



312 File Number: **SATMPL2021060300073**

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## Filing Description

Question	Response
Description	Modification to Amazonas-2

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**Satellite  
Information**

Question	Response
Select Orbit Type	GSO
Space Station or Satellite Network Name	AMAZONAS-2
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 (3)

Nature of service	Description	Frequency Band(s)	Mode Type
<b>Fixed-Satellite Service</b>		11200.0 MHz -11450.0 MHz	Transmit
<b>Fixed-Satellite Service</b>		10700.0 MHz -10950.0 MHz	Transmit
<b>Fixed-Satellite Service</b>		12750.0 MHz -13250.0 MHz	Receive

## Orbital Information For Geostationary Satellites

Section	Question	Response
<b>Orbital Longitude Information</b>	Orbital Longitude	61.0 degrees
	Hemisphere of Orbital Longitude	W
<b>Longitudinal Tolerance or East /West Station-Keeping</b>	Toward West	0.05 degrees
	Toward East	0.05 degrees
<b>Inclination Excursion or North /South Station-Keeping Tolerance</b>	Inclination Excursion or North /South Station-Keeping Tolerance	0.07 degrees
<b>Antenna Axis Attitude Accuracy</b>	Roll	0.02 degrees
	Pitch	0.02 degrees
	Yaw	0.05 degrees

## Receiving Beams 1:

Question	Response
Beam ID	KURV
Receive Beam Frequency	12750.0 MHz -13000.0 MHz
Beam Type	Fixed
Polarization	V
Peak Gain	33.0 dBi
Antenna Pointing Error	0.05 degrees
Antenna Rotational Error	0.05 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	90.0 degrees
G/T at Max. Gain Point	6.7 dB/K
Min. Saturation Flux Density	-98.7 dBW/m2
Max. Saturation Flux Density	-80.7 dBW/m2
Co- or Cross Polar Mode	C
Service Area Description	Conus and Puerto Rico

## Receiving Beams 2:

Question	Response
Beam ID	KURH
Receive Beam Frequency	12750.0 MHz -13250.0 MHz
Beam Type	Fixed
Polarization	H
Peak Gain	33.0 dBi
Antenna Pointing Error	0.05 degrees
Antenna Rotational Error	0.05 degrees

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Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	0.0 degrees
G/T at Max. Gain Point	6.7 dB/K
Min. Saturation Flux Density	-98.7 dBW/m <sup>2</sup>
Max. Saturation Flux Density	-80.7 dBW/m <sup>2</sup>
Co- or Cross Polar Mode	C
Service Area Description	Conus and Puerto Rico

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**Receiving  
Channels (12)**

<b>Channel ID</b>	<b>Channel Bandwidth (MHz)</b>	<b>Center Frequency s (MHz)</b>	<b>Feeder Link, Service Link or TT&amp;C</b>
11	36.0	13182.0	Service Link
10	36.0	13142.0	Service Link
12	36.0	13222.0	Service Link
6	36.0	12978.0	Service Link
3	36.0	12858.0	Service Link
1	36.0	12778.0	Service Link
5	36.0	12938.0	Service Link
4	36.0	12898.0	Service Link
7	36.0	13022.0	Service Link
8	36.0	13062.0	Service Link
9	36.0	13102.0	Service Link
2	36.0	12818.0	Service Link

## Transmitting Beams 1:

Question	Response
Beam ID	KUTH
Transmit Beam Frequency	10700.0 MHz -10950.0 MHz
Beam Type	Fixed
Polarization	H
Peak Gain	34.3 dBi
Antenna Pointing Error	0.05 degrees
Antenna Rotational Error	0.05 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	0.0 degrees
Max. Transmit EIRP Density	-19.5 dBW/Hz
Max. Transmit EIRP	52.0 dBW
Co- or Cross Polar Mode	C
Service Area Description	Conus and Puerto Rico

## Max. Power Flux Density

	* 0° - 5°	* 5° - 10°	* 10° - 15°	* 15° - 20°	* 20° - 25°	* 25° - 90°
*	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>
BW:	/BW):	/BW):	/BW):	/BW):	/BW):	/BW):
<b>1.0 MHz</b>	-126.5	-126.5	-124.0	-121.6	-121.6	-121.6

## Transmitting Beams 2:

Question	Response
Beam ID	KUTv
Transmit Beam Frequency	10700.0 MHz -10950.0 MHz



Beam Type	Fixed
Polarization	V
Peak Gain	34.3 dBi
Antenna Pointing Error	0.05 degrees
Antenna Rotational Error	0.05 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	90.0 degrees
Max. Transmit EIRP Density	-19.5 dBW/Hz
Max. Transmit EIRP	52.0 dBW
Co- or Cross Polar Mode	C
Service Area Description	Conus and Puerto Rico

### Max. Power Flux Density

	* 0° - 5°	* 5° - 10°	* 10° - 15°	* 15° - 20°	* 20° - 25°	* 25° - 90°
*	(dBW/m <sup>2</sup> )	(dBW/m <sup>2</sup> )	(dBW/m <sup>2</sup> )	(dBW/m <sup>2</sup> )	(dBW/m <sup>2</sup> )	(dBW/m <sup>2</sup> )
BW:	/BW):	/BW):	/BW):	/BW):	/BW):	/BW):
<b>1.0 MHz</b>	-126.5	-126.5	-124.0	-121.6	-121.6	-121.6

### Transmitting Beams 3:

Question	Response
Beam ID	KUT
Transmit Beam Frequency	11200.0 MHz -11450.0 MHz
Beam Type	Fixed
Polarization	V
Peak Gain	34.3 dBi
Antenna Pointing Error	0.05 degrees

Antenna Rotational Error	0.05 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	90.0 degrees
Max. Transmit EIRP Density	-19.5 dBW/Hz
Max. Transmit EIRP	52.0 dBW
Co- or Cross Polar Mode	C
Service Area Description	Conus and Puerto Rico

### Max. Power Flux Density

	* 0° - 5°	* 5° - 10°	* 10° - 15°	* 15° - 20°	* 20° - 25°	* 25° - 90°
	(dBW/m <sup>2</sup> )	(dBW/m <sup>2</sup> )	(dBW/m <sup>2</sup> )	(dBW/m <sup>2</sup> )	(dBW/m <sup>2</sup> )	(dBW/m <sup>2</sup> )
* BW:	/BW):	/BW):	/BW):	/BW):	/BW):	/BW):
<b>1.0 MHz</b>	-126.5	-126.5	-124.0	-121.6	-121.6	-121.6

## Transmitting Channels (12)

Channel ID	Channel Bandwidth (MHz)	Center Frequency s (MHz)	Feeder Link, Service Link or TT&C
12	36.0	11422.0	Service Link
1	36.0	10728.0	Service Link
10	36.0	11342.0	Service Link
11	36.0	11382.0	Service Link
2	36.0	10768.0	Service Link
3	36.0	10808.0	Service Link
4	36.0	10848.0	Service Link
5	36.0	10888.0	Service Link
6	36.0	10928.0	Service Link
7	36.0	11222.0	Service Link
8	36.0	11262.0	Service Link
9	36.0	11302.0	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?	N/A
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?	
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?	No
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
<a href="#"><u>KURV.GXT</u></a>	KURV	GSO Antenna Gain Contour Data	GXT file (*.gxt)	
<a href="#"><u>KURH.GXT</u></a>	KURH	GSO Antenna Gain Contour Data	GXT file (*.gxt)	
<a href="#"><u>KUTH.GXT</u></a>	KUTH	GSO Antenna Gain Contour Data	GXT file (*.gxt)	
<a href="#"><u>KUTV.GXT</u></a>	KUTv	GSO Antenna Gain Contour Data	GXT file (*.gxt)	
<a href="#"><u>KUT.GXT</u></a>	KUT	GSO Antenna Gain Contour Data	GXT file (*.gxt)	