



Special Wavelength Coupler (445 - 2100 nm) (SMC Series)

Rev 11E

Description

The Special Wavelength Coupler offers very low insertion loss, low polarization dependent loss and excellent environmental stability. Accurate coupling ratios from 0.01/99.99 to 50/50 are available with very good uniformity in the operating wavelength range. These components find extensive applications to perform power splitting and monitoring functions in all kinds of optical communication systems.

Key Features

- Wavelength 445 - 2100 nm Available
- Coupling Ratio from 0.01/99.99 to 50/50 Available
- Low Excess Loss
- High Power Handling
- High Stability And Reliability

Applications

- Power Monitoring
- Splitter
- Fixed Attenuation
- Testing Instruments

Specifications

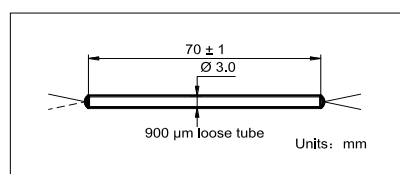
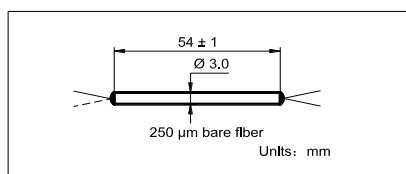
Parameter	Unit	Value							
Center Wavelength (λ_c)	nm	488, 532, 635		780, 830		980, 1064		1700, 2000	
Operating Wavelength	nm	$\lambda_c \pm 5$		$\lambda_c \pm 10$		$\lambda_c \pm 10$		$\lambda_c \pm 20$	
Max. Polarization Dependent Loss	dB	0.2		0.2		0.1		0.2	
Max. Excess Loss	dB	0.3		0.3		0.15		0.3	
Max. Excess Loss for Each Connector	dB	1.5		0.7		0.5		0.3	
Max. Optical Power (Continuous Wave) ¹	W	4							
Thermal Stability	dB/°C	≤ 0.005							
Min. Return Loss ²	dB	50							
Min. Directivity	dB	50							
Fiber Type	-	Singlemode Fiber							
Operating Temperature	°C	- 40 to + 75							
Storage Temperature	°C	- 40 to + 85							
Coupling Ratio & Insertion Loss ³									
Coupling Ratio	%	1/99	2/98	5/95	10/90	20/80	30/70	40/60	50/50
Max. Insertion Loss, λ_c	dB	22/0.3	18.5/0.35	14.5/0.5	11.5/0.75	8.0/1.5	6.0/2.0	4.8/2.8	3.6/3.6
Coupling Ratio	%	0.1/99.9				0.01/99.99			
Insertion Loss, λ_c	dB	30 $\pm$ 3/ $\leq$ 0.3				40 $\pm$ 4/ $\leq$ 0.3			

¹The Optical Power is 1 W only for connector added. For visible wavelength, the limit is 50 mW.

²RL is 5 dB lower for connector added.

³Data tested at central wavelength only.

Package Dimensions



¹The Package Dimensions is $\varnothing 3.0 \times 47$ mm for 2000 nm bare fiber coupler.

Ordering Information

SMC -①-②②②②-③③-④-⑤-⑥-⑦

①: Configuration

1 - 1 × 2

2 - 2 × 2

②②②②: Wavelength

488 - 488 nm

532 - 532 nm

635 - 635 nm

780 - 780 nm

830 - 830 nm

980 - 980 nm

1064- 1064 nm

1700 - 1700 nm

2000 - 2000 nm

SSSS - Specify

③③: Coupling Ratio

01 - 01/99

02 - 02/98

05 - 05/95

10 - 10/90

20 - 20/80

30 - 30/70

40 - 40/60

50 - 50/50

0.1 - 0.1/99.9

0.01 - 0.01/99.99

SS - Specify

④: Connector Type

1 - FC/UPC

2 - FC/APC

3 - SC/UPC

4 - SC/APC

N - None

S - Specify

⑤: Fiber Jacket

B - 250 μm Bare Fiber

L - 900 μm Loose Tube

⑥: Fiber Length

Q - 0.75 m

1 - 1 m

S - Specify

⑦: Fiber Type

1 - Nufern 460-HP Fiber

2 - Nufern 630-HP Fiber

3 - Corning HI 780C Fiber

4 - Corning HI 1060 Fiber

5 - Corning HI 1060 Flex Fiber

6 - Corning SMF-28 Fiber

7 - Nufern SM 1950 Fiber

S - Specify