DC-BR3800-01 BLE Module Data Sheet

The DC-BR3800-01 BLE Module is a Cisco-Certified 3rd Party Expansion Module that extends the capabilities of a Cisco 3800 series access point by providing the ability to capture Bluetooth Low Energy (BLE) transmissions from BLE beacons and forward that information to a third-party analytics platform to determine that beacon's proximity to a single reader or location as determined by multiple readers.

Product Overview

While most BLE solutions assign a BLE beacon to an area and use a mobile Smartphone or tablet to "read" those beacons to determine proximity or location, the DC-BR3800-01 reverses that scenario to open up a world of new possibilities. By assigning the always-on reader to a location, low-cost BLE beacons with long battery life can attach to people (e.g. wearables or trackables) or assets (e.g. beacons or tags) to provide real time location services (RTLS) with greater accuracy and lower price points. Solutions also remove the end user from having to correctly install and run applications, turn on Bluetooth, allow correct security settings, etc.

With true enterprise-class performance, the DC-BR3800-01 BLE Module can simultaneously read hundreds of v4x or v5x BLE beacons per second while providing up to 1-3 meters of accuracy. The proprietary, advanced processing algorithms dramatically improve network bandwidth utilization and quality of reads, which provides greater location detection accuracy and control over configurations for various use cases.

As a self-contained device that operates independently of the host access point, the DC-BR3800-01 receives power and network connectivity through the access point, significantly reducing implementation costs.

Features and Benefits

Feature	Benefit
Supports any 4.x or 5.x standard BLE packet	Any iBeacon, Eddystone, or proprietary BLE beacons are accepted and v5 support allows for future proofing.
Reads hundreds of beacons per second	Makes high-density solutions possible and allows for beacons to advertise more frequently leading to greater accuracy
External antenna connector	Allows for ideal antenna placement and type depending on use case. External antennas typically also capture more accurate reads
Proprietary, advanced processing algorithms	Dramatically improves network bandwidth utilization and quality of reads which improves location detection accuracy and provides greater control over configurations for various use cases.
Side loading module	Reduces installation time and costs. No need to run new power or network cables. No need to remove access point to install.
Local or cloud-based management platform	System can run 100% independently from outside end user's organization. Allows centralized management for group configuration and firmware updates.
DHCP Option 43 and 60 support	Allows for fast and easy provisioning.
Peak power <2W	Low impact on access point, ensuring access point has enough resources to operate radios and advanced features

For more information about the DC-BR3800-01 BLE Module, visit: http://decurtis.com/ble or E-mail: sales@decurtis.com

Product Specifications

Item	Specification
Part numbers	DeCurtis 3800 Series Access Point Bluetooth Low Energy Beacon Reader • DC-BR3800-01 • DC-BR3800-0110 (x10 quantity modules) DeCurtis Extended Warranty • DC-BREXT-1Y (1 year, 24x7 4-hr response) • DC-BREXT-3Y (3 years, 24x7 4-hr response • DC-BREXT-5Y (5 years, 24x7 4-hr response) Antennas • DC-OD24-3DB-RPSMA-W (2.4GHz Omni 3dBi RP-SMA 1M cable, white) • DC-OD24-3DB-RPSMA-B (2.4GHz Omni 3dBi RP-SMA 1M cable, black) • DC-OD24-4DB-RPSMA-DP (2.4GHz Omni 4dBi direct attach dipole, black) Management Platform Licensing • DC-MANBLE-01 (perpetual license, one per module required)
Software and supported WLAN controllers	• Cisco Unified Wireless Network Software Release 8.7.102.0 or later • Cisco 3504 Wireless Controller, Cisco 5520 Wireless Controller, Cisco, Cisco 8540 Wireless Controller
Bluetooth version	• Bluetooth Low Energy 4.x • Bluetooth Low Energy 5.x
Bluetooth standard support	• iBeacon TM • Eddystone TM • Proprietary
External antenna connector	• RP-SMA
External antenna (sold separately)	• Certified for use with antenna gains up to 3dBi (2.4 GHz)
Interfaces	• Cisco 3800 Series Expansion Port
Indicators	• 3 Status LEDs indicate boot loader status, operating status, boot loader warnings, boot loader errors
Dimensions	• 6.2 x 2.25 x 1.25 in. (15.75 x 5.72 x 3.18 cm)
Weight	• 2.2 oz
Input power requirements	• 802.3at PoE+, Cisco Univeral Power over Ethernet (Cisco UPOE) • 802.3at power injector (AIR-PWRINJ6=)
Power draw	• Minimum 1.2W • Max 1.8W
Environmental	• Nonoperating (storage) temperature: -22° to 158°F (-30° to 70°C) • Nonoperating (storage) altitude test: 25°C, 15,000 ft. • Operating temperature: 32° to 104° F (0° to 40°C) • Operating humidity: 10% to 90% (noncondensing) • Operating altitude test: 40°C, 9843 ft.
Frequency band	• 2.4 to 2.5 GHz

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Compliance standards	• Cisco ITV Certification Program • UL 60950-1 • CAN/CSA C22.2 No. 60950-1 • UL 2043 • FCC Part 15B 15.107, 15.109 • ICES-003 – (Class B) • ETSI EN 300.328 V2.1.1 RED • ETSI EN 301 489-1 V2.1.1 • ETSI EN 301 489-17 V3.1.1
Number of simultaneous beacons supported	• Cisco certified for 500 beacons per second
Warranty	• 1-year limited lifetime hardware warranty • 1-year software updates • 90-day 8x5 ET phone support

Minimum Hardware Requirements

- Suitable Cisco WLC such as the 3504, 5520 or 8540 running 8.7.102.0 or later
- Cisco 3800 Series Access Point (e.g. AIR-AP3802i, AIR-AP3802e, AIP-AP3802p)
- PoE+ (30W) Power Injector or Switch
- DC-BR3800-01 BLE Module
- BLE Module 2.4GHz Omni-directional antenna

Licensing

The DC-BR3800-01 can operate independently of a centralized management platform or can work with any third-party platform designed to interoperate with the DC-BR3800-01, including the DeCurtis BLE Management Platform. For implementations using the DeCurtis BLE Management Platform, a per-module license is required.

Limited Lifetime Hardware Warranty

The DC-BR3800-01 BLE Module comes with a limited warranty that provides 90 days of phone support (8am to 5pm ET), 1-year hardware replacement, and 1-year of software updates. Extended warranty options add phone support 24 hours a day with 4-hour response as well as software updates and hardware replacement during the purchased extended warranty period.

For More Information

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