

BlueRange Mesh Gateway (PoE), non-CE Datasheet

IoT Edge Computing Device for connecting a BlueRange Bluetooth Low Energy (BLE) mesh infrastructure with a BlueRange Server cluster.

Item number: BR-MGW-2019-00001-1



BlueRange Mesh Gateway (PoE), non-CE

Overview

- Gateway device between BLE infrastructure and BlueRange server cluster
- Optimized for devices with BlueRange firmware
- Conversion of BLE input messages to MQTT output messages
- Power input via Power-over-Ethernet (PoE) or MicroUSB 5 V / 2.5 A DC

Specification, Characteristics

Type	Mesh Gateway
Item number	BR-MGW-2019-00001-1
Power supply	Power-over-Ethernet (PoE) or Micro USB
Power PoE	5 V / 2.5 A / 802.3af compliant
Power MicroUSB	5 V / 2.5 A DC
Current consumption	
Processor	Broadcom BCM2837B0, Cortex-A53 64-bit SoC @ 1.4 GHz
Memory	1GB LPDDR2 SDRAM, microSD support
Connectivity	WLAN 802.11 b/g/n/ac (2,4 + 5,0 GHz), Bluetooth 4.2, BLE, LAN RJ45 Port for 10/100/1000 MBit/s, MicroSD slot, 4 x USB2.0, 3,5 mm AUX jack, HDMI, Micro USB
Geometry (L/W/H)	100 / 70 / 40 mm
Weight	ca. 162 g
Operating and storage temperature	5 - 50 °C
Protection class	IP20



Connection

The gateway is connected with a power source via ethernet cable for Power-over-Ethernet (PoE) power supply by the 802.3af standard with an input power of 36-56 V and output of 5 V or via a MicroUSB cable, as long as the source delivers 5 V / 2.5 A DC.

The gateway is connected to a network via ethernet cable or via WiFi. To connect to a network please ensure that the gateway is able to communicate within this network by checking the “Infrastructure Setup” document for correct ports and IPs. To easily connect and enroll a gateway, use the BlueRange Commissioning App. There you are able to give network information, such as Static IP, WiFi credentials, Proxy information.

The connection to the BLE mesh infrastructure is determined by the enrollment.

Functional Description

The BlueRange Mesh Gateway Edge Computer is used for all kind of IoT installations utilizing Bluetooth Low Energy communication on the one side and connection to the internet on the other.

Standard recommendation for connected BLE devices is 100 pieces. However, it is also possible to connect and manage more devices. The more devices there are in a single closed BLE mesh, the higher the latency for a complete penetration of the mesh with information, depending on the number of hops between the BLE nodes or devices.

Depending on the type of different use cases in parallel, the data traffic is according within the mesh and from the gateway into the connected cloud systems or server cluster. Since the gateway itself is also a mesh participant, it must be within the communication range of at least one mesh node to be able to connect with the mesh.

Order Information

BlueRange Mesh Gateway (PoE), non-CE


Item number: BR-MGW-2019-00001-1

In standard application used for BlueRange installations of BLE mesh infrastructure and comes with BlueRange OS and Firmware.

One year legal warranty.

No cables included.

Signs and certificates

	<p>WEEE directive 2012/19/EU Do not dispose of with household waste!</p>
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Related Components

BlueRange Mesh Gateway (non-PoE), non-CE

Item number: BR-MGW-2019-00001-2

Mesh Gateway without PoE power supply and without CE certification.

BlueRange Mesh Gateway (PoE), CE

Item number: BR-MGW-2020-00002-1

Mesh Gateway with PoE power supply and CE certification. Can be pre-ordered from 12/2019.

BlueRange Mesh Beacon E2

Item number: BR-MB-2019-00001-1

Mesh Beacon – BLE mesh infrastructure node

BlueRange Asset Beacon R1

Item number: BR-AB-2019-00001-1

Asset Beacon – BLE mesh infrastructure asset tag.

Further information and tools

Please find our documentation on how to setup and enroll a BlueRange BLE mesh infrastructure at bluerange.io/developer.

Link to the BlueRange Provisioning App:



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General information on BlueRange

www.bluerange.io

Disclaimer

Subject to change without notice. All data without guarantee.

The data sheet refers to the current factory setting.

The function in installations with other devices must be checked in advance for compatibility.