DELTA TELEMETRY SYSTEMS

DATA ACQUISITION

4.3 - 6.0 METER ANTENNA SYSTEM

MODEL 5000

KEY FEATURES

- 2-Axis Elevation-Over-Azimuth
- Autotracking / Program Tracking
- 14FT to 6M Sectional Reflectors
- Receive, Transmit
- UHF, L, S, C, X, Ku & Ka-Band
- iNET (Option)
- Swappable Feeds
- HD or SD Boresight Camera
- Shipboard Compatibility
- Radome
- Local and Remote ACUs

GENERAL DESCRIPTION

The Model 5000 is built for high-performance tracking in both fixed and mobile setups. Rugged and reliable, it's engineered to deliver precise results—even in demanding environments.

It supports reflectors ranging from 14 feet to 6 meters, available in sectional designs to simplify transport and deployment. The system accommodates single, dual, and tri-band operations and is compatible with both primary and Cassegrain feed architectures—offering maximum flexibility. Swappable feed assemblies make it easy to adapt to changing frequency or mission requirements.

Integration is simple. Model 5000 can be mounted on towers, trailers, vehicles, rooftops, or maritime platforms. Standard mounting kits are available, and custom solutions can be developed for specialized applications.

It pairs seamlessly with all our Antenna Control Units (ACUs), whether you are using a standalone console, rackmount, or embedded configuration—ensuring consistent control and performance across any deployment.

Thanks to its modular design, Model 5000 is available in a range of standard configurations and can be customized to meet your specific operational needs.

RELATED PRODUCTS

ACU	Receiver	Recorder	Gateway
			

10020 Remmet Avenue Chatsworth, California 91311 | 818.718.6248
delta-telemetry.com | sales@tcs-la.com

4.3 - 6.0 METER ANTENNA SYSTEM

MODEL 5000

DIMENSIONAL DRAWINGS

DATA ACQUISITION

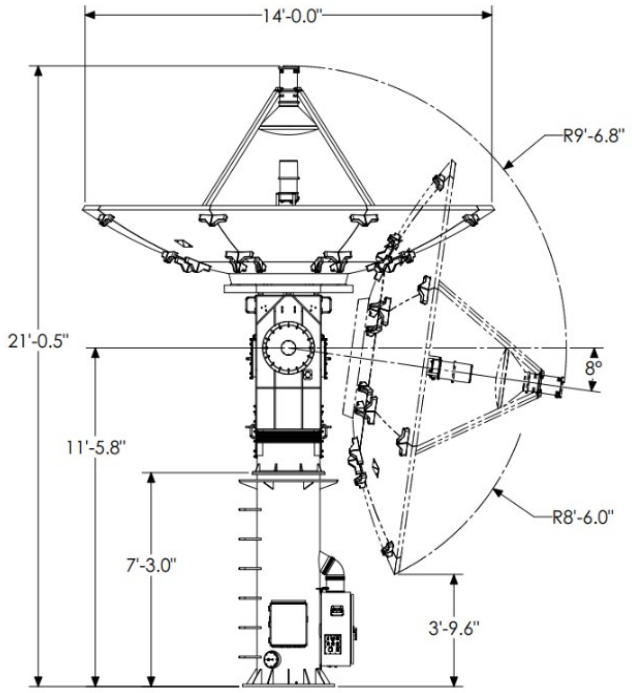

Figure 1: Model 5000-14 Drawing

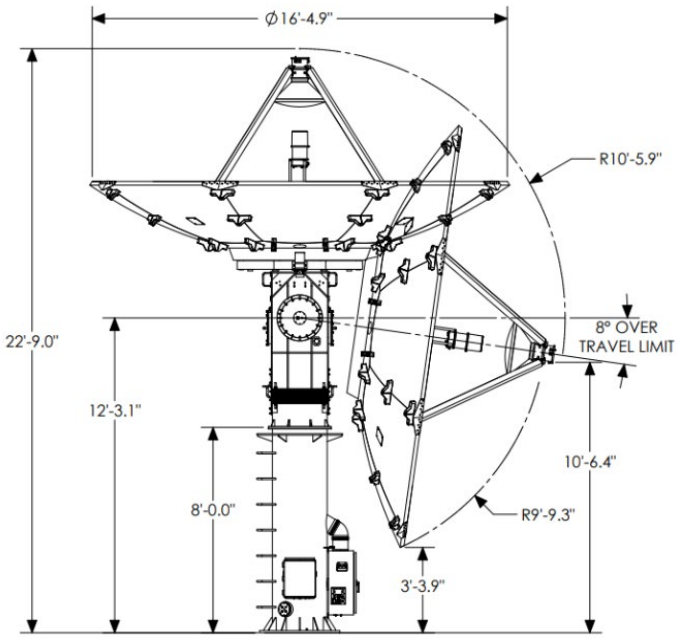

Figure 2: Model 5000-5M Drawing

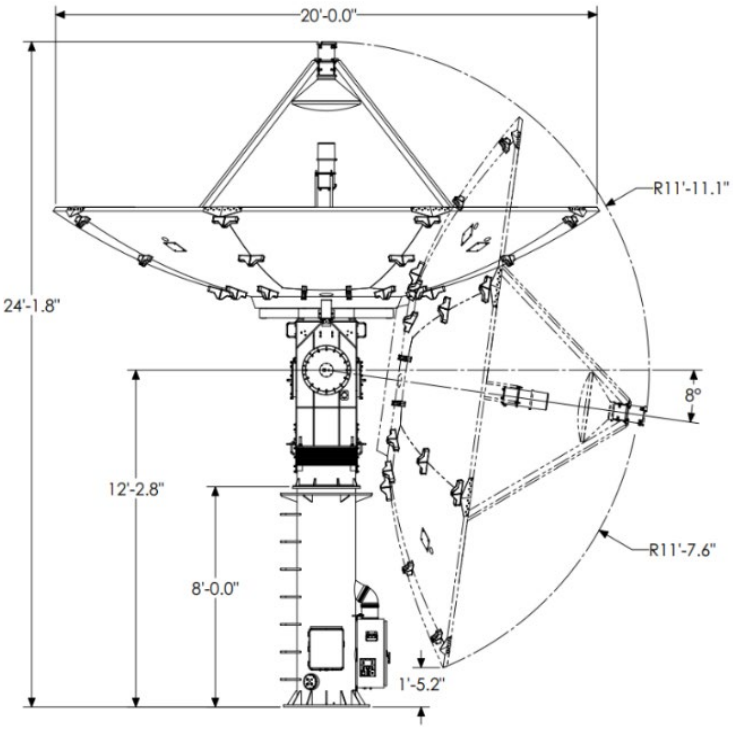

Figure 3: Model 5000-6M Drawing

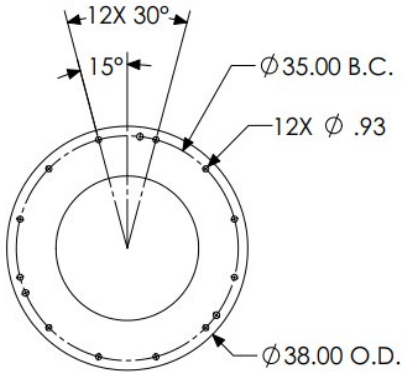

Figure 4: Model 5000 Mounting Drawing

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

4.3 - 6.0 METER ANTENNA SYSTEM

MODEL 5000

AZIMUTH-OVER-ELEVATION TECHNICAL SPECIFICATIONS

DATA ACQUISITION

FEATURES		5000-14	5000-5M	5000-6M
Tracking		Autotracking or Program Tracking		
Pedestal Type		Single Drive / Dual Drive	Dual Drive	
		Elevation-Over-Azimuth		
Reflector Size		14-Feet	16.4 Feet / 5 Meter	20-Feet / 6 Meter
Reflector Type		Solid		
Velocity & Acceleration (Up To)		Single Drive: ≥18°/sec & ≥40°/sec²	N/A	
		Dual Drive: ≥25°/sec & ≥45°/sec²		
Power Requirements		Standard: 3-Phase 115/208 VAC @ 60Hz Custom Options Available		
Torque (Continuous & Peak)		6,500 / 11,300 ft-lbs		
System Weight		2,600 lbs	3,700 lbs	4,300 lbs
Feed Type		Conical Scan		
Feed Option		iNET		
Data Transfer		Receive / Transmit		
Frequency Bands		*UHF, L, S, C, X, Ku, Ka		
Polarization Options		Linear, LHCP, RHCP		
G/T		Provided Upon Request		
Control Options		Local/Remote: Serial or Fiber Optic		
ACU Operating System	Local	Red Hat Enterprise Linux v8, v9, *(v10 coming soon)*		
	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: ±540° 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 Boresight Camera GPS & IMU Hydraulic Tilt Base Radome		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 and 3-Axis Systems are available upon request.

10020 Remmet Avenue Chatsworth, California 91311 | 818.718.6248
delta-telemetry.com | sales@tcs-la.com

DATA ACQUISITION

4.3 - 6.0 METER ANTENNA SYSTEM

MODEL 5000

ANTENNA CONTROL UNITS

ACUM1	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
ACUM1	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	
ACUM3	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	
ACUM4	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	

4.3 - 6.0 METER ANTENNA SYSTEM

MODEL 5000

ANTENNA CONTROL UNIT DISPLAY OPTION

DATA ACQUISITION

The ACU-M4LR is designed to be compatible with any ACU unit and is engineered to manage multiple antenna systems concurrently. In standard configurations, it controls a local antenna via the internal fiber optic interface and connects to a remote antenna over ethernet. It also provides the ability to control a pan-and-tilt camera system through ethernet.

All designs are modular, with customizable displays to support a broad set of applications. Customizations include:

- Multiple Remote-Control Options
- Control Receivers and Support Equipment
- Time Code Readers and GPS
- Single Console for Mission Operations
- Acquisition Data Hardware

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.

10020 Remmet Avenue Chatsworth, California 91311 | 818.718.6248
delta-telemetry.com | sales@tcs-la.com