Standard Features

- Tunable over 45 100GHz DWDM channels
- CWDM channels 1531,1551nm (1571,1591nm L-Band)
- Large optical budget with dispersion limit of 1600 ps (80 km G.652 fiber).
- 1310 nm client side interface
- Transparent to 9.95 to 10.7 Gbps transmission rates
- 3R signal regeneration
- Low latency, 13 ns
- Web browser Ethernet GUI local or remote access.
- Adjustable output power for easy channel equalization.
- Receiver optical power monitoring.
- Better system reliability than standard DWDM/EDFA systems since all transponders are independent
- Critical, major, and minor alarms with dry contacts.
- Built in audible alarm, alarm acknowledgement, and alarm history through GUI interface.
- Easy setup, no special skills required.
- dual internal -48 Vdc A&B power supplies
- Single or dual 120/240 VAC 50/60 Hz power supply
- Power saving, “Green” selectable on/off control for cold standby spare option.
- 1 RMU height
- two units fit into our 1 RMU 19/23 in shelf
- 3 year warranty.

Options

- Internal SOA amplifiers increase transmission length
- Forward error correction GFEC/EFEC (FEC)
- Tunable over 50 GHz channel spacing C-band (89 channels) or L-band (90 channels)
- 1+1 protection switching (OUPSR)
- In service QoS performance monitoring and BER.
- External dispersion compensation modules available for cable lengths greater than 80km, mount in same transponder shelf

Applications

- Local, metro or long haul 10G DWDM / CWDM networks.
- Converting 1310 or 1550nm signals into DWDM signals
- Cost effective 10G network transport.
- DWDM / CWDM repeater with 3R regeneration.
- Hot or cold standby spare for existing DWDM or CWDM systems.

Compatibility

- Fully compatible with all ITU-T DWDM 200, 100 and 50 GHz spaced multiplexers
- Compatible with CWDM multiplexers channels 1531, 1551, 1571, 1591 nm
- Transparent to protocols including OC-192, STM-64, 10GbE, OTN G.707 FEC, Fiber Channel
- Accepts transmission rates 9.95 to 10.7 Gbps

Specifications	
Line A (network side)	
Channels C-band unit	45 channel at 100 GHz or 89 channels at 50 GHz (90 ch for L-band)
Channel spacing	200, 100 (default), and 50 GHz
Wavelengths range C-band unit	1528.77 nm (ITU 61.0) to 1563.86 nm (ITU 17)
Wavelengths range L-band unit	1567.42 to 1605.74 nm
Tx power	4 to 5 dBm, GUI adjustable +/- 2 dB
Rx sensitivity[1]	-24 dBm
OSNR @ BER 1E-12, @10.7Gbps	23 dB
Rx overload power	-5 dBm
Rx overload and permanent damage power	-1 dBm
CD penalty	2 dB
CD limit	1600 ps
PMD penalty	1 dB
PMD limit for 99.9999% availability	8 ps (10 ps with FEC)
Optical budget[1] base unit	30 dB
Unrepeated single span length, with CD comp.	115 km @ 0.23 dB/km
Internal SOA1 & SOA2 optical amplifiers and FEC (Optional)	
Booster SOA1 maximum output	+11 dBm
Booster SOA1 input	0 dBm
Pre Amp SOA2 gain	20 dB
Pre Amp SOA2 input range	-35 to -20 dBm
Noise figure SOA1	7.5 dB
Noise figure SOA2	7.0 dB
Maximum Tx with SOA booster	+11 dBm
Rx Sensitivity[1] with OSNR 21 dB	-15 dBm
OSNR with SOAs	21 dB
Optical budget[1] with preamp SOA	35 dB
Unrepeated single span with preamp and CD with CD compensation	150 km @ 0.23 dB/km
Optical budget[1] with booster & preamp SOAs	40 dB
Unrepeated single span with booster & preamp SOAs with CD compensation	177 km @ 0.23 dB/km
Optical budget[1] with FEC & SOAs	50 dB
Unrepeated single span with FEC & SOAs with CD compensation	200 km @ 0.23 dB/km
Line B (1310 client side)	
Wavelength	1310 nm
Minimum Tx power	-6 dBm
Rx Sensitivity	-11 dBm
Rx overload	-1 dBm
Rx permanent damage power	3 dBm
Optical budget	5 dB
Maximum span length	10 km
General	
Optical Interface	LC-UPC
Signal latency through unit	13 ns
Operational temperature	5 to 40 C (40 to 100 F)
DC voltage A & B feeds	-40 to -60 Vdc, maximum ripple 100 mV
Maximum DC current A and B feeds	1.2 A
AC power (optional)	90 to 250 Vac, 47 to 63 Hz
Maximum AC current	0.7 A @ 90 Vac

1. *Assuming dispersion is fully compensated, CD=0 ps/nm*
2. *All above values assume maximum transmission rate 10.7Gbps and RxDTV set to 50% (default).*
3. *Values assume a BER of 10^{-12}.*