



The SWE-DISH FA150K Lite is designed to meet the IATA weight concept. The IATA compatible Fly-Away originates from the successful FA150K Fly-Away, where the cage and skid plate have been removed to decrease the overall weight even further and to enable repacking in separate IATA flight cases. The flight cases are strong and rugged to meet the rough handling during transport.

#### **AIRLINE CHECKABLE**

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 Lite is quickly deployed, and the 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 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 is a proven true earth terminal design and is in use worldwide, often under the most demanding conditions.

# KEY FEATURES

- Quick deployment - Satellite acquisition in less than 10 minutes, no tools required
- Combat proven - Rugged and durable construction
- 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 Suitcase as a light, compact and fully integrated HPA and base-band package

FEBRUARY 2008 VERSION 1.1

# SPECIFICATIONS: SWE-DISH® FA150K LITE

<b>ANTENNA PERFORMANCE</b>		Material/construction	Carbon fiber antenna components, stainless steel antenna platform/cage, miscellaneous aluminum parts (anodized)
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	<b>ANTENNA FEATURES</b>	
Side lobe performance	29-25 Log $\theta$ dBi	<ul style="list-style-type: none"> <li>• Azimuth: Coarse and precision fine adjustment</li> <li>• Elevation: Generally 0° - 90° with fine adjustment</li> <li>• Polarization: +/-100°, 1° accuracy, motorized</li> <li>• True Elevation meter with 0.1° resolutions</li> <li>• SatViewer signal analyzer for easy, precise antenna alignment incl cross polar rejection &amp; satellite ID</li> </ul>	
Polarization	Linear orthogonal, < 1° accuracy	<b>ANTENNA OPTIONS</b>	
Polarization performance	XPD > 35 dB	<ul style="list-style-type: none"> <li>• SatViewer for precise antenna alignment</li> <li>• 3 port feed for co-polar operation</li> <li>• HPA 1:1 redundancy or phase combined systems</li> <li>• Super stable PLL LNA receive concept for low data rate applications</li> <li>• Detachable rear support part for installation at places with limited space (OB Van camera platform)</li> <li>• The FA150K Lite can be delivered as an option to the FA150K Fly-Away antenna</li> </ul>	
<b>TRANSMIT PERFORMANCE</b>			
Transmit frequency	13.75 - 14.5 GHz		
Transmit gain at mid-band	45.0 dBi		
<b>RECEIVE PERFORMANCE</b>			
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		
<b>HPA/EIRP CAPABILITY</b>			
Typical HPA rating	200W to 400W TWTA		
DSNG EIRP capability	66 dBW to 69 dBW DSNG		
<b>ANTENNA TRAVEL RANGE</b>			
Azimuth range	Manual coarse: $\pm 360^\circ$ Turnbuckles mounted: $\pm 25^\circ$ coarse, $\pm 10^\circ$ fine		
Elevation range	0-90°		
<b>PLATFORM LEVELING</b>			
Pitch and roll	Built in compensation for pitch and roll by using platform independent reference to true vertical/horizontal		
<b>ENVIRONMENTAL PERFORMANCE</b>			
Ambient temperature	Operational: -30°C to +55°C (-22°F to +131°F) Storage: -40°C to +70°C (-40°F to +158°F)	<b>SWE-DISH® FA150K LITE</b>	
Solar radiation	Operational up to 1,200 W/m <sup>2</sup>	<b>MECHANICAL</b>	
Wind speed	Operational up to 20m/s (44 mph), windstays mounted	Weight	
Operating humidity	Up to 100% condensing	FA150K antenna with Ku-band feed chain, PLL LNBs and accessories: 56 kg (123.4 lbs)	
Rainfall	Maximum 100 mm/h (4 in/h), excluding link budget effects	Base-band case typically 27,5 kg (60.6 lbs)	
Sealing	All flight cases are sealed to IP65 during transport and storage	HPA case typically 28 kg (61.7 lbs)	
Altitude	Operational: Up to 3,000 m (9,850 ft) Survival: Up to 10,000 m (32,800 ft)	<b>APPROVALS &amp; COMPLIANCE</b>	
		<ul style="list-style-type: none"> <li>• Eutelsat/Intelsat compliant, station approvals</li> <li>• FCC license E980294</li> </ul>	
Specifications are subject to change without notice, and this datasheet will not form part of any contract.			