GV-TNVR1620-P

Introduction

GV-TNVR1620-P is a standalone network video recorder with an embedded Linux operating system that records video directly to its internal hard drives. It supports up to 16 IP camera channels for video surveillance and features 16 built-in PoE ports (IEEE 802.3at), providing both power and network connectivity to connected IP cameras. With support for video output up to 4K resolution, GV-TNVR1620-P eliminates the need for a separate PC to view or play back recordings. USB ports are available for importing/exporting system settings, updating firmware, storing snapshots, and backing up video files.

GV-TNVR1620-P also features advanced AI functions, including face recognition, smart intrusion detection, and people and vehicle motion detection. When integrated with AI-capable GV-IP cameras, it provides a wide range of analytics to meet your diverse perimeter protection and surveillance needs.

Features

- 16 channels with two (2) SATA ports
- Up to 12 MP resolution recording
- VGA and HDMI simultaneous output, up to 4K (3840 x 2160)
- 16-port PoE plug-and-play
- Two-way audio
- 8 alarms inputs and 2 alarm outputs
- Realtime face recognition
- Analytics by cameras supported
- AcuSearch to search for vehicle or people by designating an interest of area in the live view or recordings
- Smart device access (iOS and Android)
- ONVIF cameras supported
- GV-VPN supported
- 12 languages supported

Specifications

System	
Operating system	Embedded Linux
No. of Drive Bay	2 (3.5" SATA HDD), up to 10 TB for each disk*

Video and Audio	
Compression	Audio: G.711 Video: H.264 / H.265

Decoding		
Live / Playback	AI Off	12 MP: 60 fps in total (2 CH max.) 8 MP: 60 fps in total (2 CH max.) 4 MP: 120 fps in total (4 CH max.) 1080P: 300 fps in total (10 CH max.) 720P: 480 fps in total (16 CH max.)
	AI On	8 MP: 60 fps in total (2 CH max.) 4 MP: 30 fps in total (4 CH max.) 1080P: 240 fps in total (8 CH max.) 720P: 480 fps in total (16 CH max.)
Playback		Max. 16 channels

Operation		
Max. Bandwidth	Input	160 Mbps
	Output*	128 Mbps
Playback Function		Fast forward/backward (2x, 4x, 8x, 16x) Slow forward (1/2x, 1/4x, 1/8x, 1/16x)
Live View Display		1 / 4 / 6 / 8 / 9 / 16
Web Browser		IE 10 / 11 Firefox V52 or above Google Chrome V45 or above Edge V79 or above
Language		Czech, English, French, German, Hungarian, Italian, Japanese, Polish, Portuguese, Russian, Spanish, Traditional Chinese
Maintenance		Firmware upgrade through Web Browser or GV-IP Device Utility (V9.0.5 or later)

Interface		
Monitor	VGA	1 port 60 Hz: 1024 x 768, 1280 x 720, 1280 x 1024, 1600 x 1200, 1920 x 1080 50 Hz: 1920 x 1080
	HDMI	1 port 60 Hz: 1024 x 768, 1280 x 720, 1280 x 1024, 1600 x 1200, 1920 x 1080 50 Hz: 1920 x 1080 30 Hz: 3840 x 2160 (4K)
Connector	Ethernet	1 port, RJ45 10/100/1000 Mbps
	POE	16 ports, RJ45, PoE+ (IEEE 802.3at)
	USB	USB 2.0 x 1 (front) USB 3.0 x 1 (rear)
	Audio In	1 RCA
	Audio Out	1 RCA
	RS-485	Not functional
	Alarm Input/Out	8 in / 2 out
LED Indicator		4 LEDs: RUN, NET, HD, CLOUD (not functional)

General	
Dimensions (W x D x H)	380 x 322 x 53 mm (15" x 12.7" x 2.1")
Weight	2.7 kg (6.0 lb)
Rack Mount	Yes
Power	Input: AC 100 ~ 240 V, 50 ~ 60 Hz PoE Switch: Max 30 W for single port, Max 240 W in total
Power Consumption	12 W (excluding HDD and IP cameras)
Operating Temperature	-10°C ~ 55°C (14°F ~ 131°F)
Humidity	0% ~ 90% RH (non-condensing)

AI Integrated Function		
AI Analytics	AI by Camera	Intrusion Detection, Cross Line Detection, Enter Area, Face Detection, Leave Area, People Flow Counting, Crowd Density Monitoring * These functions are only applicable when the NVR is connected to AI-capable GV-IP cameras, as listed in the *Compatible AI-Capable GV-IP Cameras* section below.
	AI by NVR	- Face Recognition (Face Detection, Face Comparison): max. 1 CH - Smart Intrusion Protection (Cross Line Detection, Intrusion Detection, Enter Area, Leave Area): max. 2 CHs - Ultra Motion Detection (only to AI-capable GV-IP cameras, as listed in the *Compatible AI-Capable GV-IP Cameras* section below): max. 4 CHs - AcuSearch: max. 1 CH * Only one of these functions (Face Recognition, Smart Intrusion Protection, Ultra Motion Detection, and AcuSeach) can be enabled at a time. * Only one analyzer setup (*Camera-Side Analysi*s or *NVR-Side Analysis*) can be enabled at a time.
Face Picture Library		Up to 16 face lists, with up to 50,000 face pictures in total

Network	
Protocol	802.1x, DDNS, DHCP, DNS, HTTP, HTTPS, IPv4/IPv6, NTP, PPPoE, RTSP, SMTP, SNMP

Remote Monitoring	
Access from Web Browser	Live View, Image Snapshot, Playback, Digital PTZ, System Configurations

Application	
Software Supported	GV-Control Center (V4.2.1, Patch required; coming soon), GV-Edge Recording Manager Windows Version (V2.3.1, Patch required; coming soon), GV-VPN (V1.1.2 or later)
Smart Device Access	GV-Eye for iOS and Android (V3.4.2; coming soon)

Note:
1. Fisheye dewarping is only supported by GV-FER5702.
2. GV-TMEB5800 is not supported by GV-TNVRV1620-P.
3. Certain GV-IP cameras are not supported by GV-TNVR1620-P. See the technical notice for details.
4. GV-TNVR1620-P may support third-party IP cameras for motion recording, depending on the IP cameras' ONVIF capabilities.
5. The maximum remote connection is subject to the total output bandwidth. See the maximum output bandwidth column above for the specification*.
6. For system efficiency, it is recommended to use enterprise-level hard disk drives. For the supported hard disk drive, see GV-SNVR HDD Compatibility Table.
7. Specifications are subject to change without notice.

Compatible AI Capable GV-IP Cameras

- GV-BLFC5800, EBD4813, EBFC5800, TBL4810, TDR4803, TFD4800, TVD4810: Firmware V1.04 or later
- GV-EBD8813, EBD8800, TBL8804, TBL8810, TDR8805, TVD8810: Firmware V1.05 or later
- GV-SD4825-IR, SD4834-IR: Firmware V1.02 or later
- GV-PTZ5810-IR: Firmware V1.01 or later
- GV-TBL4807, TVD4810: Firmware V1.06 or later
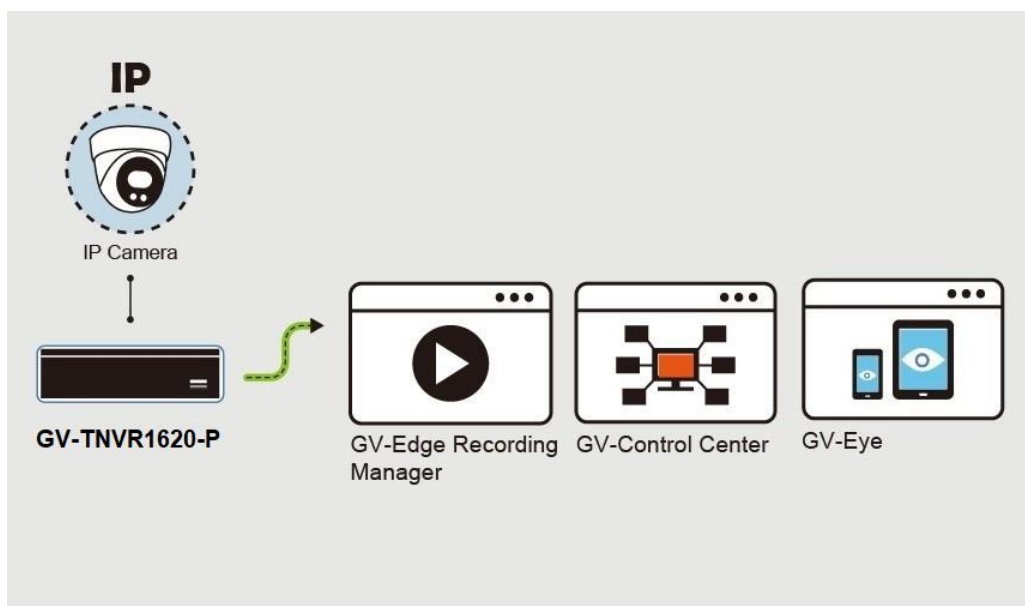- GV-TMS8800, TMS20811: Firmware V1.00 or later

Packing List

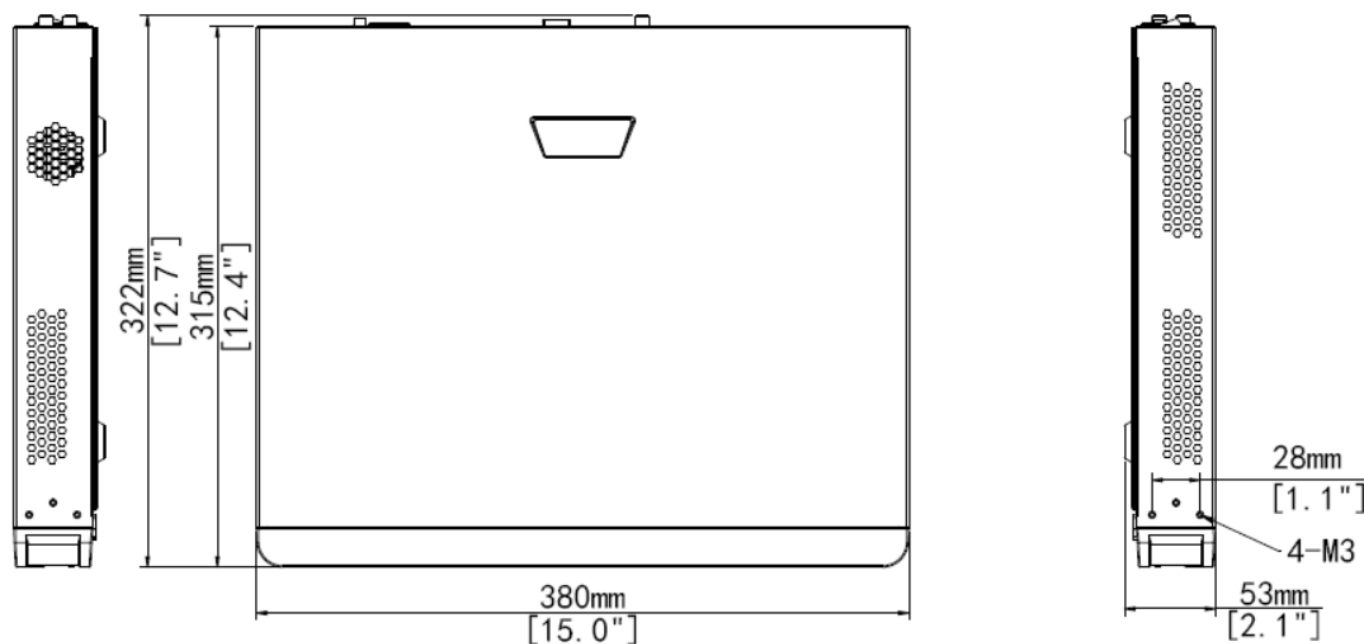|			
1.	GV-TNVR1620-P	2.	Power Cord
3.	SATA cable x 2	4.	Foam foot
5.	HDD power cable x 2	6.	Phoenix Terminal x 2
7.	Screw Kit (for HDD) x 2	8.	Rack Mount Kit (2 L-shaped brackets + 4 screws)
9.	USB Mouse	10.	Download Guide

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.

Applications

Dimensions

Rear Panel