



FA-120 Antenna

Lightest most compact 1.2m flyaway antenna with manual or automatic satellite acquisition

Features

- Assembled in less than 10 minutes
- No tools required
- Only 1 case <32kgs
- Multi-band feeds changed in minutes
- Intelsat/Eutelsat compliant for commercial bands
- Modem agnostic, L-band interface
- Complete, integrated, systems available

The FA-120 antenna is believed to be the lightest most compact 1.2m flyaway antenna available. It is intended primarily for Satellite Newsgathering, but is equally well suited to any other application where a one man lift is mission critical or transportation as checked baggage is vital.

The FA-120 is almost entirely manufactured from moulded carbon fibre and durable light weight plastics to ensure that even with 3 axis motorisation, packed weight comes in at less than 32kgs and the highly innovative "Russian Doll" reflector design has kept the packed dimensions to easily manageable proportions comparable with many much smaller antennas.

Operators in the field face difficulties and the attention to detail found in the FA-120 antenna greatly assists.

Composite legs, integral to the overall dimensions of the antenna when packed, fold down and ratchet into multiple positions for high stability on any terrain with an incline of up to 15 degrees and stake holes allow the

antenna to be pinned down for high wind operation. The mount case, empty when the antenna is deployed can also be loaded with ballast.

As a manual antenna the FA-120 can easily be pointed using the three axis vernier adjusters. A spirit bubble is provided to level the antenna and clear scales are provided for azimuth, elevation and pole.

When specified, motors, inclinometer, potentiometers and digital control unit all fit neatly within the weatherproof housing and allow comprehensive control via RS485, using either the GigaSat STC-100 antenna controller or a range of third party controllers.

Within minutes of arrival at site the FA-120 can automatically point, peak and track, even on highly inclined satellites.

In the unlikely event that the motorisation or power should not be available the antenna can easily be manually overridden at any time using the 13mm/1/2" hand crank supplied.

Specifications

General

Antenna Type	Elliptical with centre hub plus eight petals
Diameter	1.2m
Configuration	Offset
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-120/70	7.9 to 8.4GHz
	FA-120/140	13.75 to 14.5GHz
	FA-120/180	17.3 to 18.4GHz
	FA-120/300	27.5 to 31GHz
3dB Beamwidth	<1.3° at 13.75GHz	
Transmit Power	1.0kW max.	
Off Axis Transmit Gain	<29-25 log θ dBi	
VSWR	1.3:1	
Transmit Gain	FA-120/70	39.0dBi mid-band
	FA-120/140	43.0dBi mid-band
	FA-120/180	45.0dBi mid-band
	FA-120/300	48.6dBi mid-band

Receive

Receive Bands	FA-120/70	7.25 to 7.75GHz
	FA-120/140	10.7 to 12.75GHz
	FA-120/180	10.7 to 12.75GHz
	FA-120/300	19.2 to 21.2GHz
Receive Gain	FA-120/70	38.0dBi mid-band
	FA-120/140	41.0dBi mid-band
	FA-120/180	41.0dBi mid-band
	FA-120/300	45.0dBi mid-band

Power

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

Temperature	-40 to +80°C - Transportation & Storage -20 to +60°C - Operational	
Humidity	100%	
Altitude	4,500m	
Wind Rating	Operational	60km/h with gusts to 72km/h
	Survival	100km/h

Physical

Elevation Adjustment	0 to 90°	
Azimuth Adjustment	+/-180°	
Polarisation Adjustment	+/- 95°	
Packed Size	Box 1	0.6 x 0.6 x 0.4m
	Box 1	31kgs



FA-120 Turtle BUC



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Printed in England