

TGAR-2062-4G-M12 series

Industrial EN50155 IEEE 802.11 a/b/g/n Dual 4G LTE Cellular Router With 2x10/100/1000Base-T(X), M12 connector

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
- > Support dual 4G LTE dial up backup and load balance
- 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
- Dual redundant Ethernet ports support Ethernet redundant mode (Recovery time < 10ms) and switch mode in M12 connector (A-coding)
- > GPS support for GPS model
- > 1KV isolation for PoE P.D. port for PoE model.
- Provide Digital Input and Digital Output
- > Event Warning by Syslog, Email, SNMP Trap and Relay output
- > Ultra rugged enclosure for toughest industrial usages
- Wall mounting enabled



Introduction

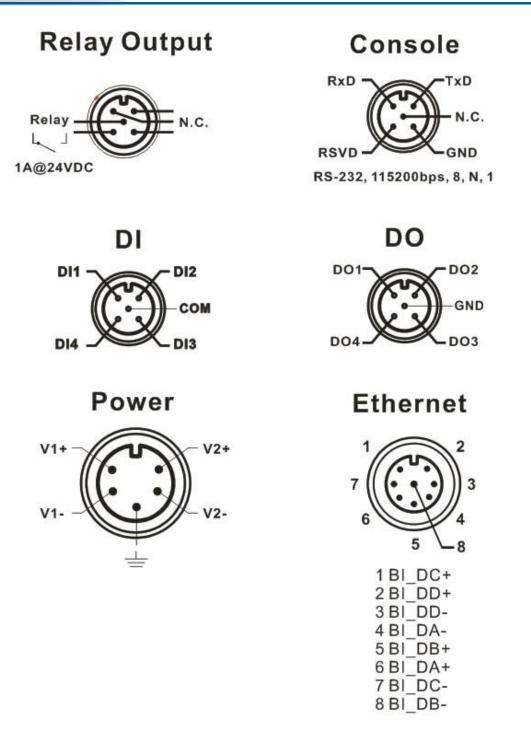
ORing's Transporter[™] series cellular router is designed for industrial and rolling stock wireless applications, such as vehicle, and railway applications. TGAR-2062-4G-M12 is reliable IEEE802.11 a/b/g/n router with 2 ports LAN which is fully compliant with EN50155 certification. It supports 802.1X and MAC filter for security control. 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. TGAR-2062-4G-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. In addition, TGAR-2062+-4G-M12 also provides P.D. feature on ETH2 which is fully compliant with IEEE802.3af PoE P.D. specification

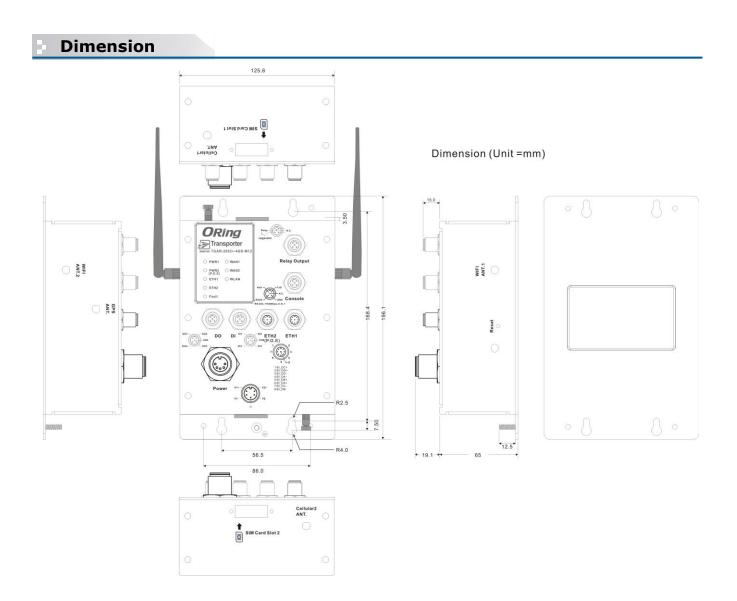
and TGAR-2062+-4GS-M12 supports GPS function. Therefore, TGAR-2062-4G-M12 is one of the most reliable choices for rolling stock applications on the wireless network.

Application

In TGAR-2062-4G-M12, there are 3 modes of routing functions supported: Dynamic/Static IP route, PPPoE dial up, and Modem dial up. TGAR-2062-4G-M12 also support NAT, VPN and Back up functions. You can build up the wireless network and connect to the Internet easily.

Pin Definition





Specifications		I		
ORing EN50155 WLAN	TGAR-2062-4G-M12	TGAR-2062+-4G-M12	TGAR-2062+-4GS-M12	
ccess Point Router Model				
Physical Ports				
10/100/1000Base-T(X) Ports in M12	2 (Present at ETH2 Fully compliant with IEEE 802.3af PoE P.D)			
Auto MDI/MDIX (8-pin A-coding)	2(DI x 4 and DO x 4)		EE 802.381 POE P.D)	
	Dry Contact:			
DIDO port in M12 (5-pin A-coding)	On: short to GND, Off: open			
	Wet Contact (DI to COM/GND):			
RS-232 Console port in M12	On: 0 to 3VDC, Off: 10 to 30VDC			
(5-pin A-coding)	115200, 8 ,N ,1			
Relay port in M12 (5-pin A-coding)	1A@24VDC			
SIM Card Slot	2			
WLAN Interface				
WAN Connection Type	Static/Dynamic IP VPPoE V3G I	Modem dial up		
Antenna Connector	2 x Reverse SMA Female			
Radio Frequency Type				
induo irequency type	DSSS, OFDM IEEE802.11a : OFDM with BPSK, QPSK, QAM, 64QAM			
Medulation	IEEE802.11b: CCK, DQPSK, DBF			
Modulation	IEEE802.11g: OFDM with BPSK, QPSK, 16QAM, 64QAM			
	IEEE802.11n : BPSK, QPSK, 16-QAM, 64-QAM			
	America / FCC : 2.412~2.462	, ,		
Frequency Band	5.180~5.240 GHz & 5.745~5.825 GHz (9 channels) Europe CE / ETSI : 2.412~2.472 Ghz (13 channels)			
	Europe CE / ETSI : 2.412~2.472 GnZ (13 channels) 5.180~5.240 GHz (4 channels)			
	IEEE802.11b: 1 / 2 / 5.5 / 11 M	bps		
Transmission Rate	IEEE802.11a/g: 6 / 9 / 12 / 18 / 24 / 36 / 48 / 54 Mbps			
	IEEE801.11n: up to 300Mbps	Mina		
	802.11a: 12dBm ± 1.5dBm@54 802.11b: 17dBm ± 1.5dBm@11	•		
	$802.110: 170Bm \pm 1.50Bm@11M0ps$ $802.11g: 16dBm \pm 1.5dBm@54Mbps$			
Transmit Power	802.11gn HT20: 15dBm ± 1.5dBm @MCS7			
	802.11gn HT40: 14dBm ± 1.5dBm @MCS7			
	802.11an HT20: 12dBm ± 1.5d	-		
	802.11an HT40: 11dBm ± 1.5d 802.11a : -76dBm ± 2dBm@54			
	802.11b : -85dBm ± 2dBm@11	•		
	802.11g : -76dBm ± 2dBm@54			
Receiver Sensitivity	802.11gn HT20:-75dBm ± 2dBr			
	802.11gn HT40:-72dBm ± 2dBr			
	802.11an HT20:-74dBm ± 2dBr 802.11an HT40:-71dBm ± 2dBr	-		
	WEP: (64-bit ,128-bit key supported)			
	WPA/WPA2 :802.11i(WEP and A			
Encryption Security	WPAPSK (256-bit key pre-share	d key supported)		
	802.1X Authentication supported	d		
	TKIP encryption			
Wireless Security	SSID broadcast disable			
Cellular Interface				
Cellular Standard		CDMA / HSDPA / HSUPA /HSPA+ /LTE		
Antenna Connector	2 x SMA Female			
Band Option	America(US) LTE:			
	700(B17)/1700(B4)/2100(B1) MHz			
	UMTS/HSDPA/HSUPA/HSPA+/DC-HSPA+:			
	800/850/1900/2100 MHz			
	GSM/GPRS/EDGE:			
	850/900/1800/1900 MHz			

900/2100 MH2 GSWCREPSPECE: 900/1800/1900 MH2 Protocol AP,BOOTP, DHCP, DNS, HTTP, IP, ICNP, SNTP, TCP, UDP, RADIUS, SNMP, PPee LED Indicators 2 × LEDs, PWU:Green for DC Power on or power by PcE 10/100/1000Base-T(X) pot Indicator 2 × LEDs, Green for YUNA Link/Act WLAN LED 1 × LED, Green for YUNA Link/Act WLAN LED 2 × LEDs, Green for YUNA Link/Act WAN LED 1 × LED, Green for YUNA Link/Act Fault Indicator 2 × LEDs, Green for YUNA Link/Act WAN LED 1 × LED, Red for Ethernet link down or power down indicator Fault Indicator 1 × LED, Red for Ethernet link down or power down indicator Fault Indicator 1 × LED, Red for Ethernet link down or power down indicator Fault Andicator 1 × LED, Red for Ethernet link down or power down indicator Fault Contact Power 1 × LED, Red for Ethernet link down or power down indicator Fault Andicator 1 × LED, Red for Ethernet link down or power down indicator Relay Dela Power Inputs. 12-48 VDC on M23 connector (24 VDC Typ.) Power Consumption (Typ.) 15 Vait 16 Vait Overload Current Protection Present 16.2 Wait Overload Current Protection Present 1035g Dimension (W x D x H) 1255 (W) × 65(D) × 195. (Ho 4 × 2.55 × 7.72 Inch.) 1035g		Europe(EU) LTE: 800(B20)/900(B8)/1800(B3		
900/1800/1900 MHz Protocol Support Protocol Support Protocol ARP.800TP, DHCP, DNS, HTTP, IP, ICAP, SNTP, TCP, UDP, RADIUS, SNMP, PPPeE Power Indicator Power Indicator Power Indicator 2 × LEDs, Green for DC Power on or power by PeE 10/100/10008ase-T(X) pot Indicato 2 × LEDs, Green for port Link/Act WAN LED 1 × LED, Green for functioning normal Fault Indicator 1 × LED, Red for Ethernet link down or power down indicator Fault Indicator Relay output to carry capacity of LA t24VDC Power Power Consumption (Typ.) 15 Vant 16 Wat Overboad Current Protection Present Reverse Polarity Protoction Present Enclosure Indicator Sympositie Present Reverse Polarity Protoction Present Brotogram Indicator Sympositie Present Reverse Polarity Protoction Present Brotogram				
Protocol ARP, BOOTP, DHCP, DNS, HTTP, IP, ICMP, SNTP, TCP, UDP, RADIUS, SNMP, PPPoE LED Indicators 2 x LEDs, PWU:Green for DC Power on power by PoE 10/100/10008ase-T(X) port Indicator 2 x LEDs, Green for DC Power on power by PoE 10/100/10008ase-T(X) port Indicator 2 x LEDs, Green for DC Inv/Act WAN LED 1 x LED, Green for MUN Inv/Act WAN LED 1 x LED, Green for MUN Inv/Act Fault Indicator 2 x LEDs, Green for functioning normal Fault Indicator 1 x LED, Red for Ethernet link down or power down indicator Fault Indicator 1 x LED, Red for Ethernet link down or power down indicator Fault Indicator 1 x LED, Red for Ethernet link down or power down indicator Fault Indicator 1 x LED, Red for Ethernet link down or power down indicator Fault Indicator 1 x LED, Red for Ethernet link down or power down indicator Fault Indicator 1 x LED, Red for Ethernet link down or power down indicator Fourier Fourier Fourier Power Consumption (Typ.) 15 Wait 16 Wait Overfload Current Protection Present 16.2 Wait Breding Charschertistic Fourier of the fourier 16.2 Wait <td< td=""><td></td><td></td><td></td><td></td></td<>				
LED Indicators 2 x LEDs, PW1-Green for DC Power on a power by PoE 10/100/1000Base-T(X) port Indicator 2 x LEDs, Green for port Link/Act WLAN LED 1 x LED, Green for for ULAN Link/Act WAN LED 2 x LEDs, Green for for functioning normal Fault Indicator 1 x LED, Green for functioning normal Fault Indicator 1 x LED, Green for functioning normal Fault Indicator 1 x LED, Green for functioning normal Fault Indicator 1 x LED, Green for functioning normal Fault Indicator 1 x LED, Ref for Ethernet link down or power down indicator Fault Contact Relay output to carry capacity of 1 At 24VDC Power Consumption (Typ.) 15 Wait 16 Wait Overfoad Current Protection Present Physical Characteristit Intervent in the second	Protocol Support			
Power Indicator 2 x LEDs, PW1:Green for DC Power on or power by P6E 10/100/10008ase-T(X) port Indicator 2 x LEDs, Green for DL NLA/LAT WLAN LED 1 x LED, Green for VLAN Link/ACT WAN LED 2 x LEDs, Green for VLAN Link/ACT WAN LED 2 x LEDs, Green for VLAN Link/ACT WAN LED 2 x LEDs, Green for VLAN Link/ACT Wan LED 1 x LED, Green for VLAN Link/ACT Wan LED 2 x LEDs, Green for VLAN Link/ACT Fault Indicator 1 x LED, Green for VLAN Link/ACT Fault Contact 1 x LED, Ref for Ethernet link down or power down indicator Fault Contact 1 x LED, Ref for Ethernet link down or power down indicator Relay output to carry capacity of 1A at 24VDC 16 Wat Power Dual Power Inputs. 12~48 VDC or M23 connector (24 VDC Typ.) Power Consumption (Typ.) 15 Wait 16 Wat Overload Current Protection Present 16.2 Wait Reverse Polarity Protection Present 1035g Dimension (W x D x H) 125.6 (W) x 65(D) x 196.1 (H) m (4.94 x 2.55 x 7.72 inch.) 1035g Weight (g) 1030g 1035g 1035g Dimension (W x D x H) 125.6 (W) x 65(D) x 195.1 (H) m (4.94 x 2.55 x 7.72 inch.)<	Protocol	ARP,BOOTP, DHCP, DNS, HTTP,	IP, ICMP, SNTP, TCP, UDP, RADIUS, S	SNMP, PPPoE
Power Indicator PW1:Green for DC Power on power by PoE PW2:Green for DC Power on prober by PoE I0/100/1000Base-T(X) port Indicator 2 x LEDs, Green for PULNA/LAL WAN LED 1 x LED, Green for WLAN Link/Act WAN LED 2 x LEDs, Green for functioning normal Fault Indicator 1 x LED, Red for Ethernet link down or power down indicator Fault Indicator 1 x LED, Red for Ethernet link down or power down indicator Fault Indicator 1 x LED, Red for Ethernet link down or power down indicator Fault Indicator Relay output to carry capacity of 1 a 24VDC Power Redundant Input Power Dual Power Inputs. 12~48 VDC on M23 connector (24 VDC Typ.) Power Consumption (Typ.) 15 Wait 16 Wat 16.2 Wait Overload Current Protection Present 16 Wat 16.2 Wait Power Consumption (W x D x H) 125.6(W) x 65(D) x 196.1(H) m (4.94 x 2.55 x 7.72 inch.) Weight (9) 1030g 1035g Dimension (W x D x H) 125.6(W) x 65(D) x 196.1(H) m (4.94 x 2.55 x 7.72 inch.) Verifier 25 to 70°C (-13 to 185°F) Verifier Operating Temperature -40 to 85°C (-40 to 185°F) Verifier Verifier Storage Temperature -25 to 70°C (-13 to 158°F) Storage Tempe	LED Indicators			
PW2:Green for DC Power on or power by P6E 10/100/1000Base-T(X) port Indicator 2 x LEDs, Green for port Ln/kAct WLAN LED 1 x LED, Green for furtioning normal Fault Indicator 2 x LEDs, Green for furtioning normal Fault Indicator 1 x LED, Red for Ethernet link down or power down indicator Fault Contact Relay output to carry capacity of 1A at 24VDC Power Dual Power Inputs. 12~48 VDC or M23 connector (24 VDC Typ.) Power Consumption (Typ.) 15 Wait 16 Wait 16-2 Wait Redundant Input Power Present 16 Wait 16-2 Wait Reverse Polarity Protection Present 1035g 1035g Reverse Polarity Protection Present 1035g 1035g Enclosure IP-40 1035g 1035g 1035g Dimension (W x D x H) 125.6(W) x 65(D) x 196.1(H) m (4.94 x 2.55 x 7.72 Inch.) 1035g 1035g Operating Temperature -25 to 70°C (-13 to 158°F) 1035g 1035g 1035g Operating Temperature -25 to 70°C (-13 to 158°F) 5 5 5 5 5 Mill CharacteriBity ENC1000-4-2 (ESD), ENG1000-4-3 (RS), ENG1000-4-4 (EFT), ENG100-4-5 (Surge), ENG1000-4				
WLAN LED1 x LED, Green for WLAN Lnk/ActWAN LED2 x LEDs, Green for functioning normalFault Indicator1 x LED, Red for Ethernet link down or power down indicatorFault Contact1 x LED, Red for Ethernet link down or power down indicatorRelayRelay output to carry capacity of 1A at 24VDCPowerDual Power Inputs. 12~48 VDC on M23 connector (24 VDC Typ.)Power Consumption (Typ.)15 Wait16 WaitPower Storage TemperaturePresentEnclosureIP-40Dimension (W x D x H)125.6(W) x 65(D) x 196.1(H) mm (4.94 x 2.55 x 7.72 inch.)Weight (a)1030g1035g1035g1035gEnvironmental-Storage Temperature-40 to 85°C (-40 to 185°F)Operating Temperature-25 to 70°C (-13 to 158°F)Operating Temperature-25 to 70°C (-13 to 158°F)Operating Humidity56 Set Non-condensingRegulatory ApprovalsEN61004-42 (ESD), EN61004-43 (RS), EN61004-44 (EFT), EN61004-45 (Surge), EN61004-46 (CS), EN61004-44, EN61004-42 (ESD), EN61004-43 (RS), EN61004-44 (EFT), EN61004-45 (Surge), EN61004-46 (CS), EN61004-44,	Power Indicator			
WAN LED 2 x LEDs, Green for functioning normal Fault Indicator 1 x LED, Red for Ethernet link down or power down indicator Fault Contact Relay output to carry capacity of 1A at 24VDC Power Dual Power Inputs. 12~48 VDC on M23 connector (24 VDC Typ.) Power Consumption (Typ.) 15 Wait 16 Wait 16.2 Wait Overload Current Protection Present 16 Wait 16.2 Wait Physical Characteristic Present 1000 (1900) (1000)	10/100/1000Base-T(X) port Indicator			
Fault Indicator 1 x LED, Red for Ethernet link down or power down indicator Fault Contact Relay Relay output to carry capacity of 1A at 24VDC Power Dual Power Inputs. 12~48 VDC on M23 connector (24 VDC Typ.) Power Consumption (Typ.) 15 Wait 16 Wait 16.2 Wait Overload Current Protection Present Image: Consumption (Typ.) 15 Wait 16 Wait 16.2 Wait Physical Characteristic Present Image: Consumption (Typ.) 15 Wait 16 Wait 16.2 Wait Dimension (W x D x H) Present Image: Consumption (Typ.) 1000 Image: Consumption (Typ.) Weight (g) 1030g 1035g 1035g Image: Consumption (Typ.) Bendosure Image: Consumption (Typ.) 125.6(W) x 65(D) x 196.1(H) mm (4.94 x 2.55 x 7.72 inch.) Image: Consumption (Typ.) Weight (g) 1030g 1035g 1035g Image: Consumption (Typ.) Operating Temperature -40 to 85°C (-40 to 185°F) Image: Consumption (Typ.) Image: Consumption (Typ.) Image: Consumption (Typ.) Operating Temperature -40 to 85°C (-40 to 185°F) Image: Consumptin (Typ.)	WLAN LED	1 x LED, Green for WLAN Link/Act		
Fault Contact Relay Relay output to carry capacity of 1A at 24VDC Power Power Redundant Input Power Dual Power Inputs. 12~48 VDC on M23 connector (24 VDC Typ.) Power Consumption (Typ.) 15 Wait 16 Wait 16.2 Wait Overload Current Protection Present Intervent Protection Present Reverse Polarity Protection Present Intervent Protection Present Physical Characteristic Intervent Protection Intervent Protection Intervent Protection Dimension (W x D x H) 125.6(W) x 65(D) x 196.1(H) mm (4.94 x 2.55 x 7.72 inch.) Intervent Protection Weight (g) 1030g 1035g Intervent Protection Storage Temperature -40 to 85°C (-40 to 185°F) Intervent Protection Operating Temperature -25 to 70°C (-13 to 158°F) Intervent Protection Operating Temperature -25 to 70°C (-13 to 158°F) Intervent Protection Operating Temperature -25 to 70°C (-13 to 158°F) Intervent Protection Operating Temperature -25 to 70°C (-13 to 158°F) Intervent Protection Mediulation Amount Protect (ESD), Enfolood-43 (RS),	WAN LED	2 x LEDs, Green for functioning	normal	
Relay output to carry capacity of IA at 24VDCPowerRedundant Input PowerDual Power Inputs. 12~48 VDC or M23 connector (24 VDC Typ.)Power Consumption (Typ.)15 Wait16 Wait16.2 WaitOverload Current ProtectionPresent16.2 Wait16.2 WaitReverse Polarity ProtectionPresentImage: Consumption (Typ.)19.40Dimension (W x D x H)125.6(W) x 65(D) x 196.1(H) = (4.94 x 2.55 x 7.72 inch.)Image: Consumption (Typ.)Weight (g)1030g1035g1035gDimension (W x D x H)125.6(W) x 65(D) x 196.1(H) = (4.94 x 2.55 x 7.72 inch.)Image: Consumption (Typ.)Weight (g)1030g1035g1035gDimension (W x D x H)125.6(W) x 65(D) x 196.1(H) = (4.94 x 2.55 x 7.72 inch.)Image: Consumption (Typ.)Weight (g)1030g1035g1035gOperating Temperature-40 to 85°C (-40 to 185°F)Image: Consumption (Typ.)Operating Temperature-40 to 85°C (-40 to 185°F)Image: Consumption (Typ.)Operating Temperature-40 to 85°C (-40 to 185°F)Image: Consumption (Typ.)Operating Temperature-40 to 85°C (-40 to 185°F)Image: Consumption (Typ.)Consumption (Typ.)5% to 95% Non-condensingImage: Consumption (Typ.)EMIFCC Part 15, CISPR (ENS5022) class A, ENS0155 (ENS50121-3-2)Image: Consumption (Typ.)EMSEN61000-4-3, EN61000-4-3 (RS), EN61000-4-4 (EFT), EN61000-4-5 (Surge), EN61000-4-6 (CS), EN61000-4-6 (CS), EN61000-4-6 (CS), EN61000-4-1 (EFT), EN61000-4-6 (CS), EN61000-4-1 (EFT), EN61000-4-1 (EFT), EN61000-4-6 (CS), EN61000-4-1 (EFT), EN61000	Fault Indicator	1 x LED, Red for Ethernet link down or power down indicator		
Power Image: Construct of the table of table	Fault Contact			
Redundant Input Power Dual Power Inputs. 12~48 VDC on M23 connector (24 VDC Typ.) Power Consumption (Typ.) 15 Wait 16 Wait 16.2 Wait Overload Current Protection Present Image: Consumption (Typ.) 16.2 Wait Reverse Polarity Protection Present Image: Consumption (Typ.) 16.2 Wait Physical Characteristic Present Image: Consumption (Typ.) 16.2 Wait Enclosure IP-40 Image: Consumption (Typ.) 1035g Image: Consumption (Typ.) Dimension (W X D X H) 125.6 (W) x 65(D) x 196.1 (H) mm (4.94 x 2.55 x 7.72 inch.) Image: Consumption (Typ.) Image: Consumption (Typ.) Weight (g) 1030g 1035g Image: Consumption (Typ.) Image: Consumption (Typ.) Storage Temperature -40 to 85°C (-40 to 185°F) Image: Consumption (Typ.) Image: Consumption (Typ.) Operating Temperature -25 to 70°C (-13 to 158°F) Image: Consumption (Typ.) Image: Consumption (Typ.) Operating Humidity 5% to 95% Non-condensing Image: Consumption (Typ.) Image: Consumption (Typ.) EMI FCC Part 15, CISPR (EN55022) class A, EN55155 (EN50121-3-2) Image: Consumption (Typ.) I	Relay	Relay output to carry capacity o	f 1A at 24VDC	
Power Consumption (Typ.) 15 Wait 16 Wait 16.2 Wait Overbad Current Protection Present Intervent Protection Present Reverse Polarity Protection Present Intervent Protection Present Physical Characteristic Intervent Protection Intervent Protection Intervent Protection Physical Characteristic Intervent Protection Intervent Protection Intervent Protection Enclosure IP-40 Intervent Protection Intervent Protection Intervent Protection Weight (g) 1030g 1035g Intervent Protection Intervent Protection Storage Temperature -40 to 85°C (-40 to 185°F) Intervent Protection Intervent Protection Operating Temperature -25 to 70°C (-13 to 188°F) Intervent Protection Intervent Protection Operating Temperature -25 to 70°C (-13 to 158°F) Intervent Protection Intervent Protection Operating Humidity 5% to 95% Non-condensing Intervent Protection Intervent Protection EMI FCC Part 15, CISPR (EN55022) class A, EN55155 (EN50121-3-2) Intervent Protection Intervent Protection <	Power			
Overload Current Protection Present Reverse Polarity Protection Present Physical Characteristic IP-40 Enclosure IP-40 Dimension (W x D x H) 125.6(W) x 65(D) x 196.1(H) m (4.94 x 2.55 x 7.72 inch.) Weight (g) 1030g 1035g Environmental IP-40 to 85°C (-40 to 185°F) IP-40 Operating Temperature -40 to 85°C (-40 to 185°F) IP-40 Operating Temperature -25 to 70°C (-13 to 158°F) IP-40 Operating Temperature -25 to 70°C (-13 to 158°F) IP-40 Operating Temperature -25 to 70°C (-13 to 158°F) IP-40 Operating Humidity 5% to 95% Non-condensing IP-40 Regulatory Approvals IP-40 IP-40 (RES) IP-40 EMI FCC Part 15, CISPR (EN55022) class A, EN50155 (EN50121-3-2) IEN61000-4-2 (ESD), EN61000-4-3 (RS), EN61000-4-4 (EFT), EN61000-4-5 (Surge), EN61000-4-6 (CS), EN61000-4-2 (RSD), EN61000-4-2 (ESD), EN61000-4-2 (RSD), EN61000-4-4 (EFT), EN61000-4-5 (Surge), EN61000-4-6 (CS), EN61000-4-11 Shock IEC60068-2-21 IP-40 IEC60068-2-21 IP-40 Vibration IEC60068-2-6, EN61373 IEC60068-2-1	Redundant Input Power	Dual Power Inputs. 12~48 VDC	on M23 connector (24 VDC Typ.)	
Reverse Polarity Protection Present Physical Characteristic IP-40 Enclosure I25.6(W) x 65(D) x 196.1(H) m (4.94 x 2.55 x 7.72 inch.) Weight (g) 1030g 1035g Mereine (g) 1030g 1035g Environmental -40 to 85°C (-40 to 185°F) 1035g Operating Temperature -40 to 85°C (-40 to 185°F) - Operating Temperature -25 to 70°C (-13 to 158°F) - Operating Humidity 5% to 95% Non-condensing - Regulatory Approvals - - EMI FCC Part 15, CISPR (EN55022) class A, EN50155 (EN50121-3-2) EN61000-4-2 (ESD), EN61000-4-3 (RS), EN61000-4-4 (EFT), EN61000-4-5 (Surge), EN61000-4-6 (CS), EN61000-4-1 (EFT), EN61000-4-5 (Surge), EN61000-4-5 (Surge), EN61000-4-5 (Surge), EN61000-4-5 (Surge), EN61000-4-5 (Surge), EN61000-4-5 (Surge)	Power Consumption (Typ.)	15 Wait	16 Wait	16.2 Wait
Physical Characteristic Enclosure IP-40 Dimension (W x D x H) 125.6(W) x 65(D) x 196.1(H) + (4.94 x 2.55 x 7.72 inch.) Weight (g) 1030g 1035g Torrigon (W x D x H) 1030g 1035g Weight (g) 1030g 1035g Storage Temperature -40 to 85°C (-40 to 185°F) - Operating Temperature -25 to 70°C (-13 to 158°F) - Operating Temperature -25 to 70°C (-13 to 158°F) - Operating Temperature -25 to 70°C (-13 to 158°F) - Operating Temperature -25 to 70°C (-13 to 158°F) - Operating Mumidity 5% to 95% Non-condensing - Regulatory Approvals - - EMI FCC Part 15, CISPR (EN55022) class A, EN50155 (EN50121-3-2) - EMS EN61000-4-11 - - Shock IEC60068-2-27, EN61373 - - Free Fall IEC60068-2-6, EN61373 - - - Vibration IEC60068-2-1 - - - Gooling	Overload Current Protection	Present		·
Enclosure IP-40 Dimension (W x D x H) 125.6(W) x 65(D) x 196.1(H) + (4.94 x 2.55 x 7.72 inch.) Weight (g) 1030g 1035g 1035g Meight (g) 1030g 1035g 1035g Environmental -40 to 85°C (-40 to 185°F) 1035g 1035g Operating Temperature -25 to 70°C (-13 to 158°F) -40 to 85°C (-40 to 185°F) -40 to 85°C (-40 to 185°F) Operating Temperature -25 to 70°C (-13 to 158°F) -50 to 70°C (-13 to 158°F) -50 to 70°C (-13 to 158°F) Operating Humidity 5% to 95% Non-condensing -50 to 70°C (-13 to 158°F) -50 to 70°C (-13 to 158°F) Poperating Humidity 5% to 95% Non-condensing -50 to 70°C (-13 to 158°F) -50 to 70°C (-13 to 158°F) Meight (Approvals FCC Part 15, CISPR (EN55022) class A, EN50155 (EN50121-3-2) EN61000-4-2 (ESD), EN61000-4-3 (RS), EN61000-4-4 (EFT), EN61000-4-5 (Surge), EN61000-4-6 (CS), EN61000-4-8, EN61000-4-3 (RS), EN61000-4-4 (EFT), EN61000-4-5 (Surge), EN61000-4-6 (CS), EN61000-4-8 (EN61000-4-1 (EFT), EN61000-4-1 (EFT), EN61000-4-6 (CS), EN61000-4-1 (EFT) Shock IEC60068-2-27, EN61373 -50 to 70°C (-10 to 70	Reverse Polarity Protection	Present		
Dimension (W x D x H) 125.6(W) x 65(D) x 196.1(H) = (4.94 x 2.55 x 7.72 inch.) Weight (g) 1030g 1035g 1035g Environmental -40 to 85°C (-40 to 185°F) - - Operating Temperature -40 to 85°C (-40 to 185°F) - - - Operating Temperature -25 to 70°C (-13 to 158°F) -	Physical Characteristic			
Weight (g) 1030g 1035g 1035g Environmental -40 to 85°C (-40 to 185°F) -40 to 85°C (-40 to 185°F) -40 to 85°C (-40 to 185°F) Operating Temperature -25 to 70°C (-13 to 158°F) -40 to 85°C (-40 to 185°F) -40 to 85°C (-40 to 185°F) Operating Temperature -25 to 70°C (-13 to 158°F) -40 to 85°C (-40 to 185°F) -40 to 85°C (-40 to 185°F) Operating Temperature -25 to 70°C (-13 to 158°F) -40 to 85°C (-40 to 185°F) -40 to 85°C (-40 to 185°F) Operating Temperature -25 to 70°C (-13 to 158°F) -50 to 70°C (-13 to 158°F) -40 to 85°C (-40 to 185°F) Operating Temperature -25 to 70°C (-13 to 158°F) -50 to 70°C (-13 to 158°F) -50 to 70°C (-13 to 158°F) Operating Mumidity 5% to 95% Non-condensing -50 to 70°C (-13 to 158°F) -50 to 70°C (-13 to 158°F) EM1 FCC Part 15, CISPR (EN55022) class A, EN50155 (EN50121-3-2) EM5 -50 to 70°C (-12	Enclosure	IP-40		
EnvironmentalStorage Temperature-40 to 85°C (-40 to 185°F)Operating Temperature-25 to 70°C (-13 to 158°F)Operating Humidity5% to 95% Non-condensingRegulatory ApprovalsEMIFCC Part 15, CISPR (EN55022) class A, EN50155 (EN50121-3-2)EMSEN61000-4-2 (ESD), EN61000-4-3 (RS), EN61000-4-4 (EFT), EN61000-4-5 (Surge), EN61000-4-6 (CS), EN61000-4-8, EN61000-4-11ShockIEC60068-2-27, EN61373Free FallIEC60068-2-31VibrationIEC60068-2-6, EN61373Rail TrafficEN50155CoolingEN60068-2-1Dry HeatEN60068-2-2	Dimension (W x D x H)	125.6(W) x 65(D) x 196.1(H) m	m (4.94 x 2.55 x 7.72 inch.)	
Storage Temperature-40 to 85°C (-40 to 185°F)Operating Temperature-25 to 70°C (-13 to 158°F)Operating Humidity5% to 95% Non-condensingRegulatory ApprovalsFCC Part 15, CISPR (EN55022) class A, EN50155 (EN50121-3-2)EMIFCC Part 15, CISPR (EN55022) class A, EN50155 (EN50121-3-2)EMSEN61000-4-2 (ESD), EN61000-4-3 (RS), EN61000-4-4 (EFT), EN61000-4-5 (Surge), EN61000-4-6 (CS), EN61000-4-8, EN61000-4-11ShockIEC60068-2-27, EN61373Free FallIEC60068-2-31VibrationIEC60068-2-6, EN61373Rail TrafficEN50155CoolingEN60068-2-1Dry HeatEN60068-2-2	Weight (g)	1030g	1035g	1035g
Operating Temperature-25 to 70°C (-13 to 158°F)Operating Humidity5% to 95% Non-condensingRegulatory ApprovalsEMIFCC Part 15, CISPR (EN55022) class A, EN50155 (EN50121-3-2)EMSEN61000-4-2 (ESD), EN61000-4-3 (RS), EN61000-4-4 (EFT), EN61000-4-5 (Surge), EN61000-4-6 (CS), EN61000-4-8, EN61000-4-11ShockIEC60068-2-27, EN61373Free FallIEC60068-2-31VibrationIEC60068-2-6, EN61373Rail TrafficEN50155CoolingEN60068-2-1Dry HeatEN60068-2-2	Environmental			
Operating Humidity5% to 95% Non-condensingRegulatory ApprovalsEMIFCC Part 15, CISPR (EN55022) class A, EN50155 (EN50121-3-2)EMSEN61000-4-2 (ESD), EN61000-4-3 (RS), EN61000-4-4 (EFT), EN61000-4-5 (Surge), EN61000-4-6 (CS), EN61000-4-8, EN61000-4-11ShockIEC60068-2-27, EN61373Free FallIEC60068-2-31VibrationIEC60068-2-6, EN61373Rail TrafficEN50155CoolingEN60068-2-1Dry HeatEN60068-2-2	Storage Temperature	-40 to 85°C (-40 to 185°F)		
Regulatory ApprovalsEMIFCC Part 15, CISPR (EN55022) class A, EN50155 (EN50121-3-2)EMSEN61000-4-2 (ESD), EN61000-4-3 (RS), EN61000-4-4 (EFT), EN61000-4-5 (Surge), EN61000-4-6 (CS), EN61000-4-8, EN61000-4-11ShockIEC60068-2-27, EN61373Free FallIEC60068-2-31VibrationIEC60068-2-6, EN61373Rail TrafficEN50155CoolingEN60068-2-1Dry HeatEN60068-2-2	Operating Temperature	-25 to 70°C (-13 to 158°F)		
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 IEC60068-2-31 Vibration IEC60068-2-6, EN61373 Rail Traffic EN50155 Cooling EN60068-2-1 Dry Heat EN60068-2-2	Operating Humidity	5% to 95% Non-condensing		
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 Rail Traffic EN50155 Cooling EN60068-2-1 Dry Heat EN60068-2-2	Regulatory Approvals			
EMS EN61000-4-8, EN61000-4-11 Shock IEC60068-2-27, EN61373 Free Fall IEC60068-2-31 Vibration IEC60068-2-6, EN61373 Rail Traffic EN50155 Cooling EN60068-2-1 Dry Heat EN60068-2-2	EMI	FCC Part 15, CISPR (EN55022) class A, EN50155 (EN50121-3-2)		
Free Fall IEC60068-2-31 Vibration IEC60068-2-6, EN61373 Rail Traffic EN50155 Cooling EN60068-2-1 Dry Heat EN60068-2-2	EMS			
Vibration IEC60068-2-6, EN61373 Rail Traffic EN50155 Cooling EN60068-2-1 Dry Heat EN60068-2-2	Shock	IEC60068-2-27, EN61373		
Rail Traffic EN50155 Cooling EN60068-2-1 Dry Heat EN60068-2-2	Free Fall	IEC60068-2-31		
Cooling EN60068-2-1 Dry Heat EN60068-2-2	Vibration			
Dry Heat EN60068-2-2	Rail Traffic	EN50155		
	-	EN60068-2-1		
	Dry Heat			
Safety EN60950-1	Safety	EN60950-1		

Ordering Information

Code Definition	Cellular Module Number	2 nd Wireless Mode	1 st Wireless Mode	Giga Ethernet Port Number	PoE Identification	Cellular Generation	GPS Function
Option	1: One SIM 2: Dual SIM	1: 802.11 b/g 2: 802.11 a 3: 802.11 a/b/g 4: 802.11 b/g/n 5: 802.11 a/n 6: 802.11 a/b/g/n	1: 802.11 b/g 2: 802.11 a 3: 802.11 a/b/g 4: 802.11 b/g/n 5: 802.11 a/n 6: 802.11 a/b/g/n	2: 2 ports	-"+": PoE P.D. present at ETH2	4G :LTE	S:GPS

	Model Name	Description
	TGAR-2062-4G-M12_US	Industrial EN50155 IEEE 802.11 a/b/g/n Dual 4G LTE cellular router with 2x10/100/1000Base-T(X), M12 connector, US band
	TGAR-2062+-4G-M12_US	Industrial EN50155 IEEE 802.11 a/b/g/n Dual 4G LTE cellular router with 2x10/100/1000Base-T(X), M12 connector, 1-port PoE P.D, US band
Available Model	TGAR-2062+-4GS-M12_US	Industrial EN50155 IEEE 802.11 a/b/g/n Dual 4G LTE cellular GPS router with 2x10/100/1000Base-T(X), M12 connector, 1-port PoE P.D, US band
	TGAR-2062-4G-M12_EU	Industrial EN50155 IEEE 802.11 a/b/g/n Dual 4G LTE cellular router with 2x10/100/1000Base-T(X), M12 connector, EU band
	TGAR-2062+-4G-M12_EU	Industrial EN50155 IEEE 802.11 a/b/g/n Dual 4G LTE cellular router with 2x10/100/1000Base-T(X), M12 connector, 1-port PoE P.D, EU band
	TGAR-2062+-4GS-M12_EU	Industrial EN50155 IEEE 802.11 a/b/g/n Dual 4G LTE cellular GPS router with 2x10/100/1000Base-T(X), M12 connector, 1-port PoE P.D, EU band

Packing List

- TGAR-2062(+)-4G(S)-M12 x 1
- CD x 1

• Quick Installation Guide x 1

- 2.4GHz/5GHz Antenna x 2
- LTE Antenna x 2

Optional Accessories

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

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

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

ORing: TGAR-2062+-4GS-M12