

SmartClass™ TLS-55

Optical Tunable Laser Source



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.

JDSU SmartClass optical handhelds go beyond the basics

With more than 150,000 units already in use, JDSU 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).



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)



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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 typically
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

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

SmartClass OLS-55C or OLS-55L includes

Part number	Description
BN 2150/00.xx range	Interchangeable adapter
BN 2237/90.02	Four NiMH dry batteries Mignon AA-size (UM3)
BN 2277/90.01	SNT-121A Worldwide compatible AC adapter
	Operating manual
BN 2277/90.02	MT-15 Belt bag

Accessories

Part number	Description
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 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
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