

# Model SAT1733-S Ka/Ku Transportable SatCom Antenna System

The SAT1733-S is a lightweight, transportable, 1-meter, satcom antenna system capable of acquiring and tracking a Ka or Ku-band satellite, and passing the data signal from the satellite (down-converted to L-band) along to an external data receiver (e.g. DVB receiver). It consists of a multi-piece reflector with swappable feed/LNB assemblies for Ka or Ku-band, a pedestal/motor assembly capable of acquiring and tracking a satellite, an antenna controller running the operational software, a tripod/gimbal assembly to mount the pedestal and allow for initial manual pointing, cable assemblies for remote operation, an interface to an external GPS receiver, a manual compass inclinometer assembly, and two transit cases for transport and storage of the entire system.

## Software

The software is accessed via a HyperTerminal session on a remote PC (not supplied). The software guides the user through the antenna operation process, allows the user to select a satellite from the database and enter the antenna's location, calculates the vector to the satellite, and guides the user through the initial manually antenna pointing and satellite acquisition.

## Features

- Frequency Ranges, Interface to Satellite:
  - w/Ka-Band Feed: 20.2 to 21.2 GHz
  - w/Ku-Band Feed: 10.5 to 13.5 GHz (depends on LNB)
- Frequency Range, Interface to IF Data Receiver:
  - L-Band: 950 to 1950 MHz
- 1-Meter multi-piece, lightweight, carbon composite reflector.
- Acquires, tracks Ka/Ku satellites with inclined orbits of up to 100.
- Learns satellite orbit, allows tracking through signal loss.
- User-programmable satellite database.
- TLE data not required.
- Requires only satellite longitude value for satellite location.
- Utilizes initial approx. manual point (then active acq. and track).
- Optional local terminal control via handheld unit.
- Remote terminal control via laptop or PC (up to 150' away).
- Polarization: LHCP w/Ka-band feed; or linear rotatable w/Ku-band feed.
- Multi-piece tripod assembly (no adjustment required).
- No leveling required for terrain of up to 300 slope.
- Pointing Range:
  - AZ: +/-1800
  - EL: +1000 to -100 (no keyhole effects).
- Temp Range: -400 to +500 C (operation); -400 to +850 C (storage).
- Prime Power: 105-260 VAC at 50-60 Hz (approximately 2A max at 120 VAC).
- Transport Size: Two transit cases, each approx 32" x 21" x 17".
- Transport Weight: Two loaded transit cases, each less than 75 lbs.
- Quick setup in approximately 5 - 10 minutes by one person.

