

OLA-55M SMART Optical Level Attenuator

A SMART, Motorized Optical Level Attenuator



Key features

- Attenuation range 2 – 60 dB
- Absolute and relative attenuation setting
- FTTx ready
- Automatic stabilization of the output power even if the launched input fluctuates (level controller mode)
- Direct setting of the output power (level controller mode)
- Up and down arrow key to precise and fast manual setting
- Remote controllable via USB

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 helps 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-55M SMART Optical Level Attenuator is the latest design of the SMART class product range. In this unit more functions have been added to the well known OLA-55, which is a future-proof instrument for system testing, installation, maintenance, and production of singlemode fibers. Due to minimized differential group delay (DGD), the OLA-55M 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

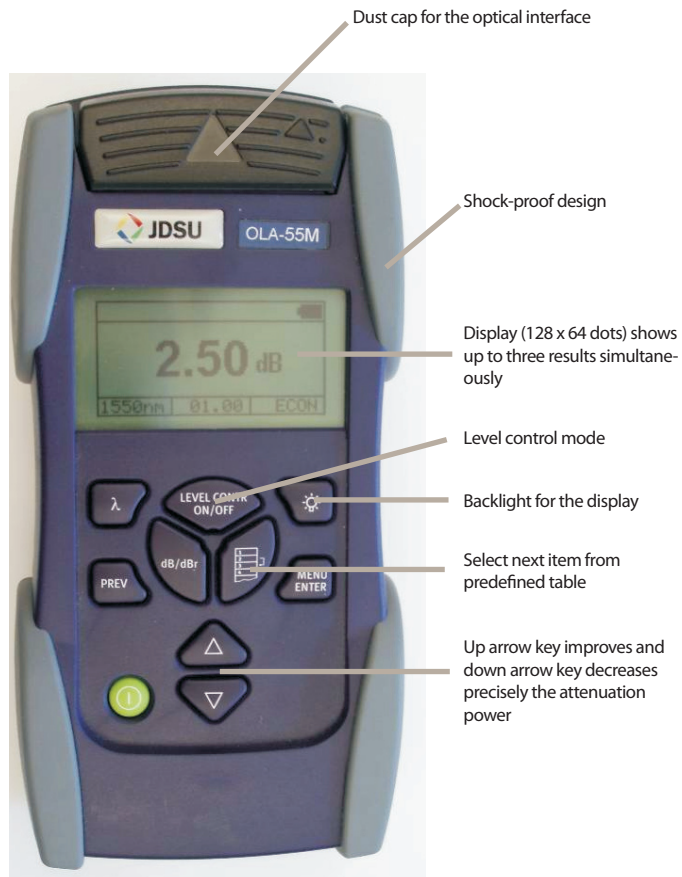


Worldwide compatible AC adapter (SNT-121A)

Special application

Automatic level controller mode

Most applications require a defined power level rather than a certain level of attenuation. A standard attenuator only allows the setting of an attenuation value. Against it, the level controller mode of the OLA-55M allows direct setting of a precise and define optical power level. It integrates the function of an attenuator and a power meter and therefore avoids extra steps to adjust the power level with a separate power meter. Being in this mode the attenuator is automatically counterbalancing the changes of varying input power level and provides a stable output level.



Specifications

Attenuation mode	OLA-55M Singlemode
Adjustable wavelength range	1260 to 1650 nm in 1 nm increments
Fiber type	9/125 μm
Calibrated wavelengths	1310 nm, 1550 nm, 1625 nm
Display range ⁽¹⁾	2.0 to 60 dB
Minimum insertion loss ⁽¹⁾	<2.0 dB
Linearity	± 0.2
Repeatability of attenuation setting ⁽²⁾	± 0.1 dB
Total attenuation accuracy ⁽¹⁾	± 0.8 dB
Setting type	Continuous over the entire range
Function	Bi-directional
Displayed value ⁽¹⁾	Absolute or relative attenuation value
Max. permitted level	+23 dBm
Optical level control mode	
Control range ⁽³⁾	-50 to +20 dBm
Accuracy ⁽⁴⁾	± 0.25 dB
Display resolution	0.01 dB
Setting time	<2 s
Output power level stabilization Stability ⁽⁵⁾	± 0.15 dB

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

(2) Excluding remating

(3) Input power level needs to be at least 3 dB higher than selected output power level

(4) At $23^{\circ}\text{C} \pm 3^{\circ}\text{C}$, calibrated wavelengths, at $1625 \text{ nm} \pm 0.3 \text{ dB}$

(5) Input power variations in frequency range <0.5 Hz

General data

Display

Illuminated graphical display, resolution of 128×64 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	

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 2280/02	OLA-55M Singlemode, variable attenuator incl. level control mode, PC
BN 2280/22	OLA-55M Singlemode, variable attenuator incl. level control mode, APC

Included with the OLA-55M

2× 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”.

All statements, technical information and recommendations related to the products herein are based upon information believed to be reliable or accurate. However, the accuracy or completeness thereof is not guaranteed, and no responsibility is assumed for any inaccuracies. The user assumes all risks and liability whatsoever in connection with the use of a product or its applications. JDSU reserves the right to change at any time without notice the design, specifications, function, fit or form of its products described herein, including withdrawal at any time of a product offered for sale herein. JDSU makes no representations that the products herein are free from any intellectual property claims of others. Please contact JDSU for more information. JDSU and the JDSU logo are trademarks of JDS Uniphase Corporation. Other trademarks are the property of their respective holders. © 2006 JDS Uniphase Corporation. All rights reserved. 10143243 000 0707 SMART-OLA55M.DS.FOP.TM.AE