SAILOR® 900 VIASAT KA

Your All-in-One one-metre Ka-band antenna system and user terminal for high-speed maritime broadband services on Viasat and Eutelsat networks

Product Sheet

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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 and Eutelsat Ka-band satellite networks.

Built upon a combination of the proven design of the SAILOR 900 platform and the Viasat second generation broadband terminal, the SAILOR 900 Viasat Ka has 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.

Unprecedented ease-of-use
The SAILOR 900 Viasat Ka features a fully integrated Ka-band transmit/receive assembly in the ADU, mounted directly behind the reflector - eliminating the need for cable calibration, and extending separation distance between antenna and below deck equipment.

This level of integration provides an unprecedented level of user friendliness for a maritime Ka band terminal. In addition, advanced features such as Automatic Azimuth Calibration significantly reduce installation time further.

Enabling new levels of bandwidth at sea
The SAILOR 900 Viasat Ka delivers high capability, reliable services across North America, Central America, the Caribbean, and Europe – leaving you to enjoy the power of broadband for business applications, vessel operations and crew welfare without fear of interruption.

Integrated management and support system
When you install a SAILOR 900 Viasat Ka, you gain access to industry-leading customer service. Hardware support is provided by Cobham's worldwide technical service centers. Service support is provided through the well established Viasat and Eutelsat Ka network support.

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SYSTEM SPECIFICATIONS

Frequency band	Ka-band : Rx17.7 to 21.2 GHz, Tx: 27.5 to 31.0 GHz
Reflector size	103 cm / 40.6"
Type approvals	Viasat / Eutelsat
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

ANTENNA CABLE

PIU to ADU cable	Single 50 Ω coax for communcations and power

ABOVE DECK UNIT (ADU)

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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)
Forward Link	10 MSym/sec to 464 Msym/sec
	Supports up to 100 Mbps accelerated TCP
Return Link	0.625 MSym/sec to 80 Msym/sec
	Supports up to 20 Mbps accelerated TCP
Tracking Receiver	Modem 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 kg / 276 lb

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 kg / 10 lb
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)
	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 kg / 5.1 lb
Humidity	EN60945 Protected, 95% (non-condensing)
IP class	IP30
Compass safe distance	0.3m / 12" to EN60945
Interfaces	1 x N-Connector (50 Ω) for antenna RF cable
	1 x N-Connector (50 Ω) 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

150 cm

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Ø130 cm
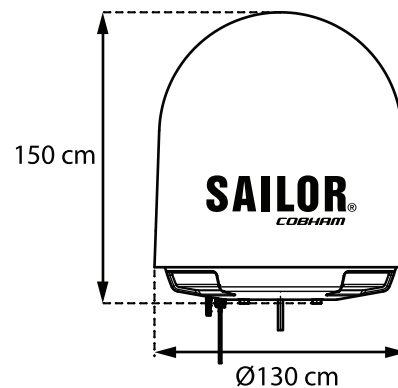
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