

I(P)WMR-3006

Industrial Multifunction VPN Router w/up to 2x WiFi 11ac + up to 2 LTE 4G + 2 serial ports + 6 Gigabit Ethernet Switch (incl. 4 PoE) w/ Load Balancing, VPN, Protocol Gateway, Storage; 24V input**

- Up to 2 concurrent WIFI 11ac and redundancy (1L-2AC model)
- Up to 2 concurrent mobility for 3G/4G LTE Link&GPS (2L-1AC model/4 SIMs)
- Support LTE Cat 6
- Built-in 6 Gigabit Ethernet switch
- PoE model: 4 PoE at/af w/budget 80W
- Dual radio for 802.11ac/a/b/g/n with concurrent 5GHz & 5GHz bands up to 2.6Gbps Wi-Fi bandwidth(2AC model)
- WIFI radio for 802.11ac/a/b/g/n with 5GHz or 2.4GHz;
- Support WIFI 802.11e traffic prioritization and WMM
- MIMO technology 3T3R up to 6 antenna(2AC); SMA type external antennas
- Support Client-base roaming
- Supports AP/ Bridge/Client/MESH modes
- Support 802.11s Wireless Mesh Network
- Advanced wireless security WEP64/128bits/ WPA/ WPA-PSK (TKIP,AES)/ WPA2/ WPA2-PSK (TKIP,AES)
- VPN router for Multi-site VPN, OpenVPN, L2TP over IPsec, IPsec, L2 over GRE , IPGRE
- Load Balancing built-in 5 mechanism
- Optional EMMC Flash storage on-board**
- Support NAT and Firewall
- Support Modbus gateway on serial ports
- ITxPT compliant w/ ignition function**
- Input voltage selection 9~56VDC (24V model)
- Environmental monitoring for router inside info with voltage, current, temperature and total PoE load; WIFI & LTE graphic signal strength
- Editable login page of captive portal for hot-spot application
- Optional eSIM chip enables router with versatile data plans**
- USB port to backup, restore the configuration file and upgrade firmware; Dual image firmware



OVERVIEW

Lantech I(P)WMR-3006 series is a next generation industrial multi-function VPN router w/up to 2x 802.11ac WiFi + up to 2x LTE modem + 6x Gigabit Ethernet switch incl. 4 PoE ports (PoE model) + 2 serial ports that supports advanced function of VPN, Load-Balancing, EMMC Flash Storage**, Protocol gateway(Modbus), Storage**, WiFi roaming and LTE quad SIM fail-over for industrial applications. The dual core CPU with 1.6GHz + 256M flash enables the router to multi-task smoothly.

Dual concurrent LTE design 4G/3G for load-balancing

With dual LTE module design (2L model), 4 SIM card slots, I(P)WMR-3006 can allow auto-swap, failover & fallback between multiple service providers for real non-stop

connection. With concurrent LTE modules, it can also allocate bandwidth by " Load Balancing with 8 schemes between multiple WANs.

With one mobile LTE module (1L model), 2 SIM card slots, I(P)WMR-3006 provides redundant link between two service providers.

Both GPS and Russian GLONASS systems are supported.

Optional EMMC Flash storage**

The optional EMMC flash storage on the router can offer 8G/16G/32G capacity.

Optional eSIM**

By replacing physical SIM, optional eSIM chip will allow users to purchase data plans at low prices from local carriers in the world.

IEEE 802.11ac dual band radio up to 2.6Gbps bandwidth

With IEEE 802.11ac capability, I(P)WMR-3006 can operate either 5GHz or 2.4GHz bands, offering the maximum speed of 2.6Gbps bandwidth (1.3Gbps per 1AC). It is also compatible with 802.11g/n that can work with 2.4GHz for longer range transmission.

The WiFi 11ac supports AP/Bridge/AP Client modes can be diverse for most of wireless application. Working with load-balancing "Priority" mode, the AP client can enable router to transmit on WiFi with first priority.

MIMO technology with 3T3R and SMA type connectors

Lantech I(P)WMR-3006 series adapts MIMO technology with smart antenna transmission and reception for 3T3R. With six external detachable omni connectors and optional antennas, I(P)WMR-3006 can have better Wi-Fi & LTE/GPS coverage.

Support AP/Bridge/Client mode, Mesh roaming

I(P)WMR-3006 supports AP/Bridge/Client mode for different applications.

It also supports client-base roaming to swap between the APs in a network.

Built-in Wireless Mesh network (WMM)

I(P)WMR-3006 supports Mesh network composed of different nodes. The set of SSIDs allow the wireless client to roam freely without the need for complicated account management. With Mesh protocol, it can provide a reliable, scalable, stable and seamless network topology.

Wireless WMM QoS

I(P)WMR-3006 supports 802.11e standard which defines a set of Quality of Service for wireless LAN applications as well as WMM (WIFI multimedia)

Advanced security & 16 SSIDs

The security support standards including 64/128bits WEP, WPA/WPA2 PSK (TKIP, AES), 802.1x ensures the best security and active defense against security threats. Lantech I(P)WMR-3006 support up to 16 SSIDs, each SSID has its independent security and encryption.

Load Balancing with 5 mechanisms for multi-WANs

I(P)WMR-3006 supports Load Balancing for LTE/WAN connections. There are five schemes for Load Balancing function:

| | | |
|-------|----------------------|--|
| Basic | Fixed | All traffic will be distributed to a single WAN. |
| | Failover | Routes connections through preferred WAN link while others stand-by. Sequentially activating another link if the preferred link fails. |
| | Priority | Select the active WAN according to priority. |
| | Weighted Round-Robin | Evenly distribute the traffic over all working WAN links in circular order according to the specified weights. |
| | Custom Route | Routing through the selected WAN for each specific traffic, ex: TCP/UDP port number and IP address. |

2 port serial connection, Modbus gateway

It builds in 2 port serial connection for RS232, RS422, RS485.

The built-in Modbus gateway can convert Modbus RTU/ASCII to Modbus TCP for device control.

VPN and firewall

Besides traditional VPN peer to peer tunneling, I(P)WMR-3006 support latest Multi-Site VPN function that is an efficient way for Mesh tunneling. The registration is under cloud service and encrypted by SSH makes the connection easy and safe.

It supports Multi-Site VPN, OpenVPN, L2TP over IPsec, IPsec, L2 over GRE, IPGRE, and NAT for various VPN applications.

The built-in Layer-4 firewall includes DDoS, IP address filter / Mac address filter / TCP / UDP port number.

Support Routing Protocol: Static route / RIPv2 / OSPF / BGP / EIGRP

Lantech router series supports two routing methods: static routing and dynamic routing. Dynamic routing makes use of RIPv2, OSPF, EIGRP and BGP. The user can either choose one routing method to establish the routing table.

DIDO for alarm & email notice; Event log; Remote Web control

2 sets of DIDO function can support additional high/low physical contact for designate applications besides Port / Power events, for example, DIDO function can trigger alarm if the router was moved or stolen. In case of events, the I(P)WMR-3006 will immediately send email and trap.

When the router is at remote area with limited access, Web control can help to get router status or remotely reboot by Web.

Wide range input voltage from 9V-56VDC; PoE model built-in 4 port PoE at/af with 80W budget

The I(P)WMR-3006 is able to work from 9VDC to 56VDC and PoE model built-in PoE at/af with PoE budget 80W@12V /80W@24V&48V that is particular good for vehicle, rail train,

| Pack | Algorithm | Description |
|------|-----------|-------------|
|------|-----------|-------------|

depot etc. application.

**Environmental monitoring for inside router info& alerting;
Graphic WIFI & LTE signal strength**

The built-in environmental monitoring can detect router ambient temperature, voltage, current and total PoE load where can send the syslog and email when abnormal.

Built-in Managed Switch Function

Managed switch function is built-in and provides various L2+ functions for network aggregation deployment. It delivers ports and PoE management, VLAN, QoS, multicast, redundant ring, and security functions.

USB port for back up, restore configuration and upgrade firmware; Dual image firmware

The built-in USB port can upload/download the configuration through USB dongle for router replacement

It supports dual-image firmware to choose which one to start.

Editable login page of captive portal

The I(P)WMR-3006 supports editable captive portal function that allows administrator to force end-users redirect to authentication page.

Ruggedized industrial design and FCC, CE & E-marking certificate**

The I(P)WMR-3006 is designed to meet with industrial network environment with IP30 housing. It passed serious tests under extensive Industrial EMI and environmental vibration and shocks standards.

With CE & FCC radio certification for WIFI and LTE and E-marking** certificate, the I(P)WMR-3006 is best for outdoor community, vehicle, process control automation etc. For more usage flexibilities, I(P)WMR-3006 supports wide operating temperature from -40°C to 65°C.

FEATURES & BENEFITS

- High Speed Air Connectivity: WLAN interface support up to 2.6Gbps link speed(2AC) or 1.3Gbps (1AC)
- Built-in 6 Gigabit Ethernet switch
- PoE model incl. 4 PoE at/af for PoE budget 80W
- Dual band 2.4G and 5GHz with 802.11ac/a/b/g/n
- EMMC-FLASH storage**8/16/32G
- eSIM** to allow data-plan globally
- Support 2.4Ghz operating within the following frequency bands:
 - 2.412~2.472 GHz
- Support 5Ghz operating within the following frequency bands:
 - 5.180GHz~5.825GHz
- MIMO smart antenna technology with 3T3R
- 6 SMA type connectors for WiFi & LTE, GPS
- Output power : <24dBm
- Transmit power adjustment
- VAP (virtual access point) support up to 16 SSIDs
- Operation modes : AP/ Bridge / Client
- IEEE 802.11h DFS and automatic TPC
- Traffic control for each SSID
- Band preference for same SSID services on dual band
- Highly Security Capability: WEP64/128bits/ WPA/ WPA-PSK (TKIP,AES)/ WPA2/ WPA2-PSK (TKIP,AES)
- HTTP/HTTPS/Telnet/SSH & Administration access
- Support IPv6 & IPv4 protocol
- Radius Authentication, EAP-TLS, EAP-TTLS, PEAP; SSID broadcast disable supported
- Multiple channel bandwidths of 20MHz and 40MHz for 2.4G.
- Multiple channel bandwidths of 20MHz, 40MHz and 80MHz for 5G only.
- Wi-Fi Multimedia (WMM) and 802.11e traffic

- prioritization
- Support Multi-Site VPN for Mesh tunneling as well as Open VPN, L2TP over IPsec, IPsec, L2 over GRE , IPGRE and NAT for secured network connection
- Support Routing Protocol: Static route / RIPv2 / OSPF / BGP / EIGRP
- The built-in Layer-4 firewall includes DDoS, IP address filter / Mac address filter / TCP/UDP port number
- NAT/DMZ/Port Forwarding
- Support SNMP v1/v2c/v3
- Dual concurrent LTE 4G/3G design (2L model)for auto-swap/failover/failback between multiple ISPs for continuous service (four SIM card slots)
- One LTE 4G/3G w/ 2 SIM card design(1L model) for mobile redundancy
- GPS/ GLONASS (support by LTE module) connection
- Support AP/Bridge/Client/MESH mode
- Support Client-base roaming
- Support 802.11s Wireless Mesh Network
- Load Balancing supports 5 mechanism between multiple WANs

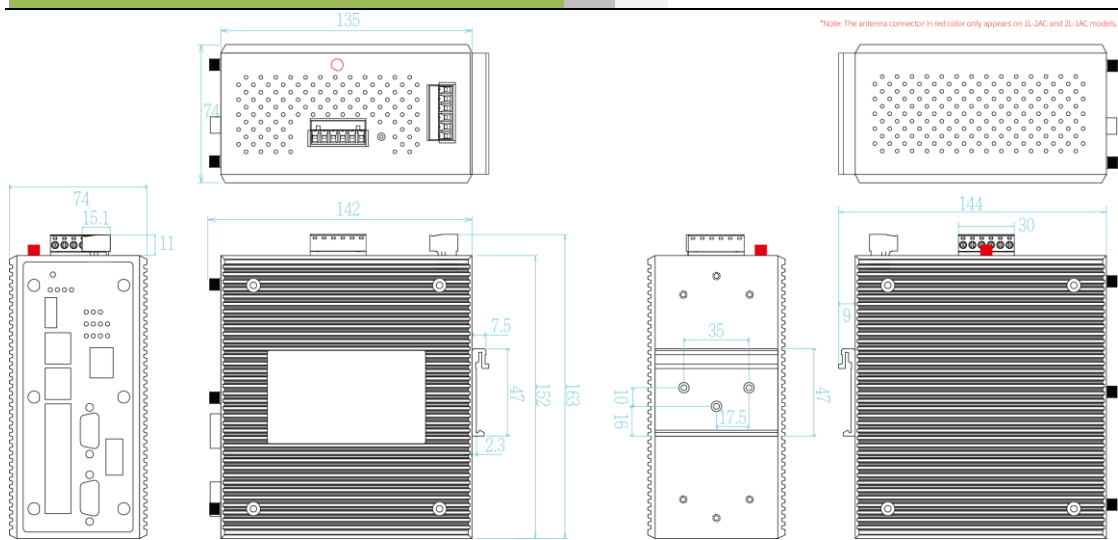
| Pack | Algorithm | Description |
|-------|----------------------|--|
| Basic | Fixed | All traffic will be distributed to a single WAN. |
| | Failover | Routes connections through preferred WAN link while others stand-by. Sequentially activating another link if the preferred link fails. |
| | Priority | Select the active WAN according to priority. |
| | Weighted Round-Robin | Evenly distribute the traffic over all working WAN links in circular order |

| | |
|--------------|---|
| | according to the specified weights. |
| Custom Route | Routing through the selected WAN for each specific traffic, ex: TCP/UDP port number and IP address. |

- Built-in 2 x serial ports (RS232/RS422/RS485)
- Supports 2DI / 2DO (Digital Input / Output)
- Built-in Modbus gateway converting Modbus RTU/ASCII to Modbus/TCP for serial ports
- Event alerting by Syslog, SNMP Trap, Email, Relay ; Permanent local log rotation / Maxi 1K records
- Remote Web control to get status or re-boot by Web
- Graphic LTE & WIFI signal strength
- Support SNTP to synchronize system clock
- Support LLDP discovery protocol
- Support DHCP Server and Client

- Built-in environmental monitoring for system input voltage, current and ambient temperature; Able to set alert when abnormal
- Dual image firmware to choose which to start
- Firmware upgradeable through TFTP/HTTP
- Configuration backup and restoration
 - Supports text configuration file for system quick installation
 - USB port to upload/download configuration by USB dongle
- Reset button for factory default mode
- Support editable captive portal login page
- IP 30 housing for industrial environment
- DIN-Rail and Wall-mount** installation
- Operation temperature -40~65C

DIMENSIONS (unit=mm)



SPECIFICATION

| WLAN Interface | | |
|----------------------|--|--|
| Radio Frequency Type | DSSS, OFDM | IEEE 802.11n: up to 450Mbps |
| Wireless Standard | IEEE 802.11ac/n/a 5GHz IEEE 802.11b/g/n 2.4GHz | Output Power Tx +/- 2dB(per chain) 18dBm @ 1~11Mbps 18dBm @ 6~54Mbps 20/20dBm @ MCS0~MCS7 (HT20/40) |
| Wireless bandwidth | 5GHz: Up to 1300Mbps 2.4GHz: Up to 450Mbps | Receiver Sensitivity Rx +/- 2dB ≤ -95dBm @ 1~11Mbps ≤ -92dBm @ 6~18Mbps ≤ -88dBm @ 24Mbps ≤ -85dBm @ 36Mbps ≤ -81dBm @ 48Mbps ≤ -80dBm @ 54Mbps ≤ -94dBm @ MCS0 (HT20/40) ≤ -76dBm @ MCS7 (HT20/40) |
| Modulation | 802.11b: DSSS 802.11a/g: OFDM (BPSK, QPSK, 16-QAM, 64-QAM) 802.11n: OFDM (BPSK, QPSK, 16-QAM, 64-QAM) 802.11ac: OFDM (BPSK, QPSK, 16-QAM, 64-QAM, 256-QAM) | Output Power Tx +/- 2dB(per chain) 20dBm @ 6~24Mbps 16dBm @ 36~54Mbps 19/18dBm @ MCS0 (HT20/40) 16/16dBm @ MCS7 (HT20/40) 19/18/18dBm @ MCS0 (VHT20/40/80) 13/13/13dBm @ MCS8 (VHT20/40/80) 13/13dBm @ MCS9 (VHT40/80) |
| Operating Frequency | IEEE 802.11 a/b/g/n ISM Band, 2.412GHz~2.472GHz, 5150MHz~5850MHz | |
| Transmission Rate | IEEE802.11ac: up to 1300Mbps IEEE802.11b: 1 / 2 / 5.5 / 11 Mbps IEEE802.11a/g: 6 / 9 / 12 / 18 / 24 / 36 / 48 / 54 Mbps | |

| | | | |
|---------------------------|--|--|---|
| | Receiver Sensitivity Rx +/- 2dB ≤ -92dBm @ 6~18Mbps ≤ -86dBm @ 24Mbps ≤ -84dBm @ 36Mbps ≤ -81dBm @ 48Mbps ≤ -80dBm @ 54Mbps ≤ -93dBm @ MCS0 (HT20/40) ≤ -71dBm/≤ -80dBm @ MCS7 (HT20/40) ≤ -90dBm @ MCS0 (VHT20/40/80) ≤ -69dBm @ MCS8 (VHT20/40/80) ≤ -66dBm @ MCS9 (VHT40/80) | SNMP trap Device cold / warm start Port link up / link down DI/DO high / low | |
| Encryption Security | WEP : (64-bit ,128-bit key supported) WPA /WPA2 : IEEE802.11i(WEP and AES encryption) WPA-PSK (256-bit key pre-shared key supported) EAP-TLS,EAP-TTLS, and PEAP | Remote Web control To reboot router by WebUI | |
| Wireless Security | SSID broadcast disable | Captive portal Editable captive portal login page | |
| Cellular Interface | | | |
| Location Solutions | GPS, Glonass | Maintenance Firmware upgradeable through TFTP/HTTP | |
| Band Options | Europe & North America (EUNA model) LTE = B1, B2※, B3, B4※, B5※, B7, B8, B12※, B13※, B20, B25※, B26※, B29※, B30※, B41※ (TDD) DC-HSPA+/ HSPA+/ HSPA/ UMTS = B1, B2※, B3, B4※, B5※, B8 | Configuration backup & restore Supports text configuration file for system quick installation USB port to upload/download configuration by USB dongle | |
| Data Rates – LTE | Europe & North America (EUNA model) Downlink (Cat 6): FDD: 300 Mbps TDD: 222 Mbps Uplink (Cat 6): FDD: 50 Mbps TDD: 26 Mbps | Physical Ports & System | |
| Software | | | Connectors 10/100/1000T: 6x ports RJ 45 (PoE model incl 4 PoE ports) USB x 1 RS-232 connector: 1 x RJ 45 Serial connector : 2 DB9 SIM card slots : 4(2L) or 2(1L) 2L-1AC model SMA connector for LTE: 4 (female) SMA connector for GPS: 1 (female) RP-SMA connector for Wi-Fi: 2 (female) 1L-2AC model SMA connector for LTE: 2 (female) SMA connector for GPS: 1 (female) RP-SMA connector for Wi-Fi: 1 (female) 1L-1AC model SMA connector for LTE: 2 (female) SMA connector for GPS: 1 (female) RP-SMA connector for Wi-Fi: 3 (female) Power & P-Fail connector: 1 x 6-pole terminal block DIDO : 1 x 5-pole terminal block |
| IPv6/4 | Present | Serial Baud Rate 1000Kbps for RS232 ; 12Mbps for RS422/RS485 | |
| Operating Mode | AP/Bridge/Client/MESH modes | Serial Data Bits 5, 6, 7, 8 | |
| WMM | WIFI multimedia and 802.11e traffic prioritization | Serial Parity odd, even, none, mark, space | |
| VPN | Multi-site VPN, Open VPN, L2TP over IPSec, IPSec, L2 over GRE, IPGRE and NAT | Serial Stop Bits 1, 1.5, 2 | |
| Firewall | DDoS, IP address filter / Mac address filter / TCP/UDP port number | RS-232 TxD, RxD, RTS, CTS, DTR, DSR, DCD, GND | |
| Load Balancing | 5 schemes for multiple WAN | RS-422 Tx+,Tx-, Rx+, Rx-,GND | |
| Basic | | | RS-485 (2-wire) Data+, Data-,GND |
| Fixed | All traffic will be distributed to a single WAN. | Isolation protection Input power to I/O: 1.5KV isolation Input power to Ethernet 1.5KV isolation Input power to PoE port 1.5KV isolation (PoE model) | |
| Failover | Routes connections through preferred WAN link while others stand-by. Sequentially activating another link if the preferred link fails. | EMMC Storage** 8/16/32 GB | |
| Priority | Select the active WAN according to priority. | DI/DO 2 Digital Input (DI) : Level 0: -30~2V / Level 1: 10~30V Max. input current:8mA 2 Digital Output(DO): Open collector to 40 VDC, 200mA | |
| Weighted Round-Robin | Evenly distribute the traffic over all working WAN links in circular order according to the specified weights | LED Indicators | |
| Custom Route | Routing through the selected WAN for each specific traffic ex: TCP/UDP port number and IP address. | Power & System indicator Per unit: Power 1 (Green), Power 2 (Green), P-Fail (Red) , Ring Master(Green), Storage(Green), Serial1/Serail2(Green),Ready(Green) | |
| Security | WEP64/128bits/ WPA/ WPA-PSK (TKIP/AES)/ WPA2/ WPA2-PSK (TKIP/AES)/SSH/SSL/HTTPS | 10/100/1000Base-T(X) port indicator Link/Activity (Green), Speed (1000T: Yellow; 10/100TX: off), PoE (Green, PoE model) | |
| Roaming | Client-base roaming | SIM Green for Link/Act | |
| MESH | Support 802.11s Wireless Mesh Network | GPS Green for Link/Act | |
| Authentication | Radius Authentication, EAP-TLS, EAP-TTLS, PEAP; SSID broadcast disable supported | Fault Red: Ethernet link down or power down | |
| SSID | 16 sets | Fault contact | |
| Login Security | Supports IEEE802.1x Authentication/RADIUS | Relay Relay output to carry capacity of 1A at 24VDC | |
| Access Security | HTTP/HTTPS/Telnet/SSH & Administration; SNMP v1/v2/v3 access for authentication via MD5/SHA(v3) and Encryption via DES/AES(v3) | Power | |
| Protocol | PPPoE Client, DHCP server/client, Adjustable MTU, Port forwarding (NAPT), DMZ; NAT, SNTP, Firewall(Firewall(DDoS; IP address filter / Mac address filter / TCP/UDP port name),VRRP, DDNS | Input power Dual DC input, 9~56VDC (24V model) | |
| Routing | Static route / RIPv2 / OSPF / BGP / EIGRP | PoE Budget (PoE model) 80W@12V /80W@24V&48V | |
| Protocol Gateway | Modbus on serial ports | Power consumption (Typ.) 30.5 Watts | |
| Management | SNMP v1,v2c,v3/ Web/Telnet/CLI | Physical Characteristic | |
| Environmental Monitoring | System status for input voltage, current , ambient temperature to be shown in GUI and sent alerting if any abnormal status | Enclosure IP30 Metal case | |
| Graphic signal display | Graphic WIFI & LTE signal strength & TX/RX rate display | Dimension 74 (W) x 142 (D) x 152 (H) mm (1L-1AC model) | |
| Timer | Built-in Real Time Clock to keep track of time always(RTC) | Weight 74 (W) x 142 (D) x 159 (H) mm (1L-2AC / 2L-1AC model) | |
| Discovery | IEEE 802.1ab Link Layer Discovery Protocol (LLDP) | Environmental Storage Temperature -40°C ~ 85°C (-40°F ~ 185°F) | |
| | | Operating Temperature -40°C ~ 65°C (-40°F ~ 149°F) | |
| | | Operating Humidity 5% to 95% Non-condensing | |
| | | Regulatory approvals | |
| | | Safety EN 62368 | |
| | | EMC FCC Part 15B Class A, EN 55032: 2015, | |

| | | | |
|-----------------|--|---------------------|--|
| | EN 55024: 2010 IEC 61000-6-2, IEC 61000-6-4 | | EN 301 893, EN 300 328, EN 301 908-1**, EN 303 413, EN 62311 |
| EMS | IEC 61000-4-2 (ESD), IEC 61000-4-3 (RS), IEC 61000-4-4 (EFT), IEC 61000-4-5 (Surge), IEC 61000-4-6 (CS), IEC 61000-4-8 (PFMF) | Vehicle certificate | E13** |
| Radio Frequency | EN 301 489-1, EN 301 489-17, EN 301 489-19, EN 301 489-52 EN 302 502, | MTBF | 1,361,618hrs (IEC-62380) |
| | | Warranty | 5 years |

*Future Release
**Optional

**Standard test of the following bands are not listed in EN 301 908-1 report:
(EUNA not listed bands) LTE = B2, B4, B5, B12, B13, B25, B26, B29, B30, B41
WCDMA = B2, B4, B5;

RF Performance Table

| | Data Rate | TX Power (per chain) | TX Power (3 chains) | Tolerance | RX Specifications Sensitivity | Tolerance |
|---------------------------|-----------|----------------------|---------------------|-----------|-------------------------------|-----------|
| 2.4GHz 802.11b | 1Mbps | 20dBm | 25dBm | ±2dB | -95dBm | ±2dB |
| | 2Mbps | 20dBm | 25dBm | ±2dB | -94dBm | ±2dB |
| | 5.5Mbps | 20dBm | 25dBm | ±2dB | -92dBm | ±2dB |
| | 11Mbps | 20dBm | 25dBm | ±2dB | -90dBm | ±2dB |
| 2.4GHz 802.11g | 6Mbps | 21dBm | 26dBm | ±2dB | -94dBm | ±2dB |
| | 9Mbps | 21dBm | 26dBm | ±2dB | -93dBm | ±2dB |
| | 12Mbps | 21dBm | 26dBm | ±2dB | -93dBm | ±2dB |
| | 18Mbps | 21dBm | 26dBm | ±2dB | -90dBm | ±2dB |
| | 24Mbps | 21dBm | 26dBm | ±2dB | -90dBm | ±2dB |
| | 36Mbps | 20dBm | 25dBm | ±2dB | -85dBm | ±2dB |
| | 48Mbps | 19dBm | 24dBm | ±2dB | -82dBm | ±2dB |
| 2.4GHz 802.11n HT20 | 54Mbps | 18dBm | 23dBm | ±2dB | -80dBm | ±2dB |
| | MCS 0 | 21dBm | 26dBm | ±2dB | -94dBm | ±2dB |
| | MCS 1 | 21dBm | 26dBm | ±2dB | -92dBm | ±2dB |
| | MCS 2 | 21dBm | 26dBm | ±2dB | -89dBm | ±2dB |
| | MCS 3 | 20dBm | 25dBm | ±2dB | -84dBm | ±2dB |
| | MCS 4 | 20dBm | 25dBm | ±2dB | -83dBm | ±2dB |
| | MCS 5 | 20dBm | 25dBm | ±2dB | -80dBm | ±2dB |
| | MCS 6 | 18dBm | 23dBm | ±2dB | -79dBm | ±2dB |
| 2.4GHz 802.11n HT40 | MCS 7 | 16dBm | 21dBm | ±2dB | -77dBm | ±2dB |
| | MCS 0 | 20dBm | 25dBm | ±2dB | -93dBm | ±2dB |
| | MCS 1 | 20dBm | 25dBm | ±2dB | -91dBm | ±2dB |
| | MCS 2 | 20dBm | 25dBm | ±2dB | -89dBm | ±2dB |
| | MCS 3 | 19dBm | 24dBm | ±2dB | -84dBm | ±2dB |
| | MCS 4 | 19dBm | 24dBm | ±2dB | -82dBm | ±2dB |
| | MCS 5 | 19dBm | 24dBm | ±2dB | -80dBm | ±2dB |
| | MCS 6 | 18dBm | 23dBm | ±2dB | -79dBm | ±2dB |
| MCS 7 | 16dBm | 21dBm | ±2dB | -75dBm | ±2dB | |

| | Data Rate | TX Power (per chain) | TX Power (3 chains) | Tolerance | RX Specifications Sensitivity | Tolerance |
|-----------------------------|-----------|----------------------|---------------------|-----------|-------------------------------|-----------|
| 5GHz 802.11a | 6Mbps | 20dBm | 25dBm | ±2dB | -94dBm | ±2dB |
| | 9Mbps | 20dBm | 25dBm | ±2dB | -94dBm | ±2dB |
| | 12Mbps | 20dBm | 25dBm | ±2dB | -92dBm | ±2dB |
| | 18Mbps | 20dBm | 25dBm | ±2dB | -91dBm | ±2dB |
| | 24Mbps | 20dBm | 25dBm | ±2dB | -90dBm | ±2dB |
| | 36Mbps | 18dBm | 23dBm | ±2dB | -86dBm | ±2dB |
| | 48Mbps | 16dBm | 21dBm | ±2dB | -83dBm | ±2dB |
| | 54Mbps | 15dBm | 20dBm | ±2dB | -80dBm | ±2dB |
| 5GHz 802.11n/ac VHT20 | MCS 0 | 19dBm | 24dBm | ±2dB | -93dBm | ±2dB |
| | MCS 1 | 19dBm | 24dBm | ±2dB | -90dBm | ±2dB |
| | MCS 2 | 19dBm | 24dBm | ±2dB | -87dBm | ±2dB |
| | MCS 3 | 18dBm | 23dBm | ±2dB | -83dBm | ±2dB |
| | MCS 4 | 18dBm | 23dBm | ±2dB | -80dBm | ±2dB |
| | MCS 5 | 17dBm | 22dBm | ±2dB | -77dBm | ±2dB |
| | MCS 6 | 16dBm | 21dBm | ±2dB | -74dBm | ±2dB |
| | MCS 7 | 14dBm | 19dBm | ±2dB | -73dBm | ±2dB |
| | MCS 8 | 13dBm | 18dBm | ±2dB | -71dBm | ±2dB |
| 5GHz 802.11n/ac VHT40 | MCS 0 | 18dBm | 23dBm | ±2dB | -90dBm | ±2dB |
| | MCS 1 | 18dBm | 23dBm | ±2dB | -88dBm | ±2dB |
| | MCS 2 | 18dBm | 23dBm | ±2dB | -85dBm | ±2dB |
| | MCS 3 | 17dBm | 22dBm | ±2dB | -82dBm | ±2dB |
| | MCS 4 | 17dBm | 22dBm | ±2dB | -80dBm | ±2dB |
| | MCS 5 | 16dBm | 21dBm | ±2dB | -75dBm | ±2dB |
| | MCS 6 | 15dBm | 20dBm | ±2dB | -73dBm | ±2dB |
| | MCS 7 | 14dBm | 19dBm | ±2dB | -73dBm | ±2dB |
| | MCS 8 | 13dBm | 18dBm | ±2dB | -70dBm | ±2dB |
| | MCS 9 | 13dBm | 18dBm | ±2dB | -68dBm | ±2dB |
| 5GHz 802.11ac VHT80 | MCS 0 | 18dBm | 23dBm | ±2dB | -89dBm | ±2dB |
| | MCS 1 | 18dBm | 23dBm | ±2dB | -87dBm | ±2dB |
| | MCS 2 | 18dBm | 23dBm | ±2dB | -85dBm | ±2dB |
| | MCS 3 | 17dBm | 22dBm | ±2dB | -83dBm | ±2dB |
| | MCS 4 | 17dBm | 22dBm | ±2dB | -80dBm | ±2dB |
| | MCS 5 | 16dBm | 21dBm | ±2dB | -78dBm | ±2dB |
| | MCS 6 | 15dBm | 20dBm | ±2dB | -75dBm | ±2dB |
| | MCS 7 | 14dBm | 19dBm | ±2dB | -72dBm | ±2dB |
| | MCS 8 | 13dBm | 18dBm | ±2dB | -70dBm | ±2dB |
| | MCS 9 | 13dBm | 18dBm | ±2dB | -68dBm | ±2dB |

ORDERING INFORMATION

- **IPWMR-3006-2L-1AC-2S-24V-EUNA.....P/N: 8623-011**
Industrial Dual LTE (Quad SIM) One WIFI 11ac/a/b/g/n Load Balancing AP VPN Mobile Router w/ 2 RS232 serial ports and 6 Giga Port Switch incl.4 PoE; EU and US band; dual input 9~56VDC; -40~65C
- **IPWMR-3006-2L-1AC-2SA-24V-EUNA.....P/N: 8623-0111**
Industrial Dual LTE (Quad SIM) One WIFI 11ac/a/b/g/n Load Balancing AP VPN Mobile Router w/2 RS422 serial ports and 6 Giga Port Switch incl.4 PoE; EU and US band; dual input 9~56VDC; -40~65C
- **IPWMR-3006-2L-1AC-2SB-24V-EUNA.....P/N: 8623-0112**
Industrial Dual LTE (Quad SIM) One WIFI 11ac/a/b/g/n Load Balancing AP VPN Mobile Router w/2 RS485 serial ports and 6 Giga Port Switch incl.4 PoE; EU and US band; dual input 9~56VDC; -40~65C
- **IPWMR-3006-1L-1AC-2S-24V-EUNA.....P/N: 8623-021**
Industrial One LTE (Dual SIM) One WIFI 11ac/a/b/g/n Load Balancing AP VPN Mobile Router w/2 RS232 serial ports and 6 Giga Port Switch incl.4 PoE; EU and US band; dual input 9~56VDC; -40~65C
- **IPWMR-3006-1L-1AC-2SA-24V-EUNA.....P/N: 8623-0211**
Industrial One LTE (Dual SIM) One WIFI 11ac/a/b/g/n Load Balancing AP VPN Mobile Router w/2 RS422 serial ports and 6 Giga Port Switch incl.4 PoE; EU and US band; dual input 9~56VDC; -40~65C
- **IPWMR-3006-1L-1AC-2SB-24V-EUNA.....P/N: 8623-0212**
Industrial One LTE (Dual SIM) One WIFI 11ac/a/b/g/n Load Balancing AP VPN Mobile Router w/2 RS485 serial ports and 6 Giga Port Switch incl.4 PoE; EU and US band; dual input 9~56VDC ; -40~65C
- **IPWMR-3006-1L-2AC-2S-24V-EUNA.....P/N: 8623-031**

- Industrial One LTE (Dual SIM) Two WIFI 11ac/a/b/g/n Load Balancing AP VPN Mobile Router w/ 2 RS232 serial ports and 6 Giga Port switch EU and US band; dual input 9~56VDC ; -40~65C
- **IPWMR-3006-1L-2AC-2SA-24V-EUNA.....P/N: 8623-0311**
- Industrial One LTE (Dual SIM) Two WIFI 11ac/a/b/g/n Load Balancing AP VPN Mobile Router w/2 RS422 serial ports and 6 Giga Port switch EU and US band; dual input 9~56VDC ; -40~65C
- **IPWMR-3006-1L-2AC-2SB-24V-EUNA.....P/N: 8623-0312**
- Industrial One LTE (Dual SIM) Two WIFI 11ac/a/b/g/n Load Balancing AP VPN Mobile Router w/2 RS485 serial ports and 6 Giga Port switch EU and US band; dual input 9~56VDC; -40~65C
- **IWMR-3006-2L-1AC-2S-24V-EUNA.....P/N: 8626-011**
- Industrial Dual LTE (Quad SIM) One WIFI 11ac/a/b/g/n Load Balancing Multifunction Router w/ 2 RS232 serial ports and 6 Giga Port managed switch; EU and US band; dual input 9V~56VDC; -40~65C
- **IWMR-3006-2L-1AC-2SA-24V-EUNA.....P/N:8626-0111**
- Industrial Dual LTE (Quad SIM) One WIFI 11ac/a/b/g/n Load Balancing Multifunction Router w/2 RS422 serial ports and 6 Giga Port managed switch; EU and US band; dual input 9V~56VDC; -40~65C
- **IWMR-3006-2L-1AC-2SB-24V-EUNA.....P/N:8626-0112**
- Industrial Dual LTE (Quad SIM) One WIFI 11ac/a/b/g/n Load Balancing Multifunction Router w/2 RS485 serial ports and 6 Giga Port managed switch; EU and US band; dual input 9V~56VDC; -40~65C
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- EMMC Flash Storage**
- **8G.....P/N: 8850-113**
 - **16G.....P/N: 8850-114**
 - **32G.....P/N: 8850-115**

OPTIONAL ACCESSORIES

Management System

- **InstaAir.....P/N: 9000-121**
Cloud Based Fleet Management System for Routers

GPS Antenna

- **ANT12000001** SMA GPS antenna, 28dB, 300m



Cellular Antenna

- **ANT11000041** 2G/3G/4G dipole antenna, 791-960/1710~2170/2500~2700MHz, 3dBi, SMA plug, EU



- **ANT11000042** 2G/3G/4G dipole antenna, 704-960/1710~2170MHz, 3dBi, SMA plug, US



■ ANT11000046

LTE hinge rotatable antenna, 698-960MHz, 1710-2690MHz, Diameter 10mm, Length 108mm, SMA Connector



Wi-Fi Antenna

■ ANT11000051

2.4/5GHz SMA dipole Wi-Fi antenna, 3dBi (2.4GHz), 4dBi (5GHz)



■ ANT11000056

Wi-Fi hinge rotatable antenna, WiFi Dual Bands 2.4/5.8GHz, SMA Connector



Antenna Base

■ ADA11000052

Magnetic antenna base for Wi-Fi, RP SMA Jack Base, Length : 1M



■ ADA11000053

Magnetic antenna base for 3G/4G, RP SMA Jack Base, Length : 1M



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