Transportable SNG Antennas

CZ serials transportable SNG antennas (1.2m / 1.5m / 1.8m / 2.4m) are developed by Sun Com for emergency mobile satellite communication.The systems feature in highly intelligentized, light weight and high reliability. The systems have been used widely in areas such as security, fire control, civil defence, mobile communication, telecom .

Applications

Real Time News Gathering
Battle Field Military Communication and Mobile Command
Anti-terrorism Emergency Communication
Disasters Field Emergency Communication
Live Broadcast of Games

Features

- Meet or exceed CCIR 580 and INTELSAT requirements
- Carbon Fiber reflector features in light weight and high rigidity
- Auto Deploy and Stow
  " Smart Switch " to complete auto positioning, deploy and satellite acquisition
- Complete positioning, deploy and satellite tracking in less than 2 minutes
- Tracking Accuracy better than 1/10 of receive 3dB beamwidth
- Three modes control: Auto, motorized and Manual
- Motorized polarization adjustment

Configurations

- 1.2m, 1.5m, 1.8m, 2.4m Offset Antennas
- 9020T Antenna Control Unit
- Beacon Receiver
- GPS, Digital Compass
- Az / El Mount, Waveguide Feed and RF Rotary Joint

Electrical Specification

Electrical Specification	1.2M	1.5M	1.8M	2.4M
Operational Frequency.GHz	Tx : 13.75～14.5 Rx : 10.95～12.75			
Gain , Tx	42.9 dBi	45.1 dBi	46.5 dBi	49.1 dBi
Gain , Rx	41.8 dBi	43.6 dBi	45 dBi	47.8 dBi
Polarization	Linear			
XPD (on axis)	35 dB	35 dB	35 dB	35 dB
XPD (-1 dB)	28dB	28 dB	28 dB	28 dB
VSWR	1.25	1.25	1.25	1.25
Antenna Noise Temperature 10° Elevation 30° Elevation 50° Elevation	 43°K 36°K 32°K	 54°K 42°K 38°K	 43°K 36°K 32°K	 48°K 38°K 34°K
-3 dB Beamwidth, Mid-Band,Tx	1.46°	0.97°	0.74°	0.59°
-3 dB Beamwidth, Mid-Band, Rx	1.2°	1.13°	0.87°	0.67°
Tx. Power Capability	1KW			
Feed Interface	WR-75			
Isolation, Tx to Rx	85 dB			
First Sidelobe 90% Peaks under Following Envelop	-14 dB 29-25log θ (1°≤ θ ＜20°)			

Mechanical Specification

Antenna Size	1.2M	1.5M	1.8M	2.4M
Antenna Type	Offset			
Weight	105 Kg	120 Kg	128 Kg	165 Kg
Acquisition Time	≤ 2 Minutes			
Antenna Pointing Range Azimuth Elevation Polarization	 ± 180° 0°～ 90° ± 90°			
Motor Drive System Azimuth Travel Rate Elevation Travel Rate Polarization	 0.01°-2 °/S 0.01°-2 °/S 1° /S			

Environmental Specification

Operational Winds		72 km /h, Gusting to 97 km /h
Survival Winds		216 km /h
Temperature	Indoor	-20°C ～ +50°C
	Outdoor	-40°C ～ +60°C
Relative Humidity		100 %

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1.8M Transportable SNG Antenna

Model CZ-180 C band SNG antenna have been developed and manufactured by SUNCOM for emergency mobile satellite communication. The systems feature in highly intelligentized, light weight and high reliability. The systems have been used widely in areas such as security, fire control, civil defence, mobile communication telecom.

Feature

- Meet with requirement of CCIR580 and INTELSAT
- High Gain, Excellent Pattern Characteristics
- Auto- deploy and auto-stow
  " Smart switch" to complete auto positiong, deloy and satellite acquisition.
- Antenna deploys and acquires satellite within 3 minutes
- Friendly interface and easy operation
- Tracking accuracy is better than 1/10 of received 3dB beamwidth
- Offset parabolic antenna of carbon fiber, featuring in light weight
- Three modes control: Auto, motorized and manual
- Motorized polarization adjustment

System configuration

- 1.8meter offset antenna
- Model 9020T Auto Control System
- GPS, Electrical compass
- Tracking receiver
- A-E Rotary Joint
- Step Motor
- Motor Polarization Adjustment

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Technique Specifications

Electrical Specification		C-Band	
		Receive	Transmit
Operating Frequency, GHz		3.4～4.2	5.85～6.725
Gain, Mid-Band, dBi		35.5	39.5
Polarization		Linear	
XPD（on axis）,dB		35	35
VSWR		1.25	1.25
Antenna Noise Temperature 10° Elevation 30° Elevation 50° Elevation		 39ºK 29ºK 26ºK	
-3dB Beamwidth, Mid-Band		2.88º	1.9°
Tx. Power Capability, KW			1
Feed interface		CPR229G	CPR-137G
Isolation, Tx to Rx, dB		90	
First Sidelobe 90% Peaks under Following envelop		-14 29 - 25 logθ （1°≤ θ ＜ 20°）	
Mechanical Specification			
Antenna Diameter		1.8M	
Antenna Type		Offset	
Weight		125 Kg	
Satellite Acquisition Time		≤3 Minutes	
Antenna Pointing Range Azimuth Elevation Polarization		 ±180°(continuous) 0°~90° ±90°	
Motor Drive System Azimuth Travel Rate Elevation Travel Rate Polarization		 0.01°~2°/S 0.01°~2°/S 1°/S	
Tracking precision		0.08°	
Display resolution		0.01°	
Environmental Specification			
Operational Winds		72 km/h Gusting to 97km/h	
Survival Winds		216 km/h	
Temperature	Indoor	-10℃～+50℃	
	Outdoor	-20℃～+50℃ -40℃～+50℃(option)	
Relative Humidity		100%	
Solar Radiation		1135Kcal/h/m^2	

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2.4M Transportable SNG Antenna

Model CZ-240 C band SNG antenna have been developed and manufactured by SUNCOM for emergency mobile satellite communication. The systems feature in highly intelligentized, light weight and high reliability. The systems have been used widely in areas such as security, fire control, civil defence, mobile communication telecom.

Feature

- Meet with requirement of CCIR580 and INTELSAT
- High Gain, Excellent Pattern Characteristics
- Auto- deploy and auto-stow

  " Smart switch" to complete auto positiong, deloy and satellite acquisition.
- Antenna deploys and acquires satellite within 3 minutes
- Friendly interface and easy operation
- Tracking accuracy is better than 1/10 of received 3dB beamwidth
- Offset parabolic antenna of carbon fiber, featuring in light weight
- Three modes control: Auto, motorized and manual
- Motorized polarization adjustment

System configuration

- 2.4meter Carbon Fiber offset antenna
- Model 9020T Auto Control System
- GPS, Electrical compass
- Tracking receiver
- A-E Rotary Joint
- Step Motor
- Motor Polarization Adjustment

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Technique Specifications

Electrical Specification		C-Band	
		Receive	Transmit
Operating Frequency, GHz		3.4～4.2	5.85～6.725
Gain, Mid-Band, dBi		38	42
Polarization		Linear	
XPD（on axis）,dB		35	35
VSWR		1.25	1.25
Antenna Noise Temperature 10° Elevation 30° Elevation 50° Elevation		 52°K 45°K 44°K	
-3dB Beamwidth, Mid-Band		2.2°	1.4°
Tx. Power Capability, KW			1
Feed interface		CPR229G	CPR-137G
Isolation, Tx to Rx, dB		90	
First Sidelobe 90% Peaks under Following envelop		-14 29 - 25 logθ （1°≤ θ ＜ 20°）	
Mechanical Specification			
Antenna Diameter		2.4M	
Antenna Type		Offset	
Weight		165 Kg	
Satellite Acquisition Time		≤3 Minutes	
Antenna Pointing Range Azimuth Elevation Polarization		 ±180°(continuous) 0°~90° ±90°	
Motor Drive System Azimuth Travel Rate Elevation Travel Rate Polarization		 0.01°~2°/S 0.01°~2°/S 1°/S	
Tracking precision		0.08°	
Display resolution		0.01°	
Environmental Specification			
Operational Winds		72 km/h Gusting to 97km/h	
Survival Winds		216 km/h	
Temperature	Indoor	-10℃～+50℃	
	Outdoor	-20℃～+50℃ -40℃～+50℃(option)	
Relative Humidity		100%	
Solar Radiation		1135Kcal/h/m^2	

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