

# CEN104-PRO SPECIFICATION



## Overview

The CEN104-PRO is a cost-effective device, specifically developed for mobile video surveillance and remote video monitoring, and is notable for its high functional scalability. Equipped with a high-speed processor and an embedded operating system, it integrates the latest H.265 video compression/decompression technologies, 3G/4G network technologies, GPS/BDS positioning technologies, and Wi-Fi technology, all key in the IT industry.

The device supports recording in 1080p and 720p formats.

In addition, the CEN104-PRO facilitates the recording of vehicle driving information and enables the remote uploading of videos. When used in conjunction with central software, it supports alarm linkage and provides centralized remote video surveillance, vehicle management, and playback analysis based on a central database.

Characterized by its excellent anti-vibration performance, electromagnetic interference prevention, radiation protection, and simple yet flexible design, the CEN104-PRO is easy to install. It offers large hard disk storage, an SD card backup design, and high reliability, thereby providing a comprehensive suite of functions.

## Strengths

- ✓ State-of-the-art H.265 encoding and decoding in the IT industry to improve the memory space utilisation.
- ✓ 3G/4G network technologies, GPS/BDS positioning technologies, and Wi-Fi technology (pluggable modules).
- ✓ 1080p/720p HD video recording.
- ✓ 3.5-inch large hard disk, hard disk heating & hard disk power-off protection technologies.
- ✓ Remote wake-up and IO wake-up.
- ✓ Connection with storage units such as a fireproof box for disaster recovery backup.
- ✓ Good anti-vibration performance and high reliability, providing comprehensive functions.

## Specifications

Model: CEN104-PRO

### Function Overview

Preview, video recording, playback, network transmission, and positioning.

### System

Operating System	Linux 4.9
Control Mode	CP4, mouse, EasyCheck, and network (3G/4G/Wi-Fi)

Video	
Input	4-channel AHD + 16-channel IPC
Output	1-channel CVBS + 1-channel VGA (1080p downward compatible with 720p)
Total Resource	<b>AHD:</b> 4 × 1080p @ 25 FPS (PAL) or 4 × 1080p @ 30 FPS (NTSC) <b>IPC:</b> 16 × 1080p @ 30 FPS
Audio	
Input	4-channel AHD + 16-channel IPC
Output	2 channels
Display	
Display Split	1/4/9-screen display
Screen Display	Positioning information, alarms, license plate numbers, driving speed, time, etc.
Operating Interface	GUI
Recording	
Audio/Video	Video: H.264/H.265
Compression Format	<b>Audio:</b> ADPCM,G.711U,G.711A AHD: <b>PAL:</b> 1080p (1920 × 1080), 720p (1280 × 720), WD1 (928 × 576), WHD1 (928 × 288), WCIF (464 × 288), D1 (704 × 576), HD1 (704 × 288), CIF (352 × 288);
Image Resolution	<b>NTSC:</b> 1080p (1920 × 1080), 720p (1280 × 720), WD1 (928 × 480), WHD1 (928 × 240), WCIF (464 × 240), D1 (704 × 480), HD1 (704 × 240), CIF (352 × 240); <b>IPC:</b> 1080p (1920 × 1080), 720p (1280 × 720);
Image Quality	Levels 1–8 adjustable (preferably Level 1)
Recording Mode	Startup/Scheduled/Alarm event recording

Alarm Prerecording	0-60 min
Alarm Recording Delay	0-30 min
<b>Playback</b>	
Playback Channel	<b>Local:</b> 1/4/9-channel local playback (single-channel main stream, multi-channel sub-stream) <b>WEB:</b> 1/4/9-channel synchronous playback
Search Mode	By date/time, channel, or event
<b>Network</b>	
3G/4G	EVDO/TD-SCDMA/WCDMA/TDD-LTE/FDD-LTE (optional)
WIFI	W217 module. Supported protocol: 802.11a/b/g/n/ac Supported frequency band: 2.4/5.0 GHz
Wired	LAN 10/100/1000 Mbit/s (RJ45 without indicator) WAN 10/100/1000 Mbit/s (RJ45 without indicator)
<b>Positioning</b>	
GPS	Positioning, speed detection, and time synchronization
<b>Sensor</b>	
G-Sensor	Built-in 6-axis inertial sensor
<b>Storage</b>	
HDD/SSD	1 × 3.5" SATA HDD or 2 × 2.5" SATA HDD/SSD, 20–26.1 mm thick, supporting hard disk heating
GPS	Hot-swapping 32/64/128/256 GB SDXC
<b>Port</b>	
SIM	1 × USB3.0 (Type-A) + 1 × USB2.0 (Type-B)
eSATA	1 × eSATA
SD	1 × SD card slot
SIM	1 × push-push SIM card slot
Serial Port	2 × RS232, 2 × RS485
CAN	2 × CAN
IO	8-channel input and 2-channel output
Pulse Speed Detection	1 channel

## Power Supply

Input	DC 8~36V
Output	5 V @ 500 mA & 12 V @ 500 mA
Maximum Typical Power Consumption	150W
Standby Power Consumption	≈ 0 W

## Physical Characteristics

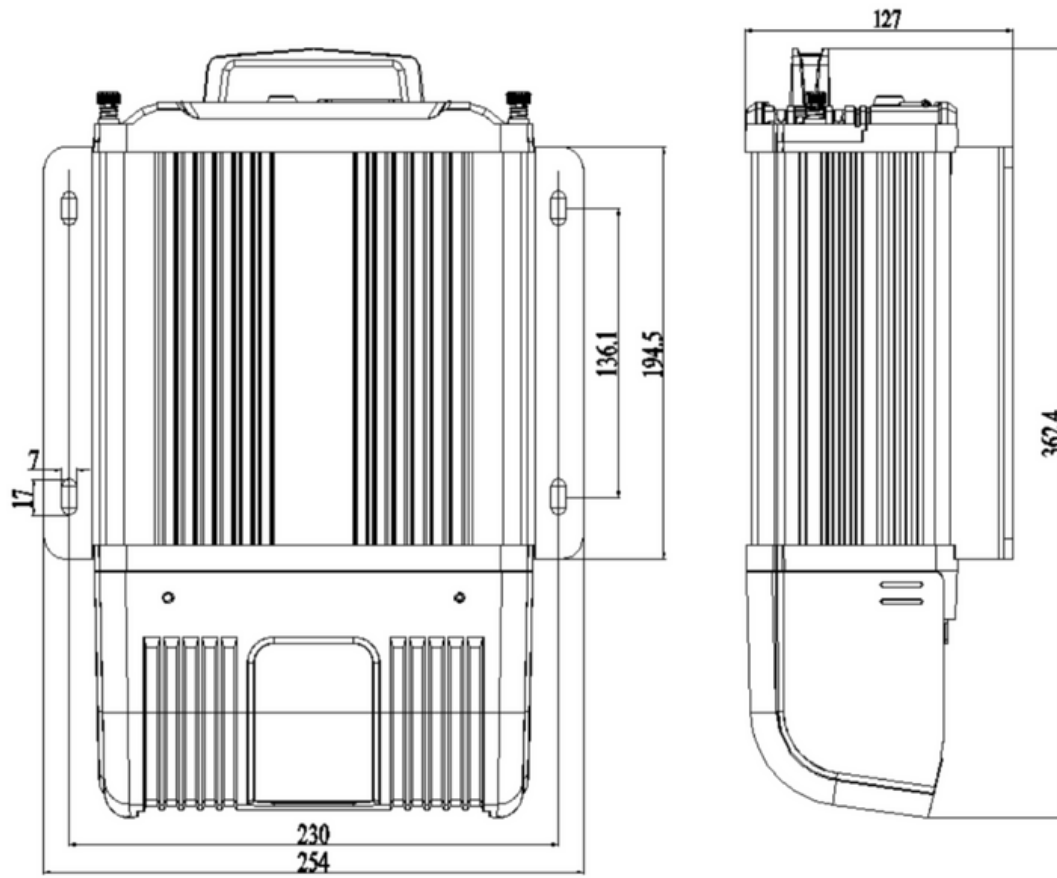
Dimensions (L × W × H)	362.4 mm× 254 mm × 127 mm (with the bracket and rear shield)
Weight (kg)	5.8 kg (without hard disks)

## Environment

Operating Temperature	-40°C to +70°C (heated, without hard disks)
Operating Humidity	8% to 90% (non-condensing)

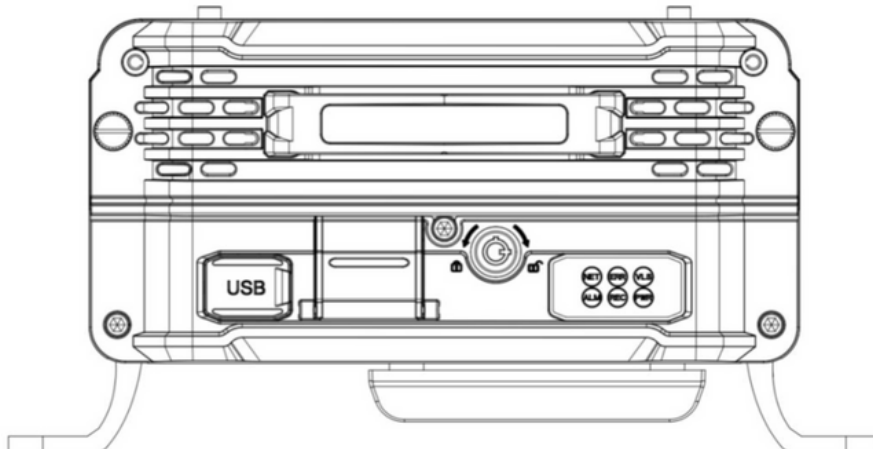
## Dimensions (mm)

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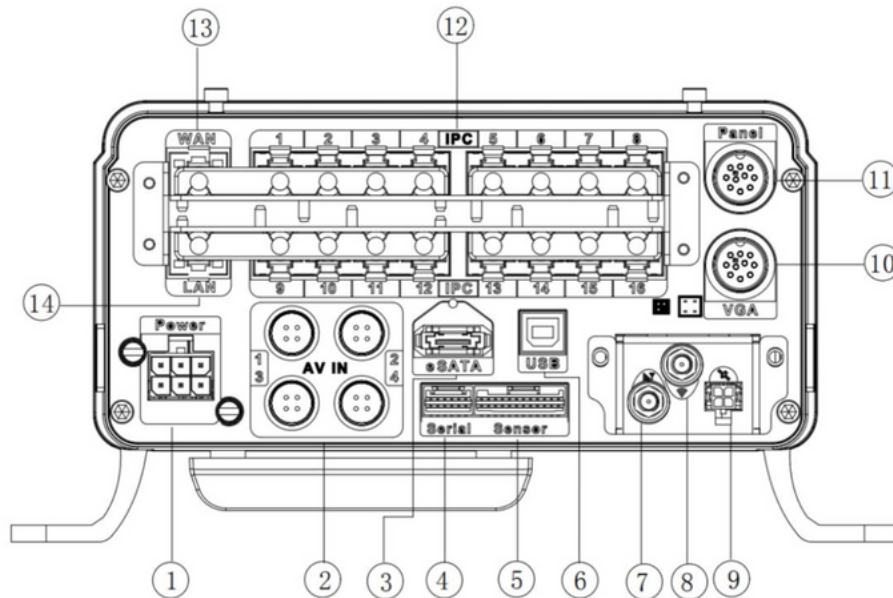




# Panel Ports


Front panel



Rear panel:

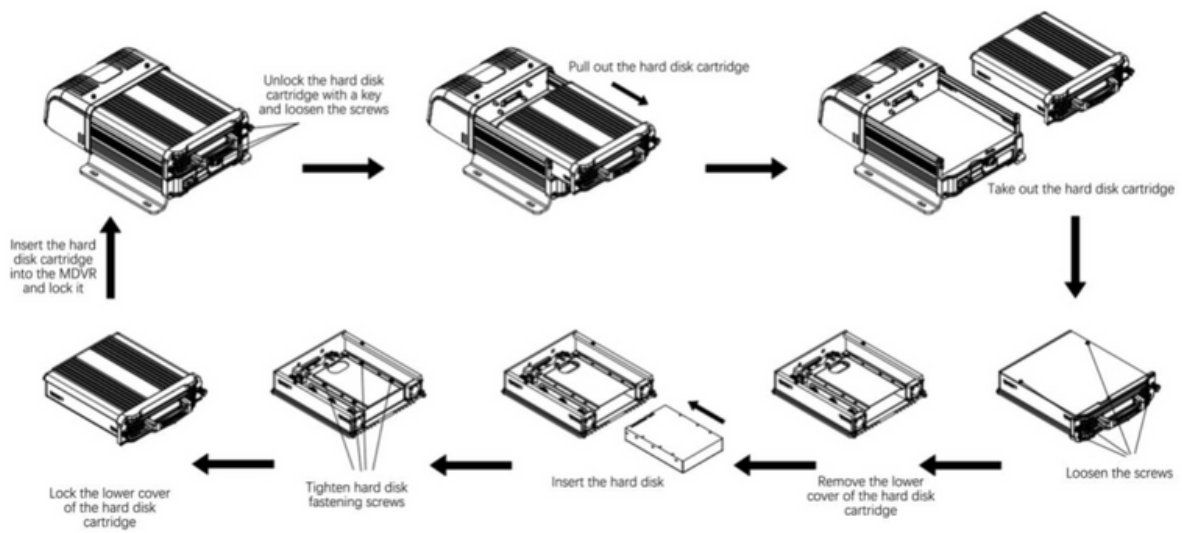


S/N	Silk Screen	Description
1	Power	8-36 V DC power input
2	AV IN 1-4	AHD ports 1 to 4
3	eSATA	eSATA port
4	Serial	Serial port
5	Sensor	IO/Pulse port
6	USB	USB 2.0 port (Type B)
7		3G/4G antenna connector
8		Wi-Fi antenna connector

9		GPS/BDS antenna connector
10	VGA	VGA port
11	Panel	CP4 port
12	IPC 1~16	IPC ports 1 to 16
13	WAN	10/100/1000 Mbit/s RJ45 network port
14	LAN	10/100/1000 Mbit/s RJ45 network port

## Installation

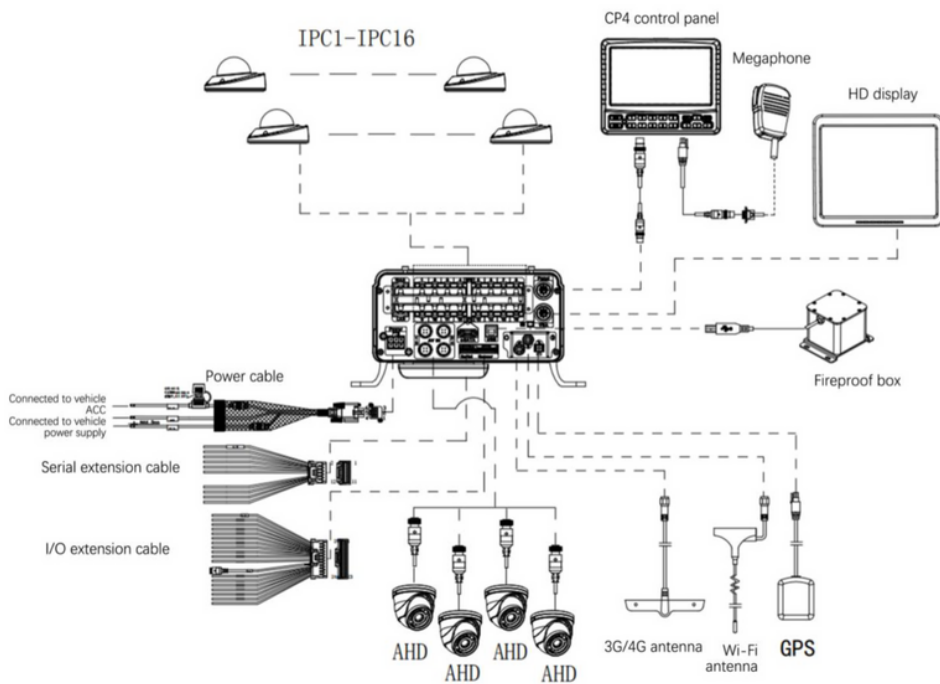
### Hard Disk Installation Guide





# Installation

## Typical Wiring Diagram



## External Cable Connector Pinouts

