

# Touch display with local I/O

**The S70-CAN interface module by Lascar Electronics supports the J1939 higher-layer protocols. It can be mounted in the companies SGD 70-A display.**

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The CAN interface module is intended for the SGD 70-A capacitive touch display (Photo: Lascar Electronics)

The S70-CAN module can be mounted on the rear of the capacitive touch display. It provides a 3-wire interface (CAN\_H, CAN\_L, and GND). The module is specified for operating temperatures from 0 °C to +40 °C. It is powered with 5 V provided by the display. The 7-inch capacitive touch display can be programmed by means of a design studio featuring drag-and-drop style functions.

The display provides four 16-bit bipolar analog inputs (to a maximum of  $\pm 40 \text{ V}_C$ ), eight digital I/O pins, two alarm outputs, four 8-bit PWM outputs, and PID Control. By default there is an Ethernet interface for logged data and an EIA-232 as well as an EIA-485 port. The product is able log data on multiple channels and to display trend graphs. An additional add-on board can measure temperatures.

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The backside of the SGD 70-A display with mounted S-70-CAN module (Photo: Lascar Electronics)

The display is based on an ARM-Cortex (A9 and M4) processor by Freescale. The 7-inch screen has a resolution of 1024 x 600 pixel. Mackie Transmission uses the product in its hydraulic test system for re-manufacturing of automatic and manual transmissions for passenger cars and commercial vehicles. The systems allows the operator to compare the actual values of the transmission they are working on, to the values it should be if in full working order, by pumping automatic transmission fluid into the transmission and providing pressure and flow readings. These readings indicate whether a hydraulic circuit in the automatic transmission is in a serviceable condition or if there is a potential leak in the circuit.

The Mackie Transmission's first test machine was fitted with physical buttons and analog gauges to show these values but realizing technicians needed a faster and easier interface, the machine was recently re-designed using the SGD 70-A touchscreen. Marc McCabe from Mackie Transmission explained how the device has saved them a lot of development time: "This complete testing machine has taken only a few months to get from concept to prototype at less than £ 12 000 and a key reason for the speed of the project was the ease of display integration. Without the need for coding, app development on the display was really quick. We are developing an application specific controller and data acquisition device for a previously developed machine, this project has been ongoing for over a year and has so far cost us just under £ 100 000."

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