SAILOR® 900 VSAT

A new standard - now with more features and flexibility

2013 Product Sheet

The most important thing we build is trust

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, LNBs, 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

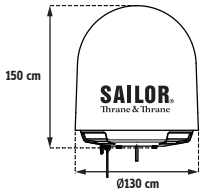
SAILOR 900 VSAT can operate two antenna systems on a single modem without the need for an extra box to manage that feature. This requirement arises when the vessel needs a satellite connection even when there are obstructions in the way. The two SAILOR antenna controllers manage the connection between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

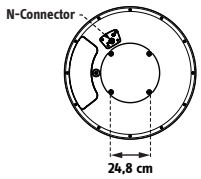
More Flexibility

During the coming years, new high throughput satellites (HTS) will come online. Most of the new HTS will operate on Ka-bands. The SAILOR 900 VSAT is now prepared for a possible conversion from Ku to Ka band operation. The result is a thoroughly updated electronics, and both a reflector dish and radome which are both tuned to both Ku- and Ka band frequencies already.

SAILOR® 900 VSAT

A new standard - now with more features and flexibility





SPECIFICATIONS

Frequency band	Ku / Ka-Band (VSAT)
Reflector size	103 cm / 40.6”
Certification	Compliant with CE (Maritime), ETSI
System power supply range	20 - 32 VDC (Start up voltage: 22 VDC guaranteed)
Total system power consumption	370 W peak, 175 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, 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	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	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 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 IEC 945
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 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”
Dimensions, Bulkhead Mount	Stand-alone ACU
	HxWxD: 4.3 x 25.5 x 27.8 cm
	HxWxD: 1.67” x 10.0” x 10.9”
Weight, Rack Mount	4.5 kgs. / 10 lbs.
Weight, Bulkhead Mount	2.7 kgs. / 6 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 945
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, 370 W peak, 175 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 iNFINITI 5000 series
	iDirect Evolution X5
	Comtech CDM-570L/625L
	Comtech CDM-570L with ROSS (ROAM)
	Generic VSAT Modem
	Gilat SkyEdge II
	STM SatLink 2900

For further information please contact:

Cobham SATCOM Marine
Lundtoftegaardsvej 93 D
DK-2800 Kgs. Lyngby
Denmark
www.cobham.com
Tel: +45 3955 8800
Fax: +45 3955 8888