

# Sea Tel Model 4012 GX

3-Axis marine stabilized antenna system compatible with Ku-band satellites, convertible to Ka-band

**COBHAM**

## 2012 Data Sheet

The most important thing we build is trust

### Model 4012 GX

Sea Tel 4012 GX is a 3-Axis marine stabilized antenna system compatible with most Ku-band satellites and optionally convertible to Ka-band to work on Inmarsat's Global Xpress network. The revolutionary architecture of this 1-meter (1m) system is based on Sea Tel's industry leading 4009 marine stabilized antenna system. The 4012 GX is the industry's first highly integrated Ku to Ka upgradable system powered by integrated marine antenna (IMA) software.

The specially engineered radome design of the 4012 GX allows the system to achieve peak gains with both Ku and Ka band networks. The 4012 GX can be easily

upgraded in the field in a few short steps to work with the Global Xpress network. Sea Tel 4012 GX has an integrated control unit (ICU) that offers a single box integrated electronic control to maintain the best and most efficient pointing accuracy in the maritime market.

The 4012 GX is the first antenna system that is fully optimized to meet the demanding maritime communication needs of the 21st century. The system is easy to install and designed to meet some of the toughest shock and vibration specifications, such as IEC 60721. The Sea Tel 4012 GX has extended web based secured user interface, built-in remote

management capabilities and offers integration into network management systems through its Media Xchange Point (MXP).

The 4012 GX not only fulfills the VSAT capacities of today but also promises a smooth transition to the increasingly exciting VSAT possibilities of tomorrow. And since the 4012 GX can be controlled via the internet from most internet enabled devices, it also provides a strong sense of connectivity with the company's headquarters on shore, thus amplifying VSAT's natural aptitude for uniting and strengthening any maritime enterprise.

### 4012 GX Key Benefits

- Easy to install and use
- Extensive capabilities for online and offline troubleshooting
- Intuitive and secured user interface with extensive data logging capabilities
- Fully IP based "plug and play" architecture.
- Meets the high performance threshold set by Sea Tel 4009 system
- Same bolt patterns as the 4009 system
- The RF package is field-upgradable from Ku to Ka band (optional)
- State-of-the-art lighter weight, frequency tuned radome that works with Ku and Ka band services



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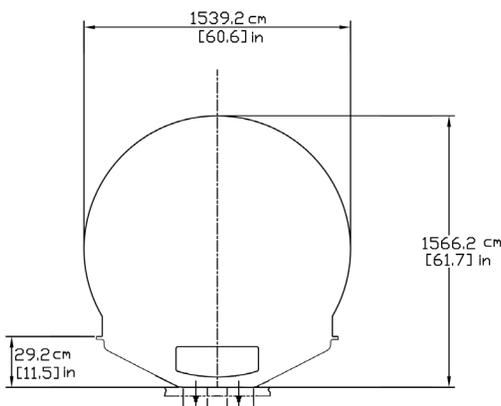


## Typical data for Model 4012 GX

<b>Reflector size</b>	41.7 in (106 cm)
<b>Tx Frequency (Ku-band)</b>	13.75-14.5 GHz
<b>Rx Frequency(Ku-band)</b>	10.7-12.75 GHz
<b>Tx Gains (Ku-band)</b>	40.8dBi @ 14.25GHz
<b>Rx Gains (Ku-band)</b>	39.8dBi @ 12.50GHz
<b>System G/T (typical), Ku-Band (30° elevation, clear sky)</b>	18.0dB/k (In Radome)
<b>Elevation Range of Motion</b>	-15° to +115°
<b>Azimuth</b>	Unlimited
<b>Cross level</b>	+/- 35°
<b>Stability Accuracy</b>	° RMS
<b>Operational Shock and Vibration</b>	Operational: IEC-60945, Survival: IEC-60721 and MIL-STD 901D
<b>EMI/ EMC Compliance</b>	EN 301-489, EN 301-428, EN 302-340 (Ku Band)
<b>Safety Compliance</b>	ETSI EN 60950

## Typical data for Media Exchange Point (MXP)

- Standard 19 Inch 1U rack Mount. (Slide Rails Optional)
- 43 x 43 x 4.35 (cm)/ 17 x 17 x 1.75 (In)
- 110/220VAC, 47-63 Hz, Single Phase
- 3.0 kgs/ 6.6lbs
- 4 Ethernet Ports
- 1 Ethernet Port (Internal, RJ)
- 1 sma Connector (RX from RJ)
- 1 F-Connector from RJ to diplexer)
- 8 Tri colored MXP status LEDs
- USB Device (Mini B)
- 2 RS-232 pass through ports
- 1 NMEA RS-232 serial port
- 1 RS-232 Console Port
- SBS & Synchro Gyro Inputs
- Aux IN1 & Aux IN2
- SW1, SW2, SW3, SW3A, SW4, SW4A (I/O)



For further information please contact:

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**NEW!**

# Sea Tel 4010 and 5010

3-Axis Maritime Stabilized Antenna for Always-On Ku networks for the bandwidth conscious customers

## 2010 Data Sheet

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### 4010 and 5010 Ku-Band Antennas

The XX10 is in the long line of how-did-we-ever-live-without-this technology products from Sea Tel. It is designed for maritime applications and is expected to be available in 1m and 1.2m antennas.

The XX10 platform antenna will be offered with several customizable options. The Co Pol option, for instance, allows the customers global Ku coverage on co pol and cross pol services.

The XX10 platform antenna is also offered with extremely low loss waveguide in the transmit signal path option to operate with co pol services. The 5010 is optimized to increase customer ROI. When used in a 1m network, customers can have almost 40% more bandwidth and sail further out on the fringes of the foot print.

By upgrading the network to 1.2m, service providers can increase profit even further by adding about 40% more customers for the same space segment cost.

### Product Benefits:

- Optimized to increase ROI for service providers.
- Generate higher ROI by replacing 4009 with 5010 antenna.
- Expand the foot print even further out.
- Sturdy construction outperforms competition.
- Enables regional or global communications with any service.
- Industry leading Stabilization Accuracy connected to the Always-On Network.
- Faster response to ship's motion.
- Very low loss waveguide rotary joint assembly ensures highest signal integrity.
- Reduces cost of support with latest remote software.

### Product Features:

- 5010 has higher RF performance than 4009.
- Designed to meet EN 60945, MIL STD 461, MIL STD 167-1, and IEC 60950 specifications. Available in Co Pol or X-Pol configuration.
- Lighter weight and easier to install.
- Stabilized to isolate the antenna from the ship's motion.
- New software features and electronics integrates with Uplogix for automated response management.
- Available in C (coaxial) and W (waveguide) versions.
- 4010 is available in 50" and 60" radome.
- 5010 is available in 66" radome.



- 1、最大可以内置16W Ku BUC 柯顿
- 2、如果增加功放，则需要调整天线结构-----构和厂家商议



Sea Tel's 3-axis stabilization system isolates the antenna from the ship's motion no matter how rough the weather and seas. The antenna system responds to ship's movement at a rate as fast as 90 degrees per second.

# Sea Tel 4010 and 5010



## Selection Guide

Model	Antenna Size	Rx*	Tx*	G/T*	BUC	EL	Crosslevel	AZ	Apprx. Weight
		dBi @ 12.5 GHz	dBi @ 14.25 GHz	@ 30 Deg. Clear Sky, dB/K	(watts)	in Degrees at 20° Roll	in Degrees		Lbs/Kgs
<b>4010</b>	1m 1.2m	39.10	39.90	17.10	8+	+5 to +90	±35 Deg	Unlimited	250/116
<b>5010</b>		40.90	42.10	20.00	8+	+5 to +90	±35 Deg	Unlimited	325/148

Model	Wind	Rain	Temp	Roll	Pitch	Yaw	Turning Rate and Acceleration	Stability Accuracy
	Mph/Kmph			Deg @ 8 Sec Period	Deg @ 6 Sec Period	Deg @ 15 Sec Period		
<b>4010</b>	125/201	4"/hr	-20 TO 55 °C	24	14	8	UP TO 12 DEG/SEC AND 15 DEG/SEC <sup>2</sup>	0.1 rms
<b>5010</b>	125/201	4"/hr	-20 TO 55 °C	24	14	8	UP TO 12 DEG/SEC AND 15 DEG/SEC <sup>2</sup>	0.1 rms

\*Gains reported are worst case, on-satellite gains should be higher. The C version antenna has less than 1.5 dB Tx path loss over the W version.



### DAC 2202 Controller

- Model: 2202
- Mounting: Rack Mount
- M & C Ports: 1 Serial, 3 TCP/IP, 1 multi-user web browser support
- UDP Upload port for updating software in the Comm Interface
- Reformatted GPS output: (GGA and GLL)
- Heading Input: NMEA 0183, SBS, Synchro or No-Gyro Mode
- Dimensions: 19" X 1.75"



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