VIAVI Solutions

Data Sheet

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SmartClass™ OLA-55M

Optical Level Attenuator

VIAVI SmartClass optical handhelds go beyond the basics

With more than 100,000 optical handhelds already in use, VIAVI continues the success story with the SmartClass optical handhelds. The SmartClass helps your network move to the next level of performance. 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 SmartClass optical handhelds provide:

- An extended number of calibration wavelengths for the highest performance range in the industry.
- An intuitive graphical user interface for fast, easy, and straightforward operation.
- An intelligent power supply management system.
- A 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-55M (optical level attenuator) is the latest design of the SmartClass product range. In this unit more functions have been added to the well known SmartClass 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 SmartClass OLA-55M is also suitable for 40 Gbps systems.

Features

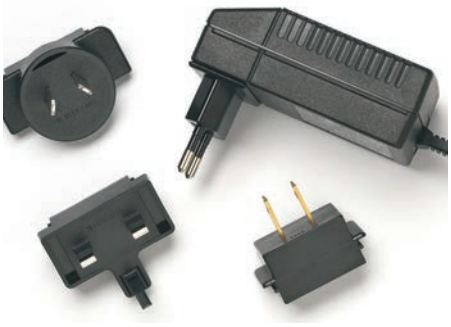
- Attenuation range 2.5 to 60 dB
- Absolute and relative attenuation setting
- FTTx ready
- Automatic stabilization of the output power even if the launched input fluctuates (level controller mode)
- Direct setting of the output power (level controller mode)
- Up and down arrow key to precise and fast manual setting
- Remote controllable via USB

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)

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 SmartClass OLA-55M allows direct setting of a precise and defined 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	SmartClass OLA-55M Single-mode
Adjustable wavelength range	1260 to 1650 nm in 1 nm increments
Fiber type	9/125 µm
Calibrated wavelengths	1310, 1550, 1625 nm
Display range(1)	2.0 to 60 dB
Minimum insertion loss(1)	<2.5 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 seelcted output power level
4. At 23 °C ± 3 °C, calibrated wavelengths, at 1625 nm ± 0.3 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°C
Storage and transport	–40°C to +70°C
Dimensions and weight	
W × H × D approximately	95 × 60 × 195 mm
	(3.74 × 2.36 × 7.68 in)
Weight approximately	500 g (1.1 lb)

Ordering Information

Order number	Instrument
BN 2280/02	SmartClass OLA-55M Single-mode, variable attenuator incl. level control mode, PC
BN 2280/22	SmartClass OLA-55M Single-mode, variable attenuator incl. level control mode, APC

Included with the SmartClass 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

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

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