



SURVEILLANCE AND SECURITY

Coastal | VTS | Off-Shore

STRAITMASTER

MAGNETRON RADARS

The **STRAITMASTER marine radar family** is the result of over twenty years of ICS Technologies experience in **radar sensors design, installation, and maintenance** for **VTS and coastal surveillance applications**, in full compliance with the latest **IALA and ETSI EN technical handouts**. **STRAITMASTER magnetron radar series** are a new generation of **marine radar systems**, designed to fill the gap between **standard magnetron sensors** and

new **solid-state technology**. It combines the concept of **enhanced performance, ease of installation**, and **reduced maintenance routines** in one product.

The extremely **high resolution**, with a **1.5m cell size up to 12nm instrumented range**, the reduced **main bang at minimum** and other innovative constructive solutions make **STRAITMASTER** the ideal choice when **safety and security** cannot be negotiated.

KEY STRENGTHS

STRAITMASTER represents the right choice when looking for a cost-effective or budget constraint solution without sacrificing the performance.

Among the other characteristics, key strengths to be highlighted are:

- Zero attenuation concept
- Reduced and compact footprint
- Native SNMP
- Extreme ease of installation
- Unbeatable reliability and reduced maintenance routine
- Designed as a readily replaceable unit to streamline and expedite repairs effortlessly
- Availability > 99.99%
- Full self-diagnosis (BITE)
- High-end radar arrays

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**.



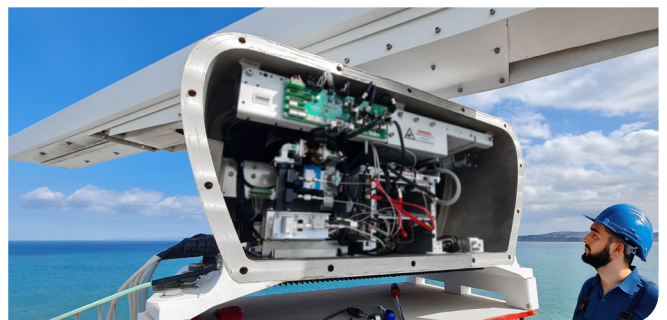
Plug & Play concept

STRAITMASTER 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.



SPECIFICATION

Peak Power	25kw X-Band Transceiver
Pulse Width (PW)	(50÷150)ns; (150÷300)ns; (300÷800)ns; (600÷1200)ns;
Pulse Repetition Frequency (PRF)	(3000÷4000)Hz; (2000÷3000)Hz; (800÷2000)Hz; (400÷1000)Hz;
Jitter	Programmable from 0 to 15%
Sector blanking	16 Individual sectors, settable in azimuth from 1° to 359° (1° resolution)
Receiver type	Logarithmic with low-noise front-end
Dynamic range	≥ 125dB (with STC limiter)
Noise figure	≤ 2.5dB (Low Noise Front-End)
Tuning	Automatic Frequency Control (AFC) and manual
Encoder type	Hollow shaft magnetic encoder

RECOMMENDED CONFIGURATIONS

	NO IALA COMPLIANCE			EXCEEDING IALA BASIC	EXCEEDING IALA STANDARD	Exceeding IALA ADVANCED
TURNING UNIT						
ANTENNA SIZE	6ft	9ft	12ft	18ft	21ft	
ANTENNA POLARIZATION	Horizontal G: 29 ± 1 dBi	Horizontal G: ≥ 31 ± 1 dBi or Vertical G: ≥ 31 ± 1 dBi	Horizontal G: 33 ± 1 dBi	Horizontal G: ≥ 36 dBi or Circular G: ≥ 35.5 dBi	Horizontal G: ≥ 38 dBi or Circular G: ≥ 37 dBi	
SETUP	SINGLE UP-MAST (Turning unit embedded) DUAL DOWN-MAST (Indoor cabinet)			SINGLE UP-MAST (Turning unit embedded) DUAL UP-MAST (Turning unit embedded) DUAL DOWN-MAST (Indoor 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.



Via California 32, 63066, Grottammare, AP, ITALY

Tel. +39 0735 61621

Fax +39 0735 616284

sales@icstechnologies.it

www.icstechnologies.it

