Approved by OMB 3060-0678
Estimated Burden: up to 80 hours
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Federal Communications Commission

312 File Number: **SATLOA2020041300035**

Filing Description

Question	Response
Description	Intelsat 40e will be collocated with Galaxy 17 at 91 W. L.

Satellite Information

Question	Response
Select Orbit Type	GSO
Space Station or Satellite Network Name	Intelsat 40e
Estimated Lifetime of Satellite(s) From Date of Launch	21 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		19600.0 MHz -20200.0 MHz	Transmit
Fixed-Satellite Service		17800.0 MHz -19400.0 MHz	Transmit
Fixed-Satellite Service		10825.0 MHz -12200.0 MHz	Transmit
Fixed-Satellite Service		29250.0 MHz -30000.0 MHz	Receive
Fixed-Satellite Service		27500.0 MHz -29100.0 MHz	Receive
Fixed-Satellite Service		14000.0 MHz -14500.0 MHz	Receive

Orbital Information For Geostationary Satellites

Section	Question	Response
Orbital Longitude Information	Orbital Longitude	91.0 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	0.1 degrees
	Pitch	0.1 degrees
	Yaw	0.1 degrees

Receiving Beams 1:

Question	Response
Beam ID	KUHU
Receive Beam Frequency	14000.0 MHz -14500.0 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
G/T at Max. Gain Point	15.92 dB/K
Min. Saturation Flux Density	-105.0 dBW/m2
Max. Saturation Flux Density	-85.0 dBW/m2
Co- or Cross Polar Mode	C
Service Area Description	This Ku band is consisting of 42 fixed spot beams, only one GXT file will be provided.

Receiving Beams 2:

Question	Response
Beam ID	KUVU
Receive Beam Frequency	14000.0 MHz -14500.0 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
G/T at Max. Gain Point	15.2 dB/K
Min. Saturation Flux Density	-105.0 dBW/m2
Max. Saturation Flux Density	-85.0 dBW/m2
Co- or Cross Polar Mode	C
Service Area Description	This Ku band is consisting of 42 fixed spot beams, only one GXT file will be provided.

Receiving Beams 3:

Question	Response
Beam ID	A1RU
Receive Beam Frequency	27500.0 MHz -29100.0 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
G/T at Max. Gain Point	20.97 dB/K
Min. Saturation Flux Density	-101.9 dBW/m2
Max. Saturation Flux Density	-74.0 dBW/m2
Co- or Cross Polar Mode	C
Service Area Description	Fixed GW beam

Receiving Beams 4:

Question	Response
Beam ID	A1RK
Receive Beam Frequency	29250.0 MHz -30000.0 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
G/T at Max. Gain Point	20.97 dB/K
Min. Saturation Flux Density	-101.9 dBW/m2
Max. Saturation Flux Density	-74.0 dBW/m2
Co- or Cross Polar Mode	C
Service Area Description	Fixed GW beam

Receiving Beams 5:

Question	Response
Beam ID	A1LK
Receive Beam Frequency	29250.0 MHz -30000.0 MHz
Beam Type	Fixed
Polarization	LHCP
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
G/T at Max. Gain Point	20.97 dB/K
Min. Saturation Flux Density	-101.9 dBW/m2
Max. Saturation Flux Density	-74.0 dBW/m2
Co- or Cross Polar Mode	C
Service Area Description	Fixed GW beam

Receiving Beams 6:

Question	Response
Beam ID	A1LU
Receive Beam Frequency	27500.0 MHz -29100.0 MHz
Beam Type	Fixed
Polarization	LHCP
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
G/T at Max. Gain Point	20.97 dB/K
Min. Saturation Flux Density	-101.9 dBW/m2
Max. Saturation Flux Density	-74.0 dBW/m2
Co- or Cross Polar Mode	C
Service Area Description	Fixed GW beam

Receiving

Beams 7:

Question	Response
Beam ID	CMLD
Receive Beam Frequency	14000.0 MHz -14030.0 MHz
Beam Type	Fixed
Polarization	LHCP
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
G/T at Max. Gain Point	-99.0 dB/K
Min. Saturation Flux Density	-100.0 dBW/m2
Max. Saturation Flux Density	-99.9 dBW/m2
Co- or Cross Polar Mode	C
Service Area Description	Tunable Command Beam

Receiving Beams 8:

Question	Response
Beam ID	CPLU
Receive Beam Frequency	14000.0 MHz -14030.0 MHz
Beam Type	Fixed
Polarization	LHCP
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
G/T at Max. Gain Point	-99.0 dB/K
Min. Saturation Flux Density	-100.0 dBW/m2
Max. Saturation Flux Density	-99.9 dBW/m2
Co- or Cross Polar Mode	C
Service Area Description	Tunable Command Beam

Receiving Beams 9:

Question	Response
Beam ID	CHLU
Receive Beam Frequency	14000.0 MHz -14030.0 MHz
Beam Type	Fixed
Polarization	LHCP
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
G/T at Max. Gain Point	-99.0 dB/K
Min. Saturation Flux Density	-100.0 dBW/m2
Max. Saturation Flux Density	-99.9 dBW/m2
Co- or Cross Polar Mode	C
Service Area Description	Tunable Command Beam

Receiving Beams 10:

Question	Response

Beam ID	A2RU
Receive Beam Frequency	27500.0 MHz -29100.0 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
G/T at Max. Gain Point	20.97 dB/K
Min. Saturation Flux Density	-101.9 dBW/m2
Max. Saturation Flux Density	-74.0 dBW/m2
Co- or Cross Polar Mode	C
Service Area Description	Fixed GW Beam

Receiving Beams 11:

Question	Response
Beam ID	A2LU
Receive Beam Frequency	27500.0 MHz -29100.0 MHz
Beam Type	Fixed
Polarization	LHCP
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
G/T at Max. Gain Point	20.97 dB/K
Min. Saturation Flux Density	-101.9 dBW/m2
Max. Saturation Flux Density	-74.0 dBW/m2
Co- or Cross Polar Mode	C
Service Area Description	Fixed GW Beam

Receiving Beams 12:

Question	Response
Beam ID	A2RK
Receive Beam Frequency	29250.0 MHz -30000.0 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
G/T at Max. Gain Point	20.97 dB/K
Min. Saturation Flux Density	-101.9 dBW/m2
Max. Saturation Flux Density	-74.0 dBW/m2
Co- or Cross Polar Mode	C
Service Area Description	Fixed GW Beam

Receiving Beams 13:

Question	Response

Beam ID	A2LK
Receive Beam Frequency	29250.0 MHz -30000.0 MHz
Beam Type	Fixed
Polarization	LHCP
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
G/T at Max. Gain Point	20.97 dB/K
Min. Saturation Flux Density	-101.9 dBW/m2
Max. Saturation Flux Density	-74.0 dBW/m2
Co- or Cross Polar Mode	C
Service Area Description	Fixed GW Beam

Receiving Beams 14:

Question	Response
Beam ID	A3RU
Receive Beam Frequency	27500.0 MHz -29100.0 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
G/T at Max. Gain Point	20.97 dB/K
Min. Saturation Flux Density	-101.9 dBW/m2
Max. Saturation Flux Density	-74.0 dBW/m2
Co- or Cross Polar Mode	C
Service Area Description	Fixed GW Beam

Receiving Beams 15:

Question	Response
Beam ID	A3LU
Receive Beam Frequency	27500.0 MHz -29100.0 MHz
Beam Type	Fixed
Polarization	LHCP
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
G/T at Max. Gain Point	20.97 dB/K
Min. Saturation Flux Density	-101.9 dBW/m2
Max. Saturation Flux Density	-74.0 dBW/m2
Co- or Cross Polar Mode	C
Service Area Description	Fixed GW Beam

Receiving Beams 16:

Question	Response

Beam ID	A3RK
Receive Beam Frequency	29250.0 MHz -30000.0 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
G/T at Max. Gain Point	20.97 dB/K
Min. Saturation Flux Density	-101.9 dBW/m2
Max. Saturation Flux Density	-74.0 dBW/m2
Co- or Cross Polar Mode	C
Service Area Description	Fixed GW Beam

Receiving Beams 17:

Question	Response
Beam ID	A3LK
Receive Beam Frequency	29250.0 MHz -30000.0 MHz
Beam Type	Fixed
Polarization	LHCP
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
G/T at Max. Gain Point	20.97 dB/K
Min. Saturation Flux Density	-101.9 dBW/m2
Max. Saturation Flux Density	-74.0 dBW/m2
Co- or Cross Polar Mode	C
Service Area Description	Fixed GW Beam

Receiving Channels (32)

Channel ID	Channel Bandwidth (MHz)	Center Frequency s (MHz)	Feeder Link, Service Link or TT&C
CMLD	1.0	14000.5	TT&C
CPLU	1.0	14003.0	TT&C
Ka24	108.0	29435.0	Service Link
Ka23	108.0	29315.0	Service Link
Ka22	108.0	28935.0	Service Link
Ka01	108.0	27560.0	Service Link
Ka02	216.0	27750.0	Service Link
Ka03	108.0	27940.0	Service Link
Ka04	108.0	28060.0	Service Link
Ka05	216.0	28250.0	Service Link
Ka06	216.0	28500.0	Service Link
Ka07	108.0	28690.0	Service Link
Ka08	216.0	28875.0	Service Link
Ka09	216.0	29375.0	Service Link
Ka10	216.0	29625.0	Service Link
Ka11	216.0	29875.0	Service Link
Ka12	216.0	28000.0	Service Link
Ka13	108.0	27690.0	Service Link
Ka14	108.0	27810.0	Service Link
Ka15	108.0	28190.0	Service Link
Ka16	108.0	28310.0	Service Link
Ka17	108.0	28685.0	Service Link
Ka18	81.0	29051.5	Service Link
Ka19	108.0	29565.0	Service Link

Ka20	108.0	29685.0	Service Link
Ka21	108.0	28815.0	Service Link
KH01	108.0	14065.0	Service Link
KH02	108.0	14185.0	Service Link
KH03	108.0	14315.0	Service Link
KH04	108.0	14435.0	Service Link
KH05	216.0	14125.0	Service Link
KH06	216.0	14375.0	Service Link

Transmitting Beams 1:

Question	Response
Beam ID	KUHD
Transmit Beam Frequency	10825.0 MHz -12200.0 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	-19.5 dBW/Hz
Max. Transmit EIRP	60.8 dBW
Co- or Cross Polar Mode	C
Service Area Description	IS-40e Ku band spectrum consists of 42 spots that covers United States including Alaska, Hawaii and Central America

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):
4.0 kHz	-146.8	-146.6	-146.5	-146.4	-146.3	-145.5

Transmitting Beams 2:

Question	Response

Beam ID	KUDV
Transmit Beam Frequency	10825.0 MHz -12000.0 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	-19.5 dBW/Hz
Max. Transmit EIRP	60.8 dBW
Co- or Cross Polar Mode	C
Service Area Description	IS-40e Ku band spectrum consists of 42 spots that covers United States including Alaska, Hawaii and Central America

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):
4.0 kHz	-146.8	-146.6	-146.0	-146.4	-146.3	-145.5

Transmitting Beams 3:

Question	Response
Beam ID	A1LD
Transmit Beam Frequency	17800.0 MHz -19400.0 MHz

Beam Type	Fixed
Polarization	LHCP
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	-19.8 dBW/Hz
Max. Transmit EIRP	60.5 dBW
Co- or Cross Polar Mode	C
Service Area Description	IS-40e has 3 Ka band fixed GW beams which cover United States

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	-123.1	-123.0	-122.8	-122.7	-122.6	-121.9

Transmitting Beams 4:

Question	Response
Beam ID	A1RD
Transmit Beam Frequency	17800.0 MHz -19400.0 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	-19.8 dBW/Hz
Max. Transmit EIRP	60.5 dBW
Co- or Cross Polar Mode	C
Service Area Description	IS-40e has 3 Ka band fixed GW beams which cover United States

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	-123.3	-123.2	-123.0	-122.9	-122.8	-122.1

Transmitting Beams 5:

Question	Response
Beam ID	A1LE
Transmit Beam Frequency	19600.0 MHz -20200.0 MHz
Beam Type	Fixed
Polarization	LHCP
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	-20.0 dBW/Hz

Max. Transmit EIRP	16.0 dBW
Co- or Cross Polar Mode	C
Service Area Description	IS-40e has 3 Ka band fixed GW beams which cover United States

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	-123.3	-123.2	-123.0	-122.9	-122.8	-122.1

Transmitting Beams 6:

Question	Response
Beam ID	A1RE
Transmit Beam Frequency	19600.0 MHz -20200.0 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	-20.0 dBW/Hz
Max. Transmit EIRP	60.3 dBW
Co- or Cross Polar Mode	C
Service Area Description	IS-40e has 3 Ka band fixed GW beams which cover United States

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	-123.3	-123.2	-123.0	-122.9	-122.8	-122.1

Transmitting Beams 7:

Question	Response
Beam ID	TGRD
Transmit Beam Frequency	10950.5 MHz -10951.0 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	-46.5 dBW/Hz
Max. Transmit EIRP	10.5 dBW
Co- or Cross Polar Mode	C
Service Area Description	Fixed TM RHCP

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):

4.0 kHz	-173.7	-173.6	-173.5	-173.4	-173.3	-172.5

Transmitting Beams 8:

Question	Response
Beam ID	TPRD
Transmit Beam Frequency	10951.5 MHz -10952.0 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	-46.5 dBW/Hz
Max. Transmit EIRP	10.5 dBW
Co- or Cross Polar Mode	C
Service Area Description	TM Fixed RHCP

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):
4.0 kHz	-173.7	-173.6	-173.5	-173.4	-173.3	-172.5

Transmitting Beams 9:

Question	Response

Beam ID	THRD
Transmit Beam Frequency	10951.0 MHz -10951.5 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	-46.5 dBW/Hz
Max. Transmit EIRP	10.5 dBW
Co- or Cross Polar Mode	C
Service Area Description	TM fixed RHCP

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):
4.0 kHz	-173.7	-173.6	-173.5	-173.4	-173.3	-172.5

Transmitting Beams 10:

Question	Response
Beam ID	TMRD
Transmit Beam Frequency	10934.95 MHz -10965.05 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	-46.5 dBW/Hz
Max. Transmit EIRP	10.5 dBW
Co- or Cross Polar Mode	C
Service Area Description	TM centered 10952.25 MHz with 100kHz tunable steps

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):
4.0 kHz	-173.7	-173.6	-173.5	-173.4	-173.3	-172.5

Transmitting Beams 11:

Question	Response
Beam ID	CLRD
Transmit Beam Frequency	10950.237 MHz -10950.262 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	-30.0 dBW/Hz
Max. Transmit EIRP	14.0 dBW
Co- or Cross Polar Mode	C
Service Area Description	ULPC1 Fixed at10950.25

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):
4.0 kHz	-157.2	-157.1	-157.0	-156.9	-156.8	-156.0

Transmitting Beams 12:

Question	Response
Beam ID	GLRD
Transmit Beam Frequency	11700.487 MHz -11700.512 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	-30.0 dBW/Hz
Max. Transmit EIRP	14.0 dBW
Co- or Cross Polar Mode	C

Service Area Description	ULPC2 fixed at 11700.50 MHz

Max. Power Flux Density

Information not provided.

Transmitting Beams 13:

Question	Response
Beam ID	KLRD
Transmit Beam Frequency	12199.487 MHz -12199.512 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	-30.0 dBW/Hz
Max. Transmit EIRP	14.0 dBW
Co- or Cross Polar Mode	C
Service Area Description	ULPC3 fixed at 12199.50

Max. Power Flux Density

Information not provided.

Transmitting Beams 14:

Question	Response
Beam ID	ALHD
Transmit Beam Frequency	20198.987 MHz -20199.012 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	-27.5 dBW/Hz
Max. Transmit EIRP	16.5 dBW
Co- or Cross Polar Mode	C
Service Area Description	ULPC4 Ka at 20199.0 MHz

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):
4.0 kHz	-154.7	-154.6	-154.5	-154.4	-154.3	-153.5

Transmitting Beams 15:

Question	Response
Beam ID	A2LD
Transmit Beam Frequency	17800.0 MHz -19400.0 MHz
Beam Type	Fixed
Polarization	LHCP
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	-18.9 dBW/Hz
Max. Transmit EIRP	61.4 dBW
Co- or Cross Polar Mode	C
Service Area Description	IS-40e has 3 Ka band fixed GW beams which cover United States

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	-122.2	-122.1	-121.9	-121.8	-121.7	-121.0

Transmitting Beams 16:

Question	Response
Beam ID	A2RD
Transmit Beam Frequency	17800.0 MHz -19400.0 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	-18.9 dBW/Hz
Max. Transmit EIRP	61.4 dBW

Co- or Cross Polar Mode	C
Service Area Description	IS-40e has 3 Ka band fixed GW beams which cover United States

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	-122.2	-122.1	-121.9	-121.8	-121.7	-121.0

Transmitting Beams 17:

Question	Response
Beam ID	A2LE
Transmit Beam Frequency	19600.0 MHz -20200.0 MHz
Beam Type	Fixed
Polarization	LHCP
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	-18.9 dBW/Hz
Max. Transmit EIRP	61.4 dBW
Co- or Cross Polar Mode	C
Service Area Description	IS-40e has 3 Ka band fixed GW beams which cover United States

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	-122.2	-122.1	-121.9	-121.8	-121.7	-121.0

Transmitting Beams 18:

Question	Response
Beam ID	A2RE
Transmit Beam Frequency	19600.0 MHz -20200.0 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	-18.9 dBW/Hz
Max. Transmit EIRP	61.4 dBW
Co- or Cross Polar Mode	C
Service Area Description	IS-40e has 3 Ka band fixed GW beams which cover United States

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	-122.2	-122.1	-121.9	-121.8	-121.7	-121.0

Transmitting Beams 19:

Question	Response
Beam ID	A3LD
Transmit Beam Frequency	17800.0 MHz -19400.0 MHz
Beam Type	Fixed
Polarization	LHCP
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	-22.3 dBW/Hz
Max. Transmit EIRP	58.0 dBW
Co- or Cross Polar Mode	C
Service Area Description	IS-40e has 3 Ka band fixed GW beams which cover United States

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	-125.6	-125.5	-125.3	-125.2	-125.1	-124.4

Transmitting Beams 20:

Question	Response
Beam ID	A3RD
Transmit Beam Frequency	17800.0 MHz -19400.0 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	-22.3 dBW/Hz
Max. Transmit EIRP	58.0 dBW
Co- or Cross Polar Mode	C
Service Area Description	IS-40e has 3 Ka band fixed GW beams which cover United States

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	-125.6	-125.5	-125.3	-125.2	-125.1	-124.4

Transmitting Beams 21:

Question	Response
Beam ID	A3LE
Transmit Beam Frequency	19600.0 MHz -20200.0 MHz
Beam Type	Fixed
Polarization	LHCP
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	-21.7 dBW/Hz
Max. Transmit EIRP	58.6 dBW
Co- or Cross Polar Mode	C
Service Area Description	IS-40e has 3 Ka band fixed GW beams which cover United States

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	-125.0	-124.9	-124.7	-124.6	-124.5	-123.8

Transmitting Beams 22:

Question	Response
Beam ID	A3RE
Transmit Beam Frequency	19600.0 MHz -20200.0 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	-21.7 dBW/Hz

Max. Transmit EIRP	58.6 dBW
Co- or Cross Polar Mode	C
Service Area Description	IS-40e has 3 Ka band fixed GW beams which cover United States

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	-125.0	-124.9	-124.7	-124.6	-124.5	-123.8

Transmitting Channels (44)

Channel ID	Channel Bandwidth (MHz)	Center Frequency s (MHz)	Feeder Link, Service Link or TT&C
KV03	108.0	11135.0	Service Link
KV04	108.0	11265.0	Service Link
KV07	108.0	11635.0	Service Link
KV06	108.0	11515.0	Service Link
AD11	108.0	17985.0	Service Link
AD10	108.0	17865.0	Service Link
KV08	108.0	11765.0	Service Link
KV09	108.0	11885.0	Service Link
KV10	108.0	12015.0	Service Link
KV11	108.0	12135.0	Service Link
KV12	216.0	11075.0	Service Link
KV13	216.0	11325.0	Service Link
KV14	216.0	11575.0	Service Link
KV15	216.0	11825.0	Service Link
KV16	216.0	12075.0	Service Link
TGRD	0.5	10950.75	TT&C
THRD	0.5	10951.25	TT&C
TMRD	30.1	10952.25	TT&C
AD07	216.0	20075.0	Service Link
AD08	108.0	18865.0	Service Link
AD09	108.0	19115.0	Service Link
AD01	216.0	17925.0	Service Link
AD02	216.0	18175.0	Service Link
AD03	216.0	18425.0	Service Link

AD04	108.0	18615.0	Service Link
AD05	108.0	18735.0	Service Link
AD06	216.0	18675.0	Service Link
KV17	81.0	11251.5	Service Link
AD12	108.0	18115.0	Service Link
AD13	108.0	18235.0	Service Link
AD14	108.0	18985.0	Service Link
KV05	108.0	11385.0	Service Link
CLRD	0.025	10950.25	TT&C
ALHD	0.025	20199.0	TT&C
AD19	108.0	19885.0	Service Link
AD18	108.0	19785.0	Service Link
AD17	216.0	20075.0	Service Link
AD16	216.0	19825.0	Service Link
AD15	216.0	18925.0	Service Link
KV02	108.0	11015.0	Service Link
TPRD	0.5	10951.75	TT&C
GLRD	0.025	11700.5	TT&C
KLRD	0.025	12199.5	TT&C
KV01	108.0	10885.0	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?	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
IS-40E APRIL 7.mdb		GSO Antenna Gain Contour Data	GIMS file (*.mdb)	