RF EXPOSURE EVALUATION

FCC ID: **2AHDTWATCHMEE**

According to FCC 1.1310: The criteria listed in the following table shall be used to evaluate the environment impact of human exposure to radio frequency(RF) Radiation as specified in §1.1307(b):

447498 D01 General RF Exposure Guidance v06:

a) For 100 MHz to 6 GHz and *test separation distances* ≤ 50 mm, the 1-g and 10-g *SAR test exclusion thresholds* are determined by the following:

[(*max. power of channel, including tune-up tolerance, mW*) / (*min. test separation distance, mm*)] · [$\sqrt{f_{(GHz)}}$] ≤ 3.0 for 1-g SAR, and ≤ 7.5 for 10-g extremity SAR,[30] where

- $f_{(GHz)}$ is the RF channel transmit frequency in GHz
- Power and distance are rounded to the nearest mW and mm before calculation[31]
- The result is rounded to one decimal place for comparison
- The values 3.0 and 7.5 are referred to as *numeric thresholds* in step b) below

The test exclusions are applicable only when the minimum *test separation distance* is ≤ 50 mm, and for transmission frequencies between 100 MHz and 6 GHz. When the minimum *test separation distance* is < 5 mm, a distance of 5 mm according to 4.1 f) is applied to determine SAR test exclusion.

Routine SAR evaluation refers to that specifically required by §2.1093, using measurements or computer simulation. When routine SAR evaluation is not required, portable transmitters with output power greater than the applicable low threshold require SAR evaluation to qualify for TCB approval.

The maximum output power for low channel is: -3.211dBm= 0.477mW
Tune up tolerance is: -3.211±1 dBm
The Max. Tune up Power =-2.211dBm= 0.601mW
The calculation results= 0.601/5*√2.402 =0.186 <3

The maximum output power for middle channel is: -2.912dBm= 0.511mW
Tune up tolerance is: -2.912±1 dBm
The Max. Tune up Power =-1.912dBm=0.644mW
The calculation results= 0.644/5*√2.440=0.201 <3

The maximum output power for high channel is: -2.086dBm= 0.619mW
Tune up tolerance is: -2.086±1 dBm
The Max. Tune up Power =-1.086dBm= 0.779mW
The calculation results= 0.779/5*√2.480=0.245 <3

Test Results: **PASS**.