

Display controller for mobile machinery with CAN

At the Bauma 2019 fair, Liebherr presents its latest generation of display controllers. In addition to a high-resolution display, the customizable DC5 with touchscreen can be used as programmable input device.

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DC5-family as platform for a customer-specific display (Photo: Liebherr)

The company's fifth generation display controller is based on a i.MX6 processor and a Linux/Yocto software environment. The DC5 provides the driver's cab with visual comfort as well as high computing power, said the company. Rated up to IP6K5, the display controllers are suited to the demanding operational conditions of mobile machinery – from construction machinery and agricultural machinery to material-handling machines.

The portfolio comprises 7-inch, 9-inch, and 12-inch variants. High resolution screens of up to 1280 pixels x 800 pixels ensure detailed display content for the operator. Various interfaces, such as CAN allow for integration. A built-in speaker can provide the driver with audio data, such as beeps. Even under extreme temperatures from -30 °C up to +70 °C the display controller is operational.

These solutions provide a basis for customer-specific developments. That allows cost-effective and rapid adaptation in accordance with the requirements of the application, said the company. The customer can configure various parameters, such as design, display size and quality, computing power, or interfaces. Due to this individualization, the OEM (original equipment manufacturer) can meet the specific requirements of their machine and get the most of their user interface.

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DC5 can be used as control computer, display, or input device (Photo: Liebherr)

If required, even more functionality can be integrated directly into the display-controller, such as satellite navigation, or mobile communications. This provides additional options in the system architecture. [Optical bonding](#) combines display, touch sensor, and glass to create an unit. This bonding technology ensures that the display is suited to the challenges of demanding operational conditions. Optical bonding prevents the formation of moisture and ensures that the display is dust-proof. In addition to being robust, the technology also offers increased touch functionality and legibility even in strong sunlight.

In addition to displaying operational parameters and camera images, the display controller also qualifies as a visibility aid in accordance with DIN EN ISO 16001:2016. With its processing power, the product can be used as a control computer. The integrated PCAP touchscreen transforms the display into a programmable input device. Liebherr presents the display controller DC5 from April 8 to April 14 at Bauma exhibition in Munich, Germany, hall A4.

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