

Fiberoptic Electric Field Sensor

Product Description

This Electric-field sensor, based on EO effect, is probed by a laser through optic fiber and packaged only with dielectric components. It is ideally suitable to remotely and non-intrusively measure electric fields and microwave radiation up to Gigahertz range.



Performance Specifications - High Frequency

High Frequency Sensor	Min	Typical	Max	Unit
Frequency	DC		7.0	GHz
Sensitivity		8		mV/m-Hz ^{1/2}
Maximum detectable E-field			200	kV/m
Damage E-field			5	MV/m
Package Dimension**		6.0 x 6.0 x 40.0		mm

* Defined by measuring with a 1550nm laser at 20mW and 10 MHz.

** High frequency sensor

The E-field sensor is licensed under U.S. Patent Application 12/829,298 and U.S. Provisional Patent 61/522,908 (and upon issuance the patent numbers of any patent applications) issued to the United States of America, as represented by the Secretary of the Navy.

Features

- No metal parts
- Passive
- Miniature
- Optical fiber readout

Applications

- Microwave pulse measurement
- Electric field measurement



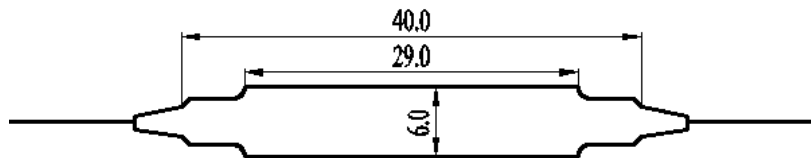
Fiberoptic Electric Field Sensor

Performance Specifications of Low Frequency

Low Frequency Sensor	Min	Typical	Max	Unit
Frequency	DC		400	MHz
Sensitivity*		0.8		mV/m-Hz ^{1/2}
Maximum detectable E-field			1	kV/m
Damage E-field			5	MV/m
Package Dimension		8.0 x 8.0 x 60.0		mm

* Defined by measuring with a 1550nm laser at 20mW

Mechanical Dimensions Straight Version (mm)



Ordering Information

EOFS-	<input type="checkbox"/>	<input type="checkbox"/>	1	<input type="checkbox"/>	<input type="checkbox"/>	1	1	<input type="checkbox"/>	<input type="checkbox"/>
	Type	Configuration	Package		Fiber Type		Fiber Length		Connector
	11=High Freq 12=Low Freq	1: Transmissive	1: Standard 0: special	Bare fiber=1 900um loose tube=3 Special=0	Panda PM=1 For input Special=0	MM 62.5/125=1 For Output Special=0	0.25m=1 0.5m=2 1.0 m=3 Special=0	None=1 FC/PC=2 FC/APC= 3 SC/PC=4 SC/APC=5 ST/PC=6 LC=7 Special=0	

