



1.0 Meter Ku-Band Marine Antenna Systems

1.0 Meter Ku-Band Marine VSAT
Model S53-03-07 System
Model S53-06-07 System

Includes Ku Band VSAT TX/RX Antenna in 48 inch Radome
iDirect Netmodem 3000 Series [Spec Sheet pdf 150k](#)
S53 VoIP ATA with one line [less service]
Router



The 4006 is a 1-meter Ku-Band maritime VSAT antenna for SCPC, broadband, or hybrid networks. The 4006 utilizes the same radome and antenna as the 4003. This antenna system meets the FCC's 2-degree spacing requirement, which is a remarkable achievement for a 1-meter ring-focus antenna. The antenna efficiency is better than 70% across the transmit and receive bands and is ideal for ocean going vessels that require "always-on" broadband satellite communications. The 4006 is suitable for file and image transfer, video conferencing, e-mail, Virtual Private Networks (VPNs), and database backup

DAC 2200

The 4006 Series utilizes the new DAC 2200 antenna control unit. The DAC 2200 ACU is 1 rack-unit in height (1.75 inches) and is configured with an L-band DVB compliant tracking receiver, gyrocompass interfaces for both digital (NMEA 0183 HDT character strings) and most analog gyrocompass systems. A gyrocompass or other ships heading reference is required for proper system operation.

SPECIFICATIONS

- Antenna: 1 m/40" D ring focus
- Radome: 1.2m/48" D x 1.5m/59" H.
- Weight: 250 lbs.
- Polarized Feed: Linear Cross-Pol with Automatic Control
- Rotary Joint: Allows >180 degrees of feed rotation
- BUC: 4 W is Standard & 8 W Optional
- Transmit Gain: 41.8 dB Mid-Band
- Receive Gain: 40.1 dB Mid-Band
- Roll/Pitch Amplitude: +/-25 degrees roll; +/-15 degrees pitch
- Pedestal Type: 3-axis: Level, Cross-Level and Azimuth
- Transmission rate of up to 2000 kbps for shore-to-vessel communications and up to 512kbps for vessel-to-shore communications
- IP access to the Internet and corporate networks enabling fast downloads of large data files and e-mail
- Unlimited data transfer allowance
- High Quality of Service (QoS) for voice calls
- Easy stand-alone or network compatible installation
- 24/7 customer care and technical support
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Ku-Band Specifications	Transmit	Receive
Polarization	Linear w/motorized skew adjustment	Linear w/motorized skew adjustment
Polarization Control	24 volt DC motor with pot feedback	
Frequency	14.0-14.5 GHz Ku Band	10.95-12.75 GHz Ku Band
Antenna Reflector/Feed		
Type	Spun Aluminum reflector	
Size	40 inch (101.6cm)	
Feed	Cassegrain feed with center focus splash plate	
LNB's	3 ea. Single Linear (Horizontal or Vertical) output LNBs are provided; one for 10.95-11.7 GHz, one for 11.7-12.2 GHz and the other for 12.2-12.75 GHz frequency bands.	
Antenna Gain		
TX Gain	40 dBi at 14.0 GHz Typical	
RX Gain	39 dBi at 12.5 GHz Typical	
SSPBUC (Block Up-Converter)	ViaSat 4 Watt SSP BUC	
Stabilized Antenna Pedestal Assembly		
Type	Three-axis (Level, Cross Level, AZ)	
Stabilization:	Torque Mode Servo	
Stab Accuracy:	0.2 degrees MAX, 0.1 degrees RMS in presence of specified ship motions.	
LV, CL, AZ motors:	Size 23 Brushless DC Servo.	
Inertial Reference:	Solid State Rate Sensors	
Gravity Reference:	Two Axis Fluid Tilt Sensor	
AZ transducer:	256 line optical encoder / home switch	
Antenna Range of Motion:		
Elevation Pointing:		
Elevation	+15 to +55 degrees in full rated motion, 0 to +70 in reduced motion	
Pedestal Control Unit		
Size	5.2 x 7.3 x 2.1 inches	
Connectors		
Antenna Pedestal	44 Pin D-Sub connector	
Motor Harness	25 Pin D-Sub connector	
Interface	15 Pin D-Sub connector	
M&C Interface	9600 Baud RS-422	
Unlimited Azimuth Multiplexer/Modem (4 Channel)		
Combined Signals	950-1450 MHz RX IF and 1.1/1.5 MHz FSK Pedestal M&C.	
Connectors:		
RX IF	F Connector	
DC / Ped M&C	9 pin D-Sub Connector	
Radome Assembly, 48"		
Type/Material:	Rigid fiberglass dome	
Material:	Composite foam/fiberglass	
Size:		
Diameter:	48 inches	
Height:	49 inches	
Installed weight	250 pounds MAX including antenna	
RF attenuation:	1.5 dB at 12 GHz, dry	
	1.5 dB @ 14 GHz, dry	
ADE Power Requirements:		
Antenna AC Input Power	110/220 VAC, 60/50 Hz	
Antenna Power Consumption	100 Watts MAX	

* Prices subject to change and do not include installation, freight, VAT or taxes if applicable. Monthly Service not included and must be selected at time of installation. Service contract is 12 months. VoIP optional.