

ULTI
SENSE.

DATASHEET

LRF 3013

Smallest size.
Highly shock-resistant.



The LRF3013 is very compact and extremely powerful and measures conveniently up to more than 5km. In addition it is highly shock-resistant and withstands the harshest weapon shocks up to 1600g.

SWAP optimized

With its extremely small and lightweight design combined with a low power consumption, the LRF 3013 is ideal for all types of handheld, weapon-mounted systems and UAV applications.

High Shock Resistance

The module is thoroughly tested and withstands even the harshest weapon shocks up to 1600g. This makes it the first choice for weapon-mounted systems.

Beam Enhancer inside

To get the maximum performance out of the laser diode, a specially developed beam enhancer is integrated to maximize the possible measuring range.

PRODUCT HIGHLIGHTS

Lightweight with only 45g

Powerful measuring up to 5.1km

Withstands harshest weapon shocks up to 1600g

Extremely low power consumption

High measurement accuracy of 0.75m

Wide operational temperature range from -35°C to +73°C

APPLICATIONS

Weapon mounted devices

Handheld devices

Observation and surveillance systems

Sensor suites for UAV and UGV

LRF 3013

TECHNICAL DATA

PERFORMANCE

Maximum range	5100 m
Range performance on beamfilling target reflectivity: 60%, observer visibility 25km	≥3700 m
Range performance on 2.3×2.3m target size reflectivity: 30%, observer visibility 25km	≥2800 m
Range performance on 1×1m target size reflectivity: 10%, observer visibility 25km	≥1500 m
Minimum range	15 m
Range accuracy (1σ)	±0.75 m
Repetition rates	max 2 Hz
Multiple target detection	up to 3 targets
Wavelength	1550 nm
Divergence	1.0 mrad
Eye safety per IEC 60825-1	Laser Class 1

ENVIRONMENTAL CHARACTERISTICS

Operating temperature range	-35° C to +73° C
Storage temperature range	-48° C to +85° C
Shock (half sine) at 0.6 ms in x-, y- and z-direction	1600 g
EMC	MIL-STD-461G

PHYSICAL CHARACTERISTICS

Weight	45 g
Dimensions (length/width/height)	52 × 37 × 22 mm ³

INTERFACES

Hardware interface	10 pin FCI
Communication interface	UART (3.3V LVCMOS levels)
Power supply	4.5V - 16V
Mechanical interface	3 threaded holes, 2 positioning holes

Technical parameters provided in this document are typical or nominal values.

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