

Product Summary



RangePRO Model L-GM20 Laser Rangefinder Module



RangePRO

“Advanced digital ranging technology: precise, compact, robust.”

Laser rangefinder -
General
Module to
20 Hz rep. rate

Dimensions	
length	307.3 mm;
width	311.9 mm;
height	245.9 mm;
mass	8.1 kg.

Suitability

OEM module for integration into thermal sensing, surveillance, tracking & weapons stations; for ground mobile and fixed installation applications; designed to withstand vibration, shock, and extended temperature operation, EM shielded.

Rangefinding

read-out limits (factory selectable)	min.	200;
	max.	30,000.
performance	small craft (2.3x2.3m)**	> 12,000;
ance	large craft (20x20m)	> 25,000.

* Standard Clear atmosphere; Extinction Coefficient 0.0448 @ 1,570nm (Modtran 3 V1.5; tropical atmosphere, maritime aerosols, Jan.); sea level visibility = 23.5km.

** Target albedo = 0.3 @ 1,570nm.

Sealing

Hermetic.

Laser Safety

Class 1 eyesafe (if selected, else Class 3B).***

*** AS/NZS 2211.1, IEC825-1.

Transmitter

laser type	diode pumped Nd:YAG/OPO;
wavelength	1,570 nm;
output	< 8mJ for Class 1, or up to 15mJ;
ranging rate	10Hz typical, up to 20Hz (50% duty cycle).

Detector

InGaAs with time variant gain.

Range Determination

Signals from the detector are digitally sampled and examined to determine all potential real target returns. An adaptive range threshold compensates for changing noise levels, maximising system capability under varying conditions.

Power

12 to 32Vdc input.

Comms

RS-422 19,200 Baud.

Mounting

V-block type.

Reference Laser

laser type	laser diode;
wavelength	635 nm;
output	< 0.5mW.



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Note: specifications herein are subject to change without notice.

$$P_R = \frac{P_L \times Z^2 \times \delta \times D_L^2 \times A_T \times \cos\beta}{4 \times R^2 \times A_L}$$

