Designed for the latest high capacity Ka-band satellites, the 2.4 meter antenna system delivers high-speed broadband connectivity for residential, commercial and government services.

Viasat 2.4 meter Ka-band antenna is ideally suited for high performance MEO or inclined orbit Ka-band applications. With decades of experience going into the design, its performance, reliability and maintainability are unmatched.

The shaped offset antenna with precision reflector surfaces provides superior gain and sidelobe performance at Ka-band frequencies. The composite antenna panels provide a rigid structure that maintains its shape in extreme thermal environments, including deice operation.

The heavy duty boom arm includes mounting provisions for LNAs, LNBs, and BUCs of up to 250W.

The rugged mount delivers pointing accuracy in adverse wind conditions. Both axes utilize robust slewing drives for years of reliable service in severe environments. Optical encoders in both axes provide precision position feedback.

Viasat’s proven antenna control system offers DC servo performance with adaptive step tracking for unparalleled tracking performance. For quick access and service, the control system is conveniently located on the pedestal.

Viasat’s Antenna Control System features auto alignment capabilities which greatly simplify installation. Initial antenna pointing alignment errors are automatically detected and corrected by the system.

**2.4 METER AT-A-GLANCE**
- Antenna patterns compliant with FCC, ITU, ANATEL and Eutelsat regulations
- High efficiency shaped offset optics
- Composite reflector construction
- 2-port and 4-port circularly and linearly polarized feeds available
- Precision structural steel mount
- Easily accessible rear mounting frame for electronics packages
- CE compliant
- Damage resistant feed window

**Options**
- Electric de-icing
- HPA/LNA/converter mounting
- Alternate frequency bands
- Installation and maintenance services
SPECIFICATIONS

ELECTRICAL
- Operating Frequency  (GHz)
  - Receive: 17.6 to 19.3
  - Transmit: 27.6 to 29.1

- Gain
  - Receive: \(51.1 + 20 \log(F/19.2)\) dBi  
    (Ref to Feed Rx port output)
  - Transmit: \(54.4 + 15 \log(F/29.0)\) dBi  
    (Ref to Feed Tx port input)

- G/T (20° EL, clear sky)  
  \(26.8 + 20 \log(F/19.2)\) dB/K  
  (over listed bands, including LNB with 10 dB RL)

- Bandwidth (3 dB)
  - Receive: \(0.41^\circ\) nominal
  - Transmit: \(0.27^\circ\) nominal

- Feed System
  - 2-port TX/RX circular polarization (co-pol)
  - WR28 TX ports/WR42 RX ports
  - 80 dB TX/RX isolation

- TX and RX VSWR  
  1.29:1

- Polarization
  - Sense: Manually selectable RHCP / LHPC
  - Axial Ratio: 1.11:1 (1.0 dB)

- Pattern Envelope
  Compliant to ITU 580, FCC 25.209, Anatel RES

- Tracking Accuracy
  Steptack over Program Track
  0.086° RMS BRE, winds 35 mph gusting to 45 mph

- Power
  48V DC, 500W

MECHANICAL
- Optics  
  Offset

- Reflector
  - Diameter: 7.9 ft; 2.4 m
  - Panels: 2

- Mount Type
  Elevation over Azimuth with fixed wedge

- Axis Drives
  - Elevation: Slewing Drive, 0.8 °/sec
  - Azimuth: Slewing Drive, 0.8 °/sec

- Axis Travel
  - Elevation: 8° to 90°
  - Azimuth: ±90°, continuous

- Servo
  - Brushless DC Motors (AZ and EL fine)
  - Optical Encoders
  - SG14 Orbit Determined Program Track
  - Step Track over Program Track Augmentation
  - Initial pointing alignment within ±5 degrees is automatically corrected

ENVIRONMENTAL
- Temperature
  - Operational: –40° to +50°

- Wind
  - Operational: 45 mph (72 km/h) gusting to 60 mph (97 km/h)
  - Survival: 125 mph (200 km/h), stowed

- Atmospheric Conditions
  Salt, pollutants, and corrosive contaminants as conditions found in coastal and industrial areas

- Deicing (Optional)
  Resistive heaters with automatic control

ORDERING INFORMATION
- Model  
  VA-24-KA

Notes
1 Other frequency bands within 17.7 to 21.2 GHz and 27.0 to 31.0 GHz bands available
2 Other feed configurations available