May 18, 2021

FCC ID: VPYLBEE5ZZ1PJ

To whom it may concern,

We, UL Japan, Inc, hereby declare that W-LAN + Bluetooth Module, model: VPYLBEE5ZZ1PJ (FCC ID: VPYLBEE5ZZ1PJ) of Murata Manufacturing Co., Ltd. is exempt from RF exposure SAR evaluation as its output power meets the exclusion limits stated in KDB 447498D01(v06).

KDB 447498D01(v06) 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 ≤ 50 mm are determined by:

[(max. power of channel, including tune-up tolerance, mW)/(min. test separation distance, mm)]
·[√f(GHz)] ≤ 3.0 for 1-g SAR and ≤ 7.5 for 10-g extremity SAR, where
·f(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.

【WLAN 2.4 GHz band part】
This device has f = 2.462 GHz and distance = 5 mm (minimum separation distance: 5 mm was used in the calculation) and the maximum average output power was 9 mW

So for this device:
9 mW[maximum average output power]/5 mm[minimum separation distance]*√2.462 = 2.8
*This is less than 3.0, so no SAR is required.

【Bluetooth (BT LE) part】
This device has f = 2.48 GHz and distance = 5 mm (minimum separation distance: 5 mm was used in the calculation) and the maximum average output power was 3 mW

So for this device:
3 mW[maximum average output power]/5 mm[minimum separation distance]*√2.48 = 0.9
*This is less than 3.0, so no SAR is required.

【Bluetooth (BR/EDR) part】
This device has f = 2.48 GHz and distance = 5 mm (minimum separation distance: 5 mm was used in the calculation) and the maximum average output power was 3 mW

So for this device:
3 mW[maximum average output power]/5 mm[minimum separation distance]*√2.48 = 0.9
*This is less than 3.0, so no SAR is required.

【WLAN 5 GHz band part】
This device has f = 5.825 GHz and distance = 5 mm (minimum separation distance: 5 mm was used in the calculation) and the maximum average output power was 5 mW
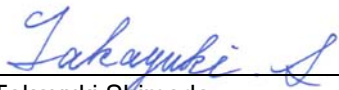
So for this device:
5 mW[maximum average output power]/5 mm[minimum separation distance]*$\sqrt{5.825}$ = 2.4
*This is less than 3.0, so no SAR is required.

Even taking into account the tolerance, this device can be satisfied with the limits.

Thank you for your attention to this matter.

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Leader

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