

## **[PS-18]**

# **Recent Research and Development on 71 & 76 inch Diagonal Color Plasma Display Panels in LG Electronics**

Kwang-Yeol Choi, Eun-Ho Yoo and Jae-Hwa Ryu\*

Digital Display Research Laboratory, LG Electronics Inc., Seoul, Korea

\*Digital PDP Division, Digital Display and Media Company, LG Electronics Inc., Kumi, Korea

World first 71 inch and 76 inch diagonal AC PDP with full high definition resolution (1,920 X 1,080) has been developed using high efficient barrier rib structure and improved uniform exposing technology for patterning of electrodes

Fishbone type barrier rib, which has horizontal rib for high luminance and luminous efficiency by increasing phosphor area has been used.

For manufacturing of large size panel over 70 inch diagonal, technology improvements of UV exposing, green sheet laminating and screen printing process were needed. To coat the uniform transparent dielectric layer, the green sheet method was applied instead of screen printing method. To reduce process steps and get high alignment accuracy between bus and black matrix layers, new process (CPBB, Co-Processed Bus and Black matrix) was developed.

To reduce the duration time for address period, we investigated the various parameters of PDP cell such as transparent electrode shape, bus electrode position in the cell, data electrode width and MgO material etc.

71 inch and 76 inch AC PDP has high luminance of 800 cd/m<sup>2</sup> and dark room contrast ratio of 1,200:1.