

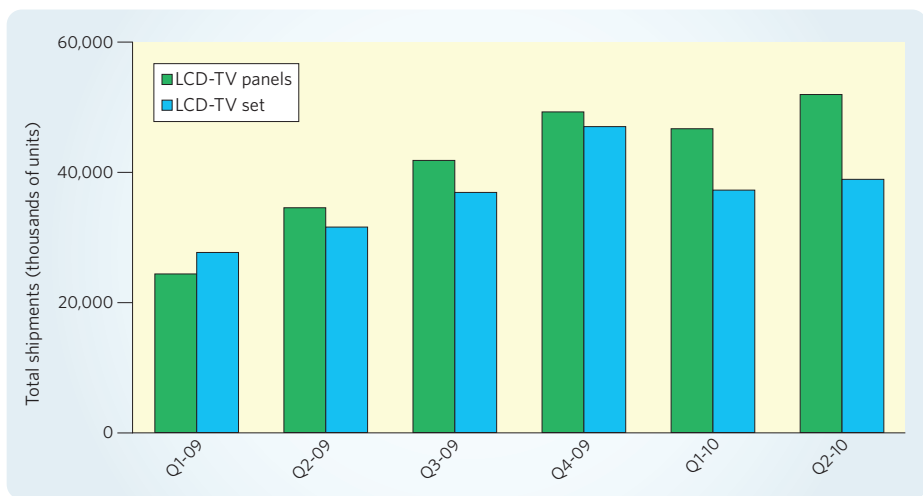
# LCD manufacturers face price crisis

After months of price cuts, manufacturers of large-size liquid-crystal displays (LCDs) are under pressure to reduce panel prices further, following a major build-up of inventory. A recent report from US business analyst iSuppli revealed that the second quarter of 2010 saw the manufacture of 52 million large (ten inches and above) LCD television panel shipments, but the sale of only 38.7 million LCD television sets. The resulting imbalance between supply and demand is having a strong impact on the sector.

“This gap is higher than anything seen in 2009. Over-supply persisted in the first two months of the third quarter as buyers cut orders in July and August,” says iSuppli analyst Sweta Dash. “LCD television brands are expected to lower prices more aggressively to reduce their inventory levels, thus putting mounting pressure on panel suppliers to reduce prices further.”

Dash points out that manufacturers of monitor and notebook panels have been reducing supply to mitigate excessive inventory levels, and that panel prices are now stabilizing as a result. In contrast, high depreciation costs at relatively new LCD television panel fabrication plants mean suppliers have been less willing to reduce production.

However, Dash predicts that the potentially strong sales of LCD television sets in China could reduce inventory levels



An imbalance between supply and demand is causing prices to decline in the large-panel LCD industry.

and help to steady panel prices by the end of the fourth quarter of 2010.

At the same time, rapidly rising sales of smart phones and tablet PCs are predicted to see the global market for small- and medium-size thin-film transistor (TFT) LCDs expanding at its fastest pace for three years. According to analyst Vinita Jakhanwal, also from iSuppli, global shipments of TFT LCD panels are set to rise by 28.1% in 2010, from 1.8 billion to 2.3 billion units.

“Sales of smart phones and tablets are booming thanks to the

iPhone, iPad and other competing products,” explains Jakhanwal. “Smart phone manufacturers are now adopting TFT LCDs that use in-plane switching technology, which supports a wider viewing angle and better picture quality than a conventional LCD.” But the fast-paced market expansion probably won’t last, predicts Jakhanwal. “Growth in TFT LCD shipments will slow in 2011 and beyond as the expansion of smart phone and tablet markets cools to more normal levels.”

## Smart phones speed AMOLED take-up

The adoption of touch-screen technology in the mobile phone industry is fuelling the demand for active-matrix organic light-emitting diode (AMOLED) displays, reports US market research firm DisplaySearch. AMOLED displays have been the only technology in the mobile phone display market to increase revenues every quarter this year, as both unit shipments and average prices have risen. “With an average worldwide market penetration of mobile phones at 70%, manufacturers are eager to introduce new features such as touch-screens to ensure continued growth this year,” says Calvin Hsieh, research director at DisplaySearch. “The success that AMOLED displays are finding in high-end smart phones reflects these trends.”

AMOLED technology rose in popularity after its integration into mobile phones manufactured by Samsung and HTC. In the first quarter of 2010, the average screen size for an AMOLED display exceeded three inches, which is larger than that of competing TFT LCDs. Taiwan-based display manufacturers AUO and Chimei Innolux are scheduled to start mass-producing AMOLED displays in 2011. Hsieh believes AMOLED technology will now see increased year-on-year growth, although TFT LCDs will still ship more units.

## Nanosys unveils Korean facility

US-based quantum-dot and materials developer Nanosys has opened a new facility in Gyeonggi-do, Korea, to support its recent expansion into the Asian

market. Led by former LG Electronics vice president Jong-Uk Bu, Nanosys Korea will develop ‘architected materials’ for Asian electronics manufacturers, including high-performance LED backlights for displays and silicon composite anode materials for use in lithium-ion batteries. Earlier this year, Nanosys unveiled QuantumRail, quantum-dot-based LED backlighting units that improve LED backlit display colour gamut and efficiency. Nanosys says that its quantum dot LED technology makes it possible to deliver saturated red, green and blue colours that exceed the NTSC 1953 guidelines for displays. This latest announcement follows collaborations with Korea-based electronics manufacturers LG Innotek and Samsung Electronics to develop display products based on quantum-dot crystals.