TPMR-5006

EN50155 Multifunction VPN Router up to 2 LTE 4G + 2 serial ports + 6 Gigabit X-coded Ethernet switch (incl. 4 PoE ports) w/ Load Balancing, VPN, Protocol Gateway, Storage**; WV input

- *Built-in 4 Gigabit X-coded PoE Ethernet managed switch +2 WAN/LAN ports, Up to 2x LTE 4G Module (4SIMS)*
- *Support LTE Cat 6 (APAC & EUNA models) or Cat 12/9/13 (WW model)*
- *VPN router for Multi-site VPN, OpenVPN, L2TP over IPsec, IPsec, PPTP**, L2 over GRE , IPGRE*
- *Load Balancing support 8 mechanism*
- *Optional EMMC Flash storage on-board***
- *Support NAT and Firewall*
- *Support Modbus gateway on serial ports*
- *Support 2 RS422/RS485 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 and total PoE load;; LTE signal strength*
- *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 TPMR-5006 series is a next generation EN50155 multi-function VPN router up to 2 x LTE modem +6 Gigabit X-coded Ethernet switch incl. 4 PoE ports + 2 serial ports that supports advanced function of VPN, Load-Balancing (Premium pack) , EMMC Flash Storage**, Protocol gateway (Modbus), Storage**, and 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, TPMR-5006 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 mechanism for multi-WANs (premium license)

TPMR-5006 supports Load Balancing for LTE/WAN connections. There are eight schemes with Load Balancing Function:

Pack	Algorithm	Description
Basic Package	Fixed	Manually route by traffic type through fixed WAN link.
	Failover	Routes connections through preferred WAN link while others stand-by. Sequentially activate another link if preferred link fail occurs. Once failover will not failback until link loss.
	Priority	Routes connections through preferred WAN link as primary while others follow by. Ex. Wi-Fi client>LTE>others
	Weighted	Evenly distribute the traffic over

	Round-Robin	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.

2 port serial connection, Modbus gateway

It builds in 2 port serial connection for RS232; RS422; RS485 in which RS422/RS485 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, TPMR-5006 support latest Multi-Site VPN function that is an efficient way for mesh tunneling.   The registration is under cloud service and encrypted by SSH makes the connection easy and safe.

It supports Multi-Site VPN, OpenVPN, L2TP over IPsec, IPsec, PPTP** , L2 over GRE, IPGRE, and NAT for various VPN applications.

The built-in Layer-4 firewall includes DDoS, IP address filter / Mac address filter / TCP / UDP port number.

Optional 2 GT smart bypass protection

The optional bypass relay is set to bypass the router to the next one when power is off in order to protect the network from crashing. Lantech bypass caters to remain in bypass mode until the router is completely booting up when power is back to avoid another network lost.   Also it will be activated when detecting the router is hanged or link down.

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 TPMR-5006 will immediately send email and trap.

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

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 dual input voltage from dual input voltage from 16.8-137.5V (WV model)

The TPMR-5006 is able to work from dual 16.8V ~137.5V DC input (WV model) for PoE at/af with PoE budget 60W that is particular good for vehicle, rail train, depot etc applications.

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.

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

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

The LTE signal strength shows connection status at a glance

Editable login page of captive portal

The TPMR-5006 supports editable captive portal function that allows administrator to force end-users redirect to authentication page.

USB port for back up, restore configuration and upgrade firmware; Dual image firmware*

The built-in USB port can upload/download/upgrade the configurations through USB dongle for router replacement
It supports dual-image firmware* to choose which one to start

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

The TPMR-5006 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 TPMR-5006 is best for outdoor community, vehicle, power substation, process control automation etc application. For more usage flexibilities, TPMR-5006 supports operating temperature from -40°C to 65°C.
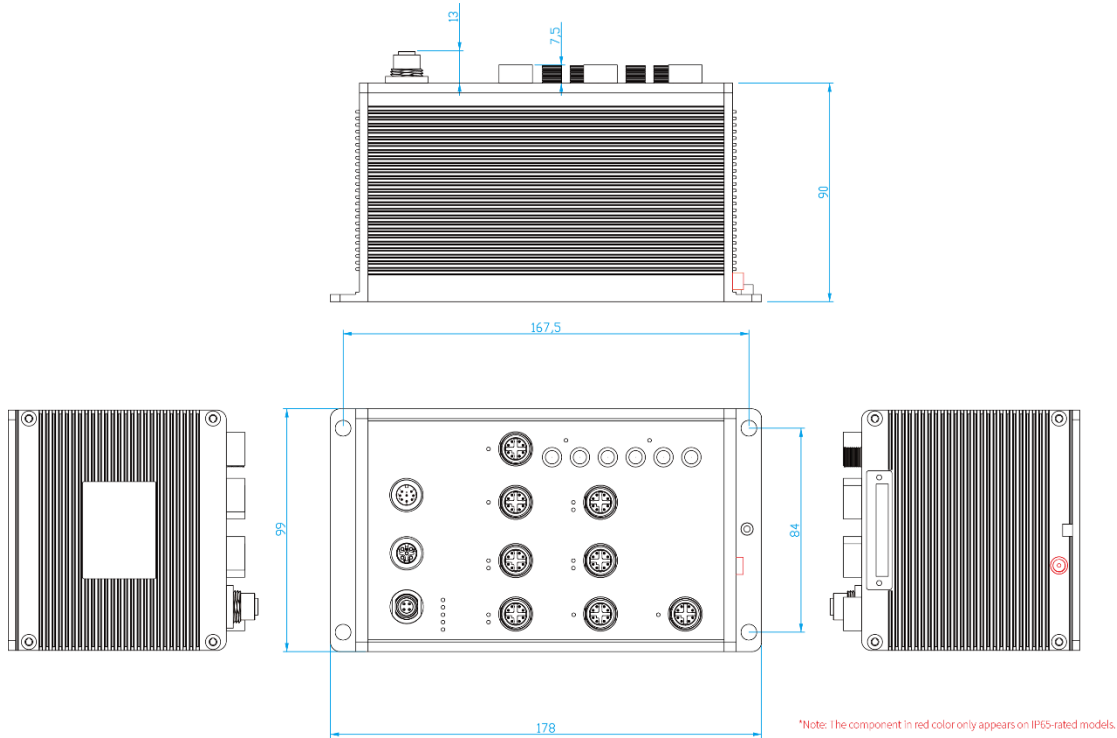
FEATURES & BENEFITS

- **Built-in 6 Gigabit X-coded Ethernet managed switch incl. 4 PoE switch at/af at 60W PoE budget**
- **Dual DC input from 16.8V~137.5VDC   power input (WV model)**
- **Optional 2 GT smart bypass relay protection when detecting power lost as well as CPU hang-up or link down.   Deferring bypass time until router is completely boot-up.**
- **6 STANDARD SMA / OPTIONAL QMA type connectors**
- **HTTP/HTTPS/Telnet/SSH & Administration access**
- **Support IPv6 & IPv4 protocol**
- **Radius Authentication, EAP-TLS, EAP-TTLS, PEAP**
- **EMMC-FLASH storage**8/16/32G**
- **Support Multi-Site VPN for mesh tunneling as well as Open VPN, L2TP over IPsec, IPsec, PPTP**, L2 over GRE , IPGRE and NAT for secured network connection**
- **The built-in Layer-4 firewall includes DDoS, IP address filter / Mac address filter / TCP/UDP port number**
- **NAT/DMZ/Port Forwarding**
- **TCP/UDP port number.**
- **Support SNMP*v1/v2c/v3**
- **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
Basic Package	Fixed	Manually route by traffic type through fixed WAN link.
	Failover	Routes connections through preferred WAN link while others stand-by. Sequentially activate another link if preferred link fail occurs. Once failover will not 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** (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/RS485)**
- **Serial port with 2.5KV isolation on RS422/RS485**
- **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, Relay ; Permanent local log rotation / Maxi 1K records**
- **Remote Web control to get status or re-boot by Web**
- **Support SNTP to synchronize system clock**
- **Support LLDP discovery protocol**
- **Support DHCP Server and Client**
- **LTE signal strength**
- **Built-in environmental monitoring for system input voltage, current and ambient temperature; Able to set alert when abnormal**
- **Support editable captive portal login page**
- **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*
- **Dual image firmware***
- **IP65/54 housing for water proof environment**
- **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 -40~65C**

DIMENSIONS (unit=mm)

13
7,5
90
167,5
99
84
178

*Note: The component in red color only appears on IP65-rated models.

SPECIFICATION

Cellular Interface	
Location Solutions	GPS, Glonass (EU/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
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 number),VRRP**, DDNS*
Management	SNMP*v1,v2c,v3/ Web/Telnet/CLI
Load Balancing	8 schemes for multiple WAN

Basic Package	
Fixed	Manually route by traffic type through fixed WAN link.
Failover	Routes connections through preferred WAN link while others stand-by. Sequentially activate another link if preferred link failure occurs.
Priority	Routes connections through preferred WAN link while others stand-by. Sequentially activate other links if overflow occurs.
Weighted Round-Robin	Evenly distribute the traffic over all working WAN links in circular order according to the specified weights
Custom Route	Routing through the selected WAN for each specific traffic ex: TCP/UDP port number and IP address.

Full Package** incl. basic package	
Sticky Session*	Binding all connections in an application session to particular WAN link to ensure all connections in the

	session are routed to the same WAN link , that is suitable for security services like online payment etc.	DI/DO	DIDO 3KV isolation Input power 1.5KVA isolation 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
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	EMMC Storage**	8/16/32 GB

LED Indicators

Fastest*	Routes connections through the WAN link with lowest latency time.	Power & System indicator	Per unit: Power 1 (Green), Power 2 (Green), P-Fail (Red) , Ring Master(Green), System Ready(Green), Serial1/Serial2(Green) ,
Authentication	Radius Authentication, EAP-TLS, EAP-TTLS, PEAP	10/100/1000Base-T(X) port indicator	Link/Activity (Green), Speed (Yellow)), PoE (Green)
Timer	Built-in Real Time Clock to keep track of time always(RTC)	SIM	Green for Link/Act
Discovery	IEEE 802.1ab Link Layer Discovery Protocol (LLDP)	GPS	Green for Link/Act
SNMP trap	Device cold / warm start Port link up / link down DI / DO high / low	Fault	Red: Ethernet link down or power down

Fault contact

Environmental Monitoring	System status for input voltage, current , ambient temperature to be shown in GUI and sent alerting if any abnormal status	Relay	Relay output to carry capacity of 1A at 24VDC

Power

Signal display	LTE signal strength & TX / RX rate display	Input power	Dual DC input, 16.8VDC~137.5VDC for (WV model)
Remote Web control	To reboot or get status of router by Web	System power	30.5W
Captive portal	Editable captive portal login page	PoE Budget	60W

Physical Characteristic

Maintenance	Firmware upgradeable through TFTP/ HTTP	Enclosure	IP 65/54 aluminum case
Configuration backup & restore	Supports text configuration file for quick system installation USB port to upload/download configuration and upgrade firmware by USB dongle Dual image firmware*	Dimension	178 (W) x 99 (D) x 103 (H) mm
		Weight	1000g

Physical Ports & System

Environmental

Connectors	10/100/1000T: 6x ports M12 8-pole X-coded (incl 4 PoE ports) USB/Console connector: 1 x M12 8-pole A-coded DI/DO : 1 x M12 5-pole A-coded Power Input connector : 1 x M12 4-pole A-coded Serial connector : 2 DB9 2L model SMA/QMA** connector for LTE: 4 (female) SMA/QMA** connector for GPS: 2 (female) 1L model SMA/QMA** connector for LTE: 2 (female) SMA/QMA** connector for GPS: 1 (female)	Storage Temperature	-40ºC ~ 85ºC (-40ºF ~ 185ºF)
		Operating Temperature	-40ºC ~ 65ºC (-40ºF ~ 149ºF)
		Operating Humidity	5% to 95% Non-condensing

Regulatory approvals

		EMC	FCC Part 15 Class A, EN55032 , EN55024
		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
Serial Baud Rate	1000Kbps high data rate,250kbps normal for RS232 ; 20Mbps high data rate,250kbps normal for RS422/RS485	Radio Frequency	EN301 489-1, EN301 489-17, EN301 489-19, EN301 489-52, EN300 440, EN301 893, EN300 328, EN301 908-1, EN303 413, EN62311
Serial Data Bits	5, 6, 7, 8	Safety	EN60950 (LVD), AS60950 (LVD)
Serial Parity	odd, even, none, mark, space	Stability Testing	EN61373 (Shock & Vibration)
Serial Stop Bits	1, 1.5, 2	Verifications & report	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
RS-232	TxD, RxD, RTS, CTS, DTR, DSR, DCD, GND		
RS-422	Tx+,Tx-, Rx+, Rx-,GND	MTBF	NA
RS-485 (2-wire)	Data+, Data-,GND	Warranty	5 years
Isolation protection	RS422/RS485 2.5KV isolation; 8KV contact & 15KV air RS232 8KV contact and 15KV air ESD		

*Future Release

**Optional

ORDERING INFORMATION

All standard models are non-conformal coating, optional conformal coating are with –C model name; Optional bypass models are available with –BT model name; QMA connector models are with –Q model name.

■ **TPMR-5006-1L-2S-WV-65-EUNA**..…………......…….…......**P/N: 8654-021**
EN50155 Multifunction VPN Router + 1 LTE 4G SMA connectors + 2 serial RS232 ports + 6 Gigabit X-coded Ethernet Managed Switch incl.4 PoE at/af with Load Balancing, VPN, Protocol Gateway; EU and US band; dual 16.8~137.5VDC; IP65; -40~65C

■ **TPMR-5006-1L-2S-WV-65-WW**..…………......…….….......**P/N: 8654-022**
EN50155 Multifunction VPN Router + 1 LTE 4G SMA connectors + 2 serial RS232 ports + 6 Gigabit X-coded Ethernet port with Load Balancing, VPN, Protocol Gateway; Worldwide band; dual   16.8~137.5VDC; IP65; -40~65C

■ **TPMR-5006-1L-2S-WV-65-APAC**..…………......…….…......**P/N: 8654-023**
EN50155 Multifunction VPN Router + 1 LTE 4G SMA connectors + 2 serial RS232 ports + 6 Gigabit X-coded Ethernet Managed Switch incl.4 PoE at/af with Load Balancing, VPN, Protocol Gateway; APAC band; dual 16.8~137.5VDC; IP65; -40~65C

■ **TPMR-5006-1L-2SA-WV-65-EUNA**..…………......…….…......**P/N:8654-0211**
EN50155 Multifunction VPN Router + 1 LTE 4G SMA connectors + 2 serial RS422 ports + 6 Gigabit X-coded Ethernet Managed Switch incl.4 PoE at/af with Load Balancing, VPN, Protocol Gateway; EU and US band; dual 16.8~137.5VDC; IP65;

-40~65C

■ **TPMR-5006-1L-2SA-WV-65-WW**…………..….........….….…..**P/N:8654-0221**

EN50155 Multifunction VPN Router + 1 LTE 4G SMA connectors + 2 serial RS422 ports + 6 Gigabit X-coded Ethernet Managed Switch incl.4 PoE at/af with Load Balancing, VPN, Protocol Gateway; Worldwide band; dual 16.8~137.5VDC; IP65; -40~65C

■ **TPMR-5006-1L-2SA-WV-65-APAC**…………..….........…..….…..**P/N:8654-0231**

EN50155 Multifunction VPN Router + 1 LTE 4G SMA connectors + 2 serial RS422 ports + 6 Gigabit X-coded Ethernet Managed Switch incl.4 PoE at/af with Load Balancing, VPN, Protocol Gateway; APAC band; dual 16.8~137.5VDC; IP65; -40~65C

■ **TPMR-5006-1L-2SB-WV-65-EUNA**…………..….........…..….…....**P/N:8654-0212**

EN50155 Multifunction VPN Router + 1 LTE 4G SMA connectors + 2 serial RS485 ports + 6 Gigabit X-coded Ethernet Managed Switch incl.4 PoE at/af with Load Balancing, VPN, Protocol Gateway; EU and US band; dual 16.8~137.5VDC; IP65; -40~65C

■ **TPMR-5006-1L-2SB-WV-65-WW**…………..….........….….…..**P/N:8654-0222**

EN50155 Multifunction VPN Router + 1 LTE 4G SMA connectors + 2 serial RS485 ports + 6 Gigabit X-coded Ethernet Managed Switch incl.4 PoE at/af with Load Balancing, VPN, Protocol Gateway; Worldwide band; dual 16.8~137.5VDC; IP65; -40~65C

■ **TPMR-5006-1L-2SB-WV-65-APAC**…………..….........…..….…....**P/N:8654-0232**

EN50155 Multifunction VPN Router + 1 LTE 4G SMA connectors + 2 serial RS485 ports + 6 Gigabit X-coded Ethernet Managed Switch incl.4 PoE at/af with Load Balancing, VPN, Protocol Gateway; APAC band; dual 16.8~137.5VDC; IP65; -40~65C

■ **TPMR-5006-1L-2S-WV-54-EUNA**…………..….......…..….…........**P/N: 8654-041**

EN50155 Multifunction VPN Router + 1 LTE 4G SMA connectors + 2 serial RS232 ports + 6 Gigabit X-coded Ethernet Managed Switch incl.4 PoE at/af with Load Balancing, VPN, Protocol Gateway; EU and US band; dual 16.8~137.5VDC; IP54; -40~65C

■ **TPMR-5006-1L-2S-WV-54-WW**…………..….........…..….…..**P/N: 8654-042**

EN50155 Multifunction VPN Router + 1 LTE 4G SMA connectors + 2 serial RS232 ports + 6 Gigabit X-coded Ethernet Managed Switch incl.4 PoE at/af with Load Balancing, VPN, Protocol Gateway; Worldwide band; dual 16.8~137.5VDC; IP54; -40~65C

■ **TPMR-5006-1L-2S-WV-54-APAC**…………..….......…..….…........**P/N: 8654-043**

EN50155 Multifunction VPN Router + 1 LTE 4G SMA connectors + 2 serial RS232 ports + 6 Gigabit X-coded Ethernet Managed Switch incl.4 PoE at/af with Load Balancing, VPN, Protocol Gateway; APAC band; dual 16.8~137.5VDC; IP54; -40~65C

■ **TPMR-5006-1L-2SA-WV-54-EUNA**…………..….......…….….…........**P/N: 8654-0411**

EN50155 Multifunction VPN Router + 1 LTE 4G SMA connectors + 2   serial RS422 ports + 6 Gigabit X-coded Ethernet Managed Switch incl.4 PoE at/af with Load Balancing, VPN, Protocol Gateway; EU and US band; dual 16.8~137.5VDC; IP54; -40~65C

■ **TPMR-5006-1L-2SA-WV-54-WW**…………..….........…..….….......**P/N: 8654-0421**

EN50155 Multifunction VPN Router + 1 LTE 4G SMA connectors+ 2 serial RS422 ports + 6 Gigabit X-coded Ethernet Managed Switch incl.4 PoE at/af with Load Balancing, VPN, Protocol Gateway; Worldwide band ; dual 16.8~137.5VDC; IP54; -40~65C

■ **TPMR-5006-1L-2SA-WV-54-APAC**…………..….........…..….…....**P/N: 8654-0431**

EN50155 Multifunction VPN Router + 1 LTE 4G SMA connectors+ 2 serial RS422 ports + 6 Gigabit X-coded Ethernet Managed Switch incl.4 PoE at/af with Load Balancing, VPN, Protocol Gateway; APAC band ; dual 16.8~137.5VDC; IP54; -40~65C

■ **TPMR-5006-1L-2SB-WV-54-EUNA**…………..….......…..….…........**P/N: 8654-0412**

EN50155 Multifunction VPN Router + 1 LTE 4G SMA connectors + 2 serial RS485 ports + 6 Gigabit X-coded Ethernet Managed Switch incl.4 PoE at/af with Load Balancing, VPN, Protocol Gateway; EU and US band; dual 16.8~137.5VDC; IP54; -40~65C

■ **TPMR-5006-1L-2SB-WV-54-WW**…………..….........…..….…..**P/N: 8654-0422**

EN50155 Multifunction VPN Router + 1 LTE 4G SMA connectors+ 2 serial RS485 ports + 6 Gigabit X-coded Ethernet Managed Switch incl.4 PoE at/af with Load Balancing, VPN, Protocol Gateway; Worldwide band ; dual 16.8~137.5VDC; IP54; -40~65C

■ **TPMR-5006-1L-2SB-WV-54-APAC**…………..….........…..….…....**P/N: 8654-0432**

EN50155 Multifunction VPN Router + 1 LTE 4G SMA connectors+ 2 serial RS485 ports + 6 Gigabit X-coded Ethernet Managed Switch incl.4 PoE at/af with Load Balancing, VPN, Protocol Gateway; APAC band ; dual 16.8~137.5VDC; IP54; -40~65C

■ **TPMR-5006-2L-2S-WV-65-EUNA**…………..….......…..….…........**P/N: 8654-024**

EN50155 Multifunction VPN Router + 2 LTE 4G SMA connectors + 2 serial RS232 ports + 6 Gigabit X-coded Ethernet Managed Switch incl.4 PoE at/af with Load Balancing, VPN, Protocol Gateway; EU and US band; dual 16.8~137.5VDC; IP65; -40~65C

■ **TPMR-5006-2L-2S-WV-65-WW**…………..…..……..…..….….......**P/N: 8654-025**

EN50155 Multifunction VPN Router + 2 LTE 4G SMA connectors + 2 serial RS232 ports + 6 Gigabit X-coded Ethernet port with Load Balancing, VPN, Protocol Gateway; Worldwide band; dual 16.8~137.5VDC; IP65; -40~65C

■ **TPMR-5006-2L-2S-WV-65-APAC**…………..….........…..….…......**P/N: 8654-026**

EN50155 Multifunction VPN Router + 2 LTE 4G SMA connectors + 2 serial RS232 ports + 6 Gigabit X-coded Ethernet Managed Switch incl.4 PoE at/af with Load Balancing, VPN, Protocol Gateway; APAC band; dual 16.8~137.5VDC; IP65; -40~65C

■   **TPMR-5006-2L-2SA-WV-65-EUNA...………….....……….......P/N: 8654-0241**

    EN50155 Multifunction VPN Router + 2 LTE 4G SMA connectors + 2 serial RS422 ports + 6 Gigabit X-coded Ethernet Managed Switch incl.4 PoE at/af with Load Balancing, VPN, Protocol Gateway; EU and US band; dual 16.8~137.5VDC; IP65; -40~65C

■   **TPMR-5006-2L-2SA-WV-65-WW…..……….......……..….....P/N: 8654-0251**

    EN50155 Multifunction VPN Router + 2 LTE 4G SMA connectors + 2 serial RS422 ports + 6 Gigabit X-coded Ethernet Managed Switch incl.4 PoE at/af with Load Balancing, VPN, Protocol Gateway; Worldwide band; dual 16.8~137.5VDC; IP65; -40~65C

■   **TPMR-5006-2L-2SA-WV-65-APAC….....……….......…..….....P/N: 8654-0261**

    EN50155 Multifunction VPN Router + 2 LTE 4G SMA connectors + 2 serial RS422 ports + 6 Gigabit X-coded Ethernet Managed Switch incl.4 PoE at/af with Load Balancing, VPN, Protocol Gateway; APAC band; dual 16.8~137.5VDC; IP65; -40~65C

■   **TPMR-5006-2L-2SB-WV-65-EUNA...………….....……….......P/N: 8654-0242**

    EN50155 Multifunction VPN Router + 2 LTE 4G SMA connectors + 2 serial RS485 ports + 6 Gigabit X-coded Ethernet Managed Switch incl.4 PoE at/af with Load Balancing, VPN, Protocol Gateway; EU and US band; dual   16.8~137.5VDC; IP65; -40~65C

■   **TPMR-5006-2L-2SB-WV-65-WW…..……….......……..….....P/N: 8654-0252**

    EN50155 Multifunction VPN Router + 2 LTE 4G SMA connectors + 2 serial RS485 ports + 6 Gigabit X-coded Ethernet Managed Switch incl.4 PoE at/af with Load Balancing, VPN, Protocol Gateway; Worldwide band; dual 16.8~137.5VDC; IP65; -40~65C

■   **TPMR-5006-2L-2SB-WV-65-APAC….....……….......…..….....P/N: 8654-0262**

    EN50155 Multifunction VPN Router + 2 LTE 4G SMA connectors + 2 serial RS485 ports + 6 Gigabit X-coded Ethernet Managed Switch incl.4 PoE at/af with Load Balancing, VPN, Protocol Gateway; APAC band; dual 16.8~137.5VDC; IP65; -40~65C

■   **TPMR-5006-2L-2S-WV-54-EUNA..………....…........……....P/N: 8654-044**

    EN50155 Multifunction VPN Router + 2 LTE 4G SMA connectors + 2 serial RS232 ports + 6 Gigabit X-coded Ethernet Managed Switch incl.4 PoE at/af with Load Balancing, VPN, Protocol Gateway; EU and US band; dual 16.8~137.5VDC; IP54; -40~65C

■   **TPMR-5006-2L-2S-WV-54-WW…..……….......…….….........P/N: 8654-045**

    EN50155 Multifunction VPN Router + 2 LTE 4G SMA connectors + 2 serial RS232 ports + 6 Gigabit X-coded Ethernet Managed Switch incl.4 PoE at/af with Load Balancing, VPN, Protocol Gateway; Worldwide band; dual 16.8~137.5VDC; IP54; -40~65C

■   **TPMR-5006-2L-2S-WV-54-APAC….....…………….…….…........P/N: 8654-046**

    EN50155 Multifunction VPN Router + 2 LTE 4G SMA connectors + 2 serial RS232 ports + 6 Gigabit X-coded Ethernet Managed Switch incl.4 PoE at/af with Load Balancing, VPN, Protocol Gateway; APAC band; dual 16.8~137.5VDC; IP54; -40~65C

■   **TPMR-5006-2L-2SA-WV-54-EUNA..………....…........……....P/N: 8654-0441**

    EN50155 Multifunction VPN Router + 2 LTE 4G SMA connectors + 2 serial RS422 ports + 6 Gigabit X-coded Ethernet Managed Switch incl.4 PoE at/af with Load Balancing, VPN, Protocol Gateway; EU and US band; dual 16.8~137.5VDC; IP54; -40~65C

■   **TPMR-5006-2L-2SA-WV-54-WW…..……….......……..….....P/N: 8654-0451**

    EN50155 Multifunction VPN Router + 2 LTE 4G SMA connectors+ 2   serial RS422 ports + 6 Gigabit X-coded Ethernet Managed Switch incl.4 PoE at/af with Load Balancing, VPN, Protocol Gateway; Worldwide band ; dual 16.8~137.5VDC; IP54; -40~65C

■   **TPMR-5006-2L-2SA-WV-54-APAC….....……….......…..….....P/N: 8654-0461**

    EN50155 Multifunction VPN Router + 2 LTE 4G SMA connectors+ 2 serial RS422 ports + 6 Gigabit X-coded Ethernet Managed Switch incl.4 PoE at/af with Load Balancing, VPN, Protocol Gateway; APAC band ; dual 16.8~137.5VDC; IP54; -40~65C

■   **TPMR-5006-2L-2SB-WV-54-EUNA..………....…........……....P/N: 8654-0442**

    EN50155 Multifunction VPN Router + 2 LTE 4G SMA connectors + 2 serial RS485 ports + 6 Gigabit X-coded Ethernet Managed Switch incl.4 PoE at/af with Load Balancing, VPN, Protocol Gateway; EU and US band; dual 16.8~137.5VDC; IP54; -40~65C

■   **TPMR-5006-2L-2SB-WV-54-WW…..……….......……..….....P/N: 8654-0452**

    EN50155 Multifunction VPN Router + 2 LTE 4G SMA connectors+ 2 serial RS485 ports + 6 Gigabit X-coded Ethernet Managed Switch incl.4 PoE at/af with Load Balancing, VPN, Protocol Gateway; Worldwide band ; dual 16.8~137.5VDC; IP54; -40~65C

■   **TPMR-5006-2L-2SB-WV-54-APAC….....……….......…..….....P/N: 8654-0462**

    EN50155 Multifunction VPN Router + 2 LTE 4G SMA connectors+ 2 serial RS485 ports + 6 Gigabit X-coded Ethernet Managed Switch incl.4 PoE at/af with Load Balancing, VPN, Protocol Gateway; APAC band ; dual 16.8~137.5VDC; IP54; -40~65C

    EMMC Flash Storage

■   **8G………..….………………………......….…....P/N:8850-113**

■   **16G………..….……………………......………..P/N:8850-114**

■   **32G…….....………………………………….P/N:8850-115**

    Software License

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

OPTIONAL ACCESSORIES

Management System

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

Multifunction Antenna

■ **ANT11000091**　5-in-1 omnidirectional antenna – 2G/3G/4G (698-960/1710~2170/2300~2700MHz) MIMO x2 + Wi-Fi 2.4/5GHz MIMO x2 + GPS/GLONASS/GALILEO (1575.42/1602MHz) x1, 3dBi, IP67, cable length: 3M

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

GPS Antenna

■ **ANT12000001**　SMA GPS antenna, 28dB, 300m

Cellular Antenna

■ **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

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