AirXroad

11n WiFi access point, Ethernet bridge, repeater & MESH point for automotive & heavy duty applications



- All-in-one : AP/client/repeater/Mesh/router
- WiFi 802.11a/b/g/n (MIMO 2T2R), radio data rate up to 300 Mbps, 2.4/5 GHz
- Easy and secure configuration: web browser (HTTPS), SNMPV3, WaveManager
- Operating System : WaveOS
- DC power supply input (+9VDC to +48VDC) & PoE 802.3af
- Multichannel fast roaming (in client mode)
- Shock & vibration proof rugged aluminium enclosure IP66 seal rating
- E-marking (ECE R10 certification for integration in onboard vehicles)









Introduction

AirXroad is a compact rugged enclosure equipment, ideally designed for applications in road transportation, depots, warehouses, agriculture, manufacturing floors, docks, distribution centers, shipyards and lumberyards... it can be mounted in trucks, city buses, forklifts, trailers, tractors or cranes or in any rotating machinery, for material handling, real-time information transmission, and inventory management.

The device relies on the multi-streams MIMO technology that contributes to an expanded coverage, higher data throughput and increased radio link reliability.

It fulfills the most severe requirements in terms of operating environment: from -40°C to +70°C, shock and vibration proof, protection against dust and water projections (IP66).

AirXroad is E-marked ECE R10 (EMC standard for electronic equipment installed aboard vehicle), and can thus be installed in full safety aboard of all on-road equipment.



Technical characteristics overview

Ethernet interface 1-port Gigabit Ethernet 10/100/1000 Base TX auto-sensing, auto MDI/MDIX cross-over, 8 pts X-coded M12 connector

WiFi interface 1 radio IEEE 802.11a/b/g/n, MIMO 2T2R, 2.4 / 5 GHz

802.11a: 6, 9, 12, 18, 24, 36, 48 and 54 Mbps

WiFi radio data rate 802.11b/g: 1, 2, 5.5, 6, 9, 11, 12, 18, 24, 36, 48 and 54 Mbps

802.11n: MCS0-7, 2 streams (6.5 to 300 Mbps)

ISM: 2.4-2.483 GHz (up to 14 channels) UNII: 5.15-5.25 GHz (up to 4 channels) UNII-2: 5.25-5.35 GHz (up to 4 channels)

Operating frequencies UNII-2 ext: 5.470-5.725 GHz (up to 11 channels) UNII-3: 5.725-5.825 GHz (up to 4 channels)

Supports DFS and TPC

RF Output power 2,4 GHz: 23,5 dBm (aggregate) / 5 GHz: 21 dBm (aggregate)

RF Sensitivity Receiver: -92 dBm for 802.11 b/g/n and -96 dBm for 802.11a/n

WiFi modes Access point, client, MESH (IEEE 802.11s), infrastructure, AD-HOC, fast roaming (less than 30 ms), WMM QoS

Administration http, https, SNMP agent (V1, V2C, V3), ACKSYS WaveManager & WaveViewer administration softwares

Firewall, DoS, https, MAC filtering, WPA/WPA2-Personal & Enterprise (IEEE 802.1X/RADIUS), WEP, tunnels L2 (GRE), Security

VPN (OpenVPN), SNMP V3

2 RP-SMA male connectors

Ethernet networking Frames filtering, bridging, repeater, STP/RSTP, VLAN, DHCP (server & client), DNS relay

Ethernet routing Multicast (PIM), IP redundancy (VRRP), static routes, NAT router, router Radio: activity - status | Ethernet: link 10/100/1000 - activity | Power: on-off **LEDs Signaling** Power supply +9VDC to +48VDC M12 connector 4-pole A-coded & PoE 802.3af (15,4W)

Consumption IDLE mode: 1.7 W / Maximum average: 5.8 W / Recommended power supply: 7 W

Mechanical Dimensions: 115 mm x 64 mm x 34 mm

specifications Weight: 332 g

IP rating

Environmental Operating temperature: -40°C to +70°C, storage: -40°C à +85°C, relative humidity: 0% to 99% (non-condensing) conditions

> CE (RED) Safety: EN 62368-1:2014+A11, EN62311

EMC: EN301-489-1, EN301-489-17

Radio: EN 300 328 2.1.1 (2.4 GHz), EN 301 893 2.1.1 (5 GHz, DFS)

Standards and certifications

Antennas connectors

FCC Radio: FCC ID Z9W-RMB Radio: IC ID 114688A RMB

E-marking

Environmental Shocks & vibrations: EN 61373 (CAT 1 CLASS B)

Climatic: EN60068-2 [-1, -2, -30]

Warranty 5 years

Ordering references

WiFi Access Point, Ethernet Bridge, Repeater and MESH point (IEEE 802.11n a/b/g) for automotive applications, power input from +9VDC to +48VDC plus POE, shipped without cables or antennas AirXroad

Additional accessories

Ethernet cable, 8pts X-coded M12 SPEEDCON to RJ45, 10 Gbps 2 meters Ethernet cable, 8pts X-coded M12 SPEEDCON to RJ45, 10 Gbps 5 meters Ethernet cable, 8pts X-coded M12 SPEEDCON to RJ45, 10 Gbps 10 meters WL-M12U/8X-ETH-2M WL-M12U/8X-ETH-5M WL-M12U/8X-ETH-10M

Power supply cable ULTRA-LOCK M12 4 point, 2 meters Power supply cable ULTRA-LOCK M12 4 point, 5 meters WLg-M12U-PWR-2M WLg-M12U-PWR-5M WLg-M12U-PWR-10M Power supply cable ULTRA-LOCK M12 4 point, 10 meters

WL-ANT-2458/2-ORPS Dual band (2.4 / 5 GHz) 2 dBi omni-directional RP-SMA antenna

AXR-SET Connecting set includes:

- 1 x WLg-M12U-PWR-2M - 1 x WL-M12U/8X-ETH-2M - 2 x WL-ANT-2458/2-ORPS

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