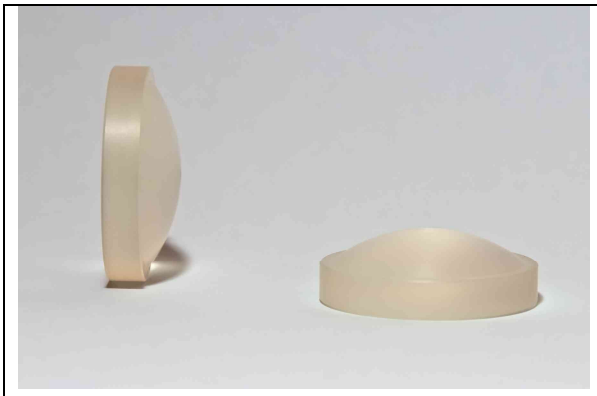
Data sheet TPX-D25.4-f50

Plano-convex TPX lens with diameter 25.4 mm and focal length 50 mm for THz application

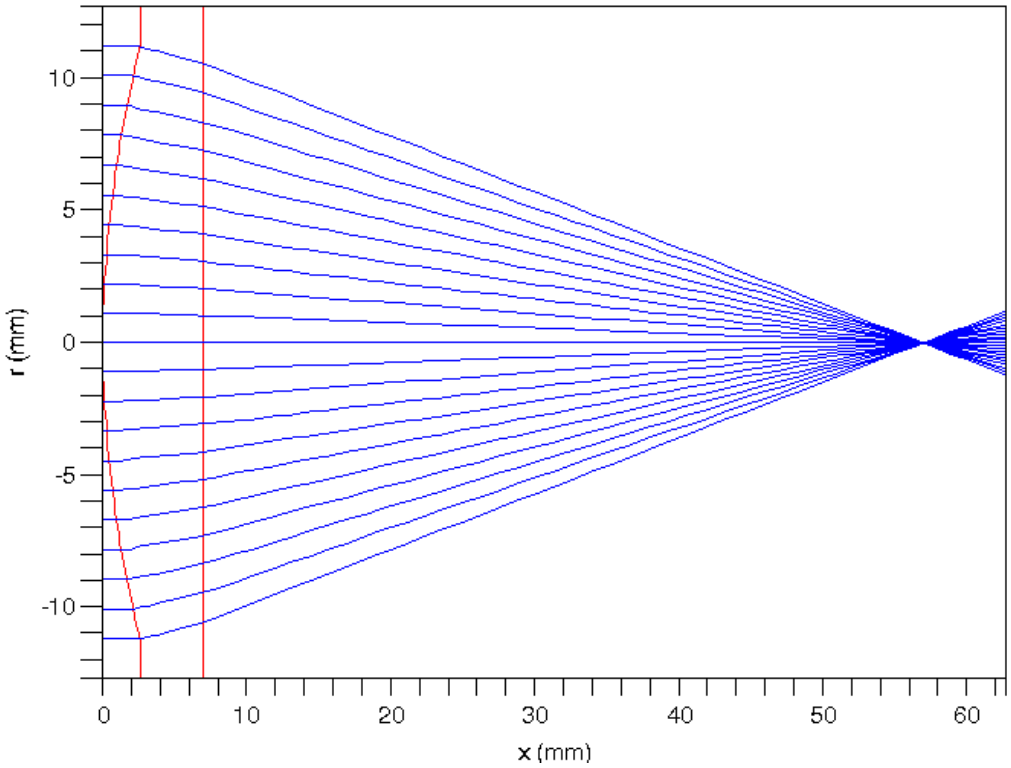
	
Unmounted lens TPX-D25.4-f50-0	Mounted in a tube TPX-D25.4-f50-t12.7

Description

The TPX-D25.4-f50 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	50 mm (distance flat surface – focus)
	outer lens diameter	25.4 mm
	free aperture diameter	22.4 mm
	maximum lens thickness	7.0 mm
	edge lens thickness	4.4 mm
	aperture angle α	11.9 °
	numerical aperture NA	0.21
Airy disc diameter	ν = 300 GHz	2.89 mm
	ν = 1 THz	867 µm
	ν = 3 THz	289 µm
Lens tube	outer diameter	30.5 mm
	length	12.7 mm (½") or 25,4 mm (1")

TPX lens 25.4 mm diameter, 50 mm focal length



Order information

Part number	*Description*	*Photo*
TPX-D25.4-f50-0	Unmounted TPX lens with diameter D = 25.4 mm and focal length f = 50 mm	
TPX-D25.4-f50-t12.7	Mounted TPX lens with diameter D = 25.4 mm and focal length f = 50 mm, tube length 12.7 mm	
TPX-D25.4-505-t25.4	Mounted TPX lens with diameter D = 25.4 mm and focal length f = 50 mm, tube length 25.4 mm