MPE CALCULATION

For WGI Innovations, Ltd.; Model: YN1-rx

FCC ID: YTT-YN1MODULE

RF Exposure Requirements: 47CFR§1.1307(b)
RF Radiation Exposure Limits: 47CFR§1.1310
RF Radiation Exposure Guidelines: 47CFR§2.1091
EUT Frequency Band: 2412 – 2462MHz
Limits for General Population/Uncontrolled Exposure in the band of: 1500 – 100000MHz
Power Density Limit: 1.0mW/cm^2;

Equation: $S = PG/4PiR^2$

Where, S=Power Density

P=Power Input to Antenna

G=Antenna Gain

R=distance to the center of radiated antenna

		Channel	Channel Frequency (MHz)	Conducted Power (mW)	Antenna Gain (dBi)	Power density at 20cm (mW/cm^2)	Power density Limits (mW/cm^2)
		Low	2412	47.86	2.2	0.015814	1
	802.11b	Mid	2437	44.67	2.2	0.014760	1
		High	2462	39.81	2.2	0.013154	1
		Low	2412	56.23	2.2	0.018579	1
2412	802.11g	Mid	2437	50.12	2.2	0.016560	1
-		High	2462	42.66	2.2	0.014095	1
2462	802.11n-20MHz	Low	2412	50.12	2.2	0.016560	1
MHz		Mid	2437	46.77	2.2	0.015453	1
		High	2462	41.69	2.2	0.013775	1
	802.11n-40MHz	Low	2422	53.70	2.2	0.017743	1
		Mid	2437	48.98	2.2	0.016184	1
		High	2452	47.86	2.2	0.015814	1

Result:
The above result had shown that device complied with 1.0mW/cm^2 Power density requirement for distance of 20 cm.

Completed By: Peter Cai
Data: 15 August, 2011