



TEKTELIC COMMUNICATIONS INC.

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Product Name: **Kona Pico Gateway**

Product Number: **T0004313, T0004471**

Revision History

Version	Date	Status	Author	Change Description
0.1	Dec 02, 2016	Preliminary	A.Naryanan	Initial Release
0.2	Dec 06, 2016	Released	A.Naryanan	Updated as per review comments
1.0	Jul 31, 2017	Pending Review	Z. Herasymiuk	Updates for Certification
1.1	Aug 8, 2017	Released	Z. Herasymiuk	Updated as per review comments
1.2	Sep 20, 2017	Released	Z. Herasymiuk	Required updates for Certification
1.3	Sep. 22, 2017	Released	Z. Herasymiuk	Formatting updates
1.4	Sep. 25, 2017	Released	A.Narayanan	Corrected part number table

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What's In The Box

- Tektelic Pico Gateway (see table below for breakdown of available configurations)
- AC Power Adapter
- 3-foot Ethernet Cable
- External Antenna

Part Number	ISM Band	Antenna Type	WiFi Enabled
T0004313	902-928 MHz	External	Yes
T0004471	902-928 MHz	External	No

Specifications

- AC power adapter
 - 120V AC, 60Hz, 0.4A input, 5V DC, 2A output
- Operating temperature: 0 to 40°C
- Indoor use only, do not connect to outdoor antennas or outdoor network cables

System Requirements

- Requires internet access via an RJ45 cable connection or Wi-Fi connectivity (802.11 b/g/n at 2.4 GHz)
- Requires continuous access to a standard 120V, 60Hz AC power outlet

Connecting and Configuring your Gateway

- Connect the provided power adapter and, when applicable, the external antenna to the gateway¹
- The gateway starts up as soon as power is applied, expect to see a solid green LED on the back RJ45 right LED

If you choose to access the internet via an RJ45 cable connection:

- Connect the Ethernet cable from your Gateway to a LAN port on your router
 - The Gateway is configured for DHCP, you should see activity indicated on the left RJ45 LED after a few moments
- The Gateway is ready for use

If you choose to access the internet via a Wi-Fi connection:

- Use a Wi-Fi client (eg. smart phone) and connect to the KonaPicoAP_#SN access point within the first minute of powering up the gateway (while the Wi-Fi LED is blinking)
- Browse to <http://192.168.10.1> to view a webpage allowing connection to your Wi-Fi network
- Select your SSID and enter your passphrase, allowing your gateway to connect to your network as a client

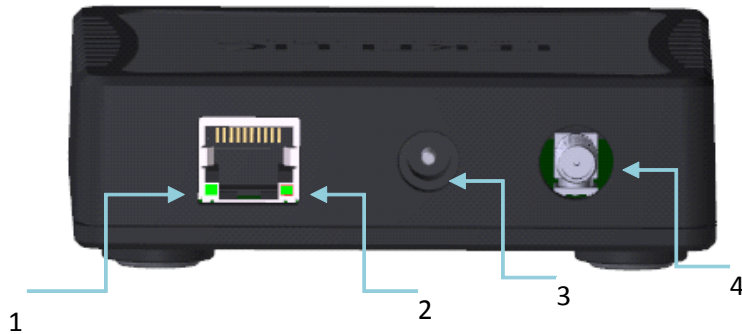
¹ Use the gateway only with the provided power supply and Antenna

- You should see the Wi-Fi LED stop blinking and stay lit once the gateway is connected to the network
- Gateway is then ready for use

If need to change the Wi-Fi network to which the gateway is connected:

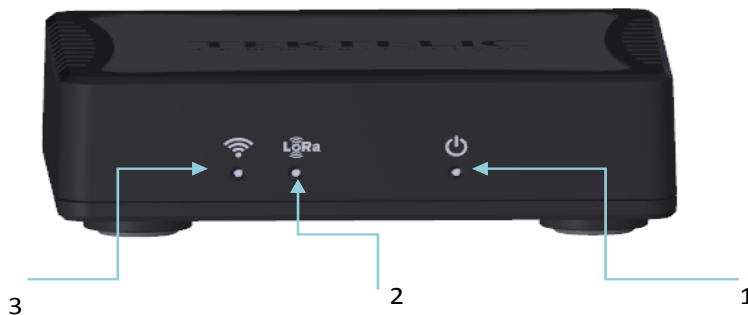
- Power cycle the gateway and use the same procedure described above to connect to a new Wi-Fi network.

Gateway Rear Panel



1. Ethernet activity LED – RJ45 left LED will flash when there is Ethernet activity
2. Gateway Power LED – RJ45 right LED will be solid when the gateway power supply is plugged in
3. 5V power connector
4. LoRa External Antenna connector (model dependant), use only provided antenna

Gateway Front Panel



1. System Status LED – as opposed to a simple power indicator, as with the RJ45 power LED on the back side:
 - LED flashes at a high rate while the gateway is obtaining an IP address via DHCP
 - LED is solid on after the gateway has obtained an IP address via DHCP, and remains solid on during normal operation
 - The LED flashes at a slow rate if the gateway is unable to obtain an IP address via DHCP, the network is not connected, or some other problem prevents normal operation
2. LoRa Activity LED – flashes with the receipt of packets:

- The LED is lit briefly whenever an uplink packet received via the LoRaWAN is sent to the network server
- The LED is lit briefly whenever a downlink packet received from the network server is transmitted via the LoRaWAN

3. Wi-Fi Activity LED – indicates the state of Wi-Fi connection:

- LED flashes when the Wi-Fi access point (KonaPicoAP_#SN) is enabled
- LED is solid on when the gateway is connected to a Wi-Fi network

Compliance Statements

Federal Communications Commission

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

1. This device may not cause harmful interference, and
2. This device must accept any interference received, including interference that may cause undesired operation.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

To comply with FCC/IC RF exposure limits for general population / uncontrolled exposure, the antenna(s) used for this transmitter must be installed to provide a separation distance of at least 20 cm from all persons and must not be co-located or operating in conjunction with any other antenna or transmitter.

Industry Canada

This Device complies with Industry Canada License-exempt RSS standard(s). This digital apparatus does not exceed the Class B limits for radio-noise emissions from digital apparatus as set out in the Radio Interference Regulations of the Canadian Department of Communications ICES-003(B). Operation is subject to the following two conditions:

1. This device may not cause interference, and
2. This device must accept any interference, including interference that may cause undesired operation of the device.

This radio transmitter 22504-T0004280 has been approved by Industry Canada to operate with the antenna listed below with the maximum permissible gain or lesser and required antenna impedance for the antenna indicated. Antenna types not included in this list, having a gain greater than the maximum gain indicated for that type, are strictly prohibited for use with this device.

This device complies with IC radiation exposure limits set forth for an uncontrolled environment. This device should be installed and operated with minimum distance 20cm between the radiator and your body.

This device has been designed to operate with the antenna listed below, and having a maximum gain of 2.7 dBi. Antennas not included in this list or having a gain greater than 2.7 dBi are strictly prohibited for use with this device. The required antenna impedance is 50 ohms.

ET830DBLTRPSMA – Airgain, Inc.

Industrie Canada (French)

Cet appareil est conforme aux normes RSS exemptées de licence d'Industrie Canada. Cet appareil numérique ne dépasse pas les limites de la classe B pour les émissions de bruit radio des appareils numériques, tel qu'énoncé dans le Règlement sur le brouillage radioélectrique du ministère des Communications du Canada NMB-3(B). L'opération est soumise aux deux conditions suivantes :

1. Cet appareil ne doit pas provoquer d'interférence, et
2. Cet appareil doit accepter toute interférence, y compris les interférences susceptibles de provoquer un fonctionnement indésirable de l'appareil.

Cet émetteur radio 22504-T0004280 a été approuvé par Industrie Canada pour fonctionner avec l'antenne indiquée ci-dessous avec le gain maximal admissible ou inférieur et l'impédance d'antenne requise pour l'antenne indiquée. Les types d'antenne non inclus dans cette liste, ayant un gain supérieur au gain maximal indiqué pour ce type, sont strictement interdits pour être utilisés avec cet appareil.

Cet appareil est conforme aux limites IC d'exposition aux rayonnements définies pour un environnement non contrôlé. Cet appareil doit être installés et utilisés avec distance minimum de 20cm entre le radiateur et votre corps.

Cet appareil a été conçu pour fonctionner avec l'antenne indiquée ci-dessous et ayant un gain maximal de 2,7 dBi. Les antennes non comprises dans cette liste ou ayant un gain supérieur à 2,7 dBi sont strictement interdites pour être utilisées avec cet appareil. L'impédance d'antenne requise est de 50 ohms.

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