

SHORT-RANGE DToF

LRF600H

LASER CLASS

CLASS1

IEC 60825-1

A 20 g, 33 × 34 × 18 mm long-range DToF LiDAR for traffic safety, shuttle vehicles and overhead cranes — 0.05–600 m with adaptive 1 kHz / 50 Hz output that auto-switches on echo strength.

|                        |                            |          |            |
|------------------------|----------------------------|----------|------------|
| MAX RANGE              | ACCURACY                   | WEIGHT   | INTERFACE  |
| 0.05–600 m (90% refl.) | ±10 cm (<10 m); 1% (≥10 m) | 20 ± 2 g | UART / I²C |

TECHNICAL SPECIFICATIONS

FULL SHEET

|                           |                                                                |
|---------------------------|----------------------------------------------------------------|
| Laser wavelength          | 905 nm                                                         |
| Ranging range             | 0.05–600 m (90% refl.) · 0.05–200 m (10% refl.)                |
| Measurement frequency     | 1 kHz or 50 Hz – switches automatically to match echo strength |
| Ranging accuracy          | ±10 cm (<10 m) · 1% (≥10 m)                                    |
| Repeatability             | ±5 cm (<10 m) · ±50 cm @ 600 m                                 |
| Ambient light immunity    | 100 kLux                                                       |
| Laser safety class        | Class 1                                                        |
| Field of view             | ≈ 4 mrad                                                       |
| Supply voltage            | 9–36 V DC                                                      |
| Peak current              | 100 mA                                                         |
| Average current           | 55 mA                                                          |
| Average power consumption | 1.2 W                                                          |
| Interface                 | UART / I²C                                                     |
| Dimensions                | 33 × 34 × 18 mm                                                |
| Weight                    | 20 ± 2 g                                                       |
| Operating temperature     | -20 to +60 °C                                                  |
| Wire specification        | 1.25 mm, 5-pin, 50 cm stranded wires                           |
| Customization             | Available in appearance / structure / output protocol          |



INTERFACE

UART-TTL

| PIN | SIGNAL    | DESCRIPTION      |
|-----|-----------|------------------|
| 1   | 9–36V     | External power + |
| 2   | Power GND | External power – |
| 3   | Port GND  | Ground           |
| 4   | TX        | Host RX          |
| 5   | RX        | Host TX          |

APPLICATION FIT

- TRAFFIC SAFETY EARLY WARNING
- SHUTTLE & LAND VEHICLE ANTI-COLLISION
- OVERHEAD CRANE POSITIONING

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.