SAILOR® 900 VSAT HIGH POWER

The standard - now with higher power for uplinks

Product Sheet

The most important thing we build is trust

The SAILOR 900 VSAT High Power is a direct evolution of the innovative SAILOR 900 VSAT platform, which has become a benchmark for quality and high performance.

Focus on higher return links

While one metre Ku-band antennas with 8W RF configurations are now a de-facto standard for global Ku-band networks, the ever increasing demand for more bandwidth and higher data throughput also for the uplink to the satellite has triggered demand for antenna systems with higher RF power.

A competitive package

To meet the challenge, Cobham SATCOM has employed its proven engineering method to design and specify a new 20W extended frequency BUC, with focus on performance and reliability. Because it is an in-house design, Cobham SATCOM has ensured that all environmental challenges are met. With this advanced new BUC, the SAILOR 900 VSAT High Power is verified to provide reliable operation downlink and uplink even in regions with high temperatures.

Two Antennas, One Subscription

Service Level Agreements (SLA) are a crucial aspect of maritime IT and communication solutions. In order to meet the demand for high SLAs, especially when there are obstructions on the ship that cannot be overcome by setting up blocking zones, satcom service providers sometimes install two antennas. The SAILOR Ku-Band VSAT platform makes this easier and less costly as it can operate two antenna systems on a single modem without the need for an extra box to manage the connection to the VSAT modem. The two SAILOR antenna controllers manage the connection between satellite and satellite router fully automatically and the switch-over happens in just 20 milliseconds.

More Power – More Flexibility

New Ku-band and Ka-band high throughput satellites (HTS) are coming online. All SAILOR Ku-Band VSAT has been tested to work on HTS services, including Intelsat's EpicNG. Additionally, even with its unique higher power BUC, the SAILOR 900 VSAT High Power is prepared for conversion from Ku- to Ka-band operation should the project demand it. State-of-the-art electronics, and a reflector dish and radome tuned for optimum performance on both Ku- and Ka-band frequencies ensure that SAILOR 900 VSAT High Power is an incredibly flexible solution.

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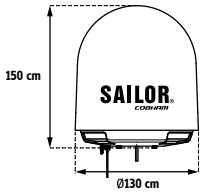

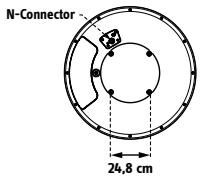

SPECIFICATIONS

Frequency band	Ku-Band, Ka-Band convertable
Reflector size	103 cm / 40.6"
Certification	Compliant with CE (Maritime), ETSI
System power supply range	100 - 240 VAC, 50-60 Hz
Total system power consumption	480 W peak, 320 W typical

FREQUENCY BAND

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

ANTENNA CABLE

ACU to ADU cable	Single 50 Ω coax for Rx, Tx and power

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	41.6 dBi typ. @ 14.25 GHz (excl. radome)
Receive Gain	40.6 dBi typ. @ 11.70 GHz (excl. radome)
System G/T	19.9 dB/K typ. @ 12.75 GHz, at ≥30° elevation and clear sky (incl. radome)
BUC output power	20 W, ext. frequency (LO: 12.8 GHz)
EIRP	≥54.3 dBW (incl. radome)
LNB	2 units multi-band LNB's (band selection by ACU)
Polarisation	Linear Cross or Co-Pol (selected by ACU)
Tracking Receiver	Internal "all band/modulation type" and VSAT modem RSSI
Satellite acquisition	Automatic - w. Gyro/GPS Compass input. Support for gyrofree operation
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°/s²
ADU motion, linear	Linear accelerations +/-2.5 g max any direction
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 survival. 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	EN 60945 Exposed / IPX6
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	1.7 m / 67" to EN 60945
Maintenance, scheduled	None
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 150 cm / 58.9" Diameter: Ø 130 cm / 51.3"
Weight	126.5 Kgs. / 279 lbs.

ANTENNA CONTROL UNIT (ACU)

Dimensions, Rack Mount	1U 19" ACU HxWxD: 4.4 x 48 x 33 cm HxWxD: 1.75" x 19" x 13"
Weight, Rack Mount	4.2 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	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 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 AC Power Input 1 x Grounding bolt
Input power	100 - 240 VAC, 320 W typical, 480 W peak
Display	OLED (red) display, 5 pushbuttons, 3 discrete indicator LEDs and ON/OFF switch
No transmit zones	Programmable, 8 zones with azimuth and elevation
Modem protocols (ABS)	iDirect OpenAMIP and custom protocol Comtech ROSS Open Antenna Management (ROAM) ESS Satroaming STM SatLink

VSAT MODEM

Modem types supported	iDirect iNFINITI 3000/5000 series iDirect Evolution X5/X7 Comtech CDM-570L/625 Comtech CDM-570L with ROSS (ROAM) Generic VSAT Modem Gilat SkyEdge II/Gilat SkyEdge II PRO STM SatLink 2900 ViaSat Linkway S2 Inmarsat G5

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