AirLink

Compact industrial WiFi access point and client

APPLICATIONS
AGVs, AMRs, Robots...
Industrial automation
Remote access

- All-in-one : AP/client/repeater/Mesh/router
- Fast data rates up to 300 Mbps - WiFi 802.11n - MIMO 2T2R - 2.4/5 GHz
- WaveOS operating system :
  - Advanced security WPA3, 802.1X Radius, Firewall, OpenVPN, IPSec, GRE tunnel...
  - Configuration from: Internet browser, WaveManager management and supervision software, SNMP
  - Redundancy functions, routing, fast-roaming...
- Industrial design :
  - 9 to 48VDC power supply and PoE 802.3af
  - Metal enclosure, wall or DIN rail mounting
  - Enhanced ESD protection and shock/vibration resistance

FAST ROAMING

Introduction

AirLink is a WiFi device designed and optimized for mobile applications and industrial processes:
- Compact and practical: its small footprint, mounting system (wall or DIN rail) and wide power supply range make it easy to integrate into electrical cabinets or tight spaces. It's the perfect solution for machines, logistics vehicles or PLCs manufacturers
- Mobility : the possibility of using remote antennas, its resistance to shocks & vibrations and its particular fast-roaming performances (< 30 ms) make it the ideal product for embedding in mobile equipment
- Reinforcement of the coverage: it has 2 antennas to work in MIMO and thus reinforcing the WiFi coverage and the reliability of your indoor radio communications (IIoT, MtoM, mobility of operators...), with all types of WiFi infrastructure (Cisco, HPE Aruba...)
- Centralized administration: WaveManager tool (Windows or Linux) to configure, monitor, troubleshoot and manage network deployments of ACKSYS hardware, both locally and remotely.

AirLink is an all-in-one multifunction product :
- Access point to provide a local wireless access around a machine
- Client to enable a continuous and secure connectivity of fixed and mobile equipment
- Repeater to extend a wireless network in areas with poor or no coverage
- Mesh to create easily a WiFi backbone (Mesh network) between fixed or mobile equipment

AirLink integrates the latest security standards (WPA3 Personal & Enterprise (Radius), DoS, Firewall...) as well as routing functions facilitating mass deployments (e.g. machines, AGVs...).
It supports any type of Ethernet protocol such as Modbus/TCP, EtherNet/IP, Safe Ethernet, PROFINET...

ACKSYS COMMUNICATIONS & SYSTEMS
Z.A. Val Joyeux - 10, rue des Entrepreneurs - 78450 Villepreux (FRANCE) - T : +33 (0) 1 30 56 46 46 - F : +33 (0) 1 30 56 12 95
www.acksys.fr - sales@acksys.fr

Technical characteristics overview

Ethernet interface	1-port Gigabit Ethernet 10/100/1000 Base TX auto-sensing, auto MDI/MDIX cross-over, RJ45 Ethernet interface
WiFi interface	1 radio IEEE 802.11a/b/g/n, MIMO 2T2R, 2.4 / 5 GHz, ANI (Adaptive Noise Immunity)
WiFi radio data rate	802.11a: 6, 9, 12, 18, 24, 36, 48 and 54 Mbps 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)
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
Output power	2.4 GHz : up to 23.5 dBm (aggregate) / 5 GHz : up to 21 dBm (aggregate)
Sensitivity max.	2.4 GHz : -94 dBm / 5 GHz : -96 dBm
Radio connectors	2 x RP-SMA
Security	Firewall, DoS, https, MAC filtering, WPA/WPA2/WPA3-Personal & Enterprise (IEEE 802.1X/RADIUS), tunnels L2 (GRE), VPN (OpenVPN, IPsec), SNMP V3, Rogue AP detector
WiFi modes	Access point, client, MESH (IEEE 802.11s), infrastructure, AD-HOC, fast roaming (less than 30 ms), WMM QoS
WiFi services	Hot Spot 2.0, Wireless Load Balancing (Load balancing, load steering, client roaming control)
Ethernet networking	IPv4/IPv6 compliance, frames filtering, bridging, repeater, STP/RSTP, VLAN, DHCP (server & client), DNS relay
Ethernet routing	Multicast (PIM), IP redundancy (VRRP), static routes, NAT router, router
Administration	http, https, SNMP agent (V1, V2C, V3), WaveManager administration software
LEDs Signaling	Radio : activity - status | Ethernet : link 10/100/1000 - activity | Power : on-off
Power supply	+9VDC to +48VDC, 3-pin Phoenix connector & PoE 802.3af
Consumption	IDLE mode : 1.7 W / Maximum average : 5.8 W / Recommended power supply : 7 W
Dimensions & weight	Compact case L : 103 x l : 67 x h : 24 mm, weight 225 g
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 : Radio : FCC ID Z9W-RMB USA (UL 62368-1, Ed. 3) Canada (CAN/CSA C22.2 No. 62368-1-19) 5801569 Korea (KCC) MSIP-RMI-WIR- AirLINK Brazil 16253-20-09679 Japan (MIC Giteki) 018-190174 Environmental — Shocks and vibrations : EN 61373 (CAT 1 CLASS B)
Environment	IP30 Operating temperature: -20°C to +60°C , storage: -40°C à +85°C, humidity: 0% to 99% (non-condensing)
MTBF	3,649,822 hours (failure rate : 0.273986 per million hours)
Warranty	5 years

Ordering references

AirLink	WiFi access point, client, repeater (WDS) and MESH point (IEEE 802.11 a/b/g/n), 10/100/1000 RJ45 Ethernet interface, shipped with two 2.4GHz - 3 dBi / 5GHz - 4 dBi antennas
Optional accessories	
PWS12-UNI-PH3	AC (110V / 220V) to 12VDC power adapter with cable terminated by a 3-pin Phoenix terminal block
WL-FIX-RD2	Din rail fixing kit
SOCLE-RPS/RPS-1.5M	Magnetic base for RP-SMA antenna 1.5m cable (RP-SMA plug)

All the brand names mentioned in this document are trademarks. ACKSYS is constantly looking at ways to improve its products. The current specifications may therefore be modified without notice and the characteristics set out herein should not be construed as creating any contractual obligation. All the products featured herein are designed and manufactured in Europe.

ACKSYS COMMUNICATIONS & SYSTEMS
Z.A. Val Joyeux - 10, rue des Entrepreneurs - 78450 Villepreux (FRANCE) - T : +33 (0) 1 30 56 46 46 - F : +33 (0) 1 30 56 12 95
www.acksys.fr - sales@acksys.fr