	Document name	Specification	Document no.	XX_20181106
	Model no.	H941	Version no.	V3.0
	Making department	R&D	Effective date	November 6, 2018

Specification


Product Name: HDD Mobile DVR

Product Model: H941

Version: V3.0

Revision History

Revision Date	Revised by	Version	Revision Content	Approved by
November 6, 2018	Mr. Que	V3.0	New proposed	

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1.Product Overview

H941 series HDD Mobile DVR is a cost-effective, functional and extensible device which specially designed for vehicle

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video monitoring and remote control. It adopts high-speed processor and embedded Linux platform development, combined with the most advanced technology in IT field, such as H.264 video compression&decompression, network, and GPS. Using HDD&SD card as storage medium, which can realizes functions like video&audio record in 4ch D1/720P/1080P AHD, 2Ch D1+2ch 1080P AHD, 2ch D1+2ch 720P AHD, 2ch 720P+2ch 1080P AHD format, vehicle information record and GPS signal uploading. Working together with CMS can realize central monitoring of alarm linkage, remote management and playback analysis. It has simple outlook but with strong anti-vibration capability. It's functional, reliable and easy-installed.

2. Document Purpose

Establish clear technical data to help users know better about our products, and to be convenient for customers to analyze project requirements. Software designers, testers, engineers and sales could take this file as a guidance document.

3. Application Range

This specification apply to our H941 series HDD mobile DVR, and can be used as a basis in production inspection and outgoing quality control. It is also applicable to contrast analysis of project technical requirements.

4. Reference Standard

Refer to below standards:

Electrical safety standard: GB/T 4776-2008, and other safety standard

- ★ Hardware implement AES/DES/3DES and other encryption-decryption algorithms
- ★ Digital watermark technology

5. Product Outlook




Front



Rear

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6. Specification Parameter

Specification Parameter		
Model		
System	Operation language	Chinese/English
	Operation interface	Graphic operation interface(OSD menu)
	Password security	Two-level administration: user password and administrator password
Video	Video input	Support 4ch 1080P AHD video input Support 4ch 720P AHD video input Support 4ch D1 video input Support 2ch 1080P AHD + 2ch 720P AHD video input Support 2ch 1080P AHD + 2ch D1 video input Support 2ch 720P AHD + 2ch D1 video input
	Video output	1ch video output(V-OUT), 1ch VGA video output
	TV system	PAL/NTSC(PAL@100 frame 1080P; NTSC@120 frame1080P)
	Image compression standard	H.264 Main profile
	Resolution	Support 1080P, 720P, D1
	Dual stream	Support
	Video display	1ch/4ch display; Supports full screen display of event triggers
Audio	Audio input	4ch audio input
	Audio output	1ch audio output(A-OUT)
	Recording method	Synchronous recording in audio&video
Image processing&storage	Local record format	1080P/720P/D1/HD1/CIF optional
	Video streaming standard	ISO14496-10
	Video bitrate	CIF: 1536Kbps ~ 128Kbps, HD1/D1: 2048Kbps ~ 400Kbps, 720P: 4096Kbps ~ 1024Kbps, 1080P: 5120Kbps ~ 2048Kbps, 4 Grades optional. Highest: Grade 1; Lowest: Grade 4
	Audio bitrate	40KB/s
	Data storage	Support 1*SATA hard disk/SSD, up to 2TB; and 1*SD card, up to 256GB
Alarm	Alarm input	4ch alarm input
	Alarm output	2ch alarm output, highest output level: 12V
	RS232 interface	Support
	RJ45 Network interface	Support 1*6 pin aviation port to RJ45 network interface, support local network connecting with server
	USB interface	Support 1*USB interface for software upgrading and record file copy
	IR interface	IR extension interface,support remote control data reception
Wireless communication	3G	Build-in 3G module optional (HSUPA /HSDPA /WCDMA /EVDO /TD-SCDMA)
	4G	Build-in 4G module optional (FDD-LTE/TDD-LTE)
	WIFI	Build-in WIFI module optional (2.4/5.8GHz)
GPS system	Support build-in GPS module; geographic coordinates and speed could be written into coding streaming and uploaded by wireless network	
G-sensor	Build-in G-Sensor; support triaxial motion detection and user setting of X, Y and Z coordinates	
Matching software	Playback analysis in PC	Video playback in PC, and analyze vehicle info in files

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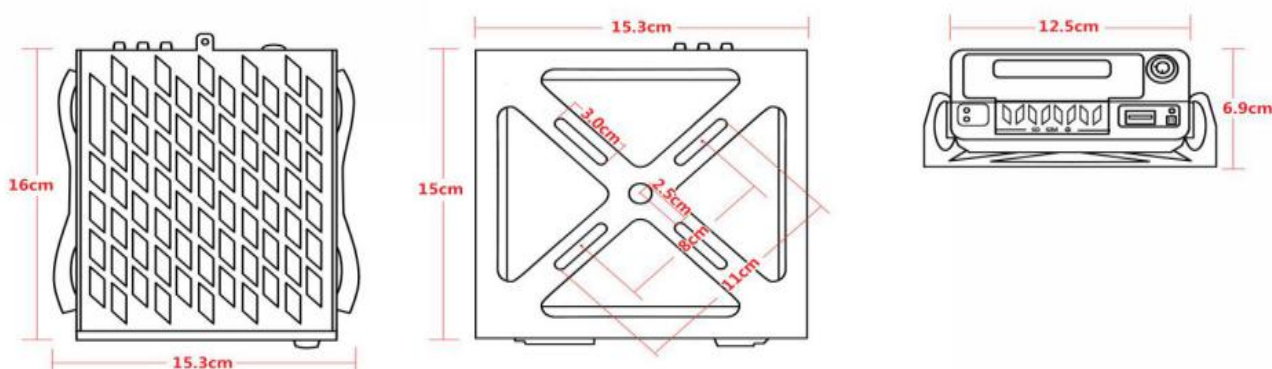
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	CMS	Video preview, GPS uploading, alarm uploading, commands issuing by monitoring center and parameter configuration could be realized by wireless network
Software upgrading	Upgrading maintenance	USB upgrading, Hard disk upgrading, SD card upgrading and CMS remote upgrading supported
Dimension	Dimension	160.00 x 153.00 x 69.00 mm

7. Electrical Parameter

Electrical parameter		
Power input	8—36V	Power input: +8V~+36V; always < 8V or >36V, auto power-off will start and enter into protect mode.
Power output	12V	Power output: 12V (+/-0.2V) ; max current 2A
ACC signal	≤4V	Car key close
	≥5V	Car key open
Video input impedance	75Ω	Input impedance for each channel is 75Ω
Video output voltage	2Vp-p	Output: 1*2Vp-p CVBS analog signal; input of display device should be matched with 75Ω impedance
I/O interface	< 3V	Low level alarm
	> 4V	High level alarm
Operating temperature	-20°C-60°C	Referring to excellent ventilation conditions

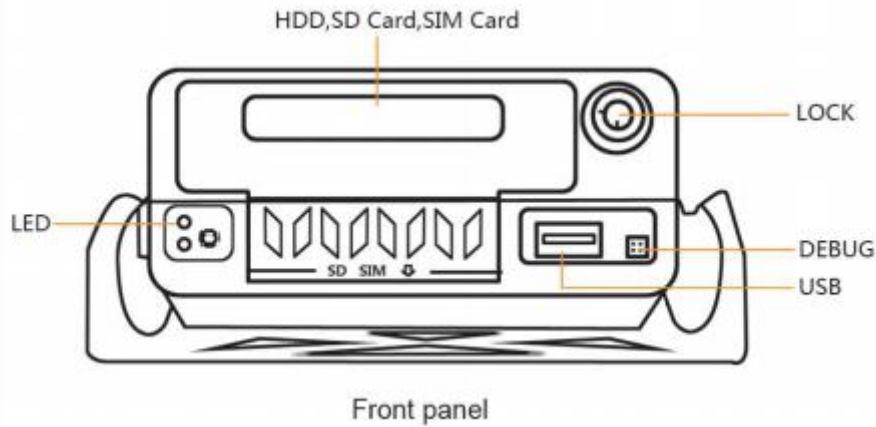
8. Structural Dimension



9. Lights and Interface Definition of Front Panel

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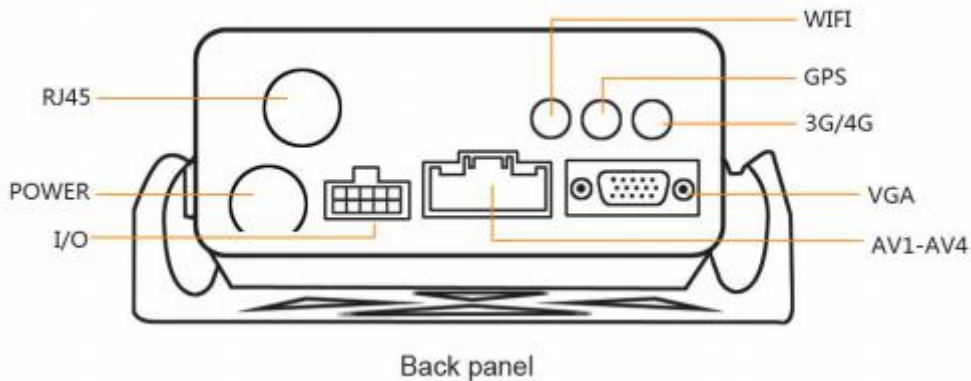


Port	Name	Description
Indicator light	PWR	Power light. Light will be on when the power supply can work normally
	Run	If keep on means system is normal, but no recording. If flash means system is recording.
IR	IR	IR receiver. Infrared sensor for receiving remote control signal
LOCK	LOCK	Lock:Device boot, No allow to take out the HDD. Un-Lock: Device off,HDD can be taken out
USB	USB2.0	Insert U-Disk,used for upgrade the device software and copy the device setting parameters.
Fault detection	MCU/ICP debugging port	Debugging port for R&D

10. Interface Definition of Back Panel

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Description of MDVR back panel

Port	Name	Description
Power	Power input interface	8V~36V wide voltage power input interface
GPS	GPS antenna interface	GPS Antenna interface
WIFI	WIFI antenna interface	Internal local area network WIFI antenna interface
3G/4G	3G/4G antenna interface	3G/4G antenna interface
ALARM IN/OUT	ALARM input/output and I/O interface	ALARM input/output interface(high level>4V ,low level<4V valid)
AV Interface	Audio/Video-IN/OUT interface	Audio/Video-OUT interface,output to the display and speaker. Audio/Video-IN interface, connect to cameras
VGA Interface	VGA interface	Video output interface
ICP	ICP interface	IPC/Internet interface


11. Selection Guide

Model	G-Sensor	GPS	3G WCDMA	4G TDD/FDD	WIFI
H941C	√	×	×	×	×
H941B	√	√	×	×	×
H941A	√	√	√	×	×
H941A_4	√	√	×	√	×
H941AW	√	√	√	×	√
H941AW_4	√	√	×	√	√
H941BW	√	√	×	×	√

12. Accessories

Description	Picture	Quantity (PCS)
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MDVR		1	
Power cable		1	
I/O cable		1	
A/V cable		1	
Key		2	
3G/4G antenna(optional)		1	
GPS antenna(optional)		1	
WIFI antenna(optional)		1	
Speaker handset(optional)		1	
Remote control(optional)		1	

13. Attention

1. Please ensure the vehicle voltage is between 8V-36V before connecting, or will damage the MDVR.

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2. Need to be insulated at the junction after link up the cable to prevent the short circuit occurred to burn the battery and the device.
3. The ACC line(the yellow one) of the power cable should be connected to the ACC switch line, or the device unable to achieve delay off function, which will cause the video loss or failure in triggering the start of system via ACC.
4. The vehicle must take power from the positive and negative of the car battery line directly, can not overlap the car wire shell as ground, otherwise it will have a negative pulse interference to the device normal running, power supply line must be more than 1.5mm caliber.