

## CPS1 Series: Single Mode Single Window Fused Couplers

Parameters		Performance (Excluding connectors)															
Center Wavelength $\lambda_c$ , (nm)		980, 1310, 1480, 1550															
Operating Wavelength (nm)		$\lambda_c \pm 15$															
Configuration		1x2 or 2x2															
Split Ratio (%)		1	2	5	10	20	30	40	50	60	70	80	90	95	98	99	
Insertion Loss@ 25°C (dB)	Max	P	21.0	18.5	13.5	10.5	7.2	5.4	4.2	3.3	2.4	1.8	1.2	0.68	0.45	0.26	0.24
		A	22.0	20.0	13.8	10.8	7.5	5.6	4.5	3.6	2.6	2.0	1.3	0.75	0.48	0.31	0.30
	Min	P	19.0	16.0	12.6	9.5	6.7	5.0	3.8	2.8	-	-	-	-	-	-	-
		A	18.7	15.5	12.4	9.3	6.6	4.9	3.6	2.6	-	-	-	-	-	-	-
Maximum PDL (dB)	P	0.20	0.20	0.18	0.16	0.14	0.12	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	
	A	0.20	0.20	0.18	0.16	0.15	0.14	0.13	0.13	0.12	0.1	0.1	0.1	0.1	0.1	0.1	
Maximum TDL (dB)		0.6	0.6	0.6	0.5	0.5	0.4	0.4	0.4	0.3	0.2	0.2	0.2	0.1	0.1	0.1	
Optical Directivity(dB)		= 55															
Maximum Optical Power Handling (mW)		500															
Operating temperature (°C)		Bare fiber, 900 $\mu$ m loose tube, or Polaxar™ packages: -40 ~ 80 Regular 3mm or 2 mm Jacket: -10 ~ 70°C															
Storage temperature (°C)		-40 ~ 85															
Fiber Type		Corning HI 1060 for 980 nm Couplers, SMF28 for other wavelengths															
Package Dimension (mm)																	
Bare Fiber		$\phi$ 3.0 x 54															
900 $\mu$ m Loose Tube		$\phi$ 3.0 x 60															
3mm or 2mm Jacket		96 x 12 x 6.4															
Polaxar™		100 x 12 x 6.4 (Cable length 1m only)															

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**Product Family: CPS Series**

Product Family Code	Description	Product Derivatives
CPS	Single mode 1x2 or 2x2 fused couplers operating in the 980 nm, 1310 nm, 1480 nm, and/or 1550 nm regions (Center wavelength = $\lambda_c$ )	<p>CPS1: Single-mode single-window couplers operate over (<math>\lambda_c \pm 10</math>) nm wavelength range.</p> <p>CPS2: Single-mode single-window couplers operate over (<math>\lambda_c \pm 40</math>) nm wavelength range.</p> <p>CPS3: Single-mode couplers operate over dual wavelength windows (1310<math>\pm</math>40/1550<math>\pm</math>40 nm or 1480<math>\pm</math>40/1550<math>\pm</math>40 nm).</p> <p>CPS7: Single-mode single-window couplers operate over (1310 <math>\pm</math> 10) nm or (1550 <math>\pm</math> 10) nm wavelength ranges with low PDL at both output ports</p> <p>CPS8: Single-mode couplers operate over dual wavelength windows (1310<math>\pm</math>40/1550<math>\pm</math>40 nm or 1480<math>\pm</math>40/1550<math>\pm</math>40 nm) with low PDL at both output ports</p>

**Part Number for CPS Family**



	Wavelength	Configuration	Split Ratio	Package Type	Fiber Length	
	A=1310 nm	12=1x2	50 = 50:50	A=250 $\mu$ m bare fiber	10=1.0 m	
	B=1480 nm	22=2x2	40 = 40:60	B=900 $\mu$ m loose tube	15=1.5 m	
	C=1550 nm		30 = 30:70	C=3 mm jacket	30=3.0 m	
	E=980 nm (CPS1)		20 = 20:80	D=2 mm jacket	mn=m.n meters	
	I=1310/1550 (CPS3 and CPS8 only)		10 = 10:90	E=3mm Polaxar™	10 Only for Polaxar™ package	
	J=1480/1550 (CPS3 and CPS8 only)		05 = 5:95	F=2mm Polaxar™		
			02 = 2:98			
			01 = 1:99			
Product Type				(Option E and F not applicable to CPS7 and CPS 8)	Connectors	
1 = standard					0=none	A=FC/PC
2 = wide band					2=FC/UPC	B=SC/SPC
3 = dual window					3=FC/APC	C=SC/PC
7 = wide band low PDL					4=SC/UPC	D=ST/SPC
8 = dual window low PDL					5=SC/APC	E=ST/PC
					6=ST/UPC	F=LC/SPC
					7=LC/UPC	G=LC/PC
					9=FC/SPC	H=MU/UPC
						I=MU/PC
						J=LC/APC
			Fiber Type			
			All wavelengths except 980nm			
			1 = SMF-28			
			980nm wavelength			
			3 = Flexcor 1060			

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