



312 File Number: **SATMOD2018032000024**

Filing Description

Question	Response
Description	Intelsat 35e Mod for Tunable Command Channel

**Satellite
Information**

Question	Response
Select Orbit Type	GSO
Space Station or Satellite Network Name	Intelsat 35e
Estimated Lifetime of Satellite(s) From Date of Launch	20 Years
Will the space station(s) operate on a Common Carrier basis?	No

Operating
Frequency
Bands (5)

Nature of service	Description	Frequency Band(s)	Mode Type
Fixed-Satellite Service		5850.0 MHz -6425.0 MHz	Receive
Fixed-Satellite Service		13750.0 MHz -14500.0 MHz	Receive
Fixed-Satellite Service		3625.0 MHz -4200.0 MHz	Transmit
Fixed-Satellite Service		10950.0 MHz -11200.0 MHz	Transmit
Fixed-Satellite Service		11450.0 MHz -11700.0 MHz	Transmit

**Orbital
Information For
Geostationary
Satellites**

Section	Question	Response
Orbital Longitude Information	Orbital Longitude	35.0 degrees
	Hemisphere of Orbital Longitude	W
Longitudinal Tolerance or East /West Station-Keeping	Toward West	0.05 degrees
	Toward East	0.05 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	0.14 degrees
	Pitch	0.11 degrees
	Yaw	0.33 degrees

Receiving Beams 1:

Question	Response
Beam ID	CSLU
Receive Beam Frequency	5850.0 MHz -6340.0 MHz
Beam Type	Fixed
Polarization	LHCP
Peak Gain	dBi
Antenna Pointing Error	0.19 degrees
Antenna Rotational Error	0.34 degrees
Polarization Switchable	No
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	11.0 dB/K
Min. Saturation Flux Density	-108.0 dBW/m2
Max. Saturation Flux Density	-83.0 dBW/m2
Co- or Cross Polar Mode	C
Service Area Description	South America, Caribbean, Greenland, Europe, and West Africa

Receiving Beams 2:

Question	Response
Beam ID	CSRU
Receive Beam Frequency	5850.0 MHz -6340.0 MHz
Beam Type	Fixed
Polarization	RHCP
Peak Gain	dBi
Antenna Pointing Error	0.19 degrees
Antenna Rotational Error	0.34 degrees

Polarization Switchable	No
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	11.0 dB/K
Min. Saturation Flux Density	-108.0 dBW/m2
Max. Saturation Flux Density	-83.0 dBW/m2
Co- or Cross Polar Mode	C
Service Area Description	South America, Caribbean, Greenland, Europe, and West Africa

Receiving Beams 3:

Question	Response
Beam ID	CGLU
Receive Beam Frequency	6330.0 MHz -6425.0 MHz
Beam Type	Fixed
Polarization	LHCP
Peak Gain	dBi
Antenna Pointing Error	0.19 degrees
Antenna Rotational Error	0.34 degrees
Polarization Switchable	No
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	-5.1 dB/K
Min. Saturation Flux Density	-102.9 dBW/m2
Max. Saturation Flux Density	-77.9 dBW/m2
Co- or Cross Polar Mode	C
Service Area Description	GLOBAL

Receiving Beams 4:

Question	Response
Beam ID	CGRU
Receive Beam Frequency	6330.0 MHz -6425.0 MHz
Beam Type	Fixed
Polarization	RHCP
Peak Gain	dBi
Antenna Pointing Error	0.19 degrees
Antenna Rotational Error	0.34 degrees
Polarization Switchable	No
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	-5.1 dB/K
Min. Saturation Flux Density	-102.9 dBW/m2
Max. Saturation Flux Density	-77.9 dBW/m2
Co- or Cross Polar Mode	C
Service Area Description	GLOBAL

Receiving Beams 5:

Question	Response
Beam ID	KCHU
Receive Beam Frequency	14000.0 MHz -14500.0 MHz
Beam Type	Fixed
Polarization	H
Peak Gain	dBi
Antenna Pointing Error	0.19 degrees
Antenna Rotational Error	0.34 degrees
Polarization Switchable	

Polarization Alignment Relative to the Equatorial Plane	0.0 degrees
G/T at Max. Gain Point	10.4 dB/K
Min. Saturation Flux Density	-110.4 dBW/m2
Max. Saturation Flux Density	-82.4 dBW/m2
Co- or Cross Polar Mode	C
Service Area Description	CARIBBEAN

Receiving Beams 6:

Question	Response
Beam ID	KCVU
Receive Beam Frequency	14000.0 MHz -14500.0 MHz
Beam Type	Fixed
Polarization	V
Peak Gain	dBi
Antenna Pointing Error	0.19 degrees
Antenna Rotational Error	0.34 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	90.0 degrees
G/T at Max. Gain Point	10.4 dB/K
Min. Saturation Flux Density	-110.4 dBW/m2
Max. Saturation Flux Density	-82.4 dBW/m2
Co- or Cross Polar Mode	C
Service Area Description	CARIBBEAN

Receiving Beams 7:

Question	Response
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Beam ID	KMHU
Receive Beam Frequency	13750.0 MHz -14500.0 MHz
Beam Type	Fixed
Polarization	H
Peak Gain	dBi
Antenna Pointing Error	0.19 degrees
Antenna Rotational Error	0.34 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	0.0 degrees
G/T at Max. Gain Point	10.8 dB/K
Min. Saturation Flux Density	-110.8 dBW/m2
Max. Saturation Flux Density	-82.8 dBW/m2
Co- or Cross Polar Mode	C
Service Area Description	EUROPE&MEDITERRANEAN

Receiving Beams 8:

Question	Response
Beam ID	KMVU
Receive Beam Frequency	13750.0 MHz -14500.0 MHz
Beam Type	Fixed
Polarization	V
Peak Gain	dBi
Antenna Pointing Error	0.19 degrees
Antenna Rotational Error	0.34 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	90.0 degrees

G/T at Max. Gain Point	10.8 dB/K
Min. Saturation Flux Density	-110.8 dBW/m2
Max. Saturation Flux Density	-82.8 dBW/m2
Co- or Cross Polar Mode	C
Service Area Description	EUROPE & MEDITERRANEAN

Receiving Beams 9:

Question	Response
Beam ID	KAHU
Receive Beam Frequency	14000.0 MHz -14500.0 MHz
Beam Type	Fixed
Polarization	H
Peak Gain	dBi
Antenna Pointing Error	0.19 degrees
Antenna Rotational Error	0.34 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	0.0 degrees
G/T at Max. Gain Point	5.7 dB/K
Min. Saturation Flux Density	-106.7 dBW/m2
Max. Saturation Flux Density	-78.7 dBW/m2
Co- or Cross Polar Mode	C
Service Area Description	AFRICA & EUROPE

Receiving Beams 10:

Question	Response
Beam ID	CGVU

Receive Beam Frequency	6421.5 MHz -6425.0 MHz
Beam Type	Fixed
Polarization	V
Peak Gain	dBi
Antenna Pointing Error	0.19 degrees
Antenna Rotational Error	0.33 degrees
Polarization Switchable	No
Polarization Alignment Relative to the Equatorial Plane	90.0 degrees
G/T at Max. Gain Point	-99.0 dB/K
Min. Saturation Flux Density	-90.0 dBW/m2
Max. Saturation Flux Density	-89.9 dBW/m2
Co- or Cross Polar Mode	C
Service Area Description	GLOBAL

Receiving Beams 11:

Question	Response
Beam ID	CPLU
Receive Beam Frequency	5850.0 MHz -5853.5 MHz
Beam Type	Fixed
Polarization	LHCP
Peak Gain	dBi
Antenna Pointing Error	0.19 degrees
Antenna Rotational Error	0.33 degrees
Polarization Switchable	No
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees

G/T at Max. Gain Point	-99.0 dB/K
Min. Saturation Flux Density	-80.1 dBW/m2
Max. Saturation Flux Density	-80.0 dBW/m2
Co- or Cross Polar Mode	C
Service Area Description	GLOBAL

Receiving Beams 12:

Question	Response
Beam ID	CHLU
Receive Beam Frequency	6421.5 MHz -6425.0 MHz
Beam Type	Fixed
Polarization	LHCP
Peak Gain	dBi
Antenna Pointing Error	0.19 degrees
Antenna Rotational Error	0.33 degrees
Polarization Switchable	No
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	-99.0 dB/K
Min. Saturation Flux Density	-80.1 dBW/m2
Max. Saturation Flux Density	-80.0 dBW/m2
Co- or Cross Polar Mode	C
Service Area Description	GLOBAL

Receiving Channels (30)

Channel ID	Channel Bandwidth (MHz)	Center Frequency s (MHz)	Feeder Link, Service Link or TT&C
KU15	54.0	14345.0	Service Link
KU14	54.0	14285.0	Service Link
KU13	54.0	14210.0	Service Link
KU12	54.0	14150.0	Service Link
KU11	54.0	14090.0	Service Link
KU10	54.0	14030.0	Service Link
KU09	36.0	13975.0	Service Link
KU08	54.0	13960.0	Service Link
KU07	36.0	13935.0	Service Link
KU06	54.0	13900.0	Service Link
CU05	216.0	6216.0	Service Link
CU04	108.0	6156.0	Service Link
CU03	108.0	6036.0	Service Link
CU02	216.0	5976.0	Service Link
CU01	108.0	5916.0	Service Link
CMD2	3.5	6423.25	TT&C
CMD1	3.5	5851.75	TT&C
KU05	36.0	13895.0	Service Link
KU04	54.0	13845.0	Service Link
KU03	54.0	13840.0	Service Link
KU02	54.0	13785.0	Service Link
KU01	54.0	13780.0	Service Link
CU08	36.0	6397.0	Service Link
CU07	36.0	6357.0	Service Link

CU06	108.0	6276.0	Service Link
KU20	36.0	14475.0	Service Link
KU16	36.0	14395.0	Service Link
KU18	36.0	14435.0	Service Link
KU19	54.0	14465.0	Service Link
KU17	54.0	14405.0	Service Link

Transmitting
Beams 1:

Question	Response
Beam ID	CSLD
Transmit Beam Frequency	3625.0 MHz -4115.0 MHz
Beam Type	Fixed
Polarization	LHCP
Peak Gain	dBi
Antenna Pointing Error	0.19 degrees
Antenna Rotational Error	0.33 degrees
Polarization Switchable	No
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-27.3 dBW/Hz
Max. Transmit EIRP	51.0 dBW
Co- or Cross Polar Mode	C
Service Area Description	South America, Caribbean, Greenland, Europe, and West Africa

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	-154.6	-154.5	-154.4	-154.3	-154.2	-153.4

Transmitting
Beams 2:

Question	Response
Beam ID	CSRD
Transmit Beam Frequency	3625.0 MHz -4115.0 MHz

Beam Type	Fixed
Polarization	RHCP
Peak Gain	dBi
Antenna Pointing Error	0.19 degrees
Antenna Rotational Error	0.33 degrees
Polarization Switchable	No
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-27.3 dBW/Hz
Max. Transmit EIRP	51.0 dBW
Co- or Cross Polar Mode	C
Service Area Description	South America, Caribbean, Greenland, Europe, and West Africa

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):
4.0 kHz	-154.6	-154.5	-154.4	-154.3	-154.2	-153.4

Transmitting Beams 3:

Question	Response
Beam ID	CGLD
Transmit Beam Frequency	4105.0 MHz -4200.0 MHz
Beam Type	Fixed
Polarization	LHCP
Peak Gain	dBi
Antenna Pointing Error	0.19 degrees

Antenna Rotational Error	0.33 degrees
Polarization Switchable	No
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-33.2 dBW/Hz
Max. Transmit EIRP	37.3 dBW
Co- or Cross Polar Mode	C
Service Area Description	GLOBAL

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	-160.3	-160.2	-160.1	-160.0	-159.9	-159.1

Transmitting Beams 4:

Question	Response
Beam ID	CGRD
Transmit Beam Frequency	4105.0 MHz -4200.0 MHz
Beam Type	Fixed
Polarization	RHCP
Peak Gain	dBi
Antenna Pointing Error	0.19 degrees
Antenna Rotational Error	0.33 degrees
Polarization Switchable	No
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-33.2 dBW/Hz

Max. Transmit EIRP	37.3 dBW
Co- or Cross Polar Mode	C
Service Area Description	GLOBAL

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	-160.3	-160.2	-160.1	-160.0	-159.9	-159.1

Transmitting Beams 5:

Question	Response
Beam ID	KCHD
Transmit Beam Frequency	10950.0 MHz -11200.0 MHz
Beam Type	Fixed
Polarization	H
Peak Gain	dBi
Antenna Pointing Error	0.19 degrees
Antenna Rotational Error	0.33 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	0.0 degrees
Max. Transmit EIRP Density	-23.6 dBW/Hz
Max. Transmit EIRP	53.7 dBW
Co- or Cross Polar Mode	C
Service Area Description	Caribbean

Max. Power Flux Density

Transmitting
Beams 6:

	* 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):
4.0 kHz	-150.0	-149.9	-149.8	-149.7	-149.6	-148.8

Question	Response
Beam ID	KCVD
Transmit Beam Frequency	10950.0 MHz -11200.0 MHz
Beam Type	Fixed
Polarization	V
Peak Gain	dBi
Antenna Pointing Error	0.19 degrees
Antenna Rotational Error	0.19 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	90.0 degrees
Max. Transmit EIRP Density	-21.3 dBW/Hz
Max. Transmit EIRP	56.0 dBW
Co- or Cross Polar Mode	C
Service Area Description	Caribbean

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):
4.0 kHz	-150.0	-149.9	-149.8	-149.7	-149.6	-148.8

Transmitting
Beams 7:

Question	Response
Beam ID	KMHD
Transmit Beam Frequency	10950.0 MHz -11200.0 MHz
Beam Type	Fixed
Polarization	H
Peak Gain	dBi
Antenna Pointing Error	0.19 degrees
Antenna Rotational Error	0.33 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	0.0 degrees
Max. Transmit EIRP Density	-22.0 dBW/Hz
Max. Transmit EIRP	55.3 dBW
Co- or Cross Polar Mode	C
Service Area Description	Europe and Mediterranean Area

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	-150.0	-149.9	-149.8	-149.7	-149.6	-148.8

Transmitting
Beams 8:

Question	Response
Beam ID	KMVD
Transmit Beam Frequency	10950.0 MHz -11200.0 MHz

Beam Type	Fixed
Polarization	V
Peak Gain	dBi
Antenna Pointing Error	0.19 degrees
Antenna Rotational Error	0.33 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	90.0 degrees
Max. Transmit EIRP Density	-21.6 dBW/Hz
Max. Transmit EIRP	55.7 dBW
Co- or Cross Polar Mode	C
Service Area Description	Europe and Mediterranean Area

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):
4.0 kHz	-150.0	-149.9	-149.8	-149.7	-149.6	-148.8

Transmitting Beams 9:

Question	Response
Beam ID	KAVD
Transmit Beam Frequency	10950.0 MHz -11200.0 MHz
Beam Type	Fixed
Polarization	V
Peak Gain	dBi
Antenna Pointing Error	0.19 degrees

Antenna Rotational Error	0.33 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	90.0 degrees
Max. Transmit EIRP Density	-27.8 dBW/Hz
Max. Transmit EIRP	49.5 dBW
Co- or Cross Polar Mode	C
Service Area Description	EUROPE AND WEST AFRICA

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	-150.0	-149.9	-149.8	-149.7	-149.6	-148.8

Transmitting Beams 10:

Question	Response
Beam ID	KAVE
Transmit Beam Frequency	11450.0 MHz -11700.0 MHz
Beam Type	Fixed
Polarization	V
Peak Gain	dBi
Antenna Pointing Error	0.19 degrees
Antenna Rotational Error	0.33 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	90.0 degrees
Max. Transmit EIRP Density	-27.8 dBW/Hz

Max. Transmit EIRP	49.5 dBW
Co- or Cross Polar Mode	C
Service Area Description	Europe and Mediterranean Area

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	-150.0	-149.9	-149.8	-149.7	-149.6	-148.8

Transmitting Beams 11:

Question	Response
Beam ID	KCHE
Transmit Beam Frequency	11450.0 MHz -11700.0 MHz
Beam Type	Fixed
Polarization	H
Peak Gain	dBi
Antenna Pointing Error	0.19 degrees
Antenna Rotational Error	0.33 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	0.0 degrees
Max. Transmit EIRP Density	-23.6 dBW/Hz
Max. Transmit EIRP	53.7 dBW
Co- or Cross Polar Mode	C
Service Area Description	CARIBBEAN

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	-150.0	-149.3	-149.8	-149.7	-149.6	-148.8

Transmitting Beams 12:

Question	Response
Beam ID	KCVE
Transmit Beam Frequency	11450.0 MHz -11700.0 MHz
Beam Type	Fixed
Polarization	V
Peak Gain	dBi
Antenna Pointing Error	0.19 degrees
Antenna Rotational Error	0.33 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	90.0 degrees
Max. Transmit EIRP Density	-21.3 dBW/Hz
Max. Transmit EIRP	56.0 dBW
Co- or Cross Polar Mode	C
Service Area Description	CARIBBEAN

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	-150.0	-149.9	-149.8	-149.7	-149.6	-148.8
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**Transmitting
Beams 13:**

Question	Response
Beam ID	KMHE
Transmit Beam Frequency	11450.0 MHz -11700.0 MHz
Beam Type	Fixed
Polarization	H
Peak Gain	dBi
Antenna Pointing Error	0.19 degrees
Antenna Rotational Error	0.33 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	0.0 degrees
Max. Transmit EIRP Density	-22.0 dBW/Hz
Max. Transmit EIRP	55.3 dBW
Co- or Cross Polar Mode	C
Service Area Description	Europe and Mediterranean Area

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):
4.0 kHz	-150.0	-149.9	-149.8	-149.7	-149.6	-148.8

**Transmitting
Beams 14:**

Question	Response
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Beam ID	KMVE
Transmit Beam Frequency	11450.0 MHz -11700.0 MHz
Beam Type	Fixed
Polarization	V
Peak Gain	dBi
Antenna Pointing Error	0.19 degrees
Antenna Rotational Error	0.33 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	90.0 degrees
Max. Transmit EIRP Density	-21.6 dBW/Hz
Max. Transmit EIRP	55.7 dBW
Co- or Cross Polar Mode	C
Service Area Description	Europe and Mediterranean Area

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	-150.0	-149.9	-149.8	-149.8	-149.7	-148.8

Transmitting Beams 15:

Question	Response
Beam ID	TGHD
Transmit Beam Frequency	4197.6 MHz -4199.4 MHz
Beam Type	Fixed
Polarization	H

Peak Gain	dBi
Antenna Pointing Error	0.19 degrees
Antenna Rotational Error	0.33 degrees
Polarization Switchable	No
Polarization Alignment Relative to the Equatorial Plane	0.0 degrees
Max. Transmit EIRP Density	-39.9 dBW/Hz
Max. Transmit EIRP	10.1 dBW
Co- or Cross Polar Mode	C
Service Area Description	GLOBAL

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	-172.0	-171.9	-171.7	-171.6	-171.5	-170.7

Transmitting Beams 16:

Question	Response
Beam ID	THLD
Transmit Beam Frequency	4197.6 MHz -4199.4 MHz
Beam Type	Fixed
Polarization	LHCP
Peak Gain	dBi
Antenna Pointing Error	0.19 degrees
Antenna Rotational Error	0.33 degrees
Polarization Switchable	No

Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-38.5 dBW/Hz
Max. Transmit EIRP	11.5 dBW
Co- or Cross Polar Mode	C
Service Area Description	GLOBAL

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	-170.6	-170.5	-170.3	-170.2	-170.1	-169.3

Transmitting Beams 17:

Question	Response
Beam ID	TPLD
Transmit Beam Frequency	4197.6 MHz -4199.4 MHz
Beam Type	Fixed
Polarization	LHCP
Peak Gain	dBi
Antenna Pointing Error	0.19 degrees
Antenna Rotational Error	0.33 degrees
Polarization Switchable	No
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-34.6 dBW/Hz
Max. Transmit EIRP	15.4 dBW
Co- or Cross Polar Mode	C

Service Area Description

GLOBAL

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	-166.7	-166.6	-166.4	-166.3	-166.2	-165.4

**Transmitting
Beams 18:**

Question	Response
Beam ID	CLVD
Transmit Beam Frequency	4199.737 MHz -4199.763 MHz
Beam Type	Fixed
Polarization	V
Peak Gain	dBi
Antenna Pointing Error	0.19 degrees
Antenna Rotational Error	0.33 degrees
Polarization Switchable	No
Polarization Alignment Relative to the Equatorial Plane	90.0 degrees
Max. Transmit EIRP Density	-31.0 dBW/Hz
Max. Transmit EIRP	13.0 dBW
Co- or Cross Polar Mode	C
Service Area Description	GLOBAL

Max. Power Flux Density

Transmitting Beams 19:

	* 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	-158.3	-153.2	-152.1	-150.9	-150.8	-150.0

Question	Response
Beam ID	KLRD
Transmit Beam Frequency	11197.987 MHz -11198.013 MHz
Beam Type	Fixed
Polarization	RHCP
Peak Gain	dBi
Antenna Pointing Error	0.19 degrees
Antenna Rotational Error	0.33 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-28.4 dBW/Hz
Max. Transmit EIRP	15.6 dBW
Co- or Cross Polar Mode	C
Service Area Description	GLOBAL

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	-155.3	-155.2	-155.1	-154.9	-154.8	-154.0

Transmitting
Beams 20:

Question	Response
Beam ID	KLRE
Transmit Beam Frequency	11451.487 MHz -11451.513 MHz
Beam Type	Fixed
Polarization	RHCP
Peak Gain	dBi
Antenna Pointing Error	0.19 degrees
Antenna Rotational Error	0.33 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-28.4 dBW/Hz
Max. Transmit EIRP	15.6 dBW
Co- or Cross Polar Mode	C
Service Area Description	GLOBAL

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	-155.3	-155.2	-155.1	-154.9	-154.8	-154.0

**Transmitting
Channels (26)**

Channel ID	Channel Bandwidth (MHz)	Center Frequency s (MHz)	Feeder Link, Service Link or TT&C
TLM4	0.27	4199.25	TT&C
TLM3	0.27	4198.75	TT&C
TLM2	0.27	4198.25	TT&C
TLM1	0.27	4197.75	TT&C
KL01	0.025	11198.0	TT&C
KD11	36.0	11675.0	Service Link
KD10	54.0	11665.0	Service Link
KD09	36.0	11635.0	Service Link
KD08	54.0	11605.0	Service Link
KD07	36.0	11595.0	Service Link
KD06	54.0	11545.0	Service Link
KD05	54.0	11485.0	Service Link
KD04	54.0	11160.0	Service Link
KD03	54.0	11100.0	Service Link
KD02	54.0	11040.0	Service Link
KD01	54.0	10980.0	Service Link
CD08	36.0	4172.0	Service Link
CD07	36.0	4132.0	Service Link
CD06	108.0	4051.0	Service Link
CD05	216.0	3991.0	Service Link
CD04	108.0	3931.0	Service Link
CD03	108.0	3811.0	Service Link
CD02	216.0	3751.0	Service Link
CD01	108.0	3691.0	Service Link

BCNC	0.025	4199.75	TT&C
KL02	0.025	11451.5	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?	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>is-35e Cmd Channel Mod beam files.mdb</u>		GSO Antenna Gain Contour Data	GIMS file (*.mdb)	IS-35e Beam gxt files