

**RF Exposure Evaluation** 

## Limits

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)

FCC ID: N4ZGMR00

Limits for Maximum Permissible Exposure (MPE)

Frequency range (MHz)	Electric field strength (V/m)	Magnetic field strength (A/m)	Power density (mW/cm²)	Averaging time (minutes)			
(A) Limits for Occupational/Controlled Exposures							
0.3–3.0	614	1.63	*(100)	6			
3.0–30	1842/f	4.89/f	*(900/f <sup>2</sup> )	6			
30–300	61.4	0.163	1.0	6			
300–1500			f/300	6			
1500–100,000			5	6			
(B) Limits for General Population/Uncontrolled Exposure							
0.3–1.34	614	1.63	*(100)	30			
1.34–30	824/f	2.19/f	*(180/f <sup>2</sup> )	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

Friis transmission formula:  $Pd = (Pout*G)/(4*pi*r^2)$ 

## Where

**Pd** = power density in mW/cm<sup>2</sup>, **Pout** = output power to antenna in mW;

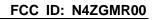
**G** = gain of antenna in linear scale, **Pi** = 3.1416;

R = distance between observation point and center of the radiator in cm

Pd id the limit of MPE, 1 mW/cm<sup>2</sup>. If we know the maximum gain of the antenna and the total power input to the antenna, through the calculation, we will know the distance r where the MPE limit is reached.

## **Test Procedure**

Software provided by client enabled the EUT to transmit and receive data at lowest, middle and highest channel individually.





## **Test Result of RF Exposure Evaluation**

Channel	Output power to antenna (mW)	Power Density at R=20cm (mW/cm²)	Limit (mW/cm <sup>2</sup> )	Result
Lowest (2402.6MHz)	9.23	0.0029	1.0	PASS
Middle (2440.4MHz)	9.29	0.0029	1.0	PASS
Highest (2479.4MHz)	9.10	0.0029	1.0	PASS

Remark: antenna gain=2 dBi