ULTI SENSE.

DATASHEET

LRF 6019

Reliable measuring.
Versatile features.

The LRF 6019 is a versatile 15 km rangefinder, which delivers reliable ranges – even in tough weather conditions. In addition, this extremely lightweight and SWaP-optimized module excels with a low power consumption.

Easy to align

The patented coaxial pointer technology provides a pointer directly in the range measurement beam optics. This pointer at 830 nm is easily detectable with a standard night vision camera. This greatly simplifies optical alignment in the production process without the need for expensive 1550 nm cameras, saving the integrator both time and money. In addition, the LRF 6019 is available with a high power coaxial pointer for target handover.

Accurate speed determination of objects

The LRF 6019 comes with a highly accurate time stamp feature that shows when a measurement took place. This time stamp is accurate to a fraction of a second. In combination with an angle measurement from another source, it provides precise speed determination of objects.

Flexible integration for individual requirements

The detachable laserbox enables flexible integration for an optimal solution where space is at a premium. Removing the laserbox reduces the front dimensions from 40 × 45mm to only 40 × 33mm.

PRODUCT HIGHLIGHTS

- Tough 15 km laser rangefinder
- Lightweight: only 100 g
- Low power consumption
- Time stamp function for speed determination
- Patented Coax-Pointer-Technology inside
- Latest fiber technology for excellent measuring performance
- Measuring rate continuously up to 10 Hz: ideal for object tracking
- Flexible integration due to detachable laser box

APPLICATIONS

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

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LRF 6019

TECHNICAL DATA

PERFORMANCE

Maximum range	15 000 m
Range performance on beamfilling target Reflectivity 60 %, Observer visibility 25 km	≥ 9 700 m
Range performance on 2.3 × 2.3 m target size Reflectivity 30 %, Observer visibility 10 km	≥ 5 500 m
Range performance on 1 × 1 m target size Reflectivity 10 %, Observer visibility 10 km	≥ 3 300 m
Range Accuracy (1σ)	±1 m
Repetition rates	
full range performance	1 Hz
approx. 90 % of full range performance	3 Hz
approx. 80 % of full range performance	5 Hz
approx. 70 % of full range performance	10 Hz
Multiple target detection	up to 5 targets
Wavelength	1550 nm
Divergence	0.45 mrad
Optional pointer wavelength	830 nm
Eye safety per IEC 60825-1	Laser Class 1
Pointer eye safety per IEC 60825-1	Laser Class 1 (Low Power Pointer) Laser Class 3B (High Power Pointer)

ENVIRONMENTAL CHARACTERISTICS, MEETING MIL-STD-810

Operating temperature range	–35° C to +70° C
Storage temperature range	–40° C to +85° C
Shock (half sine) at 0.5 ms in z-direction (line of sight)	1500 g
Shock (half sine) at 0.5 ms in x- and y-direction	500 g
EMC	MIL-STD-461G

PHYSICAL CHARACTERISTICS

Weight	100 g
Dimensions (length/width/height)	60 × 40 × 45 mm

INTERFACES

Hardware interface	Samtec LSHM
Communication interface	RS 232, RS 422
Power supply	3.3 V – 15 V
Mechanical interface	3 threaded holes, 2 positioning holes

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