

# Sea Tel<sup>®</sup> 1500

Full Operational Readiness and Business Continuity  
- for Today and Tomorrow

Product Sheet

**COBHAM  
SATCOM**  
Connecting the future



**Sea Tel 1500 is the world's smallest dual-band and multi-orbit VSAT antenna system to offer instant switching between Ka-band and Ku-band frequencies at the touch of a button, ensuring availability of high-speed broadband on diverse satcom services from different providers globally. The system unlocks unmatched network agility and secures always-on connectivity for efficient digital fleet and vessel management, resulting in assured business continuity for end-users and service providers.**

**Sea Tel 1500 – The only 1.5 meter dual-band VSAT antenna with true Ku/Ka switching**

**Secure business continuity with the latest multi-band satcom antennas innovations**

Available in single Ku- or Ka-band, or in dual Ku/Ka-band configurations, the Sea Tel 1500 is a cutting-edge antenna system that enables vessels to seamlessly switch from Ku- to Ka-band in a single click, with no physical intervention saving both time and costs.

With Sea Tel 1500, the push-button electronic band switching capabilities usually reserved for 2.4 meter multi-band antennas are possible on a system with a much smaller footprint. It provides the freedom to move in and out of Ka-band High Throughput Satellite coverage maps and maintain broadband connectivity using Ku-band VSAT services, providing the peace of mind that more efficient operations are enabled at all times.

Unless using the Sea Tel 1500, the only way to switch VSAT bands on a 1.5 meter antenna is for trained technicians to come aboard and physically swap out the RF electronics in the radome. With Sea Tel 1500, Cobham Satcom introduces a step change that verifies the business case for diversifying antenna size when developing or expanding satellite parks on cruise, offshore and government vessels, as well as mega yachts, in order to reduce both capital and operational costs while augmenting global connectivity performance.

**Optimise short and long term connectivity transition with future-ready solutions**

As the market's first true 1.5 meter Ku/Ka dual-band VSAT antenna, service providers can essentially offer two antennas but only take the same deck space that a single 1.5m system would usually require. This reduces the footprint needed for a truly multiband antenna installation onboard the vessels.

Because of this, Sea Tel 1500 is one of the

smartest possible long-term investments in maritime satcom, especially as it also offers the ability to convert to different frequencies on networks using geo-stationary satellites, and forthcoming satellite constellations, such as LEO, MEO and HEO. Future upgrades are easy with Sea Tel 1500 because it has been designed with hybrid networking in mind.

**High performance with lower lifetime costs thanks to industry-standard Sea Tel technology**

Sea Tel 1500 delivers unmatched performance and agility through its unique combination of first-to-market innovations and new levels of versatility, integrated with Sea Tel's field-proven and industry-standard maritime antenna technology. Built to the highest specifications Sea Tel 1500 Ku/Ka dual-band VSAT antennas come as certified satcom solutions to deliver full connectivity and operation 24/7, regardless of location and weather conditions – now and in the future.

High reliability, high performance and complete peace of mind come as standard when choosing Sea Tel 1500 for any onboard satellite installation, even if 2.4 meter antennas are already in use. The system goes through the same stringent testing and qualification processes as the entire Sea Tel range and leverages the same intelligent antenna management features for faster access to antenna data and diagnostics, resulting in exceptionally low to zero requirements for in-port servicing and maintenance.

#### SPECIFICATIONS

System crate	90 x 90 x 86 ~ 1112 lbs.
Base frame crate	90 x 90 x 35 ~ 922 lbs.
Typical Weight (with AC)	445 kg / 981 lbs
Typical Radome Install Dimensions	Height: 246.2 cm / 97 in Diameter: 205.2 cm / 81 in
Max Ku-band RF	Up to 40W
Max Ka-band RF	Up to 40W
Supported RF Manufactureres	Terrasat, Comtech, Teledyne, Advantech, RevGo, AMKOM, others
Supported LNB Manufacturers	Cobham Satcom, Norsat, SMW, NJRC, Others

#### RF PERFORMANCE

RX Gain	Ku-band: 42.5 dBi @ 11.7 GHz Ka-band: 46.0 dBi @ 19.7 GHz
TX Gain	Ku-band: 43.8 dBi @ 19.7 GHz Ka-band: 49.9 dBi @ 29.5 GHz
G/T @40 (Including Radome)	Ku-band: 22.0 dB/K @ 11.70 GHz Ka-band: 23.2 dB/K @ 19.70 GHz

#### PEDESTAL RANGE OF MOTION

Elevation	-10 to +115 Degrees
Cross Level	+/- 30 Degrees
Azimuth	Unlimited (2 Channel 50 Ohm Coaxial RF Rotary Joint)
Elevation Pointing	+5 to +90 degrees at Maximum Specified Roll

#### MAXIMUM SHIP'S MOTION

Roll	+/-25 degrees at 8-12 sec periods
Pitch	+/-15 degrees at 6-12 sec periods
Yaw	+/-8 degrees at 15 to 20 sec periods
Turning Rate	Up to 12 deg/sec and 15 deg/sec/sec
Heave	0.5G
Surge	0.2G
Sway	0.2G

#### SPECIFIED SHIP'S MOTION

Roll	+/-20 degrees at 8 second period
Pitch	15 degrees
Az Relative	0, 45, & 90 degrees w/ respect to roll input

#### ADE ENVIRONMENTAL CONDITIONS

Temperature Range (Operating)	+/-20 degrees at 8 second period-25° to +55° Celsius (-13° to +131° F)
Humidity	100% Condensing
Wind Speed	56 m/sec (125 mph)
Solar Radiation	1,120 Watts per square meter, 55° Celsius
Spray	Resistant to water penetration sprayed from any direction.
Icing	Survive ice loads of 4.5 pounds per square foot. Degraded RF performance will occur under icing conditions.
Rain	Up to 101.6mm (4 inches) per hour. Degraded RF performance may occur when the radome surface is wet.
Corrosion	Parts are corrosion resistant or are treated to endure effects of salt air and salt spray. The equipment is specifically designed and manufactured for marine use.

#### BELOW DECKS EQUIPMENT

Media Xchange Point (MXP)	
Standard 19 Inch Rack mount	One Unit High
Physical Dimensions	17 X 17 X 1.75 (Inches)/ 43.18 x 43.18 x 4.45 (cm)
Input Voltage	85-264 VAC, 47-63Hz, single phase, 110 Watts
Weight	6.6lbs/ 3.0 kgs

For further information please contact:  
satcom.maritime@cobhamsatcom.com