



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 disassembled 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 base-band package
- Quick-to-air - no tools required

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

## ANTENNA PERFORMANCE - FA150K MIL LITE

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 within 1dB cone

## TRANSMIT PERFORMANCE

Transmit frequency	13.75 - 14.5 GHz
Transmit gain, FA150K Mil	45.0 dBi at mid-band
Transmit gain, Suitcase	38.4 dBi at mid-band

## RECEIVE PERFORMANCE

Receive frequency	10.95 - 12.75 GHz (Suitcase)
Receive gain, FA150K Mil	43.2 dBi at mid-band
Receive gain, Suitcase	38.2 dBi at mid-band
G/T with FA150K Mil	23 dB/K at 20° elevation and 20°C (68°F), clear sky
G/T with Suitcase	19.3 dB/K at 20° elevation and 20°C (68°F), clear sky

## EIRP CAPABILITY

EIRP Capability, with FA150K Mil antenna	Up to 68.6 dBW with 325W tri-band TWTA
EIRP Capability, IPT Mil Suitcase stand-alone	Up to 54 dBW

## ANTENNA TRAVEL RANGE - FA150K MIL LITE

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

## PLATFORM LEVELING - FA150K MIL LITE

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

Ambient temperature	Operational: -30°C to +50°C (-22°F to +122°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	95% non-condensing
Rainfall	Maximum 100 mm/h (4 in/h)
Sealing	IPT Mil Suitcase sealed to IP65

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 - FA150K MIL LITE

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

## ANTENNA OPTIONS

- 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.