

## SWE-DISH® DA150K MIL DRIVE-AWAY



The SWE-DISH DA150K Mil Drive-Away system is a combat proven, vehicle mounted, encapsulated antenna system, suitable for rough and quick to air situations. It is designed for military and government applications, and can serve as a highly mobile command post, a hub for theatre broadcast or be mounted on an incident response vehicle.

The antenna deploys automatically, and is set up for transmission from inside the vehicle. The DA150K Mil system is capable of both high and low power Ku-band transmission of data, voice and video. Auto pointing, and automatic satellite acquisition using a GPS and an electronic compass provides for easy operation.

### **STRAIGHT FORWARD INTEGRATION**

The roof pod equipment integration capability are unsurpassed - anything from a 16W transceiver to a high power configuration with phase combined 400W TWTA's plus an integrated Aircon, beaming up to 72 dBW EIRP.

Integration is easy with only one set of cables needed from the outside pod to the inside electronic rack. Noise and heat inside the vehicle is reduced by housing power amplifiers and RF equipment inside the pod. A low profile when stowed makes the antenna less conspicuous and reduces drag during transport.

### **HIGH PERFORMANCE ANTENNA**

The high performing elliptical 1.5 m (59 in) Gregorian

offset antenna is the heart of the DA150K Mil. The dual optics and accurate carbon composite reflector surface give exceptionally low side lobes and good cross-polar performance. The antenna mount is on a large diameter turntable, making it backlash free in both elevation and azimuth.

### **EASE OF USE**

Auto pointing makes the DA150K Mil easy to operate and quick to air in the field. Inbuilt GPS, electronic compass and inclinometer, together with the Easy Control & Monitoring (ECM025) unit, allow the antenna to automatically acquire a selected satellite. If the same satellite and polarization is used, operation is reduced to pressing two buttons - Deploy and Stow - the rest is automatic. The operator needs a minimum of training to operate the system.

### **RUGGED SOLUTION**


The combat proven DA150K Mil is designed, manufactured and tested for compliance with military specifications. The pod encapsulates the antenna, antenna mechanism including 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 Mil has successfully performed in combat operations.

# KEY FEATURES

- Combat proven
- Rapid deployment in and out of action
- Easy and cost effective integration
- High EIRP and G/T thanks to antenna design
- Encapsulated and rugged design
- FCC, Intelsat/Eutelsat, ETSI/CTR 030 approved, CE-marked with military EMC requirements

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# SPECIFICATIONS: SWE-DISH® DA150K MIL DRIVE-AWAY

GENERAL		KU-BAND ANTENNA PERFORMANCE			
Azimuth range	±183°	Antenna model	SWE-DISH 150K EDD		
Azimuth drive	Worm-gear driven turnable Resolution: 0.05° Fast mode: 2.0°/s Slow mode: 0.2°/s	Sidelobe performance	29-25 Log θ dBi		
Elevation range	12° to 80° elevation (for azimuth ±90°), 13° to 60° (for azimuth ±90-183°)	Polarization	Linear < 1° accuracy		
Elevation drive	Harmonic driven gear Resolution: 0.05° Fast mode: 2.0°/s Slow mode: 0.2°/s	Polarization performance	XPD >35 dB within 1dB cone		
Deployment and stow	Automatic, by command from Antenna Control Unit SWE-ACU3000	Transmit frequency	13.750 to 14.500 GHz		
Antenna sensors	True elevation inclinometer in elevation, multi-turn sensor in azimuth. Antenna position displayed on ACU	Transmit gain at mid-band	45.0 dBi		
Ambient temperature	Operational -20°C to +55°C (-4°F to +131°F) Storage -30°C to +70°C (-22°F to +158°F)	Receive frequency	10.700 to 12.750 GHz		
Solar radiation	Operational up to 1,200W/m <sup>2</sup>	Receive gain at mid-band	43.2 dBi		
Wind speed	Operational up to 20m/s (44mph) Survival stowed 200km/h (124 mph)	G/T	23 dB/K at 20° elevation and 20°C (68°F), clear sky		
Operational humidity	Up to 100% condensing	EIRP capability	63 dBW with 100W SSPA		
Rainfall	Maximum 125 mm/h (5 in/h), excluding link budget effects	<b>ANTENNA OPTIONS</b> Antenna & pod-floor de-icing			
Sealing	All part/units are sealed to IP65				
Altitude	Operational up to 3,000m (9,850 ft) Survival up to 10,000m (32,800 ft)				
Finish, paint system	Pod in glass-fiber reinforced polyester. All visual parts on pod may optionally be painted NATO green. Paint system is compliant with STANAG 2338				
Interface to vehicle	Roof bars under the antenna can be permanently or temporarily attached to standard vehicle roof rails or directly to vehicle roof				
Weight	190 kg (420 lbs) for heavy-duty version with de-icing, power amplifier and other customer equipment. Lower weight versions are optional				
Dimensions	231.2x153.5x45.1 cm (91.0x60.4x17.8 in)				
Antenna concept	Gregorian type dual optics antenna. Elliptical main reflector in carbon fiber with size 1.5x1.35 m (59.1 x 53.1 in), folding feed arm and subreflector.				
Approvals	Eutelsat/Intelsat compliant, station approval. FCC.				
Specifications are subject to change without notice, and this datasheet will not form part of any contract.					