

The **NS100** radar is a member of the S-band AESA radar family. Thales is the first company to introduce a family of S-band AESA radars based upon the Dual axis multi-beam processing. This results in significantly increased situational awareness to deal with newest threats in the littoral environment. The combination of Dual axis multi-beam and AESA technology in the NS100 creates Multi-capability radar suitable for use across a wide range of naval ships, today and in the future.

4D Surveillance radar
(Azimuth, Elevation, Range & full Doppler)

- Dual axis multi-beam using AESA technology
- High quality weapon support for priority targets
- Multi-sensor integrated platform
- Lifecycle Program for lifetime carefree operation



NS100

Medium range AESA air & surface surveillance radar





NS100

All-in-one mode available

DUAL AXIS MULTI-BEAM AND WEAPON SUPPORT

Dual axis multi-beam enables simultaneous detection of a high variety of targets in a single operational mode. Detection beams are simultaneously positioned in elevation as well as in azimuth direction. Besides providing unrivalled air and surface surveillance performance, NS100 also includes multi-function capabilities. By adding forward and backward scanning, excellent situational awareness is combined with fast track initiation and high quality weapon support for high priority targets.

MULTI-SENSOR INTEGRATED PLATFORM

The overall system capabilities are further expanded by the integrated sensors. Not only footprint issues are solved but all sensors are positioned at the best topside position for an optimized field of view, improved EM-compatibility and fused data track.

- X-band Scout Mk3 FMCW radar for LPI and high resolution surface surveillance
- IR camera for optical panoramic situational awareness
- AIS and ADS-B receiver
- IFF interrogator and Transponder

LIFECYCLE PROGRAM FOR LIFETIME CAREFREE OPERATION

Maximum operational availability of your asset during its full lifetime; that's why we have developed a dedicated Lifecycle Program for S-band AESA radars. It is a carefully designed support program that is targeted and aligned to your individual asset maintenance cycle. Including status and obsolescence monitoring, maintenance and upgrading, it provides smart spares kits, economic spares pools, jointly developed upgrades and more. Predictable maintenance costs and quick spares delivery are the result.

MAIN FEATURES

- Dual axis multi-beam and full Doppler processing
- Software defined and highly scalable architecture
- Fast track initiation
- High quality weapon support for priority targets
- Dedicated ECCM techniques
- Multipath suppression using beams below the horizon
- High availability through redundancy and graceful degradation
- Guided maintenance and graphical fault localisation
- Status: full series production

Operational Performance	
Maximum instrumented range	280 Km
Minimum Range	15 m
Surface Targets	80 km
Air / Surface track load	1000 tracks max.
FC surf	3 windows
<ul style="list-style-type: none">➤ 4D Air Surveillance➤ Weapon support for active missiles➤ 3D Surface Surveillance➤ Surface Gun Fire Support➤ Jammer Surveillance➤ IFF Interrogation Support (IFF mode S and 5 compliant)	

Installation data	
Height	< 3.3 m
Width	< 3.1 m
Minimal footprint radar	2 below deck cabinets
Above deck weight	<1300 kg
Power requirements	115 V, 230 V, 440 V
Cooling requirements	Cooling fluid

Technical Characteristics	
Antenna Type	Active Electronic Scanning Array (AESA)
AESA type	Digital beamforming at element level
Frequency band	E/F-band
IFF antenna	Integrated and fit for mode 5 and mode S
Transmitter type	GaN
Antenna Rotation rate	30 RPM
MTBCF	2100 hr

