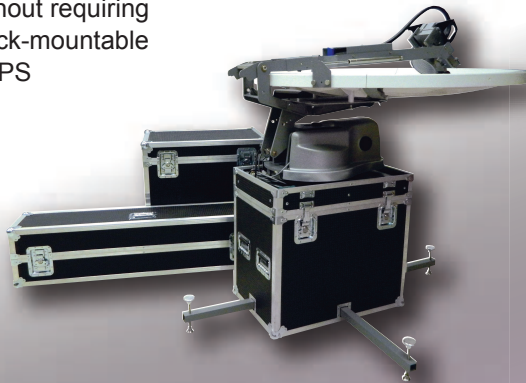


## Direcstar SFF120A Fly-Away VSAT Antenna

The **Direcstar SFF120A** VSAT antenna is the toughest, highest quality, lowest cost, auto-deploy/auto-acquire, Fly-Away satellite antenna in the market today. The **SFF120A** antenna is capable of pointing at any satellite with an accuracy of 0.1 degrees in less than 2 mins. The complete system can be reduced to 3 easy to handle, purpose built, cases. **Servicesat's Direcstar** Fly-Away Antennas use the strongest, most rugged actuators and motors in the industry, allowing for maximum reliability in extreme environments as well as providing the fastest acquisition times in the market. The fully-integrated two-way controller features single-button operation without requiring an external PC. The Controller is rack-mountable and the built-in DVB receiver and GPS makes the **Servicesat Two-Way Controller** work on most platforms available in the industry including HughesNet, iDirect, SpaceNet, Comtech and Nera.



SFF120A Control Unit



Fly Away SFF120A Antenna Partially Stowed



Complete Case kit with SFF120A Antenna Deployed



### GENERAL INFORMATION

Reflector Type: 4 piece segmented 1.2M 0.8 F/D Glass Fiber Reinforced Polyester SMC  
 Optics Offset: Prime Focus Offset Feed  
 BUC Supported\*: 6.8Kg / 30.48cm L x 19.7cm W x 14cm H  
 Polarization\*: Cross-pol  
 Mount Geometry: Elevation Over Azimuth  
 Set-up Time: Less than 15 minutes

### ELECTRICAL

Controller Dimensions: 2U 19" Rack Mountable  
 Power Supply Input: 100-250V 3A Max  
 Running Load: 47-63Hz 300W Max  
 Output: 48V 6.7A Max  
 Electrical Data Interface\*: RG6 60' (18.25 m)  
 Transmit (Tx)\*: RG6 Compression F Connector  
 Receive (Rx)\*: RG6 Compression F Connector  
 Sensors: GPS  
 Compass +/- 15°  
 Tilt +/- 0.5°

### \*OPTIONS

- Larger BUCs supported using High Power BUC mounting kit and waveguide
- Co-Pol • RG11 Cables • Reflector sizes 0.75M, 0.84M, 0.98M, 1.2M

### RF

Tx Interface: Waveguide - 3' WR75  
 Flange Flexible and Twistable Waveguide  
 Rx Interface: WR75 Flange  
 Frequency Range Rx: 10.95 - 12.75 Ghz  
 Tx: 13.75 - 14.50 Ghz  
 Gain (Midband) Rx: 41.5 dBi  
 Tx: 43 dBi  
 VSWR Rx & Tx: 1.3:1  
 Beamwidth Rx: 1.4° (-3 dB), 2.4° (-10 dB)  
 Tx: 1.2° (-3 dB), 2.1° (-10 dB)  
 Radiation Pattern Compliance: FCC S 25.209  
 Antenna Noise Temperature: 46K (20° EI), 43K (30° EI)  
 Cross Pol Isolation on Axis Rx & Tx (Minimum): 30 dB  
 Isolation Port to Port (Minimum) Rx: 35 dB  
 Tx: 80 dB

### DIMENSIONS

Stowed Dimensions: N/A  
 Max Deployed Height: 213.4cm  
 Mount Rail Width: N/A  
 Weight: see Case Dimensions

### MECHANICAL

Range Of Motion: Azimuth: 375° (+/- 187.5°)  
 Elevation: 11.6° to 118° Operational  
 Polarization: +/- 90°  
 Speed: Deploying Elevation: 4.6° Per Second  
 Stowing Elevation: 5.0° Per Second  
 Deploying Azimuth: 7.5° Per Second  
 Time to Acquisition: < 2 Minutes (Typical)  
 Motors: Elevation: 36V HD Linear Actuator (0.1° Resolution)  
 Azimuth: 24V HD Brushless Motor (0.1° Resolution)  
 Polarization: 24V HD Brushless Motor (0.1° Resolution)  
 Drive Override: Electrical Elevation, Manual for AZ and SK

### ENVIRONMENTAL

Wind Operational Deployed: 48 Km/h w/ballast or anchors  
 Survival Deployed: 120 Km/h EL at 90°  
 Survival Stowed: N/A  
 Temperature Operational: -40°F to 127°F (-40°C to +50°C)  
 Survival: -58°F to 176°F (-50°C to +80°C)

### CASE DIMENSIONS

Reflector Case (Size/Weight): 71.1cm L x 52cm W x 71.1cm H / 35kg  
 Feed Arm Case (Size/Weight): 137.2cm L x 30.5cm W x 33cm H / 23.8kg  
 Positioner Case (Size/Weight): 76.2cm L x 49.5cm W x 69.9cm H / 45.4kg