

# ACOUSTO-OPTIC MODULATOR

400-540 nm

## PRODUCT DATASHEET

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An acousto-optic modulator for use in the 400-540 nm wavelength range, ideal for frequency doubled Nd:YAG and Nd:YVO4 lasers and diode or gas lasers within this range.

Manufactured in crystal quartz for improved thermal management and efficiency. This modulator combines high quality optical finishing with high grade anti-reflection coatings to maintain superior beam quality and high optical throughput.

In addition to the specifications indicated, we also offer alternative wavelengths, RF frequencies, active apertures and a wide range of custom housing configurations. We also offer full custom design and manufacturing, enabling our customers to achieve the perfect solution.

Our scientists and engineers are available to assist in selecting the most appropriate acousto-optic device and RF driver for your application.

Please contact our sales team for further information.



### Key Features

- Crystal quartz
- 400-540 nm
- High damage threshold
- 110 MHz

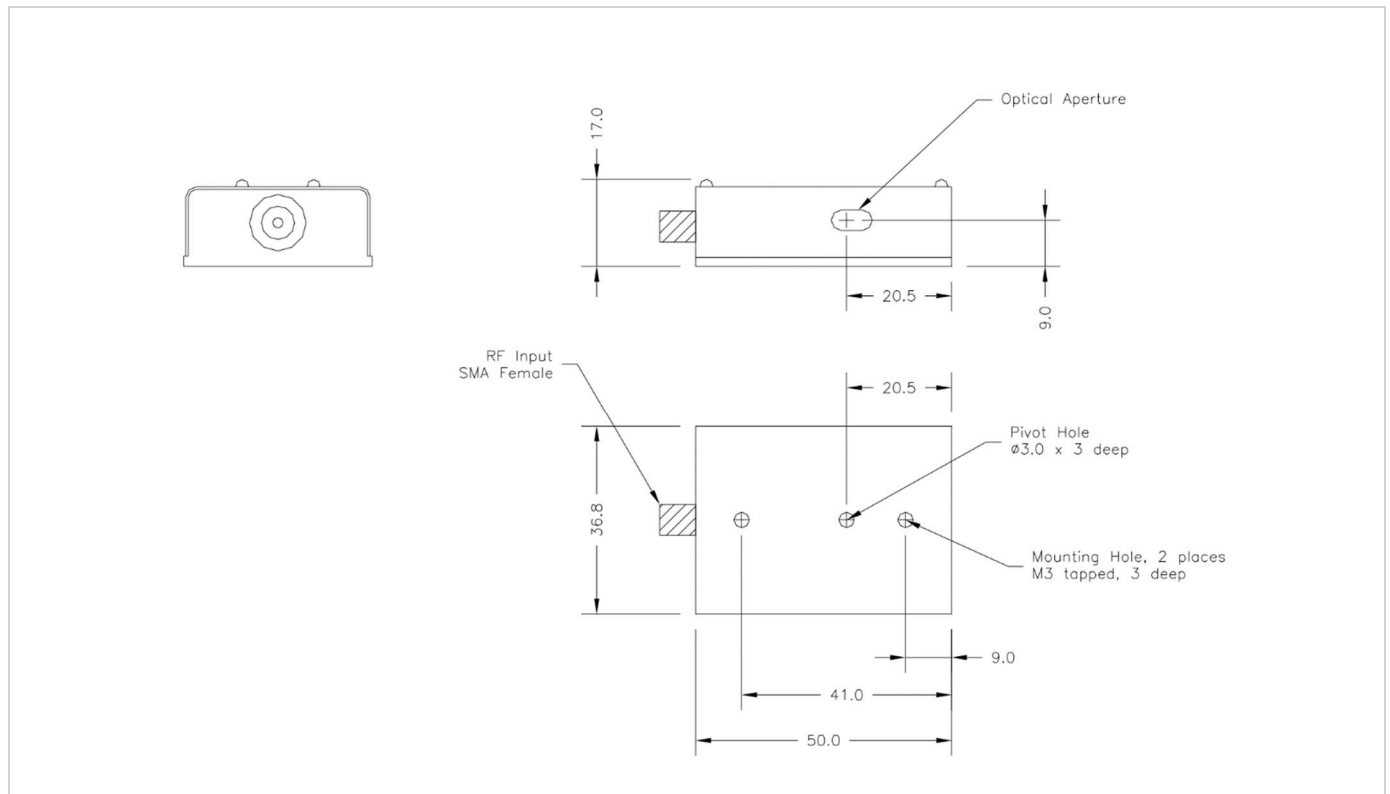
### Applications

- Industrial (material processing)
  - Pulse picking
  - Laser intensity control

## General Specifications

|                             |                                   |
|-----------------------------|-----------------------------------|
| Model No:                   | I-M110-2C10B6-3-GH26              |
| Interaction material:       | Crystal quartz                    |
| Wavelength:                 | 400-540 nm                        |
| Optical polarisation:       | Linear, vertical to base          |
| AR coating reflectivity:    | < 0.5% per surface                |
| Damage threshold:           | > 500 MW/cm <sup>2</sup> (pulsed) |
| Transmission (single pass): | > 99.0%                           |
| RF frequency:               | 110 MHz                           |
| VSWR:                       | < 1.2:1                           |
| Active aperture:            | 2.0 mm                            |
| Acoustic mode:              | Compressional                     |
| Rise-time:                  | 113 ns/mm                         |
| Separation angle:           | 10.2 mrad at 532 nm               |
| Diffraction efficiency:     | > 85%                             |
| RF power:                   | < 5 W                             |

## Device Schematic



### ACOUSTO-OPTIC MODULATOR - I-M110-2C10B6-3-GH26

## Ordering Information

Explanation: I-M110-2C10B6-3-GH26 (Modulator, 110 MHz, 2.0 mm active aperture, compressional mode, crystal quartz, 400-540 nm, SMA male bulkhead, GH26 housing).

| Order code |   | ① |   |   |   | ② |   | ③ |   | ④ |   | ⑤ |   | ⑥ |   |   |   |   |   |
|------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| I          | - | M | 1 | 1 | 0 | - | 2 | C | 1 | 0 | B | 6 | - | 3 | - | G | H | 2 | 6 |