

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 qualified according to industry standard test procedures.

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)x20(W)x10(H)	mm
Fiber Type	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.

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		JUMPER 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