

# Zebra Bluetooth® Bridges

Zebra Bluetooth IoT Bridges gather critical location data for actionable business insights

Edge-data and IoT technologies are transforming today's industrial networks. Zebra Bluetooth Low-Energy products are inexpensive relative to other active beacon solutions while providing all the capabilities of these technologies in an easy-to-manage solution. Zebra Bluetooth IoT bridges and transceivers leverage Bluetooth low-energy and Wi-Fi™ technologies and work in tandem with Zebra Bluetooth Beacons to provide near real-time location data to help companies maximize business efficiencies.



## The Zebra SB5200 Fixed-Location IoT Bridge

Zebra's SB5200 is an enhanced, higher performance IoT bridge in the same physical package as the MB5000. This device more efficiently receives and processes BLE beacons. It has expanded memory and operates over an expanded temperature range. The SB5200 will process more BLE beacons faster and is ideal for capturing BLE beacons in environments where there are large numbers of beacons.

## The Zebra MB5000 Fixed-Location IoT Bridge

### Easy to deploy and manage

Zebra MB5000 Fixed-Location IoT Bridges are easy to configure, install and manage, and can be deployed on pre-existing Wi-Fi networks. They capture Bluetooth low-energy beacon signals then filter and backhaul over Wi-Fi.

### Fully configurable

Fully configurable to meet custom requirements, Zebra Bluetooth IoT bridges and transceivers deliver critical data to identify asset location, improve workflows and optimize productivity and profitability.

### Secure and convenient

Protected with the best-of-breed security protocols, Zebra IoT bridges are easy to manage securely using 2.5GHz and 5GHz Wi-Fi with WPA/WPA2 personal and enterprise encryption. This allows configuration changes and network updates to be pushed remotely and en masse from a server without needing on-site support.

**Zebra Bluetooth Bridges deliver the data your enterprise can use to give your operations a performance edge over the competition.**

For more information, visit [www.zebra.com/bluetooth](http://www.zebra.com/bluetooth)

### The Zebra MB6000 Mobile IoT Bridge

#### **Mobile and wearable to extend asset visibility**

Zebra MB6000 Mobile IoT Bridges work with fixed-location bridges to form a comprehensive location-data solution configurable to your unique requirements. They are secure, run automatically and extend your asset visibility.

### The Zebra SB2000 Enhanced Indoor Beacon

The enhanced indoor beacon is a BLE bridge that can periodically listen for nearby BLE beacons and then broadcast BLE packets containing its own ID and the IDs for any nearby beacons. The enhanced indoor beacon is infrastructure installed in specific locations throughout a facility. The device self-locates nearby assets and enables improved location performance via data crowdsourcing using a minimum of fixed infrastructure which can be complimented with BLE-enabled mobile computers, printers or other bridges. The enhanced indoor beacon is compatible with the Bluetooth® low energy standard.

# Specifications

<b>MPACT-SB5200-01-WR</b>	
<b>Physical Characteristics</b>	
<b>Dimensions</b>	5.2" (132.3 mm) x 3.67" (93.3 mm) x 1.19" (30.2mm) including 3M® VHB tape
<b>Performance Characteristics</b>	
<b>Wireless Compatibility</b>	Wi-Fi 2.4GHz 802.11 b/g/n Wi-Fi 5GHz 802.11 a/n Bluetooth Low Energy (5.1)
<b>Beacon Processing</b>	Typically 2-3 times more than the MB5000
<b>Wi-Fi Security Compatibility</b>	WPA/WPA2 Personal (PSK: TKIP/AES) WPA/WPA2 Enterprise (TKIP & AES: PEAP-MSCHAPv2)
<b>Antenna Type(s)</b>	Wi-Fi omni-directional Bluetooth directional patch
<b>Compatible Beacon Modes</b>	iBeacon™, MPACT, Battery Save and SecureCast
<b>Location Capability</b>	Proximity or full x,y location with Zebra's Location Engine
<b>Location Engine/ Solution</b>	Zebra Location Engine/Zebra Motion Works Solutions or similar solutions
<b>Availability</b>	Available only as part of Zebra solutions and approved Zebra partner solutions
<b>User Environment</b>	
<b>Operating Temperature</b>	5°F to 131°F/-15°C to 55°C
<b>Power</b>	5V dc USB cable and power adapter connected to a standard A/C wall outlet (use only Zebra-qualified USB cable and adapters, sold separately)
<b>Regulatory</b>	
<b>Classification</b>	EMI/EMC (FCC), safety (UL), Contact Zebra for country certification details
<b>MPACT-MB5000-01-WR</b>	
<b>Physical Characteristics</b>	
<b>Dimensions</b>	5.2" (132.3 mm) x 3.67" (93.3 mm) x 1.19" (30.2mm) including 3M VHB tape
<b>Performance Characteristics</b>	
<b>Wireless Compatibility</b>	Wi-Fi 2.4GHz 802.11 b/g/n Wi-Fi 5GHz 802.11 a/n Bluetooth Low Energy (4.0 and 4.1)
<b>Wi-Fi Security Compatibility</b>	WPA/WPA2 Personal (PSK: TKIP/AES) WPA/WPA2 Enterprise (TKIP & AES: PEAP-MSCHAPv2)
<b>Antenna Type(s)</b>	Wi-Fi omni-directional Bluetooth directional patch
<b>Compatible Beacon Modes</b>	iBeacon, MPACT, Battery Save and SecureCast
<b>Location Capability</b>	Proximity or full x,y location with Zebra's Location Engine
<b>Location Engine/ Solution</b>	Zebra Location Engine/Zebra Motion Works Solutions or similar solutions
<b>Availability</b>	Available only as part of Zebra solutions and approved Zebra partner solutions
<b>User Environment</b>	
<b>Operating Temperature</b>	32°F to 104°F/0°C to 40°C
<b>Power</b>	5V dc USB cable and power adapter connected to a standard A/C wall outlet (use only Zebra-qualified USB cable and adapters, sold separately)

<b>Regulatory</b>	
<b>Classification</b>	EMI/EMC (FCC), safety (UL), Contact Zebra for country certification details
<b>MPACT-MB6000-CHRGR</b>	
<b>Physical Characteristics</b>	
<b>Dimensions</b>	7.78" (197.5 mm) x 5.41" (137.5 mm) x 1.68" (42.7 mm)
<b>Performance Characteristics</b>	
<b>What's Included</b>	10-slot charger (charges 1-10 MB6000s at once), power brick and charger cable (from brick to charger) included. The A/C cable from the wall to the brick is required and sold separately.
<b>Availability</b>	Available only as part of Zebra solutions and approved Zebra partner solutions
<b>User Environment</b>	
<b>Power</b>	Input: 120-240Vac 50/60Hz 2.4A Output: 12Vdc 4.16A (50W)
<b>A/C Cable</b>	Grounded A/C cable sold separately based on regulatory domain
<b>MPACT-MB6000-01-WR</b>	
<b>Physical Characteristics</b>	
<b>Dimensions</b>	2.52" (64 mm) x 1.73" (44 mm) x 0.91" (23.2 mm)
<b>Performance Characteristics</b>	
<b>Wireless Compatibility</b>	Wi-Fi 2.4GHz 802.11 b/g/n Wi-Fi 5GHz 802.11 a/n Bluetooth Low Energy (4.0 and 4.1)
<b>Wi-Fi Security</b>	WPA/WPA2 Personal (PSK: TKIP/AES) WPA/WPA2 Enterprise (TKIP & AES: PEAP-MSCHAPv2)
<b>Compatible Beacon Modes</b>	iBeacon, MPACT, Battery Save and SecureCast
<b>Antenna Type(s)</b>	Wi-Fi omni-directional Bluetooth directional patch
<b>I/O (input/output)</b>	Input: Two buttons for on/off and control Output: Two multi-color LEDs
<b>Availability</b>	Available only as part of Zebra solutions and approved Zebra partner solutions
<b>User Environment</b>	
<b>Operating Temperature</b>	32°F to 104°F/0°C to 40°C
<b>Battery</b>	Lithium ion
<b>Battery Life Estimate</b>	12 hours on a full charge
<b>Battery Charging</b>	Requires the MB6000-CHRGR dock and A/C cable (sold separately, available from Zebra)
<b>Regulatory</b>	
<b>Classification</b>	EMI/EMC (FCC), safety (UL), Contact Zebra for country certification details
<b>Warranty</b>	
Subject to the terms of Zebra's hardware warranty statement, the MB5000, MB6000, and MB6000 Charger are warranted against defects in workmanship and materials for a period of 12 months from the date of shipment. For the complete Zebra hardware product warranty statement, go to: <a href="http://www.zebra.com/warranty">www.zebra.com/warranty</a>	

## Markets and Applications

### Manufacturing

- Inventory management
- Asset and tool management
- Automated receipt and invoicing
- Locate raw-in-process and work-in-process

### Transportation and Logistics

- Parcel tracking
- Workflow management
- Resource optimization
- Load-in and load-out management
- Equipment and asset management

### Retail

- Customer engagement
- Mobile marketing campaigning
- Inventory/equipment management
- Workforce optimization

### Healthcare

- Asset visibility and tracking
- Physical inventory control
- Cleaning and disposal tracking
- Rental management
- Compliance control
- Equipment maintenance

**PRODUCT SPEC SHEET****ZEBRA BLUETOOTH® BRIDGES****MPACT-SB2000-01-WR****Physical Characteristics**

<b>Dimensions</b>	3.12" (79.2mm) x 1.76" (44.7mm) x 0.96" (24.4mm)
<b>Weight</b>	86 g

**Performance Characteristics**

<b>Wireless</b>	Bluetooth 4.1 (Bluetooth Low Energy)
<b>Beacon Interval</b>	Configurable in 100ms intervals
<b>Battery</b>	Two replaceable, standard AA batteries
<b>Transmit Power</b>	5dBm to -23dBm (EIRP) Configurable in 1dB steps
<b>Estimated Operational Life</b>	The approximate life is 2 yrs with the following settings: Receive period = once every 10 minutes Transmit/blink period = once every 2 seconds Actual battery life observed will depend on the actual configuration and transmit/receive periods used. The receive period is relatively large/slow to preserve battery life. This device is not intended for real-time asset visibility solutions
<b>Bluetooth Frequency</b>	2.4 GHz
<b>Bluetooth Security</b>	128 bit AES

**User Environment**

<b>Operating Temp.</b>	32°F to 104°F / 0°C to 40°C
<b>On / Off switch</b>	Yes
<b>LED</b>	Yes, with blink patterns representing various modes of operation
<b>Antenna Type</b>	Directional antenna with 120°
<b>Modes</b>	iBeacon, MPACT, Battery Save and SecureCast
<b>Environ. Resistance</b>	Indoor environment
<b>Installation Options</b>	Sticky Tape, Secure Mounting brackets, Tie Wrap
<b>Product Compatibility</b>	For use only with the MB5000 Bridge running firmware 2.7.6.0-038D or later and Zebra BLE beacons
<b>Captured Beacon Quantity</b>	Up to 15 nearby beacons

**Warranty**

Subject to the terms of Zebra's hardware warranty statement, the SB2000 is warranted against defects in workmanship and materials for a period of 90 days from the date of shipment. For the complete Zebra hardware product warranty statement, go to: [www.zebra.com/warranty](http://www.zebra.com/warranty)

The specifications herein are subject to change and actual performance will in some cases depend on product configuration, environment and actual usage



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