

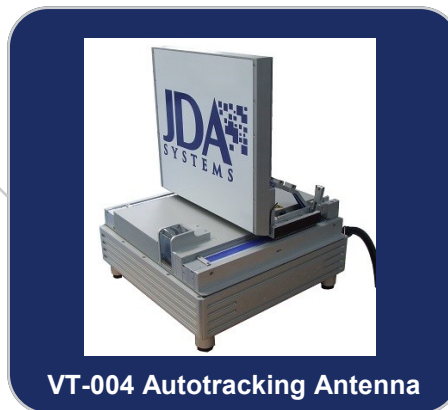


VT-004™ Autotracking Antenna

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. C band may be added optionally to the antenna.



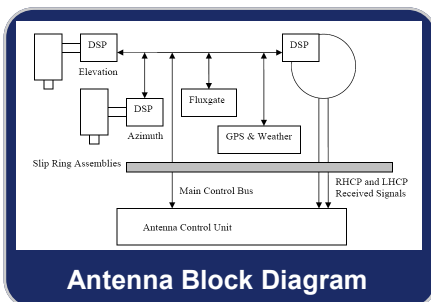
Side View



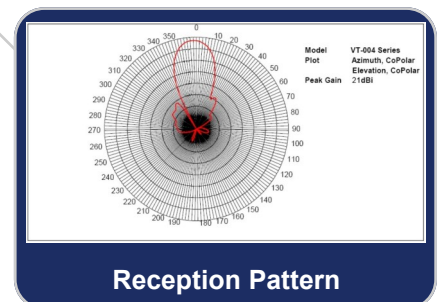
VT-004 Autotracking Antenna



Simple Cabling



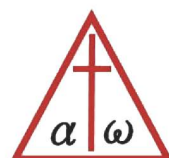
Antenna Block Diagram



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
- Simultaneous receive and transmit option
- Good performance in adverse weather conditions
- Light weight composite and corrosion resistant construction throughout
- Greatly reduced cabling
- Less weight and better portability
- Windows XP, 7, 8, 10 Based ACU Software



佳昭企業有限公司
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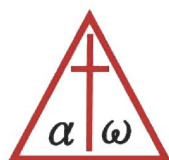
• TEL:886-2-2957-9823 • FAX:886-2-2957-9712
• <http://www.nearson.com.tw>



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 | $\pm 6.0^\circ$ @ L-Band $\pm 7.5^\circ$ @ S-Band |
| Acquisition Angle | $\pm 12^\circ$ @ L-Band $\pm 15^\circ$ @ 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 ϕ |
| Size Approx | 23 x 43 x 43 cm |
| Interface | Ethernet |
| Optional Flux Gate | $\pm 45^\circ$ Pitch and Roll with Electronic Compass $\pm 0.1^\circ$ |
| Optional GPS | Position and Height with Inbuilt Geodetic Model |



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