



The DA-100 Antenna

Ultra light weight 1.0m motorised antenna

for drive-away and fly-drive applications



General

Antenna type	Elliptical, offset
Diameter	1.1m x 1.0m
Configuration	Prime focus
Polarisation	Linear, orthogonal transmit and receive.
Cross Polarisation	-35dB within the -1dB co-polar contour
Port to Port Isolation	40dB

Transmit

Transmit Bands	DA-100/80	7.90 to 8.40GHz
	DA-100/140	13.75 to 14.50GHz
	DA-100/180	17.30 to 18.40GHz
	DA-100/300	27.50 to 31.00GHz
3dB Beamwidth	<1.8° at 13.75GHz	
Transmit Power	50W and 1kW options.	
Off Axis Transmit Gain	<29-25 log θ dBi	
VSWR	1.3:1	
Transmit Gain	DA-100/80	38.0dBi mid band
	DA-100/140	42.0dBi mid band
	DA-100/180	43.5dBi mid band
	DA-100/300	48.0dBi mid band

Receive

Receive Bands	DA-100/80	7.25 to 7.75GHz
	DA-100/140	10.70 to 12.75GHz
	DA-100/300	19.20 to 21.20GHz
Receive Gain	DA-100/80	37.0dBi mid band
	DA-100/140	40.0dBi mid band
	DA-100/300	44.5dBi mid band
Noise Temperature	DA-100/80	50°K/30° elevation
	DA-100/140	50°K/30° elevation
	DA-100/300	55°K/30° elevation

Power

Power Requirement	+11 to +16VDC standard 90 to 260VAC optional
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Environmental

Operating Temperature	-40 to +80°C
Humidity	100%
Altitude	4,500m
Wind Rating	100km/h survival

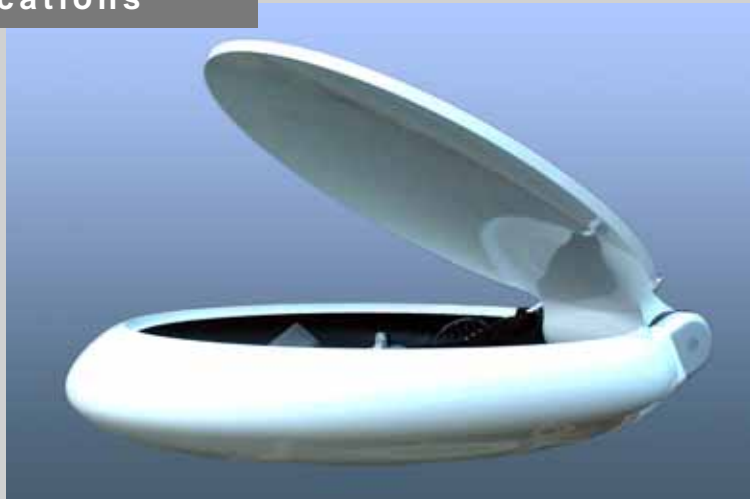
Physical

Elevation Adjustment	0 to 90°	
Azimuth Adjustment	+/-120°	
Polarisation Adjustment	+/-90° continuous	
Weight	Drive-Away	38kgs
	Fly-Drive	Case 1 10.2kgs Case 2 30.5kgs

The DA-100 is designed to be the lightest and most compact 3 axis motorised satellite antenna, making it suitable for installation on the standard roof fixings of any vehicle.

The drive-away DA-100 has a 1.0m reflector and is intended for long-term semi permanent installation but at only 38kgs it is easily transferred from one vehicle to another. However, by removing the quick release feed cartridge, as an option the DA-100 can be supplied in 2 fly-drive cases each light enough to meet latest airline checked baggage requirements. The concept of flying a system to a foreign country and quickly installing the antenna on a rental vehicle is finally a reality.

Specifications



Both versions of the antenna comfortably meet Intelsat/Eutelsat recommended specifications, including side lobe performance better than 29-25 log θ and a choice of high power or low power antenna feed means that cost can be optimised for conventional high power SNG systems or low power video over IP systems.

A standard +12VDC power supply means the antenna can be operated from the cigarette lighter socket on a car or optionally a separate weatherproof 90 to 260VAC supply can be specified.

A flux gate compass, GPS system and inclinometer can be integral to the antenna providing accurate position and heading co-ordinates to the chosen antenna controller. Various third party antenna positioners can be specified to meet customer preferences but the antenna is ideally controlled via RS485 using the GigaSat STC-100 antenna controller.

The STC-100 antenna controller can in its most basic version be supplied as a jog controller with 99 memory presets but is most commonly supplied with pre installed software for auto-pointing and uniquely to GigaSat full auto acquisition using an integral RSSI board or beacon receiver.

When in auto acquisition mode the DA-100 will automatically point to the chosen satellite and peak on azimuth, elevation and polarity with no user intervention. Full power transmission can be accomplished within a few minutes of arrival at site.



Note: Specifications are subject to change without notice
Please check with the factory 11/2006

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