

Long Distance Rangefinder Modules

Noptel



Applications

- Reconnaissance
- Observation and surveillance
- Target acquisition
- Fire control
- Naval systems
- Drones & UAVs
- Vehicle mounted systems
- Handheld devices
- Sights

Noptel Long Distance Rangefinder Modules



Technical specifications



	LRF127	LRF200	LRF221	LRF241	LRF421	LRF500	LRX-25A
Performance characteristics			*7)		*8)		
• Ranging capability [m]	20 - 3000	20 - 3500	30 - 6000	30 - 6000	30 - 6100	30 - 8000	50 - 32000
• Standard NATO target [m] *1)	1700	2000	3000	3500	4600	5000	10000 *9)
• Extinction ratio [dB] *2)	20.0	23.1	27.3	28.2	34.2	36.7	41.0
• Measuring time max. [s] *1)	0.9	0.9	1.2	1.2	1.4	1.0 (1.3)*8)	2.0
• Measurement rate [Hz] *3)	0.5 - 10	0.7 - 10	0.5 - 10	0.5 - 10	0.5 - 5	0.5 - 5	0.2 .. 200
• Precision [m] *4)	0.5 - 1	0.5 - 1	0.5 - 1	0.5 - 1	0.5 - 1.5	0.5 - 2	0.5 - 1.5
• Beam divergence [mrad]	0.5 x 2.5	0.5 x 2.5	1.25 x 1.0	0.8 x 1.0	0.8 x 1.0	1.0 x 1.0*6)	0.35
• False detection rate [%]	< 1	< 1	< 1	< 1	< 1	< 1	< 1
• Target discrimination [m]	< 20	< 20	< 20	< 20	< 30	< 30	< 30
Mechanical characteristics							
• Size (L/W/H) [mm]	48/34/20	55/36/26	95/50/26	120/31/45	116/66/52	124/92/57	88/53/37
• Weight [g]	27	51	100	150	200	445	136
• Alignment retention [mrad] *5)	±0.4	±0.2	±0.3	±0.4	±0.2	±0.2	±0.2
• Alignment pointer [nm]	635	635	635	635	635	optional	635
Electrical characteristics							
• Supply voltage [V]	2.5 - 5.5	2.7 - 5.0	2.7 - 5.0	2.7 - 5.0	9 - 30	12 - 30	7 - 30
• Power consumption, meas. [W]	< 2.5	< 3	< 2.5	< 2.5	< 3	< 5	< 4
• Power consumption, stand-by [W]	< 0.2	< 0.2	< 0.2	< 0.2	< 0.1	< 0.1	< 0.2
• Start-up time [s]	< 0.4	< 0.5	< 0.5	< 0.5	< 0.6	< 0.6	< 0.05
• 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

General Specifications

- Laser Class 1 (EN 60825-1:2007, IEC 60825-1:2007)
- Wavelength 1.5 μm
- Operating temperature -32 - +65 °C *9)
- Storage temperature -46 - +71 °C
- Firmware update via serial interface

The products require an export license.
Pictures are referential. All specifications are subject to change without notice. Ref. M42934EE ©Noptel

Notes:

- *1) Target size 2.3 x 2.3 m, visibility 10 km, maximum measuring time, target reflectivity 30%, detection probability 90%
- *2) Large target @ 500m, visibility 23 km, target reflectivity 85%
- *3) Range performance depends on applied rate. Ask for higher rates.
- *4) Depending on the distance and target reflectivity.
- *5) Within operational temperature range.
- *6) 75 % of energy
- *7) As an alternative is available LRF301-M2 with size of 99/49/35 mm.
- *8) As an alternative is available LRF500-M3 with max. measurement range of 10000 m.
- *9) LRX-25A: Meas. range @ std. NATO target in visibility of 15 km. Operating / storage temperatures: -32 - +60 °C / -40 - +71 °C.