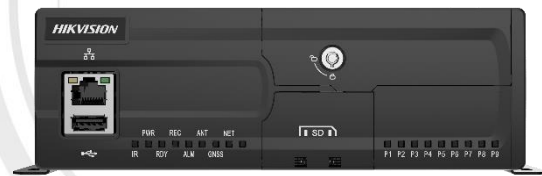## AE-MN5083 Series
## Mobile Video Recorder

AE-MN5083 series NVR is a professional solution to vehicle video and audio management with built-in Linux operating system. It supports CVBS video and audio output, featuring HD encoding/decoding, transmission based on 4G wireless network, satellite positioning, secure data storage, HDD vibration absorber, alarm input/output, driving information collecting and ports added for peripheral devices. It provides camera selection and coding solutions specialized in video and audio recording management for public transports, school buses, taxis, learner-driven vehicles, trucks, etc.



## ▪ Application

The anti-corrosion performance level of AE-MN5083 series NVR is standard. It is suitable for regular scenarios only and might be damaged when exposed to corrosive environment.

Description of anti-corrosion performance level:

| Anti-corrosion Performance | Application |
|---|---|
| Professional | Coastal areas, wharfs, ports, ships and chemical factories, etc. |
| High | Areas exposed to acid rain; areas over 1.24 miles (1 km) away from the coastline |
| Standard | Regular environment with little corrosion exposure |

## ▪ Key Feature

- 8-ch connected via PoE interfaces and 8-ch extendable via PoE switch
- Up to 5MP resolution of H.264/H.265 compression for each IP camera.
- Pluggable dummy HDD for HDD/SSD with up to 2 TB capacity.
- User-friendly GUI providing easy and flexible operations.
- Pluggable 4G module and Wi-Fi module providing flexible data transmission solutions.
- Built-in GPS module precisely positioning the vehicle via the satellite and recording the location information in the video stream.
- Information collection interfaces collecting driving information such as left/right turn, braking, reversing, etc.
- Specialized aviation connectors ensuring signal stability.
- Shutdown delay (0 h to 6 h) and 24-hour scheduled startup/shutdown.
- Build-in super-capacitor prevents the mobile NVR from damage caused by sudden power outage.
- Wide-range power input (+9 VDC to +32 VDC).
- Power-off protection prevents key data loss.
- Aluminum die-cast chassis with no fan design well adaptable to working environment.
- Software-based firewall supported.
- Support accessing via WEB browser.

## ▪ Specification

| Model | | AE-MN5083 |
|---|---|---|
| **Video/Audio Input** | IP Camera | 8-ch connected via PoE interfaces and 8-ch extendable via PoE switch |
| | Two-way Audio | 1, integrated in EXT.DEV interface |
| **Video/Audio Output** | Video Output | Main output: 1, integrated in EXT.DEV interface |
| | | VGA: 1 |
| | Audio Output | 1, integrated in EXT.DEV interface |
| **Encoding/Decoding Parameters** | Video Compression | H.264/H.265 |
| | Encoding Resolution | Main stream: 1080P/720P/WD1/4CIF<br>Sub-stream: 720P/WD1/4CIF/2CIF/CIF |
| | Frame Rate | PAL: 1 to 25 fps; NTSC: 1 to 30 fps |
| | Audio Compression | G.711a/G.711u/G.722.1/G.726 |
| | Stream Type | Video, video & audio |
| | Audio Bitrate | 16 -64Kbps |
| | Dual Stream | Supported |
| **Storage** | HDD/SSD | 1 × 2.5 inch HDD/SSD, up to 2 TB for each HDD/SSD<br>HDD/SSD data can be exported locally via this converter (optional)<br>(Not for baseline. Note the HDD/SSD capacity when ordering) |
| | SD Card | 1 × SD card, up to 256 GB  (not for baseline. Note the SD card capacity when ordering) |
| **Wireless Network** | 4G Dialing | 1 × 4G card slot, 1 ×FAKRA antenna |
| | Available Module | 5G module(optional) |
| | Wi-Fi | WI2.4G model: 1 × 2.4 G Wi-Fi SMA antenna,<br>WI58 model: 2 × 5.8 G Wi-Fi SMA antenna<br>(Optional. 802.11B/G/N and 802.11AC are selectable.<br>*1 antenna is needed for 802.11B/G/N module.*<br>*2 antennas are needed for 802.11AC module.*) |
| **Positioning** | GNSS (Global Navigation Satellite System) | GPS (Global Positioning System) & GLONASS (Global Navigation Satellite System), 1 ×FAKRA antenna |
| **External Interface** | Network Interface | ● Front panel :1 ×10M/100M RJ45<br>● Rear panel: 1 × 10M/100M RJ45/M12<br>*Note：The front and rear network ports are at same network segments* |
| | Serial Port | 2 × RS-232(*harness is optional*). 1 × RS-485. 1 × RS-485 (integrated in EXT.DEV interface) |
| | CAN interface | 2 |
| | USB Interface | ● Front panel: 1 × USB 2.0<br>● Rear panel: 1 × USB 2.0 (5-pin aviation connector) |
| | Sensor-in | 4 high/low level signal inputs |
| | Alarm Input | 4 high/low level signal inputs, 1 pulse signal input, 1 BUTTON input |
| | Alarm Output | 2 relay signal outputs |
| **General** | Operating Method | Mouse, IR remote control, Web control, and display screen |
| | G-sensor | Built-in |
| | Remote Control | Optional |
| | Power Supply | +9 to +32 VDC |
| | Consumption | ● Standby: ≤ 0.5 W<br>● Full load: ≤ 75 W |

| | | Note: Without peripheral and storage media ≤ 20 W |
|---|---|---|
| | Working Temperature | -10 °C to +60 °C (+14 °F to +140°F) |
| | Working Humidity | 10% to 95% |
| | Device Dimension (W × D × H) | 184.4 × 190.05 × 63.2 mm (7.26 × 7.48 × 2.49 inch) |
| | Device Weight (Without Storage Media) | 1.58 kg (3.48 lb) |
| **Approval** | EMC | FCC (47 CFR Part 15, Subpart B); CE-EMC (EN 55032: 2015+A1:2020+A1:2020, EN 50130-4: 2011+A1:2014; EN IEC 61000-3-2: 2019+A1:2021, EN 61000-3-3: 2013+A1:2019+A2:2021); |
| | Safety | CB (IEC 62368-1:2018); CE-LVD (EN IEC 62368-1:2020 + A11:2020 ); |
| | Environment | CE-RoHS (2011/65/EU and amendment 2015/863/EU) |
| | Automotive and Railway | E-MARK (ECE R10) |

## ▪ Available Model

AE-MN5083 (RJ45/M12)

AE-MN5083 (RJ45/M12)(1T)

AE-MN5083 (RJ45/M12) + AE-MP1460/GLF/S, (supports 4G dialing)

AE-MN5083 (RJ45/M12) + AE-MP1460/GLF/WI58/S, (supports 4G dialing and 5.8G Wi-Fi)
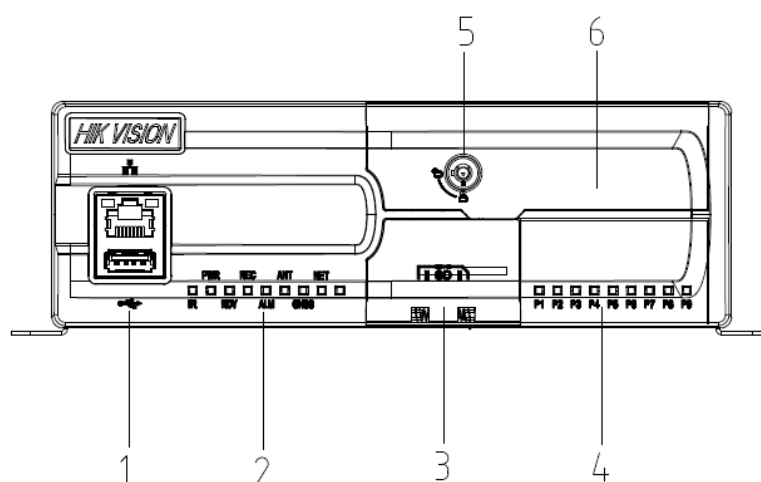
AE-MN5083 (RJ45/M12)+ AE-MP1460/GLF/WI/S, (supports 4G dialing and 2.4G Wi-Fi)

* 4G and Wi-Fi functions are supported only when AE-MP1460 Mobile Wireless Component is equipped with AE-MN5083.

* "1T" in the product name means NVR has 1TB HDD
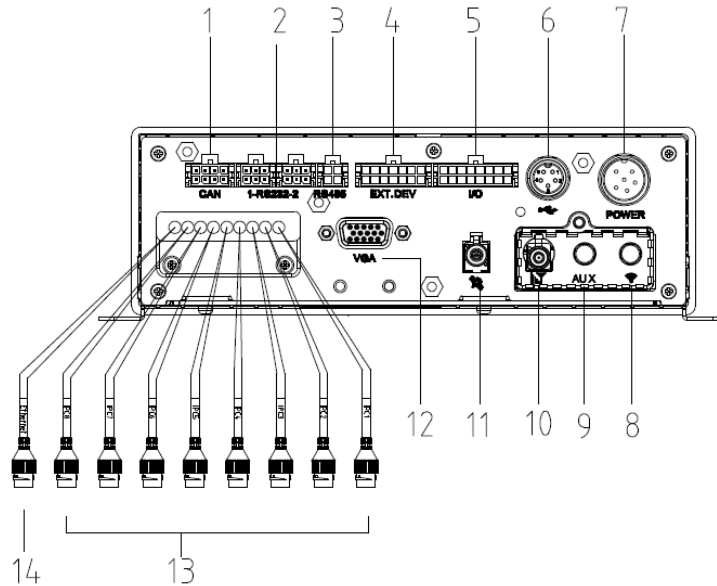
## ▪ Physical Interface

### ▪ Front Panel



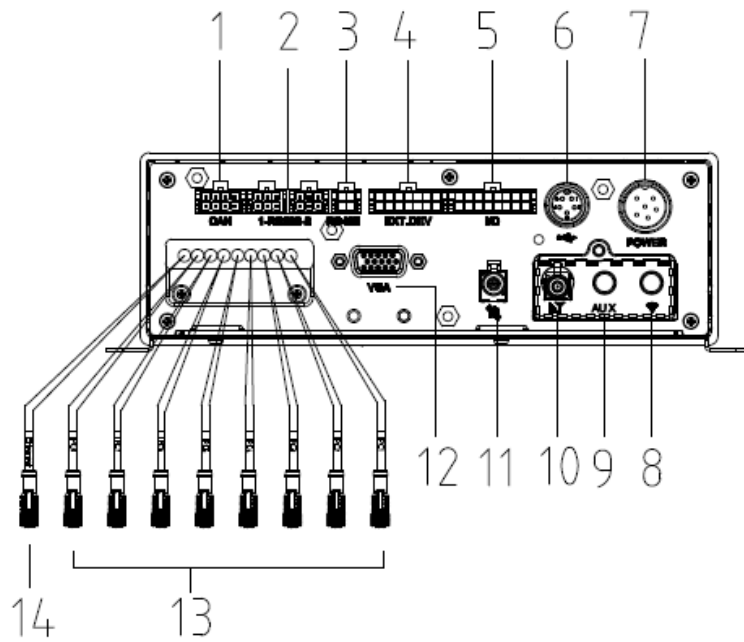| No. | Name | No. | Name |
|---|---|---|---|
| 1 | 10M/100M RJ45 Ethernet interface and USB 2.0 interface and | 2 | IR indicator |
| 3 | SD card slot | | Power indicator |
| 4 | IPC Indicators | | Ready indicator |
| 5 | Lock/Unlock the hard disk box | | Record indicator |

| 6 | Dummy HDD/SSD | | Alarm indicator |
| | | | ANT indicator |
| | | | GNSS indicator |
| | | | NET indicator |

▪ **Rear Panel(RJ45)**



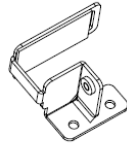| No. | Name | No. | Name |
|-----|------|-----|------|
| 1 | CAN | 8 | Main Wi-Fi antenna interface pulse signal input |
| 2 | RS-232 interface | 9 | Aux Wi-Fi antenna interface |
| 3 | RS-485 interface | 10 | Main 3G/4G antenna interface |
| 4 | EXT.DEV interface: RS-485 communication interface, two-way audio interface, and CVBS video output | 11 | GNSS antenna interface |
| 5 | I/O interface: 4-ch alarm inputs, 4-ch sensor in; 1-ch pulse signal input | 12 | VGA video output interface |
| 6 | USB interface of 5-pin aviation plug | 13 | 8 × PoE interface |
| 7 | 6-pin aviation plug for power supply | 14 | 1 × 10M/100M RJ45 Ethernet interface |

▪ **Rear Panel(M12)**

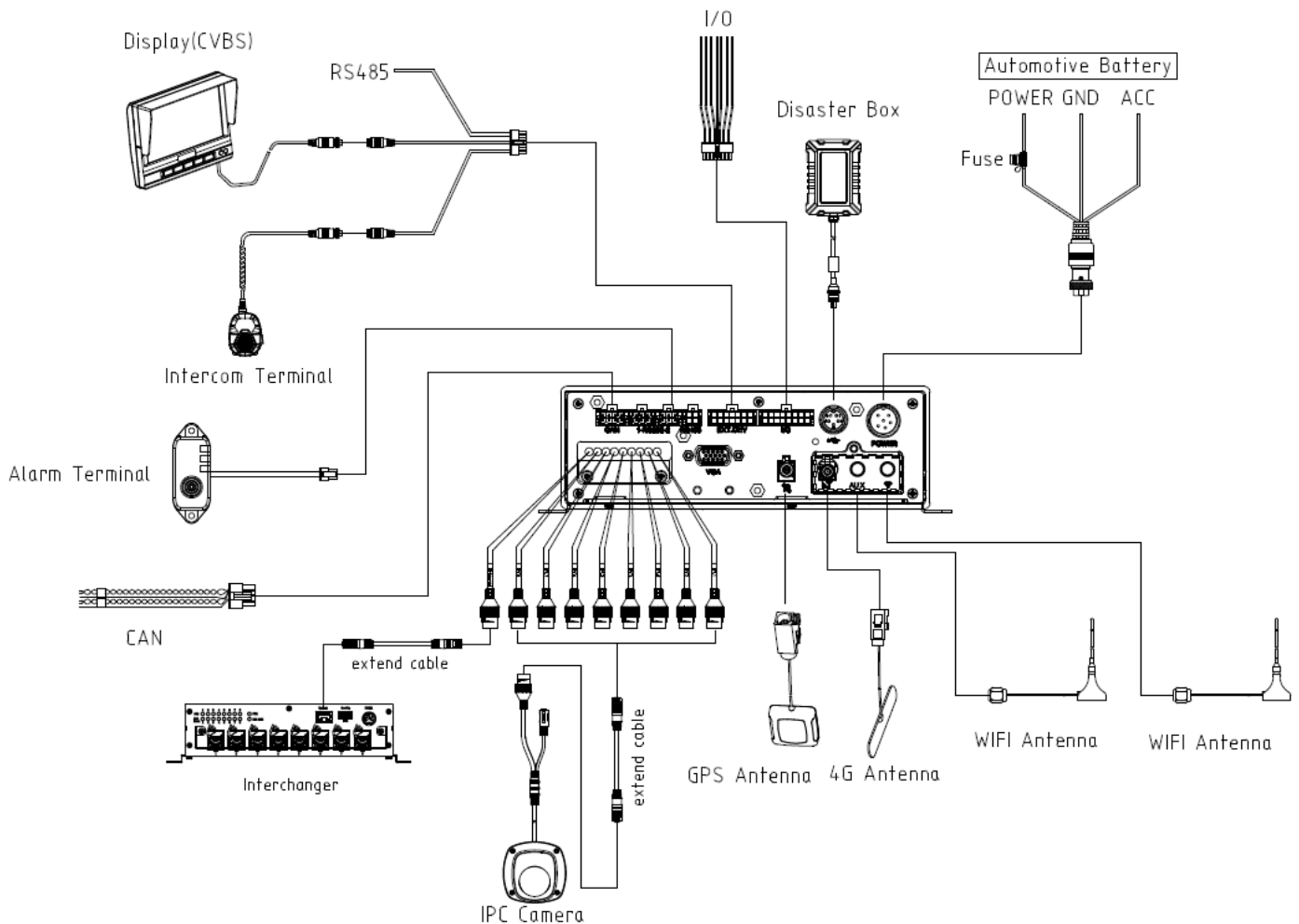| No. | Name | No. | Name |
|-----|------|-----|------|
| 1 | CAN | 8 | Main Wi-Fi antenna interface pulse signal input |
| 2 | RS-232 interface | 9 | Aux Wi-Fi antenna interface |
| 3 | RS-485 interface | 10 | Main 3G/4G antenna interface |
| 4 | EXT.DEV interface: RS-485 communication interface, two-way audio interface, and CVBS video output | 11 | GNSS antenna interface |
| 5 | I/O interface: 4-ch alarm inputs, 4-ch sensor in; 1-ch pulse signal input | 12 | VGA video output interface |
| 6 | USB interface of 5-pin aviation plug | 13 | 8 × PoE interface |
| 7 | 6-pin aviation plug for power supply | 14 | 1 × 10M/100M M12 Ethernet interface |

## ▪ Packing List

| Description | Quantity | Picture |
|-------------|----------|---------|
| Fuse | 2 | |
| Power cord | 1 | |
| Key | 1 | |
| Alarm line | 1 | |
| Extension cable | 1 | |
| GPS antenna | 1 | |

| | | |
|---|---|---|
| VGA upper bracket | 1 |  |
| VGA lower bracket | 1 |  |

## ▪ Peripheral Connection
* Here we take example of RJ45 series.

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