HARRIS

Optical Solutions

SF6 Acousto-Optic Q-Switch

Model H-301

Applications

- Q-switching
- High-speed modulation

Development of acousto-optic devices at Harris has produced a special device for Q-switching lasers. This acousto-optic modulator device, utilizing a high-frequency, bulk wave transducer, provides high performance with excellent reliability. Significant features of the acousto-optic Q-switch are a rise time of <25 nanoseconds and a diffraction efficiency of >20 percent/watt. In addition to Q-switching, this basic modulator can be used for high-speed modulation.

Capabilities

Capabilities exist for cavity-dumpers, high-speed acousto-optic modulators, mode lockers, deflectors/scanners, and Q-switches.

Specifications

Rise Time <25 nanoseconds

Peak Diffraction >20%/watt

Bandwidth (3 dB) 40 MHz

Carrier Frequency 80 MHz

Wavelength 1047–1064 nm

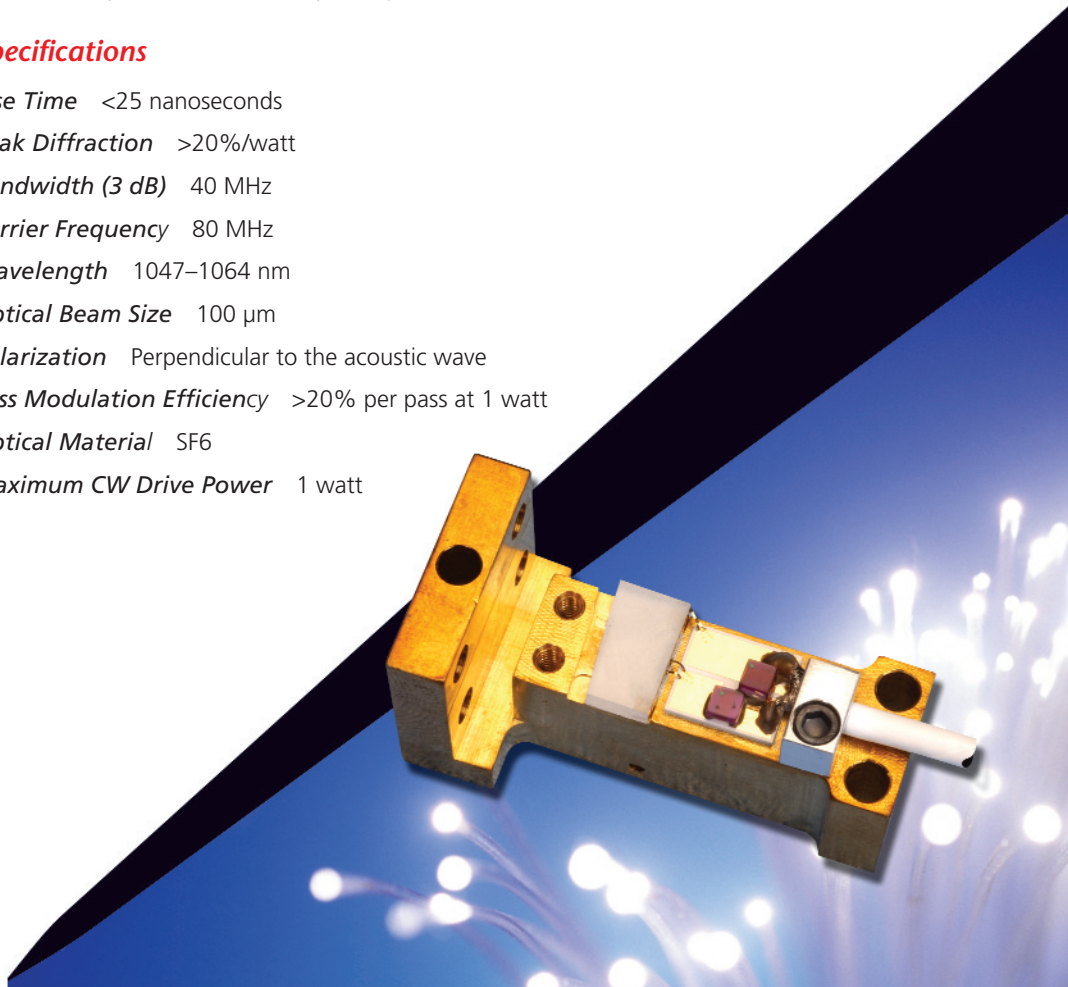
Optical Beam Size 100 µm

Polarization Perpendicular to the acoustic wave

Loss Modulation Efficiency >20% per pass at 1 watt

Optical Material SF6

Maximum CW Drive Power 1 watt



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