



## GP-MUX-8 | Forward/8-Channel GEAPON Multiplexer



The QAMnet GP-MUX-8 series Multiplexer is designed specifically for integrating GEAPON transceivers with forward path optical signal in HFC networks. Housed inside a 1u rack-mount frame, GP-MUX-8 combines / multiplexes 8 independent GEAPON (1310nm/1490nm) channels with a common 1550nm forward-path optical input.

Utilizing state of art DWDM filter technology, GP-MUX-8 provides proven performance of low insertion loss, high isolation and broad bandwidth operation. It features a single input for 1550nm analog/HDTV/QAM-based digital channels. The forward 1550nm input is split internally into 8 ways and then combined with 8 separate channels of GEAPON input.

### Features

- Low insertion loss
- High isolation of 30dB
- 8 channel of multiplexer in single unit
- Broad operating wavelength range
- Operating temperature range -10°C to +65°C

### Ordering Information

- GP-MUX-8-x



Input G1 G2 G3 G4 G5 G6 G7 G8

O1 O2 O3 O4 O5 O6 O7 O8

Forward  
1550nm

GEAPON ports  
1310/1490nm

Output ports  
1310/1490/1550nm



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## GP-MUX-8 | 8-Channel GEPON Multiplexer

### Technical Specifications

1550nm Forward Path Input Port	1 (Input)
Forward Path Input Wavelength Range	1550nm $\pm$ 20nm
GEPON Input Port	8 (G1 to G8 port)
GEPON Path Input Wavelength Range	1310nm $\pm$ 20nm, 1490nm $\pm$ 10nm
Multiplex Output Port	8 (O1 to O8 port)
Combined Output Wavelength Range for Forward and GEPON	1550nm $\pm$ 20nm, 1310nm $\pm$ 20nm, 1490nm $\pm$ 10nm

### Insertion Loss

Insertion Loss (Input to O1, thru O8)	10.8dB Typical, 11.5dB Maximum
Insertion Loss (G1 to O1, G2 to O2...)	1.3dB Typical, 1.8dB Maximum

### Isolation

Isolation of 1550nm Forward Path to GEPON	17dB Minimum, 20dB Typical
Isolation GEPON to 1550nm Forward Path	30dB Minimum, 35dB typical
Polarization Dependent Loss	0.1dB Maximum
Return Loss	50dB Minimum
Power Handling	200mW Minimum

### Environment / Mechanical Specifications

Operating Temperature Range	-10°C to +65°C
Storage Temperature Range	-40°C to +85°C
Dimensions	13.75" (L) x 19" (W) x 1.75" (H)
Fiber Type	SMF28, 9/125 $\mu$ m
Connector Type	SC/APC Connectors on all ports



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