

## FLAT PANEL DISPLAYS - PHOTONICS NEWSLETTER

September 2007 - Ken Gilleo - [www.ET-Trends.com](http://www.ET-Trends.com)

### MARKET & BUSINESS INFORMATION

**Samsung Top TV-Maker** - Samsung Electronics held onto its lead in the global TV market in Q2-07 thanks to its strength in LCD TV shipments per iSuppli. The South Korean company in managed a 12.4% market share in overall television unit shipments. LG Electronics was next with 11.4%, Philips, with 7.1%, Sanyo, with 6.3% and TCL, with a 5.6% share. China's TCL, the one-time global TV leader, continued to lose market share as shipments slowed following the end of the Lunar New Year shopping season in China. TCL moved to #5 from #3. The overall TV market will expand at only a CAGR of 4% between 2007 and 2011 for shipments, and 5% for revenue. ISuppli forecasts overall global TV shipments will grow to 245.5-million units by 2011, up from 207.5-million units in 2007 and up from 190.9-million units in 2006. The most significant television market development during the coming years will be the demise of the CRT TV that has dominated for over half a decade. Perhaps surprisingly, the CRT still holds 56% today, and will drop to 47% in 2008. Source: iSuppli. *[The CRT was invented in 1987 by Braun of Germany].*

Company	Share
Samsung	12.39%
LG Electronics	11.39%
Philips	7.05%
Sanyo	6.25%
TCL	5.60%
Panasonic (Matsushita)	4.86%
Sony	4.81%
Sharp	4.67%
Others	42.98%

Source: iSuppli, Digitimes, September 2007

**OLED Display Market Grows** - With the release of the highly anticipated AMOLED displays (Active Matrix), this segment continues to develop, experiencing unit shipment growth of 24% Y/Y and hitting 19.8-million units in Q2-07. On a revenue basis, OLEDs achieved \$123-million in Q2-07, up 13% Y/Y, even as prices declined. Over the last year, main display shipments were up 16%, sub-displays up 77%, car audio displays up 35% and industrial displays up 295%. As OLED displays become more prevalent in key small/medium display applications like mobile phone main displays and sub-displays, MP3s and automotive consoles, they become increasingly competitive with LCDs, offering advantages in image quality, viewing angle, form factor, response time and higher contrast ratio. Over the next year, expect revenues to grow by 117% due to the introduction of AMOLED displays for mobile phone main displays and digital cameras plus the added number of suppliers, including TPO, LG.Philips LCD and Casio. Active matrix OLED (AMOLED) displays are beginning to impact the market, as Samsung SDI moves into full production, and Chi Mei and LG begin to ship qualification units. Furthermore, Sony is expected to begin shipping their highly anticipated 11" AMOLED TV display in Q4'07. The top five OLED manufacturers accounted for a combined market share of 85.4%. For the first time in several quarters, there were two new entrants in the PMOLED market, Visionox and Truly, which are both located in China. Next quarter, MED

is expected to begin production of micro-displays and will be the first OLED competitor for eMagin.  
Source: DisplaySearch

Rank	Company	Q2'07 Revenue (US\$M)	Market Share	Q/Q Growth	Y/Y Growth
1	Samsung SDI	33.8	27.4%	30%	50%
2	Pioneer	24.7	20.0%	-2%	62%
3	RiTdisplay	23.0	18.6%	-2%	67%
4	LGE	22.7	18.4%	-7%	-17%
5	TDK	5.6	4.5%	-5%	-29%
	Others	13.6	11.0%	-28%	-40%
	Total	123.4	100.0%	-1%	13%

## NEW PRODUCTS

**Sony Launches OLED TV** - Sony Gulf has revealed a new digital display technology that it claims will revolutionize the flat-screen television market, superseding current market leading technologies such as LCD and plasma. Organic light emitting diode display (OLED) technology enables the production of super-thin, high-resolution displays with a contrast ratio of up to 1,000,000:1. Sony is showcasing an 11-inch commercial prototype display at a recent conference. This is a positive development for Sony. The OLED TV display forms a cornerstone of Sony's long-term high definition (HD) product strategy.



Source: OLED Display/TV News.

**Another OLED TV** - Densitron Europe continues to design and produce monochrome, area color and full color OLED modules. The company offers a wide range of OLEDs with readily available samples. Its product range spans from a small 0.66" monochrome with a resolution of 64x48 through to a 3.12" with a resolution of 256x64.

Many of Densitron's modules are electrically and mechanically compatible to other OLED manufacturers' products. Densitron's OLEDs are supported by user-friendly development kits that simplify prototyping, including a USB based solution to enable engineers to get up and running immediately with their software design. Three new displays will be added to Densitron's OLED range shortly. They include a 2.7" 128x64 yellow module that has two mechanical variants, both using the SSD1325 driver IC, and a 1.54" 128x64 Yellow module using the SSD1305 driver IC. Densitron will continue to expand its OLED offerings in response to demand for the recently discontinued OLEDs by other manufacturers and there are more drop-in replacement products planned for 2008. Source: OLED Display/TV News.



**One More OLED** - Samsung SDI (South Korea) developed an ultrathin OEL panel with a thickness of 0.25 mm and presented it at the International Meeting on Information Display (IMID) in Taegu, Korea. The 4-inch ultrathin OLED prototype panel features a resolution of 480 x 272. The panel can be bent thanks to its slimness, and it was exhibited in a curved condition at Samsung's booth. The prototype panel can reproduce 16,700,000 colors, 100% of the NTSC color gamut, a luminance of 200 cd/m<sup>2</sup>, a contrast ratio of 1,000:1 and a service life of 20,000 hours. The company exhibited the 50-micron thick glass substrate beside the panel together with a photographic film to underscore the slimness of the substrate. Source: OLED Display/TV News.



**Tiny Short Path MOEMS-Powered Projector** - Toshiba's Digital Products Division announced the latest premier DLP® BrilliantColor™ mobile projector with "extreme short projection capabilities for greater luminance and larger images from a shorter distance. The TDP-EX20U projector features Windows Vista® networking capabilities, integrated wireless1 functionality for quick set-up and sequential presentations, as well as remote network management and extensive multimedia connectivity. The compact projector is designed for education, mobile professionals, corporate customers, small-to-medium sized



businesses, consumers and Pro AV installation. The TDP-EX20U projects fine text and images with an impressive 2,300 ANSI lumens and utilizes up to six separate colors: red, blue, green, cyan, yellow and magenta for a wider variety of accurate, vibrant colors that won't fade over time. It has a 50% increase in the brightness of colors and a contrast ratio of 2000:1. It also has a built-in IEEE 802.11g wireless functionality for easy connect to wireless notebooks to the projector from anywhere in the room and deliver sequential presentations without the need for cables. The unit integrates data, video and audio features necessary for high-end multimedia presentations. The projector comes packaged in a sleek, high-tech casing with multiple computer inputs (two RGB 15-pin), two video inputs for composite and S-video, two components (shared with computer inputs), one-watt stereo speaker, type A USB port and both wired and wireless connectivity options. Other features unique to the TDP-EX20U include variable audio out, digital zoom and auto set, which allows users to automatically synchronize the settings between their PCs and the projector. Source: eMediaWire.

**TI is Closer to 3-D Home Movies** - Texas Instruments announced its new 3-D DLP technology aimed directly at home theater use. DLP-core technology (MOEMS) is able to provide stereoscopic 3-D capability for HDTVs currently on the market. The extremely fast response and refresh rate of the DLP chip allows the addition of third dimension capability. TI was one of the first out with full high-definition 1080p, the first with high color LED. TI expects to be first with a true no-compromise 3-D HDTV experience for the home; 3-D HDTV viewing is going to further drive interest in big-screen home entertainment. Both Samsung and Mitsubishi have developed 3-D Ready HDTV models that create a stereo 3-D picture when connected to compatible HDMI/DVI

sources. Active Glasses are required to view the 3-D content created by the DLP technology. In addition to 3-D films, the DLP technology is also being developed for video games and live sports events. Samsung's HL-T6189S 61-inch LED engine widescreen DLP HDTV is one of its DLP 3D-ready and features a 10,000:1 contrast ratio, cinema smooth light engine, and Samsung's DNIe image processor. Pricing and availability information on the Samsung TV isn't available at this time.



Source: DailyTech.