Avvio Networks

A1020G 10 Gigabit Regenerator/Repeater

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10 Gigabit SONET/SDH or Ethernet (LAN or WAN) Repeater with Forward Error Correction.

Avvio Networks' A1020G repeater is an optical regenerator/repeater for OC-192 SONET or 10Gb Ethernet data streams at 1310nm, 1550nm, or DWDM wavelengths. It can also be used to convert 1310nm or 1550nm optical data to a DWDM wavelength on an ITU channel. The A1020G can leverage existing 1310nm equipment onto WDM wavelengths at a fraction of the cost of replacing the equipment.

The A1020G re-times, re-generates and re-shapes the optical signals for increased data reliability. The data can be clocked using either incoming clock or an internal source. Dry contact relays, SNMP traps, and LEDs are provided to indicate alarm conditions.

The A1020G also provides performance monitoring via SNMP, a craft port for management over a serial link and Telnet for remote management using Avvio Networks' command line interface.

For OC-192 applications, the A1020G can be configured as a SONET regenerator. It can also be configured as a physical layer repeater, passing data through untouched, i.e., without SONET Section termination.

With an optional extended reach interface, the A1020G can be used at distances up to 200km over SMF-28 fiber without adding external dispersion compensation.

Available options include 1310nm and 1550nm links, fixed 100Ghz DWDM, and widely tunable DWDM interfaces. For long-haul applications, please contact Avvio Networks.

Features

Optional Extended Reach Interface - 200km w/o Dispersion Compensation

Supports SONET, SDH, or 10-Gigabit Ethernet (LAN or WAN) with FEC (G.709 or Proprietary)

Software selection from SONET regenerator to fully transparent optical repeater

SONET Performance Monitoring

Dry Contact Relays

Meets applicable SONET timing and jitter specifications

The A1020G Regenerator/repeater is a member of Avvio Networks' family of intelligent optical networking products. For more information, please send an email to: sales@avvionetworks.com. Avvio Networks is a trademark of Avvio Networks

Technical Specifications

Avvio Networks' advanced optical networking products set the standard for a new breed of cost-effective networks and services.

System Level

Data Rates	10.7 Gb/s (SONET/SDH/Ethernet WAN) 11.1 Gb/s (Ethernet)
Clocking	Meets applicable SONET/SDH wander and jitter specifications.
BER	$<10^{-12}$

DWDM Interface (Line)

Channel Spacing	50, 100Ghz (DWDM), or Tunable
Transmitter	Complies with GR-253 Core and applicable ITU-T G.957 standards. Full C band tuning for models with tunable option
Receiver	Pin or APD
Dispersion Tolerance	Up to 3600 ps/km with extended reach interface (Contact Avvio Networks for details)

1310/1550nm Interface (Client)

Transmitter	1310nm short reach or intermediate reach, 1550nm long reach
Receiver sensitivity	0 to –22dBm Contact Avvio Networks for specifications on SR, IR and LR interfaces

System Management

Craft Port	RS-232 (9600, 8, N, 1)
Remote Provisioning	Telnet, SNMP (V2)
MIBs supported:	3592, 3591, 2863, 3418, 2011,
(MIB-II)	Avvio Networks Enterprise MIB.

Power Requirements

Power Input	-40 to –72VDC (-48VDC nom)
Power Consumption	40W typical, 100W maximum (Depending on interfaces installed)

Environmental

Temperature, Relative Humidity, Vibration, Shock, Flammability	Meets Bellcore NEBS (GR63) TR-NWT-0000-63 Level 3
EMI, EMC	Complies with FCC part 15 class A, UL950 and CE, and NEBS requirements

Dimensions

Chassis size	1.75" X 15" X 17" (19" rack mount)

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