1801 iNetVu®

by C-COM Satellite Systems Inc.

Av-Comm
SATELLITE COMMUNICATIONS INFRASTRUCTURE

TECHNICAL SPECIFICATIONS

The iNetVu® 1801 Drive-Away Antenna is a 1.8m auto-acquire satellite antenna system which can be mounted on the roof of a vehicle for Broadband Internet Access over any configured satellite. The system works seamlessly with the iNetVu® 7710 Controller providing fast satellite acquisition within minutes, anytime anywhere.

Features

- One-Piece precision offset, thermoset-molded reflector with back cover
- Optional 2pcs and 4pcs reflector available
- Heavy duty feed arm capable of supporting up to 11kg (25 lbs) RF Electronics (LNB & BUC)
- Designed to work with the iNetVu® 7710 controller
- Works seamlessly with the world's most popular commercially available satellite modems
- 3 Axis motorization
- Supports manual control and hand crank when required
- One button, auto-pointing controller acquires any Ku or C band satellite within 2 minutes
- Locates satellites using the most advanced satellite acquisition methods
- Supports Skyware Global 1.8m antenna Type 183
- Standard 2 year warranty

C-COM SATELLITE SYSTEMS INC.

Application Versatility

Whether you operate in Ku or C band, the 1801 system is easily configured to provide instant access to satellite communications for any application that requires reliable and/or remote connectivity in a rugged environment. Ideally suited for industries such as Oil & Gas Exploration, Military Communications, Disaster Management, SNG, Emergency Communications Backup, Cellular Backhaul and many others.

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Mechanical

Reflector	1.8m prime focus, offset feed, SMC (1)
Platform Geometry	Elevation over Azimuth
Deployment Sensors GPS Antenna	Compass ± 2º, Tilt Sensor ± 0.2º
F/D Ratio	0.61
Azimuth	Full 360º in overlapping, 200º sectors
Elevation	0º to 90º
Polarization	± 95º
Elevation Deploy Speed	Variable 2º /sec typ.
Azimuth Deploy Speed	Variable 15º /sec typ. , 10º /sec typ.
Peaking Speed	0.1º /sec
Motor Voltage	24VDC 15 Amp (Max.)

Environmental

Wind loading	
Operational	80 km/h (50 mph)
Survival	
Deployed	112 km/h (70 mph)
Stowed	225 km/h (140 mph)
Temperature	
Operational	-30º to 55º C (-22º to 131º F)
Survival	-40º to 65º C (-40º to 149º F)

Thermal Test per MIL-STD-810F, Method 501.4, High/Low Temperatures
Vibration Test per MIL-STD-810F, Annex A, Category 4, Truck/Trailer/Tracked
Shock Test per IEC 60068-2-27

Electrical

Rx & Tx Cables	2 RG6 Cables
Control Cables	
Standard	10 m (33 ft) Extension Cable
Optional	Up to 45 m (150 ft) available

RF Interface

Radio Mounting	Feed arm/ Inside vehicle
Coaxial	RG6U from feedhorn to base plate
Axis Transition	Twist-Flex Waveguide
Electrical Interface	9.1m (30 ft) ext. cables w/MIL connectors
VSWR	Tx 1.3:1

Physical

Mounting Plate	L: 169.8 cm (66.9")	W: 55 cm (21.7")
Stowed Dimensions	L: 265 cm (104.3")	W: 180.1 cm (70.9")
	H: 50 cm (19.7")	
Deployed Height	255 cm (100.4")	
Reflector weight	39.2 kg (86.5 lbs)	
Platform weight	145.8 kg (321.5 lbs)	

Optional Cases:
1 case (2pcs reflector): 207 cm x 102.9 cm x 50.8 cm (81.5" x 40.5" x 20")
Total weight w/reflector: 104.8 kg (231 lbs)
2 cases (4pcs reflector): 104.1 cm x 99.1 cm x 34.3 cm (41" x 39" x 13.5")
Total weight w/reflector: 90.7 kg (200 lbs)

Ku-Band (Linear Orthogonal)

	Receive	Transmit
Transmit Power	1 to 200 watt (2)	
Frequency (GHz)	10.70-12.75 (3)	13.75-14.50 (4)
(Optional)	10.70-11.70	12.75-14.50
Feed Interface	WR75	WR75
Efficiency	70%	70%
Midband Gain (± 0.2dBi)	45.30	46.80
Antenna Noise Temp. (K)	10º EL= 43 / 20º EL= 28 / 30º EL=23	
Sidelobe Envelope,	1º<Θ<20º	29-25 Log Θ
Co-Pol (dBi)	20º<Θ<26.3º	-3.5
	26.3º<Θ<48º	32-25 Log Θ
	48º<Θ<180º	-10 (Average)
Cross-Polarization on Axis	-30 dB	
Within 0.5 dB Beamwidth	-26 dB	
Isolation (Port to Port)	35 dB	80 dB

C-Band (Linear)

	Receive	Transmit
Standard Frequency (GHz)	3.40-4.20 (3)	5.850-6.725
INSAT Frequency (GHz)	4.5-4.8	6.725-7.025
Feed Interface	WR229	WR137 or Type N
Midband Gain (± 0.3dBi)	35.40	39.30
Antenna Noise Temp. (K)	10º EL= 41 / 20º EL= 36 / 30º EL=33	
Sidelobe Envelope,	2.5º<Θ<20	29-25 Log Θ
Co-Pol (dBi)	20º<Θ<26.3º	-3.5
	26.3º<Θ<48º	32-25 Log Θ
	48º<Θ<180º	10 (Average)
Cross-Pol: on Axis	-30 dB	
Within 0.5 dB Beamwidth	-26 dB	
Tx/Rx Isolation	60 dB	60 dB

C-Band (Circular)

	Receive	Transmit
Standard Frequency (GHz)	3.625-4.20 (3)	5.85-6.425
Feed Interface	WR229	WR137 or Type N
Midband Gain (± 0.4dBi)	35.40	39.50
Antenna Noise Temp. (K)	10º EL= 41 / 20º EL= 36 / 30º EL= 33	
Sidelobe Envelope,	2.8º<Θ<20º	29-25 Log Θ
Co-Pol (dBi)	20º<Θ<26.3º	-3.5
	26.3º<Θ<48º	32-25 Log Θ
	48º<Θ<180º	-10 (Average)
Isolation	60 dB	60 dB

Shipping Weights & Dimensions*

Empty Crate w/ Lid: 228 cm x 108 cm x 75 cm (90" x 42.5" x 29.5"); 99.6 kg (219.5 lbs)
Crate w/ Ku Platform: 245.4 kg (541 lbs); 7710 Controller: 4.5 kg (9.9 lbs.); Cables: 5 kg (11 lbs)
Reflector Box (Reflector, Back Cover included) on Pallet, wood: 208 cm x 206 cm x 38 cm (82" x 81" x 15"), 102 kg (225 lbs)

*The shipping weights/dims can vary for particular shipments depending on actual system configuration, quantity, packaging materials and special requirements

Notes: (1) Antenna based on Skyware Global, Type 183
(2) Depending on size and weight for feed arm mounting limitation
(3) LNB PLL Type required with stability better than ± 25 KHz
(4) Feed can support up to 14.80 GHz

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