



SIMPLIFIED MONITORING & DATA COLLECTION PLATFORM FOR FACILITIES

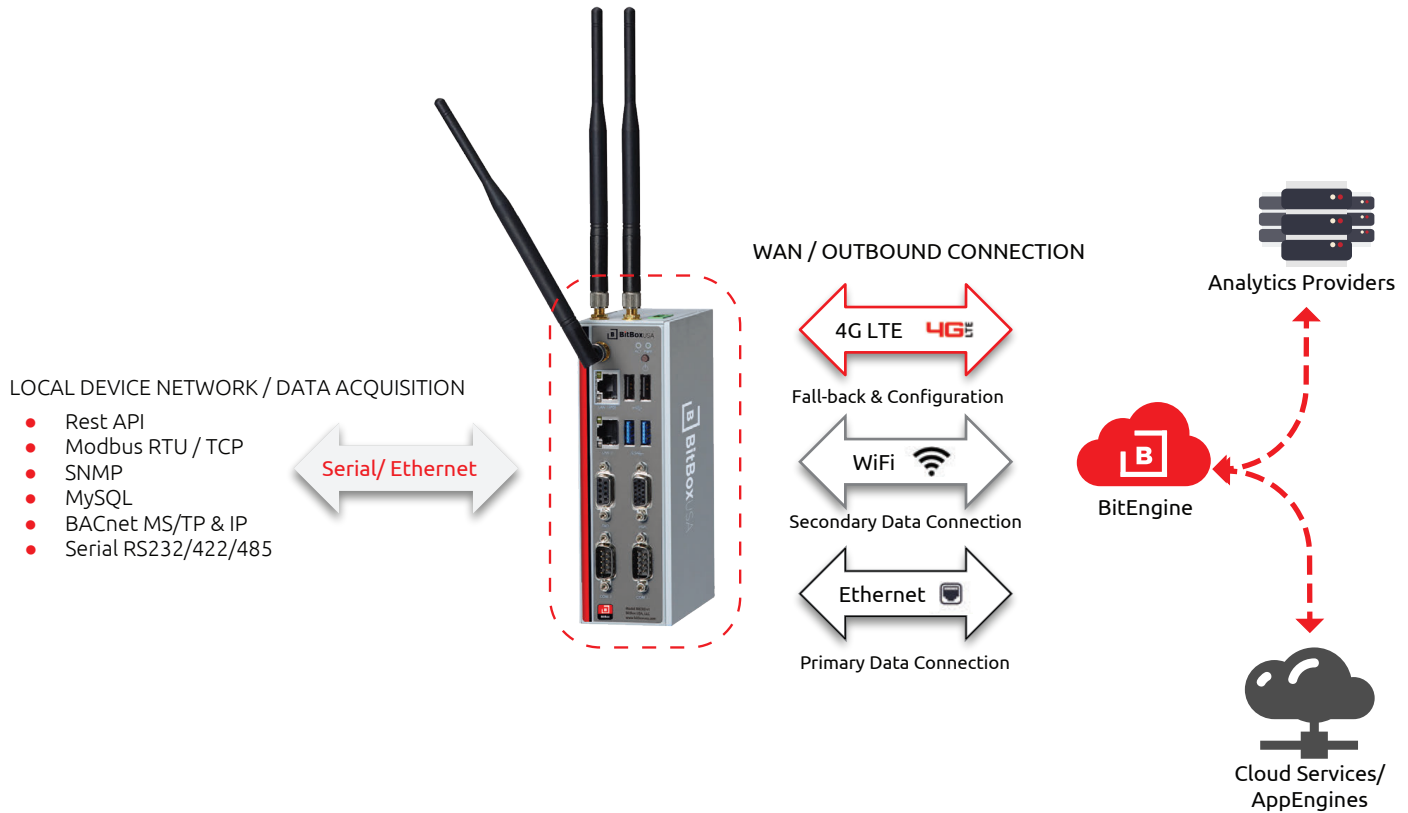
The Bitbox is an industrial grade IoT Gateway allowing cloud data collection and enterprise edge connectivity within buildings utilizing the BitEngine configuration and Data Organization Engine. Simple deployment and flexible software-based protocol connectors within the BitBox displace the need for multiple gateways/bridges in a facility to gather data. The Bitbox squarely fits in smart building and IoT applications such as intelligent energy metering, factory automation, retail management, Edge data-center monitoring, and global property management oversight.

The BitBox sports a low power Braswell Intel® Celeron® processor N3060 1.6 GHz dual-core or N3160 1.6 GHz quad-core with 8GB system memory, delivering high performance and low power consumption for mass data acquisition needs from a variety of subsystems within facilities. The unit offers complete digital connectivity to individual sub-systems via two Gigabit LAN ports, two RS-232/422/485 ports, two USB 2.0 ports, two USB 3.0 ports, and a digital IO interface.

The Bitbox quickly commissions via the BitEngine service and allows native connectivity to BacNet/IP, BacNetMS/TP, LonWorks, ModBus RTU/TCP, Serial, and over 100 other protocols to harvest data. The BitEngine cloud platform consolidates, tags, and formats all the BitBox harvested data into a single source API allowing remote analytics and visualization platforms to access all the data from enterprise from a single source of data truth.

Cloud connectivity of the Bitbox is facilitated via a single hard-line Ethernet/IP connection requiring a single TCP port with double redundant backup options of Wi-fi and cellular 4G/LTE.

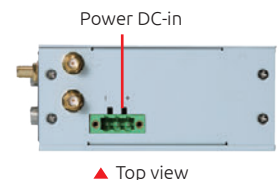
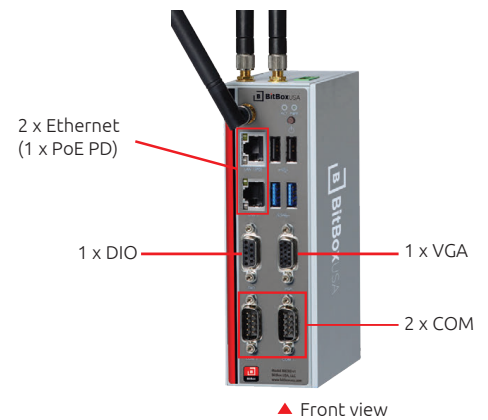
The unit requires minimal installation time, only requiring mounting in a rack or on a wall and wiring of inbound data connections and a single outbound Internet connection. Power can be supplied via a 12-24VDC power supply or via integral PoE-PD functionality eliminating separate power wiring.



FEATURES AT A GLANCE

Facility data consolidated, organized, and accessible with the simplicity of a BitBox

- Fan-less industrial design for long service life
- Multiple communications inputs data sources
- Double redundant outbound / back-haul data connections
- 12/24VDC Powered or Power over Ethernet (802.3at Compliant)
- Simple Cloud based on-boarding and configuration
- Protocol support for prevailing building systems and protocols
- Unified API support from the BitEngine with a Single Source API
- Simple connectivity Azure IOT, Google Cloud IOT, AWS IOT
- Local storage options for data caching
- Enterprise native for mass location deployment and management



SPECIFICATIONS

Standard Color	White
Construction	Extruded aluminum and heavy-duty steel, IP40
CPU	Intel® Celeron® processor N3160 (1.6 GHz/4-core)
Part number	BB200
System Memory	8GB
BIOS	AMI UEFI BIOS
I/O	<p>Serial Port 2 x RS-232/422/485 (COM 1/2) with DB9 Connectors Native Protocols: BacNetMS/TP, ModBus RTU See www.bitboxusa.com for further serial protocol options Supports Auto Flow Control in RS-485 mode</p> <p>USB 2 x USB 3.0 2 x USB 2.0</p> <p>RTC Battery on-board</p> <p>Local Storage Standard: SSD 250GB - mSATA ^Optional: 1TB SSD</p> <p>LAN 1 x 10/100/1000 Mbps Ethernet (WAN - Cloud Service Connection) Ethernet 1 x 10/100/1000 Mbps Ethernet (LAN - Local Device Network) Ports 1 x PoE PD compliant with IEEE 802.3at (WAN Port)</p> <p>Power Input DC terminal block: 12 ~ 24V DC-In PoE: IEEE 802.3at</p> <p>Display VGA (Diagnostic or ^Visualization UI)</p> <p>Wireless ^ 802.11a/g Wi-fi ^ 4G/LTE - Single SIM Card Support for 4G/LTE Networks</p> <p>DIO 1 x Digital I/O Connector DB9 8-bit programming connector TTL - 5V External isolation required DIO programming operation: - I/O sink current is 8 ~ 10mA - (Output drive current ±50 mA) - Individual Input/Output programming</p>
Options	<p>^B BBWN - Integral Wifi ^ BBCN - Integral 4G/LTE Modem (Service Required) ^B BB1T - 1TB Internal SSD Storage ^ BBPF - Data Visualization Services</p> <p>^ Denotes Optional add-on feature ^B Options may not be concurrently installed</p>

Integral Watchdog	Timer based: 255 levels, 1 ~ 255 sec.
System Indicator	Power, active, COMs (TX/RX)
Power Supply	<p>Power Input Range: 12 ~ 24 VDC Power Input Rating: 12 ~ 24 VDC, 2.09 ~ 1.09A Power Protection: DC Version OVP, Reverse protection</p>
Operating Temperature	<p>-20°C ~ +60°C (-4°F ~ +140°F) *The frequency of CPU will down when system operating temperature over +55°C (ICO310-N3060, ICO310-N3060-PD, ICO310-N3160) or over +50°C (ICO310-N3160-PD)</p>
Humidity	10% ~ 95%
Vibration Endurance	2 Gms (5 ~ 500Hz, amplitude 0.35 mm; operation/storage/Transport)
Weight	1.0 kg (2.2 lb)/1.50 kg (3.3 lb)
Certificate	CE, FCC
Dimensions	48 mm (1.88") (W) x 110 mm (4.33") (D) x 155 mm (6.1") (H)
Mounting	DIN-rail, wall mount
OS Support	Ubuntu Linux support package
Remote Software	BitBox USA BitEngine

DIMENSIONS

