

# Schedule S - GSO

Satellite  
DRAFT-SAT-LOA-20240724-00042

Schedule S Review Form 312 Schedule S Instructions Save Record

File Number  Call Sign

### S1. Satellite Information

a. Space Station or Satellite Network Name

b. Orbit Type

c. Estimated Operational Lifetime of Space Station(s) From Date of Launch (yrs)

d. Will the space station(s) operate on a Common Carrier basis?

e. Application Description

Schedule S Review Form 312 Schedule S Instructions Save Record

S2. Operating Frequency Bands S3. GSO Orbital Information (1) S4. Earth-to-Space (Receive) Beams S5. Space-to-Earth (Transmit) Beams S6. Space-to-Space (Receive) Beams

S7. Space-to-Space (Transmit) Beams S8. Attachments

New

a. Type of Service b. If a. is Other, provide a service description c. Satellite Frequency Band (MHz) d. Satellite Frequency (Lower Band Edge) (MHz) e. Satellite Frequency (Upper Band Edge) (MHz)

## S2 Operating Frequency Bands

Operating Frequency Band  
New record

Schedule S Instructions

Form 312 Number  Call Sign

File Number DRAFT-SAT-LOA-20240724-00042

### S2. Operating Frequency Bands

a. Type of Service

b. If a. is Other, provide a service description

c. Satellite Frequency Band (MHz)

d. Satellite Frequency (Lower Band Edge) (MHz)

e. Satellite Frequency (Upper Band Edge) (MHz)

f. Direction of Transmission

g. Non Conforming Indicator

If your Frequency Band is not listed, click the magnifying glass and select "Other" to manually enter the Frequency Band.

Schedule S Instructions Save Record

### S3. GSO Orbital Information

GSO Orbital Information  
DRAFT-SAT-LOA-20240724-00042

File Number: DRAFT-SAT-LOA-20240724-00042

Call Sign:

#### S3. GSO Orbital Information

a. Orbital Longitude (°)

b. Hemisphere of Orbital Longitude (E/W)

c. East/West Station-Keeping Range: Toward East (°)

d. East/West Station-Keeping Range: Toward West (°)

e. North/South Station-Keeping Range: Toward North (°)

f. North/South Station-Keeping Range: Toward South (°)

g. Maximum Orbital Eccentricity

h. Antenna Axis Attitude Accuracy: Roll (°)

i. Antenna Axis Attitude Accuracy: Pitch (°)

j. Antenna Axis Attitude Accuracy: Yaw (°)

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### S4. Earth-to-Space (Receive) Beams

#### S4. Earth-to-Space (Receive) Beams

\* a. Beam ID

\* b. Beam Frequency (Lower Band Edge) (MHz)

\* c. Beam Frequency (Upper Band Edge) (MHz)

\* d. Polarization

e. Can the space station vary the channel bandwidth with on-board processing?

f. Is this a command beam? (Check box if Yes)

g. Is the beam shapeable? (Check box if Yes)

h. Is the beam steerable? (Check box if Yes)

i. Is the beam fed into transponders? (Check box if Yes)

\* j. Maximum G/T (dB/K)

k. Minimum G/T (dB/K)

l. Maximum Saturation Flux Density (dBW/m<sup>2</sup>)

m. Minimum Saturation Flux Density (dBW/m<sup>2</sup>)

n. Beam Peak Flux Density at Command Threshold (dBW/m<sup>2</sup>)

o. Peak Isotropic Antenna Gain (dBi)

p. Isotropic Antenna Gain at 3 dB Beamwidth (dBi)

q. Antenna Pointing Error (°)

r. Antenna Rotational Error (°)

s. Will a GIMS container file containing all antenna contour data be provided?

t. Under what rules will the associated antenna contours be submitted?

u. Provide a list of each orbital plane in which this antenna beam is used.

v. Are all space stations in the NGSO constellation identical?

w. What information will be provided with the predicted antenna gain contours?

Please click the "Save Record" button to generate a table to enter the associated channel information under the "x. Receive Channels" tab, and to attach the required §25.114(c)(4)(vi) or §25.114(c)(4)(vii) documentation under the "z. Beam Attachments" tab.

x. Receive Channels | z. Beam Attachments

(i) Channel ID	(ii) Channel Bandwidth (MHz)	(iii) Center Frequency (MHz)	(iv) Channel Frequency (Lower Band Edge) (MHz)	(v) Channel Frequency (Upper Band Edge) (MHz)	(vi) Channel Type	(vii) Point of
No records to display						

File Number  Call Sign

### x. Channels

Beam ID  ⓘ

Beam Frequency Band (MHz)

(i) Channel ID

(ii) Channel Bandwidth (MHz)

(iii) Center Frequency (MHz)

(iv) Channel Frequency (Lower Band Edge) (MHz)

(v) Channel Frequency (Upper Band Edge) (MHz)

(vi) Channel Type

Satellite  Call Sign

### Attachments

Beam ID  ⓘ

Use this field to link the attachment directly to a beam. (Optional for all other attachments.)

Direction of Transmission

(i) Document Type

(ii) If Document Type is "Other", provide short description ⓘ

(iii) File Name [Click to add...](#)

[Return to Beam Information](#) [Schedule S Instructions](#) [Save Record](#)

## S5. Space-to-Earth (Transmit) Beams

### S5. Space-to-Earth (Transmit) Beams

\* a. Beam ID ⓘ

\* b. Beam Frequency (Lower Band Edge) (MHz) ⓘ

\* c. Beam Frequency (Upper Band Edge) (MHz) ⓘ

\* d. Polarization ⓘ

e. Can the space station vary the channel bandwidth with on-board processing?

f. Is this a command beam? (Check box if Yes)

g. Is the beam shapeable? (Check box if Yes)

h. Is the beam steerable? (Check box if Yes)

i. Is the beam fed into transponders? (Check box if Yes)

⓪ \* j. Maximum Transmit EIRP Density (dBW/Ref BW) ⓘ

\* k. Maximum Transmit EIRP (dBW) ⓘ

l. Minimum Cross-Polar Isolation within Service Area (dB)

m. Minimum Saturation Flux Density (dBW/m<sup>2</sup>) ⓘ

n. Beam Peak Flux Density at Command Threshold (dBW/m<sup>2</sup>) ⓘ

o. Peak Isotropic Antenna Gain (dBi)

p. Isotropic Antenna Gain at 3 dB Beamwidth (dBi)

q. Antenna Pointing Error (°)

r. Antenna Rotational Error (°)

s. Will a GIMS container file containing all antenna contour data be provided?

t. Under what rules will the associated antenna contours be submitted? ⓘ

u. Provide a list of each orbital plane in which this antenna beam is used. ⓘ

v. Are all space stations in the NGSQ constellation identical? ⓘ

w. What information will be provided with the predicted antenna gain contours? ⓘ

Please click the "Save Record" button to generate a table to enter the associated channel information under the "x. Transmit Channels" tab, the maximum power-flux density information under the "y. Max. Power-Flux Densities" tab, and to attach the required §25.114(c)(4)(v) or §25.114(c)(4)(vii) documentation under the "z. Beam Attachments" tab.

x. Transmit Channels y. Max. Power-Flux Densities z. Beam Attachments

(i) Channel ID	(ii) Channel Bandwidth (MHz)	(iii) Center Frequency (MHz)	(iv) Channel Frequency (Lower Band Edge) (MHz)	(v) Channel Frequency (Upper Band Edge) (MHz)	(vi) Channel Type	(vii) Point of
No records to display						

File Number  Call Sign

x. Channels

Beam ID

Beam Frequency Band (MHz)

(i) Channel ID

(ii) Channel Bandwidth (MHz)

(iii) Center Frequency (MHz)

(iv) Channel Frequency (Lower Band Edge) (MHz)

(v) Channel Frequency (Upper Band Edge) (MHz)

(vi) Channel Type

Beam ID

Beam Frequency Band (MHz)

(i) Beam Sub-Frequency (Lower Band Edge) (MHz)

(ii) Beam Sub-Frequency (Upper Band Edge) (MHz)

- Enter the applicable maximum power flux density (PFD) values for the transmit beam. Enter all associated data in the displayed fields. Power Flux Density values must be between -1000.0 and -50.0 dBW/m<sup>2</sup>/BW.
- a.) Bandwidth: From the drop down list, select a reference bandwidth of 4 kHz, 1 MHz or 200 MHz appropriate to the transmission band, as specified in Section 25.208.
  - b.) For all satellite services and frequency bands covered and not covered by the following two cases, provide the maximum PFD values at angles of arrival of 0-2°, 2-5°, 5-15°, 15-20°, 20-25° and 25-90° above the horizon in dBW/m<sup>2</sup>/BW.
  - c.) For NGSO/FSS sharing with MVDDS in the 12200-12700 MHz frequency band, provide the maximum PFD values at angles of arrival of 0-2°, and 2-5° above the horizon in dBW/m<sup>2</sup>/BW.
  - d.) For DBS or 17/24 GHz BSS, and/or service within any portion of the 17300-17800 MHz frequency band, provide the maximum PFD values in each of the Southeastern, Northeastern, Western and Other geographic regions in dBW/m<sup>2</sup>/BW, as defined in § 25.208(w).

Reference Bandwidth

(iii) Reference Bandwidth (BW)

Angles of Arrival PFD

(iv) 0-2° (dBW/m<sup>2</sup>/BW)

(v) 2-5° (dBW/m<sup>2</sup>/BW)

(vi) 5-15° (dBW/m<sup>2</sup>/BW)

(vii) 15-20° (dBW/m<sup>2</sup>/BW)

(viii) 20-25° (dBW/m<sup>2</sup>/BW)

(ix) 25-90° (dBW/m<sup>2</sup>/BW)

### Geographic Region PFD

(x) Southeastern Region (dBW/m<sup>2</sup>/BW)

(xi) Northeastern Region (dBW/m<sup>2</sup>/BW)

(xii) Western Region (dBW/m<sup>2</sup>/BW)

(xiii) Other Region (dBW/m<sup>2</sup>/BW)

### Energy Dispersal Bandwidth

(xiv) Energy Dispersal Bandwidth (kHz)

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Satellite  Call Sign

### Attachments

Beam ID

**Use this field to link the attachment directly to a beam. (Optional for all other attachments.)**

(i) Document Type

(ii) If Document Type is "Other", provide short description

Direction of Transmission

(iii) File Name [Click to add...](#)

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## S6. Space-to-Space (Receive) Beams

[Space to Space Receive](#) [Schedule S Instructions](#) [Save Record](#)

### S6. Space-to-Space (Receive) Beams

\* a. Beam ID

\* b. Beam Frequency (Lower Band Edge) (MHz)

\* c. Beam Frequency (Upper Band Edge) (MHz)

\* d. Polarization

e. Can the space station vary the channel bandwidth with on-board processing?

f. Is this a command beam? (Check box if Yes)

g. Is the beam shapeable? (Check box if Yes)

h. Is the beam steerable? (Check box if Yes)

i. Is the beam fed into transponders? (Check box if Yes)

\* j. Maximum G/T (dB/K)

k. Minimum G/T (dB/K)

l. Maximum Saturation Flux Density (dBW/m<sup>2</sup>)

m. Minimum Saturation Flux Density (dBW/m<sup>2</sup>)

n. Beam Peak Flux Density at Command Threshold (dBW/m<sup>2</sup>)

o. Peak Isotropic Antenna Gain (dBi)

p. Isotropic Antenna Gain at 3 dB Beamwidth (dBi)

q. Antenna Pointing Error (°)

r. Antenna Rotational Error (°)

s. Will a GIMS container file containing all antenna contour data be provided?

t. Under what rules will the associated antenna contours be submitted?

u. Provide a list of each orbital plane in which this antenna beam is used.

v. Are all space stations in the NGSO constellation identical?

w. What information will be provided with the predicted antenna gain contours?

Please click the "Save Record" button to generate a table to enter the associated channel information under the "x. Receive Channels" tab, and to attach the required §25.114(c)(4)(vi) or §25.114(c)(4)(vii) information to the "x. Beam Attachments" tab.

(i) Channel ID ▲	(ii) Channel Bandwidth (MHz)	(iii) Center Frequency (MHz)	(iv) Channel Frequency (Lower Band Edge) (MHz)	(v) Channel Frequency (Upper Band Edge) (MHz)
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File Number  Call Sign

### x. Channels

Beam ID  ⓘ

Beam Frequency Band (MHz)

(i) Channel ID

(ii) Channel Bandwidth (MHz)

(iii) Center Frequency (MHz)

(iv) Channel Frequency (Lower Band Edge) (MHz)

(v) Channel Frequency (Upper Band Edge) (MHz)

(vi) Channel Type

(vii) Point of Communication

Satellite  Call Sign

### Attachments

Beam ID  ⓘ

Direction of Transmission

Use this field to link the attachment directly to a beam. (Optional for all other attachments.)

(i) Document Type

(ii) If Document Type is "Other", provide short description ⓘ

(iii) File Name [Click to add...](#)

## S7. Space-to-Space (Transmit) Beams

### S7. Space-to-Space (Transmit) Beams

\* a. Beam ID

\* b. Beam Frequency (Lower Band Edge) (MHz)

\* c. Beam Frequency (Upper Band Edge) (MHz)

\* d. Polarization

e. Can the space station vary the channel bandwidth with on-board processing?

f. Is this a command beam? (Check box if Yes)

g. Is the beam shapeable? (Check box if Yes)

h. Is the beam steerable? (Check box if Yes)

i. Is the beam fed into transponders? (Check box if Yes)

\* j. Maximum Transmit EIRP Density (dBW/Ref BW)

\* k. Maximum Transmit EIRP (dBW)

l. Minimum Saturation Flux Density (dBW/m<sup>2</sup>)

m. Beam Peak Flux Density at Command Threshold (dBW/m<sup>2</sup>)

\* o. Peak Isotropic Antenna Gain (dBi)

\* p. Isotropic Antenna Gain at 3 dB Beamwidth (dBi)

q. Antenna Pointing Error (°)

r. Antenna Rotational Error (°)

s. Will a GIMS container file containing all antenna contour data be provided?

t. Under what rules will the associated antenna contours be submitted?

u. Provide a list of each orbital plane in which this antenna beam is used.

v. Are all space stations in the NGSO constellation identical?

w. What information will be provided with the predicted antenna gain contours?

Please click the "Save Record" button to generate a table to enter the associated channel information under the "x. Transmit Channels" tab, the maximum power-flux density information under the "y. Max. Power-Flux Densities" tab, and to attach the required §25.114(c)(4)(vi) or §25.114(c)(4)(vii) documentation under the "z. Beam Attachments" tab.

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x. Transmit Channels y. Max. Power-Flux Densities z. Beam Attachments

(i) Channel ID (ii) Channel Bandwidth (MHz) (iii) Center Frequency (MHz) (iv) Channel Frequency (Lower Band Edge) (MHz) (v) Channel Frequency (Upper Band Edge) (MHz)

No records to display

File Number

Call Sign

### x. Channels

Beam ID  ⓘ  
 Beam Frequency Band (MHz) ⓘ

(i) Channel ID   
 (ii) Channel Bandwidth (MHz)   
 (iii) Center Frequency (MHz)   
 (iv) Channel Frequency (Lower Band Edge) (MHz)   
 (v) Channel Frequency (Upper Band Edge) (MHz)   
 (vi) Channel Type   
 (vii) Point of Communication

### y. Max. Power-Flux Densities

Beam ID  ⓘ  
 Beam Frequency Band (MHz) ⓘ

(i) Beam Sub-Frequency (Lower Band Edge) (MHz)   
 (ii) Beam Sub-Frequency (Upper Band Edge) (MHz)

Enter the applicable maximum power flux density (PFD) values for the transmit beam. Enter all associated data in the displayed fields. Power Flux Density values must be between -1000.0 and -50.0 dBW/m<sup>2</sup>/BW.

- a.) Bandwidth: From the drop down list, select a reference bandwidth of 4 kHz, 1 MHz or 200 MHz appropriate to the transmission band, as specified in Section 25.208.
- b.) For all satellite services and frequency bands covered and not covered by the following two cases, provide the maximum PFD values at angles of arrival of 0-2°, 2-5°, 5-15°, 15-20°, 20-25° and 25-90° above the horizon in dBW/m<sup>2</sup>/BW.
- c.) For NGSO/FSS sharing with MVDDS in the 12200-12700 MHz frequency band, provide the maximum PFD values at angles of arrival of 0-2°, and 2-5° above the horizon in dBW/m<sup>2</sup>/BW.
- d.) For DBS or 17/24 GHz BSS, and/or service within any portion of the 17300-17800 MHz frequency band, provide the maximum PFD values in each of the Southeastern, Northeastern, Western and Other geographic regions in dBW/m<sup>2</sup>/BW, as defined in § 25.208(w).

#### Reference Bandwidth

(iii) Reference Bandwidth (BW)

#### Angles of Arrival PFD

(iv) 0-2° (dBW/m<sup>2</sup>/BW)   
 (v) 2-5° (dBW/m<sup>2</sup>/BW)   
 (vi) 5-15° (dBW/m<sup>2</sup>/BW)   
 (vii) 15-20° (dBW/m<sup>2</sup>/BW)   
 (viii) 20-25° (dBW/m<sup>2</sup>/BW)



(ix) 25-90° (dBW/m²/BW)

**Geographic Region PFD**

(x) Southeastern Region (dBW/m²/BW)

(xi) Northeastern Region (dBW/m²/BW)

(xii) Western Region (dBW/m²/BW)

(xiii) Other Region (dBW/m²/BW)

**Energy Dispersal Bandwidth**

(xiv) Energy Dispersal Bandwidth (kHz)

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New record

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Satellite

Call Sign

**Attachments**

Beam ID



Use this field to link the attachment directly to a beam. (Optional for all other attachments.)

(i) Document Type

(ii) If Document Type is "Other", provide short description [?](#)

Direction of Transmission

(iii) File Name

[Click to add...](#)

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**S8. Attachments**

[<](#) [≡](#) Attachments  
New record

[...](#) [Schedule S Instructions](#) [S](#)

Satellite



Call Sign

**Attachments**

Beam ID



Use this field to link the attachment directly to a beam. (Optional for all other attachments.)

(i) Document Type

(ii) If Document Type is "Other", provide short description [?](#)

Direction of Transmission

(iii) File Name

[Click to add...](#)

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