



The combat proven SWE-DISH FA150T Mil Fly-Away system is designed from the bottom up to be a rugged, easy to transport and quick to deploy satellite earth terminal. The lightweight antenna design is optimized to keep package size down and efficiency up, without compromising strength and durability. The sturdy construction makes it suitable for fast moving field groups with high requirements on quick and easy deployment. Tri-band capability (Ku, X, and C) increases the flexibility.

SMART PACKAGING

The rugged cage has integrated wheels and can be used as a trolley, with the electronics flight cases stacked on top. The integrated skid plate is used for the same purpose on softer ground like grass, sand, mud or snow. Every transported pound is used to create a stable antenna platform, leaving no empty crates or lids lying around after deployment. The antenna sits close to the ground for increased wind stability.

QUICK DEPLOYMENT

Deployment and assembly of the antenna requires no tools, and can be done "gloves on" under severe environmental conditions. The FA150T Mil is quickly deployed in field, and the satellite can be acquired in

less than 10 min. The integrated True Elevation Meter, make the antenna pointing fast, easy and accurate. The FA150T Mil has been granted a patent for smart transformation from transportation to operation.

HIGH PERFORMING ANTENNA

The high performing elliptical 1.5 m (59 in) Gregorian offset antenna is the heart of the FA 150T Mil. It consists of a four piece segmented carbon fiber composite reflector, for easy stowing and low weight. The dual optics Gregorian antenna concept allows a small antenna size, combined with the exceptionally good efficiency, low side lobes and good cross polarization/axial ratio performance. The FA150T Mil is DISA certified for operations on DSCS X-band space segment.

BROADBAND CAPABILITY


The FA150T Mil gives tri-band satellite communication capabilities to mobile command posts, theatre broadcast or incident response. Data capability ranges from 64 kbps to 60 Mbps and allows for IP encrypted traffic. The FA150T Mil also features tracking of inclined orbit satellites, e.g. for X-band operation. The FA150T Mil is a tried and true earth terminal design. It is in use worldwide, often under the most demanding conditions.

KEY FEATURES

- Combat proven
- Smart packaging – no superfluous crates – minimum volume and weight – skid plate and wheels
- Helicopter transportable
- High performance antenna - Gregorian offset and carbon fiber
- Rugged and durable constructions designed to with military specifications, compliant with MIL-STD-810E environment
- Low profile platform for stable operation in mil-spec high wind conditions
- Quick deployment – satellite acquisition in less than 10 minutes

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SPECIFICATIONS: SWE-DISH® FA150T MIL FLY-AWAY

GENERAL		Receive gain at mid-band	43.2 dBi
Azimuth range	Manual coarse: $\pm 360^\circ$ Turnbuckles mounted: $\pm 25^\circ$ coarse, $\pm 10^\circ$ fine Actuators mounted: $\pm 10^\circ$	G/T	23 dB/K at 20° elevation and 20°C (68°F), clear sky
Elevation range	$0-90^\circ$ for X and Ku-band, $25-87^\circ$ for C-band	EIRP capability	68.6 dBW with 325W tri-band TWTA
Pitch and roll	Built in compensation for pitch and roll by using platform independent reference to true vertical/horizontal	X-BAND ANTENNA PERFORMANCE	
Ambient temperature	Operational -30°C to $+55^\circ\text{C}$ (-22°F to $+131^\circ\text{F}$) Storage -40°C to $+70^\circ\text{C}$ (-40°F to $+158^\circ\text{F}$)	Sidelobe performance	32-25 Log θ dBi
Solar radiation	Operational up to $1,100\text{W}/\text{m}^2$	Polarization	Circular polarization, RHC Tx and LHC Rx
Wind speed	Operational up to 20m/s (44mph), windstays mounted	Polarization performance	Axial ratio < 1.1 dB
Operational humidity	Up to 100% condensing	Transmit frequency	7.900 to 8.400 GHz
Rainfall	Maximum 100 mm/h (2 in/h), excluding link budget effects	Transmit gain at mid-band	39.5 dBi
Sealing	All flight cases are sealed to IP65 during transport and storage	Receive frequency	7.250 to 7.775 GHz
Altitude	Operational up to 3,000m (9,850 ft) Survival up to 10,000m (32,800 ft)	Receive gain at mid-band	39.0 dBi
Material/Construction	Carbon fiber antenna components, stainless steel antenna platform/cage, miscellaneous aluminum parts (anodized)	G/T	16.5 dB/K at 20° elevation and 20°C (68°F), clear sky
Weight	FA150T antenna: 73 kg (160.9 lbs) incl Ku-band feed chain with PLL LNBS actuators, accessories: 86 kg (189.6 lbs)	EIRP capability	65.5 dBW with 450W tri-band TWTA
Dimensions	FA150T antenna cage: 120x76x53 cm (47.0x29.9x20.9 in)	C-BAND ANTENNA PERFORMANCE	
Antenna concept	Gregorian type dual optics antenna on Ku and X bands. Prime focus offset on C band. Elliptical 4-piece main reflector in carbon fiber with size 1.5 x 1.35 m (59.1 x 53.1 in), folding feed arm and subreflector	Sidelobe performance	32-25 Log θ dBi
Approvals	Eutelsat/Intelsat compliant, station approval. FCC license (E980294) DISA certified	Polarization	Selectable circular/linear without change of feed arm
KU-BAND ANTENNA PERFORMANCE		Polarization performance	Axial ratio < 1.3 dB, XPD > 27 dB
Sidelobe performance	29-25 Log θ dBi	Transmit frequency	5.850 to 6.425 GHz
Polarization	Linear $< 1^\circ$ accuracy	Transmit gain at mid-band	36.6 dBi
Polarization performance	XPD > 35 dB within 1dB cone	Receive frequency	3.625 to 4.200 GHz
Transmit frequency	13.750 to 14.500 GHz	Receive gain at mid-band	33.3 dBi
Transmit gain at mid-band	45.0 dBi	G/T	13.1 dB/K at 20° elevation and 20°C (68°F), clear sky
Receive frequency	10.700 to 12.750 GHz		
		EIRP capability	60.6 dBW with 325W tri-band TWTA Specifications are subject to change without notice, and this datasheet will not form part of any contract.