

# Exhibit 1

## V3 VMES Terminal Technical Appendix

### 1. Off-Axis EIRP Analysis for 27 MHz Carrier

The data rates transmitted from the terminal will vary from 32 kbits/s to 512 kbits/s. Additionally, the VMESs will transmit using CRMA spreading<sup>1</sup> over either an 18 MHz channel bandwidth, 27 MHz, or a 36 MHz channel bandwidth. KVH acknowledges that the small diameter V3 antenna does not meet the FCC 25.209 antenna pattern. However, KVH certifies that the aggregate EIRP levels do not exceed the limits specified for Ku-band VMESs in Section 25.226 of the Commission's rules. For the 27 MHz channel the co-pol off-axis EIRP spectral density levels of the KVH VMES terminal are shown in Figures 1 and 2 below. Note that a calculated worst case aggregate EIRP occurs when N=10 users for the 27 MHz channel. Figure 2 below shows the V3 worst case cross-pol off-axis EIRP density plots versus the FCC §25.226 mask.

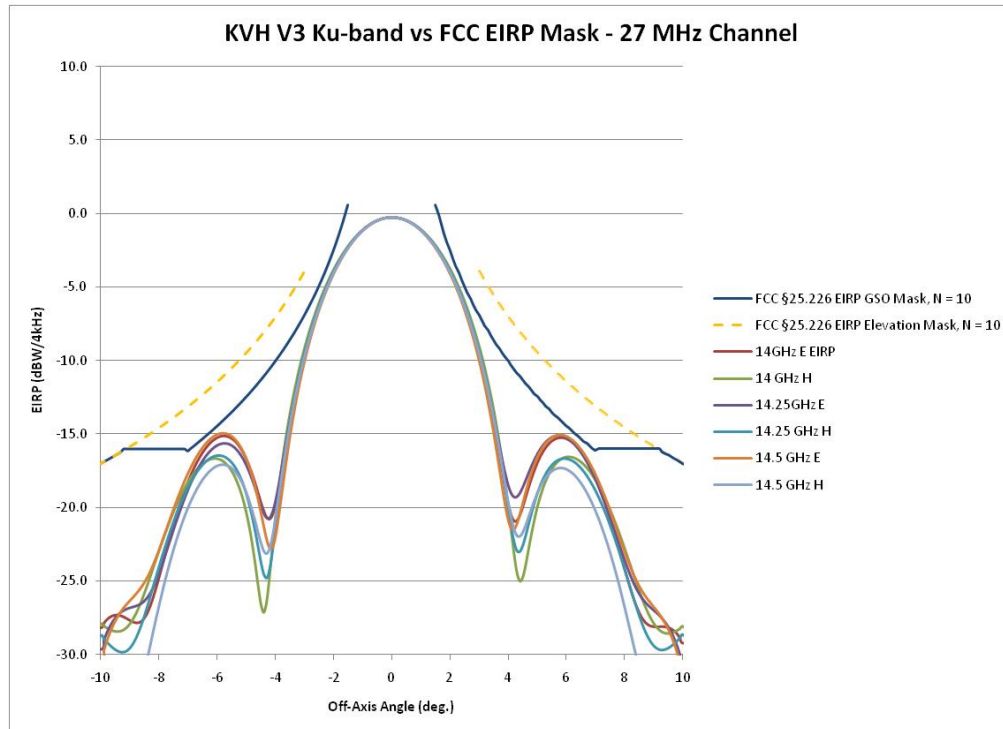
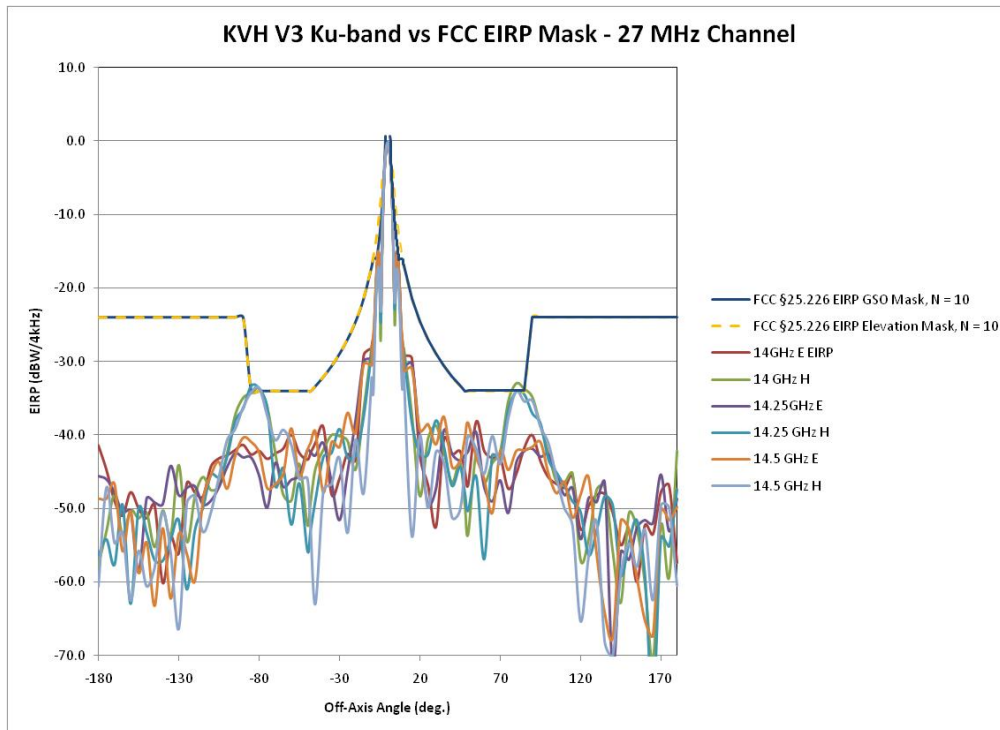


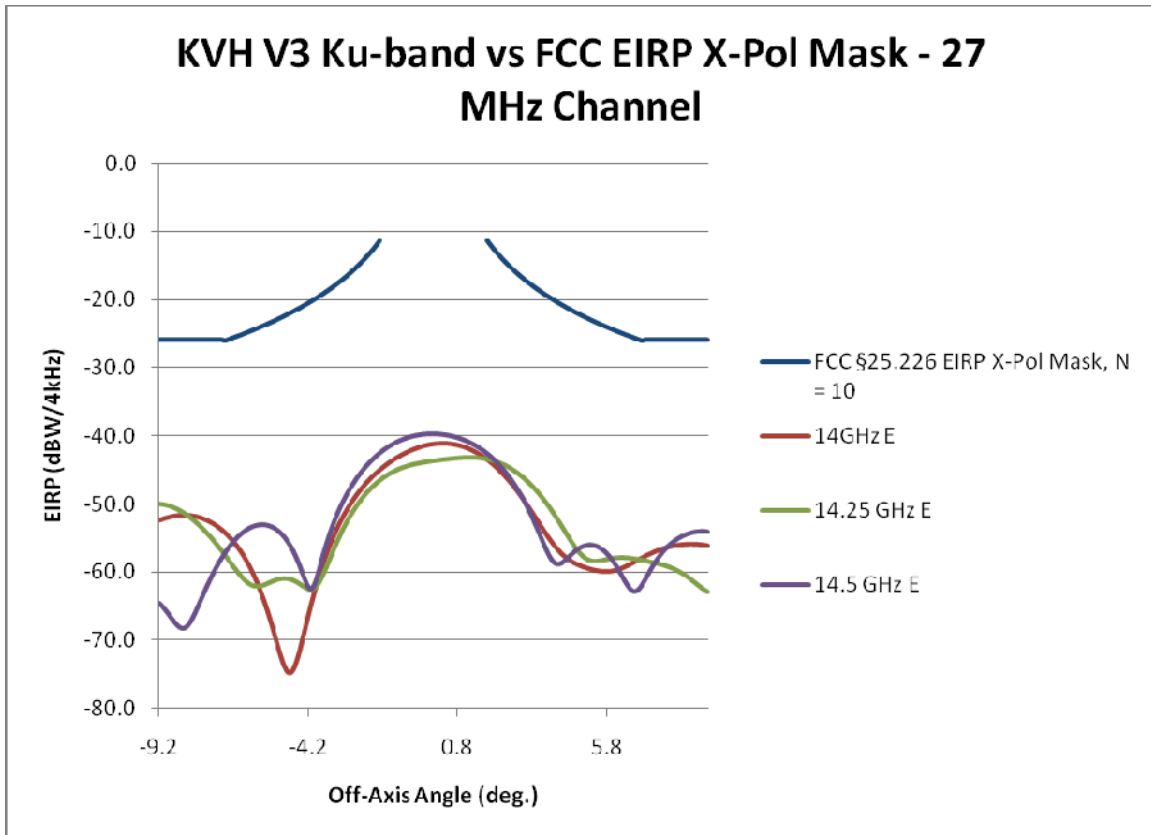
Figure 1 - V3 Off-Axis EIRP Spectral Density – 27 MHz Channel

<sup>1</sup> CRMA, or Code Reuse Multiple Access, is a ViaSat proprietary spread spectrum technique, similar to CDMA, used in the ArcLight satellite system.



**Figure 2 – 27 MHz Off-Axis EIRP Spectral Density<sup>2</sup>**

<sup>2</sup> EIRP envelope exceeds mask by as much as 1.55 dB between -75 to -85 degrees and +75 to 85 degrees, <5.7% of sidelobes. Per FCC §25.222(a)(1)(i)(A) for angles greater than 7.0°, the envelope may be exceeded by no more than 10% of the sidelobes, provided no individual sidelobe exceeds the envelope given above by more than 3 dB.



**Figure 3 – 27 MHz Channel Cross-Pol Off-Axis EIRP Spectral Density**

Per § 25.226(b)(1)(i), Table 1 below provides the co-pol the E and H plane antenna patterns for the parabolic antenna, as well as the E and H plane EIRP charts, and the FCC GSO and Elevation masks. Table 2 below provides the X-Pol E and H plane antenna gain and EIRP charts versus the FCC mask.

Table 1	Antenna Gain (dBi)										ESV EIRP (dBW/4 kHz)						
Off-Axis Angle	14 GHz E	14 GHz H	14.25 GHz E	14.25 GHz H	14.5 GHz E	14.5 GHz H	Off-Axis Angle	FCC §25.209	FCC §25.226 EIRP GSO Mask, N = 10	FCC §25.226 EIRP Elevation Mask, N = 10	14 GHz E	14 GHz H	14.25 GHz E	14.25 GHz H	14.5 GHz E	14.5 GHz H	Meets Mask
-180	-7.9	-24.1	-12.1	-22.8	-15.1	-27.0	-180	0.0	-24.0	-24.0	-41.4	-57.6	-45.6	-56.4	-48.7	-60.6	Y
-175	-11.2	-19.5	-12.5	-20.7	-15.1	-13.6	-175	0.0	-24.0	-24.0	-44.7	-53.0	-46.1	-54.2	-48.7	-47.1	Y
-170	-15.4	-14.6	-14.3	-24.1	-13.2	-21.1	-170	0.0	-24.0	-24.0	-48.9	-48.1	-47.8	-57.6	-46.7	-54.6	Y
-165	-17.4	-19.9	-17.1	-15.9	-22.3	-19.7	-165	0.0	-24.0	-24.0	-51.0	-53.5	-50.6	-49.5	-55.8	-53.2	Y
-160	-14.2	-16.7	-16.9	-29.4	-16.9	-29.0	-160	0.0	-24.0	-24.0	-47.8	-50.2	-50.4	-62.9	-50.4	-62.5	Y
-155	-16.4	-17.7	-25.2	-16.5	-25.2	-22.2	-155	0.0	-24.0	-24.0	-50.0	-51.3	-58.7	-50.0	-58.8	-55.7	Y
-150	-17.8	-17.0	-15.1	-19.8	-21.1	-27.0	-150	0.0	-24.0	-24.0	-51.3	-50.5	-48.6	-53.3	-54.6	-60.5	Y
-145	-16.0	-21.7	-15.7	-23.5	-29.7	-24.5	-145	0.0	-24.0	-24.0	-49.6	-55.2	-49.2	-57.0	-63.3	-58.0	Y
-140	-26.6	-16.7	-15.9	-23.6	-19.2	-16.9	-140	0.0	-24.0	-24.0	-60.1	-50.2	-49.4	-57.1	-52.7	-50.4	Y
-135	-20.4	-20.0	-10.7	-20.7	-28.7	-22.5	-135	0.0	-24.0	-24.0	-53.9	-53.5	-44.2	-54.3	-62.3	-56.0	Y
-130	-22.5	-10.5	-14.7	-18.1	-20.0	-32.8	-130	0.0	-24.0	-24.0	-56.0	-44.0	-48.2	-51.6	-53.5	-66.3	Y
-125	-13.0	-21.0	-13.7	-27.5	-22.7	-15.7	-125	0.0	-24.0	-24.0	-46.5	-54.5	-47.2	-61.0	-56.2	-49.2	Y
-120	-14.3	-14.8	-13.5	-19.5	-26.3	-14.6	-120	0.0	-24.0	-24.0	-47.8	-48.3	-47.0	-53.0	-59.9	-48.1	Y
-115	-14.8	-12.1	-15.9	-16.4	-15.4	-19.6	-115	0.0	-24.0	-24.0	-48.3	-45.7	-49.4	-49.9	-48.9	-53.1	Y
-110	-10.8	-13.9	-15.4	-11.9	-11.9	-16.9	-110	0.0	-24.0	-24.0	-44.3	-47.4	-48.9	-45.4	-45.5	-50.5	Y
-105	-9.6	-13.4	-13.6	-12.2	-10.2	-12.1	-105	0.0	-24.0	-24.0	-43.2	-46.9	-47.1	-45.7	-43.7	-45.7	Y
-100	-9.2	-9.0	-10.9	-9.5	-13.8	-7.2	-100	0.0	-24.0	-24.0	-42.8	-42.5	-44.4	-43.0	-47.3	-40.7	Y
-95	-8.5	-3.8	-9.0	-4.7	-9.4	-5.7	-95	0.0	-24.0	-24.0	-42.0	-37.3	-42.5	-38.2	-42.9	-39.2	Y
-90	-7.8	-1.4	-9.5	-2.9	-6.9	-2.7	-90	0.0	-24.0	-24.0	-41.3	-34.9	-43.1	-36.4	-40.4	-36.2	Y
-85	-9.1	-0.7	-9.6	0.2	-7.4	-0.6	-85	-10.0	-34.0	-34.0	-42.6	-34.3	-43.1	-33.3	-40.9	-34.2	N
-80	-8.6	-0.1	-12.0	-0.2	-8.9	0.0	-80	-10.0	-34.0	-34.0	-42.2	-33.6	-45.6	-33.7	-42.4	-33.6	N
-75	-9.7	-2.6	-16.4	-2.7	-13.7	-3.8	-75	-10.0	-34.0	-34.0	-43.2	-36.1	-49.9	-36.2	-47.2	-37.3	Y
-70	-9.0	-8.8	-10.3	-13.4	-13.2	-7.1	-70	-10.0	-34.0	-34.0	-42.5	-42.4	-43.8	-46.9	-46.7	-40.6	Y
-65	-8.3	-14.6	-13.5	-11.0	-11.7	-5.7	-65	-10.0	-34.0	-34.0	-41.8	-48.1	-47.1	-44.6	-45.3	-39.3	Y
-60	-6.4	-15.3	-12.6	-18.7	-5.6	-7.8	-60	-10.0	-34.0	-34.0	-39.9	-48.9	-46.1	-52.2	-39.1	-41.3	Y
-55	-8.9	-10.4	-12.0	-13.1	-12.1	-12.4	-55	-10.0	-34.0	-34.0	-42.4	-43.9	-45.5	-46.6	-45.6	-45.9	Y
-50	-9.8	-18.6	-8.6	-22.2	-8.6	-12.3	-50	-10.0	-34.0	-34.0	-43.3	-52.1	-42.1	-55.7	-42.1	-45.9	Y
-48	-8.9	-15.6	-8.8	-19.5	-7.5	-19.2	-48	-10.0	-34.0	-34.0	-42.4	-49.1	-42.4	-53.0	-41.1	-52.7	Y

-45	-7.5	-11.1	-9.3	-15.4	-6.0	-29.4	-45	-9.3	-33.3	-33.3	-41.1	-44.6	-42.8	-48.9	-39.5	-62.9	Y
-40	-5.4	-8.4	-7.6	-9.5	-14.3	-13.9	-40	-8.1	-32.1	-32.1	-38.9	-41.9	-41.1	-43.0	-47.8	-47.5	Y
-35	-14.5	-6.5	-12.9	-8.9	-7.5	-13.1	-35	-6.6	-30.6	-30.6	-48.0	-40.0	-46.4	-42.5	-41.0	-46.7	Y
-30	-12.4	-6.6	-18.1	-5.7	-8.1	-9.6	-30	-4.9	-28.9	-28.9	-45.9	-40.1	-51.6	-39.2	-41.6	-43.1	Y
-25	-9.0	-7.2	-11.6	-9.6	-3.5	-19.8	-25	-2.9	-26.9	-26.9	-42.5	-40.8	-45.1	-43.1	-37.0	-53.3	Y
-20	-9.9	-11.1	-4.5	-9.3	-6.1	-7.1	-20	-0.5	-24.5	-24.5	-43.4	-44.6	-38.0	-42.8	-39.6	-40.6	Y
-15	4.3	-3.0	3.5	-4.0	3.1	-14.3	-15	2.6	-21.4	-21.4	-29.2	-36.5	-30.0	-37.6	-30.4	-47.9	Y
-10	5.3	5.6	3.9	4.8	3.0	1.4	-10	7.0	-17.0	-17.0	-28.2	-27.9	-29.6	-28.7	-30.5	-32.1	Y
-9.9	5.7	5.5	4.5	4.6	3.7	1.0	-9.9	7.1	-16.9	-16.9	-27.9	-28.1	-29.0	-28.9	-29.8	-32.5	Y
-9.8	5.9	5.3	5.0	4.4	4.4	0.6	-9.8	7.2	-16.8	-16.8	-27.6	-28.2	-28.5	-29.1	-29.1	-32.9	Y
-9.7	6.1	5.2	5.4	4.2	4.9	0.3	-9.7	7.3	-16.7	-16.7	-27.5	-28.3	-28.1	-29.3	-28.6	-33.3	Y
-9.6	6.2	5.1	5.8	4.0	5.4	-0.1	-9.6	7.4	-16.6	-16.6	-27.4	-28.4	-27.8	-29.5	-28.1	-33.6	Y
-9.5	6.2	5.1	6.0	3.9	5.8	-0.4	-9.5	7.6	-16.4	-16.4	-27.3	-28.4	-27.5	-29.6	-27.7	-33.9	Y
-9.4	6.2	5.1	6.3	3.8	6.2	-0.7	-9.4	7.7	-16.3	-16.3	-27.3	-28.4	-27.3	-29.8	-27.4	-34.2	Y
-9.3	6.2	5.1	6.4	3.7	6.5	-0.9	-9.3	7.8	-16.2	-16.2	-27.4	-28.4	-27.1	-29.8	-27.1	-34.4	Y
-9.2	6.1	5.2	6.6	3.7	6.7	-1.0	-9.2	8.0	-16.0	-16.1	-27.5	-28.3	-27.0	-29.8	-26.8	-34.5	Y
-9.1	6.0	5.4	6.6	3.8	7.0	-1.0	-9.1	8.0	-16.0	-16.0	-27.6	-28.1	-26.9	-29.7	-26.6	-34.5	Y
-9	5.8	5.6	6.7	4.0	7.2	-0.8	-9	8.0	-16.0	-15.9	-27.7	-27.9	-26.8	-29.5	-26.3	-34.3	Y
-8.9	5.7	5.9	6.8	4.3	7.4	-0.4	-8.9	8.0	-16.0	-15.7	-27.8	-27.6	-26.8	-29.3	-26.1	-33.9	Y
-8.8	5.7	6.3	6.8	4.6	7.6	0.1	-8.8	8.0	-16.0	-15.6	-27.8	-27.2	-26.7	-28.9	-25.9	-33.4	Y
-8.7	5.7	6.7	6.9	5.1	7.8	0.7	-8.7	8.0	-16.0	-15.5	-27.8	-26.8	-26.6	-28.4	-25.7	-32.8	Y
-8.6	5.8	7.2	7.0	5.6	8.1	1.5	-8.6	8.0	-16.0	-15.4	-27.7	-26.3	-26.5	-27.9	-25.4	-32.0	Y
-8.5	6.0	7.7	7.2	6.2	8.4	2.4	-8.5	8.0	-16.0	-15.2	-27.5	-25.8	-26.3	-27.3	-25.1	-31.2	Y
-8.4	6.4	8.3	7.4	6.8	8.8	3.3	-8.4	8.0	-16.0	-15.1	-27.1	-25.3	-26.1	-26.7	-24.7	-30.3	Y
-8.3	6.8	8.8	7.7	7.5	9.2	4.2	-8.3	8.0	-16.0	-15.0	-26.7	-24.7	-25.8	-26.0	-24.3	-29.4	Y
-8.2	7.4	9.4	8.1	8.2	9.6	5.1	-8.2	8.0	-16.0	-14.8	-26.1	-24.1	-25.4	-25.3	-23.9	-28.4	Y
-8.1	8.1	10.0	8.5	8.9	10.1	6.0	-8.1	8.0	-16.0	-14.7	-25.4	-23.5	-25.0	-24.7	-23.4	-27.5	Y
-8	8.8	10.6	9.1	9.5	10.6	6.8	-8	8.0	-16.0	-14.6	-24.7	-22.9	-24.5	-24.0	-22.9	-26.7	Y
-7.9	9.5	11.2	9.6	10.2	11.2	7.7	-7.9	8.0	-16.0	-14.4	-24.0	-22.4	-23.9	-23.3	-22.4	-25.8	Y
-7.8	10.3	11.7	10.2	10.8	11.7	8.5	-7.8	8.0	-16.0	-14.3	-23.3	-21.8	-23.3	-22.7	-21.8	-25.0	Y
-7.7	11.0	12.2	10.8	11.5	12.3	9.3	-7.7	8.0	-16.0	-14.2	-22.5	-21.3	-22.7	-22.1	-21.2	-24.3	Y
-7.6	11.7	12.8	11.4	12.0	12.9	10.0	-7.6	8.0	-16.0	-14.0	-21.8	-20.8	-22.1	-21.5	-20.7	-23.5	Y
-7.5	12.4	13.2	12.0	12.6	13.4	10.7	-7.5	8.0	-16.0	-13.9	-21.1	-20.3	-21.5	-20.9	-20.1	-22.9	Y
-7.4	13.0	13.7	12.6	13.1	13.9	11.3	-7.4	8.0	-16.0	-13.7	-20.5	-19.8	-20.9	-20.4	-19.6	-22.2	Y
-7.3	13.7	14.1	13.2	13.6	14.5	11.9	-7.3	8.0	-16.0	-13.6	-19.9	-19.4	-20.3	-19.9	-19.1	-21.6	Y
-7.2	14.2	14.5	13.8	14.1	15.0	12.5	-7.2	8.0	-16.0	-13.4	-19.3	-19.0	-19.8	-19.4	-18.6	-21.0	Y
-7.1	14.8	14.9	14.3	14.5	15.4	13.0	-7.1	8.0	-16.0	-13.3	-18.7	-18.6	-19.2	-19.0	-18.1	-20.5	Y
-7	15.3	15.3	14.8	15.0	15.9	13.5	-7	7.9	-16.1	-13.1	-18.2	-18.3	-18.7	-18.6	-17.7	-20.0	Y

-6.9	15.8	15.6	15.2	15.3	16.3	14.0	-6.9	8.0	-16.0	-13.0	-17.7	-17.9	-18.3	-18.2	-17.2	-19.5	Y
-6.8	16.2	15.9	15.7	15.7	16.7	14.4	-6.8	8.2	-15.8	-12.8	-17.3	-17.7	-17.9	-17.9	-16.9	-19.1	Y
-6.7	16.6	16.1	16.1	16.0	17.0	14.8	-6.7	8.3	-15.7	-12.7	-16.9	-17.4	-17.5	-17.6	-16.5	-18.8	Y
-6.6	17.0	16.3	16.4	16.2	17.3	15.1	-6.6	8.5	-15.5	-12.5	-16.6	-17.2	-17.1	-17.3	-16.2	-18.4	Y
-6.5	17.3	16.5	16.7	16.5	17.6	15.4	-6.5	8.7	-15.3	-12.3	-16.2	-17.0	-16.8	-17.1	-15.9	-18.1	Y
-6.4	17.6	16.6	17.0	16.7	17.9	15.7	-6.4	8.8	-15.2	-12.2	-16.0	-16.9	-16.5	-16.9	-15.7	-17.8	Y
-6.3	17.8	16.8	17.3	16.8	18.1	15.9	-6.3	9.0	-15.0	-12.0	-15.7	-16.8	-16.3	-16.7	-15.5	-17.6	Y
-6.2	18.0	16.8	17.5	17.0	18.2	16.1	-6.2	9.2	-14.8	-11.8	-15.5	-16.7	-16.0	-16.6	-15.3	-17.4	Y
-6.1	18.2	16.9	17.6	17.0	18.4	16.2	-6.1	9.4	-14.6	-11.6	-15.4	-16.7	-15.9	-16.5	-15.1	-17.3	Y
-6	18.3	16.8	17.8	17.1	18.5	16.3	-6	9.5	-14.5	-11.5	-15.2	-16.7	-15.7	-16.4	-15.0	-17.2	Y
-5.9	18.4	16.8	17.9	17.1	18.5	16.4	-5.9	9.7	-14.3	-11.3	-15.2	-16.7	-15.7	-16.4	-15.0	-17.1	Y
-5.8	18.4	16.7	17.9	17.0	18.6	16.4	-5.8	9.9	-14.1	-11.1	-15.1	-16.9	-15.6	-16.5	-15.0	-17.1	Y
-5.7	18.4	16.5	17.9	17.0	18.5	16.4	-5.7	10.1	-13.9	-10.9	-15.1	-17.0	-15.6	-16.6	-15.0	-17.1	Y
-5.6	18.3	16.3	17.9	16.8	18.5	16.3	-5.6	10.3	-13.7	-10.7	-15.2	-17.2	-15.7	-16.7	-15.1	-17.2	Y
-5.5	18.2	16.0	17.8	16.6	18.3	16.2	-5.5	10.5	-13.5	-10.5	-15.3	-17.5	-15.8	-16.9	-15.2	-17.3	Y
-5.4	18.1	15.6	17.6	16.3	18.2	16.0	-5.4	10.7	-13.3	-10.3	-15.5	-17.9	-15.9	-17.2	-15.4	-17.5	Y
-5.3	17.8	15.2	17.4	16.0	17.9	15.7	-5.3	10.9	-13.1	-10.1	-15.7	-18.4	-16.1	-17.5	-15.6	-17.8	Y
-5.2	17.6	14.6	17.1	15.6	17.6	15.4	-5.2	11.1	-12.9	-9.9	-16.0	-18.9	-16.4	-17.9	-15.9	-18.1	Y
-5.1	17.2	13.9	16.8	15.1	17.3	15.0	-5.1	11.3	-12.7	-9.7	-16.3	-19.6	-16.7	-18.4	-16.3	-18.5	Y
-5	16.8	13.1	16.4	14.5	16.8	14.5	-5	11.5	-12.5	-9.5	-16.7	-20.4	-17.1	-19.1	-16.7	-19.0	Y
-4.9	16.3	12.2	16.0	13.8	16.3	14.0	-4.9	11.7	-12.3	-9.3	-17.2	-21.3	-17.6	-19.8	-17.2	-19.6	Y
-4.8	15.8	11.0	15.4	12.9	15.7	13.3	-4.8	12.0	-12.0	-9.0	-17.7	-22.5	-18.1	-20.6	-17.9	-20.2	Y
-4.7	15.2	9.7	14.9	12.0	14.9	12.6	-4.7	12.2	-11.8	-8.8	-18.3	-23.8	-18.7	-21.6	-18.6	-20.9	Y
-4.6	14.5	8.3	14.2	10.9	14.1	11.8	-4.6	12.4	-11.6	-8.6	-19.0	-25.3	-19.3	-22.6	-19.4	-21.7	Y
-4.5	13.9	6.9	13.6	9.8	13.2	11.1	-4.5	12.7	-11.3	-8.3	-19.7	-26.6	-19.9	-23.7	-20.4	-22.4	Y
-4.4	13.3	6.4	13.1	9.0	12.2	10.5	-4.4	12.9	-11.1	-8.1	-20.3	-27.1	-20.4	-24.5	-21.3	-23.0	Y
-4.3	12.9	7.2	12.8	8.8	11.3	10.4	-4.3	13.2	-10.8	-7.8	-20.7	-26.3	-20.7	-24.8	-22.2	-23.2	Y
-4.2	12.7	8.9	12.8	9.4	10.8	10.7	-4.2	13.4	-10.6	-7.6	-20.8	-24.6	-20.7	-24.2	-22.8	-22.8	Y
-4.1	13.0	10.9	13.2	10.7	10.8	11.6	-4.1	13.7	-10.3	-7.3	-20.5	-22.6	-20.3	-22.9	-22.7	-21.9	Y
-4	13.7	12.9	14.0	12.3	11.5	12.8	-4	13.9	-10.1	-7.1	-19.8	-20.6	-19.5	-21.3	-22.0	-20.7	Y
-3.9	14.7	14.6	15.0	13.9	12.8	14.1	-3.9	14.2	-9.8	-6.8	-18.8	-18.9	-18.5	-19.6	-20.7	-19.4	Y
-3.8	15.8	16.2	16.1	15.4	14.2	15.5	-3.8	14.5	-9.5	-6.5	-17.7	-17.4	-17.4	-18.1	-19.3	-18.0	Y
-3.7	17.0	17.6	17.2	16.9	15.7	16.8	-3.7	14.8	-9.2	-6.2	-16.5	-16.0	-16.3	-16.7	-17.8	-16.7	Y
-3.6	18.2	18.8	18.4	18.2	17.1	18.0	-3.6	15.1	-8.9	-5.9	-15.4	-14.7	-15.2	-15.4	-16.4	-15.5	Y
-3.5	19.3	20.0	19.5	19.4	18.4	19.2	-3.5	15.4	-8.6	-5.6	-14.3	-13.6	-14.1	-14.2	-15.1	-14.3	Y
-3.4	20.3	21.0	20.5	20.4	19.6	20.3	-3.4	15.7	-8.3	-5.3	-13.2	-12.5	-13.0	-13.1	-13.9	-13.3	Y
-3.3	21.3	21.9	21.4	21.5	20.7	21.2	-3.3	16.0	-8.0	-5.0	-12.2	-11.6	-12.1	-12.1	-12.8	-12.3	Y
-3.2	22.2	22.8	22.3	22.4	21.7	22.2	-3.2	16.4	-7.6	-4.6	-11.3	-10.7	-11.2	-11.1	-11.8	-11.4	Y

-3.1	23.1	23.6	23.2	23.2	22.6	23.0	-3.1	16.7	-7.3	-4.3	-10.4	-9.9	-10.3	-10.3	-10.9	-10.5	Y
-3	23.9	24.4	24.0	24.0	23.5	23.8	-3	17.1	-6.9	-3.9	-9.6	-9.1	-9.5	-9.5	-10.0	-9.7	Y
-2.9	24.6	25.1	24.7	24.8	24.3	24.6	-2.9	17.4	-6.6		-8.9	-8.4	-8.8	-8.8	-9.2	-9.0	Y
-2.8	25.3	25.7	25.4	25.5	25.0	25.3	-2.8	17.8	-6.2		-8.2	-7.8	-8.1	-8.1	-8.5	-8.3	Y
-2.7	26.0	26.4	26.1	26.1	25.7	25.9	-2.7	18.2	-5.8		-7.5	-7.2	-7.5	-7.4	-7.8	-7.6	Y
-2.6	26.6	26.9	26.7	26.7	26.4	26.5	-2.6	18.6	-5.4		-6.9	-6.6	-6.8	-6.8	-7.2	-7.0	Y
-2.5	27.2	27.5	27.2	27.3	27.0	27.1	-2.5	19.1	-4.9		-6.4	-6.1	-6.3	-6.2	-6.6	-6.4	Y
-2.4	27.7	28.0	27.8	27.8	27.5	27.6	-2.4	19.5	-4.5		-5.8	-5.5	-5.7	-5.7	-6.0	-5.9	Y
-2.3	28.2	28.5	28.3	28.3	28.0	28.1	-2.3	20.0	-4.0		-5.3	-5.1	-5.2	-5.2	-5.5	-5.4	Y
-2.2	28.7	28.9	28.8	28.8	28.5	28.6	-2.2	20.4	-3.6		-4.8	-4.6	-4.8	-4.8	-5.0	-4.9	Y
-2.1	29.1	29.3	29.2	29.2	29.0	29.1	-2.1	20.9	-3.1		-4.4	-4.2	-4.3	-4.3	-4.5	-4.5	Y
-2	29.5	29.7	29.6	29.6	29.4	29.5	-2	21.5	-2.5		-4.0	-3.8	-3.9	-3.9	-4.1	-4.0	Y
-1.9	29.9	30.1	30.0	30.0	29.8	29.9	-1.9	22.0	-2.0		-3.6	-3.4	-3.5	-3.5	-3.7	-3.6	Y
-1.8	30.3	30.4	30.4	30.4	30.2	30.2	-1.8	22.6	-1.4		-3.2	-3.1	-3.2	-3.2	-3.3	-3.3	Y
-1.7	30.6	30.7	30.7	30.7	30.6	30.6	-1.7	23.2	-0.8		-2.9	-2.8	-2.8	-2.8	-3.0	-2.9	Y
-1.6	31.0	31.0	31.0	31.0	30.9	30.9	-1.6	23.9	-0.1		-2.6	-2.5	-2.5	-2.5	-2.6	-2.6	Y
-1.5	31.2	31.3	31.3	31.3	31.2	31.2	-1.5	24.6	0.6		-2.3	-2.2	-2.2	-2.2	-2.3	-2.3	Y
-1.4	31.5	31.6	31.6	31.6	31.5	31.5	-1.4				-2.0	-2.0	-2.0	-2.0	-2.1	-2.0	Y
-1.3	31.8	31.8	31.8	31.8	31.7	31.7	-1.3				-1.8	-1.7	-1.7	-1.7	-1.8	-1.8	Y
-1.2	32.0	32.0	32.0	32.0	31.9	32.0	-1.2				-1.5	-1.5	-1.5	-1.5	-1.6	-1.6	Y
-1.1	32.2	32.2	32.2	32.2	32.2	32.2	-1.1				-1.3	-1.3	-1.3	-1.3	-1.4	-1.4	Y
-1	32.4	32.4	32.4	32.4	32.4	32.4	-1				-1.1	-1.1	-1.1	-1.1	-1.2	-1.2	Y
-0.9	32.6	32.6	32.6	32.6	32.5	32.5	-0.9				-1.0	-1.0	-0.9	-0.9	-1.0	-1.0	Y
-0.8	32.7	32.7	32.7	32.7	32.7	32.7	-0.8				-0.8	-0.8	-0.8	-0.8	-0.8	-0.8	Y
-0.7	32.8	32.8	32.9	32.9	32.8	32.8	-0.7				-0.7	-0.7	-0.6	-0.7	-0.7	-0.7	Y
-0.6	32.9	32.9	33.0	33.0	32.9	32.9	-0.6				-0.6	-0.6	-0.5	-0.5	-0.6	-0.6	Y
-0.5	33.0	33.0	33.1	33.1	33.0	33.0	-0.5				-0.5	-0.5	-0.4	-0.4	-0.5	-0.5	Y
-0.4	33.1	33.1	33.2	33.2	33.1	33.1	-0.4				-0.4	-0.4	-0.4	-0.4	-0.4	-0.4	Y
-0.3	33.2	33.2	33.2	33.2	33.2	33.2	-0.3				-0.3	-0.3	-0.3	-0.3	-0.3	-0.3	Y
-0.2	33.2	33.2	33.3	33.3	33.2	33.2	-0.2				-0.3	-0.3	-0.3	-0.3	-0.3	-0.3	Y
-0.1	33.2	33.2	33.3	33.3	33.2	33.2	-0.1				-0.3	-0.3	-0.2	-0.2	-0.3	-0.3	Y
0	33.3	33.3	33.3	33.3	33.3	33.3	0				-0.3	-0.3	-0.2	-0.2	-0.3	-0.3	Y
0.1	33.2	33.2	33.3	33.3	33.2	33.2	0.1				-0.3	-0.3	-0.2	-0.2	-0.3	-0.3	Y
0.2	33.2	33.2	33.3	33.3	33.2	33.2	0.2				-0.3	-0.3	-0.3	-0.3	-0.3	-0.3	Y
0.3	33.2	33.2	33.2	33.2	33.2	33.2	0.3				-0.3	-0.3	-0.3	-0.3	-0.4	-0.4	Y
0.4	33.1	33.1	33.2	33.2	33.1	33.1	0.4				-0.4	-0.4	-0.4	-0.4	-0.4	-0.4	Y
0.5	33.0	33.0	33.1	33.1	33.0	33.0	0.5				-0.5	-0.5	-0.4	-0.4	-0.5	-0.5	Y
0.6	32.9	33.0	33.0	33.0	32.9	32.9	0.6				-0.6	-0.6	-0.5	-0.5	-0.6	-0.6	Y

0.7	32.8	32.8	32.9	32.9	32.8	32.8	0.7					-0.7	-0.7	-0.7	-0.7	-0.7	-0.7	Y
0.8	32.7	32.7	32.7	32.7	32.7	32.7	0.8					-0.8	-0.8	-0.8	-0.8	-0.9	-0.8	Y
0.9	32.5	32.6	32.6	32.6	32.5	32.5	0.9					-1.0	-0.9	-0.9	-0.9	-1.0	-1.0	Y
1	32.4	32.4	32.4	32.4	32.3	32.4	1					-1.1	-1.1	-1.1	-1.1	-1.2	-1.2	Y
1.1	32.2	32.2	32.2	32.2	32.1	32.2	1.1					-1.3	-1.3	-1.3	-1.3	-1.4	-1.4	Y
1.2	32.0	32.0	32.0	32.0	31.9	31.9	1.2					-1.5	-1.5	-1.5	-1.5	-1.6	-1.6	Y
1.3	31.8	31.8	31.8	31.8	31.7	31.7	1.3					-1.8	-1.7	-1.7	-1.7	-1.8	-1.8	Y
1.4	31.5	31.6	31.5	31.6	31.4	31.5	1.4					-2.0	-1.9	-2.0	-2.0	-2.1	-2.1	Y
1.5	31.2	31.3	31.3	31.3	31.2	31.2	1.5	24.6	0.6			-2.3	-2.2	-2.3	-2.2	-2.4	-2.3	Y
1.6	30.9	31.1	31.0	31.0	30.9	30.9	1.6	23.9	-0.1			-2.6	-2.5	-2.5	-2.5	-2.7	-2.6	Y
1.7	30.6	30.8	30.7	30.7	30.5	30.6	1.7	23.2	-0.8			-2.9	-2.8	-2.9	-2.8	-3.0	-2.9	Y
1.8	30.3	30.4	30.3	30.4	30.2	30.2	1.8	22.6	-1.4			-3.2	-3.1	-3.2	-3.2	-3.3	-3.3	Y
1.9	29.9	30.1	30.0	30.0	29.8	29.9	1.9	22.0	-2.0			-3.6	-3.4	-3.6	-3.5	-3.7	-3.6	Y
2	29.5	29.7	29.6	29.6	29.4	29.5	2	21.5	-2.5			-4.0	-3.8	-3.9	-3.9	-4.1	-4.0	Y
2.1	29.1	29.3	29.2	29.2	29.0	29.1	2.1	20.9	-3.1			-4.4	-4.2	-4.4	-4.3	-4.6	-4.4	Y
2.2	28.7	28.9	28.7	28.8	28.5	28.6	2.2	20.4	-3.6			-4.8	-4.6	-4.8	-4.7	-5.0	-4.9	Y
2.3	28.2	28.5	28.3	28.3	28.0	28.2	2.3	20.0	-4.0			-5.3	-5.0	-5.3	-5.2	-5.5	-5.3	Y
2.4	27.7	28.0	27.8	27.8	27.5	27.7	2.4	19.5	-4.5			-5.8	-5.5	-5.8	-5.7	-6.0	-5.8	Y
2.5	27.2	27.5	27.2	27.3	26.9	27.1	2.5	19.1	-4.9			-6.3	-6.0	-6.3	-6.2	-6.6	-6.4	Y
2.6	26.6	27.0	26.7	26.8	26.3	26.6	2.6	18.6	-5.4			-6.9	-6.5	-6.9	-6.8	-7.2	-6.9	Y
2.7	26.0	26.4	26.1	26.2	25.7	26.0	2.7	18.2	-5.8			-7.5	-7.1	-7.5	-7.4	-7.8	-7.5	Y
2.8	25.3	25.8	25.4	25.5	25.0	25.3	2.8	17.8	-6.2			-8.2	-7.7	-8.1	-8.0	-8.5	-8.2	Y
2.9	24.7	25.2	24.7	24.9	24.3	24.7	2.9	17.4	-6.6			-8.9	-8.4	-8.8	-8.7	-9.3	-8.9	Y
3	23.9	24.5	24.0	24.1	23.5	23.9	3	17.1	-6.9	-3.9		-9.6	-9.1	-9.5	-9.4	-10.1	-9.6	Y
3.1	23.1	23.7	23.2	23.4	22.6	23.2	3.1	16.7	-7.3	-4.3		-10.4	-9.8	-10.3	-10.2	-10.9	-10.4	Y
3.2	22.3	22.9	22.4	22.5	21.7	22.3	3.2	16.4	-7.6	-4.6		-11.3	-10.6	-11.1	-11.0	-11.8	-11.2	Y
3.3	21.3	22.0	21.5	21.7	20.7	21.5	3.3	16.0	-8.0	-5.0		-12.2	-11.5	-12.0	-11.9	-12.8	-12.1	Y
3.4	20.4	21.1	20.6	20.7	19.7	20.5	3.4	15.7	-8.3	-5.3		-13.2	-12.4	-12.9	-12.8	-13.9	-13.0	Y
3.5	19.3	20.1	19.7	19.7	18.5	19.5	3.5	15.4	-8.6	-5.6		-14.2	-13.4	-13.9	-13.9	-15.0	-14.0	Y
3.6	18.2	19.0	18.7	18.6	17.3	18.5	3.6	15.1	-8.9	-5.9		-15.3	-14.5	-14.9	-15.0	-16.2	-15.1	Y
3.7	17.1	17.8	17.7	17.4	16.0	17.3	3.7	14.8	-9.2	-6.2		-16.5	-15.7	-15.9	-16.1	-17.5	-16.2	Y
3.8	15.9	16.5	16.7	16.1	14.8	16.2	3.8	14.5	-9.5	-6.5		-17.6	-17.0	-16.8	-17.4	-18.8	-17.4	Y
3.9	14.7	15.0	15.8	14.8	13.6	15.0	3.9	14.2	-9.8	-6.8		-18.8	-18.5	-17.8	-18.7	-20.0	-18.6	Y
4	13.7	13.5	15.0	13.4	12.6	13.8	4	13.9	-10.1	-7.1		-19.8	-20.0	-18.5	-20.1	-20.9	-19.7	Y
4.1	13.0	11.9	14.5	12.2	12.1	12.8	4.1	13.7	-10.3	-7.3		-20.5	-21.7	-19.0	-21.4	-21.5	-20.7	Y
4.2	12.6	10.3	14.2	11.2	12.0	12.0	4.2	13.4	-10.6	-7.6		-20.9	-23.2	-19.3	-22.4	-21.5	-21.5	Y
4.3	12.6	9.0	14.3	10.6	12.4	11.6	4.3	13.2	-10.8	-7.8		-20.9	-24.5	-19.2	-22.9	-21.1	-21.9	Y
4.4	13.0	8.5	14.5	10.6	13.1	11.6	4.4	12.9	-11.1	-8.1		-20.5	-25.0	-19.0	-23.0	-20.4	-22.0	Y



4.5	13.6	8.8	14.9	11.0	13.8	11.8	4.5	12.7	-11.3	-8.3	-19.9	-24.7	-18.6	-22.5	-19.7	-21.7	Y
4.6	14.3	9.7	15.4	11.7	14.6	12.3	4.6	12.4	-11.6	-8.6	-19.3	-23.9	-18.1	-21.8	-18.9	-21.2	Y
4.7	14.9	10.7	15.9	12.5	15.3	12.9	4.7	12.2	-11.8	-8.8	-18.6	-22.8	-17.6	-21.1	-18.2	-20.6	Y
4.8	15.5	11.8	16.4	13.2	15.9	13.5	4.8	12.0	-12.0	-9.0	-18.0	-21.7	-17.1	-20.3	-17.6	-20.0	Y
4.9	16.1	12.8	16.8	13.9	16.5	14.0	4.9	11.7	-12.3	-9.3	-17.4	-20.8	-16.7	-19.6	-17.1	-19.5	Y
5	16.6	13.6	17.2	14.5	16.9	14.5	5	11.5	-12.5	-9.5	-16.9	-19.9	-16.3	-19.0	-16.6	-19.0	Y
5.1	17.0	14.3	17.5	15.1	17.3	14.9	5.1	11.3	-12.7	-9.7	-16.5	-19.2	-16.0	-18.5	-16.2	-18.6	Y
5.2	17.4	14.9	17.8	15.5	17.7	15.3	5.2	11.1	-12.9	-9.9	-16.2	-18.6	-15.7	-18.0	-15.9	-18.2	Y
5.3	17.6	15.4	18.0	15.9	17.9	15.6	5.3	10.9	-13.1	-10.1	-15.9	-18.1	-15.5	-17.6	-15.6	-17.9	Y
5.4	17.9	15.8	18.2	16.2	18.1	15.8	5.4	10.7	-13.3	-10.3	-15.6	-17.7	-15.3	-17.3	-15.4	-17.7	Y
5.5	18.1	16.2	18.3	16.5	18.3	16.0	5.5	10.5	-13.5	-10.5	-15.5	-17.4	-15.2	-17.1	-15.2	-17.5	Y
5.6	18.2	16.4	18.4	16.6	18.4	16.1	5.6	10.3	-13.7	-10.7	-15.3	-17.1	-15.1	-16.9	-15.1	-17.4	Y
5.7	18.2	16.6	18.4	16.8	18.4	16.2	5.7	10.1	-13.9	-10.9	-15.3	-16.9	-15.1	-16.7	-15.1	-17.3	Y
5.8	18.3	16.8	18.4	16.9	18.4	16.2	5.8	9.9	-14.1	-11.1	-15.2	-16.7	-15.1	-16.7	-15.1	-17.3	Y
5.9	18.3	16.9	18.4	16.9	18.4	16.2	5.9	9.7	-14.3	-11.3	-15.3	-16.6	-15.1	-16.6	-15.1	-17.3	Y
6	18.2	17.0	18.3	16.9	18.3	16.1	6	9.5	-14.5	-11.5	-15.3	-16.6	-15.2	-16.6	-15.2	-17.4	Y
6.1	18.1	17.0	18.2	16.8	18.2	16.0	6.1	9.4	-14.6	-11.6	-15.4	-16.6	-15.4	-16.7	-15.3	-17.5	Y
6.2	17.9	16.9	18.0	16.7	18.1	15.8	6.2	9.2	-14.8	-11.8	-15.6	-16.6	-15.5	-16.8	-15.4	-17.7	Y
6.3	17.8	16.9	17.8	16.6	17.9	15.7	6.3	9.0	-15.0	-12.0	-15.8	-16.7	-15.7	-16.9	-15.6	-17.9	Y
6.4	17.5	16.7	17.6	16.4	17.7	15.4	6.4	8.8	-15.2	-12.2	-16.0	-16.8	-16.0	-17.1	-15.8	-18.1	Y
6.5	17.3	16.6	17.3	16.2	17.5	15.2	6.5	8.7	-15.3	-12.3	-16.2	-16.9	-16.2	-17.3	-16.1	-18.4	Y
6.6	17.0	16.4	17.0	16.0	17.2	14.8	6.6	8.5	-15.5	-12.5	-16.5	-17.1	-16.6	-17.5	-16.4	-18.7	Y
6.7	16.7	16.2	16.6	15.7	16.9	14.5	6.7	8.3	-15.7	-12.7	-16.9	-17.3	-16.9	-17.8	-16.7	-19.0	Y
6.8	16.3	16.0	16.3	15.4	16.5	14.1	6.8	8.2	-15.8	-12.8	-17.2	-17.6	-17.3	-18.1	-17.0	-19.4	Y
6.9	15.9	15.7	15.9	15.0	16.1	13.7	6.9	8.0	-16.0	-13.0	-17.6	-17.9	-17.7	-18.5	-17.4	-19.8	Y
7	15.4	15.4	15.4	14.7	15.7	13.2	7	7.9	-16.1	-13.1	-18.1	-18.2	-18.1	-18.9	-17.8	-20.3	Y
7.1	15.0	15.0	15.0	14.3	15.3	12.7	7.1	8.0	-16.0	-13.3	-18.6	-18.5	-18.6	-19.3	-18.2	-20.8	Y
7.2	14.4	14.6	14.5	13.8	14.8	12.2	7.2	8.0	-16.0	-13.4	-19.1	-18.9	-19.1	-19.7	-18.7	-21.3	Y
7.3	13.9	14.2	13.9	13.3	14.3	11.7	7.3	8.0	-16.0	-13.6	-19.6	-19.3	-19.6	-20.2	-19.2	-21.9	Y
7.4	13.3	13.8	13.4	12.8	13.8	11.0	7.4	8.0	-16.0	-13.7	-20.2	-19.7	-20.1	-20.7	-19.7	-22.5	Y
7.5	12.7	13.3	12.8	12.3	13.3	10.4	7.5	8.0	-16.0	-13.9	-20.8	-20.2	-20.7	-21.2	-20.3	-23.1	Y
7.6	12.1	12.9	12.3	11.8	12.7	9.7	7.6	8.0	-16.0	-14.0	-21.5	-20.7	-21.3	-21.8	-20.8	-23.8	Y
7.7	11.4	12.3	11.7	11.2	12.1	9.0	7.7	8.0	-16.0	-14.2	-22.1	-21.2	-21.9	-22.3	-21.4	-24.5	Y
7.8	10.7	11.8	11.1	10.6	11.6	8.3	7.8	8.0	-16.0	-14.3	-22.8	-21.7	-22.4	-23.0	-21.9	-25.3	Y
7.9	10.0	11.3	10.5	9.9	11.0	7.5	7.9	8.0	-16.0	-14.4	-23.5	-22.3	-23.0	-23.6	-22.5	-26.0	Y
8	9.3	10.7	9.9	9.3	10.5	6.7	8	8.0	-16.0	-14.6	-24.2	-22.8	-23.6	-24.2	-23.1	-26.8	Y
8.1	8.6	10.1	9.4	8.7	9.9	5.8	8.1	8.0	-16.0	-14.7	-24.9	-23.4	-24.1	-24.9	-23.6	-27.7	Y
8.2	8.0	9.5	8.9	8.0	9.4	5.0	8.2	8.0	-16.0	-14.8	-25.6	-24.0	-24.7	-25.5	-24.1	-28.5	Y

8.3	7.3	9.0	8.4	7.4	8.9	4.1	8.3	8.0	-16.0	-15.0	-26.2	-24.6	-25.1	-26.2	-24.6	-29.4	Y
8.4	6.8	8.4	8.0	6.7	8.5	3.3	8.4	8.0	-16.0	-15.1	-26.7	-25.1	-25.5	-26.8	-25.0	-30.2	Y
8.5	6.3	7.8	7.6	6.2	8.1	2.5	8.5	8.0	-16.0	-15.2	-27.2	-25.7	-25.9	-27.4	-25.4	-31.0	Y
8.6	6.0	7.3	7.3	5.6	7.8	1.8	8.6	8.0	-16.0	-15.4	-27.5	-26.2	-26.2	-27.9	-25.7	-31.8	Y
8.7	5.7	6.8	7.1	5.1	7.5	1.1	8.7	8.0	-16.0	-15.5	-27.8	-26.7	-26.4	-28.4	-26.0	-32.4	Y
8.8	5.5	6.3	6.9	4.7	7.2	0.5	8.8	8.0	-16.0	-15.6	-28.0	-27.2	-26.6	-28.8	-26.3	-33.0	Y
8.9	5.5	5.9	6.7	4.4	7.0	0.1	8.9	8.0	-16.0	-15.7	-28.1	-27.6	-26.8	-29.1	-26.5	-33.4	Y
9	5.4	5.6	6.5	4.1	6.7	-0.1	9	8.0	-16.0	-15.9	-28.1	-27.9	-27.0	-29.4	-26.8	-33.7	Y
9.1	5.4	5.4	6.4	4.0	6.5	-0.3	9.1	8.0	-16.0	-16.0	-28.1	-28.2	-27.2	-29.6	-27.0	-33.8	Y
9.2	5.4	5.2	6.2	3.9	6.2	-0.2	9.2	8.0	-16.0	-16.1	-28.1	-28.4	-27.4	-29.6	-27.3	-33.8	Y
9.3	5.4	5.0	5.9	3.9	5.9	-0.1	9.3	7.8	-16.2	-16.2	-28.1	-28.5	-27.6	-29.7	-27.6	-33.6	Y
9.4	5.4	5.0	5.7	3.9	5.6	0.1	9.4	7.7	-16.3	-16.3	-28.1	-28.6	-27.8	-29.6	-27.9	-33.4	Y
9.5	5.4	4.9	5.4	4.0	5.2	0.3	9.5	7.6	-16.4	-16.4	-28.2	-28.6	-28.1	-29.5	-28.3	-33.2	Y
9.6	5.3	5.0	5.0	4.1	4.7	0.6	9.6	7.4	-16.6	-16.6	-28.3	-28.5	-28.5	-29.4	-28.8	-32.9	Y
9.7	5.1	5.1	4.6	4.3	4.2	1.0	9.7	7.3	-16.7	-16.7	-28.4	-28.5	-28.9	-29.2	-29.3	-32.6	Y
9.8	4.9	5.2	4.1	4.5	3.6	1.3	9.8	7.2	-16.8	-16.8	-28.6	-28.4	-29.4	-29.0	-29.9	-32.2	Y
9.9	4.6	5.3	3.5	4.7	2.9	1.6	9.9	7.1	-16.9	-16.9	-28.9	-28.2	-30.0	-28.8	-30.6	-31.9	Y
10	4.3	5.4	2.8	4.9	2.1	2.0	10	7.0	-17.0	-17.0	-29.2	-28.1	-30.8	-28.6	-31.5	-31.5	Y
15	4.0	-3.6	3.2	-4.8	2.6	-20.2	15	2.6	-21.4	-21.4	-29.5	-37.1	-30.3	-38.3	-30.9	-53.7	Y
20	-9.3	-14.7	-7.1	-9.0	-5.8	-6.5	20	-0.5	-24.5	-24.5	-42.8	-48.3	-40.6	-42.5	-39.4	-40.1	Y
25	-13.2	-7.0	-16.0	-9.1	-5.0	-16.3	25	-2.9	-26.9	-26.9	-46.7	-40.5	-49.5	-42.7	-38.5	-49.9	Y
30	-19.0	-5.1	-13.8	-4.5	-7.8	-8.7	30	-4.9	-28.9	-28.9	-52.5	-38.7	-47.3	-38.0	-41.3	-42.2	Y
35	-7.0	-8.8	-5.9	-8.1	-4.0	-10.2	35	-6.6	-30.6	-30.6	-40.5	-42.3	-39.4	-41.6	-37.5	-43.8	Y
40	-9.0	-12.9	-9.1	-13.4	-10.8	-17.6	40	-8.1	-32.1	-32.1	-42.5	-46.4	-42.6	-46.9	-44.3	-51.2	Y
45	-8.6	-10.2	-10.0	-10.8	-10.0	-16.7	45	-9.3	-33.3	-33.3	-42.2	-43.7	-43.5	-44.3	-43.5	-50.2	Y
48	-11.4	-16.0	-9.2	-14.4	-6.9	-10.6	48	-10.0	-34.0	-34.0	-44.9	-49.5	-42.8	-47.9	-40.4	-44.1	Y
50	-13.3	-19.9	-8.7	-16.8	-4.8	-6.6	50	-10.0	-34.0	-34.0	-46.8	-53.4	-42.3	-50.3	-38.3	-40.1	Y
55	-4.6	-8.9	-6.1	-12.1	-9.4	-8.3	55	-10.0	-34.0	-34.0	-38.2	-42.5	-39.6	-45.6	-43.0	-41.9	Y
60	-8.6	-12.9	-13.6	-23.4	-12.4	-11.7	60	-10.0	-34.0	-34.0	-42.1	-46.5	-47.1	-56.9	-46.0	-45.2	Y
65	-9.6	-10.2	-15.5	-9.3	-17.1	-6.6	65	-10.0	-34.0	-34.0	-43.1	-43.8	-49.1	-42.8	-50.6	-40.1	Y
70	-9.6	-8.7	-12.7	-9.6	-8.7	-10.4	70	-10.0	-34.0	-34.0	-43.1	-42.2	-46.2	-43.1	-42.2	-43.9	Y
75	-13.8	-1.8	-17.1	-3.1	-11.2	-4.1	75	-10.0	-34.0	-34.0	-47.3	-35.3	-50.6	-36.6	-44.7	-37.6	Y
80	-11.7	0.6	-10.3	-0.6	-8.6	-0.5	80	-10.0	-34.0	-34.0	-45.3	-32.9	-43.8	-34.1	-42.2	-34.0	N
85	-8.2	-0.2	-8.7	-1.0	-8.6	-1.9	85	-10.0	-34.0	-34.0	-41.7	-33.7	-42.2	-34.5	-42.1	-35.4	N
90	-6.5	-1.3	-8.4	-3.6	-8.1	-1.8	90	0.0	-24.0	-24.0	-40.0	-34.8	-41.9	-37.1	-41.6	-35.3	Y
95	-10.0	-5.2	-9.4	-4.9	-7.4	-5.3	95	0.0	-24.0	-24.0	-43.5	-38.7	-43.0	-38.4	-40.9	-38.8	Y
100	-12.2	-8.9	-9.1	-9.8	-11.7	-7.6	100	0.0	-24.0	-24.0	-45.8	-42.4	-42.7	-43.4	-45.3	-41.1	Y
105	-13.1	-12.8	-11.9	-11.6	-14.4	-12.2	105	0.0	-24.0	-24.0	-46.6	-46.3	-45.4	-45.1	-47.9	-45.8	Y

110	-13.6	-13.0	-14.7	-13.5	-12.9	-16.4	110	0.0	-24.0	-24.0	-47.1	-46.5	-48.2	-47.0	-46.4	-50.0	Y
115	-12.1	-11.7	-13.8	-15.5	-17.7	-18.8	115	0.0	-24.0	-24.0	-45.7	-45.2	-47.3	-49.0	-51.3	-52.3	Y
120	-19.3	-23.5	-20.7	-17.0	-14.6	-31.8	120	0.0	-24.0	-24.0	-52.8	-57.0	-54.2	-50.5	-48.1	-65.3	Y
125	-16.1	-20.6	-15.1	-22.8	-12.3	-23.0	125	0.0	-24.0	-24.0	-49.6	-54.1	-48.6	-56.3	-45.8	-56.5	Y
130	-14.6	-13.8	-15.6	-19.5	-22.8	-18.4	130	0.0	-24.0	-24.0	-48.1	-47.4	-49.2	-53.0	-56.3	-51.9	Y
135	-14.5	-13.5	-13.0	-14.8	-30.7	-34.6	135	0.0	-24.0	-24.0	-48.0	-47.0	-46.5	-48.3	-64.2	-68.1	Y
140	-17.1	-22.3	-38.2	-16.0	-34.0	-36.5	140	0.0	-24.0	-24.0	-50.6	-55.8	-71.7	-49.5	-67.5	-70.0	Y
145	-21.4	-29.2	-22.4	-25.5	-18.2	-25.4	145	0.0	-24.0	-24.0	-55.0	-62.7	-55.9	-59.0	-51.7	-58.9	Y
150	-19.6	-17.1	-23.5	-21.2	-19.3	-21.2	150	0.0	-24.0	-24.0	-53.1	-50.7	-57.0	-54.7	-52.8	-54.7	Y
155	-26.5	-19.2	-19.1	-18.1	-25.9	-24.4	155	0.0	-24.0	-24.0	-60.0	-52.7	-52.7	-51.6	-59.4	-57.9	Y
160	-18.7	-26.6	-18.1	-25.5	-31.7	-19.3	160	0.0	-24.0	-24.0	-52.3	-60.1	-51.6	-59.0	-65.2	-52.8	Y
165	-19.9	-37.0	-18.5	-43.5	-33.7	-28.9	165	0.0	-24.0	-24.0	-53.5	-70.5	-52.0	-77.0	-67.2	-62.4	Y
170	-14.2	-18.7	-11.9	-20.4	-16.7	-16.0	170	0.0	-24.0	-24.0	-47.7	-52.2	-45.4	-53.9	-50.2	-49.5	Y
175	-13.3	-25.8	-19.6	-21.6	-18.1	-16.3	175	0.0	-24.0	-24.0	-46.8	-59.3	-53.1	-55.2	-51.6	-49.8	Y
180	-23.8	-8.6	-15.2	-13.9	-16.3	-26.9	180	0.0	-24.0	-24.0	-57.3	-42.1	-48.7	-47.4	-49.8	-60.4	Y

Table 2	Antenna Gain X-Pol						ESV EIRP X-Pol				
Off Axis Angle (degree)	14GHz E	14.25 GHz E	14.5 GHz E	Off Axis Angle (degree)	FCC 25.209(b)(1)	FCC §25.226 EIRP X-Pol Mask, N = 10	14GHz E	14.25 GHz E	14.5 GHz E	Worst case EIRP Exceedance (dB)	Meets Mask
-9.2	-18.83	-16.455	-31.01	-9.2	-2.0	-26.0	-52.3	-50.0	-64.5	26.3	Y
-9.1	-18.67	-16.509	-31.47	-9.1	-2.0	-26.0	-52.2	-50.0	-65.0	26.2	Y
-9.0	-18.53	-16.594	-31.99	-9.0	-2.0	-26.0	-52.1	-50.1	-65.5	26.1	Y
-8.9	-18.41	-16.708	-32.56	-8.9	-2.0	-26.0	-51.9	-50.2	-66.1	25.9	Y
-8.8	-18.3	-16.853	-33.16	-8.8	-2.0	-26.0	-51.8	-50.4	-66.7	25.8	Y
-8.7	-18.22	-17.028	-33.74	-8.7	-2.0	-26.0	-51.7	-50.5	-67.3	25.7	Y
-8.6	-18.15	-17.232	-34.25	-8.6	-2.0	-26.0	-51.7	-50.8	-67.8	25.7	Y
-8.5	-18.11	-17.464	-34.59	-8.5	-2.0	-26.0	-51.6	-51.0	-68.1	25.6	Y
-8.4	-18.09	-17.725	-34.7	-8.4	-2.0	-26.0	-51.6	-51.2	-68.2	25.6	Y
-8.3	-18.09	-18.014	-34.51	-8.3	-2.0	-26.0	-51.6	-51.5	-68.0	25.6	Y
-8.2	-18.12	-18.329	-34.03	-8.2	-2.0	-26.0	-51.6	-51.9	-67.5	25.6	Y
-8.1	-18.18	-18.67	-33.3	-8.1	-2.0	-26.0	-51.7	-52.2	-66.8	25.7	Y
-8.0	-18.26	-19.036	-32.42	-8.0	-2.0	-26.0	-51.8	-52.6	-65.9	25.8	Y
-7.9	-18.36	-19.427	-31.45	-7.9	-2.0	-26.0	-51.9	-52.9	-65.0	25.9	Y
-7.8	-18.49	-19.841	-30.45	-7.8	-2.0	-26.0	-52.0	-53.4	-64.0	26.0	Y
-7.7	-18.65	-20.279	-29.45	-7.7	-2.0	-26.0	-52.2	-53.8	-63.0	26.2	Y
-7.6	-18.84	-20.74	-28.48	-7.6	-2.0	-26.0	-52.4	-54.3	-62.0	26.4	Y
-7.5	-19.06	-21.222	-27.56	-7.5	-2.0	-26.0	-52.6	-54.7	-61.1	26.6	Y
-7.4	-19.31	-21.726	-26.67	-7.4	-2.0	-26.0	-52.8	-55.2	-60.2	26.8	Y
-7.3	-19.59	-22.25	-25.84	-7.3	-2.0	-26.0	-53.1	-55.8	-59.4	27.1	Y
-7.2	-19.91	-22.794	-25.06	-7.2	-2.0	-26.0	-53.4	-56.3	-58.6	27.4	Y
-7.1	-20.26	-23.355	-24.32	-7.1	-2.0	-26.0	-53.8	-56.9	-57.8	27.8	Y
-7.0	-20.64	-23.931	-23.64	-7.0	-2.1	-26.1	-54.2	-57.5	-57.2	28.0	Y
-6.9	-21.07	-24.519	-23.02	-6.9	-2.0	-26.0	-54.6	-58.0	-56.5	28.6	Y
-6.8	-21.53	-25.112	-22.44	-6.8	-1.8	-25.8	-55.1	-58.6	-56.0	29.2	Y
-6.7	-22.04	-25.702	-21.91	-6.7	-1.7	-25.7	-55.6	-59.2	-55.4	29.9	Y
-6.6	-22.6	-26.279	-21.44	-6.6	-1.5	-25.5	-56.1	-59.8	-55.0	30.6	Y
-6.5	-23.21	-26.826	-21.02	-6.5	-1.3	-25.3	-56.7	-60.3	-54.5	31.4	Y
-6.4	-23.87	-27.326	-20.64	-6.4	-1.2	-25.2	-57.4	-60.8	-54.2	32.2	Y
-6.3	-24.59	-27.758	-20.32	-6.3	-1.0	-25.0	-58.1	-61.3	-53.8	33.1	Y
-6.2	-25.38	-28.103	-20.05	-6.2	-0.8	-24.8	-58.9	-61.6	-53.6	34.1	Y

-6.1	-26.23	-28.347	-19.84	-6.1	-0.6	-24.6	-59.8	-61.9	-53.4	35.1	Y
-6.0	-27.16	-28.481	-19.67	-6.0	-0.5	-24.5	-60.7	-62.0	-53.2	36.2	Y
-5.9	-28.17	-28.511	-19.56	-5.9	-0.3	-24.3	-61.7	-62.0	-53.1	37.4	Y
-5.8	-29.28	-28.451	-19.51	-5.8	-0.1	-24.1	-62.8	-62.0	-53.0	38.7	Y
-5.7	-30.47	-28.323	-19.51	-5.7	0.1	-23.9	-64.0	-61.8	-53.0	40.1	Y
-5.6	-31.76	-28.152	-19.57	-5.6	0.3	-23.7	-65.3	-61.7	-53.1	41.6	Y
-5.5	-33.15	-27.962	-19.69	-5.5	0.5	-23.5	-66.7	-61.5	-53.2	43.2	Y
-5.4	-34.62	-27.774	-19.87	-5.4	0.7	-23.3	-68.1	-61.3	-53.4	44.8	Y
-5.3	-36.15	-27.608	-20.13	-5.3	0.9	-23.1	-69.7	-61.1	-53.6	46.6	Y
-5.2	-37.68	-27.477	-20.45	-5.2	1.1	-22.9	-71.2	-61.0	-54.0	48.3	Y
-5.1	-39.12	-27.392	-20.85	-5.1	1.3	-22.7	-72.6	-60.9	-54.4	49.9	Y
-5.0	-40.31	-27.363	-21.34	-5.0	1.5	-22.5	-73.8	-60.9	-54.9	51.4	Y
-4.9	-41.07	-27.394	-21.93	-4.9	1.7	-22.3	-74.6	-60.9	-55.4	52.3	Y
-4.8	-41.22	-27.489	-22.62	-4.8	2.0	-22.0	-74.7	-61.0	-56.1	52.7	Y
-4.7	-40.71	-27.649	-23.42	-4.7	2.2	-21.8	-74.2	-61.2	-56.9	52.4	Y
-4.6	-39.62	-27.868	-24.36	-4.6	2.4	-21.6	-73.1	-61.4	-57.9	51.6	Y
-4.5	-38.13	-28.137	-25.42	-4.5	2.7	-21.3	-71.6	-61.7	-58.9	50.3	Y
-4.4	-36.41	-28.429	-26.58	-4.4	2.9	-21.1	-69.9	-62.0	-60.1	48.8	Y
-4.3	-34.61	-28.707	-27.73	-4.3	3.2	-20.8	-68.1	-62.2	-61.3	47.3	Y
-4.2	-32.83	-28.912	-28.64	-4.2	3.4	-20.6	-66.3	-62.4	-62.2	45.8	Y
-4.1	-31.11	-28.967	-28.91	-4.1	3.7	-20.3	-64.6	-62.5	-62.4	44.3	Y
-4.0	-29.47	-28.798	-28.31	-4.0	3.9	-20.1	-63.0	-62.3	-61.8	42.9	Y
-3.9	-27.94	-28.362	-27.04	-3.9	4.2	-19.8	-61.5	-61.9	-60.6	41.7	Y
-3.8	-26.5	-27.67	-25.49	-3.8	4.5	-19.5	-60.0	-61.2	-59.0	40.5	Y
-3.7	-25.16	-26.783	-23.91	-3.7	4.8	-19.2	-58.7	-60.3	-57.4	39.5	Y
-3.6	-23.91	-25.775	-22.42	-3.6	5.1	-18.9	-57.4	-59.3	-55.9	38.5	Y
-3.5	-22.75	-24.717	-21.06	-3.5	5.4	-18.6	-56.3	-58.2	-54.6	37.7	Y
-3.4	-21.66	-23.657	-19.81	-3.4	5.7	-18.3	-55.2	-57.2	-53.3	36.9	Y
-3.3	-20.65	-22.624	-18.67	-3.3	6.0	-18.0	-54.2	-56.1	-52.2	36.2	Y
-3.2	-19.71	-21.637	-17.62	-3.2	6.4	-17.6	-53.2	-55.2	-51.1	35.6	Y
-3.1	-18.83	-20.703	-16.67	-3.1	6.7	-17.3	-52.4	-54.2	-50.2	35.1	Y
-3.0	-18.01	-19.824	-15.78	-3.0	7.1	-16.9	-51.5	-53.3	-49.3	34.6	Y
-2.9	-17.24	-19.002	-14.97	-2.9	7.4	-16.6	-50.8	-52.5	-48.5	34.2	Y
-2.8	-16.53	-18.233	-14.21	-2.8	7.8	-16.2	-50.0	-51.8	-47.7	33.9	Y
-2.7	-15.86	-17.517	-13.5	-2.7	8.2	-15.8	-49.4	-51.0	-47.0	33.6	Y
-2.6	-15.23	-16.85	-12.85	-2.6	8.6	-15.4	-48.8	-50.4	-46.4	33.4	Y
-2.5	-14.65	-16.229	-12.23	-2.5	9.1	-14.9	-48.2	-49.8	-45.8	33.2	Y
-2.4	-14.1	-15.652	-11.66	-2.4	9.5	-14.5	-47.6	-49.2	-45.2	33.1	Y

-2.3	-13.58	-15.117	-11.13	-2.3	10.0	-14.0	-47.1	-48.6	-44.7	33.1	Y
-2.2	-13.1	-14.622	-10.64	-2.2	10.4	-13.6	-46.6	-48.1	-44.2	33.1	Y
-2.1	-12.64	-14.163	-10.18	-2.1	10.9	-13.1	-46.2	-47.7	-43.7	33.1	Y
-2.0	-12.22	-13.74	-9.747	-2.0	11.5	-12.5	-45.7	-47.3	-43.3	33.2	Y
-1.9	-11.81	-13.35	-9.349	-1.9	12.0	-12.0	-45.3	-46.9	-42.9	33.4	Y
-1.8	-11.43	-12.992	-8.979	-1.8	12.6	-11.4	-45.0	-46.5	-42.5	33.6	Y
-1.7	-11.08	-12.664	-8.639	-1.7			-44.6	-46.2	-42.2		Y
-1.6	-10.74	-12.365	-8.324	-1.6			-44.3	-45.9	-41.8		Y
-1.5	-10.42	-12.093	-8.036	-1.5			-43.9	-45.6	-41.6		Y
-1.4	-10.12	-11.846	-7.773	-1.4			-43.6	-45.4	-41.3		Y
-1.3	-9.835	-11.624	-7.533	-1.3			-43.4	-45.1	-41.1		Y
-1.2	-9.568	-11.424	-7.316	-1.2			-43.1	-44.9	-40.8		Y
-1.1	-9.318	-11.244	-7.12	-1.1			-42.8	-44.8	-40.6		Y
-1.0	-9.084	-11.084	-6.946	-1.0			-42.6	-44.6	-40.5		Y
-0.9	-8.866	-10.941	-6.792	-0.9			-42.4	-44.5	-40.3		Y
-0.8	-8.663	-10.814	-6.657	-0.8			-42.2	-44.3	-40.2		Y
-0.7	-8.477	-10.7	-6.541	-0.7			-42.0	-44.2	-40.1		Y
-0.6	-8.307	-10.599	-6.443	-0.6			-41.8	-44.1	-40.0		Y
-0.5	-8.152	-10.507	-6.362	-0.5			-41.7	-44.0	-39.9		Y
-0.4	-8.015	-10.425	-6.297	-0.4			-41.5	-43.9	-39.8		Y
-0.3	-7.894	-10.35	-6.249	-0.3			-41.4	-43.9	-39.8		Y
-0.2	-7.791	-10.28	-6.217	-0.2			-41.3	-43.8	-39.7		Y
-0.1	-7.705	-10.215	-6.201	-0.1			-41.2	-43.7	-39.7		Y
0.0	-7.637	-10.153	-6.199	0.0			-41.2	-43.7	-39.7		Y
0.1	-7.588	-10.095	-6.213	0.1			-41.1	-43.6	-39.7		Y
0.2	-7.557	-10.038	-6.242	0.2			-41.1	-43.6	-39.8		Y
0.3	-7.546	-9.983	-6.286	0.3			-41.1	-43.5	-39.8		Y
0.4	-7.554	-9.93	-6.345	0.4			-41.1	-43.5	-39.9		Y
0.5	-7.582	-9.879	-6.42	0.5			-41.1	-43.4	-39.9		Y
0.6	-7.63	-9.831	-6.511	0.6			-41.2	-43.4	-40.0		Y
0.7	-7.699	-9.787	-6.618	0.7			-41.2	-43.3	-40.1		Y
0.8	-7.789	-9.748	-6.742	0.8			-41.3	-43.3	-40.3		Y
0.9	-7.901	-9.714	-6.884	0.9			-41.4	-43.2	-40.4		Y
1.0	-8.034	-9.688	-7.044	1.0			-41.6	-43.2	-40.6		Y
1.1	-8.19	-9.67	-7.223	1.1			-41.7	-43.2	-40.7		Y
1.2	-8.368	-9.662	-7.421	1.2			-41.9	-43.2	-40.9		Y
1.3	-8.568	-9.666	-7.641	1.3			-42.1	-43.2	-41.2		Y
1.4	-8.792	-9.682	-7.882	1.4			-42.3	-43.2	-41.4		Y

1.5	-9.039	-9.712	-8.145	1.5			-42.6	-43.2	-41.7		Y
1.6	-9.31	-9.758	-8.433	1.6			-42.8	-43.3	-42.0		Y
1.7	-9.605	-9.821	-8.744	1.7			-43.1	-43.3	-42.3		Y
1.8	-9.923	-9.901	-9.082	1.8	12.6	-11.4	-43.4	-43.4	-42.6	32.1	Y
1.9	-10.27	-10	-9.446	1.9	12.0	-12.0	-43.8	-43.5	-43.0	31.8	Y
2.0	-10.63	-10.119	-9.839	2.0	11.5	-12.5	-44.2	-43.6	-43.4	31.6	Y
2.1	-11.03	-10.259	-10.26	2.1	10.9	-13.1	-44.5	-43.8	-43.8	31.5	Y
2.2	-11.44	-10.42	-10.71	2.2	10.4	-13.6	-45.0	-43.9	-44.2	31.4	Y
2.3	-11.88	-10.604	-11.2	2.3	10.0	-14.0	-45.4	-44.1	-44.7	31.4	Y
2.4	-12.35	-10.81	-11.72	2.4	9.5	-14.5	-45.9	-44.3	-45.2	31.4	Y
2.5	-12.84	-11.04	-12.28	2.5	9.1	-14.9	-46.4	-44.6	-45.8	31.4	Y
2.6	-13.36	-11.295	-12.87	2.6	8.6	-15.4	-46.9	-44.8	-46.4	31.5	Y
2.7	-13.9	-11.574	-13.51	2.7	8.2	-15.8	-47.4	-45.1	-47.0	31.6	Y
2.8	-14.47	-11.879	-14.18	2.8	7.8	-16.2	-48.0	-45.4	-47.7	31.8	Y
2.9	-15.06	-12.209	-14.91	2.9	7.4	-16.6	-48.6	-45.7	-48.4	32.0	Y
3.0	-15.67	-12.565	-15.68	3.0	7.1	-16.9	-49.2	-46.1	-49.2	32.3	Y
3.1	-16.3	-12.948	-16.5	3.1	6.7	-17.3	-49.8	-46.5	-50.0	32.5	Y
3.2	-16.95	-13.358	-17.37	3.2	6.4	-17.6	-50.5	-46.9	-50.9	32.8	Y
3.3	-17.62	-13.795	-18.3	3.3	6.0	-18.0	-51.1	-47.3	-51.8	33.2	Y
3.4	-18.29	-14.26	-19.27	3.4	5.7	-18.3	-51.8	-47.8	-52.8	33.5	Y
3.5	-18.98	-14.754	-20.28	3.5	5.4	-18.6	-52.5	-48.3	-53.8	33.9	Y
3.6	-19.66	-15.276	-21.32	3.6	5.1	-18.9	-53.2	-48.8	-54.8	34.3	Y
3.7	-20.33	-15.827	-22.36	3.7	4.8	-19.2	-53.9	-49.3	-55.9	34.6	Y
3.8	-20.99	-16.406	-23.34	3.8	4.5	-19.5	-54.5	-49.9	-56.9	35.0	Y
3.9	-21.62	-17.014	-24.19	3.9	4.2	-19.8	-55.1	-50.5	-57.7	35.4	Y
4.0	-22.22	-17.648	-24.83	4.0	3.9	-20.1	-55.7	-51.2	-58.4	35.7	Y
4.1	-22.78	-18.308	-25.2	4.1	3.7	-20.3	-56.3	-51.8	-58.7	36.0	Y
4.2	-23.28	-18.99	-25.28	4.2	3.4	-20.6	-56.8	-52.5	-58.8	36.2	Y
4.3	-23.74	-19.689	-25.12	4.3	3.2	-20.8	-57.3	-53.2	-58.6	36.4	Y
4.4	-24.14	-20.399	-24.8	4.4	2.9	-21.1	-57.7	-53.9	-58.3	36.6	Y
4.5	-24.49	-21.109	-24.4	4.5	2.7	-21.3	-58.0	-54.6	-57.9	36.7	Y
4.6	-24.79	-21.805	-23.97	4.6	2.4	-21.6	-58.3	-55.3	-57.5	36.7	Y
4.7	-25.04	-22.471	-23.57	4.7	2.2	-21.8	-58.6	-56.0	-57.1	36.8	Y
4.8	-25.27	-23.085	-23.22	4.8	2.0	-22.0	-58.8	-56.6	-56.7	36.8	Y
4.9	-25.46	-23.627	-22.93	4.9	1.7	-22.3	-59.0	-57.1	-56.4	36.7	Y
5.0	-25.63	-24.077	-22.71	5.0	1.5	-22.5	-59.2	-57.6	-56.2	36.7	Y
5.1	-25.79	-24.423	-22.56	5.1	1.3	-22.7	-59.3	-57.9	-56.1	36.6	Y
5.2	-25.92	-24.659	-22.48	5.2	1.1	-22.9	-59.4	-58.2	-56.0	36.5	Y

5.3	-26.05	-24.794	-22.48	5.3	0.9	-23.1	-59.6	-58.3	-56.0	36.5	Y
5.4	-26.15	-24.842	-22.56	5.4	0.7	-23.3	-59.7	-58.4	-56.1	36.4	Y
5.5	-26.24	-24.824	-22.71	5.5	0.5	-23.5	-59.8	-58.3	-56.2	36.3	Y
5.6	-26.31	-24.762	-22.94	5.6	0.3	-23.7	-59.8	-58.3	-56.5	36.1	Y
5.7	-26.35	-24.676	-23.26	5.7	0.1	-23.9	-59.9	-58.2	-56.8	36.0	Y
5.8	-26.36	-24.582	-23.65	5.8	-0.1	-24.1	-59.9	-58.1	-57.2	35.8	Y
5.9	-26.33	-24.493	-24.13	5.9	-0.3	-24.3	-59.9	-58.0	-57.6	35.6	Y
6.0	-26.27	-24.417	-24.69	6.0	-0.5	-24.5	-59.8	-57.9	-58.2	35.3	Y
6.1	-26.18	-24.359	-25.33	6.1	-0.6	-24.6	-59.7	-57.9	-58.9	35.1	Y
6.2	-26.05	-24.324	-26.05	6.2	-0.8	-24.8	-59.6	-57.8	-59.6	34.8	Y
6.3	-25.89	-24.311	-26.82	6.3	-1.0	-25.0	-59.4	-57.8	-60.3	34.4	Y
6.4	-25.71	-24.32	-27.6	6.4	-1.2	-25.2	-59.2	-57.8	-61.1	34.1	Y
6.5	-25.5	-24.349	-28.34	6.5	-1.3	-25.3	-59.0	-57.9	-61.9	33.7	Y
6.6	-25.28	-24.396	-28.93	6.6	-1.5	-25.5	-58.8	-57.9	-62.4	33.3	Y
6.7	-25.05	-24.457	-29.25	6.7	-1.7	-25.7	-58.6	-58.0	-62.8	32.9	Y
6.8	-24.81	-24.529	-29.25	6.8	-1.8	-25.8	-58.3	-58.1	-62.8	32.5	Y
6.9	-24.57	-24.61	-28.91	6.9	-2.0	-26.0	-58.1	-58.1	-62.4	32.1	Y
7.0	-24.34	-24.696	-28.31	7.0	-2.1	-26.1	-57.9	-58.2	-61.8	31.7	Y
7.1	-24.11	-24.785	-27.58	7.1	-2.0	-26.0	-57.6	-58.3	-61.1	31.6	Y
7.2	-23.89	-24.876	-26.79	7.2	-2.0	-26.0	-57.4	-58.4	-60.3	31.4	Y
7.3	-23.68	-24.97	-26.02	7.3	-2.0	-26.0	-57.2	-58.5	-59.5	31.2	Y
7.4	-23.49	-25.066	-25.28	7.4	-2.0	-26.0	-57.0	-58.6	-58.8	31.0	Y
7.5	-23.31	-25.167	-24.61	7.5	-2.0	-26.0	-56.8	-58.7	-58.1	30.8	Y
7.6	-23.15	-25.275	-24	7.6	-2.0	-26.0	-56.7	-58.8	-57.5	30.7	Y
7.7	-23	-25.394	-23.46	7.7	-2.0	-26.0	-56.5	-58.9	-57.0	30.5	Y
7.8	-22.86	-25.526	-22.97	7.8	-2.0	-26.0	-56.4	-59.0	-56.5	30.4	Y
7.9	-22.74	-25.676	-22.54	7.9	-2.0	-26.0	-56.3	-59.2	-56.1	30.3	Y
8.0	-22.64	-25.846	-22.16	8.0	-2.0	-26.0	-56.2	-59.4	-55.7	30.2	Y
8.1	-22.55	-26.039	-21.83	8.1	-2.0	-26.0	-56.1	-59.6	-55.4	30.1	Y
8.2	-22.48	-26.257	-21.54	8.2	-2.0	-26.0	-56.0	-59.8	-55.1	30.0	Y
8.3	-22.42	-26.502	-21.29	8.3	-2.0	-26.0	-55.9	-60.0	-54.8	29.9	Y
8.4	-22.38	-26.774	-21.08	8.4	-2.0	-26.0	-55.9	-60.3	-54.6	29.9	Y
8.5	-22.35	-27.07	-20.9	8.5	-2.0	-26.0	-55.9	-60.6	-54.4	29.9	Y
8.6	-22.33	-27.389	-20.75	8.6	-2.0	-26.0	-55.9	-60.9	-54.3	29.9	Y
8.7	-22.33	-27.725	-20.63	8.7	-2.0	-26.0	-55.9	-61.2	-54.2	29.9	Y
8.8	-22.35	-28.071	-20.55	8.8	-2.0	-26.0	-55.9	-61.6	-54.1	29.9	Y
8.9	-22.37	-28.418	-20.49	8.9	-2.0	-26.0	-55.9	-61.9	-54.0	29.9	Y
9.0	-22.42	-28.753	-20.47	9.0	-2.0	-26.0	-55.9	-62.3	-54.0	29.9	Y



9.1	-22.48	-29.064	-20.48	9.1	-2.0	-26.0	-56.0	-62.6	-54.0	30.0	Y
9.2	-22.56	-29.335	-20.53	9.2	-2.0	-26.0	-56.1	-62.9	-54.1	30.1	Y

