FIBER-Q®

1550 nm Fiber Coupled Acousto-Optic Modulator (Low Power Consumption)

T-M080-0.5C8J-3-F2S

The T-M080-0.5C8J-3-F2S acousto-optic modulator is designed for use as an 80 MHz 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 specialised applications

Key Features
- Low insertion loss
- Compact low profile package
- Rugged hermetic design
- Stable performance
- Low power consumption
- Custom configurations available
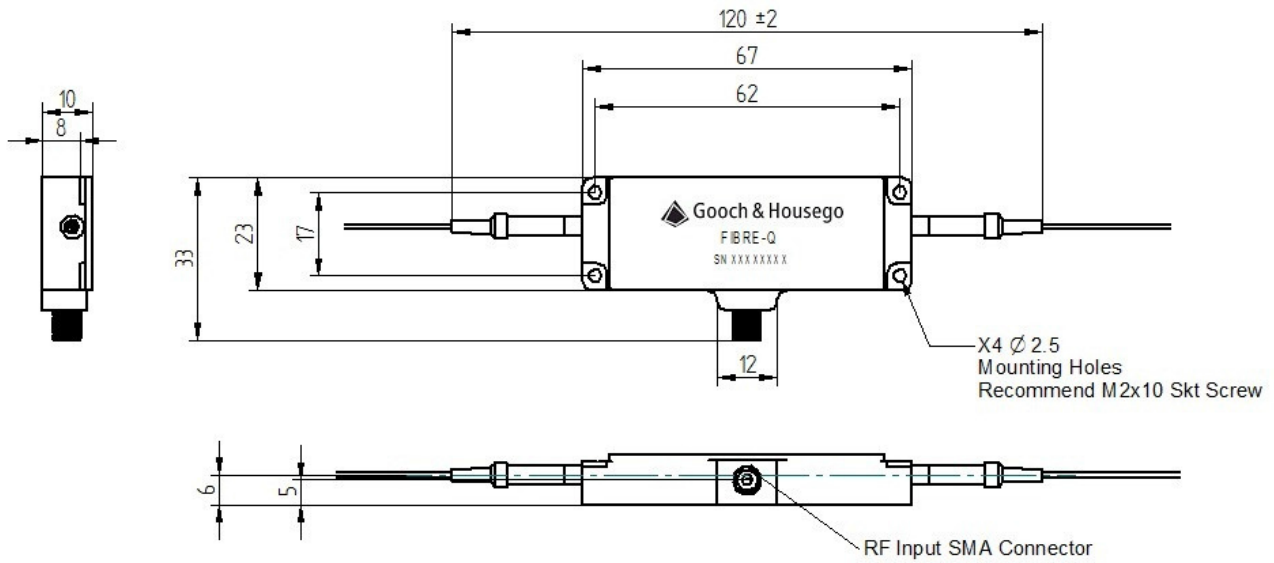
Applications
- Sensing (heterodyne interferometry)
- Intensity modulation

1550 NM FIBER COUPLED ACOUSTO-OPTIC MODULATOR (LOW POWER CONSUMPTION)

PEC 0173 Issue 2

As part of our policy of continuous product improvement, we reserve the right to change specifications at any time.

December 2016

Page 1

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 dependant loss	-	0.1 dB	-	
Extinction ratio	50 dB	-	-	
Return loss (RF ON/RF OFF)	40 dB	-	-	
Rise-time/fall-time: (10% - 90%)	-	100 ns	70 ns	
Frequency	-	-	80 MHz	
VSWR	-	1.5:1	-	
Input impedance	-	-	50 Ω	
RF power	-	0.4 W	0.3 W	Absolute maximum rating. Higher power will cause damage.
Frequency shift	-	-	80 MHz	Upshift
Fiber type	-	-	-	SMF28
Fiber length	1.5 m	-	-	900µm PVDF sleeving
Fiber termination	-	-	-	Bare fiber

1550 NM FIBER COUPLED ACOUSTO-OPTIC MODULATOR (LOW POWER CONSUMPTION)

PEC 0173 Issue 2

As part of our policy of continuous product improvement, we reserve the right to change specifications at any time.

December 2016

Page 2

Dimensions shown on drawing:

120 ±2
67
62
10
8
33
23
17
12
6
5

Gooch & Housego
FIBRE-Q
SN XXXXXXXX

X4 ⌀ 2.5
Mounting Holes
Recommend M2x10 Skt Screw

RF Input SMA Connector

General Tolerance : ± 1mm

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

1550 NM FIBER COUPLED ACOUSTO-OPTIC MODULATOR (LOW POWER CONSUMPTION)

PEC 0173 Issue 2

December 2016

As part of our policy of continuous product improvement, we reserve the right to change specifications at any time.

Page 3