



The Lite version of the combat proven SWE-DISH FA150K Mil Fly-Away is designed to meet the IATA weight concept. The IATA compatible FA150K Mil Lite originates from the successful FA150T Mil Fly-Away, where the cage and skid plate have been removed to decrease the overall weight. The sturdy construction makes it suitable for fast moving field groups, with high requirements on quick and easy deployment. The flight cases are strong and rugged to meet the rough handling during transport. The FA150K has dual-band as option (Ku and X) for increased flexibility.

#### **LIGHTWEIGHT**

The lightweight antenna system is optimized for quick departure and to be airline checkable. Each case weighs less than 32 kg (70.5 lbs). During transportation the antenna is fitted into rugged transport cases, with handles for easy transportation at airports or lifting short distances.

#### **STABLE CONSTRUCTION**

Deployment and assembly of the antenna requires no tools, and can be done "gloves on" under severe environmental conditions. The FA150K Mil Lite is

quickly deployed in the field, and a satellite can be acquired in less than 10 min. Packing is equally fast. The integrated True Elevationmeter, and a battery-operated Satellite Analyzer, make antenna pointing fast, easy and accurate. Excellent wind stability is achieved by the low antenna placement, and the stainless-steel front legs and rear support. The back support doubles as a holder for an HPA flight case or the SWE-DISH IPT Mil Suitcase, which may be interconnected to the FA150K with increased link margins and greater flexibility as key advantages.

#### **HIGH PERFORMING ANTENNA**

The antenna is a high performing elliptical 1.5 m (59 in) Gregorian offset antenna. The reflector is made from carbon fiber, and is divided into four piece segments for easy stowing and to keep weight down. The dual optics Gregorian antenna concept allows for a small antenna size, combined with the exceptionally good efficiency, low side lobes, good cross polarization and axial ratio performance. The FA150K Mil is a tried and true earth terminal design. It is in use worldwide, often under the most demanding conditions.

# KEY FEATURES

- Quick deployment - No tools required
- Dual-band option - Ku- and X-band
- Combat proven - Rugged and durable construction designed to meet military specifications
- Airline checkable - Designed for IATA weight concept
- High performing antenna - Gregorian offset and carbon fiber
- Mobility - designed for easy and quick transportation
- Flexibility - Optionally use IPT Mil Suitcase as a light, compact and fully integrated HPA and base-band package

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# SPECIFICATIONS: SWE-DISH® FA150K MIL LITE

## ANTENNA PERFORMANCE

Antenna model SWE-DISH 150K EDF  
 Antenna concept Gregorian type dual optics. Elliptical 4-piece main reflector in carbon fiber with size 1.5x1.35 m (59.1x53.1 in), folding feed arm and sub reflector  
 Side lobe performance 29-25 Log  $\theta$  dBi  
 Polarization Linear orthogonal, < 1° accuracy  
 Polarization performance XPD > 35 dB

## TRANSMIT PERFORMANCE

Transmit frequency 13.75 - 14.5 GHz  
 Transmit gain at mid-band 45.0 dBi

## RECEIVE PERFORMANCE

Receive frequency 10.7 - 12.75 GHz  
 Receive gain at mid-band 43.2 dBi  
 G/T 23 dB/K at 20° elevation and 20°C (68°F), clear sky

## HPA/EIRP CAPABILITY

Typical HPA rating 200W to 400W TWTA  
 EIRP capability 66 dBW to 69 dBW

## ANTENNA TRAVEL RANGE

Azimuth range Manual coarse:  $\pm 360^\circ$   
 Turnbuckles mounted:  $\pm 25^\circ$  coarse,  $\pm 10^\circ$  fine  
 Elevation range 0-90°

## PLATFORM LEVELING

Pitch and roll Built in compensation for pitch and roll by using platform independent reference to true vertical/horizontal

## ENVIRONMENTAL PERFORMANCE

Ambient temperature Operational: -30°C to +55°C (-22°F to +131°F)  
 Storage: -40°C to +70°C (-40°F to +158°F)  
 Solar radiation Operational up to 1,200 W/m<sup>2</sup>  
 Wind speed Operational up to 20m/s (44 mph), windstays mounted  
 Operating humidity Up to 100% condensing  
 Rainfall Maximum 100 mm/h (4 in/h), excluding link budget effects  
 Sealing All flight cases are sealed to IP65 during transport and storage  
 Altitude Operational: Up to 3,000 m (9,850 ft)  
 Survival: Up to 10,000 m (32,800 ft)

Material/construction Carbon fiber antenna components, stainless steel antenna platform/cage, miscellaneous aluminum parts (anodized)

## ANTENNA FEATURES

- Azimuth: Coarse and precision fine adjustment
- Elevation: Generally 0° - 90° with fine adjustment
- Polarization: +/-100°, 1° accuracy, motorized
- True Elevation meter with 0.1° resolutions
- SatViewer signal analyzer for easy, precise antenna alignment incl cross polar rejection & satellite ID

## ANTENNA OPTIONS

- SatViewer for precise antenna alignment
- Military X-band operation including Step Tracking
- 3 port feed for co-polar operation
- HPA 1:1 redundancy or phase combined systems
- Super stable PLL LNA with external reference
- Detachable rear support part for installation at places with limited space (OB Van camera platform)
- The FA150K Mil Lite can be delivered as an option to the FA150K Mil Fly-Away antenna



SWE-DISH® FA150K MIL LITE

## MECHANICAL

Weight FA150K antenna with Ku-band feed chain, PLL LNAs and accessories: 56 kg (123.4 lbs)  
 Base-band case typically 27,5 kg (60.6 lbs)  
 HPA case typically 28 kg (61.7 lbs)

## APPROVALS & COMPLIANCE

- Eutelsat/Intelsat compliant, station approvals
- FCC license E980294

Specifications are subject to change without notice, and this datasheet will not form part of any contract.