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Cisco Multigigabit 802.3bt Power Injector

Contents

Cisco Multigigabit 802.3bt Power Injector is a standards-compliant power injector that can be used to power Cisco Catalyst access points requiring up to 50W power.
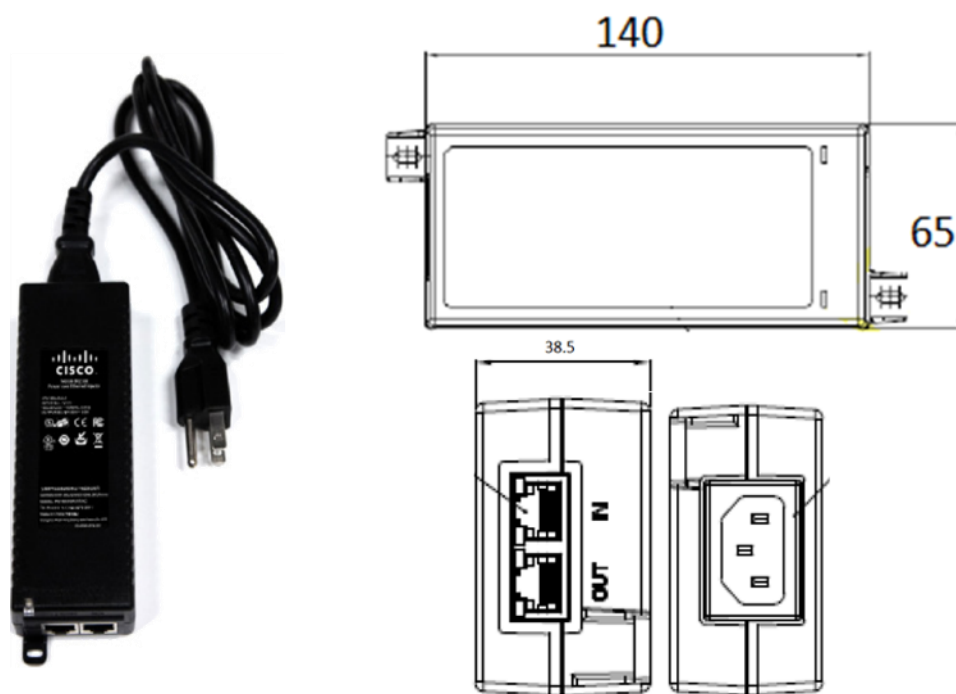

Figure 1.
Cisco Power Injector, AIR-PWRINJ7= and mechanical dimensions

Product overview

The Cisco® Multigigabit 802.3bt Power Injector (Figure 1) is a reliable, standards-compliant power injector capable of powering the latest high-performance access points and other network devices.

One of the main limitations in designing your wireless network is the availability of power. Running power cabling is also a primary cost driver of wireless installations. The Cisco Power over Ethernet (PoE) Injector allows delivery of both data and power to a Cisco access point over a single Ethernet cable, allowing deployment of devices exactly where they are needed to provide the best wireless coverage at a much lower installation cost.

The Cisco 802.3bt PoE Injector provides fully compliant 802.3bt detection, with disconnect, short-circuit, and overload protection to ensure that only 802.3bt, 802.3at, and 802.3af devices receive power, and that non-compliant devices are not accidentally damaged. Using this injector, it is possible to power the latest generation of 802.11ax devices that require higher power as well as providing multigigabit support.

Regardless of the deployment scenario, powering Cisco devices with 802.3bt Power over Ethernet with multigigabit is a flexible and low-cost method to simplify the installation process while ensuring that network design is not compromised by power availability limitations.

Features and benefits

The Power Injector powers reliable wired network devices that provide a robust, mobile end-user experience. Table 1 lists the injectors features and benefits.

Table 1.   Features and benefits

Feature	Benefit
802.3bt standard compliant support	Fully IEEE standards compliant, providing up to 50W over 100M Ethernet connection.
Up to 5 Gbps Ethernet speeds	Supports auto-negotiation Ethernet interface with data connections at 10M, 100M, 1G, 2.5G, and 5 Gbps rates.

Product specifications

Table 2 lists the specifications for the Cisco Power Injector, AIR-PWRINJ7=.

Table 2.   Specifications

Item	Specification
Nominal Input Voltage	100 ~ 240Vac
Input Voltage Range	90 ~ 264Vac
Nominal Input Frequency	50 ~ 60Hz
Input Frequency Range	47 ~ 63Hz
Input Current	2.0A Maximum
Average Efficiency	@115Vac / 60Hz >88% (on board) @230Vac / 50Hz >89% (on board)
No-Load Power Consumption	@115Vac / 60Hz <0.21W @230Vac / 50Hz <0.15W
Rated Output Voltage	56Vdc
Output Voltage Range	54 ~ 57Vdc (on board)
Output Current	0 ~ 1.161A
Leakage Current	<250uA at 264 Vac
Insulation Resistance	DC 500V 10M ohm minimum
Overvoltage	Auto-Recovery
Overload / Overcurrent	Auto-Recovery
Over Temperature	Auto-Recovery

Item	Specification
Short Circuit	Auto-Recovery
Interfaces	Data Input 1 x 10/100/1000/2500/5000 BASE-T autosensing (RJ-45)
	Data+Power Output (PoE): 1 x 10/100/1000/2500/5000 BASE-T autosensing (RJ-45)
	AC power input: C14 type socket
Indicators	Two Status LED indicate input power and PoE status
Dimensions (W x L x H)	(without cables): 2.6 x 5.5 x 1.5 in (65 x 140 x 38.5 mm)
Weight	0.5 lbs. (1.1 kg)
Environmental	• Operating
	◦ Temperature: 14° to 104°F (–10° to 40°C)
	◦ Humidity: 5% to 95% (noncondensing)
	◦ Maximum altitude: 10,000 ft (3,048 m)
	• Nonoperating (storage and transportation)
	◦ Temperature: –13° to 149°F (–25° to 65°C)
	◦ Humidity: 5% to 90% (noncondensing)
	◦ Maximum altitude: 15,000 ft (4500 m) @ 77°F (25°C)
Compliance	• IEC 61000-4-2, +/- 6kV
	• IEC 61000-4-3, 3V/m, 80%am, 1kHz, 80MHz to 1GHz Criterion A
	• IEC 61000-4-4. +/–1kV on input, Criterion B
	• IEC 61000-4-5 (lightning surge, AC Input port), 1.2/50 µs / 8/20 µs combination wave, +/–6kV from line to line,+/–6kV line to earth, Generator impedance : 2ohm; Criterion B
	• EN55204 (lightning surge, RJ45 port), 10/700 µs wave +/–2kV all lines to earth
	• IEC-61000-4-6 (conducted immunity), 3V, 80%AM, 1kHz, 150 kHz–80MHz; Criterion A
	• CISPR 32/EN55032 Class B FCC Part 15 Class B
	• Safety UL, CE, CCC, IEC/UL/EN 62368

Ordering information

Table 4 provides ordering information for the Cisco Aironet Active Sensor. To place an order, visit the Cisco Ordering Home Page. To download software, visit the Cisco Software Center.

Table 3. Ordering information

Product name	Part number and description
Cisco 802.3bt Power Injector	• AIR-PWRINJ7= Power Injector (802.3bt), 5G mGig Ethernet
	◦ Power cord option can be selected at time of order for AC power plug type

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Warranty information

The Cisco Aironet Active Sensor comes with a 90-day limited warranty that provides full warranty coverage of the hardware. The warranty includes 10-day advance hardware replacement and ensures that software media is defect-free for 90 days. For more details, visit https://www.cisco.com/go/warranty.

Find warranty information on Cisco.com at the Product Warranties page.

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Reference links to information about key environmental sustainability topics (mentioned in the "Environment Sustainability" section of the CSR Report) are provided in the following table:

Sustainability topic	Reference
Information on product material content laws and regulations	Materials
Information on electronic waste laws and regulations, including products, batteries, and packaging	WEEE compliance

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