XMREXTENSIONBOX

Product specification

modification record

Data	revision	modify description	Author
2023-05-28	V 1.0	first version	Zheng zetao
2023-06-12	V 1.1	Modify the total resource description	Zheng zetao

1. Product overview

Power Box Max is a Dashcam video extension power box that supports the expansion of 4 AHD inputs or 3 AHD inputs plus 1 IPC input. It has AI extension capability and supports left, right, and rear Blind Spot Detection (BSD) audio-visual alarms. It also supports quick power supply from the original vehicle's OBD port and OBD data parsing capability. It is commonly used in Dashcam products that require vehicle blind spot compensation and cargo monitoring in the scenes of medium and large freight vehicles.

2. Product features

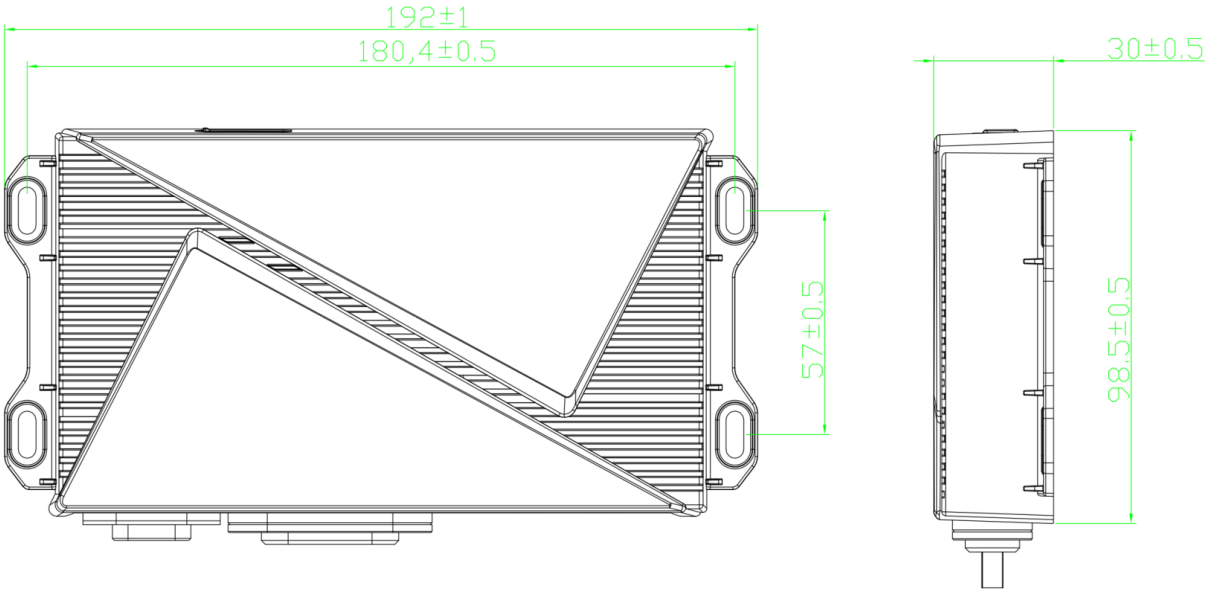
- Support 3-way IO detection and 1-way iButton access.
- Support 1-way IO output with a current of up to 0.5A.
- Support 3-way RS232, where RS232-1 is default for R-Watch, RS232-2 is for B3 left, and RS232-3 is for B3 right.
- Powered by OBD, with 2 built-in CAN channels, support for J1939 protocol, and a choice between J1708/J1850/K-LINE protocols.
- Support 4-way AHD input or 3-way AHD plus 1-way IPC input.
- Support 1-way video output, configurable as AHD or CVBS output.
- Equipped with AI detection capability, supporting up to 3-way BSD with time division and real-time operation of 2-way BSD, and support for 2-way B3 blind spot indicators.

3. Product Specifications

Product number	
	Power Box Max
Interface	
RS232	3 ch, 232-1 connects to R-Watch by default, 232-2 connects to the left side of B3, and 232-3 connects to the right side of B3
SENSOR IN	3 inputs
SENSOR OUT	1 output
iButton	1 channel
CAN	2 ch
K-LINE	1ch（和 J1708/J1850/K-LINE) choose one of three
USB	1 x USB2.0 (Type A), Used for local upgrade
LAN	1 ch, Connect to AD Plus 2.0
Video	
Enter	4 channels AHD or 3 channels AHD+1 channel IPC
Output	1 ch video output, configurable as AHD or CVBS output.
Total Resource	3 channels 720P 15 frames + 1 channels 720P 10 frames It can support up to 3 channels of BSD for time-sharing and 2 channels of BSD for real-time operation
Power	
Enter	DC 9-36V
Output	12V@2A

Standby power consumption	24V@5mA
Physical properties	
Size（mm）	192mm x 57mm x 30mm
Weight（g）	554g (Bare Metal)
Working environment	
Operating temperature	-40℃~+70℃
Storage temperature	-40℃~+85℃
Working humidity	15%-95%（No condensation）

4. Dimensions（mm）

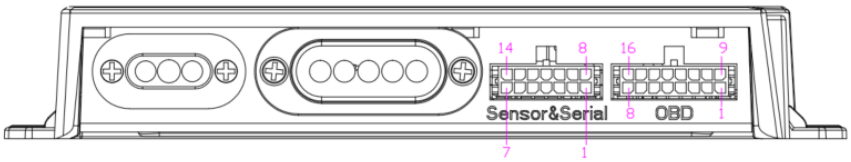


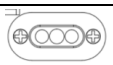
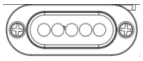
5. Panel interface

Front panel：

Nnumber	Silk screen/Icon	Explanation
1		USB2.0（Type A）， Used for local upgrade

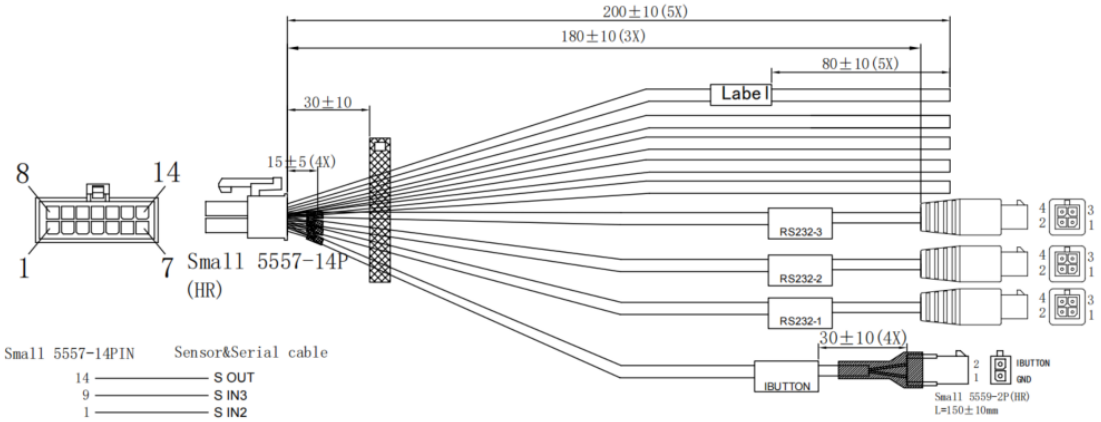
Rear panel：



Number	Silk screen/Icon	Explanation
1	Sensor&Serial	External expansion I/O, iButton and serial.
2	OBD	Connect the vehicle OBD interface
3		Connect to AD Plus 2.0 and video output
4		Video input and IPC input

6. Definition of external cable interface

（1）Sensor & Serial, External expansion I/O, iButton and serial.



Small 5557-14PIN Sensor&Serial cable

14	S OUT	
9	S IN3	
1	S IN2	
8	S IN1	
7	GND	

Small 5557-14PIN Small15559-4P(-1)

7	4 GND		Black
232TX-1 4	3 232TX-1		Yellow
232RX-1 11	2 232RX-1		White
10	1 +12V		Red

Small 5557-14PIN Small 5559-4P(-2)

7	4 GND		Black
232TX-2 5	3 232TX-2		Yellow
232RX-2 12	2 232RX-2		White
10	1 +12V		Red

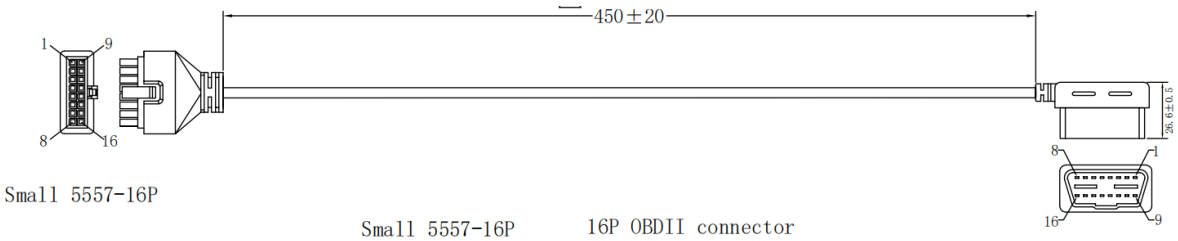
Small 5557-14PIN Small 5559-4P(-3)

7	4 GND		Black
232TX-3 6	3 232TX-3		Yellow
232RX-3 13	2 232RX-3		White
10	1 +12V		Red

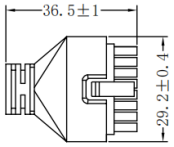
Small 5557-14PIN Small 5559-2P

3	1 GND		Black
2	2 IBUTTON		Red

（2）OBD cable interface definition (standard OBD II(16PIN), optional 9PIN round head)

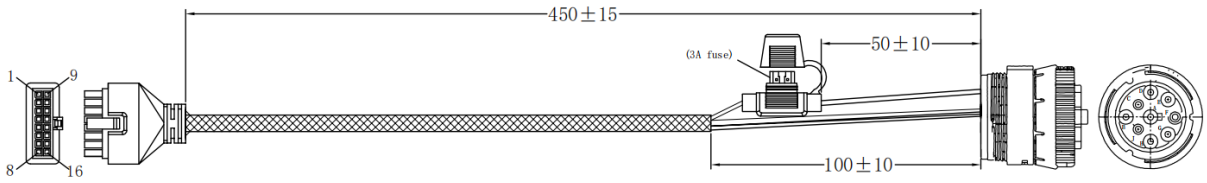


Small 5557-16P



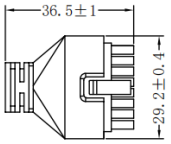
Small 5557-16P				16P OBDII connector	
J1850 Bus+	1	Orange	2		
CAN1-H	2	Yellow	3		
CAN0-H	3	Blue	6		
L-LINE	4	Green	15		
J1708 Bus-	5	Brown	12		
GND	7+8	Black	4	24AWG	⚠
J1850 Bus-	9	Orange-White	10		
CAN1-L	10	White	11		
CAN0-L	11	Blue-White	14		
J1708 Bus+	12	Brown-White	13		
K-LINE	13	Green-White	7		
12/24V	15	Red	16	24AWG	
GND	16	Black	5	24AWG	

Optional 9PIN wire

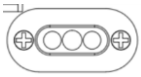


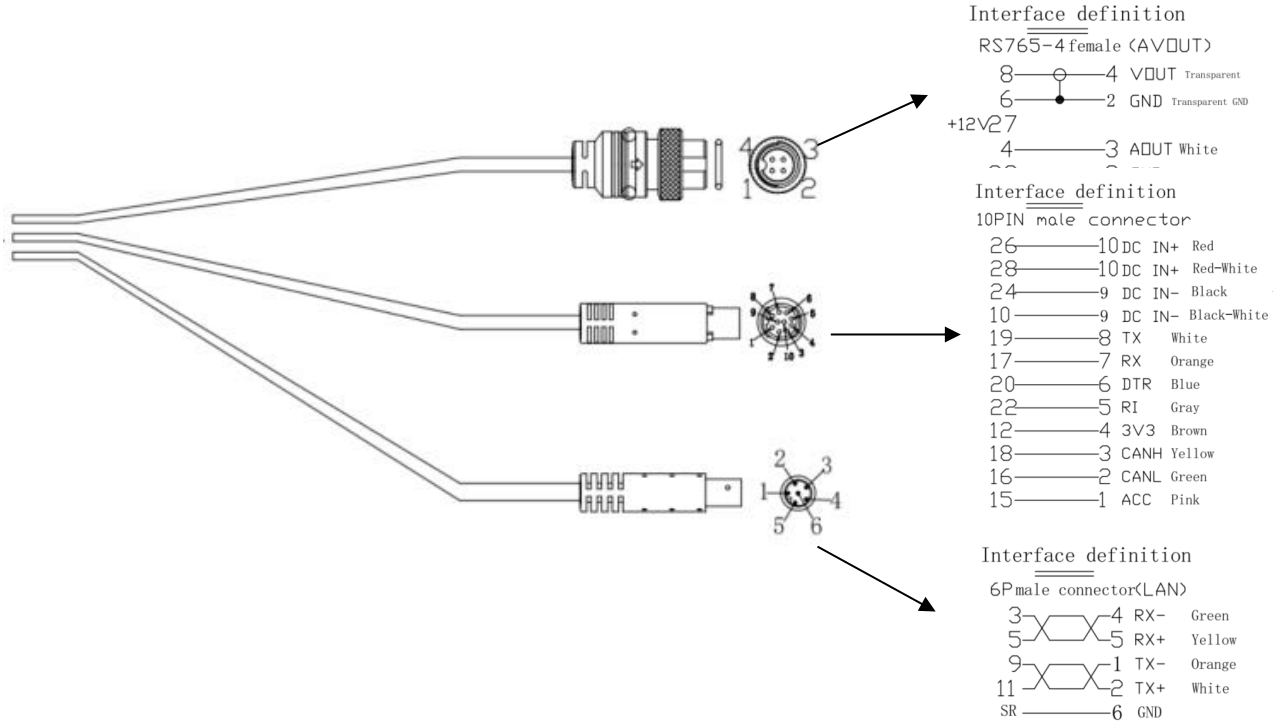
Small 5557-16P

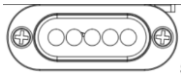
9PIN round head connector



Small 5557-16P				9PIN round head connector	
CAN1-H	2	White-Yellow	H		
CAN0-H	3	Yellow	C	22AWG	
J1708+	5	Brown	F		
⚠ GND	7+8	Black	E		
CAN1-L	10	Light Green	J		
CAN0-L	11	Green	D	22AWG	
J1708-	12	Brown-White	G		
12/24V	15	Red	B		
GND	16	Black	A		

（3）  Host connecting cable（AD Plus 2.0) and Video output.



（4）  Video input and IPC input.

7. System connection diagram (Connecting AD Plus 2.0)