LRF500 Laser Rangefinder Module

Noptel

- Compact and lightweight sensor
- Highly integrated technology
- For harsh environmental conditions
- Pulsed time-of-flight measurement
- Low power consumption
- Max. range 10 km
- 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

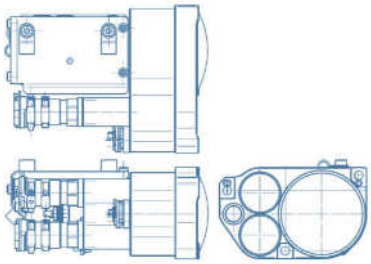
The compact, eye safe and highly integrated LRF laser rangefinder is used in many applications, from demanding military measurements to portable systems.

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

- Vehicle mounted reconnaissance systems
- Airborne, land and maritime systems
- Observation and surveillance systems
- Fire control systems
- Mobile range finding
- Target acquisition
- Handheld targeting systems

Noptel LRF500-M2/M3 Laser Rangefinder Module



Technical Specifications

Performance Characteristics	Unit	LRF500-M2/M3	Note
Laser safety class	-	1	Eye safe
Wavelength	µm	1.5	
Measurement range	m	30-8000/10000	In optimal conditions, firmware limited
Measurement range, Standard target	m	5000	Target size 2.3 x 2.3 m, visibility 10 km, target reflectivity 30%, detection probability 90%
Extinction ratio	dB	36.7	Large target @ 500 m, visibility 23 km, target reflectivity 85%
Measuring rate	Hz	0.5 - 5	Higher measuring rate s have limited range
Precision	m	1 - 3	Depending on the distance and target reflectivity
Beam divergence	mrad	0.8 x 0.8	75% of energy
False detection rate	%	< 0.5	
Target discrimination	m	< 30	
Range gating resolution	m	1	
Operating temperature	°C	-32 - +65	
Storage temperature	°C	-46 - +71	

Mechanical characteristics	Unit	LRF500-M2 LRF500-M3	Note
Size (L/W/H)	mm	129 / 93 / 57	
Weight	g	445	
Alignment retention	mrad	± 0.2	Within operating temperature range
Alignment pointer	nm	635	Laser Class 1
IP Protection	-	N/A	

Electrical characteristics	Unit	LRF500 M2 LRF500-M3	Note
Serial interface	-	RS-232 / RS-422	Alternative options. Please, specify in the order. Connector type: D-Sub, 9-pin male Firmware update via serial interface
Supply voltage	V	12 - 30	
Start-up time	s	< 0.6	
Power consumption during measurement	W	< 5	
Power consumption in stand-by mode	W	< 0.1	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.: M42933CE

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