



NEWSWIFT HD
Motorised Antenna

Available in:
C, X, Ku, DBS & Ka Band

The NewSwift HD antenna is a highly compact integrated satellite terminal designed for rapid deployment and high power transmissions.



Advent NewSwift HD

HIGH PERFORMANCE COMPACT INTEGRATED SOLUTION

KEY FEATURES

- Available with 1.5m or 1.8m reflector
- Bands available via feed cartridge exchange:
 - 1.5m - C, X, Ku, DBS & Ka
 - 1.8m - C, X, Ku, DBS & Ka
- Full 3 axis control includes 360° azimuth range
- GPS based auto satellite acquisition package available
- Integral Satellite Database which automatically provides Antenna Pointing Data
- Tracking option with beacon receiver
- Full remote control
- Eutelsat, Intelsat and Arabsat compliant
- All models are approved for use with 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



The NewSwift HD design allows for up to two 400 watt phase combined HPA's or two 750 watt HPA's in a redundant configuration. Allows for integration of two 5000 series upconverters and APS5000 (Protection Switch) within the NewSwift HD new aero-dynamic enclosure. The HPA's are as close as possible to the feed, thereby minimising the waveguide loss and maximising the available EIRP.

The fully weatherproof RF equipment is further protected from the weather by a removable cover thus ensuring reliable operation whatever the environmental conditions.

The entire aero-dynamic enclosure housing the RF equipment rotates with the azimuth axis eliminating the need for an expensive and lossy waveguide rotary joint.



GENERAL NEWSWIFT HD SPECIFICATION

Meets Requirements Of:

ITU-R S.580-6
ITU-R S.465-5
INTELSAT IESS-601
EUTELSAT EESS-601
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

Azimuth Adjustment 360°

Elevation Adjustment 6° to 91°

Polarisation Adjustment

Linear: +/- 90°
Circular: None

Antenna Control Unit (ACU5000 Series)

- 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



Options

- GPS based auto satellite acquisition package
- Rotary joint for azimuth axis
- Co-polar receive facility for Ku band

SPECIFICATION 1.5M NEWSWIFT HD

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 10.7 to 12.75 GHz
DBS:	Tx 17.3 to 18.1 GHz (option to 18.4 GHz) Rx 10.7 to 12.75 GHz
Ka:	Tx 27.5 to 30 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
DBS:	Tx 47.2 dBi typ. @ 17.85 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

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 and DBS Band Linear

-35 dB

Ka Band

Consult factory

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

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)
DBS:	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)

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
DBS:	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

Temperature

Operational	-20°C to +60°C
Transport	-40°C to +70°C

Windspeed

Operational	21 m/s (47 mph)
Degraded	28 m/s (63 mph)
Survival	50 m/s (112 mph)

Humidity

0 to 100% RH

Stowed Dimensions

Length	2100 cms
Width	1500 cms
Height	560 cms

SPECIFICATION 1.8M NEWSWIFT HD

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 10.7 to 12.75 GHz
DBS:	Tx 17.3 to 18.1 GHz (option to 18.4 GHz) Rx 10.7 to 12.75 GHz
Ka:	Tx 27.5 to 30 GHz Rx 18.2 to 20.2 GHz (option Tx 30 to 31 GHz, Rx 20.2 to 21.2 GHz)

Gain

C:	Tx 39.6 dBi typ. @ 6.25GHz Rx 35.6 dBi typ. @ 3.95GHz
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
DBS:	Tx 48.7 dBi typ. @ 17.85 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

Cross Polarisation

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 and DBS Band Linear -35 dB

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

G/T

C:	3.95GHz = 15.0dBK (assumes LNB 60 dB Gain 0.5 dB NF)
X:	7.40GHz = 18.8dBK (assumes LNA 50 dB Gain 0.8 dB NF)
Ku:	11.20GHz = 23.0dBK (assumes LNB 60 dB Gain 0.7 dB NF)
DBS:	11.20GHz = 23.0dBK (assumes LNB 60 db Gain 0.7 dB NF)
Ka:	19.70GHz = 25.6dBK (assumes LNB 55 dB Gain 1.6 dB NF)

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
DBS:	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

Temperature

Operational	-20°C to +60°C
Transport	-40°C to +70°C

Windspeed

Operational	17 m/s (38 mph)
Degraded	23 m/s (52 mph)
Survival	40 m/s (90 mph)

Humidity 0 to 100% RH

Stowed Dimensions

Length	2400 cms
Width	1800 cms
Height	610 cms





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These specifications are accurate at the time of issue but may be subject to change and will not form part of any contract.