JDSU

SmartClass™ OLS-55 and OLS-56
Optical Laser Sources

Key Features

- Laser source with up to four wavelengths offers flexibility in single-mode and multimode applications

- Output level adjustment ensures correct power for individual applications

- Communication with JDSU power meters for auto-lambda, TWINtest, and TRIPLEtest functions

- High output level stability due to built-in optical isolator and optical power control

- 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)

JDSU SmartClass optical handhelds go beyond the basics

With more than 100,000 optical handhelds already in use, JDSU continues its success story with the SmartClass of 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 JDSU SmartClass optical handhelds provide:

- An extended number of calibration wavelengths for the highest performance range in the industry
- An intuitive graphical user interface for fast, easy, and straightforward operation
- An intelligent power supply management system
- A bag for safe and hands-free operation and transport
- A USB port for remote operation
- A robust, shock-proof, and splash-proof design for field operation

The SmartClass OLS-55 and OLS-56 (optical laser sources) are available in different versions for different applications, offering greater flexibility for testing, installing, and maintaining single-mode and multimode optical networks. The SmartClass OLS-55 and OLS-56 is designed for optimal use with the JDSU SmartClass power meter portfolio.
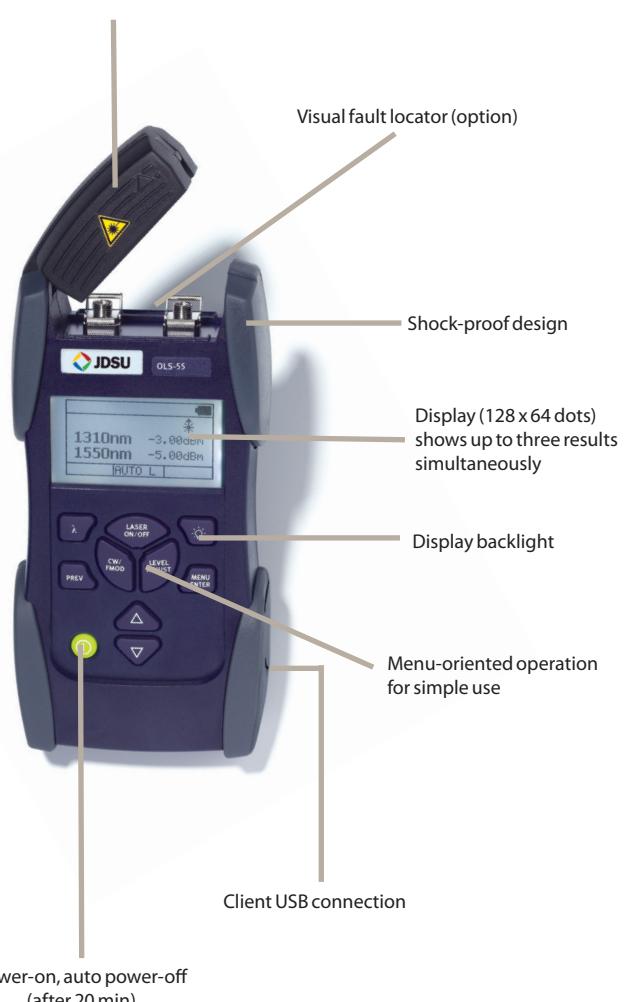
Accessories

OCK-10 Optical Connector Cleaning Kit

OIM-400 Fiber Microscope

Optical adapters (BN 2150) for laser source output

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

Dust cap to protect the optical interface

Visual fault locator (option)

Shock-proof design

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

Display backlight

Menu-oriented operation for simple use

Client USB connection

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

3

Specifications

	SmartClass OLS-55 BN 2279/02	SmartClass OLS-55 BN 2279/02	SmartClass OLS-55 BN 2279/03	SmartClass OLS-55 BN 2279/04	SmartClass OLS-56 BN 2279/05
Nominal wavelengths[1]	1310 and 1550 nm	1310, 1550, and 1625 nm	1310, 1490, and 1550 nm	1490, 1625 nm	850, 1300, 1310, and 1550 nm
Spectral width (RMS)	5 nm	5 nm	5 nm	5 nm	5 nm
Number of ports	Single port	Single port	Single port	Single port	Dual port
Fiber type	9/125 µm	9/125 µm	9/125 µm		9/125, 50/125 µm
Output power range[2]	−7 dBm to 0 dBm, separately adjustable	−7 dBm to 0 dBm, separately adjustable	−7 dBm to 0 dBm,[5] separately adjustable	−7 dBm to −3 dBm separately adjustable	−7 dBm to 0 dBm, separately adjustable[6]
Resolution of power setting	0.01 dB	0.01 dB	0.01 dB	0.01 dB	0.01 dB
Signal stability[3]	Short term: ± 0.02 dB, within 15 min Long term: ± 0.2 dB, within 8 hrs	Short term: ± 0.02 dB, within 15 min Long term: ± 0.2 dB, within 8 hrs	Short term: ± 0.02 dB, within 15 min Long term: ± 0.2 dB, within 8 hrs	Short term: ± 0.02 dB, within 15 min Long term: ± 0.2 dB, within 8 hrs	Short term: ± 0.02 dB, within 15 min Long term: ± 0.2 dB, within 8 hrs
Output power accuracy (at nominal wavelengths)[2]	± 0.3 dB	± 0.3 dB	± 0.3 dB	± 0.3 dB	± 0.3 dB
Modes	Continuous wave (CW), modulated (270 Hz, 1 kHz, 2 kHz), Auto-λ[4] (signal coding for automatic power meter wavelength detection)	Continuous wave (CW), modulated (270 Hz, 1 kHz, 2 kHz), Auto-λ[4] (signal coding for automatic power meter wavelength detection)	Continuous wave (CW), modulated (270 Hz, 1 kHz, 2 kHz), Auto-λ[4] (signal coding for automatic power meter wavelength detection)	Continuous wave (CW), modulated (270 Hz, 1 kHz, 2 kHz), Auto-λ[4] (signal coding for automatic power meter wavelength detection)	Continuous wave (CW), modulated (270 Hz, 1 kHz, 2 kHz), Auto-λ[4] (signal coding for automatic power meter wavelength detection)

(1) ± 20 nm typically
(2) CW signal, T = 23°C ± 3 K, excluding connector uncertainty
(3) At ambient temperature range −10 to +55°C, ΔT = ± 0.3 K
(4) Works only with the JDSU OLP-55
(5) −7 to −3 dBm for 1490 nm
(6) 850 nm laser: output power is adjustable between -7 to -5 dBm

General Specifications

Fiber detection with different modulation frequencies (tone detection)

Remote control via USB interface

Display

Graphical display, resolution of 128 × 64 dots, displays up to four laser status screens

Backlight function switchable via a separate key

Optical interface

Optical connector interchangeable adapter from BN 2150/00.xx range is available in flat or angled physical contact systems

Power supply

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

Operating time[1] from dry batteries   >45 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 hrs)

Electromagnetic compatibility

Corresponds to IEC 61326 (CE conformance)

Calibration

Suggested calibration interval   3 yrs

Ambient temperature

Nominal range of use   −10 to +55°C

Storage and transport   −40 to +70°C

Dimensions and weight

W × H × D   95 × 60 × 195 mm (3.74 × 2.36 × 7.68 in)
Weight   500 g (1.1 lb)
(1) One wavelength active, output power −7 dBm

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 2279/01	SmartClass OLS-55 (1310/1550 nm, PC)
BN 2279/21	SmartClass OLS-55 (1310/1550 nm, APC)
BN 2279/02	SmartClass OLS-55 (1310/1550/1625 nm, PC)
BN 2279/22	SmartClass OLS-55 (1310/1550/1625 nm, APC)
BN 2279/03	SmartClass OLS-55 (1310/1490/1550 nm, PC)
BN 2279/23	SmartClass OLS-55 (1310/1490/1550 nm, APC)
BN 2279/04	SmartClass OLS-55 (1490/1625 nm, PC)
BN 2279/05	SmartClass OLS-56 (1310/1550, 850/1300 nm)

Order Number	Option
BN 2252/90.10	Visual fault locator
BN 2277/90.01	Worldwide-compatible AC adapter (SNT-121A)
BN 2237/90.02	NiMH cells, Mignon (AA) 1.2 V (4 required per instument–range must be selected)

Included with the SmartClass OLS-55

Interchangeable adapter from BN 2150/00.xx range, four dry batteries Mignon(AA) 1.5 V, operating manual, and MT-1S belt bag

Order Number	Accessories
BN 2150/00.32	Optical adapter ST type
BN 2150/00.58	Optical adapter SC type
BN 2150/00.51	Optical adapter FC type
BN 2150/00.50	Optical adapter DIN type
BN 2150/00.59	Optical adapter LC type
BN 2252/01	OVF-1 Visual fault locator
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 2093/31	MK-3S hard case for three instruments
BN 2279/90.01	Calibration report

Test & Measurement Regional Sales