SIMRAD

PRO SERIES

PROFESSIONAL NAVIGATION SOLUTIONS




PRO.SIMRAD-YACHTING.COM

SIMRAD

Professional Series

A Simrad product series by Navico

The Simrad brand is a leader in electronics technology for commercial vessels. Our products are designed to withstand the most rugged environments, to give you the confidence you demand at sea. Known for ease of use, simple installation and state of the art, precision technology, Simrad products won't let you down.

Over the past sixty years, we have developed systems for the benefit of commercial vessels. Today we offer a range of sophisticated auto steering, navigation and safety products for vessels of all sizes, from small vessels on inland waterways to larger coastal commercial and passenger craft.

For a product that works as hard as you do, look no further than the Professional Series. Whether you are servicing rigs in the Gulf of Mexico, or are responsible for maritime missions involving homeland security, maritime law enforcement or search and rescue, you need our expertise on board.

Demand high performance from your crew.

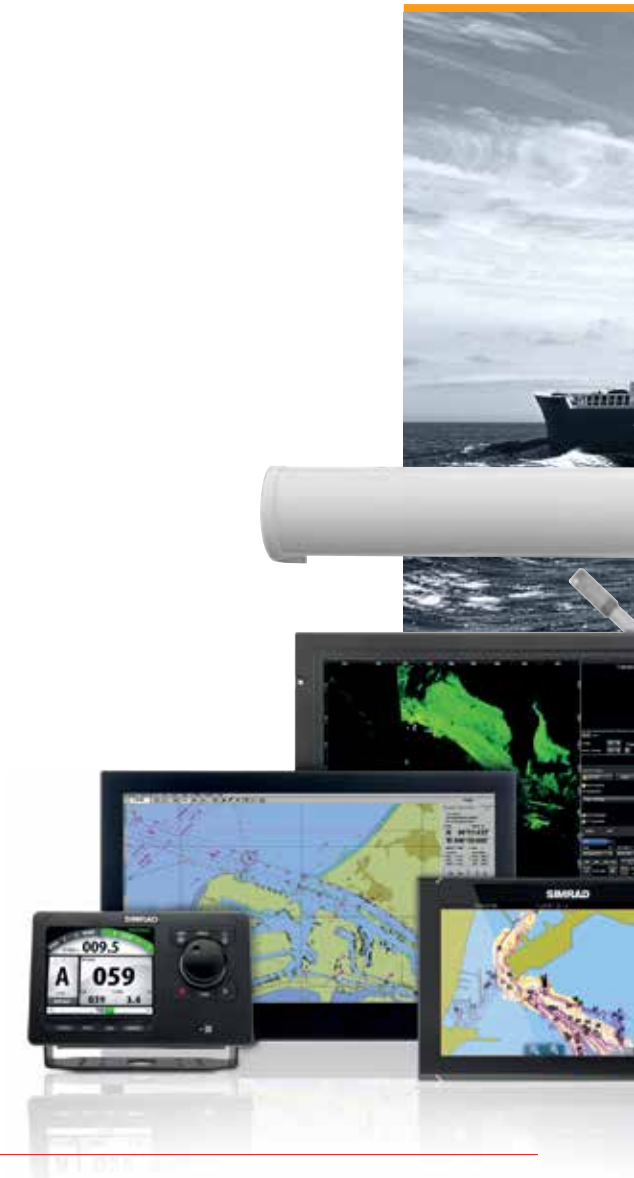
Demand perfection from your electronics.

PROFESSIONAL NAVIGATION SOLUTIONS

Smart Solutions for **Work Boats**

The product range spans ECDIS, radar, sounders, heading sensors, gyros and VHF, with easy networking options including autopilots, instruments and SART/EPIRB safety devices.

Discover dependable, adaptable and smart solutions designed specifically for the Work Boat market.



LOW MAINTENANCE GYROCOMPASSES

- Simrad Gyrocompasses are the most reliable on the market, thanks to the fact that there is no need to change fluids on a yearly basis. Simrad Gyrocompasses are virtually maintenance free!
- A wide range of control units provide complete flexibility of system configuration for new installation and easy retrofit into existing repeater systems.

ARGUS RADAR

MAKE YOUR VESSEL MULTI-PURPOSE

- With the optional Advanced OSID Software module installed, the Simrad ARGUS radar system provides the navigator with both the unique **Oil Spill Detection software** and the special Ice Navigator features.

CUSTOMISE YOUR SYSTEM

- The standard configuration always includes 100 target ARPA, 300 target AIS and an electronic built-in interswitch for dual radar installations. But customisation is easy, for example adding a heading input from an autopilot system or dedicated sensor will allow the radar image to be overlaid on the chart.

TROUBLE FREE INSTALLATION/SERVICE

- The interface with the radar console is through a single connector, and it is not necessary to open the antenna casing during installation. Every analogue adjustment is made remotely from the ARGUS console.
- Easy installation and service. The radar cable snaps on from the outside ensuring quick, easy and trouble free installation.

PILOTS THAT WORK AS HARD AS YOU DO

- The Simrad AP70 and AP80 feature a unique WORK Mode.
- Customise the parameters to suit individual vessel needs, such as fully laden load, vessel-towing mode, light ship configuration etc.

AP70/80 -MODULAR AND FLEXIBLE AUTO STEERING SOLUTIONS

- 2 basic systems using the same modules: design and build a system to your unique requirements. Configure a system to meet the requirements for a Type Approved autopilot.
- Designed for professionals - CAN-bus networking, triple support of independent rudders and multiple thrusters, and simple networking via the Micro-C protocol. Data sharing and system control is much easier and flexible.

ONE OF THE MOST RELIABLE ECDIS IN THE WORLD

- We are one of the few ECDIS suppliers that offers an approved system that runs on 24 V DC. This makes CS68 ideally suited for smaller vessels under 10,000 tons. Quick access to the most important functions makes CS68 the easiest ECDIS to operate on the market.
- Combines both monitoring and planning modes – all safety functions are continuously monitored even when route planning.
- Includes a unique voice alarm system which makes it possible to separate ECDIS alarms from other bridge alarms.
- An anti-grounding feature, detecting obstacles on the chart, may be set to meet user requirements.
- Fully integrated design comprises of the processor, networking and power supply in a single, compact package for minimal helm space usage
- Includes TrackSteer – the ability to steer a vessel based on steering commands from the ECDIS, enabling the navigator to program a route and vessel deviation limits into the Simrad CS68 so the autopilot will auto-steer based on turning parameters of the vessel
- Web based, type specific training provided by Simrad and Safebridge with online certification, means navigators can get up to speed in no time.

IMO GPS

- The MX Series offers a full range of Type Approved GPS navigation products including D/GPS display units, antennas, AIS and GPS heading sensors. With over twenty years of development behind them, these products are made with the needs of today's professional mariners in mind.

Smart Solutions for **Patrol Boats**

Professional navigation and communication equipment is vital for the safety and efficiency of crews accountable for the defence and security of maritime waterways. The latest generation of Simrad navigation products provide tried and trusted solutions for a wide variety of patrol boat applications.

SIMRAD MULTIFUNCTION DISPLAYS

CRITICAL DECISIONS REQUIRE DIRECT ACTION

- With Simrad NSE, Primary functions are always only one key press away with our direct access keys. Your crew can focus on the task at hand.
- Simrad NSS evo2 provides all the benefits of touchscreen, with the added bonus of a rotary control button for rough sea states.

COMPLETE FLEXIBILITY –WITH *MASTERLESS* NETWORKING

- Share Charting, Echosounder and Radar information across multiple units.
- *Masterless* system - any networked unit can operate independently. Network switch may be required.
- Plug and play data networking for Micro-C compatible sensors and instrumentation.
- Video input and output for display of video or navigation data where you want it.

POWER CONTROL FOR FAST START UP

- Speed and efficiency are critical components for a successful mission. Our MFD displays and radars can be configured so that the whole system is fully operational 43 seconds after the main battery switch is thrown.
- Incorporate digital switching for complete power control and instant mode selection to switch from night running mode to stealth mode.
- The system can be programmed to power down to sleep mode, where it is instantly operational at the push of a button.

BRUTALLY STRONG SIMRAD CONSTRUCTION

- Modern Simrad styling with flush mount option compliments any helm design.

HIGH PERFORMANCE MULTIFUNCTION DISPLAYS

- Experience zero chart lag time and seamless zooming and panning with the Simrad NSS evo2 and NSE systems.
- Achieve 10Hz GPS accuracy with the Simrad High Performance GS25 GPS Antenna.
- Integrate everything from thermal imaging to engine data.
- Get consistency across the fleet. Save all settings and transfer via the USB interface.
- Also available in a black box version (NSO evo2) for system flexibility.

FLIR CAMERA INTEGRATION

- Integrate a FLIR night vision camera to assist with search and rescue missions.

STRUCTURESCAN™ – SIDE AND DOWN IMAGING

- Integrate StructureScan™ to achieve high detail, picture perfect bottom viewing to reveal underwater structure including wreckage, nets, rocks and even divers or bodies.
- Search a 200x200m area in the water in less than an hour before you put divers in the water.
- Record sonar logs and upload them to the online Biobase service to create your own up-to-date and detailed bathymetric maps for coastal, port and harbour areas.

BROADBAND 4G™ RADAR FOR ULTIMATE SURFACE DETECTION

Our fourth generation Broadband Radar offers features that no other compact system can offer.

BEAM SHARPENING TECHNOLOGY

- The only dome radar in the world to employ beam sharpening. This unique function allows you to control the level of target separation, so you can see the sharpest images possible when you need them most. Perfect for Search and Rescue operations.

RANGE PERFORMANCE

- Noise rejection control increases range performance and increases target detection sensitivity.
- Up to 48rpm rotation for tracking high speed targets.
- Out performs competitors' compact magnetron based domes.

RADAR FOR COVERT OPERATIONS

- Low Probability of Intercept (LPI) is inherent to the Broadband Radar. FMCW technology operates at extremely low transmitter power making interception by ESM equipment virtually impossible.

IMO Work Boats

SENSORS

25 kW Argus Radar (9 Feet)


HS80A GPS Compass

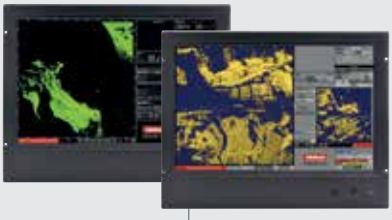

GC80 Gyrocompass


MX521B DGPS Antenna


WS80 Wind Sensor

BRIDGE


CS68 ECDIS (24" display)


ARGUS Radar (26" display)


IS80 Rudder Angle Indicator


IS80 Speed Instrument


HR80 Heading Repeater


WI80 Wind Indicator


Panorama U45 Rudder Angle Indicator


AP80 Autopilot


FU80 Autopilot Remote Control


MX612 Navigation System


EG70 GPS EPIRB


SA70 AIS-SART

WORK STATION


Argus OSID (23" display)


CS68 ECDIS (24" display)


HR80 Heading Repeater


WI80 Wind Indicator


MX612 Navigation System

BRIDGE

SENSORS

WORK STATION

Patrol Boats

Multi Station (integrate up to 6 stations)

STATION 1

NSO (M019) Multifunction Display

OP40 Controller

IS70 Rate of Turn Instrument

IS70 RPM Indicator Instrument

RS35 VHF Radio

AP70 Autopilot

SENSORS

10kW Radar

Broadband 4G™ Radar

GS25 GPS Antenna

MX575D DGPS Compass

Camera

STATION 2

NSO (M019) Multifunction Display

OP40 Controller

IS70 Rate of Turn Instrument

IS70 RPM Indicator Instrument

RS35 VHF Radio

AP70 Autopilot

BELOW DECK

BSM-3 Broadband Sounder Module

SonarHub Sounder Module

NAIS-400 AIS Transponder

STATION 3

NSE Multifunction Display

IS70 Rate of Turn Instrument

IS70 RPM Indicator Instrument

RS35 VHF Radio

STATIONS 1-3

SENSORS

BELOW DECK

Fishing

BRIDGE

NSE12 Chartplotter / Multifunction Display

HR80 Heading Repeater

StructureScan HD Imaging Module

AP70 Autopilot

FU80 Autopilot Manoeuvre Control

RS35 VHF Radio

WI80 Wind Indicator

IS70 Rudder Angle Indicator

IS70 Speed Instrument

IS40 Colour Instrument Display

EG70 GPS EPIRB

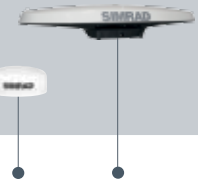
SA70 AIS-SART

SENSORS

6kW HD Radar

Broadband 4G™ Radar

GS25 GPS Antenna



HS70 GPS Compass

BELOW DECK

BSM-3 Broadband Sounder Module

NAIS-400 AIS Transponder

RC42N Rate Compass

HSC / Passenger Vessels

SENSORS

12kW Argus Radar (6 Feet)
Broadband 4G™ Radar
GC80/GC85 (HSC) Gyrocompass
MX521B DGPS Antenna
HS80
25kW Argus Radar (HSC) (6 Feet)
WS80 Wind Sensor

BRIDGE


CS68 ECDIS (24" display)


ARGUS Radar (27" display)


HR80 Heading Repeater


WI80 Wind Indicator


IS80 Rate of Turn Instrument


IS70 Rudder Angle Indicator


IS70 Speed Instrument


AP70 Autopilot


QS Autopilot Quick Stick Controller


GN70 Global Navigation System


EG70 GPS EPIRB

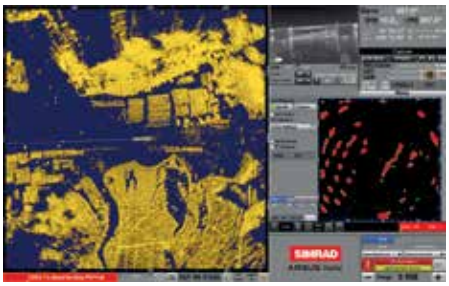

SA70 AIS-SART

SENSORS

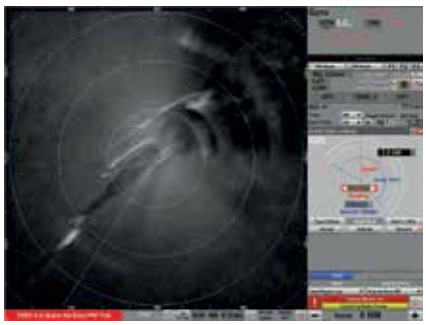
BRIDGE

Simrad Professional In Action

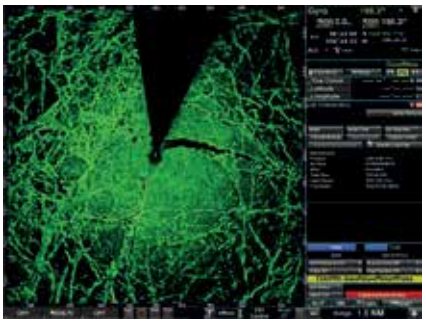
ARGUS RADAR



Argus S-Band - standard PPI screen showing dual range

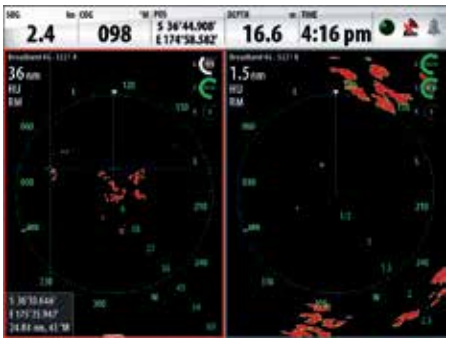


Argus X-Band –oil spill screen showing oil spill area and recovery booms

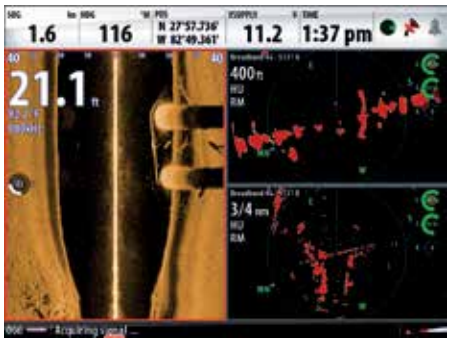


Argus X-Band – ice detection mode showing an open water crack in the ice

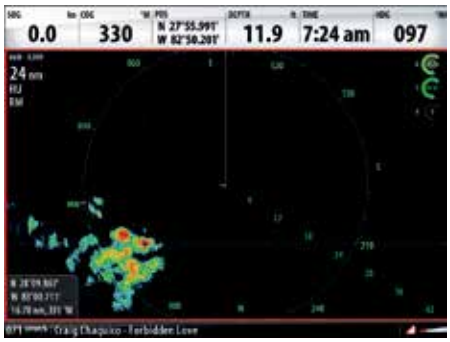
BROADBAND & HD DIGITAL RADAR



4G dual range display with different gain settings



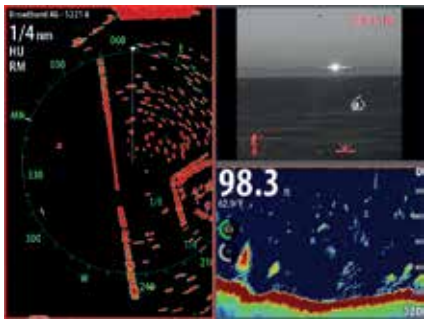
StructureScan and **4G** for above and below water surveillance



4G targets at 24nm

DATA/VESSEL INTEGRATION

AIS vessel data



FLIR camera integration

CZone integration – battery and tank monitoring

AUTOPILOTS

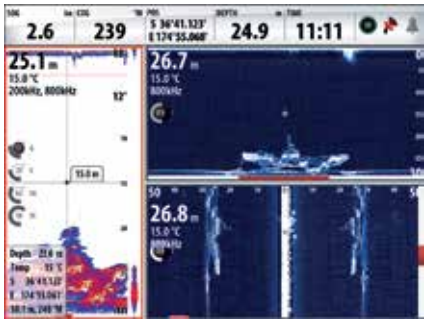
Customisable WORK profiles

Versatile setup with intuitive steering system selection

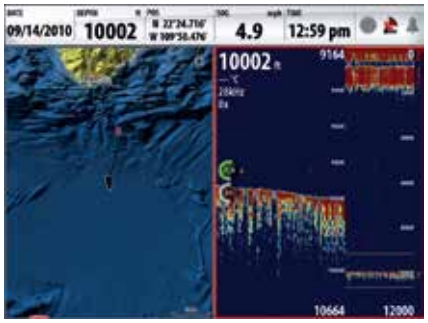
Detailed thruster interface with visual reference of thruster activity

ECHOSOUNDER MODULES

StructureScan - Truck located on the sea bed using StructureScan

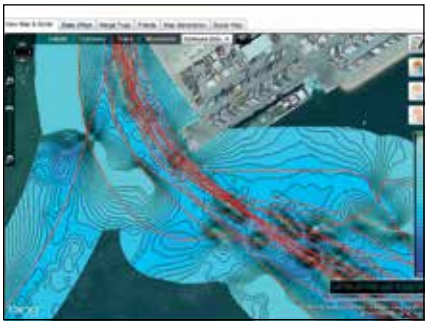


StructureScan - Minato Maru shipwreck. Downscan™, SideScan and Sonar

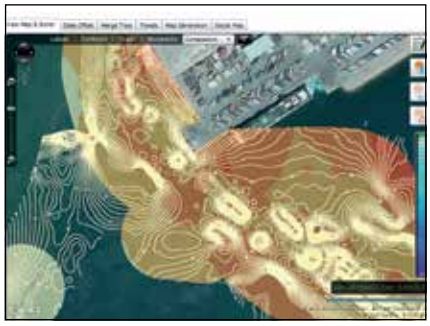


BSM-3 - Bottom structure at 10,000 ft – ultra-deep water penetration

CUSTOMISED CARTOGRAPHY - CREATE DETAILED BATHYMETRIC MAPS USING YOUR STRUCTURESCAN SONAR LOGS.



Data Capture - Survey area whilst recording sonar logs



Upload survey logs to the online Biobase system at cibiobase.com

Biobase will create bathymetric maps using your sonar data, this can then be downloaded and used with your Simrad Multifunction Display. Biobase maps can show vegetation levels, heat maps and provide spatial analysis information at a glance.

Integrate Everything

Innovative and industry unique, plug & play performance modules.

ENGINE MANAGEMENT

Integrate real time gasoline or diesel fuel flow monitoring together with fuel tank information, for extended mission range and eco friendlier operations. A wide range of sensors available.

GOFREE WIFI-1

The WIFI-1 is a marine grade wireless gateway which allows owners of compatible Simrad Multifunction Display units to view data when utilised in conjunction with a wireless device. View key navigation data on devices such as an iPad from anywhere on the vessel.

HIGH SPEED GPS

The impressive 32-channel NMEA 2000 GPS antenna with an integrated eCompass/Gyro. In addition to accurate and reliable location, benefit from stable and smooth chartplotting, accurate COG at any speed, and the ability to precisely overlay radar on charts.*

Additionally the antenna provides superior sensitivity for signal acquisition, with incredible position accuracy. Compatible with both NSO and NSE.

*Please note this product is not suitable for use with MARPA or autopilot systems, this requires a rate compass such as the RC42.

CAMERA INPUTS

Video input for night vision and multi purpose cameras. Connect up to two cameras per Simrad NSE, or connect up to two cameras to the NSO evo2 MPU, and two on the MO16, MO19 and MO24 Monitors.

ECHOSOUNDER MODULES

Revolutionise the way you find fish with our award-winning echosounder technology. For deep water choose the outstanding BSM-3 and for shallow water look no further than the life-like imagery of SonarHub or StructureScan® HD.

DIGITAL SWITCHING

Digital Switching

Breaking new ground with support for CZone digital switching from BEP Marine. CZone digital switching offers a new paradigm for cost effective, control and monitoring of nearly any system on the vessel. The Simrad MFD's can operate as a CZone controller. Control lights, turn on bilge pumps, monitor tank levels – all from the NSO or NSE navigation system. Simrad and CZone – a partnership in Innovation.

Find out more: *www.bepmarine.com* C-ZONE

AUTOPILOT

Autopilot Interfaced™

The world's best performing autopilot systems offer complete flexibility to integrate with a wide variety of steering types - including CAN-bus using the SG05 PRO.

AIS

AIS Class B AIS

Integrate an NSO or NSE system with Simrad AIS Systems to see and be seen. Overlay AIS-equipped vessel information on chart and radar displays for exceptional situational awareness.

HD DIGITAL RADAR

HD Digital Radar

Simrad offers a range of radome and open array digital signal processing radar systems, working with power levels from 4 kW to 25 kW via high capacity Ethernet. These radars ensure exceptional detection of small or distant targets, virtually eliminating screen clutter allowing a clear and accurate image.

BROADBAND RADAR

Broadband Radar™

A revolution in radar unlike anything else on the marine market, the Broadband Radar utilises solid-state technology and provides superior target detection and separation at closer ranges, ease of operation and a new level of navigational performance.

Autopilot

Autopilot Control Units

AP80

The AP80 is one of the smartest type approved autopilot solutions available on the market today. It will adapt to your individual load characteristics, and wind and wave conditions, to help lower operating costs and reduce risk. The USB port in the front makes loading and storing these settings so simple.

Like the AP70, the slightly larger AP80 is totally modular in nature, so installation and operation are effortless. Both the AP70 and AP80 control units share common autopilot computers and accessories making them the most flexible autopilot systems available.

With 6 individual scenario profiles, networking with NMEA2000 cabling, a special work mode, and triple support of independent rudders and multiple thrusters, the Simrad AP80 is a one stop shop for vessels from 20 feet to super tankers.

KEY FEATURES

- 5 inch colour bonded display
- Adaptive, self-learning software
- Total of 6 user modes available
- Unique WORK mode: customize the parameters to suit individual vessel needs
- Supports up to 6 independent drives (rudders + thrusters)
- Includes USB port for saving or resorting master or fleet settings

AP70

The AP70 is a type approved autopilot system providing complete heading and course control for a wide range of vessels. It can be used as a standalone autopilot control unit, or is perfect as a second station in an AP80 system.

With its unique colour user interface and intuitive graphics, ability to store up to 6 individual scenario profiles, and self-learning software, this modular system makes installation and operation so easy. You won't find another pilot on the market that boasts the same performance, durability and versatility without the high cost.

KEY FEATURES

- As per AP80 plus:
- Includes TrackSteer – the ability to steer a vessel based on steering commands from the ECDIS
- Quick Command and Quick Dodge enhanced manual steering
- Pendulum ferry function; a XTD (Cross Track Distance) offset feature to run a vessel parallel to a track line without changing modes or disengaging navigation
- Toe-Angle Support for manual entry of rudder toe-angles to improve slow speed performance
- International Maritime Organization (IMO) approved autopilots for Volvo EVC and IPS drive

AP60

The AP60 is a feature packed entry level autopilot system for the professional mariner who is looking for the perfect balance between performance and price and does not require IMO certification.

Based on the proven user interface of the AP70/80 and offering thruster integration, the AP60 is incredibly easy to set up and use. The intuitive menu system and large, high contrast mono screen with clear digits make reading the display effortless. The heading control includes a rotary course control wheel, as well as dedicated WORK, AUTO and STANDBY buttons, enabling simple performance selection depending on your task at sea.

The AP60 includes 2 user configurable WORK modes – these allow the operator to have pre-set modes of operation for the vessel. An operator could have light ship, partially loaded, fully loaded, underway, trawling or manoeuvring options pre-loaded. The AP60 also includes turn patterns such as U-Turns, C-Turns, Dodging and NoDrift steering –features you wouldn't expect to find in an entry level pilot.

KEY FEATURES

- Cost effective advanced autopilot system with thruster integration
- Compatible with an extensive range of existing Simrad autopilot controllers and accessories
- 2 user configurable WORK profiles, customise parameters to suit individual vessel needs
- Designed by the world leaders in autopilot technology –we steer any boat!
- Backed by the Simrad Advantage Service program which includes 7 years of worldwide product support

SPECIFICATIONS	AP80	AP70	AP60
Dimensions (LxWxH)	252x32x144 mm (9.9x1.2x5.7 in)	230x32x144 mm (9x1.2x5.7 in)	172x48x114 mm (6.7x1.9x 4.5 in)
Weight	1.4 kg (3.21 lb)	1.2 kg (2.4 lb)	0.5 kg (1.1 lb)
Approvals	HSC, MED, CCS, USCG	HSC, MED, CCS, USCG	-
Screen	5" 16-bit colour bonded TFT	5" 16-bit colour bonded TFT	4.4" Greyscale TFT Matrix LCD
Work Profiles	6	6	2
Drive Support	6	3	2
Turn Patterns	Yes	Yes	Yes
Thruster Control	Yes	Yes	Yes
Full Track Steering	Yes	Yes	No
USB Port	Yes	-	-
Adaptive	Yes	Yes	Yes
Pendulum Ferry Function	Yes	Yes	-
Course Change Rotary Knob	Yes	Yes	Yes
Power Consumption	0.7/0.4 A at 12 V DC (backlight full) 0.4/0.3 A at 24 V DC (backlight off)	0.7/0.4 A at 12 V DC (backlight full) 0.4/0.3 A at 24 V DC (backlight off)	1.2 W max. typical
Power Supply (Supply Voltage)	12/24 V DC +30 – 10%	12/24 V DC +30 – 10%	8-16 V DC (CAN network powered)
Operating Temperature	-30 to +55°C (-22 to 131°F)	-30 to +55°C (-22 to 131°F)	-15 to +55°C (5 to 131°F)

"I CAN SAY THAT THE SEA TRIAL ALIGNMENT OF THE AP80 WAS THE SMOOTHEST ALIGNMENT THAT I HAVE DONE IN THE PAST 30 YEARS"

L&L Electronics, CT, USA (experts in marine electronics for over forty years)

Autopilot

Autopilot Computers

A comprehensive range of computers and interface units are offered with the Simrad AP60, AP70 and AP80 autopilots providing a complete solution for every steering system. The autopilot computer is the heart of the system, processing navigation data from the compass, GPS and instrument system to an output of smooth control of the rudder. We have a system to steer any vessel!
Our Autopilot Computers interface with steering systems.

AC70

Drive computer for rudder using reversible motor or non-isolated solenoids and frequency rudder angle feedback. Connection for NFU remote control and one channel IEC 61162-1 (NMEA 0183) RX/TX or IEC 61162-1,2 and 3 compatible.

AC80S

Drive computer for on/off or proportional control of rudder or thruster using galvanic isolated solenoids or high level current with possibility for frequency, voltage or current angle feedback, digital drive handshake and external mode input. Built in CAN-bus supply and 4 channel IEC 61162-1 (NMEA 0183) RX/TX.

AC80A

Drive computer for analogue or proportional control of rudder or thruster using analogue voltage or low level current with possibility for frequency, voltage or current angle feedback, digital drive handshake and external mode input. Built in CAN-bus supply and 4 channel IEC 61162-1 (NMEA 0183) RX/TX.

AC85

Customizable computer that can be configured with up to four PCBs depending on the installation requirements. Drive computer cabinet with CAN-bus supply and 4 channel IEC 61162-1 (NMEA 0183) RX/TX (not mounted). Prepared for additional mounting of up to three drive boards with same functionality as SD80, AD80 or AC70.

SG05

SG05 is the Simrad Autopilot Computer for CAN-bus steering systems. The SG05 Pro version provides autopilot control from AP70 and AP80 control heads to CAN-bus steering systems and can be used as part of an IMO approved autopilot system.





SPECIFICATIONS	AC70	AC80A	AC80S	AC85	SG05
Dimensions (LxWxH)	211x180x60 mm (8.3x7x2.3 in)	340x256x100 mm (13.4x10x3.9 in)	340x256x100 mm (13.4x10x3.9 in)	410x440x105 mm (16.1x17.3x4.1 in)	94.5x26x26 mm (3.7x1x1 in).
Weight	1.0 kg (2.2 lb)	4.1 kg (9.0 lb)	4.1 kg (9.0 lb)	4.1 kg basic (9.0 lb)	0.1 kg (0.2 lb)
Power Supply	12/24VDC + 15V CAN	12/24VDC	12/24VDC	12/24VDC	12V via SimNet
Output for CAN-bus Supply	-	15VDC/4A	15VDC/4A	15VDC/4A	-
N2K Load (LEN)	1	3	3	Config dependant. Max 10	1
Operation Temperature	-15C to +55C (5F to 131F)	-15C to +55C (5F to 131F)	-15C to +55C (5F to 131F)	-15C to +55C (5F to 131F)	0C to +55C (32F to 131F)
Protection	IPX2	IPX4	IPX4	IPX4	IP44
Mounting	Bulkhead	Bulkhead	Bulkhead	Bulkhead	Bulkhead
Material	Plastic + Anodized Aluminium	Epoxy Coated Aluminium	Epoxy Coated Aluminium	Epoxy Coated Aluminium	Polyamide

Autopilot

Interface Units

Autopilot Interface Units connect with thrusters and positioning systems.

AD80

Drive interface for analogue or proportional control of rudder or thruster using analog voltage or low level current with possibility for frequency, voltage or current angle feedback, digital drive handshake and external mode input.

SI80

The SI80 is a 24V/12V signal interface module that provides up to four IEC 61162-1 (NMEA 0183) input and output channels and Micro-C power supply.

SD80

Drive interface for on/off or proportional control of rudder or thruster using galvanic isolated solenoids or high level current with possibility for frequency, voltage or current angle feedback, digital drive handshake and external mode input.

SPECIFICATIONS	AD80	SD80	SI80
Dimensions (LxWxH)	211x168x60 mm (8.3x6.6x2.3 in)	211x168x60 mm (8.3x6.6x2.3 in)	211x180x60 mm (8.3x6.6x2.3 in)
Weight	0.5 kg (1.1 lb)	0.5 kg (1.1 lb)	0.9 kg (2.0 lb)
Power Supply	15V CAN	15V CAN	12/24VDC
Output for CAN-bus Supply	-	-	15VDC/4A
N2K Load (LEN)	2	2	1
Operation Temperature	-15C to +55C (5F to 131F)	-15C to +55C (5F to 131F)	-15C to +55C (5F to 131F)
Protection	IPX2	IPX2	IPX2
Mounting	Bulkhead	Bulkhead	Bulkhead
Material	Plastic	Plastic	Plastic + Anodized Aluminium

Autopilot

Intelligent Remote Controls

You can power steer the vessel and change course in Auto mode from various locations with our range of remote controls.

FU80

The FU80 (a manoeuvre controller) is a Follow Up remote which means that the rudder, when hand steering, moves to the commanded angle set by turning the knob to port or starboard. It can also be used for course change when autosteering.

NF80

The NF80 (a drive controller) is a Non Follow Up remote which means that the rudder, when hand steering, moves as long as the steering lever is kept at maximum port/starboard position. It can also be used for course change when autosteering. The lever has spring return to mid-position.

QS80

The QS80 (Quick Stick™ controller) operates the same way as NF80 when the joystick is kept to port or starboard. When the joystick is moved forward and released, the autopilot goes into automatic mode. When the joystick is moved backwards when automatic steering is active, the autopilot goes to standby. If the joystick is moved backwards when standby, the rudder moves to mid-position. It can also be used for course change when autosteering. The joystick has spring return to centre position.

SPECIFICATIONS	FU80	NF80	QS80
Dimensions (LxWxH)	144x80x40 mm (5.5x3.1x1.6 in)	144x80x40 mm (5.5x3.1x1.6 in)	144x80x40 mm (5.5x3.1x1.6 in)
Weight	0.5 kg (1.1 lb)	0.5 kg (1.1 lb)	0.4 kg (0.8 lb)
Course Steering (No Drift)	Yes	Yes	Yes
Waypoint-Waypoint Steering	-	-	Yes
Non Follow Up Steering	-	Yes	Yes
Follow Up Steering	Yes	-	-
Direct Command Transfer (open/unlocked system)	Yes	Yes	Yes
Thruster On/Off with direct button	Yes	Yes	Yes
Built in audible alarm	Yes	Yes	Yes
Course Change in Autosteering	Yes	Yes	Yes

Autopilot

Remote Controls

JS10

The Simrad JS10 Joystick is a Non Follow-up steering lever designed for indoor and outdoor console mount. It has a spring-loaded return-to-mid-position and is equipped with 10 m (33') of cable and installation hardware. The rudder will move for as long as the lever is held in left (Port) or right (Starboard) position.

S35

Simrad S35 is designed for indoor and outdoor bulkhead mount and is made of shock resistant polyxymethylene. The lever has spring loaded return to midposition. A push button with light indicator is used for mode selection when connected to a Simrad J3XX junction unit.

R3000X

The R3000X is small handheld remote control with two push buttons for power steering or course selection (port and starboard), and one push button with built-in lighted indicator for mode selection. Also features NFU steering in STBY and Dodge modes plus course changing in auto mode.

S9

The Simrad S9 is a heavy duty NFU steering lever. Depending on how it is connected, the S9 will disengage the autopilot and operate the solenoids by direct override. When the S9 handle is pushed in, the autopilot will resume in AUTO mode on the present heading.

SPECIFICATIONS	JS10	R3000X	S35	S9
Dimensions (LxWxH)	55x55x70(+41) mm (2.1x2.1x2.7(+1.6) in)	122x50x18 mm (4.8x2.0x0.7 in)	192x120x93 mm (7.5x4.7x3.6 in)	144x144x78(+53) mm (5.6x5.6x3.0(+2.0) in)
Weight	0.5kg (1.1 lb)	0.4kg (0.9 lb)	1.4kg (3.0 lb)	2.8kg (6.2 lb)
Material	Plastic / Rubber / Epoxy Coated Aluminium	Epoxy Coated Aluminium	Polyacetal (POM)	Epoxy Coated Aluminium
Protection	Joystick: IP66 Terminals: IP22	IP56	IP56	IP56
Mounting	Panel (desk)	In bracket (included)	Panel (desk) or Bulkhead	Panel (desk) or Bulkhead
Operation temperature	-25C to +55C (-13F to + 130F)	-25C to +55C (-13F to + 130F)	-10C to +55C (14F to 130F)	-25C to +55C (-13F to + 130F)
Max. inductive load	24VDC: 10A	-	24VDC: 4A	24VDC: 4A
Cable length	10m (33 ft)	7m (23 ft)	10m (33 ft)	No Cable Supplied
Safe distance to compass	0.15m (0.5 ft)	0.15m (0.5 ft)	0.5m (1.6 ft)	0.5m (1.6 ft)

Autopilot

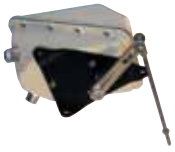
Rudder Feedback Units

Simrad rudder feedback units contribute to our reputation for controlled and accurate steering.

The RFU transmits a signal proportional to the rudder angle. It is mounted close to the rudder stock and is mechanically connected to the rudder by a transmission link in a 1:1 ratio.

RF14XU

The RF14XU is a heavy duty long life feedback unit with transmission linkage. It has a separate output for rudder angle indicators and a double set of limit switches. It requires 24 V DC supply voltage. Not designed for use with the AC70.



RF45X

The RF45X is a medium duty rudder feedback unit and it is a repairable rather than a potted throw away item. The RF45X can also operate on 24V DC -a useful feature when connected in a standalone rudder angle indicator system. The unit is mounted close to the rudder stock and is mechanically connected to the rudder by the RF45 transmission link.

RF70N

RF70N rudder feedback unit with NMEA 2000 connection.

RF300

RF300 rudder feedback unit connects directly to the Autopilot Computer using 2 wire frequency interface.

RF25N

RF25 rudder feedback unit with NMEA 2000 connection.





SPECIFICATIONS	RF14XU	RF45X	RF70N	RF300	RF25N
Dimensions (LxWxH)	150x240x120 mm (5.9x9.5x4.8 in)	100(dia)x129 mm (3.9 in (dia) x 5.1 in)	100(dia)x129 mm (3.9 in (dia) x 5.1 in)	195x99x65 mm (7.6x3.9x2.5 in)	195x99x65 mm (7.6x3.9x2.5 in)
Weight		1.0 kg (2.2 lb)	1.0 kg (2.2 lb)	0.5kg (1.1 lb)	0.5kg (1.1 lb)
Supply Voltage	24 V DC – 10%/20% Frequency section 12-40 V DC	12-24 V DC – 10%/+30%, system supplied	12V (CAN supply)	12V (from Computer)	12V (CAN supply)
Output RAI	Midship reference 0.5 x supply voltage Full deflection +/-9 V	0.1-1.1mA	NMEA2000		NMEA2000
Output Autopilot	3400 Hz +/-20Hz/degree	3400Hz +/-20Hz/degree		3400Hz +/-20Hz/degree	NMEA2000
No. of indicators	5 in parallel	5 in series			
Rudder Angle	+/-45° (changeable to 60, 70 or 90°)	+/-45°		+/-45°	+/-45°

Autopilot

Drive Units

The drive unit is the device that actually moves the rudder. We have a range of models to fit different vessel types, sizes and steering systems.

RPU80

Reversible pump for cylinder displacement of 80-250 cm3. 12 V DC.

US = 4.9-15.2 cu in.

RPU300-12 V

Reversible pump for cylinder displacement of 290-960 cm3. 12 V DC.

US = 17.7-58.5 cu in.

RPU160

Reversible pump for cylinder displacement of 160-550 cm3. 12 V DC.

US = 9.8-33.5 cu in.

RPU300-24 V

Reversible pump for cylinder displacement of 290-960 cm3. 24 V DC.

US = 17.7-58.5 cu in.

SPECIFICATIONS	RPU80	RPU160	RPU300-12 V	RPU300-24 V
Motor Volts*	12 V	12 V	12 V	24 V
Junction Unit/Autopilot Computer**	AC12/AC70	AC42/Ac70	AC42/Ac70	AC42/Ac70
Ram Capacity Min cm3 (cu. in.)	80 cm3 (4.9 cu. in)	160 cm3 (9.8 cu. in)	290 cm3 (17.7 cu. in)	290 cm3 (17.7 cu. in)
Ram Capacity Max cm3 (cu. In.)	250 cm3 (15.2 cu. in)	550 cm3 (33.5 cu. in)	960 cm3 (58.5 cu. in)	960 cm3 (58.5 cu. in)
Flow Rate at 10 bar cm3/min (cu.in/min)	800 cm3 (49 cu. in)	1600 cm3 (98 cu. in)	3000 cm3 (183 cu. in)	3000 cm3 (183 cu. in)
Max Pressure Bar	60	60	60	60
Power Consumption***	2.4-6 A	3-10 A	5-18 A	3.5-10A

* The motor voltage is transformed by the junction unit/autopilot computer when operating from 24V or 32V mains.
** The specified junction unit/autopilot computer is necessary to achieve max. drive unit capacity.
*** Typical average 40% of max. value.

Radar

> "SIMRAD ARGUS RADAR SYSTEM "GOES ONE STEP FURTHER THAN STANDARD NAVIGATIONAL RADAR"
> Maritime Executive Magazine: The Evolving World of Maritime Security

ARGUS X-BAND

State of the art professional X-band radar including 6 or 9 foot antenna options and up-mast transceiver in both 12kW and 25 kW. The Simrad ARGUS radars fully comply with and exceed IMO regulations. Thanks to the modular design, they can be either assembled to form a stand-alone display cabinet or be flush mounted into a mechanical bridge console. The standard configuration always includes full ARPA, AIS and an electronic built-in interswitch for dual radar installations.

Adding a heading input from an autopilot system or dedicated sensor will allow the radar image to be overlaid on the chart. Targets can be interpreted instantly with respect to chart information such as navigation aides and coastlines.

KEY FEATURES

- Separate processor, monitor and operation panel
- 100 target ARPA and 300 AIS target tracking feature as standard
- Wide screen colour monitor option
- Superior signal processing
- Significantly larger target presentation area
- Seamless use of up to four antennas
- Optional Advanced Oil Spill and Ice Detection (OSID) Software

ARGUS S-BAND

The Simrad Argus family has been expanded with the addition of the lightest S-Band radar available in the market today. The S-Band radar has a slim profile antenna to reduce disturbances caused by sea waves and wind resistance.

It utilises the same proven technology and electronic components as the Argus X-Band thus reducing the required on-board spare parts and assuring their availability via our world-wide Advantage Service program.

KEY FEATURES

- Separate processor, monitor and operation panel
- Up to 100 target tracking (ARPA) and 300 AIS targets
- Controllable antenna rotation speed 20 or 40 rpm (*HSC model)
- Combined Video of two radar transceivers onto one PPI or two independent PPI on a widescreen monitor
- Flexible network configurations to include additional workstations, remote and additional X/S-band radar
- Includes a masthead transceiver with performance monitor, antenna and core unit with interswitch capabilities
- Ability to accommodate up to four S-Band or X-Band transceivers

*Pending approval

6KW, 10KW AND 25KW HIGH DEFINITION RADARS

Our HD open array digital radars provide professional mariners with exceptional detection of small or distant targets using our advanced Digital Signal Processing technology. Screen clutter in any weather is virtually eliminated, allowing a clear, accurate and easy to interpret image.

KEY FEATURES

- The most advanced Digital Signal Processing (DSP) technology
- Extremely robust, high performance scanners
- Easy to read colour radar with chart overlays
- Automatic Tune, Gain and Sea Clutter Adjustments
- Dynamic colour ranging for better target and weather definition

BROADBAND 4G™ RADAR

Utilising broadband Frequency Modulated Continuous Wave (FMCW), this breakthrough technology provides superior target detection and separation, ease of operation and a new level of navigational safety. Broadband Radar near-range performance and usability is optimised with the addition of High-Speed Antenna Rotation (48 rpm).

This FMCW radar has all of the benefits of our revolutionary Broadband 4G Radar but with more advanced features, including beam sharpening for target separation control, Dual Range radar and increased target detection capabilities. The Broadband 4G Radar also includes a new 36nm working range, and 18 range scales to accommodate the increased performance.

KEY FEATURES

- Beam sharpening with target separation control
- Dual range anywhere from 200' to 36nm
- Up to 48rpm at less than 1nm
- Directional clutter rejection and Sidelobe suppression
- FMCW technology with inherent LPI
- Extremely low emissions
- InstantOn™




SPECIFICATIONS	Argus X-Band	Argus S-Band	HD Open Scanners	Broadband 4G Radar
Dimensions (LxWxH)			6 kW: 1285x344x432 mm (50.6x13.5x17 in) 10 kW: 1869x437x449 mm (73.6x17.2x1.9 in) 25kW: 2235x462x534 mm (88x18x21 in)	489 mm (19.3 in) diameter 280 mm (11 in) height
Weight (upmast)	6 ft: 40 kg (88 lb) 9 ft: 44 kg (97 lb)	125 kg (275 lb)	6 kW: 29 kg (63.9 lb) 10 kW: 35 kg (77.2 lb) 25kW: 54 kg (119 lb)	7.4 kg (16 lb)
Approvals	MED, USCG, CCS, RS, FCC, Shipping Register of Ukraine, ISO 9001	IMO MSC192(79) and relevant IEC 62388 ed.1	-	-
Power Consumption	500 W max		6 kW: 120 W 10 kW: 250 W 25kW: 180 W	20W (Typ.) @ 13.8Vdc (21W in dual range mode) Standby:2.9W
Antenna Horizontal Beam Width (deg)	6 ft: 1.3° 9 ft: 0.9°	1.9° (-3 dB width)	6 kW: 1.8° + 10% (-3 dB width) 10 kW: 1.2° + 10% (-3 dB width) 25kW: 1° + 10% (-3 dB width)	5.2°+/-10% (-3dB width) °
Antenna Vertical Beam Width (deg)	22°	24° (-3 dB width)	6 kW: 20° + 20% (-3 dB width) 10 kW: 20° + 20% (-3 dB width) 25 kW: 20° + 20% (-3 dB width)	25°+/-20% (-3dB width) °
Antenna Rotation Speed	20 or 40 rpm	> 20 (> 40 HSC)	27 rpm	48 rpm
Antenna Type	6 ft: 12 kW 9 ft: 25 kW	30 kW	6 kW 10 kW 25 kW	Dome
Safe Distance to Standard Magnetic Compass	1.35 m (4.3 ft)	4.2 m (13 ft)	6 kW: 2.3 m (7.5 ft) 10 kW: 2.4 m (7.9 ft) 25 kW: 2.4 m (7.9 ft)	-
Safe Distance to Steering magnetic Compass	0.85 m (2.8 ft)	2.75 m (9 ft)	6 kW: 1.75 m (5.7 ft) 10 kW: 1.8 m (6 ft) 25 kW: 1.8 m (6 ft)	-
Swing Circle	6 ft: 183 cm (6 ft) 9 ft: 274 cm (8.9 ft)	362 cm (11.8 ft)	6 kW: 132 cm (4.3 ft) 10 kW: 191 cm (6.25 ft) 25 kW: 227 cm (7.45 ft)	-
Required Power – Bar standard configuration	115-220 V / 50-60 Hz	115-220 V / 50-60 Hz	6 kW: 10.8 V – 42 V 10 kW: 21.6 V – 41.6 V 25 kW: 21.6 V – 31.2 V	12 V / 20 W

Echosounders

BSM-3

The ultimate fishfinder echosounder module for professional users and CHIRP deepwater anglers, the BSM-3 uses the latest technology to deliver unprecedented depth penetration, resolution and clarity.

KEY FEATURES

- Dual independent transceivers with dual transducer ports
- Compression Modulation (CHIRP) for improved performance over all depth ranges
- Penetrates up to 3000 m (10,000 ft)*
- 5x resolution of BSM-2
- Networked over high speed Ethernet
- Any frequency you need: 25-45, 40-60, 38, 28, 200 kHz

*Transducer dependent

→ See **page 13** for BSM-3 proof of performance

SONARHUB

SonarHub is Simrad's new all-in-one sounder solution combining StructureScan® HD and CHIRP sonar. It is ideal for marking fish and tracking lure action, and can provide easy-to-understand, picture-like views of structure and bottom detail.

Offering a powerful performance advantage in any situation, the new module's Frequency Sweeping Pulse Compression technology – known as CHIRP sonar — provides high-definition detail to depths of 3,500 feet; while its StructureScan HD functionality gives boaters picture-like displays for more productive fishing, diving, and search and recovery operations.

KEY FEATURES

- Capable of showing 2 important views:
  1. CHIRP
  2. StructureScan HD (Side and DownScan) plus Single Frequency Sonar (50kHz, 83kHz, 200kHz)
- Identical performance as current StructureScan HD
- Utilise CHIRP with the Airmar™ 150 transducer for optimal sonar performance
- Broadband dual frequency:
  Single frequency sonar (83, 50, 200kHz) and DownScan Imaging also works with HDI Transducers
  Use any of the existing 50/200kHz and 83/200kHz Simrad/Airmar 7 pin blue transducers for excellent single frequency performance

STRUCTURESCAN® HD

StructureScan HD provides best-in-class range and resolution so you can see in picture-perfect detail what's beneath your boat for the ultimate fishfinding/navigational experience. StructureScan® HD enables boaters to see exactly what's below their boat with crisp, clear imagery to the left, right and directly beneath, at depths of up to 100m.

KEY FEATURES

- Highly detailed structure and fishfinding clarity
- Vastly improved range and resolution compared with the original StructureScan®
- Panoramic underwater imaging with SideScan and exclusive DownScan
- Picture-perfect detail
- Left, right and straight down coverage

SPECIFICATIONS	BSM-3	SonarHub	StructureScan HD
System Description	Ultra Performance, Broadband CHIRP Echosounder with 5x better resolution than BSM-2	High performance sonar module including both StructureScan HD + CHIRP sonar	High definition sonar imaging providing picture perfect detail
Dimensions (LxWxH)	340x100x288 mm (13.4x3.9x11.3 in)	204x180x57 mm (8x7.1x2.2 in)	210x191x58 mm (8.2x7.5x2.2 in)
Weight	0.9 kg (2 lb)	0.9 kg (2 lb)	0.8 kg (1.8 lb)
Output Power	250 Watts RMS; 2,000 Watts (peak-to-peak) kW	• StructureScan: 500 W RMS • CHIRP: 250 W RMS	Max WRMS: 500W, Peak-to-Peak: 4000W
Power Supply (supply voltage)	12 or 24 V DC (max range 9 V to 32 V DC)	12 or 24 V DC (max range 9 V to 32 V DC)	12V (Voltage input: 10V - 17V) vDC
Maximum Depth *tdx dependent	3000 m / 10,000 ft*	• StructureScan: -Max side range: 300 ft each side -Max down range: 300 ft • CHIRP: 3500 ft)tdx dependent)	92 m / 300 ft (DownScan) 46 m / 150 ft (SideScan)
Echosounder transducers	Standard Narrowband AND High Performance Broadband	Recommeded with Airmar single channel CHIRP tdx's and StructureScan tdx's	Skimmer for Transom or Flush Mount, Plastic & Bronze Thru-Hull Imagine Tdx's, & Twin Tdx Options for Hulls with a Deep-Vee.
Echosounder Frequencies	Broadband 1: 130/210kHz, 40/60kHz Broadband 2: 40/60kHz, 25/45kHz Narrowband 1: 50/200kHz Narrowband 2: 50/38/28kHz	• StructureScan: 455 & 800 kHz • CHIRP: 40-60 kHz, 85-145 kHz, 130-210 kHz • Narrow Band: 50 kHz/ 83 kHz/ 200 kHz	455/800kHz
Operating temperature	-15°C to +55°C (5°F to 131°F)	-28°C to 75°C (-20°F to 167°F)	-15°C to +55°C (5°F to 131°F)

Charting

CS68 ECDIS

The Simrad CS60 Series ECDIS systems have the unique capability of combining both a monitoring and a planning mode. All safety functions are continuously monitored even when route planning. Operational modes include monitor mode (showing COG, SOG and actual track), ARPA radar interface (showing other vessels in real time), and planning mode (plan a route and define waypoints).

CS68 is available in 2 screen sizes -19" 5:4 aspect ratio for easy swap-out of existing 19" ECDIS systems, and 24" 16:9 widescreen for larger viewable chart area.

KEY FEATURES:

- ENC/ S57, S63 and C-Map SENC CM93/3 Chart support.
- Tracksteer software features for integration with AP80 Autopilot System.
- Radar Overlay using external Radar interface module.
- Fully integrated ECDIS system with processor, NMEA0183 IO and display all in a single package for easy install and service replacement.
- Multi-voltage input 24V DC and 110-240V AC, with uninterrupted changeover in the event of a source failure.
- Dual-station PLECDIS (Paperless ECDIS) available.

SPECIFICATIONS	CS68-19	CS68-24
Display Size	19" (Aspect Ratio 5:4)	24" (Widescreen, Aspect Ratio 16:9)
Dimensions (LxWxH)	429x80.9x382 mm (16.89x3.19x15.04 in)	593x76.4x384 mm (23.35x3.01x15.12 in)
Weight	8.6 kg (18.9 lb)	11.2 kg (24.6 lb)
Mounting	4 x M6 VESA mounting 280x150mm, Max 12mm deep	4 x M6 VESA mounting 280x150mm, Max 12mm deep
Power Supply	110-240V AC / 24V DC	110-240V AC / 24V DC

NSO evo2

The NSO evo2 navigation system is Simrad's flagship modular navigation system that is fully configurable to meet any captain's requirements. Designed as a single processor black box, you can build a system to meet the specific needs of your vessel. Start with the MPU, add TouchSensible™ widescreen monitors, and then combine any number of award winning plug-and-play Simrad performance modules to build the ultimate customised solution.

> *"THE ABILITY TO OPERATE RADAR, ECHOSOUNDER, NAVIGATION AND AUTOPILOT ALL FROM ONE SCREEN MEANS THAT USERS CAN SIMPLY GET ON WITH THE WORK AT HAND, WITHOUT FUSS OR TIME WASTING"*
>
> GOLDFISH PROFESSIONAL BOAT PLATFORMS

NSO evo2 System Components

1. The MPU (Marine Processor Unit)

Simrad engineers have leveraged years of experience building integrated computer systems for boats to deliver the intelligently engineered brains and brawn of this flagship system. Dual quad-core processors drive the independent video output and also maintain the lightning -fast chart redraw Simrad is known for. We've included a full-size SD Card slot for cartography or critical navigation data backup, and standard Ethernet and USB Ports eliminate cable complexity. This fully networked, modular glass-bridge navigation system can be integrated with any of the wide range of Simrad Performance Modules.

Multi-touch, pinch-to-zoom

2. Widescreen Monitors

The NSO evo2 is optimised for use with Simrad MO Series multi-touch, widescreen marine monitors. Available in three screen sizes, 16-inch, 19-inch, and 24-inch, the Simrad MO-T Series features sleek, glass-bridge styling, front-mounting for ease of installation, and a familiar "Home" key that eliminates guesswork when operating the system. Whether you view the NSO evo2 on Simrad Monitors, on your tablet, or on compatible third party monitors, you'll be amazed at what this system will do.

KEY FEATURES:

- Dual independent video output
- Widescreen video support
- Multi-touch, pinch-to-zoom
- Performance module integration
- Widest choice of cartography options
- Multiple video inputs

NSS EVO2

Next generation of navigation, engineered for performance, easy use, functionality and flexible control. Multi-touch interaction and a keypad with rotary push-to-enter dial for rolling seas. CHIRP enabled Broadband Sounder and powerful expansion capabilities ensure you can go with confidence in any sea state.

KEY FEATURES:

- **TouchSensible** - Combination of multi-touch screen and keypad/rotary dial for intuitive, precise control in all conditions
- **Explore Beneath The Waves** - Built-in CHIRP-enabled Broadband Sounder and StructureScan™
- **A Helping Hand** - Full autopilot integration capability
- **Simrad GoFree WiFi** - Connectivity for smartphones/ tablets (requires optional WiFi module)
- **Position Assured** - Embedded high-gain 10Hz GPS/ GLONASS receiver

NSE

Simrad NSE multifunction displays are the most capable out-of-the-box navigation system you'll find. NSE offers professional performance with powerful networking capabilities providing comfort and control at sea. Plug-and-play expansion and networking options ensure best-in-class charting, radar and echosounding.

The NSE is a *Masterless* system where any networked unit can operate independently (a network switch may be required). NSE also offers Micro-C plug and play data networking for NMEA2000 sensors & instrumentation, and video input and output for display of video or navigation data where you want it.

The NSE is ideal for patrol vessels, smaller workboats and inshore fishing vessels, and is available in both 8 and 12 inch multifunction displays.

KEY FEATURES:

- Heavy duty aluminium case for professional use
- Brilliant LED display technology
- Complete flexibility - networks with other NS Series MFDs
- Embedded Navionics coastal cartography in Europe, Asia Pacific, and Insight HD for US models
- Integrate everything: compatible with all Simrad Performance Modules.

SPECIFICATIONS	NSO evo2	NSE
Display Size	16", 19", 24"	8", 12"
Networking Capability	6 units	6 units
Video Integration	4x input, 2x output	2x input, 1x output
Radar Options	HD Digital and Broadband	HD Digital and Broadband
Echosounder Options	SonarHub, BSM-2, StructureScan, BSM-1	SonarHub, BSM-2, StructureScan, BSM-1
CZone Smart Boat Integration	Yes	Yes
Touchscreen options	Yes	No
FLIR camera Integaration	Yes	Yes
OP40 Controller Option	Yes	Yes
Direct Access Keys	No	Yes
USB Ports	2	1
Cartography options	Insight, Biobase, Navionics, C-Map MAX-N+, NV-Digital on SD	Insight, Biobase, Navionics, C-Map MAX-N, NV-Digital on SD

AIS

NAIS-400 CLASS B-AIS TRANSPONDER

A fully integrated black-box Class-B AIS solution. Compact in size, lightweight, fully waterproof, with low power draw and featuring multiple connections, the NAIS-400 is ideal for networking with any NSE or NSO chartplotter / multifunction display and Simrad RS VHF system.

KEY FEATURES

- Class-B Approved
- Send & receive
- Integrated solution
- Multiple networking connections (USB, Micro-C)
- Waterproof
- Lightweight
- Low power consumption

SPECIFICATIONS (TRANSPONDER UNIT)	NAIS-400
Dimensions (LxWxH)	140x100x42 mm (5.5x3.9x1.65 in)
Weight	0.25 kg (0.55 lb)
Type Approval	N/A
Power Supply Voltage	9.6-31.2 V DC
Power Consumption	170mA at 12 V DC
GPS Receiver Channels	50

GPS Displays

GN70 GLOBAL NAVIGATION SYSTEM

An IMO compliant, cost effective navigation system with an NMEA 2000 Interface. The GN70 has a colour display and is designed to work together with a range of existing IMO type-approved GPS smart antennas and GPS compasses.

KEY FEATURES

- Convenient data interface using NMEA 2000 Network including simple plug-and-play connectivity to other Micro-C enabled systems
- Dedicated hot keys for position, navigation, heading, AIS and MOB for easy access
- LAN can be used to output NMEA 0183/IP messages
- GN70 can be used with an HS80A GPS compass, which has dual IMO compliance certification for use as a primary position AND heading device
- External RTCM correction for DGPS mode with optional MX610JB junction box.

MX610 AND MX612 GLOBAL NAVIGATION SYSTEMS

The MX610 and MX612 are IMO type-approved navigation systems designed for the professional mariner. Offering convenient data interface using NMEA 2000, set up and connection to other devices couldn't be simpler. Utilising the trusted MX521B GPS/DGPS smart antenna and MX61x junction box, this is a complete professional navigation system for any professional vessel requiring IMO type-approved electronics.

KEY FEATURES

- Convenient data interface using the NMEA 2000 Network including simple plug-and-play connectivity to other NMEA 2000 enabled systems
- Buy in a conveniently packaged ready-to-use system, or choose to integrate with the Simrad HS80A GPS compass or GS70 GPS antenna
- MX610/MX612 can be used with MX575D DGPS compass, which has dual IMO compliance certification as a navigation AND a heading device
- Dedicated hot keys for position, navigation, heading and AIS for quick and easy access
- LAN can be used to output NMEA 0183/IP messages

SPECIFICATIONS	GN70	MX610	MX612
Dimensions (LxWxH)	54x230x144 mm (1.61x9.06x5.5 in)	54x252x144 mm (2.1x9.9x5.6 in)	54x252x144 mm (2.1x9.9x5.6 in)
Weight	1.2 kg (2.7 lb)	1.4 kg (3.0 lb)	1.4 kg (3.0 lb)
Type Approval	Wheelmark IMO	Wheelmark IMO	Wheelmark IMO
Power Consumption	0.7A at 12 V DC with backlight on, 0.4A with backlight off	0.7/0.4 A at 12 V DC 0.4/0.3 A at 24 V DC backlight full/off	0.7/0.4 A at 12 V DC 0.4/0.3 A at 24 V DC backlight full/off
USB Port	No	Yes	Yes
Controllable NMEA 0183 Ports (via MX61x Junction Box)	-	4	12

GPS Antennas

MX521B D/GPS ANTENNA

The MX521B is an IMO approved precision D/GPS positioning solution in a smart antenna. It delivers position accuracy better than 1 meter in DGPS mode, and better than 5 meter accuracy in standard GPS mode.

KEY FEATURES

- Better than 1m (RMS) DGPS position accuracy and better than 5m (RMS) GPS accuracy
- NMEA 0183 version 3.0 interface
- IMO type approved (as part of an MX display system) including RAIM (receiver autonomous integrity monitoring)
- Design for easy upgrade of existing MX420 installations to latest IMO standards
- GLONASS compatible.

GS25 GPS ANTENNA

Simrad's GS25 GPS antenna is the ideal GPS for any navigator that requires extremely accurate and rapid vessel position and speed updates. The GS25 easily connects to an Simrad NS Series multifunction display or any NMEA 2000 Network.

KEY FEATURES

- High speed position update - 10 times per second
- Rapid signal acquisition
- Consistent position accuracy
- Integrated magnetic heading with an integrated eCompass/Gyro
- GPS, WAAS, EGNOS and more
- Compact design -ideal for flush-mounting or pole mounting

GS70 SMART ANTENNA

AN IMO compliant NMEA 2000 Smart Antenna that integrates with the GN70. It can receive DGPS corrections from SBAS satellites such as WAAS.

KEY FEATURES

- Easy to install with standard NMEA 2000 interface
- GS70 smart antenna can receive DGPS corrections from SBAS satellites such as "WAAS" and "GLONASS"
- This smart antenna has 32 channels and can output position at 1, 5, or 10 Hz
- Antenna has GPS accuracy (2DRMS) of 5m and DGPS accuracy (SBAS) of 2M
- Cold startup time 50 sec and warm startup time 3 sec

MXB5 D/GPS ANTENNA

Simrad MXB5 D/GPS Antenna is a precision D/GPS positioning solution and forms an IMO approved DGPS solution when matched with the MX525A DGPS sensor and an MX510 or MX512 display unit.

KEY FEATURES

- IMO Compliant DGPS antenna which can be used with IMO compliant DGPS receivers
- Replacement antenna for MGL3 and MGL4 DGPS antenna
- Can be used with L1 GPS receivers
- Can be used with Beacon Receivers




SPECIFICATIONS	MX521B	MXB5	GS25	GS70
Dimensions (diameter)	182 mm (7.2 in)	140 mm (5.5 in)	90 mm (3.5 in)	90 mm (3.5 in)
Dimensions (height)	102 mm (4 in)	101 mm (3.9 in)	38 mm (1.5 in)	38 mm (1.5 in)
Weight	0.5 kg (1.1 lb)	0.52 kg (1.15 lb)	0.13 kg (0.28 lb)	0.13 kg (0.28 lb)
Type Approval	BSH and Wheelmark IMO approval (MX CDU required), CE and FCC compliant, CCS	IMO (with MX525A and MX CDU), IEC	-	IMO compliant with GN70, MX610 and MX612 CDU
Power Consumption	<3 W	50 mA	<2 W	<2 W
Power Supply	10.5 to 32 VDC	4 to 18 VDC	9 to 18 VDC	9 to 18 VDC
Serial Ports	2 duplex NMEA 0183 Ports	-	-	-
Frequency Range	283.5 to 325 kHz	283.5 to 325 kHz		
GPS Receiver Channels	12		32	32
Horizontal Accuracy	<2 m="" 2D-RMS="">		5 m	5 m
NMEA 2000 Interface	No	No	Yes	Yes

Compasses

GC80 AND GC85 GYRO COMPASS

IMO approved for both standard vessels and high speed craft, the simple and quick installation and set-up, and the fact that there is no annual servicing required, makes Simrad gyro systems the best solution for any 24/7 operator.

KEY FEATURES

- Sophisticated and fully sealed sensitive elements that require no annual servicing, and these are swappable for on board service
- Very low RPM reduces wear and increases lifetime
- No annual oil change required –virtually maintenance free
- High follow-up rate
- Wide range of control unit options provide complete flexibility of system configuration for new installations and easy retrofit into existing repeater systems
- IMO approved for standard (GC80) and High Speed Craft (GC85)

RGC50 COMPACT GYRO COMPASS

The small and compact "all in one" RGC50 gyro compass is designed for smaller vessels and non-IMO applications. A gyro compass eliminates the inconvenience and limitations of magnetic compasses, and provides a variety of outputs to supply accurate and consistent heading information to other navigation equipment.

KEY FEATURES

- Compact unit design for smaller vessels
- Supplies consistent and accurate heading information to a variety of navigation equipment
- Not IMO approved

RC42N RATE COMPASS

The RC42N is an intelligent rate compass which significantly improves the dynamic performance of autopilots and stabilised radar displays. Featuring an integrated turn sensor, the RC42N enhances all auto-steering experiences.

KEY FEATURES

- Magnetic fluxgate sensor
- Solid state rate sensor
- Fully waterproof
- NMEA2000® connectivity




SPECIFICATIONS	RGC50	GC80	GC85	RC42N
Dimensions (LxWxH)		340x340x438 mm (13.4x13.4x17.2 in)	340x340x438 mm (13.4x13.4x17.2 in)	106x72x102 mm (4.2x2.8x4 in)
Weight	15.5 kg (34.2lb)	23 kg (50.7 lb)	23 kg (50.7 lb)	0.9 kg (2 lb)
Type Approval	-	Wheelmark IMO: A.424 (XI), A.694 (17) IEC:60945, 61162 ISO:8728 (1997)	Wheelmark IMO: MSC97 (73), 13.2.6 (2000 HSC code) IEC: 60945, 61162 ISO: 6328 (2001)	-
Setting Time	<4h	<3h	<3h	-
Pitch/Roll Angle	+/- 45 deg	+/- 45 deg	+/- 45 deg	-
Follow-Up rate	>36 deg/sec	>75 deg/sec	>75 deg/sec	-

HS70 GPS COMPASS

The HS70 GPS compass is a smart antenna that provides mariners with highly accurate heading and positioning data. As an alternative to a traditional separate compass and GPS antenna, this combined sensor is maintenance free and incorporates many additional features.

KEY FEATURES

- Provides heading, positioning, heave, rate of turn, roll and pitch
- NMEA2000 or NMEA0183 communication
- 0.75 degree heading accuracy in amazingly small form factor
- Differential positioning accuracy of 1.0 m, 95% of the time
- SBAS compatible (WAAS, EGNOS, MSAS, GLONASS etc.)
- COAST™ technology (with integrated gyro and tilt sensors) maintains differentially-corrected positioning for 40 minutes after loss of differential signal.

HS80A GPS AND MX575D DGPS COMPASS SOLUTIONS

Simrad's D/GPS compass solutions are designed to provide reliable heading, Rate of Turn, and position information to Simrad Autopilots and the MX Series of navigation and AIS transponder systems. Both are IMO certified as a heading AND navigation device, and also meet RAIM (Receiver Autonomous Integrity Monitoring) regulations.

KEY FEATURES

- Type-Approved as a primary positioning AND heading device, "GLONASS" compatible
- Compatible with MX420 and MX5XX family of CDU's
- Stand-alone automatic operation (no black box required)
- Pitch, roll and heave as standard output
- Heading accuracy <0.5° rms with gps, and heading updates 1-20 Hz
- Differential positioning accuracy of <1.0 m, 95% of the time
- MX575D receives DGPS corrections from land based Beacons

SPECIFICATIONS	MX575D	HS80A	HS70
System Description	IMO Compliant DGPS Compass	IMO Compliant GPS Compass	Combined heading and positioning smart antenna
Dimensions (LxWxH)	669x209x122 mm (26.3x 8.2x4.8 in)	669x209x122 mm (26.3x 8.2x4.8 in)	417x158x69 mm (16.4x6.2x2.7 in)
Weight	2.44 kg (5.38 lb)	2.1 kg (4.7 lb)	1.5 kg (3.3 lb)
DGPS Corrections from Beacon Stations	Yes (default setting)	No	No
SBAS DGPS corrections	Yes (can be set from MX display)	Yes (default)	Yes
IMO Certification as Navigation Device*	Yes	Yes	No
IMO certification as Heading Device	Yes	Yes	No
NMEA 2000 Interface	Optional adaptor is needed	Yes	Yes
NMEA 0183 Interface	Yes	Optional (Power/Data cable is needed)	Yes
USCG Certification as Navigation Device	Yes	Yes	No
1 PPS Output	Standard with power/data cable	Optional with power/data cable	No

*IMO compliant display required

Instruments

The IS40, IS70 and IS80 range of Simrad instruments are built tough, and are designed to supply critical information to professional users in clear, easy-to-read formats. These instruments are used by professional and coastal commercial mariners around the world and give consistent performance day after day.

IS40 SYSTEM

Digital marine instrument system showing Rudder Angle and networked system information.

KEY FEATURES

- System includes RF70N Rudder Sensor.
- 170 degree viewing angle, zero condensation.
- Micro-C network compatible.
- Default pages include Rudder Angle, speed and night mode for easy operation.

IS70 AND IS80 SPEED

Large format analogue marine instruments showing vessel speed.

KEY FEATURES

- Available in 25 or 50 kt scale options
- Tough, shock proof 4.5" or 6.8" display options
- Multiple lighting levels with zone lighting
- Mirco-C network compatible

IS70 AND IS80 RATE OF TURN (ROT)

Analogue marine instruments showing rate of turn to either port or starboard in degrees per minute.

KEY FEATURES

- Rate of Turn indicators 30, 120 or 300 deg/min scale options
- Tough, shock proof 4.5" or 6.8" display options
- Multiple lighting levels with zone lighting
- Analogue (V) interface and Micro-C compatible

IS70 AND IS80 RPM

Showing the engine performance in revolutions per minute (RPM).

KEY FEATURES

- Available in 3000 or 6000 RPM scale options
- Tough, shock proof 4.5" or 6.8" display options
- Multiple lighting levels with zone lighting
- Micro-C compatible

IS70 AND IS80 RUDDER ANGLE

Showing the angle of the rudder relative to the centre line in degrees both to port and starboard.

KEY FEATURES

- 45 or 90 degree scale options available
- Tough, shock proof 4.5" or 6.8" display options
- Multiple lighting levels with zone lighting
- Analogue (V) interface and Micro-C compatible

RI35 MK2 RUDDER ANGLE INDICATOR

The RI35 Mk2 Rudder Angle Indicator gives a continuous reading of the rudder position up to 45 degrees on either side of the amidships position.

KEY FEATURES

- Actual versus commanded heading function
- Choice of true or magnetic heading
- LED bar graph turn-rate indicator
- Operates from frequency or current signal generated from a Simrad Autopilot feedback unit
- Also accepts NMEA 0183 rudder angle (RSA) signal

HR80 HEADING REPEATER

Large format analogue marine instruments showing the vessel's heading in both analogue and digital formats for maximum clarity.

KEY FEATURES

- Actual versus commanded heading function
- Choice of true or magnetic heading
- LED bar graph turn-rate indicator
- NMEA0183/NMEA2000 compatible
- Large format 6.8" display

WI80 WIND INDICATOR

Large format analogue marine instruments showing real-time information on wind speed and direction. Data is displayed in two complimentary formats –both analogue and digital simultaneously.

KEY FEATURES

- Analogue wind direction – true, apparent or geographical
- Digital wind speed – knots, m/s, km/s, mph or Beaufort
- Bar graph gust indicator
- Alarms for wind speed and direction
- NMEA0183/NMEA2000 compatible
- Large format 6.8" display

WS80 ULTRASONIC WIND SYSTEM

The highly innovative ultrasonic measuring principle with no moving parts gives accurate and reliable performance without any wear-out problems and without requiring regular service. The WS80 has four built-in heating elements to prevent snow and ice from building up, and is well-suited for all types of vessels.

KEY FEATURES

- Accurate measures of wind speed and direction
- Intelligent heating prevents icing up
- Working temperature down to -52 degrees Celcius
- Extensive field tests in rough weather in the North Atlantic

SPECIFICATIONS	IS40 Range	IS70 Range	IS80 Range
Dimensions	115x118 mm (4.5x4.6 in)	114x114 mm (4.5x4.5 in)	172x172 mm (6.8x6.8 in)
Weight	0.28 kg (0.62 lb)	0.55 kg (1.21 lb)	0.55 kg (1.21 lb)
Power Consumption	<2W	<5W	<5W
Power Supply	12 V DC	12-24 V DC	12-24 V DC
Mounting Options	Dash mount	Dash mount	Dash mount
Environmental	IPx7	IP66	IP66
Data Connections	NMEA2000	NMEA2000	NMEA2000
Safe Distance to Compass	0.4 m (1.32 ft) to steering compass 0.2 m (0.66 ft) to stand-by/emergency compass	0.4 m (1.32 ft) to steering compass 0.2 m (0.66 ft) to stand-by/emergency compass	0.4 m (1.32 ft) to steering compass 0.2 m (0.66 ft) to stand-by/emergency compass

Communications

HH36 HANDHELD VHF RADIO

A feature-packed handheld, Class D DSC marine VHF radio loaded with integrated GPS, loud and clear audio, and navigational features that leave other handheld VHF radios in the shade. Great for use on any sized vessel.

KEY FEATURES

- Extra-large display –the largest currently available on any handheld VHF
- Floats if accidentally dropped overboard
- Integrated GPS for instant positioning and planning
- Transmit your position with the 'Get Buddy' feature
- Class D DSC –increases safety by enabling DSC calling with your boat's MMSI in an emergency
- Long battery life –up to 11 hours

RS12 VHF RADIO

Communicate clearly with this dependable and versatile Class D DSC Approved marine VHF Radio. Fully loaded with features and ideal for a variety of boats from small RIBs to larger cruisers.

KEY FEATURES

- Highly visible backlit LCD display -can be easily read in all lighting conditions
- Class D DSC
- ATIS function
- Dual and tri watch functions –keep an eye on up to three channels at the same time
- 20 user programmable names with MMSI to automatically call vessels or ports of your choice

RS35 VHF/AIS RADIO

Class D DSC compliant for global use, the RS35 VHF radio offers inbuilt dual channel AIS receiver functionality, which allows AIS reception and VHF use via just one antenna. In areas such as busy shipping lanes, the RS35 offers the ability to see, hear and be heard for increased safety.

KEY FEATURES

- Class D DSC approved
- Loud and clear audio including 30 Watt Hailer with listenback, including automated fog signals
- Advanced radio features including AIS plot, waypoints, navigation and MOB features
- Dual Channel AIS Receiver –does not require a separate antenna
- Wireless handset option –incorporate up to 2 HH35 handsets to make and receive radio calls from anywhere on your vessel. Includes an intercom feature to call between handsets.
- NMEA 0183® and NMEA 2000 Compatible

RS90 VHF/AIS RADIO

More than just a radio it's got an AIS receiver, hailer, foghorn, intercom and NMEA connectivity, all standard. Not sure who's calling you; a thirty second record and replay means you never miss anything vital and with support for up to 6 handsets, you need never be out of reach.

KEY FEATURES

- Class D DSC approved
- PA/Hailer Horn output with Record and Playback feature
- Up to 6 Stations: 4 Wired handsets and 2 Wireless handsets
- Works with HH35 Wireless Handset

HS35 WIRELESS HANDSET

Use your Simrad RS35 VHF/AIS Radio wherever you are on your boat, with the HS35 wireless handset. Easy to use and with full VHF functionality, this innovative handset gives you total freedom of movement on board your boat.

KEY FEATURES

- Wireless control for RS35
- Simple charging through the inductive plate on the back of the handset for 8 hours of battery life.
- Keypad lock to avoid unintentional operation
- Intercom feature allows you to communicate with the base station and other remote stations to relay vital information to crew members.
- Up to 100m range – covers even the largest of vessels.

SPECIFICATIONS	HH36	RS12	RS35	HS35	RS90
Dimensions	80x58x140 mm (3.1x2.3x5.5 in)	161x147x75 mm (6.3x5.8x2.9 in)	180.5x171x96.3 mm (7x6.7x3.8 in)	69x38x192 mm (2.7x7.5x1.5 in) without cradle	211x195x96.3 mm (8.3x7.7x3.8 in)
Display	40x25 mm (1.6x09 in) 128x128 pixels	46x26 mm (1.8x1.0 in)	33x66 mm (1.3x2.6 in) 128x256 pixels	180x128 pixels	180x128 pixels
Weight	0.3 kg (0.7 lb)	1.29 kg (2.8 lb) without mic.	1.63 kg (3.9 lb)		
Power Requirements	12 V DC charging Cradle current drain: 0.5 A Battery life: 7 hours @ 90/5/5 Duty Cycle with GPS On Battery life: 11 hours @ 90/5/5 Duty Cycle with GPS Off	Transmit:5 A at 25 W Tx / 1.5 A at 1 W Tx (@ 12 V DC) Receive: Less than 250 mA in standby	Transmit:5 A at 25 W Tx / 1.5 A at 1 W Tx (@ 12 V DC) Receive: Less than 250 mA in standby	12 V DC charging Cradle current drain: <0.5 A Battery life: 8 hours @ 90/5/5 Duty Cycle	Transmit: High <6 W Low <2 W
Mounting Options	Charger cradle included	Dash mount or bracket mount hardware included	Dash mount or bracket mount hardware included	Charger cradle included	Dash mounted speaker and cradle
Environment	JIS-7	JIS-7	JIS-7	JIS-7	JIS-7
Data Connections	NMEA0183 Output (when in cradle)	NMEA2000/NMEA0183 In and Out	NMEA2000/NMEA0183 In and Out (38400 for AIS)	-	NMEA2000
DSC Mode	Class D DSC	Class D DSC	Class D DSC	Class D DSC	Class D DSA
Channels	International, USA, Canadian, Weather (country specific), ATIS Facility	International, USA, Canadian, Weather (country specific), ATIS Facility	International, USA, Canadian, Weather (country specific), ATIS Facility	International, USA, Canadian, Weather (country specific), ATIS Facility	International, USA, Canadian, Weather (country specific), ATIS Facility
Other			AIS receiver functionality	Wireless handset for RS35	-

Safety/GMDSS

SA70 SART & SA70 AIS-SART

Designed for use in search and rescue operations, Simrad's SA70 and SA70 AIS-SART will pinpoint the location of a vessel in distress and give the exact location to nearby ships, SAR vessels and aircrafts.

The SA70 AIS-SART gives the exact location of the distress with GPS precision –searching ships or helicopters receive the position data in an AIS message.

The SA70 SART gives the location of the distress on an X-Band radar display. When the SART is interrogated (hit) by a radar signal, it will immediately start transmitting and will be detected on radar screens on nearby vessels.

KEY FEATURES

- Easy mounting options: bulkhead bracket onboard vessel, pole or bracket mount in a lifeboat or life raft providing flexible installation options
- Equipped with LED and a built in buzzer to indicate operation for peace of mind
- Non-hazardous battery which can be replaced onboard –no transport restrictions
- Light weight and compact design –one of the smallest on the market
- IMO/SOLAS/GMDSS compliant and IMO/MED/FCC approved

EG70 EPIRB & EP70 EPIRB

The Simrad EG70 and EP70 range of EPIRBs are designed to be used as a primary alarm for vessels in distress, and when activated transmit the ID of the ship in distress.

Available in GPS (EG70) and non-GPS (EP70) variants –the EG70 features a 22 channel GPS receiver to provide fast and accurate position data. Once activated, the distress signal is picked up almost instantly by satellites.

KEY FEATURES

- Available with both float-free (includes a hydrostatic mechanism) and manual release options
- High-intensity LED light to enhance your chances of survival
- Compact design –takes up less space in the cockpit/ your cabin/bridge
- Non-dangerous goods batteries –no transport restrictions
- 48 hour operating life at -20°C once activated

SPECIFICATIONS	SA70 SART	SA70 AIS-SART	EG70/EP70 EPIRBs
Dimensions	251 mm (9.8 in) height 89 mm (3.5 in) diameter	251 mm (9.8 in) height 89 mm (3.5 in) diameter	340 mm (13.4 in) height 128 mm (5 in) diameter
Weight	482g (1.062 lb)	450g (0.99 lb)	680g (1.5 lb)
Operating Life	96 hours standby + 8 hours continuous operation when activated by radar with 1 kHz prf at -20°C	Minimum 96 hours	Minimum 48 hours at -20°C
Frequency	X-band (3cm) (9.2-9.5 GHz)	161.975 and 162.025 (AIS 1 and 2)	406.037
Radiated power	> 400 mW e.i.r.p (+26 dBm)	Minimum 1E ERP (+30dBm)	5 W
Operating Temperature Range	-20 to +55°C (-4 to 131°F)	-20 to +55°C (-4 to 131°F)	-20 to +55°C (-4 to 131°F)

Notes

SIMRAD Advantage PROSERVICE

ADVANTAGE: SERVICE BEYOND THE STANDARD.

- **By choosing a product from the Simrad Professional Series, you automatically qualify for standard warranty support, which offers two years of protection on products which fail to meet the high manufacturing standards, and true on board support for qualifying products.***
- In addition to this, there is a global service network of specialists on hand to provide service for the duration of your product warranty, and a whole array of features available on the Simrad Professional Series website including self-help sections, Frequently Asked Questions and phone and email support details.
- As well as these standard warranty features, we have now expanded our service offerings with the Advantage Program. This is free to join and available to all Simrad Professional Series customers. The Pro Series Advantage Service program offers the most comprehensive levels of service available in the marine electronics industry today.

*Subject to published warranty terms and conditions, available on PRO.SIMRAD-YACHTING.COM

CERTIFIED DEALER ADVANTAGE

CERTIFIED DEALER

A network of qualified Master Distributors and Certified Dealers in more than 50 countries, ready to provide spare parts and onboard support to ensure prompt and efficient service. Supported by fifteen regional Navico hubs, co-ordinating seamless support and communication across the globe.

Designated as a marine electronics authority, Certified Dealer accreditation inspires customer confidence, trust, loyalty and referrals. Along with in-store signage, Certified Dealers receive worldwide recognition with preferential website listings on the Simrad Professional Series website. Certified Dealers also gain exclusive access to the B2B Advantage and Vessel Portal Advantage tools, enabling rapid response to any service requirement.

7-YEAR ADVANTAGE

7 YEAR

The 7-Year Advantage offers comprehensive support for 7 years, including upgrade options to current technology products, an online spare parts locator and price list.

In the unlikely event of failure within the first seven years since purchasing a new product, the program guarantees that customers will have the option to upgrade to the latest model technology at a discount price.
In addition, a web-based portal allows Dealers to easily locate part numbers and pricing for spare parts, service units, extended warranties and upgrade options.

ONBOARD ADVANTAGE

ON BOARD

The OnBoard Advantage Program provides customers with the option to receive warranty service by a Certified Dealer onboard their vessel for the first 2 years.

Systems under warranty with a value of over $2,500 USD qualify when they have been installed or certified by a Certified Dealer, or installed by a Navico-authorized ship builder. Select limits apply to labor and travel related costs as detailed by the program guidelines and OnBoard coverage can be extended by adding Extended Warranty Advantage.

FASTFIX ADVANTAGE

FAST FIX

FastFix Advantage ensures that if a qualifying product is identified as defective, customers will be shipped a replacement product or spare part within 1 business day.

Our global service and support network will ship products and spare parts from any of the five Navico logistics centres to any Dealer or customer, anywhere in the world, within 1 business day.

EXTENDED WARRANTY ADVANTAGE

Extended Warranty Advantage offers flexible extended warranty options for Simrad Professional Series systems.

Choose to extend the Product Warranty, OnBoard Support period or Service period. Mix and match coverage to customize a warranty package for any requirement.

24/7 ADVANTAGE

Support for Simrad Professional Series customers 24 hours a day, 7 days a week

The 24/7 Advantage Program gives customers access to dial into qualified, personal phone support solutions to ensure they get the right support, round the clock.

SYSTEM BUILDER ADVANTAGE

AVAILABLE 2014 **The System Builder Advantage offers Simrad Professional Series Dealers an Apple iPad tool that combines a current price book with a product information guide and more in an easy-to-use shopping cart- style purchase format.**

The system allows dealers to provide instant quotes as well as Ethernet, SimNet and NMEA 2000 schematics to help consumers choose the ideal system, it also ensures all necessary components are included.
Allowing for local currencies, freight and duty, the System Builder provides detailed installation quotes. Standard packages and boat builder packs can be pre-loaded and configured during the quotation process. Estimates and drawings can be shared with customers and multiple recipients for seamless supply chain operation.
A convenient and flexible service tool, dealers can also use the system to build a database of customer details and quotes for future reference.

CUSTOMER PORTAL ADVANTAGE

Customer Portal Advantage offers Certified Dealers access to online tools and technical information via a new B2B portal.

Including information such as technical bulletins, product briefs, manuals, FAQs and troubleshooting documents, videos and calendars, Customer Portal Advantage ensures Certified Dealers have access to the technical information they need 24/7.

VESSEL PORTAL ADVANTAGE

Vessel Portal Advantage offers Certified Dealers access to extensive detail for Certified Vessels via an online portal.

Including information such as installed components, warranty dates, installation notes, system diagrams and a complete service history, Vessel Portal Advantage ensures Certified Dealers have access to the vessel information they need to optimize onboard service, 24/7.

TRAINING ADVANTAGE

Training Advantage supports Dealers with technical training courses for sales staff, engineers and technicians. Comprehensive and up to date knowledge of the complete product range enables Dealers to provide world-class service.

Hands-on courses are available at Navico locations around the globe. Seminars and technical training are held in strategic locations worldwide every year. In addition, our online training tool allows dealers access to training material 24/7.

OUR HERITAGE: ESTABLISHED IN 1947.

With more than 60 years of maritime expertise invested in delivering solutions to the professional market, we have unique knowledge to support professional customers with cost effective navigation solutions.

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PRO SERIES

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