The SAILOR 900 VSAT is an advanced maritime stabilized Ku-band antenna system built with the same high quality and high performance that has made SAILOR the leading name in professional maritime communication equipment over decades. With hundreds of units shipped worldwide in a very short time truly set a new standard.

A Top Performer
SAILOR 900 VSAT is an easy and quick to deploy three axis stabilized VSAT antenna with the highest RF performance in the 1m antenna class. Verified by extensive Eutelsat tests, you can trust that SAILOR 900 VSAT works with any leading VSAT platforms in the market.

Reduce Cost
Every SAILOR 900 VSAT antenna system comes factory-tested, equipped ready-to-go with standardized top quality RF components (8W BUC, LN Bs, OMT/diplexer) - and only one cable between antenna and below-deck. The antenna is shipped fully balanced, configured and does not need work prior to installation. This time and cost saving, plus the top RF performance make SAILOR 900 VSAT the most cost effective Ku-band antenna on the market to deploy.

Increase up Time
The decision to install VSAT on a ship stems from the desire to have always-on broadband connectivity at a simple flat rate fee. These networks are readily available from many providers (list upon request). Regardless of how and where you operate the SAILOR 900 VSAT, you can be confident of maximum availability because the system has several simple features to make sure your broadband connection is up, and stays up.

Two Antennas - One Modem
SAILOR 900 VSAT can operate two antenna systems on a single modem without the need for an extra box to manage that feature. This requirement arises when the vessel needs a satellite connection even when there are obstructions in the way. The two SAILOR antenna controllers manage the connection between satellite and modem.

More Flexibility
New high throughput satellite (HTS) services in Ku band such as Intelsat EpicNG (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 best extent. Alternatively, the SAILOR 900 VSAT Ku could be converted from Ku to Ka band to operate on Ka band HTS satellites, such as Inmarsat GX and Telenor Thor7.
SAILOR® 900 VSAT KU

New Universal ACU, GNSS module and software features

SPECIFICATIONS

Frequency band: Ku / Ka-Band (VSAT)

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: 175 W typical, 370 W peak

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, ACU-ADU modem 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 GPS

Antenna type, reflector system: Reflection/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: 8 W

EIRP: ≥50.1 dBW (incl. radome)

LNB: 2 units multi-band LNB's (band selection by ACU)

Tracking Receiver: Internal "all band/modulation type" and VSAT 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°/S² and 15°/S²

ADU motion, linear: Linear accelerations ±2.5 g max any direction

Satellite acquisition: Automatic - w. Gyro/GPS Compass input

Vibration, operational: Sine: IEC 945 (8.7.2), DNV A, MIL-STD-167-1 (5.1.3.3.5), Random: Maritime

Vibration, survival: Sine: IEC 945 (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: IEC 945 Exposed / IPX6

Wind: 80 ktl, operational / 110 ktl, 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 IEC 945

Maintenance: 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

Height: HxWxD: 4.4 x 48 x 33 cm

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: IP30

Compass safe distance: 0.3 m / 12" to EN 60945

Interfaces

1 x N-Connector for antenna RF Cable (50 Ω) 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, 175 W typical, 370 W peak

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 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
Newtec 3100/6000
Intersky 4G, Elbit

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