Radiation Sensing Fibers

For radiation sensing in all radiation sensitive area: high energy physics, nuclear power plants, space, medical labs

Radiation sensing is of prime importance in many challenging areas such as high energy physics laboratory, medical labs and even in space for both equipment and personnel protection. Radiation measurement through point by point detectors can be cumbersome and become extremely costly for vast laboratories. Radiation mapping through distributed measurement technology literally replaces potentially tens or hundreds of point detectors by a single optical fiber cable running through your facility. Optical fiber based radiation sensing is thus a a real game-changer.

More fibers are available on stock and we have furthermore the ability to custom design your fiber based on your specific application. Do not hesitate to contact us with your specific technical requirements.

Key Features

- Distributed radiation measurement
- Personnel protection
- Outstanding mechanical protection

Applications

- High energy physics laboratory
- Medical
- Nuclear facilities

Main Specifications

Product Name	Core NA	Coating diameter (µm)	MFD	Attenuation @ 1310 nm (dB/km)	Attenuation @ 1550 nm (dB/km)	Cutoff wavelength (nm)	Core/ clad offset (µm)	Outside cladding diameter (µm)	Proof test level (kpsi)
IXF-RAD-SENSE-SM-1550	0.17 +/- 0.01	245 +/- 15	8+/- 1	< 1.5	< 2.5	< 1250	> 1	125 +/- 1	100

- Coating material: Acrylate (other coating can be applied)
- Operating temperature range: -40 / +80 °C
- Sensitivity coefficient *: 4 $dB.m^{-1}.Gy^{-1}$
- Reduced cladding diameter version available (80 µm)

* Calibrated using Co^{60} sources