multicomp PRO

Handheld Optical Power Meter
Model No. MP700121 and MP700122

IMPORTANT SAFETY INFORMATION

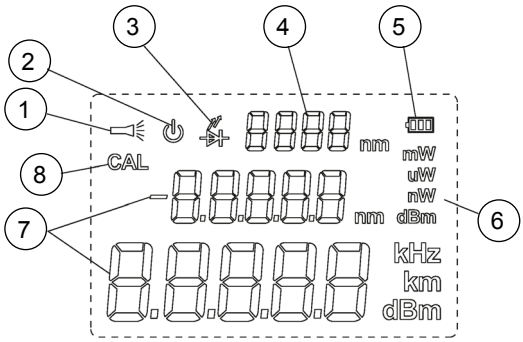
Read all instructions before using the appliance and retain for future reference.

- Please follow all safety operation instructions.
- Children should be supervised to ensure that they do not play with the product.
- Do not use the monitor if the casing is damaged or there is any anomaly that may impair it's function.
- Do not use the product for any purpose other than that for which it is designed.
- Do not operate the product around explosive gas, vapour, or dust.
- Do not operate or store in an environment of high humidity or where moisture may enter the product.
- Turn the meter off when not in use to save the battery.
- Remove the battery if the monitor is not to be used for long periods.
- Replace the battery as soon as the low battery warning appears on the display to avoid possible incorrect readings.

WHAT'S INCLUDED

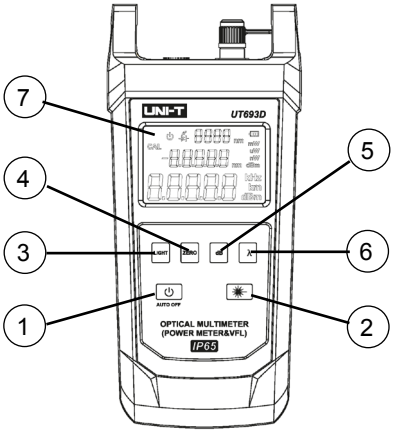
- Optical power meter
- FC locking adaptor
- Instruction manual
- Cloth storage bag
- 3 x 1.5V AA batteries

PRODUCT OVERVIEW



1. Flashlight
2. Auto power off
3. Fault symbol
4. Wavelength value
5. Low battery warning
6. Measurement unit
7. Optical power value
8. Calibration indicator

1. Power button
2. Auto off button
3. Backlight/torch button
4. Zero reset button
5. Measurement value button
6. Wavelength value button
7. LCD display



FUNCTIONS

Function buttons

- Press the power button ⏻ to turn the meter on or press and hold to turn off the meter.
- Press the AUTO OFF button to enable the auto power off timer. The meter will turn off after 10 minutes inactivity. The symbol displays on the LCD when active.
- Press the LIGHT button briefly to turn on the backlight function on or off. The backlight automatically turns of after 2 minutes if no button is pressed.
- Press and hold the LIGHT button to activate the flashlight (torch) feature. The symbol displays on the LCD.
- Press and hold ZERO button to reset the meter to default. All elements of the LCD display briefly.
- Press the DB button to switch between the relative power mode (dB) and absolute power mode (dBm) to measure optical power at the corresponding wavelength.
- Press the λ button to select the wavelength. The LCD displays the figure chosen.

Self Calibration Mode

- Press both ZERO and LIGHT buttons simultaneously to enter the self calibration mode. CAL is displayed on the LCD.
- Press the LIGHT button to add 0.5dB and press dB button to decrease by 0.5dB.
- After adjusting press power button to save the calibration setting.

Factory reset

- Press and hold ZERO and AUTO OFF buttons simultaneously to restore the factory settings.

OPERATION

Measurement of Absolute and Relative Power

Absolute Power Measurement

- Set the test wavelength and access the test optical signal. The LCD screen will display the measured linear value (in mw, nw, pw) and non-linear value (in dBm) of the absolute optical power.

Relative Power (Loss) Measurement (used in conjunction with light source)

Note: Relative power measurement is mainly used to measure insertion loss or fibre link loss.

- Use a standard test jumper to connect the output port of the light source to the detection port of the optical power meter.
- Set the test wavelength and access the test optical signal. Then the screen will display the measured linear value (in mw, nw, pw) and nonlinear value (in dBm) of the absolute optical power.
- Press the “dB” key. The absolute optical power measured by the optical power meter will be saved as the reference power value and displayed as xx.xx dBm on the second line of the LCD screen.
- Connect the jumper to be tested to the light source and the optical power meter. The difference between the current optical power value and the reference power value will be calculated by the optical power meter and displayed as y.yy dB on the third line of the LCD screen, which is approximately insertion loss of the jumper.

Note:

1. P {Reference power value) (dBm)= p (Light source output power) (dBm)-L (Insertion loss of the std test jumper) (dB)

2. L (Insertion loss of the jumper to be tested) (dB)= [P (reference power value) (dBm)-p (current power value) (dBm)] -L (Insertion loss of the std test jumper) (dB)

Frequency identification function

- When connected to the light source with 270Hz, 1000Hz or 2000Hz signal, the optical power meter will automatically recognize the frequency and display XXXX Hz on the LCD.

MAINTENANCE

- Please keep the end face of the sensor clean, free from grease and contamination.
- Do not use unclean or non-standard adapter connectors.
- Replace the connector dust cap when not in use.
- Clean the casing using a moist cloth and mild detergent. Do not use any form of solvents.
- When the low battery symbol displays on the LCD, remove the 4 screws in the battery cover on the back of the meter and replace the 3 x 1.5V AA batteries to avoid any inaccuracies in readings taken.

USB charging port

- This feature is for charging of internal lithium batteries only and is not implemented on this model.

SPECIFICATIONS

Mode	Description
Wavelength range	800nm~1700nm
Calibrated wavelength	850nm, 980nm, 1300nm, 1310nm, 1490nm, 1550nm, 1625nm, 1650nm
Measurement range	-70dBm~+10dBm (MP700121) -50dBm~+26dBm (MP700122)
Accuracy	±5%
Display resolution	Linear: 0.1%, logarithmic: 0.01dBm
Connection	Universal connector FC/SC/ST (manually held) (FC can be locked into place using included adapter)
Detector type	InGaAs
Flashlight	LED

INFORMATION ON WASTE DISPOSAL FOR CONSUMERS OF ELECTRICAL & ELECTRONIC EQUIPMENT.

These symbols indicate that separate collection of Waste Electrical and Electronic Equipment (WEEE) or waste batteries is required. Do not dispose of these items with general household waste. Separate for the treatment, recovery and recycling of the materials used. Waste batteries can be returned to any waste battery recycling point which are provided by most battery retailers. Contact your local authority for details of the battery and WEEE recycling schemes available in your area.

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