

IMR-3006

Industrial Multifunction VPN Router w/ up to 2 LTE 4G + 2 serial ports + 6 Gigabit Ethernet Switch w/ Load Balancing, VPN, Protocol Gateway, Storage**; 24V/HV input

- Up to 2 concurrent mobility for 3G/4G LTE Link & GPS (2L model/4 SIMs)
- Support LTE Cat 6 (APAC & EUNA models) or Cat 12/9/13 (WW model)
- Built-in 6 Gigabit Ethernet managed switch
- Managed Switch functions cover port management, QOS, VLAN, multicast, redundant ring and security function
- VPN router for Multi-site VPN, OpenVPN, L2TP over IPsec, IPsec, PPTP**, 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
- Support 2 RS422/RS485 ports with 2.5KV isolation or 2x RS232 ports
- Dual Input voltage 9~56VDC (24V model); Single input power 90~305VAC/120~430VDC (HV model)
- Vehicle E-marking* certificate
- ITxPT compliant w/ ignition function*
- Environmental monitoring for router inside info with voltage, current, temperature; LTE graphic signal strength
- USB port to backup, restore the configuration file and upgrade firmware; Dual image firmware*



OVERVIEW

Lantech IMR-3006 series is a next generation industrial multi-function VPN router w/up to 2x LTE modem + 6x Gigabit Ethernet managed switch + 2 serial ports that supports advanced function of VPN, Load-Balancing(Basic & Full Package**), EMMC Flash Storage**, Protocol gateway(Modbus), 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 resilience and aggregation

With dual LTE module design (2L model), 4 SIM card slots, IMR-3006 can allow auto-swap, failover & failback between multiple service providers for real non-stop connection. With concurrent LTE modules, it can also build aggregated bandwidth as well as have Load Balancing with 8 schemes between multiple WANs.

With one mobile LTE module (1L model), 2 SIM card slots, IMR-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 router can offer 8G/16G/32G capacity.

Load Balancing with 8 mechanisms for multi-WANs (premium license)

IMR-3006 supports Load Balancing for LTE connections. There are eight schemes for Load Balancing function:

Pack	Algorithm	Description
Basic Package	Fixed	Manually route by traffic type through fixed WAN link.
	Failover	Routes connections through preferred WAN link while others stand-by. Sequentially activate another link if preferred link fail occurs. Once failover will not failback until link loss.

	Priority	Routes connections through preferred WAN link as primary while others follow by. Ex. Wi-Fi client>LTE>others
	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.
Full Package** (incl. basic package)	Sticky Session*	Binding all connections in an application session to particular WAN link to ensure all connections in the session are routed to the same WAN link, that is suitable for security services like online payment etc.
	Smallest Load*	Routes connections through the WAN link with highest free bandwidth ratio. The ratio = 1 - (traffic load / the capability of a WAN link). The traffic load could be defined by downstream, upstream or total traffic
	Fastest*	Routes connections through the WAN link with lowest latency time.

2 port serial connection, Modbus gateway

It builds in 2 port serial connection for RS232, RS422, RS485 in which RS422/RS485 has 2.5KV isolation protection.

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, IMR-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, PPTP**, 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.

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

2 sets of DIDO functions 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 IMR-

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.

24V/HV input voltage selection: dual 9V-56VDC (24V model) or single 90-305VAC/120-430VDC (HV model)

The IMR-3006 is able to work from 9VDC to 56VDC (24V model). Or with single high power supply at 90-305VAC / 120-430VDC (HV model).

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

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

The graphic LTE signal strength shows connection status at a glance

Ignition Sensing*

Ignition sense allows you to delay power off the router with a designated time delay.

Built-in Managed Switch Function

Managed switch function is built-in and provides various L2+ functions for network access 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 support dual-image firmware* to choose which one to start.

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

The IMR-3006 is designed to meet with industrial network environment with IP 30 housing. It passed serious tests under extensive Industrial EMI and environmental vibration and shocks standards.

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

FEATURES & BENEFITS

- Built-in 6 Gigabit Ethernet managed switch
- Dual DC input from 9V~56VDC (24V model)
- 6 SMA type connectors for LTE, GPS
- HTTP/HTTPS/Telnet/SSH & Administration access
- Radius Authentication, EAP-TLS, EAP-TTLS, PEAP
- Support IPv6 & IPv4 protocol
- EMMC-FLASH storage**8/16/32G
- Support Multi-Site VPN for mesh tunneling as well as Open VPN, L2TP over IPsec, IPsec, PPTP**, L2 over GRE , IPGRE and NAT for secured network connection
- 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 aggregation bandwidth/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
- Load Balancing supports 8 mechanism between multiple WANs

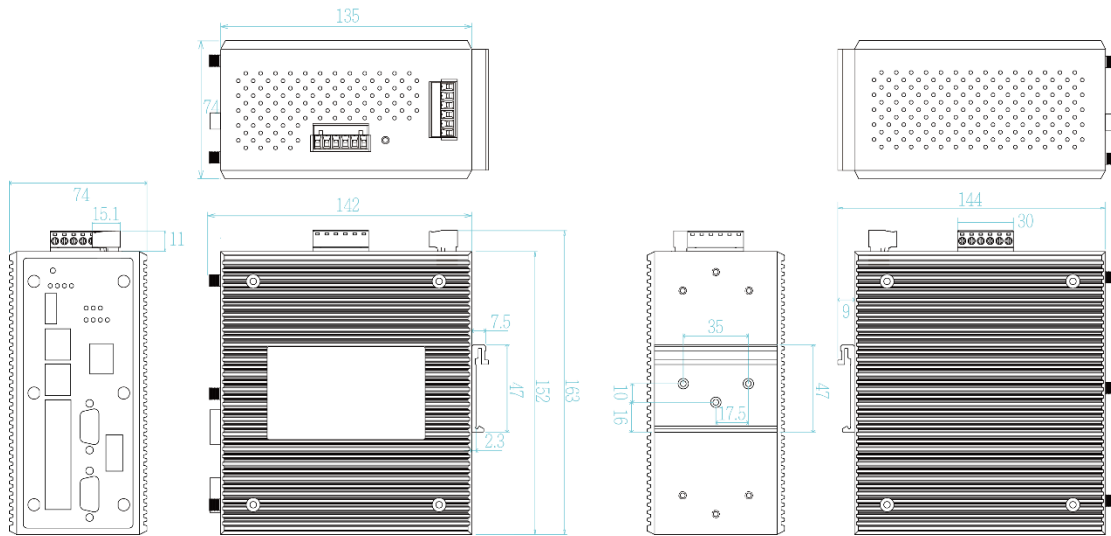
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	Custom Route	Routing through the selected WAN for each specific traffic, ex: TCP/UDP port number and IP address.

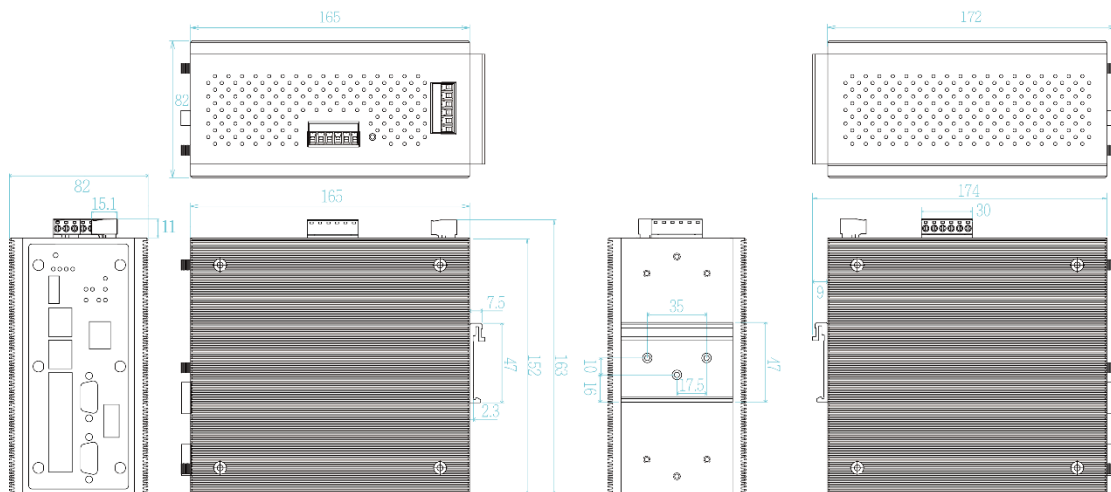
- Built-in 2 x serial ports(RS232/RS422/RS485)
- Serial port with 2.5KV isolation on RS422/RS485
- Supports 2DI / 2DO (Digital Input / Output)
- Built-in Modbus gateway converting Modbus RTU/ASCII to Modbus/TCP for serial ports
- Event alerting by Syslog, SNMP Trap, Email, Relay ; Permanent local log rotation / Maxi 1K records
- Remote Web control to get status or re-boot by Web
- Graphic LTE 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
- IP 30 housing for industrial environment
- DIN-Rail and Wall-mount** installation
- ITxPT compliant w/ ignition function*
- Operation temperature -40~65°C

DIMENSIONS (unit=mm)

24V model



HV model



SPECIFICATION

Location Solutions	GPS, Glonass (EU/Americas) GPS, Glonass, Beidou, Galileo (APAC model only)	Data Rates – LTE	Asia-Pacific (APAC model) Downlink (Cat 6): FDD: 300 Mbps TDD: 222 Mbps Uplink (Cat 6): FDD: 50 Mbps TDD: 26 Mbps
Band Options	Asia-Pacific (APAC model) LTE = B1, B3, B5, B7, B8, B18, B19, B21, B28, B38 (TDD), B39 (TDD), B40 (TDD), B41 (TDD) DC-HSPA+/ HSPA+/ HSPA/ UMTS = B1, B5, B6, B8, B9, B19 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 World Wide (WW model) LTE = B1, B2, B3, B4, B5, B7, B8, B9, B12, B13, B18, B19, B20, B26, B28, B29, B30, B32, B41 (TDD), B42 (TDD), B43 (TDD), B46 (TDD), B48 (TDD), B66 WCDMA = B1, B2, B3, B4, B5, B6, B8, B9, B19		Europe & North America (EUNA model) Downlink (Cat 6): FDD: 300 Mbps TDD: 222 Mbps Uplink (Cat 6): FDD: 50 Mbps TDD: 26 Mbps World Wide (WW model) Downlink: Cat 12: 600 Mbps Cat 9: 450 Mbps

- Industrial Dual LTE (Quad SIM) Load Balancing Multifunction Router w/ 2 RS232 serial ports and 6 Giga Port managed switch; APAC band; dual input 9V~56VDC; -40~65C
- **IMR-3006-2L-2S-24V-WW.....P/N: 8621-013**
- Industrial Dual LTE (Quad SIM) Load Balancing Multifunction Router w/ 2 RS232 serial ports and 6 Giga Port managed switch; Worldwide band; dual input 9V~56VDC; -40~65C
- **IMR-3006-2L-2SA-24V-EUNA.....P/N:8621-0111**
- Industrial Dual LTE (Quad SIM) 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
- **IMR-3006-2L-2SA-24V-APAC.....P/N:8621-0121**
- Industrial Dual LTE (Quad SIM) Load Balancing Multifunction Router w/2 RS422 serial ports and 6 Giga Port managed switch; APAC band; dual input 9V~56VDC; -40~65C
- **IMR-3006-2L-2SA-24V-WW.....P/N:8621-0131**
- Industrial Dual LTE (Quad SIM) Load Balancing Multifunction Router w/2 RS422 serial ports and 6 Giga Port managed switch; Worldwide band; dual input 9V~56VDC; -40~65C
- **IMR-3006-2L-2SB-24V-EUNA.....P/N:8621-0112**
- Industrial Dual LTE (Quad SIM) 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
- **IMR-3006-2L-2SB-24V-APAC.....P/N:8621-0122**
- Industrial Dual LTE (Quad SIM) Load Balancing Multifunction Router w/2 RS485 serial ports and 6 Giga Port managed switch; APAC band; dual input 9V~56VDC; -40~65C
- **IMR-3006-2L-2SB-24V-WW.....P/N:8621-0132**
- Industrial Dual LTE (Quad SIM) Load Balancing Multifunction Router w/2 RS485 serial ports and 6 Giga Port managed switch; Worldwide band; dual input 9V~56VDC; -40~65C
- **IMR-3006-1L-2S-24V-EUNA.....P/N: 8621-021**
- Industrial One LTE (Dual SIM) 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
- **IMR-3006-1L-2S-24V-APAC.....P/N: 8621-022**
- Industrial One LTE (Dual SIM) Load Balancing Multifunction Router w/2 RS232 serial ports and 6 Giga Port managed switch; APAC band; dual input 9V~56VDC; -40~65C
- **IMR-3006-1L-2S-24V-WW.....P/N: 8621-023**
- Industrial One LTE (Dual SIM) Load Balancing Multifunction Router w/2 RS232 serial ports and 6 Giga Port managed switch; Worldwide band; dual input 9V~56VDC; -40~65C
- **IMR-3006-1L-2SA-24V-EUNA.....P/N: 8621-0211**
- Industrial One LTE (Dual SIM) 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
- **IMR-3006-1L-2SA-24V-APAC.....P/N: 8621-0221**
- Industrial One LTE (Dual SIM) Load Balancing Multifunction Router w/2 RS422 serial ports and 6 Giga Port managed switch; APAC band; dual input 9V~56VDC; -40~65C
- **IMR-3006-1L-2SA-24V-WW.....P/N: 8621-0231**
- Industrial One LTE (Dual SIM) Load Balancing Multifunction Router w/2 RS422 serial ports and 6 Giga Port managed switch; Worldwide band; dual input 9V~56VDC; -40~65C
- **IMR-3006-1L-2SB-24V-EUNA.....P/N: 8621-0212**
- Industrial One LTE (Dual SIM) 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
- **IMR-3006-1L-2SB-24V-APAC.....P/N: 8621-0222**
- Industrial One LTE (Dual SIM) Load Balancing Multifunction Router w/2 RS485 serial ports and 6 Giga Port managed switch; APAC band; dual input 9V~56VDC; -40~65C
- **IMR-3006-1L-2SB-24V-WW.....P/N: 8621-0232**
- Industrial One LTE (Dual SIM) Load Balancing Multifunction Router w/2 RS485 serial ports and 6 Giga Port managed switch; Worldwide band; dual input 9V~56VDC; -40~65C
- **IMR-3006-2L-2S-HV-EUNA.....P/N: 8621-024**
- Industrial Dual LTE (Quad SIM) Load Balancing Multifunction Router w/ 2 RS232 serial ports and 6 Giga Port managed switch; EU and US band; single high power 90~305VAC / 120~430VDC; -40~65C
- **IMR-3006-2L-2S-HV-APAC.....P/N: 8621-025**
- Industrial Dual LTE (Quad SIM) Load Balancing Multifunction Router w/ 2 RS232 serial ports and 6 Giga Port managed switch; APAC band; single high power 90~305VAC / 120~430VDC; -40~65C
- **IMR-3006-2L-2S-HV-WW.....P/N: 8621-026**
- Industrial Dual LTE (Quad SIM) Load Balancing Multifunction Router w/ 2 RS232 serial ports and 6 Giga Port managed switch; Worldwide band; single high power 90~305VAC / 120~430VDC; -40~65C
- **IMR-3006-2L-2SA-HV-EUNA.....P/N:8621-0241**
- Industrial Dual LTE (Quad SIM) Load Balancing Multifunction Router w/2 RS422 serial ports and 6 Giga Port managed switch; EU and US band; single high power 90~305VAC / 120~430VDC; -40~65C
- **IMR-3006-2L-2SA-HV-APAC.....P/N:8621-0251**
- Industrial Dual LTE (Quad SIM) Load Balancing Multifunction Router w/2 RS422 serial ports and 6 Giga Port managed switch; APAC band; single high power 90~305VAC / 120~430VDC; -40~65C
- **IMR-3006-2L-2SA-HV-WW.....P/N:8621-0261**
- Industrial Dual LTE (Quad SIM) Load Balancing Multifunction Router w/2 RS422 serial ports and 6 Giga Port managed switch; Worldwide band; single high power 90~305VAC / 120~430VDC; -40~65C

- **IMR-3006-2L-2SB-HV-EUNA.....P/N:8621-0242**
Industrial Dual LTE (Quad SIM) Load Balancing Multifunction Router w/2 RS485 serial ports and 6 Giga Port managed switch; EU and US band; single high power 90~305VAC / 120~430VDC; -40~65C
- **IMR-3006-2L-2SB-HV-APAC.....P/N:8621-0252**
Industrial Dual LTE (Quad SIM) Load Balancing Multifunction Router w/2 RS485 serial ports and 6 Giga Port managed switch; APAC band; single high power 90~305VAC / 120~430VDC; -40~65C
- **IMR-3006-2L-2SB-HV-WW.....P/N:8621-0262**
Industrial Dual LTE (Quad SIM) Load Balancing Multifunction Router w/2 RS485 serial ports and 6 Giga Port managed switch; Worldwide band; single high power 90~305VAC / 120~430VDC; -40~65C
- **IMR-3006-1L-2S-HV-EUNA.....P/N: 8621-027**
Industrial One LTE (Dual SIM) Load Balancing Multifunction Router w/2 RS232 serial ports and 6 Giga Port managed switch; EU and US band; single high power 90~305VAC / 120~430VDC; -40~65C
- **IMR-3006-1L-2S-HV-APAC.....P/N: 8621-028**
Industrial One LTE (Dual SIM) Load Balancing Multifunction Router w/2 RS232 serial ports and 6 Giga Port managed switch; APAC band; single high power 90~305VAC / 120~430VDC; -40~65C
- **IMR-3006-1L-2S-HV-WW.....P/N: 8621-029**
Industrial One LTE (Dual SIM) Load Balancing Multifunction Router w/2 RS232 serial ports and 6 Giga Port managed switch; Worldwide band; single high power 90~305VAC / 120~430VDC; -40~65C
- **IMR-3006-1L-2SA-HV-EUNA.....P/N: 8621-0271**
Industrial One LTE (Dual SIM) Load Balancing Multifunction Router w/2 RS422 serial ports and 6 Giga Port managed switch; EU and US band ; single high power 90~305VAC / 120~430VDC; -40~65C
- **IMR-3006-1L-2SA-HV-APAC.....P/N: 8621-0281**
Industrial One LTE (Dual SIM) Load Balancing Multifunction Router w/2 RS422 serial ports and 6 Giga Port managed switch; APAC band; single high power 90~305VAC / 120~430VDC; -40~65C
- **IMR-3006-1L-2SA-HV-WW.....P/N: 8621-0291**
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EMMC Flash Storage

- **8G.....P/N: 8850-113**
- **16G.....P/N: 8850-114**
- **32G.....P/N: 8850-115**

Software License

- **LOAD BALANCING Full Package.....P/N: 9000-102**

OPTIONAL ACCESSORIES

Multifunction Antenna

- **ANT11000091** 5-in-1 omnidirectional antenna – 2G/3G/4G (698-960/1710~2170/2300~2700MHz) MIMO x2 + Wi-Fi 2.4/5GHz MIMO x2 + GPS/GLONASS/GALILEO (1575.42/1602MHz) x1, 3dBi, IP67



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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



■ ANT11000044

2G/3G/4G dipole antenna, 704-960/1710~2690MHz, 1.6dBi, SMA plug, EU



■ ANT11000045

2G/3G/4G dipole antenna, 698-960/1710~2690MHZ, 3dBi, SMA plug, US



GPS Antenna

■ ANT12000001

SMA GPS antenna, 28dB, 300m



Antenna Base

■ ADA11000053

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



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