

File Number: **DRAFT-SAT-AMD-20250919-00292**

Call Sign: **S3236**

## 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                                                                     |
|--------------------------------------------|---------------------|---------------------------------------------------------------------------------|-----------------------------------------------------------------|------------------------------------------------------------------------------------------------|
| ASTRANIS 157E GSO System                   | Geostationary (GSO) | 10                                                                              | No                                                              | Authority to provide FSS, including ESIMs, from the 157E orbit location in Ka band frequencies |

## 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 |
|--------------------|--------------------------------------------------|-----------------------------------|------------------------------------------------|------------------------------------------------|------------------------------|-----------------------------|
| FSS                |                                                  | Other                             | 27500                                          | 30000                                          | Earth-to-Space (Receive)     | Yes                         |
| FSS                |                                                  | Other                             | 17700                                          | 20200                                          | Space-to-Earth (Transmit)    | Yes                         |

## 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 (°) |
|--------------------------|------------------------------------------|-----------------------------------------------------|-----------------------------------------------------|--------------------------------------------------------|--------------------------------------------------------|---------------------------------|---------------------------------------------|----------------------------------------------|--------------------------------------------|
| 157                      | East                                     | 0.05                                                | 0.05                                                | 0.1                                                    | 0.1                                                    | 0.0003                          | 0.1                                         | 0.1                                          | 0.1                                        |

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

|                                                                                |              |                                                                                 |             |
|--------------------------------------------------------------------------------|--------------|---------------------------------------------------------------------------------|-------------|
| a. Beam ID:                                                                    | <b>KGUR</b>  | n. Beam Peak Flux Density at Command Threshold (dBW/m²):                        |             |
| b. Beam Frequency (Lower Band Edge) (MHz):                                     | <b>27500</b> | o. Peak Isotropic Antenna Gain (dBi):                                           | <b>51.1</b> |
| c. Beam Frequency (Upper Band Edge) (MHz):                                     | <b>30000</b> | p. Isotropic Antenna Gain at 3 dB Beamwidth (dBi):                              |             |
| d. Polarization:                                                               | <b>RHCP</b>  | q. Antenna Pointing Error (°):                                                  | <b>0.1</b>  |
| e. Can the space station vary the channel bandwidth with on-board processing?: | <b>Yes</b>   | r. Antenna Rotational Error (°):                                                | <b>0.09</b> |
| f. Is this a command beam? (Check box if Yes):                                 | <b>No</b>    | s. Will a GIMS container file containing all antenna contour data be provided?: | <b>Yes</b>  |
| g. Is the beam shapeable? (Check box if Yes):                                  | <b>No</b>    | t. Under what rules will the associated antenna contours be submitted?:         |             |
| h. Is the beam steerable? (Check box if Yes):                                  | <b>No</b>    | u. Provide a list of each orbital plane in which this antenna beam is used.:    |             |
| i. Is the beam fed into transponders? (Check box if Yes):                      | <b>No</b>    | v. Are all space stations in the NGSO constellation identical?:                 |             |
| j. Maximum G/T (dB/K):                                                         | <b>22</b>    | w. What information will be provided with the predicted antenna gain contours?: |             |
| k. Minimum G/T (dB/K):                                                         |              |                                                                                 |             |
| l. Maximum Saturation Flux Density (dBW/m²):                                   | <b>-87</b>   |                                                                                 |             |
| m. Minimum Saturation Flux Density (dBW/m²):                                   | <b>-98</b>   |                                                                                 |             |

| x. Receive Channels |                              |                              |                                                |                                               |                   |                              |
|---------------------|------------------------------|------------------------------|------------------------------------------------|-----------------------------------------------|-------------------|------------------------------|
| (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 |
| GU3                 | 100                          | 27750                        | 27700                                          | 27800                                         | Feeder Link       |                              |
| GU27                | 250                          | 27875                        | 27750                                          | 28000                                         | Feeder Link       |                              |
| GU15                | 100                          | 28950                        | 28900                                          | 29000                                         | Feeder Link       |                              |
| GU12                | 100                          | 28650                        | 28600                                          | 28700                                         | Feeder Link       |                              |
| GU19                | 100                          | 29350                        | 29300                                          | 29400                                         | Feeder Link       |                              |
| GU7                 | 100                          | 28150                        | 28100                                          | 28200                                         | Feeder Link       |                              |
| GU23                | 100                          | 29750                        | 29700                                          | 29800                                         | Feeder Link       |                              |
| GU49                | 375                          | 29187.5                      | 29000                                          | 29375                                         | Feeder Link       |                              |
| GU11                | 100                          | 28550                        | 28500                                          | 28600                                         | Feeder Link       |                              |
| GU20                | 100                          | 29450                        | 29400                                          | 29500                                         | Feeder Link       |                              |
| GU6                 | 100                          | 28050                        | 28000                                          | 28100                                         | Feeder Link       |                              |
| GU24                | 100                          | 29850                        | 29800                                          | 29900                                         | Feeder Link       |                              |
| GU2                 | 100                          | 27650                        | 27600                                          | 27700                                         | Feeder Link       |                              |
| GU28                | 250                          | 28125                        | 28000                                          | 28250                                         | Feeder Link       |                              |
| GU44                | 250                          | 29875                        | 29750                                          | 30000                                         | Feeder Link       |                              |
| GU40                | 500                          | 29750                        | 29500                                          | 30000                                         | Feeder Link       |                              |
| GU36                | 500                          | 27750                        | 27500                                          | 28000                                         | Feeder Link       |                              |
| GU48                | 375                          | 28812.5                      | 28625                                          | 29000                                         | Feeder Link       |                              |
| GU32                | 250                          | 29125                        | 29000                                          | 29250                                         | Feeder Link       |                              |
| GU5                 | 100                          | 27950                        | 27900                                          | 28000                                         | Feeder Link       |                              |
| GU25                | 100                          | 29950                        | 29900                                          | 30000                                         | Feeder Link       |                              |
| GU1                 | 100                          | 27550                        | 27500                                          | 27600                                         | Feeder Link       |                              |
| GU29                | 250                          | 28375                        | 28250                                          | 28500                                         | Feeder Link       |                              |
| GU17                | 100                          | 29150                        | 29100                                          | 29200                                         | Feeder Link       |                              |
| GU16                | 100                          | 29050                        | 29000                                          | 29100                                         | Feeder Link       |                              |
| GU37                | 500                          | 28250                        | 28000                                          | 28500                                         | Feeder Link       |                              |
| GU43                | 750                          | 29375                        | 29000                                          | 29750                                         | Feeder Link       |                              |
| GU39                | 500                          | 29250                        | 29000                                          | 29500                                         | Feeder Link       |                              |
| GU18                | 100                          | 29250                        | 29200                                          | 29300                                         | Feeder Link       |                              |
| GU9                 | 100                          | 28350                        | 28300                                          | 28400                                         | Feeder Link       |                              |
| GU8                 | 100                          | 28250                        | 28200                                          | 28300                                         | Feeder Link       |                              |
| GU22                | 100                          | 29650                        | 29600                                          | 29700                                         | Feeder Link       |                              |
| GU4                 | 100                          | 27850                        | 27800                                          | 27900                                         | Feeder Link       |                              |
| GU26                | 250                          | 27625                        | 27500                                          | 27750                                         | Feeder Link       |                              |
| GU14                | 100                          | 28850                        | 28800                                          | 28900                                         | Feeder Link       |                              |
| GU13                | 100                          | 28750                        | 28700                                          | 28800                                         | Feeder Link       |                              |
| GU42                | 750                          | 28625                        | 28250                                          | 29000                                         | Feeder Link       |                              |
| GU38                | 500                          | 28750                        | 28500                                          | 29000                                         | Feeder Link       |                              |
| GU50                | 375                          | 29562.5                      | 29375                                          | 29750                                         | Feeder Link       |                              |

|      |     |         |       |       |             |  |
|------|-----|---------|-------|-------|-------------|--|
| GU34 | 250 | 29625   | 29500 | 29750 | Feeder Link |  |
| GU46 | 375 | 28062.5 | 27875 | 28250 | Feeder Link |  |
| GU30 | 250 | 28625   | 28500 | 28750 | Feeder Link |  |
| GU33 | 250 | 29375   | 29250 | 29500 | Feeder Link |  |
| GU45 | 375 | 27687.5 | 27500 | 27875 | Feeder Link |  |
| GU41 | 750 | 27875   | 27500 | 28250 | Feeder Link |  |
| GU10 | 100 | 28450   | 28400 | 28500 | Feeder Link |  |
| GU21 | 100 | 29550   | 29500 | 29600 | Feeder Link |  |
| GU51 | 250 | 29875   | 29750 | 30000 | Feeder Link |  |
| GU35 | 250 | 29875   | 29750 | 30000 | Feeder Link |  |
| GU47 | 375 | 28437.5 | 28250 | 28625 | Feeder Link |  |
| GU31 | 250 | 28875   | 28750 | 29000 | Feeder Link |  |

|                                                                                |              |                                                                                 |             |
|--------------------------------------------------------------------------------|--------------|---------------------------------------------------------------------------------|-------------|
| a. Beam ID:                                                                    | <b>KAUR</b>  | n. Beam Peak Flux Density at Command Threshold (dBW/m²):                        |             |
| b. Beam Frequency (Lower Band Edge) (MHz):                                     | <b>27500</b> | o. Peak Isotropic Antenna Gain (dBi):                                           | <b>51.1</b> |
| c. Beam Frequency (Upper Band Edge) (MHz):                                     | <b>30000</b> | p. Isotropic Antenna Gain at 3 dB Beamwidth (dBi):                              |             |
| d. Polarization:                                                               | <b>RHCP</b>  | q. Antenna Pointing Error (°):                                                  | <b>0.1</b>  |
| e. Can the space station vary the channel bandwidth with on-board processing?: | <b>Yes</b>   | r. Antenna Rotational Error (°):                                                | <b>0.09</b> |
| f. Is this a command beam? (Check box if Yes):                                 | <b>No</b>    | s. Will a GIMS container file containing all antenna contour data be provided?: | <b>Yes</b>  |
| g. Is the beam shapeable? (Check box if Yes):                                  | <b>No</b>    | t. Under what rules will the associated antenna contours be submitted?:         |             |
| h. Is the beam steerable? (Check box if Yes):                                  | <b>No</b>    | u. Provide a list of each orbital plane in which this antenna beam is used.:    |             |
| i. Is the beam fed into transponders? (Check box if Yes):                      | <b>No</b>    | v. Are all space stations in the NGSO constellation identical?:                 |             |
| j. Maximum G/T (dB/K):                                                         | <b>22</b>    | w. What information will be provided with the predicted antenna gain contours?: |             |
| k. Minimum G/T (dB/K):                                                         |              |                                                                                 |             |
| l. Maximum Saturation Flux Density (dBW/m²):                                   | <b>-104</b>  |                                                                                 |             |
| m. Minimum Saturation Flux Density (dBW/m²):                                   | <b>-114</b>  |                                                                                 |             |

| <b>x. Receive Channels</b> |                                     |                                     |                                                       |                                                      |                          |                                     |
|----------------------------|-------------------------------------|-------------------------------------|-------------------------------------------------------|------------------------------------------------------|--------------------------|-------------------------------------|
| <b>(i) Channel ID</b>      | <b>(ii) Channel Bandwidth (MHz)</b> | <b>(iii) Center Frequency (MHz)</b> | <b>(iv) Channel Frequency (Lower Band Edge) (MHz)</b> | <b>(v) Channel Frequency (Upper Band Edge) (MHz)</b> | <b>(vi) Channel Type</b> | <b>(vii) Point of Communication</b> |
| AU34                       | 250                                 | 29625                               | 29500                                                 | 29750                                                | Service Link             |                                     |
| AU18                       | 100                                 | 29250                               | 29200                                                 | 29300                                                | Service Link             |                                     |
| AU30                       | 250                                 | 28625                               | 28500                                                 | 28750                                                | Service Link             |                                     |
| AU14                       | 100                                 | 28850                               | 28800                                                 | 28900                                                | Service Link             |                                     |
| AU26                       | 250                                 | 27625                               | 27500                                                 | 27750                                                | Service Link             |                                     |
| AU10                       | 100                                 | 28450                               | 28400                                                 | 28500                                                | Service Link             |                                     |
| AU22                       | 100                                 | 29650                               | 29600                                                 | 29700                                                | Service Link             |                                     |
| AU6                        | 100                                 | 28050                               | 28000                                                 | 28100                                                | Service Link             |                                     |
| AU4                        | 100                                 | 27850                               | 27800                                                 | 27900                                                | Service Link             |                                     |
| AU25                       | 100                                 | 29950                               | 29900                                                 | 30000                                                | Service Link             |                                     |
| AU9                        | 100                                 | 28350                               | 28300                                                 | 28400                                                | Service Link             |                                     |
| AU21                       | 100                                 | 29550                               | 29500                                                 | 29600                                                | Service Link             |                                     |
| AU3                        | 100                                 | 27750                               | 27700                                                 | 27800                                                | Service Link             |                                     |

|      |     |       |       |       |              |  |
|------|-----|-------|-------|-------|--------------|--|
| AU27 | 250 | 27875 | 27750 | 28000 | Service Link |  |
| AU33 | 250 | 29375 | 29250 | 29500 | Service Link |  |
| AU17 | 100 | 29150 | 29100 | 29200 | Service Link |  |
| AU11 | 100 | 28550 | 28500 | 28600 | Service Link |  |
| AU23 | 100 | 29750 | 29700 | 29800 | Service Link |  |
| AU7  | 100 | 28150 | 28100 | 28200 | Service Link |  |
| AU5  | 100 | 27950 | 27900 | 28000 | Service Link |  |
| AU35 | 250 | 29875 | 29750 | 30000 | Service Link |  |
| AU19 | 100 | 29350 | 29300 | 29400 | Service Link |  |
| AU1  | 100 | 27550 | 27500 | 27600 | Service Link |  |
| AU31 | 250 | 28875 | 28750 | 29000 | Service Link |  |
| AU15 | 100 | 28950 | 28900 | 29000 | Service Link |  |
| AU29 | 250 | 28375 | 28250 | 28500 | Service Link |  |
| AU13 | 100 | 28750 | 28700 | 28800 | Service Link |  |
| AU32 | 250 | 29125 | 29000 | 29250 | Service Link |  |
| AU16 | 100 | 29050 | 29000 | 29100 | Service Link |  |
| AU28 | 250 | 28125 | 28000 | 28250 | Service Link |  |
| AU12 | 100 | 28650 | 28600 | 28700 | Service Link |  |
| AU24 | 100 | 29850 | 29800 | 29900 | Service Link |  |
| AU8  | 100 | 28250 | 28200 | 28300 | Service Link |  |
| AU20 | 100 | 29450 | 29400 | 29500 | Service Link |  |
| AU2  | 100 | 27650 | 27600 | 27700 | Service Link |  |

|                                                                                |       |                                                                                 |      |
|--------------------------------------------------------------------------------|-------|---------------------------------------------------------------------------------|------|
| a. Beam ID:                                                                    | KGUL  | n. Beam Peak Flux Density at Command Threshold (dBW/m²):                        |      |
| b. Beam Frequency (Lower Band Edge) (MHz):                                     | 27500 | o. Peak Isotropic Antenna Gain (dBi):                                           | 51.1 |
| c. Beam Frequency (Upper Band Edge) (MHz):                                     | 30000 | p. Isotropic Antenna Gain at 3 dB Beamwidth (dBi):                              |      |
| d. Polarization:                                                               | LHCP  | q. Antenna Pointing Error (°):                                                  | 0.1  |
| e. Can the space station vary the channel bandwidth with on-board processing?: | Yes   | r. Antenna Rotational Error (°):                                                | 0.09 |
| f. Is this a command beam? (Check box if Yes):                                 | No    | s. Will a GIMS container file containing all antenna contour data be provided?: | Yes  |
| g. Is the beam shapeable? (Check box if Yes):                                  | No    | t. Under what rules will the associated antenna contours be submitted?:         |      |
| h. Is the beam steerable? (Check box if Yes):                                  | No    | u. Provide a list of each orbital plane in which this antenna beam is used.:    |      |
| i. Is the beam fed into transponders? (Check box if Yes):                      | No    | v. Are all space stations in the NGSO constellation identical?:                 |      |
| j. Maximum G/T (dB/K):                                                         | 22    | w. What information will be provided with the predicted antenna gain contours?: |      |
| k. Minimum G/T (dB/K):                                                         |       |                                                                                 |      |
| l. Maximum Saturation Flux Density (dBW/m²):                                   | -87   |                                                                                 |      |
| m. Minimum Saturation Flux Density (dBW/m²):                                   | -98   |                                                                                 |      |

| x. Receive Channels |                              |                              |                                                |                                               |                   |                              |
|---------------------|------------------------------|------------------------------|------------------------------------------------|-----------------------------------------------|-------------------|------------------------------|
| (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 |
| GU50                | 375                          | 29562.5                      | 29375                                          | 29750                                         | Feeder Link       |                              |
| GU34                | 250                          | 29625                        | 29500                                          | 29750                                         | Feeder Link       |                              |
| GU14                | 100                          | 28850                        | 28800                                          | 28900                                         | Feeder Link       |                              |

|      |     |         |       |       |              |  |
|------|-----|---------|-------|-------|--------------|--|
| GU13 | 100 | 28750   | 28700 | 28800 | Feeder Link  |  |
| GU18 | 100 | 29250   | 29200 | 29300 | Feeder Link  |  |
| GU9  | 100 | 28350   | 28300 | 28400 | Feeder Link  |  |
| GU22 | 100 | 29650   | 29600 | 29700 | Feeder Link  |  |
| GU4  | 100 | 27850   | 27800 | 27900 | Feeder Link  |  |
| GU26 | 250 | 27625   | 27500 | 27750 | Feeder Link  |  |
| AU19 | 100 | 29350   | 29300 | 29400 | Service Link |  |
| GU37 | 500 | 28250   | 28000 | 28500 | Feeder Link  |  |
| GU49 | 375 | 29187.5 | 29000 | 29375 | Feeder Link  |  |
| GU33 | 250 | 29375   | 29250 | 29500 | Feeder Link  |  |
| GU48 | 375 | 28812.5 | 28625 | 29000 | Feeder Link  |  |
| GU32 | 250 | 29125   | 29000 | 29250 | Feeder Link  |  |
| GU45 | 375 | 27687.5 | 27500 | 27875 | Feeder Link  |  |
| GU8  | 100 | 28250   | 28200 | 28300 | Feeder Link  |  |
| AU23 | 100 | 29750   | 29700 | 29800 | Service Link |  |
| GU41 | 750 | 27875   | 27500 | 28250 | Feeder Link  |  |
| GU23 | 100 | 29750   | 29700 | 29800 | Feeder Link  |  |
| GU3  | 100 | 27750   | 27700 | 27800 | Feeder Link  |  |
| GU27 | 250 | 27875   | 27750 | 28000 | Feeder Link  |  |
| GU15 | 100 | 28950   | 28900 | 29000 | Feeder Link  |  |
| GU12 | 100 | 28650   | 28600 | 28700 | Feeder Link  |  |
| GU19 | 100 | 29350   | 29300 | 29400 | Feeder Link  |  |
| GU1  | 100 | 27550   | 27500 | 27600 | Feeder Link  |  |
| GU29 | 250 | 28375   | 28250 | 28500 | Feeder Link  |  |
| GU17 | 100 | 29150   | 29100 | 29200 | Feeder Link  |  |
| GU10 | 100 | 28450   | 28400 | 28500 | Feeder Link  |  |
| GU46 | 375 | 28062.5 | 27875 | 28250 | Feeder Link  |  |
| GU30 | 250 | 28625   | 28500 | 28750 | Feeder Link  |  |
| AU24 | 100 | 29850   | 29800 | 29900 | Service Link |  |
| GU42 | 750 | 28625   | 28250 | 29000 | Feeder Link  |  |
| AU20 | 100 | 29450   | 29400 | 29500 | Service Link |  |
| GU38 | 500 | 28750   | 28500 | 29000 | Feeder Link  |  |
| GU51 | 250 | 29875   | 29750 | 30000 | Feeder Link  |  |
| GU35 | 250 | 29875   | 29750 | 30000 | Feeder Link  |  |
| GU47 | 375 | 28437.5 | 28250 | 28625 | Feeder Link  |  |
| GU31 | 250 | 28875   | 28750 | 29000 | Feeder Link  |  |
| AU25 | 100 | 29950   | 29900 | 30000 | Service Link |  |
| GU43 | 750 | 29375   | 29000 | 29750 | Feeder Link  |  |
| GU21 | 100 | 29550   | 29500 | 29600 | Feeder Link  |  |
| GU5  | 100 | 27950   | 27900 | 28000 | Feeder Link  |  |
| GU25 | 100 | 29950   | 29900 | 30000 | Feeder Link  |  |

|      |     |       |       |       |              |  |
|------|-----|-------|-------|-------|--------------|--|
| GU44 | 250 | 29875 | 29750 | 30000 | Feeder Link  |  |
| GU7  | 100 | 28150 | 28100 | 28200 | Feeder Link  |  |
| AU22 | 100 | 29650 | 29600 | 29700 | Service Link |  |
| GU40 | 500 | 29750 | 29500 | 30000 | Feeder Link  |  |
| GU36 | 500 | 27750 | 27500 | 28000 | Feeder Link  |  |
| GU2  | 100 | 27650 | 27600 | 27700 | Feeder Link  |  |
| GU28 | 250 | 28125 | 28000 | 28250 | Feeder Link  |  |
| GU16 | 100 | 29050 | 29000 | 29100 | Feeder Link  |  |
| GU11 | 100 | 28550 | 28500 | 28600 | Feeder Link  |  |
| GU20 | 100 | 29450 | 29400 | 29500 | Feeder Link  |  |
| GU24 | 100 | 29850 | 29800 | 29900 | Feeder Link  |  |
| GU6  | 100 | 28050 | 28000 | 28100 | Feeder Link  |  |
| AU21 | 100 | 29550 | 29500 | 29600 | Service Link |  |
| GU39 | 500 | 29250 | 29000 | 29500 | Feeder Link  |  |

|                                                                                |                              |                                                                                 |                                                |                                               |                   |                              |
|--------------------------------------------------------------------------------|------------------------------|---------------------------------------------------------------------------------|------------------------------------------------|-----------------------------------------------|-------------------|------------------------------|
| a. Beam ID:                                                                    | CGRL                         | n. Beam Peak Flux Density at Command Threshold (dBW/m²):                        | -77                                            |                                               |                   |                              |
| b. Beam Frequency (Lower Band Edge) (MHz):                                     | 28350                        | o. Peak Isotropic Antenna Gain (dBi):                                           | 51.1                                           |                                               |                   |                              |
| c. Beam Frequency (Upper Band Edge) (MHz):                                     | 28550                        | p. Isotropic Antenna Gain at 3 dB Beamwidth (dBi):                              |                                                |                                               |                   |                              |
| d. Polarization:                                                               | LHCP                         | q. Antenna Pointing Error (°):                                                  | 0.1                                            |                                               |                   |                              |
| e. Can the space station vary the channel bandwidth with on-board processing?: | Yes                          | r. Antenna Rotational Error (°):                                                | 0.09                                           |                                               |                   |                              |
| f. Is this a command beam? (Check box if Yes):                                 | Yes                          | s. Will a GIMS container file containing all antenna contour data be provided?: | Yes                                            |                                               |                   |                              |
| g. Is the beam shapeable? (Check box if Yes):                                  | No                           | t. Under what rules will the associated antenna contours be submitted?:         |                                                |                                               |                   |                              |
| h. Is the beam steerable? (Check box if Yes):                                  | No                           | u. Provide a list of each orbital plane in which this antenna beam is used.:    |                                                |                                               |                   |                              |
| i. Is the beam fed into transponders? (Check box if Yes):                      | No                           | v. Are all space stations in the NGSO constellation identical?:                 |                                                |                                               |                   |                              |
| j. Maximum G/T (dB/K):                                                         | 22                           | w. What information will be provided with the predicted antenna gain contours?: |                                                |                                               |                   |                              |
| k. Minimum G/T (dB/K):                                                         | 5                            |                                                                                 |                                                |                                               |                   |                              |
| l. Maximum Saturation Flux Density (dBW/m²):                                   |                              |                                                                                 |                                                |                                               |                   |                              |
| m. Minimum Saturation Flux Density (dBW/m²):                                   |                              |                                                                                 |                                                |                                               |                   |                              |
| x. Receive Channels                                                            |                              |                                                                                 |                                                |                                               |                   |                              |
| (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 |
| TU1                                                                            | 200                          | 28450                                                                           | 28350                                          | 28550                                         | TT&C              |                              |

|                                                                                |              |                                                                                 |             |
|--------------------------------------------------------------------------------|--------------|---------------------------------------------------------------------------------|-------------|
| a. Beam ID:                                                                    | <b>CLRL</b>  | n. Beam Peak Flux Density at Command Threshold (dBW/m²):                        | <b>-77</b>  |
| b. Beam Frequency (Lower Band Edge) (MHz):                                     | <b>28350</b> | o. Peak Isotropic Antenna Gain (dBi):                                           | <b>5</b>    |
| c. Beam Frequency (Upper Band Edge) (MHz):                                     | <b>28550</b> | p. Isotropic Antenna Gain at 3 dB Beamwidth (dBi):                              |             |
| d. Polarization:                                                               | <b>LHCP</b>  | q. Antenna Pointing Error (°):                                                  | <b>0.1</b>  |
| e. Can the space station vary the channel bandwidth with on-board processing?: | <b>Yes</b>   | r. Antenna Rotational Error (°):                                                | <b>0.09</b> |
| f. Is this a command beam? (Check box if Yes):                                 | <b>Yes</b>   | s. Will a GIMS container file containing all antenna contour data be provided?: | <b>No</b>   |
| g. Is the beam shapeable? (Check box if Yes):                                  | <b>No</b>    | t. Under what rules will the associated antenna contours be submitted?:         |             |
| h. Is the beam steerable? (Check box if Yes):                                  | <b>No</b>    | u. Provide a list of each orbital plane in which this antenna beam is used.:    |             |
| i. Is the beam fed into transponders? (Check box if Yes):                      | <b>No</b>    | v. Are all space stations in the NGSO constellation identical?:                 |             |
| j. Maximum G/T (dB/K):                                                         | <b>-25.4</b> | w. What information will be provided with the predicted antenna gain contours?: |             |

| 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> ): |                              |                              |                                                |                                               |                   |                              |
| x. Receive Channels                                       |                              |                              |                                                |                                               |                   |                              |
| (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 |
| TU1                                                       | 200                          | 28450                        | 28350                                          | 28550                                         | TT&C              |                              |

|                                                                                |                                     |                                                                                 |                                                       |                                                      |                          |                                     |
|--------------------------------------------------------------------------------|-------------------------------------|---------------------------------------------------------------------------------|-------------------------------------------------------|------------------------------------------------------|--------------------------|-------------------------------------|
| a. Beam ID:                                                                    | <b>CGRR</b>                         | n. Beam Peak Flux Density at Command Threshold (dBW/m²):                        | <b>-77</b>                                            |                                                      |                          |                                     |
| b. Beam Frequency (Lower Band Edge) (MHz):                                     | <b>28350</b>                        | o. Peak Isotropic Antenna Gain (dBi):                                           | <b>51.1</b>                                           |                                                      |                          |                                     |
| c. Beam Frequency (Upper Band Edge) (MHz):                                     | <b>28550</b>                        | p. Isotropic Antenna Gain at 3 dB Beamwidth (dBi):                              |                                                       |                                                      |                          |                                     |
| d. Polarization:                                                               | <b>RHCP</b>                         | q. Antenna Pointing Error (°):                                                  | <b>0.1</b>                                            |                                                      |                          |                                     |
| e. Can the space station vary the channel bandwidth with on-board processing?: | <b>Yes</b>                          | r. Antenna Rotational Error (°):                                                | <b>0.09</b>                                           |                                                      |                          |                                     |
| f. Is this a command beam? (Check box if Yes):                                 | <b>Yes</b>                          | s. Will a GIMS container file containing all antenna contour data be provided?: | <b>Yes</b>                                            |                                                      |                          |                                     |
| g. Is the beam shapeable? (Check box if Yes):                                  | <b>No</b>                           | t. Under what rules will the associated antenna contours be submitted?:         |                                                       |                                                      |                          |                                     |
| h. Is the beam steerable? (Check box if Yes):                                  | <b>No</b>                           | u. Provide a list of each orbital plane in which this antenna beam is used.:    |                                                       |                                                      |                          |                                     |
| i. Is the beam fed into transponders? (Check box if Yes):                      | <b>No</b>                           | v. Are all space stations in the NGSO constellation identical?:                 |                                                       |                                                      |                          |                                     |
| j. Maximum G/T (dB/K):                                                         | <b>22</b>                           | w. What information will be provided with the predicted antenna gain contours?: |                                                       |                                                      |                          |                                     |
| k. Minimum G/T (dB/K):                                                         | <b>5</b>                            |                                                                                 |                                                       |                                                      |                          |                                     |
| l. Maximum Saturation Flux Density (dBW/m²):                                   |                                     |                                                                                 |                                                       |                                                      |                          |                                     |
| m. Minimum Saturation Flux Density (dBW/m²):                                   |                                     |                                                                                 |                                                       |                                                      |                          |                                     |
| <b>x. Receive Channels</b>                                                     |                                     |                                                                                 |                                                       |                                                      |                          |                                     |
| <b>(i) Channel ID</b>                                                          | <b>(ii) Channel Bandwidth (MHz)</b> | <b>(iii) Center Frequency (MHz)</b>                                             | <b>(iv) Channel Frequency (Lower Band Edge) (MHz)</b> | <b>(v) Channel Frequency (Upper Band Edge) (MHz)</b> | <b>(vi) Channel Type</b> | <b>(vii) Point of Communication</b> |
| TU1                                                                            | 200                                 | 28450                                                                           | 28350                                                 | 28550                                                | TT&C                     |                                     |

|                                                                                |                              |                                                                                 |                                                |                                               |                   |                              |
|--------------------------------------------------------------------------------|------------------------------|---------------------------------------------------------------------------------|------------------------------------------------|-----------------------------------------------|-------------------|------------------------------|
| a. Beam ID:                                                                    | CLRR                         | n. Beam Peak Flux Density at Command Threshold (dBW/m²):                        | -77                                            |                                               |                   |                              |
| b. Beam Frequency (Lower Band Edge) (MHz):                                     | 28350                        | o. Peak Isotropic Antenna Gain (dBi):                                           | 5                                              |                                               |                   |                              |
| c. Beam Frequency (Upper Band Edge) (MHz):                                     | 28550                        | p. Isotropic Antenna Gain at 3 dB Beamwidth (dBi):                              | 4                                              |                                               |                   |                              |
| d. Polarization:                                                               | RHCP                         | q. Antenna Pointing Error (°):                                                  | 0.1                                            |                                               |                   |                              |
| e. Can the space station vary the channel bandwidth with on-board processing?: | Yes                          | r. Antenna Rotational Error (°):                                                | 0.09                                           |                                               |                   |                              |
| f. Is this a command beam? (Check box if Yes):                                 | Yes                          | s. Will a GIMS container file containing all antenna contour data be provided?: | No                                             |                                               |                   |                              |
| g. Is the beam shapeable? (Check box if Yes):                                  | No                           | t. Under what rules will the associated antenna contours be submitted?:         |                                                |                                               |                   |                              |
| h. Is the beam steerable? (Check box if Yes):                                  | No                           | u. Provide a list of each orbital plane in which this antenna beam is used.:    |                                                |                                               |                   |                              |
| i. Is the beam fed into transponders? (Check box if Yes):                      | No                           | v. Are all space stations in the NGSO constellation identical?:                 |                                                |                                               |                   |                              |
| j. Maximum G/T (dB/K):                                                         | -25.4                        | w. What information will be provided with the predicted antenna gain contours?: |                                                |                                               |                   |                              |
| k. Minimum G/T (dB/K):                                                         | -27                          |                                                                                 |                                                |                                               |                   |                              |
| l. Maximum Saturation Flux Density (dBW/m²):                                   |                              |                                                                                 |                                                |                                               |                   |                              |
| m. Minimum Saturation Flux Density (dBW/m²):                                   |                              |                                                                                 |                                                |                                               |                   |                              |
| x. Receive Channels                                                            |                              |                                                                                 |                                                |                                               |                   |                              |
| (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 |
| TU1                                                                            | 200                          | 28450                                                                           | 28350                                          | 28550                                         | TT&C              |                              |

|                                                                                |              |                                                                                 |             |
|--------------------------------------------------------------------------------|--------------|---------------------------------------------------------------------------------|-------------|
| a. Beam ID:                                                                    | <b>KAUL</b>  | n. Beam Peak Flux Density at Command Threshold (dBW/m²):                        |             |
| b. Beam Frequency (Lower Band Edge) (MHz):                                     | <b>27500</b> | o. Peak Isotropic Antenna Gain (dBi):                                           | <b>51.1</b> |
| c. Beam Frequency (Upper Band Edge) (MHz):                                     | <b>30000</b> | p. Isotropic Antenna Gain at 3 dB Beamwidth (dBi):                              |             |
| d. Polarization:                                                               | <b>LHCP</b>  | q. Antenna Pointing Error (°):                                                  | <b>0.1</b>  |
| e. Can the space station vary the channel bandwidth with on-board processing?: | <b>Yes</b>   | r. Antenna Rotational Error (°):                                                | <b>0.09</b> |
| f. Is this a command beam? (Check box if Yes):                                 | <b>No</b>    | s. Will a GIMS container file containing all antenna contour data be provided?: | <b>Yes</b>  |
| g. Is the beam shapeable? (Check box if Yes):                                  | <b>No</b>    | t. Under what rules will the associated antenna contours be submitted?:         |             |
| h. Is the beam steerable? (Check box if Yes):                                  | <b>No</b>    | u. Provide a list of each orbital plane in which this antenna beam is used.:    |             |
| i. Is the beam fed into transponders? (Check box if Yes):                      | <b>No</b>    | v. Are all space stations in the NGSO constellation identical?:                 |             |
| j. Maximum G/T (dB/K):                                                         | <b>22</b>    | w. What information will be provided with the predicted antenna gain contours?: |             |
| k. Minimum G/T (dB/K):                                                         |              |                                                                                 |             |
| l. Maximum Saturation Flux Density (dBW/m²):                                   | <b>-104</b>  |                                                                                 |             |
| m. Minimum Saturation Flux Density (dBW/m²):                                   | <b>-114</b>  |                                                                                 |             |

| <b>x. Receive Channels</b> |                                     |                                     |                                                       |                                                      |                          |                                     |
|----------------------------|-------------------------------------|-------------------------------------|-------------------------------------------------------|------------------------------------------------------|--------------------------|-------------------------------------|
| <b>(i) Channel ID</b>      | <b>(ii) Channel Bandwidth (MHz)</b> | <b>(iii) Center Frequency (MHz)</b> | <b>(iv) Channel Frequency (Lower Band Edge) (MHz)</b> | <b>(v) Channel Frequency (Upper Band Edge) (MHz)</b> | <b>(vi) Channel Type</b> | <b>(vii) Point of Communication</b> |
| AU21                       | 100                                 | 29550                               | 29500                                                 | 29600                                                | Service Link             |                                     |
| AU5                        | 100                                 | 27950                               | 27900                                                 | 28000                                                | Service Link             |                                     |
| AU33                       | 250                                 | 29375                               | 29250                                                 | 29500                                                | Service Link             |                                     |
| AU17                       | 100                                 | 29150                               | 29100                                                 | 29200                                                | Service Link             |                                     |
| AU1                        | 100                                 | 27550                               | 27500                                                 | 27600                                                | Service Link             |                                     |
| AU20                       | 100                                 | 29450                               | 29400                                                 | 29500                                                | Service Link             |                                     |
| AU32                       | 250                                 | 29125                               | 29000                                                 | 29250                                                | Service Link             |                                     |
| AU16                       | 100                                 | 29050                               | 29000                                                 | 29100                                                | Service Link             |                                     |
| AU3                        | 100                                 | 27750                               | 27700                                                 | 27800                                                | Service Link             |                                     |
| AU35                       | 250                                 | 29875                               | 29750                                                 | 30000                                                | Service Link             |                                     |
| AU19                       | 100                                 | 29350                               | 29300                                                 | 29400                                                | Service Link             |                                     |
| AU31                       | 250                                 | 28875                               | 28750                                                 | 29000                                                | Service Link             |                                     |
| AU15                       | 100                                 | 28950                               | 28900                                                 | 29000                                                | Service Link             |                                     |
| AU26                       | 250                                 | 27625                               | 27500                                                 | 27750                                                | Service Link             |                                     |
| AU10                       | 100                                 | 28450                               | 28400                                                 | 28500                                                | Service Link             |                                     |
| AU22                       | 100                                 | 29650                               | 29600                                                 | 29700                                                | Service Link             |                                     |
| AU6                        | 100                                 | 28050                               | 28000                                                 | 28100                                                | Service Link             |                                     |
| AU2                        | 100                                 | 27650                               | 27600                                                 | 27700                                                | Service Link             |                                     |
| AU13                       | 100                                 | 28750                               | 28700                                                 | 28800                                                | Service Link             |                                     |
| AU25                       | 100                                 | 29950                               | 29900                                                 | 30000                                                | Service Link             |                                     |
| AU9                        | 100                                 | 28350                               | 28300                                                 | 28400                                                | Service Link             |                                     |
| AU24                       | 100                                 | 29850                               | 29800                                                 | 29900                                                | Service Link             |                                     |
| AU8                        | 100                                 | 28250                               | 28200                                                 | 28300                                                | Service Link             |                                     |
| AU4                        | 100                                 | 27850                               | 27800                                                 | 27900                                                | Service Link             |                                     |
| AU27                       | 250                                 | 27875                               | 27750                                                 | 28000                                                | Service Link             |                                     |
| AU11                       | 100                                 | 28550                               | 28500                                                 | 28600                                                | Service Link             |                                     |

|      |     |       |       |       |              |  |
|------|-----|-------|-------|-------|--------------|--|
| AU23 | 100 | 29750 | 29700 | 29800 | Service Link |  |
| AU7  | 100 | 28150 | 28100 | 28200 | Service Link |  |
| AU34 | 250 | 29625 | 29500 | 29750 | Service Link |  |
| AU18 | 100 | 29250 | 29200 | 29300 | Service Link |  |
| AU30 | 250 | 28625 | 28500 | 28750 | Service Link |  |
| AU14 | 100 | 28850 | 28800 | 28900 | Service Link |  |
| AU28 | 250 | 28125 | 28000 | 28250 | Service Link |  |
| AU12 | 100 | 28650 | 28600 | 28700 | Service Link |  |
| AU29 | 250 | 28375 | 28250 | 28500 | Service Link |  |

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

|                                                                                |              |                                                                                 |             |
|--------------------------------------------------------------------------------|--------------|---------------------------------------------------------------------------------|-------------|
| a. Beam ID:                                                                    | <b>KGDR</b>  | n. Beam Peak Flux Density at Command Threshold (dBW/m²):                        |             |
| b. Beam Frequency (Lower Band Edge) (MHz):                                     | <b>17700</b> | o. Peak Isotropic Antenna Gain (dBi):                                           | <b>46.9</b> |
| c. Beam Frequency (Upper Band Edge) (MHz):                                     | <b>20200</b> | p. Isotropic Antenna Gain at 3 dB Beamwidth (dBi):                              |             |
| d. Polarization:                                                               | <b>RHCP</b>  | q. Antenna Pointing Error (°):                                                  | <b>0.1</b>  |
| e. Can the space station vary the channel bandwidth with on-board processing?: | <b>Yes</b>   | r. Antenna Rotational Error (°):                                                | <b>0.09</b> |
| f. Is this a command beam? (Check box if Yes):                                 | <b>No</b>    | s. Will a GIMS container file containing all antenna contour data be provided?: | <b>Yes</b>  |
| g. Is the beam shapeable? (Check box if Yes):                                  | <b>No</b>    | t. Under what rules will the associated antenna contours be submitted?:         |             |
| h. Is the beam steerable? (Check box if Yes):                                  | <b>No</b>    | u. Provide a list of each orbital plane in which this antenna beam is used.:    |             |
| i. Is the beam fed into transponders? (Check box if Yes):                      | <b>No</b>    | v. Are all space stations in the NGSO constellation identical?:                 |             |
| j. Maximum Transmit EIRP Density (dBW/Ref BW):                                 | <b>-20.2</b> | w. What information will be provided with the predicted antenna gain contours?: |             |
| k. Maximum Transmit EIRP (dBW):                                                | <b>65.5</b>  |                                                                                 |             |

| x. Transmit Channels |                              |                              |                                                |                                               |                   |                              |
|----------------------|------------------------------|------------------------------|------------------------------------------------|-----------------------------------------------|-------------------|------------------------------|
| (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 |
| GD61                 | 50                           | 18975                        | 18950                                          | 19000                                         | Feeder Link       |                              |
| GD5                  | 100                          | 18150                        | 18100                                          | 18200                                         | Feeder Link       |                              |
| GD22                 | 100                          | 19850                        | 19800                                          | 19900                                         | Feeder Link       |                              |
| GD27                 | 250                          | 18075                        | 17950                                          | 18200                                         | Feeder Link       |                              |
| GD28                 | 250                          | 18325                        | 18200                                          | 18450                                         | Feeder Link       |                              |
| GD44                 | 50                           | 18125                        | 18100                                          | 18150                                         | Feeder Link       |                              |
| GD80                 | 50                           | 19925                        | 19900                                          | 19950                                         | Feeder Link       |                              |
| GD57                 | 50                           | 18775                        | 18750                                          | 18800                                         | Feeder Link       |                              |
| GD9                  | 100                          | 18550                        | 18500                                          | 18600                                         | Feeder Link       |                              |
| GD74                 | 50                           | 19625                        | 19600                                          | 19650                                         | Feeder Link       |                              |
| GD68                 | 50                           | 19325                        | 19300                                          | 19350                                         | Feeder Link       |                              |
| GD3                  | 100                          | 17950                        | 17900                                          | 18000                                         | Feeder Link       |                              |
| GD20                 | 100                          | 19650                        | 19600                                          | 19700                                         | Feeder Link       |                              |
| GD42                 | 50                           | 18025                        | 18000                                          | 18050                                         | Feeder Link       |                              |
| GD71                 | 50                           | 19475                        | 19450                                          | 19500                                         | Feeder Link       |                              |

|      |     |       |       |       |             |  |
|------|-----|-------|-------|-------|-------------|--|
| GD65 | 50  | 19175 | 19150 | 19200 | Feeder Link |  |
| GD17 | 100 | 19350 | 19300 | 19400 | Feeder Link |  |
| GD39 | 50  | 17875 | 17850 | 17900 | Feeder Link |  |
| GD26 | 250 | 17825 | 17700 | 17950 | Feeder Link |  |
| GD32 | 250 | 19325 | 19200 | 19450 | Feeder Link |  |
| GD48 | 50  | 18325 | 18300 | 18350 | Feeder Link |  |
| GD84 | 50  | 20125 | 20100 | 20150 | Feeder Link |  |
| GD62 | 50  | 19025 | 19000 | 19050 | Feeder Link |  |
| GD53 | 50  | 18575 | 18550 | 18600 | Feeder Link |  |
| GD14 | 100 | 19050 | 19000 | 19100 | Feeder Link |  |
| GD36 | 50  | 17725 | 17700 | 17750 | Feeder Link |  |
| GD72 | 50  | 19525 | 19500 | 19550 | Feeder Link |  |
| GD66 | 50  | 19225 | 19200 | 19250 | Feeder Link |  |
| GD1  | 100 | 17750 | 17700 | 17800 | Feeder Link |  |
| GD18 | 100 | 19450 | 19400 | 19500 | Feeder Link |  |
| GD40 | 50  | 17925 | 17900 | 17950 | Feeder Link |  |
| GD47 | 50  | 18275 | 18250 | 18300 | Feeder Link |  |
| GD85 | 50  | 20175 | 20150 | 20200 | Feeder Link |  |
| GD63 | 50  | 19075 | 19050 | 19100 | Feeder Link |  |
| GD52 | 50  | 18525 | 18500 | 18550 | Feeder Link |  |
| GD15 | 100 | 19150 | 19100 | 19200 | Feeder Link |  |
| GD37 | 50  | 17775 | 17750 | 17800 | Feeder Link |  |
| GD73 | 50  | 19575 | 19550 | 19600 | Feeder Link |  |
| GD67 | 50  | 19275 | 19250 | 19300 | Feeder Link |  |
| GD2  | 100 | 17850 | 17800 | 17900 | Feeder Link |  |
| GD19 | 100 | 19550 | 19500 | 19600 | Feeder Link |  |
| GD41 | 50  | 17975 | 17950 | 18000 | Feeder Link |  |
| GD77 | 50  | 19775 | 19750 | 19800 | Feeder Link |  |
| GD60 | 50  | 18925 | 18900 | 18950 | Feeder Link |  |
| GD6  | 100 | 18250 | 18200 | 18300 | Feeder Link |  |
| GD23 | 100 | 19950 | 19900 | 20000 | Feeder Link |  |
| GD29 | 250 | 18575 | 18450 | 18700 | Feeder Link |  |
| GD81 | 50  | 19975 | 19950 | 20000 | Feeder Link |  |
| GD46 | 50  | 18225 | 18200 | 18250 | Feeder Link |  |
| GD56 | 50  | 18725 | 18700 | 18750 | Feeder Link |  |
| GD10 | 100 | 18650 | 18600 | 18700 | Feeder Link |  |
| GD33 | 250 | 19575 | 19450 | 19700 | Feeder Link |  |
| GD78 | 50  | 19825 | 19800 | 19850 | Feeder Link |  |
| GD59 | 50  | 18875 | 18850 | 18900 | Feeder Link |  |
| GD7  | 100 | 18350 | 18300 | 18400 | Feeder Link |  |
| GD24 | 100 | 20050 | 20000 | 20100 | Feeder Link |  |

|      |     |       |       |       |             |  |
|------|-----|-------|-------|-------|-------------|--|
| GD30 | 250 | 18825 | 18700 | 18950 | Feeder Link |  |
| GD50 | 50  | 18425 | 18400 | 18450 | Feeder Link |  |
| GD82 | 50  | 20025 | 20000 | 20050 | Feeder Link |  |
| GD45 | 50  | 18175 | 18150 | 18200 | Feeder Link |  |
| GD55 | 50  | 18675 | 18650 | 18700 | Feeder Link |  |
| GD12 | 100 | 18850 | 18800 | 18900 | Feeder Link |  |
| GD34 | 250 | 19825 | 19700 | 19950 | Feeder Link |  |
| GD70 | 50  | 19425 | 19400 | 19450 | Feeder Link |  |
| GD64 | 50  | 19125 | 19100 | 19150 | Feeder Link |  |
| GD11 | 100 | 18750 | 18700 | 18800 | Feeder Link |  |
| GD16 | 100 | 19250 | 19200 | 19300 | Feeder Link |  |
| GD38 | 50  | 17825 | 17800 | 17850 | Feeder Link |  |
| GD76 | 50  | 19725 | 19700 | 19750 | Feeder Link |  |
| GD75 | 50  | 19675 | 19650 | 19700 | Feeder Link |  |
| GD69 | 50  | 19375 | 19350 | 19400 | Feeder Link |  |
| GD4  | 100 | 18050 | 18000 | 18100 | Feeder Link |  |
| GD21 | 100 | 19750 | 19700 | 19800 | Feeder Link |  |
| GD43 | 50  | 18075 | 18050 | 18100 | Feeder Link |  |
| GD79 | 50  | 19875 | 19850 | 19900 | Feeder Link |  |
| GD58 | 50  | 18825 | 18800 | 18850 | Feeder Link |  |
| GD8  | 100 | 18450 | 18400 | 18500 | Feeder Link |  |
| GD25 | 100 | 20150 | 20100 | 20200 | Feeder Link |  |
| GD31 | 250 | 19075 | 18950 | 19200 | Feeder Link |  |
| GD49 | 50  | 18375 | 18350 | 18400 | Feeder Link |  |
| GD83 | 50  | 20075 | 20050 | 20100 | Feeder Link |  |
| GD51 | 50  | 18475 | 18450 | 18500 | Feeder Link |  |
| GD54 | 50  | 18625 | 18600 | 18650 | Feeder Link |  |
| GD13 | 100 | 18950 | 18900 | 19000 | Feeder Link |  |
| GD35 | 250 | 20075 | 19950 | 20200 | Feeder Link |  |

| y. Max. Power-Flux Densities                   |                                                 |                                |                       |                      |                        |                          |                           |                         |                                     |                                      |                                  |                                 |                                        |
|------------------------------------------------|-------------------------------------------------|--------------------------------|-----------------------|----------------------|------------------------|--------------------------|---------------------------|-------------------------|-------------------------------------|--------------------------------------|----------------------------------|---------------------------------|----------------------------------------|
|                                                |                                                 |                                | Angles of Arrival PFD |                      |                        |                          |                           |                         | Geographic Region PFD               |                                      |                                  |                                 |                                        |
| (i) Beam Sub-Frequency (Lower Band Edge) (MHz) | (ii) Beam Sub-Frequency (Upper Band Edge) (MHz) | (iii) Reference Bandwidth (BW) | (iv) 0-2° (dBW/m²/BW) | (v) 2-5° (dBW/m²/BW) | (vi) 5-15° (dBW/m²/BW) | (vii) 15-20° (dBW/m²/BW) | (viii) 20-25° (dBW/m²/BW) | (ix) 25-90° (dBW/m²/BW) | (x) Southeastern Region (dBW/m²/BW) | (xi) Northeastern Region (dBW/m²/BW) | (xii) Western Region (dBW/m²/BW) | (xiii) Other Region (dBW/m²/BW) | (xiv) Energy Dispersal Bandwidth (kHz) |
| 17700                                          | 20200                                           | 1 MHz                          | -123.5                | -123.5               | -123.3                 | -123.2                   | -123.1                    | -122.3                  |                                     |                                      |                                  | -122.3                          | 1000                                   |

|                                                                                |       |                                                          |      |
|--------------------------------------------------------------------------------|-------|----------------------------------------------------------|------|
| a. Beam ID:                                                                    | KGDL  | n. Beam Peak Flux Density at Command Threshold (dBW/m²): |      |
| b. Beam Frequency (Lower Band Edge) (MHz):                                     | 17700 | o. Peak Isotropic Antenna Gain (dBi):                    | 46.9 |
| c. Beam Frequency (Upper Band Edge) (MHz):                                     | 20200 | p. Isotropic Antenna Gain at 3 dB Beamwidth (dBi):       |      |
| d. Polarization:                                                               | LHCP  | q. Antenna Pointing Error (°):                           | 0.1  |
| e. Can the space station vary the channel bandwidth with on-board processing?: | Yes   | r. Antenna Rotational Error (°):                         | 0.09 |

|                                                           |              |                                                                                 |            |
|-----------------------------------------------------------|--------------|---------------------------------------------------------------------------------|------------|
| f. Is this a command beam? (Check box if Yes):            | <b>No</b>    | s. Will a GIMS container file containing all antenna contour data be provided?: | <b>Yes</b> |
| g. Is the beam shapeable? (Check box if Yes):             | <b>No</b>    | t. Under what rules will the associated antenna contours be submitted?:         |            |
| h. Is the beam steerable? (Check box if Yes):             | <b>No</b>    | u. Provide a list of each orbital plane in which this antenna beam is used.:    |            |
| i. Is the beam fed into transponders? (Check box if Yes): | <b>No</b>    | v. Are all space stations in the NGSO constellation identical?:                 |            |
| j. Maximum Transmit EIRP Density (dBW/Ref BW):            | <b>-20.2</b> | w. What information will be provided with the predicted antenna gain contours?: |            |
| k. Maximum Transmit EIRP (dBW):                           | <b>65.5</b>  |                                                                                 |            |

| <b>x. Transmit Channels</b> |                                     |                                     |                                                       |                                                      |                          |                                     |
|-----------------------------|-------------------------------------|-------------------------------------|-------------------------------------------------------|------------------------------------------------------|--------------------------|-------------------------------------|
| <b>(i) Channel ID</b>       | <b>(ii) Channel Bandwidth (MHz)</b> | <b>(iii) Center Frequency (MHz)</b> | <b>(iv) Channel Frequency (Lower Band Edge) (MHz)</b> | <b>(v) Channel Frequency (Upper Band Edge) (MHz)</b> | <b>(vi) Channel Type</b> | <b>(vii) Point of Communication</b> |
| GD76                        | 50                                  | 19725                               | 19700                                                 | 19750                                                | Feeder Link              |                                     |
| GD9                         | 100                                 | 18550                               | 18500                                                 | 18600                                                | Feeder Link              |                                     |
| GD64                        | 50                                  | 19125                               | 19100                                                 | 19150                                                | Feeder Link              |                                     |
| GD8                         | 100                                 | 18450                               | 18400                                                 | 18500                                                | Feeder Link              |                                     |
| GD21                        | 100                                 | 19750                               | 19700                                                 | 19800                                                | Feeder Link              |                                     |
| GD17                        | 100                                 | 19350                               | 19300                                                 | 19400                                                | Feeder Link              |                                     |
| GD20                        | 100                                 | 19650                               | 19600                                                 | 19700                                                | Feeder Link              |                                     |
| GD62                        | 50                                  | 19025                               | 19000                                                 | 19050                                                | Feeder Link              |                                     |
| GD52                        | 50                                  | 18525                               | 18500                                                 | 18550                                                | Feeder Link              |                                     |
| GD40                        | 50                                  | 17925                               | 17900                                                 | 17950                                                | Feeder Link              |                                     |
| GD54                        | 50                                  | 18625                               | 18600                                                 | 18650                                                | Feeder Link              |                                     |
| GD72                        | 50                                  | 19525                               | 19500                                                 | 19550                                                | Feeder Link              |                                     |
| GD67                        | 50                                  | 19275                               | 19250                                                 | 19300                                                | Feeder Link              |                                     |
| GD56                        | 50                                  | 18725                               | 18700                                                 | 18750                                                | Feeder Link              |                                     |
| GD23                        | 100                                 | 19950                               | 19900                                                 | 20000                                                | Feeder Link              |                                     |
| GD77                        | 50                                  | 19775                               | 19750                                                 | 19800                                                | Feeder Link              |                                     |
| GD59                        | 50                                  | 18875                               | 18850                                                 | 18900                                                | Feeder Link              |                                     |
| GD28                        | 250                                 | 18325                               | 18200                                                 | 18450                                                | Feeder Link              |                                     |
| GD61                        | 50                                  | 18975                               | 18950                                                 | 19000                                                | Feeder Link              |                                     |
| GD12                        | 100                                 | 18850                               | 18800                                                 | 18900                                                | Feeder Link              |                                     |
| GD50                        | 50                                  | 18425                               | 18400                                                 | 18450                                                | Feeder Link              |                                     |
| GD4                         | 100                                 | 18050                               | 18000                                                 | 18100                                                | Feeder Link              |                                     |
| GD65                        | 50                                  | 19175                               | 19150                                                 | 19200                                                | Feeder Link              |                                     |
| GD3                         | 100                                 | 17950                               | 17900                                                 | 18000                                                | Feeder Link              |                                     |
| GD38                        | 50                                  | 17825                               | 17800                                                 | 17850                                                | Feeder Link              |                                     |
| GD49                        | 50                                  | 18375                               | 18350                                                 | 18400                                                | Feeder Link              |                                     |
| GD57                        | 50                                  | 18775                               | 18750                                                 | 18800                                                | Feeder Link              |                                     |
| GD58                        | 50                                  | 18825                               | 18800                                                 | 18850                                                | Feeder Link              |                                     |
| GD18                        | 100                                 | 19450                               | 19400                                                 | 19500                                                | Feeder Link              |                                     |
| GD51                        | 50                                  | 18475                               | 18450                                                 | 18500                                                | Feeder Link              |                                     |
| GD36                        | 50                                  | 17725                               | 17700                                                 | 17750                                                | Feeder Link              |                                     |
| GD84                        | 50                                  | 20125                               | 20100                                                 | 20150                                                | Feeder Link              |                                     |
| GD63                        | 50                                  | 19075                               | 19050                                                 | 19100                                                | Feeder Link              |                                     |

|      |     |       |       |       |             |  |
|------|-----|-------|-------|-------|-------------|--|
| GD41 | 50  | 17975 | 17950 | 18000 | Feeder Link |  |
| GD73 | 50  | 19575 | 19550 | 19600 | Feeder Link |  |
| GD46 | 50  | 18225 | 18200 | 18250 | Feeder Link |  |
| GD5  | 100 | 18150 | 18100 | 18200 | Feeder Link |  |
| GD55 | 50  | 18675 | 18650 | 18700 | Feeder Link |  |
| GD30 | 250 | 18825 | 18700 | 18950 | Feeder Link |  |
| GD78 | 50  | 19825 | 19800 | 19850 | Feeder Link |  |
| GD27 | 250 | 18075 | 17950 | 18200 | Feeder Link |  |
| GD70 | 50  | 19425 | 19400 | 19450 | Feeder Link |  |
| GD16 | 100 | 19250 | 19200 | 19300 | Feeder Link |  |
| GD31 | 250 | 19075 | 18950 | 19200 | Feeder Link |  |
| GD80 | 50  | 19925 | 19900 | 19950 | Feeder Link |  |
| GD48 | 50  | 18325 | 18300 | 18350 | Feeder Link |  |
| GD79 | 50  | 19875 | 19850 | 19900 | Feeder Link |  |
| GD26 | 250 | 17825 | 17700 | 17950 | Feeder Link |  |
| GD71 | 50  | 19475 | 19450 | 19500 | Feeder Link |  |
| GD69 | 50  | 19375 | 19350 | 19400 | Feeder Link |  |
| GD68 | 50  | 19325 | 19300 | 19350 | Feeder Link |  |
| GD85 | 50  | 20175 | 20150 | 20200 | Feeder Link |  |
| GD35 | 250 | 20075 | 19950 | 20200 | Feeder Link |  |
| GD1  | 100 | 17750 | 17700 | 17800 | Feeder Link |  |
| GD83 | 50  | 20075 | 20050 | 20100 | Feeder Link |  |
| GD14 | 100 | 19050 | 19000 | 19100 | Feeder Link |  |
| GD37 | 50  | 17775 | 17750 | 17800 | Feeder Link |  |
| GD81 | 50  | 19975 | 19950 | 20000 | Feeder Link |  |
| GD6  | 100 | 18250 | 18200 | 18300 | Feeder Link |  |
| GD19 | 100 | 19550 | 19500 | 19600 | Feeder Link |  |
| GD33 | 250 | 19575 | 19450 | 19700 | Feeder Link |  |
| GD22 | 100 | 19850 | 19800 | 19900 | Feeder Link |  |
| GD34 | 250 | 19825 | 19700 | 19950 | Feeder Link |  |
| GD45 | 50  | 18175 | 18150 | 18200 | Feeder Link |  |
| GD24 | 100 | 20050 | 20000 | 20100 | Feeder Link |  |
| GD42 | 50  | 18025 | 18000 | 18050 | Feeder Link |  |
| GD75 | 50  | 19675 | 19650 | 19700 | Feeder Link |  |
| GD74 | 50  | 19625 | 19600 | 19650 | Feeder Link |  |
| GD11 | 100 | 18750 | 18700 | 18800 | Feeder Link |  |
| GD25 | 100 | 20150 | 20100 | 20200 | Feeder Link |  |
| GD32 | 250 | 19325 | 19200 | 19450 | Feeder Link |  |
| GD43 | 50  | 18075 | 18050 | 18100 | Feeder Link |  |
| GD39 | 50  | 17875 | 17850 | 17900 | Feeder Link |  |
| GD13 | 100 | 18950 | 18900 | 19000 | Feeder Link |  |

|      |     |       |       |       |             |  |
|------|-----|-------|-------|-------|-------------|--|
| GD66 | 50  | 19225 | 19200 | 19250 | Feeder Link |  |
| GD53 | 50  | 18575 | 18550 | 18600 | Feeder Link |  |
| GD15 | 100 | 19150 | 19100 | 19200 | Feeder Link |  |
| GD47 | 50  | 18275 | 18250 | 18300 | Feeder Link |  |
| GD60 | 50  | 18925 | 18900 | 18950 | Feeder Link |  |
| GD2  | 100 | 17850 | 17800 | 17900 | Feeder Link |  |
| GD29 | 250 | 18575 | 18450 | 18700 | Feeder Link |  |
| GD82 | 50  | 20025 | 20000 | 20050 | Feeder Link |  |
| GD7  | 100 | 18350 | 18300 | 18400 | Feeder Link |  |
| GD44 | 50  | 18125 | 18100 | 18150 | Feeder Link |  |
| GD10 | 100 | 18650 | 18600 | 18700 | Feeder Link |  |

**y. Max. Power-Flux Densities**

|                                                |                                                 |                                | Angles of Arrival PFD |                      |                        |                          |                           |                         | Geographic Region PFD               |                                      |                                  |                                 |                                        |
|------------------------------------------------|-------------------------------------------------|--------------------------------|-----------------------|----------------------|------------------------|--------------------------|---------------------------|-------------------------|-------------------------------------|--------------------------------------|----------------------------------|---------------------------------|----------------------------------------|
| (i) Beam Sub-Frequency (Lower Band Edge) (MHz) | (ii) Beam Sub-Frequency (Upper Band Edge) (MHz) | (iii) Reference Bandwidth (BW) | (iv) 0-2° (dBW/m²/BW) | (v) 2-5° (dBW/m²/BW) | (vi) 5-15° (dBW/m²/BW) | (vii) 15-20° (dBW/m²/BW) | (viii) 20-25° (dBW/m²/BW) | (ix) 25-90° (dBW/m²/BW) | (x) Southeastern Region (dBW/m²/BW) | (xi) Northeastern Region (dBW/m²/BW) | (xii) Western Region (dBW/m²/BW) | (xiii) Other Region (dBW/m²/BW) | (xiv) Energy Dispersal Bandwidth (kHz) |
| 17700                                          | 20200                                           | 1 MHz                          | -123.5                | -123.5               | -123.3                 | -123.2                   | -123.1                    | -122.3                  |                                     |                                      |                                  | -122.3                          | 1000                                   |

|                                                                                |              |                                                                                 |             |
|--------------------------------------------------------------------------------|--------------|---------------------------------------------------------------------------------|-------------|
| a. Beam ID:                                                                    | <b>CLDL</b>  | n. Beam Peak Flux Density at Command Threshold (dBW/m²):                        |             |
| b. Beam Frequency (Lower Band Edge) (MHz):                                     | <b>19600</b> | o. Peak Isotropic Antenna Gain (dBi):                                           | <b>5</b>    |
| c. Beam Frequency (Upper Band Edge) (MHz):                                     | <b>19800</b> | p. Isotropic Antenna Gain at 3 dB Beamwidth (dBi):                              |             |
| d. Polarization:                                                               | <b>LHCP</b>  | q. Antenna Pointing Error (°):                                                  | <b>0.1</b>  |
| e. Can the space station vary the channel bandwidth with on-board processing?: | <b>Yes</b>   | r. Antenna Rotational Error (°):                                                | <b>0.09</b> |
| f. Is this a command beam? (Check box if Yes):                                 | <b>No</b>    | s. Will a GIMS container file containing all antenna contour data be provided?: | <b>No</b>   |
| g. Is the beam shapeable? (Check box if Yes):                                  | <b>No</b>    | t. Under what rules will the associated antenna contours be submitted?:         |             |
| h. Is the beam steerable? (Check box if Yes):                                  | <b>No</b>    | u. Provide a list of each orbital plane in which this antenna beam is used.:    |             |
| i. Is the beam fed into transponders? (Check box if Yes):                      | <b>No</b>    | v. Are all space stations in the NGSO constellation identical?:                 |             |
| j. Maximum Transmit EIRP Density (dBW/Ref BW):                                 | <b>-30.8</b> | w. What information will be provided with the predicted antenna gain contours?: |             |
| k. Maximum Transmit EIRP (dBW):                                                | <b>16.2</b>  |                                                                                 |             |

**x. Transmit Channels**

| (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 |
|----------------|------------------------------|------------------------------|------------------------------------------------|-----------------------------------------------|-------------------|------------------------------|
| TD1            | 200                          | 19700                        | 19600                                          | 19800                                         | TT&C              |                              |

**y. Max. Power-Flux Densities**

|                                                |                                                 |                                | Angles of Arrival PFD |                      |                        |                          |                           |                         | Geographic Region PFD               |                                      |                                  |                                 |                                        |
|------------------------------------------------|-------------------------------------------------|--------------------------------|-----------------------|----------------------|------------------------|--------------------------|---------------------------|-------------------------|-------------------------------------|--------------------------------------|----------------------------------|---------------------------------|----------------------------------------|
| (i) Beam Sub-Frequency (Lower Band Edge) (MHz) | (ii) Beam Sub-Frequency (Upper Band Edge) (MHz) | (iii) Reference Bandwidth (BW) | (iv) 0-2° (dBW/m²/BW) | (v) 2-5° (dBW/m²/BW) | (vi) 5-15° (dBW/m²/BW) | (vii) 15-20° (dBW/m²/BW) | (viii) 20-25° (dBW/m²/BW) | (ix) 25-90° (dBW/m²/BW) | (x) Southeastern Region (dBW/m²/BW) | (xi) Northeastern Region (dBW/m²/BW) | (xii) Western Region (dBW/m²/BW) | (xiii) Other Region (dBW/m²/BW) | (xiv) Energy Dispersal Bandwidth (kHz) |
| 19600                                          | 19800                                           | 1 MHz                          | -123.5                | -123.5               | -123.3                 | -123.2                   | -123.1                    | -122.3                  |                                     |                                      |                                  |                                 |                                        |

|                                            |              |                                                          |             |
|--------------------------------------------|--------------|----------------------------------------------------------|-------------|
| a. Beam ID:                                | <b>CGDL</b>  | n. Beam Peak Flux Density at Command Threshold (dBW/m²): |             |
| b. Beam Frequency (Lower Band Edge) (MHz): | <b>19600</b> | o. Peak Isotropic Antenna Gain (dBi):                    | <b>46.9</b> |

|                                                                                |              |                                                                                 |             |
|--------------------------------------------------------------------------------|--------------|---------------------------------------------------------------------------------|-------------|
| c. Beam Frequency (Upper Band Edge) (MHz):                                     | <b>19800</b> | p. Isotropic Antenna Gain at 3 dB Beamwidth (dBi):                              |             |
| d. Polarization:                                                               | <b>LHCP</b>  | q. Antenna Pointing Error (°):                                                  | <b>0.1</b>  |
| e. Can the space station vary the channel bandwidth with on-board processing?: | <b>Yes</b>   | r. Antenna Rotational Error (°):                                                | <b>0.09</b> |
| f. Is this a command beam? (Check box if Yes):                                 | <b>No</b>    | s. Will a GIMS container file containing all antenna contour data be provided?: | <b>Yes</b>  |
| g. Is the beam shapeable? (Check box if Yes):                                  | <b>No</b>    | t. Under what rules will the associated antenna contours be submitted?:         |             |
| h. Is the beam steerable? (Check box if Yes):                                  | <b>No</b>    | u. Provide a list of each orbital plane in which this antenna beam is used.:    |             |
| i. Is the beam fed into transponders? (Check box if Yes):                      | <b>No</b>    | v. Are all space stations in the NGSO constellation identical?:                 |             |
| j. Maximum Transmit EIRP Density (dBW/Ref BW):                                 | <b>-20.2</b> | w. What information will be provided with the predicted antenna gain contours?: |             |
| k. Maximum Transmit EIRP (dBW):                                                | <b>26.8</b>  |                                                                                 |             |

| x. Transmit Channels                           |                                                 |                                |                              |                      |                                                |                          |                                               |                         |                                     |                                      |                                  |                                 |                                        |
|------------------------------------------------|-------------------------------------------------|--------------------------------|------------------------------|----------------------|------------------------------------------------|--------------------------|-----------------------------------------------|-------------------------|-------------------------------------|--------------------------------------|----------------------------------|---------------------------------|----------------------------------------|
| (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     |                                 |                                        |
| TD1                                            |                                                 | 200                            | 19700                        |                      | 19600                                          |                          | 19800                                         |                         | TT&C                                |                                      |                                  |                                 |                                        |
| y. Max. Power-Flux Densities                   |                                                 |                                |                              |                      |                                                |                          |                                               |                         |                                     |                                      |                                  |                                 |                                        |
|                                                |                                                 |                                | Angles of Arrival PFD        |                      |                                                |                          |                                               |                         | Geographic Region PFD               |                                      |                                  |                                 |                                        |
| (i) Beam Sub-Frequency (Lower Band Edge) (MHz) | (ii) Beam Sub-Frequency (Upper Band Edge) (MHz) | (iii) Reference Bandwidth (BW) | (iv) 0-2° (dBW/m²/BW)        | (v) 2-5° (dBW/m²/BW) | (vi) 5-15° (dBW/m²/BW)                         | (vii) 15-20° (dBW/m²/BW) | (viii) 20-25° (dBW/m²/BW)                     | (ix) 25-90° (dBW/m²/BW) | (x) Southeastern Region (dBW/m²/BW) | (xi) Northeastern Region (dBW/m²/BW) | (xii) Western Region (dBW/m²/BW) | (xiii) Other Region (dBW/m²/BW) | (xiv) Energy Dispersal Bandwidth (kHz) |
| 19600                                          | 19800                                           | 1 MHz                          | -123.5                       | -123.5               | -123.3                                         | -123.2                   | -123.1                                        | -122.3                  |                                     |                                      |                                  |                                 |                                        |

|                                                                                |              |                                                                                 |             |
|--------------------------------------------------------------------------------|--------------|---------------------------------------------------------------------------------|-------------|
| a. Beam ID:                                                                    | <b>CGDR</b>  | n. Beam Peak Flux Density at Command Threshold (dBW/m²):                        |             |
| b. Beam Frequency (Lower Band Edge) (MHz):                                     | <b>19600</b> | o. Peak Isotropic Antenna Gain (dBi):                                           | <b>46.9</b> |
| c. Beam Frequency (Upper Band Edge) (MHz):                                     | <b>19800</b> | p. Isotropic Antenna Gain at 3 dB Beamwidth (dBi):                              |             |
| d. Polarization:                                                               | <b>RHCP</b>  | q. Antenna Pointing Error (°):                                                  | <b>0.1</b>  |
| e. Can the space station vary the channel bandwidth with on-board processing?: | <b>Yes</b>   | r. Antenna Rotational Error (°):                                                | <b>0.09</b> |
| f. Is this a command beam? (Check box if Yes):                                 | <b>No</b>    | s. Will a GIMS container file containing all antenna contour data be provided?: | <b>Yes</b>  |
| g. Is the beam shapeable? (Check box if Yes):                                  | <b>No</b>    | t. Under what rules will the associated antenna contours be submitted?:         |             |
| h. Is the beam steerable? (Check box if Yes):                                  | <b>No</b>    | u. Provide a list of each orbital plane in which this antenna beam is used.:    |             |
| i. Is the beam fed into transponders? (Check box if Yes):                      | <b>No</b>    | v. Are all space stations in the NGSO constellation identical?:                 |             |
| j. Maximum Transmit EIRP Density (dBW/Ref BW):                                 | <b>-20.2</b> | w. What information will be provided with the predicted antenna gain contours?: |             |
| k. Maximum Transmit EIRP (dBW):                                                | <b>26.8</b>  |                                                                                 |             |

| x. Transmit Channels                           |                                                 |                                |                              |                      |                                                |                          |                                               |                         |                                     |                                      |                                  |                                 |                                        |
|------------------------------------------------|-------------------------------------------------|--------------------------------|------------------------------|----------------------|------------------------------------------------|--------------------------|-----------------------------------------------|-------------------------|-------------------------------------|--------------------------------------|----------------------------------|---------------------------------|----------------------------------------|
| (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     |                                 |                                        |
| TD1                                            |                                                 | 200                            | 19700                        |                      | 19600                                          |                          | 19800                                         |                         | TT&C                                |                                      |                                  |                                 |                                        |
| y. Max. Power-Flux Densities                   |                                                 |                                |                              |                      |                                                |                          |                                               |                         |                                     |                                      |                                  |                                 |                                        |
|                                                |                                                 |                                | Angles of Arrival PFD        |                      |                                                |                          |                                               |                         | Geographic Region PFD               |                                      |                                  |                                 |                                        |
| (i) Beam Sub-Frequency (Lower Band Edge) (MHz) | (ii) Beam Sub-Frequency (Upper Band Edge) (MHz) | (iii) Reference Bandwidth (BW) | (iv) 0-2° (dBW/m²/BW)        | (v) 2-5° (dBW/m²/BW) | (vi) 5-15° (dBW/m²/BW)                         | (vii) 15-20° (dBW/m²/BW) | (viii) 20-25° (dBW/m²/BW)                     | (ix) 25-90° (dBW/m²/BW) | (x) Southeastern Region (dBW/m²/BW) | (xi) Northeastern Region (dBW/m²/BW) | (xii) Western Region (dBW/m²/BW) | (xiii) Other Region (dBW/m²/BW) | (xiv) Energy Dispersal Bandwidth (kHz) |
| 19600                                          | 19800                                           | 1 MHz                          | -123.5                       | -123.5               | -123.3                                         | -123.2                   | -123.1                                        | -122.3                  |                                     |                                      |                                  |                                 |                                        |

|             |             |                                                          |  |
|-------------|-------------|----------------------------------------------------------|--|
| a. Beam ID: | <b>CLDR</b> | n. Beam Peak Flux Density at Command Threshold (dBW/m²): |  |
|-------------|-------------|----------------------------------------------------------|--|

|                                                                                |              |                                                                                 |             |
|--------------------------------------------------------------------------------|--------------|---------------------------------------------------------------------------------|-------------|
| b. Beam Frequency (Lower Band Edge) (MHz):                                     | <b>19600</b> | o. Peak Isotropic Antenna Gain (dBi):                                           | <b>5</b>    |
| c. Beam Frequency (Upper Band Edge) (MHz):                                     | <b>19800</b> | p. Isotropic Antenna Gain at 3 dB Beamwidth (dBi):                              |             |
| d. Polarization:                                                               | <b>RHCP</b>  | q. Antenna Pointing Error (°):                                                  | <b>0.1</b>  |
| e. Can the space station vary the channel bandwidth with on-board processing?: | <b>Yes</b>   | r. Antenna Rotational Error (°):                                                | <b>0.09</b> |
| f. Is this a command beam? (Check box if Yes):                                 | <b>No</b>    | s. Will a GIMS container file containing all antenna contour data be provided?: | <b>No</b>   |
| g. Is the beam shapeable? (Check box if Yes):                                  | <b>No</b>    | t. Under what rules will the associated antenna contours be submitted?:         |             |
| h. Is the beam steerable? (Check box if Yes):                                  | <b>No</b>    | u. Provide a list of each orbital plane in which this antenna beam is used.:    |             |
| i. Is the beam fed into transponders? (Check box if Yes):                      | <b>No</b>    | v. Are all space stations in the NGSO constellation identical?:                 |             |
| j. Maximum Transmit EIRP Density (dBW/Ref BW):                                 | <b>-30.8</b> | w. What information will be provided with the predicted antenna gain contours?: |             |
| k. Maximum Transmit EIRP (dBW):                                                | <b>16.2</b>  |                                                                                 |             |

| x. Transmit Channels                           |                                                 |                                |                              |                      |                                                |                          |                                               |                         |                                     |                                      |                                  |                                 |                                        |
|------------------------------------------------|-------------------------------------------------|--------------------------------|------------------------------|----------------------|------------------------------------------------|--------------------------|-----------------------------------------------|-------------------------|-------------------------------------|--------------------------------------|----------------------------------|---------------------------------|----------------------------------------|
| (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     |                                 |                                        |
| TD1                                            |                                                 | 200                            | 19700                        |                      | 19600                                          |                          | 19800                                         |                         | TT&C                                |                                      |                                  |                                 |                                        |
| y. Max. Power-Flux Densities                   |                                                 |                                |                              |                      |                                                |                          |                                               |                         |                                     |                                      |                                  |                                 |                                        |
|                                                |                                                 |                                | Angles of Arrival PFD        |                      |                                                |                          |                                               |                         | Geographic Region PFD               |                                      |                                  |                                 |                                        |
| (i) Beam Sub-Frequency (Lower Band Edge) (MHz) | (ii) Beam Sub-Frequency (Upper Band Edge) (MHz) | (iii) Reference Bandwidth (BW) | (iv) 0-2° (dBW/m²/BW)        | (v) 2-5° (dBW/m²/BW) | (vi) 5-15° (dBW/m²/BW)                         | (vii) 15-20° (dBW/m²/BW) | (viii) 20-25° (dBW/m²/BW)                     | (ix) 25-90° (dBW/m²/BW) | (x) Southeastern Region (dBW/m²/BW) | (xi) Northeastern Region (dBW/m²/BW) | (xii) Western Region (dBW/m²/BW) | (xiii) Other Region (dBW/m²/BW) | (xiv) Energy Dispersal Bandwidth (kHz) |
| 19600                                          | 19800                                           | 1 MHz                          | -123.5                       | -123.5               | -123.3                                         | -123.2                   | -123.1                                        | -122.3                  |                                     |                                      |                                  |                                 |                                        |

|                                                                                |              |                                                                                 |             |
|--------------------------------------------------------------------------------|--------------|---------------------------------------------------------------------------------|-------------|
| a. Beam ID:                                                                    | <b>KADR</b>  | n. Beam Peak Flux Density at Command Threshold (dBW/m²):                        |             |
| b. Beam Frequency (Lower Band Edge) (MHz):                                     | <b>17700</b> | o. Peak Isotropic Antenna Gain (dBi):                                           | <b>46.9</b> |
| c. Beam Frequency (Upper Band Edge) (MHz):                                     | <b>20200</b> | p. Isotropic Antenna Gain at 3 dB Beamwidth (dBi):                              |             |
| d. Polarization:                                                               | <b>RHCP</b>  | q. Antenna Pointing Error (°):                                                  | <b>0.1</b>  |
| e. Can the space station vary the channel bandwidth with on-board processing?: | <b>Yes</b>   | r. Antenna Rotational Error (°):                                                | <b>0.09</b> |
| f. Is this a command beam? (Check box if Yes):                                 | <b>No</b>    | s. Will a GIMS container file containing all antenna contour data be provided?: | <b>Yes</b>  |
| g. Is the beam shapeable? (Check box if Yes):                                  | <b>No</b>    | t. Under what rules will the associated antenna contours be submitted?:         |             |
| h. Is the beam steerable? (Check box if Yes):                                  | <b>No</b>    | u. Provide a list of each orbital plane in which this antenna beam is used.:    |             |
| i. Is the beam fed into transponders? (Check box if Yes):                      | <b>No</b>    | v. Are all space stations in the NGSO constellation identical?:                 |             |
| j. Maximum Transmit EIRP Density (dBW/Ref BW):                                 | <b>-20.2</b> | w. What information will be provided with the predicted antenna gain contours?: |             |
| k. Maximum Transmit EIRP (dBW):                                                | <b>65.5</b>  |                                                                                 |             |

| x. Transmit Channels |                              |                              |                                                |                                               |                   |                              |
|----------------------|------------------------------|------------------------------|------------------------------------------------|-----------------------------------------------|-------------------|------------------------------|
| (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 |
| AD4                  | 375                          | 19012.5                      | 18825                                          | 19200                                         | Service Link      |                              |
| AD3                  | 375                          | 18637.5                      | 18450                                          | 18825                                         | Service Link      |                              |
| AD6                  | 375                          | 19762.5                      | 19575                                          | 19950                                         | Service Link      |                              |
| AD1                  | 375                          | 17887.5                      | 17700                                          | 18075                                         | Service Link      |                              |
| AD2                  | 375                          | 18262.5                      | 18075                                          | 18450                                         | Service Link      |                              |
| AD8                  | 750                          | 18075                        | 17700                                          | 18450                                         | Service Link      |                              |
| AD9                  | 750                          | 18825                        | 18450                                          | 19200                                         | Service Link      |                              |
| AD11                 | 250                          | 20075                        | 19950                                          | 20200                                         | Service Link      |                              |



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

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

## S8. Attachments

| Beam ID | Direction of Transmission | (i) Document Type                           | (ii) If Document Type is "Other", provide short description | (iii) File Name                           |
|---------|---------------------------|---------------------------------------------|-------------------------------------------------------------|-------------------------------------------|
| CGDL    | Space-to-Earth (Transmit) | Transmit Antenna Gain Contour for Spot Beam |                                                             | spot beam_tx_copol_validated20250922.gxt  |
| CGDL    | Space-to-Earth (Transmit) | Isoline Map of Transmit Spot Beams          |                                                             | composite_tx_validated20250922.gxt        |
| CGDR    | Space-to-Earth (Transmit) | Transmit Antenna Gain Contour for Spot Beam |                                                             | spot beam_tx_copol_validated20250922.gxt  |
| CGDR    | Space-to-Earth (Transmit) | Isoline Map of Transmit Spot Beams          |                                                             | composite_tx_validated20250922.gxt        |
| CGRL    | Earth-to-Space (Receive)  | Isoline Map of Receive Spot Beams           |                                                             | composite_rx_validated20250922.gxt        |
| CGRL    | Earth-to-Space (Receive)  | Receive Antenna Gain Contour for Spot Beam  |                                                             | spot beam_rx_copol_validated_20250922.gxt |
| CGRR    | Earth-to-Space (Receive)  | Isoline Map of Receive Spot Beams           |                                                             | composite_rx_validated20250922.gxt        |
| CGRR    | Earth-to-Space (Receive)  | Receive Antenna Gain Contour for Spot Beam  |                                                             | spot beam_rx_copol_validated_20250922.gxt |
| KADL    | Space-to-Earth (Transmit) | Isoline Map of Transmit Spot Beams          |                                                             | composite_tx_validated20250922.gxt        |
| KADL    | Space-to-Earth (Transmit) | Transmit Antenna Gain Contour for Spot Beam |                                                             | spot beam_tx_copol_validated20250922.gxt  |
| KADR    | Space-to-Earth (Transmit) | Isoline Map of Transmit Spot Beams          |                                                             | composite_tx_validated20250922.gxt        |
| KADR    | Space-to-Earth (Transmit) | Transmit Antenna Gain Contour for Spot Beam |                                                             | spot beam_tx_copol_validated20250922.gxt  |
| KAUL    | Earth-to-Space (Receive)  | Receive Antenna Gain Contour for Spot Beam  |                                                             | spot beam_rx_copol_validated_20250922.gxt |
| KAUL    | Earth-to-Space (Receive)  | Isoline Map of Receive Spot Beams           |                                                             | composite_rx_validated20250922.gxt        |
| KAUR    | Earth-to-Space (Receive)  | Receive Antenna Gain Contour for Spot Beam  |                                                             | spot beam_rx_copol_validated_20250922.gxt |
| KAUR    | Earth-to-Space (Receive)  | Isoline Map of Receive Spot Beams           |                                                             | composite_rx_validated20250922.gxt        |
| KGDL    | Space-to-Earth (Transmit) | Transmit Antenna Gain Contour for Spot Beam |                                                             | spot beam_tx_copol_validated20250922.gxt  |
| KGDL    | Space-to-Earth (Transmit) | Isoline Map of Transmit Spot Beams          |                                                             | composite_tx_validated20250922.gxt        |
| KGDR    | Space-to-Earth (Transmit) | Isoline Map of Transmit Spot Beams          |                                                             | composite_tx_validated20250922.gxt        |
| KGDR    | Space-to-Earth (Transmit) | Transmit Antenna Gain Contour for Spot Beam |                                                             | spot beam_tx_copol_validated20250922.gxt  |
| KGUL    | Earth-to-Space (Receive)  | Isoline Map of Receive Spot Beams           |                                                             | composite_rx_validated20250922.gxt        |
| KGUL    | Earth-to-Space (Receive)  | Receive Antenna Gain Contour for Spot Beam  |                                                             | spot beam_rx_copol_validated_20250922.gxt |
| KGUR    | Earth-to-Space (Receive)  | Isoline Map of Receive Spot Beams           |                                                             | composite_rx_validated20250922.gxt        |
| KGUR    | Earth-to-Space (Receive)  | Receive Antenna Gain Contour for Spot Beam  |                                                             | spot beam_rx_copol_validated_20250922.gxt |