

As a global partner of optical components, SENKO provides both standard and customized passive device products to the market. Our commitment to the stringent management of our supply chain and manufacturing partners enables us to consistently deliver the highest quality, lowest cost products to our customers.

SENKO offers an extensive range of product lines, including Fused Coupler, Filter-based WDM, Outside Plant use WDM, Polarization Maintaining Components, Switching and Routing, and other customized products are also available upon request.

SENKO works closely with the industry to constantly develop new products and techniques and makes customer satisfaction their top priority.

FUSED PRODUCTS**pg. 04/09**

- SINGLE MODE FIBER COUPLER - 1x2 (ALL WAVELENGTH 50/50)
- SINGLE MODE FIBER COUPLER - 1x2 (ALL COUPLING RATIO)
- SINGLE MODE FIBER COUPLER - 1x3
- SINGLE MODE FIBER COUPLER - 1x4
- FUSED WDM - 1310/1550
- FUSED WDM - 980/1550

PLC GROUP**pg. 10/14**

- 1xN PLC Splitter
- 2xN PLC Splitter
- PLC Splitter Module 900µm Type
- PLC Splitter Module 2mm/3mm Type
- Mini Splitter Module

WDM PRODUCTS**pg. 15/22**

- CWDM Single Device
- CWDM 2CH/4CH/8CH/16CH Module
- CWDM 2CH/4CH/8CH/16CH +1310ch Module
- Mini Low Loss 4CH/8CH CWDM
- DWDM 100G/200G 4ch /8ch Module
- FTTX FWDM – 1310~1490/1550
- Filter Based FWDM 1310/1550 with High Isolation
- Grating DWDM Module

SWITCH/ ROUTING AND ATTENUATOR**pg. 23/27**

- 1x1 / 1x2/2X2/2X4 switch Series
- 1x4/1x8 switch Module
- Circulator
- Isolator
- Manual VOA

PM PRODUCTS**pg. 28/33**

- PM Polarization Combiner/Splitter
- PM Isolator
- PM filter coupler
- PM Circulator
- PM WDM
- In-line Polarizer

SUB COMPONENTS /SPECIAL COMPONENTS**pg. 34**

- Splice Protection Sleeve

FUSED PRODUCTS
SINGLE MODE FIBER COUPLER 1X2

(50/50)



SENKO's Single Mode Fiber Couplers are highly stable for multi-port optical signal splitting with low insertion loss. All devices are tested according to industry standard test procedures and have the compact package size.

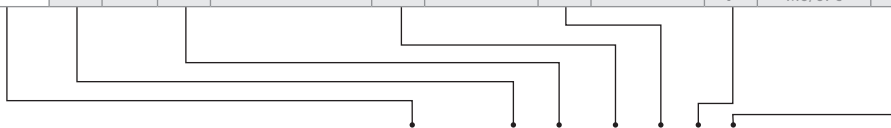
PARAMETERS	VALUES	UNIT
Type	1x2	
Coupling Ratio	50/50	
Insertion loss Max. ^{1,2}	See below Table	
Uniformity Max.	See below Table	
Return loss Min. ²	55	dB
Directivity Min.	55	dB
PDL Max.	See below Table	
WDL Max. ³	See below Table	
TDL at -5~70c Max.	0.15	dB
Housing dimension	250μm fiber 3.0 (Φ) x 54 (L) 900μm tube 3.0 (Φ) x 54 (L) 2mm/3mm tube, ABS Box: 90(L)x14(W)x8.5(H)	mm
Fiber length Min.	1.0m or specified	
Fiber Type ⁴	SMF-28e 250μm bare fiber	
Operating temperature	-40 ~ +85	°C
Storage temperature	-40 ~ +85	°C

Note:

- The performance are not including the Connectors.
- IL are worst case including PDL, TDL, and WDL.
- WDL means IL change over Single wavelength band. Only for each window band, not including water peak band.
- Other special fiber is available such as SMF-28e XB.

	IL (dB) TYP. / MAX.	PDL (dB) MAX.	UNIFORMITY (dB) MAX.	WDL (dB) MAX.
Wide Wavelength Band (1260~1620 nm)	3.8 / 4.5	0.3	1.2	NA
3 Wavelength Band (1310/ 1550 ±40 and 1490 ±10 nm)	3.4 / 3.7	0.2	0.8	0.5
Dual Wavelength Band (1310/1550 ± 40 nm)	3.3 / 3.6	0.15	0.7	0.3
Single Wavelength Band (1310±40 or 1550 ±40 nm)	3.2 / 3.4	0.15	0.6	0.2

CODE	PORT		WAVELENGTH		COUPLING RATIO		FIBER TYPE		CONNECTOR		FIBER LENGTH	
	1	2	31	32	50	50/50	b	250μm	0	None	10	1.0m
PD-FC-SM	2	2X2	55	1550			9	900μm	1	SC/UPC	15	1.5m
			DU	1310/1550			2	2mm	2	SC/APC		
			TR	1310/1490/1550			3	3mm	3	FC/UPC		
			FU	full					4	FC/APC		
									5	LC/UPC		
									6	LC/APC		
									7	MU/UPC		



ORDER CODE example:

PD-FC-SM-1-31-55-9-1-10
APPLICATIONS

- Telecommunications
- Network Monitoring
- FTTX

FEATURES

- High Stable & Reliable
- Perfect Performance
- Compact Package
- RoHS Compliant

FUSED PRODUCTS

SINGLE MODE FIBER COUPLER 1X2

(ALL COUPLING RATIO)



SENKO's Single Mode Fiber Couplers are highly stable for multi-port optical signal splitting with low insertion loss. All devices are tested according to industry standard test procedures and have the compact package size.

PARAMETERS	VALUES	UNIT
Type	1x2	
Operating Wavelength band 1	Single Window—1310 or 1550±40	nm
Operating Wavelength band 2	Dual Windows—1310 and 1550±40	nm
Operating Wavelength band 3	Triple Windows—1310 and 1550±40 and 1490±10	nm
Insertion loss Max. ^{1,2}	See below Table	
Return loss Min. ¹	55	dB
Directivity Min.	55	dB
PDL Max.	See below Table	
TDL at -5~70c Max.	0.15	dB
Housing dimension	250µm fiber 3.0 (Φ) x 54 (L) 900µm tube 3.0 (Φ) x 54 (L) 2mm/3mm tube, ABS Box: 90(L)x14(W)x8.5(H)	mm
Fiber length Min.	1.0m or specified	
Fiber Type ³	SMF-28e 250µm bare fiber	
Operating temperature	-40~+85	°C
Storage temperature	-40~+85	°C

Note:

1. The performance are not including the Connectors.
2. IL are worst case including PDL, TDL, and WDL.
3. Other special fiber is available such as SMF-28e XB.

COUPLING RATIO	SINGLE WINDOW		DUAL WINDOW		TRIPLE WINDOW	
	IL (dB)	PDL (dB)	IL (dB)	PDL (dB)	IL (dB)	PDL (dB)
1/99	≤21.8/0.20	≤0.20/≤0.05	≤23.0/0.25	≤0.20/≤0.05	≤23.5/0.25	≤0.20/≤0.05
2/98	≤19.0/0.25	≤0.20/≤0.05	≤19.0/0.30	≤0.20/≤0.05	≤19.2/0.35	≤0.20/≤0.05
3/97	≤16.7/0.30	≤0.20/≤0.05	≤18.2/0.35	≤0.20/≤0.05	≤18.4/0.40	≤0.20/≤0.05
5/95	≤14.5/0.45	≤0.20/≤0.10	≤15.0/0.45	≤0.20/≤0.10	≤15.2/0.50	≤0.20/≤0.10
10/90	≤11.2/0.65	≤0.15/≤0.10	≤11.3/0.65	≤0.15/≤0.10	≤11.5/0.75	≤0.15/≤0.10
20/80	≤7.80/1.25	≤0.15/≤0.15	≤7.85/1.25	≤0.15/≤0.15	≤7.95/1.50	≤0.15/≤0.15
30/70	≤5.80/1.9	≤0.15/≤0.15	≤6.00/2.00	≤0.15/≤0.15	≤6.20/2.10	≤0.15/≤0.15
40/60	≤4.50/2.60	≤0.15/≤0.15	≤4.70/2.70	≤0.15/≤0.15	≤4.90/2.80	≤0.15/≤0.15

CODE	PORT		WAVELENGTH		COUPLING RATIO		FIBER TYPE		CONNECTOR		FIBER LENGTH	
PD-FC-SM	1	1X2	31	1310	1	1/99	b	250µm	0	None	10	1.0m
	2	2X2	55	1550	2	2/98	9	900µm	1	SC/UPC	15	1.5m
			DU	1310/1550	3	3/97	2	2mm	2	SC/APC		
			TR	1310/1490/1550	5	5/95	3	3mm	3	FC/UPC		
					10	10/90			4	FC/APC		
					20	20/80			5	LC/UPC		
					30	30/70			6	LC/APC		
					40	40/60			7	MU/UPC		



ORDER CODE example:

PD-FC-SM-1-55-1-2-1-15

APPLICATIONS

- Telecommunications
- Network Monitoring
- FTTX

FEATURES

- High Stable & Reliable
- Perfect Performance
- Compact Package
- RoHS Compliant

FUSED PRODUCTS

SINGLE MODE FIBER COUPLER 1X3

APPLICATIONS

- Telecommunications
- Network Monitoring
- FTTX

FEATURES

- Single Fusion
- High Stable & Reliable
- Perfect Performance
- Compact Package
- RoHS Compliant



SENKO's Single Mode Fiber Couplers are highly stable for multi-port optical signal splitting with low insertion loss. All devices are tested according to industry standard test procedures and have the compact package size.

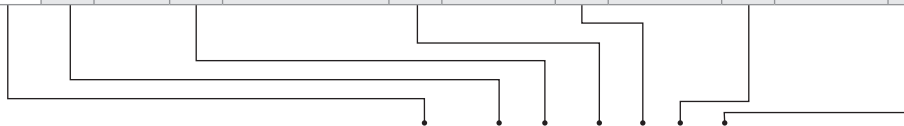
PARAMETERS	VALUES	UNIT
Type	1x3	
Coupling Ratio	33.3/33.3/33.3	
Insertion loss Max. ^{1,2}	See below Table	
Uniformity Max.	See below Table	
Return loss Min. ¹	55	dB
Directivity Min.	55	dB
PDL Max.	See below Table	
WDL Max. ³	See below Table	
TDL at -5~70c Max.	0.3	dB
Housing dimension	250µm fiber:3.0(φ)x54(L) 900µm fiber:4.0(φ)x75(L)	mm mm
Fiber length Min.	1.0m or specified	
Fiber Type ⁴	SMF-28e 250µm bare fiber or with 900µm loose tube or with 2/3mm cable	
Operating temperature	-40~+85	°C
Storage temperature	-40~+85	°C

Note:

1. The performance are not including the Connectors.
2. IL are worst case including PDL, TDL, and WDL.
3. WDL means IL change over Single wavelength band, only for each window band, not including water peak band.
4. Other special fiber is available such as SMF-28e XB.

	IL (dB) TYP. / MAX.	PDL (dB) MAX.	UNIFORMITY (dB) MAX.	WDL(dB) MAX.
Wide Wavelength Band (1260~1620 nm)	6.6 / 7.0	0.3	1.6	NA
3 Wavelength Band (1310/ 1550 ±40 and 1490 ±10 nm)	6 / 6.6	0.3	1.4	0.5
Dual Wavelength Band (1310/1550 ±40 nm)	5.8 / 6.2	0.25	1.2	0.3
Single Wavelength Band (1310 ±40 or 1550 ±40 nm)	5.3 / 5.7	0.15	1.0	0.25

CODE	PORT		WAVELENGTH		COUPLING RATIO		FIBER TYPE		CONNECTOR		FIBER LENGTH	
PD-FC-SM	3	1X3	31	1310	33	33/33/33	b	250µm	0	None	10	1.0m
			55	1550			9	900µm	1	SC/UPC	15	1.5m
			DU	1310/1550			2	2mm	2	SC/APC		
			TR	1310/1490/1550			3	3mm	3	FC/UPC		
									4	FC/APC		
									5	LC/UPC		
									6	LC/APC		
									7	MU/UPC		



ORDER CODE example:

PD-FC-SM-3-31-33-9-1-15

FUSED PRODUCTS

SINGLE MODE FIBER COUPLER 1X4



SENKO's Single Mode Fiber Couplers are highly stable for multi-port optical signal splitting with low insertion loss. All devices are tested according to industry standard test procedures and have the compact package size.

PARAMETERS	VALUES	UNIT
Type	1x4	
Coupling Ratio	25/25/25/25	
Insertion loss Max. ^{1,2}	See below Table	
Uniformity Max.	See below Table	
Return loss Min. ¹	55	dB
Directivity Min.	55	dB
PDL Max.	See below Table	
WDL Max. ³	See below Table	
TDL at -5~70c Max.	0.3	dB
Housing dimension	250µm fiber:3.0(φ)x54(L) 900µm fiber:4.0(φ)x75(L)	mm
Fiber length Min.	1.0m or specified	
Fiber Type ⁴	SMF-28e 250µm bare fiber or with 900µm loose tube or with 2/3mm cable	
Operating temperature	-40~+85	°C
Storage temperature	-40~+85	°C

APPLICATIONS

- Telecommunications
- Network Monitoring
- FTTX

FEATURES

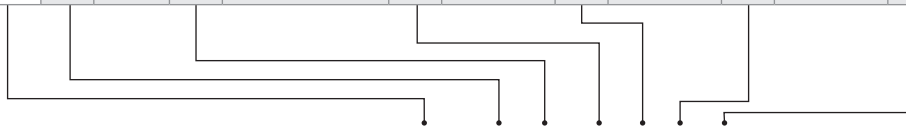
- Single Fusion Compact Package
- High Stable & Reliable
- Perfect Performance
- RoHS Compliant

Note:

1. The performance are not including the Connectors.
2. IL are worst case including PDL, TDL, and WDL.
3. WDL means IL change over Single wavelength band, only for each window band, not including water peak band.
4. Other special fiber is available such as SMF-28e XB.

	IL (dB) TYP. / MAX.	PDL (dB) MAX.	UNIFORMITY (dB) MAX.	WDL (dB) MAX.
Wide Wavelength Band (1260~1620 nm)	7.0 / 8.0	0.35	1.8	NA
3 Wavelength Band (1310/ 1550 ±40 and 1490 ±10 nm)	6.8 / 7.5	0.30	1.7	0.6
Dual Wavelength Band (1310/1550 ±40 nm)	6.6 / 7.4	0.25	1.6	0.4
Single Wavelength Band (1310 ±40 or 1550 ±40 nm)	6.5 / 7.2	0.15	1.4	0.3

CODE	PORT	WAVELENGTH	COUPLING RATIO	FIBER TYPE	CONNECTOR	FIBER LENGTH						
PD-FC-SM	4	1X4	31	1310	25	25/25/25/25	b	250µm	0	None	10	1.0m
			55	1550			9	900µm	1	SC/UPC	15	1.5m
			DU	1310/1550			2	2mm	2	SC/APC		
			TR	1310/1490/1550			3	3mm	3	FC/UPC		
									4	FC/APC		
									5	LC/UPC		
									6	LC/APC		
								7	MU/UPC			



ORDER CODE example:

PD-FC-SM-4-DU-25-3-0-15

FUSED PRODUCTS

FUSED WDM - 1310/1550



APPLICATIONS

- Telecommunications
- Local Area Networks

FEATURES

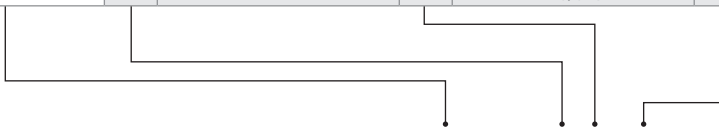
- High Isolation
- Low Loss
- High Reliability
- RoHS Compliant

SENKO's 1310/1550nm fused single-mode wavelength division multiplexers are manufactured using the proven fused biconical taper technology, this device is ideal for combining or separating optical signals in the 1310 and 1550nm bands.

PARAMETERS	VALUES	UNIT
Type	1x2	
Operating Wavelength	1295~1325 / 1535~1565	nm
Insertion loss Max.	0.3	dB
Isolation Min.	17	dB
Return loss Min,	50	dB
Directivity Min,	55	dB
PDL Max.	0.1	dB
WDL Max.	0.15	dB
TDL at -5~70c Max.	0.15	dB
Housing dimension	3.0 (Φ) x 54 (L)	mm
Fiber length Min.	1.0 ± 0.1	m
Fiber Type	SMF-28e 250μm bare fiber	
Operating temperature	-40~ +85	°C
Storage temperature	-40~ +85	°C
Maximum Power Handling	500	mW



CODE	FIBER TYPE	CONNECTOR	FIBER LENGTH			
PD SWDW-35	B	250μm	0	None	10	1.0m
	9	900μm	1	SC/UPC	15	1.5m
			2	SC/APC		
			3	FC/UPC		
			4	FC/APC		
			5	LC/UPC		
			6	LC/APC		
7	MU/UPC					



ORDER CODE example:

PD - SWDM - 35 - B - 1 - 10

FUSED PRODUCTS

FUSED WDM - 980/1550



SENKO's 980/1550nm fused single-mode wavelength division multiplexers are manufactured using the proven fused biconical taper technology, this device is ideal for combining or separating optical signals in the 980 and 1550nm bands in optical fiber amplifiers.

APPLICATIONS

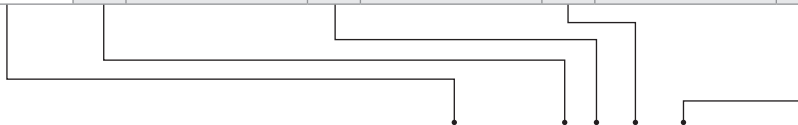
- Telecommunications
- Amplification
- Local Area Networks

FEATURES

- High Isolation
- Low Loss
- High Reliable
- RoHS Compliant

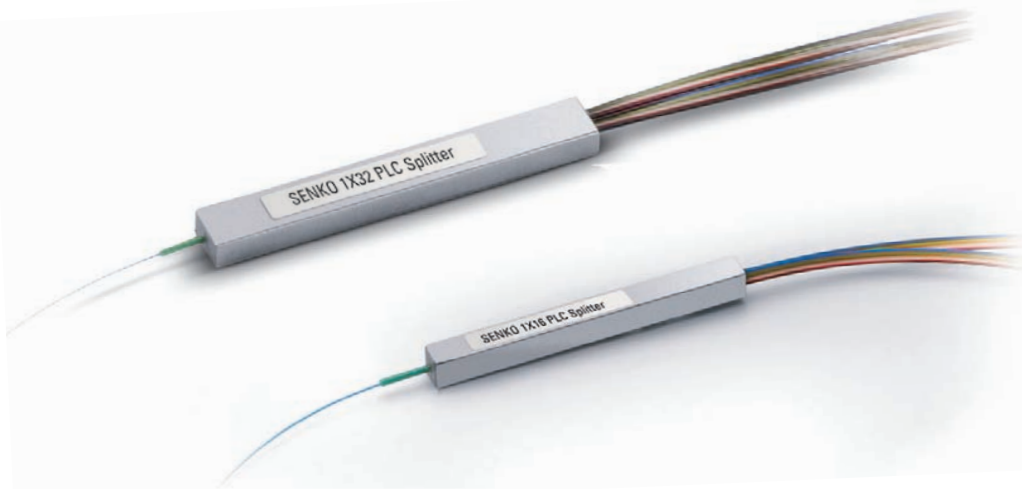
PARAMETERS	VALUES	UNTI
Operating Wavelength	970 ~990 / 1535 ~1565	nm
Insertion loss Max.	0.2	dB
Isolation Min.	20	dB
Return loss Min,	50	dB
Directivity Min,	55	dB
PDL Max.	0.1	dB
Housing dimension	3.0 (Φ) x 54 (L)	mm
Fiber length Min.	1.0 ± 0.1	m
Fiber Type	Corning Hi 1060 Flex, or OFS BF05635-02 bare fiber	
Operating temperature	-40~ +85	°C
Storage temperature	-40~ +85	°C
Maximum Power Handling	500	mW

CODE	FIBER TYPE	FIBER CORE NAME	CONNECTOR	FIBER LENGTH				
PD SWDM-59	B	250µm	1	Hi 1060 Flex	0	None	10	1.0m
	9	900µm	2	OFS BF05635-02 fiber	1	SC/UPC	15	1.5m
					2	SC/APC		
					3	FC/UPC		
					4	FC/APC		
					5	LC/UPC		
					6	LC/APC		
7	MU/UPC							



ORDER CODE example:

P D - S W D M - 5 9 - B - 1 - 0 - 1 0



APPLICATIONS

- Telecom, datacom
- Local Area Networks (LANs)
- Cable TV (CATV)
- Local Convergence points (LCP)
- FTTX

FEATURES

- Low insertion loss;
- High maximum power tolerance;
- Excellent splitting uniformity;
- Broadband Operating wavelength;
- Compact design;
- Low polarization independent

OPTIONS

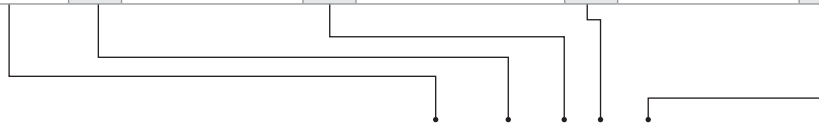
- They are available in 1x4, 8, 16, 32 and 64 configurations, with various connector options.
- Custom packaging is also available

SENKO's 1x N Planar Light wave Circuit (PLC) Splitters are based on the Plasma Chemical Vapor Deposition (P-CVD) technology and its patented fabrication process for providing stable optical character.

SENKO's 1 x N PLC Splitter features guaranteed performance specifications and high reliability that surpass Telcordia requirements and is tailored for different applications and markets.

PARAMETERS ¹	1X2	1X4	1X8	1X16	1X32	1X 64	UNIT
Operating Wavelength	1260 ~1650						nm
Insertion Loss, Max.	4.0	7.4	10.7	13.7	16.9	21	dB
Uniformity	0.6	0.6	0.8	1.2	1.7	2.5	dB
PDL, Max.	0.2	0.2	0.3	0.3	0.3	0.4	dB
Return Loss, Min.	55						dB
Operating Temp.	-40 ~ +85						°C
Dimensions	4 (W)x4 (H)x40(L)			7 (W)x4 (H)x50(L)		12(W)x4(H) x60 (L)	mm

CODE	PORT	FIBER TYPE	CONNECTOR	FIBER LENGTH
PD-SAC	102	1X2	F 250µm individual bare fiber	0 1.0m
	104	1X4	B 250µm bare ribbon	12 1.2m
	108	1X8		15 1.5m
	116	1X16		
	132	1X32		

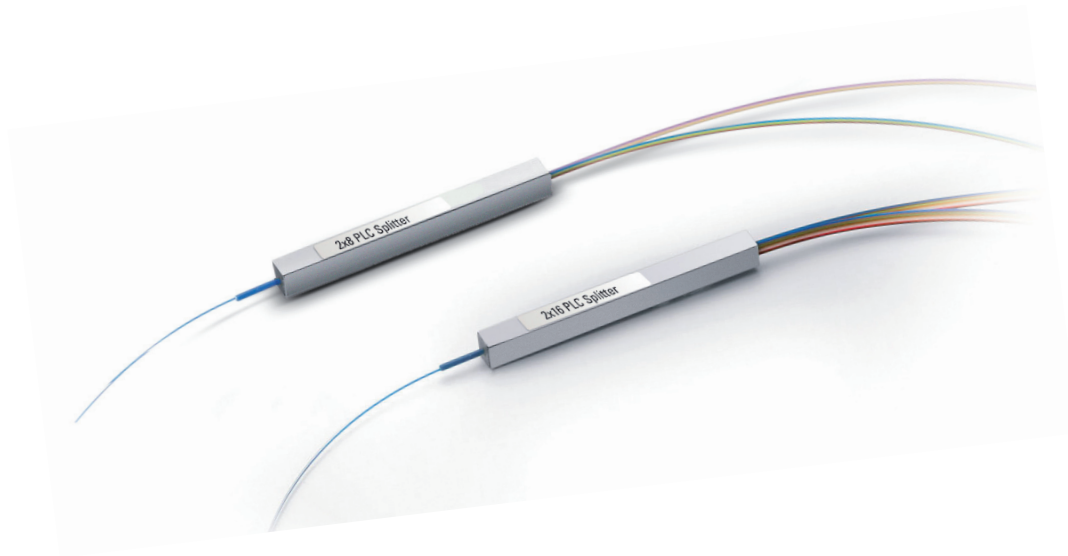


ORDER CODE example:

PD-SAC-116-B-0-10

Note:

1. Value of parameters shows at room temperature, 1310 and 1550 nm.
2. Custom specification is also available.



SENKO's 2x N Planar Light wave Circuit (PLC) Splitters are based on the Plasma Chemical Vapor Deposition (P-CVD) technology and its patented fabrication process for providing stable optical character.

SENKO's 1 x N PLC Splitter features guaranteed performance specifications and high reliability that surpass Telcordia requirements and is tailored for different applications and markets.

APPLICATIONS

- Telecom, datacom
- Local Area Networks (LANs)
- Cable TV (CATV)
- Local Convergence points (LCP)
- FTTX

FEATURES

- Low insertion loss;
- High maximum power tolerance;
- Excellent splitting uniformity;
- Broadband Operating wavelength
- Compact design;
- Low polarization independent

OPTIONS

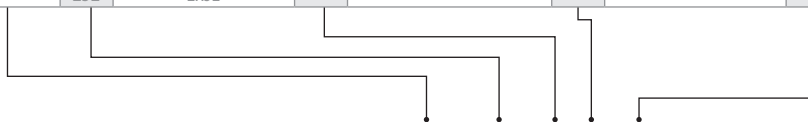
They are available in 2x4, 8, 16, and 32 configurations, with various connector options. Custom packaging is also available

PARAMETERS ¹	2X2	2X4	2X8	2X16	2X32	UNIT
Operating Wavelength	1260~1650					nm
Insertion Loss, Max.	4.4	7.8	11.4	14.9	18.0	dB
Uniformity	0.8	1.5	1.5	2.0	2.5	dB
PDL, Max.	0.2	0.2	0.4	0.4	0.4	dB
Return Loss, Min.	55					dB
Operating Temp.	-40~+85					°C
Dimensions	4 (W)x4 (H)x50 (L)			7 (W)x4 (H)x60 (L)		mm

Note:

1. Value of parameters shows at room temperature, 1310 and 1550nm.
2. Custom specification is also available.

CODE	PORT	FIBER TYPE	CONNECTOR	FIBER LENGTH
PD-SAC	202	2X2	F 250µm individual bare fiber	0 10 1.0m
	204	2X4	B 250µm bare ribbon	12 1.2m
	208	2X8		15 1.5m
	216	2X16		
	232	2X32		



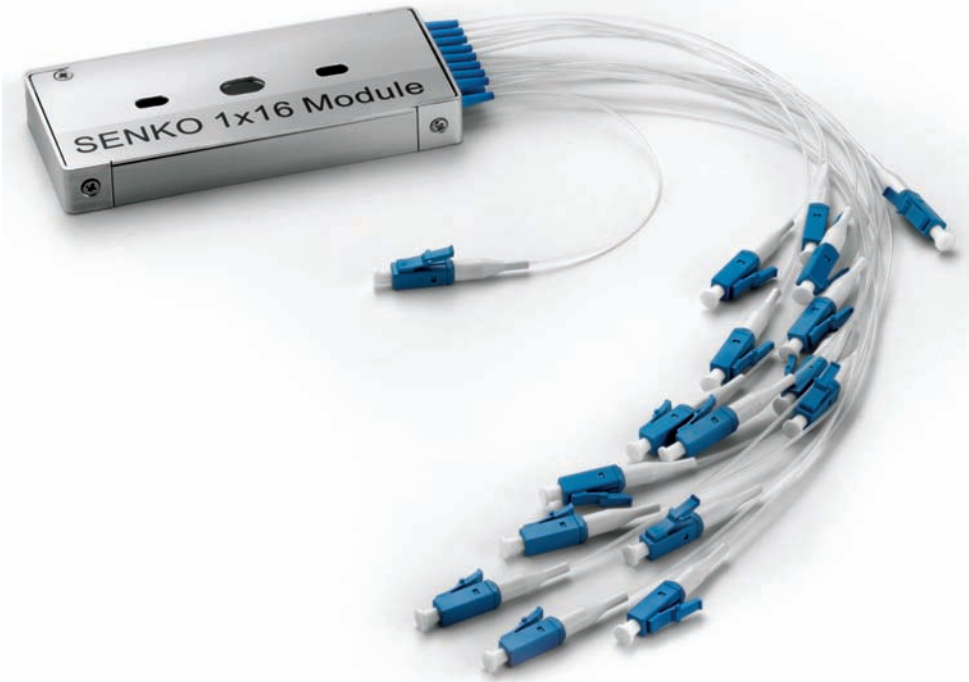
ORDER CODE example:

PD-SAC-216-B-0-10

PLC GROUP

PLC SPLITTER MODULE 900μm TYPE

(Compact)



APPLICATIONS

- Telecom, datacom
- Local Area Networks (LANs)
- Cable TV (CATV)
- Local Convergence points (LCP)
- FTTX

FEATURES

- Compact package
- Stable optical character
- Broadband operating wavelength
- Low insertion loss
- Low back reflection
- Excellent output uniformity

OPTIONS

They are available in 1x4, 8, 16, and 32 configurations, with various connector options. 2 x N series is available upon request. Custom packaging is also available

Note:

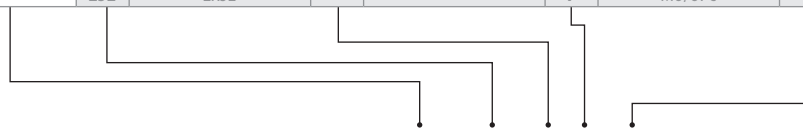
1. IL and RL are included connector's performance.
2. Value of specification shows at room temperature, 1310 and 1550nm.
3. Custom specification is also available.
4. Operating temperature is guaranteed up to 1m 900um loose tube long.

SENKO's Planar Light wave Circuit (PLC) Splitter Modules allows system equipment manufacturers to reduce costs and shorten time to market.

High quality, reliable components are assembled at a dedicated custom module manufacturing facility.

PARAMETERS ^{2,3}	1X4	1X8	1X16	1X32	UNIT
Optical Fiber	SMF – 28 equivalent				
Operating Wavelength	1260 ~1650				nm
Insertion Loss, Max. ¹	8.0	11.3	14.3	17.6	dB
Uniformity, Max.	0.9	1.1	1.5	2.0	dB
PDL, Max.	0.2	0.3	0.3	0.3	dB
Return Loss, Min. ¹	UPC:50, APC: 55				dB
Fiber Type	Input/output: 900μm loose tube				
Operating Temp. ⁴	-40~+85				°C
Dimensions	40 (W) x 14 (H) x 90 (L)				mm

CODE	PORT	FIBER TYPE	CONNECTOR	FIBER LENGTH				
PD-SAC	104	1X4	9	900μm loose tube	0	None	10	1.0m
	108	1X8			1	SC/UPC	15	1.5m
	116	1X16			2	SC/APC		
	132	1X32			3	FC/UPC		
	204	2X4			4	FC/APC		
	208	2X8			5	LC/UPC		
	216	2X16			6	LC/APC		
	232	2X32			7	MU/UPC		



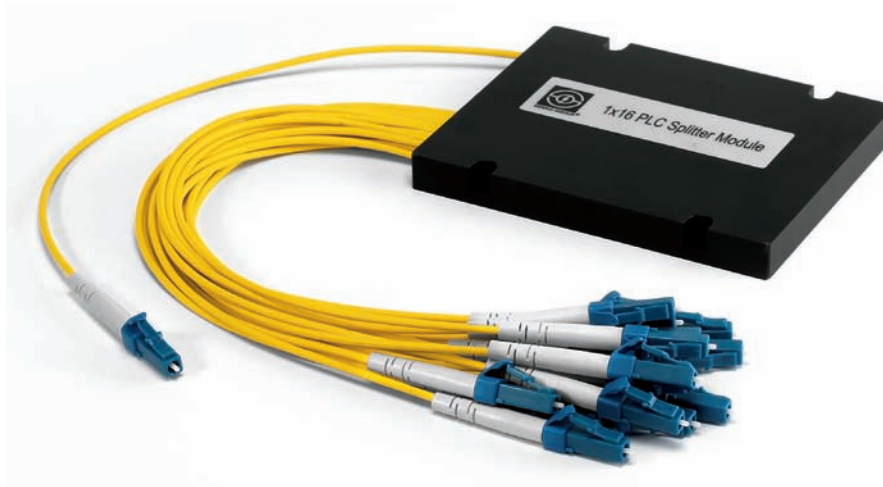
ORDER CODE example:

PD-SAC-132-9-1-10

PLC GROUP

PLC SPLITTER MODULE 2MM/3MM TYPE

(Compact)



SENKO's Planar Light wave Circuit (PLC) Splitter Modules allows system equipment manufacturers to reduce costs and shorten time to market.

High quality, reliable components are assembled at a dedicated custom module manufacturing facility.

APPLICATIONS

- Telecom, datacom
- Local Area Networks (LANs)
- Cable TV (CATV)
- Local Convergence points (LCP)
- FTTX

FEATURES

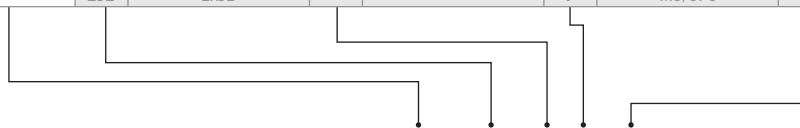
- Compact package
- Stable optical character
- Broadband operating wavelength
- Low insertion loss
- Low back reflection
- Excellent output uniformity

OPTIONS

- They are available in 1x4, 8.16 and 32 configurations with various connector options
- 2xN Series is available upon request
- Custom packaging is also available
- Broadband operating wavelength
- Low insertion loss
- Low back reflection
- Excellent output uniformity

PARAMETERS ^{2,3}	1X4	1X8	1X16	1X32	UNIT
Optical Fiber	SMF – 28 equivalent				
Operating Wavelength	1260 nm ~ 1650				nm
Insertion Loss, Max. ¹	8.0 dB	11.3 dB	≤14.3 dB	≤17.6	dB
Uniformity, Max.	0.9 dB	1.1 dB	≤1.5 dB	≤2.0 dB	dB
PDL, Max.	0.2 dB	0.3 dB	≤0.3 dB	≤0.3 dB	dB
Return Loss, Min. ¹	UPC: 50, APC:55				dB
Cable Type	Input/output:2mm/3mm Cable				
Operating Temp. ⁴	-40~+85				°C
Dimensions	65mm (W) x 10mm (H) x 100 mm (L)				

CODE	PORT	FIBER TYPE	CONNECTOR	FIBER LENGTH				
PD-SAC	104	1X4	2	2mm cable	0	None	10	1.0m
	108	1X8	3	3mm cable	1	SC/UPC	15	1.5m
	116	1X16			2	SC/APC		
	132	1X32			3	FC/UPC		
	204	2X4			4	FC/APC		
	208	2X8			5	LC/UPC		
	216	2X16			6	LC/APC		
	232	2X32			7	MU/UPC		



ORDER CODE example:

PD-SAC-132-2-2-15

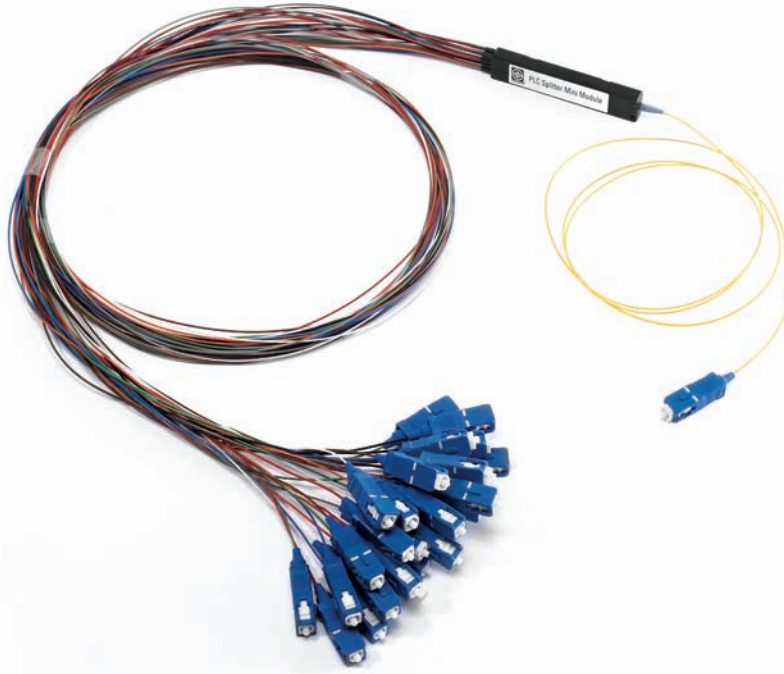
Note:

1. IL and RL are included connector's performance.
2. Value of specification shows at room temperature, 1310 and 1550nm.
3. Custom specification is also available.
4. Operating temperature is guaranteed up to 1m cable length.

PLC GROUP

PLC SPLITTER MODULE 900μm TYPE

(Micro)



APPLICATIONS

- Telecom, datacom
- Local Area Networks (LANs)
- Cable TV (CATV)
- Local Convergence points (LCP)
- FTTX

FEATURES

- Super Compact package
- Stable optical character
- Broadband operating wavelength
- Low insertion loss
- Low back reflection
- Excellent output uniformity

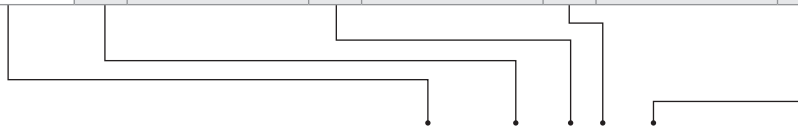
SENKO's Mini Planar Light wave Circuit (PLC) Splitter Modules allows system equipment manufacturers to reduce costs and shorten time to market. The super compact package size saves a lot of plate space for customer, and high quality, reliable components are assembled at a dedicated custom module manufacturing facility.

PARAMETERS ^{2,3}	1X4	1X8	1X16	1X32	UNIT
Optical Fiber	SMF – 28 equivalent				
Operating Wavelength	1260 ~ 1650				nm
Insertion Loss, Max. ¹	8.0	11.3	14.3	17.6	dB
Uniformity, Max.	0.9	1.1	1.5	2.0	dB
PDL, Max.	0.2	0.3	0.3	0.3	dB
Return Loss, Min. ¹	UPC: 50, APC: 55				dB
Fiber Type ⁵	Input/output: 900μm loose tube				
Operating Temp. ⁴	-20 ~ +85				°C
Dimensions	1x4: 1x8: 10(W)x6(H)x60(L) 1X16: 10(W)x8(H)x60(L) 1X32: 14(W)x8(H)x70(L)				mm

Note:

1. IL and RL are included connector's performance.
2. Value of specification shows at room temperature, 1310 and 1550nm.
3. Custom specification is also available.
4. Operating temperature is guaranteed up to 1m tube/cable length.
5. 2mm/3mm cable is also available, please confirm with Senko sales representative.

CODE	PORT	FIBER TYPE	CONNECTOR	FIBER LENGTH				
PD-SAC-M	104	1X4	9	900μm loose tube	0	None	10	1.0m
	108	1X8	2	2mm cable	1	SC/UPC	15	1.5m
	116	1X16	3	3mm cable	2	SC/APC		
	132	1X32			3	FC/UPC		
	204	2X4			4	FC/APC		
	208	2X8			5	LC/UPC		
	216	2X16			6	LC/APC		
	232	2X32			7	MU/UPC		

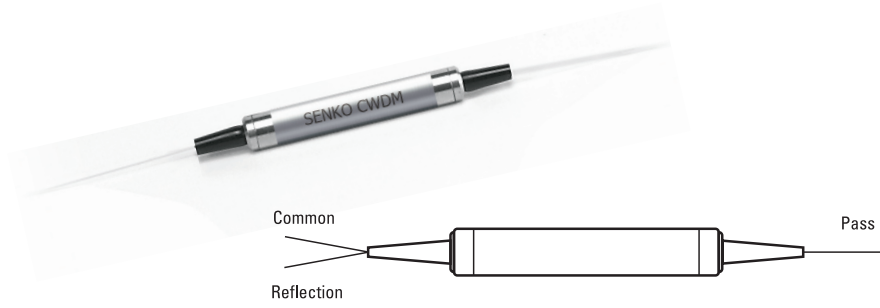


ORDER CODE example:

PD-SAC-M-104-2-1-15

WDM PRODUCTS

CWDM SINGLE DEVICE



SENKO's Coarse Wavelength Division Multiplexer Device (CWDM) is based on Thin-Film-Filter and Micro-Optics to achieve wide passband, low insertion loss, high channel isolation and excellent environmental stability.

APPLICATIONS

- WDM system
- Metro Network
- Local Network

FEATURES

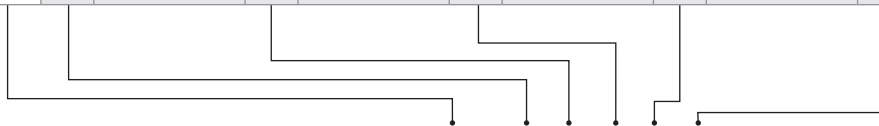
- High Isolation
- Low Loss
- High Reliability
- RoHS Compliant

Note:

1. Reflection wavelength involves OSC-1310 channel, also it can be upgraded to 16ch.

PARAMETERS		VALUE	UNIT
Operating Wavelength ¹		1260 ~1620	nm
Signal CWDM Center Wavelength, λ_c		Ch1: 1470; Ch2: 1490; Ch3: 1510; Ch4: 1530; Ch5: 1550; Ch6: 1570; Ch7: 1590; Ch8: 1610; Channel number can be decided when ordering	nm
Channel Spacing for CWDM		20	nm
Channel Bandwidth	@ -0.5 dB	≥ 13	nm
Insertion Loss	@ Pass Port	0.6	dB
	@ Reflection Port	0.5	dB
Isolation	Adjacent Channel	30	dB
	Non-adjacent Channel	40	dB
	Reflection Port @ $\lambda_c \pm 6.5$	13	dB
PDL		0.2	dB
Ripple in channel passband		0.4	dB
PMD		0.1	ps
Optical Power		500	mW
Directivity		50	dB
Return Loss		50	dB
Operating Temperature		-5~+70	°C
Storage Temperature		-40~+85	°C
Operating RH		5%~95%	
Storage RH		5%~100%	
Fiber Length		1±0.1	m
Fiber Type	Inside Box	SMF-28e, 250 μ m Bare Fiber	
Connectors (All Ports)		None	
Dimensions		5.5(Ø)X34(L)	mm

CODE	CHANNEL NUMBERS	START WAVELENGTH	FIBER TYPE	CONNECTOR	FIBER LENGTH	
PD-CWDM	1	1ch	47 1470	B 250um bare fiber	0 None	10 1.0m
			49 1490	9 900 μ m	1 SC/UPC	15 1.5m
			51 1510		2 SC/APC	
			53 1530		3 FC/UPC	
			55 1550		4 FC/APC	
			57 1570		5 LC/UPC	
			59 1590		6 LC/APC	
					7 MU/UPC	



ORDER CODE example:

PD-CWDM-1-47-3-1-10

WDM PRODUCTS

CWDM 2CH/4CH/8CH/16CH MODULE



APPLICATIONS

- WDM system
- Metro Network
- Local Network

FEATURES

- High Isolation
- Low Loss
- High Reliability
- RoHS Compliant

SENKO's Coarse Wavelength Division Multiplexer (CWDM) Module is based on Thin-Film-Filter and Micro-Optics, this product features wide passband, low insertion loss and high channel isolation, high stability and reliability.

PARAMETERS ¹		VALUE	UNIT
Operation Wavelength		1260 ~ 1620	nm
Center Wavelength, λ_c		1270, 1290... 1470, 1490... 1570, 1590, 1610 or specified channel	nm
Channel Numbers		2, 4 or 8, 16 or specified	
Channel Spacing		20	nm
Passband Bandwidth @-0.5dB		$\lambda_c \pm 6.5$	nm
IL @ Pass Band	2CH	≤ 1.0	dB
	4CH	≤ 1.5	dB
	8CH	≤ 3.0	dB
	16CH	≤ 4.5	dB
Pass Band Ripple		≤ 0.5	dB
Isolation (Demux)	Adjacent Channel	≥ 30	dB
	Non-Adjacent Channel	≥ 40	dB
Return Loss		≥ 50	dB
Directivity		≥ 50	dB
PMD		≤ 0.2	ps
PDL		≤ 0.2	dB
Fiber Type		SMF 28e 250 μ m fiber with 900 μ m loose tube	
Fiber Length		1 ± 0.1	m
Connector		None or specified	
Package Dimension		Metal Box: 60 (W) \times 12 (H) \times 80 (L) ABS Plastic Box ¹ : 80 (W) \times 10 (H) \times 100 (L) ABS Plastic Box ² : 96 (W) \times 14.5 (H) \times 125 (L)	mm
Operating Temperature ²		0 ~ + 70	°C
Storage Temperature		-40 ~ + 85	°C

Note:

1. The tested performances do not include connectors.
2. Operating temperature is guaranteed up to 1m tube/cable length.

CODE	CHANNEL NUMBERS		START WAVELENGTH		END WAVELENGTH		FIBER TYPE		CONNECTOR		FIBER LENGTH		BOX	
	1	2	1	2	1	2	1	2	1	2	1	2	1	2
PD-CWDM	2	2ch	27	1270	27	1270	9	900 μ m	0	None	10	1.0m	1	Metal Box
	4	4ch	...	...	...	...	2	2mm	1	SC/UPC	15	1.5m	2	ABS box ¹
	8	8ch	51	1510	51	1510	3	3mm	2	SC/APC			3	ABS box ²
	16	16ch	53	1530	53	1530			3	FC/UPC				
			55	1550	55	1550			4	FC/APC				
			57	1570	57	1570			5	LC/UPC				
			59	1590	59	1590			6	LC/APC				
			61	1610	61	1610			7	MU/UPC				

ORDER CODE example:

PD-CWDM-4-47-53-9-1-10-2

WDM PRODUCTS

CWDM 2CH/4CH/8CH/16CH + 1310CH MODULE



SENKO's Coarse Wavelength Division Multiplexer Module (CWDM) with 1310ch(OSC) is based on Thin-Film-Filter and Micro-Optics, this product features wide passband, low insertion loss and high channel isolation, high stability and reliability.

APPLICATIONS

- WDM system
- Metro Network
- Local Network

FEATURES

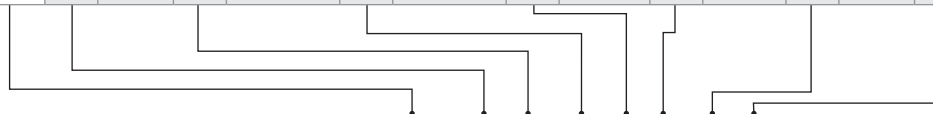
- High Isolation
- Low Loss
- High Reliability
- RoHS Compliant

PARAMETERS ¹		VALUE	UNIT
Operation Wavelength		1260 ~1620	nm
Center Wavelength, λ_c		1470, 1490, 1510, 1530, 1550, 1570, 1590, 1610 or specified channel	nm
Osc channel		1260~1360	nm
Channel Numbers		2, 4 or 8 or specified	
Channel Spacing		20	nm
Passband Bandwidth @-0.5dB		$\lambda_c \pm 6.5$	nm
IL (Com-1310ch)		≤ 0.8	dB
IL (Com- CWDM@ Pass Band)	2CH	≤ 1.3	dB
	4CH	≤ 1.8	dB
	8CH	≤ 3.3	dB
Pass Band Ripple		≤ 0.5	dB
Isolation(Demux)	Adjacent Channel	≥ 30	dB
	Non-Adjacent Channel	≥ 40	dB
Return Loss		≥ 50	dB
Directivity		≥ 50	dB
PMD		≤ 0.2	ps
PDL		≤ 0.2	dB
Fiber Type		SMF 28e 250 μ m fiber with 900 μ m loose tube	
Fiber Length		1 ± 0.1	m
Connector		None or specified	
Package Dimension ²		Metal Box: 60 (W) \times 12 (H) \times 80 (L) ABS Plastic Box ¹ : 80 (W) \times 10 (H) \times 100 (L) ABS Plastic Box ² : 96 (W) \times 14.5 (H) \times 125 (L)	mm
Operating Temperature		-40~+85	°C
Storage Temperature		-40~+85	°C

Note:

1. The tested performances do not include connectors.
2. Customized Smaller packaging box is available to use bend insensitive fiber.
3. Operating temperature is guaranteed up to 1m tube/cable length.

CODE	CHANNEL NUMBERS		START WAVELENGTH		END WAVELENGTH		FIBER TYPE		CONNECTOR		FIBER LENGTH		BOX	
PD-CWDM3	2	2ch	47	1470	47	1470	9	900 μ m	0	None	10	1.0m	1	Metal Box
	4	4ch	49	1490	49	1490	2	2mm	1	SC/UPC	15	1.5m	2	ABS box
	8	8ch	51	1510	51	1510	3	3mm	2	SC/APC				
			53	1530	53	1530									3	FC/UPC
			55	1550	55	1550			4	FC/APC				
			57	1570	57	1570			5	LC/UPC				
			59	1590	59	1590			6	LC/APC				
		61	1610	61	1610			7	MU/UPC					



ORDER CODE example:

PD - CWDM 3 - 4 - 47 - 53 - 9 - 15 - 1

WDM PRODUCTS

MINI Low Loss 4CH/8CH CWDM



SENKO's Mini Low Loss Coarse Wavelength Division Multiplexer (CWDM) is based on Thin-Film-Filter and Micro-Optics, this product features small form, ultra low loss and high channel isolation. This technology is a lead-free packaging platform with high reliability.

APPLICATIONS

- WDM system
- Metro Network
- Local Network

FEATURES

- Small Form
- Ultra Low Loss
- High Reliability
- RoHS Compliant

Note:

1. The tested performances do not include connectors.
2. 1310ch is also available packaged into the module.

PARAMETERS		VALUE	UNIT
Operation Wavelength		1260 ~1620	nm
Center Wavelength, λ_c		1470, 1490, 1510, 1530, 1550, 1570, 1590, 1610	nm
Channel Numbers		4 or 8	
Channel Spacing		20	nm
Passband Bandwidth @-0.5dB		$\lambda_c \pm 6.5$	nm
1310ch Bandwidth		1310 ± 50	nm
IL @ Pass Band	4CH CWDM	≤ 1.0	dB
	8CH CWDM	≤ 1.5	dB
	1310CH ²	≤ 1.0	dB
Pass Band Ripple		≤ 0.5	dB
Isolation	Adjacent Channel	≥ 30	dB
	Non-Adjacent Channel	≥ 40	dB
	Com-1310 @ CWDM CH	≥ 30	dB
Return Loss		≥ 50	dB
Directivity		≥ 50	dB
PMD		≤ 0.2	ps
PDL		≤ 0.2	dB
Fiber Type		SMF 28e 250 μ m fiber with 900 μ m loose tube	
Fiber Length		1 ± 0.1	m
Connector		None or Specified	
Package Dimension		30(W) \times 9.6(H) \times 58(L)	mm
Operating Temperature		0~+70	°C
Storage Temperature		-40~+85	°C

CODE	CHANNEL	FIBER TYPE	CONNECTOR	FIBER LENGTH				
PD-MLLC	4	4ch	B	250 μ m Bare fiber	0	None	10	1.0m
	8	8ch	9	900 μ m	1	SC/UPC	15	1.5m
	5	4ch CWDM+1310ch						
	9	8ch CWDM+1310ch						

ORDER CODE example:

PD-MLLC-8-B-1-10

WDM PRODUCTS

DWDM 100G/200G 4CH/8CH MODULE



SENKO's 4/8CH Dense Wavelength Division Multiplexer (DWDM) is based on Thin-Film-Filter and Micro-Optics, this product features wide passband, low insertion loss and high channel isolation, high stability and reliability.

PARAMETERS ¹		VALUE	UNIT
Type		100G/200G DWDM	
Operating Wavelength		1521~1564	nm
Center Wavelength, λ_c		4ch ITU Options in C band: CH20: 1561.42 CH21: 1560.61 ... CH59: 1530.33 CH60: 1529.55 Ch number will be specified when ordering	nm
Passband Bandwidth @-0.5dB (100G)		$\lambda_c \pm 0.11$	nm
Passband Bandwidth @-0.5dB (200G)		$\lambda_c \pm 0.25$	nm
Insertion Loss (4CH)	Com – Channels	1.8	dB
	Com – Upgrade	1.6	dB
Insertion Loss (8CH)	Com – Channels	3.3	dB
	Com – Upgrade	3.0	dB
Isolation (Demux)	Adjacent Channel	28	dB
	Non-Adjacent Channel	40	dB
	Com – Upgrade	12	dB
Passband Ripple		0.5	dB
PDL		0.15	dB
Return Loss		45	dB
Directivity		50	dB
Operating Temperature		0~+70	°C
Storage Temperature		-40~+85	°C
Fiber Type		Corning SMF-28e 250um bare fiber, 900um loose tube	
Fiber Length		1±0.1	m
Package Dimension ²		Metal box: (L)80 × (W)60 × (H)12 ABS box: (L)100 × (W)80 × (H)10	mm

Note:

1. The parameters are not including connector performance.
2. Customized Smaller packaging box is available to use bend insensitive fiber.

CODE	CHANNEL SPACING	CHANNEL NUMBERS	START WAVELENGTH	END WAVELENGTH	FIBER TYPE	CONNECTOR	FIBER LENGTH	BOX								
PD-DWDM	1	100G	2	2ch	C21	ITU C21	C21	ITU C21	9	900um	0	None	10	1.0m	1	Metal Box
	2	200G	4	4ch	H21	ITU H21	H21	ITU H21	2	2mm	1	SC/UPC	15	1.5m	2	ABS Box
			8	8ch	C22	ITU C22	C22	ITU C22	3	3mm	2	SC/APC				
			16	16ch	...	...	...	...			3	FC/UPC				
											4	FC/APC				
											5	LC/UPC				
											6	LC/APC				
										7	MU/UPC					

ORDER CODE example:

PD-DWDM-1-8-C21-C28-9-1-10-1

APPLICATIONS

- WDM system
- Metro Network
- Local Network

FEATURES

- High Isolation
- Low Loss
- High Reliability
- RoHS Compliant

WDM PRODUCTS

FTTX FWDM -1310~1490/1550



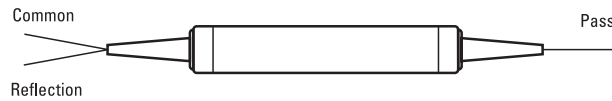
APPLICATIONS

- WDM system
- For Metro Market
- FTTX

FEATURES

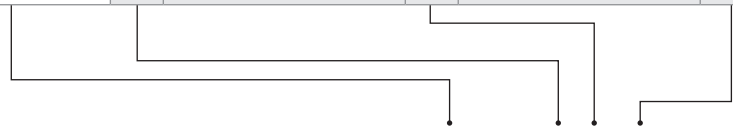
- Low Insertion Loss
- High Channel Isolation
- Highly Stable & Reliable
- RoHS Compliant

SENKO's 1310/1490/1550 FTTX MWDW is based on filter based platform for optical device. This multiplexer features ultra low loss, high isolation, and high reliability.



PARAMETERS	VALUE	UNIT
Pass Channel Wavelength Range, λP	1550 ~ 1560	nm
Reflection Channel Wavelength Range, λR	1260 ~ 1360 and 1480 ~ 1500	nm
Insertion Loss	Com-Pass	≤ 1.0
	Com-Reflection	≤ 1.0
Isolation	Com-Pass @ λR	≥ 40
	Com-Reflection @ λP	≥ 30
Return Loss	≥ 50	dB
Directivity	≥ 50	dB
PDL	≤ 0.2	dB
Fiber Type	SMF-28e, 250 μ m bare fiber	
Fiber Length	1 ± 0.1	m
Fiber Color	Com port: Black; Pass port: Nature; Ref. port: Nature	
Connector	None	
Package Dimension	5.5mm(ϕ) x 34(L)	mm
Operating Temperature	-40~+85	$^{\circ}$ C
Storage Temperature	-40~+85	$^{\circ}$ C

CODE	FIBER TYPE	CONNECTOR	FIBER LENGTH
PD-FWDM-FTTX	B	250 μ m	0
	9	900 μ m	1
	2	2mm	2
	3	3mm	3
			4
			5
			6
		7	
		MU/UPC	

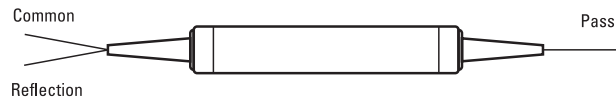


ORDER CODE example:

PD-FWDM-FTTX-B-1-10



SENKO's Wavelength Division Multiplexer (WDM) is based on thin-film filter technology, and has two types of standard isolation and high isolation. This component is used to combine or separate 1310 and 1550nm band signal. This product is ideal for high-power Optical Amplification Systems and WDM Network applications.


APPLICATIONS

- Bi-Directional WDM system
- Metro Network
- CATV
- FTTX

FEATURES

- Wide Operating Wavelength Range
- Low Insertion Loss
- High Channel Isolation
- Highly Stable & Reliable
- RoHS Compliant

PARAMETERS	VALUE	UNIT
Pass Channel Wavelength Range, λ_P	1535~1565	nm
Reflection Channel Wavelength Range, λ_R	1295~1325	nm
Insertion Loss	Com-Pass	≤ 0.8
	Com-Reflection	≤ 0.8
Isolation (STD)	Com-Pass @ λ_R	≥ 30
	Com-Reflection @ λ_P	≥ 20
Isolation (High Isolation)	Com-Pass @ λ_R	≥ 45
	Com-Reflection @ λ_P	≥ 45
Return Loss	≥ 50	dB
Directivity	≥ 50	dB
PDL	≤ 0.15	dB
WDL	≤ 0.3	dB
Fiber Type	SMF-28e, 250 μ m bare fiber	
Fiber Length	1 \pm 0.1	m
Package Dimension	5.5 mm(ϕ) x (L) 34	mm
Operating Temperature	-40~+85	$^{\circ}$ C
Storage Temperature	-40~+85	$^{\circ}$ C

CODE	ISOLATION LEVEL	FIBER TYPE	CONNECTOR	FIBER LENGTH					
PD-FWDM-35	S	standard	B	250 μ m bare fire	0	None	10	1.0m	
	H	High Isolation	9	900 μ m	1	SC/UPC	15	1.5m	
					2	2mm			2	SC/APC
						3	FC/UPC		
						4	FC/APC		
						5	LC/UPC		
						6	LC/APC		
					7	MU/UPC			



ORDER CODE example:

PD-FWDM-35-H-B-0-10

WDM PRODUCTS

GRATING DWDM MODULE



APPLICATIONS

- MSO/CATV
- DWDM systems

FEATURES

- Athermal/Passive
- Low Insertion Loss
- Good Temperature Stability

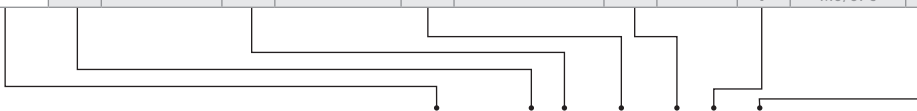
SENKO's Grating Multi-channel DWDM features low insertion loss, flat filter profile, good channel uniformity, and wide temperature stability(-40~85°C).

PARAMETERS ¹		VALUE	UNIT
Type		100G/200G DWDM	
Operating Wavelength		1521~1564	nm
Center Wavelength, λ_c		ITU Options in C band: CH20: 1561.42 CH21: 1560.61 ... CH59: 1530.33 CH60: 1529.55 Ch number will be specified when ordering	nm
Passband Bandwidth @-0.5dB (100G)		$\lambda_c \pm 0.11$	nm
Passband Bandwidth @-0.5dB (200G)		$\lambda_c \pm 0.25$	nm
Insertion Loss (20CH)	Typical	3.0	dB
	max	4.0	dB
Insertion Loss (40CH)	Typical	3.0	dB
	max	4.0	dB
Isolation (Demux)	Adjacent Channle	25	dB
	Non-Adjacent Channel	37	dB
Channel IL Uniformity		1.0	dB
PDL		0.4	dB
Return Loss		40	dB
Directivity		50	dB
Operating Temperature		-40~+85	°C
Storage Temperature		-40~+85	°C
Fiber Type		Corning SMF-28e 250um bare fiber, 900um loose tube	
Fiber Length		1±0.1	m
		100G	200.32(L)X106.7(W)X20.4(H)
		200G	200.32(L)X96.52(W)X43.18(H)
Connectors		None or Specified	

Note:

1. The parameters are not including connector performance.

CODE	CHANNEL SPACING	CHANNEL NUMBERS	START WAVELENGTH	FIBER TYPE	CONNECTOR	FIBER LENGTH							
PD-DWDM-G	1	100G	8	8ch	C21	ITU C21	9	900µm	0	None	10	1.0m	
	2	200G	16	16ch	H21	ITU H21	2	2mm	1	SC/UPC	15	1.5m	
									2	SC/APC			
			40	40ch	C22	ITU C22	3	3mm					
								3	FC/UPC		
										4	FC/APC		
										5	LC/UPC		
									6	LC/APC			
									7	MU/UPC			



ORDER CODE example:

PD-DWDM-G-1-8-C21-9-0-10

SWITCH/ROUTING AND ATTENUATOR 1x1/1x2/2x2/2x4 SERIES



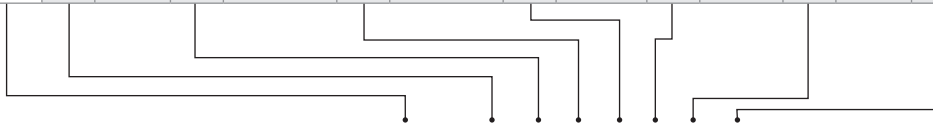
Senko's Optical Switch 1x1/1x2/2x2/2x4 series are based on Opto-mechanical technology with high reliable quality. These switches are designed for optical Multiplexers, cross-connect and network switching for fault/protection applications.

PARAMETERS ¹	VALUE				UNIT
Types	1x1 / 1x2 / 2x2 / 2x4 (Dual 1x2)				
Wavelength	1260~1360 or/and 1500~1600				nm
	Single Window		Dual Windows		
Switch type	1x1, 1x2	2x2, 2x4	1x1, 1x2	2x2, 2x4	
Insertion Loss Typical	<0.6	<0.7	<0.8	<0.8	dB
Insertion Loss Max.	<0.8	<1.0	<1.0	<1.0	dB
Wavelength Dependent Loss (each window)	<0.15	<0.2	<0.2	<0.3	dB
Temperature Dependent Loss	<0.2				dB
PDL	<0.1				dB
Repeatability	<±0.05				dB
Cross Talk	>60				dB
Return Loss	>45				dB
Switching Time	<5				ms
Optical Power Handling	>300				mW
Durability (Cycles)	10 ⁷				
Operating Voltage range	4.5~5.5				V
Power Consumption Typ.	0.2				mW
Dimension (H x W x L)	1x1, 1x2—8.8x11x30				mm
	Mini 1x1, 1x2—7x11x22.6				
	2x2—8.9x18x39.5				
	2x4—8.2x11x30				
Switch Status Option	Latch or Non-latch is optional				
Fiber Type	SMF-28e 250µm fiber or 0.9mm loose tube MM fiber is also optional				
Operating temperature	0~+70				°C

Note:

1. The parameters are not including connector performance.

CODE	FIBER MODE		TYPE		WAVELENGTH				FIBER TYPE		CONNECTOR		FIBER LENGTH	
PD-F0SW	S	SM	11	1x1	3	1310 nm	L	latch	B	250µm Bare fiber	0	None	10	1.0m
	M	MM	12	1x2	5	1550 nm	N	Non-latch	9	900µm	1	SC/UPC	15	1.5m
			M1	Mini 1x2	D	Dual Windows			2	2mm	2	SC/APC		
			M2	Mini 1x2					3	3mm	3	FC/UPC		
			22	2x2							4	FC/APC		
			24	2x4							5	LC/UPC		
											6	LC/APC		
											7	MU/UPC		



ORDER CODE example:

PD-F0SW-S-11-5-N-2-0-10

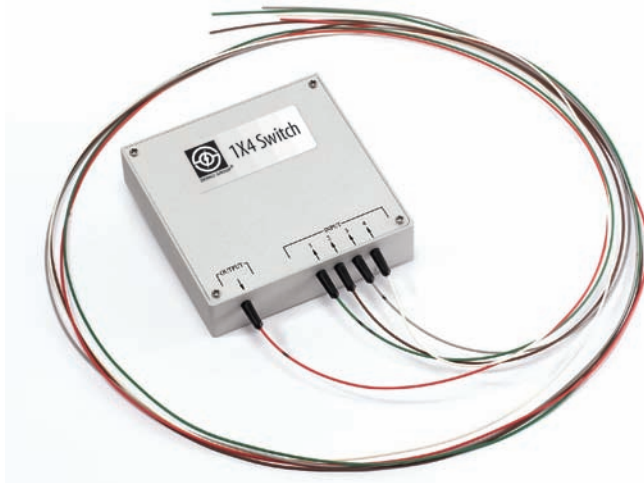
APPLICATIONS

- Optical Network Protection and Storage
- Network Switching
- Reconfigurable Add/Drop Multiplexers
- Instrumentation and Testing, Measurement

FEATURES

- Compact Size
- Low Insertion Loss
- Fully compliant with Telcordia GR-1221 and GR-1073
- RoHS Compliance

SWITCH/ROUTING AND ATTENUATOR 1x4/1x8 SWITCH MODULE



APPLICATIONS

- Optical Network Protection and Storage
- Network Switching
- Instrumentation and Testing, Measurement

FEATURES

- Low Insertion Loss
- Fully compliant with Telcordia GR-1221 and GR-1073
- RoHs Compliance

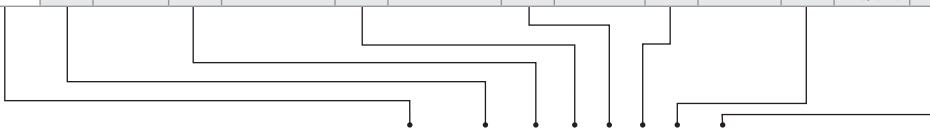
Senko's 1X4/1x8 Optical Switch series are based on Opto-mechanical technology with high reliable quality. These switches are designed for optical Multiplexers, cross-connect and network switching for fault/protection applications.

PARAMETERS ¹	VALUE				UNIT
Types	1X4/1x8				
Wavelength	1X4		1X8		nm
	SW	DW	SW	DW	
	1260~1360 or/and 1500~1600				
Insertion Loss Typical	<1.2	<1.3	<1.5	<1.6	dB
Insertion Loss	<1.5	<1.6	<1.8	<2.0	dB
Wavelength Dependent Loss (each window)	<0.3		<0.35		dB
Temperature Dependent Loss	<0.3				dB
PDL	<0.2				dB
Repeatability	<±0.1				dB
Cross Talk	>60				dB
Return Loss	>45				dB
Switching Time	<10				ms
Optical Power Handling	>300				mW
Durability (Cycles)	10 ⁷				
Dimension	18x100x100				mm
Weight	<400				g
Fiber Type	SMF-28e 250µm fiber or 0.9mm loose tube MM fiber is also optional				
Operating temperature	0~+70				°C

Note:

1. The parameters are not including connector performance.

CODE	FIBER MODE		TYPE		WAVELENGTH				FIBER TYPE		CONNECTOR		FIBER LENGTH	
PD-FOSW	S	SM	18	1x8	3	1310	L	latch	B	250µm bare fiber	0	None	10	1.0M
	M	MM	14	1x4	5	1550	N	Non-latch	9	900µm	1	SC/UPC	15	1.5M
					D	Dual Windows			2	2mm	2	SC/APC		
									3	3mm	3	FC/UPC		
											4	FC/APC		
											5	LC/UPC		
											6	LC/APC		
										7	MU/UPC			



ORDER CODE example:

PD-FOSW-M-18-3-L-2-0-15

SWITCH/ROUTING AND ATTENUATOR

CIRCULATOR



Senko's Mini Fiber Optical Circulator features compact size, high performance over wide wavelength band, which the component can transmit the incoming signal from port1 to port2, and another incoming signal from port2 to port3. It's widely used in combination with fiber gratings and other reflective components in DWDM systems, and bi-directional communication systems.

APPLICATIONS

- Optical Amplifiers
- FBG Applications
- Dispersion Compensation
- Fiber Sensors

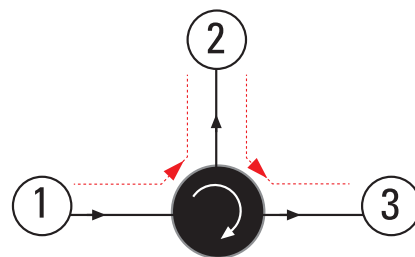
FEATURES

- Low Insertion Loss & PDL
- High Channel Isolation
- Optical Path Epoxy Free
- Telcordia Compliant

PARAMETERS	VALUE	UNIT
Operating Wavelength	1310 band: 1290~1330 or C-band: 1525~1565 or C+L band: 1525~1610	nm
Insertion Loss (1310, or C-band) ¹	0.5~0.8	dB
Insertion Loss (C+L band) ¹	0.7~0.9	dB
Isolation (2→1,3→2) - for (1310, or C-band)	38~45	dB
Isolation (2→1,3→2) - for (C+L band)	32~40	dB
Directivity (1→3)	> 50	dB
Return Loss	> 45	dB
PDL (1310, or C-band)	< 0.1	dB
PDL (C+L band)	< 0.2	dB
Operating Temperature	0~+70	°C
Storage Temperature	-40~+85	°C
Fiber Type	Corning SMF-28e 250µm bare fiber or 900µm loose tube	
Fiber Length	1±0.1	m
Package Dimension	(OD)5.5 x (L)38	mm
Connectors	None	

Note:

1. Insertion loss values include WDL, TDL.



CODE	WAVELENGTH	FIBER TYPE	CONNECTOR	FIBER LENGTH				
PD-FOCI	3	1310	B	250µm Bare fiber	0	None	10	1.0M
	5	1550	9	900µm	1	SC/UPC	15	1.5M
					2	SC/APC		
					3	FC/UPC		
					4	FC/APC		
					5	LC/UPC		
					6	LC/APC		
				7	MU/UPC			

ORDER CODE example:

PD-FOCI-3-B-0-15

SWITCH/ROUTING AND ATTENUATOR

ISOLATOR



APPLICATIONS

- Fiber Optic Lasers
- Optical Transmitters & Transceivers
- Fiber Amplifiers
- Fiber Sensors

FEATURES

- High Isolation
- Low Insertion Loss
- Large Aperture Features

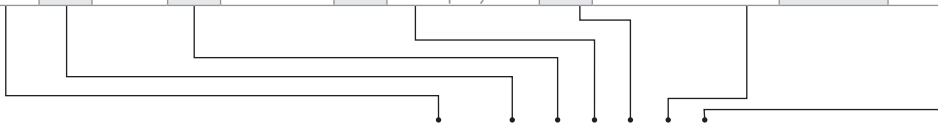
Senko Polarization Insensitive Isolator is a compact, high performance component with low insertion, high isolation. It's ideal for amplifiers, fiber laser, and other fiber optic communication equipments to suppress back reflection and back scattering.

PARAMETERS ¹	VALUE		UNIT
	Single Stage	Dual Stage	
Stage	Single Stage	Dual Stage	
Center Wavelength (λc)	1310, 1480 or 1550		nm
Operating Wavelength Range	±20		nm
Typ. Peak Isolation	40	55	dB
Min. Isolation at 23°C	28	45	dB
Typ. Insertion Loss at 23°C	0.4	0.5	dB
Max. Insertion Loss at -5°C -70°C	0.6	0.8	dB
Min. Return Loss (Input/Output)	55/55	55/55	dB
Max. PDL	0.05	0.1	dB
Max. Optical Power (CW)	500		mW
Max. Tensile Load	5		N
Fiber Type	SMF-28e, 250um bare fiber		
Operating Temperature	-5 ~ +70		°C
Storage Temperature	-40 ~ +85		°C
Pacbage Pimention	5.5(0)x34(L)		mm

Note:

1. Above specifications are for device without connector. For devices with connectors, IL will be 0.3dB higher, RL will be 5dB lower and ER will be 2dB lower.

CODE	WAVELENGTH		STAGE		CONNECTOR TYPE ON PORT 1 & 2		FIBER JACKET ON PORT 1 & 2		FIBER LENGTH	
	31	1310	S	Single Stage	1	FC/UPC	B	250μm Fiber	Q	0.75m
PD-FOIS	48	1480	D	Dual Stage	2	FC/APC	D	400μm Fiber	S	Specify
	55	1550			3	SC/UPC	L	900um Loose Tube		
	SS	Specify			4	SC/APC	S	Specify		
					5	LC/UPC				
					6	LC/APC				
					7	MU/UPC				
					N	None				
					S	Specify				



ORDER CODE example:

PD-FOIS-31-A-D-2-B-Q



Senko's Manual Variable Optical Attenuator features high resolution, and wide dynamic range with very convenient adjustment, also it has low insertion loss, low wavelength dependent loss, and low polarization dependent loss.

APPLICATIONS

- In-line Power Control
- Transmitter Power Equalization

FEATURES

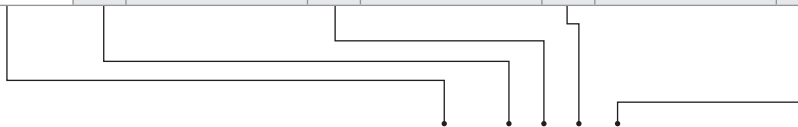
- Low Insertion Loss
- Wide Attenuation Range
- High Resolution

PARAMETERS	VALUE	UNIT
Operating Wavelength	1310±40, 1490±10 and 1550±40	nm
Excess Insertion Loss ¹	1.0	dB
Attenuation Range	1.0~30	dB
Return Loss	45	dB
Resolution	0.1	dB
PDL	0.15	dB
Operating Temperature	0~70	°C
Storage Temperature	-40~+85	°C
Fiber Type	Corning SMF-28e 250um bare fiber, with 900um loose tube	
Fiber Length	1±0.1	m
Package Dimension	60 (L) x 16(W) x 8(H)	mm
Connectors	None or Specified	

Note:

1. Insertion loss values include WDL, TDL, PDL.

CODE	WAVELENGTH	FIBER TYPE	CONNECTOR	FIBER LENGTH				
PD-MVOA	3	1310	B	250µm Bare fiber	0	None	10	1.0M
	5	1550	9	900µm	1	SC/UPC	15	1.5M
	T	Three Windows	2	2mm	2	SC/APC		
			3	3mm	3	FC/UPC		
					4	FC/APC		
					5	LC/UPC		
					6	LC/APC		
				7	MU/UPC			



ORDER CODE example:

PD-MVOA-5-2-0-10

PM PRODUCTS

PM POLARIZATION COMBINER/SPLITTER



APPLICATIONS

- Polarization Mode Dispersion Compensator
- EDFA & Raman Amplifier
- Coherent Telecommunication Systems
- Fiber Optic Sensor

COMPACT HIGH PERFORMANCE

- Compact High Performance
- High Extinction Ratio
- Low Insertion Loss
- High Directivity

Senko's Polarization Beam Combiner/Splitter is a high performance component that combines two orthogonal polarization signals into one output fiber. The typical configuration uses two PM fibers for the input and the SM fiber for the output. The device can also be used as a beam splitter.

PARAMETER ^{1,2}	VALUES		UNIT
	Grade P	Grade A	
Grade	Grade P	Grade A	
Center Wavelength	1310, 1480 or 1550		nm
Operating Wavelength Range	±40		nm
Typ. Insertion loss	0.4	0.5	dB
Max. Insertion loss	0.6	0.7	dB
Min. Return Loss	50		dB
Min. Extinction Ratio (for Splitter only)	22	20	dB
Min. Directivity	50		dB
Max. Optical Power (CW)	500		mW
Max. Tensile Load	5		N
Fiber Type ³	PM Panda Fiber on Port 1 & 2		
Operating Temperature	-5 to +70		°C
Storage Temperature	-40 to +85		°C
Packaging Dimension	5.5(Φ) x 35 (L)		mm

Note:

1. Above specifications are for device without connector.
2. For devices with connectors, IL will be 0.3dB higher, RL will be 5dB lower and ER will be 2dB lower.
3. The PM fiber and the connector key are aligned to the slow axis.

CODE	WAVELENGTH		GRADE		CONNECTOR TYPE ON PORT 1, 2 & 3			FIBER JACKET ON PORT 1, 2 & 3		FIBER TYPE ON PORT3		FIBER LENGTH	
	31	1310	P	Premium	1	FC/UPC	B	250µm Fiber	1	SMF-28 FIBER	Q	0,75m	
PD-PMBC PD-PMBS	48	1480	A	A Grade	2	FC/APC	D	400µm Fiber only for PM Fiber	2	PM Panda Fiber, Slow Axis align 45° to Port 1	S	Specify	
	55	1550			3	SC/UPC	L	900µm Loose Tube	3	PM Panda Fiber, Slow Axis align to Port 1			
	SS	Specify			4	SC/APC	S	Specify	S	Specify			
					5	LC/UPC							
					6	LC/APC							
					7	MU/UPC							
					N	None							

ORDER CODE example: **PD-PMBC-31-P-2-D-2-Q**

ORDER CODE example: **PD-PMBS-48-P-1-D-2-S**



Senko Polarization Maintaining Isolator is characterized with low insertion, high isolation, and high extinction ratio. It's ideal for PM fiber amplifier, fiber laser, high speed communication systems and instrumentation applications.

APPLICATIONS

- Fiber Optic Lasers
- Optical Transmitters & Transceivers
- Fiber Amplifiers
- Fiber Sensors

FEATURES

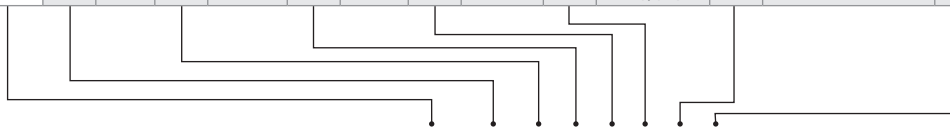
- High Isolation
- Low Insertion Loss
- Large Aperture Features

PARAMETER ^{1,2}	VALUES				UNIT
Stage	Single Stage		Dual Stage		
Grade	Grade P	Grade A	Grade P	Grade A	
Center Wavelength (λc)	1310, 1480 or 1550				nm
Operating Wavelength Range	±20				nm
Typ. Peak Isolation	42	40	58	55	dB
Min. Isolation at 23°C	28	26	48	45	dB
Typ. Insertion Loss at 23°C	0.4	0.5	0.5	0.6	dB
Max. Insertion Loss at -5°C-70°C	0.55	0.65	0.65	0.8	dB
Min. Return Loss (Input/Output)	55	55	55	55	dB
Min. Extinction Ratio(only for B tyep)	20	18	20	18	dB
Min. Extinction Ratio(only for F type)	25	23	25	23	dB
Max. Optical Power (CW)	500				mW
Max. Tensile Load	5				N
Fiber Type ³	PM Panda Fiber				
Operating Temperature	-5 to +70				°C
Storage Temperature	-40 to +85				°C
Package Dimension	5.5(0)x35 (L)				mm

Note:

1. Above specifications are for device without connector.
2. For devices with connectors, IL will be 0.3dB higher, RL will be 5dB lower and ER will be 2dB lower.
3. The PM fiber and the connector key are aligned to the slow axis.

CODE	WAVE-LENGTH	GRADE	STAGE	AXIS ALIGNMENT	CONNECTOR TYPE ON PORT 1 & 2	FIBER JACKET ON PORT 1 & 2	FIBER LENGTH							
PD-PMI	31	1310	P	Premium Grade	S	Single Stage	F	Fast Axis Blocked	0	None	B	250µm Panda Bare Fiber	Q	0.75m
	48	1480	A	A Grade	D	Dual Stage	B	Both Axis Working	1	SC/UPC	D	400µm Panda Bare Fiber	S	SPecify
	55	1550							2	SC/APC	L	900µm Loose Tube with 400µm Panda fiber		
									3	FC/UPC	T	900µm Loose Tube with 250µm Panda fiber		
									4	FC/APC				
									5	LC/UPC				
									6	LC/APC				
								7	MU/UPC					



ORDER CODE example:

PD-PMI-55-P-D-F-1-B-S



APPLICATIONS

- Fiber Optic Instruments
- Fiber Amplifiers
- Fiber Lasers
- Fiber Sensors

FEATURES

- Low Insertion Loss
- High Return Loss

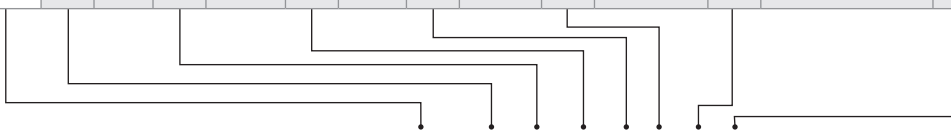
Senko Polarization Maintaining Filter Coupler series is manufactured using advanced technology to allow the input signal to split into various ratio with high extinction ratio.

PARAMETER ^{1,2}	VALUES		UNIT
Port Type	1X2	2X2	
Center Wavelength	1310 or 1550		nm
Operating Wavelength Range	±40		nm
Type	1x2	2x2	
Max. Excess Loss	0.7	1.0	dB
Max. Uniformity (only for 50/50)	0.5	0.7	dB
Tap Ratio (Port 2/4)	1±0.2%, 2±0.4%, 5±1.0%, 10%, and 50%		%
Min. Return Loss	50		dB
Min. Extinction Ratio (only for F type)	22	22	dB
Min. Extinction Ratio (only for B type)	20	18	dB
Max. Optical Power (CW)	500 (only for Splitter)		mW
Max. Tensile Load	5		N
Fiber Type ³	SMF-28e or PM Panda Fiber on Tap Port PM Panda Fiber on Input & Output Port		
Operating Temperature	-5 to +70		°C
Storage Temperature	-40 to +85		°C
Package Pimension	5.5(Φ)x35(L)		mm

Note:

1. Above specifications are for devices without the connectors.
2. For devices with connectors, IL will be 0.3dB higher, RL will be 5dB lower, and ER will be 2dB lower.
3. The PM fiber and the connector key are aligned to the slow axis. And for F type, fast axis is blocked.

CODE	WAVE-LENGTH		PORT		COUPLING RATIO		AXIS ALIGNMENT		CONNECTOR TYPE ON PORT 1, 2, 3 & 4		FIBER JACKET ON PORT 1, 2, 3 & 4		FIBER LENGTH	
PD-PMFC	31	1310	1	1x2	01	1/99	F	Fast Axis Blocked	0	None	B	250µm Panda Bare Fiber	Q	0.75m
	55	1550	2	2x2	02	2/98	B	Both Axis Working	1	SC/UPC	D	400µm Panda Bare Fiber	S	Specify
					05	5/95			3	FC/UPC	L	900µm Loose Tube with 400µm Panda fiber		
					10	10/90			4	FC/APC	T	900µm Loose Tube with 250µm Panda fiber		
					40	50/50			7	MU/UPC				



ORDER CODE example:

PD-PMFC-31-2-04-F-2-B-Q

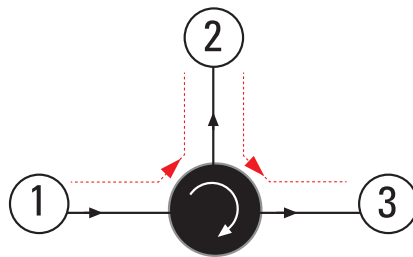


Senko Polarization Maintaining Optical Circulator is a compact high performance component transmits the incoming signal from port1 to port2, while transmitting another incoming signal from port2 to port3.

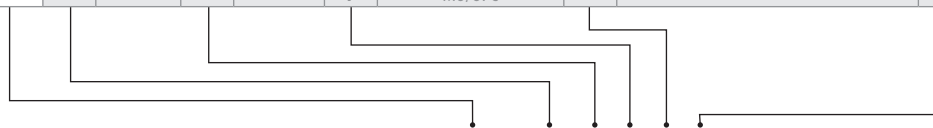
PARAMETER ^{1,2}	VALUES		UNIT
Type	Type A	Type B	
Center Wavelength	1310 or 1550		nm
Operating Wavelength Range	± 30	± 20	nm
Min. Isolation	40	20	dB
Typ. Isolation	46	30	dB
Peak Isolation	52	40	dB
Typ. Insertion Loss	0.7	0.6	dB
Max. Insertion Loss	0.9	0.8	dB
Min. Return Loss	55		dB
Min. Extinction Ratio	22	20	dB
Min. Cross Talk	50		dB
Max. Optical Power (CW)	500		mW
Max. Tensile Load	5		N
Fiber Type ³	PM Panda Fiber		
Operating Temperature	-5 to +70		°C
Storage Temperature	-40 to +85		°C
Package Dimension	5.5(Ø)x35(L)		mm

NOTE:

1. Above specifications are for device without connector.
2. For devices with connectors, IL will be 0.3dB higher, RL will be 5dB lower and ER will be 2dB lower.
3. The PM fiber and the connector key are aligned to the slow axis and fast axis is blocked.



CODE	WAVELENGTH		TYPE		CONNECTOR TYPE ON PORT 1, 2 & 3			FIBER JACKET ON PORT 1, 2 & 3		FIBER LENGTH	
	31	1550	A	B	0	1	2	B	D	Q	S
PD-PM CIR	1310	Type A	0	None	B	250µm Panda Bare Fiber		Q	0.75m		
	1550	Type B	1	SC/UPC	D	400µm Panda Bare Fiber		S	Specify		
					2	SC/APC	L	900µm Loose Tube with 400µm Panda fiber			
					3	FC/UPC	T	900µm Loose Tube with 250µm Panda fiber			
					4	FC/APC					
					5	LC/UPC					
					6	LC/APC					
				7	MU/UPC						



ORDER CODE example:

PD - PM CIR - 31 - B - 1 - B - S

PM PRODUCTS

PM FILTER WAVELENGTH DIVISION MULTIPLEXERS



APPLICATIONS

- Fiber Optic Instruments
- Raman Amplifiers
- EDFAs
- Fiber Sensors

FEATURES

- Low Insertion Loss
- High Return Loss
- High Isolation

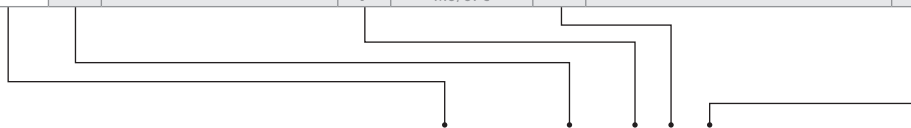
Senko filter WDM series provide wavelength division multiplexing while maintaining signal polarization, which is ideal for high speed WDM network systems.

PARAMETERS ^{1,2}		VALUES			UNIT
Pass Band	Wavelength Range	1270-1350(1530-1600)	1450-1490(1530-1600)	1500-1520(1530-1570)	nm
	Typ. Insertion Loss	0.4	0.4	0.5	dB
	Max. Insertion Loss	0.6	0.6	0.7	dB
	Typ. Isolation	30	30	30	dB
	Min. Isolation	25	25	25	dB
Reflection Band	Wavelength Range	1530-1600(1270-1350)	1530-1600(1450-1490)	1530-1570(1500-1520)	nm
	Typ. Insertion Loss	0.3			dB
	Max. Insertion Loss	0.5			dB
	Typ. Isolation	15			dB
	Min. Isolation	12			dB
Min. Extinction Ratio		20			dB
Min. Return Loss		50			dB
Thermal Stability		≤0.005			dB/°C
Max. Optical Power (CW)		500			mW
Max. Tensile Load		5			N
Fiber Type ³		PM Panda Fiber			
Operating Temperature		-5 to +70			°C
Storage Temperature		-40 to +85			°C
Package Dimension		5.5 (Ø)x35(L)			mm

Note:

1. Above specifications are for device without connector.
2. For devices with connectors, IL will be 0.3dB higher, RL will be 5dB lower and ER will be 2dB lower.
3. The PM fiber and the key are aligned to the slow axis.

CODE	WAVELENGTH		CONNECTOR TYPE ON PORT 1, 2 & 3		FIBER JACKET ON PORT 1, 2 & 3		FIBER LENGTH	
PD-PMFWDM	3155	1310nm Pass/1550nm Reflect	0	None	B	250µm Panda Bare Fiber	Q	0.75m
	5531	1550nm Pass / 1310nm Reflect	1	SC/UPC	D	400µm Panda Bare Fiber	S	Specify
	4855	1480nm Pass / 1550nm Reflect	2	SC/APC	L	900µm Loose Tube with 400µm Panda fiber		
	5548	1550nm Pass / 1480nm Reflect	3	FC/UPC	T	900µm Loose Tube with 250µm Panda fiber		
	5155	1510nm Pass / 1550nm Reflect	4	FC/APC				
	5551	1550nm Pass / 1510nm Reflect	5	LC/UPC				
			6	LC/APC				
			7	MU/UPC				



ORDER CODE example:

PD-PMFWDM-4855-1-B-S



The In-line Polarizer is designed to pass light with one specific polarization while blocking the other polarization with high extinction ratio. It can also be used to enhance the extinction ratio of signals with its excellent polarization properties.

PARAMETER ^{1,2}	VALUES	UNIT
Center Wavelength	1310, 1480 or 1550	nm
Operating Wavelength Range	±50	nm
Typ. Insertion Loss at 23°C	0.3	dB
Max. Insertion Loss at 23°C	0.5	dB
Min. Return loss	50	dB
Typ. Extinction ratio at 23°C	30	dB
Min. Extinction ratio at 23°C	28	dB
Max. Optical Power (CW)	500	mW
Max. Tensile Load	5	N
Fiber Type ³	PM Panda Fiber or SMF-28e	
Operating Temperature	-5 to +70	°C
Storage Temperature	-40 to +85	°C
Package Imension	5.5(Φ)x35(L)	mm

Note:

1. Above specifications are for devices without connectors.
2. For devices with connectors, IL will be 0.3dB higher, RL will be 5dB lower and ER will be 2dB lower.
3. The PM fiber and the connector key are aligned to the slow axis.

CODE	WAVELENGTH	CONNECTOR TYPE ON PORT 1 & 2			FIBER JACKET ON PORT 1 & 2	FIBER TYPE ON PORT 1 & 2		FIBER LENGTH			
PD-ILP	31	1310nm	0	None	B	250µm Panda Bare Fiber		1	PM Panda Fiber	Q	0.75m
	48	1480nm	1	SC/UPC	D	400µm Panda Bare Fiber		2	SMF-28e Fiber	S	Specify
	55	1550nm	2	SC/APC	L	900µm Loose Tube with 400µm Panda fiber					
	SS	Specify	3	FC/UPC	T	900µm Loose Tube with 250µm Panda fiber					
				4	FC/APC						
				5	LC/UPC						
				6	LC/APC						
			7	MU/UPC							

ORDER CODE example:

PD - ILP - 48 - 2 - B - 2 - Q

SUB COMPONENTS/SPECIAL COMPONENTS SPLICE PROTECTION SLEEVE



Senko offers high quality Splice Protection Sleeves, which are the industry standard for durable and lasting protection of single fiber splices or 4/8/12 fiber ribbon respectively.

APPLICATIONS

- Single fiber splice
- Ribbon fiber splice
- Fiber optics

FEATURES

- Durable stability
- No influence to splice loss
- Strong protective ability
- Wide operating temperature (-40~85°C)

Specification

a. FPT-01 series for single fiber up to 900um fiber.

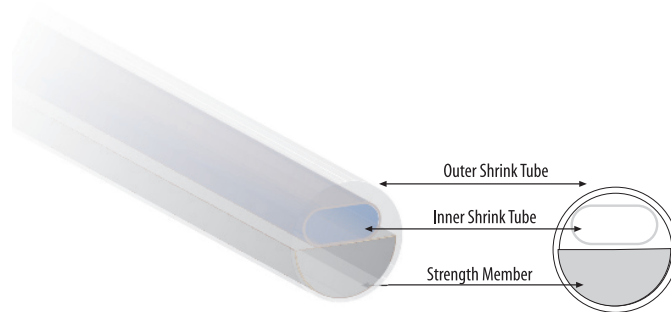
MODEL	SLEEVE LENGTH ¹ (MM)	STRENGTH MEMBER LENGTH (MM)	INNER /OUTER TUBE MATERIAL	PROTECTIVE TUBE MATERIAL	SLEEVE DIMENSION AFTER SHRINK (MAX, MM)
FPT-01-25	25	20	EVA / EVA	Stainless steel	(OD)3.2x(L)25
FPT-01-40	40	35	EVA / EVA	Stainless steel	(OD)3.2x(L)40
FPT-01-60	60	55	EVA / EVA	Stainless steel	(OD)3.2x(L)60

b. FPT-08 and FPT-12 series for ribbon fiber up to 12 fibers. (One protective tube ²⁾)

MODEL	FIBER COUNT	SLEEVE LENGTH* (MM)	STRENGTH MEMBER LENGTH (MM)	INNER /OUTER TUBE MATERIAL	STRENGTH MEMBER MATERIAL	SLEEVE DIMENSION AFTER SHRINK (MAX, MM)
FPT-08-30	Up to 8	30	25	EVA / EVA	Ceramic	(OD)4.0x(L)30
FPT-08-45	Up to 8	45	40	EVA / EVA	Ceramic	(OD)4.0x(L)45
FPT-08-60	Up to 8	60	55	EVA / EVA	Ceramic	(OD)4.0x(L)60
FPT-12-30	Up to 12	30	25	EVA / EVA	Ceramic	(OD)5.0x(L)30
FPT-12-45	Up to 12	45	40	EVA / EVA	Ceramic	(OD)5.0x(L)45
FPT-12-60	Up to 12	60	55	EVA / EVA	Ceramic	(OD)5.0x(L)60

NOTE:

1. Customized size is also available.
2. Dual protective tube is also available.

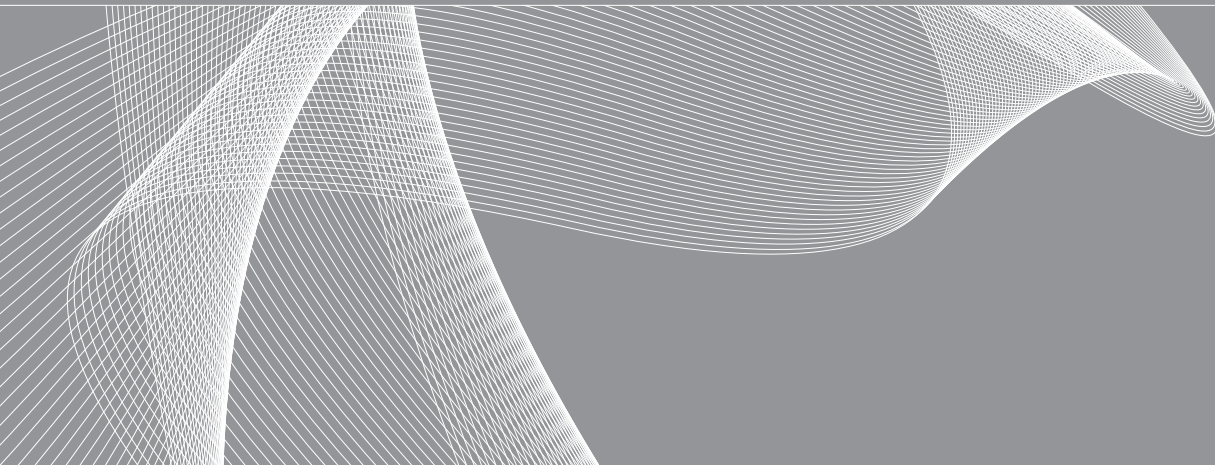


Order Information

PART NUMBER	DESCRIPTION
FPT-01-25	Single fiber, 25mm length, single stainless steel.
FPT-01-40	Single fiber, 40mm length, single stainless steel.
FPT-01-60	Single fiber, 60mm length, single stainless steel.
FPT-08-30	8-Ribbon fiber, 30mm length, single ceramic tube.
FPT-08-45	8-Ribbon fiber, 45mm length, single ceramic tube.
FPT-08-60	8-Ribbon fiber, 60mm length, single ceramic tube.
FPT-12-30	12-Ribbon fiber, 30mm length, single ceramic tube.
FPT-12-45	12-Ribbon fiber, 45mm length, single ceramic tube.
FPT-12-60	12-Ribbon fiber, 60mm length, single ceramic tube.

ORDER CODE example:

FPT-01-25





SENKO Advanced Components, Incorporated is a recognized global leader in the design, production, sales, marketing and distribution of over 1000 fiber optic products. It is headquartered in Boston, Massachusetts, USA and is the fiber optic division of the Japan based SENKO Group.

The SENKO Group is a family of companies serving clients in the Electronic / Electrical, Telecom / Fiber Optic, and Automotive / Industrial industries. We continually expand our product line to suit your business needs, both through innovations in product design and via international partnerships. Our top quality products are backed with superior technical support and logistic services provided by our worldwide facilities.



SENKO ADVANCED COMPONENTS, INC.

Americas

USA EAST 1-888-32-SENKO
USA WEST 1-858-623-3300
Sales-Americas@senko.com

Asia

HONG KONG +852-2121-0516
SHANGHAI +86-21-5830-4513
SHENZHEN +86-755-2533-4893
Sales-Asia@senko.com

Europe

UK +44 (0) 118 982 1600
ITALY +39 011 839 9828
POLAND +48 71 711 10 93
Sales-Europe@senko.com

Asia Pacific

AUSTRALIA +61 (0) 3 9755-7922
Sales-Asia-Pacific@senko.com

Middle East North Africa

Dubai +971 4 8865160
Sales-MENA@senko.com

Japan

TOKYO +81 (0) 3 5825-0911
Sales-Japan@senko.com

WWW.SENKO.COM