Approved by OMB 3060-0678
Estimated Burden: up to 80 hours
April 2016

Federal Communications Commission

(DRAFT COPY - Not for submission) Schedule S

312 File Number:

Filing Description

Question	Response
Description	Star One C4 Ku-band satellite at 70 W.L

Satellite Information

Question	Response
Select Orbit Type	GSO
Space Station or Satellite Network Name	STAR ONE-C4
Estimated Lifetime of Satellite(s) From Date of Launch	15 Years
Will the space station(s) operate on a Common Carrier basis?	No

Operating Frequency Bands (3)

Nature of service	Description	Frequency Band(s)	Mode Type
Fixed-Satellite Service		13750.0 MHz -14500.0 MHz	Receive
Fixed-Satellite Service		10950.0 MHz -11200.0 MHz	Transmit
Fixed-Satellite Service		11700.0 MHz -12200.0 MHz	Transmit

Orbital Information For Geostationary Satellites

Section	Question	Response
Orbital Longitude Information	Orbital Longitude	70.0 degrees
	Hemisphere of Orbital Longitude	W
Longitudinal Tolerance or East /West Station-Keeping	Toward West	0.05 degrees
	Toward East	0.05 degrees
Inclination Excursion or North /South Station-Keeping Tolerance	Inclination Excursion or North /South Station-Keeping Tolerance	0.1 degrees
Antenna Axis Attitude Accuracy	Roll	0.03 degrees
	Pitch	0.02 degrees
	Yaw	0.05 degrees

Receiving Beams 1:

Question	Response
Beam ID	COMK
Receive Beam Frequency	13761.0 MHz -14498.0 MHz
Beam Type	Fixed
Polarization	H
Peak Gain	34.19 dBi
Antenna Pointing Error	0.12 degrees
Antenna Rotational Error	0.01 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	0.0 degrees
G/T at Max. Gain Point	8.2 dB/K
Min. Saturation Flux Density	-92.0 dBW/m2
Max. Saturation Flux Density	-84.0 dBW/m2
Co- or Cross Polar Mode	X
Service Area Description	Please see diagram from Technical Annex

Receiving Channels (29)

Channel ID	Channel Bandwidth (MHz)	Center Frequency s (MHz)	Feeder Link, Service Link or TT&C
04BN	36.0	14140.0	Service Link
05AN	36.0	14200.0	Service Link
05BN	36.0	14180.0	Service Link
06AN	36.0	14240.0	Service Link
06BN	36.0	14220.0	Service Link
07AN	36.0	14280.0	Service Link
07BN	36.0	14260.0	Service Link
08AN	36.0	14320.0	Service Link
08BN	36.0	14300.0	Service Link
090A	36.0	14360.0	Service Link
09AN	36.0	14360.0	Service Link
09BN	36.0	14340.0	Service Link
10AN	36.0	14400.0	Service Link
10BN	36.0	14380.0	Service Link
11AN	36.0	14440.0	Service Link
12BN	36.0	14460.0	Service Link
11BN	36.0	14420.0	Service Link
04AN	36.0	14160.0	Service Link
03BN	36.0	14100.0	Service Link
03AN	36.0	14120.0	Service Link
02BN	36.0	14060.0	Service Link
06BE	36.0	13975.0	Service Link
05BE	36.0	13935.0	Service Link
02AE	36.0	13819.0	Service Link

01AE	36.0	13779.0	Service Link
01BN	36.0	14020.0	Service Link
12AN	36.0	14480.0	Service Link
01AN	36.0	14040.0	Service Link
02AN	36.0	14080.0	Service Link

Transmitting Beams 1:

Question	Response
Beam ID	COM2
Transmit Beam Frequency	11702.0 MHz -12198.0 MHz
Beam Type	Fixed
Polarization	H
Peak Gain	32.93 dBi
Antenna Pointing Error	0.12 degrees
Antenna Rotational Error	0.01 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	30.0 degrees
Max. Transmit EIRP Density	-58.38 dBW/Hz
Max. Transmit EIRP	53.2 dBW
Co- or Cross Polar Mode	X
Service Area Description	See Technical annex and other attachments

Max. Power Flux Density

Information not provided.

Transmitting Beams 2:

Question	Response
Beam ID	COM1
Transmit Beam Frequency	10956.0 MHz -11188.0 MHz
Beam Type	Fixed
Polarization	H
Peak Gain	32.93 dBi
Antenna Pointing Error	0.12 degrees

Antenna Rotational Error	0.1 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	0.0 degrees
Max. Transmit EIRP Density	-58.38 dBW/Hz
Max. Transmit EIRP	53.2 dBW
Co- or Cross Polar Mode	X
Service Area Description	Provided in technical annex

Max. Power Flux Density

* BW:	* 0° - 5° (dbW/m^2 /BW):	* 5° - 10° (dbW/m^2 /BW):	* 10° - 15° (dbW/m^2 /BW):	* 15° - 20° (dbW/m^2 /BW):	* 20° - 25° (dbW/m^2 /BW):	* 25° - 90° (dbW/m^2 /BW):
1.0 MHz	-131.9	-130.8	-129.6	-128.5	-126.4	-125.8

Transmitting Channels (28)

Channel ID	Channel Bandwidth (MHz)	Center Frequency s (MHz)	Feeder Link, Service Link or TT&C
12BN	36.0	12160.0	Service Link
11BN	36.0	12120.0	Service Link
11AN	36.0	12140.0	Service Link
10BN	36.0	12080.0	Service Link
10AN	36.0	12100.0	Service Link
09BN	36.0	12040.0	Service Link
09AN	36.0	12060.0	Service Link
08BN	36.0	12000.0	Service Link
08AN	36.0	12020.0	Service Link
07BN	36.0	11960.0	Service Link
07AN	36.0	11980.0	Service Link
06BN	36.0	11920.0	Service Link
06AN	36.0	11940.0	Service Link
05BN	36.0	11880.0	Service Link
05BE	36.0	11130.0	Service Link
05AN	36.0	11900.0	Service Link
03BN	36.0	11800.0	Service Link
03AN	36.0	11820.0	Service Link
02BN	36.0	11760.0	Service Link
12AN	36.0	12180.0	Service Link
006B	36.0	11170.0	Service Link
01AE	36.0	10974.0	Service Link
01AN	36.0	11740.0	Service Link
01BN	36.0	11720.0	Service Link

02AE	36.0	11014.0	Service Link
02AN	36.0	11780.0	Service Link
04AN	36.0	11860.0	Service Link
04BN	36.0	11840.0	Service Link

Certification Questions

Question	Response
Are the applicable service area coverage requirements of 25.143(b)(2)(ii) and (iii), or 25.144(a)(3)(i), or 25.145(c)(1) and (2), or 25.146(i)(1) and (2), or 25.148(c), or 25.225 met?	N/A
Are the applicable frequency tolerances of 25.202(e) and out-of-band emission limits of 25.202(f)(1),(2), and (3) met?	Yes
Are the cessation of emissions requirements of 25.207 met?	Yes
Are the applicable power-flux-density limits of 25.208 met, and is the appropriate technical showing provided within the application?	Yes
For NGSO applications, are the applicable equivalent-power-flux-density limits of 25.208 met, and is the appropriate technical showing provided within the application?	Yes
Are the applicable full-frequency-reuse requirements of 25.210 met?	Yes
If the application is for a 17/24 GHz BSS space station, will it be operated at an offset location with full power and interference protection in accordance with 25.262(b)?	Yes

Attachments

File Name	Beam	Field	Attachment Type	Description
STOC4_COMK_EIRP_Typical_DL.txt	COM1	GSO Antenna Gain Contour Data	Text file (*.txt)	Txt file with contour data. See Technical Annex and Part 3 for graphic file
Embratel_Star_One_C4 Contours.pdf	COMK	GSO Antenna Gain Contour Data	PDF file (*.pdf)	See also Technical Annex and Part 7 (txt file for the attached)