

# SmartClass™ OLA-54 and OLA-55

## Optical Level Attenuator



### Key features

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

### 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. 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 of SmartClass optical handhelds provide:

- An extended number of calibration wavelengths for the highest performance range in the industry.
- The intuitive graphical 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
- 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 SmartClass OLA-54 (optical level attenuator) is designed for multimode fiber systems (50/125  $\mu\text{m}$  fiber).

The SmartClass OLA-55 (optical level attenuator) is a future-proof instrument for system testing, installation, maintenance, and production of single-mode fibers. Due to minimized differential group delay (DGD), the OLA-55 is also suitable for 40 Gbps systems.

## Accessories



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)



## Specifications

|                                                     | SmartClass OLA-54<br>BN 2280/41 Multimode | SmartClass OLA-55<br>BN 2280/01 Single-mode<br>BN 2280/21 Single-mode APC |
|-----------------------------------------------------|-------------------------------------------|---------------------------------------------------------------------------|
| Adjustable wavelength range                         | 750 to 1350 nm in 1 nm increments         | 1260 to 1650 nm in 1 nm 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

W  $\times$  H  $\times$  D approximately 95  $\times$  60  $\times$  195 mm

(3.74  $\times$  2.36  $\times$  7.68 in)

Weight approximately 500 g (1.1 lb)

**Order information**

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

**Included with the SmartClass OLA-55**

2 interchangeable adapter from BN 2150/00.xx (range (must be selected), 4 dry batteries Mignon/AA, 1.5 V, operating manual, 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 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”.

**Test & Measurement Regional Sales**

|                                                                     |                                                                      |                                                                   |                                                               |                                                                          |
|---------------------------------------------------------------------|----------------------------------------------------------------------|-------------------------------------------------------------------|---------------------------------------------------------------|--------------------------------------------------------------------------|
| <b>NORTH AMERICA</b><br>TEL: 1 866 228 3762<br>FAX: +1 301 353 9216 | <b>LATIN AMERICA</b><br>TEL: +1 954 688 5660<br>FAX: +1 954 345 4668 | <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/test">www.jdsu.com/test</a></b> |
|---------------------------------------------------------------------|----------------------------------------------------------------------|-------------------------------------------------------------------|---------------------------------------------------------------|--------------------------------------------------------------------------|