

PLUS WRP001 WIRELESS REPEATER



PLUS WRP001 Wireless Repeater provides extra communication range by supporting up to 13 hops (12 repeaters in series).

By increasing network redundancy with unlimited number of repeaters and taking advantage of mesh network topology, it permanently provides the best wireless link and improves reliability.

Dimensions: 120 x 90 x 50 mm

Weight: 312 g (11 oz)

Material: ASA+PC-FR (UL 94 V-0) / Polycarbonate

Protection Index: IP65

KEY FEATURES

UP TO 12 REPEATERS IN SERIES
FOR EXTRA-LONG RANGE

WIRELESS SITE SURVEY FUNCTION
FOR EASY INSTALLATION AND FAST DEPLOYMENT

UP TO 4 KM COMMUNICATION DISTANCE (LOS)
WITH 128-BIT AES ENCRYPTION FOR DATA SECURITY

MULTI-HOP MESH NETWORK
WITH SELF-FORMING, SELF-HEALING AND SELF-OPTIMIZING FEATURES

SITE SURVEY FEATURE

SIMPLE AND INTUITIVE USB CONFIGURATION
TEKON CONFIGURATOR SOFTWARE

DS_PLUS.WRP001_E01B

TECHNICAL SPECIFICATIONS

| RADIO SPECIFICATIONS | 868MHZ | 915MHZ |
|-----------------------------------|--|-----------------|
| Range ¹ | Up to 4Km LoS | |
| Frequency band ² | 868 to 869 MHz | 902 to 928 MHz |
| Number of channels | 16 | 50 |
| Receiver sensitivity ² | -99 to -104 dBm | -97 to -110 dBm |
| Transmit power ² | 0 to 27 dBm | 8 to 27 dBm |
| Transmission rate ² | 19 to 76,8kbit/s | |
| Encryption method | AES 128 (Advanced encryption Standard) | |
| Modulation | GFSK | |
| Antenna | Articulated dipole antenna | |
| Antenna connector | SMA | |
| Antenna impedance | 50Ω | |

| WIRELESS NETWORK | |
|-------------------|----|
| Maximum repeaters | 12 |

| INTERFACE | |
|---------------|--|
| Indication | Frontal Panel LED Internal Service LED |
| Switches | External - Site Survey activation Internal - Load factory defaults Service LED |
| Configuration | Internal micro USB connector |

| MECHANICAL INTERFACE | |
|---|--|
| Internal push-in terminals | |
| Bucins PG-7 | |
| ∅ Min:2.5 ∅ Max: 6.5 | |
| 1.5mm ² (0.0591in ²) | |
| Micro USB internal connector | |

| POWER SUPPLY | |
|------------------|--------------------------------------|
| External | 5 to 24V DC ± 5% |
| USB | Only in configuration |
| Maximum Current | 500mA DC @ 5V DC / 100mA DC @ 24V DC |
| Reverse Polarity | |

| OPERATING ENVIRONMENT | ENVIRONMENTAL CONDITIONS | STORAGE CONDITIONS |
|-----------------------|--------------------------|-------------------------|
| Temperature | -30 to 80°C | |
| Relative humidity | N/A | ≤ 95% (non- condensing) |

¹ Range depends on the environment and line of sight. Always verify your wireless network's range by performing a Site Survey.

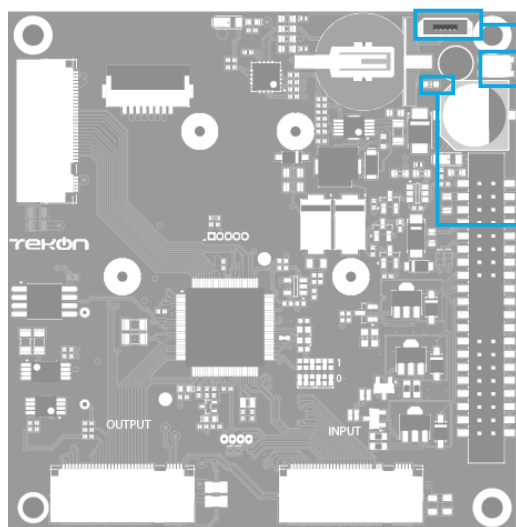
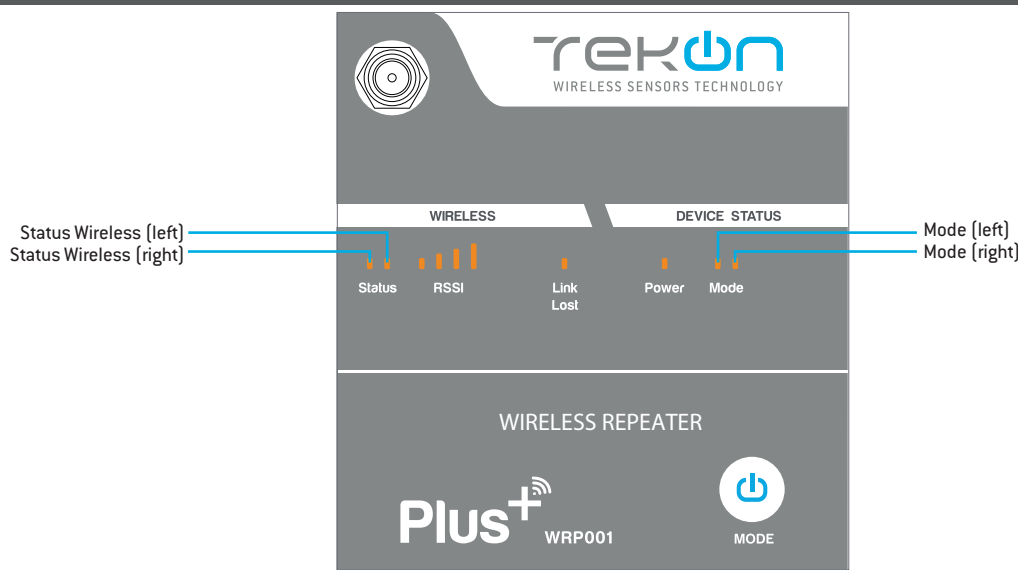
² According to the radio channel selection.

| CASING | |
|------------------|---------------------------------------|
| Dimensions | 120 x 90 x 50 mm |
| Weight | 312 g |
| Material | ASA+PC-FR (UL 94 V-0) / Polycarbonate |
| Protection index | IP65 |

| FACTORY DEFAULT SETTINGS | 868MHZ | 915MHZ |
|--------------------------|------------|------------|
| Frequency | 869,525MHz | 904,000MHz |
| Radio transmit power | 27dBm | |
| Radio transmission rate | 76,8kbit/s | |
| Wireless Channel | 13 | 4 |
| Wireless Network ID | 13042017 | |

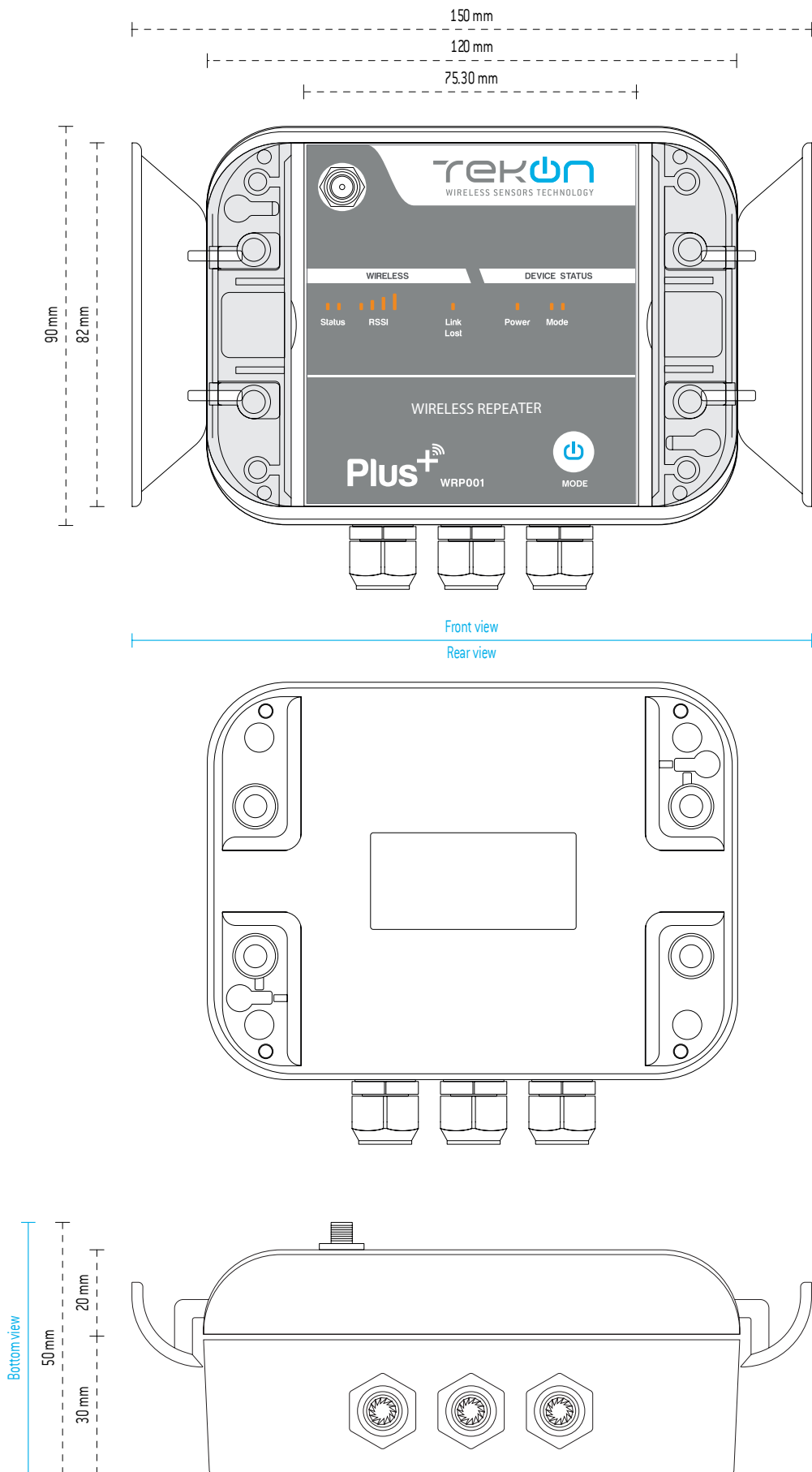
| CERTIFICATIONS AND APPROVALS |
|--|
| EN 61326-1 - Class B - Industrial Requirements |
| EN 300 220-2 V3.1.1 |
| EN 301 489-1 V2.2.0 |
| EN 301 489-3 V2.1.1 |

LED INTERFACE



- USB Configuration Port**
Allows Tekon device Configuration
- Load factory setting button (2 methods)**
 - Pressing this button during 3 seconds forces the factory settings load and reboot.
 - Power ON the device with the button pressed during 3 seconds forces the factory settings load and reboot
- Internal LED**

TECHNICAL DRAWINGS



RELATED PRODUCTS



PLUS TWP4AI WIRELESS TRANSMITTER 868MHZ / 915MHZ

REF.: PA164510110 / PA164510120

- 4 configurable analog inputs (0..20 mA or 0..10 V) providing cable replacement features;
- 3 configurable digital outputs: generic, RF link lost indication and external power control;
- Configurable communication period and/or event trigger via digital input;
- Up to 4Km communication distance (LoS) with 868 MHz / 915 MHz and 128-bit AES encryption;
- Internal temperature, battery voltage and wireless link quality (RSSI) monitoring;
- Simple and intuitive USB configuration via Tekon Configurator (free software).



PLUS WGW420 WIRELESS GATEWAY 868 MHZ / 915MHZ

REF.: PA164510210 / PA164510220

- Scalable network up to 55 PLUS transmitters;
- Up to 4 Km communication distance (LoS) with 868 MHz / 915 MHz and 128-bit AES encryption;
- Multiple networks with extra gateways and extra long range with several repeaters;
- Multi-hop mesh network with self-forming, self-healing and self-optimizing features;
- Modbus RTU communication protocol via RS-485 interface;
- 8 analog outputs (4..20 mA current loop);
- Simple and intuitive USB configuration via Tekon Configurator (free software);
- DIN rail mounting.



PLUS TWPH-1UT TEMPERATURE WIRELESS TRANSMITTER 868 MHZ / 915MHZ

REF.: PA164510510 / PA164510520

- Universal sensor input (RTD PT100; Thermocouples J, K, N, R, S, T);
- 6 status LED;
- Ultra low power mode;
- Up to 4 Km communication distance (LoS) with 868 MHz / 915 MHz and 128-bit AES encryption;
- Multi-hop mesh network with self-forming, self-healing and self-optimizing features;
- Simple and intuitive USB configuration via Tekon Configurator (free software).

REVISION HISTORY

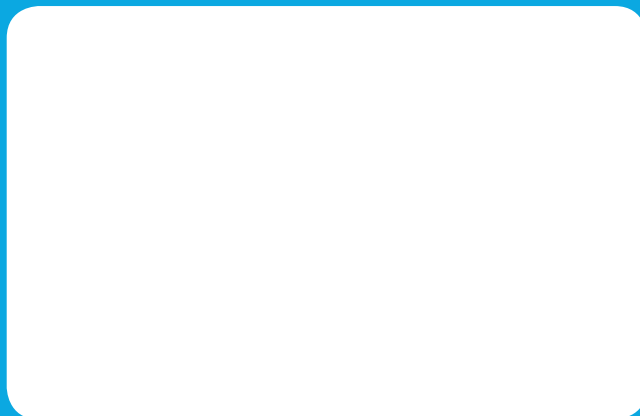
VERSION

| | |
|------|--|
| E01B | <p>Addition of 915MHz frequency information in “Radio Specifications” and “Factory Default Settings” tables;</p> <p>Reform “Operating Environment” table;</p> <p>Revision of “Certifications and approvals” table;</p> <p>Remove “Led Indication” table to the installation guide;</p> |
|------|--|

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