

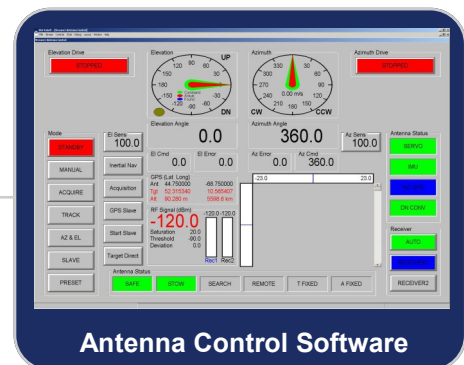


## VT-030™ Autotracking Antenna

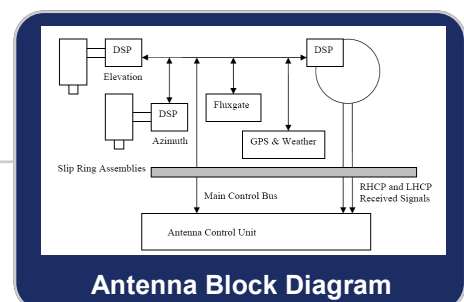
The VT-030 is a dual axis 3.0m parabolic carbon fibre reflector autotracking antenna, it is self contained and is simple to setup and operate. The VT-030 has a dual polarization head that can receive signals with gains of L band 29dB, S band 34dB, C band 38dB and tracks using a digital rotary scan autotracking technique with continuous rotation in both azimuth via slip ring assemblies with dual channel rotary joints.



**VT-030 Autotracking Antenna**



**Antenna Control Software**



**Antenna Block Diagram**

### Features

- Simultaneous RHCP/LHCP or Vertical/ Horizontal parabolic reflector antenna
- L, S & C Band Reception
- Digital Rotary Scan Head
- Autonomous autotracking
- Multiple mode slave tracking
- Easy maintenance modular design
- DC Brushless overrated motors
- Absolute encoders in all rotating parts with better than 0.002° accuracy
- On bore site video camera
- Continuous azimuth movement
- Low noise, high gain first stage amplifier
- Bus based internal communication
- Ethernet remote control and monitoring
- No special ACU hardware needed
- Fully integrated auto-calibration system
- Light weight carbon fiber, composite and corrosion resistant construction throughout
- Greatly reduced cabling
- Less weight and better portability
- Windows 7, 8, 10 Based ACU Software



The VuSoft software is used to provide the Antenna Control Unit (ACU) functions. This provides auto calibration, slaved "pointers", Program Tracking, Pre Tracking, Slaved Tracking and Full Autotracking systems together with optional data acquisition and data storage. The VT-030 is controlled via an Ethernet link that allows the antenna to be placed virtually anywhere that can be reached by a satellite link or WAN making it possible to remote control or slave multiple antennas together even over exceptionally long distances.

## Specifications

Operating Frequency	1429.0-1544.0 & 2200.0-2405.0 & 4800.0-5150.0 MHz
G/T Approx.	8.9@1500MHz, 12.4@2300MHz, 17.6@5000MHz (dB/K)
Polarization	Simultaneous dual polarization reception
Main Antenna Gain (Minimum)	29.2@1435MHz, 34.1@ 2300MHz, 38.4@5000MHz (dBi)
Sidelobes	-17 dB Under Main Beam @ L-Band -20 dB Under Main Beam @ C-Band
Beam Width 3db	4.7° @ L-Band 2.4° @ C-Band
Acquisition Angle (Maximum)	±5.4° @ L-Band ±3.0° @ C-Band
First Stage LNA	35dB Gain, 0.5dB Noise, 1dB Linearity
VSWR (Maximum in band)	2:1
Velocity	Up to 32°/sec Azimuth & 32°/sec Elevation
Acceleration	Up to 110°/sec <sup>2</sup>
Azimuth Travel	Continuous Unlimited
Elevation Travel	-5° to +185°
Temperature Non-Operating	-40° C to +70° C
Temperature Operating	-30° C (with heating) to +65° C Plus Solar
Relative Humidity	Up to 100% Including Condensation
Rain	Up to 5-inches Per Hour
Ice	One-half Inch, Radial
WIND, Operating	110 kph
WIND, Survival	200 kph
Weight Approx	620 kg
Power Requirement	410 W Typical, 720 W Peak
Voltage/Frequency	110/220 VAC, 50/60 Hz, 1 ø
Control Interface	Ethernet
Camera	On Axis Fully Integrated Color High Resolution CCD
Stabilization	9 axis INU
GPS	Position and Height with Inbuilt Geodetic Model
Control	Windows 7, 8 or 10 based ACU with desktop rotary controller