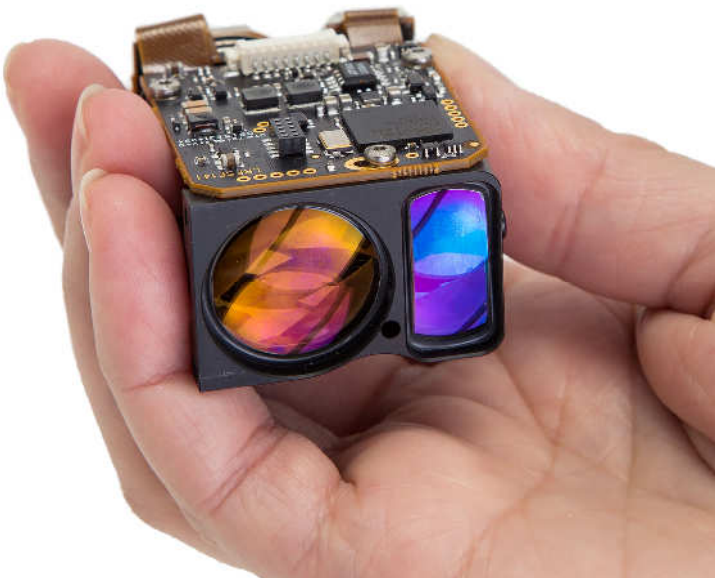


# LRF200 Laser Rangefinder Module

# Noptel

The compact, eye safe and highly integrated LRF rangefinder module is utilized in various applications from versatile systems to handheld devices.

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



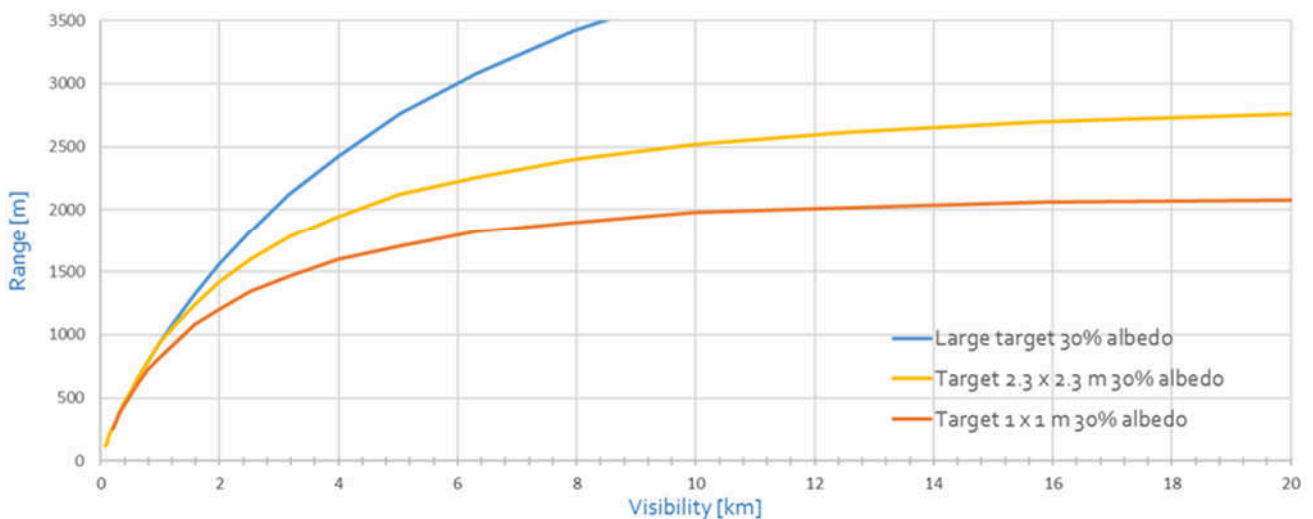
## Features

- Ultra compact and lightweight
- Pulsed time-of-flight measurement
- Low power consumption
- Ranging capability up to 5000 m
- Diode laser 1.5  $\mu\text{m}$  wavelength
- Eye safe Class 1

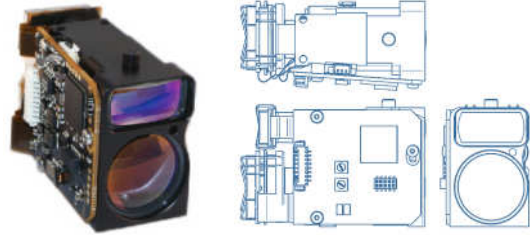
## Applications

- Reconnaissance
- Observation and surveillance
- Border and port control
- Off shore rescue
- Drone & UAV gimbals
- Handheld devices
- Sights

## Performance as a function of visibility



# Noptel LRF200 Laser Rangefinder Module



## Technical specifications

Performance Characteristics	Unit	LRF200	Note
Laser safety class	-	1	Eye safe
Wavelength	μm	1.5	
Ranging capability	m	0 - 5000	Range selectable by gating feature
Measuring time in Single Measurement Mode (SMM)	s	0.4 - 1.6	Depending on the strength of the echo
Performance to standard NATO target (SMM)	m	2400	Target size 2.3 x 2.3 m, visibility 10 km, target reflectivity 30%, detection probability 90%
Continuous Measurement Mode (CMM) rates	Hz	1, 4, 10, 20, 100, 200	Range performance depends on applied rate
Precision	m	0.1 - 1	Depending on distance and target reflectivity
Beam divergence (HxV)	mrad	0.5 x 2.5	(HxV) = Horizontal x Vertical
False detection rate	%	< 1	
Target discrimination	m	< 20	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	LRF200	Note
Size (L/W/H)	mm	55 x 36 x 26	
Weight	g	51	
Alignment retention	mrad	± 0.2	Within operating temperature range
Alignment pointer	nm	635	Laser Class 1
IP Protection	-	N/A	
Electrical characteristics	Unit	LRF200	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	2.8 - 4.4 4.6 - 5.4	85% performance Full performance
Power consumption	W	< 2.5 < 5.7	Applied supply voltage 2.8 - 4.4 V Applied supply voltage 4.6 - 5.4 V
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.: M42930FE.