

Fiber Optic Cable Production Measurement System

Key Benefits

- High-performance desktop optical cable tester
- With broad dynamic range coverage (up to 43 dB), accurately test fibers within distances up to 180km
- Excellent short-distance performance with $\leq 1\text{m}$ event deadzone and $\leq 5\text{m}$ attenuation deadzone
- Test with up to 4 optical ports simultaneously
- Numerous data transfer options: supports LAN, USB, SD, & more



Overview

Developed by Deviser Instruments, the OM1000 is a 4-port, all-range fiber-optic cable tester for desktop use. The OM1000 represents a comprehensive solution for cable production, processing, testing, and inspection tasks in any laboratory environment. With test specifications based on Deviser's extensive line of OTDR products, the OM1000 boasts high integration and real-time analysis & processing at excellent cost-performance.

Specifications

Optical Parameters					
Wavelength	1310nm	1550nm	850nm	1300nm	1383nm (option)
Mode	Singlemode	Singlemode	Multimode	Multimode	Multimode
Dynamic range*	30 ~ 43 dB	28 ~ 41 dB	25 dB	27 dB	25 ~ 35 dB
Wavelength accuracy	$\pm 5\text{ nm}$				$\pm 2\text{ nm}$
Spectral width	$< 10\text{ nm}$				$< 0.4\text{ nm}$
Measurement range	1.5km ~ 200km		1.5km ~ 25km		

Optical Parameters	
Event deadzone**	$\leq 1\text{ m}$
Atten. deadzone**	$\leq 5\text{ m}$
Pulse width	SM 3ns, 5ns, 10 ns, 20 ns, 50 ns, 100 ns, 200 ns, 500 ns, 1 μ s, 2 μ s, 5 μ s, 10 μ s, 20 μ s
	MM 5ns, 10ns, 20ns, 50ns, 100ns, 200ns, 500ns, 1 μ s
Sampling resolution	5cm ~ 12.8m
Group refractive index	1.000000 ~ 2.000000
Distance uncertainty	$\pm (0.75 + 0.0001\% \times \text{fiber length} + \text{sample resolution})$
Loss resolution	0.01 dB/km
Distance display range	30m ~ 400km @ full screen
Power display range	0.6 dB ~ 60 dB @ full screen
Power resolution ratio	0.01 dB
Test items	Event loss; reflection loss; attenuation; attenuation coefficient; RMS; peak-peak noise; ORL

General Specifications	
Processor	Intel® Core™ Ivy Bridge / Sandy Bridge processors in LGA1155 encapsulation, and 800 / 1066 / 1033 MHz FSB bus frequency
Interface	Display VGA
	USB 6x USB 2.0; DC 5V \pm 0.05V @ 500mA
	LAN 1x RJ45 LAN (10M/100M/1000M). Supports Wake on LAN. Extra LAN port optional.
Laser safety compliance	IEC 60825-1 CLASS 1M
Optical test standards	•IEC 605793-1-22 (-40/-45) •TIA/EIA FOTP-59 (60/61) •ITU-T G650
Operating temperature	-10°C ~ +50°C
Storage Temperature	-40°C ~ +70°C
Relative Humidity	0 ~ 95%, non-condensing
Dimensions (LxWxH)	14.6" x 20.7" x 8.1" (370mm x 525mm x 205mm)
Weight	36.4 lbs (16.5 kg)

* At 25°C \pm 5°C, 20 μ s pulse width, 3min average time, starting backscatterer value SNR = 1.
** At 25°C \pm 5°C, 5ns pulse width, non-saturated reflective event, 5cm distance accuracy.

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