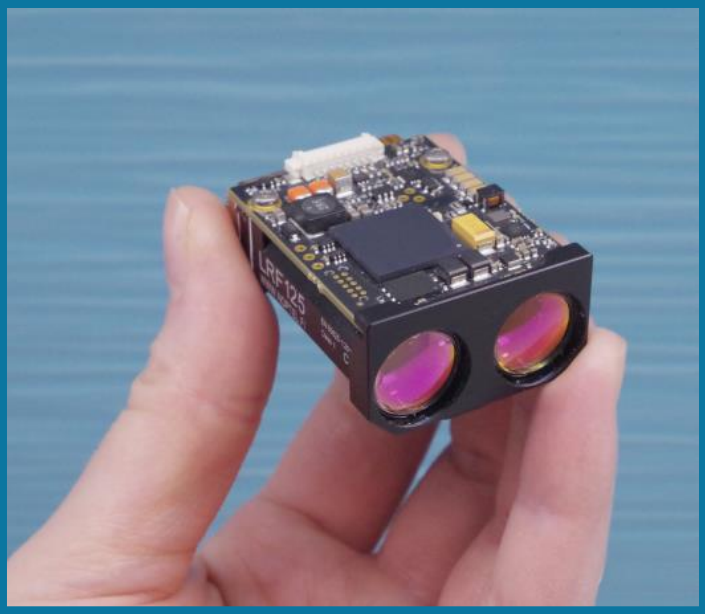
Noptel LRF125 Laser Rangefinder Module

The compact, eye safe and highly integrated LRF rangefinder module is utilized in various commercial applications including small but advanced handheld devices.

The module is delivered without enclosure enabling OEM-users to embed the module into their own system or device.



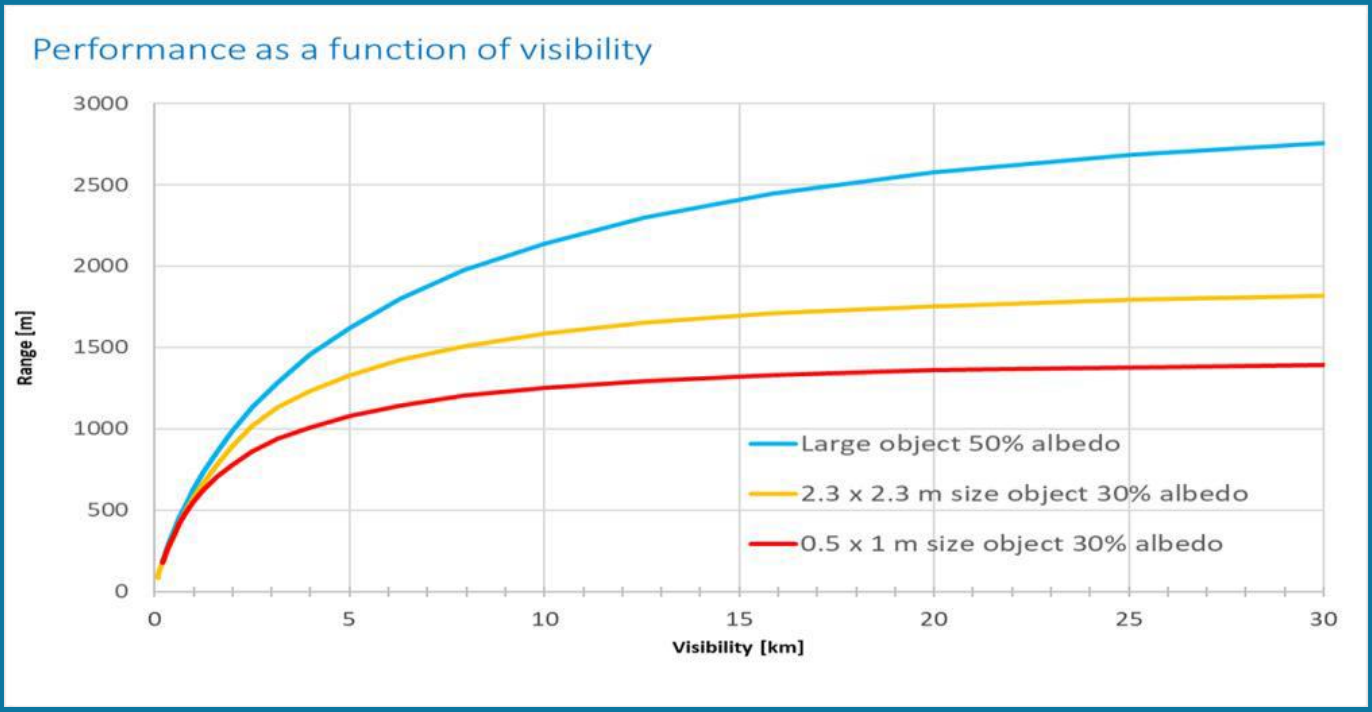
Noptel

Features

- Ultra compact and lightweight module
- Pulsed time-of-flight measurement
- Ranging capability up to 3000 m
- Low power consumption
- 905 nm wavelength
- Eye safe Class 1

Applications

- Speed violation control
- Tunneling & surveying
- Off-shore rescue
- Law enforcement
- Border and port control
- Observation & surveillance
- Drone & UAV gimbals
- Handheld devices
- Hunting rifle sights



AT THE FOREFRONT OF OPTICAL MEASUREMENT TECHNOLOGY

Noptel LRF125 Laser Rangefinder Module

Technical specifications

Performance Characteristics	Unit	LRF125	Note
Laser safety class	-	1	Eye safe
Wavelength	nm	905	
Ranging capability	m	0 - 3000	Range selectable by gating feature
Performance (SMM) (CMM 10Hz)	m	1750 1000	Target size 2.3 x 2.3 m, visibility 25 km, target reflectivity 30%, detection probability 90%
Measuring time in Single Measurement Mode (SMM)	s	1.4	Full performance
Continuous Measurement Mode (CMM) rates	Hz	1, 4, 10, 20, 100, 200, 500	Range performance depends on applied rate
Precision	m	0.01 - 0.5	Depending on distance and target reflectivity
Beam divergence (HxV)	mrad	2.5 x 0.5	(HxV) = Horizontal x Vertical
False detection rate	%	< 1	
Object discrimination	m	< 30	Depending on the received signal level. Up to three (3) targets: First, Second and Last.
Range gating resolution	m	1	
Operating temperature	°C	-32 - +65	
Storage temperature	°C	-46 - +71	
Mechanical characteristics	**Unit**	**LRF125**	**Note**
Size (L/W/H)	mm	48 x 34 x 20	
Weight	g	34	
Alignment retention	mrad	± 0.4	Within operating temperature range
Alignment pointer	nm	N/A	
IP Protection	-	N/A	
Electrical characteristics	**Unit**	**LRF125**	**Note**
Serial interface	-	UART 3.3 V	Connector type: Molex 53261-0871 Firmware update via serial interface
Start-up time	s	< 0.3	Measurement readiness from power-up
Supply voltage	V	3.3 – 5.4	Voltage at the supply input of the LRF
Power consumption	W	< 1.3	
Power consumption in stand-by mode	W	< 0.2	Unit can be completely shut down by external signal to further minimize power consumption

Specifications are subject to change without notice. Doc.: M43769HE

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