

AXON air⁺



Improving the safety
of your underground
environment

- > PoE+ enabled access point
- > Standalone or attachable to an AXON core
- > Wi-Fi 802.11 a/b/g/n
- > BLE beacon send and receive capability
- > Integrated geolocation capability
- > Can be daisy-chained via PoE interface

AXON⁺

MST's AXON air is a versatile Wi-Fi access point designed with power and flexibility in mind. BLE (Bluetooth Low Energy) beaconing and receiving BLE broadcasts have now been added to the AXON air to create the AXON air⁺. Like the AXON air, the AXON air⁺ can be daisy-chained via its PoE+ port and the combination of radio and antennas in one package makes installation simple and inexpensive.

AXON air⁺ features antenna diversity and integrated support for geolocation. Its advanced feature set enables reliable, high-bandwidth, wireless data and voice coverage throughout the mine or tunnel. The AXON air⁺ broadcasts as a BLE beacon and MST's FARA workflow management solution uses this information to determine the location of the SMART device that FARA is running on and therefore its location in the mine or tunnel. The AXON air⁺ also receives BLE broadcasts from tags and this information is used by MST's geolocation software to locate these BLE tags and their associated personnel and/or equipment in the mine or tunnel.

Designed to be easily deployed, the AXON air⁺ can be mounted directly onto an AXON core unit or independently to a rock surface. The AXON air⁺ has two PoE+ ports that allows it to be daisy-chained eliminating the need for external switches or power supplies. This also enables Wi-Fi and BLE coverage to be extended into hard to get to places without the need for fibre – for example, workshops, declines and the last mile – reducing the overall cost of the solution.

The versatility of AXON air⁺ continues with its ability to host high-gain antennas mounted directly to its enclosure that, with the assistance of an optional swivel mechanism, can be used to help create ad-hoc wireless meshes, working as a wired network gateway or a repeater node.

SPECIFICATIONS

WIRED NETWORK CONNECTIVITY

- > 2 x 1Gbps, PoE+ ports
- > Up to 3 units can be daisy-chained 100m apart

WIRELESS CONNECTIVITY

- > 1 x 802.11 a/b/g/n Wi-Fi radio
- > 2.4 or 5GHz
- > 6 x SSIDs
- > Meshing 802.11s (gateway or repeater node modes)
- > Max transmitter output at 2.4GHz: 20dBm, 5GHz:16dBm

NETWORK PROTOCOLS

- > VLAN (IEEE 802.1Q), QoS (P802.1p)
- > LLDP (802.1AB)
- > MST Device Discovery
- > SNMP (read only)
- > MST tracking protocol

POWER REQUIREMENTS

- > PoE+ Class 4 power requirement, drawing 4W nominally

WIRELESS SECURITY

- > WEP/WPA/WPA2

BLE BEACON PROTOCOLS

- > Eddystone
- > iBeacon

LED INDICATORS

- > Power, Tracking, PoE+, Radio and Beacon status LEDs

GEOLOCATION

- > Integrated Wi-Fi tag tracking capabilities
- > Supports MST and AeroScout tag tracking protocols

CONFIGURABILITY

- > Remote firmware upgrade
- > Remote configuration (Web page and file push)
- > Remote monitoring (SNMP)
- > Reset button

ENVIRONMENTAL PARAMETERS

- > IP65 rated
- > Operating temperature: 0-50°C
- > Humidity: 95%

COMPLIANCE

- > EMC: CE, FCC, RCM
- > Safety: IEC 62368-1

DIMENSIONS (mm) and WEIGHT

- > 242(h) x 135(w) x 115(d)
- > 1.3kg (without bracket) / 1.8kg (with bracket)