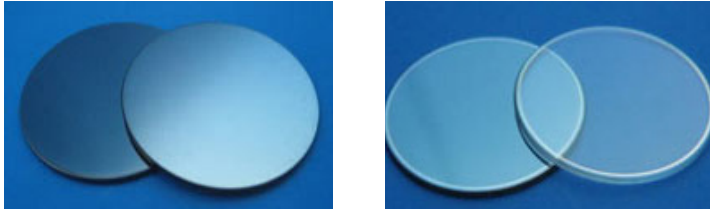


THz Spectral Splitters

Tydex offers spectral splitters for applications where NIR or MIR radiation has to be reflected without transmission degradation in THz range.

NIR-THz spectral splitter is used for separation of pump radiation (centered in the wavelength 790-800 nm) from THz radiation in Ti:Sapphire laser and MIR-THz spectral splitters for separation of pump radiation (9.6 μm and 10.6 μm) from THz radiation in THz laser optically pumped by CO_2 - laser.



Common specification:

Type	NIR-THz spectral splitter	MIR-THz spectral splitter
Material of substrate	HRFZ-Si THz-grade crystal quartz	
Dimensions tolerance, mm	+/-0.25	
Clear aperture, %	90	
Surface quality, scr/dig	60/40	
Surface accuracy, mm	+/-0.01 deviation from ideal plane	
Coating	High-reflection dielectric coating (R>90%) @ 730-860 nm	High-reflection dielectric coating (R>90%) @ 9-11 μm
Angle of incidence, arc. grad:	45	

The following THz spectral splitters are available from stock:

No.	Diameter		Thickness
	mm	inches	mm
1	25.4	1.0	1.0
2	50.8	2.0	1.0

Please check the Optics stock at our website. Custom designs are available upon request. For price quotation and delivery please fill in the request form on our website.

Typical reflection and transmission curves.

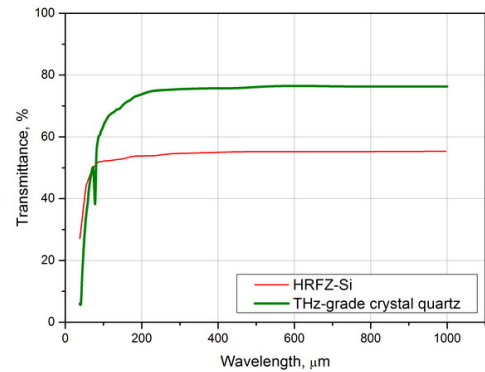
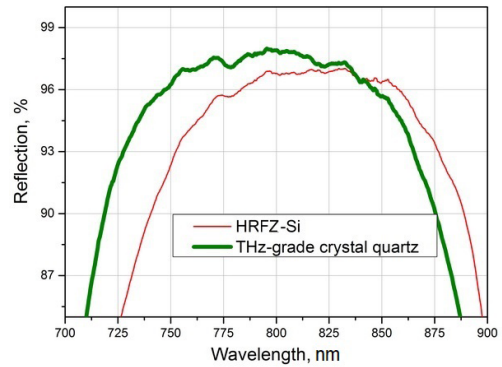


Fig. 1, 2 Reflection and transmission of NIR-THz spectral splitter (two types of substrate)

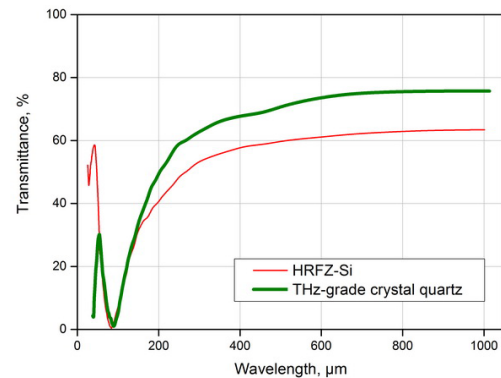
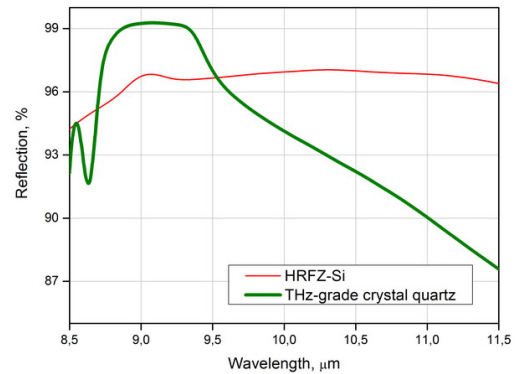


Fig. 3, 4 Reflection and transmission of MIR-THz spectral splitter (two types of substrate)