

SUMIT-ISM™ I/O Module Provides WiFi, Ethernet, USB, and SSD Expansion

Compact, multifunction module adds communications, connectivity, and solid state storage capabilities to mission-critical embedded systems

Nuremberg, GERMANY — March 1, 2011 — [Diamond Systems Corporation](#), a leading global supplier of compact, rugged, embedded computing solutions targeting real-world applications in a broad range of markets, today unveiled Corona, the first multi-function SUMIT-ISM I/O module to combine WiFi, dual Ethernet, USB, and solid-state disk (SSD) expansion capabilities. The compact, rugged module is engineered to meet the wide operating temperature, high shock and vibration, and mission-critical reliability requirements of fixed and mobile application environments, whether indoors or exposed to the elements.

"Corona reduces cost, size, weight, and power, by enabling embedded system designers to pack more I/O into space-constrained enclosures," says David Fastenau, director of marketing at Diamond Systems. "This rugged multifunction module was designed with outdoor applications in mind, and is an ideal solution to the wireless access point and high-density data storage challenges of numerous industrial automation, energy management, mobile data acquisition and control, and intelligent transportation systems applications."

Within a single SUMIT-ISM Type I form-factor module, Corona integrates the following features:

- Socketed 802.11a/b/g WiFi radio card (located on the top of Corona)
- Two 10/100Base-T Ethernet LAN ports
- Two USB 2.0 ports (derived from SUMIT-A bus signals)
- Mounting location for an optional 2.5-inch SATA SSD card (located on the bottom of Corona)
- SDVO-to-VGA converter (usable with Diamond's Aurora SUMIT-ISM single-board computer)
- SUMIT-A (PCI Express) and PC/104 stackthrough buses
- ISM form-factor (3.55 x 3.775 in; 90 x 96 mm)
- Extended operating temperature range of -40°C to +85°C

Corona's onboard 802.11a/b/g WiFi function is based on a socketed wide-temperature mini-PCI card, which implements a dual-channel/dual-antenna WiFi radio and supports 108Mbps transmit/receive rates, average power of 23dBm, and peak power of up to 28dBm. The module's onboard SDVO-to-VGA converter can be used for converting the SDVO output signals of Diamond's Aurora SBC into standard analog VGA format.

The optional onboard 2.5-inch SATA solid state disk (SSD) accommodates local data storage prior to its offload via either Corona's WiFi or Ethernet communications functions. Diamond's board-level 2.5-inch SATA SSD modules (SSD-32GB-XT and SSD-64GB-XT), also being announced today, further simplify system integration and reduce size, weight, power, and cost.

Corona derives its PCI Express and USB host interface signals from the host SBC's SUMIT-A connector, but does not use signals or power from its PC/104 bus stackthrough connector. The two types of stackthrough buses (SUMIT-A and PC/104) enable SUMIT and PC/104 modules to be stacked above Corona in systems supporting those buses.



Corona WiFi and Ethernet Communications Module

To support the temperature extremes of fixed and mobile applications in both indoor and outdoor environments, the Corona module – including its onboard WiFi and SATA SSD card options – is rated for the extended operating temperature range of -40°C to +85°C.

Device drivers for Windows® XP and Linux® 2.6 are available.

Pricing and Availability

The Corona WiFi and Ethernet Communications Module is shipping now. Single-unit pricing for the COR-LANWIFI-XT model (includes WiFi card) starts at US\$350, while the COR-LAN2-XT model (without WiFi card) starts at US\$225. Diamond's SATA SSD cards are priced separately. Contact Diamond for current SATA SSD card pricing or for Corona quantity pricing.

Media Resources

- [Corona web page](#)
- [Corona datasheet](#) (PDF)
- [Corona photo](#) (jpg)

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.

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