

PS200D Full Automatic Fly-away Antenna



The PS200D Satellite antenna system is specially designed for high data transmission rate. The one-button smart control, automatic acquisition operation, makes deployment simple and it is possible for an operator to finish setup within three minutes.

Thanks to the intelligent man-machine interface, it can be safely and easily operated by a non-technical operator without additional need of supplement tools. The rugged design, coupled with the most advanced light-weight carbon fiber antenna technology, makes it suitable for the most demanding applications. The exceptional technical specifications also allow customers to achieve great results under any operational scenario.

The PS200D is packed in two small size suitcases, both of which are well within the IATA size and weight requirements



Key Features:

- Full automatic & Easy operation
- Ultra-fast setup
- High-rate transmission
- Light weight & small size
- Rugged design & High dependability

Model		PS200D
Antenna Type		Gregorian dual-reflector antenna
Dish Material		Carbon Fiber
Aperture		1.2×0.96 m
Frequency	Rx	10.70 ~ 12.75GHz;
	Tx	13.75 ~ 14.5GHz;
Gain	Rx	41dBi
	Tx	42dBi
Side lobe Performance		29 – 25log θ dBi
G/T		19.5 dB/K(20° elevation)
V.S.W.R	Rx	≤1.25:1 LNB input;
	Tx	≤1.25:1 OMT input
Tx/Rx Isolation		≥85dB
Polarization Isolation		≥35dB (On axis)
Polarization		linear, Tx/Rx
Feed Interface		WR75
Operating Mode		Key touch positioning
Tracking Accuracy		≤0.2°
Setup Time		≤3min
M&C		Graphical Desktop Terminal Web Server (optional)
M&C Interface		wire (10/100 Ethernet) wireless (802.11b, 802.11g)
Azimuth		±90°, step0.1°
Elevation		10°~ 90°, step0.1°
Polarization		±90°, step0.1°
Net Weight		25KG
Packing		ABS+Soft Suitcase
Suitcase 1 Size		802×520×316mm
Suitcase 1 Weight (with antenna)		37KG
Suitcase 2 size		732×510×185mm
Suitcase 2 weight (with Petals)		9.63KG
Power supply		90–264 VAC, 47–63 Hz , 48VDC (optional)
Power Consumption		maximum110W (without BUC)
Operating Temperature		-30 ~ +55°C
Storage Temperature		-40 ~ +80°C
Operational Winds		Operational Winds : 12m/s Survival Winds: 18m/s (reinforced)
Rain Proof		≤100mm/h
Operational Humidity		0% ~ 100%
Altitude		4000m

PS200P Automatic flyaway Antenna

The PS200P Portable antenna system deploys a state-of-the-art carbon fiber antenna dish. The PS200P DC servo system is three axis (AZ, EL, POL) and features the rugged drive system that provides high stiffness, and high reliability. The motorized positioning allows the quickest automatic satellite acquisition. Non-technical users with minimal training can easily set up the PS200P. Once the three-piece reflector is assembled, acquisition and peaking on the satellite is accomplished by the pressing of a single button mounted on the antenna. For configuration changes and diagnostics, a PC-based GUI, or an optional PDA can be connected for more in-depth control and configuration. This automated pointing system precludes the requirement for specially trained SATCOM personnel or special test equipment.



Electronic performance

Item		Specification	Remarks
Frequency	Rx	12.25~12.75GHz	10.95~12.75GHz optional
	Tx	14.0~14.5GHz	13.75~14.0GHz optional
Aperture		1 × 0.82 m	
Polarization		Linear, Tx/Rx 2 ports	
Gain	Rx	$\geq 38.6 + 20 \log (F/12.5)$ dBi	@input port of LNB
	Tx	$\geq 39.7 + 20 \log (F/14.25)$ dBi	@output port of BUC(including loss of Tx waveguide & rotary joint)
Noise Temperature	@10° Elevation	≤ 53 K	
	@20° Elevation	≤ 46 K	
	@40° Elevation	≤ 43 K	
G/T(@10° Elevation, 12.5GHz)		≥ 17 dB/K	

Sidelobe Performance		90% col-pol&cross-pol sidelobes below the limit of $G = 32 - 25 \log \theta \text{ dBi}, 100\lambda / D^0 \leq \theta < 48^0$ $G = -10 \text{ dBi}, \theta \geq 48^0$	IESS-208 (Rev.6)
Cross Polarization(on axis)		≥33dB	
V.S.W.R	Rx	≤1.3:1	@ input port of LNB
	Tx	≤1.25:1 (@port of OMT) ≤1.4:1 (@BUC output port, including VSWR of Tx waveguide & rotary joint)	
Tx/Rx Isolation(@Tx Frequency)		≥85 dB	
Insert Loss	Rx	≤0.35 dB	
	Tx	≤0.3 dB (@OMT port) ≤0.6dB (@BUC output port, including VSWR of Tx waveguide & rotary joint)	

Mechanical Performance

Item	Specification			Remarks
Tracking Accuracy	≤0.3° (RMS)			
Drive system	Motor-driven 3-axis positioning with manual-driven available			
Azimuth Range	± 90° by 0.1°step			
Elevation Range	10°~90° by 0.1°step			
Polarization Range	± 90° by 0.1° step			
Input power	110/220VAC@50/60Hz; 48VDC option			
Package	Item	Dimension	Weight	The bag can be change to the suitcase.
	Bag (petals)	770x470x270mm	7.1Kg	
	Suitcase (main machine)	770x480x300mm	35.5Kg	

Environmental Performance

Item	Specification	Remarks
Temperature	Operational: -30°C to +55°C Survival: -55°C to +80°C	
Wind	Operational: 18m/s	
Humidity	100% (non-condensation)	