

# NautoScan<sup>®</sup> NX

Network Radar Transceivers

We proudly present the new  
**Anschütz Radar!**



# NautoScan<sup>®</sup> NX

A new generation of radar transceiver leads your way!

In the past decades Raytheon Anschütz radars have proven to be among the most sensitive navigation radars. Thanks to advanced anti-clutter technology and intelligent functions for target detection and display, our radars offer reliable performance even under rough weather conditions.

Developed and manufactured with all of our experience in navigation and radar technology, the new NautoScan NX network radar transceiver – together with a new pedestal design – adds significant benefits for shipyards, shipowners and operators.

The new transceivers distribute the radar raw video via ethernet to an unlimited number of radar workstations on the bridge (depending on network setup). Pedestal and electronics have been carefully re-designed using state-of-the-art and maintenance-free technology to contribute to trouble-

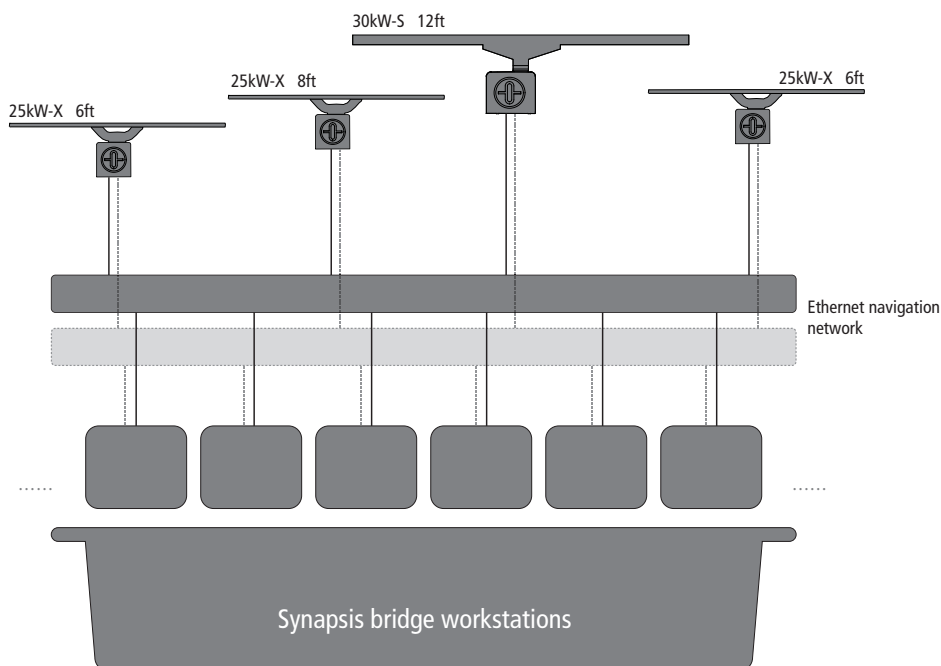
free installation, fast and easy servicing and finally optimized cost of ownership.

NautoScan NX is an essential component of the new generation Synapsis Radar. Besides the new radar transceivers, the new generation Synapsis Radar consists of a display selectable from a range of different sizes, a newly introduced standard PC with solid-state drive and a fan-less, compact design, the radar software, and flat-profile antennas with sizes of 6ft, 8ft or 12ft.

## Your Benefit<sup>®</sup>

- Cost reduction: State-of-the art technology, no coaxial cable, no interswitch
- Newly constructed components and optimized drive-unit for a future-proof design with built-in reliability
- Raw data processing for high flexibility and optimized performance
- Practice-oriented pedestal design for easier installation at shipyards
- Built-in test and fault indicator
- Improved accessibility for simplified servicing

## NautoScan NX Network Radar Transceiver



## Better Performance, More Flexibility



The new transceivers distribute the raw radar video through a redundant Gigabit LAN to the bridge workstations – not only to avoid analogue technology losses in video display. Additionally, the distribution of radar signals via LAN allows for larger distances between bridge and antenna with simple extension using standard LAN infrastructure components.

One of the major benefits of digital raw data distribution is to provide maximum flexibility for system design, interswitching and functional upgrades. Furthermore, any transceiver can be controlled from any workstation, while maintaining operational integrity with a master/slave concept.

## Maximum Uptime and Optimized Cost of Ownership

365  
24/7

The new pedestal and transceivers are built on state-of-the-art technology. Newly developed electronic and mechanical components with reduced complexity provide reliable and future-proof operation with a significantly increased MTBF. Customers benefit from less need for service and maximum uptime of equipment and vessel.

Thanks to a newly developed gear box concept, the radar can be operated free of maintenance. Magnetron lifetime is optimized through a new “Sleep Mode” which can be activated when the radar is in standby. Additionally, all transceivers integrate a continuous performance monitoring function. This function automatically measures transceiver performance and provides early maintenance warnings to further increase overall uptime and reliability.

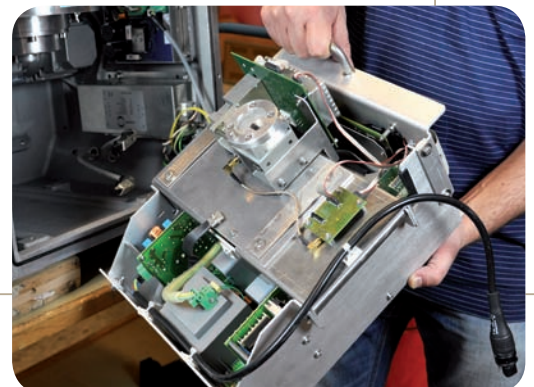


## Easier and Faster Installation at Shipyards



Trouble-free installation and maximum uptime right from start of the vessel is a top priority. The new pedestal comes in a robust design for optimized handling, transportation and installation. The assembly is simplified by making use of standard components – pedestal, antenna, LAN – only. This results in a significant cost reduction: LAN replaces the complex and expensive coax cable as well as interswitch boxes or additional auxiliary hardware.

In the field, extended built-in tests, fault indicators, as well as an innovative and easy-to-handle maintenance door and a new removeable tray for the complete electronics help speed up service and exchanging of parts.



## Technical Data

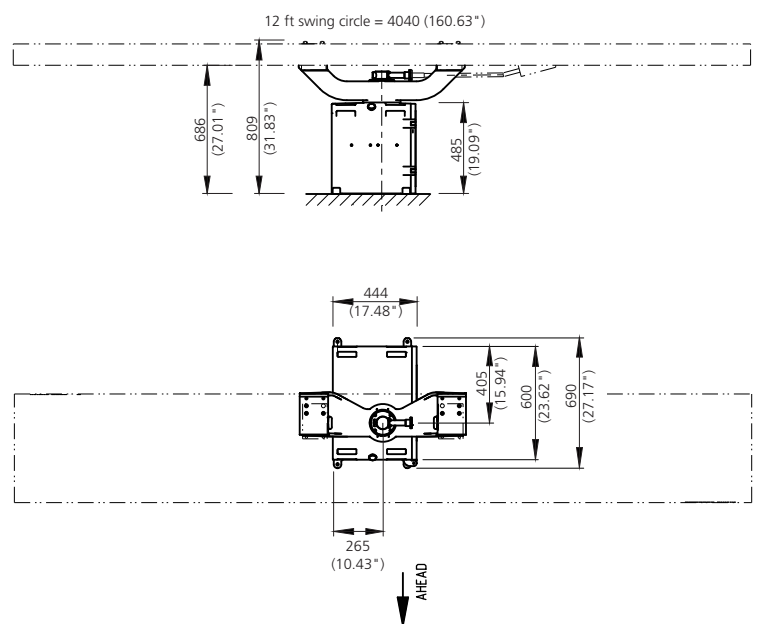
|   | Radar w/26"       | Radar w/19"       |
|---|-------------------|-------------------|
| TFT display size                              | 26"               | 19"               |
| PPI diameter (IMO) / operational display area | 321 x 338 mm      | 12" (250 mm)      |
| Resolution                                    | 1920 x 1200 pixel | 1280 x 1024 pixel |

|                       |                        |  |  |
|-----------------------|------------------------|--|--|
| Range                 | 0.125 nm – 96 nm       |  |  |
| EBLs                  | 2                      |  |  |
| VRMs                  | 2                      |  |  |
| Parallel index lines  | 2                      |  |  |
| Display presentations | RM (R), RM (T), TM     |  |  |
| Display heading modes | H Up, N Up, C Up, R Up |  |  |
| Gyro input            | NMEA, Fast NMEA        |  |  |
| Log input             | NMEA, pulse            |  |  |
| Display voltage       | 115/230 VAC            |  |  |

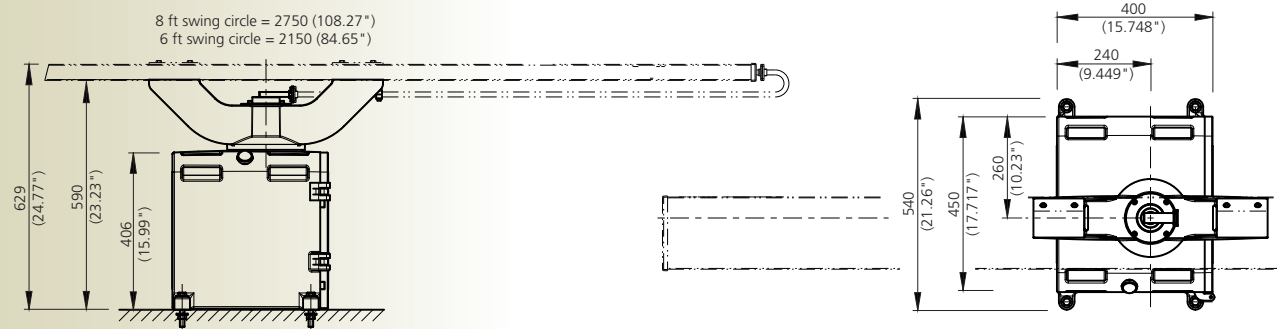
|                       |               |               |               |
|-----------------------|---------------|---------------|---------------|
| RF power              | 25 kW         | 25 kW         | 30 kW         |
| Frequency             | X-Band        | X-Band        | S-Band        |
| Scanner size          | 6 ft          | 8 ft          | 12 ft         |
| Horizontal beam width | 1.25 deg      | 0.95 deg      | 1.9 deg       |
| Vertical beam width   | 25.3 deg      | 24.4 deg      | 26 deg        |
| Gain (dB)             | 30 dB         | 31 dB         | 28 dB         |
| Polarization          | horizontal    | horizontal    | horizontal    |
| Rotation rate (RPM)   | 24/48         | 24/48         | 24            |
| Wind load operational | 100 kts       | 100 kts       | 100 kts       |
| Wind load survive     | 150 kts       | 150 kts       | 150 kts       |
| Voltage requirements  | 115/230 VAC   | 115/230 VAC   | 115/230 VAC   |
|                       | 50/60 Hz, 1ph | 50/60 Hz, 1ph | 50/60 Hz, 1ph |
| Power requirements    | 400 VA        | 400 VA        | 700 VA        |

Preliminary technical diagrams, subject to change without notice.  
Errors excepted. Please contact us for latest information.

### S-Band 12 ft antenna unit and transceiver



### X-Band 6 ft / 8 ft antenna unit and transceiver



Subject to change due to technical developments without notice.

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