

# 'NEWSWIFT' 1.2m Ku Band Motorised Antenna

- The 'NewSwift 120Ku' motorised antenna system is a highly compact integrated satellite terminal designed for rapid deployment. Featuring a specially shaped offset fed antenna manufactured in carbon fibre, the 'NewSwift' unique design can also house a redundant/phase combined RF package, mounted within the antenna assembly.
- Rapid deployment
- Full 3 axis control, includes 360° azimuth range
- C, Ku, DBS and X band feeds available
- GPS based auto satellite acquisition package available
- 800 City database controller
- Tracking option with beacon receiver
- Fully remote controllable
- Eutelsat type approved
- Intelsat type approved



# Specification

## Type

Offset fed

## Diameter

120 centimetres

## Configuration

Prime focus

## Mount

Elevation over azimuth

## Frequency

**Port 1:** Tx 12.75 to 14.5 GHz  
Rx 10.95 to 12.75 GHz

**Port 2:** Rx 10.95 to 12.75 GHz  
Tx 12.75 to 14.5 GHz

## Gain

Tx: 43.3 dBi min. @ 14.0 GHz  
(43.7 dBi typ.)

Rx: 41.2 dBi min. @ 10.95 GHz  
(41.7 dBi typ.)

## Off-axis gain

Tx: 23-25 log  $\theta$  for  $1 < \theta < 48^\circ$   
-10 dBi for  $48 < \theta < 180^\circ$   
Rx: 26-25 log  $\theta$  for  $1 < \theta < 48^\circ$   
-10 dBi for  $48 < \theta < 180^\circ$

## Polarisation type

Linear orthogonal

## Cross polar isolation

> -35 dB rel. co-polar gain within -1 dB contour

## Vswr

Tx: 1.2:1

Rx: 1.3:1

## Port/port isolation

Tx / Rx: 40 dB (110 dB incl. filter)

Rx / Tx: 30 dB

## Pointing stability

<0.5 dB

## Waveguide flanges

WR 75 / R120 flanges

## Antenna position control

Full 3-axis motor control with manual override mechanism

## Azimuth adjustment

360°

## Elevation adjustment

6 to 91°

## Polarisation adjustment

$\pm 90^\circ$

(with H/V waveguide switch)

## Antenna control unit

Serial remote interface

'one touch' stow & deploy

fast / med / slow motor drive system

Simultaneous positional feedback of Az. / El. / Pol. axes with true elevation reading from calibrated inclinometer

## Options

GPS based auto satellite acquisition package

H/V polarisation switch

X-axis waveguide kit

Rotary joint for azimuth axis

Transmit reject filter

3 port feed

4 port feed