

# UltraL™ Fiber Connectors/Cables

(0.01dB assured, SM, MM)



## Features

- Ultra Low Loss
- High Reliability
- High Repeatability

## Applications

- Quantum System
- Networks
- Data Center

The UltraL™ Ultra Low Loss fiber optical connectors/patch cables achieve exceptionally low coupling loss, enabling customers to design new quantum systems or lowest loss networks with higher bandwidth and longer spans. The low loss is achieved by a patent-pending automatic core alignment technology that ensures each connector has below 0.1dB loss, while ordinary connectors often have a loss of about 0.3dB. The connector uses high-quality ceramic ferrules with formats that are compatible with standard connectors and can be repolished to remove surface scratches. The ultra-low loss performance requires mating between UltraL™ connectors. Due to the near-perfect butt-mating between the two fibers, the return loss is also high, > 55dB. FC/PC is the standard connector type, while other connector types can be specially made. The UltraL™ can be cost-effectively produced in volume.

## Specifications

UltraL Connector SM28 Fiber	Min	Typical	Max	Unit
Operation Wavelength	1200		2000	nm
Insertion Loss	0.01	0.04	0.15	dB
NA		0.14		
Return Loss			55	dB
Operating Temperature	-40		75	°C
Storage Temperature	-45		85	°C

UltraL Connector 50/126 Fiber	Min	Typical	Max	Unit
Operation Wavelength	350		2000	nm
Insertion Loss	0.00	0.005	0.1	dB
Return Loss			40	dB
Operating Temperature	-40		75	°C
Storage Temperature	-45		85	°C

UltraL Connector SM600 Fiber	Min	Typical	Max	Unit
Operation Wavelength	1200		2000	nm
Insertion Loss	0.01	0.04	0.07	dB
NA		0.14		
Return Loss			55	dB
Operating Temperature	-40		75	°C
Storage Temperature	-45		85	°C

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## Specifications

UltraL Connector SM450 Fiber	Min	Typical	Max	Unit
Operation Wavelength	490		633	nm
Insertion Loss		0.3	0.6	dB
NA		0.13		
Return Loss			55	dB
Operating Temperature	-40		75	°C
Storage Temperature	-45		85	°C

UltraL Connector SM400 Fiber	Min	Typical	Max	Unit
Operation Wavelength	405		532	nm
Insertion Loss		0.4	0.6	dB
NA		0.13		
Return Loss			50	dB
Operating Temperature	-40		75	°C
Storage Temperature	-45		85	°C

UltraL Connector SM300 Fiber	Min	Typical	Max	Unit
Operation Wavelength	320		430	nm
Insertion Loss		0.5	1.1	dB
NA		0.13		
Return Loss			50	dB
Operating Temperature	-40		75	°C
Storage Temperature	-45		85	°C

## Ordering Information

Prefix	Fiber Type	Connector	Configuration	Power	Cable Type	Length
ULFC-	SM28 = 1 50/125 = 2 60/125 = 3 SM600 = 6 SM450 = 5 SM400 = 4 SM300 = 3 Hi1060 = A	FC/PC = 1 FC/APC = 2	One End Connector = 1 Both End Connector = 2	0.5W = 05 5W = 50 10W = 10 15W = 15 20W = 20	0.9mm loose = 2 3mm loose = 3 Special = 0	0.5m = 005 1m = 010 1.5m = 015 10m = 100 15m = 150 20m = 200 25m = 250 Special = 000