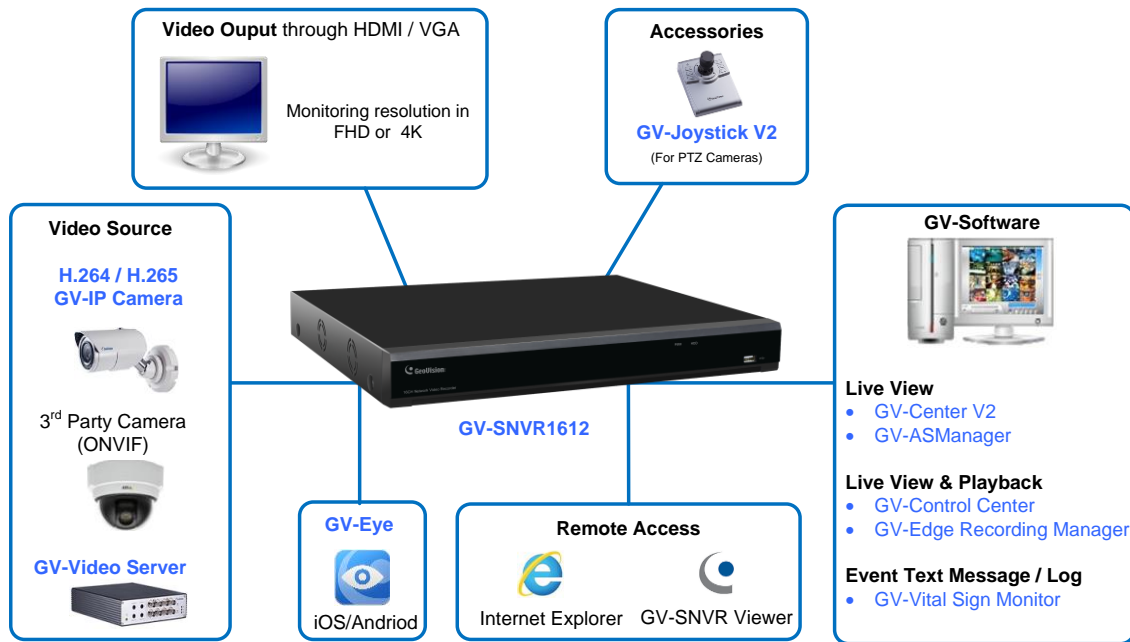# GV-SNVR1612

Introduction

GV-SNVR1612 is a standalone network video recorder with Linux embedded that records video files directly to the internal hard drive and supports up to 16 IP camera channels for video surveillance. GV-SNVR1612 has built in 16 PoE (IEEE 802.3af) ports that simultaneously provide network and power to IP cameras. Thanks to its up to 4K resolution video output, GV-SNVR1612 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.

Video Ouput through HDMI / VGA
Monitoring resolution in FHD or 4K

Accessories
GV-Joystick V2
(For PTZ Cameras)

Video Source
H.264 / H.265 GV-IP Camera
3rd Party Camera (ONVIF)
GV-Video Server

GV-SNVR1612

GV-Eye
iOS/Andriod

Remote Access
Internet Explorer   GV-SNVR Viewer

GV-Software

Live View
- GV-Center V2
- GV-ASManager

Live View & Playback
- GV-Control Center
- GV-Edge Recording Manager

Event Text Message / Log
- GV-Vital Sign Monitor

Features

- 16-channel video recording
- Up to 3840 x 2160 resolution for each channel
- Dual stream support
- 16-Port PoE (IEEE 802.3af) for camera connection
- 4K HDMI / 1080p VGA video output
- 2 SATA HDD drawers (3.5") for up to 20 TB storage
- Two-way audio
- 8 sensor inputs and 1 alarm output
- Automatic search and setup for IP cameras
- Support for third-party IP cameras through ONVIF and RTSP protocol
- Continuous, motion, alarm and scheduled recordings
- Timeline playback

- Multi-channel playback
- Display of HDD status and 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
- 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

Specifications

Hardware

System		
OS		Embedded Linux
No. of Drive Bay		2 (3.5" HDD), up to 20 TB
Power Source		Input: AC 100 ~ 240V, 50 ~ 60 Hz Output: DC 48V, 3.75A, Max. 180W PoE: Max. 120W
Connectors	Megabit Ethernet	1 port for WAN, RJ-45 10/100/1000 Mbps, 16 ports for LAN, RJ-45 10/100 Mbps, PoE (IEEE 802.3af)
	Video Output	HDMI / VGA
	Audio	RCA
	USB	Front: USB 2.0 x 1 Port, Rear: USB 2.0 x 1 Port
	I/O	8 Inputs, 1 Output
LED Indicator	NVR	2 LEDs: Power, HDD Fail
	PoE	N/A
Operating Temperature		0°C ~ 40°C (32°F ~ 104°F)
Humidity		0% ~ 90% RH (non-condensing)
Dimensions (L x W x H)		380 x 340 x 50 mm (15 x 13.4 x 2")
Net Weight		2.48 kg (5.47 lb)
Regulatory		FCC, CE, PSE, LVD, RoHS compliant

Video and Audio	
Video Compression	H.264, H.265
Video Stream	Dual streams from H.264, H265
Video Output	4K (HDMI), 1080p (HDMI/VGA)
Display Divisions	1 / 4 / 6 / 8 / 9 / 16
Audio Compression	G.711
Audio Support	Yes
Two-Way Audio	Yes

Decoding	
Frame Rate	8 MP for 1 division, up to 20 fps/CH 2 MP for 4 divisions, up to 30 fps/CH, 120 fps in total 720P for 8 divisions, up to 30 fps/CH, 240 fps in total VGA for 16 divisions, up to 30 fps/CH, 480 fps in total
Playback	Max. 16-ch playback

Supported Video Resolution	Main Stream	Sub Stream
Firmware Version	V1.00	
4:3	2592 x 1944 2560 x 1920 2048 x 1536 1600 x 1200 1280 x 960 640 x 480	1280 x 1200, 1024 x 768, 960 x 720, 640 x 480, 320 x 240
16 : 9 (Default)	3840 x 2160 2592 x 1520 2560 x 1440 2304 x 1296 1920 x 1080 1280 x 720 640 x 360	1280 x 720, 640 x 360, 448 x 256
5:4	1280 x 1024 640 x 512	1280 x 1024, 640 x 512, 320 x 256
20:19 (Fisheye Camera Only) See Note 2	2896 x 2768 2176 x 2048 2048 x 1944 1792 x 1696 1440 x 1376	960 x 912, 640 x 608

Operation	
Recording Bandwidth	Max. 96 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 ~ 5 sec
Post Recording	30 sec
Instant Playback	3 min
Backup Type	USB flash drive of FAT32 format
Management	
Language	Czech, English, Finnish, French, German, Hungarian, Italian, Japanese, Portuguese, Russian, Slovakian, Slovenian, Spanish, Traditional Chinese
Firmware upgrade	Upgrade through OSD, Web 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. 34 channels connection

Playback	PC-Based Software	Max. 16 channels connection
	Mobile App	Max. 1 channel connection *Up to 1 PC-based software or Mobile App can be connected to GV-SNVR for remote playback at a time.
Monitoring Environment		IE browser, SNVR Viewer for non-IE browsers, Mobile app
Smart Device Access		GV-Eye for iOS and Android

Note:

1. GV-SNVR1612 only supports PoE (IEEE 802.3af). If your camera requires power supply above 10W, be sure to power your camera with the compatible PoE switch or its power adapter.
2. Fisheye dewarping is currently not supported by GV-SNVR1612.
3. For backup efficiency, it is recommended to use external hard drive(s) to back up your recordings.
4. 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-BX110
  - GV-BL110
  - 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-SNVR1612 only supports recording bandwidths of up to 96 Mbps, with each channel not exceeding 6 Mbps (main stream + sub stream).
4. Audio is not supported for GV-BX2802 / BX4802 / PBL8800 / PDR8800.

Supported GeoVision Application

- GV-Center V2 (V18.2 + patch or later)
- GV-Vital Sign Monitor (V16.11 or later)
- GV-Eye (V2.5.1 or later)
- GV-Cloud Center (V1.0 or later)

Recommended Hard Disks

GV-SNVR1612 supports 2 SATA HDD (3.5") with up to 20 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 2.5" SATA HDD.

Supported Web Browsers

- Internet Explorer 8 or later
- Google Chrome
- Mozilla Firefox
- Safari
- Microsoft Edge

Overview

Front Panel

Back Panel

Packing List

1. GV-SNVR1612
2. Power adapter
3. AC power cord
4. SATA cable x 2
5. HDD power cable x 2
6. Screw x 8 (for HDD)
7. USB mouse
8. Foam foot
9. Download Guide

Accessories

GV-POE Switch	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.
GV-Joystick V2	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.