

## FCC ID : NV8-F10B

### RF EXPOSURE EVALUATION

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)

Limits for Maximum Permissible Exposure (MPE)

Frequency Range(MHz)	Electric Field Strength(V/m)	Magnetic Field Strength(A/m)	Power Density(mW/cm <sup>2</sup> )	Average Time
<b>(A) Limits for Occupational/Control Exposures</b>				
300-1500	--	--	F/300	6
1500-100000	--	--	5	6
<b>(B) Limits for General Population/Uncontrol Exposures</b>				
300-1500	--	--	F/1500	6
1500-100000	--	--	1	30

**11.1 Friis transmission formula:  $P_d = (P_{out} * G) / (4 * \pi * R^2)$**

Where

$P_d$  = Power density in mW/cm<sup>2</sup>

$P_{out}$  = output power to antenna in mW

G = Numeric gain of the antenna relative to isotropic antenna

$\pi$  = 3.1416

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

Pd the limit of MPE,  $1\text{mW}/\text{cm}^2$ , If we know the maximum gain of the nd total power input to the antenna, through the calculation, we will know the distance where the MPE limit is reached.

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.

## 11.2 Measurement Result

BT

Antenna gain: 3 dBi

modulation	Channel Freq. (MHz)	Measured power (dBm)	Tune-up power (dBm)	Max tune-up power (dBm)	Antenna Gain Numeric	Evaluation result (mW/cm <sup>2</sup> )	Power density Limits (mW/cm <sup>2</sup> )
GFSK	2402	-4.499	-6 to -4	-4	2.0	0.000158	1
	2441	-4.776	-6 to -4	-4	2.0	0.000158	1
	2480	-5.096	-7 to -5	-5	2.0	0.000126	1
pi/4-DQPSK	2402	-8.958	-10 to -8	-8	2.0	0.000063	1
	2441	-9.042	-11 to -9	-9	2.0	0.000050	1
	2480	-9.452	-11 to -9	-9	2.0	0.000050	1
8DPSK	2402	-8.445	-10 to -8	-8	2.0	0.000063	1
	2441	-8.470	-10 to -8	-8	2.0	0.000063	1
	2480	-8.872	-10 to -8	-8	2.0	0.000063	1

WIFI

Antenna gain: 3 dBi

modulation	Channel Freq. (MHz)	Measured power (dBm)	Tune-up power (dBm)	Max tune-up power (dBm)	Antenna Gain Numeric	Evaluation result (mW/cm <sup>2</sup> )	Power density Limits (mW/cm <sup>2</sup> )
802.11b	2412	15.66	14 to 16	16	2.0	0.0158	1
	2437	15.66	14 to 16	16	2.0	0.0158	1
	2462	16.11	15 to 17	17	2.0	0.0199	1
802.11g	2412	20.41	19 to 21	21	2.0	0.0501	1
	2437	20.29	19 to 21	21	2.0	0.0501	1
	2462	20.70	19 to 21	21	2.0	0.0501	1
802.11n (HT20)	2412	20.01	19 to 21	21	2.0	0.0501	1
	2437	20.15	19 to 21	21	2.0	0.0501	1
	2462	20.46	19 to 21	21	2.0	0.0501	1