



Anybus Wireless Bolt product

Anybus Wireless Bolt IoT

The Anybus Wireless Bolt IoT gives devices, machines and equipment an Internet connection. This solution uses the latest LTE standards NB-IoT and CAT-M1 and fits both stationary and mobile equipment. These new LTE standards are so called LP-WAN technologies (Low Power Wide Area Network) adapted for the new IoT use cases. This means Low Power consumption, Low Bandwidth (25-300 kbit/s), Good geographical coverage and Lower Cost.

The innovative hardware form-factor with its M50 through-hole mount enables effective access to good cellular connectivity, without losing coverage due to long and lossy antenna cable. The Bolt IoT is up-to-date with the latest 4G LTE standards NB-IoT and CAT-M1 and, to be globally effective, it uses 2G (GPRS/EDGE) fallback enabling deployment almost anywhere in the world.



FEATURES & BENEFITS

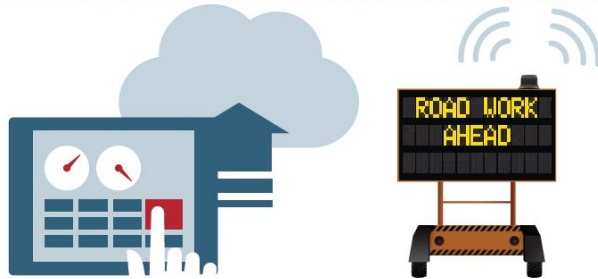
- Intuitive and interesting form-factor; M50 through-hole mount on any flat surface
- World-wide coverage on a single module with industry and mobile network certifications
- LPWA Global 13 band LTE NB-IoT, LTE CAT-M1 and GPRS/EDGE fallback
- Ultra-Low Power Mode; Reduce power consumption for battery or solar/wind powered applications
- Host interface RJ45 with 10/100 Mbit/s Ethernet
- PoE (Power over Ethernet) option, single cable with both power and communication
- Transparent transfer of any TCP/UDP based protocol
- Built-in firewall, NAT and DHCP server
- Nano SIM-card slot.
- CLI (Command Line Interface) for configuration and diagnostics

Key use cases

- Internet access for any machine or device with an Ethernet port
- Low Power/Sleep mode for connecting battery/wind/solar powered equipment

Example use case

The Bolt IoT is ideal for a machine or application which is not connected to the electric grid for power supply. For example electric road signs, traffic metering systems or water level measuring stations.



Technical Specifications

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|-------------------------------|---|
| Cellular standards | 4G LTE: Category Cat-M1 and NB-IoT. Frequency Bands B1, B2, B3, B4, B5, B8, B12, B13, B17, B18, B19, B20, B26, B28 2G: EDGE, GPRS bands 850, 900, 1800, 1900 |
| Host interface | RJ45 Ethernet 10/100 Mbit/s |
| Operating temperature. | Shadow black and white: -40 to +65 °C, Direct sunlight: Black -40 to +45 °C, White -40 to +65 °C (Storage temperature: -40 to +85 °C) |
| Data speeds | Peak Download Rate Cat-M1: 300kbps, NB-IoT: 27kbps, 2G/EDGE: 200kbps Peak Upload Rate Cat-M1: 375kbps, NB-IoT: 65kbps, 2G/EDGE: 200kbps |
| Latency | CAT-M1: 100ms NB-IoT: 1.6s-10s |

| | |
|--------------------------------|--|
| | 2G/GPRS/EDGE: 700ms-2s |
| Power | 11-33 VDC, PoE (Power over Ethernet) PD according to IEEE 802.3af. Power Consumption: Sleep Mode: DC terminal 0,1W. PoE 0,3W Idle Mode: DC terminal 0,6W. PoE 0,8W Worst Case (GPRS/2G): DC terminal 3,2W. PoE 3,6W. Peak current: 1.2A@11VDC |
| Weight | 95g |
| Connectors | RJ45 Ethernet/PoE, 3-pin screw connector for power |
| Housing material | Top: Valox 357X(f1) PBT/PC. Suitable for outdoor use with respect to exposure to ultraviolet light, water exposure and immersion in accordance with UL 746C. Base: Celanex: XFR 6840 GF15. PBT glass reinforced plastic. |
| IP protection class | IP66, IP67 and UL NEMA 4X for top (outside the host), IP21 for base (inside the host) |
| Dimensions | Diameter: 68 mm. Overall height: 75 mm without DC-connector, 84 mm incl. PS-connector. Height above mounting surface: 41 mm. |
| Mounting | M50 screw and nut (50.5 mm hole needed) |
| Configuration | Two different methods: 1. Accessing the built-in web pages via Ethernet. 2. Sending REST-commands via Ethernet. |
| Vibration compatibility | Sinosodial vibration test according to IEC 60068-2-6:2007 and with extra severities; Number of axes: 3 mutually perpendicular (X:Y:Z), Duration: 10 sweep cycles in each axes, Velocity: 1 oct/min, Mode: in operation, Frequency: 5-500 Hz, Displacement ±3.5 mm, Acceleration: 2g. Shock test according to IEC 60068-2-27:2008 and with extra severities; Wave shape: half sine, Number of shocks: ±3 in each axes, Mode: In operation, Axes ± X,Y,Z, Acceleration: 30 m/s ² , Duration: 11 ms. |
| Humidity compatibility | EN 60068-2-78: Damp heat, +40°C, 90% (non condensing). |
| Certifications | CE/RED, FCC/IC, GCF and PTCRB, UL 62368/UL 60950 UL file E214107 |
| Order Codes | AWB1000 (Anybus Wireless Bolt IoT black) AWB1001 (Anybus Wireless Sunbolt IoT white top and black base) |

Ordering Information

ORDER CODE(S): **AWB1000 (Black top), AWB1001 (White top)**

INCLUDED COMPONENTS:

Anybus Wireless Bolt IoT
3-pin power screw connector.
Quickstart Guide.
Safety & Compliance sheet.
Global roaming SIM-card (optional activation with separate charge)

ACCESSORIES:

024707 - Power Supply 90-264 VAC to 24VDC 19W world socket kit,1,4 meter cable and 3-pole Bolt power connector.

024708 - Bolt base Protector; Read more about the base protector [here](#).

024709 - Bolt base Protector and Mounting Bracket kit; Read more about the base protector [here](#).

AWB4005 - Anybus PoE injector 100-240VAC. 35W incl. world power cable

AWB4006 - Anybus PoE injector 12-57VDC. 30W, dual PoE ports

WARRANTY: 3 years