



RF Exposure Compliance – FCC ID: 2BAXD-E02-0

The EUT is being certified under Section 15.223 and in accordance with the granted Waiver DA 23-1092, in which the maximum field strength of the fundamental emission at 6.78 MHz is limited to no more than 108.8  $\mu\text{V}/\text{m}$  @ 30m. Please note that the EUT also operates at the same fundamental frequency as a WPT under Part 18 – that portion of the EUT is authorized via SDoC. In its Part 18 WPT mode of operation, the EUT operates at a much higher output power level, as it is used to power a medical implant. After consulting with the FCC via KDB Inquiry regarding the appropriate test set up and phantom, SAR testing of the fundamental frequency of the EUT during its WPT operation has been performed by an accredited, FCC-recognized SAR lab, and shows that the EUT complies with the FCC's SAR limits for an Uncontrolled Environment/General Population when operating at the higher output power level. The SAR report also takes into account the potential contribution of the certified BLE module installed in the EUT. The SAR report is maintained by Blue Wind Medical in their file for the SDoC authorization of this aspect of their device.

Regarding this application:

Maximum permitted fundamental field strength by Waiver:

= 108.8  $\mu\text{V}/\text{m}$  @ 30m

= 40.7 dBuV/m @ 30m

= 80.7 dBuV/m @ 3m (assuming 40 dB/decade roll-off, per 15.31(f)(2))

Based on this, the maximum equivalent radiated power permitted by the Waiver is calculated to be:

$$\text{EIRP (dBm)} = E_{3\text{m}} (\text{dBuV}/\text{m}) - 95.2$$

$$\text{EIRP (dBm)} = 80.7 - 95.2$$

$$\text{EIRP (dBm)} = -14.5 \text{ dBm} = 35.5 \text{ uW}$$

The SAR Test Exclusion Thresholds listed in Appendix C of KDB 447498)v06) for <100 MHz and <200mm separation show an exclusion level for <50mm (the category into which the EUT falls) at 1 MHz of 711 mW and 10 MHz of 474 mW (see table copied below). Interpolating between these two values yields an approximate SAR test exclusion threshold for the EUT's emission at 6.78 MHz of 550 mW (note that this is an RF conducted output level). This level is equivalent to 27.4 dBm. This is 41.9 dB higher than the maximum equivalent EIRP permitted by the Waiver.



### Appendix C

#### *SAR Test Exclusion Thresholds for < 100 MHz and < 200 mm*

Approximate SAR test exclusion power thresholds at selected frequencies and test separation distances are illustrated in the following table. The equation and threshold in 4.3.1 must be applied to determine SAR test exclusion.

MHz	< 50	50	60	70	80	90	100	110	120	130	140	150	160	170	180	190	mm
100	237	474	481	487	494	501	507	514	521	527	534	541	547	554	561	567	mW
50	308	617	625	634	643	651	660	669	677	686	695	703	712	721	729	738	
10	474	948	961	975	988	1001	1015	1028	1041	1055	1068	1081	1095	1108	1121	1135	
1	711	1422	1442	1462	1482	1502	1522	1542	1562	1582	1602	1622	1642	1662	1682	1702	
0.1	948	1896	1923	1949	1976	2003	2029	2056	2083	2109	2136	2163	2189	2216	2243	2269	
0.05	1019	2039	2067	2096	2125	2153	2182	2211	2239	2268	2297	2325	2354	2383	2411	2440	
0.01	1185	2370	2403	2437	2470	2503	2537	2570	2603	2637	2670	2703	2737	2770	2803	2837	

#### Conclusion

Given that (i) the EUT's maximum permitted field strength granted by the Waiver is equivalent to an EIRP that is more than 40 dB below the SAR Test Exclusion threshold; and (ii) when operating at the same frequency with higher power, the EUT has been tested and shown to be compliant with the FCC's SAR limits for an Uncontrolled Environment/General Population, we conclude that the EUT complies with the FCC's RF Exposure requirements, as specified in Sections 1.1310 and 2.1093 of the FCC Rules for the Part 15 modes of operation.