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**FREECALL 1800 680 680**

# 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.



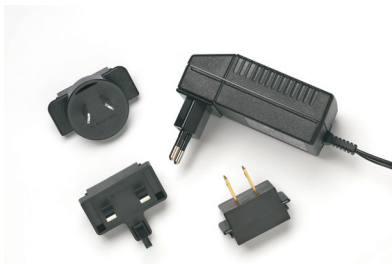
OCK-10 Optical Connector Cleaning Kit (accessory)



OVF-1 Visual Fault Locator (accessory)



Optical adapters (BN 2150) for laser source output

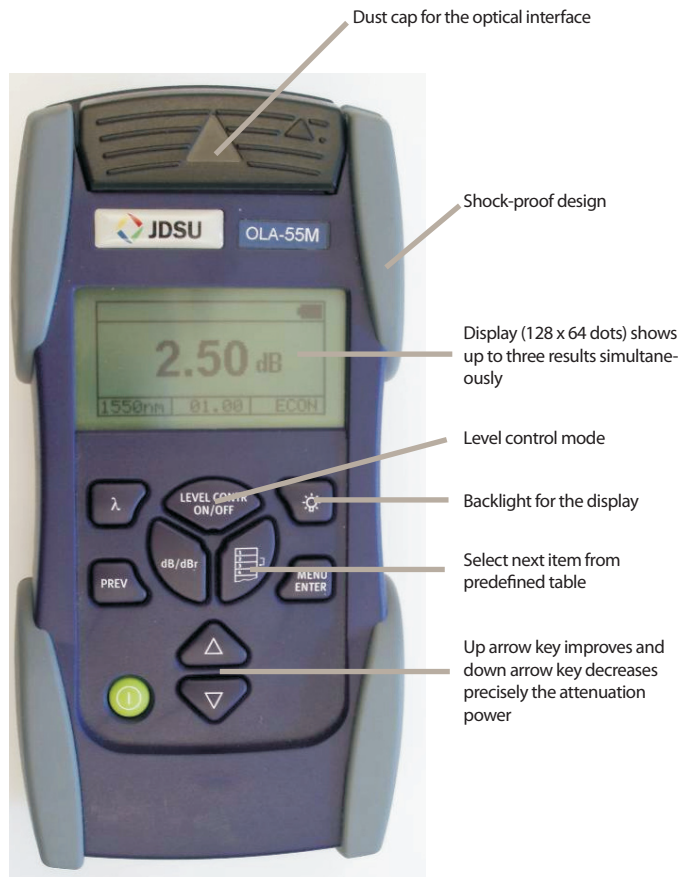


Worldwide compatible AC adapter (SNT-121A)

## Special application

### Automatic level controller mode

Most applications require a defined power level rather than a certain level of attenuation. 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

|   |  |
|---|--|
| <b>Attenuation mode</b>                             | <b>OLA-55M Singlemode</b>              |
| Adjustable wavelength range                         | 1260 to 1650 nm in 1 nm increments     |
| Fiber type  | 9/125 $\mu$ m                          |
| Calibrated wavelengths                              | 1310 nm, 1550 nm, 1625 nm              |
| Display range <sup>(1)</sup>                        | 2.0 to 60 dB                           |
| Minimum insertion loss <sup>(1)</sup>               | <2.0 dB                                |
| Linearity   | $\pm 0.2$                              |
| Repeatability of attenuation setting <sup>(2)</sup> | $\pm 0.1$ dB                           |
| Total attenuation accuracy <sup>(1)</sup>           | $\pm 0.8$ dB                           |
| Setting type  | Continuous over the entire range       |
| Function  | Bi-directional                         |
| Displayed value <sup>(1)</sup>                      | Absolute or relative attenuation value |
| Max. permitted level                                | +23 dBm                                |
| <b>Optical level control mode</b>                   |  |
| Control range <sup>(3)</sup>                        | -50 to +20 dBm                         |
| Accuracy <sup>(4)</sup>                             | $\pm 0.25$ dB                          |
| Display resolution                                  | 0.01 dB                                |
| Setting time  | <2 s                                   |
| Output power level stabilization                    |  |
| Stability <sup>(5)</sup>                            | $\pm 0.15$ 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 °C  $\pm$  3 °C, calibrated wavelengths, at 1625 nm  $\pm$  0.3 dB

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

## 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                                       |        |

### 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 $\times$ 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”.

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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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