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

Federal Communications Commission

312 File Number: **SATAMD2023061200138**

Filing Description

Question	Response
Description	IS-43 SDS Satellite new deployment at 137.1 degree West Longitude

Satellite Information

Question	Response
Select Orbit Type	GSO
Space Station or Satellite Network Name	Intelsat 43
Estimated Lifetime of Satellite(s) From Date of Launch	15 Years
Will the space station(s) operate on a Common Carrier basis?	Yes

Operating Frequency Bands (8)

Nature of service	Description	Frequency Band(s)	Mode Type
Fixed-Satellite Service		37500.0 MHz -43500.0 MHz	Transmit
Fixed-Satellite Service		13750.0 MHz -14800.0 MHz	Receive
Fixed-Satellite Service		17300.0 MHz -20700.0 MHz	Transmit
Fixed-Satellite Service		10700.0 MHz -12750.0 MHz	Transmit
Fixed-Satellite Service		50400.0 MHz -52400.0 MHz	Receive
Fixed-Satellite Service		47200.0 MHz -50200.0 MHz	Receive
Fixed-Satellite Service		27500.0 MHz -30500.0 MHz	Receive
Fixed-Satellite Service		13000.0 MHz -13250.0 MHz	Receive

Orbital Information For Geostationary Satellites

Section	Question	Response
Orbital Longitude Information	Orbital Longitude	137.0 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	0.05 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	13000.0 MHz -13250.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	H
Peak Gain	43.06 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	13.0 dB/K
Min. Saturation Flux Density	-99.4 dBW/m2
Max. Saturation Flux Density	-74.4 dBW/m2
Co- or Cross Polar Mode	C
Service Area Description	Visible earth coverages of 137.1 degree West

Receiving Beams 2:

Question	Response
Beam ID	KUVU
Receive Beam Frequency	13000.0 MHz -13250.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	V
Peak Gain	43.06 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	13.0 dB/K
Min. Saturation Flux Density	-99.4 dBW/m2
Max. Saturation Flux Density	-74.4 dBW/m2
Co- or Cross Polar Mode	X
Service Area Description	Visible earth coverages of 137.1 degree West

Receiving Beams 3:

Question	Response
Beam ID	K1HU
Receive Beam Frequency	13750.0 MHz -14500.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	H
Peak Gain	43.06 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	13.0 dB/K
Min. Saturation Flux Density	-99.4 dBW/m2
Max. Saturation Flux Density	-74.4 dBW/m2
Co- or Cross Polar Mode	C
Service Area Description	Visible earth coverages of 137.1 degree West

Receiving Beams 4:

Question	Response
Beam ID	K1VU
Receive Beam Frequency	13750.0 MHz -14500.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	V
Peak Gain	43.06 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	13.0 dB/K
Min. Saturation Flux Density	-99.4 dBW/m2
Max. Saturation Flux Density	-74.4 dBW/m2
Co- or Cross Polar Mode	X
Service Area Description	Visible earth coverages of 137.1 degree West

Receiving Beams 5:

Question	Response
Beam ID	K2HU
Receive Beam Frequency	14500.0 MHz -14800.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	H
Peak Gain	43.06 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	13.0 dB/K
Min. Saturation Flux Density	-99.4 dBW/m2
Max. Saturation Flux Density	-74.4 dBW/m2
Co- or Cross Polar Mode	C
Service Area Description	Visible earth coverages of 137.1 degree West

Receiving Beams 6:

Question	Response
Beam ID	K2VU
Receive Beam Frequency	14500.0 MHz -14800.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	V
Peak Gain	43.06 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	13.0 dB/K
Min. Saturation Flux Density	-99.4 dBW/m2
Max. Saturation Flux Density	-74.4 dBW/m2
Co- or Cross Polar Mode	X
Service Area Description	Visible earth coverages of 137.1 degree West

Receiving Beams 7:

Question	Response

Beam ID	KARU
Receive Beam Frequency	27500.0 MHz -30500.0 MHz
Beam Type	Steerable
Polarization	RHCP
Peak Gain	47.13 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	15.3 dB/K
Min. Saturation Flux Density	-98.2 dBW/m2
Max. Saturation Flux Density	-73.2 dBW/m2
Co- or Cross Polar Mode	C
Service Area Description	Visible earth coverages of 137.1 degree West

Receiving Beams 8:

Question	Response
Beam ID	KALU
Receive Beam Frequency	27500.0 MHz -30500.0 MHz
Beam Type	Shapeable
Polarization	LHCP
Peak Gain	47.13 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	15.3 dB/K
Min. Saturation Flux Density	-98.2 dBW/m2
Max. Saturation Flux Density	-73.2 dBW/m2
Co- or Cross Polar Mode	X
Service Area Description	Visible earth coverages of 137.1 degree West

Receiving Beams 9:

Question	Response
Beam ID	KVRU
Receive Beam Frequency	27500.0 MHz -30000.0 MHz
Beam Type	Steerable
Polarization	RHCP
Peak Gain	46.92 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	13.9 dB/K
Min. Saturation Flux Density	-97.0 dBW/m2
Max. Saturation Flux Density	-72.0 dBW/m2
Co- or Cross Polar Mode	C
Service Area Description	Visible earth coverages of 137.1 degree West

Receiving Beams 10:

Question	Response
Beam ID	KVLU

Receive Beam Frequency	27500.0 MHz -30000.0 MHz
Beam Type	Steerable
Polarization	LHCP
Peak Gain	46.92 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	13.9 dB/K
Min. Saturation Flux Density	-97.0 dBW/m2
Max. Saturation Flux Density	-72.0 dBW/m2
Co- or Cross Polar Mode	X
Service Area Description	Visible earth coverages of 137.1 degree West

Receiving Beams 11:

Question	Response
Beam ID	V1RU
Receive Beam Frequency	47200.0 MHz -50200.0 MHz
Beam Type	Steerable
Polarization	RHCP
Peak Gain	51.59 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	15.5 dB/K

Min. Saturation Flux Density	-96.3 dBW/m2
Max. Saturation Flux Density	-71.3 dBW/m2
Co- or Cross Polar Mode	C
Service Area Description	Visible earth coverages of 137.1 degree West

Receiving Beams 12:

Question	Response
Beam ID	V1LU
Receive Beam Frequency	47200.0 MHz -50200.0 MHz
Beam Type	Steerable
Polarization	LHCP
Peak Gain	51.59 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	15.5 dB/K
Min. Saturation Flux Density	-96.3 dBW/m2
Max. Saturation Flux Density	-71.3 dBW/m2
Co- or Cross Polar Mode	X
Service Area Description	Visible earth coverages of 137.1 degree West

Receiving Beams 13:

Question	Response
Beam ID	V2RU
Receive Beam Frequency	50400.0 MHz -52400.0 MHz

Beam Type	Steerable
Polarization	RHCP
Peak Gain	51.59 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	15.3 dB/K
Min. Saturation Flux Density	-96.3 dBW/m2
Max. Saturation Flux Density	-71.3 dBW/m2
Co- or Cross Polar Mode	C
Service Area Description	Visible earth coverages of 137.1 degree West

Receiving Beams 14:

Question	Response
Beam ID	V2LU
Receive Beam Frequency	50400.0 MHz -52400.0 MHz
Beam Type	Steerable
Polarization	LHCP
Peak Gain	51.59 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	15.3 dB/K
Min. Saturation Flux Density	-96.3 dBW/m2

Max. Saturation Flux Density	-71.3 dBW/m2
Co- or Cross Polar Mode	X
Service Area Description	Visible earth coverages of 137.1 degree West

Receiving Beams 15:

Question	Response
Beam ID	CMD1
Receive Beam Frequency	14000.0 MHz -14001.0 MHz
Beam Type	Fixed
Polarization	LHCP
Peak Gain	10.0 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	-19.6 dB/K
Min. Saturation Flux Density	-100.0 dBW/m2
Max. Saturation Flux Density	-84.0 dBW/m2
Co- or Cross Polar Mode	C
Service Area Description	Command 1 Global

Receiving Beams 16:

Question	Response
Beam ID	CMD2
Receive Beam Frequency	14000.0 MHz -14001.0 MHz
Beam Type	Fixed

Polarization	RHCP
Peak Gain	10.0 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	-19.6 dB/K
Min. Saturation Flux Density	-100.0 dBW/m2
Max. Saturation Flux Density	-84.0 dBW/m2
Co- or Cross Polar Mode	X
Service Area Description	Command 1 Global

Receiving Beams 17:

Question	Response
Beam ID	CMD3
Receive Beam Frequency	14002.5 MHz -14003.5 MHz
Beam Type	Fixed
Polarization	LHCP
Peak Gain	10.0 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	-19.6 dB/K
Min. Saturation Flux Density	-100.0 dBW/m2
Max. Saturation Flux Density	-84.0 dBW/m2

Co- or Cross Polar Mode	C
Service Area Description	Command 2 Global

Receiving Beams 18:

Question	Response
Beam ID	CMD4
Receive Beam Frequency	14002.5 MHz -14003.5 MHz
Beam Type	Fixed
Polarization	RHCP
Peak Gain	10.0 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	-19.6 dB/K
Min. Saturation Flux Density	-100.0 dBW/m2
Max. Saturation Flux Density	-84.0 dBW/m2
Co- or Cross Polar Mode	X
Service Area Description	Command 2 Global

Receiving Channels (14)

Channel ID	Channel Bandwidth (MHz)	Center Frequency s (MHz)	Feeder Link, Service Link or TT&C
VU02	250.0	47325.0	Service Link
VU03	2.0	50401.0	Service Link
Ku01	250.0	13125.0	Service Link
KV01	2.0	27501.0	Service Link
KV02	250.0	27625.0	Service Link
Ka01	2.0	27501.0	Service Link
Ku02	2.0	14001.0	Service Link
Ku03	2.0	14501.0	Service Link
KA02	250.0	27625.0	Service Link
VU04	250.0	50525.0	Service Link
VU01	2.0	47201.0	Service Link
CMD2	1.0	14003.0	TT&C
CMD1	1.0	14000.5	TT&C
Ku04	250.0	14625.0	Service Link

Transmitting Beams 1:

Question	Response
Beam ID	KUHD
Transmit Beam Frequency	10700.0 MHz -12750.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	H
Peak Gain	42.33 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	-22.7 dBW/Hz
Max. Transmit EIRP	78.0 dBW
Co- or Cross Polar Mode	C
Service Area Description	Visible earth coverages of 137.1 degree West

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

Transmitting Beams 2:

Question	Response
Beam ID	KUVD
Transmit Beam Frequency	10700.0 MHz -12750.0 MHz

Beam Type	Both Steerable and Shapeable
Polarization	V
Peak Gain	42.33 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	-22.7 dBW/Hz
Max. Transmit EIRP	78.0 dBW
Co- or Cross Polar Mode	X
Service Area Description	Visible earth coverages of 137.1 degree West

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

Transmitting Beams 3:

Question	Response
Beam ID	KARD
Transmit Beam Frequency	17300.0 MHz -19400.0 MHz
Beam Type	Steerable
Polarization	RHCP
Peak Gain	44.24 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	-16.0 dBW/Hz
Max. Transmit EIRP	61.4 dBW
Co- or Cross Polar Mode	C
Service Area Description	Visible earth coverages of 137.1 degree West

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	-119.3	-119.2	-119.0	-118.9	-118.8	-118.1

Transmitting Beams 4:

Question	Response
Beam ID	KALD
Transmit Beam Frequency	17300.0 MHz -19400.0 MHz
Beam Type	Steerable
Polarization	LHCP
Peak Gain	44.24 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	-16.0 dBW/Hz

Max. Transmit EIRP	61.4 dBW
Co- or Cross Polar Mode	X
Service Area Description	Visible earth coverages of 137.1 degree West

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	-119.3	-119.2	-119.0	-118.9	-118.8	-118.1

Transmitting Beams 5:

Question	Response
Beam ID	A2RD
Transmit Beam Frequency	19600.0 MHz -20700.0 MHz
Beam Type	Steerable
Polarization	RHCP
Peak Gain	44.24 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	-16.0 dBW/Hz
Max. Transmit EIRP	61.4 dBW
Co- or Cross Polar Mode	C
Service Area Description	Visible earth coverages of 137.1 degree West

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	-119.3	-119.2	-119.0	-118.9	-118.8	-118.1

Transmitting Beams 6:

Question	Response
Beam ID	A2LD
Transmit Beam Frequency	19600.0 MHz -20700.0 MHz
Beam Type	Steerable
Polarization	LHCP
Peak Gain	44.24 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	-16.0 dBW/Hz
Max. Transmit EIRP	61.4 dBW
Co- or Cross Polar Mode	X
Service Area Description	Visible earth coverages of 137.1 degree West

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	-119.3	-119.2	-119.0	-118.9	-118.8	-118.1

Transmitting Beams 7:

Question	Response
Beam ID	QBRD
Transmit Beam Frequency	37500.0 MHz -40000.0 MHz
Beam Type	Steerable
Polarization	RHCP
Peak Gain	50.31 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	-23.7 dBW/Hz
Max. Transmit EIRP	61.9 dBW
Co- or Cross Polar Mode	C
Service Area Description	Visible earth coverages of 137.1 degree West

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	-127.0	-126.9	-126.7	-126.6	-126.5	-125.8

Transmitting Beams 8:

Question	Response

Beam ID	QBLD
Transmit Beam Frequency	37500.0 MHz -40000.0 MHz
Beam Type	Steerable
Polarization	LHCP
Peak Gain	50.31 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	-23.7 dBW/Hz
Max. Transmit EIRP	61.9 dBW
Co- or Cross Polar Mode	X
Service Area Description	Visible earth coverages of 137.1 degree West

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	-127.0	-126.9	-126.7	-126.6	-126.5	-125.8

Transmitting Beams 9:

Question	Response
Beam ID	Q1RD
Transmit Beam Frequency	40000.0 MHz -40500.0 MHz
Beam Type	Steerable
Polarization	RHCP

Peak Gain	50.31 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	-11.7 dBW/Hz
Max. Transmit EIRP	61.9 dBW
Co- or Cross Polar Mode	C
Service Area Description	Visible earth coverages of 137.1 degree West

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	-115.0	-114.9	-114.7	-114.6	-114.5	-113.8

Transmitting Beams 10:

Question	Response
Beam ID	Q1LD
Transmit Beam Frequency	40000.0 MHz -40500.0 MHz
Beam Type	Steerable
Polarization	LHCP
Peak Gain	50.31 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	-11.7 dBW/Hz
Max. Transmit EIRP	61.9 dBW
Co- or Cross Polar Mode	X
Service Area Description	Visible earth coverages of 137.1 degree West

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	-115.0	-114.9	-114.7	-114.6	-114.5	-113.8

Transmitting Beams 11:

Question	Response
Beam ID	Q2RD
Transmit Beam Frequency	40500.0 MHz -43500.0 MHz
Beam Type	Steerable
Polarization	RHCP
Peak Gain	50.31 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	-16.7 dBW/Hz
Max. Transmit EIRP	61.9 dBW
Co- or Cross Polar Mode	C

Service Area Description	Visible earth coverages of 137.1 degree West

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	-120.0	-119.9	-119.7	-119.6	-119.5	-118.8

Transmitting Beams 12:

Question	Response
Beam ID	Q2LD
Transmit Beam Frequency	40500.0 MHz -43500.0 MHz
Beam Type	Steerable
Polarization	LHCP
Peak Gain	50.31 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	-16.7 dBW/Hz
Max. Transmit EIRP	61.9 dBW
Co- or Cross Polar Mode	X
Service Area Description	Visible earth coverages of 137.1 degree West

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	-120.0	-119.9	-119.7	-119.6	-119.5	-118.8

Transmitting Beams 13:

Question	Response
Beam ID	TLMA
Transmit Beam Frequency	11450.45 MHz -11450.95 MHz
Beam Type	Fixed
Polarization	RHCP
Peak Gain	10.43 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	-46.0 dBW/Hz
Max. Transmit EIRP	11.0 dBW
Co- or Cross Polar Mode	C
Service Area Description	Global

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	-177.2	-177.1	-177.0	-176.9	-176.8	-176.0

Transmitting Beams 14:

Question	Response
Beam ID	TLMB
Transmit Beam Frequency	11450.45 MHz -11450.95 MHz
Beam Type	Fixed
Polarization	LHCP
Peak Gain	10.43 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	-46.0 dBW/Hz
Max. Transmit EIRP	11.0 dBW
Co- or Cross Polar Mode	X
Service Area Description	Global

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	-177.2	-177.1	-177.0	-176.9	-176.8	-176.0

Transmitting Beams 15:

Question	Response
Beam ID	TLMC
Transmit Beam Frequency	11451.65 MHz -11452.15 MHz

Beam Type	Fixed
Polarization	RHCP
Peak Gain	10.43 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	-46.0 dBW/Hz
Max. Transmit EIRP	11.0 dBW
Co- or Cross Polar Mode	C
Service Area Description	Global TM2

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	-177.2	-177.1	-177.0	-176.9	-176.8	-176.0

Transmitting Beams 16:

Question	Response
Beam ID	TLMD
Transmit Beam Frequency	11451.65 MHz -11452.15 MHz
Beam Type	Fixed
Polarization	LHCP
Peak Gain	10.43 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	-46.0 dBW/Hz
Max. Transmit EIRP	11.0 dBW
Co- or Cross Polar Mode	X
Service Area Description	Global TM2

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	-177.2	-177.1	-177.0	-176.9	-176.8	-176.0

Transmitting Beams 17:

Question	Response
Beam ID	TLME
Transmit Beam Frequency	11452.95 MHz -11453.45 MHz
Beam Type	Fixed
Polarization	RHCP
Peak Gain	10.43 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	-46.0 dBW/Hz

Max. Transmit EIRP	11.0 dBW
Co- or Cross Polar Mode	C
Service Area Description	Global TM3

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	-177.2	-177.1	-177.0	-176.9	-176.8	-176.0

Transmitting Beams 18:

Question	Response
Beam ID	TLMF
Transmit Beam Frequency	11452.95 MHz -11453.45 MHz
Beam Type	Fixed
Polarization	LHCP
Peak Gain	10.43 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	-46.0 dBW/Hz
Max. Transmit EIRP	11.0 dBW
Co- or Cross Polar Mode	X
Service Area Description	Global TM3

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	-177.2	-177.1	-177.0	-176.9	-176.8	-176.0

Transmitting Beams 19:

Question	Response
Beam ID	TLMG
Transmit Beam Frequency	11454.15 MHz -11454.65 MHz
Beam Type	Fixed
Polarization	RHCP
Peak Gain	10.43 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	-46.0 dBW/Hz
Max. Transmit EIRP	11.0 dBW
Co- or Cross Polar Mode	C
Service Area Description	Global TM4

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	-177.2	-177.1	-177.0	-176.9	-176.8	-176.0

Transmitting Beams 20:

Question	Response
Beam ID	TLMH
Transmit Beam Frequency	11454.15 MHz -11454.65 MHz
Beam Type	Fixed
Polarization	LHCP
Peak Gain	10.43 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	-46.0 dBW/Hz
Max. Transmit EIRP	11.0 dBW
Co- or Cross Polar Mode	X
Service Area Description	Global TM4

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	-177.2	-177.1	-177.0	-176.9	-176.8	-176.0

Transmitting Beams 21:

Question	Response
Beam ID	UPC1
Transmit Beam Frequency	10950.087 MHz -10950.112 MHz

Beam Type	Fixed
Polarization	RHCP
Peak Gain	23.75 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	-33.0 dBW/Hz
Max. Transmit EIRP	11.0 dBW
Co- or Cross Polar Mode	C
Service Area Description	Ku - Global ULPC1

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	-160.2	-160.1	-160.0	-159.9	-159.8	-159.0

Transmitting Beams 22:

Question	Response
Beam ID	UPC2
Transmit Beam Frequency	11699.487 MHz -11699.512 MHz
Beam Type	Fixed
Polarization	RHCP
Peak Gain	23.75 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	-33.0 dBW/Hz
Max. Transmit EIRP	11.0 dBW
Co- or Cross Polar Mode	C
Service Area Description	Ku Global ULPC2

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	-160.2	-160.1	-160.0	-159.9	-159.8	-159.0

Transmitting Beams 23:

Question	Response
Beam ID	UPC4
Transmit Beam Frequency	20199.487 MHz -20199.512 MHz
Beam Type	Steerable
Polarization	LHCP
Peak Gain	44.24 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	-27.5 dBW/Hz

Max. Transmit EIRP	16.5 dBW
Co- or Cross Polar Mode	X
Service Area Description	Ka Band .ULPC5 Visible earth coverages of 137.1 degree West

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 24:

Question	Response
Beam ID	UPC5
Transmit Beam Frequency	20199.487 MHz -20199.512 MHz
Beam Type	Steerable
Polarization	RHCP
Peak Gain	44.24 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	-27.5 dBW/Hz
Max. Transmit EIRP	16.5 dBW
Co- or Cross Polar Mode	C
Service Area Description	Ka Band . Visible earth coverages of 137.1 degree West

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 25:

Question	Response
Beam ID	UPC6
Transmit Beam Frequency	37500.487 MHz -37500.512 MHz
Beam Type	Steerable
Polarization	LHCP
Peak Gain	50.31 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	-21.0 dBW/Hz
Max. Transmit EIRP	22.0 dBW
Co- or Cross Polar Mode	X
Service Area Description	Q Band. ULPC6. Visible earth coverages of 137.1 degree W

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	-125.3	-125.1	-125.0	-124.9	-124.8	-124.0

Transmitting Beams 26:

Question	Response
Beam ID	UPC7
Transmit Beam Frequency	37500.487 MHz -37500.512 MHz
Beam Type	Steerable
Polarization	RHCP
Peak Gain	50.31 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	-21.0 dBW/Hz
Max. Transmit EIRP	22.0 dBW
Co- or Cross Polar Mode	C
Service Area Description	Q Band. UPLC6 . Visible earth coverages of 137.1 degree West

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	-125.3	-125.1	-125.0	-124.9	-124.8	-124.0

Transmitting Beams 27:

Question	Response

Beam ID	UPC3
Transmit Beam Frequency	12199.375 MHz -12199.625 MHz
Beam Type	Fixed
Polarization	RHCP
Peak Gain	23.75 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	-33.0 dBW/Hz
Max. Transmit EIRP	11.0 dBW
Co- or Cross Polar Mode	C
Service Area Description	ULPC4 Global (UPC3)

Max. Power Flux Density

Information not provided.

Transmitting Channels (21)

Channel ID	Channel Bandwidth (MHz)	Center Frequency s (MHz)	Feeder Link, Service Link or TT&C
Ka04	250.0	19825.0	Service Link
TLM4	0.5	11454.4	TT&C
UPC1	0.025	10950.1	TT&C
UPC2	0.025	11699.5	TT&C
Ka03	2.0	19701.0	Service Link
TLM2	0.5	11451.9	TT&C
Ku02	250.0	10895.0	Service Link
UPC4	0.025	12199.5	TT&C
TLM1	0.5	11450.7	TT&C
QB01	2.0	37501.0	Service Link
Q202	250.0	40625.0	Service Link
Ka01	2.0	17701.0	Service Link
Ka02	250.0	17825.0	Service Link
Ku01	2.0	10771.0	Service Link
Q102	250.0	40125.0	Service Link
UPC5	0.025	20199.5	TT&C
Q101	2.0	40001.0	Service Link
UPC6	0.025	37500.5	TT&C
Q201	2.0	40501.0	Service Link
QB02	250.0	37625.0	Service Link
TLM3	0.5	11453.2	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?	Yes
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-43-12june23.mdb		GSO Antenna Gain Contour Data	GIMS file (*.mdb)	