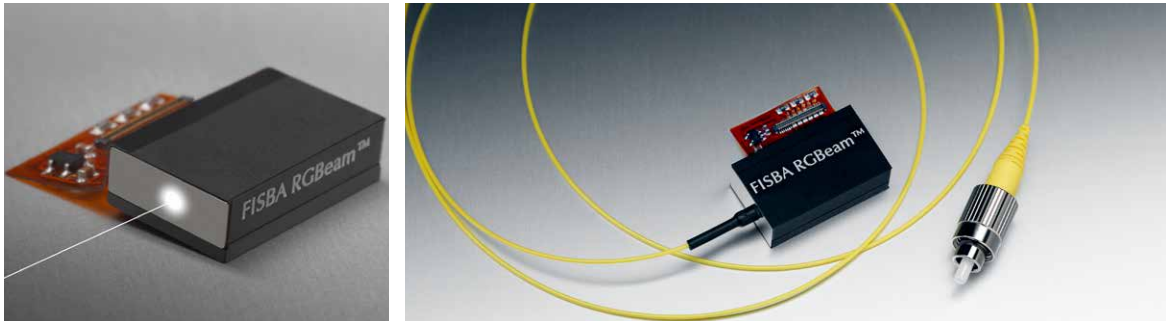


# FISBA RGBeam™

## 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): 30 mm x 15.5 mm x 9 mm
- Dimensions (FS): 20.5 mm x 13 mm x 5.9 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
- Customer selected Laser diodes / wavelengths
- Enhanced color-space utilization

### Industries & Applications

- Life Sciences
- Aerospace & Defense
- Industrial Applications

# 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                 |           |           | Laser diode                    |           |           |
| 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 <sup>2</sup> | 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                        | 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