

JT16

16-Channel Mechanical Lidar Connection Box | User Manual

Classification: CO (Public)

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Connection box

- Users may connect the lidar with or without a connection box.
- Cable between the lidar and the connection box: 260 ± 10 mm in length.

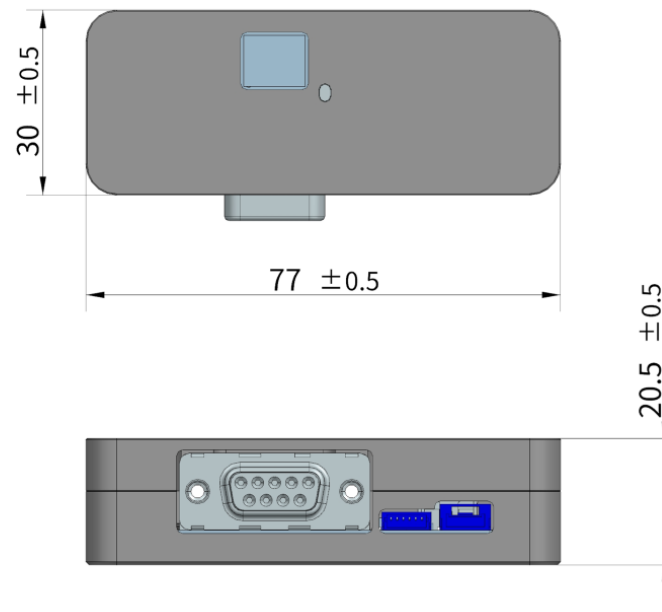


Figure 12. Connection box (unit: mm)

The cable connecting the lidar and the connection box is shown below.

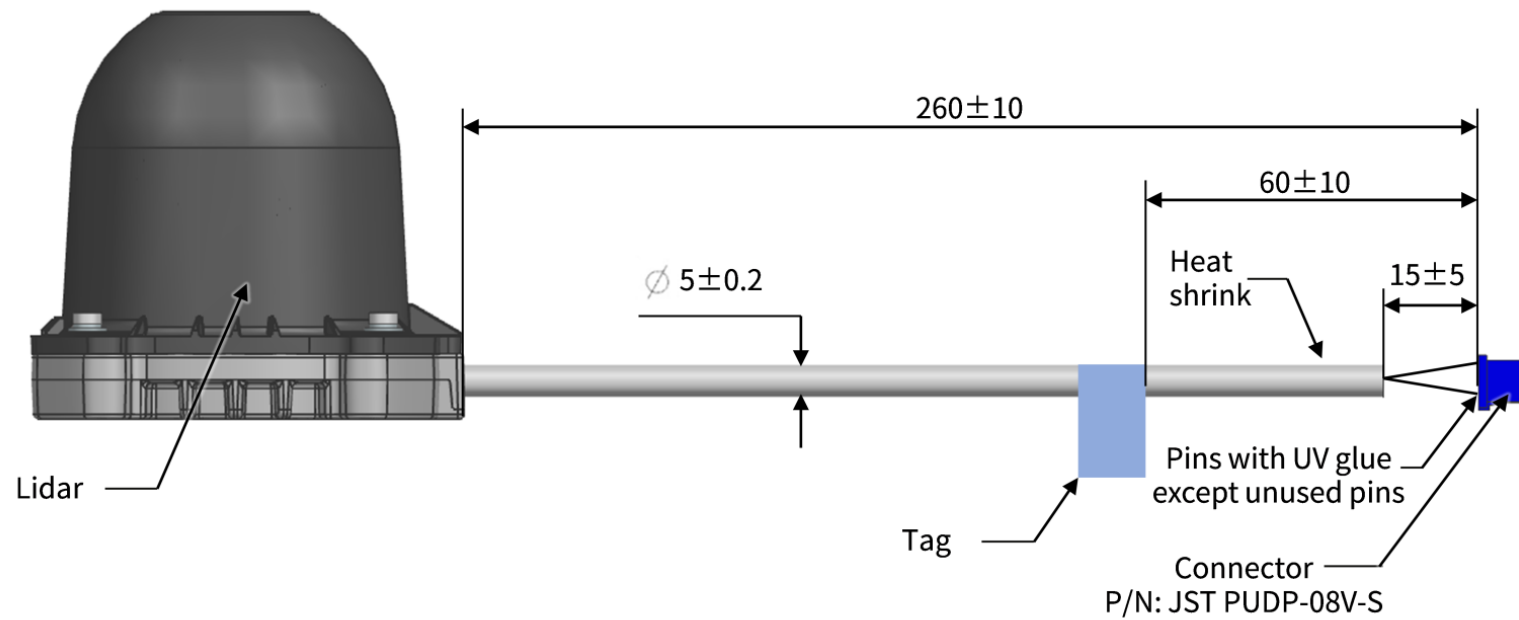


Figure 1. Cable between lidar and connection box (unit: mm)

Ports

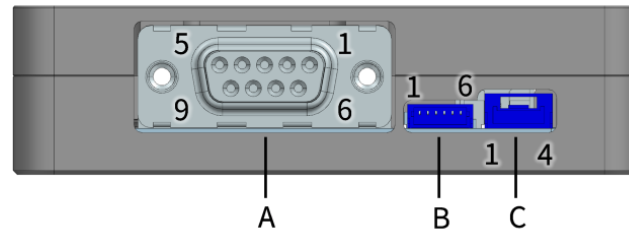


Figure 14. Connection box (front)

Port No.	Connection	Description
A	Mandatory	Connect to the host computer. Connector part number: Amphenol LD09S33E4GX00LF
B	Optional	Connect to an external GNSS module; for time synchronization. Connector part number: JST SM06B-SRSS-TB Recommended connector for the external GPS module: JST SHR-06V-S-B
C	Optional	Connect to the host computer; for API communication. Connector part number: JST SM04B-GHS-TB Recommended connector for the external module: JST GHR-04V-S



Port B and Port C cannot be used simultaneously.

Port A (right to left, top to bottom):

Pin No.	Direction	Signal	Level	Description
1	Bidirectional (half duplex)	API_RX/DATA+	RS485	-
2		API_RX/DATA-		
5	-	GND	0 V	Ground for the external GNSS module
9	Input	GNSS_5V	5 V	Power for the external GNSS module

Port B (left to right):

Pin No.	Direction	Signal	Level	Description
1	Input	GNSS_PPS	3.3 V CMOS	-
2	Output	GNSS_5V	5 V	Power for the external GNSS module
3	-	GND	0 V	Ground for the external GNSS module
4	Input	GNSS_NMEA	RS232	-
5	-	GND	0 V	Ground for the external GNSS module
6	-	Reserved	-	Do NOT connect this pin to external signals.

Port C (left to right):

Pin No.	Direction	Signal	Level	Description
1	Input	API_TX	3.3 V CMOS	Use either Pin 1 or Pin 2, not both.
2				
3	-	GND	0 V	Ground
4	-	GND	0 V	Ground

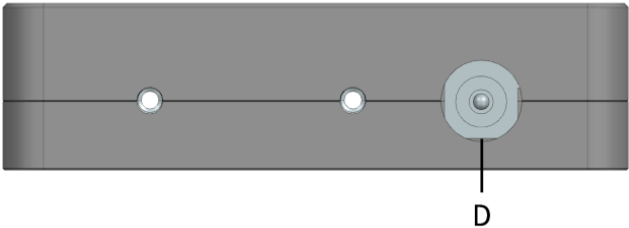


Figure 15. Connection box (back)

Port No.	Connection	Description
D	Mandatory	Connect to a 12 to 16 V DC power source.

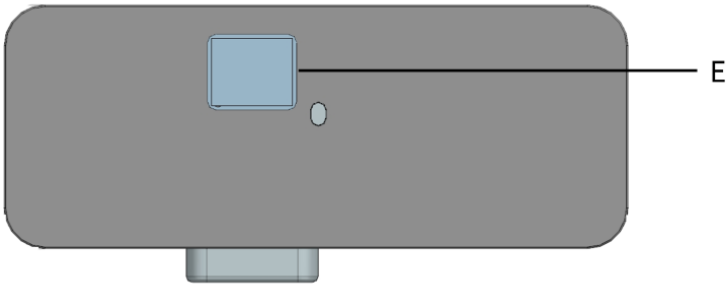


Figure 16. Connection box (top)

Port No.	Connection	Description
E	Mandatory	Connect to the lidar connector . Connector part number: JST S08B-PUDSS-1

Connection

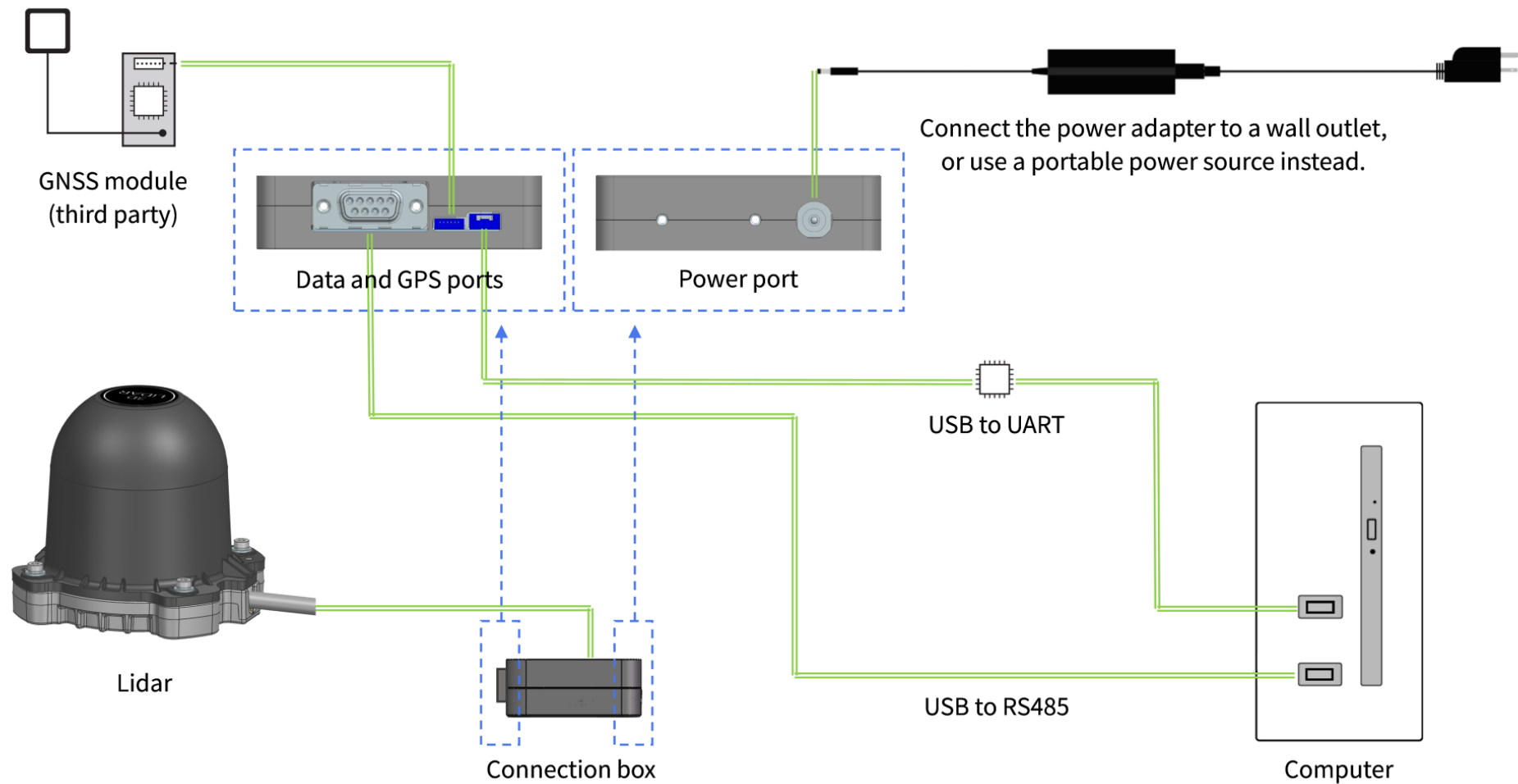


Figure 17. Connection box connection

Troubleshooting

If the following procedures cannot solve your problem, please contact Hesai technical support.

Symptoms	Points to check
Indicator light is off on the connection box.	<p>Make sure that the following conditions are met:</p> <ul style="list-style-type: none">• The power adapter is properly connected and in good condition.• The connection box is intact.• The input voltage and input current satisfy the requirements in Connection box. <p>Afterward, power on the lidar again and check if the symptom persists</p>
Motor is not running.	<p>Make sure that the following conditions are met:</p> <ul style="list-style-type: none">• The power adapter is properly connected and in good condition.• The input voltage and input current satisfy the requirements in Section 1.4 Specifications.• If a connection box is used, the connection box is intact. <p>Afterward, power on the lidar again and check if the symptom persists.</p>

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