

6 Safety Human Exposure

6.1 Radio Frequency Exposure Compliance

6.1.1 Electromagnetic Fields

RESULT:**Pass****Test Specification**

Test standard

: CFR47 FCC Part 2: Section 2.1093

FCC KDB Publication 447498 D01 V06

FCC requirements

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*) $\cdot [\sqrt{f(\text{GHz})}] \leq 3.0$ for 1-g SAR, and ≤ 7.5 for 10-g extremity SAR,30 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

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.

Calculated result

The maximum peak output power of the transmitter is 0.45dBm and minimum test separation distance is 5mm, SAR test exclusion thresholds=0.346<3.0, So the SAR test is not required.