

SAILOR® 1000 XTR Ka Viasat

Rapid installation, maximized throughput and highest reliability on the new powerful ViaSat-3 constellation

Product Sheet

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Connecting the future



Unlock all the connectivity speed and availability offered by the powerful ViaSat-3 satellites using the SAILOR 1000 XTR Ka Viasat user terminal. It's designed to deliver the best user experience on Viasat's next generation, ultra-high-capacity network along with easy antenna management and maintenance, as well as fast, practically 'plug & play' installation.

High performance. Always available

Offering new levels of performance, reliability and intelligence, the SAILOR XTR™ software-controlled antenna platform enables the SAILOR 1000 XTR Ka Viasat to take real-time satellite communication and data transfer at sea to a whole new level. ViaSat-3 satellites can deliver Internet experiences that match land-based services, and when combined with SAILOR XTR antennas, market leading connectivity for operational, crew welfare and business applications will always be available at sea.

Key technical features include smart, secure remote access functionality, and the new SAILOR XTR Antenna System Control

Module located inside the Above Deck Unit (ADU) with a lightning-fast processor and deep self-diagnostics capabilities. Further developments include IoT protocols providing on-demand antenna health and performance data, and unique 'in-dome' Ethernet port for simple integration of third-party devices such as cellular modems.

Feature rich. Easy to deploy

The ground-breaking SAILOR XTR antenna platform is the first to be fitted with the new Viasat Maritime Software-Defined Radio

(MSDR), a fully integrated device comprising all RF components and VSAT modem in a unified design. Just switch it on!

The already class leading installation simplicity is further strengthened due to new SAILOR XTR Rapid Deployment Technology including a true one-cable solution, and the user-friendly SAILOR XTR™ Installation Wizard. All these features combine to lower costs by reducing the time and resources needed to roll out the SAILOR 1000 XTR Ka Viasat across your fleet.

SAILOR® XTR™ – One platform for all antennas

- Rapid deployment – modem and RF components pre-installed in antenna radome (Viasat models)
- Best-in-class RF performance – high reliability across the satellite footprint
- Powerful new built-in antenna controller and motors – improved performance on all levels
- New secure software platform – protects against cyber security risks
- New pedestal design – simplicity improves mechanical performance at sea

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SYSTEM SPECIFICATIONS

Reflector size	103 cm / 40.6 in
Type Approvals	Viasat
Certification	Compliant with CE (Maritime), ETSI, FCC (part 15 & 25)
System power supply range	100 - 240 VAC, 50-60 Hz
Total system power consumption	150 W typical, 205 W max

FREQUENCY BAND: Ka-band

Rx	17.7 to 21.2 GHz
Tx	27.5 to 31.0 GHz

ANTENNA CABLE & CONNECTORS

BDU to ADU cable	Coax cable (50 Ω) for MoCA and DC power on a single cable
BDU & ADU cable connectors	Female N-connector (50 Ω)

ABOVE DECK UNIT (ADU)

Antenna type, pedestal	3-axis stabilized tracking antenna with integrated GNSS supporting GPS, GLONASS and Beidou
Antenna type, reflector system	Reflector/sub-reflector, ring focus
Transmit Gain	47.4 dBi typ. @ 29.5 GHz (incl. radome)
Receive Gain	44.7 dBi typ. @ 19.7 GHz (incl. radome)
System G/T (incl. radome)	21.1 dB/K typ. @ 19.7 GHz, at 30° elevation and clear sky
Polarisation	Circular Cross-Pol, internally switched LHCP/ RHCP
Tracking Receiver	Built-in modem RSSI
Satellite acquisition	Automatic – with Gyro/GPS Compass input.
Elevation Range	-20° to +120°
Cross Elevation	+/-37°
Azimuth Range	Unlimited (Rotary Joint)
Ship motion, angular	Roll ±30° (6 sec), Pitch ±15° (5 sec), Yaw ±10° (8 sec)
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 2.4A, 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: EN60721-3-6 class 6M3 mod. By EN60721-4-6
Shock	EN60721-3-6 class 6M3 mod. By EN60721-4-6. MIL-STD-810F 516.5 (Proc. II)
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	95%, condensing
Rain / IP class	EN 60945 Exposed / IPX6
Wind	80 knots operational / 110 knots Survival
Ice, survival	25 mm / 1 in
Solar radiation	1120 W/m² to MIL-STD-810F 505.4
Compass safe distance	1.5 m / 59 in (IEC EN 60945)
Maintenance, scheduled	None
Maintenance, unscheduled	All electronic, electromechanical modules and belts are replaceable through hatch
Built In Tests	Power On Self-Test, Person Activated Self-Test and Continuous Monitoring w. error logging
Dimensions (over all)	Height: H 149 cm / 58.7 in Diameter: Ø 133 cm / 52.4 in
Weight	113 kg / 249 lb

BELOW DECK UNIT Lite (BDU)

Dimensions	1U 19" rack mount HxWxD: 4.4 x 48 x 33 cm / 1.73" x 18.9" x 13"
Weight	3.6 kg / 8 lb
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 in according to IEC EN 60945
Interfaces	1 x Male N-Connector for antenna RF Cable (50Ω) 4 x Ethernet Data/Mgmt (modem configured) 1 x Ethernet for Service and Configuration 2 x RJ-45 not used 1 x RJ-45, NMEA 0183 (RS-422 / RS-232) for Gyro/GPS Compass and external GPS input 1 x RJ-45, 4 x General purpose GPIO, Tx mute and Rx lock. 1 x Universal AC Power Input 1 x Grounding bolt
User Interfaces	UX via webserver, OLED display (red), 5 pushbuttons, 3 discrete indicator LEDs and On/Off switch, TX Mute and Modem, Lock indicator.
Temperature control	Built-in fan
No transmit zones	Programmable, 8 zones with azimuth and elevation Real-time blocking map recorder
Remote management	HTTPS, SSH, Syslog, CLI, Diagnostic, Statistic, RESTful API

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