

WG-1000DB is a WLAN, 11n 1x1 dual band and IoT BLE Mini Gateway, which fully supports the features and functional compliance of IEEE 802.11a/b/g/n and Bluetooth 5 standards.

WG-1000DB is using the QCA4020 chip and deliver advanced features from the Qualcomm Network IoT Connectivity Platform, including virtually seamless coexistence across technologies with pre-integrated support for HomeKit and the Open Connectivity Foundation (OCF) specifications, as well as support for AWS IoT software development kit (SDK) and for Microsoft Azure IoT Devices SDK to connect with Azure IoT Hub.

FEATURES

- Dual band 1x1 802.11 a/b/g/n Wi-Fi function
- Bluetooth Low Energy (BLE) compliant to the SIG v5 specification
- Customer software runs under an RTOS such as ThreadX or FreeRTOS, and so on.
- Enterprise level security which can apply WPA/WPA2 certification for WiFi
- Support sophisticated WiFi/BT coexistence mechanism to enhance collection performance
- Secure channel establishment with remote host including transport layer security(TLS) handshake
- Wrapping and unwrapping of local or remote host envelopes
- On-chip key pair generation



SPECIFICATION

Model Name	WG-1000DB
Product Name	IOT BLE Mini Gateway
Standards	IEEE 802.11a/ b/ g/ n Bluetooth 5
Data Transfer Rate	WLAN: 1, 2, 5.5, 11, 6, 9, 12, 18, 24, 36, 48, 54, 60, 90, 120 and maximum of 150Mbps Bluetooth: 2 Mbps and Enhanced data rate: 3 Mbps
Modulation Method	WLAN: CCK, DQPSK, DBPSK, 64QAM, 16QAM, QPSK, BPSK, 64QAM, 16QAM, QPSK, BPSK Bluetooth: 8DPSK, π/4 DQPSK, GFSK
Frequency Range	2.4G / 5G Hz ISM band
RF Output Power (tolerance ±2dBm)	WLAN: 17dBm – 802.11b@11Mbps 17dBm – 802.11g@54Mbps 11dBm – 802.11a@54Mbps 9dBm – 802.11an@MCS7 17dBm – 802.11gn@MCS7 Bluetooth: + 12dBm
Receiver Sensitivity	WLAN: ≤-95dBm – 802.11b@11Mbps ≤-74dBm – 802.11g@54Mbps ≤-74dBm – 802.11a@54Mbps ≤-72dBm – 802.11gn@MCS7 ≤-71dBm – 802.11an@MCS7 Bluetooth: ≤-96dBm
LED Indicator	Power x 1; reserve x 3
Antenna	Internal Antenna
Operating Temperature	0 – 50° C ambient temperature 5 to 90 % (non-condensing)
Storage Temperature	-40 ~ 80°C ambient temperature 5 to 95 % (non-condensing)
Dimension	59.61 x 59.61 x 23.6 mm (LxWxH)

Specifications are subject to change without notice

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Warning

15.19 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.

15.105

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 or more 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.

15.21

- Any changes or modifications not expressly approved by the party responsible for compliance could void the authority to operate equipment.
- This device and its antenna must not be co-located or operating in conjunction with any other antenna or transmitter.

For product available in the USA/Canada market, only channel 1~11 can be operated. Selection of other channels is not possible

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