

# PM FIBER-Q®

## Polarization Maintaining 1550 nm Fiber Coupled Acousto-Optic Modulator

T-M040-0.5C8J-3-F2P

The T-M040-0.5C8J-3-F2P Acousto-Optic Modulator is designed for use as a 40MHz frequency shifter for heterodyne interferometry or as an intensity modulator

Gooch & Housego specialize in providing optical components for high power fiber laser and amplifier systems. In-house control of critical manufacturing processes; from crystalline material selection and orientation, cutting, polishing and anti-reflection coating through to fiber coupling, ensure our components are of the highest optical quality.

In addition to the standard product shown, custom configurations are available for specialized applications.



### Key Features

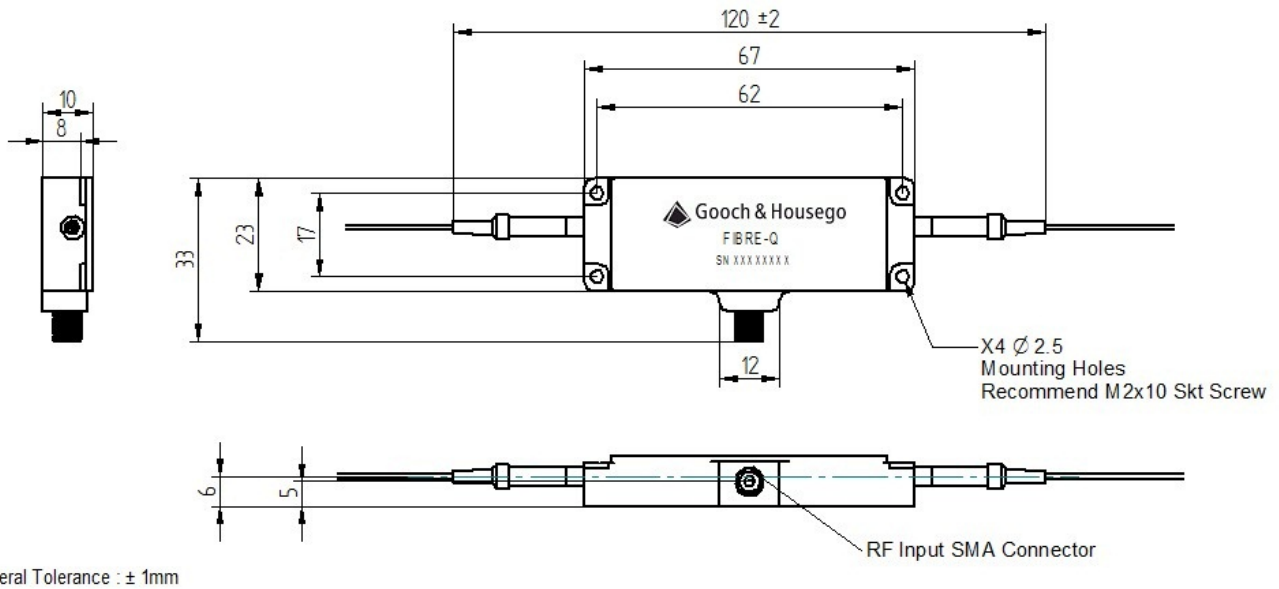
- Low insertion loss
- Compact low profile package
- Rugged hermetic design
- Stable performance
- Low power consumption
- Custom configurations available

### Applications

- Sensing (heterodyne interferometry)
- Intensity Modulation

## General Specifications

Parameter	Min	Max	Typical	Comments
Interaction material	-	-	-	Amtir
Wavelength	1530 nm	1565 nm	1550 nm	Other wavelengths available on request
Average optical power handling	-	1 W	-	
Peak optical power handling	-	1 kW	-	Dependent on pulse width
Insertion loss	-	2.5 dB	-	
Polarization extinction ratio	18 dB	-	20 dB	
Extinction ratio	50 dB	-	-	
Return loss (RF ON/RF OFF)	40 dB	-	-	
Rise-time/fall-time: (10% - 90%)	-	100 ns	70 ns	
Frequency	-	-	40 MHz	
VSWR	-	1.5:1	-	
Input impedance	-	-	50 $\Omega$	
RF power	-	0.4 W	0.25 W	
Frequency shift	-	-	40 MHz	Upshift
Fiber type	-	-	-	Fujikura PM1550 (SM15-PS-U25A) or equivalent
Fiber length	1.5 m	-	-	900 $\mu$ m PVDF sleeving
Fiber termination	-	-	-	Bare fiber



### Other products which may be of interest

- HI REL couplers
- High power multimode combiners
- Combiners with all types of signal feedthrough fiber
- Ultra-low ratio tap couplers
- WDMs for combining signals with red pointer lasers
- OCT wideband couplers

For further information

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POLARIZATION MAINTAINING 1550 NM FIBER COUPLED ACOUSTO-OPTIC MODULATOR