



312 File Number: **SATMOD2018010300002**

Filing Description

Question	Response
Description	Intelsat 1R Operation at 157.1E

**Satellite
Information**

Question	Response
Select Orbit Type	GSO
Space Station or Satellite Network Name	Intelsat 1R
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 (6)**

Nature of service	Description	Frequency Band(s)	Mode Type
Fixed-Satellite Service		5925.0 MHz -6425.0 MHz	Receive
Fixed-Satellite Service		3700.0 MHz -4200.0 MHz	Transmit
Fixed-Satellite Service		13750.0 MHz -14500.0 MHz	Receive
Fixed-Satellite Service		10950.0 MHz -11200.0 MHz	Transmit
Fixed-Satellite Service		11450.0 MHz -11700.0 MHz	Transmit
Fixed-Satellite Service		11700.0 MHz -11950.0 MHz	Transmit

**Orbital
Information For
Geostationary
Satellites**

Section	Question	Response
Orbital Longitude Information	Orbital Longitude	157.0 degrees
	Hemisphere of Orbital Longitude	E
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	0.1 degrees
	Pitch	0.1 degrees
	Yaw	0.1 degrees

Receiving Beams 1:

Question	Response
Beam ID	ACHU
Receive Beam Frequency	5925.0 MHz -6425.0 MHz
Beam Type	Fixed
Polarization	H
Peak Gain	dBi
Antenna Pointing Error	0.1 degrees
Antenna Rotational Error	0.24 degrees
Polarization Switchable	No
Polarization Alignment Relative to the Equatorial Plane	0.0 degrees
G/T at Max. Gain Point	1.4 dB/K
Min. Saturation Flux Density	-99.3 dBW/m2
Max. Saturation Flux Density	-69.3 dBW/m2
Co- or Cross Polar Mode	C
Service Area Description	Asia & Australia

Receiving Beams 2:

Question	Response
Beam ID	ACVU
Receive Beam Frequency	5925.0 MHz -6425.0 MHz
Beam Type	Fixed
Polarization	V
Peak Gain	dBi
Antenna Pointing Error	0.1 degrees
Antenna Rotational Error	0.24 degrees

Polarization Switchable	No
Polarization Alignment Relative to the Equatorial Plane	90.0 degrees
G/T at Max. Gain Point	1.3 dB/K
Min. Saturation Flux Density	-98.4 dBW/m2
Max. Saturation Flux Density	-68.4 dBW/m2
Co- or Cross Polar Mode	C
Service Area Description	Asia & Australia

Receiving Beams 3:

Question	Response
Beam ID	ECVU
Receive Beam Frequency	5925.0 MHz -6425.0 MHz
Beam Type	Fixed
Polarization	V
Peak Gain	dBi
Antenna Pointing Error	0.24 degrees
Antenna Rotational Error	0.1 degrees
Polarization Switchable	No
Polarization Alignment Relative to the Equatorial Plane	90.0 degrees
G/T at Max. Gain Point	1.2 dB/K
Min. Saturation Flux Density	-94.9 dBW/m2
Max. Saturation Flux Density	-64.9 dBW/m2
Co- or Cross Polar Mode	C
Service Area Description	EAST PACIFIC

Receiving

Beams 4:

Question	Response
Beam ID	GCHU
Receive Beam Frequency	5925.0 MHz -6425.0 MHz
Beam Type	Fixed
Polarization	H
Peak Gain	dBi
Antenna Pointing Error	0.24 degrees
Antenna Rotational Error	0.1 degrees
Polarization Switchable	No
Polarization Alignment Relative to the Equatorial Plane	0.0 degrees
G/T at Max. Gain Point	-8.2 dB/K
Min. Saturation Flux Density	-88.8 dBW/m2
Max. Saturation Flux Density	-58.8 dBW/m2
Co- or Cross Polar Mode	C
Service Area Description	GLOBAL

Receiving Beams 5:

Question	Response
Beam ID	NKHU
Receive Beam Frequency	13750.0 MHz -14500.0 MHz
Beam Type	Fixed
Polarization	H
Peak Gain	dBi
Antenna Pointing Error	0.24 degrees
Antenna Rotational Error	0.1 degrees
Polarization Switchable	

Polarization Alignment Relative to the Equatorial Plane	0.0 degrees
G/T at Max. Gain Point	6.8 dB/K
Min. Saturation Flux Density	-104.8 dBW/m2
Max. Saturation Flux Density	-74.8 dBW/m2
Co- or Cross Polar Mode	C
Service Area Description	ASIA

Receiving Beams 6:

Question	Response
Beam ID	NKVU
Receive Beam Frequency	13750.0 MHz -14000.0 MHz
Beam Type	Fixed
Polarization	V
Peak Gain	dBi
Antenna Pointing Error	0.24 degrees
Antenna Rotational Error	0.1 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	90.0 degrees
G/T at Max. Gain Point	6.8 dB/K
Min. Saturation Flux Density	-104.2 dBW/m2
Max. Saturation Flux Density	-74.2 dBW/m2
Co- or Cross Polar Mode	C
Service Area Description	ASIA

Receiving Beams 7:

Question	Response
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Beam ID	SKHU
Receive Beam Frequency	13750.0 MHz -14500.0 MHz
Beam Type	Fixed
Polarization	H
Peak Gain	dBi
Antenna Pointing Error	0.24 degrees
Antenna Rotational Error	0.1 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	0.0 degrees
G/T at Max. Gain Point	6.1 dB/K
Min. Saturation Flux Density	-104.1 dBW/m2
Max. Saturation Flux Density	-74.1 dBW/m2
Co- or Cross Polar Mode	C
Service Area Description	AUSTRALIA

**Receiving
Beams 8:**

Question	Response
Beam ID	SKVU
Receive Beam Frequency	13750.0 MHz -14000.0 MHz
Beam Type	Fixed
Polarization	V
Peak Gain	dBi
Antenna Pointing Error	0.24 degrees
Antenna Rotational Error	0.1 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	-104.6 dBW/m2
Max. Saturation Flux Density	-74.6 dBW/m2
Co- or Cross Polar Mode	C
Service Area Description	AUSTRALIA

Receiving Beams 9:

Question	Response
Beam ID	EKHU
Receive Beam Frequency	13750.0 MHz -14500.0 MHz
Beam Type	Fixed
Polarization	H
Peak Gain	dBi
Antenna Pointing Error	0.24 degrees
Antenna Rotational Error	0.1 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	-104.9 dBW/m2
Max. Saturation Flux Density	-74.9 dBW/m2
Co- or Cross Polar Mode	C
Service Area Description	EAST PACIFIC

Receiving Beams 10:

Question	Response
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Beam ID	EKVU
Receive Beam Frequency	13750.0 MHz -14500.0 MHz
Beam Type	Fixed
Polarization	V
Peak Gain	dBi
Antenna Pointing Error	0.24 degrees
Antenna Rotational Error	0.1 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	90.0 degrees
G/T at Max. Gain Point	4.8 dB/K
Min. Saturation Flux Density	-102.9 dBW/m2
Max. Saturation Flux Density	-72.9 dBW/m2
Co- or Cross Polar Mode	C
Service Area Description	EAST PACIFIC

Receiving Beams 11:

Question	Response
Beam ID	CKVU
Receive Beam Frequency	13750.0 MHz -14500.0 MHz
Beam Type	Fixed
Polarization	V
Peak Gain	dBi
Antenna Pointing Error	0.24 degrees
Antenna Rotational Error	0.1 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	-104.3 dBW/m2
Max. Saturation Flux Density	-74.3 dBW/m2
Co- or Cross Polar Mode	C
Service Area Description	ASIA & EAST PACIFIC

Receiving Beams 12:

Question	Response
Beam ID	CMDC
Receive Beam Frequency	13994.5 MHz -13995.5 MHz
Beam Type	Fixed
Polarization	H
Peak Gain	dBi
Antenna Pointing Error	0.24 degrees
Antenna Rotational Error	0.1 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	0.0 degrees
G/T at Max. Gain Point	-99.0 dB/K
Min. Saturation Flux Density	-123.0 dBW/m2
Max. Saturation Flux Density	-122.9 dBW/m2
Co- or Cross Polar Mode	C
Service Area Description	EAST ASIA

Receiving Beams 13:

Question	Response
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Beam ID	CMDB
Receive Beam Frequency	13994.5 MHz -13995.5 MHz
Beam Type	Fixed
Polarization	V
Peak Gain	dBi
Antenna Pointing Error	0.24 degrees
Antenna Rotational Error	0.1 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	90.0 degrees
G/T at Max. Gain Point	-99.0 dB/K
Min. Saturation Flux Density	-100.2 dBW/m2
Max. Saturation Flux Density	-100.1 dBW/m2
Co- or Cross Polar Mode	C
Service Area Description	GLOBAL

Receiving Beams 14:

Question	Response
Beam ID	CMDP
Receive Beam Frequency	14498.0 MHz -14499.0 MHz
Beam Type	Fixed
Polarization	LHCP
Peak Gain	dBi
Antenna Pointing Error	0.24 degrees
Antenna Rotational Error	0.1 degrees
Polarization Switchable	

Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	-99.0 dB/K
Min. Saturation Flux Density	-103.1 dBW/m2
Max. Saturation Flux Density	-103.0 dBW/m2
Co- or Cross Polar Mode	C
Service Area Description	GLOBAL

Receiving Channels (32)

Channel ID	Channel Bandwidth (MHz)	Center Frequency s (MHz)	Feeder Link, Service Link or TT&C
KU02	36.0	13810.0	Service Link
KU01	36.0	13770.0	Service Link
CU12	36.0	6400.0	Service Link
CU11	36.0	6360.0	Service Link
CU10	36.0	6320.0	Service Link
CU09	36.0	6280.0	Service Link
CU08	36.0	6240.0	Service Link
CU07	36.0	6200.0	Service Link
CU06	36.0	6160.0	Service Link
CU05	36.0	6120.0	Service Link
CU04	36.0	6080.0	Service Link
CU03	36.0	6040.0	Service Link
CU02	36.0	6000.0	Service Link
CU01	36.0	5960.0	Service Link
CMD2	1.0	14498.5	TT&C
CMD1	1.0	13995.0	TT&C
KU03	36.0	13850.0	Service Link
KU04	36.0	13890.0	Service Link
KU05	36.0	13930.0	Service Link
KU06	36.0	13970.0	Service Link
KU07	36.0	14020.0	Service Link
KU08	36.0	14060.0	Service Link
KU09	36.0	14100.0	Service Link
KU10	36.0	14140.0	Service Link

KU11	36.0	14180.0	Service Link
KU12	36.0	14220.0	Service Link
KU13	36.0	14270.0	Service Link
KU14	36.0	14310.0	Service Link
KU15	36.0	14350.0	Service Link
KU16	36.0	14390.0	Service Link
KU17	36.0	14430.0	Service Link
KU18	36.0	14470.0	Service Link

Transmitting
Beams 1:

Question	Response
Beam ID	NKHD
Transmit Beam Frequency	10950.0 MHz -11200.0 MHz
Beam Type	Fixed
Polarization	H
Peak Gain	dBi
Antenna Pointing Error	0.24 degrees
Antenna Rotational Error	0.1 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	0.0 degrees
Max. Transmit EIRP Density	-24.2 dBW/Hz
Max. Transmit EIRP	50.9 dBW
Co- or Cross Polar Mode	C
Service Area Description	ASIA

Max. Power Flux Density

	* 0° - 5°	* 5° - 10°	* 10° - 15°	* 15° - 20°	* 20° - 25°	* 25° - 90°
* (dBW/m ² /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	-151.5	-151.3	-151.2	-151.1	-151.0	-150.2

Transmitting
Beams 2:

Question	Response
Beam ID	NKHE
Transmit Beam Frequency	11450.0 MHz -11700.0 MHz

Beam Type	Fixed
Polarization	H
Peak Gain	dBi
Antenna Pointing Error	0.24 degrees
Antenna Rotational Error	0.1 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	0.0 degrees
Max. Transmit EIRP Density	-24.2 dBW/Hz
Max. Transmit EIRP	50.9 dBW
Co- or Cross Polar Mode	C
Service Area Description	ASIA

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	-151.5	-151.3	-151.2	-151.1	-151.0	-150.2

**Transmitting
Beams 3:**

Question	Response
Beam ID	NKVD
Transmit Beam Frequency	10950.0 MHz -11200.0 MHz
Beam Type	Fixed
Polarization	V
Peak Gain	dBi
Antenna Pointing Error	0.24 degrees

Antenna Rotational Error	0.1 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	90.0 degrees
Max. Transmit EIRP Density	-24.8 dBW/Hz
Max. Transmit EIRP	50.3 dBW
Co- or Cross Polar Mode	C
Service Area Description	ASIA

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	-151.5	-151.3	-151.2	-151.1	-151.0	-150.2

Transmitting Beams 4:

Question	Response
Beam ID	SKHD
Transmit Beam Frequency	11700.0 MHz -11950.0 MHz
Beam Type	Fixed
Polarization	H
Peak Gain	dBi
Antenna Pointing Error	0.24 degrees
Antenna Rotational Error	0.1 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	0.0 degrees
Max. Transmit EIRP Density	-22.2 dBW/Hz

Max. Transmit EIRP	52.9 dBW
Co- or Cross Polar Mode	C
Service Area Description	AUSTRALIA

Max. Power Flux Density

Information not provided.

Transmitting Beams 5:

Question	Response
Beam ID	S1VD
Transmit Beam Frequency	11700.0 MHz -11950.0 MHz
Beam Type	Fixed
Polarization	V
Peak Gain	dBi
Antenna Pointing Error	0.24 degrees
Antenna Rotational Error	0.1 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	90.0 degrees
Max. Transmit EIRP Density	-22.1 dBW/Hz
Max. Transmit EIRP	53.0 dBW
Co- or Cross Polar Mode	C
Service Area Description	AUSTRALIA

Max. Power Flux Density

Information not provided.

Transmitting Beams 6:

Question	Response
Beam ID	S2VD

Transmit Beam Frequency	11450.0 MHz -11700.0 MHz
Beam Type	Fixed
Polarization	V
Peak Gain	dBi
Antenna Pointing Error	0.24 degrees
Antenna Rotational Error	0.1 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	90.0 degrees
Max. Transmit EIRP Density	-23.0 dBW/Hz
Max. Transmit EIRP	52.1 dBW
Co- or Cross Polar Mode	C
Service Area Description	AUSTRALIA

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	-150.0	-149.8	-149.7	-149.6	-149.5	-148.7

Transmitting Beams 7:

Question	Response
Beam ID	ACHD
Transmit Beam Frequency	3700.0 MHz -4200.0 MHz
Beam Type	Fixed
Polarization	H
Peak Gain	dBi

Antenna Pointing Error	0.24 degrees
Antenna Rotational Error	0.1 degrees
Polarization Switchable	No
Polarization Alignment Relative to the Equatorial Plane	0.0 degrees
Max. Transmit EIRP Density	-31.4 dBW/Hz
Max. Transmit EIRP	43.7 dBW
Co- or Cross Polar Mode	C
Service Area Description	ASIA & AUSTRALIA

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	-158.7	-158.5	-158.4	-158.3	-158.2	-157.4

Transmitting Beams 8:

Question	Response
Beam ID	ACVD
Transmit Beam Frequency	3700.0 MHz -4200.0 MHz
Beam Type	Fixed
Polarization	V
Peak Gain	dBi
Antenna Pointing Error	0.24 degrees
Antenna Rotational Error	0.1 degrees
Polarization Switchable	No
Polarization Alignment Relative to the Equatorial Plane	90.0 degrees

Max. Transmit EIRP Density	-31.7 dBW/Hz
Max. Transmit EIRP	43.4 dBW
Co- or Cross Polar Mode	C
Service Area Description	ASIA & AUSTRALIA

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	-158.7	-158.5	-158.4	-158.3	-158.2	-157.4

Transmitting Beams 9:

Question	Response
Beam ID	ECHD
Transmit Beam Frequency	3700.0 MHz -4200.0 MHz
Beam Type	Fixed
Polarization	H
Peak Gain	dBi
Antenna Pointing Error	0.24 degrees
Antenna Rotational Error	0.1 degrees
Polarization Switchable	No
Polarization Alignment Relative to the Equatorial Plane	0.0 degrees
Max. Transmit EIRP Density	-33.2 dBW/Hz
Max. Transmit EIRP	41.9 dBW
Co- or Cross Polar Mode	C
Service Area Description	EAST PACIFIC

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	-158.7	-158.5	-158.4	-158.3	-158.2	-157.4

Transmitting Beams 10:

Question	Response
Beam ID	GCVD
Transmit Beam Frequency	3700.0 MHz -4200.0 MHz
Beam Type	Fixed
Polarization	V
Peak Gain	dBi
Antenna Pointing Error	0.24 degrees
Antenna Rotational Error	0.1 degrees
Polarization Switchable	No
Polarization Alignment Relative to the Equatorial Plane	90.0 degrees
Max. Transmit EIRP Density	-40.5 dBW/Hz
Max. Transmit EIRP	34.6 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 kHz	-167.0	-166.8	-166.7	-166.6	-166.5	-165.7
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**Transmitting
Beams 11:**

Question	Response
Beam ID	EKHD
Transmit Beam Frequency	11450.0 MHz -11700.0 MHz
Beam Type	Fixed
Polarization	H
Peak Gain	dBi
Antenna Pointing Error	0.24 degrees
Antenna Rotational Error	0.1 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	0.0 degrees
Max. Transmit EIRP Density	-22.8 dBW/Hz
Max. Transmit EIRP	52.3 dBW
Co- or Cross Polar Mode	C
Service Area Description	EAST PACIFIC

Max. Power Flux Density

	* 0° - 5°	* 5° - 10°	* 10° - 15°	* 15° - 20°	* 20° - 25°	* 25° - 90°
* BW:	(dBW/m² /BW):	(dBW/m² /BW):	(dBW/m² /BW):	(dBW/m² /BW):	(dBW/m² /BW):	(dBW/m² /BW):
4.0 kHz	-151.5	-151.3	-151.2	-151.1	-151.0	-150.2

**Transmitting
Beams 12:**

Question	Response
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Beam ID	EKVD
Transmit Beam Frequency	10950.0 MHz -11200.0 MHz
Beam Type	Fixed
Polarization	V
Peak Gain	dBi
Antenna Pointing Error	0.24 degrees
Antenna Rotational Error	0.1 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	90.0 degrees
Max. Transmit EIRP Density	-24.8 dBW/Hz
Max. Transmit EIRP	50.3 dBW
Co- or Cross Polar Mode	C
Service Area Description	EAST PACIFIC

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	-151.5	-151.3	-151.2	-151.1	-151.0	-150.2

Transmitting Beams 13:

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

Peak Gain	dBi
Antenna Pointing Error	0.24 degrees
Antenna Rotational Error	0.1 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	90.0 degrees
Max. Transmit EIRP Density	-24.8 dBW/Hz
Max. Transmit EIRP	50.3 dBW
Co- or Cross Polar Mode	C
Service Area Description	EAST PACIFIC

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	-151.5	-151.3	-151.2	-151.1	-151.0	-150.2

Transmitting Beams 14:

Question	Response
Beam ID	TLMC
Transmit Beam Frequency	11695.75 MHz -11696.25 MHz
Beam Type	Fixed
Polarization	V
Peak Gain	dBi
Antenna Pointing Error	0.24 degrees
Antenna Rotational Error	0.1 degrees
Polarization Switchable	

Polarization Alignment Relative to the Equatorial Plane	90.0 degrees
Max. Transmit EIRP Density	-42.0 dBW/Hz
Max. Transmit EIRP	15.0 dBW
Co- or Cross Polar Mode	C
Service Area Description	EAST ASIA

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	-169.3	-169.1	-169.0	-168.9	-168.8	-168.0

Transmitting Beams 15:

Question	Response
Beam ID	TLMB
Transmit Beam Frequency	11695.75 MHz -11696.25 MHz
Beam Type	Fixed
Polarization	H
Peak Gain	dB
Antenna Pointing Error	0.24 degrees
Antenna Rotational Error	0.1 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	0.0 degrees
Max. Transmit EIRP Density	-45.2 dBW/Hz
Max. Transmit EIRP	11.8 dBW
Co- or Cross Polar Mode	C

Service Area Description	GLOBAL
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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	-169.3	-169.1	-169.0	-168.9	-168.8	-168.0

Transmitting Beams 16:

Question	Response
Beam ID	TLMP
Transmit Beam Frequency	11695.75 MHz -11696.25 MHz
Beam Type	Fixed
Polarization	LHCP
Peak Gain	dBi
Antenna Pointing Error	0.24 degrees
Antenna Rotational Error	0.1 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-46.3 dBW/Hz
Max. Transmit EIRP	10.7 dBW
Co- or Cross Polar Mode	C
Service Area Description	global

Max. Power Flux Density

Transmitting
Beams 17:

	* 0° - 5°	* 5° - 10°	* 10° - 15°	* 15° - 20°	* 20° - 25°	* 25° - 90°
* (dBW/m ² /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	-163.9	-169.1	-169.0	-168.9	-168.8	-168.0

Question	Response
Beam ID	UPCR
Transmit Beam Frequency	11695.98 MHz -11699.02 MHz
Beam Type	Fixed
Polarization	RHCP
Peak Gain	dBi
Antenna Pointing Error	0.24 degrees
Antenna Rotational Error	0.1 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-32.8 dBW/Hz
Max. Transmit EIRP	11.2 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 /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	-160.1	-159.9	-159.8	-159.7	-159.6	-158.8

Transmitting
Beams 18:

Question	Response
Beam ID	UPCL
Transmit Beam Frequency	11695.98 MHz -11699.02 MHz
Beam Type	Fixed
Polarization	LHCP
Peak Gain	dBi
Antenna Pointing Error	0.24 degrees
Antenna Rotational Error	0.1 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-32.8 dBW/Hz
Max. Transmit EIRP	11.2 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 kHz	-160.1	-159.9	-159.8	-159.7	-159.6	-158.8

**Transmitting
Channels (33)**

Channel ID	Channel Bandwidth (MHz)	Center Frequency s (MHz)	Feeder Link, Service Link or TT&C
CD01	36.0	3735.0	Service Link
CD02	36.0	3775.0	Service Link
CD03	36.0	3815.0	Service Link
CD04	36.0	3855.0	Service Link
CD05	36.0	3895.0	Service Link
CD06	36.0	3935.0	Service Link
CD07	36.0	3975.0	Service Link
CD08	36.0	4015.0	Service Link
CD09	36.0	4055.0	Service Link
CD10	36.0	4095.0	Service Link
CD11	36.0	4135.0	Service Link
CD12	36.0	4175.0	Service Link
KD01	36.0	10970.0	Service Link
KD02	36.0	11010.0	Service Link
KD03	36.0	11050.0	Service Link
KD04	36.0	11090.0	Service Link
KD05	36.0	11130.0	Service Link
KD06	36.0	11170.0	Service Link
KD07	36.0	11470.0	Service Link
KD08	36.0	11510.0	Service Link
KD09	36.0	11550.0	Service Link
KD10	36.0	11590.0	Service Link
KD11	36.0	11630.0	Service Link
KD12	36.0	11670.0	Service Link

KD13	36.0	11720.0	Service Link
KD14	36.0	11760.0	Service Link
KD15	36.0	11800.0	Service Link
KD16	36.0	11840.0	Service Link
KD17	36.0	11880.0	Service Link
KD18	36.0	11920.0	Service Link
TLM1	0.5	11696.0	TT&C
TLM2	0.5	11697.0	TT&C
UPC1	0.025	11699.0	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-1R at 157E.mdb</u>		GSO Antenna Gain Contour Data	GIMS file (*.mdb)	