VIAVI Solutions

Data Sheet

VIAVI

Nano and Micro iOTDR Cards

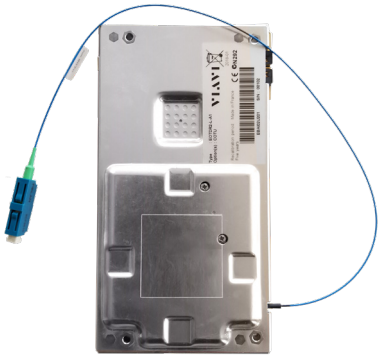
Medium and Long Range Integrated OTDR Fiber Testing Solutions

Gain a competitive advantage with the compact, easy to integrate VIAVI iOTDR™ cards and software. VIAVI iOTDR cards provide NEMS with the capability to help customers accurately locate fiber faults that degrade network traffic. Ensure high availability network services by identifying physical faults causing latency, jitter service quality issues and network outages. Protect data by detecting fiber security intrusion attacks.

VIAVI has specialized in OTDR design and production for over 30 years. VIAVI OTDRs offer unparalleled accuracy, ease of use and reliability that has been proven in rugged, portable instruments, rack mounted remote fiber test equipment and network elements. Select from our range of OTDR wavelengths, dynamic ranges and performance qualities to offer your customer the optimal solution for their in-service test applications.

Delivery of accurate, economical, low power, and easy to use OTDR technology requires years of experience, including an extensive software expertise in OTDR algorithms and user interface simplification to formulate an iOTDR card that is easy to implement for the non-OTDR expert.

Nano iOTDR card



Micro IOTDR card

- Accelerate your iOTDR integration design process by leveraging VIAVI professional services expertise to assist while you integrate and test the Nano or Micro iOTDR cards within a larger system.
- Provide an exceptionally accurate, reliable, low power, low cost, integrated OTDR. Offer in-service test and monitoring routines to characterize fiber, identify faults, detect intrusion attacks and track fiber degradation for preventative maintenance.

Features

- Medium or long distance OTDRs
- Short dead zone
- In-service fiber testing
- Controlled via Ethernet interface
- Large software library
- High distance accuracy
- Support from VIAVI OTDR experts for your development team
- For use in PON, XGS-PON, 5G, DWDM, CWDM and dark fiber testing

Applications

- Fiber characterization
- Fiber monitoring
- Tapping security intrusion detection
- Fault demarcation
- Raman amplified link test

Specifications Nano iOTDR card for Medium Range integrated OTDR – (typical at 25°C)

General	
Dimensions	98.5 x 67.5 x 16.5 mm
Operating temperature	-5 to 65°C
Storage temperature	-40 to 85°C
Humidity	5 to 85% without condensing
EMC	EN61326-1, EN6100-3-2
Interfaces	Ethernet 10/100/1000
OTDR	
Laser Safety	Class 1
Number of data points	Up to 512,000
Sampling resolution	From 4 cm
Distance range	Up to 260 Km
Distance accuracy	+/-1m +/- Sampling resolution +/- distance * 10-5
OTDR Range Details	**Medium Range**
Wavelength[1] (nm)	1610 nm
Wavelength accuracy[1] (nm)	+/-5
Dynamic range[2] (dB)	32
Pulse width	10 ns to 10 µs
Event dead zone[3] (m)	1.5
Attenuation dead zone[4] (m)	5

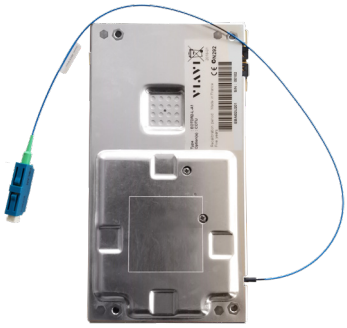
[1]Laser at 25°C and measured at 10 µs.

[2]The one way difference between the extrapolated backscattering level at the start of the fiber and the RMS noise level, after 3 minutes averaging and using the largest pulse width.

[3]Measured at ±1.5 dB down from the peak of an unsaturated reflective event using the shortest pulse width.

[4]Measured at ±0.5 dB from the linear regression using a -55dB type reflectance and using the shortest pulse width.

Specifications Micro iOTDR card for Medium or Long Range integrated OTDR – (typical at 25°C)



General		
Dimensions	190 x 170 x 16.5 mm	
Operating temperature	-5 to 65°C	
Storage temperature	–20 to 85°C	
Humidity	85% without condensing	
EMC	EN61326-1, EN6100-3-2	
Interfaces	Ethernet 10/100/1000	
OTDR		
Laser Safety	Class 1	
Number of data points	Up to 512,000	
Sampling resolution	From 4 cm	
Distance range	Up to 260 Km	
Distance accuracy	+/-1m +/- Sampling resolution +/- distance * 10-5	
OTDR Range Details	**Medium Range**	**Long Range**
Wavelength[1] (nm)	1625 nm	1610 or 1626 nm
Wavelength accuracy[1] (nm)	+/-3	+/-3
Dynamic range[2] (dB)	37	40
Pulse width	5 ns to 20 µs	5ns to 20 µs
Event dead zone[3] (m)	1	0.8
Attenuation dead zone[4] (m)	3.5	3

[1]Laser at 25°C and measured at 10 µs.

[2]The one way difference between the extrapolated backscattering level at the start of the fiber and the RMS noise level, after 3 minutes averaging and using the largest pulse width.

[3]Measured at ±1.5 dB down from the peak of an unsaturated reflective event using the shortest pulse width.

[4]Measured at ±0.5 dB from the linear regression using a -55dB type reflectance and using the shortest pulse width.

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