



312 File Number: **SATAPL2022102000146**

Filing Description

Question	Response
Description	New Spectrum Satellite Ltd seeks authority to serve the United States with the Pleiades NGSO highly elliptical Ku- and Ka-band FSS satellite system, including satellites and ground stations. Pleiades is presently licensed in Canada,

Satellite
Information

Question	Response
Select Orbit Type	NGSO
Space Station or Satellite Network Name	Pleiades
Estimated Lifetime of Satellite(s) From Date of Launch	12 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		29500.0 MHz -30000.0 MHz	Receive
Fixed-Satellite Service		27500.0 MHz -29100.0 MHz	Receive
Fixed-Satellite Service		19700.0 MHz -20200.0 MHz	Transmit
Fixed-Satellite Service		18100.0 MHz -19300.0 MHz	Transmit
Fixed-Satellite Service		14000.0 MHz -14500.0 MHz	Receive
Fixed-Satellite Service		11200.0 MHz -12700.0 MHz	Transmit

**Orbital
Information For
Non-
Geostationary
Satellites**

Question	Response
Total Number of Satellites in the active constellation	15
Orbit Epoch Date	01/01/2020
Celestial Reference Body	Earth

Orbital Plane 1:

Question	Response
Number of Satellites in Plane	1
Inclination Angle	63.435 degrees
Right Ascension of Ascending Node	306.5 degrees
Argument of Perigee	270.0 degrees
Orbital Period	28743.8 seconds
Apogee	26648.0 km
Perigee	1118.0 km
Active Service Arc Begin Angle with respect to Ascending Node	43.0 degrees
Active Service Arc End Angle with respect to Ascending Node	43.0 degrees

Mean Anomaly For Each Satellite

Satellite Number	Mean Anomaly (degrees) at the Orbit Epoch Date
1	0.0

Orbital Plane 2:

Question	Response
Number of Satellites in Plane	1
Inclination Angle	63.435 degrees
Right Ascension of Ascending Node	18.5 degrees
Argument of Perigee	270.0 degrees
Orbital Period	28743.8 seconds
Apogee	26648.0 km
Perigee	1118.0 km
Active Service Arc Begin Angle with respect to Ascending Node	43.0 degrees

Active Service Arc End Angle with respect to Ascending Node	43.0 degrees
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Mean Anomaly For Each Satellite

Satellite Number	Mean Anomaly (degrees) at the Orbit Epoch Date
1	144.0

Orbital Plane 3:

Question	Response
Number of Satellites in Plane	1
Inclination Angle	63.435 degrees
Right Ascension of Ascending Node	90.5 degrees
Argument of Perigee	270.0 degrees
Orbital Period	28743.8 seconds
Apogee	26648.0 km
Perigee	1118.0 km
Active Service Arc Begin Angle with respect to Ascending Node	43.0 degrees
Active Service Arc End Angle with respect to Ascending Node	43.0 degrees

Mean Anomaly For Each Satellite

Satellite Number	Mean Anomaly (degrees) at the Orbit Epoch Date
1	288.0

Orbital Plane 4:

Question	Response
Number of Satellites in Plane	1
Inclination Angle	63.435 degrees
Right Ascension of Ascending Node	162.5 degrees

Argument of Perigee	270.0 degrees
Orbital Period	28743.8 seconds
Apogee	26648.0 km
Perigee	1118.0 km
Active Service Arc Begin Angle with respect to Ascending Node	43.0 degrees
Active Service Arc End Angle with respect to Ascending Node	43.0 degrees

Mean Anomaly For Each Satellite

Satellite Number	Mean Anomaly (degrees) at the Orbit Epoch Date
1	72.0

Orbital Plane 5:

Question	Response
Number of Satellites in Plane	1
Inclination Angle	63.435 degrees
Right Ascension of Ascending Node	234.5 degrees
Argument of Perigee	270.0 degrees
Orbital Period	28743.8 seconds
Apogee	26648.0 km
Perigee	1118.0 km
Active Service Arc Begin Angle with respect to Ascending Node	43.0 degrees
Active Service Arc End Angle with respect to Ascending Node	43.0 degrees

Mean Anomaly For Each Satellite

Satellite Number	Mean Anomaly (degrees) at the Orbit Epoch Date
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1	216.0
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Orbital Plane 6:

Question	Response
Number of Satellites in Plane	1
Inclination Angle	63.435 degrees
Right Ascension of Ascending Node	42.5 degrees
Argument of Perigee	270.0 degrees
Orbital Period	28743.8 seconds
Apogee	26648.0 km
Perigee	1118.0 km
Active Service Arc Begin Angle with respect to Ascending Node	43.0 degrees
Active Service Arc End Angle with respect to Ascending Node	43.0 degrees

Mean Anomaly For Each Satellite

Satellite Number	Mean Anomaly (degrees) at the Orbit Epoch Date
1	252.0

Orbital Plane 7:

Question	Response
Number of Satellites in Plane	1
Inclination Angle	63.435 degrees
Right Ascension of Ascending Node	114.5 degrees
Argument of Perigee	270.0 degrees
Orbital Period	28743.8 seconds
Apogee	26648.0 km

Perigee	1118.0 km
Active Service Arc Begin Angle with respect to Ascending Node	43.0 degrees
Active Service Arc End Angle with respect to Ascending Node	43.0 degrees

Mean Anomaly For Each Satellite

Satellite Number	Mean Anomaly (degrees) at the Orbit Epoch Date
1	36.0

Orbital Plane 8:

Question	Response
Number of Satellites in Plane	1
Inclination Angle	63.435 degrees
Right Ascension of Ascending Node	186.5 degrees
Argument of Perigee	270.0 degrees
Orbital Period	28743.8 seconds
Apogee	26648.0 km
Perigee	1118.0 km
Active Service Arc Begin Angle with respect to Ascending Node	43.0 degrees
Active Service Arc End Angle with respect to Ascending Node	43.0 degrees

Mean Anomaly For Each Satellite

Satellite Number	Mean Anomaly (degrees) at the Orbit Epoch Date
1	180.0

Orbital Plane 9:

Question	Response
Number of Satellites in Plane	1

Inclination Angle	63.435 degrees
Right Ascension of Ascending Node	258.5 degrees
Argument of Perigee	270.0 degrees
Orbital Period	28743.8 seconds
Apogee	26648.0 km
Perigee	1118.0 km
Active Service Arc Begin Angle with respect to Ascending Node	43.0 degrees
Active Service Arc End Angle with respect to Ascending Node	43.0 degrees

Mean Anomaly For Each Satellite

Satellite Number	Mean Anomaly (degrees) at the Orbit Epoch Date
1	324.0

Orbital Plane 10:

Question	Response
Number of Satellites in Plane	1
Inclination Angle	63.435 degrees
Right Ascension of Ascending Node	330.5 degrees
Argument of Perigee	270.0 degrees
Orbital Period	28743.8 seconds
Apogee	26648.0 km
Perigee	1118.0 km
Active Service Arc Begin Angle with respect to Ascending Node	43.0 degrees
Active Service Arc End Angle with respect to Ascending Node	43.0 degrees

Mean Anomaly For Each Satellite

Satellite Number	Mean Anomaly (degrees) at the Orbit Epoch Date
1	108.0

Orbital Plane 11:

Question	Response
Number of Satellites in Plane	1
Inclination Angle	63.435 degrees
Right Ascension of Ascending Node	286.5 degrees
Argument of Perigee	90.0 degrees
Orbital Period	28743.8 seconds
Apogee	26648.0 km
Perigee	1118.0 km
Active Service Arc Begin Angle with respect to Ascending Node	-43.0 degrees
Active Service Arc End Angle with respect to Ascending Node	-43.0 degrees

Mean Anomaly For Each Satellite

Satellite Number	Mean Anomaly (degrees) at the Orbit Epoch Date
1	0.0

Orbital Plane 12:

Question	Response
Number of Satellites in Plane	1
Inclination Angle	63.435 degrees
Right Ascension of Ascending Node	358.5 degrees
Argument of Perigee	90.0 degrees
Orbital Period	28743.8 seconds

Apogee	26648.0 km
Perigee	1118.0 km
Active Service Arc Begin Angle with respect to Ascending Node	-43.0 degrees
Active Service Arc End Angle with respect to Ascending Node	-43.0 degrees

Mean Anomaly For Each Satellite

Satellite Number	Mean Anomaly (degrees) at the Orbit Epoch Date
1	144.0

Orbital Plane 13:

Question	Response
Number of Satellites in Plane	1
Inclination Angle	63.435 degrees
Right Ascension of Ascending Node	70.5 degrees
Argument of Perigee	90.0 degrees
Orbital Period	28743.8 seconds
Apogee	26648.0 km
Perigee	1118.0 km
Active Service Arc Begin Angle with respect to Ascending Node	-43.0 degrees
Active Service Arc End Angle with respect to Ascending Node	-43.0 degrees

Mean Anomaly For Each Satellite

Satellite Number	Mean Anomaly (degrees) at the Orbit Epoch Date
1	288.0

Orbital Plane 14:

Question	Response
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Number of Satellites in Plane	1
Inclination Angle	63.435 degrees
Right Ascension of Ascending Node	142.5 degrees
Argument of Perigee	90.0 degrees
Orbital Period	28743.8 seconds
Apogee	26648.0 km
Perigee	1118.0 km
Active Service Arc Begin Angle with respect to Ascending Node	-43.0 degrees
Active Service Arc End Angle with respect to Ascending Node	-43.0 degrees

Mean Anomaly For Each Satellite

Satellite Number	Mean Anomaly (degrees) at the Orbit Epoch Date
1	72.0

Orbital Plane 15:

Question	Response
Number of Satellites in Plane	1
Inclination Angle	63.435 degrees
Right Ascension of Ascending Node	214.5 degrees
Argument of Perigee	90.0 degrees
Orbital Period	28743.8 seconds
Apogee	26648.0 km
Perigee	1118.0 km
Active Service Arc Begin Angle with respect to Ascending Node	-43.0 degrees
Active Service Arc End Angle with respect to Ascending Node	-43.0 degrees

Mean Anomaly For Each Satellite

Satellite Number	Mean Anomaly (degrees) at the Orbit Epoch Date
1	216.0

Receiving Beams 1:

Question	Response
Beam ID	SR01
Receive Beam Frequency	14000.0 MHz -14125.0 MHz
Beam Type	Spot
Polarization	RHCP
Peak Gain	45.2 dBi
Antenna Pointing Error	0.1 degrees
Antenna Rotational Error	0.6 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	18.8 dB/K
Min. Saturation Flux Density	-125.0 dBW/m2
Max. Saturation Flux Density	-105.0 dBW/m2
Co- or Cross Polar Mode	C
Service Area Description	Earth Northern Hemisphere for orbit planes 1-10 Earth Southern Hemisphere for orbit planes 11-15

Receiving Beams 2:

Question	Response
Beam ID	SR02
Receive Beam Frequency	14000.0 MHz -14125.0 MHz
Beam Type	Spot
Polarization	LHCP
Peak Gain	44.8 dBi
Antenna Pointing Error	0.1 degrees

Receiving Beams 3:

Antenna Rotational Error	0.6 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	18.8 dB/K
Min. Saturation Flux Density	-125.0 dBW/m2
Max. Saturation Flux Density	-105.0 dBW/m2
Co- or Cross Polar Mode	C
Service Area Description	Earth Northern Hemisphere for orbit planes 1-10 Earth Southern Hemisphere for orbit planes 11-15

Question	Response
Beam ID	SR03
Receive Beam Frequency	14125.0 MHz -14250.0 MHz
Beam Type	Spot
Polarization	RHCP
Peak Gain	44.8 dBi
Antenna Pointing Error	0.1 degrees
Antenna Rotational Error	0.6 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	18.8 dB/K
Min. Saturation Flux Density	-125.0 dBW/m2
Max. Saturation Flux Density	-105.0 dBW/m2
Co- or Cross Polar Mode	C

Receiving Beams 4:

Service Area Description	Earth Northern Hemisphere for orbit planes 1-10 Earth Southern Hemisphere for orbit planes 11-15
Question	Response
Beam ID	SR04
Receive Beam Frequency	14125.0 MHz -14250.0 MHz
Beam Type	Spot
Polarization	LHCP
Peak Gain	44.8 dBi
Antenna Pointing Error	0.1 degrees
Antenna Rotational Error	0.6 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	18.8 dB/K
Min. Saturation Flux Density	-125.0 dBW/m2
Max. Saturation Flux Density	-105.0 dBW/m2
Co- or Cross Polar Mode	C
Service Area Description	Earth Northern Hemisphere for orbit planes 1-10 Earth Southern Hemisphere for orbit planes 11-15

Receiving Beams 5:

Question	Response
Beam ID	SR05
Receive Beam Frequency	14250.0 MHz -14375.0 MHz
Beam Type	Spot
Polarization	RHCP

Peak Gain	44.8 dBi
Antenna Pointing Error	0.1 degrees
Antenna Rotational Error	0.6 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	18.8 dB/K
Min. Saturation Flux Density	-125.0 dBW/m2
Max. Saturation Flux Density	-105.0 dBW/m2
Co- or Cross Polar Mode	C
Service Area Description	Earth Northern Hemisphere for orbit planes 1-10 Earth Southern Hemisphere for orbit planes 11-15

Receiving Beams 6:

Question	Response
Beam ID	SR06
Receive Beam Frequency	14250.0 MHz -14375.0 MHz
Beam Type	Spot
Polarization	LHCP
Peak Gain	44.8 dBi
Antenna Pointing Error	0.1 degrees
Antenna Rotational Error	0.6 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	18.8 dB/K
Min. Saturation Flux Density	-125.0 dBW/m2

Receiving Beams 7:

Max. Saturation Flux Density	-105.0 dBW/m2
Co- or Cross Polar Mode	C
Service Area Description	Earth Northern Hemisphere for orbit planes 1-10 Earth Southern Hemisphere for orbit planes 11-15

Question	Response
Beam ID	SR07
Receive Beam Frequency	14375.0 MHz -14500.0 MHz
Beam Type	Spot
Polarization	RHCP
Peak Gain	44.8 dBi
Antenna Pointing Error	0.1 degrees
Antenna Rotational Error	0.6 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	18.8 dB/K
Min. Saturation Flux Density	-125.0 dBW/m2
Max. Saturation Flux Density	-105.0 dBW/m2
Co- or Cross Polar Mode	C
Service Area Description	Earth Northern Hemisphere for orbit planes 1-10 Earth Southern Hemisphere for orbit planes 11-15

Receiving Beams 8:

Question	Response
Beam ID	SR21
Receive Beam Frequency	14375.0 MHz -14387.5 MHz

Beam Type	Spot
Polarization	LHCP
Peak Gain	44.8 dBi
Antenna Pointing Error	0.1 degrees
Antenna Rotational Error	0.6 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	18.8 dB/K
Min. Saturation Flux Density	-125.0 dBW/m2
Max. Saturation Flux Density	-105.0 dBW/m2
Co- or Cross Polar Mode	C
Service Area Description	Earth Northern Hemisphere for orbit planes 1-10 Earth Southern Hemisphere for orbit planes 11-15

Receiving Beams 9:

Question	Response
Beam ID	SR22
Receive Beam Frequency	14387.5 MHz -14400.0 MHz
Beam Type	Spot
Polarization	LHCP
Peak Gain	44.8 dBi
Antenna Pointing Error	0.1 degrees
Antenna Rotational Error	0.6 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees

G/T at Max. Gain Point	18.8 dB/K
Min. Saturation Flux Density	-125.0 dBW/m2
Max. Saturation Flux Density	-105.0 dBW/m2
Co- or Cross Polar Mode	C
Service Area Description	Earth Northern Hemisphere for orbit planes 1-10 Earth Southern Hemisphere for orbit planes 11-15

Receiving Beams 10:

Question	Response
Beam ID	SR23
Receive Beam Frequency	14400.0 MHz -14412.5 MHz
Beam Type	Spot
Polarization	LHCP
Peak Gain	44.8 dBi
Antenna Pointing Error	0.1 degrees
Antenna Rotational Error	0.6 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	18.8 dB/K
Min. Saturation Flux Density	-125.0 dBW/m2
Max. Saturation Flux Density	-105.0 dBW/m2
Co- or Cross Polar Mode	C
Service Area Description	Earth Northern Hemisphere for orbit planes 1-10 Earth Southern Hemisphere for orbit planes 11-15

Receiving Beams 11:

Question	Response
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Beam ID	SR24
Receive Beam Frequency	14412.5 MHz -14425.0 MHz
Beam Type	Spot
Polarization	LHCP
Peak Gain	44.8 dBi
Antenna Pointing Error	0.1 degrees
Antenna Rotational Error	0.6 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	18.8 dB/K
Min. Saturation Flux Density	-125.0 dBW/m2
Max. Saturation Flux Density	-105.0 dBW/m2
Co- or Cross Polar Mode	C
Service Area Description	Earth Northern Hemisphere for orbit planes 1-10 Earth Southern Hemisphere for orbit planes 11-15

Receiving Beams 12:

Question	Response
Beam ID	SR25
Receive Beam Frequency	14425.0 MHz -14437.5 MHz
Beam Type	Spot
Polarization	LHCP
Peak Gain	44.8 dBi
Antenna Pointing Error	0.1 degrees
Antenna Rotational Error	0.6 degrees
Polarization Switchable	

Receiving Beams 13:

Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	18.8 dB/K
Min. Saturation Flux Density	-125.0 dBW/m2
Max. Saturation Flux Density	-105.0 dBW/m2
Co- or Cross Polar Mode	C
Service Area Description	Earth Northern Hemisphere for orbit planes 1-10 Earth Southern Hemisphere for orbit planes 11-15

Question	Response
Beam ID	SR26
Receive Beam Frequency	14437.5 MHz -14450.0 MHz
Beam Type	Spot
Polarization	LHCP
Peak Gain	44.8 dBi
Antenna Pointing Error	0.1 degrees
Antenna Rotational Error	0.6 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	18.8 dB/K
Min. Saturation Flux Density	-125.0 dBW/m2
Max. Saturation Flux Density	-105.0 dBW/m2
Co- or Cross Polar Mode	C
Service Area Description	Earth Northern Hemisphere for orbit planes 1-10 Earth Southern Hemisphere for orbit planes 11-15

Receiving Beams 14:

Question	Response
Beam ID	SR27
Receive Beam Frequency	14450.0 MHz -14462.5 MHz
Beam Type	Spot
Polarization	LHCP
Peak Gain	44.8 dBi
Antenna Pointing Error	0.1 degrees
Antenna Rotational Error	0.6 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	18.8 dB/K
Min. Saturation Flux Density	-125.0 dBW/m2
Max. Saturation Flux Density	-105.0 dBW/m2
Co- or Cross Polar Mode	C
Service Area Description	Earth Northern Hemisphere for orbit planes 1-10 Earth Southern Hemisphere for orbit planes 11-15

Receiving Beams 15:

Question	Response
Beam ID	SR28
Receive Beam Frequency	14462.5 MHz -14475.0 MHz
Beam Type	Spot
Polarization	LHCP
Peak Gain	44.8 dBi
Antenna Pointing Error	0.1 degrees

Receiving Beams 16:

Antenna Rotational Error	0.6 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	18.8 dB/K
Min. Saturation Flux Density	-125.0 dBW/m2
Max. Saturation Flux Density	-1.5 dBW/m2
Co- or Cross Polar Mode	C
Service Area Description	Earth Northern Hemisphere for orbit planes 1-10 Earth Southern Hemisphere for orbit planes 11-15

Question	Response
Beam ID	SR29
Receive Beam Frequency	14475.0 MHz -14487.5 MHz
Beam Type	Spot
Polarization	LHCP
Peak Gain	18.8 dBi
Antenna Pointing Error	0.1 degrees
Antenna Rotational Error	0.6 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	18.8 dB/K
Min. Saturation Flux Density	-125.0 dBW/m2
Max. Saturation Flux Density	-105.0 dBW/m2
Co- or Cross Polar Mode	C

Receiving Beams 17:

Service Area Description	Earth Northern Hemisphere for orbit planes 1-10 Earth Southern Hemisphere for orbit planes 11-15
Question	Response
Beam ID	SR30
Receive Beam Frequency	14487.5 MHz -14500.0 MHz
Beam Type	Spot
Polarization	LHCP
Peak Gain	44.8 dBi
Antenna Pointing Error	0.1 degrees
Antenna Rotational Error	0.6 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	18.8 dB/K
Min. Saturation Flux Density	-125.0 dBW/m2
Max. Saturation Flux Density	-105.0 dBW/m2
Co- or Cross Polar Mode	C
Service Area Description	Earth Northern Hemisphere for orbit planes 1-10 Earth Southern Hemisphere for orbit planes 11-15

Receiving Beams 18:

Question	Response
Beam ID	FR31
Receive Beam Frequency	27505.0 MHz -29100.0 MHz
Beam Type	Steerable
Polarization	RHCP

Peak Gain	51.4 dBi
Antenna Pointing Error	0.1 degrees
Antenna Rotational Error	0.6 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	24.4 dB/K
Min. Saturation Flux Density	-110.0 dBW/m2
Max. Saturation Flux Density	-90.0 dBW/m2
Co- or Cross Polar Mode	C
Service Area Description	Earth Northern Hemisphere for orbit planes 1-10 Earth Southern Hemisphere for orbit planes 11-15

Receiving Beams 19:

Question	Response
Beam ID	FR32
Receive Beam Frequency	27500.0 MHz -29100.0 MHz
Beam Type	Steerable
Polarization	LHCP
Peak Gain	51.4 dBi
Antenna Pointing Error	0.1 degrees
Antenna Rotational Error	0.6 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	24.4 dB/K
Min. Saturation Flux Density	-110.0 dBW/m2

Receiving Beams 20:

Max. Saturation Flux Density	-90.0 dBW/m2
Co- or Cross Polar Mode	C
Service Area Description	Earth Northern Hemisphere for orbit planes 1-10 Earth Southern Hemisphere for orbit planes 11-15

Question	Response
Beam ID	FR33
Receive Beam Frequency	29500.0 MHz -30000.0 MHz
Beam Type	Steerable
Polarization	RHCP
Peak Gain	51.8 dBi
Antenna Pointing Error	0.1 degrees
Antenna Rotational Error	0.6 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	24.8 dB/K
Min. Saturation Flux Density	-110.0 dBW/m2
Max. Saturation Flux Density	-90.0 dBW/m2
Co- or Cross Polar Mode	C
Service Area Description	Earth Northern Hemisphere for orbit planes 1-10 Earth Southern Hemisphere for orbit planes 11-15

Receiving Beams 21:

Question	Response
Beam ID	FR34
Receive Beam Frequency	29500.0 MHz -30000.0 MHz

Beam Type	Steerable
Polarization	LHCP
Peak Gain	51.8 dBi
Antenna Pointing Error	0.1 degrees
Antenna Rotational Error	0.6 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	24.8 dB/K
Min. Saturation Flux Density	-110.0 dBW/m2
Max. Saturation Flux Density	-90.0 dBW/m2
Co- or Cross Polar Mode	C
Service Area Description	Earth Northern Hemisphere for orbit planes 1-10 Earth Southern Hemisphere for orbit planes 11-15

Receiving Channels (117)

Channel ID	Channel Bandwidth (MHz)	Center Frequency s (MHz)	Feeder Link, Service Link or TT&C
RF47	25.0	28662.5	Feeder Link
RF48	25.0	28687.5	Feeder Link
RF49	25.0	28712.5	Feeder Link
RF51	25.0	28762.5	Feeder Link
RF52	25.0	28787.5	Feeder Link
RF53	25.0	28812.5	Feeder Link
RF54	25.0	28837.5	Feeder Link
RF55	25.0	28862.5	Feeder Link
RF56	25.0	28887.5	Feeder Link
RF57	25.0	28912.5	Feeder Link
RF58	25.0	28937.5	Feeder Link
RF59	25.0	28962.5	Feeder Link
RG06	25.0	29637.5	Feeder Link
RG07	25.0	29662.5	Feeder Link
RG08	25.0	29687.5	Feeder Link
RG09	25.0	29712.5	Feeder Link
RG10	25.0	29737.5	Feeder Link
RG11	25.0	29762.5	Feeder Link
RG12	25.0	29787.5	Feeder Link
RG13	25.0	29812.5	Feeder Link
RG14	25.0	29837.5	Feeder Link
RG15	25.0	29862.5	Feeder Link
RG16	25.0	29887.5	Feeder Link
RG17	25.0	29912.5	Feeder Link

RG20	25.0	29987.5	Feeder Link
RT28	5.0	27502.5	TT&C
RT30	5.0	29997.5	TT&C
RU01	25.0	14012.5	Service Link
RU02	25.0	14037.5	Service Link
RU03	25.0	14062.5	Service Link
RU04	25.0	14087.5	Service Link
RU05	25.0	14112.5	Service Link
RU06	25.0	14137.5	Service Link
RU07	25.0	14162.5	Service Link
RU08	25.0	14187.5	Service Link
RU09	25.0	14212.5	Service Link
RU10	25.0	14237.5	Service Link
RU11	25.0	14262.5	Service Link
RU12	25.0	14287.5	Service Link
RU13	25.0	14312.5	Service Link
RU14	25.0	14337.5	Service Link
RF01	25.0	27512.5	Feeder Link
RF02	25.0	27537.5	Feeder Link
RF03	25.0	27562.5	Feeder Link
RF04	25.0	27587.5	Feeder Link
RF05	25.0	27612.5	Feeder Link
RF06	25.0	27637.5	Feeder Link
RF07	25.0	27662.5	Feeder Link
RF08	25.0	27687.5	Feeder Link
RF09	25.0	27712.5	Feeder Link

RF10	25.0	27737.5	Feeder Link
RF11	25.0	27762.5	Feeder Link
RF12	25.0	27787.5	Service Link
RF13	25.0	27812.5	Feeder Link
RF14	25.0	27837.5	Service Link
RG18	25.0	29937.5	Feeder Link
RG19	25.0	29962.5	Feeder Link
RT14	5.0	14497.5	TT&C
RF36	25.0	28387.5	Feeder Link
RF37	25.0	28412.5	Feeder Link
RF38	25.0	28437.5	Feeder Link
RF39	25.0	28462.5	Feeder Link
RF40	25.0	28487.5	Feeder Link
RF41	25.0	28512.5	Feeder Link
RF42	25.0	28537.5	Feeder Link
RF43	25.0	28562.5	Feeder Link
RF44	25.0	28587.5	Feeder Link
RF45	25.0	28612.5	Feeder Link
RF46	25.0	28637.5	Feeder Link
RF33	25.0	28312.5	Feeder Link
RF32	25.0	28287.5	Feeder Link
RF31	25.0	28262.5	Feeder Link
RF30	25.0	28237.5	Feeder Link
RF29	25.0	28212.5	Feeder Link
RF28	25.0	28187.5	Feeder Link
RF27	25.0	28162.5	Feeder Link

RF26	25.0	28137.5	Feeder Link
RF25	25.0	28112.5	Feeder Link
RF24	25.0	28087.5	Feeder Link
RF23	25.0	28062.5	Feeder Link
RF22	25.0	28037.5	Feeder Link
RF21	25.0	28012.5	Feeder Link
RF20	25.0	27987.5	Feeder Link
RF19	25.0	27962.5	Feeder Link
RF18	25.0	27937.5	Feeder Link
RF17	25.0	27912.5	Feeder Link
RF16	25.0	27887.5	Feeder Link
RF15	25.0	27862.5	Feeder Link
RV28	12.5	14468.75	Service Link
RV29	12.5	14481.25	Service Link
RV30	12.5	14493.75	Service Link
RF50	25.0	28737.5	Feeder Link
RF35	25.0	28362.5	Feeder Link
RF34	25.0	28337.5	Feeder Link
RG05	25.0	29612.5	Feeder Link
RG04	25.0	29587.5	Feeder Link
RG03	25.0	29562.5	Feeder Link
RG02	25.0	29537.5	Feeder Link
RG01	25.0	29512.5	Feeder Link
RF64	25.0	29087.5	Feeder Link
RF63	25.0	29062.5	Feeder Link
RF62	25.0	29037.5	Feeder Link

RF61	25.0	29012.5	Feeder Link
RF60	25.0	28987.5	Feeder Link
RU15	25.0	14362.5	Service Link
RU16	25.0	14387.5	Service Link
RU17	25.0	14412.5	Service Link
RU18	25.0	14437.5	Service Link
RU19	25.0	14462.5	Service Link
RU20	25.0	14487.5	Service Link
RV21	12.5	14381.25	Service Link
RV22	12.5	14393.75	Service Link
RV23	12.5	14406.25	Service Link
RV24	12.5	14418.75	Service Link
RV25	12.5	14431.25	Service Link
RV26	12.5	14443.75	Service Link
RV27	12.5	14456.25	Service Link

Transmitting
Beams 1:

Question	Response
Beam ID	ST05
Transmit Beam Frequency	11200.0 MHz -11450.0 MHz
Beam Type	Spot
Polarization	RHCP
Peak Gain	44.0 dBi
Antenna Pointing Error	0.1 degrees
Antenna Rotational Error	0.6 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-28.3 dBW/Hz
Max. Transmit EIRP	56.0 dBW
Co- or Cross Polar Mode	C
Service Area Description	Northern hemisphere for planes 1-10 Southern hemisphere for planes 11-15

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):
1.0 MHz	-128.9	-128.3	-128.3	-128.3	-128.3	-128.3

Transmitting
Beams 2:

Question	Response
Beam ID	ST06
Transmit Beam Frequency	11200.0 MHz -11450.0 MHz

Beam Type	Spot
Polarization	LHCP
Peak Gain	44.0 dBi
Antenna Pointing Error	0.1 degrees
Antenna Rotational Error	0.6 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-28.3 dBW/Hz
Max. Transmit EIRP	56.0 dBW
Co- or Cross Polar Mode	C
Service Area Description	Northern Hemisphere for planes 1-10 Southern hemisphere for planes 11-15

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):
1.0 MHz	-128.9	-128.3	-128.3	-128.3	-128.3	-128.3

Transmitting Beams 3:

Question	Response
Beam ID	ST07
Transmit Beam Frequency	11450.0 MHz -11700.0 MHz
Beam Type	Spot
Polarization	RHCP
Peak Gain	44.0 dBi
Antenna Pointing Error	0.1 degrees

Antenna Rotational Error	0.6 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-28.3 dBW/Hz
Max. Transmit EIRP	56.0 dBW
Co- or Cross Polar Mode	C
Service Area Description	Northern hemisphere for planes 1-10 Southern hemisphere for planes 11-15

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):
1.0 MHz	-128.9	-128.3	-128.3	-128.3	-128.3	-128.3

Transmitting Beams 4:

Question	Response
Beam ID	ST11
Transmit Beam Frequency	11700.0 MHz -11950.0 MHz
Beam Type	Spot
Polarization	RHCP
Peak Gain	44.0 dBi
Antenna Pointing Error	0.1 degrees
Antenna Rotational Error	0.6 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-28.3 dBW/Hz

Max. Transmit EIRP	56.0 dBW
Co- or Cross Polar Mode	C
Service Area Description	Northern hemisphere for planes 1-10 Southern hemisphere for planes 11-15

Max. Power Flux Density

Information not provided.

Transmitting Beams 5:

Question	Response
Beam ID	ST12
Transmit Beam Frequency	11700.0 MHz -11950.0 MHz
Beam Type	Spot
Polarization	LHCP
Peak Gain	44.0 dBi
Antenna Pointing Error	0.1 degrees
Antenna Rotational Error	0.6 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-28.3 dBW/Hz
Max. Transmit EIRP	56.0 dBW
Co- or Cross Polar Mode	C
Service Area Description	Northern hemisphere for planes 1-10 Southern hemisphere for planes 11-15

Max. Power Flux Density

Information not provided.

Transmitting Beams 6:

Question	Response
Beam ID	ST13

Transmit Beam Frequency	11950.0 MHz -12200.0 MHz
Beam Type	Spot
Polarization	RHCP
Peak Gain	44.0 dBi
Antenna Pointing Error	0.1 degrees
Antenna Rotational Error	0.6 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-28.3 dBW/Hz
Max. Transmit EIRP	56.0 dBW
Co- or Cross Polar Mode	C
Service Area Description	Northern hemisphere for planes 1-10 Southern hemisphere for planes 11-15

Max. Power Flux Density

Information not provided.

Transmitting Beams 7:

Question	Response
Beam ID	ST14
Transmit Beam Frequency	11950.0 MHz -12200.0 MHz
Beam Type	Spot
Polarization	LHCP
Peak Gain	44.0 dBi
Antenna Pointing Error	0.1 degrees
Antenna Rotational Error	0.6 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees

Max. Transmit EIRP Density	-28.3 dBW/Hz
Max. Transmit EIRP	56.0 dBW
Co- or Cross Polar Mode	C
Service Area Description	Northern hemisphere for planes 1-10 Southern hemisphere for planes 11-15

Max. Power Flux Density

Information not provided.

Transmitting Beams 8:

Question	Response
Beam ID	ST16
Transmit Beam Frequency	12200.0 MHz -12450.0 MHz
Beam Type	Spot
Polarization	LHCP
Peak Gain	44.0 dBi
Antenna Pointing Error	0.1 degrees
Antenna Rotational Error	0.6 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-28.3 dBW/Hz
Max. Transmit EIRP	56.0 dBW
Co- or Cross Polar Mode	C
Service Area Description	Northern hemisphere for planes 1-10 Southern hemisphere for planes 11-15

Max. Power Flux Density

	* 0° - 1° (dBW/m ² /BW):	* 1° - 2° (dBW/m ² /BW):	* 2° - 3° (dBW/m ² /BW):	* 3° - 4° (dBW/m ² /BW):	* 4° - 5° (dBW/m ² /BW):
*					
BW:					

4.0 kHz	-159.9	-158.7	-157.8	-157.0	-156.4
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**Transmitting
Beams 9:**

Question	Response
Beam ID	ST15
Transmit Beam Frequency	12200.0 MHz -12450.0 MHz
Beam Type	Spot
Polarization	RHCP
Peak Gain	44.0 dBi
Antenna Pointing Error	0.1 degrees
Antenna Rotational Error	0.6 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-28.3 dBW/Hz
Max. Transmit EIRP	56.0 dBW
Co- or Cross Polar Mode	C
Service Area Description	Northern hemisphere for planes 1-10 Southern hemisphere for planes 11-15

Max. Power Flux Density

* BW:	* 0° - 1° (dbW/m² /BW):	* 1° - 2° (dbW/m² /BW):	* 2° - 3° (dbW/m² /BW):	* 3° - 4° (dbW/m² /BW):	* 4° - 5° (dbW/m² /BW):
4.0 kHz	-159.9	-158.7	-157.8	-157.0	-156.4

**Transmitting
Beams 10:**

Question	Response
Beam ID	ST17

Transmit Beam Frequency	12450.0 MHz -12700.0 MHz
Beam Type	Spot
Polarization	LHCP
Peak Gain	44.0 dBi
Antenna Pointing Error	0.1 degrees
Antenna Rotational Error	0.6 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-28.3 dBW/Hz
Max. Transmit EIRP	56.0 dBW
Co- or Cross Polar Mode	C
Service Area Description	Northern hemisphere for planes 1-10 Southern hemisphere for planes 11-15

Max. Power Flux Density

*	* 0° - 1° (dBW/m ² /BW):	* 1° - 2° (dBW/m ² /BW):	* 2° - 3° (dBW/m ² /BW):	* 3° - 4° (dBW/m ² /BW):	* 4° - 5° (dBW/m ² /BW):
4.0 kHz	-159.9	-158.7	-157.8	-157.0	-156.4

Transmitting Beams 11:

Question	Response
Beam ID	ST21
Transmit Beam Frequency	11450.0 MHz -11475.0 MHz
Beam Type	Spot
Polarization	LHCP
Peak Gain	44.0 dBi
Antenna Pointing Error	0.1 degrees

Antenna Rotational Error	0.6 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-28.3 dBW/Hz
Max. Transmit EIRP	46.0 dBW
Co- or Cross Polar Mode	C
Service Area Description	Northern hemisphere for planes 1-10 Southern hemisphere for planes 11-15

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):
1.0 MHz	-128.9	-128.3	-128.3	-128.3	-128.3	-128.3

Transmitting Beams 12:

Question	Response
Beam ID	ST22
Transmit Beam Frequency	11475.0 MHz -11500.0 MHz
Beam Type	Spot
Polarization	LHCP
Peak Gain	44.0 dBi
Antenna Pointing Error	0.1 degrees
Antenna Rotational Error	0.6 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-28.3 dBW/Hz

Max. Transmit EIRP	46.0 dBW
Co- or Cross Polar Mode	C
Service Area Description	Northern hemisphere for planes 1-10 Southern hemisphere for planes 11-15

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):
1.0 MHz	-128.9	-128.3	-128.3	-128.3	-128.3	-128.3

Transmitting Beams 13:

Question	Response
Beam ID	ST23
Transmit Beam Frequency	11500.0 MHz -11525.0 MHz
Beam Type	Spot
Polarization	LHCP
Peak Gain	44.0 dBi
Antenna Pointing Error	0.1 degrees
Antenna Rotational Error	0.6 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-28.3 dBW/Hz
Max. Transmit EIRP	46.0 dBW
Co- or Cross Polar Mode	C
Service Area Description	Northern hemisphere for planes 1-10 Southern hemisphere for planes 11-15

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):
1.0 MHz	-128.9	-128.3	-128.3	-128.3	-128.3	-128.3

Transmitting Beams 14:

Question	Response
Beam ID	ST24
Transmit Beam Frequency	11525.0 MHz -11550.0 MHz
Beam Type	Spot
Polarization	LHCP
Peak Gain	44.0 dBi
Antenna Pointing Error	0.1 degrees
Antenna Rotational Error	0.6 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-28.3 dBW/Hz
Max. Transmit EIRP	46.0 dBW
Co- or Cross Polar Mode	C
Service Area Description	Northern hemisphere for planes 1-10 Southern hemisphere for planes 11-15

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	-128.9	-128.3	-128.3	-128.3	-128.3	-128.3
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**Transmitting
Beams 15:**

Question	Response
Beam ID	ST25
Transmit Beam Frequency	11550.0 MHz -11575.0 MHz
Beam Type	Spot
Polarization	LHCP
Peak Gain	44.0 dBi
Antenna Pointing Error	0.1 degrees
Antenna Rotational Error	0.6 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-28.3 dBW/Hz
Max. Transmit EIRP	46.0 dBW
Co- or Cross Polar Mode	C
Service Area Description	Northern hemisphere for planes 1-10 Southern hemisphere for planes 11-15

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):
1.0 MHz	-128.9	-128.3	-128.3	-128.3	-128.3	-128.3

**Transmitting
Beams 16:**

Question	Response
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Beam ID	ST26
Transmit Beam Frequency	11575.0 MHz -11600.0 MHz
Beam Type	Spot
Polarization	LHCP
Peak Gain	44.0 dBi
Antenna Pointing Error	0.1 degrees
Antenna Rotational Error	0.6 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-28.3 dBW/Hz
Max. Transmit EIRP	46.0 dBW
Co- or Cross Polar Mode	C
Service Area Description	Northern hemisphere for planes 1-10 Southern hemisphere for planes 11-15

Max. Power Flux Density

	* 0° - 5°	* 5° - 10°	* 10° - 15°	* 15° - 20°	* 20° - 25°	* 25° - 90°
* BW:	(dBW/m ² /BW):	(dBW/m ² /BW):	(dBW/m ² /BW):	(dBW/m ² /BW):	(dBW/m ² /BW):	(dBW/m ² /BW):
1.0 MHz	-128.9	-128.3	-128.3	-128.3	-128.3	-128.3

Transmitting Beams 17:

Question	Response
Beam ID	ST27
Transmit Beam Frequency	11600.0 MHz -11625.0 MHz
Beam Type	Spot
Polarization	LHCP

Peak Gain	44.0 dBi
Antenna Pointing Error	0.1 degrees
Antenna Rotational Error	0.6 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-28.3 dBW/Hz
Max. Transmit EIRP	46.0 dBW
Co- or Cross Polar Mode	C
Service Area Description	Northern hemisphere for planes 1-10 Southern hemisphere for planes 11-15

Max. Power Flux Density

	* 0° - 5°	* 5° - 10°	* 10° - 15°	* 15° - 20°	* 20° - 25°	* 25° - 90°
* BW:	(dBW/m ² /BW):	(dBW/m ² /BW):	(dBW/m ² /BW):	(dBW/m ² /BW):	(dBW/m ² /BW):	(dBW/m ² /BW):
1.0 MHz	-128.9	-128.3	-128.3	-128.3	-128.3	-128.3

Transmitting Beams 18:

Question	Response
Beam ID	ST28
Transmit Beam Frequency	11625.0 MHz -11650.0 MHz
Beam Type	Spot
Polarization	LHCP
Peak Gain	44.0 dBi
Antenna Pointing Error	0.1 degrees
Antenna Rotational Error	0.6 degrees
Polarization Switchable	

Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-28.3 dBW/Hz
Max. Transmit EIRP	46.0 dBW
Co- or Cross Polar Mode	C
Service Area Description	Northern hemisphere for planes 1-10 Southern hemisphere for planes 11-15

Max. Power Flux Density

	* 0° - 5°	* 5° - 10°	* 10° - 15°	* 15° - 20°	* 20° - 25°	* 25° - 90°
* BW:	(dBW/m ² /BW):	(dBW/m ² /BW):	(dBW/m ² /BW):	(dBW/m ² /BW):	(dBW/m ² /BW):	(dBW/m ² /BW):
1.0 MHz	-128.9	-128.3	-128.3	-128.3	-128.3	-128.3

Transmitting Beams 19:

Question	Response
Beam ID	ST29
Transmit Beam Frequency	11650.0 MHz -11675.0 MHz
Beam Type	Spot
Polarization	LHCP
Peak Gain	44.0 dBi
Antenna Pointing Error	0.1 degrees
Antenna Rotational Error	0.6 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-28.3 dBW/Hz
Max. Transmit EIRP	46.0 dBW
Co- or Cross Polar Mode	C

Service Area Description	Northern hemisphere for planes 1-10 Southern hemisphere for planes 11-15
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Max. Power Flux Density

	* 0° - 5°	* 5° - 10°	* 10° - 15°	* 15° - 20°	* 20° - 25°	* 25° - 90°
* BW:	(dbW/m ² /BW):	(dbW/m ² /BW):	(dbW/m ² /BW):	(dbW/m ² /BW):	(dbW/m ² /BW):	(dbW/m ² /BW):
1.0 MHz	-128.9	-128.3	-128.3	-128.3	-128.3	-128.3

Transmitting Beams 20:

Question	Response
Beam ID	ST30
Transmit Beam Frequency	11675.0 MHz -11700.0 MHz
Beam Type	Spot
Polarization	LHCP
Peak Gain	44.0 dBi
Antenna Pointing Error	0.1 degrees
Antenna Rotational Error	0.6 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-28.3 dBW/Hz
Max. Transmit EIRP	46.0 dBW
Co- or Cross Polar Mode	C
Service Area Description	Northern hemisphere for planes 1-10 Southern hemisphere for planes 11-15

Max. Power Flux Density

Transmitting Beams 21:

	* 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):
1.0 MHz	-128.9	-128.3	-128.3	-128.3	-128.3	-128.3

Question	Response
Beam ID	ST31
Transmit Beam Frequency	12450.0 MHz -12475.0 MHz
Beam Type	Spot
Polarization	RHCP
Peak Gain	44.0 dBi
Antenna Pointing Error	0.1 degrees
Antenna Rotational Error	0.6 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-28.3 dBW/Hz
Max. Transmit EIRP	46.0 dBW
Co- or Cross Polar Mode	C
Service Area Description	Northern hemisphere for planes 1-10 Southern hemisphere for planes 11-15

Max. Power Flux Density

	* 0° - 1°	* 1° - 2°	* 2° - 3°	* 3° - 4°	* 4° - 5°
	(dBW/m ²	(dBW/m ²	(dBW/m ²	(dBW/m ²	(dBW/m ²
* BW:	/BW):	/BW):	/BW):	/BW):	/BW):
4.0 kHz	-159.9	-158.7	-157.8	-157.0	-156.4

Transmitting Beams 22:

Question	Response
Beam ID	ST32
Transmit Beam Frequency	12475.0 MHz -12500.0 MHz
Beam Type	Spot
Polarization	RHCP
Peak Gain	44.0 dBi
Antenna Pointing Error	0.1 degrees
Antenna Rotational Error	0.6 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-28.3 dBW/Hz
Max. Transmit EIRP	46.0 dBW
Co- or Cross Polar Mode	C
Service Area Description	Northern hemisphere for planes 1-10 Southern hemisphere for planes 11-15

Max. Power Flux Density

*	* 0° - 1° (dBW/m ² /BW):	* 1° - 2° (dBW/m ² /BW):	* 2° - 3° (dBW/m ² /BW):	* 3° - 4° (dBW/m ² /BW):	* 4° - 5° (dBW/m ² /BW):
4.0 kHz	-159.9	-158.7	-157.8	-157.0	-156.4

Transmitting Beams 23:

Question	Response
Beam ID	ST33
Transmit Beam Frequency	12500.0 MHz -12525.0 MHz
Beam Type	Spot
Polarization	RHCP

Peak Gain	44.0 dBi
Antenna Pointing Error	0.1 degrees
Antenna Rotational Error	0.6 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-28.3 dBW/Hz
Max. Transmit EIRP	46.0 dBW
Co- or Cross Polar Mode	C
Service Area Description	Northern hemisphere for planes 1-10 Southern hemisphere for planes 11-15

Max. Power Flux Density

	* 0° - 1° (dBW/m ² /BW):	* 1° - 2° (dBW/m ² /BW):	* 2° - 3° (dBW/m ² /BW):	* 3° - 4° (dBW/m ² /BW):	* 4° - 5° (dBW/m ² /BW):
* BW: 4.0 kHz	-159.9	-158.7	-157.8	-157.0	-156.4

Transmitting Beams 24:

Question	Response
Beam ID	ST34
Transmit Beam Frequency	12525.0 MHz -12550.0 MHz
Beam Type	Spot
Polarization	RHCP
Peak Gain	44.0 dBi
Antenna Pointing Error	0.1 degrees
Antenna Rotational Error	0.6 degrees
Polarization Switchable	

Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-28.3 dBW/Hz
Max. Transmit EIRP	46.0 dBW
Co- or Cross Polar Mode	C
Service Area Description	Northern hemisphere for planes 1-10 Southern hemisphere for planes 11-15

Max. Power Flux Density

	* 0° - 1° (dbW/m ² /BW):	* 1° - 2° (dbW/m ² /BW):	* 2° - 3° (dbW/m ² /BW):	* 3° - 4° (dbW/m ² /BW):	* 4° - 5° (dbW/m ² /BW):
* BW: 4.0 kHz	-159.9	-158.7	-157.8	-157.0	-156.4

Transmitting Beams 25:

Question	Response
Beam ID	ST36
Transmit Beam Frequency	12575.0 MHz -12600.0 MHz
Beam Type	Spot
Polarization	RHCP
Peak Gain	44.0 dBi
Antenna Pointing Error	0.1 degrees
Antenna Rotational Error	0.6 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-28.3 dBW/Hz
Max. Transmit EIRP	46.0 dBW
Co- or Cross Polar Mode	C

Service Area Description	Northern hemisphere for planes 1-10 Southern hemisphere for planes 11-15
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Max. Power Flux Density

	* 0° - 1° (dbW/m ² /BW):	* 1° - 2° (dbW/m ² /BW):	* 2° - 3° (dbW/m ² /BW):	* 3° - 4° (dbW/m ² /BW):	* 4° - 5° (dbW/m ² /BW):
* BW: 4.0 kHz	-159.9	-158.7	-157.8	-157.0	-156.4

Transmitting Beams 26:

Question	Response
Beam ID	ST35
Transmit Beam Frequency	12550.0 MHz -12575.0 MHz
Beam Type	Spot
Polarization	RHCP
Peak Gain	44.0 dBi
Antenna Pointing Error	0.1 degrees
Antenna Rotational Error	0.6 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-28.3 dBW/Hz
Max. Transmit EIRP	46.0 dBW
Co- or Cross Polar Mode	C
Service Area Description	Northern hemisphere for planes 1-10 Southern hemisphere for planes 11-15

Max. Power Flux Density

Transmitting Beams 27:

* BW:	* 0° - 1° (dbW/m² /BW):	* 1° - 2° (dbW/m² /BW):	* 2° - 3° (dbW/m² /BW):	* 3° - 4° (dbW/m² /BW):	* 4° - 5° (dbW/m² /BW):
4.0 kHz	-159.9	-158.7	-157.8	-157.0	-156.4

Question	Response
Beam ID	ST37
Transmit Beam Frequency	12600.0 MHz -12625.0 MHz
Beam Type	Spot
Polarization	RHCP
Peak Gain	44.0 dBi
Antenna Pointing Error	0.1 degrees
Antenna Rotational Error	0.6 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-28.3 dBW/Hz
Max. Transmit EIRP	46.0 dBW
Co- or Cross Polar Mode	C
Service Area Description	Northern hemisphere for planes 1-10 Southern hemisphere for planes 11-15

Max. Power Flux Density

* BW:	* 0° - 1° (dbW/m² /BW):	* 1° - 2° (dbW/m² /BW):	* 2° - 3° (dbW/m² /BW):	* 3° - 4° (dbW/m² /BW):	* 4° - 5° (dbW/m² /BW):
4.0 kHz	-159.9	-158.7	-157.8	-157.0	-156.4

Transmitting
Beams 28:

Question	Response
Beam ID	ST38
Transmit Beam Frequency	12625.0 MHz -12650.0 MHz
Beam Type	Spot
Polarization	RHCP
Peak Gain	44.0 dBi
Antenna Pointing Error	0.1 degrees
Antenna Rotational Error	0.6 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-28.3 dBW/Hz
Max. Transmit EIRP	46.0 dBW
Co- or Cross Polar Mode	C
Service Area Description	Northern hemisphere for planes 1-10 Southern hemisphere for planes 11-15

Max. Power Flux Density

*	* 0° - 1° (dBW/m ² /BW):	* 1° - 2° (dBW/m ² /BW):	* 2° - 3° (dBW/m ² /BW):	* 3° - 4° (dBW/m ² /BW):	* 4° - 5° (dBW/m ² /BW):
4.0 kHz	-159.9	-158.7	-157.8	-157.0	-156.4

Transmitting
Beams 29:

Question	Response
Beam ID	ST39
Transmit Beam Frequency	12650.0 MHz -12675.0 MHz
Beam Type	Spot
Polarization	RHCP

Peak Gain	44.0 dBi
Antenna Pointing Error	0.1 degrees
Antenna Rotational Error	0.6 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-28.3 dBW/Hz
Max. Transmit EIRP	46.0 dBW
Co- or Cross Polar Mode	C
Service Area Description	Northern hemisphere for planes 1-10 Southern hemisphere for planes 11-15

Max. Power Flux Density

	* 0° - 1° (dBW/m ² /BW):	* 1° - 2° (dBW/m ² /BW):	* 2° - 3° (dBW/m ² /BW):	* 3° - 4° (dBW/m ² /BW):	* 4° - 5° (dBW/m ² /BW):
* BW: 4.0 kHz	-159.9	-158.7	-157.8	-157.0	-156.4

Transmitting Beams 30:

Question	Response
Beam ID	ST40
Transmit Beam Frequency	12675.0 MHz -12700.0 MHz
Beam Type	Spot
Polarization	RHCP
Peak Gain	44.0 dBi
Antenna Pointing Error	0.1 degrees
Antenna Rotational Error	0.6 degrees
Polarization Switchable	

Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-28.3 dBW/Hz
Max. Transmit EIRP	46.0 dBW
Co- or Cross Polar Mode	C
Service Area Description	Northern hemisphere for planes 1-10 Southern hemisphere for planes 11-15

Max. Power Flux Density

	* 0° - 1° (dbW/m ² /BW):	* 1° - 2° (dbW/m ² /BW):	* 2° - 3° (dbW/m ² /BW):	* 3° - 4° (dbW/m ² /BW):	* 4° - 5° (dbW/m ² /BW):
* BW: kHz					
4.0	-159.9	-158.7	-157.8	-157.0	-156.4

Transmitting Beams 31:

Question	Response
Beam ID	FT51
Transmit Beam Frequency	18100.0 MHz -19300.0 MHz
Beam Type	Steerable
Polarization	RHCP
Peak Gain	51.1 dBi
Antenna Pointing Error	0.1 degrees
Antenna Rotational Error	0.6 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-30.3 dBW/Hz
Max. Transmit EIRP	60.3 dBW
Co- or Cross Polar Mode	C

Service Area Description	Northern hemisphere for planes 1-10 Southern hemisphere for planes 11-15
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Max. Power Flux Density

	* 0° - 5°	* 5° - 10°	* 10° - 15°	* 15° - 20°	* 20° - 25°	* 25° - 90°
* BW:	(dbW/m ² /BW):	(dbW/m ² /BW):	(dbW/m ² /BW):	(dbW/m ² /BW):	(dbW/m ² /BW):	(dbW/m ² /BW):
1.0 MHz	-155.5	-140.1	-133.9	-130.5	-130.5	-130.5

Transmitting Beams 32:

Question	Response
Beam ID	FT52
Transmit Beam Frequency	18100.0 MHz -19300.0 MHz
Beam Type	Steerable
Polarization	LHCP
Peak Gain	50.9 dBi
Antenna Pointing Error	0.1 degrees
Antenna Rotational Error	0.6 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-30.3 dBW/Hz
Max. Transmit EIRP	60.3 dBW
Co- or Cross Polar Mode	C
Service Area Description	Northern hemisphere for planes 1-10 Southern hemisphere for planes 11-15

Max. Power Flux Density

Transmitting
Beams 33:

	* 0° - 5°	* 5° - 10°	* 10° - 15°	* 15° - 20°	* 20° - 25°	* 25° - 90°
* BW:	(dbW/m ² /BW):	(dbW/m ² /BW):	(dbW/m ² /BW):	(dbW/m ² /BW):	(dbW/m ² /BW):	(dbW/m ² /BW):
1.0 MHz	-155.6	-140.1	-133.9	-130.5	-130.5	-130.5

Question	Response
Beam ID	FT53
Transmit Beam Frequency	19700.0 MHz -20200.0 MHz
Beam Type	Steerable
Polarization	RHCP
Peak Gain	51.4 dBi
Antenna Pointing Error	0.1 degrees
Antenna Rotational Error	0.6 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-30.3 dBW/Hz
Max. Transmit EIRP	56.5 dBW
Co- or Cross Polar Mode	C
Service Area Description	Northern hemisphere for planes 1-10 Southern hemisphere for planes 11-15

Max. Power Flux Density

	* 0° - 5°	* 5° - 10°	* 10° - 15°	* 15° - 20°	* 20° - 25°	* 25° - 90°
* BW:	(dbW/m ² /BW):	(dbW/m ² /BW):	(dbW/m ² /BW):	(dbW/m ² /BW):	(dbW/m ² /BW):	(dbW/m ² /BW):
1.0 MHz	-155.6	-140.1	-133.9	-130.5	-130.5	-130.5

**Transmitting
Beams 34:**

Question	Response
Beam ID	FT54
Transmit Beam Frequency	19700.0 MHz -20200.0 MHz
Beam Type	Steerable
Polarization	LHCP
Peak Gain	51.4 dBi
Antenna Pointing Error	0.1 degrees
Antenna Rotational Error	0.6 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-30.3 dBW/Hz
Max. Transmit EIRP	56.5 dBW
Co- or Cross Polar Mode	C
Service Area Description	Northern hemisphere for planes 1-10 Southern hemisphere for planes 11-15

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):
1.0 MHz	-155.6	-140.1	-133.9	-130.5	-130.5	-130.5

**Transmitting
Channels (131)**

Channel ID	Channel Bandwidth (MHz)	Center Frequency s (MHz)	Feeder Link, Service Link or TT&C
TU31	25.0	11962.5	Service Link
TU30	25.0	11937.5	Service Link
TU29	25.0	11912.5	Service Link
TF23	25.0	18662.5	Feeder Link
TF22	25.0	18637.5	Feeder Link
TF72	25.0	19887.5	Feeder Link
TF79	25.0	20062.5	Feeder Link
TF14	25.0	18437.5	Feeder Link
TU51	25.0	12462.5	Service Link
TU52	25.0	12487.5	Service Link
TU37	25.0	12112.5	Service Link
TU38	25.0	12137.5	Service Link
TU39	25.0	12162.5	Service Link
TU40	25.0	12187.5	Service Link
TF37	25.0	19012.5	Feeder Link
TU15	25.0	11562.5	Service Link
TT11	5.0	11697.5	TT&C
TF06	25.0	18237.5	Feeder Link
TF05	25.0	18212.5	Feeder Link
TF04	25.0	18187.5	Feeder Link
TF47	25.0	19262.5	Feeder Link
TU06	25.0	11337.5	Service Link
TU05	25.0	11312.5	Service Link
TF41	25.0	19112.5	Feeder Link

TF42	25.0	19137.5	Feeder Link
TF43	25.0	19162.5	Feeder Link
TF44	25.0	19187.5	Feeder Link
TF45	25.0	19212.5	Feeder Link
TF68	25.0	19787.5	Feeder Link
TF73	25.0	19912.5	Feeder Link
TF74	25.0	19937.5	Feeder Link
TF75	25.0	19962.5	Feeder Link
TF76	25.0	19987.5	Feeder Link
TF77	25.0	20012.5	Feeder Link
TF78	25.0	20037.5	Feeder Link
TF13	25.0	18412.5	Feeder Link
TU46	25.0	12337.5	Service Link
TU47	25.0	12362.5	Service Link
TU48	25.0	12387.5	Service Link
TU57	25.0	12612.5	Service Link
TF19	25.0	18562.5	Feeder Link
TF20	25.0	18587.5	Feeder Link
TF21	25.0	18612.5	Feeder Link
TU60	25.0	12687.5	Service Link
TU59	25.0	12662.5	Service Link
TU58	25.0	12637.5	Service Link
TF40	25.0	19087.5	Feeder Link
TU18	25.0	11637.5	Service Link
TU17	25.0	11612.5	Service Link
TU16	25.0	11587.5	Service Link

TU14	25.0	11537.5	Service Link
TU13	25.0	11512.5	Service Link
TU12	25.0	11487.5	Service Link
TF17	25.0	18512.5	Feeder Link
TF18	25.0	18537.5	Feeder Link
TU24	25.0	11787.5	Service Link
TU23	25.0	11762.5	Service Link
TU22	25.0	11737.5	Service Link
TF27	25.0	18762.5	Feeder Link
TF26	25.0	18737.5	Feeder Link
TF25	25.0	18712.5	Feeder Link
TF24	25.0	18687.5	Feeder Link
TF65	25.0	19712.5	Feeder Link
TF66	25.0	19737.5	Feeder Link
TF71	25.0	19862.5	Feeder Link
TU08	25.0	11387.5	Service Link
TT18	5.0	18102.5	TT&C
TF84	25.0	20187.5	Feeder Link
TU50	25.0	12437.5	Service Link
TF10	25.0	18337.5	Feeder Link
TF11	25.0	18362.5	Feeder Link
TF12	25.0	18387.5	Feeder Link
TF15	25.0	18462.5	Feeder Link
TU49	25.0	12412.5	Service Link
TU07	25.0	11362.5	Service Link
TU53	25.0	12512.5	Service Link

TU56	25.0	12587.5	Service Link
TU55	25.0	12562.5	Service Link
TU35	25.0	12062.5	Service Link
TU28	25.0	11887.5	Service Link
TU36	25.0	12087.5	Service Link
TF80	25.0	20087.5	Feeder Link
TT21	5.0	20197.5	TT&C
TU09	25.0	11412.5	Service Link
TU10	25.0	11437.5	Service Link
TU11	25.0	11462.5	Service Link
TU54	25.0	12537.5	Service Link
TU34	25.0	12037.5	Service Link
TU33	25.0	12012.5	Service Link
TU32	25.0	11987.5	Service Link
TF31	25.0	18862.5	Feeder Link
TF32	25.0	18887.5	Feeder Link
TF33	25.0	18912.5	Feeder Link
TF34	25.0	18937.5	Feeder Link
TF35	25.0	18962.5	Feeder Link
TF36	25.0	18987.5	Feeder Link
TF38	25.0	19037.5	Feeder Link
TF39	25.0	19062.5	Feeder Link
TF29	25.0	18812.5	Feeder Link
TF28	25.0	18787.5	Feeder Link
TF30	25.0	18837.5	Feeder Link
TF16	25.0	18487.5	Feeder Link

TF08	25.0	18287.5	Feeder Link
TF07	25.0	18262.5	Feeder Link
TF81	25.0	20112.5	Feeder Link
TF82	25.0	20137.5	Feeder Link
TF83	25.0	20162.5	Feeder Link
TU04	25.0	11287.5	Service Link
TU01	25.0	11212.5	Service Link
TU02	25.0	11237.5	Service Link
TU27	25.0	11862.5	Service Link
TU26	25.0	11837.5	Service Link
TU25	25.0	11812.5	Service Link
TU45	25.0	12312.5	Service Link
TU44	25.0	12287.5	Service Link
TF03	25.0	18162.5	Feeder Link
TF02	25.0	18137.5	Feeder Link
TF01	25.0	18112.5	Feeder Link
TU03	25.0	11262.5	Service Link
TU43	25.0	12262.5	Service Link
TU42	25.0	12237.5	Service Link
TU41	25.0	12212.5	Service Link
TF67	25.0	19762.5	Feeder Link
TF48	25.0	19287.5	Feeder Link
TF09	25.0	18312.5	Feeder Link
TF70	25.0	19837.5	Feeder Link
TF69	25.0	19812.5	Feeder Link
TF46	25.0	19237.5	Feeder Link

TU21	25.0	11712.5	Service Link
TU20	25.0	11687.5	Service Link
TU19	25.0	11662.5	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?	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?	Yes
Are the applicable full-frequency-reuse requirements of 25.210 met?	Yes
If the application is for a 17/24 GHz BSS space station, will it be operated at an offset location with full power and interference protection in accordance with 25.262(b)?	

Attachments

File Name	Beam	Field	Attachment Type	Description
<u>Pleiades Service Link Spot Beam Characteristics.pdf</u>	SR01	NGSO Antenna Gain Data	PDF file (*.pdf)	Service link spot beam gain contours, spot beam arrangement and numbering, beam spectrum to spot beam-number assignments. Applies to transmit and receive spot beams.
<u>Pleiades Feeder Link Steerable Beam Characteristics.pdf</u>	FR31	NGSO Antenna Gain Data	PDF file (*.pdf)	Contours for feeder link steerable beams, both transmit and receive.