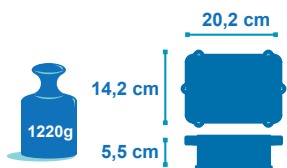


WSN COORDINATOR - IEEE 802.15.4 & ETHERNET / OUTDOOR & RUGGED VERSION

//APPLICATIONS

2year
Warranty



made in Germany

FEATURED VIDEO

BeanGateway® (Outdoor Version) main presentation video

TECHNICAL NOTE

TN-RF-009 – «BeanGateway® management on LAN infrastructure»

USER MANUAL

BeanGateway® user manual

MECHANICAL DRAWING

BeanGateway® (Indoor Version)

APPLICATIONS

- Remote sites (solar & wind energy farm, water/gas pipeline, mountains, water power plant ...)
- WSN in harsh industrial environment
- Embedded Measurement

HOW DOES IT WORK ?



// MAIN FEATURES



Wireless technology IEEE 802.15.4



Ethernet/LAN interface with a server



Advanced UPS (Uninterruptible power supply) with integrated rechargeable Lithium battery

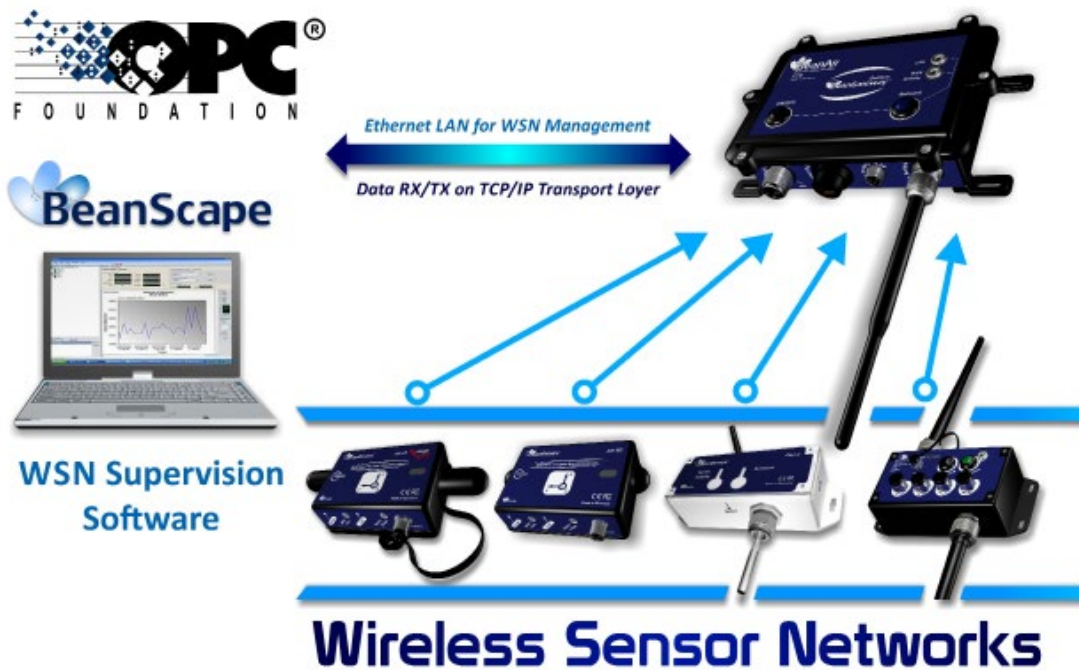


Watertight (IP67) & Robust Aluminum Enclosure

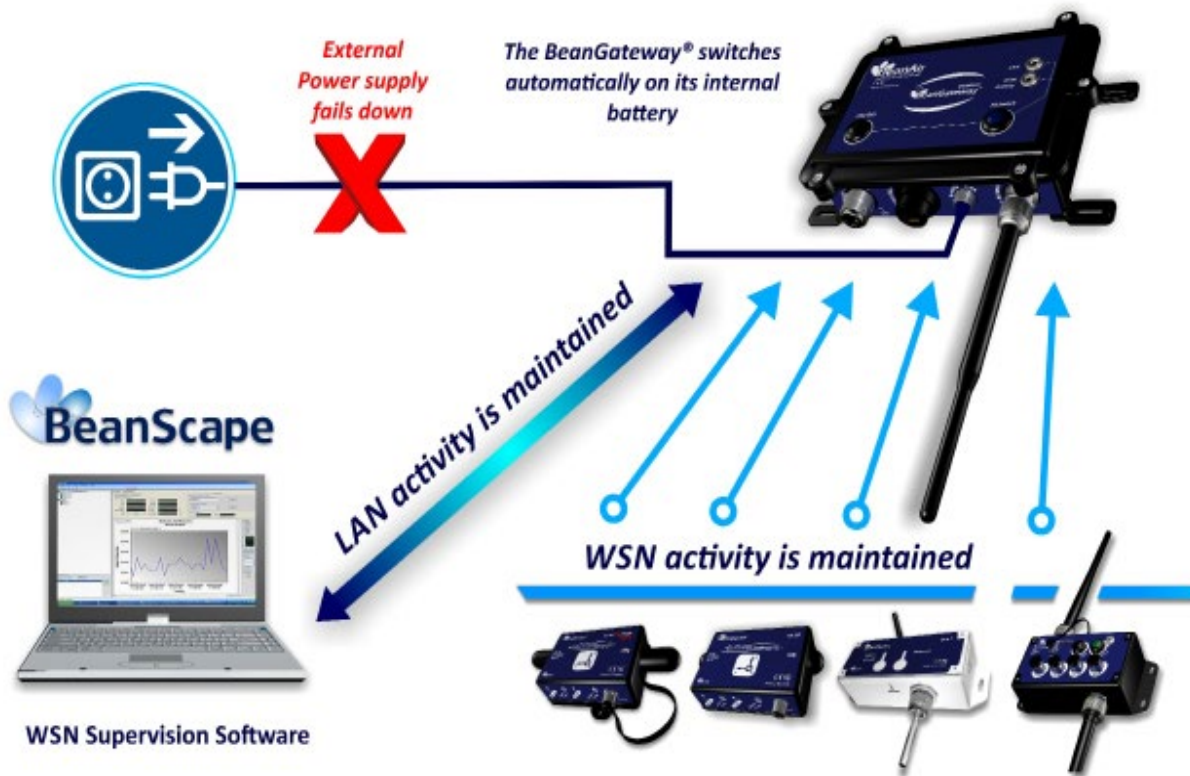
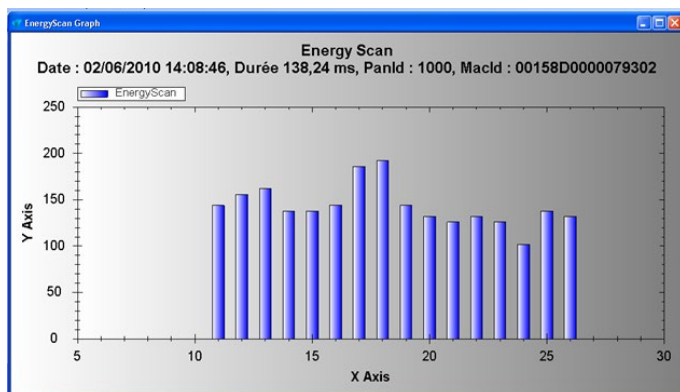
//A MULTI-PROTOCOL WSN COORDINATOR

The **BeanGateway® Ethernet** is used to build and manage **Beanair®** wireless sensor network. It can manage queues for every network element (**BeanDevice®**). As a gateway, it controls the external access to the network through a highly secured authentication procedure. It supports the conversion of data exchanged, compression and IP connectivity with the network thereby reducing the intelligence required in these platforms, maintenance and therefore the associated cost.

The **BeanGateway® Ethernet** is also equipped with various communication interfaces with the customers IT infrastructure (RS232, Ethernet - TCP / IP / UDP / DHCP / DNS). With a client application TCP / IP, it can easily connect to a local application server (via the Ethernet) .


//ADVANCED UNINTERRUPTIBLE POWER SUPPLY (UPS)

The **BeanGateway® Ethernet** operates with an external power supply (DC 8-28V). An integrated rechargeable battery with a capacity of 950mAh is used as an UPS battery (uninterruptible power supply). The internal battery provides instantaneous protection from external power supply interruptions, the wireless sensor network activity & Ethernet LAN activity are maintained during this time (3h00 to 3h30 approximately).


// EMBEDDED WSN DIAGNOSTIC TOOL


The BeanGateway® Ethernet provides a WSN diagnostic tool useful for resolving some common networking troubleshooting :

- Energy Scan for choosing the more appropriate RF Channel
- BeanDevice® PER (Packet Error Rate) calculation
- LQI (Link Quality Indicator) between the BeanGateway® Ethernet and the BeanDevice®

The Energy Scan allows the user to know the network quality on each Radio channel. This operation allows the user to choose the appropriate RF channel on a site where the WSN is deployed.

Product reference
BGTW-ETH-OUT

| Specifications | Wireless Sensor Network Coordinator |
|-----------------------------|--|
| Wireless Stack | IEEE 802.15.4 |
| WSN Topology | IEEE 802.15.4 Peer-to-peer/ Star |
| Antenna Diversity | Self-managed antenna diversity function |
| Data rate | 250 Kbits/s |
| RF Characteristics | ISM 2.4GHz – 16 Channels |
| RF Transmit power | 18 dBm |
| Receiver sensitivity | -95,5 dBm to -101 dBm |
| Encryption | AES 128 bits (integrated AES coprocessor) |
| Maximum Radio Range | 1 km (L.O.S.) |
| WSN Diagnostic tool | <ul style="list-style-type: none"> · Energy Scan for choosing a suitable RF Channel · BeanDevice® PER (Packet Error Rate) calculation · LQI (Link Quality Indicator) between the BeanGateway® GSM/GPRS and the BeanDevice® · RF channels Blacklist |

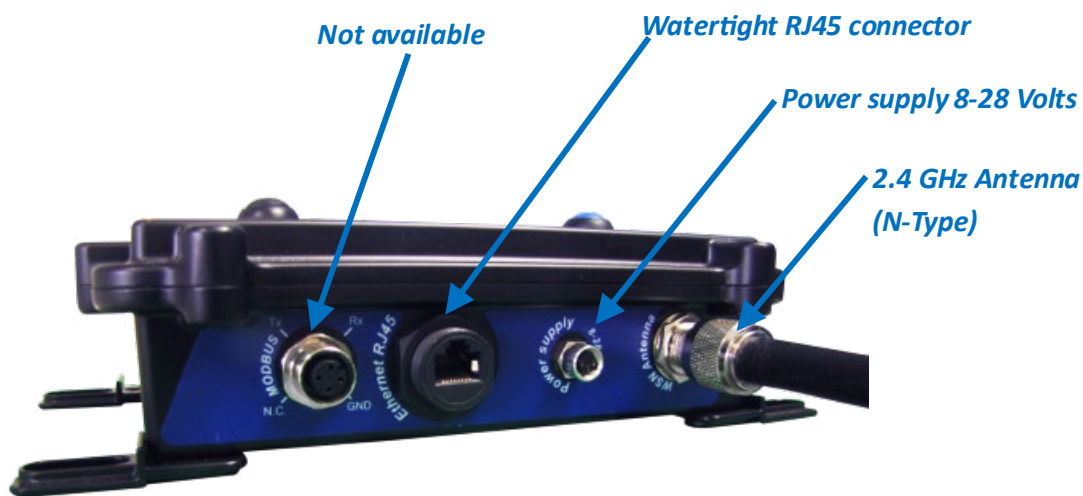
| Specifications | Ethernet/LAN Network |
|-----------------------------------|--|
| Network/Transport Protocol | Client TCP/IP, UDP, DNS, DHCP |
| Data Link Protocol | Ethernet / Fast-Ethernet with auto-uplink (MDI/MDI-X auto) - IEEE 802.3x |
| IP Addressing | Dynamic (DHCP) or static |
| IP configuration | LAN parameters (DNS, DHCP, Keep Alive...) are configurable from the BeanScope® (RS232 Interface or UDP/Ethernet Interface). |

| Specifications | Physical & Environmental |
|-------------------------------|---|
| Dimensions (L x l x h) | 202 mm x142 mm x55 mm |
| Enclosure/Finish | <ul style="list-style-type: none"> · Aluminium alloy ADC12 black finish · Wall mounting holes (outside the sealing area) |
| IP Ratings | IP67 |
| Weight | 1220g |
| Connectors | <ul style="list-style-type: none"> · Power supply connector: M8-3P female socket, Ratings IP67, Contact brass with gold plated · Ethernet connector : RJ45 Female, Ratings IP67, Contact copper alloy with gold plated · Antenna connector: N-Type female, Ratings IP67 · ON/OFF push button : Latching push-button, Ratings IP67 · Network context push button: momentary push-button, Ratings IP67 |
| Operating temperature | -20 °C to +75 °C – with Integrated internal temperature sensor (resolution 0.125°C) |
| Norms | CE Labeling directive R&TTE (Radio) , ETSI EN 300 328 , ROHS - Directive 2002/95/EC, FCC Part 15 |

| Specifications | Power Supply |
|---------------------------------------|---|
| Power Consumption | 250 mA to 300 mA during wireless RX/TX and Ethernet activated |
| External power supply | +9V to +28 V , integrated Lithium-Ion battery charger with high-precision battery monitoring |
| Integrated Lithium-Ion Battery | Lithium-Ion rechargeable battery 950 mAh (reference BAT0.95DMG) In case of external power supply failure, the BeanGateway® can switch on the internal battery. |

| Specifications | Accessories |
|----------------------------------|--|
| 2.4 GHz Antennas | <ul style="list-style-type: none"> · High gain antenna 5,5 dBi · V.S.W.R : 1.5 :1 · Connector : N-Type (Watertight) |
| Ethernet Cable | <ul style="list-style-type: none"> · RJ45 Male waterproof connector (casing side only) · Cable length: 3 meters |
| Wall plug-in power supply | Wall plug-in, Switchmode power Supply 12V @ 1,25A |
| Connectors cap | M8-3P cap |

| Specifications | Options |
|--|--|
| Embedded File System on Micro-SD® | <p>All the User data are stored on an external memory (Micro-SD® technology):</p> <ul style="list-style-type: none"> · Measurement storage for Wireless Sensor Network (network configuration, measurement, alarms notifications ...) ; · Maximum storage capacity (2Go) · CSV files management (for exporting data on Excel® and Access®) |

//BEANGATEWAY REAR VIEW


Product specifications are subject to change without notice. Contact Beanair for latest specifications.

// CONTACT US

FOR MORE INFORMATIONS :

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