

# BluFi™ BLE – WiFi Gateways



## BLUETOOTH SMART TO WIFI GATEWAYS FOR BEACON MANGEMENT

- **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

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 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, enabled by Bluzone, include a range of sensor beacons for motion, temperature, light, vibration and even magnetic field. This sensor data is sent via BluFi gateways to the Bluzone Cloud to perform operational analysis for motorized equipment performance, capacity load, door open status etc. Alerts according to policy are received via e-mail or web service.

HID Global Location Services, enabled by Bluzone, 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 installed in standard power plugs at the area that is to be monitored e.g. an office or manufacturing hall.

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. Battery powered BluFi DC can be installed in any location and have a battery life time of 15 days in standard mode and up to 6 months in power management mode (updates once every 10 mins.) before they need to be recharged. BluFi DC is also available in a weather resistant box with Solar panel power for outdoor applications.

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.

### TECHNOLOGY HIGHLIGHTS:

- Bluetooth Smart 4.1 and WiFi compliant
- iBeacon (Apple), Eddystone (Google) and sBeacon (Bluzone) supported concurrently
- Models for any standard A/C power outlet
- Battery backed BluFi DC with 15 days in standard mode and up-to 6 months runtime in power management mode
- Outdoor option with solar panel power e.g. for parking lots
- Location precision down to 6.6 ft (2m)
- Central management possible

**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

**SPECIFICATIONS**

	BluFi™ AC				BluFi™ DC
<b>Base Model Number</b>	BVBFUS (US)	BVBFEU (EU)	BVBFUK (UK)	BVBFAU (AU)	BVBFBUS (US), BVBFEU (EU), BVBFBUK (UK), BVBFAU (AU)
<b>ELECTRONIC</b>					
<b>AC Input</b>	100-240 VAC, 50/60 Hz				N/A
<b>AC Plugs / Charge Plug</b>	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. USB charger provided according to P/N.
<b>Bluetooth Type</b>	Bluetooth Low Energy 4.1				
<b>Bluetooth Sensitivity</b>	-98dBm				
<b>WiFi Type</b>	802.11 b/g/n				
<b>WiFi Sensitivity</b>	-97.5dBm @ 1DSSS -88.5dBm @ 11 CCK				
<b>WiFi Frequency</b>	2.4 Ghz with coexistence built-in with Bluetooth				
<b>Processor Type</b>	ARM Cortex M4 and ARM Cortex M3				
<b>Memory</b>	256KB Flash (100KB free for custom applications)				
<b>Power Consumption</b>	200mA when TX; 20mA on sleep				
<b>PHYSICAL</b>					
<b>Length x Width</b>	2 x 1.5 x 1.5 in (50 x 38 x 38 mm)				3.4 x 3.2 x 1.2 in (86.1 x 82.2 x 31.8 mm)
<b>Housing Material</b>	Polycarbonate and ABS				
<b>Color</b>	White				Gray
<b>Weight</b>	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)
<b>BATTERY</b>					
<b>Type</b>	N/A				5V / 10.5Ah - Lithium Ion Rechargeable
<b>Life</b>	N/A				15 days without power management - 6 months with power management
<b>CLOUD</b>					
<b>Type</b>	Bluzone Cloud - Cloud realtime managed				
<b>Data Output to Cloud</b>	0.1 to 1Mbit Up data				
<b>CHEMICAL AND MECHANICAL RESISTANCE</b>					
<b>Water</b>					IP67, 68° F (20° C), 3.3 ft (1 m) x 1 h
<b>THERMAL</b>					
<b>Storage</b>	-13° to +149° F (-25° to +65° C)				-4° to +158° F (-20° to +70° C)
<b>Operating Temperature</b>	-13° to +149° F (-25° to +65° C)				-4° to +158° F (-20° to +70° C)
<b>OTHER</b>					
<b>Standards</b>	FCC/CE/UL/FRE; BLE; Wifi 2.4 GHz				FCC/CE; BLE; Wifi 2.4 GHz
<b>Options</b>	Software configurable				Outdoor housing with Solar Panel
<b>Box Size</b>					1 pcs.
<b>Warranty</b>					2 years


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