

Data Sheet LTX-D50-FMX

2" Concave TPX Lens



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1 General

The concave TPX lenses with a diameter of 2" / 50 mm have been developed for the control of THz radiation.

Nomenclature

LTX-D50-FMX

LTX-D50-FMX	Type	Lens
LTX-D50-FMX	Material	TPX
LTX-D50-FMX	Form	Asphere / Sphere
LTX-D50-FMX	Diameter	50 mm
LTX-D50-FMX	Focal length	Var

Option:

LTX-D50-FX-MX	Mounting	Var
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2 Specification and Application Note

Table 1: Specification and Application Note of TPX lenses

Lens	LTA-D50-FM75	
Specification		
Material	TPX / Polymethylpentene	
Refractive index	1.47	
Form	Asphere	
Diameter [mm]	50 ± 0.1	
Thickness center [mm]	5.0 ± 0.05	
Thickness edge [mm]	13.9	
Application Note		
Focal length [mm]	- 75.0	
Clear aperture [mm]	44.3	
Aperture angle [°]	19.2	
NA	0.33	
Airy Disc	0.3 THz	3.69
	1.0 THz	1.11
	3.0 THz	0.37

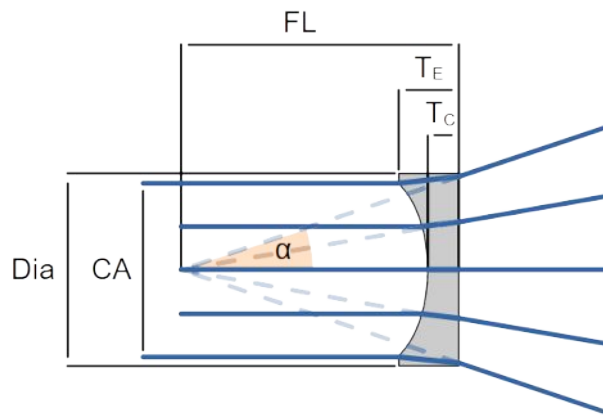


Figure 1: Principal drawing of a convex TPX lens

Dia	Diameter
T _c	Thickness center
T _e	Thickness edge
FL	Focal length
CA	Clear Aperture
α	Aperture angle

3 Mounting Options

The TPX lenses are sold alone by default. But they can be ordered in a lens tube¹ with SM1 thread for easy mounting:

LTX-D50-FMX-M12.7	12.7 mm lens tube (length without external thread)
LTX-D50-FMX-M25.4	25.4 mm lens tube (length without external thread)

¹ Outer diameter: 30.5 mm; 1x Internal SM1 thread: 1x External SM1 thread

4 Complementary TPX Lenses

We are offering the following complementary TPX lenses:

LTX-D25.4-FX	1" Convex TPX Lens
LTX-D25.4-FMX	1" Concave TPX Lens
LTX-D50-FX	2" Convex TPX Lens

Please check their individual data sheets for further details.

5 Contact Details

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