Compact Industrial 4-Port 10/100/1000T 802.3at PoE + 1-Port 10/100/1000T Ethernet Switch

IGS-504PT

Compact Industrial 4-Port 10/100/1000T 802.3at PoE + 1-Port 100/1000X SFP Ethernet Switch
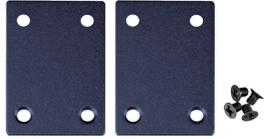
IGS-514PT

User's Manual

Table of Contents

1. Package Contents

Thank you for purchasing PLANET IGS-504PT/IGS-514PT Industrial 5-Port Gigabit Ethernet Switch with 4 PoE+ ports. The interfaces of these models are shown below:

In the following sections, the term **"Industrial PoE+ Switch"** means the IGS-504PT or IGS-514PT. Open the box of the Industrial PoE+ Switch and carefully unpack it. The box should contain the following items:

Industrial PoE+ Switch x 1	QR Code Sheet x 1	Wall-mount Kit x 1
DIN-rail Kit x 1	RJ45 Dust Caps x 5/x 4	SFP Dust Cap x 1 (IGS-514PT only)

If any of these 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	IGS-504PT	IGS-514PT
Hardware Specifications		
Copper Ports	**5** 10/100/1000BASET RJ45 twisted-pair auto-MDI/MDI-X ports, up to 100 meters	**4** 10/100/1000BASET RJ45 twisted-pair auto-MDI/MDI-X ports, up to 100 meters
SFP Port	NA	**1** 1000BASE-SX/LX/BX SFP interface, compatible with 100BASE-FX SFP
PoE Injector Ports	**4 ports** with 802.3at PoE+ injector function (Ports 1 to 4)	
Connector	Removable 4-pin terminal block Pin 1/2 for Power 1; Pin 3/4 for Power 2	
Power Requirements	**48~54V DC**, 3A (max.) Redundant power with reverse polarity protection function	
Power Consumption	**DC 48V:** Max. 0.72 watts/2.46BTU (System) Max. 129.96 watts/443.44BTU (Full Loading) **DC 54V:** Max. 0.81 watts/2.76BTU (System) Max. 131.92 watts/450.13BTU (Full Loading)	**DC 48V:** Max. 1.44 watts/4.91BTU (System) Max. 129.6 watts/442.21BTU (Full Loading) **DC 54V:** Max.1.62 watts/5.53BTU (System) Max. 135 watts/460.64BTU (Full Loading)
Dimensions (W x D x H)	30 x 70 x 104 mm	
Weight	260g	285g
Enclosure	IP30 metal case	
Installation	DIN-rail kit and wall-mount kit	
ESD Protection	6KV	

Switch Specifications	
Switch Architecture	Store-and-Forward
Switch Fabric	10Gbps
Throughput (packet per second)	7.4Mpps@64bytes
Address Table	2K entries
Buffer Memory	4M bits on-chip buffer memory
Jumbo Frame	9Kbytes
Flow Control	Back pressure for half duplex IEEE 802.3x pause frame for full duplex
Power over Ethernet	
PoE Standard	IEEE 802.3at Power over Ethernet Plus/PSE Backward compatible with IEEE 802.3af Power over Ethernet/PSE
PoE Power Supply Type	End-span
Power Pin Assignment	1/2(+), 3/6(-)
PoE Power Output	30 watts (per port)
PoE Power Budget	120 watts
Max. Number of Class 4 PDs	4

Standards Conformance	
Regulatory Compliance	FCC Part 15 Class A, CE
Stability Testing	IEC 60068-2-32 (free fall) IEC 60068-2-27 (shock) IEC 60068-2-6 (vibration)
Standards Compliance	IEEE 802.3 Ethernet IEEE 802.3u Fast Ethernet IEEE 802.3ab Gigabit Ethernet IEEE 802.3z Gigabit Ethernet over Fiber Optic (IGS-514PT only) IEEE 802.3x Full-Duplex Flow Control IEEE 802.3az Energy Efficient Ethernet (EEE) IEEE 802.3at Power over Ethernet Plus PSE IEEE 802.3af Power over Ethernet Plus IEEE 802.1p Class of Service
Environment	
Temperature	Operating: -40~75 degrees C Storage: -40~75 degrees C
Humidity	Operating: 5~90% (non-condensing) Storage: 5~90% (non-condensing)

3. Hardware Introduction

3.1 Three-View Diagram

The three-view diagram of the Industrial PoE+ Ethernet Switch consists of Ethernet interfaces and one removable 4-pin terminal block. The LED indicators are also located on the front panel.
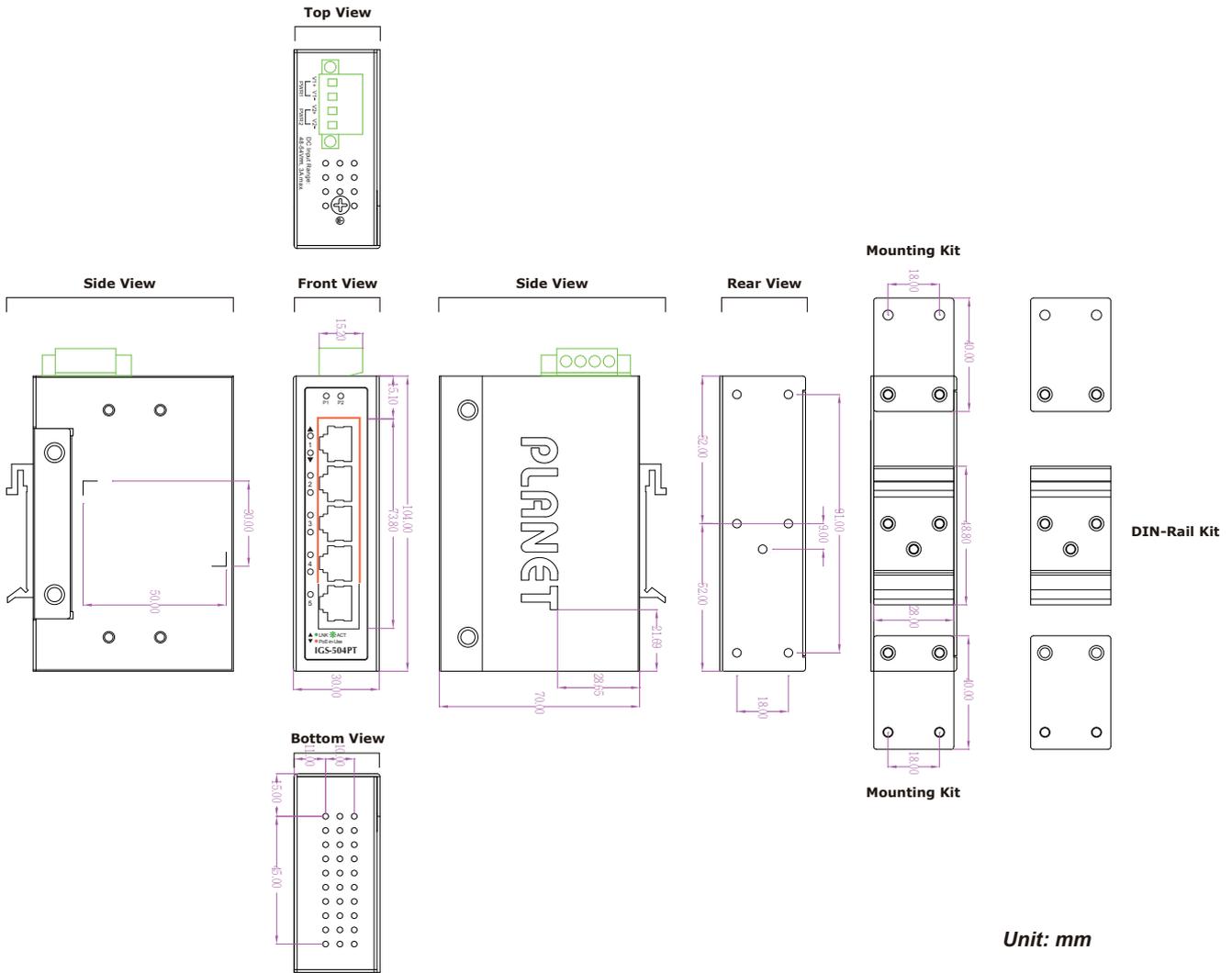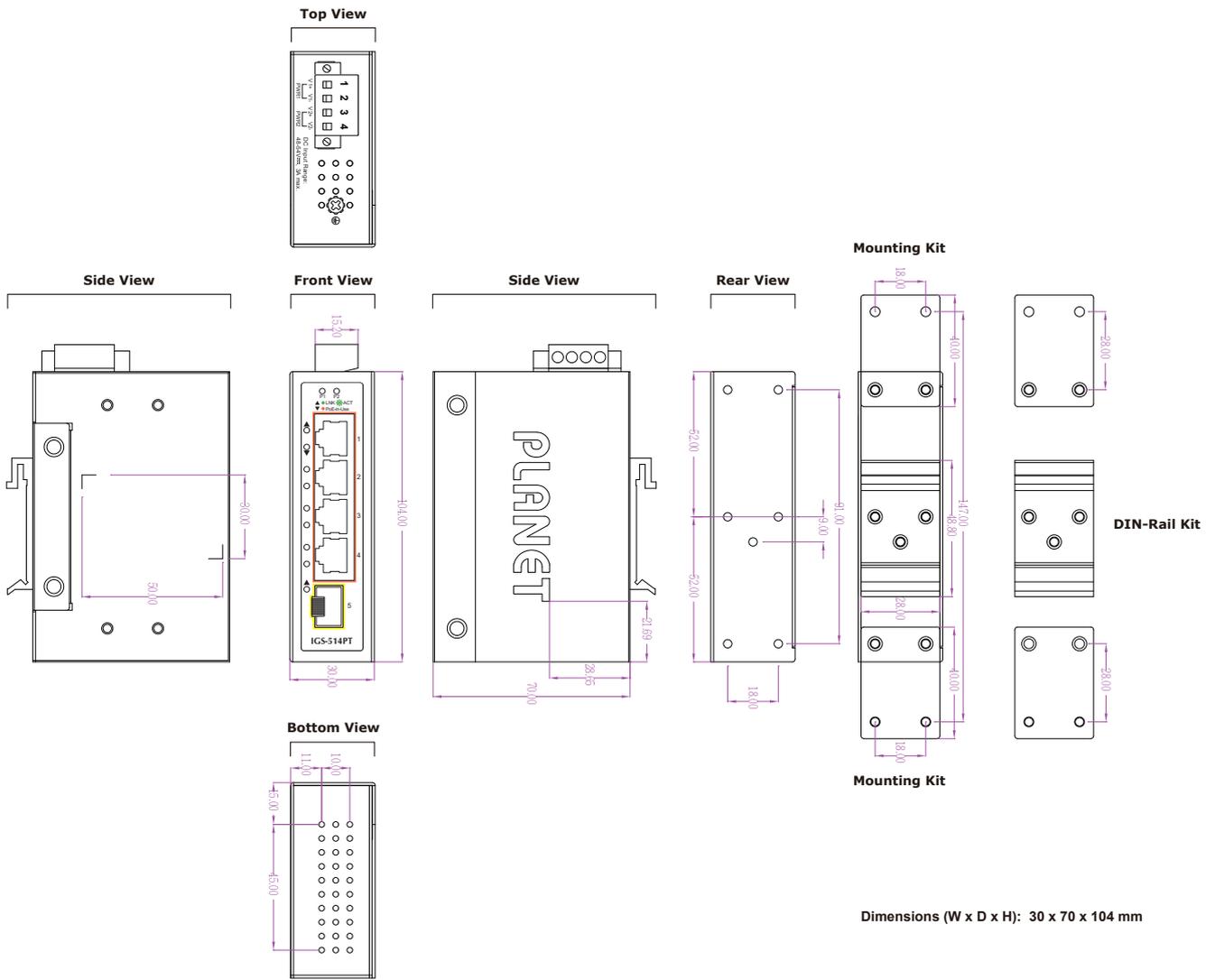

Figure 3-1: IGS-504PT Three-View Diagram

Top View

Side View **Front View** **Side View** **Rear View**

Mounting Kit

IGS-514PT

Bottom View

DIN-Rail Kit

Mounting Kit

Dimensions (W x D x H): 30 x 70 x 104 mm

Figure 3-2: IGS-514PT Three-View Diagram

3.2 Switch Front Panel
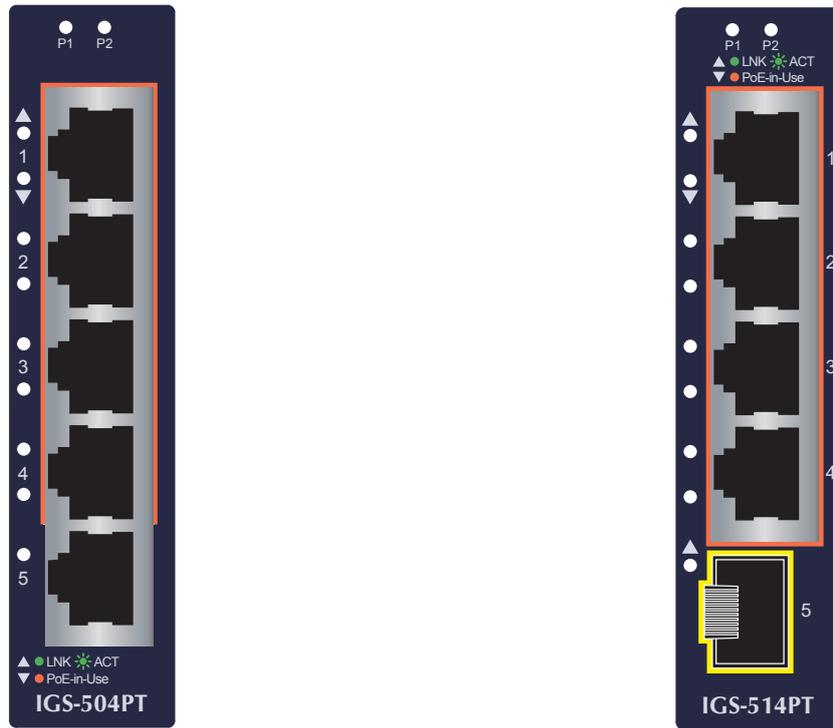
Figure 3-3: IGS-504PT/IGS-514PT Front View

3.3 LED Indicators

■ System

LED	Color	Function
P1	Green	**Lights** to indicate power 1 has power.
P2	Green	**Lights** to indicate power 2 has power.

■ 802.3at PoE+ 10/100/1000BASE-T Interfaces (Port 1 to Port 4)

LED	Color	Function
LNK/ACT	Green	**Lights** to indicate the link through that port is successfully established at 10/100/1000Mbps. Blinks to indicate that the Switch is actively sending or receiving data over that port.
PoE-in-Use	Amber	**Lights** to indicate the port is providing DC in-line power. Off to indicate the connected device is not a PoE powered device (PD).

■ 10/100/1000BASE-T Interfaces (Port 5 of IGS-504PT)

LED	Color	Function
LNK/ACT	Green	**Lights** to indicate the port is successfully established at 10/100/1000Mbps.
		Blinks to indicate that the Switch is actively sending or receiving data over that port.

■ 100/1000X SFP Interfaces (Port 5 of IGS-514PT)

LED	Color	Function
LNK/ACT	Green	**Lights** to indicate the port is successfully established at 100/1000Mbps.
		Blinks to indicate that the Switch is actively sending or receiving data over that port.

3.4 Switch Upper Panel

The upper panel of the Industrial PoE+ Switch consists of one terminal block connector within two DC power inputs.

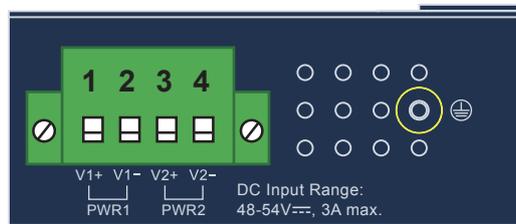Figure 3-4 shows the upper panel of the Industrial PoE+ Switch.

Figure 3-4: Industrial PoE+ Switch Upper Panel

3.5 Wiring the Power Inputs

The 4-contact terminal block connector on the top panel of Industrial PoE+ Switch is used for two DC redundant power inputs. Please follow the steps below to insert the power wire.

⚠ Caution	When performing any of the procedures like inserting the wires or tightening the wire-clamp screws, make sure the power is OFF to prevent from getting an electric shock.

1. The DC power input range is **48V ~ 54V DC**. Please insert positive and negative DC power wires into contacts 1 and 2 for POWER 1, or 3 and 4 for POWER 2.
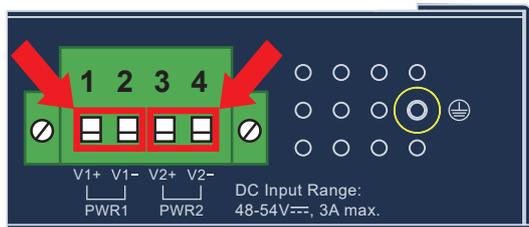

Figure 3-5: Industrial PoE+ Switch DC Input

|	1. To avoid damage, please use the Industrial PoE+ Switch according to its specifications.
Note	2. Please follow the description above for DC input in relation with maximum PoE budget.

3.6 Grounding the Device

Uses **MUST** complete grounding wired with the device; otherwise, a sudden lightning could cause fatal damage to the device.

	EMD (Lightning) DAMAGE IS NOT COVERED UNDER WARRANTY.
Note	
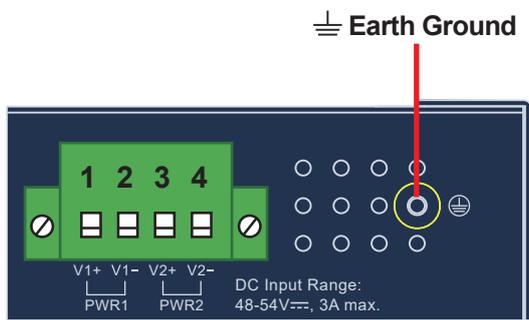
4. Installation

This section describes the functionalities of the Industrial PoE+ Switch's components and guides you to installing it on the DIN-rail and wall. Basic knowledge of networking is assumed. Please read this chapter completely before continuing.

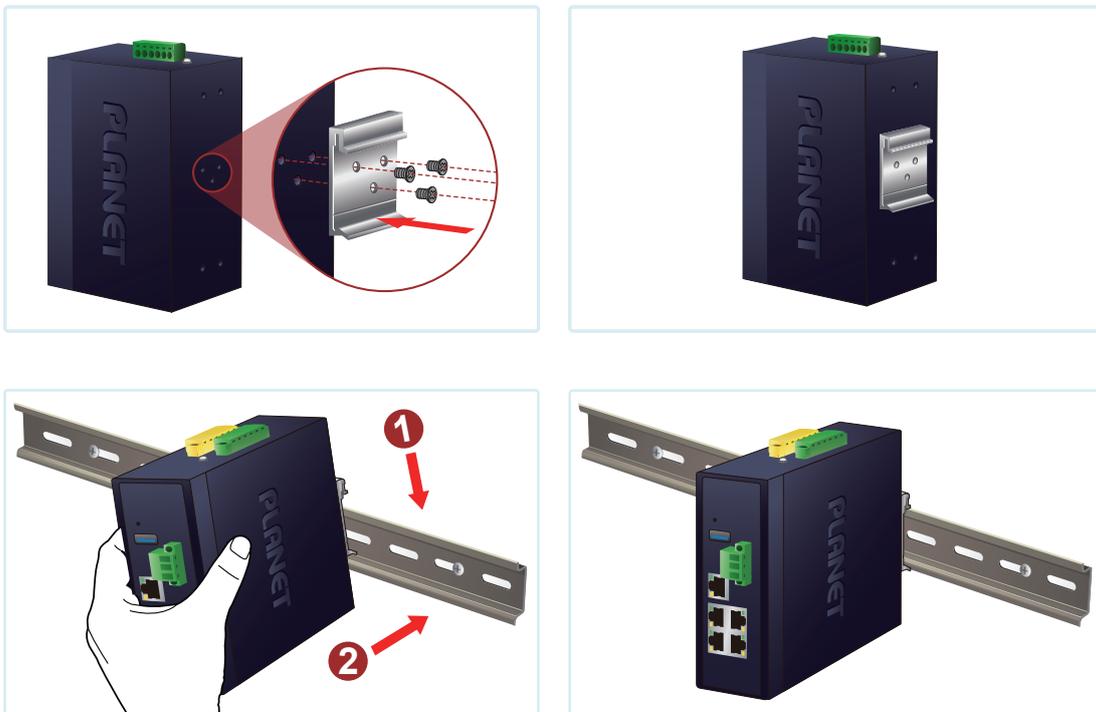|	
Note	This following pictures show how to install the device. However, the device in the picture is not IGS-504PT/IGS-514PT.

4.1 DIN-rail Installation

Figure 4-1: DIN-rail Mounting

Place the bracket on the back of the device and with the given 3 screws, tighten them. Slide the device with the bracket mounted through the DIN-rail to finish the installation.
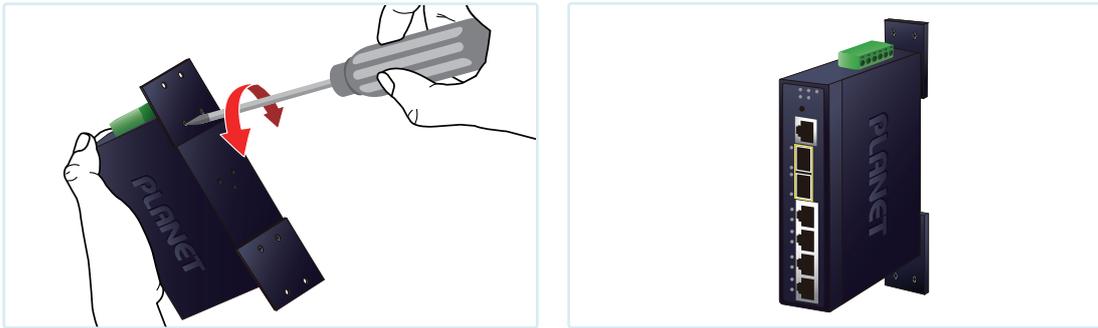
4.2 Wall Mounting

Figure 4-2: Wall Mounting

Place both mounting plates on the back of the device, and tighten them with the given screws. Then put the device with the plates mounted on the wall, and screw them to finish the installation.

4.3 Side Wall Mounting

Figure 4-3: Side Wall Mounting

Place the two mounting plates on the bottom of the device, and tighten them with the given screws. Then put the device with the plates mounted on the wall, and screw them to finish the installation.

⚠ Caution	You must use the screws supplied with the wall-mounting brackets. Damage caused to the parts by using incorrect screws would invalidate your warranty.

5. Customer Support

Thank you for purchasing PLANET products. You can browse our online FAQ resource at the 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:
https://www.planet.com.tw/en/support/faq?method=category&c1=3

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

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FCC Warning

This equipment has been tested and found to comply with the regulations 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 this user's guide, 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.