

SPD INTEGRATION SERIES

SPD1200S2

LASER CLASS

CLASS 1

IEC 60825-1

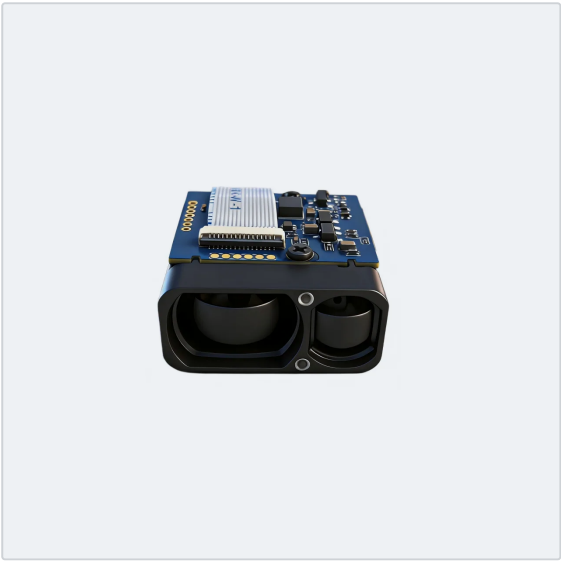
A ≤ 10 g square-format module for easy mechanical integration: full-range 0.2–1,200 m (1,500 m at night) on a fast 4–15 Hz adaptive cadence, with a resin aspherical lens and IP67 lens cavity.

MAX RANGE	ACCURACY	WEIGHT	INTERFACE
0.2–1,200 m (1,500 m night)	± 0.3 m (≤ 400 m)	≤ 10 g	UART-TTL

TECHNICAL SPECIFICATIONS

FULL SHEET

Laser wavelength	905 nm $\pm$ 5 nm
Laser divergence	< 6 mrad
Optical material	Resin aspherical lens
Receiving aperture	9.0 $\times$ 14.5 mm
Ranging range	0.2–1,200 m (max 1,500 m nighttime)
Ranging accuracy	± 0.3 m (≤ 400 m) · ± 0.5 m + d·0.1% (400–1,200 m)
Ranging frequency	4–15 Hz adaptive
Accuracy rate	$\geq 98\%$
Interface	UART-TTL (customizable)
Baud rate	115200 bps
Supply voltage	3.3–5 V
Startup time	≤ 200 ms
Operating power	≈ 0.5 W average · 0.75 W max
Operating temperature	-20 to +60 °C
Storage temperature	-40 to +60 °C
Protection rating	IP67 (lens cavity)
Laser safety class	IEC Class 1
Dimensions	24.6 $\times$ 14.45 $\times$ 26.3 mm (square)
Weight	≤ 10 g



INTERFACE

UART-TTL

PIN	SIGNAL	DESCRIPTION
1	GND	Power -
2	VCC	Power +
3	I/O	Reserved for expansion
4	TXD	Module $\rightarrow$ host
5	RXD	Host $\rightarrow$ module
6	SW-SHOT	Function enable (active high)

APPLICATION FIT

- INTELLIGENT INTEGRATION
- INDOOR & OUTDOOR SENSING
- INDUSTRIAL MEASUREMENT

Standard 8-byte UART frame (0x55 0xAA header, function code, 4 data bytes, checksum); distance returned $\times 10$ for a one-decimal reading. Full integration manual ships with samples.