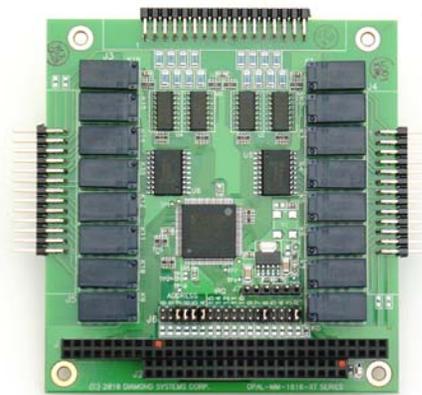# PC/104 Optoisolated I/O Module Protects Embedded Computing Systems from Environmental Hazards

PC/104 I/O module with optoisolated inputs and relay outputs is ideal for interfacing embedded computers to high voltage / high current applications

MOUNTAIN VIEW, CA — October 19, 2010 — Diamond Systems Corporation, a leading supplier of ruggedized single-board computers (SBCs) and I/O expansion modules targeting real-world applications, today unveiled its latest PC/104 I/O module, the Opal-MM-1616. The Opal-MM-1616 features 16 optoisolated inputs and 16 relay outputs, supported by Diamond's industry-leading Universal Driver software library. The OPMM-1616-XT is useful for industrial automation, transportation, energy, instrumentation, aerospace, military, and medical markets and applications.

Jonathan Miller, Diamond Systems' president, said "the introduction of this new board signifies Diamond Systems' continued commitment to the PC/104 (ISA bus) market, which continues to be popular with customers due to its low cost, low power consumption, long life cycle, and ease of use. This product doubles the I/O density of previous Opal-MM products."

Opal-MM-1616-XT Optoisolated Input & Relay Output PC/104 Module

Opal-MM-1616-XT offers 16 unidirectional optoisolated inputs that can accept DC voltages up to 30VDC. Inputs feature channel to channel and input to output isolation of 500V DC or AC. The inputs also feature a programmable edge detection circuit (change of state detection circuit) that can generate interrupts on any change on any input.

The module also provides 16 Form C SPDT relay outputs rated at 30VDC at 2A capacity, or 125VAC at 0.1A. Each relay has two sets of normally open, common, and normally closed contacts wired in parallel for greater reliability and lifetime.

Extended temperature operation of -40°C to +85°C is tested and guaranteed. Optional 0-ohm resistors may be installed instead of the address jumpers for additional ruggedness. Optional latching connectors may be installed for both inputs and outputs to further improve reliability.

Diamond's advanced Universal Driver software provides a high-level programming library for all of Diamond's data acquisition products. All data acquisition features are supported with easy-to-use function calls, resulting in a reduced learning curve and shortened application development time. Universal Driver works with Windows XP, CE, Linux, QNX and DOS. Application examples are included for each function and OS to provide a quick starting point for development.

Opal-MM-1616-XT Pricing and Availability

The Opal-MM-1616-XT is orderable today and shipping from inventory, priced as indicated below.

Model	Description	Qty. 1 Price
OPMM-1616-XT	Opal-MM-1616-XT Optoisolated Input & Relay Output PC/104 Module	$195

About Diamond Systems Corporation

Founded in 1989, Diamond Systems Corporation is a leading supplier of compact, rugged, wide-temperature embedded computing solutions for a wide range of applications in fixed and mobile environments. The company is the originator of the FeaturePak I/O modules standard, was an early adopter of PC/104 technology and today is one of the leading worldwide suppliers of embedded I/O modules and highly integrated single board computers combining CPU and data acquisition on a single board. Diamond's extensive product line includes A/D, D/A, digital I/O, serial communications, wired and wireless networking, and power supply modules as well as single-board computers and enclosures. Diamond also offers a full range of system solutions, including the capability to customize boards or systems to meet the needs of a particular application. The privately held company is based in Mountain View, California, in the heart of Silicon Valley. Information about Diamond Systems Corporation can be found at www.diamondsystems.com or call +1-800-367-2104. For ongoing news, please go to http://www.diamondsystems.com/news/.

Opal-MM-1616-XT MEDIA RESOURCES

- OPMM-1616-XT web page
- OPMM-1616-XT data sheet (pdf)
- OPMM-1616-XT top view photo (jpg)

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