



(DRAFT COPY - Not for submission) Schedule S

312 File Number:

Filing Description

| Question | Response |
|-------------|----------------------------------------------------------------------------------------------------|
| Description | Petition for Declaratory Ruling Granting Access to the U.S. Market for the Mangata Networks System |

**Satellite
Information**

| Question | Response |
|--------------------------------------------------------------|---------------------|
| Select Orbit Type | NGSO |
| Space Station or Satellite Network Name | Mangata Networks |
| Estimated Lifetime of Satellite(s) From Date of Launch | 10 Years |
| Will the space station(s) operate on a Common Carrier basis? | No |

Operating Frequency Bands (19)

| Nature of service | Description | Frequency Band(s) | Mode Type |
|---------------------------------|-------------|--------------------------|-----------|
| Fixed-Satellite Service | | 29500.0 MHz -30000.0 MHz | Receive |
| Fixed-Satellite Service | | 19700.0 MHz -20200.0 MHz | Transmit |
| Mobile-Satellite Service | | 40000.0 MHz -42000.0 MHz | Transmit |
| Mobile-Satellite Service | | 39500.0 MHz -40000.0 MHz | Transmit |
| Mobile-Satellite Service | | 50400.0 MHz -51400.0 MHz | Receive |
| Fixed-Satellite Service | | 47200.0 MHz -50200.0 MHz | Receive |
| Fixed-Satellite Service | | 50400.0 MHz -51400.0 MHz | Receive |
| Fixed-Satellite Service | | 42000.0 MHz -42500.0 MHz | Transmit |
| Fixed-Satellite Service | | 40000.0 MHz -42000.0 MHz | Transmit |
| Fixed-Satellite Service | | 39500.0 MHz -40000.0 MHz | Transmit |
| Fixed-Satellite Service | | 37500.0 MHz -39500.0 MHz | Transmit |
| Mobile-Satellite Service | | 29500.0 MHz -30000.0 MHz | Receive |
| Fixed-Satellite Service | | 29100.0 MHz -29500.0 MHz | Receive |
| Fixed-Satellite Service | | 28600.0 MHz -29100.0 MHz | Receive |
| Fixed-Satellite Service | | 27500.0 MHz -28600.0 MHz | Receive |
| Mobile-Satellite Service | | 19700.0 MHz -20200.0 MHz | Transmit |

| | | |
|--------------------------------|--------------------------|----------|
| Fixed-Satellite Service | 19300.0 MHz -19700.0 MHz | Transmit |
| Fixed-Satellite Service | 17700.0 MHz -18600.0 MHz | Transmit |
| Fixed-Satellite Service | 18800.0 MHz -19300.0 MHz | Transmit |

**Orbital
Information For
Non-
Geostationary
Satellites**

| Question | Response |
|--------------------------------------------------------|------------|
| Total Number of Satellites in the active constellation | 791 |
| Orbit Epoch Date | 01/01/2023 |
| Celestial Reference Body | Earth |

Orbital Plane 1:

| Question | Response |
|---------------------------------------------------------------|-----------------|
| Number of Satellites in Plane | 21 |
| Inclination Angle | 45.0 degrees |
| Right Ascension of Ascending Node | 0.0 degrees |
| Argument of Perigee | 0.0 degrees |
| Orbital Period | 14400.0 seconds |
| Apogee | 6400.0 km |
| Perigee | 6400.0 km |
| Active Service Arc Begin Angle with respect to Ascending Node | -45.0 degrees |
| Active Service Arc End Angle with respect to Ascending Node | 45.0 degrees |

Mean Anomaly For Each Satellite

| Satellite Number | Mean Anomaly (degrees) at the Orbit Epoch Date |
|------------------|------------------------------------------------|
| 1 | 342.9 |
| 2 | 325.7 |
| 3 | 308.6 |
| 4 | 291.4 |
| 5 | 274.3 |
| 6 | 257.1 |
| 7 | 240.0 |
| 8 | 222.9 |
| 9 | 205.7 |
| 10 | 188.6 |
| 11 | 171.4 |
| 12 | 154.3 |

| | |
|-----------|-------|
| 13 | 137.1 |
| 14 | 120.0 |
| 15 | 102.9 |
| 16 | 85.7 |
| 17 | 68.6 |
| 18 | 51.4 |
| 19 | 34.3 |
| 20 | 17.1 |
| 21 | 0.0 |

Orbital Plane 2:

| Question | Response |
|---------------------------------------------------------------|-----------------|
| Number of Satellites in Plane | 21 |
| Inclination Angle | 45.0 degrees |
| Right Ascension of Ascending Node | 40.0 degrees |
| Argument of Perigee | 40.0 degrees |
| Orbital Period | 14400.0 seconds |
| Apogee | 6400.0 km |
| Perigee | 6400.0 km |
| Active Service Arc Begin Angle with respect to Ascending Node | -45.0 degrees |
| Active Service Arc End Angle with respect to Ascending Node | 45.0 degrees |

Mean Anomaly For Each Satellite

| Satellite Number | Mean Anomaly (degrees) at the Orbit Epoch Date |
|------------------|------------------------------------------------|
| 1 | 342.9 |
| 2 | 325.7 |

| | |
|----|-------|
| 3 | 308.6 |
| 4 | 291.4 |
| 5 | 274.3 |
| 6 | 257.1 |
| 7 | 240.0 |
| 8 | 222.9 |
| 9 | 205.7 |
| 10 | 188.6 |
| 11 | 171.4 |
| 12 | 154.3 |
| 13 | 137.1 |
| 14 | 120.0 |
| 15 | 102.9 |
| 16 | 85.7 |
| 17 | 68.6 |
| 18 | 51.4 |
| 19 | 34.3 |
| 20 | 17.1 |
| 21 | 0.0 |

Orbital Plane 3:

| Question | Response |
|-----------------------------------|-----------------|
| Number of Satellites in Plane | 21 |
| Inclination Angle | 45.0 degrees |
| Right Ascension of Ascending Node | 80.0 degrees |
| Argument of Perigee | 80.0 degrees |
| Orbital Period | 14400.0 seconds |

| | |
|---------------------------------------------------------------|---------------|
| Apogee | 6400.0 km |
| Perigee | 6400.0 km |
| Active Service Arc Begin Angle with respect to Ascending Node | -45.0 degrees |
| Active Service Arc End Angle with respect to Ascending Node | 45.0 degrees |

Mean Anomaly For Each Satellite

| Satellite Number | Mean Anomaly (degrees) at the Orbit Epoch Date |
|------------------|------------------------------------------------|
| 1 | 342.9 |
| 2 | 325.7 |
| 3 | 308.6 |
| 4 | 291.4 |
| 5 | 274.3 |
| 6 | 257.1 |
| 7 | 240.0 |
| 8 | 222.9 |
| 9 | 205.7 |
| 10 | 188.6 |
| 11 | 171.4 |
| 12 | 154.3 |
| 13 | 137.1 |
| 14 | 120.0 |
| 15 | 102.9 |
| 16 | 85.7 |
| 17 | 68.6 |
| 18 | 51.4 |
| 19 | 34.3 |

| | |
|-----------|------|
| 20 | 17.1 |
|-----------|------|

| | |
|-----------|-----|
| 21 | 0.0 |
|-----------|-----|

Orbital Plane 4:

| Question | Response |
|---------------------------------------------------------------|--------------------|
| Number of Satellites in Plane | 21 |
| Inclination Angle | 45.0 degrees |
| Right Ascension of Ascending Node | 120.0 degrees |
| Argument of Perigee | 120.0 degrees |
| Orbital Period | 14400.0 seconds |
| Apogee | 6400.0 km |
| Perigee | 6400.0 km |
| Active Service Arc Begin Angle with respect to Ascending Node | -45.0 degrees |
| Active Service Arc End Angle with respect to Ascending Node | 45.0 degrees |

Mean Anomaly For Each Satellite

| Satellite Number | Mean Anomaly (degrees) at the Orbit Epoch Date |
|------------------|------------------------------------------------|
| 1 | 342.9 |
| 2 | 325.7 |
| 3 | 308.6 |
| 4 | 291.4 |
| 5 | 274.3 |
| 6 | 257.1 |
| 7 | 240.0 |
| 8 | 222.9 |
| 9 | 205.7 |

| | |
|-----------|-------|
| 10 | 188.6 |
| 11 | 171.4 |
| 12 | 154.3 |
| 13 | 137.1 |
| 14 | 120.0 |
| 15 | 102.9 |
| 16 | 85.7 |
| 17 | 68.6 |
| 18 | 51.4 |
| 19 | 34.3 |
| 20 | 17.1 |
| 21 | 0.0 |

Orbital Plane 5:

| Question | Response |
|---------------------------------------------------------------|-----------------|
| Number of Satellites in Plane | 21 |
| Inclination Angle | 45.0 degrees |
| Right Ascension of Ascending Node | 160.0 degrees |
| Argument of Perigee | 160.0 degrees |
| Orbital Period | 14400.0 seconds |
| Apogee | 6400.0 km |
| Perigee | 6400.0 km |
| Active Service Arc Begin Angle with respect to Ascending Node | -45.0 degrees |
| Active Service Arc End Angle with respect to Ascending Node | 45.0 degrees |

Mean Anomaly For Each Satellite

| Satellite Number | Mean Anomaly (degrees) at the Orbit Epoch Date |
|------------------|------------------------------------------------|
| 1 | 342.9 |
| 2 | 325.7 |
| 3 | 308.6 |
| 4 | 291.4 |
| 5 | 274.3 |
| 6 | 257.1 |
| 7 | 240.0 |
| 8 | 222.9 |
| 9 | 205.7 |
| 10 | 188.6 |
| 11 | 171.4 |
| 12 | 154.3 |
| 13 | 137.1 |
| 14 | 120.0 |
| 15 | 102.9 |
| 16 | 85.7 |
| 17 | 68.6 |
| 18 | 51.4 |
| 19 | 34.3 |
| 20 | 17.1 |
| 21 | 0.0 |

Orbital Plane 6:

| Question | Response |
|-------------------------------|--------------|
| Number of Satellites in Plane | 21 |
| Inclination Angle | 45.0 degrees |

| | |
|---------------------------------------------------------------|--------------------|
| Right Ascension of Ascending Node | 200.0 degrees |
| Argument of Perigee | 200.0 degrees |
| Orbital Period | 14400.0 seconds |
| Apogee | 6400.0 km |
| Perigee | 6400.0 km |
| Active Service Arc Begin Angle with respect to Ascending Node | -45.0 degrees |
| Active Service Arc End Angle with respect to Ascending Node | 45.0 degrees |

Mean Anomaly For Each Satellite

| Satellite Number | Mean Anomaly (degrees) at the Orbit Epoch Date |
|------------------|------------------------------------------------|
| 1 | 342.9 |
| 2 | 325.7 |
| 3 | 308.6 |
| 4 | 291.4 |
| 5 | 274.3 |
| 6 | 257.1 |
| 7 | 240.0 |
| 8 | 222.9 |
| 9 | 205.7 |
| 10 | 188.6 |
| 11 | 171.4 |
| 12 | 154.3 |
| 13 | 137.1 |
| 14 | 120.0 |
| 15 | 102.9 |

| | |
|-----------|------|
| 16 | 85.7 |
| 17 | 68.6 |
| 18 | 51.4 |
| 19 | 34.3 |
| 20 | 17.1 |
| 21 | 0.0 |

Orbital Plane 7:

| Question | Response |
|---------------------------------------------------------------|-----------------|
| Number of Satellites in Plane | 21 |
| Inclination Angle | 45.0 degrees |
| Right Ascension of Ascending Node | 240.0 degrees |
| Argument of Perigee | 240.0 degrees |
| Orbital Period | 14400.0 seconds |
| Apogee | 6400.0 km |
| Perigee | 6400.0 km |
| Active Service Arc Begin Angle with respect to Ascending Node | -45.0 degrees |
| Active Service Arc End Angle with respect to Ascending Node | 45.0 degrees |

Mean Anomaly For Each Satellite

| Satellite Number | Mean Anomaly (degrees) at the Orbit Epoch Date |
|------------------|------------------------------------------------|
| 1 | 342.9 |
| 2 | 325.7 |
| 3 | 308.6 |
| 4 | 291.4 |
| 5 | 274.3 |

| | |
|-----------|-------|
| 6 | 257.1 |
| 7 | 240.0 |
| 8 | 222.9 |
| 9 | 205.7 |
| 10 | 188.6 |
| 11 | 171.4 |
| 12 | 154.3 |
| 13 | 137.1 |
| 14 | 120.0 |
| 15 | 102.9 |
| 16 | 85.7 |
| 17 | 68.6 |
| 18 | 51.4 |
| 19 | 34.3 |
| 20 | 17.1 |
| 21 | 0.0 |

Orbital Plane 8:

| Question | Response |
|-----------------------------------|-----------------|
| Number of Satellites in Plane | 21 |
| Inclination Angle | 45.0 degrees |
| Right Ascension of Ascending Node | 280.0 degrees |
| Argument of Perigee | 280.0 degrees |
| Orbital Period | 14400.0 seconds |
| Apogee | 6400.0 km |
| Perigee | 6400.0 km |

Active Service Arc Begin Angle with respect to Ascending Node -45.0 degrees

Active Service Arc End Angle with respect to Ascending Node 45.0 degrees

Mean Anomaly For Each Satellite

| Satellite Number | Mean Anomaly (degrees) at the Orbit Epoch Date |
|------------------|------------------------------------------------|
| 1 | 342.9 |
| 2 | 325.7 |
| 3 | 308.6 |
| 4 | 291.4 |
| 5 | 274.3 |
| 6 | 257.1 |
| 7 | 240.0 |
| 8 | 222.9 |
| 9 | 205.7 |
| 10 | 188.6 |
| 11 | 171.4 |
| 12 | 154.3 |
| 13 | 137.1 |
| 14 | 120.0 |
| 15 | 102.9 |
| 16 | 85.7 |
| 17 | 68.6 |
| 18 | 51.4 |
| 19 | 34.3 |
| 20 | 17.1 |
| 21 | 0.0 |

Orbital Plane 9:

| Question | Response |
|---------------------------------------------------------------|--------------------|
| Number of Satellites in Plane | 21 |
| Inclination Angle | 45.0 degrees |
| Right Ascension of Ascending Node | 320.0 degrees |
| Argument of Perigee | 320.0 degrees |
| Orbital Period | 14400.0 seconds |
| Apogee | 6400.0 km |
| Perigee | 6400.0 km |
| Active Service Arc Begin Angle with respect to Ascending Node | -45.0 degrees |
| Active Service Arc End Angle with respect to Ascending Node | 45.0 degrees |

Mean Anomaly For Each Satellite

| Satellite Number | Mean Anomaly (degrees) at the Orbit Epoch Date |
|------------------|------------------------------------------------|
| 1 | 342.9 |
| 2 | 325.7 |
| 3 | 308.6 |
| 4 | 291.4 |
| 5 | 274.3 |
| 6 | 257.1 |
| 7 | 240.0 |
| 8 | 222.9 |
| 9 | 205.7 |
| 10 | 188.6 |
| 11 | 171.4 |
| 12 | 154.3 |

| | |
|-----------|-------|
| 13 | 137.1 |
| 14 | 120.0 |
| 15 | 102.9 |
| 16 | 85.7 |
| 17 | 68.6 |
| 18 | 51.4 |
| 19 | 34.3 |
| 20 | 17.1 |
| 21 | 0.0 |

Orbital Plane 10:

| Question | Response |
|---------------------------------------------------------------|-----------------|
| Number of Satellites in Plane | 21 |
| Inclination Angle | 50.0 degrees |
| Right Ascension of Ascending Node | 0.0 degrees |
| Argument of Perigee | 0.0 degrees |
| Orbital Period | 14400.0 seconds |
| Apogee | 6400.0 km |
| Perigee | 6400.0 km |
| Active Service Arc Begin Angle with respect to Ascending Node | -50.0 degrees |
| Active Service Arc End Angle with respect to Ascending Node | 50.0 degrees |

Mean Anomaly For Each Satellite

| Satellite Number | Mean Anomaly (degrees) at the Orbit Epoch Date |
|-------------------------|-------------------------------------------------------|
| 1 | 0.0 |
| 2 | 17.1 |

| | |
|----|-------|
| 3 | 34.3 |
| 4 | 51.4 |
| 5 | 68.6 |
| 6 | 85.7 |
| 7 | 102.9 |
| 8 | 120.0 |
| 9 | 137.1 |
| 10 | 154.3 |
| 11 | 171.4 |
| 12 | 188.6 |
| 13 | 205.7 |
| 14 | 222.9 |
| 15 | 240.0 |
| 16 | 257.1 |
| 17 | 274.3 |
| 18 | 291.4 |
| 19 | 308.6 |
| 20 | 325.7 |
| 21 | 342.9 |

Orbital Plane 11:

| Question | Response |
|-----------------------------------|-----------------|
| Number of Satellites in Plane | 21 |
| Inclination Angle | 50.0 degrees |
| Right Ascension of Ascending Node | 40.0 degrees |
| Argument of Perigee | 40.0 degrees |
| Orbital Period | 14400.0 seconds |

| | |
|---------------------------------------------------------------|---------------|
| Apogee | 6400.0 km |
| Perigee | 6400.0 km |
| Active Service Arc Begin Angle with respect to Ascending Node | -50.0 degrees |
| Active Service Arc End Angle with respect to Ascending Node | 50.0 degrees |

Mean Anomaly For Each Satellite

| Satellite Number | Mean Anomaly (degrees) at the Orbit Epoch Date |
|------------------|------------------------------------------------|
| 1 | 342.9 |
| 2 | 325.7 |
| 3 | 308.6 |
| 4 | 291.4 |
| 5 | 274.3 |
| 6 | 257.1 |
| 7 | 240.0 |
| 8 | 222.9 |
| 9 | 205.7 |
| 10 | 188.6 |
| 11 | 171.4 |
| 12 | 154.3 |
| 13 | 137.1 |
| 14 | 120.0 |
| 15 | 102.9 |
| 16 | 85.7 |
| 17 | 68.6 |
| 18 | 51.4 |
| 19 | 34.3 |

| | |
|-----------|------|
| 20 | 17.1 |
| 21 | 0.0 |

Orbital Plane 12:

| Question | Response |
|---------------------------------------------------------------|-----------------|
| Number of Satellites in Plane | 21 |
| Inclination Angle | 50.0 degrees |
| Right Ascension of Ascending Node | 80.0 degrees |
| Argument of Perigee | 80.0 degrees |
| Orbital Period | 14400.0 seconds |
| Apogee | 6400.0 km |
| Perigee | 6400.0 km |
| Active Service Arc Begin Angle with respect to Ascending Node | -50.0 degrees |
| Active Service Arc End Angle with respect to Ascending Node | 50.0 degrees |

Mean Anomaly For Each Satellite

| Satellite Number | Mean Anomaly (degrees) at the Orbit Epoch Date |
|-------------------------|-------------------------------------------------------|
| 1 | 342.9 |
| 2 | 325.7 |
| 3 | 308.6 |
| 4 | 291.4 |
| 5 | 274.3 |
| 6 | 257.1 |
| 7 | 240.0 |
| 8 | 222.9 |
| 9 | 205.7 |

| | |
|-----------|-------|
| 10 | 188.6 |
| 11 | 171.4 |
| 12 | 154.3 |
| 13 | 137.1 |
| 14 | 120.0 |
| 15 | 102.9 |
| 16 | 85.7 |
| 17 | 68.6 |
| 18 | 51.4 |
| 19 | 34.3 |
| 20 | 17.1 |
| 21 | 0.0 |

Orbital Plane 13:

| Question | Response |
|---------------------------------------------------------------|-----------------|
| Number of Satellites in Plane | 21 |
| Inclination Angle | 50.0 degrees |
| Right Ascension of Ascending Node | 120.0 degrees |
| Argument of Perigee | 120.0 degrees |
| Orbital Period | 14400.0 seconds |
| Apogee | 6400.0 km |
| Perigee | 6400.0 km |
| Active Service Arc Begin Angle with respect to Ascending Node | -50.0 degrees |
| Active Service Arc End Angle with respect to Ascending Node | 50.0 degrees |

Mean Anomaly For Each Satellite

| Satellite Number | Mean Anomaly (degrees) at the Orbit Epoch Date |
|------------------|------------------------------------------------|
| 1 | 342.9 |
| 2 | 325.7 |
| 3 | 308.6 |
| 4 | 291.4 |
| 5 | 274.3 |
| 6 | 257.1 |
| 7 | 240.0 |
| 8 | 222.9 |
| 9 | 205.7 |
| 10 | 188.6 |
| 11 | 171.4 |
| 12 | 154.3 |
| 13 | 137.1 |
| 14 | 120.0 |
| 15 | 102.9 |
| 16 | 85.7 |
| 17 | 68.6 |
| 18 | 51.4 |
| 19 | 34.3 |
| 20 | 17.1 |
| 21 | 0.0 |

Orbital Plane 14:

| Question | Response |
|-------------------------------|--------------|
| Number of Satellites in Plane | 21 |
| Inclination Angle | 50.0 degrees |

| | |
|---------------------------------------------------------------|--------------------|
| Right Ascension of Ascending Node | 160.0 degrees |
| Argument of Perigee | 160.0 degrees |
| Orbital Period | 14400.0 seconds |
| Apogee | 6400.0 km |
| Perigee | 6400.0 km |
| Active Service Arc Begin Angle with respect to Ascending Node | -50.0 degrees |
| Active Service Arc End Angle with respect to Ascending Node | 50.0 degrees |

Mean Anomaly For Each Satellite

| Satellite Number | Mean Anomaly (degrees) at the Orbit Epoch Date |
|------------------|------------------------------------------------|
| 1 | 342.9 |
| 2 | 325.7 |
| 3 | 308.6 |
| 4 | 291.4 |
| 5 | 274.3 |
| 6 | 257.1 |
| 7 | 240.0 |
| 8 | 222.9 |
| 9 | 205.7 |
| 10 | 188.6 |
| 11 | 171.4 |
| 12 | 154.3 |
| 13 | 137.1 |
| 14 | 120.0 |
| 15 | 102.9 |

| | |
|----|------|
| 16 | 85.7 |
| 17 | 68.6 |
| 18 | 51.4 |
| 19 | 34.3 |
| 20 | 17.1 |
| 21 | 0.0 |

Orbital Plane 15:

| Question | Response |
|---------------------------------------------------------------|-----------------|
| Number of Satellites in Plane | 21 |
| Inclination Angle | 50.0 degrees |
| Right Ascension of Ascending Node | 200.0 degrees |
| Argument of Perigee | 200.0 degrees |
| Orbital Period | 14400.0 seconds |
| Apogee | 6400.0 km |
| Perigee | 6400.0 km |
| Active Service Arc Begin Angle with respect to Ascending Node | -50.0 degrees |
| Active Service Arc End Angle with respect to Ascending Node | 50.0 degrees |

Mean Anomaly For Each Satellite

| Satellite Number | Mean Anomaly (degrees) at the Orbit Epoch Date |
|------------------|------------------------------------------------|
| 1 | 342.9 |
| 2 | 325.7 |
| 3 | 308.6 |
| 4 | 291.4 |
| 5 | 274.3 |

| | |
|-----------|-------|
| 6 | 257.1 |
| 7 | 240.0 |
| 8 | 222.9 |
| 9 | 205.7 |
| 10 | 188.6 |
| 11 | 171.4 |
| 12 | 154.3 |
| 13 | 137.1 |
| 14 | 120.0 |
| 15 | 102.9 |
| 16 | 85.7 |
| 17 | 68.6 |
| 18 | 51.4 |
| 19 | 34.3 |
| 20 | 17.1 |
| 21 | 0.0 |

Orbital Plane 16:

| Question | Response |
|-----------------------------------|-----------------|
| Number of Satellites in Plane | 21 |
| Inclination Angle | 50.0 degrees |
| Right Ascension of Ascending Node | 240.0 degrees |
| Argument of Perigee | 240.0 degrees |
| Orbital Period | 14400.0 seconds |
| Apogee | 6400.0 km |
| Perigee | 6400.0 km |

Active Service Arc Begin Angle with respect to Ascending Node -50.0 degrees

Active Service Arc End Angle with respect to Ascending Node 50.0 degrees

Mean Anomaly For Each Satellite

| Satellite Number | Mean Anomaly (degrees) at the Orbit Epoch Date |
|------------------|------------------------------------------------|
| 1 | 342.9 |
| 2 | 325.7 |
| 3 | 308.6 |
| 4 | 291.4 |
| 5 | 274.3 |
| 6 | 257.1 |
| 7 | 240.0 |
| 8 | 222.9 |
| 9 | 205.7 |
| 10 | 188.6 |
| 11 | 171.4 |
| 12 | 154.3 |
| 13 | 137.1 |
| 14 | 120.0 |
| 15 | 102.9 |
| 16 | 85.7 |
| 17 | 68.6 |
| 18 | 51.4 |
| 19 | 34.3 |
| 20 | 17.1 |
| 21 | 0.0 |

Orbital Plane 17:

| Question | Response |
|---------------------------------------------------------------|-----------------|
| Number of Satellites in Plane | 21 |
| Inclination Angle | 50.0 degrees |
| Right Ascension of Ascending Node | 280.0 degrees |
| Argument of Perigee | 280.0 degrees |
| Orbital Period | 14400.0 seconds |
| Apogee | 6400.0 km |
| Perigee | 6400.0 km |
| Active Service Arc Begin Angle with respect to Ascending Node | -50.0 degrees |
| Active Service Arc End Angle with respect to Ascending Node | 50.0 degrees |

Mean Anomaly For Each Satellite

| Satellite Number | Mean Anomaly (degrees) at the Orbit Epoch Date |
|------------------|------------------------------------------------|
| 1 | 342.9 |
| 2 | 325.7 |
| 3 | 308.6 |
| 4 | 291.4 |
| 5 | 274.3 |
| 6 | 257.1 |
| 7 | 240.0 |
| 8 | 222.9 |
| 9 | 205.7 |
| 10 | 188.6 |
| 11 | 171.4 |
| 12 | 154.3 |

| | |
|-----------|-------|
| 13 | 137.1 |
| 14 | 120.0 |
| 15 | 102.9 |
| 16 | 85.7 |
| 17 | 68.6 |
| 18 | 51.4 |
| 19 | 34.3 |
| 20 | 17.1 |
| 21 | 0.0 |

Orbital Plane 18:

| Question | Response |
|---------------------------------------------------------------|-----------------|
| Number of Satellites in Plane | 21 |
| Inclination Angle | 50.0 degrees |
| Right Ascension of Ascending Node | 320.0 degrees |
| Argument of Perigee | 320.0 degrees |
| Orbital Period | 14400.0 seconds |
| Apogee | 6400.0 km |
| Perigee | 6400.0 km |
| Active Service Arc Begin Angle with respect to Ascending Node | -50.0 degrees |
| Active Service Arc End Angle with respect to Ascending Node | 50.0 degrees |

Mean Anomaly For Each Satellite

| Satellite Number | Mean Anomaly (degrees) at the Orbit Epoch Date |
|-------------------------|-------------------------------------------------------|
| 1 | 342.9 |
| 2 | 325.7 |

| | |
|----|-------|
| 3 | 308.6 |
| 4 | 291.4 |
| 5 | 274.3 |
| 6 | 257.1 |
| 7 | 240.0 |
| 8 | 222.9 |
| 9 | 205.7 |
| 10 | 188.6 |
| 11 | 171.4 |
| 12 | 154.3 |
| 13 | 137.1 |
| 14 | 120.0 |
| 15 | 102.9 |
| 16 | 85.7 |
| 17 | 68.6 |
| 18 | 51.4 |
| 19 | 34.3 |
| 20 | 17.1 |
| 21 | 0.0 |

Orbital Plane 19:

| Question | Response |
|-----------------------------------|-----------------|
| Number of Satellites in Plane | 21 |
| Inclination Angle | 52.5 degrees |
| Right Ascension of Ascending Node | 0.0 degrees |
| Argument of Perigee | 0.0 degrees |
| Orbital Period | 14400.0 seconds |

| | |
|---------------------------------------------------------------|---------------|
| Apogee | 6400.0 km |
| Perigee | 6400.0 km |
| Active Service Arc Begin Angle with respect to Ascending Node | -52.5 degrees |
| Active Service Arc End Angle with respect to Ascending Node | 52.5 degrees |

Mean Anomaly For Each Satellite

| Satellite Number | Mean Anomaly (degrees) at the Orbit Epoch Date |
|------------------|------------------------------------------------|
| 1 | 342.9 |
| 2 | 325.7 |
| 3 | 308.6 |
| 4 | 291.4 |
| 5 | 274.3 |
| 6 | 257.1 |
| 7 | 240.0 |
| 8 | 222.9 |
| 9 | 205.7 |
| 10 | 188.6 |
| 11 | 171.4 |
| 12 | 154.3 |
| 13 | 137.1 |
| 14 | 120.0 |
| 15 | 102.9 |
| 16 | 85.7 |
| 17 | 68.6 |
| 18 | 51.4 |
| 19 | 34.3 |

| | |
|-----------|------|
| 20 | 17.1 |
|-----------|------|

| | |
|-----------|-----|
| 21 | 0.0 |
|-----------|-----|

Orbital Plane 20:

| Question | Response |
|---------------------------------------------------------------|--------------------|
| Number of Satellites in Plane | 21 |
| Inclination Angle | 52.5 degrees |
| Right Ascension of Ascending Node | 40.0 degrees |
| Argument of Perigee | 40.0 degrees |
| Orbital Period | 14400.0 seconds |
| Apogee | 6400.0 km |
| Perigee | 6400.0 km |
| Active Service Arc Begin Angle with respect to Ascending Node | -52.5 degrees |
| Active Service Arc End Angle with respect to Ascending Node | 52.5 degrees |

Mean Anomaly For Each Satellite

| Satellite Number | Mean Anomaly (degrees) at the Orbit Epoch Date |
|------------------|------------------------------------------------|
| 1 | 342.9 |
| 2 | 325.7 |
| 3 | 308.6 |
| 4 | 291.4 |
| 5 | 274.3 |
| 6 | 257.1 |
| 7 | 240.0 |
| 8 | 222.9 |
| 9 | 205.7 |

| | |
|-----------|-------|
| 10 | 188.6 |
| 11 | 171.4 |
| 12 | 154.3 |
| 13 | 137.1 |
| 14 | 120.0 |
| 15 | 102.9 |
| 16 | 85.7 |
| 17 | 68.6 |
| 18 | 51.4 |
| 19 | 34.3 |
| 20 | 17.1 |
| 21 | 0.0 |

Orbital Plane 21:

| Question | Response |
|---------------------------------------------------------------|-----------------|
| Number of Satellites in Plane | 21 |
| Inclination Angle | 52.5 degrees |
| Right Ascension of Ascending Node | 80.0 degrees |
| Argument of Perigee | 80.0 degrees |
| Orbital Period | 14400.0 seconds |
| Apogee | 6400.0 km |
| Perigee | 6400.0 km |
| Active Service Arc Begin Angle with respect to Ascending Node | -52.5 degrees |
| Active Service Arc End Angle with respect to Ascending Node | 52.5 degrees |

Mean Anomaly For Each Satellite

| Satellite Number | Mean Anomaly (degrees) at the Orbit Epoch Date |
|------------------|------------------------------------------------|
| 1 | 342.9 |
| 2 | 325.7 |
| 3 | 308.6 |
| 4 | 291.4 |
| 5 | 274.3 |
| 6 | 257.1 |
| 7 | 240.0 |
| 8 | 222.9 |
| 9 | 205.7 |
| 10 | 188.6 |
| 11 | 171.4 |
| 12 | 154.3 |
| 13 | 137.1 |
| 14 | 120.0 |
| 15 | 102.9 |
| 16 | 85.7 |
| 17 | 68.6 |
| 18 | 51.4 |
| 19 | 34.3 |
| 20 | 17.1 |
| 21 | 0.0 |

Orbital Plane 22:

| Question | Response |
|-------------------------------|--------------|
| Number of Satellites in Plane | 21 |
| Inclination Angle | 52.5 degrees |

| | |
|---------------------------------------------------------------|--------------------|
| Right Ascension of Ascending Node | 120.0 degrees |
| Argument of Perigee | 120.0 degrees |
| Orbital Period | 14400.0 seconds |
| Apogee | 6400.0 km |
| Perigee | 6400.0 km |
| Active Service Arc Begin Angle with respect to Ascending Node | -52.5 degrees |
| Active Service Arc End Angle with respect to Ascending Node | 52.5 degrees |

Mean Anomaly For Each Satellite

| Satellite Number | Mean Anomaly (degrees) at the Orbit Epoch Date |
|------------------|------------------------------------------------|
| 1 | 342.9 |
| 2 | 325.7 |
| 3 | 308.6 |
| 4 | 291.4 |
| 5 | 274.3 |
| 6 | 257.1 |
| 7 | 240.0 |
| 8 | 222.9 |
| 9 | 205.7 |
| 10 | 188.6 |
| 11 | 171.4 |
| 12 | 154.3 |
| 13 | 137.1 |
| 14 | 120.0 |
| 15 | 102.9 |

| | |
|-----------|------|
| 16 | 85.7 |
| 17 | 68.6 |
| 18 | 51.4 |
| 19 | 34.3 |
| 20 | 17.1 |
| 21 | 0.0 |

Orbital Plane 23:

| Question | Response |
|---------------------------------------------------------------|-----------------|
| Number of Satellites in Plane | 21 |
| Inclination Angle | 52.5 degrees |
| Right Ascension of Ascending Node | 160.0 degrees |
| Argument of Perigee | 160.0 degrees |
| Orbital Period | 14400.0 seconds |
| Apogee | 6400.0 km |
| Perigee | 6400.0 km |
| Active Service Arc Begin Angle with respect to Ascending Node | -52.5 degrees |
| Active Service Arc End Angle with respect to Ascending Node | 52.5 degrees |

Mean Anomaly For Each Satellite

| Satellite Number | Mean Anomaly (degrees) at the Orbit Epoch Date |
|------------------|------------------------------------------------|
| 1 | 342.9 |
| 2 | 325.7 |
| 3 | 308.6 |
| 4 | 291.4 |
| 5 | 274.3 |

| | |
|-----------|-------|
| 6 | 257.1 |
| 7 | 240.0 |
| 8 | 222.9 |
| 9 | 205.7 |
| 10 | 188.6 |
| 11 | 171.4 |
| 12 | 154.3 |
| 13 | 137.1 |
| 14 | 120.0 |
| 15 | 102.9 |
| 16 | 85.7 |
| 17 | 68.6 |
| 18 | 51.4 |
| 19 | 34.3 |
| 20 | 17.1 |
| 21 | 0.0 |

Orbital Plane 24:

| Question | Response |
|-----------------------------------|-----------------|
| Number of Satellites in Plane | 21 |
| Inclination Angle | 52.5 degrees |
| Right Ascension of Ascending Node | 200.0 degrees |
| Argument of Perigee | 200.0 degrees |
| Orbital Period | 14400.0 seconds |
| Apogee | 6400.0 km |
| Perigee | 6400.0 km |

Active Service Arc Begin Angle with respect to Ascending Node -52.5 degrees

Active Service Arc End Angle with respect to Ascending Node 52.5 degrees

Mean Anomaly For Each Satellite

| Satellite Number | Mean Anomaly (degrees) at the Orbit Epoch Date |
|------------------|------------------------------------------------|
| 1 | 342.9 |
| 2 | 325.7 |
| 3 | 308.6 |
| 4 | 291.4 |
| 5 | 274.3 |
| 6 | 257.1 |
| 7 | 240.0 |
| 8 | 222.9 |
| 9 | 205.7 |
| 10 | 188.6 |
| 11 | 171.4 |
| 12 | 154.3 |
| 13 | 137.1 |
| 14 | 120.0 |
| 15 | 102.9 |
| 16 | 85.7 |
| 17 | 68.6 |
| 18 | 51.4 |
| 19 | 34.3 |
| 20 | 17.1 |
| 21 | 0.0 |

Orbital Plane 25:

| Question | Response |
|---------------------------------------------------------------|-----------------|
| Number of Satellites in Plane | 21 |
| Inclination Angle | 52.5 degrees |
| Right Ascension of Ascending Node | 240.0 degrees |
| Argument of Perigee | 240.0 degrees |
| Orbital Period | 14400.0 seconds |
| Apogee | 6400.0 km |
| Perigee | 6400.0 km |
| Active Service Arc Begin Angle with respect to Ascending Node | -52.5 degrees |
| Active Service Arc End Angle with respect to Ascending Node | 52.5 degrees |

Mean Anomaly For Each Satellite

| Satellite Number | Mean Anomaly (degrees) at the Orbit Epoch Date |
|------------------|------------------------------------------------|
| 1 | 342.9 |
| 2 | 325.7 |
| 3 | 308.6 |
| 4 | 291.4 |
| 5 | 274.3 |
| 6 | 257.1 |
| 7 | 240.0 |
| 8 | 222.9 |
| 9 | 205.7 |
| 10 | 188.6 |
| 11 | 171.4 |
| 12 | 154.3 |

| | |
|-----------|-------|
| 13 | 137.1 |
| 14 | 120.0 |
| 15 | 102.9 |
| 16 | 85.7 |
| 17 | 68.6 |
| 18 | 51.4 |
| 19 | 34.3 |
| 20 | 17.1 |
| 21 | 0.0 |

Orbital Plane 26:

| Question | Response |
|---------------------------------------------------------------|-----------------|
| Number of Satellites in Plane | 21 |
| Inclination Angle | 52.5 degrees |
| Right Ascension of Ascending Node | 280.0 degrees |
| Argument of Perigee | 280.0 degrees |
| Orbital Period | 14400.0 seconds |
| Apogee | 6400.0 km |
| Perigee | 6400.0 km |
| Active Service Arc Begin Angle with respect to Ascending Node | -52.5 degrees |
| Active Service Arc End Angle with respect to Ascending Node | 52.5 degrees |

Mean Anomaly For Each Satellite

| Satellite Number | Mean Anomaly (degrees) at the Orbit Epoch Date |
|-------------------------|-------------------------------------------------------|
| 1 | 342.9 |
| 2 | 325.7 |

| | |
|----|-------|
| 3 | 308.6 |
| 4 | 291.4 |
| 5 | 274.3 |
| 6 | 257.1 |
| 7 | 240.0 |
| 8 | 222.9 |
| 9 | 205.7 |
| 10 | 188.6 |
| 11 | 171.4 |
| 12 | 154.3 |
| 13 | 137.1 |
| 14 | 120.0 |
| 15 | 102.9 |
| 16 | 85.7 |
| 17 | 68.6 |
| 18 | 51.4 |
| 19 | 34.3 |
| 20 | 17.1 |
| 21 | 0.0 |

Orbital Plane 27:

| Question | Response |
|-----------------------------------|-----------------|
| Number of Satellites in Plane | 21 |
| Inclination Angle | 52.5 degrees |
| Right Ascension of Ascending Node | 320.0 degrees |
| Argument of Perigee | 320.0 degrees |
| Orbital Period | 14400.0 seconds |

| | |
|---------------------------------------------------------------|---------------|
| Apogee | 6400.0 km |
| Perigee | 6400.0 km |
| Active Service Arc Begin Angle with respect to Ascending Node | -52.5 degrees |
| Active Service Arc End Angle with respect to Ascending Node | 52.5 degrees |

Mean Anomaly For Each Satellite

| Satellite Number | Mean Anomaly (degrees) at the Orbit Epoch Date |
|------------------|------------------------------------------------|
| 1 | 0.0 |
| 2 | 17.1 |
| 3 | 34.3 |
| 4 | 51.4 |
| 5 | 68.6 |
| 6 | 85.7 |
| 7 | 102.9 |
| 8 | 342.9 |
| 9 | 325.7 |
| 10 | 308.6 |
| 11 | 291.4 |
| 12 | 274.3 |
| 13 | 257.1 |
| 14 | 240.0 |
| 15 | 222.9 |
| 16 | 205.7 |
| 17 | 188.6 |
| 18 | 171.4 |
| 19 | 154.3 |

| | |
|-----------|-------|
| 20 | 137.1 |
| 21 | 120.0 |

Orbital Plane 28:

| Question | Response |
|---------------------------------------------------------------|-----------------|
| Number of Satellites in Plane | 7 |
| Inclination Angle | 63.4 degrees |
| Right Ascension of Ascending Node | 0.0 degrees |
| Argument of Perigee | 270.0 degrees |
| Orbital Period | 14400.0 seconds |
| Apogee | 11585.0 km |
| Perigee | 1215.0 km |
| Active Service Arc Begin Angle with respect to Ascending Node | 0.0 degrees |
| Active Service Arc End Angle with respect to Ascending Node | 63.4 degrees |

Mean Anomaly For Each Satellite

| Satellite Number | Mean Anomaly (degrees) at the Orbit Epoch Date |
|------------------|------------------------------------------------|
| 1 | 0.0 |
| 2 | 51.0 |
| 3 | 103.0 |
| 4 | 154.0 |
| 5 | 206.0 |
| 6 | 257.0 |
| 7 | 309.0 |

Orbital Plane 29:

| Question | Response |
|----------|----------|
|----------|----------|

| | |
|---------------------------------------------------------------|--------------------|
| Number of Satellites in Plane | 7 |
| Inclination Angle | 63.4 degrees |
| Right Ascension of Ascending Node | 90.0 degrees |
| Argument of Perigee | 270.0 degrees |
| Orbital Period | 14400.0 seconds |
| Apogee | 11585.0 km |
| Perigee | 1215.0 km |
| Active Service Arc Begin Angle with respect to Ascending Node | 0.0 degrees |
| Active Service Arc End Angle with respect to Ascending Node | 63.4 degrees |

Mean Anomaly For Each Satellite

| Satellite Number | Mean Anomaly (degrees) at the Orbit Epoch Date |
|------------------|------------------------------------------------|
| 1 | 0.0 |
| 2 | 51.0 |
| 3 | 103.0 |
| 4 | 154.0 |
| 5 | 206.0 |
| 6 | 257.0 |
| 7 | 309.0 |

Orbital Plane 30:

| Question | Response |
|-----------------------------------|---------------|
| Number of Satellites in Plane | 7 |
| Inclination Angle | 63.4 degrees |
| Right Ascension of Ascending Node | 180.0 degrees |
| Argument of Perigee | 270.0 degrees |

| | |
|---------------------------------------------------------------|--------------------|
| Orbital Period | 14400.0 seconds |
| Apogee | 11585.0 km |
| Perigee | 1215.0 km |
| Active Service Arc Begin Angle with respect to Ascending Node | 0.0 degrees |
| Active Service Arc End Angle with respect to Ascending Node | 63.4 degrees |

Mean Anomaly For Each Satellite

| Satellite Number | Mean Anomaly (degrees) at the Orbit Epoch Date |
|------------------|------------------------------------------------|
| 1 | 0.0 |
| 2 | 51.0 |
| 3 | 103.0 |
| 4 | 309.0 |
| 5 | 257.0 |
| 6 | 206.0 |
| 7 | 154.0 |

Orbital Plane 31:

| Question | Response |
|-----------------------------------|--------------------|
| Number of Satellites in Plane | 7 |
| Inclination Angle | 63.4 degrees |
| Right Ascension of Ascending Node | 270.0 degrees |
| Argument of Perigee | 270.0 degrees |
| Orbital Period | 14400.0 seconds |
| Apogee | 11585.0 km |
| Perigee | 1215.0 km |

| | |
|---------------------------------------------------------------|--------------|
| Active Service Arc Begin Angle with respect to Ascending Node | 0.0 degrees |
| Active Service Arc End Angle with respect to Ascending Node | 63.4 degrees |

Mean Anomaly For Each Satellite

| Satellite Number | Mean Anomaly (degrees) at the Orbit Epoch Date |
|------------------|------------------------------------------------|
| 1 | 309.0 |
| 2 | 257.0 |
| 3 | 206.0 |
| 4 | 154.0 |
| 5 | 103.0 |
| 6 | 51.0 |
| 7 | 0.0 |

Orbital Plane 32:

| Question | Response |
|---------------------------------------------------------------|-----------------|
| Number of Satellites in Plane | 7 |
| Inclination Angle | 63.4 degrees |
| Right Ascension of Ascending Node | 0.0 degrees |
| Argument of Perigee | 90.0 degrees |
| Orbital Period | 14400.0 seconds |
| Apogee | 11585.0 km |
| Perigee | 1215.0 km |
| Active Service Arc Begin Angle with respect to Ascending Node | -63.4 degrees |
| Active Service Arc End Angle with respect to Ascending Node | 0.0 degrees |

Mean Anomaly For Each Satellite

| Satellite Number | Mean Anomaly (degrees) at the Orbit Epoch Date |
|------------------|------------------------------------------------|
| 1 | 0.0 |
| 2 | 51.0 |
| 3 | 103.0 |
| 4 | 154.0 |
| 5 | 206.0 |
| 6 | 257.0 |
| 7 | 309.0 |

Orbital Plane 33:

| Question | Response |
|---------------------------------------------------------------|-----------------|
| Number of Satellites in Plane | 7 |
| Inclination Angle | 63.4 degrees |
| Right Ascension of Ascending Node | 90.0 degrees |
| Argument of Perigee | 90.0 degrees |
| Orbital Period | 14400.0 seconds |
| Apogee | 11585.0 km |
| Perigee | 1215.0 km |
| Active Service Arc Begin Angle with respect to Ascending Node | -63.4 degrees |
| Active Service Arc End Angle with respect to Ascending Node | 0.0 degrees |

Mean Anomaly For Each Satellite

| Satellite Number | Mean Anomaly (degrees) at the Orbit Epoch Date |
|------------------|------------------------------------------------|
| 1 | 0.0 |
| 2 | 51.0 |
| 3 | 103.0 |

| | |
|---|-------|
| 4 | 154.0 |
| 5 | 206.0 |
| 6 | 257.0 |
| 7 | 309.0 |

Orbital Plane 34:

| Question | Response |
|---------------------------------------------------------------|-----------------|
| Number of Satellites in Plane | 7 |
| Inclination Angle | 63.4 degrees |
| Right Ascension of Ascending Node | 180.0 degrees |
| Argument of Perigee | 90.0 degrees |
| Orbital Period | 14400.0 seconds |
| Apogee | 11585.0 km |
| Perigee | 1215.0 km |
| Active Service Arc Begin Angle with respect to Ascending Node | -63.4 degrees |
| Active Service Arc End Angle with respect to Ascending Node | 0.0 degrees |

Mean Anomaly For Each Satellite

| Satellite Number | Mean Anomaly (degrees) at the Orbit Epoch Date |
|------------------|------------------------------------------------|
| 1 | 0.0 |
| 2 | 51.0 |
| 3 | 103.0 |
| 4 | 154.0 |
| 5 | 206.0 |
| 6 | 257.0 |
| 7 | 309.0 |

Orbital Plane 35:

| Question | Response |
|---------------------------------------------------------------|--------------------|
| Number of Satellites in Plane | 7 |
| Inclination Angle | 63.4 degrees |
| Right Ascension of Ascending Node | 270.0 degrees |
| Argument of Perigee | 90.0 degrees |
| Orbital Period | 14400.0 seconds |
| Apogee | 11585.0 km |
| Perigee | 1215.0 km |
| Active Service Arc Begin Angle with respect to Ascending Node | -63.4 degrees |
| Active Service Arc End Angle with respect to Ascending Node | 0.0 degrees |

Mean Anomaly For Each Satellite

| Satellite Number | Mean Anomaly (degrees) at the Orbit Epoch Date |
|------------------|------------------------------------------------|
| 1 | 0.0 |
| 2 | 51.0 |
| 3 | 103.0 |
| 4 | 154.0 |
| 5 | 206.0 |
| 6 | 257.0 |
| 7 | 309.0 |

Orbital Plane 36:

| Question | Response |
|-----------------------------------|--------------|
| Number of Satellites in Plane | 7 |
| Inclination Angle | 63.4 degrees |
| Right Ascension of Ascending Node | 0.0 degrees |

| | |
|---------------------------------------------------------------|-----------------|
| Argument of Perigee | 270.0 degrees |
| Orbital Period | 14400.0 seconds |
| Apogee | 11024.0 km |
| Perigee | 1776.0 km |
| Active Service Arc Begin Angle with respect to Ascending Node | 0.0 degrees |
| Active Service Arc End Angle with respect to Ascending Node | 63.4 degrees |

Mean Anomaly For Each Satellite

| Satellite Number | Mean Anomaly (degrees) at the Orbit Epoch Date |
|------------------|------------------------------------------------|
| 1 | 309.0 |
| 2 | 257.0 |
| 3 | 206.0 |
| 4 | 154.0 |
| 5 | 103.0 |
| 6 | 51.0 |
| 7 | 0.0 |

Orbital Plane 37:

| Question | Response |
|-----------------------------------|-----------------|
| Number of Satellites in Plane | 7 |
| Inclination Angle | 63.4 degrees |
| Right Ascension of Ascending Node | 90.0 degrees |
| Argument of Perigee | 270.0 degrees |
| Orbital Period | 14400.0 seconds |
| Apogee | 11024.0 km |
| Perigee | 1776.0 km |

| | |
|---------------------------------------------------------------|--------------|
| Active Service Arc Begin Angle with respect to Ascending Node | 0.0 degrees |
| Active Service Arc End Angle with respect to Ascending Node | 63.4 degrees |

Mean Anomaly For Each Satellite

| Satellite Number | Mean Anomaly (degrees) at the Orbit Epoch Date |
|------------------|------------------------------------------------|
| 1 | 309.0 |
| 2 | 257.0 |
| 3 | 206.0 |
| 4 | 154.0 |
| 5 | 103.0 |
| 6 | 51.0 |
| 7 | 0.0 |

Orbital Plane 38:

| Question | Response |
|---------------------------------------------------------------|-----------------|
| Number of Satellites in Plane | 7 |
| Inclination Angle | 63.4 degrees |
| Right Ascension of Ascending Node | 180.0 degrees |
| Argument of Perigee | 270.0 degrees |
| Orbital Period | 14400.0 seconds |
| Apogee | 11024.0 km |
| Perigee | 1776.0 km |
| Active Service Arc Begin Angle with respect to Ascending Node | 0.0 degrees |
| Active Service Arc End Angle with respect to Ascending Node | 63.4 degrees |

Mean Anomaly For Each Satellite

| Satellite Number | Mean Anomaly (degrees) at the Orbit Epoch Date |
|------------------|------------------------------------------------|
| 1 | 309.0 |
| 2 | 0.0 |
| 3 | 51.0 |
| 4 | 103.0 |
| 5 | 154.0 |
| 6 | 206.0 |
| 7 | 257.0 |

Orbital Plane 39:

| Question | Response |
|---------------------------------------------------------------|-----------------|
| Number of Satellites in Plane | 7 |
| Inclination Angle | 63.4 degrees |
| Right Ascension of Ascending Node | 270.0 degrees |
| Argument of Perigee | 270.0 degrees |
| Orbital Period | 14400.0 seconds |
| Apogee | 11024.0 km |
| Perigee | 1776.0 km |
| Active Service Arc Begin Angle with respect to Ascending Node | 0.0 degrees |
| Active Service Arc End Angle with respect to Ascending Node | 63.4 degrees |

Mean Anomaly For Each Satellite

| Satellite Number | Mean Anomaly (degrees) at the Orbit Epoch Date |
|------------------|------------------------------------------------|
| 1 | 309.0 |
| 2 | 257.0 |
| 3 | 206.0 |

| | |
|---|-------|
| 4 | 154.0 |
| 5 | 103.0 |
| 6 | 51.0 |
| 7 | 0.0 |

Orbital Plane 40:

| Question | Response |
|---------------------------------------------------------------|-----------------|
| Number of Satellites in Plane | 7 |
| Inclination Angle | 63.4 degrees |
| Right Ascension of Ascending Node | 0.0 degrees |
| Argument of Perigee | 90.0 degrees |
| Orbital Period | 14400.0 seconds |
| Apogee | 11024.0 km |
| Perigee | 1776.0 km |
| Active Service Arc Begin Angle with respect to Ascending Node | -63.4 degrees |
| Active Service Arc End Angle with respect to Ascending Node | 0.0 degrees |

Mean Anomaly For Each Satellite

| Satellite Number | Mean Anomaly (degrees) at the Orbit Epoch Date |
|------------------|------------------------------------------------|
| 1 | 309.0 |
| 2 | 257.0 |
| 3 | 206.0 |
| 4 | 154.0 |
| 5 | 103.0 |
| 6 | 51.0 |
| 7 | 0.0 |

Orbital Plane 41:

| Question | Response |
|---------------------------------------------------------------|--------------------|
| Number of Satellites in Plane | 7 |
| Inclination Angle | 63.4 degrees |
| Right Ascension of Ascending Node | 90.0 degrees |
| Argument of Perigee | 90.0 degrees |
| Orbital Period | 14400.0 seconds |
| Apogee | 11024.0 km |
| Perigee | 1776.0 km |
| Active Service Arc Begin Angle with respect to Ascending Node | -63.4 degrees |
| Active Service Arc End Angle with respect to Ascending Node | 0.0 degrees |

Mean Anomaly For Each Satellite

| Satellite Number | Mean Anomaly (degrees) at the Orbit Epoch Date |
|------------------|------------------------------------------------|
| 1 | 0.0 |
| 2 | 51.0 |
| 3 | 103.0 |
| 4 | 154.0 |
| 5 | 206.0 |
| 6 | 257.0 |
| 7 | 309.0 |

Orbital Plane 42:

| Question | Response |
|-----------------------------------|---------------|
| Number of Satellites in Plane | 7 |
| Inclination Angle | 63.4 degrees |
| Right Ascension of Ascending Node | 180.0 degrees |

| | |
|---------------------------------------------------------------|-----------------|
| Argument of Perigee | 90.0 degrees |
| Orbital Period | 14400.0 seconds |
| Apogee | 11024.0 km |
| Perigee | 1776.0 km |
| Active Service Arc Begin Angle with respect to Ascending Node | -63.4 degrees |
| Active Service Arc End Angle with respect to Ascending Node | 0.0 degrees |

Mean Anomaly For Each Satellite

| Satellite Number | Mean Anomaly (degrees) at the Orbit Epoch Date |
|------------------|------------------------------------------------|
| 1 | 0.0 |
| 2 | 51.0 |
| 3 | 103.0 |
| 4 | 154.0 |
| 5 | 206.0 |
| 6 | 257.0 |
| 7 | 309.0 |

Orbital Plane 43:

| Question | Response |
|-----------------------------------|-----------------|
| Number of Satellites in Plane | 7 |
| Inclination Angle | 63.4 degrees |
| Right Ascension of Ascending Node | 270.0 degrees |
| Argument of Perigee | 90.0 degrees |
| Orbital Period | 14400.0 seconds |
| Apogee | 11024.0 km |
| Perigee | 1776.0 km |

| | |
|---------------------------------------------------------------|---------------|
| Active Service Arc Begin Angle with respect to Ascending Node | -63.4 degrees |
| Active Service Arc End Angle with respect to Ascending Node | 0.0 degrees |

Mean Anomaly For Each Satellite

| Satellite Number | Mean Anomaly (degrees) at the Orbit Epoch Date |
|------------------|------------------------------------------------|
| 1 | 0.0 |
| 2 | 51.0 |
| 3 | 103.0 |
| 4 | 154.0 |
| 5 | 206.0 |
| 6 | 257.0 |
| 7 | 309.0 |

Orbital Plane 44:

| Question | Response |
|---------------------------------------------------------------|-----------------|
| Number of Satellites in Plane | 7 |
| Inclination Angle | 63.4 degrees |
| Right Ascension of Ascending Node | 0.0 degrees |
| Argument of Perigee | 270.0 degrees |
| Orbital Period | 14400.0 seconds |
| Apogee | 9000.0 km |
| Perigee | 3800.0 km |
| Active Service Arc Begin Angle with respect to Ascending Node | 0.0 degrees |
| Active Service Arc End Angle with respect to Ascending Node | 63.4 degrees |

Mean Anomaly For Each Satellite

| Satellite Number | Mean Anomaly (degrees) at the Orbit Epoch Date |
|------------------|------------------------------------------------|
| 1 | 0.0 |
| 2 | 51.0 |
| 3 | 103.0 |
| 4 | 154.0 |
| 5 | 206.0 |
| 6 | 257.0 |
| 7 | 309.0 |

Orbital Plane 45:

| Question | Response |
|---------------------------------------------------------------|-----------------|
| Number of Satellites in Plane | 7 |
| Inclination Angle | 63.4 degrees |
| Right Ascension of Ascending Node | 90.0 degrees |
| Argument of Perigee | 270.0 degrees |
| Orbital Period | 14400.0 seconds |
| Apogee | 9000.0 km |
| Perigee | 3800.0 km |
| Active Service Arc Begin Angle with respect to Ascending Node | 0.0 degrees |
| Active Service Arc End Angle with respect to Ascending Node | 63.4 degrees |

Mean Anomaly For Each Satellite

| Satellite Number | Mean Anomaly (degrees) at the Orbit Epoch Date |
|------------------|------------------------------------------------|
| 1 | 0.0 |
| 2 | 51.0 |
| 3 | 103.0 |

| | |
|---|-------|
| 4 | 154.0 |
| 5 | 206.0 |
| 6 | 257.0 |
| 7 | 309.0 |

Orbital Plane 46:

| Question | Response |
|---------------------------------------------------------------|-----------------|
| Number of Satellites in Plane | 7 |
| Inclination Angle | 63.4 degrees |
| Right Ascension of Ascending Node | 180.0 degrees |
| Argument of Perigee | 270.0 degrees |
| Orbital Period | 14400.0 seconds |
| Apogee | 9000.0 km |
| Perigee | 3800.0 km |
| Active Service Arc Begin Angle with respect to Ascending Node | 0.0 degrees |
| Active Service Arc End Angle with respect to Ascending Node | 63.4 degrees |

Mean Anomaly For Each Satellite

| Satellite Number | Mean Anomaly (degrees) at the Orbit Epoch Date |
|------------------|------------------------------------------------|
| 1 | 0.0 |
| 2 | 51.0 |
| 3 | 103.0 |
| 4 | 154.0 |
| 5 | 206.0 |
| 6 | 257.0 |
| 7 | 309.0 |

Orbital Plane 47:

| Question | Response |
|---------------------------------------------------------------|-----------------|
| Number of Satellites in Plane | 7 |
| Inclination Angle | 63.4 degrees |
| Right Ascension of Ascending Node | 270.0 degrees |
| Argument of Perigee | 270.0 degrees |
| Orbital Period | 14400.0 seconds |
| Apogee | 9000.0 km |
| Perigee | 3800.0 km |
| Active Service Arc Begin Angle with respect to Ascending Node | 0.0 degrees |
| Active Service Arc End Angle with respect to Ascending Node | 63.4 degrees |

Mean Anomaly For Each Satellite

| Satellite Number | Mean Anomaly (degrees) at the Orbit Epoch Date |
|------------------|------------------------------------------------|
| 1 | 0.0 |
| 2 | 51.0 |
| 3 | 103.0 |
| 4 | 154.0 |
| 5 | 206.0 |
| 6 | 257.0 |
| 7 | 309.0 |

Orbital Plane 48:

| Question | Response |
|-----------------------------------|--------------|
| Number of Satellites in Plane | 7 |
| Inclination Angle | 63.4 degrees |
| Right Ascension of Ascending Node | 0.0 degrees |

| | |
|---------------------------------------------------------------|-----------------|
| Argument of Perigee | 90.0 degrees |
| Orbital Period | 14400.0 seconds |
| Apogee | 9000.0 km |
| Perigee | 3800.0 km |
| Active Service Arc Begin Angle with respect to Ascending Node | -63.4 degrees |
| Active Service Arc End Angle with respect to Ascending Node | 0.0 degrees |

Mean Anomaly For Each Satellite

| Satellite Number | Mean Anomaly (degrees) at the Orbit Epoch Date |
|------------------|------------------------------------------------|
| 1 | 0.0 |
| 2 | 51.0 |
| 3 | 103.0 |
| 4 | 154.0 |
| 5 | 206.0 |
| 6 | 257.0 |
| 7 | 309.0 |

Orbital Plane 49:

| Question | Response |
|-----------------------------------|-----------------|
| Number of Satellites in Plane | 7 |
| Inclination Angle | 63.4 degrees |
| Right Ascension of Ascending Node | 90.0 degrees |
| Argument of Perigee | 90.0 degrees |
| Orbital Period | 14400.0 seconds |
| Apogee | 9000.0 km |
| Perigee | 3800.0 km |

| | |
|---------------------------------------------------------------|---------------|
| Active Service Arc Begin Angle with respect to Ascending Node | -63.4 degrees |
| Active Service Arc End Angle with respect to Ascending Node | 0.0 degrees |

Mean Anomaly For Each Satellite

| Satellite Number | Mean Anomaly (degrees) at the Orbit Epoch Date |
|------------------|------------------------------------------------|
| 1 | 0.0 |
| 2 | 51.0 |
| 3 | 103.0 |
| 4 | 154.0 |
| 5 | 206.0 |
| 6 | 257.0 |
| 7 | 309.0 |

Orbital Plane 50:

| Question | Response |
|---------------------------------------------------------------|-----------------|
| Number of Satellites in Plane | 7 |
| Inclination Angle | 63.4 degrees |
| Right Ascension of Ascending Node | 180.0 degrees |
| Argument of Perigee | 90.0 degrees |
| Orbital Period | 14400.0 seconds |
| Apogee | 9000.0 km |
| Perigee | 3800.0 km |
| Active Service Arc Begin Angle with respect to Ascending Node | -63.4 degrees |
| Active Service Arc End Angle with respect to Ascending Node | 0.0 degrees |

Mean Anomaly For Each Satellite

| Satellite Number | Mean Anomaly (degrees) at the Orbit Epoch Date |
|------------------|------------------------------------------------|
| 1 | 0.0 |
| 2 | 51.0 |
| 3 | 103.0 |
| 4 | 154.0 |
| 5 | 206.0 |
| 6 | 257.0 |
| 7 | 309.0 |

Orbital Plane 51:

| Question | Response |
|---------------------------------------------------------------|-----------------|
| Number of Satellites in Plane | 7 |
| Inclination Angle | 63.4 degrees |
| Right Ascension of Ascending Node | 270.0 degrees |
| Argument of Perigee | 90.0 degrees |
| Orbital Period | 14400.0 seconds |
| Apogee | 9000.0 km |
| Perigee | 3800.0 km |
| Active Service Arc Begin Angle with respect to Ascending Node | -63.4 degrees |
| Active Service Arc End Angle with respect to Ascending Node | 0.0 degrees |

Mean Anomaly For Each Satellite

| Satellite Number | Mean Anomaly (degrees) at the Orbit Epoch Date |
|------------------|------------------------------------------------|
| 1 | 0.0 |
| 2 | 51.0 |
| 3 | 103.0 |

| | |
|---|-------|
| 4 | 154.0 |
| 5 | 206.0 |
| 6 | 257.0 |
| 7 | 309.0 |

Orbital Plane 52:

| Question | Response |
|---------------------------------------------------------------|-----------------|
| Number of Satellites in Plane | 7 |
| Inclination Angle | 63.4 degrees |
| Right Ascension of Ascending Node | 0.0 degrees |
| Argument of Perigee | 270.0 degrees |
| Orbital Period | 14400.0 seconds |
| Apogee | 9800.0 km |
| Perigee | 3000.0 km |
| Active Service Arc Begin Angle with respect to Ascending Node | 0.0 degrees |
| Active Service Arc End Angle with respect to Ascending Node | 63.4 degrees |

Mean Anomaly For Each Satellite

| Satellite Number | Mean Anomaly (degrees) at the Orbit Epoch Date |
|------------------|------------------------------------------------|
| 1 | 0.0 |
| 2 | 51.0 |
| 3 | 103.0 |
| 4 | 154.0 |
| 5 | 206.0 |
| 6 | 257.0 |
| 7 | 309.0 |

Orbital Plane 53:

| Question | Response |
|---------------------------------------------------------------|-----------------|
| Number of Satellites in Plane | 7 |
| Inclination Angle | 63.4 degrees |
| Right Ascension of Ascending Node | 90.0 degrees |
| Argument of Perigee | 270.0 degrees |
| Orbital Period | 14400.0 seconds |
| Apogee | 9800.0 km |
| Perigee | 3000.0 km |
| Active Service Arc Begin Angle with respect to Ascending Node | 0.0 degrees |
| Active Service Arc End Angle with respect to Ascending Node | 63.4 degrees |

Mean Anomaly For Each Satellite

| Satellite Number | Mean Anomaly (degrees) at the Orbit Epoch Date |
|------------------|------------------------------------------------|
| 1 | 0.0 |
| 2 | 51.0 |
| 3 | 103.0 |
| 4 | 154.0 |
| 5 | 206.0 |
| 6 | 257.0 |
| 7 | 309.0 |

Orbital Plane 54:

| Question | Response |
|-----------------------------------|---------------|
| Number of Satellites in Plane | 7 |
| Inclination Angle | 63.4 degrees |
| Right Ascension of Ascending Node | 180.0 degrees |

| | |
|---------------------------------------------------------------|-----------------|
| Argument of Perigee | 270.0 degrees |
| Orbital Period | 14400.0 seconds |
| Apogee | 9800.0 km |
| Perigee | 3000.0 km |
| Active Service Arc Begin Angle with respect to Ascending Node | 0.0 degrees |
| Active Service Arc End Angle with respect to Ascending Node | 63.4 degrees |

Mean Anomaly For Each Satellite

| Satellite Number | Mean Anomaly (degrees) at the Orbit Epoch Date |
|------------------|------------------------------------------------|
| 1 | 0.0 |
| 2 | 51.0 |
| 3 | 103.0 |
| 4 | 154.0 |
| 5 | 206.0 |
| 6 | 257.0 |
| 7 | 309.0 |

Orbital Plane 55:

| Question | Response |
|-----------------------------------|-----------------|
| Number of Satellites in Plane | 7 |
| Inclination Angle | 63.4 degrees |
| Right Ascension of Ascending Node | 270.0 degrees |
| Argument of Perigee | 270.0 degrees |
| Orbital Period | 14400.0 seconds |
| Apogee | 9800.0 km |
| Perigee | 3000.0 km |

| | |
|---------------------------------------------------------------|--------------|
| Active Service Arc Begin Angle with respect to Ascending Node | 0.0 degrees |
| Active Service Arc End Angle with respect to Ascending Node | 63.4 degrees |

Mean Anomaly For Each Satellite

| Satellite Number | Mean Anomaly (degrees) at the Orbit Epoch Date |
|------------------|------------------------------------------------|
| 1 | 0.0 |
| 2 | 51.0 |
| 3 | 103.0 |
| 4 | 154.0 |
| 5 | 206.0 |
| 6 | 257.0 |
| 7 | 309.0 |

Orbital Plane 56:

| Question | Response |
|---------------------------------------------------------------|-----------------|
| Number of Satellites in Plane | 7 |
| Inclination Angle | 63.4 degrees |
| Right Ascension of Ascending Node | 0.0 degrees |
| Argument of Perigee | 90.0 degrees |
| Orbital Period | 14400.0 seconds |
| Apogee | 9800.0 km |
| Perigee | 3000.0 km |
| Active Service Arc Begin Angle with respect to Ascending Node | -63.4 degrees |
| Active Service Arc End Angle with respect to Ascending Node | 0.0 degrees |

Mean Anomaly For Each Satellite

| Satellite Number | Mean Anomaly (degrees) at the Orbit Epoch Date |
|------------------|------------------------------------------------|
| 1 | 0.0 |
| 2 | 51.0 |
| 3 | 103.0 |
| 4 | 154.0 |
| 5 | 206.0 |
| 6 | 257.0 |
| 7 | 309.0 |

Orbital Plane 57:

| Question | Response |
|---------------------------------------------------------------|-----------------|
| Number of Satellites in Plane | 7 |
| Inclination Angle | 63.4 degrees |
| Right Ascension of Ascending Node | 90.0 degrees |
| Argument of Perigee | 90.0 degrees |
| Orbital Period | 14400.0 seconds |
| Apogee | 9800.0 km |
| Perigee | 3000.0 km |
| Active Service Arc Begin Angle with respect to Ascending Node | -63.4 degrees |
| Active Service Arc End Angle with respect to Ascending Node | 0.0 degrees |

Mean Anomaly For Each Satellite

| Satellite Number | Mean Anomaly (degrees) at the Orbit Epoch Date |
|------------------|------------------------------------------------|
| 1 | 0.0 |
| 2 | 51.0 |
| 3 | 103.0 |

| | |
|---|-------|
| 4 | 154.0 |
| 5 | 206.0 |
| 6 | 257.0 |
| 7 | 309.0 |

Orbital Plane 58:

| Question | Response |
|---------------------------------------------------------------|-----------------|
| Number of Satellites in Plane | 7 |
| Inclination Angle | 63.4 degrees |
| Right Ascension of Ascending Node | 180.0 degrees |
| Argument of Perigee | 90.0 degrees |
| Orbital Period | 14400.0 seconds |
| Apogee | 9800.0 km |
| Perigee | 3000.0 km |
| Active Service Arc Begin Angle with respect to Ascending Node | -63.4 degrees |
| Active Service Arc End Angle with respect to Ascending Node | 0.0 degrees |

Mean Anomaly For Each Satellite

| Satellite Number | Mean Anomaly (degrees) at the Orbit Epoch Date |
|------------------|------------------------------------------------|
| 1 | 0.0 |
| 2 | 51.0 |
| 3 | 103.0 |
| 4 | 154.0 |
| 5 | 309.0 |
| 6 | 257.0 |
| 7 | 206.0 |

Orbital Plane 59:

| Question | Response |
|---------------------------------------------------------------|--------------------|
| Number of Satellites in Plane | 7 |
| Inclination Angle | 63.4 degrees |
| Right Ascension of Ascending Node | 270.0 degrees |
| Argument of Perigee | 90.0 degrees |
| Orbital Period | 14400.0 seconds |
| Apogee | 9800.0 km |
| Perigee | 3000.0 km |
| Active Service Arc Begin Angle with respect to Ascending Node | -63.4 degrees |
| Active Service Arc End Angle with respect to Ascending Node | 0.0 degrees |

Mean Anomaly For Each Satellite

| Satellite Number | Mean Anomaly (degrees) at the Orbit Epoch Date |
|------------------|------------------------------------------------|
| 1 | 309.0 |
| 2 | 257.0 |
| 3 | 206.0 |
| 4 | 154.0 |
| 5 | 103.0 |
| 6 | 51.0 |
| 7 | 0.0 |

Receiving Beams 1:

| Question | Response |
|---------------------------------------------------------|-------------------------------------------------------------|
| Beam ID | RBR1 |
| Receive Beam Frequency | 27500.0 MHz -28600.0 MHz |
| Beam Type | Both Steerable and Shapeable |
| Polarization | RHCP |
| Peak Gain | 46.3 dBi |
| Antenna Pointing Error | 0.1 degrees |
| Antenna Rotational Error | 0.1 degrees |
| Polarization Switchable | |
| Polarization Alignment Relative to the Equatorial Plane | 45.0 degrees |
| G/T at Max. Gain Point | 18.17 dB/K |
| Min. Saturation Flux Density | -100.0 dBW/m ² |
| Max. Saturation Flux Density | -50.0 dBW/m ² |
| Co- or Cross Polar Mode | C |
| Service Area Description | Global reference Technical Narrative Figure 2 and Figure 3. |

Receiving Beams 2:

| Question | Response |
|--------------------------|------------------------------|
| Beam ID | RBL1 |
| Receive Beam Frequency | 27500.0 MHz -28600.0 MHz |
| Beam Type | Both Steerable and Shapeable |
| Polarization | LHCP |
| Peak Gain | 46.3 dBi |
| Antenna Pointing Error | 0.1 degrees |
| Antenna Rotational Error | 0.1 degrees |

| | |
|---------------------------------------------------------|-------------------------------------------------------------|
| Polarization Switchable | |
| Polarization Alignment Relative to the Equatorial Plane | 45.0 degrees |
| G/T at Max. Gain Point | 18.17 dB/K |
| Min. Saturation Flux Density | -100.0 dBW/m2 |
| Max. Saturation Flux Density | -50.0 dBW/m2 |
| Co- or Cross Polar Mode | C |
| Service Area Description | Global reference Technical Narrative Figure 2 and Figure 3. |

Receiving Beams 3:

| Question | Response |
|---------------------------------------------------------|-------------------------------------------------------------|
| Beam ID | RBR2 |
| Receive Beam Frequency | 28600.0 MHz -29100.0 MHz |
| Beam Type | Both Steerable and Shapeable |
| Polarization | RHCP |
| Peak Gain | 46.4 dBi |
| Antenna Pointing Error | 0.1 degrees |
| Antenna Rotational Error | 0.1 degrees |
| Polarization Switchable | |
| Polarization Alignment Relative to the Equatorial Plane | 45.0 degrees |
| G/T at Max. Gain Point | 18.3 dB/K |
| Min. Saturation Flux Density | -100.0 dBW/m2 |
| Max. Saturation Flux Density | -50.0 dBW/m2 |
| Co- or Cross Polar Mode | C |
| Service Area Description | Global reference Technical Narrative Figure 2 and Figure 3. |

Receiving Beams 4:

| Question | Response |
|---------------------------------------------------------|-------------------------------------------------------------|
| Beam ID | RBL2 |
| Receive Beam Frequency | 28600.0 MHz -29100.0 MHz |
| Beam Type | Both Steerable and Shapeable |
| Polarization | LHCP |
| Peak Gain | 46.4 dBi |
| Antenna Pointing Error | 0.1 degrees |
| Antenna Rotational Error | 0.1 degrees |
| Polarization Switchable | |
| Polarization Alignment Relative to the Equatorial Plane | 45.0 degrees |
| G/T at Max. Gain Point | 18.3 dB/K |
| Min. Saturation Flux Density | -100.0 dBW/m ² |
| Max. Saturation Flux Density | -50.0 dBW/m ² |
| Co- or Cross Polar Mode | C |
| Service Area Description | Global reference Technical Narrative Figure 2 and Figure 3. |

Receiving Beams 5:

| Question | Response |
|--------------------------|------------------------------|
| Beam ID | RBR3 |
| Receive Beam Frequency | 29100.0 MHz -29500.0 MHz |
| Beam Type | Both Steerable and Shapeable |
| Polarization | RHCP |
| Peak Gain | 46.5 dBi |
| Antenna Pointing Error | 0.1 degrees |
| Antenna Rotational Error | 0.1 degrees |
| Polarization Switchable | |

| | |
|---------------------------------------------------------|-------------------------------------------------------------|
| Polarization Alignment Relative to the Equatorial Plane | 45.0 degrees |
| G/T at Max. Gain Point | 18.4 dB/K |
| Min. Saturation Flux Density | -100.0 dBW/m2 |
| Max. Saturation Flux Density | -50.0 dBW/m2 |
| Co- or Cross Polar Mode | C |
| Service Area Description | Global reference Technical Narrative Figure 2 and Figure 3. |

Receiving Beams 6:

| Question | Response |
|---------------------------------------------------------|-------------------------------------------------------------|
| Beam ID | RBL3 |
| Receive Beam Frequency | 29100.0 MHz -29500.0 MHz |
| Beam Type | Both Steerable and Shapeable |
| Polarization | LHCP |
| Peak Gain | 46.5 dBi |
| Antenna Pointing Error | 0.1 degrees |
| Antenna Rotational Error | 0.1 degrees |
| Polarization Switchable | |
| Polarization Alignment Relative to the Equatorial Plane | 45.0 degrees |
| G/T at Max. Gain Point | 18.4 dB/K |
| Min. Saturation Flux Density | -100.0 dBW/m2 |
| Max. Saturation Flux Density | -50.0 dBW/m2 |
| Co- or Cross Polar Mode | C |
| Service Area Description | Global reference Technical Narrative Figure 2 and Figure 3. |

Receiving Beams 7:

| Question | Response |
|----------|----------|
|----------|----------|

| | |
|---------------------------------------------------------|-------------------------------------------------------------|
| Beam ID | RBR4 |
| Receive Beam Frequency | 29500.0 MHz -30000.0 MHz |
| Beam Type | Both Steerable and Shapeable |
| Polarization | RHCP |
| Peak Gain | 46.7 dBi |
| Antenna Pointing Error | 0.1 degrees |
| Antenna Rotational Error | 0.1 degrees |
| Polarization Switchable | |
| Polarization Alignment Relative to the Equatorial Plane | 45.0 degrees |
| G/T at Max. Gain Point | 18.6 dB/K |
| Min. Saturation Flux Density | -100.0 dBW/m2 |
| Max. Saturation Flux Density | -50.0 dBW/m2 |
| Co- or Cross Polar Mode | C |
| Service Area Description | Global reference Technical Narrative Figure 2 and Figure 3. |

Receiving Beams 8:

| Question | Response |
|---------------------------------------------------------|------------------------------|
| Beam ID | RBL4 |
| Receive Beam Frequency | 29500.0 MHz -30000.0 MHz |
| Beam Type | Both Steerable and Shapeable |
| Polarization | LHCP |
| Peak Gain | 46.7 dBi |
| Antenna Pointing Error | 0.1 degrees |
| Antenna Rotational Error | 0.1 degrees |
| Polarization Switchable | |
| Polarization Alignment Relative to the Equatorial Plane | 45.0 degrees |

| | |
|------------------------------|-------------------------------------------------------------|
| G/T at Max. Gain Point | 18.6 dB/K |
| Min. Saturation Flux Density | -100.0 dBW/m2 |
| Max. Saturation Flux Density | -50.0 dBW/m2 |
| Co- or Cross Polar Mode | C |
| Service Area Description | Global reference Technical Narrative Figure 2 and Figure 3. |

Receiving Beams 9:

| Question | Response |
|---------------------------------------------------------|--------------------------------------------------------|
| Beam ID | RGR5 |
| Receive Beam Frequency | 47200.0 MHz -50200.0 MHz |
| Beam Type | Steerable |
| Polarization | RHCP |
| Peak Gain | 48.1 dBi |
| Antenna Pointing Error | 0.1 degrees |
| Antenna Rotational Error | 0.1 degrees |
| Polarization Switchable | |
| Polarization Alignment Relative to the Equatorial Plane | 45.0 degrees |
| G/T at Max. Gain Point | 20.0 dB/K |
| Min. Saturation Flux Density | -100.0 dBW/m2 |
| Max. Saturation Flux Density | -50.0 dBW/m2 |
| Co- or Cross Polar Mode | C |
| Service Area Description | Global, see Technical Narrative Figure 2 and Figure 3. |

Receiving Beams 10:

| Question | Response |
|----------|----------|
| Beam ID | RGL5 |

| | |
|---------------------------------------------------------|--------------------------------------------------------|
| Receive Beam Frequency | 47200.0 MHz -50200.0 MHz |
| Beam Type | Steerable |
| Polarization | LHCP |
| Peak Gain | 48.1 dBi |
| Antenna Pointing Error | 0.1 degrees |
| Antenna Rotational Error | 0.1 degrees |
| Polarization Switchable | |
| Polarization Alignment Relative to the Equatorial Plane | 45.0 degrees |
| G/T at Max. Gain Point | 20.0 dB/K |
| Min. Saturation Flux Density | -100.0 dBW/m ² |
| Max. Saturation Flux Density | -50.0 dBW/m ² |
| Co- or Cross Polar Mode | C |
| Service Area Description | Global, see Technical Narrative Figure 2 and Figure 3. |

Receiving Beams 11:

| Question | Response |
|---------------------------------------------------------|--------------------------|
| Beam ID | RGR6 |
| Receive Beam Frequency | 50400.0 MHz -51400.0 MHz |
| Beam Type | Steerable |
| Polarization | RHCP |
| Peak Gain | 48.3 dBi |
| Antenna Pointing Error | 0.1 degrees |
| Antenna Rotational Error | 0.1 degrees |
| Polarization Switchable | |
| Polarization Alignment Relative to the Equatorial Plane | 45.0 degrees |
| G/T at Max. Gain Point | 20.2 dB/K |

| | |
|------------------------------|--------------------------------------------------------|
| Min. Saturation Flux Density | -100.0 dBW/m ² |
| Max. Saturation Flux Density | -50.0 dBW/m ² |
| Co- or Cross Polar Mode | C |
| Service Area Description | Global, see Technical Narrative Figure 2 and Figure 3. |

Receiving Beams 12:

| Question | Response |
|---------------------------------------------------------|--------------------------------------------------------|
| Beam ID | RGL6 |
| Receive Beam Frequency | 50400.0 MHz -51400.0 MHz |
| Beam Type | Steerable |
| Polarization | LHCP |
| Peak Gain | 48.3 dBi |
| Antenna Pointing Error | 0.1 degrees |
| Antenna Rotational Error | 0.1 degrees |
| Polarization Switchable | |
| Polarization Alignment Relative to the Equatorial Plane | 45.0 degrees |
| G/T at Max. Gain Point | 20.2 dB/K |
| Min. Saturation Flux Density | -100.0 dBW/m ² |
| Max. Saturation Flux Density | -50.0 dBW/m ² |
| Co- or Cross Polar Mode | C |
| Service Area Description | Global, see Technical Narrative Figure 2 and Figure 3. |

Receiving Beams 13:

| Question | Response |
|------------------------|--------------------------|
| Beam ID | RTR2 |
| Receive Beam Frequency | 29094.0 MHz -29100.0 MHz |

| | |
|---------------------------------------------------------|------------------------------------------------------------------------------------|
| Beam Type | Fixed |
| Polarization | RHCP |
| Peak Gain | 6.6 dBi |
| Antenna Pointing Error | 0.1 degrees |
| Antenna Rotational Error | 0.1 degrees |
| Polarization Switchable | |
| Polarization Alignment Relative to the Equatorial Plane | 45.0 degrees |
| G/T at Max. Gain Point | -21.5 dB/K |
| Min. Saturation Flux Density | -0.1 dBW/m ² |
| Max. Saturation Flux Density | 0.0 dBW/m ² |
| Co- or Cross Polar Mode | C |
| Service Area Description | Global with earth coverage antenna. See Technical Narrative Figure 2 and Figure 3. |

Receiving Beams 14:

| Question | Response |
|---------------------------------------------------------|--------------------------|
| Beam ID | RTL2 |
| Receive Beam Frequency | 29094.0 MHz -29100.0 MHz |
| Beam Type | Fixed |
| Polarization | LHCP |
| Peak Gain | 6.6 dBi |
| Antenna Pointing Error | 0.1 degrees |
| Antenna Rotational Error | 0.1 degrees |
| Polarization Switchable | |
| Polarization Alignment Relative to the Equatorial Plane | 45.0 degrees |
| G/T at Max. Gain Point | -21.5 dB/K |

| | |
|------------------------------|------------------------------------------------------------------------------------|
| Min. Saturation Flux Density | -0.1 dBW/m ² |
| Max. Saturation Flux Density | 0.0 dBW/m ² |
| Co- or Cross Polar Mode | C |
| Service Area Description | Global with earth coverage antenna. See Technical Narrative Figure 2 and Figure 3. |

Receiving Channels (128)

| Channel ID | Channel Bandwidth (MHz) | Center Frequency s (MHz) | Feeder Link, Service Link or TT&C |
|------------|-------------------------|--------------------------|-----------------------------------|
| SL04 | 100.0 | 27850.0 | Service Link |
| SL05 | 100.0 | 27950.0 | Service Link |
| SL06 | 100.0 | 28050.0 | Service Link |
| SL07 | 100.0 | 28150.0 | Service Link |
| SL08 | 100.0 | 28250.0 | Service Link |
| SL09 | 100.0 | 28350.0 | Service Link |
| SL10 | 100.0 | 28450.0 | Service Link |
| SL11 | 100.0 | 28550.0 | Service Link |
| SL12 | 100.0 | 28650.0 | Service Link |
| SL13 | 100.0 | 28750.0 | Service Link |
| SL14 | 100.0 | 28850.0 | Service Link |
| SL15 | 100.0 | 28950.0 | Service Link |
| SL16 | 100.0 | 29050.0 | Service Link |
| SL17 | 100.0 | 29150.0 | Service Link |
| SL18 | 100.0 | 29250.0 | Service Link |
| SL19 | 100.0 | 29350.0 | Service Link |
| SL20 | 100.0 | 29450.0 | Service Link |
| SL21 | 100.0 | 29550.0 | Service Link |
| SL22 | 100.0 | 29650.0 | Service Link |
| SL23 | 100.0 | 29750.0 | Service Link |
| SL24 | 100.0 | 29850.0 | Service Link |
| SL25 | 100.0 | 29950.0 | Service Link |
| SR01 | 100.0 | 27550.0 | Service Link |
| SR02 | 100.0 | 27650.0 | Service Link |

| | | | |
|-------------|-------|---------|--------------|
| SR03 | 100.0 | 27750.0 | Service Link |
| SR04 | 100.0 | 27850.0 | Service Link |
| SR05 | 100.0 | 27950.0 | Service Link |
| SR06 | 100.0 | 28050.0 | Service Link |
| SR07 | 100.0 | 28150.0 | Service Link |
| FR23 | 100.0 | 29750.0 | Feeder Link |
| FR24 | 100.0 | 29850.0 | Feeder Link |
| FR25 | 100.0 | 29950.0 | Feeder Link |
| TL01 | 1.0 | 29094.5 | TT&C |
| TR01 | 1.0 | 29094.5 | TT&C |
| FL17 | 100.0 | 29150.0 | Feeder Link |
| FL16 | 100.0 | 29050.0 | Feeder Link |
| FL15 | 100.0 | 28950.0 | Feeder Link |
| FL14 | 100.0 | 28850.0 | Feeder Link |
| FL13 | 100.0 | 28750.0 | Feeder Link |
| FR13 | 100.0 | 28750.0 | Feeder Link |
| FR14 | 100.0 | 28850.0 | Feeder Link |
| TL06 | 1.0 | 29099.5 | TT&C |
| TR06 | 1.0 | 29099.5 | TT&C |
| TL05 | 1.0 | 29098.5 | TT&C |
| TR05 | 1.0 | 29098.5 | TT&C |
| TL04 | 1.0 | 29097.5 | TT&C |
| TR04 | 1.0 | 29097.5 | TT&C |
| TL03 | 1.0 | 29096.5 | TT&C |
| TR03 | 1.0 | 29096.5 | TT&C |
| TL02 | 1.0 | 29095.5 | TT&C |

| | | | |
|-------------|-------|---------|--------------|
| TR02 | 1.0 | 29095.5 | TT&C |
| SR19 | 100.0 | 29350.0 | Service Link |
| FL33 | 500.0 | 51150.0 | Feeder Link |
| FR33 | 500.0 | 51150.0 | Feeder Link |
| FL32 | 500.0 | 50650.0 | Feeder Link |
| FR32 | 500.0 | 50650.0 | Feeder Link |
| FL31 | 500.0 | 49950.0 | Feeder Link |
| FR31 | 500.0 | 49950.0 | Feeder Link |
| FL30 | 500.0 | 49450.0 | Feeder Link |
| FR30 | 500.0 | 49450.0 | Feeder Link |
| FL29 | 500.0 | 48950.0 | Feeder Link |
| FR29 | 500.0 | 48950.0 | Feeder Link |
| FL28 | 500.0 | 48450.0 | Feeder Link |
| FR28 | 500.0 | 48450.0 | Feeder Link |
| FL27 | 500.0 | 47950.0 | Feeder Link |
| FR27 | 500.0 | 47950.0 | Feeder Link |
| FL26 | 500.0 | 47450.0 | Feeder Link |
| FR26 | 500.0 | 47450.0 | Feeder Link |
| FR12 | 100.0 | 28650.0 | Feeder Link |
| FR11 | 100.0 | 28550.0 | Feeder Link |
| FR10 | 100.0 | 28450.0 | Feeder Link |
| FR09 | 100.0 | 28350.0 | Feeder Link |
| FR08 | 100.0 | 28250.0 | Feeder Link |
| FR07 | 100.0 | 28150.0 | Feeder Link |
| FR06 | 100.0 | 28050.0 | Feeder Link |
| FR05 | 100.0 | 27950.0 | Feeder Link |

| | | | |
|-------------|-------|---------|--------------|
| FR04 | 100.0 | 27850.0 | Feeder Link |
| FL12 | 100.0 | 28650.0 | Feeder Link |
| FL11 | 100.0 | 28550.0 | Feeder Link |
| FL10 | 100.0 | 28450.0 | Feeder Link |
| FL09 | 100.0 | 28350.0 | Feeder Link |
| FL08 | 100.0 | 28250.0 | Feeder Link |
| FL07 | 100.0 | 28150.0 | Feeder Link |
| FL06 | 100.0 | 28050.0 | Feeder Link |
| FL05 | 100.0 | 27950.0 | Feeder Link |
| FL04 | 100.0 | 27850.0 | Feeder Link |
| FL03 | 100.0 | 27750.0 | Feeder Link |
| FL02 | 100.0 | 27650.0 | Feeder Link |
| FL01 | 100.0 | 27550.0 | Feeder Link |
| SL01 | 100.0 | 27550.0 | Service Link |
| SL02 | 100.0 | 27650.0 | Service Link |
| SL03 | 100.0 | 27750.0 | Service Link |
| SR20 | 100.0 | 29450.0 | Service Link |
| SR21 | 100.0 | 29550.0 | Service Link |
| FR16 | 100.0 | 29050.0 | Feeder Link |
| FR17 | 100.0 | 29150.0 | Feeder Link |
| FR18 | 100.0 | 29250.0 | Feeder Link |
| FR19 | 100.0 | 29350.0 | Feeder Link |
| FR20 | 100.0 | 29450.0 | Feeder Link |
| FR21 | 100.0 | 29550.0 | Feeder Link |
| FR22 | 100.0 | 29650.0 | Feeder Link |
| SR22 | 100.0 | 29650.0 | Service Link |

| | | | |
|-------------|-------|---------|--------------|
| SR23 | 100.0 | 29750.0 | Service Link |
| SR24 | 100.0 | 29850.0 | Service Link |
| SR25 | 100.0 | 29950.0 | Service Link |
| FR03 | 100.0 | 27750.0 | Feeder Link |
| FR02 | 100.0 | 27650.0 | Feeder Link |
| FR01 | 100.0 | 27550.0 | Feeder Link |
| FL25 | 100.0 | 29950.0 | Feeder Link |
| FL24 | 100.0 | 29850.0 | Feeder Link |
| FL23 | 100.0 | 29750.0 | Feeder Link |
| FL22 | 100.0 | 29650.0 | Feeder Link |
| FL21 | 100.0 | 29550.0 | Feeder Link |
| FL20 | 100.0 | 29450.0 | Feeder Link |
| FR15 | 100.0 | 28950.0 | Feeder Link |
| SR16 | 100.0 | 29050.0 | Service Link |
| SR17 | 100.0 | 29150.0 | Service Link |
| SR18 | 100.0 | 29250.0 | Service Link |
| FL19 | 100.0 | 29350.0 | Feeder Link |
| FL18 | 100.0 | 29250.0 | Feeder Link |
| SR08 | 100.0 | 28250.0 | Service Link |
| SR09 | 100.0 | 28350.0 | Service Link |
| SR10 | 100.0 | 28450.0 | Service Link |
| SR11 | 100.0 | 28550.0 | Service Link |
| SR12 | 100.0 | 28650.0 | Service Link |
| SR13 | 100.0 | 28750.0 | Service Link |
| SR14 | 100.0 | 28850.0 | Service Link |
| SR15 | 100.0 | 28950.0 | Service Link |

Transmitting Beams 1:

| Question | Response |
|---------------------------------------------------------|-------------------------------------------------------|
| Beam ID | EBR1 |
| Transmit Beam Frequency | 17700.0 MHz -18600.0 MHz |
| Beam Type | Both Steerable and Shapeable |
| Polarization | RHCP |
| Peak Gain | 42.5 dBi |
| Antenna Pointing Error | 0.1 degrees |
| Antenna Rotational Error | 0.1 degrees |
| Polarization Switchable | |
| Polarization Alignment Relative to the Equatorial Plane | 45.0 degrees |
| Max. Transmit EIRP Density | -44.0 dBW/Hz |
| Max. Transmit EIRP | 45.6 dBW |
| Co- or Cross Polar Mode | C |
| Service Area Description | Global see Technical Narrative Figure 2 and Figure 3. |

Max. Power Flux Density

| | * 0° - 5° | * 5° - 10° | * 10° - 15° | * 15° - 20° | * 20° - 25° | * 25° - 90° |
|----------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|
| * | (dBW/m ² | (dBW/m ² | (dBW/m ² | (dBW/m ² | (dBW/m ² | (dBW/m ² |
| BW: | /BW): | /BW): | /BW): | /BW): | /BW): | /BW): |
| 1.0 MHz | -132.6 | -132.1 | -131.5 | -130.9 | -130.4 | -127.0 |

Transmitting Beams 2:

| Question | Response |
|-------------------------|--------------------------|
| Beam ID | EBL1 |
| Transmit Beam Frequency | 17700.0 MHz -18600.0 MHz |

| | |
|---------------------------------------------------------|-------------------------------------------------------|
| Beam Type | Both Steerable and Shapeable |
| Polarization | LHCP |
| Peak Gain | 42.5 dBi |
| Antenna Pointing Error | 0.1 degrees |
| Antenna Rotational Error | 0.1 degrees |
| Polarization Switchable | |
| Polarization Alignment Relative to the Equatorial Plane | 45.0 degrees |
| Max. Transmit EIRP Density | -44.0 dBW/Hz |
| Max. Transmit EIRP | 45.6 dBW |
| Co- or Cross Polar Mode | C |
| Service Area Description | Global see Technical Narrative Figure 2 and Figure 3. |

Max. Power Flux Density

| | * 0° - 5° | * 5° - 10° | * 10° - 15° | * 15° - 20° | * 20° - 25° | * 25° - 90° |
|----------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|
| | (dBW/m ² | (dBW/m ² | (dBW/m ² | (dBW/m ² | (dBW/m ² | (dBW/m ² |
| | /BW): | /BW): | /BW): | /BW): | /BW): | /BW): |
| 1.0 MHz | -132.6 | -132.1 | -131.5 | -130.9 | -130.4 | -127.0 |

Transmitting Beams 3:

| Question | Response |
|-------------------------|------------------------------|
| Beam ID | EBR2 |
| Transmit Beam Frequency | 18800.0 MHz -19300.0 MHz |
| Beam Type | Both Steerable and Shapeable |
| Polarization | RHCP |
| Peak Gain | 42.8 dBi |
| Antenna Pointing Error | 0.1 degrees |

| | |
|---------------------------------------------------------|-------------------------------------------------------|
| Antenna Rotational Error | 0.1 degrees |
| Polarization Switchable | |
| Polarization Alignment Relative to the Equatorial Plane | 45.0 degrees |
| Max. Transmit EIRP Density | -43.7 dBW/Hz |
| Max. Transmit EIRP | 43.3 dBW |
| Co- or Cross Polar Mode | C |
| Service Area Description | Global see Technical Narrative Figure 2 and Figure 3. |

Max. Power Flux Density

| | * 0° - 5° | * 5° - 10° | * 10° - 15° | * 15° - 20° | * 20° - 25° | * 25° - 90° |
|----------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|
| | (dBW/m ² | (dBW/m ² | (dBW/m ² | (dBW/m ² | (dBW/m ² | (dBW/m ² |
| | /BW): | /BW): | /BW): | /BW): | /BW): | /BW): |
| 1.0 MHz | -132.3 | -131.8 | -131.2 | -130.6 | -130.1 | -126.7 |

Transmitting Beams 4:

| Question | Response |
|---------------------------------------------------------|------------------------------|
| Beam ID | EBL2 |
| Transmit Beam Frequency | 18800.0 MHz -19300.0 MHz |
| Beam Type | Both Steerable and Shapeable |
| Polarization | LHCP |
| Peak Gain | 42.8 dBi |
| Antenna Pointing Error | 0.1 degrees |
| Antenna Rotational Error | 0.1 degrees |
| Polarization Switchable | |
| Polarization Alignment Relative to the Equatorial Plane | 45.0 degrees |
| Max. Transmit EIRP Density | -43.7 dBW/Hz |

| | |
|--------------------------|-------------------------------------------------------|
| Max. Transmit EIRP | 43.3 dBW |
| Co- or Cross Polar Mode | C |
| Service Area Description | Global see Technical Narrative Figure 2 and Figure 3. |

Max. Power Flux Density

| | * 0° - 5° | * 5° - 10° | * 10° - 15° | * 15° - 20° | * 20° - 25° | * 25° - 90° |
|----------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|
| | (dBW/m ² | (dBW/m ² | (dBW/m ² | (dBW/m ² | (dBW/m ² | (dBW/m ² |
| * | /BW): | /BW): | /BW): | /BW): | /BW): | /BW): |
| 1.0 MHz | -132.3 | -131.8 | -131.2 | -130.6 | -130.1 | -126.7 |

Transmitting Beams 5:

| Question | Response |
|---------------------------------------------------------|-------------------------------------------------------|
| Beam ID | EBR3 |
| Transmit Beam Frequency | 19300.0 MHz -19700.0 MHz |
| Beam Type | Both Steerable and Shapeable |
| Polarization | RHCP |
| Peak Gain | 43.0 dBi |
| Antenna Pointing Error | 0.1 degrees |
| Antenna Rotational Error | 0.1 degrees |
| Polarization Switchable | |
| Polarization Alignment Relative to the Equatorial Plane | 45.0 degrees |
| Max. Transmit EIRP Density | -43.5 dBW/Hz |
| Max. Transmit EIRP | 42.5 dBW |
| Co- or Cross Polar Mode | C |
| Service Area Description | Global see Technical Narrative Figure 2 and Figure 3. |

Max. Power Flux Density

| | * 0° - 5° | * 5° - 10° | * 10° - 15° | * 15° - 20° | * 20° - 25° | * 25° - 90° |
|----------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|
| * | (dBW/m ² | (dBW/m ² | (dBW/m ² | (dBW/m ² | (dBW/m ² | (dBW/m ² |
| BW: | /BW): | /BW): | /BW): | /BW): | /BW): | /BW): |
| 1.0 MHz | -132.1 | -131.6 | -131.0 | -130.4 | -129.9 | -126.5 |

Transmitting Beams 6:

| Question | Response |
|---------------------------------------------------------|-------------------------------------------------------|
| Beam ID | EBL3 |
| Transmit Beam Frequency | 19300.0 MHz -19700.0 MHz |
| Beam Type | Both Steerable and Shapeable |
| Polarization | LHCP |
| Peak Gain | 43.0 dBi |
| Antenna Pointing Error | 0.1 degrees |
| Antenna Rotational Error | 0.1 degrees |
| Polarization Switchable | |
| Polarization Alignment Relative to the Equatorial Plane | 45.0 degrees |
| Max. Transmit EIRP Density | -43.5 dBW/Hz |
| Max. Transmit EIRP | 42.5 dBW |
| Co- or Cross Polar Mode | C |
| Service Area Description | Global see Technical Narrative Figure 2 and Figure 3. |

Max. Power Flux Density

| | * 0° - 5° | * 5° - 10° | * 10° - 15° | * 15° - 20° | * 20° - 25° | * 25° - 90° |
|-----|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|
| * | (dBW/m ² | (dBW/m ² | (dBW/m ² | (dBW/m ² | (dBW/m ² | (dBW/m ² |
| BW: | /BW): | /BW): | /BW): | /BW): | /BW): | /BW): |
| | | | | | | |

| | | | | | | |
|------------|--------|--------|--------|--------|--------|--------|
| 1.0 | -132.1 | -131.6 | -131.0 | -130.4 | -129.9 | -126.5 |
| MHz | | | | | | |

Transmitting Beams 7:

| Question | Response |
|---------------------------------------------------------|-------------------------------------------------------|
| Beam ID | EBR4 |
| Transmit Beam Frequency | 19700.0 MHz -20200.0 MHz |
| Beam Type | Both Steerable and Shapeable |
| Polarization | RHCP |
| Peak Gain | 43.2 dBi |
| Antenna Pointing Error | 0.1 degrees |
| Antenna Rotational Error | 0.1 degrees |
| Polarization Switchable | |
| Polarization Alignment Relative to the Equatorial Plane | 45.0 degrees |
| Max. Transmit EIRP Density | -43.3 dBW/Hz |
| Max. Transmit EIRP | 43.7 dBW |
| Co- or Cross Polar Mode | C |
| Service Area Description | Global see Technical Narrative Figure 2 and Figure 3. |

Max. Power Flux Density

| | * 0° - 5° | * 5° - 10° | * 10° - 15° | * 15° - 20° | * 20° - 25° | * 25° - 90° |
|------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|
| * | (dBW/m ² | (dBW/m ² | (dBW/m ² | (dBW/m ² | (dBW/m ² | (dBW/m ² |
| BW: | /BW): | /BW): | /BW): | /BW): | /BW): | /BW): |
| 1.0 | -131.9 | -131.4 | -130.8 | -130.2 | -129.7 | -126.3 |
| MHz | | | | | | |

Transmitting Beams 8:

| Question | Response |
|----------|----------|
|----------|----------|

| | |
|---------------------------------------------------------|-------------------------------------------------------|
| Beam ID | EBL4 |
| Transmit Beam Frequency | 19700.0 MHz -20200.0 MHz |
| Beam Type | Both Steerable and Shapeable |
| Polarization | LHCP |
| Peak Gain | 43.2 dBi |
| Antenna Pointing Error | 0.1 degrees |
| Antenna Rotational Error | 0.1 degrees |
| Polarization Switchable | |
| Polarization Alignment Relative to the Equatorial Plane | 45.0 degrees |
| Max. Transmit EIRP Density | -43.3 dBW/Hz |
| Max. Transmit EIRP | 43.7 dBW |
| Co- or Cross Polar Mode | C |
| Service Area Description | Global see Technical Narrative Figure 2 and Figure 3. |

Max. Power Flux Density

| | * 0° - 5° (dBW/m ²) /BW): | * 5° - 10° (dBW/m ²) /BW): | * 10° - 15° (dBW/m ²) /BW): | * 15° - 20° (dBW/m ²) /BW): | * 20° - 25° (dBW/m ²) /BW): | * 25° - 90° (dBW/m ²) /BW): |
|----------------|---------------------------------------------|----------------------------------------------|-----------------------------------------------|-----------------------------------------------|-----------------------------------------------|-----------------------------------------------|
| 1.0 MHz | -131.9 | -131.4 | -130.8 | -130.2 | -129.7 | -126.3 |

Transmitting Beams 9:

| Question | Response |
|-------------------------|--------------------------|
| Beam ID | EGR5 |
| Transmit Beam Frequency | 37500.0 MHz -39500.0 MHz |
| Beam Type | Steerable |
| Polarization | RHCP |

| | |
|---------------------------------------------------------|--------------------------------------------------------|
| Peak Gain | 46.0 dBi |
| Antenna Pointing Error | 0.1 degrees |
| Antenna Rotational Error | 0.1 degrees |
| Polarization Switchable | |
| Polarization Alignment Relative to the Equatorial Plane | 45.0 degrees |
| Max. Transmit EIRP Density | -37.0 dBW/Hz |
| Max. Transmit EIRP | 56.0 dBW |
| Co- or Cross Polar Mode | C |
| Service Area Description | Global, see Technical Narrative Figure 2 and Figure 3. |

Max. Power Flux Density

| | * 0° - 5° | * 5° - 10° | * 10° - 15° | * 15° - 20° | * 20° - 25° | * 25° - 90° |
|----------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|
| | (dBW/m ² | (dBW/m ² | (dBW/m ² | (dBW/m ² | (dBW/m ² | (dBW/m ² |
| * BW: | /BW): | /BW): | /BW): | /BW): | /BW): | /BW): |
| 1.0 MHz | -140.7 | -135.1 | -129.5 | -124.0 | -123.5 | -120.0 |

Transmitting Beams 10:

| Question | Response |
|--------------------------|--------------------------|
| Beam ID | EGL5 |
| Transmit Beam Frequency | 37500.0 MHz -39500.0 MHz |
| Beam Type | Steerable |
| Polarization | LHCP |
| Peak Gain | 46.0 dBi |
| Antenna Pointing Error | 0.1 degrees |
| Antenna Rotational Error | 0.1 degrees |
| Polarization Switchable | |

| | |
|---------------------------------------------------------|--------------------------------------------------------|
| Polarization Alignment Relative to the Equatorial Plane | 45.0 degrees |
| Max. Transmit EIRP Density | -37.0 dBW/Hz |
| Max. Transmit EIRP | 56.0 dBW |
| Co- or Cross Polar Mode | C |
| Service Area Description | Global, see Technical Narrative Figure 2 and Figure 3. |

Max. Power Flux Density

| | * 0° - 5° (dBW/m ² /BW): | * 5° - 10° (dBW/m ² /BW): | * 10° - 15° (dBW/m ² /BW): | * 15° - 20° (dBW/m ² /BW): | * 20° - 25° (dBW/m ² /BW): | * 25° - 90° (dBW/m ² /BW): |
|----------------|----------------------------------------|-----------------------------------------|------------------------------------------|------------------------------------------|------------------------------------------|------------------------------------------|
| 1.0 MHz | -140.7 | -135.1 | -129.5 | -124.0 | -123.5 | -120.0 |

Transmitting Beams 11:

| Question | Response |
|---------------------------------------------------------|--------------------------|
| Beam ID | EGR6 |
| Transmit Beam Frequency | 39500.0 MHz -40000.0 MHz |
| Beam Type | Steerable |
| Polarization | RHCP |
| Peak Gain | 46.1 dBi |
| Antenna Pointing Error | 0.1 degrees |
| Antenna Rotational Error | 0.1 degrees |
| Polarization Switchable | |
| Polarization Alignment Relative to the Equatorial Plane | 45.0 degrees |
| Max. Transmit EIRP Density | -36.9 dBW/Hz |
| Max. Transmit EIRP | 50.1 dBW |
| Co- or Cross Polar Mode | C |

Service Area Description

Global, see Technical Narrative Figure 2 and Figure 3.

Max. Power Flux Density

| | * 0° - 5° | * 5° - 10° | * 10° - 15° | * 15° - 20° | * 20° - 25° | * 25° - 90° |
|------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|
| * | (dbW/m ² | (dbW/m ² | (dbW/m ² | (dbW/m ² | (dbW/m ² | (dbW/m ² |
| BW: | /BW): | /BW): | /BW): | /BW): | /BW): | /BW): |
| 1.0 | -140.6 | -135.0 | -129.4 | -123.9 | -123.4 | -119.9 |
| MHz | | | | | | |

Transmitting Beams 12:

| Question | Response |
|---------------------------------------------------------|--------------------------------------------------------|
| Beam ID | EGL6 |
| Transmit Beam Frequency | 39500.0 MHz -40000.0 MHz |
| Beam Type | Steerable |
| Polarization | LHCP |
| Peak Gain | 46.1 dBi |
| Antenna Pointing Error | 0.1 degrees |
| Antenna Rotational Error | 0.1 degrees |
| Polarization Switchable | |
| Polarization Alignment Relative to the Equatorial Plane | 45.0 degrees |
| Max. Transmit EIRP Density | -36.9 dBW/Hz |
| Max. Transmit EIRP | 50.1 dBW |
| Co- or Cross Polar Mode | C |
| Service Area Description | Global, see Technical Narrative Figure 2 and Figure 3. |

Max. Power Flux Density

| | * 0° - 5° | * 5° - 10° | * 10° - 15° | * 15° - 20° | * 20° - 25° | * 25° - 90° |
|----------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|
| * | (dBW/m ² | (dBW/m ² | (dBW/m ² | (dBW/m ² | (dBW/m ² | (dBW/m ² |
| BW: | /BW): | /BW): | /BW): | /BW): | /BW): | /BW): |
| 1.0 MHz | -140.6 | -135.0 | -129.4 | -123.9 | -123.4 | -119.9 |

Transmitting Beams 13:

| Question | Response |
|---------------------------------------------------------|--------------------------------------------------------|
| Beam ID | EGR7 |
| Transmit Beam Frequency | 40000.0 MHz -42000.0 MHz |
| Beam Type | Steerable |
| Polarization | RHCP |
| Peak Gain | 46.6 dBi |
| Antenna Pointing Error | 0.1 degrees |
| Antenna Rotational Error | 0.1 degrees |
| Polarization Switchable | |
| Polarization Alignment Relative to the Equatorial Plane | 45.0 degrees |
| Max. Transmit EIRP Density | -36.4 dBW/Hz |
| Max. Transmit EIRP | 56.6 dBW |
| Co- or Cross Polar Mode | C |
| Service Area Description | Global, see Technical Narrative Figure 2 and Figure 3. |

Max. Power Flux Density

| | * 0° - 5° | * 5° - 10° | * 10° - 15° | * 15° - 20° | * 20° - 25° | * 25° - 90° |
|----------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|
| * | (dBW/m ² | (dBW/m ² | (dBW/m ² | (dBW/m ² | (dBW/m ² | (dBW/m ² |
| BW: | /BW): | /BW): | /BW): | /BW): | /BW): | /BW): |
| 1.0 MHz | -140.1 | -134.5 | -128.9 | -123.4 | -122.9 | -119.4 |

Transmitting Beams 14:

| Question | Response |
|---------------------------------------------------------|--------------------------------------------------------|
| Beam ID | EGL7 |
| Transmit Beam Frequency | 40000.0 MHz -42000.0 MHz |
| Beam Type | Steerable |
| Polarization | LHCP |
| Peak Gain | 46.6 dBi |
| Antenna Pointing Error | 0.1 degrees |
| Antenna Rotational Error | 0.1 degrees |
| Polarization Switchable | |
| Polarization Alignment Relative to the Equatorial Plane | 45.0 degrees |
| Max. Transmit EIRP Density | -36.4 dBW/Hz |
| Max. Transmit EIRP | 56.6 dBW |
| Co- or Cross Polar Mode | C |
| Service Area Description | Global, see Technical Narrative Figure 2 and Figure 3. |

Max. Power Flux Density

| | * 0° - 5° | * 5° - 10° | * 10° - 15° | * 15° - 20° | * 20° - 25° | * 25° - 90° |
|----------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|
| * | (dBW/m ² | (dBW/m ² | (dBW/m ² | (dBW/m ² | (dBW/m ² | (dBW/m ² |
| BW: | /BW): | /BW): | /BW): | /BW): | /BW): | /BW): |
| 1.0 MHz | -140.1 | -134.5 | -128.9 | -123.4 | -122.9 | -119.4 |

Transmitting Beams 15:

| Question | Response |
|-------------------------|--------------------------|
| Beam ID | EGR8 |
| Transmit Beam Frequency | 42000.0 MHz -42500.0 MHz |

| | |
|---------------------------------------------------------|--------------------------------------------------------|
| Beam Type | Steerable |
| Polarization | RHCP |
| Peak Gain | 46.7 dBi |
| Antenna Pointing Error | 0.1 degrees |
| Antenna Rotational Error | 0.1 degrees |
| Polarization Switchable | |
| Polarization Alignment Relative to the Equatorial Plane | 45.0 degrees |
| Max. Transmit EIRP Density | -36.3 dBW/Hz |
| Max. Transmit EIRP | 50.7 dBW |
| Co- or Cross Polar Mode | C |
| Service Area Description | Global, see Technical Narrative Figure 2 and Figure 3. |

Max. Power Flux Density

| | * 0° - 5° | * 5° - 10° | * 10° - 15° | * 15° - 20° | * 20° - 25° | * 25° - 90° |
|----------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|
| | (dBW/m ² | (dBW/m ² | (dBW/m ² | (dBW/m ² | (dBW/m ² | (dBW/m ² |
| | /BW): | /BW): | /BW): | /BW): | /BW): | /BW): |
| 1.0 MHz | -140.0 | -134.4 | -128.8 | -123.3 | -122.8 | -119.3 |

Transmitting Beams 16:

| Question | Response |
|-------------------------|--------------------------|
| Beam ID | EGL8 |
| Transmit Beam Frequency | 42000.0 MHz -42500.0 MHz |
| Beam Type | Steerable |
| Polarization | LHCP |
| Peak Gain | 46.7 dBi |
| Antenna Pointing Error | 0.1 degrees |

| | |
|---------------------------------------------------------|--------------------------------------------------------|
| Antenna Rotational Error | 0.1 degrees |
| Polarization Switchable | |
| Polarization Alignment Relative to the Equatorial Plane | 45.0 degrees |
| Max. Transmit EIRP Density | -36.3 dBW/Hz |
| Max. Transmit EIRP | 50.7 dBW |
| Co- or Cross Polar Mode | C |
| Service Area Description | Global, see Technical Narrative Figure 2 and Figure 3. |

Max. Power Flux Density

| | * 0° - 5° | * 5° - 10° | * 10° - 15° | * 15° - 20° | * 20° - 25° | * 25° - 90° |
|----------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|
| | (dBW/m ² | (dBW/m ² | (dBW/m ² | (dBW/m ² | (dBW/m ² | (dBW/m ² |
| | /BW): | /BW): | /BW): | /BW): | /BW): | /BW): |
| 1.0 MHz | -140.0 | -134.4 | -128.8 | -123.3 | -122.8 | -119.3 |

Transmitting Beams 17:

| Question | Response |
|---------------------------------------------------------|--------------------------|
| Beam ID | ETR2 |
| Transmit Beam Frequency | 19298.0 MHz -19300.0 MHz |
| Beam Type | Fixed |
| Polarization | RHCP |
| Peak Gain | 6.6 dBi |
| Antenna Pointing Error | 0.1 degrees |
| Antenna Rotational Error | 0.1 degrees |
| Polarization Switchable | |
| Polarization Alignment Relative to the Equatorial Plane | 45.0 degrees |

| | |
|----------------------------|------------------------------------------------------------------------------------|
| Max. Transmit EIRP Density | -53.0 dBW/Hz |
| Max. Transmit EIRP | 10.0 dBW |
| Co- or Cross Polar Mode | C |
| Service Area Description | Global with earth coverage antenna. See Technical Narrative Figure 2 and Figure 3. |

Max. Power Flux Density

| | * 0° - 5° | * 5° - 10° | * 10° - 15° | * 15° - 20° | * 20° - 25° | * 25° - 90° |
|----------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|
| * | (dBW/m ² | (dBW/m ² | (dBW/m ² | (dBW/m ² | (dBW/m ² | (dBW/m ² |
| BW: | /BW): | /BW): | /BW): | /BW): | /BW): | /BW): |
| 1.0 MHz | -138.6 | -138.1 | -137.5 | -136.9 | -136.4 | -133.0 |

Transmitting Beams 18:

| Question | Response |
|---------------------------------------------------------|--------------------------|
| Beam ID | ETL2 |
| Transmit Beam Frequency | 19298.0 MHz -19300.0 MHz |
| Beam Type | Fixed |
| Polarization | LHCP |
| Peak Gain | 6.6 dBi |
| Antenna Pointing Error | 0.1 degrees |
| Antenna Rotational Error | 0.1 degrees |
| Polarization Switchable | |
| Polarization Alignment Relative to the Equatorial Plane | 45.0 degrees |
| Max. Transmit EIRP Density | -53.0 dBW/Hz |
| Max. Transmit EIRP | 10.0 dBW |
| Co- or Cross Polar Mode | C |

Service Area Description

Global with earth coverage antenna. See
Technical Narrative Figure 2 and Figure 3.

Max. Power Flux Density

| | * 0° - 5° | * 5° - 10° | * 10° - 15° | * 15° - 20° | * 20° - 25° | * 25° - 90° |
|------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|
| | (dbW/m ² | (dbW/m ² | (dbW/m ² | (dbW/m ² | (dbW/m ² | (dbW/m ² |
| BW: | /BW): | /BW): | /BW): | /BW): | /BW): | /BW): |
| 1.0 | -138.6 | -138.1 | -137.5 | -136.9 | -136.4 | -133.0 |
| MHz | | | | | | |

Transmitting Channels (116)

| Channel ID | Channel Bandwidth (MHz) | Center Frequency s (MHz) | Feeder Link, Service Link or TT&C |
|------------|-------------------------|--------------------------|-----------------------------------|
| FR32 | 500.0 | 41750.0 | Feeder Link |
| FR31 | 500.0 | 41250.0 | Feeder Link |
| FR30 | 500.0 | 40750.0 | Feeder Link |
| FL32 | 500.0 | 41750.0 | Feeder Link |
| FL31 | 500.0 | 41250.0 | Feeder Link |
| FL30 | 500.0 | 40750.0 | Feeder Link |
| SL21 | 100.0 | 19950.0 | Service Link |
| FL05 | 100.0 | 18150.0 | Feeder Link |
| FR20 | 100.0 | 19850.0 | Feeder Link |
| SL20 | 100.0 | 19850.0 | Service Link |
| FL04 | 100.0 | 18050.0 | Feeder Link |
| FR19 | 100.0 | 19750.0 | Feeder Link |
| SL19 | 100.0 | 19750.0 | Service Link |
| FL03 | 100.0 | 17950.0 | Feeder Link |
| FR18 | 100.0 | 19650.0 | Feeder Link |
| SL18 | 100.0 | 19650.0 | Service Link |
| TR02 | 1.0 | 19299.5 | TT&C |
| TL02 | 1.0 | 19299.5 | TT&C |
| FR14 | 100.0 | 19250.0 | Feeder Link |
| FL22 | 100.0 | 20050.0 | Feeder Link |
| SR15 | 100.0 | 19350.0 | Service Link |
| SL15 | 100.0 | 19350.0 | Service Link |
| FR15 | 100.0 | 19350.0 | Feeder Link |
| FL23 | 100.0 | 20150.0 | Feeder Link |

| | | | |
|-------------|-------|---------|--------------|
| SR18 | 100.0 | 19650.0 | Service Link |
| SR16 | 100.0 | 19450.0 | Service Link |
| SR19 | 100.0 | 19750.0 | Service Link |
| SR17 | 100.0 | 19550.0 | Service Link |
| FR08 | 100.0 | 18450.0 | Feeder Link |
| SL08 | 100.0 | 18450.0 | Service Link |
| SR08 | 100.0 | 18450.0 | Service Link |
| FL15 | 100.0 | 19350.0 | Feeder Link |
| FR07 | 100.0 | 18350.0 | Feeder Link |
| SL07 | 100.0 | 18350.0 | Service Link |
| SR07 | 100.0 | 18350.0 | Service Link |
| FL14 | 100.0 | 19250.0 | Feeder Link |
| FR06 | 100.0 | 18250.0 | Feeder Link |
| SL14 | 100.0 | 19250.0 | Service Link |
| SR14 | 100.0 | 19250.0 | Service Link |
| FL21 | 100.0 | 19950.0 | Feeder Link |
| FR13 | 100.0 | 19150.0 | Feeder Link |
| SL13 | 100.0 | 19150.0 | Service Link |
| SL06 | 100.0 | 18250.0 | Service Link |
| SR06 | 100.0 | 18250.0 | Service Link |
| FL13 | 100.0 | 19150.0 | Feeder Link |
| FR05 | 100.0 | 18150.0 | Feeder Link |
| SL05 | 100.0 | 18150.0 | Service Link |
| SR05 | 100.0 | 18150.0 | Service Link |
| FL12 | 100.0 | 19050.0 | Feeder Link |
| FR04 | 100.0 | 18050.0 | Feeder Link |

| | | | |
|-------------|-------|---------|--------------|
| SL04 | 100.0 | 18050.0 | Service Link |
| SR04 | 100.0 | 18050.0 | Service Link |
| FL11 | 100.0 | 18950.0 | Feeder Link |
| FR03 | 100.0 | 17950.0 | Feeder Link |
| SL03 | 100.0 | 17950.0 | Service Link |
| SR03 | 100.0 | 17950.0 | Service Link |
| FL10 | 100.0 | 18850.0 | Feeder Link |
| SL02 | 100.0 | 17850.0 | Service Link |
| SR02 | 100.0 | 17850.0 | Service Link |
| FL09 | 100.0 | 18550.0 | Feeder Link |
| SL01 | 100.0 | 17750.0 | Service Link |
| SR01 | 100.0 | 17750.0 | Service Link |
| FL08 | 100.0 | 18450.0 | Feeder Link |
| FR23 | 100.0 | 20150.0 | Feeder Link |
| SL23 | 100.0 | 20150.0 | Service Link |
| FL07 | 100.0 | 18350.0 | Feeder Link |
| FR22 | 100.0 | 20050.0 | Feeder Link |
| SL22 | 100.0 | 20050.0 | Service Link |
| FL06 | 100.0 | 18250.0 | Feeder Link |
| FR21 | 100.0 | 19950.0 | Feeder Link |
| FL02 | 100.0 | 17850.0 | Feeder Link |
| FR02 | 100.0 | 17850.0 | Feeder Link |
| FR17 | 100.0 | 19550.0 | Feeder Link |
| SL17 | 100.0 | 19550.0 | Service Link |
| FL01 | 100.0 | 17750.0 | Feeder Link |
| FR01 | 100.0 | 17750.0 | Feeder Link |

| | | | |
|-------------|-------|---------|--------------|
| FR16 | 100.0 | 19450.0 | Feeder Link |
| SL16 | 100.0 | 19450.0 | Service Link |
| FL24 | 500.0 | 37750.0 | Feeder Link |
| FL25 | 500.0 | 38250.0 | Feeder Link |
| FL26 | 500.0 | 38750.0 | Feeder Link |
| FL27 | 500.0 | 39250.0 | Feeder Link |
| FL28 | 500.0 | 39750.0 | Feeder Link |
| FL29 | 500.0 | 40250.0 | Feeder Link |
| FL33 | 500.0 | 42250.0 | Feeder Link |
| FR24 | 500.0 | 37750.0 | Feeder Link |
| FR25 | 500.0 | 38250.0 | Feeder Link |
| FR26 | 500.0 | 38750.0 | Feeder Link |
| FR27 | 500.0 | 39250.0 | Feeder Link |
| FR28 | 500.0 | 39750.0 | Feeder Link |
| FR29 | 500.0 | 40250.0 | Feeder Link |
| FR33 | 500.0 | 42250.0 | Feeder Link |
| SR20 | 100.0 | 19850.0 | Service Link |
| SR21 | 100.0 | 19950.0 | Service Link |
| SR22 | 100.0 | 20050.0 | Service Link |
| SR23 | 100.0 | 20150.0 | Service Link |
| TL01 | 1.0 | 19298.5 | TT&C |
| TR01 | 1.0 | 19298.5 | TT&C |
| FL16 | 100.0 | 19450.0 | Feeder Link |
| SR09 | 100.0 | 18550.0 | Service Link |
| SL09 | 100.0 | 18550.0 | Service Link |
| FR09 | 100.0 | 18550.0 | Feeder Link |

| | | | |
|-------------|-------|---------|--------------|
| FL17 | 100.0 | 19550.0 | Feeder Link |
| SR10 | 100.0 | 18850.0 | Service Link |
| SL10 | 100.0 | 18850.0 | Service Link |
| FR10 | 100.0 | 18850.0 | Feeder Link |
| FL18 | 100.0 | 19650.0 | Feeder Link |
| SR11 | 100.0 | 18950.0 | Service Link |
| SL11 | 100.0 | 18950.0 | Service Link |
| FR11 | 100.0 | 18950.0 | Feeder Link |
| FL19 | 100.0 | 19750.0 | Feeder Link |
| SR12 | 100.0 | 19050.0 | Service Link |
| SL12 | 100.0 | 19050.0 | Service Link |
| FR12 | 100.0 | 19050.0 | Feeder Link |
| FL20 | 100.0 | 19850.0 | Feeder Link |
| SR13 | 100.0 | 19150.0 | Service Link |

Certification Questions

| Question | Response |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|
| Are the applicable service area coverage requirements of 25.143(b)(2) (ii) and (iii), or 25.144(a)(3)(i), or 25.145 (c)(1) and (2), or 25.146(i)(1) and (2), or 25.148(c), or 25.225 met? | N/A |
| Are the applicable frequency tolerances of 25.202(e) and out-of-band emission limits of 25.202(f)(1),(2), and (3) met? | Yes |
| Are the cessation of emissions requirements of 25.207 met? | Yes |
| Are the applicable power-flux-density limits of 25.208 met, and is the appropriate technical showing provided within the application? | Yes |
| For NGSO applications, are the applicable equivalent-power-flux-density limits of 25.208 met, and is the appropriate technical showing provided within the application? | Yes |
| Are the applicable full-frequency-reuse requirements of 25.210 met? | Yes |
| If the application is for a 17/24 GHz BSS space station, will it be operated at an offset location with full power and interference protection in accordance with 25.262(b)? | |

Attachments

| File Name | Beam | Field | Attachment Type | Description |
|----------------------------------------------------------------|------|------------------------------|------------------|----------------------------------------------------------------|
| <u>Mangata Networks - Gain Contours v3.pdf</u> | | NGSO Antenna Gain Data | PDF file (*.pdf) | Antenna contours for user, gateway, ttc (Ka /V-Band) Tx and Rx |