BluFi™ BLE – WiFi Gateways

Bluetooth Smart to WiFi Gateways for Beacon Management

BluFi™ are Bluetooth Low-Energy (BLE) to Wifi gateways that relay signals between BEEKs Beacons and the cloud of HID Global's end-to-end IoT Services ecosystem. In combination with the corresponding Bluzone™ cloud services, BluFi enable BEEKs™ beacons to be centrally managed through the cloud, to transfer new messages, firmware updates, sensor data and battery status checks remotely. Their unique design allows BluFi devices and BEEKs beacons to broadcast reliably even in densely populated WiFi environments.

BEEKs and BluFi are not limited to standard beacon applications. HID Condition Monitoring Services, include a range of sensor beacons for motion, temperature and vibration. This sensor data is sent via BluFi gateways to the Bluzone Cloud to perform operational analysis for motorized equipment.

HID Global Location Services, is an efficient real-time asset location and item management platform leveraging BEEKs beacons to effectively pin down the locations of assets inside a warehouse, campus or manufacturing hall.

The calculation of the BEEKs location is based on received signal strength and other factors measured by BluFi devices.

BluFi AC devices are available in four major international power plug versions and can be installed in any standard power outlet on a wall or ceiling. BluFi DC are powered with a rechargeable battery and ideal for temporary or mobile setups. BluFi DC Plenum is a flame resistant, low-voltage DC powered version without battery. Both BluFi DC types are designed to be installed with an optional mounting kit on walls, ceilings or in the plenum. DC power connection can be done via USB or direct wires.

BluFi devices make it easy and cost efficient to cover an area with BLE to internet connectivity to take advantage of centralized management, real-time condition monitoring or location services with a fraction of the effort required by alternative technologies.

KEY BENEIFTS

- Cloud Enabled – Bi-directional BLE to WiFi gateway for remote management
- Smart – Accurately measures distance to BLE Beacons for RTLS
- Rapid Implementation – Simply install at any conventional power plug

TECHNOLOGY HIGHLIGHTS:

- Bluetooth Smart 4.2 and WiFi compliant
- iBeacon (Apple), Eddystone (Google) and sBeacon (HID) supported
- Models for any standard A/C, DC or USB power outlet
- Battery backed BluFi DC for temporary installations
- Central management possible
- BLE enabled Aruba access points may reduce the number of BluFi devices needed to implement Location Services

BluFi™ BLE – WiFi Gateways

BluFi DC Plenum
with optional mounting kit

APPLICATION AREAS:

Condition Monitoring

- Wireless status info on motorized equipment (on/off)
- Fault detection based on vibration or temperature trends
- Reporting of equipment duty cycles
- Cold chain applications

Real-time location

- Indoor position tracking of assets (Tools, portable equipment, vehicles)
- Position based alerting, heat-maps etc.
- Workplace optimization
- Emergency mustering

Retail advertisement

- BEEKs beacons may be used in iBeacon and/ or Eddystone mode for advertising messages or location based services
- Central provisioning or monitoring via BluFi and Bluzone possible
- Optional counting phones in vicinity

	BluFi™ AC				BluFi™ DC	BluFi™ DC Plenum
Model Number	BluFi-AC00				BluFi-DC00	
Configuration Types	BluFi-ACUS US Plug (Type A)	BluFi-ACEU EU Plug (Type C)	BluFi-ACUK UK Plug (Type G)	BluFi-ACAU AU Plug (Type A)	BluFI-DC00 (battery)	BluFi-DCPL (Plenum environment)
Part Number	BVBFUS (US)	BVBFEU (EU)	BVBFUK (UK)	BVBFAU (AU)	BVBFBUS (US), BVBFBEU (EU), BVBFBUK (UK), BVBFBAU (AU)	BVBFLVPW
ELECTRICAL						
Operating Voltage	100-240V AC, 50/60 Hz				N/A	
AC Plugs / Charge Plug	NEMA 1-15 ungrounded (Type A)	CEE 7/16 "Europlug" (Type C)	BS 1363 (Type G)	AS/NZS 3112 (Type I ungrounded)	Micro USB or PoE with external adapter. Optional USB charger for US, UK, EU, AU provided according to P/N.	USB Type A
Power Supply Characteristics					Output: 5V DC, 2.0A max.	
RF SPECIFICATIONS						
Standard Protocol	Bluetooth Low Energy (BLE) 4.2 / WiFi: 802.11 b/g/n					
Frequency Band (No. of Channels)	2400-2483.5 MHz (40 channels)					
Max Output Power	Bluetooth Low Energy (BLE): <10 dBm (e.i.r.p.) / WIFI: <20 dBm					
Modulation	Bluetooth Low Energy (BLE): GFSK / WIFI: 802.11 B: DSSS, 802.11 G/N: OFDM					
Antenna / Gain	integral pcb, 0 dBi					
Mode of Operation	half-duplex					
Data Rates	1 Mbit/s					
BATTERY						
Type	N/A				5V / 10.5 Ah - Lithium Ion Rechargeable	N/A
Life	N/A				up to 24h	N/A
FEATURES						
Processor Type	ARM Cortex M4 and ARM Cortex M3					
Memory	256 KB Flash (100 KB free for custom applications)					
Power Consumption	200 mA when TX; 20mA on sleep				9 mA when TX; 1.2 µA on sleep	
PHYSICAL						
Length × Width	2 × 1.5 x 1.5 in (50 × 38 x 38 mm)				3.4 x 3.2 x 1.2 in (86.1 x 82.2 x 31.8 mm)	
Housing Material	Polycarbonate					
Color	White				Gray	White
Weight	1.3 oz (37 g)	1.6 oz (46 g)	1.7 oz (48 g)	1.6 oz (46 g)	9.3 oz (264 g)	4.13 oz (117 g)
THERMAL						
Storage	-13° to +149° F (-25° to +65° C)				-4° to +158° F (-20° to +70° C)	
Operating Temperature	-13° to +149° F (-25° to +65° C)				-4° to +158° F (-20° to +70° C)	
OTHER						
Standards	FCC/CE/UL/FRE; BLE; Wifi 2.4 GHz				FCC/CE; BLE; Wifi 2.4 GHz	
Flame Resistance						UL-2043 (in progress)
Options	Software configurable				Wall or ceiling / plenum mounting kit (P/N: BVBFB2)	
Box Size	1 pcs.					
Warranty	1 year					

HID