



- | Optical amplifier for WDM networks
- | Gain flattened providing equal amplification to all channels
- | Intelligent control for minimum impact when adding/dropping wavelengths
- | Integrated variable attenuator option with or without mid-stage
- | Built-in supervisory channel add/drop filter optional
- | Fast transient control
- | Plug and play system or OEM modules



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 WDM 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 DWDM transmission system and boosting transmission distance.

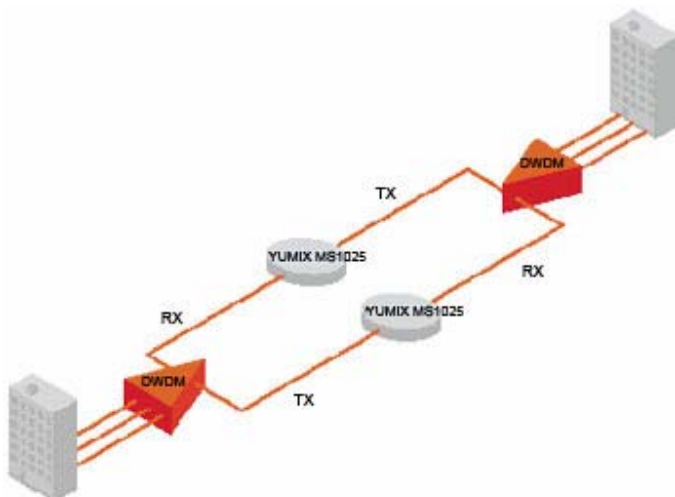


Figure A: MS1025 point to point application

#### Main feature

- | Optical Amplifier based on patented SmartGAIN technology
- | Gain Flattened with or without Integrated VOA for Multi-wavelength Transmission
- | 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



### Technical Information

Common Features			
Wavelength Range	C band: 1528 to 1565 nm L band: 1570 nm to 1608 nm		
Gain Flatness	+/- 1dB or custom		
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
Noise Figure (typical, dB)	6	5	4.5
Mid-stage Loss (optical)	From 3 to 12 db customizable		
Transient Over-shoot	+/-dB typical		
Settable gain Range (dB)	Specified maximum gain to 20dB below maximum variation de-		
Noise Figure Change	pendant		

**Note:**

- 1) Customer specified output power shall be less or equal than above specification.
- 2) Optimum gain is where the user achieves the best gain flatness.
- 3) Transient performance is specified for 0.1 ms add/drop speed.

### 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

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