AirXroad/4P

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/4P 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 severe requirements in terms of operating environment: from -20°C to +60°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 Fast Ethernet 10/100 Base TX auto-sensing, auto MDI/MDIX cross-over, 4 pins M12 connector
WiFi Interface	1 radio IEEE 802.11a/b/g/n, MIMO 2T2R, 2.4 / 5 GHz
WiFi radio data rate	802.11a: 6, 9, 12, 18, 24, 36, 48 et 54 Mbps 802.11b/g: 1, 2, 5.5, 6, 9, 11, 12, 18, 24, 36, 48 et 54 Mbps 802.11n: MCS0-7, 2 streams (6.5 to 300 Mbps)
Operating frequencies	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) 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
Antennas connectors	2 RP-SMA male connectors
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
Security	Firewall, DoS, https, MAC filtering,WPA2/WPA3, IEEE 802.1X/RADIUS authentication, WEP, tunnels L2 (GRE), VPN (OpenVPN), SNMP V3, Wireless Intrusions Detection System (WIDS)
Ethernet networking	Frames filtering, bridging, repeater, STP/RSTP, VLAN, DHCP (server & client), DNS
Ethernet routing	Relay Multicast (PIM), IP redundancy (VRRP), static routes, NAT router, router
LEDs Signaling	Radio : status - activity – DFS detection	Ethernet : link 10/100 – activity	Power - Diagnostic
Power supply	+9VDC to +48VDC M12 connector 4-pole A-coded & PoE 802.3af (15,4W) mode A/endspan compatible
Consumption	Maximum average : 5.8 W	Recommended power supply : 7 W
Mechanical specifications	Dimensions : 115 mm x 64 mm x 34 mm. Weight : 319 g
IP rating	IP66
Environmental conditions	Operating temperature: -20°C to +60°C, storage : -40°C à +85°C, relative humidity: 0% to 99% (non-condensing)

Standards and certifications	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)
	
	FCC
		IC Radio : FCC ID Z9W-RMB	Radio: IC ID 114688A RMB
			
			E-marking ECE R10
			
			Environnement Shocks & vibrations : EN 61373 (CAT 1 CLASS B)
				Climatic : EN60068-2 (-1, -2, -30)

Warranty	5 years

Ordering references

AirXroad /4P	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

Accessoires optionnels

WLg-M12U-ETH-2M	ULTRA-LOCK waterproof 4-point M12 to RJ45, Ethernet cable, 2 meters
WLg-M12U-ETH-5M	ULTRA-LOCK waterproof 4-point M12 to RJ45, Ethernet cable, 5 meters
WLg-M12U-ETH-10M	ULTRA-LOCK waterproof 4-point M12 to RJ45, Ethernet cable, 10 meters
WLg-M12U-PWR-2M	Power supply cable ULTRA-LOCK M12 4 pts, 2 meters
WLg-M12U-PWR-5M	Power supply cable ULTRA-LOCK M12 4 pts, 5 meters
WLg-M12U-PWR-10M	Power supply cable ULTRA-LOCK M12 4 pts, 10 meters
WL-ANT-2458/2-ORPS	Dual band (2.4 / 5 GHz) 2 dBi omni-directional RP-SMA antenna
AXR-SET/4P	Connecting set includes: - 1 x WLg-M12U-PWR-2M - 1 x WLg-M12U-ETH-2M - 2 x WL-ANT-2458/2-ORPS

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