

Appendix 5

RF Exposure Information

FCC ID: NDX-COLLARTAG/ IC: 8521A-9860000370

Maximum transmitting power:

Frequency (MHz)	Maximum peak output power (dBuV/m)	Average output power (dBuV/m)	Average Output power (mW)	Separation distance (mm)
2402	105.6	60.1	0.00031	5
2440	107.0	61.3	0.00041	5
2476	106.3	60.6	0.00034	5

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* ≤50 mm are

determined by:

$[(\text{power of channel, including tune-up tolerance, mW}) / (\text{min. test separation distance, mm})] \cdot [\sqrt{f(\text{GHz})}] \leq 3.0$

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
- 3.0 and 7.5 are referred to as the numeric thresholds in the step 2 below

Result:

$$(0.00031/5) \cdot \sqrt{2.402} = 0.0001 < 3.0$$

$$(0.00041/5) \cdot \sqrt{2.440} = 0.0001 < 3.0$$

$$(0.00034/5) \cdot \sqrt{2.476} = 0.0001 < 3.0$$

Conclusion:

No SAR is required.

For IC

According to table 1 in RSS-102 Issue 5, below exemption limit is applied

Frequency: 2440MHz

At separation distance of ≤ 5mm

Exemption limits: 4.05mW

Results:

Average field strength at 3m of the channel = 61.3 dBuV/m = 0.00041 mW < 4.05mW

Conclusion:

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