BeanAir
WIRELESS IIOT SENSORS

2.4 GHz

BeanGateway 2.4GHz Indoor

Wireless IIOT Sensors Coordinator Indoor-Version | Ethernet Link

PRODUCT VIDEO

USER GUIDE

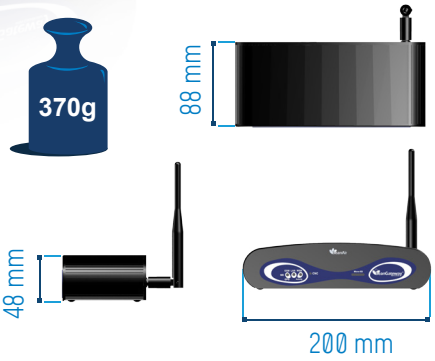
MECHANICAL DRAWING

STEP FILE

2year Warranty

MADE IN GERMANY

CE FC R 207-132085



MAIN FEATURES

- Wireless technology IEEE 802.15.4
- Ethernet/LAN interface with a server
- Advanced UPS (Uninterruptible power supply) with integrated rechargeable Lithium battery
- Auto-Reboot : Periodic reboot at a specified time interval

HOW DOES IT WORK ?

BeanAir
Rethinking Sensing Technology

BeanScape

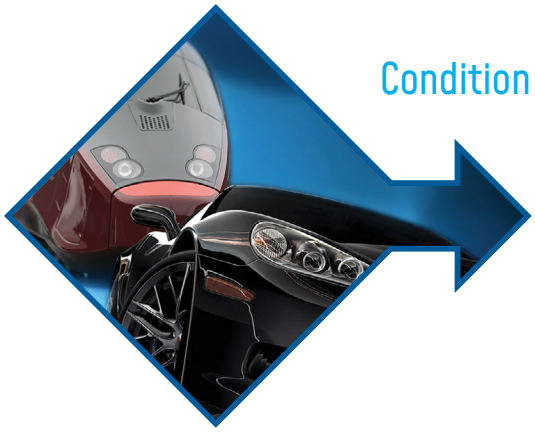
BeanGateway
2.4GHz Indoor Version

Wireless IIOT Sensors Cloud
(IEEE 802.15.4)

BeanGateway INDOOR

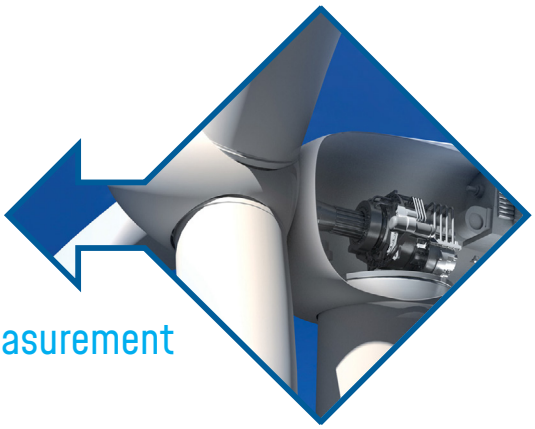
2.4 GHz

APPLICATIONS



Condition Monitoring

Test and Measurement



A MULTI-PROTOCOL WIRELESS IIOT SENSORS COORDINATOR

The BeanGateway® 2.4GHz Ethernet is used to build and manage Beanair® wireless IIOT sensors.
It can manage queues for every network element (BeanDevice® 2.4GHz). 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® 2.4GHz 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).

OPC FOUNDATION

RS232 for LAN Configuration

Ethernet LAN for Wireless IIOT Sensors Management

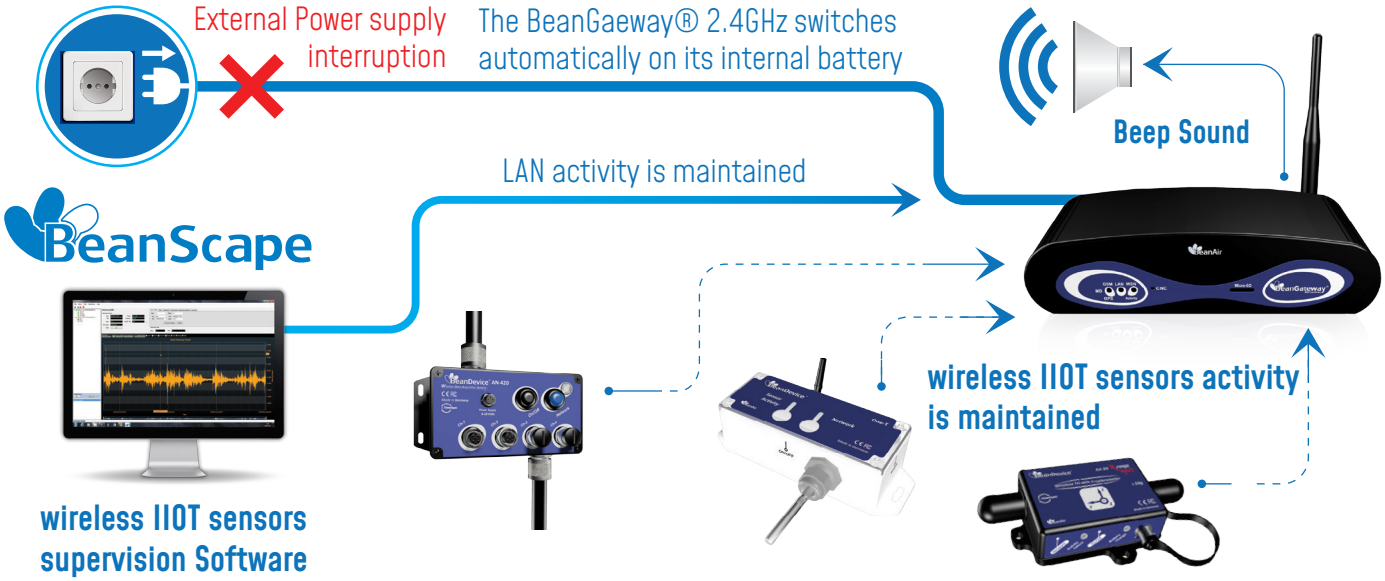
Data RX/TX on TCP/IP Transport layer

BeanScape

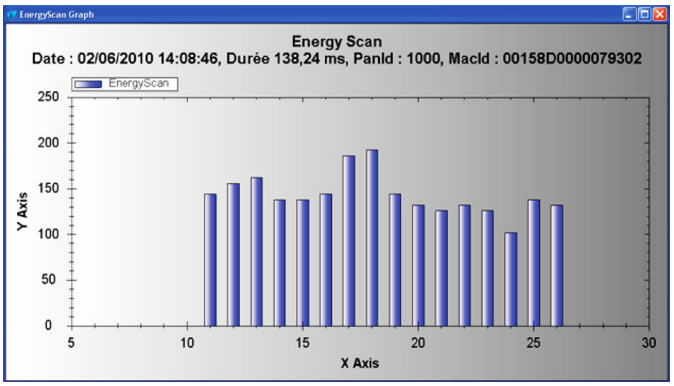
wireless IIOT sensors supervision Software

ADVANCED UNINTERRUPTIBLE POWER SUPPLY (UPS)

The BeanGateway® 2.4GHz 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 IIOT Sensors activity & Ethernet LAN activity are maintained during this time (3h00 to 3h30 approximately). An internal buzzer emits a beep sound every 2 seconds in case the external power supply is disconnected.



EMBEDDED WIRELESS IIOT SENSORS DIAGNOSTIC TOOL



The BeanGateway® 2.4GHz Ethernet provides a wireless IIOT sensors diagnotic tool useful for resolving some common networking troubleshooting :

- Energy Scan for choosing the more appropriate RF Channel
- BeanDevice® 2.4GHz PER (Packet Error Rate) calculation
- LQI (Link Quality Indicator) between the BeanGateway® 2.4GHz Ethernet and the BeanDevice® 2.4GHz

TECHNICAL SPECIFICATIONS

PRODUCT REFERENCE	
BGTW-2.4GHZ-ETH-IND	
WIRELESS IIOT SENSORS COORDINATOR	
Wireless Technology	Ultra-Low Power and license-free 2.4Ghz radio technology (IEEE 802.15.4E)
WSN Topology	Peer-to-peer/ Star
Raw data rate	250 Kbits/s
RF Characteristics	ISM 2.4GHz – 16 Channels
RF Transmit power	+18 dBm
Receiver sensitivity	-104 dBm
Maximum Radio Range	1 km (Line of Sight) , 70-150m (Non Line of Sight)
Built-in WSN Diagnostic tool	· Energy Scan for choosing a suitable RF Channel · BeanDevice® PER (Packet Error Rate) calculation · LQI (Link Quality Indicator) between the BeanGateway® and the BeanDevice® · RF channels Blacklist

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 BeanScape® (UDP/Ethernet Interface).

PHYSICAL & ENVIRONMENTAL	
Dimensions (L x l x h)	200 mm x 88 mm x 48 mm
Enclosure/Finish	Polycarbonate Enclosure - Protection ULV94/Getex
Weight	370g
Operating temperature	-40 °C to +60 °C
Norms and Radio Certifications	CE Labelling Directive R&TTE (Radio) ETSI EN 300 328 · FCC (North America) · ARIB STD-T66 Ver 3.6 · ROHS - Directive 2002/95/EC

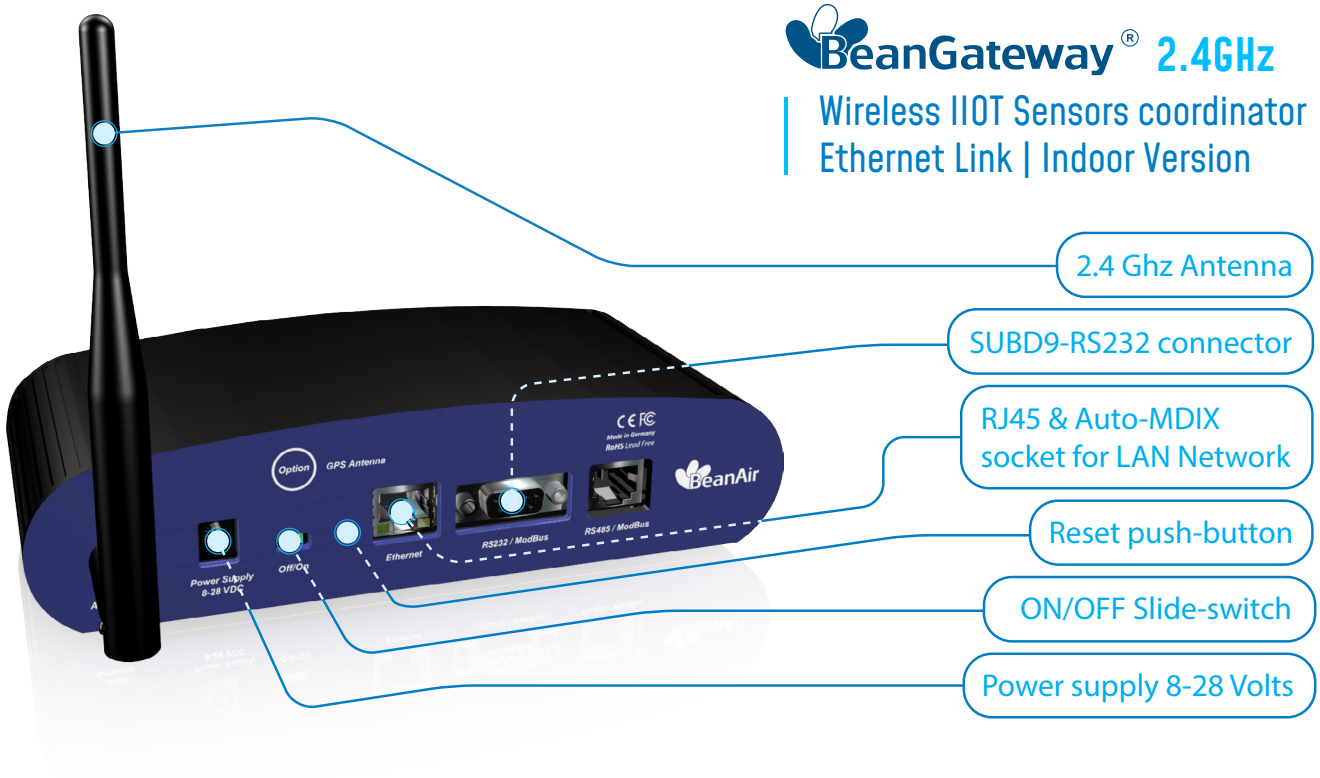
BeanGateway INDOOR

TECHNICAL SPECIFICATIONS

POWER SUPPLY	
Power Consumption	250 mA to 300 mA during wireless RX/TX and Ethernet activated
External power supply	8-28 VDC , 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

INCLUDED ACCESSORIES	
2.4 GHz Antenna	• High gain antenna 5.5 dBi • V.S.W.R : 1.5 :1 • Connector : RPSMA
Ethernet Cable	• RJ45 Male • Cable length: 2 meter
Wall plug-in power supply	Wall plug-in, Switchmode power Supply 12V @ 1.25A

OVERVIEW BEANGATEWAY® INDOOR



ACCESSORIES

Omnidirectional antenna 5.5 dbi for indoor use only

Ref:HG_OMNI_5_5_DBI
- Freq Range 2400 - 2485 MHz
- Ver Beamwidth : 90° Deg
- VSWR : 1.5:1
- Input Power: 10 W
- Connector: SMA Male
- Weight: 26 gr

. Gain @ 2400 MHz 5.5 dBi
. Hor Beamwidth : 360° Deg
. Impedance : 50 Ohm
. Operating Temp: -10 +60 Deg C
. Dimensions: 210 x 10D mm

Omnidirectional antenna 9 dbi for indoor use only

Ref: HG_OMNI_9_DBI
- Freq Range 2400 - 2485 MHz
- Ver Beamwidth : 90° Deg
- VSWR : 1.5:1
- Input Power: 10 W
- Connector: RP-SMA Plug
- Weight: 60 gr

. Gain @ 2400 MHz 9 dBi
. Hor Beamwidth : 360° Deg
. Impedance : 50 Ohm
. Operating Temp: -10 +60 Deg C
. Dimensions: 380 x 10D mm

CONTACT US

Headquarter:

BeanAir GmbH
Wolfener Straße 32 - 34
12681 Berlin

Email:

info@beanair.com

Phone number:

+49 30 98366680

www.industrial-wsn.com

www.facebook.com/BeanAir

www.beanair.com

www.youtube.com/user/BeanairSensors

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