

Laser Sensor Manual

Parameters: Power Supply

Voltage: DC3V ~ 3.3V

Current: 100mA

Measuring Range: 0.01-80 m

Measurement Accuracy (standard deviation): ± 1 .mm

Distance Unit: m

Laser Type: 620-690nm

Laser Class: class II,

Baud rate:9600bps;

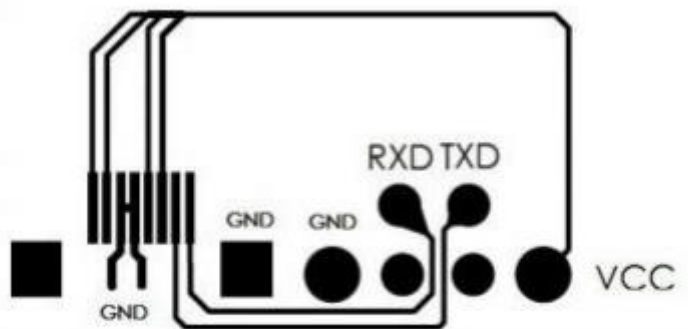
data bit:8 bit;

Start bit:1bit;

Stop Bit:1bit;

Parity:none.

Remarks: Because the environment light intensity is too large, the ambient temperature is too high or too low, the reflector is too weak or too strong, or the target of a rough surface, different measurement objectives and measurement environment may cause some error of the measurement range or measurement results.



Function	Command code	Return code	Remarks
Read parameter	FA 06 01 FF	FA 06 81 ADDR xx xx xx..... CS	Read constant,address, return Quantity of light, temperature
Read Device NO.	FA 06 04 FC	FA 06 84 “DAT1 DAT2..... DAT16”CS	DATn IS ASCII Format
Set address	FA 04 01 ADDR CS	FA 04 81 81	Success
		FA 84 81 02 FF	Operation failed
Modify distance	FA 04 06 Code (negative is 0x2d , Positive is 0x2b) , 0xXX(Correction value , One byte) , CS	FA 04 8B 77	Success
		FA 84 8B 01 F6	Operation failed
		FA 84 85 01 FC	Write time interval error
		FA 84 85 01 FA	Operation failed
Set distance start point	FA 04 08 Position CS	FA 04 88 7A	Success
		FA 84 88 01 F9	Operation failed
	Note: the start point can be front-end and back-end selection		
Set range	FA 04 09 Range CS Range : 05,10,30,50,80m	FA 04 89 79	Success
		FA 84 89 01 F8	Operation failed
Set frequency	FA 04 0A Freq CS Freq : 05 10 20	FA 04 8A 78	Success
		FA 84 8A 01 F7	Operation failed
Set resolution	FA 04 0C Resolution CS Resolution : 1(1mm),2(0.1mm)	FA 04 8C 76	Success
		FA 84 8C 01 F5	Operation failed
Set power on to start measuring	FA 04 0D Start CS Start : 0(Close),1(open)	FA 04 8D 75	Success
		FA 84 8D 01 F4	Operation failed
Single measurement (broadcast command, keep results to cache)	FA 06 06 FA	No return code, keep results to cache	
Read cache	ADDR 06 07 CS		
Single measurement (1mm)	ADDR 06 02 CS	ADDR 06 82”3X 3X 3X 2E 3X 3X 3X”CS	Correct return
		ADDR 06 82”E’ ’R’ ’R’ ’-’ ’-’ ’ ’3X’ ’3X’ ”CS	Error return
Single measurement	ADDR 06 02 CS	ADDR 06 82”3X 3X 3X 2E 3X 3X	Correct return

- ADDR Device Address
 - Position is 1, count from the top, when item is 0, count from the end (FA 04 08 01 F9), The default setting is from end
 - CS check byte, it sums all the bytes in front, Returns the reverse, plus 1, in the data returned by single measurements and successive measurements, in which the quotes are part of the data, Format is ASCII sample: 123.456 m display 31 32 33 2E 34 35 36 ADDR Default value 80(128)
- The command to read data when the parameter is factory setting: Single measurement: 80 06 02 78 Continuous measurement: 80 06 03 77

Shutdown device:

80 04 02 7A

Set address:

FA 04 01 80 81

Distance modification:

FA 04 06 2D 01 CE -1

FA 04 06 2B 01 D0 +1

time interval (1S) :

FA 04 05 01 FC

Set start point:

FA 04 08 01 F9 Top

FA 04 08 00 FA back ends

Set range:

FA 04 09 05 F4 5m

FA 04 09 0A EF 10m

FA 04 09 1E DB 30m

FA 04 09 32 C7 50m

FA 04 09 50 A9 80m

Set frequency:

FA 04 0A 00 F8

FA 04 0A 05 F3 5

FA 04 0A 0A EE 10

FA 04 0A 14 E4 20

Set resolution:

FA 04 0C 01 F5 1mm

FA 04 0C 02 F4 0.1mm

Set start the measurement when power on:

FA 04 0D 00 F5 turn off

FA 04 0D 01 F4 turn on

Single measurement (broadcast)

FA 06 06 FA

Read cache:

80 06 07 73

Control laser:

80 06 05 01 74 open

80 06 05 00 75 Close