

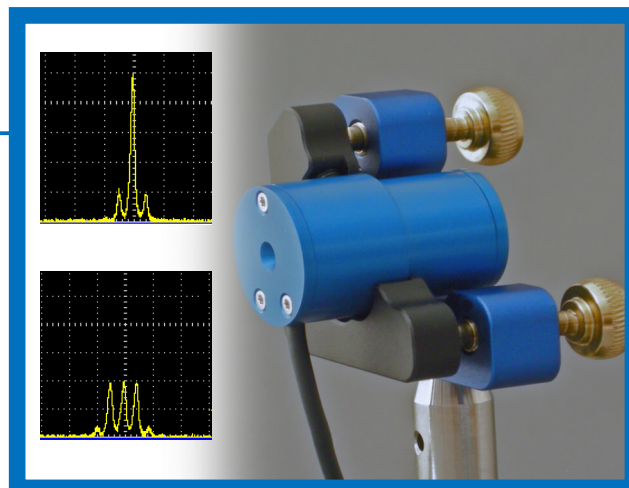


Electro-Optic Modulator

EOM-01-xx-yy

APPLICATIONS

Generation of side-bands on single-frequency lasers for high resolution locking techniques, such as frequency modulation saturation spectroscopy or stabilization to an optical resonator.



DESCRIPTION

This low-cost EOM is available at frequencies from 3 to 25 MHz (standard models listed below), with other frequencies possible on request. Resonant frequencies designed to match the Toptica DigiLock 110 locking module are available at 6.25 MHz, 12.5 MHz, and 25 MHz. It is the perfect solution for researchers wishing to stabilise single-frequency lasers by modulating a probe beam in a Frequency Modulation spectroscopy set-up, while leaving the main beam unaffected. The EOM can be mounted in a standard 1" mirror mount, allowing for simple placement and alignment within your optical setup.

The unit may be supplied with a suitable optional low-voltage oscillator. Coatings for different wavelength ranges are available.

SPECIFICATIONS EOM-01

Resonant Frequency (xx MHz)	3, 5, 6, 6.25, 10, 12.5, 15, 20, 25 (choose)
A.R. Coated (yy = λ range)	U = 400nm-700nm V = 650nm-1000nm IR = 1100nm-1500nm
Aperture Diameter	3 mm
Crystal Material	Lithium Niobate
Crystal Flatness	Lambda/10
SWR at resonance	<1.12:1
Impedance at resonance	50 Ω (nominal)
Modulation Bandwidth	Depends on frequency
Diameter	25.4 mm (1")
Length	35 mm
Connector	2m Coaxial with BNC

OPTIONAL DRIVER

Manufacturer	Thurlby Thandar
Model	TG120
Description	Function Generator
Frequency	0.2Hz to 20MHz
Output Voltage	10mV to 20V (pk-pk)

OPTIONAL AMPLIFIER

Frequency Response	0.4-150 MHz
Gain	20dB
Max Input	1 V
Max Output	10 V
Input/Output Impedance	50 Ω / 50 Ω
Dimensions (HxWxL)	67mm x 204mm x 180mm
Weight	1.6 kg
Power Supply	240Vac(Max power 50VA)
Connectors	BNC Input and Output