iSuppli Does Droid Teardown, Finds $187.75 Bill of Materials and Manufacturing Cost

El Segundo, Calif., January 14, 2010—Motorola Inc.'s Droid smart phone carries a $187.75 Bill of Materials (BOM) and manufacturing cost, according to a dissection conducted by iSuppli Corp.'s Teardown Analysis Service.

The Droid contains $179.11 worth of electronic components and costs $8.64 to manufacture, as presented in the attached table. This total comprises only component and manufacturing costs for the Droid and does not take into consideration other expenses such as software and royalties.

This gives the Droid a component cost similar to other comparable smart phones introduced during the past year, including Apple Inc.'s iPhone 3GS and Google's Nexus One.

Can the Droid save the day?

"Motorola has pinned all its hopes on one little Droid," said Andrew Rassweiler, director and principal analyst, teardown services, for iSuppli. "Indeed, the Droid is a critical product for Motorola, which has suffered from dwindling market share and declining market relevancy over the past few years. The last hit phone for Motorola was the RAZR, launched in 2003. Since the introduction of the iPhone in 2007, multiple companies have found some success by offering competing smart phones, including Palm, HTC, Samsung and LG. For Motorola, the Droid represents an attempt to get on the comeback trail with a competitive smart-phone product."

Motorola's share of global cell-phone shipments has been sliding over the past three years. The company accounted for 5.4 percent of worldwide unit shipments in the second quarter of 2009, down from 22.5 percent in the second quarter of 2006.

Motorola's ranking in the global cell-phone business has declined in concert with its falling market share. The company in the third quarter of 2009 held the No.-5 rank worldwide, down from fourth place in the second quarter. As recently as the first quarter of 2007, the company was the world's second largest cell-phone shipper after Nokia.

Droid outdoes?

With the Droid, Motorola has taken its hardware cues from other so-called iPhone killers, including the Palm Pre, the HTC Magic and the LG Voyager. These features include a full slide-out QWERTY keyboard, a high-resolution 5-megapixel camera module, upgradeable memory and a removable battery.

"With the inclusion of all these features, Motorola is attempting to address what it considers to be shortcomings in the iPhone," Rassweiler said. "However, at the end of the day, it's Google's software that will determine how well the device actually operates. This is critical because whatever the perceived shortcomings of the iPhone's features, it's the actual user

experience that has made it so popular. The real lesson of the iPhone is how well the whole device comes together and actually functions, not how many features it has."

Disassembling the Droid

A major differentiating feature between the Droid and the iPhone is the inclusion of a microSD slot for adding additional NAND flash memory to store user data and content, such as apps and video and audio files. The Droid comes bundled with a removable microSD card that contains 16Gbytes of NAND flash memory, the same density embedded inside the high-end model of the iPhone 3G S. At $35, the microSD card is the Droid's most expensive single component.

Looking inside the Droid, the device features a 3.7-inch TFT LCD display with 16 million colors and a resolution of 854 by 480 pixels. At $17.75, this display is the most expensive component integrated within the enclosure of the Droid. The capacitive touch screen/overlay is also a noteworthy component that supports the Droid touchscreen interface, with a cost of $17.50.

The camera module appears to be sporting a new type of auto-focus actuation technology that iSuppli's Teardown Analysis Service has not previously seen, and still has not yet been identified. iSuppli hypothesizes that this may be bimetallic strips that are heat actuated. In contrast, most auto-focus camera modules at this scale feature voice-coil actuation. The Droid module features a 5-megapixel CMOS sensor, and the whole module is priced at $14.25.

The core semiconductor in the Droid is the $14.04 baseband processor/radio frequency chip supplied by Qualcomm Inc. The chip supports the CDMA2000 1x and EV-DO air standards, the Global Positioning System (GPS) and tri-band 800MHz/1900MHz/AWS(1700/2100MHz) frequencies.

Texas Instruments Inc. is the supplier of the Droid's applications processor, priced at $12.90, as well as the Bluetooth/WLAN/FM transmitter and receiver, at $6.50.

Beyond the top cost drivers, one other interesting item in the Droid is the use of two silicon microphones from Knowles, presumably to provide noise cancellation, although no dedicated audio codec was found to support this feature.

About iSuppli's Teardown Analysis service

Why do the world's top technology companies rely on iSuppli for their teardown needs?

Because iSuppli's Teardown Analysis team is the most experienced in the industry and can draw upon a vast library of data and expertise that only a broad-line market-research firm can provide.

iSuppli's Teardown Analysis team leverages the expertise of more than 25 experts in various fields, all of whom have extensive electronics industry backgrounds and far-reaching expertise in equipment and component

analysis, to develop a comprehensive understanding of electronic designs and costs.

iSuppli's team has been conducting teardowns for eight years, but the company’s background in this area goes back much further, with members of our management team having established and participated in teardown programs at another research firm starting in the mid 1990s.

The iSuppli Teardown Analysis service has dissected more than 1,500 electronic products, from mobile phones of every variety, to personal computers, to set-top boxes, to video-game consoles, to high-definition televisions. The team engages in rigorous teardowns that enable a complete identification and accounting of all components that can be classified in electronic equipment.

The teardown team's extensive experience in dissecting electronic equipment allows it to make sophisticated observations regarding product design and component selection based on manufacturer, region of production, design approach and other factors.

Pricing for components found inside of equipment is determined using iSuppli's Component Price Tracker (CPT) service, which provides detailed information on costs for more than 350 components commonly found in electronic equipment, allowing iSuppli to develop highly accurate BOM estimates.

Component prices are subject to significant changes over time due to manufacturing learning-curve processes, as well as inventory and supply-and-demand issues. The CPT provides forecasts and updates of pricing movements that have unparalleled accuracy.

iSuppli's Teardown Analysis team also consults with iSuppli analysts covering various areas of the electronics industry to develop a comprehensive understanding of electronic equipment. iSuppli's analyst team covers every segment of the worldwide electronics industry, offering industry-leading expertise in equipment, components and supply chains.

For more information on iSuppli’s worldwide analysis team, please visit: http://www.isuppli.com/about/experts.asp?view=5