



# YB27-15CR Lidar Product Specification



CCH Technology & Intelligence Co., Ltd

## Product Introduction

YB series lidar is a single-line lidar based on dTOF ranging principle. It features a compact size, simplicity of use, and high cost-effectiveness, making it suitable for diverse applications such as navigation, obstacle avoidance, and area monitoring.

## Technical Parameters

Table 1 Technical parameters table

| Detection Parameters                   |                                                                                 |                                    |
|----------------------------------------|---------------------------------------------------------------------------------|------------------------------------|
| Scanning radius                        | 15m@70% reflectivity                                                            |                                    |
| Scanning angle                         | 270°                                                                            |                                    |
| Angular resolution                     | Default 0.5°@30Hz<br>Support( 0.5°, 1°, 2° ) @20/25/28/30/40/50Hz;              |                                    |
| Distance deviation                     | ±2cm (typical value) ①                                                          |                                    |
| Repeatability                          | ±4mm@1sigma②                                                                    |                                    |
| Scanning plane Angle                   | Pitch ±0.5°; roll ±0.5°                                                         |                                    |
| Electrical and mechanical parameters   |                                                                                 |                                    |
| Working voltage                        | DC 9~28V                                                                        |                                    |
| Power-on startup time                  | Typical 10s                                                                     |                                    |
| Power consumption                      | < 2W (No load at output)                                                        |                                    |
| Output                                 | RS232                                                                           |                                    |
| Dimensions                             | 52mm×52mm×70mm                                                                  |                                    |
| Cable length                           | Standard 1m                                                                     |                                    |
| Ambient temperature                    | Working: -10℃~50℃ (No frost or condensation on the window)<br>Storage: -40℃~70℃ |                                    |
| Ambient humidity                       | Working: 35%RH~85%RH; storage: 35%RH~95%RH                                      |                                    |
| Anti-optical Interference              | 80000Lux                                                                        |                                    |
| Shock resistance                       | Acceleration 10g; pulse duration: 16ms;                                         |                                    |
|                                        | Number of impacts: three axes, 1000±10 times per axis                           |                                    |
| Vibration Resistance                   | Frequency 10Hz ~ 55Hz; Amplitude: 0.35±0.05mm;                                  |                                    |
|                                        | Scanning cycles: 20 times for each XYZ axis                                     |                                    |
| Protection Rating                      | IP65                                                                            |                                    |
| Electromagnetic compatibility<br>(EMC) | EMI                                                                             | EN61326-1: 2013                    |
|                                        |                                                                                 | EN55011; 2009 + A1: 2010           |
|                                        | EMS                                                                             | EN61326-1: 2013                    |
|                                        |                                                                                 | EN61000-4-2: 2009                  |
|                                        |                                                                                 | EN61000-4-3: 2006+A1: 2009+A2:2010 |
|                                        |                                                                                 | EN61000-4-4: 2004+A1: 2010         |
|                                        |                                                                                 | EN61000-4-6: 2014                  |
|                                        |                                                                                 | EN61000-4-8: 2010                  |

Notice:

- ① The measurement error of different reflectivity materials is controlled at  $\pm 2\text{cm}$  (typical). Factory test method: Three kinds of specimens (black flannels, white paper and reflective stickers) are placed on the automatic tooling of the whole machine at different angles and at the same distance (59cm). The deviation between the center value and the true distance of each material is within  $\pm 2\text{cm}$ , and the maximum difference between the three materials is within 2cm.
- ② Statistical measurement at 600mm position on 10% black velvet.

## Indicator Light



Figure 1 Indicator

POWER: power indicator, steady on indicates normal power supply, off indicates faulty power supply.

MOTOR: motor status indicator, steady on indicates normal motor, off indicates motor failure.

LASER: measurement status indicator, steady on indicates normal measurement, off indicates fault measurement.

OTHER: other status indicators, steady on indicates normal, off indicates other faults.

Note: When the device is just powered on, all indicators will enter the flow light state, indicating that the device is starting and is in the normal state.

Cable and Interface

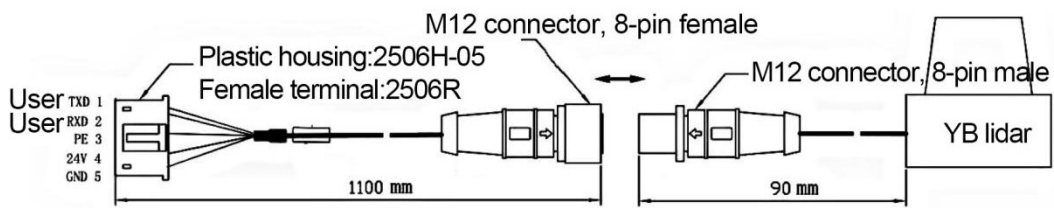
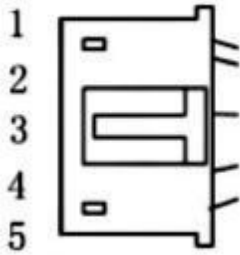
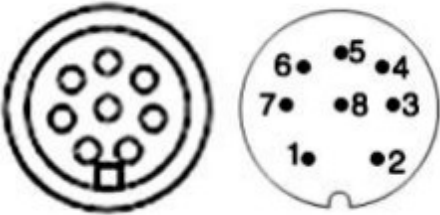


Figure 2 Cable

As shown in the figure, the YB27-15CR transmission line is a four-core shielded cable, with a length of 1100 + 90 mm. The intermediate connection interface is an M12 aviation connector, and the user-end interface is a dedicated plastic casing.

Table 2 Power Cable Color-Signal Table

| Power Cable User-End Interface                                                      | Pin-Wire Color Mapping | Signal Definition |
|-------------------------------------------------------------------------------------|------------------------|-------------------|
|  | 1-Yellow               | TxD (User)        |
|                                                                                     | 2-Black                | RxD (User)        |
|                                                                                     | 3-Yellow/Green         | PE                |
|                                                                                     | 4-Red                  | 24V               |
|                                                                                     | 5-Green                | 0V                |
| Power Cable Intermediate Interface                                                  | Pin-Wire Color Mapping | Signal Definition |
|  | 1-Red                  | 24V               |
|                                                                                     | 2-Green                | 0V                |
|                                                                                     | 3-Black                | RxD (User)        |
|                                                                                     | 4-Yellow               | TxD (User)        |
|                                                                                     | Shell-Shielding Layer  | PE                |

## Machine Dimension

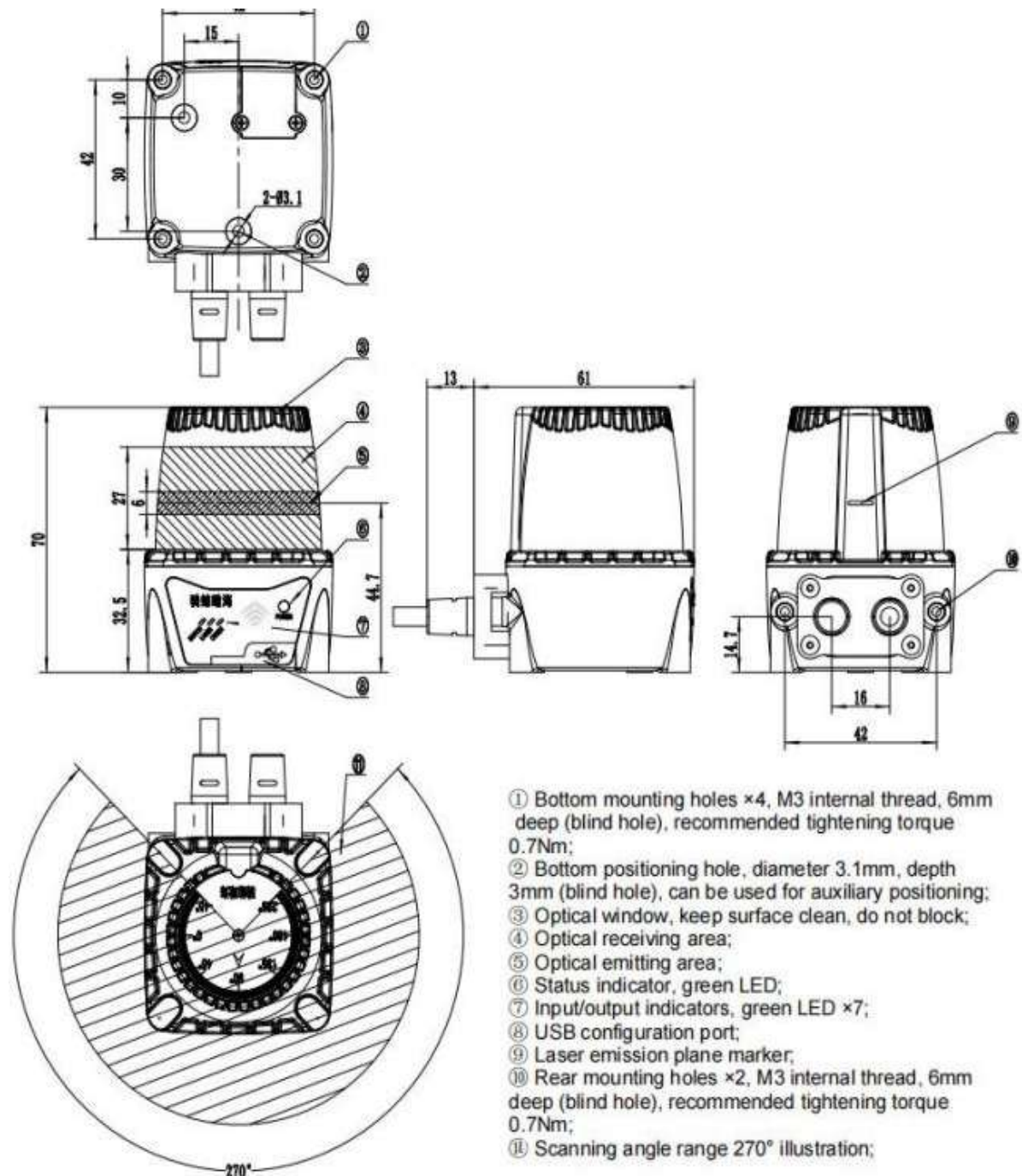


Figure 4 Mechanical dimensions

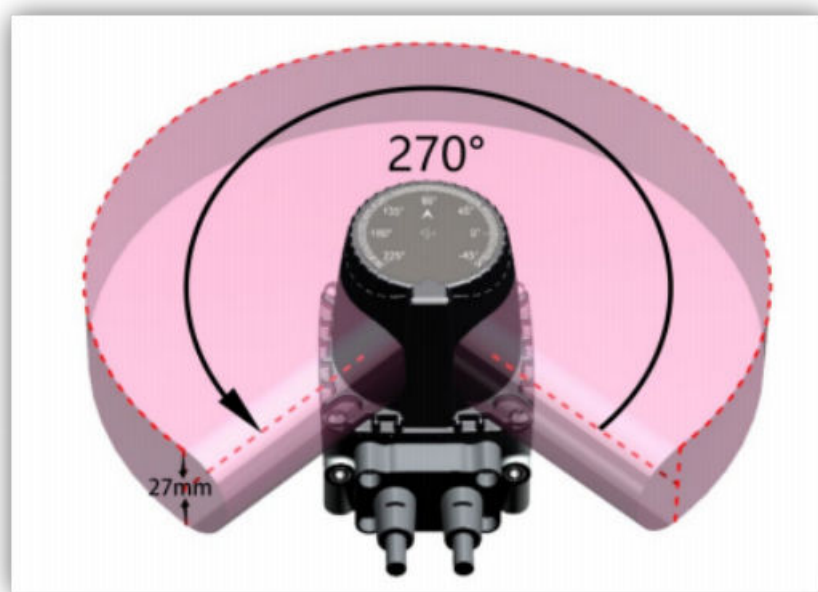


Figure 5 Schematic diagram of scanning range

# Communication Protocol

Table 3: Data Format Summary

| Data Format Description                                                                                                                                                 | Summary                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <pre>struct cmd_frame { uint8_t  start_code; uint16_t length; uint8_t  check_sum; uint8_t  cmd_type; uint8_t  data[ ]; uint8_t  end_code; } attribute ((packed));</pre> | <ol style="list-style-type: none"> <li>1. Serial communication uses query-response mode.</li> <li>2. Fixed command format for easy expansion.</li> <li>3. Default baud rate: 460800 b ps.</li> <li>4. Data uses big-endian mode, high byte first, low byte last.</li> </ol> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Name                                                                                                                                                                    | Bytes                                                                                                                                                                                                                                                                       | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| start_code                                                                                                                                                              | 1                                                                                                                                                                                                                                                                           | Sensor start code 0x02                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| length                                                                                                                                                                  | 2                                                                                                                                                                                                                                                                           | Data length following this field, high byte first, low byte last.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| check_sum                                                                                                                                                               | 1                                                                                                                                                                                                                                                                           | 1-byte checksum, calculated as sum of all data from cmd_type to frame end                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| cmd_type                                                                                                                                                                | 1                                                                                                                                                                                                                                                                           | Command type<br>0x01: Get lidar real-time data<br>0x02: Single read of distance data + echo intensity<br>0x03: Configure lidar parameters (baud rate, angular resolution, scan frequency, etc.)<br>0x04: Read lidar parameters (current baud rate, angular resolution, scan frequency, etc.)<br>0x05: Get lidar device info (firmware version, serial number)<br>0x06 : Get complete lidar device info (firmware version, serial number)<br>0x11: lidar periodic distance data output<br>0x22: lidar periodic distance + echo data output;<br>0xaa: Stop lidar periodic data output |
| data[M]                                                                                                                                                                 | M                                                                                                                                                                                                                                                                           | Command data, detailed format per command type, can be empty                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| end_code                                                                                                                                                                | 1                                                                                                                                                                                                                                                                           | Data end code: 0x03                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |

0x01: Single-read lidar distance data. The configuration computer sends one request, and the lidar replies with one data packet.

Table 4 cmd\_type(0x01)Command Details

| Configuration Computer |             |                                            |                                                                                                                                                                              |
|------------------------|-------------|--------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| cmd_type               | data[ ]     | Description                                |                                                                                                                                                                              |
| 0x01                   | info        | Single-read lidar distance data            |                                                                                                                                                                              |
| Info Structure         |             |                                            |                                                                                                                                                                              |
| Name                   | Field Index | Field Length (BYTE)                        | Description                                                                                                                                                                  |
| start_angle            | 0~1         | 2                                          | Start angle of measurement points to read. Angular resolution 0.5° corresponds to value range 0–540 (–45° to 225°). 0°–180° corresponds to values 90–450 (0x005A–0x01C2).    |
| end_angle              | 2~3         | 2                                          | End angle of measurement points to read. Angular resolution to value range 0–540 (–45° to 225°). 0°–180° correspond (0x005A–0x012C).                                         |
| Lidar Response         |             |                                            |                                                                                                                                                                              |
| cmd_type               | data[ ]     | Description                                |                                                                                                                                                                              |
| 0x01                   | info        | Single-read lidar distance data (N points) |                                                                                                                                                                              |
| Info Structure         |             |                                            |                                                                                                                                                                              |
| Name                   | Field Index | Field Length (BYTE)                        | Description                                                                                                                                                                  |
| dev_state              | 0           | 1                                          | 0x01: Power-on initialization—all dis_data are 0<br>0x02: Startup ready—dis_data contains real values (2-byte format, unit: mm)<br>0x03: Fault—all dis_data are 0x0001(1 mm) |
| dis_data[0]            | 1~2         | 2                                          | Distance data of the 1st point.                                                                                                                                              |
| dis_data[1]            | 3~4         | 2                                          | Distance data of the 2nd point.                                                                                                                                              |
| ...                    | ...         | ...                                        | ...                                                                                                                                                                          |
| ...                    | ...         | ...                                        | ...                                                                                                                                                                          |
| ...                    | ...         | ...                                        | ...                                                                                                                                                                          |
| dis_data[N-1]          | ...         | 2                                          | Distance data of the Nth point                                                                                                                                               |



0x11: Continuous acquisition of lidar distance data command. The configuration computer sends a single request, and the lidar periodically outputs sampled data, with the period equal to one full rotation sampling cycle of the lidar.

Table 5 cmd\_type (0x11) Command Details

| Configuration Computer |             |                                                  |                                                                                                                                                                           |
|------------------------|-------------|--------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| cmd_type               | data[ ]     | Description                                      |                                                                                                                                                                           |
| 0x11                   | info        | Continuously read lidar distance data            |                                                                                                                                                                           |
| Info Structure:        |             |                                                  |                                                                                                                                                                           |
| Name                   | Field Index | Field Length (BYTE)                              | Description                                                                                                                                                               |
| start_angle            | 0~1         | 2                                                | Start angle of measurement points to read. Angular resolution 0.5° corresponds to value range 0~540 (–45°~225°). 0°~ 180° corresponds to values 90~450 (0x005A–0x01C2)    |
| end_angle              | 2~3         | 2                                                | End angle of measurement points to read. Angular resolution 0.5° corresponds to value range 0~540 (–45°~225°). 0°~ 180° corresponds to values 90~450 (0x005A–0x012C)      |
| Lidar Response         |             |                                                  |                                                                                                                                                                           |
| cmd_type               | data[ ]     | Description                                      |                                                                                                                                                                           |
| 0x11                   | info        | Continuously read lidar distance data (N points) |                                                                                                                                                                           |
| Info Structure         |             |                                                  |                                                                                                                                                                           |
| Name                   | Field Index | Field Length (BYTE)                              | Description                                                                                                                                                               |
| dev_state              | 0           | 1                                                | 0x01: Power-on initialization , dis_data are 0<br>0x02: Startup ready—dis_data contains real values (2-byte format, unit: mm)<br>0x03: Fault , dis_data are 0x0001 (1 mm) |
| dis_data[0]            | 1~2         | 2                                                | Distance data of the 1st point                                                                                                                                            |
| dis_data[1]            | 4~5         | 2                                                | Distance data of the 2nd point                                                                                                                                            |
| ...                    | ...         | ...                                              | ...                                                                                                                                                                       |
| ...                    | ...         | ...                                              | ...                                                                                                                                                                       |
| ...                    | ...         | ...                                              | ...                                                                                                                                                                       |
| dis_data[N-1]          | ...         | 2                                                | Distance data of the Nth point                                                                                                                                            |

0x02: The computer sends a single request, and the lidar returns one data frame containing both distance values and echo intensity values for each measurement point.

Table 6 cmd\_type(0x02)Command Details

| Configuration Computer |             |                                                        |                                                                                                                                                                                            |
|------------------------|-------------|--------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| cmd_type               | data[ ]     | Description                                            |                                                                                                                                                                                            |
| 0x02                   | info        | Single-Read lidar Distance + Echo Intensity Data       |                                                                                                                                                                                            |
| Info Structure         |             |                                                        |                                                                                                                                                                                            |
| Name                   | Field Index | Field Length (BYTE)                                    | Description                                                                                                                                                                                |
| start_angle            | 0~1         | 2                                                      | Start angle of the measurement points to be read.<br>Angular resolution 0.5 ° corresponds to a value range of 0–540 (–45 ° to 225°) , 0°–180° corresponds to values 90–450 (0x005A–0x01C2) |
| end_angle              | 2~3         | 2                                                      | End angle of the measurement points to be read.<br>Angular resolution 0.5 ° corresponds to a value range of 0–540 (–45 ° to 225°) , 0°–180° corresponds to values 90–450 (0x005A–0x012C)   |
| Lidar Response         |             |                                                        |                                                                                                                                                                                            |
| cmd_type               | data[ ]     | Description                                            |                                                                                                                                                                                            |
| 0x02                   | info        | Single-read lidar distance + intensity data (N points) |                                                                                                                                                                                            |
| Info Structure         |             |                                                        |                                                                                                                                                                                            |
| Name                   | Field Index | Field Length (BYTE)                                    | Description                                                                                                                                                                                |
| dev_state              | 0           | 1                                                      | 0x01: Power-on initialization, all dis_data are 0<br>0x02: Startup ready, dis_data contains real values (2-byte format, unit: mm)<br>0x03: Fault, all dis_data are 0x0001 (1 mm)           |
| dis_data[0]            | 1~2         | 2                                                      | Distance data of the 1st point                                                                                                                                                             |
| ins_data[0]            | 3           | 1                                                      | Echo intensity data of the 1st point                                                                                                                                                       |
| dis_data[1]            | 4~5         | 2                                                      | Distance data of the 2nd point                                                                                                                                                             |
| ins_data[1]            | 6           | 1                                                      | Echo intensity data of the 2nd point                                                                                                                                                       |
| ...                    | ...         | ...                                                    | ...                                                                                                                                                                                        |
| ...                    | ...         | ...                                                    | ...                                                                                                                                                                                        |
| ...                    | ...         | ...                                                    | ...                                                                                                                                                                                        |
| dis_data[N-1]          | ...         | 2                                                      | Distance data of the Nth point                                                                                                                                                             |
| ins_data[N-1]          | ...         | 1                                                      | Echo intensity data of the Nth point                                                                                                                                                       |

0x22: Continuous acquisition of lidar distance data + echo intensity data. The configuration computer sends one request, and the lidar periodically outputs sampled data, with the period equal to one full rotation sampling cycle of the lidar.

Table 7 cmd\_type(0x22)Command Details

| Configuration Computer |             |                                                       |                                                                                                                                                                                        |
|------------------------|-------------|-------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| cmd_type               | data[ ]     | Description                                           |                                                                                                                                                                                        |
| 0x22                   | info        | Continuous read lidar distance + intensity            |                                                                                                                                                                                        |
| Info Structure         |             |                                                       |                                                                                                                                                                                        |
| Name                   | Field Index | Field Length (BYTE)                                   | Description                                                                                                                                                                            |
| start_angle            | 0~1         | 2                                                     | Start angle of the measurement points to be read: Angular resolution 0.5 ° corresponds to a value range of 0–540 (–45° to 225°). 0 °–180° corresponds to values 90–450 (0x005A–0x01C2) |
| end_angle              | 2~3         | 2                                                     | End angle of the measurement points to be read: Angular resolution 0.5 ° corresponds to a value range of 0–540 (–45° to 225°). 0 °–180° corresponds to values 90–450 (0x005A–0x012C)   |
| Lidar Response         |             |                                                       |                                                                                                                                                                                        |
| cmd_type               | data[ ]     | Description                                           |                                                                                                                                                                                        |
| 0x22                   | info        | Continuous read lidar distance + intensity (N points) |                                                                                                                                                                                        |
| Info Structure         |             |                                                       |                                                                                                                                                                                        |
| Name                   | Field Index | Field Length (BYTE)                                   | Description                                                                                                                                                                            |
| dev_state              | 0           | 1                                                     | 0x01: Power-on initialization, all dis_data are 0<br>0x02: Startup ready, dis_data contains real values (2-byte format, unit: mm)<br>0x03: Fault, all dis_data are 0x0001 (1 mm)       |
| dis_data[0]            | 1~2         | 2                                                     | Distance data of the 1st point                                                                                                                                                         |
| ins_data[0]            | 3           | 1                                                     | Echo intensity data of the 1st point                                                                                                                                                   |
| dis_data[1]            | 4~5         | 2                                                     | Distance data of the 2nd point                                                                                                                                                         |
| ins_data[1]            | 6           | 1                                                     | Echo intensity data of the 2nd point                                                                                                                                                   |
| ...                    | ...         | ...                                                   | ...                                                                                                                                                                                    |
| ...                    | ...         | ...                                                   | ...                                                                                                                                                                                    |
| ...                    | ...         | ...                                                   | ...                                                                                                                                                                                    |
| dis_data[N-1]          | ...         | 2                                                     | Distance data of the Nth point                                                                                                                                                         |
| ins_data[N-1]          | ...         | 1                                                     | Echo intensity data of the Nth point                                                                                                                                                   |

0x03: Configure lidar parameters (including communication baud rate, angular resolution, scanning frequency, etc.)

Table 8 cmd\_type(0x03)Command Details

| Configuration Computer |             |                            |                                                                                                 |             |             |
|------------------------|-------------|----------------------------|-------------------------------------------------------------------------------------------------|-------------|-------------|
| cmd_type               | data[ ]     | Description                |                                                                                                 |             |             |
| 0x03                   | info        | Configure lidar Parameters |                                                                                                 |             |             |
| Info Structure         |             |                            |                                                                                                 |             |             |
| Name                   | Field Index | Field Length (BYTE)        | Description                                                                                     |             |             |
| cfg_bps                | 0           | 1                          | 0x01:4800                                                                                       | 0x02:9600   | 0x03:19200  |
|                        |             |                            | 0x04:38400                                                                                      | 0x05:43000  | 0x06:56000  |
|                        |             |                            | 0x07:57600                                                                                      | 0x08:115200 | 0x09:128000 |
|                        |             |                            | 0x0a:230400                                                                                     | 0x0b:256000 | 0x0c:460800 |
|                        |             |                            | 0x0d:560000                                                                                     | 0x0e:600000 | 0x0f:700000 |
|                        |             |                            | Default: 460800                                                                                 |             |             |
| cfg_res                | 1           | 1                          | 0x01: 0.5 °, 0x02: 1 °, 0x03: 2°; Default: 0.5 °                                                |             |             |
| cfg_hz                 | 2           | 1                          | 20: 20hz, 25: 25hz, 30: 30hz, 40: 40hz, 50:50hz;<br>Other values are invalid.<br>Default: 30HZ  |             |             |
| Lidar Response         |             |                            |                                                                                                 |             |             |
| cmd_type               | data[ ]     | Description                |                                                                                                 |             |             |
| 0x03                   | info        | Configure LI parameters    |                                                                                                 |             |             |
| Info Structure         |             |                            |                                                                                                 |             |             |
| Name                   | Field Index | Field Length (BYTE)        | Description                                                                                     |             |             |
| cfg_bps                | 0           | 1                          | 0x01:4800                                                                                       | 0x02:9600   | 0x03:19200  |
|                        |             |                            | 0x04:38400                                                                                      | 0x05:43000  | 0x06:56000  |
|                        |             |                            | 0x07:57600                                                                                      | 0x08:115200 | 0x09:128000 |
|                        |             |                            | 0x0a:230400                                                                                     | 0x0b:256000 | 0x0c:460800 |
|                        |             |                            | 0x0d:560000                                                                                     | 0x0e:600000 | 0x0f:700000 |
|                        |             |                            | Default: 460800                                                                                 |             |             |
| cfg_res                | 1           |                            | 0x01: 0.5 °, 0x02: 1 °, 0x03: 2°;<br>Default: 0.5 °                                             |             |             |
| cfg_hz                 | 2           | 1                          | 20: 20hz, 25: 25hz, 30: 30hz, 40: 40hz, 50: 50hz;<br>Other values are invalid.<br>Default: 30HZ |             |             |

0x04: Read lidar parameters (including current communication baud rate, angular resolution, scanning frequency, etc.)

Table 9 cmd\_type(0x04)Command Details

| Configuration Computer |             |                       |                                                                                                 |
|------------------------|-------------|-----------------------|-------------------------------------------------------------------------------------------------|
| cmd_type               | data[ ]     | Description           |                                                                                                 |
| 0x04                   | info        | Read lidar parameters |                                                                                                 |
| Info Structure         |             |                       |                                                                                                 |
| Name                   | Field Index | Field Length (BYTE)   | Description                                                                                     |
| rev_1                  | 0           | 1                     | 0x00                                                                                            |
| rev_2                  | 1           | 1                     | 0x00                                                                                            |
| rev_3                  | 2           | 1                     | 0x00                                                                                            |
| Lidar Response         |             |                       |                                                                                                 |
| cmd_type               | data[ ]     | Description           |                                                                                                 |
| 0x04                   | info        | Read lidar parameters |                                                                                                 |
| Info Structure         |             |                       |                                                                                                 |
| Name                   | Field Index | Field Length (BYTE)   | Description                                                                                     |
| cfg_bps                | 0           | 1                     | 0x01: 4800      0x02: 9600      0x03: 19200                                                     |
|                        |             |                       | 0x04: 38400      0x05: 43000      0x06: 56000                                                   |
|                        |             |                       | 0x07: 57600      0x08: 115200      0x09: 128000                                                 |
|                        |             |                       | 0x0a: 230400      0x0b: 256000      0x0c: 460800                                                |
|                        |             |                       | 0x0d: 560000      0x0e: 600000      0x0f: 700000                                                |
|                        |             |                       | Default: 460800                                                                                 |
| cfg_res                | 1           | 1                     | 0x01: 0.5 °, 0x02: 1 °, 0x03: 2°;<br>Default: 0.5 °                                             |
| cfg_hz                 | 2           | 1                     | 20: 20hz, 25: 25hz, 30: 30hz, 40: 40hz, 50: 50hz;<br>Other values are invalid.<br>Default: 30HZ |

0x05: Get lidar device information (including firmware version number, device serial number)

Table 10 cmd\_type(0x05)Command Details

| Configuration Computer |             |                              |                              |
|------------------------|-------------|------------------------------|------------------------------|
| cmd_type               | data[ ]     | Description                  |                              |
| 0x05                   | NULL        | Get lidar device information |                              |
| Lidar Response         |             |                              |                              |
| cmd_type               | data[ ]     | Description                  |                              |
| 0x05                   | info        | Get lidar device information |                              |
| Info Structure         |             |                              |                              |
| Name                   | Field Index | Field Length (BYTE)          | Description                  |
| firmware_version       | 0~3         | 4                            | Firmware version number      |
| serial_number          | 4~11        | 8                            | Device serial number         |
| dev_type               | 12          | 1                            | 0X01(High-precision version) |

0x06: Get complete lidar device information (including firmware version number, device serial number)

Table 11 cmd\_type(0x06)Command Details

| Configuration Computer |             |                              |                      |
|------------------------|-------------|------------------------------|----------------------|
| cmd_type               | data[ ]     | Description                  |                      |
| 0x06                   | NULL        | Get lidar device information |                      |
| Lidar Response         |             |                              |                      |
| cmd_type               | data[ ]     | Description                  |                      |
| 0x06                   | info        | Get lidar device information |                      |
| Info Structure         |             |                              |                      |
| Name                   | Field Index | Field Length (BYTE)          | Description          |
| Model information      | 0~39        | 40                           | Device model         |
| SN                     | 40~71       | 32                           | Device serial number |
| MCU firmware version   | 72~75       | 4                            | MCU firmware version |
| Hardware version       | 76~79       | 4                            | Hardware version     |
| rev_1                  | 80~83       | 4                            | rev_1                |
| rev_2                  | 84~87       | 4                            | rev_2                |
| rev_3                  | 88~91       | 4                            | rev_3                |

0xaa: Lidar stops continuous periodic output data.

Table 12 cmd\_type(0xaa)Command Details

| Configuration Computer |         |                                       |
|------------------------|---------|---------------------------------------|
| cmd_type               | data[ ] | Description                           |
| 0xaa                   | NULL    | stops continuous periodic output data |
| Lidar Response         |         |                                       |
| cmd_type               | data[ ] | Description                           |
| 0xaa                   | NULL    | stops continuous periodic output data |