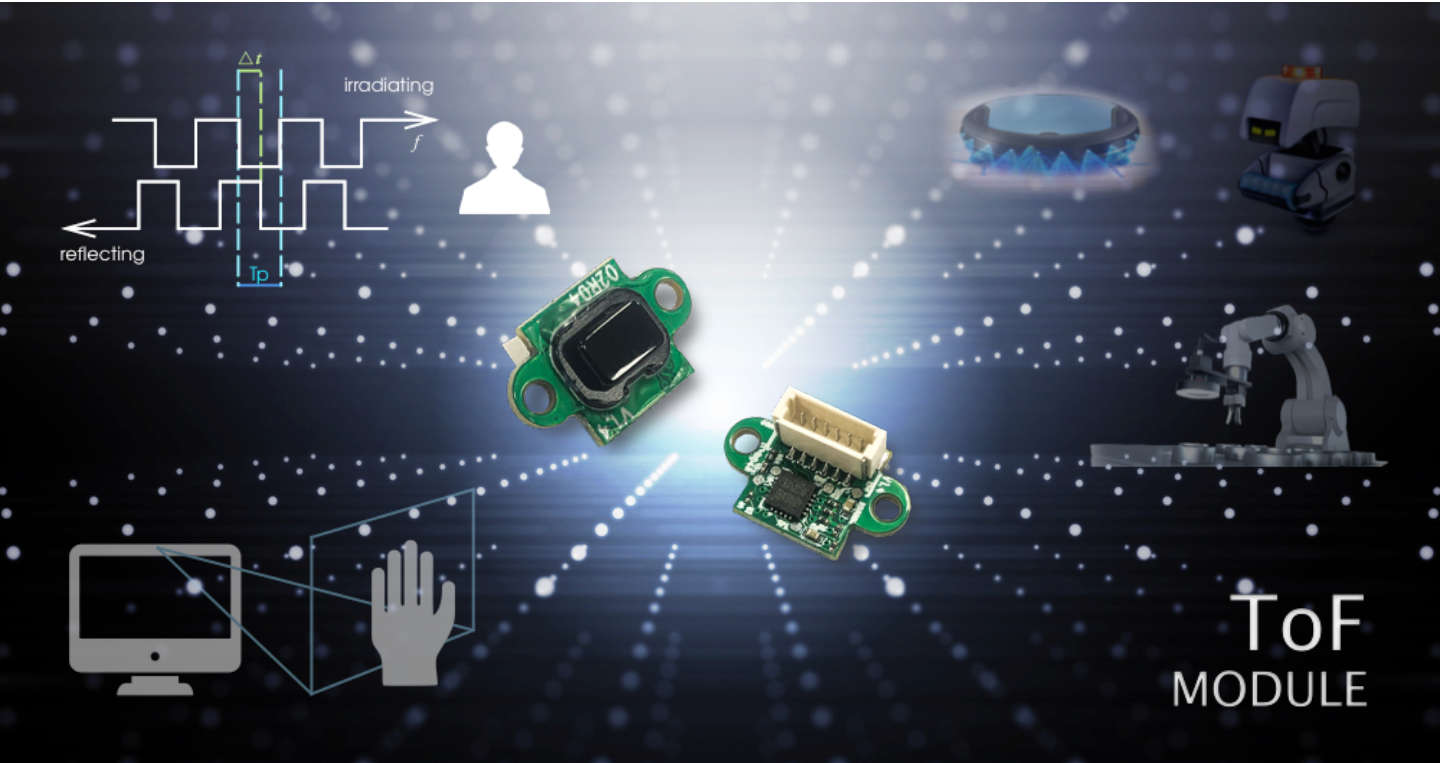


ToF Module FSTOF2002C0D Spec.



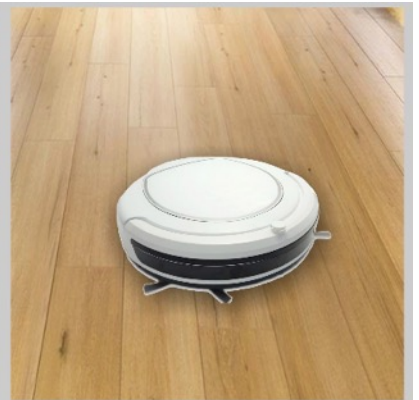
The high performance FSTOF2002C0D is a cost effective middle-range distance ToF(time-of-flight)Module system. Best-in-class distance measurement performance to a wide range of applications, including clean robot, tablets, Drone, and smart home applications.

FSTOF2002C0D's time-of-flight sensing technology is realized by Sharp's original SPAD (Single Photon Avalanche Diodes) It enables accurate ranging result, higher immunity to ambient light and better robustness to work by special optical package design. Please read this document before your design.



Products Benefits

- 940nm emitter classified as class 1 under operation condition by IEC 60825-1:2014-3rd edition
- High accuracy range measurement 10 -200cm
- High speed distance measurement response
- Advanced optical cross-talk compensation
- Easy to set
- No additional optical calibration requirement
- Single power supply
- Lead-free, RoHS compliant



Fundamental function

■ Features

- Working range : 10cm~200cm (White Card)
- Accuracy : $\pm 5\%$ at 200cm (White Card)
- Sensor Board Dimension (mm) : 16.5 x 10 x 7.6
- Interface : UART/I2C

■ Pin define

- Pin define
- 1 : VDD
 - 2 : GND
 - 3 : Tx
 - 4 : Rx
 - 5 : SDA (GPIO)
 - 6 : SCL

1. Overview 概述

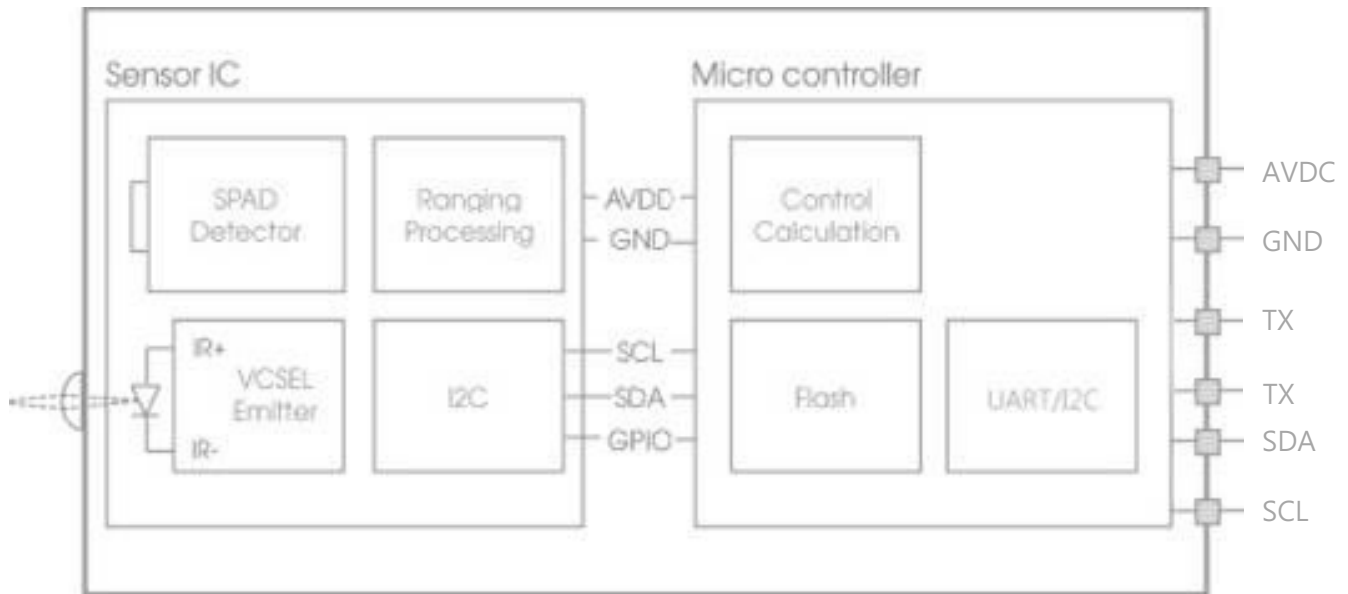
FSTOF2002C0D ToF module is easy using for customer' s requirement, convenient setting for range measurement applications, this product use UART /I2C to as a control interface, for the details, please see this document.

FSTOF2002C0D ToF module針對客戶使用需求，方便設定用於測距相關應用，本產品採用 UART/I2C做控制介面使用，相關細節請見本文說明。

1.1 Technical specification 技術規格

Parameter	Characteristics
MCU	8051
ToF Sensor	GP2AP02VT00F
FoV	25°
Operating temperature	-20 ~ 70°C
Power supply voltage	3.0V ~ 3.6V
Current consumption	10mA
Working Cycle time	36msec
Working Distance	10cm ~ 200cm (White card)
Measurement Accuracy	±5% at 200cm (White card)
Control Interface	UART/I2C
Sensor board Package	6pin / 16×10×7.6mm
Weight	0.5(±0.1)g

1.2 System block diagram 系統架構



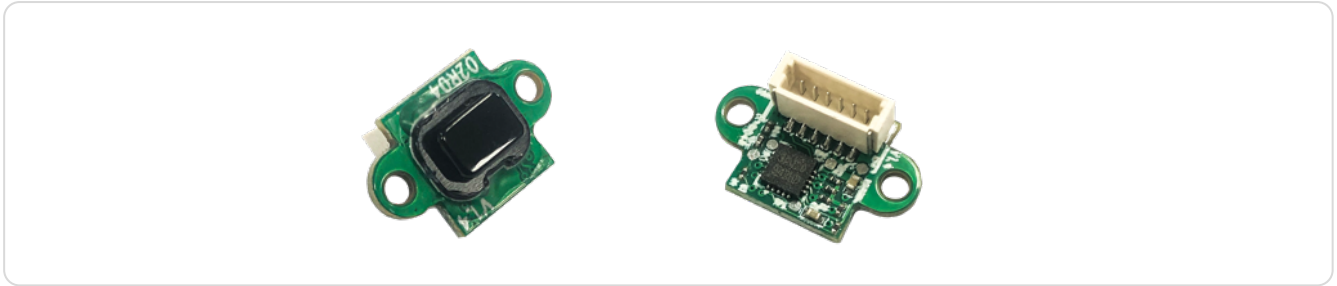
1.3 Device pin define 腳位定義

- 1:VDD: the power pin, power supplied from the control platform 3.3V to ToF Module
- 2:GND: ground pin , the same ground level with the control platform.
- 3:Tx: ToF Moudle sends data output, needs to be connected to the control platform UART interface
- 4:Rx: ToF Moudle receives data input and needs to be connected to the control platform UART interface.
- 5:SDA: ToF Moudle serial data pin, serial data interface that needs to be connected to control platform I2C interface.
- 6:SCL: ToF Moudle serial clock pin, serial clock interface that needs to be connected to the I2C interface of control platform.

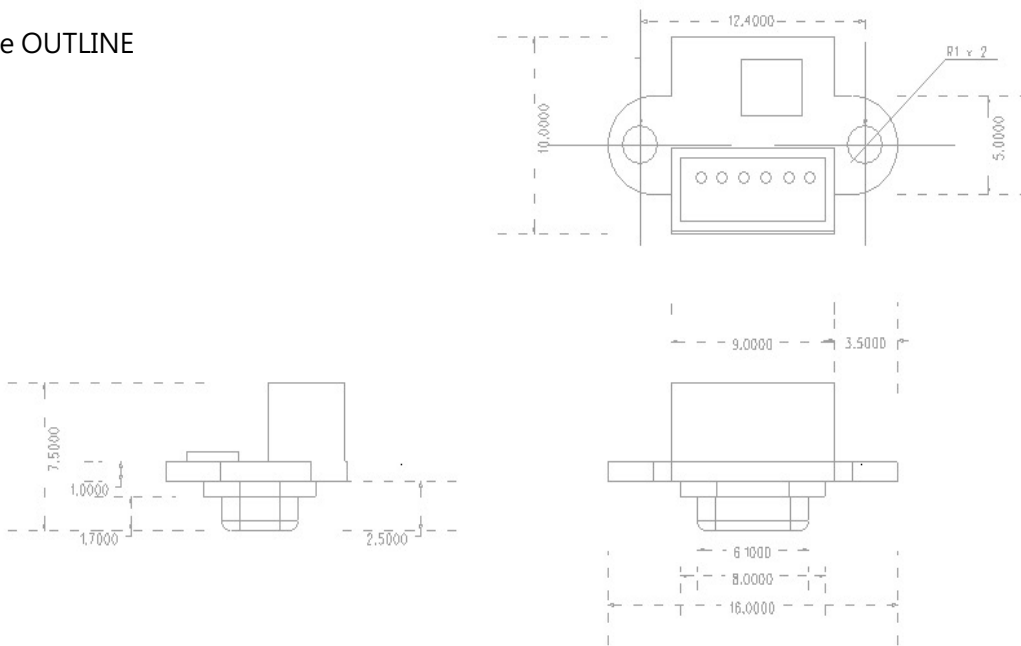
- 1 : VDD : 電源接口端,由控制平台供電3.3v 給ToF Module
- 2 : GND : Ground線,需要與控制平台同一個地的準位
- 3 : Tx : ToF Moudle 發送資料輸出, 需要連接到控制平台UART介面的Rx
- 4 : Rx : ToF Moudle接收資料輸入, 需要連接到控制平台UART介面的Tx
- 5 : SDA : ToF Moudle串列資料線, 需要連接到控制平台I2C介面的串列資料接口
- 6 : SCL : ToF Moudle串列時鐘線, 需要連接到控制平台I2CT介面的串列時鐘接口

3 Design and Application 設計與應用

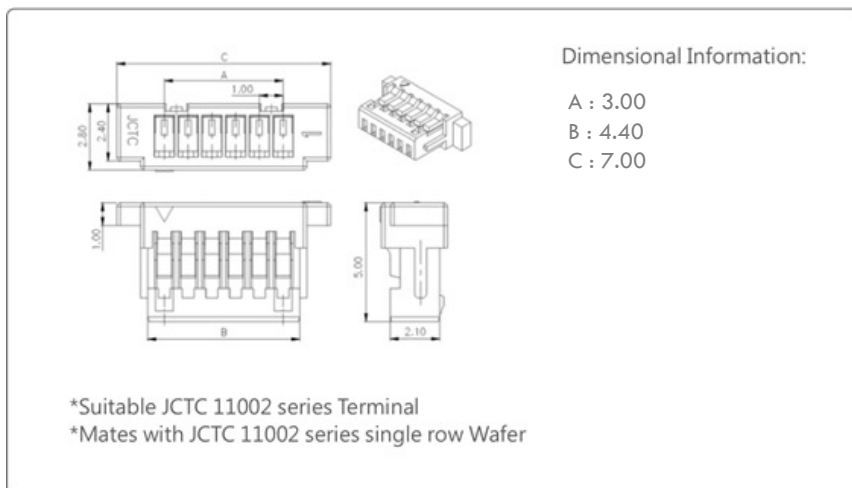
Appearance



Module OUTLINE

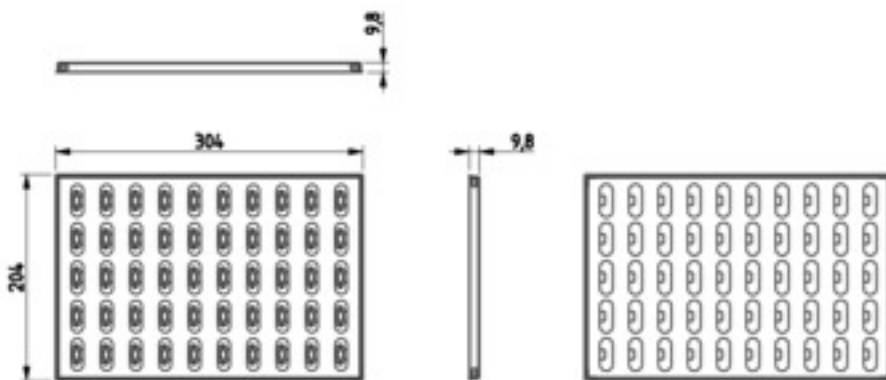


Recommend Connector



包裝方案(暫定)

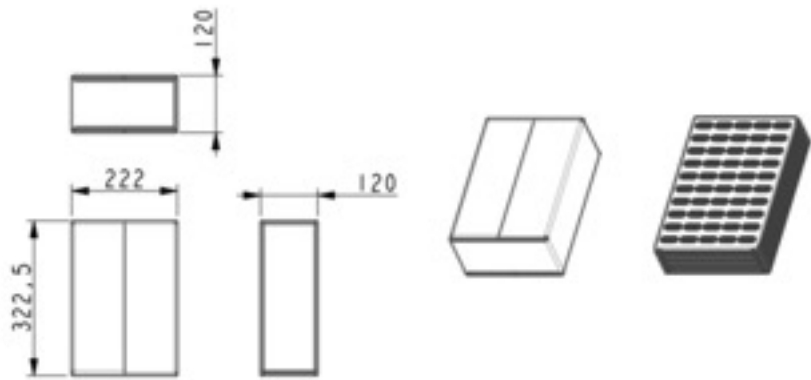
Tray盤:



說明:

- 1、材質:PS吸塑·防靜電;
- 2、顏色:托盤黑色·蓋盤透明色;
- 3、包裝數量:5行10列·一板共計50個產品;
- 4、包裝外尺寸:304mm * 204mm * 9.8mm;

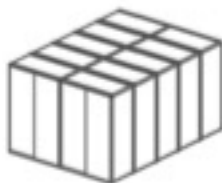
小包裝:



說明:

- 1、材質:瓦楞紙K=K 三層 單坑;
- 2、顏色:牛皮紙原色+表面印刷內容;
- 3、包裝數量:6層·每層1個Tray盤·一個小內包裝共計300個產品;
- 4、紙箱尺寸:322.5mm * 222mm * 120mm;

大包裝:



說明:

- 1、材質:瓦楞紙K=K 五層 雙坑;
- 2、顏色:牛皮紙原色+表面印刷內容;
- 3、包裝數量:5層·每層2個小內包裝·一個大包裝共計4000個產品;
- 4、紙箱尺寸:463.5mm * 335mm * 626mm;

