

IMAD-P80L-1.5

Integrated AO Modulator & Driver



0408

The IMAD series provides the system designer with an acousto-optic modulator and associated drive electronics in a single compact package. The IMAD-P80L 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:	488-633nm *
Interaction Material:	Lead Molybdate (PbMoO ₄)
Active Aperture:	1.5mm
Centre Frequency (fc):	80MHz
RF Bandwidth (Δf):	30MHz
Frequency Accuracy:	$\pm 0.003\%$
Frequency Stability:	$\pm 0.003\%$
Analogue Input:	0 - 5V ** for 100% depth of modulation
Input Impedance:	110 Ω (600 Ω 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 (%):	≥ 85	≥ 85	≥ 80	≥ 75

PERFORMANCE vs. WAVELENGTH

Wavelength (nm):	473	488	532	633
Static Insertion Loss:	<7.0	<5.0	<3.0	<3.0
Bragg Angle (mrad):	5.2	5.4	5.9	7.0
Separation Angle (mrad):	10.4	10.8	11.7	14.0

* Other Anti-Reflection coatings available upon request.

** Options available

ALL SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

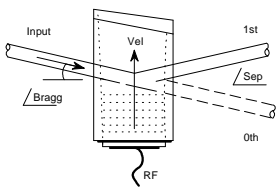
ISOMET CORP, 5263 Port Royal Rd, Springfield, VA 22151, USA.

Tel: (703) 321 8301 Fax: (703) 321 8546

E-mail: ISOMET@ISOMET.COM Web Page: WWW.ISOMET.COM

Quality Assured.

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



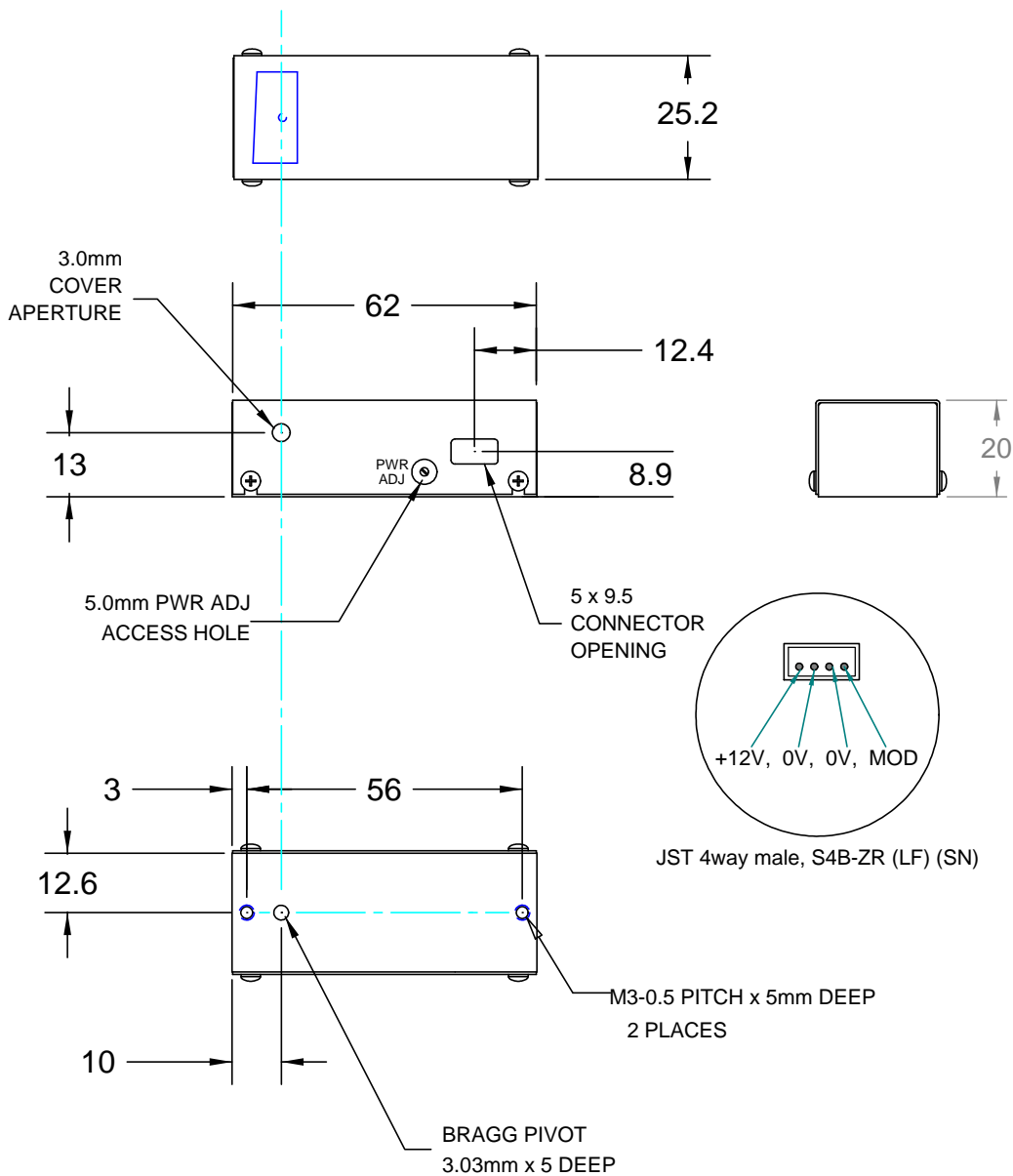
IMAD-P80L-1.5

Integrated AO Modulator & Driver



0408

OUTLINE DRAWING



Mount device on a heat conducting surface

ALL SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

ISOMET CORP, 5263 Port Royal Rd, Springfield, VA 22151, USA.

Tel: (703) 321 8301 Fax: (703) 321 8546

E-mail: ISOMET@ISOMET.COM Web Page: WWW.ISOMET.COM

Quality Assured.

In-house: Crystal Growth,

Optical Polishing,

A/R coating, Vacuum Bonding