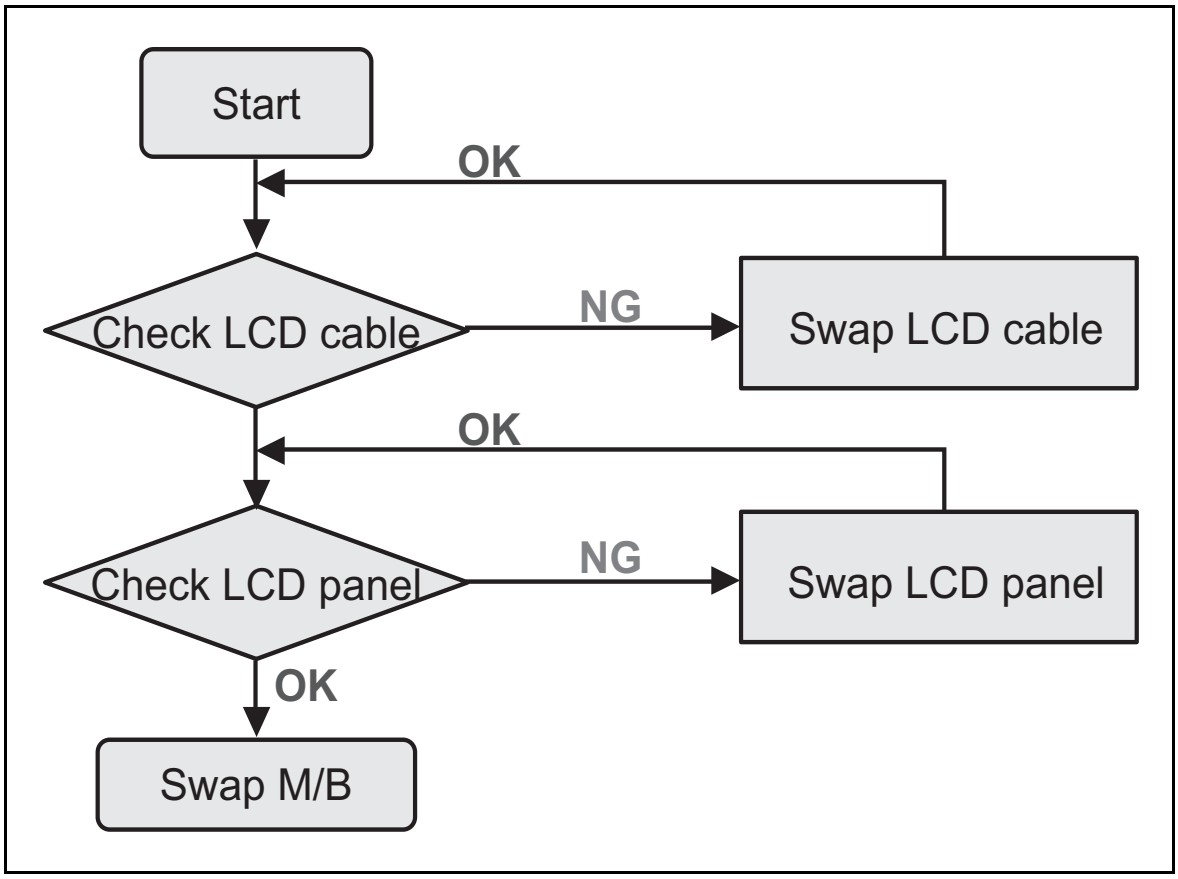

Figure 4-3. LCD Picture Failure

Touch Screen Failure

If the touch screen fails, perform the following:

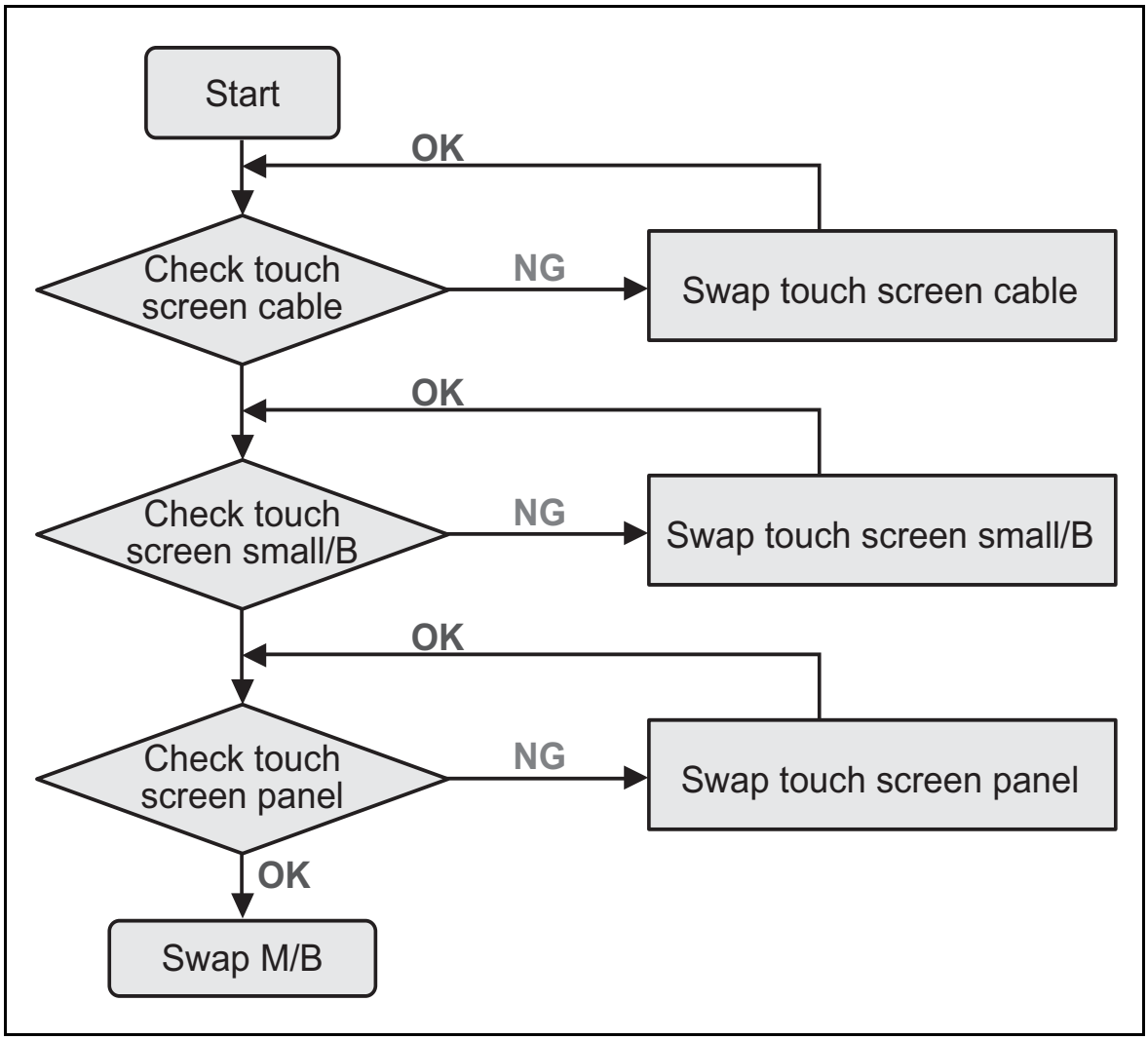

Figure 4-4. Touch Screen Failure

Internal Speaker Failure

If the internal speakers fail, perform the following:

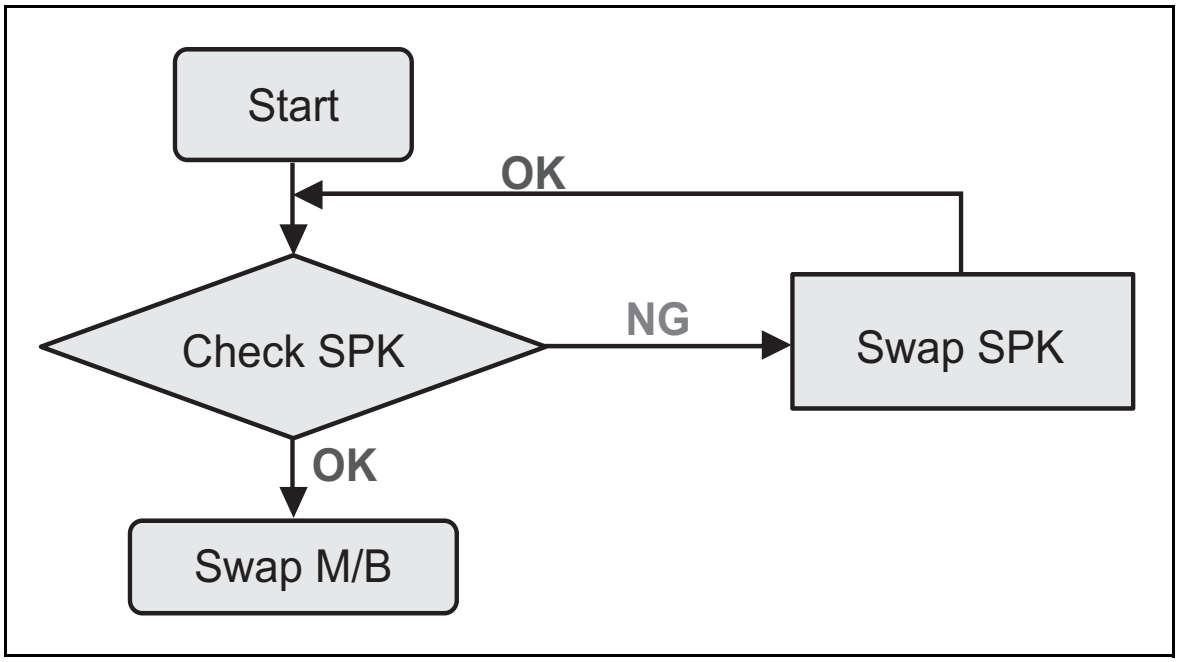

Figure 4-5. Internal Speaker Failure

Internal Microphone Failure

If the internal microphone fails, perform the following:

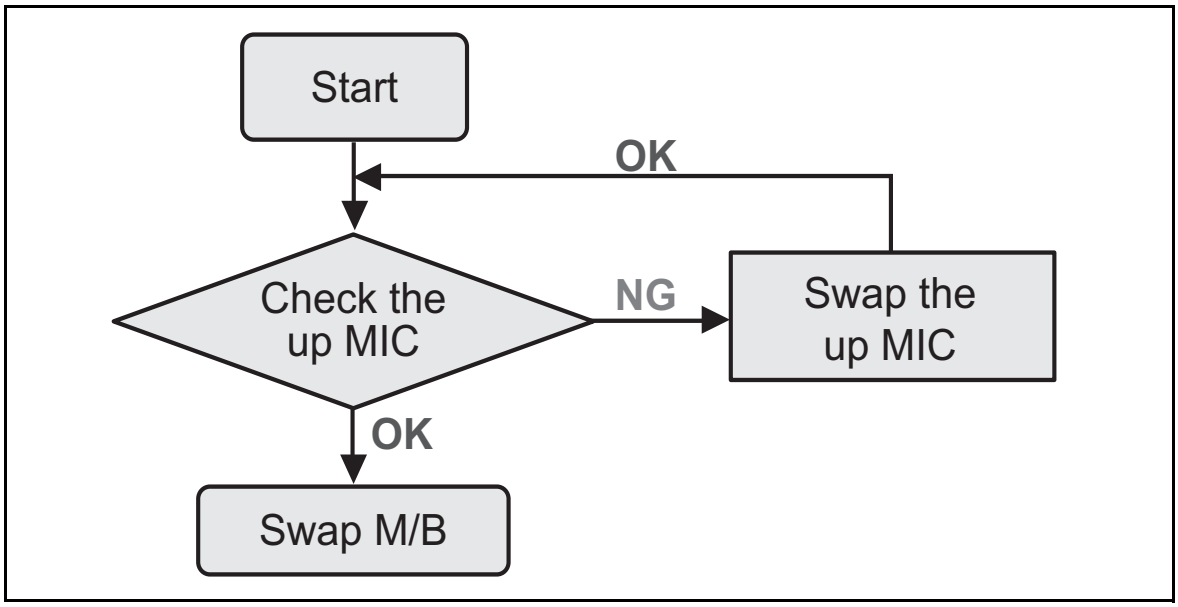

Figure 4-6. Internal Microphone Failure

Extend Earphone Failure

If the external earphone fails, perform the following:

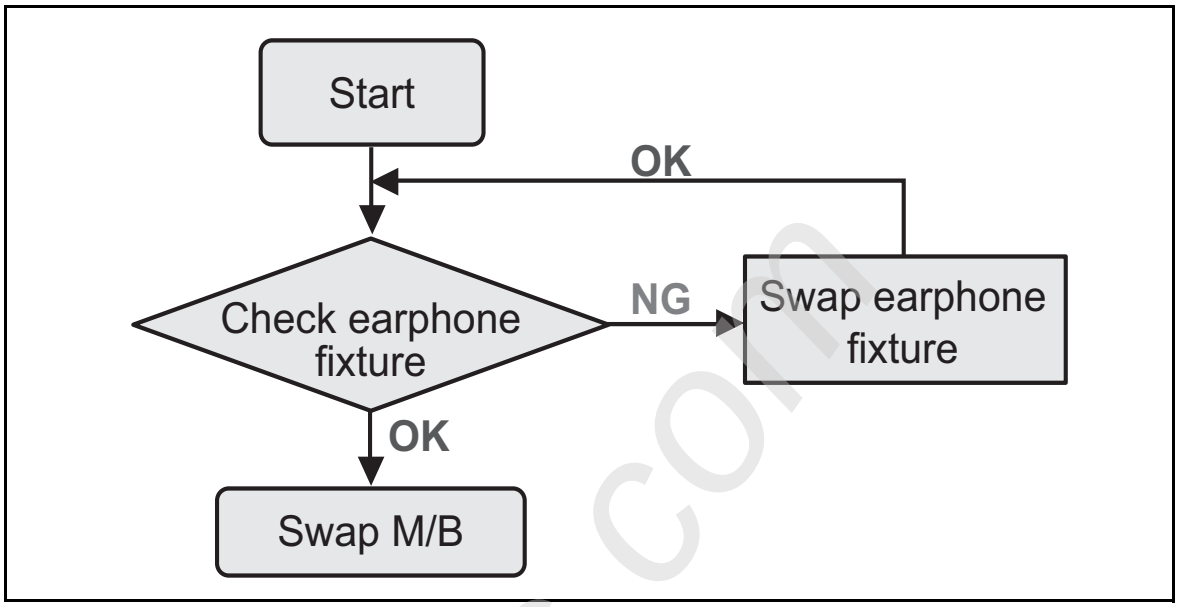

Figure 4-7. Extend Earphone Failure

USB Test Failure

If the USB test fails, perform the following:

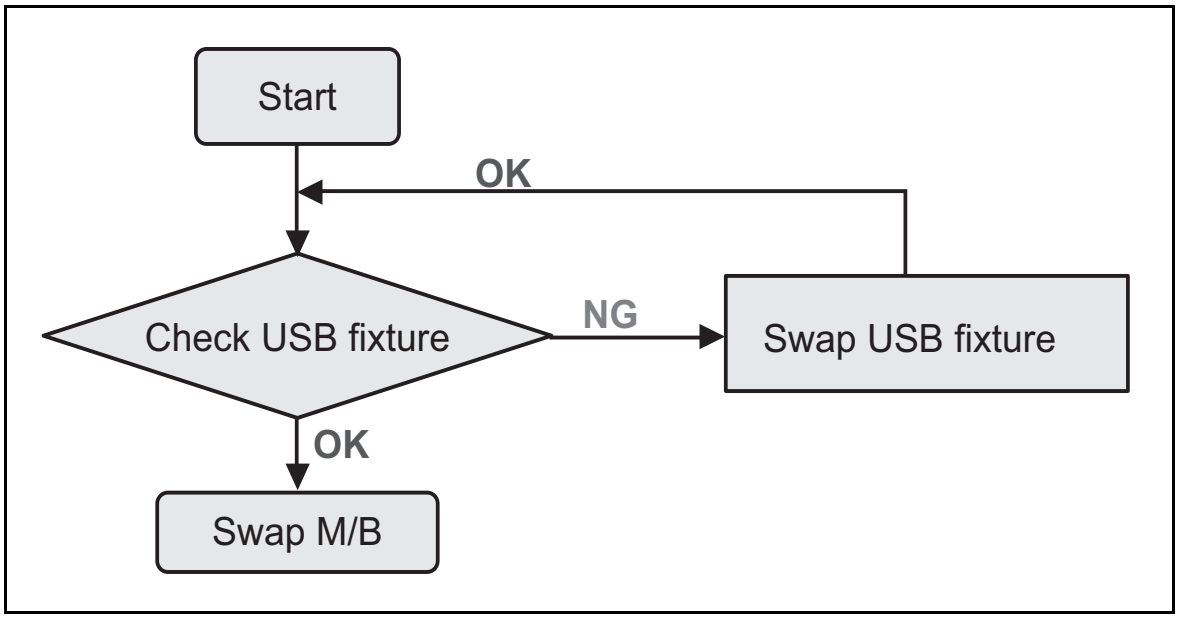

Figure 4-8. USB Failure

Front Camera Failure

If the front camera fails, perform the following:

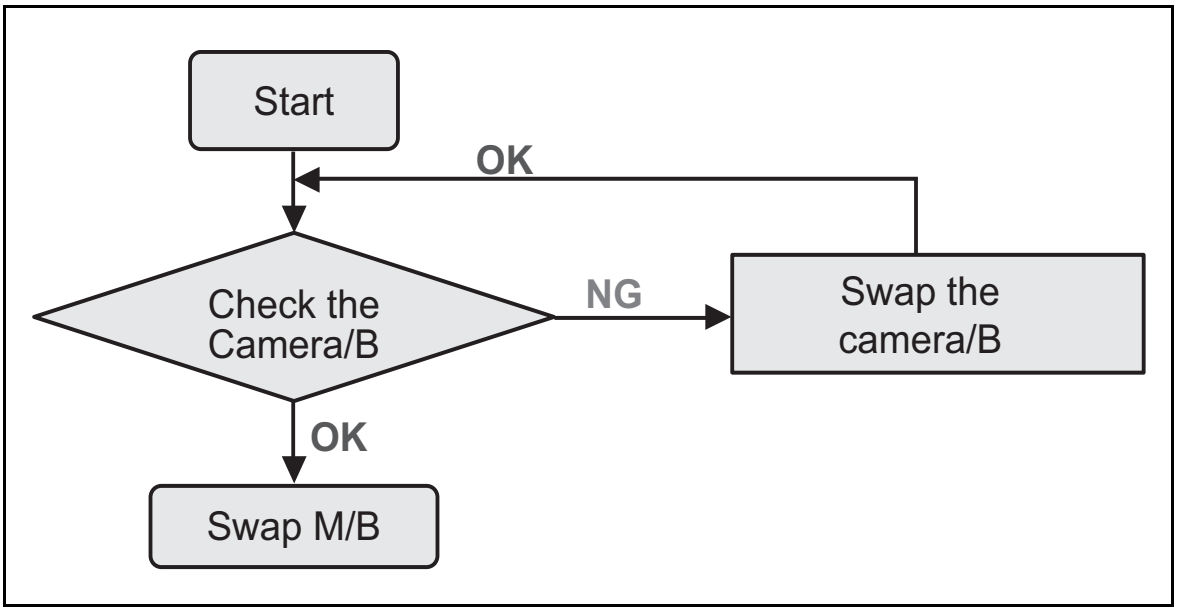

Figure 4-9. Front Camera Failure

WiFi and BT Function Test Failure

If the WiFi and BT function test fails, perform the following:

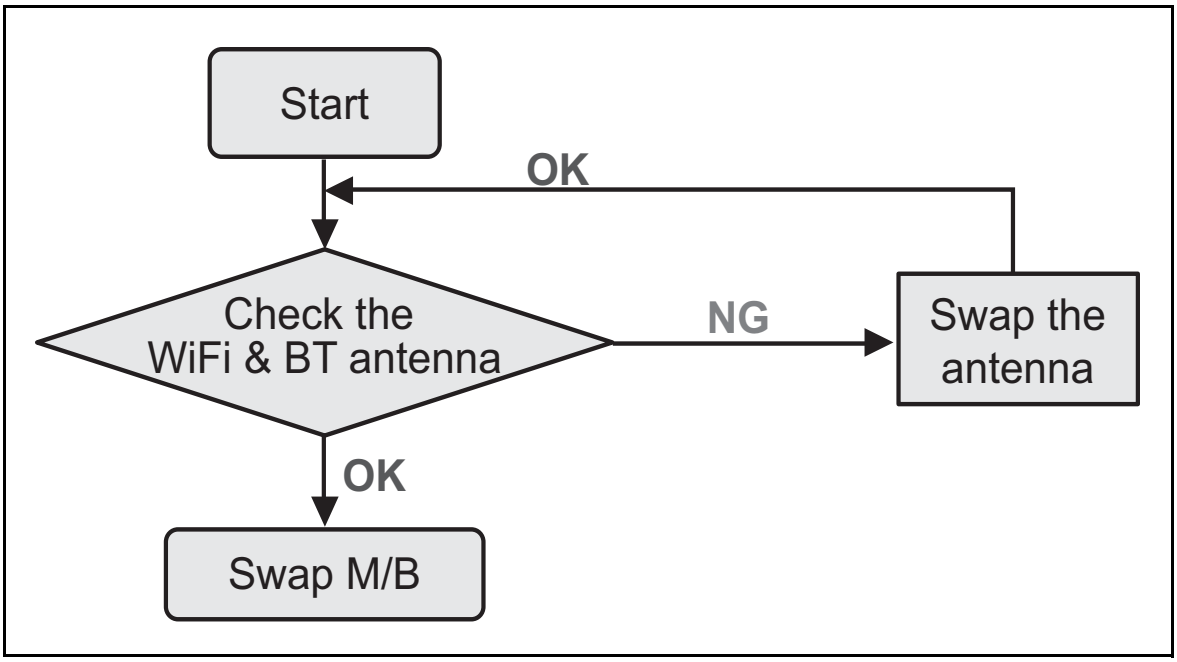

Figure 4-10. WiFi and BT Function Test Failure

GPS Function Test Failure

If the GPS function test fails, perform the following:

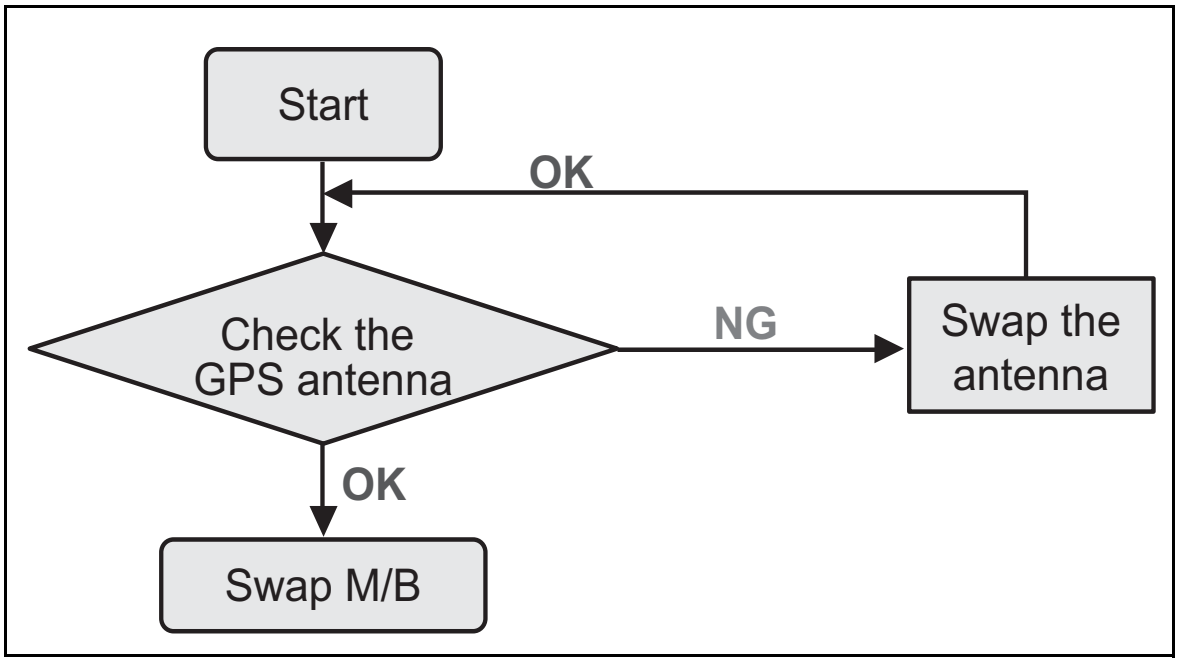

Figure 4-11. GPS Function Test Failure

Other Functions Failure

If other functions such as the SD card, Gyro, or G-sensor test fail, perform the following:

1. Check if the test fixture is ok.
2. Swap the mainboard to test.

CHAPTER 5

Service and Maintenance

Service and Maintenance

Introduction

This chapter contains general information about the tablet, a list of tools needed to perform the required maintenance and step by step procedures on how to remove and install components from the tablet computer.

Recommended Equipment

The following tools are required to perform maintenance on the tablet:

- Wrist grounding strap and conductive mat
- Flat screwdriver
- Philips screwdrivers
- Pointed plastic pry or similar object

Screw Name	Screw Type	Quantity
M 2.0 x 4.0		11
M 2.0 x 3.0		9

Maintenance Flowchart

The flowchart in Figure 5-1 provides a graphic representation of the module removal and installation sequences. It provides information on what components need to be removed and installed during servicing

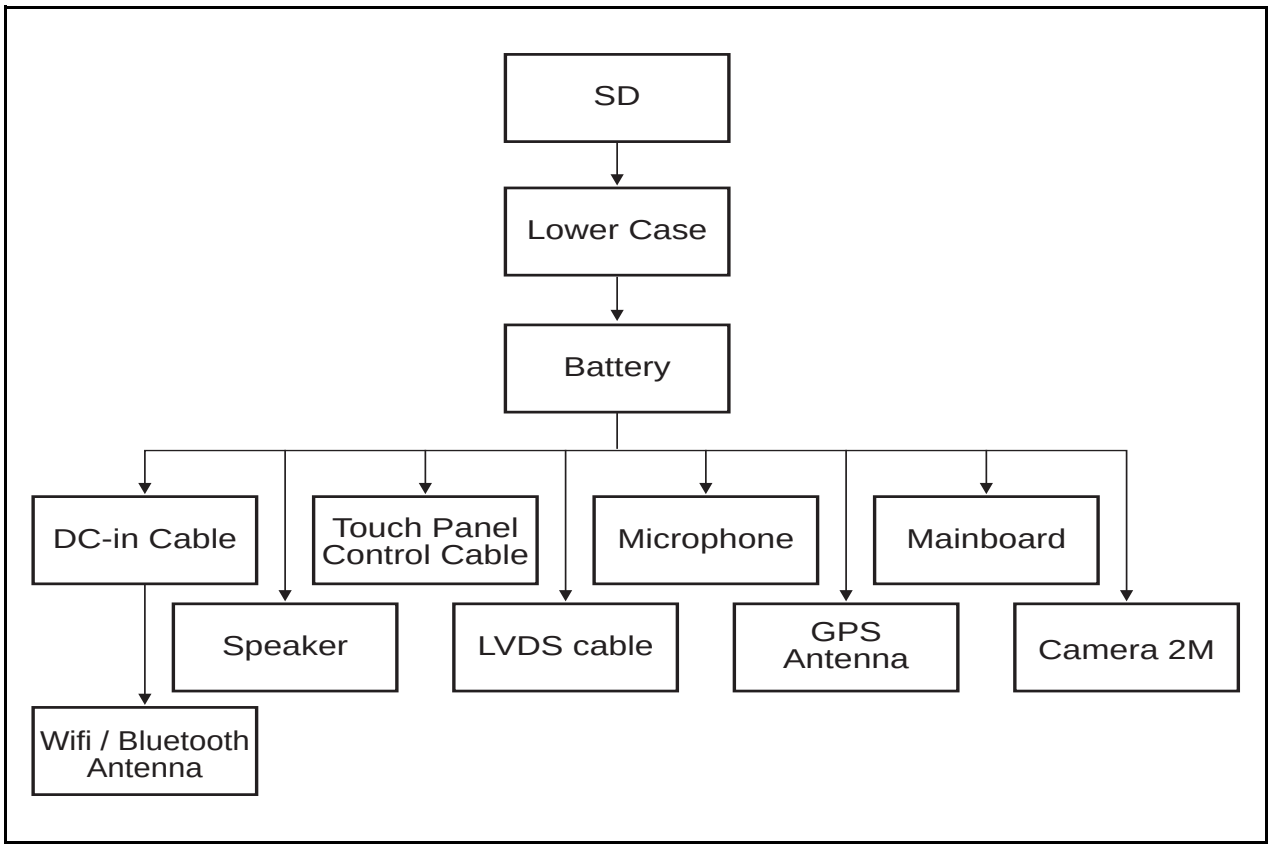

Figure 5-1. Maintenance Flow

Getting Started

The flowchart (**Figure 5-1**, page **5-3**) identifies sections illustrating the entire removal and installation sequence. Observe the order of sequence to avoid damage to any of the hardware components.

Perform the following prior to performing any maintenance procedures:

1. Place the system on a flat work surface.
2. Disconnect the AC adapter and remove all cables from the system and its peripherals.
3. Make sure the system is completely powered down.
4. To make sure the system is completely powered down, press and hold the Power button (A) for 4 seconds. (**Figure 5-2**)
   a. If the device is in powered down mode, allow the device to complete the boot process (approximately 10 seconds). Then, power down normally.
   b. If the device is in sleep mode, wait for the Home Screen to clear. Then, power down normally.

Figure 5-2. Device Overview with Power Button

5. Press and hold the Power button for 4 seconds to show the **Tablet Options** dialog.
6. Select **Power Off** to power down the device.
7. From the **Power Off** dialog, select **OK**.

SD Card Removal

1. Open the SD card cover.

Figure 5-3. Opening the SD Card Cover

2. Push the SD card to eject it from the slot, and then remove the card.

Figure 5-4. Removing the SD Card

3. Secure the SD card cover.

Figure 5-5. Securing the SD Card Cover

SD Card Installation

1. Open the SD card cover. (**Figure 5-3**, page **5-5**)
2. Push the SD card into the slot until it clicks into place.

Figure 5-6. Installing the SD Card

3. Close the SD card cover. (**Figure 5-5**, page **5-6**)

Lower Case Removal

Prerequisite:

- **SD Card Removal** on page **5-5**

1. Open the SD card cover.

Figure 5-7. Opening the SD Card Cover

2. Insert the pointed plastic pry into the slot next to the SD card cover to unlock the latch.

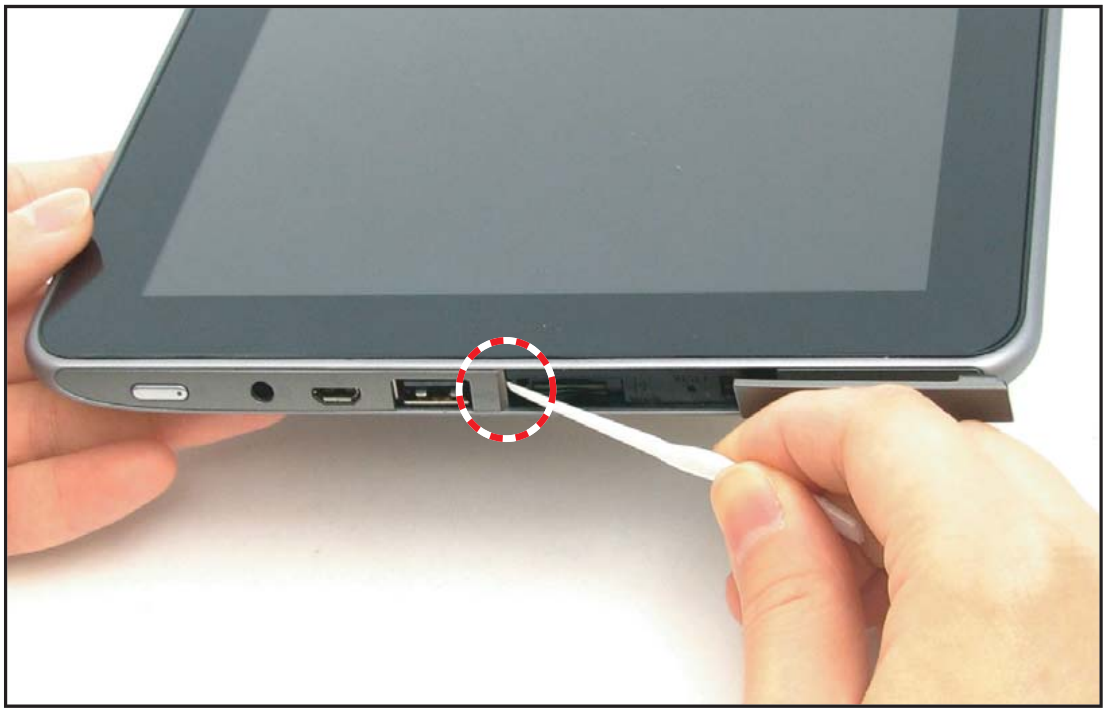

Figure 5-8. Unlocking the Left IO Cover Latches (1 of 4)

3. Starting from the edge shown in Figure 5-8, release the latches from the bezel with your hands.

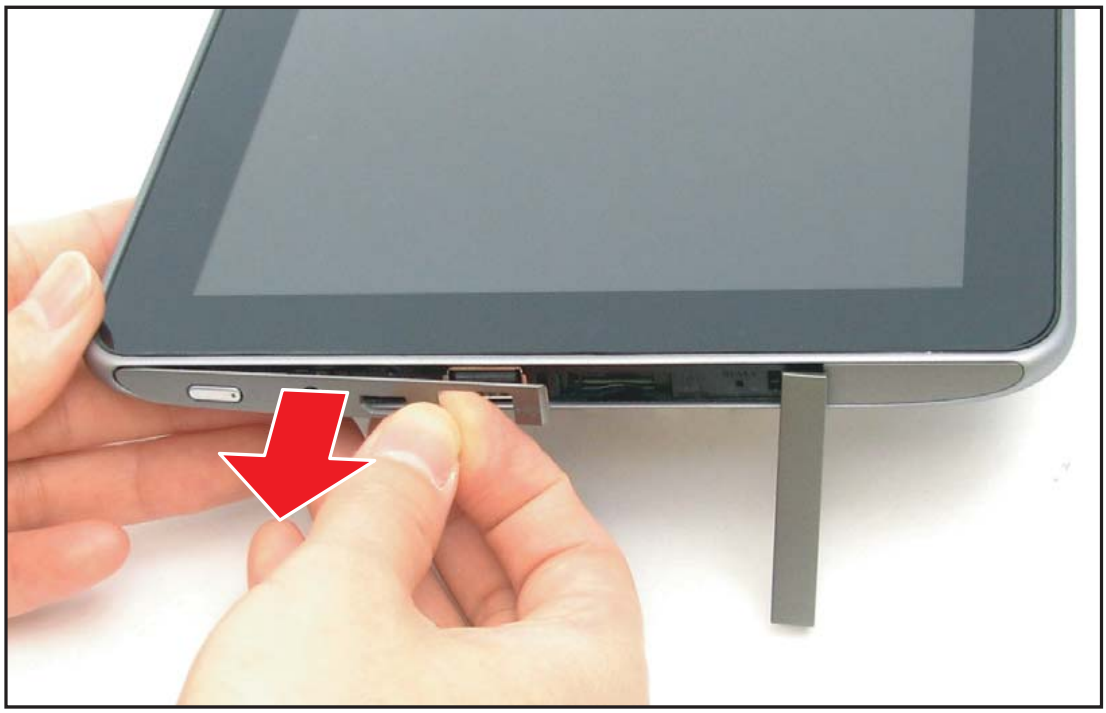

Figure 5-9. Unlocking the Left IO Cover Latches (2 of 4)

4. Insert the plastic pry into the slot to unlock the lower latch.

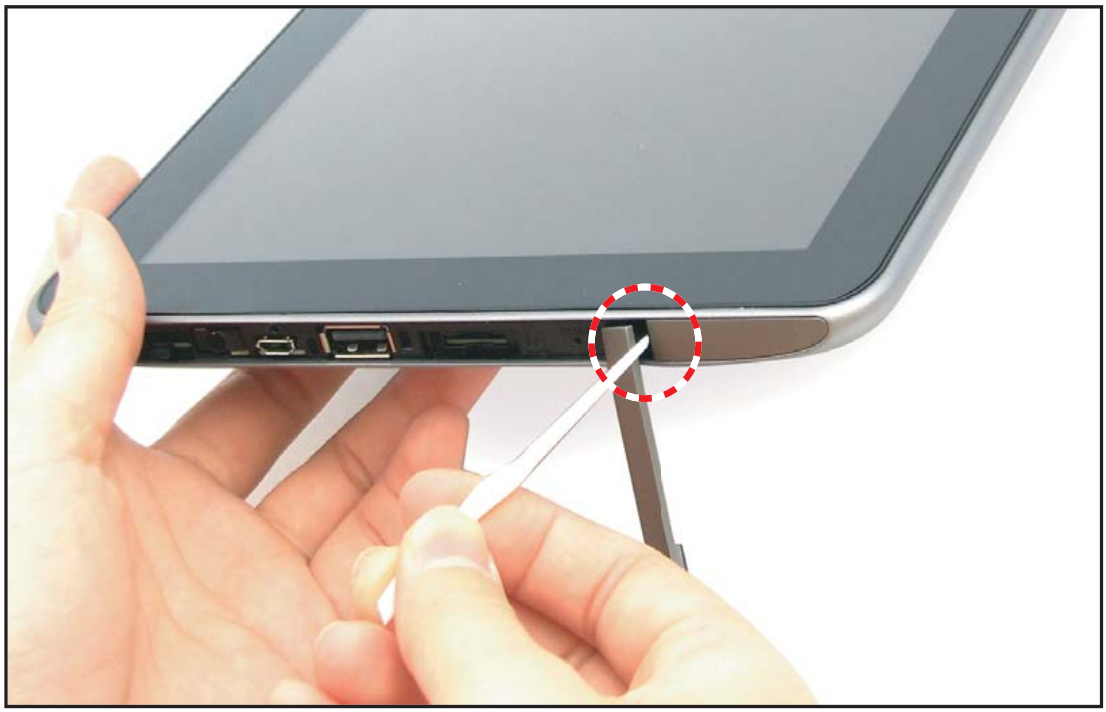

Figure 5-10. Unlocking the Left IO Cover Latches (3 of 4)

5. Release the latches from the bezel with your hands.

Figure 5-11. Unlocking the Left IO Cover Latches (4 of 4)

6. Insert the plastic pry into the gap between the AC adapter jack and the right IO cover, and then pry to unlock the right IO cover latch.

Figure 5-12. Unlocking the Right IO Cover Latches (1 of 2)

7. Release the latches from the bezel with your hands.

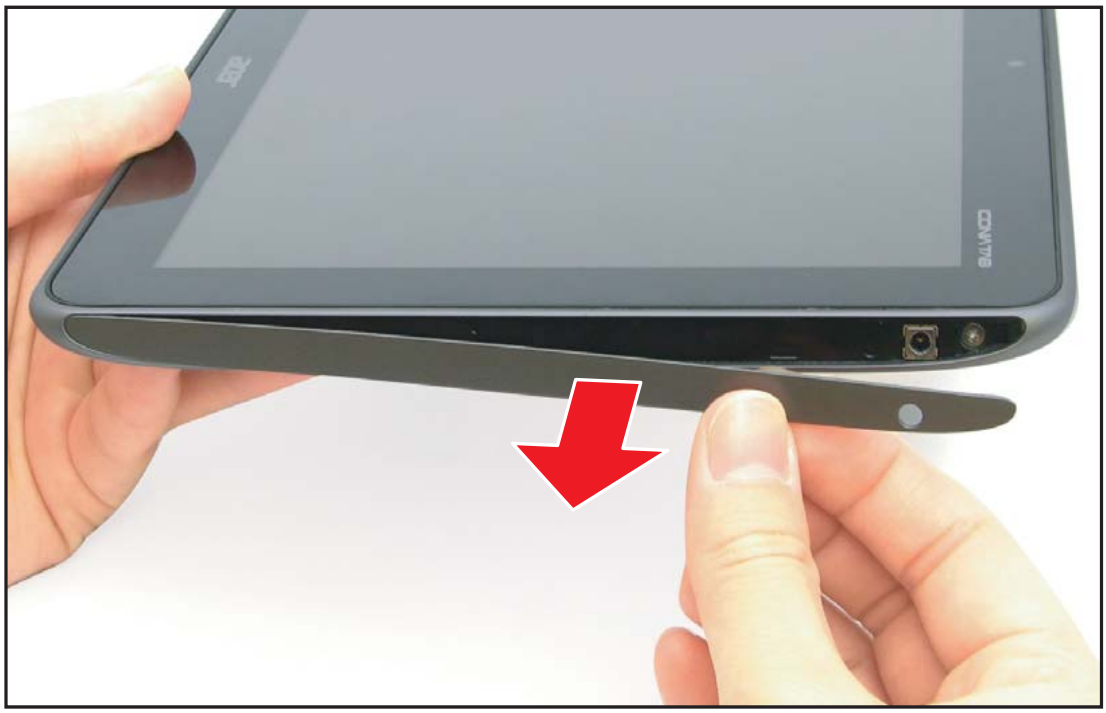

Figure 5-13. Unlocking the Right IO Cover Latches (2 of 2)

8. Remove the four (4) screws from the bezel.

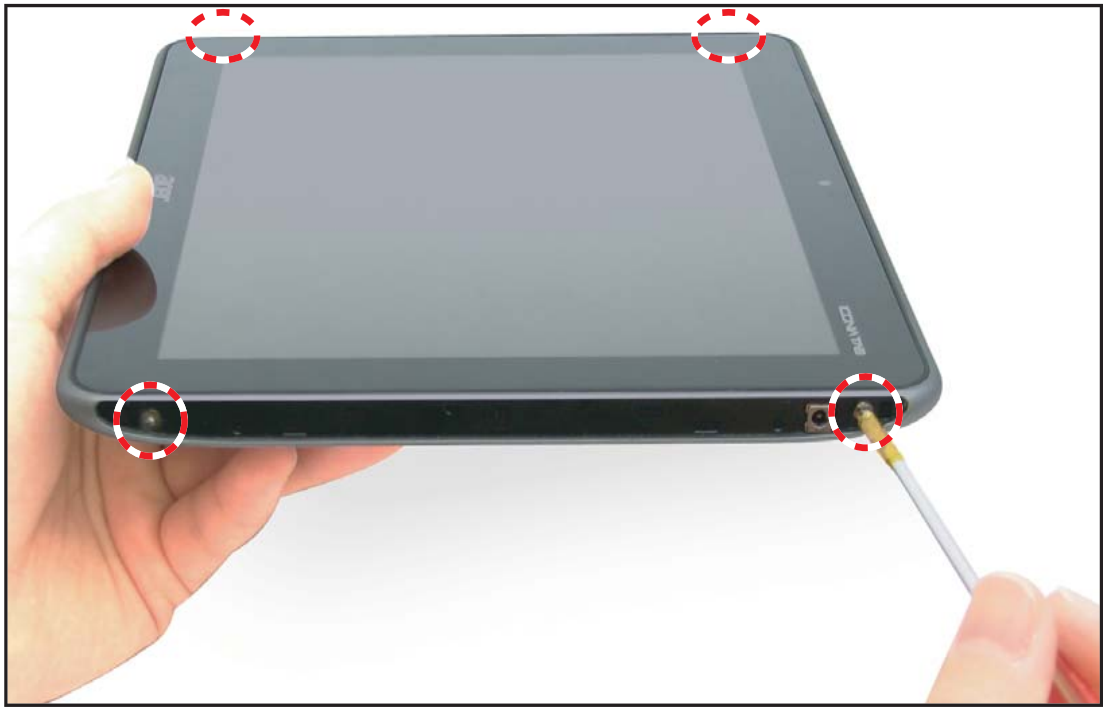

Figure 5-14. Removing the Screws

9. Release the top side of the lower case from the latches of the bezel.

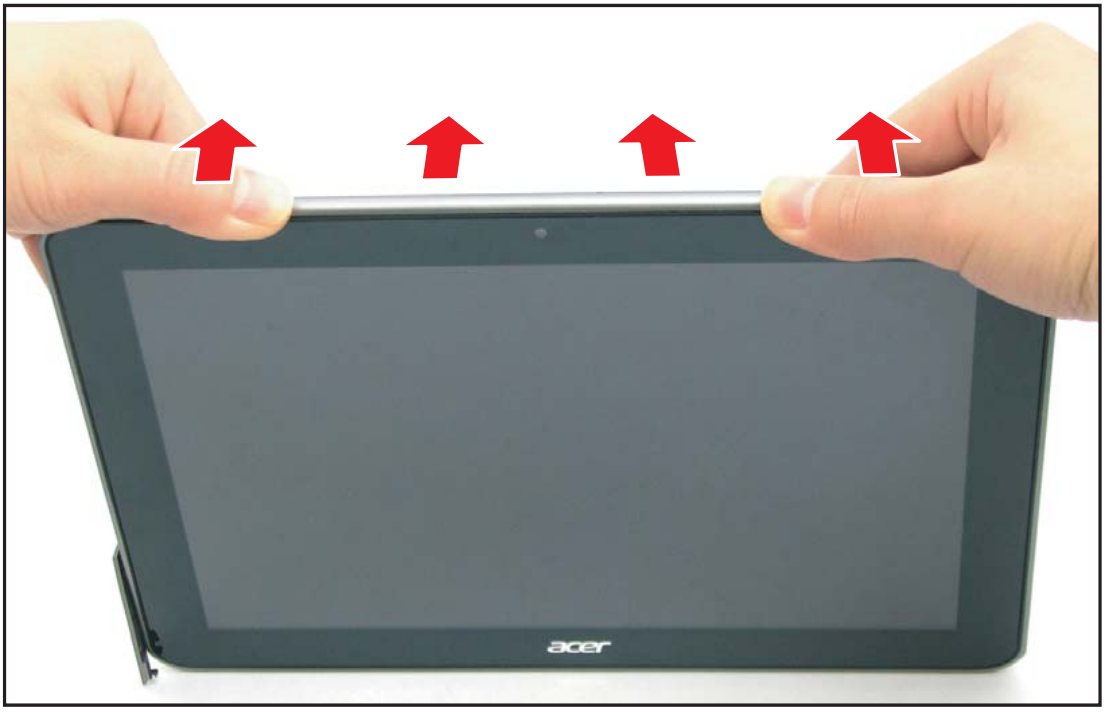

Figure 5-15. Releasing the Side Latches (1 of 4)

10. Release the bottom side of the lower case from the latches of the bezel.

Figure 5-16. Releasing the Side Latches (2 of 4)

11. Release the right side of the lower case from the latches of the bezel.

Figure 5-17. Releasing the Side Latches (3 of 4)

12. Remove the lower case from the bezel.

Figure 5-18. Releasing the Side Latches (4 of 4)

Lower Case Installation

1. Make sure the Lock key on the lower case (A) and the Lock key on the mainboard (B) are on the same direction.

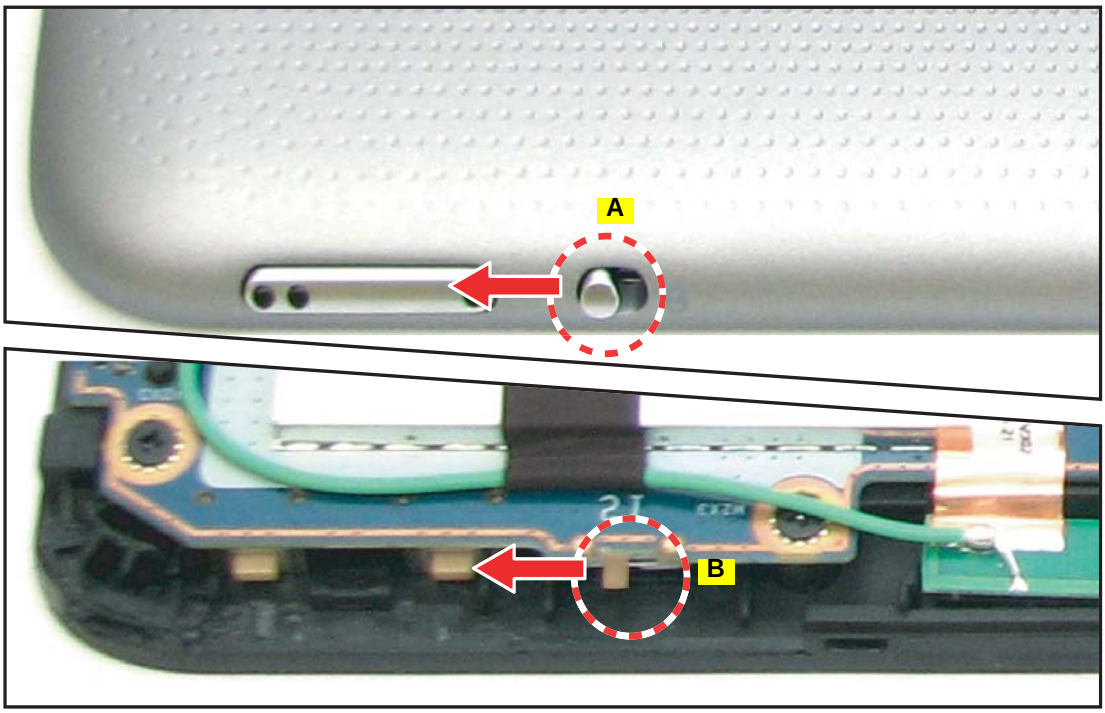

Figure 5-19. Checking the Lock Key Position

2. Align the left edge of the lower case with the connectors slot on the mainboard.

Figure 5-20. Installing the Lower Case (1 of 4)

3. Using the plastic pry, slightly push the right side of the lower case to secure the right side of the bezel.

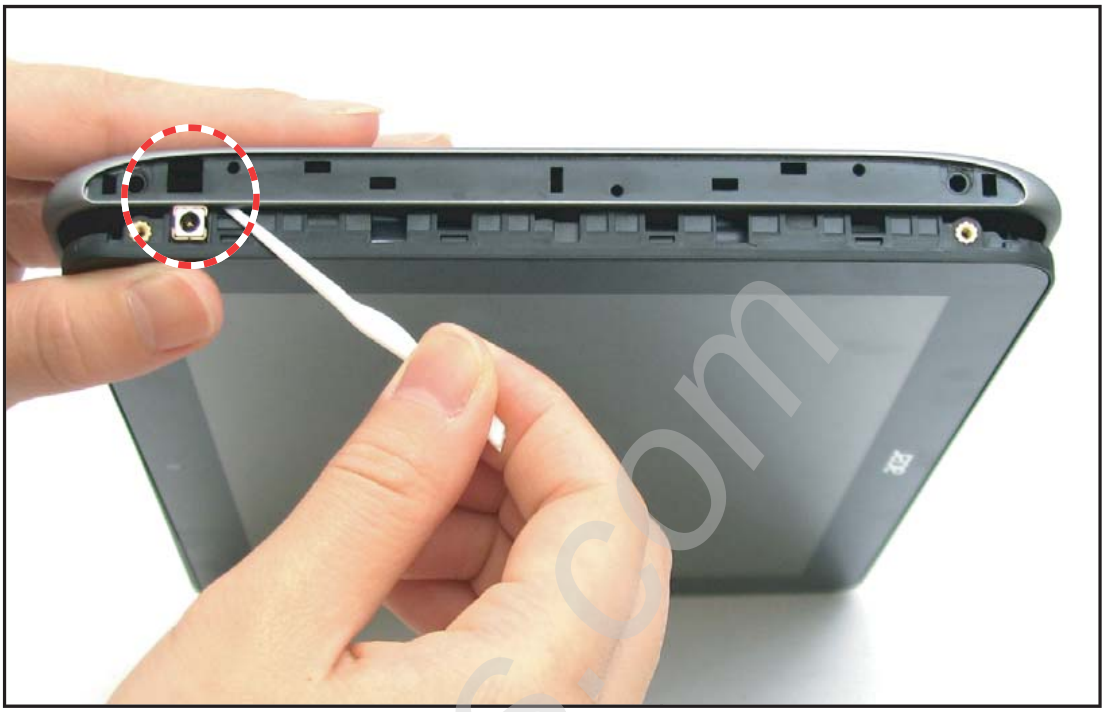

Figure 5-21. Installing the Lower Case (2 of 4)

4. Secure all sides of the lower case to the latches on the bezel.

Figure 5-22. Installing the Lower Case (3 of 4)

5. Install and secure the four (4) screws to the bezel.

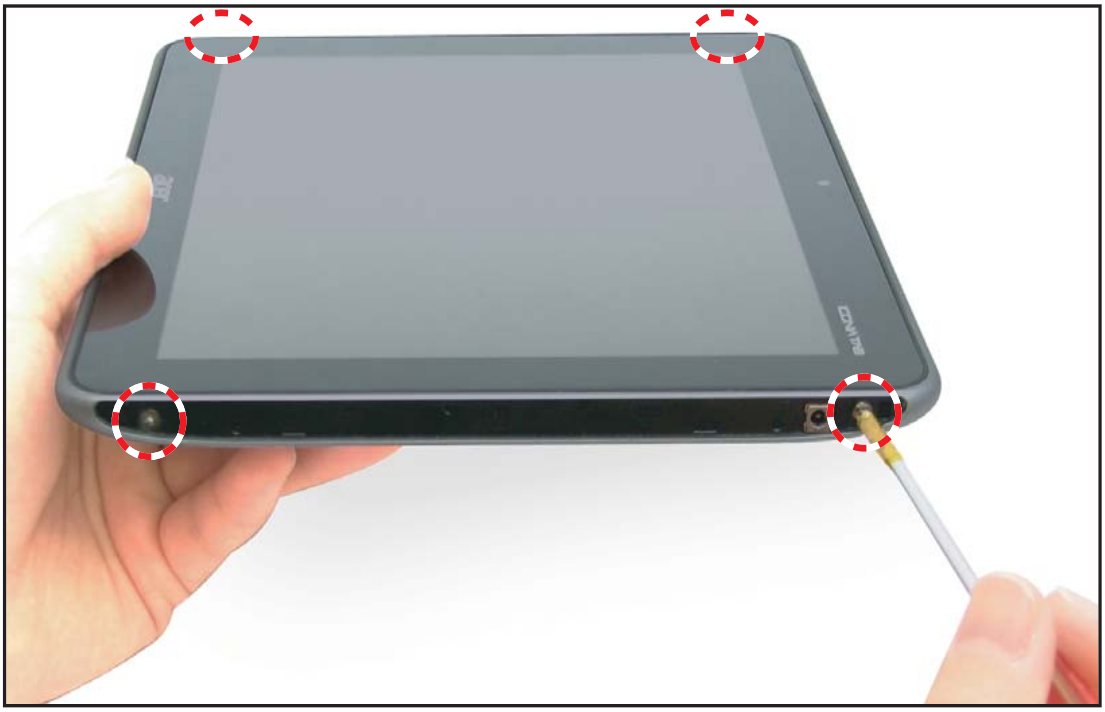

Figure 5-23. Installing the Lower Case (4 of 4)

6. Install and secure the right IO cover to the bezel latches.

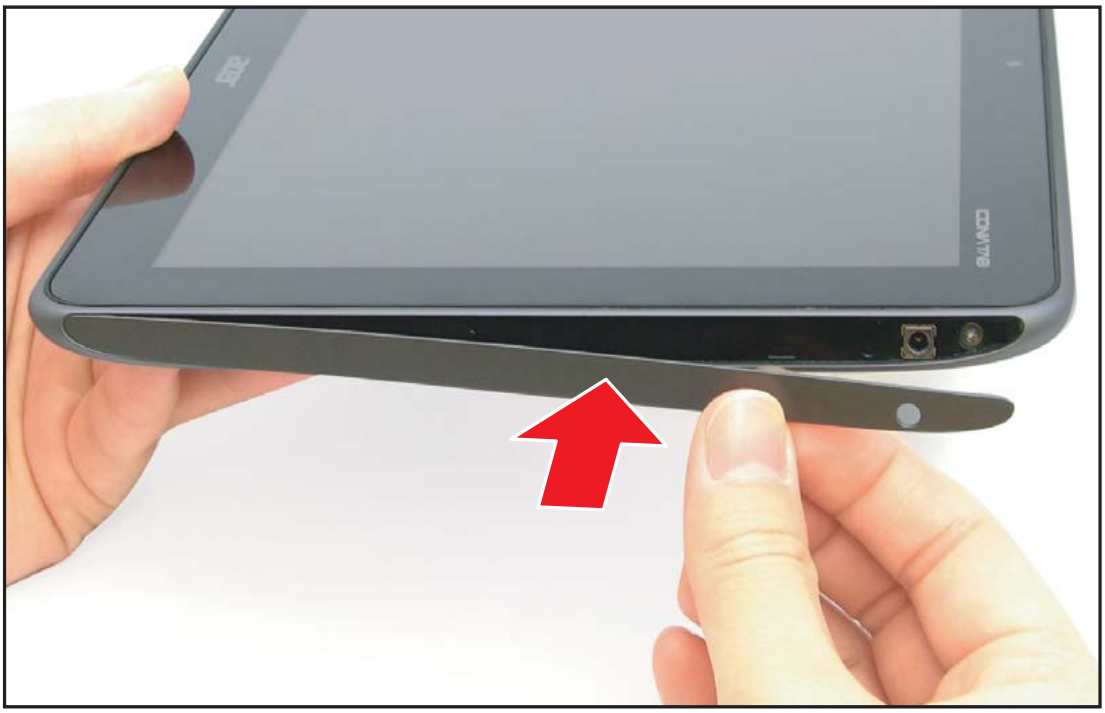

Figure 5-24. Installing the Right IO Cover

7. Install and secure the lower left IO cover to the bezel latches.

Figure 5-25. Installing the Left IO Cover (1 of 2)

8. Install and secure the upper left IO cover to the bezel latches.

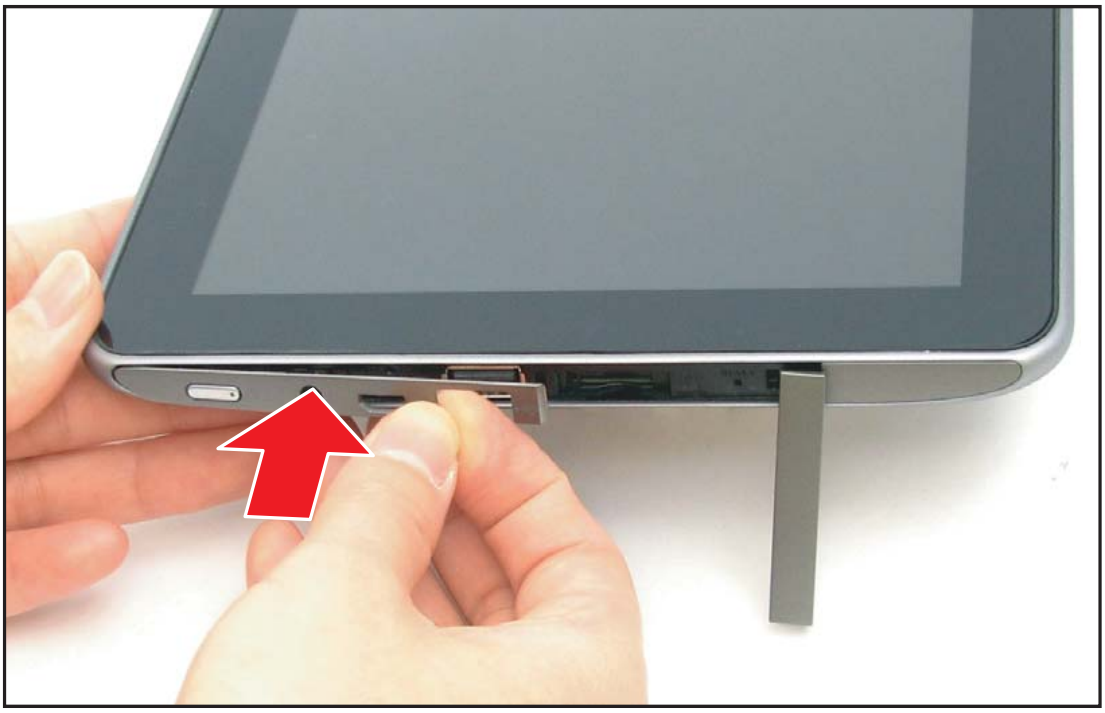

Figure 5-26. Installing the Left IO Cover (2 of 2)

9. Close the SD card cover.

Figure 5-27. Closing the SD Card Cover

Table 5-3. Lower Case Screws

Screw Name	Screw Type	Quantity
M 2.0 x 4.0		4

Battery Removal

Prerequisite:

- **Lower Case Removal** on page **5-8**

1. Disconnect the battery cable from the mainboard connector.

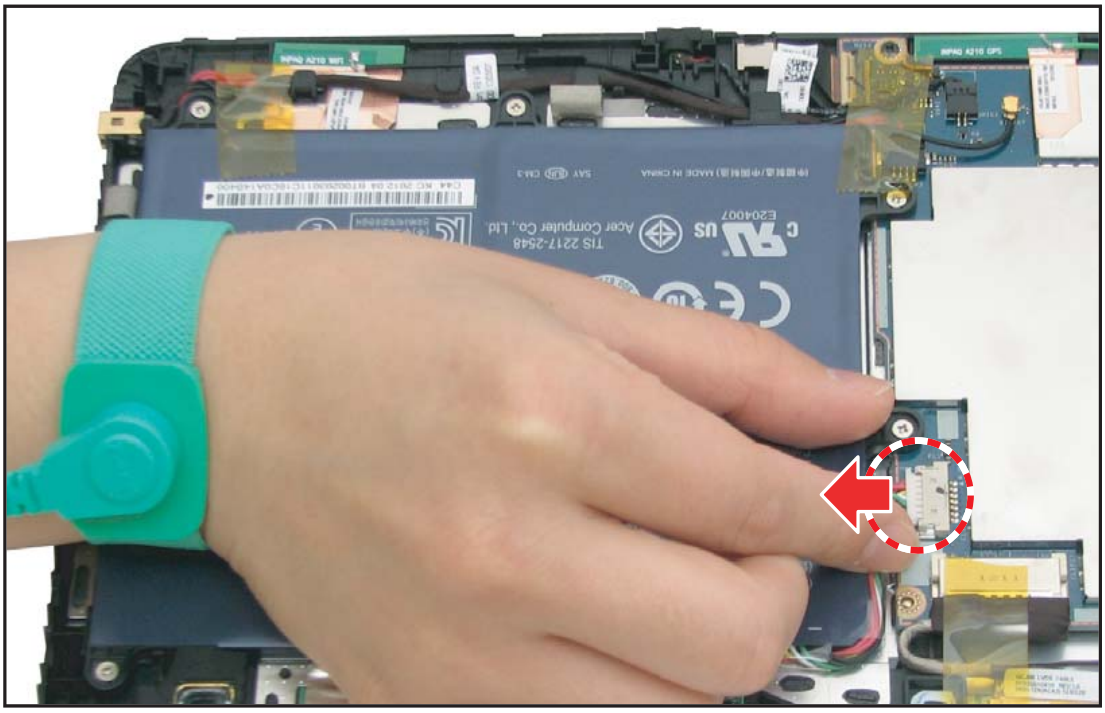

Figure 5-28. Disconnecting the Battery Cable

2. Remove the seven (7) screws securing the battery to the mainboard and the bezel.

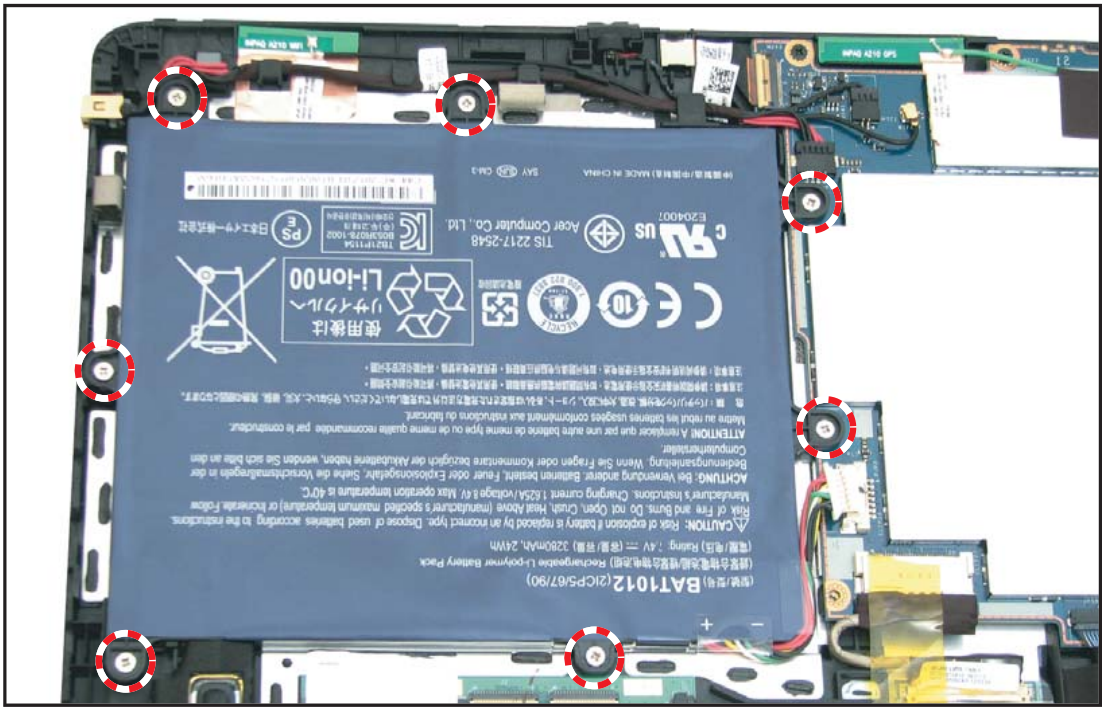

Figure 5-29. Removing the Battery Screws

3. Remove the battery.

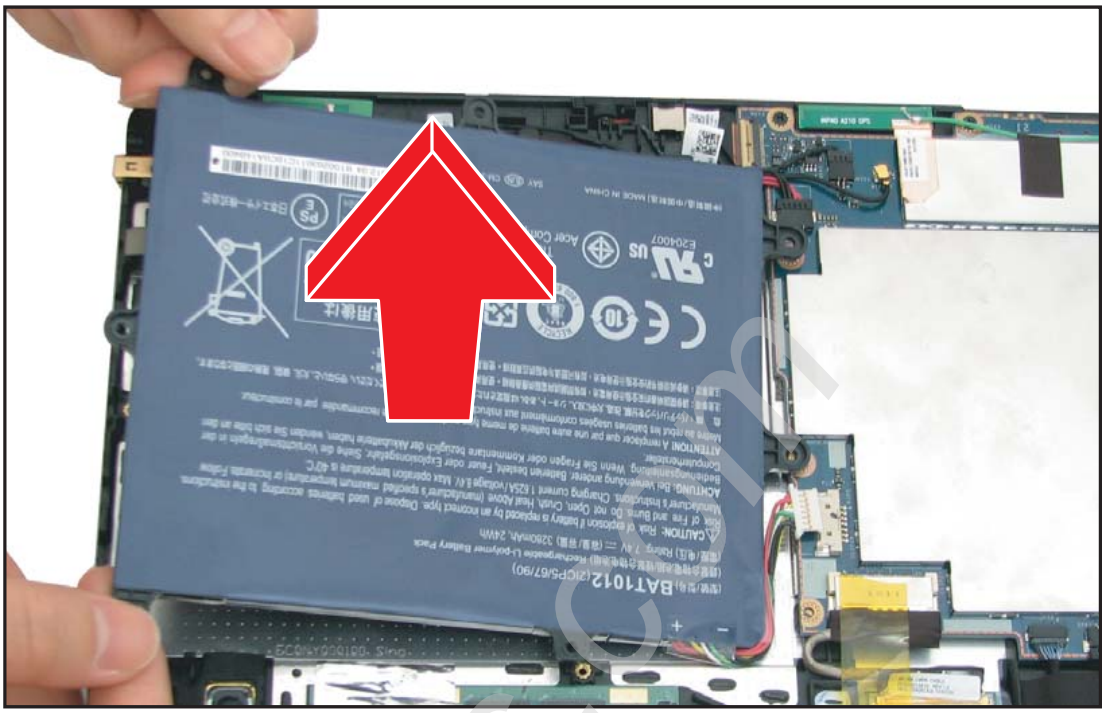

Figure 5-30. Removing the Battery

Battery Installation

1. Install the battery on the bezel.

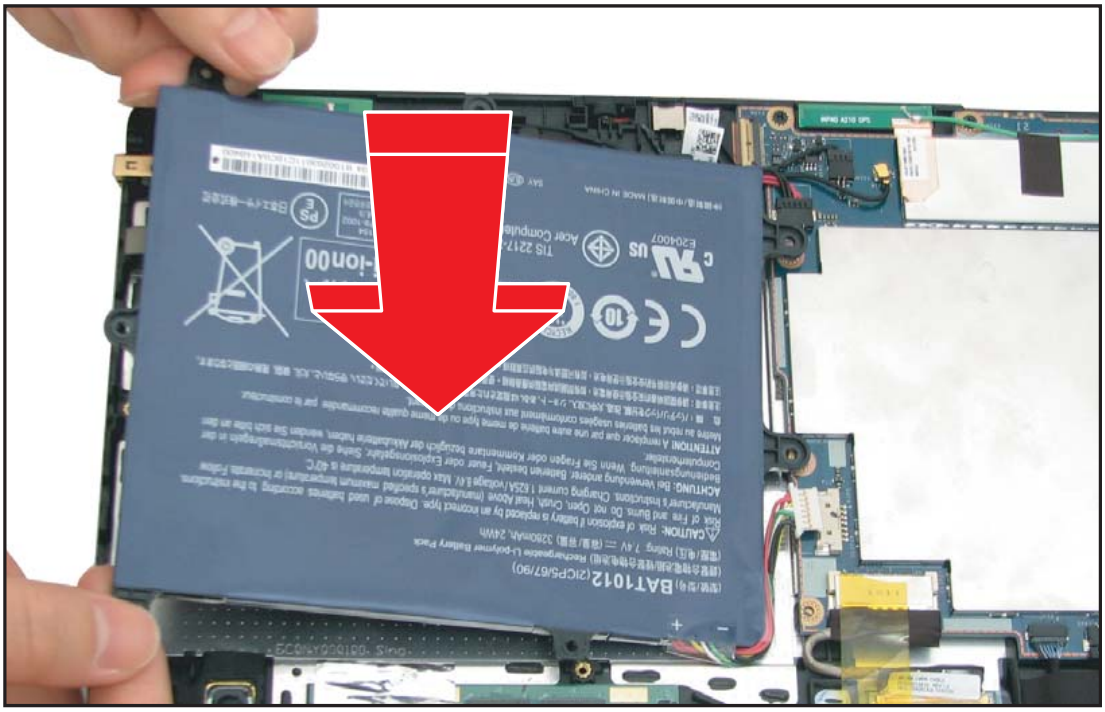

Figure 5-31. Installing the Battery

2. Secure the seven (7) screws to the bezel and the mainboard.

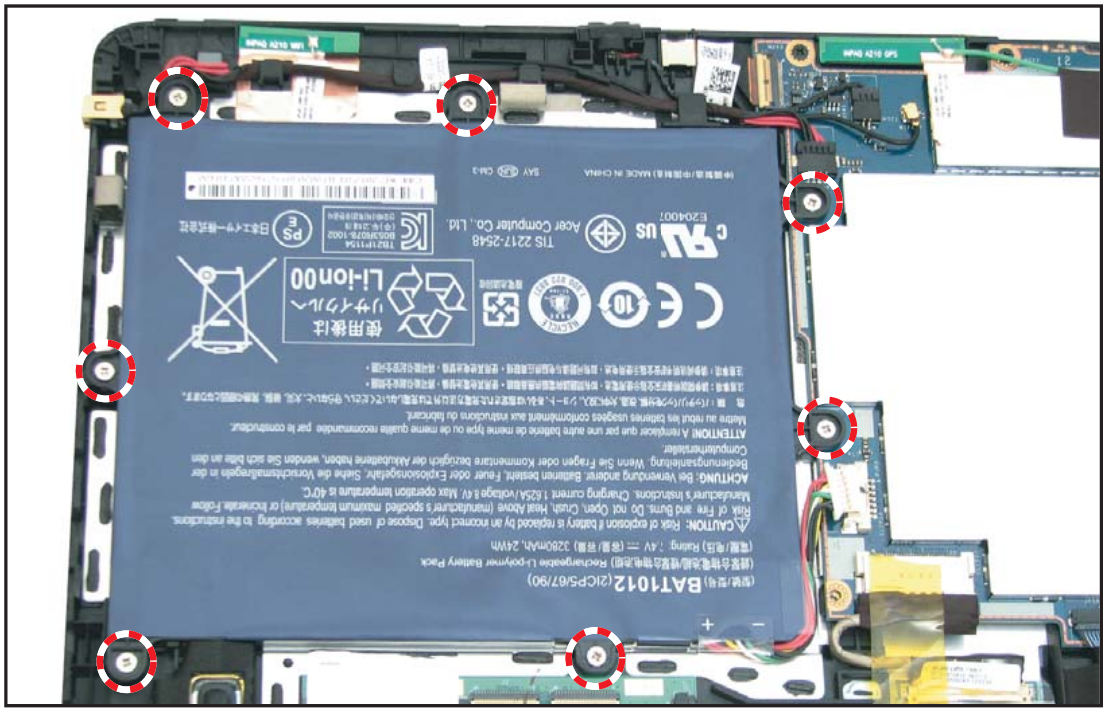

Figure 5-32. Attaching the Battery Screws

3. Connect the battery connector to the mainboard connector, and insert the cables into the gap between the mainboard and the battery.

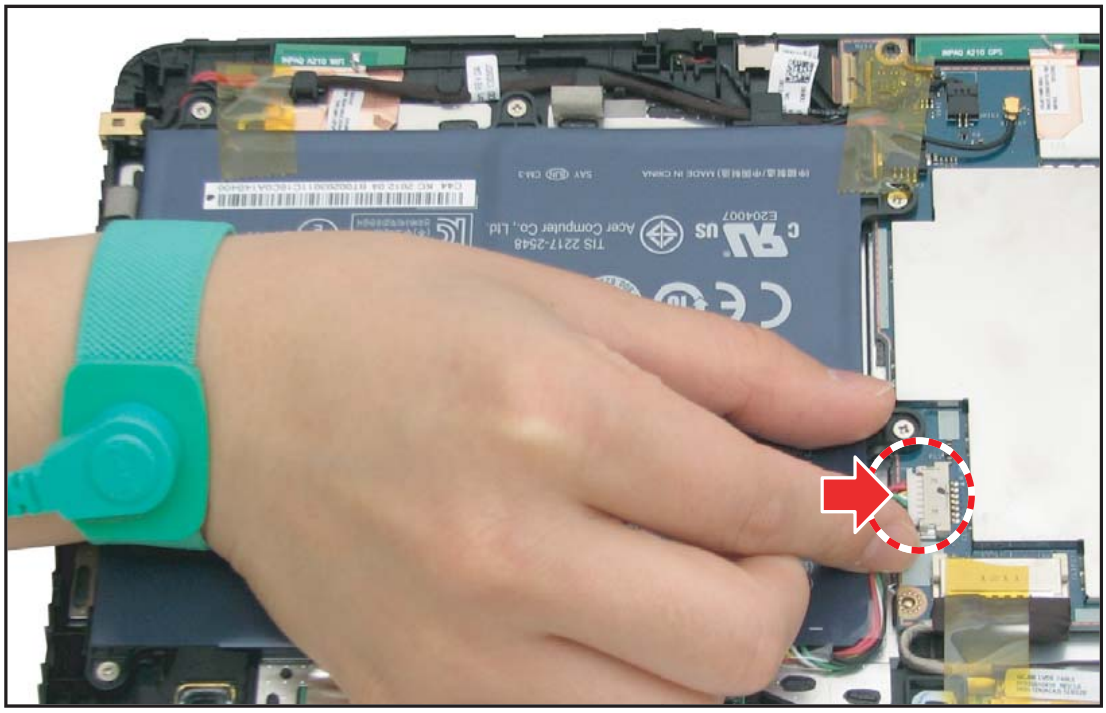

Figure 5-33. Connecting the Battery Cable

4. Install the lower case (see **Lower Case Installation** on page **5-14**).

Table 5-4. Battery Screws

Screw Name	Screw Type	Quantity
M 2.0 x 4.0		7

DC-In Cable Removal

Prerequisite

- **Battery Removal** on page **5-19**

1. Remove the protective tape covering the DC-In cable.

Figure 5-34. Removing the Protective Tape

2. Disconnect the DC-In cable from the mainboard connector.

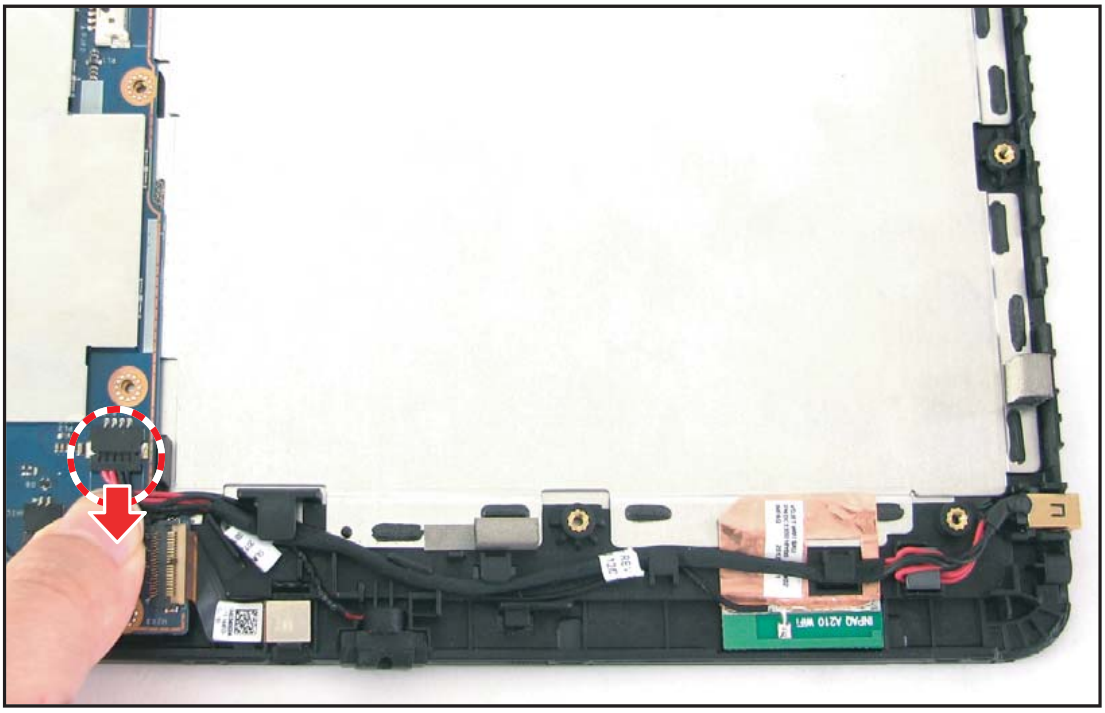

Figure 5-35. Disconnecting the DC-In Cable

3. Pull to detach the cable with adhesive (C) and the DC-In jack (D) from the slot on the bezel.

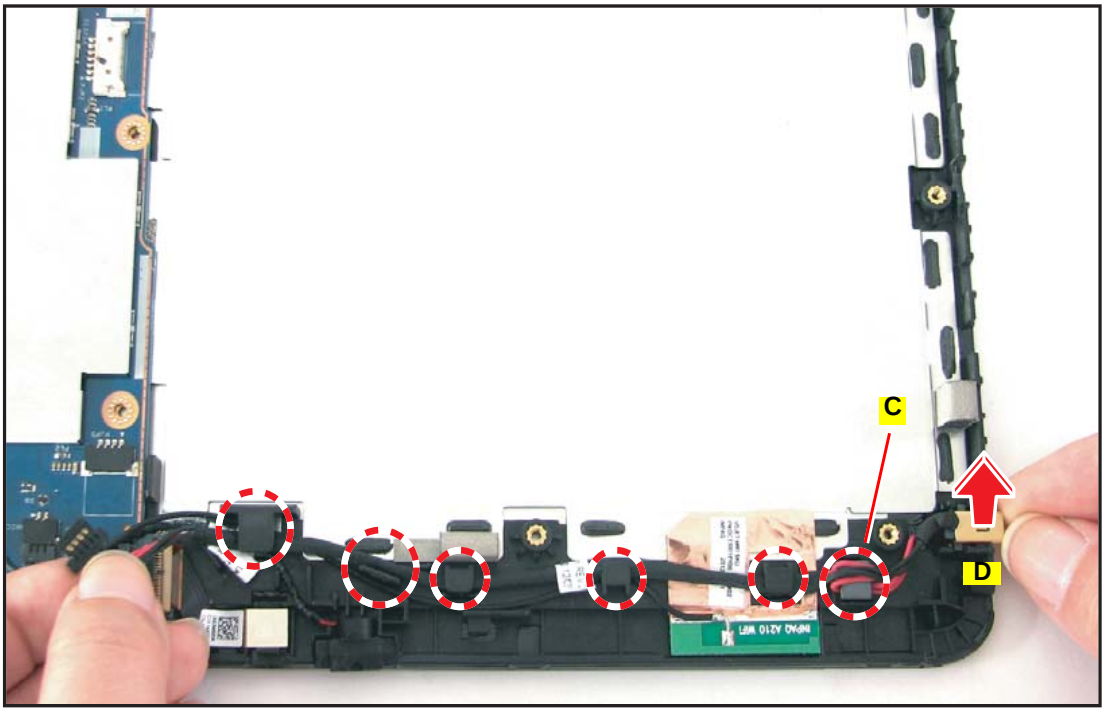

Figure 5-36. Removing the DC-In Cable

DC-In Cable Installation

1. Install the DC-In cable jack and the cable adhesive, then route the cable along the guides on the bezel.

Figure 5-37. Installing the DC-In Cable (1 of 3)

2. Connect the DC-In cable to the mainboard connector.

Figure 5-38. Installing the DC-In Cable (2 of 3)

3. Install and secure the protective tape covering the DC-In cable.

Figure 5-39. Installing the DC-In Cable (3 of 3)

4. Install the battery (see **Battery Installation** on page **5-21**).

Speaker Removal

Prerequisite:

- **Battery Removal** on page **5-19**

1. Remove the protective tape covering the LVDS cable.

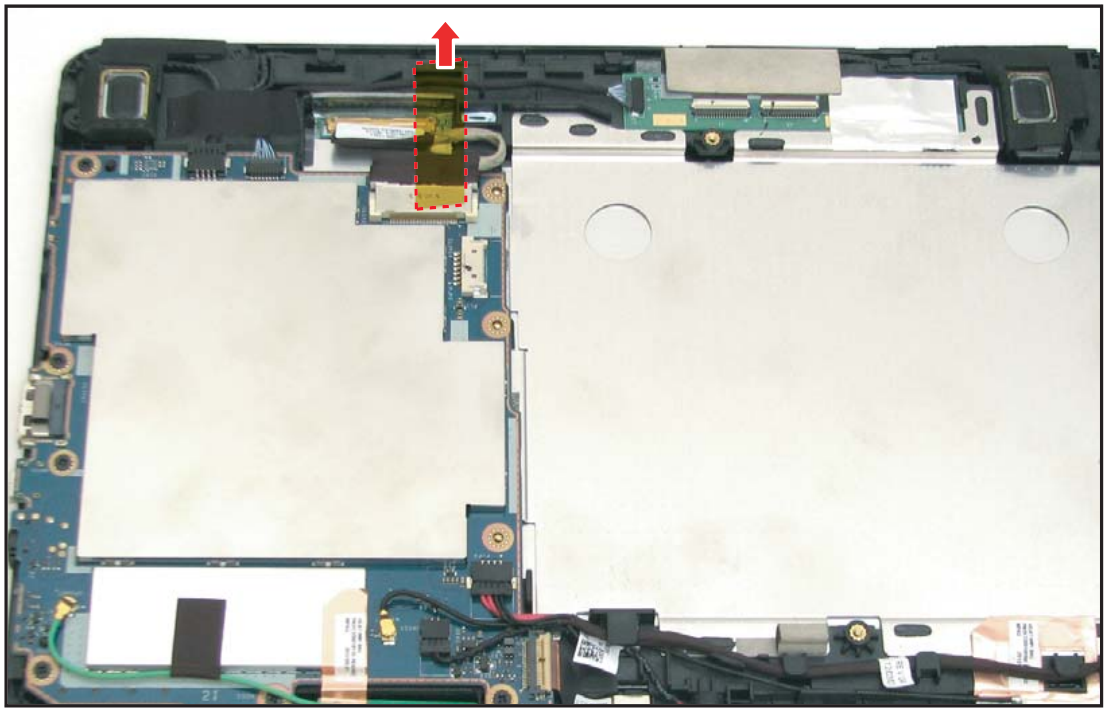

Figure 5-40. Removing the LVDS Protective Tape

2. Remove the mylar covering the speakers and the touch panel control cables.

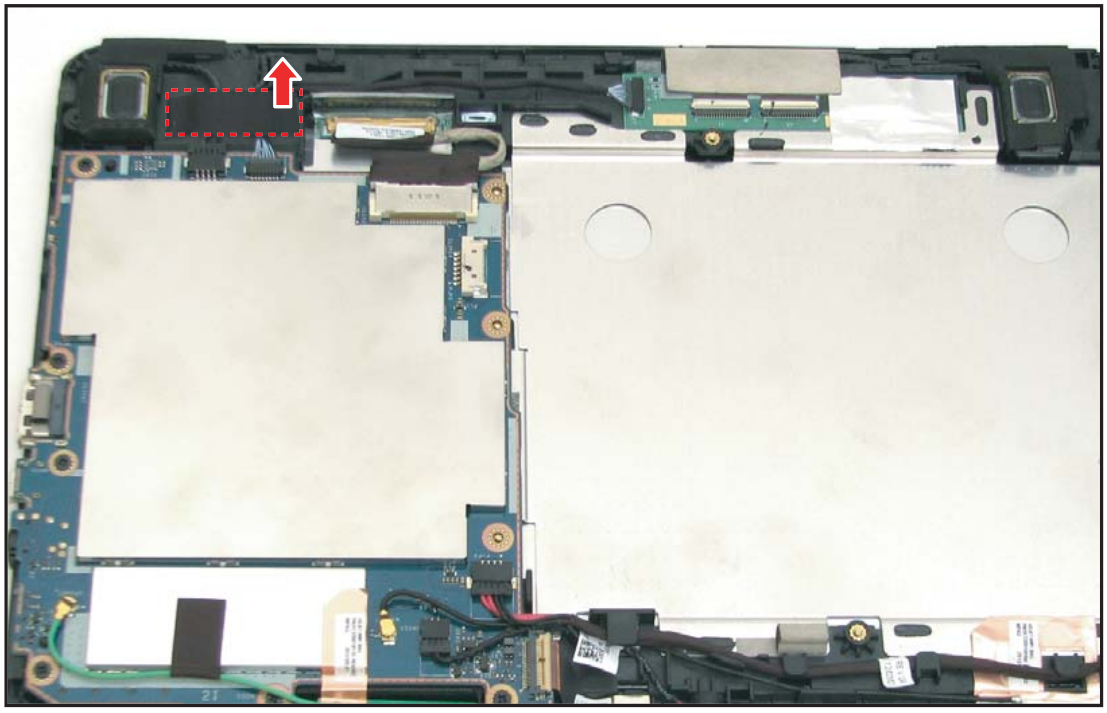

Figure 5-41. Removing the Mylar

3. Disconnect the speakers connector from the mainboard connector (A).

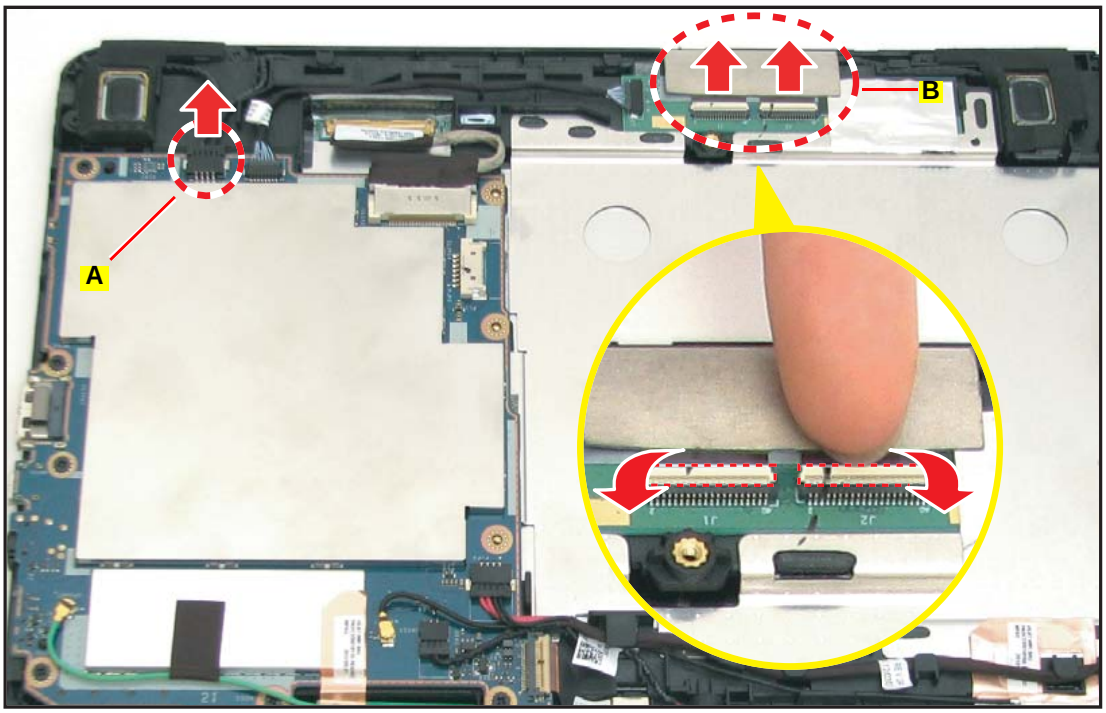

Figure 5-42. Disconnecting the Speakers and Touch Panel Cables

4. Disconnect the touch module cable connectors (B) and release the speakers cable from the guides.
(**Figure 5-42**)

CAUTION:
The touch module cable may be damaged when folded. Do not fold the touch module cable.

5. Remove the three (3) screws (C) from the bezel.

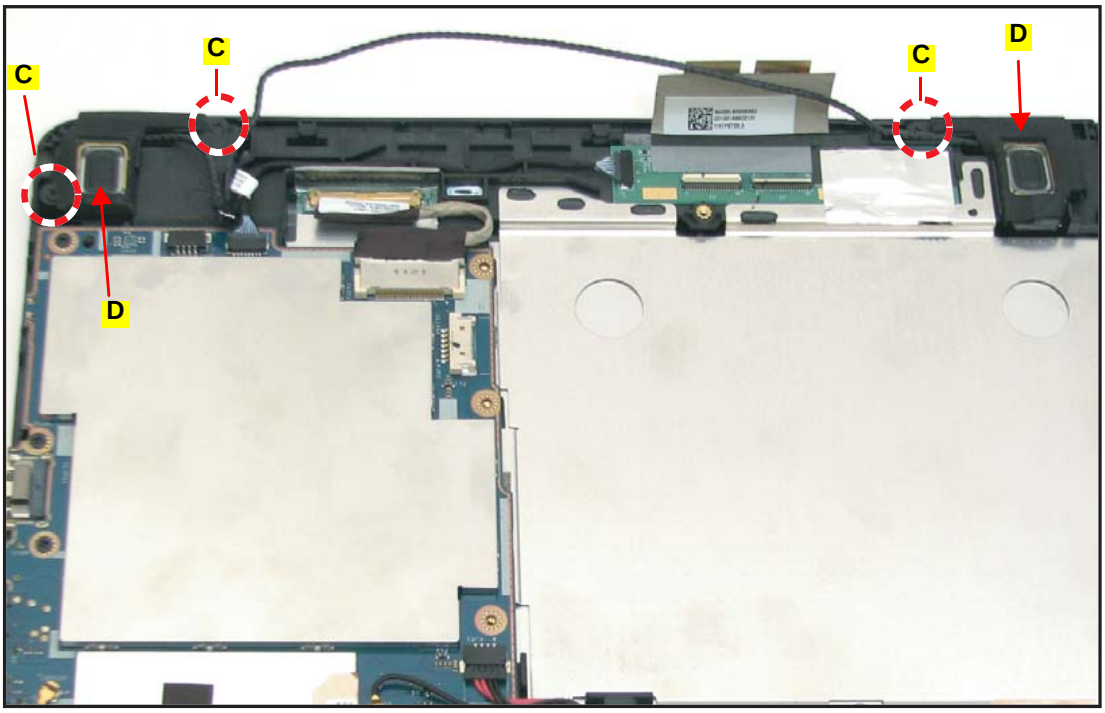

Figure 5-43. Removing the Speakers

6. Remove the speakers (D) from the bezel. (**Figure 5-43**)

Speaker Installation

1. Install the speakers (A) and secure the three (3) screws (B) on the bezel.

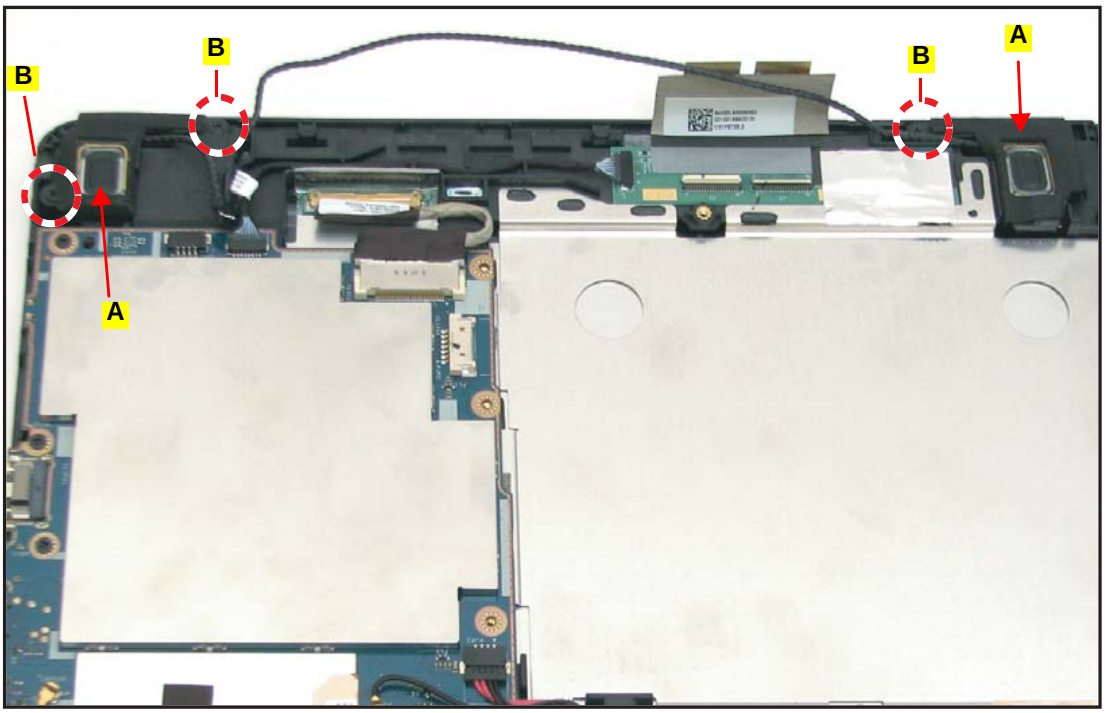

Figure 5-44. Installing the Speakers

2. Route the speakers cable with the guides on the bezel.

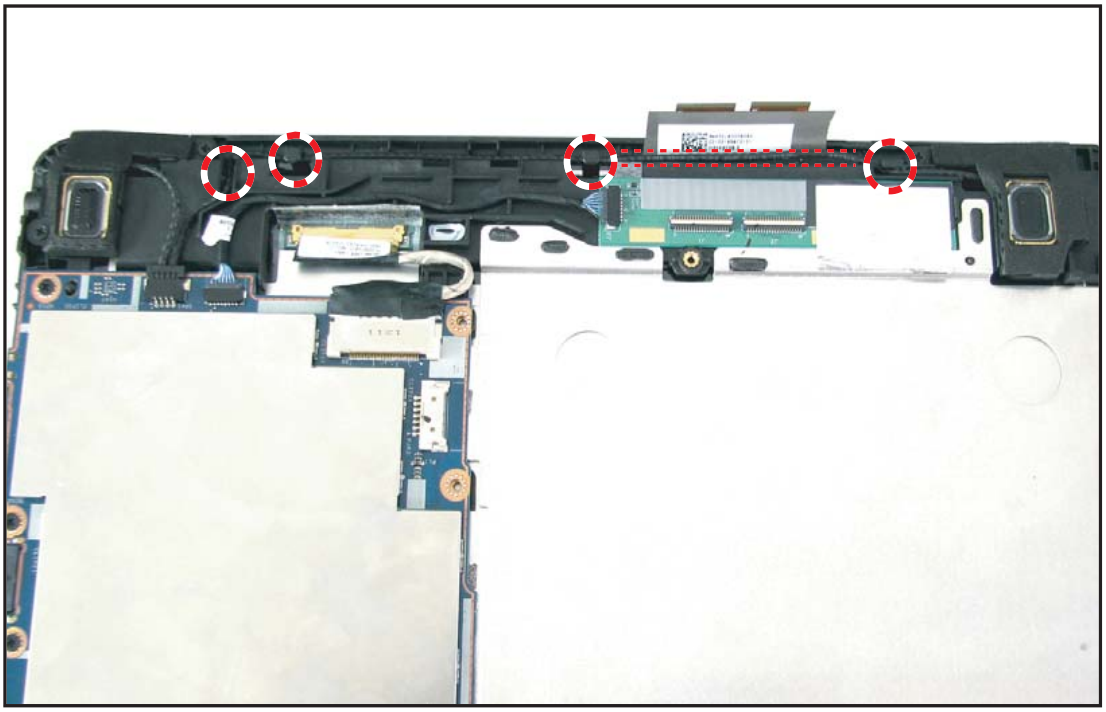

Figure 5-45. Routing the Speakers Cable

3. Connect the speakers cable connector (A) and the touch module cable connectors (B).

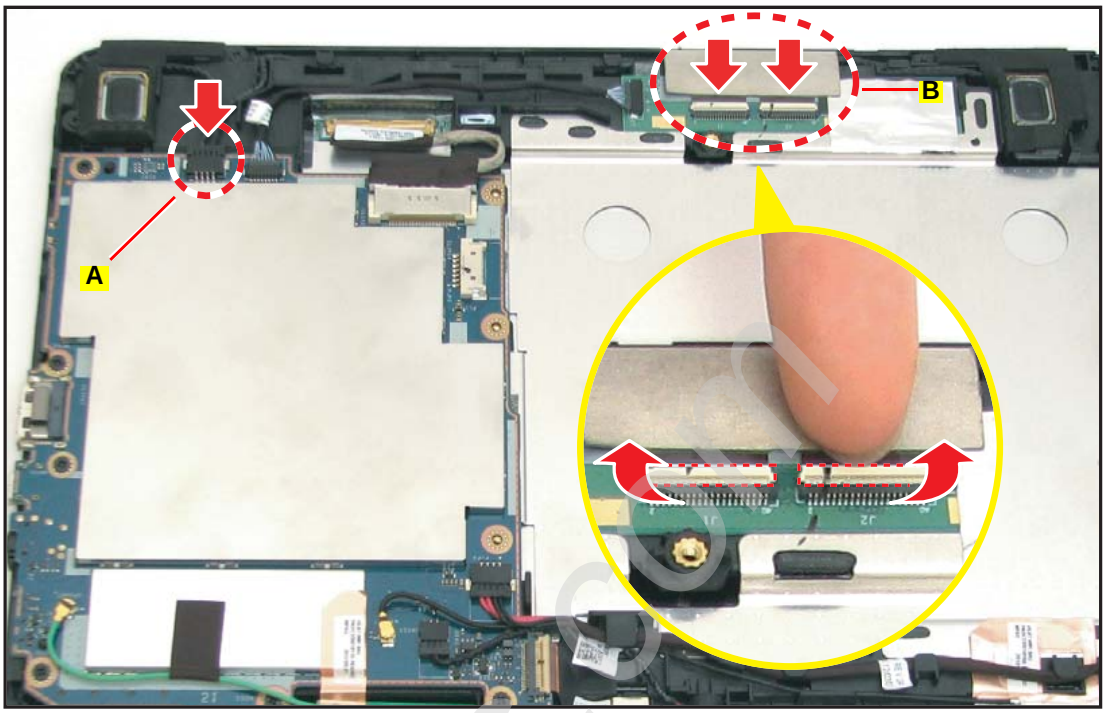

Figure 5-46. Connecting the Cable Connectors

4. Secure the mylar to secure the speakers and the touch panel control cables in place.

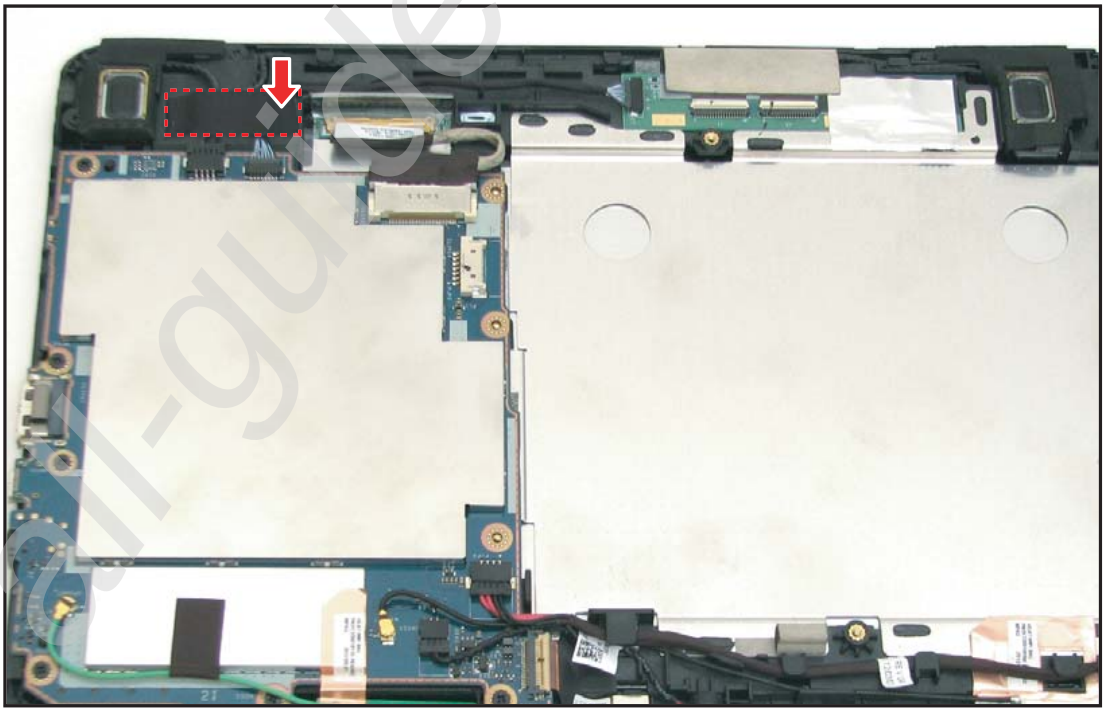

Figure 5-47. Attaching the Mylar

5. Attach the protective tape to secure the LVDS cable in place.

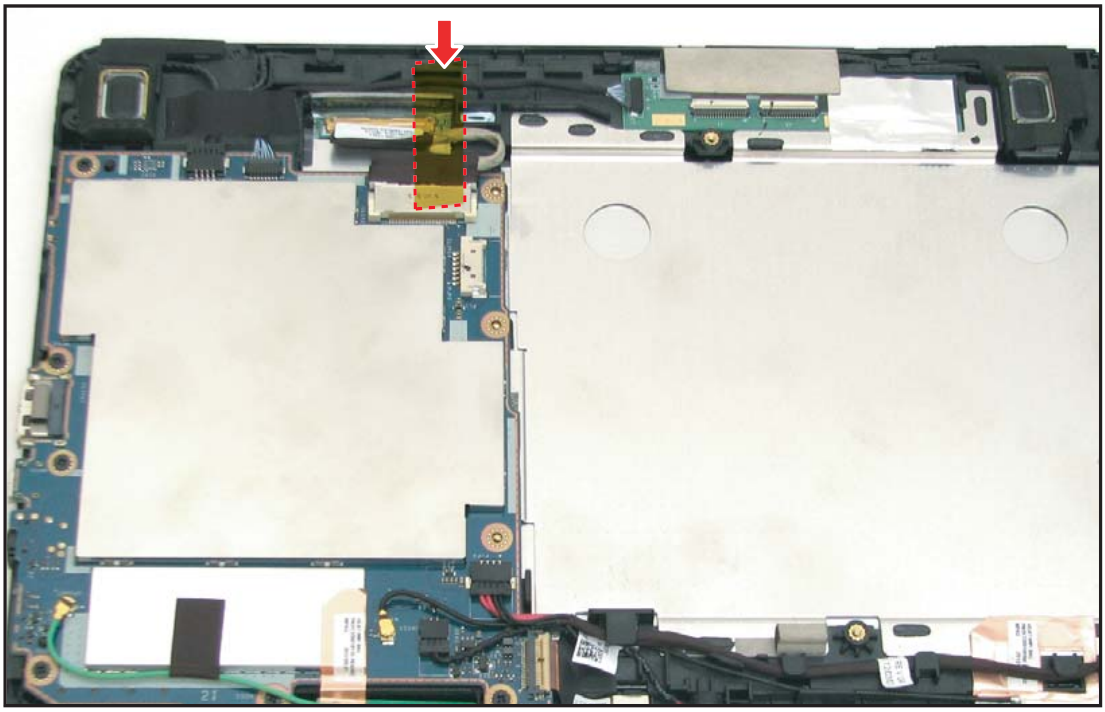

Figure 5-48. Attaching the LVDS Protective Tape

6. Install the battery (see **Battery Installation** on page **5-21**).

Table 5-5. Speakers Screws

Screw Name	Screw Type	Quantity
M 2.0 x 3.0		3

Touch Panel Control Cable Removal

Prerequisite:

- **Battery Removal** on page **5-19**

1. Remove the protective tape covering the LVDS cable.

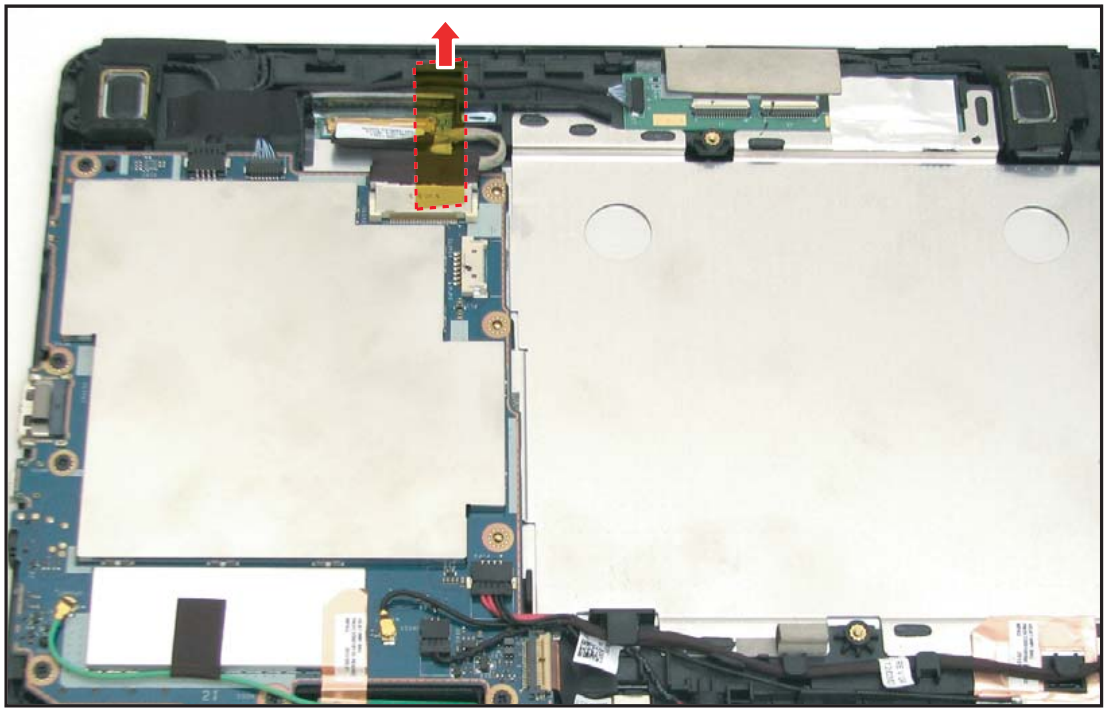

Figure 5-49. Removing the LVDS Protective Tape

2. Remove the mylar covering the speakers and the touch panel control cables.

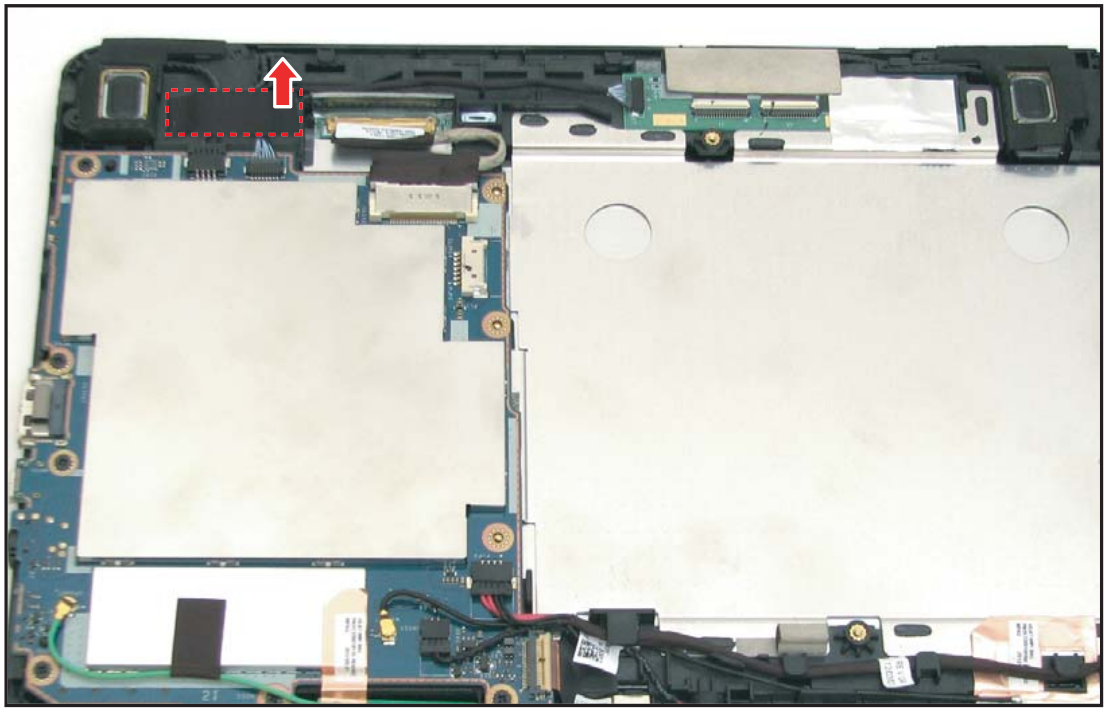

Figure 5-50. Removing the Mylar

3. Disconnect the touch panel control cable connectors.

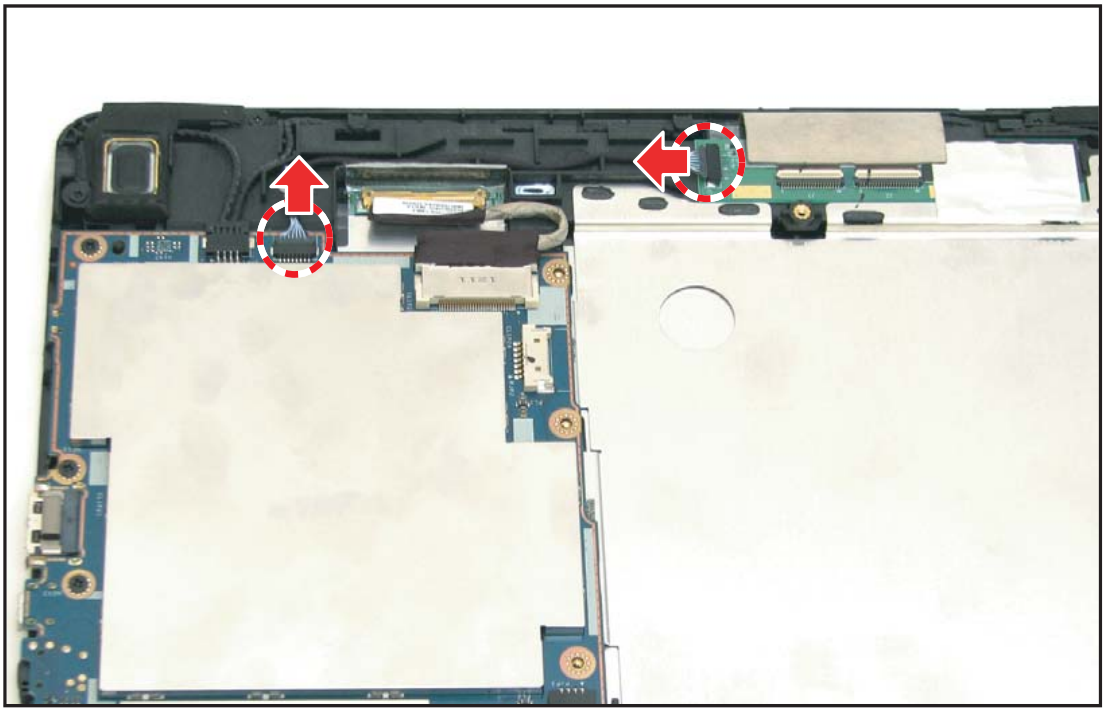

Figure 5-51. Disconnecting the Touch Panel Control Cable Connectors

Touch Panel Control Cable Installation

1. Connect the touch panel control cable connectors.

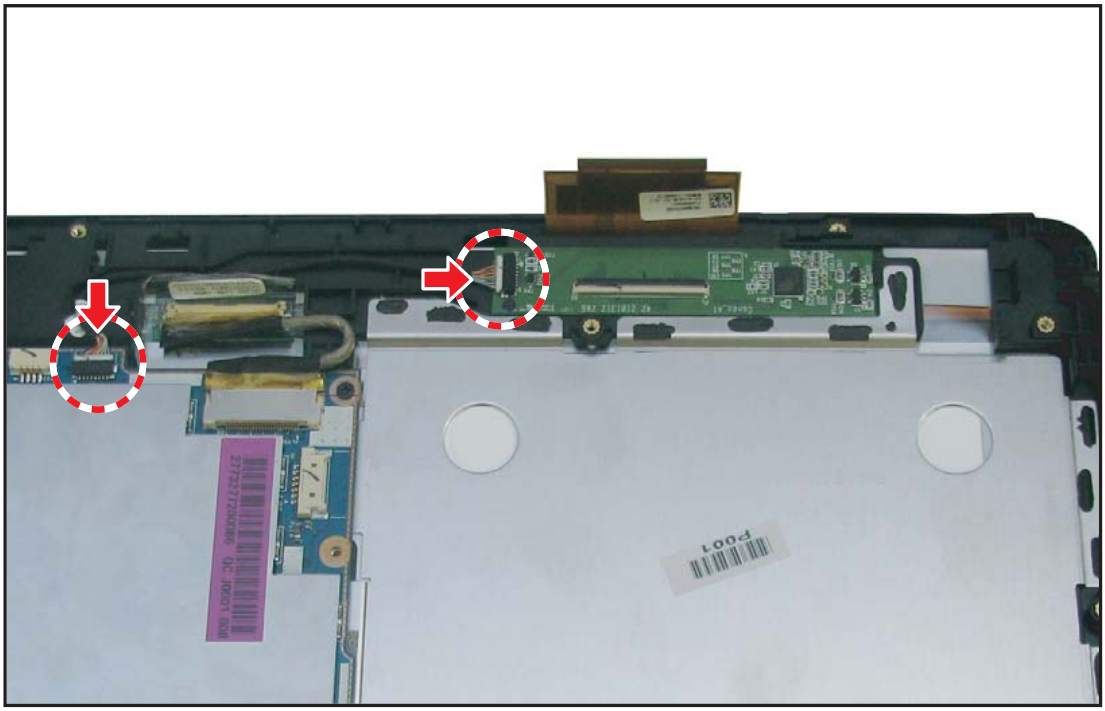

Figure 5-52. Connecting the Touch Panel Control Cable Connectors

2. Attach the mylar to secure the speakers and the touch panel control cables in place.

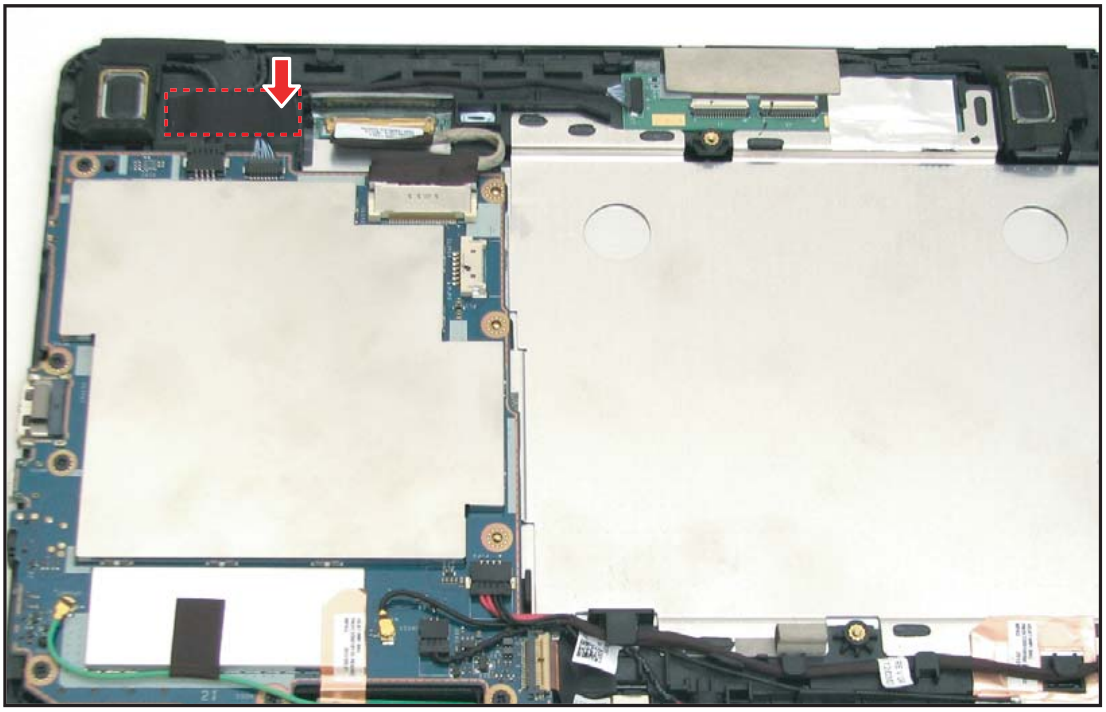

Figure 5-53. Attaching the Mylar

3. Attach the protective tape to secure the LVDS cable in place.

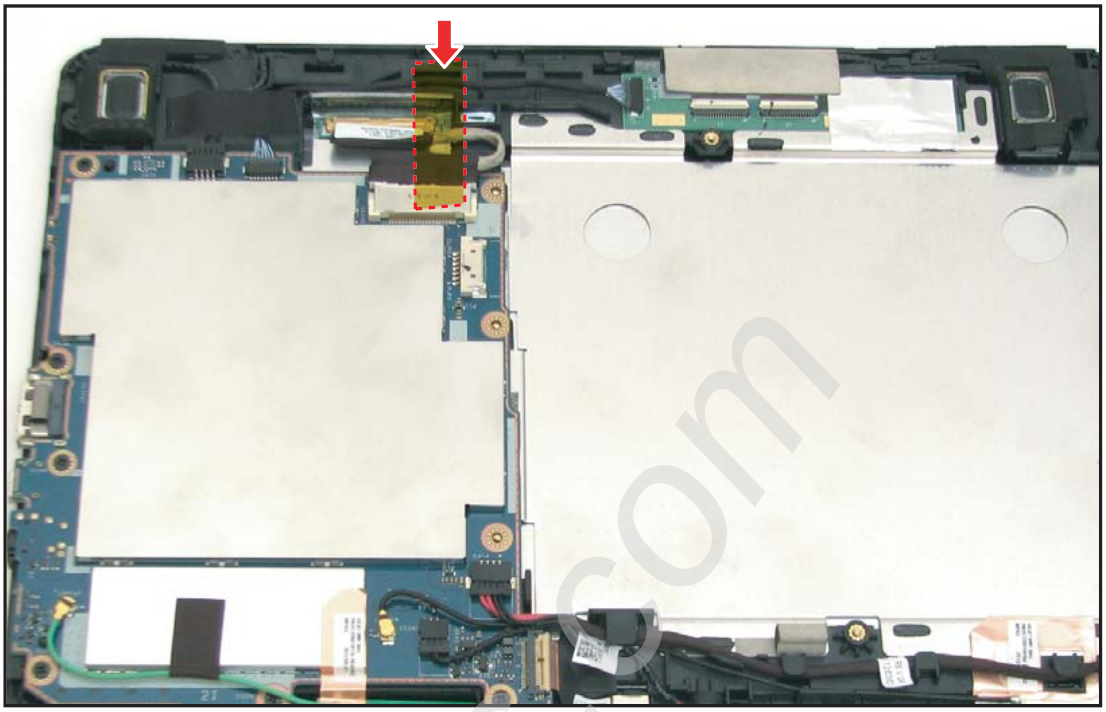

Figure 5-54. Attaching the LVDS Protective Tape

4. Install the battery (see **Battery Installation** on page **5-21**).

LVDS Cable Removal

Prerequisite:

- **Battery Removal** on page **5-19**

1. Remove the protective tape covering the LVDS cable.

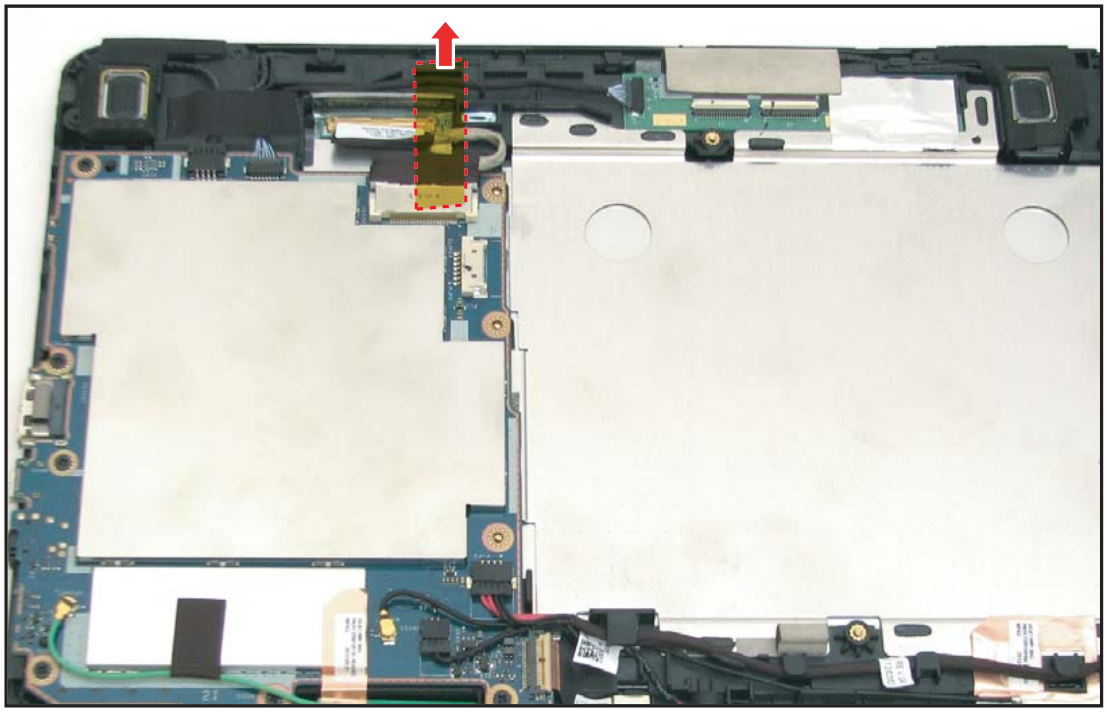

Figure 5-55. Removing the LVDS Protective Tape

2. Disconnect the LVDS cable connector from the mainboard connector.

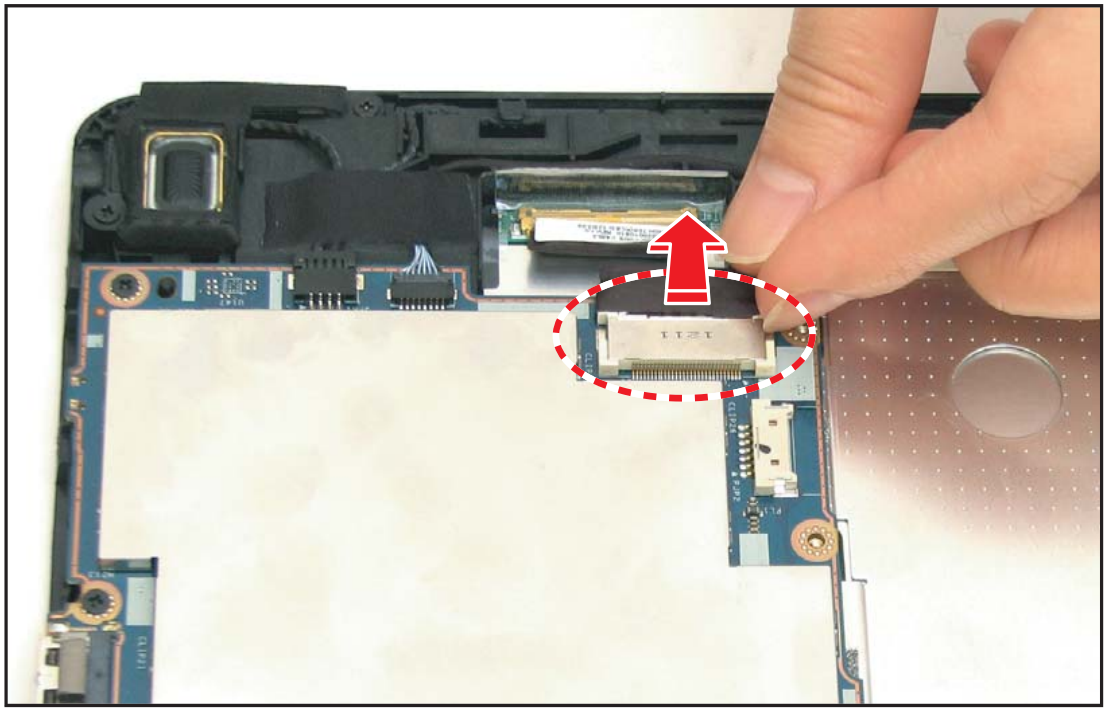

Figure 5-56. Disconnecting the LVDS Cable (1 of 2)

3. Disconnect the LVDS cable connector from the LCD panel connector.

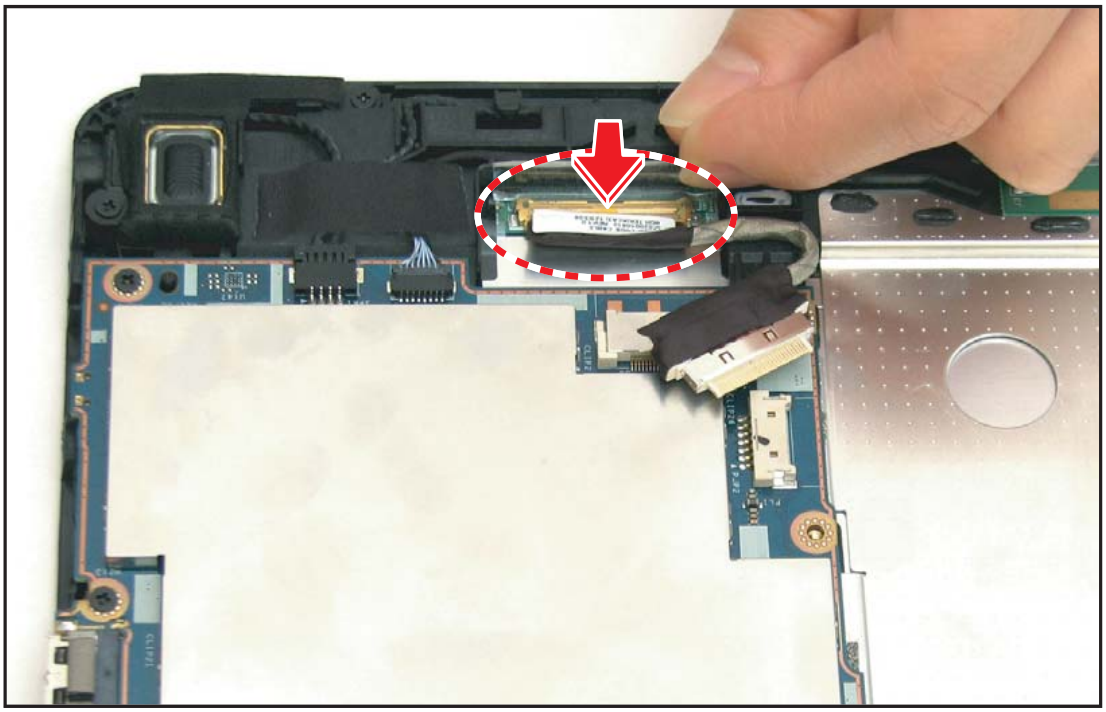

Figure 5-57. Disconnecting the LVDS Cable (2 of 2)

LVDS Cable Installation

1. Connect the LVDS cable connector to the LCD panel connector.

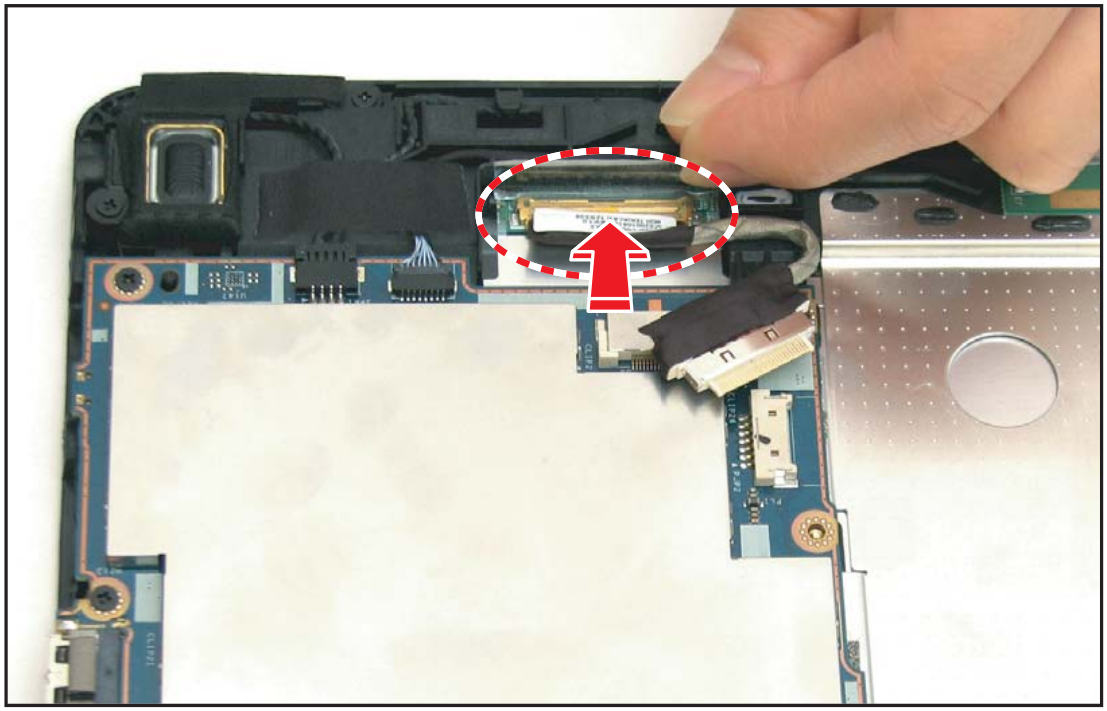

Figure 5-58. Connecting the LVDS Cable (1 of 2)

2. Connect the LVDS cable connector to the mainboard connector.

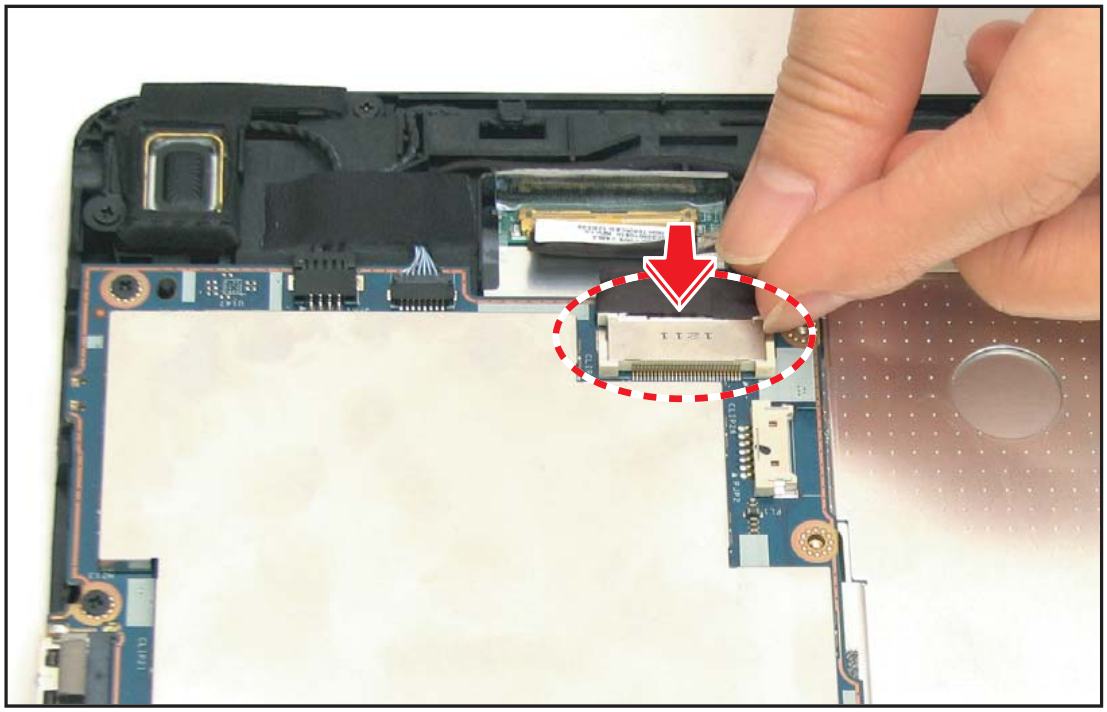

Figure 5-59. Connecting the LVDS Cable (2 of 2)

3. Attach the protective tape to secure the LVDS cable in place.

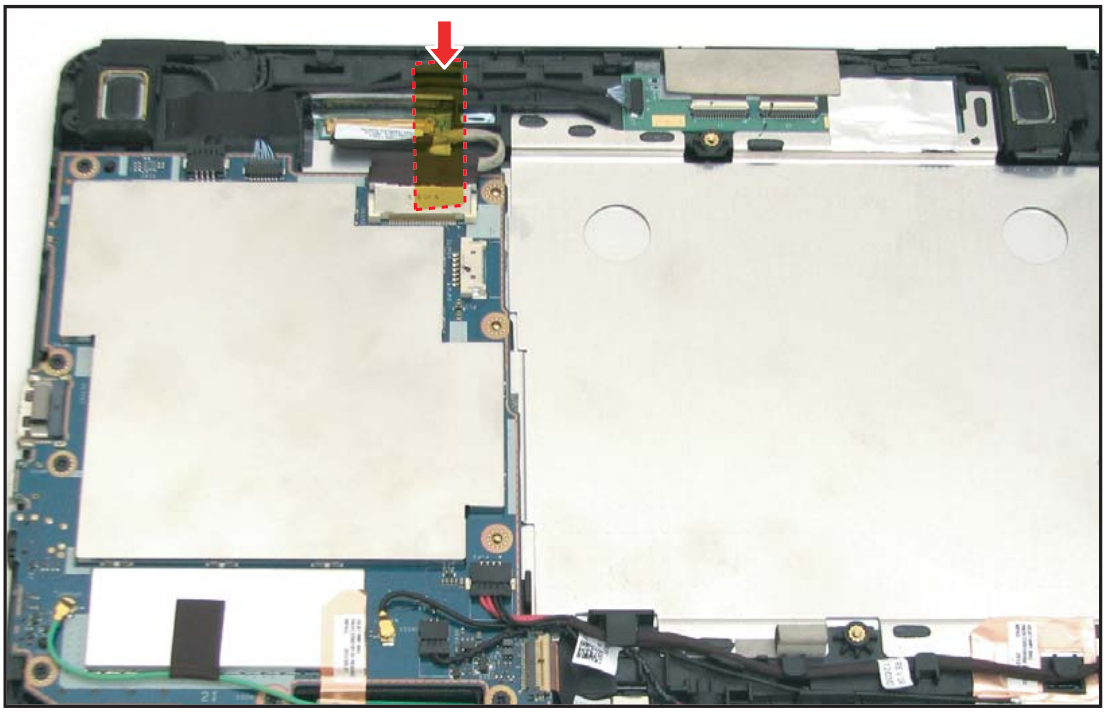

Figure 5-60. Attaching the LVDS Cable Protective Tape

4. Install the battery (see **Battery Installation** on page **5-21**).

Microphone Removal

Prerequisite:

- **Battery Removal** on page **5-19**

1. Disconnect the microphone cable connector from the mainboard connector.

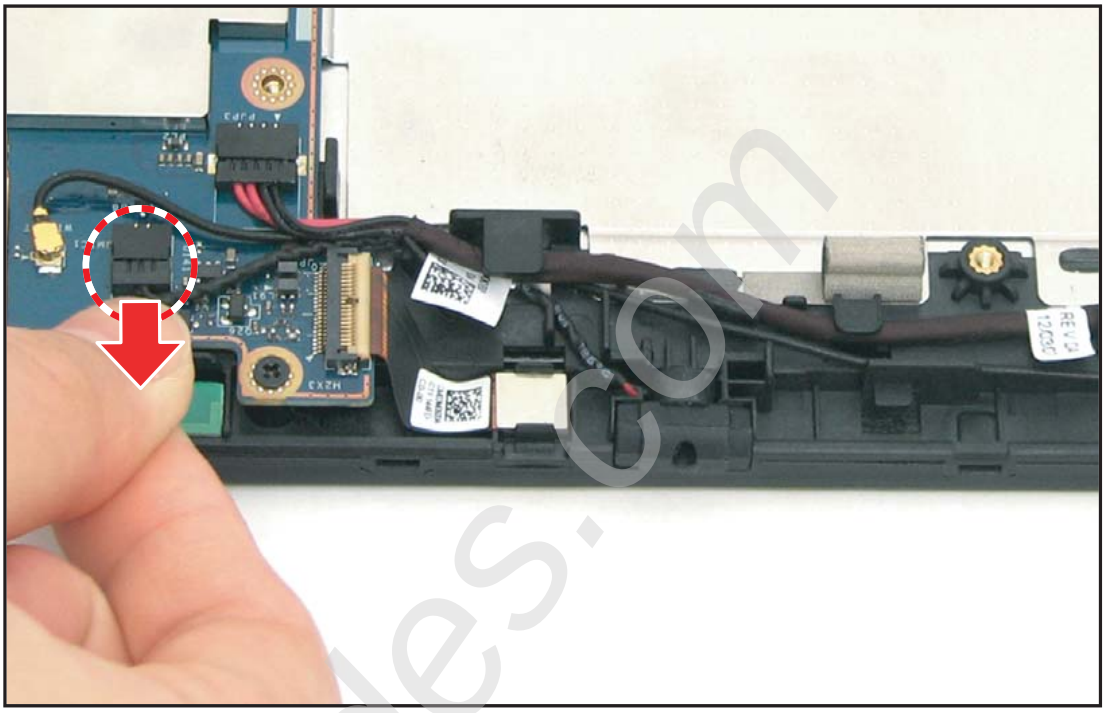

Figure 5-61. Disconnecting the Microphone Connector

2. Remove the microphone from slot on the bezel.

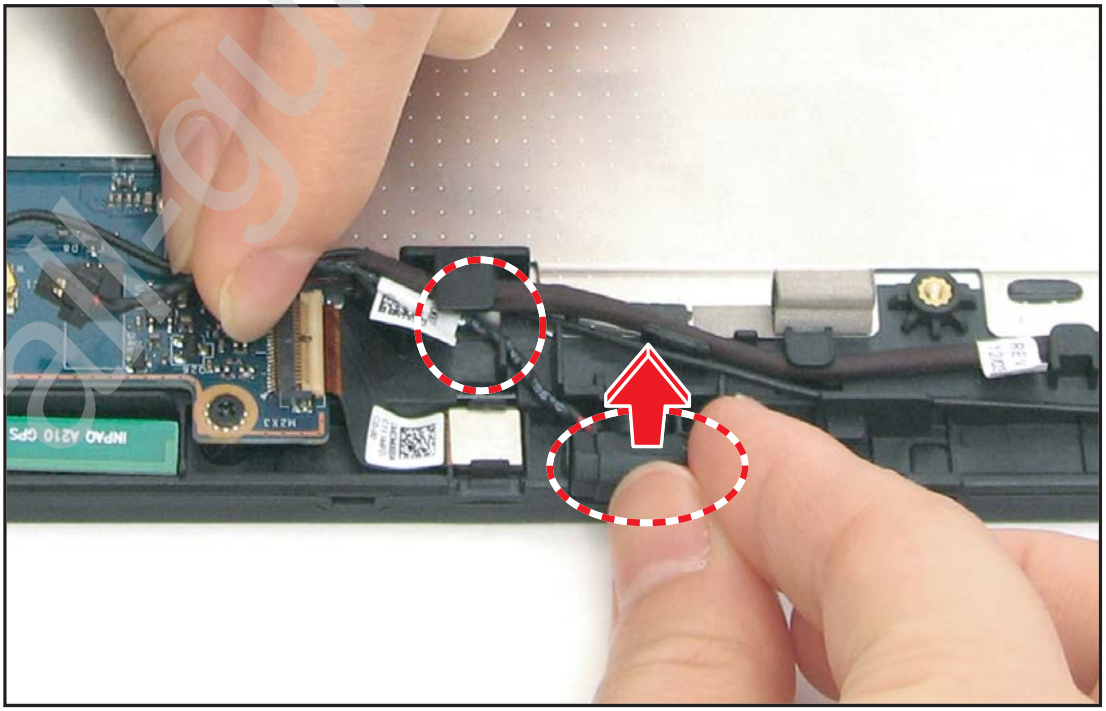

Figure 5-62. Removing the Microphone

Microphone Installation

1. Install the microphone to the microphone slot of the bezel.

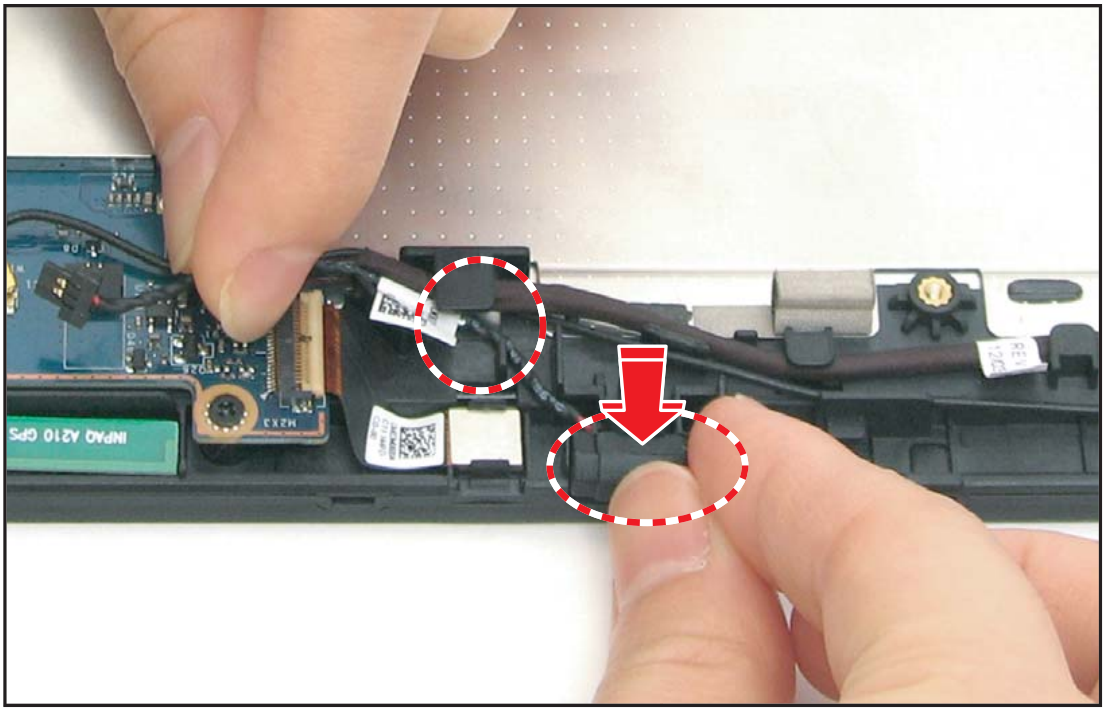

Figure 5-63. Installing the Microphone

2. Connect the microphone cable connector to the mainboard connector.

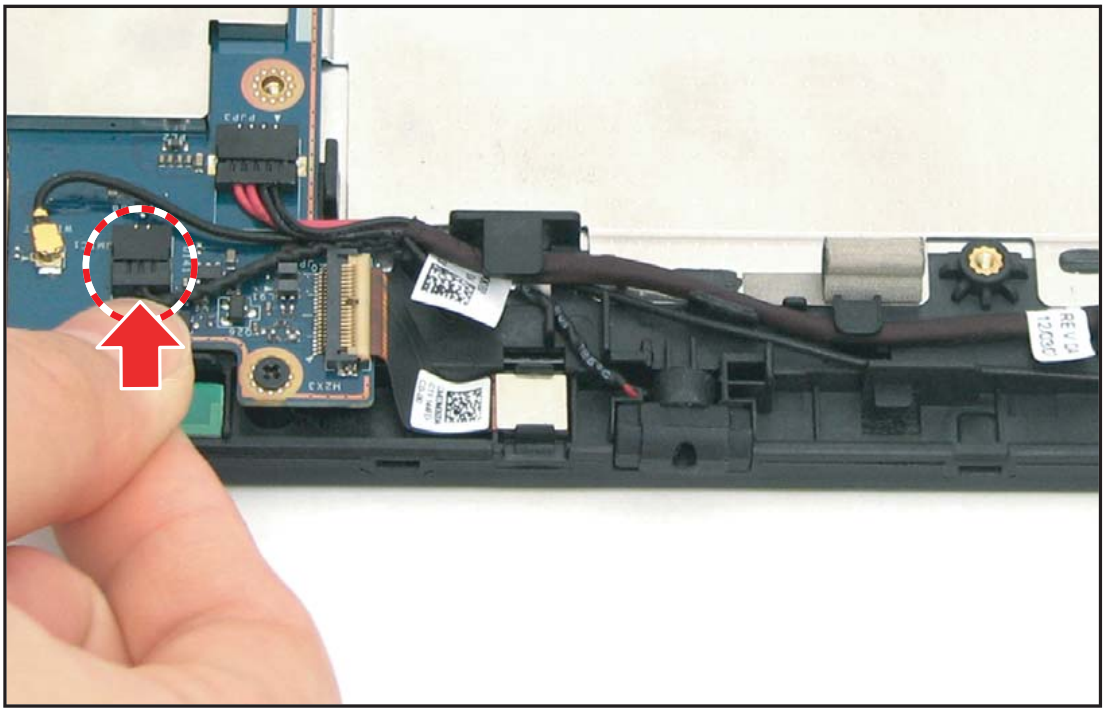

Figure 5-64. Connecting the Microphone Cable Connector

3. Install the battery (see **Battery Installation** on page **5-21**).

WLAN Antenna Removal

Prerequisite:

- **DC-In Cable Removal** on page **5-23**

1. Disconnect the WLAN antenna connector from the mainboard connector.

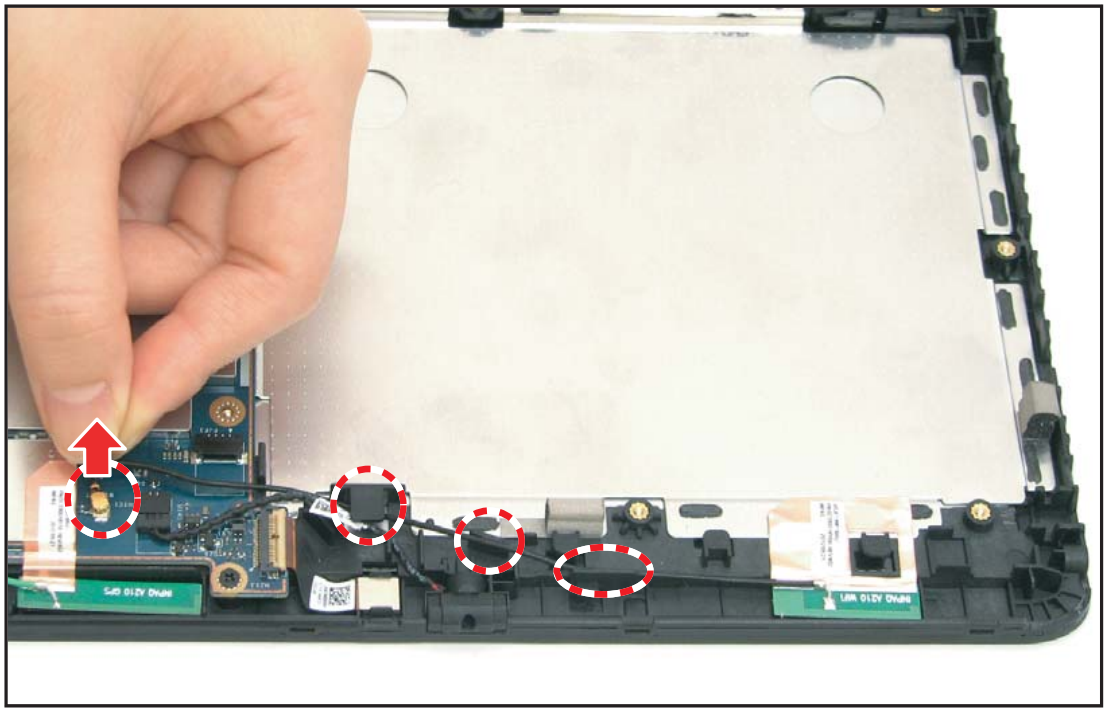

Figure 5-65. Disconnecting the WLAN Antenna

2. Remove the metallic tape securing the WLAN antenna to the bezel.

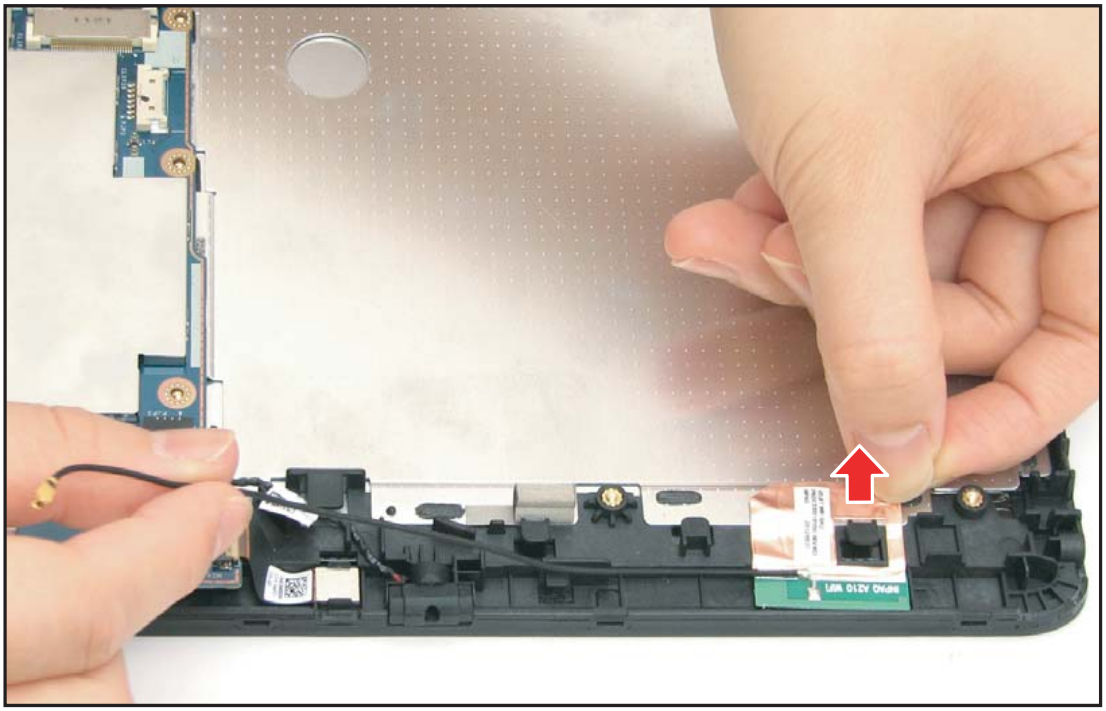

Figure 5-66. Removing the Metallic Tape

3. Remove the WLAN antenna.

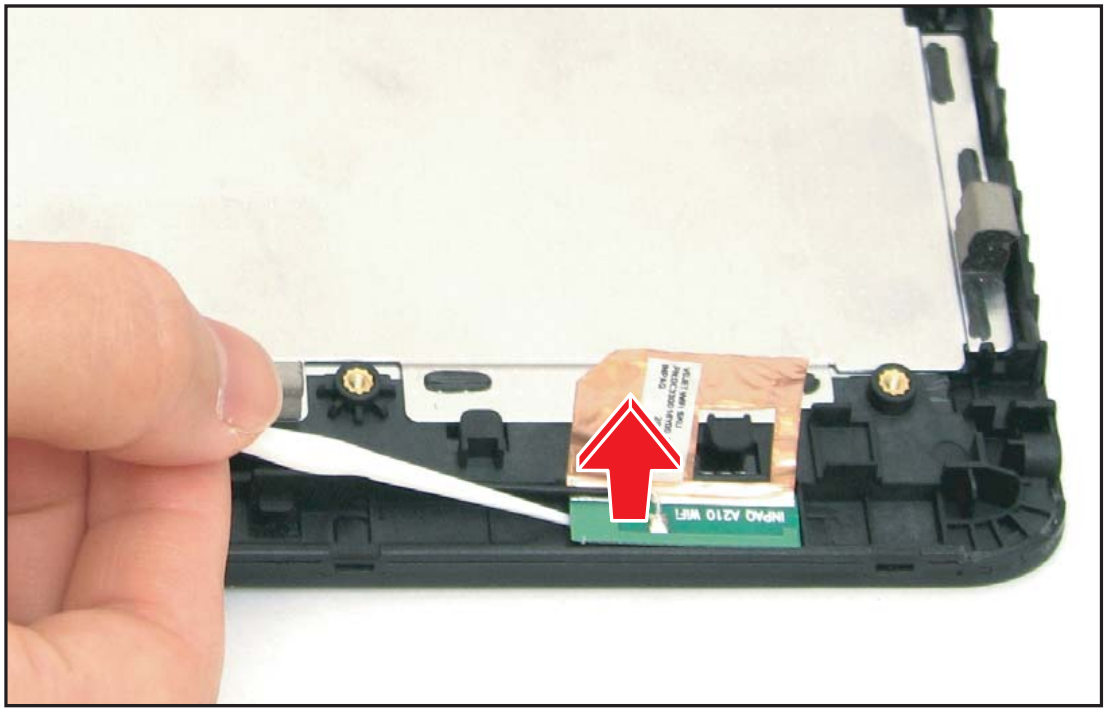

Figure 5-67. Removing the WLAN Antenna

WLAN Antenna Installation

1. Align the WLAN antenna to the antenna slot on the bezel.

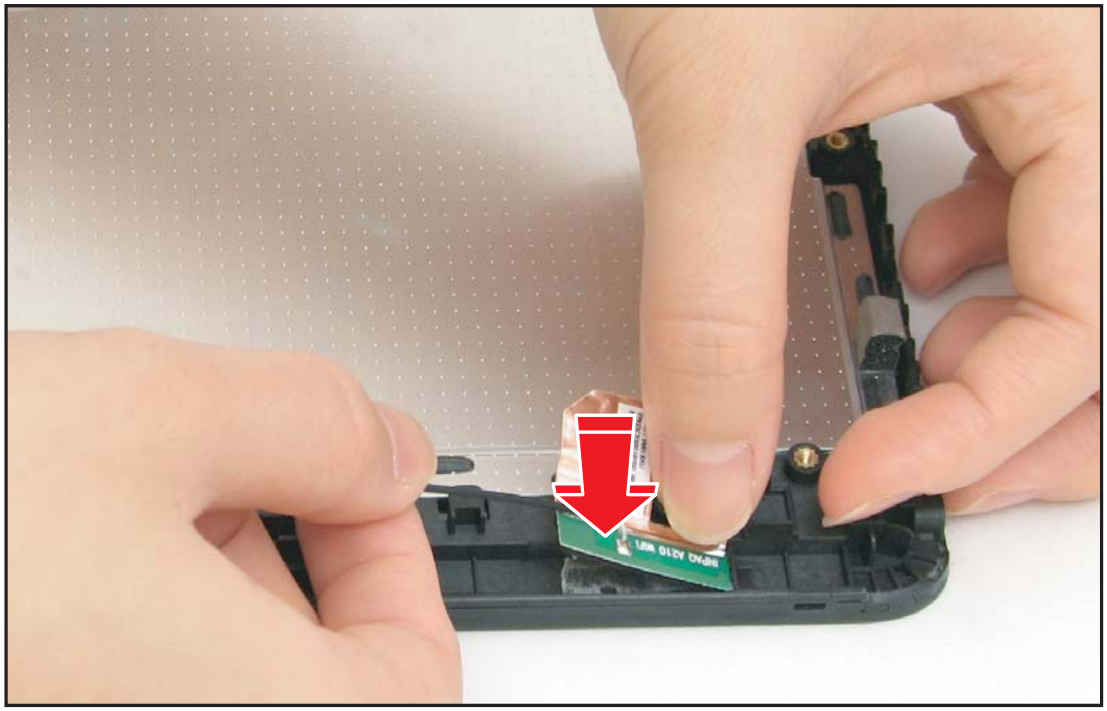

Figure 5-68. Installing the WLAN Antenna (1 of 3)

2. Attach the metallic tape to secure the WLAN antenna to the bezel.

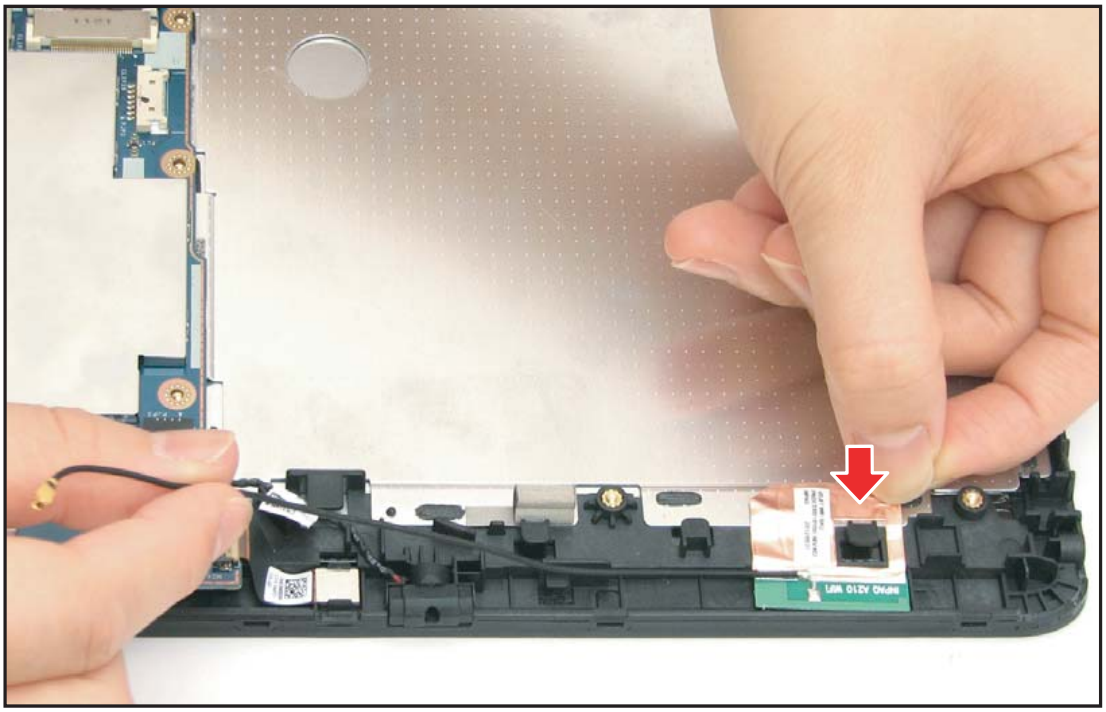

Figure 5-69. Installing the WLAN Antenna (2 of 3)

3. Connect the WLAN antenna connector to the mainboard connector.

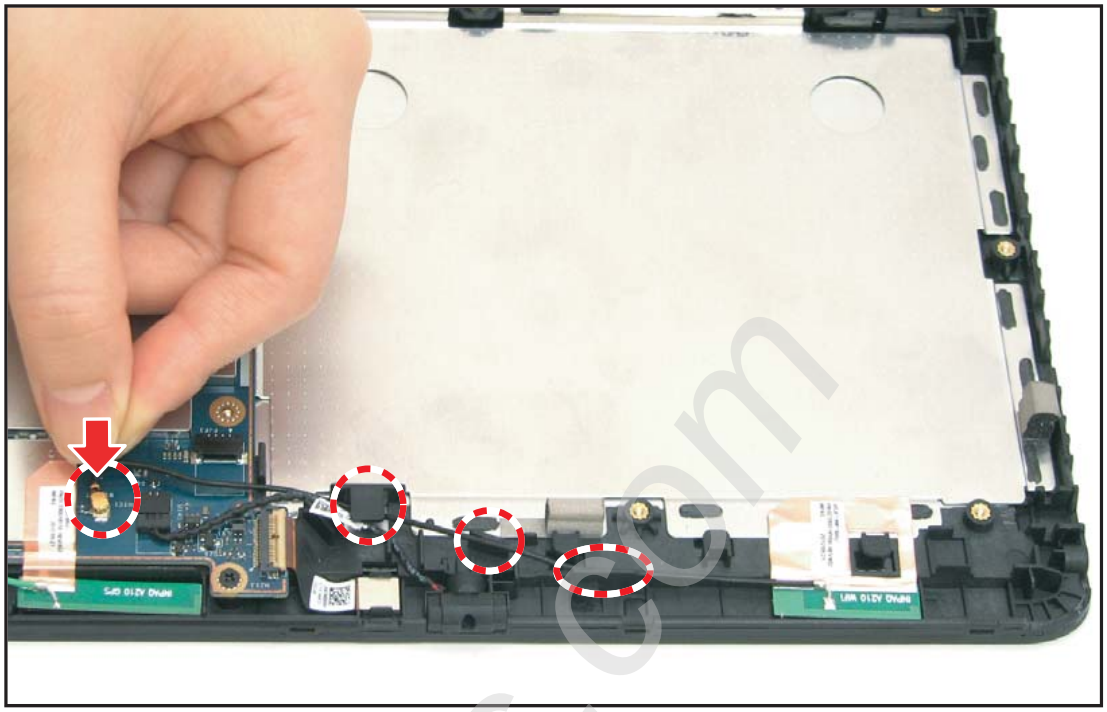

Figure 5-70. Installing the WLAN Antenna (3 of 3)

4. Install the DC-In cable (see **DC-In Cable Installation** on page **5-25**).

GPS Antenna Removal

Prerequisite:

- **Battery Removal** on page **5-19**

1. Disconnect the GPS antenna connector from the mainboard connector.

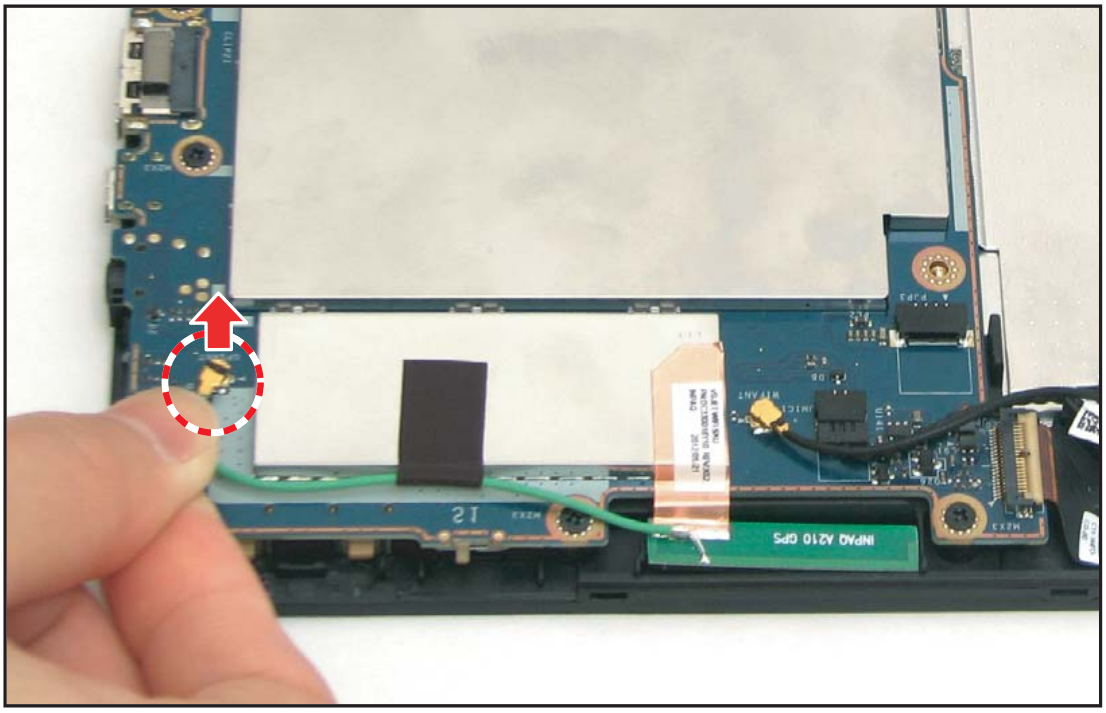

Figure 5-71. Disconnecting the GPS Antenna

2. Remove the mylar securing the GPS antenna cable to the mainboard.

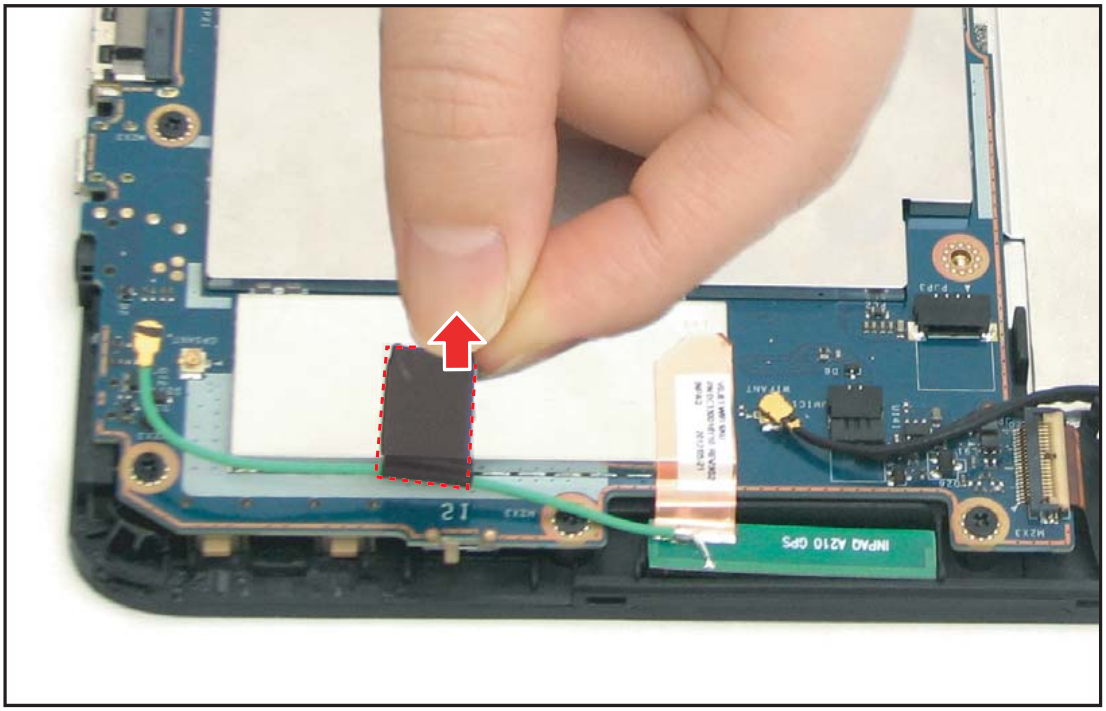

Figure 5-72. Removing the Mylar

3. Remove the metallic tape securing the GPS antenna to the mainboard.

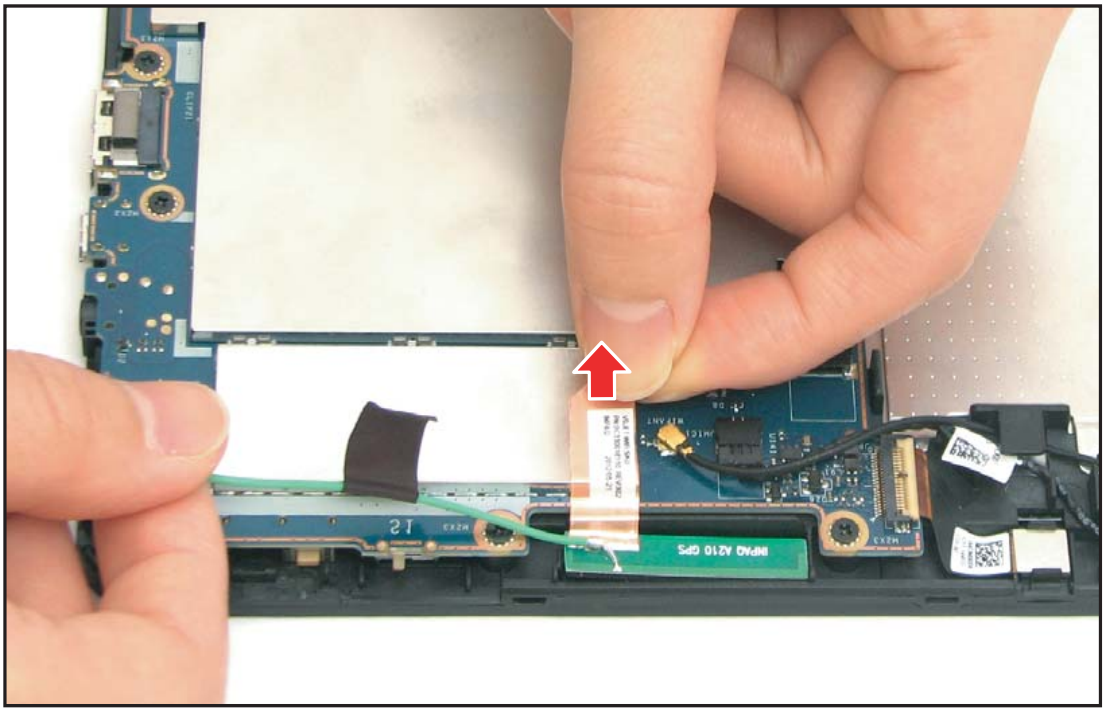

Figure 5-73. Removing the Antenna Metallic Tape

4. Remove the GPS antenna from the bezel.

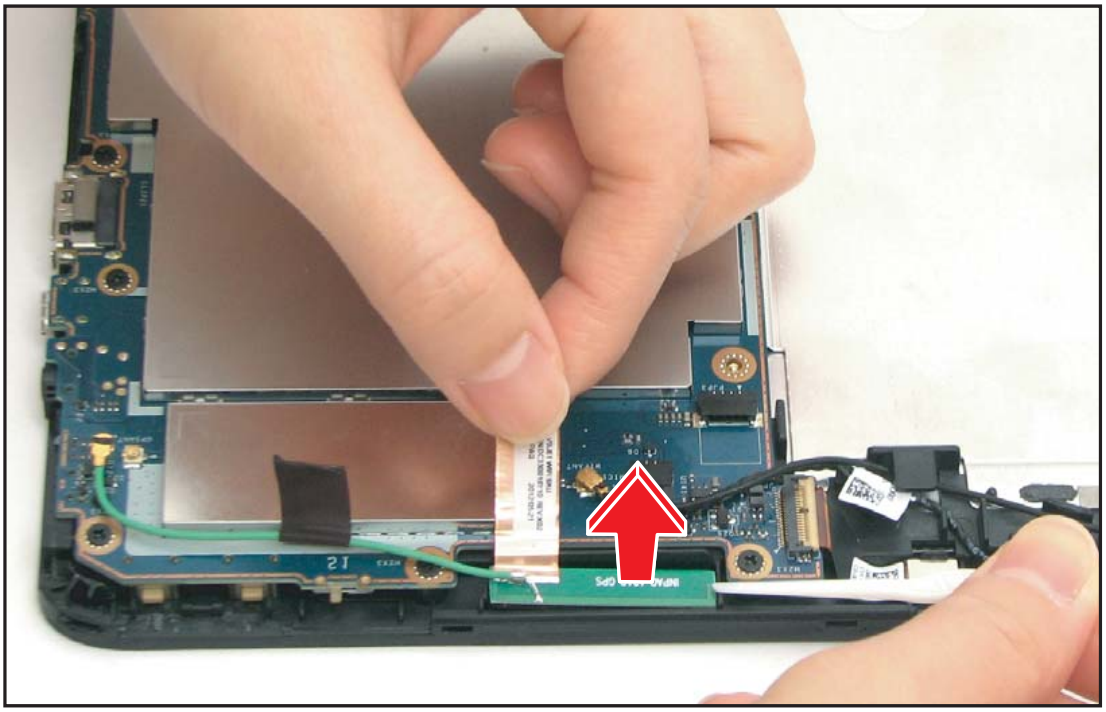

Figure 5-74. Removing the GPS Antenna

GPS Antenna Installation

1. Align the GPS antenna to the antenna slot on the bezel.

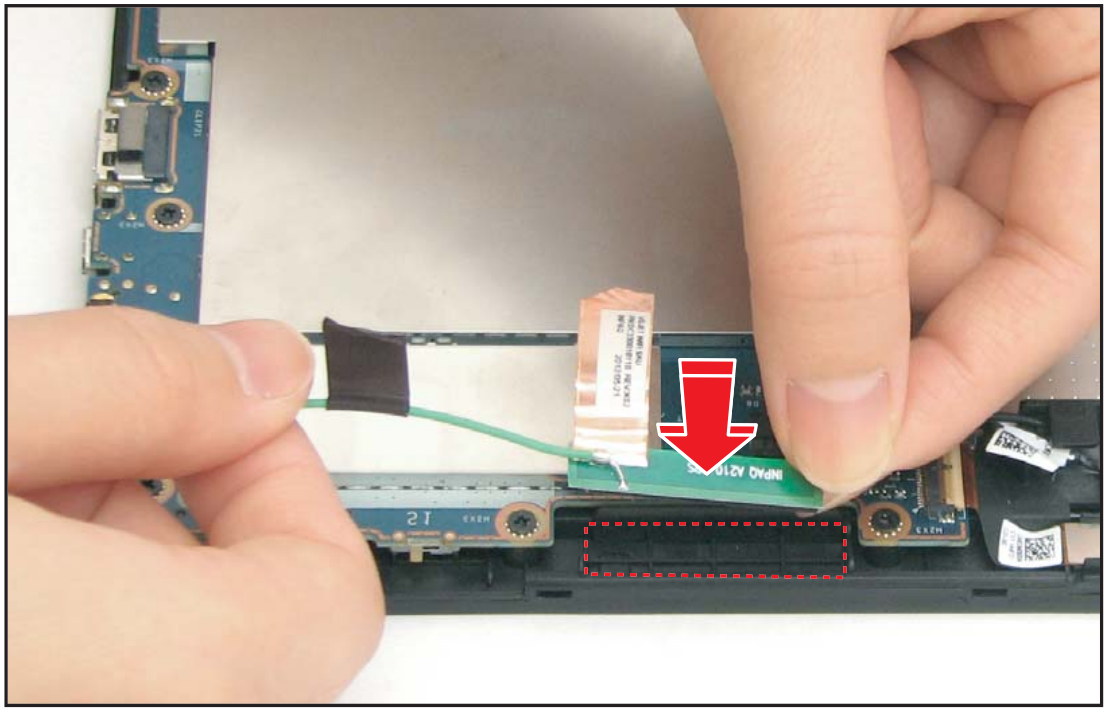

Figure 5-75. Installing the GPS Antenna (1 of 4)

2. Attach the metallic tape to secure the GPS antenna to the mainboard.

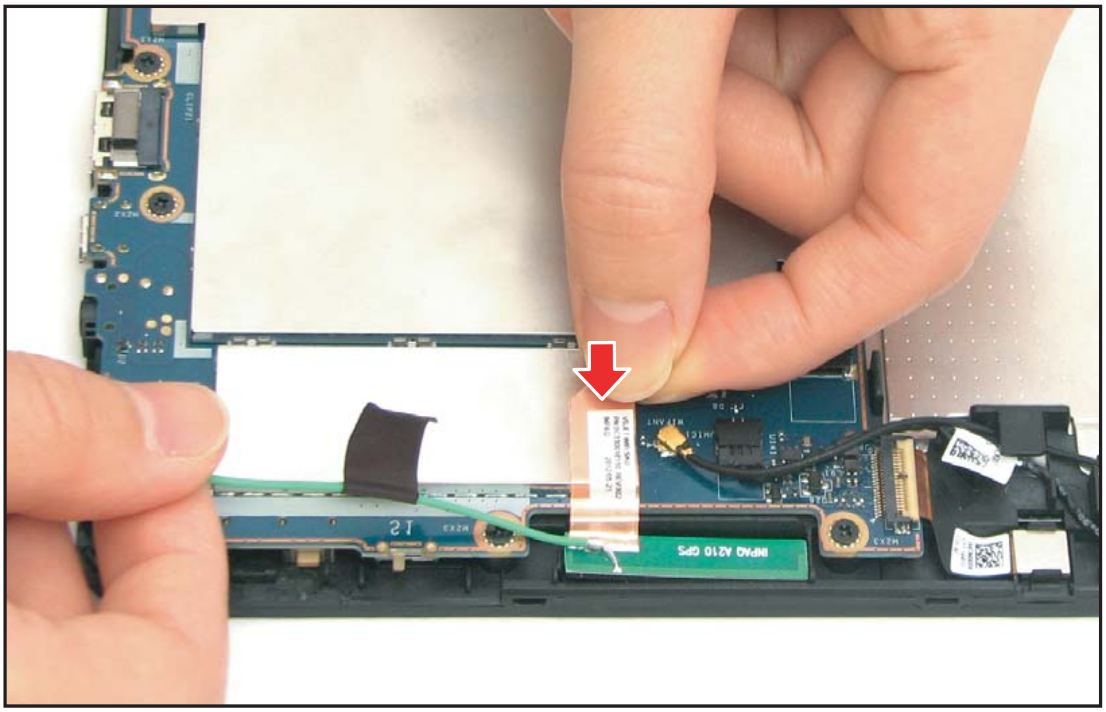

Figure 5-76. Installing the GPS Antenna (2 of 4)

3. Attach the mylar to secure the GPS antenna cable to the mainboard.

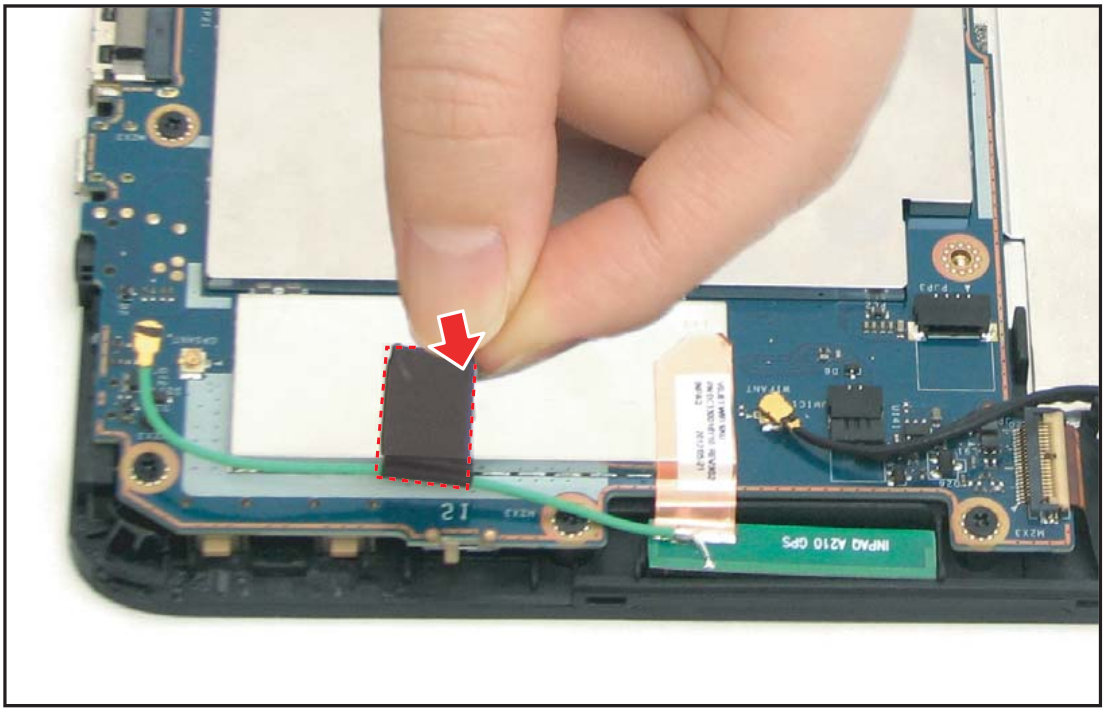

Figure 5-77. Installing the GPS Antenna (3 of 4)

4. Connect the GPS antenna connector to the mainboard connector.

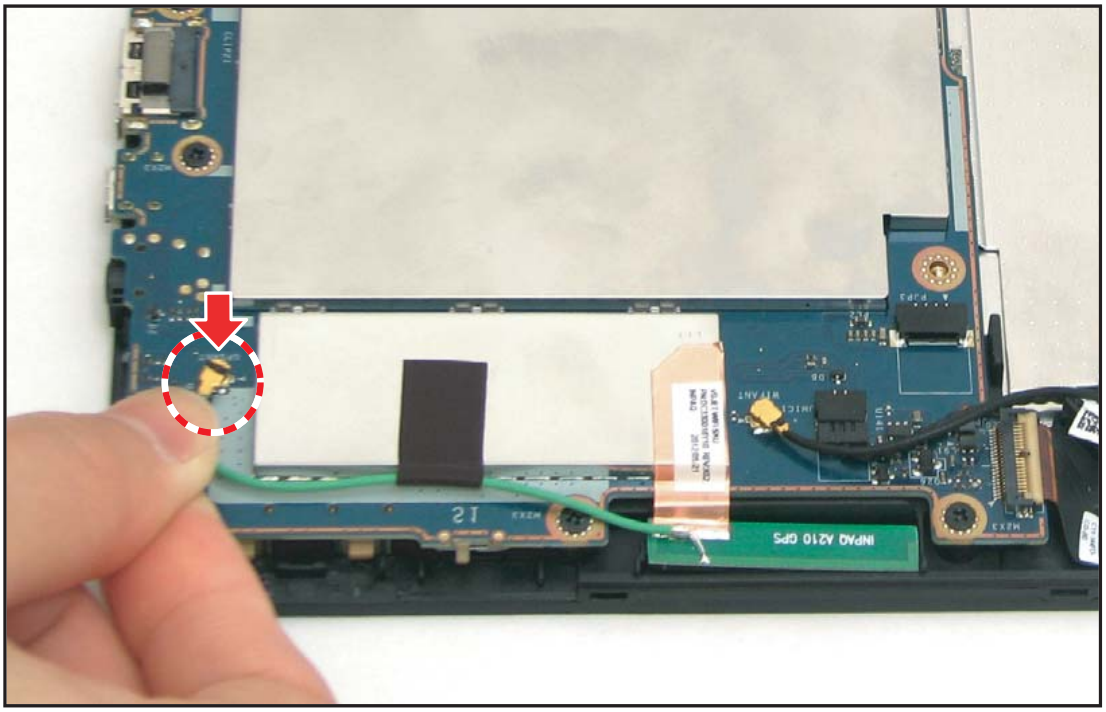

Figure 5-78. Installing the GPS Antenna (4 of 4)

5. Install the battery (see **Battery Installation** on page **5-21**).

Mainboard Removal

Prerequisite:

- ❄ **Battery Removal** on page **5-19**

1. Disconnect the following cables from the mainboard connectors:
   - Speaker cable connector (A)
   - Touch panel control cable connector (B)
   - LVDS cable connector (C)
   - WLAN antenna cable connector (D)
   - Microphone connector (E)
   - DC-In cable connector (F)

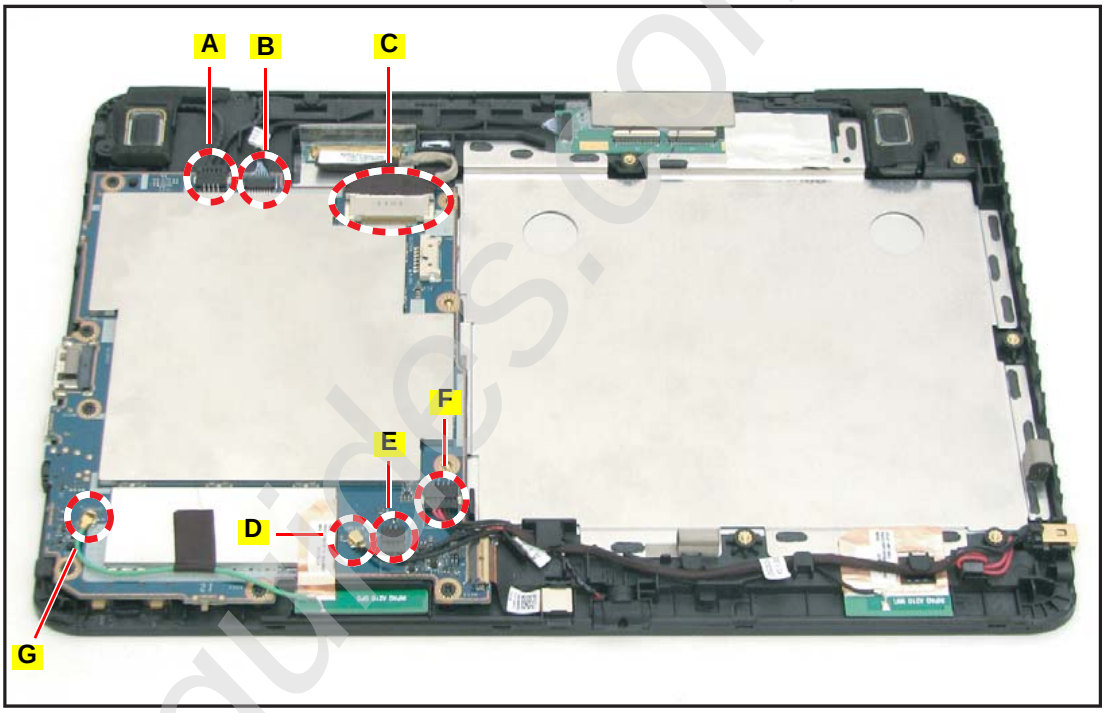

Figure 5-79. Disconnecting the Cables from the Mainboard

2. Disconnect the GPS antenna cable (G). (**Figure 5-79**, page **5-50**)

   a. If the GPS antenna needs replacement, perform the procedures in **GPS Antenna Removal** on page **5-46**.

   b. If the GPS antenna does not need a replacement, do not detach the metallic tape securing the GPS antenna to the mainboard. This may damage the metallic tape and cause the GPS signal to deteriorate. Instead, perform the procedures below:

      (1) Using the plastic pry, pry to lift the circuit cover (A).

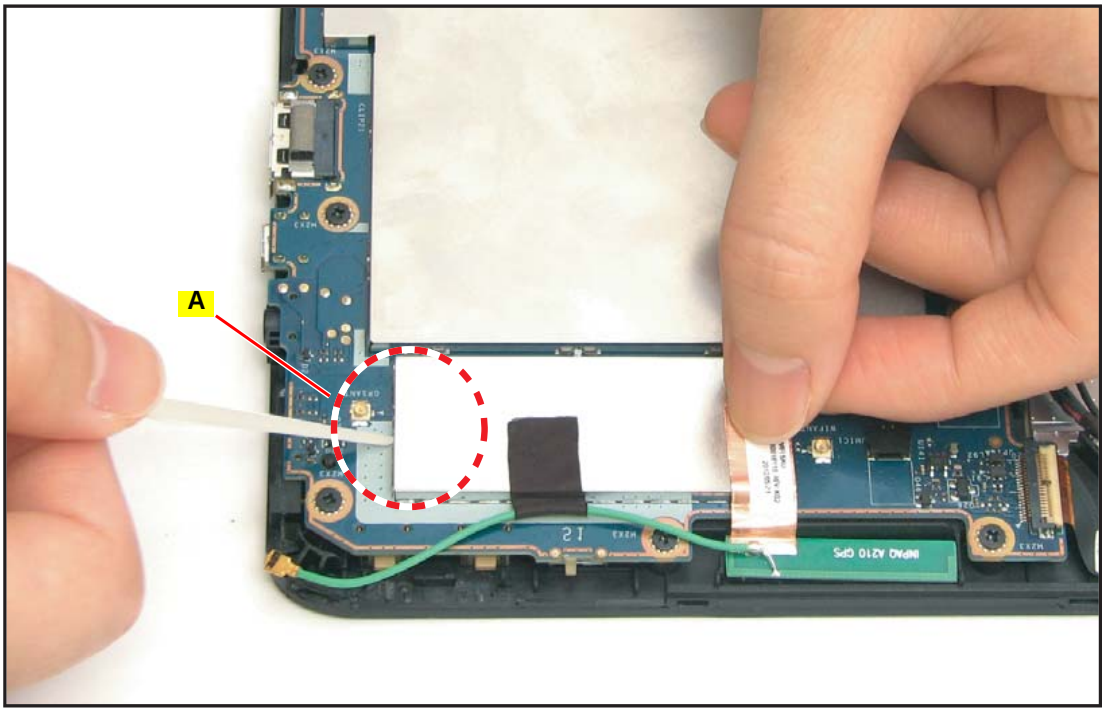

Figure 5-80. Removing the Circuit Cover (1 of 2)

      (2) Open the circuit cover to detach the GPS antenna from the mainboard.

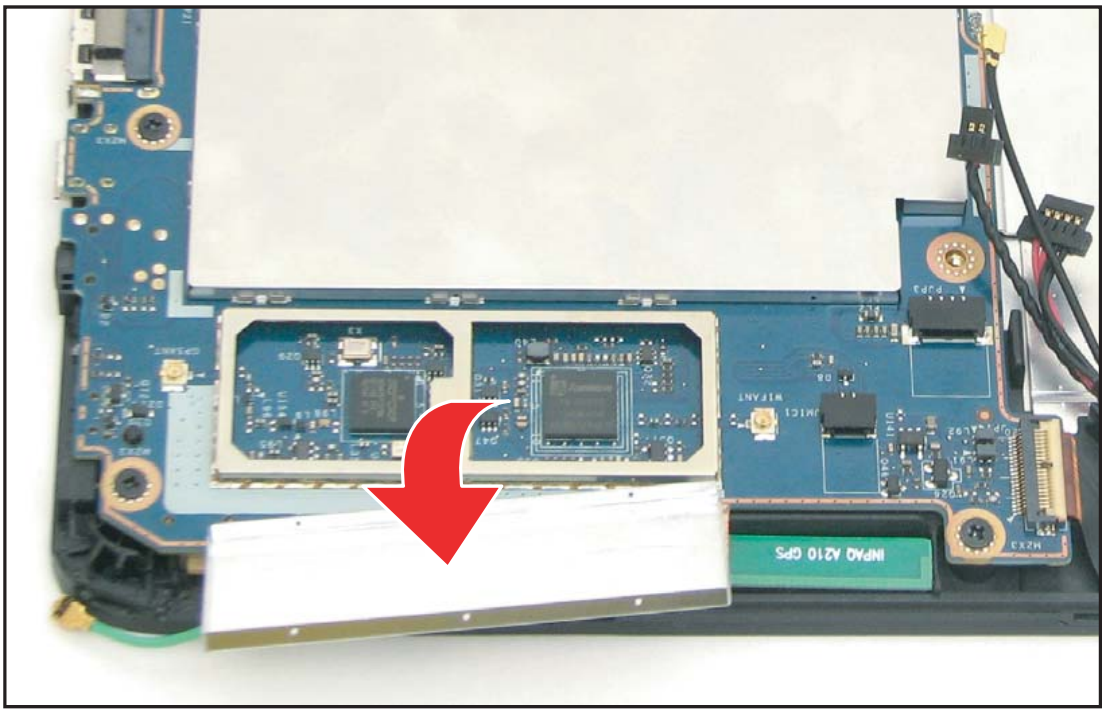

Figure 5-81. Removing the Circuit Cover (2 of 2)

3. Remove the six (6) screws securing the mainboard from the bezel.

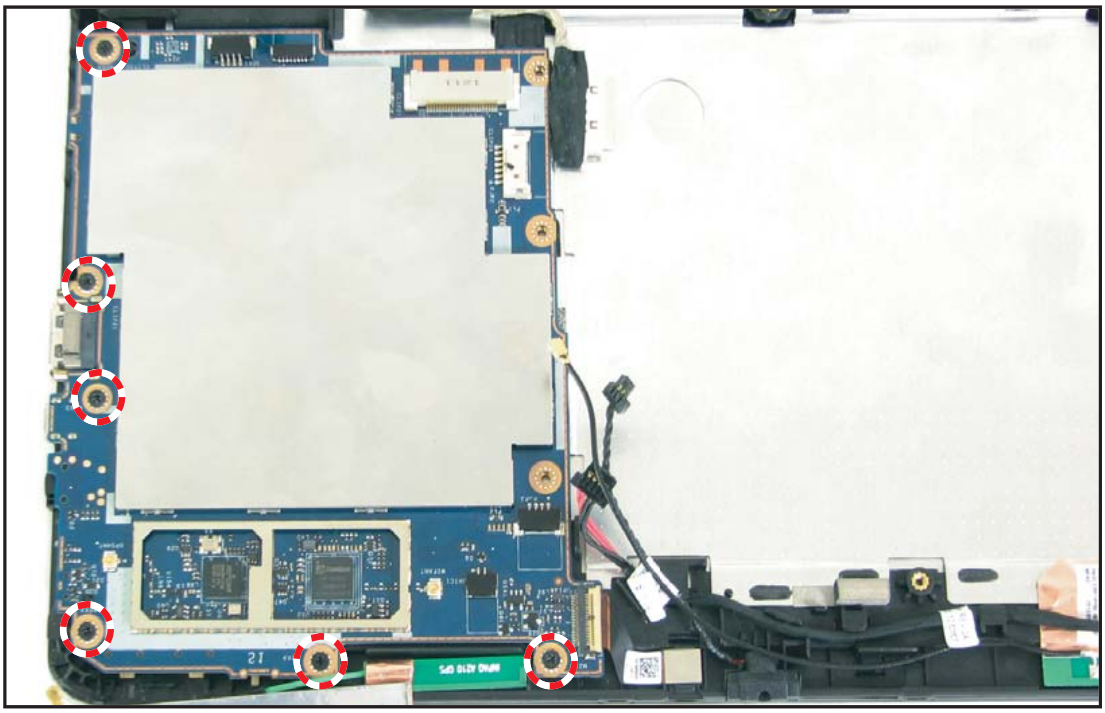

Figure 5-82. Removing the Mainboard Screws

4. Slowly lift the mainboard from the outer edge, and detach the camera cable connector from the mainboard.

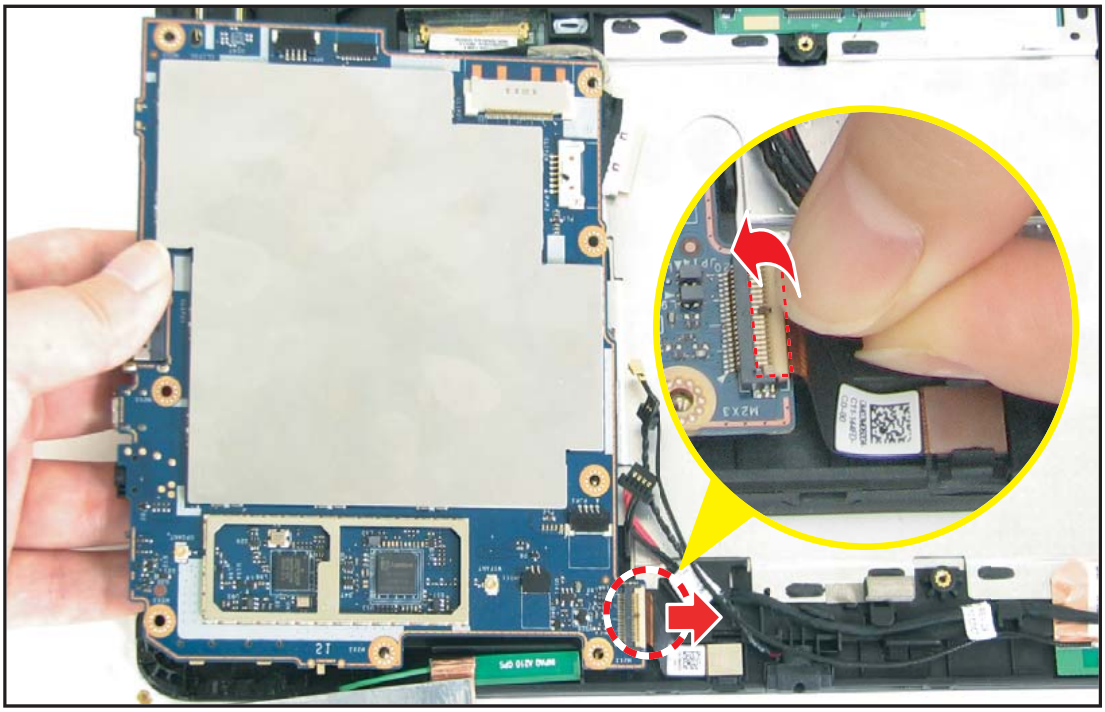

Figure 5-83. Removing the Mainboard

5. Remove the mainboard from the bezel.

Mainboard Installation

1. Connect the camera cable connector to the mainboard connector.

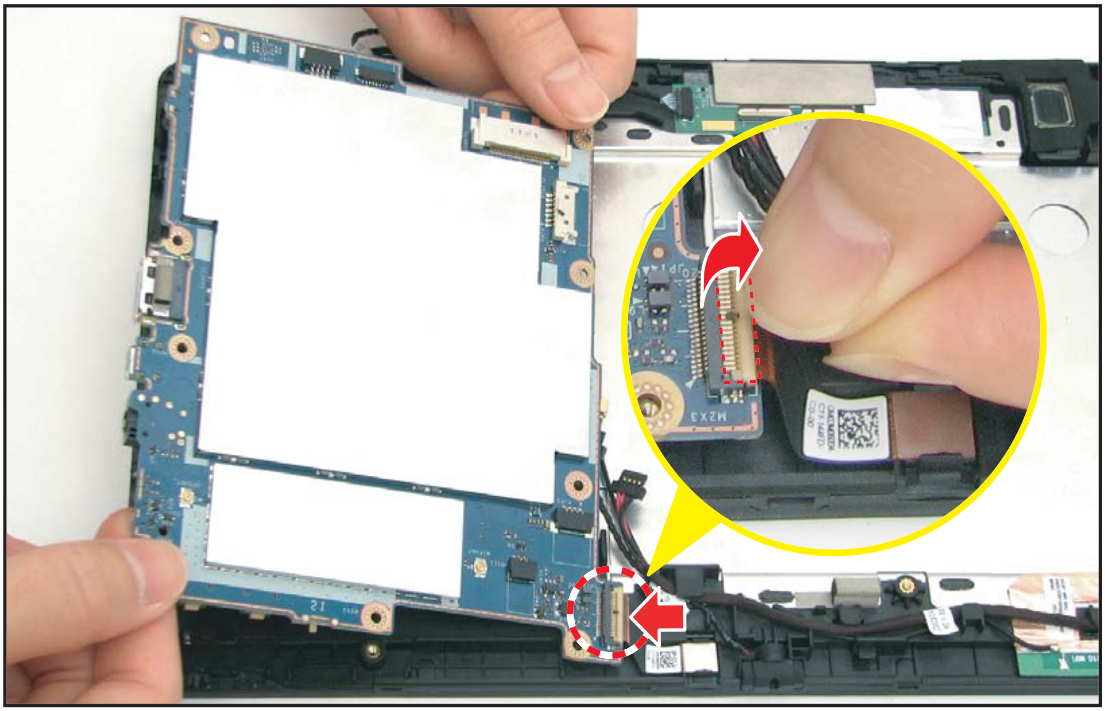

Figure 5-84. Connecting the Camera Cable

2. Align the mainboard to the bezel guides and secure the six (6) screws.

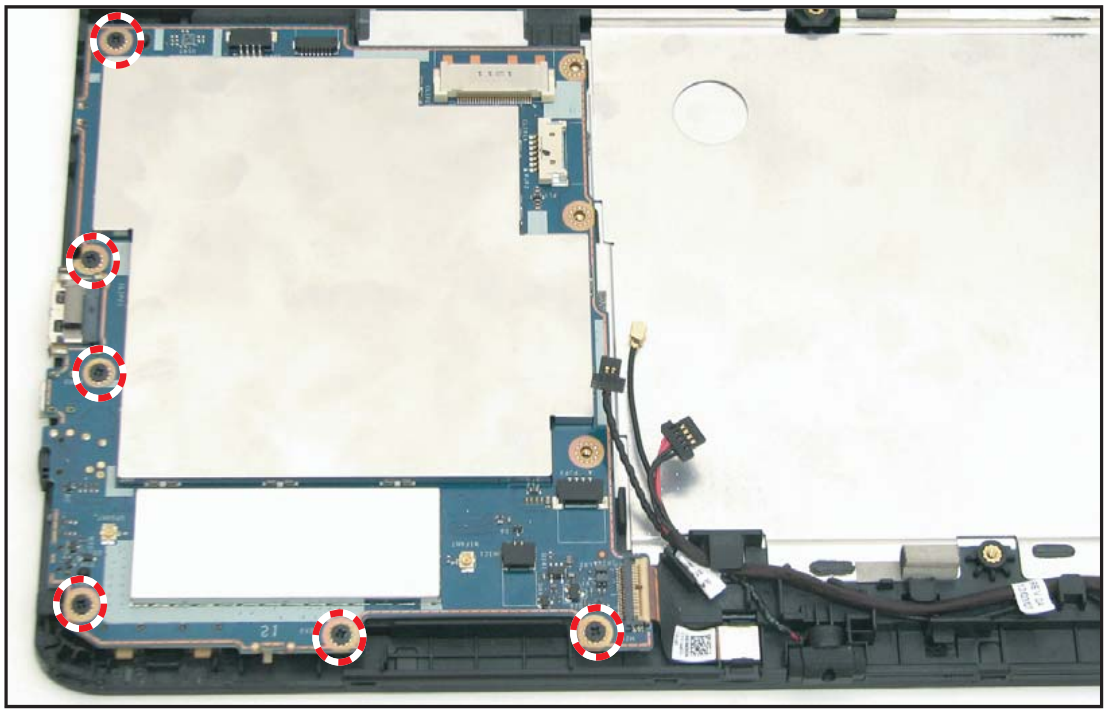

Figure 5-85. Securing the Mainboard Screws

3. Connect the following cables:
   - Speaker cable connector (A)
   - Touch panel control cable connector (B)
   - LVDS cable connector (C)
   - WLAN antenna cable connector (D)
   - Microphone connector (E)
   - DC-In cable connector (F)
   - GPS antenna cable connector (G)

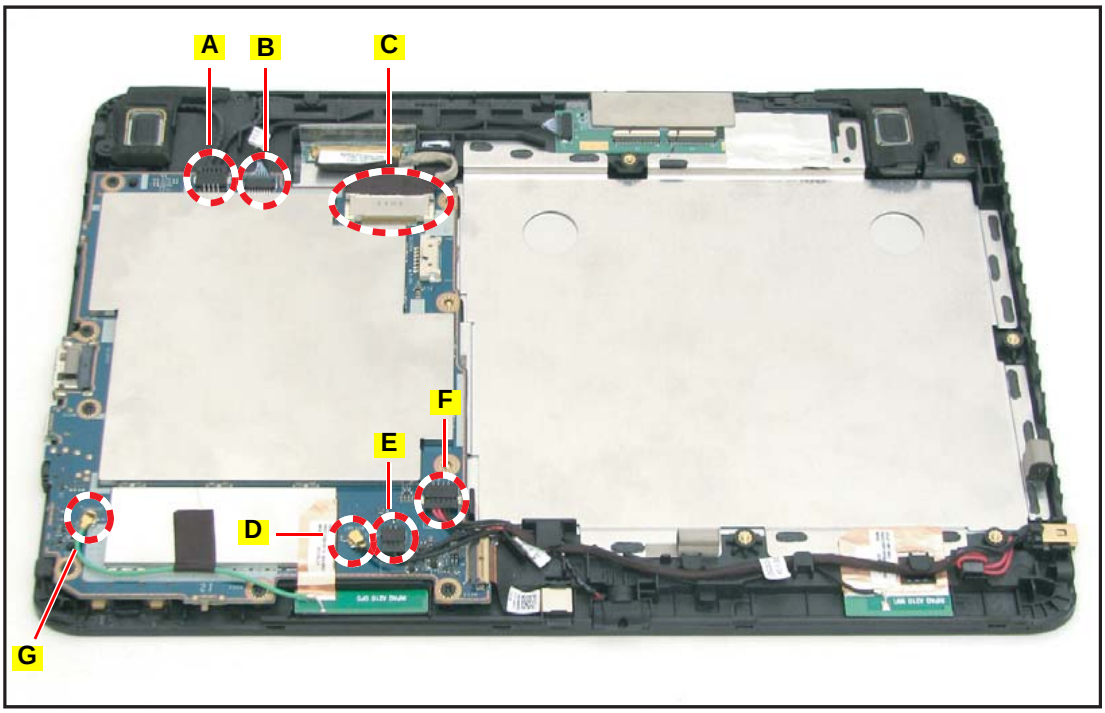

Figure 5-86. Connecting the Cables to the Mainboard

4. Install the battery (see **Battery Installation** on page **5-21**)

Table 5-6. Mainboard Screws

Screw Name	Screw Type	Quantity
M 2.0 x 3.0		6

Front Camera Removal

Prerequisite:

- **Battery Removal** on page **5-19**

1. Disconnect the camera cable connector from the mainboard connector.

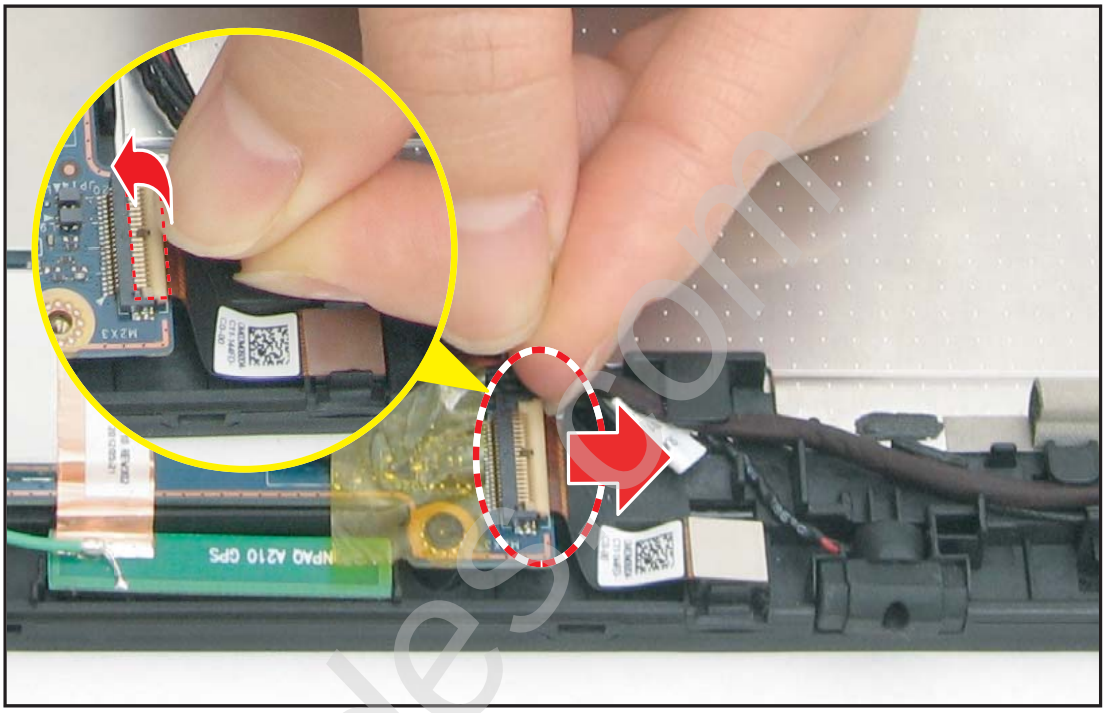

Figure 5-87. Disconnecting the Camera Cable

2. Using the plastic pry, remove the camera from the camera slot on the bezel.

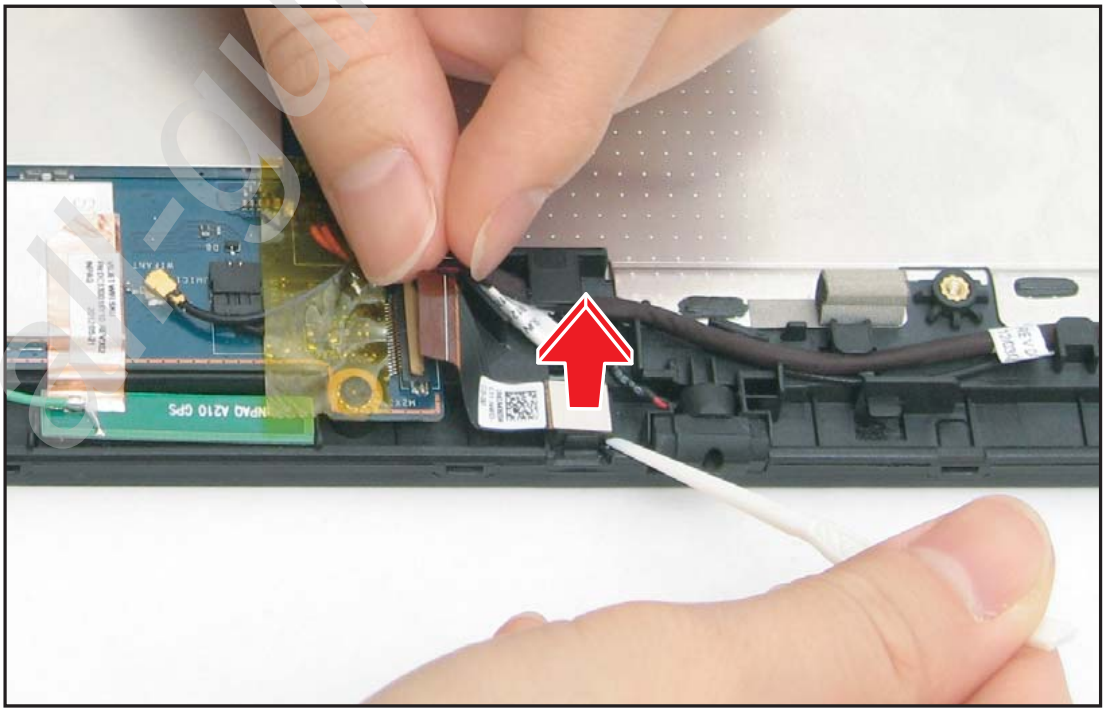

Figure 5-88. Removing the Front Camera

Front Camera Installation

1. Install the camera to the camera slot on the bezel.

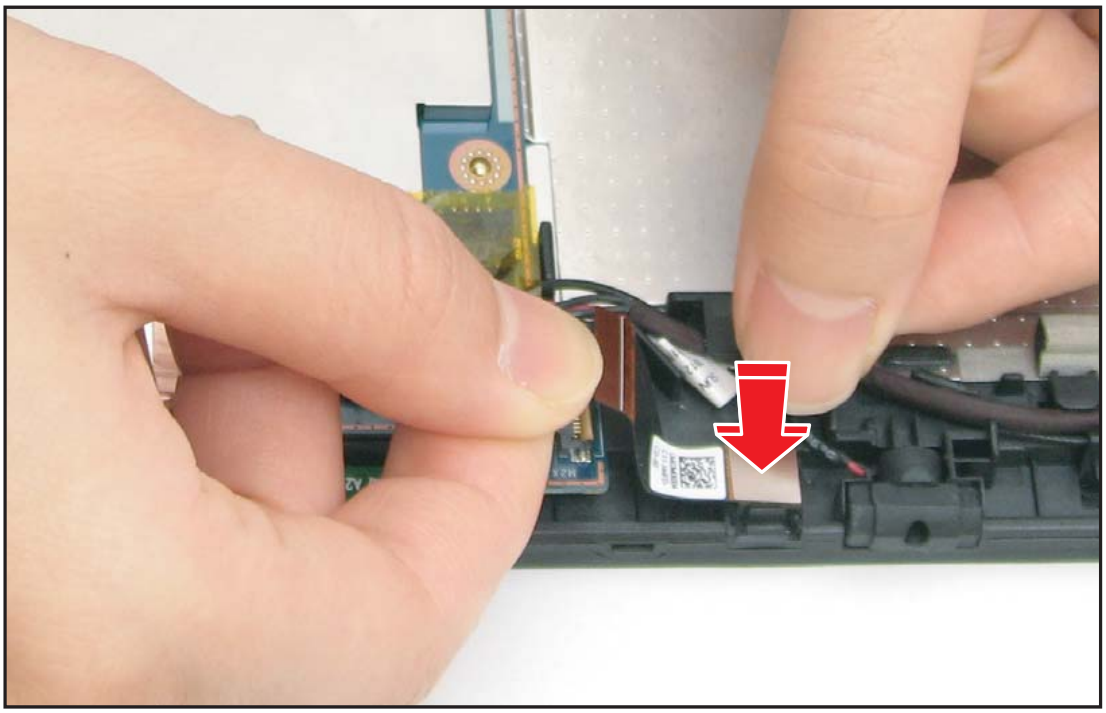

Figure 5-89. Installing the Camera

2. Connect the camera cable connector to the mainboard connector.

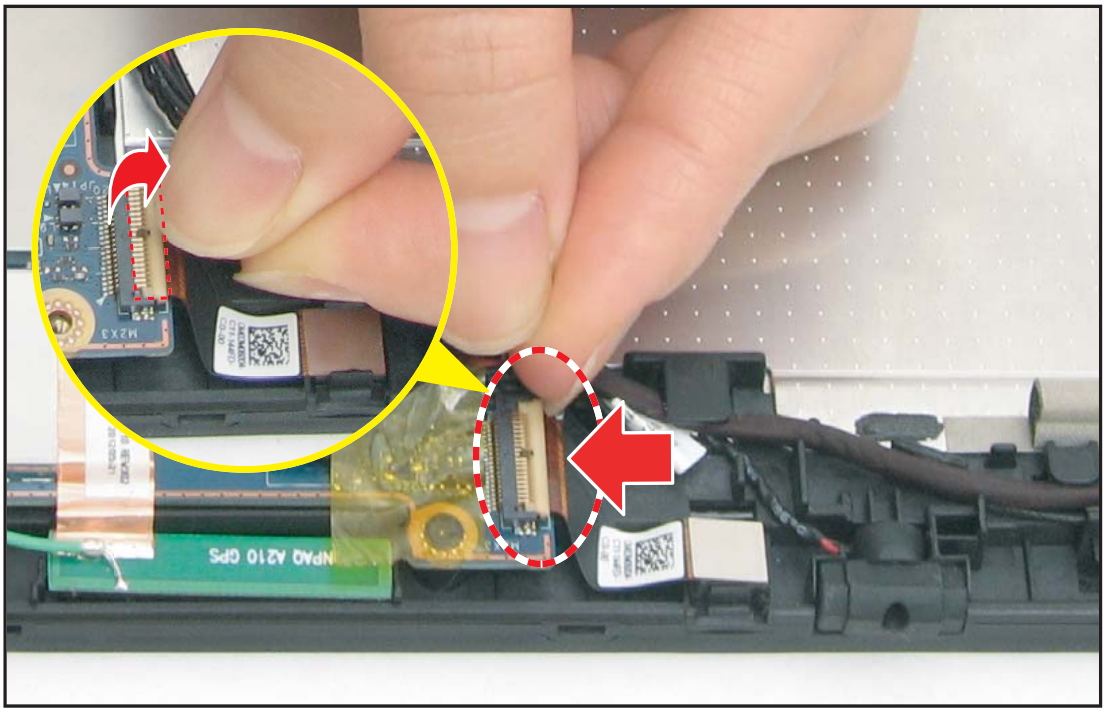

Figure 5-90. Connecting the Camera Cable

3. Install the battery (see **Battery Installation** on page **5-21**).

CHAPTER 6

Field Replaceable Unit List

FRU (Field Replaceable Unit) List

This chapter provides the FRU (Field Replaceable Unit) listing in global configurations for the ICONIA TAB A210. Refer to this chapter whenever ordering for parts to repair or for RMA (Return Merchandise Authorization).

NOTE:

When ordering FRU parts, check the most up-to-date information available on the regional web or channel. Part number changes will not be noted on the printed Service Guide. For Acer Authorized Service Providers, the Acer office may have a different part number code from those given in the FRU list of this printed Service Guide. Users MUST use the local FRU list provided by the regional Acer office to order FRU parts for repair and service of customer machines.

NOTE:

To scrap or to return the defective parts, users should follow local government ordinances or regulations on proper disposal, or follow the rules set by the regional Acer office on how to return the defective parts.

Exploded Diagram

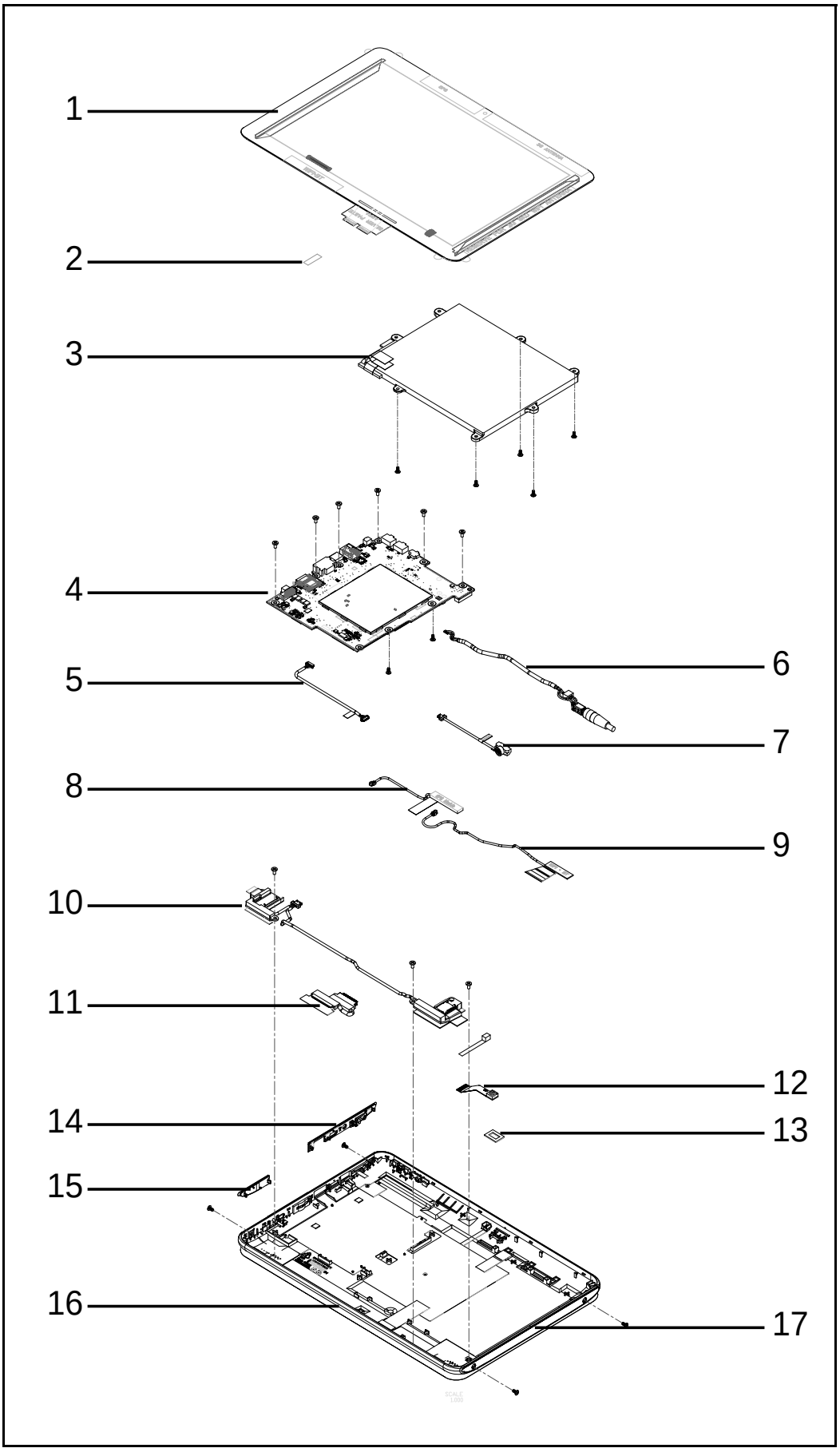

Figure 6-1. Main Assembly Exploded Diagram

Table 6-1. Main Assembly Exploded Diagram

No.	Description	Acer P/N
1	ASSY LCD TOUCH MODULE 10.1 INCL. CONTROL BOARD	6M.HABH2.001
2	LOGIC UP MYLAR	47.HABH2.002
3	Battery SANYO BAT-1012 Polymer 2S1P SANYO 2 Cell 3260mAh Main COMMON	KT.00203.002
4	MAINBOARD	HB.HAB11.001
5	CABLE FOR TOUCH CONTROL BOARD	50.HABH2.002
6	DC IN CABLE	50.HABH2.001
7	MIC SET	23.HABH2.001
8	ANTENNA GPS	50.HABH2.004
9	ANTENNA WIFI	50.HABH2.003
10	SPEAKER L+R	23.HABH2.002
11	LVDS CABLE	50.HABH2.005
12	CAMERA 2M	57.HABH2.001
13	CAMERA SPONGE	47.HABH2.001
14	LEFT IO COVER UP	42.HABH2.002
15	LEFT IO COVER DOWN	42.HABH2.003
16	LOWER CASE ASSY - WHITE	60.HA9H2.001
17	RIGHT IO COVER	42.HABH2.001

FRU List

CATEGORY	Description	Part No.
ADAPTER		
	Adapter PHIHONG 18W 12V/1.5A Black PSA18R-120P(AI)-R LF	AP.0180P.002
	Adapter PHIHONG 18W 12V/1.5A 1.1x3.0x7.5 Black PSA18R-120P(AI)-R, w/i 150cm cable LF	AP.0180P.003
BATTERY		
	Battery SANYO BAT-1012 Polymer 2S1P SANYO 2 Cell 3260mAh Main COMMON	KT.00203.002
CABLE		
	DC IN CABLE	50.HABH2.001
	CABLE FOR TOUCH CONTROL BOARD	50.HABH2.002
	EXTERNAL USB CABLE W/WEEE LABEL	XZ.70200.171
	AC CLIP 18W -EU	27.L0302.001
	AC CLIP 18W -US	27.L0302.002
	AC CLIP 18W -CN	27.L0302.003
	AC CLIP 18W -UK	27.H6002.001
	AC CLIP 18W -AU	27.H6002.002
	AC CLIP 18W -ARG	27.H6002.003
	AC CLIP 18W -BRZ	27.H6002.004
	ANTENNA WIFI	50.HABH2.003
	ANTENNA GPS	50.HABH2.004
	LVDS CABLE	50.HABH2.005

CATEGORY	Description	Part No.
CASE / COVER / BRACKET ASSEMBLY		
	LOWER CASE ASSY - WHITE	60.HA9H2.001
	LOWER CASE - GRAY	60.HABH2.001
	RIGHT IO COVER	42.HABH2.001
	LEFT IO COVER UP	42.HABH2.002
	LEFT IO COVER DOWN	42.HABH2.003
LCD ASSEMBLY		
	ASSY LCD TOUCH MODULE 10.1 INCL. CONTROL BOARD	6M.HABH2.001
DIGITAL LIGHT DEVICE		
	CAMERA 2M	57.HABH2.001
MAINBOARD		
	OT_HH • Acer A210 Mainboard 8G eMMC A210_8g, A210_8w Nvidia T30L Rev 1.0	HB.HAB11.001
	OT_HH • Acer A210 Mainboard 16G eMMC A210_16g, A210_16w Nvidia T30L Rev 1.0	HB.HAA11.001
SPEAKER		
	MIC SET	23.HABH2.001
	SPEAKER L+R	23.HABH2.002
MISCELLANEOUS		
	CAMERA SPONGE	47.HABH2.001
	LOGIC UP MYLAR	47.HABH2.002

Screw List

CATEGORY	Description	Part No.
SCREWS		
	SCREW 2.0D 3.0L K 3.6D ZK NL CR3	86.HABH2.001
	SCREW 2D 4.0L K 4.0D NI NL 0.3T	86.HABH2.002

CHAPTER 7

Test Compatible Components

Test Compatible Components

This computer's compatibility is tested and verified by Acer's internal testing department. All of its system functions are tested under Android OS environment.

Refer to the following lists for components, adapter cards, and peripherals which have passed these tests. Regarding configuration, combination and test procedures, please refer to the ICONIA TAB A210. Compatibility Test Report released by the Acer Mobile System Testing Department.

Android OS Environment Test

ICONIA TAB A210

Table 7-1. ICONIA TAB A210

Vendor	Type	Description	Part No.
Mainboard			
COMPAL	Mainboard	FW MB A8981 V0JET T30L/1G D3/ 8G	HB.HAB11.001
10001012 COMPAL_	Mainboard_16G Emmc	FW MB A8981 V0JET T30L/1G D3/ 16G	HB.HAA11.001
Memory			
Hynix	CM2GbIIIL	S IC D3 256M8/1333 H5TC2G83CFR-H9A ABO!	KM.2GB0G.003
Elpida	CM2GbIIIL	S IC D3 256M8/1333 EDJ2108EDBG-DJ-F ABO!	KM.2GB09.001
Samsung	eMMC8GB	S IC FL 8G KLM8G2FE3B-B001 FBGA153P ABO!	IC.00809.005
Samsung	eMMC16GB_	S IC FL 16G KLMAG2GE4A-A001 FBGA169 ABO!	KG.01609.002
Camera			
CHICONY	2M FF (Front)	CAMERA M CJFB23320003350LH CHICONY 2M W/MIC 0FA	QM.02M06.004
CPU			
NVIDIA	NV-TEGRA-T30L	S IC T30L-P-A3 1.2G FCBGA 728P CPU	KC.30L07.001
NVIDIA	NV-TEGRA-T30L	S IC T30L-ZP-A3 1.2G FCBGA 728P CPU ABO!	KC.30L07.002

Vendor	Type	Description	Part No.
Adapter			
Phihong	18W	AC ADAP PSA18R-120P(AI)-R 18W 2P ABO!	AP.0180P.002
Phihong	18W	AC ADAP PHIHONG PSA18R-120P(A2)-R 18W 2P ABO !	AP.0180P.003
Wi-Fi Module			
Azurewave	WiFi/BT Module (SIP on board module)	S_W/L_MOD AW-NH660 W/BT W/ FM 0FA	QF.1BG0Z.003
GPS Module			
Broadcom	GPS (On Board)	S IC BCM47511IFBG FBGA 100P GPS	XC.GPS00.002
Battery			
SANYO	2CELL3.26	BATT SA SA 2S1P 3.4AH 8 0SD ABO !	KT.00203.002

CHAPTER 8

Online Support Information

Online Support Information

Introduction

This section describes online technical support services available to help users repair their Acer Systems.

For distributors, dealers, ASP or TPM, please refer the technical queries to a local Acer branch office. Acer Branch Offices and Regional Business Units may access our website. However some information sources will require a user i.d. and password. These can be obtained directly from Acer CSD Taiwan.

Acer's Website offers convenient and valuable support resources.

In the Technical Information section users can download information on all of Acer's Notebook, Desktop and Server models including:

- Service guides for all models
- Bios updates
- Software utilities
- Spare parts lists
- TABs (Technical Announcement Bulletin)

For these purposes, we have included an Acrobat File to facilitate the problem-free downloading of our technical materials.

Also contained on this website are:

- Detailed information on Acer's International Traveler's Warranty (ITW)
- Returned material authorization procedures
- An overview of all the support services we offer, accompanied by a list of telephone, fax and email contacts for all your technical queries.

We are always looking for ways to optimize and improve our services, do not hesitate to direct any suggestions or comments to us.