

# 'NEWSWIFT' 1.5m X band Motorised Antenna

- The 'NewSwift 150X' 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



# Specification

**Type**  
Offset fed

**Diameter**  
150 centimetres

**Configuration**  
Prime focus

**Mount**  
Elevation over azimuth

**Frequency**  
Tx 7.9 to 8.4 GHz  
Rx 7.25 to 7.75 GHz

**Gain**  
Tx: 40.0 dBi min. @ 7.9 GHz  
(40.4 dBi typ.)

Rx: 39.2 dBi min. @ 7.25 GHz  
(39.6 dBi typ.)

**Off-axis gain**  
Tx: 29-25 log  $\theta$  for  $1 < \theta < 36^\circ$   
-10 dBi for  $36 < \theta < 130^\circ$   
Rx: 32-25 log  $\theta$  for  $1 < \theta < 48^\circ$   
-10 dBi for  $48 < \theta < 130^\circ$

**Polarisation type**  
Circular  
Axial ratio < 1.07 dB on axis

**VSWR**  
Tx: 1.4:1  
Rx: 1.35:1

**Port/port isolation**  
Tx / Rx: 20 dB (100 dB incl. filter)  
Rx / Tx: 20 dB

**Pointing stability**  
<0.5 dB

**Tx Waveguide flange**  
WR 112

**Rx Coax Interface**  
WR 112

**Antenna position control**  
Full 2-axis motor control with manual  
override mechanism

**Azimuth adjustment**  
360°

**Elevation adjustment**  
6 to 91°

**Polarisation adjustment**  
none

**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