Vehicle Terminal Device

Product User Manual

Product Name: Mobile Digital Video Recorders

Product model: ED08R

Please read the installation user manual carefully before installation and using.

Part of the product's functional structure is subject to change without prior notice. The actual product shall prevail, and the final interpretation right belongs to our company .

Product Composition and Interface Definition

1. Product overview

The vehicle video monitoring terminal integrates 4G communication , GNSS positioning, ADAS advanced driver assistance system, DMS driver monitoring system, supports 8-channel audio and video recording, SD card and hard disk storage, driving data recording, two-way conversation initiated by the monitoring terminal, real-time Monitoring and other functions, support seamless docking with customer monitoring systems. Widely used in taxis, online car-hailing, small trucks, engineering vehicles and other industries.

2. Product specifications

Product Name: Mobile Digital Video Recorders

Product model: ED08R

Product size: L170 mm*W150 mm*H65 mm

3. Product configuration list

Table 1 Standard configuration list

serial number	name	quantity	unit	Remark
1	the host	1	pcs	
2	power cable	1	pcs	16 PIN, including power line and

				IO detection line
3	GNSS positioning antenna	1	pcs	
4	4G communication antenna	1	pcs	
5	power key	1	pcs	for equipment opening and closing
6	screw	4	pcs	fixed equipment
7	manual	1	pcs	
8	neutral packing box	1	set	
9	A DAS camera	1	pcs	ADH 720P/1080P , built-in AI alert speaker
1 0	A DAS camera extension cable	1	pcs	3M _
1 1	DMS camera	1	pcs	AHD 720P/1080P
Note: The above is a list of the standard configuration of the complete set of products, and accessories that are out of the above range must be paid extra fee				

Table 2 Optional list

serial number	name	Remark
1	AHD camera	AHD 720P or 1 080P (with infrared and audio)
2	camera extension cable	5m/10m
3	VGA screen	7 inch
4	SD card	Class10
5	hard disk	Solid state or mechanical hard disk
6	Intercom pick-up	for hands-free two-way talk
7	Speaker	For calls, voice broadcast (Over-speed broadcast, etc.)
8	WIFI antenna	Optional WiFi module at the same time
9	Velcro	fixed host
10	SOS button	
11	cable ties	For installing and fixing the wiring harness
Remarks : Two-way communication needs to be equipped with a pickup and a speaker		

Chapter 2 Machine Parameters

2.1 Parameter indicators

technical indicators

technical item		technical indicators
operating system	operating system	Linux
hardware solution	microprocessor	4- core A7
	cache	8GB
	Memory	1GB
video	AHD720P / 1080P	8 channels 720P (1280*720) or 1 080P (1 920*1080)
	output	1 channel VGA
audio	enter	7- channel audio (PCM format), AV3-AV8 , pickup
	output	2-way audio (PCM format), speaker and AI reminder speaker
show	screen display	8- way screen display
video	Audio and video compression format	Audio g711A, video H.264
	Image Resolution	720P (1280*720) or 1 080P (1 920*1080)

	real time video	8 way
	time-lapse video	After the ACC is turned off, the default 300-second delay video, Delay parameters can be set in the range : 1 0-65535s
play back	playback channel	Local 8-channel synchronous playback, monitoring end single-channel playback
network	2G/3G/4G	LTE FDD: B2/4/5/7 LTE TDD: B66 WCDMA: B2/4/5 GSMGSM850 PCS1900
storage	hard disk	1 hard drive, the capacity can be expanded up to 2 TB
	SD	Single SD card, maximum support 256 GB

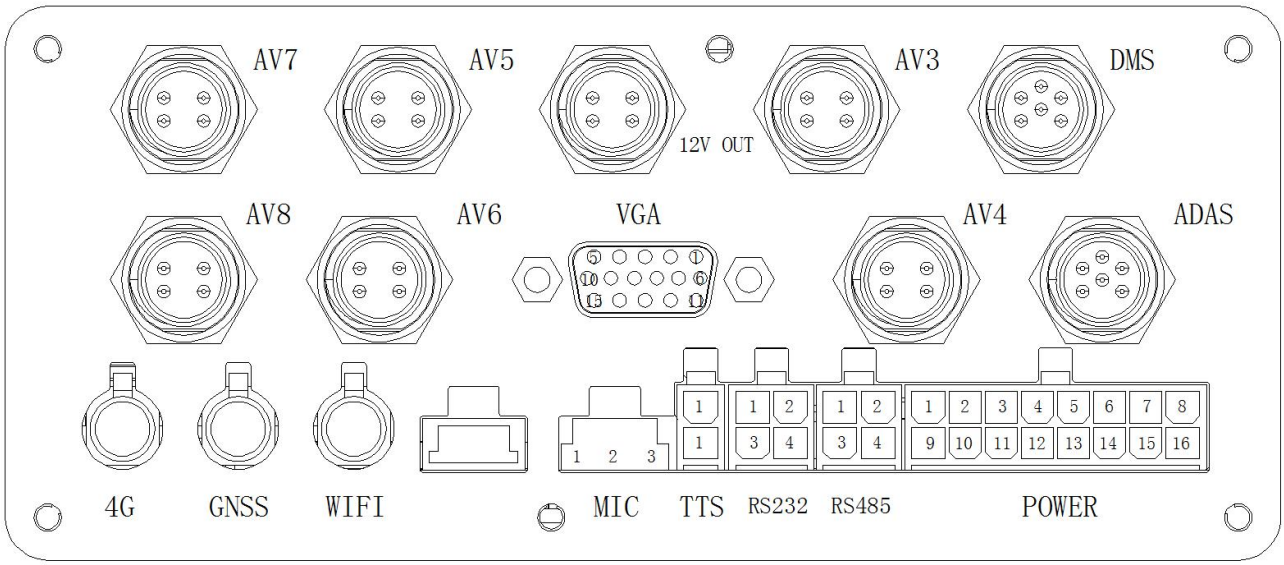
Interface Features

Interface Features		Interface Description
interface	Front USB interface	AI (ADAS and DMS) calibration, parameter setting
	SIM card	Single card (for GNSS data upload and video data transmission)
	SD card	Single SD card, maximum support 256 GB

	hard disk	2.5 -inch hard drive with a maximum capacity of 2 TB
	DMS	Connect to DMS camera
	A DAS	Connect A DAS camera
	A V3-AV8	Connect A HD camera
	1 2V OUT	V GA display power supply
	VGA _	VGA signal output, optional external VGA display
	M IC	Pickup for two-way talk and audio monitoring
	TTS	Two-way conversation, voice broadcast
	RS485 interface	Connect peripherals, such as: load sensor, gimbal
	RS232 interface	Connect peripherals, such as: oil volume collector, temperature collector
other features	Operating Voltage	DC 9-36V
	Working current	600mA@12V, 300mA@24V
	Standby power consumption	60mA @12V, 3 3mA@24V
	spare battery	It can work for 15S after the device is powered off
	Host size	L1 70 mm*W150mm*H 65 mm
	Host weight	About 1260g

	Operating temperature	-25°C — +80°C
	Storage temperature	-40°C — +85°C

2.2 Product interface definition



Terminal rear panel interface diagram

16PIN POWER interface definition

foot position	Function	illustrate	foot position	Function	illustrate
1	custom high 1	Purple injection green (optional)	9	ACC	orange

2	custom high 2	Yellow and black (optional)	10	brake	yellow
3	Low beam lights	brown	11	robbery	pink
4	High beam	green	12	custom low 2	Red and green (optional)
5	Magnetic door	white (optional)	13	custom low 1	Red note white (optional)
6	turn right	gray note white	14	turn left	Ash
7	cut off fuel	Purple (optional)	15	speed sensor	blue (optional)
8	power negative	black	16	Power positive	red

Definition of transparent port

foot position	Function	illustrate	foot position	Function	illustrate
1	X _	take over	3	ground wire	grounding
2	T X	send	4	5V	power supply

TTS interface definition

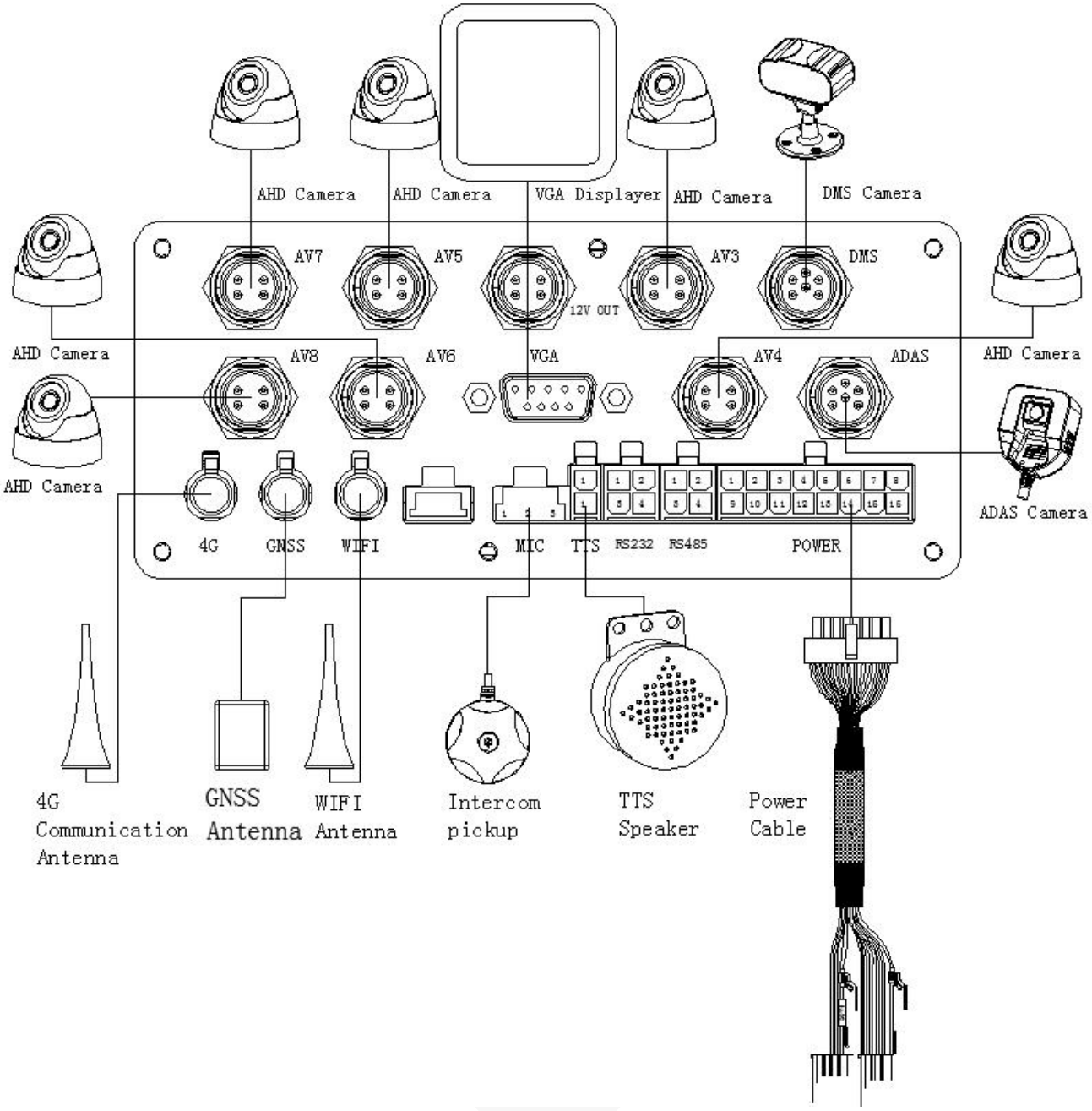
foot	Function	illustrate	foot	Function	illustrate

position			position		
1	SPK+		2	SPK-	

Pickup interface definition

foot position	Function	illustrate	foot position	Function	illustrate
1	MIC+		2	MIC-	
3	GND				

2.3 Product Connection Diagram



2.4 Operating Instructions

2.4.1 Indicator light definition

name	Indicator Status Description	
Indicator Definition	red light	Steady on: No SIM card detected. Blinking (slow): SIM card detected, but not online yet Blinking (fast): online Blinking (short and fast): received data from the service center
	yellow light	Steady light: The positioning antenna is not connected properly or not connected Blinking (slow): not located Blinking (fast): located Long off: The positioning module is abnormal
	blue light	Long off: ACC is off or the safety door is not closed or the power supply voltage is too low Steady light: system abnormal Blinking: The system is working normally

	green light	Long off: no SD card or hard disk detected Steady light: SD card or hard disk failure Blinking: SD card or hard disk is working normally

2.4.2 Functional operation

Online settings	IP settings	Send instructions via SMS or text messages on the monitoring terminal : <SPBSJ*P:BSJGPS*D:047.100.237.015,7788*T:047.100.237.015,6608*A:CMNET,admin,123456*N:13333223344> Note D is IP1; T is IP2
	domain name settings	<SPBSJ*P:BSJGPS*D:vdata.car900.com,7788*T:vdata.car900.com*A:CMNET,admin,123456*N:13333223344> Note D is IP1; T is IP2
Online parameter query	parameter query	Send command via SMS: <CKBSJ> or monitor send <EXTCB<CKBSJ>>
SMS version query	version query	Send commands via SMS: <CKVER>

Monitor version query	Query all versions	<EXTFE0> through the monitoring terminal
Note: The unified IP format is: **219.133.034.098,7788 where the IP field is less than 3 digits, and the front is filled with 0;** The uniform format of the domain name is: vdata.car900.com,7788		

Chapter 3 Common Problem Analysis and Solutions

Symptoms	Cause Analysis	solution
The device is not online	SIM card has no valid 3G/4G traffic	Contact the network operator to pay the fee
	Online parameter setting error	Refer to the manual to reset the parameters
	Is the SIM card in good contact?	Reinstall the SIM card
	Abnormal communication antenna	Retighten or replace the communication antenna
	The vehicle is in an underground parking lot, and the tunnel signal is weak	Stay out of poor signal areas
video can't	SIM card has no valid 3G/4G	Contact the network operator to pay

open	traffic	the fee
	the lock is opened	locked
	ACC off	Check the ACC line
	The vehicle is in an underground parking lot, and the tunnel signal is weak	Stay out of poor signal areas
unable to locate	Vehicles in underground parking lots, tunnels	leave the above area
	The positioning antenna is installed too close to the host	The antenna installation position is more than 0.5 meters away from the host
	The receiving signal surface of the positioning antenna is blocked	remove occlusion
	Locating Antenna Open Circuit	Tighten and locate the antenna interface or check the line
	Locating Antenna Faults	Replace the positioning antenna
	Locating Antenna Intertwined with Other Lines	Locate the antenna and try to route it alone, 50CM or more away from the device
no video	SD card/SSD failure	Replace with a new SD card/SSD
	ACC off	Connect the ACC line

	the lock is opened	locked
	Manually stop recording	Start recording via LCD screen or remote command
disk not recognized	SD card/hard disk failure	Please confirm whether the SD card is inserted in place; please confirm whether the hard disk is pushed to the end

Attention:

1. Please do not intertwine the 4G antenna, positioning antenna, video cable, and power cable during installation. They need to be routed separately. In order to reduce interference, the 4G antenna and positioning antenna should be installed at a distance of 50 cm or more from the device, and the antenna cannot be blocked by metal objects.

2. The device will only start recording when the ACC is on and the door lock is off. You can observe the blue and yellow indicator lights (refer to the status description of the indicator lights) to confirm whether the device is recording normally. Every time the device is powered on, it will automatically detect the status of the storage medium. If the storage medium is not inserted or the storage medium is damaged, the device will give a voice prompt that the storage device is abnormal.

3. After the hard disk is taken out, please handle it with care to prevent it from being damaged by external force during the moving process.

4. For 12V battery cars, please connect the following 4 cameras.

5.Stay away from water.

Chapter 4 Radio frequency information

This mobile phone offers the following frequency bands in U S A areas only andmaximum radio-frequency power:

GSM 8 5 0 : 33dBm

PCS1900: 30dBm

WCDMA band 2 /4/5: 25dBm

LTE band 2 /4/5/7/66: 25dBm

Wi-Fi 2.4 GHz band: 1 5 dBm

The distance between user and products should be no less than 20cm.

There is no restriction to use this product across the U S A contries.

FCC Warning

This device complies with part 15 of the FCC rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Radiation Exposure Statement

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator and your body.