FCC ID: 2AZKWTWZT-T009D-H **ATTACHMENT**

RF EXPOSURE EVULATION

1.1 Limit

According to §1.1310 and §2.1091 RF exposure is calculated.

(B) Limits for General Population/Uncontrolled Exposures

Frequency range (MHz)	Electric field Strength	Magnetic field Strength	Power density	Averaging time
1.34 - 30.....	824/f	2.19/f	*(180/ f²)	30
30 - 300.....	27.5	0.073	0.2	30
300 - 1500.....	.....	.....	f/1500	30
1500 - 100.000.....	.....	.....	**1.0**	30

F = frequency in MHz

* = Plane-wave equivalent power density

1.2 MAXIMUM PERMISSIBLE EXPOSURE Prediction

Prediction of MPE limit at a given distance

Power density at the specific separation:

$S = PG/(4R^2\pi)$ $S = (0.76 * 1.79) / (4 * 20^2 * \pi)$ $S = 0.05 mW/cm^2$	Where, S = Maximum power density (mW/cm^2) P = Power input to the antenna (mW) G = Numeric power gain of the antenna R = Distance to the center of the radiation of the antenna (20 cm = limit for MPE)

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1.3 MAXIMUM PERMISSIBLE EXPOSURE Prediction

(Measured power -0.5 dBm ± 0.5dB)

3-1. Zigbee

Max Peak output Power at antenna input terminal	-1.20	dBm
Max Peak output Power at antenna input terminal	0.76	mW
Prediction distance	5	cm
Prediction frequency	2440	MHz
Antenna Gain(typical)	2.53	dBi
Antenna Gain(numeric)	1.79	-
Power density at prediction frequency(S)	0.05	mW/cm^2
MPE limit for uncontrolled exposure at prediction frequency	0.018	mW/cm^2

Simultaneous transmission operations

SAR Test exclusion thresholds for 100MHz to 6GHz at test separation distance ≤ 50 mm = **Used**

[(max.power of channel, including tune-up torelance, mW)/(min. test separation distance, mm)] * [√f(GHz)]

= [0.76 / 50] * [√2.440] = 0.02 ≤ 3, for 1g SAR

Thus, SAR for this device is not required.