# Smart Beacon User Manual

1. Getting Started

Smart Beacon is based on Bluetooth low energy 4.0 and Wi-Fi IEEE 802.11b/g/n technologies, and therefore most of smart devices such as smart phone and tablet are easily interacted with the Smart beacon through the wireless technologies.

2. System Flow

When Consumer's smartphone is approaching a Smart Beacon device and then a service App in consumer's smartphone will notify to customer for a personalized service such as information, coupon, payment, check-in and so on, so that customer can be able to get a great personalized feedback through internet. And also the consumer App will interact with the Smart Beacon for a payment issue based on the Bluetooth low energy technology.

Smart Beacon User Guide
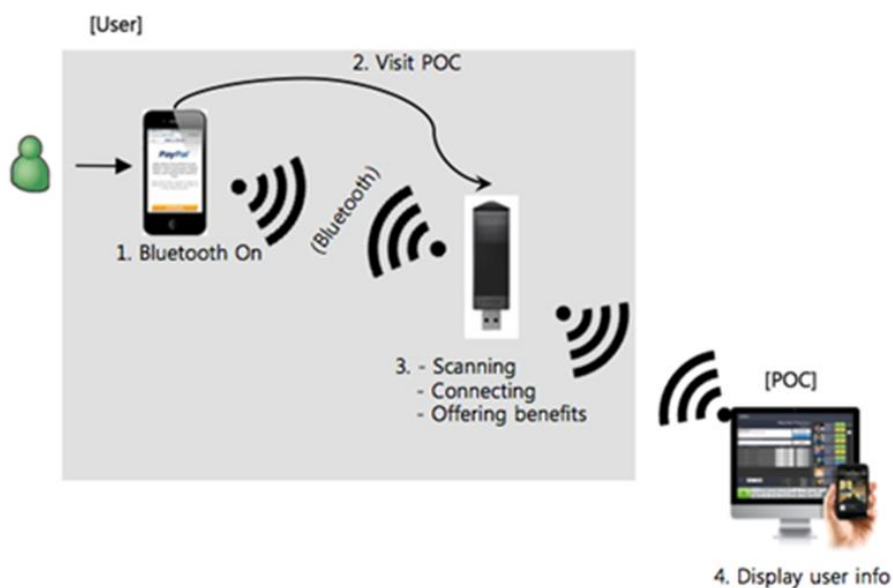
3. LED Operation

Smart Beacon has Power/Wi-Fi/BT which provides status information about the device and network.

No	LED Indicator			Description	Remark
	LED	Color	Solid/ Blinking		
1	Power PWR	No Light	-	Device is powered off	
		Red	Solid	Device is turned on	
2	Wi-Fi WiFi	No Light		Not ready to Wi-Fi connection	
		Green	Solid	Wi-Fi network is connected	
		Green	Blinking	In Device Reset operation	
3	BT BT	Blue	Solid	BT on	

4. Device Specification

<Product Features>

- IEEE 802.11 b/g/n, Bluetooth supported
  - Broadcom 20732 Single-Chip Bluetooth Low Energy
  - Broadcom 43362 Compliant with IEEE 802.11
    b/g/n 1x1 Single band 2.4GHz
- 3 LED Service Status Indicators
- Dimensions
  - Size : 52mm (W) x 33mm (D) x 10mm(H)
  - Weight: About 15g

<Electrical>

- Frequency range : 2402~2480MHz(BT(LE))/
  2412~2462(WLAN)
- BT(LE)Output power : 0.5dBm (Average)
- Sensitivity : -92dBm
- Operating environment
  - Operating temperature range: 0C to +70C
  - Storage temperature range :-10C to +85C
  - Humidity :5% to 95%(non-condensing)
- Power consumption : TBD@5V
- WLAN Tx Power : b 13dBm, g/n 8dBm (Average)

<Features>

- Bluetooth 4.0 Compliant Protocol Stack for Single-Mode BLE Solution
  - GAP, ATT/GATT, L2CAP
- Integrated ARM Cortex-M3 CPU with on-chip memory enables running IEEE 802.11 firmware for WLAN Client feature.
  - AES/TKIP, WPA/EPA2 encryption method
  - SSID Broadcasting
- Supported iBeacon Profiles
- Supported Device Management Function

5. Device Activation

For activation procedure in Smart Beacon is very simple, you have just plug-into your USB power adapter or your PC's USB port, and then the Smart Beacon's LED will be turned on automatically and you can interact with your customized Android and iOS App for your service.

● *The USB port didn't support any communication interface when it has plug into any laptop, because the USB port in Smart Beacon is comprised for supporting the power line without any data communication line.*

Part 15.105 statement

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,

Part 15.21 statement

" Change or Modifications that are not expressly approved by the manufacturer could void

  the user's authority to operate the equipment. "

This device complies with Part 15 of 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.

FCC RF Radiation Exposure Statement

This equipment complies with FCC RF radiation exposure limits set forth for an uncontrolled environment. This device must not be co- located or operating in conjunction with any other antenna or transmitter unless it has been evaluated and satisfied with FCC RF exposure requirement. To maintain compliance with FCC RF exposure compliance requirements, avoid direct contact to the transmitting antenna during transmitting.