AE-MN5043 Series
Mobile Video Recorder

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.

▪ Application

The anti-corrosion performance level of AE-MN5043 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

- 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 V5.6.54)
- Pluggable dummy HDD for HDD 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 +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

Model		AE-MN5043
Video/Audio Input	IP Camera	4-ch connected via PoE interfaces and 4-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 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 Kbps
	Dual Stream	Supported
Storage	HDD/SSD	2 × 2.5 inch HDD/SSD, up to 2 TB for each HDD/SSD HDD/SSD data can be exported locally via this converter (optional) (A dummy HDD with 2 HDD/SSDs can be extended; Not for baseline. Note the SD card 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	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.)
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 ● Rear panel: 1 × 10M/100M M12 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.*
	Serial Port	1 × RS-232(*harness is optional*), 1 × RS-422 (integrated in EXT.DEV interface)
	USB Interface	● Front panel: 1 × USB 2.0 ● 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 touchscreen
	G-sensor	Built-in
	Remote Control	Optional
	Power Supply	+9 to +36 VDC
	Consumption	● Standby: ≤ 0.5 W ● Full load: ≤ 45 W Note: Without peripheral and storage media ≤ 20 W
	Working	-10 °C to +60 °C (+14 °F to +140°F)

	Temperature	
	Working Humidity	10% to 95%
	Device Dimension (W × D × H)	206 × 225.4 × 60.1 mm (8.1 × 8.87 × 2.37 inch)
	Device Weight (Without Storage Media)	1.66kg (3.67 lb)
	Certification	CE/FCC/Emark/EN50155/CB/EN45545/ROHS 2.0/ISO-7637-2

▪ Available Model

AE-MN5043 (RJ45/M12)

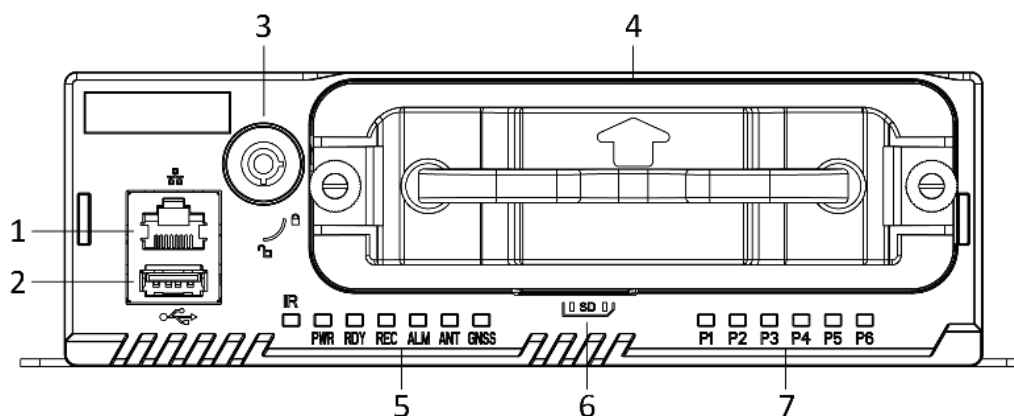AE-MN5043 (RJ45/M12) + AE-MP1460/GLF/S, (supports 4G dialing),

AE-MN5043 (RJ45/M12) + AE-MP1460/GLF/WI58/S, (supports 4G dialing and 5.8G Wi-Fi)

AE-MN5043 (RJ45/M12)+ AE-MP1460/GLF/WI/S, (supports 4G dialing and 2.4G Wi-Fi)s

* 4G and Wi-Fi functions are supported only when AE-MP1460 Mobile Wireless Component is equipped with AE-MN5043.
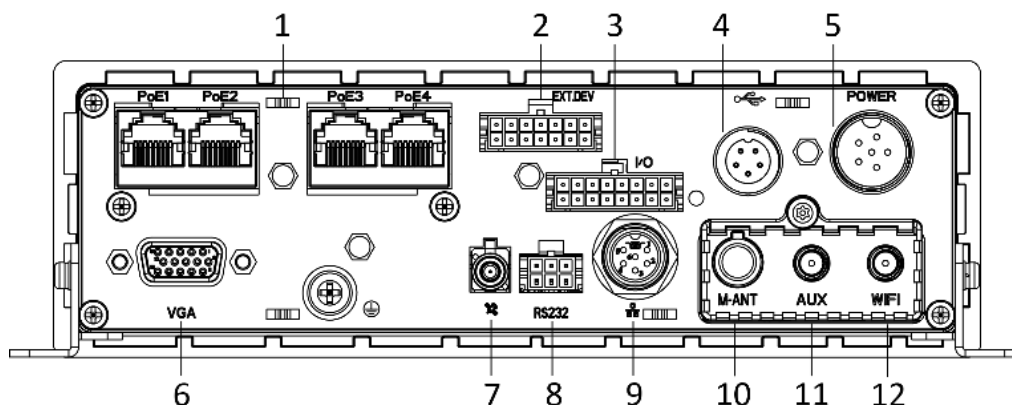
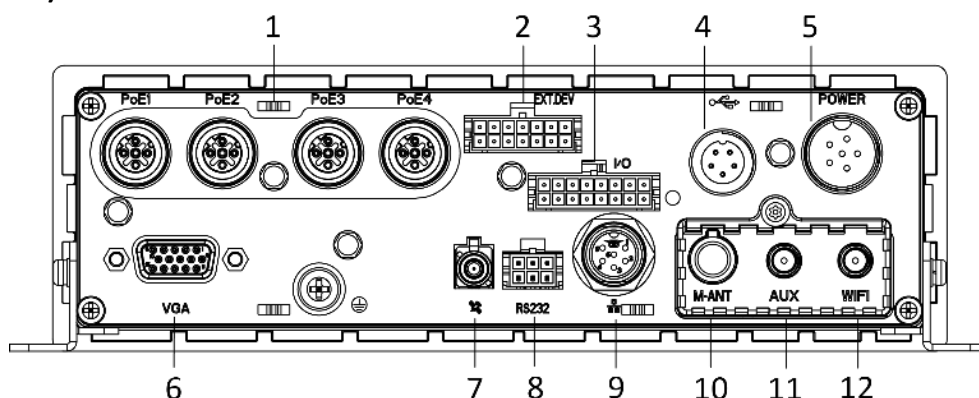## ▪ Physical Interface

▪ Front 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		

▪**Rear Panel(RJ45)**

▪**Rear Panel(M12)**

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

▪ **Packing List**

Description	Quantity	Picture
Fuse	2	
Power cord	1	
Key	1	

Alarm line	1	
Extension cable	1	
GPS antenna	1	

▪ Peripheral Connection

 * Here we take example of M12 series.