AEX-ST-DMC-MIDI

Midi Dashcam Specification

Overview

As a professional, user-friendly and cost effective dash camera with built-in AI processor, Midi Dashcam detects risky driving events such as lane departure warning, forward collision warning and headway monitoring warning, as well as unsafe driving behaviors such as unfastened seatbelt, using mobile phones, yawning, distraction and smoking. In addition, it can remind drivers of unsafe driving behaviors in real time and upload driving events to a monitoring platform that can be reviewed by fleet managers to help fleets guide drivers and reduce traffic risks.

Highlight

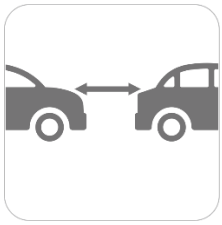
- 1080P resolution with 96° DFOV for ADAS, 1080P resolution with 170° DFOV for DSC
- Support up to 3-channel video recording, H.264/H.265 video coding
- Dual Micro 256G SD card storage, supporting dual-stream recording
- Built-in Wi-Fi and 4G module
- Support 4-channel input, 1 channel CAN and 1 channel RS232
- Compact Design
- Support OBD powering, easy installation
- Built-in ADAS and DSC, supporting AI event detection (up to 2-channel)
- Support sleep mode, remote wake-up(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)

Active Safety Features

The Midi Dashcam uses machine vision-based on Video Analysis technology to automatically identify road risks and drivers' unsafe driving behaviors. Detected events will trigger audible and visual reminders to alert drivers in real time, event recordings will be uploaded to the cloud simultaneously.

ADAS Features

LDW(Lane Departure Warning)



HMW(Headway Monitoring Warning)

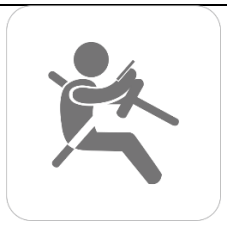
FCW(Forward Collision Warning)

DSC Features

Unfastened seat belt

Using mobile phone

Yawning



Distraction

Smoking

Optional accessories for active safety

DMS Features

A-pillar DMS

Driver Notifier (R-Watch)

Lens Covered

Fatigue

Phone Call

Smoking

Distraction

No driver detected

Unfastened seat belt

Yawning

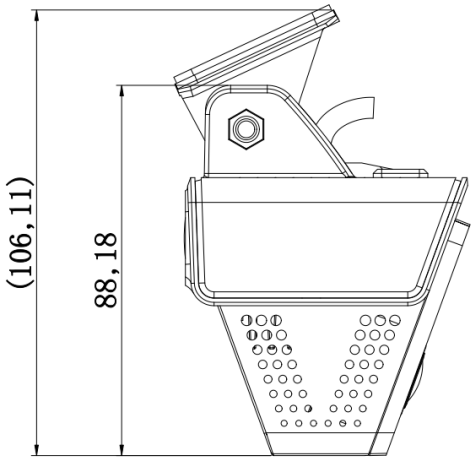
Specifications

Product Model: Midi	
System	Embedded Linux
Language	Support Chinese, English, Spanish, Portuguese, French, Russian, Japanese
Video/Audio	
Video/Audio Recording	3-channel video (default: 2 channels; extensible: 1-channel IPC) + 1-channel audio
Maximum Resources	2MP@20fps(ADAS)+1080P@20fps(DSC)+1080P@20fps(IPC)
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 3W loudspeaker
ADAS Camera Parameters	
Sensor Type	1/2.8" 2-megapixel CMOS sensor
Shutter Speed	1/30s-1/100000s
Lens	4mm HFOV: 84° VFOV: 45° DFOV: 96°
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

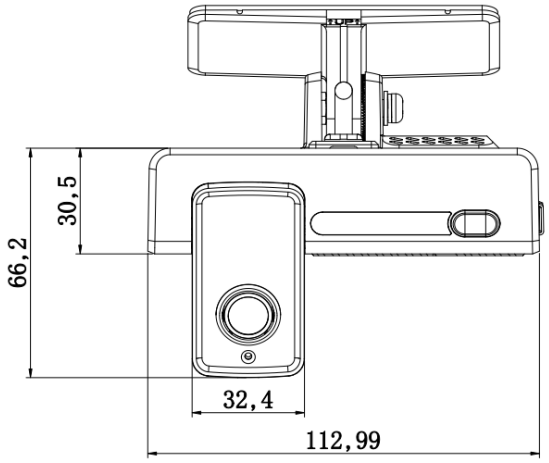
LED Indicator Status			
1. Power Status Indicator	Off/Blue	4. Network Status Indicator	Off/Red
2. Alarm Indicator	Off/Red	5. WiFi Status Indicator	Off/Red/Green
3. GPS Signal Indicator	Off/Red	6. Recording Status Indicator	Off/Red
Storage			
Micro SD card	Support two Micro SD cards, with the maximum capacity of a single card is 256 GB		
Sensor			
Six-axis Sensor	Supported		
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	Typical power consumption <8 W, maximum power consumption <12 W		

Consumption	
General Specifications	
Dimensions	113.0 mm (length) × 67.8 mm (width) × 88.2mm (height, without bracket)
Weight	760g
Operating Temperature	-40°C - +70°C (-40°F - +158°F)
Storage Temperature	-40°C - +85°C (-40°F - +185°F)
Humidity	15% - 90%

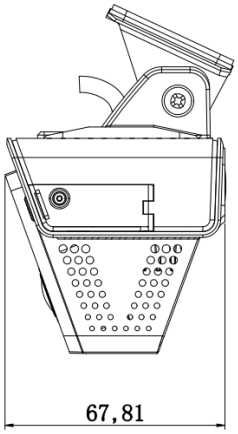
Dimensions (mm)



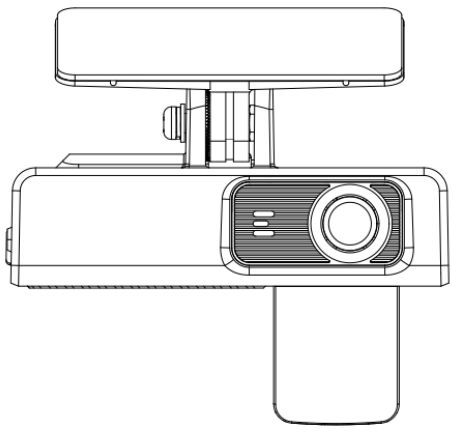
Left view



Front view



Right view



Rear view

System Connection Diagram

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

None

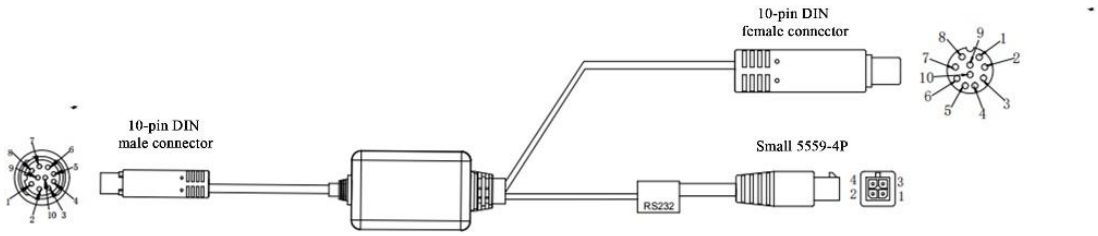
(2) OBD wiring diagram

Definition of Cable Connector Pinouts

(1) Video output cable connector pinout

None

（2）Power supply box connector pinout



Pinout

TJC3-12PIN-P1.25 — 10-pin DIN male connector

1+2	10	DC+	Red + Red/White
3+4	9	DC-	Black + Black/White
5	8	TX	White
6	7	RX	Brown
7	6	SIN1	Purple
8	5	SIN2	Blue
9	4	3.3V	Gray
10	3	CANH	Green
11	2	CANL	Yellow
12	1	ACC	Orange

Pinout

TJC3-12PIN-P1.25 — 10-pin DIN female connector

1+2	10	GND	Black + Black/White
3+4	3	24V+	Red + Red/White
7	5	SIN1	Purple
8	7	SIN2	Brown
10	2	CANH	Green
11	1	CANL	Yellow
12	8	SPEED A	Blue
13	9	SPEED B	Gray
14	6	ACC	Orange
15	4	OBD-CHK	White

Pinout

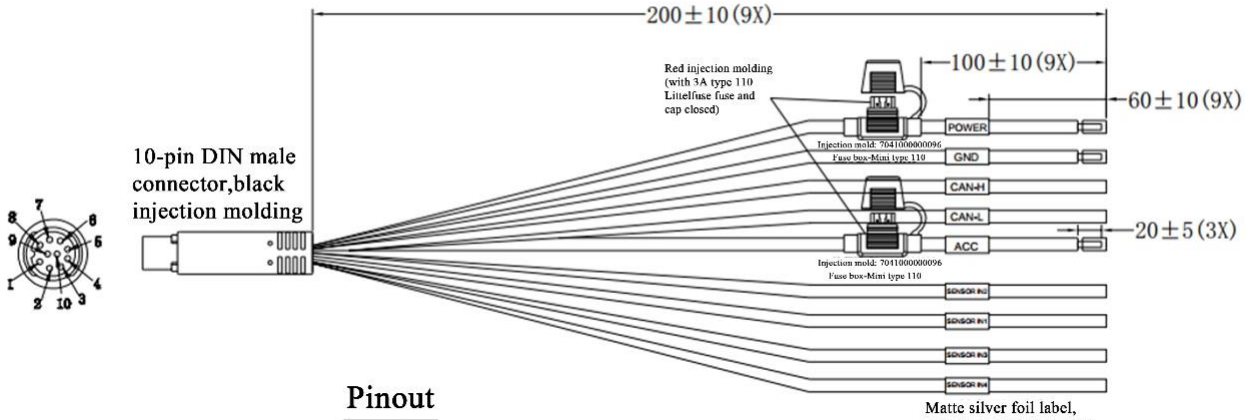
TJC3-2PIN-P1.25 — Small 5559-4P

1	1	+12V	Pink
2	NC	+5V	Blue/White

TJC3-15PIN-P1.25 — Small 5559-4P

9	4	GND	Black
6	3	232TX	Green
5	2	232RX	Yellow

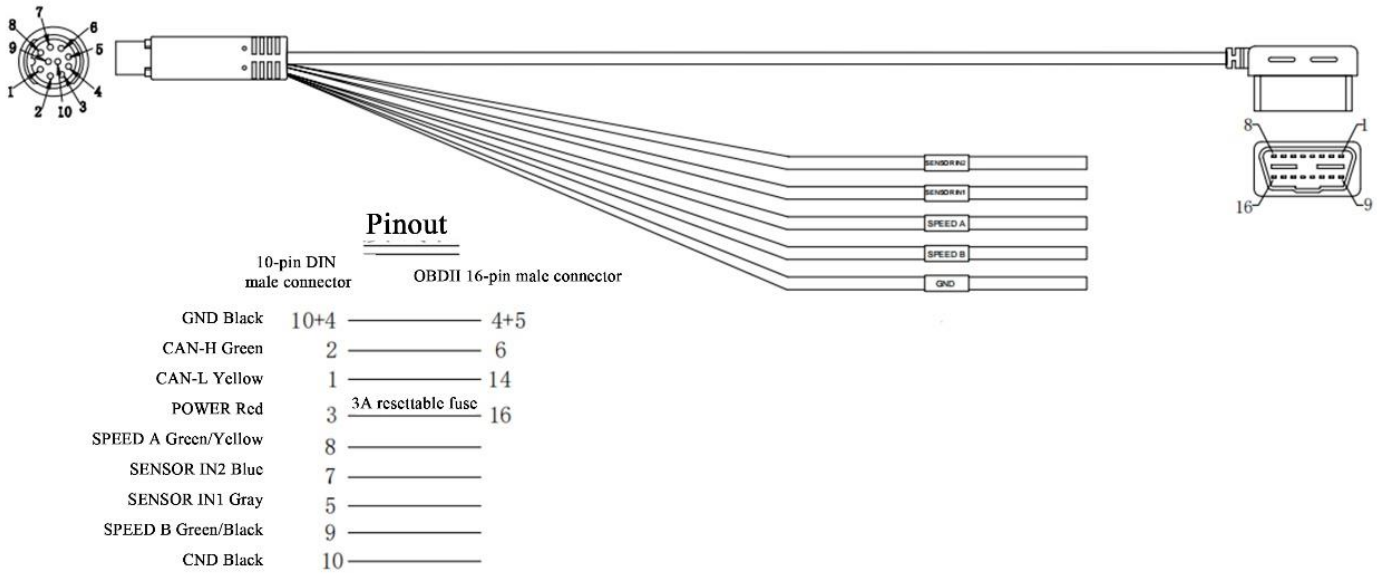
(3) Power output cable connector pinout



Pinout

Loose wire		10-pin DIN male connector
Semi-stripped ACC	Orange — 3A fuse boxtt	6
CAN-L	Yellow	1
CAN-H	Green	2
SENSOR IN3	Blue	8
SENSOR IN2	Green/Yellow	7
SENSOR IN1	Gray	5
SENSOR IN4	Green/Black	9
Semi-stripped POWER	Red — 3A fuse boxtt	3
Semi-stripped GND	Black	10

(4) 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
SPEED A Green/Yellow	8	
SENSOR IN2 Blue	7	
SENSOR IN1 Gray	5	
SPEED B Green/Black	9	
CND Black	10	