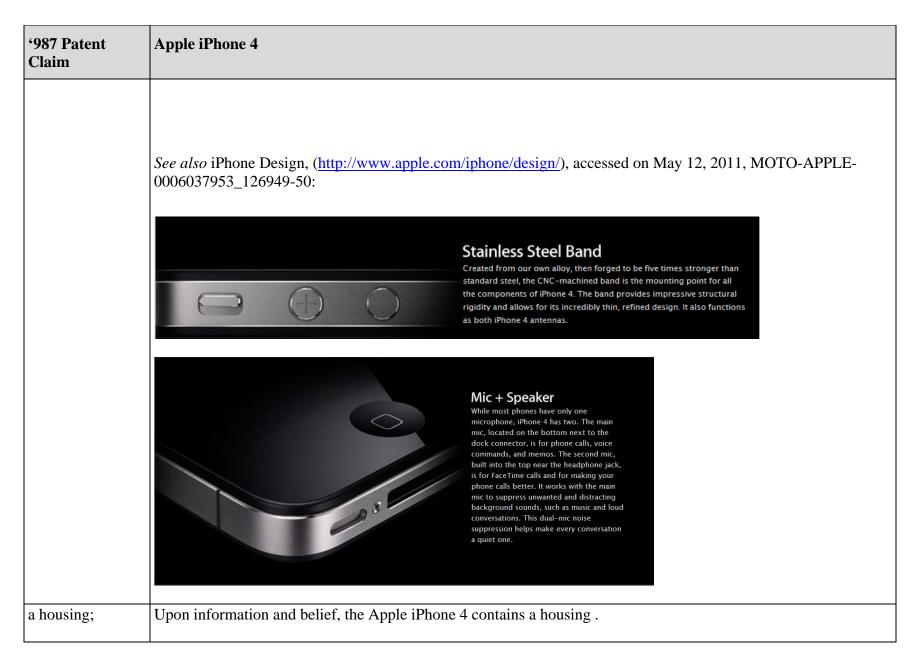
### **UNITED STATES PATENT NO. 5,710,987**

### PRELIMINARY INFRINGEMENT CONTENTIONS<sup>1</sup>

**Accused Apple Product:** Apple iPhone 4

'987 Patent Claim	Apple iPhone 4
13. A receiver including a user interface comprising:	Upon information and belief, Apple imports, manufactures, sells, offers to sell, and uses the Apple iPhone 4, which includes a receiver and several user interfaces, including a touch-screen display, volume control buttons, and speaker.  See, e.g., iPhone 4 Technical Specifications, ( <a href="http://www.apple.com/iphone/specs.html">http://www.apple.com/iphone/specs.html</a> ), accessed on May 12, 2011, MOTO-APPLE-0006037953_126659:
	Cellular and wireless  GSM model: UMTS/HSDPA/HSUPA (850, 900, 1900, 2100 MHz); GSM/EDGE (850, 900, 1800, 1900 MHz)  CDMA model: CDMA EV-DO Rev. A (800, 1900 MHz)  802.11b/g/n Wi-Fi (802.11n 2.4GHz only)  Bluetooth 2.1 + EDR wireless technology

<sup>&</sup>lt;sup>1</sup> Motorola Mobility's investigation is ongoing and discovery and claim construction are not yet complete. Mobility reserves the right to supplement or amend these contentions with contentions arising under the doctrine of equivalents in response to any proposed or ordered claim construction, subsequent discovery response or production, or subsequent disclosure made pursuant to FRCP 26.

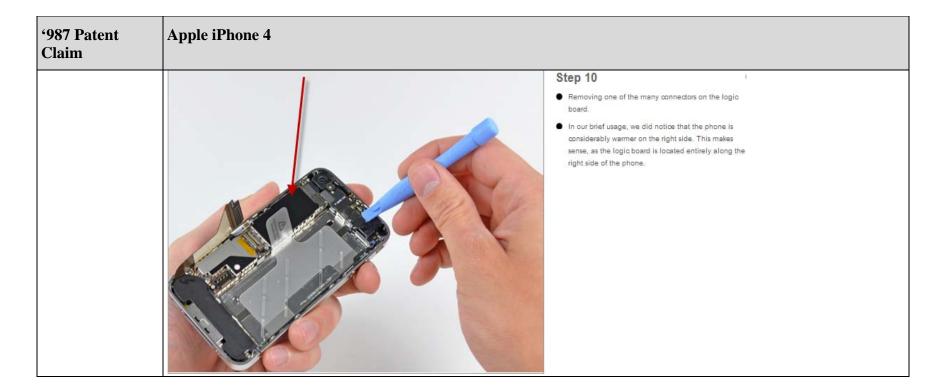


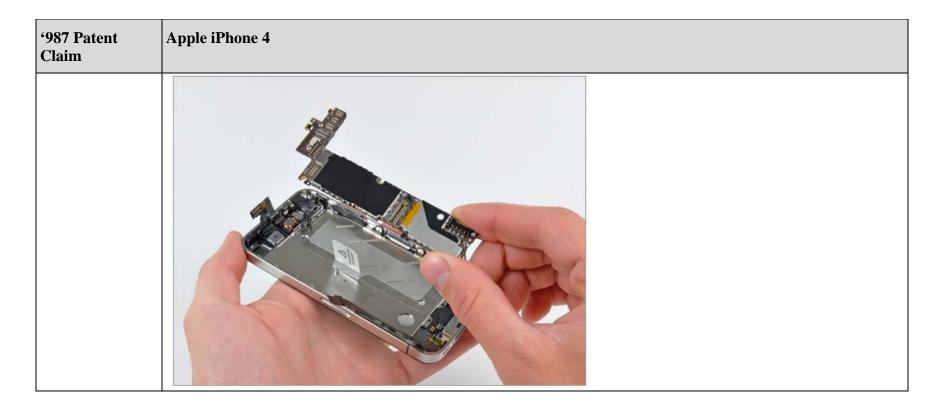
'987 Patent Claim	Apple iPhone 4
	See e.g., iPhone Teardown, (http://www.ifixit.com/Teardown/iPhone-4-Teardown/3130/2), accessed on May 13, 2011, MOTO-APPLE-0006037953_127193 (arrows and labels added):
	See <i>e.g.</i> , iPhone Teardown, ( <a href="http://www.ifixit.com/Teardown/iPhone-4-Teardown/3130/1">http://www.ifixit.com/Teardown/iPhone-4-Teardown/3130/1</a> ), accessed on May 13, 2011, MOTO-APPLE-0006037953_127208 (arrows and labels added):

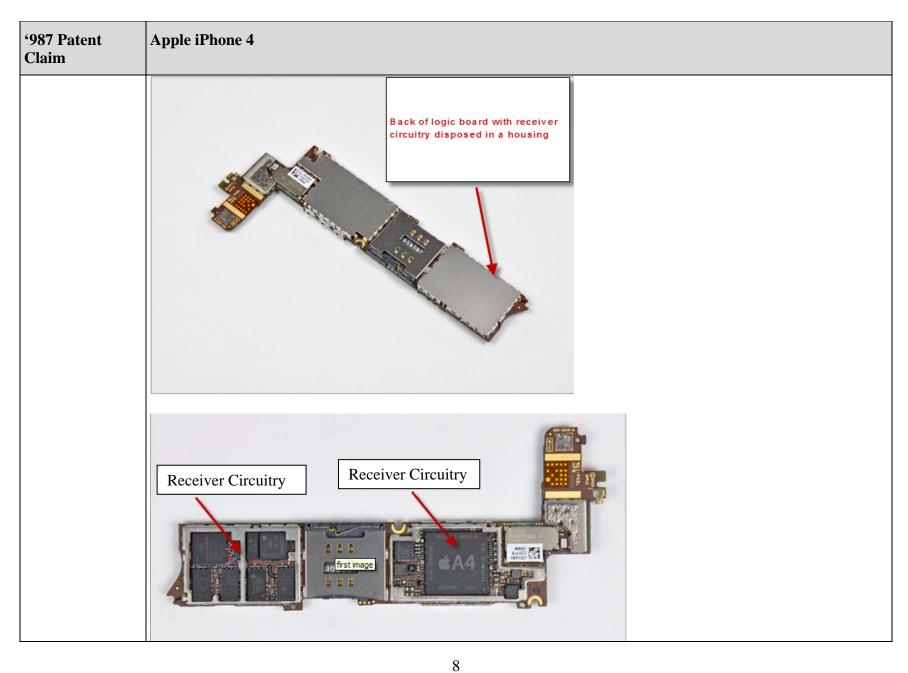


Exhibit A

'987 Patent Claim	Apple iPhone 4
	P. 3. 13 1 1 1 2 1 1 1 1 2 1 1 1 1 1 2 1 1 1 1
receiver circuitry disposed in the	Upon information and belief, the Apple iPhone 4 has receiver circuitry disposed in the housing.
housing; and	See, e.g., iPhone Teardown, (http://www.ifixit.com/Teardown/iPhone-4-Teardown/3130/2), accessed on May 13, 2011, MOTO-APPLE-0006037953_127192-94 (arrows and labels added):







'987 Patent Claim	Apple iPhone 4
	On the top of logic board.     Skywods SKY776-27.8-Rx IPAC™ FEM for Dual-Band oBMo/RR. 880-9-16 MHz and 1710-1785 MHz Bands OBMO/RR. 880-9-16 MHz and 1710-1785 MHz Skywods SKY7776-10 SMWORPS From End Module     Thillow STM300H Saxis accelerometer     Triclount TOMP7091     338-9026

Exhibit A

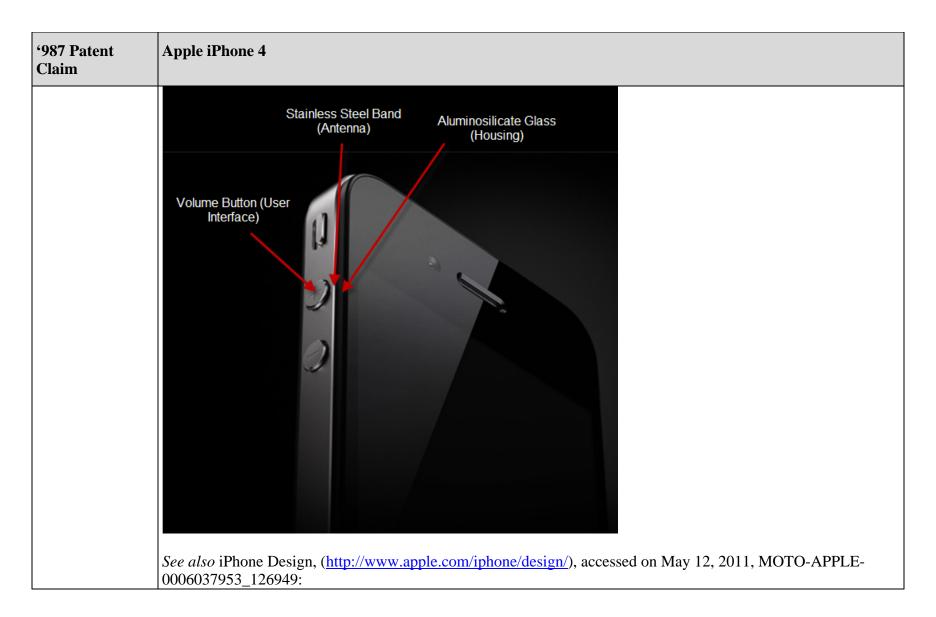
'987 Patent Claim	Apple iPhone 4
	See also iPhone Teardown, ( <a href="http://www.ifixit.com/Teardown/iPhone-4-Teardown/3130/1">http://www.ifixit.com/Teardown/iPhone-4-Teardown/3130/1</a> ), accessed on May 13, 2011, MOTO-APPLE-0006037953_127208 (arrows and labels added):
	View huge Non-conductive Aluminosilicate Glass
	Housing
	Receiver Circuitry
	FEXEG
an antenna coupled to the receiver circuitry;	Upon information and belief, the Apple iPhone 4 contains a cellular antenna and a Wi-Fi and Bluetooth antenna, each of which is coupled to the receiver circuitry. The stainless steel band on the outside of the iPhone 4 is coupled to and is part of both of the iPhone 4 antennas.
	See, e.g., iPhone Design, (http://www.apple.com/iphone/design/), accessed on May 12, 2011, MOTO-APPLE-

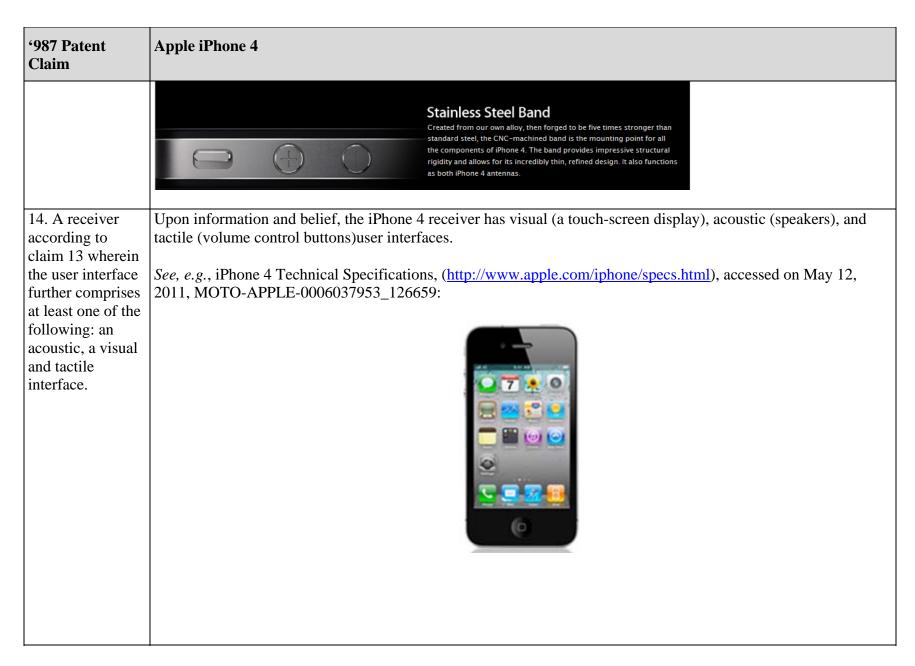


'987 Patent Claim	Apple iPhone 4
	See also Image of iPhone 4 Antenna, (http://fortunebrainstormtech.files.wordpress.com/2010/06/iphone-4-antennas.jpg), accessed on May 13, 2011, MOTO-APPLE-0006037953_127191:  Bluetooth Wi-Fi GPS GSM Image: Apple Inc.
wherein the antenna forms a loop surrounding at least a portion of the user interface and is	Upon information and belief, the antenna in the iPhone 4 forms a loop that surrounds a portion of the user interface. and is disposed between an outside surface of the housing and the at least a portion of the user interface. Specifically, the iPhone 4 stainless steel band (the antenna) forms a loop surrounding the volume buttons, the speaker, and the touch-screen interface (each of which is a user interface).
disposed between an outside surface of the housing and the at least a portion of the user	See, e.g., Image of iPhone 4 Antenna, (http://fortunebrainstormtech.files.wordpress.com/2010/06/iphone-4-antennas.jpg), accessed on May 13, 2011, MOTO-APPLE-0006037953_127191:

'987 Patent Claim	Apple iPhone 4
interface.	Image: Apple Inc.  In addition, the stainless steel band is disposed between the outside surface of the aluminosilicate glass screen (part of the housing that contains the receiver circuitry) and (1) the volume buttons and (2) the speakers (user interfaces).  See also iPhone Design, (http://www.apple.com/iphone/design/), accessed on May 12, 2011, MOTO-APPLE-0006037953_126951 (arrows and labels added):

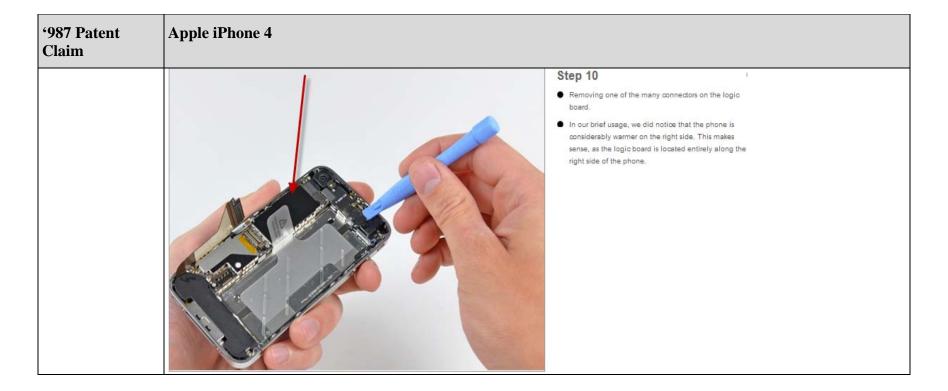
Exhibit A

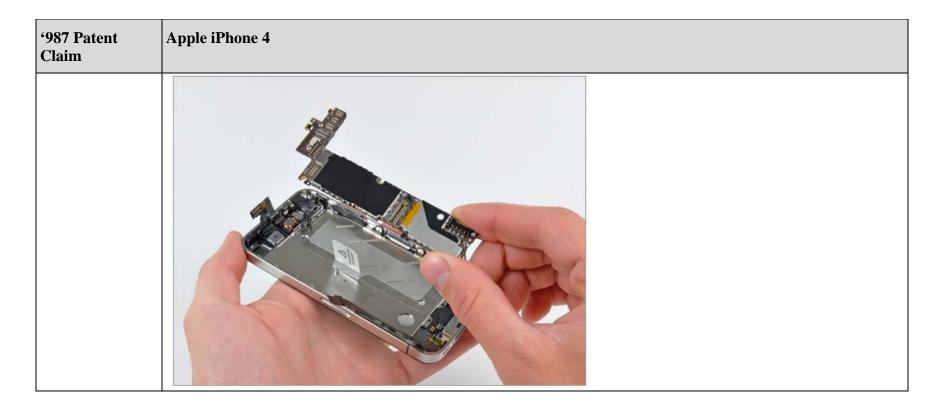


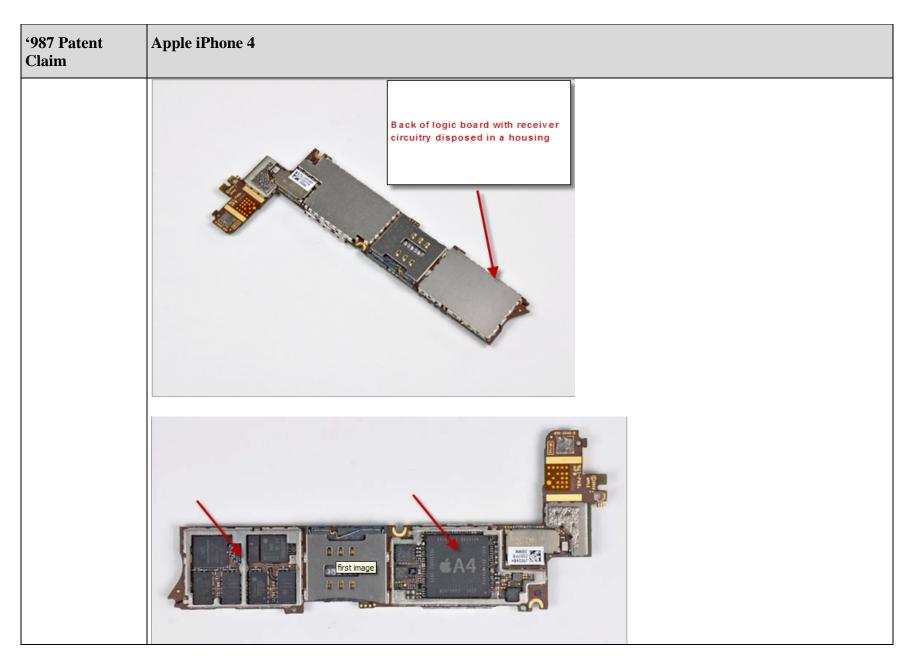


'987 Patent Claim	Apple iPhone 4
	See also iPhone Design, (http://www.apple.com/iphone/design/), accessed on May 12, 2011, MOTO-APPLE-0006037953_126949-50:
	Stainless Steel Band  Created from our own alloy, then forged to be five times stronger than standard steel, the CNC-machined band is the mounting point for all the components of iPhone 4. The band provides impressive structural rigidity and allows for its incredibly thin, refined design. It also functions as both iPhone 4 antennas.
	Mic + Speaker  While most phones have only one microphone, iPhone 4 has two. The main mic, located on the bottom mext to the dock connector, is for phone calls, voice commands, and memos. The second mic, bulti into the top near the headphone jack, is for FaceTime calls and for making your phone calls better it works with the main mic to suppress unwanted and distracting background sounds, such as music and loud conversations. This dual-mic noise suppression helps make every conversation a quiet one.
17. A receiver comprising:	Upon information and belief, Apple imports, manufactures, sells, offers to sell, and uses the Apple iPhone 4, which includes a receiver. For example, the iPhone 4 receives, among other things, telephone calls and text messages.
receiver circuitry;	Upon information and belief, the Apple iPhone 4 has receiver circuitry. For instance, the iPhone contains a logic board containing, among other things:

'987 Patent Claim	Apple iPhone 4
	<ul> <li>On the top of logic board:</li> <li>Skyworks SKY77542 Tx–Rx iPAC™ FEM for Dual-Band GSM/GPRS: 880–915 MHz and 1710–1785</li> <li>MHz bands.</li> </ul>
	<ul> <li>Skyworks SKY77541 GSM/GRPS Front End Module</li> </ul>
	STMicro STM33DH 3-axis accelerometer
	TriQuint TQM676091
	● 338S0626
	See iPhone Teardown, (http://www.ifixit.com/Teardown/iPhone-4-Teardown/3130/2), accessed on May 13, 2011, MOTO-APPLE-0006037953_127192-94 9 (arrows and labels added):







'987 Patent Claim	Apple iPhone 4
a housing substantially	On the top of logic board: Skyworks SKY77542 Tx-Rx IPACT FEM for Dual-Band GSM/GPRS: 880-915 MHz and 1710-1785 MHz bands. Skyworks SKY77541 GSM/GRPS Front End Module STMicro STM33DH 3-axis accelerometer TriQuint TQM676091 33850626  Upon information and belief, the Apple iPhone 4 has a housing, comprised of at least the frame to the inside of the stainless steel band surrounding the iPhone and the non-conductive portion of the aluminosilicate glass screen,
enclosing the receiver circuitry;	substantially enclosing the receiver circuitry.  See, e.g., iPhone Teardown, (http://www.ifixit.com/Teardown/iPhone-4-Teardown/3130/1), accessed on May 13, 2011, MOTO-APPLE-0006037953_127208-10 (arrows and labels added):

Exhibit A

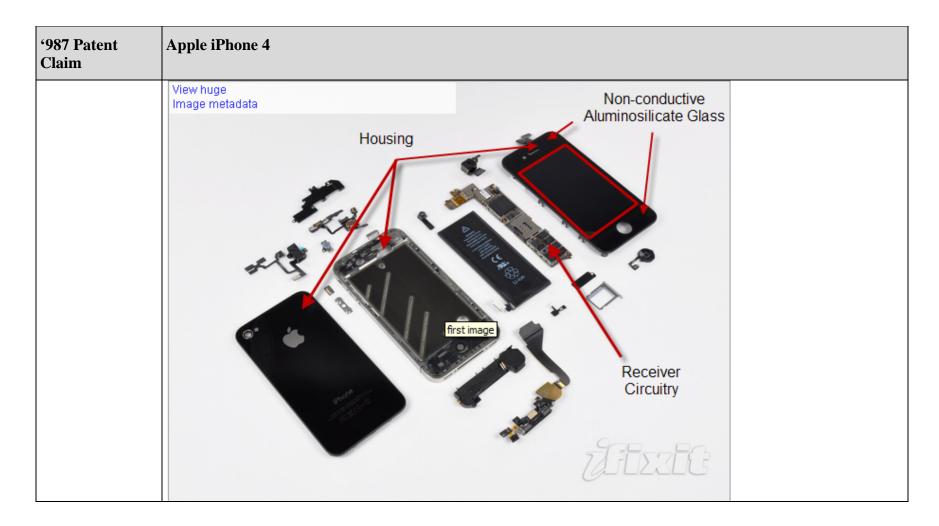
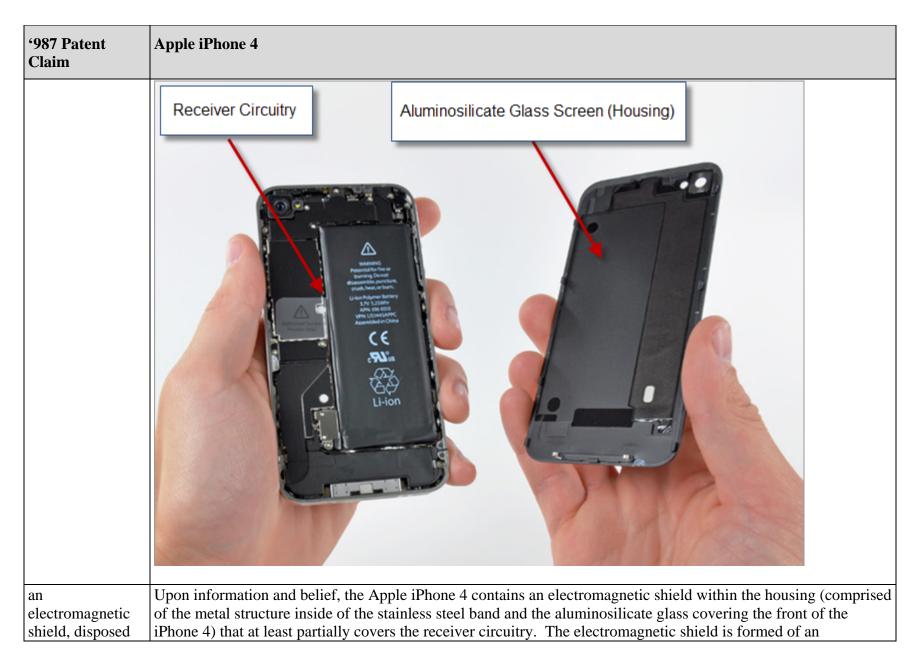


Exhibit A



### '987 Patent Apple iPhone 4 Claim in the housing and electrically conductive, electromagnetic wave-absorbing material for absorbing electromagnetic energy radiated by at least partially or towards the receiver circuitry. covering the receiver circuitry, See, e.g., iPhone Teardown, (http://www.ifixit.com/Teardown/iPhone-4-Teardown/3130/2), accessed on May 13, 2011, MOTO-APPLE-0006037953 127193-94 (arrows, labels, and highlighting added): formed of an electrically conductive, electromagnetic wave-absorbing Back of logic board with receiver material for circuitry absorbing electromagnetic energy radiated by or towards the receiver circuitry;

'987 Patent Claim	Apple iPhone 4
	Step 15  With the EMI shields off, we can get a look at what makes this beast roar.  Lurking deep within the phone, the A4 processor, manufactured by Samsung, is the centralized unit that provides the iPhone 4 with the much needed computing power.  Replacing the Samsung SSPC100 ARM A8 600 MHz CPU used in the 3GS, the new iPhone uses the ARM Cortex A8 core, much like its bigger sibling, the iPad. The IPad's A4 is dioded at 1 Ghz.  The new Samsung Wave S8500 smartphone uses the same Cortex A8 core!  Just to the left of the A4 padage, the AGD1 is the new 3 axis gyroscope that we believe is designed and manufactured by ST Micro for Apple. The padkage maks on this device do not appear to be the currently available commercial part, 13d-4200. The commercial version of this gyroscope is yet to be released — Apple got flist dibs on it.
an antenna coupled to the receiver circuitry, carried on an outside, nonconductive surface of the housing and disposed outside the electromagnetic shield; and	Upon information and belief, both Apple iPhone 4 antennas are coupled to the receiver circuitry, and the stainless steel band portion of the antennas is carried on an outside, nonconductive surface of the housing, including at least the non-conductive portion of the aluminosilicate glass screen  See e.g., iPhone Design, ( <a href="http://www.apple.com/iphone/design/">http://www.apple.com/iphone/design/</a> ), accessed on May 12, 2011, MOTO-APPLE-0006037953_126953 (arrows and labels added):

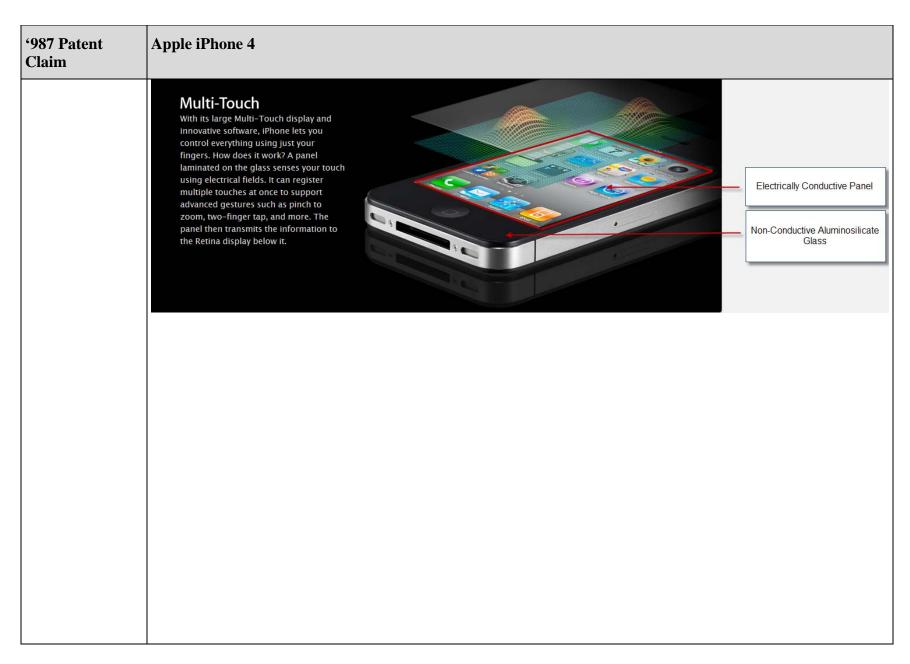
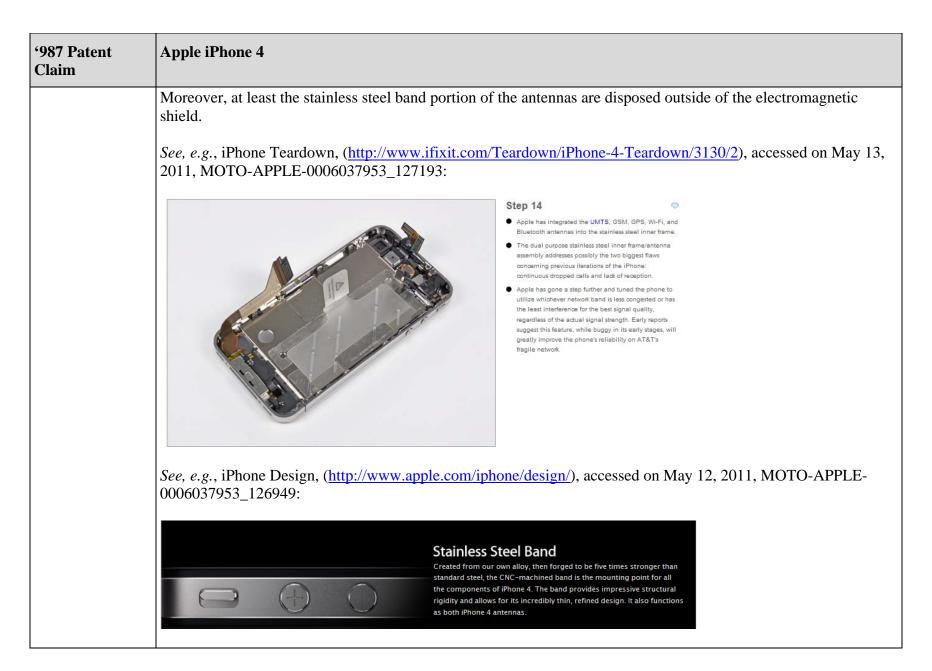


Exhibit A





'987 Patent Claim	Apple iPhone 4
	See, e.g., Image of iPhone 4 Antenna, (http://fortunebrainstormtech.files.wordpress.com/2010/06/iphone-4-antennas.jpg), accessed on May 13, 2011, MOTO-APPLE-0006037953_127191:  Bluetooth Wi-Fi GPS GSM Image: Apple Inc.
a substantially planar and detachable cover, attached to the outside,	Upon information and belief, Apple manufactures, imports, sells, offers to sell, and uses the iPhone 4 "bumper." The iPhone 4 bumper is a substantially planar and detachable cover. The iPhone 4 bumper is designed to be attached to the outside, non-conductive portion of the aluminosilicate glass screen (part of the housing) that covers the front of the iPhone 4.
nonconductive surface of the housing, for concealing the	The iPhone 4 bumper conceals the stainless steel band portion of the antennas between the bumper and the outside, nonconductive surface of the housing (the non-conductive portion of the aluminosilicate glass display) such that the antenna is unnoticeable to a user of the receiver.
antenna between	Apple instructs its customers to attach the iPhone 4 bumper to the outside, nonconductive portion of the

'987 Patent Claim	Apple iPhone 4
the cover and the outside, nonconductive surface of the housing such that the antenna is unnoticeable to a user of the receiver.	aluminosilicate glass display, for concealing the antennas between the bumper and the outside, nonconductive portion of the aluminosilicate glass display.  See, e.g., Apple iPhone Bumper – Pink, ( <a href="http://store.apple.com/us/product/APPLE_IPHONE_BUMPERS-104238?mco=MTM3NjU0NTk">http://store.apple.com/us/product/APPLE_IPHONE_BUMPERS-104238?mco=MTM3NjU0NTk</a> ), accessed on May 9, 2011, MOTO-APPLE-0006037953_127202: "Fits all iPhone 4 models for both AT&T and Verizon." See also id.:  Apple iPhone 4 Bumper - Pink
	The iPhone 4 bumper is designed specifically for the iPhone 4 and will not fit any other phone. <i>See</i> , <i>e.g.</i> , <i>id</i> . "Important note: iPhone 4 Bumpers are compatible only with iPhone 4. They will not work with any other iPhone model." There is no substantial non-infringing use for the iPhone 4 bumper.

'987 Patent Claim	Apple iPhone 4
	See also Antennagate Article, ( <a href="http://www.msnbc.msn.com/id/38263228/ns/technology">http://www.msnbc.msn.com/id/38263228/ns/technology</a> and science-wireless/t/apple-gives-free-bumpers-all-iphone-owners/), accessed on May 12, 2011, MOTO-APPLE-0006037953_126955:

