AE-MN5043(M12)
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 5 MP resolution of H.264/H.265 compression for each IP camera.(*Support this function since V5.6.4)
- 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.
- 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
Routine Recording Resolution	780p@30fps
Intentional Recording Resolution	1080p@30fps
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
Encoding Resolution	Main stream: 1080P/720P/WD1/4CIF Sub-stream: 720P/WD1/4CIF/2CIF/CIF
Wireless Network	
Wi-Fi	WI58 model: 2 × 5.8 G Wi-Fi SMA 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
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)
Face and License Plate List	20.000 license plates and faces
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
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

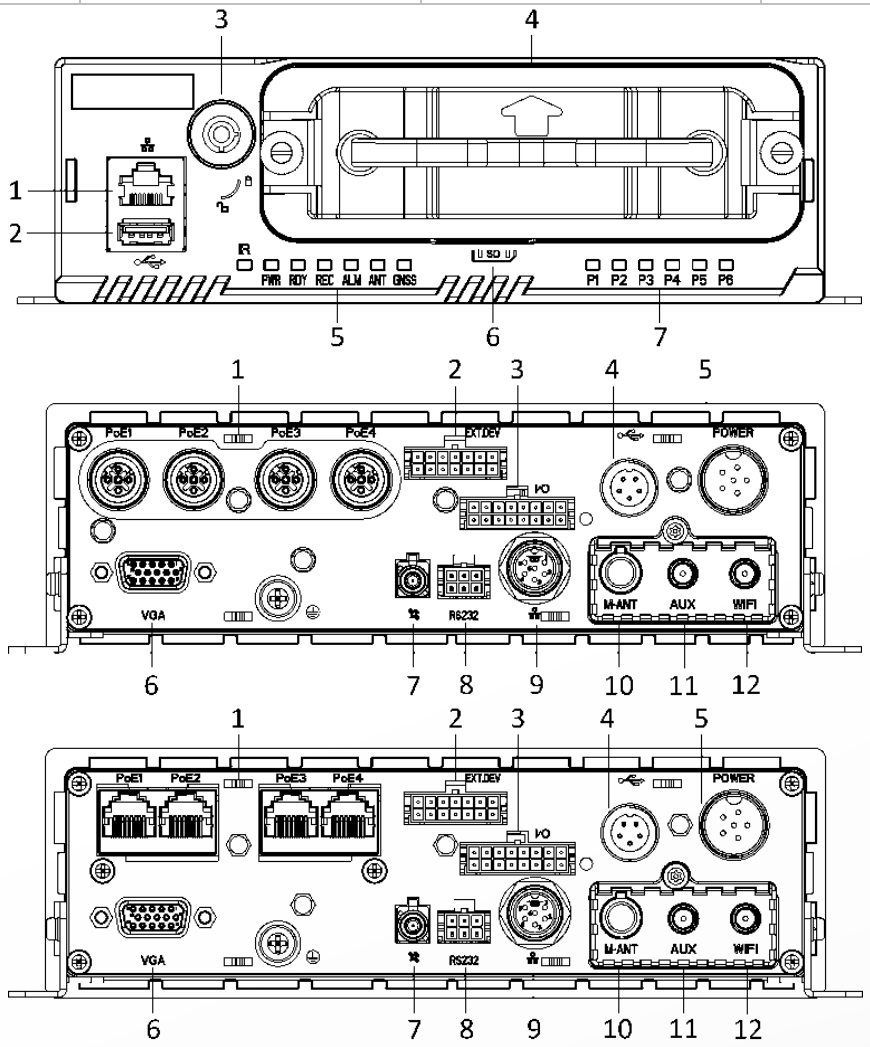
Anti-corrosion Performance	Application
Professional	Coastal areas, wharfs, ports, ships and chemical factories, etc.
High	Areas exposed to acid rain; areas over 1.24 miles (1 km) away from the coastline
Standard	Regular environment with little corrosion exposure

▪ 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 of 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



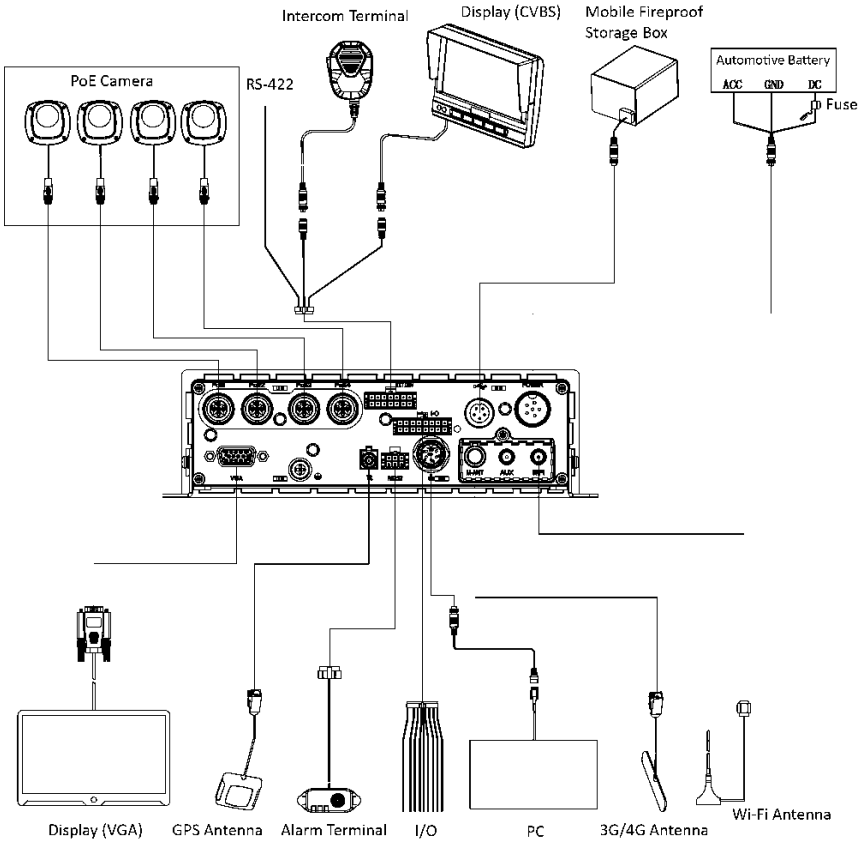
▪ Installation Recommendation

Packing List

Description	Quantity
Fuse	2

Power cord	1
Key	1
Alarm line	1
Extension cable	1
GPS antenna	1

▪ Wiring



▪ Available Model

AE-MN5043(M12)

AE-MN5043(1T)(M12)

AE-MN5043(1T/SSD)(M12)

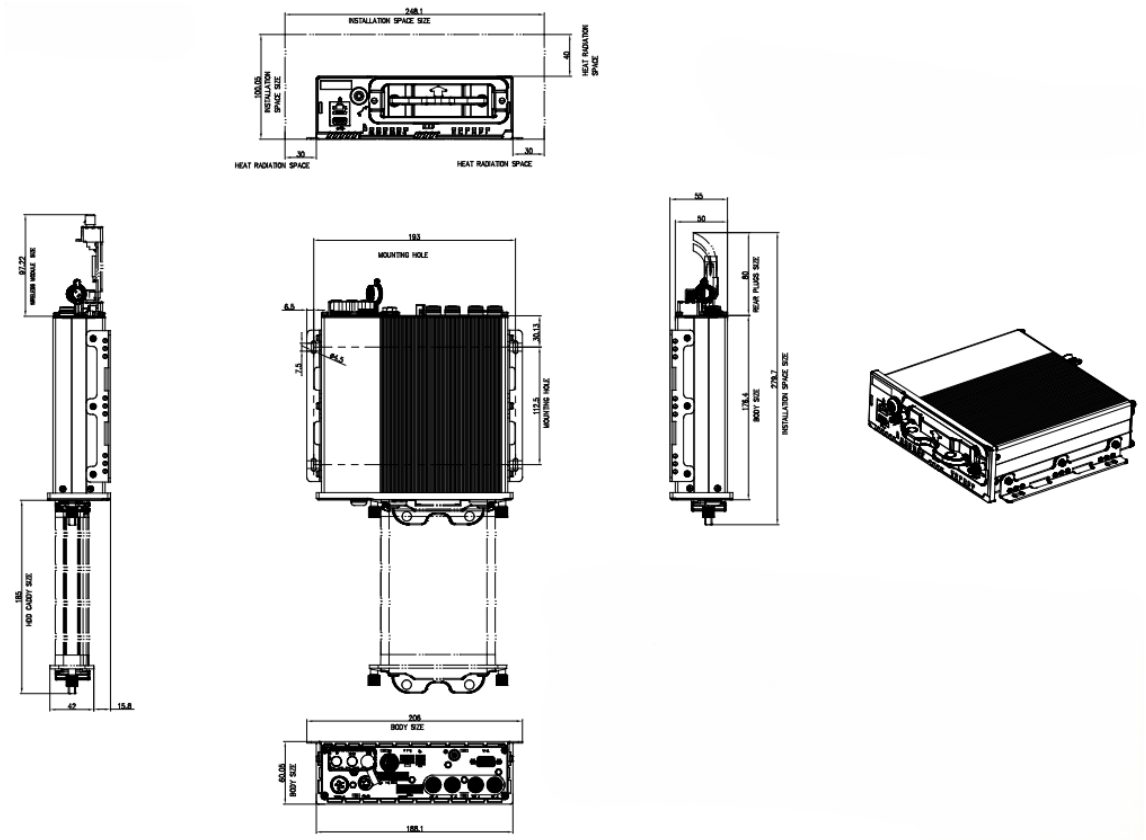
AE-MN5043(1T)(M12)(USA INC.)

PDVR010001(Italy)(Metatronix)

AE-MN5043(M12)(Demonstration Box)

AE-MN5043(M12)(ANPR)

▪ Dimension


248.1
INSTALLATION SPACE SIZE
40
HEAT RADIATION SPACE
100.35
INSTALLATION SPACE SIZE
30
HEAT RADIATION SPACE
30
HEAT RADIATION SPACE
97.22
185
HDD CADDY SIZE
42
15.8
193
MOUNTING HOLE
6.5
7.5
30.13
117.5
MOUNTING HOLE
206
BODY SIZE
60.05
BODY SIZE
188.1
55
50
80
REAR PLUGS SIZE
178.4
BODY SIZE
219.7
INSTALLATION SPACE SIZE

See Far, Go Further

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