RF EXPOSURE EVALUATION

EUT Specification

EUT	Bluetooth Beacon
Model Number	N1(N1-ZICN)
Series Model	N1-ZICN-T,N1-ZICN-V
FCC ID	2AO94-N1
Antenna gain (Max)	1.41dBi
Operation Frequency	2402-2480MHz
Input Rating	DC 3.0V
Standard	47 CFR Part 1.1307 47 CFR Part 1.1310 KDB447498D01 General RF Exposure Guidance v06
Modulation	BLE

Standard Requirement

According to KDB447498D01 General RF Exposure Guidance v06

Standalone SAR test exclusion considerations
Unless specifically required by the published RF exposure KDB procedures, standalone 1-g head or body and 10-g extremity SAR evaluation for general population exposure conditions, by measurement or numerical simulation, is not required when the corresponding SAR Exclusion Threshold condition, listed below, is satisfied.

Limits

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: [(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 calculation17 • 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

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Calculated Result and Limit

Operation Mode: BLE						
Channel	Maximum Peak Conducted Output Power (dBm)	Tune up tolerance (dBm)	Maximum tune-up Power		Calculated value	Exclusion threshold
			(dBm)	(mW)		
Lowest (2402MHz)	3.89	3±1	4	2.51	0.78	3.0
Middle (2440MHz)	3.63	3±1	4	2.51	0.78	
Highest (2480MHz)	3.54	3±1	4	2.51	0.79	
Conclusion: the calculated value ≤3.0, SAR is exempted.						

The Maxinum power is less than the limit, complies with the exemption requirements, SAR is exempted.

Remark: The Max Conducted Peak Output Power data refer to report Report No.:
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