ZenduCAM LITE

Specification

Document Type	**Confidentiality**
Product Specifications	Direct to customers
Version	
V 1.0	* pages in total

Drafted By	
Approved By	

Revision History

Date	**Version**	**Description**	**Author**
2022/4/26	V1.0	First draft	Zhang Dao
2022/5/5	V1.1	Modify product specifications and dimensional drawings	Wang Xiaoyong

Product Overview

As a professional, user-friendly and cost effective dash camera with built-in AI processor, ZenduCAM LITE supports 2-channel 2K UHD video recording, dual Micro SD card storage, and dual-stream video recording. It can record road conditions and driver conditions in real time. In addition, it can upload video in real time to a monitoring platform that can be reviewed by fleet managers to help fleets guide drivers and reduce traffic risks.

Product Features

- 2MP resolution with 143° DFOV for road facing camera, 2MP resolution with 170° DFOV for cabin camera
- Support up to 2-channel video recording, H.264/H.265 video coding
- Dual Micro SD card storage, supporting dual-stream recording
- Built-in Wi-Fi and 4G module
- Support 4-channel I/O input, 1 channel CAN and 1 channel RS232
- Compact Design
- Support OBD powering, easy installation
- Support sleep mode (power consumption less than 0.1W)
- Support echo suppression algorithm to improve the quality of two-way voice intercom
- 6-axis gravity sensor detects intense driving behaviors (Harsh Acceleration, Deceleration, Sharp turn & Accident detection)

Specifications

Product Model: ZenduCAM LITE	
System	Embedded Linux
Language	Support Chinese, English, Spanish, Portuguese, French, Russian, Japanese
Video/Audio	
Video/Audio Recording	2 channels for video, 1 channel for audio input
Total Resources	1080@25fps (Front Lens) + 1080P@25fps (Cabin Lens)
Image Setup	Adjustable brightness, chroma, contrast, color saturation, and sharpness
Video Coding	H.264 /H.265 (default: H.265)
Audio Compression Standard	ADPCM/G.711/G.726 (default: ADPCM)
CBR/VBR	Supported. VBR or CBR (optional), VBR by default
Audio	Built-in MIC
Loudspeaker	Built-in MIC Speaker
Road facing Camera Parameters	
Sensor Type	1/2.8" 2-megapixel CMOS sensor
Shutter Speed	1/30s-1/100000s
Lens	2.6mm HFOV: 114° VFOV: 77° DFOV: 143°
Minimum illumination	Color: 0.05Lux/F1.2
Lens Mount	MDVR built-in lens

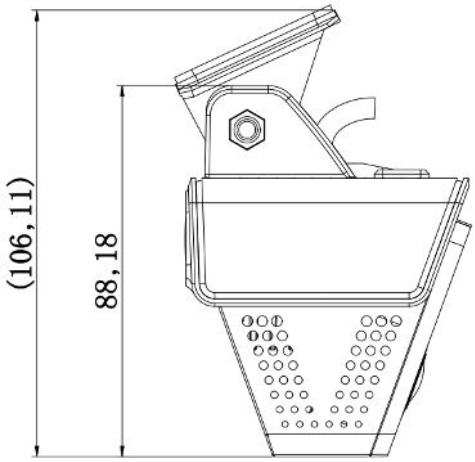
Wide Dynamic Range (WDR)	Digital WDR		
Backlight Compensation	Supported		
Signal-to-Noise Ratio (S/N)	⩾48dB		
Cabin Camera Parameters			
Sensor Type	1/2.9" 2-megapixel CMOS sensor		
Shutter Speed	1/30s-1/100000s		
Lens	2.2mm HFOV: 151° VFOV: 84° DFOV: 170°		
Lens Mount	MDVR built-in lens		
Wide Dynamic Range (WDR)	Digital WDR		
Backlight Compensation	Supported		
Signal-to-Noise Ratio (S/N)	⩾45db		
LED Indicator Status			
1. Power Status Indicator	Off/Blue	4. Network Status Indicator	Off/Red
2. Alarm Indicator	Off/Red	5. WiFi Status Indicator	Off/Red/Green
3. GPS Signal Indicator	Off/Red	6. Recording Status Indicator	Off/Red
Storage			
Micro SD card	Support two Micro SD cards, with the maximum capacity of a single card is 256 GB		
Sensor			
Six-axis Sensor	Supported, Harsh Acceleration, Deceleration, Sharp turn & Accident detection		
Engine Data Page			
CAN Data Collection	Supported		
Port			
RS232	1		
IO Port	4-channel input		
CAN	1		
USB	1 × mini USB port		
Network			
WIFI	Support 2.4G (IEEE Std.802.11a/IEEE Std.802.11b/ IEEE Std.802.11g /IEEE Std.802.11n)		
4G	Supported For North America: EC25AFXGA-128-SGAS LTE FDD: B2/B4/B5/B12/B13/B14/B66/B71 WCDMA: B2/B4/B5 For Europe and Asia: EC25-EC LTE FDD: B1/B3/B7/B8/B20/B28A		

	WCDMA: B1/B8 GSM: B3/B8 For Latin America: EC25AUXGA-128-SGNS LTE FDD: B1/B2/B3/B4/B5/B7/B8/B28 LTE TDD: B40 WCDMA: B1/B2/B5/B8 GSM: B2/B3/B5/B8
Positioning	
GPS	Supported GPS L1 1575.42MHz BDS B1 1561.098MH GALILEO E1B/C1 GLONASS L1OF 1602MHz SBAS: WAAS, EGNOS, MSAS, GAGAN
Protocol	
Network Protocol	HTTP,TCP,ARP,UDP,FTP,DHCP,DNS,IPV4,NTP
Power Related	
Power Supply	9-36V
Built-in Battery	Not supported
Power Consumption	Typical power consumption < 7 W, maximum power consumption ≤ 9 W
General Specifications	
Dimensions	113.0 mm (length) × 67.8 mm (width) × 88.2mm (height, without bracket)
Weight	MDVR: 306 g MDVR + bracket + screw + power supply box + power tail cable: 590 g
Operating Temperature	-40°C - +70°C (-40°F - +158°F)
Storage Temperature	-40°C - +85°C (-40°F - +185°F)
Humidity	15% - 90%

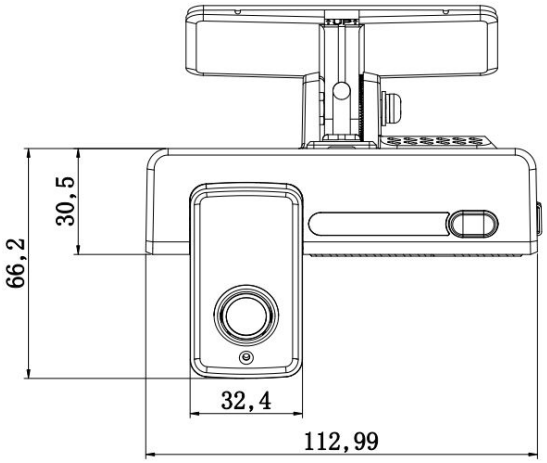
Certification Information

Certification	Time
Emark	
CE-EMC	
FCC-ID	
PTCRB	
ROHS	
REACH	
EN50155	
AT&T	
Verizon	
CE-RED	
UKCA	

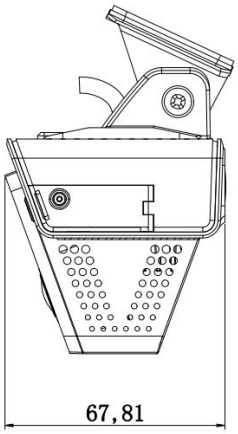
Dimensions (mm)



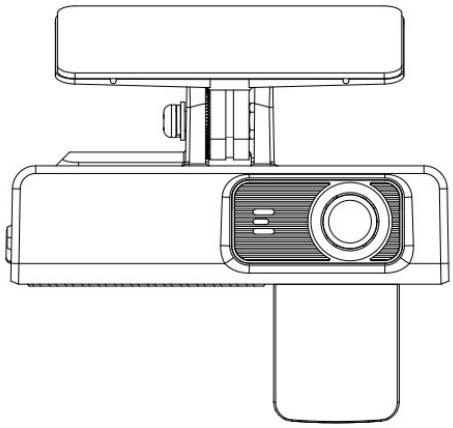
Left view



Front view



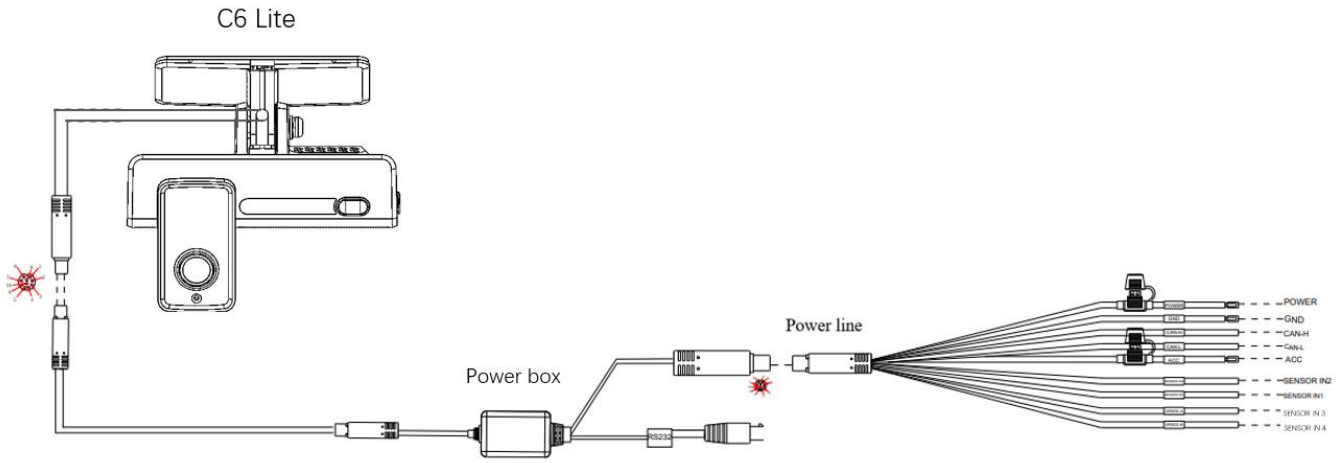
Right view



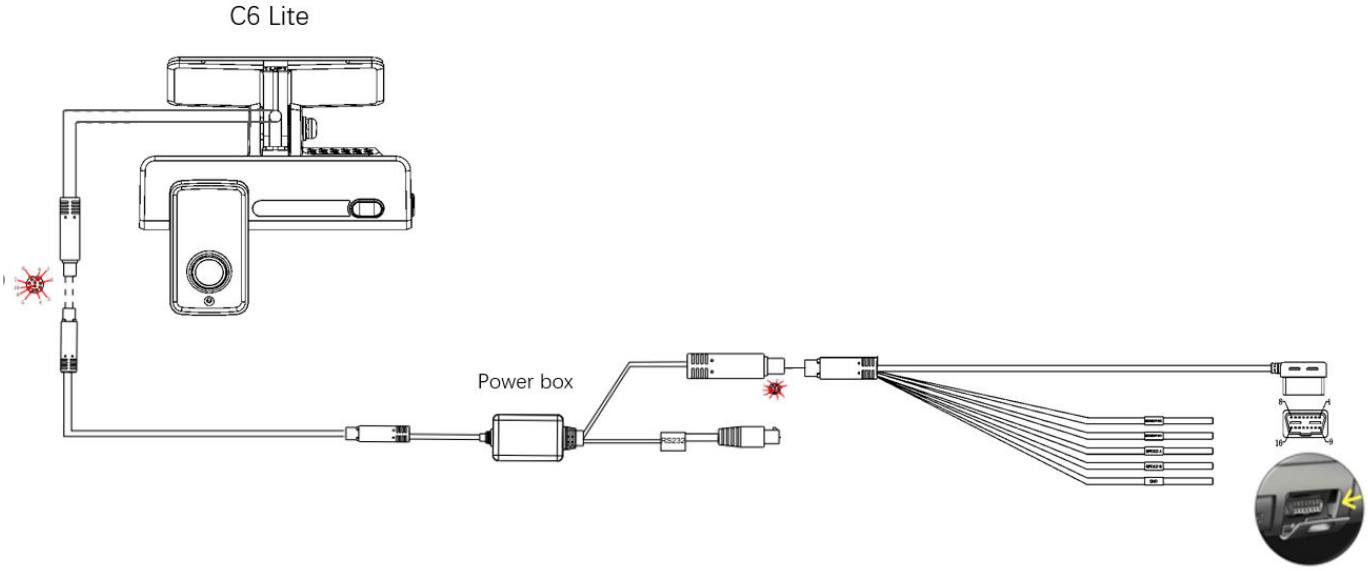
Rear view

System Connection Diagram

(1) System connection diagram for power supply through loose wire

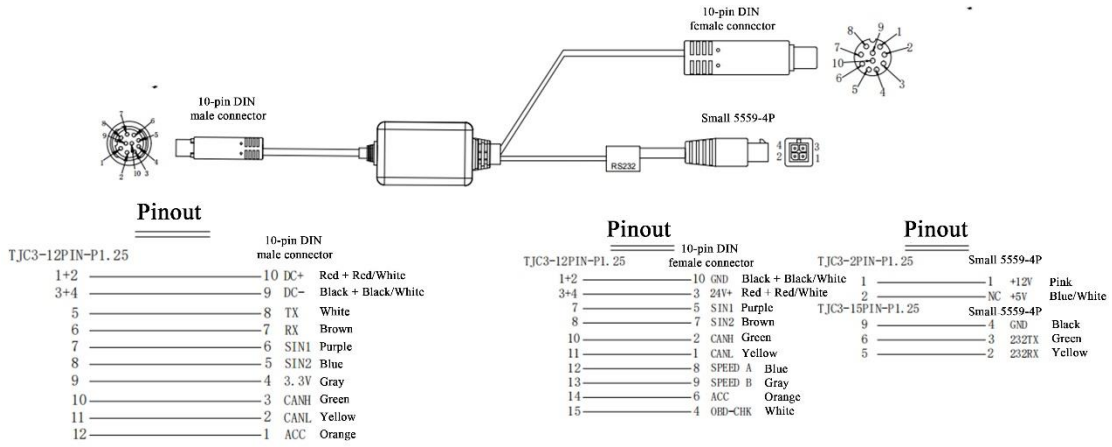


(2) OBD wiring diagram

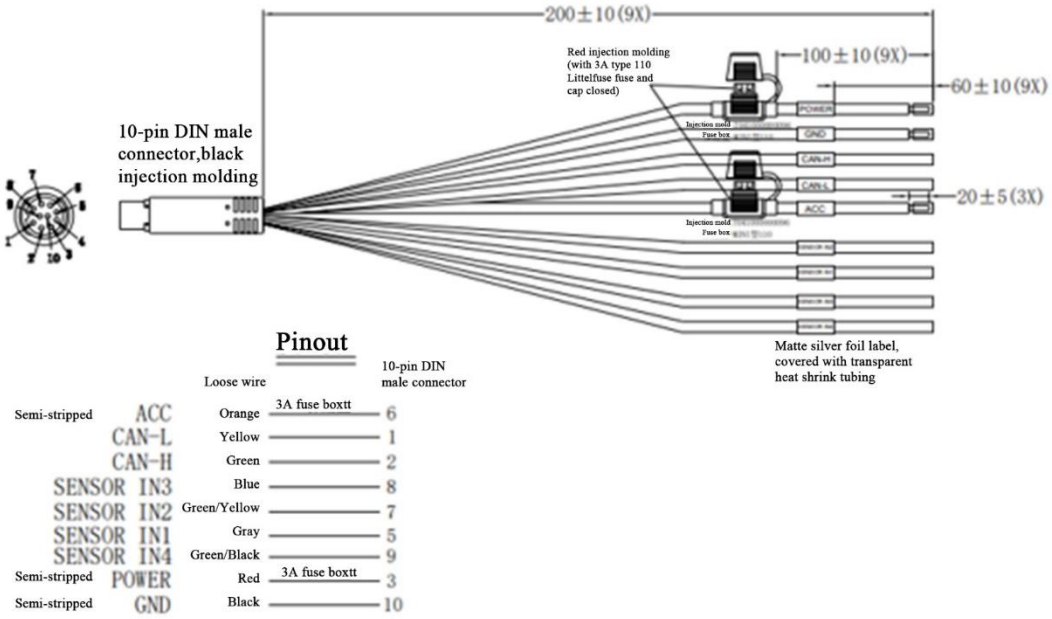


Cable Connector Pinouts

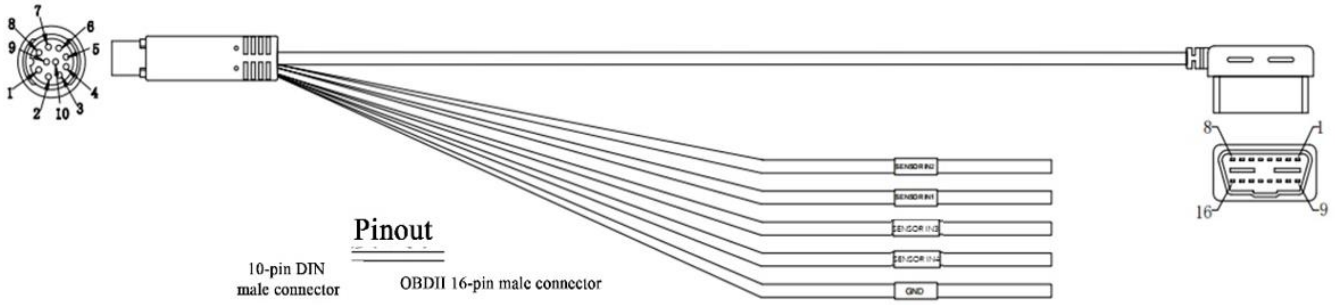
（1）Power supply box connector pinout



(2) Power output cable connector pinout



(3) OBD cable connector pinout



Pinout

	10-pin DIN male connector		OBDII 16-pin male connector
GND Black	10+4	——	4+5
CAN-H Green	2	——	6
CAN-L Yellow	1	——	14
POWER Red	3	3A resettable fuse ——	16
SENSOR IN3 Green/Yellow	8	——	
SENSOR IN2 Blue	7	——	
SENSOR IN1 Gray	5	——	
SENSOR IN4 Green/Black	9	——	
CND Black	10	——	