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)

FCC ID：2ABQX-XMA208

EUT Specification

EUT	STB
Frequency band (Operating)	☒WLAN: 2.412GHz ~ 2.462GHz ☐WLAN: 5.18GHz ~ 5.32GHz / 5.50GHz ~ 5.70GHz ☐WLAN: 5.745GHz ~ 5825GHz ☐Others
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	19.81dBm for 802.11b 16.28dBm for 802.11g 16.30dBm for 802.11n(H20) 14.79dBm for 802.11n(H40)
Antenna gain (Max)	-3 dBi
Evaluation applied	☒MPE Evaluation ☐SAR Evaluation

Limits for Maximum Permissible Exposure(MPE)

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

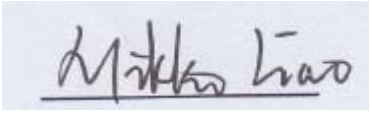
Friis transmission formula: Pd=(Pout*G)\(4*pi*R2)

Where
Pd= Power density in mW/cm^2
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 the limit of MPE, 1mW/cm2. If we know the maximum gain of the antenna and total power input to the antenna, through the calculation, we will know the distance where the MPE limit is reached.

Measurement Result

Operating Mode	Channel Frequency (MHz)	Output Peak power (mW)	Antenna Gain (dBi)	Power density at 20cm (mW/cm^2)	Power density Limits (mW/cm^2)
802.11b	Lowest	44.978	-3.0	0.008948	1
	Middle	6.081	-3.0	0.001210	1
	Highest	95.719	-3.0	0.019043	1
802.11g	Lowest	27.416	-3.0	0.005454	1
	Middle	37.757	-3.0	0.007511	1
	Highest	42.462	-3.0	0.008448	1
802.11n(H20)	Lowest	24.717	-3.0	0.004917	1
	Middle	32.434	-3.0	0.006453	1
	Highest	42.658	-3.0	0.008487	1
802.11n(H40)	Lowest	25.119	-3.0	0.004997	1
	Middle	29.717	-3.0	0.005912	1
	Highest	30.130	-3.0	0.005994	1

Signature:



Mikko. Liao
2014-01-17
Tel: 18620367745
Fax: +86-0755-83222107
Star View Technology Co.,Ltd
Room 1706, China Youse Building, South Side of Shennan Rd, Chegongmiao, Futian District, Shenzhen City China.