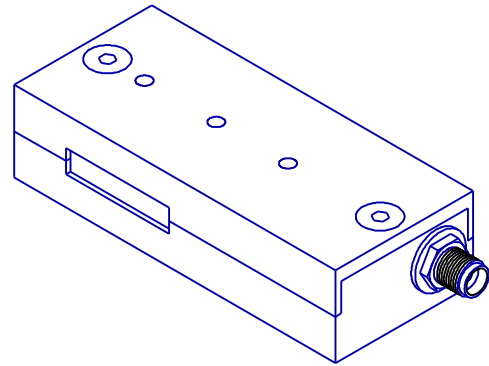


**MODEL ACM SERIES  
ACOUSTO-OPTIC MODULATOR / FREQUENCY SHIFTER**

- NEAR IR WAVELENGTH RANGE
- INTENSITY MODULATION
- OPTICAL FREQUENCY SHIFTING
- OPTICAL ISOLATION
- LOW RF DRIVE POWER
- HIGH RELIABILITY
- HIGH OPTICAL POWER CAPABILITY



**SPECIFICATIONS**

Acousto-optic Material	AMTIR-1 Chalcogenide Glass
Optical Wavelength <sup>1</sup>	1.2 to 1.6 : $\mu$ m
Optical Power Capability	50 Kwatts / $\text{cm}^2$
Active Aperture Height <sup>2</sup>	2 mm
Diffraction Efficiency	90 percent
RF Drive Power <sup>3</sup>	600 milliwatts (1.55 : $\mu$ m)
RF Input Impedance	50 ohms
Modulation Bandwidth (-3db)	1.25 MHz (1.5 mm diameter)
Optical Rise Time	255 nsec / mm beam diameter
Static Optical Insertion Loss	5 percent (1.55 $\mu$ m)
Optical Polarization	any
RF Connector	SMA
Size (less connector)	2.80 L x 1.25 W x 0.70 H inches 71.2 L x 31.8 W x 17.8 H mm

<b>MODEL</b>	<b><u>ACM-402AA1</u></b>	<b><u>ACM-502AA1</u></b>	<b><u>ACM-802AA1</u></b>	<b><u>ACM-1002AA1</u></b>
Center Frequency <sup>4</sup>	40 MHz	50 MHz	80 MHz	100 MHz
Optical Frequency Shift	" 30 to 50 MHz	" 40 to 60 MHz	" 65 to 95 MHz	" 80 to 120 MHz
Beam Separation (1.55 $\mu$ m)	24.6 mrad	30.8 mrad	49.2 mrad	61.5 mrad

<sup>1</sup> Wavelengths available in the range of 1.2 to 2.5  $\mu$ m with appropriate antireflection coating. Specifications vary with optical wavelength.

<sup>2</sup> Other active aperture heights available with modified specifications.

<sup>3</sup> Fixed frequency, synthesized variable frequency, or OEM drivers are available.

<sup>4</sup> Any RF frequency from 40 to 250 MHz is available. Specifications vary with RF frequency.