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RF Exposure Analysis – Routine Evaluation Exemption

Applicant: Somvai Limited
FCC ID: 2BLG4-SOMA
Model number/name: SOMA

The above device operates in the 60 - 62.5 GHz frequency band.

The following FCC Rule Parts and Procedures are applicable:

KDB447498 D04 v01 – Interim General RF Exposure Guidance

Part 1.1307(b)(3)(i)(A) - Blanket RF exposure exemption (i)

Part 1.1307(b)(3)(i)(C) - MPE test exemption (ii)

Part 1.1307(b)(3)(i)(B) - SAR test exemption (iii)

For the above device:

Transmitter frequency range = 60 - 62.5 GHz

Maximum EIRP = 11 dBm (**12.59 mW**) (including tune-up tolerance)

Measured radiated power – Ref KDB447498 D04 Section 3.1.2 –

When an antenna port is not available on the device to support conducted power measurement, e.g.: with built-in integral antennas, the available maximum output power or ERP, whichever is larger, and tolerance allowed for production units shall be used to determine RF exposure test exemption and compliance.

Maximum ERP = EIRP – 2.15 = 11 dBm – 2.15 = 8.85 dBm (**7.67 mW**)

Transmitter Duty Cycle: 0.7% (**0.007**)

Maximum time-averaged Power = 7.67 mW * 0.007 = **0.054 mW**

Evaluation

From Part 1.1307, RF exposure exemption applies if the maximum transmitted power is less than the maximum of the following three criteria:

- i) Less than 1 mw Blanket exemption. $P_{TH} = 0.001\text{ W}$ – §1.1307(b)(3)(i)(A)
- ii) determination of exemption under the MPE-based §1.1307(b)(3)(i)(C), if i) not met
- iii) determination of exemption under the SAR-based §1.1307(b)(3)(i)(B) if both i) and ii) are not met;

Conclusion:

The source-based, time-averaged power of 0.054 mW is less than 1 mW and therefore the above device is exempt from routine evaluation in accordance with §1.1307(b)(3)(i)(A).

Yours faithfully,

Stanley Speel

Stanley Speel
Director