Appendix 5

RF Exposure Information

FCC ID : 2A2XI589
IC : 27849-589

Maximum transmitter power

Bluetooth Transmitter

Frequency (MHz)	Maximum peak output power (dBm)	Output power (mW)
2402	-11.78	0.0664
2442	-11.18	0.0762
2480	-10.93	0.0807

2.4GHz GFSK Transmitter

Frequency (MHz)	Maximum peak output power (dBm)	Output power (mW)
2402	-12.26	0.0594
2441	-12.35	0.0582
2471	-12.74	0.0532

Note: The maximum peak field strength was taken from table of “Subclause 15.247(b)(3) / RSS-247 5.4 – Maximum Peak Conducted Output Power”.

For FCC

According to KDB 447498 D01:
The 1-g and 10-g SAR test exclusion thresholds for 100 MHz to 6 GHz at *test separation distances* ≤ 5 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
- 3.0 and 7.5 are referred to as the numeric thresholds in the step 2 below

Result:

Bluetooth Transmitter
(0.0664/5)*√2.402 = 0.021 <3.0
(0.0762/5)*√2.442 = 0.024 <3.0
(0.0807/5)*√2.473 = 0.025 <3.0

2.4GHz GFSK Transmitter
(0.0594/5)*√2.402 = 0.019 <3.0
(0.0582/5)*√2.442 = 0.018 <3.0
(0.0532/5)*√2.473 = 0.017 <3.0

Conclusion:

No SAR is required.

For ISED

According to table 1 in RSS-102 Issue 5, below exemption limit is applied
Frequency: 2442 MHz
At separation distance of ≤ 5mm
Exemption limits: 4mW

Results:

max. power of channels = 0.0807 mW < 4mW

Conclusion:

The maximum peak output power of the transmitter is less than the SAR evaluation exemption threshold and hence it complies with the RSS-102 RF exposure requirement.