

# Long Distance Rangefinder Modules

# Noptel



## Applications

- Vehicle mounted reconnaissance systems
- Airborne, land and maritime systems
- Observation and surveillance systems
- Fire control systems
- Mobile range finding
- Target acquisition
- Handheld targeting systems
- Sights

# Noptel Long Distance Rangefinder Modules



## Technical specifications



	LRF127	LRF200	LRF221	LRF241	LRF421	LRF500	LRX-25A
<b>Performance characteristics</b>			*7)		*8)		
• Measurement range [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)	0.8	0.9	1.2	1.2	0.5 / 1.4	1.2 (1.6)*8)	0.7 / 1.7
• Measurement rate [Hz] *3)	1 - 10	1 - 20	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	1 - 3	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	1.0 x 0.8	0.8 x 0.8*6)	0.35
• False detection rate [%]	< 1	< 1	< 1	< 1	< 1	< 0.5	< 1
• Target discrimination [m]	< 20	< 20	< 20	< 20	< 30	< 30	< 30
<b>Mechanical characteristics</b>							
• 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
<b>Electrical characteristics</b>							
• 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]	< 0.06	< 0.06	< 0.06	< 0.06	< 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	RS232/422 /UART 3.3V	RS232/422 9-pin D-conn.	RS422/232 /UART 3.3V

## General Specifications

- Laser Class 1 (EN 60825-1:2007, IEC 60825-1:2007)
- Wavelength 1.5  $\mu\text{m}$
- 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. M42934DE ©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) Higher measurement rates have limited measurement range.
- \*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.