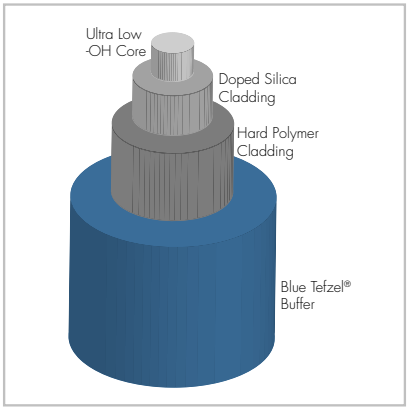
Fiber Optics

molex®

LASER COMPONENTS®

Silica/Silica Optical Fiber JTFVH-High-OH

Ultra-low-OH Quartz Fibers with Dual Clad



JTFVH step-index fibers are equipped with a so-called dual clad. The fiber core and inner cladding are made of quartz glass, whereas the outer cladding consists of a break-resistant polymer.

The dual clad has the following advantages: if light is coupled out of the fiber core, it is guided into the first cladding. For the most part, the power is retained and is available again when the light is coupled out.

JTFVH fibers are, therefore, primarily used as fibers for diode lasers in medical technology or as pump fibers in the laser industry.

The selection of standard buffer materials includes blue Tefzel® and other colors; acrylate, nylon, or Hytrel® can also be used.

Characteristics

- Step index
- Numerical aperture: 0.22 ± 0.02
- Full acceptance cone: 25.4 degrees
- UV-VIS-NIR transmission, 256 nm to 1.150 nm
- Radiation resistant
- High laser damage threshold
- Sterilizable & bio-compatible – USP Class VI*
- High–OH silica core, doped silica clad
- Hard polymer secondary cladding
- Standard buffer: Tefzel®
- Custom buffer: Acrylate, Nylon, or Hytrel®
- Operating temperature: -65 °C to +150 °C
- Proof tested to 100 kpsi

* The end manufacturer is responsible for bio-compatibility and sterilization testing and validation studies.
Tefzel® and Hytrel® are registered trademarks of DuPont Corporation.

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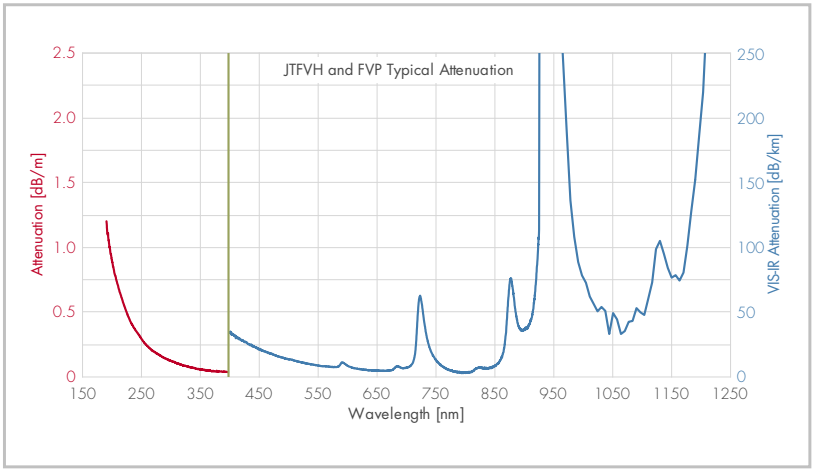

Typical Attenuation of the JTFVH Series

Specifications

Fiber Type	JTFVH200	JTFVH365	JTFVH400	JTFVH550	JTFVH940
Core diameter [µm]	200 ± 8	365 ± 14	400 ± 10	550 ± 12	940 ± 15
Cladding diameter [µm]	240 ± 5	400 ± 8	440 ± 10	600 ± 10	1000 ± 15
Secondary clad [µm]	260 ± 6	425 ± 10	470 ± 10	630 ± 10	1035 ± 15
Buffer diameter [µm]	400 ± 30	730 ± 30	830 ± 50	750 ± 30	1400 ± 50
Wavelength [nm]	250 – 1150	250 – 1150	250 – 1150	250 – 1150	250 – 1150
Temperature area [°C]	-65 ... +150	-65 ... +150	-65 ... +150	-65 ... +150	-65 ... +150
Numerical aperture	0.22 ± 0.02	0.22 ± 0.02	0.22 ± 0.02	0.22 ± 0.02	0.22 ± 0.02

Part numbers on request.

Note:
The items listed in this table are standard configurations and sizes.
Other configurations may be available on request.

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