SeaWire
WHEREVER YOU ARE

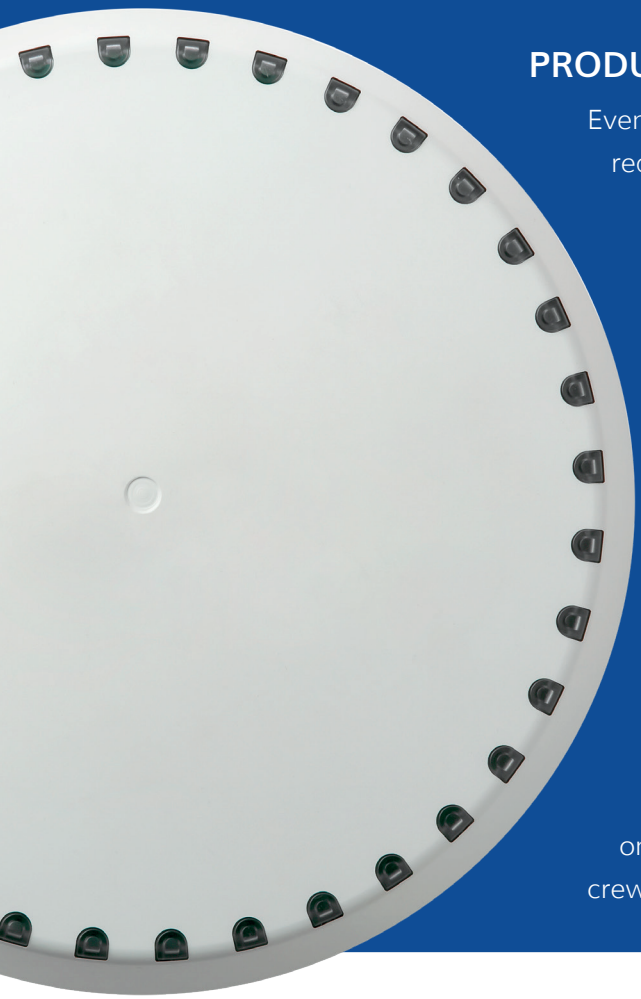
PRODUCT SHEET

Get a fast, stable and cost-efficient internet connection at the edge of the mobile network coverage at sea.

Model	Units	CAT	Max. data speed	Network	Range	Price ex. VAT
SeaWire RouDem	1	6	300 Mbit/s	4G	Up to 35 NM	1.195 EUR

SEAWIRE ROUDEM HIGHLIGHTS

- Extended range, giving a stable and fast internet connection at the edge of the mobile network coverage
- An auto-rotating, directional antenna augmented with an omnidirectional antenna that enables continuous internet connection whilst shifting between operator towers
- Integrated antenna and modem that avoids loss in cables
- Integrated WiFi router giving a 300m range
- Integrated 4,400mAh battery giving over 8 hours operation
- Marine Grade, Plug n' play solution
- Web based user interface for configuration and maintenance



PRODUCT DESCRIPTION

Even long-haul vessels spend more than two thirds of the time within reach of cellular network. The SeaWire RouDem extends the reach of mobile networks and optimizes the internet connection in coastal areas with ranges up to 35 NM from the coast.

The SeaWire RouDem is a single unit configuration where the antenna automatically shifts between the operator towers, selecting the one with the highest data speed.

Though the product is designed for professional use, however, because it is plug and play it is the perfect solution for the leisure market as well. The SeaWire RouDem is designed for installation above deck on a Ø38mm pole. It includes a PoE adapter which has an extra port that is reserved for LAN connection. This adapter needs powering below deck.

The SeaWire RouDem can be used as the primary internet connection on vessels covering crucial business data sharing, entertainment, and crew wellbeing.

HOW IT'S BUILD - SEAWIRE ROUDEM

The SeaWire RouDem is a multi-layered hardware design with unique technical and practical functions for optimal use at the limit of the mobile network coverage at sea. The SeaWire RouDem is built in four parts to ensure max performance in a demanding environment:

The mounting bracket with a pre-assembled waterproof cable gland and pinole screws for tightening on a Ø38mm pole.

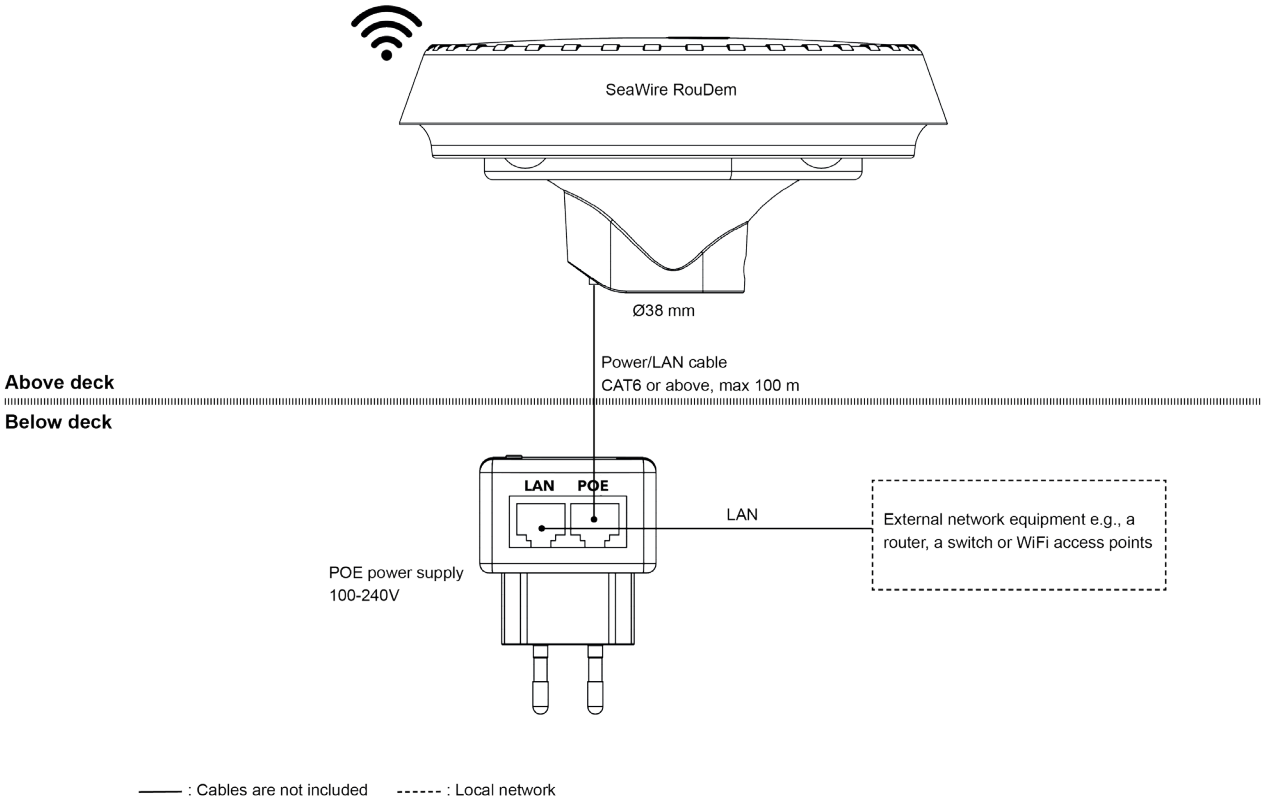
The housing bottom with micro-SIM slot and ethernet input.

The rotating unit that points the directional antenna in the direction of the best operator tower and converts the mobile signal in the most optimal way via the integrated antenna and modem design.

The top part consists of a inner housing and a top, to avoid overheating from the sun and secure resistant for all kinds of weather.

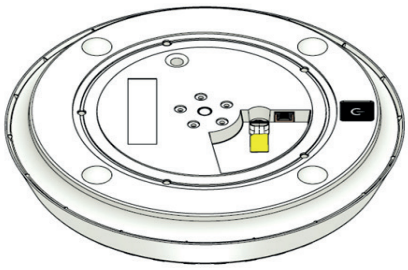
All hardware is embedded in an IPX6 hermetically closed case and all the internal components are industrial graded to withstand operational temperatures -20°C ~ 80°C.

SYSTEM CONFIGURATION

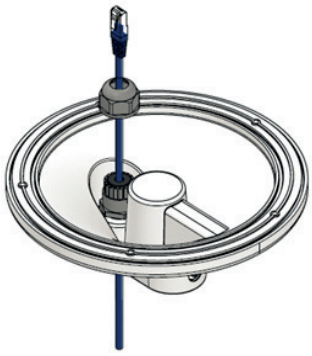


—— : Cables are not included ------ : Local network

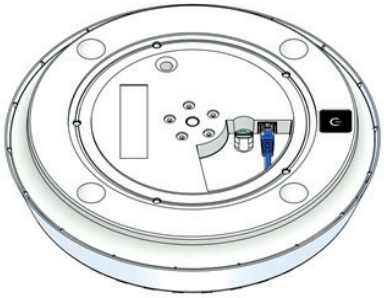
INSTALLATION IN SHORT



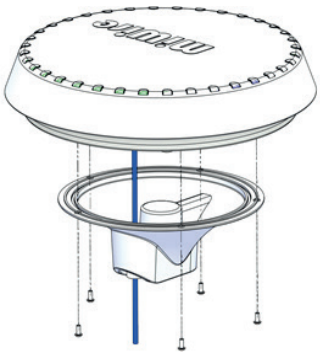
1. Insert the micro-SIM in the slot



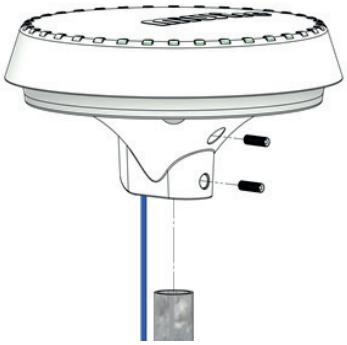
2. Pass the cable through the cable gland



3. Insert the Ethernet cable in the RJ45 port



4. Affix the mounting bracket to the RouDem



5. Tighten the mounting bracket to a Ø38mm pole

6. Connect the ethernet cable from the RouDem to the PoE port of the PoE adapter.

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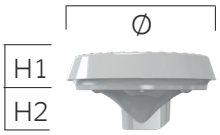
SeaWire RouDem CAT6
Directional Automatic Turning Antenna for Mobile Networks

Package content

1x SeaWire RouDem CAT6	2x Keys (1x Unbraco 4, 1 x Torx 10)
1x Mounting bracket	1x User Guide
1x PoE adapter	1x Privacy policy
5x Screws	1x Registration information

Specifications SeaWire RouDem CAT6

Dimensions and weight



Diameter Ø335mm
Height without bracket (H1): 80mm
Height with bracket (H2): 160mm
Weight without bracket: 1,8 kg.
Weight with bracket: 2,1 kg.

Install on a Ø38 mm/1,5 in pole in horizontal direction

Environmental Conditions

Temperature	Operational: -20°C ~ 80°C Storage: -40°C ~ 85°C
Robustness	0.5m/1.64 ft drop on concrete
Wateproof	IPX6

Modem variant for EMEA, Australia, Brazil Networks

4G-LTE	CAT 6, 2xCA, 2x2 MIMO, VoLTE
4G-LTE Max. Speed	FDD: Max 300Mbps (DL)/Max 50Mbps (UL) TDD: Max 226Mbps (DL)/Max 28Mbps (UL)
3G-WCDMA Max. Speed	DC-HSDPA: Max 42Mbps (DL) HSUPA: Max 5.76Mbps (UL)
4G-LTE Bands	LTE-FDD: B1/B3/B5/B7/B8/B20/B28/B32 LTE-TDD: B38/B40/B41
3G-WCDMA Bands	B1/B3/B5/B8
Output Power	Class 3 (23dBm±2dB) for LTE
User interfaces	Power button with LED, Multi color LED (direction of antenna), MiWire user interface in English

Antenna

Directional	3-10 dBi (800-2700 MHz)
Omni directional	3-4.5 dBi (800-2700 MHz)

Interfaces

1 x LAN interface

Connector type	RJ-45
Data Rate	10/100 Mbps
Max. Cable length	100m /328ft (min. Cat5 UTP)

1 x Micro SIM-Card slot

WLAN Access Point

Standard	802.11 b/g/n 2.4GHz, 2x2MIMO, Automatic Channel Selection, AP Hotspot
Frequencies	2400.0-2485.0 MHz
Max. Coverage outdoor	300m / 984ft
Max. Datarate	300Mbps

Battery

Battery type	Lithium ion, rechargable
Operational time	8 hours
Min. number of charges	300
Recharge time	4 hours 30 min
Charge temperature	11°C ~ 45°C

Power

DC input range	Passive POE 22-48V, Max. 0,5A
Power consumption	Stand-by/transmit mode: Typ. 4/6W During charging: Max. 19W

AC/DC Power Supply

Input	100-240VAC, 47-63Hz, 24W
Output	48VDC, 500mA
Connector type	RJ-45

Other Features

Port Forwarding	DNAT Redirect and Virtual Server
Routing	Static/Dynamic
Data Logging	Signal strength, bytes sent and recieved, error messages, hardware info messages, speedtests
DHCP	Up to 50 users
Firewall	UNIX based firewall with iptables and rule configuration
Access Control	MAC Black/Whitelist, Password authentication
Cellular Toolkit	Data Usage, Signal Usage, SIM PIN, Network Scan, Network Discovery, status
Configuration & Management	Web, SSH, Seriel connection, SCP
System Operation	MMI, System Information, WiFi, Network, SIM, Compass & Map, Admin with firmware upgrade, Reboot & Get latest software
Diagnostic	Remote diagnostic tools

Certification

Approvals/Certifications	CE, FCC, RoHS
Standards & Regulation	
EMC	ETSI EN 301 489-17 V3.1.1 (2017-02), ETSI EN 301 489-1 V2.1.1 (2017-02). Draft ETSI EN 301 489-52 V1.1.0 (2016-11)
RF Exposure	EN 62311:2008
Safety	IEC/EN 62368-1:2014
Radio	ETSI EN 300 328 V2.1.1 (2016-11)

Developed and produced by MiWire ApS, Denmark.
Diplomvej 381, DK-2800 Kongens Lyngby
Phone: +45 82 820 820, E-mail: info@miwire.net

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