SPX

Genfare

SARs Exclusion Letter
WIFI MODULE, REDPINE, A29100-0001

Date 06/12/2014

The purpose of this letter is to attest that A29100-0001 is excluded from SAR testing and will maintain compliance with FCC rule parts 15C with the condition that the antennas of this transmitter are installed to provide a minimum separation distance of at least 0.8mm from all persons at all times.

FCC KDB447498 section 4.3 states the following:

SAR evaluation for general population exposure conditions, by measurement or numerical simulation, is not required when the corresponding *SAR Test Exclusion Threshold* condition, listed below, is satisfied.

$$\left[\frac{(max.power\ of\ channel,including\ tolerance,mW)}{(min.test\ seperation\ distance,mm)}\right] \cdot \left[\sqrt{f_{(GHZ)}}\right] \leq 3.0 \text{ for 1-g SAR and} \leq 7.5 \text{ for 10-g extremity SAR}$$

Industry Canada RSS-102 section 2.5.1 states the following:

SAR evaluation is required if the separation distance between the user and the radiating element of the device is less than or equal to 20 cm, except when the device operates as follows:

•above 2.2 GHz and up to 3 GHz inclusively, and with output power (i.e. the higher of the conducted or radiated (e.i.r.p.) source-based, time-averaged output power) that is less than or equal to 2 mW for general public use and 100mW for controlled use;

The maximum conducted power of, A29100-0001 is 124.73mW and the maximum operating frequency is limited by software to channel 11 at 2.462GHz.

The Duty Cycle of A29100-0001 as measured by Elite Electronic Engineering Inc = 0.008 percent.

The time-average maximum conducted power of A29100-0001is:
(Duty Cycle)x(Maximum Conducted Power) = (0.008)x(124.73mW) = 0.99784mW

$$\left[\frac{(0.99784)}{(0.8)}\right] \cdot \left[\sqrt{2.462}\right] = 1.957 \leq 3 \text{ for 1-g SAR and} \leq 7.5 \text{ for 10-g extremity SAR for FCC KDB447498.}$$

0.99784mW ≤ 20mW for industry Canada RSS-102.

Thank you for your time and effort.

Respectfully,

Joseph Hessel

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On behalf of SPX Genfare

SPX Genfare
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