

# 16 Channel Video Recorder

## GU-RN-AP8216N

# GRUNDIG



Type: Standalone NVR - IP - Recorder

Item Code: GU-RN-AP8216N

EAN CODE: 4260573064212

### SMART

The SMART product line offers comprehensive coverage of modern video systems with advanced AI analysis and solutions for various application areas.

## Highlights

### H.265+



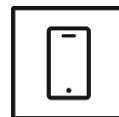
H.265pro+ utilizes the standard H.265/High Efficiency Video Coding (HEVC) format, but boasts advanced technologies that enable it to substantially reduce the necessary transmission bandwidth and storage capacity for maximum efficiency.

### Object Classification



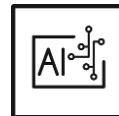
This technology employs a highly advanced deep learning algorithm that can discern whether the alarm was triggered by a human, a vehicle or some other object.

### Smartphone App



The mobile application was developed to facilitate operators in effectively controlling and managing video systems remotely, at any time. It allows for live image viewing, playback of recorded video data, and receipt of remote notifications.

### Deep Learning



Deep Learning is inspired by the complex structure of the human brain. This innovative method allows processing of information and performing corresponding actions based on analysis.

## Features

- Many intelligent functions: deep learning distinguishing between human and vehicles, detection of line crossing, intrusion, queue length, crowd density, lost objects and display of heat map. Recognition of car license plates and faces including allowed and blocked lists. Counting of different Objects.
- Controlled locally by USB mouse or remotely through Ethernet connection with CMS, Web page and mobile Apps

### NDA compliant

GRUNDIG Security's SMART line is fully compliant with the National Defense Authorization Act (NDAA), which prohibits U.S. federal agencies and their partners from using video surveillance and telecommunications equipment or services from certain Chinese companies. This law is part of the John S. McCain NDAA and is effective August 2020.

With our SMART product line, you can be confident that your security system complies with this important regulation. Our products meet the highest standards of quality and reliability, providing you with the security you need to protect your assets and personnel.

### Specifications GU-RN-AP8216N

#### Video

IP Inputs: 16 channels

#### Recording / Playback

Recording Bandwidth: 256 Mbps

Outgoing Bandwidth: 128 Mbps

Recording Resolution: 12 MP, 8 MP, 5 MP, 3 MP, 1080P, 960P, 720P

Recording Mode: Continuous, Event Alarm, Motion, Video Loss, Schedule

Search Mode: Date, Time, Event Alarm, Motion, Search Backup

Smart Search Function: Search for people, motorized vehicles, non-motorized vehicles, intrusion and line crossing, thumbnails, tags, faces and characteristics, attendance, visit frequency and license plates

Playback: Synchronised playback of max. 16 cameras

Frame Rate(R): 4K: 60fps, 4MP: 120fps, 2MP: 240fps

#### Audio

Audio Compression: G.711

Audio Detection: Detects unusual noises: dogs barking, babies crying, gunshots, sudden sound increase and decrease

#### General

External Backup: USB HDD, USB Memory, Network

Max. Storage Capacity: Up to 10 TB capacity for each HDD

Languages: Chinese, Czech, Dutch, English, Finnish, French, German, Italian, Portuguese, Spanish, Russian, Turkish, Polish

PTZ Control: Pan, Tilt, Zoom, Preset set and call

Basic Internal Storage: No

Accessories included: Mouse, external power supply, sata cable, 19 inch rack mount kit

#### Network

Video Compression: H.264, H.264+, H.265, H.265+, MJPEG

Streaming Method: Unicast, Multicast

Cyber Security: Different password levels, password protection, password change prompt at first startup, complicated password, HTTPS encryption, digest authentication for HTTP/HTTPS, IP address filter, WSSE and digest authentication for ONVIF, RTP/RTSP over HTTPS, control timeout settings, security audit log, TLS 1.0, TLS 1.1 & TLS 1.2, TLS 1.2 with updated cipher suites including AES 256 encryption, Brute Force Delay Protection of 180 s after 5 login attempts, Signed Firmware.

Remote Connections: 96

#### I/O Interface

HDMI Output: HDMI1: 3840 x 2160 (EDID/4K), 2560 x 1440, 1920 x 1080, 1440 x 900, 1280 x 1024, 1280 x 720, 1024 x 768

HDMI2: 1920 x 1080, 1440 x 900, 1280 x 1024, 1280 x 720, 1024 x 768

**I/O Interface**

|                      |                                                                             |
|----------------------|-----------------------------------------------------------------------------|
| VGA Output:          | 1920 × 1080, 1440 × 900, 1280 × 1024, 1280 × 720, 1024 × 768                |
| Audio Input/Output:  | 1-ch audio input and 1-ch audio output                                      |
| Alarm Input/Output:  | 16/1                                                                        |
| Harddisk bay:        | 2 x SATA 2.0, 1 x eSATA                                                     |
| Network Interface:   | 2x 10, 100, 1000 Base T, TX (RJ-45)                                         |
| Serial Interface(s): | Front panel: 1 × USB 2.0, Rear panel: 1 × USB 3.0 + 1 × USB 2.0 + 1 × RS485 |

**Intelligent Functions**

|                                  |                                                                                                                                                                                                          |
|----------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Crowd Density Detection:         | Counts people in a predefined area. The area, the maximum number of people in it can be set                                                                                                              |
| Face Detection:                  | Human face appears in the image can be detected and trigger event action                                                                                                                                 |
| Face Recognition:                | Detects and recognizes faces by comparing them to stored portrait images. Actions can be triggered via the allowed, blocked and other list                                                               |
| Heat Map:                        | Visualizes the number of people in the surveillance area over a period of time with a simple and user-friendly color scheme                                                                              |
| Intrusion Detection:             | People, motorized vehicles or non-motorized vehicles, enter, exit or drive over a predefined virtual area, up to 4 rules are supported                                                                   |
| License Plate Recognition:       | Detects and recognizes car number plates. Data- import- export function, actions can be triggered via the allowed, blocked and other list                                                                |
| Object Counting:                 | People, motorized vehicles, non-motorized vehicles or other movements are counted when crossing a virtual line and the result is displayed on the screen in real time                                    |
| Line Crossing:                   | People, motorized vehicles or non-motorized vehicles cross a pre-defined virtual line, up to 4 rules are supported                                                                                       |
| Object Removal:                  | Detects within a predefined, adjustable area objects that were originally placed in a specific location and have been removed, as well as objects that have been left behind there                       |
| People & Vehicle Detection:      | Adjustable whether people, motorized or non-motorized vehicles should be detected.                                                                                                                       |
| Queue Length Detection:          | Counts people in a predefined area and measures service time. The area, the maximum number of people in it and the maximum service time can be set                                                       |
| Motion Detection:                | Adjustable whether people, motorized or non-motorized vehicles or only movements should be detected. The detection area and sensitivity can also be adjusted.                                            |
| Tamper Protection:               | Detection of scene change, defocus, sudden audio increase/decrease or audio loss.                                                                                                                        |
| Limits of intelligent functions: | Some functions are only available if supported by the connected camera. Some features are limited by the number of supported channels.                                                                   |
| Event Source:                    | Motion, AI Functions, Video Loss, Network Interruption, Video Tampering, HDD Full, HDD Error, Audio Detection and Alarm Inputs                                                                           |
| Event Action:                    | Send e-mail, trigger alarm output, push notification for GSVM App and C-WERK, upload to FTP/Cloud, trigger HDD recording and/or image capture, show message on screen, PTZ linkage, voice prompt, buzzer |

**Approvals**

|                |                              |
|----------------|------------------------------|
| Regulation:    | CE, EAC, FCC, RoHS Compliant |
| Standard:      | ONVIF (Profile S), SDK/API   |
| MTBF at 25° C: | >60.000 hours                |

**Environmental**

|                        |                                   |
|------------------------|-----------------------------------|
| Operating Temperature: | -10 °C ~ +50 °C (+14°F ~ + 122°F) |
| Humidity:              | Less than 90%, non condensing     |

**Electrical**

|                    |                                                       |
|--------------------|-------------------------------------------------------|
| Supply Voltage:    | 12 VDC, Power Adapter 100 ~ 240 VAC 50, 60Hz included |
| Power Consumption: | ≤ 12 W without harddisk                               |

# 16 Channel Video Recorder

## GU-RN-AP8216N

**GRUNDIG**

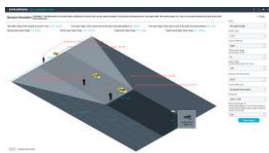
### Mechanical

|             |                                            |
|-------------|--------------------------------------------|
| Dimensions: | 380 × 340 × 50 mm (15.0 × 13.4 × 1.9 inch) |
| Weight:     | 1200 g (2.65 lb)                           |

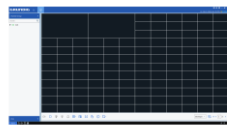
### Packaging

|                          |                                              |
|--------------------------|----------------------------------------------|
| Package Dimensions:      | 480 x 95 x 370 mm (18.9 x 3.7 x 14.6 inch)   |
| Package Weight:          | 3100 g (6.8 lbs)                             |
| Packaging Unit:          | 5                                            |
| Bulk Package Dimensions: | 490 x 490 x 390 mm (19.3 x 19.3 x 15.4 inch) |
| Bulk Package Weight:     | 16600 g (36.6 lbs)                           |

### Accessories



GU-SW-INST-TOOL



GU-SW-VMS



GU-SW-IP-FINDER



GU-SW-PLAYER



GD-HW-HDD-2TB

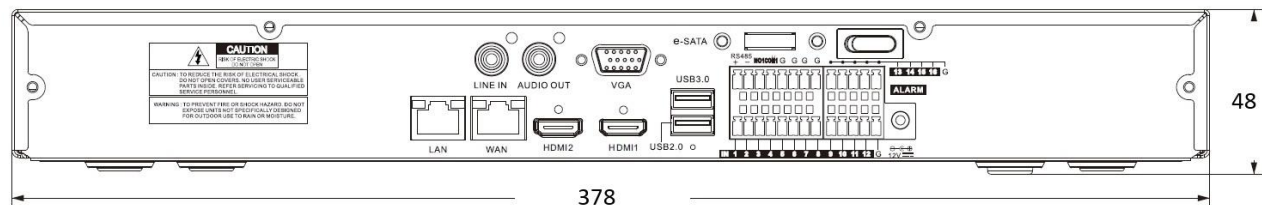


GD-HW-HDD-4TB



GD-HW-HDD-8TB

### Dimensions



### Smart Line

In addition to the usual reliability, the SMART product line from GRUNDIG Security offers numerous image analysis functions,

## Smart Line

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supported by artificial intelligence (AI). For example, use the LPR function to recognize license plates or facial recognition to identify people. Or reduce the number of false alarms by classifying objects as 'Vehicle', 'Person' or 'Other'. GRUNDIG Security's SMART cameras are able to detect people in crowds, count the number of heads and measure the length of queues, e.g. B. to be determined in the checkout area. In this way, they help you to use your resources optimally. They also inform you if unauthorized people cross predefined lines or enter certain areas.

## Environmentally friendly packaging

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Our environmentally friendly packaging with less colour print is made from 100% recyclable material. To save resources, our detailed operating instructions are available online for download. The quick reference guides that come with the devices are printed on 100% recycled paper.