

# RBNi GigaEdge 8200™ Network Interface Module



## KEY FEATURES

- ◆ Hot swappable for cost-effective reconfiguration
- ◆ Up to 30 dB link budget
- ◆ Plug and Play WDM™
- ◆ No external system fiber cables required
- ◆ Advanced thermal design for -40 °C to +65 °C operation
- ◆ 3R transmission – Re-amplify, Reshape, Retime
- ◆ Less than 20 W power consumption per NIM
- ◆ Cross-connect switch provides flexible networking
- ◆ 10 Gb/s capacity on a single fiber
- ◆ Support for OC-1 to OC-48, STM-1 to STM-16, GbE, 100BASE-FX, Fibre Channel, 2G Fibre Channel, ESCON, FICON, DVB ASI video
- ◆ Alarm contact closures
- ◆ Craft and EMS ports

The RBNi GigaEdge 8200 Network Interface Module (NIM) provides the WDM interface to a metro ring, bus or point-point link. There are two types of NIM: the four channel east NIM and four channel west NIM which plug into the east and west sides of the RBNi GigaEdge 8200 enclosure. A NIM provides the interface to 4 independent bidirectional channels on the network fibre. The four pairs of wavelengths are WDM multiplexed onto a single fiber strand.

Both east and west NIMs come in standard reach (20 dB link budget) and extended reach (30 dB link budget) versions.

For unprotected point-point applications, a single NIM (eg, NIM-4W) is installed in an RBNi GigaEdge 8200 enclosure and a NIM-4E is installed in another enclosure at the other end of the link. For path-protected applications, such as rings, two NIMs are installed in each RBNi GigaEdge 8200 enclosure and each Tributary Interface Module (TIM) is internally connected to both NIMs.

Each NIM provides full 3R regeneration of all 4 channels, with each channel able to transport a wide range of popular network standards, such as OC-1 to OC-48, Gigabit Ethernet and Fibre Channel. Each channel is fully reconfigurable and can be connected to any or all TIMs and to any other NIM channel, thus supporting drop & continue applications such as digital video multicasting.

The Plug and Play WDM™ benefits of the RBNi GigaEdge 8200 are enabled by the NIM's 3R regeneration capabilities. In contrast to all-optical solutions, carriers no longer have to worry about accumulated optical losses through each OADM. Instead, each NIM-NIM link is installed in much the same way as a SONET link.

Each NIM supports end-end network management with a serial RS-232 or Ethernet interface for connecting to a craft terminal, EMS or the RBNi GigaCraft 1200. Two NIMs provide dual redundant management capability of all RBNi GigaEdge 8200 node functions and in conjunction with the dual power feeds guarantee no single point of failure that could disrupt all four services at a node.



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### OPTICAL

Link budget	20 dB standard reach 30 dB extended reach
Connector	SC
WDM Channels	8 wavelengths / 4 bi-directional channels on 1 fiber
Wavelengths	1470 nm to 1610 nm, 20 nm spacing as per ITU-T G.694.2
Safety	Class 1 laser product

### ELECTRICAL

Power	20 W (above 0 °C)
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### LEDs

Network	Active/Inactive, EOC
Module	Status, Power A+B
System	Status

### ENVIRONMENTAL

Compliance	Compliant with: UL 1950, CSA C22.2 No. 950, IEC 60950:1991 with amendments 1-4, FCC Part 15, Class A, EN 300 386:2001 (Class A), SR-3580 NEBS Criteria level 3 GR-63-CORE Criteria [74], GR-63-CORE Criteria [76], GR-63-CORE Criteria [110-111], GR-63-CORE Criteria [114-115], GR-63-CORE Criteria [125], GR-63-CORE Criteria [126-7], GR-63-CORE Criteria [128], GR-63-CORE Section 4.4.1.1 Outside plant hardened (-40 °C to +65 °C)
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### MAINTENANCE

Craft User Interface port	RS-232 DB-9 DTE
EMS Port	10BASE-T
CLI	TL1
Management	TL1/Telnet, RBNi GigaCraft 1200, SNMP*
Alarms	Dry contact closures for Critical, Major and Minor

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