



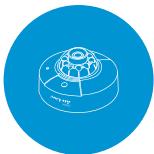
AirMax4GW

4G LTE + WiFi Outdoor Gateway

Solution

System Integrator

WHITE PAPER



Hardware Specification

The AirMax4GW is a standalone 4G LTE outdoor gateway that can distribute 4G or 3G Internet signal through WiFi or Ethernet connections. It is equipped with high gain LTE and WiFi antennas for better reception and transmitting distance.

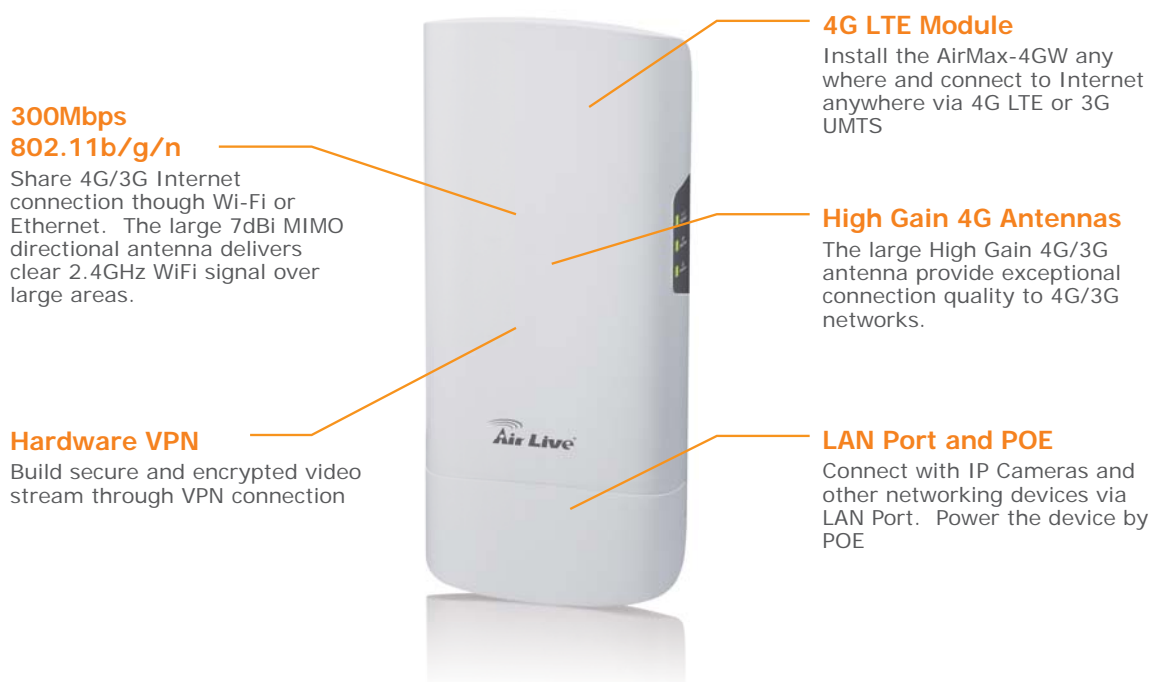


Bridge between WiFi, Ethernet, and 4G/3G Networks

The AirMax4GW bridges the connections between WiFi, Ethernet, and the 4G LTE Mobile Network. With AirMax4GW, you can connect any WiFi or Ethernet equipped devices to the broadband Internet. On the other hand, you can also provide Internet service coverage through WiFi in any locations.

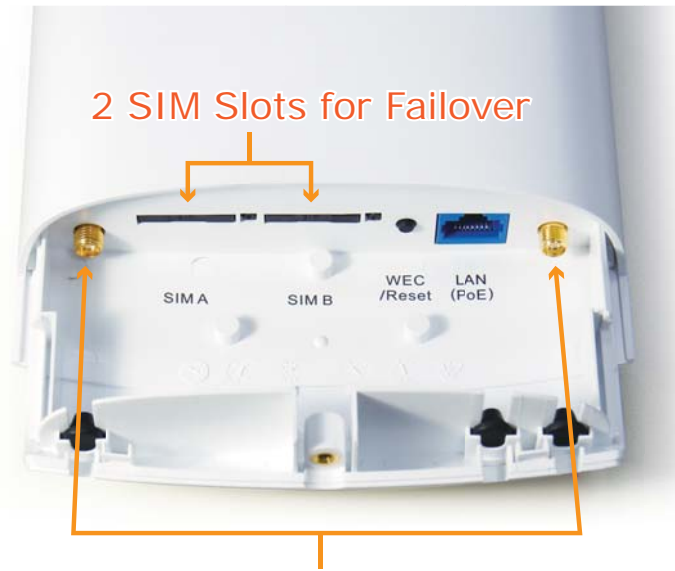


Hardware Diagram





Port and Connectors



Dual High Gain Antennas

The AirMax4GW features high gain and high sensitivity 4G LTE antennas. So it can receive 4G or 3G mobile signal where normal mobile phone can not. In addition, it also has a high gain WiFi antenna which can send out wireless signal over large area. This is ideal for system integrators to install Internet service or connect networking devices to the Internet for their customers.





Dual SIM Card for Redudancy

It is important for service provider to provide uninterrupted service. In case of AirMax4GW, it comes with dual SIM Slots. So System Integrators can put 2 different SIM Cards for fail over. When one 4G service is down or too slow, it can switch to another service providers.

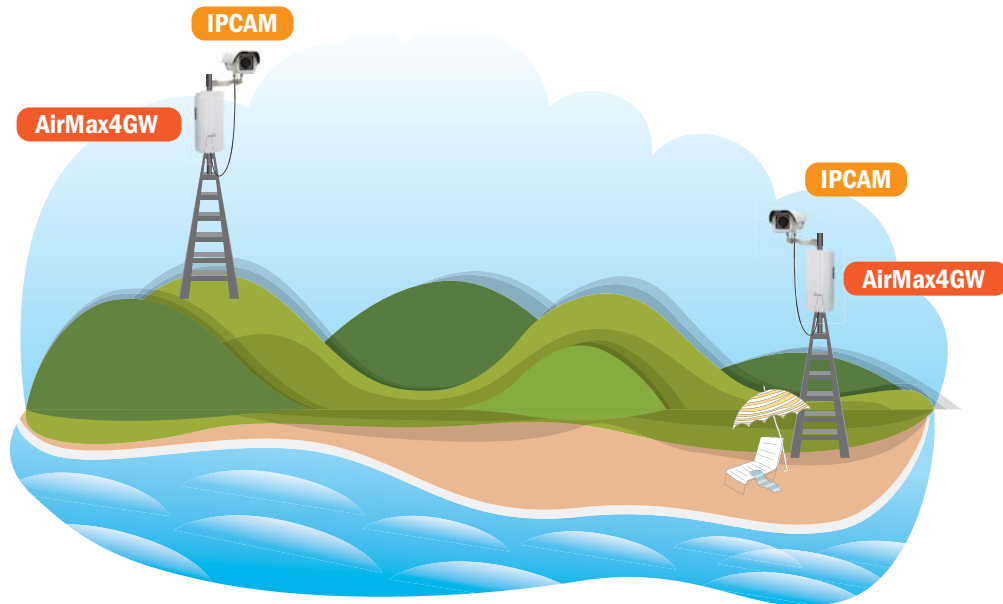


Application Environments



Remote IPCAM Installations

If you want to install IP cameras in remote locations or in places where it is difficult to get Internet connections, the AirMax4GW is your best solution. AirMax4GW connects the IP cameras to remote recording server and let users do video live view anywhere from Internet. It can do so very securely using the built-in VPN function.



Internet Service for Events

When there is Internet service need for outdoor events such as outdoor concerts, camping, sports event, flea market, business summit, and fairs; the AirMax4GW is the perfect solution for quick deployment. Its powerful and sensitive antennas can receive 4G/3G signal far better than mobile phones and deliver the WiFi over large area.





Parks, Camping Site, and Golf Course

System Integrations often receive requests for WiFi internet in locations where wires are either prohibited or expensive to deploy. The AirMax4GW is the only solution to satisfy these requirements.



AirMax4GW

AirMax4GW

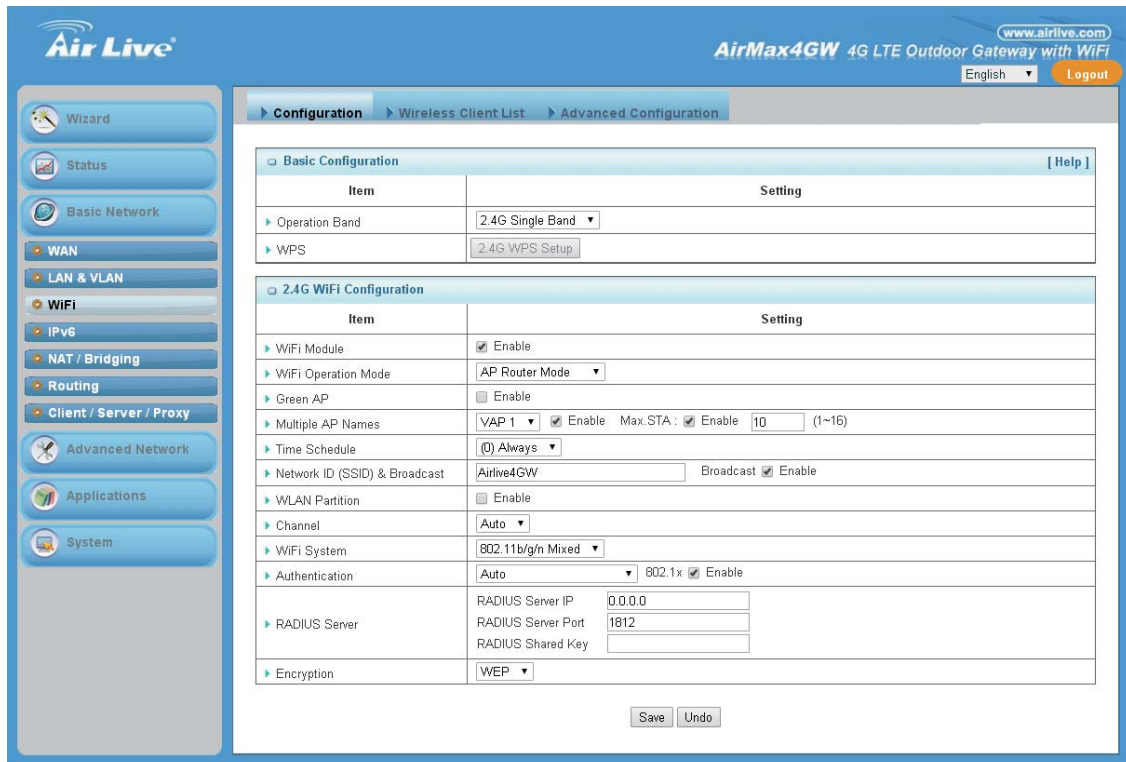
Software Functions

The AirMax4GW has critical software features that are important for WISP applications.



Powerful Wireless Functions

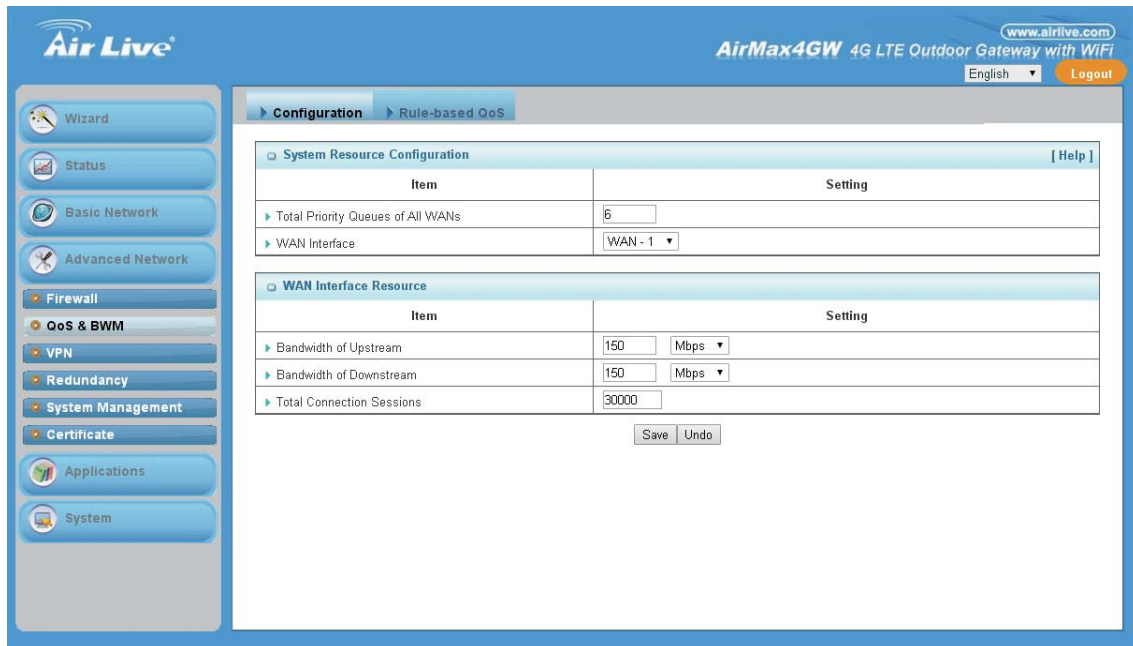
The AirMax4GW features Virtual AP functions for up to 8 SSIDs. Each virtual APs can have different encryption scheme, maximum number of users, and availability schedule. It allows the system integrations to configure the wireless exactly to meet their customer's requirement.





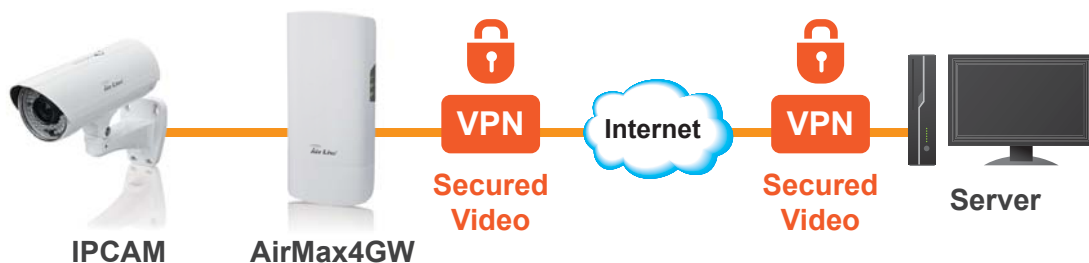
Policy Based Bandwidth QoS Firewall

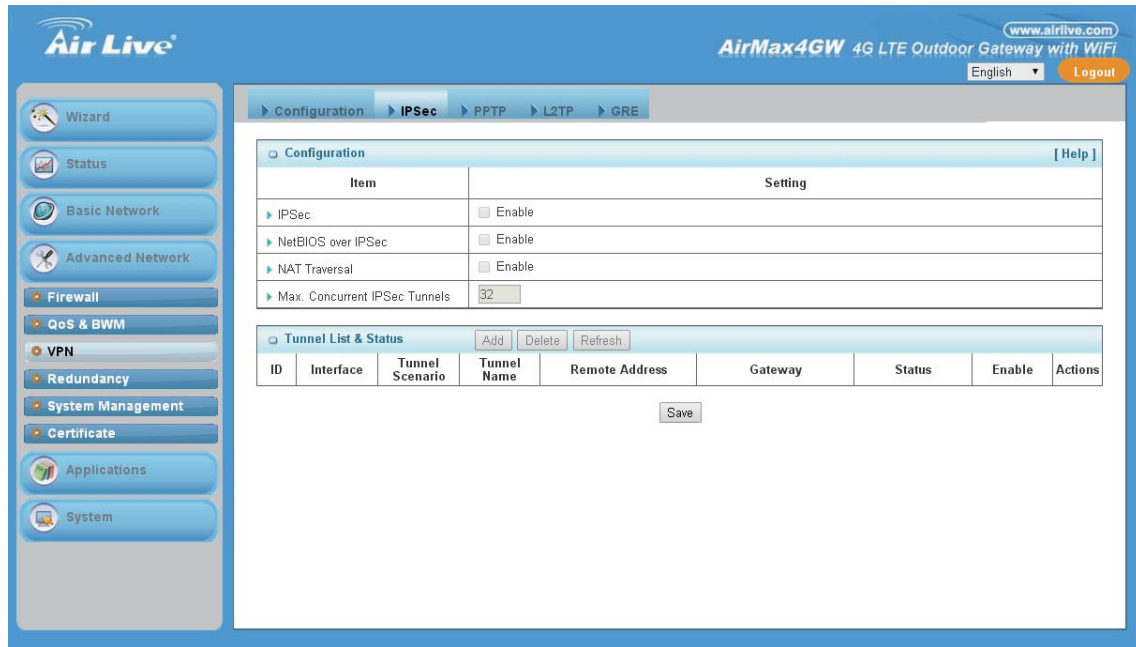
AirMax4GW's enterprise class firewall let administrators control the user's access exactly as needed. You can define the bandwidth and QoS for each device and user to guarantee or limit the bandwidth. You can limit access to certain website or ban certain P2P application from running.



Secured VPN Connection

The AirMax4GW's VPN function provide secure video transmission over VPN encryption. Therefore, you do not need to worry about leaking sensitive information and keep live video image from prying eyes. Administrators has the choice of using IPsec, PPTP, L2TP, or GRE protocols for encryption.





Captive Portal

The captive Portal function will redirect wireless users to a specific remote landing web page where provider can show their service information and request users to enter their login information.



| Item | Setting |
|-----------------------|---|
| Captive Portal | <input checked="" type="checkbox"/> Enable |
| WAN Interface | WAN-1 |
| LAN Subnet | DHCP-1 |
| Authentication Server | External RADIUS Server Hotspot system |
| UAM Server | <input checked="" type="checkbox"/> Enable Select from External Server List: hotspotsystem |

Save Refresh



Remote Radius and UAM server

Operator can enter the remote Radius server information so when users try to login into the Internet service, they will be required to enter user name and password.

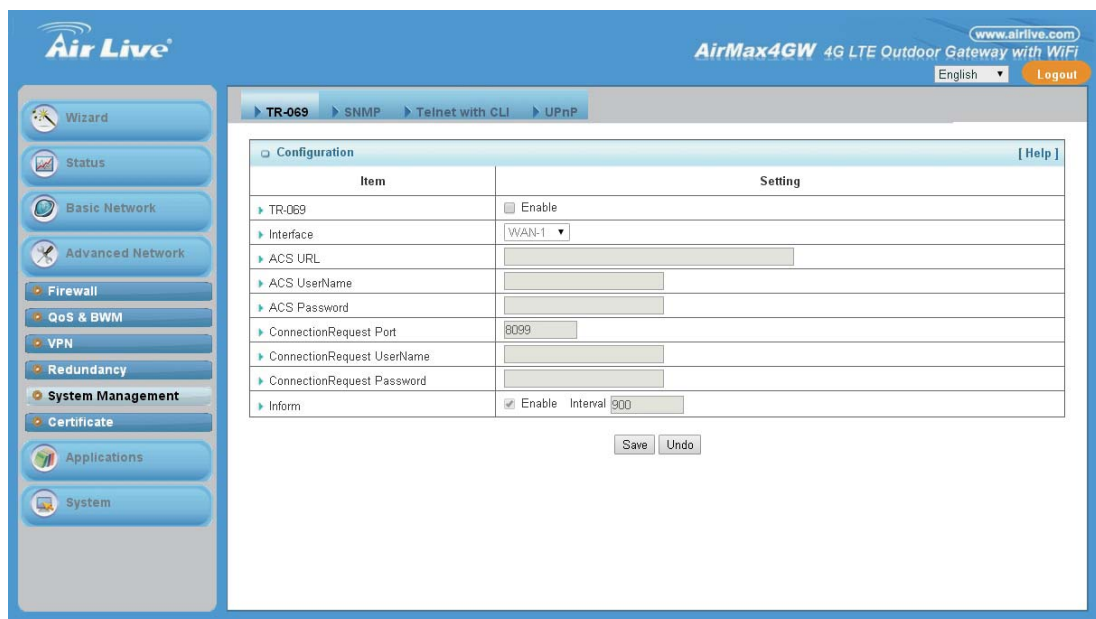


| External Server Configuration | |
|-------------------------------|--|
| Item | Setting |
| Server Name | hotspotsystem |
| Server IP/FQDN | hotspotsystem.com |
| Server Port | 80 |
| Server Type | UAM Server Login URL: <input type="text" value="https://customer.hotspotsys"/> Shared Secret: <input type="text" value="hotsys123"/> NAS/Gateway ID: <input type="text" value="Airlive"/> Location ID: <input type="text" value="1"/> Location Name: <input type="text" value="airlive"/> |
| Server | <input checked="" type="checkbox"/> Enable |



Versatile Management

The AirMax4GW can be managed via Web, TR069, SNMP, and CLI commands. It provides the WISP operators their preferred way for managing the device.





SMS Short Message

The AirMax4GW allow the administrators to send basic commands and get status via SMS message. Therefore, the operators do not need to know the device's IP address and still able to do simple managements and check status with the AirMax4GW.



AirMax4GW

Smart Phone

The screenshot shows the AirLive management interface for the AirMax4GW. The page title is "AirMax4GW 4G LTE Outdoor Gateway with WiFi". The navigation menu on the left includes Wizard, Status, Basic Network, Advanced Network, Applications, Mobile Applications, Captive Portal, and System. The main content area is titled "SMS" and contains the following sections:

- Configuration:**

| Item | Setting |
|--------------------|---|
| Physical Interface | 3G/4G-1 |
| SMS | <input checked="" type="checkbox"/> SIM Status: SIM_A |
| SMS Storage | SIM Card Only |
- Alert Rule List:** Includes "Add" and "Delete" buttons.
- SMS Summary:**

| Item | Setting |
|---------------|---------|
| Unread SMS | 0 |
| Received SMS | 13 |
| Remaining SMS | 17 |

Buttons for "Save" and "Refresh" are located at the bottom of the page.

You can limit to accept SMS message commands only from specific phone numbers for security.

The screenshot shows the 'Remote Management' configuration page. The left sidebar contains navigation options: Wizard, Status, Basic Network, Advanced Network, Applications, Mobile Applications, Captive Portal, and System. The main content area is titled 'Remote Management' and contains several sections:

- Management Settings:**
 - Remote Management via SMS: Enable Disable
 - Delete SMS for Remote Management: Enable Disable
 - Security Key:
- Command Settings:**

| Item | Setting |
|------------|---|
| Status | <input type="radio"/> Enable <input checked="" type="radio"/> Disable |
| Connect | <input type="radio"/> Enable <input checked="" type="radio"/> Disable |
| Disconnect | <input type="radio"/> Enable <input checked="" type="radio"/> Disable |
| Reconnect | <input type="radio"/> Enable <input checked="" type="radio"/> Disable |
| Reboot | <input type="radio"/> Enable <input checked="" type="radio"/> Disable |
- Notification Settings:**

| Item | Setting |
|---------------|---|
| WAN Link Up | <input type="radio"/> Enable <input checked="" type="radio"/> Disable |
| WAN Link Down | <input type="radio"/> Enable <input checked="" type="radio"/> Disable |
- Access Control List:**

| Item | Setting |
|----------------|--|
| Access Control | <input type="radio"/> Enable <input checked="" type="radio"/> Disable |
| Phone 1 | <input type="text"/> <input type="checkbox"/> Management <input type="checkbox"/> Notification |
| Phone 2 | <input type="text"/> <input type="checkbox"/> Management <input type="checkbox"/> Notification |
| Phone 3 | <input type="text"/> <input type="checkbox"/> Management <input type="checkbox"/> Notification |
| Phone 4 | <input type="text"/> <input type="checkbox"/> Management <input type="checkbox"/> Notification |
| Phone 5 | <input type="text"/> <input type="checkbox"/> Management <input type="checkbox"/> Notification |

At the bottom of the form are buttons for 'Save', 'Undo', and 'Reboot'.