TAR-120-M12

Industrial EN50155 IEEE 802.11 b/g Cellular VPN Router with 2x10/100Base-T(X), M12 connector, Cellular modem included

Features

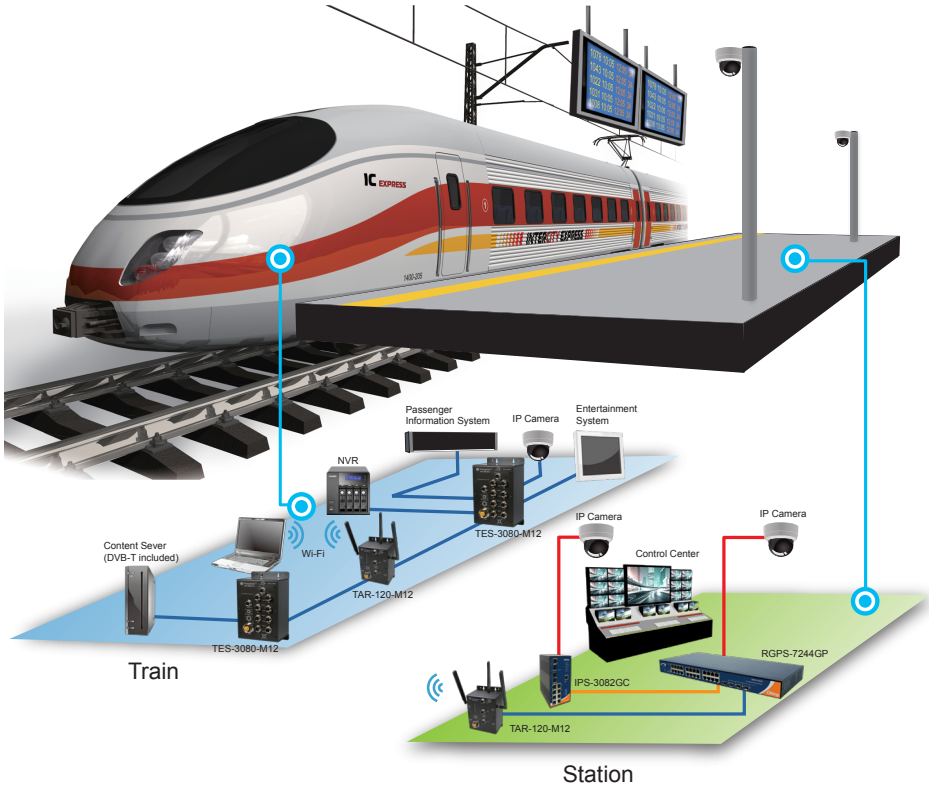
- Leading EN50155-compliant wireless access point for rolling stock application
- High Speed Air Connectivity: WLAN interface support up to 54Mbps link speed
- Highly Security Capability: WEP/WPA/WPA-PSK(TKIP,AES)/ WPA2/WPA2-PSK(TKIP,AES)/802.1X Authentication supported
- Secured Management by HTTPs
- 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 redundant mode (Recovery time < 10ms) and switch mode in M12 connector (D-coding)
- Wireless connecting status monitoring
- Event Warning by Syslog, Email, SNMP Trap and Relay output
- Ultra rugged enclosure for toughest industrial usages
- Wall mounting enabled

RoHS Lead Free CE FC

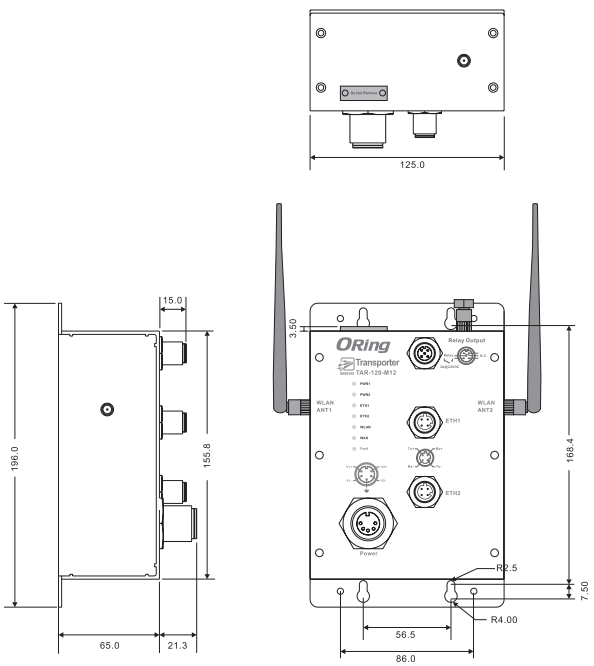
Introduction

ORing's Transporter series cellular VPN router is designed for industrial and rolling stock wireless applications, such as vehicle, and railway applications. TAR-120-M12 is reliable IEEE802.11 b/g router with 2 ports LAN which is fully compliant with EN50155 certification. It supports 802.1X and MAC filter for security control. It can 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-120-M12 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. TAR-120-M12 provides dual Ethernet ports in switch mode, so that you can use Daisy Chain to reduce the usage of Ethernet switch ports. Therefore, TAR-120-M12 is one of the most reliable choices for rolling stock applications on the wireless network.

Application



Dimensions



Unit=mm

Specifications

ORing EN50155 WLAN Access Point Router Model	TAR-120-M12
Physical Ports	
10/100Base-T(X) Ports in M12 (4-pin D-coding) Auto MDI/ MDIX	2
Sim Card Slot	1
Relay Output on M12 (D-coding) connector	1
WLAN Interface	
WAN Connection Type	Static/Dynamic IP, PPPoE , 3G Modem dial-up
Antenna and Connector	2 x 2 dBi (b/g mode) on Reverse SMA connector 1 x 2 dBi (Cellular modem) on Reverse SMA connector
Radio Frequency Type	DSSS, OFDM
Modulation	IEEE802.11b: CCK, DQPSK, DBPSK IEEE802.11g: OFDM with BPSK, QPSK, 16QAM, 64QAM
Frequency Band	America / FCC: 2.412~2.462 GHz (11 channels) Europe CE / ETSI: 2.412~2.472 Ghz (13 channels)
Transmission Rate	IEEE802.11b: 1 / 2 / 5.5 / 11 Mbps IEEE802.11g: 6 / 9 / 12 / 18 / 24 / 36 / 48 / 54 Mbps
Transmit Power	IEEE802.11b/g: 20dBm max
Receiver Sensitivity	-81dBm @ 11Mbps, PER< 8%; -64dBm @ 54Mbps, PER< 10%
Encryption Security	WEP: (64-bit ,128-bit key supported) WPA/WPA2 :802.11i(WEP and AES encryption) WPA-PSK (256-bit key pre-shared key supported) 802.1X Authentication supported TKIP encryption
Wireless Security	SSID broadcast disable
Cellular Interface	
Cellualr Standard	GSM / GPRS/ EGPRS/ EDGE / WCDMA / HSDPA / HSUPA
Band Option	Dual-band : HSUPA 1900/2100 MHz Quad-band : GSM/GPRS/EDGE 850/900/1800/1900 MHz WCDMA/HSDPA 850/900/1900/2100 MHz
Protocol Support	
Protocol	ARP,BOOTP, DHCP, DNS, HTTP, IP, ICMP, SNTP, TCP, UDP, RADIUS, SNMP, PPPoE, STP (IEEE 802.1D)
LED Indicators	
Power Indicator	2 x LEDs, Green for Power indicator
10/100Base-T(X) RJ45 Port Indicator	2 x LEDs, Green for port Link/ Act at 100Mbps. Amber for port Link/ Act at 10Mbps
WLAN LED	1 x LEDs, Green for WLAN 1 Link/ Act. Red for WLAN 2 Link/ Act
WAN LED	1 x LED, Green for Cellular modem Link/ Act
Fault Indicator	1 x LED, Red for Ethernet link down or power down indicator
Fault Contact	
Relay	Relay output to carry capacity of 3A at 24VDC
Power	
Redundant Input Power	Dual Power Inputs. 12~48 VDC on M23 connector (24 VDC Typ.)
Power Consumption	5.8 W
Overload Current Protection	Present
Reverse Polarity Protection	Present
Physical Characteristics	
Enclosure	IP-40
Dimensions (W x D x H)	125(W) x 65(D) x 196(H) mm (4.92 x 2.56 x 7.72 inch.)
Weight (g)	950 g

Environmental	
Storage Temperature	-40 to 85°C (-40 to 185°F)
Operating Temperature	-20 to 70°C (-4 to 158°F)
Operating Humidity	5% to 95% Non-condensing
Regulatory Approvals	
EMI	FCC Part 15, CISPR (EN55022) class A, EN50155 (EN50121-3-2)
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	IEC60068-2-32
Vibration	IEC60068-2-6, EN61373
Cooling	EN60068-2-1
Dry Heat	EN60068-2-2
Safety	EN60950-1
Warranty	3 years

Ordering Information

TAR-AB0-M12

Code Definition	Wireless Mode	10/100Base-T(X) Port Number
Option	- **1:** IEEE 802.11 b/g - **2:** IEEE 802.11 a - **3:** IEEE 802.11 a/b/g - **4:** IEEE 802.11 b/g/n - **5:** IEEE 802.11 a/n - **6:** IEEE 802.11 a/b/g/n	-**"2":** 2 ports

	Model Name	Description
Available Model	TAR-120-M12_US	Industrial EN50155 IEEE 802.11 b/g cellular VPN router with 2x10/100Base-T(X), M12 connector, Cellular modem included, US band
	TAR-120-M12_EU	Industrial EN50155 IEEE 802.11 b/g cellular VPN router with 2x10/100Base-T(X), M12 connector, Cellular modem included, EU band
	TAR-120-M12_JP	EN50155 IEEE 802.11 b/g cellular VPN router with 2x10/100Base-T(X), M12 connector, Cellular modem included, JP band

Packing List

- TAR-120-M12
- Antenna
- ORing Tool CD
- Quick Installation Guide

Optional Accessories (Can be purchased separately)

- DR-45 series : 45 Watts power supply
- DR-75 series : 75 Watts power supply
- DR-120 series : 120 Watts power supply
- WLAN RF Antenna series
- RF Antenna Base series
- RF Cable series