INGICS TECHNOLOGY

iGS02E Specification

Ethernet Beacon Gateway

iGS02E is a BLE beacon gateway and bridge in 10/100M Ethernet interface. The gateway reads iBeacon and Eddystone like beacon or customized Tag(w/ sensor) format and sends to standard server, like TCP, HTTP, and MQTT. User can configure the gateway through a simple web UI or Telnet command.

Features

- Size: 55mmx55mmx18mm(not including antenna)
- Input: 5V, 500mA, micro-USB
- Operating temperature: -20'C to 60'C
- Low power consumption, averagely 190mA working current
- Remote software upgrade
- Reads multiple BLE devices in the same time
- Support TCP/HTTP(s)/MQTT(s) server
- Support POE through splitter(optional)

BLE

- Standalone 2dBi dipole antenna
- Reads message advertised from BLE device
- The gateway can broadcast as a beacon while receiving the BLE beacon
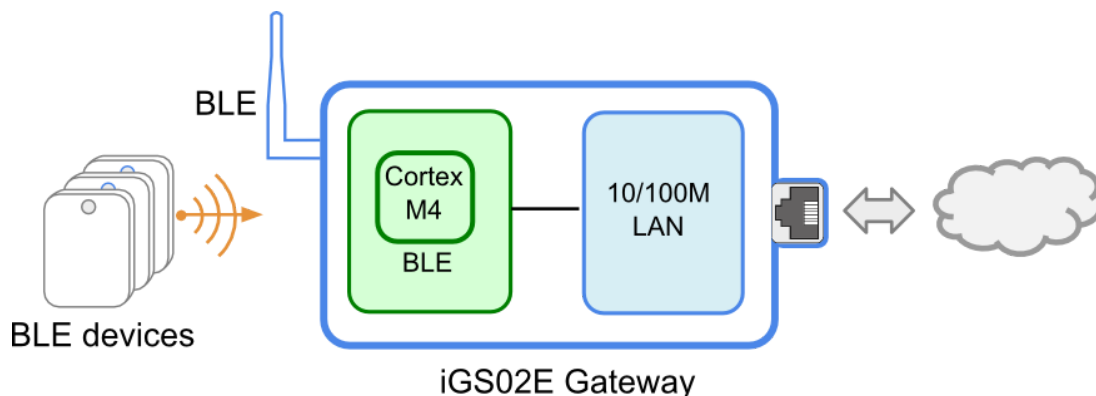- 50M range in open space

Ethernet

- 10/100M Ethernet
- 10BASE-T and 100BASE-TX auto-negotiation
- IEEE 802.3az Energy Efficient Ethernet
- HP Auto-MDIX crossover function
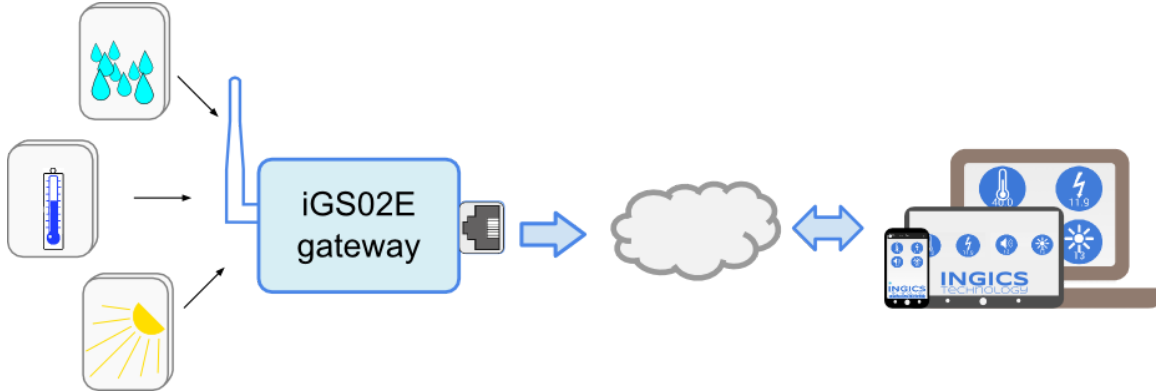- IEEE802.3x flow control for Full-Duplex mode

Applications

- iBeacon/Eddystone/tag receiver for location tracking
- BLE sensor reader for sensor network
- Building automation
- Health and wellness monitoring
- Cycling, biking

- Security
- Location tracking
- Access management
- Advertisement
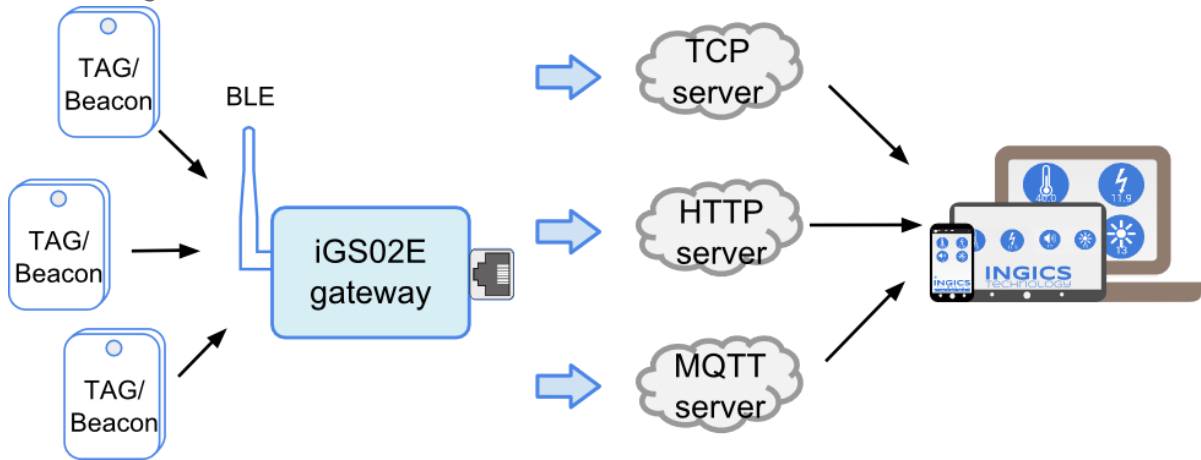- Industrial automation

Block Diagram

Typical Applications

1. Collecting BLE sensor data and sending to cloud server

2. Location Tracking with different kinds of server in the internet or cloud

3. Working with POE

Specification

Absolute Maximum Rating

Supply Power	Max. +5.5 Volt
Storage Temperature	-40° to 85° Celsius
Voltage Ripple	+-5%

Recommendable Operation Condition

Operating Temperature	-20° to 60° Celsius
Humidity	Max 95%, Non condensing, relative humidity
VDD	+5 Volt +- 5%

Current Consumption

Working mode (reading BLE and send to server)	Average: 190 mA(typical) Max:260mA(typical)

BLE RF Specification

Transmit Power	Max.: 8dBm
Receiver Sensitivity	-84 dBm @1Mbps, 0.1 %BER
Maximum Input Level	-20dBm
Frequency Deviation	+-250 kHz @BLE
Antenna	2dBi dipole antenna
Range	50M in open space

Dimension

Dimensions L x W x H (mm)	55 x 55 x 18 (not including antenna and antenna connector)

Packing

Each iGS02E has its accessories including antennas, micro-USB cable, and holder.

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Two packing boxes(size: 11cmX5.5cmx6.5cm) contains 4 units of iGS02E and accessories.

4X

4X

Revision History

DATE	REVISION	CHANGES
Apr 17, 2018	0a	Initial release
Apr 30, 2018	0b	Add working with POE figure