

產品名稱: Connected Instrumentation Cluster for Motorcycle

產品型號: 6.5inchCluster

1.1 適用標準

依據國家通訊傳播委員會低功率射頻器材技術規範 6.20.2 節之規定，若受測物於正常操作模式下，其發射機距離人體 20 公分以上者，可測試最大暴露允許值 (Maximum Permissible Exposure (MPE)) 以證明其符合電波暴露量之要求。

限制如下：

(1) 職業性/可控制之暴露

頻率範圍 (MHz)	電場強度 (V/m)	磁場強度 (A/m)	功率密度 (mW/cm ²)	平均時間 (分)
0.3~3.0	614	1.63	*100	6
3~30	1842/f	4.89/f	*900/f ²	6
30~300	61.4	0.163	1.0	6
300~1,500	-----	-----	f/300	6
1,500~100,000	-----	-----	5.0	6

註1: 標記*表平面波等效功率密度。

註2: f表測試頻率，單位：MHz。

(2) 一般人/不可控制之暴露

頻率範圍 (MHz)	電場強度 (V/m)	磁場強度 (A/m)	功率密度 (mW/cm ²)	平均時間 (分)
0.3~1.34	614	1.63	*100	30
1.34~30	824/f	2.19/f	*180/f ²	30
30~300	27.5	0.073	0.2	30
300~1,500	-----	-----	f/1500	30
1,500~100,000	-----	-----	1.0	30

註1：標記*表平面波等效功率密度。

註2：f表測試頻率，單位：MHz。

Prediction of MPE limit at a given distance

Equation from page 18 of OET Bulletin 65, Edition 97-01

$$S = PG / 4\pi R^2$$

Where: S = Power density

P = Power input to 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

1.2 Maximum Permissible Exposure (MPE) Evaluation

BT Mode

The worst case of Average power a mode: refer to RF test report for detail measurement date.

Power measurement:

Mode	Frequency (MHz)	Output Power (dBm)	Output Power (W)	Limit (W)
EDR 3M Mode	Low	2.165	0.001646	0.125
	Mid	1.568	0.001435	0.125
	High	1.817	0.001519	0.125

Antenna Gain: 3 dBi

Tune-Up Tolerance: 1 dB

Measurement Result:

The predicted power density level at 20 cm is 0.0008231 mW/cm².

This is below the uncontrolled exposure limit of 1 mW/cm².

1.3 Maximum Permissible Exposure (MPE) Evaluation

Wifi 2.4GHz Mode

The worst case of Average power a mode: refer to RF test report for detail measurement date.

Power measurement:

Mode	Freq. (MHz)	Output Power (dBm)				Duty Factor (dB)	Total Output Power (dBm)	Output Power Limit (dBm)
		Chain 0	Chain 1	Chain 2	Chain 3			
802.11n HT20	2412	21.14	NA	NA	NA	0.118	21.14	30
	2437	20.97	NA	NA	NA	0.118	20.97	30
	2462	20.98	NA	NA	NA	0.118	20.98	30

Antenna Gain: **2.1** dBi

Tune-Up Tolerance: **1** dB

Measurement Result:

The predicted power density level at 20 cm is **0.0514222** mW/cm².

This is below the uncontrolled exposure limit of **1** mW/cm².

BT Only Mode

The worst case of Average power a mode: refer to RF test report for detail measurement date.

Power measurement:

Mode	Frequency (MHz)	Output Power (dBm)	Output Power (W)	Limit (W)
EDR 3M Mode	Low	-0.736	0.000844	0.125
	Mid	0.684	0.001171	0.125
	High	0.416	0.001101	0.125

Antenna Gain: 1 dBi

Tune-Up Tolerance: 1 dB

Measurement Result:

The predicted power density level at 20 cm is 0.0003693 mW/cm².

This is below the uncontrolled exposure limit of 1 mW/cm².