SIMRAD

New for 2012

Broadband 4G™ Radar

Reinventing Radar

SIMRAD-YACHTING.COM

4G BROADBAND

Reinventing Radar

Simrad Yachting has pioneered a new standard of Dome Radars — the first with the award-winning BR24, and more recently, with the Broadband 3G™ Radar. The latest innovation from Simrad Yachting breaks even our own high standards. We now offer two Broadband Radar™ choices — the outstanding Broadband 3G Radar and the brand new, truly exceptional, Simrad Broadband 4G™ Radar.

Utilizing FMCW technology and advanced digital signal processing technology, our revolutionary Broadband Radar offers benefits that no other radar in the world can lay claim to. With warm-up times and main bang relegated to ancient wrecks, novices and professionals alike will be overwhelmed by the new heightened sense of situational awareness that Broadband Radar presents.

Sharpen Your View

Forget everything you thought you knew about radar, the Broadband 4G Radar reinvents the standard, transforming the way you'll navigate for good. Beam Sharpening, Target Separation Control, Dual Range Radar and High Revolution Speed. No other radar comes close. Now you can monitor a buoy 200 feet away and keep track of coastal projections at 32 nautical miles — all from one single dome at the same time, for the ultimate in navigational safety.

View razor-sharp, easy-to-interpret radar images.

Broadband 4G™ Radar
High-res, near and far...

NEW Beam Sharpening. Broadband 4G Radar is the only dome radar in the world to employ beam sharpening, which allows you to control the level of target separation, so you can see the sharpest images possible when you need them most.

NEW More Range

50-percent more true range than Broadband 3G Radar. Now you can see crystal-clear targets up to 32 nautical miles away and inside strong storm cells more than 17 nautical miles away.

NEW Dual Range

Capable of displaying Dual Range radar combination when combined with an NSE or NSO system. Monitor targets from 200 feet to 32 nautical miles from a single dome.

NEW High-Speed Mode

Select 48 RPM for almost instant updating at less than 1nautical mile.

MARPA Target Tracking

Track up to 10 targets as standard or up to 20 in Dual Range mode with independent control.

Quick Installation

No reason to open the dome, no tune or zero-mile adjustment, and no radar-licensed technician required.

Dual Guard Zones

Protect yourself from more angles.

Extremely Low Emissions

Safer than any other radar currently on the market and emitting less radiation than a mobile phone – allowing it to be mounted anywhere.

True Motion Display

Easily distinguish moving targets from land with NSS, NSE and NSO.

InstantOn™ Viewing

Solid-state technology produces an immediate, accurate on-screen image – unlike normal warm-up times associated with magnetron pulse radars.

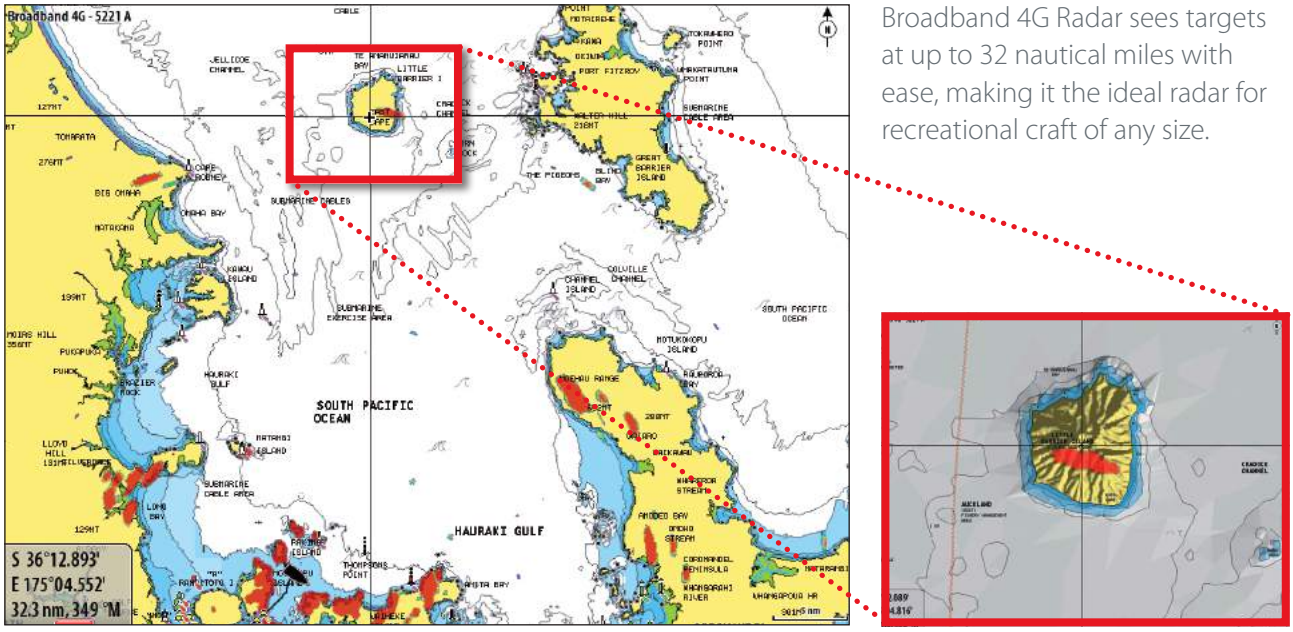
Low Power Consumption

Ideal for boats of any size, sail, cruise or fish.

Automatic Clarity

Proven auto harbor and offshore modes including directional clutter rejection.

How far? Superior Range

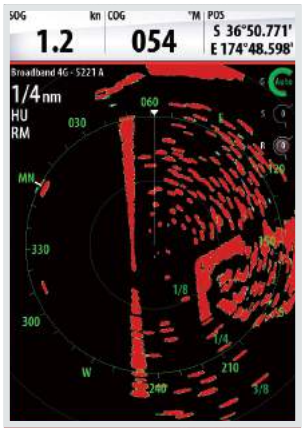


Broadband 4G Radar sees targets at up to 32 nautical miles with ease, making it the ideal radar for recreational craft of any size.

How clear? Beam Sharpening

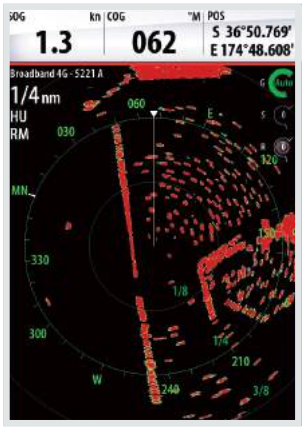
Broadband 4G Radar is the only radar in the world to incorporate Beam Sharpening, which provides unrivalled target separation in every situation giving you the confidence to navigate in any state of visibility.

Target separation off (~5.2˚)



Target separation low (~4.4˚)

Target separation medium (~3.5˚)



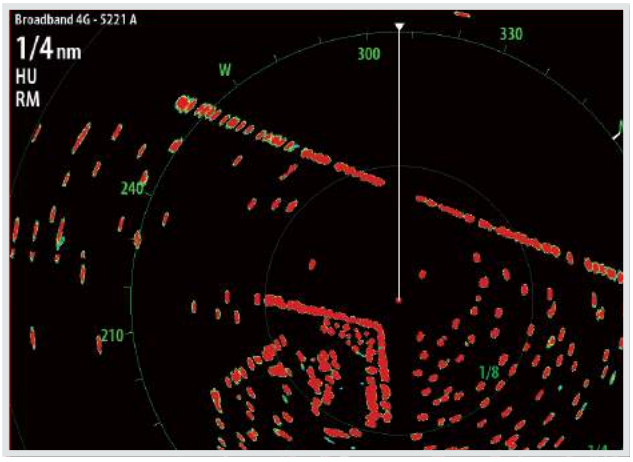
Target separation high (~2.6˚)

Proven performance: High Resolution

Harbor/Marina

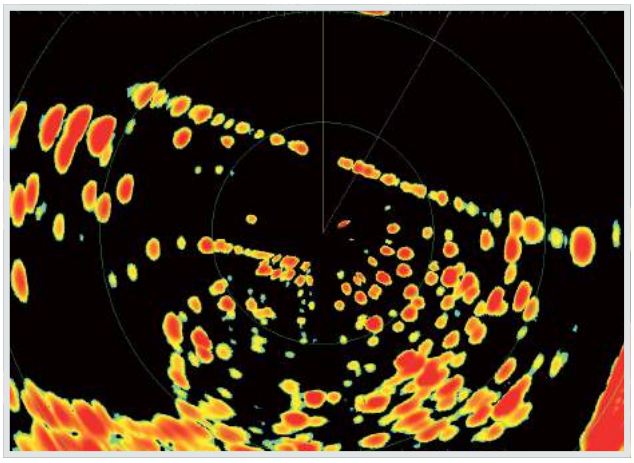
With twice the azimuth resolution of any other 18-inch radome on the market, moored boats and docks are clearly separated.

▼ Broadband 4G™ Radar



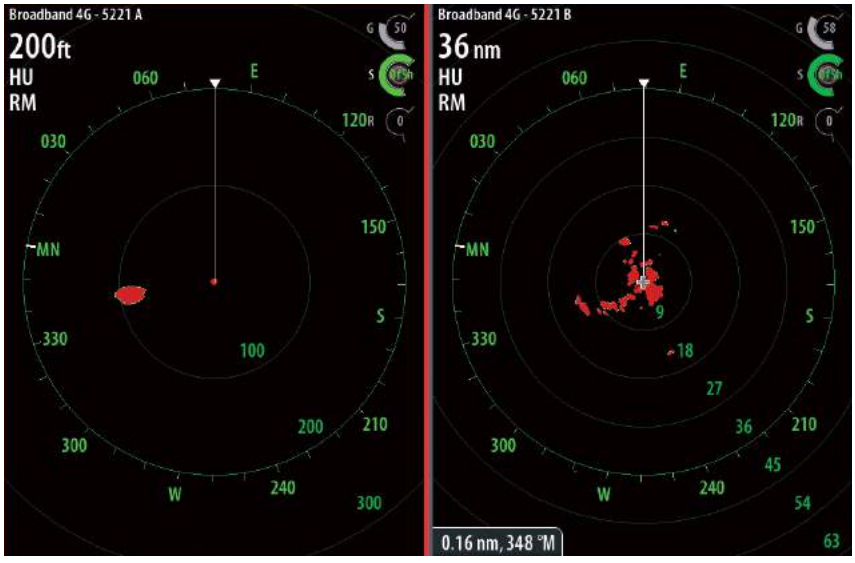
Superior short-range target discrimination clearly shows docks, boats and moored vessels.

▼ 4 kW Pulse Radar



Inferior separation of boats, docks and moored vessels could make navigation hazardous with a pulse radar.

Unprecedented performance: Dual Range



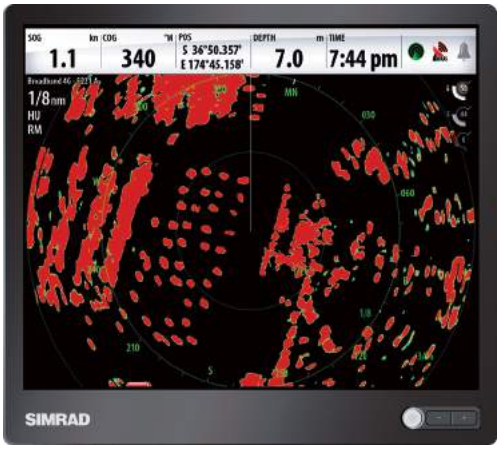
One radar, one display, two independent ranges.

Simultaneous Dual Range* operation allows a working range of 200 feet to 36 nautical miles, all from the same dome. No other dome radar in the world can do this.

*Works with NSE and NSO navigation systems only.

Compatible displays: Broadband 4G Radar

NSO Offshore ▶ With sleek and stylish 15-, 17- & 19-inch, LED-backlit displays the NSO Offshore line – for vessels with larger helm displays – is versatile and easy to expand. Based on the Simrad NSE platform, the NSO delivers best-in-class charting, sounder and radar performance, as well as unique control and integration options.

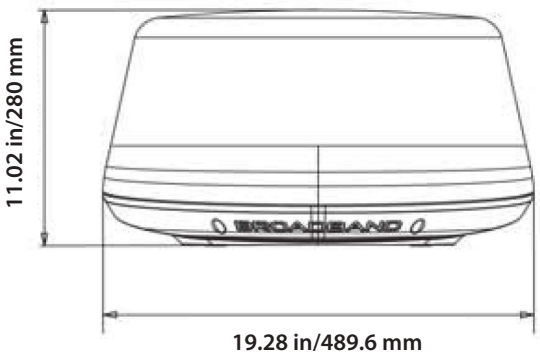


NSE Expert ▶ Easy-to-use, bright visible displays with uncluttered presentation. The Simrad NSE8 and NSE12 multifunctional displays provide professional-level performance with sophisticated charting, radar and echo sounder integration. With powerful networking and vessel integration capabilities, NSE provides comfort and control at sea.

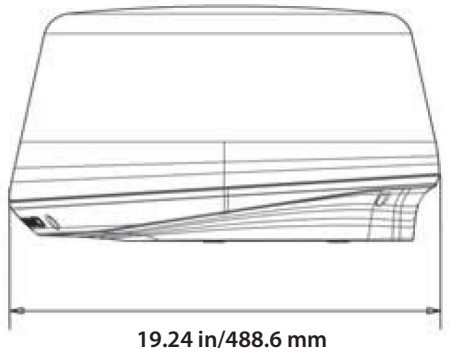
NSS Sport ▶ With its Touch Sensible™ technology, the all-new Simrad NSS Sport is extremely simple to operate. The bright and stylish 6.4-, 8- or 12.1-inch displays make them the perfect partner for every recreational boater. And with full networking capabilities, they offer effortless performance and integration.

*Limited Broadband 4G Radar functionality with Simrad NSS.

Technical Specifications: Broadband 4G Radar



19.28 in/489.6 mm
PORT TO STBD



19.24 in/488.6 mm
BOW TO STERN

Broadband 4G Radar Specifications

General	
Compliance	FCC/IC/R&TTE FCC ID: RAY3G4G IC ID: 4697A-3G4G Human Exposure General Public Safety Limit - touch dome anywhere
Environmental	IEC60945:2002 Operating temperature: -13° to +130°F/-25° to +55°C Relative humidity: +95°F/+35°C, 95% RH Waterproof: IPX6
Relative Wind Velocity	51 m/sec (Max:100 Knots)
Power Consumption	Operating: 20W (Typ.) @ 13.8 vDC (21W in dual range mode) Standby: 2.9W (Typ.) @ 13.8 vDC ~150 ma
DC Input (at end of radar cable)	9 to 31.2 vDC (12/24 Volt systems). Reverse polarity protection Minimum start-up voltage 10.8 vDC
Transmitter Source (pre-heating time)	No magnetron - InstantOn™ viewing
Outside Dimensions	Height: 11.02 in/280 mm Diameter: 19.28 in/488 mm
Weight (no cable)	16.3 lb/7.4 kg
Radar and Antenna Parameters	
Radar Ranges	200 ft/50 m to 36 nm/66 km with 18 range settings (nm/sm/km) - single and dual range mode (independant)
Rotation	24/36/48 RPM +/- 10%; (mode dependant)
Transmitter Frequency	X-band - 9.3 to 9.4 GHz
Transmitter Source (warm-up time)	No magnetron - all solid state. InstantOn™ viewing

Radar and Antenna Parameters continued ...	
Plane of Polarization	Horizontal polarization
Transmitter Peak Power Output (at antenna port)	165 mW (nominal)
Main Bang Dead Zone & Tuning	None (not a pulse radar)
Sea and Rain Clutter	3-5 times less than pulse radar
Sweep Repetition Frequency	200 - 540 Hz (mode dependant)
Sweep Time	1.3 ms +/- 10%
Sweep Bandwidth	75 MHz max
Horizontal Beam Width (Tx and Rx antenna)	5.2° +/- 10% (-3 dB width)
Effective Beam Width	Adjustable between 2.6° and 5.2° with target separation control
Vertical Beam Width (Tx and Rx antenna)	25° +/- 20% (-3 dB width)
Side Lobe Level (Tx and Rx antenna)	Below -18 dB (within ±10°); Below -24 dB (outside ±10°)
Noise Figure	Less than 6 dB
Coms/Cabling/Mounting	
Com Protocol	High-Speed Ethernet (100 Base-T)
Heading	NMEA 2000®/SimNet (with RI-10 interface box)
Interconnecting Cable Length	65.6 ft/20 m
Maximum Interconnecting Cable Length	98.4 ft/30 m (available option)
Bolts (4)	M8 x 30 – 304 stainless steel
Footprint	9.17 in/233 mm (port to stbd) 5.57 in/141.5 mm (bow to stern)

Your gateway to Simrad-Yachting.com

Scan this code with your mobile.

SIMRAD

Navico Americas
12000 East Skelly Drive
Tulsa, OK 74128-2486 USA

985-10436-001