Data sheet TPX-D50.8-f100

Plano-convex TPX lens with diameter 50.8 mm and focal length 100 mm for THz application

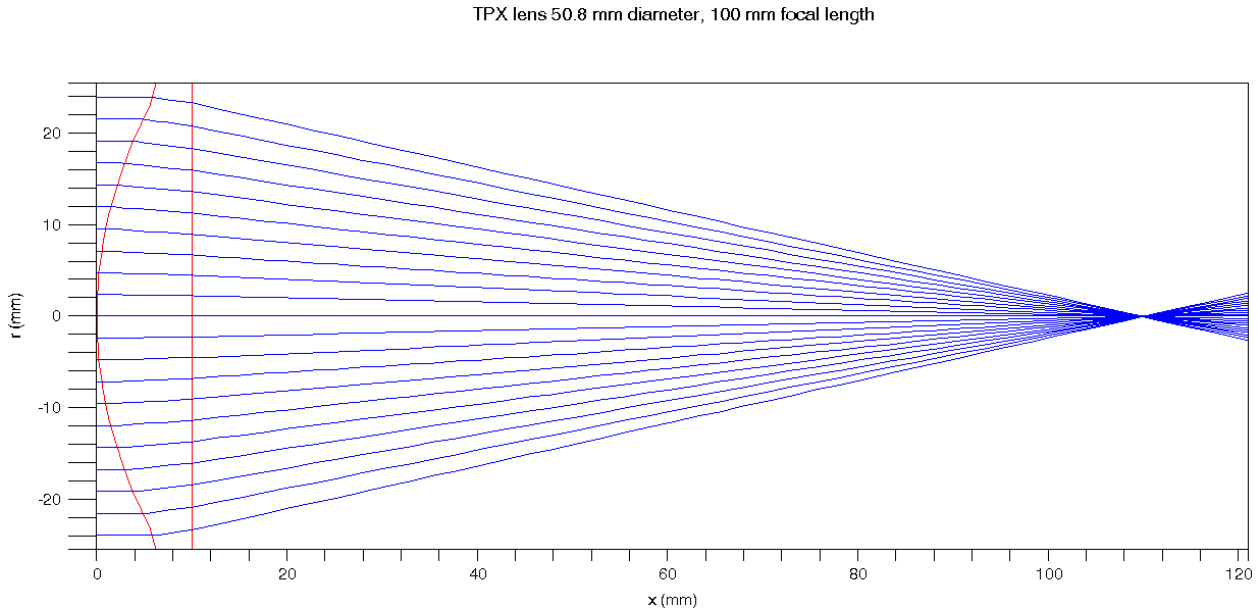
Unmounted lens TPX-D50.8-f100-0

Mounted lens TPX-D50.8-f100-t12.7

Description

The TPX-D50.8-f100 is a plano-convex TPX (Polymethylpentene) lens for THz waves. It can be used to focus a collimated THz beam.

Lens parameters:	material	TPX (Polymethylpentene)
	refractive index n	1.45 @ 1 THz
	absorption coeff. α	0.3 cm^{-1}
	focal length	100 mm (distance flat surface – focus)
	outer lens diameter	50.8 mm
	free aperture diameter	47.8 mm
	maximum lens thickness	10 mm
	edge lens thickness	4.0 mm
	aperture angle α	13.1 °
	numerical aperture NA	0.23
Airy disc diameter	ν = 300 GHz	2.7 mm
	ν = 1 THz	0.8 mm
	ν = 3 THz	266 µm
Lens tube	outer diameter	30.5 mm
	length	12.7 mm (½") or 25,4 mm (1")



Order information

Part number	*Description*	*Photo*
TPX-D50.8-f100-0	Unmounted TPX lens with diameter D = 50.8 mm and focal length f = 100 mm	
TPX-D50.8-f100-t12.7	Mounted TPX lens with diameter D = 50.8 mm and focal length f = 100 mm, tube length 12.7 mm	
TPX-D50.8-f100-t25.4	Mounted TPX lens with diameter D = 50.8 mm and focal length f = 100 mm, tube length 25.4 mm