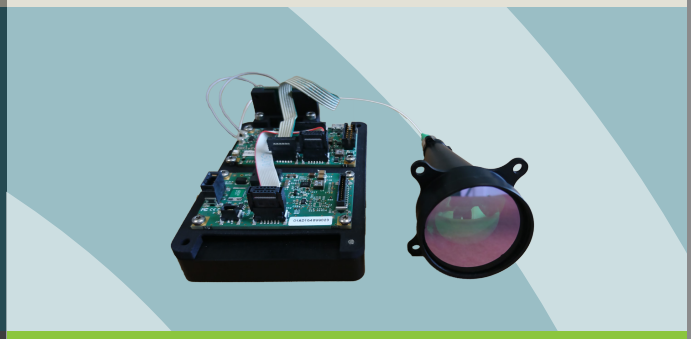
LRF 1550 SR+



DATASHEET

DESCRIPTION

This new OEM Laser Rangefinder is meant as a solution for a big challenge: To meet the different "SWaP" (Size, Weight and Power) requirements of multi-function optronic solutions with the same system.

We report on a mono channel fully fibered Laser Rangefinder based on a patented one lens collimator technology used as the aperture of both the emission and reception channels.

Our very innovative design allows us to offer different system options to better fit the integrator's requirements: **a monobloc design or a modular kit configuration** with the opto-mechanical collimator on one side, the laser and detection module on the other side.

Both are just linked up by an optical fiber!

Optical specifications / Performances

Characteristcs	Min.	Typ.	Max.	Units	Comments
Receiver aperture	-	30	-	mm	other custom sizes available on request
False Alarm Rate	-	1	-	%	
Wavelength	-	1 556	-	nm	
Extinction ratio	-	30	-	dB	@ 1 Hz
	-	32	-		@ 5 Hz ; @ 10 Hz
Measurement rate	-	1	-	Hz	Class 1 (*)
	-	5	-		Class 1M (*)
	-	10	-		Class 3B (*)
Detection range on NATO target (2.3x2.3m, r 30%, 15km visibility)	-	7	-	km	@ 1 Hz
	-	8.5	-		@ 5 Hz ; @ 10 Hz
Min Detection Range	25	-	-	m	
Max Detection Range	-	-	30	km	
Accuracy	-	-	0.5	m	@ +/- 3 σ
Divergence	0.15		0.25	mrad	
Multiple targets	1	-	5	-	3 different modes available on demands
Target discrimination	-	15	-	m	

Electrical specifications

Characteristcs	Min.	Typ.	Max.	Units	Comments
Communication interface	-	-	-	-	USB, RS232 or RS422
Operating mode	-	-	-	-	Sleep, Ready-to-fire, Firing
Measurement mode	-	-	-	-	Single shot & Continuous mode
Supply voltage	12	-	32	V	
Consumption	-	0,05	-	W	Sleep mode
	-	3	-		Ready-to-fire mode
	-	5	-		Firing mode

Mechanical specifications

Characteristcs	Min.	Typ.	Max.	Units	Comments
Architecture	-	-	-	-	modular «kit» OEM configuration
Dimensions (W x H x D)	-	100x ø37		mm	Collimator module without fiber connector
		36 x 70 x 119			Laser and detection module
Weight	-	250	-	g	

Standards

Characteristcs	Min.	Typ.	Max.	Units	Comments
Military environment (**)	-	-	-	-	'MIL-STD-810G: High/Low Tem, Thermal shock, Acceleration, Vibration, Shock AECTP-500: EMC NCE05, NCS07, NCS01, NRS02, NRE02
Mechanical qualification	-	-	-	-	'MIL-STD-810G: Acceleration 3,5g, Transport vibrations composite wheeled vehicle, Rotary wing aircraft - helicopter vibrations, Shocks 20g, 11ms
EMI qualification	-	-	-	-	AECTP-500: Conductivity NCE05, 30Hz - 150MHz ; radiated emission - electric field, 10kHz - 18GHz ; Conducted susceptibility on power leads low frequency

(*) EN60825-1 v2014 standard
(**) Qualification to be performed on production units

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