

ULTI
SENSE.

LRF 5042

Datasheet



Powerful and reliable diode laser rangefinder built to withstand harsh environmental conditions.

Thanks to the unique beamshaper technology the LRF 5042 provides a low divergence laser beam resulting in precise measurement results even in poor conditions. A stable, mechanical structure allows the module to withstand harsh environmental conditions such as temperature, shock and vibration. In addition, the module can be upgraded with an integrated high precision digital magnetic compass. This makes this module ideal for remote weapon stations or fire control systems.

PRODUCT HIGHLIGHTS

- Unique beamshaper technology
- Low beam divergence for increased range performance
- Powerful 10 km rangefinder
- Unrestricted eye safe operation
- Weapon shock proof up to 1,000 g
- Available with integrated digital magnetic compass

APPLICATIONS

- Remote weapon stations
- Fire control systems
- Observation and surveillance systems
- Coastguard and border protection

LRF 5042
TECHNICAL DATA

PERFORMANCE

Range performance on beamfilling target Reflectivity 60%, Observer visibility 10 km, typical	8,000 m
Range performance (NATO target) Target size 2.3×2.3 m, Reflectivity 30%, Observer visibility 10 km, typical	6,000 m
Range performance on man size target Target size 1×1 m, Reflectivity 10%, Observer visibility 10 km, typical	3,000 m
Accuracy 50 – 1,500 m (1 σ)	±3 m
Accuracy >1,500 m (1 σ)	±5 m
Single measurement repetition rate	0.3 Hz
High repetition rate	1 Hz
Multiple target detection	up to 3 targets
Wavelength	1,550 nm
Divergence typical	0.4×0.7 mrad
Eye safety per IEC 60825-1	Class 1

ENVIRONMENTAL CHARACTERISTICS

Operating temperature range	-35° C to +55° C
Storage temperature range	-40° C to +85° C
Shock (half sine) at 1 ms in z-direction (line of sight)	1,000 g
Shock (half sine) at 1 ms in x- and y-direction	500 g

PHYSICAL CHARACTERISTICS

Weight	325 g
Dimensions (length/width/height)	114×100×50.25 mm

INTERFACES

Hardware interface	4 pin and 12 pin Minitex
Communication interface	RS232
Power supply	4 V – 6 V
Mechanical interface	4 threaded holes, 2 positioning holes

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