



ALL-RUT22GW

Compact Industrial 4G LTE Cellular Router



Quick Install Guide

1. Default Values:

IP-Address	192.168.1.1
User Name	root
Password	2wsx#EDC

2. Hardware Installation Procedure

- Insert the SIM card in the SIM card slot.
- Connect the 8-48V DC power adaptor to the Router and then plug the power adaptor into a DC outlet.
- To configure the Router, use an Ethernet cable to connect the Router directly to your computer's Ethernet interface.
- Connect the Router's Ethernet port to an Ethernet device.

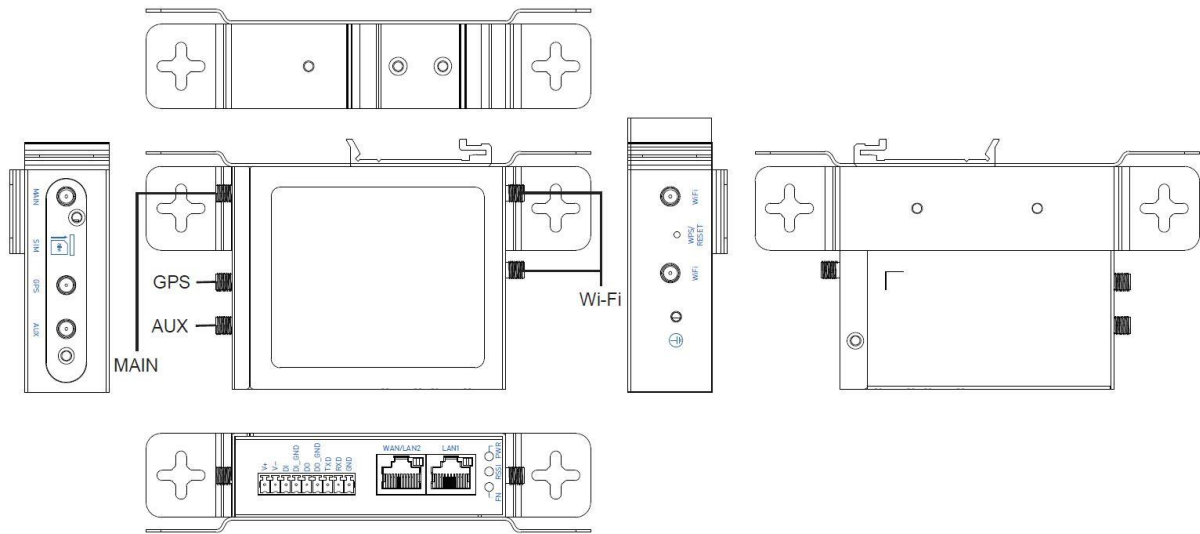
3. Insert and Remove SIM Card

- Before inserting or removing the SIM card, ensure that the power has been turned off and the power connector has been removed from ALL-RUT22GW.
- Insert the SIM card with right direction, or it will be stuck inside. Push the SIM card into the slot, and lightly press it to lock it in the slot.



- To remove the SIM card, lightly press the SIM card and it will pop out.

4. Mechanical Dimensions



5. Connecting I/O Ports

The unit has four terminals on the terminal block for the digital inputs and outputs.

	PIN	Description
	DI	Digital Input
	DI_GND	
	DO	Digital Output
	DO_GND	

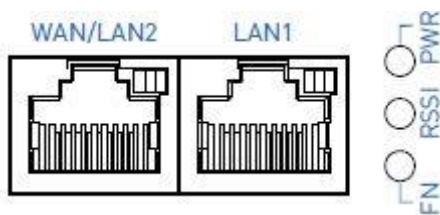
- DI: Low (+0 to +5V) / High (+8 to +40V)
- DO: Open Collector (maximum 30V/300mA)

6. LED Indicators

LED	RSSI	FN	PWR
On	High Signal	VPN connected	Power On
Slow Blinking	Medium Signal / Reset	Internet connected / Reset	N/A
Fast Blinking	Low Signal / Reset to Default	System Booting / Reset to Default	N/A
Off	Error	N/A	Power Off
Heart Beat	WPS Processing	Wi-Fi connected	N/A

7. Ethernet Port

- **10/100 Mbps Ethernet LAN/WAN**



The LAN and WAN interface are standard RJ45 connectors.

PIN	Description	Function
1	TX+	10/100 Mbps, Tx+ Pin
2	TX-	10/100 Mbps, Tx- Pin
3	RX+	10/100 Mbps, Rx+ Pin
4	N/A	N/A
5	N/A	N/A
6	RX-	10/100 Mbps, Rx- Pin
7	N/A	N/A
8	N/A	N/A

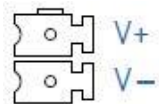
- **LED Indicator of Ethernet Port**

Each Ethernet Port has one LED indicator.

LED	Status	Description
Green (Link / ACT)	Off	Connection is down.
	Blink	Data is being transmitted.
	On	Connection is up.

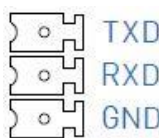
8. Connecting the Power Supply

DC power supplies in the range of 8-48V DC.



PIN	Power (8-48V DC)
V+	Positive
V-	Negative


9. UART (RS-232)



PIN	Power (8-48V DC)
TXD	Transmit Data
RXD	Receive Data
GND	Signal Ground

10. WPS / Reset Button

Reset button allows you to reboot the unit or restore to factory default setting.



Function	Operation
WPS Processing	Press the button less than 5 seconds.
Reset	Press the button for 5-10 seconds.
Reset to default settings	Press the button for more than 10 seconds.

11. Setup

a.) Access the Web Configurator

- Enter default LAN IP **192.168.1.1** as URL in your web browser.



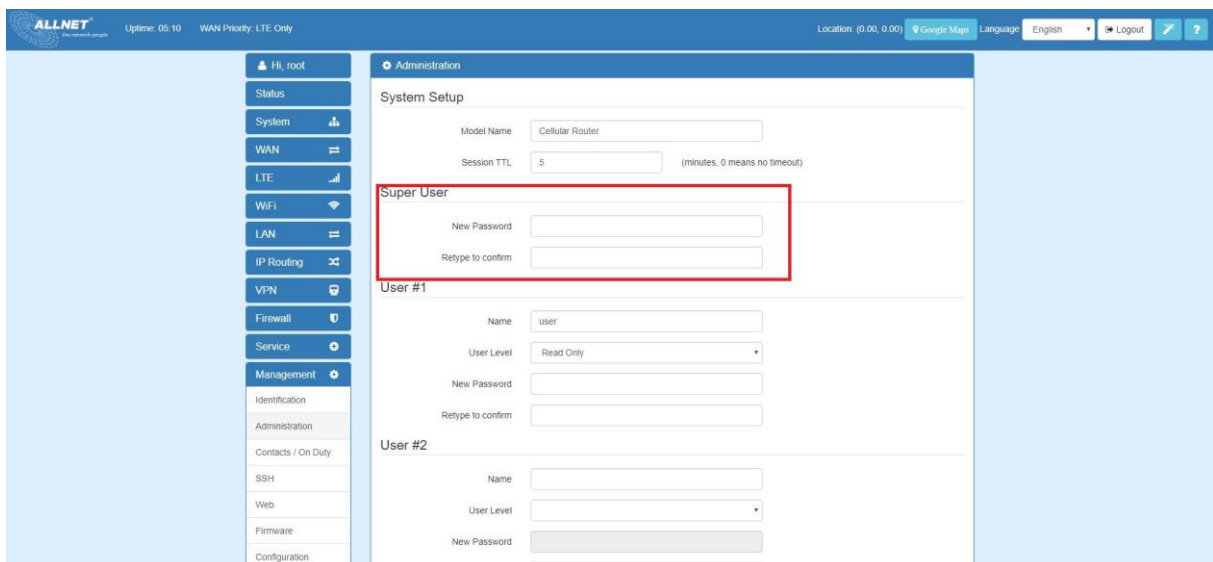
- For logging in the router, please enter the user name **root** and the password **2wsx#EDC** and then click **Login**.



b.) Change Password

Go to the **Management > Administration** and enter the desired **New password**. Scroll down and click the **Apply** button.

Note: Please avoid easy to guess passwords (e.g. admin, root, 1234, ...)



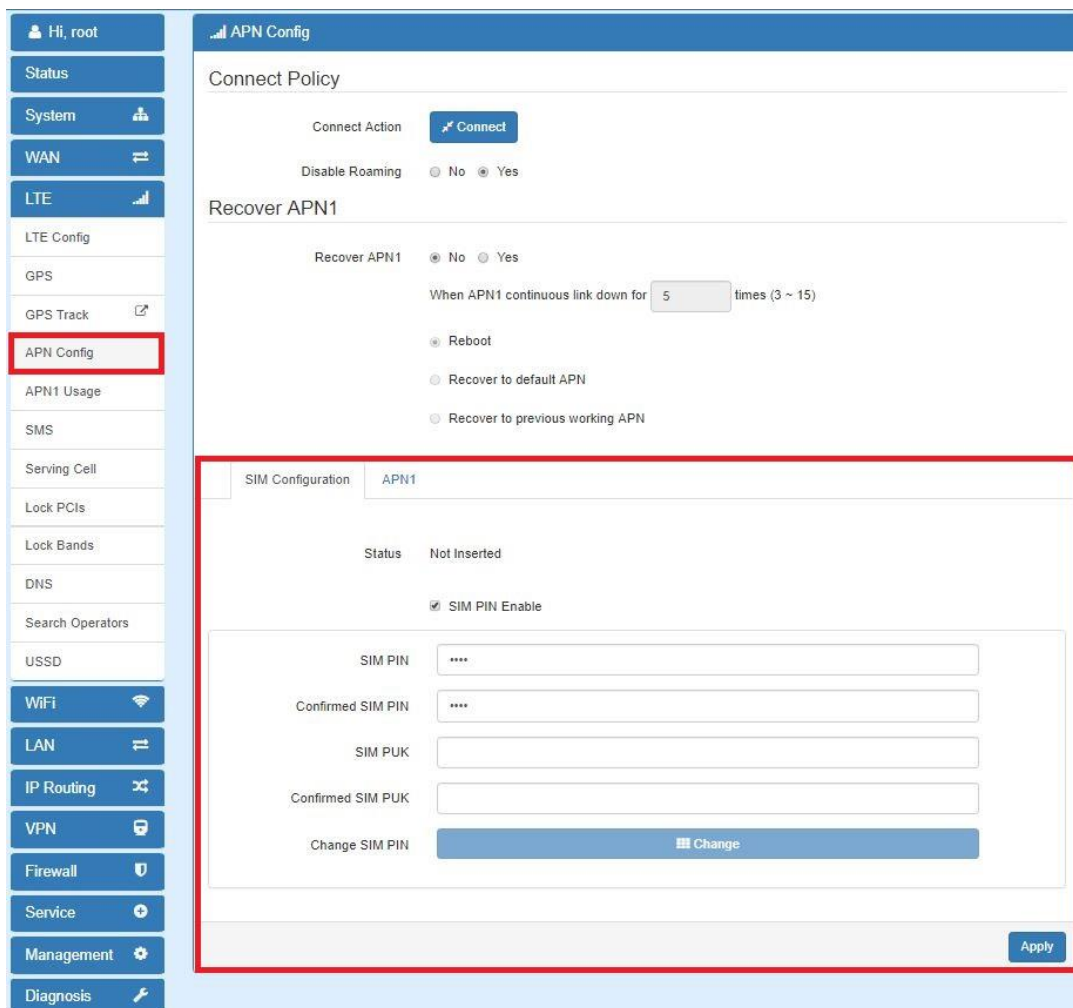
c.) LTE configuration

Go to the **LTE > LTE Config** web page to check the LTE configuration as follows:



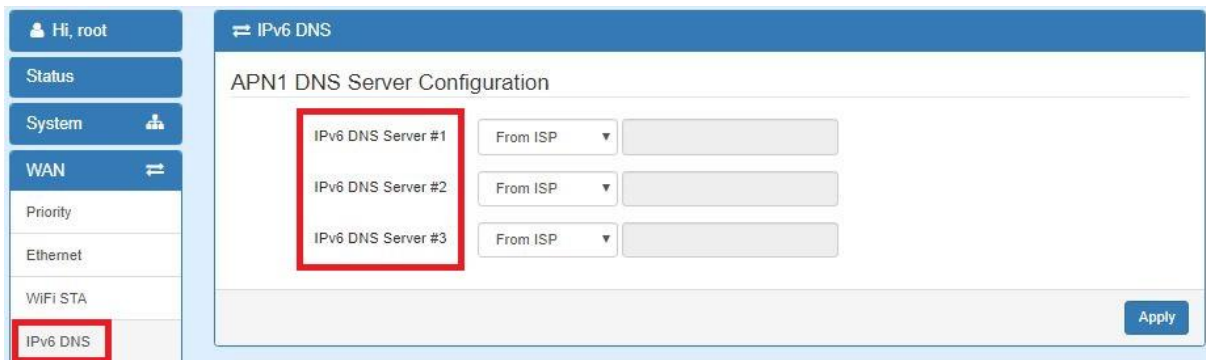
d.) SIM configuration

Go to the LTE > APN Config web page to check the LTE configuration as follows:

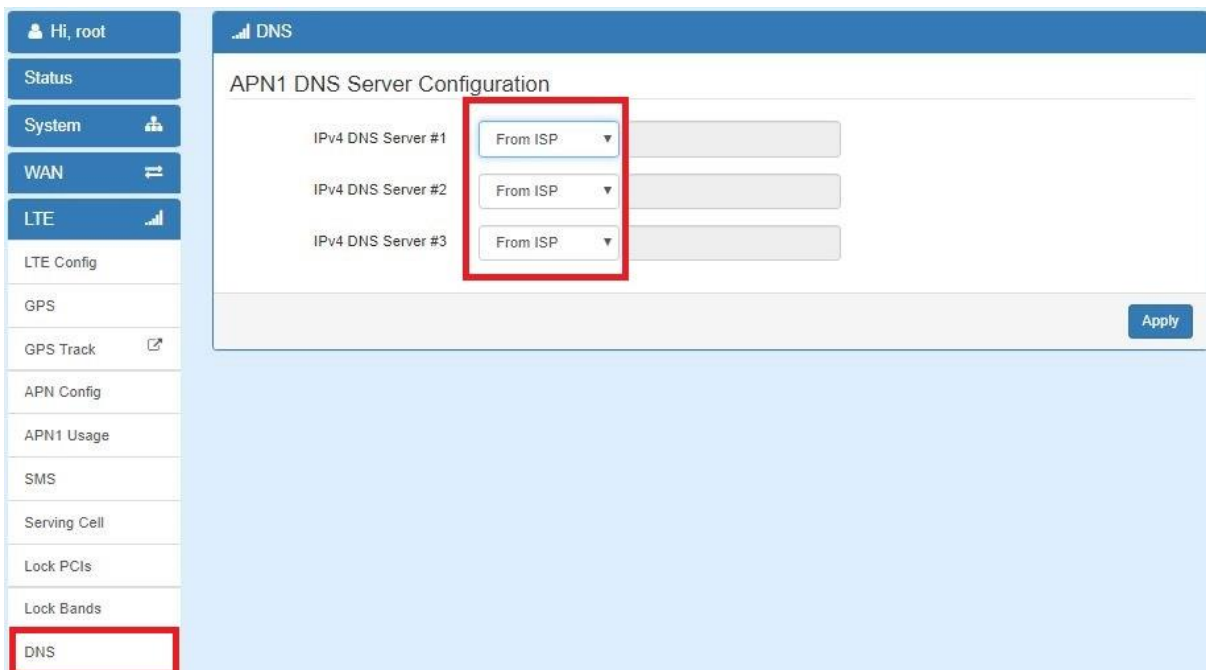


e.) DNS configuration

Go to the **WAN > IPv6 DNS** and **LTE > DNS** web page to check the DNS configuration as follows:



The screenshot shows the 'IPv6 DNS' configuration page. On the left sidebar, the 'IPv6 DNS' menu item is highlighted with a red box. The main content area is titled 'IPv6 DNS' and 'APN1 DNS Server Configuration'. It contains three rows, each with a label (IPv6 DNS Server #1, #2, #3) enclosed in a red box, a dropdown menu set to 'From ISP', and an empty text input field. An 'Apply' button is located at the bottom right.



The screenshot shows the 'DNS' configuration page. On the left sidebar, the 'DNS' menu item is highlighted with a red box. The main content area is titled 'DNS' and 'APN1 DNS Server Configuration'. It contains three rows, each with a label (IPv4 DNS Server #1, #2, #3) and a dropdown menu set to 'From ISP', both enclosed in a red box. An empty text input field is to the right of each dropdown. An 'Apply' button is located at the bottom right.

f.) LAN configuration

Go to the **LAN > IPv4** web page to check the LAN configuration as follows:

The screenshot displays the LAN IPv4 configuration interface. On the left sidebar, the 'LAN' menu is expanded, and 'IPv4' is selected. The main content area shows the following configuration:

- IP Address:** 192.168.1.1
- IP Mask:** 255.255.255.0
- DHCP Server Configuration:**
 - DHCP Server:** On
 - IP Address Pool:** From 192.168.1.20 To 192.168.1.25
- Static IP Addresses:** + Add Static IP Address

An 'Apply' button is located at the bottom right of the configuration area.

g.) Status

Go to the **Status** web page to verify the router status (WAN LTE / LTE APN1 DNS / WAN Ethernet / LAN Ethernet) as follows:

Note: The remarked Key fields (in red) are showing you that the LTE, IP and DNS LAN Status are OK.

The screenshot displays the 'Status' page of a router, organized into several sections. A left-hand navigation menu includes options like 'Status', 'System', 'Time and Date', 'Logging', 'Alarm', 'Ethernet Ports', 'Client List', 'WAN', 'LTE', 'WiFi', 'LAN', 'IP Routing', 'VPN', 'Firewall', 'Services', 'Management', and 'Diagnosis'. The main content area is divided into the following sections:

- DO:** Shows 'Modem Status' as 'Ready' and 'Status' as 'Alarm OFF'.
- GPS:** Lists various location-related fields like Latitude, Longitude, Altitude, etc., all with a value of 0.
- WAN LTE:** This section contains several key fields highlighted in red: 'Modem Status' (Ready), 'Operator' (T-Mobile (Germany)), 'Modem Access' (HSPA), and 'Band' (WCDMA 2100). Other fields include IMSI, Phone Number, Band, EASPCN, PLMN, Roaming, and various speed/packet statistics.
- LTE APN1 (Router):** Shows 'IPv4 Address' (10.152.138.107) and 'Default Gateway' (10.152.138.108) highlighted in red. It also includes 'Connected' status (Yes), IPv4 Conn Time, and speed/packet statistics.
- WAN DNS:** Lists 'IPv4 DNS Server #1' (10.14.210.210) and 'IPv4 DNS Server #2' (10.14.210.211) highlighted in red. It also shows IPv6 DNS servers.
- WAN Ethernet:** Shows 'IPv4 Address', 'IPv4 Mask', 'Default Gateway', and 'IPv4 Conn Time' (00:00).
- WAN WiFi:** Shows 'IPv4 Address', 'IPv4 Mask', 'Default Gateway', 'IPv4 Conn Time' (00:00), SSID, MAC Address, and Channel (0).
- LAN Ethernet:** Shows 'IPv4 Address' (192.168.1.1) and 'IPv4 Mask' (255.255.255.0) highlighted in red. It also includes IPv6 address, IPv6 Conn Time, and speed/packet statistics.
- WiFi AP:** Shows 'Connected Clients' as 0.
- Connected VPN Connections:** Lists various VPN protocols like OpenVPN, IPSec, GRE, PPTP Server, and L2TP, all with a value of 0.

Note:

- All default settings should work properly, so there is no need to change the values for this Quick Install Guide (except Pin settings)
- If your are expiricing connection issues or want to try a custom configuration, please refer to the User Manual for more information.

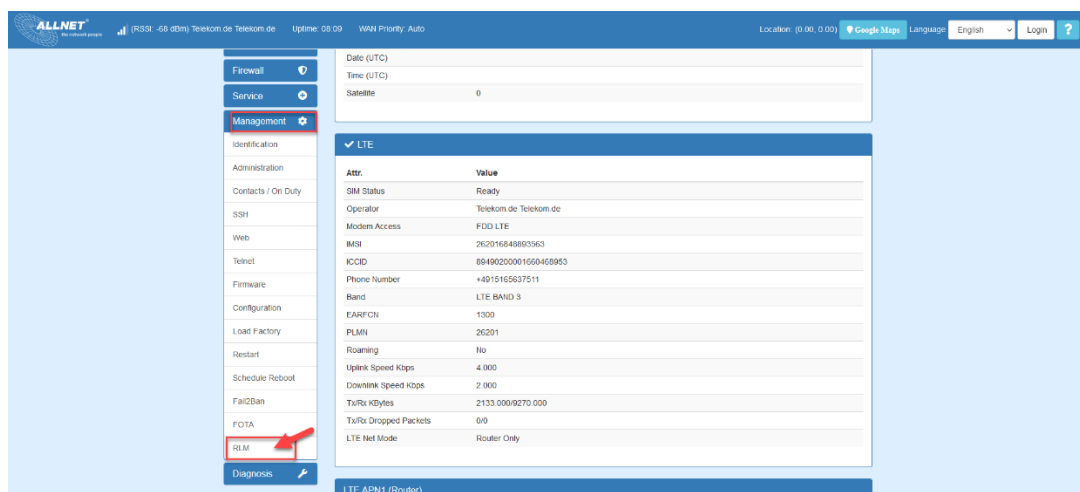
12. RLM-Remote-Link-Manager

General:

The ALL-RUT22GW supports from firmware version 1.09 a new feature that they can manage & administer the ALL-RUT22GW and future routers of this series via an online management tool called RLM-Remote-Link Manager via the address <https://m2m.allnet.de/> to be reached.



The login page features the ALLNET logo at the top, which includes a blue Wi-Fi symbol and a black bar with '4G' and '5G' in white. Below the logo is the text 'REMOTE LINK MANAGER'. The login form consists of a 'UserName' field, a 'Password' field with a toggle for visibility, a 'Enter Captcha' field with a CAPTCHA image showing the letters 'T M N 1', and a blue 'Login' button.



The screenshot shows the router's web interface. The left sidebar has a 'Management' menu item highlighted with a red box and a red arrow. The main content area shows the 'LTE' configuration page. A table lists various LTE parameters and their values:

Attr.	Value
SIM Status	Ready
Operator	Telekom.de Telekom.de
Modem Access	FDD LTE
BAND	26201684862563
ICCID	8949020001650468963
Phone Number	+4915165637511
Band	LTE BAND 3
EARFCN	1300
PLMN	26201
Roaming	No
Uplink Speed Kbps	4.000
Downlink Speed Kbps	2.000
TxRx KBytes	2133.000/9270.000
TxRx Dropped Packets	0/0
LTE Net mode	Router Only

In order for the router to connect to the RLM remote link manager, a few settings must be made in the router under the "Management" "RLM" tab.

1. Visit the website <https://m2m.allnet.de>
2. Register to get an account for this portal.
3. In your created account you have to generate a communication token, which has to be inserted in the router later.

The screenshot shows the RLM configuration page. At the top, the status is 'Connected'. Below that, the 'Mode' is set to 'Enable'. The 'Server' field contains 'm2m.allnet.de', the 'Port' is '8883', and the 'Token' is '105ac619a26e4e2'. The 'TLS Mode' is also set to 'Enable'. There are three sections for 'TLS X.509' with 'Import' buttons for 'CA Certificate', 'X.509 Certificate', and 'X.509 Key'. An 'Advance Setting' section contains three dropdown menus: 'MQTT Keepalive (s)' set to 60, 'Alive Period Time (s)' set to 30, and 'Timeout (s)' set to 60. The 'Insecure Mode' is set to 'Enable'. An 'Apply' button is located at the bottom right of the configuration area.

In order for the router to connect to the platform, the following issues must be addressed as in the example above.

- **RLM server address = m2m.allnet.de**
- **port = 8883**
- **Token = your previously generated token from your account at <https://m2m.allnet.de>**
- **TLS Mode = Enable**

After that please click on "Apply". You can see that the status must be "Connected".

If this status does not change to "Connected", you must open the following ports to the outside in your firewall.

- Port = 8883 TCP
- Port = 443 TCP

If everything is configured correctly and the ports are open, the router should display the following in the config.



Radio frequencies and transmission power WIFI

Frequency	Frequency range	max. transmitting power
2,4 GHz	2400 - 2483 MHz	100 mW

13. Safety Instructions

For your safety, be sure to read and follow all warning notices and instructions.

- Do not open the device. Opening or removing the device cover can expose you to dangerous high voltage points or other risks. Only qualified service personnel can service the device. Please contact your vendor for further information.
- Do not use your device during a thunderstorm. There may be a risk of electric shock brought about by lightning.
- Do not expose your device to dust or corrosive liquids.
- Do not use this product near water sources.
- Make sure to connect the cables to the correct ports.
- Do not obstruct the ventilation slots on the device.

14. CE & GPL

ALLNET GmbH Computersysteme declares that the device **ALL-RUT22GW** is in compliance with the essential requirements and other relevant provisions of Directive 2014/53/EU. The Declaration of conformity can be found under this link:
<http://ce.allnet.de/>

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Version 2, June 1991

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```
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```

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```
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```

```
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