Sea Tel 370 TV

3-Axis marine stabilized antenna system compatible with C-Band and Ku-Band satellites

Product Sheet

The Sea Tel 370 TV is Cobham SATCOM's latest top-of-the-line, 3.6m (144") TV-at-Sea™ system. The reflector, radome design, and RF components are based on our well proven Sea Tel ST144 system, while the stabilization platform has been updated to integrate our IMA Platform. It is the preferred system for users who need the largest possible offshore operating area and compatibility with all known and planned satellites. The Sea Tel 370 TV has undergone major tracking, reliability, stability and industry leading improvements and is the antenna of choice for large vessels operating in deep oceans.

Proven technology, simpler

The Sea Tel 370 has reliable and proven IMA electronics have a host of improvements for improved productivity. These include: LED indicators for troubleshooting, USB port for Bluetooth adaptor and digital control interface between the motor driver and integrated ICU for improved tracking and system communications. The level cage used in the predecessor systems has also been replaced by high accuracy accelerometers. This allows for continuous calculation of position, orientation and velocity vector of a moving object without the need for external references.

The micro-electromechanical (MEM) sensors used in Sea Tel's antennas are based on the same technology currently being used in missile and aerospace technology around the world.

Built to last

Much like its predecessor, the Sea Tel 370 is available in "Dual Band" (C-band and Ku-band) configuration that permits the same antenna to be used for both. The Sea Tel 370 is designed and built to pass the U.S. Navy's tests for vibration, shock and protection against RFI and EMI emissions. Sea Tel 370 3-Axis marine stabilized antenna system compatible with C-Band and Ku-Band satellites.

Key Features

- Industry proven IMA electronics
- Integrated Brake Control PCB
- Integrated GPS processing
- Integrated Polarization control Aux Relay
- Reduced mean time to repair (MTTR)
- Ethernet, Serial (D-Sub & USB) ports provide ease of access to antenna either locally or remotely
- Ethernet over Coax communications
- Accommodates multiple satellite receivers
- Unmatched stabilization accuracy
- Television Integrated Control Unit (TICU) assembly
- HD ready

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SPECIFICATIONS

Antenna Gain C-band	42.2 dB at 4.2 GHz
Antenna Gain Ku-band	49.6 dB at 12.5 GHz
Minimum EIRP C-band	28 dBW
Minimum EIRP Ku-band	32-33 dBW
Dish Diameter	3.6 m; 142 in
Radome Dimensions	4.27m/168in in D x 4.21m/165.7 in H
Antenna Stabilization	3-axis servo
Built-In GPS	Automatic Satellite Acquisition
Ship's Motion	+/- 15° Roll or +/-20° Roll and +/- 15° Pitch
Full Elevation Range	-15° to +115°
Radome Baseframe	Galvanized steel
Azimuth Range	Unlimited
Ingress protection	IP56
Number of panels	12

SYSTEM SIZE (ADE)

Diameter	3.66m (144 inch)
Height	3.6-3.8m (142 inch)
Installed height	416-56cm (164 inch) including base frame if mounted with standard Legs, 3.76m (148 inch) if flush-mounted
Hatch Size	45.72cm x 86.36cm (18" high x 34" wide)
Side Door	45.72cm x 91.44cm (18" wide x 36" high)

SYSTEM WEIGHT (ADE)

Install weight (typically)	1300 Lbs (590 kgs) (with 144" radome)
Shipment Weight (typically)	System Crate 1830lbs (830kgs) Radome Crate 1900lbs (862kgs)

RADOME ASSEMBLY

Type	Frequency Tuned
Material	Composite foam/laminate

POWER REQUIREMENTS (ADE)

Single phase	85-264 VAC, 47-63 Hz
Pedestal	450 W ((brake release, pedestal drive and BUC drive)
RF equipment	2150 W max
Total power consumption	2600 W

ADE ENVIRONMENTAL CONDITIONS

Temperature Range	(Operating) -25° to +55° Celsius (-13° to +131° F)
Humidity	100% Condensing
Wind Speed	56 m/sec (125 mph)
Solar Radiation	1,120 W per square meter, 55° Celsius
Icing	4.5 pounds per square foot. Degraded RF performance under icing conditions.
Rain	Up to 101.6mm (4 inches) per hour. Degraded RF perfor mance may occur when the radome surface is wet

RECEPTION

Dual C-Band Linear/Quad Ku-Band linear (can be configured to receive 2 C-Band and 2 Ku-Band signals simultaneously or 4 Ku-Band signals simultaneously)

Ku-band: The entire frequency range for Ku-band satellite television is 10.7 to 12.75 GHz. Proper polarization is also an issue as both linear polarizations (horizontal & vertical) and circular polarizations (left & right) are used, and one configuration is not compatible with the other.

C-band: The C-band frequency range is 3.7 to 4.2 GHz worldwide. Sea Tel TV-at-Sea™ systems are delivered with C-band LNB noise temperatures of 17 degrees K or better. The IF frequency in all cases is 950-1450 MHz.

Designed to meet Navy MIL-STD-167-1 vibration standard and MIL-STD-461 EMI & RFI standards (including 200V/M).

Typical Data for the Lite Media Exchange Point (LMXP)

Mounting	Standard 19 inc rack mount
Dimensions	43.18 cm x 25.4 cm x 4.44 cm (17" x 10" x 1.75")
Power	110/220VAC, 47-63 Hz, Single Phase
Weight	2.45 kg (5.4 lbs)
Ethernet	3 Ethernet Ports (2 Rear / 1 Front)
Connectors	1 F-type connector
Status indication	6 Tri-colored MXP status LED's
Display	2 Line Display
USB	USB Device (Mini B)
Ports	1 RS-232 pass through port 1 NMEA RS-232 serial port 1 (RJ45) RS-232 Console Port Aux IN1 & Aux IN2 • SW1, SW2 (I/O) 1 Gigabit SFP Ethernet

Subject to change without further notice.

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