OLS-5 and OLS-6

Pocket-sized dual wavelength light sources

Key features

- Pocket class: Rugged, compact and lightweight
- Easy-to-use, straight forward operation
- Reliable basic functionality for most economical testing
- Three year calibration period
- OLS-5: dedicated for multimode at 850 and 1300 nm
- OLS-6: dedicated for single mode at
  – 1310 and 1550 nm or at
  – 1550 and 1625 nm or at
  – 1490 and 1550 nm
- Standard AA batteries or NiMH/NiCd cells
- FTTx ready

Designed for dual wavelength measurement in various single mode or multimode applications

The JDSU OLS-5 and OLS-6 pocket-sized light sources are the result of JDSU's many years of experience in optical measurement technology. They are designed for dual wavelength measurement alongside JDSU's pocket-sized or SMART optical power meters.

The rugged OLS-5 and OLS-6 are really pocket-sized and fit into a handy belt bag so they are always ready to use.

The simple three-button operation together with an easy-to-read display makes them extremely easy-to-use.

For multimode applications the OLS-5 is the ideal choice. Via one single port 850 and 1300 nm LEDs are connected to the test cable. Together with an JDSU optical power meter (OLP) automatic wavelength detection and TwinTest guarantee fast and error-free results at a high test speed.

The OLS-6 is designed for dual wavelength measurement in various single mode applications. It has separate optical laser ports for each wavelength (1310 nm and 1550 nm, 1490 nm and 1550 nm, or 1550 nm and 1625 nm). Together with an JDSU optical power meter (OLP) the automatic wavelength detection guarantees fast and error-free results.

The 1625 nm wavelength of the OLS-6 allows additional tests for detection of micro/macro-bending effects at optical fibers. This makes it ideal for dense wavelength division multiplexing (DWDM) applications.

The OLS-6 with 1490/1550 nm is specially designed for tests in FTTx applications.

OLS-5: Single ST port for 850/1300 nm multimode

OLS-6: Dual single mode ports (FC or SC or LC) with 1310/1550 nm or 1490/1550 nm or 1550/1625 nm

Dust and shock protection

Clear display for selected wavelengths and type of modulation

3-button straight-forward operation

2 AA batteries or NiCd/NiMH cells

OMK-5/6/7: Available as test kits together with a power meter and accessories

Quick charger for NiMH or NiCd cells (accessory)

OVF-1 Visual Fault Locator (accessory)

Specifications

OLS-5 (850/1300 nm) optical light source

Emitter type	LED (laser class 1)
Wavelength range	850 nm ± 20 nm 1300 nm ± 50 nm
Spectral width (FWHM)	
850 nm	50 nm
1300 nm	120 nm
Output level (CW)	
50/125 µm fiber	–20 dBm ± 1.7 dB
62.5/125 µm fiber	–17 dBm ± 3 dB
100/140 µm fiber	–13 dBm ± 3 dB
9/125 µm fiber	–40 dBm ± 3 dB
Modulated output level	3 dB less than in CW mode
Level stability (short-term)	
15 min, +23°C ±3 K, ΔT = ± 0.5 K	± 0.25 dB
15 min, –10 to +55°C, ΔT = ± 0.5 K	± 0.08 dB
Level stability (long-term)	
6 h, –10 to +55°C, ΔT = ± 0.5 K	± 0.20 dB
Modulated output signal (Rectangular, modulation ratio 1:1)	
Selectable	1 kHz, 2 kHz
Modes	
CW	continuous wave signal
Auto-λ	output signal includes λ information (detectable by all JDSU power meters)
FMOD	modulation for fiber identification 270 Hz, 1 kHz, 2 kHz
TWINTest	Automatic toggling between 850 nm and 1300 nm
Fixed optical connector	ST

OLS-6 (1310/1550 nm) optical light source

Emitter type	Dual FP Laser (laser class 1)
Wavelength range	1310 nm ± 20 nm 1550 nm ± 20 nm
Spectral width (rms)	typically <5 nm
Output level (CW)	
(9/125 µm fiber) –7 dBm	typically ± 1 dB
Modulated output level	typically –10 dBm
Level stability[1] (short-term)	
1 h, –10 to +55°C	typically ± 0.03 dB
Level stability[1] (long-term)	
8 h, –10 to +55°C	maximum ± 0.25 dB
Modulated output signal (Rectangular modulation ration 1:1)	
Selectable	270 Hz, 1 kHz, 2 kHz
Modes	
CW	continuous wave signal
Auto-λ	output signal includes λ information (detectable by all JDSU power meters)
FMOD	modulation for fiber identification 270 Hz, 1 kHz, 2 kHz
DUAL	both wavelengths activated
Optical connectors	two outputs (one for each wavelength) each with the same connector (to be selected when ordering) FC/PC, SC/PC, LC/PC, LC/APC

OLS-6 (1490 nm/1550 nm) optical light source

Emitter type	Dual FP Laser (laser class 1)
Wavelength range	
1490 nm	± 20 nm
1550 nm	± 20 nm
Spectral width (rms)	typically <5 nm
Output level (CW)	
(9/125 µm fiber) –7 dBm	typically ± 1 dB
Modulated output level	typically –10 dBm
Level stability[1] (short-term)	
1 h, –10 to +55°C	typically ± 0.03 dB
Level stability[1] (long-term)	
8 h, –10 to +55°C	maximum ± 0.25 dB
Modulated output signal (Rectangular modulation ration 1:1)	
Selectable	270 Hz, 1 kHz, 2 kHz
Modes	
CW	continuous wave signal
Auto-λ	output signal includes λ information (detectable by all JDSU power meters)
FMOD	modulation for fiber identification 270 Hz, 1 kHz, 2 kHz
DUAL	both wavelengths activated
Optical connectors	two outputs (one for each wavelength) each with the same connector (to be selected when ordering) FC/PC, SC/PC

OLS-6 (1550 nm/1625 nm) optical light source

Emitter type	Dual FP Laser (laser class 1)
Wavelength range	
1550 nm	± 20 nm
1625 nm	± 20 nm
Spectral width (rms)	typically <5 nm
Output level (CW)	
(9/125 µm fiber) –7 dBm	typically ± 1 dB
Modulated output level	typically –10 dBm
Level stability[1] (short-term)	
1 h, –10 to +55°C	typically ± 0.03 dB
Level stability[1] (long-term)	
8 h, –10 to +55°C	maximum ± 0.25 dB
Modulated output signal (Rectangular modulation ration 1:1)	
Selectable	270 Hz, 1 kHz, 2 kHz
Modes	
CW	continuous wave signal
Auto-λ	output signal includes λ information (detectable by all JDSU power meters)
FMOD	modulation for fiber identification 270 Hz, 1 kHz, 2 kHz
DUAL	both wavelengths activated
Optical connectors	two outputs (one for each wavelength) each with the same connector (to be selected when ordering) FC/PC, SC/PC, LC/PC, LC/APC

(1) 15 minutes after switch on, modulated signal ΔT = ± 1 K

General specifications

Operating time	
From dry batteries	typically 60 h
Power supply	
Dry batteries	2 x Mignon (AA) 1.5 V
NiCd cells	2 x Mignon (AA) 1.2 V
Discharge protection for batteries/NiCd cells	
Automatic power down after approximately 20 minutes to conserve battery power (function can be disabled)	
Electromagnetic compatibility	
Corresponds to EN 50081-1 and EN 50082-1 (CE conformance)	
Recommended calibration interval	3 years
Ambient temperature	
Nominal range of use	–10 to +55°C
Storage and transport	–40 to +70°C
Dimensions (w × h × d)	approx. 73 × 28 × 140 mm
Weight	approx. 200 g

Ordering information

BN 2255/01	OLS-5
BN 2255/02	OLS-6 (1310/1550 nm), FC/PC
BN 2255/30	OLS-6 (1550/1625 nm), FC/PC
BN 2255/32	OLS-6 (1550/1625 nm), SC/PC
BN 2255/34	OLS-6 (1310/1550 nm), LC/PC
BN 2255/35	OLS-6 (1310/1550 nm), LC/APC
BN 2255/36	OLS-6 (1550/1625 nm), LC/PC
BN 2255/37	OLS-6 (1550/1625 nm), LC/APC
BN 2255/45	OLS-6 (1310/1550 nm), SC/PC
BN 2255/47	OLS-6 (1490/1550 nm), FC/PC
BN 2255/48	OLS-6 (1490/1550 nm), SC/PC

Each OLS comes with one belt pouch, two dry batteries, operating manual

Accessories

BN 2229/90.07	Optical cleaning tape
BN 2229/90.08	Spare tape for optical cleaning tape
BN 2256/90.05	Cleaning pins
BN 2229/90.01	Dry batteries, Mignon (AA) type (two required per instrument)
BN 2229/90.02	NiCd cells, Mignon (AA) type (two required per instrument)
BN 2237/90.02	NiMH cells
BN 2229/90.03	NiCd cells charger (for external charging) 230 V, European AC line plug
BN 2229/90.09	110 V, US AC line plug
BN 2229/90.19	230 V, UK AC line plug
BN 2256/90.01	Belt pouch, per instrument
BN 2126/90.01	Transport case MK-5 (space for two instruments, two cables, OVF-1)
BN 2229/90.21	OCK-10 Optical connector cleaning kit
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

Detailed information about test adapters, cables and fiber-optic couplers can be found in separate data sheet: "JDSU fiber-optic test adapters and cables".

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