

# LRX-20A 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.



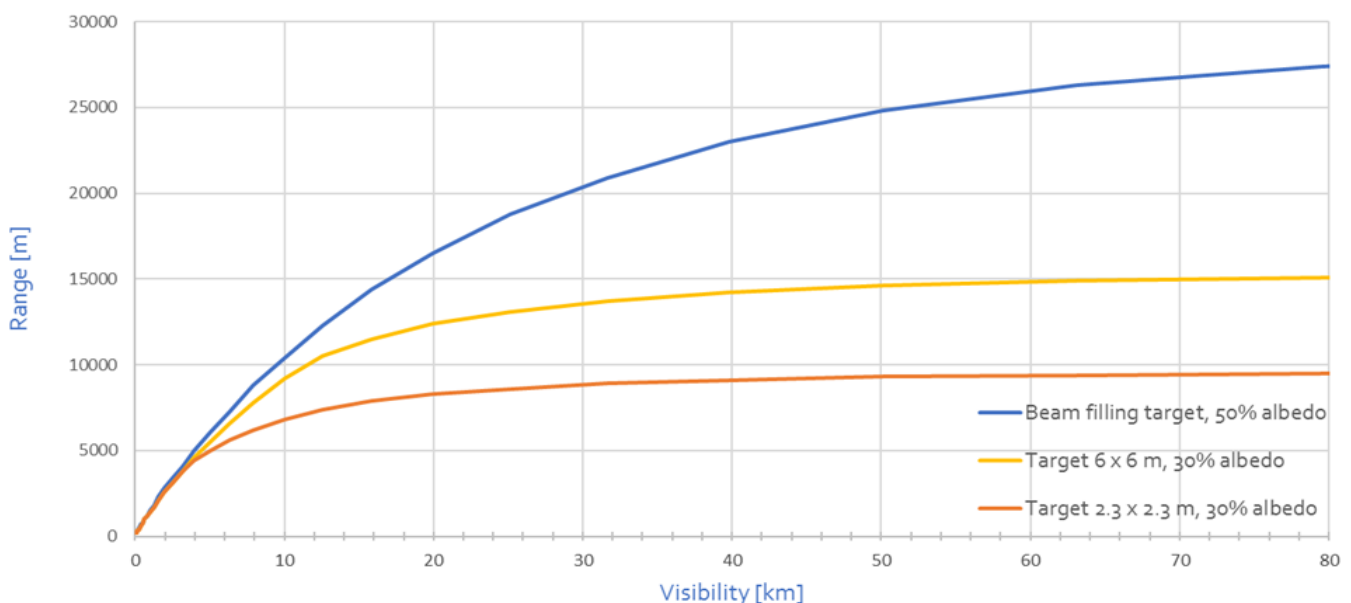
## Features

- 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

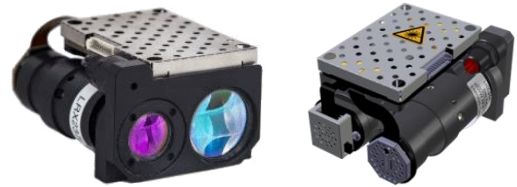
## Applications

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

## Performance as a function of visibility



# LRX-20A Laser Rangefinder Module



## Technical specifications

Performance Characteristics	Unit	LRX-20A	Note
Laser safety class	-	1	Eye safe
Wavelength	μm	1.5	
Ranging capability	m	32 000	Range selectable by gating feature
Performance to standard NATO target (SMM) (CMM 10Hz)	m	8 600 4 000	Target size 2.3 x 2.3 m, visibility 25 km, target reflectivity 30%, detection probability 90%
Extinction ratio (SMM) (CMM 10 Hz)	dB	38.8 29.0	Beam filling target @500m, visibility 23 m, target reflectivity 85 %
Measuring time in Single Measurement Mode (SMM)	s	1.4	Full performance
Continuous Measurement Mode (CMM) rates	Hz	1, 4, 10, 20, 100, 200	Range performance depends on applied rate
Precision	m	0.01 - 0.5	Depending on distance and target reflectivity
Beam divergence	mrad	0.6	
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 25 to 32 000 m
Operating temperature	°C	-32 - +60	
Storage temperature	°C	-40 - +71	
Mechanical characteristics	Unit	LRX-20A	Note
Size (L/W/H)	mm	68 x 48 x 34	
Weight	g	120	
Alignment retention	mrad	0.2	Within operating temperature range
Alignment pointer	nm	635	Laser Class 1
IP Protection	-	N/A	
Electrical characteristics	Unit	LRX-20A	Note
Serial interface	-	RS-422	UART 3.3V and RS232 available on request Connector type: Molex 53261-1071 Firmware update via serial interface
Start-up time	s	< 0.3	Measurement readiness from power-up
Supply voltage	V	8 - 30	Voltage at the supply input of the LRF
Power consumption	W	< 3.6	
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.: M43819GE