



312 File Number: **SATMOD2019042900032**

Filing Description

Question	Response
Description	IS-1002 at 359.0 E.L _ 1.0W.L. license renewal

**Satellite
Information**

Question	Response
Select Orbit Type	GSO
Space Station or Satellite Network Name	Intelsat 1002
Estimated Lifetime of Satellite(s) From Date of Launch	20 Years
Will the space station(s) operate on a Common Carrier basis?	No

Operating Frequency Bands (7)

Nature of service	Description	Frequency Band(s)	Mode Type
Fixed-Satellite Service		12500.0 MHz -12750.0 MHz	Transmit
Fixed-Satellite Service		11450.0 MHz -11700.0 MHz	Transmit
Fixed-Satellite Service		10950.0 MHz -11200.0 MHz	Transmit
Fixed-Satellite Service		3625.0 MHz -4200.0 MHz	Transmit
Fixed-Satellite Service		13750.0 MHz -14000.0 MHz	Receive
Fixed-Satellite Service		14000.0 MHz -14500.0 MHz	Receive
Fixed-Satellite Service		5850.0 MHz -6425.0 MHz	Receive

Orbital Information For Geostationary Satellites

Section	Question	Response
Orbital Longitude Information	Orbital Longitude	1.0 degrees
	Hemisphere of Orbital Longitude	W
Longitudinal Tolerance or East /West Station-Keeping	Toward West	0.5 degrees
	Toward East	0.5 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	0.1 degrees
	Pitch	0.1 degrees
	Yaw	0.1 degrees

Receiving Beams 1:

Question	Response
Beam ID	WHLU
Receive Beam Frequency	5850.0 MHz -6425.0 MHz
Beam Type	Fixed
Polarization	LHCP
Peak Gain	dBi
Antenna Pointing Error	0.19 degrees
Antenna Rotational Error	0.34 degrees
Polarization Switchable	No
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	2.4 dB/K
Min. Saturation Flux Density	-100.1 dBW/m2
Max. Saturation Flux Density	-78.1 dBW/m2
Co- or Cross Polar Mode	C
Service Area Description	North East Canada , Caribbean South America

Receiving Beams 2:

Question	Response
Beam ID	EHLU
Receive Beam Frequency	5850.0 MHz -6425.0 MHz
Beam Type	Fixed
Polarization	LHCP
Peak Gain	dBi
Antenna Pointing Error	0.19 degrees
Antenna Rotational Error	0.34 degrees

Polarization Switchable	No
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	-0.2 dB/K
Min. Saturation Flux Density	-97.9 dBW/m2
Max. Saturation Flux Density	-75.9 dBW/m2
Co- or Cross Polar Mode	C
Service Area Description	Europe, Africa, Middle East, North West Russia

Receiving Beams 3:

Question	Response
Beam ID	WHRU
Receive Beam Frequency	5850.0 MHz -6425.0 MHz
Beam Type	Fixed
Polarization	RHCP
Peak Gain	dBi
Antenna Pointing Error	0.19 degrees
Antenna Rotational Error	0.34 degrees
Polarization Switchable	No
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	1.9 dB/K
Min. Saturation Flux Density	-101.5 dBW/m2
Max. Saturation Flux Density	-79.5 dBW/m2
Co- or Cross Polar Mode	C
Service Area Description	North East Canada, Caribbean, South America

Receiving Beams 4:

Question	Response
Beam ID	NERU
Receive Beam Frequency	5850.0 MHz -6425.0 MHz
Beam Type	Fixed
Polarization	RHCP
Peak Gain	dBi
Antenna Pointing Error	0.19 degrees
Antenna Rotational Error	0.34 degrees
Polarization Switchable	No
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	2.3 dB/K
Min. Saturation Flux Density	-101.6 dBW/m2
Max. Saturation Flux Density	-79.6 dBW/m2
Co- or Cross Polar Mode	C
Service Area Description	Europe, North West Africa, North West Russia

Receiving Beams 5:

Question	Response
Beam ID	SERU
Receive Beam Frequency	5850.0 MHz -6425.0 MHz
Beam Type	Fixed
Polarization	RHCP
Peak Gain	dBi
Antenna Pointing Error	0.19 degrees
Antenna Rotational Error	0.34 degrees
Polarization Switchable	No

Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	3.0 dB/K
Min. Saturation Flux Density	-101.3 dBW/m2
Max. Saturation Flux Density	-79.3 dBW/m2
Co- or Cross Polar Mode	C
Service Area Description	East Africa, Middle East and CIS Countries

Receiving Beams 6:

Question	Response
Beam ID	CGLU
Receive Beam Frequency	6300.0 MHz -6425.0 MHz
Beam Type	Fixed
Polarization	LHCP
Peak Gain	dBi
Antenna Pointing Error	0.19 degrees
Antenna Rotational Error	0.34 degrees
Polarization Switchable	No
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	-7.7 dB/K
Min. Saturation Flux Density	-92.8 dBW/m2
Max. Saturation Flux Density	-70.8 dBW/m2
Co- or Cross Polar Mode	C
Service Area Description	Global coverage

Receiving Beams 7:

Question	Response
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Beam ID	CGRU
Receive Beam Frequency	6300.0 MHz -6425.0 MHz
Beam Type	Fixed
Polarization	RHCP
Peak Gain	dBi
Antenna Pointing Error	0.19 degrees
Antenna Rotational Error	0.34 degrees
Polarization Switchable	No
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	-8.2 dB/K
Min. Saturation Flux Density	-94.5 dBW/m2
Max. Saturation Flux Density	-72.5 dBW/m2
Co- or Cross Polar Mode	C
Service Area Description	Global Coverage

Receiving Beams 8:

Question	Response
Beam ID	S1HU
Receive Beam Frequency	14000.0 MHz -14500.0 MHz
Beam Type	Steerable
Polarization	H
Peak Gain	dBi
Antenna Pointing Error	0.19 degrees
Antenna Rotational Error	0.34 degrees
Polarization Switchable	

Polarization Alignment Relative to the Equatorial Plane	0.0 degrees
G/T at Max. Gain Point	6.6 dB/K
Min. Saturation Flux Density	-91.9 dBW/m2
Max. Saturation Flux Density	-73.9 dBW/m2
Co- or Cross Polar Mode	C
Service Area Description	Europe, North Africa

Receiving Beams 9:

Question	Response
Beam ID	S2VU
Receive Beam Frequency	14000.0 MHz -14500.0 MHz
Beam Type	Steerable
Polarization	V
Peak Gain	dBi
Antenna Pointing Error	0.19 degrees
Antenna Rotational Error	0.34 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	90.0 degrees
G/T at Max. Gain Point	6.5 dB/K
Min. Saturation Flux Density	-93.6 dBW/m2
Max. Saturation Flux Density	-75.6 dBW/m2
Co- or Cross Polar Mode	C
Service Area Description	East Europe, Middle East, CIS Countries

Receiving Beams 10:

Question	Response
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Beam ID	S3VU
Receive Beam Frequency	13750.0 MHz -14000.0 MHz
Beam Type	Steerable
Polarization	V
Peak Gain	dBi
Antenna Pointing Error	0.19 degrees
Antenna Rotational Error	0.34 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	90.0 degrees
G/T at Max. Gain Point	5.7 dB/K
Min. Saturation Flux Density	-91.4 dBW/m2
Max. Saturation Flux Density	-73.4 dBW/m2
Co- or Cross Polar Mode	C
Service Area Description	Europe, North Africa, North West Russia

**Receiving
Beams 11:**

Question	Response
Beam ID	S3HU
Receive Beam Frequency	13750.0 MHz -14000.0 MHz
Beam Type	Steerable
Polarization	H
Peak Gain	dBi
Antenna Pointing Error	0.19 degrees
Antenna Rotational Error	0.34 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	0.0 degrees

G/T at Max. Gain Point	5.9 dB/K
Min. Saturation Flux Density	-93.0 dBW/m ²
Max. Saturation Flux Density	-75.0 dBW/m ²
Co- or Cross Polar Mode	C
Service Area Description	Europe, North Africa North West Russia

Receiving Channels (19)

Channel ID	Channel Bandwidth (MHz)	Center Frequency s (MHz)	Feeder Link, Service Link or TT&C
Ku08	72.0	13955.0	Service Link
CMG1	0.96	6173.7	TT&C
CMB1	0.96	6176.3	TT&C
CU01	72.0	5890.0	Service Link
CU02	72.0	5970.0	Service Link
CU03	72.0	6050.0	Service Link
CU04	72.0	6130.0	Service Link
CU05	72.0	6220.0	Service Link
CU06	36.0	6280.0	Service Link
CU07	36.0	6320.0	Service Link
Ku01	72.0	14045.0	Service Link
Ku02	72.0	14125.0	Service Link
Ku07	72.0	13875.0	Service Link
Ku06	72.0	13795.0	Service Link
Ku05	112.0	14435.0	Service Link
Ku04	112.0	14315.0	Service Link
Ku03	72.0	14205.0	Service Link
CU09	36.0	6400.0	Service Link
CU08	36.0	6360.0	Service Link

Transmitting Beams 1:

Question	Response
Beam ID	WHRD
Transmit Beam Frequency	3625.0 MHz -4200.0 MHz
Beam Type	Fixed
Polarization	RHCP
Peak Gain	dBi
Antenna Pointing Error	0.19 degrees
Antenna Rotational Error	0.34 degrees
Polarization Switchable	No
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-32.1 dBW/Hz
Max. Transmit EIRP	43.5 dBW
Co- or Cross Polar Mode	C
Service Area Description	North East Canada, Caribbean , South America

Max. Power Flux Density

	* 0° - 5°	* 5° - 10°	* 10° - 15°	* 15° - 20°	* 20° - 25°	* 25° - 90°
	(dBW/m ²)	(dBW/m ²)	(dBW/m ²)	(dBW/m ²)	(dBW/m ²)	(dBW/m ²)
*	/BW:	/BW:	/BW:	/BW:	/BW:	/BW:
4.0 kHz	-159.4	-159.2	-159.1	-159.0	-158.9	-158.1

Transmitting Beams 2:

Question	Response
Beam ID	EHRD
Transmit Beam Frequency	3625.0 MHz -4200.0 MHz

Beam Type	Fixed
Polarization	RHCP
Peak Gain	dBi
Antenna Pointing Error	0.19 degrees
Antenna Rotational Error	0.34 degrees
Polarization Switchable	No
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-31.5 dBW/Hz
Max. Transmit EIRP	44.1 dBW
Co- or Cross Polar Mode	C
Service Area Description	Europe, Africa, Middle East and North West Russia

Max. Power Flux Density

	* 0° - 5°	* 5° - 10°	* 10° - 15°	* 15° - 20°	* 20° - 25°	* 25° - 90°
*	(dBW/m ²	(dBW/m ²	(dBW/m ²	(dBW/m ²	(dBW/m ²	(dBW/m ²
BW:	/BW):	/BW):	/BW):	/BW):	/BW):	/BW):
4.0 kHz	-158.8	-158.6	-158.5	-158.4	-158.3	-157.5

Transmitting Beams 3:

Question	Response
Beam ID	WHLD
Transmit Beam Frequency	3625.0 MHz -4200.0 MHz
Beam Type	Fixed
Polarization	LHCP
Peak Gain	dBi
Antenna Pointing Error	0.19 degrees

Antenna Rotational Error	0.34 degrees
Polarization Switchable	No
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-32.8 dBW/Hz
Max. Transmit EIRP	42.8 dBW
Co- or Cross Polar Mode	C
Service Area Description	North East Canada, Caribbean, South America

Max. Power Flux Density

	* 0° - 5°	* 5° - 10°	* 10° - 15°	* 15° - 20°	* 20° - 25°	* 25° - 90°
*	(dBW/m ²	(dBW/m ²	(dBW/m ²	(dBW/m ²	(dBW/m ²	(dBW/m ²
BW:	/BW):	/BW):	/BW):	/BW):	/BW):	/BW):
4.0 kHz	-160.1	-159.9	-159.8	-159.7	-159.6	-158.8

Transmitting Beams 4:

Question	Response
Beam ID	NELD
Transmit Beam Frequency	3625.0 MHz -4200.0 MHz
Beam Type	Fixed
Polarization	LHCP
Peak Gain	dBi
Antenna Pointing Error	0.19 degrees
Antenna Rotational Error	0.34 degrees
Polarization Switchable	No
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-31.8 dBW/Hz

Max. Transmit EIRP	44.3 dBW
Co- or Cross Polar Mode	C
Service Area Description	Europe, North West Africa, North West Russia

Max. Power Flux Density

	* 0° - 5°	* 5° - 10°	* 10° - 15°	* 15° - 20°	* 20° - 25°	* 25° - 90°
*	(dBW/m ²	(dBW/m ²	(dBW/m ²	(dBW/m ²	(dBW/m ²	(dBW/m ²
BW:	/BW):	/BW):	/BW):	/BW):	/BW):	/BW):
4.0 kHz	-159.1	-158.9	-158.8	-158.7	-158.6	-157.8

Transmitting Beams 5:

Question	Response
Beam ID	SELD
Transmit Beam Frequency	3625.0 MHz -4200.0 MHz
Beam Type	Fixed
Polarization	LHCP
Peak Gain	dBi
Antenna Pointing Error	0.19 degrees
Antenna Rotational Error	0.34 degrees
Polarization Switchable	No
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-29.2 dBW/Hz
Max. Transmit EIRP	46.4 dBW
Co- or Cross Polar Mode	C
Service Area Description	East Africa, Middle East and CIS Countries

4.0	-166.9	-166.7	-166.6	-166.5	-166.4	-165.6
kHz						

Transmitting Beams 7:

Question	Response
Beam ID	CGLD
Transmit Beam Frequency	4075.0 MHz -4200.0 MHz
Beam Type	Fixed
Polarization	LHCP
Peak Gain	dBi
Antenna Pointing Error	0.19 degrees
Antenna Rotational Error	0.34 degrees
Polarization Switchable	No
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-39.6 dBW/Hz
Max. Transmit EIRP	36.0 dBW
Co- or Cross Polar Mode	C
Service Area Description	Global

Max. Power Flux Density

	* 0° - 5°	* 5° - 10°	* 10° - 15°	* 15° - 20°	* 20° - 25°	* 25° - 90°
*	(dBW/m ²	(dBW/m ²	(dBW/m ²	(dBW/m ²	(dBW/m ²	(dBW/m ²
BW:	/BW):	/BW):	/BW):	/BW):	/BW):	/BW):
4.0	-166.9	-166.7	-166.6	-166.5	-166.4	-165.6
kHz						

Transmitting Beams 8:

Question	Response
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Beam ID	S1VD
Transmit Beam Frequency	10950.0 MHz -11200.0 MHz
Beam Type	Steerable
Polarization	V
Peak Gain	dBi
Antenna Pointing Error	0.19 degrees
Antenna Rotational Error	0.34 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	90.0 degrees
Max. Transmit EIRP Density	-24.4 dBW/Hz
Max. Transmit EIRP	54.2 dBW
Co- or Cross Polar Mode	C
Service Area Description	Europe , North Africa

Max. Power Flux Density

	* 0° - 5°	* 5° - 10°	* 10° - 15°	* 15° - 20°	* 20° - 25°	* 25° - 90°
	(dBW/m ²)	(dBW/m ²)	(dBW/m ²)	(dBW/m ²)	(dBW/m ²)	(dBW/m ²)
* BW:	/BW):	/BW):	/BW):	/BW):	/BW):	/BW):
4.0 kHz	-151.7	-151.5	-151.4	-151.3	-151.2	-150.4

Transmitting Beams 9:

Question	Response
Beam ID	S1VE
Transmit Beam Frequency	11450.0 MHz -11700.0 MHz
Beam Type	Fixed
Polarization	V

Peak Gain	dBi
Antenna Pointing Error	0.19 degrees
Antenna Rotational Error	0.34 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	90.0 degrees
Max. Transmit EIRP Density	-24.4 dBW/Hz
Max. Transmit EIRP	54.2 dBW
Co- or Cross Polar Mode	C
Service Area Description	Europe , North Africa

Max. Power Flux Density

	* 0° - 5°	* 5° - 10°	* 10° - 15°	* 15° - 20°	* 20° - 25°	* 25° - 90°
	(dBW/m ²)	(dBW/m ²)	(dBW/m ²)	(dBW/m ²)	(dBW/m ²)	(dBW/m ²)
*	BW: /BW):	/BW):	/BW):	/BW):	/BW):	/BW):
4.0 kHz	-151.7	-151.5	-151.4	-151.3	-151.2	-150.4

Transmitting Beams 10:

Question	Response
Beam ID	S2HD
Transmit Beam Frequency	10950.0 MHz -11200.0 MHz
Beam Type	Steerable
Polarization	H
Peak Gain	dBi
Antenna Pointing Error	0.19 degrees
Antenna Rotational Error	0.34 degrees
Polarization Switchable	

Polarization Alignment Relative to the Equatorial Plane	0.0 degrees
Max. Transmit EIRP Density	-24.7 dBW/Hz
Max. Transmit EIRP	53.9 dBW
Co- or Cross Polar Mode	C
Service Area Description	East Europe, Middle East, CIS Countries

Max. Power Flux Density

	* 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):
4.0 kHz	-152.0	-151.8	-151.7	-151.6	-151.5	-150.7

Transmitting Beams 11:

Question	Response
Beam ID	S2HE
Transmit Beam Frequency	11450.0 MHz -11700.0 MHz
Beam Type	Fixed
Polarization	H
Peak Gain	dBi
Antenna Pointing Error	0.19 degrees
Antenna Rotational Error	0.34 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	0.0 degrees
Max. Transmit EIRP Density	-24.7 dBW/Hz
Max. Transmit EIRP	53.9 dBW
Co- or Cross Polar Mode	C

Service Area Description

East Europe Middle East, CIS
Countries

Max. Power Flux Density

	* 0° - 5°	* 5° - 10°	* 10° - 15°	* 15° - 20°	* 20° - 25°	* 25° - 90°
*	(dBW/m ²	(dBW/m ²	(dBW/m ²	(dBW/m ²	(dBW/m ²	(dBW/m ²
BW:	/BW):	/BW):	/BW):	/BW):	/BW):	/BW):
4.0 kHz	-152.0	-151.8	-151.7	-151.6	-151.5	-150.7

Transmitting Beams 12:

Question	Response
Beam ID	S3HD
Transmit Beam Frequency	12500.0 MHz -12750.0 MHz
Beam Type	Steerable
Polarization	H
Peak Gain	dBi
Antenna Pointing Error	0.19 degrees
Antenna Rotational Error	0.34 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	0.0 degrees
Max. Transmit EIRP Density	-23.6 dBW/Hz
Max. Transmit EIRP	55.0 dBW
Co- or Cross Polar Mode	C
Service Area Description	Europe, North Africa, North West Russia

Max. Power Flux Density

	* 0° - 5°	* 5° - 10°	* 10° - 15°	* 15° - 20°	* 20° - 25°	* 25° - 90°
*	(dBW/m ²	(dBW/m ²	(dBW/m ²	(dBW/m ²	(dBW/m ²	(dBW/m ²
BW:	/BW):	/BW):	/BW):	/BW):	/BW):	/BW):
4.0 kHz	-150.9	-150.7	-150.6	-150.5	-150.4	-149.6

Transmitting Beams 13:

Question	Response
Beam ID	S3VD
Transmit Beam Frequency	12500.0 MHz -12750.0 MHz
Beam Type	Steerable
Polarization	V
Peak Gain	dBi
Antenna Pointing Error	0.19 degrees
Antenna Rotational Error	0.34 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	90.0 degrees
Max. Transmit EIRP Density	-23.2 dBW/Hz
Max. Transmit EIRP	55.4 dBW
Co- or Cross Polar Mode	C
Service Area Description	Europe North Africa, North West Russia

Max. Power Flux Density

	* 0° - 5°	* 5° - 10°	* 10° - 15°	* 15° - 20°	* 20° - 25°	* 25° - 90°
*	(dBW/m ²	(dBW/m ²	(dBW/m ²	(dBW/m ²	(dBW/m ²	(dBW/m ²
BW:	/BW):	/BW):	/BW):	/BW):	/BW):	/BW):
4.0 kHz	-150.5	-150.3	-150.2	-150.1	-150.0	-149.2

Transmitting Beams 14:

Question	Response
Beam ID	TLMB
Transmit Beam Frequency	3947.365 MHz -3952.635 MHz
Beam Type	Fixed
Polarization	RHCP
Peak Gain	dBi
Antenna Pointing Error	0.19 degrees
Antenna Rotational Error	0.34 degrees
Polarization Switchable	No
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-45.8 dBW/Hz
Max. Transmit EIRP	11.2 dBW
Co- or Cross Polar Mode	C
Service Area Description	Global Telemetry

Max. Power Flux Density

	* 0° - 5°	* 5° - 10°	* 10° - 15°	* 15° - 20°	* 20° - 25°	* 25° - 90°
*	(dBW/m ²	(dBW/m ²	(dBW/m ²	(dBW/m ²	(dBW/m ²	(dBW/m ²
BW:	/BW):	/BW):	/BW):	/BW):	/BW):	/BW):
4.0 kHz	-173.0	-172.9	-172.8	-172.7	-172.6	-171.8

Transmitting Beams 15:

Question	Response
Beam ID	TLMG
Transmit Beam Frequency	3947.365 MHz -3952.635 MHz

Beam Type	Fixed
Polarization	RHCP
Peak Gain	dBi
Antenna Pointing Error	0.19 degrees
Antenna Rotational Error	0.34 degrees
Polarization Switchable	No
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-45.8 dBW/Hz
Max. Transmit EIRP	11.2 dBW
Co- or Cross Polar Mode	C
Service Area Description	Global Telemetry

Max. Power Flux Density

	* 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):
4.0 kHz	-173.0	-172.9	-172.8	-172.7	-172.6	-171.8

Transmitting Beams 16:

Question	Response
Beam ID	UPKC
Transmit Beam Frequency	11197.98 MHz -11198.02 MHz
Beam Type	Fixed
Polarization	RHCP
Peak Gain	dBi
Antenna Pointing Error	0.19 degrees

Antenna Rotational Error	0.34 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-33.6 dBW/Hz
Max. Transmit EIRP	9.4 dBW
Co- or Cross Polar Mode	C
Service Area Description	Ku Beacon

Max. Power Flux Density

	* 0° - 5°	* 5° - 10°	* 10° - 15°	* 15° - 20°	* 20° - 25°	* 25° - 90°
*	(dBW/m ²	(dBW/m ²	(dBW/m ²	(dBW/m ²	(dBW/m ²	(dBW/m ²
BW:	/BW):	/BW):	/BW):	/BW):	/BW):	/BW):
4.0 kHz	-161.8	-161.7	-161.6	-161.5	-161.4	-160.6

Transmitting Beams 17:

Question	Response
Beam ID	UPK2
Transmit Beam Frequency	11451.987 MHz -11452.012 MHz
Beam Type	Fixed
Polarization	RHCP
Peak Gain	dBi
Antenna Pointing Error	0.19 degrees
Antenna Rotational Error	0.34 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-32.8 dBW/Hz

Max. Transmit EIRP	10.2 dBW
Co- or Cross Polar Mode	C
Service Area Description	Ku Beacon

Max. Power Flux Density

	* 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):
4.0 kHz	-161.0	-160.9	-160.8	-160.7	-160.6	-159.8

Transmitting Beams 18:

Question	Response
Beam ID	UPCV
Transmit Beam Frequency	3949.987 MHz -3950.012 MHz
Beam Type	Fixed
Polarization	V
Peak Gain	dBi
Antenna Pointing Error	0.19 degrees
Antenna Rotational Error	0.34 degrees
Polarization Switchable	No
Polarization Alignment Relative to the Equatorial Plane	90.0 degrees
Max. Transmit EIRP Density	-35.8 dBW/Hz
Max. Transmit EIRP	7.2 dBW
Co- or Cross Polar Mode	C
Service Area Description	Beacon C band

Max. Power Flux Density

	* 0° - 5°	* 5° - 10°	* 10° - 15°	* 15° - 20°	* 20° - 25°	* 25° - 90°
* BW:	(dbW/m ²) /BW:	(dbW/m ²) /BW:	(dbW/m ²) /BW:	(dbW/m ²) /BW:	(dbW/m ²) /BW:	(dbW/m ²) /BW:
4.0 kHz	-164.0	-163.9	-163.8	-163.7	-163.6	-162.8

Transmitting Channels (24)

Channel ID	Channel Bandwidth (MHz)	Center Frequency s (MHz)	Feeder Link, Service Link or TT&C
KD4	112.0	11515.0	Service Link
KD08	72.0	12705.0	Service Link
KD07	72.0	12625.0	Service Link
KD06	72.0	12545.0	Service Link
KD05	112.0	11635.0	Service Link
KD03	72.0	11155.0	Service Link
KD02	72.0	11075.0	Service Link
KD01	72.0	10995.0	Service Link
CD09	36.0	4175.0	Service Link
CD08	36.0	4135.0	Service Link
CD07	36.0	4095.0	Service Link
CD06	36.0	4055.0	Service Link
CD05	72.0	3995.0	Service Link
CD04	72.0	3905.0	Service Link
CD03	72.0	3825.0	Service Link
CD02	72.0	3745.0	Service Link
CD01	72.0	3665.0	Service Link
BNCC	0.025	3950.0	TT&C
BCK2	0.025	11452.0	TT&C
BCK1	0.025	11198.0	TT&C
TLM1	0.5	3947.5	TT&C
TLM2	0.5	3948.0	TT&C
TLM3	0.5	3952.0	TT&C
TLM4	0.5	3952.5	TT&C

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?	N/A
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)?	

Attachments

File Name	Beam	Field	Attachment Type	Description
<u>IS-1002.mdb</u>		GSO Antenna Gain Contour Data	GIMS file (*.mdb)	