UNDERWATER
COMMUNICATION & NAVIGATION
LABORATORY

+7 (499) 322 2537
support@unavlab.com
http://unavlab.com

Datasheet

RedGTR

underwater digital acoustic modem

DESCRIPTION:

RedGTR are the series of wireless underwater digital communications modems that provide short code messages exchange in a network organized between such devices.

RedGTR modems have an unsurpassed correlation of such parameters as power consumption, dimensions, speed and transmission distance.

One-piece housing unified with a RedNODE devices allows you to use standard solutions for integration.

Small size, low power consumption and ease of use make RedGTR ideal solution for the implementation of control channels, as well as signaling devices for various actuators, circuit breakers and other actuators.

Subscribers code division feature allows to solve efficiently the data transfer tasks for several devices.

KEY FEATURES:

- Can be applied in underwater digital acoustic sensor networks
- Reliable data transmissions with up to 88 bit/s
- Minimum dimensions
- Operating range up to 8000 m
- Subscribers code division
- Reliable and noise-immune technology of digital broadband acoustic communication
- Low power consumption (Rx / Tx) 0.4 / 10 W
- Open configuration protocol
- Up to 20 code channels
- Up to 510 predefined code messages
- Standard functions of telemetry data transmission with propagation time measurement
- Available with integrated pressure / temperature sensor

UNDERWATER
COMMUNICATION & NAVIGATION
LABORATORY

+7 (499) 322 2537
support@unavlab.com
http://unavlab.com

RedGTR

underwater digital acoustic modem

TECHNICAL SPECIFICATION:

DIMENSIONS	Ø64x62 mm
WEIGHT (dry)	0.36 kg
DEPTH RATING	400 m
FREQUENCY BAND	5-15 kHz
BIT ERROR RATE	10^-6
START-UP TIME	100 ms
SNR [1]	-6 dB
WIRE LENGTH [2]	1.5 m
MAX RELATIVE VELOCITY	+/- 2 m/sec
OPERATING TEMPERATURE RANGE	-5..50 ˚C
MAX OPERATING RANGE [3]	8000 m
PAYLOAD DATA RATE	88 bit/sec
POWER CONSUMPTION Rx/Tx	0.4/10 W
POWER SUPPLY	12 V
INTERFACE [4]	UART 9600 bit/s
DIALOGUE PROTOCOL	NMEA 0183 PTNT
DATA LINES VOLTAGE	0..3.3 V
SIGNAL DURATION	400 ms
CODE DIVISION SCHEME (commands/subscribers) [5]	40/20
PREDEFINED CODE MESSAGES	510
BUILT-IN TEMPERATURE SENSOR ACCURACY [6]	0.1 ˚C

1.This value is obtained without the presence of the multiple effects
2.Length can be increased by special request
3.Energy range - for an ideal deep water channel
4.Port speed can be changed by special request
5. Different code division schemes are available
6. Built-in depth/temperature option is available