

# SAILOR® 800 VSAT KU

# COBHAM

Available in standard and NEW High Power versions

Product Sheet

Now with Universal ACU, GNSS module and new software features

**The SAILOR 800 VSAT Ku is a standardized high-performance 3-axis stabilized Ku-band antenna system with an 83 cm reflector dish. It comes in a standard 6W BUC or a high power 20W version and provides the same or better radio performance than a typical 1m antenna.**

**These claims are supported by industry 3rd party testing, which has shown that SAILOR 800 VSAT Ku provides the best performance for an antenna in the 80cm class.**

## Quick and Easy

Just like the larger, top-selling SAILOR 900 VSAT Ku, it is quick and easy to deploy – but with a 20% smaller form factor SAILOR 800 VSAT Ku can be used on vessels that otherwise would not consider VSAT because of the size of suitable antennas.

## A Top Performer

The focus of the SAILOR 800 VSAT Ku is on RF performance, G/T, which is >18 dB/K – a value equal to or higher than most other 1m maritime VSAT antennae performance claims – yet it is smaller and lighter. This performance makes the new 83cm antenna suitable for vessels that would normally specify a 1m antenna.

The unique, class-leading performance of SAILOR 800 VSAT Ku also opens up a world of high quality, reliable communications for a wider number of vessels including workboats, fishing vessels, inland waterways and yachts, whilst providing installation flexibility for vessels of all types and sizes.

## Lower Cost and Increased up Time

The SAILOR 800 VSAT Ku leaves the factory fully tested and configured, with all RF equipment pre-configured and installed.

This reduces the time needed on board for installation, resulting in lower start-up costs for users, whilst the SAILOR build quality ensures reliability and increased up time.

## Smaller Form Factor

Customers who would previously have specified a 1m antenna or who may have considered VSAT too 'big' for their vessel, can now install a SAILOR 800 VSAT Ku and enjoy the benefits of a 20% smaller form factor with the performance of a larger antenna.

## Two Antennas – One Modem

The SAILOR VSAT range enables you to operate two antenna systems on a single modem without the need for extra hard-

ware to manage the feature; the integrated SAILOR VSAT antenna controllers manage the connection between satellite and modem. This simple dual antenna configuration ensures your vessel has a satellite connection even when there are obstructions in the way.

## More Flexibility

New high throughput satellite (HTS) services in Ku band such as Intelsat Epic<sup>NG</sup> and others are making an impact, being offered by numerous maritime VSAT service providers. The SAILOR antenna systems with their unique software-controlled architecture are the ideal choice to utilize these modern spot beam services to their best extent.

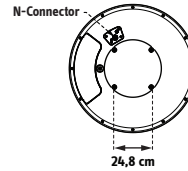
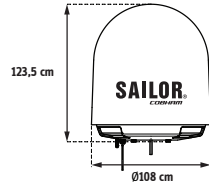


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## SPECIFICATIONS

Frequency band	Ku-band
Reflector size	83 cm / 32.7"
Certification	Compliant w. CE (2014/53 EU) and FCC (part 15 & 25)
System power supply range	100-240 VAC, 50-60 Hz
Total system power consumption	140 W typical, 330 W peak

## FREQUENCY BAND

Rx	10.70 to 12.75 GHz
Tx	13.75 to 14.50 GHz (extended Ku)

## ANTENNA CABLE

ACU to ADU cable	Single 50 Ω coax for Rx, Tx, ACU-ADU modem, 10 MHz reference and DC Power
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## ANTENNA CONNECTORS

ADU	Female N-Connector (50 Ω)
ACU	Female N-Connector (50 Ω)

## ABOVE DECK UNIT (ADU)

Antenna type, pedestal	3-axis (plus auto skew) stabilised tracking antenna with integrated GNSS (GPS, GLONASS, Beidou)
Antenna type, reflector system	Reflector/sub-reflector, ring focus
Transmit Gain	40.6 dBi typ. @ 14.25 GHz (excl. radome)
Receive Gain	38.8 dBi typ. @ 11.70 GHz (excl. radome)
System G/T	18.2 dB/K typ. @ 12.75 GHz, at 30° elevation and clear sky (incl. radome)
BUC output power	6 W or 20 W
EIRP	≥48.1dBW (6 W incl. radome) ≥53.3dBW (20 W incl. radome)
LNB	2 units multi-band LNBs (Co-Pol & X-Pol)
Polarisation	Linear Cross or Co-Pol
Tracking Receiver	Internal "all band/modulation type" DVB-S2, 300 KHz narrowband receiver and modem RSSI
Elevation Range	-25° to +125°
Cross Elevation	+/-42°
Azimuth Range	Unlimited (Rotary Joint)
Ship motion, angular	Roll +/-30° (6 s), Pitch +/-15° (5 s), Yaw +/-10° (8 s)
Ship, turning rate and acceleration	15°/s and 15°/s²
ADU motion, linear	Linear accelerations +/-2.5 g max any direction
Satellite acquisition	Automatic, with or without. Gyro/GPS Compass input
Vibration, operational	Sine: EN 60945 (8.7.2), DNV A, MIL-STD-167-1 (5.1.3.3.5). Random: Maritime
Vibration, survival	Sine: EN 60945 (8.7.2) dwell, MIL-STD-167-1 (5.1.3.3.5) dwell. Random: Maritime
Shock	MIL-STD-810F 516.5 (Proc. II), IEC EN 60721-4-6
Temperature (ambient)	Operational: -25° C to 55° C / -13° F to +131° F Storage: -40° C to 85° C / -40° F to +185° F
Humidity	100%, condensing
Rain / IP class	EN 60945 Exposed / IP56
Wind	80 kt. operational 110 kt. survival
Ice, survival	25 mm / 1"
Solar radiation	1120 W/m² to MIL-STD-810F 505.4
Compass safe distance	1 m / 55.1" to IEC EN 60945
Maintenance, scheduled	None

Maintenance, unscheduled	All electronic, electromechanical modules and belts are replaceable through the service hatch
Built-in Test	Power On Self Test (POST), Person Activated Self Test (PAST) and Continuous Monitoring with logging
Dimensions (overall)	Height: H 123.5 cm / 48.6" Diameter: Ø 108 cm / 42.5"
Weight	125 kg / 275 lb

## ANTENNA CONTROL UNIT (ACU)

Dimensions	1U 19" ACU HxWxD: 4.4 x 48 x 33 cm HxWxD: 1.75" x 19" x 13"
Weight	4.5 kg / 10 lb
Temperature (ambient)	Operational: -25° C to +55° C / -13° F to +131° F Storage: -40° C to +85° C / -40° F to +185° F
Humidity	EN 60945 Protected, 95% (non-condensing)
IP class	IP30
Compass safe distance	0.3 m / 12" to EN 60945
Interfaces	1 x N-Connector for antenna RF Cable (50 Ω) with automatic cable loss compensation 2 x F-Connectors (75 Ω) for Rx / Tx to VSAT modem 1 x Ethernet Data (VSAT Modem Control) 1 x RS-422 Data (VSAT Modem Control) 1 x RS-232 Data (VSAT Modem Control) 1 x NMEA 0183 (RS-422 / RS-232) and prepared for NMEA 2000 for Gyro/GPS compass input 2 x Ethernet (User) 1 x Ethernet (service, setup etc.) 1 x AC Power Input 1 x Grounding bolt
Input power	100-240 VAC, 140 W typical, 330 W peak
User interface	Web MMI, OLED (red) display, 5 pushbuttons, 3 discrete indicator LEDs and ON/OFF switch
Temperature control	Built-in fan
Blocking / No-Tx zones	Programmable, 8 zones with azimuth and elevation
Remote access and management	HTTPS, SSH, SNMP Traps, Syslog, CLI, Diagnostic, Statistic

## VSAT MODEM

Modem protocols (ABS)	iDirect OpenAMIP and custom protocol Comtech ROSS Open Antenna Management (ROAM) ESS Satroaming STM SatLink
Modem types	iDirect iFINITI 3000/5000 series iDirect Evolution X5/X7 iDirect IQ200 (DVB-S2X) Comtech CDM-570L/625/840 Gilat SkyEdge II, II PRO, II-c Capricorn STM SatLink 2900/2910 Intersky 4G, Elbit ViaSat Linkway S2 Newtec MDM 3100/6000 Generic VSAT Modem

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Subject to change without further notice.