

# PPM-100 PoE Power Meter

## On-site PoE Power Measurement Device



## PPM-100 Overview

PPM-100 is an on-site test and measurement device for PoE device that complies with IEEE802.3af. It gets rid of the inconvenience method to test PoE power on the test site.

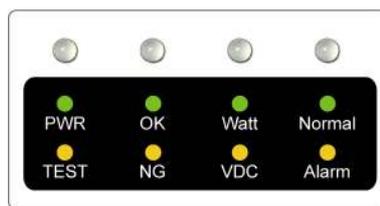
PPM-100 is a convenient and compact size on-site PoE tester. It verify and tests the maximum power supply from the PSE to PD that it may locate below the roof, above the decorated ceiling, under the ground or even stay under harsh environment.

Powered by replaceable and rechargeable battery is convenient for the technician that they can take it to test site for PD at any locations. LED Digits Display reveals the real-time and measured maximum power status from PSE, and the LED indicators inform the technician the test result instantly.

## Mechanical Description



- ❶ **Display/Set(+) Button:** To switch measurement view shown by LED indicators
- ❷ **Console Port:** For firmware upgrade or firmware version check  
Connect PC and PPM-100 by console cable. Use HyperTerminal of Windows to open the connection by 38400 bps (Baud Rate) and other default settings. Press Ctrl+C to enter main menu. Select A to check firmware version or B to update firmware.
- ❸ **Network UTP Port:** Connect to device under test by network cable
- ❹ **Start/Set(-) Button:** Start / Set control button for operation or configuration
- ❺ **Power Probing Terminal:** Clip wire of network cable for measurement directly
- ❻ **USB Power Port:** Connect to external battery pack
- ❼ **External Battery Pack:** Connect to the PPM-100 for power supply
- ❽ **LED Digits Display:** Show the measured value of the power measurements
- ❾ **LED Indicators:** Show the test result of the measurements.



- ❿ **USB Charge Port:** Charge external battery pack by power adapter

## Buttons and LED Indicators

### Start/Set(-) Button :

- Press once to start measurement and press again to finish the test procedure.
- Configure the power consumption in Watt:  
Push and hold Start/Set(-) Button for 3 seconds to enter the configuration state of power consumption. The device notify user by beep sound and the LED Digits Display is blinking. Now, press the Start/Set(-) Button to decrease power or press Display/Set(+) Button to increase power. Select the power state and then push and hold Start/Set(-) Button for 3 seconds to exit the configuration state. The device notify user by beep sound.

### Display/Set(+) Button

Select different options for viewing Voltage, Power Consumption and Temperature.

- When PWR / TEST is green, The LED Digits Display shows the real-time value.
- When PWR / TEST is orange, The LED Digits Display shows the result of measurements.

### PWR/TEST LED

- When measurement is started, PWR/TEST LED is blinking orange.
- When measurement is finished, PWR/TEST LED keeps orange.
- When measurement is finished and it is ready for next test, PWR/TEST LED keeps green.

### WATT/VDC LED

- When WATT/VDC LED keeps green, LED Digits Display shows the power in Watt.
- When WATT/VDC LED keeps orange, LED Digits Display shows the power in Voltage.
- When WATT/VDC LED is off and Normal/Alarm LED is green, then the LED Digits Display shows the value of temperature.

### OK/NG LED

- When the LED keeps green, it means the measurement is successful.
- When the OK/NG LED keeps orange, the measurement is failed and the Voltage is too low. (under 24V).
- When the OK/NG LED is blinking orange, the measurement is failed and the Current is too high (over 2A).
- When OK/NG LED is off and Normal/Alarm LED keeps orange, it means the measurement is failed and the temperature is overheated (over 100°C).

### Normal/Alarm LED

- When Normal/Alarm LED keeps green, the LED Digits Display shows the value of temperature.
- When Normal/Alarm LED keeps orange, it means that the temperature is overheated (over 100°C).

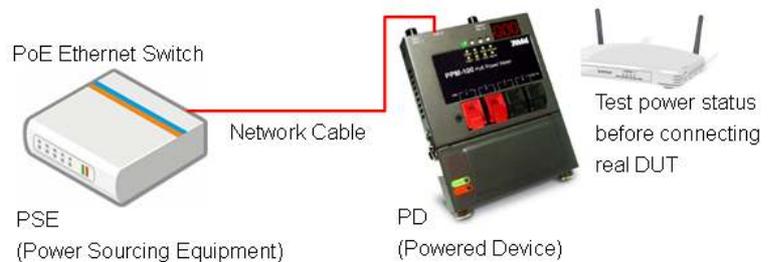
## Measurement Procedure

### Hardware connection

Please screw up the battery pack and connect the cable as the illustration.

User also can clips the network cable wire to Power Probing Terminal directly in Mode A (Power via Pin 1, 2, 3, 6) or Mode B (Power via Pin 4, 5, 7, 8) by IEEE802.3af standard.

Note: Network cable can not be connected to UTP port and Power Probing Terminal simultaneously.



### Operation Procedure

To measure power status and maximum power from POE, user should configure the maximum power in Watt for the test. If the power from POE switch is beyond the maximum power that user configures, then the test is successful, otherwise, it is failed. Push and hold **Start/Set(-) Button** for 3 seconds to enter the configuration state of power consumption. Press the **Start/Set(-) Button** to decrease power or press **Display/Set(+) Button** to increase power. Select the power state in Watt and then push and hold Start/Set(-) Button for 3 seconds to exit the configuration state.

- Press **Start/Set(-) Button** to start or stop measurement. If temperature is over 50°C, test won't start. Cool it for normal start.
- Press **Display/Set(+) Button** to show the real-time value or measurement result.
  - Show value of measurement result
    - ◆ The **PWR / TEST LED** is orange after test. Please keep pressing the button to switch around Watt, Voltage and Temperature according to another **WATT / VDC LED** indication. Watch the LED Digits Display to know the value of Watt, Voltage and Temperature.
    - ◆ Watch the **OK/NG LED** to show the result (pass, failed) or other status of the measurement.
  - Show real-time value
    - ◆ Stop the test by pressing **Start/Set(-) Button**, and then **PWR / TEST LED** is green.
    - ◆ Press **Display/Set(+) Button** to view real-time value as the measure above.
- Alarm notification to user  
When Normal/Alarm LED keeps orange, it means that the temperature is overheated (over 100°C). Please stop the measurement and put this device in cool environment for a while until next measurement.

## Specification

### Detection Range:

- Watt: 0~96W
- Voltage: 24~60V (Over 40V is required when test is started.)
- Current: 0~2A

### Power:

- External Battery Pack
- Provide 7 hours of standby time, shorter if operation keeps going.

### Overload Protection:

Polyswitch over current protection

### Battery

- Li-Ion, 2,400 mAh, 3.7 V,

### Operation Temp:

-20°C ~50°C

### Pack:

- Charged by USB cable
- Charge Time: Standard: 3~4 hours; Rapid : 2.5hours

### Humidity:

0% ~ 85% RH