

# ADVENT

## NewSwift CF

### Motorized Antenna

The NewSwift CF antenna is a highly compact, integrated satellite terminal, designed for rapid deployment. The design allows for two HPAs, variable power combiner, redundancy switching and two upconverter integration into the antenna assembly, close to the feed, to minimize waveguide loss and maximize available EIRP. The fully weatherproof RF equipment is further protected from the weather by a removable cover to allow reliable operation in different environmental conditions.

- 1.2m, 1.5m or 1.8m reflector
- Bands available:
  - 1.2m - X, Ku & Ka
  - 1.5m - C, X, Ku & Ka
  - 1.8m - C, X, Ku & Ka
- Elevation Adjustment - 6° to 91°
- Tracking option with beacon receiver
- Many models are Eutelsat and/or Intelsat type approved
- All models are approved for use with the majority of Satellite Providers
- Type - offset fed
- Configuration - prime focus
- Mount - elevation over azimuth
- Software upgradeable to auto-acquire (ACU5216) and integral ASI Demod
- Option for multi-band capability by cartridge exchange
- Available in any custom colour scheme

### Options

- GPS based auto-acquire upgrade package
- Rotary joint for azimuth axis
- Co-polar receive facility for Ku Band

### Qualified Requirements

- ITU-R S.580-6
- ITU-R S.465-5
- INTELSAT IEES-601
- EUTELSAT EESS-502
- MIL STD 188-164A
- STANAG 4484 (as applicable)



#### Antenna Position Control

- Linear Polarisation: Full 3 axis motor control with manual override mechanism
- Circular Polarisation: Full 2 axis motor control with manual override mechanism
- Polarisation Adjustment
- Linear: +/- 90
- Circular: None°

#### Antenna Control Unit

- Compact half width rack unit
- Serial remote interface
- 'One touch' stow & deploy
- Fast / med / slow motor drive system
- Simultaneous positional feedback of Az / El / Pol axis with true elevation reading from calibrated inclinometer



## Key Features

- Full 3-axis control includes 360° azimuth range
- GPS-based auto satellite acquisition packages available
- 800 City database
- Full remote control

## Typical Applications

- Event Coverage
- Sports Coverage
- Newsgathering
- Secure SATCOM

## 1.2M NEWSWIFT

### Frequency

- X:**
- Tx 7.9 to 8.4 GHz
  - Rx 7.25 to 7.75 GHz
- Ku:**
- Tx 13.75 to 14.5 GHz (option from 12.75 GHz)
  - Rx 10.70 to 12.75 GHz
- Ka:**
- Tx 27.5 to 30.0 GHz
  - Rx 18.2 to 20.2 GHz (option Tx 30 to 31 GHz)
  - Rx 20.2 to 21.2 GHz)
  - Rx 46.1 dBi typ @ 19.7 GHz

### Gain

- X:**
- Tx 38.4 dBi typ @ 8.15 GHz
  - Rx 37.6 dBi typ @ 7.4 GHz

- Ku:**
- Tx 43.3 dBi typ @ 14.25 GHz
  - Rx 41.2 dBi typ @ 11.2 GHz

- DBS:**
- Tx 45.2 dBi typ @ 17.85 GHz
  - Rx 41.2 dBi typ @ 11.2 GHz

- Ka:**
- Tx 49.4 dBi typ @ 28.75 GHz

### G/T

- X:**
- 7.40 GHz = 15.3 dBk (Assumes LNA 50 dB Gain 0.8 dB NF)

- Ku:**
- 11.20 GHz = 19.4 dBk (Assumes LNB 60 dB gain 0.7 dB NF)

- Ka:**
- 19.70 GHz = 22.0 dBk (Assumes LNB 55 dB Gain 1.6 dB NF)

### Cross Polarisation Isolation

- X Band Circular**
- 30 dB Tx (axial ratio 1.07)
  - 20 dB Rx (axial ratio 1.22)

### Ku Band Linear

- 35 dB

### Ka Band

- Consult factory (All relative to co-polar gain within 1 dB contour)

### Port to Port Isolation

- X:**
- Tx / Rx 20 dB (100 dB incl filter)
  - Rx / Tx 20 dB

- Ku:**
- Tx / Rx 40 dB (110 dB incl filter)
  - Rx / Tx 30 dB

- Ka:**
- Tx / Rx 35 dB (110 dB incl filter)
  - Rx / Tx 35 dB

### Environmental

#### Weights

- Antenna
- 95Kg (209lbs)

#### Temperature

- Operational:**
- 20°C to +60°C (-4°F to 140°F)

- Transport:**
- 40°C to +70°C (-40°F to 158°F)

#### Wind Speed

- Operational:**
- 21 m/s (47 mph)

- Degraded:**
- 28 m/s (63 mph)

- Survival:**
- 50 m/s (112 mph)

- Humidity**
- 0 to 100% RH

## 1.5M NEWSWIFT

### Frequency

- C:**
- Tx 5.85 to 6.65 GHz
  - Rx 3.4 to 4.2 GHz
  - (option Tx 6.725 to 7.025 GHz)
  - Rx 4.5 to 4.8 GHz)
- X:**
- Tx 7.9 to 8.4 GHz
  - Rx 7.25 to 7.75 GHz
- Ku:**
- Tx 13.75 to 14.5 GHz (option from 12.75 GHz)
  - Rx 10.70 to 12.75 GHz
- Ka:**
- Tx 27.5 to 30.0 GHz
  - Rx 18.2 to 20.2 GHz (option Tx 30 to 31 GHz,
  - Rx 20.2 to 21.2 GHz)

### Gain

- C:**
- Tx 38 dBi typ @ 6.25 GHz
  - Rx 34 dBi typ @ 3.95 GHz

- X:**
- Tx 40.3 dBi typ @ 8.15 GHz
  - Rx 39.5 dBi typ @ 7.4 GHz

- Ku:**
- Tx 45.2 dBi typ @ 14.25 GHz
  - Rx 43.1 dBi typ @ 11.2 GHz

- Ka:**
- Tx 51.3 dBi typ @ 28.75 GHz
  - Rx 48 dBi typ @ 19.7 GHz

### G/T

- C:**
- 3.95 GHz = 13.5 dBk (assumes LNB 60 dB Gain 0.5 dB NF)

- X:**
- 7.40 GHz = 17.3 dBk (assumes LNA 50 dB Gain 0.8 dB NF)

- Ku:**
- 11.20 GHz = 21.4 dBk (assumes LNB 60 dB gain 0.7 dB NF)

- Ka:**
- 19.70 GHz = 24.0 dBk (assumes LNB 55 dB Gain 1.6 dB NF)

### Cross Polarisation Isolation

- C Band Linear:**
- 30 dB Tx/Rx
- C and X Band Circular:**
- 30 dB Tx (axial ratio 1.07)
  - 20 dB Rx (axial ratio 1.22)

### Ku Band Linear

- 35 dB

### Ka Band

- Consult factory (all relative to co-polar gain within 1 dB contour)

### Port to Port Isolation

- C:**
- Tx / Rx 40 dB (110 dB incl filter)
  - Rx / Tx 30 dB

- X:**
- Tx / Rx 20 dB (100 dB incl filter)
  - Rx / Tx 20 dB

- Ku:**
- Tx / Rx 40 dB (110 dB incl filter)
  - Rx / Tx 30 dB

- Ka:**
- Tx / Rx 35 dB (110 dB incl filter)
  - Rx / Tx 35 dB

### Wind Speed

- Operational:**
- 21 m/s (47 mph)

- Degraded:**
- 28 m/s (63 mph)

- Survival:**
- 50 m/s (112 mph)

### Stowed Dimensions

- 210cm l x 150cm w x 56cm [82.7" x 59" x 22"]

### Temperature

- Operational:**
- 20°C to +60°C [-4°F to 140°F]

- Transport:**
- 40°C to +70°C [-40°F to 158°F]

## 1.8M NEWSWIFT

### Frequency

- C:**
- Tx 5.85 to 6.65 GHz
  - Rx 3.4 to 4.2 GHz
  - (option Tx 6.725 to 7.025 GHz, Rx 4.5 to 4.8 GHz)
  - Rx 4.5 to 4.8 GHz
- X:**
- Tx 7.9 to 8.4 GHz
  - Rx 7.25 to 7.75 GHz
- Ku:**
- Tx 13.75 to 14.5 GHz (option from 12.75 GHz)
  - Rx 10.70 to 12.75 GHz
- Ka:**
- Tx 27.5 to 30.0 GHz
  - Rx 18.2 to 20.2 GHz (option Tx 30.0 to 31.0 GHz,
  - Rx 20.2 to 21.2 GHz)

### Gain

- C:**
- Tx 39.6 dBi typ @ 6.25 GHz
  - Rx 35.6 dBi typ @ 3.95 GHz

- X:**
- Tx 41.9 dBi typ @ 8.15 GHz
  - Rx 41.1 dBi typ @ 7.4 GHz

- Ku:**
- Tx 46.8 dBi typ @ 14.25 GHz
  - Rx 44.7 dBi typ @ 11.2 GHz

- Ka:**
- Tx 52.9 dBi typ @ 28.75 GHz
  - Rx 49.6 dBi typ @ 19.7 GHz

### G/T

- C:**
- 3.95 GHz = 15.0 dBk (assumes LNB 60 dB gain 0.5 dB NF)

- X:**
- 7.40 GHz = 18.8 dBk (assumes LNA 50 dB Gain 0.8 dB NF)

- Ku:**
- 11.20 GHz = 23.0 dBk (assumes LNB 60 dB gain 0.7 dB NF)

- Ka:**
- 19.70 GHz = 25.6 dBk (assumes LNB 55 dB Gain 1.6 dB NF)

### Cross Polarization Isolation

- C Band Linear**
- 30 dB Tx / Rx
- C and X Band Circular**
- 30 dB Tx (axial ratio 1.07)
  - 20 dB Rx (axial ratio 1.22)

### Ku Band Linear

- 35 dB

### Ka Band

- Consult factory (all relative to co-polar gain within 1 dB contour)

### Port to Port Isolation

- C:**
- Tx / Rx 40 dB (110 dB incl filter)
  - Rx / Tx 30 dB

- X:**
- Tx / Rx 20 dB (100 dB incl filter)
  - Rx / Tx 20 dB

- Ku:**
- Tx / Rx 40 dB (110 dB incl filter)
  - Rx / Tx 30 dB

- Ka:**
- Tx / Rx 35 dB (110 dB incl filter)
  - Rx / Tx 35 dB

### Wind Speed

- Operational:**
- 17 m/s (38 mph)

- Degraded:**
- 23 m/s (52 mph)

- Survival:**
- 40 m/s (90 mph)

### Stowed Dimensions

- 240cm l x 180cm w x 61cm h [94.5" x 70.9" x 24"]

### Temperature

- Operational:**
- 20°C to +60°C [-4°F to 140°F]

- Transport:**
- 40°C to +70°C [-40°F to 158°F]