



# Optical Probe

## User Manual

Please read this manual thoroughly before use.  
Properly keep this manual with the equipment  
for future reference.

# Introduction

To users:

Optical Probe product has excellent quality and performance. In order to give full play to the maximum performance of this product, please read this manual carefully before use, and follow the steps in the manual. After reading this manual, please keep it properly so that you can refer to it at any time. The upgrade service of Optical Probe will always be with you! If you have any problems during use, please contact the telephone number and address attached. We are always waiting for you!

## Symbol

The following symbols are important tips for this manual. Please be sure to read it carefully.

### Note

Indicates the precautions and restrictions that must be observed during use, etc.

## Precautions

1. Any changes to this manual will not be notified separately. Please understand.
2. The content of this manual has been prepared with the goal of accuracy. However, if you find something unclear, erroneous or ambiguous, please use the contact details in the appendix to the manual.
3. If there are missing pages or binding errors, please contact our company for replacement.

## Notes about the product

1. Ensure use in room-temperature and dry environment;
2. Ensure use in low vibration environment;
3. When the machine is not used in a short period of time, please pack it in the cloth bag, if it is not used for a long time, it is best to put it in the box;
4. Do not replace the power supply arbitrarily.

## Product warranty

In principle, the company assumes the following warranties for this product.

### Warranty period

Within 1 year from the date of purchase.

### Warranty coverage

During the warranty period, the company will repair or replace the parts free for the fault caused by the company.

### Exclusion

Even during the warranty period, failures caused by the following reasons are not covered by the company's warranty.

1. Equipment damage caused by incorrect operation;
2. Repairs or modifications are not carried out by maintenance personnel of the Company;
3. Failure caused by something other than the instrument;
4. Use under harsh conditions such as high temperature and humidity, corrosive gases, and severe vibration;
5. In the event of natural disasters such as fires and earthquakes, pollution caused by radioactive or harmful substances, and other force majeure such as war, riot, crime, etc;
6. Consumables and consumable parts.

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## 1 Start

### 1.1 Check the packaging

Remove the product from the package and check to see if it contains the following components.

#### 1.1.1 Device Host



#### 1.1.2 Attachments

Please check the Product Packing List to see if all accessories are included, which will not be listed here.

## 1.2 Name and function of each part

### 1.2.1 Facility front



Facility front

1. Finding the line-order indicator lamp;
2. LC probe arm indicator, "LC" lights up when the LC probe arm is deployed;
3. SC probe arm indicator, the "SC" lights up when the SC probe arm is deployed;
4. 1.25 Probe INDICATOR;
5. 2.5 Probe INDICATOR;
6. Red light LED;
7. LED indicator;
8. Battery display;
9. Wavelength;
10. Measured value;
11. Displays the Ref value;
12. Unit.

### 1.2.2 Probes



- 1.VFL1.25: Red light for 1.25 interface;
- 2.VFL2.5: Red light for 2.5 interface;
3. OPM1.25:1.25 interface power meter probe;
4. OPM2.5:2.5 interface power meter probe;

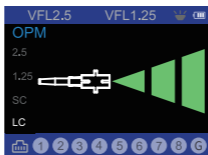
## 1.2.3 Detection Arm



The left outstretched arm is the SC probe arm, and the right is the LC probe arm \*

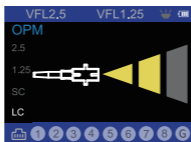
\* The linearity of the device face up is best when measured with the probe arm

The probe boom measurement is calculated based on the wavelength of 1550nm; the optical power at different intensities is shown as follows:  
Optical power range at + 6~ -13, showing triple green :

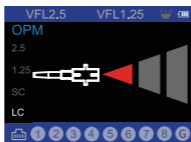




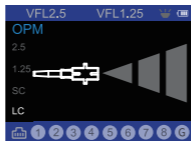
The light power range ranging from -13 to -32 shows two grids of yellow:



The light power range is -32 to -50, showing a red:



Display status without light:



#### 1.2.4 Device RJ45 port and charging port











### 1.2.5 Submachine



1. LED light switch. After pressing down, the light at "5" will light up;
2. Line finding button, Press it then the line finding will start, and the "3" indicator light will light up. If the line is found, it will send out a prompt sound;
3. Line finding indicator light;
4. Adjust the sensitivity of line finding, rotate up to increase sensitivity, and rotate down to reduce sensitivity;
5. LED lights;
6. Line sequence indicator light. During the test sequence, it will be highlighted corresponding to the serial number of the Host.

## 1.2.6 Key function description

1.  : After pressing the button, turn on the red light of the 2.5 interface, and the "VFL2.5" text lights up; After pressing the button again, the red light turns on flashing; after pressing the button again, the indicator light turns off and the "VFL2.5" text turns gray. The red light is off ;
2.  : After pressing the button, turn on the red light of the 1.25 interface, and the "VFL1.25" text lights up; After pressing the button again, the red light turns on flashing; after pressing the button again, the indicator light turns off and the "VFL1.25" text turns gray , the red light is off;
3.  : After pressing the button, the LED indicator light is lit and the device LED light is turned on. After pressing the key again, the indicator icon turns gray and the LED light turns off ;
4.  : Change the wavelength, and short press the keys back and forth in 780, 850, 980, 1260, 1310, 1490, 1550, 1625, 1650;
5.  : Switch power units, press the button to switch back and forth in: dBm, dB, mW. When switching to mW, the mW, uW, nW are automatically switched according to the actual value;
6.  : Short press to return to zero, record the current power value as benchmark, and switch the unit of the main display area to dB;
7.  : Short press to switch OPM output port is 2.5; if the detection arm is deployed, the short press button is switched to scavenging arm;
8.  : Short Press to switch the OPM output port to 1.25; if the detection arm is deployed, press the button shortly, then switch to the detection arm of the LC;

9. Long press **2.50** + **SAVE** key combination for 3 seconds to enter the power offset value; press the Left and Right arrow keys to select the interface that needs to set the offset, press the Up and Down arrow keys to set the offset value;



10. **SAVE**: After pressing the key briefly, the current value is recorded, and the word "SAVE" appears on the screen; After pressing and holding Save for three seconds, you will enter the interface of saving data to view. Press the Up and Down arrow keys to view the stored data, and press the "REF" key to return to the main interface;



11. **TEST**: After pressing the button, the line sequence test begins, and the corresponding serial number of the host machine and the submachine start to light up in order from 1 to 8 in turn; "G" is the ground wire, which is generally used for shielded wires;



Schematic diagram of line sequence measurements

12. **SCAN** : Press the button to start the network line finding task, the sub-machine presses the line finding button, when it gets close to the network cable, the machine can issue an audible prompt;
13. **Power** : Switch on and off key, short press power on or off .

## Attachment 1

If you have any further problem, please contact Dimension Technology Co., Ltd

Tel : +86 755-26480850

Fax : +86 755-26480895-0

E-mail

Sales consultation : sales@dimension-tech.com

After-sales service : servers@dimension-tech.com

Technical Support : support01@dimension-tech.com

URL : www.dimension-tech.com

Address : 6th Floor, Building 2, Chongwen Park, Nanshan Zhiyuan (Phase 3),  
No. 3370 Liuxian Avenue, Nanshan District, Shenzhen

## Attachment 2

Optical power meter		
Optical connectors	2.5mm and 1.25mm universal adapters	LC, SC Folding probes
Detector type	InGaAs	
Wavelength range	780nm~1650nm	
Optical power detection range*	+ 6~-70dBm(Typ.)	+ 6~- 55dBm(Typ.)
Maximum permissible input optical power	+ 13dBm	
Linearity	±0.5dB (+5~- 60dBm)	±0.5dB (+5~- 50dBm)
repeatability	± 0.05dB	± 1.00dB
Uncertainty	± (5%+500pW)	
Measurement type	dBm、dB、mW、uW、nW	
Power resolution	0.01dB	
Return loss	>55dB	
The amount of storage	1000	
Fiber type	SM/MM	
Visual fault location VFL		
Operating wavelength	650nm±30nm	
Output power	≥1mW	
Optical connectors	2.5/1.25 dual universal interface	
Power supply		
power supply	Built-in rechargeable lithium battery	
Work battery life	>8h	

\* It is necessary to control the variables of test conditions to ensure the consistency of test conditions