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SmartClass™ OLP-57

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.
- 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

JDSU SmartClass optical handhelds go beyond the basics

With more than 100,000 optical handhelds already in use, JDSU 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

Accessories

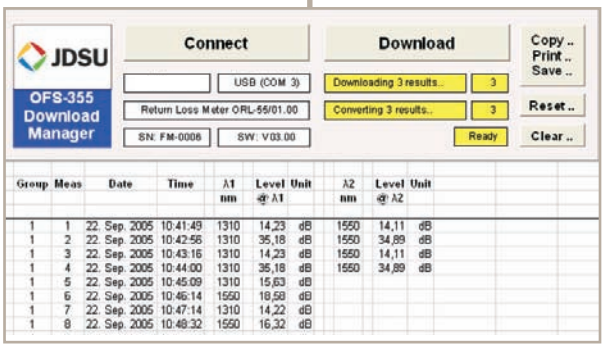
OCK-10 Optical Connector Cleaning Kit (accessory)

OIM-400 Fiber Microscope

Optical adapters (BN 2150)

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

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.



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 @ 1490, 1550 nm <2.0 dB @ 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	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	
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°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) In order to maintain Hazard Level 1 M at the upstream port, the 1550 nm downstream input level is limited to the specified value.

Accessories for visual fault locator option

BN 2252/02 Adapter for 1.25 mm UPP

S3122 Adapter from 2.5 mm UPP to LC (1.25 mm)

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

Order information

Order number	Instrument
BN 2289/03	SmartClass OLP-57 Through mode: 1310 nm, 1490 nm, 1550 nm, /PC interface
BN 2289/04	SmartClass OLP-57 Through mode: 1310 nm, 1490 nm, /PC interface, with broadband power meter mode
BN 2289/23	SmartClass OLP-57 Through mode: 1310 nm, 1490 nm, 1550 nm, /APC interface
BN 2289/24	SmartClass OLP-57 Through mode: 1310 nm, 1490 nm, /APC interface, with broadband power meter mode

Order number	Option
BN 2252/90.10	Visual Fault Locator
BN 2277/90.06	USB Data Storage (memory stick not in scope of delivery)

OFS-355 Optical Fiber Assistant Software

Free PC documentation software (available from http://www.jdsu.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

Order 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