VIAVI

SmartClass™ TLS-55

Optical Tunable Laser Source

Viavi Solutions SmartClass optical handhelds go beyond the basics. With more than 150,000 units already in use, Viavi continues the success story with its SmartClass optical handhelds to help your network move to the next level of performance. SmartClass optical handhelds encompass a new, intelligent product line for testing all optical signals and systems, including broadband, passive optical networks (PONs), and Gigabit Ethernet.

All SmartClass optical handhelds provide:

- extended number of calibration wavelengths for one of the highest performance ranges in the industry

- intuitive graphical user interface (GUI) for fast, easy, and straightforward operation

- intelligent power supply management system

- belt bag for safe and hands-free operation and transport

- USB port for remote operation

- robust, shock-proof, and splash-proof design for field operation.

SmartClass TLS-55C covers all ITU-T frequencies from 1528.384 to 1563.863 nm based on a 50 GHz grid. The additional wavelength of 1510 nm ensures testing of OSC (optional).

Key Features

- Industry's first battery-operated tunable laser source for field applications
- Supports ROADM network channel routing applications
- Battery operation ensures flexibility for field applications
- C-band version
- Extra 1510 nm wavelength for optical supervisory channels (OSC) testing (only with SmartClass TLS-55C)
- Supports 50, 100, or 200 GHz channel spacing (according to ITU-T), additionally 150 and 250 GHz channel spacing.
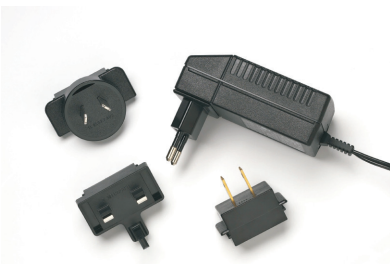
OCK-10 Optical Connector Cleaning Kit (accessory)

OIM-400 Fiber Microscope

Optical adapters (BN 2150) for laser source output

Worldwide compatible AC adapter/charger (SNT-121A)

Dust cap to protect the optical interface

Shock-proof design

Display (128 x 64 dots) shows up to three results simultaneously

Display backlight

Menu-oriented operation simplifies use

Client USB connection

Power-on, auto power-off (after 20 min)

Specifications

SmartClass TLS-55C	
Wavelength range	1528.38 to 1563.86 nm (191.70 to 196.15 THz)
Additional 1510 nm option	Yes
Minimum channel spacing	0.4 nm (50 GHz)
Maximum number of channels	90
Frequency accuracy[1]	± 2.5 GHz
Line width	10 MHz
Side mode suppression ratio	45 dB typicallyy
Fiber type	9/125 µm
Output power range	+9 to +6 dBm, adjustable[3]
Resolution of power setting	0.01 dB
Power variation[2]	± 0.5 dB maximum
Relative intensity range max.	−135 dB/Hz
Modes	Continuous wave (CW)
Remote control via USB interface	Yes

1. Frequency accuracy under locked operation.
2. Power variation within and between channels under locked operation, BOL.
3. +6 dBm to +3 dBm for units with 1510 nm laser option (BN 2279/91.15).

Display	
Graphical display, resolution of 128 × 64 dots, displays up to four laser status screens	
Backlight function switchable via a separate key	

Optical Interface	
Optical connector interchangeable adapter from BN 2150/00.xx range is available in 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	>2.5 h
Batteries/NiCd/NiMH power saving: switches off automatically after ~20 min (function can be disabled)	
AC line operation via separate AC adapter	
Integrated fast battery charging function (2 hours)	

Electromagnetic compatibility	
Corresponds to IEC 61326 (CE conformance)	

Calibration	
Suggested calibration interval	3 years

Ambient temperature	
Operation	−10 to +45°C
Storage and transport	−40 to +70°C

Dimensions and weight	
W x H x D approximately	95 x 60 x 195 mm (3.74 x 2.36 x 7.68 in)
Weight approximately	500 g (1.1 lb)

Ordering Information

Base Unit

Description	Part Number
SmartClass TLS-55C C-band	BN 2279/41
1510 nm laser option (available only with SmartClass TLS-55C)	BN 2279/91.15

SmartClass OLS-55C or OLS-55L includes

Description	Part Number
Interchangeable adapter	BN 2150/00.xx range
Four NiMH dry batteries Mignon AA-size (UM3)	BN 2237/90.02
SNT-121A Worldwide compatible AC adapter	BN 2277/90.01
Operating manual	
MT-1S Belt bag	BN 2277/90.02

Accessories

Description	Part Number
Optical adapter ST type	BN 2150/00.32
Optical adapter SC type	BN 2150/00.58
Optical adapter FC type	BN 2150/00.51
Optical adapter DIN type	BN 2150/00.50
Optical adapter LC type	BN 2150/00.59
OCK-10 Optical Connector Cleaning Kit	BN 2229/90.21
Optical cleaning tape	BN 2229/90.07
Spare tape for optical cleaning tape	BN 2229/90.08
NiMH cells, Mignon/AA, 1.2 V (4 required per instrument)	BN 2237/90.02
SNT-121A Worldwide compatible AC adapter	BN 2277/90.01
MT-2S soft bag for two instruments	BN 2126/03
MT-3S soft bag for three instruments	BN 2126/04
MK-3S hard case for three instruments	BN 2093/31

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