

SAILOR® 800 VSAT

Small Antenna. Big Performance

2014 Product Sheet

COBHAM

The most important thing we build is trust

The SAILOR 800 VSAT is a standardized high-performance 3-axis stabilized Ku-band antenna system with an 83 cm reflector dish. It 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 provides the best performance for an antenna in the 80cm class.

Quick and Easy

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

A Top Performer

The focus of the new SAILOR 800 VSAT 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's much 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 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 size.

Tried and Tested

If you know SAILOR 900 VSAT, you already know SAILOR 800 VSAT. It uses the same tried & tested features including antenna controller, software, electronics, web MMI, modem and network compatibility to provide reliability and stunning performance.

Lower Cost and Increased up Time

The new SAILOR 800 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 and enjoy the benefits of a 20% smaller form factor with the performance of a much larger antenna.

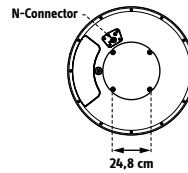
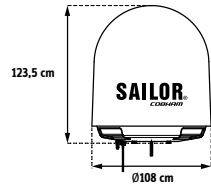
Two Antennas – One Modem

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



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SPECIFICATIONS

| | |
|--------------------------------|---|
| Frequency band | Ku (VSAT) |
| Reflector size | 83 cm / 32.7" |
| Certification | CE (Maritime), ETSI, Eutelsat |
| System power supply range | 20 - 32 VDC (Start up voltage: 22 VDC guaranteed) |
| Total system power consumption | 330 W peak, 140 W typical |

FREQUENCY BAND

| | |
|----|-------------------------------|
| Rx | 10.70 to 12.75 GHz |
| Tx | 13.75 to 14.50 GHz (extended) |

ANTENNA CABLE

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

ANTENNA CONNECTORS

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|-----|---------------------------|
| 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 GPS |
| 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 |
| EIRP | ≥48.1dBW (incl. radome) |
| LNB | 2 units multi-band LNB's (band selection by ACU) |
| Tracking Receiver | Internal "all band/modulation type" DVB-S2, 300 KHz narrowband receiver and modem RSSI |
| Polarisation | Linear Cross or Co-Pol (selected by ACU) |
| Elevation Range | -25° to +125° |
| Azimuth Range | Unlimited (Rotary Joint) |
| Ship motion, angular | Roll +/-30°, Pitch +/-15°, Yaw +/-10° |
| Ship, turning rate and acceleration | 15°/s and 15°/s ² |
| ADU motion, linear | Linear accelerations +/-2.5 g max any direction |
| Satellite acquisition | Automatic - w. Gyro/GPS Compass input Prepared for gyro free operation support |
| Vibration, operational | Sine: IEC 60945 (8.7.2), DNV A, MIL-STD-167-1 (5.1.3.3.5). Random: Cobham Maritime 1.1 g rms |
| Vibration, survival | Sine: IEC 60945 (8.7.2) dwell, MIL-STD-167-1 (5.1.3.3.5) dwell. Random: Maritime survival. IEC 60721-3-6 class 6 M3 modified by IEC EN 60721-4-6 |
| Shock | MIL-STD-810F 516.5 (Proc. II), IEC EN 60721-4-6 |
| Temperature (ambient) | Operational: -25 C to 55 C Storage: -40 C to 85 C |
| Humidity | 100%, condensing |
| Rain / IP class | IEC 60945 Exposed / IPx6 |
| Wind | 80 kt. operational 110 kt. survival |
| Ice, survival | 25 mm / 1" |
| Solar radiation | 1120 W/m ² to MIL-STD-810F 505.4 |
| Compass safe distance | 1 m / 40" to IEC EN 90 645 |
| Maintenance, scheduled | None (Tamb > 10 °C) |
| Maintenance, unscheduled | All electronic, electromechanical modules and belts are replaceable through service hatch |
| Built In Test | Power On Self Test, Person Activated Self Test and Continuous Monitoring w. error log |

| | |
|-----------------------|--|
| Power OFF | Automatic safe mode |
| Dimensions (over all) | Height: H 123.5 cm / 48.6" Diameter: Ø 108 cm / 42.5" |
| Weight | 125 kgs. / 275 lbs. |

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 kgs. / 10 lbs. |
| 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 | IEC 945 Protected, 95% (non-condensing) |
| IP class | IP20 |
| Compass safe distance | 0.1 m / 4" to IEC 60945 |
| Interfaces | 1 x N-Connector for antenna RF Cable (50 Ohm) w. 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) and prepared for NMEA 2000 for Gyro/GPS Compass input 2 x Ethernet (User) 1 x Ethernet (ThraneLink, service, set-up etc.) 1 x DC Power Input 1 x Grounding bolt |
| Input power | 20 - 32 VDC, 330 W peak, 140 W typical |
| Modem protocols (ABS) | iDirect OpenAMIP and custom protocol Comtech ROSS Open Antenna Management (ROAM) ESS Satroaming STM SatLink |
| Display | OLED (red) display, 5 pushbuttons, 3 discrete indicator LEDs and ON/OFF switch |
| No transmit zones | Programmable, 8 zones with azimuth and elevation |
| VSAT MODEM | |
| Modem types supported | iDirect iINFINITI 5000 series iDirect Evolution X5 Comtech CDM-570L/625 Comtech CDM-570L with ROSS (ROAM) Generic VSAT Modem Gilat SkyEdge II/Gilat SkyEdge II PRO STM SatLink 2900 Intersky 4G, Elbit |

For further information please contact:

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