



**Seagnol Photonics Co., Ltd**



# Seagnol Photonics Co., Ltd

## Reliable Optical Active and Passive Components Supplier

Seagnol Photonics Co., Ltd, established in 2015, originally, we provide service for Chinese native customer, in 2019, we built international sales team to provide high quality optical products for worldwide customers.

Seagnol Photonics focus on Optical Active and Passive Products, all products meet RoHs compliant, the products are widely applied in Telecommunication, CATV, Fiber Optic Sensor, Fiber Laser, Fiber Amplifier, Fiber Diffraction, Optic Imaging, Optical Biomedical, Quantum Field. the optical products wavelength ranges from 380~2100nm, and we also provide special customized products upon request.

### Seagnol Photonics products line as below:

	SM, PM Pigtailed DFB, FP Laser Diode MM Pigtailed DFB, FP Laser Diode SM, MM Pigtailed Vcsel Laser Diode		Pluggable DFB, FP Laser Diode
	SM, PM Butterfly Laser Diode Pump Butterfly Laser Diode Gas Detect Butterfly Laser Diode OCT SLED Butterfly Laser Diode		SM Pigtailed SI PIN PD PM Pigtailed InGaAs PIN PD Avalanche PD (APD) SM, PM Tap PD Pluggable InGaAs PIN PD
	SM, PM Fiber Fused Coupler SM, PM Fiber Filter Coupler MM Fiber Fused Coupler Broadband Fiber Fused, Filter Coupler		Nx1 Pump Combiner (N+1)x1 Pump & Signal Combiner (N+1)x1 Pump & PM Signal Combiner Mode Field Adapter, Pump Laser Protector Cladding Power Stripper
	Polarization Insensitive Fiber Optic Isolator Multimode Fiber Optic Isolator PM Fiber Optic Isolator High Power Fiber Isolator Broadband Fiber Optic Isolator Free Space Optical Isolator		Polarization Insensitive Optical Circulator Multimode Optical Circulator PM Optical Optical Circulator High Power Optical Circulator Broadband Optical Circulator
	CWDM, DWDM, OADM High Isolation Filter WDM 1x2 Fused WDM Raman Multimode WDM CATV WDM		SM, PM Band Pass Filter High Power Band Pass Filter SM, PM Tunable Optical Filter High Power Tunable Optical Filter
	SM, PM MEMS Variable Optical Attenuator Manual Variable Optical Attenuator SM, PM Fixed In Line Optical Attenuator		SM, PM 1x2, 2x2 Mechanical Optical Switch High Power Mechanical Optical Switch High Speed Magto Optical Switch
	SM, MM, PM 1xN 2xN PLC SM, MM, PM Fiber Array		SM, MM, PM Fiber Patchcord AR-Coating Fiber Patchcord Power Delivery Fiber Patchcord SMA Fiber Patchcord

## Products Catalogs

### Active Products

Pigtailed Laser Diode .....	Page 3
Butterfly Laser Diode .....	Page 4
Photodiode .....	Page 5

### Passive Optic Products

Fiber Optic Coupler .....	Page 6
Pump Combiner .....	Page 7
MFA, CPS, PLP .....	Page 8
Optical Isolator .....	Page 9
Fiber Optic Circulator .....	Page 10
WDM .....	Page 11
Band Pass Filter .....	Page 12
Optical Attenuator .....	Page 13
Laser and Amplifier Components .....	Page 14
High Power EDFA Hybrid Components .....	Page 15
OCT Broadband Optical Components .....	Page 16
Hybrid Optical Components .....	Page 17

## Pigtailed Laser Diode

Seagnol Photonics supply high quality DFB, FP, Vcsel laser diode with fiber pigtailed, the pigtail can be SM, PM, MM fiber terminated with FC, SC or LC connector. The laser diode features high output power, low threshold, it's widely used in Data Transmission, Fiber Optic Sensor and Optical Biomedical field. Laser Diode products can be also special customized, or hybrid with optical passive products.



### Application:

Data Transmission  
Fiber Optic Sensor  
CATV System  
Testing System  
Laser Imaging  
Optical Biomedical  
Optical Light Source

### Features:

Low Threshold  
PD Built In  
High Power Output  
SM, PM, MM Pigtail  
High Reliability  
RoHs Compliant  
375-1650nm Wavelength Range

### Typical Products:

Wavelength	LD Chip	Isolator	Fiber Type	Threshold	Max. Forward Current	Typ. Output Power
450nm	FP	None	SM/PM	60mA	180mA	30mW
650nm	FP	None	SM/PM	30mA	180mA	20mW
780nm	FP	None	SM/PM	30mA	120mA	30mW
780nm	FP	None	MM	50mA	150mA	40mW
850nm	FP	None	SM/PM	30mA	150mA	20mW
850nm	FP	None	MM	30mA	150mA	50mW
905nm	FP	None	SM/PM	50mA	180mA	30mW
980nm	FP	None	SM/PM	50mA	200mA	30mW
980nm	FP	None	MM	50mA	150mA	30mW
1064nm	FP	None	SM/PM	40mA	150mA	15mW
1310nm	FP	With	SM/PM	15mA	100mA	4mW
1490nm	DFB	With	SM/PM	15mA	150mA	4mW
1550nm	DFB	With	SM/PM	15mA	150mA	4mW
1577nm	DFB	With	SM/PM	15mA	150mA	3mW
1625nm	DFB	With	SM/PM	12mA	150mA	3mW
1650nm	DFB	With	SM/PM	12mA	150mA	3mW
CWDM	DFB	With	SM/PM	15mA	100mA	4mW
850nm	Vcsel	None	MM	25mA	100mA	20mW

Notice: Optical Power can be customized upon request.

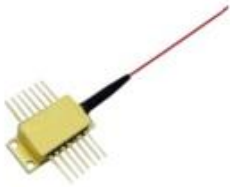
Isolator built in for 1260-1650nm LD, single stage or dual stage are available.

For the other wavelength of LD Please find on our website, wavelength rages from 375~1650nm.



## Butterfly Laser Diode

Butterfly Laser Diode is a kind of LD which can output high quality laser, it intergrates with TEC and Thermistor to control temperature, PD built in to monitor optical power, the pigtail can be SM, PM, MM fiber. It's widely used in CWDM/DWDM System, Optical Biomedical, Fiber Optic Sensor field, also, OCT SLED is special designed for Optical Coherence Tomography system as light source, the optical power can be customized upon request.



### Application:

CWDM/DWDM System  
Fiber Optic Sensor  
OCT  
Testing System  
Laser Imaging  
Optical Biomedical  
Optical Light Source

### Features:

Low Threshold  
PD Built In  
TEC Built In  
High Power Output  
SM, PM, MM Pigtail  
High Reliability  
RoHs Compliant

### DFB, FP Butterfly LD:

Wavelength	LD Chip	Isolator	Fiber Type	Threshold	Max. Forward Current	Typ.Output Power
780nm	FP	None	SM/PM	35mA	350mA	30mW
850nm	FP	None	SM/PM	35mA	350mA	30mW
1310nm	DFB	With	SM/PM	35mA	400mA	10mW
1550nm	DFB	With	SM/PM	35mA	400mA	10mW
CWDM	DFB	With	SM/PM	35mA	400mA	10mW
DWDM	DFB	With	SM/PM	35mA	400mA	10mW

Notice: Optical Power can be customized upon request.

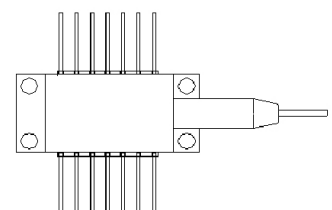
CWDM wavelength from 1260~1620nm, DWDM wavelength specify ITU Grid.

For the other wavelength of Butterfly LD Please find on our website,

### OCT SLED:

Wavelength	Bandwidth	Isolator	Fiber Type	Threshold	Max. Forward Current	Typ.Output Power
830nm	±20nm	None	SM/PM	80mA	600mA	10mW
840nm	±20nm	None	SM/PM	80mA	600mA	10mW
850nm	±20nm	None	SM/PM	80mA	600mA	10mW
1050nm	±20nm	None	SM/PM	80mA	600mA	10mW
1060nm	±20nm	None	SM/PM	80mA	600mA	10mW
1310nm	±20nm	With	SM/PM	80mA	600mA	10mW
1550nm	±20nm	With	SM/PM	80mA	600mA	10mW

Notice: Optical Power and Bandwidth can be customized upon request.



## Photodiode

Photodiode, also called PD, it's a key component in optic to electric communication application, Seagnol Photonics Supply SM, PM pigtailed SI, InGaAs PIN PD, APD, Plugable Type PIN PD, it features high response, low dark current, low capacitance. It's widely used In Fiber Optic Sensor, Optoelectronic Communication, the detect wavelength from 380~2100nm.



### Application:

Fiber Communication  
 Fiber Optic Sensor  
 Computed Tomography  
 Testing System  
 CWDM/DWDM System  
 Optical Biomedical  
 Optical Power Monitor

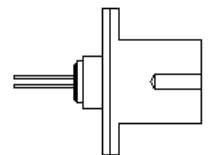
### Features:

High Response  
 Low Dark Current  
 Low Capacitance  
 Wide Active Diameter  
 SM, PM Pigtail  
 High Reliability  
 RoHs Compliant

### Pigtailed PD:

Wavelength	Typ. Wavelength	Chip Material	Fiber Type	Dark Current	Typ. Responsivity	Max. Saturation Input Power
300-1000nm	905nm	Silicon	SM/PM	1nA	0.4A/W	2mW
300-1000nm	980nm	Silicon	SM/PM	1nA	0.4A/W	2mW
1100-1650nm	1310nm	InGaAs	SM/PM	0.5nA	0.8A/W	2mW
1100-1650nm	1550nm	InGaAs	SM/PM	0.5nA	0.9A/W	2mW
800-2100mm	850nm	InGaAs	SM/PM	2nA	0.23A/W	4mW
800-2100mm	1310nm	InGaAs	SM/PM	2nA	0.7A/W	4mW
800-2100mm	1650nm	InGaAs	SM/PM	2nA	1.1A/W	4mW
800-2100mm	1850nm	InGaAs	SM/PM	2nA	1.2A/W	4mW
800-2100mm	2000nm	InGaAs	SM/PM	2nA	0.9A/W	4mW

Notice: Center wavelength can be customized upon request.  
 Active diameter can be 75~1000um, or customized.



## Fiber Optic Coupler

Fiber Optic Coupler, classified by Fiber Fused Coupler and Fiber Filter Coupler, can be used for splitting optical power with different coupling ratio. Fiber Fused Coupler is built with FBT technology, configuration can be 1x2, 2x2, 1x3, 3x3, 1x4, 4x4, or cascaded coupler of 1x8, 1x16 or the other, for Fiber Filter Coupler, mainly with 1x2, 2x2 configuration. It's widely used in Fiber Optic Sensor, Fiber Amplifier, Fiber Diffraction and Optical Biomedical system, the fiber can be SM, PM, MM fiber, higher power type is available upon request.



### Application:

Fiber Communication  
 Fiber Optic Sensor  
 Fiber Amplifier  
 Testing System  
 CWDM/DWDM System  
 Optical Biomedical  
 Optical Power Monitor

### Features:

Low Excess Loss  
 High Return Loss  
 Low Insertion Loss  
 SM, PM, MM Fiber  
 High Power Available  
 High Reliability  
 RoHs Compliant

### Fused Coupler:

Wavelength	Bandwidth	Configuration	Fiber Type	Excess Loss	Max. Optical Power
532nm	±10	1x2, 2x2	SM/PM	0.2dB	2W
650nm	±10	1x2, 2x2	SM/PM	0.2dB	2W
780nm	±10	1x2, 2x2	SM/PM	0.2dB	2W
808nm	±10	1x2, 2x2	SM/PM	0.2dB	2W
850nm	±10	1x2, 2x2	SM/PM	0.2dB	2W
980nm	±10	1x2, 2x2	SM/PM	0.1dB	2W
980nm	±20	1x3, 3x3	SM/PM	1.0dB	2W
1064nm	±10	1x2, 2x2	SM/PM	0.1dB	2W
1310nm	±10	1x2, 2x2	SM/PM	0.1dB	2W
1310nm	±20	1x3, 3x3	SM/PM	0.15dB	2W
1550nm	±10	1x2, 2x2	SM/PM	0.1dB	2W
1550nm	±20	1x3, 3x3	SM/PM	0.15dB	2W
1950nm	±20	1x2, 2x2	SM/PM	0.3dB	2W
2000nm	±20	1x2, 2x2	SM/PM	0.3dB	2W

### Filter Coupler:

Wavelength	Bandwidth	Configuration	Fiber Type	Excess Loss	Max. Optical Power
780nm	±20	1x2, 2x2	SM/PM	1.2dB	500mW
980nm	±20	1x2, 2x2	SM/PM	1.2dB	500mW
1064nm	±20	1x2, 2x2	SM/PM	1.2dB	500mW
1310nm	±40	1x2, 2x2	SM/PM	1.0dB	500mW
1550nm	±40	1x2, 2x2	SM/PM	1.0dB	500mW
2000nm	±40	1x2, 2x2	SM/PM	1.5dB	500mW

Notice: Broadband wavelength range is available upon request. The other wavelength and multimode type of fiber fused coupler please visit our website.  
 Optical power can be customized upon request.

## Pump Combiner

Pump Combiner or Pump & Signal Combiner, which can be used for coupling input pump lase with high coupling efficiency. It's built with FBT technology, the fiber can be customized. It's widely used in Fiber Amplifier, Fiber Laser and Quantum field. For Nx1 Pump Combiner, the configuration can be 2x1, 3x1, 4x1, 7x1, 19x1, or customized. For (N+1)x1 Pump & Signal Combiner, the cnfiguration can be (1+1)x1, (2+1)x1, (6+1)x1, (18+1)x1, or customized.



**Application:**  
 Fiber Amplifier  
 Fiber Laser  
 Laser Power Combination  
 Quantum System  
 Lab & Research

**Features:**  
 High Coupling Efficiency  
 High Power  
 Low Insertion Loss  
 Fiber Specify  
 High Reliability  
 RoHs Compliant

### Nx1 Pump Combiner:

Configuration	Input Fiber	Output Fiber	Power Handling Per Pump Port	Coupling Efficiency
2x1	105/125 0.15NA	105/125 0.22NA	25W	>90%
3x1	105/125 0.15NA	200/220 0.22NA	50W	>93%
3x1	200/220 0.22NA	400/440 0.22NA	100W	>95%
3x1	105/125 0.22NA	10/125 0.06/0.46NA DCF	100W	>95%
4x1	105/125 0.15NA	200/220 0.22NA	50W	>95%
7x1	105/125 0.22NA	400/440 0.22NA	50W	>95%
7x1	105/125 0.22NA	25/250 0.06/0.46NA DCF	50W	>95%
19x1	105/125 0.22NA	20/400 0.06/0.46NA DCF	100W	>90%

Notice: The input pump optical power can be customized, if need higher optical power handling please contact us to confirm.

### (N+1)x1 Pump & Signal Combiner:

Wavelength	Configuration	Input Pump Fiber	Input Signal Fiber	Output Fiber	Power Handling Per Pump Port	Pump Efficiency
793/1064nm	(2+1)x1	105/125 0.22NA	10/125 0.08/0.46NA	10/125 0.08/0.46NA	50W	>90%
793/1550nm	(2+1)x1	105/125 0.22NA	9/125 0.12/0.46NA	9/125 0.12/0.46NA	50W	>90%
793/2000nm	(2+1)x1	105/125 0.22NA	10/130 0.15/0.46NA	9/125 0.12/0.46NA	50W	>90%
793/1064nm	(6+1)x1	105/125 0.22NA	10/125 0.08/0.46NA	25/250 0.06/0.46NA	100W	>95%
793/1550nm	(6+1)x1	105/125 0.22NA	10/125 0.08/0.46NA	10/125 0.08/0.46NA	50W	>90%
793/2000nm	(6+1)x1	105/125 0.22NA	10/130 0.15/0.46NA	25/400 0.09/0.46NA	100W	>95%
793/1064nm	(18+1)x1	105/125 0.22NA	HI 1060	25/250 0.06/0.46NA	25W	>93%
793/1550nm	(18+1)x1	105/125 0.22NA	12/130 0.2/0.46NA	25/300 0.09/0.46NA	30W	>93%
793/2000nm	(18+1)x1	105/125 0.22NA	10/130 0.15/0.46NA	25/400 0.09/0.46NA	30W	>95%
793/1064nm	(6+1)x1	105/125 0.22NA	PM 10/125 0.08/0.46NA	PM 25/250 0.06/0.46NA	100W	>93%
793/1550nm	(6+1)x1	105/125 0.22NA	PM 12/130 0.2/0.46NA	PM 25/300 0.09/0.46NA	100W	>93%
793/2000nm	(6+1)x1	105/125 0.22NA	PM 10/130 0.15/0.46NA	PM 25/400 0.09/0.46NA	100W	>95%

Notice: The input pump optical power can be customized, if need higher optical power handling please contact us to confirm.

Forward and Backward pump type available. For more fiber type please visit our website.





## MFA, CPS, PLP

Pump Mode Field Adapter (MFA), which is used for matching the two different fiber core diameter and clad diameter, it can also be used to absorb the reflection pump laser to protect the seed laser source. Cladding Power Stripper (CPS), which can strip pump laser or the back reflection pump laser to avoid the influence to the system. Pump Laser Protector can be used for blocking the back reflection signal laser to protect the pump laser diode.



**Application:**  
 Fiber Amplifier  
 Fiber Laser  
 Laser Power Combination  
 Quantum System  
 Lab & Research

**Features:**  
 High Power  
 Low Insertion Loss  
 Fiber Specific  
 High Reliability  
 RoHS Compliant

### Mode Field Adapter:

Wavelength	Input Fiber	Output Fiber	Max. Signal Insertion Loss	Max. Power Handling
1064nm	HI 1060	10/125 SCF/DCF	0.3	30W
1064nm	10/125 SCF/DCF	20/125 SCF/DCF	0.5	30W
1064nm	PM 980	10/125 SCF/DCF	0.5	30W
1064nm	PM 6/125 SCF/DCF	20/125 SCF/DCF	0.5	30W
1550nm	SMF-28e	9/125 DCF	0.5	30W
1550nm	PM 1550	PM 9/125 DCF	0.5	30W
2000nm	SM 1950	10/130 DCF	0.5	30W
2000nm	PM 1950	PM 10/130 DCF	0.5	30W

### Cladding Power Stripper:

Wavelength	Input/output Fiber	Max. Signal Insertion Loss	Pump Power Attenuation	Max. Power Handling
1064nm	6/125 DCF	0.2dB	20dB	20W
1064nm	PM 10/125 DCF	0.2dB	20dB	50W
1550nm	9/125 DCF	0.2dB	20dB	20W
1550nm	PM 9/125 DCF	0.2dB	20dB	20W
2000nm	10/130 DCF	0.2dB	20dB	30W
2000nm	PM 25/250 DCF	0.2dB	20dB	100W

### Pump Laser Protector:

Pass Wavelength	Block Wavelength	Fiber Type	Max. Pump Insertion Loss	Max. Power Handling
900-1000nm	1020-1120, 1530-1570nm	HI 1060	0.5dB	10W
900-1000nm	1020-1120, 1530-1570nm	SMF-28e	0.5dB	10W
900-1000nm	1020-1120, 1530-1570nm	PM 980	0.6dB	10W
900-1000nm	1020-1120, 1530-1570nm	105/125 0.22NA	0.5dB	50W
900-1000nm	1020-1120, 1530-1570nm	200/220 0.22NA	0.5dB	50W

Notice: For above products, the fiber can be customized upon request. If need higher optical power handling please contact us to confirm.

For more information please visit our website.



## Optical Isolator

Optical Isolator, classified by Fiber In-line Optical Isolator and Free Space Optical Isolator, it's used for avoiding the back reflection laser light at the optic transmission path to protect the light source and lower down the signal noise. Seagnol Photonics supply SM, PM, MM Fiber Optic Isolator, Polarization Insensitive, Polarization Sensitive, High Power Type, Wide Bandwidth Type are available. Also, we supply large Clear Aperture (CA) Free Space Isolator. The isolators are widely used in Fiber Amplifier, Fiber Laser, Fiber Optic Sensor, Lab & Research, Precision Optical Measurement System.



### Application:

Fiber Amplifier  
Fiber Laser  
Fiber Optic Sensor  
Quantum System  
Testing System  
Lab & Research

### Features:

High Isolation  
High Power  
Low Insertion Loss  
Fiber Specify  
High Reliability  
RoHs Compliant

### Fiber Optic Isolator:

Wavelength	Bandwidth	Fiber Type	Min. Isolation	Max. Power Handling
488nm	± 5nm	SM	22dB	0.3~2W
635nm	± 5nm	SM	23dB	0.3~2W
780nm	± 5nm	SM/PM/MM	25dB	0.3~20W
850nm	± 5nm	SM/PM/MM	25dB	0.3~20W
850nm	± 50nm	SM/PM	25dB	0.3-5W
980nm	± 5nm	SM/PM/MM	25dB	0.3~20W
1030nm	± 50nm	SM/PM	25dB	0.3-5W
1060nm	± 50nm	SM/PM	25dB	0.3-5W
1064nm	± 5nm	SM/PM/MM	25dB	0.3~50W
1310nm	± 20nm	SM/PM/MM	28dB	0.3~20W
1450nm	± 20nm	SM/PM/MM	28dB	0.3~20W
1550nm	± 20nm	SM/PM/MM	28dB	0.3~20W
1580nm	± 20nm	SM/PM/MM	28dB	0.3~20W
1650nm	± 10nm	SM/PM/MM	25dB	0.3~20W
2000nm	± 50nm	SM/PM	25dB	0.3~10W

Notice: The optical power can be customized, if need pulse type please contact us to confirm.

### Free Space Isolator:

Wavelength	Bandwidth	Clear Aperture	Min. Isolation	Max. Power Handling
850nm	± 20nm	0.4~3mm	35dB	50W
980nm	± 20nm	0.4~3mm	35dB	50W
1064nm	± 20nm	0.4~7mm	30dB	50W
1310nm	± 20nm	0.4~5mm	25dB	50W
1550nm	± 20nm	0.4~5mm	28dB	50W
1650nm	± 20nm	0.4~5mm	28dB	50W

Notice: The Clear Aperture (CA) and optical power can be customized upon request.  
For more information please visit our website.



## Fiber Optic Circulator

Fiber Optic Circulator is a fiber passive component which can change signal light transmission path, it mainly classified by 3 ports and 4 ports optical circulator, as for 3-port fiber optic circulator, the signal A can be delivered from port 1 to port 2, signal B can be delivered from port 2 to port 3. It's widely used in Fiber Optic Sensor, Coherent Detecting, Fiber Amplifier, Optical Biomedical, OCT, CWDM/DWDM System, Optical Diffraction field, Seagnol Photonics supply SM, PM, MM fiber optic circulator, wavelength from 760~2100nm, handling power can be customized upon request.



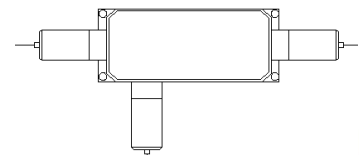
**Application:**  
 Fiber Optic Sensor  
 CWDM/DWDM System  
 Coherent Detecting  
 Fiber Amplifier  
 Optical Biomedical  
 Testing System  
 Lab & Research

**Features:**  
 High Isolation  
 High Power  
 Low Insertion Loss  
 Fiber Specify  
 High Reliability  
 RoHs Compliant

### Fiber Optic Isolator:

Wavelength	Bandwidth	Fiber Type	Max. Insertion Loss	Max. Power Handling
760nm	± 5nm	SM/PM/MM	1.5dB	0.3~20W
780nm	± 5nm	SM/PM/MM	1.5dB	0.3~20W
790nm	± 5nm	SM/PM/MM	1.5dB	0.3~20W
808nm	± 5nm	SM/PM/MM	1.5dB	0.3~20W
850nm	± 5nm	SM/PM/MM	1.5dB	0.3~20W
850nm	± 50nm	SM/PM	1.6dB	0.3~5W
980nm	± 5nm	SM/PM	1.5dB	0.3~20W
980nm	± 30nm	SM/PM	1.6dB	0.3~5W
1030nm	± 5nm	SM/PM	1.5dB	0.3~5W
1060nm	± 5nm	SM/PM	1.5dB	0.3~20W
1060nm	± 50nm	SM/PM	1.6dB	0.3~5W
1064nm	± 5nm	SM/PM	1.5dB	0.3~20W
1310nm	± 30nm	SM/PM/MM	1.0dB	0.3~20W
1480nm	± 30nm	SM/PM/MM	1.0dB	0.3~20W
1550nm	± 30nm	SM/PM/MM	1.0dB	0.3~20W
1580nm	± 30nm	SM/PM/MM	1.0dB	0.3~20W
1625nm	± 15nm	SM/PM/MM	1.0dB	0.3~20W
1650nm	± 15nm	SM/PM/MM	1.0dB	0.3~20W
C+L Band	1520-1620nm	SM/PM/MM	1.2dB	0.3~20W
S+C+L Band	1460-1620nm	SM/PM/MM	1.2dB	0.3~20W
1950nm	± 10nm	SM/PM	1.5dB	0.3~20W
2000nm	± 10nm	SM/PM	1.5dB	0.3~20W

Notice: The optical power can be customized, if need pulse type please contact us to confirm.  
 More information please visit our website.



## WDM

Fiber Wavelength Division Multiplexer, short as WDM, mainly classified by Filter WDM and Fused WDM. For Filter WDM, it's built with Thin-film Filter technology, for Fused WDM, it's built with FBT technology, both kinds of WDM can be used for combining or separating multi-wavelength. It's widely used in CWDM, DWDM System, CATV, Fiber Amplifier, Fiber Laser, Fiber Optic Sensor. The high isolation and high power type are available upon request.



### Application:

CWDM/DWDM System  
 CATV  
 Fiber Optic Sensor  
 Coherent Detecting  
 Fiber Amplifier  
 Optical Biomedical  
 Lab & Research

### Features:

High Isolation  
 High Power available  
 Low Insertion Loss  
 Epoxy Free  
 Optical Path Reversibility  
 High Reliability  
 RoHs Compliant

### Filter WDM:

Wavelength	Fiber Type	Isolation R/P (dB)	Max. Insertion Loss R/P (dB)	Max. Power Handling
CWDM	SM/PM	13/30	0.4/0.6	0.3-5W
DWDM	SM/PM	13/30	0.6/1.0	0.3-5W
980/1064nm	SM/PM	13/30	0.6/0.8	0.3-5W
980/1550nm	SM/PM	15/30	0.7/0.9	0.3-5W
1064/1550nm	SM/PM	13/25	0.7/0.9	0.3-5W
1310/1550nm	SM/PM	15/30	0.4/0.6	0.3-5W
1480/1550nm	SM/PM	15/30	0.4/0.6	0.3-5W
1310&1490/1550nm	SM/PM	15/30	0.4/0.6	0.3-5W
1310&1490&1550/1625nm	SM/PM	15/30	0.5/0.7	0.3-5W
1490&1550/1310nm	SM/PM	15/30	0.4/0.6	0.3-5W
1550/1310&1490nm	SM/PM	15/30	0.4/0.6	0.3-5W
1550/2000nm	SM/PM	12/25	0.7/0.9	0.3-5W
Raman 1450/1550/1660nm	MM	50	1.2	0.3W

### Fused WDM:

Wavelength	Fiber Type	Isolation	Max. Insertion Loss	Max. Power Handling
440/532nm	SM/PM	15dB	1.0dB	2W
532/635nm	SM/PM	12dB	1.4dB	2W
808/1064nm	SM/PM	18dB	0.3dB	2W
980/1064nm	SM/PM	15dB	0.3dB	2W
980/1310nm	SM/PM	18dB	0.3dB	2W
980/1550nm	SM/PM	20dB	0.2dB	2W
1030/1310nm	SM/PM	18dB	0.4dB	2W
1064/1310nm	SM/PM	17dB	0.3dB	2W
1310/1550nm	SM/PM	17dB	0.2dB	2W

Notice: The optical power can be customized, if need higher power type please contact us to confirm.

More information please visit our website.

## Band Pass Filter

Band Pass Filter is a fiber passive component which is based on Thin-film Filter technology, it can be used for blocking the unwanted Wavelength signal and pass the demanded wavelength. It's widely used in Fiber Amplifier, Fiber Laser, Fiber Optic Sensor field, also, we can provide Tunable Optical Filter, wavelength can be tuned continuously over a wide spectral range up to 80nm. For above band pass filter, high power type is available upon request.



### Application:

Fiber Amplifier  
Fiber Laser  
Fiber Optic Sensor  
CWDM/DWDM System  
Optical Biomedical  
Lab & Research

### Features:

High Isolation  
High Power available  
Low Insertion Loss  
Epoxy Free  
High Reliability  
RoHs Compliant

### Band Pass Filter:

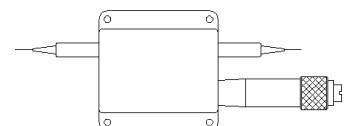
Wavelength	Fiber Type	Pass Bandwidth (@0.5dB)	Stop Bandwidth (@25dB)	Max. Power Handling
1030nm	SM/PM	2nm	6nm	5W
1030nm	SM/PM	5nm	10nm	5W
1030nm	SM/PM	8nm	20nm	5W
1053nm	SM/PM	5nm	12nm	5W
1064nm	SM/PM	2nm	6nm	5W
1064nm	SM/PM	5nm	10nm	5W
1064nm	SM/PM	8nm	20nm	5W
1550nm	SM/PM	1nm	6nm	5W
1550nm	SM/PM	5nm	10nm	5W
1550nm	SM/PM	10nm	25nm	5W
1560nm	SM/PM	2nm	10nm	5W
1560nm	SM/PM	5nm	12nm	5W
1577nm	SM/PM	1nm	6nm	5W
1577nm	SM/PM	2nm	10nm	5W
1950nm	SM/PM	6nm	20nm	5W

Notice: The optical power can be customized. More pass band and stop band type please visit our website.

### Tunable Optical Filter:

Wavelength	Fiber Type	Tuning Range	Typ. Tuning Resolution	Max. Power Handling
980nm	SM/PM	80nm	0.1nm	0.3-10W
1060nm	SM/PM	80nm	0.1nm	0.3-10W
1310nm	SM/PM	80nm	0.1nm	0.3-10W
1550nm	SM/PM	80nm	0.1nm	0.3-10W
1600nm	SM/PM	80nm	0.1nm	0.3-10W

Notice: The optical power can be customized, if need higher power or pulse type please contact us to confirm.  
More information please visit our website.



## Optical Attenuator

Optical Attenuator, classified by Manual Variable Optical Attenuator, Fiber Fixed In-line Optical Attenuator and MEMS Variable Optical Attenuator, it's widely used for optical power attenuation. For Manual Variable Optical Attenuator, the attenuation value can be variable by adjusting the manual screw. For MEMS Variable Optical Attenuator, the attenuation value can be variable by adjusting the input voltage. For Fiber Fixed In-line Optical Attenuator, it's based on FBT technology, the attenuation value is fixed.



### Application:

Fiber Amplifier  
Fiber Laser  
Fiber Optic Sensor  
CWDM/DWDM System  
Optical Biomedical  
Lab & Research

### Features:

High Isolation  
High Power available  
Low Insertion Loss  
Epoxy Free  
High Reliability  
RoHs Compliant

### Manual Variable Optical Attenuator:

Wavelength	Fiber Type	Original Loss	Attenuation Range	Max. Power Handling
760nm	SM/PM	1.0dB	1.0~60dB	500mW
850nm	SM/PM	1.0dB	1.0~60dB	500mW
980nm	SM/PM	0.8dB	0.8~60dB	500mW
1064nm	SM/PM	0.8dB	0.8~60dB	500mW
1310nm	SM/PM	0.6dB	0.6~60dB	500mW
1550nm	SM/PM	0.6dB	0.6~60dB	500mW
1650nm	SM/PM	0.6dB	0.6~60dB	500mW

### MEMS Variable Optical Attenuator:

Wavelength	Fiber Type	Original Loss	Attenuation Range	Max. Power Handling
980nm	SM/PM	1.2dB	1.2~45dB	500mW
1050nm	SM/PM	1.2dB	1.2~45dB	500mW
1064nm	SM/PM	1.2dB	1.2~45dB	500mW
1310nm	SM/PM	0.7dB	0.7~45dB	500mW
1550nm	SM/PM	0.7dB	0.7~45dB	500mW
1625nm	SM/PM	0.7dB	0.7~45dB	500mW

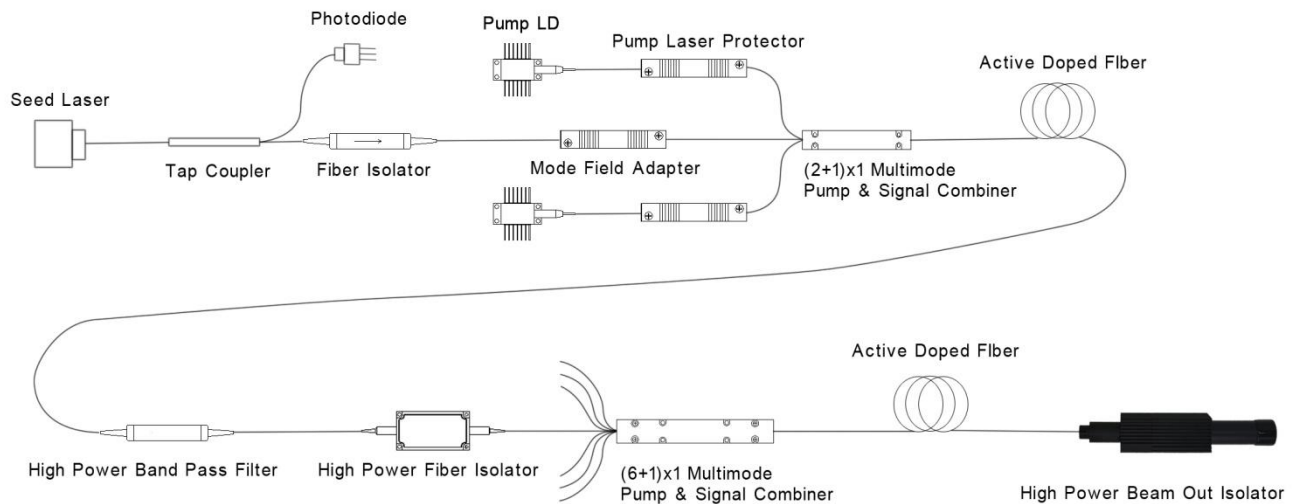
### Fiber Fixed In-line Optical Attenuator:

Wavelength	Fiber Type	Max. Excess Loss	Max. Attenuation	Max. Power Handling
760nm	SM/PM	0.8dB	40dB	2W
850nm	SM/PM	0.8dB	40dB	2W
980nm	SM/PM	0.7dB	40dB	2W
1064nm	SM/PM	0.7dB	40dB	2W
1310nm	SM/PM	0.6dB	40dB	2W
1550nm	SM/PM	0.6dB	40dB	2W
1650nm	SM/PM	0.6dB	40dB	2W

Notice: The optical power can be customized, if need higher power type please contact us to confirm.

## High Power Components For Fiber Laser and Fiber Amplifier System

High Power Fiber Laser and Fiber Amplifier Components including High Power In-line Fiber Optic Isolator, High Power Fiber to Free Space Optical Circulator, High Power Coupler, Multimode Pump and Signal Combiner, Pump Laser Protector, Cladding Power Stripper, Active Doped Fiber, High Power Band Pass Filter. Seagnol Photonics supply high quality Fiber laser and Amplifier optical components, the handling power can be customized, if need pulse type please tell us to confirm.



### Products List:

#### 980nm Pump, 1064nm Signal Series

1. 980/1064nm Filter WDM
2. 1064nm FBT Tap Coupler (1~10% tap)
3. 1064nm High Power Fiber Optic Isolator TGG Based, Max. 100W CW
4. 1064nm Mode Field Adapter (single cladding to double cladding)
5. 980/1064nm (N+1)x1 Pump and Signal Combiner
6. 1064nm High Power Band Pass Filter
7. 1064nm High Power Fiber To Free Space Beam Out Optical Isolator

#### 980nm Pump, 1550nm Signal Series

1. 980/1550nm Filter WDM
2. 1064nm FBT Tap Coupler (1~10% tap)
3. 1550nm High Power Fiber Optic Isolator
4. 1550nm Mode Field Adapter (single cladding to double cladding)
5. 980/1550nm (N+1)x1 Pump and Signal Combiner
6. 1550nm High Power Band Pass Filter
7. 1550nm High Power Fiber To Free Space Beam Out Optical Isolator

#### 793nm Pump, 2000nm Signal Series

1. 793/2000nm Fused WDM
2. 2000nm FBT Tap Coupler (1~10% tap)
3. 2000nm High Power Fiber Optic Isolator
4. 2000nm Mode Field Adapter (single cladding to double cladding)
5. 793/2000nm (N+1)x1 Pump and Signal Combiner
6. 2000nm High Power Polarization Beam Combiner/Splitter
7. 2000nm High Power Fiber To Free Space Beam Out Optical Isolator

## High Power EDFA Hybrid Components

High Power EDFA Hybrid Components including Tap+Isolator, Isolator+WDM, Tap+Isolator+WDM, the hybrid products intergrates with 2 or 3 high power components to a compact package. Tap Coupler can separate the optical power for monitoring, Fiber Optic Isolator can used for avoiding the back reflection light, WDM can be used for combining the pump laser and signal light. The optical power can be customized upon request.



### Application:

Fiber Amplifier  
Fiber Laser  
CATV  
WDM System  
Optical Biomedical  
Lab & Research

### Features:

High Isolation  
High Power available  
Low Insertion Loss  
Epoxy Free  
High Reliability  
RoHs Compliant

### Tap+Isolator:

Wavelength	Fiber Type	Tap Ratio	Isolation	Max. Power Handling
1030nm	SM/PM	1%~10%	25dB	20W
1050nm	SM/PM	1%~10%	25dB	20W
1064nm	SM/PM	1%~10%	25dB	20W
1550nm	SM/PM	1%~10%	28dB	10W

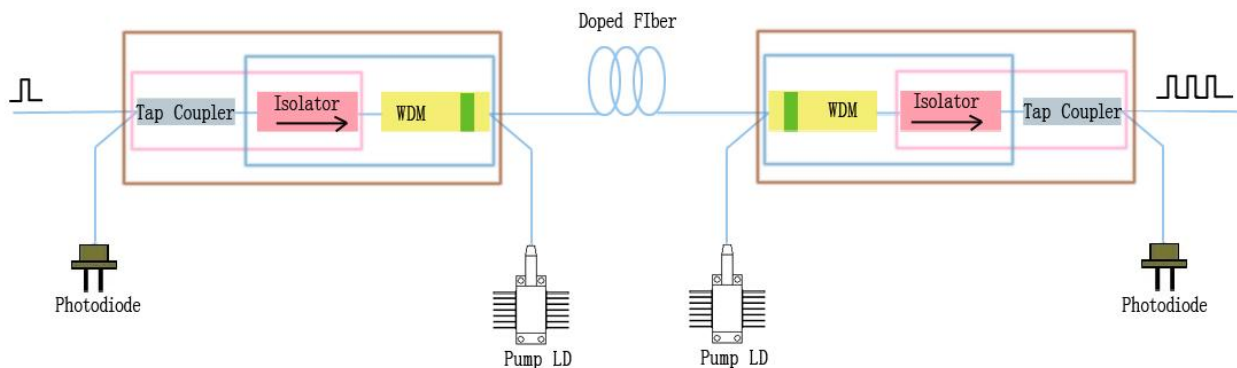
### Isolator+WDM:

Wavelength (Pump/Signal)	Fiber Type	Isolation (com→Signal)	Max. Power Handling
980/1030nm	SM/PM	25dB	10W
980/1064nm	SM/PM	25dB	10W
980/1550nm	SM/PM	30dB	5W
1480/1550nm	SM/PM	30dB	5W

### Tap+Isolator+WDM:

Wavelength (Pump/Signal)	Fiber Type	Tap Ratio	Isolation (com→Signal)	Max. Power Handling
980/1030nm	SM/PM	1%~10%	25dB	10W
980/1064nm	SM/PM	1%~10%	25dB	10W
980/1550nm	SM/PM	1%~10%	25dB	5W
1480/1550nm	SM/PM	1%~10%	28dB	5W

Notice: The optical power can be customized, if need higher power type please contact us to confirm.  
More information please visit our website.

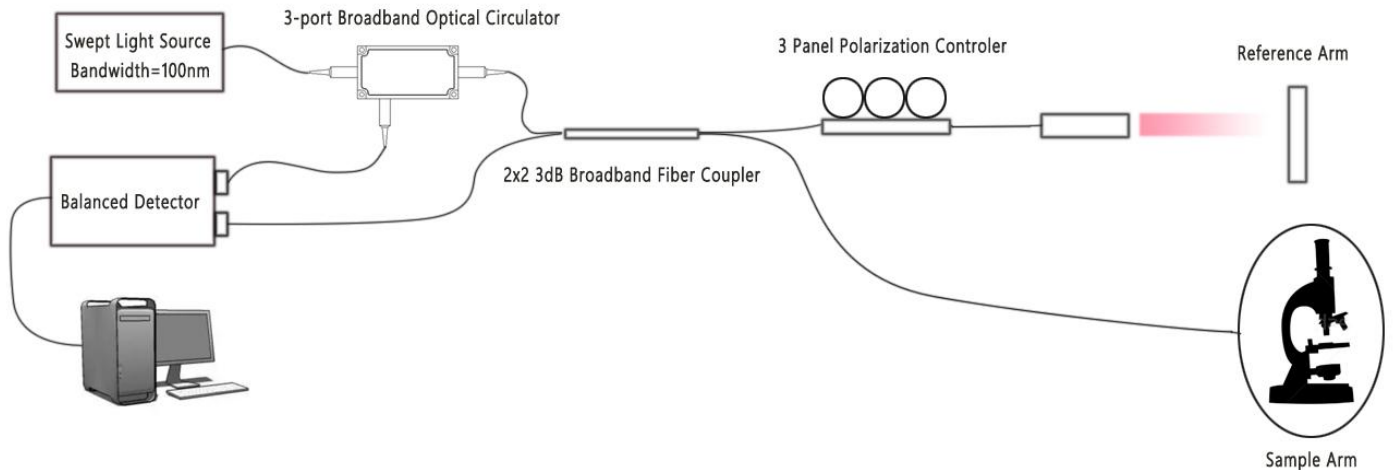




## OCT Broadband Optical Components

Optical Coherence Tomography (short as OCT), has a broadband range of application in biological tissues scanning field, especially for medical eye care, it uses the basic principle of weak coherent light interferometer to detect the back reflection or several scattered signals of incident weak coherent light at different depth levels of biological tissues. Through scanning, 2D or 3D structure images of biological tissues can be obtained.

Seagnol Photonics supply high quality OCT Broadband Optical Components, it's specially designed for Optical Coherence Tomography application, including Broadband Optical Circulator, Broadband 1x2, 2x2 Fiber Coupler, 3 Panel Polarization Controller, Fiber Patchcord.



### OCT Broadband Optical Products List:

#### OCT Broadband 3-port Fiber Optic Circulator

8. 780±20nm OCT Broadband 3-port Fiber Optic Circulator
9. 830±30nm OCT Broadband 3-port Fiber Optic Circulator
10. 850±50nm OCT Broadband 3-port Fiber Optic Circulator
11. 1050±50nm OCT Broadband 3-port Fiber Optic Circulator
12. 1060±50nm OCT Broadband 3-port Fiber Optic Circulator
13. 1310±50nm OCT Broadband 3-port Fiber Optic Circulator

#### OCT Broadband 1x2, 2x2 Fiber Coupler

1. 850±50nm 1x2, 2x2 OCT Broadband Fiber Coupler
2. 930±50nm 1x2, 2x2 OCT Broadband Fiber Coupler
3. 1050±50nm 1x2, 2x2 OCT Broadband Fiber Coupler
4. 1060±50nm 1x2, 2x2 OCT Broadband Fiber Coupler
5. 1310±50nm 1x2, 2x2 OCT Broadband Fiber Coupler

#### OCT Broadband Fiber Optic Isolator

1. 780±20nm OCT Broadband Fiber Optic Isolator
2. 830±30nm OCT Broadband Fiber Optic Isolator
3. 850±50nm OCT Broadband Fiber Optic Isolator
4. 1050±50nm OCT Broadband Fiber Optic Isolator
5. 1060±50nm OCT Broadband Fiber Optic Isolator
6. 1310±50nm OCT Broadband Fiber Optic Isolator

#### Fiber Patchcord + 3 Panel Polarization Control

1. 780nm SM Fiber Patchcord + 3 Panel Polarization Control
2. 850nm SM Fiber Patchcord + 3 Panel Polarization Control
3. 1064nm SM Fiber Patchcord + 3 Panel Polarization Control
4. 1310nm SM Fiber Patchcord + 3 Panel Polarization Control

## Hybrid Optical Components

Hybrid Optical Components built with 2 or 3 optical components for multi function intergrated in one single optical component or optical module. It's widely used in Fiber Optic Sensor, CATV, Fiber Laser, Fiber Amplifier field. Seagnol Photonics provide customized hybrid optical components upon request, here is some hybrid optical components for reference:

1. 1310, 1490, 1550nm PLC+FWDM For CATV Application (8CH, 16CH, 32CH...)
2. CWDM+PD+LD (4CH, 8CH, 16CH... )
3. 1310,1550nm FWDM+3-port Optical Circulator
4. FWDM+Fiber Coupler+3-port Optical Circulator
5. Fiber Coupler+PD
6. Fiber Coupler+Faraday Rotator Mirror
7. Tap+Isolator
8. Tap+WDM
9. Tap+WDM+Isolator
10. Isolator+WDM
11. Tap+Band Pass Filter
12. Tap+Band Pass Filter+Isolator
13. Band Pass Filter+WDM
14. Optical Switch+WDM+Coupler
15. Optical Switch+Coupler+PD

For more information please contact our website, or need special customized optical products please contact our sales representative.