

AvL TECHNOLOGIES

MODEL 1280KVH Ka-Band 1.2M MOTORIZED ANTENNA SYSTEM

Reflector	1.2 Meter Composite
Feed	Customer-Furnished Feed/TRIA Assembly
Optics	Offset, Prime Focus, 0.8 f/D
Motorized Drive System	AvL Cable Drive
Mount Geometry	Elevation over Azimuth
Polarization	LH/RH Switchable via Remote Interface



Mechanical

Travel

Azimuth	400° (± 200°)
Elevation	
Mechanical	0° to 90°+ of Reflector Boresight (may be limited by BUC integration and/or cowling)
Electrical	Standard Limits at 5° to 65° (CE Approval) or 0° to 90°
Polarization	LH/RH Switchable via Remote Interface

Speed

Slewing/Deploying (Nominal)	
TracStar Controller	2°/second Typical
AvL AAQ Controller	8°/second Typical
Peaking	0.2°/second

Motors

24 VDC Variable Speed, Constant Torque

RF Interface

RF Equipment Mounting Customer-Furnished Feed/TRIA Assembly with Integral Radio & LNB Mounted on Feed Boom

Rx/Tx Coax 2x RG59 run from feed to base plus 25 ft. (8 m)

Electrical Interface

25 ft. (8 m) Cable with Connectors for Controller

Manual Drive

Handcrank on Az and El Axes, Hand Knob for Pol Motor

Weight (Approximate)

120 lbs. (approximately)

Stowed Dimensions

74 L x 49 W x 13.5 H inches (188 L x 125 W x 34 H cm)

Environmental

Wind

Survival	
Deployed	75 mph (121 kmph)
Stowed	100 mph (161 kmph)
Operational	30 mph (72 kmph), Gusts to 45 mph (97 kmph)

Pointing Loss in Wind (Rx)

20 mph	0.5 dB, 0.15 degrees typical
30 gusting to 45 mph	2.0 dB, 0.30 degrees typical

Temperature

Operational	+5° to 125° F (-15° to 52° C)
Survival	-40° to 140° F (-40° to 60° C)

Electrical/RF

	<u>Receive</u>	<u>Transmit</u>
Frequency Range	19.7 – 20.2 GHz	29.5 – 30 GHz
Gain (Midband)	46.0 dBi (TBR)	49.3 dBi (TBR)
Radiation Pattern Compliance	Meets FCC §25.209, ITU-R S.528.5	
Antenna Noise Temperature	50° K at 20° elevation	
Polarization	Circular/Orthogonal, Remotely Switchable	
Cross Pol Isolation (dB)	TBD	

Controller

Unit Description	Model 1280KVH-AAQ: AvL AAQ2000 Embedded Antenna Controller with “Distributed Processing Architecture” - includes Power Supply, GUI Toolkit and Ethernet Interface for Windows-based (customer-furnished) PC Model 1280KVH-TSE: TracStar Embedded Antenna Controller – includes Power Supply, “Live Remote Interface” (LRI) GUI Toolkit and Ethernet Interface for Windows-based (customer-furnished) PC
Automatic Operation	Drive to calculated position based on auto GPS and Flux-Gate Compass data and satellite peaking with Customer-furnished modem feedback
Input Power	110/240 VAC, 1 ph, 50/60 Hz, 6/3A peak, 1A continuous