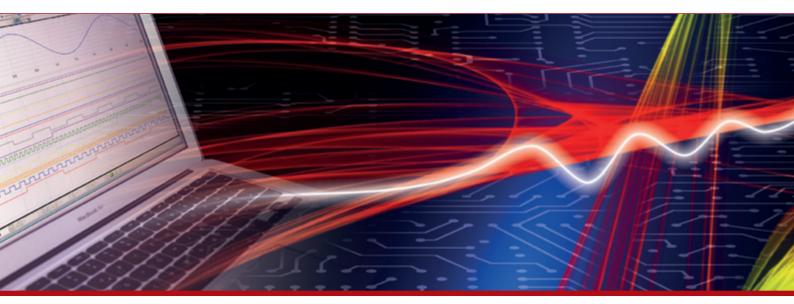# MEILHAUS ELECTRONIC

Product Datasheet - Technical Specifications

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AirWan

Industrial cellular router (2G/3G/4G) + WiFi (802.11n)

- 2G/3G/4G router + positioning (GNSS)

- WiFi access point, client or repeater modes

- Mesh function to wirelessly interconnect APs

- Advanced security (Firewall, VPN, radius...)

- Automatic Cellular <> WiFi switching

- High availability : 2 Ethernet ports, wide range power supply input (+7 to +48 VDC), PoE+

- Compact case, wall or DIN Rail mounting

- Centralized administration and configurations Management

Introduction

AirWan is an "accessible" cellular router (2G/3G/4G LTE) equipped with a dual-band WiFi interface (2.4 / 5 GHz), a GNSS interface (GPS, Galileo, GLONASS, Beidou), 1 Giga Ethernet and 1 Fast Ethernet ports. It is designed for industrial applications (industry 4.0) and mobility (buses, vehicles ...).

Mobility : AirWan is equipped with high-speed wireless technologies for transmitting data to and from vehicles. For bus applications, AirWan makes it possible to pool all data streams (SAE, ticketing, PIS, CCTV...) on a single router. Its WiFi roaming capabilities (<30 ms) ensure continuous data transmission as buses move to the depot. Its automatic switching capabilities between WiFi and 4G ensure service continuity when they go into operation. AirWan allows vehicles tracking with its GNSS feature. It is also rugged (shock and vibration proof), E-marked ECE R10 and maintenance-free.

Administration and product monitoring : can be achieved directly from a web browser or from WaveManager, the centralized administration software provided by ACKSYS. Besides, its advanced routing and filtering functions make it easy to deploy large fleets of vehicles.

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Technical Characteristics overview

Ethernet Interface	1 port Gigabit Ethernet 10/100/1000 and 1 port Fast Ethernet 10/100 auto-sensing, Base TX, auto MDI/MDIX, RJ45 Ethernet interface
Cellular Interfaces + Navigation	1 LTE radio category 4, 3GPP E-UTRA release 11, MIMO DL with Rx diversity, Single SIM LTE, UMTS/HSPA+, GSM/GPRS/EDGE (worldwide) Multi-constellation GNSS (GPS, Galileo, GLONASS, Beidou). Requires an active antenna.
Cellular radio data rate	150 Mbps ↓ & 50 Mbps ↑ (maximum radio data rate)
Cellular operating frequencies	LTE-FDD: B1/B2/B3/B4/B5/B7/B8/B12/B13/B18/B19/B20/B25/B26/B28 LTE-TDD: B38/B39/B40/B41 WCDMA: B1/B2/B4/B5/B6/B8/B19 GSM: B2/B3/B5/B8
WiFi Interface	1 radio IEEE 802.11a/b/g/n 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, 2T2R 2 streams (6.5 to 300 Mbps)
WiFi 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	WiFi : • 2.4 GHz : up to 23.5 dBm • 5 GHz :up to 21 dBm LTE / 4G : • GSM : up to 33 dBm
Sensitivity max	WiFi : • 2.4 GHz : -94 dBm • 5 GHz : -96 dBm LTE WCDMA B5/B8 : -110.5 dBm
Radio connectors	5 connectors
Security	Firewall, DoS, https, filtrage MAC, WPA2/WAP3-Personal & Enterprise (IEEE 802.1X radius), WEP, tunnels L2 (GRE), VPN (OpenVPN), SNMP V3, isolation of clients in AP mode, Wireless Intrusion Detection System (WIDS)
WiFi Modes	AP, client, MESH (IEEE 802.11s), infrastructure, AD-HOC, fast roaming (less than 30 ms), WMM QoS
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
Administration	http, https, SNMP agent (V1, V2C, V3), WaveManager administration software
LEDs signaling	Radio: activity and status	Ethernet : link 10/100/1000, activity	Power : on-off	Diagnostic
Power supply	7 to 48 VDC, 3 point Phoenix connector or PoE 802.3af
Consumption	9W typical power consumption / Recommended power supply: 12W
Dimensions & weight	Product: compact rugged aluminium enclosure, (147 x 41 x 100 mm), 382g
Environment	IP40 seal rating • Operating: -20°C to +60°C (HR 0-99%)
Standards and certifications	**CE (RED)** — Sécurité : EN 62368-1, EN62311 CEM : EN301-489 Radio: • WiFi : EN 300 328 (2.4 GHz), EN 301 893 (5 GHz, DFS) • LTE : EN 301 908 (-1, -2,-13), EN 301 511, EN 303 413 **FCC** — Radio: • WiFi : FCC ID Z9W-RMB • LTE : FCC ID XMR201708EC25E **Automobile** — CEM : ECE R10 (UTAC E2/ R10) Environmental: • Shock and vibration : EN 61373 • Fire/smoke : UNR118, RoHS, WEEE
Warranty	5 years

Ordering references

AirWan/17	WiFi router (802.11n)+ 4G/LTE (world) + multi-constellation GNSS interface, 1-port Giga and 1-port Fast Ethernet, shipped with 2 WiFi antennas (WL-ANT- 2458 / 3- ORPS) and 2 cellular antennas (ANT727 /20SM)

Additional 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

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