

ALL FIBER POLARIZATION CONTROLLER and SCRAMBLER HIGH RESOLUTION

All fiber, low loss

0.1125° resolution, stepper motor operation

Fiber type: Operating wavelength from 400 nm to 2 μm, Zblan, Chalcogenide or customer fiber on request

SM 820, SM1060, SM1300-1550 stocked

Multiple modules can be daisy chained on a single fiber

Insertion loss: <0.2 dB

PMD: <3 fs

PDL: Depending on configuration <0.02 dB to extremely low

Excellent long term stability and repeatability

Any number or retardance elements per fiber

Fully customizable

Available as:

OEM Module

Open Source Reference Design

Compact Instrument

USB Interface

Applications for Lefebvre loops and manual controller upgrade:

Medical OCT

Scientific OCT

Modelock laser

Quantum communication and imaging

Closed loop polarization control

Test & Measurement

US Patent 8,373,852



GIG-2201



GIG-4202



GIG-2202



Extensive fiber choice
Including but not limited to:

Available Fiber SM

MFG	Product Code	Cutoff Wavelength	Design Wavelength	Attenuation at design wavelength	Mode field diameter (μm)	Numerical Aperture	Core Diameter (μm)	Note
OFS	SMB-D0820H	770+/-50 nm	820 nm	≤6 dB/Km	4.1+/-1	0.16 nom	3.7	Stock Fiber
Corning	HI-1060	980 ± 30 nm	1060 nm	≤ 2.1 dB/km	5.9 ± 0.3	0.14 nom	5.3	Stock Fiber
			1060 nm	≤ 1.5 dB/km	6.2 ± 0.3			
Nufern	1060-OCT-P	890 ± 30 nm	980 nm	≤ 2.5 dB/km	6.0 ± 0.3	0.14 nom	5.8	Stock Fiber
			1060 nm	≤ 2.0 dB/km	6.4 ± 0.3			
OFS	SMT-A1310H	1260+/-70 nm	1310 nm	≤0.7 dB/Km	9.3+/-0.5	0.11+/-0.02	8.4	Stock Fiber
			1550 nm	≤0.6 dB/Km	10.5+/-1	0.11+/-0.02		
Corning	SMF 28e+	1260+/-70 nm	1310 nm	≤0.35 dB/Km	9.2+/-0.4	0.11+/-0.02	8.2	Stock Fiber
			1550 nm	≤0.2 dB/Km	10.4+/-0.5	0.11+/-0.02		

Fibercore	PM							Sample Fiber
Fibercore	Hi-Bi							Sample Fiber

Available Fiber MM

MFG	Product Code	Core Diameter (μm)	Cladding Diameter (μm)	Coating Diameter (μm)	N numerical Aperture Stocked vs Available	Wavelength Range	Note
Ceramoptec	WF50/125P	50 ± 2	125 + 1/-3	145 ± 5	0.22 0.12 to 0.28	Low OH 300 nm to 2400 nm	Stock Fiber
Leoni	84810193N	60	125	145	0.22	Low OH 400 nm to 2400 nm	Stock Fiber
Fiberguide	AFS105/125/145T	105 ± 2	125 + 1/-3	145 ± 5	0.22 0.12 to 0.26	Low OH 300 nm - 2400 nm	Stock Fiber
Ceramoptec	WF200/220P	200 ± 4	220 ± 4.4	240 ± 5	0.22 0.12 to 0.38	Low OH 300 nm to 2400 nm	Stock Fiber
Polymicro	FIP400440480	400 ± 8	440 ± 9	480 ± 7	0.22 0.12 to 0.26	Low OH 380 nm - 2200 nm	Stock Fiber

Compatible Special Fibers

MFG	Fiber Type
Ceramoptec	Square core/round clad fiber
Ceramoptec	Octagonal fiber
Fiberlabs	Zblan SM and MM fibers
Le Verre Fluoré	Zblan SM and MM fibers
Thorlabs/Ir Photonics	Zblan MM fibers
IrFlex	Chalcogenide MM fibers
Infrared Fiber Systems	GeO2 MM fibers
CorActive High-Tech	Chalcogenide and other specialty fibers

Typical application fiber durability projections do not exceed stress levels specified for 25 years fiber lifetime calculations per Corning WP1282

More choices are available to match customer application requirements

Typical chromatic response for SM silica fiber for a fixed arbitrary compressive birefringence level
Specific birefringence at customer wavelength is definable at order

