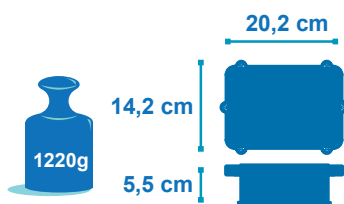


WSN COORDINATOR - IEEE 802.15.4 & ETHERNET / OUTDOOR & RUGGED VERSION

//APPLICATIONS

2year
Warranty



FEATURED VIDEO



BeanGateway® (Outdoor Version) main presentation video

TECHNICAL NOTE



TN_RF_009 – «BeanGateway® management on LAN infrastructure»

USER MANUAL



BeanGateway® user manual

APPLICATIONS

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

made
in
Germany

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

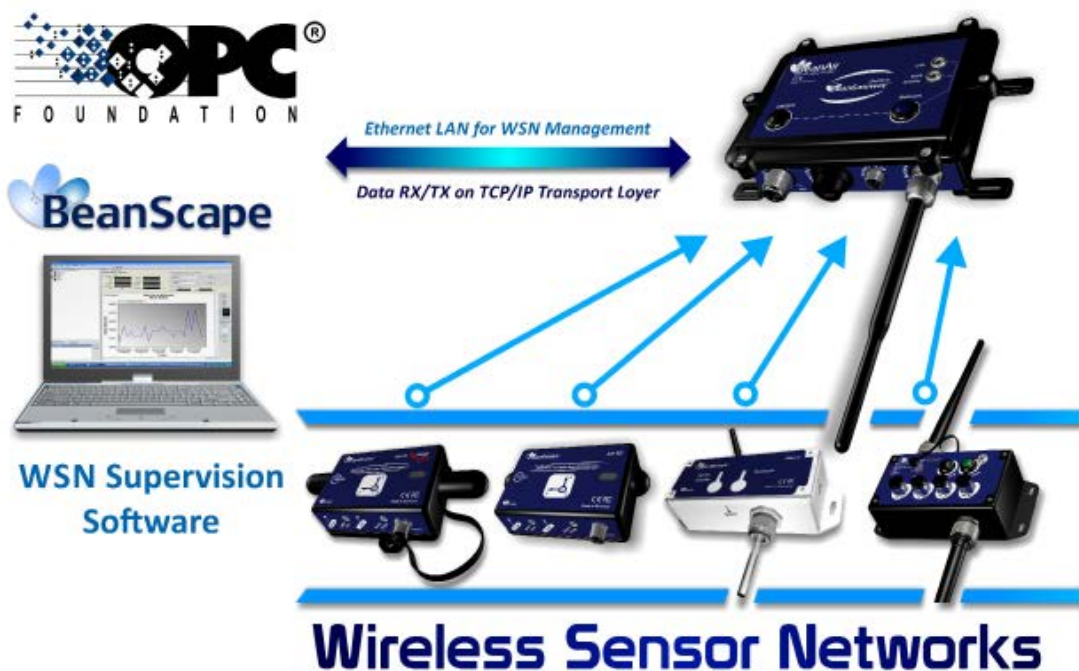


Watertight (IP67) & Robust Aluminum Enclosure

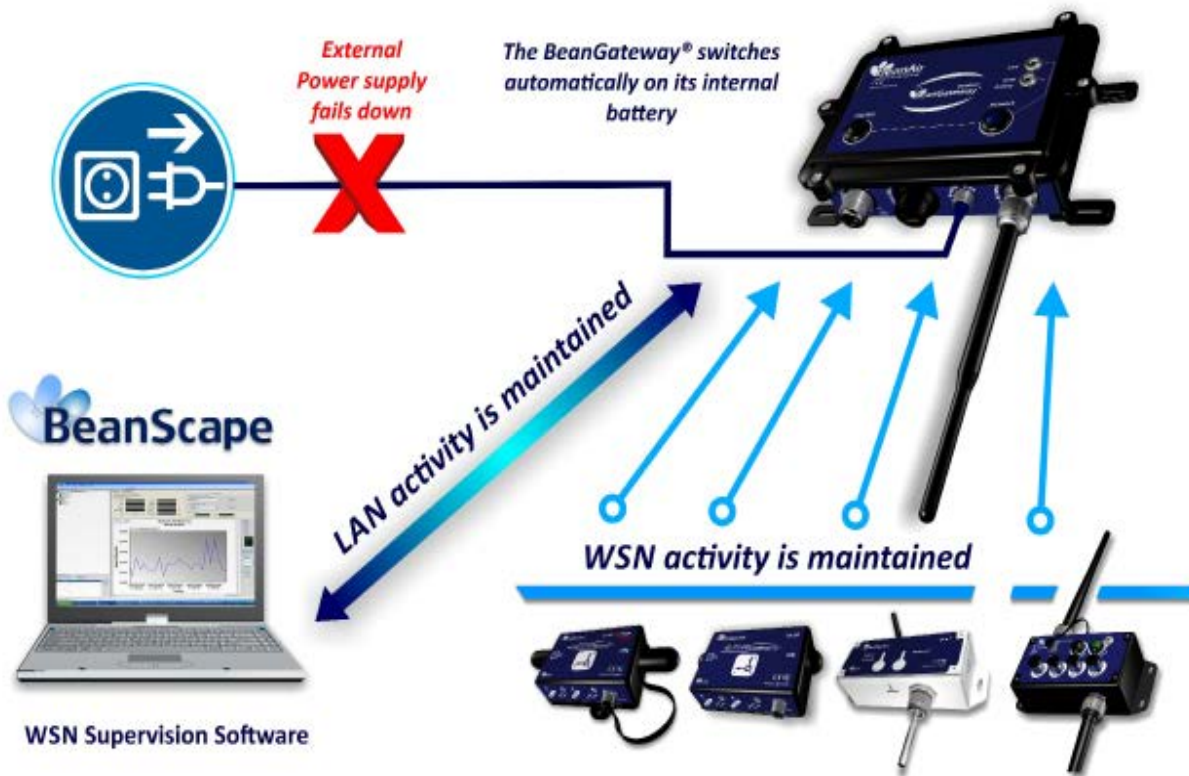
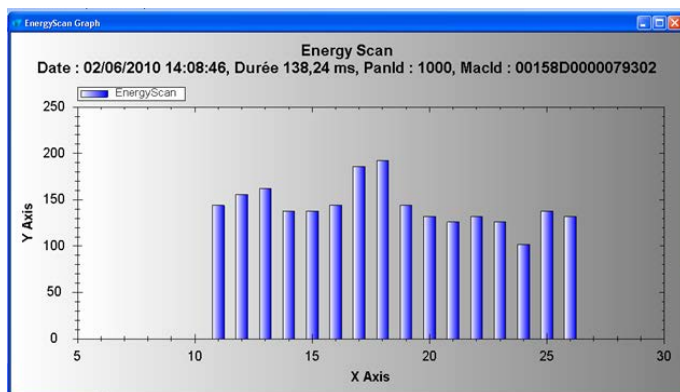
//A MULTI-PROTOCOL WSN COORDINATOR

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

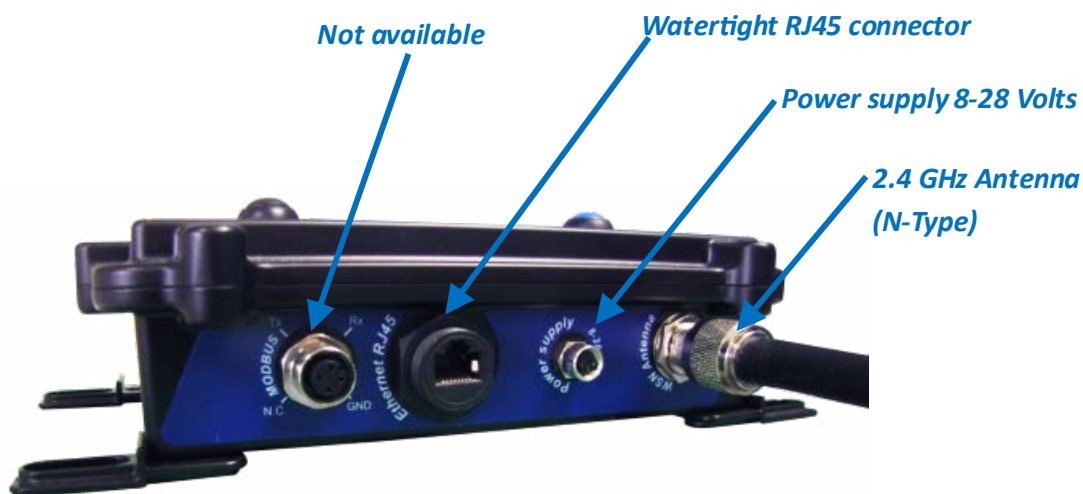
Specifications	Ethernet/LAN Network
Network/Transport Protocol	Client TCP/IP, UDP, DNS, DHCP
Data Link Protocol	Ethernet / Fast-Ethernet with auto-uplink (MDI/MDI-X auto) - IEEE 802.3x
IP Addressing	Dynamic (DHCP) or static
IP configuration	LAN parameters (DNS, DHCP, Keep Alive...) are configurable from 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®	All the User data are stored on an external memory (Micro-SD® technology): <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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