Exhibit A

EIRP Spectral Density Plots

The EIRP spectral densities at 14.05 GHz are shown in Figures A-1 and A-2 for vertical polarization and Figures A-3 and A-4 for horizontal polarization. The EIRP spectral densities at 14.25 GHz are shown in Figures A-5 and A-6 for vertical polarization and Figures A-7 and A-8 for horizontal polarization. The EIRP spectral densities at 14.47 GHz are shown in Figures A-9 and A-10 for vertical polarization and Figures A-11 and A-12 for horizontal polarization. All EIRP spectral density results shown in these figures are in compliance with FCC Section 25.222(a)(1) co-polarization emission requirements.

Figure A-1 depicts the EIRP spectral density at 14.05 GHz configured to have zero degrees vertical polarization in dBW/4kHz for a ± 180 degree azimuth axis along with the associated Section 25.222 compliance mask.



FIGURE A-1 EIRP Spectral Density in dBW/4kHz for 14.05 GHz (Vertical Polarization) (25.222 Compliance)

Figure A-2 provides the EIRP spectral density in dBW/4kHz at 14.05 GHz for co-polarized signals with vertical polarization where the azimuth extends ± 9 degrees; the Section 25.222 EIRP co-polarization compliance mask is also shown.



FIGURE A-2 EIRP Spectral Density in dBW/4kHz for 14.05 GHz (Vertical Polarization) (25.222 Sidelobe Compliance Expanded Azimuth)

Figure A-3 depicts the EIRP spectral density at 14.05 GHz configured to have zero degrees horizontal polarization in dBW/4kHz for a \pm 180 degree azimuth axis along with the associated Section 25.222 compliance mask.



FIGURE A-3 EIRP Spectral Density in dBW/4kHz for 14.05 GHz (Horizontal Polarization) (25.222 Compliance)

Figure A-4 provides the EIRP spectral density in dBW/4kHz at 14.05 GHz for co-polarized signals with horizontal polarization where the azimuth extends ± 9 degrees; the Section 25.222 EIRP co-polarization compliance mask is also shown.



FIGURE A-4 EIRP Spectral Density in dBW/4kHz for 14.05 GHz (Horizontal Polarization) (25.222 Sidelobe Compliance Expanded Azimuth)

Figure A-5 depicts the EIRP spectral density at 14.25 GHz configured to have zero degrees vertical polarization in dBW/4kHz for a ± 180 degree azimuth axis along with the associated Section 25.222 compliance mask.



FIGURE A-5 EIRP Spectral Density in dBW/4kHz for 14.25 GHz (Vertical Polarization) (25.222 Compliance)

Figure A-6 provides the EIRP spectral density in dBW/4kHz at 14.25 GHz for co-polarized signals with vertical polarization where the azimuth extends ± 9 degrees; the Section 25.222 EIRP co-polarization compliance mask is also shown.



FIGURE A-6 EIRP Spectral Density in dBW/4kHz for 14.25 GHz (Vertical Polarization) (25.222 Sidelobe Compliance Expanded Azimuth)

Figure A-7 depicts the EIRP spectral density at 14.25 GHz configured to have zero degrees horizontal polarization in dBW/4kHz for a \pm 180 degree azimuth axis along with the associated Section 25.222 compliance mask.



FIGURE A-7 EIRP Spectral Density in dBW/4kHz for 14.25 GHz (Horizontal Polarization) (25.222 Compliance)

Figure A-8 provides the EIRP spectral density in dBW/4kHz at 14.25 GHz for co-polarized signals with horizontal polarization where the azimuth extends ± 9 degrees; the Section 25.222 EIRP co-polarization compliance mask is also shown



FIGURE A-8 EIRP Spectral Density in dBW/4kHz for 14.25 GHz (Horizontal Polarization) (25.222 Sidelobe Compliance Expanded Azimuth)

Figure A-9 depict the EIRP spectral density at 14.47 GHz configured to have zero degrees vertical polarization in dBW/4kHz for a ± 180 degree azimuth axis along with the associated Section 25.222 compliance mask.



FIGURE A-9 EIRP Spectral Density in dBW/4kHz for 14.47 GHz (Vertical Polarization) (25.222 Compliance)

Figure A-10 provides the EIRP spectral density in dBW/4kHz at 14.47 GHz for co-polarized signals with vertical polarization where the azimuth extends ± 9 degrees; the Section 25.222 EIRP co-polarization compliance mask is also shown.



FIGURE A-10 EIRP Spectral Density in dBW/4kHz for 14.47 GHz (Vertical Polarization) (25.222 Sidelobe Compliance Expanded Azimuth) Figure A-11 depicts the EIRP spectral density at 14.47 GHz configured to have zero degrees horizontal polarization in dBW/4kHz for a \pm 180 degree azimuth axis along with the associated Section 25.222 compliance mask.



FIGURE A-11 EIRP Spectral Density in dBW/4kHz for 14.47 GHz (Horizontal Polarization) (25.222 Compliance)

Figure A-12 provides the EIRP spectral density in dBW/4kHz at 14.47 GHz for co-polarized signals with horizontal polarization where the azimuth extends ± 9 degrees; the Section 25.222 EIRP co-polarization compliance mask is also shown.



FIGURE A-12 EIRP Spectral Density in dBW/4kHz for 14.47 GHz (Horizontal Polarization) (25.222 Compliance Expanded Azimuth) Figures A-13 to A-18 depict the EIRP spectral density to show compliance in situations where the aircraft is not on the same longitude as the satellite it is transmitting to (the so-called "skew angle" effect). The antenna in these plots is configured as zero degree vertical polarization and a +35 degree skew angle. In each figure the associated Section 25.222 compliance mask is also shown.

Figure A-13 provides the co-polarization EIRP spectral density in dBW/4kHz for vertically polarized signals with +35 degrees skew angle at 14.05 GHz and \pm 180 degrees azimuth; the Section 25.222 co-polarization compliance mask is also shown.



FIGURE A-13 EIRP Spectral Density in dBW/4kHz for 14.05 GHz (Vertical Polarization with +35° Skew Angle) (25.222 Sidelobe Compliance)

Figure A-14 shows the EIRP spectral density in dBW/4kHz for co-polarized signals at 14.05 GHz with a $+35^{\circ}$ skew angle for an expanded azimuth axis extending between ± 9 degrees along with the associated Section 25.222 compliance mask.



FIGURE A-14 EIRP Spectral Density in dBW/4kHz for 14.05 GHz (Vertical Polarization with +35° Skew Angle) (25.222 Compliance Expanded Azimuth)

Figure A-15 provides the co-polarization EIRP spectral density in dBW/4kHz for vertically polarized signals with +35 degrees skew angle at 14.25 GHz and \pm 180 degrees azimuth; the Section 25.222 co-polarization compliance mask is also shown.



FIGURE A-15 EIRP Spectral Density in dBW/4kHz for 14.25 GHz (Vertical Polarization with +35° Skew Angle) (25.222 Sidelobe Compliance) Figure A-16 shows the EIRP spectral density in dBW/4kHz for co-polarized signals at 14.25 GHz with a $+35^{\circ}$ skew angle for an expanded azimuth axis extending between ± 9 degrees along with the associated Section 25.222



FIGURE A-16 EIRP Spectral Density in dBW/4kHz for 14.25 GHz (Vertical Polarization with +35° Skew Angle) (25.222 Compliance Expanded Azimuth)

Figure A-17 provides the co-polarization EIRP spectral density in dBW/4kHz for vertically polarized signals with +35 degrees skew at 14.47 GHz and \pm 180 degrees azimuth; the Section 25.222 co-polarization compliance mask is also shown.



FIGURE A-17 EIRP Spectral Density in dBW/4kHz for 14.47 GHz (Vertical Polarization with +35° Skew Angle) (25.222 Sidelobe Compliance)

Figure A-18 shows the EIRP spectral density in dBW/4kHz for co-polarized signals at 14.47 GHz with a $+35^{\circ}$ skew angle for an expanded azimuth axis extending between ± 9 degrees along with the associated Section 25.222 compliance mask.



FIGURE A-18 EIRP Spectral Density in dBW/4kHz for 14.47 GHz (Vertical Polarization with +35° Skew Angle) (25.222 Compliance Expanded Azimuth)

Figures A-19 to A-24 depict the EIRP spectral density to show compliance in situations where the aircraft is not on the same longitude as the satellite it is transmitting to (the so-called "skew angle" effect). The antenna in these plots is configured as zero degree vertical polarization and a -35 degree skew angle. In each figure the associated Section 25.222 compliance mask is also shown.

Figure A-19 provides the co-polarization EIRP spectral density in dBW/4kHz for vertically polarized signals with -35 degrees skew angle at 14.05 GHz and \pm 180 degrees azimuth; the Section 25.222 co-polarization compliance mask is also shown.



FIGURE A-19 EIRP Spectral Density in dBW/4kHz for 14.05 GHz (Vertical Polarization with -35° Skew Angle) (25.222 Sidelobe Compliance)

Figure A-20 shows the EIRP spectral density in dBW/4kHz for co-polarized signals at 14.05 GHz with a -35° skew angle for an expanded azimuth axis extending between <u>+</u>9 degrees along with the associated Section 25.222 compliance mask.



FIGURE A-20 EIRP Spectral Density in dBW/4kHz for 14.05 GHz (Vertical Polarization with -35° Skew Angle) (25.222 Compliance Expanded Azimuth) Figure A-21 provides the co-polarization EIRP spectral density in dBW/4kHz for vertically polarized signals with -35 degrees skew angle at 14.25 GHz and \pm 180 degrees azimuth; the Section 25.222 co-polarization compliance mask is also shown.



FIGURE A-21 EIRP Spectral Density in dBW/4kHz for 14.25 GHz (Vertical Polarization with -35[°] Skew Angle) (25.222 Sidelobe Compliance) Figure A-22 shows the EIRP spectral density in dBW/4kHz for co-polarized signals at 14.25 GHz with a -35° skew angle for an expanded azimuth axis extending between ± 9 degrees along with the associated Section 25.222 compliance mask.



FIGURE A-22 EIRP Spectral Density in dBW/4kHz for 14.25 GHz (Vertical Polarization with -35° Skew Angle) (25.222 Compliance Expanded Azimuth) Figure A-23 provides the co-polarization EIRP spectral density in dBW/4kHz for vertically polarized signals with -35 degrees skew angle at 14.47 GHz and \pm 180 degrees azimuth; the Section 25.222 co-polarization compliance mask is also shown.



FIGURE A-23 EIRP Spectral Density in dBW/4kHz for 14.47 GHz (Vertical Polarization with -35[°] Skew Angle) (25.222 Sidelobe Compliance) Figure A-24 shows the EIRP spectral density in dBW/4kHz for co-polarized signals at 14.47 GHz with a 35° skew angle for an expanded azimuth axis extending between <u>+</u>9 degrees along with the associated Section 25.222 compliance mask.



FIGURE A-24 EIRP Spectral Density in dBW/4kHz for 14.47 GHz (Vertical Polarization with -35° Skew Angle) (25.222 Compliance Expanded Azimuth) Figures A-25 to A-30 depict the EIRP spectral density to show compliance in situations where the aircraft is not on the same longitude as the satellite it is transmitting to (the so-called "skew angle" effect). The antenna in these plots is configured as zero degree horizontal polarization and a +35 degree skew angle. In each figure the associated Section 25.222 compliance mask is also shown.

Figure A-25 provides the co-polarization EIRP spectral density in dBW/4kHz for horizontally polarized signals with +35 degrees skew angle at 14.05 GHz and \pm 180 degrees azimuth; the Section 25.222 co-polarization compliance mask is also shown.



FIGURE A-25 EIRP Spectral Density in dBW/4kHz for 14.05 GHz (Horizontal Polarization with +35° Skew Angle) (25.222 Sidelobe Compliance)

Figure A-26 shows the EIRP spectral density in dBW/4kHz for co-polarized signals at 14.05 GHz with a $+35^{\circ}$ skew angle for an expanded azimuth axis extending between ± 9 degrees along with the associated Section 25.222 compliance mask.



FIGURE A-26 EIRP Spectral Density in dBW/4kHz for 14.05 GHz (Horizontal Polarization with +35° Skew Angle) (25.222 Compliance Expanded Azimuth) Figure A-27 provides the co-polarization EIRP spectral density in dBW/4kHz for horizontally polarized signals with +35 degrees skew angle at 14.25 GHz and \pm 180 degrees azimuth; the Section 25.222 co-polarization compliance mask is also shown.



FIGURE A-27 EIRP Spectral Density in dBW/4kHz for 14.25 GHz (Horizontal Polarization with +35° Skew Angle) (25.222 Sidelobe Compliance) Figure A-28 shows the EIRP spectral density in dBW/4kHz for co-polarized signals at 14.25 GHz with a $+35^{\circ}$ skew angle for an expanded azimuth axis extending between ± 9 degrees along with the associated Section 25.222 compliance mask.



FIGURE A-28 EIRP Spectral Density in dBW/4kHz for 14.25 GHz (Horizontal Polarization with +35° Skew Angle) (25.222 Compliance Expanded Azimuth) Figure A-29 provides the co-polarization EIRP spectral density in dBW/4kHz for horizontally polarized signals with +35 degrees skew angle at 14.47 GHz and \pm 180 degrees azimuth; the Section 25.222 co-polarization compliance mask is also shown.



FIGURE A-29 EIRP Spectral Density in dBW/4kHz for 14.47 GHz (Horizontal Polarization with +35° Skew Angle) (25.222 Sidelobe Compliance) Figure A-30 shows the EIRP spectral density in dBW/4kHz for co-polarized signals at 14.47 GHz with a $+35^{\circ}$ skew angle for an expanded azimuth axis extending between ± 9 degrees along with the associated Section 25.222 compliance mask.



FIGURE A-30 EIRP Spectral Density in dBW/4kHz for 14.47 GHz (Horizontal Polarization with +35° Skew Angle) (25.222 Compliance Expanded Azimuth)

Figures A-31 to A-36 depict the EIRP spectral density to show compliance in situations where the aircraft is not on the same longitude as the satellite it is transmitting to (the so-called "skew angle" effect). The antenna in these plots is configured as zero degree horizontal polarization and a -35 degree skew angle. In each figure the associated Section 25.222 compliance mask is also shown.

Figure A-31 provides the co-polarization EIRP spectral density in dBW/4kHz for horizontally polarized signals with -35 degrees skew angle at 14.05 GHz and \pm 180 degrees azimuth; the Section 25.222 co-polarization compliance mask is also shown.



FIGURE A-31 EIRP Spectral Density in dBW/4kHz for 14.05 GHz (Horizontal Polarization with -35° Skew Angle) (25.222 Sidelobe Compliance) Figure A-32 shows the EIRP spectral density in dBW/4kHz for co-polarized signals at 14.05 GHz with a -35° skew angle for an expanded azimuth axis extending between ± 9 degrees along with the associated Section 25.222 compliance mask.



FIGURE A-32 EIRP Spectral Density in dBW/4kHz for 14.05 GHz (Horizontal Polarization with -35° Skew Angle) (25.222 Compliance Expanded Azimuth) Figure A-33 provides the co-polarization EIRP spectral density in dBW/4kHz for horizontally polarized signals with -35 degrees skew angle at 14.25 GHz and \pm 180 degrees azimuth; the Section 25.222 co-polarization compliance mask is also shown.



FIGURE A-33 EIRP Spectral Density in dBW/4kHz for 14.25 GHz (Horizontal Polarization with -35° Skew Angle) (25.222 Sidelobe Compliance) Figure A-34 shows the EIRP spectral density in dBW/4kHz for co-polarized signals at 14.25 GHz with a -35° skew angle for an expanded azimuth axis extending between ± 9 degrees along with the associated Section 25.222 compliance mask.



FIGURE A-34 EIRP Spectral Density in dBW/4kHz for 14.25 GHz (Horizontal Polarization with -35[°] Skew Angle) (25.222 Compliance Expanded Azimuth) Figure A-35 provides the co-polarization EIRP spectral density in dBW/4kHz for horizontally polarized signals with -35 degrees skew angle at 14.47 GHz and \pm 180 degrees azimuth; the Section 25.222 co-polarization compliance mask is also shown.



FIGURE A-35 EIRP Spectral Density in dBW/4kHz for 14.47 GHz (Horizontal Polarization with -35° Skew Angle) (25.222 Sidelobe Compliance) Figure A-36 shows the EIRP spectral density in dBW/4kHz for co-polarized signals at 14.47 GHz with a -35° skew angle for an expanded azimuth axis extending between ± 9 degrees along with the associated Section 25.222 compliance mask.



FIGURE A-36 EIRP Spectral Density in dBW/4kHz for 14.47 GHz (Horizontal Polarization with -35[°] Skew Angle) (25.222 Compliance Expanded Azimuth)