

MPE REPORT

案 號： 1906C174
產 品 名 稱： 雷蛇靈刃潛行版遊戲筆記型電腦
主 型 號： RZ09-031
系 列 型 號： RZ09-0310
申請廠商（名稱）： 台灣雷蛇有限公司
申請廠商（地址）： 104臺北市中山區民生東路3段69、71號4樓
According to : LP0002 第 5.20.2 節

報告簽署人：

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MPE CALCULATION METHOD:

Calculation Method of RF Safety Distance:

$$S = \frac{PG}{4\pi^2} = \frac{EIRP}{4\pi^2}$$

where:

S = power density

P = power input to the antenna

G = power gain of the antenna in the direction of interest relative to an isotropic radiator

R = distance to the center of radiation of the antenna

Table for Filed Antenna:

For 2.4GHz:

Ant.	Brand	P/N	Antenna Type	Connector	Gain(dBi)
1		BY5780-16-002-C	PIFA	N/A	2.44
2		BY5780-16-001-C	PIFA	N/A	2.56

Note:

(1) This EUT supports MIMO 2X2, any transmit signals are correlated with each other, so Directional gain= $10\log[(10^{G1/20} + 10^{G2/20} + \dots + 10^{GN/20})^2 / N]$ dBi, that is Directional gain= $10\log[(10^{2.44/20} + 10^{2.56/20})^2 / 2]$ dBi = 5.51.

(2) Ant. 1 refers to aux antenna, Ant. 2 refers to main antenna.

For 5GHz:

Ant.	Brand	P/N	Antenna Type	Connector	Gain (dBi)
1		BY5780-16-002-C	PIFA	N/A	4.57
2		BY5780-16-001-C	PIFA	N/A	4.49

Note:

(1) This EUT supports MIMO 2X2, any transmit signals are correlated with each other, so Directional gain= $10\log[(10^{G1/20} + 10^{G2/20} + \dots + 10^{GN/20})^2 / N]$ dBi, that is Directional gain= $10\log[(10^{4.57/20} + 10^{4.49/20})^2 / 2]$ dBi = 7.54. So, the UNII-1, UNII-2A, UNII-2C output power limit is 24-7.54+6=22.46, the UNII-3 output power limit is 30-7.54+6=28.46. The UNII-1, UNII-2A, UNII-2C power spectral density limit is 11-7.54+6=9.46, the UNII-3 power spectral density limit is 30-7.54+6=28.46.

(2) Ant. 1 refers to aux antenna, Ant. 2 refers to main antenna.

TEST RESULTS:

For 2.4GHz

測試頻道: IEEE 802.11n (HT20)

測試模式: 發射

檢測器: Peak

測試日期: 108/08/04

環境溫度: 25°C

環境濕度: 68%

Directional Gain (dBi)	Directional Gain (numeric)	Max. Output Power (dBm)	Max. Output Power (mW)	Power Density (S) (mW/cm ²)	Limit of Power Density (S) (mW/cm ²)	Test Result
5.51	3.5563	26.31	427.5629	0.30266	1	Complies

For 5GHz

測試頻道: IEEE 802.11a / 5.2 GHz 頻帶

測試模式: 發射

檢測器: RMS

測試日期: 108/08/10

環境溫度: 25°C

環境濕度: 68%

Antenna Gain (dBi)	Antenna Gain (numeric)	Max. Output Power (dBm)	Max. Output Power (mW)	Power Density (S) (mW/cm ²)	Limit of Power Density (S) (mW/cm ²)	Test Result
4.57	2.8642	15.95	39.3550	0.02244	1	Complies

測試頻道: IEEE 802.11a / 5.3 GHz 頻帶

測試模式: 發射

檢測器: RMS

測試日期: 108/08/10

環境溫度: 25°C

環境濕度: 68%

Antenna Gain (dBi)	Antenna Gain (numeric)	Max. Output Power (dBm)	Max. Output Power (mW)	Power Density (S) (mW/cm ²)	Limit of Power Density (S) (mW/cm ²)	Test Result
4.57	2.8642	15.98	39.6278	0.02259	1	Complies

測試頻道: IEEE 802.11ac (VHT20) / 5.6 GHz 頻帶

測試模式: 發射

檢測器: RMS

測試日期: 108/08/10

環境溫度: 25°C

環境濕度: 68%

Directional Gain (dBi)	Directional Gain (numeric)	Max. Output Power (dBm)	Max. Output Power (mW)	Power Density (S) (mW/cm ²)	Limit of Power Density (S) (mW/cm ²)	Test Result
7.54	5.6754	17.82	60.5341	0.06838	1	Complies

測試頻道：IEEE 802.11a / 5.8 GHz 頻帶
 檢 測 器：RMS
 環 境 溫 度：23°C

測 試 模 式：發射
 測 試 日 期：108/08/10
 環 境 濕 度：58%

Antenna Gain (dBi)	Antenna Gain (numeric)	Max. Output Power (dBm)	Max. Output Power (mW)	Power Density (S) (mW/cm ²)	Limit of Power Density (S) (mW/cm ²)	Test Result
4.57	2.8642	16.48	44.4631	0.02535	1	Complies

Note: The evaluated distance is 20cm.

結束