

# 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:

Pack	Algorithm	Description
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<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 fallback 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.

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.

**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 fallback 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

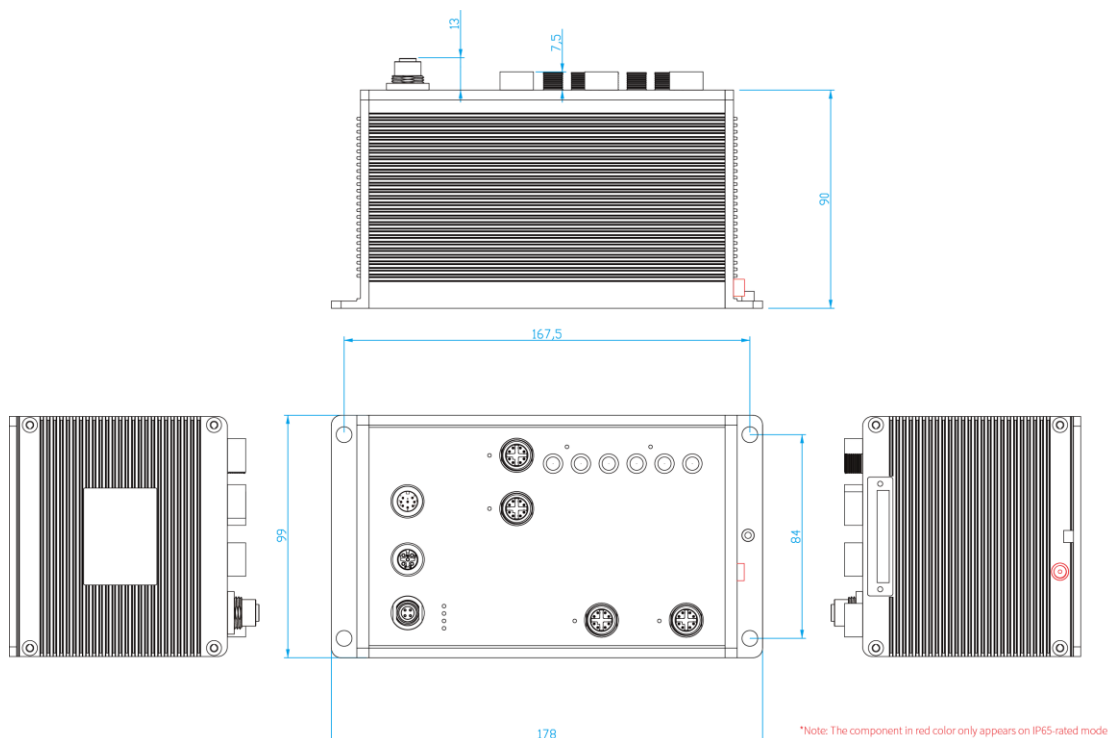
		services like online payment etc.
	Smallest Load*	Routes connections through the WAN link with highest free bandwidth ratio. The ratio = 1 - (traffic load / the capability of a WAN link). The traffic load could be defined by downstream, upstream or total traffic
	Fastest*	Routes connections through the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

- 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
- 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
- EN45545-2 Fire & Smoke, EN50155 and EN61373 shock/vibration verification
- Operation temperature -20~75C or -40~75C(-E)

**DIMENSIONS (unit=mm)**



## SPECIFICATION

Cellular Interface	
Location Solutions	GPS, Glonass (EU/Americas) GPS, Glonass, Beidou, Galileo (APAC model only)
Band Options	<b>APAC &amp; Australia (APAC model)</b> LTE: 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> LTE: 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> LTE: 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)
Data Rates – LTE	<b>APAC &amp; Australia (APAC model)</b> Downlink (Cat 6): FDD: 300 Mbps TDD: 222 Mbps Uplink (Cat 6): FDD: 50 Mbps TDD: 26 Mbps  <b>Americas &amp; EMEA (EUNA model)</b> Downlink (Cat 6): FDD: 300 Mbps TDD: 222 Mbps Uplink (Cat 6): FDD: 50 Mbps TDD: 26 Mbps  <b>WorldWide (WW model)</b> Downlink: Cat 12: 600 Mbps Cat 9: 450 Mbps Uplink: Cat 13: 150 Mbps
<b>Software</b>	
IPv6/4	Present
Login Security	Supports IEEE802.1x** Authentication/RADIUS Optional Train Wireless Carriage Coupling for Auto wireless Coupling
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(DoS**); IP address filter / Mac address filter* / TCP/UDP port number), VRRP**, DDNS*
Management Load Balancing**	SNMP* v1,v2c,v3/ Web/Telnet/CLI 8 schemes for multiple WAN
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 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.
<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.
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
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 & TX / RX rate display
Remote Web/SMS** control	To reboot or get status of router by Web/SMS**
Maintenance	Firmware upgradeable through TFTP/FTP/HTTP
Configuration backup & restore	Supports text configuration file for quick system installation USB port to upload/download configuration and upgrade firmware* by USB dongle
<b>Physical Ports &amp; System</b>	
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)
Serial Baud Rate	1000Kbps high data rate,250kbps normal for RS232 ; 20Mbps high data rate,250kbps normal for RS422/485
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	RS422/485 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) , 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
Dimension	178 (W) x 99 (D) x 103 (H) mm
Weight	1000g

<b>Environmental</b>		908-1, EN303 413, EN62311
Storage Temperature	-40°C ~ 85°C (-40°F ~ 185°F)	Safety
Operating Temperature	-20°C ~ 75°C (-4°F ~ 167°F) -40°C ~ 75°C (-40°F ~ 167°F) –E Model	EN60950 (LVD), AS60950 (LVD)
Operating Humidity	5% to 95% Non-condensing	Stability Testing
<b>Regulatory approvals</b>		EN61373 (Shock & Vibration)
EMC	FCC Part 15 Class A, EN55032 , EN55024	Verifications & report
EMS	EN61000-4-2 (ESD), EN61000-4-3 (RS), EN61000-4-4 (EFT), EN61000-4-5 (Surge), EN61000-4-6 (CS), EN61000-4-8, EN61000-6-2	EN50155, EN50121-3-2, EN50121-4 verification EN45545-2 R13/R22/R23/R24/R25 (EN ISO 4589-2, EN ISO 5659-2, NF X70-100-1 & 2) Fire & Smoke verification
Radio Frequency	EN301 489-1, EN301 489-17, EN301 489-19, EN301 489-52, EN300 440, EN301 893, EN300 328, EN301	MTBF
		565,049 Hrs (IEC62830 standards)
		Warranty
		5 years

\*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

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