

TOF10120 Sensor Data Transmission Format and Commands

Data Transmission Format and Commands for TOF10120 Sensor:

1. Read Deviation Value

Command: r1#

Return Value: D=xx where xx=00~99mm. Before calibration, the value is 0.

2. Read Serial Transmission Interval

Command: r2#

Return Value: T=xxxx where xxxx=10~9999ms. Default is 100ms.

3. Read Distance Mode

Command: r3#

Return Value: M=x where x=0 for filtered distance, x=1 for real-time distance. Default is 0 (filtered distance).

4. Read Maximum Distance

Command: r4#

Return Value: Max=x where xxxx=100~2000mm. There is no limit set by default for maximum distance (>2000mm).

5. Read Distance Transmission Method

Command: r5#

Return Value: S=x where x=0 for active sending (UART), x=1 for passive reading (UART/I2C).

Default is 0 (active sending).

6. Read Distance

Command: r6#

Return Value: L=xxxx where xxxx=100~2000mm. This is only effective in passive reading mode.

7. Read Module I2C Slave ID

Command: r7#

Return Value: I=xxx where xxx=1~254 (0x01~0xFE). Default is 164 (0xA4).

8. Read Xtal Calibration Parameters

Command: r8#

Return Value: X=xxx where xx=0~200. Before calibration, the value is 0.

Write Commands:

1. Set Deviation Value Positive/Negative

Command: s1+xx# or s1-xx#

Response: >Set successful: ok, >Set failed: fail

Description: xx=00~99mm. To clear the deviation, use s1+0# or s1-0#.

2. Set Serial Transmission Interval

Command: s2-xxxx#

Response: >Set successful: ok, >Set failed: fail

Description: xxxx=10~9999ms. Default is 100ms.

3. Set Distance Mode

Command: s3-x#

Response: >Set successful: ok, >Set failed: fail

Description: x=0 for filtered distance, x=1 for real-time distance. Default is 0 (filtered distance).

4. Set Maximum Distance

Command: s4-xxxx#

Response: >Set successful: ok, >Set failed: fail

Description: xxxx=100~2000mm. To not limit the maximum distance, use xxxx=0.

5. Set Distance Transmission Method

Command: s5-x#

Response: >Set successful: ok, >Set failed: fail

Description: x=0 for active sending, x=1 for passive reading.

6. Set I2C Slave ID

Command: s7-xxx#

Response: >Set successful: ok, >Set failed: fail

Description: xxx=1~254 (0x01~0xFE). Default is 164 (0xA4).

7. Calibration Command

Command: s8-x#

Response: >Calibration successful: x=0 returns offset, x=1 returns xtalk, >Calibration parameter setting failed: fail

Description: offset deviation value (-99~99mm), xtalk deviation parameters 0~200.