

# IMR-3004DF

Industrial Multifunction VPN Router Managed Ethernet switch  
w/up to 2 LTE 4G + 2 serial ports + 4 Gigabit Ethernet + 2 WAN  
dual speed SFP w/ Load Balancing, VPN, 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 4 Gigabit + 2WAN Ethernet managed switch
- Federal Information Processing Standards (FIPS)-compliance\*\*
- 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 2 RS422/RS485 ports with 2.5KV isolation or 2 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
- Editable login page of captive portal for hot-spot application
- Dual image firmware\*



## OVERVIEW

Lantech IMR-3004DF series is a next generation industrial multi-function VPN router w/up to 2x LTE modem + 4x Gigabit Ethernet ports including 2 WAN dual speed SFP+ 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 load-balancing

With dual LTE module design (2L model), 4 SIM card slots, IMR-3004DF 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, IMR-3004DF 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-3004DF supports Load Balancing for LTE/WAN 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 fallback 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.
<b>Full Package** (incl. basic package)</b>	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**

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

**Managed switch Function**

W/ port managed functions, QOS, VLAN, Multicast, Redundant protection, security

**VPN and firewall**

Besides traditional VPN peer to peer tunneling, IMR-3004DF 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 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 IMR-

3004DF 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.

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

The IMR-3004DF 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.

**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.

**Dual image firmware\***

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

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

The IMR-3004DF 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-3004DF is best for outdoor community, vehicle, process control automation etc application. For more usage flexibilities, IMR-3004DF supports wide operating temperature from -40°C to 75°C.

**FEATURES & BENEFITS**

- Built-in 4 Gigabit ports + 2 WAN Dual Speed SFP Ethernet managed switch
- Managed Ethernet switch Function
- 6 SMA type connectors for LTE & GPS
- HTTP/HTTPS/Telnet/SSH & Administration access
- Support IPv6 & IPv4 protocol
- EMMC-FLASH storage\*\*8/16/32G
- Radius Authentication, EAP-TLS, EAP-TTLS, PEAP
- 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 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
- Fast roaming\*\* (Optional ) between APs by Wireless Controller
- Load Balancing supports 8 mechanism between multiple WANs

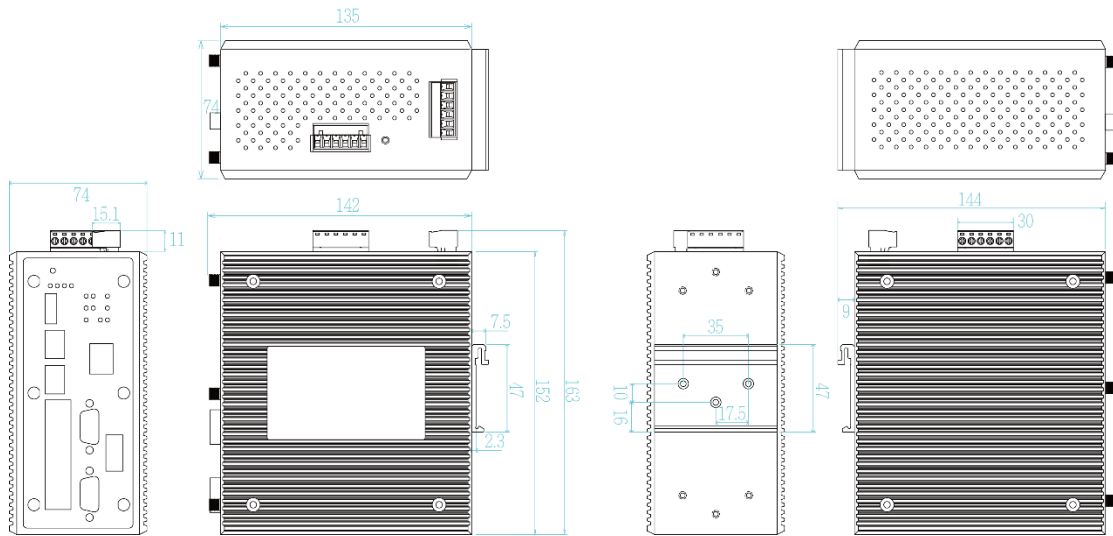
Smallest Load*	Routes connections through the WAN link with highest free bandwidth ratio. The ratio = 1 - (traffic load / the capability of a WAN link). The traffic load could be defined by downstream, upstream or total traffic
Fastest*	Routes connections through the WAN link with lowest latency time.

Pack	Algorithm	Description
<b>Basic Package</b>	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.
<b>Full Package** (incl. basic package)</b>	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.

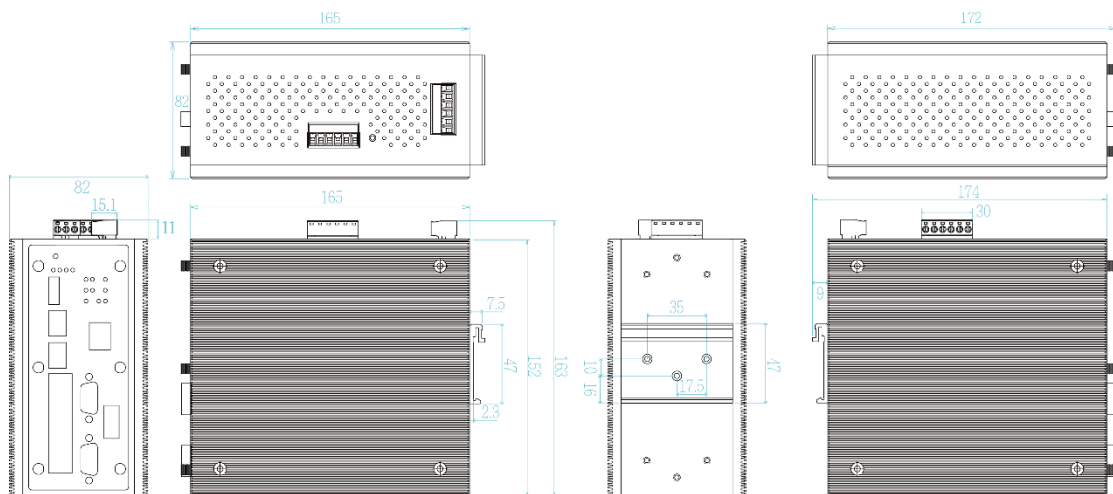
- Built-in 2 x serial ports(RS232/RS422/RS485)
- Serial port with 2.5KV isolation on RS422/RS485
- Supports 2DI / 2DO (Digital Input / Output)
- Event alerting by Syslog, SNMP Trap, Email, Relay ;
- Permanent local log rotation / Maxi 1K records
- Remote Web control to get status or re-boot by Web
- 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 (EUNA/Americas) GPS, Glonass, Beidou, Galileo (APAC model only)	Data Rates – LTE	<b>Asia-Pacific (APAC model)</b> Downlink (Cat 6): FDD: 300 Mbps TDD: 222 Mbps Uplink (Cat 6): FDD: 50 Mbps TDD: 26 Mbps
Band Options	<b>Asia-Pacific (APAC model)</b> 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*  <b>Europe &amp; North America (EUNA model)</b> 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  <b>World Wide (WW model)</b> 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*	<b>Europe &amp; North America (EUNA model)</b> Downlink (Cat 6): FDD: 300 Mbps TDD: 222 Mbps Uplink (Cat 6): FDD: 50 Mbps TDD: 26 Mbps  <b>World Wide (WW model)</b> Downlink: Cat 12: 600 Mbps Cat 9: 450 Mbps Uplink: Cat 13: 150 Mbps	

Software	
IPv6/4	Present
VPN	Multi-site VPN, Open VPN, PPTP**, L2TP over IPSec, IPSec, L2 over GRE, IPGRE and NAT
Firewall	DDoS, IP address filter / Mac address filter / TCP/UDP port number
Load Balancing	8 schemes for multiple WAN(client mode)
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 failure occurs.
Priority	Routes connections through preferred WAN link while others stand-by. Sequentially activate other links if overflow occurs.
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.
Security	SSH/SSL/HTTPS
Login Security	Supports IEEE802.1x Authentication/RADIUS
Access Security	HTTP/HTTPS/Telnet/SSH & Administration; SNMP*v1/v2/v3 access for authentication via MD5/SHA(v3) and Encryption via DES/AES(v3)
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*
Management	SNMP*v1,v2c,v3/ Web/Telnet/CLI
Managed function	QOS, VLAN, Multicast, Redundant protection, security
Environmental Monitoring	System status for input voltage, current , ambient temperature to be shown in GUI and sent alerting if any abnormal status
Graphic signal display	Graphic LTE signal strength
Timer	Built-in Real Time Clock to keep track of time always(RTC)
Discovery	IEEE 802.1ab Link Layer Discovery Protocol (LLDP)
SNMP trap	Device cold / warm start Port link up / link down DI/DO high / low
Remote Web control	To reboot router by WebUI
Maintenance	Firmware upgradeable through TFTP/HTTP
Configuration backup & restore	Supports text configuration file for system quick installation USB port to upload/download configuration by USB dongle
Physical Ports & System	
Connectors	10/100/1000T: 4x ports RJ 45 2 WAN Dual Speed SFP port x 2ports USB x 1 RS-232 connector: 1 x RJ 45 Serial connector : 2 DB9 SIM card slots : 4(2L) or 2(1L) 2L model SMA connector for LTE: 4 (female) SMA connector for GPS: 2 (female) 1L model SMA connector for LTE: 2 (female) SMA connector for GPS: 1 (female)
Power & P-Fail connector:	1 x 6-pole terminal block DIDO : 1 x 5-pole terminal block
Serial Baud Rate	1000Kbps for RS232 ; 12Mbps for RS422/RS485
Serial Data Bits	5, 6, 7, 8
Serial Parity	odd, even, none, mark, space
Serial Stop Bits	1, 1.5, 2
RS-232	TxD, RxD, RTS, CTS, DTR, DSR, DCD, GND
RS-422	Tx+,Tx-, Rx+, Rx-,GND
RS-485 (2-wire)	Data+, Data-,GND
Isolation protection	RS422/RS485 2.5KV isolation; 8KV contact & 15KV air RS232 8KV contact and 15KV air ESD DIDO 3KV isolation Input power 1.5KVA isolation
EMMC**	8G 16G 32G
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
LED Indicators	
Power & System indicator	Per unit: Power 1 (Green), Power 2 (Green), P-Fail (Red) , Ring Master(Green), Storage(Green), Serial1/Serial2(Green) ,Ready(Green)
10/100/1000Base-T(X) port indicator	Link/Activity (Green), Speed (1000T: Yellow; 10/100TX: off)
SIM	Green for Link/Act
GPS	Green for Link/Act
Fault	Red: Ethernet link down or power down
Fault contact	
Relay	Relay output to carry capacity of 1A at 24VDC
Power	
Input power	Dual DC input, 9~56VDC (24V model) Single HV input, 90~305VAC/120~430VDC (HV model)
Power consumption (Typ.)	30.5 Watts
Physical Characteristic	
Enclosure	IP 30 Metal case
Dimension	74 (W) x 142 (D) x 152 (H) mm (24V model) 82 (W) x 172 (D) x 152 (H) mm (HV model)
Weight	900g
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
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)
Radio Frequency	EN 301 489-1, EN 301 489-17, EN 301 489-19, EN 301 489-52 EN 301 908-1※, EN 303 413, EN 62311
Vehicle certificate	E13** ITxPT compliant**
MTBF	580,169hrs (IEC-62380)
Warranty	5 years

\*Future Release

\*\*Optional

※Standard test of the following bands are not listed in EN 301 908-1 report:

(APAC not listed bands) LTE = B5, B18, B19, B21, B39, B41

WCDMA = B5, B6, B9, B19;

(EUNA not listed bands) LTE = B2, B4, B5, B12, B13, B25, B26, B29, B30, B41

WCDMA = B2, B4, B5;

(WW not listed bands) LTE = B2, B4, B5, B9, B12, B13, B18, B19, B26, B29, B30, B32,

B41, B42, B43, B46, B48, B66

WCDMA = B2, B3, B4, B5, B6, B9, B19

## ORDERING INFORMATION

- **IMR-3004DF-2L-2S-24V-EUNA.....P/N: 8691-001**  
Industrial Dual LTE (Quad SIM) Load Balancing Multifunction Router managed Ethernet Switch w/ 2 RS232 serial ports and 4 Giga ports and 2 WAN dual speed SFP; EU and US band; dual input 9~56VDC; -40~65C
- **IMR-3004DF-2L-2S-24V-APAC.....P/N: 8691-002**  
Industrial Dual LTE (Quad SIM) Load Balancing Multifunction Router managed Ethernet Switch w/ 2 RS232 serial ports and 4 Giga ports and 2 WAN dual speed SFP; APAC band; dual input 9~56VDC; -40~65C
- **IMR-3004DF-2L-2S-24V-WW.....P/N: 8691-003**  
Industrial Dual LTE (Quad SIM) Load Balancing Multifunction Router managed Ethernet Switch w/ 2 RS232 serial ports and 4 Giga ports and 2 WAN dual speed SFP; worldwide band; dual input 9~56VDC; -40~65C
- **IMR-3004DF-2L-2SA-24V-EUNA.....P/N: 8691-0011**  
Industrial Dual LTE (Quad SIM) Load Balancing Multifunction Router managed Ethernet Switch w/2 RS422 serial ports and 4 Giga ports and 2 WAN dual speed SFP; EU and US band; dual input 9~56VDC; -40~65C
- **IMR-3004DF-2L-2SA-24V-APAC.....P/N: 8691-0021**  
Industrial Dual LTE (Quad SIM) Load Balancing Multifunction Router managed Ethernet Switch w/2 RS422 serial ports and 4 Giga ports and 2 WAN dual speed SFP; APAC band; dual input 9~56VDC; -40~65C
- **IMR-3004DF-2L-2SA-24V-WW.....P/N: 8691-0031**  
Industrial Dual LTE (Quad SIM) Load Balancing Multifunction Router managed Ethernet Switch w/2 RS422 serial ports and 4 Giga ports and 2 WAN dual speed SFP; Worldwide band; dual input 9~56VDC; -40~65C
- **IMR-3004DF-2L-2SB-24V-EUNA.....P/N: 8691-0012**  
Industrial Dual LTE (Quad SIM) Load Balancing Multifunction Router managed Ethernet Switch w/2 RS485 serial ports and 4 Giga ports and 2 WAN dual speed SFP; EU and US band; dual input 9~56VDC; -40~65C
- **IMR-3004DF-2L-2SB-24V-APAC.....P/N: 8691-0022**  
Industrial Dual LTE (Quad SIM) Load Balancing Multifunction Router managed Ethernet Switch w/2 RS485 serial ports and 4 Giga ports and 2 WAN dual speed SFP; APAC band; dual input 9~56VDC; -40~65C
- **IMR-3004DF-2L-2SB-24V-WW.....P/N: 8691-0032**  
Industrial Dual LTE (Quad SIM) Load Balancing Multifunction Router managed Ethernet Switch w/2 RS485 serial ports and 4 Giga ports and 2 WAN dual speed SFP; Worldwide band; dual input 9~56VDC; -40~65C
- **IMR-3004DF-1L-2S-24V-EUNA.....P/N: 8691-007**  
Industrial One LTE (Dual SIM) Load Balancing Multifunction Router managed Ethernet Switch w/2 RS232 serial ports and 4 Giga ports and 2 WAN dual speed SFP; EU and US band; dual input 9~56VDC; -40~65C
- **IMR-3004DF-1L-2S-24V-APAC.....P/N: 8691-004**  
Industrial One LTE (Dual SIM) Load Balancing Multifunction Router managed Ethernet Switch w/2 RS232 serial ports and 4 Giga ports and 2 WAN dual speed SFP; APAC band; dual input 9~56VDC; -40~65C
- **IMR-3004DF-1L-2S-24V-WW.....P/N: 8691-005**  
Industrial One LTE (Dual SIM) Load Balancing Multifunction Router managed Ethernet Switch w/2 RS232 serial ports and 4 Giga ports and 2 WAN dual speed SFP; Worldwide band; dual input 9~56VDC; -40~65C
- **IMR-3004DF-1L-2SA-24V-EUNA.....P/N: 8691-0071**  
Industrial One LTE (Dual SIM) Load Balancing Multifunction Router managed Ethernet Switch w/2 RS422 serial ports and 4 Giga ports and 2 WAN dual speed SFP; EU and US band; dual input 9~56VDC; -40~65C
- **IMR-3004DF-1L-2SA-24V-APAC.....P/N: 8691-0041**  
Industrial One LTE (Dual SIM) Load Balancing Multifunction Router managed Ethernet Switch w/2 RS422 serial ports and 4 Giga ports and 2 WAN dual speed SFP; APAC band; dual input 9~56VDC; -40~65C
- **IMR-3004DF-1L-2SA-24V-WW.....P/N: 8691-0051**  
Industrial One LTE (Dual SIM) Load Balancing Multifunction Router managed Ethernet Switch w/2 RS422 serial ports and 4 Giga ports and 2 WAN dual speed SFP; Worldwide band; dual input 9~56VDC; -40~65C
- **IMR-3004DF-1L-2SB-24V-EUNA.....P/N: 8691-0072**  
Industrial One LTE (Dual SIM) Load Balancing Multifunction Router managed Ethernet Switch w/2 RS485 serial ports and 4 Giga ports and 2 WAN dual speed SFP; EU and US band; dual input 9~56VDC; -40~65C
- **IMR-3004DF-1L-2SB-24V-APAC.....P/N: 8691-0042**  
Industrial One LTE (Dual SIM) Load Balancing Multifunction Router managed Ethernet Switch w/2 RS485 serial ports and 4 Giga ports and 2 WAN dual speed SFP; APAC band; dual input 9~56VDC; -40~65C
- **IMR-3004DF-1L-2SB-24V-WW.....P/N: 8691-0052**  
Industrial One LTE (Dual SIM) Load Balancing Multifunction Router managed Ethernet Switch w/2 RS485 serial ports and 4 Giga ports and 2 WAN dual speed SFP; Worldwide band; dual input 9~56VDC; -40~65C
- **IMR-3004DF-2L-2S-HV-EUNA.....P/N: 8691-006**  
Industrial Dual LTE (Quad SIM) Load Balancing Multifunction Router managed Ethernet Switch w/ 2 RS232 serial ports and 4 Giga ports and 2 WAN dual speed SFP; EU and US band; single high power 90~305VAC / 120~430VDC; -40~65C
- **IMR-3004DF-2L-2S-HV-APAC.....P/N: 8691-008**  
Industrial Dual LTE (Quad SIM) Load Balancing Multifunction Router managed Ethernet Switch w/ 2 RS232 serial ports and 4 Giga ports and 2 WAN dual speed SFP; APAC band; single high power 90~305VAC / 120~430VDC; -40~65C
- **IMR-3004DF-2L-2S-HV-WW.....P/N: 8691-009**  
Industrial Dual LTE (Quad SIM) Load Balancing Multifunction Router managed Ethernet Switch w/ 2 RS232 serial ports and 4 Giga ports and 2 WAN dual speed SFP; worldwide band; single high power 90~305VAC / 120~430VDC; -40~65C
- **IMR-3004DF-2L-2SA-HV-EUNA.....P/N: 8691-0061**



- Industrial Dual LTE (Quad SIM) Load Balancing Multifunction Router managed Ethernet Switch w/2 RS422 serial ports and 4 Giga ports and 2 WAN dual speed SFP; EU and US band; single high power 90~305VAC / 120~430VDC; -40~65C
- **IMR-3004DF-2L-2SA-HV-APAC.....P/N: 8691-0081**
- Industrial Dual LTE (Quad SIM) Load Balancing Multifunction Router managed Ethernet Switch w/2 RS422 serial ports and 4 Giga ports and 2 WAN dual speed SFP; APAC band; single high power 90~305VAC / 120~430VDC; -40~65C
- **IMR-3004DF-2L-2SA-HV-WW.....P/N: 8691-0091**
- Industrial Dual LTE (Quad SIM) Load Balancing Multifunction Router managed Ethernet Switch w/2 RS422 serial ports and 4 Giga ports and 2 WAN dual speed SFP; Worldwide band; single high power 90~305VAC / 120~430VDC; -40~65C
- **IMR-3004DF-2L-2SB-HV-EUNA.....P/N: 8691-0062**
- Industrial Dual LTE (Quad SIM) Load Balancing Multifunction Router managed Ethernet Switch w/2 RS485 serial ports and 4 Giga ports and 2 WAN dual speed SFP; EU and US band; single high power 90~305VAC / 120~430VDC; -40~65C
- **IMR-3004DF-2L-2SB-HV-APAC.....P/N: 8691-0082**
- Industrial Dual LTE (Quad SIM) Load Balancing Multifunction Router managed Ethernet Switch w/2 RS485 serial ports and 4 Giga ports and 2 WAN dual speed SFP; APAC band; single high power 90~305VAC / 120~430VDC; -40~65C
- **IMR-3004DF-2L-2SB-HV-WW.....P/N: 8691-0092**
- Industrial Dual LTE (Quad SIM) Load Balancing Multifunction Router managed Ethernet Switch w/2 RS485 serial ports and 4 Giga ports and 2 WAN dual speed SFP; Worldwide band; single high power 90~305VAC / 120~430VDC; -40~65C
- **IMR-3004DF-1L-2S-HV-EUNA.....P/N: 8691-010**
- Industrial One LTE (Dual SIM) Load Balancing Multifunction Router managed Ethernet Switch w/2 RS232 serial ports and 4 Giga ports and 2 WAN dual speed SFP; EU and US band; single high power 90~305VAC / 120~430VDC; -40~65C
- **IMR-3004DF-1L-2S-HV-APAC.....P/N: 8691-011**
- Industrial One LTE (Dual SIM) Load Balancing Multifunction Router managed Ethernet Switch w/2 RS232 serial ports and 4 Giga ports and 2 WAN dual speed SFP; APAC band; single high power 90~305VAC / 120~430VDC; -40~65C
- **IMR-3004DF-1L-2S-HV-WW.....P/N: 8691-012**
- Industrial One LTE (Dual SIM) Load Balancing Multifunction Router managed Ethernet Switch w/2 RS232 serial ports and 4 Giga ports and 2 WAN dual speed SFP; Worldwide band; single high power 90~305VAC / 120~430VDC; -40~65C
- **IMR-3004DF-1L-2SA-HV-EUNA.....P/N: 8691-0101**
- Industrial One LTE (Dual SIM) Load Balancing Multifunction Router managed Ethernet Switch w/2 RS422 serial ports and 4 Giga ports and 2 WAN dual speed SFP; EU and US band; single high power 90~305VAC / 120~430VDC; -40~65C
- **IMR-3004DF-1L-2SA-HV-APAC.....P/N: 8691-0111**
- Industrial One LTE (Dual SIM) Load Balancing Multifunction Router managed Ethernet Switch w/2 RS422 serial ports and 4 Giga ports and 2 WAN dual speed SFP; APAC band; single high power 90~305VAC / 120~430VDC; -40~65C
- **IMR-3004DF-1L-2SA-HV-WW.....P/N: 8691-0121**
- Industrial One LTE (Dual SIM) Load Balancing Multifunction Router managed Ethernet Switch w/2 RS422 serial ports and 4 Giga ports and 2 WAN dual speed SFP; Worldwide band; single high power 90~305VAC / 120~430VDC; -40~65C
- **IMR-3004DF-1L-2SB-HV-EUNA.....P/N: 8691-0102**
- Industrial One LTE (Dual SIM) Load Balancing Multifunction Router managed Ethernet Switch w/2 RS485 serial ports and 4 Giga ports and 2 WAN dual speed SFP; EU and US band; single high power 90~305VAC / 120~430VDC; -40~65C
- **IMR-3004DF-1L-2SB-HV-APAC.....P/N: 8691-0112**
- Industrial One LTE (Dual SIM) Load Balancing Multifunction Router managed Ethernet Switch w/2 RS485 serial ports and 4 Giga ports and 2 WAN dual speed SFP; APAC band; single high power 90~305VAC / 120~430VDC; -40~65C
- **IMR-3004DF-1L-2SB-HV-WW.....P/N: 8691-0122**
- Industrial One LTE (Dual SIM) Load Balancing Multifunction Router managed Ethernet Switch w/2 RS485 serial ports and 4 Giga ports and 2 WAN dual speed SFP; Worldwide band; single high power 90~305VAC / 120~430VDC; -40~65C

**Software License**

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

**EMMC Flash Storage**

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

**OPTIONAL ACCESSORIES**

**DIN Rail Power**

- **NDR-480 Series** 480W Single Output Industrial Din Rail Power; 90-264VAC / 127-370VDC Input Range; Cooling by free air convection; RoHS2 ; Operating Temp. -20°C~70°C (ambient, derating each output at 2.5% per degree from 50°C ~ 70°C)
- **NDR-240 Series** 240W Single Output Industrial Din Rail Power; 90-264VAC / 127-370VDC Input Range; Cooling by free air convection; RoHS2 ; Operating Temp. -20°C~70°C (ambient, derating each output at 2.5% per degree from 50°C ~ 70°C)
- **NDR-120 Series** 120W Single Output Industrial Din Rail Power; 90-264VAC / 127-370VDC Input Range; Cooling by free air convection; RoHS2 ; Operating Temp. -20°C~70°C (ambient, derating each output at 2.5% per degree from 50°C ~ 70°C; For 115VAC, please refer to derating curve on NDR-120 Series datasheet)
- **NDR-75 Series** 75W Single Output Industrial Din Rail Power; 90-264VAC / 127-370VDC Input Range; Cooling by free air convection; RoHS2 ; Operating Temp. -20°C~70°C (ambient, derating each output at 2.5% per degree from 50°C ~ 70°C; For 115VAC, please refer to

derating curve on NDR-120 Series datasheet)

**Mini GBIC (SFP)**

- |                    |  |                   |   |
|--------------------|--|-------------------|---|
| ■ <b>8330-162X</b> | MINI GBIC 1000SX (LC/0.5km) Transceiver  | ■ <b>8330-186</b> | LTSFP-1000BX-20KM Transceiver (WDM 1310)          |
| ■ <b>8330-163X</b> | MINI GBIC 1000SX2 (LC/2km) Transceiver   | ■ <b>8330-187</b> | LTSFP-1000BX-20KM Transceiver (WDM 1550)          |
| ■ <b>8330-165X</b> | MINI GBIC 1000LX (LC/10km) Transceiver   | ■ <b>8330-180</b> | LTSFP-1000BX-40KM Transceiver (WDM 1310)          |
| ■ <b>8340-0591</b> | MINI GBIC 1000LHX (LC/40km) Transceiver  | ■ <b>8330-182</b> | LTSFP-1000BX-40KM Transceiver (WDM 1550)          |
| ■ <b>8330-166</b>  | MINI GBIC 1000XD (LC/50km) Transceiver   | ■ <b>8330-181</b> | LTSFP-1000BX-60KM Transceiver (WDM 1310)          |
| ■ <b>8330-169</b>  | MINI GBIC 1000XD (LC/60km) Transceiver   | ■ <b>8330-183</b> | LTSFP-1000BX-60KM Transceiver (WDM 1550)          |
| ■ <b>8330-167</b>  | MINI GBIC 1000ZX (LC/80km) Transceiver   | ■ <b>8330-184</b> | LTSFP-1000BX-80KM Transceiver (WDM 1490)          |
| ■ <b>8330-170</b>  | MINI GBIC 1000EZ (120km) Transceiver     | ■ <b>8330-185</b> | LTSFP-1000BX-80KM Transceiver (WDM 1550)          |
| ■ <b>8330-168</b>  | MINI GBIC 1000T (100m) Transceiver       | ■ <b>8330-262</b> | MINI GBIC 2.5G 850nm VCSEL (LC/0.3km) Transceiver |
| ■ <b>8330-188</b>  | LTSFP-1000BX-10KM Transceiver (WDM 1310) | ■ <b>8330-263</b> | MINI GBIC 2.5G 1310nm FP (LC/2km) Transceiver     |
| ■ <b>8330-189</b>  | LTSFP-1000BX-10KM Transceiver (WDM 1550) | ■ <b>8330-265</b> | MINI GBIC 2.5G 1310nm DFB (LC/15km) Transceiver   |

All SFP ended with D are with Diagnostic function

**Management System**

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

**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, cable length: 3M



- **ANT11000092** 6-in-1 omnidirectional antenna – 2G/3G/4G (698-960/1710~2170/2300~2700MHz) MIMO x2 + Wi-Fi 2.4/5GHz MIMO x1 + GPS/GLONASS/GALILEO/BeiDou (1561/1575.42/1602MHz) x1 + AM/FM x1 + DSRC x1, 6dBi, IP67, cable length: 30cm



**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



- **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





**Antenna Base**

■ **ADA11000053**

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



**Lantech Communications Global Inc.**

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