AIRTRACK-S4

WiFi access point, client & repeater for underground mining applications

- WiFi IEEE 802.11 a/b/g

- High EMC field protection : up to 140V/m

- 4-port auto-sensing 10/100 Base TX network interface

- Wide +24 to 110 VDC insulated power supply allowing the use of long DC cables

- Web based configuration, SNMP administration, alarm contact

- Shock & vibration proof, IP66 aluminum enclosure

Introduction

AIRTRACK-S4 is a rugged equipment designed for underground mines for: tele-operation of heavy machinery from a remote control station, collision avoidance, localization of people and goods and other services as evacuation signaling systems, Voice over Internet Protocol (VoIP) wireless phones, mobile data download (smartphones, tablets...), mobile & fixed IP video...

It fulfills the most severe requirements in terms of operating environment: extended temperature range -40°C to +80°C, shock and vibration proof, IP66 seal rating for protection against dust and water projections.

AIRTRACK-S4 works with any kind of industrial protocols carried by Ethernet TCP/IP such as PROFINET, PROFIsafe...

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Technical characteristics overview

Ethernet link	4-port Ethernet 10/100 auto-sensing, waterproof M12 connectors (D-coding), plug & play mode & auto MDI/MDIX cross-over
WiFi network	Compliant to the IEEE 802.11a/b/g 2.4 / 5 GHz standards, transmission Power Control (TPC)
Data rate	Up to 108 Mbps (Super AG mode)
Channels	2.4 GHz (802.11b/g): 14 channels / 5 GHz (801.11a/h): 19 channels
Output power	Transmitter +20 dBm (TPC), +26 dBm with the [Hx] option
Sensitivity	Receiver -92 dBm for IEEE 802.11 a/g and -95 dBm for IEEE 802.11b
Antennas	Two 2dBi 2.4 / 5 GHz antenna, N-type connectors
Modulation	OFDM: BPSK, QPSK, 16QAM, 64QAM and DSSS: DBPSK, DQPSK, CCK
Security	64/128 bits WEP, WPA-PSK, WPA2-PSK, IEEE 802.1x (RADIUS authenticator & supplicant), MAC addresses filtering, SSID broadcast control
Modes	Access point to build a WiFi network infrastructure, client to connect any Ethernet equipment to this network, repeater, infrastructure, AD-HOC and client router modes are supported, fast roaming (less than 50 ms)
Administration	Thanks to its built-in WEB interface, the setup of the device is achieved using any web browser installed on your computer (Internet Explorer, Netscape, Mozilla ...), SNMP agent, ACKSYS NDM, C-Key (save / restore configuration key)
Operating systems	Windows, Linux, UNIX as well as any operating system supporting TCP/IP
Signaling	LEDs signaling for LAN, WLAN network activity, 10/100 mode, MAIN & AUX power supply
Alarms	Relay output warning: power failure, WLAN connection failure, Watchdog or user defined (SNMP) 1 FORM B solid state relay, 60V 0.15A (M8 dedicated connector)
Power supply	Insulated +24 to +110 VDC, dual input (M12 connector)
Consumption	8W typical power consumption
Dimensions & weight	Shockproof rugged aluminum enclosure, (L: 80 x l: 175 x h: 57 mm), 920 g
Standards	EN 301489-17 & EN 61000-6-2 (CEM), IP66 seal rating, ISO 11452 sections 1, 2, 5, 7 (electrical disturbances), EN61373 (shocks & vibrations)
Environment	Operating temperature : -25°C to +70°C, extended -40°C to +80°C with [Hx] option (HR 0-99%) Storage : -40°C to +100°C

Ordering references

AIRTRACK-S4 [Hx]	WiFi access point, 4-port Ethernet, client & repeater (a/b/g) for underground mining applications, dual DC insulated power input from +24VDC to +110VDC, shipped with 2 dual band 2 dBi omni-directional (2.4 / 5 Ghz), one set of 2 meters cables (M12 to RJ45 and M12 to stripped cables) Hx means high power version (400mW) and extended temperature range (-40°C to +80°C)

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