Sea Tel®

Marine Stabilized Antenna Systems

VSAT Model 8797

on the High Seas

Sea Tel's Model 8797 Radical Offset antenna is produced specifically for marine VSAT applications. The Radical Offset antenna design locates all of the focal point hardware out of the pathway of the RF energy, making this antenna as efficient as most 2.4 meter prime focus antennas.

This high efficiency results in very low antenna side-lobe levels and high cross-polarization isolation. This built-in high performance makes antenna licensing and registration easier than ever.

The Model 8797 uses our most advanced stabilized antenna platform. With more than 300 Series 97 installations worldwide, this three-axis stabilized platform has proven to be rugged, reliable, and extremely accurate, even in severe conditions at sea.

The three-axis design keeps the antenna level with respect to the satellite despite the ship's motion and turning. This is critical when using offset-feed antennas as any tilt will affect both the polarization and the pointing angle of the antenna.

The '97 series platform has been designed to be serviced and supported using the Lowest Replaceable Unit (LRU) philosophy. The built-in test functions of our RAM Software, which can be run locally (on-ship) or remotely (on-shore), can identify faults down to the LRU level, allowing that LRU to be easily changed in a minimum amount of time.

The RF equipment, configured in either single-thread or redundant configurations, is mounted on the stabilized assembly, close to the antenna. This allows a short and efficient rigid wave-guide connection from the transmitter to the feed assembly. The stabilization sensors are mounted with the antenna assembly and are isolated from shipborne vibration and shock.

Sea Tel® Model 8797 specifications

Standard Features Include:
- Ship's motion +/- 25° roll and +/- 15° pitch
- <0.2° PEAK mis-pointing error at +/- 25° / 15°
- Unlimited azimuth capability
- Automatic satellite acquisition
- Automatic linear polarization control
- Internal tracking receiver
- Built-in test capability using RAM software
- No dedicated antenna control cables required for installation
- 3.2 meter / 126 inch diameter radome

Antenna Measurements
C-band Antenna Performance (Document #119039)
- Receive Gain tested at 36.4 dB @ 3.95 GHz
- Transmit Gain tested at 39.8 dB @ 6.18 GHz
- Calculated G/T is @16.8 dB/k

X-band Antenna Performance (Document # 117929)
- Receive Gain tested at 41.2 dB @ 7.5 GHz
- Transmit Gain tested at 43.3 dB @ 8.15 GHz
- Calculated G/T is @ 19 dB/k

Ku-band Antenna Performance (extrapolated, not measured)
- Receive Gain is @ 45.5 dB @ 11.7 GHz
- Transmit Gain is @ 47 dB @ 14.25 GHz
- Calculated G/T is @ 23 dB/k

pcDAC*/RAM Software
- Windows based M&C program for antenna and RF equipment control
- All antenna control functions
- RF equipment M&C functions
- Built-in test functions including Strip Chart Recorder
- Remote (on-ship or off-ship) diagnostic capability

Meets
- MIL-STD 167-1 Vibration
- MIL-STD 461 for EMI & RFI (including 200V/M)
- MIL-STD 901 D Grade A shock
- CE Marked

Unlimited distance between outdoor and indoor equipment.
Antenna and RF equipment M&C multiplexed on coax cable, minimizing installation cable requirements.
*PC computer required to run pcDAC/Ram Software not included

Antenna configurations are available for many different applications:

- Extended C-band for linear-polarized applications in the Far East
- C-band linear for domestic US and Panamsat satellites
- C-band circular for communications using Intelsat and ARABSAT satellites
- X-band circular for military communications
- Ku-band linear for domestic and international communications

Sea Tel is ISO 9001 certified by NSAI

More installed systems around the world than anyone!

Sea Tel®
Look to the Leader. Look to Sea Tel.

Authorized Distributor:
Marine Electronics - Croatia
Tel: +385-51-855586
Fax: +385-51-855587
sales@marine-electronics.hr
http://www.marine-electronics.hr