



312 File Number: **SATLOA2016111500117**

Filing Description

Question	Response
Description	Audacy Corporation Requests Authority to Launch and Operate a Non-Geostationary Medium Earth Orbit Satellite System in the K- and V-band Fixed- and Inter-Satellite Services.

Satellite Information

Question	Response
Select Orbit Type	NGSO
Space Station or Satellite Network Name	Audacy Communications Network
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 (17)

Nature of service	Description	Frequency Band (s)	Mode Type
Fixed-Satellite Service		27500.0 MHz -30000.0 MHz	Receive
Fixed-Satellite Service		47200.0 MHz -50200.0 MHz	Receive
Fixed-Satellite Service		50400.0 MHz -51400.0 MHz	Receive
Fixed-Satellite Service		19700.0 MHz -20200.0 MHz	Transmit
Fixed-Satellite Service		37500.0 MHz -42000.0 MHz	Transmit
Other Satellite Service (please specify)	Inter-Satellite Service	22550.0 MHz -23550.0 MHz	Transmit
Other Satellite Service (please specify)	Inter-Satellite Service	54250.0 MHz -56900.0 MHz	Receive
Other Satellite Service (please specify)	Inter-Satellite Service	57000.0 MHz -58200.0 MHz	Transmit
Other Satellite Service (please specify)	Inter-Satellite Service	57000.0 MHz -58200.0 MHz	Receive
Other Satellite Service (please specify)	Inter-Satellite Service	65000.0 MHz -71000.0 MHz	Transmit
Other Satellite Service (please specify)	Inter-Satellite Service	65000.0 MHz -71000.0 MHz	Receive
Other Satellite Service (please specify)	Inter-Satellite Service	24450.0 MHz -24750.0 MHz	Transmit
Other Satellite Service (please specify)	Inter-Satellite Service	24450.0 MHz -24750.0 MHz	Receive
Other Satellite Service (please specify)	Inter-Satellite Service	22550.0 MHz -23550.0 MHz	Receive
Other Satellite Service (please specify)	Inter-Satellite Service	32300.0 MHz -33000.0 MHz	Transmit
Other Satellite Service (please specify)	Inter-Satellite Service	32300.0 MHz -33000.0 MHz	Receive

Other Satellite Service (please specify)	Inter-Satellite Service	54250.0 MHz -56900.0 MHz	Transmit
---	----------------------------	-----------------------------	----------

**Orbital
Information For
Non-
Geostationary
Satellites**

Question	Response
Total Number of Satellites in the active constellation	3
Orbit Epoch Date	01/01/2019
Celestial Reference Body	Earth

Orbital Plane 1:

Question	Response
Number of Satellites in Plane	1
Inclination Angle	25.0 degrees
Right Ascension of Ascending Node	157.64 degrees
Argument of Perigee	0.0 degrees
Orbital Period	28721.4 seconds
Apogee	20270.4 km
Perigee	20270.4 km
Active Service Arc Begin Angle with respect to Ascending Node	0.0 degrees
Active Service Arc End Angle with respect to Ascending Node	360.0 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	25.0 degrees
Right Ascension of Ascending Node	217.64 degrees
Argument of Perigee	0.0 degrees
Orbital Period	28721.4 seconds
Apogee	20270.4 km
Perigee	20270.4 km
Active Service Arc Begin Angle with respect to Ascending Node	0.0 degrees

Active Service Arc End Angle with respect to Ascending Node 360.0 degrees

Mean Anomaly For Each Satellite

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

Orbital Plane 3:

Question	Response
Number of Satellites in Plane	1
Inclination Angle	25.0 degrees
Right Ascension of Ascending Node	277.64 degrees
Argument of Perigee	0.0 degrees
Orbital Period	28721.4 seconds
Apogee	20270.4 km
Perigee	20270.4 km
Active Service Arc Begin Angle with respect to Ascending Node	0.0 degrees
Active Service Arc End Angle with respect to Ascending Node	360.0 degrees

Mean Anomaly For Each Satellite

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

Receiving Beams 1:

Question	Response
Beam ID	GRL1
Receive Beam Frequency	47200.0 MHz -50200.0 MHz
Beam Type	Steerable
Polarization	LHCP
Peak Gain	56.0 dBi
Antenna Pointing Error	0.1 degrees
Antenna Rotational Error	0.1 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	23.3 dB/K
Min. Saturation Flux Density	-83.4 dBW/m ²
Max. Saturation Flux Density	-77.4 dBW/m ²
Co- or Cross Polar Mode	C
Service Area Description	See file "Gateway Service Area.pdf".

Receiving Beams 2:

Question	Response
Beam ID	GRR1
Receive Beam Frequency	47200.0 MHz -50200.0 MHz
Beam Type	Steerable
Polarization	RHCP
Peak Gain	56.0 dBi
Antenna Pointing Error	0.1 degrees
Antenna Rotational Error	0.1 degrees

Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	23.3 dB/K
Min. Saturation Flux Density	-83.4 dBW/m2
Max. Saturation Flux Density	-77.4 dBW/m2
Co- or Cross Polar Mode	C
Service Area Description	See file "Gateway Service Area.pdf".

Receiving Beams 3:

Question	Response
Beam ID	GRL2
Receive Beam Frequency	50400.0 MHz -51400.0 MHz
Beam Type	Steerable
Polarization	LHCP
Peak Gain	56.0 dBi
Antenna Pointing Error	0.1 degrees
Antenna Rotational Error	0.1 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	23.3 dB/K
Min. Saturation Flux Density	-83.4 dBW/m2
Max. Saturation Flux Density	-77.4 dBW/m2
Co- or Cross Polar Mode	C
Service Area Description	See file "Gateway Service Area.pdf".

Receiving Beams 4:

Question	Response
Beam ID	GRR2
Receive Beam Frequency	50400.0 MHz -51400.0 MHz
Beam Type	Steerable
Polarization	RHCP
Peak Gain	56.0 dBi
Antenna Pointing Error	0.1 degrees
Antenna Rotational Error	0.1 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	23.3 dB/K
Min. Saturation Flux Density	-83.4 dBW/m ²
Max. Saturation Flux Density	-77.4 dBW/m ²
Co- or Cross Polar Mode	C
Service Area Description	See file "Gateway Service Area.pdf".

Receiving Beams 5:

Question	Response
Beam ID	ARL1
Receive Beam Frequency	32300.0 MHz -32800.0 MHz
Beam Type	Steerable
Polarization	LHCP
Peak Gain	43.5 dBi
Antenna Pointing Error	0.15 degrees
Antenna Rotational Error	0.1 degrees
Polarization Switchable	

Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	18.0 dB/K
Min. Saturation Flux Density	-101.3 dBW/m2
Max. Saturation Flux Density	-91.8 dBW/m2
Co- or Cross Polar Mode	C
Service Area Description	See file "Advanced Service Area.pdf".

Receiving Beams 6:

Question	Response
Beam ID	ARR1
Receive Beam Frequency	32300.0 MHz -32800.0 MHz
Beam Type	Steerable
Polarization	RHCP
Peak Gain	43.5 dBi
Antenna Pointing Error	0.15 degrees
Antenna Rotational Error	0.1 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	18.0 dB/K
Min. Saturation Flux Density	-101.3 dBW/m2
Max. Saturation Flux Density	-91.8 dBW/m2
Co- or Cross Polar Mode	C
Service Area Description	See file "Advanced Service Area.pdf".

Receiving Beams 7:

Question	Response
----------	----------

Beam ID	ARL2
Receive Beam Frequency	22550.0 MHz -22950.0 MHz
Beam Type	Steerable
Polarization	LHCP
Peak Gain	43.5 dBi
Antenna Pointing Error	0.15 degrees
Antenna Rotational Error	0.1 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	18.0 dB/K
Min. Saturation Flux Density	-101.3 dBW/m2
Max. Saturation Flux Density	-91.8 dBW/m2
Co- or Cross Polar Mode	C
Service Area Description	See file "Advanced Service Area.pdf".

**Receiving
Beams 8:**

Question	Response
Beam ID	ARR2
Receive Beam Frequency	22550.0 MHz -22950.0 MHz
Beam Type	Steerable
Polarization	RHCP
Peak Gain	43.5 dBi
Antenna Pointing Error	0.15 degrees
Antenna Rotational Error	0.1 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees

G/T at Max. Gain Point	18.0 dB/K
Min. Saturation Flux Density	-101.3 dBW/m2
Max. Saturation Flux Density	-91.8 dBW/m2
Co- or Cross Polar Mode	C
Service Area Description	See file "Advanced Service Area.pdf".

Receiving Beams 9:

Question	Response
Beam ID	ARL3
Receive Beam Frequency	24450.0 MHz -24750.0 MHz
Beam Type	Steerable
Polarization	LHCP
Peak Gain	43.5 dBi
Antenna Pointing Error	0.15 degrees
Antenna Rotational Error	0.1 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	18.0 dB/K
Min. Saturation Flux Density	-101.3 dBW/m2
Max. Saturation Flux Density	-91.8 dBW/m2
Co- or Cross Polar Mode	C
Service Area Description	See file "Advanced Service Area.pdf".

Receiving Beams 10:

Question	Response
Beam ID	ARR3

Receive Beam Frequency	24450.0 MHz -24750.0 MHz
Beam Type	Steerable
Polarization	RHCP
Peak Gain	43.5 dBi
Antenna Pointing Error	0.15 degrees
Antenna Rotational Error	0.1 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	18.0 dB/K
Min. Saturation Flux Density	-101.3 dBW/m2
Max. Saturation Flux Density	-91.8 dBW/m2
Co- or Cross Polar Mode	C
Service Area Description	See file "Advanced Service Area.pdf".

Receiving Beams 11:

Question	Response
Beam ID	BRL1
Receive Beam Frequency	22950.0 MHz -23550.0 MHz
Beam Type	Fixed
Polarization	LHCP
Peak Gain	36.2 dBi
Antenna Pointing Error	0.1 degrees
Antenna Rotational Error	0.1 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	10.0 dB/K

Min. Saturation Flux Density	-119.7 dBW/m ²
Max. Saturation Flux Density	-117.7 dBW/m ²
Co- or Cross Polar Mode	C
Service Area Description	See file "Base Service Area.pdf".

**Receiving
Beams 12:**

Question	Response
Beam ID	BRR1
Receive Beam Frequency	22950.0 MHz -23550.0 MHz
Beam Type	Fixed
Polarization	RHCP
Peak Gain	36.2 dBi
Antenna Pointing Error	0.1 degrees
Antenna Rotational Error	0.1 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	10.0 dB/K
Min. Saturation Flux Density	-119.7 dBW/m ²
Max. Saturation Flux Density	-117.7 dBW/m ²
Co- or Cross Polar Mode	C
Service Area Description	See file "Base Service Area.pdf".

**Receiving
Beams 13:**

Question	Response
Beam ID	BRL2
Receive Beam Frequency	32850.0 MHz -33000.0 MHz

Beam Type	Fixed
Polarization	LHCP
Peak Gain	36.2 dBi
Antenna Pointing Error	0.1 degrees
Antenna Rotational Error	0.1 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	10.0 dB/K
Min. Saturation Flux Density	-119.7 dBW/m2
Max. Saturation Flux Density	-117.7 dBW/m2
Co- or Cross Polar Mode	C
Service Area Description	See file "Base Service Area.pdf".

**Receiving
Beams 14:**

Question	Response
Beam ID	BRR2
Receive Beam Frequency	32850.0 MHz -33000.0 MHz
Beam Type	Fixed
Polarization	RHCP
Peak Gain	36.2 dBi
Antenna Pointing Error	0.1 degrees
Antenna Rotational Error	0.1 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	10.0 dB/K
Min. Saturation Flux Density	-119.7 dBW/m2

Max. Saturation Flux Density	-117.7 dBW/m2
Co- or Cross Polar Mode	C
Service Area Description	See file "Base Service Area.pdf".

**Receiving
Beams 15:**

Question	Response
Beam ID	RRL1
Receive Beam Frequency	65000.0 MHz -71000.0 MHz
Beam Type	Steerable
Polarization	LHCP
Peak Gain	63.6 dBi
Antenna Pointing Error	0.1 degrees
Antenna Rotational Error	0.1 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	31.3 dB/K
Min. Saturation Flux Density	-95.0 dBW/m2
Max. Saturation Flux Density	-94.7 dBW/m2
Co- or Cross Polar Mode	C
Service Area Description	See file "Relay-Relay Service Area.pdf".

**Receiving
Beams 16:**

Question	Response
Beam ID	RRR1
Receive Beam Frequency	65000.0 MHz -71000.0 MHz
Beam Type	Steerable

Polarization	RHCP
Peak Gain	63.6 dBi
Antenna Pointing Error	0.1 degrees
Antenna Rotational Error	0.1 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	31.3 dB/K
Min. Saturation Flux Density	-95.0 dBW/m2
Max. Saturation Flux Density	-94.7 dBW/m2
Co- or Cross Polar Mode	C
Service Area Description	See file "Relay-Relay Service Area.pdf".

**Receiving
Beams 17:**

Question	Response
Beam ID	RRL2
Receive Beam Frequency	54250.0 MHz -56900.0 MHz
Beam Type	Steerable
Polarization	LHCP
Peak Gain	63.6 dBi
Antenna Pointing Error	0.1 degrees
Antenna Rotational Error	0.1 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	31.3 dB/K
Min. Saturation Flux Density	-95.0 dBW/m2
Max. Saturation Flux Density	-94.7 dBW/m2

Co- or Cross Polar Mode	C
Service Area Description	See file "Relay-Relay Service Area.pdf".

Receiving Beams 18:

Question	Response
Beam ID	RRR2
Receive Beam Frequency	54250.0 MHz -56900.0 MHz
Beam Type	Steerable
Polarization	RHCP
Peak Gain	63.6 dBi
Antenna Pointing Error	0.1 degrees
Antenna Rotational Error	0.1 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	31.3 dB/K
Min. Saturation Flux Density	-95.0 dBW/m2
Max. Saturation Flux Density	-94.7 dBW/m2
Co- or Cross Polar Mode	C
Service Area Description	See file "Relay-Relay Service Area.pdf".

Receiving Beams 19:

Question	Response
Beam ID	RRL3
Receive Beam Frequency	57000.0 MHz -58200.0 MHz
Beam Type	Steerable
Polarization	LHCP

Peak Gain	63.6 dBi
Antenna Pointing Error	0.1 degrees
Antenna Rotational Error	0.1 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	31.3 dB/K
Min. Saturation Flux Density	-95.0 dBW/m2
Max. Saturation Flux Density	-94.7 dBW/m2
Co- or Cross Polar Mode	C
Service Area Description	See file "Relay-Relay Service Area.pdf".

**Receiving
Beams 20:**

Question	Response
Beam ID	RRR3
Receive Beam Frequency	57000.0 MHz -58200.0 MHz
Beam Type	Steerable
Polarization	RHCP
Peak Gain	63.6 dBi
Antenna Pointing Error	0.1 degrees
Antenna Rotational Error	0.1 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	31.3 dB/K
Min. Saturation Flux Density	-95.0 dBW/m2
Max. Saturation Flux Density	-94.7 dBW/m2
Co- or Cross Polar Mode	C

Service Area Description	See file "Relay-Relay Service Area.pdf".
--------------------------	--

Receiving Beams 21:

Question	Response
Beam ID	GRL0
Receive Beam Frequency	29500.0 MHz -30000.0 MHz
Beam Type	Steerable
Polarization	LHCP
Peak Gain	10.0 dBi
Antenna Pointing Error	0.1 degrees
Antenna Rotational Error	0.1 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	-19.0 dB/K
Min. Saturation Flux Density	-76.7 dBW/m ²
Max. Saturation Flux Density	-70.7 dBW/m ²
Co- or Cross Polar Mode	C
Service Area Description	See file "TT&C Service Area.pdf".

Receiving Beams 22:

Question	Response
Beam ID	GRR0
Receive Beam Frequency	29500.0 MHz -30000.0 MHz
Beam Type	Steerable
Polarization	RHCP
Peak Gain	10.0 dBi

Antenna Pointing Error	0.1 degrees
Antenna Rotational Error	0.1 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	-19.0 dB/K
Min. Saturation Flux Density	-76.7 dBW/m ²
Max. Saturation Flux Density	-70.7 dBW/m ²
Co- or Cross Polar Mode	C
Service Area Description	See file "TT&C Service Area.pdf".

Receiving Channels (98)

Channel ID	Channel Bandwidth (MHz)	Center Frequency s (MHz)	Feeder Link, Service Link or TT&C
GRR1	50.0	48225.0	TT&C
RRR5	1000.0	70000.0	Service Link
RRR0	100.0	65050.0	TT&C
BRR9	50.0	23425.0	Service Link
BRR8	50.0	23375.0	Service Link
GRR2	50.0	49725.0	TT&C
BRLA	50.0	23475.0	Service Link
ARL1	500.0	32550.0	Service Link
RRL2	50.0	70525.0	TT&C
BRR0	100.0	23000.0	TT&C
BRR5	50.0	23225.0	Service Link
BRLF	18.75	32915.625	Service Link
BRLG	18.75	32934.375	Service Link
ARL2	250.0	22675.0	Service Link
ARL3	150.0	22875.0	Service Link
RRRB	1000.0	56000.0	Service Link
RRR2	50.0	70525.0	TT&C
BRRG	18.75	32934.375	Service Link
BRRH	18.75	32953.125	Service Link
BRL9	50.0	23425.0	Service Link
BRL8	50.0	23375.0	Service Link
BRL7	50.0	23325.0	Service Link
BARR	50.0	23475.0	Service Link
GRL1	50.0	48225.0	TT&C

RRR1	5.0	66347.5	TT&C
BRL6	50.0	23275.0	Service Link
BRL5	50.0	23225.0	Service Link
GRL4	450.0	48475.0	Feeder Link
GRL3	1000.0	47700.0	Feeder Link
BRL4	50.0	23175.0	Service Link
GRL7	500.0	50650.0	Feeder Link
GRL6	450.0	49975.0	Feeder Link
BRR1	18.75	32971.875	Service Link
GRR8	500.0	51150.0	Feeder Link
GRL5	1000.0	49200.0	Feeder Link
RRR3	1245.0	65722.5	Service Link
GRR6	450.0	49975.0	Feeder Link
RRL6	450.0	70775.0	Service Link
RRL4	1000.0	66850.0	Service Link
RRL3	1245.0	65722.5	Service Link
BRRJ	18.75	32990.625	Service Link
BRLB	150.0	32925.0	Service Link
RRLA	1245.0	54872.5	Service Link
RRL9	5.0	55497.5	TT&C
RRL8	400.0	56700.0	TT&C
GRL2	50.0	49725.0	TT&C
BRLD	18.75	32878.125	Service Link
BRLC	18.75	32859.375	Service Link
GRR5	1000.0	49200.0	Feeder Link
RRL5	1000.0	70000.0	Service Link

BRL0	100.0	23000.0	TT&C
BRR7	50.0	23325.0	Service Link
BRR6	50.0	23275.0	Service Link
ARR5	50.0	24725.0	Service Link
ARR4	250.0	24575.0	Service Link
ARR3	150.0	22875.0	Service Link
ARR2	250.0	22675.0	Service Link
GRL0	500.0	29750.0	TT&C
RRRE	450.0	57975.0	Service Link
GRR0	500.0	29750.0	TT&C
RRRD	500.0	57250.0	Service Link
RRRC	250.0	57625.0	TT&C
BRL1	500.0	23300.0	Service Link
BRR1	500.0	23300.0	Service Link
BRRE	18.75	32896.875	Service Link
BRRF	18.75	32915.625	Service Link
BRR4	50.0	23175.0	Service Link
BRLJ	18.75	32990.625	Service Link
BRL3	50.0	23125.0	Service Link
BRL2	50.0	23075.0	Service Link
RRL0	100.0	65050.0	TT&C
ARL4	250.0	24575.0	Service Link
RRL7	2150.0	68425.0	Service Link
GRR7	500.0	50650.0	Feeder Link
RRL1	5.0	66347.5	TT&C
BRLE	18.75	32896.875	Service Link

BRLH	18.75	32953.125	Service Link
BRLI	18.75	32971.875	Service Link
GRR3	1000.0	47700.0	Feeder Link
GRL8	500.0	51150.0	Feeder Link
BRRB	150.0	32925.0	Service Link
BRRC	18.75	32859.375	Service Link
BRR3	50.0	23125.0	Service Link
BRR2	50.0	23075.0	Service Link
GRR4	450.0	48475.0	Feeder Link
BRRD	18.75	32878.125	Service Link
RRLE	450.0	57975.0	Service Link
RRLD	500.0	57250.0	Service Link
ARR1	500.0	32550.0	Service Link
ARL5	50.0	24725.0	Service Link
RRR7	2150.0	68425.0	Service Link
RRR6	450.0	70775.0	Service Link
RRLC	250.0	57625.0	TT&C
RRRA	1245.0	54872.5	Service Link
RRR9	5.0	55497.5	TT&C
RRR8	400.0	56700.0	TT&C
RRLB	1000.0	56000.0	Service Link
RRR4	1000.0	66850.0	Service Link

Transmitting Beams 1:

Question	Response
Beam ID	ATL3
Transmit Beam Frequency	24450.0 MHz -24750.0 MHz
Beam Type	Steerable
Polarization	LHCP
Peak Gain	43.5 dBi
Antenna Pointing Error	0.15 degrees
Antenna Rotational Error	0.1 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-32.9 dBW/Hz
Max. Transmit EIRP	54.1 dBW
Co- or Cross Polar Mode	C
Service Area Description	See file "Advanced Service Area.pdf".

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	-128.3	-128.1	-127.9	-127.6	-127.4	-125.8

Transmitting Beams 2:

Question	Response
Beam ID	ATR3
Transmit Beam Frequency	24450.0 MHz -24750.0 MHz

Beam Type	Steerable
Polarization	RHCP
Peak Gain	43.5 dBi
Antenna Pointing Error	0.15 degrees
Antenna Rotational Error	0.1 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-32.9 dBW/Hz
Max. Transmit EIRP	54.1 dBW
Co- or Cross Polar Mode	C
Service Area Description	See file "Advanced Service Area.pdf".

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	-128.3	-128.1	-127.1	-127.6	-127.4	-127.8

Transmitting Beams 3:

Question	Response
Beam ID	RTL3
Transmit Beam Frequency	57000.0 MHz -58200.0 MHz
Beam Type	Steerable
Polarization	LHCP
Peak Gain	59.0 dBi
Antenna Pointing Error	0.1 degrees

Antenna Rotational Error	0.1 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-24.9 dBW/Hz
Max. Transmit EIRP	66.9 dBW
Co- or Cross Polar Mode	C
Service Area Description	See file "Relay-Relay Service Area.pdf".

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	-165.2	-165.2	-165.2	-165.3	-165.4	-165.7

Transmitting Beams 4:

Question	Response
Beam ID	RTR3
Transmit Beam Frequency	57000.0 MHz -58200.0 MHz
Beam Type	Steerable
Polarization	LHCP
Peak Gain	59.0 dBi
Antenna Pointing Error	0.1 degrees
Antenna Rotational Error	0.1 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-24.9 dBW/Hz

Max. Transmit EIRP	66.9 dBW
Co- or Cross Polar Mode	C
Service Area Description	See file "Relay-Relay Service Area.pdf".

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	-165.2	-165.2	-165.2	-165.3	-165.4	-165.7

Transmitting Beams 5:

Question	Response
Beam ID	ATR1
Transmit Beam Frequency	32300.0 MHz -32800.0 MHz
Beam Type	Steerable
Polarization	RHCP
Peak Gain	43.5 dBi
Antenna Pointing Error	0.15 degrees
Antenna Rotational Error	0.1 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-32.9 dBW/Hz
Max. Transmit EIRP	54.1 dBW
Co- or Cross Polar Mode	C
Service Area Description	See file "Advanced Service Area.pdf".

1.0	-128.3	-128.1	-127.9	-127.6	-127.4	-125.8
MHz						

Transmitting Beams 7:

Question	Response
Beam ID	ATR2
Transmit Beam Frequency	22550.0 MHz -22950.0 MHz
Beam Type	Steerable
Polarization	RHCP
Peak Gain	43.5 dBi
Antenna Pointing Error	0.15 degrees
Antenna Rotational Error	0.1 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-32.9 dBW/Hz
Max. Transmit EIRP	54.1 dBW
Co- or Cross Polar Mode	C
Service Area Description	See file "Advanced Service Area.pdf".

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	-127.1	-126.8	-126.6	-126.4	-126.1	-124.5
MHz						

Transmitting Beams 8:

Question	Response
----------	----------

Beam ID	ATL1
Transmit Beam Frequency	32300.0 MHz -32800.0 MHz
Beam Type	Steerable
Polarization	LHCP
Peak Gain	43.5 dBi
Antenna Pointing Error	0.15 degrees
Antenna Rotational Error	0.1 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-32.9 dBW/Hz
Max. Transmit EIRP	54.1 dBW
Co- or Cross Polar Mode	C
Service Area Description	See file "Advanced Service Area.pdf".

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	-128.3	-128.1	-127.9	-127.6	-127.4	-125.8

Transmitting Beams 9:

Question	Response
Beam ID	BTL1
Transmit Beam Frequency	22950.0 MHz -23550.0 MHz
Beam Type	Fixed
Polarization	LHCP

Peak Gain	38.7 dBi
Antenna Pointing Error	0.1 degrees
Antenna Rotational Error	0.1 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-22.5 dBW/Hz
Max. Transmit EIRP	51.2 dBW
Co- or Cross Polar Mode	C
Service Area Description	See file "Base Service Area.pdf".

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	-121.9	-121.7	-121.4	-121.2	-121.0	-119.3

Transmitting Beams 10:

Question	Response
Beam ID	BTR1
Transmit Beam Frequency	22950.0 MHz -23550.0 MHz
Beam Type	Fixed
Polarization	RHCP
Peak Gain	38.7 dBi
Antenna Pointing Error	0.1 degrees
Antenna Rotational Error	0.1 degrees
Polarization Switchable	

Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-22.5 dBW/Hz
Max. Transmit EIRP	51.2 dBW
Co- or Cross Polar Mode	C
Service Area Description	See file "Base Service Area.pdf".

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	-121.9	-121.7	-121.4	-121.2	-121.0	-119.3

Transmitting Beams 11:

Question	Response
Beam ID	BTR2
Transmit Beam Frequency	32850.0 MHz -33000.0 MHz
Beam Type	Fixed
Polarization	RHCP
Peak Gain	38.7 dBi
Antenna Pointing Error	0.1 degrees
Antenna Rotational Error	0.1 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-22.5 dBW/Hz
Max. Transmit EIRP	51.2 dBW
Co- or Cross Polar Mode	C

Service Area Description

See file "Base Service Area.pdf".

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	-121.9	-121.7	-121.4	-121.2	-121.0	-119.3
MHz						

Transmitting Beams 12:

Question	Response
Beam ID	BTL2
Transmit Beam Frequency	32850.0 MHz -33000.0 MHz
Beam Type	Fixed
Polarization	LHCP
Peak Gain	38.7 dBi
Antenna Pointing Error	0.1 degrees
Antenna Rotational Error	0.1 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-22.5 dBW/Hz
Max. Transmit EIRP	51.2 dBW
Co- or Cross Polar Mode	C
Service Area Description	See file "Base Service Area.pdf".

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	-121.9	-121.7	-121.4	-121.2	-121.0	-119.3

Transmitting Beams 13:

Question	Response
Beam ID	GTL1
Transmit Beam Frequency	37500.0 MHz -42000.0 MHz
Beam Type	Steerable
Polarization	LHCP
Peak Gain	55.2 dBi
Antenna Pointing Error	0.1 degrees
Antenna Rotational Error	0.1 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-30.9 dBW/Hz
Max. Transmit EIRP	65.6 dBW
Co- or Cross Polar Mode	C
Service Area Description	See file "Gateway Service Area.pdf".

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	-129.3	-129.0	-128.8	-128.5	-128.3	-126.7

Transmitting Beams 14:

Question	Response
Beam ID	GTR1
Transmit Beam Frequency	37500.0 MHz -42000.0 MHz
Beam Type	Steerable
Polarization	RHCP
Peak Gain	55.2 dBi
Antenna Pointing Error	0.1 degrees
Antenna Rotational Error	0.1 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-30.9 dBW/Hz
Max. Transmit EIRP	65.6 dBW
Co- or Cross Polar Mode	C
Service Area Description	See file "Gateway Service Area.pdf".

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	-129.3	-129.0	-128.8	-128.5	-128.3	-126.7

Transmitting Beams 15:

Question	Response
Beam ID	RTL1
Transmit Beam Frequency	65000.0 MHz -71000.0 MHz

Beam Type	Steerable
Polarization	LHCP
Peak Gain	59.0 dBi
Antenna Pointing Error	0.1 degrees
Antenna Rotational Error	0.1 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-24.9 dBW/Hz
Max. Transmit EIRP	66.9 dBW
Co- or Cross Polar Mode	C
Service Area Description	See file "Relay-Relay Service Area.pdf".

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	-161.8	-161.7	-161.7	-161.8	-162.0	-162.3

Transmitting Beams 16:

Question	Response
Beam ID	RTL2
Transmit Beam Frequency	54250.0 MHz -56900.0 MHz
Beam Type	Steerable
Polarization	LHCP
Peak Gain	59.0 dBi
Antenna Pointing Error	0.1 degrees

Antenna Rotational Error	0.1 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-24.9 dBW/Hz
Max. Transmit EIRP	66.9 dBW
Co- or Cross Polar Mode	C
Service Area Description	See file "Relay-Relay Service Area.pdf".

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	-161.8	-161.7	-161.7	-161.8	-162.0	-162.3

Transmitting Beams 17:

Question	Response
Beam ID	RTR1
Transmit Beam Frequency	65000.0 MHz -71000.0 MHz
Beam Type	Steerable
Polarization	RHCP
Peak Gain	59.0 dBi
Antenna Pointing Error	0.1 degrees
Antenna Rotational Error	0.1 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-24.9 dBW/Hz

Max. Transmit EIRP	66.9 dBW
Co- or Cross Polar Mode	C
Service Area Description	See file "Relay-Relay Service Area.pdf".

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	-165.2	-165.2	-165.2	-165.3	-165.4	-165.7

Transmitting Beams 18:

Question	Response
Beam ID	RTR2
Transmit Beam Frequency	54250.0 MHz -56900.0 MHz
Beam Type	Steerable
Polarization	RHCP
Peak Gain	59.0 dBi
Antenna Pointing Error	0.1 degrees
Antenna Rotational Error	0.1 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-24.9 dBW/Hz
Max. Transmit EIRP	66.9 dBW
Co- or Cross Polar Mode	C
Service Area Description	See file "Relay-Relay Service Area.pdf".

1.0	-69.9	-69.7	-69.4	-69.2	-69.0	-67.4
MHz						

Transmitting Beams 20:

Question	Response
Beam ID	GTR0
Transmit Beam Frequency	19700.0 MHz -20200.0 MHz
Beam Type	Steerable
Polarization	RHCP
Peak Gain	10.0 dBi
Antenna Pointing Error	0.1 degrees
Antenna Rotational Error	0.1 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-67.5 dBW/Hz
Max. Transmit EIRP	19.5 dBW
Co- or Cross Polar Mode	C
Service Area Description	See file "TT&C Service Area.pdf".

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	-69.9	-69.7	-69.4	-69.2	-69.0	-67.4
MHz						

Transmitting Channels (94)

Channel ID	Channel Bandwidth (MHz)	Center Frequency s (MHz)	Feeder Link, Service Link or TT&C
BTL1	500.0	23300.0	Service Link
RTR0	100.0	65050.0	TT&C
ATR2	250.0	22675.0	Service Link
GTR1	5.0	38747.5	TT&C
RTR2	50.0	70525.0	TT&C
RTR1	5.0	66347.5	TT&C
BTR2	50.0	23075.0	Service Link
BTL6	50.0	23275.0	Service Link
RTL0	100.0	65050.0	TT&C
RTRA	1245.0	54872.5	Service Link
BTLA	50.0	23475.0	Service Link
RTR4	1000.0	66850.0	Service Link
RTL7	2150.0	68425.0	Service Link
RTL6	450.0	70775.0	Service Link
RTRD	500.0	57250.0	Service Link
RTRC	250.0	57625.0	TT&C
BTL9	50.0	23425.0	Service Link
BTL8	50.0	23375.0	Service Link
BTL7	50.0	23325.0	Service Link
RTLA	1245.0	54872.5	Service Link
RTL1	5.0	66347.5	TT&C
GTL1	5.0	38747.5	TT&C
BTRG	18.75	32934.375	Service Link
BTRF	18.75	32915.625	Service Link

RTL5	1000.0	70000.0	Service Link
BTLB	150.0	32925.0	Service Link
BTLD	18.75	32878.125	Service Link
GTL2	5.0	40997.5	TT&C
GTL3	1245.0	38122.5	Feeder Link
RTLC	250.0	57625.0	TT&C
RTL9	5.0	55497.5	TT&C
BTRE	18.75	32896.875	Service Link
BTLC	18.75	32859.375	Service Link
BTL5	50.0	23225.0	Service Link
BTL4	50.0	23175.0	Service Link
BTL3	50.0	23125.0	Service Link
RTL2	50.0	70525.0	TT&C
BTLI	18.75	32971.875	Service Link
BTLH	18.75	32953.125	Service Link
RTLB	1000.0	56000.0	Service Link
ATR1	500.0	32550.0	Service Link
ATL2	250.0	22675.0	Service Link
ATR3	150.0	22875.0	Service Link
ATL4	250.0	24575.0	Service Link
ATL5	50.0	24725.0	Service Link
ATR4	250.0	24575.0	Service Link
GTR2	5.0	40997.5	TT&C
GTR3	1245.0	38122.5	Feeder Link
GTR4	1000.0	39250.0	Feeder Link
GTR5	1245.0	40372.5	Feeder Link

BTRA	50.0	23475.0	Service Link
ATL3	150.0	22875.0	Service Link
BTR9	50.0	23425.0	Service Link
BTR8	50.0	23375.0	Service Link
RTL8	400.0	56700.0	TT&C
GTL4	1000.0	39250.0	Feeder Link
GTL5	1245.0	40372.5	Feeder Link
BTR0	100.0	23000.0	TT&C
GTR6	1000.0	41500.0	Feeder Link
ATL1	500.0	32550.0	Service Link
RTLE	450.0	57975.0	Service Link
RTLD	500.0	57250.0	Service Link
BTRD	18.75	32878.125	Service Link
BTRC	18.75	32859.375	Service Link
BTRB	150.0	32925.0	Service Link
BTLJ	18.75	32990.625	Service Link
GTL6	1000.0	41500.0	Feeder Link
RTRB	1000.0	56000.0	Service Link
BTRI	18.75	32971.875	Service Link
BTRH	18.75	32953.125	Service Link
ATR5	50.0	24725.0	Service Link
BTR7	50.0	23325.0	Service Link
BTR6	50.0	23275.0	Service Link
BTR5	50.0	23225.0	Service Link
BTR4	50.0	23175.0	Service Link
RTR9	5.0	55497.5	TT&C

RTR5	1000.0	70000.0	Service Link
RTL4	1000.0	66850.0	Service Link
RTL3	1245.0	65722.5	Service Link
BTRJ	18.75	32990.625	Service Link
BTR1	500.0	23300.0	Service Link
BTL2	50.0	23075.0	Service Link
RTR3	1245.0	65722.5	Service Link
GTLO	500.0	19950.0	TT&C
RTRE	450.0	57975.0	Service Link
BTL0	100.0	23000.0	TT&C
RTR8	400.0	56700.0	TT&C
GTR0	500.0	19950.0	TT&C
BTR3	50.0	23125.0	Service Link
RTR7	2150.0	68425.0	Service Link
RTR6	450.0	70775.0	Service Link
BTLG	18.75	32934.375	Service Link
BTLF	18.75	32915.625	Service Link
BTLE	18.75	32896.875	Service Link

Certification Questions

Question	Response
<p>Are the applicable service area coverage requirements of 25.143(b)(2) (ii) and (iii), or 25.144(a)(3)(i), or 25.145 (c)(1) and (2), or 25.146(i)(1) and (2), or 25.148(c), or 25.225 met?</p>	<p>N/A</p>
<p>Are the applicable frequency tolerances of 25.202(e) and out-of-band emission limits of 25.202(f)(1),(2), and (3) met?</p>	<p>Yes</p>
<p>Are the cessation of emissions requirements of 25.207 met?</p>	<p>Yes</p>
<p>Are the applicable power-flux-density limits of 25.208 met, and is the appropriate technical showing provided within the application?</p>	
<p>For NGSO applications, are the applicable equivalent-power-flux-density limits of 25.208 met, and is the appropriate technical showing provided within the application?</p>	<p>No</p>
<p>Are the applicable full-frequency-reuse requirements of 25.210 met?</p>	<p>Yes</p>
<p>If the application is for a 17/24 GHz BSS space station, will it be operated at an offset location with full power and interference protection in accordance with 25.262(b)?</p>	

Attachments

File Name	Beam	Field	Attachment Type	Description
ATL3.pdf	ATL3	NGSO Antenna Gain Data	PDF file (*.pdf)	
ARR1.pdf	ARR1	NGSO Antenna Gain Data	PDF file (*.pdf)	
RTL3.pdf	RTL3	NGSO Antenna Gain Data	PDF file (*.pdf)	
ATR3.pdf	ATR3	NGSO Antenna Gain Data	PDF file (*.pdf)	
BRR1.pdf	BRR1	NGSO Antenna Gain Data	PDF file (*.pdf)	
GRR1.pdf	GRR1	NGSO Antenna Gain Data	PDF file (*.pdf)	
GRR2.pdf	GRR2	NGSO Antenna Gain Data	PDF file (*.pdf)	
RRL2.pdf	RRL2	NGSO Antenna Gain Data	PDF file (*.pdf)	
RRL3.pdf	RRL3	NGSO Antenna Gain Data	PDF file (*.pdf)	

RTL2.pdf	RTL2	NGSO Antenna Gain Data	PDF file (*.pdf)
ARL2.pdf	ARL2	NGSO Antenna Gain Data	PDF file (*.pdf)
ARL3.pdf	ARL3	NGSO Antenna Gain Data	PDF file (*.pdf)
RTR1.pdf	RTR1	NGSO Antenna Gain Data	PDF file (*.pdf)
ARR2.pdf	ARR2	NGSO Antenna Gain Data	PDF file (*.pdf)
ARR3.pdf	ARR3	NGSO Antenna Gain Data	PDF file (*.pdf)
BRL2.pdf	BRL2	NGSO Antenna Gain Data	PDF file (*.pdf)
GRL1.pdf	GRL1	NGSO Antenna Gain Data	PDF file (*.pdf)
BRR2.pdf	BRR2	NGSO Antenna Gain Data	PDF file (*.pdf)
ARL1.pdf	ARL1	NGSO Antenna Gain Data	PDF file (*.pdf)

GRL2.pdf	GRL2	NGSO Antenna Gain Data	PDF file (*.pdf)
RRL1.pdf	RRL1	NGSO Antenna Gain Data	PDF file (*.pdf)
RRR1.pdf	RRR1	NGSO Antenna Gain Data	PDF file (*.pdf)
RRR2.pdf	RRR2	NGSO Antenna Gain Data	PDF file (*.pdf)
RRR3.pdf	RRR3	NGSO Antenna Gain Data	PDF file (*.pdf)
BRL1.pdf	BRL1	NGSO Antenna Gain Data	PDF file (*.pdf)
ATR1.pdf	ATR1	NGSO Antenna Gain Data	PDF file (*.pdf)
GTR1.pdf	GTR1	NGSO Antenna Gain Data	PDF file (*.pdf)
RTR3.pdf	RTR3	NGSO Antenna Gain Data	PDF file (*.pdf)
GRR0.pdf	GRR0	NGSO Antenna Gain Data	PDF file (*.pdf)

RTR2.pdf	RTR2	NGSO Antenna Gain Data	PDF file (*.pdf)
GRL0.pdf	GRL0	NGSO Antenna Gain Data	PDF file (*.pdf)
ATL1.pdf	ATL1	NGSO Antenna Gain Data	PDF file (*.pdf)
RTL1.pdf	RTL1	NGSO Antenna Gain Data	PDF file (*.pdf)
GTL1.pdf	GTL1	NGSO Antenna Gain Data	PDF file (*.pdf)
ATL2.pdf	ATL2	NGSO Antenna Gain Data	PDF file (*.pdf)
ATR2.pdf	ATR2	NGSO Antenna Gain Data	PDF file (*.pdf)
BTL1.pdf	BTL1	NGSO Antenna Gain Data	PDF file (*.pdf)
BTL2.pdf	BTL2	NGSO Antenna Gain Data	PDF file (*.pdf)
BTR1.pdf	BTR1	NGSO Antenna Gain Data	PDF file (*.pdf)

BTR2.pdf	BTR2	NGSO Antenna Gain Data	PDF file (*.pdf)	
GTL0.pdf	GTL0	NGSO Antenna Gain Data	PDF file (*.pdf)	
GTR0.pdf	GTR0	NGSO Antenna Gain Data	PDF file (*.pdf)	
TT&C Service Area.pdf		Service Area Diagram	PDF file (*.pdf)	Each TT&C Link, specified by beam name starting with "G," has a small contour on the ground nearby San Francisco and Singapore.
Relay- Relay Service Area.pdf		Service Area Diagram	PDF file (*.pdf)	Each Crosslink, specified by beam name starting with "R," has an intersatellite service area connecting from one relay to another. There are three separate crosslink beams in all.
Gateway Service Area.pdf		Service Area Diagram	PDF file (*.pdf)	Each Ground Link, specified by beam name starting with "G," has a small contour on the ground nearby San Francisco and Singapore.
Base Service Area.pdf		Service Area Diagram	PDF file (*.pdf)	Each Base link, specified by beam name starting with "B," has an intersatellite service area covering the Earth disk and up to 1,500 km in altitude.
Advanced Service Area.pdf		Service Area Diagram	PDF file (*.pdf)	Each Advanced link, specified by beam name starting with "A," has an intersatellite service area covering the Earth disk and up to 10,000 km in altitude.

