

Panasonic Develops World's First 3D Full HD Plasma Theater System

September 24 2008

Panasonic has developed the world's first 3D full HD Plasma Theater System, which enables the viewing of true-to-life 3D images by using a 103-inch plasma television and a Blu-ray Disc (BD) player, distributing full high-definition (HD) (1920 x 1080 pixels) images to left eye and right eye. Panasonic will present this system at CEATEC JAPAN 2008, which is due to be held at Makuhari Messe from September 30 to October 4, 2008.

Human beings feel the 3D impression because each of the left and right eyes recognizes different images. Panasonic's system comprises a 103-inch plasma television and a BD player that plays back BD onto which 3D images, consisting of left- and right-sided 1080p full HD images, are recorded.

By wearing active shutter glasses that work in synchronization with the plasma television, the viewer is able to experience 3D images formed with twice the volume of information as regular full HD images, and enjoy them together with high quality surround sound. This system enables full HD signal processing on each of the left and right images in every process -- recording, playback and display.

Previous consumer 3D display systems have encountered many different problems, including reduced vertical resolution caused by a 3D display method that divides the scanning lines between the left and right eyes, and picture quality degradation caused by pixel skipping that results from the squeezing of two (left and right) screens' worth of full HD

images into one screen's worth of data capacity for image storage and transmission. Until now, there has not been a system capable of displaying the equivalent quality to original master of Hollywood 3D movies.

Panasonic has developed the following technologies for realizing the new system.

1. Plasma display: The performance of Panasonic's plasma panels, whose self-illumination allows for excellent video response, has been brought out to the fullest extent in the development of a 3D driving system that displays the left and right images together as full HD images.

2. BD: Using the optical disc technology cultivated by Panasonic over many years, and the authoring technology developed by Panasonic Hollywood Laboratory (PHL), it has been possible to record 3D images -- consisting of respective left and right 1080p full HD images -- onto a single, standard BD.

3. BD player: Panasonic has developed a technology to decode and play back the left and right full HD image data recorded to the BD in real time.

4. 3D images: Panasonic has produced 3D contents that allow the viewers to experience fascinating 3D images, including dynamic images of athletes at the Olympic Games, and animated movies by Hollywood. These contents will be shown in a special theater set up in the Panasonic booth CEATEC JAPAN 2008.

Panasonic will work to promote the 3D system by standardization of 3D format at Blu-ray Disc Association (BDA), with the cooperation of the Hollywood studios and consumer electric companies which are members of BDA.

Provided by Panasonic

Citation: Panasonic Develops World's First 3D Full HD Plasma Theater System (2008, September 24) retrieved 5 February 2023 from <https://phys.org/news/2008-09-panasonic-world-3d-full-hd.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.