VIAVI Solutions

Quick Card

SmartClass Fiber OLP-82/-85 Optical Power Meters
Measuring Absolute Power

This quick card describes how to use VIAVI SmartClass Fiber OLP-82 and OLP-85 series Optical Power Meters (OPMs) to measure absolute power (dBm).

Equipment Requirements:

- SmartClass OLP-8x Optical Power Meter:
  - OLP-82 Optical Power Meter
  - OLP-82P Optical Power Meter w/ Patch Cord Microscope
  - OLP-85 Optical Power Meter
  - OLP-85P Optical Power Meter w/ Patch Cord Microscope
- Fiber optic cleaning and inspection tools
- Fiber optic patch cord (Reference Cable)
- Optical Coupler to connect Reference Cable to Fiber Under Test (FUT)

The following information is required to complete the test:

- Type of Fiber (Multimode or Single Mode)
- Type of Connectors (SC UPC, SC APC, LC UPC, etc.)
- Wavelength of signal(s) to measure

Connect to Fiber Under Test (FUT):

The OLP-8x may be connected to the FUT via an optical patch panel or an optical coupler as follows. All fibers and connectors should be inspected and cleaned prior to connection:

1. Inspect and, if necessary, clean fiber end face of the Reference Cable.
2. Connect the Reference Cable to the Power Meter port, under the flap on top of the OLP.
3. If the interface to the Fiber under Test is a patch cord, connect the patch cord to an optical coupler with the same connector type.
4. Inspect and, if necessary, clean the FUT connected to the coupler or patch panel.
5. Inspect and, if necessary, clean the other fiber end face of the Reference Cable.
6. Connect the Reference Cable to the coupler or patch panel leading to the light source.

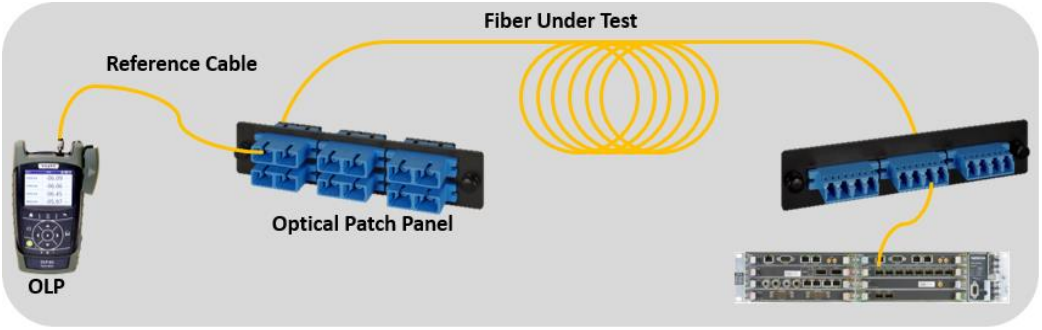

Figure 1: Connecting the OLP to a patch panel or coupler

Figure 2: OLP-82P Layout

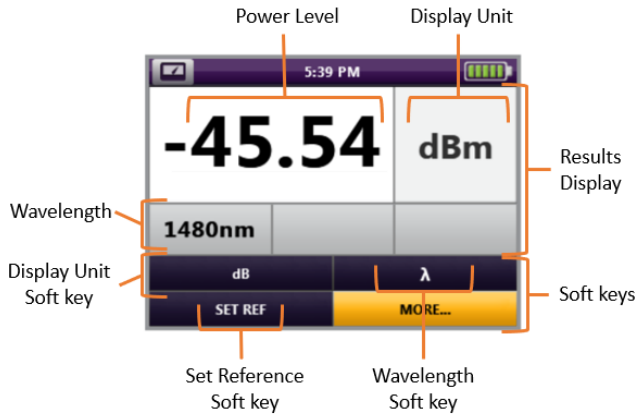

Figure 3: Power Meter Results screen

Measure Absolute Power:

1. Press the **Power button** to turn on the OLP and display the **Home** screen.
2. Tap the **Power Meter** icon to launch the power meter.
3. Tap the **Wavelength** soft key and select the wavelength to measure.
4. Tap the dBm/dB **Display Unit** soft key and set the Display Units to **dBm.** The soft key will be labeled **dB**, when the unit is set to **dBm** in the **Results Display**.
5. View the **Power Level** in the **Results Display** at the top of the screen.