

6.0 - 8.0 METER ANTENNA SYSTEM

MODEL 6000



KEY FEATURES

- 2-Axis Elevation-Over-Azimuth
- Autotracking / Program Tracking
- 6M to 7.3M Sectional Reflectors
- Receive, Transmit
- UHF, L, S, C, X, Ku Band
- iNET (Option)
- Swappable Feeds
- HD or SD Boresight Camera
- Shipboard Compatibility
- Radome
- Local and Remote ACUs

GENERAL DESCRIPTION

The Model 6000 is engineered for precision tracking in both stationary and mobile environments. Built tough for reliability, it performs consistently—even under challenging conditions.

The system supports 6 to 7.3-meter sectional reflectors, making transport and setup more efficient. It's compatible with single, dual, and tri-band operations and supports both primary and Cassegrain feed architecture giving you the versatility to meet a wide range of mission demands. Swappable feed assemblies allow for quick adjustments to frequency or operational changes.

Mounting is flexible and straightforward. The Model 6000 can be deployed on towers, trailers, vehicles, rooftops, or marine platforms. Standard mounting kits are available, and we also offer custom-engineered solutions for unique installation needs.

It integrates smoothly with all our Antenna Control Units (ACUs), whether you're using a standalone console, rackmount, or embedded system—ensuring unified control and dependable performance across any setup.

With a modular design at its core, Model 6000 is offered in a variety of standard configurations and can be tailored to meet your specific operational requirements.



RELATED PRODUCTS

ACU	Receiver	Recorder	Gateway

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DIMENSIONAL DRAWINGS

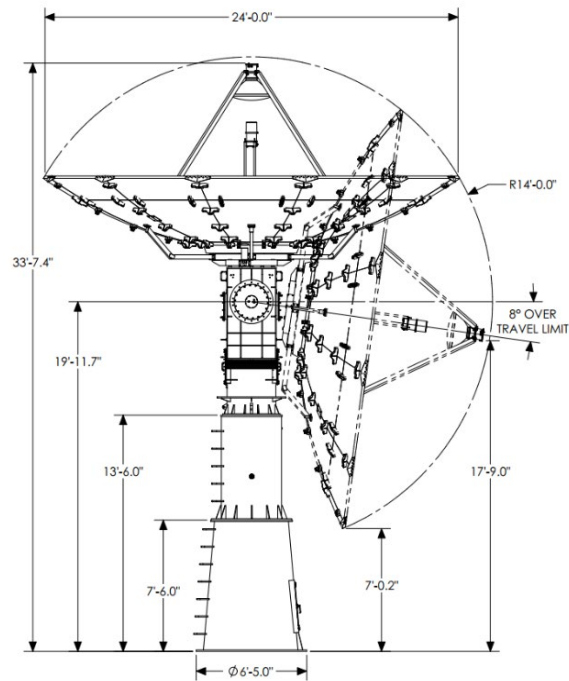


Figure 1: Model 6000-7.3M Drawing w/ Custom Riser Extension

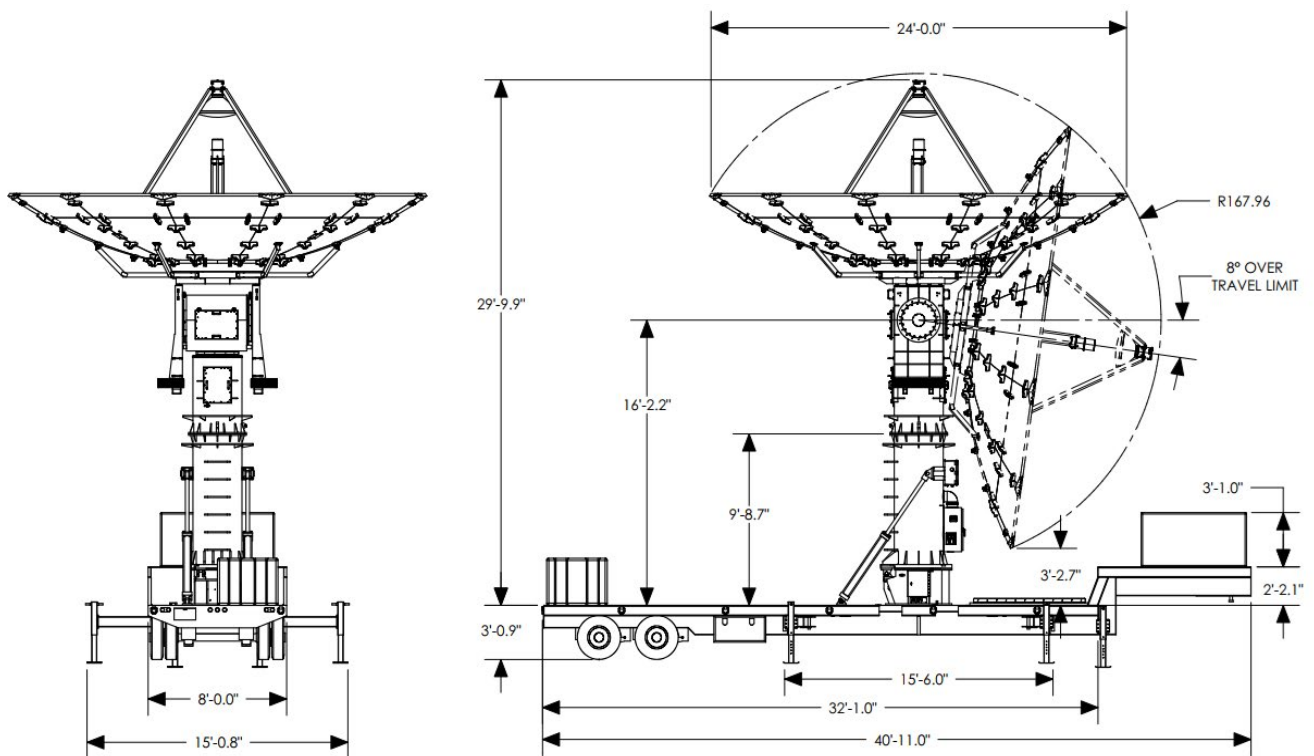


Figure 2: Model 6000M-7.3Meter Drawing

Drawings shown illustrate a subset of available configurations. Upon request, TCS can supply additional drawings or customize a solution to meet your exact requirements.



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AZIMUTH-OVER-ELEVATION TECHNICAL SPECIFICATIONS

FEATURES		6000-7.3M
Tracking		Autotracking or Program Tracking
Pedestal Type		Dual Drive
		Elevation-Over-Azimuth
Reflector Size		7.3 Meter
Reflector Type		Solid
Velocity & Acceleration (Up To)		Dual Drive: $\geq 25^\circ/\text{sec}$ & $\geq 40^\circ/\text{sec}^2$
Power Requirements		Standard: 3-Phase 115/208 VAC @ 60Hz Custom Options Available
Torque (Continuous & Peak)		8,000 / 18,000 ft-lbs
System Weight		9,000 lbs
Feed Type		Conical Scan
Feed Option		iNET
Data Transfer		Receive / Transmit
Frequency Bands		*UHF, L, S, C, X, Ku
Polarization Options		Linear, LHCP, RHCP
G/T		Provided Upon Request
Control Options		Local/Remote: Serial or Fiber Optic
ACU	Local	Red Hat Enterprise Linux v8, v9, (v10 coming soon)
Operating System	Remote	Red Hat Enterprise Linux v8, v9, (v10 coming soon) or Windows 11
ACU Operation Temperature		0°C to +35°C
Operating Temperature		-25°C to +55°C
Storage Temperature		-50°C to 70°C
Wind Speed	Operating	55 mph
	Stowed	120 mph
Azimuth Travel (Options)		Standard: $\pm 540^\circ$ Cable Wrap Continuous: Slip Ring & 2 Ch or 3 Ch RJ
Elevation Travel	Electrical	-5° to +185°
	Mechanical	-8° to +188°
Standard System Options		ACU Local and/or Remote Borsite Camera GPS & IMU Hydraulic Tilt Base Radome Remote Stow RF over Fiber Riser Extension Test Inject Transmit Trailer Video over Fiber
* Available frequency bands vary by application, and not all can be included in a single antenna. TCS can modify existing antennas or develop custom designs to meet your specific needs. Alternative XY, KA, and 3-Axis Systems may be available upon request.		

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ANTENNA CONTROL UNITS

ACU-M1	Dimensions	7U (10.25" x 19" x 13")		
	Weight	< 30lbs		
	Power	90VAC to 220VAC, < 200W (Typical)		
	Purpose	Userfriendly interface for operator control. Maximum hardware expansion possibilities.		
	Display	15" Color Touchscreen		
	Supported Interfaces	Up to 8 Receiver AM & AGC Inputs Optional: GPS/IRIG Interface	Ethernet Synchronous Serial	Asynchronous Serial
ACU-M2	Dimensions	2 U (17" x 19" x 3.5")		
	Weight	< 30lbs		
	Power	90VAC to 220vac , < 200W (Typical)		
	Purpose	Useful in unmanned, remotecontrol applications as part of a constellation with many systems. Minimal hardware expansion is possible.		
	Display	No Display, External VGA Connection (Optional Display)		
	Supported Interfaces	Asynchronous Serial Synchronous Serial Ethernet	Up to 2 Receiver AM & AGC Inputs Optional: GPS/IRIG Interface	
ACU-M3	Dimensions	6" x 6" x 4.5"		
	Weight	3.25lbs		
	Power	28VDC - Less than 40W (Typical)		
	Purpose	Remote interface only Program Tracking Antenna system is a "node on the network" Designed to be embedded inside pedestal and rugged for outside use.		
	Display	No display, External VGA Connection for Troubleshooting		
	Temperature	Operational/Storage: 40°C to +85°C		
	Supported Interfaces	Ethernet Asynchronous Serial	GPS Timing Networking Timing	
ACU-M4	Dimensions	4U (20" x 19" x 7")		
	Weight	< 30lbs		
	Power	90VAC to 220VAC - Less than 200W (Typical)		
	Purpose	Useful in unmanned, remotecontrol applications Classified operations where data storage is not feasible Full Autotracking Capability		
	Display	No Display, External VGA/HDMI connection (Optional Display)		
	Supported Interfaces	Asynchronous Serial Synchronous Serial Ethernet	Embedded Receiver Capable Up to 8 Receiver AM & AGC Inputs Optional: GPS/IRIG Interface	



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ANTENNA CONTROL UNIT DISPLAY OPTION



The ACU-M4LR is a centralized operator interface designed to work in conjunction with existing ACU systems. The ACU-M4LR does not replace the antenna control unit; rather, it provides a single display and control environment that allows operators to monitor and manage multiple ACU-controlled antenna systems from one workstation. In a standard configuration, the ACU-M4LR interfaces with a local ACU through an integrated fiber-optic connection and communicates with remote ACU-controlled antenna systems over Ethernet. The system can also provide Ethernet-based control of pan-and-tilt camera systems, enabling antenna and site monitoring from the same user interface.

The primary advantage of the ACU-M4LR is the consolidation of multiple control functions into a single operator display. By integrating local and remote ACUs into one interface, operators can control and monitor multiple antenna systems without the need for separate consoles, reducing complexity and improving operational efficiency. The ACU-M4LR features a modular design with customizable displays to support a broad range of operational requirements, including:

- Multiple remote-control options
- Receiver and support equipment monitoring and control
- Time code reader and GPS integration
- Single-console operations
- Acquisition and data hardware integration

This approach allows organizations to leverage their existing ACU infrastructure while providing operators with a unified interface for managing multiple antenna systems from a single location

Recognizing that no standard product fits every mission, Delta Telemetry Systems is ready to deliver tailored solutions for your unique application requirements.

Specifications subject to change without notice.

