

LUMA 500ER

The **LUMA 500ER** optical modem delivers exceptional performance and energy efficiency in a compact design, making it perfect for underwater communication. It provides superior data rates, low latency, and reduced power consumption compared to acoustic modems, suitable for applications like wireless video transmission and interfacing between ROVs/AUVs and deep-sea infrastructure. With impressive communication ranges in dark conditions and a software-configurable serial cable interface (RS232/RS485), the LUMA 500ER integrates easily into existing systems.

Designed for small ROVs and AUVs, the modem features a wide beam, low power consumption, and four transmission power levels (2 to 5 W). It also tolerates moderate ambient light and offers encryption options for secure data transmission. Applications include wireless access points for deep-sea infrastructure, data harvesting with gliders or AUVs, bottom-to-surface data uploads at night, and wireless video streaming for mini ROVs, making it a versatile subsea networking solution.



SYSTEM SPECIFICATIONS

Dimensions LxWxH	100 x 50 x 30 mm (3.94 x 1.97x 1.18 in)
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Weight in Air	250 g (8.82 oz)
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Weight in Water	50 g (1.76 oz)
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Data Rate: Optical Link	500 Kbit/sec
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Data Rate: Cable Interface	9.6 - 512 Kbit/sec
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Range	50 m (100 m in air) (164.04 ft, 328.08 ft in air)
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Supply Voltage	12 - 36 V
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Depth Rating	6000 m (19685 ft)
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Beam Pattern	120 deg. cone
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SYSTEM FEATURES

Software Features*	Error Detection FEC Auto-wakeup
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Power Consumption: Active, Receiving	1 W
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Power Consumption: Transmitting	2 - 5 W (typ.)
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Connector	SubConn MCIL6M or As Requested
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**ADDITIONAL FEATURES ARE UPGRADEABLE UPON REQUEST.
PRELIMINARY SPECIFICATIONS MAY CHANGE WITHOUT NOTICE*



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