



312 File Number: **SATRPL2018091300071**

Filing Description

Question	Response
Description	T16 Multi-Band Ku , Ka and Rev DBS Satellite at nominal 102.8W location

**Satellite
Information**

Question	Response
Select Orbit Type	GSO
Space Station or Satellite Network Name	T16
Estimated Lifetime of Satellite(s) From Date of Launch	15 Years
Will the space station(s) operate on a Common Carrier basis?	No

Operating Frequency Bands (9)

Nature of service	Description	Frequency Band (s)	Mode Type
Direct Broadcast Satellite (DBS) Service		12200.0 MHz -12700.0 MHz	Transmit
Direct Broadcast Satellite (DBS) Service		17300.0 MHz -17800.0 MHz	Receive
17/24 GHz Broadcasting-Satellite Service		17300.0 MHz -17700.0 MHz	Transmit
Direct-to-Home in the Fixed-Satellite Service		19700.0 MHz -20200.0 MHz	Transmit
Fixed-Satellite Service		29250.0 MHz -29290.0 MHz	Receive
Fixed-Satellite Service		28350.0 MHz -28600.0 MHz	Receive
Fixed-Satellite Service		29500.0 MHz -30000.0 MHz	Receive
17/24 GHz Broadcasting-Satellite Service		24750.0 MHz -25515.0 MHz	Receive
Direct-to-Home in the Fixed-Satellite Service		18300.0 MHz -18590.0 MHz	Transmit

Orbital Information For Geostationary Satellites

Section	Question	Response
Orbital Longitude Information	Orbital Longitude	103.0 degrees
	Hemisphere of Orbital Longitude	W
Longitudinal Tolerance or East /West Station-Keeping	Toward West	0.025 degrees
	Toward East	0.025 degrees
Inclination Excursion or North /South Station-Keeping Tolerance	Inclination Excursion or North /South Station-Keeping Tolerance	0.05 degrees
Eccentricity	Max. Eccentricity	0.0
Antenna Axis Attitude Accuracy	Roll	0.1 degrees
	Pitch	0.1 degrees
	Yaw	0.1 degrees

Receiving Beams 1:

Question	Response
Beam ID	3A1L
Receive Beam Frequency	29500.0 MHz -30000.0 MHz
Beam Type	Spot
Polarization	LHCP
Peak Gain	53.0 dBi
Antenna Pointing Error	0.05 degrees
Antenna Rotational Error	0.25 degrees
Min. Cross-Polar Isolation within Service Area	30.0 dB
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	24.5 dB/K
Min. Saturation Flux Density	-122.0 dBW/m2
Max. Saturation Flux Density	-87.5 dBW/m2
Co- or Cross Polar Mode	C
Service Area Description	LABC Spot Uplink LHCP 29.5-30 GHz

Receiving Beams 2:

Question	Response
Beam ID	3A2L
Receive Beam Frequency	29250.0 MHz -29290.0 MHz
Beam Type	Spot
Polarization	LHCP
Peak Gain	53.0 dBi
Antenna Pointing Error	0.1 degrees

Antenna Rotational Error	0.1 degrees
Min. Cross-Polar Isolation within Service Area	27.0 dB
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	24.0 dB/K
Min. Saturation Flux Density	-122.5 dBW/m2
Max. Saturation Flux Density	-87.56 dBW/m2
Co- or Cross Polar Mode	C
Service Area Description	CR Spot LHCP Uplink 29.25 -29.29 GHz

Receiving Beams 3:

Question	Response
Beam ID	Ku1L
Receive Beam Frequency	17300.0 MHz -17800.0 MHz
Beam Type	Spot
Polarization	LHCP
Peak Gain	49.0 dBi
Antenna Pointing Error	0.06 degrees
Antenna Rotational Error	0.25 degrees
Min. Cross-Polar Isolation within Service Area	27.0 dB
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	21.75 dB/K
Min. Saturation Flux Density	-113.8 dBW/m2
Max. Saturation Flux Density	-83.8 dBW/m2
Co- or Cross Polar Mode	C

Service Area Description	Los Angeles Ku Receive Spot Beam
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Receiving Beams 4:

Question	Response
Beam ID	3B1L
Receive Beam Frequency	28350.0 MHz -28600.0 MHz
Beam Type	Spot
Polarization	LHCP
Peak Gain	53.0 dBi
Antenna Pointing Error	0.06 degrees
Antenna Rotational Error	0.25 degrees
Min. Cross-Polar Isolation within Service Area	27.0 dB
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	24.0 dB/K
Min. Saturation Flux Density	-122.5 dBW/m ²
Max. Saturation Flux Density	-87.56 dBW/m ²
Co- or Cross Polar Mode	C
Service Area Description	Los Angeles Spot LHCP Uplink 28.35-28.6 GHz

Receiving Beams 5:

Question	Response
Beam ID	3A1R
Receive Beam Frequency	29500.0 MHz -30000.0 MHz
Beam Type	Spot
Polarization	RHCP

Peak Gain	53.0 dBi
Antenna Pointing Error	0.06 degrees
Antenna Rotational Error	0.25 degrees
Min. Cross-Polar Isolation within Service Area	27.0 dB
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	23.8 dB/K
Min. Saturation Flux Density	-122.5 dBW/m ²
Max. Saturation Flux Density	-87.56 dBW/m ²
Co- or Cross Polar Mode	C
Service Area Description	LA Spot Uplink RHCP 29.5-30 GHz

Receiving Beams 6:

Question	Response
Beam ID	Ku2R
Receive Beam Frequency	17300.0 MHz -17800.0 MHz
Beam Type	Spot
Polarization	RHCP
Peak Gain	49.0 dBi
Antenna Pointing Error	0.06 degrees
Antenna Rotational Error	0.25 degrees
Min. Cross-Polar Isolation within Service Area	27.0 dB
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	21.5 dB/K

Min. Saturation Flux Density	-113.8 dBW/m ²
Max. Saturation Flux Density	-83.8 dBW/m ²
Co- or Cross Polar Mode	C
Service Area Description	Castlerock Spot Ku Uplink RHCP 17.3-17.8 GHz

Receiving Beams 7:

Question	Response
Beam ID	3R4L
Receive Beam Frequency	24750.0 MHz -25150.0 MHz
Beam Type	Spot
Polarization	LHCP
Peak Gain	51.8 dBi
Antenna Pointing Error	0.06 degrees
Antenna Rotational Error	0.25 degrees
Min. Cross-Polar Isolation within Service Area	27.0 dB
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	23.0 dB/K
Min. Saturation Flux Density	-122.6 dBW/m ²
Max. Saturation Flux Density	-87.56 dBW/m ²
Co- or Cross Polar Mode	C
Service Area Description	North West Spot Uplink LHCP 24.75- 25.15 GHz

Receiving Beams 8:

Question	Response
Beam ID	3R5R

Receive Beam Frequency	24750.0 MHz -25250.0 MHz
Beam Type	Spot
Polarization	RHCP
Peak Gain	50.0 dBi
Antenna Pointing Error	0.06 degrees
Antenna Rotational Error	0.25 degrees
Min. Cross-Polar Isolation within Service Area	27.0 dB
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	22.0 dB/K
Min. Saturation Flux Density	-122.5 dBW/m2
Max. Saturation Flux Density	-87.56 dBW/m2
Co- or Cross Polar Mode	C
Service Area Description	Northeast RB Spot Uplink

Receiving Beams 9:

Question	Response
Beam ID	3A2R
Receive Beam Frequency	29250.0 MHz -29290.0 MHz
Beam Type	Spot
Polarization	RHCP
Peak Gain	52.0 dBi
Antenna Pointing Error	0.06 degrees
Antenna Rotational Error	0.25 degrees
Min. Cross-Polar Isolation within Service Area	27.0 dB
Polarization Switchable	

Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	24.0 dB/K
Min. Saturation Flux Density	-122.6 dBW/m2
Max. Saturation Flux Density	-87.56 dBW/m2
Co- or Cross Polar Mode	C
Service Area Description	CRBC Spot Uplink RHCP 29.25-29.29 GHz

Receiving Beams 10:

Question	Response
Beam ID	3B1R
Receive Beam Frequency	28350.0 MHz -28600.0 MHz
Beam Type	Spot
Polarization	RHCP
Peak Gain	52.0 dBi
Antenna Pointing Error	0.06 degrees
Antenna Rotational Error	0.25 degrees
Min. Cross-Polar Isolation within Service Area	27.0 dB
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	24.0 dB/K
Min. Saturation Flux Density	-122.6 dBW/m2
Max. Saturation Flux Density	-87.56 dBW/m2
Co- or Cross Polar Mode	C
Service Area Description	Los Angeles Spot Uplink RHCP 28.35-28.6 GHz

Receiving Beams 11:

Question	Response
Beam ID	3B2L
Receive Beam Frequency	28350.0 MHz -28600.0 MHz
Beam Type	Spot
Polarization	LHCP
Peak Gain	52.0 dBi
Antenna Pointing Error	0.06 degrees
Antenna Rotational Error	0.25 degrees
Min. Cross-Polar Isolation within Service Area	27.0 dB
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	24.0 dB/K
Min. Saturation Flux Density	-122.6 dBW/m ²
Max. Saturation Flux Density	-87.56 dBW/m ²
Co- or Cross Polar Mode	C
Service Area Description	CRBC Spot Uplink LHCP 28.35-28.6 GHz

Receiving Beams 12:

Question	Response
Beam ID	3B2R
Receive Beam Frequency	28350.0 MHz -28600.0 MHz
Beam Type	Spot
Polarization	RHCP
Peak Gain	52.0 dBi
Antenna Pointing Error	0.06 degrees

Antenna Rotational Error	0.25 degrees
Min. Cross-Polar Isolation within Service Area	27.0 dB
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	24.0 dB/K
Min. Saturation Flux Density	-122.6 dBW/m2
Max. Saturation Flux Density	-87.56 dBW/m2
Co- or Cross Polar Mode	C
Service Area Description	CRBC Spot Uplink RHCP 28.35-28.6 GHz

**Receiving
Beams 13:**

Question	Response
Beam ID	3R4R
Receive Beam Frequency	24750.0 MHz -25150.0 MHz
Beam Type	Spot
Polarization	RHCP
Peak Gain	52.0 dBi
Antenna Pointing Error	0.06 degrees
Antenna Rotational Error	0.25 degrees
Min. Cross-Polar Isolation within Service Area	27.0 dB
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	23.0 dB/K
Min. Saturation Flux Density	-122.6 dBW/m2
Max. Saturation Flux Density	-87.56 dBW/m2

Co- or Cross Polar Mode	C
Service Area Description	NWUF Spot Uplink RHCP 24.75-25.15 GHz

Receiving Beams 14:

Question	Response
Beam ID	3R5L
Receive Beam Frequency	24750.0 MHz -25250.0 MHz
Beam Type	Spot
Polarization	LHCP
Peak Gain	50.0 dBi
Antenna Pointing Error	0.06 degrees
Antenna Rotational Error	0.25 degrees
Min. Cross-Polar Isolation within Service Area	27.0 dB
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	22.0 dB/K
Min. Saturation Flux Density	-122.6 dBW/m ²
Max. Saturation Flux Density	-87.56 dBW/m ²
Co- or Cross Polar Mode	C
Service Area Description	North East Spot Uplink LHCP 24.75-25.25 GHz

Receiving Beams 15:

Question	Response
Beam ID	Ku1R
Receive Beam Frequency	17300.0 MHz -17800.0 MHz
Beam Type	Spot

Polarization	RHCP
Peak Gain	49.0 dBi
Antenna Pointing Error	0.06 degrees
Antenna Rotational Error	0.25 degrees
Min. Cross-Polar Isolation within Service Area	27.0 dB
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	21.0 dB/K
Min. Saturation Flux Density	-113.8 dBW/m ²
Max. Saturation Flux Density	-83.8 dBW/m ²
Co- or Cross Polar Mode	C
Service Area Description	Los Angeles Spot Uplink RHCP 17.3-17.8 GHz

**Receiving
Beams 16:**

Question	Response
Beam ID	Ku2L
Receive Beam Frequency	17300.0 MHz -17800.0 MHz
Beam Type	Spot
Polarization	LHCP
Peak Gain	49.0 dBi
Antenna Pointing Error	0.06 degrees
Antenna Rotational Error	0.25 degrees
Min. Cross-Polar Isolation within Service Area	49.0 dB
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees

G/T at Max. Gain Point	22.0 dB/K
Min. Saturation Flux Density	-113.8 dBW/m ²
Max. Saturation Flux Density	-83.8 dBW/m ²
Co- or Cross Polar Mode	C
Service Area Description	CastleRock Spot Ku Uplink 17.3-17.8 GHz

Receiving Beams 17:

Question	Response
Beam ID	OTC3
Receive Beam Frequency	17788.6 MHz -17791.4 MHz
Beam Type	Fixed
Polarization	RHCP
Peak Gain	24.0 dBi
Antenna Pointing Error	0.25 degrees
Antenna Rotational Error	0.25 degrees
Min. Cross-Polar Isolation within Service Area	30.0 dB
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	-5.0 dB/K
Min. Saturation Flux Density	-95.0 dBW/m ²
Max. Saturation Flux Density	-69.0 dBW/m ²
Co- or Cross Polar Mode	C
Service Area Description	On station Command Uplink

Receiving Channels (90)

Channel ID	Channel Bandwidth (MHz)	Center Frequency s (MHz)	Feeder Link, Service Link or TT&C
A4	36.0	29570.0	Feeder Link
A11	36.0	29730.0	Feeder Link
K8	24.0	17426.06	Feeder Link
K7	24.0	17411.48	Feeder Link
K6	24.0	17396.9	Feeder Link
K5	24.0	17382.32	Feeder Link
K4	24.0	17367.74	Feeder Link
K3	24.0	17353.16	Feeder Link
K2	24.0	17338.58	Feeder Link
K1	24.0	17324.0	Feeder Link
R18	36.0	25096.0	Feeder Link
B5	36.0	28455.0	Feeder Link
B6	36.0	28455.0	Feeder Link
B7	36.0	28495.0	Feeder Link
B8	36.0	28495.0	Feeder Link
B9	36.0	28535.0	Feeder Link
R1	36.0	24776.0	Feeder Link
R10	36.0	24936.0	Feeder Link
R11	36.0	24976.0	Feeder Link
R12	36.0	24976.0	Feeder Link
R13	36.0	25016.0	Feeder Link
R14	36.0	25016.0	Feeder Link
R15	36.0	25056.0	Feeder Link
R9	36.0	24936.0	Feeder Link

R8	36.0	24896.0	Feeder Link
R7	36.0	24896.0	Feeder Link
R6	36.0	24856.0	Feeder Link
R5	36.0	24856.0	Feeder Link
R4	36.0	24816.0	Feeder Link
R3	36.0	24816.0	Feeder Link
R2	36.0	24776.0	Feeder Link
K32	24.0	17775.98	Feeder Link
K31	24.0	17761.4	Feeder Link
A3	36.0	29570.0	Feeder Link
A5	36.0	29610.0	Feeder Link
A6	36.0	29610.0	Feeder Link
A7	36.0	29650.0	Feeder Link
A8	36.0	29650.0	Feeder Link
A9	36.0	29690.0	Feeder Link
B1	36.0	28375.0	Feeder Link
B10	36.0	28535.0	Feeder Link
B11	36.0	28575.0	Feeder Link
B12	36.0	28575.0	Feeder Link
B13	36.0	29269.0	Feeder Link
B14	36.0	29269.0	Feeder Link
B2	36.0	28375.0	Feeder Link
K30	24.0	17746.82	Feeder Link
K29	24.0	17732.24	Feeder Link
K28	24.0	17717.66	Feeder Link
K27	24.0	17703.08	Feeder Link

K26	24.0	17688.5	Feeder Link
R16	36.0	25056.0	Feeder Link
R17	36.0	25096.0	Feeder Link
CMD2	0.8	17791.0	TT&C
CMD1	0.8	17789.0	TT&C
K25	24.0	17673.92	Feeder Link
K24	24.0	17659.34	Feeder Link
K23	24.0	17644.76	Feeder Link
K22	24.0	17630.18	Feeder Link
K21	24.0	17615.6	Feeder Link
K20	24.0	17601.02	Feeder Link
K19	24.0	17586.44	Feeder Link
K18	24.0	17571.86	Feeder Link
K17	24.0	17557.28	Feeder Link
K16	24.0	17542.7	Feeder Link
K15	24.0	17528.12	Feeder Link
K14	24.0	17513.54	Feeder Link
K13	24.0	17498.96	Feeder Link
K12	24.0	17484.38	Feeder Link
K11	24.0	17469.8	Feeder Link
K10	24.0	17455.22	Feeder Link
K9	24.0	17440.64	Feeder Link
A1	36.0	29530.0	Feeder Link
A10	36.0	29690.0	Feeder Link
A12	36.0	29730.0	Feeder Link
A13	36.0	29770.0	Feeder Link

A14	36.0	29770.0	Feeder Link
A15	36.0	29810.0	Feeder Link
A16	36.0	29810.0	Feeder Link
A17	36.0	29850.0	Feeder Link
A18	36.0	29850.0	Feeder Link
A19	36.0	29890.0	Feeder Link
A2	36.0	29530.0	Feeder Link
A20	36.0	29890.0	Feeder Link
A21	36.0	29930.0	Feeder Link
A22	36.0	29930.0	Feeder Link
A23	36.0	29970.0	Feeder Link
A24	36.0	29970.0	Feeder Link
B3	36.0	28415.0	Feeder Link
B4	36.0	28415.0	Feeder Link

Transmitting Beams 1:

Question	Response
Beam ID	KURH
Transmit Beam Frequency	12200.0 MHz -12700.0 MHz
Beam Type	Fixed
Polarization	RHCP
Peak Gain	35.0 dBi
Antenna Pointing Error	0.06 degrees
Antenna Rotational Error	0.25 degrees
Min. Cross-Polar Isolation within Service Area	27.0 dB
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-14.0 dBW/Hz
Max. Transmit EIRP	59.0 dBW
Co- or Cross Polar Mode	C
Service Area Description	Ku Band CONUS and Alaska Downlink 12.2-12.7 GHz

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	-124.0	-124.0	-123.0	-123.0	-120.0	-116.0

Transmitting Beams 2:

Question	Response
Beam ID	KULH

Transmit Beam Frequency	12200.0 MHz -12700.0 MHz
Beam Type	Fixed
Polarization	LHCP
Peak Gain	35.0 dBi
Antenna Pointing Error	0.06 degrees
Antenna Rotational Error	0.25 degrees
Min. Cross-Polar Isolation within Service Area	27.0 dB
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-14.0 dBW/Hz
Max. Transmit EIRP	59.0 dBW
Co- or Cross Polar Mode	C
Service Area Description	Ku band CONUS and Alaska Downlink Beam 12.2-12.7 GHz

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	-124.0	-124.0	-123.0	-123.0	-120.0	-116.0
MHz						

Transmitting Beams 3:

Question	Response
Beam ID	KHR
Transmit Beam Frequency	12200.0 MHz -12700.0 MHz
Beam Type	Spot
Polarization	RHCP

Peak Gain	46.0 dBi
Antenna Pointing Error	0.06 degrees
Antenna Rotational Error	0.25 degrees
Min. Cross-Polar Isolation within Service Area	27.0 dB
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-17.9 dBW/Hz
Max. Transmit EIRP	55.0 dBW
Co- or Cross Polar Mode	C
Service Area Description	KU Band Hawaii SPOT Downlink

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	-127.0	-125.0	-123.0	-121.0	-121.0	-121.0

Transmitting Beams 4:

Question	Response
Beam ID	KHL
Transmit Beam Frequency	12200.0 MHz -12700.0 MHz
Beam Type	Fixed
Polarization	LHCP
Peak Gain	46.0 dBi
Antenna Pointing Error	0.06 degrees
Antenna Rotational Error	0.25 degrees

Min. Cross-Polar Isolation within Service Area	27.0 dB
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-17.0 dBW/Hz
Max. Transmit EIRP	55.0 dBW
Co- or Cross Polar Mode	C
Service Area Description	Ku Hawaii Spot Downlink LHCP

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	-127.0	-125.0	-123.0	-121.0	-121.0	-121.0

Transmitting Beams 5:

Question	Response
Beam ID	KPR
Transmit Beam Frequency	12200.0 MHz -12700.0 MHz
Beam Type	Spot
Polarization	RHCP
Peak Gain	46.0 dBi
Antenna Pointing Error	0.06 degrees
Antenna Rotational Error	0.25 degrees
Min. Cross-Polar Isolation within Service Area	27.0 dB
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees

Max. Transmit EIRP Density	-17.0 dBW/Hz
Max. Transmit EIRP	55.0 dBW
Co- or Cross Polar Mode	C
Service Area Description	Ku Spot Downlink Puerto Rico RHCP

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	-156.0	-156.0	-154.0	-152.0	-151.0	-120.0
MHz						

Transmitting Beams 6:

Question	Response
Beam ID	3RHR
Transmit Beam Frequency	17300.0 MHz -17700.0 MHz
Beam Type	Spot
Polarization	RHCP
Peak Gain	48.0 dBi
Antenna Pointing Error	0.06 degrees
Antenna Rotational Error	0.25 degrees
Min. Cross-Polar Isolation within Service Area	27.0 dB
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-12.85 dBW/Hz
Max. Transmit EIRP	62.0 dBW
Co- or Cross Polar Mode	C

Service Area Description

RBand Hawaii Spot Downlink
RHCP

Max. Power Flux Density

* BW:	* Southeastern Region (dbW/m ² /BW):	* Northeastern Region (dbW/m ² /BW):	* Western Region (dbW/m ² /BW):	* Other Regions (dbW/m ² /BW):
1.0 MHz	-160.0	-160.0	-155.0	-115.0

Transmitting Beams 7:

Question	Response
Beam ID	3AHL
Transmit Beam Frequency	19700.0 MHz -20200.0 MHz
Beam Type	Spot
Polarization	LHCP
Peak Gain	48.0 dBi
Antenna Pointing Error	0.06 degrees
Antenna Rotational Error	0.25 degrees
Min. Cross-Polar Isolation within Service Area	30.0 dB
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-15.0 dBW/Hz
Max. Transmit EIRP	59.5 dBW
Co- or Cross Polar Mode	C
Service Area Description	Ka Hawaii Downlink Spot LHCP 19.7-20.2 GHz

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	-140.0	-136.0	-130.0	-123.0	-118.0	-118.0
MHz						

Transmitting Beams 8:

Question	Response
Beam ID	3AHR
Transmit Beam Frequency	19700.0 MHz -20200.0 MHz
Beam Type	Spot
Polarization	RHCP
Peak Gain	48.0 dBi
Antenna Pointing Error	0.06 degrees
Antenna Rotational Error	0.25 degrees
Min. Cross-Polar Isolation within Service Area	30.0 dB
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-15.0 dBW/Hz
Max. Transmit EIRP	59.5 dBW
Co- or Cross Polar Mode	C
Service Area Description	Ka Hawaii Downlink Spot RHCP 19.7-20.2 GHz

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	-140.0	-136.0	-130.0	-123.0	-118.0	-118.0
MHz						

Transmitting Beams 9:

Question	Response
Beam ID	KPL
Transmit Beam Frequency	12200.0 MHz -12700.0 MHz
Beam Type	Spot
Polarization	LHCP
Peak Gain	46.0 dBi
Antenna Pointing Error	0.06 degrees
Antenna Rotational Error	0.25 degrees
Min. Cross-Polar Isolation within Service Area	30.0 dB
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-17.0 dBW/Hz
Max. Transmit EIRP	55.0 dBW
Co- or Cross Polar Mode	C
Service Area Description	Ku Puerto Rico Downlink Spot LHCP 12.2-12.7 GHz

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	-156.0	-156.0	-154.0	-151.0	-150.0	-120.0
MHz						

Transmitting Beams 10:

Question	Response
Beam ID	3BHL
Transmit Beam Frequency	18300.0 MHz -18590.0 MHz
Beam Type	Spot
Polarization	LHCP
Peak Gain	48.0 dBi
Antenna Pointing Error	0.06 degrees
Antenna Rotational Error	0.25 degrees
Min. Cross-Polar Isolation within Service Area	30.0 dB
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-15.0 dBW/Hz
Max. Transmit EIRP	59.5 dBW
Co- or Cross Polar Mode	C
Service Area Description	Ka Hawaii Downlink Spot 18.3 -18.59 GHz

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):
1.0 MHz	-138.0	-135.0	-130.0	-123.0	-118.0	-118.0

Transmitting Beams 11:

Question	Response
Beam ID	3BHR
Transmit Beam Frequency	18300.0 MHz -18590.0 MHz

Beam Type	Spot
Polarization	RHCP
Peak Gain	48.0 dBi
Antenna Pointing Error	0.06 degrees
Antenna Rotational Error	0.25 degrees
Min. Cross-Polar Isolation within Service Area	30.0 dB
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-15.0 dBW/Hz
Max. Transmit EIRP	59.5 dBW
Co- or Cross Polar Mode	C
Service Area Description	Ka Hawaii Spot Downlink RHCP 18.3-18.59 GHz

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	-138.0	-135.0	-130.0	-123.0	-118.0	-118.0

Transmitting Beams 12:

Question	Response
Beam ID	3RHL
Transmit Beam Frequency	17300.0 MHz -17700.0 MHz
Beam Type	Spot
Polarization	LHCP
Peak Gain	47.6 dBi

Antenna Pointing Error	0.06 degrees
Antenna Rotational Error	0.25 degrees
Min. Cross-Polar Isolation within Service Area	30.0 dB
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-13.0 dBW/Hz
Max. Transmit EIRP	62.0 dBW
Co- or Cross Polar Mode	C
Service Area Description	R Band Hawaii Downlink SPOT LHCP 17.3-17.7 GHz

Max. Power Flux Density

* BW:	* Southeastern Region (dBW/m ² /BW):	* Northeastern Region (dBW/m ² /BW):	* Western Region (dBW/m ² /BW):	* Other Regions (dBW/m ² /BW):
1.0 MHz	-165.0	-165.0	-160.0	-115.0

Transmitting Beams 13:

Question	Response
Beam ID	3APL
Transmit Beam Frequency	19700.0 MHz -20200.0 MHz
Beam Type	Spot
Polarization	LHCP
Peak Gain	48.5 dBi
Antenna Pointing Error	0.06 degrees
Antenna Rotational Error	0.25 degrees

Min. Cross-Polar Isolation within Service Area	30.0 dB
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-15.0 dBW/Hz
Max. Transmit EIRP	59.6 dBW
Co- or Cross Polar Mode	C
Service Area Description	Ka Band Puerto Rico Downlink Spot LHCP 19.7-20.2 GHz

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	-164.0	-164.0	-164.0	-164.0	-162.0	-118.0

Transmitting Beams 14:

Question	Response
Beam ID	3APR
Transmit Beam Frequency	19700.0 MHz -20200.0 MHz
Beam Type	Spot
Polarization	RHCP
Peak Gain	48.0 dBi
Antenna Pointing Error	0.06 degrees
Antenna Rotational Error	0.25 degrees
Min. Cross-Polar Isolation within Service Area	30.0 dB
Polarization Switchable	

Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-15.0 dBW/Hz
Max. Transmit EIRP	60.0 dBW
Co- or Cross Polar Mode	C
Service Area Description	Ka Band Puerto Rico Downlink Spot RHCP 19.7-20.2 GHz

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	-164.0	-164.0	-164.0	-164.0	-162.0	-118.0

Transmitting Beams 15:

Question	Response
Beam ID	3BPL
Transmit Beam Frequency	18300.0 MHz -18590.0 MHz
Beam Type	Spot
Polarization	LHCP
Peak Gain	48.0 dBi
Antenna Pointing Error	0.06 degrees
Antenna Rotational Error	0.25 degrees
Min. Cross-Polar Isolation within Service Area	30.0 dB
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-17.0 dBW/Hz

Max. Transmit EIRP	57.5 dBW
Co- or Cross Polar Mode	C
Service Area Description	Ka Band Puerto Rico Downlink Spot 18.3-18.59 GHz

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	-163.0	-163.0	-163.0	-161.0	-159.0	-119.0

Transmitting Beams 16:

Question	Response
Beam ID	3BPR
Transmit Beam Frequency	18300.0 MHz -18590.0 MHz
Beam Type	Spot
Polarization	RHCP
Peak Gain	48.0 dBi
Antenna Pointing Error	0.06 degrees
Antenna Rotational Error	0.25 degrees
Min. Cross-Polar Isolation within Service Area	30.0 dB
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-17.0 dBW/Hz
Max. Transmit EIRP	57.5 dBW
Co- or Cross Polar Mode	C

Service Area Description

Ka Band Puerto Rico Downlink Spot
18.3-18.59 GHz

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	-163.0	-163.0	-163.0	-161.0	-159.0	-119.0

Transmitting Beams 17:

Question	Response
Beam ID	3RPL
Transmit Beam Frequency	17300.0 MHz -17700.0 MHz
Beam Type	Spot
Polarization	LHCP
Peak Gain	48.0 dBi
Antenna Pointing Error	0.06 degrees
Antenna Rotational Error	0.25 degrees
Min. Cross-Polar Isolation within Service Area	30.0 dB
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-15.0 dBW/Hz
Max. Transmit EIRP	59.0 dBW
Co- or Cross Polar Mode	C
Service Area Description	R Band Puerto Rico Downlink Spot LHCP

Max. Power Flux Density

* BW:	* Southeastern Region (dbW/m ² /BW):	* Northeastern Region (dbW/m ² /BW):	* Western Region (dbW/m ² /BW):	* Other Regions (dbW/m ² /BW):
1.0 MHz	-155.0	-160.0	-160.0	-115.0

Transmitting Beams 18:

Question	Response
Beam ID	3RPR
Transmit Beam Frequency	17300.0 MHz -17700.0 MHz
Beam Type	Spot
Polarization	RHCP
Peak Gain	48.0 dBi
Antenna Pointing Error	0.06 degrees
Antenna Rotational Error	0.25 degrees
Min. Cross-Polar Isolation within Service Area	30.0 dB
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-15.0 dBW/Hz
Max. Transmit EIRP	59.5 dBW
Co- or Cross Polar Mode	C
Service Area Description	R Band Puerto Rico Downlink Spot 17.7-17.7 GHz

Max. Power Flux Density

* BW:	* Southeastern Region (dbW/m ² /BW):	* Northeastern Region (dbW/m ² /BW):	* Western Region (dbW/m ² /BW):	* Other Regions (dbW/m ² /BW):
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1.0	-150.0	-160.0	-160.0	-115.0
MHz				

Transmitting Beams 19:

Question	Response
Beam ID	3ACR
Transmit Beam Frequency	19700.0 MHz -20200.0 MHz
Beam Type	Fixed
Polarization	RHCP
Peak Gain	37.0 dBi
Antenna Pointing Error	0.06 degrees
Antenna Rotational Error	0.25 degrees
Min. Cross-Polar Isolation within Service Area	27.0 dB
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-14.6 dBW/Hz
Max. Transmit EIRP	60.0 dBW
Co- or Cross Polar Mode	C
Service Area Description	Ka Band CONUS Plus Alaska Downlink RHCP 19.7-20.2 GHz

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	-122.0	-120.0	-119.0	-119.0	-121.0	-118.0
MHz						

Transmitting Beams 20:

Question	Response
Beam ID	3ACL
Transmit Beam Frequency	19700.0 MHz -20200.0 MHz
Beam Type	Fixed
Polarization	LHCP
Peak Gain	48.0 dBi
Antenna Pointing Error	0.06 degrees
Antenna Rotational Error	0.25 degrees
Min. Cross-Polar Isolation within Service Area	27.0 dB
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-14.0 dBW/Hz
Max. Transmit EIRP	60.0 dBW
Co- or Cross Polar Mode	C
Service Area Description	Ka Band CONUS and AK Downlink LHCP 19.7-20.2 GHz

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	-122.0	-120.0	-119.0	-119.0	-121.0	-118.0

Transmitting Beams 21:

Question	Response
Beam ID	3BCL
Transmit Beam Frequency	18300.0 MHz -18590.0 MHz

Beam Type	Fixed
Polarization	LHCP
Peak Gain	48.0 dBi
Antenna Pointing Error	0.06 degrees
Antenna Rotational Error	0.25 degrees
Min. Cross-Polar Isolation within Service Area	27.0 dB
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-15.0 dBW/Hz
Max. Transmit EIRP	59.5 dBW
Co- or Cross Polar Mode	C
Service Area Description	Ka Band CONUS and Alaska Downlink LHCP 18.3-18.59 GHZ

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	-123.0	-122.0	-121.0	-121.0	-121.0	-118.0

Transmitting Beams 22:

Question	Response
Beam ID	3BCR
Transmit Beam Frequency	18300.0 MHz -18590.0 MHz
Beam Type	Fixed
Polarization	RHCP
Peak Gain	48.0 dBi

Antenna Pointing Error	0.06 degrees
Antenna Rotational Error	0.25 degrees
Min. Cross-Polar Isolation within Service Area	27.0 dB
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-15.0 dBW/Hz
Max. Transmit EIRP	59.5 dBW
Co- or Cross Polar Mode	C
Service Area Description	Ka Band CONUS and Alaska Downlink RHCP 18.3-18.59 GHz

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	-123.0	-122.0	-121.0	-121.0	-121.0	-118.0

Transmitting Beams 23:

Question	Response
Beam ID	3RCL
Transmit Beam Frequency	17300.0 MHz -17700.0 MHz
Beam Type	Fixed
Polarization	LHCP
Peak Gain	36.5 dBi
Antenna Pointing Error	0.06 degrees
Antenna Rotational Error	0.25 degrees

Min. Cross-Polar Isolation within Service Area	27.0 dB
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-15.0 dBW/Hz
Max. Transmit EIRP	59.0 dBW
Co- or Cross Polar Mode	C
Service Area Description	R Band CONUS and Alaska Downlink LHCP 17.3-17.7 GHZ

Max. Power Flux Density

* BW:	* Southeastern Region (dBW/m ² /BW):	* Northeastern Region (dBW/m ² /BW):	* Western Region (dBW/m ² /BW):	* Other Regions (dBW/m ² /BW):
1.0 MHz	-118.0	-121.0	-121.0	-121.0

Transmitting Beams 24:

Question	Response
Beam ID	3RCR
Transmit Beam Frequency	17300.0 MHz -17700.0 MHz
Beam Type	Fixed
Polarization	RHCP
Peak Gain	36.5 dBi
Antenna Pointing Error	0.06 degrees
Antenna Rotational Error	0.25 degrees
Min. Cross-Polar Isolation within Service Area	27.0 dB
Polarization Switchable	

Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-15.0 dBW/Hz
Max. Transmit EIRP	59.0 dBW
Co- or Cross Polar Mode	C
Service Area Description	R Band CONUS and Alaska Downlink RHCP 17.3-17.7 GHz

Max. Power Flux Density

* BW:	* Southeastern Region (dBW/m ² /BW):	* Northeastern Region (dBW/m ² /BW):	* Western Region (dBW/m ² /BW):	* Other Regions (dBW/m ² /BW):
1.0 MHz	-118.0	-121.0	-121.0	-122.0

Transmitting Beams 25:

Question	Response
Beam ID	OTM3
Transmit Beam Frequency	12696.5 MHz -12698.5 MHz
Beam Type	Fixed
Polarization	RHCP
Peak Gain	21.5 dBi
Antenna Pointing Error	0.25 degrees
Antenna Rotational Error	0.25 degrees
Min. Cross-Polar Isolation within Service Area	30.0 dB
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-33.0 dBW/Hz
Max. Transmit EIRP	19.0 dBW

Co- or Cross Polar Mode

C

Service Area Description

On-station Telemetry
Downlink

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	-138.0	-137.0	-137.0	-137.0	-137.0	-136.0

Transmitting Channels (90)

Channel ID	Channel Bandwidth (MHz)	Center Frequency s (MHz)	Feeder Link, Service Link or TT&C
B8	36.0	18444.0	Service Link
TM2	0.2	12698.0	TT&C
TM1	0.2	12697.0	TT&C
R11	36.0	17526.0	Service Link
R10	36.0	17486.0	Service Link
R8	36.0	17446.0	Service Link
R7	36.0	17446.0	Service Link
R6	36.0	17406.0	Service Link
R5	36.0	17406.0	Service Link
R4	36.0	17366.0	Service Link
R3	36.0	17366.0	Service Link
R2	36.0	17326.0	Service Link
R1	36.0	17326.0	Service Link
Ku27	24.0	12603.08	Service Link
Ku26	24.0	12588.5	Service Link
Ku25	24.0	12573.92	Service Link
Ku24	24.0	12559.34	Service Link
Ku23	24.0	12544.76	Service Link
Ku22	24.0	12530.18	Service Link
Ku21	24.0	12515.6	Service Link
Ku20	24.0	12501.02	Service Link
Ku2	24.0	12238.58	Service Link
Ku19	24.0	12486.44	Service Link
Ku18	24.0	12471.86	Service Link

Ku17	24.0	12457.28	Service Link
Ku16	24.0	12442.7	Service Link
Ku15	24.0	12428.12	Service Link
Ku14	24.0	12413.54	Service Link
Ku13	24.0	12398.96	Service Link
Ku12	24.0	12384.36	Service Link
Ku11	24.0	12369.8	Service Link
Ku10	24.0	12355.22	Service Link
Ku1	24.0	12224.0	Service Link
B9	36.0	18484.0	Service Link
A16	36.0	20010.0	Service Link
A14	36.0	19970.0	Service Link
A12	36.0	19930.0	Service Link
A10	36.0	19890.0	Service Link
A8	36.0	19850.0	Service Link
A6	36.0	19810.0	Service Link
Ku9	24.0	12340.64	Service Link
Ku7	24.0	12311.48	Service Link
Ku5	24.0	12282.32	Service Link
Ku32	24.0	12675.98	Service Link
Ku30	24.0	12646.82	Service Link
A23	36.0	20170.0	Service Link
A21	36.0	20130.0	Service Link
A19	36.0	20090.0	Service Link
A15	36.0	20010.0	Service Link
A22	36.0	20130.0	Service Link

A20	36.0	20090.0	Service Link
A18	36.0	20050.0	Service Link
A17	36.0	20050.0	Service Link
Ku28	24.0	12617.66	Service Link
A13	36.0	19970.0	Service Link
A11	36.0	19930.0	Service Link
A9	36.0	19890.0	Service Link
A7	36.0	19850.0	Service Link
A5	36.0	19810.0	Service Link
A4	36.0	19770.0	Service Link
Ku8	24.0	12326.06	Service Link
Ku6	24.0	12296.9	Service Link
Ku4	24.0	12267.74	Service Link
Ku31	24.0	12675.98	Service Link
Ku3	24.0	12253.16	Service Link
R18	36.0	17646.0	Service Link
R17	36.0	17646.0	Service Link
R16	36.0	17606.0	Service Link
R15	36.0	17606.0	Service Link
R14	36.0	17566.0	Service Link
R13	36.0	17566.0	Service Link
R12	36.0	17526.0	Service Link
R9	36.0	17486.0	Service Link
B7	36.0	18444.0	Service Link
B6	36.0	18404.0	Service Link
B5	36.0	18404.0	Service Link

B4	36.0	18364.0	Service Link
B3	36.0	18364.0	Service Link
B2	36.0	18324.0	Service Link
B14	36.0	18564.0	Service Link
B13	36.0	18564.0	Service Link
B12	36.0	18524.0	Service Link
B11	36.0	18524.0	Service Link
B10	36.0	18484.0	Service Link
B1	36.0	18324.0	Service Link
A3	36.0	19770.0	Service Link
A24	36.0	20170.0	Service Link
A2	36.0	19730.0	Service Link
A1	36.0	19730.0	Service Link
Ku29	24.0	12632.24	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?	N/A
Are the applicable full-frequency-reuse requirements of 25.210 met?	Yes
If the application is for a 17/24 GHz BSS space station, will it be operated at an offset location with full power and interference protection in accordance with 25.262(b)?	No

Attachments

File Name	Beam	Field	Attachment Type	Description
<u>t16_directv.mdb</u>		GSO Antenna Gain Contour Data	GIMS file (*.mdb)	T16 Rx and Tx Beams GIMS container file
