FREEWAVE

FUSION™ BRIDGE

BLUETOOTH SENSOR ENABLED

Solutions Guide

Expand your options to retrieve critical data, no matter where your equipment is located.

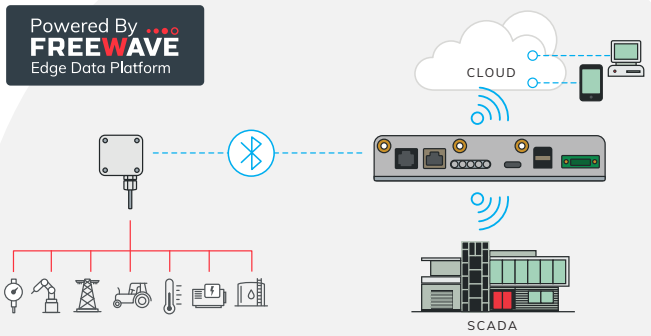
Fusion Bridge Bluetooth is the latest addition to our connectivity platform, now integrating with Fusion Bridge and FreeWave Edge

Fusion Bridge Bluetooth is a solution that expands your options for last-mile wireless data collection from remote equipment, with low cost, easy-to-install pre-certified third-party Bluetooth Beacons or using your own custom sensors or protocols.

FreeWave is partnering with OEMDD as our first third-party Bluetooth sensor provider.

The Fusion Bridge Bluetooth provides industrial hardware, remote connectivity, and edge data processing all in one box. And for existing Fusion Bridge customers, a simple software upgrade is all you need.

From tank level monitoring to temperature gauging to engine hours, Fusion Bridge Bluetooth can provide solutions that delivers real time data and analytics from your remote locations. The solution provides either pre-certified Bluetooth Beacons that integrate natively with FreeWave Edge or works with your custom Bluetooth device or Industrial Protocols.



Saves Time

- Bluetooth devices automatically integrate with FreeWave Edge, providing real time data and analytics
- Bluetooth sensors are easy to install and implement, automatically integrate with FW Edge on Fusion, eliminating wires and extra hardware
- Connect any WiFi device, including sensors, tablets, smartphones and cameras
- Easy, browser-based configuration

Saves Money

- Avoid the cost and resources needed for manual data retrieval
- Bluetooth integrated directly into the Fusion Bridge saves money compared to buying or developing your own connectivity gateway
- You can use your existing equipment and connect WiFi devices and Bluetooth sensors to existing and new 900 MHz networks

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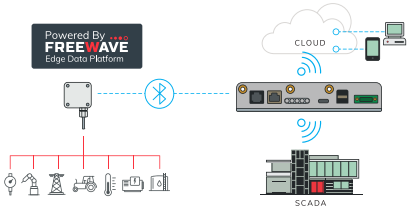
Technical Specifications

Powered By FREEWAVE Edge Data Platform



Fusion Hardware

System Specifications

- **Processor** - NXP i.MX6 Solo (Debian Linux Core
- **Storage** - 16GB
- **Memory** - 1GB DDR3
- **ISM Radio** - FreeWave Z9-T - -902 to 928MHz, 10mW to 1W
- **Wifi Radio** - Wifi Access Point, 802.11ac at 2.4GHz up to 867Mbps
- **Bluetooth Radio** - Bluetooth v5.0 (BR/EDR/LE)
- **Data Rates** - Up to 1Mbps Wifi bridge, up to 4Mbps 900MHz network rate
- **Connectors** - Ethernet (RJ45), Serial (RJ45), USB Hub (Type A), USB (Type C)
- **Operating Voltage** -6 to 30VDC
- **Temperature** - -20 to 70C (Humidity 0-95% Non-Condensing)

FreeWave Edge Data Processing

Edge Data Processing

- Edge Alerting – Threshold & Rapid Change Alerts
- Edge Data Processing & a Protocol Conversion
- Edge Data Storage – Up to 1 Month*

Edge Data Inputs

- FreeWave Certified Bluetooth Beacons
- Industrial Protocols such as Modbus, ROC, Totalflow
- More protocols and bluetooth sensors coming soon

Edge Data Publishing

- MQTT and MQTT Sparkplug B
- Real Time Publishing
- Store & Forward
- Cloud Ready – Tested with AWS IoT, Thingsboard, IBM Watson IoT, Azure IoT
- SCADA Ready – Tested with common SCADA platforms

OEMDD Specific Tracker

Pre-Approved Vendor Trackers include:

- Hour Meter (Ignition Switch)
- Hour Meter (Vibration)
- Air Filter
- Fuel Level
- Temperature Sensor
- Plus more than 20 additional sensors are available in the portfolio.
- **FreeWave Certified**
- **Power Requirements:** Internal Battery with 3+ year typical lifespan or Host Equipment Powered
- **Operating Temperature:** -40 to +70 C
- **Sealing:** IP67
- **Radio Distance:** 100 Meters - line of sight
- **Radio Frequency:** 2.45GHz, 802.15.4 Compliant
- **Installation Time:** Under 10 Min

Don't see a sensor for your needs? Have a sensor or protocol of your own? We can provide custom integration or pre-certified sensors.

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