Flight Termination Systems

DELTA TELEMETRY SYSTEMS

DATA ACQUISITION

KEY FEATURES

- **Uses TCS 1800 or 2400 Series Pedestals with Helix Antennas**
- **Controlled by ACU-M1 controller**
- **Rotary joints in both axes for high power systems**
- **Customized operational freq., gain, transmit power & more!**
- **Built-In safety precautions**
- **ACU/Pedestal connection via RS485 or Fiber**

SPECIAL FEATURES

- **Frequency** 406 – 550 MHz
- **Antenna** Helix
- **Gain** 12 dB Typical
- **Power** up to 2.5 KW
- **Polarization** RHCP or LHCP
- **Beamwidth** 35° Typical
- **Axial Ratio** 1.0 dB
- **Impedance** 50 Ω
- **VSWR** 1.3:1 (max)

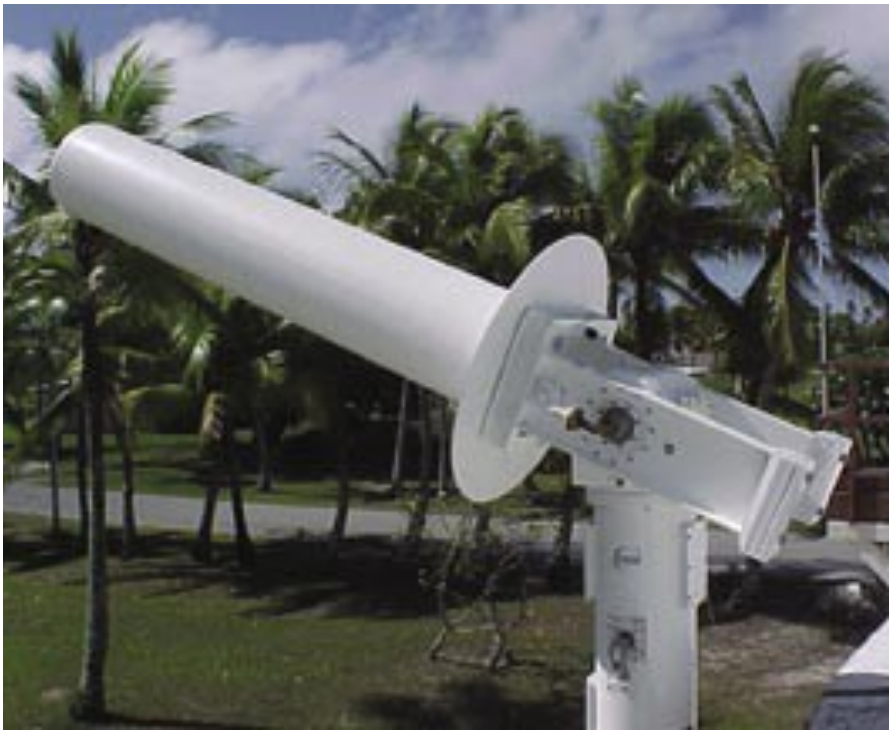
GENERAL DESCRIPTION

TCS offers Flight Termination Systems using our standard antenna Pedestals and Helix antennas. These Helix antennas are custom designed for the frequency of operation, required gain, transmit power, etc to fit your application. Also, other options with parabolic reflectors are designed and built to required specifications.

Our state of the art controller, the ACU-M1 controls these antenna pedestals. With our controller the FTS operation can be customized to suit individual needs. Built-in safety precautions can be programmed into the ACU-M1 to prevent accidental transmission of high-powered signals in the wrong direction. A Mission Mode button is also provided to allow for removal of these safety precautions in dire need situations.

These systems can be slaved to other antenna systems or can run off of a pre-determined course for tracking targets. The ACU-M1 accepts slaving data over Ethernet, Serial, or Parallel connections.

Our FTS systems have rotary joints in both axes, for high-power systems. Communication between the ACU and the pedestal are either on RS485 or on fiber. This eliminates bulky control cables. Appropriate RF interfaces will be used to handle the high power levels safely. TCS can also integrate he high-power amplifiers into the systems. We provide onsite support for installation, integration and test.



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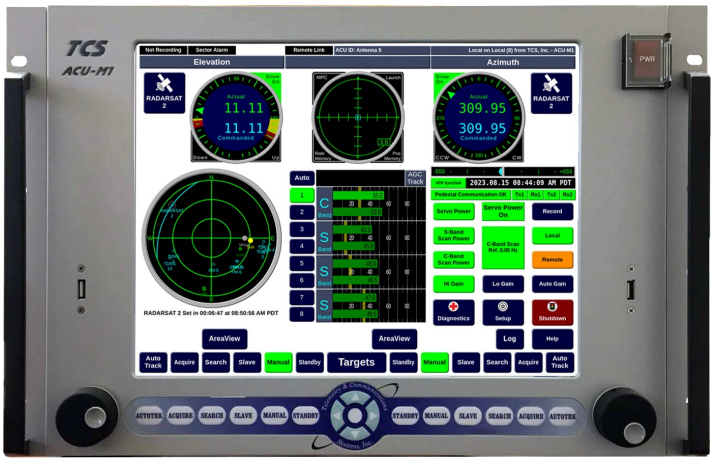

	1800 Series	2400 Series	
Gain	12 dB	12 dB	12 dB
Beamwidth	35°	35°	35°
Velocity (minimum)	40°/sec	30°/sec	30°/sec
Acceleration (minimum)	60°/sec/sec	60°/sec/sec	60°/sec/sec
AZ Total Travel	Continuous or ± 410°	Continuous or ± 410°	Continuous or ± 410°
EL Total Travel	-5° to +185°	-5° to +185°	-5° to +185°
Gearbox Peak Torque	300 ft-lb	900 ft-lb	1,800 ft-lb (Dual)
Backlash	0.05° RMS	0.05° RMS	0.° RMS (Dual)
Synchro / Resolver	N/A (Encoder)	Single	Single or Dual
Motor Type	Integral DC Motor / Servo Amplifier	DC Brush / Tach / Brake	DC Brush / Tach / Brake
Servo Amplifier	PWM	PWM	PWM
Temperature Operating	-25°C to +55°C	-25°C to +55°C	-25°C to +55°C
Temperature Non-Operating	-50°C to +70°C	-50°C to +70°C	-50°C to +70°C
Pedestal Weight	100 lb (45 kg)	210 lb (95 kg)	310 lb (141 kg)
System Total Weight	180 lb (82 kg)	500 lb (227 kg)	700 lb (317 kg)
Wind Speed Operating	60 MPH	60 MPH	60 MPH (Dual) 45 MPH (Single)
Wind Speed Stowed	120 MPH	120 MPH	120 MPH

Inquire today to learn more about the FTS operation & control func-

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