

SPD MINI – NIGHT VISION & THERMAL

SPD1200H2

LASER CLASS

CLASS 1

IEC 60825-1

Micro 905 nm rangefinder module for thermal imagers, night vision and civil UAV payloads — a Ø17 × 28.2 mm, ≤ 6 g distance engine for weight-critical optics.

MAX RANGE 0.2–1,200 m (1,500 m night)	ACCURACY ±0.3 m (≤100 m)	WEIGHT ≤ 6 g	INTERFACE UART-TTL
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TECHNICAL SPECIFICATIONS

FULL SHEET

Laser wavelength	905 nm ± 5 nm
Laser beam divergence	On request
Optical material	On request
Receiving aperture	On request
Measurement range	0.2–1,200 m (max 1,500 m at night)
Ranging accuracy	±0.3 m (≤100 m) · ±0.3 m + d·0.7‰ (>100 m)
Measurement frequency	2–15 Hz adaptive
Interface	UART-TTL
Baud rate	115200 bps
Supply voltage	DC 3.3–5 V
Startup time	On request
Average laser power	On request
Response time	On request
Operating power	Average 0.45 W · max ≤ 0.75 W
Operating temperature	-20 to +60 °C
Storage temperature	On request
Protection rating	IP67 (lens cavity)
Laser safety class	Class 1 (eye-safe)
Dimensions	Ø17 mm × 28.2 mm
Weight	≤ 6 g
Shock / vibration	On request
Reliability	On request



INTERFACE

UART-TTL

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

APPLICATION FIT

- THERMAL IMAGING
- NIGHT VISION
- CIVIL UAVS

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