

LRF127 Laser Rangefinder Module

Noptel

- Ultra compact and lightweight sensor
- Highly integrated technology
- For harsh environmental conditions
- Pulsed time-of-flight measurement
- Low power consumption
- Max. range 3000 m
- Standard serial interface
- Easy integration to mobile or stationary systems
- Diode laser 1.5 μm wavelength
- Wide temperature range
- Shock and vibration resistant
- Eye safe operation
- Available without enclosure for OEM applications



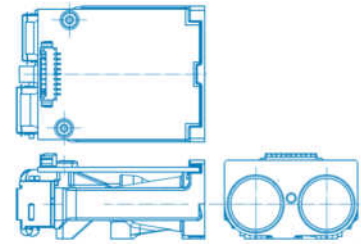
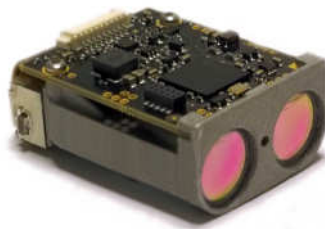
The compact, eye safe and highly integrated LRF laser rangefinder is used in many applications, from demanding military measurements to portable systems.

The unit is delivered without enclosure providing especially for the OEM-users the possibility to embed the unit into their own product or device.

Applications

- Military measurements
- Security measurements
- Target acquisition
- Portable measurements
- Handheld applications
- Sights
- OEM applications

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Technical specifications

Performance Characteristics	Unit	LRF127	Note
Laser safety class	-	1	Eye safe
Wavelength	µm	1.5	
Measurement range	m	20 - 3000	
Measurement range, Standard target	m	1700	Target size 2.3 x 2.3 m, visibility 10 km, target reflectivity 30%, detection probability 90%
Extinction ratio	dB	20.0	Large target @ 500 m, visibility 23 km, target reflectivity 85%
Measuring rate	Hz	1 - 10	Higher measuring rates have limited range
Precision	m	0.5 - 1	Depending on the distance and target reflectivity
Beam divergence	mrاد	0.5 x 2.5	
False detection rate	%	< 1	
Target discrimination	m	< 20	
Range gating resolution	m	1	
Operating temperature	°C	-32 - +65	
Storage temperature	°C	-46 - +71	

Mechanical characteristics	Unit	LRF127	Note
Size (L/W/H)	mm	48 x 34 x 20	
Weight	g	27	
Alignment retention	mrاد	± 0.4	Within operating temperature range
Alignment pointer	nm	635	Laser Class 1
IP Protection	-	N/A	

Electrical characteristics	Unit	LRF127	Note
Serial interface	-	UART 3.3 V	Connector type: Molex 53261-0971
Supply voltage	V	2.5 - 5.5	
Start-up time	s	< 0.4	
Power consumption during measurement	W	< 2.5	
Power consumption in stand-by mode	W	< 0.06	Unit can be completely shut down by external signal to further minimize power consumption

The product requires export license. Specifications are subject to change without notice. Doc.: M43331AE.