

Epson Develops All-in-One LCD with Integrated Touch Panel and Cover

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Epson Imaging Devices Corporation today announced the development of an all-in-one liquid-crystal display with an integrated cover (tempered glass or acrylic) and touch panel (resistive or capacitive). This new LCD takes advantage of the company's Photo Fine Vistarich wide viewing angle technology, which enables it to produce beautiful images even when viewed from 90 degrees from the top, bottom, left, or right.

The fusion of telecommunications and broadcasting through digitization and the seamless integration of cable and mobile communication in the network society have raised expectations for the next generation of mobile devices. Consumers hope that these devices will bring more convenience, richer content, and more widespread service coverage. With mobile devices becoming more complex as a consequence of their enhanced functionality and increased diversity, there is growing demand

for more user-friendly interfaces that are easier to control and handle. At the same time, the functionality of mobile devices needs to be improved to match technological advances, and creating new added value will require novel designs not found in existing products.

Mobile devices equipped with touch panels are expected to become more common as manufacturers strive to meet these needs. Yet the structure of current touch-panel-equipped modules fails to harness the true potential of liquid-crystal displays. The challenges of making screens bigger and frames narrower, improving visibility in natural sunlight, and incorporating input functions while keeping screens thin have proved especially hard to overcome.

To address this situation, Epson has developed all-in-one LCDs in which the liquid-crystal panel, cover, and touch panel are combined without an air gap, thus preventing the loss of brightness and contrast that occurs when covers and touch panels are attached to LCDs with air in between. Thanks to their composite structure, the newly developed displays enable improved visibility and greater strength in a slimmer, more compact design.

Epson intends to combine these all-in-one touch-panel LCDs with the company's proprietary Photo Fine Vistarich wide viewing angle technology to produce high-resolution displays for use in in-car systems, such as satellite navigation, and in digital cameras and advanced mobile phones with built-in digital TV receivers. The company also plans to open up new fields of application for this product.

Epson will exhibit these liquid-crystal displays at the Epson Group booth at FPD International 2007, which will be held from October 24 to 26 at Pacifico Yokohama, Japan.

Source: Epson

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