

Hitachi, Toshiba and Matsushita Join for TV LCD Panels

August 31 2004

Hitachi, Ltd., ("Hitachi"), Toshiba Corporation ("Toshiba") and Matsushita Electric Industrial Co., Ltd., ("Matsushita") today reached a basic agreement to **jointly establish a company (the "JV") to manufacture and sell [LCD](#) panels for flat-panel TVs**. Plans call for the joint venture to commence operations in January 2005.

The JV will build an amorphous TFT LCD panel production line at the Mobarra facility of Hitachi Displays, Ltd. ("Hitachi Displays"), Hitachi's wholly owned subsidiary. Scheduled to begin mass production in the second quarter of the year ending March 31, 2007 (fiscal 2006), the JV will expand production capacity in stages, ultimately reaching the equivalent of 2.5 million 32-inch TV LCD panels a year by the second half of fiscal 2008. The expected capital investment for establishing this facility is 110.0 billion yen. While Hitachi Displays, Toshiba and Matsushita own majority shares, the JV plans to solicit investments from other companies involved in the manufacture of LCD panels, including device makers and material suppliers.

Sales are growing for flat-panel TVs, which combine a high-quality picture and large screen with a space-saving profile. Worldwide demand for LCD TVs was approximately 3.0 million units in 2003 and is estimated to expand fivefold by 2006. Furthermore, in order to meet increasing consumer demand for high-definition picture quality, TV manufacturers targeting the high-end market segment seek to differentiate their products not just with proprietary image processing technologies, but also by using LCD panels with outstanding picture

quality. Reflecting this, mergers and acquisitions and strategic alliances in the LCD panel field, along with other developments in the industry, are resulting in fierce competition worldwide, fueling a growing need for TV manufacturers to ensure a stable supply of high-quality panels at low prices.

Against this backdrop, Hitachi, Toshiba and Matsushita have decided to establish a JV to manufacture LCD panels using Hitachi Displays' world-leading IPS(a) mode system technology. Boasting a wide viewing angle and outstanding color reproduction, these panels bring out the best in high-resolution content, such as digital TV broadcasts. The JV will provide the three companies with a reliable supply of LCD panels that are ideal for TVs and that will bolster the competitiveness of their respective LCD TV businesses in the high-end market. The JV, with Hitachi, Toshiba and Matsushita as its major customers, will operate a stable, capital-efficient production line, mass producing IPS-mode LCD panels, which provide outstanding picture quality at lower cost. Close collaboration with the JV is expected to achieve synergies in Hitachi, Toshiba and Matsushita's respective production of finished products, allowing them to achieve LCD TVs that are even more competitive in terms of performance and price.

(a) IPS Mode System Technology

In-Plane-Switching (IPS) mode system, is a type of TFT LCD display technology. IPS is distinguished by a wide 170-degree viewing angle, both horizontally and vertically, along with minimal gray-scale inversion and viewing-angle dependency, reproducing lifelike images, which is made possible because the liquid crystal molecules can rotate while remaining parallel to the substrate when a voltage is applied, yielding perfect orientation of the crystals. The advanced super(AS) -IPS mode system for use in televisions, large-screen monitors and other applications achieves an approximate 30% improvement in the aperture

ratio over conventional IPS technology. Furthermore, AS-IPS realizes a higher level of brightness and reproduces colors more realistically thanks to high-purity color filters and other proprietary technologies.

Outline of the JV

Company name: To be announced

Management: To be announced

Projected capital: 60-70 billion yen

Ownership: Hitachi Displays 30-35 billion yen (50%);
Toshiba 15 billion yen (21-25%); Matsushita 15
billion yen (21-25%); other companies 0-5 billion
yen (0-8% projected)

Location: Mobara, Chiba Prefecture, Japan

Business: Manufacture, design, sales and related maintenance
and services of amorphous TFT LCD panels

Capital

investment: Approx. 110 billion yen

Products: Amorphous TFT LCD panels for TVs 23-inches and
above

Production

capacity: Equivalent of 2.5 million 32-inch units per year
(Maximum output scheduled to be realized in second
half of fiscal 2008)

Citation: Hitachi, Toshiba and Matsushita Join for TV LCD Panels (2004, August 31) retrieved 25 June 2024 from <https://phys.org/news/2004-08-hitachi-toshiba-matsushita-tv-lcd.html>

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