

# OtO Photonics

## Optical Fiber Datasheet



### Description

OtO Photonics provides optical fibers for customers to satisfy the various needs of spectrum measurement. We offer the optical fibers with excellent optical performance, wide-band spectral transmittance, good bending and mechanical properties.

All of our Optical fibers are terminated with standard SMA-905 connecter and easily to connect with OtO Photonics spectrometers, light sources and other accessories. These fibers belong to multimode step Index and are available with fused silica optical fibers.

Base on different waveband, fiber length and numerical aperture, we offer various optical fiber models as below. **OtO Photonics also offer customized products, but can not guarantee the transmittances.**

#### For UV-VIS Waveband Optical Fibers

- Better transmission in the UV-VIS range (200-1100 nm)
  - High OH ion concentration
  - Assembly length 1m
- ✓ OF-600-100-UVS
  - ✓ OF-600-100-UVB

#### For UV-VIS Waveband Short Optical Fibers

- Better transmission in the UV-VIS range (200-1100 nm)
  - High OH ion concentration
  - Assembly length 25.4mm & 40mm (double nut)
- ✓ OF-S-0400-UV
  - ✓ OF-S-0600-UV
  - ✓ OF-S-1000-A
  - ✓ OF-DS-1000-A

#### For VIS-IR Waveband Optical Fibers

- Better transmission in the VIS-IR range (400-2500 nm)
  - Low OH ion concentration
  - Two types of numerical aperture(NA) :  
NA 0.22 fiber and NA 0.37
  - Assembly length 1m
- ✓ OF-600-100-NIRS2
  - ✓ OF-600-100-NIRS3

#### For VIS-IR Waveband Short Optical Fibers

- Better transmission in the VIS-IR range (400-2500 nm)
  - Low OH ion concentration
  - Assembly length 25.4mm
- ✓ OF-S-1000-NIR

#### Customized Y-type Optical Fibers & Multicore Optical Fiber

We provide the related information between transmission and wavelength for the four situations in the figure in this guide. (Except for Customized Optical Fiber)



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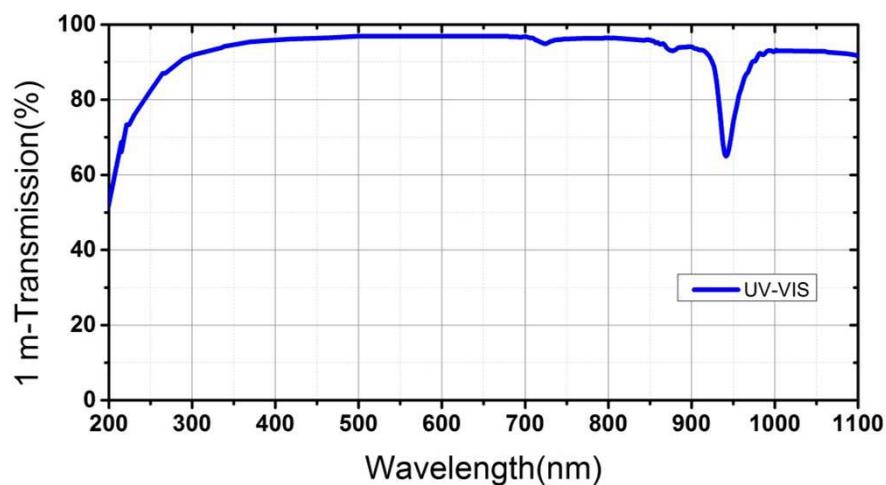
- **UV-VIS waveband Optical Fibers** P3
- **UV-VIS waveband short Optical Fibers** P4
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### ■ UV-VIS waveband Optical Fibers

Model	OF-600-100-UVS	OF-600-100-UVB
Wavelength Range (nm)	200-1100	200-1100
Assembly Length (m)	1	1
Core Diameter (um)	600	600
Cladding Diameter (um)	630	630
Minimum Bending Radius(mm)	short term	100D
	long term	300D
Protective Coating Outer Diameter (mm)	1.2-2.0	1.2-2.0
Jacket Material	Metal Ferrules	PVC
Numerical Aperture (NA)	0.22	0.22



**Fig.1 Transmission of UV-VIS waveband Optical Fiber @ 200~1100nm**

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### ■ UV-VIS waveband short Optical Fibers

Model	OF-S-0400-UV	OF-S-0600-UV	OF-S-1000-A	OF-DS-1000-A
Wavelength Range (nm)	200-1100	200-1100	200-1100	200-1100
Assembly Length (m)	0.0254	0.0254	0.0254	0.04
Core Diameter (um)	400±10	600±10	1000±10	1000±10
Cladding Diameter (um)	1220	1220	1220	1220
Minimum Bending Radius(mm)	short term	-	-	-
	long term	-	-	-
Protective Coating Outer Diameter (mm)	-	-	-	-
Jacket Material	-	-	-	-
Numerical Aperture (NA)	0.22	0.22	0.22	0.22
Jacket Material	-	-	-	-
Remark		OF-S-0600-UV		double nut

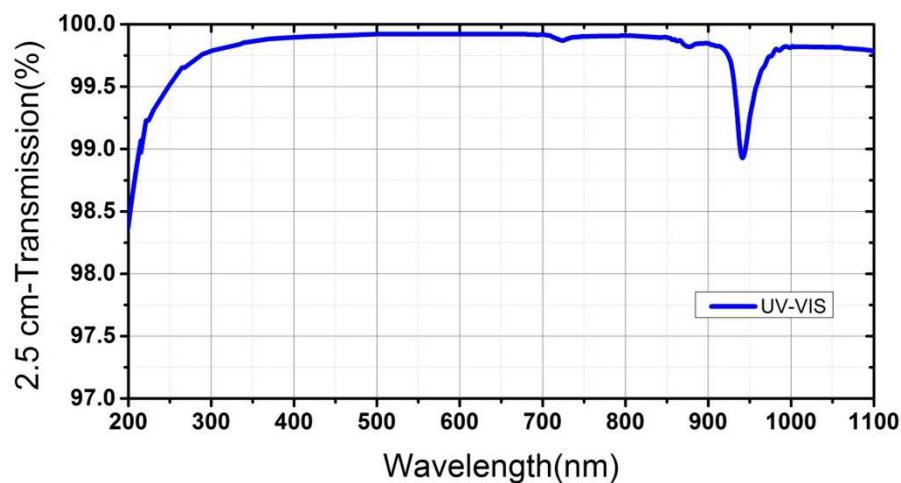


Fig.2 Transmission of UV-VIS waveband short Optical Fiber @ 200~1100nm

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### ■ VIS-IR waveband Optical Fibers

Model		OF-600-100-NIRS2	OF-600-100-NIRS3
Wavelength Range (nm)		400-2500	400-2500
Assembly Length (m)		1	1
Core Diameter (um)		600	600
Cladding Diameter (um)		660	660
Minimum Bending Radius(mm)	short term	100D	300D
	long term	100D	300D
Protective Coating Outer Diameter (mm)		0.9	0.96
Numerical Aperture (NA)		0.22	0.37
Jacket Material		Metal Ferrules	Metal Ferrules
Remark		-	-

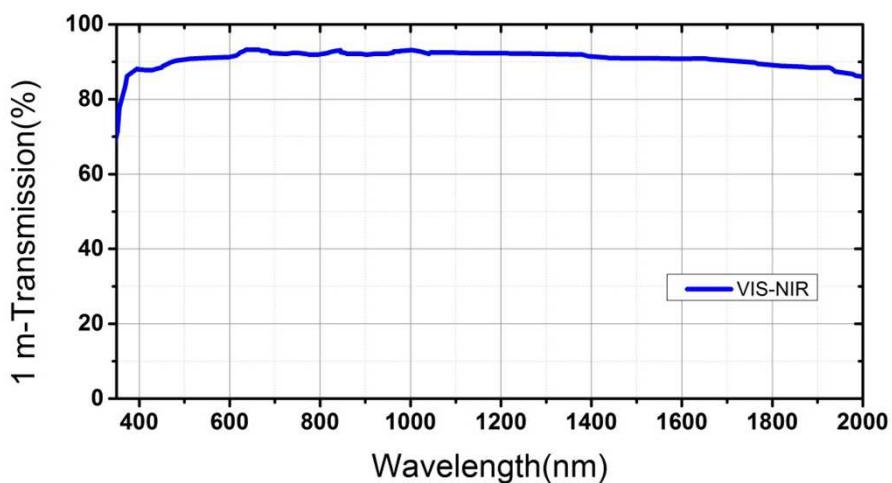


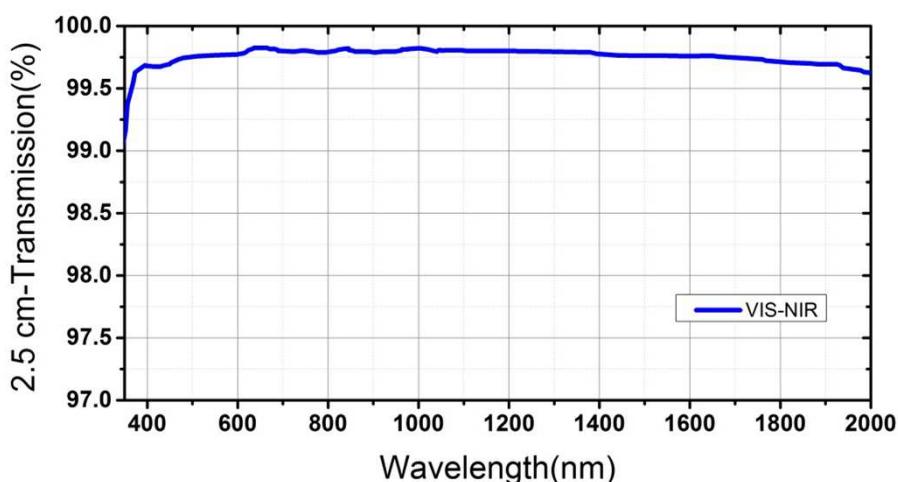
Fig.3 Transmission of VIS-IR waveband Optical Fiber @ 400~2000nm

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### ■ VIS-IR waveband short Optical Fibers

Model		OF-S-1000-NIR
Wavelength Range (nm)		400-2500
Assembly Length (m)		0.0254
Core Diameter (um)		1000±10
Cladding Diameter (um)		1220
Minimum Bending Radius(mm)	short term	-
	long term	-
Protective Coating Outer Diameter (mm)		-
Numerical Aperture (NA)		0.22
Jacket Material		-
Remark		-



**Fig.4 Transmission of VIS-IR waveband short Optical Fiber @ 400~2000nm**

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### ■ Customized Y-type Optical Fibers

Model	OF-Y-0606-030-UNB		OF-Y-0404-030-UUB	
Wavelength Range (nm)	200-1100	400-2200	200-1100	200-1100
Assembly Length (m)	0.3		0.3	
Core Diameter (um)	600	600	400	400
Jacket Material	PVC		PVC	
Numerical Aperture (NA)	0.37	0.22	0.22	0.22

The Spec of Wavelength Range, Assembly Length, Core Diameter or Jacket Material can be Customized.

### ■ Customized Multicore Optical Fiber

Model	OF-M50-100-VA
Wavelength Range (nm)	380-780
Assembly Length (m)	1
Core Diameter (um)	1000um(50um fabricated)
Jacket Material	Metal Ferrules
Numerical Aperture (NA)	-

The Spec of Assembly Length, Core Diameter or Jacket Material can be Customized.