

# LRX-25A Laser Rangefinder Module

# Noptel

The compact, eye safe and highly integrated LRX 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.



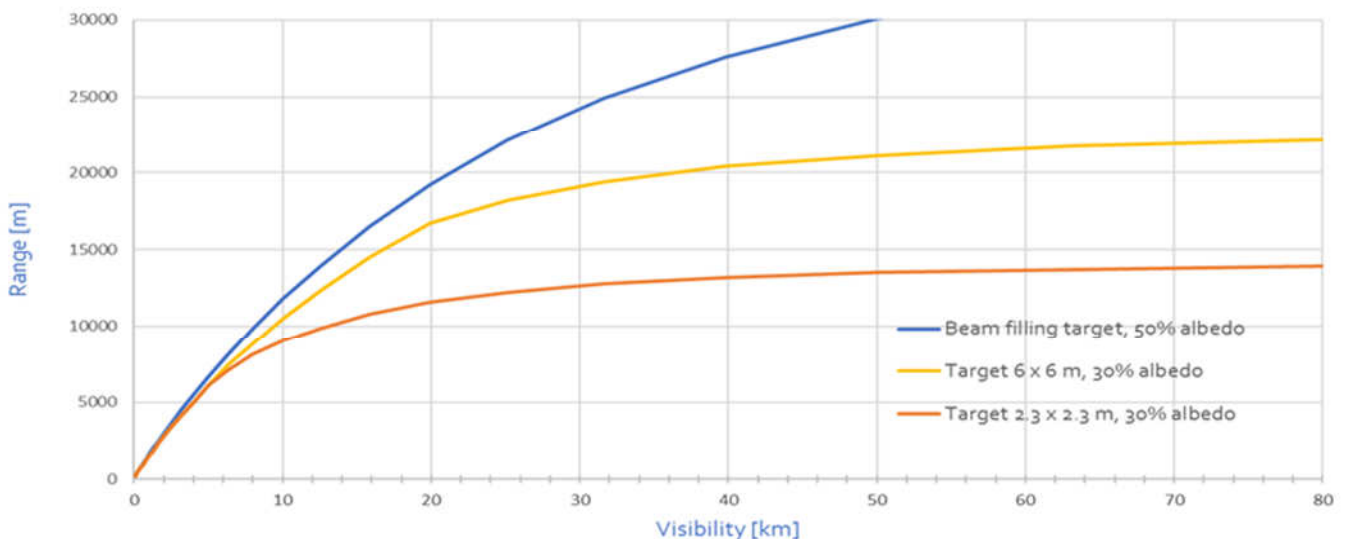
## Features

- Compact and lightweight
- Low power consumption
- Pulsed time-of-flight measurement
- Ranging capability beyond 30 km
- Laser 1.5  $\mu\text{m}$  wavelength
- Eye safe Class 1

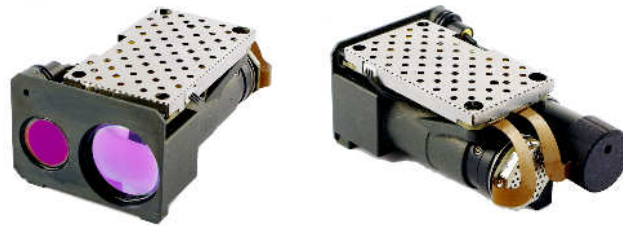
## Applications

- Reconnaissance
- Observation and surveillance
- Border and port control
- Off shore rescue
- Naval systems
- Drone & UAV gimbals
- Handheld devices
- Vehicle mounted systems

## Performance as a function of visibility



# Noptel LRX-25A Laser Rangefinder Module



## Technical specifications

Performance Characteristics	Unit	LRX-25A	Note
Laser safety class	-	1	Eye safe
Wavelength	µm	1.5	
Ranging capability	m	32 000	Range selectable by gating feature (Default 32 km)
Performance to standard NATO target (SMM)	m	10 000	Target size 2.3 x 2.3 m, visibility 15 km, target reflectivity 30 %, detection probability > 90 %
Extinction ratio	dB	41	Beam filling target @ 500 m, visibility 23 km, target reflectivity 85 %
Measuring time in Single Measurement Mode (SMM)	s	0.4 / 0.7 / 1.5	Quick SMM 1 / Quick SMM 2 / SMM. SMM measurement two (2) times in ten (10) seconds due to eye-safety.
Continuous Measurement Mode (CMM) rates	Hz	1, 4, 10, 20, 100, 200	Range performance depends on applied rate
Precision	m	0.5 - 1.5	Depending on the distance and target reflectivity
Beam divergence	mrاد	0.35	
False detection rate	%	< 1	
Target discrimination	m	< 30	Depending on the received signal level. Up to three (3) targets: First, Second and Last.
Range gating resolution	m	1	Selectable from 0 to 32 000 m
Operating temperature	°C	-32 - +60	
Storage temperature	°C	-40 - +71	

Mechanical characteristics	Unit	LRX-25A	Note
Size (L/W/H)	mm	88 x 53 x 37	
Weight	g	136	
Alignment retention	mrاد	0.2	Within operating temperature range
Alignment pointer	nm	635	Laser Class 1
IP Protection	-	N/A	

Electrical characteristics	Unit	LRX-25A	Note
Serial interface	-	RS422	Connector type: Molex 53261-1071 UART 3.3 V and RS232 available on request
Start-up time	s	< 0.3	Measurement readiness from power-up
Supply Voltage	V	7 - 30	
Power consumption	W	< 4	
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.:M43332HE