



We offer THz prisms of the following configurations:

- conventional (right angle) prisms. This type is used in optical schemes.
- attenuated total reflectance (ATR) prisms. These special prisms allow investigating materials that are difficult to analyze in transmission.

Absorption spectroscopy of materials with intensive absorption becomes practically impossible because of intensive absorption and Fresnel reflection. In this case the most suitable method of investigation absorbing materials is method of frustrated total internal reflection. This method is based on the effect of reducing of reflection coefficient of radiation from interface between high refractive index medium n_0 and absorbing medium with less refractive index n at the angle of incidence that exceeds the critical angle $\theta_c = \arcsin(n/n_0)$. Value of reflection coefficient depends on the angle of radiation incidence, radiation polarization as well as refractive index of the sample. Right choice of prism parameters (specifically base angle of the prism) allows obtaining good ATR spectrum. Method of frustrated total internal reflection in THz range allows investigating materials with absorption coefficients from 10^2 to 10^4 cm^{-1} .

Common specification:

Material	HRFZ-Si
Thickness tolerance, mm	+/-0.2
Angle tolerance, mm	+/-30
Surface quality of polished surfaces, scr/dig	80/50
Surface quality of ground surface, Ra	2.5
Surface accuracy, mm	+/-0.01 deviation from ideal plane

THz prisms are manufactured upon request. For price quotation and delivery please fax or e-mail us. The finished parts of different dimensions are available from stock and supplied within a week. Please check the Optics stock at our website.

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