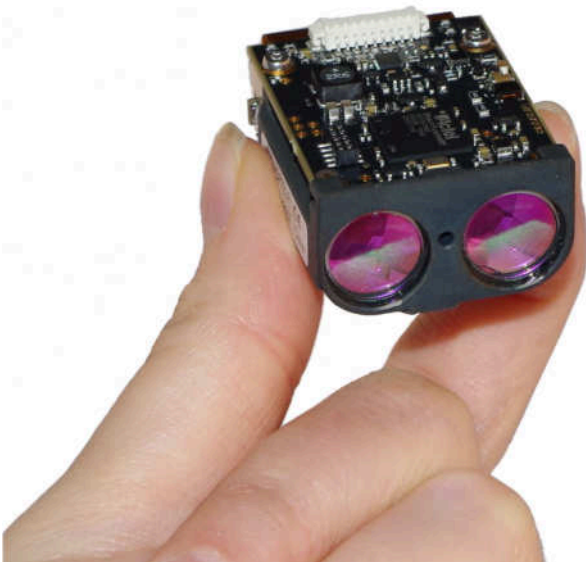


LRF127 Laser Rangefinder Module

Noptel

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

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



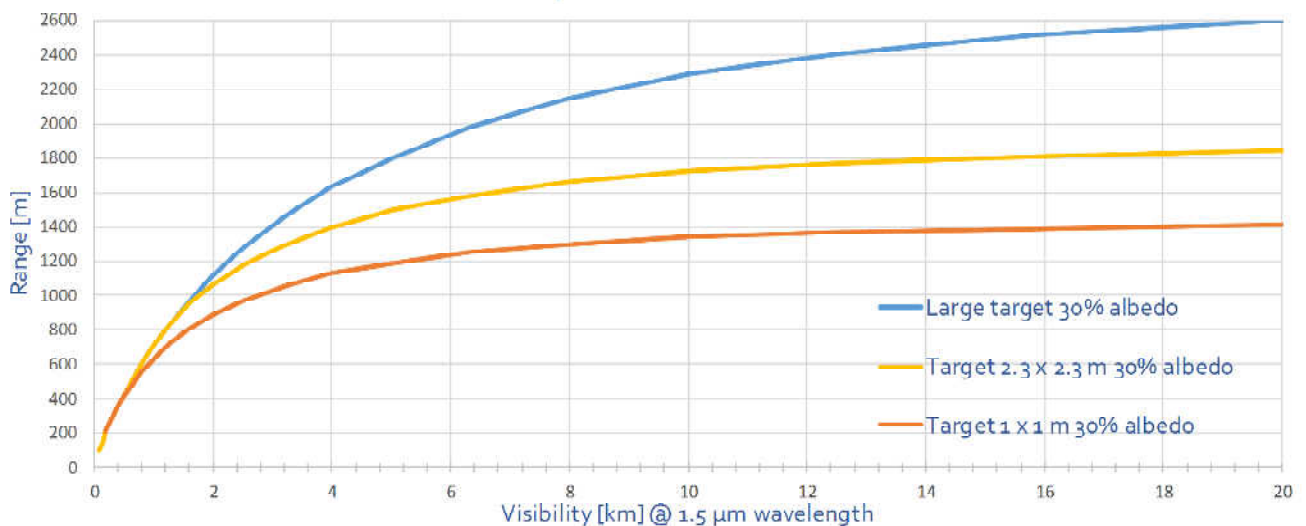
Features

- Ultra compact and lightweight sensor
- Pulsed time-of-flight measurement
- Low power consumption
- Ranging capability up to 3000 m
- Diode laser 1.5 μm wavelength
- Eye safe Class 1

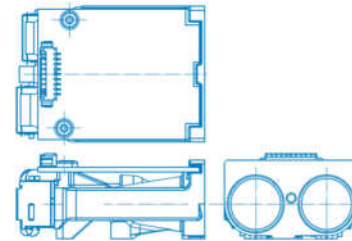
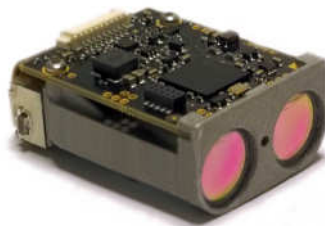
Applications

- Reconnaissance
- Observation & surveillance
- Target acquisition
- Fire control
- Drones & UAVs
- Handheld devices
- Sights

Performance as a function of visibility



Noptel LRF127 Laser Rangefinder Module



Technical specifications

Performance Characteristics	Unit	LRF127	Note
Laser safety class	-	1	Eye safe
Wavelength	µm	1.5	
Ranging capability	m	20 - 3000	
Ranging capability Standard NATO target	m	1700	Target size 2.3 x 2.3 m, visibility 10 km, target reflectivity 30%, detection probability 90%
Extinction ratio	dB	20.0	Large target @ 500 m, visibility 23 km, target reflectivity 85%
Measuring time	s	0.3 / 0.9	Depending on the strength of the echo
Measurement rate	Hz	0.5 - 10	Range performance depends on applied rate. Seven measurements with max. performance in 10 seconds.
Precision	m	0.5 - 1	Depending on distance and target reflectivity
Beam divergence	mrad	0.5 x 2.5	
False detection rate	%	< 1	
Target discrimination	m	< 20	
Range gating resolution	m	1	
Operating temperature	°C	-32 - +65	
Storage temperature	°C	-46 - +71	

Mechanical characteristics	Unit	LRF127	Note
Size (L/W/H)	mm	48 x 34 x 20	
Weight	g	27	
Alignment retention	mrad	± 0.4	Within operating temperature range
Alignment pointer	nm	635	Laser Class 1
IP Protection	-	N/A	

Electrical characteristics	Unit	LRF127	Note
Serial interface	-	UART 3.3 V	Connector type: Molex 53261-0971
Supply voltage	V	2.5 - 5.5	
Start-up time	s	< 0.4	
Power consumption during measurement	W	< 2.5	
Power consumption in stand-by mode	W	< 0.2	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.: M43331BE.