

AE-MN5043(RJ45)**4-ch , H.264/H.265, 2 x HDD/SSD Mobile NVR**

AE-MN5043 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.

- 4-ch IP cameras connectable via PoE interfaces, and 4-ch IP cameras extendable via PoE switch.
- Up to 5MP resolution of H.264/H.265 compression for each IP camera.(*Support this function since V5.6.4)
- Pluggable 2 × 2.5 inch HDD/SSD, SSD up to 4 TB, HDD up to 2TB
- 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 +36 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.
- Support recording backup on redundant HDD/SSDs.

▪ Specification

Video/Audio Input	
Two-way Audio	1, integrated in EXT.DEV interface
IP Camera	4-ch connected via PoE interfaces and 4-ch extendable via PoE switch.
Video/Audio Output	
Audio Output	1, integrated in EXT.DEV interface
Video Output	Main output: 1, integrated in EXT.DEV interface. VGA: 1
Encoding/Decoding Parameters	
Video Compression	H.265/H.264
Audio Compression	G.711a/G.711u/G.722.1/G.726
Audio Bit Rate	16 Kbps
Stream Type	Video, video & audio
Dual Stream	Supported
Frame Rate	PAL: 1 to 25 fps; NTSC: 1 to 30 fps
Wireless Network	
Wi-Fi	WI58 model: 2 × 5.8 G Wi-Fi antenna (Optional. 802.11B/G/N and 802.11AC are selectable. 1 antenna is needed for 802.11B/G/N module. 2 antennas are needed for 802.11AC module.)
3G/4G Dialing	1 × 4G card slot, 1 × FAKRA antenna Warning: Industrial SIM cards should be used for the devices. We will not be responsible for any issue caused by using general SIM cards.
Storage	
SD Card Storage	1 × SD card, up to 512 GB (not for baseline. Note the SD card capacity when ordering)
HDD/SDD	2 × 2.5 inch HDD/SSD, SSD up to 4 TB, HDD up to 2TB HDD/SSD data can be exported locally via this converter (optional) Hard Disk Case with heating function (optional)
Auxiliary Interface	
Network Interface	Front panel :1 × 10M/100M RJ45 Rear panel: 1 × 10M/100M 6-pin aviation connector Note : The front and rear network ports are at different network segments and the 6-pin aviation network cable female head to RJ45 is optional.
Alarm Input	4 high/low level signal inputs, 1 pulse signal input, 1 button input
Alarm Output	2 relay signal outputs
Sensor-in	4 high/low level signal inputs
Serial Port	1 × RS-232(harness is optional), 1 × RS-422 (integrated in EXT.DEV interface)
Positioning	
GNSS (Global Navigation Satellite System)	GPS (Global Positioning System) & GLONASS (Global Navigation Satellite System), 1 × FAKRA antenna
Sensor	
G-Sensor	Built-in
General	
Power Supply	+9 to +36 VDC
Product Dimension	206 mm × 225.4 mm × 60.1 mm (8.1" × 8.87" × 2.37")

Power Consumption	Standby: ≤ 0.5 W Full load: ≤ 55 W Note: Without peripheral and storage media ≤ 20 W
Operating Temperature	-25 °C to +70 °C (-13 °F to +158°F)
Operating Humidity	10% to 95% (non-condensing)
Operation Method	Mouse, IR remote control, Web control, and touchscreen
Certification	CE/FCC/Emark/EN50155/CB/EN45545/ROHS 2.0/ISO-7637-2
Weight (Without Storage Media)	1.66 kg (3.67 lb.)
Approval	
EMC	FCC (47 CFR Part 15, Subpart B); CE-EMC (EN 50498: 2010); CE-EMC (EN 55032: 2015+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	EN50155(EN 50155:2021 clause 13, EN 50121-3-2:2016+A1:2019, EN45545-2:2020, EN50153:2014+A1:2017+A2:2020, BS EN ISO:13732-1:2008, ISO 13732-1:2006;EN61373:2010); EN45545 (EN 45545-2:2020 hl3); E-MARK (ECE R10)

▪ Typical Application

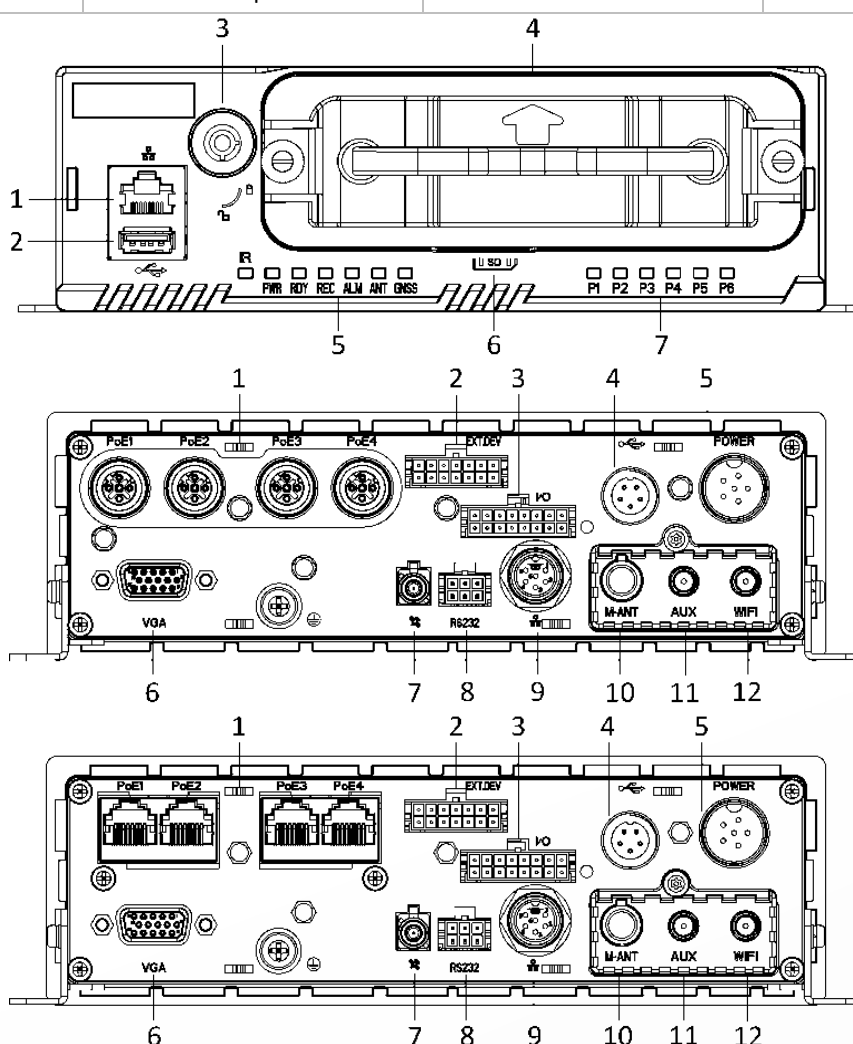
Anti-corrosion Performance	Application
Professional	Coastal areas, wharfs, ports, ships and chemical factories, etc.
High	Areas exposed to acid rain; areas over 1.24 miles (1 km) away from the coastline
Standard	Regular environment with little corrosion exposure

▪ Physical Interface

Front Panel and Rear Panel

No.	Name	No.	Name
1	10M/100M RJ45 Ethernet interface	5	PWR: Power indicator RDY: Ready indicator REC: Record indicator ALM: Alarm indicator ANT: Dialing indicator GNSS: Positioning indicator
2	USB 2.0 interface	6	SD card slot
3	Dummy HDD/SSD lock	7	P1 to P4: Video input connector indicator P5: Video input of 6-pin aviation connector indicator P6: Front panel network interface status indicator
4	Dummy HDD/SSD		GNSS indicator
No.	Name	No.	Name
1	Network camera inputs	7	Satellite positioning antenna

			interface
2	RS-422 communication interface, two-way audio interface, and CVBS video output	8	RS-232 (for debugging)
3	Alarm in, alarm out, and sensor-in	9	10M/100M M12 6-pin aviation network connector
4	USB 2.0 or 5-pin aviation connector	10	4G dialing antenna interface
5	Power supply	11	Auxiliary Wi-Fi antenna interface
6	VGA video output interface	12	Wi-Fi antenna interface



Installation Recommendation

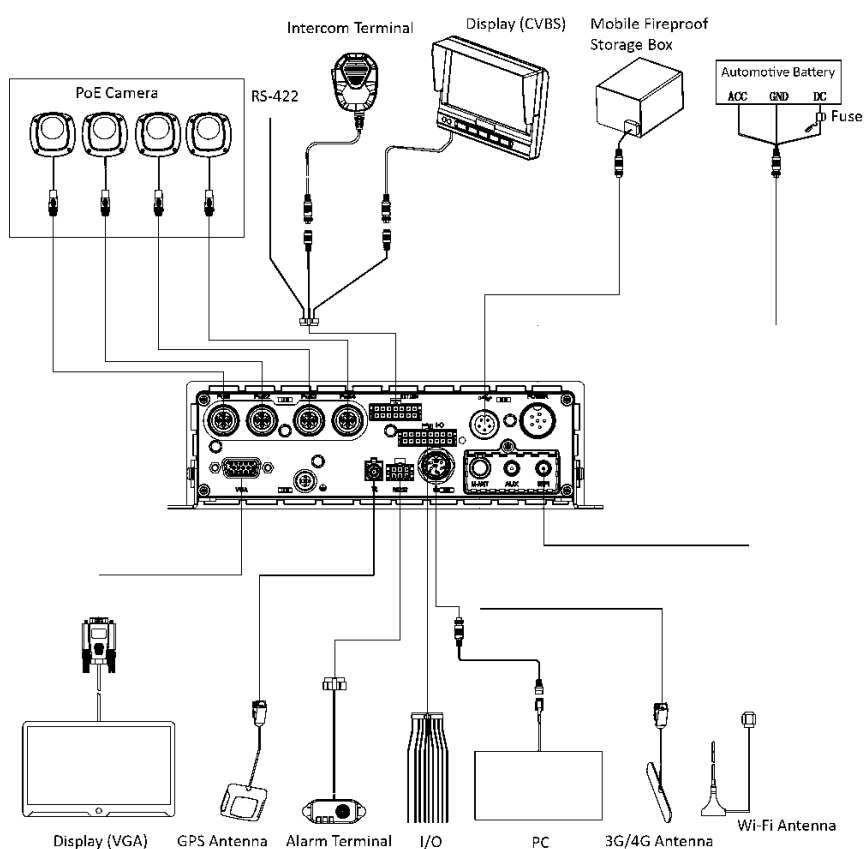
Packing List

Description	Quantity
Fuse	2
Power cord	1
Key	1
Alarm line	1
Extension cable	1

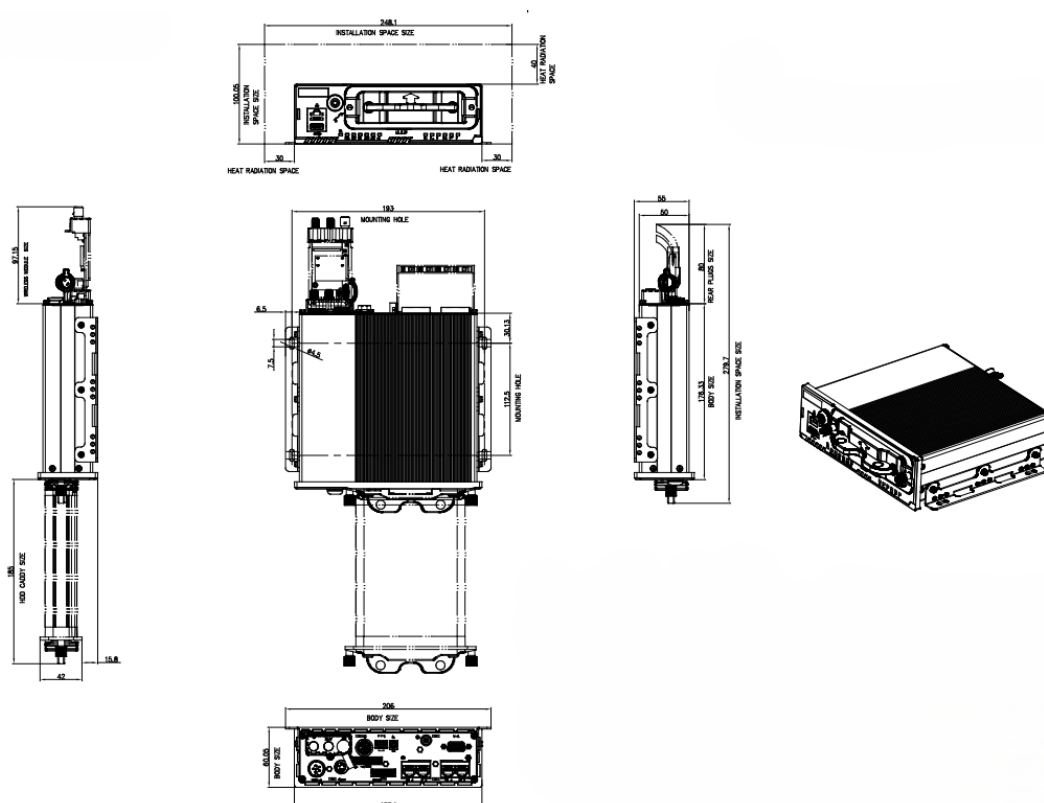
GPS antenna

1

▪ Wiring



▪ Dimension



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