

SAILOR® 60 GX

Available in standard and NEW High Power versions

Product Sheet

Now with Universal ACU, GNSS module and new software features

COBHAM

SAILOR 60 GX is the smallest, lightest and most advanced antenna for the new Inmarsat Fleet Xpress maritime broadband service. Its unique composite/aluminium design keeps weight down while the well-proven SAILOR VSAT technology streamlines the deployment process and maximises operational uptime.

Though SAILOR 60 GX is a super light antenna, it has the ruggedness and reliability required of a professional maritime stabilised antenna system. Additionally, the low weight and compact form factor make it possible for smaller vessels to benefit from VSAT connectivity, when before it may not have been an option due to space available or difficulties and costs associated with the installation of larger, heavier antennas. With SAILOR 60 GX no crane is needed saving thousands of dollars in installation costs. It comes in a standard 5 W BUC or a High Power 10 W BUC for Inmarsat High End Offshore plans.

Super light, super rugged

SAILOR 60 GX is built to withstand the toughest sea conditions and still deliver high bandwidth connectivity on the Fleet Xpress service. It is the fastest tracking antenna available in this size, with superior dynamic performance in all axes; roll, pitch and yaw. This high performance means that vessels more affected by rough seas can make the most of Global Xpress, as SAILOR 60 GX can maintain a link even in extreme conditions.

Enter the HTS era

Together, SAILOR GX and the legendary SAILOR FleetBroadband (FBB) make Inmarsat Fleet Xpress. This combination

of high throughput Ka-band/GX and reliable L-band/FBB provide a step-change in vessel and fleet operation by enabling access to a new wave of IT applications that support efficiency and reliability of equipment and processes on board.

A simple revolution in VSAT deployment

SAILOR 60 GX is delivered ready to install, with the included SAILOR GX Modem Unit (GMU) and SAILOR Antenna Control Unit (ACU) ensuring quality and reliability throughout the system. Installation is easy, thanks to a wealth of features and design details unique to the SAILOR VSAT technology platform. For instance, it features a single cable between antenna and below deck equipment for RF, power and data, while Automatic Azimuth Calibration

and Automatic Cable Calibration enable unique 'one touch commissioning'. It also features Dynamic Motor Brakes inside the antenna, removing the requirement for mechanical brake straps whilst ensuring the antenna is kept in balance in no-power situations, at sea or during transport.

Streamlining remote access and diagnostics

Just like all other SAILOR VSAT systems, the SAILOR 60 GX is incredibly easy to manage; ensuring the best possible support is available anywhere in the world. Easy remote access and diagnostic features include monthly statistics logging, SNMP and built-in e-mail clients that automatically email historical logging of system performance.



Mackay
Marine Electronics &
Satellite Communications

SAILOR® 60 GX

Available in standard and NEW High Power versions



SYSTEM SPECIFICATIONS

Frequency band	Ka-Band (Inmarsat GX)
Reflector size	65 cm / 25.5"
Type Approvals	Inmarsat
Certification	Compliant with CE (Maritime), ETSI, FCC
System power supply range	100 - 240 VAC, 50-60 Hz
Vibration, operational	EN60945, DNV 2.4-A, MIL-STD-167-1
Vibration, survival	EN60945, MIL-STD-167-1 x EN60721-3-6 6M3 mod. by EN60721-4-6
Shock	EN60721-3-6 class 6M3 mod. by EN60721-4-6
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)
ACU to ADU cable requirements	RF loss at 1950 MHz < 20dB, 4450 MHz < 35 dB DC resistance: < 0.9 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	43.4 dBi typ. @ 29.5 GHz (excl. radome)
Receive Gain	40.4 dBi typ. @ 19.7 GHz (excl. radome)
System G/T	17.2 dB/K typ. @ 19.7 GHz, at ≥10° elevation and clear sky (incl. radome)
BUC output power	5 W or 10 W
EIRP	50.4 dBW typ. @ 29.5 GHz (5 W) 53.4 dBW typ. @ 29.5 GHz (10 W)
LNB	Inmarsat GX approved 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)
Tracking	6-axis MEMS INU, conical scan, internal GNSS and Gyro/GPS Compass input
Elevation Range	-28° to +120°
Cross Elevation	+/-42°
Azimuth Range	Unlimited (Rotary Joint)
Ship motion, combined angular min.	Roll +/-25° (in 6 sec), Pitch +/-15° (in 5 sec), Yaw +/-10° (in 8 sec)
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 inch
Solar radiation	1120 W/m2 to MIL-STD-810F 505.4
Compass safe distance	1.4 m / 55.2" to EN60945
Maintenance, scheduled	None
Maintenance, unscheduled	All electronic, electromechanical modules and belts are replaceable

Built-in Test	Power On Self Test (POST), Person Activated Self Test (PAST) and Continuous Monitoring with error log
Dimensions (overall)	Height: H 91 cm / 36 inch xx Diameter: Ø 82 cm / 32 inch
Weight	35 Kg / 77 lb

ANTENNA CONTROL UNIT (ACU)

Dimensions, Rack Mount	1U 19" ACU
Weight, Rack Mount	4.5 kgs. / 10 lbs.
Humidity	EN60945 protected, 95% (non-condensing)
IP Class	IP30
Compass safe distance	0.3 m / 12" in 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 / RS-232) for Gyro/GPS compass input (future NMEA2000) 2 x Ethernet (User) 1 x Ethernet (service, setup etc.) 1 x AC Power Input 1 x Grounding bolt
Input power	100 - 240 VAC, 135 W typical, 240 W peak
Modem interface (control)	Generic, OpenAMIP, Custom protocol
Man Machine Interface (MMI)	Web MMI, OLED (red) display, 5 pushbuttons, 3 discrete indicator LEDs and ON/OFF switch
Temperature control	Built-in fan
No transmit zones	Programmable, 8 zones with azimuth and elevation
Remote access and management	HTTPS, SSH, SNMP Traps, Syslog, CLI, Diagnostic, Statistic

GX MODEM UNIT (GMU)

GMU Dimensions	1U 19" Rack Mount xx
Weight, Rack Mount	3.5 kg / 7.7 lb
Humidity	EN60945 Protected, 95% (non-condensing)
IP class	IP30
Compass safe distance	0.4 m / 16" 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 (Modem Control) 1 x RS-232 Data (Modem Control) 1 x RS-232 Modem console 1 x Universal AC Power Input 1 x Grounding bolt
Input power	100 - 240 VAC, 90 W peak, 30 W typical
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: satcom.ohc@cobham.com



Mackay Marine – High Seas
+1 281 479 1515 marinesales@mackaymarine.com
Mackay Communications, Satellite Solutions
+1 919 850 3100 satserv@mackaycomm.com
Mackay Marine Canada
+1 902 469 8480 sales.canada@mackaymarine.com
Mackay Marine Alaska & Pacific Northwest
+1 206 282 8080 ballard@mackaymarine.com