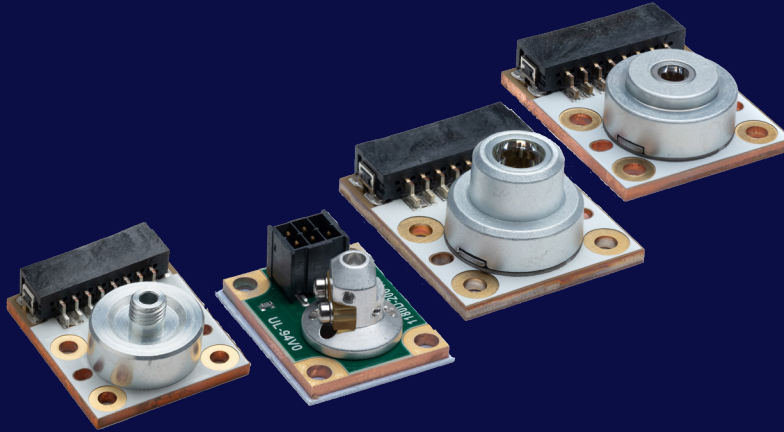


1180D - 1700A - 2400B Series

LumiFiber™ Compact Fiber Couplers



Features

- Intense and stable optical power
- Long life LEDs
- Many wavelengths available
- Small footprint
- UV through Visible and NIR

Applications

Medical & Life Sciences

- Microscopy
- Real Time-PCR
- Endoscope and microscope illumination
- Dental curing & imaging

Industrial & Commercial

- Fiberoptic coupling (2400B series)
- UV curing
- Remote lighting for inspection & measurement

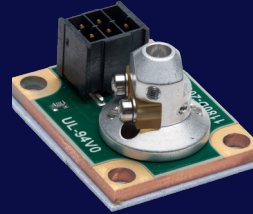
The versatile and powerful LumiFiber™ devices are ideal for fiber optic applications in industrial, medical, and in laboratory equipment. The couplers incorporate LumiBright™ light engines with interfaces for light guides or fiber bundles. The Model FC 1700A-100 supports up to a 2 mm fiber bundle using an SMA 905 connector.

A LumiFiber™ provides a reliable, compact, homogenous, and robust light source with up to 25 watts of visible/UV/NIR light - ideal for use in high performance endoscopes and borescopes.

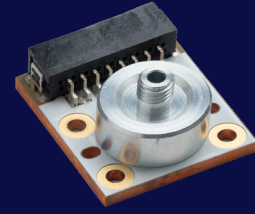
Thermal management is key to performance and lifetime. Multiple options are available.

LumiFiber™ 1180D & 1700A

The LumiFiber™ 1180D & 1700A will support up to 2.0mm fiber bundle. There are options for 1 to 4 LED die in single or multicolor configurations.



1180D



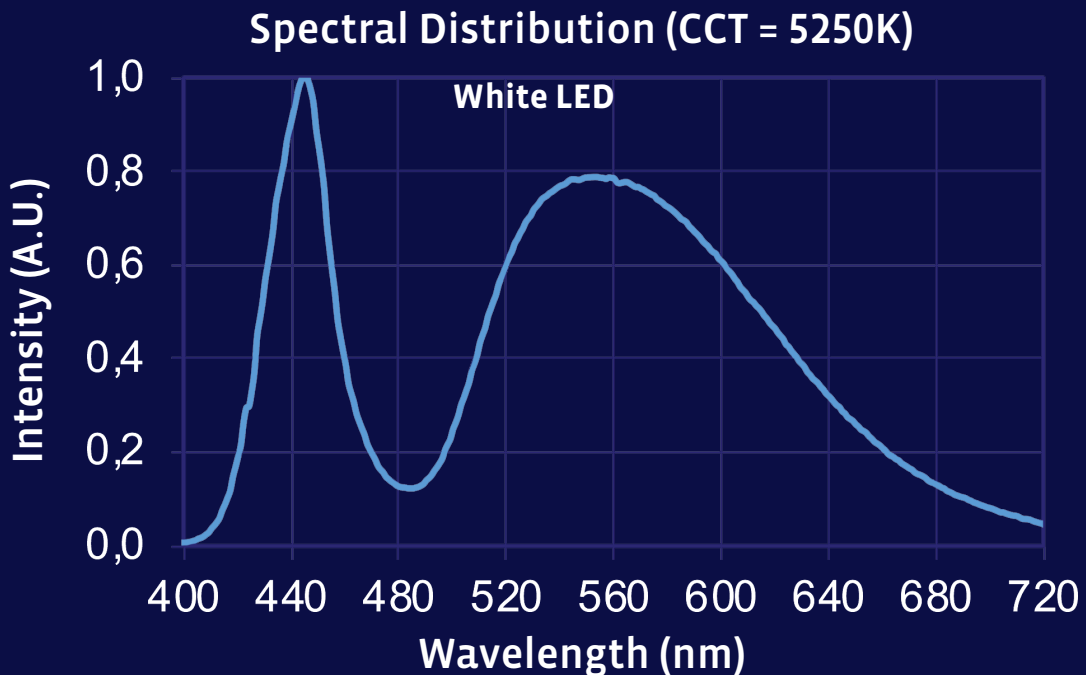
1700A

Our products are integrated into video borescopes at leading manufacturers.

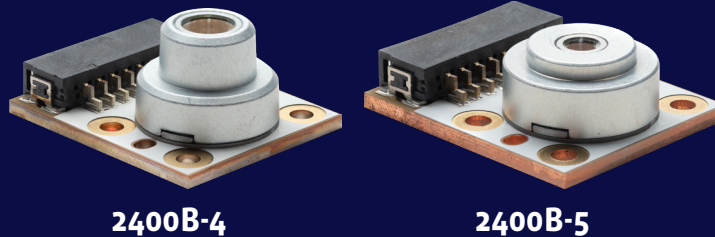
Example:

The LumiFiber™ 1180D provides a robust, compact, homogenous, and robust light source with up to 5 watts of VIS, NIR, UV, ideal for use in high performance endoscopes and borescopes.

- Single white LED
- >150 lumens at 1.5A into 1.8mm diameter fiber
- Any single chip wavelength available including both LEDs and VCSELs
- NTC temperature sensor



LumiFiber™ 2400B-4 & 2400B-5 for Fiber Coupling



Light Guide Coupling Efficiency

The maximum coupling efficiency for the Model 2400B-4 requires the use of a fiberoptic or liquid light guide with equivalent specifications for both the nominal values of Numerical Aperture (NA_o) and Clear Aperture (CA_o).

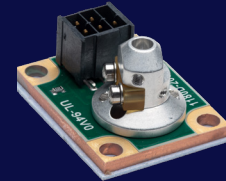
When the light guide design parameters of NA_f or CA_f are smaller than the nominal values of the Model 2400B-4, the coupling efficiency is reduced by the square of the ratios, $(NA_f/NA_o)^2$ and/or $(CA_f/CA_o)^2$.

Other factors that contribute to coupling efficiency are the reflectance loss at the face of the fiberoptic or light guide, as well as the packing fraction when using a fiber bundle.

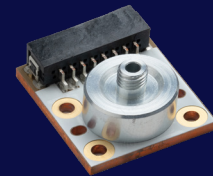
LumiFiber™ Specifications

Parameter	Specification	Comment
Available center wavelengths	470-1700nm	Contact sales engineer
Electrical power input	Determined by LED module	Drive current compliance voltage
Optic T _g	144°C	Low optical absorption polycarbonate
Operating environment	-40°C to 85°C	<85%, relative humidity, non-condensing
Thermal impedance	<1.0°C/W	Typical for 1 die
Thermistor B _{25/85}	3574-3646	for 10kΩ

Dimensions 1180D
(L X W X Dmm)
27.0 X 21.2 X 14.2



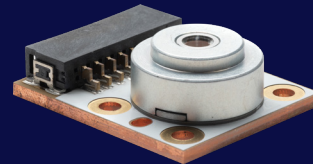
Dimensions 1700A
(L X W X Dmm)
12.1 x 30.0 x 36.0



Dimensions 2400B-4
(L X W X Dmm)
36.0 x 30.0 x 16.7



Dimensions 2400B-45
(L X W X Dmm)
36.0 x 30.0 x 11.7



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