SAILOR® 900 VIASAT KA

Your All-in-One one-metre Ka-band antenna system and user terminal for high-speed maritime broadband sevices on Viasat's Ka-band network

Unprecedented ease-of-use

The SAILOR 900 Viasat Ka features fully integrated electronics from Viasat including the newest mobile "pTRIA" and multimedia-over-coax. This level of integration provides an unprecedented level of user friendliness for a maritime Ka band terminal. The mpTRIA is a transmit/receive integrated assembly and VSAT modem, all in a compact package mounted directly in the antenna for best performance. In addition to the Viasat-specific features, the system uses a single cable between antenna and below deck equipment for power and data. Advanced features such as Automatic Azimuth Calibration and Automatic Cable Calibration significantly reduce installation time further.

Enabling new levels of bandwidth at sea

The SAILOR 900 Viasat Ka delivers high-capability, reliable access to Viasat's high throughput satellite services in North America and Europe – leaving you to enjoy the power of broadband for business applications, vessel operations and crew welfare without fear of interruption.

Remote access and diagnostics

When you install a SAILOR 900 Viasat Ka, you get industry-leading customer service. In order to offer the best support to system integrators, SAILOR 900 Viasat Ka offers a number of features for remote access and remote diagnostics, including monthly statistics logging, SNMP traps, and Syslog functionality. These remote maintenance features are supported at every one of Cobham SATCOM's worldwide network of technical service centers that spans every continent.
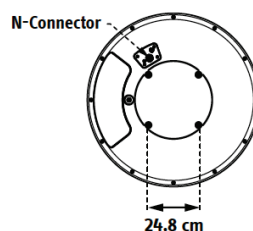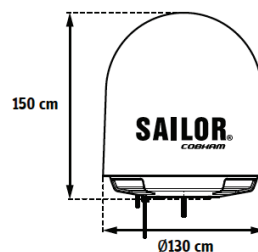
The SAILOR 900 Viasat Ka is an advanced 3-axis stabilized Ka-band antenna system and user terminal that is designed for high-speed maritime broadband services on Viasat's Ka-band satellite network.

It is built upon a design that comes directly from the SAILOR 900 Viasat Ka range of proven antenna systems, which created a new industry standard underpinned by ease-of-use, quick deployment ability, and reliable operation.

The SAILOR 900 Viasat Ka range is constructed by Cobham SATCOM to the same high quality and high performance that has made SAILOR the industry benchmark for professional maritime communication equipment for more than 40 years.

SYSTEM SPECIFICATIONS

Frequency band	Ka-band (Viasat-2)
Reflector size	103 cm / 40.6"
Type approvals	Viasat
Certification	Compliant with CE (2014/53 EU) and FCC (part 15 and 25)
System power supply range	100-240 VAC, 50-60 Hz
Total system power consumption	200W typical, 410W peak
Vibration, operational	Sine: EN60945 (8.7.2), DNV A, MIL-STD-167-1 (5.1.3.3.5). Random: Maritime
Vibration, survival	Sine: EN60945 (8.7.2) dwell, MIL-STD-167-1 (5.1.3.3.5) dwell. EN60721-3-6 6M3
Shock	MIL-STD-810F 516.5 (Proc. II)
Temperature (ambient)	Operational: -25°C to 55°C Storage: -40°C to 85°C

150 cm

SAILOR®
COBHAM

Ø130 cm

N-Connector

24,8 cm

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FREQUENCY BAND

Rx	17.7 to 21.2 GHz
Tx	27.5 to 31.0 GHz

ANTENNA CABLE

PIU to ADU cable	Single 50 Ω coax for MoCA, modem and power

ABOVE DECK UNIT (ADU)

Antenna type, pedestal	3-axis stabilised tracking antenna with integrated GNSS(GPS, GLONASS, Beidou)
Antenna type, reflector system	Reflector/sub-reflector, ring focus
Transmit Gain	47.1 dBi typ. @ 29.5 GHz (excl. radome)
Receive Gain	43.8 dBi typ. @ 19.7 GHz (excl. radome)
System G/T	20.5 dB/K typ. @ 19.7 GHz, at 30° elevation and clear sky (incl. radome)
BUC	Viasat mpTRIA
LNB	Viasat mpTRIA
Tracking Receiver	Viasat mpTRIA RSSI
Polarisation	Circular Cross-Pol (RHCP, LHCP)
Elevation Range	-25° to +125°
Cross Elevation	+/-42°
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
Satellite acquisition	Automatic - with or without Gyro/GPS Compass input
Humidity	100%, condensing
Rain / IP class	EN60945 Exposed / IP56
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	1.4 m / 55.1" to EN60945
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
Dimensions	Height: H 150 cm / 58.9" Diameter: Ø 130 cm / 51.3"
Weight	126 Kgs. / 276 lbs.

ANTENNA CONTROL UNIT (ACU)

Dimensions	1U 19" ACU HxWxD: 4.4 x 48 x 33 cm HxWxD: 1.75" x 19" x 13"
Weight	4.5 kgs. / 10 lbs.
Humidity	EN60945 Protected, 95% (non-condensing)
IP class	IP30
Compass safe distance	0.3m / 12" to EN60945
Interfaces	1 x N-Connector for PIU RF Cable (50 Ω) w. automatic cable loss compensation 2 x F-Connectors (75 Ω) (Not used) 1 x RS-422 (Not used) 1 x RS-232 (Not used) 1 x NMEA 0183 (RS-422 or RS-232) for Gyro/GPS Compass input (future NMEA2000) 1 x RJ-45 Ethernet (PIU modem communication) 3 x RJ-45 Ethernet (Not used) 1 x AC Power Input 1 x Grounding bolt
Input power	100 - 240 VAC, 200W typical, 410W peak
Modem control	Generic, Custom protocol
User Interface	Web MMI, OLED (red) display, 5 pushbuttons, 3 discrete indicator LEDs and ON/OFF switch
Temperature control	Built-in fan
Blocking zones	Programmable, 8 zones with azimuth and elevation

PTRIA INTERFACE UNIT (PIU) SPECIFICATION

PIU Dimensions	1U 19" Rack Mount HxWxD: 4.4 x 48 x 33 cm HxWxD: 1.75" x 19" x 13"
Weight	2.3 kgs. / 5.1 lbs.
Humidity	EN60945 Protected, 95% (non-condensing)
IP class	IP30
Compass safe distance	0.3m / 12" to EN60945
Interfaces	1 x N-Connector (50) for antenna RF cable 1 x N-Connector (50) ACU Comm. and Power 1 x RJ-45 Ethernet (ACU modem communication) 1 x RJ-45 Ethernet WAN Connector (Internet access) 1 x Grounding bolt 1 x Reset toggle switch 1 x LED (Power and Status)
Modem type	Viasat (built-in to ADU)
Temperature control	Built-in fan

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