Instruction manual and data sheet SPCA-5Pi-05-3000-800-x

Broadband photoconductive antenna with $5\pi$ logarithmic spiral structure for laser wavelengths $\lambda \sim 500\text{ nm} \ldots 850\text{ nm}$

PCA – Photoconductive Antenna

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1. Antenna parameters

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<td>Optical mean power</td>
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*Dark current voltage characteristic*
2. **Antenna design**

*Photo SPCA 5Pi-05-3000 (survey)*

*Photo SPCA 5Pi-05-3000 (detail)*

Dielectric cover
3. Order information

SPCA-5Pi-05-3000-800-x  logarithmic spiral photoconductive antenna

- spiral angle: $4\pi$
- gap distance: $g = 5\, \mu m$
- diameter of the spiral antenna: $l = 3000\, \mu m$
- laser wavelength: $\lambda = 800\, \text{nm}$

$x$ denotes the type of mounting as follows:

- $x = 0$: unmounted chip 4 mm x 4 mm with 4 bond contact pads
- $x = h$: mounted on an Al disc with 25.4 mm $\Theta$ and hyperhemispherical silicon substrate lens, 1m coaxial cable with BNC or SMA connector
- $x = a$: mounted on an Al disc with 25.4 mm $\Theta$ and aspheric focusing silicon substrate lens, 1m coaxial cable with BNC or SMA connector
- $x = c$: mounted on an Al disc with 25.4 mm $\Theta$ and aspheric collimating silicon substrate lens CL-12 for 12 mm THz beam diameter, 1m coaxial cable with BNC or SMA connector
- $x = h-f$: fiber coupled antenna with hyperhemispherical silicon substrate lens
- $x = l$: with aspheric focusing optical lens for free space laser excitation
- $x = p$: with preamplifier for detector antenna

For information about THz beam guiding possibilities please click here