

## Stand-alone Gigabit Ethernet Remotely Managed NID

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



S3220-1040

### 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

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.

### 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



### 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