1. Package Contents

Thank you for purchasing PLANET 4-Port Multi-Gigabit 802.3bt PoE++ Injector Hub, UPOE-400. In the following sections, the term "PoE++ Injector Hub" means the UPOE-400.

Open the box of the PoE++ Injector Hub and carefully unpack it. The box should contain the following items:

PoE++ Injector Hub x 1	User's Manual x 1
54V/180W, 3.33A, Switch Adapter x 1	AC Power Cord x 1

If any of these pieces are missing or damaged, please contact your dealer immediately; if possible, retain the carton including the original packing material, and use them again to repack the product in case there is a need to return it to us for repair.

2. Product Specifications

Model	UPOE-400
Hardware Specifications	
Copper Ports — "Data" Input Ports	4 x RJ45
Copper Ports — "Data + Power" Output Ports	4 x RJ45
LED Indicator	**System:** Power (Green) **PoE-in-Use:** 802.3bt/PoH (Green) 802.3at/af (Orange) **PoE Usage:** 50W/100W/160W (Amber)
Data Rate	10/100/1000/2500/5000Mbps
Power Requirements	DC 52~54V
Power Consumption (Ethernet Full Loading)	**System ON without loading** AC 110V: 0.4watts/1.3BTU AC 220V: 0.3watts/1BTU **Full loading with PoE** AC 110V: 242watts/825BTU AC 220V: 236watts/805BTU
DIP Switch Mode and Per Port PoE Output	■ 802.3bt: 90W PoE Output ■ PoH + Legacy: 95W PoE Output ■ Force: 60W PoE Output

Dimensions (W x D x H)	94 x 70.3 x 39.2mm
Weight	275g
Enclosure	Metal case
Installation	Wall-mount and DIN-rail kit (optional)
Network Cable	Twisted-pair cable up to 100 meters (328ft) 10BASE-T: 4-pair UTP Cat. 3, 4, 5, 5e, 6 100BASE-TX: 4-pair UTP Cat. 5, 5e, 6 1000BASE-T: 4-pair UTP Cat. 5e, 6 2.5G/5GBASE-T: 4-pair UTP Cat.6, 6A, 7
Power over Ethernet	
PoE Standard	IEEE 802.3bt PoE++, 4-pair type 4 PSE IEEE 802.3at PoE+, 2-pair type 2 PSE
PoE Power Supply Type	End-span + Mid-span
Power Pin Assignment	End-span: 1/2 (-), 3/6 (+); Mid-span: 4/5 (+), 7/8 (-)
PoE Power Budget (max.)	160 watts

Number of devices that can be powered	4
Standards Conformance	
Regulatory Compliance	FCC Part 15 Class A, CE
Standards Compliance	IEEE 802.3 Ethernet IEEE 802.3u Fast Ethernet IEEE 802.3ab Gigabit Ethernet IEEE 802.3bz 2.5G/5GBASE-T IEEE 802.3af Power over Ethernet IEEE 802.3at Power over Ethernet Plus IEEE 802.3bt Power over Ethernet Plus Plus
Environment	
Temperature	Operating: 0~50 degrees C Storage: -10~70 degrees C
Humidity (Non-condensing)	Operating: 5~95% Storage: 5~95%

3. Hardware Introduction

3.1 Product Outlook

Figure 3-1: UPOE-400 Product Outlook View

3.2 Left Panel

The left panel of the PoE++ Injector Hub consists of four **"Data"** input ports and four **"Data + Power"** output ports within 10Mbps/100Mbps/1Gbps/2.5Gbps/5Gbps operation speed support.
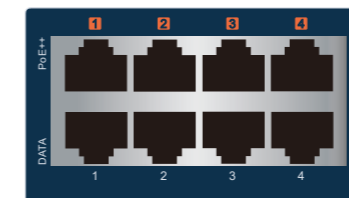

Figure 3-2: UPOE-400 Left Panel View

3.3 Front Panel

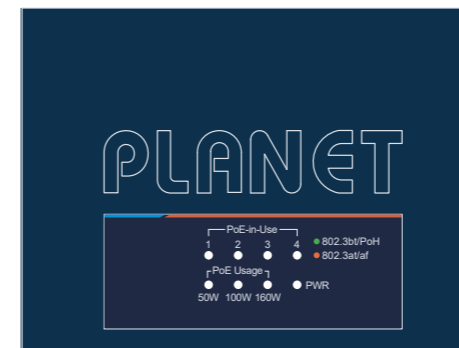The front panel of the PoE++ Injector Hub consists of one power LED, four **"PoE-in-Use"** LEDs and three **"PoE Usage"** LEDs.

Figure 3-3: UPOE-400 Front Panel View

■ System LEDs

LED	Color	Function
PWR	Green	Lights to indicate PoE++ Injector Hub has power.
PoE Usage	Amber	**50W, 100W, 160W** Lights to indicate the system consumes over 50-/100-/160-watt PoE power budget. Blinks to indicate the system consumes less 50-/100-/160-watt PoE power budget.

■ 802.3bt PoE++ TP Interface LEDs

LED	Color	Function
PoE-in-Use	Green	Lights to indicate that the port is providing 802.3bt PoE++/PoH/Force power to remote powered device.
	Amber	Lights to indicate that the port is providing 802.3af/at PoE+ power to remote powered device.
	Off	To indicate that the port is not providing PoE power to remote powered device.

3.4 Right Panel

The right panel of the PoE++ Injector Hub consists of one DC power jack, one DIP switch for **"802.3bt"**, **"PoH + Legacy"** and **"Force"** modes selection, and one ground screw.
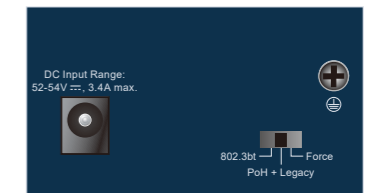

Figure 3-4: UPOE-400 Right Panel View

Power Information

The power jack of PoE++ Injector Hub measures 2.1mm in the central post and requires +52-54V DC power input.

DIP Switch Information

To meet the demand of various powered devices consuming stable PoE power, the PoE++ Injector Hub provides one DIP switch for three PoE operation mode options as shown in the following table.

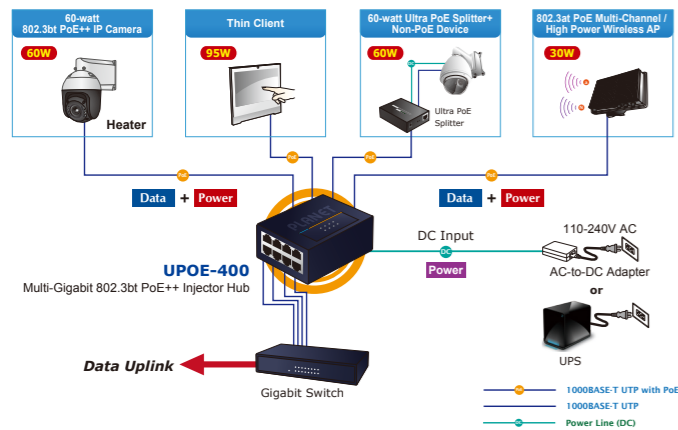| DIP Switch Mode	Function
802.3bt (Default)	This mode makes the PoE++ Injector Hub operate as 90-watt 802.3bt PoE++ type 4 PSE.
PoH + Legacy	This mode makes the PoE++ Injector Hub operate as 95-watt PoH (Power over HD-BASE-T) PSE with Legacy function.
Force	This mode makes the PoE++ Injector Hub operate as 4-pair 60-watt force PoE PSE.

⚠️ **Caution**	1. Power off the PoE++ injector Hub before adjusting the DIP switch and then power it on.
	2. Before connecting the "Data + Power" output port to powered device (PD), make sure that it accepts PoE input via DIP switch setting to prevent damage.
	3. The legacy detection is to identify the PD devices that do not fully follow the IEEE 802.3af/at/bt standard and their unique electrical signatures to enable the PoE injector to provide the power to those PD devices.
	4. Before connecting the PoE++ injector Hub to your powered device (PD), please check to ensure that your powered device (PD) can accept 60-watt PoE power through pin 1/2 (-) & 3/6 (+) and pin 4/5 (+) & 7/8 (-). Otherwise, it will damage your powered device (PD).

4. Installation

For the places hard to find the power inlet, the PoE++ Injector Hub and IEEE 802.3bt PoE++ Splitter (POE-173S) provide the easiest way to power your Ethernet devices such as PoE PTZ speed dome cameras on the ceiling and wireless access point installed on the top of the building. The PoE++ Injector Hub supports full DC 52V~54V power for any remote IEEE 802.3bt/at PD.

The PoE++ Injector Hub is installed between a regular Ethernet Switch and the PDs. As the PoE++ Injector Hub adopts the IEEE 802.bt PoE++ standard and PoH technology, it is capable to source up to 95 watts of power by using all the four pairs of standard Cat5e/6/6A/7 Ethernet cabling to deliver power and 10Mbps/100Mbps/1Gbps/2.5Gbps/5Gbps full-speed data to a remote 802.3bt/at PoE compliant PD over a distance of 100 meters.
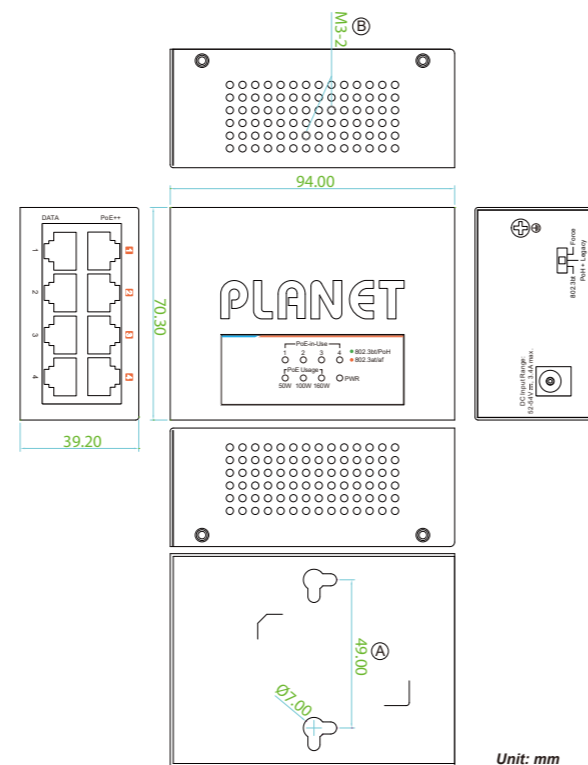
5. Three-View Diagram

Figure 5-1: UPOE-400 Three-View Diagram

A: The distance between two wall mounting holes.
B: The holes for option DIN-Rail Kit mounting (RKE-DIN).

6. Customer Support

Thank you for purchasing PLANET products. You can browse our online FAQ resource on PLANET web site first to check if it could solve your issue. If you need more support information, please contact PLANET support team.

PLANET online FAQs:
qhttp://www.planet.com.tw/en/support/faq

Support team mail address:
support@planet.com.tw

4-Port Multi-Gigabit 802.3bt PoE++ Injector Hub

www.PLANET.com.tw

▶ **UPOE-400**

PLANET Technology Corp.
10F., No. 96, Minquan Rd., Xindian Dist., New Taipei City 231, Taiwan   2350-AF0680-000

Warning:
This device is compliant with Class A of CISPR 32.
In a residential environment this device may cause radio interference.

Energy Saving Note of the Device
This power required device does not support Standby mode operation. For energy savings, please remove the power cable to disconnect the device from the power circuit. Without removing the power cable, the device will still consume power from the power source. In view of Saving the Energy and reducing the unnecessary power consumption, it is strongly suggested to remove the power cable from the device if this device is not intended to be active.

FCC Warning

This device has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the Instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

WEEE Warning

To avoid the potential effects on the environment and human health as a result of the presence of hazardous substances in electrical and electronic equipment, end users of electrical and electronic equipment should understand the meaning of the crossed-out wheeled bin symbol. Do not dispose of WEEE as unsorted municipal waste and have to collect such WEEE separately.

EC Declaration of Conformity

I hereby confirm that the following equipment complies with the requirements set out in the Council Directive on the Approximation of the Laws of the Member States relating to Electromagnetic Compatibility Directive on (2014/30/EU).

Type of Product:
4-Port Multi-Gigabit 802.3bt PoE++ Injector Hub

Models:
UPOE-400

Produced by:

Manufacturer's Name: **Planet Technology Corporation**
Manufacturer's Address: 10F., No.96, Minquan Rd., Xindian Dist.,
           New Taipei City 231, Taiwan, R.O.C.

For the evaluation regarding the EMC, the following standards were applied:

EN 55032	(2015 + AC:2016)
EN 55024	(2010 + A1:2015)
EN 61000-3-2	(2014)
EN 61000-3-3	(2013)
EN 55035	(2017)

Person responsible for making this declaration
Name: Kent Kang
Title: Director

Taiwan	Aug. 10, 2020	
Country	*Date*	*Legal Signature*

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