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.

Features

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

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

Applications

- Microwave pulse measurement
- Electric field measurement

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.

RoHS Compliant

iSweek www.isweek.com
Add: 16/F, Bldg. #3, Zhongke Mansion, No.1 Hi-Tech S. Rd, Hi-Tech Park South, Shenzhen, Guangdong, 518067 P.R.China
Tel: + 86-755-83289036 Fax: + 86-755-83289052 E-mail: sales@isweek.com

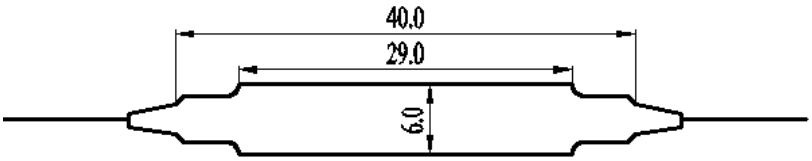
Fiberoptic Electric Field Sensor

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-	□□	1	□	□	1	1	□	□
	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

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