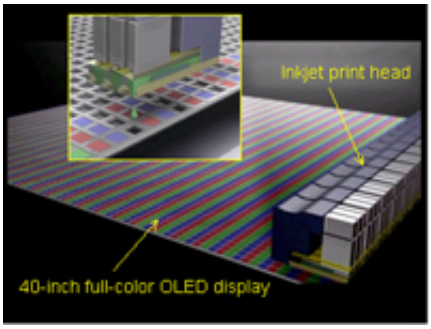
Epson Creates World's First 40-inch OLED Display Using Original Inkjet Technology

May 19 2004



Seiko Epson Corporation announced that it has used its original inkjet printing technology to successfully develop the world's first large-screen (40-inch) full-color organic light-emitting diode (OLED) display prototype.

Self-luminescent OLED displays, which offer outstanding viewing characteristics, including high contrast, wide viewing angle, and fast response times, are widely seen as the leading candidate for the next generation of thin, lightweight displays. One of the major obstacles to their realization, however, has been the perceived difficulty of forming organic layers on large-sized TFT (thin film transistor) substrates. Thus the question of when fabrication processes for large-sized OLED flat panel displays would become technically feasible had been anyone's guess.

Epson has been actively working to develop and commercialize next-generation OLED displays. The company, long a leader in inkjet printers, has developed an original inkjet process for depositing organic layers on large-size TFT substrates. Using this adapted inkjet technology to form organic layers on large-size substrates in a simple process, Epson has now developed the world's largest (40-inch diagonal) full-color OLED display prototype.

By establishing an OLED display manufacturing system and process that can handle oversized substrates, Epson has beaten a path to large-size OLED displays, as well as to lower cost small- and medium-sized panels cut from larger TFT substrates.

Epson believes that the characteristics of OLED displays make them the ideal device for entertainment applications, whether in equipment for the road or living room. The company is thus gearing up towards commercialization in 2007.