PC/104 Module Combines Serial and Digital I/O

WinSystems replaces two modules with same I/O plus 30V tolerance

WinSystems today introduced their PCM-SDIO, a PC/104-compliant module with four asynchronous serial ports and forty-eight lines of digital I/O. It eliminates one board in a stack without sacrificing any features or benefits at a lower cost. The PCM-SDIO is based upon a FPGA with both 16C554 UART and WS16C48 digital I/O-compatible cores. The digital portion is further enhanced since its I/O can interface with up to 30 volt signals. The PCM-SDIO will operate from -40° to +85°C without forced air cooling.

All four serial channels support RS-232, RS-422, and RS-485 signal levels. The RS-422/485 configuration provides user configurable terminations for balanced transmit and receive signal pairs for longer distance serial communications. Each channel supports 5-, 6-, 7-, or 8-bit characters with even, odd or no parity generation and checking. Independent on-chip software programmable baud rate generators support each channel with data rates through 115,200 bits per second.

The PCM-SDIO also supports 48 lines of digital I/O. A major feature of this card is its ability to monitor 24 of the 48 lines for both rising and falling digital edge transitions, latch them and then interrupt the host processor notifying that a change-of-input status has occurred. This is an efficient way of signaling the CPU of real-time events without the burden of polling each of the digital I/O points. Each output channel is latched and has an open collector driver (with a pull-up resistor) capable of sinking 12mA of current. This allows direct control of up to 48 opto-isolated signal conditioners with a single card for high density I/O support. There is an isolation MOSFET in a High Side configuration on each digital I/O line that it can support from

5 to 30 volts.

The PCM-SDIO is a replacement and is pin compatible for WinSystems' PCM-UIO48A and PCM-COM4A serial and parallel PC/104 compatible I/O boards. The PCM-SDIO has free driver software support for Linux, Windows, and C on their website.

The PCM-SDIO requires only +5 volts and typically draws 250 mA.

PRICING AND AVAILABILITY
The PCM-SDIO-144 is priced at $249 (qty. = 1). Delivery is from stock.

For more information, please visit www.winsystems.com [1].

Posted by Ron M. Seidel, Editorial Intern

March 15, 2012

Source URL (retrieved on *04/19/2014 - 4:33am*):
http://www.wirelessdesignmag.com/product-releases/2012/03/pc/104-module-combines-serial-and-digital-i/o

Links:
[1] http://www.winsystems.com