



The SWE DISH® DA150K Drive-Away is a unique concept for vehicle mount antenna systems. During transportation, you see an elegant looking car-box on top of a SUV or a van. At site, the antenna deploys gracefully, and automatically points towards the selected satellite. Within 10 minutes you are on air, transmitting your DSNG contribution back to base. The DA150K system is your choice for Ku-band high data rate and high power DSNG applications, from anywhere. Lower data rate/power applications are also common, e.g. military satellite communication from remote sites.

HIGH PERFORMING ANTENNA

The high performing elliptical 1.5 m Gregorian offset antenna is of course the heart of the DA150K - the dual optics and accurate carbon fiber reflector surfaces provide exceptional low side lobes and good cross-polar performance. The antenna mount is a large diameter turn able, totally backlash free in both elevation and azimuth.

STRAIGHT FORWARD INTEGRATION

The roof top integration capabilities are unsurpassed. You can have anything from a 16W transceiver, 2 x 50W SSPA, to the really high power configuration - two phase combined 400W TWTA's plus integrated AirCon

unit - beaming up to 69 dBW EIRP towards the bird. Fitting to the roof is easy thanks to a supporting frame that distribute the load.

EASE OF USE

Operation is extremely easy if the GPS/compass option is fitted - get to the site, jacks down, press "Deploy" on the full featured SWE-DISH ACU3000 keyboard, select "Satellite" and press "Locate". Lean back and watch the antenna peak up on the selected satellite - maybe via the pod-mounted video camera/spotlight. The proven Easy Control & Monitoring (ECM) unit helps the not-so-well-trained operator to configure and set up the system - followed by step-by-step support during line up towards the satellite.

RUGGED DESIGN

The pod encapsulates the antenna, antenna mechanics, feed arm and RF components, to reduce wear and tear from brushes or dust during transportation. At the same time all parts are easily accessible for repair. Extra care has been taken to make all mechanics resistant to sand, dust, and grit. The DA150K is a high performing, easy to use, rugged satellite system. It is in use with broadcasters the world over, and has also successfully performed in combat operations.

KEY FEATURES

- Low drag and non conspicuous - low profile
- No dedicated vehicle needed - no cable feed through roof needed and self-contained pod
- Rugged - all equipment is totally encapsulated during transportation
- Low weight – ideal for all vehicle types; carboncomposite construction optimizes weight budget
- Wide choice of configurations – automatic alignment with GPS, step tracking, single thread, redundant, phase combined, integrated aircon system
- High EIRP operation - exceptional antenna performance
- FCC compliant, Intelsat/ Eutelsat compliant, station approvals

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SPECIFICATIONS: SWE-DISH® DA150K DRIVE-AWAY

ANTENNA PERFORMANCE

Antenna model SWE-DISH 150K EDD
 Antenna concept Gregorian type dual optics antenna. Elliptical main reflector in carbon fiber with size 1.5x1.35m (59.1x53.1 in) folding feed arm and sub reflector
 Side lobe performance 29-25 Log θ dBi
 Polarization Linear orthogonal, <1° accuracy
 Polarization performance XPD >35 dB

TRANSMIT PERFORMANCE

Transmit frequency 13.75 to 14.50 GHZ
 Transmit gain at mid-band 45.0 dBi

RECEIVE PERFORMANCE

Receive frequency 10.70 to 12.75 GHZ
 Receive gain 43.2 dBi
 G/T 23 dB/K at 20° elevation and 20°C (68°F), clear sky

EIRP CAPABILITY

DSNG EIRP capability 69 dBW with 400W TWTA

ANTENNA CONTROL UNIT ACU3000 CAPABILITIES

Lowest level of operation Automatic stow and deploy movements
 Two speed manual jog in azimuth, elevation and polarization with position readouts
 Next level of operation Select preset locations (Lat/Long), enter vehicle heading, select "Locate" for automatic antenna pointing - without GPS or fluxgate compass
 Fluxgate compass Select preset locations (Lat/Long), vehicle heading is given by fluxgate compass option
 Normal level of operation GPS and fluxgate compass options are included, allowing automatic antenna pointing towards selected satellite
 Advanced operation Step tracking of inclined orbit satellites (military X-band satellites)
 Tracking mode: Intelli-Search™, Step Track and Program Track
 Tracking accuracy: 0.1-3.0 dB, selectable

GENERAL CHARACTERISTICS - ANTENNA TRAVEL RANGE

Azimuth range +/- 180°
 Azimuth drive Worm-gear driven turn able
 Resolution: 0.05°
 Fast mode: 2.0°/s
 Slow mode: 0.3°
 Elevation range 13° to 80°

Elevation drive Harmonic drive gear
 Resolution: 0.05°
 Fast mode: 2.0°/s
 Slow mode: 0.3°/s
 Deployment and stow Automatic, by command from Antenna Control Unit ACU3000
 Antenna sensors True Elevation Inclinator in elevation, multi-turn sensor in azimuth. Antenna position displayed on ACU

ENVIRONMENTAL SPECIFICATION

Ambient temperature Operational: -20°C to +55°C (-4°F to +131°F)
 Storage: -30°C to +70°C (-22°F to +158°F)
 Solar Radiation Operational up to 1,200 W/m2
 Wind speed Operational up to 15 m/s (33 mph)
 Survival stowed up to 150 km/h (93 mph)
 Rainfall Maximum 100 mm/h (4 in/h), excluding link budget effects
 Operating humidity Up to 100% condensing
 Sealing All parts/units are sealed to IP65
 Altitude Operational: up to 3,000 m (9,850 ft)
 Survival: up to 10,000 m (32,800 ft)



MECHANICAL

Finish, paint system Pod in glass-fiber reinforced polyester
 Interface to vehicle The DA150K sub-frame can be permanently or temporarily attached to standard vehicle roof rails or directly to vehicle roof
 Weight 140 kg (309 lbs)
 Dimensions 231.2x153.5x45.1 cm (91.0x60.4x17.8 in)

APPROVALS

Eutelsat/Intelsat compliant, station approvals
 FCC compliant

Specifications are subject to change without notice