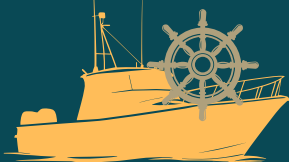




DeepSea Master

For Fishing Boats... 



DeepSea Master

INTRODUCTION



The DeepSea Master (DSM) is a centralized system designed to monitor, control and manage multiple critical areas within a fishing boat. Fundamentally, the DSM integrates navigation to enable precise route planning and tracking, as well as with robust communication capabilities via both satellite and cellular networks.

In addition DSM provides real-time data acquisition, intelligent alerting and remote accessibility to ensure the safety, security, efficiency and operational readiness of the boat.





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FEATURES



01	02	03	04
NAVIGATION	PEOPLE SAFETY	SURVEILLANCE	AIS
05	06	07	08
SATELLITE COMM	CELLULAR COMM	ROOM MANAGEMENT	DSM APP



NAVIGATION



Our DSM features a fully integrated Offline Navigation module within the onboard navigation HMI. Designed for total independence from internet connectivity, this system empowers fishing boats to navigate safely and efficiently.

Also the DSM offers advanced navigation features such as precise route planning, real-time vessel tracking, and route management. Users can plan custom routes, save them for future use, and retrieve or modify them as needed, supporting efficient and repeatable voyage operations.



PEOPLE SAFETY

People safety is the most prioritized. One small change can lead to chaos. So the following parameters are provided by the DSM for on board people safety:

- **People Safety e-Tags with panic switch**
- **SOS Switches**
- **Smoke Detectors**
- **Hooter/ Voice Announcements**

For crew safety, Bluetooth-enabled People Safety e-Tags are assigned to each crew member, allowing real-time monitoring of battery status, connection status, and panic button alerts. Up to 20 tags can be connected and configured anytime via the Navigation HMI. When a panic button is pressed, the system instantly displays an alert, activates the hooter, and announces, "People Safety Tag Alert."

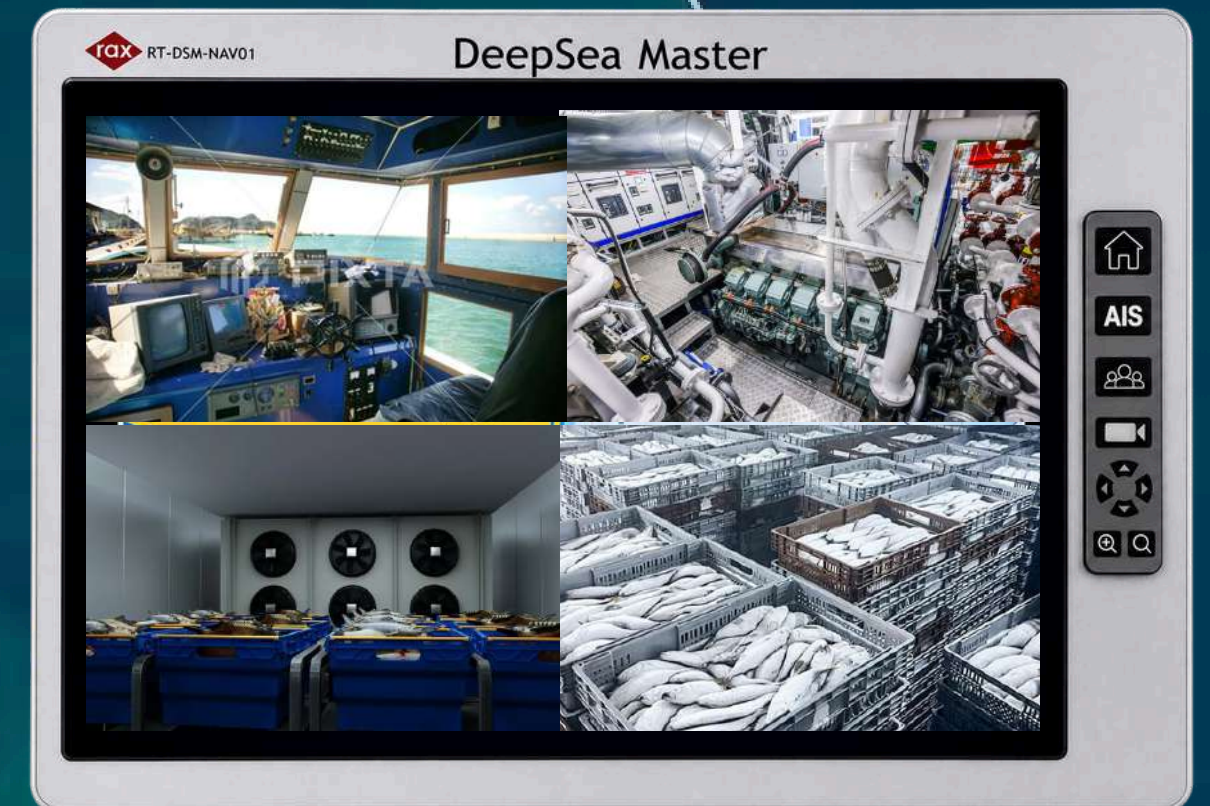


SURVEILLANCE

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The DSM supports surveillance through IP cameras installed in critical areas across the fishing boats. These cameras provide real-time video feeds to the navigation HMI, enhancing security and situational awareness in high-priority zones.



BOAT LOCATOR

The Boat Locator feature in the DSM system provides real-time tracking of the fishing boat's location using AIS. It displays the boat's current position on the onboard navigation HMI, helping the crew navigate accurately and monitor movement.

Additionally, the system receives AIS data from nearby ships and marine vehicles, enabling collision avoidance, awareness of surrounding traffic, and safer route planning in busy waters.



NET LOCATOR

Net Locator Buoy is a dedicated feature in the DSM system that allows real-time tracking of fishing nets in the water. It helps the crew monitor net positions, locate them efficiently for retrieval, and reduce the risk of loss or misplacement, ensuring smoother and more organized fishing operations.



SATELLITE COMMUNICATION



Satellite communication is used only when the GPRS signal is lost. It acts as a backup communication system to ensure safety and connectivity in remote sea regions. Via satellite, the system is limited to sending only SOS alerts and predefined critical messages, periodical location messages at long interval, ensuring that essential information still reaches the DSM App or emergency contacts during communication outages through DSM server.



CELLULAR COMMUNICATION



Cellular communication is the primary method used by the DSM for real-time data transmission to the DSM App via the DSM server, depending on network availability. It is prioritized for transmitting essential operational data when within cellular coverage.



ROOM MANAGEMENT

Room management serves as the core functionality, enabling comprehensive monitoring and control of various compartments within the fishing boats. It provides real-time status of each room ensuring safety, security, efficiency, and optimized operation onboard by our Slave Bridge Units (SBUs).

CAPTAIN ROOM



- **DSM Navigation & Monitoring**
- **Distress & Navigation Light Control**
- **Deck Light Control**
- **Room Lights & Fans Control**
- **SOS Switch**
- **Panic Switches**
- **PIR & Door Sensor**
- **Smoke Sensor**
- **Temperature, Humidity**



ROOM MANAGEMENT



ENGINE ROOM



- Bilge Sensor & Pump Control
- Panic Switch
- Help Switch
- PIR & Door Sensor
- Light & Fan Control
- Smoke Sensor
- Temperature, Humidity

Engine Parameters

- Engine Speed (RPM)
- Engine Coolant Temperature
- EngineOil Pressure



ROOM MANAGEMENT



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ACCOMMODATION

- **Panic Switch**
- **Help Switch**
- **PIR & Door Sensor**
- **Light & Fan Control**
- **Smoke Sensor**
- **Temperature, Humidity**



ROOM MANAGEMENT

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COLD STORAGE

- **Panic Switch**
- **Help Switch**
- **PIR & Door Sensor**
- **Light & Fan Control**
- **Smoke Sensor**
- **Temperature, Humidity**



ROOM MANAGEMENT

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DEEP FREEZER

- **Panic Switch**
- **Help Switch**
- **PIR & Door Sensor**
- **Light & Fan Control**
- **Smoke Sensor**
- **Temperature, Humidity**





SYSTEM OVERVIEW

DSM CORE SYSTEM CONSISTS OF



01 Navigation HMI

02 Master Bridge Unit

03 Slave Bridge Units

04 DSM App



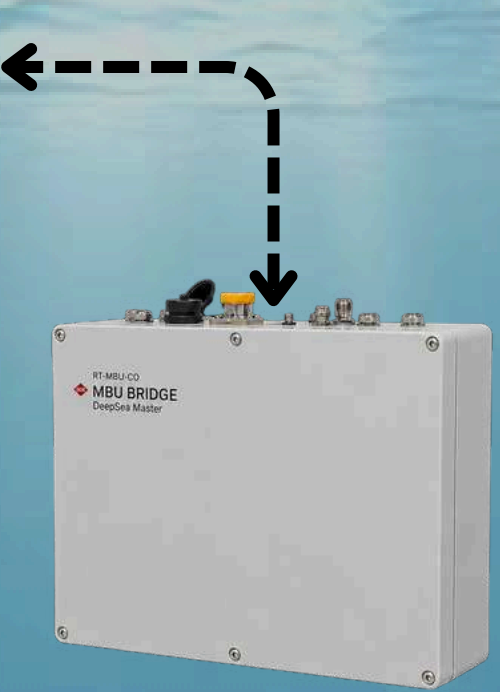
ARCHITECTURE



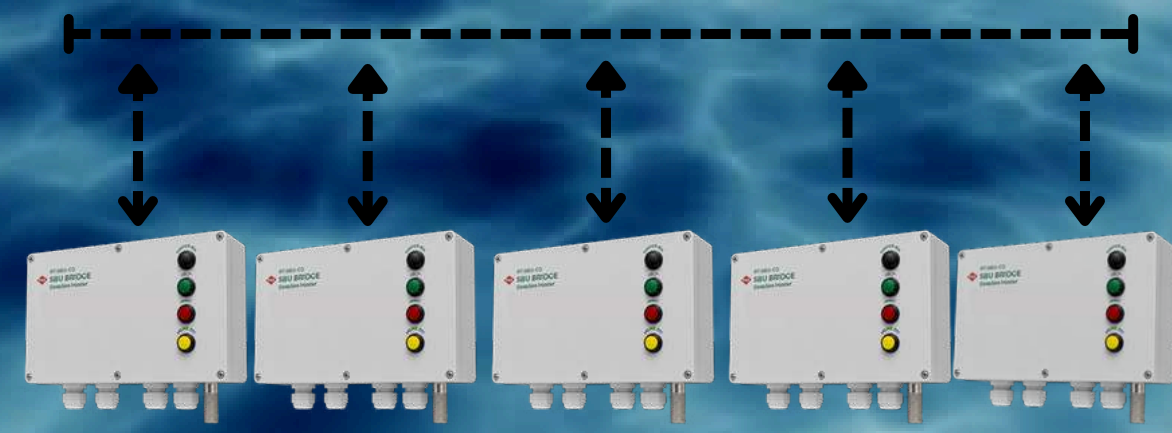
**Companion
Mobile App**



Navigation HMI



Master Bridge Unit



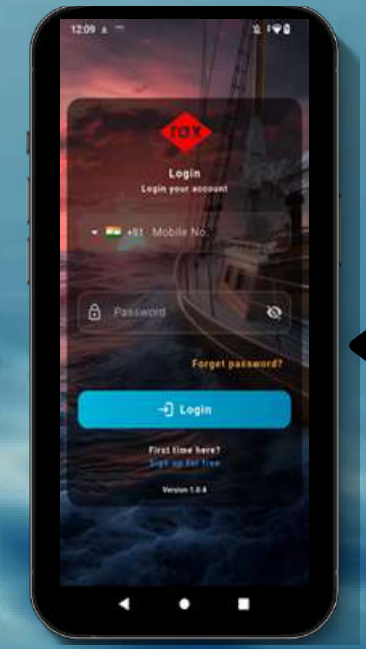
Slave Bridge Units



**Satellite
Server**



**DSM
Server**



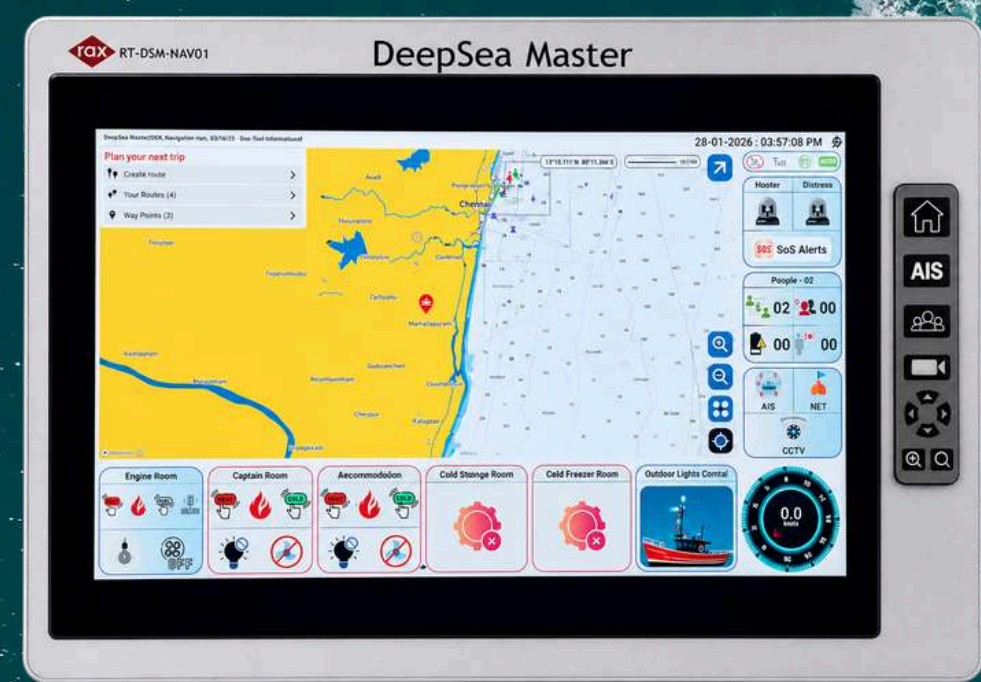
DSM App





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NAVIGATION HMI



This navigation HMI is a robust & rugged monitor designed for extreme and challenging marine environments.

This unit is intended to offer essential visual output for system status, alerts and navigation or operational data, serving as a key interface for users onboard.

Companion Mobile App



The companion mobile app serves as a failover solution to the navigation HMI, enabling users to monitor and control most of the parameters accessible through the onboard navigation HMI.



MASTER BRIDGE UNIT



The Master Bridge Unit (MBU) is the core of the DSM, acting as the central control hub on the fishing boat. It ensures seamless communication, coordination and real-time monitoring across all connected systems, making it the heart of onboard operations.



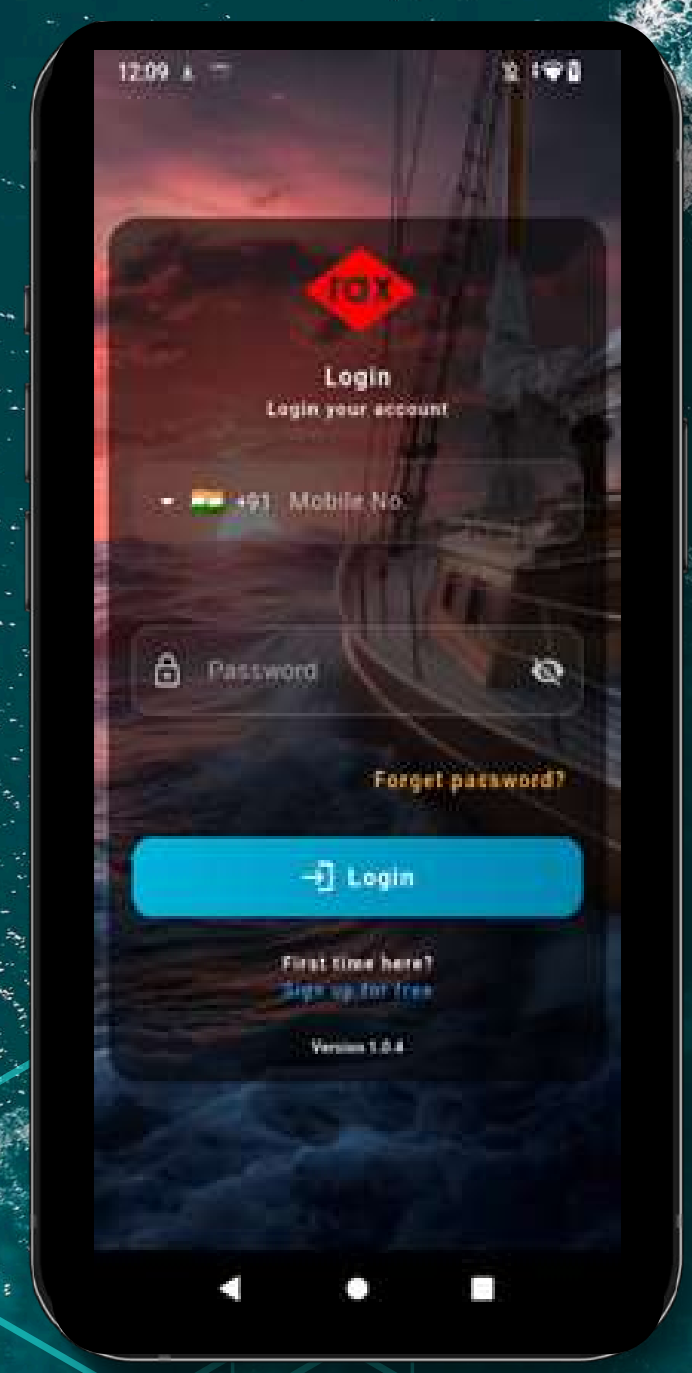
SLAVE BRIDGE UNIT



Slave Bridge Units(SBU) are placed in key areas of the boat to monitor environmental conditions and safety inputs. They provide room-level data to the MBU using an efficient communication protocol, enabling reliable and responsive system-wide monitoring.



DSM APP



The DSM App provides remote access for boat owners to monitor the boat's location and crew health status in real time, along with key onboard parameters from the entire DSM system



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Design, Development and Manufacturing.

Thank You