

# Fiberoptic Electric Field Sensor

## Product Description

This Electric-field sensor, based on EO effect and coupled with a dual-fiber collimator, 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

E-filed Sensor		Typical	Max	Unit
Frequency Bandwidth	Ultra-high		18	GHz
	High		7	GHz
	Low		250	MHz
Sensitivity <sup>[1]</sup>	Ultra-high frequency	20		mV/m-Hz <sup>1/2</sup>
	High frequency	10		mV/m-Hz <sup>1/2</sup>
	Low frequency	5		mV/m-Hz <sup>1/2</sup>
Cut-off Frequency	Ultra-high frequency	20		MHz
	High frequency	10		MHz
	Low frequency	5 <sup>[2]</sup>		Hz
Maximum detectable E-field <sup>[3]</sup>		200		kV/m
Damage E-field			5	MV/m
Package Dimension		See design		

[1] Defined by measuring with a 1550nm laser at 20mW and 100MHz

[2] Sensitivity drops significantly at  $f < 50\text{Hz}$

[3] Possible to be increased, please contact us

## Features

- No metal parts
- Passive
- Miniature
- Optical fiber readout
- High shock/vibration resistance
- High sensitivity
- Wide bandwidth
- High damage threshold

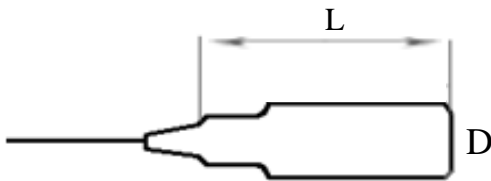
## Applications

Test & evaluation of HPM, HRI and EMP systems, such as Active Denial Systems & PAA radars



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## Mechanical Dimensions (mm)



L = 50mm (High-frequency)  
 = 40mm (Low-frequency)

D = 8mm in diameter (High-frequency)  
 = 5mm in square (Low-frequency)

\*Product dimensions may change without notice. This is sometimes required for non-standard specifications.

## Ordering Information

EOFS-	<input type="checkbox"/>	<input type="checkbox"/>	2	<input type="checkbox"/>	<input type="checkbox"/>	1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Type	Configuration	Package	Fiber Type <sup>[1]</sup>			Fiber Length	Connector		
11 = High freq (7GHz) 12 = Low freq (250MHz) 18 = Ultra-high freq (18GHz)	2: Reflective	Standard =1 Special =0	Bare fiber=1 900µm loose tube=3 Special=0	Panda PM for input = 1	MM fiber 62.5/125 =1 SMF-28 = 2 For output fiber	0.25m =1 0.5m = 2 1.0m = 3 Special=0	None = 1 FC/PC = 2 FC/APC = 3 SC/PC = 4 SC/APC = 5 ST/PC = 6 LC = 7 Special = 0		

[1]. For ultra-high frequency version, the output fiber must be SMF-28.