

# Micro Vision Systems

## In high-resolution and compact form

Expertise for miniaturized chip-on-tip vision systems under one roof.

### Your Benefits

- **One partner:** From design to prototyping to volume production, entire process under one roof
- **Operational excellence:** Most recent technologies from forming to coating and alignment
- **Customized to needs:** Choose from built-to-print, built-to-spec or built-to-idea solution
- **Reliability:** Profit from our strong experience in design and production of high-precise optics



Microcamera chip-on-tip with illumination

### Technology Expertise

- Expertise in design and integration of fiber-optic flexible light bundles, optimized miniature LED illumination systems design and know how to efficiently couple sources to fiber to maximize brightness
- In-house production of complex submillimeter lenses and plano optics
- High-precision alignment of compound elements
- Serial micro assembling
- Broad coating portfolio



Explosion of microcamera chip-on-tip



### Applications

- Endoscopy
- Medical Imaging
- Augmented Reality

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## Example Specifications

	Without illumination	With illumination
Optical parameters	Ø 1.6 mm	Ø 1.95 mm
FoV (Field of View) diagonal		120°
Working distance		5 – 50 mm
Resolution		400 x 400 px
F-number		6
Wavelength range		400 nm – 700 nm
Illumination	n/a	LED, fibers
Illumination power	n/a	≥ 100 mW
<b>Electrical parameters</b>		
Cable length		up to 2.5 m
Frame rate		30 fps
<b>Mechanical parameters</b>		
Length	≤ 4 mm	≤ 6 mm
<b>Environmental conditions</b>		
Operating temperature		+25 °C to +40 °C
Storage temperature		-20 °C to +80 °C
Waterproof rating		IP67