

**ZhiSENSOR**

**Xi'an ZhiSENSOR Technologies Co., Ltd.**

P1100 is a small-volume, low-power consumption, high-frequency one-axis scanning module independently developed by Xi'an ZhiSENSOR Technology Co., Ltd., which can be used as the core component of solid-state LiDAR.



## P1100 Introduction

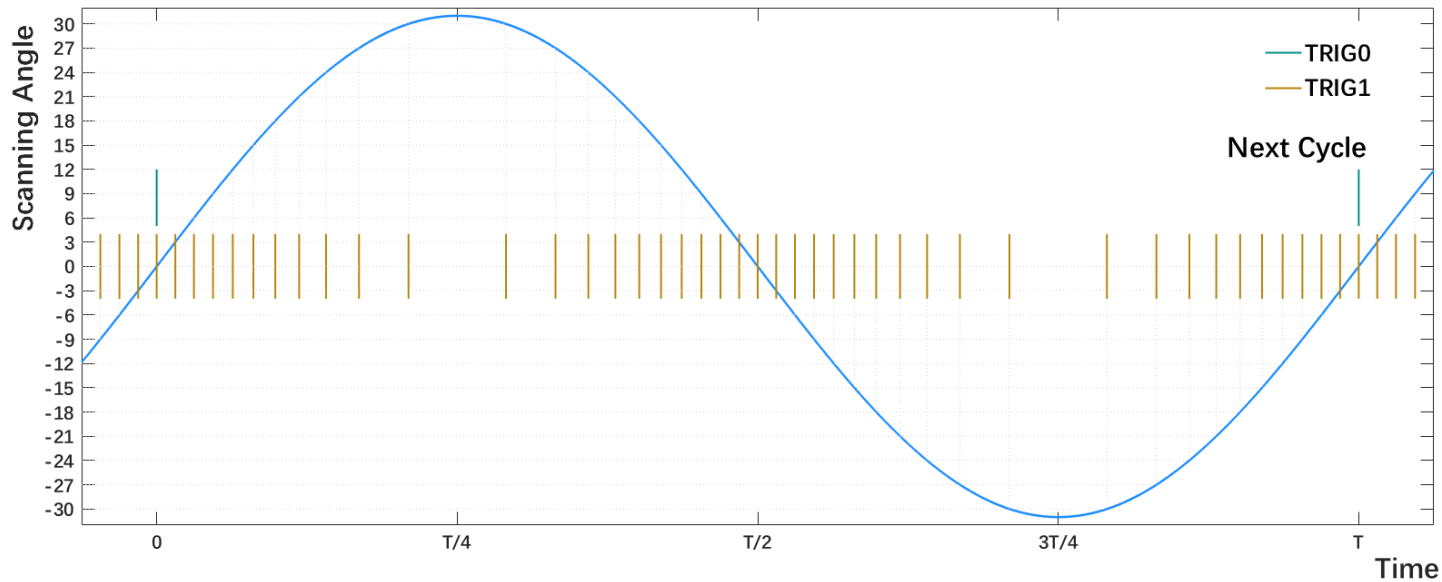
The P1100 is a one-axis scanning module based on a one-axis MEMS mirror. Unlike traditional mechanical mirrors, the MEMS mirror is a resonant device that works reliably but cannot stay at a fixed angle. The MEMS mirror of P1100 works under the closed-loop control system. The P1100 can output pulse signal related to the scanning position of the MEMS mirror in real time. The user can calculate the scanning angle of the MEMS mirror in real time according to the pulse signal.

### Parameters

Parameter	Value	Parameter	Value
Diameter of mirror	1.3mm	Resonant frequency	5.8KHz±10%
Scanning angle	≤60° (Optical angle)	The minimum pulse signal angular resolution	0.05° (Optical angle)
Physical interface	DF37B-10DP-04V	Power consumption	< 120mA@5V
Data interface	SPI	Coating	Au

## Real-time scanning angle

The P1100 module outputs two pulse signals in real time to calculate the real-time scanning angle of the MEMS mirror. The pulse signal TRIG0 outputs at the beginning of each cycle. The pulse signal TRIG1 outputs at every set angle.



The pulse signal TRIG1 is output at every 3°, and the blue line indicates the optical angle of the MEMS mirror.

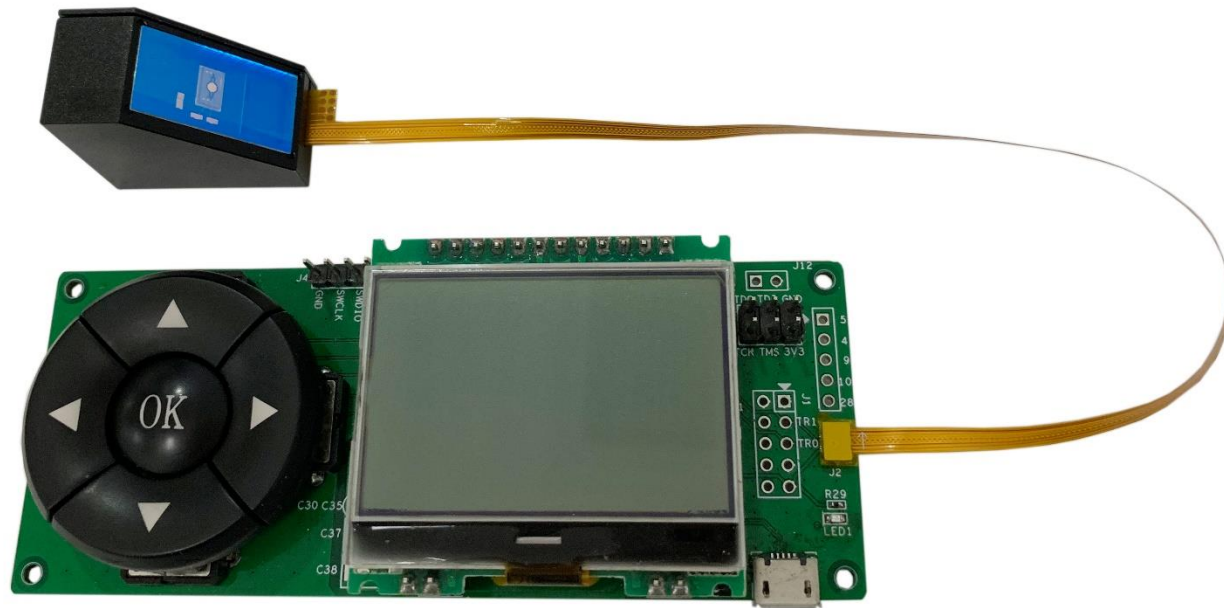
## Protective glass

The glass will protect the MEMS mirror in the process of testing, storage, transportation and usage. It is not recommended to remove this glass. If remove this glass, please observe the following conditions.

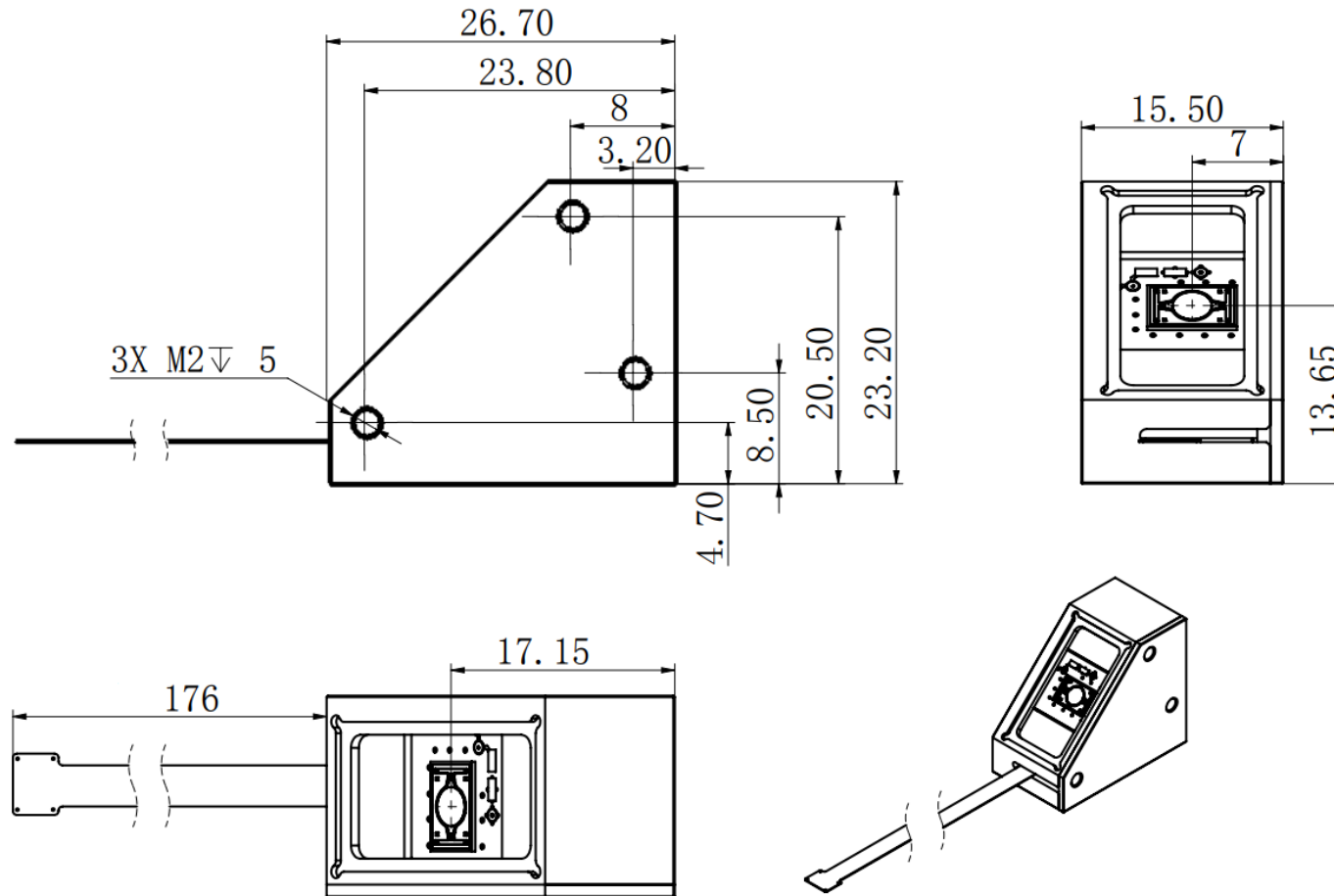
Items	Protective Glass	Conditions
Working temperature	With Glass	-10°C to +50°C
Storage temperature		-40°C to +85°C
Working temperature	Without Glass	-10°C to +50°C
Storage temperature		-40°C to +85°C
Working humidity		<65 %RH
Storage humidity		<65 %RH
Working particle concentration		Level 10000 or higher according to GB/T16292-2010
Storage particle concentration		Level 10000 or higher according to GB/T16292-2010

## Evaluation

The company designs and manufactures a scanning module development board for detecting the fault cause, working status and parameters of the module.



## Dimension:mm



## Order Information

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