Sperry Marine

VisionMaster FT Radar

Safe Navigation
Under All Conditions
Northrop Grumman Sperry Marine’s VisionMaster FT Radar (VMFT Radar) provides ship owners and operators with innovative marine navigation tools to meet the challenges faced in today’s maritime environment.

Designed using the latest Intel technology, the VMFT Radar offers easy upgrades and built-in redundancy to meet the emerging requirements for shipboard navigation.

Features & Benefits

The VMFT Radar is designed with the latest technology and is everything you expect from a world class radar system. The user-friendly interface has a full range of advanced features, providing the user with safe and simple radar with intelligent functionality.

Advanced Clutter Suppression

Automatic clutter suppression technology makes it easier for watch keepers to identify small, weak targets in the presence of sea or rain clutter without manually adjusting gain or clutter controls.

Target Acquisition

VMFT Radars automatically acquire and track targets at relative speeds up to 150 knots, allowing the watch keeper time to address any other requirements of the bridge rather than manually acquiring targets. Targets can be acquired by either two annular acquisition zones or two operator-configured polygon zones.

AIS Targets

The VMFT Radar can display AIS reports and supports processing and display of AIS ATONS, Search & Rescue Craft, AIS SARTS, AIS Base Stations, safety messaging and AIS MKD.

Interswitching

Digital controlled interswitching allows the interface of up to six transceivers to up to six displays, resulting in screen redundancy and flexibility in user operations.

Compatibility

VMFT Radars are fully compatible and can easily be retrofitted with the BridgeMaster E product line by partial hardware and software replacement, reducing cost and time required for retrofit customers.

Dual-Channel Option*

The Dual-Channel option provides the ability to display data from two independent transceivers onto the same screen and targets can be tracked on both channels. The overlapping of the information from the two radars eliminates any blind spots that may occur when a single radar is restricted providing unsurpassed situational awareness.

* Dual Channel option not available in the 250 desktop configuration.

Personalisation

Each watch officer can have their own personalised operational settings for voyage plans and operating conditions that can be saved, carried from watch to watch and moved from vessel to vessel, ensuring operator efficiency and vessel safety.

Conning Information Display

The VMFT is the sole product in the market to provide the Conning Information Display (CID) Tab. It displays various key readouts to the operator for efficient vessel monitoring. Sensor input data can be tailored from ship to ship, or by personal preference and is grouped and presented on a screen to the side of the radar image for easy viewing providing watch officers valid information on the operation of ship systems.

VMFT CID Tab can display the majority of the ship’s sensors, which can be grouped into sub tabs such as docking, engineering, propulsion, voyage plan status, primary navigation, and maneuvering.
Upgradability

The VMFT Radar is configurable to meet ship owner’s specific requirements over time. With a simple built-in upgrade path, it can be quickly upgraded to chart radar and ECDIS or a complete TotalWatch multifunction workstation.

Optional capabilities upgrades include automatic chart downloads. Remote diagnostics capabilities are also available.

- Full support for multiple CCTV connections
- 3D vision sonar terrain
- Fixed and moving test targets for training
- 3rd party application support to run other software within current VMFT watchmodes or dedicated watchmodes

iHelp

With the navigator in mind, Sperry Marine has developed and incorporated into the radar an extensive, context sensitive help facility which allows the user to quickly access real-time information relevant to the major functions displayed on the VMFT screen or to search the operator’s manual.

Configurations

In order to meet the different needs of vessel types and operational scenarios, the VMFT Radar is available in various configurations and a wide range of interswitchable X- and S-Band configurations.

VisionMaster FT 340 Deck standing, Desk top & Kit Format Radar

The VMFT 340 contains a 25.5” widescreen including the CID and radar in high resolution, a processor and interfaces, a single compact console and an antenna unit (S-Band or X-Band).

VisionMaster FT 250 Integrated Tabletop & Kit Format Radar

The VMFT 250 Radar gives vessels the automatic tracking and plotting technology in a compact and easy-to-install package. The 250 Radar contains a screen, processor and interfaces, single compact console and antenna unit (S-band or X-band).

Type Approved Performance

The VMFT Radar brings enhanced bridge operation and improved navigation accuracy whilst surpassing all current performance standards for marine radar systems.

VMFT Radars are fully type approved and comply to all applicable international standards, including:

- IEC 62388
- IEC 60945
- IEC 62288
- IEC 61162-1
- IEC 61162-2
Supportability

The VMFT Radar, like all Sperry Marine systems and products, is supported by the world’s most extensive worldwide service network. Sperry Marine’s global service network provides prompt shipboard maintenance and repair services in every major seaport in the world – 24 hours a day, 365 days a year, minimizing equipment downtime and in-port turnaround times.

Technical Specifications

- Display size: 250 or 340mm PPI
- Processor types:
  - Single Channel: CAT 1 & CAT 2
  - Dual Channel
- Antenna size:
  - X-Band: 4’, 6’ or 8’
  - S-Band: 12’
- Transceiver power:
  - Aloft Transceiver (UPMAST) or Below Transceiver (DOWNMAST)
  - X-Band: 10kW or 25kW
  - S-Band: 30kW
- Rotation speed: Standard or High
- MMI: Trackerball control panel
- Performance monitor: Fitted inside turning unit
- Power: AC only - various supply options for S-Band motor