



Fibre-Q 80 AO Q-Switch

M080-2G-F2S

- 1 μ m fibre-coupled
- 80MHz drive frequency
- < 2dB insertion loss

Description

A fibre-coupled acousto-optic Q-Switch designed to be used with 1 μ m fibre lasers.

This compact design features low insertion loss with high extinction ratio and may be optimised for any wavelength around the popular 1060nm mark. With conduction cooling and a matching RF driver, this Q-Switch is ready to be spliced into a fibre laser system. Special options such as custom fibres may be integrated through discussion with our team of scientists.

Specification

Interaction Material:	Tellurium Dioxide
Acoustic Mode:	Isotropic, compressional
Wavelength:	1000nm to 1100nm
Insertion Loss:	< 2dB (at a specified wavelength)
Polarisation Dependant Loss:	< 0.5dB
Extinction Ratio (1st order on/off):	> 50dB
Back Reflection:	< -50dB
Rise-Time / Fall-Time:	65ns
Frequency:	80MHz
VSWR:	< 1.2:1 (50 Ω input impedance)
RF Power:	< 2W
Frequency Shift:	- 80MHz, down shift
Fibre Type:	Single mode, 2m, Flexcore 1060
Fibre Connectors:	Pigtails for splicing

Options

Frequency Shift:	+ 80MHz, up shift
Fibre Type:	Polarisation maintaining or free issue fibre
Fibre Connectors:	FC / PC, Seiko-Geiken

Driver Selection

Digital & Analogue Modulation:	A342
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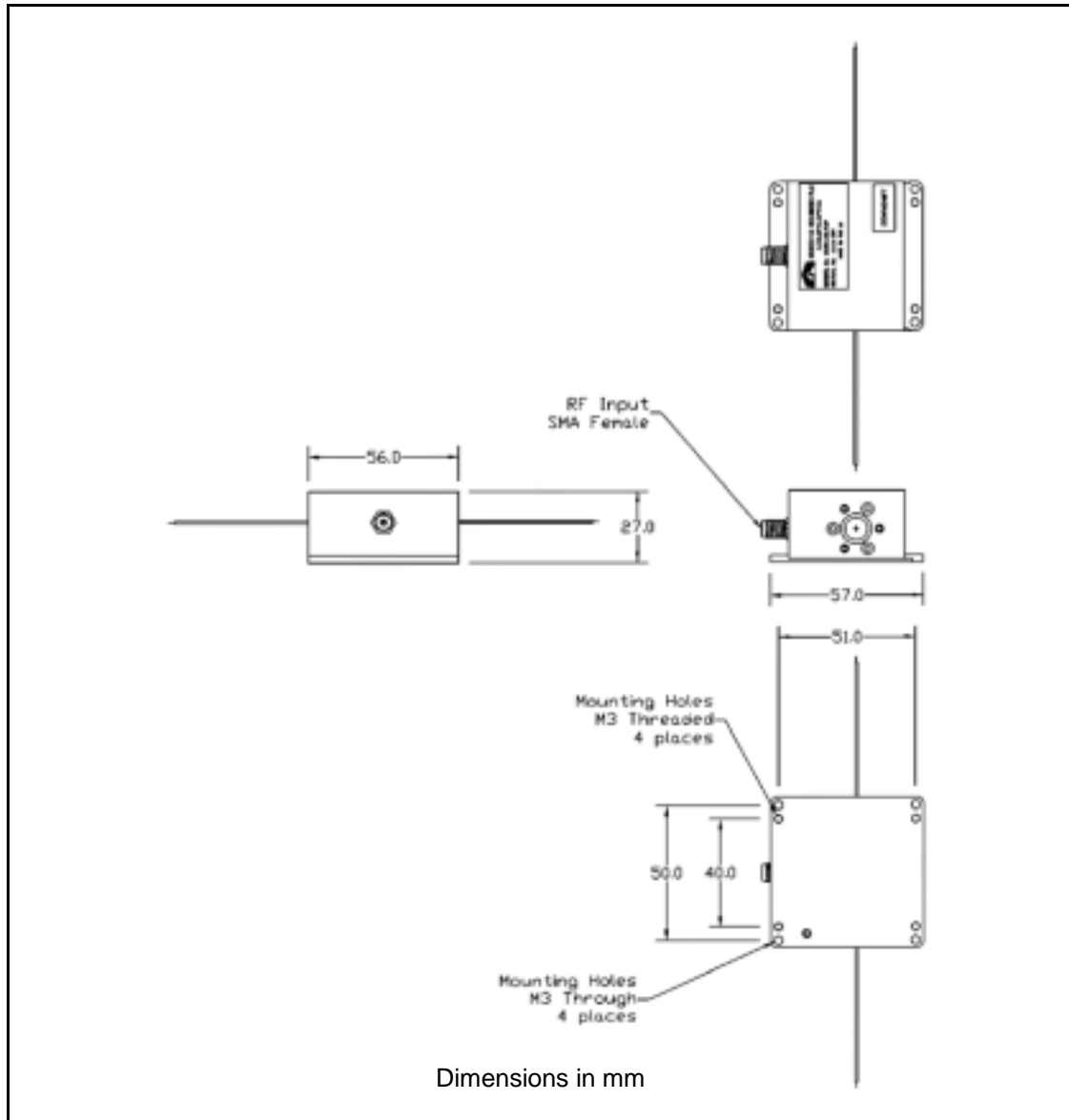
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Fibre-Q 80 AO Q-Switch

M080-2G-F2S

Mechanical Dimensions



Technical Assistance & Customisation

A team of scientists are available to discuss your special requirements and to assist in selecting the most appropriate acousto-optic device / RF driver combination. We customise products for OEM's.

Specifications subject to change without notice. January 2004 – Page 2



Fibre-Q 110 AO Q-Switch

M110-2G-F2S

- 1 μ m fibre-coupled
- 110MHz drive frequency
- 25ns rise-time

Description

A fibre-coupled acousto-optic device for use as a Q-Switch or intensity controller with 1 μ m fibre lasers.

Utilising Gooch & Housego's renowned crystal processing and coating expertise, coupled with superior design technologies, this device exhibits less than 3dB insertion loss while offering superb extinction ratio and rapid switching speeds, making it the perfect solution for Q-Switching fibre-lasers.

Even faster switching is available with model M175-2G-F2S and lower insertion loss with model M080-2G-F2S.

Specification

Interaction Material:	Tellurium Dioxide
Acoustic Mode:	Isotropic, compressional
Wavelength:	1000nm to 1100nm
Insertion Loss:	< 3dB (at a specified wavelength)
Polarisation Dependant Loss:	< 0.5dB
Extinction Ratio (1st order on/off):	> 50dB
Back Reflection:	< -40dB
Rise-Time / Fall-Time:	25ns
Frequency:	110MHz
VSWR:	< 1.2:1 (50 Ω input impedance)
RF Power:	< 2W
Frequency Shift:	- 110MHz, down shift
Fibre Type:	Single mode, 2m, Flexcore 1060
Fibre Connectors:	Pigtails for splicing

Options

Frequency Shift:	+ 110MHz, up shift
Fibre Type:	Polarisation maintaining or free issue fibre
Fibre Connectors:	FC / PC, Seiko-Geiken

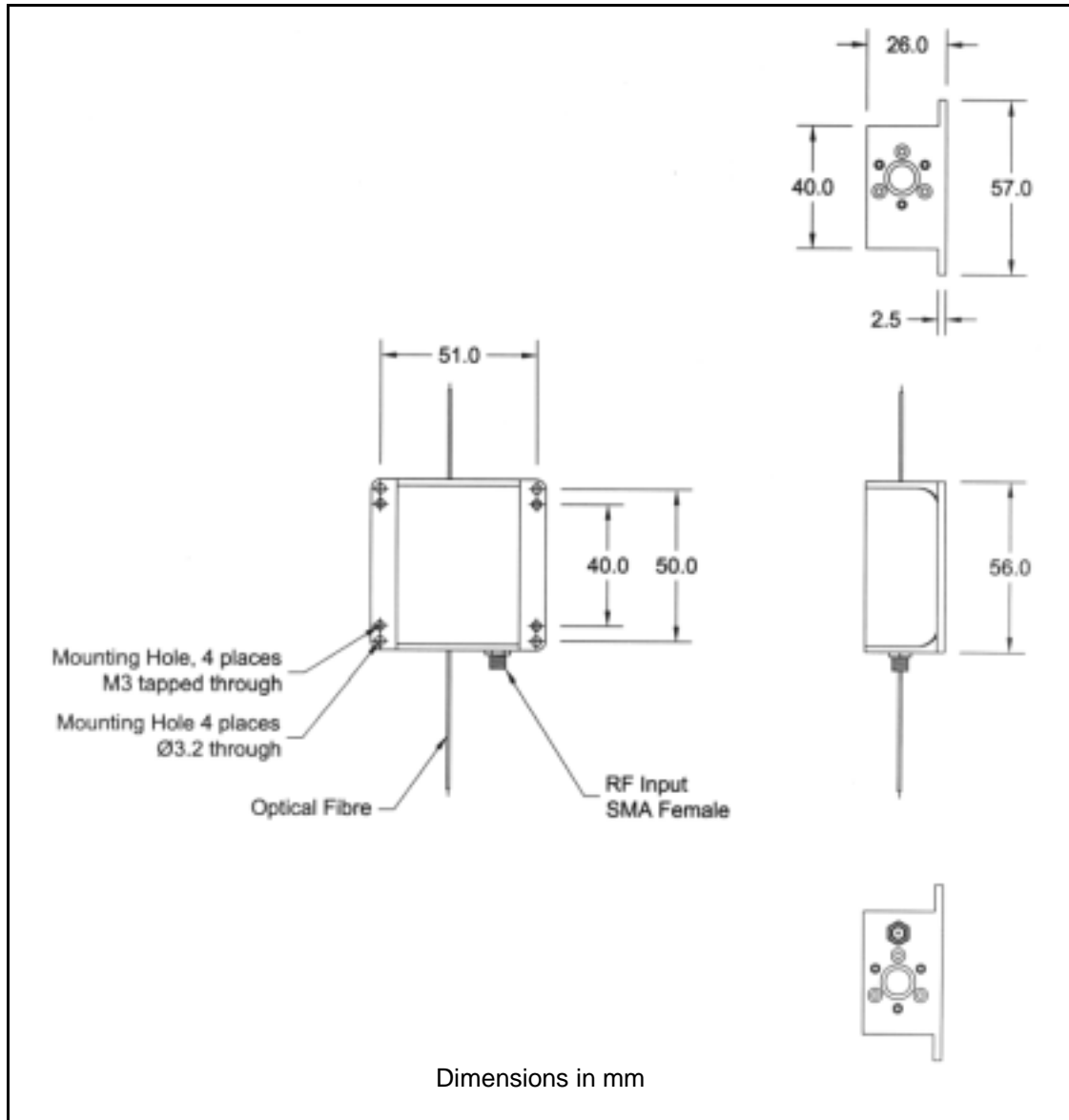
Driver Selection

Digital Modulation:	A109
Analogue Modulation:	A027

'Fibre-Q 110' AO Q-Switch

M110-2G-F2S

Mechanical Dimensions



Technical Assistance & Customisation

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Fibre-Q 175 AO Q-Switch

M175-2G-F2S

- 1 μ m fibre-coupled
- 175MHz drive frequency
- 10ns rise-time

Description

A fibre-coupled acousto-optic device for use as a Q-Switch or high bandwidth modulator with 1 μ m fibre lasers.

In a compact, conduction cooled package, with fibres ready for splicing, this modulator exhibits an incredibly fast 10ns rise-time, making it ideal for short pulse generation. It may be used intra-cavity as a Q-Switch, or extra-cavity as a high bandwidth (50MHz) analogue/digital modulator.

Refer to model M080-2G-F2S for a lower insertion loss option.

Specification

Interaction Material:	Tellurium Dioxide
Acoustic Mode:	Isotropic, compressional
Wavelength:	1000nm to 1100nm
Insertion Loss:	< 6dB (at a specified wavelength)
Polarisation Dependant Loss:	< 0.5dB
Extinction Ratio (1st order on/off):	> 45dB
Back Reflection:	< -40dB
Rise-Time / Fall-Time:	10ns
Frequency:	175MHz
VSWR:	< 1.2:1 (50 Ω input impedance)
RF Power:	< 2W
Frequency Shift:	- 175MHz, down shift
Fibre Type:	Single mode, 2m, Flexcore 1060
Fibre Connectors:	Pigtails for splicing

Options

Frequency Shift:	+ 175MHz, up shift
Fibre Type:	Polarisation maintaining or free issue fibre
Fibre Connectors:	FC / PC, Seiko-Geiken

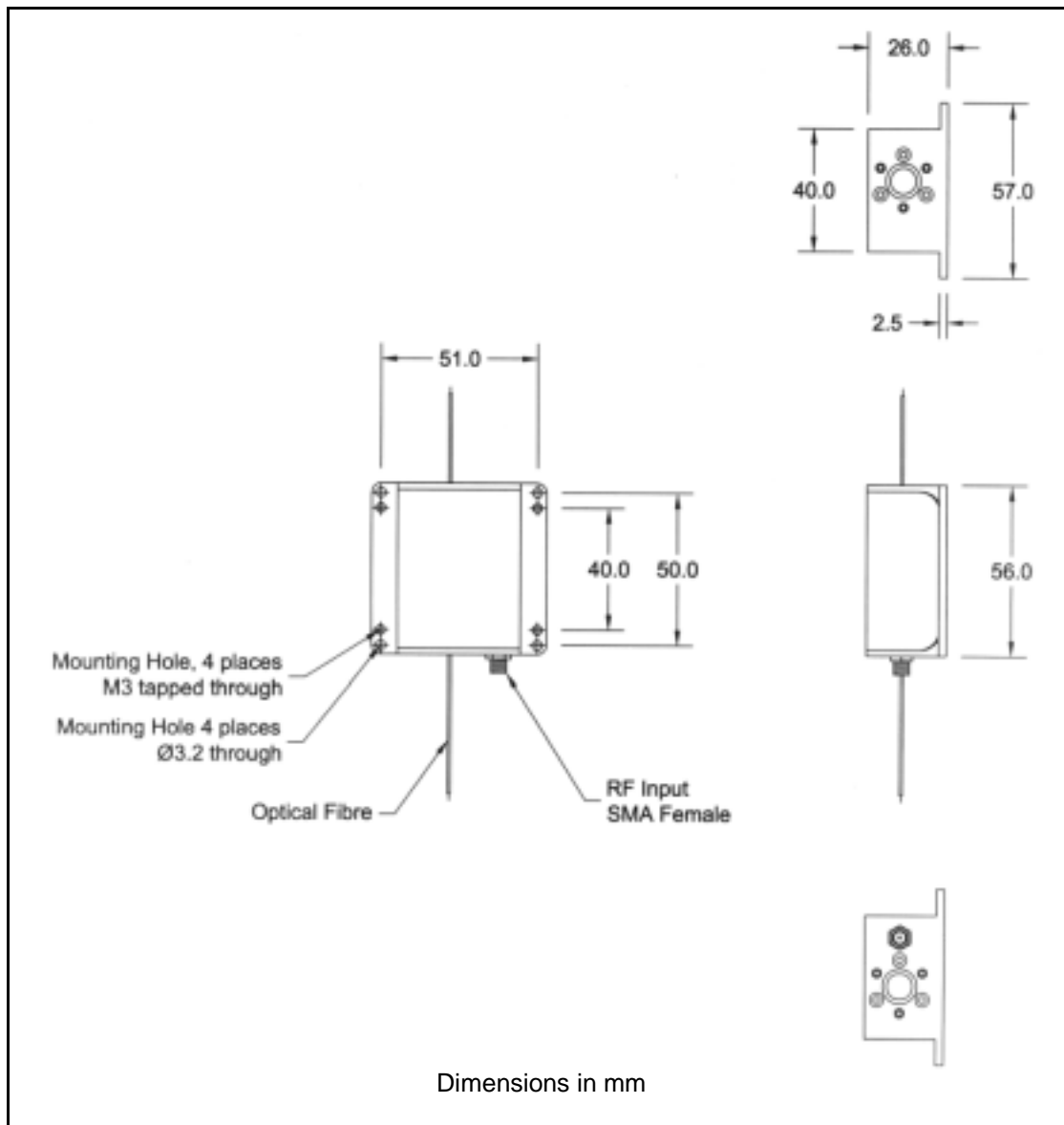
Driver Selection

Digital / Analogue Modulation:	A313
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'Fibre-Q 175' AO Q-Switch

M175-2G-F2S

Mechanical Dimensions



Technical Assistance & Customisation

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