

# OLA-54/55 SMART Optical Level Attenuator

## A SMART, Future-Proof Optical Level Attenuator



### Key features

- 50/125  $\mu\text{m}$  multimode fiber design (OLA-54)
- Ready for 40 Gb/s systems (OLA-55)
- New optical design allowing for low minimum insertion loss
- SmartWheel for precise and fast manual setting
- Absolute and relative attenuation setting
- FTTx ready

### JDSU's 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 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
- 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 and reducing testing time.

The **OLA-54 Smart Optical Level Attenuator** is designed for multimode fiber systems (50/125  $\mu\text{m}$  fiber).

The **OLA-55 Smart Optical Level Attenuator** is a future-proof instrument for system testing, installation, maintenance, and production of singlemode fibers. Due to minimized differential group delay (DGD), the OLA-55 is also suitable for 40 Gb/s systems.

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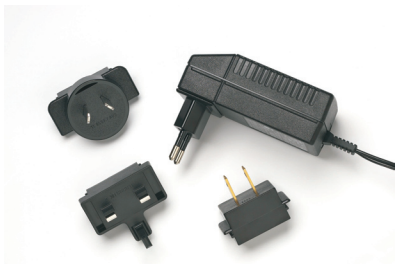
OCK-10 Optical Connector Cleaning Kit (accessory)



OVF-1 Visual Fault Locator (accessory)



Optical adapters (BN 2150) for laser source output



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

SMART wheel for precise and fast manual setting

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

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## Specifications

|   | <b>OLA-54<br/>BN 2280/41 Multimode</b> | <b>OLA-55<br/>BN 2280/01 Singlemode<br/>BN 2280/21 Singlemode APC</b> |
|---|--|---|
| Adjustable wavelength range                         | 750 to 1350 nm in 1 nm increments      | 1260 to 1650 nm in 1nm increments                                     |
| Fiber type  | 50/125 $\mu$ m                         | 9/125 $\mu$ m   |
| Calibrated wavelengths                              | 850 nm, 1300 nm                        | 1310 nm, 1550 nm, 1625 nm   |
| Display range <sup>(1)</sup>                        | <2.5 to 55 dB                          | 2.0 to 60 dB  |
| Minimum insertion loss <sup>(1)</sup>               | <2.5 dB                                | <2.0 dB   |
| Linearity   | $\pm 0.2$                              | $\pm 0.2$   |
| Repeatability of attenuation setting <sup>(2)</sup> | $\pm 0.1$ dB                           | $\pm 0.1$ dB  |
| Total attenuation accuracy <sup>(1)</sup>           | typ. $\pm 0.8$ dB                      | $\pm 0.8$ dB  |
| Setting type  | Continuous over the entire range       | Continuous over the entire range                                      |
| Function  | Bi-directional                         | Bi-directional  |
| Displayed value <sup>(1)</sup>                      | Absolute or relative attenuation value | Absolute or relative attenuation value                                |
| Max. permitted level                                | +20 dBm                                | +23 dBm   |

(1) Including connectors (to IEC874-1, method 6), depending on quality of the connectors applied to the OLA

(2) Excluding remating

## General data

## Display

Illuminated graphical display, resolution of 128  $\times$  64 dots

Results displayed in dB

Backlight function switchable via a separate key

## Connector

Optical connector interchangeable adapter from BN 2150/00.xx range is suitable for measurements on 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 from dry batteries >300 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)

External 12 V DC operating via an AC adapter or a 12 V car battery adapter

## Electromagnetic compatibility

Corresponds to IEC 61326 (CE conformance)

## Calibration

Suggested calibration interval 3 years

## Ambient temperature

Nominal range of use  $-10^{\circ}\text{C}$  to  $+55^{\circ}\text{C}$

Storage and transport  $-40^{\circ}\text{C}$  to  $+70^{\circ}\text{C}$

## Dimensions and Weight

B  $\times$  H  $\times$  T approximately 95  $\times$  60  $\times$  195 mm (3.74  $\times$  2.36  $\times$  7.68 in)

Weight approximately 500 g (1.1 lb)

### Ordering information

| Ordering number | Instrument  |
|-----------------|---|
| BN 2280/01      | OLA-55 Singlemode, variable attenuator, PC                  |
| BN 2280/21      | OLA-55 Singlemode, variable attenuator, APC                 |
| BN 2280/41      | OLA-54 Multimode, variable attenuator, 50/125 $\mu\text{m}$ |

### Included with the OLA-55

2  $\times$  Interchangeable adapter from BN 2150/00.xx (range (must be selected))  
 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 2280/90.01   | Calibration Report                                       |

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”.

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| <b>NORTH AMERICA</b><br>TEL: 1 866 228 3762<br>FAX: +1 301 353 9216 | <b>LATIN AMERICA</b><br>TEL:+55 11 5503 3800<br>FAX:+55 11 5505 1598 | <b>ASIA PACIFIC</b><br>TEL:+852 2892 0990<br>FAX:+852 2892 0770 | <b>EMEA</b><br>TEL:+49 7121 86 2222<br>FAX:+49 7121 86 1222 | <b>WEBSITE: <a href="http://www.jdsu.com">www.jdsu.com</a></b> |
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