

## **TMR-5004**

EN50155 Multifunction VPN Router + up to 2 LTE 4G + 2 serial ports + 4 Gigabit X-coded Ethernet Switch + 2WAN/2LAN w/Load Balancing\*\*, VPN, Protocol Gateway, Storage\*\*; WV input

- Built-in 4 Gigabit X-coded Ethernet Managed Switch + 2WAN/2LAN ports, Up to 2x LTE 4G Module (4SIMS)
- Detachable antenna connectors with 6 SMA/QMA\*\*
- VPN router for Multi-site VPN, OpenVPN, L2TP, IPsec, PPTP\*\*, L2 over GRE
- Load Balancing\*\* support 8 mechanism
- Optional EMMC Flash storage on-board\*\*
- Support NAT and Firewall
- Support Modbus gateway on serial ports
- Support 2 RS422/485 ports with 2.5KV isolation or 2x RS232 ports
- Optional 2 GT smart bypass protection
- Galvanic isolation on WV model from 16.8V~137.5V input
- Environmental monitoring for router inside info with voltage, current, temperature; LTE graphic signal strength & TX/RX rate display
- Editable login page of captive portal for hot-spot application
- USB port for backup, restore the configuration file and upgrade firmware\*; Dual image firmware\*
- IP 65 /54 Aluminum housing for best heat dissipation and preventing moist ingress
- EN50155/61373/45545 verification for railway applications



## **OVERVIEW**

Lantech TMR-5004 series is a next generation EN50155 multifunction VPN router up to 2 x LTE module (4SIMS) + 4 Gigabit X-coded Ethernet Switch + 2WAN/2LAN ports + 2 serial ports that supports advanced function of VPN, Loadbalancing\*\*(Premium pack), EMMC Flash Storage\*\*, Protocol gateway(Modbus), Storage\*\*, LTE dual 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, TMR-5004 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. 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)

TMR-5004 supports Load Balancing\*\* for LTE/WAN connections. There are eight schemes for Load Balancing\*\*

## function:

Pack	Algorithm	Description	
Standard	Fixed	Manually route by traffic type through fixed WAN link.	
Basic Package	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	Sticky Session*	Binding all connections in an application session to particular	



(incl. basic package)		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/ 485 in which RS422/485 has 2.5KV isolation protection.

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

#### Support various VPN applications and firewall

Besides traditional VPN peer to peer tunneling, TMR-5004 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, Open VPN, L2TP, IPsec L2 over GRE, NAT, and PPTP\*\* for various VPN applications. The built-in Layer-4 firewall includes DoS\*\*, IP address filter / Mac address filter\* / TCP/UDP port number.

# DIDO for alarm & email\*\* notice; Event log; Remote Web/SMS\*\* 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 TMR-5004 will immediately send email\*\* and trap.

The event log can be sent via syslog, emails or trigger the alarm relav.

When the router is at remote area with limited access, Web/SMS\*\* control\* can help to get router status or remotely

reboot by Web/SMS\*\*.

# Wide range dual isolated input voltage from 16.8-137.5V (WV model)

The TMR-5004 is able to work from dual16.8V  $\sim$ 137.5V DC isolated input (WV model) that is particular good for vehicle, rail train, depot etc applications.

## Environmental monitoring for inside router info& alerting; Graphic LTE signal strength and TX/RX rate display

The built-in environmental monitoring can detect router ambient temperature, voltage, current where can send the syslog, email\*\* and SMS\*\* alert 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.

## 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 TMR-5004 supports editable captive portal function that allows administrator to force end-users redirect to authentication page.

## Ruggedized EN50155 design and FCC/CE & E-marking\*\* certificate

The TMR-5004 series is verified with EN50155, EN61373, EN45545 standard with IP65/54 housing. It passed tests under extensive Industrial EMI and environmental vibration and shocks standards. With CE & FCC radio certification for LTE and E-marking\*\* certificate, the TMR-5004 is best for outdoor community, vehicle, power substation, process control automation etc. For more usage flexibilities, TMR-5004 supports operating temperature from -20°C to 75°C or -40°C to 75°C(-E)



## **FEATURES & BENEFITS**

- Built-in 4 Gigabit X-coded Ethernet Managed Switch + 2WAN/2LAN ports
- Dual concurrent LTE 4G/3G design (2L model)for autoswap/failover/failback between multiple ISPs for continuous service (four SIM card slots)
- Dual DC input from 16.8V~137.5VDC isolated power input (WV model)
- 6 STANDARD SMA / OPTIONAL QMA type connectors for LTE, GPS
- HTTP/HTTPS/TeInet/SSH & Administration access
- Support IPv6\*\* & IPv4 protocol
- Radius Authentication, EAP-MD5, EAP-TLS, EAP-TTLS. PEAP
- EMMC-FLASH storage\*\*8/16/32G
- Support Multi-Site VPN for mesh tunneling as well as Open VPN, L2TP, IPsec L2 over GRE, and PPTP\*\* fro secured network connection
- The built-in Layer-4 firewall includes DoS\*\*, IP address filter / Mac address filter\* / TCP/UDP port number.
- Support SNMP v1/v2c/v3
- Support NAT/DMZ
- One LTE 4G/3G w/ 2 SIM card design(1L model) for mobile redundancy
- GPS/ GLONASS (built-in LTE module) connection
- Load Balancing\*\* supports 8 mechanism between multiple WANs

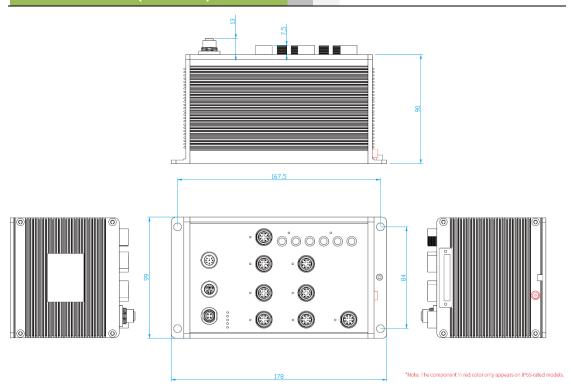
Pack	Algorithm	Description	
Standard	Fixed	Manually route by traffic type through fixed WAN link.	
Basic Package	Failover	Routes connections through preferred WAN link while others stand-by. Sequentially activate another link if preferred link fail occurs. Once failover will not failback until link loss.	
	Priority Routes connections throug preferred WAN link as prim while others follow by. Ex. \(\) 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.

- Built-in 2 x serial ports(RS232/RS422/485)
- Serial port with 2.5KV isolation on RS422/485
- Supports 2DI / 2DO (Digital Input / Output)
- Built-in Modbus gateway converting Modbus RTU/ASCII to Modbus/TCP for serial ports
- Event alerting by Syslog, Email\*\*, SMS\*\* text, Relay; Permanent local log rotation / Maxi 1K records
- Remote Web/SMS\*\* control to get status or re-boot by Web or SMS\*\*
- Support SNTP to synchronize system clock
- Support LLDP discovery protocol
- Support DHCP Server and Client
- LTE signal strength & TX/RX rate display
- Built-in environmental monitoring for system input voltage, current and ambient temperature; Able to set alert when abnormal
- Firmware upgradeable through TFTP/FTP/HTTP
- Configuration backup and restoration
  - Supports text configuration file for system quick installation
  - USB port to upload/download configuration by USB dongle
- Dual image firmware\*
- IP 65/54 housing for water proof environment
- Support editable captive portal login page
- Wall-mount installation
- Visible LED to show the power & port link and activity
- EN45545-2 Fire & Smoke, EN50155 and EN61373 shock/vibration verification
- Operation temperature -20~75C or -40~75C(-E)



## **DIMENSIONS** (unit=mm)



## **SPECIFICATION**

Cellular Inte	rface		WorldWide (WW model)
Location Solutions	GPS, Glonass (EU/Americas)		Downlink:
	GPS, Glonass, Beidou, Galileo (APAC model only)		Cat 12: 600 Mbps
Band Options	APAC & Australia (APAC model)		Cat 9: 450 Mbps Uplink:
	LTE:		Cat 13: 150 Mbps
	2100/1800/850/2600/900/850/850/1500/750/2600/19	Coftware	Cat 13. 130 Mbps
	00/2300/2500 MHz	Software	-
	(B1/B3/B5/B7/B8/B18/B19/B21/B28/B38/B39/B40/B4	IPv6/4	Present
	1)	Login Security	Supports IEEE802.1x Authentication/RADIUS
	EUNA & USA model	Access Security	HTTP/HTTPS/Telnet/SSH & Administration; SNMP
	LTE:		v1/v2/v3 access for authentication via MD5/SHA(v3) and Encryption via DES/AES(v3)
	2100/1800/2600/900/800 MHz	Protocol	PPPoE Client, DHCP server/client, Adjustable MTU,
	(B1/B2/B3/B4/B5/B7/B12/B13/B20/B25/B26/B29/B30	FIOLOCOI	Port forwarding (NAPT), DMZ; NAT, SNTP,
	,B41)		Firewall(Firewall(DoS**/IP address filter / Mac
			address filter* / TCP/UDP port name ),VRRP**,
	WorldWide (WW model)		DDNS*
	LTE:	Management	SNMP v1,v2c,v3/ Web/Telnet/CLI
	2100/1900/1800/1750/850/2600/900/1800/750/750/8/	Load Balancing**	8 schemes for multiple WAN
	50/850/800/850/750/2300/1500/2500/3500/3750/520	Fixed	Manually route by traffic type through fixed WAN link.
	0/3600/1750 (B1/B2/B3/B4/B5/B7/B8/B9/B12/B13/B18/B19/B20/B	Basic Package**	
	26/B28/B29/B30/B32/B41/B42/B43/B46/B48/B66)	Failover	Routes connections through preferred WAN link
			while others stand-by. Sequentially activate another
Data Rates – LTE	APAC & Australia (APAC model)		link if preferred link failure occurs.
	ownlink (Cat 6):	Priority	Routes connections through preferred WAN link
	FDD: 300 Mbps TDD: 222 Mbps		while others stand-by. Sequentially activate other
	Uplink (Cat 6):		
	FDD: 50 Mbps		links if overflow occurs.
	TDD: 26 Mbps	Weighted Round-	Evenly distribute the traffic over all working WAN
	, ,	Robin	links in circular order according to the specified
A	Americas & EMEA (EUNA model)		weights
	Downlink (Cat 6):	Custom Route	Routing through the selected WAN for each specific
	FDD: 300 Mbps		traffic ex: TCP/UDP port number and IP address.
	TDD: 222 Mbps Uplink (Cat 6): FDD: 50 Mbps TDD: 26 Mbps	Full Package incl. basic package**	
		Sticky Session*	Binding all connections in an application session to
			particular WAN link to ensure all connections in the



		DI/DO	2 Digital Input (DI) :
	suitable for security services like online payment etc.	טט/וט	2 Digital Input (DI) : Level 0: -30~2V / Level 1: 10~30V
Smallest Load*	Routes connections through the WAN link with		Max. input current:8mA
	highest free bandwidth ratio.		2 Digital Output(DO): Open collector to 40 VDC,
	The ratio = 1 - (traffic load / the capability of a WAN		200mA
	link).	EMMC Storage**	8/16/32 GB
	The traffic load could be defined by downstream,	LED Indicate	
	upstream or total traffic	Power & System	Per unit: Power 1 (Green), Power 2 (Green), P-Fail
Fastest*	Routes connections through the WAN link with lowest latency time.	indicator	(Red), Ring Master(Green), System Ready(Green), Serial1/Serial2(Green)
Authentication	Radius Authentication, EAP-MD5, EAP-TLS, EAP- TTLS, PEAP; SSID broadcast disable supported**	10/100/1000Base-	Link/Activity (Green), Speed (Yellow)
SSID	16 sets	T(X) port indicator	
Timer	Built-in Real Time Clock to keep track of time	SIM	Green for Link/Act
	always(RTC)	GPS	Green for Link/Act
Discovery	IEEE 802.1ab Link Layer Discovery Protocol (LLDP)	Fault	Red: Ethernet link down or power down
SNMP trap	Device cold / warm start	Fault contact	ct control of the con
	Port link up / link down	Relay	Relay output to carry capacity of 1A at 24VDC
	DI / DO high / low	Power	
Environmental	System status for input voltage, current, ambient	Input power	Dual DC input, isolated 16.8VDC~137.5VDC for (WV
Monitoring	temperature to be shown in GUI and sent alerting if		model)
	any abnormal status	Power consumption (Typ.)	20 Watts
Signal display	LTE signal strength & TX / RX rate display	Physical Ch	aractoristic
Remote	To reboot or get status of router by Web/SMS**	Enclosure	IP 65/54 aluminum case
Web/SMS** control	Editable continuosatellaria cons		
Captive portal	Editable captive portal login page	Dimension	178 (W) x 99 (D) x 103 (H) mm
Maintenance	Firmware upgradeable through TFTP/FTP/HTTP	Weight	1000g
Configuration backup & restore	Supports text configuration file for quick system installation	Environmen	
backup & restore	USB port to upload/download configuration and	Storage	-40°C ~ 85°C (-40°F ~ 185°F)
	upgrade firmware*by USB dongle	Temperature Operating	-20°C ~ 75°C (-4°F ~ 167°F)
	Dual image firmware*	Temperature	-20 C ~ 75 C (-4 F ~ 167 F) -40°C ~ 75°C (-40°F ~ 167°F) -E model
Physical Po	rts & System	Operating Humidity	5% to 95% Non-condensing
		Regulatory	
Connectors	10/100/1000T: 6x ports M12 8pole X-coded incl.	EMC	FCC Part 15 Class A, EN55032 , EN55024
	2WAN/2LAN ports USB/Console connector: 1 x M12 8-pole A-coded	EMS	EN61000-4-2 (ESD), EN61000-4-3 (RS), EN61000-
	STANDARD SMA / OPTIONAL QMA connector : 6	LIVIO	4-4 (EFT), EN61000-4-5 (Surge), EN61000-4-6 (CS),
	female LTE		EN61000-4-8, EN61000-6-2
	Power Input connector : 1 x M12 4-pole A-coded	Radio Frequency	EN301 489-1, EN301 489-17, EN301 489-19, EN301
	DI/DO: 1 x M12 5-pole A-coded		489-52, EN300 440, EN301 893, EN300 328, EN301
Serial Baud Rate	1000Kbps high data rate,250kbps normal for RS232 ;		908-1, EN303 413, EN62311
	20Mbps high data rate,250kbps normal for	Safety	EN60950 (LVD), AS60950 (LVD)
	RS422/485	Stability Testing	EN61373 (Shock & Vibration)
Serial Data Bits	5, 6, 7, 8	Verifications &	EN50155, EN50121-3-2, EN50121-4 verification
Serial Parity	odd, even, none, mark, space		EN45545-2 R13/R22/R23/R24/R25 (EN ISO 4589-2,
Serial Stop Bits	1, 1.5, 2	report	EN ISO 5659-2, NF X70-100-1 & 2) Fire & Smoke
RS-232	TxD, RxD, RTS, CTS, DTR, DSR, DCD, GND		verification
RS-422	Tx+,Tx-, Rx+, Rx-,GND	MTBF	NA
RS-485 (2-wire)	Data+, Data-,GND	Warranty	5 years
Isolation protection	RS422/485 2.5KV isolation; 8KV contact & 15KV air		*Future Release
	RS232 8KV contact and 15KV air ESD		**Optional
	DIDO 3KV isolation		optional .
	Input power 1.5KVA isolation		

## ORDERING INFORMATION

All standard models are non-conformal coated, optional conformal coated models are available with –C model name; QMA connector models are with –Q model name; -40~75C operational models are with –E model name.

### ■ TMR-5004-1L-2S-WV-65-EUNA...... P/N: 8641-021

EN50155 Multifunction VPN Router + 1 LTE 4G SMA connectors + 2 serial ports + 4 Gigabit X-coded Ethernet Managed Switch + 2WAN/2LAN with Load Balancing\*\*, VPN, Protocol Gateway; EU and US band; dual isolated 16.8V~137.5VDC; IP65; -20~75C

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EN50155 Multifunction VPN Router + 1 LTE 4G SMA connectors + 2 serial RS-232 ports + 4 Gigabit X-coded Ethernet Managed Switch + 2WAN/2LAN with Load Balancing\*\*, VPN, Protocol Gateway; Worldwide band; dual isolated 16.8V~137.5VDC; IP65; -20~75C

## ■ TMR-5004-1L-2S-WV-65-APAC...... P/N: 8641-023

EN50155 Multifunction VPN Router + 1 LTE 4G SMA connectors + 2 serial RS-232 ports + 4 Gigabit X-coded Ethernet Managed Switch + 2WAN/2LAN with Load Balancing\*\*, VPN, Protocol Gateway; APAC band; dual isolated 16.8V~137.5VDC; IP65; -20~75C

## ■ TMR-5004-1L-2SA-WV-65-EUNA...... P/N: 8641-0211

EN50155 Multifunction VPN Router + 1 LTE 4G SMA connectors + 2 isolated serial RS422/485 ports + 4 Gigabit X-coded Ethernet Managed Switch + 2WAN/2LAN with Load Balancing\*\*, VPN, Protocol Gateway; EU and US band; dual isolated 16.8V~137.5VDC; IP65; -20~75C

■ TMR-5004-1L-2SA-WV-65-WW...... P/N: 8641-0221



EN50155 Multifunction VPN Router + 1 LTE 4G SMA connectors + 2 isolated serial RS422/485 ports + 4 Gigabit X-coded Ethernet Managed Switch + 2WAN/2LAN with Load Balancing\*\*, VPN, Protocol Gateway; Worldwide band; dual isolated 16.8V~137.5VDC; IP65; -20~75C

■ TMR-5004-1L-2SA-WV-65-APAC...... P/N: 8641-0231

EN50155 Multifunction VPN Router + 1 LTE 4G SMA connectors + 2 isolated serial RS422/485 ports + 4 Gigabit X-coded Ethernet Managed Switch + 2WAN/2LAN with Load Balancing\*\*, VPN, Protocol Gateway; APAC band; dual isolated 16.8V~137.5VDC; IP65; -20~75C

TMR-5004-1L-2S-WV-54-EUNA...... P/N: 8641-041

EN50155 Multifunction VPN Router + 1 LTE 4G SMA connectors + 2 serial RS232 ports + 4 Gigabit X-coded Ethernet Managed Switch + 2WAN/2LAN with Load Balancing\*\*, VPN, Protocol Gateway; EU and US band; dual isolated 16.8V~137.5VDC; IP54; -20~75C

■ TMR-5004-1L-2S-WV-54-WW...... P/N: 8641-042

EN50155 Multifunction VPN Router + 1 LTE 4G SMA connectors + 2 serial RS232 ports + 4 Gigabit X-coded Ethernet Managed Switch + 2WAN/2LAN with Load Balancing\*\*, VPN, Protocol Gateway; Worldwide band; dual isolated 16 8V~137 5VDC: IP54: -20~75C.

■ TMR-5004-1L-2S-WV-54-APAC...... P/N: 8641-043

EN50155 Multifunction VPN Router + 1 LTE 4G SMA connectors + 2 serial RS232 ports + 4 Gigabit X-coded Ethernet Managed Switch + 2WAN/2LAN with Load Balancing\*\*, VPN, Protocol Gateway; APAC band; dual isolated 16.8V~137.5VDC; IP54: -20~75C.

■ TMR-5004-1L-2SA-WV-54-EUNA...... P/N: 8641-0411

EN50155 Multifunction VPN Router + 1 LTE 4G SMA connectors + 2 isolated serial RS422/485 ports + 4 Gigabit X-coded Ethernet Managed Switch + 2WAN/2LAN with Load Balancing\*\*, VPN, Protocol Gateway; EU and US band; dual isolated 16.8V~137.5VDC; IP54; -20~75C

■ TMR-5004-1L-2SA-WV-54-WW.......P/N: 8641-0421

EN50155 Multifunction VPN Router + 1 LTE 4G SMA connectors+ 2 isolated serial RS422/485 ports + 4 Gigabit X-coded Ethernet Managed Switch + 2WAN/2LAN with Load Balancing\*\*, VPN, Protocol Gateway; Worldwide band; dual isolated 16.8V~137.5VDC; IP54: -20~75C

■ TMR-5004-1L-2SA-WV-54-APAC......P/N: 8641-0431

EN50155 Multifunction VPN Router +1 LTE 4G SMA connectors+ 2 isolated serial RS422/485 ports + 4 Gigabit X-coded Ethernet Managed Switch + 2WAN/2LAN with Load Balancing\*\*, VPN, Protocol Gateway; APAC band; dual isolated 16 8V~137 5VDC: IP54: -20~75C

■ TMR-5004-2L-2S-WV-65-EUNA...... P/N: 8641-0215

EN50155 Multifunction VPN Router + 2 LTE 4G SMA connectors + 2 serial ports + 4 Gigabit X-coded Ethernet Managed Switch + 2WAN/2LAN with Load Balancing\*\*, VPN, Protocol Gateway; EU and US band; dual isolated 16.8V~137.5VDC; IP65; -20~75C

EN50155 Multifunction VPN Router + 2 LTE 4G SMA connectors + 2 serial RS-232 ports + 4 Gigabit X-coded Ethernet Managed Switch + 2WAN/2LAN with Load Balancing\*\*, VPN, Protocol Gateway; Worldwide band; dual isolated 16.8V~137.5VDC: IP65: -20~75C

■ TMR-5004-2L-2S-WV-65-APAC...... P/N: 8641-0232

EN50155 Multifunction VPN Router + 2 LTE 4G SMA connectors + 2 serial RS-232 ports + 4 Gigabit X-coded Ethernet Managed Switch + 2WAN/2LAN with Load Balancing\*\*, VPN, Protocol Gateway; APAC band; dual isolated 16.8V~137.5VDC; IP65: -20~75C

■ TMR-5004-2L-2SA-WV-65-EUNA...... P/N: 8641-0213

EN50155 Multifunction VPN Router + 2 LTE 4G SMA connectors + 2 isolated serial RS422/485 ports + 4 Gigabit X-coded Ethernet Managed Switch + 2WAN/2LAN with Load Balancing\*\*, VPN, Protocol Gateway; EU and US band; dual isolated 16 8V-137 5VDC: IP65: -20~75C.

EN50155 Multifunction VPN Router + 2 LTE 4G SMA connectors + 2 isolated serial RS422/485 ports + 4 Gigabit X-coded Ethernet Managed Switch + 2WAN/2LAN with Load Balancing\*\*, VPN, Protocol Gateway; Worldwide band; dual isolated 16 8V~137 5VDC: IP65: -20~75C.

EN50155 Multifunction VPN Router + 2 LTE 4G SMA connectors + 2 isolated serial RS422/485 ports + 4 Gigabit X-coded Ethernet Managed Switch + 2WAN/2LAN with Load Balancing\*\*, VPN, Protocol Gateway; APAC band; dual isolated 16.8V~137.5VDC: IP65: -20~75C

EN50155 Multifunction VPN Router + 2 LTE 4G SMA connectors + 2 serial RS232 ports + 4 Gigabit X-coded Ethernet Managed Switch + 2WAN/2LAN with Load Balancing\*\*, VPN, Protocol Gateway; EU and US band; dual isolated 16.8V~137.5VDC; IP54: -20~75C

EN50155 Multifunction VPN Router + 2 LTE 4G SMA connectors + 2 serial RS232 ports + 4 Gigabit X-coded Ethernet Managed Switch + 2WAN/2LAN with Load Balancing\*\*, VPN, Protocol Gateway; Worldwide band; dual isolated 16 8V~137 5VDC: IP54: -20~75C.

EN50155 Multifunction VPN Router + 2 LTE 4G SMA connectors + 2 serial RS232 ports + 4 Gigabit X-coded Ethernet Managed Switch + 2WAN/2LAN with Load Balancing\*\*, VPN, Protocol Gateway; APAC band; dual isolated 16.8V~137.5VDC; IP54: -20~75C

■ TMR-5004-2L-2SA-WV-54-EUNA...... P/N: 8641-0413



EN50155 Multifunction VPN Router + 2 LTE 4G SMA connectors + 2 isolated serial RS422/485 ports + 4 Gigabit X-coded Ethernet Managed Switch + 2WAN/2LAN with Load Balancing\*\*, VPN, Protocol Gateway; EU and US band; dual isolated 16.8V~137.5VDC; IP54; -20~75C

■ TMR-5004-2L-2SA-WV-54-WW...... P/N: 8641-0422

EN50155 Multifunction VPN Router + 2 LTE 4G SMA connectors+ 2 isolated serial RS422/485 ports + 4 Gigabit X-coded Ethernet Managed Switch + 2WAN/2LAN with Load Balancing\*\*, VPN, Protocol Gateway; Worldwide band; dual isolated 16.8V~137.5VDC; IP54; -20~75C

■ TMR-5004-2L-2SA-WV-54-APAC.......P/N: 8641-0433

EN50155 Multifunction VPN Router + 2 LTE 4G SMA connectors+ 2 isolated serial RS422/485 ports + 4 Gigabit X-coded Ethernet Managed Switch + 2WAN/2LAN with Load Balancing\*\*, VPN, Protocol Gateway; APAC band; dual isolated 16.8V~137.5VDC; IP54; -20~75C

#### **EMMC Flash Storage**

### Software License

## **OPTIONAL ACCESSORIES**

#### LTE Antenna

■ ANT11000041 791-960/1710~2175/2500~2750MHZ, SMA plug, EU ■ ANT11000042 754-960/1710~2175MHZ, SMA plug, US

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