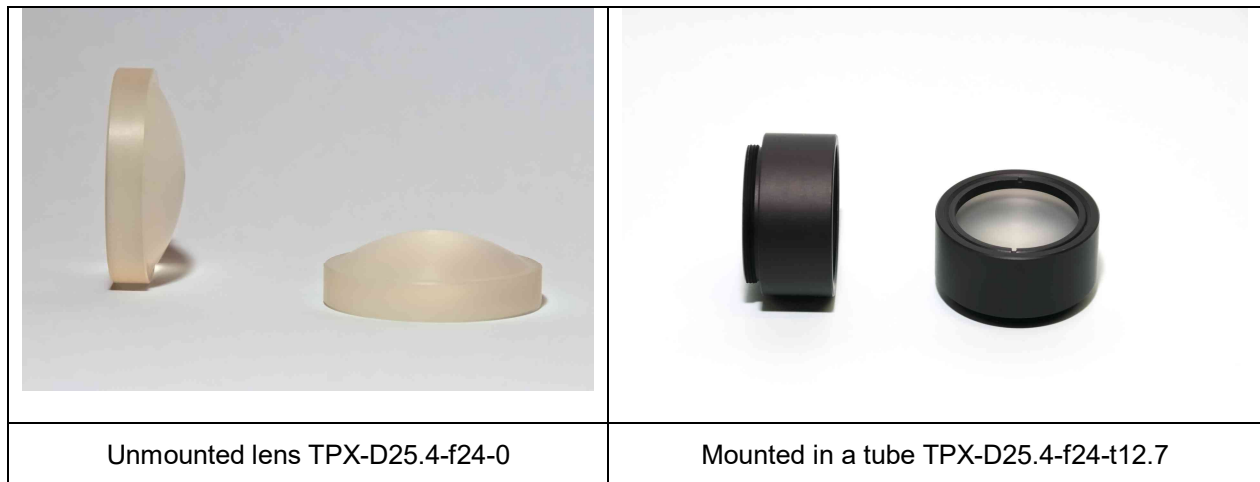


Data sheet TPX-D25.4-f24

Plano-convex TPX lens with diameter 25.4 mm and focal length 24 mm for THz application



Description

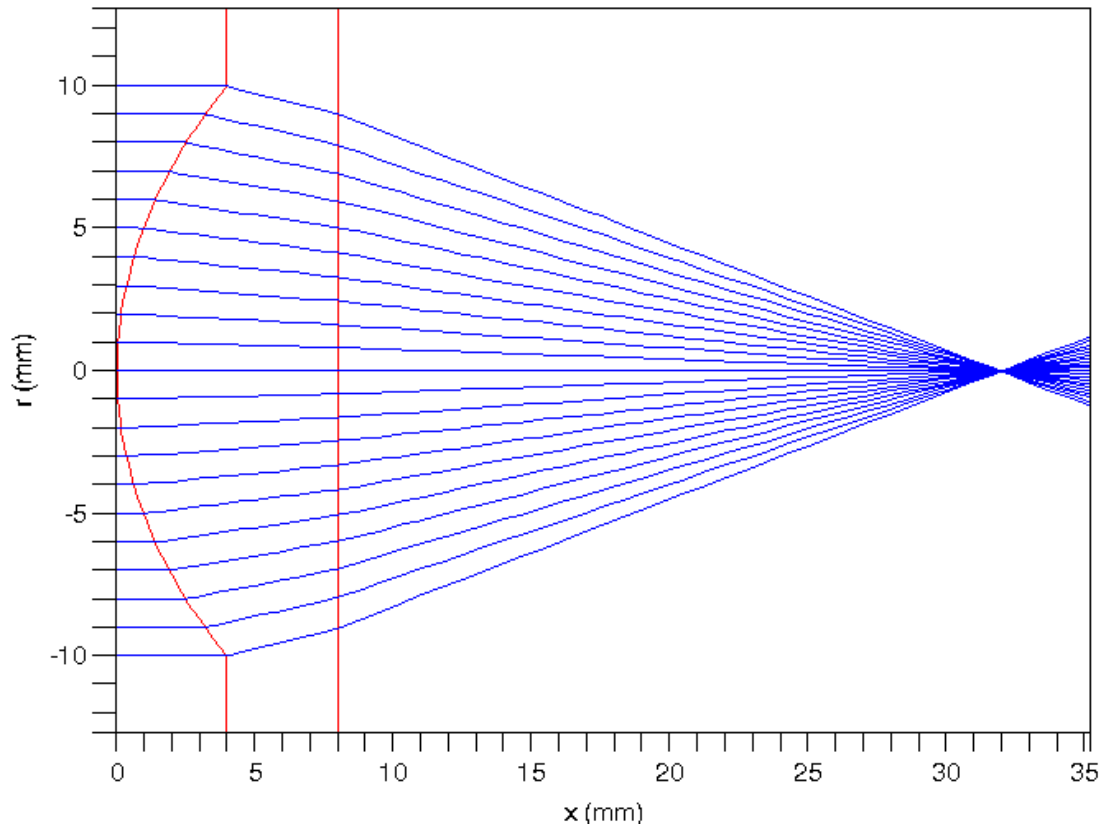
The TPX-D25.4-f24 is a plano-convex TPX (Polymethylpentene) lens for THz waves. It can be used to focus a collimated THz beam.

Lens parameters:	material	TPX (Polymethylpentene)
	refractive index n	1.45 @ 1 THz
	absorption coeff. α	0.3 cm^{-1}
	focal length	24 mm (distance flat surface – focus)
	outer lens diameter	25.4 mm
	free aperture diameter	20 mm
	maximum lens thickness	8.0 mm
	edge lens thickness	4 mm
	aperture angle α	20.5°
	numerical aperture NA	0.35



Airy disc diameter	$\nu = 300 \text{ GHz}$	1.6 mm
	$\nu = 1 \text{ THz}$	484 μm
	$\nu = 3 \text{ THz}$	161 μm

Lens tube	outer diameter	30.5 mm
	length	12.7 mm ($\frac{1}{2}$ ") or 25,4 mm (1")

TPX lens 25.4 mm diameter, 24 mm focal length



Order information

<i>Part number</i>	<i>Description</i>	<i>Photo</i>
TPX-D25.4-f24-0	Unmounted TPX lens with diameter $D = 25.4$ mm and focal length $f = 24$ mm	
TPX-D25.4-f24-t12.7	Mounted TPX lens with diameter $D = 25.4$ mm and focal length $f = 24$ mm, tube length 12.7 mm	
TPX-D25.4-f24-t25.4	Mounted TPX lens with diameter $D = 25.4$ mm and focal length $f = 24$ mm, tube length 25.4 mm	