Small form factor boards offer reliable connection

June 8, 2012, Arlington, TX – WinSystems today introduced two new isolated digital signal conditioning and termination boards for OEM embedded computer system designers. These small form factor boards are needed in applications requiring signal isolation between a computer and its monitoring/control points. The ISM-TRM-RELAY has 16 independent, Single Pole Double Throw (SPDT) relays. The ISM-TRM-COMBO provides a combination of 8 optically isolated inputs, 8 optically isolated outputs, and 8 Form C relays on one board. To insure reliable connection with easy removal and insertion with field wiring, industry-standard, 3.5 mm pluggable connectors are used.

WinSystems' ISM-TRM-RELAY has 16 independent Form C relays on board. There are two signal lines, Normally Open (NO) and Normally Closed (NC) plus a Common associated for each relay. The contacts can handle 6A @ 250VAC/24VDC for applications requiring medium current capacity plus isolation.

WinSystems' ISM-TRM-COMBO offers three different signal conditioning circuits for maximum configuration flexibility. There are eight isolated inputs that have the capability to support either an active high or active low signal from 5 to 30 volts. Every input line is optically isolated from the others and from the computer interface circuits with an isolation voltage rating that exceeds 2500V. Then each input line is wired to a contact bounce eliminator to remove extraneous level changes that result when interfacing with mechanical contacts such as switches or relays.

There are eight isolated outputs for applications requiring medium current capacity. Each output has a NPN Darlington transistor pair with an integral clamp diode for switching inductive loads and transient suppression. The collector-emitter voltage can withstand up to 30 volts and each output is capable of sinking 500 mA of current. The isolation voltage rating exceeds 2500V.

The ISM-TRM-COMBO also has eight independent SPDT Form C relays that can handle 6A @ 250VAC/24VDC for applications requiring medium current capacity plus isolation.

These boards will work with small form factor embedded PC and I/O modules that use WinSystems' WS16C48-compatible digital I/O controller connector pinout. They will also work with other manufacturers' products. Both boards measure 3.6 x 3.8 inches (90 x 96mm) and have the same mounting hole pattern as PC/104 modules. The ISM-TRM-RELAY and ISM-TRM-COMBO boards can be placed on the top or bottom of a PC/104 stack. These cards will also easily work with other computer form factors such as EPIC and EBX single board computers mounted on their PC/104 stack or as independent standalone signal conditioning modules for more versatility.

Both ISM-TRM-RELAY and ISM-TRM-COMBO signal conditioning modules are RoHS-compliant and can operate over an industrial temperature range of -40° to +85°C.

Special configurations can be populated for OEM applications.

PRICING AND AVAILABILITY
The ISM-TRM-RELAY is priced at $299, qty. = 1, and the ISM-TRM-COMBO is priced at $255, qty = 1.

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