



August 25, 2013

UL Japan, Inc.
4383-326 Asama-cho, Ise-shi, Mie 516-0021 Japan

FCC ID: ***

To whom it may concern,

We, UL Japan, Inc, hereby declare that Wireless Module, model: +++ (FCC ID: ***) of @@@ Company is exempt from RF exposure SAR evaluation as its output power meets the exclusion limits stated in FCC Part 2 §2.1093.

KDB 447498 D01 has the following exclusion for portable devices:

The 1g and 10g SAR test exclusion thresholds for 100 MHz to 6 GHz at test separation distances $\leq 50\text{mm}$ are determined by:

$$\left[\frac{\text{(max. power of channel, including tune-up tolerance, mW)}}{\text{(min. test separation distance, mm)}} \cdot \sqrt{f(\text{GHz})} \right] \leq 3.0$$
 for 1-g SAR and ≤ 7.5 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 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 is applied to determine SAR test exclusion.

This device has $f = 2.48$ GHz and distance = 5 mm (minimum separation distance: 5mm was used in the calculation) and the maximum tune-up tolerance limit was 1.64mW*

* Clause 6.3 Low transmission duty factor devices of KDB447498 D01 was applied to this product due to its specification.

Maximum tune-up tolerance limit = Conducted Output power (10dBm)*Antenna Gain (2.14dBi)*duty cycle correction factor (-10dB)

So for this device:

$1.64\text{mW}[\text{maximum tune-up tolerance limit}]/5\text{mm}[\text{minimum separation distance}] \cdot \sqrt{2.48} = 0.52$

*This is less than 3.0 so no SAR is required.

Thank you for your attention to this matter.

Taro UL

Manager of ISE EMC Lab.

UL Verification Services Inc.