

SHORT-RANGE DToF

LRF22VB

LASER CLASS

CLASS 1

IEC 60825-1

A 1.5 g, 21 × 15 × 7.43 mm DToF sensor built for drone altitude hold and robot/AGV obstacle avoidance
— 0.05–20 m at up to 200 Hz with dual UART/I²C output and 60 kLux ambient immunity.

MAX RANGE	ACCURACY	WEIGHT	INTERFACE
0.05–20 m (90% refl.)	±5 cm (<5 m); 1% (≥5 m)	1.5 g	UART / I ² C

TECHNICAL SPECIFICATIONS

FULL SHEET

Laser wavelength	905 nm
Ranging range	0.05–20 m (90% refl.) · 0.05–10 m (10% refl.)
Measurement frequency	200 Hz, selectable 200/100/50/20/10/1 Hz
Ranging accuracy	±5 cm (<5 m) · 1% (≥5 m)
Repeatability	±30 mm
Ambient light immunity	8 m @ 60 kLux
Laser safety class	Class 1
Field of view	3°
Supply voltage	3.0–3.6 V DC
Peak current	70 mA @ 3.3 V
Average current	40 mA @ 3.3 V
Average power consumption	< 0.2 W
Interface	UART / I ² C
Dimensions	21 × 15 × 7.43 mm
Weight	1.5 g
Operating temperature	-20 to +60 °C
Wire specification	6-pin 0.8 mm terminal (HC-0.8-6PWT), 20 cm tinned stranded wires
Customization	Available in appearance / structure / output protocol



INTERFACE

UART-TTL

PIN	SIGNAL	DESCRIPTION
1	NC	Not connected
2	3.3V	External power +
3	TX (SCL)	Host RX (SCL)
4	RX (SDA)	Host TX (SDA)
5	NC	Not connected
6	GND	External power -

APPLICATION FIT

- DRONE ALTITUDE HOLD
- ROBOT & AGV OBSTACLE AVOIDANCE
- CAMERA FOCUSING

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.