SmartClass™ OLP-55

Optical Power Meter

Key Benefits

- The industry's first auto-zeroing function provides outstanding accuracy with no manual zeroing necessary
- Auto-lambda function provides automatic wavelength detection to speed up testing and avoid instrument setting failures
- TWINtest and new tripletest allows for simultaneous testing at multiple wavelengths
- Reflection trap reduces multiple reflections between adapter and photo diode for increased accuracy (adapter BN 2014/00.xx)
- FTTx ready
- 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 150,000 optical handhelds already in use, JDSU continues the success story with the SmartClass optical handhelds . The SmartClass helps your network move to the next level of performance. JDSU 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 SmartClass optical handhelds provide:

- Up to 900 selectable wavelengths for one of the highest performance ranges in the industry.
- A large storage capability for up to 1000 results with automatic date/time stamp on built-in memory.
- An illuminated graphical display which shows up to 3 measurements simultaneously.
- Client USB port for remote operation as well as easy Microsoft Excel™-based report generation and analysis.
- Unique power supply management system with 4 different ways of powering the unit.
- Quick-start operation, requiring no warm-up time and reducing testing time.
- A robust, shock-proof, and splash-proof design for field operation.

Accessories

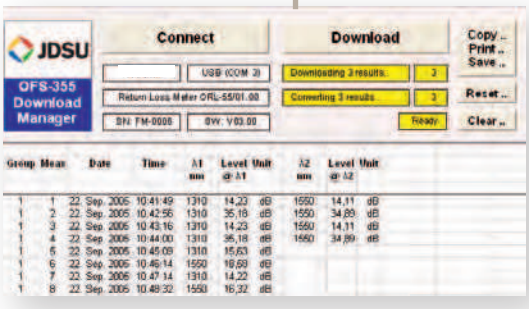
OCK-10 Optical Connector Cleaning Kit

OIM-400 Fiber Microscope

Optical adapters (BN 2014) for laser source output

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

The SmartClass OLP-55 is a high-performance power meter for testing, installing, and maintaining singlemode and multimode cables and networks. It creates a new industry standard in accuracy with its unique built-in auto-zeroing function for auto dark current compensation, allowing for increased accuracy in measurements.



OFS-355 Optical Fiber Assistant Software
Free PC documentation software

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Specifications

	General Purpose BN 2277/01 and /11	High Sensitivity BN 2277/02	High Power (26 dBm) BN 2277/03	Ultra High Power (30 dBm) BN 2277/04
Wavelength range	780 to 1650 nm in 1 nm increments	800 to 1700 nm in 1 nm increments	800 to 1700 nm in 1 nm increments	800 to 1700 nm in 1 nm increments
Number of selectable wavelengths	870	900	900	900
Calibrated wavelength		850, 1310, 1550, 1625 nm		
Photo diode	Germanium (GE)	InGaAs	filtered InGaAs	filtered InGaAs
Fiber type	9/125 to 100/140 µm	9/125 to 62.5/125 µm	9/125 to 62.5/125 µm	9/125 to 62.5/125 µm
Display range	–70 to +20 dBm	–80 to +15 dBm	–60 to +26 dBm	–60 to +30 dBm
Max. permitted level	+20 dBm	+15 dBm	+26 dBm	+30 dBm
Intrinsic uncertainty(1)	± 0.13 dB (± 3%)	± 0.13 dB (± 3%)	± 0.13 dB (± 3%)	± 0.13 dB (± 3%)
Overall measurement uncertainty(2)	–60 to +18 dBm 850 nm ± 0.25 dB ± 0.8 nW 1300, 1310 nm ± 0.2 dB ± 0.2 nW 1550 nm ± 0.4 dB ± 0.2 nW 1625 nm(1) ± 1.5 dB (typ.) ± 0.6 nW	–70 to +11 dBm 850 nm ± 0.3 dB ± 0.15 nW 1300, 1310 nm ± 0.2 dB ± 0.02 nW 1550 nm ± 0.2 dB ± 0.02 nW 1625 nm ± 0.4 dB ± 0.02 nW	–47 to +26 dBm 850 nm ± 0.33 dB ± 25 nW 1300, 1310 nm ± 0.25 dB ± 4 nW 1550 nm ± 0.25 dB ± 4 nW 1625 nm ± 0.5 dB ±4 nW	–47 to +30 dBm 850 nm ± 0.33 dB ± 25 nW 1300, 1310 nm ± 0.25 dB ± 4 nW 1550 nm ± 0.25 dB ± 4 nW 1625 nm ± 0.5 dB ± 4 nW

(1) Under reference conditions: –20 dBm (CW), 1310 nm ± 1 nm, 23°C ± 3K, up to 75% relative humidity, 9 to 50 µm test fiber with DIN connector
(2) From –5 to +45°C

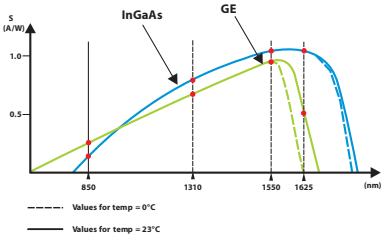

Photo diodes are used for conversion. They have different spectral characteristics, depending on the type of semiconductor. Germanium (GE) and Indium Gallium Arsenide (InGaAs) diodes, are suitable for broadband signaling in the second, third and fourth optical window, where their sensitivity is highest. GE diodes, which are used as a low-cost variant in all four windows, are the most sensitive to temperature. Choosing the correct wavelength and a sufficiently large dynamic range for the optical laser source and receiver are crucial to the precision of the measurement results.

General

Modulation detection (fiber detection)	270 Hz, 1 kHz, 2 kHz
Auto-lambda (λ) detection:	850 to 1650 nm

Memory

Data memory	1000 measurement results
Data readout/remote control	via client USB interface
USB data storage (option)	via Host USB interface

Display

Graphical display, resolution of 128 × 64 dots,
displays up to three power readings simultaneously

Resolution	0.01 dB/0.001 µW
Results displayed in	dBm, dB, mW, µW

Backlight function switchable via a separate key

Optical connector

Optical connector interchangeable adapter from BN 2014/00.xx range for flat or angled connectors
2.5-mm plugs: FC, ST, SC, DIN, E2000
1.25-mm plugs: LC, MU adapter

Power supply

Four dry batteries Mignon/AA,
1.5 V or NiMH rechargeable cells Mignon/AA, 1.2 V

Operating time from dry batteries	>100 h

Batteries/NiCd/NiMH power saving:
The instrument switches off automatically after ~20 min (can be disabled)
AC line operation via separate AC adapter
Integrated fast battery charging function (2 hours)

Electromagnetic compatibility

Corresponds to IEC 61326 (CE conformance)

Calibration

Suggested calibration interval	3 years

Ambient temperature

Nominal range of use	–10 to +55°C
Storage and transport	–40 to +70°C

Dimensions and weight

W × H × D	approximately 95 × 60 × 195 mm (3.74 × 2.36 × 7.68 in)
Weight	approximately 500 g (1.1 lb)

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 2277/01 and /11	SmartClass OLP-55 GE diode, general purpose
BN 2277/02	SmartClass OLP-55 InGaAs diode, high sensitivity
BN 2277/03	SmartClass OLP-55 InGaAs diode, high power (26 dBm)
BN 2277/04	SmartClass OLP-55 InGaAs diode, ultra high power (30 dBm)

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)

Included with the SmartClass OLP-55

Interchangeable adapter from BN 2014/00.xx range, four dry batteries Mignon(AA) 1.5 V, MT-1S belt bag, and an operating manual

Order Number	Accessories
BN 2014/00.21	Optical adapter ST type
BN 2014/00.24	Optical adapter SC type
BN 2014/00.09	Optical adapter FC type
BN 2014/00.17	Optical adapter DIN type
BN 2014/00.26	Optical adapter E-2000 type
BN 2014/00.27	Universal push/pull adapter for DIN, FC, SC, ST
BN 2014/00.28	Universal push/pull adapter for LC, MU
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 cells, 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 2092/31	MK-3S hard case for three instruments
BN 2277/90.03	Calibration Report

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