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RF EXPOSURE ANALISYS

Sample Identification:

Products: Wearable metabolic system mod. K5
FCC ID: SN7-COSMED-K5

Module Identification

FCC ID: QOQWT41E	**Frequency Range (MHz):** 2402,0-2480,0	**Output (mW):** 39,3
FCC ID: QOQBLE112	**Frequency Range (MHz):** 2402,0-2480,0	**Output (mW):** 1,8
FCC ID: O6R1823	**Frequency Range (MHz):** 2402,0-2480,0	**Output (mW):** <1

Analysis for FCC, portable use:

Standalone SAR test exclusion considerations are defined in the KDB 447498 chapter 4.3.1.1 "At 100 MHz to 6 GHz and for *test separation distances* ≤ 50 mm", head or body SAR exclusion threshold is defined with formula

[(max. power of channel, including tune-up tolerance, mW)/(min.separation distance,mm)]x(√f(GHz)) ≤ 3

Even adding three output power we assume that for K5 the rated TX power is 42,1 mW (39,3 + 1,8 + 1) and maximum TX frequency is 2,48 GHz. Using separation distance of 25 mm with the formula above results

$$\left(\frac{42{,}1mW}{25mm}\right)\times\sqrt{2{,}48GHz}=2{,}65\leq 3$$

Thus for portable use the SAR exclusion condition is fulfilled and SAR evaluation is not required for separation distance of 25 mm or more.

In addition, in refer to Appendix A of KDB 447498 for 25 mm SAR evaluation are excluded for RF power below 48 W.

Thiene, July 09, 2015

Ing. Renzo Beghetto
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