



A Furukawa Company

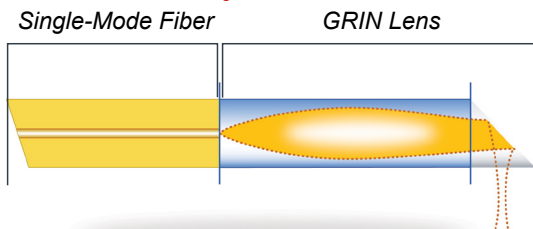
# Solutions for Optical Coherence Tomography (OCT)

Optical Fiber and Probes

**Biocompatible Coating Materials**  
Wide range of medical-grade coatings and buffers.

**Customizable Connector**

**Custom Lens Assembly**  
Specific focal distances



## Overview

OFS plays an important role in the expanding adoption of optical coherence tomography (OCT) using miniature optical fiber probes in such applications as cardiology, ophthalmology, and gastroenterology.

## Product Description

OFS has created the technology platform to build high quality optical fiber probes with flexible tip lensing designs that allow beam shaping to meet specific focal distances.

## Typical Probe Specifications

**Operating Wavelength:** 850, 980, 1310 nm and others

**Internal Back Reflection:** -60 dB or better

**Return Loss:** -20 to -70 dB

**Outer Diameter:** 100 - 400  $\mu\text{m}$

**Spot Size:** 20 - 60  $\mu\text{m}$

**Working Distance:** up to 1.5 mm

	Single-mode	Single-mode	Single-mode	Single-mode	Coreless
Operating Wavelength	850 nm	980 nm	1310 nm	1310 nm	All Wavelengths
Fiber Cutoff Wavelength	750 ± 50 nm	≤ 960 nm	1250 ± 60 nm	≤ 1260 nm	NA
Mode Field Diameter	6.0 ± 0.5 μm	5.0 ± 0.3 μm	9.3 ± 0.5 μm	9.3 ± 0.5 μm	NA
Attenuation @ 820 nm	≤ 6.0 dB/km	---	---	---	NA
Attenuation @ 980 nm	---	≤ 3.0 dB/km	---	NA	NA
Attenuation @ 1310 nm	---	---	≤ 3.0 dB/km	≤ 0.7 dB/km	NA
NA (nominal)	0.12	0.16	0.12	0.12	NA
Core Diameter (nominal)					NA
Cladding Diameter	125 ± 1 μm	125 ± 1 μm	80 ± 2 μm	125 ± 1 μm	125 ± 2 μm
Coating Diameter	155 ± 5 μm	155 ± 5 μm	100 ± 4 μm	155 ± 5 μm	250 ± 10 μm
Clad Non-Circularity	≤ 2%	≤ 2%	≤ 2%	≤ 2%	≤ 2%
Core/Clad Offset	≤ 0.5 μm	≤ 0.5 μm	≤ 1 μm	≤ 0.5 μm	---
Coating Material	Polyimide	Polyimide	Polyimide	Polyimide	Acrylate
Proofstest Level	200 kpsi	200 kpsi	200 kpsi	200 kpsi	200 kpsi
Order by Part Number:	BF04701	F9022	BF04441-06	BF05717-06	F15330

Graded-Index - Custom fibers available to achieve specific GRIN lense focal point requirements.

NOTE: The operating temperature ranges are general guidelines. Consult with our Technical Sales department to determine the optimal coating and buffer material for your specific application. 1.860.678.6636



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