

Acousto-optic frequency shifter

Overview

After the laser beam passes through all the acoustooptic devices, the diffraction output beam will generate frequency shift. Acousto-optic frequency shifters (AOFs) are compact devices specially designed for frequency shift. Depending on the selected Angle of incidence, the AOFs will shift the frequency up or down by the frequency of the applied RF signal, and two or more devices can be cascaded to achieve a sum or difference frequency combination.

Product Introduction



Goptica' s AOFs products adopt specially designed acoustic absorber angles to minimize sound reflection and improve the efficiency of AOFs.

In addition to the conventional TE02-based products, Goptica' s AOFs can also offer a variety of products including UVFS and Ge single crystals, which can be used individually or in a cascade to achieve 15-250 MHz frequency shift as required.

Please don' t hesitate contact with us for other specifications, we can also customize for your needs.

Application

Laser heterodyne interference, laserDoppler velocity measurement, Doppler vibration measurement (LDV).

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Product specifications

Product Code	Working wavelength (nm)	Active Aperture (mm)	Center frequency (MHz)	Bandwidth (MHz)	Diffraction Efficiency	Optical Material
FS1001-TS020_000-030-633	633	3	20	/	>85%	Tellurium dioxide
FS1002-TS042_000-030-633	633	3	42	/	>85%	Tellurium dioxide
FS1003-TL100_000-030-633	633	3	100	/	>80%	Tellurium dioxide
FS1004-TL115_000-030-633	633	3	115	/	>80%	Tellurium dioxide
FS1005-TS042-030-633	633	3	42	/	>85%	Tellurium dioxide
FS1006-TS020-025-633	633	2.5	20	/	>85%	Tellurium dioxide
FS1008-TL073-010-1064	1064	1	73	± 3	>80%	Tellurium dioxide
FS1009-TS110-015-1064	1064	1.5	110	± 5	>80%	Tellurium dioxide
FS1010-TL080-P02-1064	1064	/	80	± 4	<3dB	Tellurium dioxide
FS1011-TS040-020-633	633	2	10	/	>85%	Tellurium dioxide
FS1012-TL240-003-780	780	0.3	240	± 3	>70%	Tellurium dioxide
FS1014-TS040-030-633	633	3	40	/	>80%	Tellurium dioxide
FS1015-TS020_000-030-633	633	3	20	/	>85%	Tellurium dioxide
FS1016-TS040_010-017-633	633	1.7	40	/	>80%	Tellurium dioxide
FS1017-QL110-020-532	532	2	110	/	>85%	Crystalline quartz

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FS1021-TL073_006-010-633	633	1	73	±3	>80%	Tellurium dioxide
FS2001-TS042_020-030-633	633	3	42	/	>85%	Tellurium dioxide