

DATA SHEET

Cassia X1000 Outdoor and Indoor Enterprise Bluetooth Router

The Cassia X1000 is the world's first long range enterprise Bluetooth router that can be used in both indoor and outdoor environments. It extends Bluetooth's range up to 1000 feet open space and enables remote control of 22 Bluetooth low energy devices without requiring any changes to the Bluetooth end devices. The X1000 acts as an internet gateway working with the Cassia Access Controller for easy deployment and management.

The Cassia X1000 enterprise Bluetooth router can be used in both indoor and outdoor environments, supports PoE and offers enhanced functionalities. It can be attached to the pole or wall with an included mounting kit or placed on a desktop or counter space. It receives power from PoE via the uplink Ethernet port. X1000 is fully weather proof, and is widely deployed in school campus, sports field, stadiums, manufacturing yards and large metropolitan areas.

The X1000 is a first of its kind enterprise Bluetooth router capable of extending Bluetooth's range up to 1000 feet in open space and expanding the number of devices that can be paired and connected to 22 Bluetooth low energy devices, or listening to potentially hundreds of devices at the same time when operating in broadcast mode. The X1000 has a built-in smart antenna array designed specifically for Bluetooth. It can be used as a protocol gateway, which translates between Bluetooth protocol and IP protocol. The X1000 supports Ethernet and 2.4GHz Wi-Fi for IP backhaul. This enables your Bluetooth low energy devices to be accessible, and controllable, remotely via an Internet application.

The Cassia Restful APIs enable the integration of proprietary Bluetooth low energy devices to the X1000 without changing the end devices. In addition, the Cassia IoT Access Controller (AC) provides easy to use device management at scale. Solution providers use the AC to deploy and manage hundreds of Cassia X1000 routers and thousands of connected devices from a single user interface.



UNIQUE BENEFITS

Seamless Bluetooth Coverage

With smart antenna and RF management technology, the X1000 can deliver stable Bluetooth coverage of 1000+ feet open air. This capability allows partners to deploy seamless Bluetooth coverage indoor and out.

Remote Access and Control

The X1000 connects your Bluetooth low energy devices that are within its coverage to your LAN or Internet, assigns them into groups, and allows them to be controlled remotely.

Easy Integration (Restful API)

Cassia X1000 provides a set of Restful APIs which partners can easily integrate into their native mobile app or cloud applications. They can enjoy the extended range and routing capabilities of the X1000 without making any changes to their Bluetooth end devices.

Easy Deployment and Management

The X1000 is setup and managed by the Cassia IoT AC. Administrators can quickly deploy and check the status of all Bluetooth devices in their network (routers, sensors, bandwidth, battery life, device location, and more).

Location Tracking

Together with the Cassia AC, the X1000 can track and report location of the Bluetooth low energy devices within its coverage, providing geolocation data in real time.

Support Business Data Bypass

By sending business data directly to a third-party server, organizations can bypass the Cassia AC. Currently we support SQS and MQTT protocols for bypass mode.

Native Third-Party App

Customers can run their own applications inside the router. For the first release, we support applications developed using Python 2 and NodeJS. Additional programming languages are in development.

ADVANCED FEATURES

PROCESSOR & MEMORY

- CPU: quad core Amlogic Cortex-A5, up to 1.5GHz
- 32KB L1 instruction and 32K data cache, 512KB L2 unified cache
- 256MB RAM DDR3, 4GB eMMC storage

BLUETOOTH

- BLE chip: 2x CSR8811
- Bluetooth version: 4.0/4.1/4.2 LE
- LE Connections: Up to 22 connections
- Frequency: 2.400 to 2.483 GHz
- Data rates: 2x1Mbps
- TX power: +8 to +20dBm, continuously adjustable: 4db step
- RX sensitivity: -105dBm
- Antenna Gain: 5.7dbi vertical polarized

WIFI (802.11 b/g/n)

- Frequency: 2.4 GHz
- TX power: 17.5 to 12.5dBm
- RX sensitivity: -96 to -71dBm
- Antenna: Omnidirectional

MULTIPLE ROLES

The Cassia X1000 supports broadcaster, listener, sender and receiver roles, and can play multiple roles simultaneously.

SECURITY SERVICES

- Support Bluetooth 4.1 security standards
- Advanced 128bit AES encryption
- Password protected router configuration page
- Support HTTPS access to the Cassia AC
- MQTT communication between Cassia router and the broker is encrypted.

MOUNTING

- Mount kit to attach the router to the wall or pole is included

POWER INTERFACE

- Power over Ethernet: 802.3af/at compliant source



OTHER INTERFACES

- 10/100/1000 BASE-T Ethernet support
- Reset button: Factory reset
- Visual indicator (LED): Power/System
- USB 2.0 (can be used for 3G/4G dongle)

MECHANICAL

- Dimensions/weight:
 - 154 mm (BD) x 143mm (TD) x 259mm (H)
 - Weight: 1.5 lbs.

ENVIRONMENTAL

- Operating:
 - Temperature: -40 to 65°C (-40 to 149°F)
 - Humidity: 0% to 90% non-condensing
- Storage and transportation:
 - Temperature: -50° C to +70° C (-58° F to +158° F)
- Wind resistance:
 - Up to 85-MPH sustained winds
 - Up to 135-MPH wind gusts
- IP ratings: IP65

CERTIFICATION

- FCC (US), IC (Canada), CE (Europe), BQB, SRRC (China), TELEC (Japan)

WARRANTY

- 1-year limited hardware warranty