OPM and VFL Features for the 1G DSP

Introduction

This optional hardware package and measurement suite includes both a built-in FTTx ready Optical Power Meter (OPM) for testing of passive optical networks and a Visual Fault Locator (VFL) to identify loss points in patch cords, patch panels, and enclosures.

The optical power meter provides the ability to perform both absolute and relative measurements of ITU-T G983.3 recommended wavelengths of 1310 nm, 1490 nm, and 1550 nm. Additionally, the VFL emits a Class III visible red light laser beam with 3 mW of power that allows you to quickly and easily locate light escaping from damaged single-mode and multi-mode fiber cables.

The meter comes with fiber connector adaptors for SC, FC, and ST-type connections.

Optical Power Meter

To access this feature, select the **OPM** icon from the **Utility** menu, as shown below.



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Application Note

The OPM meter will be displayed as shown here. Make sure to select the proper wavelength by using the up/down arrow buttons (1310, 1490, or 1550 nm).

ТОРМ						
	Optical Powe	r .	λ 1550 nm			
5						
•						
-5						
-10						
-15						
-20			I 13 dRm			
-25		-				
-30						
-35						
-40						
-45						
-50			No. 7.4			
	Power		No Ref			
Set Wavelength						
		Settings	Reference			

- 1. Connect the fiber to the OPM optical port on the top of the meter.
- 2. To change the received optical power, select the Settings softkey, then use the up/down arrow buttons choose dBm or mW and press Enter.





Set to dBm

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Application Note

3. To set or clear the reference, select the **Reference** softkey and choose **Set** or **Clear** and press **Enter.**



TOPM		ФОРМ	
Optical Power	λ 1550 nm	Optical Power	3 dBm
*50- Power	1.13 dBm	*50-1 Power	No Ref
Set Wavelength		Set Wavelength	
Settings	Reference	Settings	Reference

Reference set

Reference cleared

Application Note

Visual Fault Locator

To access this feature, select the VFL icon from the Utility menu, as shown below.



The VFL meter will be displayed as shown here. The Laser Power is off by default.



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Application Note

New DSP Family

Select the **Mode** softkey to choose from either **Pulse** or **Continuous** mode of operation. The mode can be adjusted when the laser power is On or Off.



Select the **On** softkey to activate the laser power to the VFL. After selecting the On softkey, the screen shown in the image to the right is displayed for two seconds before activating the laser output.



When the power to the VFL laser is active, the screen shown on the right will be displayed.

To deactivate the VFL laser, select the **Off** softkey as shown in the image to the right.



Application Note

When the fiber has the proper bend radius, the light does not show through the cladding, as shown here.

When the fiber is bent too sharply, creating a macrobend, the fiber shows red, indicating light lost or attenuation, as shown here.

For Additional Help, Contact Trilithic Applications Engineering 1-800-344-2412 or 317-895-3600 <u>support@trilithic.com</u> or <u>www.trilithic.com</u>





