

# AcuConnect-LTE-V2 VPN Router Quick Guide



Acura Embedded Systems Inc.

## 1 Overview

AcuConnect- LTE router provides a high-speed, almost never dis-connecting data-transmission communication network, It can meet the needs of Electronic Power System Automation, Industry Monitoring, Transportation Management, Weather, Environment Protection, Pipe Network Monitoring, Finance and Bond industries.

## 2 Specification

<b>CPU</b>	RAM:256Mbit FLASH:64Mbit	<b>WIFI</b>	Transmitting power: 17dbm Distance: Cover a radius of 100 meters in open area test Allow 32 users to access in theory
<b>Power Input</b>	Input DC 7-36V, standard DC12V Low-voltage, over current, over voltage, anti-reverse protection	<b>EMC</b>	Electrostatic discharge immunity: EN6100-4-2, level 2 RFEMS: EN6100-4-3, level 2 Surge: EN6100-4-3, level 2 PFMF: EN6100-4-6, level 2 Shockwave immunity: EN6100-4-8, Horizontal / vertical direction 400A/m( >level 2)
<b>Environment</b>	Storage Temp: -40~70C Work Temp: -30~60C Humidity: <95%	<b>Physical property</b>	Shockproof: IEC60068-2-27 Drop test: IEC60068-2-32 Vibration test: IEC60068-2-6
<b>Interface</b>	1xLAN10/100Mb RJ45  1xSerialport RS232/485	<b>Size &amp; Weight</b>	L*W *H: 105*105*26mm Net Weight (no accessories) :300g

## 3 Configure

### 3.1 Login the router

- Open the Web browser, and type <http://192.168.8.1> into the address field and press "Enter".
- Type User Name "admin" and Password "admin" in the pop-up Login Window, then press the "OK".



## 3.2 Internet Settings

### 3.2.1 WAN

- **SIM PIN:** enter PIN code if necessary.
- **MSP Name:** LTE
- **Dialing Number:** Input the Dialing Number you get from ISP. Eg. **Bell (\*99#)**
- **APN(Access Point Name):** This SIM Card APN name is from local ISP.Eg.net.bell.ca
- **User Name:** input it if ISP offers
- **Password:** input it if ISP offers
- **Authenticate Type:** PAP/CHAP/Auto.Eg.**AUTO**

**Wide Area Network (WAN) Settings**

WAN Connection Type: Mobile Modem

**Cellular Network**

USB 3G modem: SIERRA-MC7354

SIM PIN Code:

MTU:

MSP Name: LTE

Dialing Number: \*99#

APN: inet.bell.ca

User Name:

Password:

Authenticate Type: AUTO

Connect Mode: Keep Alive

Apply Reset

### 3.2.2 LAN

Setting the LAN parameters, include IP address, submask, DHCP, etc. LAN2 must be set "disable".

## Local Area Network (LAN) Settings

### LAN Setup

IP Address	192.168.8.1
Subnet Mask	255.255.255.0
LAN 2	<input type="radio"/> Enable <input checked="" type="radio"/> Disable
MAC Address	00:50:38:08:C7:C4
DHCP Type	Server
Start IP Address	192.168.8.100
End IP Address	192.168.8.200
Subnet Mask	255.255.255.0
DHCP Primary DNS	8.8.8.8
DHCP Secondary DNS	4.4.4.4

## 3.3 Wireless settings

### 3.3.1 Basic

- The network mode supports 802.11 b/g/n (draft).
- Support multi-SSID up to 8.

## Basic Wireless Settings

### Wireless Network

Radio On/Off	Disable		
Network Mode	11b/g/n mixed mode		
Network Name(SSID)	Mobile Router	Hidden <input type="checkbox"/>	Isolated <input type="checkbox"/>
Multiple SSID1	<input type="text"/>	Hidden <input type="checkbox"/>	Isolated <input type="checkbox"/>
Multiple SSID2	<input type="text"/>	Hidden <input type="checkbox"/>	Isolated <input type="checkbox"/>
Multiple SSID3	<input type="text"/>	Hidden <input type="checkbox"/>	Isolated <input type="checkbox"/>
Multiple SSID4	<input type="text"/>	Hidden <input type="checkbox"/>	Isolated <input type="checkbox"/>
Multiple SSID5	<input type="text"/>	Hidden <input type="checkbox"/>	Isolated <input type="checkbox"/>
Multiple SSID6	<input type="text"/>	Hidden <input type="checkbox"/>	Isolated <input type="checkbox"/>
Multiple SSID7	<input type="text"/>	Hidden <input type="checkbox"/>	Isolated <input type="checkbox"/>

Broadcast Network Name (SSID)	<input checked="" type="radio"/> Enable <input type="radio"/> Disable
AP Isolation	<input type="radio"/> Enable <input checked="" type="radio"/> Disable
MBSSID AP Isolation	<input type="radio"/> Enable <input checked="" type="radio"/> Disable
BSSID	00:0C:43:30:52:88
Frequency (Channel)	2437MHz (Channel 6) <input type="button" value="v"/>
<b>HT Physical Mode</b>	
Operating Mode	<input checked="" type="radio"/> Mixed Mode <input type="radio"/> Green Field
Channel BandWidth	<input type="radio"/> 20 <input checked="" type="radio"/> 20/40
Guard Interval	<input type="radio"/> Long <input checked="" type="radio"/> Auto
MCS	Auto <input type="button" value="v"/>
Reverse Direction Grant(RDG)	<input type="radio"/> Disable <input checked="" type="radio"/> Enable
Extension Channel	2457MHz (Channel 10) <input type="button" value="v"/>
Aggregation MSDU(A-MSDU)	<input checked="" type="radio"/> Disable <input type="radio"/> Enable
Auto Block ACK	<input type="radio"/> Disable <input checked="" type="radio"/> Enable
Decline BA Request	<input checked="" type="radio"/> Disable <input type="radio"/> Enable

### 3.3.2 Security

#### Wireless Security/Encryption Settings

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Select SSID

SSID choice: Mobile Router

"Mobile Router"

Security Mode: Disable

Access Policy

Policy: Disable

Add a station Mac:

The SSID select from multi-SSID setting.

- **Security mode include:** disable, open, share, wep auto, WPA, wpa-psk, wpa2, wpa2-psk, wpa-psk/wpa2-psk, wpa/wpa2, 802.1X.
- **Access policy:** Set MAC list for access or block.

### 3.3.3 WDS

The router supports Bridge and Repeater mode, but default is "disable".

#### Wireless Distribution System

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Wireless Distribution System(WDS)

WDS Mode: Disable

WDS may provide two modes of wireless access point-to-access point (AP-to-AP) connectivity:

- **Wireless bridging:** in which WDS APs communicate only with each other and don't allow wireless clients or stations (STA) to access them
- **Wireless repeating:** in which APs communicate with each other and with wireless STAs
- **Encryption:** WEP, TKIP and AES.

## 3.4 Administration

### 3.4.1 Management

#### System Management

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**Language Settings**

Select Language: English

**Administrator Settings**

Account: admin

Password:

Port: 80

**NTP Settings**

Current Time: Sat Jan 1 00:15:07 UTC 2000

Time Zone: (GMT-08:00) Pacific Time

NTP Server: ex: time.nist.gov  
ntp0.broad.mit.edu  
time.stdtime.gov.tw

NTP synchronization(hours):

- **Select Language**
- **Administrator Settings.** The default both Account and Password are "admin".
- **Web Port,** default Port is 80, Support 1~65535.
- **NTP Settings**

DDNS: support Dyn dns.org/freedns.afraid.org/www.zoneedit.com/www.no-ip.com

**DDNS Settings**

Dynamic DNS Provider

Account

Password

DDNS

### 3.4.2 Reboot settings ICMP

**ICMP Reboot**

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**ICMP check and Reboot Settings**

Reboot When Network Error

Check Method(PING)

Check Interval Time(Sec)  (60-86400)

Check Count  (3-1000)

Reboot Count Before Sleep  (2-50)

Sleep Time(min)  (10-43200)

Comment: It is only used for 3G keep\_alive and on\_time mode,It is auto close in other mode!

This function will detect the status of LTE by ping and complete the corresponding actions according to the ping result.

- **Reboot When Network Error:** Choose the box to start the net detection function.
- **Check Method (PING):** fill the server domain name or IP, and then click the Check button to detect if the fill-in is right.
- **Check interval time (second):** the interval time between the first detection and the second detection is 60-86400 seconds.
- **Check Count:** when ping detection arrives to default time, but still cannot access, then the router will reboot.
- **Reboot Count before Sleep:** when continuous reboot times arrive to default value, the router will enter sleeping mode. This setting is to prevent the router to reboot continuously when cannot ping access caused by service IP's error.
- **Sleep Time (minute):** here to set sleeping time. When arrives, the router will start Ping check again.

### Restart Reboot when timeout

**Reboot Timer Settings**

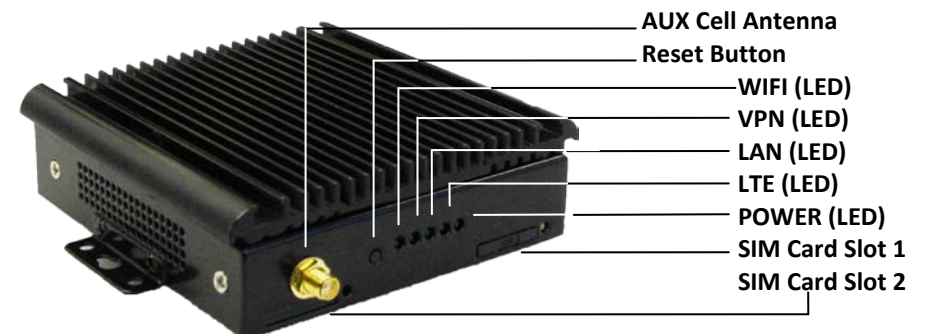
Reboot When Timeout

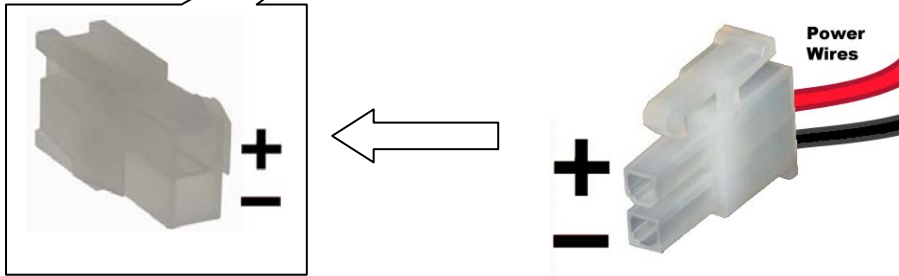
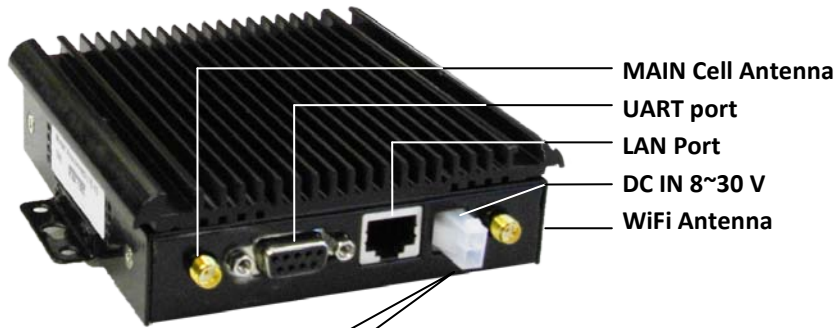
Timer (min)

**Timer (minute):** input any number from 60 to 1440 minutes, the router will reboot when arrives to default value.

**Note: Suggested minimum reboot timeout 60 minutes.**

### 3.5 Connection and Support





## Technical Support

Phone: 604.502.9666

Email: [support@acuraembedded.com](mailto:support@acuraembedded.com)

website: [www.acuraembedded.com](http://www.acuraembedded.com)