

Datasheet

NATRIX

underwater digital acoustic modem



DESCRIPTION:

NATRIX are the series of wireless underwater digital communications modems that implement a transparent transmission channel.

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

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

Small size, low power consumption and ease of use make NATRIX ideal solution both for small ROV/ AUV and larger devices.

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

KEY FEATURES:

- 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
- Can be applied in underwater digital acoustic sensor networks
- Reliable data transmissions with up to 1200 bit/s
- Minimum dimensions
- Operating range up to 2500 m

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TECHNICAL SPECIFICATION:

DIMENSIONS	Ø64x62 mm
WEIGHT (dry)	0.36 kg
DEPTH RATING	300 m
FREQUENCY BAND	10-45 kHz
BIT ERROR RATE	10 ⁻⁵
START-UP TIME	100 ms
SNR¹	-1 dB
WIRE LENGH²	1.5 m
MAX RELATIVE VELOCITY	+/- 1.8 m/s
OPERATING TEMPERATURE RANGE	-5..50 °C
MAX OPERATING RANGE	2500 m
PAYLOAD DATA RATE	560/1200 bit/s ³
POWER CONSUMPTION Rx/Tx	0.4/10 W
POWER SUPPLY	12 V
INTERFACE⁴	UART 9600 bit/s
DIALOGUE PROTOCOL	NMEA 0183 PTNT
DATA LINES VOLTAGE	0..3.3 V

1.This value is obtained without the presence of the multiple effect

2.Length can be increased by special request

3.Optional. Speed 560 bit/s is recommended for water areas with more complex hydrology

4.Port speed can be changed by special request