3Egreen technology Inc.

GW03 Series

Product Brief

Tiny WIFI to BLE Gateway

Product Description

GW03-DVT1 designed with the industry's first single PCBA for **WIFI to BLE4.1** Gateway solution creates for the Internet of Things (IoT). GW03-DVT1 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 up to **10** 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

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Taipei City 106, Taiwan
Tel : 886-2-27362529

- Bluetooth 4.1 compliant Support of Up to 10 Simultaneous Connections
- Fast Scan BLE devices up to over 50 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
- PCBA Dimension : 55mm x 52.4mm x 3.3mm (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

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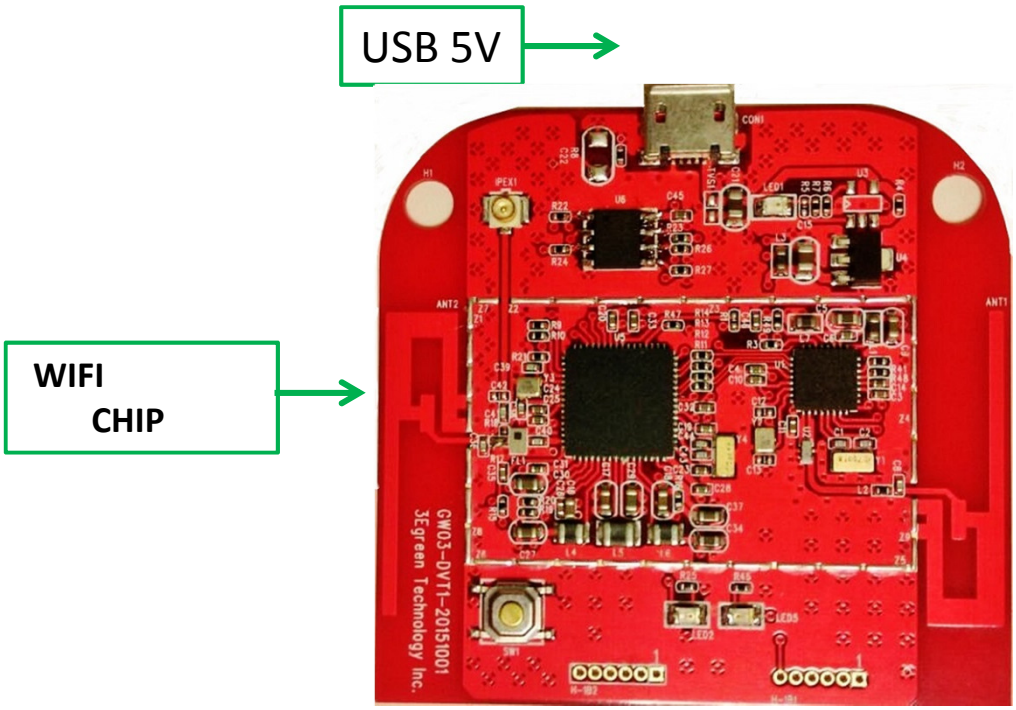
PCBA Module



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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

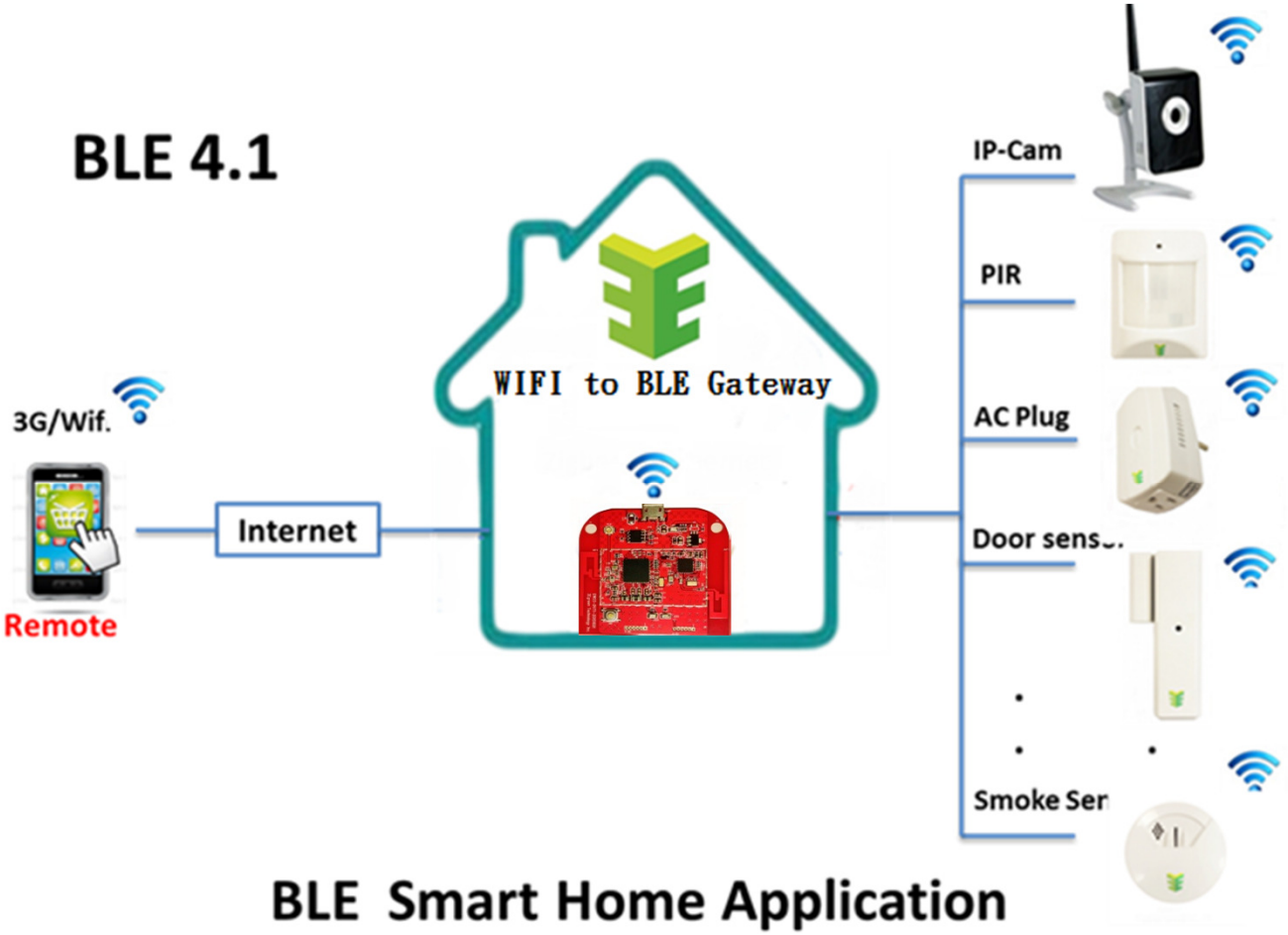
Parameters	Condition	Min	Typ	Max	Unit
RF frequency	BLE 2.4G	2045	2400	2480	Mhz
RF frequency spacing	At antenna input, 250 Kbps		2		Mhz
RF sensitivity (high gain)	At antenna input, 250 Kbps		-93		dBm
Maximum RF input		-10			dBm
Adjacent channel rejection	@+/-1 MHz, 250 Kbps		-5		dBm
Alternate channel 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



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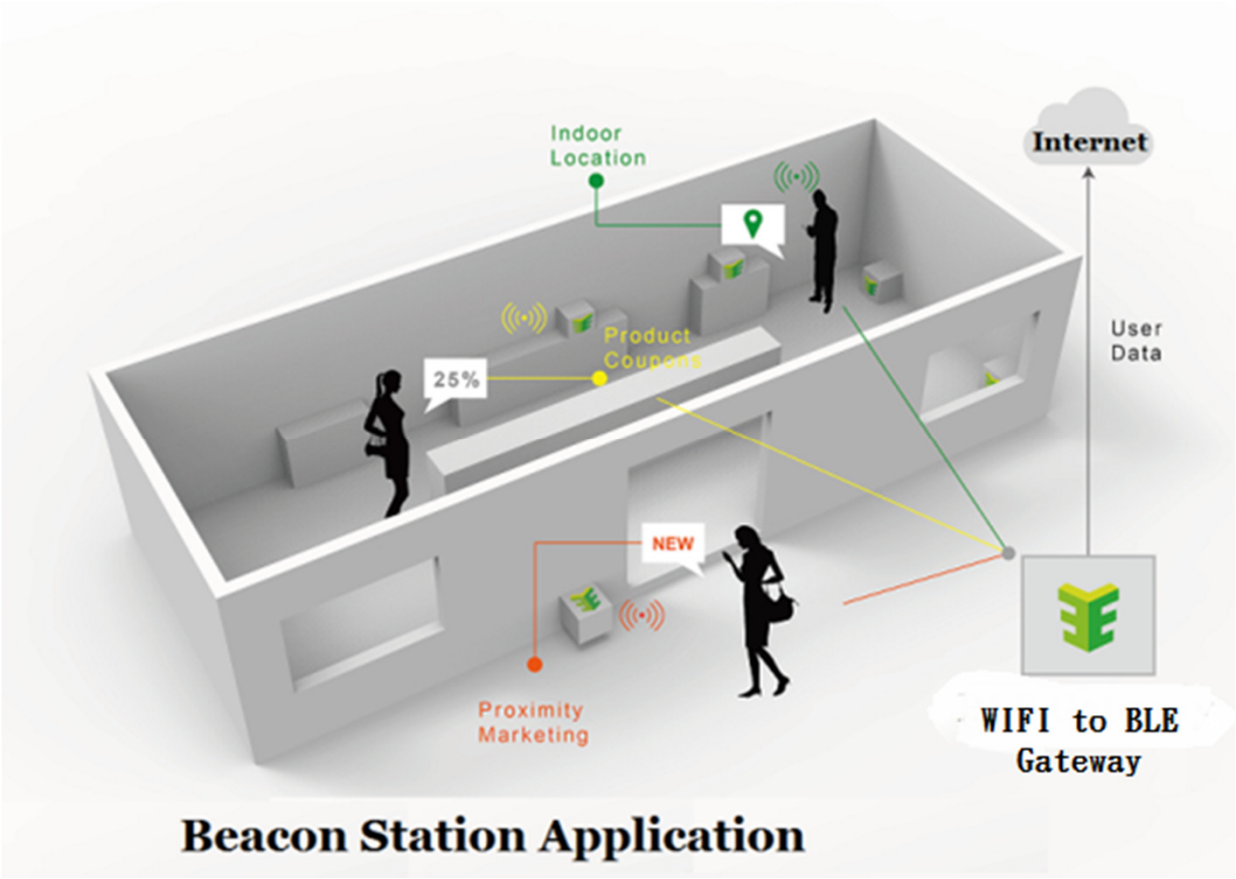
Application 2



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