VIAVI Solutions

Quick Card

T-BERD®/MTS-2000 Modular Test Set
E41PM Optical Power Meter

This procedure describes how to use the E41PM built-in Optical Power Meter to measure **absolute power**.

Equipment Requirements:

- T-BERD/MTS-2000 equipped with the following:
  - Fiber Optics Software Release V17.30 or greater
  - E41PM Optical Power Meter
- Fiber optic cleaning and inspection tools
- Launch Cable (patch cord) with connectors matching the Power Meter port and Fiber Under Test
- Optical Coupler to connect Launch Cable to Fiber Under Test

Figure 1: Equipment Requirements

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(s) to be tested (850nm, 1300nm, 1310nm, 1550nm, etc.)

Fiber Inspection Guidelines:

- Use the VIAVI P5000i or FiberChek Probe microscope to inspect both sides of every connection being used (Launch Cable, bulkhead connectors, patch cords, etc.)
- Focus the fiber on the screen. If dirty, clean the connector.
- If it appears clean, run inspection test.
- If it fails, clean the fiber and re-run inspection test. Repeat until it passes.

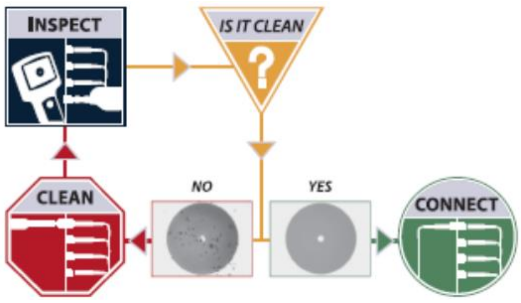

Figure 2: Inspect Before You Connect (IBYC)

Connect to Fiber Under Test (FUT):

All fibers and connectors should be inspected and clean prior to connection, as described on page 1. The T-BERD 2000 may be connected directly to the FUT or via an optical patch panel (OPP) bulkhead as follows:

1. If the interface to the FUT is a patch cord:
    - Inspect the fiber end face of the patch cord.
    - Connect the patch cord to the built-in Power Meter port under the flap on top of the test set.

Figure 3: Power Meter Port

2. If the interface to the FUT is an Optical Patch Panel or coupler:
    - Inspect the FUT connected to the OPP.
    - Inspect the fiber end face of the Launch Cable.
    - Connect the Launch Cable to the built-in power meter port.
    - Inspect the other fiber end face of the Launch Cable.
    - Connect the Launch Cable to the OPP leading to the light source.

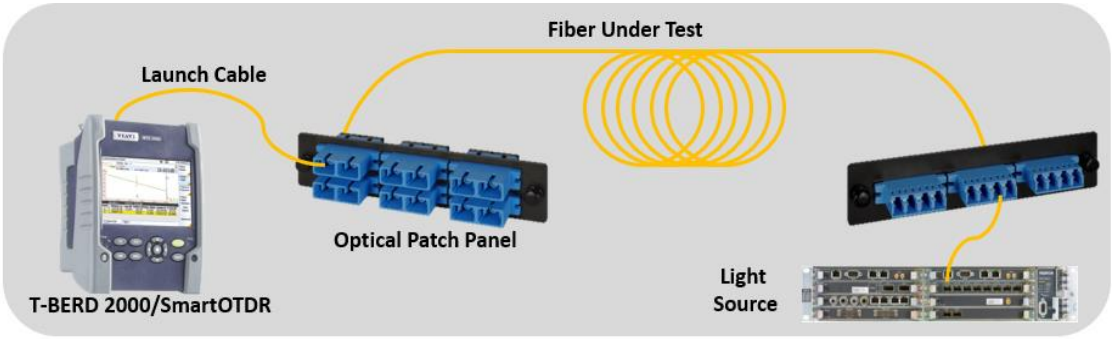

Figure 4: Connecting the T-BERD/MTS-2000 to an OPP

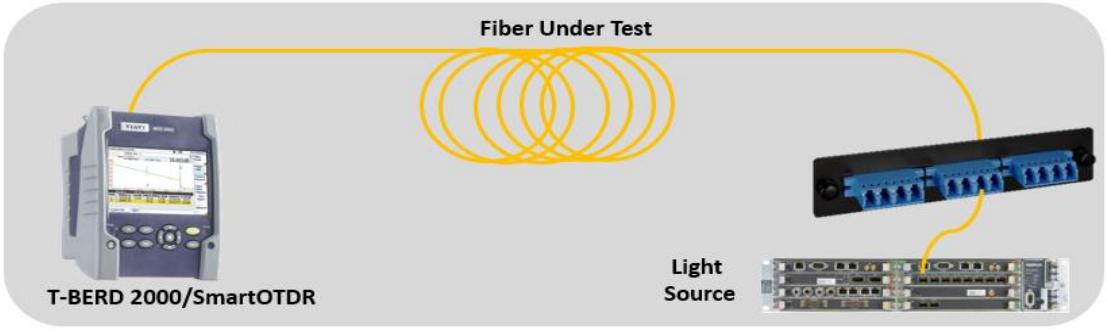

Figure 5: Connecting the T-BERD/MTS-2000 to the FUT

Operate the Power Meter:

1. Press the Power button 

to start the test set.
2. Press the **Home** button 

to display the Home view with the **POWERMETER** icon.

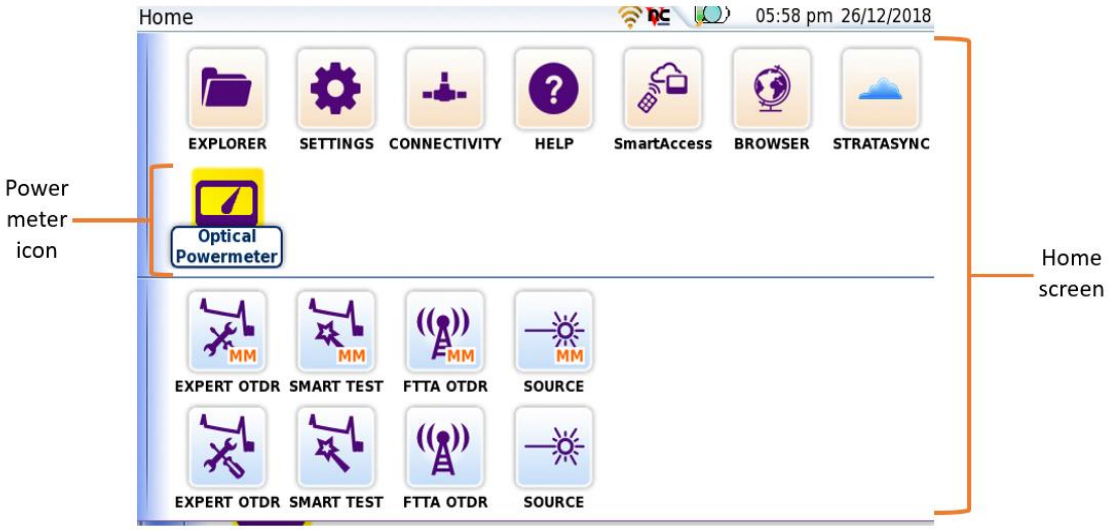

Figure 6: Home View.

3. Tap the **POWERMETER** icon 

until it is yellow and highlighted 

. The Results view will be shown with Power Meter settings and results in the box labeled **Powermeter on Base.**

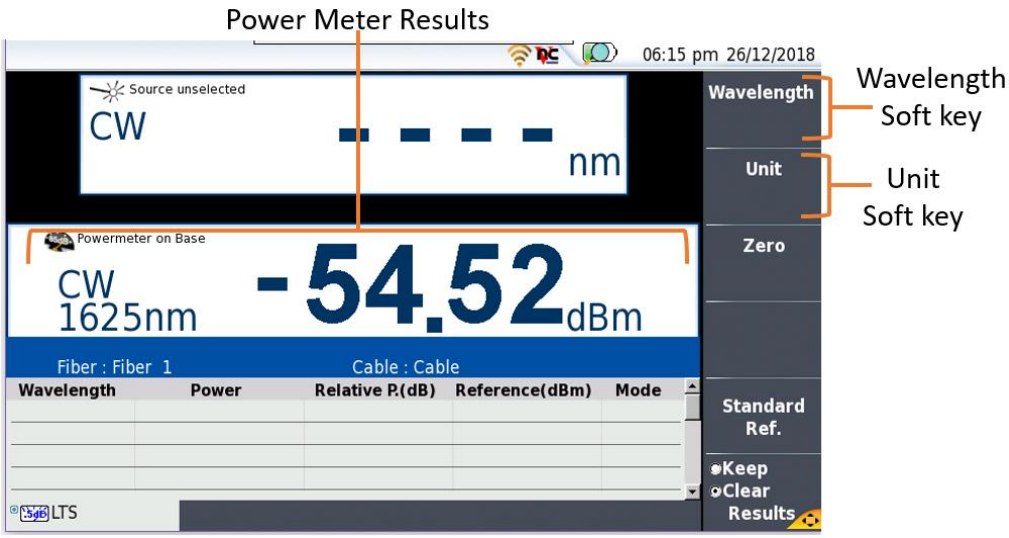

Figure 7: Results View

4. Tap the **Wavelength** soft key 

to select the desired Output Wavelength (850nm, 1300nm, 1310nm, 1550nm, etc.)
5. Tap the **Unit** soft key 

and set units to **dBm**.
6. View the Power Level in the **Power Meter Results** display in the center of the screen.