# VIAVI

# OLP-35V2
# OLP-35SC
# OLP-38V2

## SmartPocket™ V2
## Optical Power Meters

**User manual**
BN 2333/98.11
2021.07
English

Please direct all enquiries to your local Viavi sales company.
The addresses can be found at:
www.viavisolutions.com/en-us/contact-sales-expert

The description of additional features of the device can be found at:
www.viavisolutions.com/en-us/products/network-test-and-certification

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## Notes:

Changes may be made to specifications, designations and delivery infor-mation.

# CONTENTS

# 1 INTRODUCTION

## OLP-35V2/-35SC/-38V2 Optical Power Meters

The handheld Optical Power Meters
- OLP-35V2 (BN 2333/12)
- OLP-35SC (BN 2333/13)
- OLP-38V2 (BN 2333/14)

measure power levels on fiber optical systems.

The Test Sets are specially designed for high performance testing of all optical signals and systems, i.e. broadband, PONs, and Gigabit Ethernet.

Battery operation from two AA batteries and the robust, shock-proof design provide long operating time in the field even under tough conditions. AC line operation via a separate AC adapter and the USB interface ensure ease of use in the laboratory or production environment.

### Common features

All OLP-3xV2 power meters can connect to single-mode and multi-mode fibers with a max. core diameter of 50 µm.

Tests on systems from different manufacturers with different connector types are easy to handle due to the UPP adapter for 1.25 and 2.5 mm ferrules (OLP-35V2/-38V2 only).

A suitable optical source is required for measuring attenuation. The Viavi OLS-3x and OLS-3xV2 Optical Light Sources are ideal for this application.

Both modulated and unmodulated light signals can be measured. The average power of modulated light signals is displayed.

Modulated signal mode, which uses different fixed frequencies, can be used to identify fibers in a fiber bundle, for example.

The "Auto-$\lambda$" function provided by the OLP-3xV2 Optical Power Meters allows automatic wavelength detection. This application requires a wavelength encoding light source, e.g. one of the Viavi OLS-3x or OLS-3xV2 Optical Light Sources.

## Differences between the models

All the power meters are calibrated at 850 nm, 980 nm, 1310 nm, 1490 nm, 1550 nm, 1577 nm, 1625 nm and 1650 nm. The differences between the devices are the diode types and the maximum permitted power levels:

| Model | BN... | Diode type | Adapter | Display range |
|-------|-------|-----------|---------|---------------|
| OLP-35V2 | 2333/12 | InGaAs | UPP | +10 dBm |
| OLP-35SC | 2333/13 | InGaAs | fixed SC | +10 dBm |
| OLP-38V2 | 2333/14 | filtered InGaAs | UPP | +26 dBm |

## User manual update

If features provided by your device are missing in this user manual, please visit the Viavi web site to check if additional information is available.

**To download the latest operating instructions:**

1. Visit the Viavi web site at www.viavisolutions.com.
2. Search for **SmartPocket V2**.
3. Open the download area and download the operating instructions if available.

# Symbols used in this user manual

Various elements are used in this user manual to draw attention to special meanings or important points in the text.

## Symbols and terms used in warnings

The following warnings, symbols and terms are used in this document in compliance with the American National Standard ANSI Z535.6-2011:

**NOTICE**

Follow the instructions carefully to avoid **damage to or destruction of the instrument.**

**⚠ CAUTION**

Follow the instructions carefully to avoid a low or medium risk of **injury to persons.**

**⚠ WARNING**

Follow the instructions carefully to avoid **potential death** or **severe injury** to persons.

**⚠ DANGER**

Follow the instructions carefully to avoid **death** or **severe injury** to persons.

### High Voltage

Follow the instructions carefully to avoid **damage** to the instrument or **severe injury** to persons.

This safety instruction is given if the danger is due to **high voltage**.

### Laser

Follow the instructions carefully to avoid **damage** to the instrument or **severe injury** to persons.

This safety instruction is given if the danger is due to **laser radiation**. Information specifying the laser class is also given.

## Warning format

All warnings have the following format:

| ⚠ WARNING |
|---|
| **Type and source of danger** |
| **Consequences of ignoring the warning** |
| ▶ Action needed to avoid danger. |

The following character formats are used in this user manual:

| ✓ | **Requirement** |
|---|---|
| | This requirement must be met first; e.g. |
| | ✓ The device is switched on. |
| ▶<br>**1.**<br>**2.** | **Instruction** |
| | Follow the instructions given (the numbers indicate the order in which the instructions should be followed); e.g. |
| | ▶ Select mode. |
| *Italics* | **Result** |
| | Indicates the result of following an instruction; e.g. |
| | *The page opens.* |
| **Bold type face** | **Pages, controls, and display elements** |
| | Screen pages, controls, and display elements are indicated in bold type. |
| Text in blue | **Cross references** |
| | Cross references are indicated in blue type. When using the PDF version, just click on the blue text to skip to the cross reference. |
| **[MODE]** | **Device keys** |
| | Device keys are indicated within square brackets. |

# 2 SAFETY INFORMATION

▶ **All safety information for your device can be found in the printed booklett "Safety, Disposal and Environmental Protection" provided with your device.**

▶ **Carefully read and follow all instructions given there.**

▶ **The booklett "Safety, Disposal and Environmental Protection" is attached to this pdf. You can open it from the attachment window or by klicking the thumbnail on the left.**

# 3 GETTING STARTED

## Unpacking the device

### Packing material

We suggest that you keep the original packing material. It is designed for reuse (unless it is damaged during shipping). Using the original packing material ensures that the device is properly protected during shipping.

### Checking the package contents

Your device is shipped with the following accessories:

- 2.5 mm universal adapter
- 2 dry batteries AA
- User manual
- Belt bag

### Checking for shipping damage

After you unpack the device, check to see if it has been damaged during shipping. This is particularly likely if the packaging is visibly damaged. If there is damage, do not attempt to operate the device. Doing so can cause further damage. In case of damage, please contact your local Viavi Sales Company. Addresses can be found at www.viavisolutions.com.

### Recovery following storage/shipping

Condensation can occur if a device that is stored or shipped at a low temperature is brought into a warm environment. To prevent damage, wait until no more condensation is visible on the surface of the device before powering it up. Do not operate the instrument until it has reached its specified temperature range and wait until it has cooled down if the instrument was stored at a high temperature (see "Environmental conditions" on page 30).

# Device overview

OLP-35SC

**2**

OLP-35V2

**1**

**2**

**3**

**4**

**5**

**6**
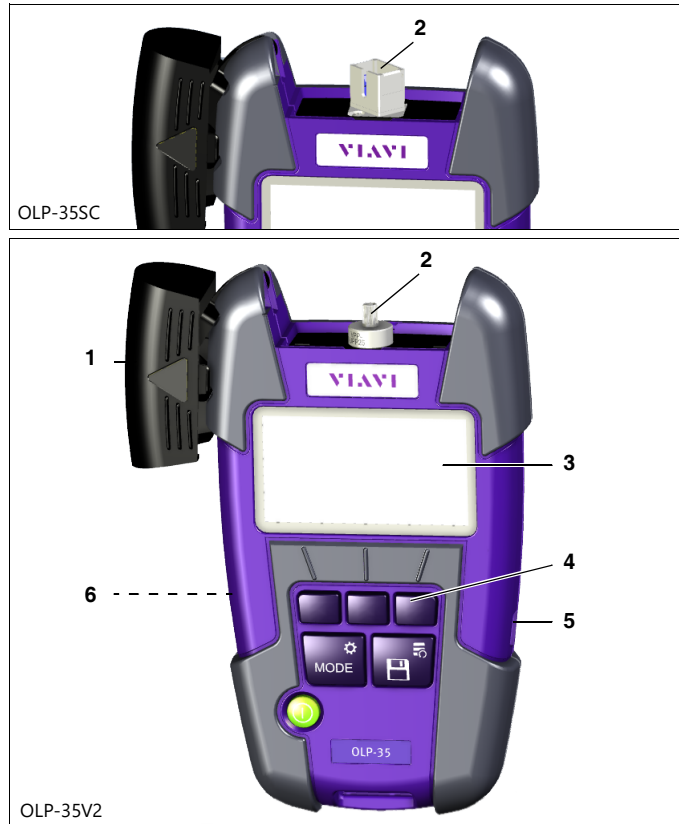
| 1 | **Test head cover** |
|---|---|
| 2 | **UPP** (OLP-35V2/38V2), **SC Adapter** (OLP-35SC) |
| 3 | **Display** |
| 4 | **Key pad**<br>Representation in the user manual:<br>**[■□□]** Context sensitive keys (here left key is selected)<br>**[MODE]** Mode/Settings key<br>**[💾]** Save/Results key<br>**[⏻]** Power key |
| 5 | **USB interface**<br>For power supply and measurement data downloads and updates. |
| 6 | **Battery compartment** (on rear of the device) |

## Keys

The key pad contains two types of keys:

- **Context sensitive keys:** The functions of these keys depend on the selected mode or menu and is shown in the display above the key.
- **Function keys:** The functions of these keys are always the same and shown on the key itself.

## Key usage (first and second function levels)

The function keys and the context sensitive keys in certain modes have two function levels.
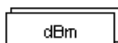
A second function level is indicated by two cascading frames.

- **Short press:** Select the first level function.
- **Long press:** Holding the key for at least 2 sec. opens the second level. You then have access to additional functions or a menu to change settings.

|  | Short press | Long press |
|---|---|---|
|  | Press to switch the device on/off. |  |
| **Context keys** | Select/show<br>Left key always: Select a wavelength out of 6 predefined values. | Change<br>Left key always: Change the predefined wavelength. |
| **MODE key** | Switch between Expert and OptiChek mode.<br>Return from Settings menu. | Open the settings menu. |
| **Save/Result key** | Store the current measurement. | Open the list of saved measurements. |

## Power Supply

**NOTE:** The devices are not designed for batteries based on lithium.

The following power sources can be used to operate the OLP-3xV2:

- Two 1.5 V dry batteries (Mignon AA size, alkaline type recommended)
- Two 1.2 V NiMH rechargeable batteries (Mignon AA size)
- via AC adapter over USB interface

## Battery operation

⚠ **WARNING**

### Dangers in handling batteries

Handling batteries may be dangerous. Please note the following safety instructions.

▶ Please note the battery operation safety information in the booklett "Saftey, Disposal and Environmental Protection".

### Replacing the batteries

▶ Do not replace individual batteries. Always change both batteries at the same time.
▶ Always use batteries of the same type; i.e. do not mix rechargeable and non-rechargeable batteries.

### Replacing the batteries

The battery compartment is on the back of the device.

**1.** Pull down the lid to open the battery compartment.

**NOTICE:**  Take care to insert the batteries correctly.
The correct polarity is indicated by a diagram inside the battery compartment.

**2.** Insert new batteries or replace dead ones.

**3.** Close the battery compartment.

**4.** Press [☉] to switch on.

**NOTE:** The batteries cannot be recharged with the OLP-3xV2.

### General tips on using batteries

• Never use batteries based on lithium.
• Always handle batteries with care.
• Do not drop or damage the batteries or expose them to excessively high temperatures.
• Do not store rechargeable batteries for more than one or two days at very high temperatures (e.g. in a vehicle), either separately or fitted in the device.
• Do not leave discharged batteries in the device for a long time if it is not being used.
• Do not store rechargeable batteries for more than 6 months without recharging them at intervals.
• Avoid deep discharging of the batteries as this can cause the cell polarity to reverse and make the battery useless.

## Protecting the environment

Please dispose of any unwanted dry batteries and rechargeable batteries carefully. They should also be removed from the instrument if it is to be scrapped. If facilities in your country exist for collecting waste or for recycling, please make use of them rather than throwing the batteries in the normal trash. You will often be able to return used batteries to the place where you purchase new ones. Any dry or rechargeable batteries that you purchased from Viavi can be returned to one of our Service Centers for disposal.

## Operation from AC power

### To fit one of the mains plug adapters:

▶ See Fig. 1 and follow the instructions which are shown on the packaging of the mains plug adapter.
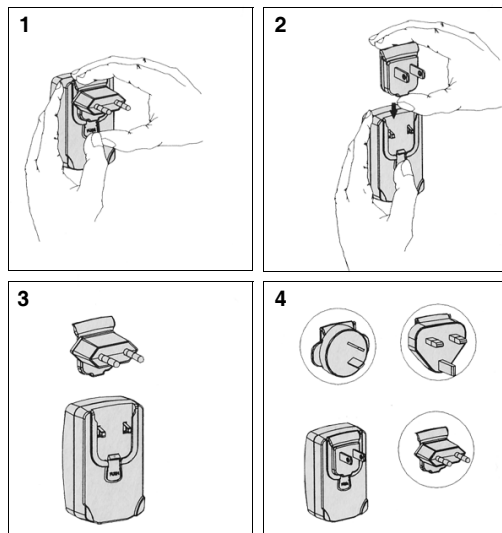


Fig. 1      Fitting the mains plug adapter

### To operate the OLP-3xV2 from AC power:

1. Connect the USB-C connector power cord to the OLP-3xV2.
2. Plug the mains plug adapter into the AC receptacle.

# 4 OPERATION

## Switching the device on/off

The OLP-3xV2 has two battery power modes:

| Mode | Icon | Description |
| --- | --- | --- |
| **Permanent ON (PERM)** |  | The device is switched on permanently. |
| **Automatic OFF (ECON)** |  | The device switches off 20 minutes after the last operation. This function is only available when the device is powered from batteries. |

**To switch the device on/off:**

► Press **[ ]** to switch the device on/off.
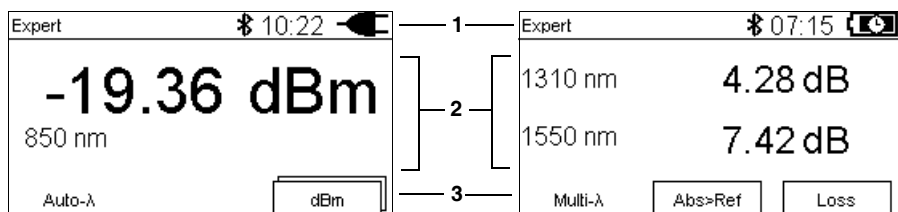
## Selecting a power mode

**To change the power mode:**

✓ The device is switched on.
1. Long press **[MODE]** to open the settings menu.
2. Use **[⬆⬇]** to select **ECON**.
3. Press **[ ]** to select power mode:
   ON = ECON
   OFF = PERM
4. Press **[MODE]** to close the menu.

# Display elements

The following elements can be found in the display.



Display of one value in Auto-λ mode.



Display of two values in Multi-λ mode.

| 1 – Status bar | |
| --- | --- |
| Expert/ OptiChek | Selected/active mode<br>The mode can be changed via the **[MODE]** key. |
| ✳ | Bluetooth® is active<br>Bluetooth connction allows for data transfer via the MobileTech app (for future use). |
| 7:15 | Real Time Clock<br>Time can be changed via the settings menu. |
| 🔋 | Battery status in **PERM** power mode:<br>Device remains switched on. |
| 🔋 | Battery status in **ECON** power mode:<br>Device switches off 20 minutes after the last operation. |
| 🔌 | The device is powered via USB |
| **2 – Center of display** | |
| ... db/dBm | Shows the measurement results in dBm, dB or W. |
| ... nm | Display of selected wavelength<br>(displayed wavelength depends on settings and model). |
| **3 – Context sensitive key functions** | |
| Auto-λ<br>Multi-λ | Detected operating mode<br>(when Auto-λ is set to ON in the settings menu). |
| Abs>Ref | Function is selected by pressing the context key. |
| dBm | Function is selected by pressing the context key.<br>Long press will provide additional functions/settings. |

## Settings menu

The following settings can be changed in the settings menu.

▶ To open the settings menu long press **[MENU]**.

| Item | Settings | Description |
|---|---|---|
| **Hour** | 1...12 | ▶ Press **[☐☐■]** to change setting:<br>– Press once to change one step at a time.<br>– Hold down the key to increase the step change rate. |
| **Minute** | 1...59 | |
| **Year** | 2020...2030 | |
| **Month** | 01...12 | |
| **Day** | 01...31 | |
| **About** | Show device data including last calibration date | ▶ Press **[✓]** to confirm setting.<br>▶ Press **[⏎]** to return to the settings menu. |
| **Factory Reset** | Reset | |
| **Auto Lambda** | ON/OFF | Press **[ ▭ ]** (right context key to toggle ON/OFF |
| **Bluetooth LE** | ON/OFF | |
| **ECON** | ON/OFF<br>ON = ECON<br>OFF = PERM | |

## Selecting a wavelength

The sensitivity of the photo diode depends on the wavelength. The wavelength setting of the device must match the wavelength of the incoming signal to ensure a correct reading.

**To select a wavelength:**

▶ Press **[■☐☐]** to select a new wavelength.
*The current value is shown in the lower left corner:*
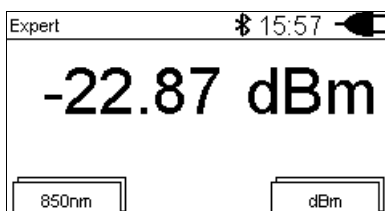
The wavelengths that can be selected by pressing this key are an extract of those contained in the internal wavelength table.
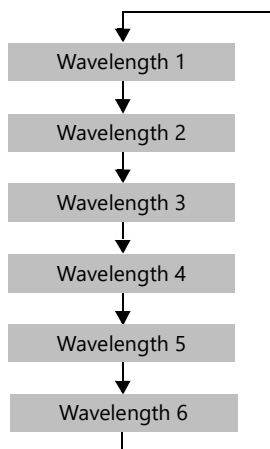


Fig. 2    Wavelength entries

## Editing the wavelength table

The wavelength table supports the definition of up to 6 wavelengths.

**To edit the wavelength table:**

✓  Auto-λ is switched off.
1.  Press **[■□□]** to select a wavelength.
2.  Long press **[■□□]**.
*The wavelength table is in edit mode and the selected wavelength position is shown (in a box) on the right.*



3.  Use **[+]/[–]** to change the wavelength value.
- Press once to change stepwise.
- Hold down the key to increase the step change rate.
4.  Press **[✓]** to save the new wavelength.

## Selecting Expert/OptiChek mode

The OLP-3xV2 provides two operating modes:

### Expert

All functions are available, like selecting a wavelength and loss measurement. Use this mode for in depth evaluation of your test environment. All following described functions are available in Expert mode only.

### OptiChek

This mode is meant for quick and easy test procedures. Only the absolute power level can be measured and you can not select a wavelength (range from 1300 to 1600 nm is used).

**To select an operating mode:**

▶ Tap **[MODE]** to toggle between **Expert** and **OptiChek** mode.

## Selecting a display mode
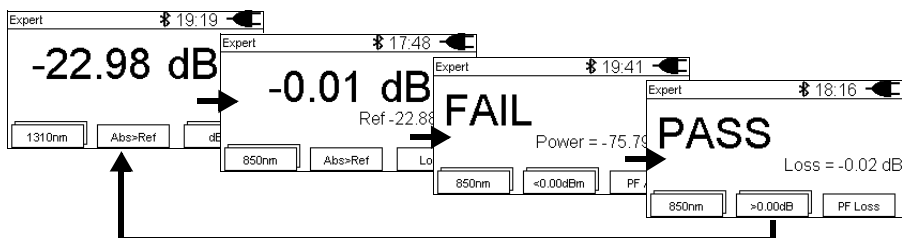
The OLP-3xV2 provides following display modes:

- **dBm/Watt:** Display of absolute power level
- **Loss:** Display of power level relative to a reference value
- **PF Abs:** Pass/Fail indication based on an absolute power threshold
- **PF Loss:** Pass/Fail indication based on a relative power threshold

**To select a display mode:**

▶ Press **[□□■]** to toggle between the displays modes.

# Absolute power level mode

The power level is displayed in dBm or Watts (nW, µW, mW).

▶ Long press **[□□■]** to toggle dBm/Watts.



**NOTE:** The context sensitive field shows the selected unit.

### Display range

| Model | BN... | dBm | Watt |
|---|---|---|---|
| OLP-35V2 | 2333/12 | -65 to +10 dBm | 1 nW to 10 mW |
| OLP-35SC | 2333/13 | -50 to +26 dBm | 10 nW to 400 mW |
| OLP-38V2 | 2333/14 | -65 to +10 dBm | 1 nW to 10 mW |

# Loss mode

In **Loss** mode the power level relative to a reference value is displayed. The reference value can be set by defining the current power level as the reference value **[Abs>Ref]**.

▶ Press **[□□■]** to display relative power level.

## Setting the reference level

✓ **Loss** mode is selected.

▶ Press **[Abs>Ref]**.
*The current power level is set as the new reference level.*



**NOTE:** The reference level must be stored for each individual wavelength separately.

# Pass/Fail mode

An integrated pass/fail analysis feature simplifies standard conformity testing and provides unambiguous measurement result presentation.
The OLP-3xV2 provides two Pass/Fail modes:
- **PF Abs:** Pass/Fail indication based on a absolute power threshold
- **PF Loss:** Pass/Fail indication based on a loss threshold

**To select a Pass/Fail mode:**

▶ Press **[□□■]** until **PF Abs** or **PF Loss** is displayed.

**NOTE:** When **PF Abs** or **PF Loss** is selected the two modes can also be toggled by pressing **[□■□]**.

## Setting the fail threshold

Setting the fail threshold is identical for both Pass/Fail modes.

✓ **PF Abs** or **PF Loss** mode is selected. Press **[□■□]** to toggle between both modes.

1. Press **[■□□]** to select a wavelength (see also page 17).
2. Long press **[□■□]**.
   *The Set Fail Threshold screen opens.*

   ![Set Fail Threshold screen showing <0.00 dBm at 850 nm with +, −, and checkmark buttons]

3. Use **[+]/[−]** to change the threshold.
4. Press **[✓]** to save the new threshold.

**NOTE:** When Multi-λ is active, the fail threshold can not be set.
To deactivate Multi-λ e.g. switch of the laser or disable Multi-λ at the transmitter side temporarily.

## Displaying modulated signals

The OLP-3xV2 automatically detects the modulation frequency of light signals modulated at the fixed frequencies (270 Hz, 330 Hz, 1 kHz, 2 kHz) and CW (constant wave). The detected frequency is shown in the lower center display pane.

**NOTE:** The OLP-3xV2 can automatically detect the modulation frequency only if **no** Auto-λ was detected (see "Enabling Auto-Lambda mode" on page 22).

## Enabling Auto-Lambda mode

Auto-λ is a special feature developed by Viavi that allows you to identify wavelengths automatically. To do this, the signal is modulated at a certain frequency (by a light source equipped with Auto-λ such as a Viavi OLS-3xV2), which can be detected by a Viavi OLP-3xV2.

Wavelengths may not be reliably detected in following situations:

• The received level is too low.

• Due to interferences.

• You are measuring the absolute level of a system that does not have wavelength encoding that matches Viavi power sources.

**NOTE:** The Auto-λ function can be disabled in order to prevent an incorrect wavelength detection while measuring "In-Service" systems.

### To switch Auto-λ mode on/off:

**1.** Long press **[MODE]** to open the settings menu.

**2.** Use **[⬆]**/**[⬇]** to select Auto**-**λ.

**3.** Press **[ ▦ ]** to switch Auto**-**λ on/off.

If Auto-λ mode is activated and an optical source supporting Auto-λ is connected, **AUTO-**λ is shown in the lower left display.

### Display in Auto-λ mode

When an **Auto-**λ signal is detected (Auto-λ mode needs to be activated), the wavelength setting switches automatically to the applied wavelength and can't be changed manually.



Fig. 3    Display in **Auto**-λ mode showing one detected wavelength and the power level.

## Multi-Lambda mode

The OLP-3xV2 can receive Multi-λ signals and display up to three wavelengths simultaneously. To enable Multi-λ it has to be activated on the optical source, connected with the OLP-3xV2 (e.g. Viavi OLS-34/35/38) and Auto-λ must be switched on at the OLP-3xV2.
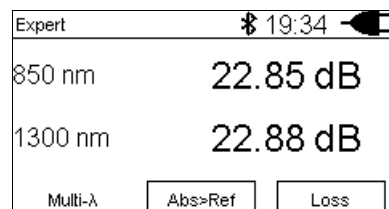


Fig. 4    Multi-λ mode

▶    To switch on Auto-λ:
    See .

# 5 MEMORY MANAGEMENT

## General information

The OLP-3xV2 allows you to save the measured power level values in a data memory and recall them as required. **Up to 1000 results can be stored.**

**NOTE:** See also "Specifications" on page 29 for additional data management tools.

## Storing measurements

▶ Press **[🖫]** to save the current result.
*The result is saved when "Saving ..." appears on the display and below the name of the currently saved data.*
*The results are always stored with the current date-/ timestamp (e.g. 2021-01-13T16-05-52, corresponding to January 13'th 2021 at 16h:05min:52s)*
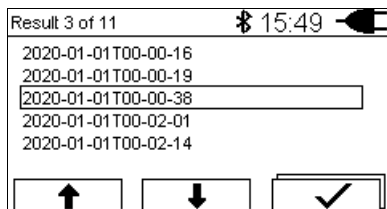


The new results are always appended successively at the last memory location, even if you clear a previously assigned memory location with a lower number.

## Recalling measurements

1. Long press **[🖫]**.
*The device shows the list of saved measurements.*



2. Press **[⬆]/[⬇]** to browse through the list.

3. Press **[✓]** to open the highlighted entry.
*The selected measurement data is displayed.*



4. Press **[☰]** to return to the list or, press **[⬆]/[⬇]** to show next/previous result or press **[MODE]** to exit.

## Deleting measurements

✓ The device shows the list of saved measurements.

1. If you want to delete a single entry,
use **[⬆]/[⬇]** to select it.

2. Long press **[✓]** to open the sub menu.
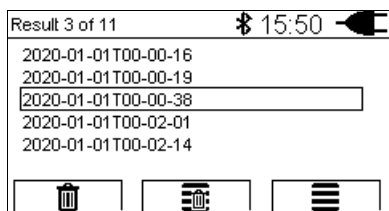


3. Press **[🗑]** to delete the selected entry.
or press **[🗑]** to delete all results.
*A dialog will ask you to confirm the deletion.*



4. Press **[✓]** to accept or press **[X]** to cancel.

5. Press **[☰]** to close the sub menu and to show the list of saved measurements or press **[MODE]** to exit.

**NOTE:** You cannot select and overwrite empty memory locations.

# 6 DATA EXPORT AND FIRMWARE UPDATE

The USB interface or the Bluetooth® interface (OLP-3x only) can be used for data export and firmware update.

## USB and SmartReporter

When using the USB interface the SmartReporter allows you to easily transfer stored measurement data to a PC and to update the firmware.

The SmartReporter reporting tool is offered by Viavi for free and can be download from:
**https://updatemyunit.net/ > Application Software**.

▶ For more information about data export and firmware update via USB and SmartReporter please refer to the SmartReporter user manual.

## Bluetooth® and MobileTech app / StrataSync cloud (OLP-3x only)

Using the OLP-3x you have also the choice to upload the saved data and to update the firmware using Bluetooth® via Viavi's MobileTech App into the StrataSync cloud.

▶ Please contact your Viavi representive for more information.

# 7 MAINTENANCE

| ⚠ **WARNING** |
|---|
| **Invisible laser radiation** |
| **Maintenance or cleaning of the instrument while it is connected or operating may damage the instrument or injure you.** |
| ▶ Make sure that the instrument is switched off and disconnected from all power sources and optical radiation sources before maintenance or cleaning. |
| ▶ Do not open the instrument for maintenance or service. Service shall be performed by Viavi trained personnel only. |

## Cleaning the test port

It is a good idea to check that the optical connections are clean and to clean them if necessary before starting measurements. Even very small dust particles on the end surfaces of the plugs or in the test adapters can adversely affect the accuracy of the measurement.

| *NOTICE* |
|---|
| **Damage to the photo diode** |
| **Touching the photo diode could scratch the glass surface.** |
| ▶ Be careful when cleaning the photo diode and do not use any rough cleaning materials. |

**1.** Switch off the device.

**2.** Blow into the test adapter with compressed and clean air to remove dust.

**NOTE:** Cover the optical connections with the dust cap whenever they are not in use. This prevents them from getting dirty.

# Cleaning the instrument

If the device gets dirty through use, you can clean it using a soft cloth moistened with a mild solution of detergent.

**NOTICE**

**Water and cleaning fluids**

**The instrument may be damaged or destroyed if water or cleaning fluids penetrate it.**

▶ Make sure that water or cleaning fluids do not get inside the instrument.

# 8  SPECIFICATIONS

## OLP-35V2/-35SC

| | |
|---|---|
| Adjustable wavelength range | 800 to 1650 nm (1 nm incr.) |
| Calibrated wavelengths | 850 nm, 980 nm, 1310 nm, 1490 nm, 1550 nm, 1577 nm, 1625 nm, 1650 nm |
| Photo diode | InGaAs |
| Fiber type | 9/125 to 50/125 |
| Display range | -65 to +10 dBm |
| Resolution | 0.01 dB, 0.001 µW |
| Max. power level | +16 dBm |
| Intrinsic uncertainty[1] | Expert mode: ±0.2 dB (±5%) OptiChek: ±0.8 dB (±5%) |
| Linearity[2] | ±0.06 dB |
| Overall measurement uncertainty[2] | |
| 850 nm, 980 nm | ±0.35 dB ±0.8 nW |
| 1310 nm, 1550 nm | ±0.25 dB ±0.1 nW |
| 1490 nm, 1625 nm | ±0.35 dB ±0.1 nW |
| 1650 nm | ±0.45 dB ±0.1 nW |

1) Under reference conditions: -11 dBm (CW), 1310 nm ±1 nm, 23 °C ±3K, 45 to 75% relative humidity, 9 µm test fiber, 9° angeled ceramic end face
2) -50 to +5 dBm from 0 to +45 °C

## OLP-38V2

| | |
|---|---|
| Adjustable wavelength range | 800 to 1650 nm (1 nm incr.) |
| Calibrated wavelengths | 850 nm, 980 nm, 1300 nm, 1310 nm, 1490 nm, 1550 nm, 1625 nm |
| Photo diode | filtered InGaAs |
| Fiber type | 9/125 to 50/125 |
| Display range | -50 to +26 dBm |
| Resolution | 0.01 dB, 0.001 µW |
| Max. power level | +27 dBm |
| Intrinsic uncertainty[1] | Expert mode: ±0.5 dB (±12%) OptiChek: ±0.8 dB (±12%) |
| Linearity[2] | ±0.06 dB |
| Overall measurement uncertainty[2] | |
| 850 nm, 980 nm | ±0.60 dB ±30 nW |
| 1300 nm, 1310 nm, 1550 nm, 1625 nm | ±0.55 dB ±10 nW |
| 1490 nm | ±0.65 dB ±10 nW |

1) Under reference conditions: -11 dBm (CW), 1310 nm ±1 nm, 23 °C ±3K, 45 to 75% relative humidity, 9 µm test fiber, 9° angeled ceramic end face
2) -32 to +20 dBm from 0 to +45 °C

# General specifications

| | |
|---|---|
| Wavelength detection[1)2)] | Automatic switching and displaying wavelengths |
| Modulation detection[2)] | CW, 270 Hz, 330 Hz, 1 kHz, 2 kHz |
| Optical adapter system | |
| OLS-35V2/-38V2 | UPP 2.5 mm (1.25 mm optional) |
| OLS-35SC | Fixed SC |
| | both suitable for PC and APC systems |

1) Only in conjunction with Viavi OLS-3x Optical Light Sources.
2) BN 2333/12/14 for levels > -50 dBm
   BN 2333/13 for levels > -35 dBm

## Memory

| | |
|---|---|
| Memory capacity | 1000 measurement results |
| Data readout | via USB-C interface |

## Calibration interval

| | |
|---|---|
| Recommended calibration interval | 3 years |

## Power supply

| | |
|---|---|
| Dry batteries | 2 x AA, 1.5 V (never use batteries based on lithium) |
| Rechargeable batteries | NiMH, 2 x AA, 1.2 V |
| Power consumption | 2.5 W max. |
| Operating life with dry/ rechargeable batteries | typ. 80 h (Bluetooth ® off) |
| AC line operation | With separate 5 V DC USB adapter. Use EMC and Safety certified low energy adapters only. |
| Power saving | Auto power-off after approx. 20 min (can be disabled) |

## EMC and safety

| | |
|---|---|
| Electromagnetic compatibility (EMC) | EN 61326-1:2013 |
| Device safety | EN 61010-1:2010 |

## Environmental conditions

| | |
|---|---|
| Operating temperature range | -10 to +55 °C (14 to 131 °F) |
| Storage and transport | -40 to +70 °C (-40 to 158 °F) |
| Altitude | 2000 m max. (6500 ft. max.) |
| Pollution degree | 2 |
| Ingress protection | IP44 |
| Relative humidity up to +31 °C | 15 to 85 % |
| Absolute humidity > +31 °C | 1 to 29 g/m$^3$ |

Occasional condensation is tolerable as a limit condition.

## Dimensions and weight

| | |
|---|---|
| Dimensions (H x W x D) | 30 x 80 x 150 mm (1.18 x 3.15 x 5.90 in) |
| Weight (incl. batteries) | 200 g (0.44 lb) |

# 9 ORDERING INFORMATION

## Devices

### OLP-35V2

Optical Power Meter

| InGaAs | OLP-35V2 |
|---|---|

### OLP-35SC

Optical Power Meter with fixed SC Adapter

| InGaAs | OLP-35SC |
|---|---|

### OLP-38V2

Optical Power Meter, High Power

| InGaAs (coated) | OLP-38V2 |
|---|---|

### Calibration report

| OLP-35V2, OLP-35SC, OLP-38V2 | BN 2333/90.03 |
|---|---|

## Accessories

Cleaning materials, power supplies

| OCK-10 Optical cleaning kit | BN 2229/90.21 |
|---|---|
| Cleaning tape for optical connectors | BN 2229/90.07 |
| Spare optical cleaning tape | BN 2229/90.08 |
| NiMH rechargeable batteries, Mignon AA, 1.2 V (2 batteries required) | BN 2237/90.02 |
| AC adapter | BN 2302/90.01 |
| UPP adapter 1.25 mm | VPP-UPP12 |

# 10 PRODUCT REGULATORY COMPLIANCE

▶ **All information about the product regulatory compliance can be found in the printed booklett "Safety, Disposal and Environmental Protection" provided with your device.**