Tiny WIFI to BLE Gateway

Product Description

GW03 designed with the industry's first single PCBA for **WIFI to BLE4.1** Gateway solution creates for the Internet of Things (IoT). GW03 Integrated with high performance ARM Cortex-M4 MCU, is a low cost, small size that provides reliable wireless data communication with WIFI to over BLE4.1 networks.It enables robust BLE central controls over 100 simultaneous connections with BLE slave devices like sensors to be built with very low total BOM cost solutions for smart-home or Beacons' management application .

Feature :

- One Micro USB 5V Power input
- One Power LED
- One WIFI Status LED
- Supports Station, Access Point, and Wi-Fi Direct modes.
- Embedded :
  TCP/IP stack
  TLS/SSL stack
  HTTP server, HTTPS server and multiple Internet protocols
  8 Simultaneous TCP or UDP Sockets
  2 Simultaneous TLS and SSL Sockets
- 802.11 b/g/n Radio, Baseband, Medium Access Control (MAC)
- WPA2 Personal and Enterprise Security
- SmartConfig™ Technology, AP Mode, and WPS2 for Easy and Flexible Wi-Fi Provisioning

- Bluetooth 4.1 compliant Support over 100 Simultaneous Connections
- Fast Scan BLE devices up to over 100 devices in short time
- Provides Longer Range including 2x Range Over Other BLE-Only Solutions

- *Bluetooth* **RF Performance :**
  TX Power Up to +5dBm@9.1mA
  RX Sensitivity –97 dBm
- **WIFI RF Performance :**
  TX Power:17.0 dBm @1 DSSS
            17.2 dBm @11 CCK
            13.5 dBm @ 54 OFDM
  RX Sensitivity: –94.7 dBm @ 1 DSS
           – 87 dBm @11 CCK
           –73 dBm @ 54 OFDM
- WIFI IPEX Connector for External Antenna
- Device Dimension : 75.3mm x 59mm x 12mm (L x W x H)

Applications

For Internet-of-Things applications
– Cloud Connectivity
– Internet WIFI to BLE Gateway
– Home Automation
– Industrial Control
– Home Appliances
– Smart Plug and Metering
– Access Control
– Wireless Audio
– Security Systems
– IP Network Sensor Nodes
– Smart Energy

Electrical Characteristics

Absolute Maximum Ratings

Parameters	Min	Max	Unit
Storage temperature	-40	+120	°C
Supply voltage VDD input to the ground	4V	5.5	V

BLE RF Characteristics

Conditions: TA = 25°C

Parameters	Condition	Min	Typ	Max	Unit
RF frequency	BLE 2.4G	2045	2400	2480	Mhz
RF frequency spacing	At antenna input, 250 Kbps		2		Mhz
RF sensitivity (high gain)	At antenna input, 250 Kbps		-93		dBm
Maximum RF input		-10			dBm
Adjacent channel rejection	@+/-1 MHz, 250 Kbps		-5		dBm
Alternate channel rejection	@+/-2 MHz, 250 Kbps		50		dBm
RSSI range	High gain mode, 250 Kbps Standard mode	-90 -87		-45 -35	dB
Maximum RF output power	At 5 dBm output power setting		5		dBm
RF output power control range		-23		5	dBm
TX gain control resolution		1			dB
TX EVM			15		%

Recommended Operating Conditions

Test conditions: Power = 5V

Parameters	Min	Typ	Max	Unit
Ambient Operating Temperature	-20	+40	+70	°C
Supply Voltage for Power Input	3.3	5	5.5	V

Application 1
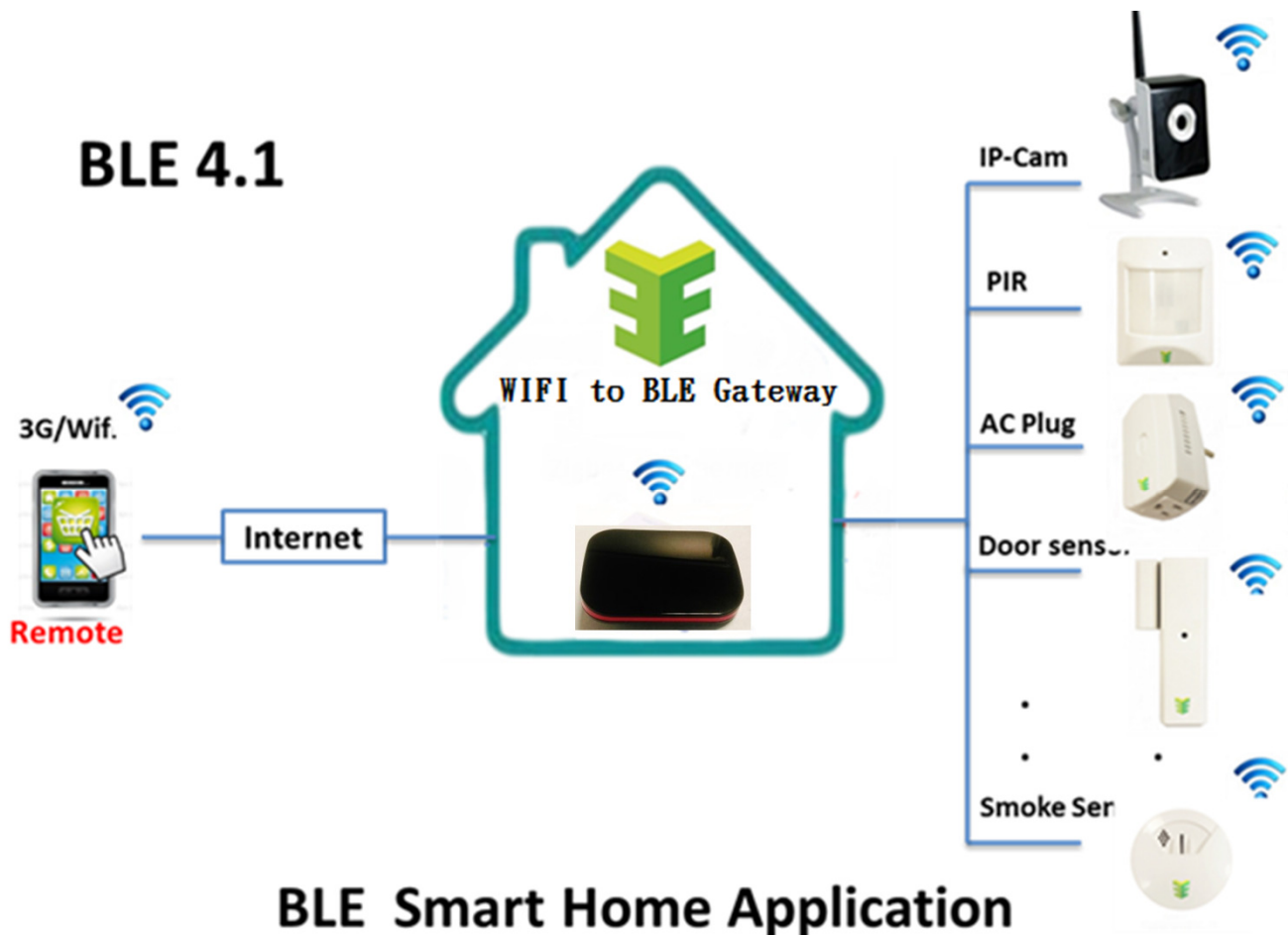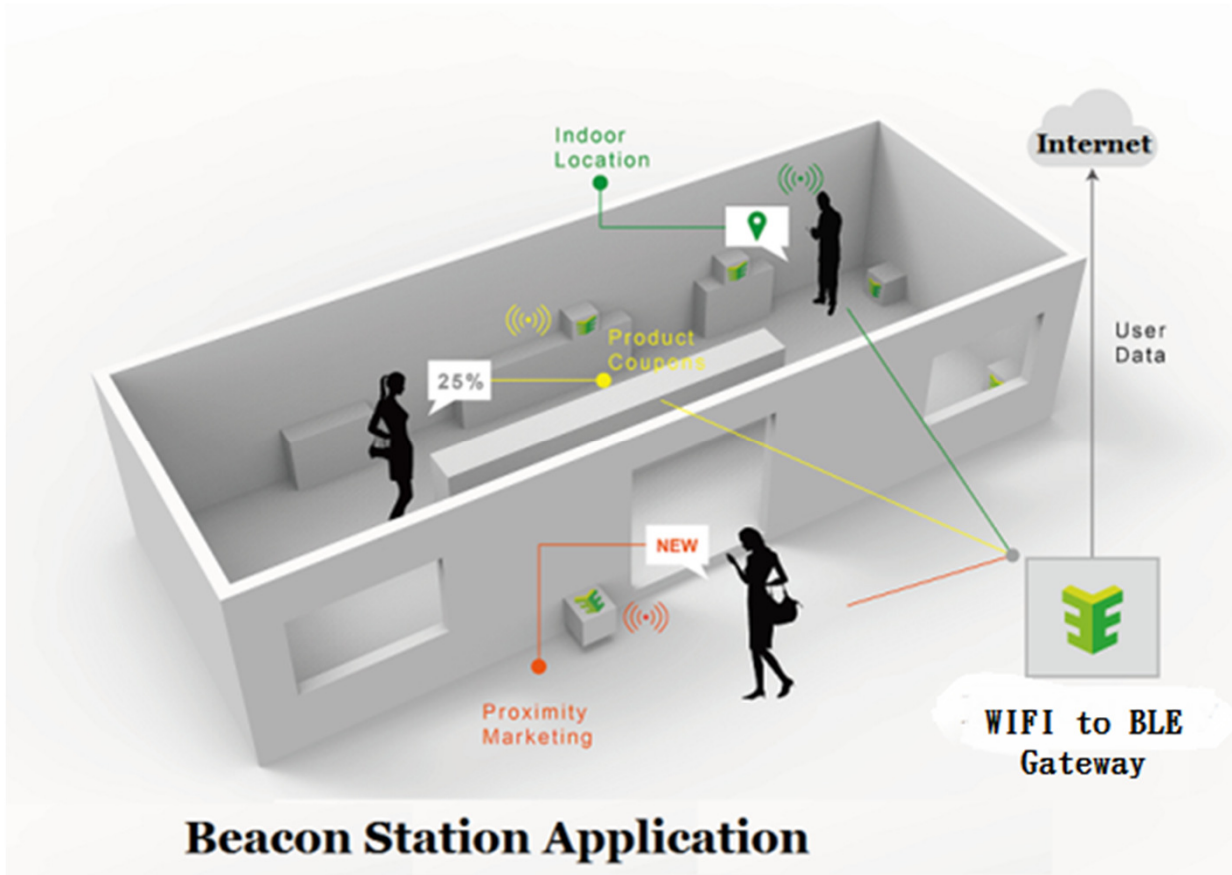
BLE 4.1

WIFI to BLE Gateway

3G/Wif.

Internet

Remote

IP-Cam

PIR

AC Plug

Door sens..

Smoke Ser

BLE Smart Home Application

Application 2

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