

OPENSAT

DriveSat™ AP 770Ka

Easy high definition for less than

17 000 €



The Drivesat™ AP 770Ka is a fully motorized off set Antenna with a 77 cm reflector and prime focus feed-horn system housed in a POD (Shell) for protection against weather influences and to improve vehicle performance.

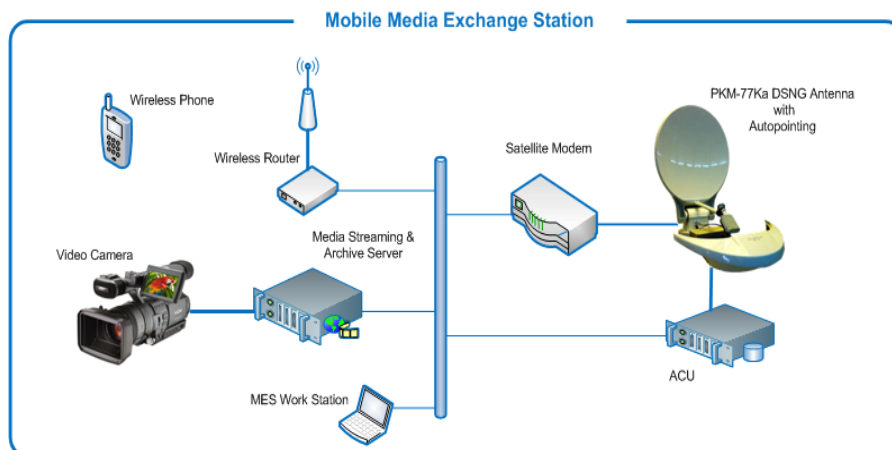
The 770Ka Antenna System was especially developed for Ka Band satellite video contribution and IP data communication operation. The lightweight and compact construction makes it possible the installation on any kind of vehicle, even smaller one.

Typical applications are Video/Media Exchange Over Satellite (DSNG), Disaster Relief Emergency Communications, Corporate Networks, Military satellite communications and many others.

Following figure shows a typical setup for a

Video / Media Exchange Over Satellite application. The systems comes with PAC-350 ACU as standard, which can fully control the system locally or remotely through a very user friendly Windows based Media Exchange System (MES) control software (option). The auto pointing features with the “One Touch” operation capability makes it easy the daily operation in any condition and environment.

The perfectly shaped POD (Outer Shell Casing) improves Aerodynamic vehicle driving to quickly and safely reach the Event location, while it also provides weather protection for the Outdoor Electronic Equipment such as BUC and Transceiver.



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Key Features

- Quick deploy and fast auto pointing to the satellite
- Ka-Band operation
- 2- axis motorized pedestal with built-in manual drive gear system in case of emergency use.
- Lightweight Aerodynamic POD design to improve vehicle driving performance,
- Outdoor housing for the outdoor electronics such as HPA, ACU,
- Vehicle battery motor control through ACU in case of electricity problem,
- Windows based Media Exchange System (MES) control software for easy daily operation (option)

Technical Specifications

Model	Drivesat™ AP 770Ka	
Antenna Type	Offset, prime focus	
Size	77 x 72 cm	
Antenna Material	Aluminum	
Polarization	Circular	
Cross Polar Isolation	On Axis	24.80 dB
	Within 1.0 dB Beam width	24.80 dB
Antenna Noise Temperature	105°K@20° elevation	
Total RF Power	Up to 50W	
Radiation Pattern	100 lambda/D < $\theta \leq 20^\circ$	29 - 25 Log θ dBi
	20° < $\theta \leq 26.3^\circ$	-3.5 dBi
	26.3° < $\theta \leq 48^\circ$	32 - 25 Log θ dBi
	$\theta > 48^\circ$	-10 dBi (averaged)

Performance

Frequency Band	28.1 to 30.0 GHz
Transmit Gain	45.8dBi @29.75GHz.
VSWR	1.3:1
DSNG EIRP	48.4 dBW with 3W BUC

Transmit

Receive

18.3 to 20.2 GHz
42.5dBi@20GHz
G/T 17.5dBK@20GHz

Mechanical Characteristics

Antenna Position	Full 3-axis motor control with manual override mechanism.
Azimuth adjust.	$\pm 180^\circ$
Elevation adjust.	$10^\circ - 80^\circ$
Speed of rotation	AZ/EL/POL slow 0.3°/sec, mid 1°/sec, high 1.7°/sec
Weight	45 kg without POD (Shell) and 55 kg with POD (Shell)

Antenna Control (with PAC-350 Antenna Control System)

Deploy and stow	Automatic, one touch command through AC Unit.
Acquisition & Auto pointing	Automatic with optional antenna positioning kit (Fluxgate Compass, GPS receiver, Auto pointing SW)
Antenna Sensors	True elevation and azimuth with high precision (16 bit) size-11 type resolvers.

Environmental Specifications

Ambiance temperature	Operational: -30°C to +60°C
Operational wind speed	Up to 50 km/h