Corona™I/O Module



SUMIT-ISM™ Wireless and Ethernet Communications Module

With SUMIT-A and PC/104™ (ISA) Expandability





Sumit[™]

High Power WiFi Output

The Corona SUMIT $^{\text{TM}}$ Communications module offers high powered dual-channel/dual-antenna 802.11a/b/g wireless performance in a compact form-factor, with peak power up to 28dBm (600mW).

Designed for Outdoor Applications

Corona was engineered 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 intelligent transportation systems applications.

Rugged and Robust

Extended temperature operation of -40°C to +85°C is tested and guaranteed.

SATA Solid-state Disk

Corona provides a mounting location, on its bottom side, for a board-level SATA solid-state disk (SSD). The SSD card contains a single-chip microcontroller, embedded firmware, and NAND flash memory devices, and supports the high-speed SATA II interface standard. The SSD card supports sustained data access rates up to 100 MB/sec, significantly faster than other flash memory SSDs and conventional SATA drives. Additionally, the SSD's internal firmware implements static wear-leveling designed to maximize flash media life while optimizing disk performance.

Key Features

- ♦ 802.11a/b/g WiFi radio card is dual-channel/dual-antenna capable module secured in a PCle MiniCard socket
- ◆ Transmit/receive rates as high as 108Mbps; average power reaches 23dBm; peak power up to 28dBm
- ◆ Dual 10/100Base-T Ethernet ports
- ◆ Dual USB 2.0 port connections
- ◆ SDVO to VGA converter
- ♦ Mounting location for 2.5-inch SATA solid-state disk
- ◆ SUMIT-A and PC/104 (ISA) stackable expansion
- ◆ WiFi drivers for Windows® XP and Linux provided
- ◆ Extremely rugged -40°C to +85°C operating temperature



Corona SUMIT Communications module with external antenna installed

CORONA: SUMIT-ISM Wireless and Ethernet Communications Module



Wireless specifications		
Wireless module	IEEE 802.11a/b/g	
Frequency range	802.11a mode: 5.15-5.35GHz & 5.725-5.85GHz for US 4.9-5.35GHz for Japan 5.15-5.35GHz & 5.47-5.725GHz for ETSI 5.725-5.85GHz for China	
	802.11b/g mode: 2.400-2.4835GHz for US, Canada, Japan, ETSI, and China	
Channel bandwidth	802.11a mode: 40MHz, 20MHz, 10MHz, 5MHz	
	802.11b mode: 20MHz	
	802.11g mode: 40MHz, 20MHz, 10MHz, 5MHz	
Transmit & receive rates	Up to 108Mbps	
Average power	23dBm (200mW)	
Peak power	28dBm (600mW)	
Operating system support	Windows XP driver Linux MADWiFi driver	

SSD Socket	Block Diagram
	PCIe x1 PCIe/PCI PCI Wireless LAN
SUMIT-A Connector	+3.3V Voltage Regulator USB0 Ethernet MAC/PHY Magnetics 10/100 Ethernet
	USB1 Ethernet MAC/PHY Magnetics 10/100 Ethernet USB2, 3
SDVO Connector	SDVO to Analog level Shifters VGA

GENERAL SPECIFICATIONS		
Networking	2 10/100Base-T Ethernet ports	
USB	2 USB 2.0 ports (dependent on host system)	
Mass storage	2.5-inch SATA solid-state disk socket	
Graphics	VGA, 1920 x 1200 maximum resolution	
Expansion	SUMIT-A stackable expansion PC/104 (ISA) stackable expansion	
Power supply	+5VDC ±5% +3.3VDC ±5%	
Dimensions	3.55 x 3.775 inches (90 x 96 mm)	
Operating temp	-40°C to +85°C (-40°F to +185°F)	
Weight	COR-IANWIFIXT: 3.4oz (96g) COR-IAN2-XT: 3.0oz (86g)	
Shock	MIL-STD-202G Table 213-1 J	
Vibration	MIL-STD-202G Method 204, Condition I A	
RoHS	Compliant	

ORDERING INFORMATION		
COR-LANWIFI-XT	Corona SUMIT Communications Module with WiFi wireless module and dual Ethernet ports	
COR-LAN2-XT	Corona SUMIT Communications Module with dual Ethernet ports only	
C-COR-KIT	Corona Cable Kit	
ACC-ANT-01	External SMA wireless antenna	
SSD-32G-XT	32GB SATA SSD flashdisk and cables	



Corona SUMIT Communications module with SATA SSD installed on the bottom

All trademarks and logos are the property of their respective owners.