DATASHEET

PIGEON+

Next generation LTE/4G IoT edge gateway and controller for intelligent monitoring and control.

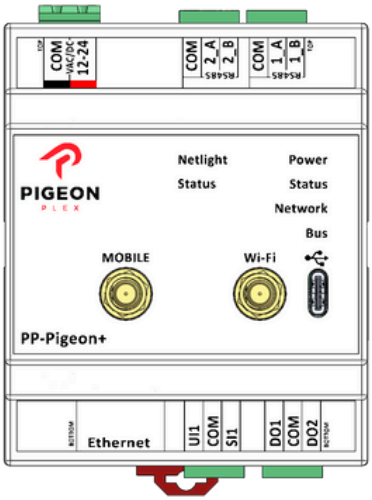
Features and Benefits

- Universal programmable IoT Edge Device.
- 1 x Universal Input
- 1 x Sensor Input
- 2 x Digital Outputs
- 2 x RS485 ports
- Ethernet
- Wi-Fi
- Dedicated hardware based cryptography.
- Internal temperature monitoring.
- EERAM for non-volatile pulse counting applications.
- RTC with battery backup
- USB-C for local configuration
- Location via geolocation services or LBS
- DIN Mounting enclosure
- CE Certified
- 12-24V AC/DC PSU
- Modbus RTU/IP
- DLMS/RS485
- MQTT Driver

Technical Overview

The Pigeon+ is Digital Twin's next iteration of the Pigeon family of devices. We looked at how IoT has been evolving over the years, and how our devices, as well as those from other manufacturers have been used.

Our team has been hard at work bringing the same unique value proposition by delivering world class features, engineered in South Africa at local price-points. The Pigeon+ takes the Pigeon to the next level, with 4G connectivity, as well as local IP connectivity via Ethernet and Wi-Fi.



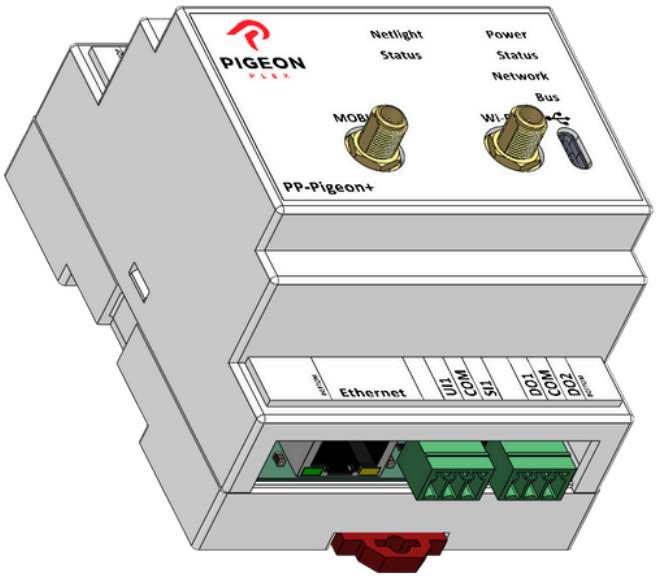
Technical Overview

Cloud integration and configuration via a simple MQTT interface. The device uses a standard data SIM, bring your own, or we can provide a number of options for you.

The Pigeon+ has doubled up on serial communication ports for enhanced integration options with Modbus RTU and DLMS. BACnet MS/TP is coming soon.

Custom serial drivers are available on Request. The addition of IP communications ports has enabled IP drivers such as Modbus/IP and BACnet/IP. Both drivers will be released soon.

Local inputs and outputs (I/O) have been streamlined down to 1 x Universal Input, 1 x Sensor Input and 2 x Digital Outputs based on real-world use cases. This allowed us to bring the awesome power of the new Pigeon+ in the same hardware format as the original Pigeon. Expandable I/O is available with our PigeonPlex line of Modbus RTU I/O modules.



We've taken security seriously, with dedicated tamper-proof cryptography hardware to ensure that the device is, and remains secure throughout it's service lifetime. We are continuously improving the device, with support for almost instant firmware updates over the air via our secure PigeonPlex Cloud infrastructure.

Specifications

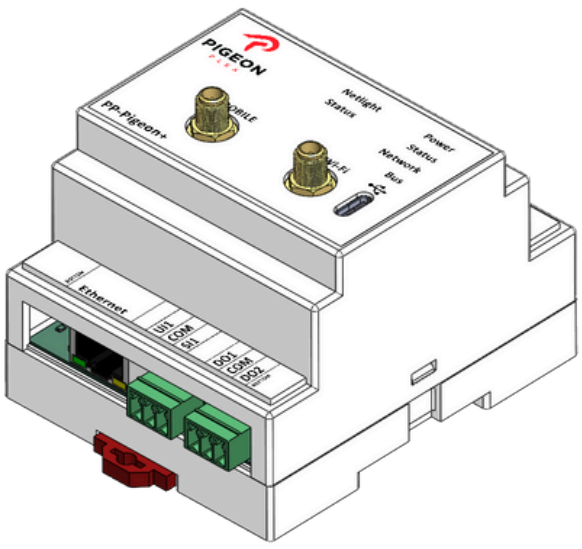
Power Supply	12-24V AC/DC 250mA, 500mA peak (current draw is dependent on connected peripherals)
Communications	LTE: • CAT1 B1/B3/B8 Bluetooth v4.2 (BLE): • 2.4GHZ - 2.4835GHz Wifi: • 802.11 b/g/n • 2.4GHZ - 2.4835GHz Ethernet: • IEEE 802.3 • 10/100 PHY
Serial Ports	2 x ports ¼ load chipset
Inputs & Outputs	1 x Universal Input: • 10K3A1 Thermistor • 0-10V DC • Digital Contact (Volt free) • Pulse counting (up to 100Hz) • Resistive 10K-100K Ohm • 4-20mA using shunt resistor

Specifications

Inputs & Outputs	1 x Sensor Input: • 10K3A1 Thermistor • Digital Contact (Volt free) • Pulse counting (up to 100Hz) • Resistive 10K-100K Ohm
Enclosure	72 x 88 x 66 (HxWxD) mm DIN rail mountable
Environment	IP Rating: IP31 Temperature Range: -10C - 40C

Protocols	RS485:
	• Modbus RTU
	  ◦ 100 Points (device config counts as one point)
	• DLMS
	  ◦ 10 Devices
	  ◦ 45 Points Mx per device
	IP:
	• MQTT
	• BACnet/IP (coming soon)
	• Modbus IP (coming soon)

Compliance	EMC Class A under EN 55032 (commercial/professional use only): • ETSI / EN 301 489-(1,17,52) • ETSI / EN 301 908-(1,13) • ETSI / EN 300 328 Safety: • IEC / EN 62368-1



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