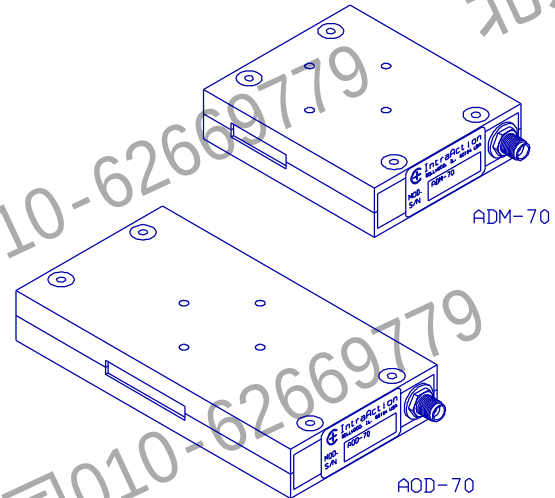


AOD-70 ACOUSTO-OPTIC DEFLECTOR
ADM-70 ACOUSTO-OPTIC DEFLECTOR-MODULATOR

- Laser Beam Deflection
- Intensity Modulation
- Multiple Beam Generation
- Flat Optical Scan Response
- Acoustic Phased-array Design¹
- Optical Signal Processing
- Optical Frequency Shifting
- High Reliability



SPECIFICATIONS

Design Optical Wavelength²

633 nm

Acousto-optic Material

Dense Flint Glass

Diffraction Efficiency (center of scan)

80 percent

Diffraction Efficiency (edges of scan)

60 percent

Center Frequency

70 MHz

Deflection Bandwidth

40 MHz

Beam Separation

11.4 mrad (70 MHz)

Deflection Range

6.5 mrad

RF Drive Power³ (nominal)

2.5 watts

Input Impedance (nominal)

50 ohms

Optical Polarization

any

MODEL

Time-Bandwidth Product(resolution)⁴

ADM-70

200(spots)

AOD-70

400(spots)

Access Time (full aperture width)

5 :sec

10 :sec

Active Aperture Height

2 mm

2 mm

Active Aperture Width

20 mm

40 mm

Size (less connector)

2.8 L x 0.7 H x 2.4 W inches

4.5 L x 0.7 H x 2.4 W inches

7.1 L x 1.8 H x 6.1 W cm

11.5 L x 1.8 H x 6.1 W cm

¹ These deflectors incorporate an acoustic phased-array beam steering design to produce a relatively flat first order diffraction efficiency across the deflection bandwidth. Because of this design feature, the deflectors require a single RF power amplifier to drive the multiple transducer array.

² Useful at other wavelengths with modified specifications.

³ A complete line of VCO, synthesized, laboratory, and OEM drive electronics is available.

⁴ This is resolution as defined by the Rayleigh criterion for a uniformly illuminated optical beam.