

OLP-57 SMART Optical Power Meter

FTTx/PON Selective Optical Power Meter



Key features

- 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.
- Universal adapter system (BN 2150/00.xx) for 2.5 mm and 1.25 mm connectors available.
- 4 AA size batteries for long operating time.
- Data transfer via USB interface.
- Burst mode function for 1310 nm upstream.

JDSU SMART optical handhelds go beyond the basics

With more than 70,000 optical handhelds already in use, JDSU continues the success story with the SMART optical handhelds. The SMART class help your network move to the next level of performance. JDSU's SMART 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 JDSU's SMART optical handhelds provide:

- An extended number of calibration wavelengths for the highest performance range in the industry.
- The SMARTStar user interface for fast, easy, and straightforward operation.
- The SMARTEnergy power supply management system.
- The SMARTBag 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 **JDSU OLP-57 SMART 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 nm and 1550 nm downstream and 1310 nm upstream. The 1310 nm channel provides correct power measurements of burst type upstream PON signals.



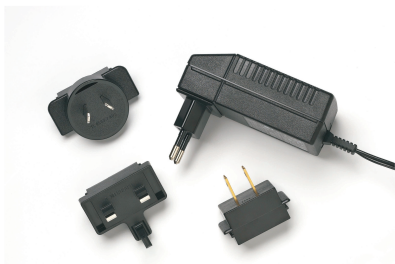
OCK-10 Optical Connector Cleaning Kit (accessory)



OV-1 Visual Fault Locator (accessory)



Optical adapters (BN 2150)



Worldwide compatible AC adapter (SNT-121A)



Dust cap for the optical interface

Shock-proof design

Display (128 x 64 dots) shows up to three results simultaneously

Backlight for the display

Menu-oriented operation for simple use

Power-on, auto power-off (after 20 min)

USB connection

JDSU
OFS-355 Download Manager

SN: FM-0006 SW: V03.00

Connect: USB (COM 3)

Download: Downloading 3 results... 3
Converting 3 results... 3

Copy .. Print .. Save ..
Reset .. Clear ..

Group	Meas	Date	Time	λ1 nm	Level @ λ1	Unit	λ2 nm	Level @ λ2	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

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Specifications

FTTx wavelength selective characteristics⁽¹⁾

Measurement of 1310 nm (upstream)

Pass band	1260 to 1360 nm
Isolation of 1490/1550 nm bands	>50 dB
Max. permitted input level	+17 dBm
Measurement range	+10 to -35 dBm

Measurement of 1490 nm (downstream)

Pass band	1480 to 1500 nm
Isolation of 1550 nm band	>50 dB
Isolation of 1310 nm band	>50 dB
Max. permitted input level	+15 dBm
Measurement range	+10 to -50 dBm

Measurement of 1550 nm (downstream)

Pass band	1530 to 1570 nm
Isolation of 1490 nm band	>50 dB
Isolation of 1310 nm band	>50 dB
Max. permitted input level	+26 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

Memory

Data memory	1000 measurement results
Data readout/ remote control	via 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	9/125 μm
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

Power supply

Dry batteries	4 × Mignon (AA) 1.5 V or NiMH rechargeable cells Mignon (AA) 1.2 V
Operating time from dry batteries	
Broadband mode	>60 h ⁽⁷⁾

Burst	>35 h
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
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Ambient temperature

Normal range of use	-10°C to +55°C
Storage and transport	-40°C to +70°C

Dimensions and weight

W × h × d approx.	95 × 60 × 195 mm (3.74 × 2.36 × 7.68 in)
Weight approx.	~500 g (1.1 lb)

- (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) Only for versions 2289/04 and 2289/24

Ordering Information

Ordering number Instrument

BN 2289/03 JDSU OLP-57
Through mode: 1310 nm, 1490 nm, 1550 nm, /PC interface

BN 2289/04 JDSU OLP-57
Through mode: 1310 nm, 1490 nm, /PC interface, with broadband power meter mode

BN 2289/23 JDSU OLP-57
Through mode: 1310 nm, 1490 nm, 1550 nm, /APC interface

BN 2289/24 JDSU OLP-57
Through mode: 1310 nm, 1490 nm, /APC interface, with broadband power meter mode

OFS-355 Optical Fiber Assistant Software

Free PC documentation software (available from http://www.jdsu.com/test_and_measurement/customer_care/software_updates/index.html)

Included with the 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

Ordering number Accessories

BN 2150/00.32 Universal Optical Adapter ST

BN 2150/00.50 Universal Optical Adapter DIN 47256

BN 2150/00.51 Universal Optical Adapter FC-PC, FC-APC

BN 2150/00.58 Universal Optical Adapter SC-PC, SC-APC

BN 2150/00.59 Universal Optical Adapter LC

BN 2229/90.21 OCK-10 Optical Connector Cleaning Kit

BN 2229/90.07 Optical cleaning tape

BN 2229/90.08 Spare tape for optical cleaning tape

BN 2237/90.02 NiMH cell Mignon/AA, 1.2 V (4 required per instrument)

BN 2277/90.01 SNT-121A Worldwide compatible AC adapter

K804 USB connection cable

BN 2277/90.02 MT-1S belt bag for one instrument

BN 2126/03 MT-2S soft bag for two instruments

BN 2126/04 MT-3S soft bag for three instruments

BN 2093/31 MK-3S hard case for three instruments

BN 2289/90.01 Calibration Report

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

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