

M2000 Cellular Bluetooth Gateway

Cassia's M2000 is a compact, easy to install and use Cellular Bluetooth gateway that provides superior Bluetooth performance. The M2000 supports 4G and Wi-Fi as backhaul. The gateway provides customers with the enterprise-grade security, flexibility, and scalability needed to deploy IoT projects in the most cost-effective method. The M2000, in addition to Cassia's full product suite of Bluetooth gateways, can be managed by Cassia's IoT Access Controller (AC), the industry's most powerful enterprise Bluetooth network management solution. Like other Cassia enterprise Bluetooth gateways, M2000 also supports Bluetooth roaming and Bluetooth locationing. The M2000 is complementary to Cassia's other enterprise Bluetooth gateways such as the E1000 and X2000 gateways. The M2000's unique design with the support of 4G backhaul, GPS and DC 9-36V is especially ideal for situations requiring mobility, quick deployment, and in a moving vehicle. The M2000 gateway can be used in a variety of industries and applications such as continuous vital sign monitoring in hospitals, telehealth, industrial IoT, smart campus, supply chain management, as well as personnel and asset tracking (in buildings and in vehicles).



Power Interface

- DC 5V 2A, USB-C
- DC 9-36V (supported by external DC 9-36V to DC 5V converter)

Mechanical

- Dimensions:
 - ✓ 90 mm (W) x 90 mm (L) x 30 mm (D)
 - ✓ 3.5 inch (W) x 3.5 inch (L) x 1.2 inch (D)
- Weight: 85 g / 3 oz
- Color: off white

Bluetooth

- Bluetooth chip: Nordic nRF52833
- Version: Bluetooth Low Energy 4.x and 5.0. nRF52833 supports Bluetooth Low Energy 5.1
- Frequency: 2.400 to 2.483 GHz
- Data rates: up to 2Mbps
- Connections: one M2000 can establish up to 10 bidirectional connections to Bluetooth low energy devices simultaneously
- Scan: the M2000 can scan hundreds of Bluetooth devices and supports Cassia's PureScan™ Mode to offer the best scan performance in high noise environments with a large number of Bluetooth devices
- Coverage: the M2000's communication range is up to 150 meters with a Bluetooth 4.x device in an open space line of sight, or more with a Bluetooth 5.0 device

Wi-Fi

- Version: 802.11 b/g/n
- Frequency: 2.4 GHz
- Concurrent Wi-Fi hotspot mode for local configuration and Wi-Fi STA (client) mode for backhaul connection
- Antenna: Integrated

GPS

- Active GPS with an internal GPS antenna

Cellular Backhaul

- Cellular technology: CAT-M1 / NB-IoT
- Max data rates:
 - CAT M1: 588 kbps (DL) / 1119 kbps (UL)
 - CAT NB2: 127 kbps (DL) / 158.5 kbps (UL)
 - CAT NB1: 32 kbps (DL) / 70 kbps (UL)
- Frequency:
 - CAT M1: Band 1/ 2/ 3/ 4/ 5/ 8/ 12/ 13/ 18/ 19/ 20/ 25/ 26/ 27/ 28/ 66/ 85
 - CAT NB: Band 1/ 2/ 3/ 4/ 5/ 8/ 12/ 13/ 18/ 19/ 20/ 25/ 28/ 66/ 71/ 85
- Cellular carrier: global
- Antenna: integrated

Security

- Bluetooth Low Energy 4.2 secure connection
- Advanced 128-bit AES encryption
- TLS 1.2 is used for communication between the M2000, AC, and the customer's IoT server

Application Integration

- Cassia RESTful API: Compatible with other gateway types
- Cassia MQTT API: bi-directional communication with BLE device via gateway MQTT interface
- MQTT Bypass: route BLE advertising packet to MQTT interface
- Cassia DI (Device Integrator): an easy device integration tool

Gateway Management

- Management system: Cassia IoT AC remotely manages M2000 deployed on a large-scale
- Configuration and upgrade: the M2000's configuration and firmware upgrade can be completed using the Cassia IoT AC or a local console page through Wi-Fi hotspot

Other Interface

- Reset button: restores to factory settings
- Three green LED lights: System + Wi-Fi, 4G and BLE
- Micro SIM card socket

Environmental

- Operating temperature: -30°C to +70°C (-22°F to +158°F)
- Operating humidity: 0% to 90% non-condensing
- IP rating: IP30 (>2.5mm solid protection, no liquid protection)

Mounting

- Mounting kit included

Certification (Plan)

- FCC (USA), IC (Canada), CE (EU), TELEC (Japan), JATE (Japan), RoHS (EU), REACH (EU), CB, BQB

Warranty

- 1-year limited replacement warranty