

FSOD1

Free Space Optical Detector



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The **FSOD1 Free Space Optical Detector** is a fibre-coupled optical detector for the reception of optical free space communication. The detector features a highly responsive InGaAs avalanche photodiode (APD) with fibre coupled input. The amplified and limited output make it suitable for receiving hard-

decision on-off-keying signals. Built in a 19" rack mount housing both a frontpanel user interface and network access via SNMP and HTTP interface provide easy integration into satellite ground station infrastructures.

Optical signal input:	Diode: Fibre input: Connector: Peak sensitivity wavelength: Wavelength range: O3K symbol rate: Max. sensitivity:	InGaAs APD 50 µm multimode FC/APC 1550 nm <i>w/ option L1550</i> Contact factory for other wavelengths. 1000...1630 nm <i>w/ option L1550</i> 100 Msps <i>w/ option S100M</i> Filter bandwidth is matched to specified symbol rate to optimize sensitivity. Contact factory for other rates. < -47.6 dBm @BER 1E-3 < -47.3 dBm @BER 1E-4 < -46.8 dBm @BER 1E-5 < -45.8 dBm @BER 1E-6 < -45.0 dBm @BER 1E-7 < -43.5 dBm @BER 1E-8 Values apply for peak sensitivity wavelength and matched symbol rate.
Electrical signal output:	Connector: Signal: Amplitude:	SFP+ amplified and limited output of the diode as differential signal on SFP+ TX pair 1.7 V Vpp
Frontpanel interface:	LCD-Display 2x40 characters, 4 cursor keys, 4 function keys	
Remote monitoring and control:	Protocol: Connection: Protocol: Connection:	SNMP UDP/IP over Ethernet/RJ-45 HTTP web browser interface TCP/IP over Ethernet/RJ-45
Temperature range:	Operating: Storage: Relative humidity:	0°C...50°C -30°C...80°C < 95% non condensing
Mains power:	Input: Consumption: Connector: Fuse:	100...240 V AC nominal, 90...264 V AC max, 50...60 Hz 20 VA / 15 W typical IEC C14 2x 2.5 A time-lag fuse
Dimension and weight:	483 x 44 x 505 mm ³ (WxHxD), 1 RU 19" approx. 3 kg	

Specifications are subject to change

Order information:

FSOD1 Free Space Optical Detector

Hardware options:

Hardware options have to be defined with the order and are not field-upgradable. Not all device types may support all combinations. Contact factory with specific requests.

L1550 1550 nm peak sensitivity wavelength
S100M 100 Msps symbol rate filter bandwidth