Lumileds, Sony Develop Groundbreaking LED Backlight Technology

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Lumileds Lighting announced today that its high-power Luxeon(R) LEDs are illuminating the world's first LED backlight for LCD home televisions. The Luxeon lit system delivers the most vivid colors ever seen on a television--expanding the gamut of reproducible hues by as much as 45 percent--offering realism never before possible with conventional technologies.

The Luxeon light source is integrated in Sony's 40" and 46" QUALIA series televisions. This light source was jointly developed and optimized for Sony's television application.

"Sony's QUALIA 005 and the Triluminos backlight are the latest examples of never before possible applications enabled by Luxeon," said Menko de Roos, Executive Vice President of New Business Development at Lumileds. "Consumer expectations will forever be

changed by Sony's implementation of Luxeon LEDs and the on-screen performance that viewers are treated to. We are pleased to have worked with Sony on this groundbreaking technology."

Wider Color Gamut - More Control - Better Performance

The unique color attributes of Luxeon LEDs enable significantly improved performance and expand the achievable color gamut. The display system in the QUALIA 005 televisions delivers a color gamut that is 105% of the NTSC color space. By comparison, conventional technologies can only reproduce 65-75% of the NTSC color space. There are significantly more hues and tones available in a wider color gamut allowing for finer and more exact color definition. For the viewer, this means that on-screen color is virtually lifelike. Everything from skin tones to foliage to the sky appear true to our visual senses. No conventionally lit displays or televisions can offer similar performance.

Additionally, Luxeon significantly improves both sRGB and Adobe(R) RGB color performance. QUALIA 005 is measured at 150% of sRGB. Luxeon can also be used to match Adobe RGB color space ensuring that on-screen representation matches printed output.

The use of Luxeon also allows for full control of the backlight system so that the white-point, color and brightness can be optimized for every application. The settings for movies, electronic games, photo images and home video can be controlled and customized for optimum viewing effect.

Jointly Developed Light Source

Lumileds' provided the Luxeon reference design, prototypes and its

knowledge-base in solid-state light sources for backlight applications. Sony provided its experience in quality television designs and systems engineering to ensure that the final product offered the ultimate quality and experience for users. The Triluminos(TM) backlight, developed in months, takes full advantage of the high-power Luxeon LEDs and the nature of solid-state technology.

Environmentally Friendly

Luxeon LEDs are mercury free making them much safer for the environment. Because the lifetime of the backlight system is significantly extended, less waste material will be produced. Additionally, there is no UV radiation in the light from Luxeon nor is there any forward heat. This allows for greater flexibility in system design and a wider variety of applications.

Visit Lumileds at Ceatec, Japan October 5-9, stand 8D15 to learn more about Lumileds Luxeon technology and its applications.

About Luxeon LEDs

Luxeon LEDs are the world's brightest LEDs and have enabled a wide variety of new applications in the display, automotive, camera phone and general lighting markets. Luxeon LEDs offer up to 120 lumens of directed light and industry leading lumen maintenance. Luxeon are more rugged and energy efficient than conventional light sources as well as digitally controllable so that they can be infinitely dimmed and tuned for absolute color and white point control.

For additional information about Luxeon LEDs and their use in backlight systems for displays and televisions, please visit our web site http: //www.lumileds.com/televisions.

Source: Lumileds