

Avvio Networks

A2500 Optical Add/Drop Multiplexer

Add and Drop DWDM wavelengths and Shift Optical Equipment onto DWDM wavelengths.

Avvio Networks' A2500 is an optical Add Drop Multiplexer that adds and drops data from a DWDM Network. It also supports wavelength shifting onto DWDM networks

The A2500's protocol independent architecture enables service providers to natively support any protocol including SONET, SDH, Ethernet, ATM and TDM traffic at any rate to 10.709Gb/s and beyond.

In addition to supporting DWDM mux/demux blades, the A2500 also supports an optional EDFA Pre-Amplifier and an EDFA post Amplifier.

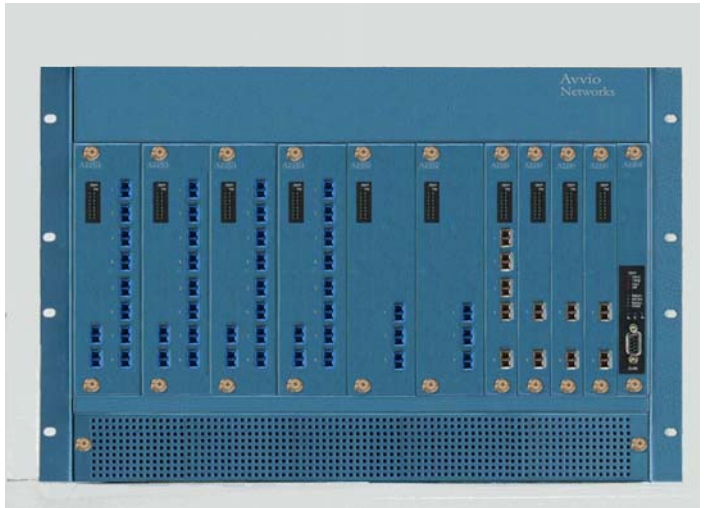
The Pre-amplifier can be used to boost received signals prior to dropping them

The Post-amplifier offers mid-stage access for Dispersion Control Modules. This allows the A2500 to be used with virtually any fiber type.

The A2500 also offers protocol and rate independent wavelength shifting, OC-192 and 10Gb Ethernet wavelength shifting, OC-48 to OC-192 multiplexing and Ethernet LAN to Ethernet WAN protocol conversion

The A2500 is supported by Avvio Networks provisioning software.

The A2500 OADM is a member of Avvio Networks' family of intelligent optical networking products. For more information, please send an email to: sales@avvionetworks.com



Features

8 to 32 channel Add/Drop

Protocol and Data Rate Independent
Wavelength Shifting

OC-192 and 10GbE Wavelength Shifting

Integrated VOA

Optical APS Protection Cards

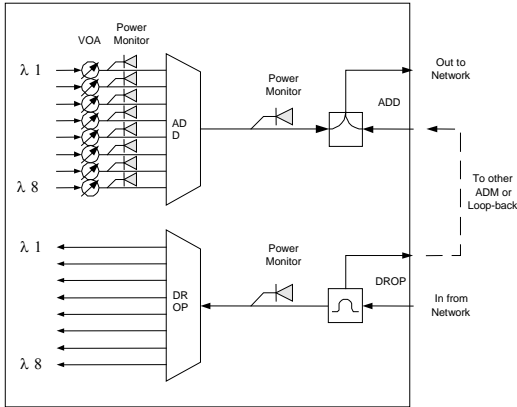
Pre and POST ADM EDFA

Mid-Stage Access for
Dispersion Control Modules

Includes Extended Reach 10G
modules

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Add/Drop Multiplexer Specifications



WDM Interface

Channel Spacing	50 or 100Ghz
Channel Passband	0.11nm (100Ghz)

Loss

In to Add or Drop	< 4.5dB
In to Out	< 5.5dB
Return Loss	> 45dB

DeMultiplexer (Drop) Isolation

Adjacent channel	> 28dB
Non-Adjacent	> 40dB

Multiplexer (Add) Isolation

Adjacent channel	> 15dB
Non-Adjacent	> 15dB

Channel Uniformity	< 0.5dB
Polarization Dependant Loss	< 0.1dB

Optical APS protection Specifications

Optical Receiver

Optical Tap	1%
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Loss

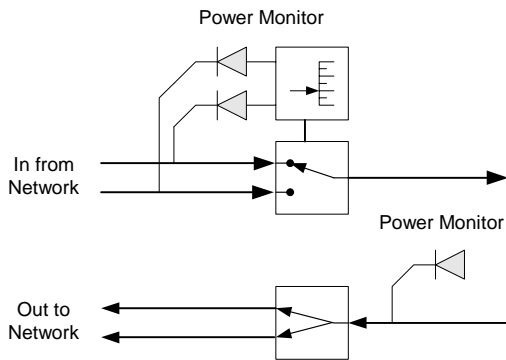
In to Out	< 5.5dB
Return Loss	> 45dB

Switching

Revertive and non-revertive
Selectable LOS and threshold switching

Alarms

User selectable en/disable and level
(major, minor, critical)



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Pre-Amplifier Technical Specifications

Parameter	Min	Max	Units	Notes
Signal wavelength	1530.33	1563.05	nm	C Band
Total input signal power	-29	+7	dBm	
Total output signal power		+17	dBm	
Signal gain	+10	+25	dB	
Absolute gain variation		1.25	dB	
Dynamic gain variation	0.4	2.5	dB	
Gain flatness		2.0	dB	all operating conditions
Noise figure		5.5	dB	at high gain
Transient suppression time		2	ms	
Transient Over/Undershoot		2	dB	

Post-Amplifier Technical Specifications

Parameter	Min	Max	Units	Notes
Signal wavelength	1530.33	1563.05	nm	C Band
Total input signal power	-29	+7	dBm	
Total output signal power		+17	dBm	
Signal gain	+10	+25	dB	
Absolute gain variation		1.25	dB	
Dynamic gain variation	0.4	2.5	dB	
Gain flatness		2.0	dB	all operating conditions
Noise figure		5.5	dB	at high gain
Transient suppression time		2	ms	
Transient Over/Undershoot		2	dB	

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A2500 Chassis Technical Specifications

System Management	(Via Controller card)
Remote Provisioning Access	Avvio Networks System Provisioning Software RS-232, Telnet, SNMP (V2),
Power Requirements	
Power Input Power Consumption	Dual redundant Inputs -40 to -68VDC (-48VDC nom) 300W (Worst case - Fully Loaded)
Environmental	
Temp, Humidity, Vibration, Shock and Flammability	Complies with Bellcore NEBS (GR63) TR-NWT-0000-63
EMI, EMC	FCC part 15 class A, UL950 GR-1089
Dimensions	
Chassis size	12.25”H X 17”H X 11.75”D (7RU, 19” rack mount, 300mm deep)

Note: these specifications are subject to change without notice
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Ordering information:

AM2501	Chassis – Includes one Controller Card (AM2502) and Fan Tray (AM2510)
AM2502	Controller card
AM2510	Fan Tray
AM2520-XXX-YY	8 port Add/Drop card (C Band, for other bands contact Avvio Networks) XXX = Channel spacing (in Ghz) 100 = 100Ghz YY = ITU Channel Number of 1 st Channel
AM2530	EDFA Pre-Amp
AM2532	EDFA Post-Amp
AM2534	EDFA Amp (Mid-Stage Access)
AM2535-ZZZZ	DCM ZZZZ = Dispersion Comp. (50ps increments)
AM2540	8 Gigabit Ethernet to 10Gb Ethernet switch
AM2550-XX-YYY	Protocol-Independent, multi rate card (100Mb/s to 2.7Gb/s) XX = X for Extended Reach YYY= DWDM channel (T for widely tunable)
AM2560-XX-YYY	OC-48 to OC-192 Multiplexer XX = OC-192 interface option (Contact Avvio Networks for available options) YYY = DWDM channel (T for widely tunable)
AM2580-XX-YYY	10Gb wavelength shifter/repeater XX = G for G.709, X for extended reach, R for regenerator, E for 10Gb Ethernet
AM2581-YYY	AM2580 Client side XFP (Contact Avvio Networks for available options)
AM2570-X	Optical APS module X = 1 for single, 2 for Dual

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11 Donovan Dr
Bedford, MA 01730

www.avvionetworks.com email: sales@avvionetworks.com

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