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Gooch & Housego

# PM Fibre-Q

## Polarisation Maintaining 1550nm Fibre-Coupled Acousto-Optic Modulator

T-M080-0.4C2J-3-F2P

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

The T-M080-0.4C2J-3-F2P Acousto-Optic Modulator is designed for use as an 80MHz frequency shifter for heterodyne interferometry, an intensity modulator or a pulse picker.

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
- Custom configurations available

**Applications:**

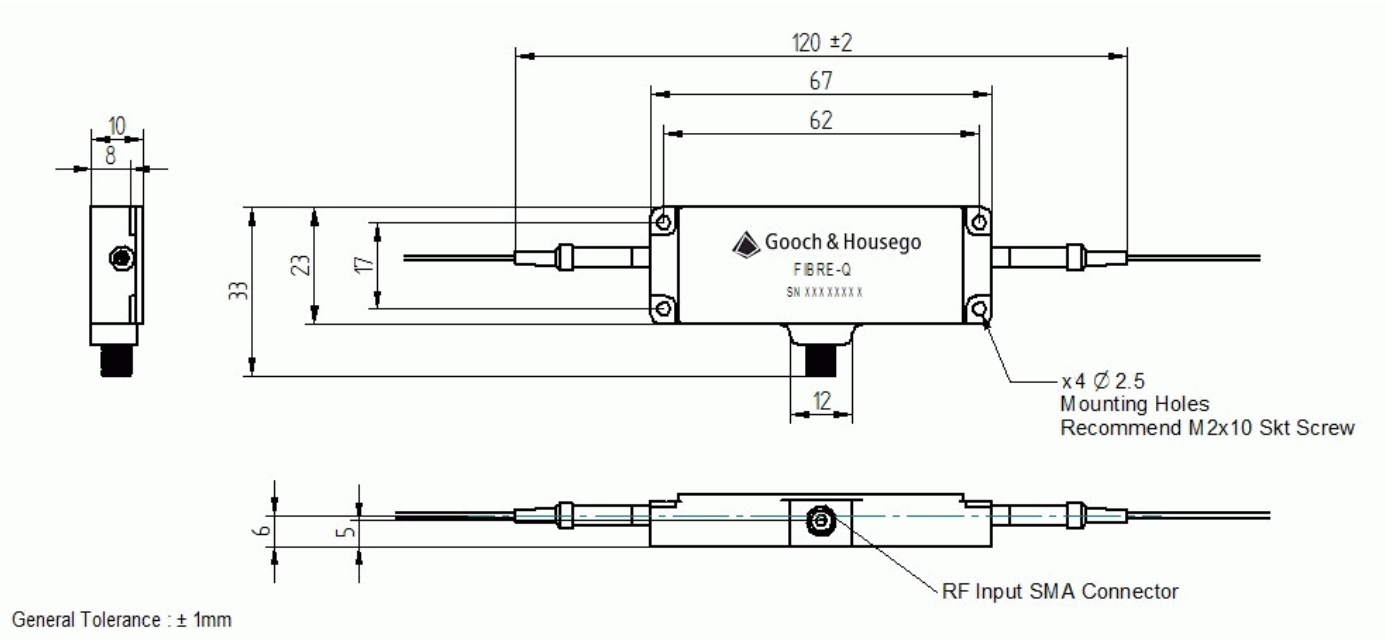
- Sensing (heterodyne interferometry)
- Intensity modulation
- Pulse picking

## General Specifications

| Parameter | Unit | Min | Max | Typical | Comments |
|---|---|---|---|---|---|
| Interaction material: | - | - | - | - | Tellurium Dioxide |
| Wavelength: | nm | 1530 | 1565 | 1550 | Other wavelengths available on request |
| Average optical power handling: | W | - | 1 | - | |
| Peak (pulse) optical power handling: | kW | - | 1 | - | Dependent on pulse width |
| Insertion loss: | dB | - | 3 | 2 | |
| Polarisation Extinction ratio | dB | 18 | - | 20 | |
| Extinction ratio (1st order on / off) | dB | 50 | - | - | |
| Return Loss (RF ON / RF OFF) | dB | 40 | - | - | |
| Rise-time / fall-time: (10% - 90%) | ns | - | 35 | - | |
| Frequency: | MHz | - | - | 80 | |
| VSWR: | | - | 1.2:1 | - | |
| Input impedance: | Ω | - | - | 50 | |
| RF power: | W | - | 3 | - | Absolute maximum rating. Higher power will cause damage. |
| Frequency shift: | MHz | - | - | 80 | Upshift |
| Fibre type: | - | - | - | - | Fujikura PM1550 (SM15-PS-U25A) |
| Fibre length | m | 1.5 | - | - | 900µm PVDF sleeving |
| Fibre termination: | - | - | - | - | Bare fibre |



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




## Other Gooch & Housego products which may be of interest:

Our extensive range of components for fibre laser applications includes:
- Isolators
- High power multimode combiners
- Combiners with all types of signal feedthrough fibre
- Ultra low ratio tap couplers
- WDMs for combining signals with red pointer lasers

Please send your specifications to sales@goochandhousego.com or contact your local sales representative to discuss your requirements.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