

LM61 User Manual

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1. About this Manual

The content of this User Manual has been made as accurate as possible. However, due to continual product improvements, specifications and other information are subject to change without notice.

2. Product Overview

LM61 supports LTE Band 4/13 (Subject to the configuration of LTE module) and it supports popular operating systems like Windows, Linux and Mac.

3. Configuring the model

The basic settings in WebGUI consist of four main parts named Dashboard,4G,Status and System. You can login to WebGUI as follows, and configure the settings according to your requirements.

Connect the PC to LM61 with DB100, waiting for about one minute until the device finished initializing. Please ensure that USIM card has been inserted into USIM slot.

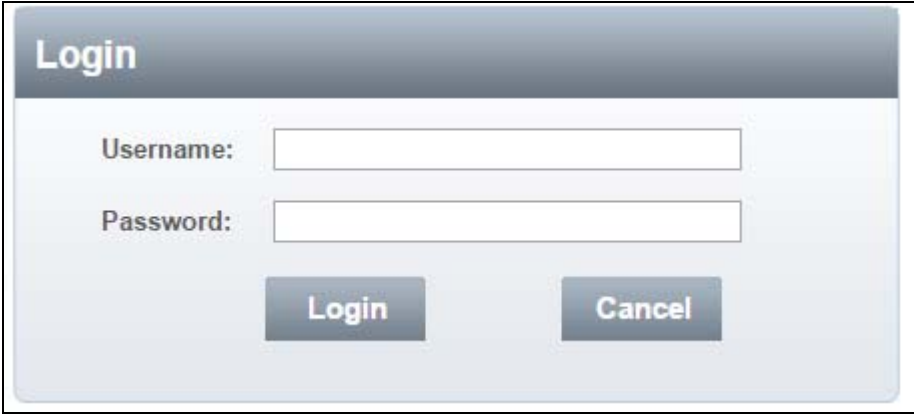
3.1 Login

Open your Web browser and enter 10.0.0.1 in the address bar;

Login window will popup;

When prompted for User name and password, enter the following username and password.

Username/Password: admin/admin



The image shows a screenshot of a web browser's login dialog box. The dialog has a title bar with the word "Login" in white text on a dark blue background. Below the title bar, there are two text input fields. The first is labeled "Username:" and the second is labeled "Password:". Below these fields are two buttons: "Login" and "Cancel", both with white text on a dark blue background. The dialog box has a light blue gradient background and a thin border.

3.2 Dashboard

After successful login, the following screen will appear and you will see six menus on the top bar of the WebGUI.

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The bars in the middle indicate the received signal level, data connection status, USIM status shown as below picture:









	LTE signal level
	Data connection Icon, when model connect to network, the icon is on, otherwise, it is grey
	USIM card status. If model work without USIM card. The USIM card icon change to 
	Reboot key. It is used to reboot the device
	Log out key. It is used to log out Web page

Figure 3-2-1 Icon

From dashboard page, you can also know 4G status, status, WAN Info, LAN Info, uplink/downlink and Device Info. You can see the dashboard page as figure 3-2-2.

Dashboard







<div style="border: 1px solid #ccc; border-radius: 10px; padding: 10px; background-color: #f9f9f9;">  <p>LTE Band: UnKnown EARFCN: UnKnown PCI,GCI: UnKnown , UnKnown RRC: UnKnown Uptime: 00:00:00 Connection: Connect</p> </div>	<div style="border: 1px solid #ccc; border-radius: 10px; padding: 10px; background-color: #f9f9f9;">  <p>IP: 10.0.0.1 Netmask: 255.255.255.0 Gateway: 10.0.0.1 MAC Addr: 00:11:22:33:44:55</p> </div>
<div style="border: 1px solid #ccc; border-radius: 10px; padding: 10px; background-color: #f9f9f9;">  <p>LTE Status: Disconnected RSRP: N/A dBm RSRQ: N/A dB RSSI: UnKnown SINR: N/A dB Tx Power: N/A</p> </div>	<div style="border: 1px solid #ccc; border-radius: 10px; padding: 10px; background-color: #f9f9f9;">  <p>IP: UnKnown Netmask: UnKnown Gateway: UnKnown ISP DNS: UnKnown MAC Addr: 00:1A:2B:3C:4D:5E</p> </div>
<div style="border: 1px solid #ccc; border-radius: 10px; padding: 10px; background-color: #f9f9f9;">  <p>UL Data Rate: 0 kBps DL Data Rate: 0 kBps</p> </div>	<div style="border: 1px solid #ccc; border-radius: 10px; padding: 10px; background-color: #f9f9f9;">  <p>HW Model: ALT11XX FW Ver: ATL1_AT_1.0.02.0 SN: 0000000000 IMEI: 0000000000000000 Device Uptime: 00:19:14</p> </div>

Figure 3-2-2 Dashboard Page

3.3 4G

3.3.1 Setting

Connection Mode: bridge and router, default mode is bridge

Connection Type: Auto and manual, default type is auto

Setting	
Connection Mode	Bridge ▼
Connection Type	Manual ▼
Apply	

Figure 3-3-1-1 Setting

3.3.2 APN Settings

APN Settings	
APN Type	IPV4 ▼
APN Name	<input type="text"/>
Authentication	NONE ▼
User Name	<input type="text"/>
Password	<input type="text"/>
Apply Cancel	

Figure 3-3-2-1 APN Settings

The default APN type is IPV4 and APN is NULL, if you want to configure the LTE APN, you should choose the manual mode, and then you can configure the APN settings

3.3.3 PIN Management

From this page, you can see the USIM card status and PIN status.

PIN Management	
Remaining PIN Attempts	3
PIN Status	PIN Disabled
PIN Lock	<input type="text"/> <input type="radio"/> Enable <input checked="" type="radio"/> Disable
<input type="button" value="Apply"/>	

Figure 3-3-3-1 PIN Management

The default PIN status is disabled; you can input the correct PIN to enable the PIN function. The maximum PIN attempts are 3; otherwise you must enter PUK to reset the PIN code. The USIM will be invalid after the unsuccessful attempts for 10 times.

- **PIN Management:** Enter the correct PIN to enable or disable the PIN function, PIN code should be 4 to 8 digits;

3.3.4 LAN Settings

From this page, you can set all settings for the internal LAN.

LAN Settings	
IP Address	<input type="text" value="10.0.0.1"/>
Subnet Mask	<input type="text" value="255.255.255.0"/>
DHCP Server	<input type="text" value="Enabled"/> ▾
Start IP Address	<input type="text" value="10.0.0.10"/>
End IP Address	<input type="text" value="10.0.0.10"/>
Lease Time	<input type="text" value="10080"/>
Static IP 1	MAC: <input type="text"/> IP: <input type="text"/>
Static IP 2	MAC: <input type="text"/> IP: <input type="text"/>
Static IP 3	MAC: <input type="text"/> IP: <input type="text"/>
Static IP 4	MAC: <input type="text"/> IP: <input type="text"/>
Static IP 5	MAC: <input type="text"/> IP: <input type="text"/>
<input type="button" value="Apply"/> <input type="button" value="Cancel"/>	

Figure 3-3-4-1 LAN Settings

- **IP Address** - Enter the IP address of your router (factory default: 192.168.0.1).
- **Subnet Mask** - An address code that determines the size of the network. Normally use 255.255.255.0 as the subnet mask.
- **DHCP** - Enable or Disable the DHCP server. If you disable the Server, Client cannot get valid IP address from model automatically. But you can configure the address of your PC manually to connect model
- **Start IP Address** - Specify an IP address for the DHCP server to start with when assigning IP address. The default start address is 10.0.0.10.
- **End IP Address** - Specify an IP address for the DHCP Server to end with when assigning IP address. The default end address is 10.0.0.10.
- **Lease Time** - The Lease Time is the amount of time a network user will be allowed connection to the router with their current dynamic IP address. Enter the amount of time in minutes and the user will be "leased" this dynamic IP address. After the time is up, the user will be assigned a new dynamic IP address automatically.
- **Static IP** - IP/MAC binding function, the system will assign a fixed IP address to the MAC according to the rules.

Note:

1. If you change the IP Address of LAN, you must use the new IP address to login to the MODEL router.
2. If the new LAN IP address you set is not in the same subnet, the IP address pool of the DHCP server will change at the same time, while the Virtual Server and DMZ Host will not take effect until they are re-configured.

3.4 Status

On this page, you can see WAN Status, LAN Status, 4G Status and Software Status.

WAN Status	LAN Status	4G Status	Software Status
WAN Status			
WAN IP Address	254.128.0.0		
WAN Subnet Mask	0.0.0.0.0.0.80.223.43.106.1.255.255.255.255.255.255.255.255.255.255.255.255.255.255.255.255		
WAN Default Gateway			
WAN Primary DNS	32.1.72.136.0.101.255.0.6.46.0.13.0.0.0.0		
WAN Secondary DNS	32.1.72.136.0.100.255.0.6.32.0.13.0.0.0.0		

Figure 3-4-1 Status

3.4.1 WAN Status

From the WAN Status, WAN IP Address, WAN Primary DNS and WAN Secondary DNS information can be displayed

WAN Status	
WAN IP Address	254.128.0.0
WAN Subnet Mask	0.0.0.0.0.0.80.223.43.106.1.255.255.255.255.255.255.255.255.255.255.255.255.255.255.255
WAN Default Gateway	
WAN Primary DNS	32.1.72.136.0.101.255.0.6.46.0.13.0.0.0.0
WAN Secondary DNS	32.1.72.136.0.100.255.0.6.32.0.13.0.0.0.0

Figure 3-4-1-1 WAN Status

3.4.2 LAN Status

From this page, you can see the LAN Status such as IP, local net mask, DHCP server and MAC address.

LAN Status	
LAN IP	10.0.0.1
Local Netmask	255.255.255.0
DHCP Server	10.0.0.10-10.0.0.10
LAN MAC Address	00:11:22:33:44:55

Figure 3-4-2-1 WiFi LAN Status

3.4.3 4G Status

Clicking on the “4G Status”, you can see the LTE information such as Connection Status, USIM Status, IMEI, IMSI, RSSI, and SINR.

4G Status	
Connection Mode	Router
Connection Status	Disconnected
USIM Status	USIM Ready
Signal Strength (RSRP)	N/A dBm
Signal Strength (RSRQ)	N/A dB
IMEI	0000000000000000
UICCID	89860315740210566552
IMSI	460110128199416
SINR	N/A dB
RSSI	UnKnown
Physical Cell ID	UnKnown
Global Cell ID	UnKnown
Transmission Mode	UnKnown
PLMN	UnKnown
Bandwidth	UnKnown

Figure 3-4-3-1 LTE Status

3.4.4 Software Status

Software version and the DTB version can be displayed.

Software Status	
System Software Version	ATL1_AT_1.0.02.0
DTB Version	LM6X_P1_1.00.1

Figure 3-4-4-1 Software

3.5 System

On this page you can set System Menu: Password and backup & restore.

Dashboard	4G	Status	System									
Password Backup & Restore												
<div style="background-color: #f2f2f2; padding: 5px;">Password</div> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 30%;">Username</td> <td><input type="text" value="admin"/></td> <td></td> </tr> <tr> <td>New Password</td> <td><input type="text"/></td> <td>(1~32)</td> </tr> <tr> <td>Confirm Password</td> <td><input type="text"/></td> <td>(1~32)</td> </tr> </table> <div style="text-align: center; margin-top: 10px;"> <input type="button" value="Apply"/> <input type="button" value="Cancel"/> </div>			Username	<input type="text" value="admin"/>		New Password	<input type="text"/>	(1~32)	Confirm Password	<input type="text"/>	(1~32)	<p>? Help</p> <p>On this page you can configure the password for the login page to your router.</p> <p>Username: Show the current username.</p> <p>New Password: You can enter 1-32 characters as your new password.</p> <p>Confirm Password: Again enter the new password.</p>
Username	<input type="text" value="admin"/>											
New Password	<input type="text"/>	(1~32)										
Confirm Password	<input type="text"/>	(1~32)										

Figure 3-5-1 System

3.5.1 Password

The default password is admin, you can enter 1~32 characters for 2 times as your new password. Then you would logout automatically and you should login to the system by the new password.

Password		
Username	<input type="text" value="admin"/>	
New Password	<input type="text"/>	(1~32)
Confirm Password	<input type="text"/>	(1~32)

Figure 3-5-1-1 Password

3.5.2 Backup & Restore

Clicking the “Export” button, the current settings will be saved as a data file to the local PC. You can import the device configuration from the files that you saved. You can restore and reboot the device.

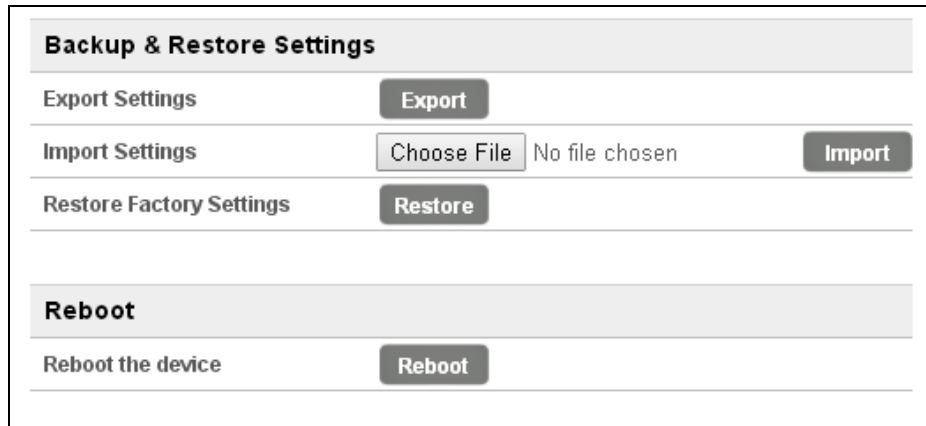


Figure 3-5-2-1 Backup & Restore

Federal Communications Commission (FCC) Statement

15.21

You are cautioned that changes or modifications not expressly approved by the part responsible for compliance could void the user's authority to operate the equipment.

15.105(b)

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

- 1) this device may not cause harmful interference and
- 2) this device must accept any interference received, including interference that may cause undesired operation of the device.

FCC RF Radiation Exposure Statement:

To comply with the FCC RF exposure compliance requirements, this device and its antenna must not be co-located or operating in conjunction with any other antenna or transmitter. This equipment should be installed and operated with a minimum distance of 20 centimeters between the radiator and your body.

End Product Labeling:

This module is designed to comply with the FCC statement, **FCC ID :XYOLM61**

The host system using this module, should have label in a visible area indicated the following texts:

"Contains **FCC ID : XYOLM61** ".

Manual Information to the End User

The OEM integrator has to be aware not to provide information to the end user regarding how to install or remove this RF module in the user's manual of the end product which integrates this module.

The end user manual shall include all required regulatory information/warning as shown in this manual.

Antenna Restriction

For mobile and fixed operating configurations the antenna gain, including cable loss, the device, module LM61 must not exceed the following gain values per bands

for B4 1710-1755 MHz, 1.34 dBi gain

for B13 777-787 MHz , **20.75** dBi gain