



# TGAR-W1061+-3G-M12

**Industrial EN50155 IEEE 802.11 a/b/g/n 3G Cellular Router with 1x10/100/1000Base-T(X) PoE P.D., IP-67**

## Features

- High Speed Air Connectivity: WLAN interface support up to 300Mbps link speed
- Provide 1 port 10/100/1000Base-T(X) port with PoE P.D.
- **3.5G HSDPA Modem dial up included**
- Provide HNAT enhance LAN to WAN routing performance
- 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
- Support client operating mode
- IP table to prevent access from unauthorized IP address
- Support VPN for secured network connection (Open VPN , PPTP, IPSEC, VPN)
- Support NAT Setting (Virtual Server , Port Trigger , DMZ , UPnP)
- 1KV isolation for PoE P.D.
- Wireless connecting status monitoring
- Versatile modes & event alarm by e-mail
- Event Warning by Syslog, Email, SNMP Trap and Beeper
- Rigid IP-67 waterproof housing design



## Introduction

TGAR-W1061+-3G-M12 is a reliable IEEE 802.11 a/b/g/n WLAN VPN router with 1 ports 10/100/1000Base-T(X) router where ETH1 for LAN. 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 Modem (GPRS/3G/3.5G Modem) dial up. Users can set up WLAN environment to fulfill demands of various applications rapidly by dialing up cellular modems. In addition, TGAR-W1061+-3G-M12 also provides P.D. feature which is fully compliant with IEEE802.3af PoE P.D. specification. This feature extends the layout up to 100 meters. Therefore, TGAR-W1061+-3G-M12 is one of the best solution for applications of wireless communication.

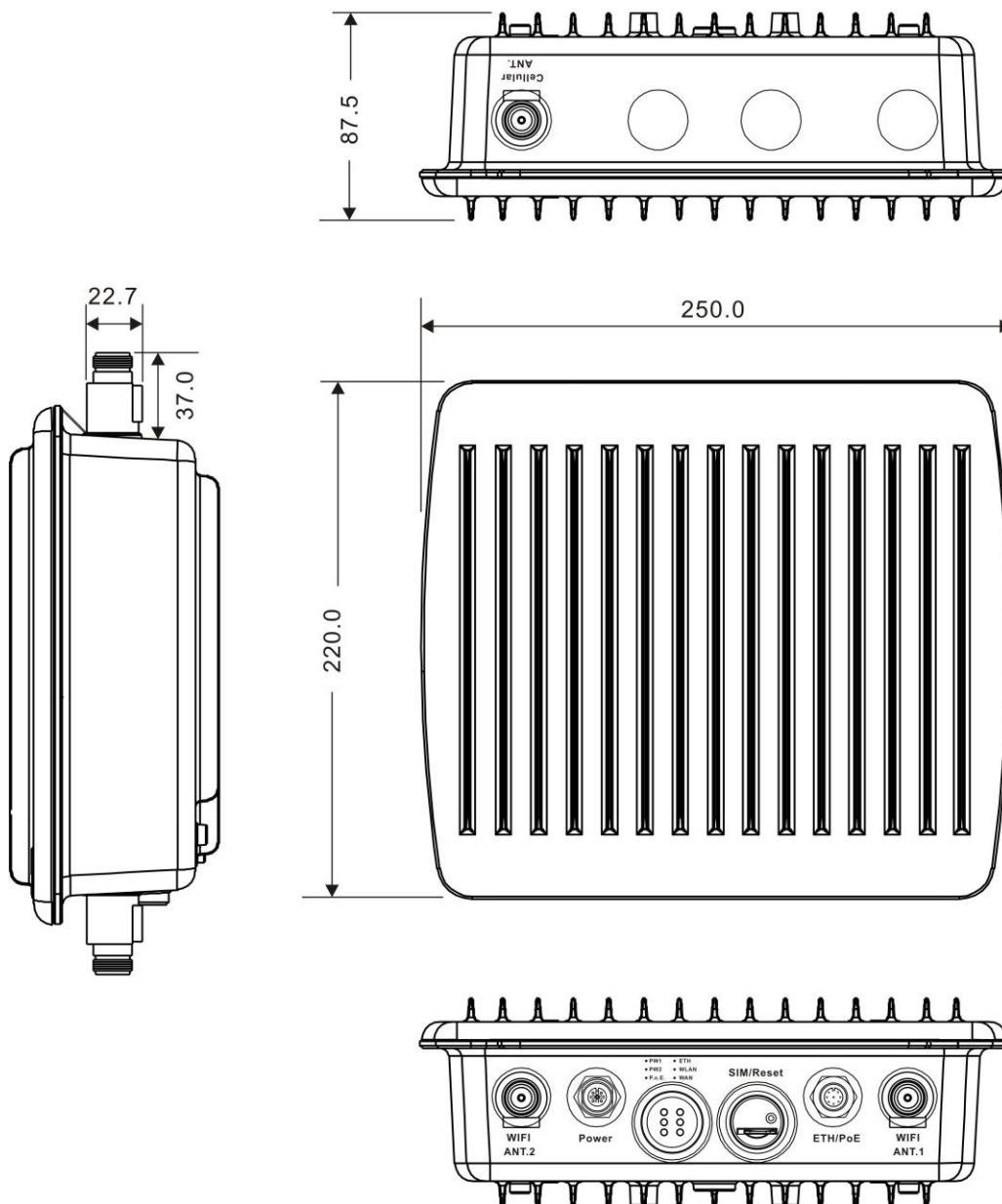
## Application

In practical operation of wireless access point, Windows utility (Open-Version) is supported. This utility is very helpful for you to search and configure IP of access point on the industrial network.

In addition, the wireless access point support various kinds of operation modes include AP/Dual Client /Bridge /AP-Client Mode.

## Dimension

### Dimension (Unit =mm)



## Specifications

| ORing AP Router Model                                            | TGAR-W1061+-3G-M12                                                                                                                                                                                                                                             |
|------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Physical Ports</b>                                            |                                                                                                                                                                                                                                                                |
| 10/100/1000Base-T(X) Ports in M12 Auto MDI/MDIX (8-pin A-coding) | 1                                                                                                                                                                                                                                                              |
| PoE P.D. port                                                    | Fully compliant with IEEE 802.3af Power Device specification<br>Over load & short circuit protection<br>Isolation Voltage: 1000 VDC min.<br>Isolation Resistance : 10 <sup>8</sup> ohms min                                                                    |
| Sim Card Slot                                                    | 1                                                                                                                                                                                                                                                              |
| <b>Cellular Interface</b>                                        |                                                                                                                                                                                                                                                                |
| Cellular Standard                                                | GSM / GPRS/ EGPRS/ EDGE / WCDMA / HSDPA / HSUPA                                                                                                                                                                                                                |
| Antenna Connector                                                | 1 x External N-Type female antenna connector                                                                                                                                                                                                                   |
| Band Option                                                      | Dual-band : HSUPA 1900/2100 MHz<br>Quad-band : GSM/GPRS/EDGE 850/900/1800/1900 MHz<br>WCDMA/HSDPA 850/900/1900/2100 MHz                                                                                                                                        |
| <b>WLAN interface</b>                                            |                                                                                                                                                                                                                                                                |
| Antenna Connector                                                | 2 x External N-Type female antenna connector                                                                                                                                                                                                                   |
| Modulation                                                       | IEEE802.11b: CCK/DQPSK/DBPSK<br>IEEE802.11a/g: OFDM<br>IEEE802.11n: BPSK, QPSK, 16-QAM, 64-QAM                                                                                                                                                                 |
| Frequency Band                                                   | America / FCC:<br>2.412~2.462 GHz (11 channels )<br>5.180~5.240 GHz & 5.745~5.825 GHz ( 9 channels )<br>Europe CE / ETSI:<br>2.412~2.472 GHz ( 13 channels )<br>5.180~5.240 GHz ( 4 channels )                                                                 |
| Transmission Rate                                                | 802.11b: 1/2/5.5/11 Mbps<br>802.11a/g: 6/9/12/18/24/36/48/54 Mbps<br>802.11n(40MHz): UP to 300 Mbps                                                                                                                                                            |
| Transmit Power                                                   | 802.11a: 12dBm ± 1.5dBm@54Mbps<br>802.11b: 17dBm ± 1.5dBm@11Mbps<br>802.11g: 16dBm ± 1.5dBm@54Mbps<br>802.11gn HT20: 15dBm ± 1.5dBm @MCS7<br>802.11gn HT40: 14dBm ± 1.5dBm @MCS7<br>802.11an HT20: 12dBm ± 1.5dBm @MCS7<br>802.11an HT40: 11dBm ± 1.5dBm @MCS7 |
| Receiver Sensitivity                                             | 802.11a : -76dBm ± 2dBm@54Mbps<br>802.11b : -85dBm ± 2dBm@11Mbps<br>802.11g : -76dBm ± 2dBm@54Mbps<br>802.11gn HT20:-75dBm ± 2dBm@MCS7<br>802.11gn HT40:-72dBm ± 2dBm@MCS7<br>802.11an HT20:-74dBm ± 2dBm@MCS7<br>802.11an HT40:-71dBm ± 2dBm@MCS7             |
| Encryption Security                                              | WEP: (64-bit ,128-bit key supported)<br>WPA/WPA2 :802.11i(WEP and AES encryption)<br>WPA-PSK (256-bit key pre-shared key supported)<br>802.1X Authentication supported<br>TKIP encryption                                                                      |
| Wireless Security                                                | SSID broadcast disable                                                                                                                                                                                                                                         |
| <b>LED indicators</b>                                            |                                                                                                                                                                                                                                                                |
| Power indicator                                                  | 3 x LEDs, PW1/PW2/PoE Green On : Power is on and booting up                                                                                                                                                                                                    |
| 10/100/1000T M12 port indicator                                  | 1 x LED, Green for port Link/ Act at 1000Mbps                                                                                                                                                                                                                  |
| WLAN LED                                                         | 1 x LED, Green for WLAN Link /Act                                                                                                                                                                                                                              |
| WAN LED                                                          | 1 x LED, Green for WAN is on and functioning Normal                                                                                                                                                                                                            |
| <b>Power</b>                                                     |                                                                                                                                                                                                                                                                |
| Redundant Input power                                            | Dual DC inputs. 12-48VDC on M12 connector                                                                                                                                                                                                                      |

|                                |                                                                                                                          |
|--------------------------------|--------------------------------------------------------------------------------------------------------------------------|
| Power consumption              | 9W                                                                                                                       |
| Overload current protection    | Present                                                                                                                  |
| Reverse polarity protection    | Present                                                                                                                  |
| <b>Physical Characteristic</b> |                                                                                                                          |
| Enclosure                      | IP-67                                                                                                                    |
| Dimension (W x D x H)          | 310 (W) x 310(D) x 87 (H) (12.2 x 12.2 x 3.4 inch)                                                                       |
| Weight (g)                     | 3990g                                                                                                                    |
| <b>Environmental</b>           |                                                                                                                          |
| Storage Temperature            | -40 to 85oC (-40 to 185°F)                                                                                               |
| Operating Temperature          | -25 to 70°C (-13 to 158°F)                                                                                               |
| Operating Humidity             | 5% to 95% Non-condensing                                                                                                 |
| <b>Regulatory approvals</b>    |                                                                                                                          |
| 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                                                                                                    |
| Rail Traffic                   | EN50155                                                                                                                  |
| Cooling                        | EN60068-2-1                                                                                                              |
| Dry Heat                       | En60068-2-2                                                                                                              |
| Safety                         | EN60950-1                                                                                                                |
| <b>Warranty</b>                | 5 years                                                                                                                  |

## Ordering Information

TGAR-W **A B C D E F F**

| Code Definition | Cellular Module Number | 2 <sup>nd</sup> Wireless Mode                                                                            | 1 <sup>st</sup> Wireless Mode                                                                            | Giga Ethernet Port Number | PoE Identification          | Cellular Generation |
|-----------------|------------------------|----------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------|---------------------------|-----------------------------|---------------------|
| Option          | 1: One SIM             | 1: 802.11 b/g<br>2: 802.11 a<br>3: 802.11 a/b/g<br>4: 802.11 b/g/n<br>5: 802.11 a/n<br>6: 802.11 a/b/g/n | 1: 802.11 b/g<br>2: 802.11 a<br>3: 802.11 a/b/g<br>4: 802.11 b/g/n<br>5: 802.11 a/n<br>6: 802.11 a/b/g/n | 1: 1 ports                | + : PoE P.D. present at ETH | 3G :UMTS            |

|           | Model Name            | Description                                                                                                   |
|-----------|-----------------------|---------------------------------------------------------------------------------------------------------------|
| Available | TGAR-W1061+-3G-M12_US | Industrial IEEE 802.11 a/b/g/n 3G Cellular router with 1x10/100/1000Base-T(X), PoE P.D., IP-67 grade, US band |
| Model     | TGAR-W1061+-3G-M12_EU | Industrial IEEE 802.11 a/b/g/n 3G Cellular router with 1x10/100/1000Base-T(X), PoE P.D., IP-67 grade, EU band |

## Packing List

- TGAR-W1061+-3G-M12 x 1
- CD x 1
- Quick Installation Guide x 1
- Wall Mount Kit x 1
- 2.4GHz/5GHz Antenna x 2
- Cellular Antenna x 1

## Optional Accessories

- 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

# Mouser Electronics

Authorized Distributor

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

ORing:

[TGAR-W1061+-3G-M12](#)