

Exhibit 1

Frequency Plan

Frequency Plan

8025-8400 MHz (space-to-Earth) (data downlink):

Downlink #1 for satellites 1-60 (20 clusters of 3 satellites)

Center Frequencies	Emission Bandwidths	# Near-polar Clusters	# Mid-inclination Clusters	# Near-equatorial Clusters
8075.0 MHz	8.0 to 80.0 MHz	12	7	1
8165.0 MHz	8.0 to 80.0 MHz	12	7	1
8255.0 MHz	8.0 to 80.0 MHz	12	7	1

Downlink #2 for satellites 22-60, plus replenishment for satellites 1-21 (20 clusters of 3 satellites)

Center Frequencies	Emission Bandwidths	# Near-polar Clusters	# Mid-inclination Clusters	# Near-equatorial Clusters
8090.0 MHz (LHCP only)	105.0 MHz	12	7	1
8210.0 MHz (LHCP)	105.0 MHz	12	7	1
8210.0 MHz (RHCP)	105.0 MHz	12	7	1

25500-27000 MHz (space-to-Earth) (data downlink):

Downlink #3 for satellites 31-60 and replacements for any of the twenty clusters.

Center Frequencies	Emission Bandwidths	# Near-polar Clusters	# Mid-inclination Clusters	# Near-equatorial Clusters
25750.0 MHz	500 MHz	12	7	1
26250.0 MHz	500 MHz	12	7	1
26750.0 MHz	500 MHz	12	7	1

2025-2110 MHz (Earth-to-space) (data uplink):

Uplink for satellites 1-9 (3 clusters of 3 satellites)

Center Frequencies	Emission Bandwidths	# Near-polar Clusters	# Mid-inclination Clusters	# Near-equatorial Clusters
2068.2 MHz	170 kHz, 1.33 MHz, and 2.66 MHz	3	0	0
2062.7 MHz	170 kHz, 1.33 MHz, and 2.66 MHz	3	0	0
2077.4 MHz	170 kHz, 1.33 MHz, and 2.66 MHz	3	0	0

Uplink for satellites 10-60, plus replenishments for satellites 1-9 (20 clusters of 3 satellites)

Center Frequencies	Emission Bandwidths	# Near-polar Clusters	# Mid-inclination Clusters	# Near-equatorial Clusters
2046.5 MHz	170 kHz, 1.33 MHz, and 2.66 MHz	12	7	1
2049.3 MHz	170 kHz, 1.33 MHz, and 2.66 MHz	12	7	1
2075.0 MHz	170 kHz, 1.33 MHz, and 2.66 MHz	12	7	1

Telemetry, Tracking and Command:

8025-8400 MHz (space-to-Earth) (telemetry/tracking):

Downlink for satellites 1-60 (20 clusters of 3 satellites)

Center Frequencies	Emission Bandwidths	# Near-polar Clusters	# Mid-inclination Clusters	# Near-equatorial Clusters
8291.0 MHz	10 kHz to 4.0 MHz	12	7	1
8297.0 MHz	10 kHz to 4.0 MHz	12	7	1
8303.0 MHz	10 kHz to 4.0 MHz	12	7	1

2200-2290 MHz (space-to-Earth) (emergency backup telemetry/tracking):

Emergency Backup TT&C Downlink for satellites 1-21 (7 clusters of 3 satellites)

Center Frequencies	Emission Bandwidths	# Near-polar Clusters	# Mid-inclination Clusters	# Near-equatorial Clusters
2242.0 MHz	256 kHz to 4.0 MHz	5	2	0
2254.0 MHz	256 kHz to 4.0 MHz	5	2	0
2260.0 MHz	256 kHz to 4.0 MHz	5	2	0

2025-2110 MHz (Earth-to-space) (command):

Command uplink for satellites 1-15 (5 clusters of 3 satellites)

Center Frequencies	Emission Bandwidths	# Near-polar Clusters	# Mid-inclination Clusters	# Near-equatorial Clusters
2063.965 MHz	120 kHz and 180 kHz	4	1	0
2064.965 MHz	120 kHz and 180 kHz	4	1	0
2065.965 MHz	120 kHz and 180 kHz	4	1	0

Command uplink for satellites 16-60, plus replenishments for satellites 1-15 (20 clusters of 3 satellites)

Center Frequencies	Emission Bandwidths	# Near-polar Clusters	# Mid-inclination Clusters	# Near-equatorial Clusters
2052.1 MHz	10 kHz to 180 kHz	12	7	1
2053.0 MHz	10 kHz to 180 kHz	12	7	1
2053.7 MHz	10 kHz to 180 kHz	12	7	1

432-438 MHz (Earth-to-space) (backup command; first cluster launched on December 3, 2018 only)

Inter-satellite links:

First cluster launched on December 3, 2018 only:

2410 MHz (space-to-space)

Cluster 9 and satellites 22-60:

1626.5-1645.5 MHz (transmit) (space-to-space) (inter-satellite link), 200 kHz bandwidth

1646.5-1660.5 MHz (transmit) (space-to-space) (inter-satellite link), 200 kHz bandwidth

1525-1544 MHz (receive) (space-to-space) (inter-satellite link), 200 kHz bandwidth

1545-1559 MHz (receive) (space-to-space) (inter-satellite link), 200 kHz bandwidth

Exhibit 2

Frequency Plan (black-line)

Frequency Plan (black-line)

8025-8400 MHz (space-to-Earth) (data downlink):

Downlink #1 for satellites 1-60 (20 clusters of 3 satellites)

Center Frequencies	Emission Bandwidths	# Near-polar Satellites <u>Clusters</u>	# Mid- inclination Satellites <u>Clusters</u>	# Near- equatorial Satellites <u>Clusters</u>
8075.0 MHz	8.0 to 80.0 MHz	<u>912</u>	107	1
8165.0 MHz	8.0 to 80.0 MHz	<u>912</u>	107	1
8255.0 MHz	8.0 to 80.0 MHz	<u>912</u>	107	1

Downlink #2 for satellites 22-60, plus replenishment for satellites 1-21 (20 clusters of 3 satellites)

Center Frequencies	Emission Bandwidths	# Near-polar Satellites <u>Clusters</u>	# Mid- inclination Satellites <u>Clusters</u>	# Near- equatorial Satellites <u>Clusters</u>
8090.0 MHz (LHCP only)	105.0 MHz	<u>912</u>	107	1
8210.0 MHz (LHCP)	105.0 MHz	<u>912</u>	107	1
8210.0 MHz (RHCP)	105.0 MHz	<u>912</u>	107	1

25500-27000 MHz (space-to-Earth) (data downlink):

Downlink #3 for satellites 31-60 and replacements for any of the twenty clusters.

Center Frequencies	Emission Bandwidths	# Near-polar Satellites <u>Clusters</u>	# Mid- inclination Satellites <u>Clusters</u>	# Near- equatorial Satellites <u>Clusters</u>
25750.0 MHz	500 MHz	<u>912</u>	107	1
26250.0 MHz	500 MHz	<u>912</u>	107	1
26750.0 MHz	500 MHz	<u>912</u>	107	1

2025-2110 MHz (Earth-to-space) (data uplink):

Uplink for satellites 1-9 (3 clusters of 3 satellites)

Center Frequencies	Emission Bandwidths	# Near-polar Satellites <u>Clusters</u>	# Mid- inclination Satellites <u>Clusters</u>	# Near- equatorial Satellites <u>Clusters</u>
2068.2 MHz	170 kHz, 1.33 MHz, and 2.66 MHz	3	0	0
2062.7 MHz	170 kHz, 1.33 MHz, and 2.66 MHz	3	0	0
2077.4 MHz	170 kHz, 1.33 MHz, and 2.66 MHz	3	0	0

Uplink for satellites 10-60, plus replenishments for satellites 1-9 (20 clusters of 3 satellites)

Center Frequencies	Emission Bandwidths	# Near-polar Satellites <u>Clusters</u>	# Mid- inclination Satellites <u>Clusters</u>	# Near- equatorial Satellites <u>Clusters</u>
2046.5 MHz	170 kHz, 1.33 MHz, and 2.66 MHz	9 <u>12</u>	10 <u>7</u>	1
2049.3 MHz	170 kHz, 1.33 MHz, and 2.66 MHz	9 <u>12</u>	10 <u>7</u>	1
2075.0 MHz	170 kHz, 1.33 MHz, and 2.66 MHz	9 <u>12</u>	10 <u>7</u>	1

Telemetry, Tracking and Command:**8025-8400 MHz (space-to-Earth) (telemetry/tracking):**

Downlink for satellites 1-60 (20 clusters of 3 satellites)

Center Frequencies	Emission Bandwidths	# Near-polar Satellites <u>Clusters</u>	# Mid- inclination Satellites <u>Clusters</u>	# Near- equatorial Satellites <u>Clusters</u>
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8291.0 MHz	128 <u>10</u> kHz to 4.0 MHz	<u>9</u> <u>12</u>	10 <u>7</u>	1
8297.0 MHz	128 <u>10</u> kHz to 4.0 MHz	<u>9</u> <u>12</u>	10 <u>7</u>	1
8303.0 MHz	128 <u>10</u> kHz to 4.0 MHz	<u>9</u> <u>12</u>	10 <u>7</u>	1

2200-2290 MHz (space-to-Earth) (emergency backup telemetry/tracking):

Emergency Backup TT&C Downlink for satellites 1-21 (7 clusters of 3 satellites)

Center Frequencies	Emission Bandwidths	# Near-polar Satellites <u>Clusters</u>	# Mid-inclination Satellites <u>Clusters</u>	# Near-equatorial Satellites <u>Clusters</u>
2242.0 MHz	256 kHz to 4.0 MHz	5	2	0
2254.0 MHz	256 kHz to 4.0 MHz	5	2	0
2260.0 MHz	256 kHz to 4.0 MHz	5	2	0

2025-2110 MHz (Earth-to-space) (command):

Command uplink for satellites 1-15 (5 clusters of 3 satellites)

Center Frequencies	Emission Bandwidths	# Near-polar Satellites <u>Clusters</u>	# Mid-inclination Satellites <u>Clusters</u>	# Near-equatorial Satellites <u>Clusters</u>
2063.965 MHz	120 kHz and 180 kHz	4	1	0
2064.965 MHz	120 kHz and 180 kHz	4	1	0
2065.965 MHz	120 kHz and 180 kHz	4	1	0

Command uplink for satellites 16-60, plus replenishments for satellites 1-15 (20 clusters of 3 satellites)

Center Frequencies	Emission Bandwidths	# Near-polar Satellites <u>Clusters</u>	# Mid- inclination Satellites <u>Clusters</u>	# Near- equatorial Satellites <u>Clusters</u>
2052.1 MHz	120 kHz and 180 kHz <u>10 kHz to 180 kHz</u>	<u>9</u> <u>12</u>	10 <u>7</u>	1
2053.0 MHz	120 kHz and 180 kHz <u>10 kHz to 180 kHz</u>	<u>9</u> <u>12</u>	10 <u>7</u>	1
2053.7 MHz	120 kHz and 180 kHz <u>10 kHz to 180 kHz</u>	<u>9</u> <u>12</u>	10 <u>7</u>	1

432-438 MHz (Earth-to-space) (backup command; first cluster launched on December 3, 2018 only)

Inter-satellite links:

First cluster launched on December 3, 2018 only:

2410 MHz (space-to-space)

Cluster 9 and satellites 22-60:

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1646.5-1660.5 MHz (transmit) (space-to-space) (inter-satellite link), 200 kHz bandwidth

1525-1544 MHz (receive) (space-to-space) (inter-satellite link), 200 kHz bandwidth

1545-1559 MHz (receive) (space-to-space) (inter-satellite link), 200 kHz bandwidth