

MPE Calculation / RF Exposure

Product: Ultra Wideband (UWB) transceiver IC

Applicant: TTNG CO.,Ltd.

Model: DWM1000 module

Address: 75, Nowon-ro, Buk-gu, Daegu, South Korea

FCC ID: 2AV3X-TT001

Per KDB 447498 D01 General RF Exposure Guidance v06 (10/23/2015) section 4.3.1 (a)

Stand alone SAR test exclusion threshold is applied;

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

$[(\text{max. power of channel, including tune-up tolerance, mW}) / (\text{min. test separation distance, mm})] \cdot [\sqrt{f(\text{GHz})}] \leq 3.0 \text{ for 1-g SAR, and } \leq 7.5 \text{ for 10-g extremity SAR,}$

- where $f(\text{GHz})$ is the RF channel transmit frequency in GHz
- Power and distance are rounded to the nearest mW and mm before calculation
- 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

Freq: 3993 MHz

Averaged radiated power [dBm e.i.r.p] = -35.30

Averaged radiated power [mW e.i.r.p] = 0.0003

Min. Test separation distance : 5 mm

SAR exclusion threshold: $[0.0003/5] \times [\sqrt{3.993}] = 0.00012$

Therefore, the EUT was not evaluated as the value of SAR exclusion threshold was less than 3 per KDB 447498 D01 v06 section 4.3.1(a)