



SmartClass™ Optical Power Meter

OLP-57

Viavi Solutions SmartClass optical handhelds go beyond the basics

With more than 100,000 optical handhelds already in use, Viavi continues the success story with the SmartClass optical handhelds. The SmartClass help your network move to the next level of performance. SmartClass optical handhelds encompass a new, intelligent, and next level product line for testing all optical signals and systems, including broadband, PONs, and Gigabit Ethernet.

All of the SmartClass optical handhelds provide:

- An extended number of calibration wavelengths for the highest performance range in the industry.
- The intuitive user interface for fast, easy, and straightforward operation.
- The intelligent power supply management system
- The belt bag for safe and hands-free operation and transport.
- A USB port for remote operation as well as easy Microsoft Excel™-based report generation and analysis.
- Traceable measurements to international standards for confidence in accuracy.
- A robust, shock-proof, and splash-proof design for field operation.
- Quick start operation, requiring no warm-up time thus reducing test time.

The SmartClass OLP-57 (selective optical power meter) for FTTX/PON is a high-performance power meter for testing, installing, and maintaining FTTX/PON systems. Its through-mode allows simultaneous measurement at all three wavelengths on the fiber, 1490 and 1550 nm downstream and 1310 nm upstream. The 1310 nm channel provides correct power measurements of burst type upstream PON signals.

Key Benefits

- The market's first BPON/EPON/GPON optical power meter
- Selective FTTX power meter with through mode, measuring at all three wavelengths 1490 nm, 1550 nm and 1310 nm in an FTTX/PON system simultaneously.
- Easy pass/fail analysis via multiple-user adjustable thresholds per wavelength. Ten pre-defined, user-adjustable sets are provided.
- Illuminated graphical user interface (GUI) displays all necessary parameters and up to three test results simultaneously.
- Data transfer via USB interface.
- Burst mode function for 1310 nm upstream.
- Visual fault locator option at 635 nm
 - Economical option for fiber tracing, routing, and continuity checking
 - Universal push-pull adapter 2.5 mm (1.25 mm adapter optional)
- Host USB data storage option
 - Unlimited result storage capacity via USB memory sticks
 - Easy and quick data transfer of stored measurement results

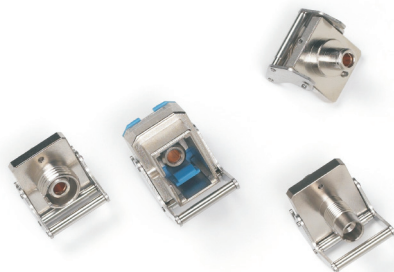
Accessories



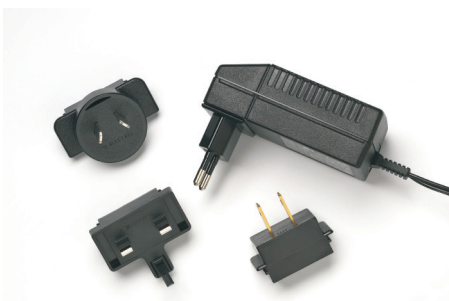
OCK-10 Optical Connector Cleaning Kit (accessory)



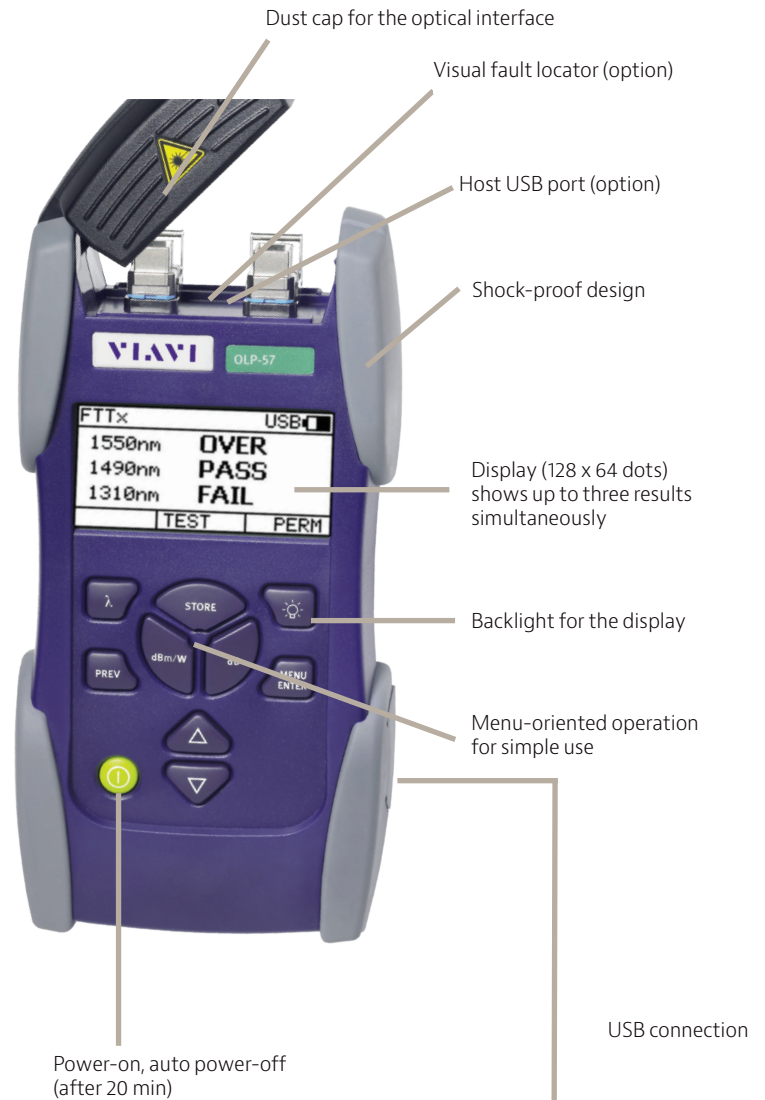
OIM-400 Fiber Microscope



Optical adapters (BN 2150)



Worldwide compatible AC adapter/charger (SNT-121A)



VIavi		Connect		Download		Copy .. Print .. Save ..			
OFS-355 Download Manager		USB (COM 3)		Downloading 3 results... 3		Reset ..			
Return Loss Meter ORL-55/01.00				Converting 3 results... 3		Clear ..			
SN: FM-0006		SW: V03.00		Ready					
Group	Meas	Date	Time	$\lambda 1$ nm	Level @ $\lambda 1$	Unit	$\lambda 2$ nm	Level @ $\lambda 2$	Unit
1	1	22 Sep. 2005	10:41:49	1310	14,23	dB	1550	14,11	dB
1	2	22 Sep. 2005	10:42:56	1310	35,18	dB	1550	34,89	dB
1	3	22 Sep. 2005	10:43:16	1310	14,23	dB	1550	14,11	dB
1	4	22 Sep. 2005	10:44:00	1310	35,18	dB	1550	34,89	dB
1	5	22 Sep. 2005	10:45:09	1310	15,63	dB			
1	6	22 Sep. 2005	10:46:14	1550	18,58	dB			
1	7	22 Sep. 2005	10:47:14	1310	14,22	dB			
1	8	22 Sep. 2005	10:48:32	1550	16,32	dB			

OFS-355 Optical Fiber Assistant Software –
Free PC documentation software

Specifications

FTTx wavelength selective characteristics ¹	
Measurement of 1310 nm (upstream)	
Pass band	1260 to 1360 nm
Isolation of 1490/1550 nm bands	>40 dB
Max. permitted input level	+17 dBm
Measurement range	+13 to -40 dBm
Measurement of 1490 nm (downstream)	
Pass band	1480 to 1500 nm
Isolation of 1550 nm band	>45 dB
Isolation of 1310 nm band	>45 dB
Max. permitted input level	+15 dBm
Measurement range	+13 to -50 dBm
Measurement of 1550 nm (downstream)	
Pass band	1535 to 1565 nm
Isolation of 1490 nm band	>45 dB
Isolation of 1310 nm band	>40 dB
Max. permitted input level	+22 ⁷ dBm
Measurement range	+26 to -50 dBm
Measurement Accuracy	
Intrinsic uncertainty ^{2, 3, 4}	± 0.5 dB
PDL	<± 0.25 dB
Linearity ^{2, 5}	± 0.06 dB
Through path insertion loss ^{2, 4}	<1.5 dB at 1490, 1550 nm <2.0 dB at 1310 nm
Memory	
Data memory	1000 measurement results
Data readout/remote control	via client USB interface
Data storage (option)	via host USB interface
General Data	
Display	Illuminated graphical display, resolution 128 × 64 dots
Results displayed in	dBm, dB, mW, μW, pass/fail
Resolution ⁶	0.01 dB/0.001 μW
Backlight function	
Optical Interface	
Fiber type Optical connector interchangeable adapter from BN 2150/00.xx range 2.5-mm plugs: FC, ST, SC, DIN 1.25-mm plugs: LC, MU adapter	9/125 μm

Power Supply	
Dry batteries	4 × Mignon (AA) 1.5 V or NiMH rechargeable cells Mignon (AA) 1.2 V
Operating time from dry batteries Typical	35 h (ECON mode)
Batteries/NiCD/NiMH power saving: The instrument switches off automatically after ~20 min (function can be disabled)	
AC line operation via separate AC adapter	
Integrated fast battery charging function (2 h)	
External 12 V DC operating via an AC adapter	
Electromagnetic compatibility	
Corresponds to EN 50081-1 and EN 50082-1 (CE conformance)	
Calibration	
Suggested calibration interval 3 years	
Ambient temperature	
Normal range of use	-10 to +55°C
Storage and transport	-40 to +70°C
Dimensions and weight	
W × H × D approx.	95 × 60 × 195 mm (3.74 × 2.36 × 7.68 in)

1. Isolation is defined as rejection of neighbor signals in relation to the measurement signal.
2. Under reference conditions at 23°C ± 3°, wavelength 1310/1490/1550 nm ± 2 nm, CW signal.
3. At -7 dBm, including uncertainty of input connector
4. With DIN connector
5. +15 to -30 dBm at 1490 nm, 1550 nm
+10 to -20 dBm at 1310 nm upstream
+10 to -40 dBm at broadband mode (only versions 2289/04 and 2289/24)
6. For power > -40 dBm
7. In order to maintain Hazard Level 1 M at the upstream port, the 1550 nm downstream input level is limited to the specified value.

Ordering Information

Instrument	Order Number
SmartClass OLP-57 Through mode: 1310 nm, 1490 nm, 1550 nm, /PC interface	BN 2289/03
SmartClass OLP-57 Through mode: 1310 nm, 1490 nm, /PC interface, with broadband power meter mode	BN 2289/04
SmartClass OLP-57 Through mode: 1310 nm, 1490 nm, 1550 nm, /APC interface	BN 2289/23
SmartClass OLP-57 Through mode: 1310 nm, 1490 nm, /APC interface, with broadband power meter mode	BN 2289/24
Option	
Visual Fault Locator	BN 2252/90.10
USB Data Storage (memory stick not in scope of delivery)	BN 2277/90.06

OFS-355 Optical Fiber Assistant Software

Free PC documentation software (available from http://www.viavisolutions.com/global/customer_care/Software_Updates/index.html)

Included with the SmartClass OLP-57

Two interchangeable adapters from BN 2150/00.xx range , four dry batteries Mignon/AA, 1.5 V, operating manual, MT-1S belt bag

Accessories

Instrument	Order Number
Universal Optical Adapter ST	BN 2150/00.32
Universal Optical Adapter DIN 47256	BN 2150/00.50
Universal Optical Adapter FC-PC, FC-APC	BN 2150/00.51
Universal Optical Adapter SC-PC, SC-APC	BN 2150/00.58
Universal Optical Adapter LC	BN 2150/00.59
OCK-10 Optical Connector Cleaning Kit	BN 2229/90.21
Optical cleaning tape	BN 2229/90.07
Spare tape for optical cleaning tape	BN 2229/90.08
NiMH cell Mignon/AA, 1.2 V (4 required per instrument)	BN 2237/90.02
SNT-121A Worldwide compatible AC adapter	BN 2277/90.01
USB connection cable	K804
MT-1S belt bag for one instrument	BN 2277/90.02
MT-2S soft bag for two instruments	BN 2126/03
MT-3S soft bag for three instruments	BN 2126/04
MK-3S hard case for three instruments	BN 2093/31
Calibration Report	BN 2289/90.01
Accessories for visual fault locator option	
Adapter for 1.25 mm UPP	BN 2252/02
	
Adapter from 2.5 mm UPP to LC (1.25 mm)	S3122
	

Detailed information regarding test adapters, cables, and fiber optic sleeves can be found in a separate datasheet entitled "Viavi Fiber Optic Test Adapters and Cables".



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