

SAILOR® 700 VSAT

A Total VSAT Solution



The SAILOR 700 VSAT takes a novel approach to simplify choosing and installing a VSAT system aboard a commercial vessel, which can be an expensive, time and labour intensive project. It is a straightforward, complete hardware and airtime solution, from a trusted supplier with a truly global distribution and service network.

SAILOR 700 VSAT makes the whole process of dealing with VSAT infinitely easier. It simplifies the procurement of advanced satcoms, whilst at the same time is a sophisticated, high quality hardware solution with inherent reliability and user friendly operation. Benefits range from reliable technology and easy installation through to lower costs and improved crew welfare:

- A Total Solution from one single supplier
- Cost effective hardware, installation, maintenance
- Airtime from the same hardware dealer
- Maximum international multi-region VSAT coverage
- Smaller and lighter than most common Ku-band VSAT antennas
- True broadband speeds at sea with fixed costs
- High quality and reliable simultaneous voice
- Affordable crew welfare for web access as well as call service

At just 70 cm, the SAILOR 700 VSAT antenna is smaller than the most common Ku-band VSAT antennae – by 85% in volume and

75% in weight (27kgs compared to up to 120kgs). This simple fact enables it to be a more cost-effective installation proposition whilst still providing lightning fast broadband internet, with data rates up to 2 Mbps shore-to-ship and 512 Kbps ship-to-shore.

State-of-the-art

The SAILOR 700 VSAT can be integrated with SAILOR FleetBroadband and Fleet solutions to ensure that a vessel can easily utilise the best connection wherever it is in the world. It is operated via a state-of-the-art web front-end and features automatic beam switching technology where the system will hand-over to the next satellite beam without user intervention. The small antenna which enables the simple installation also offers fully stabilized tracking and at the same time the rugged below deck hardware is easy to integrate to shipboard networks.

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The high technology behind the SAILOR 700 VSAT enables a wealth of real world benefits. The foundation for this is the small, lightweight antenna, which enables a significant reduction in hardware and installation costs, without compromising performance. However, by offering uniform airtime through a global network of dealers, the SAILOR 700 VSAT becomes the first true VSAT solution for commercial vessels.

Specifications

VSAT band category	Ku-band
Technology	ViaSat's unique Code Reuse Multiple Access (CRMA) technology
Certification	Compliant with CE, R&TTE
Supported satellites and areas	AMC21 satellite at 125°W (Caribbean) AMC6 satellite at 72°W (Continental US) Telstar14 satellite at 63°W (North Atlantic) Atlantic Bird 2 satellite at 8°W (Europe & ME) GE23 satellite at 172°E (North Pacific)
Total System Power Consumption	500 Watt Maximum

Frequency Band

Rx	11.70 to 12.75 GHz
Tx	14.00 to 14.50 GHz

Recommended Antenna cables

Power Cable	100 ft (30 m) supplied 150 ft (45m) optional
Data Cable	100 ft (30 m) supplied 150 ft (45m) optional
RF Cables (2 pcs, Rx/Tx)	15-50 ft (5-15 m): RG-11 50-100 ft (15-30 m): LMR-400-75 100-150 ft (30-45 m): LMR-600-75 Custom Cable: Maximum RF loss: < 6.5 dB / Maximum 1.5 DC Resistance

Antenna Connectors

ADU	female F-Connectors for the RF cables
VMU	female F-Connectors for the RF cables
ACU	Terminal Block (supplied) for the power and data cable

Services

Service Options	Copper: 128/128 kbps Bronze: 256/128 kbps Silver: 512/256 kbps Gold: 1024/512 kbps Platinum: 2048/512 kbps
Service utilization principles	Data: Shared bandwidth, equivalent to traditional contention ratio of 8:1 Voice: Voice over IP (VoIP) Fax: Fax over IP (Optional)
Service charging principles	Data: Flat fee per month up to service plan limit, additional data paid per MB. Voice: Paid per minute Charges for service activation and change may apply

Above Deck Unit (ADU)

Antenna Type	Mechanically gyro-stabilized tracking antenna with integrated GPS
Gain	RX-band, min: 35.6 dBi
BUC Output Power	4 Watt
LNB	Universal
Tracking sensor	Conical scan, two gyros, 3 accelerometers
Elevation Range	5° to 80°
Azimuth Range	720° rotation
Drive System	2-axes plus skew
Ship motion	Meets full Inmarsat motion specifications
Satellite acquisition	Fully automatic
Operational, survival and shock	Meets or exceeds Inmarsat operational, survival and shock specifications
Temperature	Operational: -25°C to 55°C; Storage: -35°C to 70°C
Humidity	IEC 60945; up to 95% (non-condensing)
Rain	Precipitation rate of 100L/min, w/wind speeds up to 100 knots
Dimensions	Height x Diameter: 69,5 x 66,5 cm / 27,36" x 26,2"
Weight	27,2 kg / 60 lbs

Antenna Control Unit (ACU)

Dimensions	1.5U 19" Rack Mount, HxWxD (6,6x42,5x28,7)cm, 2.61"x16.75"x11.31"
Weight (ACU & VMU)	6,8 kg / (15 lbs)
Temperature	Operational: 0°C to 55°C; Storage: -35°C to 70°C
Humidity	IEC 60945; up to 95% (non-condensing)
Interfaces	1x Power & Data (ADU) 1x BUC 20V/2.5A Power output (VMU) 1x DB9 RS422 Data (VMU) 1x DB9 RS232 Maintenance Port
Input Power	90-240 VAC, 3A max
Man Machine Interface (MMI)	LCD, four pushbuttons and LEDs
RF Radiation Hazard Zones	Programmable

VSAT Modem Unit (VMU)

Dimensions	1.5U 19" Rack Mount, HxWxD (6,6x42,5x28,7)cm, 2.61"x16.75"x11.31"
Weight (ACU & VMU)	6,8 kg / (15 lbs)
Temperature	Operational: 0°C to 55°C; Storage: -35°C to 70°C
Humidity	IEC 60945; up to 95% (non-condensing)
Interfaces	1x female F-connector RxRF input 1x female F-connector TxRF output 1x BUC Power input (ACU) 1x RJ-45 Ethernet 100/10 (ACU) 1x DB9 RS422 Data (ACU) 1x RJ-45 Ethernet 100/10 LAN (CMU)
Input Power	90-240 VAC, 2A max

Subject to change without further notice.