

IMAD-T110L-1.5

Integrated AO Modulator & Driver



0916

The IMAD series provides the system designer with an acousto-optic modulator and associated drive electronics in a single compact package. The IMAD-T110L modulation input is configured for proportional (analog) control of laser beam intensity. A single 4 way connector provides connection to the modulation and DC inputs.

The RF drive power is adjusted by means of an 11 turn PWR ADJ potentiometer. The setting depends on the operating wavelength and desired peak efficiency.

SPECIFICATIONS

| | |
|--------------------------------|--|
| Standard Operating Wavelength: | 405 - 442nm * |
| Interaction Material: | Tellurium Dioxide (TeO ₂) |
| Active Aperture: | 1.5mm |
| Centre Frequency (fc): | 110MHz |
| RF Bandwidth (Δf): | 30MHz |
| Frequency Accuracy: | ± 25 ppm |
| Frequency Stability: | ± 25 ppm |
| Analogue Input: | 0 - 5V ** for 100% depth of modulation |
| Input Impedance: | 600 Ω (110 Ω optional) |
| Static Contrast Ratio: | >1500:1 min (>2500:1 typical) |
| DC Power Input: | +12Vdc or +15Vdc at <0.3A (diode protected) |
| Connection: | 20cm, pre-wired connector to free-end cable provided |

PERFORMANCE vs. BEAM DIAMETER

| | | | | |
|-----------------------------|-----------|-----------|-----------|-----------|
| Beam Diameter (mm): | 1.0 | 0.34 | 0.20 | 0.14 |
| Rise Time (ns): | 180 | 60 | 35 | 25 |
| Modulation Bandwidth (MHz): | 1.9 | 5.8 | 10 | 15 |
| Deflection Efficiency (%): | ≥ 85 | ≥ 85 | ≥ 80 | ≥ 75 |

PERFORMANCE vs. WAVELENGTH

| | | |
|--------------------------|------|------|
| Wavelength (nm): | 405 | 442 |
| Static Insertion Loss: | <4.0 | <3.0 |
| Bragg Angle (mrad): | 5.3 | 5.8 |
| Separation Angle (mrad): | 10.6 | 11.6 |

* Other Anti-Reflection coatings available upon request.

** Options available

ALL SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

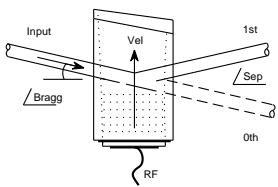
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Quality Assured.

In-house: Crystal Growth,
Optical Polishing,
A/R coating, Vacuum Bonding



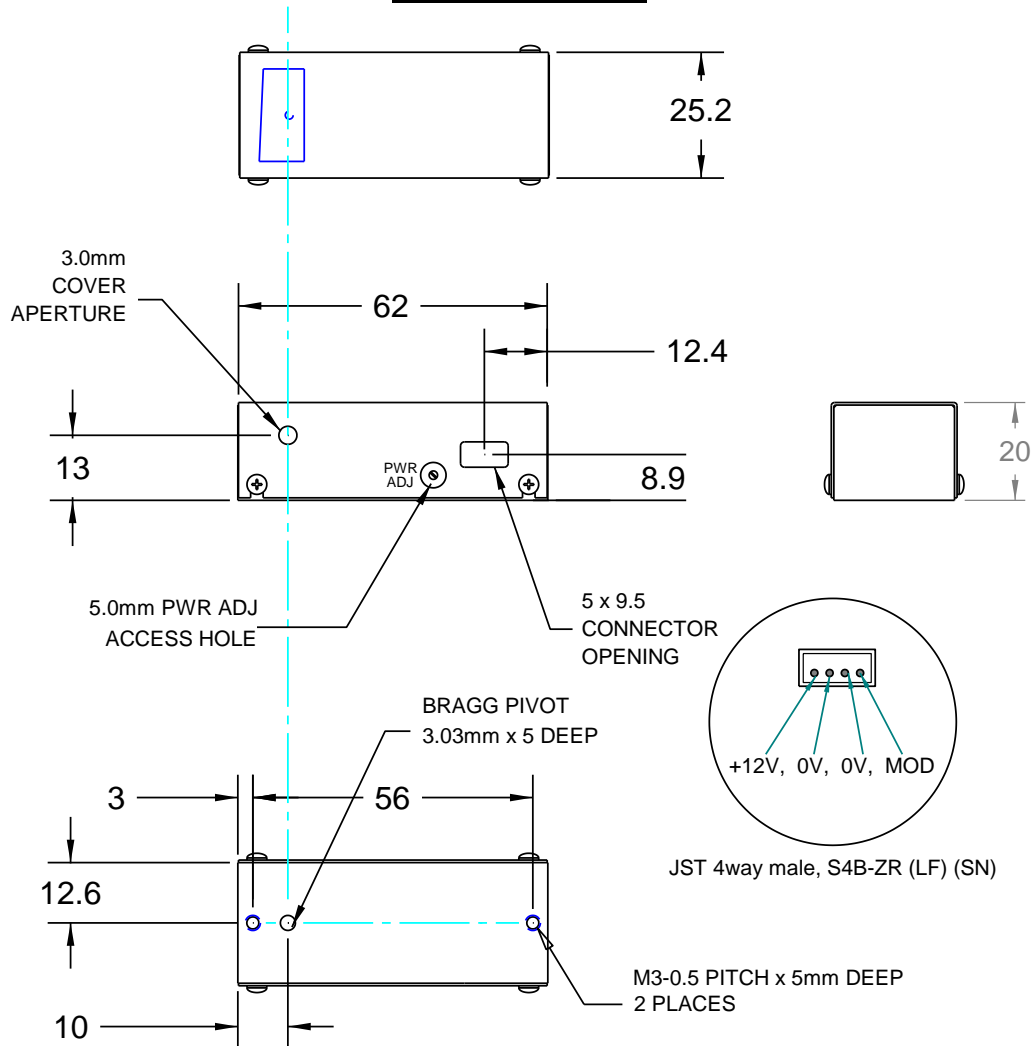
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OUTLINE DRAWING



Connector:

JST ZH Series 4 way, 1.5mm Pitch
 Mating Housing : ZHR-4
 Crimp Contacts : BZH-003-PO.5

Mount device on a heat conducting surface

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