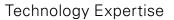


Micro Vision Systems In high-resolution and compact form

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 alignement.
- Customized to needs: Choose from build-to-print, build-to-spec or build-to-idea solution.
- ISO13485 certificated: Committed delivering optical components and systems with the highest reliability and quality meeting medical standards.



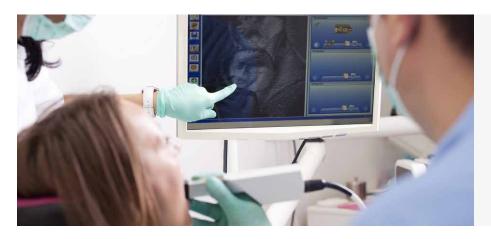
- Expertise in design and integration of fiber-optic flexible light bundles, optimized miniature LED illumination systems design and know how to efficiently couple sources to fiber to maximize bright ness
- In-house production of complex submilimeter lenses and plano optics
- High-precision alignement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



Microcamera chip-on-tip with illumniation



Explosion of microcamera chip-on-tip



Applications

- Endoscopy
- Medical Imaging
- Augmented Reality



Micro Vision Systems

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 |
| Electrical parameters | | |
| Cable length | up to 2.5 m | |
| Frame rate | 30 fps | |
| Mechanical parameters | | |
| Length | ≤ 4 mm | ≤ 6 mm |
| Environmental conditions | | |
| Operating temperature | +25°C to +40°C | |
| Storage temperature | -20°C to +80°C | |
| Waterproof rating | IP67 | |