

Long Range Laser Rangefinder Modules

Noptel

Primary Features

- Module weight only 34-250 grams
- Ranging capability beyond 30 km

Applications

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



AT THE FOREFRONT OF OPTICAL MEASUREMENT TECHNOLOGY

Noptel Long Range Laser Rangefinder Modules

Technical specifications

	LRF125	LRF126	LRF127	LRF-15A	LRF421	LRX-20A	LRX-25A	LRX-42A
Performance characteristics								
• Ranging capability [m]	0 - 3000	0 - 4500	0 - 4500	0 - 12000	3 - 12000	32000	32000	39000
• SMM perf. NATO target [m]*1)	1750	1850	1850	3500	5700	8600	12000 / 12400 *8)	17300 / 17600 *8)
• CMM 10Hz perf. NATO target [m]*1)	1000	1200	1200	2100	3800	4000	5100 / 9300 *8)	7300 / 13300 *8)
• Measuring time in SMM [s]	1.4	1.3	1.3	1.8 *5)	1.8 *7)	1.4	1.5 / 1.7*8)	1.5 / 1.7*8)
• CMM measurement rates [Hz]*2)	1...500	1...500	1...500	1...500	1...500	1...200	1...500	1...500
• Precision [m] *3)	0.01 - 0.5	0.01 - 0.5	0.01 - 0.5	0.01 - 0.5	0.01 - 0.5	0.01 - 0.5	0.01 - 0.5	0.01 - 0.5
• Beam divergence [mrad] (HxV)	2.5 x 0.5	0.5 x 2.5	0.5 x 2.5	1.6 x 1.6	1.0 x 0.8	0.6	0.35	0.25
• False detection rate [%]	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
• Target discrimination [m] *4)	< 30	< 20	< 20	< 20	< 30	< 30	< 30	< 30
Mechanical characteristics								
• Size (L/W/H) [mm]	48/34/20	48/34/20	48/34/20	48/34/22	116/66/52	67/48/34	88/53/37	102/70/51
• Weight [g]	34	34	36	42	200	120	136	250
• Alignment pointer [nm]	-	-	635	Optional *6)	635	635	635	635
Electrical characteristics								
• Supply voltage [V]	3.3 - 5.4	3.3 - 5.4	3.3 - 5.4	4.5 - 15	5.0 - 30	8 - 30	8 - 30	8 - 30
• Power consumption [W]	< 1.3	< 1.8	< 1.8	< 2.0	< 2.0	< 3.6	< 3.6	< 3.6
• Power consumption, stand-by [W]	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
• Start-up time [s]	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
• Serial interface	UART 3.3V	UART 3.3V	UART 3.3V	UART 3.3V	RS422/232 /UART 3.3V	RS422/232 /UART 3.3V	RS422/232 /UART 3.3V	RS422/232 /UART 3.3V

General specifications

- Laser Class 1, except for LRX-25A and LRX-42A alternatively laser class 1 or 1M
- Wavelength 1.5 µm, except 905 nm for LRF125
- LRF operating / storage temperatures: -32 - +65 °C / -46 - +71 °C
- LRX operating / storage temperatures: -32 - +60 °C / -40 - +71 °C
- Firmware update via serial interface

Specifications are subject to change without notice.
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Notes:

- *1) Target size 2.3 x 2.3 m, visibility 25 km, maximum measuring time, target reflectivity 30%, detection probability 90%
- *2) Range performance depends on applied rate.
- *3) Depending on distance and target reflectivity.
- *4) Depending on received signal level. Up to three (3) targets: First, Second and Last
- *5) At 7.5 km range setting. At 12 km range setting measuring time is 2.8 seconds
- *6) Optional pointers for LRF-15A:
Option 1. 635 nm, Class 1
Option 2. 850 nm, Class 1
Option 3. 640 nm, Class 1 / Class 3B
Option 4. 850 nm, Class 1 / Class 3B
- *7) At 8 km range setting. At 12 km range setting measuring time is 2.4 seconds
- *8) Class 1 / Class 1M.