



## JDSU Optical Handheld Testers

Family of light sources, power meters, attenuators,  
loss test sets, return loss meters, and optical talksets

# Optical Handheld Testers

## Worldwide largest portfolio:

- Power meters
- Wavelength selective power meters
- Return loss meters
- Light sources
- Loss test sets
- Variable attenuators
- Talk sets

JDSU has been a pioneer in optical handheld instrumentation for more than 20 years. With more than 100,000 JDSU optical handhelds already in use, JDSU has developed products that are recognized worldwide for their quality, reliability, ease-of-use, and low cost of ownership.

JDSU's comprehensive line of handheld instruments and accessories offers a complete solution for optical field testing. The product line includes light sources, power meters, attenuators, loss test sets, return loss meters, talk sets, and complete test kits for FTTX/PON, DWDM, CWDM, 40 Gb/s, Ethernet, and Gigabit Ethernet multimode and singlemode applications. A line of accessories, including adapters, cleaning tools, and inspection microscopes, is also available.

## SMART Optical Handhelds

JDSU's high performance SMART optical handheld testers combine high functionality with straightforward operation and compact design. The SMART optical handheld testers include a complete line of optical power meters, light sources, optical level attenuators, test kits, loss test sets, return loss meters, and optical talk-set for every field application in fiber optic networks.

## Pocket-sized Optical Handhelds

Including light sources and optical power meters, JDSU's pocket-sized optical handhelds provide accurate measurements in a simple, entry-level unit at an attractive price. Just 3.9 inches (10 cm) long, these handy instruments provide all of the basic functionalities needed for fiber optic power measurement and loss testing.

## Optical Test Kits

JDSU offers a complete line of optical test kits that contain all of the instruments and accessories necessary to perform professional-grade power and loss testing in the field. Two different optical test kits are available: a compact and economical solution or a high-performance and future-proof solution for field testing.



SMART optical handhelds

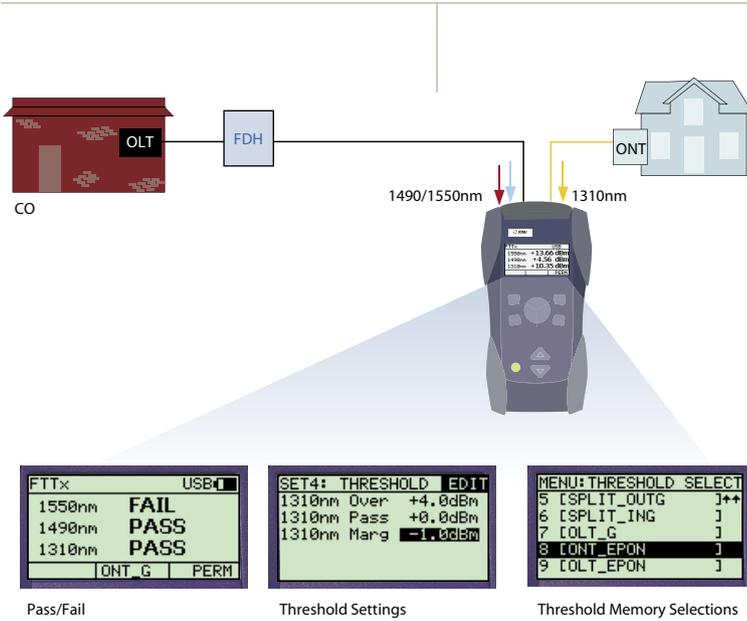


Pocket-sized optical handhelds

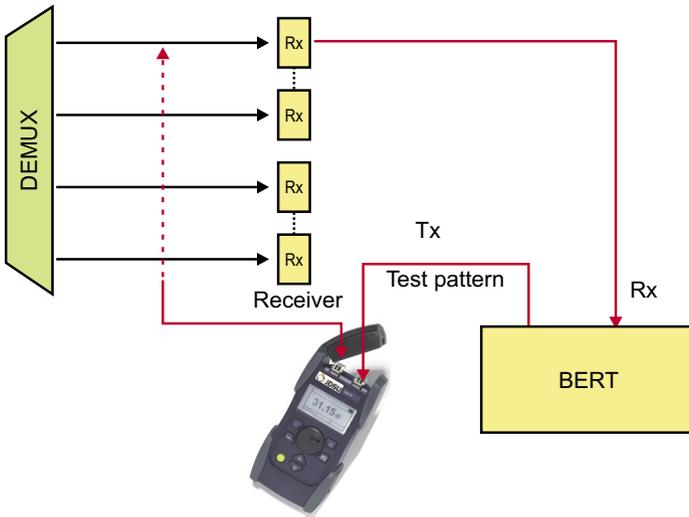


Optical test kits

# The right tool for the right application



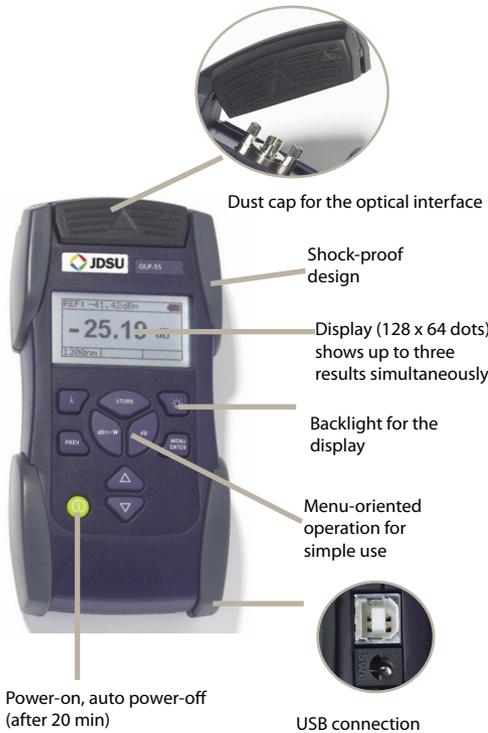
The OLP-57 SMART selective optical power meter designed for turning up and maintaining FTTx networks. Its through mode allows simultaneous measurement at 1490 nm and 1550 nm downstream and 1310 nm upstream.



The OLA-55 SMART Optical Level Attenuator is an ideal tool to simulate a fiber span with relation to optical attenuation. It is also being used for system verification testing like “receiver sensitivity” (see adjoining graphic). Due to the minimized differential group delay (DGD), the OLA-55 is also suitable for systems up to 40 Gb/s.



## High Performance and Future-Proof SMART Optical Handheld Testers



### Field dedicated

- Robust, shock-proof & splash proof
- Backlight for indoor and outdoor use
- Dust cap for optical interfaces
- Quick start operation with no warm up time

### Lightweight:

- 500 g / 1.1 lb

### High performance instrument

- Up to 900 calibrated wavelengths
- 1000 results storage capability
- Simultaneous testing at up to 3 wavelengths
- Highest accuracy
- 4 different way of powering the unit
- USB port for remote operation & report generation

### High flexibility and compatibility

- Universal push/pull interface (1.25 or 2.5 mm)
- Compatible with all JDSU optical handheld testers, MTS/T-BERD platforms and OFI-2000 tester.

## Compact and Economical Pocket-Sized Optical Handheld Testers



2 AA batteries or NiCd/NiMH cells

### Field dedicated

- Robust, shock-proof & splash proof
- Dust cap for optical interfaces
- Quick start operation with no warm up time

### Lightweight

- 180 g / 0.4 lb

### Basic, reliable & economic solution

- Simultaneous testing at 2 wavelengths
- Easy to use, straight forward operation
- Low cost

### High flexibility and compatibility

- Universal push/pull interface (1.25 or 2.5 mm)
- Compatible with all JDSU optical handheld testers, MTS/T-BERD platforms and OFI-2000 tester.

## Features for SMART and Pocket-Sized instruments

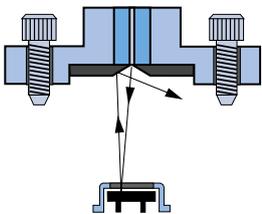


### Rugged and reliable

The rugged, shock-resistant and splash-proof design of JDSU's optical handheld testers protects the instruments from damage in the field and is designed to withstand even the harshest conditions. Moreover, a two-year warranty protects the instruments from any manufacturing defects. All JDSU optical handheld testers are calibrated to traceable national standards, and although a three-year calibration interval is recommended under normal operation conditions, no recalibration is necessary.

### Error-free wavelength setting

JDSU's optical power meters and optical light sources enable error-free testing due to their auto-lambda function. The light source sends an identification signal to the power meter, which enables synchronization between the two instruments. The auto-lambda function automatically detects and sets the wavelength, preventing the possibility of measurement errors caused by incorrect settings.



The reflection trap prevents multiple reflections

### Launching without multiple reflections

The test adapters of JDSU's optical power meters are based on the common "fiber-air-sensor interface" principle. A reflection trap in the adapter prevents possible multiple reflections between the reflective plug end surface and the photo diode from falsifying measurement results. Therefore, constant measurement accuracy is guaranteed, regardless of the reflectivity of the plug end surface (material or surface quality).



### Flexible and compatible

JDSU's optical handhelds meet all of your testing needs with their numerous available configurations. They can be used together to perform power and loss testing or return loss measurements, but most importantly, their flexibility makes them compatible with JDSU's fiber characterization platforms, including the MTS/T-BERD platforms, MTS-5100, and OFI-2000 testers.

1310 nm	-3,15 dBm
1550 nm	-5,50 dBm
1625 nm	-4,50 dBm
Auto λ	PERM

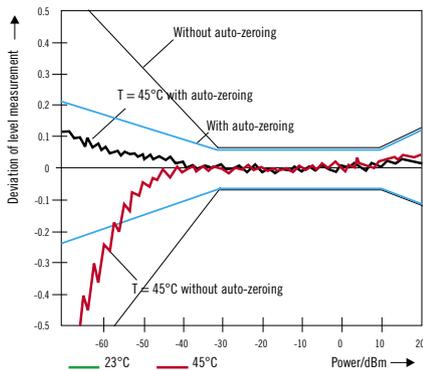
The TRIPLETest function enables simultaneous measurement and display at three wavelengths

## Simultaneous testing at multiple wavelengths

JDSU's TWINTest and TRIPLETest features increase the measuring speed for two-wavelength testing by up to 50% and for three-wavelength testing by up to 66%. Together with the appropriate optical light source, the optical power meter can perform real-time loss measurements at two or three wavelengths. The unit can automatically detect the wavelengths and simultaneously measure and display the results in less than one second.

## 900 calibrated wavelengths

JDSU's SMART optical power meters provide up to 900 calibrated wavelengths for the highest performance range in the industry. Technicians can select every operating wavelength from 800 nm to 1700 nm in 1 nm increments. The wavelength table allows technicians to store up to ten user-defined wavelengths. For each selected wavelength, the technician can decide whether or not it will be displayed.



Auto-zeroing function enables constant measurement accuracy over the entire level range and for the full temperature range.

## Highest accuracy on the market

In every power meter, whatever the photo diode type used, there is a reduction in measurement accuracy for low power levels and high temperatures. JDSU's auto-zeroing function for SMART optical power meters automatically compensates for all errors caused by the photo diode itself and its temperature dependence. This process takes very little time and is automatically performed between each measurement. The auto-zeroing function enables constant measurement accuracy over the entire power level and temperature range. It offers much easier handling and higher accuracy than standard manual zeroing.

## Optimized power supply

JDSU's SMART optical handhelds offer four versatile methods for powering the unit: dry cell batteries, rechargeable batteries, AC power, and USB interface. JDSU's SMART optical handhelds operate using universal, standard AA mignon batteries dry cell or rechargeable for more than 100 hours. In addition, the USB interface serves as an alternative method for powering the unit in the event that the standard power supply (batteries or AC power) is not available.

Due to the integrated fast battery charging function, the batteries can be recharged when the instrument is plugged into an AC line or into a Notebook or PC through the USB interface. JDSU's SMART optical handhelds enable operating cost reductions through the use of universally standard batteries. They also offer greater flexibility in the field due to their versatile four-way powering system.



USB port



Simply close the dust cap for referencing the optical return loss tester

## Advanced reference technology

JDSU's advanced reference technology simplifies referencing for ORL measurement. With this improved function, there is no need to apply a mandrel in order to perform a "zero" ORL adjustment of the SMART optical return loss tester. The technician simply closes the dust cap and waits a few seconds for referencing at each wavelength.

## Large storage capacity

The large memory storage capacity of JDSU's SMART optical handhelds allows for the storage of up to 1000 results in an instrument. Moreover, each result is stored based on the cable/fiber, including information about the date and time of the measurement. Using the USB interface, it is easy to transfer all of the test results to a PC for easy documentation and test report generation. Therefore, the large data memory capacity of JDSU's SMART optical handhelds provides a high degree of flexibility for measurements in the field and for post analysis of the results.

## Cost-effective light source

JDSU's SMART optical light sources enable multiple wavelength testing by combining multimode and singlemode lasers in a single unit. This cost-effective solution allows technicians to fully test and qualify any type of fiber network without the need to carry additional instruments in the field.

via USB port

Group	Mean	Date	Time	λ1	Level	Ref	λ2	Level	Ref	λ3	Level	Ref	
				nm	dBm	dBm	nm	dBm	dBm	nm	dBm	dBm	
1	2008	Feb 16	16:42:06	1310	-19.79	0.00	1550	-1.39	0.00	22.77	1625	-1.72	0.00
2	2008	Feb 17	13:25:00	1310	-2.55	0.00	1550	-25.24	0.00	22.77	1625	-1.72	0.00
3	2008	Feb 17	13:25:05	1310	-2.61	0.00	1550	-1.38	0.00	22.77	1625	-1.72	0.00
4	2008	Feb 17	13:25:07	1310	-3.48	0.00	1550	-2.27	0.00	22.77	1625	-2.58	0.00
5	2008	Feb 17	13:25:11	1310	-4.81	0.00	1550	-3.51	0.00	22.77	1625	-3.88	0.00
6	2008	Feb 17	13:25:13	1310	-5.18	0.00	1550	-4.13	0.00	22.77	1625	-4.48	0.00
7	2008	Feb 17	13:25:17	1310	-2.71	0.00	1550	-1.50	0.00	22.77	1625	-1.94	0.00
8	2008	Feb 17	13:25:21	1310	-3.08	0.00	1550	-1.98	0.00	22.77	1625	-2.25	0.00
9	2008	Feb 17	13:25:25	1310	-2.51	0.00	1550	-1.53	0.00	22.77	1625	-1.85	0.00
10	2008	Feb 17	13:25:28	1310	-2.81	0.00	1550	-1.84	0.00	22.77	1625	-1.95	0.00
11	2008	Feb 17	13:25:30	1310	-2.80	0.00	1550	-1.80	0.00	22.77	1625	-1.91	0.00
12	2008	Feb 17	13:25:34	1310	-3.48	0.00	1550	-2.25	0.00	22.77	1625	-2.60	0.00
13	2008	Feb 17	13:25:38	1310	-4.62	0.00	1550	-3.53	0.00	22.77	1625	-3.88	0.00
14	2008	Feb 17	13:26:12	1310	-4.25	0.00	1550	-3.78	0.00	22.77	1625	-3.40	0.00
15	2008	Feb 17	13:26:18	1310	-4.16	0.00	1550	-3.03	0.00	22.77	1625	-3.35	0.00
16	2008	Feb 17	13:26:23	1310	-4.19	0.00	1550	-3.02	0.00	22.77	1625	-3.34	0.00
17	2008	Feb 17	13:26:27	1310	-4.17	0.00	1550	-3.02	0.00	22.77	1625	-3.34	0.00
18	2008	Feb 17	13:26:30	1310	-4.16	0.00	1550	-3.03	0.00	22.77	1625	-3.34	0.00

The OFS-355 software can analyze every result for the complete line of SMART optical handhelds

## Professional report generation in record time

JDSU's OFS-355 software is an all-in-one solution, which allows for the remote control of JDSU's SMART optical handhelds and enables the transfer of test results to a PC via a USB interface. This software can analyze every result for the complete line of SMART optical handhelds, regardless of the type of measurement performed. With its intuitive interface and simple operating steps, OFS-355 software is the ideal tool for saving time and costs during the post analysis of field test results.



### OLP-55 and OLP-57 SMART Optical Power Meters

The OLP-55 and OLP-57 SMART Optical Power Meters are designed for installing, testing, and maintaining singlemode and multimode networks and cables for the industry's newest applications.



### OLS-55 and OLS-56 SMART Optical Light Sources

The OLS-55 and OLS-56 SMART Optical Light Sources offer the flexibility to test, install, and maintain singlemode and multimode fiber optic networks.



### OLA-54 and OLA-55 SMART Optical Level Attenuators

The OLA-54 and OLA-55 SMART Optical Level Attenuators are future-proof, improved instruments for system verification testing and production use. These instruments are 40 Gb/s ready due to their low differential group delay (DGD).



### ORL-55 SMART Optical Return Loss Meter

The ORL-55 SMART Optical Return Loss Meter is a high performance instrument for field, production, and laboratory use. It can function as a return loss meter, an optical power and loss meter, and a laser source.



### OLT-55 SMART Optical Loss Test Set

The OLT-55 SMART Optical Loss Test Set is a universal instrument for the installation, maintenance, and troubleshooting of singlemode fiber and for patch cord testing. It can also be used as a standalone power meter or laser source.



### OTS-55 SMART Optical Talk Set

The OTS-55 SMART Optical Talk Set is an ideal piece of ancillary equipment that can be used to create a communication mechanism between two terminal fiber ends in order to give instructions to the technician at the far end of the fiber network.



### OLP-5, OLP-6, and OLP-8 Pocket-Sized Optical Power Meters

The OLP-5, OLP-6, and OLP-8 Pocket-Sized Optical Power Meters offer universal, singlemode and multimode power measurement and loss testing capabilities in a rugged, pocket-sized casing for direct use in the field.



### OLS-5 and OLS-6 Pocket-Sized Optical Light Sources

The OLS-5 and OLS-6 Pocket-Sized Optical Light Sources offer high stability and long battery operating times in a rugged, pocket-sized casing for direct use in the field.



### OMK-5, OMK-6, and OMK-7 Pocket-Sized Optical Test Kits

The OMK-5, OMK-6, and OMK-7 Pocket-Sized Optical Test Kits include a pocket-sized optical light source, a pocket-sized optical power meter, and other accessories for power measurement and loss testing capabilities in multimode and singlemode networks.



### OMK-55 SMART Optical Test Kit

The OMK-55 SMART Optical Test Kit contains all of the tools, including two or three instruments as well as the accessories, which are necessary to perform professional-grade power or loss testing in the field. You can purchase an OMK-55 kit with the combination of instruments and accessories that meets your specific testing needs.

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