
LED BACKLIGHTING

Wednesday, May 23 / 5:10 – 6:10 pm / Room 104A

Chair:

Masaru Suzuki, *Eastman Kodak Co., Tokyo, Japan*

Co-Chair:

Kalil Käläntär, *Nippon Leiz Corp., Tokyo, Japan*

33.1: Invited Paper: Wide-Color-Gamut Backlight with RGB LEDs for LCD TV (5:10)

K. Kakinuma
Sony Corp., Tokyo, Japan

The world's first TV product, which employs an RGB LED backlight, has been commercialized. This backlight provides color-reproduction capability as wide as 105% of NTSC color space and 150% of a conventional television system. The method of achieving wide color gamut along with the means of achieving luminance and color-point uniformity will be discussed.

33.2: New Back Reflector and Front Film for Improved Efficiency of Direct-Lit LED Backlights for LCD TV (5:30)

J. Anderson, C. Schardt, J. Yang, B. Koehler, B. Ostlie,
P. Watson, K. Ingham, S. Kienitz, A. Ouder Kirk
3M Co., Saint Paul, MN, U.S.A.

Two new films based on 3M multilayer film technology that can result in improved efficiency in LED backlights for LCD TV have been developed. When used together, the films decrease off-axis color shift and increase axial luminance by up to 15%, allowing for reduction in the number of LEDs and, therefore, system cost.

33.3L: Late-News Paper: Off-Centric Round LCD Backlight for Automotive/Avionics Instruments (5:50)

K. Käläntär
Nippon Leiz Corp., Tokyo, Japan

The backlight's light-guide plate (LGP) has a circular shape with off-centrally designed light-extraction microstructures. Additionally, its LGP has a prismatic light introduction surface at the circumference. The backlight has a thickness of 1 mm and uses a single 0.6-mm LED.

AUTHOR INTERVIEWS**(6:30–7:30)**