POWERFLEET®

PRODUCT SHEET



VEHICLE TELEMATICS VIDEO

VisionAI Lite

Smarter, Safer Driving with AI Dashboard Camera

VisionAI Lite is an intelligent driving recorder designed to help drivers reduce traffic accidents and assist fleet operators in improving efficiency. Using AI technology, it can actively identify dangerous driving events and poor driving behaviours, providing local real-time alerts to drivers to avoid risks and supporting event uploads to the central platform for driver training.

It offers real-time, accurate vehicle location information and operational data to fleet coordinators, along with high-quality remote intercom and video preview playback functions, reducing operational complexity and enhancing efficiency. Additionally, this product is reliable in quality, easy to install, simple to operate, and cost-effective.



AI Features

VisionAI Lite uses machine vision based on video analysis technology to automatically identify road risks and driver poor driving behaviours. Detected events trigger audio-visual alerts to provide real-time warnings to the driver, and event recordings can be uploaded to the cloud.

⚠ **Warning:** The AI functions must be calibrated and configured strictly according to the installation and usage instructions; otherwise, proper functionality cannot be guaranteed.

Features

- Front road wide-angle lens, supports up to 1080P HD recording
- Rear driving cockpit ultra-wide-angle lens, supports up to 1080P HD recording
- Supports up to 2 channels of recording and supports H.264/H.265 encoding
- Supports 2*128GB dual Micro SD card storage, supports simultaneous saving of main stream and sub stream
- Built-in Wi-Fi, 4G communication module, and standard positioning module
- Audio and video data supports AES256 encryption, data transmission supports TLS1.3 encryption protocol
- Supports 2 IO inputs, 1 IO output, and 1 selectable CAN or RS232 port
- Compact design, does not obstruct the driver's view in both large and small vehicles and also supports OBD power supply for convenient and quick installation
- Built-in ADAS function, supports lane departure, forward collision, and close distance detection. Built-in DSC function, supports detection of poor driving behaviours (Driving Safety Cockpit)
- Supports echo suppression algorithm, enhances the quality of two-way voice intercom
- Supports sleep mode and remote wake-up
- Built-in 6-axis gravity sensor, supports detection of rapid acceleration, rapid deceleration, sharp turns, and collisions



ADAS Features

LDW HMW FCW

DSC Features

- Lens Covered
- Yawning
- Handheld Devices
- Smoking
- Distraction
- No Driver
- Unfastened Seat Belt

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Technical **Specifications**

Product Model: C6 Lite2.0

System	Embedded Linux
Languages	Chinese, English, Spanish, Portuguese, French, Russian, Japanese (default: English) *Languages include interface language and voice prompts. TTS supports only Chinese and English.

Audio-Visual

Recording	2 video channels (default 2), 1 audio channel
Maximum Resources (with 2 AI channels)	1080P@25fps(ADAS)+1080P@20fps(DSC) Recommended Configuration (1080@20fps+1080P@15fps)
Video Encoding	H.264/H.265 optional (default: H.265)
Audio Compression Standard	ADPCM/G.711/G.726 optional (default: ADPCM)
CBR/VBR	VBR/CBR optional (default: VBR)
Audio	Built-in MIC
Speaker	Built-in speaker, 3W power, sound level not less than 70dB at 1m distance, adjustable volume

Front Road Camera Parameters

Sensor Type	1/2.9" 2MP CMOS sensor
Shutter Speed	1/30s-1/100000s
Lens	4mm focal length HFOV: 89°; VFOV: 46°; DFOV: 106°; Tolerance: ±5°
Minimum Illumination	Colour: 0.05Lux/F1.2
Lens Interface Type	Built-in lens
Wide Dynamic Range	Digital wide dynamic
Backlight Compensation	Supported
Signal-to-Noise Ratio (S/N)	≥48dB

Technical **Specifications**

Rear Cabin Camera Parameters

Sensor Type	1/2.9" 2MP CMOS sensor
Shutter Speed	1/30s-1/100000s
Lens	2.2mm focal length HFOV: 151°; VFOV: 84°; DFOV: 170°; Tolerance: ±5°
Lens Interface Type	Built-in lens
Wide Dynamic Range	Digital wide dynamic
Backlight Compensation	Supported
Signal-to-Noise Ratio (S/N)	≥45db
Infrared Light	Supported, with built-in ambient light sensor for automatic on/off *Day-to-night threshold: 4lux, night-to-day threshold: 8lux. Different devices may vary; subject to actual measurements.

LED Status Indicators

Power Status Light	Off/Green Light Off: Indicates the device is not powered Steady Green: Indicates the device is powered normally
Power Status Light	Off/Red Light Off: Indicates the device has not generated an alarm Red Light Flashes Three Times: Indicates the device has generated an alarm
GPS Indicator Light	Off/Red Off: Indicates device GPS positioning function is normal Steady Red: Indicates device GPS positioning function is abnormal (not positioned, module not connected, or module damaged) Flashing Red (once per second): Indicates poor device GPS positioning quality
Network Status Light	Off/Red Off: Indicates the device is connected to the server normally Red Steady: Indicates the device connection to the server is abnormal Red Blinking (once per second): Indicates the device has entered flight mode
WiFi Status Light	Off/Red/Green Off: Indicates the device is in Disable or Client mode Green Steady: Indicates the device is in AP mode Red Steady: Indicates the device WiFi is abnormal
Network Status Light	Off/Red Off: Indicates the built-in camera or extended camera recording status is normal Red Steady: Indicates the built-in camera or extended camera recording has stopped (including privacy mode) or has a fault *Recording enable (main stream, sub-stream) is turned on, and it will alert if no recording is detected. Recording enable (main stream, sub-stream) is turned off and considered normal recording status.

Technical **Specifications**

Storage

Micro SD Card	Supports Micro SD-Card×2，(SDXC 32GB/64GB/128GB/256GB/512GB) Minimum read/write speed requirement Class10, recommended Class10 and above

Sensors

Six-Axis Sensor	Supports rapid acceleration, rapid deceleration, sharp turns, and collision detection
Ambient Light Sensor	Supports day-night switching for the cockpit camera

Interfaces

RS232	1 channel Supports RS232 or CAN, one of the two options, default: RS23
IO Port	2 inputs, 1 output
CAN	1 channel (supports standard J1939 protocol) **Warning:** Since vehicle manufacturers may customize some data fields, the actual data available is subject to practical testing. If the required data is not supported, a protocol can be provided for integration development Supports RS232 or CAN, one of the two options, default: RS232
USB	1 channel, mini USB interface
Button	1button Press twice within 2 seconds to switch WIFI to AP mode *For other button functions, refer to the product user manual

Network

WIFI	Supports 2.4G (IEEE Std.802.11a/IEEE Std.802.11b/ IEEE Std.802.11g /IEEE Std.802.11n)
4G	Supports plug-in SIM card（Nano SIM card） North America: LTE FDD: B2/B4/B5/B12/B13/B14/B66/B71 WCDMA: B2/B4/B5 Europe & Asia: LTE FDD: B1/B3/B7/B8/B20/B28A

Technical **Specifications**

4G	GSM: B3/B8 Latin America: LTE FDD: B1/B2/B3/B4/B5/B7/B8/B28 LTE TDD: B40 WCDMA: B1/B2/B5/B8 GSM: B2/B3/B5/B8 **Warning:** Requires the use of industrial-grade SIM cards (MP2), regular-grade SIM cards (MP1) are prohibited. The company is not responsible for issues caused by using regular-grade SIM cards.

Positioning

GNSS	Supports GPS L1 1575.42MHz GALILEO E1B/C1 GLONASS L1OF 1602MHz SBAS: WAAS, EGNOS, MSAS, GAGAN

Power Related

Power	Supports 12V, 24V vehicles (no configuration needed)
Power Consumption	Device standby: 13.5V@4mA 27V@2mA Device sleep (only 4G, GPS, MCU powered): 13.5V@27mA 27V@13mA Typical power consumption（dual SD card installed, SIM card installed and dialing）: approximately 7W Full load power consumption（dual SD card installed, SIM card installed and dialing, WIFI on, infrared light on）: approximately 11W *All data are tested under specific laboratory conditions and may vary due to individual product differences, usage environments, and testing methods.

Environment

Operating Temperature	-40°C~+70°C（-40°F~+158°F
Storage Temperature	-40°C~+85°C（-40°F~+185°F
Operating Humidity	15% - 95% non-condensing
Storage Humidity	15% - 95% non-condensing
Protection Level	IP30 *The main unit is not waterproof

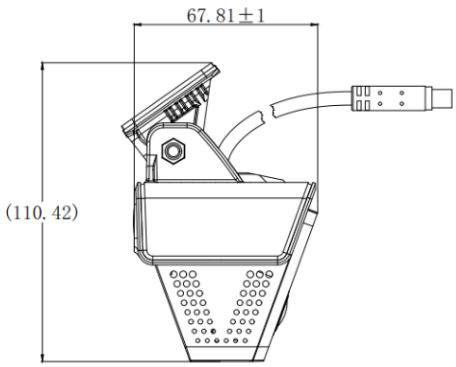
Technical **Specifications** (cont'd)

Dimensions & Weight

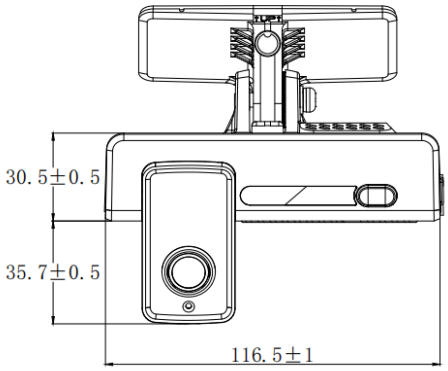
Dimensions (LxWxH)	116.5 × 67.8 × 110.42
Weight	Net weight (device main body): 313g Gross weight (accessories and packaging): 610g Tolerance ±10g

*Actual dimensions and weight may vary depending on configuration, manufacturing process, and measurement methods.

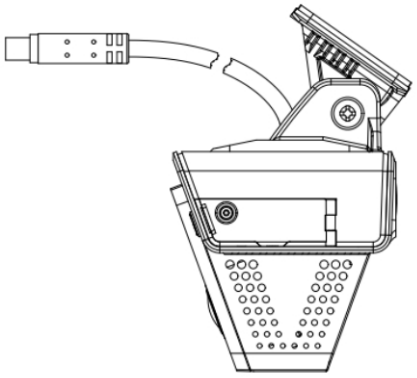
Dimension Diagrams (Unit: mm)



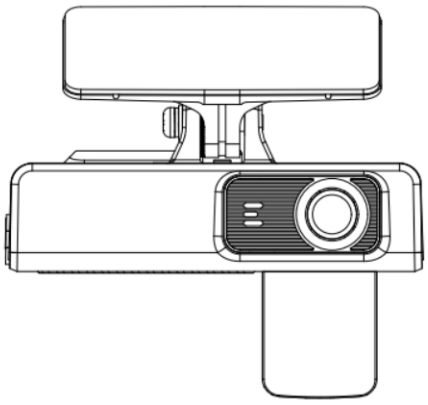
Left View



Front View



Right View



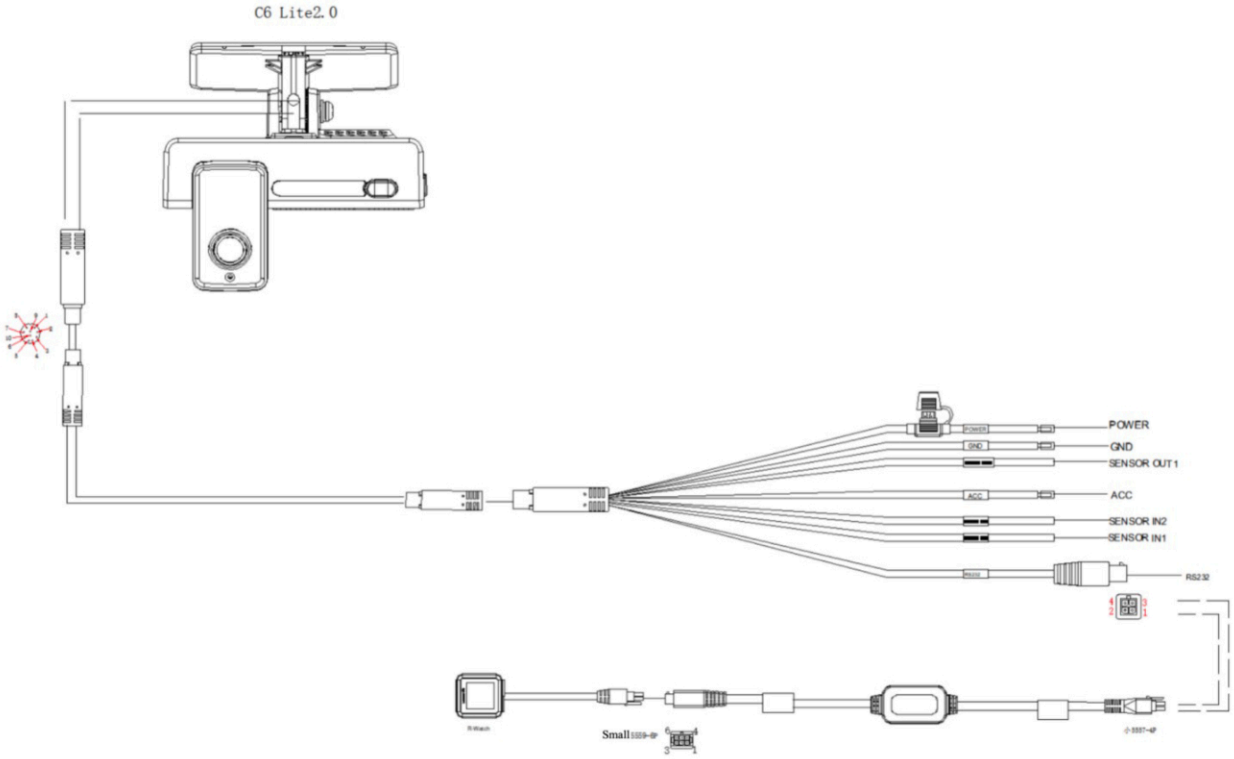
Rear View

System Connection Diagram

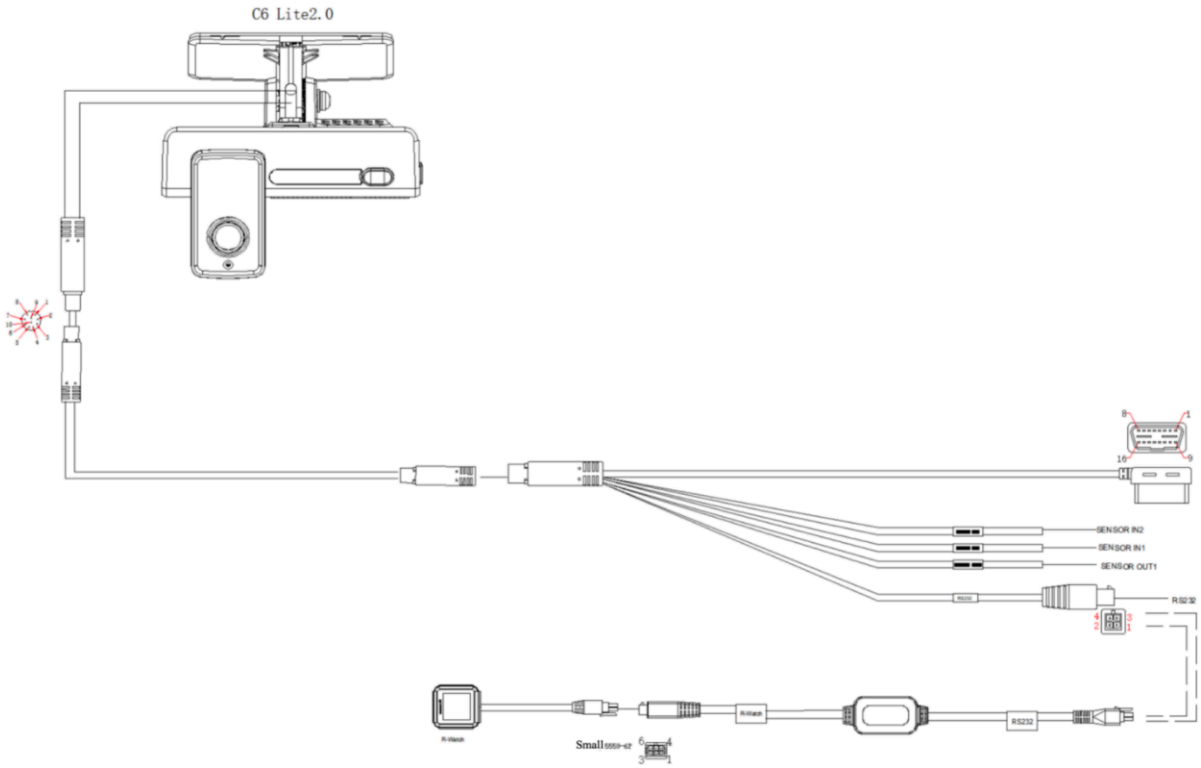
The standard shipment includes a standard power cable that supports ACC power connection to the vehicle. An OBD power cable can be optionally selected for OBD power connection to the vehicle.

Technical **Specifications** (cont'd)

ACC Power Connection System Diagram

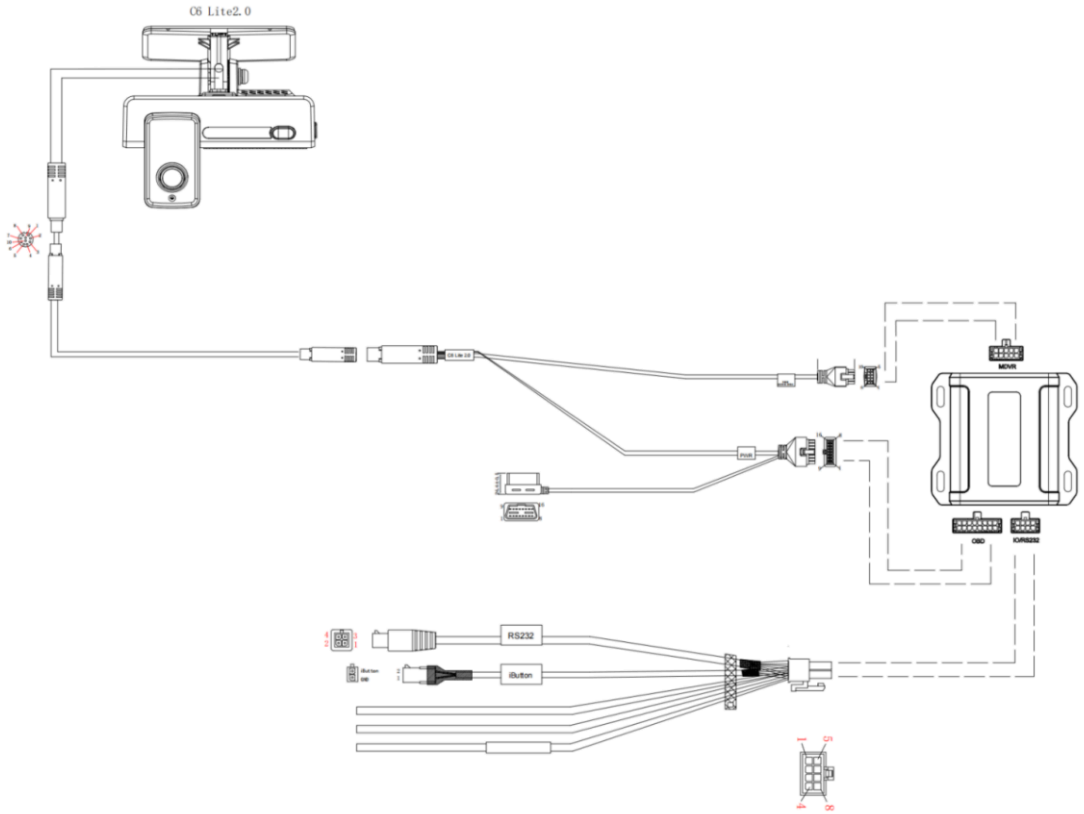


OBD Power Connection System Wiring Diagram

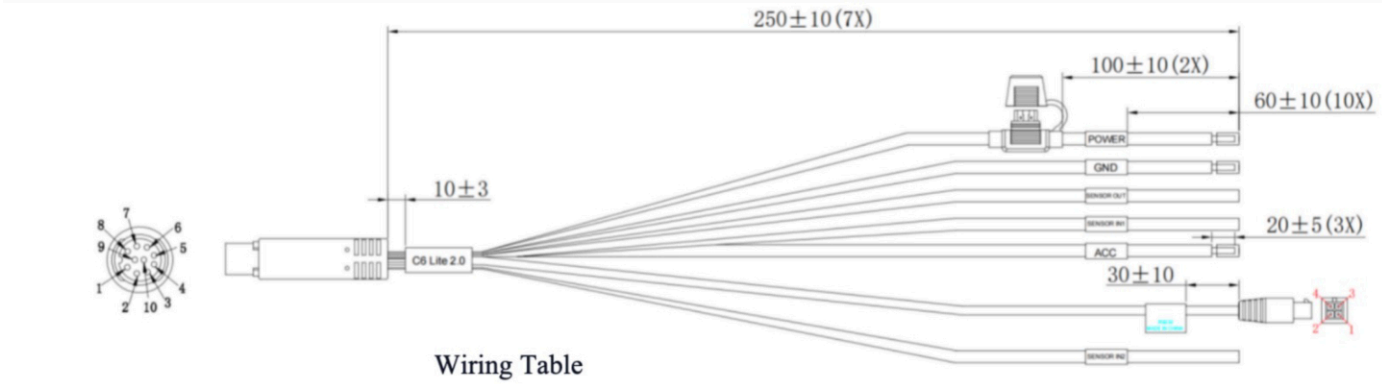


Technical **Specifications** (cont'd)

Connection to PBP System Wiring Diagram



Wiring Interface Definitions | ACC Connection Wire Interface Definition

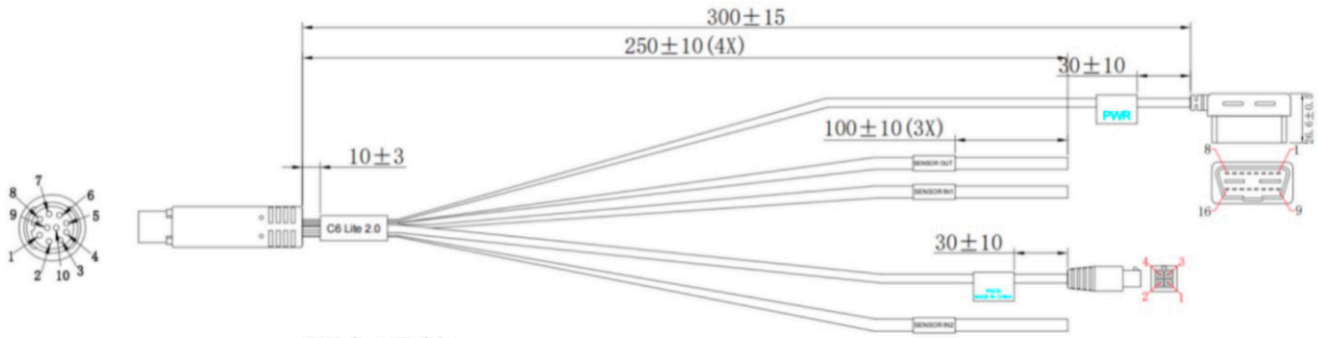


Wiring Table

		Suspension wire		10P BMW male port	
Half Stripped	ACC	Orange wire	———	1	0.35 mm²
SENSOR	OUT	Blue wire	———	2	0.35 mm²
SENSOR	IN2	Green-yellow wire	———	5	0.35 mm²
SENSOR	IN1	Grey wire	———	6	0.35 mm²
Half Stripped	POWER	Red wire	3A Fuse Box	10	0.5 mm²
Half Stripped	GND	Black wire	———	9	0.5 mm²

		Small 5559-4P		10P BMW male port	
		Black wire	4 ———	9	GND
		Red wire	1 ———	3	+12V
		White wire	2 ———	7	RX (L)
		Yellow wire	3 ———	8	TX (H)

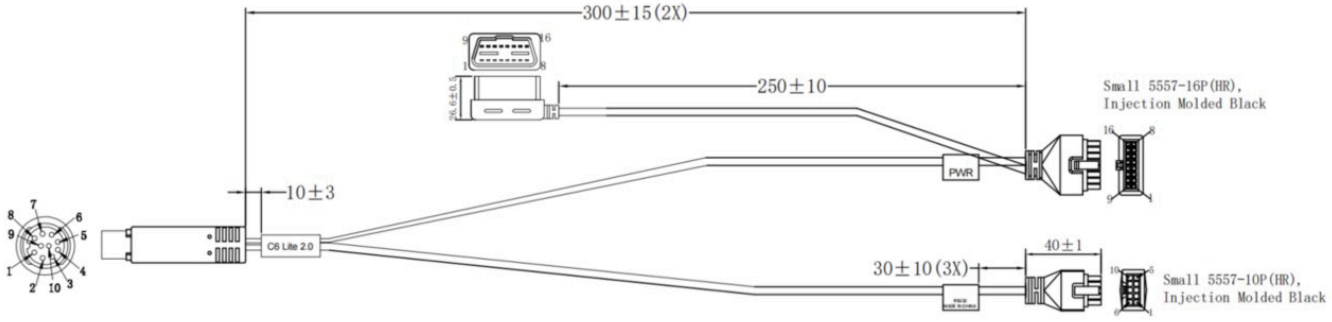
Connection to PBP System Wiring Diagram



Wiring Table

	Suspension wire	10P BMW male port		
SENSOR OUT	Blue wire	2	0.35 mm²	
SENSOR IN2	Green-yellow wire	5	0.35 mm²	
SENSOR IN1	Grey wire	6	0.35 mm²	
	16P OBD plug	10P BMW male port		
POWER	Red wire	16 (3A self-resetting fuse)	10	
GND	Black wire	4+5	9+4	
	Small 5559-4P	10P BMW male port		
	Black wire	4	9	GND
	Red wire	1	3	+12V
	White wire	2	7	RX (L)
	Yellow wire	3	8	TX (H)

PBP Connection Wire Interface Definition



Wiring Table

	16P OBD plug	10P BMW male plug		
POWER	Red wire	16 (3A self-resetting fuse)	10	
GND	Black wire	4+5	9+4	
	Small 5557-10P	10P BMW male plug		
	Black wire	7	9	GND
TX	Red wire	8	7	RX (L)
RX	Yellow wire	9	8	TX (H)

Wiring Table

	Small 5557-16P	16P OBDII male plug		
J1850 bus	Orange wire	1	2	
CAN1-H	Yellow wire	2	3	
CAN0-H	Blue wire	3	6	
L-LINE	Green wire	4	15	
J1708 bus	Brown wire	5	12	
GND	Black wire	7+8	4	22AWG
J1850 bus	Orange-white wire	9	10	
CAN1-L	White wire	10	11	
CAN0-L	Blue-white wire	11	14	
J1708 bus	Brown-white wire	12	13	
K-LINE	Green-white wire	13	7	
12V	Red wire	15 (5A self-resetting fuse)	16	22AWG
GND	Black wire	16	5	22AWG

Technical **Specifications** (cont'd)

Special Instructions

1) This product requires professional installation to avoid risks such as electric shock, vehicle wiring damage, compromised AI performance, and device detachment.
2) The surface temperature of this product can exceed 60 degrees when exposed to direct sunlight. Avoid touching sun-exposed surfaces to prevent burns.

Abbreviation List

Abbreviation	English Explanation
1080P	Resolution ratio 1920×1080
ADAS	Advanced Driving Assistance System
DSC	Driving Safety Cockpit
VBR	Variable Bit Rate
CBR	Constants Bit Rate
LDW	Lane Departure Warning
HMW	Headway Monitoring Warning
FCW	Forward Collision Warning

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