



312 File Number: **SATMPL2017060600083**

Filing Description

Question	Response
Description	SES-14 GOLD payload

Satellite Information

Question	Response
Select Orbit Type	GSO
Space Station or Satellite Network Name	SES-14
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
Fixed-Satellite Service		11670.0 MHz -11680.0 MHz	Transmit
Fixed-Satellite Service		14001.4 MHz -14002.6 MHz	Receive

Orbital Information For Geostationary Satellites

Section	Question	Response
Orbital Longitude Information	Orbital Longitude	48.0 degrees
	Hemisphere of Orbital Longitude	W
Longitudinal Tolerance or East /West Station-Keeping	Toward West	0.1 degrees
	Toward East	0.1 degrees
Inclination Excursion or North /South Station-Keeping Tolerance	Inclination Excursion or North /South Station-Keeping Tolerance	0.1 degrees
Antenna Axis Attitude Accuracy	Roll	0.07 degrees
	Pitch	0.07 degrees
	Yaw	0.08 degrees

Receiving Beams 1:

Question	Response
Beam ID	TCOL
Receive Beam Frequency	14001.4 MHz -14002.6 MHz
Beam Type	Fixed
Polarization	LHCP
Peak Gain	dBi
Antenna Pointing Error	0.07 degrees
Antenna Rotational Error	0.08 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	-25.0 dB/K
Min. Saturation Flux Density	-80.0 dBW/m ²
Max. Saturation Flux Density	-60.0 dBW/m ²
Co- or Cross Polar Mode	C
Service Area Description	Visible Earth

**Receiving
Channels (1)**

Channel ID	Channel Bandwidth (MHz)	Center Frequency s (MHz)	Feeder Link, Service Link or TT&C
TC01	1.2	14002.0	TT&C

Transmitting Beams 1:

Question	Response
Beam ID	GLD
Transmit Beam Frequency	11670.0 MHz -11680.0 MHz
Beam Type	Spot
Polarization	V
Peak Gain	dBi
Antenna Pointing Error	0.07 degrees
Antenna Rotational Error	0.08 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	90.0 degrees
Max. Transmit EIRP Density	-27.2 dBW/Hz
Max. Transmit EIRP	42.0 dBW
Co- or Cross Polar Mode	C
Service Area Description	East coast of the USA, Pennsylvania, Michigan

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	-168.5	-164.4	-161.3	-158.2	-155.1	-153.9

Transmitting Channels (1)

Channel ID	Channel Bandwidth (MHz)	Center Frequency s (MHz)	Feeder Link, Service Link or TT&C
GLD1	10.0	11675.0	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?	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

File Name	Beam	Field	Attachment Type	Description
<u>GOLD</u> <u>GXT</u> <u>mdb</u>	GLD	GSO Antenna Gain Contour Data	GIMS file (*.mdb)	MDB file containing GXT file for the GLD beam