Rugged 26-port Gigabit Ethernet Switch with 2 SFP+ Sockets

Standalone, Managed Layer 2/3 Switch targets applications in harsh environments

Sunnyvale, Calif. — February 22, 2018 — 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 industries, today unveiled EPS-24G2X, a managed Layer 2+ Ethernet switch offering 24 10/100/1000Mbps copper twisted pair ports and two 10Gb small form factor pluggable (SFP+) sockets. The switch is designed for rugged industrial, on-vehicle and military applications and is Diamond’s newest addition to its Epsilon family of versatile embedded Ethernet switch solutions.

The EPS-24G2X Ethernet switch is designed around Diamond’s new EPSM-10GX Ethernet switch module. Like the popular Computer-on-Module technology, the EPSM-10GX encapsulates a complete Ethernet switch circuit into a compact module, simplifying the design of custom embedded and industrial Ethernet switch solutions. The EPS-24G2X adds the necessary power supplies and last inch of I/O circuitry needed to create an off-the-shelf complete solution in the industry-standard “3.5 inch” form factor. The switch provides Layer 2+ performance (Layer 3 capable with software upgrade) via its built-in 500MHz MIPS processor and comprehensive suite of software features. All features are manageable via any Ethernet port or an auxiliary “out of band” serial interface. The switch operates at non-blocking wire-speed performance, meaning all ports can operate at full speed simultaneously, resulting in a 44Gbps total throughput capability.

EPS-24G2X is ideal for on-vehicle, military and aerospace applications and was designed specifically to meet the demands imposed by harsh environments. Built rugged, the EPSM-10GX is tested and guaranteed to MIL-STD-202G shock/vibration levels and can be operated in temperatures from -40°C to 85°C. All I/O connectors are latching, providing enhanced reliability over the RJ-45 connectors used in commercial Ethernet switches. The 50% thicker PCB (.093” / 2.4mm) provides protection against vibration in vehicle environments. The switch is compatible with power supplies ranging from 5 to 34VDC.
The EPS-24G2X includes the following key features and functionality:

- 24 10/100/1000Mbps copper Ethernet ports
- 2 10G SFP+ sockets
- Integrated 500 MHz MIPS 24KEc CPU
- Serial port for out of band management and software updates
- Latching connectors
- Intelligent power management
- IEEE802.1Q switch with 4K VLANs and 32K MAC table entries
- Multiple protocol support: IEEE 802.1d, IEEE 802.1w, IEEE 802.1s, and IEEE 802.1X
- 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
- Wide input voltage range: 7-34VDC input
- 3.5-inch form factor (5.75"W x 4.00"H / 146 x 102mm)
- -40°C to +85°C (-40°F to +185°F) operating temperature

EPS-24G2X is supplied with all required firmware preconfigured, enabling immediate operation without any development effort.

**Availability**

The EPS-24G2X managed 26-Port Gigabit Ethernet Switch Module is shipping now. An accessory cable kit is available, CK-EPS24G2X (SFP modules and fiber cables not included). Contact Diamond Systems at sales@diamondsystems.com for quantity pricing and special-order options.

**About Diamond Systems**

Diamond Systems Corporation is a global provider of rugged, I/O-rich embedded computing solutions for companies in a broad range of markets, including transportation, energy, aerospace, defense, manufacturing, medical and research. 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 including multiprotocol serial ports and Ethernet switches; and complete, rugged, system-level solutions. For further information, please visit www.diamondsystems.com.

**Web Resources**


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