

# 1.5 x 1.8m Flyaway SNG Uplink

- The SNG60/140DT multi-band 1.5m x 1.8m Flyaway Satellite Uplink link can operate in C, X, Ku or DBS bands. The lightweight portable design is optimised for flyaway operations in all weathers, worldwide.
- Segmented 1.8/1.5m Antenna
- Type approved by EUTELSAT and INTELSAT at both C and Ku bands
- Sidelobes better than 23-25 log  $\theta$  dBi
- Analogue and Digital Video MPEG2 and ETSI
- Hot standby with auto changeover upconverters and HPAs
- Shockproof, waterproof transport cases
- Dual band option 6 & 14 or 14 & 17/18 GHz
- Two-way communications channels for talkback and cue



# Specification

## ANTENNA

### Type

1.8/1.5 metre, single offset, carbon fibre honeycomb, 4 petals. EUTELSAT and INTELSAT type approved (C and Ku).

### Performance

Band:	Gain DBi	G/T dB/K	Pol.
C	38.7	14.5	Circ./lin.
X	40.0	17.0	Circular
Ku	46.0	22.5	Linear
DBS	47.4	22.5	Linear

### Side lobes

#### Ku, DBS bands

Better than 23-25log $\theta$ dB

#### C, X bands

Comfortably within 29-25log $\theta$ dB

## OMT

### C band

4 port with independent Tx/Rx

### X, Ku, DBS bands

2 port, with V/H waveguide switchremote change-over, (4 port option)

### Voltage axial ratio

<1.3:1 (circular)

### Transmit reject

>35 dB (linear)

### Cross polarisation

>70 dB

## ANTENNA MOUNT

### Type

Sturdy tripod

### Levelling

Fully adjustable for 15° slope; total stability on uneven ground

### Panning arcs

#### Azimuth

360° continuous

#### Elevation

0 to 90°

### Polarisation

360° continuous

### Construction

carbon fibre, stainless steel and aluminium for optimum corrosion resistance

### Wind speed

80 Km/hour (reflector vertical, unrestrained),  
120 Km/hour survival with tripod ballast

## RF

### Frequency bands

#### Transmit

5.85 to 6.45 (option 6.75) GHz

7.9 to 8.4 GHz

13.75 to 14.5 (option 14.8) GHz

17.3 to 18.4, 17.8 to 18.4 GHz

### Receive

3.7 to 4.2 GHz

10.7 to 12.75 GHz

### Tuning

Fully synthesised, 125kHz stepsRemote switching facility

### High power TWTs

#### C band

400 and 700 Watts

#### C band linearised

400 Watts, requires only 1dB back off

#### Ku band

125, 450 and 700 Watts

#### DBS band

300 Watts

#### C/Ku dual band

400 Watts (linearised at C band)

#### Ku/DBS bands

400/250 Watts

(all powers nominal at TWT output flange)

### Transmit EIRP

	Single TWT	VPC
C band (400W)	64.2 dBW	66.8 dBW
Ku band (125W)	66.0 dBW	68.5 dBW
Ku band (450W)	71.5 dBW	74.0 dBW
DBS band (300W)	1.0 dBW	

(all powers Psat nominal, and include waveguide interconnect losses. For digital modulation appropriate back off should be applied; C band and Ku 125W TWTs are design optimised for power vs linearity)

## MODULATION

### Analogue Fm Video

#### Input signals

PAL, NTSC, SECAM, DMAC4 high quality audios

#### Features

Subcarriers tuneable 5.5 to 9 MHz in 5 KHz steps.

#### Internal IF filters

36/30/27/26/25/20/ 17.5 MHz (any four) for simulcast applications.

High stability deviation presets for video and audio.

Colour bars test signal option, with on screen

#### IDFurther details

For full performance see SVX-T data

### Digital Video

#### Formats

MPEG2 (2 to 15 Mbit/s), MPEG2 S level 4.2.2.

ETSI 8/17/34 Mbit/s, other rates to 45

Mbit/s

### Narrow Band Digital

Stereo audio (variable data rates)

Two rates Comms, talkback telephone, fax (e.g. 9.6/64/256 kbit/s)

## IF/RF

### Upconverter

#### Input frequency

70 MHz nominal

#### Output frequency

5.85 to 6.45 (extended 6.75) GHz

13.75/14.0 to 14.5 (extended 14.8) GHz

17.3 to 18.1 (extended 18.4) GHz

#### Step size

125 KHz (or 100 KHz)

#### Phase noise

Data compliant to IESS 308/309

#### Frequency stability

better than 5 parts 108

#### Transmission monitor

L band port at 1140 MHz

## Alarms, monitoring, and remote control

### Alarms, monitoring

Comprehensive remote alarms and monitoring from the rear panels, automatic change over switching

### Remote control

RS422 remote control, industry standard protocol, multiple platform standard, e.g. PC

## POWER

### Input power

95 to 265 VAC auto ranging, 50/60 Hz

Power factor correction (99% typ) on HPA

### Power consumption

2kW (unduplicated), 4kW (duplicated)

## MECHANICAL AND ENVIRONMENTAL

Case	Unduplicated	Duplicated
1	tripod	tripod
2	Mount	Mount
3	Reflector 1 + frame	Reflector 1 + frame
4	Reflector 2,3,4	Reflector 2,3,4
5	Feed arm	Feed arm
6	Coder Modulator	Coder Modulator
7	L-Band RX HPA & UC	L-Band RX HPA
8		HPA
9		UC (2) VPC

### Max. case dimensions

IATA compliant

### Construction

Weatherproof throughout

### Operating temp

-20°C to +45°C Spec

-25°C to +50°C Safe

-40°C to +60°C

### Storage Compliances

ETS300.327, ISO9001