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 throughhole 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

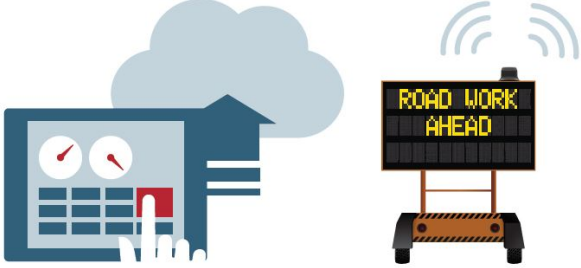
- Intuitive and interesting form-factor; M50 through-hole mount on any flat surface
- World-wide coverage on a single module with industry and mobile network certifications
- LPWA Global 13 band LTE NB-IoT, LTE CAT-M1 and GPRS/EDGE failback
- Ultra-Low Power Mode; Reduce power consumption for battery 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

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 aove 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/s2 , Duration: 11 ms.
Humidity compatibility	EN 600068-2-78: 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)

File	Version	Size	Read online

rdering 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.
024715 - Replacement Power plugs for Anybus Wireless Bolt, bag with 5pcs, 3-pin with screw terminals and screw fastening, symbols +-PE
AWB4005 - Anybus PoE injector 100-240VAC. 35W incl. world power cable
AWB4006 - Anybus PoE injector 12-57VDC. 30W, dual PoE ports
WARRANTY: 3 years