S3220 Series

Stand-alone Gigabit Ethernet Remotely Managed NID

10/100/1000Base-T to 1000Base-X with OAM/IP-Based Management

S3220-1040

The ION S3220 is a stand-alone managed Network Interface Device (NID) that provides an interface between 10/100/1000Base-TX ports and 1000Base-SX/LX ports, allowing users to manage their links while integrating fiber optic cabling into 10/100/1000 copper environments. As a remotely managed device, the S3220 can be managed individually via an IP address or it can be managed in-band, over the fiber when linked to a C3220 card installed in a managed ION chassis. With advanced features like IEEE 802.3ah Link OAM, VLAN, QoS, SSH/SSL, jumbo frame support, and bandwidth allocation, the S3220 offers a variety of methods for the secure delivery of Ethernet services in business and mobile backhaul applications.

Features

- MEF 9, 14 and 21 certified
- IEEE 802.3ah Link OAM
- 10K Jumbo Frame Support
- Two selectable Remote Management modes:
  - IP-Based Remote Management
  - In-Band (remote device managed by local peer)
- Auto-MDI/MDIX
- Auto-Negotiation
- Pause
- Transparent Link Pass Through
- Far-End-Fault (FEF)
- Remote Loopback
- Field Upgradeable Firmware
- IEEE 802.1p QoS packet classification
- IPv4 IP TOS, DiffServ and IPv6 traffic class QoS classification
- IEEE 802.1Q VLAN and double VLAN tagging with 4096 VIDs
- DHCP client
- SNTP
- TFTP
- RADIUS client
- RMON counters for each port
- Bandwidth profiling
- DMI Optical Management
- Cable diagnostic function for copper ports

Specifications

Standards	IEEE 802.3 IEEE 802.3ah IEEE 802.1p IEEE 802.1Q
Data Rate	Copper: 10/100/1000 Mbps Fiber: 1000 Mbps
Filtering Address	8K MAC Addresses
Max Frame Size	10,240 bytes
Dimensions	Width: 3.25" [82 mm] Depth: 6.5" [165 mm] Height: 1" [25 mm]
Power Input	100-240 VAC,1A
Power Output	12 VDC, 1.25A
Environment	Operating: 0°C to +50°C Storage: -25° to +85°C Humidity: 5% to 95% (non-condensing) Altitude: 0 – 10,000 ft. S3221-1040-T Operating: -40°C to +65°C Storage: -40° to +85°C
Weight	2 lbs. [0.90 kg]
MTBF	With Power Supply: 65,000 Hours (MIL-HDBK-217F) 178,000 Hours (Bellcore) Without Power Supply: 250,000 Hours (MIL-HDBK-217F) 687,500 Hours (Bellcore)
Certifications	EN55022 Class A, EN55024, UL60950, CE Mark
Warranty	Lifetime

Power Supply Included
To order the corresponding country specific power supply, add the extension from the list below to the end of the SKU; Ex: S3220-1013-NA
-NA = Country Code
-NA = North America, -LA = Latin America
-EU = Europe, -UK = United Kingdom
-SA = South Africa, -JP = Japan
-OZ = Australia, -BR = Brazil

CARRIER ETHERNET ✓ MEF Certified Compliant ™

Ordering Information

S3220-1014
   10/100/1000Base-T (RJ-45) [100 m] to 1000Base-LX 1310nm single mode (SC) [10 km/6.2 mi.] Link Budget: 10.5 dB

*S3220-1040
   10/100/1000Base-T (RJ-45) [100 m] to (1) 100/1000Base-X Open SFP Slot

*S3221-1040
   10/100/1000Base-T (RJ-45) [100 m] to (2) 100/1000Base-X Open SFP Slots

*S3221-1040-T
   10/100/1000Base-T (RJ-45) [100 m] to (2) 100/1000Base-x Open SFP Slots, Extended Operating Temp Range

Optional Accessories (sold separately)

SFP Modules

Mounting Options (sold separately)

WMBL
   Wall Mount Bracket 4" [102 mm]

WMBD
   DIN Rail Bracket 5" [127 mm]

RMS19-SA4-02
   4-Slot Media Converter Shelf

Note: all units feature USB port for local management application.

*S3220-1040, S3221-1040, and S3221-1040-T have SGMII support for use with 10/100/1000Base-T copper SFPs.

S3221-1040-T must use extended temperature SFP modules in order to meet the -40° to +65°C operating temperature range.

Features Continued

- SSH
- Telnet
- Command Line Interface (CLI)
- Web management
- Focal Point Management
- SNMP v1, v2c, and v3
- USB port for basic setup
- Management VLAN