

# IMAD-T110L-1.5

## Integrated AO Modulator & Driver



0808

The IMAD series provides the system designer with an acousto-optic modulator and associated drive electronics in a single compact package. The IMAD-T110L video input is designed for the 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 a 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 <sub>2</sub> )
Active Aperture:	1.5mm
Centre Frequency (fc):	110MHz
RF Bandwidth ( $\Delta f$ ):	30MHz
Frequency Accuracy:	$\pm 0.003\%$
Frequency Stability:	$\pm 0.003\%$
Analogue Input:	0 - 5V ** for 100% depth of modulation
Input Impedance:	110 $\Omega$ (600 $\Omega$ optional)
Static Contrast Ratio:	>1500:1 min (>2500:1 typical)
DC Power Input:	+12Vdc or +15 Vdc at < 0.3A, diode protected
Connector: JST ZH Series 4 way, 1.5mm Pitch	Mating Housing : ZHR-4 Crimp Contacts : BZH-003-PO.5
Recommended wire : 28awg, 2 x twisted pairs	

### 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 (%):	$\geq 85$	$\geq 85$	$\geq 80$	$\geq 75$

### 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

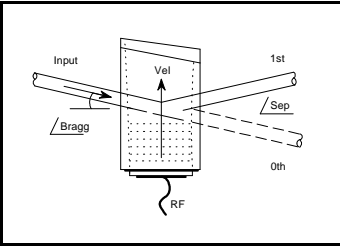
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#### Quality Assured.

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



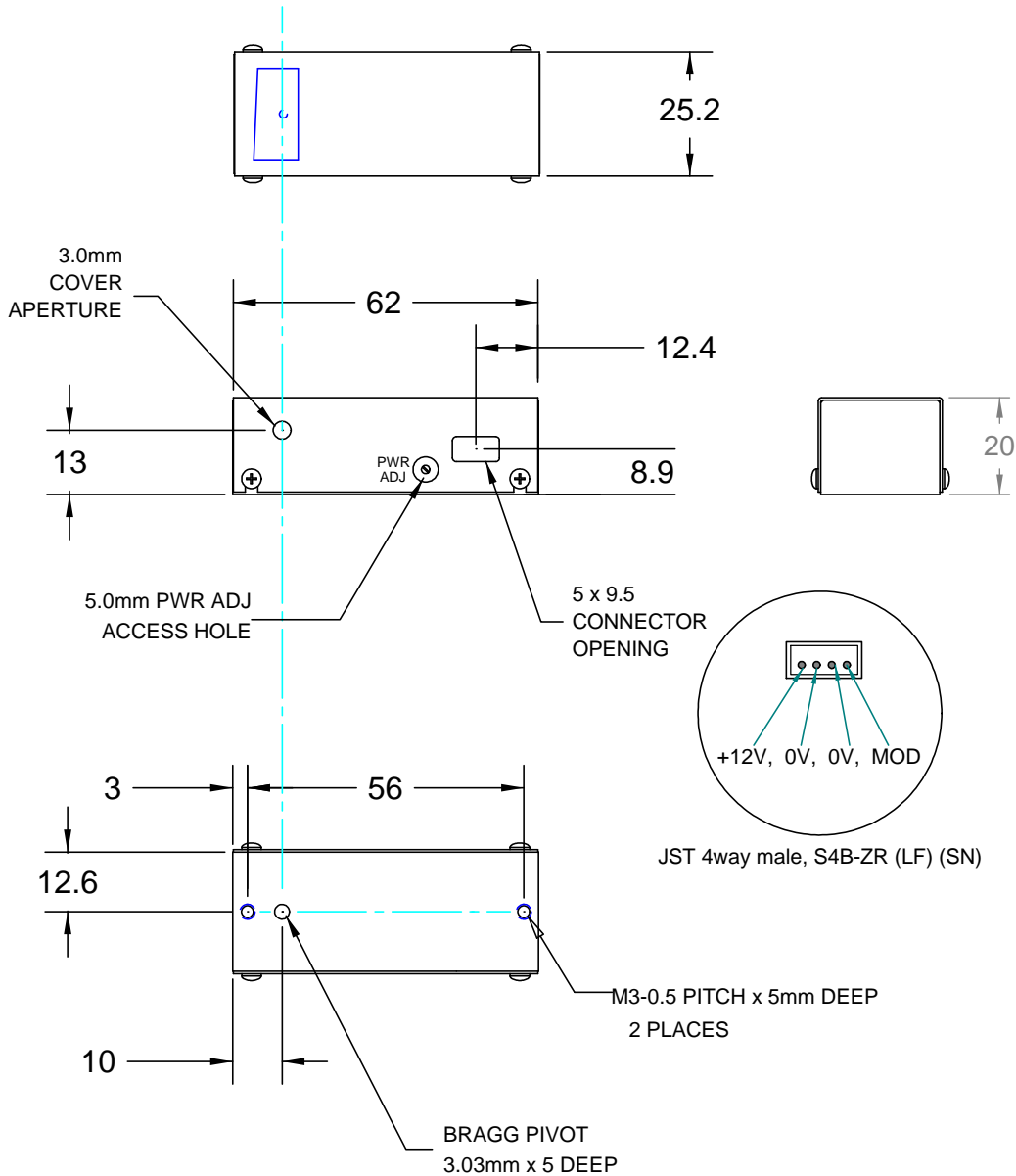
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### OUTLINE DRAWING



Mount device on a heat conducting surface

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