

**FIBER-Q®**  
**1550 nm Fiber Coupled Acousto-Optic Modulator**  
**STG-T-M110-0.2C2J-3-F2S**



The STG-T-M110-0.2C2J-3-F2S acousto-optic modulator is designed for use as a 110MHz frequency shifter for heterodyne interferometry, an intensity modulator or a pulse picker.

We 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.

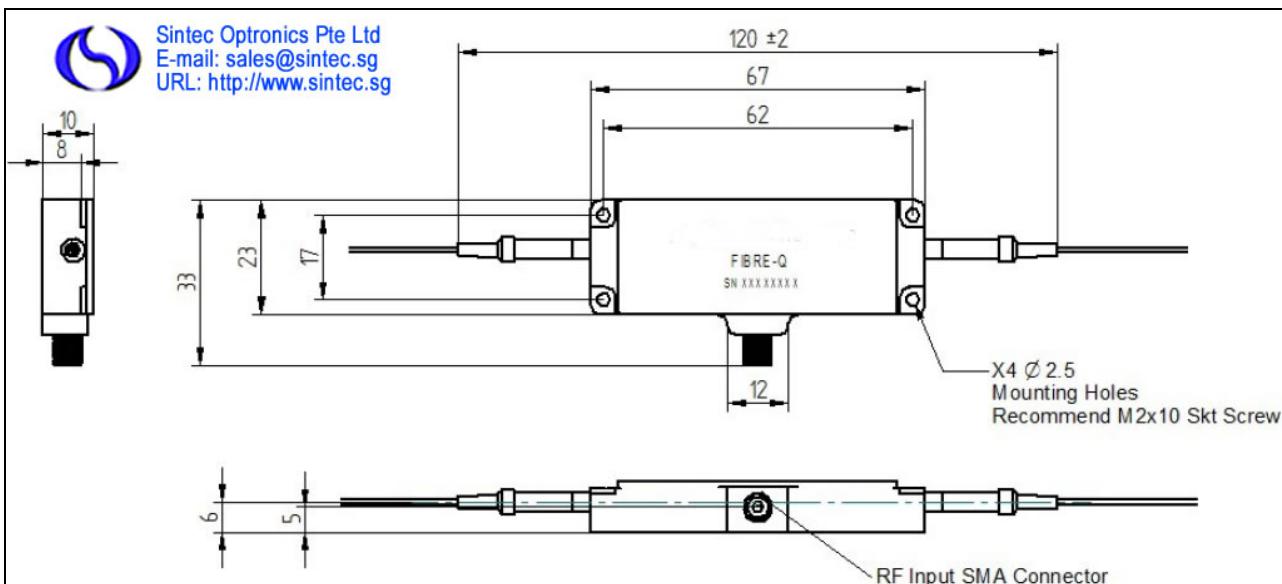
#### **Key Features**

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

#### **Applications**

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

| Parameter                        | Min     | Max     | Typical | Comments                                                 |
|----------------------------------|---------|---------|---------|----------------------------------------------------------|
| Interaction material             | -       | -       | -       | Tellurium Dioxide                                        |
| 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                   | -       | 3 dB    | 2 dB    |                                                          |
| Polarisation dependant loss      | -       | 0.3 dB  | 0.2 dB  |                                                          |
| Extinction ratio                 | 50 dB   | -       | -       |                                                          |
| Return loss (RF ON/RF OFF)       | 40 dB   | -       | -       |                                                          |
| Rise-time/fall-time: (10% - 90%) | -       | 25 ns   | -       |                                                          |
| Frequency                        | -       | -       | 110 MHz |                                                          |
| VSWR                             | -       | 1.2:1   | -       |                                                          |
| Input impedance                  | -       | -       | 50 Ω    |                                                          |
| RF power                         | -       | 3 W     | -       | Absolute maximum rating. Higher power will cause damage. |
| Frequency shift                  | -       | -       | 110 MHz | Upshift                                                  |
| Fiber type                       | -       | -       | -       | SMF28                                                    |
| Fiber length                     | 1.5 m   | -       | -       | 900 μm 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