PoEz *Power Over Ethernet Detector*
User Manual

Item No. 256318

Hobbes
INNOVATION

Introduction

PoEz 256318 is a Power Over Ethernet Detector that can be used for PSE (power source equipment), power supply status detection during PoE system or CCTV system installation. It can distinguished whether the PSE power supply by Passive mode under the IEEE 802.3AF/AT/UPoE/BT standard or by non-standard Active mode. It can monitor the current PSE power supply status after connecting the other end to a PD (powered device) or to Hobbes PoEz PDS (powered device simulator) 256318/PDS. PoEz is designed with an OLED high resolution display for user to view the receiving voltage, current and power of PD. It is also able to distinguished the circuit polarity of PoE during PoE system installation or troubleshooting.

Features

- New battery-free operation technology
- Monitor and troubleshoot the IEEE 802.3AF/ 802.3AT(PoE+)//UPoE/802.3BT Type 3(4PPoE) and 802.3BT Type 4 standard PoE system with Hobbes PoEz PDS 256318/PDS
- Compact and lightweight design
- Monitoring the current PoE status with an easy to read display
- Compatible with new IEEE 802.3BT Type 4 standard

Specification

Detection resolution
Voltage: 1V; Current: 0.01A; Power: 1W

Measurement accuracy
Voltage: ±1V; Current: ±0.02A; Power: ±1W

Maximum detected power
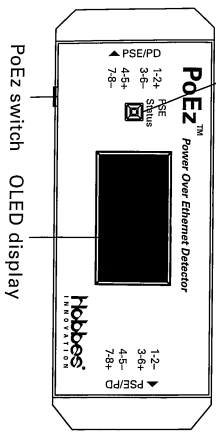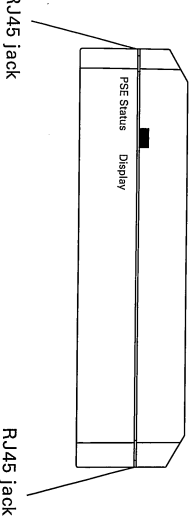160W (Mode A 80W, Mode B 80W)

Dimension
32mm x 86mm x 22mm

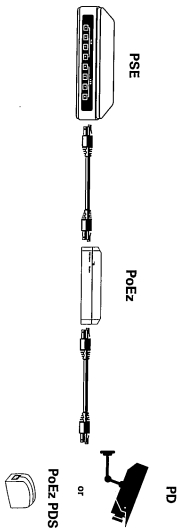---

Operating Instructions

PSE Status LED

PoEz switch   OLED display

PoEz
Power Over Ethernet Detector

1-2+   1-2-
3-6-   3-6+
4-5+   4-5-
7-8-   7-8+

PSE/PD ▲   ▼ PSE/PD
PSE Status

Hobbes

RJ45 jack

PSE Status   Display

RJ45 jack

Real-time monitoring the receiving voltage, current and power of PD by PoEz

PSE

PoEz

PoEz PDS

PD

or

1. Connect the Ethernet cable from the package to the RJ45 jack on the left of PoEz.

2. Switch PoEz to the right that shows Display.

3. Connect the other side of Ethernet cable to the PSE, then connect a PD or the Hobbes PoEz PDS 256318/PDS on the right side of PoEz.

Remark

Left side of the RJ45 jack on PoEz are labeled 12+ 36-; 45+ 78- and on the right side of RJ45 jack of PoEz are labeled 12- 36+; 45- 78+. Once connected on the left side of RJ45 jack to PSE and the other end is connected to PD, the OLED will displays the voltage, current and power. This indicates that when PSE sends power, the polarity of pair 12 and pair 45 are positive, pair 36 and pair 78 are negative. On the other hand, if connected on the left side of RJ45 jack to PSE and the other end is connected to the PD but the OLED displays zero on current and power, this indicates the PSE sends power, the polarity of pair 36 and pair 78 are positive, pair 12 and pair 45 are negative.

So in this case, you need to connect the right side of RJ45 jack on PoEz to PSE to PSE connection to the right side of RJ45 jack to PSE and connecting the other end to PD, OLED will display the correct current and power.

OLED Display Explanation

1236 —— PSE is sending power through pair 12 and pair 36 as Mode A endspan

48V —— PSE is sending 48 Volts to PD at present

0.12A —— PSE is sending 0.12 Amps to PD at present

5W —— PSE is sending 5 Watts to PD at present

4578 —— PSE is sending power through pair 45 and pair 78 as Mode B midspan

50V —— PSE is sending 50 Volts to PD at present

0.20A —— PSE is sending 0.20 Amps to PD at present

10W —— PSE is sending 10 Watts to PD at present

1236 4578 —— PSE is sending power through pair 12, pair 36, pair 45 and pair 78 as PoE++ or IEEE 802.3BT

52V 52V —— PSE is sending 52 Volts through pair 12, pair 36, pair 45 and pair 78 to PD at present

0.92A 0.91A —— PSE is sending 0.92 Amps through pair 12 and pair 36 to PD at present, it's also sending 0.91 Amps through pair 45 and pair 78 to PD at present

48W 48W —— PSE is sending total 96 Watts to PD at present

Note: it is important to connect both PSE and PD first prior to switching the switch to "PSE Status" on the PoEz unit to obtain the correct result.

Failure to do so will present a wrong result or will provide result of "Distinguished PSE status" only (as in Page 10)

Distinguished PSE status by PoEz

PSE   PoEz

1. Connect the Ethernet cable from the package to the RJ45 jack on the left of PoEz.

2. Switch PoEz to the left that shows PSE Status.

3. By connecting the other side of the network cable to PSE, the LED will either be on, off or blink.

Note: Connection of PoEz to any PD during this procedure is not needed.
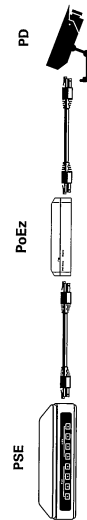
LED explanation

A. LED is off: PSE is not sending any power at present. (PSE is possibly defected or it's connecting to a non-PoE jack on PSE).

B. LED is on: PSE is a non-standard PoE equipment that provides power by Active mode.

C. LED is blinking: PSE is either an IEEE 802.3AF, IEEE 802.3AT or IEEE 802.3BT standard PoE equipment. No power transmission present due to no PD connection.

Long term PoE monitoring by PoEz

PSE   PoEz   PD

1. Follow the procedure of Real-time monitoring the receiving voltage, current and power of PD by using PoEz to connect both PSE and PD.

2. Switch PoEz to the left that shows PSE Status, OLED will turn off and PSE Status LED will be on.

Remark

The power and network signal are not affected during long term PoE monitoring by PoEz.

LED explanation

A. LED is on: PSE is sending power to PD, the PoE connection is fine.

B. LED is off: PSE is not sending power to PD.

C. LED is blinking: PSE is sending signal to PD, but PD does not response.

Warning!!!

To avoid tester damage by high voltage static electricity, please connect PoEz by STP cable or carefully do not touch PoEz jack by hand.

For any help, please visit Hobbes web site www.hobbes-group.com to seek further information under Service – FAQ.