
AVL TECHNOLOGIES

MODEL 1278K-09 MOBILE VSAT 1.2M MOTORIZED VEHICULAR MOUNT

Reflector	1.2 Meter Compression Molded
Optics	Offset, Prime Focus
Motorized Drive System	Patented Roto-Lok® Cable Drive
Mount Geometry	Elevation over Azimuth
Polarization	Rotation of Feed Motorized Worm Gear Drive



Mechanical

Travel

Azimuth	400° (± 200°)
Elevation	
Mechanical	0° to 90° of reflector boresight*
Electrical	Standard limits at 5° to 65° (CE Approval) or 0° to 90°
Polarization	± 95°

Speed

Slewing/Deploying	2°/second typical
Peaking	0.2°/second

Motors

24V variable speed, constant torque

RF Interface

BUC Mounting	Feed boom, 25 lbs. max. weight
Waveguide	Flex waveguide from feed with O-ring groove
Coax	Two Type F connectors at antenna base

Electrical Interface

One 32 ft. cable with connectors to controller

Manual Drive

Handcrank for az and el axes, hand knob on pol

Weight

155 to 185 lbs. (70.5 to 84 kg) depending on options

Stowed Dimensions

74 L x 49 W x 19.6 H inches (188 L x 124 W x 49.8 H cm)

Time to Acquisition

Less than 15 minutes, 8 minutes typical

Mounting

Pallet for vehicle roof mounting

Environmental

Wind

Survival	
Deployed	65 mph (40 kph)
Stowed	80 mph (50 kph)
Operational	45 mph (28 kph)

Pointing Loss in Wind

20 mph	0.5 dB typical
30 mph gusting to 45 mph	1.0 dB typical

Temperature

Operational	-25° to 125° F (-32° to 52° C)
Survival	-40° to 140° F (-40° to 60° C)

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Electrical

	<u>Receive</u>	<u>Transmit</u>
Frequency Range (GHz)	10.95 – 12.75	13.75-14.50
Gain (Midband) (dBi)	41.6	43.1
VSWR	1.30:1	1.30:1
Beamwidth (Degrees)		
-3 dB	1.5	1.2
-10 dB	2.7	2.2
Radiation Pattern Compliance	FCC § 25.209, ITU-R S.580-6	
Antenna Noise Temperature	54° K at 20° elevation	
Polarization	Linear orthogonal standard, optional co-pol	
Allowable Power	-14 dBw/4 kHz per FCC, -0 dBw/4 kHz per ITU	
Cross Pol Isolation (dB)		
On Axis (minimum)	35	35
Off Axis (within 1 dB BW)	27	28
Feed Port Isolation – TX to RX	35	80
Output Flange Interface	WR75 Flat flange	

Controller

Standard Controller	One button auto-acquisition of selected satellites, including peaking and optimization of cross pol. Internal movement detector and automatic stow. Includes a hand-held control and separate power supply. Certified for auto-commissioning on most satellite services.
Size	10 x 9 x 2.5 inch power supply
Input Power	100 – 240 VAC 50/60 Hz 4 A peak, 190 W Antenna running with max load

Options

BUC/HPA mounting*

Cowling*

*Minimum Elevation may be restricted by these options

Thule roof bar mounting kit

Reflector Rear Cover

Flexible waveguide

Controller

World wide Software Upgrade

1RU power supply

Additional cable lengths