EVS1004D

Compact 4-Bay AI Cloud NVS (EVS1004D)

AI NVS 4Bay Tower

Introduction

This guide walks you through the setup and basic operation of the **EnGenius AI-Powered Network Video System (NVS)**, including hardware installation, cloud configuration, camera onboarding, and AI feature enablement.

AI NVS 4Bay Tower

Compact 4-Bay AI Cloud NVS

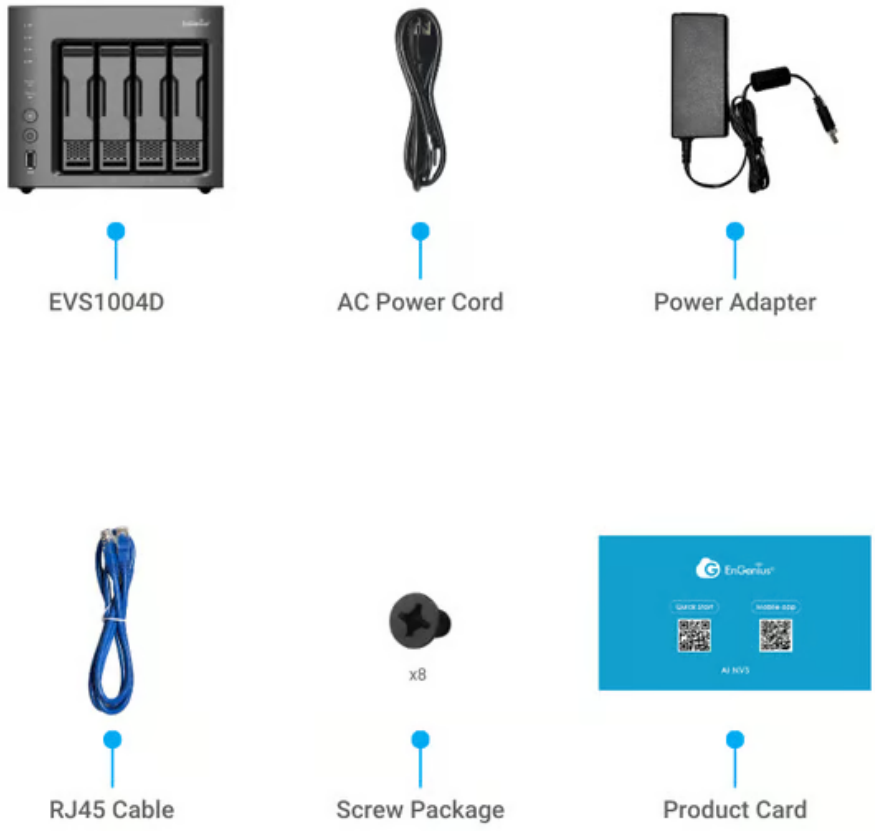
Model: EVS1004D

- Cloud Managed AI Network Video System is accessible anytime, anywhere
- Manage third-party cameras (ONVIF Profile S / RTSP compatible) in EnGenius Cloud
- Enable AI feature to third-party cameras, extending system life and reducing replacement costs
- Reduces traditional NVR dependency by combining camera-level recording with optional centralized AI-NVS storage of up to 30 EnGenius ECC Camera series

Content Quick Links

- Hardware Overview
- Hardware Installation
- Configure with EnGenius Cloud

Package Contents



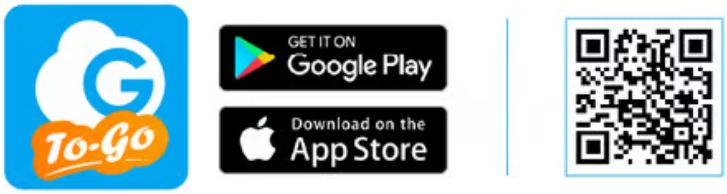
System Requirements

Before signing up for the EnGenius Cloud Service or logging into the EnGenius Cloud Platform to manage your network, ensure that you have downloaded the correct app and are using a supported browser.

Mobile App:

EnGenius Cloud To-Go (iOS/ Android supported)

⬇️ Download the Cloud To-Go mobile app here ↗



Web Browser:

- Google Chrome (57.0.2987.110 and later)
- Microsoft Edge (80.0.361.103 and later)
- Mozilla Firefox (52.0 and later)

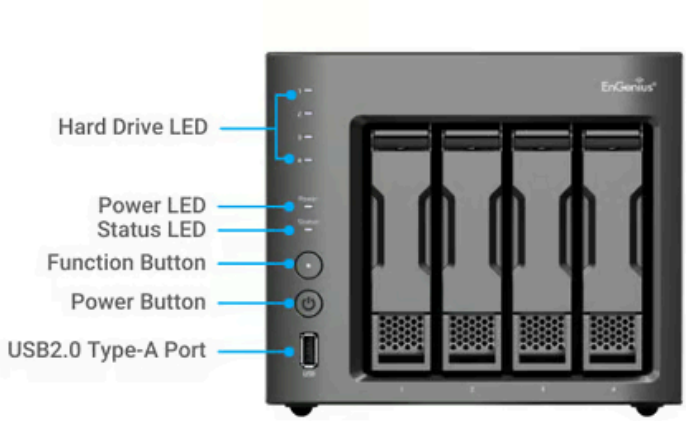
Network Requirements

Before you begin, ensure that your network environment has DHCP enabled.

EnGenius AI NVS (EVS series) are configured by default to obtain an IP address dynamically from a DHCP server. If a firewall is in place, it must permit outgoing connections on specific ports to designated IP addresses.

The AI NVS relies on a DNS server to resolve EnGenius Cloud services into IP addresses for communication. The DHCP server provides the NVS with the DNS server information, enabling proper connectivity.

Hardware Overview



Function Button (Front Panel)

- **Reboot:** Press and hold the **Function Button** for **5-15 seconds** to restart the device.
- **Reset to Default Settings:** Press and hold the **Function Button** for **more than 15 seconds** to restore to factory default settings.

  Note: The internal HDD will **NOT** be formatted, and recorded data will remain intact.)



Reset Button (Rear Panel)

Reboot: Use a pointed object, such as a paper clip, to briefly press the **Reset Button** located on the rear panel.

LEDs

LED Indicator	LED Color	LED Behavior	Status
Power	Yellow	Solid On	Power On
	Red	Solid On	Standby
		Blinking	Reset to Default
	Off	Light Off	Power Off
System Status	Green	Solid On	Normal
		Blinking	Processing
	Red	Solid On	System Error
		Blinking	
	Off	Light Off	Standby
HDD Status	Blue	Solid On	HDD Normal
		Blinking	HDD Access
	Red	Solid On	HDD Error
		Blinking	
	Off	Light Off	HDD Disconnected

Hardware Installation

Before beginning hardware installation:

1. Power off the NVS completely and disconnect the power cable.
2. Ensure you are working in an ESD-safe environment.
3. Use only compatible 3.5-inch SATA HDDs approved for surveillance applications.
4. **Register the camera to EnGenius Cloud** (refer to the Configure with EnGenius Cloud section). If registration has not yet been performed, record the product serial number, as it will be required during the registration process.

Precaution

1 Installation Planning

Prior to installation, conduct a complete network and system design review. Identify the appropriate location for the NVS to ensure stable network connectivity, adequate ventilation, and secure physical access.

Plan the following in advance:

- Network topology – confirm DHCP availability and internet access.
- Power source – ensure stable and uninterrupted power supply.
- Surface placement – confirm sufficient load-bearing capacity.
- Cable routing – organize Ethernet and power cables to avoid strain or interference.

2 Installation Guidelines

- Install the NVS in a well-ventilated indoor environment. Avoid enclosed cabinets without airflow to prevent overheating.
- Do not place the NVS under direct sunlight, near heat sources, or in humid environments.
- Ensure the LAN port is connected to a reliable network switch (non-PoE required unless specified).
- Avoid frequent power cycling, especially during system initialization or disk indexing.
- Do not remove or replace the internal HDD while the system is powered on.

3 Maintenance and Servicing

- Always power off and disconnect the power source before performing maintenance.
- Allow the system to fully shut down before unplugging to prevent data corruption.
- HDD replacement or internal servicing must be performed by qualified technicians.
- Regularly monitor storage health and system status through the cloud management interface.

Hard Disk Drive (HDD) Installation Instructions

Important Notes

- Do not insert or remove the HDD tray while the system is powered on.
- Do not touch the SATA connector pins.
- If the HDD is not detected after installation, power off the device before rechecking the installation.
- Formatting the HDD will erase all existing data.

1 **Step 1: Remove the HDD Tray**

1. Locate the HDD tray slot on the NVS.
2. Pull the release latch (if applicable).
3. Gently pull the tray handle outward to remove the tray from the chassis.

2 **Mount the HDD to the Tray**

1. Place the HDD into the tray with the SATA connectors facing the open rear side of the tray.
2. Align the screw holes on the HDD with the mounting holes on the tray.
3. Secure the HDD using the provided mounting screws.
4. Tighten screws evenly. Do not overtighten.

3 **Insert the Tray Back into the NVS**

1. Carefully slide the tray into the slot.
2. Ensure the tray is aligned with the guide rails.
3. Push firmly until the tray is fully seated.
4. Confirm the latch clicks into place.

Configure with EnGenius Cloud

Step1: Register Device and Assign to Network

You can register the device with the **Cloud To-Go mobile app** or the **EnGenius Cloud platform**.

1. Find Serial number on the back of NVS.

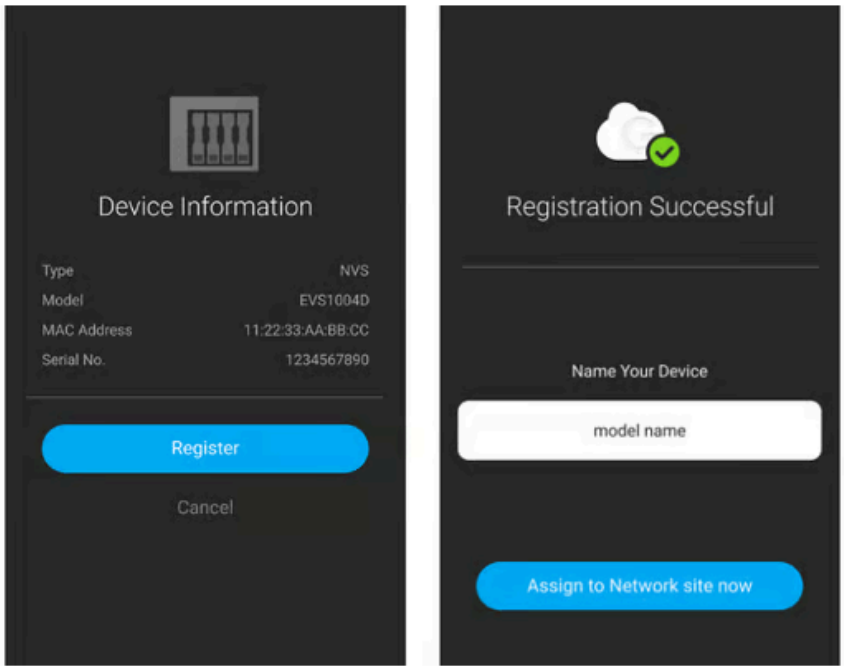
Cloud To-Go Mobile App

1. Open and log in to the **EnGenius Cloud To-Go** mobile app.
2. Scan the QR code on the back of the device via the app.



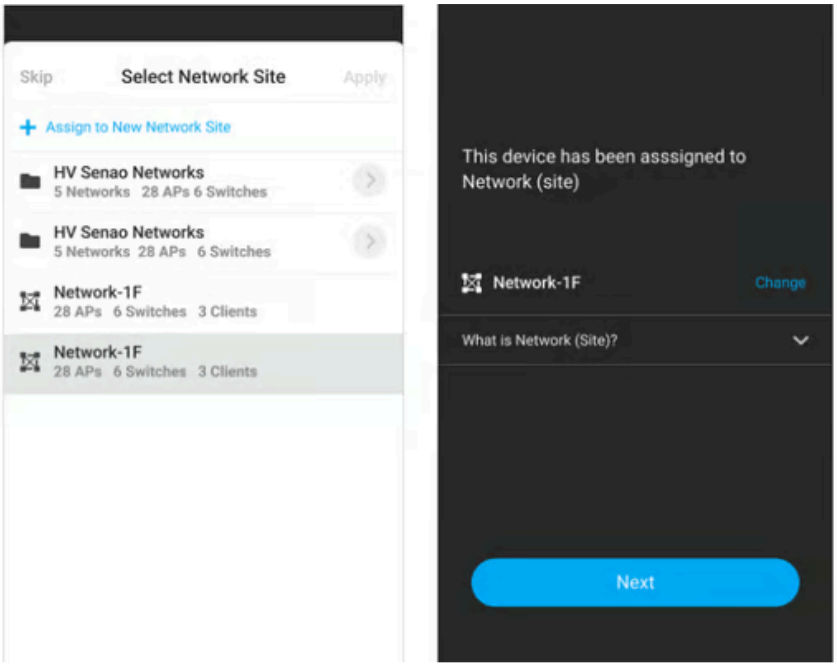
Scan the QR-code of the label on the device.

3. If the camera successfully scans a QR code, the app will display the device Information. You could tap "**Register**" to complete the Registration.



Register the device.

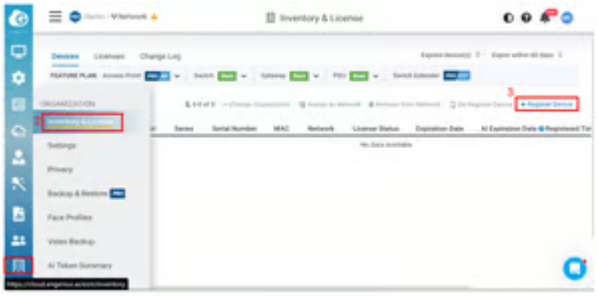
4. Registered devices will be shown on the ***Inventory&License*** page. Slide left on the device and click "**Assign to New Network"** to add the device to your personalized Network.



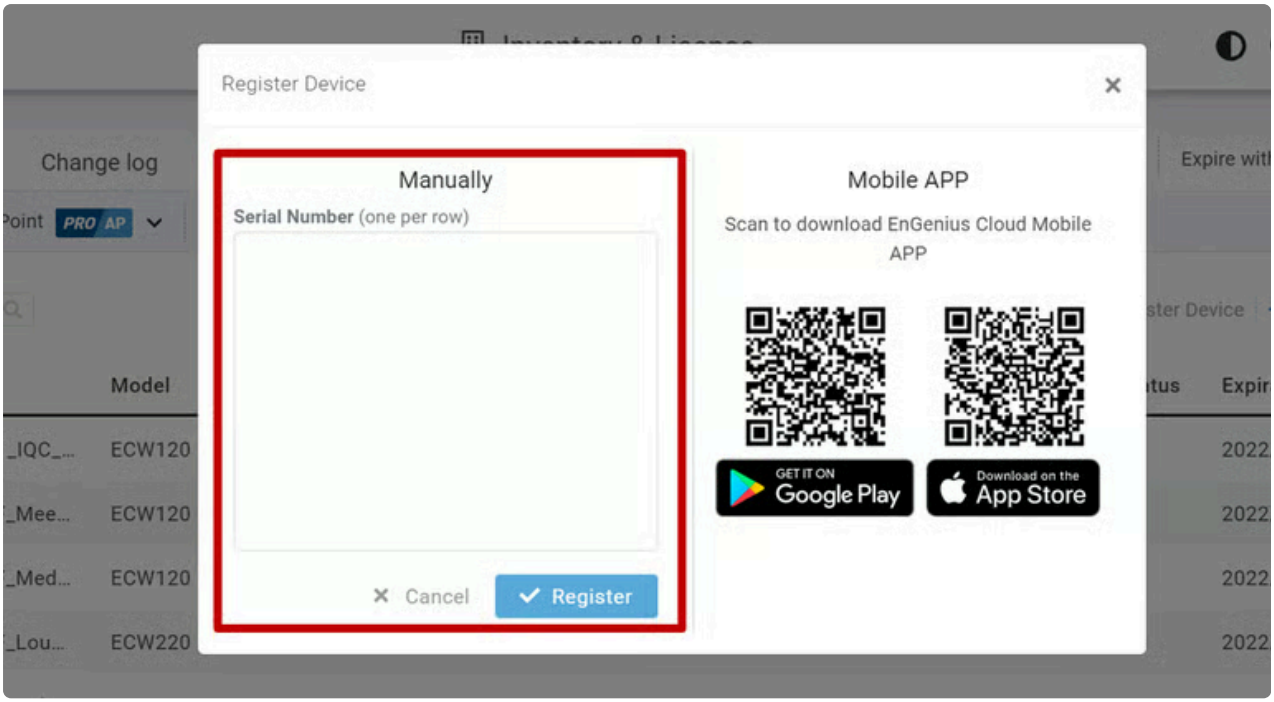
Assign device to a managed Network.

EnGenius Cloud Platform

1. Log in to the **EnGenius Cloud Platform**: https://cloud.engenius.ai/ ↗.
2. Go to the **Organization** ***> Inventory&License*** page and click "**Register Device**".

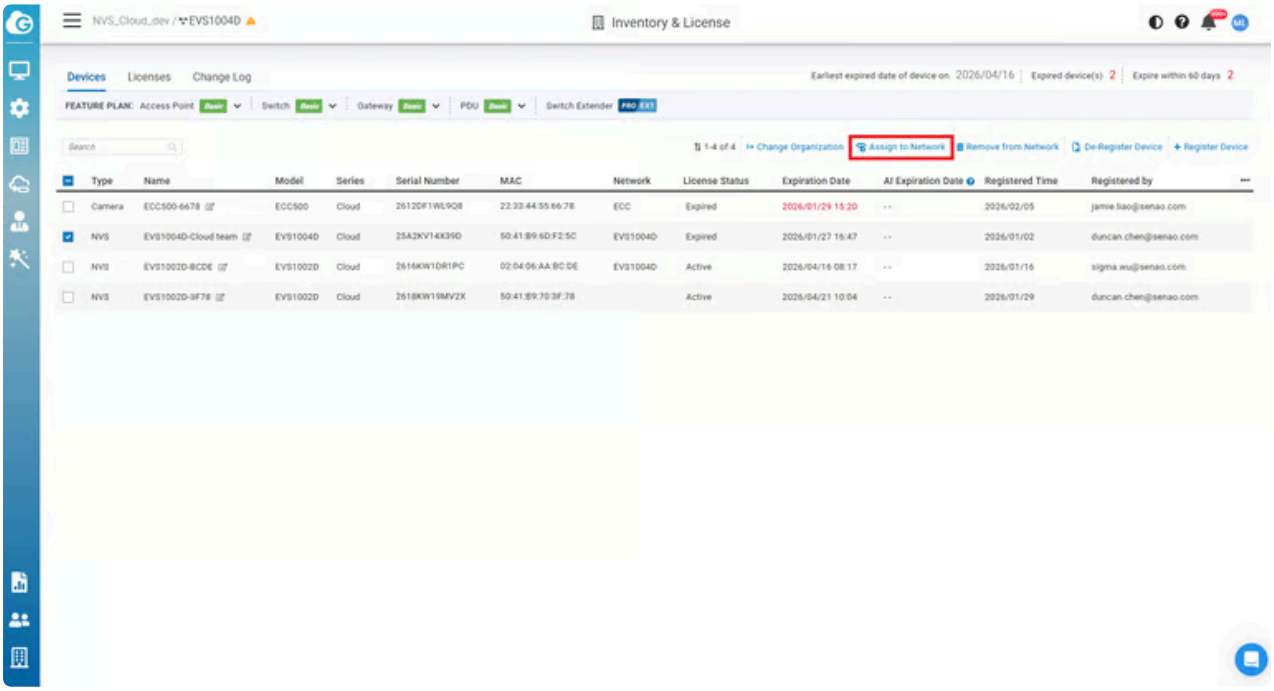


3. Enter the **Serial Number** of the device(s) for device registration. Please refer to "User Manual-Registering Devices to Organization ↗".



Register device(s) with device's Serial Number

4. Select the registered device and click "**Assign to Network**" to add the device to your personalized Network.



Step 2: Power On Device

The NVS device can be powered by any of the following:

- Connect the NVS to power using the provided adapter.
- Connect the NVS LAN1 port to your network (PoE not required).
- Power on the NVS.
- Wait at least 5 minutes for system initialization before proceeding.

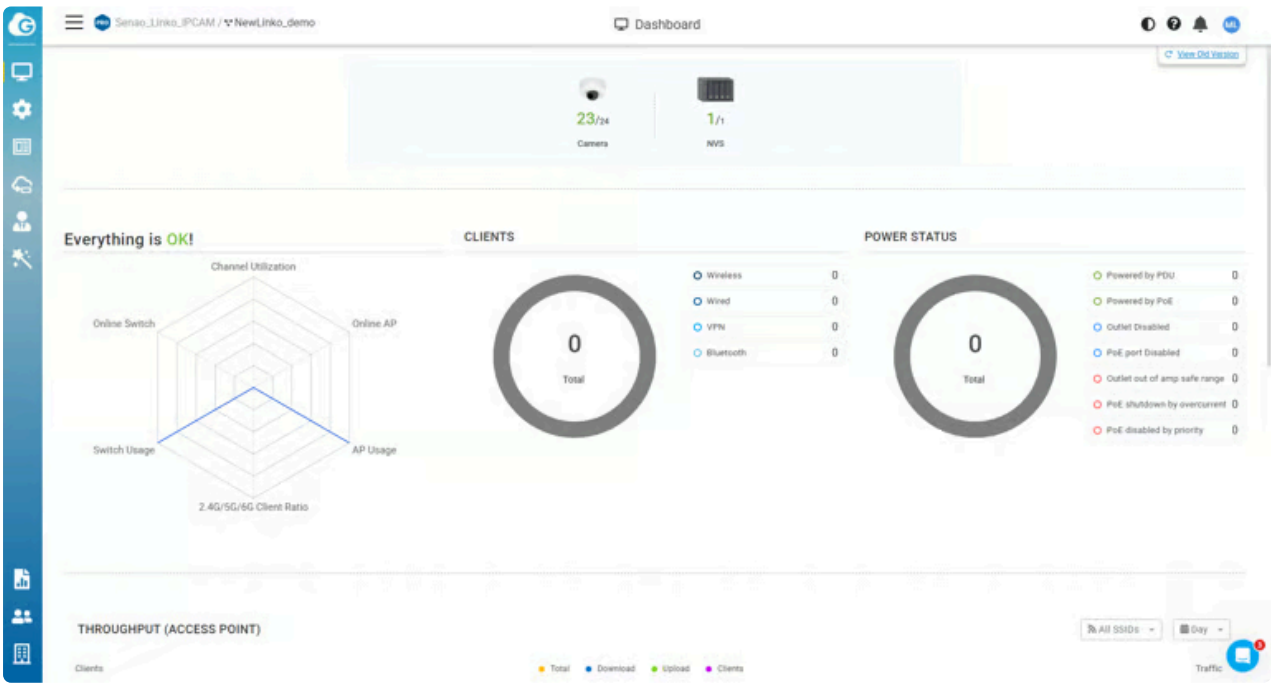
Step 3: Connect to the EnGenius Cloud

Once the device is powered on and ready to connect to the Internet, the **Status LED indicator** will stay *Stable blinking*, which means the device is now under stable operation. It will automatically download the default configuration settings from EnGenius Cloud for automated provisioning.

Step 4: Manage with the EnGenius Cloud

Log in to the **EnGenius Cloud platform** ↗ to configure detailed settings.

1. Select the created network
2. Go to **Manage**
3. Click **NVS**



To remove a NVS for other uses, you must first **Remove it from the personalized network** ↗ in EnGenius Cloud, **Deregister** ↗ it, and then reset the device.

Step 1: Configure Network setting

1. Click "**Setting**" Tab.
2. Choose **Primary line** to LAN1/ LAN2.
3. Select **DHCP / Static** and input related setting.
4. Than click **Apply.**

Step 2: Configure backup redundancy

1. Click "**Storage**" Tab.
2. Select "RAID type" based on HDD quantity and objective.
3. Than click **Apply**.

Manage third-party cameras with NVS

Step 1: Add cameras to NVS

Only ONVIF Profile S compatible cameras and RTSP are supported by NVS.

1. Hover over the NVS device.
2. Click **Add Cam**.
3. Enter the camera username and password.
4. Click **Scan**.
5. Select discovered cameras from the list.
6. Click **Apply**.
7. Wait 30 seconds and refresh page to check device status: online.

If cameras use different credentials, repeat the process for each credential set.

Go to Side bar > Configure > General setting > NVS to manage saved credentials preset.

Step 2: Enable Edge AI Features in third-party camera

1. Click the **"..."** menu on a camera..
2. Select **Details**
3. Enable **Edge AI**. (Up to 2 cameras supported)
4. Enable:
   - Crossing Line
   - Region Counting
5. Click **Apply**.

Visit **User manual- Camera setting** ↗ to configure AI features.

Appendix

Technical Support

Country of Purchase	Service Center	Service Information
North America	Los Angeles, USA	cloud.engenius.ai support@engeniustech.com Local: (+1) 714 432 8668
North America	Canada	cloud.engenius.ai support@engeniustech.com Local: (+1) 905 940 8181
Europe	Netherlands	eusupport@engeniustech.com Local: (+31) 40 8200 887
Asia / Oceania / Africa / CIS / Middle East	Singapore	techsupport-sg@engeniustech.com Local: (+65) 6227 1088
Taiwan	Taiwan, R.O.C	support@engeniustech.com.tw Local: (+886) 933 250 628
Japan	Tokyo, Japan	jp.support@engenius.ai Local: (+81) 3 6809 6608
India	Hyderabad, India	indiasupport@engenuistech.com Ph: +91 76740 47729

Security Bulletin

The EnGenius Product Security Team is tasked with researching, analyzing, and responding to security incident reports about EnGenius products. This team serves as the initial point of contact for all security incident reports and collaborates directly with EnGenius customers, security researchers, government agencies, consultants, industry security organizations, and other vendors to detect security issues with EnGenius products. Moreover, the team is responsible for issuing security advisories and communicating with external entities regarding measures to mitigate specific security issues encountered with EnGenius products. Please visit https://docs.engenius.ai/esp for more detailed information.

EnGenius refrains from disclosing details of a vulnerability that could be utilized to create an exploit. To report a security vulnerability, please contact psirt@engenius.ai.

Compliance

FCC

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

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

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

FCC Caution:

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

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

This device meets all the other requirements specified in Part 15E, Section 15.407 of the FCC Rules.

For mobile device usage (>20cm/low power)

Radiation Exposure Statement:

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

CE

The device complies with Directive 2014/53/EU issued by the Commission of the European Community.

Standards:

- ETSI EN 300 328 V2.2.2 (2019-07)
- ETSI EN 301 893 V2.1.1 (2017-05) Final Draft
- ETSI EN 303 687 V0.0.20 (2022-03)

- EN 55032:2015+A1:2020 EN 55035:2017/A11:2020 ETSI
- EN 301489-1 V2.2.3 (2019-11)
- ETSI EN 301 489-17 V3.2.4 (2020-09)
- EN 62368-1:2014+A11: 2017
- EN 62311: 2020

UKCA

The device is in conformity with the relevant legislation of United Kingdom: 2017 (S.I. 2017/1206)/ Regulations 2016 (S.I. 2016/1091)/ Regulations 2016 (S.I. 2016/1101).

Standards:

- EN 300 328 V2.2.2 (2019-07)
- EN 301 893 V2.1.1 (2017-05) Final Draft
- EN 303 687 V0.0.20 (2022-03)
- EN 55032:2015+A1:2020
- EN 55035:2017/A11:2020
- EN 301489-1 V2.2.3 (2019-11)
- EN 301 489-17 V3.2.4 (2020-09)
- EN 62368-1:2014+A11: 2017
- EN 62311: 2020
- IR 2030

IC

This device complies with ISED’s license-exempt RSS. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Declaration of Conformity

Hereby, EnGenius Networks declare that this product is in compliance with:

- Directive 2014/53/EU
- Regulations 2017 (S.I. 2017/1206)/ Regulations 2016 (S.I. 2016/1091)/ Regulations 2016 (S.I. 2016/1101)
- RoHS 2015/863
- WEEE 2022
- REACH Regulation

Disclaimer/ Note

- Maximum data rates are based on the IEEE standards. Actual throughput and range may vary depending on many factors including environmental conditions, the distance between devices, radio interference in the operating environment, and the mix of devices in the network.
- Features and specifications are subject to change without notice.
- This device complies with Part 15 of the FCC Rules.
- Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.
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