Apple Display Spending Expected to Nearly Double in 2012, Helped by Surging iPad Sales

Aided by expected soaring sales of its upcoming next-generation iPad, Apple Inc. in 2012 is projected to nearly double its spending on displays used in media tablets and smartphones, according to IHS iSuppli Display Materials & Systems Service research from information and analytics provider IHS.

Apple in 2012 is projected to spend an estimated $9.0 billion on display panels used in iPads and iPhones, up 91 percent from $4.7 billion in 2011, as presented in the figure attached. Driving this increase will be a 69 percent surge in Apple's collective media tablet and smartphone shipments this year, along with the use of more expensive display technology, IHS predicts.

This fast growth and massive spending is bolstering Apple's considerable influence in the global display market.

"Apple in 2011 had already established itself as a major purchaser of displays for smart phones and media tablets," said Vinita Jakhanwal, senior manager for small & medium displays at IHS. "However, combined with continuing strong sales growth of the iPhone, the arrival of the new-model iPad will put Apple's display-purchasing growth into overdrive in 2012. Along with the high volumes of expected sales, the use of more advanced technology will boost revenue for the iPad screens, increasing Apple's display expenditures dramatically."

Displays for the iPad

Launched in March 2010, the first iPads were equipped with a 9.7-inch XGA (1,024 by 768 pixels) display featuring 130 pixels per inch. Apple used LCD panels featuring in-plane switching/fringe field switching (IPS/FFS) technology that offered wide viewing angles and consumed less power without compromising the brightness and response time needed in a handheld, multimedia device.

Apple soon followed the iPad with the launch of the iPad 2—thinner and lighter than the first generation product but essentially using the same XGA display. Suppliers for the iPad include LG Display, Samsung Display and Taiwanese-based ChiMei Innolux.

Higher-priced display for next-generation iPad

The upcoming new-generation iPad—which Apple announced will begin shipping in March—presumably will have the same 9.7-inch display size. However, it is likely to use a QXGA (2,048 by 1536) pixel format, which means the panel will have a higher resolution then the iPad and iPad 2, at 260 pixels per inch.

To enable the higher resolution without entailing increased power consumption or sacrificing other display features such as panel brightness, Apple is said to be examining a new LCD display technology from Sharp that uses indium, gallium, zinc and oxide thin-film transistors (IGZO TFT).

Sharp now is working to ramp up the production of IGZO TFT panels at its Gen 8 fab in Kameyama, Japan, but the company is experiencing manufacturing problems that could affect both the availability of displays for a full rollout of the new iPad, as well as the cost of the iPad displays. In addition to Sharp, the panel suppliers for the iPad 3 are believed to be Samsung Display and LG Display.

“Apple is likely to incur a significant price premium for using the higher-resolution display in the new iPad,” Jakhanwal said. “However, manufacturers are expected to grant discounts, especially because Apple, in all likelihood, has made investments in display makers like LG, Sharp and Toshiba Mobile Display. By investing in its partners, Apple not only can mitigate these costs to a degree, but it also can be assured of the availability and quality of the displays.”

Displays for the iPhone

The current Apple iPhone lineup consists of the, 3GS, 4 and 4S. The 3GS—along with the now-discontinued 3G and the first iPhone model introduced in 2007—uses a 3.5-inch, lower-resolution HVGA (480 by 320) pixel display with 163 pixels per inch. The 3G and 3GS were the main volume drivers until mid-2010, when Apple then launched its high- resolution retina QHD (960x540) pixel display with 326 pixels per inch for the iPhone 4 and subsequent 4S models.

More than 80 percent of the iPhone display spend in 2011 went to the high-resolution retina display—up from 62 percent the year before. But even though the retina display is more expensive than its lower-resolution counterpart used in the early iPhone models, Apple was able to leverage its large volume orders and tight relationship with display manufacturers in negotiating price reductions to help contain display expenditures.

Apple’s main suppliers for the iPhone display include Samsung Display, LG Display, Toshiba Mobile Display and Sharp Electronics. In particular, both Toshiba and Sharp are looking at expanding capacity to increase the availability of low-temperature polysilicon liquid crystal display (LTPS LCD) panels that can enable higher resolutions. The two companies are starting production of the panels in their respective fabs—a new sixth-generation facility for Sharp, and a new Gen. 5.5 location for Toshiba Mobile Display.

A new iPhone that could be introduced by August likely will feature a bigger display size of 4.0 inches as well as resolution approaching 320 pixels per inch enabled by an XGA (1024 by 768) pixel format, while continuing to utilize the same LTPS LCD technology now employed by current models.

For more information, please visit www.ihs.com [1].

Posted by Ron M. Seidel, Editorial Intern

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