

# TMR-5002

## EN50155 Multifunction VPN Router + up to 2 LTE 4G + 2 serial ports + 2 Gigabit X-coded Ethernet (incl.1 PD) for Load Balancing\*\* VPN, Protocol Gateway, Storage\*\*; WVinput; IP65/54

- Up to 2xLTE 4G module(4SIMs) + 2xGigabit X-coded ports(incl. 1PD)
- Up to 2 concurrent modem for 3G/4G LTE Link & GPS
- Built-in 2 serial ports with 2.5K isolation(RS422/485) or w/o isolation(RS232)
- 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
- Galvanic isolation on WV model from 16.8V~137.5V input
- Built-in 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 application



### OVERVIEW

Lantech TMR-5002 series is a next generation EN50155 multi-function VPN router up to 2x LTE modem + 2x Gigabit Ethernet (incl.1 PD)+ 2 serial ports that supports advanced function of VPN, Load-balancing\*\*, EMMC Flash Storage\*\*, Protocol gateway(Modbus), Storage\*\*, and LTE dual SIM fail-over for on-board / onboard-to-ground 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-5002 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.

**Optional EMMC Flash storage\*\***  
The optional EMMC flash storage on router can offer 8G/16G/32G capacity.

**Load Balancing\*\* with 8 mechanism for multi-WANs (premium license)**  
TMR-5002 supports Load Balancing\*\* for LTE / WAN connections. There are eight schemes for Load Balancing\*\* function:

<b>Standard</b>	Fixed	Manually route by traffic type through fixed WAN link.
<b>Basic Package</b>	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. WiFi 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.

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

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 or 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.

**VPN and firewall**

Besides traditional VPN peer to peer tunneling, TMR-5002 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 IWMR-3002 will immediately send email\*\* and trap.

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-5002 is able to work from dual 16.8V ~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; LTE signal strength and TX/RX rate display**

The built-in environmental monitoring can detect router overall temperature, voltage, current where can send the syslog, email\*\* and SMS\*\* alert when abnormal. The graphic LTE signal strength and TX/RX rate display shows connection status at a glance.

**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-5002 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-5002series is verified with EN50155,61373,45545 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-5002 is best for outdoor community, vehicle, power substation, process control automation etc. For more usage flexibilities, TMR-5002 supports operating temperature from -20°C to 75°C or -40°C to 75°C(-E) .

**FEATURES & BENEFITS**

- Built-in two Gigabit ports X-coded incl. 1 PD; 1LAN+1WAN or 2LAN
- 6 xSMA/QMA\*\* type connectors for LTE(2L model),
- HTTP/HTTPS/Telnet/SSH & Administration access
- Support IPv6\*\* & IPv4 protocol
- Dual concurrent LTE 4G/3G design (2L model)for auto-swap/failover/failback between multiple ISPs for continuous service (four SIM card slots)
- GPS/ GLONASS (built-in LTE module) connection
- EMMC-FLASH storage\*\*8/16/32G
- Load Balancing\*\* supports 8 mechanism between multiple WANs

Pack	Algorithm	Description
Standard	Fixed	Manually route by traffic type

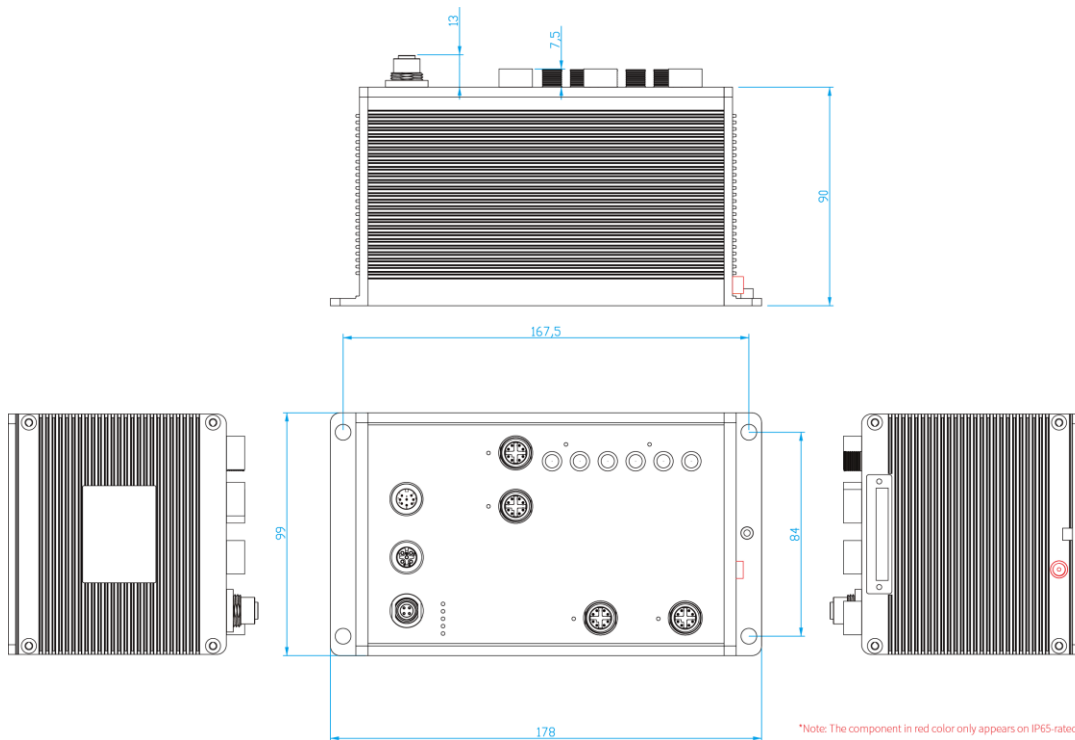
		through fixed WAN link.
Basic Package	Failover	Routes connections through preferred WAN link while others stand-by. Sequentially activate another link if preferred link fail occurs. Once failover will not failback until link loss.
	Priority	Routes connections through preferred WAN link as primary while others follow by. 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.

- Radius Authentication, EAP-MD5, EAP-TLS, EAP-TTLS, PEA
- Event alerting by Syslog, SNMP Trap, Email\*\*, SMS\*\* text, Relay ; Permanent local log rotation / Maxi 1K records
- Remote Web/SMS\*\* control to get status or re-boot by Web/SMS\*\*
- Built-in RTC to keep track of time always
- 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
- LTE signal strength & TX/RX rate display
- Firmware upgradeable through TFTP/FTP/HTTP
- Configuration backup and restoration
  - Supports editable configuration file for system quick installation
  - USB port to upload/download configuration by USB dongle
- Dual image firmware\*
- Support editable captive portal login page
- IP 65/54 housing for water proof environment
- Wall-mount installation
- Operation temperature -20~75C or -40~75C(-E)

- Built-in 2 x serial ports(RS232/RS422/485)
- Serial port with 2.5KV isolation on RS422/485
- Supports 2DI / 2DO(Digital Input / Output)
- 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
- NAT/DMZ
- Built-in Modbus gateway converting Modbus RTU/ASCII to Modbus/TCP

**DIMENSIONS (unit=mm)**



**SPECIFICATION**

<b>Cellular Interface</b>			
Location Solutions	GPS, Glonass (EU/Americas) GPS, Glonass, Beidou, Galileo (APAC model only)	Smallest Load*	suitable for security services like online payment etc. 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
Band Options	<b>APAC &amp; Australia (APAC model)</b> <b>LTE:</b> 2100/1800/850/2600/900/850/850/1500/750/2600/1900/2300/2500 MHz (B1/B3/B5/B7/B8/B18/B19/B21/B28/B38/B39/B40/B41)  <b>EUNA &amp; USA model</b> <b>LTE:</b> 2100/1800/2600/900/800 MHz (B1/B2/B3/B4/B5/B7/B12/B13/B20/B25/B26/B29/B30/B41)  <b>WorldWide (WW model)</b> <b>LTE:</b> 2100/1900/1800/1750/850/2600/900/1800/750/750/850/850/800/850/750/2300/1500/2500/3500/3750/5200/3600/1750 (B1/B2/B3/B4/B5/B7/B8/B9/B12/B13/B18/B19/B20/B26/B28/B29/B30/B32/B41/B42/B43/B46/B48/B66)	Fastest* Timer	Routes connections through the WAN link with lowest latency time. Built-in Real Time Clock to keep track of time always(RTC)
Data Rates – LTE	<b>APAC &amp; Australia (APAC model)</b> <b>Downlink (Cat 6):</b> FDD: 300 Mbps TDD: 222 Mbps <b>Uplink (Cat 6):</b> FDD: 50 Mbps TDD: 26 Mbps  <b>Americas (US model) / EMEA (EU model)</b> <b>Downlink (Category 3):</b> 100 Mbps (20 MHz bandwidth) 50 Mbps (10 MHz bandwidth) <b>Uplink (Category 3):</b> 50 Mbps (20 MHz bandwidth) 25 Mbps (10 MHz bandwidth)	Discovery SNMP trap	IEEE 802.1ab Link Layer Discovery Protocol (LLDP) Device cold / warm start Port link up / link down DI / DO high / low
<b>Software</b>		Environmental Monitoring	System status for input voltage, current , ambient temperature to be shown in GUI and sent alerting if any abnormal status
IPv6/4	Present	Graphic signal display	Graphic LTE signal strength & TX / RX rate display
Login Security	Supports IEEE802.1x** Authentication/RADIUS	Remote Web/SMS** control	To reboot or get status of router by Web/SMS**
Optional Train Wireless Carriage Coupling for Auto wireless Coupling		Maintenance	Firmware upgradeable through TFTP/FTP/HTTP
Access Security	HTTP/HTTPS/Telnet/SSH & Administration; SNMP* v1/v2/v3 access for authentication via MD5/SHA(v3) and Encryption via DES/AES(v3)	Configuration backup & restore	Supports text configuration file for quick system installation USB port to upload/download configuration and upgrade firmware* by USB dongle
Protocol	PPPoE Client,DHCP server/client, Adjustable MTU, Port forwarding (NAPT), DMZ; NAT, SNTP, Firewall(Firewall(DoS**); IP address filter / Mac address filter* / TCP/UDP port number), VRRP**, DDNS*	<b>Physical Ports &amp; System</b>	
Management Load Balancing**	SNMP* v1,v2c,v3/ Web/Telnet/CLI 8 schemes for multiple WAN	Connectors	10/100/1000T: 2x ports M12 8-pole X-coded with Auto MDI/MDI-X function (one port PD; 1LAN+1WAN or 2LAN) USB/Console connector: 1 x M12 8-pole A-coded DIDO : 1 x 5-pole terminal block Power Input connector : 1 x M12 4-pole A-coded Serial connector : 2 DB9 SIM card slots : 4(2L) or 2(1L) SMA/QMA** connector for LTE: 3 or 6(female)
Fixed	Manually route by traffic type through fixed WAN link.	Serial Baud Rate	1000Kbps high data rate,250Kbps normal for RS232 ; 20Mbps high data rate,250Kbps normal for RS422/485
<b>Basic Package**</b>		Serial Data Bits	5, 6, 7, 8
Failover	Routes connections through preferred WAN link while others stand-by. Sequentially activate another link if preferred link failure occurs.	Serial Parity	odd, even, none, mark, space
Priority	Routes connections through preferred WAN link while others stand-by. Sequentially activate other links if overflow occurs.	Serial Stop Bits	1, 1.5, 2
Weighted Round-Robin	Evenly distribute the traffic over all working WAN links in circular order according to the specified weights	RS-232	TxD, RxD, RTS, CTS, DTR, DSR, DCD, GND
Custom Route	Routing through the selected WAN for each specific traffic ex: TCP/UDP port number and IP address.	RS-422	Tx+,Tx-, Rx+, Rx-,GND
<b>Full Package incl. basic package**</b>		RS-485 (2-wire)	Data+, Data-,GND
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	Isolation protection	RS422/485 2.5KV isolation; 8KV contact & 15KV air RS232 8KV contact and 15KV air ESD DIDO 3KV isolation Input power 1.5KVA isolation
		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
		EMMC Storage**	8/16/32 GB
		<b>LED Indicators</b>	
		Power & system indicator	Per unit: Power 1 (Green), Power 2 (Green), P-Fail (Red) , Ring Master(Green), System Ready(Green), Serial1/2(Green)
		10/100/1000Base-T(X) port indicator	Link/Activity (Green), Speed (Yellow)
		SIM	Green for Link/Act
		GPS	Green for Link/Act
		Fault	Red: Ethernet link down or power down
		<b>Fault contact</b>	
		Relay	Relay output to carry capacity of 1A at 24VDC
		<b>Power</b>	
		Input power	Dual DC input, isolated 16.8VDC~137.5VDC for (WV model)
		Power consumption (Typ.)	18 Watts
		<b>Physical Characteristic</b>	

Enclosure	IP 65/54 aluminum case		CE EN61000-4-4 (EFT) Level 3
Dimension	178 (W) x 99 (D) x 103 (H) mm		CE EN61000-4-5 ED3 (Surge) Level 3
Weight	1000g		CE EN61000-4-6 (CS) Level 3
<b>Environmental</b>			CE EN61000-4-8 (Magnetic field) Level 3
Storage Temperature	-40°C ~ 85°C (-40°F ~ 185°F)	Stability Testing	EN61373 (Shock & Vibration)
Operating Temperature	-20°C ~ 75°C (-4°F ~ 167°F) -40°C ~ 75°C (-40°F ~ 167°F) –E Model	Railway	EN50155/EN50121-3-2/EN50121-4 Verification EN45545-2 R24 (EN ISO 4589-2, EN ISO 5659-2, NF X75-100-1 & 2) Fire & Smoke Certificate
Operating Humidity	5% to 95% Non-condensing	MTBF	565,049 Hrs (IEC62830 standards)
<b>Regulatory approvals</b>		Warranty	5 years
EMI & EMS	FCC Part 15 Class A IEC/EN61000-6-2 CE EN55032 Class A CE EN55024: CE EN61000-4-2 (ESD) Level 3 CE EN61000-4-3 (RS) Level 3		

\*Future Release

\*\*Optional

## ORDERING INFORMATION

All QMA connector models are with –Q model name; -40~75C operational models are with –E model name.

- **TMR-5002-1L-2S-WV-54-EUNA.....P/N: 8631-021**  
EN50155 Multifunction VPN Router + 1 LTE 4G SMA connectors+ 2 serial RS232 ports + 2 Gigabit X-coded Ethernet (incl. 1PD) for load-balancing\*\*, VPN, Protocol Gateway; EU and US band; dual isolated 16.8V~137.5VDC; -20~75C; IP54 housing
- **TMR-5002-1L-2S-WV-54-APAC.....P/N: 8631-023**  
EN50155 Multifunction VPN Router + 1 LTE 4G SMA connectors+ 2 serial RS232 ports + 2 Gigabit X-coded Ethernet (incl. 1PD) for load-balancing\*\*, VPN, Protocol Gateway; APAC band; dual isolated 16.8V~137.5VDC; -20~75C; IP54 housing
- **TMR-5002-1L-2S-WV-54-WW.....P/N: 8631-022**  
EN50155 Multifunction VPN Router + 1 LTE 4G SMA connectors+ 2 serial RS232 ports + 2 Gigabit X-coded Ethernet (incl. 1PD) for load-balancing\*\*, VPN, Protocol Gateway; Worldwide band; dual isolated 16.8V~137.5VDC; -20~75C; IP54 housing
- **TMR-5002-1L-2SA-WV-54-EUNA.....P/N: 8631-0211**  
EN50155 Multifunction VPN Router + 1 LTE 4G SMA connectors+ 2 serial RS422/485 ports + 2 Gigabit X-coded Ethernet (incl. 1PD) for load-balancing\*\*, VPN, Protocol Gateway; EU and US band; dual isolated 16.8V~137.5VDC; -20~75C; IP54 housing
- **TMR-5002-1L-2SA-WV-54-APAC.....P/N: 8631-0221**  
EN50155 Multifunction VPN Router + 1 LTE 4G SMA connectors+ 2 serial RS422/485 ports + 2 Gigabit X-coded Ethernet (incl. 1PD) for load-balancing\*\*, VPN, Protocol Gateway; APAC band; dual isolated 16.8V~137.5VDC; -20~75C; IP54 housing
- **TMR-5002-1L-2SA-WV-54-WW.....P/N: 8631-0231**  
EN50155 Multifunction VPN Router + 1 LTE 4G SMA connectors+ 2 serial RS422/485 ports + 2 Gigabit X-coded Ethernet (incl. 1PD) for load-balancing\*\*, VPN, Protocol Gateway; Worldwide band; dual isolated 16.8V~137.5VDC; -20~75C; IP54 housing
- **TMR-5002-1L-2S-WV-65-EUNA.....P/N: 8631-041**  
EN50155 Multifunction VPN Router + 1 LTE 4G SMA connectors+ 2 serial RS232 ports + 2 Gigabit X-coded Ethernet (incl. 1PD) for load-balancing\*\*, VPN, Protocol Gateway; EU and US band; dual isolated 16.8V~137.5VDC; -20~75C; IP65 housing
- **TMR-5002-1L-2S-WV-65-APAC.....P/N: 8631-042**  
EN50155 Multifunction VPN Router + 1 LTE 4G SMA connectors+ 2 serial RS232 ports + 2 Gigabit X-coded Ethernet (incl. 1PD) for load-balancing\*\*, VPN, Protocol Gateway; APAC band; dual isolated 16.8V~137.5VDC; -20~75C; IP65 housing
- **TMR-5002-1L-2S-WV-65-WW.....P/N: 8631-043**  
EN50155 Multifunction VPN Router + 1 LTE 4G SMA connectors+ 2 serial RS232 ports + 2 Gigabit X-coded Ethernet (incl. 1PD) for load-balancing\*\*, VPN, Protocol Gateway; Worldwide band; dual isolated 16.8V~137.5VDC; -20~75C; IP65 housing
- **TMR-5002-1L-2SA-WV-65-EUNA.....P/N: 8631-0411**  
EN50155 Multifunction VPN Router + 1 LTE 4G SMA connectors+ 2 serial RS422/485 ports + 2 Gigabit X-coded Ethernet (incl. 1PD) for load-balancing\*\*, VPN, Protocol Gateway; EU and US band; dual isolated 16.8V~137.5VDC; -20~75C; IP65 housing
- **TMR-5002-1L-2SA-WV-65-APAC.....P/N: 8631-0421**  
EN50155 Multifunction VPN Router + 1 LTE 4G SMA connectors+ 2 serial RS422/485 ports + 2 Gigabit X-coded Ethernet (incl. 1PD) for load-balancing\*\*, VPN, Protocol Gateway; APAC band; dual isolated 16.8V~137.5VDC; -20~75C; IP65 housing
- **TMR-5002-1L-2SA-WV-65-WW.....P/N: 8631-0431**  
EN50155 Multifunction VPN Router + 1 LTE 4G SMA connectors+ 2 serial RS422/485 ports + 2 Gigabit X-coded Ethernet (incl. 1PD) for load-balancing\*\*, VPN, Protocol Gateway; Worldwide band; dual isolated 16.8V~137.5VDC; -20~75C; IP65 housing
- **TMR-5002-2L-2S-WV-54-EUNA.....P/N: 8631-024**  
EN50155 Multifunction VPN Router + 2 LTE 4G SMA connectors+ 2 serial RS232 ports + 2 Gigabit X-coded Ethernet (incl. 1PD) for load-balancing\*\*, VPN, Protocol Gateway; EU and US band; dual isolated 16.8V~137.5VDC; -20~75C; IP54 housing
- **TMR-5002-2L-2S-WV-54-APAC.....P/N: 8631-025**  
EN50155 Multifunction VPN Router + 2 LTE 4G SMA connectors+ 2 serial RS232 ports + 2 Gigabit X-coded Ethernet (incl. 1PD) for load-balancing\*\*, VPN, Protocol Gateway; APAC band; dual isolated 16.8V~137.5VDC; -20~75C; IP54 housing
- **TMR-5002-2L-2S-WV-54-WW.....P/N: 8631-026**  
EN50155 Multifunction VPN Router + 2 LTE 4G SMA connectors+ 2 serial RS232 ports + 2 Gigabit X-coded Ethernet (incl. 1PD) for load-balancing\*\*, VPN, Protocol Gateway; Worldwide band; dual isolated 16.8V~137.5VDC; -20~75C; IP54 housing
- **TMR-5002-2L-2SA-WV-54-EUNA.....P/N: 8631-0241**  
EN50155 Multifunction VPN Router + 2 LTE 4G SMA connectors+ 2 serial RS422/485 ports + 2 Gigabit X-coded Ethernet

- (incl. 1PD) for load-balancing\*\*, VPN, Protocol Gateway; EU and US band; dual isolated 16.8V~137.5VDC; -20~75C; IP54 housing
- **TMR-5002-2L-2SA-WV-54-APAC.....P/N: 8631-0251**  
EN50155 Multifunction VPN Router + 2 LTE 4G SMA connectors+ 2 serial RS422/485 ports + 2 Gigabit X-coded Ethernet (incl. 1PD) for load-balancing\*\*, VPN, Protocol Gateway; APAC band; dual isolated 16.8V~137.5VDC; -20~75C; IP54 housing
  - **TMR-5002-2L-2SA-WV-54-WW.....P/N: 8631-0261**  
EN50155 Multifunction VPN Router + 2 LTE 4G SMA connectors+ 2 serial RS422/485 ports + 2 Gigabit X-coded Ethernet (incl. 1PD) for load-balancing\*\*, VPN, Protocol Gateway; Worldwide band; dual isolated 16.8V~137.5VDC; -20~75C; IP54 housing
  - **TMR-5002-2L-2S-WV-65-EUNA.....P/N: 8631-044**  
EN50155 Multifunction VPN Router + 2 LTE 4G SMA connectors+ 2 serial RS232 ports + 2 Gigabit X-coded Ethernet (incl. 1PD) for load-balancing\*\*, VPN, Protocol Gateway; EU and US band; dual isolated 16.8V~137.5VDC; -20~75C; IP65 housing
  - **TMR-5002-2L-2S-WV-65-APAC.....P/N: 8631-045**  
EN50155 Multifunction VPN Router + 2 LTE 4G SMA connectors+ 2 serial RS232 ports + 2 Gigabit X-coded Ethernet (incl. 1PD) for load-balancing\*\*, VPN, Protocol Gateway; APAC band; dual isolated 16.8V~137.5VDC; -20~75C; IP65 housing
  - **TMR-5002-2L-2S-WV-65-WW.....P/N: 8631-046**  
EN50155 Multifunction VPN Router + 2 LTE 4G SMA connectors+ 2 serial RS232 ports + 2 Gigabit X-coded Ethernet (incl. 1PD) for load-balancing\*\*, VPN, Protocol Gateway; Worldwide band; dual isolated 16.8V~137.5VDC; -20~75C; IP65 housing
  - **TMR-5002-2L-2SA-WV-65-EUNA.....P/N: 8631-0441**  
EN50155 Multifunction VPN Router + 2 LTE 4G SMA connectors+ 2 serial RS422/485 ports + 2 Gigabit X-coded Ethernet (incl. 1PD) for load-balancing\*\*, VPN, Protocol Gateway; EU and US band; dual isolated 16.8V~137.5VDC; -20~75C; IP65 housing
  - **TMR-5002-2L-2SA-WV-65-APAC.....P/N: 8631-0451**  
EN50155 Multifunction VPN Router + 2 LTE 4G SMA connectors+ 2 serial RS422/485 ports + 2 Gigabit X-coded Ethernet (incl. 1PD) for load-balancing\*\*, VPN, Protocol Gateway; APAC band; dual isolated 16.8V~137.5VDC; -20~75C; IP65 housing
  - **TMR-5002-2L-2SA-WV-65-WW.....P/N: 8631-0461**  
EN50155 Multifunction VPN Router + 2 LTE 4G SMA connectors+ 2 serial RS422/485 ports + 2 Gigabit X-coded Ethernet (incl. 1PD) for load-balancing\*\*, VPN, Protocol Gateway; Worldwide band; dual isolated 16.8V~137.5VDC; -20~75C; IP65 housing
- EMMC Flash Storage**
- **8G.....P/N:8850-113**
  - **16G.....P/N:8850-114**
  - **32G.....P/N:8850-115**
- Software License**
- **LOAD BALANCING Basic Package.....P/N: 9000-101**
  - **LOAD BALANCING Full Package.....P/N: 9000-102**

**OPTIONAL ACCESSORIES**

**LTE Antenna**

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

**Lantech Communications Global Inc.**

www.lantechcom.tw  
info@lantechcom.tw

© 2018 Copyright Lantech Communications Global Inc. all rights reserved.  
The revise authority rights of product specifications belong to Lantech Communications Global Inc.  
Lantech may make changes to specification and product descriptions at anytime, without notice.