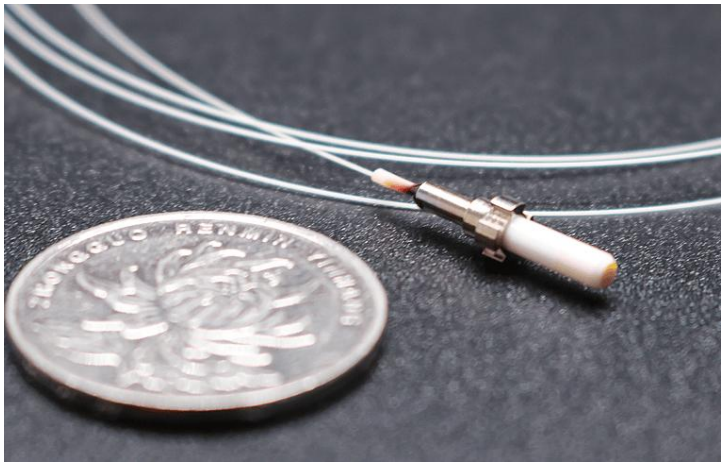
1310nm Single-Mode Fiber Reflector



Product Description

Examples of fiber total reflection mirrors used in erbium-doped fiber amplifiers. In this application, a fiber-based back reflector is placed at the end of an erbium-doped fiber, reflecting light back into the fiber in the direction of the incident light. A circulator is used to direct both the input and amplified output signals along their respective optical paths. This setup allows the signal light to pass through the gain fiber twice, effectively enhancing the amplifier's gain absorption efficiency. Another practical application of back reflectors is the construction of tunable back reflectors, as shown in Figure 2. Feedback signals from a downstream back reflector

can cause instability in certain devices, such as laser diodes. By incorporating a tunable back reflector, the sensitivity of a device to back reflection can be determined. A tunable attenuator enables users to introduce a controlled reflection into the system. By analyzing the effects of back reflection, users can calculate parameters such as noise level, bit error rate, and distortion.

Product features

Low temperature deviation、 High reflectivity、 Long-term reliability

Part Number

MP-FRM-1310-SA

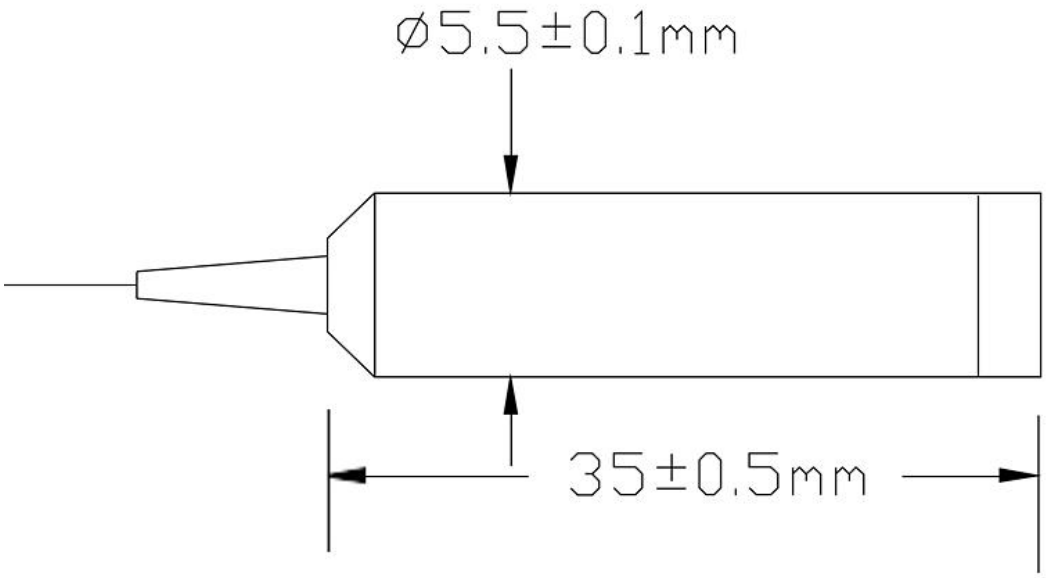
Application area

Fiber Optic Current Sensor、 Fiber Optic Network Testing and Analysis、 Fiber Optic Sensing

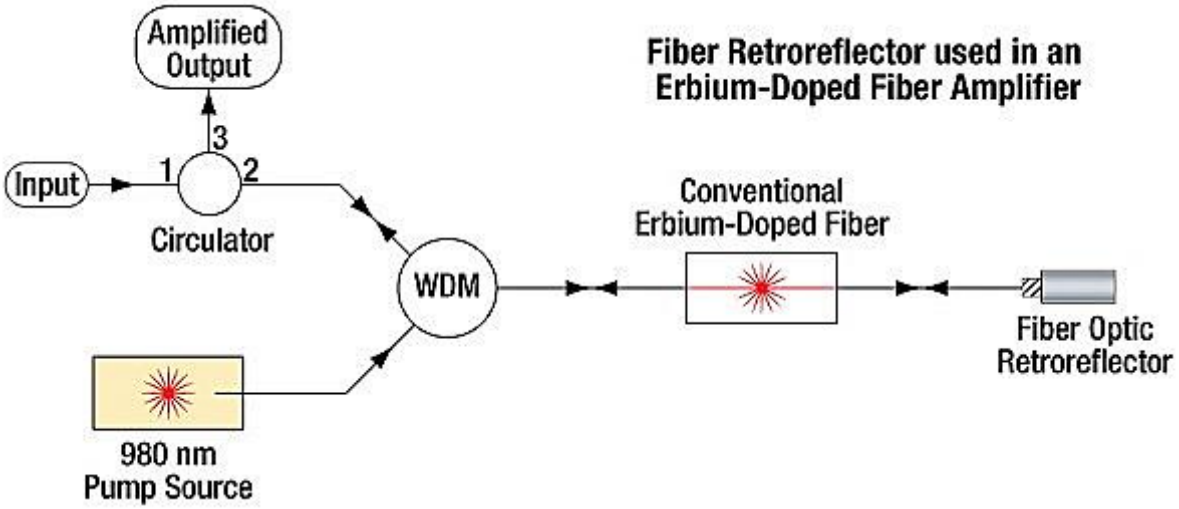
Core parameters

Wavelength	Reflectivity
1310nm	>99.5%

- **Dimension Drawing**



- **General Parameters**



All-fiber amplifier using retroreflectors and a circulator

Parameter

Test temperature @25°C

Parameters	Unit	value
Operating wavelength (λc)	nm	980/1060/1310/1550/2000
Bandwidth	nm	±10
Typical insertion loss	dB	0.8
Maximum insertion loss	dB	1.0
Reflectivity	%	>99.5
Max. PDL at 23°C, λc	dB	0.2
Maximum operating power (CW)	mW	300
Maximum tensile force	N	5
Fiber type		SMF-28e Fiber or Specify
Operating temperature	°C	-5 to +70
Storage temperature	°C	-40 to +85

Ordering Information

MP-FRM-W□□□□-XX

W□□□□: operating wavelength

98: 980m

13: 1310m

15: 1550nm

20: 2000nm

XX: Fiber and connector type

SN=SMF-28E Fiber + None

SA=SMF-28E Fiber + FC/APC

SP=SMF-28E Fiber + FC/PC

PP=PM Fiber Fiber + FC/PC

PA=PM Fiber Fiber + FC/APC