MVR-210A

5CH AHD GPS Mobile DVR

www.vipro.com.tw

Ultra-reliable HD hybrid performance coupled with everything you need for Mobile Video Security Management.

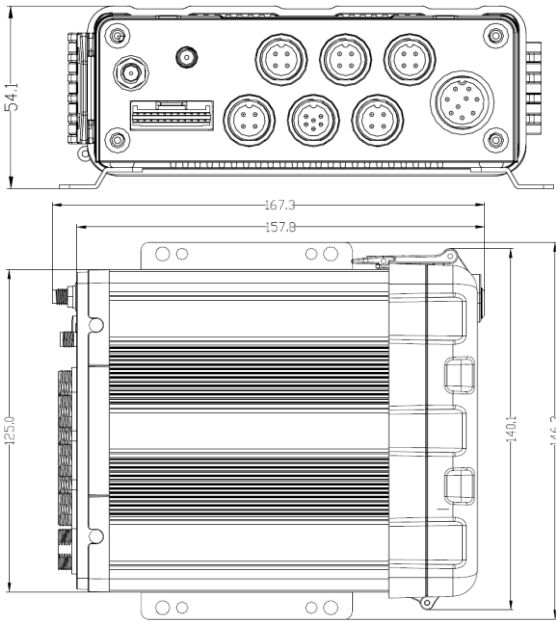
MVR-210A is an economic 5CH AHD GPS MDVR tailor-made for vehicle video surveillance. Incorporating embedded Linux O/S, high-speed processor, and H.264 technology, MVR-210A features GPS positioning, vehicle travel information recording and local playback & analysis. MVR-210A supports dual SD card record in 720P, AHD, WD1, D1 and CIF formats. Its compact design and IP54 waterproof grade is ideal for flexible installation while high C/P ratio is suitable for budgeted application.

Key Features

- 4CH AHD + 1CH 720P IP
- Dual SD card record (256GB max.)
- Excellent vibration performance
- Modular design for easy installation/maintenance
- GPS positioning and Geo-fence
- Power-off & surge protection, wide voltage input
- Durable in harsh temperature (-40℃~+70℃)
- Data recovery technology
- IP54 waterproof

Dimensions

(unit: mm)



Standard Accessories

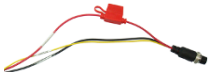
Remote control x 1

Screws x 6

MDVR key x 1

Vehicle fuses (7.5A & 15A) x 2

9 pin aviation power input wire x 1



Technical Specifications

Product series		MVR-210A
Overview		Preview, Record, Playback, Locate
System	OS	Linux 3.0.8
	Control Mode	Mouse, Easy Check, CP4
Video	Input	4 channels AHD + 1 channel 720P
	Output	1 channel
	Total Resource	100/120fps @ WD1 + 30fps @ 720P IPC or 60fps @ AHD + 30fps @720P IPC
	Video Signal Standard	Electrical level: 1Vpp Impedance : 75Ω NTSC/PAL Optional
Audio	Input	5 channels (1 channel IPC audio input)
	Output	1 channel
	Audio Signal Standard	Electrical level: 2Vpp Input impedance: 4.7kΩ
Display	Display Split	1/4/9
	OSD	GPS information, alarm, vehicle number, speed, date/time
	Operation	Semi-transparent GUI
Recording	Video/Audio Compression	Video: H.264 Audio:ADPCM
	Image Resolution	Analog: PAL: 720P(1280x720), WD1(928x576), WHD1(928x288), WCIF(464x288), D1(704x576), HD1(704x288), CIF(352x288); NTSC:720P(1280x720), WD1(928x480), WHD1(928x240), WCIF(464x240), D1(704x480), HD1(704x240), CIF(352x240); Digital:720P(1280x720)
	Image Quality	1~8 levels adjustable (1 is the best)
	Record Mode	Boot up/Manual/schedule/Alarm
	Pre-recording	0 ~ 60 minutes
	Post-recording	0 ~ 30 minutes
	Mirror/Dual record	Support
Playback	Playback Channel	1 channel by local playback
	Search Mode	Date/time, channel, event
Network	IPC Ethernet	6-pin M12 (10/100M x 1, PON power supply)
Locating	GPS	location tracking, speed detection, and sync time
Storage	SD card	SD Card x 2 (up to 256GB capacity)
Interface	USB	USB 2.0 x 1
	RS232	RS232 x 1
	Sensor	8 inputs, 2 outputs
	Speed	1 channel pulse speed detection
	Intercom	1 MIC interface
	Panel	CP4 (The multi-functional panel)*
Electrical	Input	DC8~36V, Ignition signal
	Output	5V@500mA
	Power consumption	29W (Maximum), ≈0W (Standby)
Mechanical	Waterproof	IP54
	Dimension	167.3x146.3x54.1mm/6.58”x5.76”x2.13”
	Weight	0.83.kg / 1.83lbs
Environmental	Operating Temperature	-40℃~+70℃ / -40℉~+158℉(with heater) -10℃~+70℃ / -14℉~+158℉@ RH 8%~90% (No Condense)
PC Software		VMS 2.0
Certifications	EU / USA	CE, FCC

(*) Optional functions

Optional Accessories

GPS Module and Antenna

GPS data can be recorded into MDVR video files for playback and reported to CMS for real time vehicle positioning.


4Pin Male-Female Din-jack Cable

Din-aviation cables are used for MDVR installation in the vehicle. 4 pins (video/audio/ground/power) can provide the power for cameras. Available in different lengths (1.5m,3m,5m,7m,9m,11m,13m,15m,20m or customized) to suit all kinds of vehicle installation.

Serial Expansion Box

Integrate the interface of RS-232 and RS485 to realize the serial communication between external device and MDVR.

Serial Transform Cable

Alarm and I/O Cable

6pin Aviation to RJ45 Cable

A/V Out Cable

Amplifier & Speaker Transform Cable

6-Axis Sensor (G-force Sensor)

Determine a vehicle sharp turns, braking, intense bumps, rollover, fast changing lanes, S deformation tract and other bad driving habits by the detecting module and correct these bad behaviors via management system.

CP4 Control Panel

The multi-functional Control Panel used for Bus Dispatch System, featuring built-in amplifier, RFID, 7 inch LCD, station announcement.

LED Display Panel

Designed for easier checking of Mobile DVR working status. Any of the LED flash will indicate the corresponding status.

Easy Check

A device management software running on Android tablet, allowing user to manage the MDVR conveniently via the software in WIFI environment, thus improving working and mainteniance efficiency.

UPS (Uninterrupted Power Supply)

A high-performance back-up power solution, using internal electronic circuit to measure, calculate and storage battery data, which makes the use and management of power supply more predictable.

Fireproof Box

Specially designed for anti-fire and anti-explosion to protect the video files in the last minutes of the accidents with built-in 32GB memory.

Back Cover

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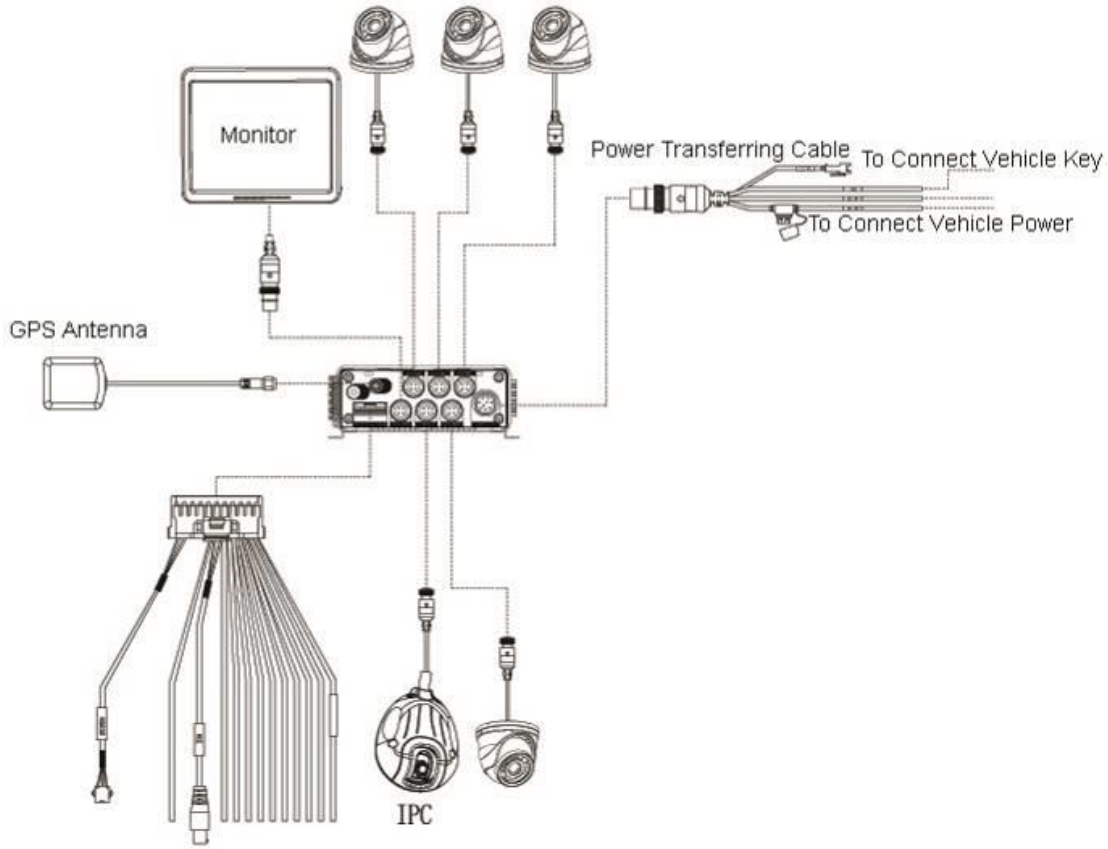
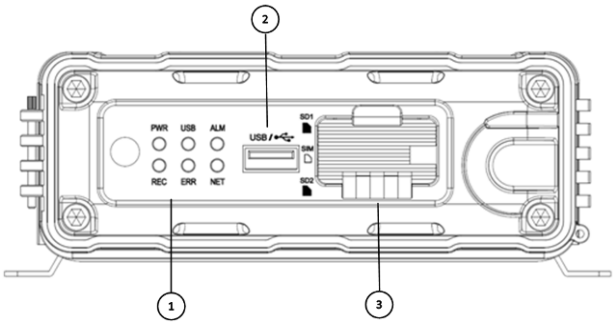
System Diagram



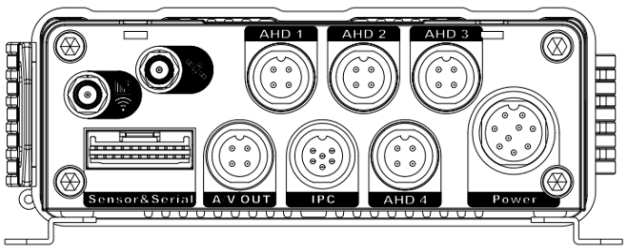
Front Panel



1. Status LED 2. USB port 3. Dual SD card slot

- ○ PWR Power indicator lamp: Blue
- ○ ALM Alarm indicator lamp: Red when alarm triggerred, or light off.
- ○ REC Record indicator lamp: Green when HDD or SD is recording.
- ○ ERR Error indicator lamp: Red when SD card works abnormally.
- ○ NET Network indicator lamp: Green when there is 3G/4G module, otherwise, it is light off. It flashes when there is network.

Rear Panel



1.	Power	DC 8-36 V Power Input
2.	Sensor & Serial	The Interfaces of Serial Port and Switch
3.	AHD 1~4	Audio & Video Input 1-4
4.	A/V OUT	Audio & Video Output
5.	IPC	The Interface of PON Power Supply
6.		GPS Antenna Interface

Storage Capacity Calculation

① **Image Quality and Stream**

Resolution	Image quality	1	2	3	4	5	6	7	8
Stream (Kbps)	720P	6144	4800	4128	3456	2784	2112	1440	768
	WD1	2662	1997	1599	1331	1170	1040	936	832
	WHD1	1664	1248	998	832	728	650	585	520
	WCIF	1040	780	624	520	455	405	364	325
	D1	2048	1536	1230	1024	900	800	720	640
	HD1	1280	960	768	640	560	500	450	400
	CIF	800	600	480	400	350	312	280	250

② **Record File Size Calculation**

Each channel record file size:

Recording time (s) x Stream (Kbps) / 8 / 1024 = File Size (MB)

For instance, the file size of the image 1 at D1 resolution within 1 hour:

3600 x 2048 Kbps / 8 / 1024 = 900 MB

③ **Image Quality and Resolution**

Resolution	Image quality	1	2	3	4	5	6	7	8
Record (MB)	720P	2700	2109	1814	1518	1223	928	632	337
	WD1	1170	878	702	585	514	456	411	365
	WHD1	731	549	438	365	320	285	257	229
	WCIF	456	343	274	229	199	178	160	143
	D1	900	675	540	450	395	351	316	281
	HD1	562	422	337	281	246	219	198	176
	CIF	351	264	211	176	153	137	123	110