



- | Optical amplifier for single channel SDH/Sonet applications
- | Booster, inline or pre-amplifier at customer's choice
- | Maximum Booster power 23 dBm
- | Pre-amplifier can include ASE noise filter
- | Mid-stage for DCF compensation optiona
- | Supervisory chanel Add/Drop optional
- | Plug and play system or OEM modules



Main feature

- | Optical Amplifier based on patented SmartGAIN technology
- | Configurable as C or L band EDFA
- | Built-in standard based network management, SNMPv.2 Agent, TL1 and CLI
- | Input and Output Monitoring Tap
- | Remote flash software update
- | Low cost and ultra-compact 1U rack mount unit

The increasing demand for more bandwidth has quickly led to a greater need for transmission capacity. With the use of DWDM multiplexers, capacities on existing fibre optic connections have been increased immediately. However, long distance between nodes requires more optical power generated by the optical equipment.

Optical amplifiers are a good option to generate high optical power levels necessary for feeding of long trunk lines or high splitting ratios in the access network.

MS1025 is a low cost, ultra-compact and flexible optical amplifier with or without mid-stage access. It is based on Dowslake patented SmartGAIN technology. Depending on customer requirement, it can be configured as a C- or L- band EDFA, with fixed or variable gain.

Application Example Most of applications for SDH/Sonet is point-to-point amplification. Distance can go as much as 300 km without mid-span repeater. Below diagram shows how optical amplifier is used for compensating DCF loss and boosting transmission distance.



Figure A: MS1025 point to point application



Technical Information

Common Features			
Wavelength Range	C band: 1528 to 1565 nm L band: 1570 nm to 1608 nm		
Gain Flatness	Not Applicable		
Input/Output Dectectio range	25 dB min. 35 dB max		
Optical Return Loss	30 dB min.		
Polarization Mode Dispersion	0.3 ps typ. 0.5 ps max.		
Polarization Dependent Gain	0.2 dB typ. 0.5 dB max.		
Power Supply	-48 VDC, or 100/240VAC		
Power Consumption	<25W		
Management			
Remote Access	CLI, SNMP, TL1 via Telnet (TCP/IP)		
Local Craft	CLI via RS232		
Environmental			
Operating Temperature	-5 to 55 OC		
Operating Humidity	5 to 95% (non-condensing)		
Storage Temperature	-20 to + 85 OC		
Mechanics			
Rack Mount Unit	19" 1U		
Dimensions (H x W x D)	44 x 437 x 230 mm		
Application Specific			
	Booster	Inline	Pre-amplifier
Minimum Input (dBm)	-20	-30	-40
Maximum Input (dBm)	Maximum Output - Specified Gain		
Minimum Output (dBm)	Minimum Input + Specified Gain		
Maximum Output (dBm)	<=23	<=20	<=13
Gain (Typical, dB, see note)	5 ~ 15	10 ~ 25	15 ~ 35
ASE Filter (optional)	N/A	N/A	200GHz
Mid-stage Loss (optional)	From 3 to 12 dB customizable		

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Revision History

Date	Revision	Brief Description
9/19/2007	1.0	First release
1/10/2008	1.1	Added Application A and Feature
1/22/2008	1.2	Addresses of headquarter and offices changed

