

The Sea Tel Model 4996T



If you find yourself with large communications requirements that go beyond the traditional marine satellite antenna offerings, you probably are in need of very small aperture terminal (VSAT) solutions that only Sea Tel can provide. Sea Tel delivers the most sophisticated VSAT solutions and is also uniquely positioned to deliver installation efficiencies no other maritime antenna competitor can offer.

Technological Superiority:

Sea Tel's Model 4996T Dual Optic antenna is produced specifically for marine VSAT applications. The Dual Optic design offers high efficiency by locating all of the focal point hardware out of the pathway of the RF energy.

The 4996T uses Sea Tel's most advanced, high-accuracy, closed-loop servo technology. With a heritage of hundreds of installations worldwide it has proven to be rugged, reliable and extremely accurate, making rough weather and sea conditions irrelevant.

Sea Tel mounts the RF equipment directly behind the antenna. This allows the efficient use of rigid waveguide from the High Power Amplifier to the feed assembly. For systems using HPAs greater than 100 watts, using waveguide rather than coax cable is the only option.

Eutelsat Type Approval:

This built-in high performance makes antenna licensing and registration easier than ever. In fact, the 4996T is the only maritime "system" including antenna, pedestal and radome that has ever been granted Eutelsat Type Approval.

With Type Approval a system is guaranteed in advance to be accepted by Eutelsat for use on its constellation of satellites. This translates to a substantial reduction of commissioning testing time, saving the shipping company a significant amount of time and money on installation.

Less Than One-Hour Installation Time:

Sea Tel also speeds you through the installation process with a unique one-piece radome ready to install right out of the crate. From the arrival of the crate dockside to the final touch of the welder's torch, the Above Deck system installation process can be completed in less than one hour.

LRU Philosophy:

Sea Tel stabilized antennas are designed to provide years of uninterrupted service. When service is required, the physical layout has been designed for ease of access to system components. System components are sealed inside shielded and grounded gold colored aluminum enclosures: Lowest Replaceable Unit, or LRU. Simply put, the LRU is the piece of the system that is replaced to correct a system fault. LRUs are each secured to the antenna pedestal with 4-6 screws and 1 or 2 dB type connectors.

The built-in test functions of our Remote Antenna Management (RAM) Software, which can be run locally (on-ship) or remotely (on-shore), will identify faults down to the LRU level, allowing that LRU to be easily changed in a minimum amount of time.

The Sea Tel 4996T – the VSAT solution that delivers on the high seas and installs with ease.



Features, Benefits and Specifications for the Sea Tel 4996T

- Eutelsat Type Approval #EA-V037- Saving you time and money on every installation as well as guaranteed system operation on the Eutelsat Satellite System.
- Use of proprietary 1.2 meter dual-optic composite antenna ensures consistent RF performance from one antenna to another.
- 80 inch diameter one-piece radome - shipped complete, saves at least one day during the installation process, arrives dockside ready to install.
- Stabilized Antenna platform is state-of-the art due to evolutionary improvements.
- Unlimited Azimuth capability eliminates signal outages due to cable wrap/unwrap process.
- The Model 4996T maintains 0.2 degrees peak error stabilization accuracy in conditions of +/-25 degrees of roll AND +/-15 degrees pitch. This high stabilization accuracy eliminates interfering with other customers on the same satellite.
- Feed Assembly Rotary Joint allows the use of waveguide between the transmit port of the feed assembly and the output of the power amplifier. This minimizes signal losses between the HPA output and the feed assembly well below 1 dB, maintaining amplifier efficiency. This means you don't have to purchase a larger and more expensive amplifier to compensate for transmit-cabling losses.
- Automatic Polarization Control keeps satellite operators happy by continuously maintaining proper antenna polarization with the satellite. Our three-axis stabilized platform does half the work of polarization control, as the antenna is held still in inertial space, thus providing a good reference for polarization positioning. The competitions' designs are only two axis, which means that their polarization control must compensate for geographical changes and the antenna roll caused by vessel roll, pitch, or heading changes.



Standards and Compatibilities

- Standard configuration meets U.S. Navy Mil-Std 461 EMI/RFI specification. Operational EMI/RFI hardening available for applications requiring operation in extreme EMI/RFI environments (for instance Aegis-class ships)
- MIL-STD 167-1 for vibration
- CE Marked
- Receive gain is 41.5 dBi @ 11.85 ghz
- Transmit gain is 42.5 dBi @ 14.25 ghz
- Transmit Cross-Polarization Isolation (XPD) is >35 dB @ 13.75 to 14.5 ghz.

Sea Tel is ISO 9001 certified by NSAI



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