



312 File Number: **SATLOA2017120500164**

Filing Description

Question	Response
Description	Intelsat-39 at 62.0E

**Satellite
Information**

Question	Response
Select Orbit Type	GSO
Space Station or Satellite Network Name	Intelsat 39
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		5850.0 MHz -6425.0 MHz	Receive
Fixed-Satellite Service		13000.0 MHz -13250.0 MHz	Receive
Fixed-Satellite Service		13750.0 MHz -14500.0 MHz	Receive
Fixed-Satellite Service		3625.0 MHz -4200.0 MHz	Transmit
Fixed-Satellite Service		10700.0 MHz -11700.0 MHz	Transmit
Fixed-Satellite Service		12250.0 MHz -12750.0 MHz	Transmit

Orbital Information For Geostationary Satellites

Section	Question	Response
Orbital Longitude Information	Orbital Longitude	62.0 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	0.05 degrees
Antenna Axis Attitude Accuracy	Roll	0.01 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	3.6 dB/K
Min. Saturation Flux Density	-107.0 dBW/m2
Max. Saturation Flux Density	-82.0 dBW/m2
Co- or Cross Polar Mode	C
Service Area Description	Africa and Europe

Receiving Beams 2:

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	3.6 dB/K
Min. Saturation Flux Density	-107.0 dBW/m2
Max. Saturation Flux Density	-82.0 dBW/m2
Co- or Cross Polar Mode	C
Service Area Description	Africa and Europe

Receiving Beams 3:

Question	Response
Beam ID	MZLU
Receive Beam Frequency	5850.0 MHz -6010.0 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	10.0 dB/K
Min. Saturation Flux Density	-108.0 dBW/m2
Max. Saturation Flux Density	-83.0 dBW/m2
Co- or Cross Polar Mode	C
Service Area Description	Mozambique

Receiving

Beams 4:

Question	Response
Beam ID	MZRU
Receive Beam Frequency	5850.0 MHz -6010.0 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	10.0 dB/K
Min. Saturation Flux Density	-108.0 dBW/m2
Max. Saturation Flux Density	-83.0 dBW/m2
Co- or Cross Polar Mode	C
Service Area Description	Mozambique

Receiving Beams 5:

Question	Response
Beam ID	CGLU
Receive Beam Frequency	6340.0 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	-4.5 dB/K
Min. Saturation Flux Density	-106.0 dBW/m2
Max. Saturation Flux Density	-81.0 dBW/m2
Co- or Cross Polar Mode	C
Service Area Description	Global - Gain contour attachment not provided pursuant to Section 25.114(c)(4)(vi)(A) of the FCC rules

Receiving Beams 6:

Question	Response
Beam ID	CGRU
Receive Beam Frequency	6340.0 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	-4.5 dB/K
Min. Saturation Flux Density	-106.0 dBW/m2
Max. Saturation Flux Density	-81.0 dBW/m2
Co- or Cross Polar Mode	C

Service Area Description	Global - Gain contour attachment not provided pursuant to Section 25.114(c)(4)(vi)(A) of the FCC rules
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Receiving Beams 7:

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	3.1 dB/K
Min. Saturation Flux Density	-107.0 dBW/m2
Max. Saturation Flux Density	-82.0 dBW/m2
Co- or Cross Polar Mode	C
Service Area Description	Asia and parts of Australia

Receiving Beams 8:

Question	Response
Beam ID	EHRU
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	3.2 dB/K
Min. Saturation Flux Density	-107.0 dBW/m2
Max. Saturation Flux Density	-82.0 dBW/m2
Co- or Cross Polar Mode	C
Service Area Description	Asia and parts of Australia

Receiving Beams 9:

Question	Response
Beam ID	SELU
Receive Beam Frequency	5930.0 MHz -6010.0 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	6.8 dB/K
Min. Saturation Flux Density	-107.0 dBW/m2
Max. Saturation Flux Density	-82.0 dBW/m2
Co- or Cross Polar Mode	C

Service Area Description	Southeast Asia
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**Receiving
Beams 10:**

Question	Response
Beam ID	SERU
Receive Beam Frequency	5930.0 MHz -6010.0 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	6.8 dB/K
Min. Saturation Flux Density	-107.0 dBW/m2
Max. Saturation Flux Density	-82.0 dBW/m2
Co- or Cross Polar Mode	C
Service Area Description	Southeast Asia

**Receiving
Beams 11:**

Question	Response
Beam ID	EHHU
Receive Beam Frequency	5850.0 MHz -6425.0 MHz
Beam Type	Fixed
Polarization	H
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	0.0 degrees
G/T at Max. Gain Point	5.3 dB/K
Min. Saturation Flux Density	-108.0 dBW/m2
Max. Saturation Flux Density	-83.0 dBW/m2
Co- or Cross Polar Mode	C
Service Area Description	Asia and parts of Australia

Receiving Beams 12:

Question	Response
Beam ID	EHVU
Receive Beam Frequency	5850.0 MHz -6425.0 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
G/T at Max. Gain Point	5.3 dB/K
Min. Saturation Flux Density	-108.0 dBW/m2
Max. Saturation Flux Density	-83.0 dBW/m2
Co- or Cross Polar Mode	C
Service Area Description	Asia and parts of Australia

Receiving Beams 13:

Question	Response
Beam ID	MEHU
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	6.1 dB/K
Min. Saturation Flux Density	-101.0 dBW/m ²
Max. Saturation Flux Density	-80.0 dBW/m ²
Co- or Cross Polar Mode	C
Service Area Description	Middle East

Receiving Beams 14:

Question	Response
Beam ID	MEVU
Receive Beam Frequency	14000.0 MHz -14250.0 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	6.1 dB/K
Min. Saturation Flux Density	-101.0 dBW/m2
Max. Saturation Flux Density	-80.0 dBW/m2
Co- or Cross Polar Mode	C
Service Area Description	Middle East

**Receiving
Beams 15:**

Question	Response
Beam ID	S1HU
Receive Beam Frequency	14000.0 MHz -14250.0 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	12.0 dB/K
Min. Saturation Flux Density	-105.0 dBW/m2
Max. Saturation Flux Density	-84.0 dBW/m2
Co- or Cross Polar Mode	C
Service Area Description	Steerable - Visible Land Area

**Receiving
Beams 16:**

Question	Response
Beam ID	EUHU
Receive Beam Frequency	13750.0 MHz -14250.0 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	10.1 dB/K
Min. Saturation Flux Density	-102.0 dBW/m2
Max. Saturation Flux Density	-81.0 dBW/m2
Co- or Cross Polar Mode	C
Service Area Description	Europe

**Receiving
Beams 17:**

Question	Response
Beam ID	EUVU
Receive Beam Frequency	13750.0 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	10.1 dB/K
Min. Saturation Flux Density	-102.0 dBW/m2
Max. Saturation Flux Density	-81.0 dBW/m2
Co- or Cross Polar Mode	C
Service Area Description	Europe

**Receiving
Beams 18:**

Question	Response
Beam ID	EULU
Receive Beam Frequency	5850.0 MHz -5935.0 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	9.0 dB/K
Min. Saturation Flux Density	-102.0 dBW/m2
Max. Saturation Flux Density	-81.0 dBW/m2
Co- or Cross Polar Mode	C
Service Area Description	Europe

**Receiving
Beams 19:**

Question	Response
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Beam ID	EURU
Receive Beam Frequency	5850.0 MHz -5935.0 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	9.0 dB/K
Min. Saturation Flux Density	-102.0 dBW/m2
Max. Saturation Flux Density	-81.0 dBW/m2
Co- or Cross Polar Mode	C
Service Area Description	Europe

Receiving Beams 20:

Question	Response
Beam ID	WIVU
Receive Beam Frequency	14250.0 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	4.4 dB/K
Min. Saturation Flux Density	-91.0 dBW/m2
Max. Saturation Flux Density	-76.0 dBW/m2
Co- or Cross Polar Mode	C
Service Area Description	West Indian Ocean Region

Receiving Beams 21:

Question	Response
Beam ID	EIVU
Receive Beam Frequency	14250.0 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	3.3 dB/K
Min. Saturation Flux Density	-91.0 dBW/m2
Max. Saturation Flux Density	-76.0 dBW/m2
Co- or Cross Polar Mode	C
Service Area Description	East Indian Ocean Region

Receiving Beams 22:

Question	Response
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Beam ID	S3HU
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	10.0 dB/K
Min. Saturation Flux Density	-103.0 dBW/m2
Max. Saturation Flux Density	-82.0 dBW/m2
Co- or Cross Polar Mode	C
Service Area Description	Steerable - Visible Land Area

Receiving Beams 23:

Question	Response
Beam ID	DRHU
Receive Beam Frequency	14000.0 MHz -14250.0 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	7.0 dB/K
Min. Saturation Flux Density	-100.0 dBW/m2
Max. Saturation Flux Density	-79.0 dBW/m2
Co- or Cross Polar Mode	C
Service Area Description	Democratic Republic of Congo

Receiving Beams 24:

Question	Response
Beam ID	DRVU
Receive Beam Frequency	14000.0 MHz -14250.0 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	7.0 dB/K
Min. Saturation Flux Density	-100.0 dBW/m2
Max. Saturation Flux Density	-79.0 dBW/m2
Co- or Cross Polar Mode	C
Service Area Description	Democratic Republic of Congo

Receiving Beams 25:

Question	Response
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Beam ID	MYLU
Receive Beam Frequency	5850.0 MHz -5935.0 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	10.0 dB/K
Min. Saturation Flux Density	-108.0 dBW/m2
Max. Saturation Flux Density	-83.0 dBW/m2
Co- or Cross Polar Mode	C
Service Area Description	Myanmar

Receiving Beams 26:

Question	Response
Beam ID	MYLV
Receive Beam Frequency	6175.0 MHz -6335.0 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	10.0 dB/K
Min. Saturation Flux Density	-108.0 dBW/m2
Max. Saturation Flux Density	-83.0 dBW/m2
Co- or Cross Polar Mode	C
Service Area Description	Myanmar

**Receiving
Beams 27:**

Question	Response
Beam ID	MYRU
Receive Beam Frequency	5850.0 MHz -5935.0 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	10.0 dB/K
Min. Saturation Flux Density	-108.0 dBW/m2
Max. Saturation Flux Density	-83.0 dBW/m2
Co- or Cross Polar Mode	C
Service Area Description	Myanmar

**Receiving
Beams 28:**

Question	Response
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Beam ID	MYRV
Receive Beam Frequency	6175.0 MHz -6335.0 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	10.0 dB/K
Min. Saturation Flux Density	-108.0 dBW/m2
Max. Saturation Flux Density	-83.0 dBW/m2
Co- or Cross Polar Mode	C
Service Area Description	Myanmar

Receiving Beams 29:

Question	Response
Beam ID	S1VU
Receive Beam Frequency	13000.0 MHz -13250.0 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	12.0 dB/K
Min. Saturation Flux Density	-105.0 dBW/m2
Max. Saturation Flux Density	-84.0 dBW/m2
Co- or Cross Polar Mode	C
Service Area Description	Steerable - Visible Land Area

**Receiving
Beams 30:**

Question	Response
Beam ID	S1VV
Receive Beam Frequency	13750.0 MHz -14250.0 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	12.0 dB/K
Min. Saturation Flux Density	-105.0 dBW/m2
Max. Saturation Flux Density	-84.0 dBW/m2
Co- or Cross Polar Mode	C
Service Area Description	Steerable - Visible Land Area

Receiving

Beams 31:

Question	Response
Beam ID	S2HU
Receive Beam Frequency	13000.0 MHz -13250.0 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	12.0 dB/K
Min. Saturation Flux Density	-105.0 dBW/m2
Max. Saturation Flux Density	-84.0 dBW/m2
Co- or Cross Polar Mode	C
Service Area Description	Steerable - Visible Land Area

Receiving Beams 32:

Question	Response
Beam ID	S2HV
Receive Beam Frequency	13750.0 MHz -14250.0 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	12.0 dB/K
Min. Saturation Flux Density	-105.0 dBW/m2
Max. Saturation Flux Density	-84.0 dBW/m2
Co- or Cross Polar Mode	C
Service Area Description	Steerable - Visible Land Area

Receiving Beams 33:

Question	Response
Beam ID	CMDV
Receive Beam Frequency	6154.5 MHz -6195.5 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
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 34:

Question	Response
Beam ID	CMDL
Receive Beam Frequency	6154.5 MHz -6195.5 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	-99.0 dB/K
Min. Saturation Flux Density	-85.0 dBW/m ²
Max. Saturation Flux Density	-84.9 dBW/m ²
Co- or Cross Polar Mode	C
Service Area Description	Tunable Command Beam

Receiving Channels (39)

Channel ID	Channel Bandwidth (MHz)	Center Frequency s (MHz)	Feeder Link, Service Link or TT&C
CU13	72.0	6300.0	Service Link
CU5	72.0	5970.0	Service Link
CU4	36.0	5950.0	Service Link
CU14	36.0	6360.0	Service Link
CU12	72.0	6220.0	Service Link
CMD2	1.0	6177.3	TT&C
CMD1	1.0	6174.7	TT&C
CU3	36.0	5912.0	Service Link
CU2	72.0	5890.0	Service Link
CU15	41.0	6402.5	Service Link
CU11	36.0	6150.0	Service Link
CU10	72.0	6130.0	Service Link
CU1	36.0	5872.0	Service Link
KU21	36.0	14475.0	Service Link
KU11	72.0	14295.0	Service Link
KU10	36.0	14277.0	Service Link
CU7	36.0	6030.0	Service Link
CU6	36.0	5990.0	Service Link
KU22	36.0	14477.0	Service Link
KU9	72.0	14205.0	Service Link
KU8	72.0	14125.0	Service Link
KU7	72.0	14045.0	Service Link
KU6	72.0	13955.0	Service Link
KU5	72.0	13875.0	Service Link

KU4	72.0	13795.0	Service Link
KU3	72.0	13205.0	Service Link
KU20	72.0	14455.0	Service Link
KU2	72.0	13125.0	Service Link
KU19	36.0	14437.0	Service Link
KU18	36.0	14435.0	Service Link
KU17	36.0	14397.0	Service Link
KU16	36.0	14395.0	Service Link
KU15	72.0	14375.0	Service Link
KU14	36.0	14357.0	Service Link
KU13	36.0	14355.0	Service Link
KU12	36.0	14317.0	Service Link
KU1	72.0	13045.0	Service Link
CU9	36.0	6110.0	Service Link
CU8	36.0	6070.0	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	-31.4 dBW/Hz
Max. Transmit EIRP	44.1 dBW
Co- or Cross Polar Mode	C
Service Area Description	Africa and Europe

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 2:

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	-31.4 dBW/Hz
Max. Transmit EIRP	44.1 dBW
Co- or Cross Polar Mode	C
Service Area Description	Africa and Europe

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 3:

Question	Response
Beam ID	MZRD
Transmit Beam Frequency	3625.0 MHz -3785.0 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	-27.0 dBW/Hz
Max. Transmit EIRP	51.6 dBW
Co- or Cross Polar Mode	C
Service Area Description	Mozambique

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	-154.3	-154.1	-154.0	-153.9	-153.8	-153.0

Transmitting Beams 4:

Question	Response
Beam ID	MZLD
Transmit Beam Frequency	3625.0 MHz -3785.0 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	-27.0 dBW/Hz

Max. Transmit EIRP	51.6 dBW
Co- or Cross Polar Mode	C
Service Area Description	Mozambique

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	-154.3	-154.1	-154.0	-153.9	-153.8	-153.0

Transmitting Beams 5:

Question	Response
Beam ID	CGRD
Transmit Beam Frequency	4115.0 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	-37.6 dBW/Hz
Max. Transmit EIRP	38.5 dBW
Co- or Cross Polar Mode	C
Service Area Description	Global - Gain contour attachment not provided pursuant to Section 25.114(c)(4)(vi)(A) of the FCC rules

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	-164.9	-164.7	-164.6	-164.5	-164.4	-163.6

Transmitting Beams 6:

Question	Response
Beam ID	CGLD
Transmit Beam Frequency	4115.0 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	-37.6 dBW/Hz
Max. Transmit EIRP	38.5 dBW
Co- or Cross Polar Mode	C
Service Area Description	Global - Gain contour attachment not provided pursuant to Section 25.114(c)(4)(vi)(A) of the FCC rules

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	-164.9	-164.7	-164.6	-164.5	-164.4	-163.6

Transmitting Beams 7:

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	-31.6 dBW/Hz
Max. Transmit EIRP	43.9 dBW
Co- or Cross Polar Mode	C
Service Area Description	Asia and parts of 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	-158.9	-158.7	-158.6	-158.5	-158.4	-157.6

Transmitting Beams 8:

Question	Response
Beam ID	EHLD
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	-31.5 dBW/Hz
Max. Transmit EIRP	43.9 dBW
Co- or Cross Polar Mode	C
Service Area Description	Asia and parts of 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	-158.9	-158.7	-158.6	-158.5	-158.4	-157.6

Transmitting Beams 9:

Question	Response
Beam ID	MYRD
Transmit Beam Frequency	3625.0 MHz -3710.0 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	-28.3 dBW/Hz
Max. Transmit EIRP	50.3 dBW
Co- or Cross Polar Mode	C
Service Area Description	Myanmar

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	-155.6	-155.4	-155.3	-155.2	-155.1	-154.3

Transmitting Beams 10:

Question	Response
Beam ID	MYRE
Transmit Beam Frequency	3950.0 MHz -4110.0 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	-28.3 dBW/Hz
Max. Transmit EIRP	50.3 dBW
Co- or Cross Polar Mode	C
Service Area Description	Myanmar

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	-155.6	-155.4	-155.3	-155.2	-155.1	-154.3

Transmitting Beams 11:

Question	Response
Beam ID	MYLD
Transmit Beam Frequency	3625.0 MHz -3710.0 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	-28.3 dBW/Hz

Max. Transmit EIRP	50.3 dBW
Co- or Cross Polar Mode	C
Service Area Description	Myanmar

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	-155.6	-155.4	-155.3	-155.2	-155.1	-154.3

Transmitting Beams 12:

Question	Response
Beam ID	MYLE
Transmit Beam Frequency	3950.0 MHz -4110.0 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	-28.3 dBW/Hz
Max. Transmit EIRP	50.3 dBW
Co- or Cross Polar Mode	C
Service Area Description	Myanmar

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	-155.6	-155.4	-155.3	-155.2	-155.1	-154.3

Transmitting Beams 13:

Question	Response
Beam ID	SERD
Transmit Beam Frequency	3705.0 MHz -3785.0 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	-28.7 dBW/Hz
Max. Transmit EIRP	46.8 dBW
Co- or Cross Polar Mode	C
Service Area Description	Southeast 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	-156.0	-155.8	-155.7	-155.6	-155.5	-154.7

Transmitting Beams 14:

Question	Response
Beam ID	SELD
Transmit Beam Frequency	3705.0 MHz -3785.0 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	-28.7 dBW/Hz
Max. Transmit EIRP	46.8 dBW
Co- or Cross Polar Mode	C
Service Area Description	Southeast 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	-156.0	-155.8	-155.7	-155.6	-155.5	-154.7

Transmitting Beams 15:

Question	Response
Beam ID	EHVD
Transmit Beam Frequency	3625.0 MHz -4200.0 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	-31.6 dBW/Hz
Max. Transmit EIRP	43.9 dBW
Co- or Cross Polar Mode	C
Service Area Description	Asia and parts of 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	-158.9	-158.7	-158.6	-158.5	-158.4	-157.6

Transmitting Beams 16:

Question	Response
Beam ID	EHHD
Transmit Beam Frequency	3625.0 MHz -4200.0 MHz
Beam Type	Fixed
Polarization	H
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	0.0 degrees
Max. Transmit EIRP Density	-31.6 dBW/Hz
Max. Transmit EIRP	43.9 dBW
Co- or Cross Polar Mode	C
Service Area Description	Asia and parts of 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	-158.9	-158.7	-158.6	-158.5	-158.4	-157.6

Transmitting Beams 17:

Question	Response
Beam ID	MEVD
Transmit Beam Frequency	10950.0 MHz -11200.0 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	-22.8 dBW/Hz
Max. Transmit EIRP	52.7 dBW
Co- or Cross Polar Mode	C
Service Area Description	Middle East

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	-150.1	-149.9	-149.8	-149.7	-149.6	-148.8

Transmitting Beams 18:

Question	Response
Beam ID	MEVE
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	-22.8 dBW/Hz
Max. Transmit EIRP	52.7 dBW
Co- or Cross Polar Mode	C
Service Area Description	Middle East

4.0	-150.1	-149.9	-149.8	-149.7	-149.6	-148.8
kHz						

Transmitting Beams 20:

Question	Response
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	-21.3 dBW/Hz
Max. Transmit EIRP	57.2 dBW
Co- or Cross Polar Mode	C
Service Area Description	Steerable - Visible Land Area

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	-148.6	-148.4	-148.3	-148.2	-148.1	-147.3
kHz						

Transmitting Beams 21:

Question	Response
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Beam ID	S1HD
Transmit Beam Frequency	10700.0 MHz -11700.0 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	-21.3 dBW/Hz
Max. Transmit EIRP	57.2 dBW
Co- or Cross Polar Mode	C
Service Area Description	Steerable - Visible Land Area

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):
4.0 kHz	-148.6	-148.4	-148.3	-148.2	-148.1	-147.3

Transmitting Beams 22:

Question	Response
Beam ID	S1HE
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	-21.3 dBW/Hz
Max. Transmit EIRP	57.2 dBW
Co- or Cross Polar Mode	C
Service Area Description	Steerable - Visible Land Area

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	-148.6	-148.4	-148.3	-148.2	-148.1	-147.3

Transmitting Beams 23:

Question	Response
Beam ID	EUVD
Transmit Beam Frequency	10700.0 MHz -11450.0 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	-24.3 dBW/Hz
Max. Transmit EIRP	54.2 dBW
Co- or Cross Polar Mode	C
Service Area Description	Europe

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	-151.6	-151.4	-151.3	-151.2	-151.1	-150.3

Transmitting Beams 24:

Question	Response
Beam ID	EUHD
Transmit Beam Frequency	10700.0 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	-24.3 dBW/Hz
Max. Transmit EIRP	54.2 dBW

Co- or Cross Polar Mode	C
Service Area Description	Europe

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	-151.6	-151.4	-151.3	-151.2	-151.1	-150.3

Transmitting Beams 25:

Question	Response
Beam ID	EULD
Transmit Beam Frequency	3625.0 MHz -3710.0 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	-29.0 dBW/Hz
Max. Transmit EIRP	49.8 dBW
Co- or Cross Polar Mode	C
Service Area Description	Europe

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	-156.3	-156.1	-156.0	-155.9	-155.8	-155.0

Transmitting Beams 26:

Question	Response
Beam ID	EURD
Transmit Beam Frequency	3625.0 MHz -3710.0 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	-29.0 dBW/Hz
Max. Transmit EIRP	49.8 dBW
Co- or Cross Polar Mode	C
Service Area Description	Europe

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	-156.3	-156.1	-156.0	-155.9	-155.8	-155.0

Transmitting Beams 27:

Question	Response
Beam ID	WIHD
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	-26.8 dBW/Hz
Max. Transmit EIRP	48.7 dBW
Co- or Cross Polar Mode	C
Service Area Description	West Indian Ocean Region

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	-154.1	-153.9	-153.8	-153.7	-153.6	-152.8

Transmitting Beams 28:

Question	Response
Beam ID	EIHD
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	-27.1 dBW/Hz
Max. Transmit EIRP	48.4 dBW
Co- or Cross Polar Mode	C
Service Area Description	Europe

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	-154.4	-154.2	-154.1	-154.0	-153.9	-153.1

Transmitting Beams 29:

Question	Response
Beam ID	S2VD
Transmit Beam Frequency	10700.0 MHz -11700.0 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	-21.3 dBW/Hz
Max. Transmit EIRP	57.2 dBW
Co- or Cross Polar Mode	C
Service Area Description	Steerable - Visible Land Area

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	-148.6	-148.4	-148.3	-148.2	-148.1	-147.3

Transmitting Beams 30:

Question	Response
Beam ID	S2VE
Transmit Beam Frequency	12250.0 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	-21.3 dBW/Hz
Max. Transmit EIRP	57.2 dBW
Co- or Cross Polar Mode	C
Service Area Description	Steerable - Visible Land Area

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	-148.6	-148.4	-148.3	-148.2	-148.1	-147.3

Transmitting Beams 31:

Question	Response
Beam ID	S3VD
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	-21.5 dBW/Hz
Max. Transmit EIRP	57.0 dBW
Co- or Cross Polar Mode	C

Service Area Description

Steerable - Visible Land Area

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	-148.8	-148.6	-148.5	-148.4	-148.3	-147.5

Transmitting Beams 32:

Question	Response
Beam ID	S3VE
Transmit Beam Frequency	11450.0 MHz -11700.0 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	-21.5 dBW/Hz
Max. Transmit EIRP	57.0 dBW
Co- or Cross Polar Mode	C
Service Area Description	Steerable - Visible Land Area

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	-148.8	-148.6	-148.5	-148.4	-148.3	-147.5

Transmitting Beams 33:

Question	Response
Beam ID	DRVD
Transmit Beam Frequency	10950.0 MHz -11200.0 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	-26.1 dBW/Hz
Max. Transmit EIRP	52.5 dBW
Co- or Cross Polar Mode	C
Service Area Description	Democratic Republic of Congo

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	-153.4	-153.2	-153.1	-153.0	-152.9	-152.1

Transmitting Beams 34:

Question	Response
Beam ID	DRHD
Transmit Beam Frequency	10950.0 MHz -11200.0 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	-26.1 dBW/Hz
Max. Transmit EIRP	52.5 dBW
Co- or Cross Polar Mode	C
Service Area Description	Democratic Republic of Congo

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	-153.4	-153.2	-153.1	-153.0	-152.9	-152.1

Transmitting Beams 35:

Question	Response
Beam ID	TLMV
Transmit Beam Frequency	3948.4 MHz -3953.7 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	-43.3 dBW/Hz
Max. Transmit EIRP	11.5 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	-174.8	-174.7	-174.6	-174.4	-174.3	-173.6

Transmitting Beams 36:

Question	Response
Beam ID	TLML
Transmit Beam Frequency	3948.4 MHz -3953.7 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	-47.8 dBW/Hz
Max. Transmit EIRP	7.0 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	-179.3	-179.2	-179.1	-178.9	-178.8	-178.1

Transmitting Beams 37:

Question	Response
Beam ID	CLHD
Transmit Beam Frequency	3950.98 MHz -3951.013 MHz
Beam Type	Fixed
Polarization	H
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	0.0 degrees
Max. Transmit EIRP Density	-24.0 dBW/Hz

Max. Transmit EIRP	20.0 dBW
Co- or Cross Polar Mode	C
Service Area Description	Global

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	-166.3	-166.2	-166.1	-165.9	-165.8	-165.1

Transmitting Beams 38:

Question	Response
Beam ID	KLRD
Transmit Beam Frequency	10950.98 MHz -10951.013 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	-22.0 dBW/Hz
Max. Transmit EIRP	22.0 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	-164.3	-164.2	-164.1	-163.9	-163.8	-163.1
kHz						

Transmitting Beams 39:

Question	Response
Beam ID	KLRE
Transmit Beam Frequency	11699.48 MHz -11699.513 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	-22.0 dBW/Hz
Max. Transmit EIRP	22.0 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	-164.3	-164.2	-164.1	-163.9	-163.8	-163.1
kHz						

Transmitting Channels (55)

Channel ID	Channel Bandwidth (MHz)	Center Frequency s (MHz)	Feeder Link, Service Link or TT&C
CD1K	76.0	3667.0	Service Link
CD5K	36.0	11597.0	Service Link
CD4K	36.0	11557.0	Service Link
CD3	72.0	3745.0	Service Link
CD2	36.0	3725.0	Service Link
CD13	41.0	4177.5	Service Link
CD12	36.0	4135.0	Service Link
CD3K	36.0	11517.0	Service Link
CD2K	36.0	11477.0	Service Link
UPC1	0.025	3951.0	TT&C
UPC3	0.025	11699.5	TT&C
UPC2	0.025	10951.0	TT&C
TLM4	0.5	3953.5	TT&C
TLM3	0.5	3953.0	TT&C
TLM2	0.5	3948.5	TT&C
TLM1	0.5	3949.0	TT&C
KD5	72.0	11075.0	Service Link
KD4	72.0	10995.0	Service Link
KD3	72.0	10905.0	Service Link
KD23	72.0	12295.0	Service Link
KD22	36.0	11677.0	Service Link
KD21	36.0	11675.0	Service Link
KD20	72.0	11655.0	Service Link
KD2	72.0	10825.0	Service Link

KD19	36.0	11637.0	Service Link
KD18	36.0	11635.0	Service Link
KD17	36.0	11597.0	Service Link
KD16	36.0	11595.0	Service Link
KD15	72.0	11575.0	Service Link
KD14	36.0	11557.0	Service Link
KD13	36.0	11555.0	Service Link
KD12	36.0	11517.0	Service Link
KD11	72.0	11495.0	Service Link
KD10	36.0	11477.0	Service Link
KD1	72.0	10745.0	Service Link
CD9	36.0	3925.0	Service Link
CD8	72.0	3905.0	Service Link
KD30	232.0	11325.0	Service Link
KD29	232.0	10825.0	Service Link
KD28	72.0	12705.0	Service Link
KD27	72.0	12625.0	Service Link
KD26	72.0	12545.0	Service Link
KD25	72.0	12455.0	Service Link
KD9	72.0	11405.0	Service Link
KD8	72.0	11325.0	Service Link
KD7	72.0	11245.0	Service Link
KD6	72.0	11155.0	Service Link
KD24	72.0	12375.0	Service Link
CD7	36.0	3885.0	Service Link
CD6	36.0	3845.0	Service Link

CD5	36.0	3805.0	Service Link
CD4	36.0	3765.0	Service Link
CD11	72.0	4075.0	Service Link
CD10	72.0	3995.0	Service Link
CD1	72.0	3665.0	Service Link

Certification Questions

Question	Response
<p>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?</p>	<p>N/A</p>
<p>Are the applicable frequency tolerances of 25.202(e) and out-of-band emission limits of 25.202(f)(1),(2), and (3) met?</p>	<p>Yes</p>
<p>Are the cessation of emissions requirements of 25.207 met?</p>	<p>Yes</p>
<p>Are the applicable power-flux-density limits of 25.208 met, and is the appropriate technical showing provided within the application?</p>	<p>Yes</p>
<p>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?</p>	<p>N/A</p>
<p>Are the applicable full-frequency-reuse requirements of 25.210 met?</p>	<p>Yes</p>
<p>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)?</p>	

Attachments

File Name	Beam	Field	Attachment Type	Description
<u>is39_beampatterns.mdb</u>		GSO Antenna Gain Contour Data	GIMS file (*.mdb)	