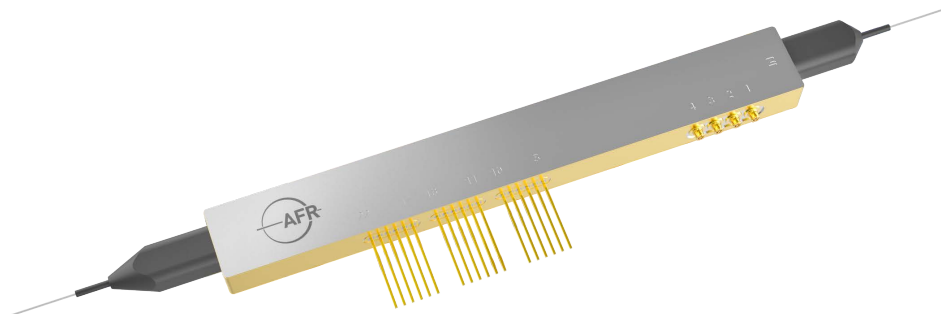


# Coherent Modulator

## 400G/600G PM-QMZ



AFR Coherent modulator 400/600Gb/s PM-QMZ is explicitly designed to enable 400GE and beyond speeds on a single wavelength or carrier. This modulator is a high electro-optic bandwidth polarization multiplexed quad parallel Mach-Zehnder (PM-QMZ) that integrates into a hermetic package an input beam splitter, four parallel Mach-Zehnder modulators configured for I-Q modulation, a polarization combiner, and monitoring photodiodes for power and bias control.

## Key Features

- 400Gb/s generated from four 64 Gbaud signals (polarization multiplexed 2 x 200Gb/s QPSK, plus FEC)
- Single ended
- 3dB electro-optic bandwidth exceeding 35 GHz
- Extinction ratio above 25 dB to enable complex modulation formats
- Insertion loss below 13 dB for high efficiency

## Applications

- Coherent links at 400Gb/s on a single carrier
- DWDM over 10Gb/s infrastructure (with coherent detection)

## Absolute Maximum Ratings

Parameters	Min.	Max.	Unit	Conditions
Storage temperature	-40	+85	°C	
Operating case temperature (T <sub>op</sub> )	- 5	75	°C	
Maximum RF input power (Electrical)		10	dBm	RF port, AC coupled
Operating wavelength, C-band	1530	1565	nm	
Maximum input power (Optical)		100	mW	CW

T<sub>op</sub>=25°C, unless otherwise specified

## Ordering Information

For more information on this customized product to meet your requirement and their availability, please contact your local AFR account manager or AFR directly at [sales@fiber-resources.com](mailto:sales@fiber-resources.com).

## RoHS Compliance

This product is RoHS compliant.

## Reliability Requirements

The coherent modulator 400/600Gb/ PM-QMZM is designed to meet Telcordia GR-468-Core and GR326 requirements.



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