

## FCC ID : 2AYB7696AI7200N

### 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)

**TABLE 1 TO § 1.1310(e)(1)—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> )	Averaging time (minutes)
(ii) 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
300-1,500			f/1500	<30
1,500-100,000			1.0	<30

*f = frequency in MHz. \* = Plane-wave equivalent power density.*

### 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

$P_d$  the limit of MPE, 1mW/cm<sup>2</sup>,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.

RF Exposure Information: The radiated output power of this device meets the limits of FCC/IC radio frequency exposure limits. This device should be operated with a minimum separation distance of 20cm (8 inches) between the equipment and a person's body.

## 11.2 Measurement Result

Mode	Max Conducted Power (dBm)	Antenna gain (dBi)	Antenna Gain Numeric	Evaluation result (mW/cm <sup>2</sup> )	Power density Limits (mW/cm <sup>2</sup> )
BT	6.23	0.89	1.23	0.00103	1
2.4G WIFI	15.01	2.98	1.99	0.01252	1
5G WIFI	12.09	1.98	1.58	0.00320	1

Max RF Exposure evaluation.

BT (mW/cm <sup>2</sup> )	2.4G WIFI (mW/cm <sup>2</sup> )	Summation of Evaluation result (mW/cm <sup>2</sup> )	Power density Limits (mW/cm <sup>2</sup> )
0.00103	0.01252	0.01355	1

**Note:** All the modes are tested, only the worst data are described in the table.

----- The End -----