The IMDD series provides the system designer with an acousto-optic modulator and associated drive electronics in a single compact package. The IMDD-P80L video input is designed for the On/Off 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 (PbMoO₄)
- Active Aperture: 1.5mm
- Centre Frequency (fc): 80MHz
- RF Bandwidth (Δf): 30MHz
- Frequency Accuracy: ± 0.003%
- Frequency Stability: ± 0.003%

- Digital Input: TTL compatible
  - > 2.7V = RF ON, < 0.8V = RF OFF
  - (10mA input current)

- 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
IMDD-P80L-1.5
Integrated AO Modulator & Driver

OUTLINE DRAWING

Mount device on a heat conducting surface
IMDD-P80L-1.5
Integrated AO Modulator & Driver