

**China Starwin 1.8m C/Ku Band
Cable-Drive Driveway Antenna Datasheet**



Antenna deployed



Antenna stowed

A1800DA driveway antenna system is a 1.8m vehicle mounted antenna system

China Starwin Science & Technology Co., Ltd.

Tel: +8629-88664381, E-mail: sales@starwincom.com, www.starwincom.com

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designed by China Starwin. The antenna system can be applied for C and Ku band and it has excellent electrical properties, high driving precision, and high adaptability. Different types of BUC and antenna controller can be equipped according to customers' requirement.

Major Features

- Applied for C and Ku band satellite communication;
- 70% of the structure is made of carbon fiber material, with light weight and high strength;
- Steel wire rope driver, with high driving precision;
- High reliability, over 730h operation test without malfunction.
- Easy assembly and disassembly, low requirement for vehicle modification.
- Compatible with C and Ku band satellite communication.
- High reliability, over 730h operation test without malfunction.
- Easy operation, with one button satellite acquisition and satellite stowing.
- BUC 1:1 backup installation can be realized.
- High adaptability, shroud can be equipped according to customers' requirement.
- C301DA and C302DA antenna controller can be used.
- Has passed China Satellite Network Accessing Test.

A1800DA satellite communication system meets GJB367A-2001 military communication equipment standard and has passed A, B, C, D four strict units of military test. It can be widely used in national security, emergency communication, telecommunication, news and broadcasting, petroleum and petrochemical, scientific exploration etc.

Specifications

Electrical performance for Ku band		
Working Frequency	Tx	13.75 - 14.5GHz
	Rx	10.95 - 12.75GHz
Gain	Tx	46.6dBi
	Rx	45dBi
Cross Isolation	On Axis	≥35dB
	1dB point	≥30dB
Tx-Rx Isolation	≥85dB (Including TRF)	
VSWR	≤1.3:1	
The First Sidelobe Level	<-20dB	
Sidelobe Specifications	29-25lgΦdBi	$\alpha \leq \Phi \leq 7^\circ$
	8dBi	$7^\circ < \Phi \leq 9.2^\circ$
	32-25 lgΦ dBi	$26.3^\circ < \Phi \leq 48^\circ$
	-10 dBi	$48^\circ < \Phi$
Electrical performance for C band		
Working Frequency	Tx	5.85 - 6.725GHz
	Rx	3.4 - 4.2GHz
Gain	Tx	39.3dBi
	Rx	35.4dBi
Cross Polarization Isolation	On Axis	≥35dB
	1dB point	≥30dB
Tx-Rx Isolation	≥60dB	
VSWR	≤1.3:1	
First Sidelobe Level	<-14dB	
Sidelobe Specifications	29-25 lgΦ dBi	$\alpha \leq \Phi \leq 20^\circ$
	-3.5 dBi	$20^\circ < \Phi \leq 26.3^\circ$
	32-25 lgΦ dBi	$26.3^\circ < \Phi \leq 48^\circ$

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	-10 dBi	48°ϕ
Structural parameters		
Antenna Stowed Size	2449 mm×1800 mm×513mm	
Weight	≤100kg (without BUC)	
Driving Range	Azimuth	±270°
	Elevation	0° - 90°
	Polarization	0° - 90°
Driving Speed	Azimuth	0.1 - 3°/s (adjustable)
	Elevation	0.1 - 3°/s (adjustable)
	Polarization	1 - 4°/s (adjustable)
Control parameters		
Configuration	Select C301DA or C302DA antenna controller	
Power Supply	AC220V (±10%), 50Hz	
Cable	Four cables (Including BUC and LNB power supply and RF)	
Environmental adaptability		
Working Temperature	-40 ~ +60°C (antenna)	
	-10 ~ +55°C (antenna controller)	
Storage Temperature	-55 ~ +70°C	
Humidity	95% (30°C)	
Height	≤5000m	
Rain	6mm/min	
Salt Fog	Meet military standard of GJB367A-2001	
Vibration	Meet military standard of GJB367A-2001	
Sand Storm	Meet military standard of GJB367A-2001	
Wind Speed	20m/s stable wind working status	
	30m/s gust wind working status	

	60m/s vehicle moving status
Reliability	≥2000h