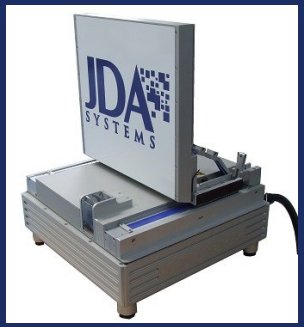
VT-004™ Autotracking Antenna

The VT-004 is a high gain ultra portable autotracking antenna, it is self contained and is simple to setup and operate. The VT-004 has a dual polarization head that can receive signals in the L band with 18dbi gain and S band with 21db gain tracking using a single channel monopulse autotracking technique from directly overhead down to the horizon with continuous rotation in azimuth.

Side View



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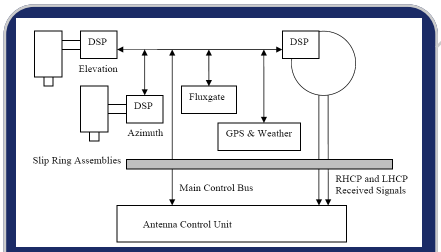
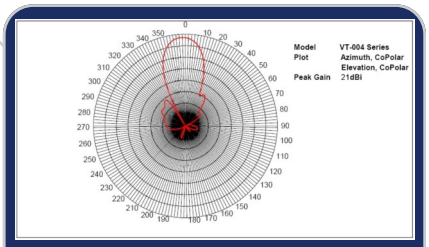
Simple Cabling



Antenna Block Diagram



Reception Pattern

Features

- Planer array simultaneous RHCP and LHCP antenna
- L and S Band Reception
- Single Channel Monopulse
- Autonomous autotracking
- Multiple mode slave tracking
- Easy maintenance modular design
- DC Brushless overrated motors
- Absolute encoders in all rotating parts with better than 0.05° accuracy
- On bore site video camera
- Bus based internal communication
- Ethernet remote control
- Fully integrated auto-calibration system
- Platform movement compensation
- Good performance in adverse weather conditions
- Light weight composite and corrosion resistant construction throughout
- Greatly reduced cabling
- Less weight and better portability
- Windows 7, 8, 10 Based ACU Software

For more details contact your local agent or contact JDA Systems directly:
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The VuSoft software is used to provide the Antenna Control Unit (ACU) functions. This provides auto calibration, slaved "pointers", Program Tracking, Pre Tracking and Full Autotracking systems together with optional data acquisition and data storage.
The VT-004 is controlled via Ethernet that allows the antenna to be placed virtually anywhere that can be reached by a LAN making it possible to remote control or slave multiple antennas together even over exceptionally long distances.

Specifications

Operating Frequency	1435-2485 MHz Band Selectable
G/T	Approx -0.4 at S-Band
VSWR (Maximum)	1.5:1
Polarization	Simultaneous LHCP and RHCP
Main Antenna Gain (Effective)	18.0 dBi @ 1435 MHz 21.0 dBi @ 2350 MHz
Sidelobes	2 dBp @ L-Band 3 dBp @ S-Band
3db Angle	±6.0° @ L-Band ±7.5°@ S-Band
Acquisition Angle	±12° @ L-Band ±15°@ S-Band
Velocity	Up to 60°/sec
Acceleration	Up to 70°/sec^2
Azimuth Travel	Continuous Unlimited
Elevation Travel	90° to -20°
Temperature Non-Operating	-40° C to +70° C
Temperature Operating	-30° C (-40° C Option) to +65° C Plus Solar
Relative Humidity	Up to 100% Including Condensation
Rain	Up to 5-inches Per Hour With Optional Radome
Ice	One-half Inch, Radial
Maximum Height	8000 Meters Unpressurised
WIND, Operating	112 KPH
WIND, Survival	160 KPH
Weight Approx	25 kg
Power Requirement	100 W
Voltage/Frequency	110/220 VAC, 50/60 Hz, 1 ø
Size Approx	23 x 43 x 43 cm
Interface	Ethernet
Optional Flux Gate	+/-45° Pitch and Roll with Electronic Compass ±0.1°
Optional GPS	Position and Height with Inbuilt Geodetic Model

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