

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

2.4 Meter Ka-band Antenna

SPECIFICATIONS

ELECTRICAL

Operating Frequency¹ (GHz)	
» Receive	17.6 to 19.3
» Transmit	27.6 to 29.1
Gain	
» Receive	51.1+20Log(F/19.2) dBi (Ref to Feed Rx port output)
» Transmit	54.4+15Log(F/29.0) dBi (Ref to Feed Tx port input)
G/T (20° EL, clear sky)	26.8+20Log(F/19.2) dB/K (over listed bands, including LNB with 10 dB RL)
Bandwidth (3 dB)	
» Receive	0.41° nominal
» Transmit	0.27° nominal
Feed System²	
» 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
Polarization²	
» Sense	Manually selectable RHCP / LHCP
» Axial Ratio	1.11:1 (1.0 dB)
Pattern Envelope	Compliant to ITU 580, FCC 25.209, Anatel RES
Tracking Accuracy	Steptrack 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	
» Digital Servo Control	
» SGP4 Orbit Determined Program Track	
» Step Track over Program Track Augmentation	
» Initial pointing alignment within ±5 degrees is automatically corrected	

ENVIRONMENTAL

Temperature	-40° to +50° (Operational)
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



CONTACT

6155 El Camino Real, Carlsbad, CA 92009-1699, USA

SALES

TEL +1 888 842 7281 (US Toll Free) EMAIL insidesales@viasat.com

