

# **USER MANUAL**

**S9922XL Series Mobile Router**

**CONTENT**

**GENERAL CONFIGURATION** ..... 3

1. **WAN SETTINGS** ..... 4

2. **Wi-Fi SETTINGS** ..... 6

3. **NAT SETTINGS** ..... 7

4. **LAN SETTINGS** ..... 8

## GENERAL CONFIGURATION

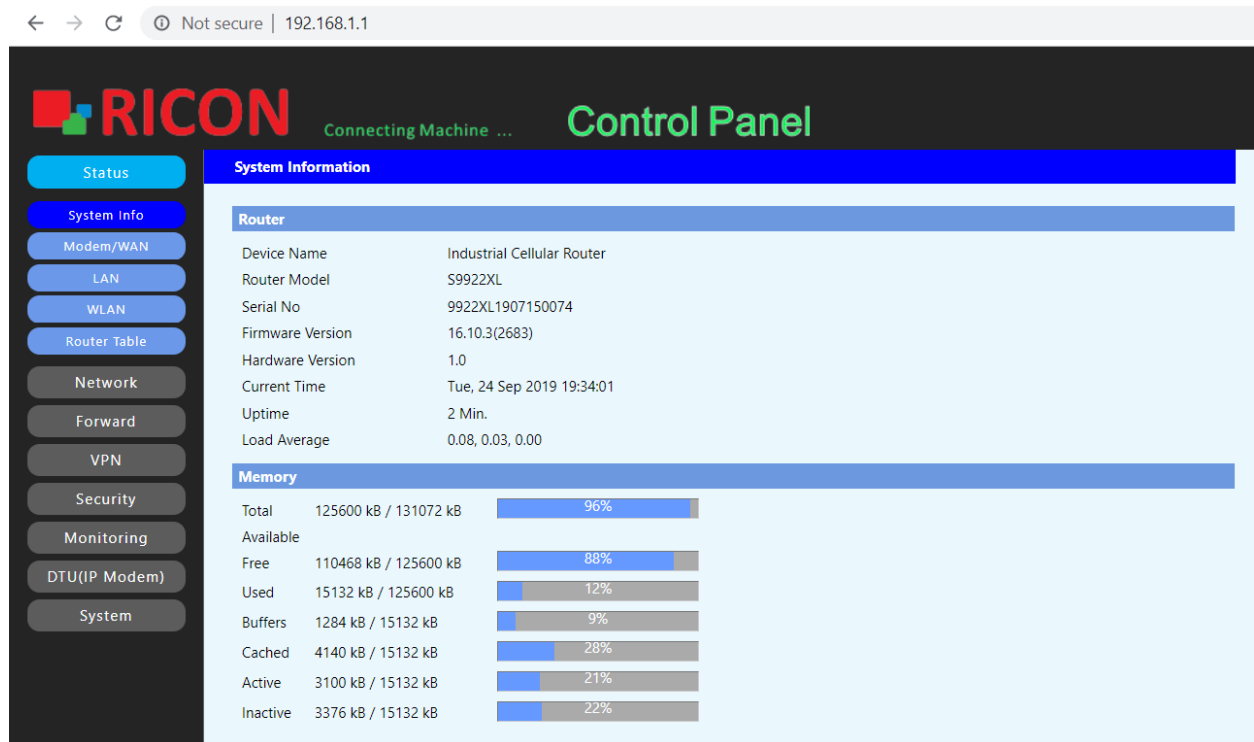
Use Ethernet port directly connected to S9922L Router and computer, or transferred by a switch.

This method will temporarily interrupt the communication between the computer under configuration and LAN, and the specific parameter configuration is shown as below:

IP address: 192.168.1.\* (\*indicates any integral between 2 to 254)

Subnet mask: 255.255.255.0

Default gateway: 192.168.1.1



The screenshot shows the RICON Control Panel web interface. The browser address bar displays "Not secure | 192.168.1.1". The page title is "Control Panel" and the status is "Connecting Machine ...". The left sidebar contains navigation buttons for Status, System info, Modem/WAN, LAN, WLAN, Router Table, Network, Forward, VPN, Security, Monitoring, DTU(IP Modem), and System. The main content area is titled "System Information" and is divided into two sections: "Router" and "Memory".

Router	
Device Name	Industrial Cellular Router
Router Model	S9922XL
Serial No	9922XL1907150074
Firmware Version	16.10.3(2683)
Hardware Version	1.0
Current Time	Tue, 24 Sep 2019 19:34:01
Uptime	2 Min.
Load Average	0.08, 0.03, 0.00

Memory		
Total	125600 kB / 131072 kB	96%
Available		
Free	110468 kB / 125600 kB	88%
Used	15132 kB / 125600 kB	12%
Buffers	1284 kB / 15132 kB	9%
Cached	4140 kB / 15132 kB	28%
Active	3100 kB / 15132 kB	21%
Inactive	3376 kB / 15132 kB	22%

## 1. LTE SETTINGS

S9922XL Router core function is connecting to a desired network (corporate or internet) by cellular connection. Usually 3G/LTE network bandwidth is (Depending on the operators' infrastructure) between 1~300Mbps

### Network > Modem/WAN

The screenshot shows the RICON web interface at 192.168.1.1. A sign-in dialog is open over the main content. The dialog has the following fields:

- URL: http://192.168.1.1
- Warning: Your connection to this site is not private
- Username: admin
- Password: [masked]
- Buttons: Sign in, Cancel

The background interface shows the 'Network' menu item highlighted in the left sidebar. The main content area displays 'System Information' for the 'Router' section:

Router	
Device Name	Industrial Cellular Router
Router Model	S9922XL
Serial No	9922XL1907150074
Firmware Version	16.10.3(2683)
Hardware Version	1.0
Current Time	Tue, 24 Sep 2019 19:34:57
Uptime	3 Min.
Load Average	0.03, 0.02, 0.00

Below the router information is a 'Memory' section with a bar chart showing usage percentages:

Category	Value	Percentage
Total	125600 kB / 131072 kB	96%
Available		
Free	110468 kB / 125600 kB	88%
Used	15132 kB / 125600 kB	12%
Buffers	1284 kB / 15132 kB	9%
Cached	4140 kB / 15132 kB	28%
Active	3100 kB / 15132 kB	21%
Inactive	3376 kB / 15132 kB	22%

Single click “Modem/WAN” to access modem parameter settings section.

Single click “save” icon to finish.

**RICON** Connecting Machine ... **Control Panel**

**Modem/WAN**

**Link Backup**

Backup Mode  Main First(Automatic return to Main)  Mutual Preparation Mode  
 Link Fail to Restart  (0 : Disabled)

**Modem/WAN - Main Link**

Connection Type   
 SIM Switch/Reset   
 SIM Backup  Enable  Disable

**Main SIM**  SIM1  SIM2

**SIM 1:**

User Name   Unmask  
 Password   Unmask  
 Dial String  Custom   
 APN   
 PIN   Unmask  PIN Protection  
 Network Mode

**SIM 2:**

User Name   Unmask  
 Password   Unmask  
 Dial String  Custom   
 APN   
 PIN   Unmask  PIN Protection  
 Network Mode

**Others:**

Authentication  PAP  CHAP  MS-CHAP  MS-CHAPv2  
 Fixed WAN IP  Enable  Disable  
 Fixed WAN GW Address  Enable  Disable  
 Force reconnect  Enable  Disable  
 Connect Fail  TimesSwitch  
 Dial Fail to Restart  (0 : Disabled)

Keep Alive   
 Keep Alive Server IP   
 Keep Alive Server IP2   
 Keep Alive Interval   
 Keep Alive Fail  TimesSwitch

**Modem/WAN - Backup Link**

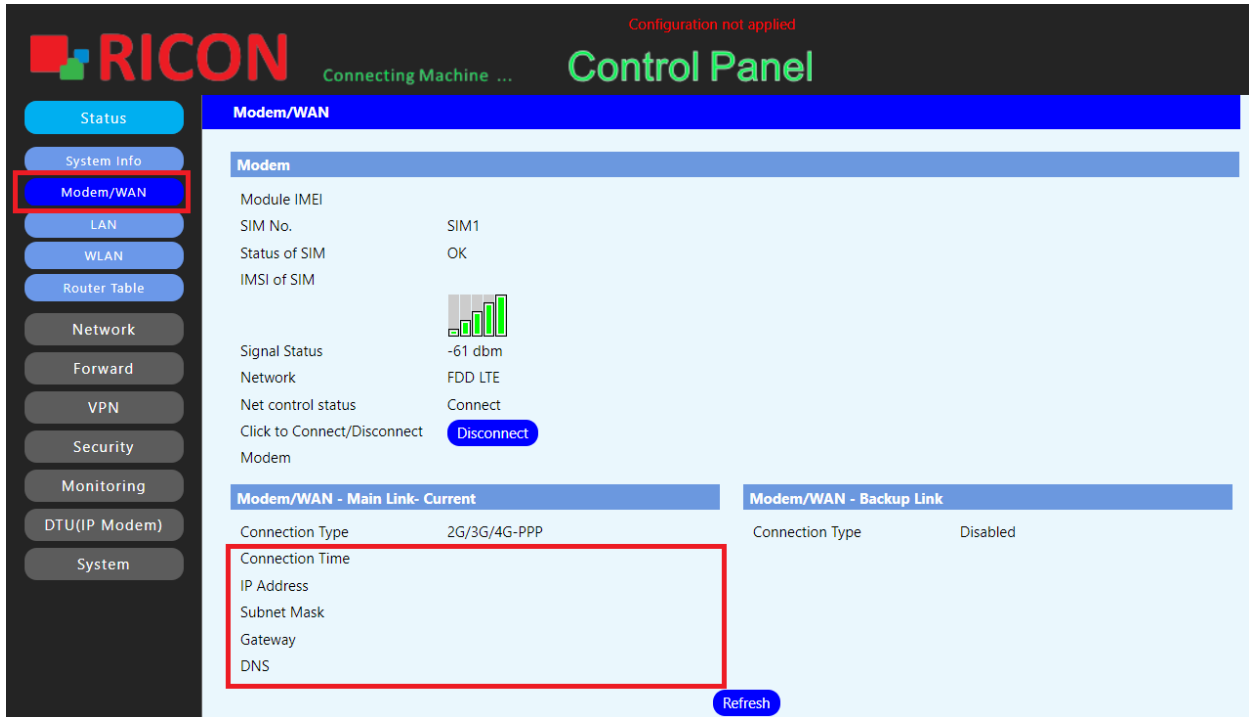
Connection Type

**Optional Settings**

Device Name   
 Host Name   
 Domain Name   
 MTU

Click to see the IP received LTE connection.

**Status > Modem/WAN**




Configuration not applied

**RICON** Connecting Machine ... **Control Panel**

**Modem/WAN**

**Modem**

Module IMEI  
SIM No. SIM1  
Status of SIM OK  
IMSI of SIM

Signal Status  -61 dbm  
Network FDD LTE  
Net control status Connect  
Click to Connect/Disconnect **Disconnect**  
Modem

**Modem/WAN - Main Link- Current**

Connection Type 2G/3G/4G-PPP

Connection Time  
IP Address  
Subnet Mask  
Gateway  
DNS

**Modem/WAN - Backup Link**

Connection Type Disabled

**Refresh**

## 2. Wi-Fi SETTINGS

Follow the steps below to make Wi-Fi connection.

SSID is your Wi-Fi connection name.

WPA Shared Key is your Wi-Fi connection password.

Single click **Save** icon to finish.

**Network > WLAN**

Configuration not applied

**RICON** Connecting Machine ... **Control Panel**

Status

**Network**

Modem/WAN

LAN

**WLAN**

DHCP Server

DDNS

MAC Address Clone

SDNS

Forward

VPN

Security

Monitoring

DTU(IP Modem)

System

**WLAN**

**Wireless Network**

Wireless Network  Enable  Disable

**Basic Settings []**

Wireless Mode AP

Network Mode Mixed

SSID Ricon-WiFi

Channel Auto

SSID Broadcast  Enable  Disable

**Encryption Settings []**

Security Mode WPA2 Personal Mixed

WPA Algorithms TKIP+AES

WPA Shared Key 1234567890  Unmask

Key Renewal Interval (in seconds) 3600 (Default: 3600, Range: 1 - 99999)

**Save** **Apply** **Cancel**

### 3. NAT SETTINGS

To connect to the interter via the S9922XL, proceed as follows. After selecting Wan Nat as Enable and click the **Save** icon.

#### Forward > NAT

**RICON** Connecting Machine ... **Control Panel**

Status

Network

**Forward**

Static Routing

Forwarding

**NAT**

VRRP

VPN

Security

Monitoring

DTU(IP Modem)

System

**NAT**

**NAT**

Wan Nat  Enable  Disable

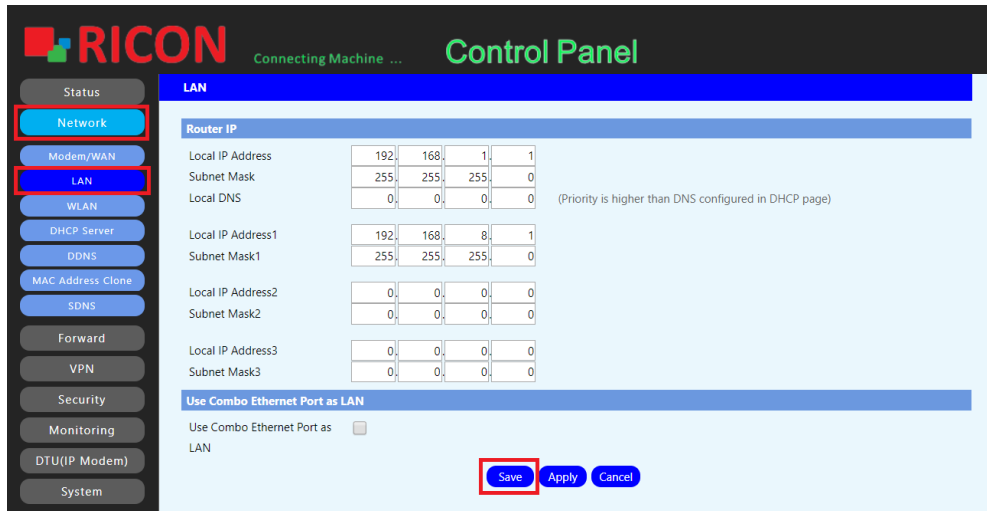
STP  Enable  Disable

**Save** **Apply** **Cancel**

#### 4. LAN SETTINGS

LAN settings are used to manage local area network units which are connected to a S9922XL Router, make them reach to the desired network or internet regarding the network topology. Follow the steps below to change the existing LAN IP block or add another IP block. Enter the IP block you have specified and click **Save**.

##### Network > LAN



DHCP is on in the default configuration. You can follow the steps below to configure the DHCP settings.

##### Network > DHCP Server



RICON
Connecting Machine ...
Control Panel

Status  
Network  
 Modem/WAN  
 LAN  
 WLAN  
DHCP Server  
 DDNS  
 MAC Address Clone  
 SDNS  
 Forward  
 VPN  
 Security  
 Monitoring  
 DTU(IP Modem)  
 System

### DHCP Server

Network: Address Server Settings (DHCP)

DHCP Type: DHCP Server

DHCP Server:  Enable  Disable

Start IP Address: 192.168.1. 100

Maximum DHCP Users: 50

Client Lease Time: 1440 minutes

Static DNS 1: 0. 0. 0. 0 (Priority is higher than DNS obtained form WAN)

Static DNS 2: 0. 0. 0. 0

Static DNS 3: 0. 0. 0. 0

WINS: 0. 0. 0. 0

Advanced

No DNS Rebind:  Enable  Disable

Additional DNSMasq Options:

Statically Assigned

Static Address Setting

Max rule number:16

Number	Name	MAC Address	Host Name	IP Address	Client Lease Time
None					

Select All Delete

Name:

MAC Address:  (xxxxxxxxxxxx)

Host Name:  (optional)

IP Address:

Client Lease Time:  minutes (0: Disabled)

Save
Apply
Cancel