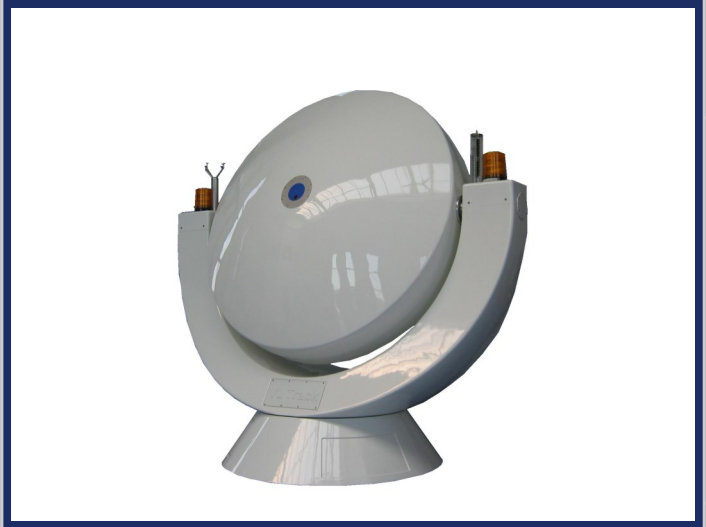
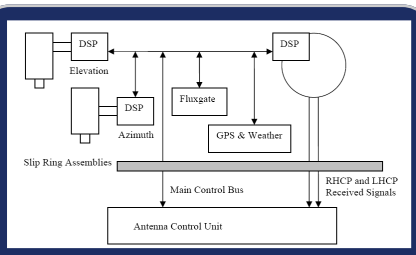
VT-020™ Autotracking Antenna

The VT-020 is a dual axis 2.0m parabolic reflector autotracking antenna, it is self contained and is simple to setup and operate. The VT-020 has a dual polarization head that can receive signals with gains of L band 28dB, S band 30dB, C band 36dB and track using a digital rotary scan autotracking technique with continuous rotation in both azimuth and elevation via slip ring assemblies with dual channel rotary joints.



VT-020 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
- Optional on bore site video camera
- Bus based internal communication
- Ethernet remote control and monitoring
- No special ACU hardware needed
- Fully integrated auto-calibration system
- Simultaneous receive and optional transmit
- Optional acquisition aid antenna
- Light weight carbon fiber, composite and corrosion resistant construction throughout
- Greatly reduced cabling
- Less weight and better portability
- Windows 7, thru 11 Based ACU Software

For more details contact your local agent or contact JDA Systems directly:
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Tel: +49-4928-91560 Fax: +49-4928-915620
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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-020 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	1435.5-1540.5 & 2185.0-2485.0 & 5090.0-5250.0 MHz
G/T (Approx)	10.0 at S-Band
Polarization	Simultaneous dual polarization reception
Main Antenna Gain (Minimum)	28.0 dBi @ 1435 MHz
	30.0 dBi @ 2350 MHz
	36.0 dBi @ 5200 MHz
Sidelobes (Approx)	-20 dB Under Main Beam
Beam Width 3db	5.5° @ L-Band
	3.6°@ S-Band
	2.1 @ C-Band
Acquisition Angle (Maximum)	±5.1° @ L-Band
	±3.8°@ S-Band
	±2.0°@ C-Band
VSWR (Maximum in band)	2:1
Velocity	Up to 32°/sec Azimuth & 32°/sec Elevation
	(Higher speeds avaiable with optional gearboxes)
Acceleration	Up to 110°/sec^2
Azimuth Travel	Continuous Unlimited
Elevation Travel	Continuous Unlimited
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)	410 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
Optional Acquisition Aid	Dual channel L&S band monopulse, 15dBi, ±11° BW in S-Band
Optional Safety	Ion Shedding Lightning Protection
Optional Weather Station	Two Axis Ultrasonic ±0.1°

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