I(P)MR-3204DF

Industrial Multifunction VPN Router Managed Ethernet switch w/up to 2 LTE 4G + 2 serial ports + 4 Gigabit Ethernet (incl. 4 PoE) + 2 dual speed SFP w/ Load Balancing, VPN, Storage; 24V 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 Ethernet managed switch*
- *PoE model including 4 PoE at/af w/budget 80W*
- *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, 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 or 2 RS232 ports*
- *Dual input voltage 9~56VDC (24V model)*
- *Vehicle E-marking** certificate*
- *Environmental monitoring for router inside info with voltage, current, temperature and total POE load; LTE graphic signal strength*
- *Editable login page of captive portal for hot-spot application*
- *Optional eSIM chip enables router with versatile data plans***
- *Dual image firmware*

MULTI-SITE VPN | LOAD BALANCING | CE | FC | RoHS2 | EMMC | USB Restore &Backup | E13

OVERVIEW

Lantech I(P)MR-3204DF series is a next generation industrial multi-function VPN router w/up to 2x LTE modem + 4x Gigabit Ethernet ports incl. 4 PoE ports (PoE model) + 2 dual speed SFP+ 2 serial ports that supports advanced function of VPN, Load-Balancing, 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, I(P)MR-3204DF can allow auto-swap, failover & failback 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)MR-3204DF 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.

Load Balancing with 5 mechanisms for multi-WANs

I(P)MR-3204DF supports Load Balancing for LTE/WAN connections. There are five schemes for Load Balancing function:

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.

2 port serial connection

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

Managed switch Function

With port managed functions, QOS, VLAN, Multicast, Redundant protection, security

VPN and firewall

Besides traditional VPN peer to peer tunneling, I(P)MR-3204DF 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)MR-3204DF 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 (24V Model);

Built-in 4 port switch (PoE model including 4 PoE with 80W budget)

The I(P)MR-3204DF is able to work from 9VDC to 56VDC (24V Model) and PoE model built-in PoE at/af with PoE budget 80W@12V /80W@24V that is particular good for vehicle, rail train, depot etc. application.

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

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

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.

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.

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

The I(P)MR-3204DF 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 I(P)MR-3204DF is best for outdoor community, vehicle, process control automation etc application. For more usage flexibilities, I(P)MR-3204DF supports wide operating temperature from -40°C to 65°C.

FEATURES & BENEFITS

- Built-in 4 Gigabit Ethernet managed switch
- PoE model incl. 4 PoE at/af for PoE budget 80W
- Managed Ethernet switch Functions
- 6 SMA type connectors for LTE & GPS
- HTTP/HTTPS/Telnet/SSH & Administration access
- Support IPv6 & IPv4 protocol
- EMMC-FLASH storage**8/16/32G
- eSIM** to allow data-plan globally
- Radius Authentication, EAP-TLS, EAP-TTLS, PEAP
- 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)
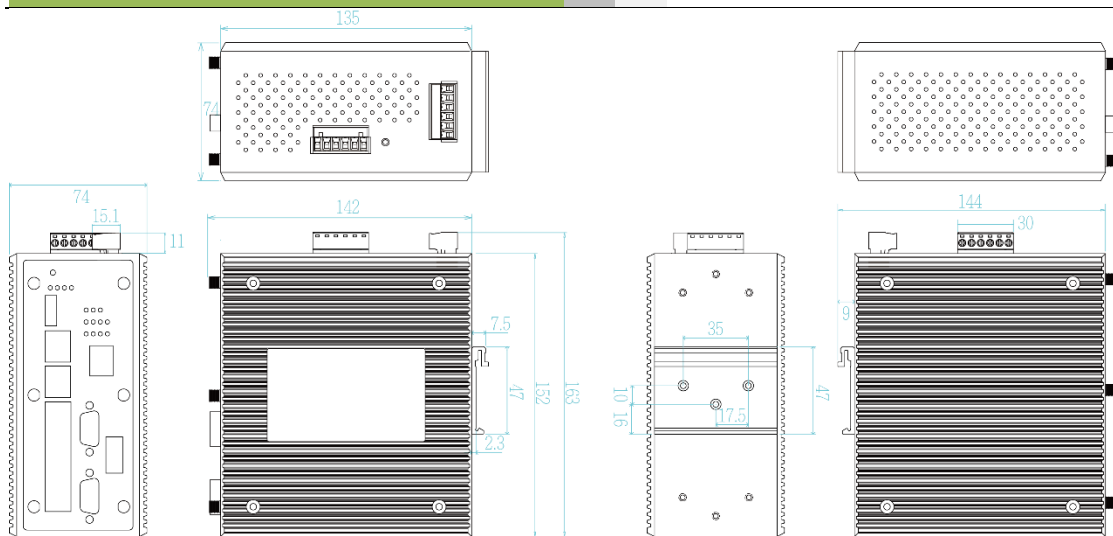- One LTE 4G/3G w/ 2 SIM card design(1L model) for

- **mobile redundancy**
- ■ **GPS/ GLONASS (support by LTE module) connection**
- ■ **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)**
- ■ **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**
- ■ **Operation temperature -40~65°C**

DIMENSIONS (unit=mm)

SPECIFICATION

Location Solutions	GPS, Glonass (EUNA/Americas) GPS, Glonass, Beidou, Galileo (APAC model only)
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※
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 **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
	Uplink:
	Cat 13: 150 Mbps

Software

IPv6/4	Present
VPN	Multi-site VPN, Open VPN, L2TP over IPSec, IPSec, L2 over GRE, IPGRE and NAT
Firewall	DDoS, IP address filter / Mac address filter / TCP/UDP port number
Load Balancing	5 schemes for multiple WAN(client mode)
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.
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
Routing	Static route / RIPv2 / OSPF / BGP / EIGRP
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 (PoE model incl 4 PoE ports) 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	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)
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), PoE (Green, PoE model)
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)
PoE Budget (PoE model)	80W@12V /80W@24V
Power consumption (Typ.)	30.5 Watts

Physical Characteristic

Enclosure	IP 30 Metal case
Dimension	74 (W) x 142 (D) x 152 (H) mm
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**
MTBF	NA
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

- **IPMR-3204DF-2L-2S-24V-EUNA…..………...…….…...P/N: 8682-001**
  Industrial Dual LTE (Quad SIM) Load Balancing Multifunction Router managed Ethernet Switch w/ 2 RS232 serial ports and 4 Giga ports and 2 dual speed SFP incl.4 PoE; EU and US band; dual input 9~56VDC; -40~65C

- **IPMR-3204DF-2L-2S-24V-APAC…..………......……......P/N: 8682-002**
  Industrial Dual LTE (Quad SIM) Load Balancing Multifunction Router managed Ethernet Switch w/ 2 RS232 serial ports and 4 Giga ports and 2 dual speed SFP incl.4 PoE; APAC band; dual input 9~56VDC; -40~65C

- **IPMR-3204DF-2L-2S-24V-WW…..………......……..........P/N: 8682-003**
  Industrial Dual LTE (Quad SIM) Load Balancing Multifunction Router managed Ethernet Switch w/ 2 RS232 serial ports and 4 Giga ports and 2 dual speed SFP incl.4 PoE; worldwide band; dual input 9~56VDC; -40~65C

- **IPMR-3204DF-2L-2SA-24V-EUNA…..………......……......P/N: 8682-0011**
  Industrial Dual LTE (Quad SIM) Load Balancing Multifunction Router managed Ethernet Switch w/2 RS422 serial ports and 4 Giga ports and 2 dual speed SFP incl.4 PoE; EU and US band; dual input 9~56VDC; -40~65C

- **IPMR-3204DF-2L-2SA-24V-APAC…..………......……......P/N: 8682-0021**
  Industrial Dual LTE (Quad SIM) Load Balancing Multifunction Router managed Ethernet Switch w/2 RS422 serial ports and 4 Giga ports and 2 dual speed SFP incl.4 PoE; APAC band; dual input 9~56VDC; -40~65C

- **IPMR-3204DF-2L-2SA-24V-WW…….…..……......………...P/N: 8682-0031**
  Industrial Dual LTE (Quad SIM) Load Balancing Multifunction Router managed Ethernet Switch w/2 RS422 serial ports and 4 Giga ports and 2 dual speed SFP incl.4 PoE; Worldwide band; dual input 9~56VDC; -40~65C

- **IPMR-3204DF-2L-2SB-24V-EUNA…..………......……......P/N: 8682-0012**
  Industrial Dual LTE (Quad SIM) Load Balancing Multifunction Router managed Ethernet Switch w/2 RS485 serial ports and 4 Giga ports and 2 dual speed SFP incl.4 PoE; EU and US band; dual input 9~56VDC; -40~65C

- **IPMR-3204DF-2L-2SB-24V-APAC…..………......……......P/N: 8682-0022**
  Industrial Dual LTE (Quad SIM) Load Balancing Multifunction Router managed Ethernet Switch w/2 RS485 serial ports and 4 Giga ports and 2 dual speed SFP incl.4 PoE; APAC band; dual input 9~56VDC; -40~65C

- **IPMR-3204DF-2L-2SB-24V-WW…….…..……......………...P/N: 8682-0032**
  Industrial Dual LTE (Quad SIM) Load Balancing Multifunction Router managed Ethernet Switch w/2 RS485 serial ports and 4 Giga ports and 2 dual speed SFP incl.4 PoE; Worldwide band; dual input 9~56VDC; -40~65C

- **IPMR-3204DF-1L-2S-24V-EUNA…..………......……......P/N: 8682-004**
  Industrial One LTE (Dual SIM) Load Balancing Multifunction Router managed Ethernet Switch w/2 RS232 serial ports and 4 Giga ports and 2 dual speed SFP incl.4 PoE; EU and US band; dual input 9~56VDC; -40~65C

- **IPMR-3204DF-1L-2S-24V-APAC…..………......…...........P/N: 8682-005**
  Industrial One LTE (Dual SIM) Load Balancing Multifunction Router managed Ethernet Switch w/2 RS232 serial ports and 4 Giga ports and 2 dual speed SFP incl.4 PoE; APAC band; dual input 9~56VDC; -40~65C

- **IPMR-3204DF-1L-2S-24V-WW…….…..……......……...........P/N: 8682-006**
  Industrial One LTE (Dual SIM) Load Balancing Multifunction Router managed Ethernet Switch w/2 RS232 serial ports and 4 Giga ports and 2 dual speed SFP incl.4 PoE; Worldwide band; dual input 9~56VDC; -40~65C

- **IPMR-3204DF-1L-2SA-24V-EUNA…..………......……......P/N: 8682-0041**
  Industrial One LTE (Dual SIM) Load Balancing Multifunction Router managed Ethernet Switch w/2 RS422 serial ports and 4 Giga ports and 2 dual speed SFP incl.4 PoE; EU and US band; dual input 9~56VDC; -40~65C

- **IPMR-3204DF-1L-2SA-24V-APAC…..………......……......P/N: 8682-0051**
  Industrial One LTE (Dual SIM) Load Balancing Multifunction Router managed Ethernet Switch w/2 RS422 serial ports and 4 Giga ports and 2 dual speed SFP incl.4 PoE; APAC band; dual input 9~56VDC; -40~65C

- **IPMR-3204DF-1L-2SA-24V-WW…….…..……......……........P/N: 8682-012**
  Industrial One LTE (Dual SIM) Load Balancing Multifunction Router managed Ethernet Switch w/2 RS422 serial ports and 4 Giga ports and 2 dual speed SFP incl.4 PoE; Worldwide band; dual input 9~56VDC; -40~65C

- **IPMR-3204DF-1L-2SB-24V-EUNA…..………......……......P/N: 8682-0042**
  Industrial One LTE (Dual SIM) Load Balancing Multifunction Router managed Ethernet Switch w/2 RS485 serial ports and 4 Giga ports and 2 dual speed SFP incl.4 PoE; EU and US band; dual input 9~56VDC; -40~65C

- **IPMR-3204DF-1L-2SB-24V-APAC…..………......……......P/N: 8682-0052**
  Industrial One LTE (Dual SIM) Load Balancing Multifunction Router managed Ethernet Switch w/2 RS485 serial ports and 4 Giga ports and 2 dual speed SFP incl.4 PoE; APAC band; dual input 9~56VDC; -40~65C

- **IPMR-3204DF-1L-2SB-24V-WW…….…..……......……......P/N: 8682-0121**
  Industrial One LTE (Dual SIM) Load Balancing Multifunction Router managed Ethernet Switch w/2 RS485 serial ports and 4 Giga ports and 2 dual speed SFP incl.4 PoE; Worldwide band; dual input 9~56VDC; -40~65C

- **IMR-3204DF-2L-2S-24V-EUNA…..………......……......P/N: 8683-001**
  Industrial Dual LTE (Quad SIM) Load Balancing Multifunction Router managed Ethernet Switch w/ 2 RS232 serial ports and 4 Giga ports and 2 dual speed SFP; EU and US band; dual input 9~56VDC; -40~65C

- **IMR-3204DF-2L-2S-24V-APAC…..………......…...........P/N: 8683-002**
  Industrial Dual LTE (Quad SIM) Load Balancing Multifunction Router managed Ethernet Switch w/ 2 RS232 serial ports and 4 Giga ports and 2 dual speed SFP; APAC band; dual input 9~56VDC; -40~65C

- **IMR-3204DF-2L-2S-24V-WW…..………......……..........P/N: 8683-003**
  Industrial Dual LTE (Quad SIM) Load Balancing Multifunction Router managed Ethernet Switch w/ 2 RS232 serial ports and 4 Giga ports and 2 dual speed SFP; worldwide band; dual input 9~56VDC; -40~65C

- **IMR-3204DF-2L-2SA-24V-EUNA…..…………...……......P/N: 8683-0011**

Industrial Dual LTE (Quad SIM) Load Balancing Multifunction Router managed Ethernet Switch w/2 RS422 serial ports and 4 Giga ports and 2 dual speed SFP; EU and US band; dual input 9~56VDC; -40~65C
- **IMR-3204DF-2L-2SA-24V-APAC……..………...………........P/N: 8683-0021**
Industrial Dual LTE (Quad SIM) Load Balancing Multifunction Router managed Ethernet Switch w/2 RS422 serial ports and 4 Giga ports and 2 dual speed SFP; APAC band; dual input 9~56VDC; -40~65C
- **IMR-3204DF-2L-2SA-24V-WW……………….……………P/N: 8683-0031**
Industrial Dual LTE (Quad SIM) Load Balancing Multifunction Router managed Ethernet Switch w/2 RS422 serial ports and 4 Giga ports and 2 dual speed SFP; Worldwide band; dual input 9~56VDC; -40~65C
- **IMR-3204DF-2L-2SB-24V-EUNA………..………...………….P/N: 8683-0012**
Industrial Dual LTE (Quad SIM) Load Balancing Multifunction Router managed Ethernet Switch w/2 RS485 serial ports and 4 Giga ports and 2 dual speed SFP; EU and US band; dual input 9~56VDC; -40~65C
- **IMR-3204DF-2L-2SB-24V-APAC……..………...………........P/N: 8683-0022**
Industrial Dual LTE (Quad SIM) Load Balancing Multifunction Router managed Ethernet Switch w/2 RS485 serial ports and 4 Giga ports and 2 dual speed SFP; APAC band; dual input 9~56VDC; -40~65C
- **IMR-3204DF-2L-2SB-24V-WW……..………...………........P/N: 8683-0032**
Industrial Dual LTE (Quad SIM) Load Balancing Multifunction Router managed Ethernet Switch w/2 RS485 serial ports and 4 Giga ports and 2 dual speed SFP; Worldwide band; dual input 9~56VDC; -40~65C
- **IMR-3204DF-1L-2S-24V-EUNA………..………...………......P/N: 8683-004**
Industrial One LTE (Dual SIM) Load Balancing Multifunction Router managed Ethernet Switch w/2 RS232 serial ports and 4 Giga ports and 2 dual speed SFP; EU and US band; dual input 9~56VDC; -40~65C
- **IMR-3204DF-1L-2S-24V-APAC……..………………..........P/N: 8683-005**
Industrial One LTE (Dual SIM) Load Balancing Multifunction Router managed Ethernet Switch w/2 RS232 serial ports and 4 Giga ports and 2 dual speed SFP; APAC band; dual input 9~56VDC; -40~65C
- **IMR-3204DF-1L-2S-24V-WW……..……………….............P/N: 8683-006**
Industrial One LTE (Dual SIM) Load Balancing Multifunction Router managed Ethernet Switch w/2 RS232 serial ports and 4 Giga ports and 2 dual speed SFP; Worldwide band; dual input 9~56VDC; -40~65C
- **IMR-3204DF-1L-2SA-24V-EUNA……..………...…….........P/N: 8683-0041**
Industrial One LTE (Dual SIM) Load Balancing Multifunction Router managed Ethernet Switch w/2 RS422 serial ports and 4 Giga ports and 2 dual speed SFP; EU and US band; dual input 9~56VDC; -40~65C
- **IMR-3204DF-1L-2SA-24V-APAC……..………...……........P/N: 8683-0051**
Industrial One LTE (Dual SIM) Load Balancing Multifunction Router managed Ethernet Switch w/2 RS422 serial ports and 4 Giga ports and 2 dual speed SFP; APAC band; dual input 9~56VDC; -40~65C
- **IMR-3204DF-1L-2SA-24V-WW……..………...……………...P/N: 8683-0061**
Industrial One LTE (Dual SIM) Load Balancing Multifunction Router managed Ethernet Switch w/2 RS422 serial ports and 4 Giga ports and 2 dual speed SFP; Worldwide band; dual input 9~56VDC; -40~65C
- **IMR-3204DF-1L-2SB-24V-EUNA……..………...…….…......P/N: 8683-0042**
Industrial One LTE (Dual SIM) Load Balancing Multifunction Router managed Ethernet Switch w/2 RS485 serial ports and 4 Giga ports and 2 dual speed SFP; EU and US band; dual input 9~56VDC; -40~65C
- **IMR-3204DF-1L-2SB-24V-APAC……..………...…….........P/N: 8683-0052**
Industrial One LTE (Dual SIM) Load Balancing Multifunction Router managed Ethernet Switch w/2 RS485 serial ports and 4 Giga ports and 2 dual speed SFP; APAC band; dual input 9~56VDC; -40~65C
- **IMR-3204DF-1L-2SB-24V-WW……..………...……………...P/N: 8683-0062**
Industrial One LTE (Dual SIM) Load Balancing Multifunction Router managed Ethernet Switch w/2 RS485 serial ports and 4 Giga ports and 2 dual speed SFP; Worldwide band; dual input 9~56VDC; -40~65C

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)

■ **8330-162-V1**	MINI GBIC 1000SX (LC/MM/0.5KM) Transceiver
■ **8330-163-V1**	MINI GBIC 1000SX2 (LC/MM/2KM) Transceiver
■ **8330-165-V1**	MINI GBIC 1000LX (LC/SM/10KM) Transceiver
■ **8340-0591-V1**	MINI GBIC 1000LHX (LC/SM/40KM) Transceiver
■ **8330-166-V1**	MINI GBIC 1000XD (LC/SM/50KM) Transceiver
■ **8330-169-V1**	MINI GBIC 1000XD (LC/SM/60KM) Transceiver
■ **8330-167-V1**	MINI GBIC 1000ZX (LC/SM/80KM) Transceiver
■ **8330-170-V1**	MINI GBIC 1000EZX (LC/SM/120KM) Transceiver
■ **8330-168-V1**	MINI GBIC 10/100/1000T (100m) Transceiver
■ **8330-060-V1**	MINI GBIC 100Base (LC/MM/2KM) Transceiver
■ **8330-065-V1**	MINI GBIC 100Base (LC/MM/5KM) Transceiver
■ **8330-061-V1**	MINI GBIC 100Base (LC/SM/30KM) Transceiver
■ **8330-197-V1**	1.25Gbps BiDi SFP 0.5KM Transceiver (WDM 1310)
■ **8330-198-V1**	1.25Gbps BiDi SFP 0.5KM Transceiver (WDM 1550)
■ **8330-195-V1**	1.25Gbps BiDi SFP 2KM Transceiver (WDM 1310)
■ **8330-196-V1**	1.25Gbps BiDi SFP 2KM Transceiver (WDM 1550)
■ **8330-188-V1**	1.25Gbps BiDi SFP 10KM Transceiver (WDM 1310)
■ **8330-189-V1**	1.25Gbps BiDi SFP 10KM Transceiver (WDM 1550)
■ **8330-186-V1**	1.25Gbps BiDi SFP 20KM Transceiver (WDM 1310)

■ **8330-187-V1**	1.25Gbps BiDi SFP 20KM Transceiver (WDM 1550)
■ **8330-180-V1**	1.25Gbps BiDi SFP 40KM Transceiver (WDM 1310)
■ **8330-182-V1**	1.25Gbps BiDi SFP 40KM Transceiver (WDM 1550)
■ **8330-181-V1**	1.25Gbps BiDi SFP 60KM Transceiver (WDM 1310)
■ **8330-183-V1**	1.25Gbps BiDi SFP 60KM Transceiver (WDM 1550)
■ **8330-184-V1**	1.25Gbps BiDi SFP 80KM Transceiver (WDM 1490)
■ **8330-185-V1**	1.25Gbps BiDi SFP 80KM Transceiver (WDM 1550)
■ **8330-071-V1**	125Mbps BiDi SFP 2KM (WDM 1310) Transceiver
■ **8330-072-V1**	125Mbps BiDi SFP 2KM (WDM 1550) Transceiver
■ **8330-069-V1**	125Mbps BiDi SFP 20KM (WDM 1310) Transceiver
■ **8330-068-V1**	125Mbps BiDi SFP 20KM (WDM 1550) Transceiver
■ **8330-080-V1**	125Mbps BiDi SFP 40KM (WDM 1310) Transceiver
■ **8330-082-V1**	125Mbps BiDi SFP 40KM (WDM 1550) Transceiver
■ **8330-081-V1**	125Mbps BiDi SFP 60KM (WDM 1310) Transceiver
■ **8330-083-V1**	125Mbps BiDi SFP 60KM (WDM 1550) Transceiver
■ **8330-084-V1**	125Mbps BiDi SFP 80KM (WDM 1310) Transceiver
■ **8330-085-V1**	125Mbps BiDi SFP 80KM (WDM 1550) Transceiver
■ **8330-191-V1**	Dual Speed SFP 100M/1000M-LX 10KM Transceiver

All SFP# ended with D are with DDM function

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

■ **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