

SC-MOD1000

Laser Ranging Module



PRODUCT INTRODUCTION

Automate Matrix's SC-MOD1000 laser ranging module is developed based on a 905nm semiconductor laser. It features a compact size, light weight, and long - distance measurement capabilities. Equipped with a UART (TTL protocol) data transmission interface, along with upper - computer software and a communication protocol instruction set, it facilitates users' secondary development. This module is widely used in applications such as handheld rangefinders, micro - drones, and ranging telescopic sights.

PRODUCT FEATURES



Self-Developed Advanced Algorithms

Utilizes self-developed high - precision calibration and calibration algorithms to ensure measurement accuracy.



Compact and Lightweight

With a small size and light weight, it is easy to integrate into various devices.



Long-distance Measurement

Boasts a wide measurement range of 3 - 1000m.

APPLICATION FIELDS



Handheld Rangefinders

Provides accurate ranging functions for construction measurement, outdoor surveying, and mapping.



Micro-drones

Assists drones in achieving precise obstacle avoidance and altitude measurement.



Ranging Telescopic Sights

Improves shooting accuracy and is widely used in scenarios such as hunting and competitive shooting.

PRODUCT PARAMETERS

Name	Performance Indicators
Measurement Range	3-1000m
Accuracy	±1m when d ≤ 400m; ±(d*0.4%)m when d > 400m
Ranging Frequency	≤2-4Hz
Laser Emission Angle	6mrad
Emission Aperture	10×7.5mm
Receiving Aperture	15×10mm
Wavelength	905nm
Safety Class	Class I eye - safe
Operating Environment	Indoor & Outdoor
Operating Temperature	-30°C to 60°C
Storage Temperature	-30°C to 80°C
Shock Magnitude	1200G-1ms
Structural Dimensions	≤24.6×13.55×25.72mm
Weight	12±0.5g
Communication Interface	UART (TTL - 3.3V)
Power Interface	SM06B - SURS - TF(LF)(SN)
Supply Voltage	DC3V - 5V
Average Power Consumption	≤420mW
Baud Rate	115200bps (default)