

# Panasonic unveils world's largest plasma television

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Japanese electronics titan Panasonic unveiled the world's largest plasma television Monday at the opening of the world's biggest consumer electronics trade show.

Panasonic announced that the company has developed three prototype plasma display panels (PDPs) using ground-breaking technologies. The prototypes include a 42-inch panel with double efficiency technology that halves energy consumption while maintaining the same brightness, a less than one-inch super-thin 50-inch PDP and the world's largest 150-inch advanced high definition (HD) PDP. The three prototypes are

on display at the 2008 International Consumer Electronics Show (CES) that starts on January 7 in Las Vegas.

At the core of these cutting edge PDP's lies the double efficiency technology used in the 42-inch prototype. After thoroughly reviewing its existing IC technology and panel structures, Panasonic developed new phosphors and cell design technology for improved discharge and new circuit and drive technology to significantly reduce power loss. As a result, the 42-inch prototype has twice the luminance efficiency and provides the same brightness as the existing 42-inch 1080p full HD PDP, while cutting the power consumption by half.

The double-efficiency technology forms the base for next-generation PDPs, enabling even thinner profiles, larger screens, brighter images, higher definition and lower power consumption. The revolutionary technology promises to open up new possibilities for PDPs. Higher density HD PDP's that can be used as master monitors for movie studios will become possible through this innovative technology.

The 24.7mm (less than one inch) super-thin 50-inch Plasma TV, for example, is about one-fourth as thin as previous plasma TVs thanks to the new circuit and drive technology. It weighs only 22 kg, about half the weight of previous models. This thinner profile and lighter weight give users more setup flexibility in the living room, while also making the unit an elegant addition to the room décor.

Furthermore, using the wireless transmission system that Panasonic developed recently based on "Wireless HD" standard, it will allow users to enjoy HD contents on the TV with more flexible layout and no wire installation. It can be hung on the wall or suspended from the ceiling according to user's viewing preference.

As a leader in large-screen PDPs, Panasonic took a huge leap in making

them even larger. The 150-inch PDP delivers dynamic, overwhelming image quality with an 8.84 million pixel resolution (2,160 x 4,096) —more than four times the 1080p HD specification (1,080 x 1,920). The prototype has a screen size equivalent to nine 50-inch PDPs with an effective viewing area of 11 ft (3.31 m) (W) x 6 1/4 ft (1.87 m) (H). With the enhanced PDP technologies Panasonic accumulated in the development of its 103-inch PDP, the 150-inch PDP provides stable and uniform images across the vast expanse of the screen and the same brightness as the 103-inch PDP. Featuring true-to-life color reproduction capability and quick response to moving images, the ultra-large PDP renders clear, crisp, spectacular images unrivaled by any other.

As the 103-inch PDP has been welcomed by industry for use in commercial and public facilities and consumers for family entertainment, the 150-inch plasma is expected to generate new demand from various fields.

These innovations may prove to be only the tip of the iceberg of Plasma's potential. PDP is a relatively young technology as it has only been about ten years since the Plasma TV appeared on the market. In tandem with the market's growth, the Plasma TV has steadily improved in quality, gained popularity and become a leader in the global market for high-quality, large-screen TVs. Over the course of their development PDPs have established their reputation as displays that excel in high-contrast, color reproduction, moving picture resolution<sup>2</sup>) and wide viewing angles. However room for improvement remains as the PDP's full potential is still yet to be realized.

In the future, high definition will become the norm in broadcasting and video recording such as Blu-ray Disc recorder/players. There will be progress in wireless and other peripheral technologies and more convergence is expected to take place between TV and communications technologies. Along with these developments, demand for larger and

higher-definition flat-panel TVs will be accelerated. At the same time, industrial applications of PDPs will be expanded further in such areas as the medical, educational and public fields.

Panasonic continues to explore new technologies to open up a new area for Plasma TVs as the company responds to customer demands across the world. While seeking to raise the quality bar in products, the company continues to pursue greener products. When it comes to TVs, Panasonic has become the first company to completely eliminate lead from PDPs. Its Plasma TVs have a long life of 100,000 hours and natural materials are used in the speakers such as bamboo fiber diaphragms.

Source: Panasonic

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