## GV-SNVR0812



## Introduction

GV-SNVR0812 is a standalone network video recorder with Linux embedded that records video files directly to the internal hard drive and supports up to 8 IP camera channels for video surveillance. GV-SNVR0812 has built in PoE+ (IEEE 802.3at) ports that simultaneously provide network and power to IP cameras. Thanks to its up to 4K resolution video output, GV-SNVR0812 eliminates the need of a separate PC to view and play back video from the unit. It has USB ports that can be used to import or export system settings, update firmware, store snapshot files and back up videos.


## Features

- 8-Channel video recording
- Up to $3840 \times 2160$ resolution for each channel
- Dual stream support
- 8-Port PoE+ (IEEE 802.3at) for camera connection
- 4 K (HDMI) / 1080P (HDMI/VGA) video output
- 2-way Audio
- 1 SATA HDD drawer (3.5") for up to 10 TB storage
- Automatic search and setup of IP devices
- Support for third-party IP devices through ONVIF and RTSP protocol
- Continuous, motion, scheduled and alarm-triggered recording
- Timeline playback
- Multi-channel playback
- Display of HDD status and system temperature
- DST (Daylight Saving Time) support
- NTP (Network Time Protocol) support
- GeoVision DDNS server support
- E-mail notification for recording error and password retrieval
- Recording export
- Remote live view through Web browser
- Fisheye dewarping (up to $2176 \times 2048$ for 1 channel at once)
- Support for GV-Video Server through RTSP protocol
- PTZ control using GV-Joystick or on-screen panel
- Smart device access (iOS and Android)
- Support for 14 languages


## Overview

## Front Panel



## Back Panel



## Specifications

| Hardware |  |  |
| :---: | :---: | :---: |
| System |  |  |
| OS |  | Embedded Linux |
| No. of Drive Bay |  | 1 (3.5" HDD) up to 10 TB |
| Power Source |  | Input: AC 100 ~ 240V, 50 ~ 60 Hz Output: DC 52V, 1.8A, Max. 100W PoE: Max. 100W |
| Connectors | Megabit Ethernet | 1 port for WAN, RJ-45 10/100 Mbps, <br> 8 ports for LAN, RJ-45 10/100 Mbps, PoE+ (IEEE 802.3at) |
|  | Video Output | 4K (HDMI), 1080p (HDMI / VGA) |
|  | Audio | 1-Ch, RCA ( $2.0 \mathrm{Vp}-\mathrm{p}, 1 \mathrm{k} \Omega$ ) |
|  | USB 2.0 | Front: USB 2.0 Port x 1; Rear: USB 2.0 Port x 2 |
|  | I/O | 4 Inputs, 1 Output |
| LED Indicator | NVR | 4 LEDs: Power, Network, HDD Fail, HDD Activity |
|  | PoE | 8 LEDs for each port |
| Operating Temperature |  | $0^{\circ} \mathrm{C} \sim 50^{\circ} \mathrm{C}\left(32^{\circ} \mathrm{F} \sim 122^{\circ} \mathrm{F}\right)$ |
| Humidity |  | 0\% ~ 90\% RH (non-condensing) |
| Dimensions ( x W $\times \mathrm{H}$ ) |  | $260 \times 240 \times 44 \mathrm{~mm}\left(10.24 \times 9.45 \times 1.73^{\prime \prime}\right)$ |
| Net Weight |  | $1.12 \mathrm{~kg}(2.47 \mathrm{lb})$ |
| Certification |  | FCC, CE, BSMI, LVD, RoHS, UL compliant |
| Software |  |  |
| Video and Audio |  |  |
| Video Compression |  | H.264, H. 265 |
| Video Stream |  | Dual streams from H.264, H265 |
| Video Output |  | 4K, 1080p (HDMI / VGA) |
| Audio Compression |  | G. 711 |
| Audio Support |  | Yes |
| Two-Way Audio |  | Yes |
| Decoding |  |  |
| Frame Rate |  | 8 MP for 1 division, up to $20 \mathrm{fps} / \mathrm{CH}$ <br> 2 MP for 4 divisions, up to $30 \mathrm{fps} / \mathrm{CH}, 120 \mathrm{fps}$ in total 720P for 8 divisions, up to $30 \mathrm{fps} / \mathrm{CH}, 240 \mathrm{fps}$ in total |
| Playback |  | Max. 8-ch playback |


| Supported Video Resolution | Main Stream | Sub Stream |
| :---: | :---: | :---: |
| 4:3 | $2592 \times 1944$ | $1024 \times 768,960 \times 720,640 \times 480,320 \times 240$ |
|  | $2560 \times 2048$ |  |
|  | $2560 \times 1920$ |  |
|  | $2048 \times 1536$ |  |
|  | $2048 \times 1520$ |  |
|  | $1600 \times 1200$ |  |
|  | $1280 \times 960$ |  |
|  | $640 \times 480$ | $640 \times 480,320 \times 240$ |
|  | $320 \times 240$ | $320 \times 240$ |
| 16:9 (Default) | $3840 \times 2160$ | $1280 \times 720,640 \times 360,448 \times 252$ |
|  | $2592 \times 1520$ |  |
|  | $2560 \times 1440$ |  |
|  | $2304 \times 1296$ |  |
|  | $1920 \times 1080$ |  |
|  | $1280 \times 720$ |  |
|  | $640 \times 360$ | $640 \times 360,448 \times 252$ |
|  | $448 \times 252$ | $448 \times 252$ |
| 5:4 | $1280 \times 1024$ | $1280 \times 1024,640 \times 512,320 \times 256$ |
|  | $640 \times 512$ | $640 \times 512,320 \times 256$ |
|  | $320 \times 256$ | $320 \times 256$ |
| $20: 19$ <br> (Fisheye Camera Only) | $2176 \times 2048$ | $640 \times 608$ |
|  | $2048 \times 1944$ |  |
|  | $1792 \times 1696$ |  |
|  | $1440 \times 1376$ |  |
|  | $1280 \times 1200$ |  |
| Operation |  |  |
| Recording Bandwidth | Max. 48 Mbps / 6 Mbps for each channel (main stream + sub stream) |  |
| Recording Mode | Round the clock, Motion Detection, Schedule Recording, Alarm-triggered Recording |  |
| Pre Recording | $1 \sim 5 \mathrm{sec}$ |  |
| Post Recording | 30 sec |  |
| Instant Playback | 3 min |  |
| Backup Type | USB flash drive of FAT32 format |  |
| Display Divisions | 1/4/6/8/9 |  |
| Management |  |  |
| Language | Czech, English, Finnish, French, German, Hungarian, Italian, Japanese, Portuguese, Russian, Slovakian, Slovenian, Spanish, Traditional Chinese |  |
| Firmware upgrade | Upgrade through OSD or GV-IP Device Utility |  |
| Network |  |  |
| Network Type | LAN, WAN, Internet |  |
| Protocol | DHCP, DynDNS, HTTP, NTP, ONVIF, RTSP, TCP, UDP |  |
| System Monitoring and Recovery |  |  |
| Power Restoration | Automatic restart after power outage |  |
| Monitoring | Software Watchdog |  |
| Remote Monitoring |  |  |
| Live View | Max. 18 channels connection |  |
| Playback | Max. 16 channels connection |  |
|  | Max. 2 channels connection |  |
| Monitoring Environment | IE browser, SNVR Viewer for non-IE browsers, Mobile app |  |
| Smart Device Access | GV-Eye for iOS and Android |  |
| Note: |  |  |
| 1. GV-SNVR0812 only supports PoE+ (IEEE 802.3at). If your camera requires power supply above 30W, be sure to power your came with the compatible PoE switch or its power adapter. <br> 2. For backup efficiency, it is recommended to use external hard drive(s) to back up your recordings. <br> 3. Product design and specifications are subject to change without notice. |  |  |
|  |  |  |  |
|  |  |  |  |

## Requirements

## Supported GV-IP Cameras

- GV-Target Series IP Camera (Firmware V1.0 or later)
- GV-SD220/220-S (Firmware V1.02 or later)
- GV-UNFE2503 / UNP2500 (Firmware V2.11 or later)
- All other GV-IP Cameras EXCEPT for the models below:
- GV-BL110
- GV-BX110
- GV-FE520 / 521
- GV-FER12203 / 12700
- GV-MFD110
- GV-PT110
- GV-PTZ010D
- GV-SD010
- GV-TMEB5800


## Note:

1. Main Stream and Sub Stream resolutions for compatible IP cameras must both fulfill the specifications listed under Specifications.
2. GV-SNVR only supports recording frame rates of up to 30 fps .
3. GV-SNVR0812 only supports recording bandwidths of up to 48 Mbps , with each channel not exceeding 6 Mbps (main stream + sub stream).
4. GV-SNVR0812 also supports EVS-ABD1300 / ABL1300 / ADR1300 and UVS-ABD1300 / ABL1300 / ADR1300.
5. Audio is not supported for GV-BX2802 / BX4802 / PBL8800 / PDR8800.

## Supported GeoVision Application

- GV-Edge Recording Manager (Windows Version V1.4.0.0 or later)
- GV-Control Center (V3.6.0 or later)
- GV-Center V2 (V17.1 or later)
- GV-Vital Sign Monitor (V17.1 or later)
- GV-Eye (for iOS V2.7.2 or later)
- GV-Cloud Center (V1.0 or later) + GV-Notify (for iOS / Android V1.3.0 or later)


## Recommended Hard Disks

GV-SNVR0812 supports 1 SATA HDD (3.5") for up to 10 TB of storage capacity. For system efficiency, it is recommended to use enterprise-level hard disk drives instead of desktop-level or green HDD. For tested hard disk drives, see GV-SNVR HDD Compatibility Chart.

Note: GV-SNVR does not support the 2.5 " SATA HDD.

## Supported Web Browsers

- Internet Explorer 10 or later
- Google Chrome
- Mozilla Firefox
- Safari
- Microsoft Edge


## Packing List

1. GV-SNVR0812
2. AC power cord
3. $\mathrm{AC} / \mathrm{DC}$ adapter (DC $52 \mathrm{~V}, 1.8 \mathrm{~A}, 100 \mathrm{~W})$
4. SATA cable
5. HDD power cable
6. Screw x 4 (for HDD)
7. Foam foot
8. USB mouse
9. Rack mount kit (2 L-shaped brackets +4 screws)
10. Download Guide
11. Warranty card

## Accessories

GV-Joystick V2

GV-POE Switch

GV-Joystick V2 facilitates PTZ camera controls. It can be plugged into the GV-SNVR for independent use to empower the operation of PTZ cameras.

GV-POE Switch is designed to provide power along with network connection for IP devices. It is available in various models with different numbers and types of ports.

