JANUS-MM-LP 2- or 4-Port PC/104-Plus CAN I/O Module
Targets Rugged Networked Applications

Mountain View, CA — December 17, 2015 — Today Diamond Systems Corporation, a leading global supplier of compact, rugged, I/O-rich embedded computing solutions for real-world applications in a broad range of markets, unveiled the Janus-MM-LP family of CANbus 2.0 I/O modules, featuring independent isolation for each port plus data rates up to 1Mbps. These rugged I/O modules offer 2 or 4 CAN ports and are available in the compact PC/104 and PC/104-Plus form factors.

The Janus-MM-LP family of I/O modules offers two or four opto-isolated CAN 2.0B ports plus 16 digital I/O lines. Models are available with both PC/104-Plus (PCI + ISA) and PC/104 (ISA only) bus configurations. The CAN controllers are implemented as FPGA cores and feature standard and extended device identifiers as well as expanded TX and RX message queues for enhanced performance. Each port has its own combination isolator and transceiver chip. The module also offers 16 programmable digital I/O lines organized as two 8-bit ports.

The Janus-MM-LP I/O modules come with a basic CAN driver for Windows Embedded 7 and Linux Ubuntu 12.04LTS. Also included free with the product are Windows and Linux APIs and monitor programs. The monitor program allows the user to set, manage and observe all of the functions and traffic on the CAN ports and digital I/O lines.

Technical Specifications

- Four models: 2 ports; PC/104
  4 ports; PC/104
  2 ports; PC/104-Plus
  4 ports; PC/104-Plus

- Data rates up to 1Mbps
- Supports standard 11-bit identifier and extended 29-bit identifier frames
- 16 8-byte transmit message queues
- 31 8-byte receive message queues
- 16 receive filters
- Galvanically isolated transceivers
- 500V port-to-host and port-to-port isolation
- Jumper selectable biased split termination for improved noise reduction
- 16 digital I/O lines
- Latching connectors for increased ruggedness
- PCI and ISA bus interfaces
- Free basic CAN driver included with APIs and monitor program
- Linux Ubuntu 12.04LTS and Windows Embedded 7 software support
- PC/104 form factor: 3.55” x 3.775” (90mm x 96mm)
- -40°C to +85°C operating temperature
- MIL-STD-202G shock and vibration compatible
Janus-MM-LP-XT CANbus 2.0B I/O modules fit a wide variety of rugged and on-vehicle embedded networking application needs. The product was designed with harsh applications in mind, including latching connectors to further improve reliability. Extended temperature operation of -40°C to +85°C is tested and guaranteed. The modules are compatible with MIL-STD-202G shock and vibration specifications.

Pricing and Availability
The Janus-MM-LP CANbus modules are orderable now and shipping in volume in January, 2016. Single unit pricing starts at US$225 for the 2-port PC/104 model including all of the drivers and software. Separate cables are available for each model. Contact Diamond Systems at sales@diamondsystems.com for quantity pricing and special-order options.

About Diamond Systems
Founded in 1989 and based in Mountain View, California, Diamond Systems Corporation is a leading global provider of compact, rugged, board- and system-level real world embedded computing solutions to companies in a broad range of markets, including transportation, energy, aerospace, defense, manufacturing, medical, and research. The company is renowned as an innovator of embedded I/O standards and technologies; it originated the FeaturePak I/O modules standard, was an early adopter of PC/104 module technology, and holds a patent for a unique analog I/O autocalibration technique.

Diamond’s extensive product line includes compact, highly integrated single-board computers (SBCs); an extensive line of expansion modules for analog and digital I/O, wired and wireless communications, GPS, solid-state disk, and power supply functions; and complete system-level solutions. In support of performance-critical embedded application requirements, these products are engineered to operate reliably over wide operating temperature ranges, such as -40°C to +85°C, and at high levels of shock and vibration. Additionally, the company offers a comprehensive hardware, software, and system integration and customization services.

For further information, please visit www.diamondsystems.com or call +1-800-367-2104 (USA).

MEDIA RESOURCES
- Janus-MM-LP CAN I/O Module webpage
- Janus-MM-LP CAN I/O Module datasheet (pdf)
- Janus-MM-LP CAN I/O Module photo (jpg)

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