APPLICATION

- Wideband Miniature AOM Modulator for use in Laser Projection Systems

SPECIFICATIONS

- Spectral Range: 0.442–1.5 µm
- Standard A/R Wavelengths: 532nm
- Interaction Medium: Tellurium Dioxide (TeO₂)
- Acoustic Velocity: 4.2 mm/µs
- Active Aperture: 0.2 mm
- Centre Frequency: 200 MHz
- RF Bandwidth: 50 MHz
- RF Input Impedance: 50 Ω Nominal
- DC Contrast Ratio: >1000:1 min (2000:1 typical)

OUTLINE

- RF INPUT
- LASER BEAM
- Dimensions: 12.7 mm x 6.2 mm
- 2 Places: 1.5 mm dia
- 0.8 mm dia
- 6.8 ±0.2 mm
- 1.8 ±0.1 mm
- 3.2 mm
- 1.4 mm
- 1.25 mm
- 7.7 mm
M1067-T200L
OEM Mini Acousto-Optic Modulator

Typical Data

PERFORMANCE vs. BEAM DIA. at 532nm

- Efficiency
- Rise time

PERFORMANCE vs. WAVELENGTH

- Operating Wavelength (nm): 532
- RF Drive Power (W): <0.3
- Input Bragg Angle (mrad): 12.7
- 0th-1st Order Beam Separation (mrad): 25.3
- Static Insertion Loss (%): <3

DYNAMIC CONTRAST RATIO

Maximum modulation bandwidth (50MHz) dynamic contrast ratio (CR) is obtained with a focused beam diameter of 31µm. The typical MTF (depth of modulation) curve for the M1067 is shown at left. For larger beam diameters, the abscissa scales linearly. The value of M from the curve may be used to determine the sine wave contrast ratio at a particular modulating frequency according to the relation:

\[ \text{CR} = 1 + \frac{M}{1 - M} \]

For digital, on-off modulation, the CR will be greater than the value calculated from the above equation.

Recommended Driver

535C-L