

# OLS-55/56 SMART Optical Laser Source

## A SMART, Future-Proof Optical Laser Source



### Key features

- Laser source with up to four wavelengths offers flexibility in singlemode 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)

**New**

### JDSU's SMART optical handhelds go beyond the basics

With more than 100,000 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** graphical user interface for fast, easy, and straightforward operation.
- The **SmartEnergy** power supply management system.
- The **SmartBag** for safe and hands-free operation and transport.
- USB port for remote operation.
- Robust, shock-proof, and splash-proof design for field operation.

The OLS-55/-56 SMART Optical Laser Source is available in different versions for different applications, offering greater flexibility for testing, installing, and maintaining singlemode and multimode optical networks.

The OLS-55/-56 is designed for optimal use with the JDSU SMART power meter portfolio.



OCK-10 Optical Connector Cleaning Kit (accessory)



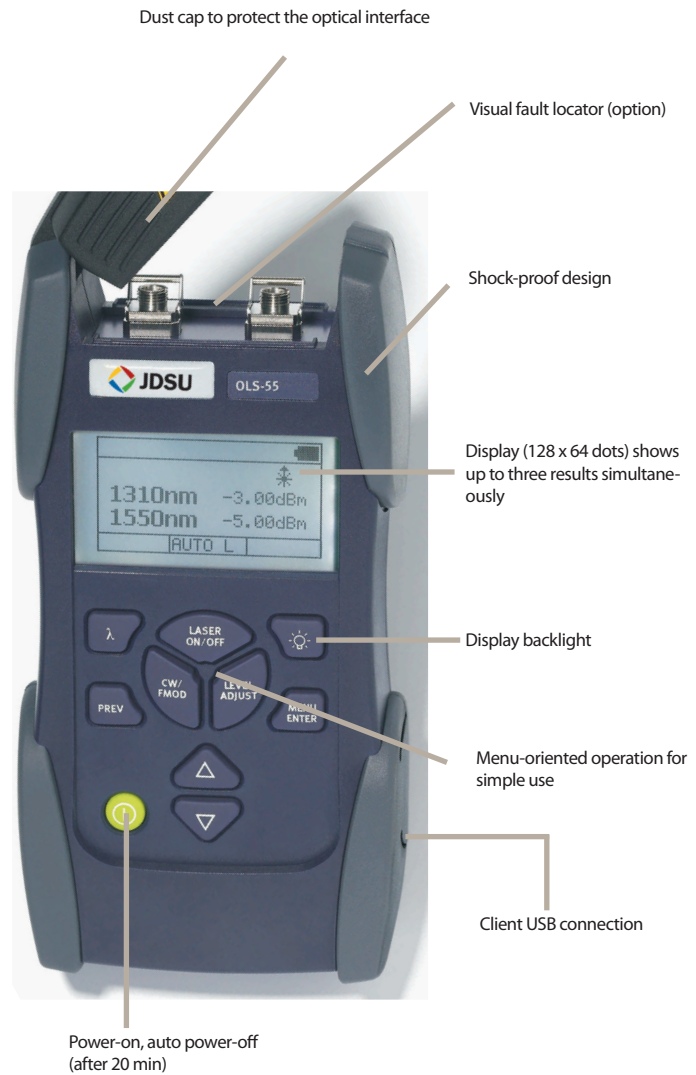
OIM-400 Fiber Microscope



Optical adapters (BN 2150) for laser source output



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



**Specifications****NEW**

|                                                               | <b>OLS-55<br/>BN 2279/01</b>                                                                                                                 | <b>OLS-55<br/>BN 2279/02</b>                                                                                                                 | <b>OLS-55<br/>BN 2279/03</b>                                                                                                                 | <b>OLS-55<br/>BN 2279/04</b>                                                                                                                 | <b>OLS-56<br/>BN 2279/05</b>                                                                                                                 |
|---------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------|
| Nominal wave-lengths <sup>(1)</sup>                           | 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 $\mu$ m                                                                                                                                | 9/125 $\mu$ m                                                                                                                                | 9/125 $\mu$ m                                                                                                                                |                                                                                                                                              | 9/125, 50/125 $\mu$ m                                                                                                                        |
| Output power range <sup>(2)</sup>                             | -7 dBm to 0 dBm, separately adjustable                                                                                                       | -7 dBm to 0 dBm, separately adjustable                                                                                                       | -7 dBm to 0 dBm, <sup>(5)</sup> separately adjustable                                                                                        | -7 dBm to -3 dBm separately adjustable                                                                                                       | -7 dBm to 0 dBm, separately adjustable <sup>(6)</sup>                                                                                        |
| Resolution of power setting                                   | 0.01 dB                                                                                                                                      | 0.01 dB                                                                                                                                      | 0.01 dB                                                                                                                                      | 0.01 dB                                                                                                                                      | 0.01 dB                                                                                                                                      |
| Signal stability <sup>(3)</sup>                               | Short term: $\pm 0.02$ dB, within 15 min<br>Long term: $\pm 0.2$ dB, within 8 hours                                                          | Short term: $\pm 0.02$ dB, within 15 min<br>Long term: $\pm 0.2$ dB, within 8 hours                                                          | Short term: $\pm 0.02$ dB, within 15 min<br>Long term: $\pm 0.2$ dB, within 8 hours                                                          | Short term: $\pm 0.02$ dB, within 15 min<br>Long term: $\pm 0.2$ dB, within 8 hours                                                          | Short term: $\pm 0.02$ dB, within 15 min<br>Long term: $\pm 0.2$ dB, within 8 hours                                                          |
| Output power accuracy (at nominal wavelengths) <sup>(2)</sup> | $\pm 0.3$ dB                                                                                                                                 | $\pm 0.3$ dB                                                                                                                                 | $\pm 0.3$ dB                                                                                                                                 | $\pm 0.3$ dB                                                                                                                                 | $\pm 0.3$ dB                                                                                                                                 |
| Modes                                                         | Continuous wave (CW), modulated (270 Hz, 1 kHz, 2 kHz), Auto- $\lambda^{(4)}$ (signal coding for automatic power meter wavelength detection) | Continuous wave (CW), modulated (270 Hz, 1 kHz, 2 kHz), Auto- $\lambda^{(4)}$ (signal coding for automatic power meter wavelength detection) | Continuous wave (CW), modulated (270 Hz, 1 kHz, 2 kHz), Auto- $\lambda^{(4)}$ (signal coding for automatic power meter wavelength detection) | Continuous wave (CW), modulated (270 Hz, 1 kHz, 2 kHz), Auto- $\lambda^{(4)}$ (signal coding for automatic power meter wavelength detection) | Continuous wave (CW), modulated (270 Hz, 1 kHz, 2 kHz), Auto- $\lambda^{(4)}$ (signal coding for automatic power meter wavelength detection) |

(1)  $\pm 20$  nm typically(2) CW signal,  $T = 23^\circ\text{C} \pm 3$  K, excluding connector uncertainty(3) At ambient temperature range  $-10^\circ\text{C}$  to  $+55^\circ\text{C}$ ,  $\Delta T = \pm 0.3$  K

(4) Works only with the JDSU OLP-55

(5) -7 dBm to -3 dBm for 1490 nm

(6) 850 nm laser: output power is adjustable between -7 to -5 dBm

(7) One wavelength active, output power -7 dBm

Fiber detection with different modulation frequencies (tone detection)  
 Remote control via USB interface

**Display**

Graphical display, resolution of  $128 \times 64$  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 <sup>(7)</sup> from dry batteries >45 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 hours)

**Electromagnetic compatibility**

Corresponds to IEC 61326 (CE conformance)

**Calibration**

Suggested calibration interval 3 years

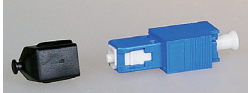
**Ambient temperature**

Nominal range of use -10°C to +55°C  
 Storage and transport -40°C 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”.



### Ordering Information

| Ordering number | Instrument                                 |
|-----------------|--------------------------------------------|
| BN 2279/01      | OLS-55 (1310/1550 nm, PC)                  |
| BN 2279/21      | OLS-55 (1310/1550 nm, APC)                 |
| BN 2279/02      | OLS-55 (1310/1550/1625 nm, PC)             |
| BN 2279/22      | OLS-55 (1310/1550/1625 nm, APC)            |
| BN 2279/03      | OLS-55 (1310/1490/1550 nm, PC)             |
| BN 2279/23      | OLS-55 (1310/1490/1550 nm, APC)            |
| BN 2279/04      | OLS-55 (1490/1625 nm, PC)                  |
| BN 2279/05      | OLS-56 (1310/1550, 850/1300 nm)            |
| Ordering 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 size (4 required)    |

### Included with the OLS-55

|                                     |                     |
|-------------------------------------|---------------------|
| Interchangeable adapter from        | BN 2150/00.xx range |
| Four dry batteries Mignon/AA, 1.5 V |                     |
| Operating manual                    |                     |
| MT-1S Belt bag                      |                     |

| Ordering 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                                       |

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**Test & Measurement Regional Sales**

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