TLS-55C/55L

SMART 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 highest flexibility even for field applications.**
- **C-band or L-band version.**
- **Extra 1510 nm wavelength for OSC testing (only with TLS-55C).**
- **Supports 50 GHz, 100 GHz, or 200 GHz channel spacing (according to ITU-T).**

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 help 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.
- USB port for remote operation.
- Robust, shock-proof, and splash-proof design for field operation.

The SMART tunable laser source is available in two different versions.

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

TLS-55L is the complementary laser source to address applications in the L-band form 1570.42 nm to 1608.76 nm.

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 for simple use

Client USB connection

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

Specifications

	TLS-55C	TLS-55L
Wavelength range	1528.38 nm (191.70 THz) to 1563.86 nm (196.15 THz)	1570.42 nm (186.35 THz) to 1608.76 nm (190.90 THz)
Additional 1510 nm option	Yes	No
Minimum channel spacing	0.4 nm (50 GHz)	0.4 nm (50 GHz)
Frequency accuracy (1)	± 2.5 GHz	± 2.5 GHz
Line width	10 MHz	10 MHz
Side mode suppression ratio	45 dB typically	45 dB typically
Fiber type	9/125 µm	9/125 µm
Output power range	+9 dBm to +6 dBm, adjustable(3)	+9 dBm to +6 dBm, adjustable
Resolution of power setting	0.01 dB	0.01 dB
Power variation (2)	± 0.5 dB maximum	± 0.5 dB maximum
Relative intensity range	135 dB/Hz	135 dB/Hz
Modes	Continuous wave (CW)	Continuous wave (CW)

(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).

Remote control via USB interface

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:
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)

Electromagnetic compatibility

Corresponds to IEC 61326 (CE conformance)

Calibration

Suggested calibration interval	3 years

Ambient temperature

Nominal range of use	–10°C to +45°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

Ordering number	Instrument
BN 2279/41	TLS-55C C-band
BN 2279/91.15	1510 nm laser option (only with TLS-55C)
BN 2279/42	TLS-55L L-band

Included with the OLS-55 C or L

BN 2150/00.xx range	Interchangeable adapter from
BN 2237/90.20	Four NiMH dry batteries Mignon AA-size (UM3)
BN 2277/90.01	SNT-121A world-wide compatible AC adapter
	Operating manual
BN 2277/90.02	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 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

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Test & Measurement Regional Sales

NORTH AMERICA
TEL: 1 866 228 3762
FAX: +1 301 353 9216

LATIN AMERICA
TEL:+55 11 5503 3800
FAX:+55 11 5505 1598

ASIA PACIFIC
TEL:+852 2892 0990
FAX:+852 2892 0770

EMEA
TEL:+49 7121 86 2222
FAX:+49 7121 86 1222

WEBSITE: www.jdsu.com