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**Rugged, 14-port Gigabit Managed Ethernet Switch with 2 SFP Sockets from Diamond Systems**

Standalone Layer 2+ Ethernet switch targets harsh environment applications

Mountain View, Calif. December 2013 – Diamond Systems, a global developer of compact, rugged, I/O-rich embedded computing solutions for a broad range of real-world applications, today unveiled Epsilon-12G2. The [rugged, managed Layer 2+ Ethernet switch](#) module offers twelve 10/100/1000 Mbps copper twisted pair ports and two small form factor pluggable (SFP) sockets in a compact COM Express form factor.

The new standalone switch does not require any host computer interface. A 480 MHz MIPS processor embedded directly into the switch manages all switch functions. The processor is accessed via an in-band web interface over one of the Ethernet ports or via an out-of-band command-line interface over an RS-232 serial port. The integrated web interface provides an intuitive GUI for configuring and managing all switch functionality.

On-board memory holds dual application images, boot code, MAC addresses and other parameters, and can also be used for program execution.

Designed for use in rugged applications including industrial, on-vehicle and military environments, Epsilon-12G2 operates over an extended temperature range of -40°C to +85°C. All I/O connectors are latching, providing enhanced reliability over the RJ-45 connectors used in commercial Ethernet switches. A 50% thicker PCB provides better protection against vibration in vehicle environments. The +5 V to +40 V wide range DC/DC power supply is compatible with all common vehicle and industrial power sources.

The switch's dual SFP socket interfaces to 1 G fiber Ethernet networks. One port can operate at an enhanced 2.5 G to support efficient stacking of two switches together for a combined total of 26 ports.

Epsilon-12G2 comes with all the required firmware preconfigured, enabling immediate operation without any development effort.

Technical Specifications:

- 12 10/100/1000 Mbps Ethernet ports
- 1 1 G and 1 2.5 G SFP socket
- Built-in microcontroller for configuration and management
- RS-232 serial interface for out-of-band management interface
- +5 V to +40 V wide range DC/DC power supply
- COM Express form factor (95 mm x 125 mm)
- -40°C to +85°C operating temperature

Advanced Ethernet Features

- Dual leaky bucket policers with remarking and statistics
- Jumbo frame support at all speeds
- 8K MAC addresses and 4K VLANs (IEEE 802.1Q)
- 8K IPv4 and IPv6 multicast group support
- Flexible link aggregation support based on Layer-2 through Layer-4 information (IEEE 802.3ad)
- Multicast and broadcast storm control, as well as flooding control
- Rapid Spanning Tree protocol (RSTP) and MSTP
- 8 priorities and 8 QoS queues per port with scheduling
- Shaping/policing per queue and per port
- Multiple protocol support: IEEE 802.1d, IEEE 802.1w, IEEE 802.1s, IEEE 802.1X

Pricing and Availability

The Epsilon-12G2 14-Port Gigabit Managed Ethernet Switch is shipping now. Single unit pricing starts at US \$800. A separate cable kit is available: CK-EPS12G2.

For more information, call 800-367-2104, visit

<http://www.diamondsystems.com/products/epsilon12g2> or contact

sales@diamondsystems.com.

For high res download and full text:

<http://www.simongroup.com/PressRoom/press-release.php?Job=DSC-A-42003>

UPCOMING TRADESHOWS: Embedded World, Feb. 25-27, 2014, Stand # 2-346;
Nuremberg, Germany

About Diamond Systems:

Since 1989, Mountain View, California-based Diamond Systems Corporation has provided 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, its products operate reliably over wide operating temperature ranges, such as -40°C to +85°C, and at high levels of shock and vibration. Diamond also offers a comprehensive hardware, software and system integration and customization services.

For further information, please visit www.diamondsystems.com or call 800-367-2104.