

EXHIBIT 11
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Subject: [REVISION]: Teardown Completed: Samsung Juke Phone

Date: Tue, 05 Feb 2008 22:05:12 +0000

From: "Taido Lantz Nakajima" <tnakajima@apple.com>

To: "Tony Fadell" <tfadell@apple.com>, <yannick@apple.com>, <rcaballero@apple.com>, <jesse@apple.com>, "Andy Hodge" <ahodge@apple.com>, <bryan.james@apple.com>, "Achim Pantfoerder" <achim@apple.com>, <ssamoilova@apple.com>, <bsander@apple.com>, <dtupman@apple.com>, <zadesky@apple.com>, <wlaw@apple.com>, <bryson@apple.com>, "Vic Alessi" <valessi@apple.com>, "Babu Rahman" <babu_rahman@apple.com>, "Bryan Roos" <broos@apple.com>, "Donald Novotney" <dj@apple.com>

CC: "Michael Rosenblatt" <mrosenblatt@apple.com>, "Gloria Lin" <glin@apple.com>, "Chrissy Meyer" <christine.meyer@apple.com>, "Taido Lantz Nakajima" <tnakajima@apple.com>, "Sean Mayo" <sean.mayo@apple.com>, "Amir Mikhak" <mikhak@apple.com>

Message-ID: <7F53A3CD-57A1-471D-87FC-A3D8DA899AAE@apple.com>

Dear Team,

Attached is a revision made to the teardown (Samsung Juke phone) we sent last week.

On the second page, we have included a description of what we have learned from the teardown.

Later today, we will send out our latest teardown, the Sandisk Sansa View.

Also we will send out a competitive product survey tech brief on product feature trends, core technology, and new technology.

Thank you!

Taido Lantz Nakajima
iPod New Tech
tnakajima@apple.com



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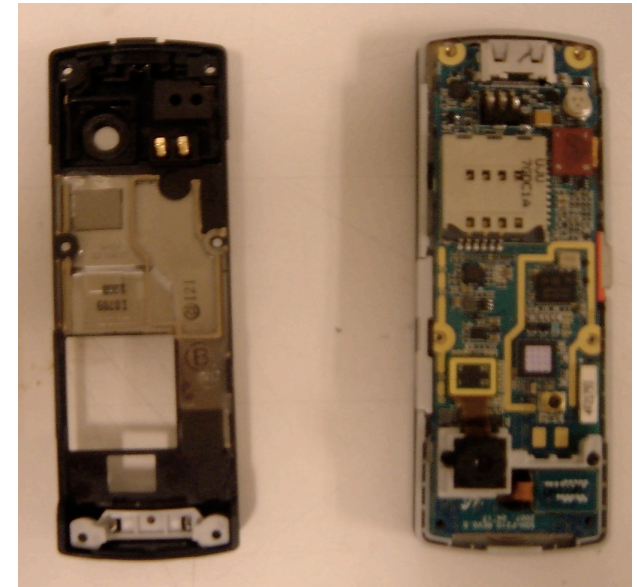


**Samsung Juke (SGH-
F210)
Cell Phone/MP3
Player
\$300**

**iPod Engineering
Teardown Report
January 2008**

What We've Learned

- In-molded RF Shields
 - Back cover contains RF shield for transceiver ICs, molded into casing for reduced thickness
- Design Rules
 - Smallest passives - 0201
 - 0.20 mm component spacing



Back cover w/ in-molded RF shield (left)

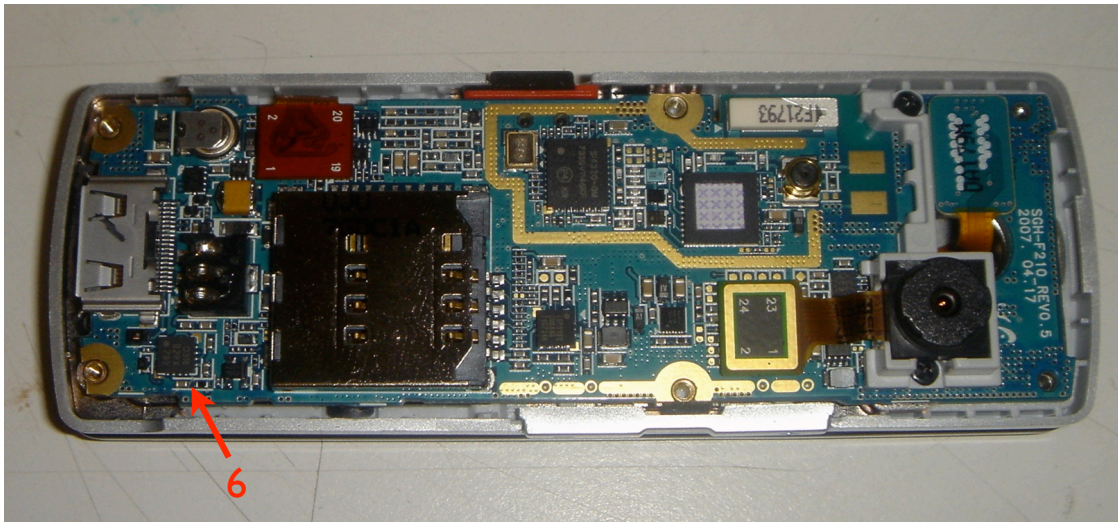
Product Statistics

Mass Storage Capacity:	1 GB internal flash, microSD expansion
Price:	\$299.99 retail (est.)
Dimensions:	91.4 x 30.9 x 21.1 mm (closed) 157.3 x 30.9 x 21.1 mm (open)
Volume:	59.59 cm ²
Weight:	85.8 g
Key Features:	Bluetooth, FM Radio, 2 MP camera
FM Tuner:	Yes
Video Playback:	Yes, MPEG-4/3GP
Photo Viewing:	Yes, JPEG
Wireless:	Bluetooth

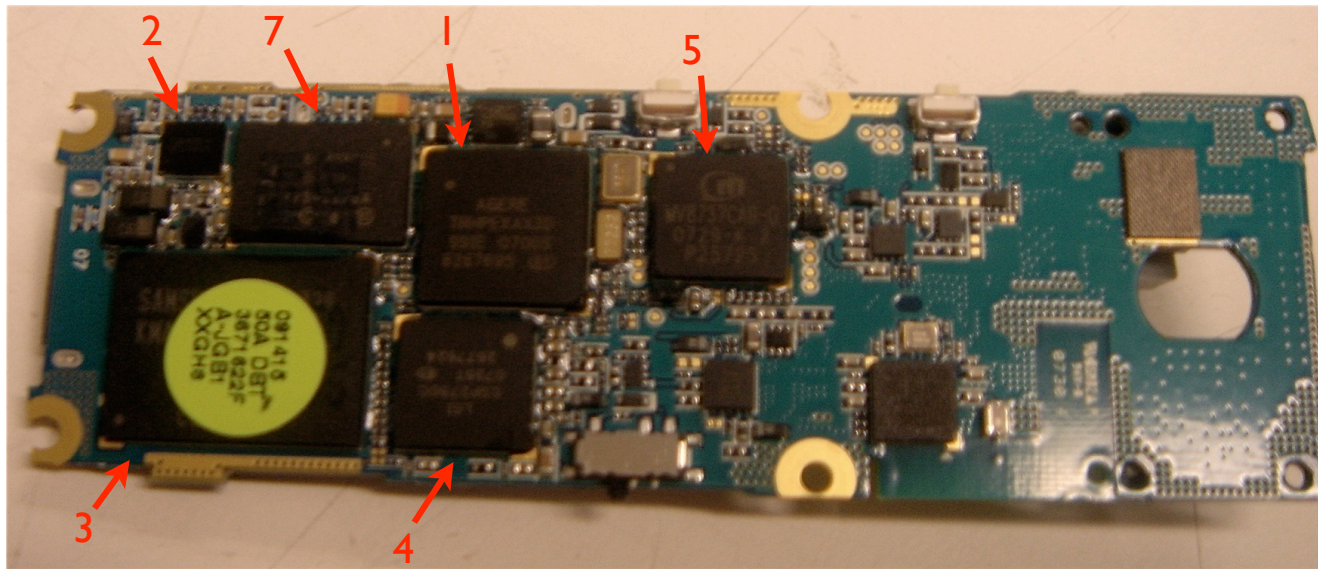
Hardware

SOC Vendor:	Agere TRHPEXAXJD
Codec Vendor:	Yamaha YMU800
Memory Configuration:	Samsung KMAFN0000M-S998 GB NAND
Other Major Silicon:	LSI CSP2750C power management MC8737 Multimedia Chip Q316B2PX FM Tuner
PCB (Tech and Layers):	FR4, 10 layer
PCB Thickness:	1 mm
Underfill:	All
In-box Headphone Impedance:	Proprietary headphone/headset connector Impedance not measured

Hardware, cont.



1. Agere TRHPEXAXJD
2. Yamaha YMU800
3. Samsung
KMAFN0000M
4. LSI CSP2750C
5. MC8737 Multimedia
Chip
6. Q316B2PX FM Tuner
7. Unidentified "IC -
Micom"



Core Tech

Battery	
Type:	Samsung ABGF2107KE Li-ion polymer
Dimensions:	55.5 x 28.7 x 5.8 mm
Volume:	9.24 cm ³
Capacity:	800 mAh claimed, 740 mAh measured
Density:	80.1 mAh/cm ³
Safety Circuit:	Yes

Display	
Type:	Color TFT LCD
Size:	1.46" TFT 128x220
NTSC %:	51.03%
BL Power:	n/a
BL Brightness	197 (white, maximum brightness)
nit/mW:	n/a
Driver:	MC8737 Multimedia Chip on PCB
Flex Connector:	Soldered to daughter board, passives mounted to flex

Core Tech, cont.

Input Device	
Type:	Click-wheel
Notes:	Wheel physically spins, along with directional buttons in cardinal directions, select button in center

Core Tech, cont.



Front (closed)



Front (open)



Back (closed)



Front (closed)

Core Tech, cont.



Left (closed)



Left (open)



Right (closed)



Right (closed)

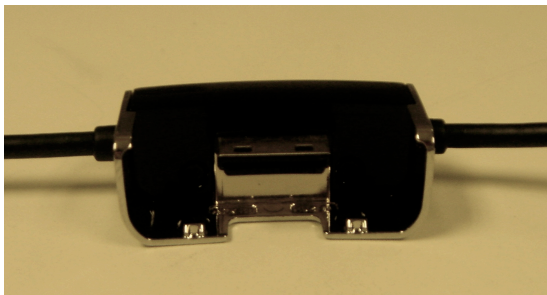
Core Tech, cont.



Bottom port



Bottom cover removed



Headphone connector

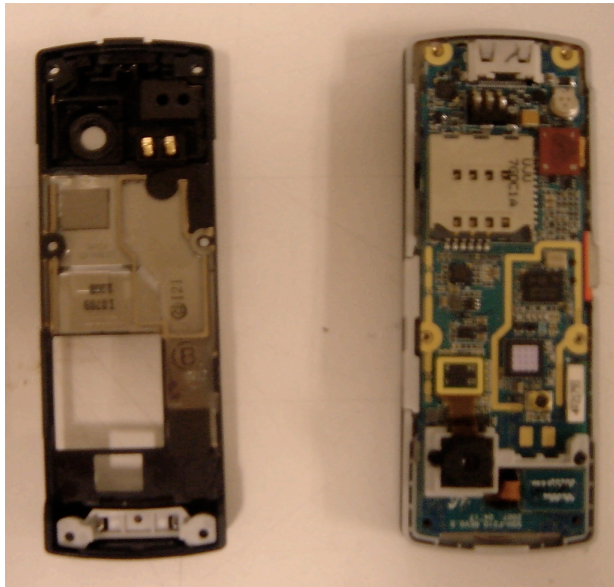


Battery/cover and bottom cover removed

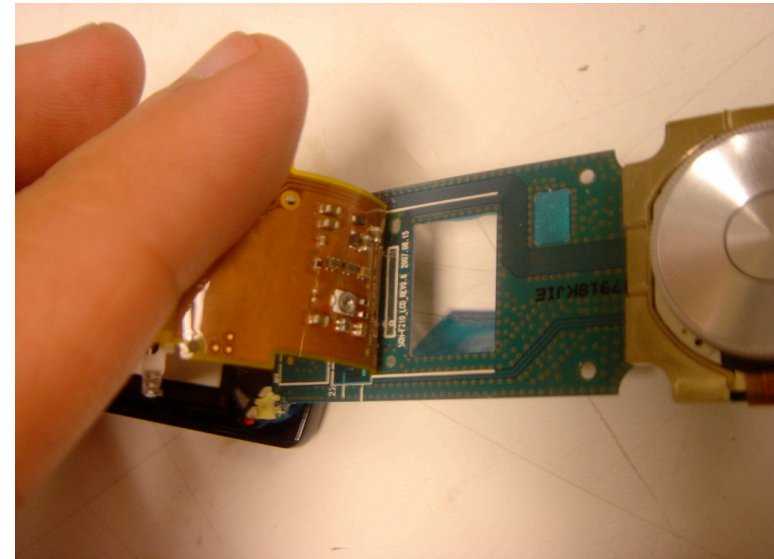


Phone with headphone/lanyard attached

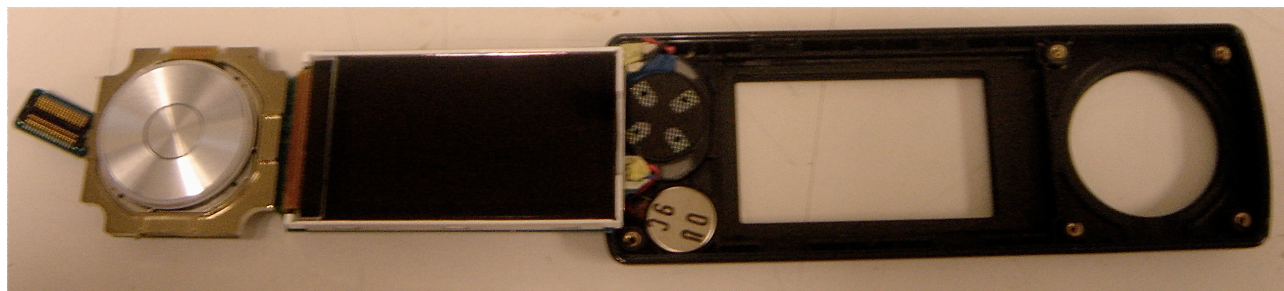
Core Tech, cont.



Inside back cover



**Daughter-board and display flex
with passives**



Inside front cover, display and click-wheel assembly

PCB Design

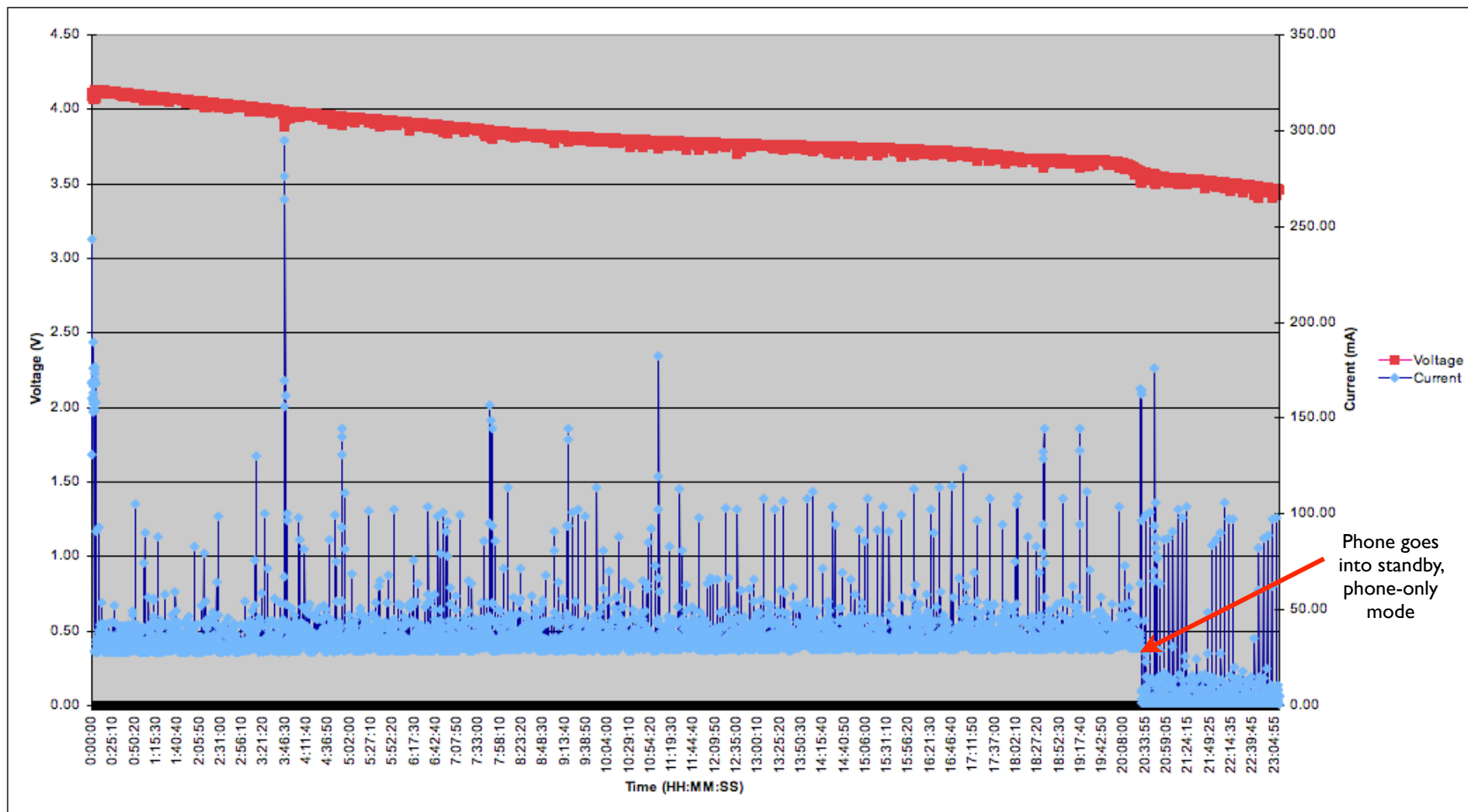
Solder Finish:	Immersion gold
Display Connection:	34-pin board-to-board
Vias:	OD: 0.25 mm ID: 0.10 mm
Conformal Coating:	None
ZIF Connectors:	Connecting click-wheel to display daughter board
Spacing between BGA and Discrete:	0.2 mm
Component Spacing:	0.2 mm
Notes:	2 layer daughterboard connected to display via flex Flex is 2 layer with passives mounted on one side Smallest passives used are 0201

Audio Performance

Advertised Audio Playback (hrs):	no audio playback advertised 3.3 h talk, 265 h standby
Measured Audio Playback*:	20.5 h, phone then entered phone only mode
Batt Start Voltage:	4.11 V
Batt End Voltage:	3.46 V
Batt Avg. Voltage (During Playback):	3.84 V
Average Current (During Playback):	35.0 mA
Average Power (During Playback):	134.4 mW

*mp3 format, 160 Kbs

Audio Playback



Audio Playback Time:

20.5 h
2.6 h phone-only standby

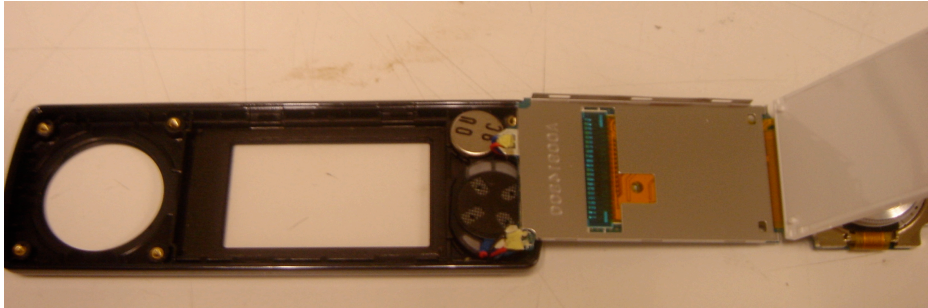
Audio Performance

Full Scale Output V:	Not measured
SNR @ Full Scale:	Not measured
THD @ Full Scale:	Not measured
THD @ Half Scale:	Not measured
Crosstalk:	Not measured
Supported Audio File Types	MP3 / MIDI / ACC / ACC+ / AAC+e/ WMA

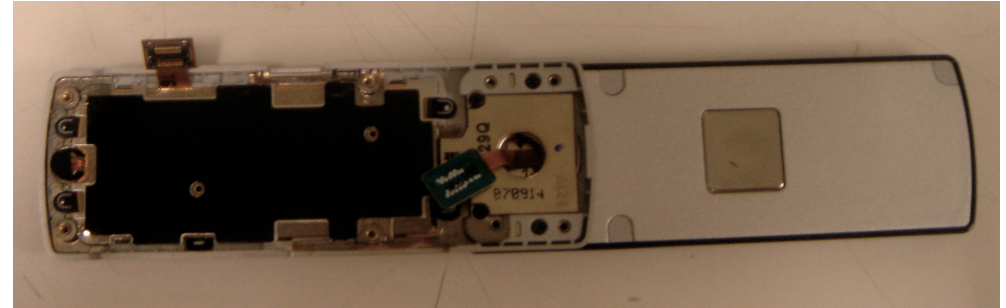
Enclosure

Front Cover:	Injection molded plastic
Back Cover:	Injection molded plastic, aluminum behind display section when phone is open
Battery Holder	Battery mounted to back cover
Fitting:	Screws
Notes	Switchblade hinge transforms unit from MP3 player to phone

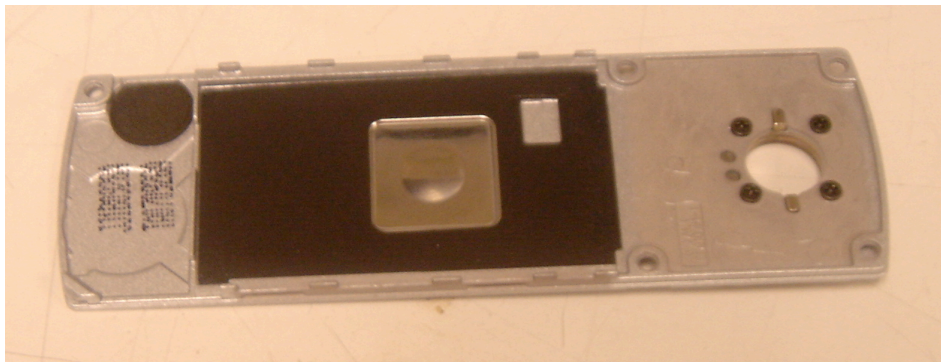
Enclosure



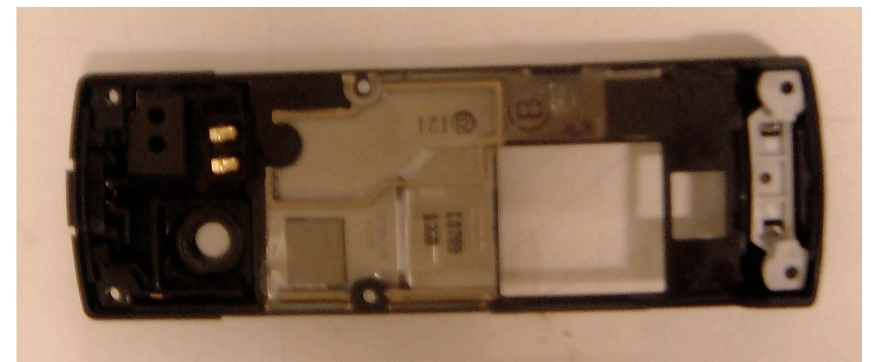
**Front display enclosure,
inside**



**Front keypad enclosure, inside
Back display enclosure, outside**



Back display enclosure, inside



Back keypad enclosure, inside

Contact

New Tech Manager:

Michael Rosenblatt (mrosenblatt@apple.com)

Competitive Products Procurement:

Lori Biggerstaff (lbiggerstaff@apple.com)

Teardown / Hardware Analysis:

Sean Mayo (sean.mayo@apple.com)

Hardware Lab:

Jose Castillo (jcastillo@apple.com)

PCB Technologies:

James Bilanski (jbilanski@apple.com)

Flat Panel Displays

Cheng Chen (cheng.chen@apple.com)