# GV-Tower NVR System V2 (Rev. G)



## Introduction

GV-Tower NVR System V2 (Rev. G) comes with 4 hot-swap drive bays for a storage of 96 TB. This system has Intel Core Ultra 5 Processor and features the latest NVR system and 64-bit Windows 11 IoT Enterprise. GV-Tower NVR System V2 (Rev. G) supports up to 32 channels of GV-IP devices or third-party IP devices (license required). You can also bring the surveillance on the HDTV with its HDMI port. It is a towering, affordable, and efficient NVR system that you have ever seen.

## Features

- Powered by Intel Core Ultra 5 Processor
- 64-bit Windows 11 IoT Enterprise
- Support for GPU Decoding
- 4-bay hot-swap data HDD
- Maximum storage capacity of 96 TB
- One Gigabit LAN port
- Multiple monitor display for up to 2 monitors simultaneously (HDMI, DisplayPort)
- Support for 3rd party IP devices
- Support for 32 channels (Pure IP solution)
- All-in-one solution (Live View, Playback, Recording, Backup, CMS)
- Video analysis
- Fisheye camera dewarping function
- Automatic connection to GV-IP devices
- H.265 / H.264 / MJPEG / MPEG4
- On-screen LED panel for HDD status
- Smart device access
- Multiple (31) languages

## Specifications

### Hardware

| System | | |
|---|---|---|
| CPU | Intel Core Ultra 5 Processor | |
| RAM | 16 GB Dual Channel | |
| No. of HDD | 4 (3.5" HDD; SATA3 interface) | |
| Internal Storage | 128 GB (SSD) | |
| OS | 64-bit Windows 11 IoT Enterprise | |
| Power | 300 W, 110-115 V, 60 Hz<br>300 W, 220-230 V, 50 Hz | |
| Connector | Ethernet | RJ-45, 2.5 GbE Ethernet Port x 1 |
| | Video Output | HDMI x 1, DisplayPort x 1 (applicable simultaneously) |
| | USB 3.2 | Front: 2 ports<br>Rear: 5 ports (Type A x 4, Type C x 1) |
| | USB 2.0 | Rear: 2 ports (Type A x 2) |
| | Thunderbolt 4 | Rear: 1 port (Type C x 1) |

| Environment | |
|---|---|
| Operating Temp. | 0 ~ 45 °C / 32 ~ 113 °F |
| Humidity | 0 ~ 80% RH (non-condensing) |

| Physical | |
|---|---|
| Color | Silver |
| Dimensions (W x H x D) | 200 x 270 x 335 mm / 7.87 x 10.63 x 13.19 in |
| Net Weight | 8 kg / 17.64 lb (± 1 kg / 2.2 lb) |

| Sensor and Alarm (Optional) | |
|---|---|
| GV-IO Box 4 Ports | 4 inputs, 4 outputs |
| GV-IO Box 8 Ports | 8 inputs, 8 outputs |
| GV-IO Box 16 Ports | 16 inputs, 16 outputs |

### Software

| Video and Audio | | |
|---|---|---|
| Model | GV-Tower NVR (GV) | GV-Tower NVR (3rd Party) |
| Video Input | 32 channels | 1, 2, 4, 6, 8, 10, 12, 16, 18, 20, 22, 24, 26, 28, 30, 32 channels (license required) |
| Audio Input | 32 channels | 1, 2, 4, 6, 8, 10, 12, 16, 18, 20, 22, 24, 26, 28, 30, 32 channels (license required) |

| Live View and Playback | |
|---|---|
| Image Control | Contrast / Brightness / Saturation / Hue |
| Recording Mode | Round the Clock / Motion Detection / Sensor Detection / Pre & Post Recording / Schedule Recording |
| Pre Recording | 1~ 45 min. |
| Instant Playback | 10 sec. / 30 sec. / 1 min. / 5 min. |
| Watermark | Supported |

| Searching and Playback | |
|---|---|
| Search Method | Date / Time / Camera / Event Type |
| Backup Type | DVD+R (DL) / DVD-R (DL) / DVD+R / DVD+RW / DVD-R / DVD-RW / CD-R / CD-RW |

| Remote Monitoring | |
|---|---|
| Monitoring Environment | Web browser (Edge, Chrome, Firefox and Safari)<br>Mobile device (Android Smartphone and tablet; iPad, iPhone and iPod Touch) |
| Live View | Max. 32–channel multi views (Up to 200 channels connection to GV-Tower System V2) |
| Network Type | LAN, WAN, Internet |

| System Monitoring | |
|---|---|
| Power Restoration | Automatic restart after power outage |
| Monitoring | Two independent Watchdogs<br>(Hardware Watchdog + Software Watchdog) |

| Language | |
|---|---|
| Type | Arabic / Bulgarian / Chinese Simplified / Chinese Traditional / Czech / Danish / Dutch / English / Finnish / French / German / Greek / Hebrew / Hungarian / Indonesian / Italian / Japanese / Lithuanian / Norwegian / Persian / Polish / Portuguese / Romanian / Russian / Serbian / Slovakian / Slovenian / Spanish / Swedish / Thai / Turkish |

| Software License | |
|---|---|
| Free License | 32 channels from GV-IP devices |
| Maximum License | 32 channels from third-party IP devices |
| Increment for Each License | 2 to 32 third-party IP cameras in increments of 2 |
| Optional Combinations | N/A |
| Dongle Type | Internal |

**Note:**

1. The Maximum License is a paid service.

2. It is required to enable the dual-stream function on GeoVision and third-party IP cameras to have the maximum number of channels supported. For single streaming third-party IP cameras, please see "Total Frame Rate and Max. No. of Channels Supported" below.

3. For backup function, you need to connect an external USB DVD/CD burner.

4. If you are in an area with unstable voltage, make sure to install an automatic voltage regulator (AVR) or a UPS power supply with AVR function, to maintain a constant voltage

5. All damages to the power supply caused by unstable voltage are not included in the 2-year warranty service.

6. Product design and specifications are subject to change without notice.

## Total Frame Rate and Max. No. of Channels Supported

**For GV-IP Camera (Dual Streams)**

| Video Resolution | Stream 1 (H.264) | Mbps | Stream 2 (H.264) | Mbps | Max. FPS | Intel Core Ultra 5 | |
|---|---|---|---|---|---|---|---|
| | | | | | | Total FPS | Full-Frame Channels |
| 1.3 MP | 1280 x 720 | 3.99 | 640 x 360 | 1.99 | 30 fps | 960 fps | 32 ch |
| 2 MP | 1920 x 1080 | 6.12 | 640 x 360 | 2.19 | 30 fps | 960 fps | 32 ch |
| 3 MP | 2048 x 1520 | 9.17 | 640 x 360 | 1.99 | 30 fps | 960 fps | 32 ch |
| 4 MP | 2560 x 1440 | 9.21 | 640 x 360 | 1.72 | 25 fps | 800 fps | 32 ch |
| 5 MP | 2592 x 1944 | 9.19 | 640 x 480 | 2.29 | 30 fps | 960 fps | 32 ch |
| 8 MP | 3840 x 2160 | 13.47 | 1280 x 720 | 3.14 | 25 fps | 700 fps | 28 ch |
| 12 MP | 4000 x 3000 | 13.73 | 1024 x 768 | 3.07 | 15 fps | 450 fps | 30 ch |

| Video Resolution | Stream 1 (H.265) | Mbps | Stream 2 (H.264) | Mbps | Max. FPS | Intel Core Ultra 5 | |
|---|---|---|---|---|---|---|---|
| | | | | | | Total FPS | Full-Frame Channels |
| 1.3 MP | 1980 x 720 | 0.83 | 640 x 360 | 0.84 | 30 fps | 960 fps | 32 ch |
| 2 MP | 1920 x 1080 | 1.6 | 640 x 360 | 0.84 | 30 fps | 960 fps | 32 ch |
| 3 MP | 2048 x 1536 | 2.05 | 640 x 360 | 0.83 | 30 fps | 960 fps | 32 ch |
| 4 MP | 2560 x 1440 | 2.21 | 640 x 360 | 0.82 | 25 fps | 800 fps | 32 ch |
| 5 MP | 2560 x 1920 | 2.41 | 640 x360 | 0.83 | 30 fps | 960 fps | 32 ch |
| 8 MP | 3840 x 2160 | 3.52 | 640 x 360 | 1.24 | 20 fps | 640 fps | 32 ch |

**For GV-Fisheye Camera (Single Stream, 360° De-warping)**

| Video Resolution | Stream 1 (H.264) | Mbps | Max. FPS | Intel Core Ultra 5 | |
|---|---|---|---|---|---|
| | | | | Total FPS | Full-Frame Channels |
| 8 MP | 2896 x 2768 | 6.39 | 25 fps | 25 fps | 1 |
| 12 MP | 4000 x 3000 | 13.74 | 15 fps | 30 fps | 2 |

| Video Resolution | Stream 1 (H.265) | Mbps | Max. FPS | Intel Core Ultra 5 | |
|---|---|---|---|---|---|
| | | | | Total FPS | Full-Frame Channels |
| 3 MP | 2048 x 1536 | 3.3 | 30 fps | 120 fps | 4 |
| 5 MP | 2592 x 1944 | 7.75 | 30 fps | 30 fps | 1 |
| 12 MP | 4000 x 3000 | 9.85 | 20 fps | 20 fps | 1 |

**Note:** The total frame rate and channels supported are determined in round-the-clock recording settings with live view only, while remote connections and video analysis features being disabled.

## Options

| | |
|---|---|
| GV-Data Capture V3 Box | GV-Data Capture unit allows the integration of POS systems and the GeoVision surveillance system through cable or network connection. |
| GV-IO Box Series | GV-IO Box series provides 4 / 8 / 16 inputs and relay outputs, and supports both DC and AC output voltages, with optional support for Ethernet module and 4E additionally supporting PoE connection. |
| GV-Joystick V2 | GV-Joystick facilitates the PTZ camera control. It can be either plugged into the GeoVision surveillance system for independent use or connected to GV-Keyboard to empower the operation. |

## Packing List

- GV-Tower NVR System V2 (Rev. G)
- Keys for Hard Disk Safety Lock x 2
- Hard Disk Drive Screw x 16
- AC Power Cord
- Download Guide

## Overview