MPE ESTIMATION

FCC ID: 2AL94-GXWRP300C

1,Limit for General Population/ Uncontrolled Exposures

Frequency	Power density (mW/ cm ²)	Averaging time(minutes)	
300MHz1.5GHz	F/1500	30	
1.5GHz100GHz	1.0	30	

Note: F= Frequency in MHz

2, Estimation Result

For antenna 1:

Mode	Max PK Output	Tune Up	Max Tune Up	Antenna	Antenna Gain	MPE
Mode	power(dBm)	Power(dBm)	power(mW)	Gain(dBi)	(linear)	(mW/cm^2)
11b	18.26	18±1(19)	79.43	2	1.585	0.02506
11g	17.48	17±1(18)	63.10	2	1.585	0.01991
11n/HT20	16.56	16±1(17)	50.12	2	1.585	0.01581
11n/HT40	15.33	15±1(16)	39.81	2	1.585	0.01256

$$Pd = \frac{Pout * G}{4\pi r^2}$$

Note:

Note: The estimation distance is 20cm

Note:

PK Output power= conducted power.

Mode	СН	PK Output	Output	Antenna	Antenna Gain	MPE
	СН	power(dBm)	power(mW)	Gain(dBi)	(linear)	(mW/cm ²)
	CH1	18.21	66.22	2	1.585	0.02089
11b	СН6	18.26	66.99	2	1.585	0.02113
	CH11	18.18	66.77	2	1.585	0.02106
	CH1	17.48	55.98	2	1.585	0.01766
11g	СН6	17.35	54.33	2	1.585	0.01714
	CH11	17.43	55.34	2	1.585	0.01746
11n/HT20	CH1	16.53	44.98	2	1.585	0.01419
	СН6	16.41	43.75	2	1.585	0.01380
	CH11	16.56	45.29	2	1.585	0.01429
11n/HT40	CH1	15.24	33.42	2	1.585	0.01054
	CH4	15.33	34.12	2	1.585	0.01076
	CH7	15.14	33.66	2	1.585	0.01062

$$Pd = \frac{Pout * G}{4\pi r^2}$$

Note:

Note: The estimation distance is 20cm

Note:

PK Output power= conducted power.

For antenna 2:

Mode	Max PK Output	Tune Up	Max Tune Up	Antenna	Antenna Gain	MPE
	power(dBm)	Power(dBm)	power(mW)	Gain(dBi)	(linear)	(mW/cm^2)
11b	18.58	18±1(19)	79.43	2	1.585	0.02506
11g	17.92	17±1(18)	63.10	2	1.585	0.01991
11n/HT20	17.24	17±1(18)	63.10	2	1.585	0.01991
11n/HT40	15.82	15±1(16)	39.81	2	1.585	0.01256

$$Pd = \frac{Pout * G}{4\pi r^2}:$$

Note:

Note: The estimation distance is 20cm

Note:

PK Output power= conducted power.

Mode	СН	PK Output	Output	Antenna	Antenna Gain	MPE
	СН	power(dBm)	power(mW)	Gain(dBi)	(linear)	(mW/cm^2)
	CH1	18.34	68.23	2	1.585	0.02153
11b	СН6	18.45	69.98	2	1.585	0.02208
	CH11	18.58	72.11	2	1.585	0.02275
	CH1	17.92	61.94	2	1.585	0.01954
11g	СН6	17.81	60.39	2	1.585	0.01905
	CH11	17.87	61.24	2	1.585	0.01932
11n/HT20	CH1	17.07	50.93	2	1.585	0.01607
	СН6	17.24	52.97	2	1.585	0.01671
	CH11	17.12	51.52	2	1.585	0.01625
11n/HT40	CH1	15.82	38.19	2	1.585	0.01205
	CH4	15.73	37.41	2	1.585	0.01180
	CH7	15.65	36.73	2	1.585	0.01159

$$Pd = \frac{Pout * G}{4\pi r^2}:$$

Note:

Note: The estimation distance is 20cm

Note:

PK Output power= conducted power.

For MIMO:

M - 1 -	Max PK Output	Tune Up	Max Tune Up	Antenna	Antenna Gain	MPE
Mode	power(dBm)	Power(dBm)	power(mW)	Gain(dBi)	(linear)	(mW/cm ²)
11b						1
11g						1
11n/HT20	19.86	19±1(20)	100	2	1.585	0.03155
11n/HT40	18.55	19±1(20)	100	2	1.585	0.03155

$$Pd = \frac{Pout * G}{4\pi r^2}:$$

Note:

Note: The estimation distance is 20cm

Note:

PK Output power= conducted power.

Mode C	СН	PK Output	Output	Antenna	Antenna Gain	MPE
	СН	power(dBm)	power(mW)	Gain(dBi)	(linear)	(mW/cm^2)
	CH1					
11b	СН6	-1		-		-1
	CH11			1		-
	CH1					
11g	СН6					
	CH11					
	CH1	19.82	95.94	2	1.585	0.03027
11n/HT20	СН6	19.85	96.61	2	1.585	0.03048
	CH11	19.86	96.83	2	1.585	0.03055
11n/HT40	CH1	18.55	71.61	2	1.585	0.02259
	CH4	18.54	71.45	2	1.585	0.02254
	CH7	18.41	69.34	2	1.585	0.02188

$$Pd = \frac{Pout * G}{4\pi r^2}:$$

Note:

Note: The estimation distance is 20cm

Note:

PK Output power= conducted power.

Conducted power see the test report HK170511021-E, The MIMO mode power is max, so only calculate max power mode and antenna port 1 gain=2dBi, antenna port 2 gain=2dBi.

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