

Erbium Doped Fibres (EDF)

Description

YOFC offers full series of Erbium doped fibres, which could meet the most stringent amplifier requirements both for C-Band and L-Band. Through 1480nm or 980nm pump technology, YOFC erbium doped fibre can realize 35nm amplification bandwidth, and maintain flatness gain to get ideal power conversion efficiency.

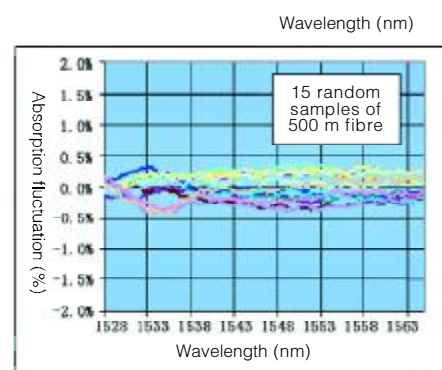
YOFC erbium doped fibres are specially designed for high performance, low noise requirements amplifier, for example: preamplifier, power amplifier and line amplifier in the WDM communication system.

YOFC Erbium doped fibre has been optimized through co-doping with Erbium and Aluminum technology to ensure the high quality performance

Applications

For the Telecommunication industry

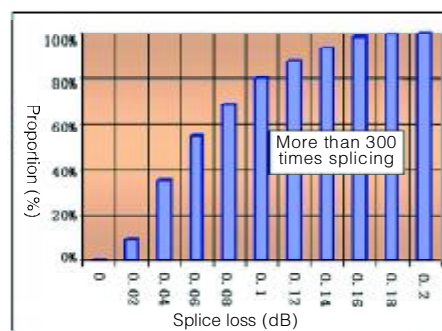
- DWDM amplifiers
- CATV amplifiers
- 980nm or 1480nm pumps
- Terrestrial and Submarine telecommunications
- Defense/Military/Aerospace



Absorption Reproducibility (+/- 0,3% in the C Band)

Characteristics

- Excellent spectral uniformity
- High power conversion efficiency over the amplification bandwidth
- Industry leading fibre geometry
- Low PMD
- DLPC9 dual-layer coating to ensure excellent mechanical properties
- Good performance of anti-hydrogen loss
- Lower splice loss



Excellent Splicing Performance

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EDF Family

Part No.	Fibre Type	Peak Absorption Coefficient at 1532 nm (Max [1530 - 1534 nm])		Application
		Specified Value	Typical	
EDF1003	EDF3/6/125-23	[2 - 4] dB/m	3 dB/m	C Band
EDF1007	EDF7/6/125-23	[4 - 9] dB/m	7 dB/m	C Band
EDF1013	EDF13/6/125-23	[10 - 15] dB/m	13 dB/m	C & L Band
EDF1022	EDF22/6/125-23	[19 - 25] dB/m	22 dB/m	C & L Band

Product Specifications

Part No.	EDF1003	EDF1007	EDF1013	EDF1022
Fibre Type	EDF3/6/125-23	EDF7/6/125-23	EDF13/6/125-23	EDF22/6/125-23
Optical Characteristics				
*Peak Absorption 1532nm (Max.[1530 - 1534 nm]) Specified Value (dB/m)	2 ~ 4	4 ~ 9	10 ~ 15	19 ~ 25
*Peak Absorption 1532nm (Max.[1530 - 1534 nm]) Typical (dB/m)	3	7	13	22
Absorption reproducibility (%)	≤ 1.5	≤ 1.5	≤ 1.5	≤ 1.5
Attenuation(Max.[1100 - 1300 nm]) (dB/m)	≤ 10	≤ 10	≤ 10	≤ 10
Attenuation(Max.[1100 - 1300 nm]) Typical (dB/m)	≤ 6	≤ 6	≤ 6	≤ 6
Macro-bend Induced Attenuation (100 m, 15 mm diameter, λ < 1620 nm) (dB/m)	≤ 0.1	≤ 0.1	≤ 0.1	≤ 0.1
*Cutoff Wavelength (nm)	≤ 980	≤ 1300	≤ 1300	≤ 1300
*Mode Field Diameter 1550 nm (μm)	5.4 ± 0.7	5.4 ± 0.7	5.4 ± 0.7	5.4 ± 0.7
NA	0.23 ± 0.02	0.23 ± 0.02	0.23 ± 0.02	0.23 ± 0.02
Attenuation of Splice (with G.652 at 1300 & 1700 nm) (dB)	≤ 0.2	≤ 0.2	≤ 0.2	≤ 0.2
PMD (100 m) (ps)	≤ 0.25	≤ 0.25	≤ 0.25	≤ 0.25
Geometry Characteristics				
Cladding Diameter (μm)	125.0 ± 1.0	125.0 ± 1.0	125.0 ± 1.0	125.0 ± 1.0
Coating Diameter (μm)	250.0 ± 7.0	250.0 ± 7.0	250.0 ± 7.0	250.0 ± 7.0
Core Concentricity Error (μm)	≤ 0.6	≤ 0.6	≤ 0.6	≤ 0.6
Cladding/Coating Concentricity Error (μm)	≤ 12.5	≤ 12.5	≤ 12.5	≤ 12.5
Mechanical Characteristics				
Proof Test (150kpsi)	1.5 %	1.5 %	1.5 %	1.5 %
Delivery Length (± 5 m)	250, 500, 1000 m	250, 500, 1000 m	250, 500, 1000 m	250, 500, 1000 m
Environmental Characteristics				
Storage Temperature (°C)	-40~+75	-40~+75	-40~+75	-40~+75
Operating Temperature Range (°C)	-5~ +75	-5~ +75	-5~ +75	-5~ +75
Storage Humidity Range (Non Condensing)	5% ~ 95%	5% ~ 95%	5% ~ 95%	5% ~ 95%
Operating Humidity Range (Non Condensing)	5% ~ 95%	5% ~ 95%	5% ~ 95%	5% ~ 95%

* Other values available on request

* Cutoff wavelength below 980 nm on request

* Larger MFD about EDF1007 on request