



Zenput Gateway

Access Point for LoRa® Technology

Zenput's Gateway uses LoRaWAN® protocol to provide in-building penetration and connectivity to thousands of IoT assets. Easy to deploy, the Conduit AP extends LoRa® connectivity in commercial buildings like hotels, convention centers, offices and retail facilities providing coverage in difficult to reach areas cell tower or rooftop deployments may not penetrate.

BENEFITS

- Provide improved service level agreements for LoRa
- Affordable LoRa connectivity in or around commercial buildings
- Quick & easy to deploy
- Carrier approved

FEATURES

- Ethernet RJ-45 10/100 BaseT for IP backhaul
- Optional 4G-LTE IP backhaul
- Multiple power options serve a variety of applications
- Models available with external LoRa antenna for improved performance
- Built-in LoRa Network Server and Packet Forwarder

HARDWARE SPECIFICATIONS

Physical Description

Dimensions (L x W x H)	165 (6.5) x 135 (5.3) x 36 (1.4) mm (in)
Weight	1.5 kg (3.3 lbs)
Chassis Type	PC-ABS (polycarbonate-ABS)

Environmental

Operating Temperature	0° C to +70° C
Storage Temperature	-40° C to +85° C
Relative Humidity	20% to 90%, non-condensing

HARDWARE SPECIFICATIONS (continued)

Input Voltage	5 VDC 2.5A input provided by 100-240 VAC 50/60 Hz 0.4A external adapter
Input Voltage (PoE Models)	Ethernet Input Power: 37 - 57 VDC provided by PSE injector with power rating of 25W or greater or 5 VDC 2.5A input provided by 100-240 VAC 50/60 Hz 0.4A external adapter
Power over Ethernet Standard (PoE Models)	IEEE 802.3at
Processor & Memory	ARM9 processor with 32-Bit ARM & 16-Bit Thumb instruction sets <ul style="list-style-type: none"> • 400 MHz • 16K Data Cache • 256 MB Flash Memory • 16K Instruction Cache • 128X16M DDR RAM

LoRa Specifications

LoRa Frequency Band	915 MHz
LoRa Channel Plan	US915 (US902-928)
Channel Capacity	8-channels (half-duplex)
LoRa Maximum Output Power (MTCAP Models)	Maximum EIRP (includes external LoRa antenna): 25.7 dBm
LoRa Maximum Output Power (MTCAP2 Models)	Maximum EIRP (includes external LoRa antenna): 27.8 dBm

Certifications

EMC Compliance	United States: FCC Part 15 Class B / Canada; ICES-003 Class B
Radio Compliance	United States: FCC Part 22H, Part 24E, Part 27. FCC Part 15B Canada: ISSED. RSS-247 Issue 2 (Canada). ICES-003 Issue 6
Safety	UL/cUL 60950-1 / UL/cUL 62368-1
Quality	MIL-STD-810G: High Temp, Low Temp, Random Vibration. SAE J1455: Transit Drop & Handling Drop
Warranty	1 Year

HARDWARE SPECIFICATIONS (continued)

Connectors

Power	2.5mm, 5 Volt power jack
Ethernet	RJ45 Ethernet jack (10/100 port)
Antennas (-041A & 042A Models)	LoRa: reverse polarity female SMA Cellular: No external antenna connection. Internal only

POWER OPTIONS

Commercial buildings and retail facilities present unique installation challenges for installers, specifically in regards to the Access Point location and the availability of power. The Conduit AP offers models with several power options that overcome these challenges and simplify the installation process.

- **DC Power Adapter**

All Conduit AP models are capable of being powered through the use of an external power adapter. Some models come packaged with a 100 – 240 VAC power adapter. Power over Ethernet models do not include a power adapter, but one can be purchased separately. Conduit AP DC-powered models must always be located near an DC wall outlet.

- **PoE Power**

Select Conduit AP models have the added feature of being powered through the Ethernet connector using a Power over Ethernet injector (available separately) or through the customer's industrial enterprise router. In both cases, the Conduit AP is a PoE powered device (PD) and requires a PoE injector or industrial enterprise router capable of delivering 37 – 57 VDC with a power rating of 25W or higher. Conduit AP PoE models do not have the mounting limitations of DC-powered models, unless being powered using a 100 – 240 VAC power adapter (available separately) instead of using PoE power.