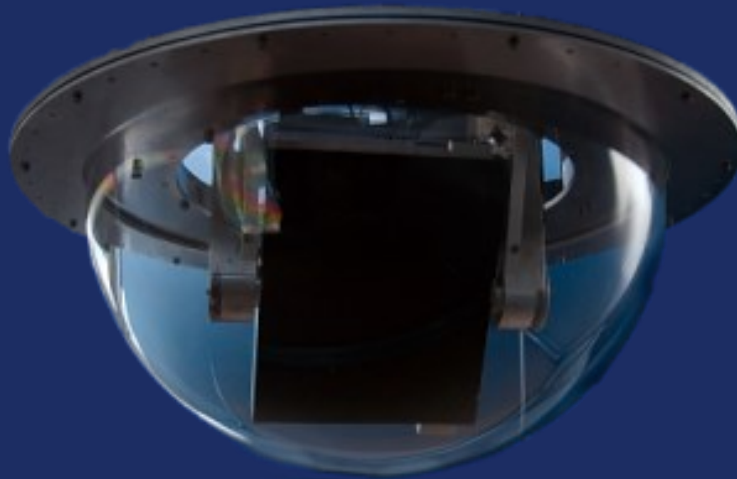




VT-002™ Slave Tracking Antenna

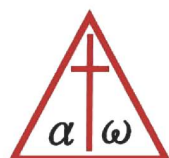
The VT-002 is a twin axis 0.2m planar array slave tracking antenna, it is self contained and is simple to setup and operate. The VT-002 can transmit & receive signals in either the L band with 11db gain or the S band with 13db gain and point continuously at a fix or moving position in the air or on the ground with a view of the sky from horizon to horizon in elevation and continuous rotation in azimuth.



VT-002 Slave Tracking Antenna

Features

- RHCP high gain planer array antenna
- L or S Band Reception & Transmission
- Autonomous slave tracking
- Multiple mode slave tracking
- Easy maintenance modular design
- DC Brushless overrated motors
- Absolute encoders in all rotating parts with better than 0.05° accuracy
- Bus based internal communication
- Ethernet remote control
- Fully integrated auto-calibration system
- Simultaneous receive and transmit
- Good performance in adverse weather conditions
- Light weight carbon fiber and corrosion resistant alloy construction throughout
- Greatly reduced cabling
- Less weight and better portability
- Integrated ACU Control



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The hardware and software required to provide the Antenna Control Unit (ACU) functions is integrated into the antenna, this provides auto calibration, slaved "pointers", Program Tracking and Pre Tracking.

The antenna itself is programmed via an Ethernet link before a flight. It can store a number of settings locally for easy selection via a simple cockpit rotary switch or an RS 232 link. The antenna may be remote monitored and controlled over a local Ethernet making it possible to slave multiple antennas together.

Calibration of the antenna is automatically carried out on every start up and continuously during operation. The communications form local or remote GPS system and inertial navigation system allow the antenna to know its three dimensional position in respect the earth at all times. The controlling software refers to an integrated geodetic database to allow the antenna to correctly track a target even in difficult geographical conditions.

Specifications

Operating Frequency	2200-2350 MHz Band Selectable Plus User Specified Special Frequencies
G/T	Approx -1.5 at S-Band
Polarization	RHCP
Main Antenna Gain (Minimum)	11.0 dBi @ 1435 MHz 13.0 dBi @ 2350 MHz
Sidelobes	-30 dB Under Main Beam @ S-Band
Beam Width	Minimum $\pm 18^\circ$ @ S-Band
Velocity	Up to $90^\circ/\text{sec}$
Acceleration	Up to $180^\circ/\text{sec}^2$
Azimuth Travel	Continuous Unlimited
Elevation Travel	$\pm 90^\circ$ Rotation (Horizon to Horizon)
Temperature Non-Operating	-40° C to $+70^\circ \text{ C}$
Temperature Operating	-40° C (with heating) to $+65^\circ \text{ C}$ Plus Solar
Relative Humidity	Up to 100% Including Condensation
Rain	Up to 5-inches Per Hour
Ice	One-half Inch, Radial
Weight Approx	9 kg
Power Requirement	50 W
Voltage/Frequency	28V DC
Interface	RS232 & Ethernet
Size Approx	39cm H x 28cm W x 28cm D
Maximum Transmission Power	20Watt



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