

# 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 (105 kph)
Stowed	80 mph (129 kph)
Operational	45 mph (72 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