OPENSAT

Vehicle Mount auto pointing Antenna

Easy high definition for less than

20 000 €

The **DriveSat™ AP850** is a transportable system especially designed for multimedia applications via satellite. In particular, this station is compatible with **KA SAT** services**..**

The **DriveSat™ AP850** has the following characteristics :

- 3 axis motorized 85cm offset antenna (elevation, azimuth et polarization)
- Dual polarization reception and transmission in Ka Band
- Automatic pointing of the antenna towards the Ka Sat satellites
- GPS device included for the alignment of the antenna
- Antenna controller for the alignment, the deployment and stowing functions
- Creates mobile DSL/T1 line for 2-way, real-time transmission of video, voice, IP and data via satellite
- Maximum Uplink wattage of 4 watts, targeted especially for video conferencing, tele-medicine, business to business, and emergency communications
- Motorized antenna equipped with controller to automatically find satellite
- Lightweight design and platform can be adapted to mount on almost any vehicle, as small as an SUV or minivan
- Cost-effective, priced to be an affordable alternative to T1 installation
- Roto-Lock drive system
- Auto-stow allows transport on vehicle - no need to pack and unpack

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Technical specifications AP850

1. Reflector/Feed System (SMC type 90 x 80cm)

Mount Geometry	Elevation over Azimuth
Polarization Axis	Rotation of Reflector/Feed System about bore sight
Travel	
Azimuth	400° or ± 200° from stow position
Elevation - Operational	0-65 or 0-90° of reflector bore sight
Total	0-150°
Polarization	±55° or ±95°
Speed	
Slewing/Deploying	10°/second in azimuth, 5°/sec. in elevation, 5°/in polarization
Peaking	0.2°/second
Motors	24V DC Variable Speed with optical
Electrical Interface	
RF	Tx and Rx Type F connectors at base of antenna
Controller	15 ft. Cable with connectors for controller to remote box
Weight	36 kgs. with standard RF electronics

2. Environment

Wind		
Survival		
	Deployed	80 mph
	Stowed	140 mph
Operational – Tracking		60 mph at 16°C
Bore sight Backlash		
Az degrees		0.01 dB
El degrees		0.05 dB
Pol degrees		0.05 dB
Beam Deflection - Transmit		
20 mph		0.2 dB
30 gusting to 45 mph		0.5 dB
Temperature		
Operational		-30°C to 50°C
Survival		-50°C to 50°C

3. Electrical RF	Receive	Transmit
Frequency	19.7 to 20.2 GHz	29.5 to 30 GHz
Gain (Midband)	42.5 dBi	45.8 dBi
Beam width in Orbital Arc (degrees)		
-3 dB	1.2	1.0
First Side lobe Level (± 2 dB)	-23 dB	-23 dB
Radiation Pattern		
Copular		
1,8° to 7°	29-25 Log ( )	29-25 Log( ) dBi
7° to 9,2°	8 dBi	8 dBi
9,2° to 48°	32-25 Log ( )	32-25 Log( ) dBi
> 48°	-10 dBi	-10 dBi
Antenna Noise Temperature		
30° Elevation Angle	47°K	
Polarization	Circular	Circular
Maximum Power Transmission	8 Watts	
Cross-Pol Isolation		
On-Axis	20 dB(contour – 10dB)	

4. Controller

Type	Automatic satellite acquisition with GPS, compass, level sensors, pre-loaded library of satellite positions
Manual Mode Input	Menu-driven by front panel buttons
Automatic Mode Input	Automatically locates, peaks-up, and minimizes cross-pol
Display	Two lines 9.5mm high, 16 characters per line
Size	Two rack units high or two units 15.24cm x15.24cm x 8.9cm
Input Power	220V AC, 1ph, 50Hz, 7 amps peak

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