



**MODEL AOM-AF1 SERIES**  
**ACOUSTO-OPTIC MODULATOR / FREQUENCY SHIFTER**

- HIGH OPTICAL POWER CAPABILITY
- INTENSITY MODULATION
- OPTICAL FREQUENCY SHIFTING
- LASER BEAM DEFLECTION
- HIGH RELIABILITY
- EXCELLENT TEMPERATURE STABILITY



**SPECIFICATIONS**

|                                     |                                                                  |
|-------------------------------------|------------------------------------------------------------------|
| Optical Wavelength Range            | 440 to 700 nm                                                    |
| Acousto-optic Material              | Dense Flint Glass                                                |
| Acoustic Velocity                   | 3630 m/sec                                                       |
| Active Aperture Height <sup>1</sup> | 2 mm                                                             |
| Modulation Bandwidth (-3db)         | 2.7 MHz (1.0 mm beam diameter)<br>1.8 MHz (1.5 mm beam diameter) |
| Optical Rise Time                   | 177 nsec (1.0 mm diameter)<br>265 nsec (1.5 mm diameter)         |
| Static Optical Insertion Loss       | 2 Percent (633nm)                                                |
| Optical Polarization                | Any                                                              |
| RF Input Impedance                  | 50 Ohms (VSWR < 1.25:1 at CF)                                    |
| RF Connector                        | BNC                                                              |
| Size (less connector)               | 0.88 H x 2.94 D x 2.46 W inches<br>22.4 H x 74.7 D x 62.5 W mm   |

| <b>MODEL</b>                       | <b>AOM-602AF1</b> | <b>AOM-802AF1</b>  | <b>AOM-1002AF1</b> |
|------------------------------------|-------------------|--------------------|--------------------|
| Center Frequency <sup>2</sup> (CF) | 60 MHz            | 80 MHz             | 100 MHz            |
| Optical Frequency Shift Range      | ±(50 to 70)MHz    | ±(65 to 95)MHz     | ±(85 to 115)MHz    |
| Diffraction Efficiency             | 90 Percent        | 90 Percent         | 85 Percent         |
| Drive Power <sup>3</sup>           | 2 Watts (633 nm)  | 2 Watts (633 nm)   | 2 Watts (633 nm)   |
| Beam Separation                    | 9.6 mrad (633 nm) | 12.8 mrad (633 nm) | 17.3 mrad (633 nm) |

<sup>1</sup> Other active aperture heights available.

<sup>2</sup> Other center frequencies available.

<sup>3</sup> A complete line of analog, digital, dual frequency, OEM, and laboratory drive electronics are available.