

## Introduction

ORing's Transporter™ series cellular router is designed for industrial and rolling stock wireless applications, such as vehicle, and railway applications. **TAR-620-M12-MV** is reliable IEEE802.11 a/b/g/n router with 2 ports LAN which is fully compliant with EN50155 certification. It could be configured to operate in 3 modes of routing function: Dynamic/Static IP route, PPPoE authentication, and Cellular modem dial up. Users can set up WLAN environment to fulfill demands of various applications rapidly by dialing up cellular modem. **TAR-620-M12-MV** EN50155 cellular VPN router use M-series connectors to ensure tight, robust connections, and guarantee reliable operation against environmental disturbances, such as vibration and shock. In addition, **TAR-620-M12-MV** also provides 43Vdc to 160Vdc power input by 7/8" connector. Therefore, **TAR-620-M12-MV** is one of the most reliable choices for rolling stock applications on the wireless network.

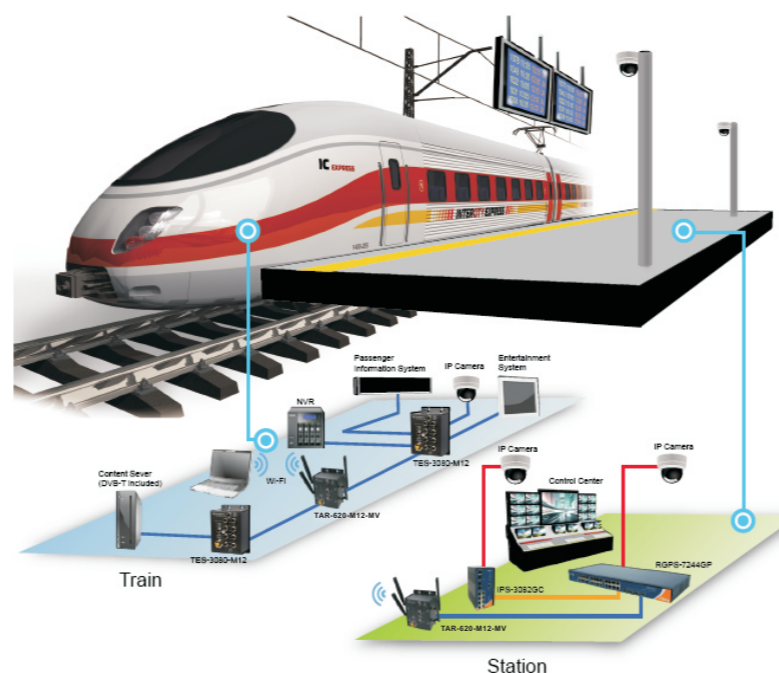


## Features

- Leading EN50155-compliant wireless access point for rolling stock application
- High Speed Air Connectivity: WLAN interface support up to 300Mbps link speed
- Highly Security Capability: WEP/WPA/WPA-PSK(TKIP,AES)/WPA2/WPA2-PSK(TKIP,AES)/802.1X Authentication supported
- Secured Management by HTTPs
- Various kind of WAN Connection Type supported: Dynamic/Static IP, PPPoE, Modem Dial Up
- IP table configurable to prevent access from unauthorized IP address
- Support VPN for secured network connection (Open VPN, PPTP VPN)
- Support NAT Setting (Virtual Server, Port Trigger, DMZ, UPnP)
- Support DHCP forwarding through PPTP function
- 3.5G HSDPA Modem dial up included
- Dual redundant Ethernet ports support Ethernet switch mode
- 1KV isolation for PoE P.D. port for PoE model
- Event Warning by Syslog, Email, SNMP Trap and Relay output
- Ultra rugged enclosure for toughest industrial usages
- Wall mounting enabled

## Applications

### Various kinds of operation modes



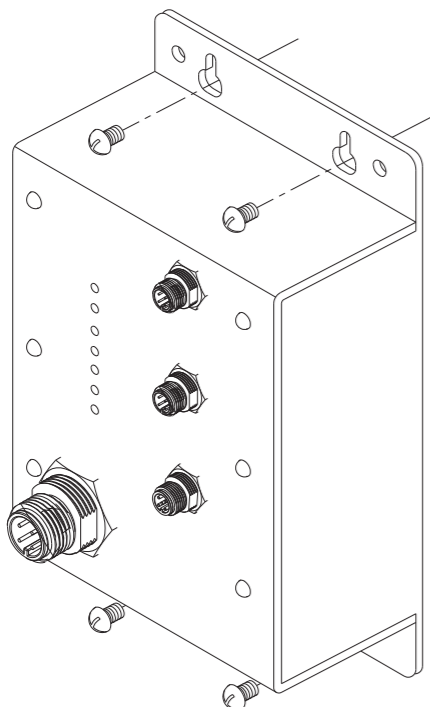
## Specifications

ORing EN50155 WLAN Access Point Router Model	TAR-620-M12-MV
<b>Physical Ports</b>	
10/100Base-T(X) Ports in M12 (D-coding) Auto MDI/MDIX	2
SIM Card Slot	1
<b>WLAN interface</b>	
Antenna and Connector	2 x External reverse SMA type antenna connector
Radio Frequency Type	DSSS, OFDM
Modulation	IEEE802.11a: OFDM with BPSK, QPSK, 16QAM, 64QAM IEEE802.11b: CCK, DQPSK, DBPSK IEEE802.11g: OFDM with BPSK, QPSK, 16QAM, 64QAM IEEE802.11n: BPSK, QPSK, 16-QAM, 64-QAM
Frequency Band	America / FCC: 2.412~2.462 GHz (11 channels) 5.180~5.240 GHz & 5.745~5.825 GHz (9 channels) Europe CE / ETSI: 2.412~2.472 GHz (13 channels) 5.180~5.240GHz (4 channels)
Transmission Rate	IEEE802.11b: 1 / 2 / 5.5 / 11 Mbps IEEE802.11a/g: 6 / 9 / 12 / 18 / 24 / 36 / 48 / 54 Mbps IEEE801.11n: up to 300Mbps

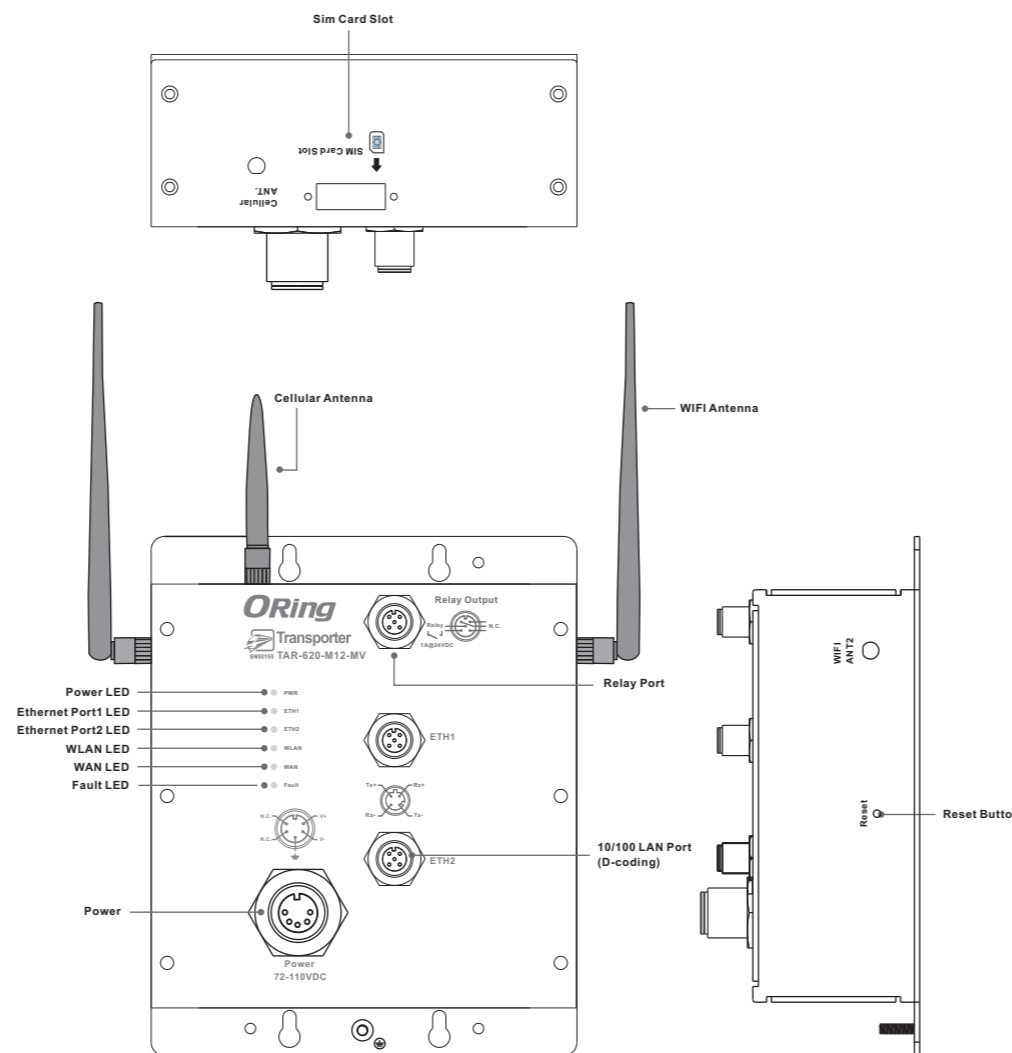
Transmit Power	802.11a: 12dBm±1.5dBm @ 54 Mbps 802.11b: 17dBm±1.5dBm @ 11Mbps 802.11g: 16dBm±1.5dBm @ 54Mbps 802.11gn HT20: 15dBm±1.5dBm @ MCS 7 802.11gn HT40: 14dBm±1.5dBm @ MCS 7 802.11an HT20: 12dBm±1.5dBm @ MCS 7 802.11an HT40: 11dBm±1.5dBm @ MCS 7
Receiver Sensitivity	802.11a: -76dBm±2dBm @ 54 Mbps 802.11b: -85dBm±2dBm @ 11Mbps 802.11g: -76dBm±2dBm @ 54Mbps 802.11gn HT20: -75dBm±2dBm @ MCS 7 802.11gn HT40: -72dBm±2dBm @ MCS 7 802.11an HT20: -74dBm±2dBm @ MCS 7 802.11an HT40: -71dBm±2dBm @ MCS 7
Encryption Security	WEP: (64-bit, 128-bit key supported) WAP/WAP2: 802.11 (WEP and AES encryption) WAPPSK (256-bit key pre-shared key supported) 802.1X Authentication supported TKIP encryption
Wireless Security	SSID broadcast disable
<b>Cellular Interface</b>	
Antenna Connector	1 x External reverse SMA type antenna connector
Cellular Standard	GSM / GPRS / EGPRS / EDGE / WCDMA / HSDPA / HSUPA
Band Option	Dual-band : HSUPA 1900 / 2100 MHZ Quad-band : GSM / GPRS / EDGE 850 / 900 / 1800 / 1900MHZ WCDMA / HSDPA 850/900/1900/2100 MHZ
<b>Protocol Support</b>	
Protocol	ARP,BOOTP, DHCP, DNS, HTTPs, IP, ICMP, SNTP, TCP, UDP, RADIUS, SNMP, PPPoE
<b>LED Indicators</b>	
Power indicator	1 x LED, Green for Power indicator
10/100Base-T(X) RJ45 port indicator	2 x LEDs, Green for port Link/Act
WLAN LED	1 x LED, Green for WLAN Link/Act
WAN LED	1 x LED, Green for Cellular modem Link/ Act
Fault indicator	1 x LED, Red: Ethernet link down or power down
<b>Fault Contact</b>	
Relay	Relay output to carry capacity of 1A at 24VDC
<b>Power</b>	
Redundant Input power	Single Power Inputs. 72~110 VDC (43~160VDC) on 5-pin 7/8" male connector
Power consumption(Typ.)	12 Watts Max.
Overload current protection	Present
Reverse polarity protection	Present
<b>Physical Characteristic</b>	
Enclosure	IP-40
Dimension (W x D x H)	145.6(W) x 65(D) x 196(H) mm (4.94 x 2.56 x 7.72 inch.)
Weight (g)	1550 g
<b>Environmental</b>	
Storage Temperature	-40 to 85°C (-22 to 185°F)
Operating Temperature	-20 to 70°C (-4 to 158°F)
Operating Humidity	5% to 95% Non-condensing
<b>Regulatory Approvals</b>	
EMI	FCC Part 15, CISPR (EN55022) class A
EMS	EN61000-4-2 (ESD), EN61000-4-3 (RS), EN61000-4-4 (EFT), EN61000-4-5 (Surge), EN61000-4-6 (CS), EN61000-4-8, EN61000-4-11
Shock	IEC60068-2-27, EN61373
Free Fall	IEC60068-2-31
Vibration	IEC60068-2-6, EN61373
Railway Traffic	EN50155
Cooling	EN60068-2-1
Dry Heat	EN60068-2-2
Safety	EN60950-1
Warranty	5 years

Installation

Wall-mounted Install Step



Front Panel



Accessory

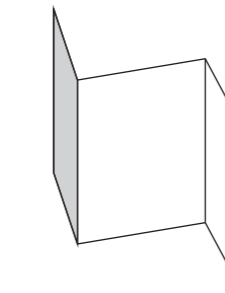
① Cellular Antenna



② Wi-Fi Antenna



③ QIG



④ CD



Packing list

Model name	Description	Accessory
TAR-620-M12-MV_US	En50155 IEEE 802.11 a/b/g/n 3G cellular router with 2x10/100Base-T(X), 72~110VDC Power Input Supported, M12 connector, US band	① X 1, ② X 2, ③ X 1, ④ X 1
TAR-620-M12-MV_EU	En50155 IEEE 802.11 a/b/g/n 3G cellular router with 2x10/100Base-T(X), 72~110VDC Power Input Supported, M12 connector, EU band	① X 1, ② X 2, ③ X 1, ④ X 1

ORing

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