# V1200 Series User Manual

Version 2.0, July 2025

www.moxa.com/products



### V1200 Series User Manual

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### **Table of Contents**

1.	Introduction	
	Package Checklist	
	Product Features	5
	Product Specifications	5
	Supported Firmware Version	6
2.	Hardware Introduction	7
	Appearance	7
	V1202-CT-T	7
	V1222-CT-T	7
	V1222-W-CT-T	8
	Dimensions	8
	Wall Mounting (default)	8
	Desk Mounting (optional)	9
	DIN-rail Mounting (optional)	9
	LED Indicators	10
	Installation Options	10
	Wall Mounting (default)	10
	Desk Mounting (optional)	11
	DIN-rail Mounting (optional)	
з.	Hardware Connection Description	
	Wiring Requirements	13
	Connecting the Power	14
	Grounding the Computer	14
	Connecting the Network	15
	Connecting a USB Device	
	Connecting Serial Ports	16
	Inserting the SIM Card	16
	Inserting a MicroSD Card	17
	Connecting the Console Port	
	Installing Wireless Modules	
	Installing Cables and Antennas	
4.	Getting Started	
	Disabling the Web-based Network Configuration Tool	21
	Access to the Web Console	22
5.	Web Console	23
	Dashboard	23
	System Dashboard	23
	Network Dashboard	23
	Tag Dashboard	25
	System Settings	26
	General	26
	Serial	28
	External Storage	29
	SNMP Agent	30
	Network Settings	31
	Ethernet	31
	Cellular	33
	Wi-Fi Client	36
	Network Management	37
	VRRP	38
	Security	41
	Certificate Center	41
	Firewall	41
	HTTPS	44
	Login Lockout	45
	Session Management	
	OpenVPN Client	
	System Use Notification	47

Account Management	
Accounts	
Roles	
Password Policy	
Maintenance	
Service	51
Reboot	51
Config. Import/Export	
Backup & Restore	
Software Upgrade	53
Reset to Default	
Device Retirement	
Diagnostics	
System Log	
Audit Log	
Regulatory Approval Statements	

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The V1200 computing platform is designed for railway TCMS data-acquisition and train-to-ground applications. The computer comes with dual M12 10/100/1000 Mbps Ethernet ports, built-in 5G and Wi-Fi 6 modules and dual RS-232/422/485 serial ports. The slim, compact design with multiple mounting options reduces installation space and provides flexibility for mounting in various cabinets or onboard locations. The wireless enabled models are thoroughly tested in a testing chamber, guaranteeing that the wireless-enabled computing platforms meet EN50155 OT4 requirements and are suitable for wide-temperature applications.

Each unit is equipped with Moxa Industrial Linux (MIL) for long-term Linux support and vulnerability patching. A web-based interface is provided for easy configuration of Ethernet and wireless network settings without the need for programming.

## **Package Checklist**

Before installing a V1200 computer, verify that the package contains the following items:

- 1 x V1200 Series computer
- 1 x Wall-mounting kit
- 1 x Quick installation guide (printed)
- 1 x Warranty card (printed)

#### NOTE

Notify your sales representative if any of the above items are missing or damaged.

## **Product Features**

- Arm Cortex-A53 quad-core 1.6 GHz processor
- Integrated 5G Sub-6GHz NR module and Wi-Fi 6 module with dual SIM
- Slim, compact design with multiple mounting options
- Isolated power with 24 to 110 VDC power supply range
- TPM 2.0 built-in and developed according to the IEC 62443-4-1 and security features referencing IEC 62443-4-2 industrial cybersecurity standards.\*
- Moxa Industrial Linux built-in for long-term Linux support
- Meet EN 50155 OT4 operating temperature (-40 to 70°C with cellular and Wi-Fi modules enabled)

\*IEC-62443-4-2 SL2 referencing features to be released in 2026.

## **Product Specifications**

#### NOTE

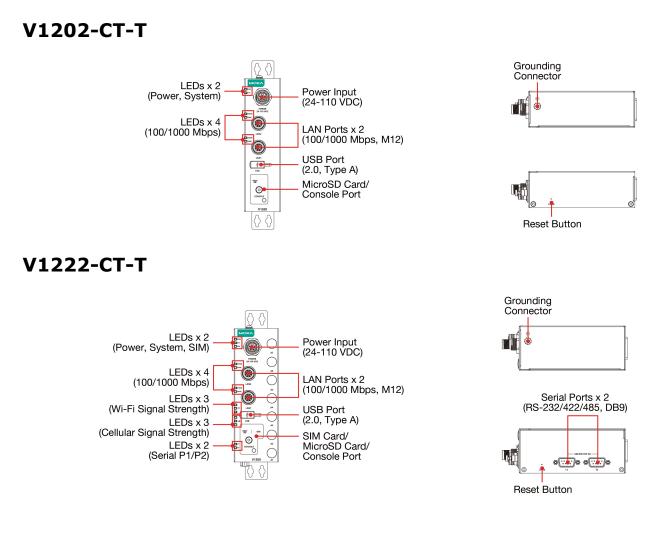
The latest specifications for Moxa's products can be found at <u>https://www.moxa.com</u>.

## **Supported Firmware Version**

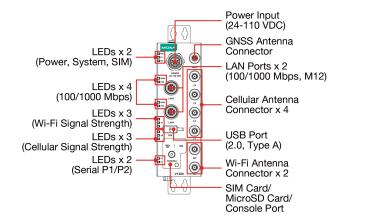
This instructions in this manual are based on firmware version v1.1. For configuration instructions, primarily focusing on the Web UI features available in this release, see the Getting Started section.

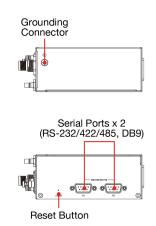
The V1200 computer is compact and designed to be rugged enough for industrial applications. This chapter provides information on the appearance and dimensions of the V1200 and describes the LED indicators that can help you monitor system performance and identify issues. The multiple installation options allow you to find the most suitable installation method for your site and ensure the correct installation of computer.

## Appearance



### V1222-W-CT-T





## Dimensions

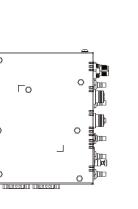
## Wall Mounting (default)

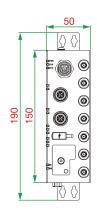
Unit: mm

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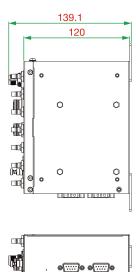
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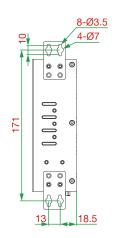
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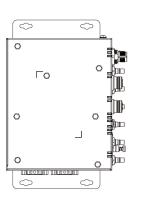


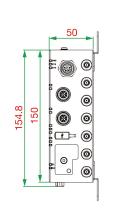


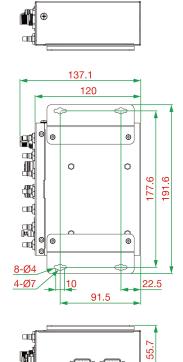


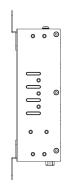
## Desk Mounting (optional)

Unit: mm



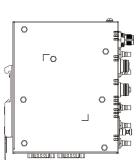




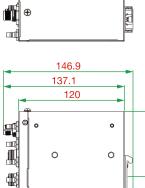


## **DIN-rail Mounting (optional)**

Unit: mm



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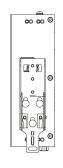
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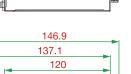


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# **LED Indicators**

LED Name	Color	LED Status	Description	
PWR	Green	Steady on	Power is on	
FVVK	Off	Off	No power	
	Green Steady on Device has booted successfully (all system services are initializ		Device has booted successfully	
			(all system services are initialized)	
	Green	Blinking	Device is in the process of booting up	
SYS	Red	Steady on	Device boot up failed	
	Reu	Steady on	(one or more system services failed to initialize)	
	Off	Off	The device is still in the bootloader stage; is not booted into the	
	011	On	kernel yet	
	Green Steady on		100 Mbps Ethernet link	
	Green	Blinking Data is being transmitted or received		
LAN	Yellow	Steady on	1000 Mbps Ethernet link	
	Tellow	Blinking	Data is being transmitted or received	
	Off	Off	The Ethernet cable is disconnected	

The function of each LED is described in the table below:

## **Installation Options**

### NOTE

For IP40 compliance, the cover of the SD card, SIM card, and console port, should be secured properly with screws.

Ensure that the USB port is covered with the rubber cap if it is not in use.

The V1200 Series can be mounted on to a DIN rail, a wall, or installed on a desk. The wall-mounting kit is included in the product package by default. If you want to use another mounting method, you will need to order the optional DIN-rail mounting or desk-mounting kits separately. Contact a Moxa sales representative to place an order.

## Wall Mounting (default)

The wall-mounting kit is included in the product package by default. To attach the wall-mounting backets, first align them to the apertures on the back panel of the V1200 and fasten the four M3 screws (torque value of  $4.5\pm0.5$  kgf-cm) included in the package to secure the mounting brackets.

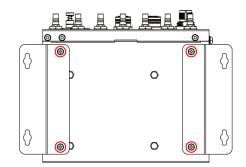


To mount the V1200 on to a wall, use four M3 x 6 mm screws and a torque value of  $4.5\pm0.5$  kgf-cm. See Additional Screws for Wall and Desk Mounting.

### **Desk Mounting (optional)**

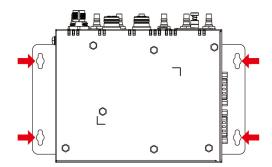
#### Step 1

Use the four screws (M3  $\times$  5 mm) in the package to fasten the wall-mounting brackets to the computer.



#### Step 2

Use another four screws (M3 x 6 mm) to mount the computer on to a wall or in a cabinet.



To fix the V1200 on to a desk, use four M3 x 6 mm screws and a torque value of  $4.5\pm0.5$  kgf-cm. See Additional Screws for Wall and Desk Mounting.

•

#### NOTE

- Test the screw head and shank size by inserting the screws into one of the keyhole shaped apertures of the wall-mounting plates before attaching the plate to the wall.
- Do not drive the screws in all the way—leave a space of about 2 mm to allow room for sliding the wall mount panel between the wall and the screws.

#### Additional Screws for Wall and Desk Mounting

You will require additional screw for mounting the V1200 with the mounting brackets on to a wall or a desk. These screws are not included in the mounting kit package and must be purchased separately. The specifications of the additional screws required are as follows:

Head Type: Pan/Doom Head Diameter 5.2 mm < OD < 7.0 mm Length > 6 mm Thread Size: M3 x 0.5P Recommended Fastening Torque: 4.5 ± 0.5 kgf-cm



## **DIN-rail Mounting (optional)**

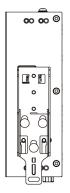
The DIN-rail mounting kit is an optional accessory not included in the product package and needs to be purchased separately.

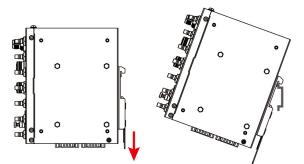
To attach the DIN-rail mounting bracket to the computer, align the mounting bracket to the mounting apertures on the back panel of the computer. Fasten the five M3 x 4 mm screws in the mounting-kit package to secure the bracket to the computer with a torque value of  $4.5\pm0.5$  kgf-cm.

To mount the V1200 Series on to a DIN rail, ensure that the stiff metal spring is facing upwards and follow these steps.

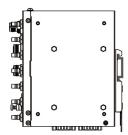
Pull down the slider of the DIN-rail bracket located at the back of the unit. Insert the top of the DIN rail into the slot just below the upper hook of the DIN-rail bracket.

Latch the unit firmly on to the DIN rail as shown in the illustrations below. Once the computer is mounted properly, you will hear a click and the slider will rebound back into place automatically.









# 3. Hardware Connection Description

In this chapter, we describe how to connect the V1200 to a network and various devices.

## **Wiring Requirements**

In this section, we describe how to connect various devices to the embedded computer. Be sure to read and follow these common safety precautions before proceeding with the installation of any electronic device:

• Use separate paths to route wiring for power and devices. If power wiring and device wiring paths must cross, make sure the wires are perpendicular at the intersection point.



### NOTE

Do not run signal or communication wiring and power wiring in the same wire conduit. To avoid interference, wires with different signal characteristics should be routed separately.

- You can use the type of signal transmitted through a wire to determine which wires should be kept separate. The rule of thumb is that wiring that shares similar electrical characteristics can be bundled together.
- Keep input wiring and output wiring separate.
- When necessary, it is strongly advised that you label wiring to all devices in the system.



### ATTENTION

#### Safety First!

Be sure to disconnect the power cord before doing installations and/or wiring.

#### **Electrical Current Caution!**

Calculate the maximum possible current in each power wire and common wire. Observe all electrical codes dictating the maximum current allowable for each wire size.

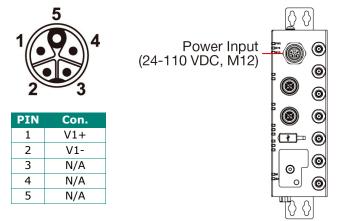
If the current goes above the maximum rating, the wiring could overheat, causing serious damage to your equipment.

#### Temperature Caution!

Be careful when handling the unit. When the unit is plugged in, the internal components generate heat, and consequently the outer casing may feel hot to the touch.

### **Connecting the Power**

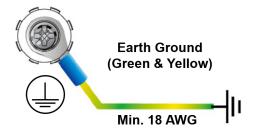
Connect the 24 to 110 VDC power line with M12 K-coded connector (needs to be purchased separately) to the V1200 computer. If the power is supplied properly, the "PWR" LED will glow a solid green after a 25 to 30-second delay. The power input location and pin definition are shown in the following figures:



### **Grounding the Computer**

There is a grounding connector located on the top panel of the computer. Grounding and wire routing help limit the effects of noise due to electromagnetic interference (EMI). Note that this product is intended to be mounted on a well-grounded mounting surface, such as a metal panel.

The power cord adapter should be connected to a socket outlet with an earthing connection.



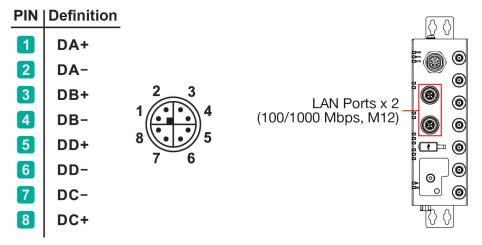


#### ATTENTION

This product is intended to be mounted to a well-grounded mounting surface such as a metal panel. Use the green-and-yellow cable type minimum with American Wire Gauge (AWG) 18 for grounding.

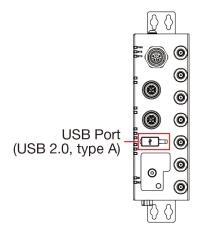
## **Connecting the Network**

The pin assignments for the V1200 computer's Ethernet ports are shown in the following figure. If you are using your own Ethernet cable, make sure that you match the pin assignment on the connector of the Ethernet cable to the pin assignment shown below:



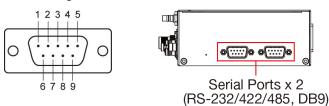
## **Connecting a USB Device**

The USB port, located on the front panel, is a type-A USB 2.0 console port which you can use to connect a USB storage device or a type-A USB compatible device.



## **Connecting Serial Ports**

The computer comes with two serial ports on the bottom panel. Use a serial cable to connect your serial device to the computer via a serial port. The serial ports use DB9 connector and can be configured for RS-232, RS-422, or RS-485 communication. The location and pin assignments of the serial ports are shown in the following tables:



Pin	RS-232	RS-422	RS-485 (4-wire)	RS-485 (2-wire)
1	DCD	TxDA(-)	TxDA(-)	-
2	RxD	TxDB(+)	TxDB(+)	-
3	TxD	RxDB(+)	RxDB(+)	DataB(+)
4	DTR	RxDA(-)	RxDA(-)	DataA(-)
5	GND	GND	GND	GND
6	DSR	-	-	-
7	RTS	-	-	-
8	CTS	-	-	-

## **Inserting the SIM Card**

The V1200 models come with 1 or 2 SIM card slots on the front panel. When you install the SIM cards into the slots, ensure that they are inserted in the correct direction, as indicated on the label.

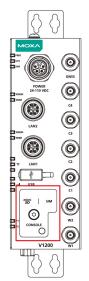
To install a SIM card, do the following:

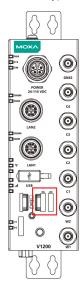
#### Step 1

Remove the screw securing the SIM card holder cover on the front panel of the computer.

#### Step 2

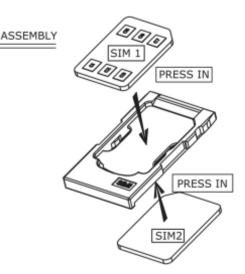
Remove the SIM card tray by pressing the tray inwards and releasing it to eject the tray, then pulling out the tray.





#### Step 3

The SIM card tray can hold two SIM cards, one on each side. Install the first SIM card in the SIM1 slot and the second SIM card on the other side of the tray.



### NOTE

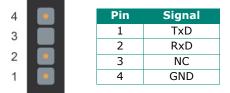
When the V1222-CT-T model is used with a 5G module, LTE communication is supported through backward compatibility. Therefore, if you are using an LTE-only SIM card, ensure that the SIM card is inserted into the 5G SIM slot for proper operations..

## **Inserting a MicroSD Card**

The V1200 comes with a microSD socket for storage expansion. The microSD socket is located on the lower part of the front panel. To install the card, remove the screw and the protection cover to access the socket, and then insert the microSD card into the socket. You will hear a click when the card is in place. To remove the card, push the card in before releasing it.

## **Connecting the Console Port**

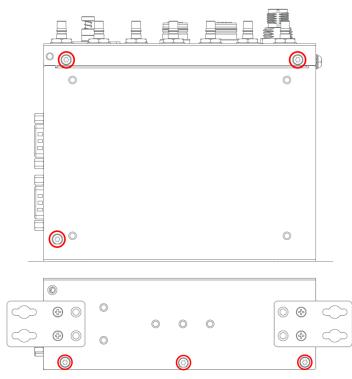
The console port is an RS-232 port located on the lower part of the front panel. To install the card, remove the screw and the protection cover to access the console port. Connect a 4-pin pin header cable and use the port for debugging issues or system image upgrades.



## **Installing Wireless Modules**

To install wireless modules, do the following:

1. Remove the cover by unfastening the six screws on the panel of the computer as indicated in the following diagrams:



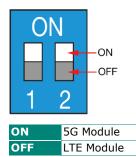
2. Install the modules in their corresponding slots.

Use the indicators in the picture and the instructions as a guide to install the modules

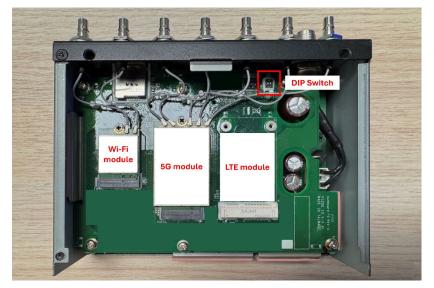


- Step 1: Paste the heat sink on the area marked in the picture.
- Step 2: Paste the first thermal pad on top of the heat sink.
- Step 3: Insert the module into the socket.
- Step 4: Fasten the screws to secure the module in place.
- Step 5: Paste the second thermal pad on top of the module.

3. If using a 5G or LTE module, ensure the DIP switch is set to the correct position.



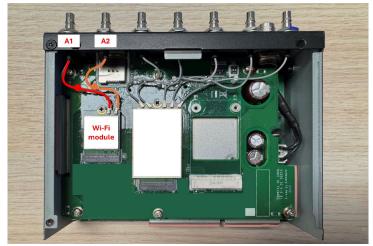
The location of the DIP switch on the board is shown here:



## **Installing Cables and Antennas**

Each module accessory package includes the necessary coaxial cable, lock washer, and nuts.

- 1. Insert the QMA connector of the coaxial cable through the antenna aperture on the front panel. Based on the length of the cable and the location of the module, we recommend:
  - > A1 and A2 for Wi-Fi 6 module.



> A3, A4, A5, A6, A7 for 5G modules.



> A5, A6, A7 for LTE module.



- 2. Insert the lock washer through the connector from outside and hold it against the panel.
- 3. Finally, secure the antenna connector with the nut by tightening it on the on the threaded protection ring towards the lock washer.



The V1200 Series offers a flexible computing platform. Users can develop their own applications based on the Moxa Industrial Linux (MIL). In addition, we provide a Web-based Network Configuration Tool that allows users to easily configure network settings without using command-line instructions.

## **Disabling the Web-based Network Configuration Tool**

If you prefer not to use the web-based network configuration tool, you can disable it and manage the settings via the command line using the following commands:

- sudo systemctl stop tpe
- sudo systemctl disable tpe
- sudo nft flush ruleset
- sudo systemctl enable ssh
- sudo systemctl start ssh

For instructions on getting started with cmd, see Moxa Industrial Linux Arm-based Computers Manual.



### NOTE

If you configure the network via a console or terminal (e.g., SSH) using Linux commands and notice that the settings revert back to the default, we recommend one of the following:

- Use the web-based network configuration tool to configure the network settings, or
- Disable the web-based network configuration tool before configuring network settings via cmd.



#### NOTE

The ping function is not supported when the web-based network configuration tool is running. To use the ping command, first disable the web-based network configuration tool.

## Access to the Web Console

The default LAN2 IP address to access the web console of the V1200 is 192.168.4.127.

When you use the default IP address to access the V1200, do the following:

- 1. Ensure your host and the V1200 are in the same subnet (V1200's default subnet mask is 255.255.255.0). Connect to LAN2 and enter https://192.168.4.127 in your web browser.
- 2. Read the system notification and click **Agree and Continue**.
- 3. Enter the account and password information.

Default account: **admin** Password: **admin@123** 

MOXV	
Sign in to V1222-CT-T	
Account admin	
Password	Q
	Sign In

You will see the following homepage after logging in successfully.

	V1222-CT-T				admin
System Dashboard  Network Dashboard	Home > System Dashboard System Dashboard				
A Tag Dashboard	System Information	System Usage		Storage Usage	
System Settings     Solution     Soluti	moxa-imoxa0920028	Used CPU O% Crex-A53 ■ Used = Unused	1	Disk Name System	×
<ul> <li>&gt; * Maintenance</li> <li>&gt; Diagnostics</li> </ul>	Model Name         V1222-CFT           Serial No.         MXXA0920028           Firmware Version         1.0           Current WAN         LANI           IFv4         10.90.3316           MAD Address         0096.880.12.46	Used 13% Used 519 MB in 3926 M Used 519 MB in 3926 M Used file Buffer Cached Used Unused		Used Unused 734 MB 12421 MB	12.4268 free of 13.1568
	Coordinates 24,94047,121.321755	Audit Log Type Name	Content	Source	Timestamp
	2010 - A275 - 4786 文岩市 浦田市 25万	Alert loginFailure	Login fail.	System	Mar 25, 2025 13:47:54
	2.00日 2.00日 期田市 泉州市 泉州市 泉州市 泉中市	Alert loginFailure	Login fail.	System	Mar 25, 2025 13:45:46
	開日市 五年月 (	Alert loginFailure	Login fail.	System	Mar 25, 2025 13:45:41
	OpenStreetMap contributors		ThingsPro Edge is running o	n 	

#### NOTE

After the first login, we force a password change to comply with general security policies and practices and to increase the security of your device.

## Dashboard

### **System Dashboard**

Home > System Dashboard

To view the device's system status, go to System Dashboard.

This page displays basic system information such as model name, serial number, firmware version, system usage, storage usage, and audit logs.

System Information	System Usa	ge		Storage Usage		
moxa-imoxa0920028	Use 1%	d CPU	1	Disk Name System		Ŧ
Model Name V1222-CT-T Senial No. IMOXA0920028 Firmware Version 1.1.0 Current WAN LAN1 IPV4 U 0.90.95.16	Use 139			Used Unused 734 MB 12421 MB	12.42GB free of 13.	.15GB
MAC Address 00:90:E8:00:12:46 Coordinates 24.964047,121.321755	Audit Log					
	Туре	Name	Content	Source	Timestamp	
A 安市 単計市	Alert	loginFailure	Login fail.	System	Mar 25, 2025 13:47:54	
	Alert	loginFailure	Login fail.	System	Mar 25, 2025 13:45:46	
编阳市 五章用 重用 重用 加头市 重用 重用	Alert	loginFailure	Login fail.	System	Mar 25, 2025 13:45:41	
Subjection Construction Street Map contributors			ThingsPro Edge is running on			

### **Network Dashboard**

To view information about WAN/LAN interfaces and traffic statistics, go to Network Dashboard. The dashboard shows interface usage details and network status, including Internet connectivity.

Home > Network Dashboard		
Network Dashboard		
Network Status		
ਤੰ —		🕀
moxa-imoxa0920028 Device	Network	Internet
Dence	<ul> <li>Connected to the Internet</li> </ul>	
	<ul> <li>connected to the internet</li> </ul>	

### WAN

The WAN tab displays information about data sent and received through the WAN interfaces. You can select a specific interface to monitor. Additional usage details are also provided. The information is refreshed every 10 seconds.

Network Traffic	Etherne	et(LAN1)
Data Sent: 3.2 KB Data Received: 6.0 KB		
15.0		
10.0		
5.0		_
0.0		
	22.49.40 22.49.50 22.50.00 22.50.10 22.50.20 22.50.30	22:50:40
	224940 224950 2250:00 2250:10 2250:20 2250:30	22:50:40
WAN Interface		22:50:40 C
VAN Interface		C :
VAN Interface Cellular (Cellular1) Disable		C :
VAN Interface	Information	C :
VAN Interface 1 Cellular (Cellular 1) ⊗ Disable Wi-Fi (WiFI1)	Information	C :

### LAN

The LAN tab displays usage details and traffic statistics for the LAN interfaces. You can view real-time data for each interface under this section.

AN Interface		C :
1 ↔→ ⑦ Unavailable	Information	Go to Ed
-	✓ General	
	Mode Static IPv4 Address 192.168.4.127	
	Subnet Mask 255.255.255.0	
	MAC Address 00:90:E8:00:12:47	
	DHCP Server Disable	
	Server Status O Stopped	
	Start IP 192.168.4.200 End IP 192.168.4.250	
	Lease Time Mode Customized	
	Lease Time 24 Hours	

## Tag Dashboard

To create and monitor real-time tag values for troubleshooting, go to Tag Dashboard. You can add tags for monitoring and view their current values in real time.

Home > Tag Dashboard								
Add tags and monitor them here. Yo by clicking " : ". The values take eff		tags						
							Q Search	+ Edit Tags
Provider	Source	Name	Туре	Value	Access	Last Update		
No tags are being monitored. Clici	C + Edit Tags to add the first t	ag to monitor.						
					Items per pa	age: 10 💌 0 of 0		

To create and monitor the real-time tag value, click + **Edit Tags** first, select the tags to monitor in the list then click Save.

Edit <sup>-</sup>	Tags							
Select t	he tags you want to display in the list.							
1 iten	n(s) selected					Clear	Q Search	
	Provider	Source	Name	Туре	Access			
	system	storage	systemDiskFree	uint64	Read			
$\checkmark$	system	status	memoryUsed	uint64	Read			
	system	status	memoryFree	uint64	Read			
	system	network	wifi1NetworkRx	uint64	Read			
	system	status	gpsLong	double	Read			
				Items per page: 5 👻 1	- 5 of 30		> >	
						Cano	cel Sav	е

(Optional) Click the icon : to deactivate the monitoring tags.

Home > Tag Dashboard	ł						
	em here. You can also set values lues take effect within a few seco						
Monitoring tags ····							Q Search + Edit Tags
Provider	Source	Name	Туре	Value	Access	Last Update	
system	status	memoryUsed	uint64	548794368	Read	Mar 25, 2025, 23:03:27	:
						Items per page: 10 👻 1 - 1 of 1	Write value
							Deactivate monitoring

# **System Settings**

### General

Go to **System Settings > General > System** to specify a new server/host name and enter a description for the device.

Home > System	I Settings > Gen	ieral	
General			
System	Time	GPS	
Server/Hos			
moxa-im	10xa0920028	3	
Description Factory			
ractory			

Parameter	Value	Description	Default Value
Server/Host	Alphanumeric	You can enter a name to identify the unit, such	Moxa-imoxaxxxxxxx
Name	string	as the function, etc.	110xaxxxxxx
Description	Alphanumeric	You can enter a description to help identify the	Factory A1
- optional	string	unit location such as "Factory A1".	

Go to **System Settings > General > Time** to select a time zone. Choose between the Manual or Auto option to update the system time.

Home > System Settings > General	Home > System Settings > General
General	General
System Time GPS	System Time GPS
Current date and time: Mar 25, 2025 23:11:11	Current date and time: Mar 25, 2025 23:11:54
Time Zone (GMT +08:00) Asia/Taipei	Time Zone (GMT +08:00) Asia/Taipei
Sync Mode  Manual O Auto	Sync Mode
$\clubsuit$ Sync with browser	Interval (sec) 7200
Date 💼 Mar 25, 2025	Source NTPsec Server
Hour Minute Second 23 : 9 : 27	Time Server time.cloudflare.com
Save	Save

Parameter	Value	Description	Default Value
Time Zone	User's selectable time zone	The field allows you to select a different time zone.	Current Time Zone
Sync Mode	Manual, Auto	Manual: input the time parameters by yourself Auto: it will automatically sync with time source. NTP and GPS can be selected. NOTE: When the Auto mode is selected, in general, it takes 2 to 4 minutes. If the satellite search is slower, it could take up to 12 minutes (worst-case scenario)	Manual
Interval (sec)	3600 to 86400	The time interval to sync the time source	7200
Source	NTPsec Server, NTP Server, GPS	The way to sync the time clock	N/A
Time Sever	IP or Domain address	This field is required to specify your time server's IP or domain name if you choose the NTP server as the source	N/A

## 

### NOTE

When using GPS as a time-synchronization source, set the GPS mode to **Auto** before entering the configuration page.

Go to **System Settings > General > GPS** to view the GPS location of the device on a map. There are two options:

• Input latitude and longitude in **manual**.

Home > System Settings > General

• Check the **Automatically adjust coordinates for GPS changes** option if you want the system to automatically update the device coordinates.

General			
System	Time	GPS	
0	enter coordina cally adjust co	ates oordinates for GPS	changes
Coordinates			
Latitude 24.96404	7	Longitude 121.321	755
都 三明市 途市		周市 洞头区 此市 盛中市 臺灣 南市 雄市	© OpenStreetMap contributors
Save			

### Serial

Go to **System Settings > Serial** to view and configure serial parameters.

To configure serial settings, do the following:

4. Click the icon : on the chosen port and select Edit.

Home > System Setti	ings > Serial				
Serial					
				Q, Si	arch C Refresh
Port	Interface	Baud Rate	Parity, Data Bits, Stop Bits	Flow Control	
#1 P1	rs232	9600	none, 8,1	none	:
#2 P2	rs232	9600	none, 8,1	none	Edit
				Items per page: 10 → 1 - 2 of 2	Clone

5. Set and click **Save** for the settings to take effect.

Home > System Settings > Serial > Port #1	
← Port#1	
Serial Settings	
Interface rs232	•
Baud Rate 9600	Ŧ
Parity none	•
Data Bits 7  8 Stop Bits 1  2 Flow Control	
none	*
Save	

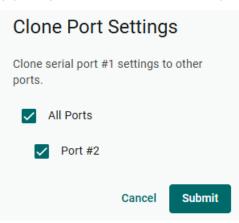
Parameter	Value	Description	Default Value
Interface	rs232, rs485-2w, rs422,	The serial interface type to use for the serial	rs232
Internace	rs485-4w	device.	
Baud Rate	300 to 115200	The data transmission rate to and from the serial	9600
	500 (0 115200	device.	9000
Parity	none, odd, even, space,	The parity mode of the serial device.	none
Tanty	mark	The party mode of the senal device.	none
Data Bits	7, 8	The size for data characters.	8
Stop Bits	1, 2	The size for stop characters.	1
		The flow control method determines how the	
	none, hardware,	system will suspend and resume data	
Flow Control	software	transmissions to prevent data loss. If hardware	none
	Soltware	is selected as flow control method, it will be	
		controlled by RTS/CTS signal.	



#### NOTE

Incorrect settings will cause communication failures.

6. (Optional) Click the icon : on the chosen port and select Clone to clone the setting to the chosen port.



### **External Storage**

To manage external storage devices, go to System Settings > External Storage. You can attach external storage to the V1200 to save logs, provide buffer space for Store and Forward, and create system backups. Once connected, the storage device will appear in the **Device List**.

You can reduce the space occupied on the main system disk by using external storage devices.  Device List	
Device List	
	C
USB_p1	



### ΝΟΤΕ

#### LIMITATION

- V1200 does not allow the connection of multiple USB devices through a USB hub.
- The external USB format supported for V1200 is FAT.

## **SNMP** Agent

Go to **System Settings > SNMP Agent** to view and configure SNMP agent service.

Select Enable SNMP agent service to enable SNMP agent service.

Home > System Settings > SNMP Ag	gent		
	SNMP agent settings for efficient ne (V1, V2C, V3) to ensure compatibility e		
SNMP Version V3 Account(s)	*		+ Create
admin Authentication Type : None Account Privacy : None		i	
Parameter	Value	Description	Default Value

Parameter	Value	Description	Default Value
	V3	The SNMP protocol version used to manage your device.	
SNMP Version	V1, V2c, V3	It's strongly recommend choosing the 'V3' option for	V3
	V1, V2c	enhanced security.	

# **Network Settings**

### Ethernet

Go to **Network Settings > Ethernet** to view and configure LAN1 and LAN2 network settings.

To configure the network, do the following:

- 1. Choose LAN1 or LAN2 for configuration.
- 2. Select the WAN (Wide Area Networks) or LAN (Local Area Networks).
- 3. Select **DHCP** or **Static** mode.
- 4. Configure **IP address, Subnet mask, Gateway,** and **DNS**.

Home > Network Settings > Ethernet

therne	t	
LAN1	LAN2	
WAN (	Wide Area Networks)	•
Ŭ	ICP: Obtain an IP address automati atic: Specify the IP address.	cally.
	Address 72 . 16 . 2 . 21	
	net Mask 55 . 255 . 248 . 0	
Gate 1	way 72 . 16 . 0 . 254	
	erred DNS Server - optional 72 . 16 . 0 . 1	
	nate DNS Server - optional 0 . 123 . 200 . 12	

Parameter	Value	Description
Types of connectivity	WAN, LAN (NOTE: LAN2 does not support WAN.)	WAN: Wide Area Networks LAN: Local Area Networks
Mode	DHCP, Static	DHCP: Obtain the IP address automatically. Static: Specify the IP address
IPv4 Address	LAN1 default: DHCP LAN2 default: 192.168.4.127	The IP (Internet Protocol) address identifies the server on the TCP/IP network
Subnet Mask	Default: 255.255.255.0	Identifies the server as belonging to a Class A, B, or C network.
Gateway—optional	0.0.0.0	The IP address of the router that provides network access outside the server's LAN.
Preferred DNS Server—optional	0.0.0.0	The IP address of the primary domain name server.
Alternate DNS Server—optional	0.0.0.0	The IP address of the secondary domain name server.

If the LAN is selected as type of connectivity, the V1200 can be configured to operate as a DHCP server, offering the additional benefit of dynamically assigning IP addresses to devices on the network.

To configure DHCP server settings, do the following:

- 1. Check Enable DHCP Server.
- 2. Input IP Address Range parameters.
- 3. Specify Lease Time.
- 4. Click Save.

~	assigns	san siP	network	serv es a	nd net	tomatically settings to	
	Start IP 192		168		4	200	
	End IP 192		168		4	250	
	Lease TI Custor					Ŧ	
	Lea 24		Time (he	our)			

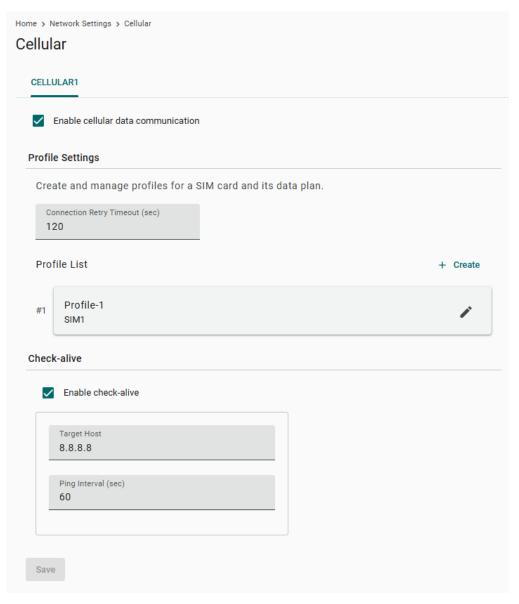


### NOTE

Limitation: When V1200 acts as the DHCP server, it will not allocate the DNS IP to the DHCP client.

### Cellular

Go to **Network Settings > Cellular** to view the current cellular settings. You can enable or disable cellular connectivity on your device, create profiles, manage **Profile Settings**, and enable or disable the connection **Check-alive** function to optimize the cellular connection.



You can create customized cellular profiles in the **Profile Settings** section. A list of all the profiles in the system is displayed. **Create**, **Edit**, or **Delete** cellular profiles here.

Create N	lew Profile		
Profile Nam	2		
SIM2			•
PIN Cod	e - optional		
APN interne	et		
		Cancel	Done

To create a new cellular connection profile, do the following:

- 1. Click + Create.
- 2. Specify a unique **Profile Name**.
- 3. Specify the target **SIM** card.
- 4. Enter the **PIN Code** if your SIM card requires it.
- 5. Input APN.
- 6. Click Done.
- 7. On the **Cellular** setting page, click **Save**.

When you click **Save** in the Cellular section, the module restarts to apply the changes. The settings will take effect after the cellular module is successfully initialized.

## NOTE

To prevent the SIM from being locked due to three incorrect attempts, a mechanism in the V1200 stops attempting to unlock the SIM when the PIN Retry count reaches 2 (only one attempt is remaining). At this point, insert the SIM into another device (e.g., cellphone) and attempt to unlock it. This way, when you reinsert the SIM card into the V1200 and restart, the PIN Retry count is reset to 3.

#### LIMITATION

NOTE

V1200 does not support hot-plugging of the SIM card; device restart is required after inserting or removing the SIM card.

The **Check-alive** function will help you maintain the connection between your device and the carrier service by pinging a specific host on the Internet at periodic intervals.

Chec	sk-alive	
~	Enable check-alive	
	Target Host 8.8.8.8	
	Ping Interval (sec) 60	



### NOTE

After configuring the Cellular network, you can check the cellular network's connection status by going to **Network Dashboard > WAN** 

### **Wi-Fi Client**

Go to **Network Settings > Wi-Fi** to view the Wi-Fi settings. You can enable or disable Wi-Fi connectivity on your device, create profiles, manage Profile Settings, and enable or disable the connection Check-alive function to optimize the cellular connection.

Wi-Fi Client   WiFi    Enable Wi-Fi    AP List    #1    moxa   Ø -     IP Settings Mode     Mode      O HCP: Obtain an IP address automatically     O Static: Assign IP address by manual configuration    Check-alive  Enable check-alive
□ Enable Wi-Fi   AP List   #1   moxa   ∅ -   IP Settings    Mode
AP List + Create #1 moxa : DP Settings Mode DHCP: Obtain an IP address automatically Static: Assign IP address by manual configuration Check-alive Enable check-alive
#1 moxa Ø - IP Settings Mode Mode DHCP: Obtain an IP address automatically Static: Assign IP address by manual configuration Check-alive Enable check-alive
#1 IP Settings Mode  DHCP: Obtain an IP address automatically  Static: Assign IP address by manual configuration Check-alive Enable check-alive
Mode <ul> <li>DHCP: Obtain an IP address automatically</li> <li>Static: Assign IP address by manual configuration</li> </ul> Check-alive Enable check-alive
<ul> <li>DHCP: Obtain an IP address automatically</li> <li>Static: Assign IP address by manual configuration</li> </ul> Check-alive Enable check-alive
<ul> <li>Static: Assign IP address by manual configuration</li> <li>Check-alive</li> <li>Enable check-alive</li> </ul>
Check-alive
Check-alive
Enable check-alive
Target Host
8.8.8.8
Ping Interval (sec)
60
Save

To configure Wi-Fi settings, check Enable Wi-Fi and do the following:

1. Click +create to manually Create by SSID or be Created by Scan Results.

Add by SSID		Add by Scan Results	
SSID		1 Select AP	2 View Details
		Info: Please choose the Wi-Fi network the list. Note that only WPA and We	ork that you want to add from PA2 Personal are supported.
Security Mode		SQA3_WIFI6	ê ş
WPA/WPA2 Personal	•	sqa-iiot-lan-50G	ê
		SQA2-TestBed-AWK3131A	ê
Password		SQA-LAB-TV	ê
	Ø	.M-Guest	÷
		0010 T 10 1 10000000	0 -
	CANCEL ADD		CANCEL NEXT >

- 2. Select **DHCP** or **Static mode**.
- 3. Check **Check-alive** function which can be used to ensure Internet connectivity.
- 4. Click Save.

#### NOTE

After configuring the Wi-Fi network, you can check the Wi-Fi network's connection status by going to **Network Dashboard > WAN** 

# **Network Management**

#### DNS

By manually configuring specific DNS server addresses, users can ensure stable and predictable internet connectivity without relying on potentially fluctuating or unreliable DNS settings provided by dynamic configurations (such as those obtained from a DHCP server). This helps to improve DNS resolution speed, enhance overall network performance, and strengthen control over network traffic and security by specifying trusted DNS servers.

letv	vork Management	
DN	IS Routing	
	Enable static DNS	
	Primary DNS	
	Secondary DNS - optional 	
Sa	ive	

# Routing

The Routing priority feature allows the V1200 to prioritize different network interfaces (such as cellular, LAN, and Wi-Fi) as needed to optimize network performance.

Networ	k Management
DNS	Routing
# 1	Cellular
# 2	WiFi
# 3	LAN1
Save	

# VRRP

Go to **Network Settings > VRRP** to view and configure the VRRP settings.

RP Instance(s)		C Refresh +
Instance 1	:	
Interface : LAN1 Virtual IP Address : 10.0.0.1		
Virtual Router ID : 1 Object Ping Tracking : Disable > More Information		
te VRRP Instance		
	2 Select Author	entication 3 Configure
erface	Select Auth	entication (i) Configure
Basic Instance Step	Select Auth	entication (3) Configure

Parameter	Value	Description	Default Value
Interface	Drop-down list of interfaces	Specify which network interface to use for the VRRP interface.	N/A
Virtual IP Address	Valid IP address	Specify the virtual router IP address for the VRRP interface.	N/A
Virtual Router ID	1-255	Specify the virtual router ID to use for the VRRP interface. The virtual router ID is used to assign the virtual router to a VRRP group.	N/A
Priority	1-254	Specify the priority of the VRRP interface. Higher numbers indicate higher priority, with 254 being the highest.	100
Preemption	Enabled / Disabled	Enable or disable preemption for the VRRP interface. When enabled, preemption will decide if the master will retake authority or not after being unavailable.	Enabled
Preempt Delay (sec)	0-300	Specify the preemption delay in seconds to use for the VRRP interface. The preempt delay is the amount of time the master will wait before retaking authority back in order to prevent the master from acting before the network connection is ready.	
Advertisement Interval	1-30	Specify the advertisement interval in seconds for the VRRP interface. This determines the interval for the master sending packets to all slave devices to inform them who the master device is.	1

#### Create VRRP Instance

Basic Instance Step	2 Select Authentication	3 Configure Tracking
Authentication	•	
Back		Cancel Next

Parameter	Value	Description	Default Value
Authentication	None/ Simple/ AH		None
Authentication		Specify the password when Simple or AH is	N/A
Password		chosen for authentication method.	N/A

Create VRRP Instance

	Basic Instance Step	Select Authentication 3 0	Configure Tra	cking
	ect Ping Tracking able 👻			
L	Target IP			
-	Interval(sec) 1			
-	Timeout 3			
-	Priority Decrement Value ③ 20			
_	Success Count @ 3			
	Failure Count () 3			
< Bac	k		Cancel	Create

Parameter	Value	Description	Default Value
Object Ping Tracking	Disabled/ Enable	Disable or specify which interface to use for Object Ping Tracking for the VRRP interface. When enabled, if all interfaces on the device are disconnected, it will be considered to be a disconnection.	Disabled
Target IP	Valid IP address	Specify the target IP to ping to verify if the connection to the destination is working.	N/A
Interval (sec)	1-100	Specify the interval in seconds the device will use for pinging the target IP.	1
Timeout	1-100	Specify the timeout duration in seconds the device will wait for a response before timing out.	3
Priority Decrement Value	1-254	Specify the amount by which the priority of a backup router is decreased when a ping test fails.	20
Success Count	1-100	Specify the success count, which indicates how many responses the device must receive to consider the connection as working.	3
Failure Count	1-100	Specify the failure count, which indicates how many times the target IP fails to respond before the device considers the connection as not working.	3

Click ( : )	to	Edit o	r Delete	the	existing	VRRP	instances.
-------------	----	--------	----------	-----	----------	------	------------

Home > Network Settings > VRRP

#### VRRP

This page allows you to configure VRRP instances to enhance network reliability. Create up to 2 VRRP instances to manage different network segments and automatically failover to a backup router in the event of a failure.

#### VRRP Instance(s)

Instance 1	:
Interface : LAN1	Edit
Virtual IP Address : 10.0.0.1	
Virtual Router ID : 1	Delete
Object Ping Tracking : Disable	Delete
> More Information	

C Refresh + Create

# Security

# **Certificate Center**

To check what certificates have been used on the devices, go to **Security > Certificate Center** to view all of them. On this page, you can search, view the status, and download the certificate for backup purposes.

The **ThingsPro Edge Root CA for HTTPS** certificate is used to sign the HTTP SSL X.509 certificate, default.crt. You can download this root CA and import it to your client devices to trust the HTTPS connection between clients and V1200. To import to Google Chrome, you can refer to the below link: https://docs.moxa.online/tpe/users-manual/security/certificate\_center/#import-rootcacer-to-google-chrome

	ity > Certificate Center					
My Certif	cates Trusted Root CA					
						Q Search
	Name 🕹	Issued To	Issued By	Source	Status	
>	thingspro_https_default.crt	IMOXA0920028	ThingsPro Edge Root CA for HTTPS	HTTPS Server	Valid Jun 26, 2027, 11:15:36	<u>*</u>
				Items per page: 10	☞ 1 = 1 of 1  < <	

# **Firewall**

V1200 provides a firewall that allows you to create inbound rules for inbound Internet network traffic and enable NAT service to protect your gateway of train-to-ground communication.

Home > Security > Firewall Firewall	
Inbound Rules NAT Service	
System Default	~
Allowed List	~
Port Forwarding	~

#### **Inbound Rules**

#### System Default

V1200 reserves ports for certain services and purposes as indicated in the table below.

No.	Service/purpose	Port
1	HTTP service	80
2	HTTPS service	443
3	SSH server	22
4	Discovery service	5353



#### NOTE

The V1200 disables all ports by default excluding the reserved ports mentioned above. To enhance the security of your device, we recommend configuring a rule that includes the source IP and source port, thereby granting access only to specific individuals.

tome > Security > Firewall Firewall					
Inbound Rules NAT Service					
System Default					^
					Q Search
Rule Name	Gateway Port 🛧	Protocol	Source IP	Source Port	
ssh server	22	TCP	Any	Any	i
http service	80	TCP	Any	Any	i
https service	443	TCP	Any	Any	i
discovery service	5353	UDP	Any	Any	ľ
				Items per page: 10 🔹 1 – 4 c	of 4  < < > >

#### **Allowed List**

V1200 provides an allowed list for creating firewall rules. You can create, edit, and delete firewall rules here.

To create firewall rules, do the following:

- 1. Click + Create Rule.
- 2. Specify the protocol, gateway port, and rule name.
- 3. Specify a source IP or a subnet.
- 4. Specify a source port or a range of ports.
- 5. Click Save.

Home > Security > Firewall Firewall		
Inbound Rules NAT Service	Create Rule	
System Default	Protocol <ul> <li>TCP</li> </ul>	v
Allowed List	O UDP Gateway Port	^
	Rule Name	Q. Search Create rule
Rule Name	Port5 / 32	Source Port
No data to display. Click Create rule button to o	Source IP Customized	
	iP Range 👁	Items per page: 10 💌 0 of 0 IC C SI
Port Forwarding	Source Port Customized	×
	Port Range ©	
	Cancel Save	

#### **Port Forward**

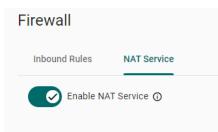
V1200 provides port forwarding function. You can create, edit, and delete firewall rules here. To create firewall rules, do the following:

- 1. Click + Create Rule.
- 2. Specify the protocol, gateway port, and rule name.
- 3. Specify a source IP.
- 4. Specify the destination IP and port.
- 5. Click Save.

ne > Security > Firewall		
rewall		
Inbound Rules NAT Service	Create Rule	
	TCP	
System Default	O UDP	
Allowed List	Gateway Port	
Port Forwarding	Rule Name Port_	
	5/32	Q Search Create rule
	Source IP Customized	
Rule Name Gateway Port 🛧		Destination IP Destination Port
No data to display. Click Create rule button to create the first ent	IP Range 🛛	
	Source Port Customized	trems per page: 10    0 of 0    (< < > > >
	Port Range 🕲	
	Destination IP @	
	Destination Port	
	Cancel Save	

#### **NAT Service**

Enable the NAT service to allow child devices to connect to external networks.



# HTTPS

To ensure the securely access web console of the device, HTTPS has been enabled by default.

To use the HTTPS console without a certificate warning appearing, you need to import a trusted certificate issued by a third-party certificate authority. If there are no imported certificates, the V1200 Series can generate the "ThingsPro Edge Root CA for HTTPS" certificate instead.

Home > Security > HTTPS	
HTTPS	
HTTP Service	
Redirect HTTP to HTTPS	
Redirect HTTP to HTTPS	
HTTPS Service	
Port Number	
443	
Import TLS/SSL Certificate	
Certificate	
Browse thingspro_https_default.crt	
Private Key	
Browse thingspro_https_default.key	
Save	

# Login Lockout

To avoid hackers repeatedly logging into the account to crack the passwords, you may choose to enable the login failure lockout and configure related settings. Login Lockout has been disabled by default.

#### Login Lockout

To avoid hackers from repeatedly logging in into the account to crack passwords, you can enable the Login Failure Lockout setting and configure related settings.

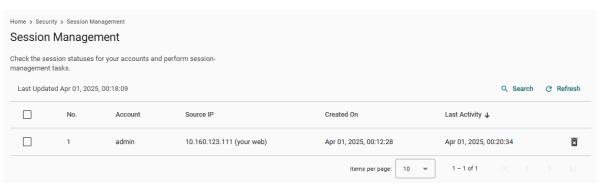
<	Enable login failure lockout
	Max Failed Retries (times) 10
	Failure Counter Reset Period (min) $ \odot $ 15
	Lockout Period (min)
	10

Parameter Value Description **Default Value** You can specify the maximum number of failures reties, if Max Failed Retries 3 to 32 exceed the retry times, V1200 will lock out for that 10 (times) account login Failure Counter The login failure counter will be recalculated after the 15 1 to 60 Reset Period (min) reset period that you have set. Lockout Period When the number of login failures exceeds the Max Failed 5 to 1440 10 Retries, the V1200 will lock out for a period. (min)

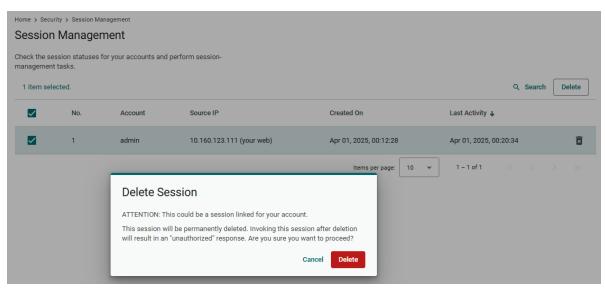
# **Session Management**

Save

You can review session statuses for all accounts and manage sessions for individual accounts.



In the event of detecting unusual connections, you can enhance the security of your device by deleting the respective session.



# **OpenVPN** Client

OpenVPN allows you to create secure connections over the internet. It provides encryption and authentication to ensure confidentiality and integrity of your data. OpenVPN uses a client-server architecture where the server acts as the VPN endpoint and the client connects to the server to establish a secure connection.

To enable the function, go to **Security > OpenVPN Client** and do the following:

- 1. Download the OpenVPN sample profile template.
- Revise the profile by inputting the necessary information provided by your VPN service provider. This information includes:
  - a. Remote server IP: This is the address of the VPN server you want to connect to.
  - b. Port number: The port through which the VPN connection will be established. The default is usually 1194.
  - c. Protocol: The protocol to be used for the VPN connection, such as UDP or TCP.
  - d. Authentication method: The method used to authenticate your connection.
  - e. Encryption settings: The encryption algorithm to be used for securing the VPN connection.
- 3. Import the OpenVPN profile.

You should see it listed in the OpenVPN client.

4. Click the button to enable OpenVPN client to connect.

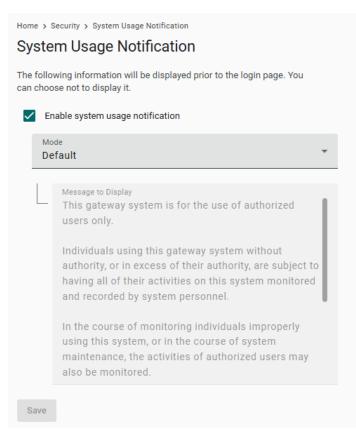
If the connection is successful, you will be connected to the VPN network, and your internet traffic will be encrypted and routed through the VPN server.

Home > Security > OpenVPN Client	
OpenVPN Client	
Upload profile to make connection.	<b>–</b>
Upload the profile to enable the OpenVPN Client. Or download the sample profile to edit if you are not sure how to configure it.	
Upload Profile Download Sample	No Profile

Home > Security > OpenVPN Client OpenVPN Client					
OpenVPN Client (V)					
Current Profile sample-2024-01-24-15-01.ovpn					Manage 🝷
Download the Sample File 🛓					
Connection Information					C Refresh
Connection Status	Local IP	Remote IP	Netmask	Gateway	
Disconnected		-	-		<u>+</u>

# **System Use Notification**

The System Use Notification feature is designed to provide users with essential information prior to accessing the main functionalities of the system. These notifications are displayed on the login screen to ensure users are aware of important details before logging in. The system usage notification has been enabled by default.



# **Account Management**

You can maintain user accounts and assign a role with specific permissions to each account. These functions allow you to track and control who accesses this device.

# Accounts

You can View, Create, Edit, Deactivate, and Delete user accounts. In the main menu, go to Account Management > Accounts to manage user accounts.

Home > Account Management > Accounts	S			
Accounts				
				Search Create
Account Name	Role	Status	Creation Date	
admin (you)	Administrator	⊘ Active	26 Aug, 2024	:
Op_1	Operator	⊘ Active	01 Apr, 2025	:
		Items per page:	: 10 💌 1 – 2 of 2	

#### **Creating a New User Account**

Click on + **Create** to create a new user account. In the dialogue box that is displayed, fill up the fields and click **SAVE**.

Create New Accou	tatus nt		Creation Date		
Account Name	汐 Active		26 Aug, 2024		:
	0/64 3 Active		01 Apr, 2025		:
Role Administrator	*	Items per page: 10	▼ 1 - 2 of 2		
Password	ø				
Contains at least 8 characte	ers.				
Confirm Password	ø				
Email - optional	- 8				
	Account Name Role Administrator Password Contains at least 8 characte	Account Name 0/64 Role Administrator Password Confirm Password Confirm Password Confirm Password	Account Name  O/64  Active  Active Active  Active  Active Active Active Active Active Active Active Active Active Active Active Active Active Active Active Active Active Active Active Active Active Active Active Active Active Active Active Active Active Active Active Active Active Active Active Active Active Active Active Active Active Active Active Active Active Active Active Active Active Active Active Active Active Active Active Active Active Active Active Active Active Active Active Active Active Active Active Active Active Active Active Active Active Active Active Active Active Active Active Active Active Active Active Active Active Active Active Active Active Active Active Active Active Active Active Active Active Active Active Active Active Active Active Active Active Active Active Active Active Active Active Active Active Active Active Active Active Active Active Active Active Active Active Active Active Active Active Active Act	Account Name 0/64 Account Name 0/64 Active 01 Apr, 2025 Active 01 Apr, 2025 10  1 - 2 of 2 1 - 2 of 2 Confirm Password Confirm Password Confi	Account Name

#### NOTE

To comply with security policy and best practices, specify a strong password that is at least eight characters long, consisting of at least one number and at least one special character.

All roles, with the exception of the Administrator role, must be created prior to creating a new account associated with them. Go to Account Management > Role

#### **Managing Existing User Accounts**

To manage an account, click on the pop-up menu icon for the account.

me > Account Management > Acc				Search Create
Account Name	Role	Status	Creation Date	
admin (you)	Administrator	⊘ Active	26 Aug, 2024	:
Op_1	Operator	⊘ Active	01 Apr, 2025	:
		ltems per pa	ge: 10 v 1 - 2 of 2	Edit Change password Deactivate
				Delete

Function	Description
Edit	Change the role, email, or password of an existing account.
Deactivate	Does not allow the user to log in to this device.
Delete	Delete the user account.
Delete	(NOTE: This operation is irreversible.)



#### ΝΟΤΕ

You cannot **Deactivate** or **Delete** the last remaining account with an Administrator role. This is to prevent an unauthorized account from fully managing this system. When the system detects only one active account when the Administrator role is selected, all items in the pop-up menu will be grayed out.

# Roles

You can View, Create, Edit, and Delete user roles on your V1200 device.

Home > Account Management > Role			
Roles			
		Q Search	Create
Role Name		Number of Accounts	
Administrator (built-in) Users of this role have full permissions. This is a built-in role and can't be modify or delete.		1 account(s)	:
Operator		1 account(s)	:
	Items per page: 10 👻	1 – 2 of 2   < < >	

Click **+ Create** to set up a new user role. Specify a unique name for the role and assign the appropriate permissions. When you are done, click **Save** to create the role in the system.

Home > Account Management > Ro	le					
Roles						
					ſ	
				C	८ Search	Create
Role Name			-	Number of Account	3	
Administrator (built-in) Users of this role have full pe	Create New Role			1 account(s)		:
Operator 	Role Name User			1 account(s)		:
		4 / 64	r page: 10 👻	1 – 2 of 2		
	Description - optional					
		0 / 512				
	Permission					
	Account Management					
	Maintenance					
	System Settings & Network Settings					
	Security Management					
	Data Management					
		Cancel Save				

You can **edit** the settings or **delete** an existing role by clicking on the pop-up menu icon next to the role.

When the Role has been set up, it is available for selection under the Account.

# **Password Policy**

You can define password policy for the V1200.

Parameter	Value	Description	Default Value
Min. Password Length	8 to 256	The minimum password length.	8
Password Strength Policy	N/A	To define how the V1200 checks the password's strength.	Disabled
Password Change Reminders	N/A	Notify user to change the password.	Enabled
Reminder Threshold (days)	10 to 360 days	Period to remind the change of password.	180

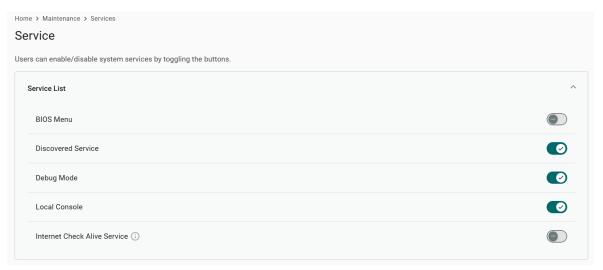
# Maintenance

# Service

#### NOTE

To be able to use SSH, you must first enable the Debug Mode.

To enhance system security, make sure to disable any services that are not in use. Enable or disable system services by toggling the switches in Maintenance > Service.



# Reboot

If you want to reboot the device, go to **Maintenance > Reboot** and click **Reboot Now**.

Home > Maintenance > Reboot

#### Reboot

History of the Last Reboot: Mar 25, 2025 13:35:18

Reboot Now

# **Config. Import/Export**

Go to **Maintenance > Config. Import/Export**, where you can import or export the configuration file. The exported configuration file will be compressed into the **tar.gz** format and downloaded on your computer.

Home > Maintenance > Config. Import/Export	
Config. Import/Export	
Export	
Click Export to save the current system log file and export it.	
Export	
Import	
Click Browse to select and upload a previously exported configuration file.	
Configuration File Browse	
Upload	

# **Backup & Restore**

The backup function backs up the data on V1200 device to a file (only one back up file can be created at a time). Backup files are encrypted and stored in a designated location on the device. You can restore the data from the backups when needed.

	Maintenance > Backup & Restore	
The bao Log, wh devices	- kup function backs up the data (excluding Audit Log and System ich can be manually exported from the relevant page) on V1200 to a file. Backup files are encrypted and stored in a designated n on the device. You can restore the data from the backups when	
	V1200 Backup File	Manage -
	Last Backup: File Size:	Backup
		Restore
		Delete

# Software Upgrade

Before performing a software upgrade, take the following precautions:

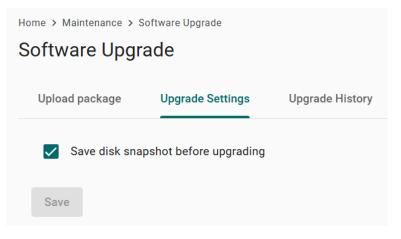
- Back up your configuration before upgrading the software
- Ensure that the device has power during the entire process
- Ensure that the connection to the software source is not interrupted during the upgrade process

#### **Upload Package**

A pack that integrates all patches between two versions (e.g., from version 1.0 to version 1.1.) This scenario is applicable when the V1200 cannot access the Internet.

Home > Maintenance > S Software Upgr		
Upload package	Upgrade Settings	Upgrade History
You can upload a pro	duct package file or pat	ch file from your local drive.
Local File Browse		
Upload		

#### **Upgrade Settings**



### **Upgrade History**

This page shows the latest upgrade records.

Software Up	grade			
Upload package	Upgrade Settings	Upgrade History		
This page shows	the latest upgrade records.			
Latest History				
Туре	Name	Version	Status	Last Update
No upgrade his	tory available.			
			Items per page: 10 👻	0 of 0

# **Reset to Default**

There are two ways to reset to the default.

- 1. If you only want to reset the configuration settings, use the **Reset** under **Configuration Reset**.
- 2. If you want to reset both the configuration settings and revert to the factory default firmware settings, use the **Reset** under **Factory Reset**.

Home > Maintenance > Reset to Default

# Reset to Default Configuration Reset If you wish to revert all configurations to their default settings, please utilize the "configuration default" option. It's important to note that the DLM connection will remain active (excludes EULA agreement). > Show details on storage location of log files Reserve network settings



#### **Factory Reset**

If you want to reset the device back to the factory default use the **Factory Reset** function. It's important to note that the DLM connection will remain active.





#### NOTE

When **Reserve network settings** under **Configuration Reset** is selected, the VRRP settings will not be reserved; it will be reset to the default.

# **Device Retirement**

Utilize this function when the device is being retired, and you wish to securely delete all files and logs for security purposes to ensure the data cannot be recovered. Due to the low-level formatting of memory that is required to erase data, it may take approximately 1.5 hours.

#### **Device Retirement**

You can initiate a process to securely erase a device, including all software, settings, and data on its internal disk. With this, the device will be restored to the factory default settings and all log files cleared, thereby preventing any potential data recovery from the device.



# Diagnostics

# System Log

The main purpose of system log is to help Moxa engineers with troubleshooting. When you encounter an issue that you are not able to solve by yourself, export the log file and send it to Moxa TS for analysis.

Go to **Diagnostic** > **System Log** to export the system log file and specify the location to save the system logs.

Click **Storage Settings** to specify the location to store the event logs. To optimize the use of storage space on your V1200, you can check the Enable **Time to Live** option and specify the maximum storage space for the system logs. Click **Save** to confirm your settings.

Home > Diagnostics > System Log

## System Log

You can utilize the system log for error diagnosis and adjust the storage location and related settings of the system log through <u>Storage Settings.</u>

#### Export

Click Export to save the current system log file and export it.

Export

# **Audit Log**

When you face issues, you can go to **Diagnostic** > **Audit Log** to check historical events that help you to narrow down the problems. When there are a large number of event logs, exporting them allows for easier review. The audit logs can be exported and downloaded onto your computer.

g View	/iew Log Settings				
					Q Search Exp
	Туре	Name	Content	Source	Timestamp 🕹
>	Notice	loginSuccess	Account admin login success.	System	Feb 01, 2024, 14:51:02
>	Notice	loginSuccess	Account admin login success.	System	Feb 01, 2024, 14:41:42
>	Notice	loginSuccess	Account admin login success.	System	Feb 01, 2024, 14:05:48
>	Notice	configurationExport	Configuration export success.	admin	Feb 01, 2024, 13:49:14
>	Notice	configurationExport	Configuration export success.	admin	Feb 01, 2024, 13:48:49
>	Notice	loginSuccess	Account admin login success.	System	Feb 01, 2024, 13:44:07
>	Notice	loginSuccess	Account admin login success.	System	Feb 01, 2024, 13:40:18
>	Alert	loginFailure	Login fail.	System	Feb 01, 2024, 13:39:13
>	Notice	loginSuccess	Account admin login success.	System	Feb 01, 2024, 13:36:45
>	Notice	loginSuccess	Account admin login success.	System	Feb 01, 2024, 13:26:53

In the **Log Settings**, you can specify the storage size to store the logs and notification threshold. Also, you also can enable time to live for maximum stored days.

Home > Diagnostics > Audit Log

no I tibuA

Log	View	Log Settings	
Sto 10	orage Reserv 0	ed (MB) 🛈	
	Notification 80	on Threshold (%) 🛈	
		me to live	

#### **FCC Statement**

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated at a minimum distance of 20 cm between the radiator and your body.

This device and its antenna must not be co-located or operating with any other antenna or transmitter.