

# SWE-DISH<sup>®</sup> FA150K MIL TWO-IN-ONE CONCEPT



A critical mission often evolves in unpredictable ways: changes in the duration of stay, increased bandwidth demand over time or the need for a rapid regrouping on a moments notice.

This calls for a flexible way of being able to quickly and cost efficiently adjust to changes in the environmental conditions, including the means of transportation.

The SWE-DISH Satellite Systems, TWO-IN-ONE concept, offers the user a mission configurable solution that is cost effective, and provides the tools necessary to accommodate these unpredictable changes when on a mission.

### TWO IN ONE

By combining two of the most compact and versatile SWE-DISH products, the IPT Mil Suitcase, the SATCOM market's quickest-to-air and easy-to-use system, and the FA150K Mil Lite, provides your mission the flexible communication solution you require. This at a cost less than investing in two separate systems - all packed into airline checkable transport cases (IATA). This solution offers more flexibility to your satellite communication solution.

### EASE OF USE AND DEPLOYMENT

The FA150K Mil Lite antenna is assembled and dissembled in minutes, requiring no tools. Once the FA150K antenna has been deployed, the IPT Mil Suitcase may be connected. After alignment of the FA150K Mil Lite antenna, the pointing solution is easily retrieved from the IPT Mil Suitcase and the system is up and running. The FA150K antenna provides a 5 dB better link margin than the IPT Mil Suitcase antenna, which directly translates into increased bandwidth - at just a fractional cost compared to adding a second satellite terminal to the fleet.

## **KEY FEATURES**

- Flexible and cost effective maximum operational flexibility
- Combat proven Rugged and durable • construction
- High performing antenna Gregorian offset and carbon fiber
- Airline checkable Designed for easy transportation and IATA weight concept
- Flexibility Optional use IPT Mil Suitcase as a light, compact and fully integrated HPA and baseband package
- Quick-to-air no tools required

## SPECIFICATIONS: SWE-DISH® FA150K MIL TWO-IN-ONE

Antenna modelSWE-DISH 150K EDFAntenna conceptGregorian 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 reflectorSide lobe performance29-25 Log 0 dBiPolarizationLinear orthogonal, < 1° accuracyPolarization performanceXPD >35 dB within 1dB coneTRANSMIT PERFORMANCETransmit frequency13.75 - 14.5 GHzTransmit gain, FA150K Mil 45.0 dBi at mid-bandTransmit gain, FA150K Mil 45.0 dBi at mid-bandTransmit gain, FA150K Mil 43.2 dBi at mid-bandReceive frequency10.95 - 12.75 GHz (Suitcase)Receive gain, FA150K Mil 43.2 dBi at mid-bandReceive gain, Suitcase38.4 dBi at mid-bandReceive gain, Suitcase32.3 dB/K at 20° elevation and 20°C (68°F), clear skyG/T with FA150K Mil23 dB/K at 20° elevation and 20°C (68°F), clear skyG/T with Suitcase19.3 dB/K at 20° elevation and 20°C (68°F), clear skyEIRP Capability, With Suitcase stand-aloneUp to 68.6 dBW with 325W tri-band TWTAEIRP Capability, IPT Mil Suitcase stand-aloneUp to 54 dBWSuitcase stand-aloneTurnbuckles mounted: ±25° coarse, ±10°fineElevation range0-90°PLATFORM LEVELING - FA150K MIL LITEPitch and rollBuilt in compensation for pitch and roll by using platform independent reference to true vertical/horizontalENVIRONMENTAL PERFORMANCEAmbient temperatureOperational: -30°C to +50°C (+22°F fo +122°F) Storage: -40°C to + 70°C (+40°F to +158°F)So	ANTENNA PERFORMAN	CE - FA150K MIL LITE	
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Storage: -40°C to + 70°C (-40°F to +158°F)Solar radiationOperational up to 1,200 W/m²Wind speedOperational up to 20m/s (44 mph), windstays mountedOperating humidity95% non-condensingRainfallMaximum 100 mm/h (4 in/h)	Ambient temperature	Operational: -30°C to +50°C	
Wind speedOperational up to 20m/s (44 mph), windstays mountedOperating humidity95% non-condensingRainfallMaximum 100 mm/h (4 in/h)		Storage: -40°C to + 70°C	
windstays mountedOperating humidity95% non-condensingRainfallMaximum 100 mm/h (4 in/h)	Solar radiation	Operational up to 1,200 W/m <sup>2</sup>	
Operating humidity95% non-condensingRainfallMaximum 100 mm/h (4 in/h)	Wind speed		
Rainfall Maximum 100 mm/h (4 in/h)	Operating humidity		
		·	
	Sealing	IPT Mil Suitcase sealed to IP65	

Operational: Up to 3,000 m (9,850 ft) Survival: Up to 10,000 m (32,800 ft) Carbon fiber antenna components, stainless steel antenna platform/cage, miscellaneous aluminum parts (anodized)

### **ANTENNA FEATURES - FA150K MIL LITE**

- · Azimuth: Coarse and precision fine adjustment
- Elevation: Generally  $0^\circ$   $90^\circ$  with fine adjustment
- Polarization: +/-100°, 1° accuracy, motorized
- True Elevationmeter with 0.1° resolutions

### ANTENNA OPTIONS

Material/construction

Altitude

- · Military X band operation including Step Tracking
- · 3 port feed for co-polar operation
- · HPA flight cases
- · Base-band flight cases
- · SatViewer for precise antenna alignment
- Detachable rear antenna support 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



#### MECHANICAL

Weight - FA150K Mil Lite 56 kg (123.4 lbs) Weight - IPT Mil Suitcase 39 kg (86 lbs)

#### **APPROVALS & COMPLIANCE**

FA150K MIL Lite	Eutelsat/Intelsat compliant, station approvals, FCC license E980294
IPT MIL Suitcase	FCC license E030197 Eutelsat EA-V042 Intelsat IA097AA0 EuropeStar ES-ME-39 Hispasat HIS-ET-96221-10026-SWE IPStar, ref no 05/001 AsiaSat TO8/26-10-05/001

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

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2006 VERSION 1: