

OCP



Outdoor Qualified Fiber Coupler

The Optilab Outdoor Qualified Fiber Coupler (OCP) is designed to optimize fiber interrogation signal distribution for FBG sensing networks, allowing a single fiber pass to enable multiple fiber sensor locations. By using a variety of tap ratio configurations available, the optical power can be balanced equally between site locations that are miles apart. The OCP is fabricated using low loss fused coupler technology, and features wide-wavelength operation, covering 1490 nm to 1610 nm wavelength ranges. The cost-effective, versatile, and compact OCP Series is designed for operation in broad temperature ranges from -45°C to $+90^{\circ}\text{C}$, making it an ideal solution for outdoor fiber applications. Contact Optilab for more information.

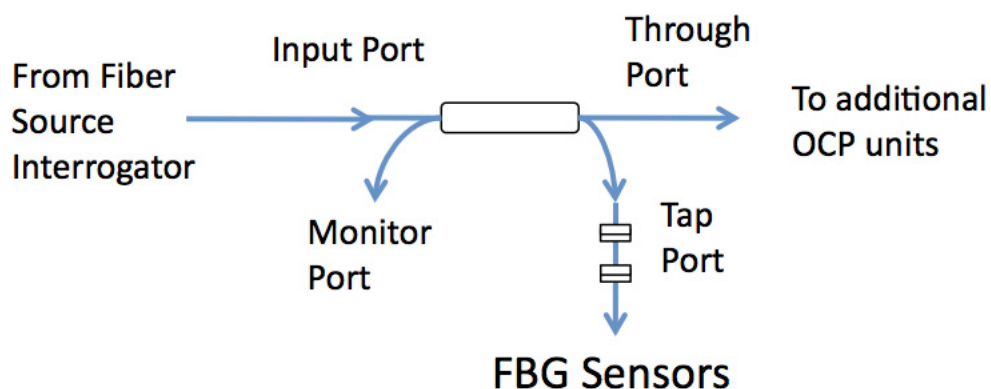
Features

- Designed for outdoors
- -55°C to $+90^{\circ}\text{C}$ temperature range
- Wide wavelength operation 1490nm to 1610nm
- **3 year warranty standard**

Applications

- Indoor FBG sensor network
- Outdoor FBG sensor deployment
- RUS/USDA qualified
- Fiber layout optimization
- Installation cost reduction

Functional Diagram



Outdoor Qualified Fiber Coupler

OPTIONS

OCP-x-y

Through Port/ Tap Port

Power Ratio

9505: 95/05

x 9010: 90/10

8020: 80/20

7030: 70/30

5050: 50/50

Connector:

SA: SC/APC

y LA: LC/APC

NC: no connector

TECHNICAL INFO

For technical info and support:

sales@optilab.com

www.optilab.com

WEB ORDER

To order, please visit OEQuest.com.



Optilab Advantage

- Innovation
- Performance
- Quality
- Customization
- Warranty

Optical Specifications	
Operating Wavelength Range	1490 nm to 1610 nm
Through / Tap Port Ratio	95/05
	90/10
	80/20
	70/30
	50/50
Directivity (port to port isolation)	55 dB min.
Through Port to Tap Output Ports Isolation	55 dB min.
Return loss from Input Port to Through Port (no connectors)	60 dB min.
Return loss from input to Tap Output Ports (with SC/APC connectors)	50 dB min.
Through Port Insertion Loss	Contact for OCP Configuration Table
Tap Port Output Insertion Loss	Contact for OCP Configuration Table
Worst Case Loss	Contact for OCP Configuration Table
Mechanical Specifications	
Operation Temperature Range	-55°C to +90°C
Ambient Humidity	Up to 90 %
Optical Fiber Type	Corning SMF-28 with 900um loose tube standard, 3mm and armored with housing option
Packaging	Metallized tube, machined aluminum housing
Input Port /Through Port Connector	SC/APC, LC/APC
Tap Output Port Connectors	SC/APC, LC/APC
Input Port /Through Port Fiber Length	Contact for OCP Diagram
Tap Output Port Fiber Length	Contact for OCP Diagram
Qualification/Reliability	
Fiber Coupler	Telcordia GR-1221-CORE

Sample OCP Network Configuration

