

OLA-54/55 SMART Optical Level Attenuator

A SMART, Future-Proof Optical Level Attenuator



Key features

- 50/125 μm 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 μm 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.



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

	OLA-54 BN 2280/41 Multimode	OLA-55 BN 2280/01 Singlemode BN 2280/21
Adjustable wavelength range	750 to 1350 nm in 1 nm increments	1260 to 1650 nm in 1 nm increments
Fiber type	50/125 μm	9/125 μm
Calibrated wavelengths	850 nm, 1300 nm	1310 nm, 1550 nm, 1625 nm
Display range ⁽¹⁾	<2.5 to 60 dB	2.0 to 60 dB
Minimum insertion loss ⁽¹⁾	<2.5 dB	<2.0 dB
Linearity	± 0.2	± 0.2
Repeatability of attenuation setting ⁽²⁾	± 0.1 dB	± 0.1 dB
Total attenuation accuracy ⁽¹⁾	typ. ± 0.8 dB	± 0.8 dB
Setting type	Continuous over the entire range	Continuous over the entire range
Function	Bi-directional	Bi-directional
Displayed value ⁽¹⁾	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°C to $+55^{\circ}\text{C}$

Storage and transport -40°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)

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 μm

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 “Acterna Fiber Optic Test Adapters and Cables”.

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