

# RF Exposure Evaluation

performed in accordance with  
FCC Rules: Code of Federal Regulations and KDB 447498

<b>PRODUCT</b>	Bluetooth® low energy module
<b>MODEL(s) TESTED</b>	BlueCoin
<b>FCC ID</b>	S9NBCOIN01
<b>TRADE MARK(s)</b>	STMicroelectronics

<b>APPLICANT</b>	STMicroelectronics - Via Olivetti, 2 I-20864 Agrate Brianza (MB)
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## Revision Sheet

Release No.	Date	Revision Description
Rev. 0	2017-05-12	First edition

### TEST REQUIREMENT

Systems operating under the provisions of this section shall be operated in a manner that ensures that the public is not exposed to radio frequency energy levels in excess of the Commission's guidelines § 1.1307(b)(1).

EUT classification (fixed, mobile or portable devices)	Portable according to § 2.1093(b) of this Chapter
LIMITS	According to § 2.1093 of this Chapter, by means of the following guidelines: OET Mobile and Portable Devices RF Exposure Procedures and Equipment Authorization Policies (447498 D01 General RF Exposure Guidance v06)
Testing dates	2017-05-12

### SAR Test Exclusion Thresholds for 100 MHz – 6 GHz and ≤ 50 mm

447498 D01 General RF Exposure Guidance v06 – Appendix A

MHz	5	10	15	20	25	mm
150	39	77	116	155	194	SAR Test Exclusion Threshold (mW)
300	27	55	82	110	137	
450	22	45	67	89	112	
835	16	33	49	66	82	
900	16	32	47	63	79	
1500	12	24	37	49	61	
1900	11	22	33	44	54	
<b>2450</b>	<b>10</b>	19	29	38	48	
3600	8	16	24	32	40	
5200	7	13	20	26	33	
5400	6	13	19	26	32	
5800	6	12	19	25	31	

The test separation distances  $\geq 5$  mm is applied to determine SAR test exclusion.

### SAR Test Exclusion Thresholds for 100 MHz – 6 GHz and ≤ 50 mm

447498 D01 General RF Exposure Guidance v06 § 4.3

Channel No.	Frequency (MHz)	Radiated power (dBm)	Radiated power (mW)	Distance (mm)	$\frac{\text{max. power (mW)}}{\text{min. distance (mm)}} \times \sqrt{f_{\text{(GHz)}}}$	Limits
01	2402	-9.96	0.101	5	0.031	≤ 3.0 for 1-g head SAR or ≤ 7.5 for 10-g extremity SAR
20	2440	-12.33	0.052	5	0.018	
40	2480	-14.64	0.034	5	0.011	

### Declared by manufacturer

Channel No.	Frequency (MHz)	Power declared (dBm)	Power (mW)	Distance (mm)	$\frac{\text{max. power (mW)}}{\text{min. distance (mm)}} \times \sqrt{f_{\text{(GHz)}}}$	Limits
1	2412	0	1	5	0.310	≤ 3.0 for 1-g head SAR or ≤ 7.5 for 10-g extremity SAR
6	2437	0	1	5	0.312	
11	2462	0	1	5	0.315	

### TEST RESULT

This value is less than the low threshold limit. No SAR test is required.

Maximum radiated power was taken into consideration to establish the worst case aggregate maximum output power.