

SHORT-RANGE DTOF

LRF10VB · 940 NM

SHORT-RANGE DTOF

LRF10VB

LASER CLASS

CLASS 1

IEC 60825-1

The smallest module in the line: a 1 g, 12 × 7.5 × 9.1 mm single-point DToF sensor for camera autofocus, presence sensing and smart-device integration. Ranges 0.05–9 m at up to 50 Hz with 70 kLux ambient-light immunity.

MAX RANGE	ACCURACY	WEIGHT	INTERFACE
0.05–9 m (90% refl.)	±5 cm (<5 m); 1% (≥5 m)	1 g	UART

TECHNICAL SPECIFICATIONS

FULL SHEET

Laser wavelength	940 nm (per source technical table – flagged, see integration notes)
Ranging range	0.05–9 m (90% refl.) · 0.05–5 m (10% refl.)
Measurement frequency	50 Hz
Ranging accuracy	±5 cm (<5 m) · 1% (≥5 m)
Repeatability	±10 mm
Ambient light immunity	2 m @ 70 kLux
Laser safety class	Class 1
Field of view	3°
Supply voltage	4.5–5.5 V DC
Peak current	4.5 mA @ 5 V
Average current	4 mA @ 5 V
Average power consumption	< 0.1 W (low-power mode supported)
Interface	UART
Dimensions	12 × 7.5 × 9.1 mm
Weight	1 g
Operating temperature	-20 to +60 °C
Wire specification	4-pin 1.25 mm terminal, 10 cm tinned stranded wires
Customization	Available in appearance / structure / output protocol



INTERFACE

UART-TTL

PIN	SIGNAL	DESCRIPTION
1	TX	Module TX → host RX
2	RX	Host TX → module RX
3	GND	External power –
4	5V	External power +

APPLICATION FIT

- CAMERA AUTOFOCUS
- SECURITY MONITORING
- SMART DEVICES

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.