

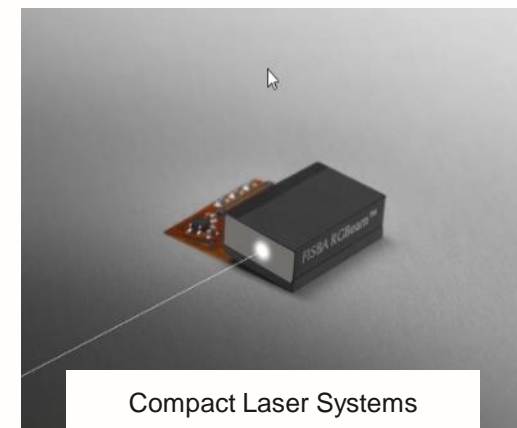
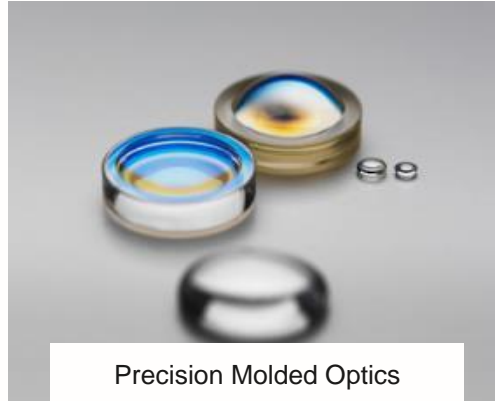
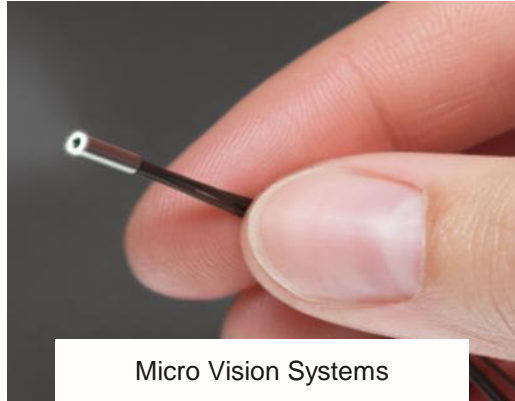
Micro Vision Chip on Tip as Innovation Driver

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EPIC Online Technology Meeting on Medical Devices for Surgical Procedures

FISBA

Our Products & Solutions



FISBA

Application Focus – Complete Chip on tip Camera in Series Production

- In house microoptics production
- Active alignment of the optic to the sensor
- Coaxial cable connections of the sensor
- Manufacturing of the fiber bundles for the illumination



FISBA

FISBA White Light Sources

- Compact
- Bright
- Fitting individual customer requirements
- Fibercoupled



FISBA

White Light Sources – White Light LED Combiner

- RGB LED module
- The optical interface on the module is provided by a SMA connector
- The fiber end can have different connections such as FC/PC

Luminous Flux at maximal current

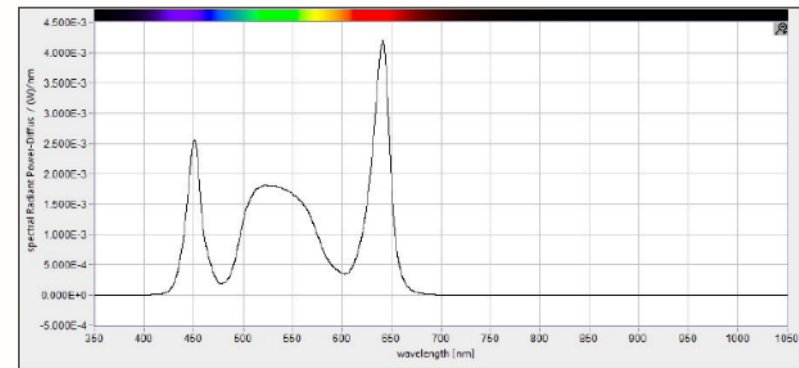
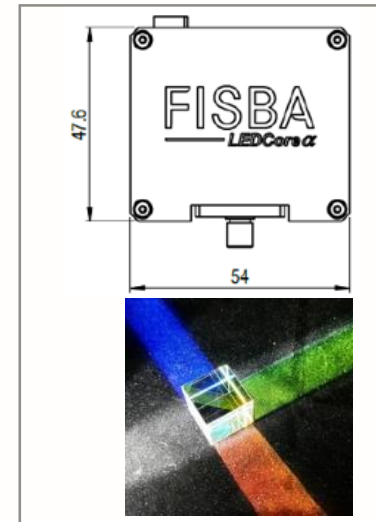
Fiber	Current			Luminous Flux		
	450nm	520nm	638nm	450nm	520nm	638nm
	[mA]	[mA]	[mA]	[lm]	[lm]	[lm]
600µm	3000	3000	2100	5.0	42	7.5
1000µm	3000	3000	2100	10	90	15

Luminous Flux at $x = 0.33 / y = 0.33$

Fiber	Current			Luminous Flux
	450nm	520nm	638nm	[lm]
	[mA]	[mA]	[mA]	
600µm	300	1400	2050	36
1000µm	300	1400	2050	77

Luminous Flux at $x = 0.33 / y = 0.38$

Fiber	Current			Luminous Flux
	450nm	520nm	638nm	[lm]
	[mA]	[mA]	[mA]	
1000µm	250	1900	2100	94

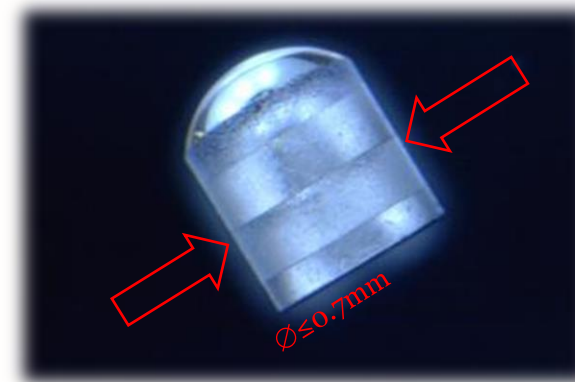
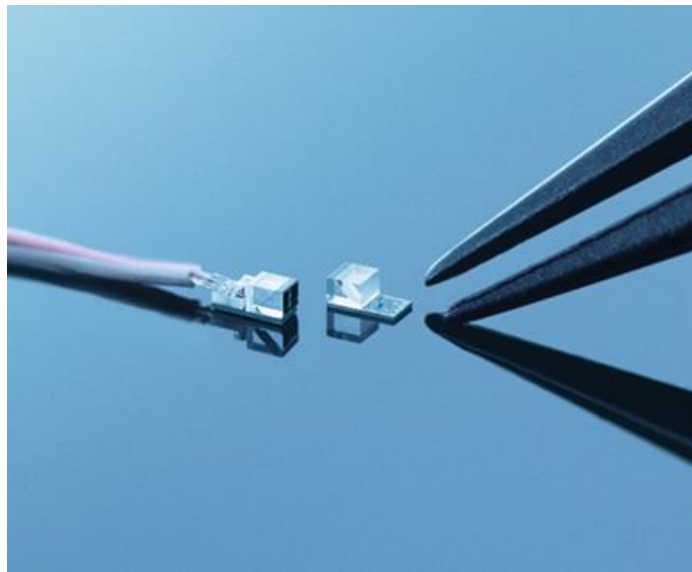


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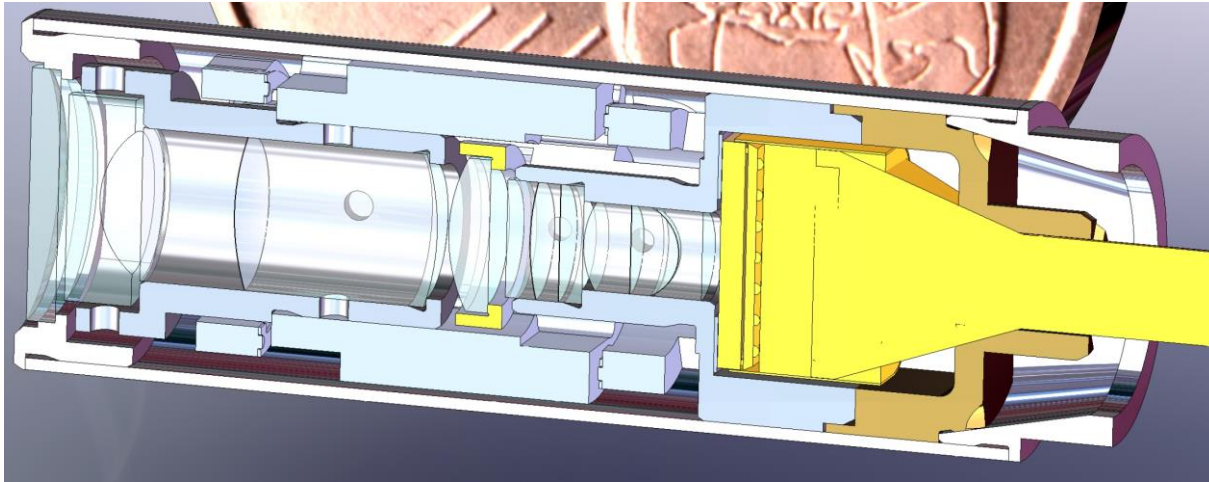
Commercial Micro Vision: Flexible endoscope application for urology

Miniaturized camera system based on custom specific design, consisting of:

- 0.7mm imaging lens system, bonded directly onto the sensor
- Miniaturized 90° viewing prism with inner Ag-mirror



Research on endoscopic zoom-lens in BMBF project Ravenna 4PI



- HD resolution design to prototype
- Inner lens with actuator
- Integrated white-light and fluorescence activation with variable angle light field
- Resolution and assembly optimized for application in urinary bladder wet environment

Thank you for your attention!

www.fisba.com

Let us contribute to your market success with innovative chip on tip imaging solutions!



Check us out, send us your request for quotation