RF EXPOSURE EVALUATION METHOD

According to FCC 1.1310: The criteria listed in the following table shall be used to evaluate the environment impact of human exposure to radio frequency(RF) Radiation as specified in §1.1307(b)

EUT Specification

EUT	Bone Conduction Headphones
Frequency band (Operating)	☐ WLAN: 2.412GHz ~ 2.462GHz ☐ WLAN: 5.150GHz ~ 5.250GHz ☐ WLAN: 5.725GHz ~ 5.850GHz ☒ Others BT:2402-2480MHz
Device category	☒ Portable (<20cm separation) ☐ Mobile (>20cm separation) ☐ Others
Exposure classification	☐ Occupational/Controlled exposure (S = 5mW/cm2) ☒ General Population/Uncontrolled exposure (S=1mW/cm2)
Antenna diversity	☒ Single antenna ☐ Multiple antennas ☐ Tx diversity ☐ Rx diversity ☐ Tx/Rx diversity
Max. output power	0.885dBm (0.00123W)
Antenna gain (Max)	0dBi
Evaluation applied	☐ MPE Evaluation ☒ SAR Evaluation

RF EXPOSURE EVALUATION METHOD

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

Approximate SAR Test Exclusion Power Thresholds at Selected Frequencies and Test Separation Distances are illustrated in the following Table.

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 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.

Maximum measured transmitter power.

Operating Mode	Frequency	Measured Power	max. power	Antenna Gain	min. test separation distance	[√ f(GHz)]	Result	Limit
	(MHz)	(dBm)	(mW)	(dBi)	(mm)			
GFSK	2402	-0.904	0.81	0	5	1.550	0.2517	3
	2441	0.136	1.03	0	5	1.562	0.3224	3
	2480	0.372	1.09	0	5	1.575	0.3431	3
π/4DQPSK	2402	-0.513	0.89	0	5	1.550	0.2754	3
	2441	0.539	1.13	0	5	1.562	0.3538	3
	2480	0.752	1.19	0	5	1.575	0.3745	3
8-DPSK	2402	-0.377	0.92	0	5	1.550	0.2842	3
	2441	0.651	1.16	0	5	1.562	0.3630	3
	2480	0.885	1.23	0	5	1.575	0.3861	3

Remark: The best case gain of the antenna is 0dBi.
0 dBi logarithmic terms convert to numeric result is nearly 1

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)]

The test Result is less than 3.0 for 1-g SAR and ≤ 7.5 for 10-g extremity SAR.

Conclusion: No SAR is required.