SAILOR® 100 GX HIGH POWER

Enhanced GX connectivity for the Inmarsat Fleet Xpress service

Product Sheet

The SAILOR 100 GX High Power is an advanced Ka-band user terminal designed for the Inmarsat Fleet Xpress service. It is built to the same high quality and high performance that has made SAILOR the leading solution in professional maritime communication equipment over decades.

The SAILOR 100 GX High Power is a direct development from the original SAILOR 100 GX system, which has created a new industry standard through innovative design for ease-of-use, quick deployment and reliable operation. Now with a 10W GaN amplifier - twice the power compared to standard GX, it increases the upload speed from the ship

The top performing GX system

All SAILOR GX features advanced Tracking Receiver technology that enables it to verify the right satellite in less than a second. This unique feature, tried and tested in the benchmark SAILOR FleetBroadband systems, ensures quick satellite acquisition at start-up and re-acquisition of the satellite in case of temporary blockage, after bad weather or poor signal strength.

Quick & Easy to deploy

As with all SAILOR VSAT antenna systems, SAILOR 100 GX is straightforward to handle. It uses a single cable between antenna and below deck equipment for RF, power and data, while advanced features such as Automatic Azimuth Calibration and Automatic Cable Calibration significantly reduce installation time further. The unique Global Xpress One Touch Commissioning feature completes the package, making all SAILOR systems incredibly easy to deploy.

Re-defining maritime broadband

The system is designed and tested to the highest maritime shock and vibration requirements, IEC EN 60721 to ensure reliable service and the longest possible life at sea. With the SAILOR 100 GX High Power you have reliable access to the full range of Inmarsat Global Xpress global high throughput satellite services including the High End Offshore plans so you can enjoy the power of broadband for business applications, vessel operations and crew welfare.

Remote access and diagnostics

In order to offer the best support to system integrators, in line with our excellent customer care, all SAILOR systems offers a number of features for remote access and remote diagnostic including monthly statistics logging, SNMP traps and Syslog functionality. These remote maintenance features are supported by Cobham SATCOM's worldwide network of Technical Service Centres.

Antenna Diversity Solution

Just like the other SAILOR GX terminals, the SAILOR 100 GX High Power can be operated as the "Antenna Diversity Solution", which means two Ka band antennas on a single SAILOR GX Modem Unit (one FX subscription with two GX antennas, one FleetBroadband).

SAILOR® 100 GX HIGH POWER

Your 1m Ka-band system for Inmarsat Fleet Xpress®

COBHAM

SYSTEM SPECIFICATIONS

Frequency band	Ka-Band (Inmarsat GX)
Reflector size	103 cm / 40.6"
Type approvals	Inmarsat
Certification	Compliant with CE (Maritime), ETSI, FCC
System power supply range	100-240 VAC, 50-60 Hz
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

FREQUENCY BAND

Rx	19.2 to 20.2 GHz
Tx	29.0 to 30.0 GHz

ANTENNA CABLE

ACU to ADU cable	Single 50 Ω coax for Rx, Tx 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 stabilised tracking
	antenna with integrated GNSS (GPS, GLONASS, Beidou)
Antenna type, reflector system	Reflector/sub-reflector, ring focus
Transmit Gain	47.4 dBi typ. @ 29.5 GHz
Receive Gain	43.5 dBi typ. @ 19.7 GHz
System G/T	20.9 dB/K typ. @ 19.7 GHz, at ≥10° elevation
	and clear sky (incl. radome)
BUC output power	10W GX BUC
EIRP	≥57.1 dBW (incl. radome) MAX. 36.0 dBW/40KHz
LNB	GX Ka single band LNB
Tracking Receiver	Internal "all band/modulation type" including e.g.
	power, DVB-S2, GSC and modem RSSI
Polarisation	Circular Cross-Pol (Inmarsat GX, TX: RHCP, RX: 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
Power OFF	Automatic safe mode
Dimensions (over all)	Height: H 150 cm / 58.9"
	Diameter: Ø 130 cm / 51.3"
Weight	126 Kgs. / 276 lbs.

ANTENNA CONTROL UNIT (ACU)

Dimensions	1U 19" Rack Mount
	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-consending)
IP class	IP30
Compass safe distance	0.3m / 12" to EN60945
Interfaces	1 x N-Connector for antenna RF Cable (50 Ω)
	w. automatic cable loss compensation
	2 x F-Connectors (75 Ω) for Rx / Tx to Modem
	1 x Ethernet (Modem Control)
	1 x RS-422 (Modem Control)
	1 x RS-232 (Modem Control)
	1 x NMEA 0183 (RS-422 or RS-232) for Gyro/GPS
	Compass input (future NMEA2000)
	2 x Ethernet (User)
	1 x Ethernet (ThraneLink, service, set-up etc.)
	1 x AC Power Input
	1 x Grounding bolt
Input power	100 - 240 VAC, 175W typical, 370W peak
Modem interface (control)	Generic, OpenAMIP, Custom protocol
Display	Web MMI, OLED (red) display, 5 pushbuttons,
	3 discrete indicator LEDs and ON/OFF switch
No transmit zones	Programmable, 8 zones with azimuth and elevation
Temperature control	Built-in fan

GX MODEM UNIT (GMU)

GMU Dimensions	1U 19" Rack Mount
	HxWxD: 4.4 x 48 x 33 cm
	HxWxD: 1.75" x 19" x 13"
Weight,	3.5 kgs. / 7.7 lbs.
Humidity	EN60945 Protected, 95% (non-consending)
IP class	IP30
Compass safe distance	0.3m / 12" to EN60945
Modem type	SAILOR Global Xpress Modem
Interfaces	2 x F-Connectors (75 Ω) for Rx / Tx to ACU
	1 x LAN connector for control and user data - Routes
	through ACU
	1 x RS-422 Data (Modem Control)
	1 x RS-232 Data (Modem Control)
	1 x RS-232 Modem console
	1 x AC Power Input
	1 x Grounding bolt
Input power	100-240 VAC, 50-60 Hz
Modem interface (control)	OpenAMIP, RS422 & RS232
Display	Web MMI, ON/OFF switch and Power LED
Temperature control	Built-in fan and heater

For further information please contact:

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