

SIS Live Ltd

Approved by OMB  
3060-0678

APPLICATION FOR EARTH STATION SPECIAL TEMPORARY AUTHORITY

APPLICANT INFORMATION Enter a description of this application to identify it on the main menu:  
SIS LIVE F1 AUSTIN FLYAWAY 1

1. Applicant

<b>Name:</b>	SIS Live Ltd	<b>Phone Number:</b>	+441582842717
<b>DBA Name:</b>		<b>Fax Number:</b>	+441582849013
<b>Street:</b>	2 Whitehall Ave, Kingston	<b>E-Mail:</b>	jh@beaconseek.com
<b>City:</b>	Milton Keynes	<b>State:</b>	
<b>Country:</b>	United Kingdom	<b>Zipcode:</b>	
<b>Attention:</b>	Mr Jonathan Higgins		



File # SES-STA-20170914-01019  
 Call Sign 9-27-17 Grant Date 9-27-17  
 (or other identifier)

Term Dates  
 From: 9-27-17 To: 10-27-17

Approved: Ken Murray  
 Deputy Chief, Satellite Div.

Applicant: SIS Live Ltd  
No Call Sign  
File No.: SES-STA-20170914-01019  
Special Temporary Authority (STA)



File # SES-STA-20170914-01019

Call Sign \_\_\_\_\_ Grant Date 9-27-17  
(or other identifier)

From: 9-27-17 Term Dates To: 10-27-17

Approved: Key Munday  
Dep. Chief, Satellite Div.

SIS Live Ltd is granted STA for 30 days to operate a 2.4 m Vislink antenna, model Mantis 240, Transmit-Only Temporary-Fixed earth station from Austin, Texas at location 30° 08' 05" N/ 097° 38' 32.0" W (NAD-83) on frequencies 14222-14240 MHz and 14246-14258 MHz with space station AMC 21 (Call Sign S2676) at orbital location 124.9° W under the following conditions:

1. All operations shall be within the limit power requested and minimum elevation angle shall be at least 5 degrees above the geographic horizon pursuant to 47 C.F.R. § 25.205.
2. Operations under this authority are on a non-interference basis only.
3. Operations under this authority are on a non-protected basis only.
4. In the event that there is a report of interference, SIS Live Ltd shall immediately terminate transmissions and notify the FCC in writing.
5. Transmitter(s) must be turned off during antenna maintenance to ensure compliance with the FCC-specified safety guidelines for human exposure to radiofrequency radiation in the region between the antenna feed and the reflector.
6. The licensee shall take all necessary measures to ensure that the antenna does not create potential exposure of humans to radiofrequency radiation in excess of the FCC exposure limits defined in 47 CFR 1.1307(b) and 1.1310 wherever such exposures might occur. Measures must be taken to ensure compliance with limits for both occupational/controlled exposure and for general population/uncontrolled exposure, as defined in these rule sections. The FCC's OET Bulletin 65 (available on-line at [www.fcc.gov/oet/rfsafety](http://www.fcc.gov/oet/rfsafety)) provides information on predicting exposure levels and on methods for ensuring compliance, including the use of warning and alerting signs and protective equipment for workers.
7. Grant of this authorization is without prejudice to any determination that the Commission may make regarding pending or future SIS Live Ltd's applications.
8. This action is issued pursuant to Section 0.261 of the Commission's rules on delegated authority, 47 C.F.R. § 0.261, and is effective immediately.

<b>2. Contact</b>	
<b>Name:</b> Jonathan Higgins	<b>Phone Number:</b> +441582842717
<b>Company:</b> BeaconSeek Ltd	<b>Fax Number:</b> +441582849013
<b>Street:</b> Hithermailes 212 Mancroft Rd Aley Green	<b>E-Mail:</b> jh@beaconseek.com
<b>City:</b> Luton	<b>State:</b>
<b>Country:</b> United Kingdom	<b>Zipcode:</b> LU1 -4DR
<b>Attention:</b>	<b>Relationship:</b> Engineer
(If your application is related to an application filed with the Commission, enter either the file number or the IB Submission ID of the related application. Please enter only one.)	
3. Reference File Number or Submission ID	
4a. Is a fee submitted with this application?	
<input checked="" type="radio"/> If Yes, complete and attach FCC Form 159. If No, indicate reason for fee exemption (see 47 C.F.R. Section 1.1114). <input type="radio"/> Governmental Entity <input type="radio"/> Noncommercial educational licensee <input type="radio"/> Other (please explain):	
4b. Fee Classification CGX – Fixed Satellite Transmit/Receive Earth Station	
5. Type Request	
<input type="radio"/> Use Prior to Grant <input type="radio"/> Change Station Location <input checked="" type="radio"/> Other	
6. Requested Use Prior Date 10/16/2017	
7. City Austin	
8. Latitude (dd mm ss.s h) 30 8 5.0 N	

9. State TX	10. Longitude (dd mm ss.s h) 97 38 32.0 W
11. Please supply any need attachments. Attachment 1: SIS LIVE - 312      Attachment 2: Antenna spec      Attachment 3:	
12. Description. (If the complete description does not appear in this box, please go to the end of the form to view it in its entirety.) <div style="border: 1px solid black; padding: 5px; min-height: 100px;">Operation of flyaway as DR for coverage of F1 Grand Prix for rights holders</div>	
13. By checking Yes, the undersigned certifies that neither applicant nor any other party to the application is subject to a denial of Federal benefits that includes FCC benefits pursuant to Section 5301 of the Anti-Drug Act of 1988, 21 U.S.C. Section 862, because of a conviction for possession or distribution of a controlled substance. See 47 CFR 1.2002(b) for the meaning of "party to the application"; party to the application; for these purposes.      Yes <input checked="" type="radio"/> No <input type="radio"/>	
14. Name of Person Signing Jonathan Higgins	15. Title of Person Signing Engineering Consultant
WILLFUL FALSE STATEMENTS MADE ON THIS FORM ARE PUNISHABLE BY FINE AND / OR IMPRISONMENT (U.S. Code, Title 18, Section 1001), AND/OR REVOCATION OF ANY STATION AUTHORIZATION (U.S. Code, Title 47, Section 312(a)(1)), AND/OR FORFEITURE (U.S. Code, Title 47, Section 503).	

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**THE FOREGOING NOTICE IS REQUIRED BY THE PAPERWORK REDUCTION ACT OF 1995, PUBLIC LAW 104-13, OCTOBER 1, 1995, 44 U.S.C. SECTION 3507.**

Approved by OMB  
3060-0678

Date & Time Filed:  
File Number: ---  
Callsign/Satellite ID:

<b>APPLICATION FOR EARTH STATION AUTHORIZATIONS</b>	FCC Use Only
<b>FCC 312 MAIN FORM FOR OFFICIAL USE ONLY</b>	

**APPLICANT INFORMATION**

Enter a description of this application to identify it on the main menu:

SIS LIVE F1 AUSTIN FLYAWAY 1

<b>1-8. Legal Name of Applicant</b>	
Name: SIS Live Ltd	Phone Number: +441582842717
DBA Name:	Fax Number: +441582849013
Street: 2 Whitehall Ave, Kingston	E-Mail: jh@beaconseek.com
City: Milton Keynes	State:
Country: United Kingdom	Zipcode: -
Attention: Mr Jonathan Higgins	

<b>9-16. Name of Contact Representative</b>	
Name: Jonathan Higgins	Phone Number: +441582842717
Company: BeaconSeek Ltd	Fax Number: +441582849013
Street: Hithermailes 212 Mancroft Rd Aley Green	E-Mail: jh@beaconseek.com
City: Luton	State:
Country: United Kingdom	Zipcode: LU1 -4DR
Attention: Jonathan Higgins	Relationship: Engineer

**CLASSIFICATION OF FILING**

<p>17. Choose the button next to the classification that applies to this filing for both questions a. and b. Choose only one for 17a and only one for 17b.</p> <p>a.</p> <p><input checked="" type="radio"/> a1. Earth Station</p> <p>(N/A) a2. Space Station</p>	<p>b.</p> <p><input checked="" type="radio"/> b1. Application for License of New Station</p> <p><input type="radio"/> b2. Application for Registration of New Domestic Receive-Only Station</p> <p>(N/A) b3. Amendment to a Pending Application</p> <p>(N/A) b4. Modification of License or Registration</p> <p>(N/A) b5. Assignment of License or Registration</p> <p>(N/A) b6. Transfer of Control of License or Registration</p> <p>(N/A) b7. Notification of Minor Modification</p> <p>(N/A) b8. Application for License of New Receive-Only Station Using Non-U.S. Licensed Satellite</p> <p>(N/A) b9. Letter of Intent to Use Non-U.S. Licensed Satellite to Provide Service in the United States</p> <p><input type="radio"/> b10. Other (Please specify)</p> <p><input type="radio"/> b11. Application for Earth Station to Access a Non-U.S. satellite Not Currently Authorized to Provide the Proposed Service in the Proposed Frequencies in the United States.</p>
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<p>17c. Is a fee submitted with this application?</p> <p><input checked="" type="radio"/> If Yes, complete and attach FCC Form 159.</p> <p>If No, indicate reason for fee exemption (see 47 C.F.R. Section 1.1114).</p> <p><input type="radio"/> Governmental Entity <input type="radio"/> Noncommercial educational licensee</p> <p><input type="radio"/> Other (please explain):</p>
--

<p>17d.</p> <p>Fee Classification BAX - Fixed Satellite Transmit/Receive Earth Station</p>
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18. If this filing is in reference to an existing station, enter: (a) Call sign of station: Not Applicable	19. If this filing is an amendment to a pending application enter: (a) Date pending application was filed: Not Applicable (b) File number of pending application: Not Applicable
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TYPE OF SERVICE

20. NATURE OF SERVICE: This filing is for an authorization to provide or use the following type(s) of service(s). Select all that apply:

a. Fixed Satellite  
 b. Mobile Satellite  
 c. Radiodetermination Satellite  
 d. Earth Exploration Satellite  
 e. Direct to Home Fixed Satellite  
 f. Digital Audio Radio Service  
 g. Other (please specify)

21. STATUS: Choose the button next to the applicable status. Choose only one.  
 Common Carrier  Non-Common Carrier

22. If earth station applicant, check all that apply.  
 Using U.S. licensed satellites  
 Using Non-U.S. licensed satellites

23. If applicant is providing INTERNATIONAL COMMON CARRIER service, see instructions regarding Sec. 214 filings. Choose one. Are these facilities:  
 Connected to a Public Switched Network  Not connected to a Public Switched Network  N/A

24. FREQUENCY BAND(S): Place an "X" in the box(es) next to all applicable frequency band(s).  
 a. C-Band (4/6 GHz)  b. Ku-Band (12/14 GHz)  
 c. Other (Please specify upper and lower frequencies in MHz.)  
 Frequency Lower: Frequency Upper:

TYPE OF STATION

25. CLASS OF STATION: Choose the button next to the class of station that applies. Choose only one.  
 a. Fixed Earth Station  
 b. Temporary-Fixed Earth Station  
 c. 12/14 GHz VSAT Network  
 d. Mobile Earth Station  
 (N/A) e. Geostationary Space Station  
 (N/A) f. Non-Geostationary Space Station  
 g. Other (please specify)

26. TYPE OF EARTH STATION FACILITY: Choose only one.  
 Transmit/Receive  Transmit-Only  Receive-Only  N/A

PURPOSE OF MODIFICATION

27. The purpose of this proposed modification is to: (Place an 'X' in the box(es) next to all that apply.)  
 Not Applicable

ENVIRONMENTAL POLICY

28. Would a Commission grant of any proposal in this application or amendment have a significant environmental impact as defined by 47 CFR 1.1307? If YES, submit the statement as required by Sections 1.1308 and 1.1311 of the Commission's rules, 47 C.F.R. §§ 1.1308 and 1.1311, as an exhibit to this application. A Radiation Hazard Study must accompany all applications for new transmitting facilities, major modifications, or major amendments.  Yes  No

ALIEN OWNERSHIP Earth station applicants not proposing to provide broadcast, common carrier, aeronautical en route or aeronautical fixed radio station services are not required to respond to Items 30-34.

29. Is the applicant a foreign government or the representative of any foreign government?  Yes  No

30. Is the applicant an alien or the representative of an alien?  Yes  No  N/A

31. Is the applicant a corporation organized under the laws of any foreign government?  Yes  No  N/A

32. Is the applicant a corporation of which more than one-fifth of the capital stock is owned of record or voted by aliens or their representatives or by a foreign government or representative thereof or by any corporation organized under the laws of a foreign country?  Yes  No  N/A

33. Is the applicant a corporation directly or indirectly controlled by any other corporation of which more than one-fourth of the capital stock is owned of record or voted by aliens, their representatives, or by a foreign government or representative thereof or by any corporation organized under the laws of a foreign country?  Yes  No  N/A

34. If any answer to questions 29, 30, 31, 32 and/or 33 is Yes, attach as an exhibit an identification of the aliens or foreign entities, their nationality, their relationship to the applicant, and the percentage of stock they own or vote.

### BASIC QUALIFICATIONS

35. Does the Applicant request any waivers or exemptions from any of the Commission's Rules?  Yes  No  
If Yes, attach as an exhibit, copies of the requests for waivers or exceptions with supporting documents.

36. Has the applicant or any party to this application or amendment had any FCC station authorization or license revoked or had any application for an initial, modification or renewal of FCC station authorization, license, or construction permit denied by the Commission? If Yes, attach as an exhibit, an explanation of circumstances.  Yes  No

37. Has the applicant, or any party to this application or amendment, or any party directly or indirectly controlling the applicant ever been convicted of a felony by any state or federal court? If Yes, attach as an exhibit, an explanation of circumstances.  Yes  No

38. Has any court finally adjudged the applicant, or any person directly or indirectly controlling the applicant, guilty of unlawfully monopolizing or attempting unlawfully to monopolize radio communication, directly or indirectly, through control of manufacture or sale of radio apparatus, exclusive traffic arrangement or any other means or unfair methods of competition? If Yes, attach as an exhibit, an explanation of circumstances  Yes  No

39. Is the applicant, or any person directly or indirectly controlling the applicant, currently a party in any pending matter referred to in the preceding two items? If yes, attach as an exhibit, an explanation of the circumstances.  Yes  No

40. If the applicant is a corporation and is applying for a space station license, attach as an exhibit the names, address, and citizenship of those stockholders owning a record and/or voting 10 percent or more of the Filer's voting stock and the percentages so held. In the case of fiduciary control, indicate the beneficiary(ies) or class of beneficiaries. Also list the names and addresses of the officers and directors of the Filer.

41. By checking Yes, the undersigned certifies, that neither applicant nor any other party to the application is subject to a denial of Federal benefits that includes FCC benefits pursuant to Section 5301 of the Anti-Drug Act of 1988, 21 U.S.C. Section 862, because of a conviction for possession or distribution of a controlled substance. *See 47 CFR 1.2002(b) for the meaning of "party to the application" for these purposes.*  Yes  No

42a. Does the applicant intend to use a non-U.S. licensed satellite to provide service in the United States? If Yes, answer 42b and attach an exhibit providing the information specified in 47 C.F.R. 25.137, as appropriate. If No, proceed to question 43.  Yes  No

42b. What administration has licensed or is in the process of licensing the space station? If no license will be issued, what administration has coordinated or is in the process of coordinating the space station?

43. Description. (Summarize the nature of the application and the services to be provided). Use of temporary flyaway to provide DR for coverage of F1 Grand Prix to rights holders

#### 43a. Geographic Service Rule Certification

By selecting A, the undersigned certifies that the applicant is not subject to the geographic service or geographic coverage requirements specified in 47 C.F.R. Part 25.  A

By selecting B, the undersigned certifies that the applicant is subject to the geographic service or geographic coverage requirements specified in 47 C.F.R. Part 25 and will comply with such requirements.  B

By selecting C, the undersigned certifies that the applicant is subject to the geographic service or geographic coverage requirements specified in 47 C.F.R. Part 25 and will not comply with such requirements because it is not feasible as a technical matter to do so, or that, while technically feasible, such services would require so many compromises in satellite design and operation as to make it economically unreasonable. A narrative description and technical analysis demonstrating this claim are attached.  C

### CERTIFICATION

The Applicant waives any claim to the use of any particular frequency or of the electromagnetic spectrum as against the regulatory power of the United States because of the previous use of the same, whether by license or otherwise, and requests an authorization in accordance with this application. The applicant certifies that grant of this application would not cause the applicant to be in violation of the spectrum aggregation limit in 47 CFR Part 20. All statements made in exhibits are a material part hereof and are incorporated herein as if set out in full in this application. The undersigned, individually and for the applicant, hereby certifies that all statements made in this application and in all attached exhibits are true, complete and correct to the best of his or her knowledge and belief, and are made in good faith.

44. Applicant is a (an): (Choose the button next to applicable response.)

- Individual
- Unincorporated Association
- Partnership
- Corporation



- Governmental Entity
- Other (please specify)  
Limited Liability Corporation

45. Name of Person Signing Jonathan Higgins	46. Title of Person Signing Engineering Consultant
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47. Please supply any need attachments.

Attachment 1:	Attachment 2:	Attachment 3:
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**WILLFUL FALSE STATEMENTS MADE ON THIS FORM ARE PUNISHABLE BY FINE AND / OR IMPRISONMENT (U.S. Code, Title 18, Section 1001), AND/OR REVOCATION OF ANY STATION AUTHORIZATION (U.S. Code, Title 47, Section 312(a)(1)), AND/OR FORFEITURE (U.S. Code, Title 47, Section 503).**

**SATELLITE EARTH STATION AUTHORIZATIONS  
FCC Form 312 - Schedule B:(Technical and Operational Description)**

**FOR OFFICIAL USE ONLY**

Location of Earth Station Site

E1. Site Identifier: Circuit of Americas	E5. Call Sign: UKI-1748
E2. Contact Name: Paul Foster	E6. Phone Number: +447860611583
E3. Street: 9201 Circuit of Americas Boulevard	E7. City: Austin
E4. State: TX	E8. County:
E10. Area of Operation:	E9. Zip Code: 78617
E11. Latitude: 30 ° 8 ' 5.0 " N	E10. Area of Operation: Raceway secure area
E12. Longitude: 97 ° 38 ' 32.0 " W	
E13. Lat/Lon Coordinates are:	<input type="radio"/> NAD-27 <input checked="" type="radio"/> NAD-83 <input type="radio"/> N/A
E14. Site Elevation (AMSL):	156.0 meters

E15. If the proposed antenna(s) operate in the Fixed Satellite Service (FSS) with geostationary satellites, do(es) the proposed antenna(s) comply with the antenna gain patterns specified in Section 25.209(a) and (b) as demonstrated by the manufacturer's qualification measurement? If NO, provide a technical analysis showing compliance with two-degree spacing policy.	<input checked="" type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A
E16. If the proposed antenna(s) do not operate in the Fixed Satellite Service (FSS), or if they operate in the Fixed Satellite Service (FSS) with non-geostationary satellites, do(es) the proposed antenna(s) comply with the antenna gain patterns specified in Section 25.209(a2) and (b) as demonstrated by the manufacturer's qualification measurements?	<input type="radio"/> Yes <input type="radio"/> No <input checked="" type="radio"/> N/A
E17. Is the facility operated by remote control? If YES, provide the location and telephone number of the control point.	<input type="radio"/> Yes <input checked="" type="radio"/> No
E18. Is frequency coordination required? If YES, attach a frequency coordination report as	<input type="radio"/> Yes <input checked="" type="radio"/> No
E19. Is coordination with another country required? If YES, attach the name of the country(ies) and plot of coordination contours as	<input type="radio"/> Yes <input checked="" type="radio"/> No
<b>E20. FAA Notification - (See 47 CFR Part 17 and 47 CFR part 25.113(c)) Where FAA notification is required, have you attached a copy of a completed FCC Form 854 and or the FAA's study regarding the potential hazard of the structure to aviation? FAILURE TO COMPLY WITH 47 CFR PARTS 17 AND 25 WILL RESULT IN THE RETURN OF THIS APPLICATION.</b>	<input type="radio"/> Yes <input checked="" type="radio"/> No

**POINTS OF COMMUNICATION**

Satellite Name: AMC 21 | AMC 21 | 124.9 W.L. If you selected OTHER, please enter the following:

E21. Common Name:	E22. ITU Name:
E23. Orbit Location:	E24. Country:

**POINTS OF COMMUNICATION (Destination Points)**

E25. Site Identifier: Circuit of Americas

E26. Common Name:						E27. Country:USA		
<b>ANTENNA</b>								
Site ID	E28. Antenna Id	E29. Quantity	E30. Manufacturer	E31. Model	E32. Antenna Size	E41/42. Antenna Gain Transmint and/or Recieve(____dBi at ____GHz)		
Circuit of Americas	UKI-1748	1	Vislink	Mantis 240	2.4	49.3 dBi at 14.25		
E28. Antenna Id	E33/34. Diameter Minor/Major(meters)		E35. Above Ground Level (meters)	E36. Above Sea Level (meters)	E37. Building Height Above Ground Level (meters)	E38. Total Input Power at antenna flange (Watts)	E39. Maximum Antenna Height Above Rooftop (meters)	E40. Total EIRP for al carriers (dBW)
UKI-1748	2.4/2.4		2.0	161.0	2.0	220.0	0.0	67.0
<b>FREQUENCY</b>								
E28. Antenna Id	E43/44. Frequency Bands(MHz)	E45. T/R Mode	E46. Antenna Polarization(H,V,L,R)	E47. Emission Designator	E48. Maximum EIRP per Carrier(dBW)	E49. Maximum EIRP Density per Carrier(dBW/4kHz)		
UKI-1748	14222 14240	T	Horizontal	18M0G7W	67.0	-30.83		
E50. Modulation and Services 8-PSK DVB-S2 HD MPEG-4 Video Audio								
UKI-1748	14246 14258	T	Horizontal	12M0G7W	64.0	-27.8		
E50. Modulation and Services 8-PSK DVB-S2 HD MPEG-4 Video Audio								
<b>FREQUENCY COORDINATION</b>								
E28. Antenna Id	E51. Satellite Orbit Type	E52/53. Frequency Limits(MHz)	E54/55. Range of Satellite Arc E/W Limit	E56. Earth Station Azimuth Angle Eastern Limit	E57. Antenna Elevation Angle Eastern Limit	E58. Earth Station Azimuth Angle Western Limit	E59. Antenna Elevation Angle Western Limit	E60. Maximum EIRP Density toward the Horizon(dBW/4kHz)
UKI-1748	Geostationary	14222 14258	124.9/125.1	225.5	38.1	225.7	38.0	56.7
<b>REMOTE CONTROL POINT LOCATION</b>								
<b>REMOTE CONTROL POINT LOCATION</b>								
E61. Call Sign						E65. Phone Number		
NOTE: Please enter the callsign of the controlling station, not the callsign for which this application is being filed.								
E62. Street Address								
E63. City				E67. County			E64/68. State/Country	E66. Zip Code

**FCC NOTICE REQUIRED BY THE PAPERWORK REDUCTION ACT**

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the government may not conduct or sponsor this collection, unless it displays a currently valid OMB control number or if we fail to provide you with this notice. This collection has been assigned an OMB control number of 3060-0678.

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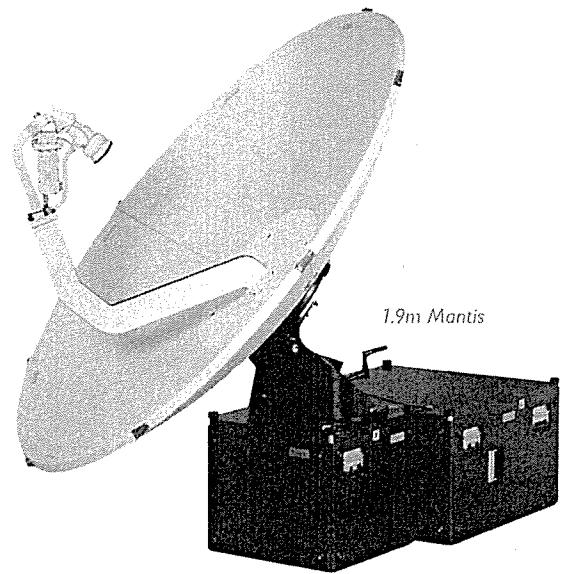
## Mantis 190/240 Flyaway Antenna System The World's Most Popular Flyaway Solution

### OVERVIEW

A comprehensive range of lightweight, compact satellite terminals for all transportable applications.

### BENEFITS

- Mantis is available in 1.9m and 2.4m antenna sizes
- Available in single, dual, tri and quad band configurations
- Bands available:
  - 1.9m - C, X, Ku & DBS
  - 2.4m - C, X, Ku & DBS
- Fully compliant with all satellite operator specifications
- Motorised tracking option for inclined orbit operation
- Electronics available in single thread, power combined or 1:1 redundant configuration
- Antennas are approved for use with most Satellite operators
- Variety of uplink electronics packages available
- Available in most colours to order
- Co-polar Rx available on Ku antennas
- Second Rx port available on C Band linear antennas

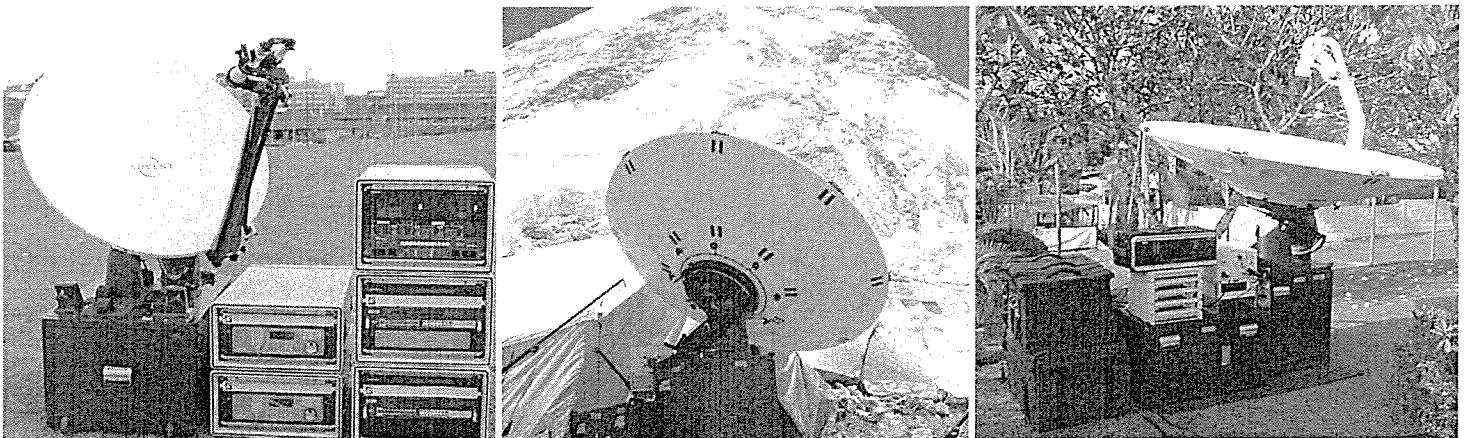


### Key Features

- Manufactured using latest carbon fibre composite materials for minimum weight
- Easily deployed by a single user
- Compact design, IATA weight compliant options

### Typical Applications

- Satellite Newsgathering
- Remote Newsgathering



1.9m MANTIS

**TYPE**

- Circular (axially symmetric) segmented

**CONFIGURATION**

- Prime focus

**MEETS THE REQUIREMENTS OF**

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

**MECHANICAL**

Mount:

- Elevation over azimuth

**OPERATION**

- Manual and/or 2 axis motorisation

**MOVEMENT**

Azimuth adjustment:

- +/- 180° coarse adjust (restricted elevation), +/- 2.5° fine adjust

Elevation adjustment:

- 0° to 90° (with adjustable mount elevation)

Polarisation adjustment:

- +/- 95° (Linear polarisation only)

**FREQUENCY**

**C CP:**

- Tx 5.85 to 6.425 GHz
- Rx 3.625 to 4.2 GHz

**C LP:**

- Tx 5.85 to 6.65 GHz (option to 6.725 GHz)
- Rx 3.40 to 4.2 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 13.0 GHz)
- Rx 10.70 to 12.75 GHz

**DBS:**

- Tx 17.3 to 18.1 GHz (option to 18.4 GHz)
- Rx 10.70 to 12.75 GHz

**TX GAIN**

**C:**

- Tx 40.1 dBi typ @ 6.25 GHz

**X:**

- Tx 42.4 dBi typ @ 8.15 GHz

**Ku:**

- Tx 47.2 dBi typ @ 14.25 GHz

**DBS:**

- Tx 49.2 dBi typ @ 17.85 GHz

**G/T**

**C:**

- 3.95 GHz = 15.0 dBk (assumes LNB 60 dB Gain 0.5 db NF)

**X:**

- 7.40 GHz = 19.3 dBk (assumes LNA 50 dB Gain 0.8 dB NF)

**Ku:**

- 11.20 GHz = 23.3 dBk (assumes LNB 60 dB gain 0.7 dB NF)

**DBS:**

- 11.20 GHz = 23.3 dBk (assumes LNB 60 dB Gain 0.7 dB NF)

**CROSS POLARISATION ISOLATION**

**C Band Linear**

- -30 dB Tx / Rx

**C and X Band Ciruclar**

- 30 dB Tx (axial ratio 1.07)
- 20 dB Rx (axial ratio 1.22)

**Ku and DBS Band Linear**

- -35 dB

**PORT TO PORT ISOLATION**

**C Band Linear**

- Tx / Rx 35 dB (90 dB incl filter)
- Rx / Tx 35 dB

**C Band Circular**

- Tx / Rx 20 dB (80 dB incl filter)
- Rx / Tx 20 dB

**X Band**

- Tx / Rx 20 dB (100 dB incl filter)
- Rx / Tx 20 dB

**Ku Band**

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

**DBS Band**

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

**STANDARD DIMENSIONS & WEIGHTS**

**Mount case**

- Dimensions
- 540 x 540 x 510 mm [21.2" x 21.2" x 20 in"]
- Weight
- 25 kg [55.1 lbs]

**Segment case**

- Dimensions
- 810 x 810 x 490 mm [31.9" x 31.9" x 19.2"]
- Weight
- 54 kg [119 lbs]

**IATA DIMENSIONS & WEIGHTS**

**Mount case**

- Dimensions
- 540 x 540 x 510 mm [21.2" x 21.2" x 20"]
- Weight
- 29.5 kg [65 lbs]

**Hub & Segment case**

- Dimensions
- 810 x 810 x 490 mm [31.9" x 31.9" x 19.2"]
- Weight
- 29.9 kg [67 lbs]

**Feedarm & Segment case**

- Dimensions
- 900 x 765 x 365 mm [35.4" x 30.1" x 14.4"]
- Weight
- 28.7 kg [66 lbs]

**ENVIRONMENTAL**

**TEMPERATURE**

Operational:

- -20°C to +60°C (-4°F to 140°F)

Transport:

- -40°C to +70°C (-40°F to 158°F)

**WINDSPEEDS**

Operational:

- 12 m/s (27 mph)

Survival:

- 20 m/s (45 mph)

**HUMIDTY**

- 0 to 100% RH

2.4m MANTIS

**Type**

- Circular (axially symmetric) segmented

**Configuration**

- Prime focus

**Meets The Requirements of**

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

**Frequency**

**C CP:**

- Tx 5.85 to 6.425 GHz
- Rx 3.625 to 4.2 GHz

**C LP:**

- Tx 5.85 to 6.65 GHz (option to 6.725 GHz)
- Rx 3.40 to 4.2 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 13.0 GHz)
- Rx 10.70 to 12.75 GHz

**DBS:**

- Tx 17.3 to 18.1 GHz (option to 18.4 GHz)
- Rx 10.70 to 12.75 GHz

**Tx Gain**

**C:**

- Tx 42.1 dBi typ @ 6.25 GHz

**X:**

- Tx 44.4 dBi typ @ 8.15 GHz

**Ku:**

- Tx 49.3 dBi typ @ 14.25 GHz

**DBS:**

- Tx 51.2 dBi typ @ 17.85 GHz

**G/T**

**C:**

- 3.95 GHz = 17.0 dBk (assumes LNB 60 dB Gain 0.5 db NF)
- X:7.40 GHz = 21.4 dBk (assumes LNA 50 dB Gain 0.8 dB NF)

**Ku:**

- 11.20 GHz = 25.4 dBk (assumes LNB 60 dB gain 0.7 dB NF)

**DBS:**

- 11.20 GHz = 25.4 dBk (assumes LNB 60 dB Gain 0.7 dB NF)

**Cross Polarisation Isolation**

**C Band Linear**

- -30 dB Tx / Rx

**C and X Band Ciruclar**

- 30 dB Tx (axial ratio 1.07)
- 20 dB Rx (axial ratio 1.22)

**Ku and DBS Band Linear**

- -35 dB

**Port to Port Isolation**

**C Band Linear**

- Tx / Rx 35 dB (90 dB incl filter)
- Rx / Tx 35 dB

**C Band Circular**

- Tx / Rx 20 dB (80 dB incl filter)
- Rx / Tx 20 dB

**X Band**

- Tx / Rx 20 dB (100 dB incl filter)
- Rx / Tx 20 dB

**Ku Band**

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

**DBS Band**

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

**Mechanical**

Mount:

- Elevation over azimuth

**Operation**

- Manual and/or 2 axis motorisation

**Movement**

Azimuth adjustment:

- +/- 180° coarse adjust, (restricted elevation) +/- 2.5° fine adjust

Elevation adjustment:

- 0° to 90° (with adjustable mount elevation)

Polarisation adjustment:

- +/-95° (Linear polarisation only)

**Standard Dimensions & Weights**

**Mount case**

- Dimensions
- 540 x 540 x 670 mm [21.2" x 21.2" x 26.4"]
- Weight
- 26 kg [57.3 lbs]

**Segment case (qty 2)**

- Dimensions
- 990 x 990 x 490 mm [39" x 39" x 19.2"]
- Weight
- 49 kg [108 lbs]

**IATA Dimensions & Weights**

**Mount case**

- Dimensions
- 540 x 540 x 670 mm [21.2" x 21.2" x 26.4"]
- Weight
- 29 kg [63 lbs]

**Hub case:**

- Dimensions
- 990 x 990 x 490 mm [39" x 39" x 19.5"]
- Weight
- 31 kg [68.3 lbs]

**Segment softbag (qty 3)**

- Dimensions
- 1030 x 960 x 440 mm [40.5" x 37.8" x 17.3"]
- Weight
- 25.3 kg [55.7 lbs]

**Feedarm & cartridge case (C-band only)**

- Dimensions
- 1130 x 650 x 185 mm [44.5" x 25.6" x 7.2"]
- Weight
- 29.5 kg [65 lbs]

**Temperature**

Operational:

- -20°C to +60°C (-4°F to 140°F)

Transport:

- -40°C to +70°C (-40°F to 158°F)

**Windspeeds**

Operational:

- 14 m/s (30 mph)

Survival:

- 27 m/s (60 mph)

**Humidity**

- 0 to 100% RH

