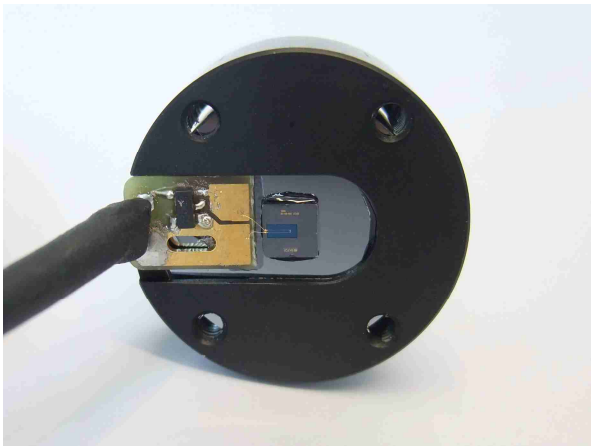
Mounted PCA on collimating aspheric silicon substrate lens
Data sheet PCA-I-g-w-λ-c

Photoconductive antenna chip

Substrate	semi-insulating GaAs
Chip area	4 mm x 4 mm
Thickness t	600 µm

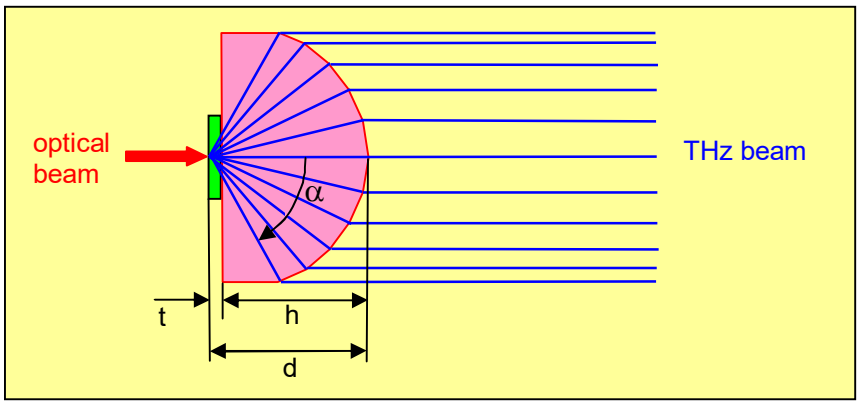
Elliptic collimating silicon lens

Diameter	20 mm
Height h	13.8 mm
Distance d	14.4 mm
Material	undoped HRFZ-silicon
Specific resistance ρ	>10 kΩcm
Refractive index n	3.4



Terahertz beam

Beam diameter	20 mm
Collection angle α	54.6°



Aluminum mount	25.4 mm diameter, 6 mm thick
Coaxial cable	type RG 174, impedance 50 Ω, 1 m long
Connector type	BNC or SMA

- The PCA chip is optically adjusted and glued on the collimating aspheric silicon lens
- The silicon lens is glued on the aluminium mount.
- The two antenna contacts are wire bonded on a printed circuit board, which provides the connection to a 1m long coaxial cable with BNC or SMA connector
- A central hole in the aluminium mount allows the Terahertz radiation to escape from the aspheric silicon lens as a collimated beam.

Complete antenna with cable and BNC connector