

FA-180 ANTENNA



FEATURES

- ASSEMBLED IN LESS THAN 10 MINUTES
- NO TOOLS REQUIRED
- ONLY 2 CASES <90kgs
- MULTI-BAND FEEDS CHANGED IN MINUTES
- INTELSAT/EUTELSAT COMPLIANT FOR COMMERCIAL BANDS
- SKYNET CERTIFIED FOR X-BAND
- MIL-STD-810G CERTIFIED VERSION
- MODEM AGNOSTIC, L-BAND INTERFACE
- COMPLETE, INTEGRATED, SYSTEMS AVAILABLE

A 1.8M FLYAWAY ANTENNA FOR MULTI-BAND TRANSMISSION ON ALL COMMERCIAL SATELLITES INCLUDING INTELSAT/EUTELSAT

The FA-180 is designed specifically for any application requiring a compact, rugged, multi-band antenna which is rapidly deployable with no tools.

It includes a multi segmented carbon fibre honeycomb reflector, ensuring light weight and maximum strength with no deformation, even after being re-assembled hundreds of times.

The axially symmetric design with prime focus feed was chosen because of its overall compact dimensions which make the packed size of the antenna smaller than any other comparable product of similar gain.

It also means that unlike offset fed designs, each antenna petal is identical allowing simple replacement in case of damage.

The FA-180 has a unique multi band feed arm allowing a change of frequency band in a matter of

seconds simply by swapping out a quick release feed cartridge.

Termination of transmit waveguide and receive coax is in a safe position at the back of the reflector.

Intelsat/Eutelsat compliance is guaranteed, including side lobe performance better than 29-25 log θ .

Operators in the field face difficulties and the attention to detail found in the FA-180 antenna greatly assists.

Features such as fully adjustable, wide spreading legs for high stability on any terrain.

The FA-180 can be fully motorised and when combined with the GigaSat STC-100 antenna controller it can automatically acquire and track, even on inclined orbit satellites.

For transportation the FA-180 packs into its own mount which splits into two conveniently sized flight cases for transportation.

There are no other cases required.

GigaSat Flyaway antennas available from 1.0m to 3.7m diameter.

WGS certified 2.4m and 3.7m systems available.

Skynet Certified systems available for Xband.

SPECIFICATIONS

General	
Antenna Type	Circular, axially symmetric with centre hub plus eight petals
Diameter	1.8m
Configuration	Prime focus
Polarisation	Linear, orthogonal transmit & receive. (Optional circular left & right)
Cross Polarisation	-35dB within the -1dB co-polar contour (linear)
Port-to-Port Isolation	40dB (Linear)

Transmit		
Transmit Bands	FA-180/60	5.85 to 7.025GHz
	FA-180/70	7.9 to 8.4GHz
	FA-180/140	12.75 to 14.5GHz
	FA-180/180	17.3 to 18.4GHz
	FA-180/300	27.5 to 31GHz
3dB Beamwidth	<2.0° at 5.85GHz	
Transmit Power	1.5kW max.	
Off Axis Transmit Gain	<29-25 log θ dBi	
VSWR	1.3:1	
Transmit Gain	FA-180/60	39.0dBi mid-band
	FA-180/70	41.5dBi mid-band
	FA-180/140	46.3dBi mid-band
	FA-180/180	48.3dBi mid-band
	FA-180/300	52.8dBi mid-band

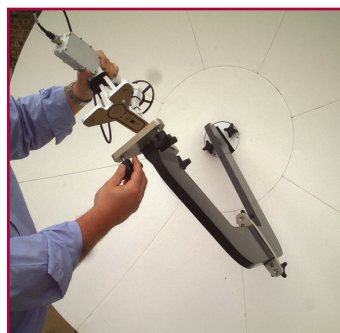
Receive		
Receive Bands	FA-180/60	3.4 to 4.2GHz
	FA-180/70	7.25 to 7.75GHz
	FA-180/140	10.7 to 12.75GHz
	FA-180/180	10.7 to 12.75GHz
	FA-180/300	17.7 to 22.2GHz
Receive Gain	FA-180/60	34.9dBi mid-band
	FA-180/70	40.8dBi mid-band
	FA-180/140	44.7dBi mid-band
	FA-180/180	44.7dBi mid-band
	FA-180/300	49.4dBi mid-band

Power	
Power Requirement	90 to 264V AC Power Supply (option) +24V DC (option)

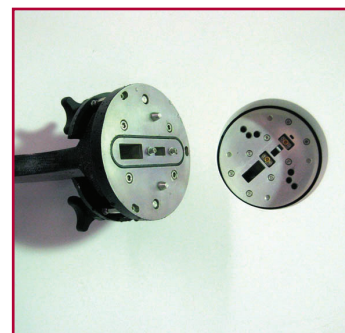
Environmental		
Temperature	-40 to +70°C - Transportation & Storage -20 to +60°C - Operational	
Wind Rating	Operational	60km/h with gusts to 72km/h
	Survival	121km/h
Altitude	4,500m	
Humidity	100%	

Physical		
Elevation Adjustment	0 to 90°	
Azimuth Adjustment	+/-180°	
Polarisation Adjustment	+/- 95°	
Packed Size	Box 1	0.88 x 0.88 x 0.51m
	Box 2	0.88 x 0.88 x 0.51m
Weight	Box 1	39kgs
	Box 2	49kgs

Weights above are for manual, baseline, configuration



Quick Release Feed



Quad-band Feed arms—C/X, Ku & Ka (C/X, Ku/DBS & Ka available as an option)



making a difference

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