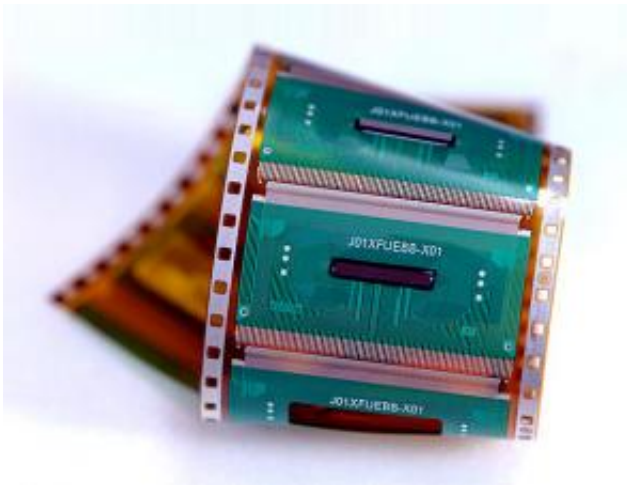


Samsung Improves Heat Dissipation in LCD TVs with New DDI Package

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Samsung Electronics announced that it has developed the industry's first thermally-enhanced chip-on-film (TECOF) package for the display driver IC (DDI) used in large-screen, high-resolution LCD TVs. The new DDI package improves thermal heat dissipation by 20 percent over a conventional COF package, allowing the DDI to last longer and operate with greater reliability.

Demand for LCD TVs is surging with increased accessibility to digital broadcasting. At the same time, rapidly improving LCD TV performance has sparked explosive demand for full-high-definition

models with a screen size of forty inches or larger.

A typical DDI requires at least 15 volts of power to drive these larger, higher-resolution LCD TV panels that operate on broader frequency spectrums to reproduce high-speed video images. As a result, the DDI generates greater heat, which can create reliability problems.

Samsung has developed a new material for the thin metal tape component that has the optimal properties for effectively maximizing heat dissipation. The company has also developed a new automated process for attaching the metal tape to the COF package. By applying Samsung's new TECOF package, the thermal emissions from the DDI are quickly released via the metal tape, minimizing heat buildup.

In addition, heat build-up limits the number of channels a single DDI chip can cover, creating an obstacle to reducing the total number of DDI per panel. With the new TECOF package, the number of source DDIs for a full-HD LCD TV is reduced from fourteen 414 channel-DDIs to eight 720 channel-DDIs.

“ Package technology has become an important element, along with circuit design, in the development of DDIs for large-screen LCD TVs.” Said Sa yoon Kang, vice president for Samsung's System LSI Division. “With the development of TECOF package, we propose the new standard for DDI product and solidify our global leadership position in developing display driver ICs for the LCD market .”

Samsung has completed reliability testing of the new TECOF package and expects to ship its DDI product with the new TECOF package technology in the 2 nd quarter of 2007. Samsung has maintained the top share of the global DDI market for the past five years.

Source: Samsung

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