

FISBA RGBeam™

customizable laser modules



The FISBA RGBeam™ offers precise alignment, adaptable wavelength and power, and fiber coupling with single-mode and multi-mode fibers. Free space propagation with customizable beam characteristics enables us to meet exact customer specifications.

Technical Data

- Dimensions (SM): $\leq 30 \text{ mm} \times 15.5 \text{ mm} \times 9 \text{ mm}$
- Dimensions (FS): $\leq 20.5 \text{ mm} \times 13 \text{ mm} \times 5.9 \text{ mm}$
- Wavelengths: UV – NIR (FS) / VIS (SM)
- Output power ranges: mW
- Multi-mode fibers: NA 0.12, 0.22, 0.39 and 0.5

FISBA Capabilities

- Precise alignment
- Adaptable wavelength and power
- Fiber coupling with single-mode and multi-mode fibers
- Free space propagation with customizable beam characteristics to meet exact customer specifications

Your Benefits

- Compact and modular design
- Fast design and prototyping
- Laser diodes type selected by customer
- Enhanced color-space utilization

Industries & Applications

- Life Sciences
- Defense & Security

Technical Specifications

FISBA RGBeam™

Optical parameters	Free space propagation (FS)			Single-mode optical fiber (SM)		
	Laser 1	Laser 2	Laser 3	Laser 1	Laser 2	Laser 3
Laser source	Laser diode in TO-38 can packaging			Laser diode in TO-38 can packaging		
Typical wavelength (RGB)	R: 638 nm	G: 520 nm	B: 450 nm	R: 638 nm	G: 520 nm	B: 450 nm
Laser class	3B			3B		
Numerical aperture	n/a			0.12		
Typical optical power from fiber end (r/g/b)	n/a			60 mW	30 mW	40 mW
Typical optical power from output beam	90 mW	70 mW	70 mW	n/a		
Spot diameter at 1m distance $1/e^2$	1.2 mm	1.1 mm	1.1 mm	n/a		
Typical beam divergence approximately	0.6 mrad	0.4 mrad	0.35 mrad	n/a		
Beam alignment accuracy	0.2 mrad			n/a		
Luminous flux (6500K)	up to 40 lm			up to 20 lm		

Electrical parameters	typical/max	typical/max	typical/max	typical/max	typical/max	typical/max
Operating current in mA	R:165/200	G: 200/240	B: 100/165	R: 165/200	G: 200/240	B: 100/165

Mechanical parameters	Free space propagation (FS)	Single-mode optical fiber (SM)
Dimensions length x width x height excl. FCB	≥ 20.5 mm x 13 mm x 5.9 mm	≥ 30 mm x 15.5 mm x 9 mm
Operating temperature FISBA RGBeam™	between +15 °C and +30 °C	between +22 °C and ±1 °C operating on TEC
Fiber connector	n/a	FC/PC or FC/APC
Fiber type	n/a	Single-mode or single-mode polarisation maintaining fiber
Weight	3.5 g	
Storage temperature	-20°C – 65 °C	

Customized designs available upon request