



312 File Number: **SATMOD2017092100134**

Filing Description

Question	Response
Description	T11 MOD to address TCR1 anomaly

**Satellite
Information**

Question	Response
Select Orbit Type	GSO
Space Station or Satellite Network Name	T11
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 (2)

Nature of service	Description	Frequency Band (s)	Mode Type
Direct-to-Home in the Fixed-Satellite Service		29500.0 MHz -30000.0 MHz	Receive
Direct-to-Home in the Fixed-Satellite Service		18300.0 MHz -18800.0 MHz	Transmit

Orbital Information For Geostationary Satellites

Section	Question	Response
Orbital Longitude Information	Orbital Longitude	99.0 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
Antenna Axis Attitude Accuracy	Roll	0.1 degrees
	Pitch	0.1 degrees
	Yaw	0.1 degrees

Receiving Beams 1:

Question	Response
Beam ID	Pipe
Receive Beam Frequency	29500.0 MHz -30000.0 MHz
Beam Type	Fixed
Polarization	LHCP
Peak Gain	6.9 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	-32.6 dB/K
Min. Saturation Flux Density	-95.0 dBW/m ²
Max. Saturation Flux Density	-75.0 dBW/m ²
Co- or Cross Polar Mode	C
Service Area Description	Note that the modified command frequency will be received through the wide angle pipe antennas on the spacecraft. A description of these antennas was included with the narrative that accompanied the original license application.

Receiving Channels (3)

Channel ID	Channel Bandwidth (MHz)	Center Frequency s (MHz)	Feeder Link, Service Link or TT&C
C2U	2.5	29570.4	TT&C
C2	2.5	29562.9	TT&C
C2A	5.0	29566.65	TT&C

1.0	-126.0	-126.0	-126.0	-128.0	-127.0	-127.0
MHz						

Transmitting Channels (1)

Channel ID	Channel Bandwidth (MHz)	Center Frequency s (MHz)	Feeder Link, Service Link or TT&C
TLM1	0.106	18300.25	TT&C

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)?	

Attachments

Information not provided.