



SURVEILLANCE AND SECURITY

Coastal | VTS | Off-Shore

STRAITGARD

HYBRID RADARS

Introducing **STRAITGARD**, the pioneering **X-band hybrid radar system** setting a new standard in **marine safety**. Unlike any other, it combines **solid-state** and **magnetron transceiver technology** for unmatched **redundancy and reliability**. Meeting and exceeding **IALA and ETSI EN standards**, it excels in **discrimination** and **small target detection**, even in **harsh marine weather conditions**.

Key features include **native SNMP integration**, and efficient **SART/RACON triggering and detection**.

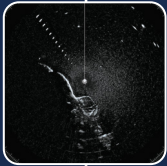
Its **compact design** and **embedded redundancy** offer optimal performance without compromising space or cost. Maintenance is simplified with its **lower replaceable unit design**, ensuring quick repairs. With over **99.99% availability**, **full self-diagnosis capabilities**, and **high-end radar arrays**, STRAITGARD ensures **uninterrupted operation** and **unparalleled performance**, making it the premier choice for **marine radar systems**.

KEY STRENGTHS



Cost effective embedded redundancy

Redundant radar in which the solid state transceiver is the primary radar while the magnetron transceiver is on Stand-by, ready for use.



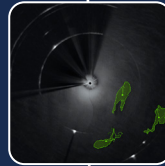
Trigger and detection of SART devices in distress

Ensuring the ability of VTS systems to receive, analyze and provide the appropriate response actions to all dangerous situations that may arise.



High detection capabilities in all weather conditions

Ensuring best performance in any weather condition, actively supporting operators in their daily activities.



Oil spill detection software modules

Allowing OSD software modules to interface and operate best with the magnetron component of the hybrid radar.



MAIN FEATURES

Zero attenuation concept

The innovative concept of "Zero Attenuation" involves the **transceivers embedded** into the turning unit, which means **no waveguide path** required. This is crucial as it leads to a drastic **reduction in installation time** and costs, as well as an improvement in short range radar visibility and **stronger radar echoes**.



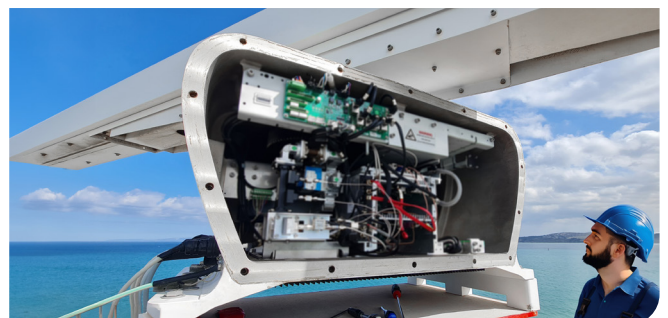
Plug & Play concept

OCEANGARD radar series is designed according to the concept of "Plug&Play", which guarantees an extreme **effortless system installation** and allow customers to save time on site. **No more wiring activities** are required to be carried out on-site, minimizing the risk of human **error to zero** without involving any special tools.



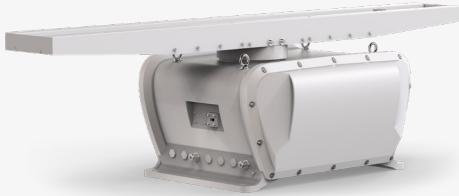
Easy maintenance concept

We prioritize preventive maintenance over corrective measures, emphasizing **proactive strategies**. Additionally, our commitment to delivering quality extends to ensuring **reliability through technical measures** aimed at reducing the necessity for preventive maintenance tasks and **minimizing the total life-cycle cost** of the product.



EMBEDDED RADAR TRANSCEIVERS		
	PRIMARY TRANSCEIVER	SECONDARY TRANSCEIVER
TECHNOLOGY	Solid-state	Magnetron
PEAK POWER	100W; 200W; 400W; 450W; 800W;	25kW
FREQUENCY BAND	9300 ÷ 9500 Mhz	9410 or 9375 ± 30 Mhz
PRF	Programmable 300 ÷ 3200 Hz	Programmable 400 ÷ 4000 Hz
PULSE WIDTH	Programmable 50ns ÷ 100us (Depending on Mode)	Programmable 50ns ÷ 1200ns (Depending on Mode)
DYNAMIC RANGE	≥ 140db (Depending on Mode and including STC limiter and pulse compression gain)	≥ 125db (with STC limiter)
SECTOR BLANKING	16 individual sectors, settable in azimuth from 1° to 359° (1° resolution)	
ENCODER TYPE	Hollow shaft magnetic encoder	

RECOMMENDED CONFIGURATIONS

	EXCEEDING IALA BASIC	EXCEEDING IALA STANDARD	Exceeding IALA ADVANCED
TURNING UNIT			
ANTENNA SIZE	12ft	18ft (High-gain)	21ft
ANTENNA POLARIZATION	Horizontal G: ≥ 34.5 dBi Circular G: ≥ 34 dBi	Horizontal G: ≥ 36 dBi Circular G: ≥ 35.5 dBi	Horizontal G: ≥ 38 dBi Circular G: ≥ 37 dBi
SETUP	DUAL UP-MAST (Turning unit embedded) DUAL DOWN-MAST (Indoor cabinet) DUAL UP-MAST (Outdoor cabinet)		

APPLICATIONS



Coastal
Surveillance



VTS/VTMIS



Mobile
surveillance
Vehicles



Oil and gas
terminals



Offshore
platforms



Critical
Infrastructure
Protection



Oil Spill
Detection



Wind Farms
Surveillance



Port Traffic
control



River traffic
control



Smuggling and
piracy control



EEZ Security

INTEGRATED LOGISTIC SUPPORT



Longevity, Reliability, Remote Support

To **enhance efficiency** and **reduce costs**, our systems offer **full remote access** for **direct transmission of diagnostic logs**, minimizing onsite visits, reducing **operational expenses**, and improving turnaround times. Our Service Level Agreement (**SLA**) ensures this **efficient support**. Each Line Replaceable Unit (**LRU**) has a **QR code for quick information access**, improving communication and service responsiveness.



Client-Centric Support

We prioritize client support throughout the entire process. Our technical team conducts **on-site system commissioning**, including **standalone** and **live tests** in various environmental conditions alongside cooperating vessels. Comprehensive **technical documentation**, structured with DataModules following the **S1000D standard**, accompanies our systems.



After-Sales Services & SLA Options

We offer **after-sales services** such as **installation and maintenance courses**, along with an advanced **ticketing platform** for streamlined communication. Our maintenance services, including preventive, corrective, and **SLA options**, are tailored to meet the specific operational needs of our customers. We have **service centers** strategically located across the globe.



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