servicesat
The Satellite Communication Experts

Direcstar WX Series
Autodeploy VSAT Antennas

The **Direcstar WX Series** vehicle-mount antennas are the toughest, highest quality, lowest cost, auto-deploy satellite antennas in the market today. The **WX series** antennas are capable of pointing at any satellite with an accuracy of 0.1 degrees in less than 2 mins. The antennas stow into a folded position for easy travel, on the roof of emergency (FEMA), Satellite News Gathering (SNG) or other vehicles, trailers and busses. Made with the strongest, most rugged actuators in the industry, the **WX series** antennas are built for maximum reliability. The **WX series** antennas are available in 0.98M, 1.2M and 1.8M versions and are integrated and tested with all common satellite modems offering flexibility and scalability for the emergency, energy and enterprise markets.

Direcstar WX980

WX Control Unit

Direcstar WX1200

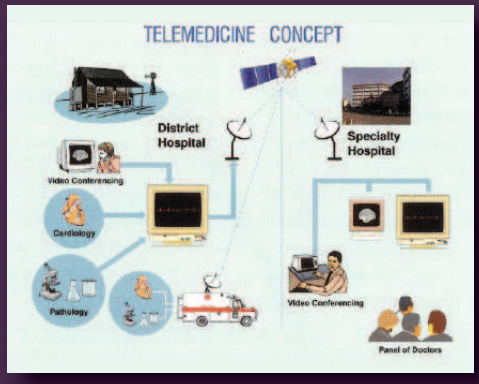
Direcstar WX1800

WX Series Benefits

- Heavy duty construction to withstand extreme environments (humidity, temperature, dust)
- 2-way communication capability for simultaneous data, video and voice
- Simple single button operation requiring no external PC
- Easy vehicle installation
- Little or no periodic maintenance
- Rack-mountable controller included
- FCC part 25.209 compliant
- Built in DVB receiver, GPS, compass and tilt sensors
- Perfect for emergency vehicle & other enterprise applications
- Ideal for low cost SNG applications
- Auto acquisition and peaking of target satellite
- Easy field repair
- Quick deployment
- Low cost spares kit
- Fastest satellite acquisition in the industry
- Integrated & tested with multiple BUCs ranging from 1 to 200Watts

When terrestrial methods of communication are not available due to location or other circumstances, or when high data rates are required in short notice, VSAT systems can deliver reliable and cost effective data, voice and video connectivity. From mobile banking applications, oil and gass platform installations, telemedicine applications, first responce teams, military deployments to just plain mobile internet access, the **WX series** antennas can outperform competition in quality, durability and price.

Direcstar WX1200 stowed



Servicesat LTD - Servicesat is the trading name for Data Transmission Corporation LTD, Guernsey

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Direcstar WX Series

	WX980	WX1200	WX1800
General Information			
Reflector type	0.98 M Glass Fiber Reinforced Polyester SMC	1.2 M 0.8 F/D Glass Fiber Reinforced Polyester SMC	1.8 M Glass Fiber Reinforced Polyester SMC
Optics offset	Prime Focus Offset Feed	Prime Focus Offset Feed	Prime Focus Offset Feed
Buc supported*	6.8Kg / 30.48cm L x 19.7cm W x 14cm H	6.8Kg / 30.48cm L x 19.7cm W x 14cm H	2.72Kg / 18.67cm L x 19.7cm W x 7.62cm H
Polarization*	Cross-Pol	Cross-Pol	Cross-Pol
Mount Geometry	Elevation over Azimuth	Elevation over Azimuth	Elevation over Azimuth
Dimensions			
Stowed Dimensions	38.1cm H x 179cm L x 100.3cm W	38.1cm H x 217.8cm L x 124.5cm W	24" H x 274.3cm L x 181cm W
Max Deployed Height	181.6cm	213.4cm	247.7cm
Mount Rail Width	33cm	33cm	33cm
Weight	63.5Kg Approx	68Kg Approx	113.4Kg Approx
Mechanical			
Range of motion: Azimuth	375° (+/- 187.5°)	375° (+/- 187.5°)	375° (+/- 187.5°)
Elevation	5° to 90° Operational	5° to 100° Operational	11.6° to 118° Operational
Polarization	+/- 90°	+/- 90°	+/- 90°
Speed: Deploying Elevation	4.6° Per Second	4.6° Per Second	4.6° Per Second
Stowing Elevation	5.0° Per Second	5.0° Per Second	5.0° Per Second
Deploying Azimuth	7.5° Per Second	7.5° Per Second	7.5° Per Second
Time to Acquisition	< 2 minutes (Typical)	< 2 minutes (Typical)	< 2 minutes (Typical)
Motors: Elevation	24V HD Linear Actuator (0.1° Resolution)	24V HD Linear Actuator (0.1° Resolution)	36V HD Linear Actuator (0.1° Resolution)
Azimuth	24V HD Brushless Motor (0.1° Resolution)	24V HD Brushless Motor (0.1° Resolution)	24V HD Brushless Motor (0.1° Resolution)
Polarization	24V HD Brushless Motor (0.1° Resolution)	24V HD Brushless Motor (0.1° Resolution)	24V HD Brushless Motor (0.1° Resolution)
Drive Override	Electrical Elevation, Manual for AZ and SK	Electrical Elevation, Manual for AZ and SK	Electrical Elevation, Manual for AZ and SK
RF			
Tx Interface	Waveguide - 3' WR75 Flange Flexible and Twistable Waveguide	Waveguide - 3' WR75 Flange Flexible and Twistable Waveguide	Waveguide - 3' WR75 Flange Flexible and Twistable Waveguide
Rx Interface	WR75 Flange	WR75 Flange	WR75 Flange
Frequency Range: Rx	10.95 - 12.75 Ghz	10.95 - 12.75 Ghz	10.95 - 12.75 Ghz
Tx	13.75 - 14.50 Ghz	13.75 - 14.50 Ghz	13.75 - 14.50 Ghz
Gain (Midband): Rx	39.8 dBi	41.5 dBi	45.3 dBi
Tx	41.3 dBi	43 dBi	46.8 dBi
VSWR Rx & Tx	1.3:1	1.3:1	1.3:1 tx / 1.5:1
Rx Beamwidth: Rx	1.8° (-3 dB), 3.3° (-10 dB)	1.4° (-3 dB), 2.4° (-10 dB)	1.0° (-3 dB), 2.4° (-10 dB)
Tx	1.5° (-3 dB), 2.8° (-10 dB)	1.2° (-3 dB), 2.1° (-10 dB)	0.8° (-3 dB), 2.1° (-10 dB)
Radiation Pattern Compliance	FCC § 25.209	FCC § 25.209	FCC § 25.209
Antenna Noise Temperature	47K (20° EL), 46K (30° EL)	46K (20° EL), 43K (30° EL)	28K (20° EL), 23K (30° EL)
Cross Pol Isolation on Axis Rx & Tx (Minimum)	30 dB	30 dB	30 dB
Isolation Port to Port (Minimum): Rx	35 dB	35 dB	35 dB
Tx	80 dB	80 dB	80 dB
Environmental			
Wind: Operational Deployed	80+ Km/h	80+ Km/h	56 Km/h
Survival Deployed	121 Km/h	121 Km/h	121 Km/h
Survival Stowed	241 Km/h	241 Km/h	241 Km/h
Temperature: Operational	-40°F to 127°F (-40°C to +50°C)	-40°F to 127°F (-40°C to +50°C)	-40°F to 127°F (-40°C to +50°C)
Survival	-58°F to 176°F (-50°C to +80°C)	-58°F to 176°F (-50°C to +80°C)	-58°F to 176°F (-50°C to +80°C)
Snow Load	20.3cm deep (@16Kg/cu. mt)	20.3cm deep (@16Kg/cu. mt)	20.3cm deep (@16Kg/cu. mt)
Electrical			
Controller Dimensions	2U 19" Rack Mountable	2U 19" Rack Mountable	2U 19" Rack Mountable
Power Supply: Input	100-250V 3A Max	100-250V 3A Max	100-250V 3A Max
Running Load	47-63Hz 300W Max	47-63Hz 300W Max	47-63Hz 300W Max
Output	48V 6.7A Max	48V 6.7A Max	48V 6.7A Max
Electrical Data Interface*	RG6 60' (18.25 m)	RG6 60' (18.25 m)	RG6 60' (18.25 m)
Transmit (Tx)*	RG6 Compression F Connector	RG6 Compression F Connector	RG6 Compression F Connector
Receive (Rx)*	RG6 Compression F Connector	RG6 Compression F Connector	RG6 Compression F Connector
Sensors	GPS Compass +/- 15° Tilt +/- 0.5°	GPS Compass +/- 15° Tilt +/- 0.5°	GPS Compass +/- 15° Tilt +/- 0.5°

*Options

Larger BUCs supported using High power BUC mounting kit and waveguide • Co-Pol • Thermal Formed Rear Cover • RG11 Cables

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