



低功率射頻電機測試報告

申請廠商	: 鎮陞科技股份有限公司
地址	: 台中市南區忠明南路 760 號 14 樓
製造廠商 1	: NETTECH TECHNOLOGY(SUZHOU) CO LTD
地址	: 中國江蘇省蘇州市相城經濟開發區春申 湖東路 1 號
製造廠商 2	: 友勁科技股份有限公司
地址	: 台南市安南區科技五路 168 號
產品名稱	: 802.11ac 無線基地台
產品型號	: AT-TQ1402, AT-TQm1402
廠牌	: Allied Telesis
受理日期	: 107 年 12 月 12 日
完成日期	: 108 年 05 月 23 日

實驗室名稱：世騰電子科技股份有限公司測試實驗室

實驗室地址：桃園市蘆竹區聯福街 2 巷 10 號

實驗室認可證書有效期限：109 年 07 月 08 日

實驗室認可編號及範圍：1439 (9 kHz to 40 GHz)

實驗室認證資格





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修訂記錄

報告號碼.	發行日期	描述
TENC1901095	May. 27, 2019	Original



證 明 書

申請廠商	:	鎮陞科技股份有限公司
地址	:	台中市南區忠明南路 760 號 14 樓
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地址	:	中國江蘇省蘇州市相城經濟開發區春申湖東路 1 號
製造廠商 2	:	友勁科技股份有限公司
地址	:	台南市安南區科技五路 168 號
產品名稱	:	802.11ac 無線基地台
產品型號	:	AT-TQ1402, AT-TQm1402
廠牌	:	Allied Telesis
該產品樣品試驗 依據之試驗標準	:	國家通訊傳播委員會低功率射頻電機技術規範(LP0002)。 規範修訂日期 107 年 1 月 10 日。
發射功率 (電場強度)	:	29.97 dBm

茲在此鄭重聲明：

本試驗報告所列之待測設備樣品於民國 108 年 05 月 23 日在本公司的標準測試場地完成詳細及完整之量測。本試驗報告所列之量測皆依據低功率射頻電機技術規範之規定來執行。並判斷此待測設備樣品確實符合低功率射頻電機技術規範規定。

備註：本測試報告僅對受測之樣品負責。非經本公司同意，測試報告不得摘錄複印使用。(全部複製除外)。



項次	測試項目	低功率射頻電機技術 規範	量測設備	測試結果	結果判定
1	天線增益之要求	3.10.1.3 節	---	請參閱 2.2 節	---
2	電源線傳導干擾之要求	2.3 節	請參閱 2 章	請參閱 4.4 節	合格
3	場強輻射之要求	3.10.1.5 節	請參閱 2 章	請參閱 5.4 節 及 5.5 節	合格
4	發射頻寬之要求	3.10.1.6 節(2).(A)	請參閱 2 章	請參閱 6.4 節	合格
5	峰值輸出功率之要求	3.10.1.2 節(1)(C)	請參閱 2 章	請參閱 7.4 節	合格
6	混附波發射限制之要求	3.10.1.5 節	請參閱 2 章	請參閱 8.4 節	合格
7	功率密度之要求	3.10.1.6 節(2)(B)	請參閱 2 章	請參閱 9.4 節	合格

本報告判定原則，依據本實驗室結果報告及量測不確定評估程序要求進行判定

報告簽署人：



1. 一般描述

1.1. 產品規格

Equipment	802.11ac 無線基地台
Model No.	AT-TQ1402, AT-TQm1402
Brand Name	Allied Telesis
Product Description	Please refer to User's Manual.
Connecting I/O Port(s)	Please refer to User's Manual.
AC Adapter	Adapter Brand: APD Model No.: WA-24Q12R I/P: AC 100-240V~, 50-60Hz, 0.7A Max. O/P: DC 12V, 2.0A
PoE	48V/0.4A
Memo	A1
Frequency Range	802.11b/g/n/ac: 2400-2483.5MHz 802.11a/n/ac: 5150MHz-5250MHz, 5250MHz-5350MHz, 5470MHz-5725MHz, 5725MHz-5850MHz
Modulation Type	DSSS, OFDM
Data Rate	2.4GHz: 802.11b: 1, 2, 5.5, 11Mbps 802.11g: 6, 9, 12, 18, 24, 36, 48, 54Mbps 802.11n: MCS0 – MCS15, HT20/40 5GHz: 802.11a: 6, 9, 12, 18, 24, 36, 48, 54Mbps 802.11n: MCS0 – MCS15, HT20/40 802.11ac: MCS0 – MCS9, VHT20/40/80
Antenna Type	2.4GHz: PIFA Antenna / 5GHz: Dipole Antenna
Antenna Gain	2400-2483.5MHz: ANT A: 1.9dBi, ANT B: 1.8dBi 5150-5250MHz: ANT A: 3.7dBi, ANT B: 2.9dBi 5250-5350MHz: ANT A: 3.5dBi, ANT B: 3.2dBi 5470-5725MHz: ANT A: 3.1dBi, ANT B: 3.5dBi 5725-5850MHz: ANT A: 3.7dBi, ANT B: 3.7dBi

Note: for more details, please refer to the User's manual of the EUT.

1.2. 差異說明

本申請件各系列(廠牌及型號如下表)之技術規格及射頻性能皆相同。主要差異處為市場區隔，其餘完全相同，該產品確符合同系列產品，技術規格及射頻性能相同以利申請為系列機種。型號差異僅市場區隔。

	型號	差異說明
主型號	AT-TQ1402	市場區隔
系列型號	AT-TQm1402	



1.3. 無線界面規格及頻道對應頻率

802.11b, 802.11g, 802.11n HT20

Channel	Frequency(MHz)	Channel	Frequency(MHz)
*01	2412	07	2442
02	2417	08	2447
03	2422	09	2452
04	2427	10	2457
05	2432	*11	2462
*06	2437	---	---

*為量測之頻率

802.11n HT40

Channel	Frequency(MHz)	Channel	Frequency(MHz)
---	---	07	2442
---	---	08	2447
*03	2422	*09	2452
04	2427	---	---
05	2432	---	---
*06	2437	---	---

*為量測之頻率



1.4. 測試模式之描述

- 電源傳導及輻射測試之測試軟體如下:
 1. 將量測系統之全部電源打開。
 2. 於測試進行的同時，在 WIN 7 作業系統下，待測物執行"QRCT: Ver 3.0.219.0"傳送及接收訊號。
- 執行以下測試模式如下：

Conducted Emissions from the AC mains power ports	
Test Mode	Operating Description
1	Wifi Work 2.4G, Power from Adapter
2	Wifi Work 2.4G, Power from PoE
caused "Test Mode 1&2" generated the worst case, it was reported as the final data.	
Radiation Emissions (30MHz ~ 1GHz)	
Test Mode	Operating Description
1	Wifi Work 2.4G, Power from Adapter
2	Wifi Work 2.4G, Power from PoE
caused "Test Mode 1&2" generated the worst case, it was reported as the final data.	
Radiation Emissions (1GHz ~ 25GHz)	
Test Mode	Operating Description
1	802.11b (1Mbps)
2	802.11g (6Mbps)
3	802.11n HT20 (6.5Mbps)
4	802.11n HT40 (13.5Mbps)

Note: Non-Beamforming was used for the test result.

1.5. 受測裝置之系統說明

Device	Manufacturer	Model No.	Description
Remote workstation			
Notebook	ASUS	P2430U	Power Cable, Unshielding, 1.8m
PoE	BlueWave	JS-100GT	N/A

Use Cable:

Cable	Quantity	Description
Network	1	Unshielding, 1.2m



1.6. 測試場地

測試場地：	世騰電子科技股份有限公司測試實驗室 338 桃園市蘆竹區聯福街 2 巷 10 號 223 新北市石碇區十八重溪 68 之 1 號
測試電壓：	AC 110V / 60Hz
適用規範：	本測試報告之所有項目皆依據國家通訊傳播委員會低功率射頻電機技術規範以及參考 ANSI、FCC/47CFR/2.1046、2.1047、2.1049、2.1051、2.1053 及 2.1055 之檢驗法。
測試頻率：	電源傳導：從 150 kHz 到 30 MHz。 場強輻射：從 30 MHz 到 25000 MHz。
測試天線的距離：	場強輻射之測試距離為 3 M。

1.7. 量測不確定度

Measurement Item	Uncertainty
Conducted Emission(9 kHz ~ 30 MHz)	±3.25 dB
Radiated Spurious Emission(9KHz~30MHz)	±5.007dB
Radiated Spurious Emission(30MHz~1GHz)	±5.157dB
Radiated Spurious Emission(1GHz~18GHz)	±6.383dB
Radiated Spurious Emission(18GHz~40GHz)	±6.648dB
Conducted Spurious Emission	±1.253dB
6dB Bandwidth	±6.89%
Power Spectral Density	±0.630dB
26 dB Occupied Bandwidth	±6.10%
Frequency Stability	±375KHz
Channel Frequencies Separation	±6.10%
20dB Bandwidth	±6.12%
Dwell Time	±1.34%
Peak Output Power(Conducted Power Meter)	±0.86dB
Temperature	±1.2°C
Humidity	±2.7%



2. 測試儀器

Instrument	Manufacturer	Model No.	Serial No.	Calibration Date	Valid Date
Bilog Antenna	Schwarzbeck	VULB9168	275	2018/09/17	2019/09/16
Active Loop Antenna	EMCO	6507	40855	2018/05/22	2019/05/21
Horn Antenna	EMCO	3115	31589	2018/04/02	2019/04/01
Horn Antenna	EMCO	3116	31974	2018/09/07	2019/09/06
EMI Receiver	ROHDE & SCHWARZ	ESCI 3	101402	2018/02/23	2019/02/22
Spectrum Analyzer	ROHDE & SCHWARZ	FSP40	100047	2018/03/20	2019/03/19
Preamplifier	EM Electronics corp.	EM330	60660	2018/03/08	2019/03/07
Preamplifier	EMC INSTRUMENTS	EMC051845SE	980333	2018/09/18	2019/09/17
BLUETOOTH TESTER	ROHDE & SCHWARZ	CBT	101133	2018/04/02	2019/04/01
Cable-3in1-(30M-1G)	HARBOUR INDUSTRIES	LL142	CCE1315	2018/04/20	2019/04/19
Cable-0.5m-(1G-40G)	Rapidtek	40GHZ 50CM	38MS-38MS50314	2018/03/27	2019/03/26
Cable-1m-(1G-40G)	Rapidtek	40GHZ 300CM	38MS-38MS300314	2018/03/27	2019/03/26
Cable-6m-(1G-40G)	Rapidtek	40GHZ 800CM	38MS-38MS800314	2018/03/27	2019/03/26
E3	AUDIX	v8.2014-8-6	RK-000529	NA	NA
Spectrum Analyzer	ROHDE & SCHWARZ	VULB9168	275	2018/09/17	2019/09/16
BLUETOOTH TESTER	ROHDE & SCHWARZ	6507	40855	2018/05/22	2019/05/21
Attenuator	KEYSIGHT	3115	31589	2018/04/02	2019/04/01
TEMP & HUMIDITY CHAMBER	T-MACHINE	3116	31974	2018/09/07	2019/09/06
Power Sensor	Anritsu	ESCI 3	101402	2018/02/23	2019/02/22
EMI Receiver	ROHDE & SCHWARZ	ESCI 3	100443	2018/03/15	2019/03/14
Line Impedance Stabilization Network	Schwarzbeck	NSLK 8127	8127-740	2018/06/13	2019/06/12
Pulse Limiter	ROHDE & SCHWARZ	ESH3-Z2	101933	2018/09/04	2019/09/03
E3	AUDIX	v8.2014-8-6	RK-000529	NA	NA



Power from PoE Mode (For AC Power Line Conducted Emission)

Instrument	Manufacturer	Model No.	Serial No.	Calibration Date	Valid Date
EMI Receiver	ROHDE & SCHWARZ	ESCI	100821	2018/9/12	2019/09/11
Line Impedance Stabilization Network	Schwarzbeck	NSLK 8127	8127-740	2018/6/13	2019/06/12
Pulse Limiter	ROHDE & SCHWARZ	ESH3-Z2	101933	2018/9/4	2019/09/03
E3	AUDIX	v8.2014-8-6	RK-000531	NA	NA



3. 天線增益之要求

天線規格不受國家通訊傳播委員會低功率射頻電機技術規範(2.2)節規定之限制，其發射天線之方向性增益超過 6dBi 時，應依其所超過之 dB 數等量降低峰值輸出功率。如用於固定式點對點操作時，應符合下列情形之一：

操作於 2400-2483.5 兆赫(MHz)者，其發射天線之方向性增益超過 6dBi，應於每超過 3dB 降低 1dB 之峰值輸出功率。

操作於 5725-5850 兆赫(MHz)者，其發射天線之方向性增益超過 6dBi，不需降低峰值輸出功率。

3.1. 天線型式及其增益

Antenna Type	2.4GHz: PIFA Antenna / 5GHz: Dipole Antenna
Antenna Gain	2400-2483.5MHz: ANT A: 1.9dBi, ANT B: 1.8dBi 5150-5250MHz: ANT A: 3.7dBi, ANT B: 2.9dBi 5250-5350MHz: ANT A: 3.5dBi, ANT B: 3.2dBi 5470-5725MHz: ANT A: 3.1dBi, ANT B: 3.5dBi 5725-5850MHz: ANT A: 3.7dBi, ANT B: 3.7dBi

(參照天線規格資料)



3.2. 結果判定

(Non-Beamforming)

2400-2483.5MHz
For Power directional gain= $G_{ant} = 1.90$ dBi For PSD directional gain = $10 \log[(10G1/20 + 10G2/20)^2 / NANT]$ = 4.86 (dBi)
5150-5250MHz
For Power directional gain= $G_{ant} = 3.70$ dBi For PSD directional gain = $10 \log[(10G1/20 + 10G2/20)^2 / NANT]$ = 6.32 (dBi)
5250-5350MHz
For Power directional gain= $G_{ant} = 3.50$ dBi For PSD directional gain = $10 \log[(10^{G1/20} + 10^{G2/20})^2 / NANT]$ = 6.36 (dBi)
5470-5725MHz
For Power directional gain= $G_{ant} = 3.50$ dBi For PSD directional gain = $10 \log[(10^{G1/20} + 10^{G2/20})^2 / NANT]$ = 6.63 (dBi)
5725-5850MHz
For Power directional gain= $G_{ant} = 3.70$ dBi For PSD directional gain = $10 \log[(10G1/20 + 10G2/20)^2 / NANT]$ = 6.71 (dBi)

(Beamforming)

5150-5250MHz
For Power directional gain= $10 \log[(10G1/20 + 10G2/20)^2 / NANT] = 6.32$ (dBi) For PSD directional gain = $10 \log[(10G1/20 + 10G2/20)^2 / NANT] = 6.32$ (dBi)
5250-5350MHz
For Power directional gain= $10 \log[(10^{G1/20} + 10^{G2/20})^2 / NANT] = 6.36$ (dBi) For PSD directional gain = $10 \log[(10^{G1/20} + 10^{G2/20})^2 / NANT] = 6.36$ (dBi)
5470-5725MHz
For Power directional gain= $10 \log[(10^{G1/20} + 10^{G2/20})^2 / NANT] = 6.31$ (dBi) For PSD directional gain = $10 \log[(10^{G1/20} + 10^{G2/20})^2 / NANT] = 6.31$ (dBi)
5725-5850MHz
For Power directional gain= $10 \log[(10G1/20 + 10G2/20)^2 / NANT] = 6.71$ (dBi) For PSD directional gain = $10 \log[(10G1/20 + 10G2/20)^2 / NANT] = 6.71$ (dBi)

4. 電源線傳導干擾之量測規定

4.1. 適用標準

依據國家通訊傳播委員會低功率射頻電機技術規範之 2.3 節，電源傳導干擾之限制要求如下：

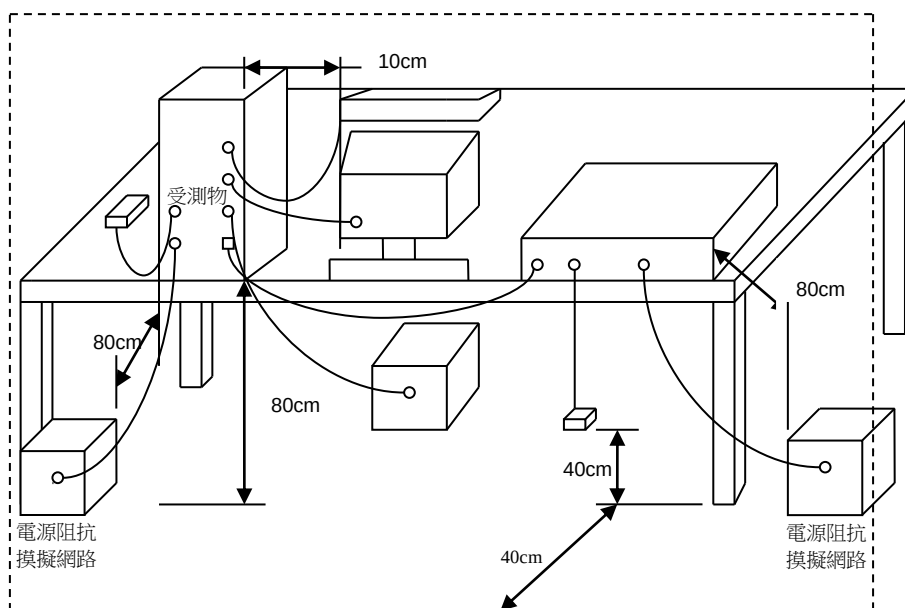
頻率範圍(MHz)	傳導限制值 (dB μ V)	
	準峰值(Quasi-peak)	平均值(Average)
0.15 ~ 0.5	66-56 (註)	56-46 (註)
0.5 ~ 5	56	46
5 ~ 30	60	50

註：隨頻率之對數遞減

4.2. 測試方法

將待測物置於 0.8 米高的非金屬桌面，使其在工作狀態，待測物電源線接至電源線接至電源阻抗穩定網路上，從測試接收機記錄頻率由 0.15MHz 至 30MHz 之間之電源線導放射強度。

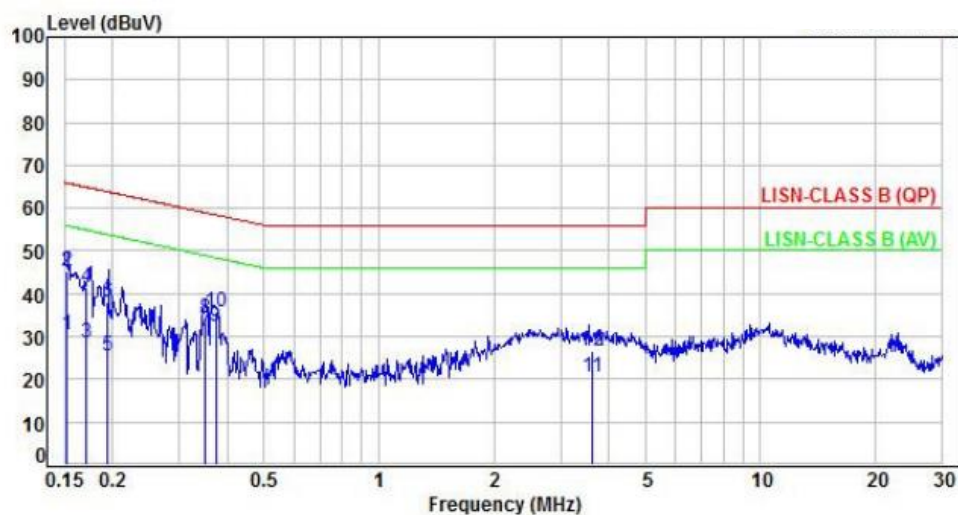
4.3. 傳導干擾之擺設





4.4. 傳導干擾之測試結果及數據

Power	: AC 110V	Pol/Phase	: LINE
Test Mode	: Mode 1	Temperature	: 22°C
Test Date	: Dec. 20, 2018	Humidity	: 49%



No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	P/F
1	0.15	9.94	20.49	30.43	55.88	-25.45	Average	P
2	0.15	9.94	35.24	45.18	65.88	-20.70	QP	P
3	0.17	9.94	18.60	28.54	54.88	-26.34	Average	P
4	0.17	9.94	31.56	41.50	64.88	-23.38	QP	P
5	0.19	9.94	15.67	25.61	53.90	-28.29	Average	P
6	0.19	9.94	28.02	37.96	63.90	-25.94	QP	P
7	0.35	9.95	21.20	31.15	49.00	-17.85	Average	P
8	0.35	9.95	24.18	34.13	59.00	-24.87	QP	P
9	0.37	9.95	22.28	32.23	48.43	-16.20	Average	P
10	0.37	9.95	25.76	35.71	58.43	-22.72	QP	P
11	3.62	10.12	10.49	20.61	46.00	-25.39	Average	P
12	3.62	10.12	16.44	26.56	56.00	-29.44	QP	P

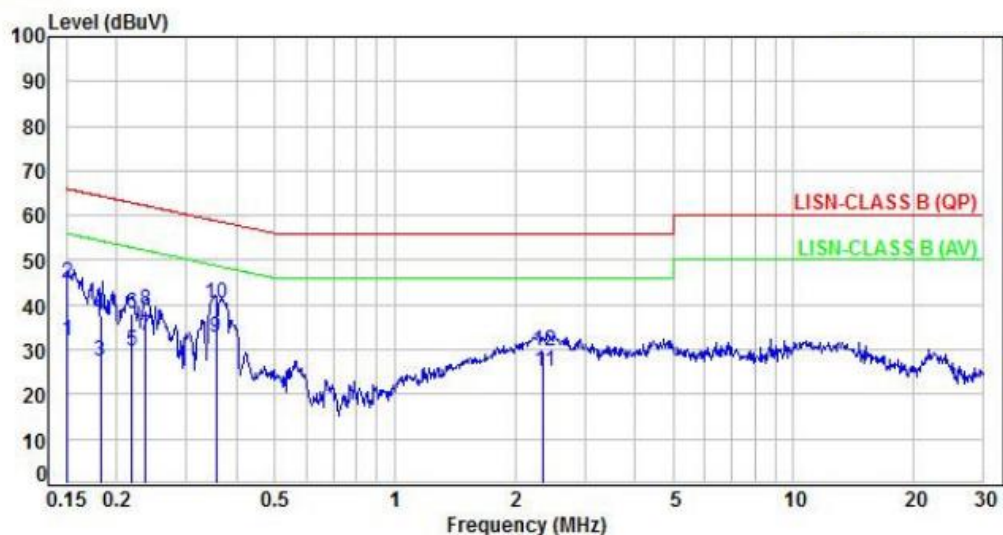
Note: Level=Reading+Factor

Margin=Level-Limit

Factor=(LISN or ISN or Current Probe)Factor + Cable Loss



Power	: AC 110V	Pol/Phase	: NEUTRAL
Test Mode	: Mode 1	Temperature	: 22°C
Test Date	: Dec. 20, 2018	Humidity	: 49 %



No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	P/F
1	0.15	9.94	21.81	31.75	55.94	-24.19	Average	P
2	0.15	9.94	35.07	45.01	65.94	-20.93	QP	P
3	0.18	9.94	17.52	27.46	54.39	-26.93	Average	P
4	0.18	9.94	27.70	37.64	64.39	-26.75	QP	P
5	0.22	9.94	19.64	29.58	52.87	-23.29	Average	P
6	0.22	9.94	28.25	38.19	62.87	-24.68	QP	P
7	0.24	9.94	23.02	32.96	52.25	-19.29	Average	P
8	0.24	9.94	28.95	38.89	62.25	-23.36	QP	P
9	0.36	9.95	22.68	32.63	48.84	-16.21	Average	P
10	0.36	9.95	30.19	40.14	58.84	-18.70	QP	P
11	2.36	10.05	14.90	24.95	46.00	-21.05	Average	P
12	2.36	10.05	19.78	29.83	56.00	-26.17	QP	P

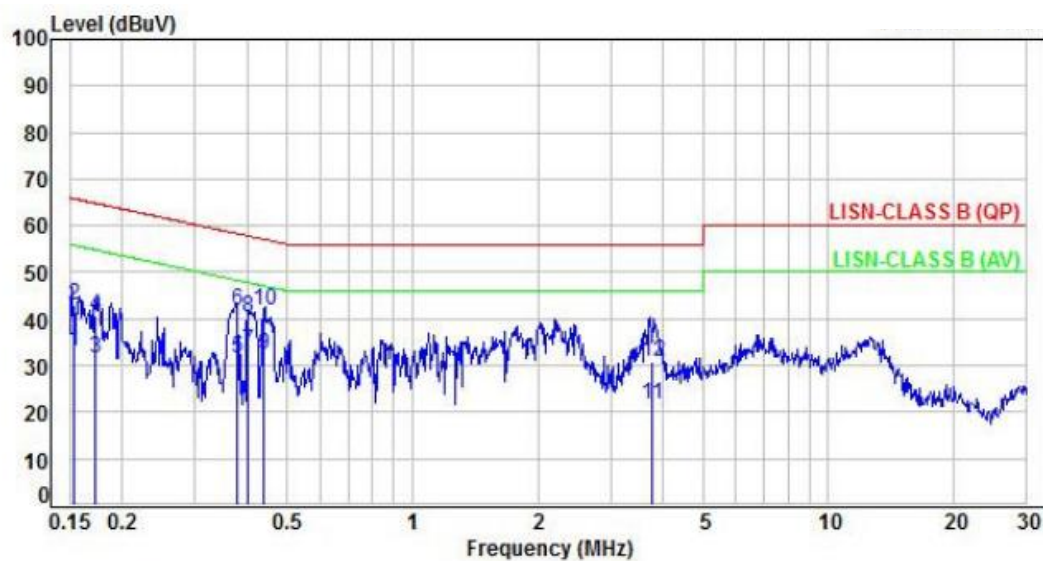
Note: Level=Reading+Factor

Margin=Level-Limit

Factor=(LISN or ISN or Current Probe)Factor + Cable Loss



Power	: AC 110V / 60Hz	Pol/Phase	: LINE
Test Mode	: Mode 2	Temperature	: 21°C
Test Date	: May. 23, 2019	Humidity	: 44%



No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	P/F
1	0.15	9.92	23.30	33.22	55.81	-22.59	Average	P
2	0.15	9.92	32.98	42.90	65.81	-22.91	QP	P
3	0.17	9.92	21.49	31.41	54.87	-23.46	Average	P
4	0.17	9.92	30.75	40.67	64.87	-24.20	QP	P
5	0.38	9.94	21.56	31.50	48.28	-16.78	Average	P
6	0.38	9.94	31.85	41.79	58.28	-16.49	QP	P
7	0.40	9.94	23.11	33.05	47.79	-14.74	Average	P
8	0.40	9.94	30.52	40.46	57.79	-17.33	QP	P
9	0.44	9.94	22.53	32.47	47.07	-14.60	Average	P
10	0.44	9.94	31.95	41.89	57.07	-15.18	QP	P
11	3.76	10.09	11.60	21.69	46.00	-24.31	Average	P
12	3.76	10.09	20.76	30.85	56.00	-25.15	QP	P

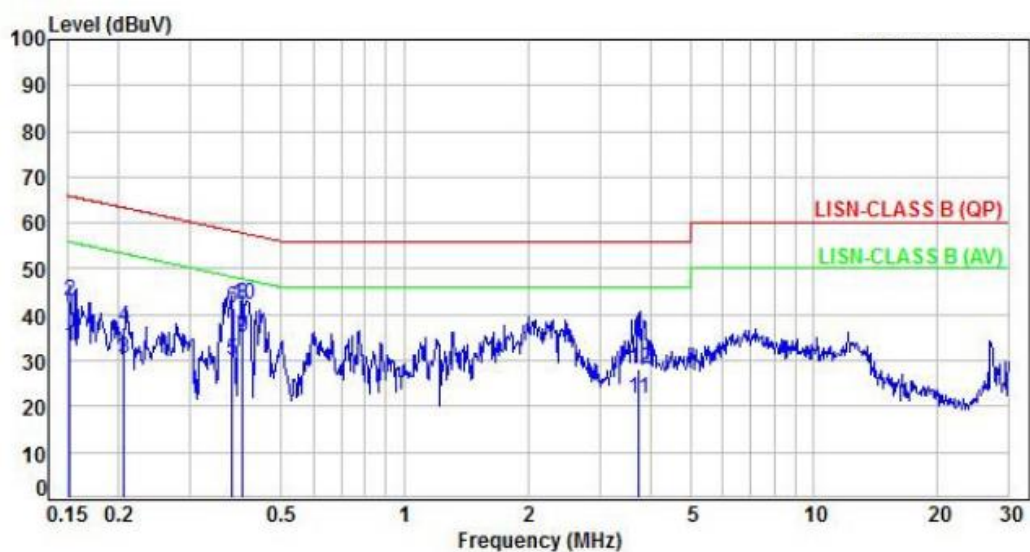
Note: Level=Reading+Factor

Margin=Level-Limit

Factor=(LISN or ISN or Current Probe)Factor + Cable Loss



Power	: AC 110V / 60Hz	Pol/Phase	: NEUTRAL
Test Mode	: Mode 2	Temperature	: 21°C
Test Date	: May. 23, 2019	Humidity	: 44 %



No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	P/F
1	0.15	9.95	23.27	33.22	55.91	-22.69	Average	P
2	0.15	9.95	33.11	43.06	65.91	-22.85	QP	P
3	0.21	9.95	20.30	30.25	53.39	-23.14	Average	P
4	0.21	9.95	27.40	37.35	63.39	-26.04	QP	P
5	0.38	9.96	20.21	30.17	48.31	-18.14	Average	P
6	0.38	9.96	31.43	41.39	58.31	-16.92	QP	P
7	0.40	9.96	25.00	34.96	47.83	-12.87	Average	P
8	0.40	9.96	32.13	42.09	57.83	-15.74	QP	P
9	0.40	9.96	25.02	34.98	47.83	-12.85	Average	P
10	0.40	9.96	32.08	42.04	57.83	-15.79	QP	P
11	3.73	10.11	11.45	21.56	46.00	-24.44	Average	P
12	3.73	10.11	18.20	28.31	56.00	-27.69	QP	P

Note: Level=Reading+Factor

Margin=Level-Limit

Factor=(LISN or ISN or Current Probe)Factor + Cable Loss



5. 輻射之量測規定

5.1. 適用標準

依據國家通訊傳播委員會低功率射頻電機技術規範 3.10.1.5 節之要求，落於 2.7 節禁用頻段之輻射干擾需符合 2.8 節之一般限制要求：

頻率(MHz)	測試距離(m)	限制值(dB μ V)	限制值(μ V/m)
0.009 – 0.490 (含)	300	67.6 / f(kHz)	2400 / f(kHz)
0.490 (不含) – 1.705 (含)	30	87.6 / f(kHz)	24000 / f(kHz)
1.705(不含) – 30(不含)	30	29.5	30
30 (含) – 88 (含)	3	40.0	100
88(不含) – 216 (含)	3	43.5	150
216(不含) – 960 (含)	3	46.0	200
960(不含)以上	3	54.0	500

5.2. 測試方法

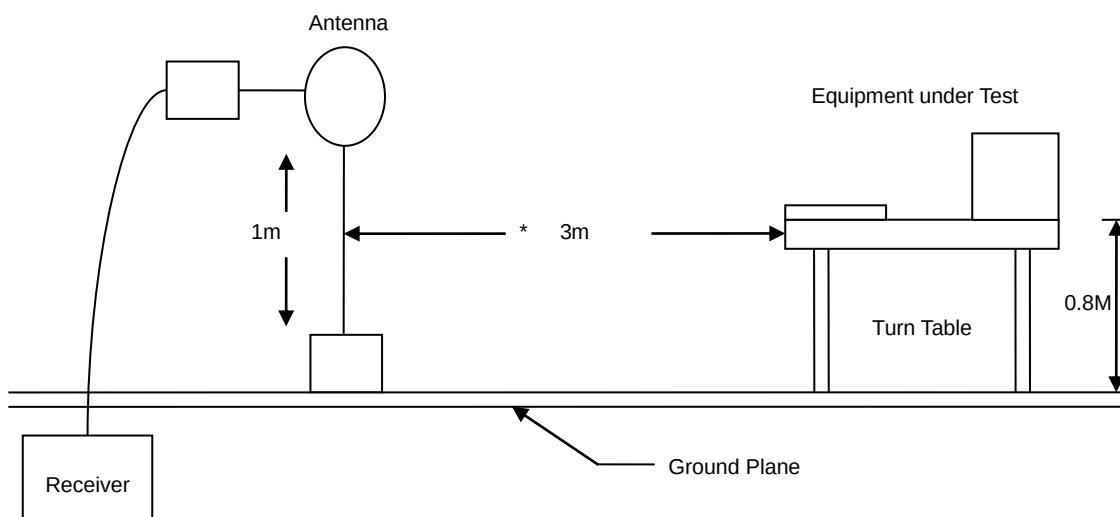
將待測物置於 0.8 米(Below 1G) & 1.5 米(Above 1G)高的非金屬桌面，使其在測試模式狀態，且設定為高、中、低各頻道產生最高峰值輸出功率的傳輸速率，接收天線置於 3 米外，且桌面要 360 度旋轉，另外接收天線也要從 1 米至 4 米升降變化，接收天線置於水平、垂直極向各執行測試一次。待測物若為手持式則分別要以三軸相放置，並分別測試以找出最大輻射電場強度。

備註：

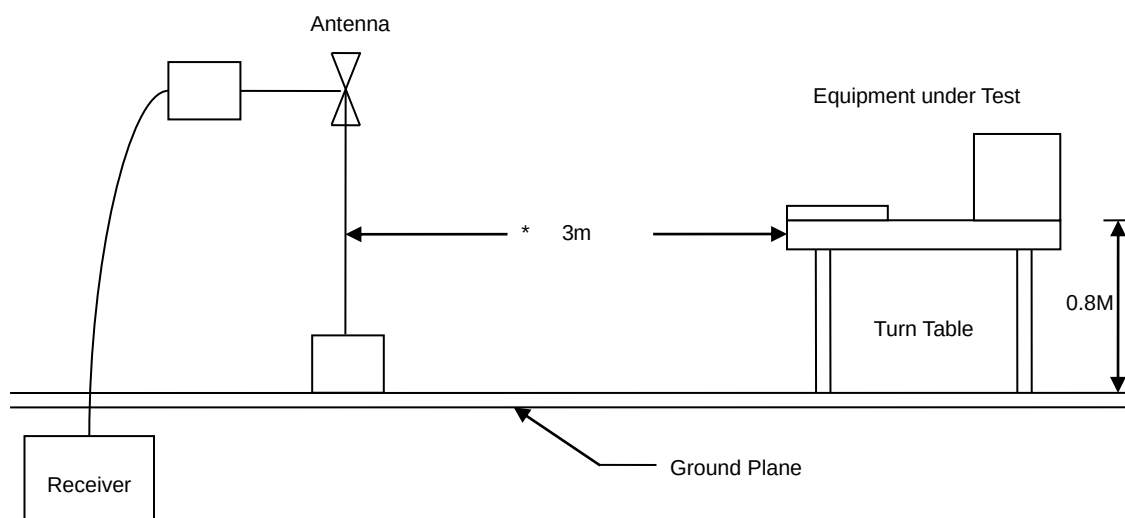
For Below 1G 若待測物之輻射峰值低於限制值 6dB 以上，則將終止測試，並以峰值之讀值作為報告之記錄；反之，若無 6dB 餘裕範圍之輻射，則每一訊號皆以準峰值之測試方法量測，並記錄於報告之中

5.3. 輻射場地之擺設

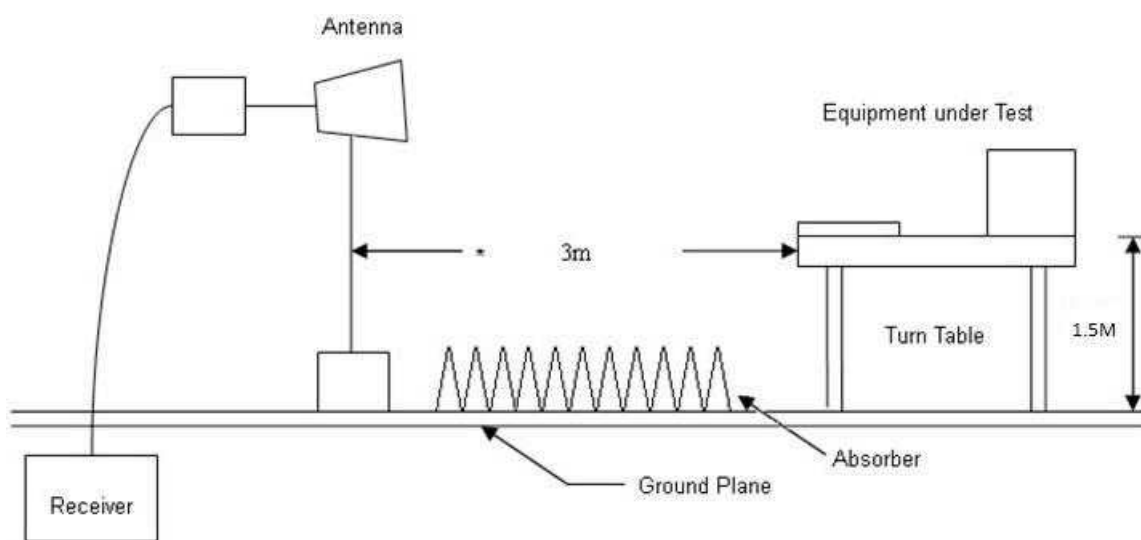
Below 30MHz test setup



30MHz- 1GHz Test Setup



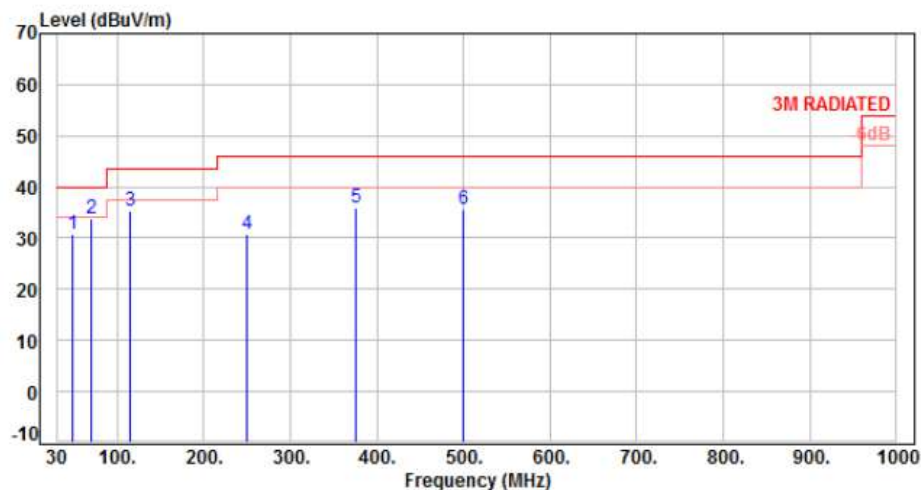
Above 1GHz Test Setup





5.4. 輻射之測試結果及數據 (30MHz ~ 1GHz)

Power	: AC 110V	Pol/Phase	: VERTICAL
Test Mode	: Mode 1	Temperature	: 22°C
Test Date	: Dec. 17, 2018	Humidity	: 59 %



No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	48.43	-9.42	40.32	30.90	40.00	-9.10	Peak	400	0	P
2	69.77	-11.42	45.09	33.67	40.00	-6.33	Peak	400	0	P
3	115.36	-12.22	47.48	35.26	43.50	-8.24	Peak	400	0	P
4	250.19	-10.23	41.00	30.77	46.00	-15.23	Peak	400	0	P
5	375.32	-6.35	42.20	35.85	46.00	-10.15	Peak	400	0	P
6	500.45	-3.64	39.34	35.70	46.00	-10.30	Peak	400	0	P

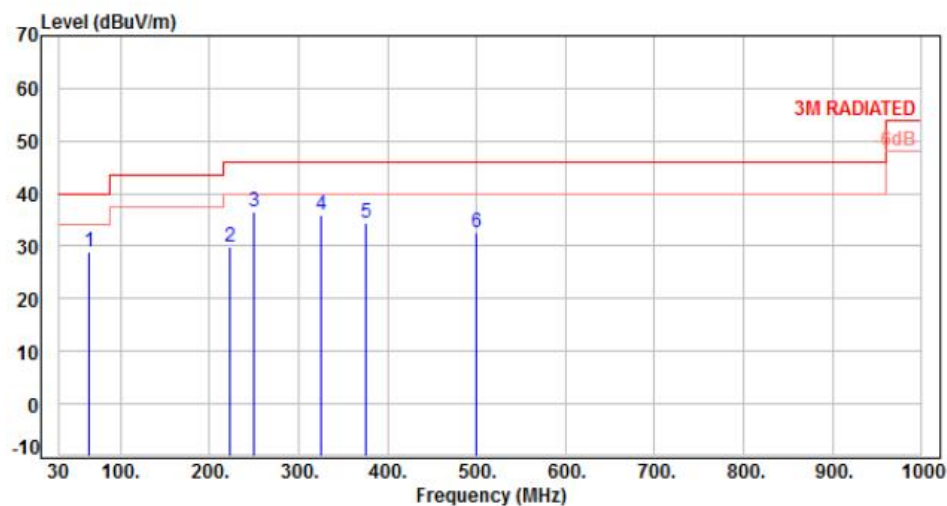
Note: Level=Reading+Factor

Margin=Level-Limit

Factor=Antenna Factor + cable loss - Amplifier Factor



Power	: AC 110V	Pol/Phase	: HORIZONTAL
Test Mode	: Mode 1	Temperature	: 22°C
Test Date	: Dec. 17, 2018	Humidity	: 59 %



No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	64.92	-10.56	39.56	29.00	40.00	-11.00	Peak	100	0	P
2	222.06	-11.50	41.22	29.72	46.00	-16.28	Peak	100	0	P
3	250.19	-10.23	46.80	36.57	46.00	-9.43	Peak	100	0	P
4	324.88	-7.89	43.95	36.06	46.00	-9.94	Peak	100	0	P
5	375.32	-6.35	40.88	34.53	46.00	-11.47	Peak	100	0	P
6	500.45	-3.64	36.19	32.55	46.00	-13.45	Peak	100	0	P

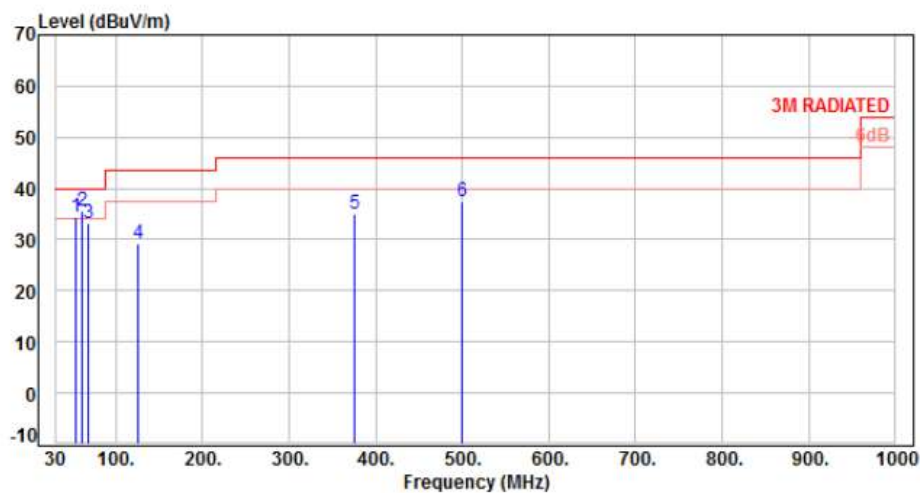
Note: Level=Reading+Factor

Margin=Level-Limit

Factor=Antenna Factor + cable loss - Amplifier Factor



Power	: AC 110V	Pol/Phase	: VERTICAL
Test Mode	: Mode 2	Temperature	: 22 °C
Test Date	: Dec. 17, 2018	Humidity	: 59 %



No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	53.28	-9.57	43.91	34.34	40.00	-5.66	Peak	400	0	P
2	61.04	-10.17	45.65	35.48	40.00	-4.52	Peak	400	0	P
3	68.80	-11.23	44.50	33.27	40.00	-6.73	QP	100	311	P
4	125.06	-11.24	40.38	29.14	43.50	-14.36	Peak	400	0	P
5	375.32	-6.35	41.47	35.12	46.00	-10.88	Peak	400	0	P
6	500.45	-3.64	41.11	37.47	46.00	-8.53	Peak	400	0	P

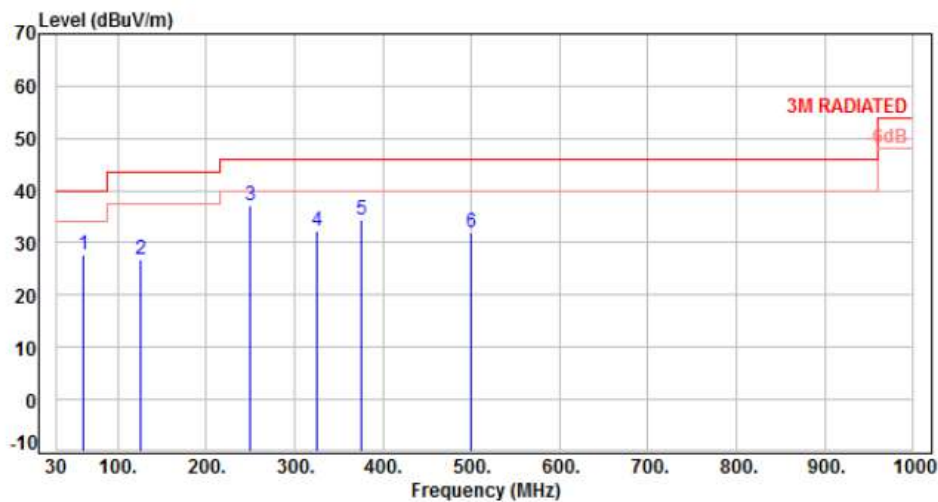
Note: Level=Reading+Factor

Margin=Level-Limit

Factor=Antenna Factor + cable loss - Amplifier Factor



Power	: AC 110V	Pol/Phase	: HORIZONTAL
Test Mode	: Mode 2	Temperature	: 22 °C
Test Date	: Dec. 17, 2018	Humidity	: 59 %



No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	61.04	-10.17	37.81	27.64	40.00	-12.36	Peak	100	0	P
2	125.06	-11.24	37.97	26.73	43.50	-16.77	Peak	100	0	P
3	250.19	-10.23	47.37	37.14	46.00	-8.86	Peak	100	0	P
4	324.88	-7.89	40.04	32.15	46.00	-13.85	Peak	100	0	P
5	375.32	-6.35	40.90	34.55	46.00	-11.45	Peak	100	0	P
6	500.45	-3.64	35.65	32.01	46.00	-13.99	Peak	100	0	P

Note: Level=Reading+Factor

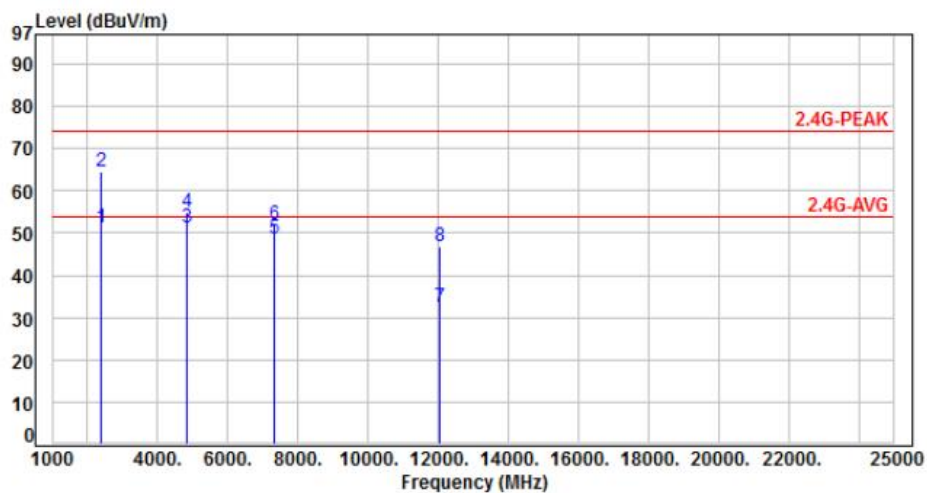
Margin=Level-Limit

Factor=Antenna Factor + cable loss - Amplifier Factor



5.5. 輻射之測試結果及數據 (1GHz ~ 25GHz)

Power	: AC 110V	Pol/Phase	: VERTICAL
Test Mode	: Mode 1, CH01	Temperature	: 23 °C
Test Date	: Sep. 28, 2018	Humidity	: 62 %



No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	2375.00	-15.72	66.89	51.17	54.00	-2.83	Average	331	332	P
2	2375.00	-15.72	80.29	64.57	74.00	-9.43	Peak	331	332	P
3	4824.00	-8.47	59.90	51.43	54.00	-2.57	Average	372	350	P
4	4824.00	-8.47	63.30	54.83	74.00	-19.17	Peak	372	350	P
5	7333.00	-3.80	52.45	48.65	54.00	-5.35	Average	200	342	P
6	7333.00	-3.80	55.82	52.02	74.00	-21.98	Peak	200	342	P
7	12060.00	1.79	30.52	32.31	54.00	-21.69	Average	100	102	P
8	12060.00	1.79	45.10	46.89	74.00	-27.11	Peak	100	102	P

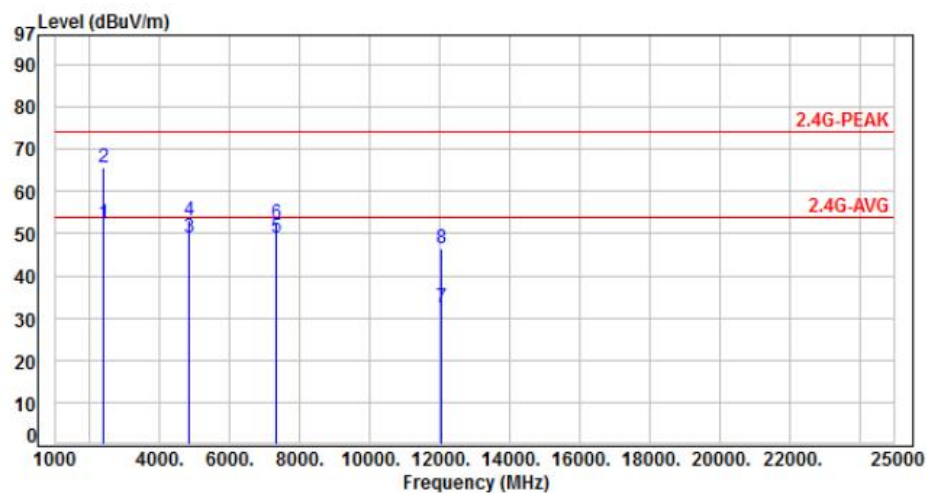
Note: Level=Reading+Factor

Margin=Level-Limit

Factor=Antenna Factor + cable loss - Amplifier Factor



Power	: AC 110V	Pol/Phase	: HORIZONTAL
Test Mode	: Mode 1, CH01	Temperature	: 23 °C
Test Date	: Sep. 28, 2018	Humidity	: 62 %



No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	2375.00	-15.72	68.19	52.47	54.00	-1.53	Average	377	70	P
2	2375.00	-15.72	81.29	65.57	74.00	-8.43	Peak	377	70	P
3	4824.00	-8.47	57.60	49.13	54.00	-4.87	Average	380	36	P
4	4824.00	-8.47	61.40	52.93	74.00	-21.07	Peak	380	36	P
5	7333.00	-3.80	52.93	49.13	54.00	-4.87	Average	100	299	P
6	7333.00	-3.80	56.10	52.30	74.00	-21.70	Peak	100	299	P
7	12060.00	1.79	30.55	32.34	54.00	-21.66	Average	100	311	P
8	12060.00	1.79	44.82	46.61	74.00	-27.39	Peak	100	311	P

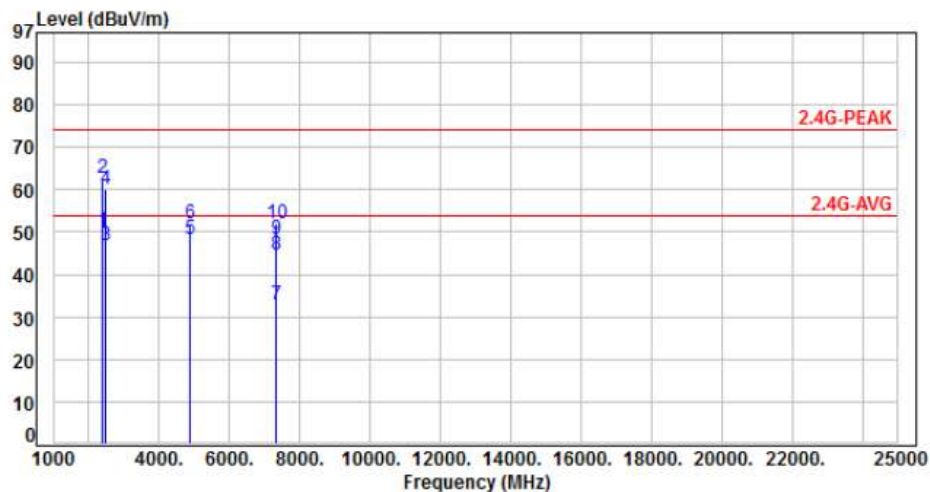
Note: Level=Reading+Factor

Margin=Level-Limit

Factor=Antenna Factor + cable loss - Amplifier Factor



Power	: AC 110V	Pol/Phase	: VERTICAL
Test Mode	: Mode 1, CH06	Temperature	: 23 °C
Test Date	: Sep. 28, 2018	Humidity	: 62 %



No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	2390.00	-15.68	65.70	50.02	54.00	-3.98	Average	371	310	P
2	2390.00	-15.68	78.50	62.82	74.00	-11.18	Peak	371	310	P
3	2483.50	-15.36	62.30	46.94	54.00	-7.06	Average	371	310	P
4	2483.50	-15.36	75.30	59.94	74.00	-14.06	Peak	371	310	P
5	4874.00	-8.33	56.60	48.27	54.00	-5.73	Average	388	346	P
6	4874.00	-8.33	60.50	52.17	74.00	-21.83	Peak	388	346	P
7	7311.00	-3.86	36.54	32.68	54.00	-21.32	Average	130	190	P
8	7311.00	-3.86	48.33	44.47	74.00	-29.53	Peak	130	190	P
9	7333.00	-3.80	52.30	48.50	54.00	-5.50	Average	192	336	P
10	7333.00	-3.80	55.70	51.90	74.00	-22.10	Peak	192	336	P

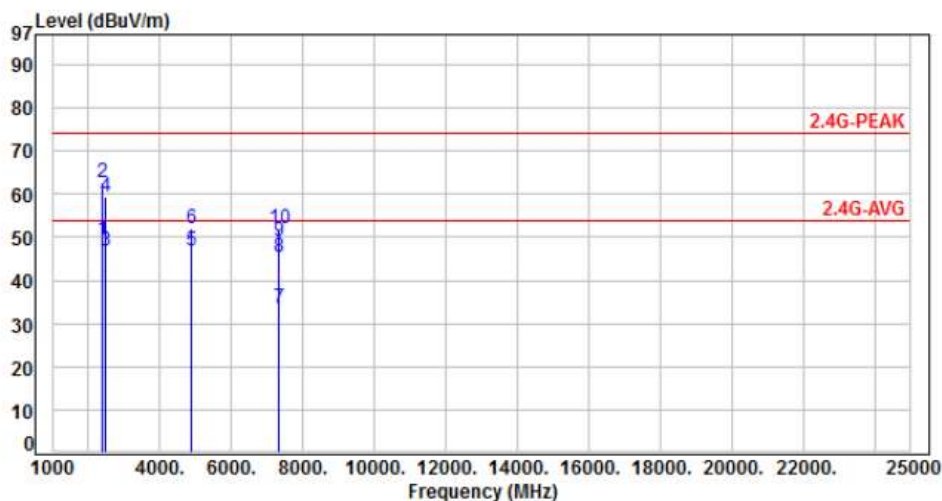
Note: Level=Reading+Factor

Margin=Level-Limit

Factor=Antenna Factor + cable loss - Amplifier Factor



Power	: AC 110V	Pol/Phase	: HORIZONTAL
Test Mode	: Mode 1, CH06	Temperature	: 23 °C
Test Date	: Sep. 28, 2018	Humidity	: 62 %



No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	2390.00	-15.68	65.10	49.42	54.00	-4.58	Average	100	270	P
2	2390.00	-15.68	78.30	62.62	74.00	-11.38	Peak	100	270	P
3	2483.50	-15.36	62.36	47.00	54.00	-7.00	Average	100	270	P
4	2483.50	-15.36	74.80	59.44	74.00	-14.56	Peak	100	270	P
5	4874.00	-8.33	55.20	46.87	54.00	-7.13	Average	373	41	P
6	4874.00	-8.33	60.50	52.17	74.00	-21.83	Peak	373	41	P
7	7311.00	-3.86	37.54	33.68	54.00	-20.32	Average	314	310	P
8	7311.00	-3.86	49.20	45.34	74.00	-28.66	Peak	314	310	P
9	7333.00	-3.80	52.85	49.05	54.00	-4.95	Average	100	285	P
10	7333.00	-3.80	55.90	52.10	74.00	-21.90	Peak	100	285	P

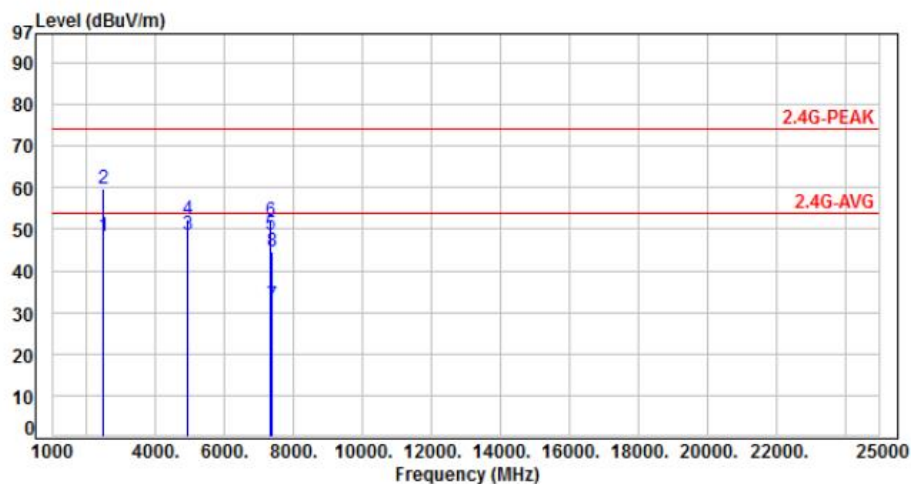
Note: Level=Reading+Factor

Margin=Level-Limit

Factor=Antenna Factor + cable loss - Amplifier Factor



Power	: AC 110V	Pol/Phase	: VERTICAL
Test Mode	: Mode 1, CH11	Temperature	: 23 °C
Test Date	: Sep. 28, 2018	Humidity	: 62 %



No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	2486.00	-15.35	63.50	48.15	54.00	-5.85	Average	100	119	P
2	2486.00	-15.35	75.20	59.85	74.00	-14.15	Peak	100	119	P
3	4924.00	-8.18	57.00	48.82	54.00	-5.18	Average	383	345	P
4	4924.00	-8.18	60.60	52.42	74.00	-21.58	Peak	383	345	P
5	7333.00	-3.80	52.35	48.55	54.00	-5.45	Average	194	352	P
6	7333.00	-3.80	55.93	52.13	74.00	-21.87	Peak	194	352	P
7	7386.00	-3.67	35.37	31.70	54.00	-22.30	Average	100	103	P
8	7386.00	-3.67	48.21	44.54	74.00	-29.46	Peak	100	103	P

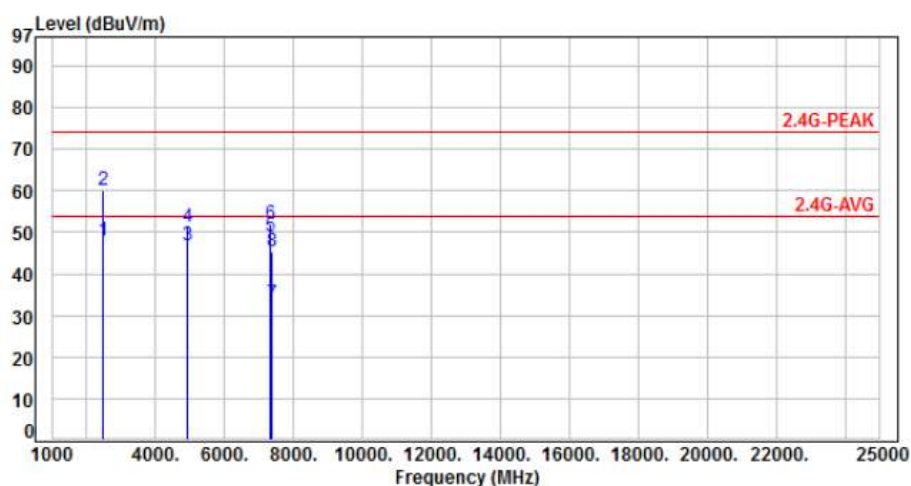
Note: Level=Reading+Factor

Margin=Level-Limit

Factor=Antenna Factor + cable loss - Amplifier Factor



Power	: AC 110V	Pol/Phase	: HORIZONTAL
Test Mode	: Mode 1, CH11	Temperature	: 23 °C
Test Date	: Sep. 28, 2018	Humidity	: 62 %



No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	2486.00	-15.35	63.20	47.85	54.00	-6.15	Average	100	27	P
2	2486.00	-15.35	75.30	59.95	74.00	-14.05	Peak	100	27	P
3	4924.00	-8.18	55.20	47.02	54.00	-6.98	Average	389	45	P
4	4924.00	-8.18	59.60	51.42	74.00	-22.58	Peak	389	45	P
5	7333.00	-3.80	52.67	48.87	54.00	-5.13	Average	100	281	P
6	7333.00	-3.80	55.93	52.13	74.00	-21.87	Peak	100	281	P
7	7386.00	-3.67	36.41	32.74	54.00	-21.26	Average	355	308	P
8	7386.00	-3.67	49.21	45.54	74.00	-28.46	Peak	355	308	P

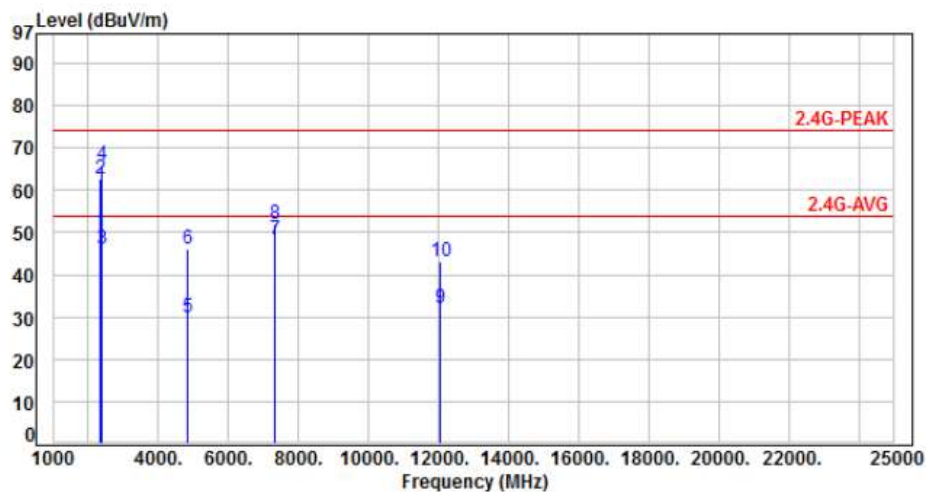
Note: Level=Reading+Factor

Margin=Level-Limit

Factor=Antenna Factor + cable loss - Amplifier Factor



Power	: AC 110V	Pol/Phase	: VERTICAL
Test Mode	: Mode 2, CH01	Temperature	: 23 °C
Test Date	: Sep. 28, 2018	Humidity	: 62 %



No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	2366.00	-15.75	66.09	50.34	54.00	-3.66	Average	100	15	P
2	2366.00	-15.75	78.49	62.74	74.00	-11.26	Peak	100	15	P
3	2390.00	-15.68	61.90	46.22	54.00	-7.78	Average	100	15	P
4	2390.00	-15.68	81.60	65.92	74.00	-8.08	Peak	100	15	P
5	4824.00	-8.47	38.50	30.03	54.00	-23.97	Average	262	340	P
6	4824.00	-8.47	54.60	46.13	74.00	-27.87	Peak	262	340	P
7	7333.00	-3.80	52.18	48.38	54.00	-5.62	Average	188	312	P
8	7333.00	-3.80	55.93	52.13	74.00	-21.87	Peak	188	312	P
9	12060.00	1.79	30.35	32.14	54.00	-21.86	Average	100	102	P
10	12060.00	1.79	41.33	43.12	74.00	-30.88	Peak	100	102	P

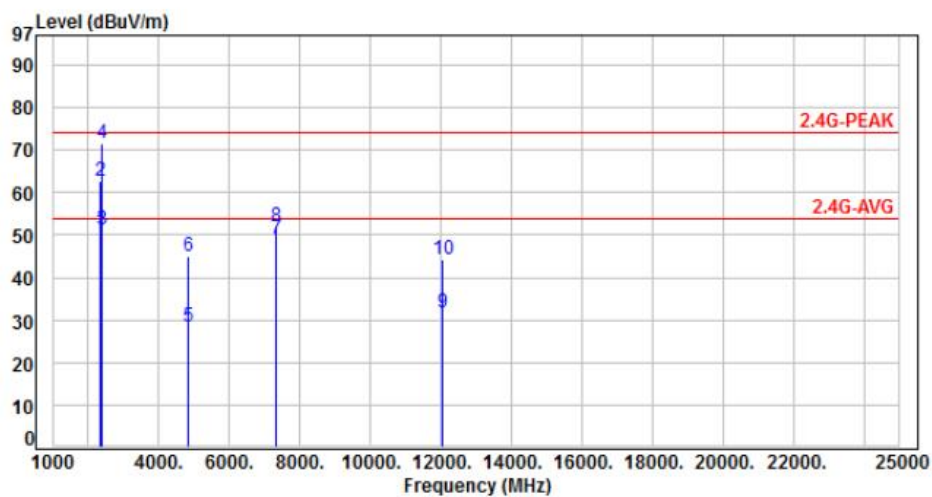
Note: Level=Reading+Factor

Margin=Level-Limit

Factor=Antenna Factor + cable loss - Amplifier Factor



Power	: AC 110V	Pol/Phase	: HORIZONTAL
Test Mode	: Mode 2, CH01	Temperature	: 23 °C
Test Date	: Sep. 28, 2018	Humidity	: 62 %



No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	2366.00	-15.75	66.69	50.94	54.00	-3.06	Average	100	32	P
2	2366.00	-15.75	78.59	62.84	74.00	-11.16	Peak	100	32	P
3	2390.00	-15.68	67.00	51.32	54.00	-2.68	Average	100	32	P
4	2390.00	-15.68	87.40	71.72	74.00	-2.28	Peak	100	32	P
5	4824.00	-8.47	36.70	28.23	54.00	-25.77	Average	240	26	P
6	4824.00	-8.47	53.50	45.03	74.00	-28.97	Peak	240	26	P
7	7333.00	-3.80	52.67	48.87	54.00	-5.13	Average	100	300	P
8	7333.00	-3.80	55.81	52.01	74.00	-21.99	Peak	100	300	P
9	12060.00	1.79	29.85	31.64	54.00	-22.36	Average	100	337	P
10	12060.00	1.79	42.33	44.12	74.00	-29.88	Peak	100	337	P

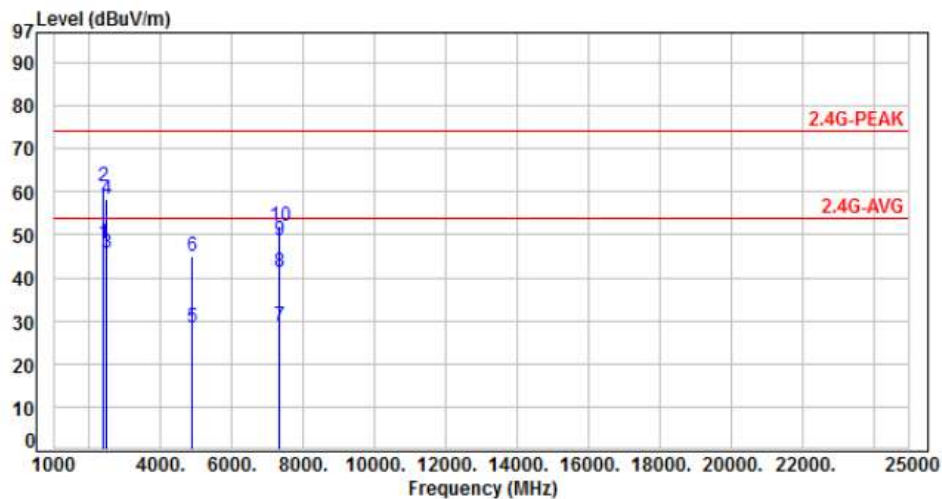
Note: Level=Reading+Factor

Margin=Level-Limit

Factor=Antenna Factor + cable loss - Amplifier Factor



Power	: AC 110V	Pol/Phase	: VERTICAL
Test Mode	: Mode 2, CH06	Temperature	: 23 °C
Test Date	: Sep. 28, 2018	Humidity	: 62 %



No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	2390.00	-15.68	63.60	47.92	54.00	-6.08	Average	110	351	P
2	2390.00	-15.68	76.80	61.12	74.00	-12.88	Peak	110	351	P
3	2483.50	-15.36	61.20	45.84	54.00	-8.16	Average	110	351	P
4	2483.50	-15.36	73.60	58.24	74.00	-15.76	Peak	110	351	P
5	4874.00	-8.33	36.90	28.57	54.00	-25.43	Average	156	340	P
6	4874.00	-8.33	53.50	45.17	74.00	-28.83	Peak	156	340	P
7	7311.00	-3.86	32.69	28.83	54.00	-25.17	Average	100	102	P
8	7311.00	-3.86	45.33	41.47	74.00	-32.53	Peak	100	102	P
9	7333.00	-3.80	52.34	48.54	54.00	-5.46	Average	188	342	P
10	7333.00	-3.80	55.75	51.95	74.00	-22.05	Peak	188	342	P

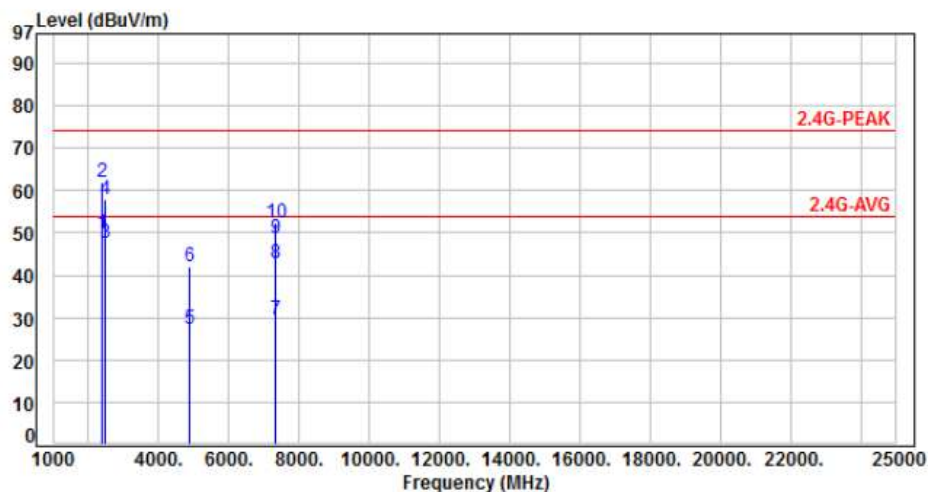
Note: Level=Reading+Factor

Margin=Level-Limit

Factor=Antenna Factor + cable loss - Amplifier Factor



Power	: AC 110V	Pol/Phase	: HORIZONTAL
Test Mode	: Mode 2, CH06	Temperature	: 23 °C
Test Date	: Sep. 28, 2018	Humidity	: 62 %



No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	2390.00	-15.68	65.50	49.82	54.00	-4.18	Average	100	50	P
2	2390.00	-15.68	77.80	62.12	74.00	-11.88	Peak	100	50	P
3	2483.50	-15.36	62.80	47.44	54.00	-6.56	Average	100	50	P
4	2483.50	-15.36	73.20	57.84	74.00	-16.16	Peak	100	50	P
5	4874.00	-8.33	35.60	27.27	54.00	-26.73	Average	157	338	P
6	4874.00	-8.33	50.50	42.17	74.00	-31.83	Peak	157	338	P
7	7311.00	-3.86	33.50	29.64	54.00	-24.36	Average	100	299	P
8	7311.00	-3.86	46.60	42.74	74.00	-31.26	Peak	100	299	P
9	7333.00	-3.80	52.61	48.81	54.00	-5.19	Average	105	267	P
10	7333.00	-3.80	56.33	52.53	74.00	-21.47	Peak	105	267	P

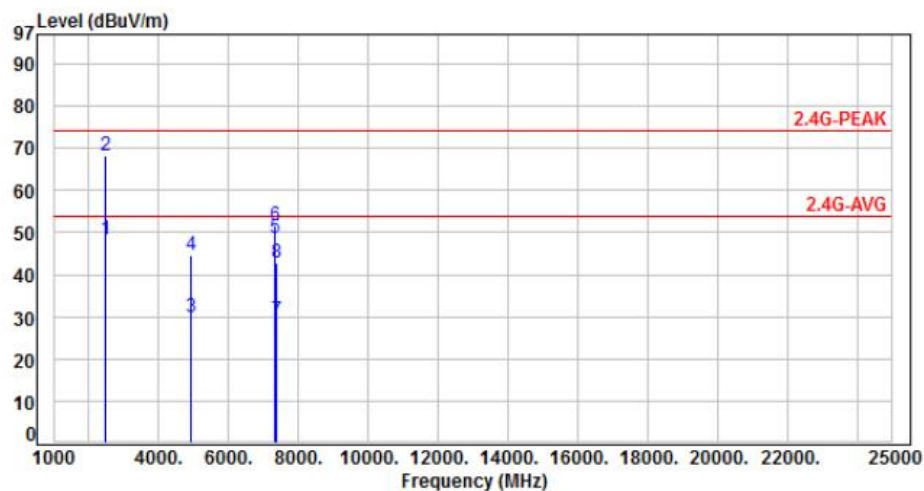
Note: Level=Reading+Factor

Margin=Level-Limit

Factor=Antenna Factor + cable loss - Amplifier Factor



Power	: AC 110V	Pol/Phase	: VERTICAL
Test Mode	: Mode 2, CH11	Temperature	: 23 °C
Test Date	: Sep. 28, 2018	Humidity	: 62 %



No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	2483.50	-15.36	63.80	48.44	54.00	-5.56	Average	103	344	P
2	2483.50	-15.36	83.60	68.24	74.00	-5.76	Peak	103	344	P
3	4924.00	-8.18	38.20	30.02	54.00	-23.98	Average	220	15	P
4	4924.00	-8.18	52.90	44.72	74.00	-29.28	Peak	220	15	P
5	7333.00	-3.80	52.45	48.65	54.00	-5.35	Average	188	332	P
6	7333.00	-3.80	55.61	51.81	74.00	-22.19	Peak	188	332	P
7	7386.00	-3.67	32.96	29.29	54.00	-24.71	Average	100	88	P
8	7386.00	-3.67	46.28	42.61	74.00	-31.39	Peak	100	88	P

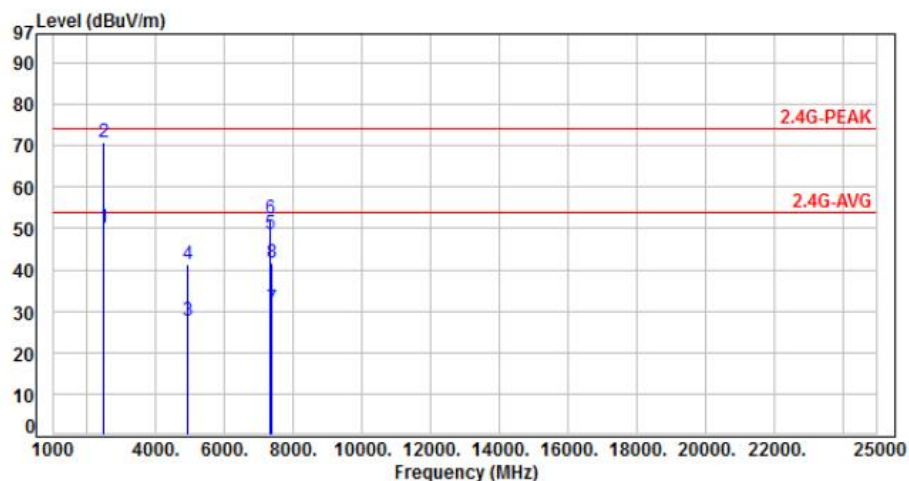
Note: Level=Reading+Factor

Margin=Level-Limit

Factor=Antenna Factor + cable loss - Amplifier Factor



Power	: AC 110V	Pol/Phase	: HORIZONTAL
Test Mode	: Mode 2, CH11	Temperature	: 23 °C
Test Date	: Sep. 28, 2018	Humidity	: 62 %



No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	2483.50	-15.36	65.60	50.24	54.00	-3.76	Average	100	40	P
2	2483.50	-15.36	86.30	70.94	74.00	-3.06	Peak	100	40	P
3	4924.00	-8.18	35.90	27.72	54.00	-26.28	Average	143	290	P
4	4924.00	-8.18	49.50	41.32	74.00	-32.68	Peak	143	290	P
5	7333.00	-3.80	52.66	48.86	54.00	-5.14	Average	112	273	P
6	7333.00	-3.80	56.34	52.54	74.00	-21.46	Peak	112	273	P
7	7386.00	-3.67	34.12	30.45	54.00	-23.55	Average	100	309	P
8	7386.00	-3.67	45.51	41.84	74.00	-32.16	Peak	100	309	P

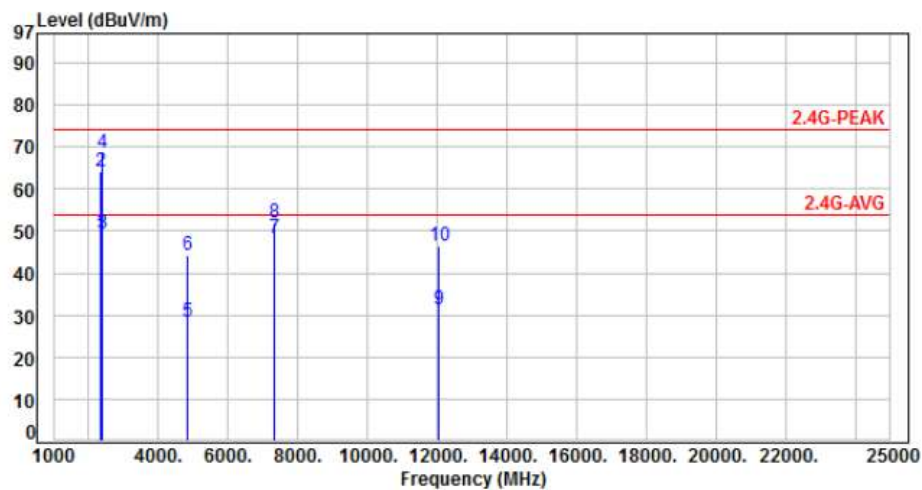
Note: Level=Reading+Factor

Margin=Level-Limit

Factor=Antenna Factor + cable loss - Amplifier Factor



Power	: AC 110V	Pol/Phase	: VERTICAL
Test Mode	: Mode 3, CH01	Temperature	: 23 °C
Test Date	: Sep. 28, 2018	Humidity	: 62 %



No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	2366.00	-15.75	64.69	48.94	54.00	-5.06	Average	141	330	P
2	2366.00	-15.75	79.79	64.04	74.00	-9.96	Peak	141	330	P
3	2390.00	-15.68	65.20	49.52	54.00	-4.48	Average	141	330	P
4	2390.00	-15.68	84.35	68.67	74.00	-5.33	Peak	141	330	P
5	4824.00	-8.47	36.90	28.43	54.00	-25.57	Average	100	112	P
6	4824.00	-8.47	52.80	44.33	74.00	-29.67	Peak	100	112	P
7	7333.00	-3.80	52.26	48.46	54.00	-5.54	Average	187	345	P
8	7333.00	-3.80	55.85	52.05	74.00	-21.95	Peak	187	345	P
9	12060.00	1.79	29.61	31.40	54.00	-22.60	Average	100	112	P
10	12060.00	1.79	44.57	46.36	74.00	-27.64	Peak	100	112	P

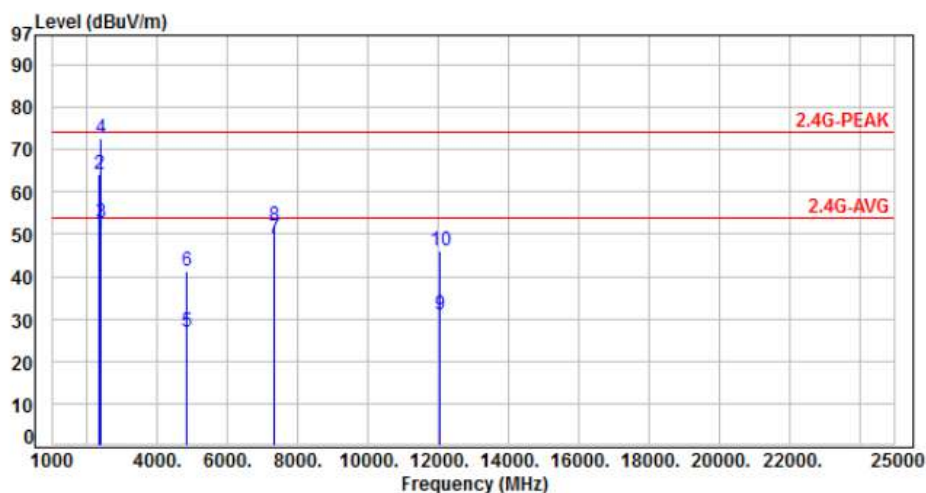
Note: Level=Reading+Factor

Margin=Level-Limit

Factor=Antenna Factor + cable loss - Amplifier Factor



Power	: AC 110V	Pol/Phase	: HORIZONTAL
Test Mode	: Mode 3, CH01	Temperature	: 23 °C
Test Date	: Sep. 28, 2018	Humidity	: 62 %



No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	2366.00	-15.75	66.09	50.34	54.00	-3.66	Average	100	39	P
2	2366.00	-15.75	80.05	64.30	74.00	-9.70	Peak	100	39	P
3	2390.00	-15.68	68.40	52.72	54.00	-1.28	Average	100	39	P
4	2390.00	-15.68	88.20	72.52	74.00	-1.48	Peak	100	39	P
5	4824.00	-8.47	35.50	27.03	54.00	-26.97	Average	382	30	P
6	4824.00	-8.47	49.80	41.33	74.00	-32.67	Peak	382	30	P
7	7333.00	-3.80	52.76	48.96	54.00	-5.04	Average	100	300	P
8	7333.00	-3.80	55.81	52.01	74.00	-21.99	Peak	100	300	P
9	12060.00	1.79	29.25	31.04	54.00	-22.96	Average	100	311	P
10	12060.00	1.79	44.32	46.11	74.00	-27.89	Peak	100	311	P

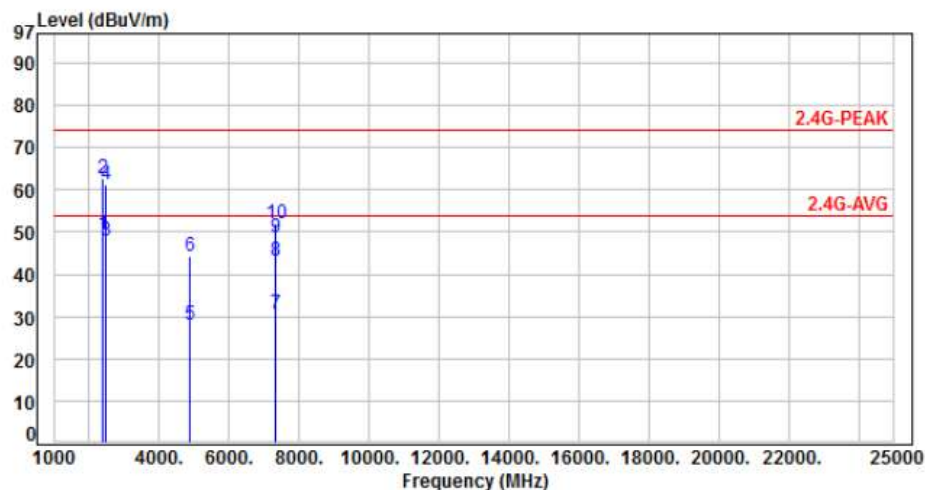
Note: Level=Reading+Factor

Margin=Level-Limit

Factor=Antenna Factor + cable loss - Amplifier Factor



Power	: AC 110V	Pol/Phase	: VERTICAL
Test Mode	: Mode 3, CH06	Temperature	: 23 °C
Test Date	: Sep. 28, 2018	Humidity	: 62 %



No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	2390.00	-15.68	65.00	49.32	54.00	-4.68	Average	100	320	P
2	2390.00	-15.68	78.20	62.52	74.00	-11.48	Peak	100	320	P
3	2483.50	-15.36	63.30	47.94	54.00	-6.06	Average	100	320	P
4	2483.50	-15.36	76.50	61.14	74.00	-12.86	Peak	100	320	P
5	4874.00	-8.33	36.50	28.17	54.00	-25.83	Average	378	342	P
6	4874.00	-8.33	52.60	44.27	74.00	-29.73	Peak	378	342	P
7	7311.00	-3.86	34.52	30.66	54.00	-23.34	Average	100	116	P
8	7311.00	-3.86	46.88	43.02	74.00	-30.98	Peak	100	116	P
9	7333.00	-3.80	52.45	48.65	54.00	-5.35	Average	186	327	P
10	7333.00	-3.80	55.88	52.08	74.00	-21.92	Peak	186	327	P

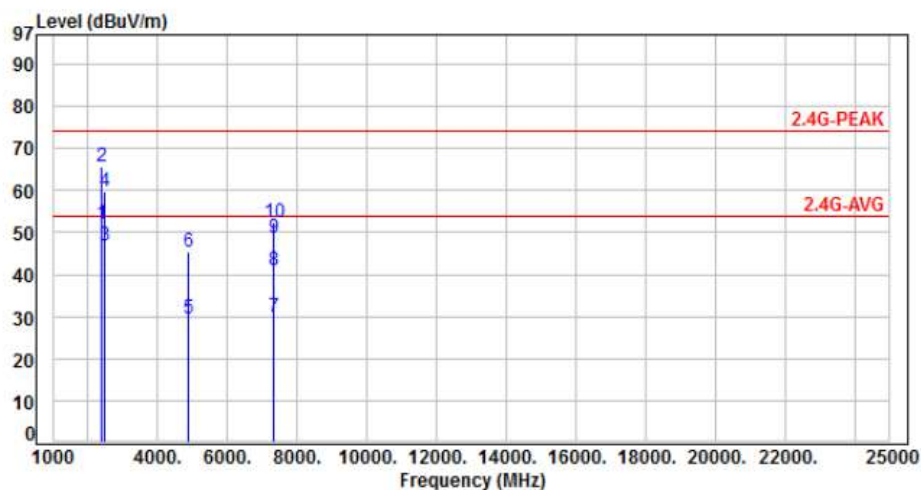
Note: Level=Reading+Factor

Margin=Level-Limit

Factor=Antenna Factor + cable loss - Amplifier Factor



Power	: AC 110V	Pol/Phase	: HORIZONTAL
Test Mode	: Mode 3, CH06	Temperature	: 23 °C
Test Date	: Sep. 28, 2018	Humidity	: 62 %



No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	2390.00	-15.68	67.80	52.12	54.00	-1.88	Average	100	57	P
2	2390.00	-15.68	81.50	65.82	74.00	-8.18	Peak	100	57	P
3	2483.50	-15.36	62.30	46.94	54.00	-7.06	Average	100	57	P
4	2483.50	-15.36	75.22	59.86	74.00	-14.14	Peak	100	57	P
5	4874.00	-8.33	37.80	29.47	54.00	-24.53	Average	100	344	P
6	4874.00	-8.33	53.60	45.27	74.00	-28.73	Peak	100	344	P
7	7311.00	-3.86	33.57	29.71	54.00	-24.29	Average	100	305	P
8	7311.00	-3.86	44.62	40.76	74.00	-33.24	Peak	100	305	P
9	7333.00	-3.80	52.66	48.86	54.00	-5.14	Average	102	299	P
10	7333.00	-3.80	56.30	52.50	74.00	-21.50	Peak	102	299	P

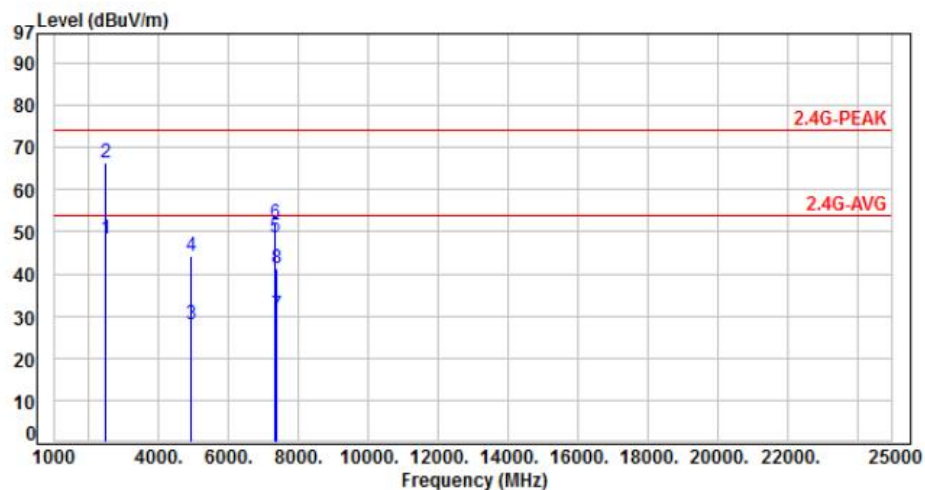
Note: Level=Reading+Factor

Margin=Level-Limit

Factor=Antenna Factor + cable loss - Amplifier Factor



Power	: AC 110V	Pol/Phase	: VERTICAL
Test Mode	: Mode 3, CH11	Temperature	: 23 °C
Test Date	: Sep. 28, 2018	Humidity	: 62 %



No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	2483.50	-15.36	63.60	48.24	54.00	-5.76	Average	100	111	P
2	2483.50	-15.36	81.60	66.24	74.00	-7.76	Peak	100	111	P
3	4924.00	-8.18	36.30	28.12	54.00	-25.88	Average	178	334	P
4	4924.00	-8.18	52.30	44.12	74.00	-29.88	Peak	178	334	P
5	7333.00	-3.80	52.43	48.63	54.00	-5.37	Average	200	350	P
6	7333.00	-3.80	55.76	51.96	74.00	-22.04	Peak	200	350	P
7	7386.00	-3.67	34.03	30.36	54.00	-23.64	Average	100	99	P
8	7386.00	-3.67	44.84	41.17	74.00	-32.83	Peak	100	99	P

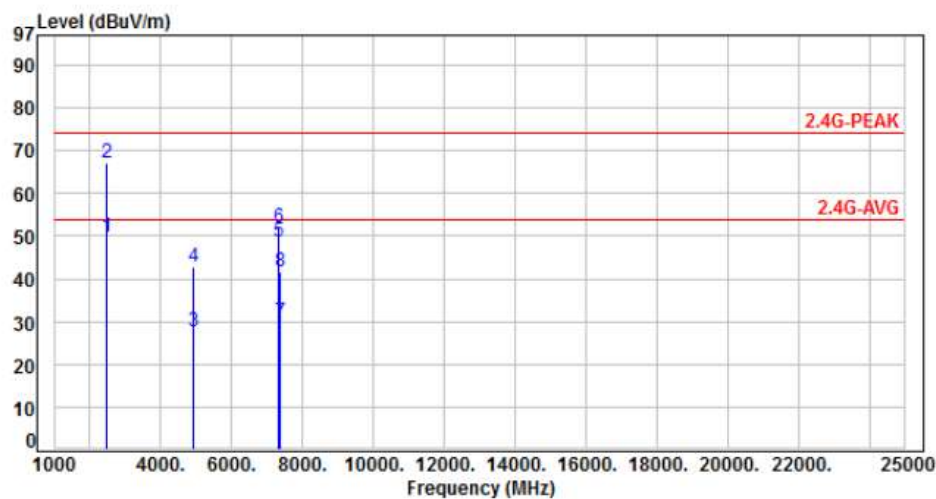
Note: Level=Reading+Factor

Margin=Level-Limit

Factor=Antenna Factor + cable loss - Amplifier Factor



Power	: AC 110V	Pol/Phase	: HORIZONTAL
Test Mode	: Mode 3, CH11	Temperature	: 23 °C
Test Date	: Sep. 28, 2018	Humidity	: 62 %



No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	2483.50	-15.36	65.20	49.84	54.00	-4.16	Average	106	38	P
2	2483.50	-15.36	82.60	67.24	74.00	-6.76	Peak	106	38	P
3	4924.00	-8.18	35.70	27.52	54.00	-26.48	Average	100	300	P
4	4924.00	-8.18	50.80	42.62	74.00	-31.38	Peak	100	300	P
5	7333.00	-3.80	52.51	48.71	54.00	-5.29	Average	100	277	P
6	7333.00	-3.80	55.88	52.08	74.00	-21.92	Peak	100	277	P
7	7386.00	-3.67	33.53	29.86	54.00	-24.14	Average	100	325	P
8	7386.00	-3.67	45.22	41.55	74.00	-32.45	Peak	100	325	P

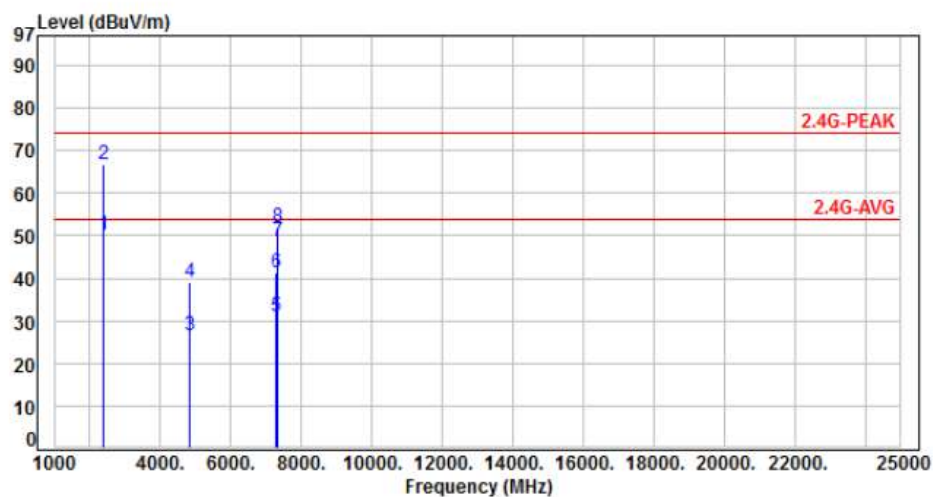
Note: Level=Reading+Factor

Margin=Level-Limit

Factor=Antenna Factor + cable loss - Amplifier Factor



Power	: AC 110V	Pol/Phase	: VERTICAL
Test Mode	: Mode 4, CH03	Temperature	: 23 °C
Test Date	: Sep. 28, 2018	Humidity	: 62 %



No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	2390.00	-15.68	65.80	50.12	54.00	-3.88	Average	109	360	P
2	2390.00	-15.68	82.60	66.92	74.00	-7.08	Peak	109	360	P
3	4844.00	-8.41	34.82	26.41	54.00	-27.59	Average	100	144	P
4	4844.00	-8.41	47.67	39.26	74.00	-34.74	Peak	100	144	P
5	7266.00	-3.99	35.04	31.05	54.00	-22.95	Average	105	75	P
6	7266.00	-3.99	45.34	41.35	74.00	-32.65	Peak	105	75	P
7	7333.00	-3.80	52.36	48.56	54.00	-5.44	Average	196	321	P
8	7333.00	-3.80	55.73	51.93	74.00	-22.07	Peak	196	321	P

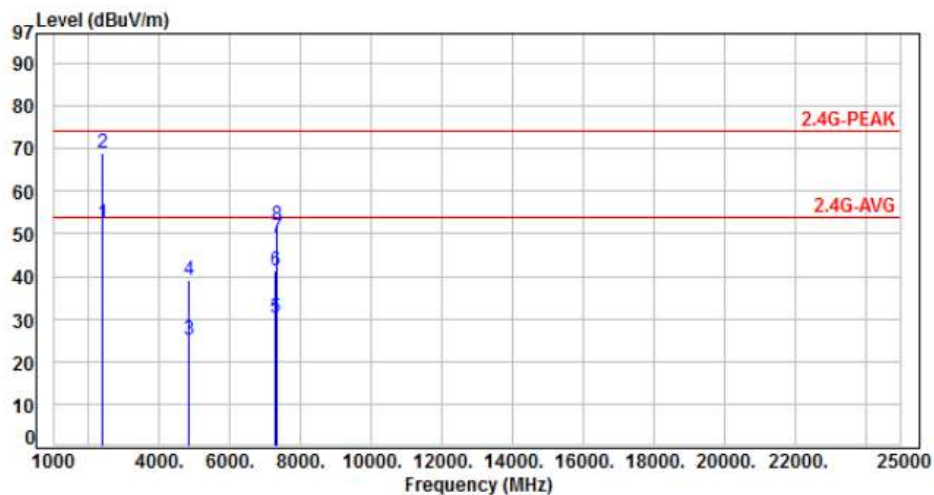
Note: Level=Reading+Factor

Margin=Level-Limit

Factor=Antenna Factor + cable loss - Amplifier Factor



Power	: AC 110V	Pol/Phase	: HORIZONTAL
Test Mode	: Mode 4, CH03	Temperature	: 23 °C
Test Date	: Sep. 28, 2018	Humidity	: 62 %



No.	Frequency (MHz)	Factor (dB)	Reading (dBUV)	Level (dBUV/m)	Limit (dBUV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	2390.00	-15.68	67.96	52.28	54.00	-1.72	Average	100	57	P
2	2390.00	-15.68	84.60	68.92	74.00	-5.08	Peak	100	57	P
3	4844.00	-8.41	33.52	25.11	54.00	-28.89	Average	100	196	P
4	4844.00	-8.41	47.65	39.24	74.00	-34.76	Peak	100	196	P
5	7266.00	-3.99	34.26	30.27	54.00	-23.73	Average	100	293	P
6	7266.00	-3.99	45.48	41.49	74.00	-32.51	Peak	100	293	P
7	7333.00	-3.80	52.77	48.97	54.00	-5.03	Average	105	281	P
8	7333.00	-3.80	55.67	51.87	74.00	-22.13	Peak	105	281	P

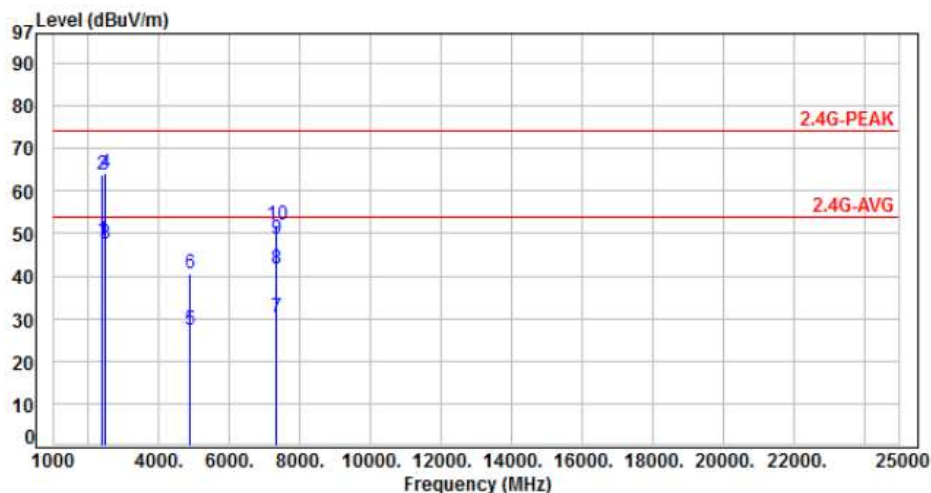
Note: Level=Reading+Factor

Margin=Level-Limit

Factor=Antenna Factor + cable loss - Amplifier Factor



Power	: AC 110V	Pol/Phase	: VERTICAL
Test Mode	: Mode 4, CH06	Temperature	: 23 °C
Test Date	: Sep. 28, 2018	Humidity	: 62 %



No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	2390.00	-15.68	63.90	48.22	54.00	-5.78	Average	100	329	P
2	2390.00	-15.68	79.60	63.92	74.00	-10.08	Peak	100	329	P
3	2483.50	-15.36	63.10	47.74	54.00	-6.26	Average	100	329	P
4	2483.50	-15.36	79.50	64.14	74.00	-9.86	Peak	100	329	P
5	4874.00	-8.33	35.55	27.22	54.00	-26.78	Average	111	137	P
6	4874.00	-8.33	48.80	40.47	74.00	-33.53	Peak	111	137	P
7	7311.00	-3.86	34.21	30.35	54.00	-23.65	Average	100	114	P
8	7311.00	-3.86	45.61	41.75	74.00	-32.25	Peak	100	114	P
9	7333.00	-3.80	52.45	48.65	54.00	-5.35	Average	193	345	P
10	7333.00	-3.80	55.88	52.08	74.00	-21.92	Peak	193	345	P

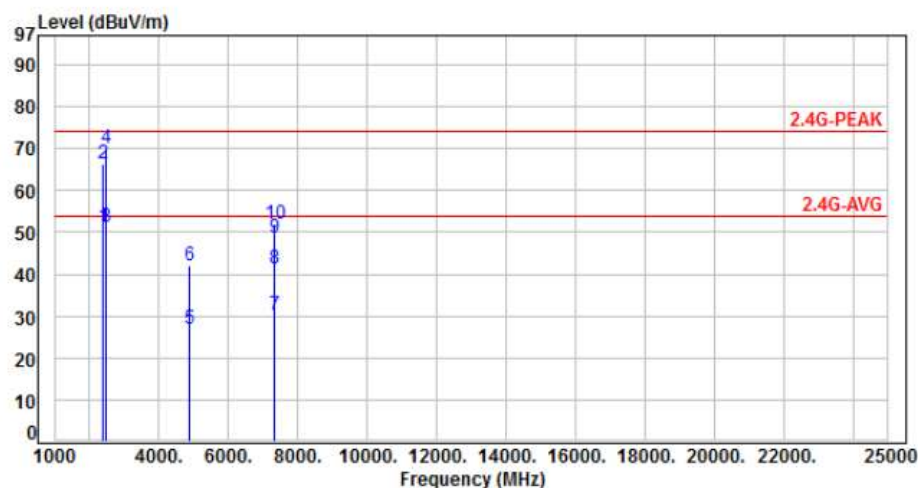
Note: Level=Reading+Factor

Margin=Level-Limit

Factor=Antenna Factor + cable loss - Amplifier Factor



Power	: AC 110V	Pol/Phase	: HORIZONTAL
Test Mode	: Mode 4, CH06	Temperature	: 23 °C
Test Date	: Sep. 28, 2018	Humidity	: 62 %



No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	2390.00	-15.68	66.80	51.12	54.00	-2.88	Average	110	33	P
2	2390.00	-15.68	81.90	66.22	74.00	-7.78	Peak	110	33	P
3	2483.50	-15.36	66.80	51.44	54.00	-2.56	Average	110	33	P
4	2483.50	-15.36	85.60	70.24	74.00	-3.76	Peak	110	33	P
5	4874.00	-8.33	35.30	26.97	54.00	-27.03	Average	100	344	P
6	4874.00	-8.33	50.20	41.87	74.00	-32.13	Peak	100	344	P
7	7311.00	-3.86	34.21	30.35	54.00	-23.65	Average	100	302	P
8	7311.00	-3.86	45.22	41.36	74.00	-32.64	Peak	100	302	P
9	7333.00	-3.80	52.66	48.86	54.00	-5.14	Average	100	277	P
10	7333.00	-3.80	55.97	52.17	74.00	-21.83	Peak	100	277	P

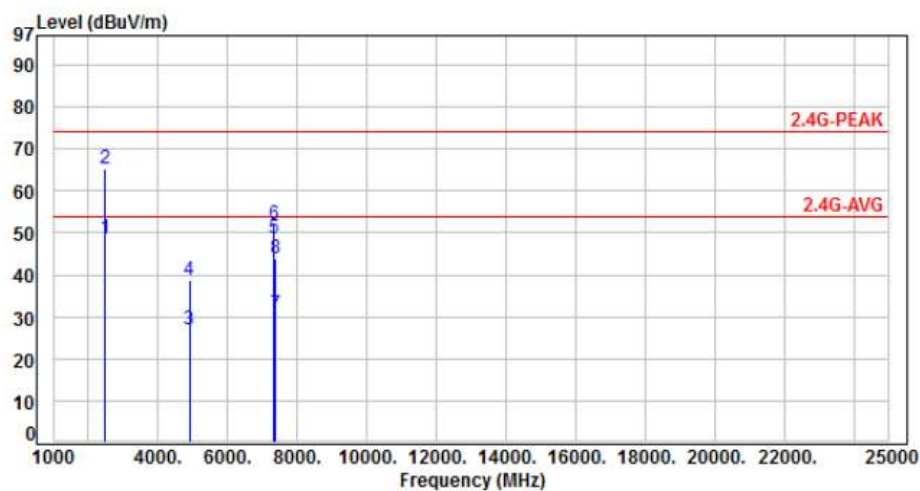
Note: Level=Reading+Factor

Margin=Level-Limit

Factor=Antenna Factor + cable loss - Amplifier Factor



Power	: AC 110V	Pol/Phase	: VERTICAL
Test Mode	: Mode 4, CH09	Temperature	: 23 °C
Test Date	: Sep. 28, 2018	Humidity	: 62 %



No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	2483.50	-15.36	64.20	48.84	54.00	-5.16	Average	100	110	P
2	2483.50	-15.36	80.60	65.24	74.00	-8.76	Peak	100	110	P
3	4904.00	-8.24	35.12	26.88	54.00	-27.12	Average	100	138	P
4	4904.00	-8.24	46.88	38.64	74.00	-35.36	Peak	100	138	P
5	7333.00	-3.80	52.49	48.69	54.00	-5.31	Average	188	310	P
6	7333.00	-3.80	55.95	52.15	74.00	-21.85	Peak	188	310	P
7	7356.00	-3.74	34.51	30.77	54.00	-23.23	Average	100	85	P
8	7356.00	-3.74	47.66	43.92	74.00	-30.08	Peak	100	85	P

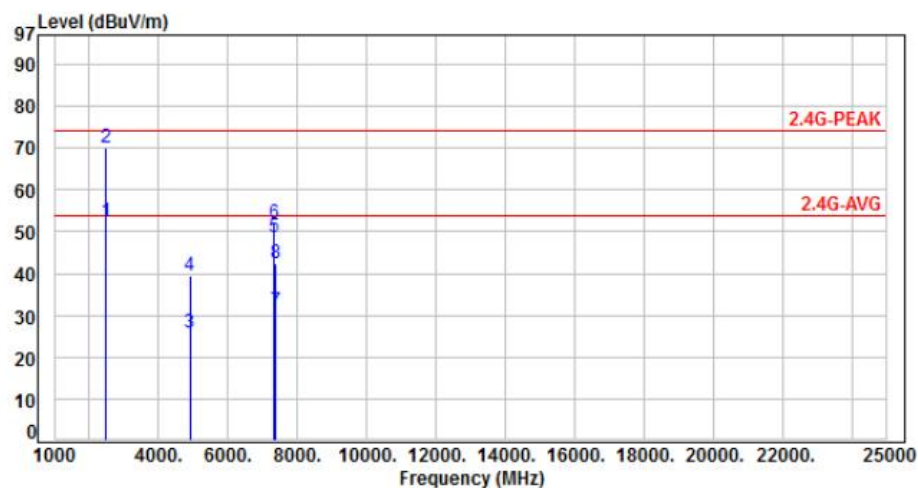
Note: Level=Reading+Factor

Margin=Level-Limit

Factor=Antenna Factor + cable loss - Amplifier Factor



Power	: AC 110V	Pol/Phase	: HORIZONTAL
Test Mode	: Mode 4, CH09	Temperature	: 23 °C
Test Date	: Sep. 28, 2018	Humidity	: 62 %



No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	2483.50	-15.36	67.90	52.54	54.00	-1.46	Average	106	38	P
2	2483.50	-15.36	85.30	69.94	74.00	-4.06	Peak	106	38	P
3	4904.00	-8.24	34.22	25.98	54.00	-28.02	Average	100	331	P
4	4904.00	-8.24	47.66	39.42	74.00	-34.58	Peak	100	331	P
5	7333.00	-3.80	52.66	48.86	54.00	-5.14	Average	100	305	P
6	7333.00	-3.80	55.67	51.87	74.00	-22.13	Peak	100	305	P
7	7356.00	-3.74	34.60	30.86	54.00	-23.14	Average	100	300	P
8	7356.00	-3.74	46.10	42.36	74.00	-31.64	Peak	100	300	P

Note: Level=Reading+Factor

Margin=Level-Limit

Factor=Antenna Factor + cable loss - Amplifier Factor



6. On Time, Duty Cycle and Measurement methods

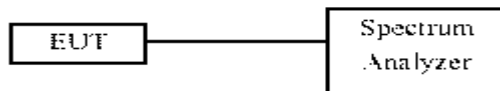
6.1. 適用標準

None; for reporting purposes only.

6.2. 測試方法

KDB 558074 Zero-Span Spectrum Analyzer Method.

6.3. 測試配置



6.4. 測試結果及數據

Temperature : 21°C

Humidity : 62%

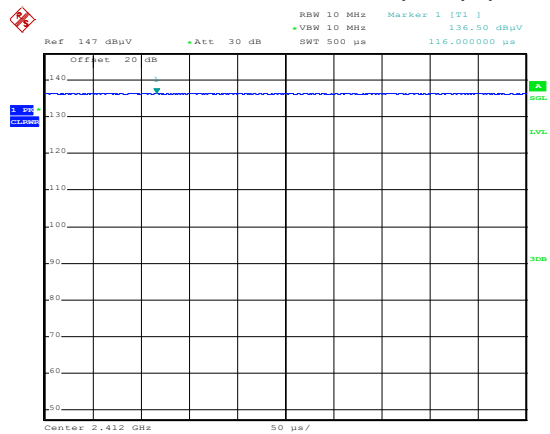
Test Date : Jan. 29, 2019

:

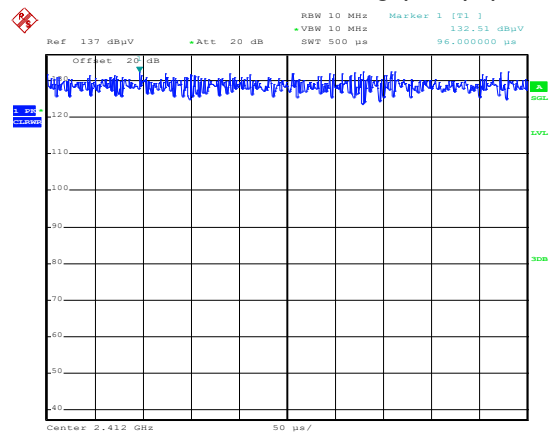
Modulation Mode	On Time (msec)	Period Time (msec)	Duty Cycle (%)
802.11b,1M	0.50	0.50	100.00%
802.11g,6M	0.50	0.50	100.00%
802.11n HT20,M0	0.50	0.50	100.00%
802.11n HT40,M0	0.50	0.50	100.00%



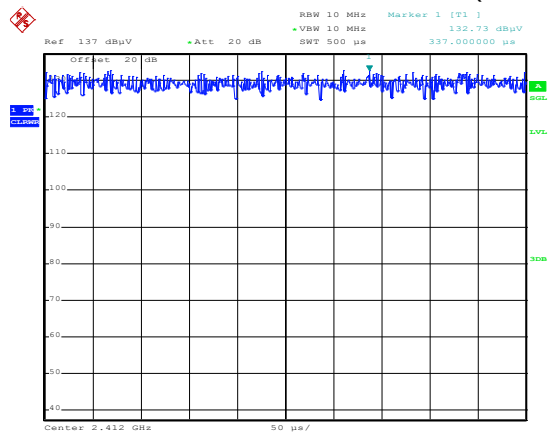
Modulation Standard: 802.11b (1Mbps)



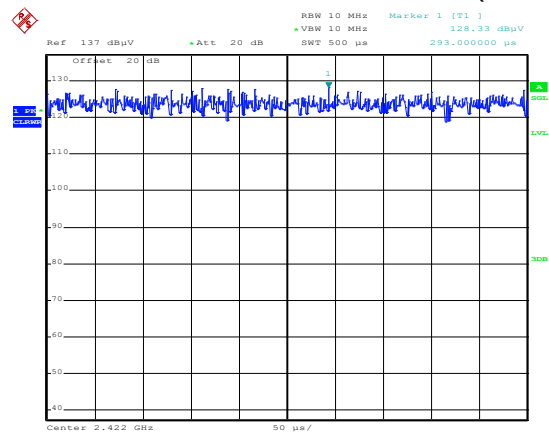
Modulation Standard: 802.11g (6Mbps)



Modulation Standard: 802.11n HT20 (6.5Mbps)



Modulation Standard: 802.11n HT40 (13.5Mbps)





7. 6dB 頻寬之規定

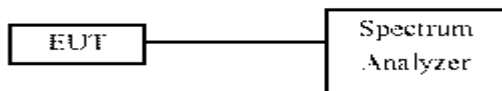
7.1. 適用標準

對使用數位調變技術之低功率發射機，依據國家通訊傳播委員會低功率射頻電機技術規範 3.10.1.6 節之(2)(A)規定，6dB 頻寬至少應有 500 kHz。

7.2. 測試方法

- 將待測物和儀器相連接。
- 設定儀器解析頻寬 100KHz 和視訊頻寬為 300KHz。
- 量測峰值減去 6 dB 之頻寬並記錄於報告中。

7.3. 測試配置



7.4. 6dB 頻寬之測試結果及數據

Temperature : 21°C

Humidity : 62%

Test Date : Jan. 29, 2019

Modulation Mode	Channel	Frequency (MHz)	6dB Bandwidth (MHz)		Limit (MHz)
			ANT A	ANT B	
802.11b (1Mbps)	01	2412	7.10	7.10	0.5
	06	2437	7.00	7.10	0.5
	11	2462	7.10	7.00	0.5
802.11g (6Mbps)	01	2412	16.00	15.80	0.5
	06	2437	15.50	15.10	0.5
	11	2462	15.50	15.30	0.5
802.11n HT20 (6.5Mbps)	01	2412	16.30	15.10	0.5
	06	2437	16.80	14.80	0.5
	11	2462	15.70	14.40	0.5
802.11n HT40 (13.5Mbps)	03	2422	33.20	32.20	0.5
	06	2437	31.20	28.60	0.5
	09	2452	31.60	32.00	0.5

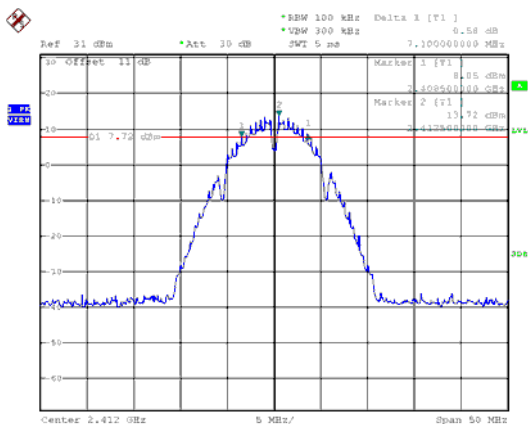
備註：繪圖資料請參考下頁。

7.5. 結果判定

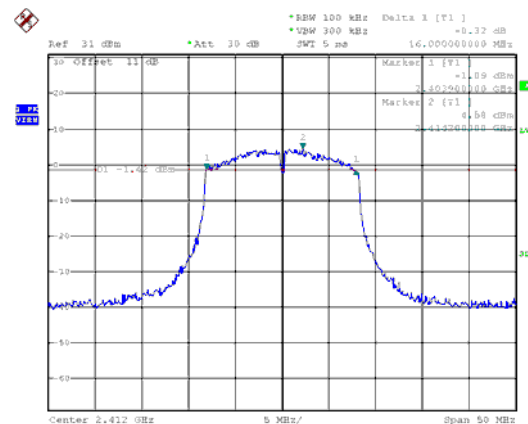
高、中、低頻段的 6dB 頻寬皆大於 500 KHz，合乎標準規定。



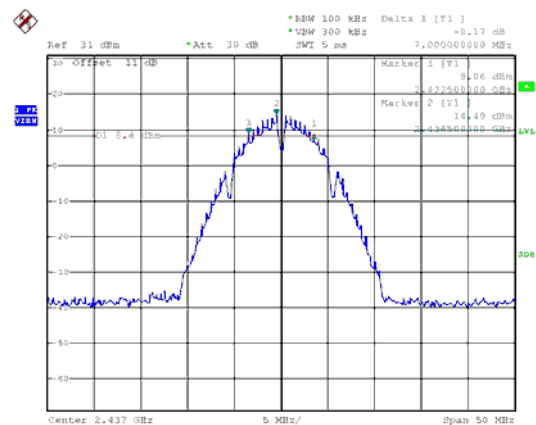
6dB Bandwidth
ANT A
Modulation Mode: 802.11b
CH01



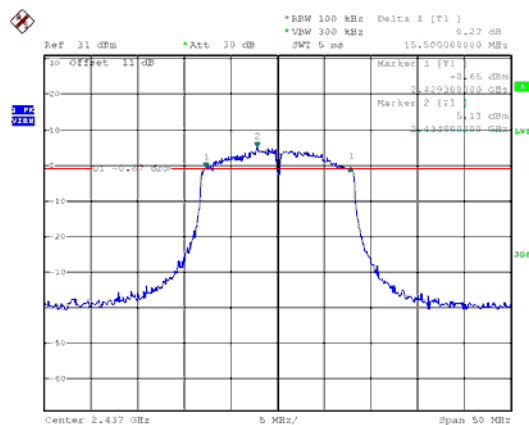
Modulation Mode: 802.11g
CH01



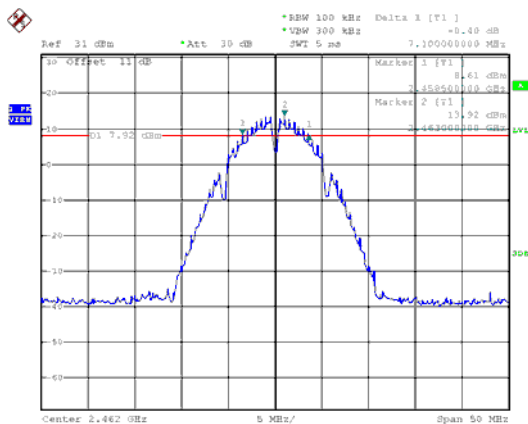
CH06



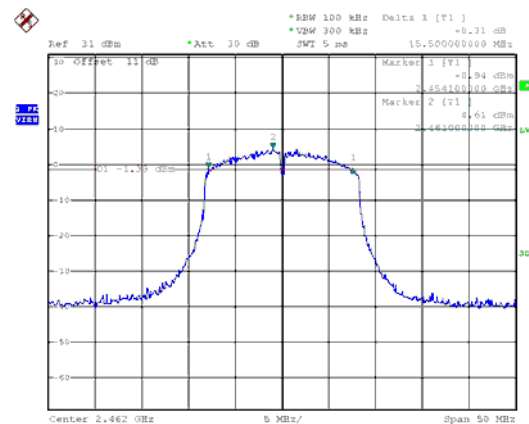
CH06



CH11

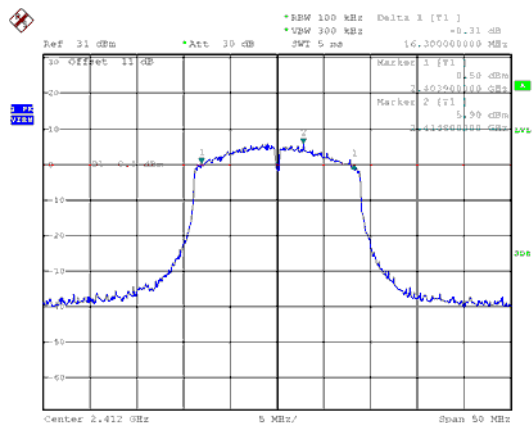


CH11

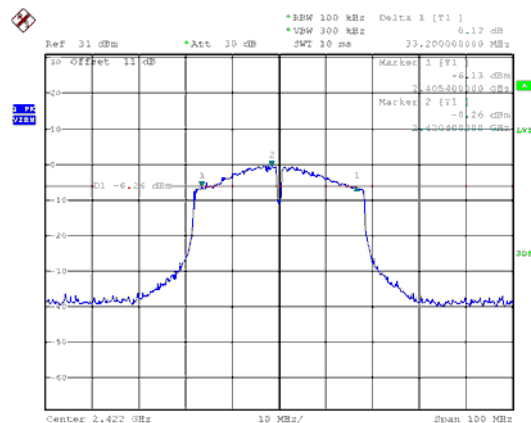




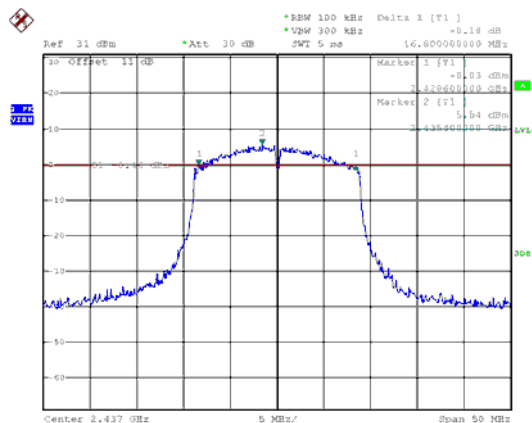
ANT A Modulation Mode: 802.11n HT20 CH01



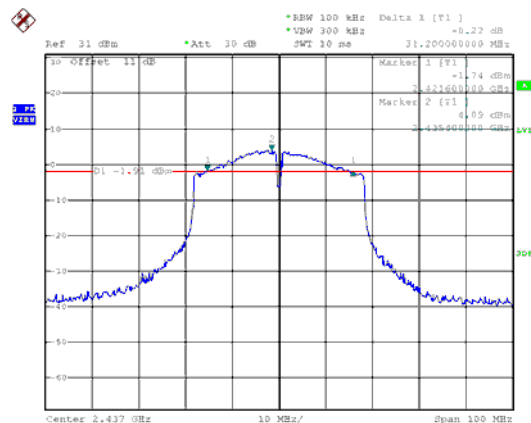
Modulation Mode: 802.11n HT40 CH03



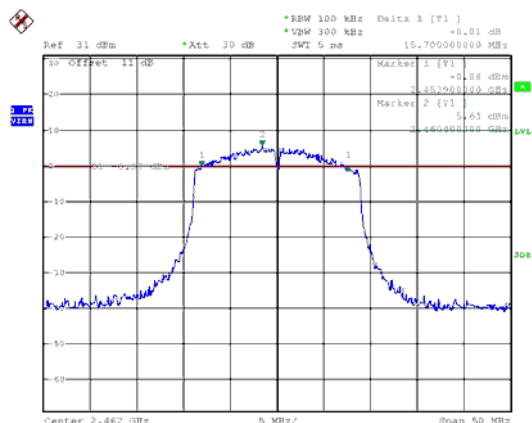
CH06



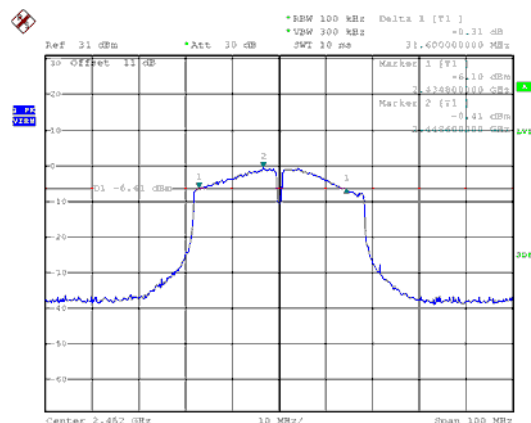
CH06



CH11

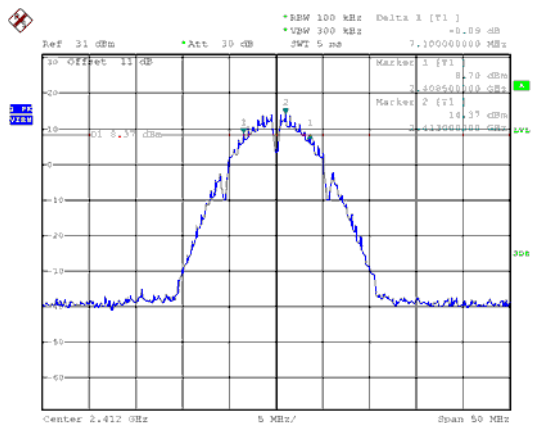


CH09

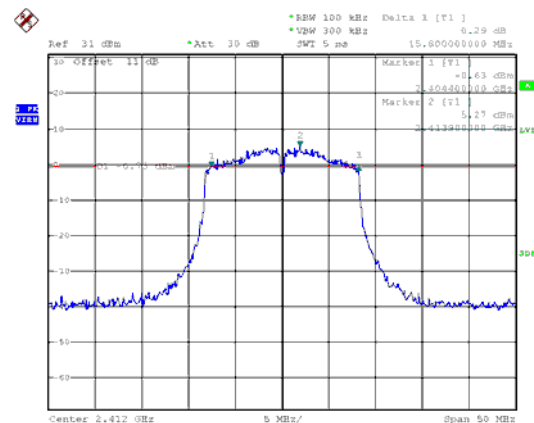




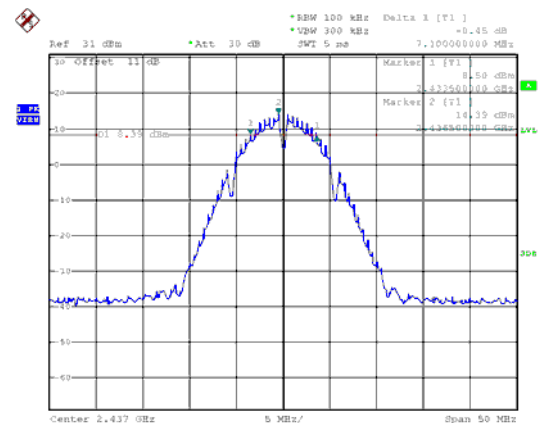
ANT B
Modulation Mode: 802.11b
CH01



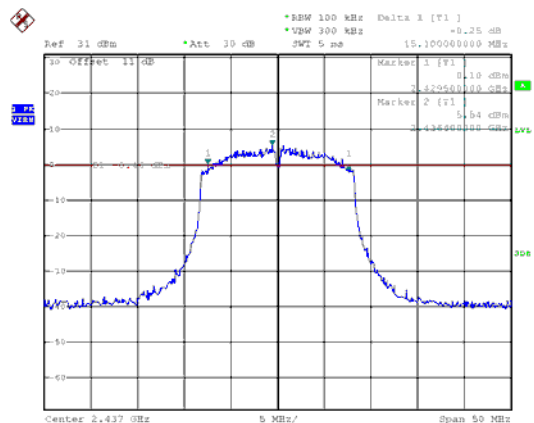
Modulation Mode: 802.11g
CH01



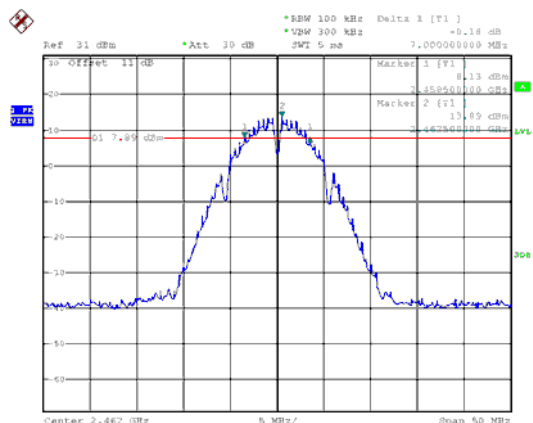
CH06



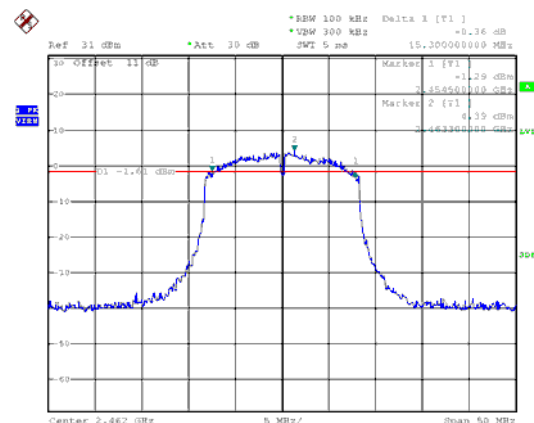
CH06



CH11

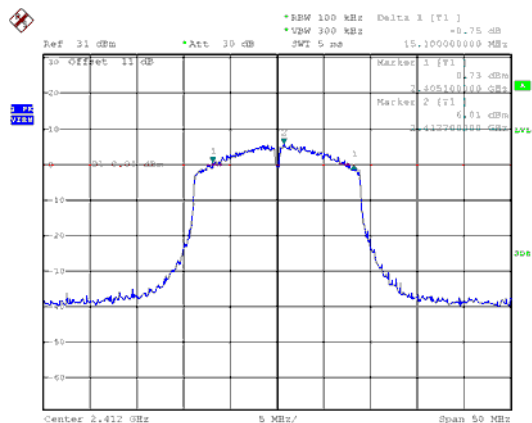


CH11

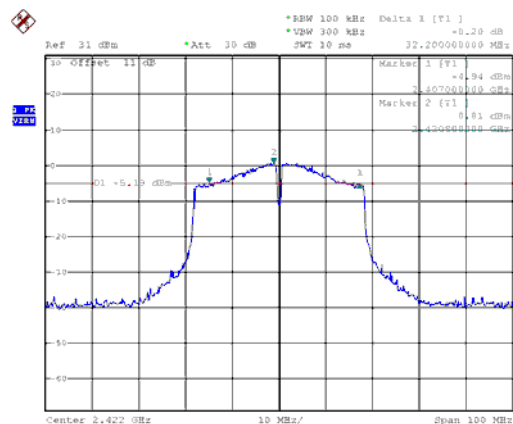




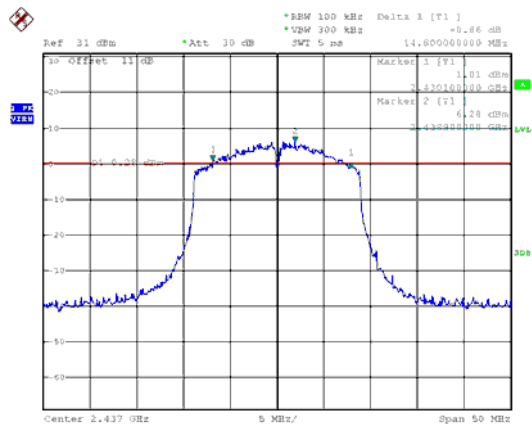
ANT B
Modulation Mode: 802.11n HT20
CH01



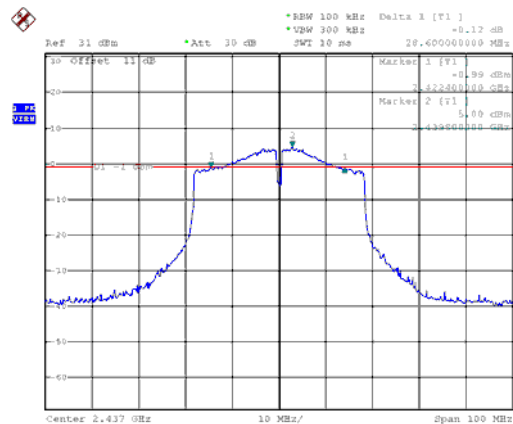
Modulation Mode: 802.11n HT40
CH03



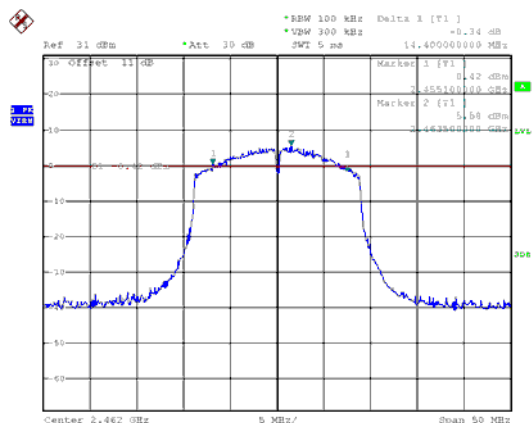
CH06



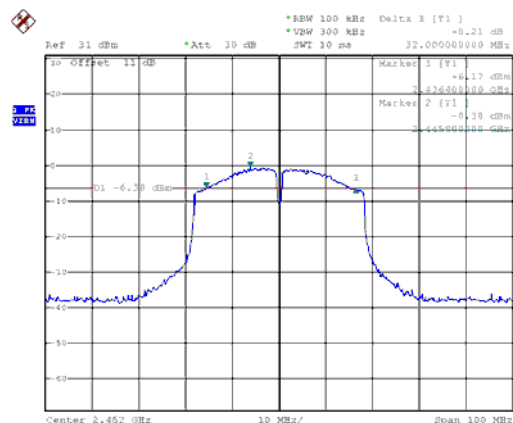
CH06



CH11



CH09





8. 峰值輸出功率之規定

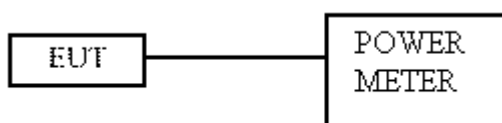
8.1. 適用標準

依據國家通訊傳播委員會低功率射頻電機技術規範 3.10.1.2 節(1)(C)之規定，對使用數位調變技術之低功率發射機，其輸出峰值功率不得大於 1 Watt，且其所使用天線之增益不可大於 6dBi，若使用大於 6dBi 增益之天線，則其輸出峰值功率相對需衰減天線增益所增加之量(單位為 dB)。放寬之條件請參考天線增益之要求。

8.2. 測試方法

- 將待測物和儀器相連接。
- 量測輸出功率並記錄於報告中。

8.3. 測試配置



8.4. 峰值輸出功率之測試結果及數據

Temperature : 21°C

Humidity : 62%

Test Date : Jan. 29, 2019

Modulation Type	CH	Frequency (MHz)	Peak Power Output (dBm)		Total PK power (dBm)	Total PK power (mW)	Powe Limit (dBm)
			ANT A	ANT B			
802.11b	01	2412	25.56	25.89	28.74	747.900	30.00
	06	2437	25.88	25.48	28.69	740.441	30.00
	11	2462	26.11	25.93	29.03	800.061	30.00
802.11g	01	2412	26.51	26.95	29.75	943.163	30.00
	06	2437	26.94	26.98	29.97	993.195	30.00
	11	2462	26.70	26.91	29.82	958.643	30.00
802.11n HT20	01	2412	25.42	25.91	28.68	738.279	30.00
	06	2437	26.94	26.96	29.96	990.903	30.00
	11	2462	26.20	26.42	29.32	855.400	30.00
802.11n HT40	03	2422	23.86	23.42	26.66	463.006	30.00
	06	2437	26.62	26.62	29.63	918.396	30.00
	09	2452	23.28	23.47	26.39	435.145	30.00



Modulation Type	CH	Frequency (MHz)	Avg. Power Output (dBm)		Total AV power (dBm)	Total AV power (mW)	Power Limit (dBm)
			ANT A	ANT B			
802.11b	01	2412	22.48	22.78	25.64	366.681	NA
	06	2437	22.78	22.59	25.70	371.222	NA
	11	2462	22.98	22.84	25.92	390.919	NA
802.11g	01	2412	19.21	19.18	22.21	166.162	NA
	06	2437	19.18	19.18	22.19	165.588	NA
	11	2462	18.75	19.10	21.94	156.272	NA
802.11n HT20	01	2412	18.12	18.31	21.23	132.628	NA
	06	2437	19.12	19.20	22.17	164.835	NA
	11	2462	18.27	18.52	21.41	138.264	NA
802.11n HT40	03	2422	16.26	15.97	19.13	81.804	NA
	06	2437	19.98	19.91	22.96	197.490	NA
	09	2452	15.70	16.01	18.87	77.056	NA

*Average power is for reference only.

8.5. 結果判定

高、中、低頻段的峰值輸出功率皆低於 30 dBm，合乎標準規定。



9. 混附波發射限制之規定

9.1. 適用方法

依據國家通訊傳播委員會低功率射頻電機技術規範 3.10.1.5 節之規定，使用頻帶範圍外之任意 100 千赫(kHz)內，發射器所產生的射頻功率相較於使用頻帶範圍中包含最高所需功率之 100 千赫(kHz)內的射頻功率，其衰減值限制如下：

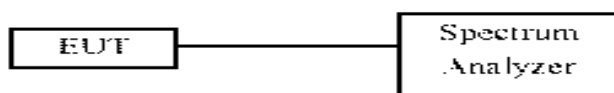
- (1) 輸出功率以峰值輸出功率方式量測者，至少需衰減 20dB，可使用射頻傳導或輻射方式測量。
- (2) 輸出功率以 3.10.1.2(1)(C)之最大傳導輸出功率測量方式者，至少需衰減 30dB，可使用射頻傳導或輻射方式測量。

此外，落於第 2.7 節禁用頻段之輻射發射，應符合第 2.8 節之規定。

9.2. 測試方法

1. 將待測物和儀器相連接。
2. 設定儀器解析頻寬為 300 kHz 和視訊頻寬為 100 kHz。
3. 將頻寬展開至 100 MHz。
4. 量測並記錄於報告中。

9.3. 測試配置



9.4. 結果判定

7.6.1 下邊緣頻帶：距下頻帶邊緣 40MHz 內最大混附波比主波低 20dB 以上，合乎標準規定。

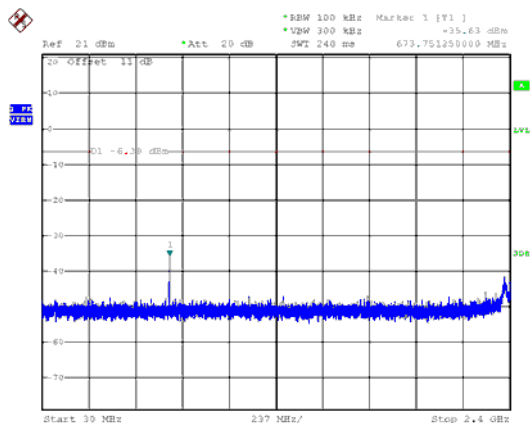
7.6.2 上邊緣頻帶：距上頻帶邊緣 40MHz 內最大混附波比主波低 20dB 以上，合乎標準規定。

備註：繪圖資料請參考下頁。

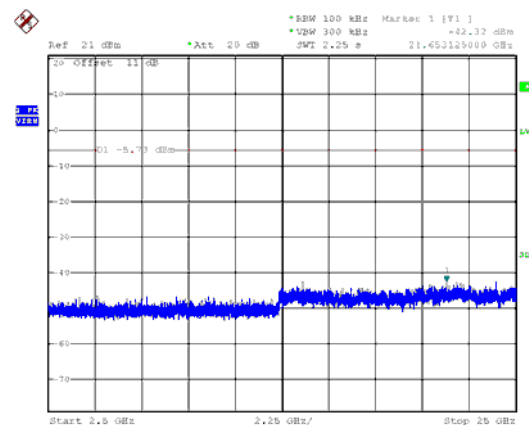
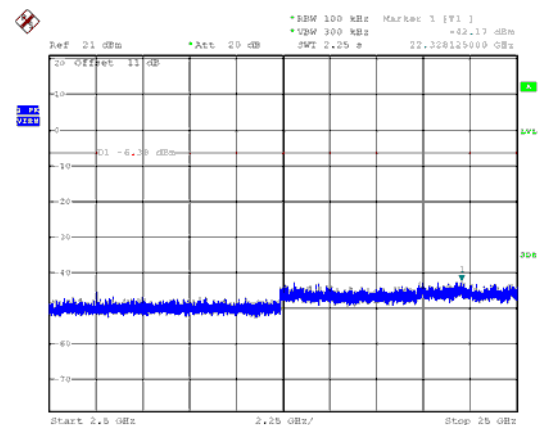
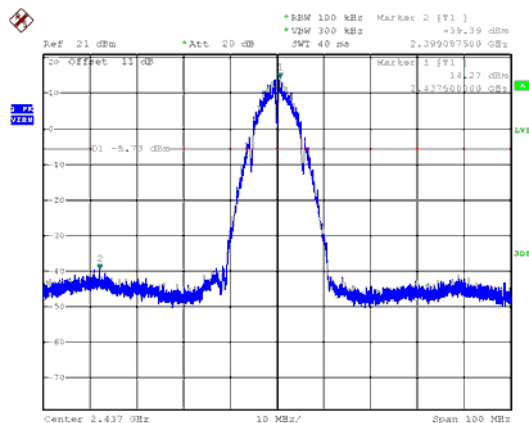
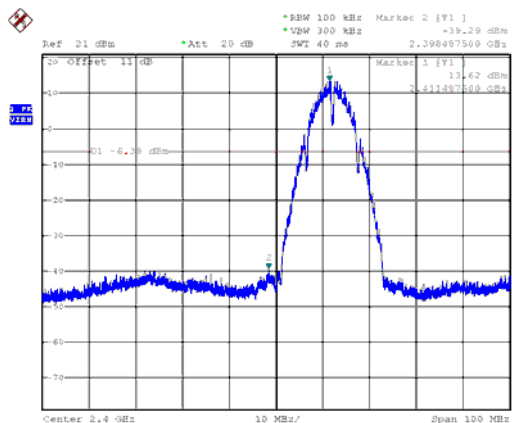
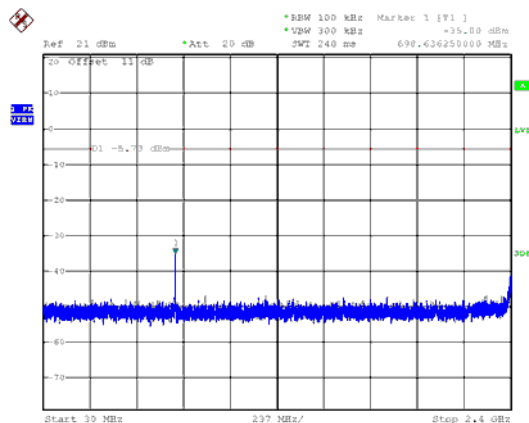


ANT A

Modulation Mode: 802.11b, CH01



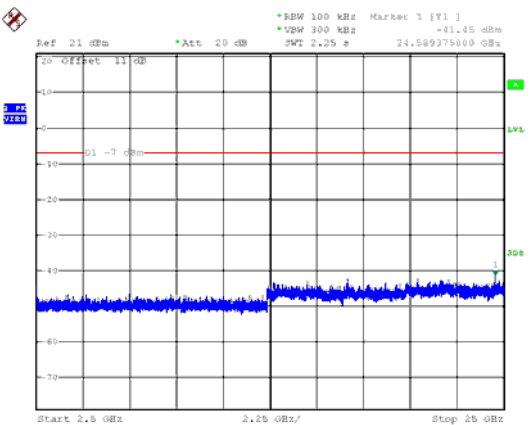
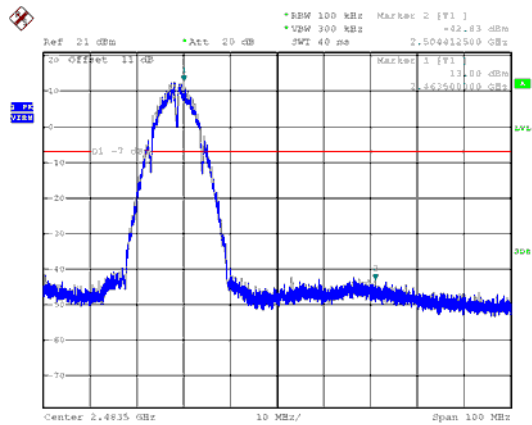
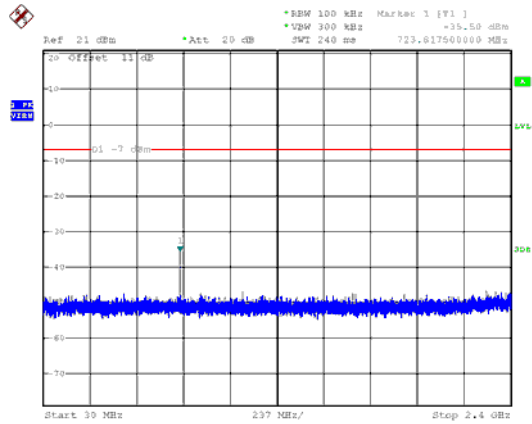
Modulation Mode: 802.11b, CH06





ANT A

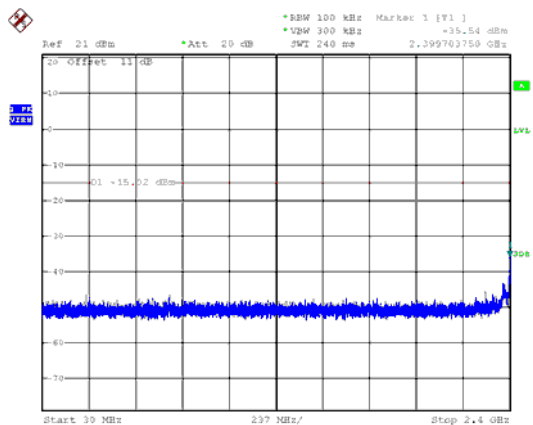
Modulation Mode: 802.11b, CH11



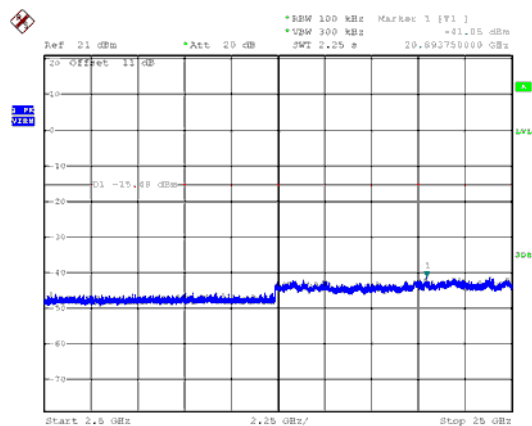
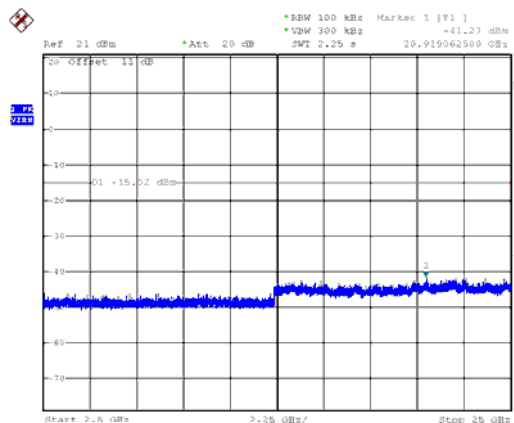
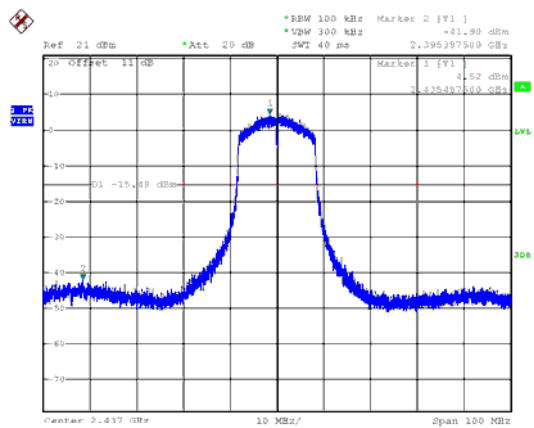
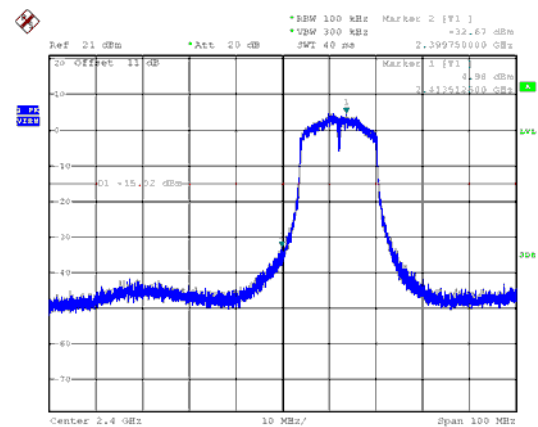
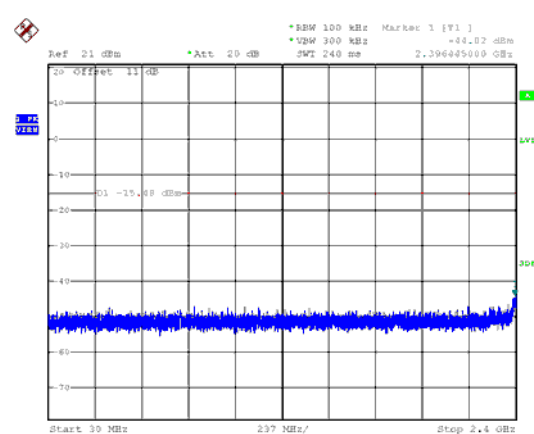


ANT A

Modulation Mode: 802.11g, CH01

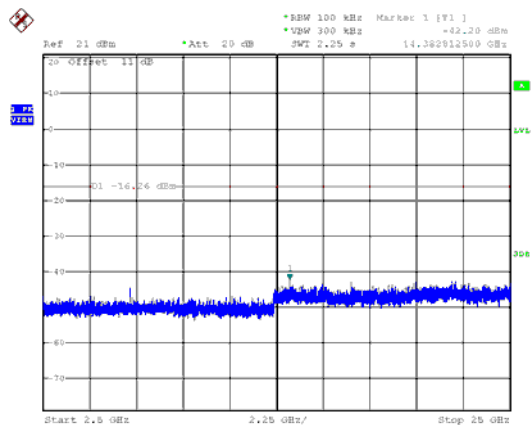
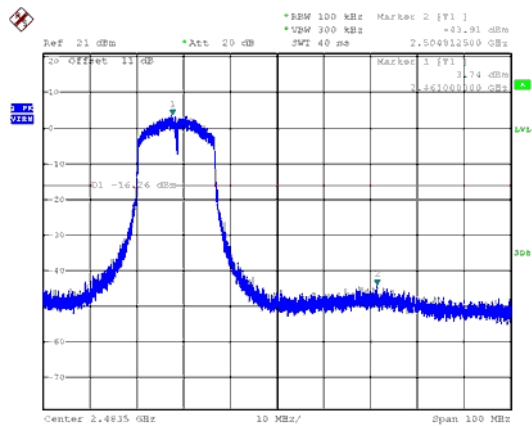
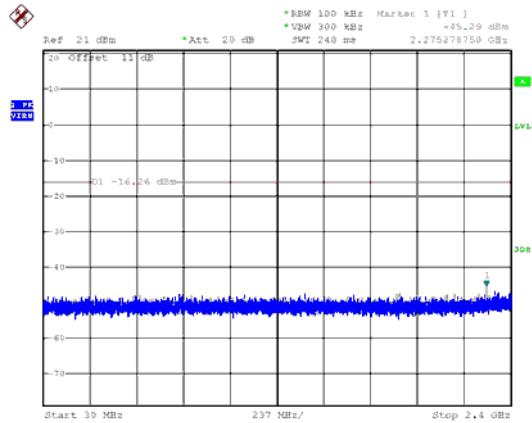


Modulation Mode: 802.11g, CH06





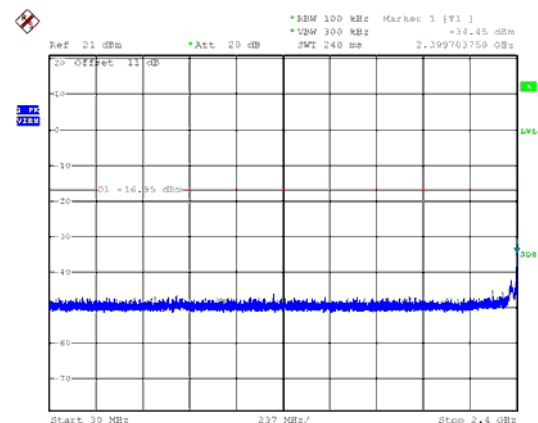
ANT A Modulation Mode: 802.11g, CH11



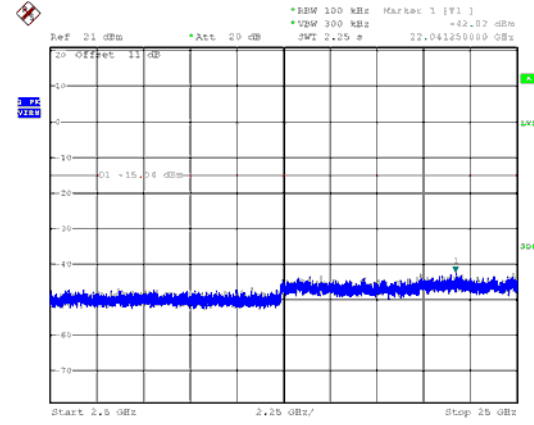
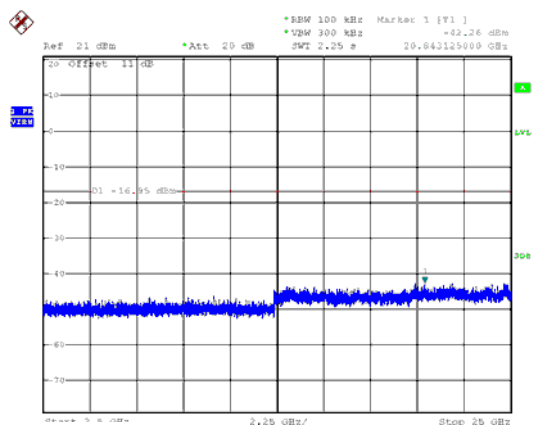
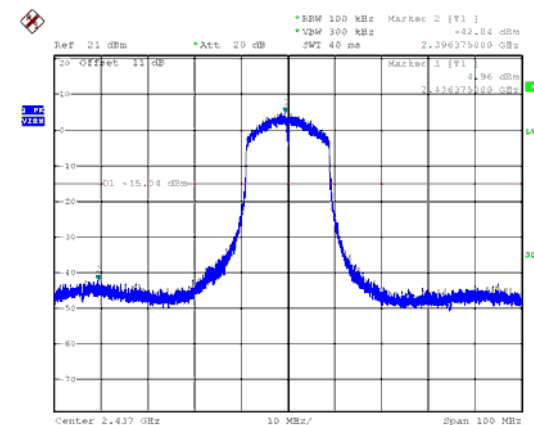
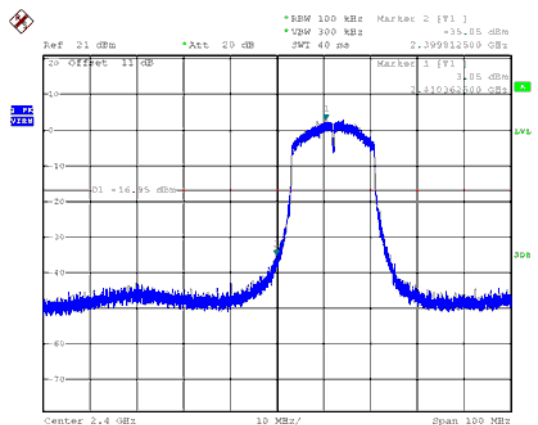
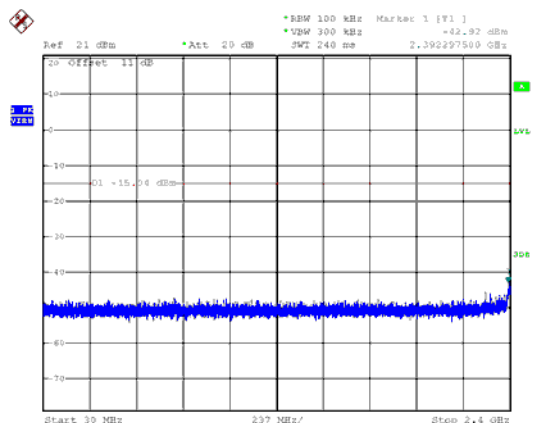


ANT A

Modulation Mode: 802.11n HT20, CH01



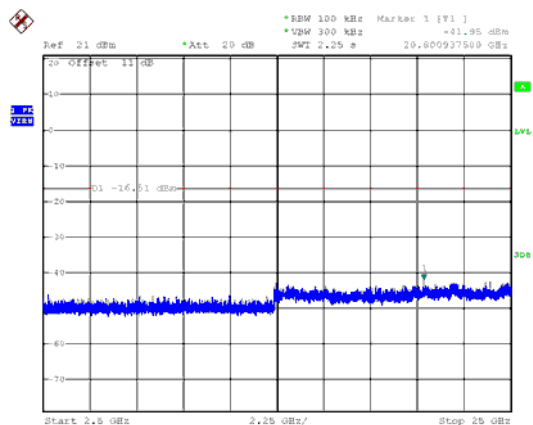
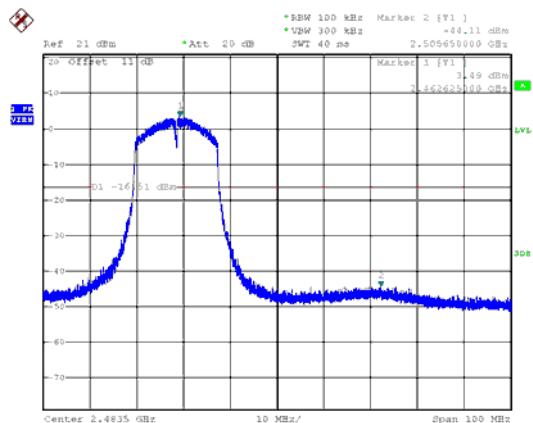
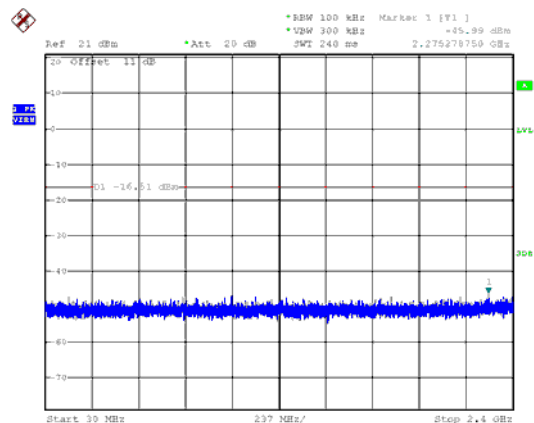
Modulation Mode: 802.11n HT20, CH06





ANT A

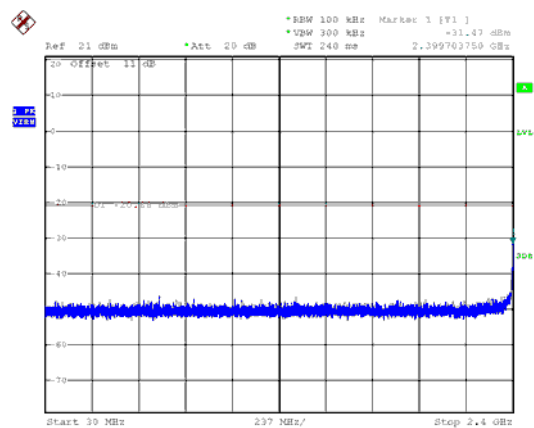
Modulation Mode: 802.11n HT20, CH11



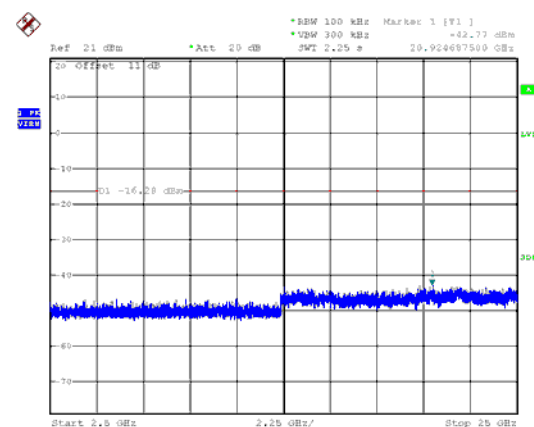
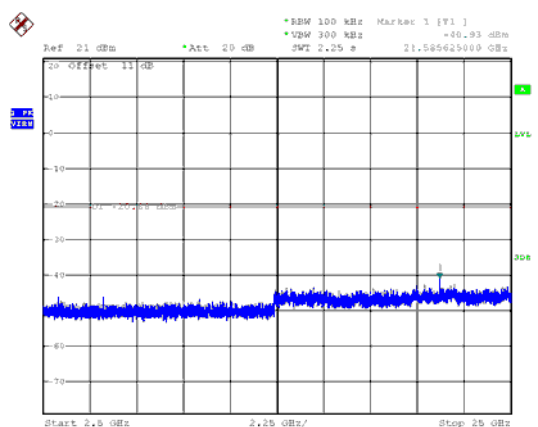
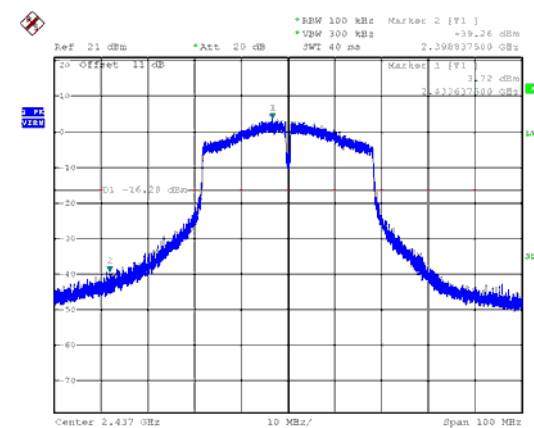
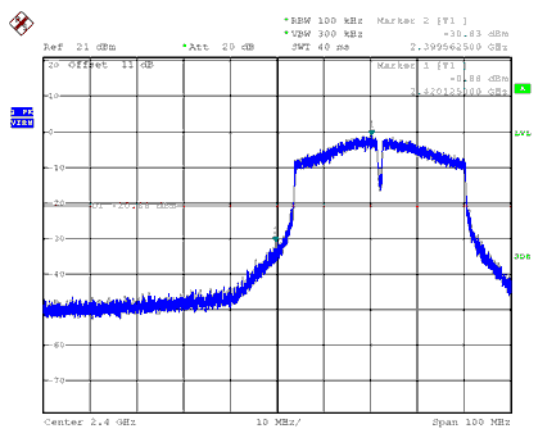
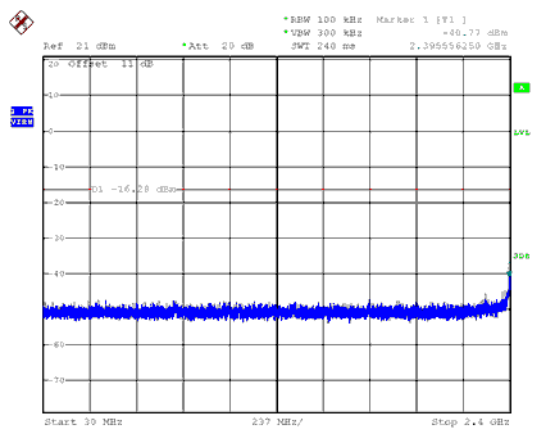


ANT A

Modulation Mode: 802.11n HT40, CH03



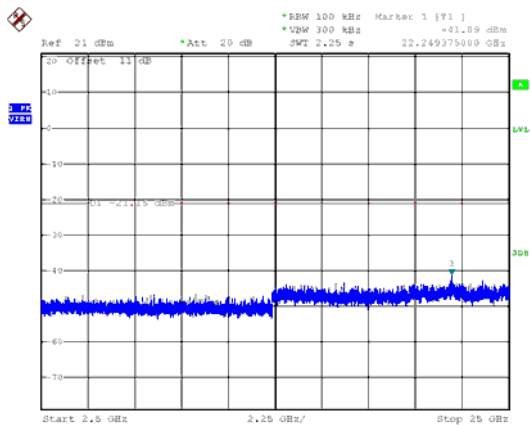
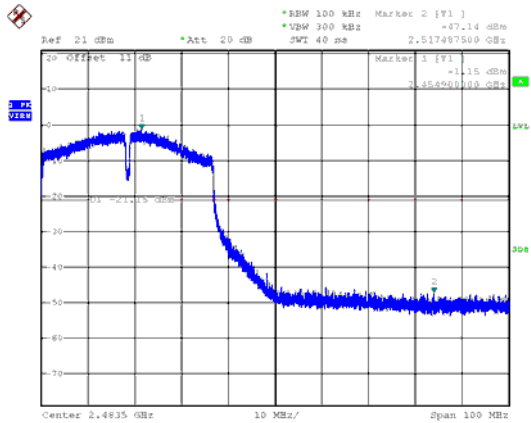
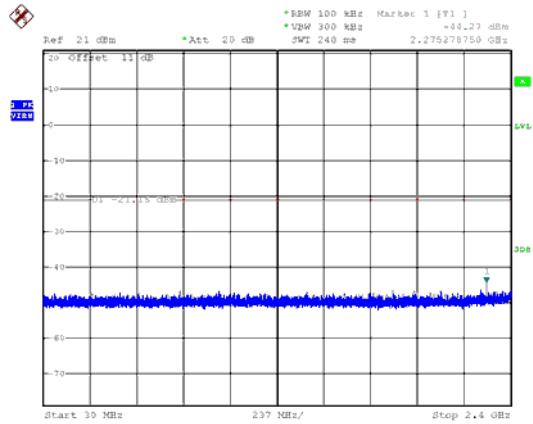
Modulation Mode: 802.11n HT40, CH06





ANT A

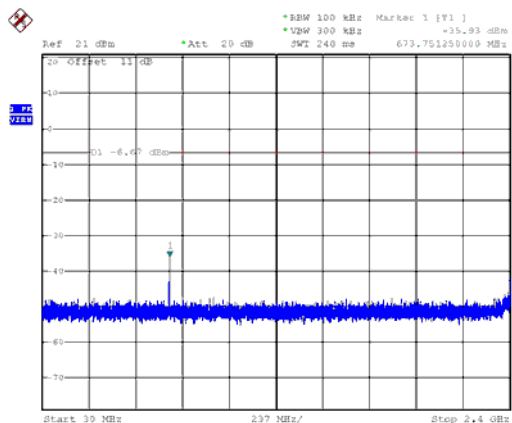
Modulation Mode: 802.11n HT40, CH09



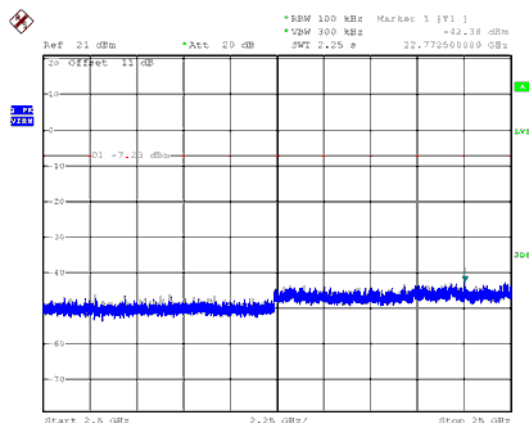
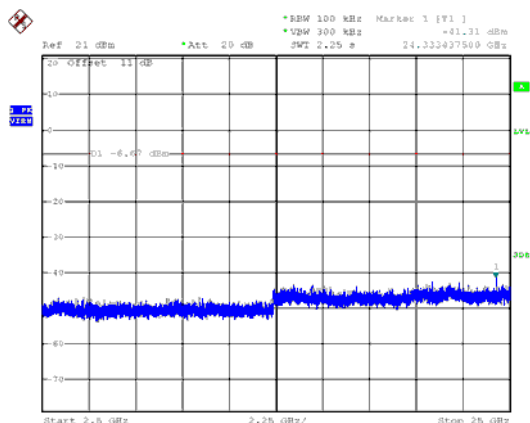
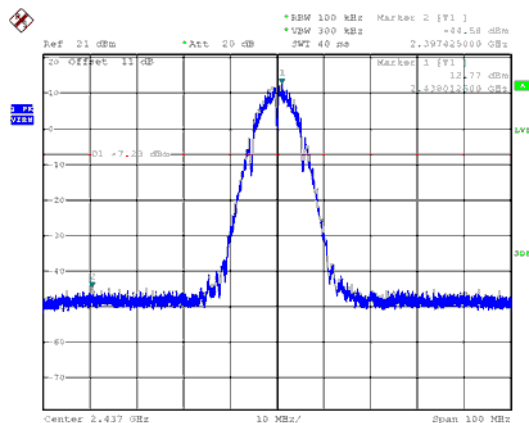
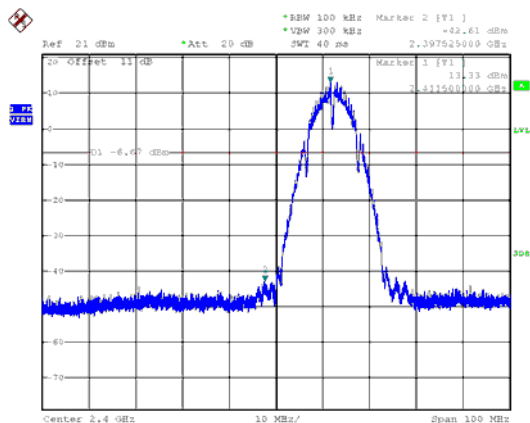
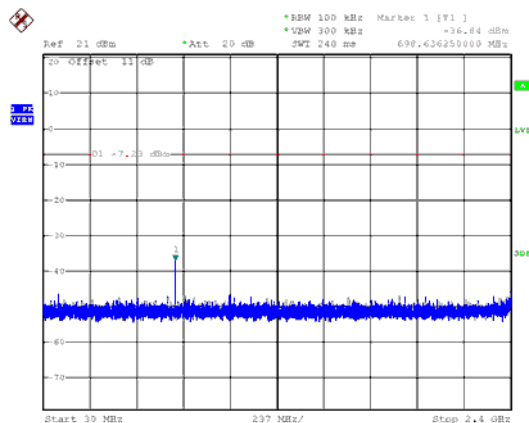


ANT B

Modulation Mode: 802.11b, CH01

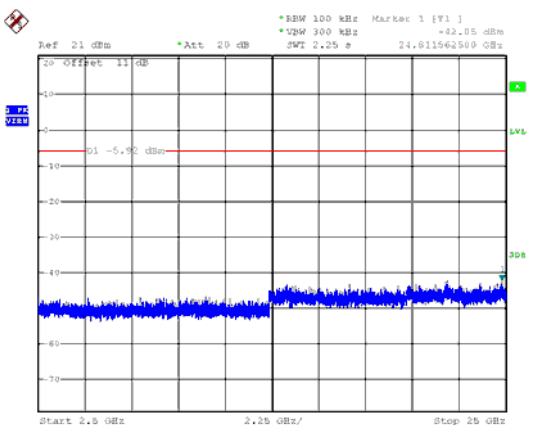
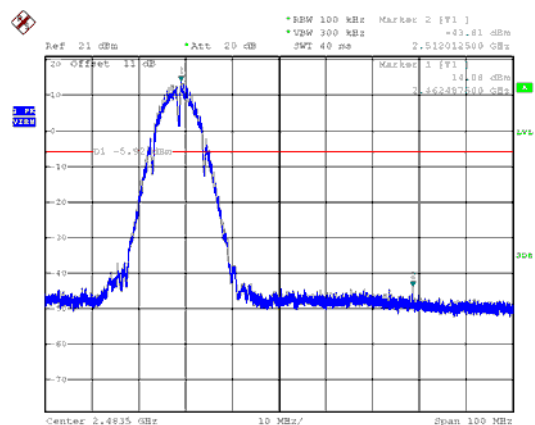
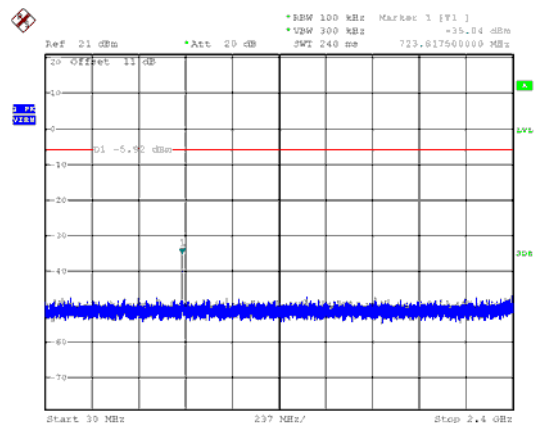


Modulation Mode: 802.11b, CH06





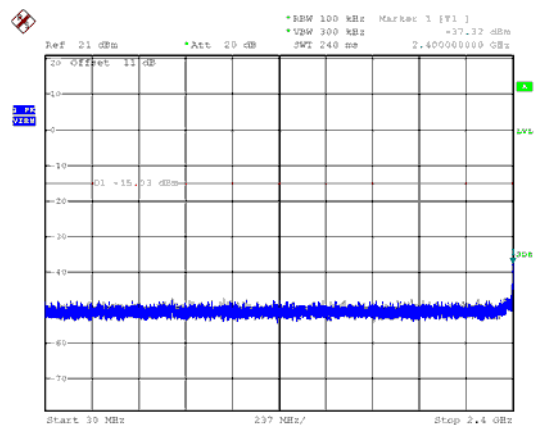
ANT B Modulation Mode: 802.11b, CH11



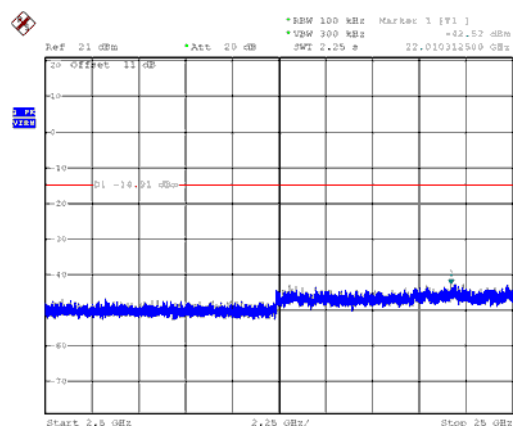
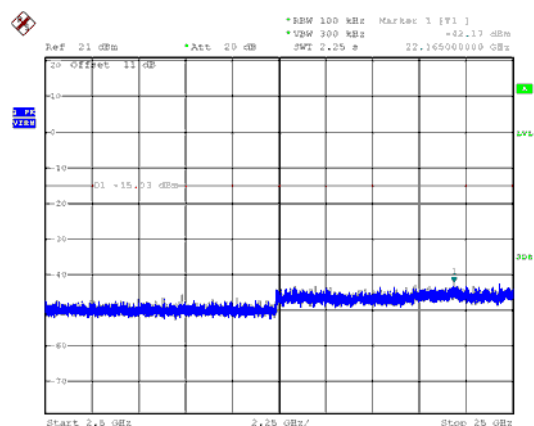
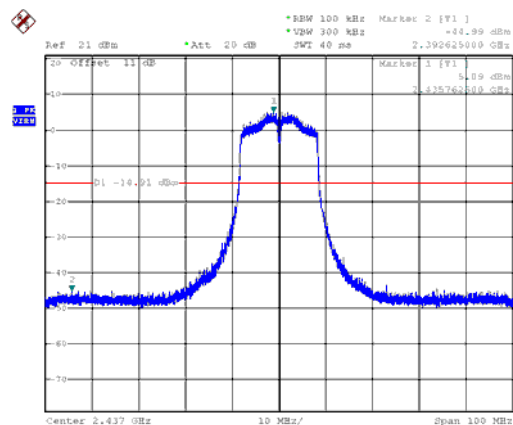
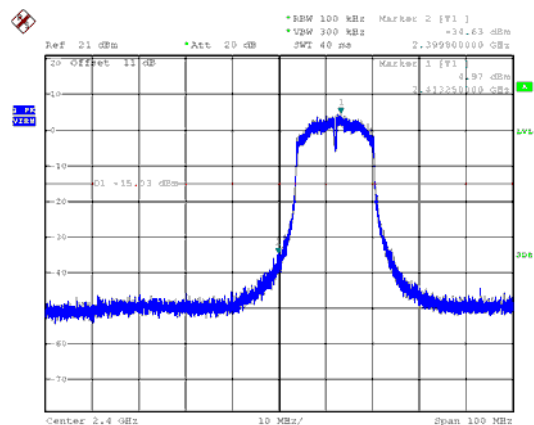
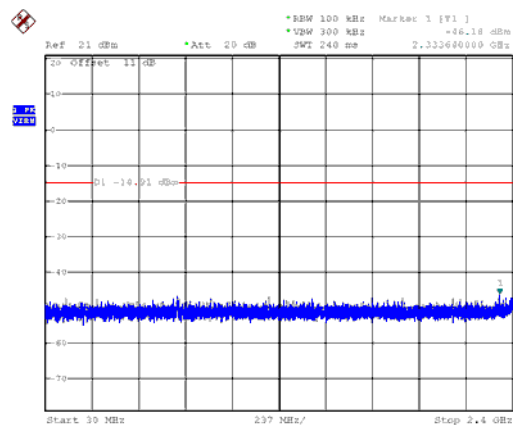


ANT B

Modulation Mode: 802.11g, CH01



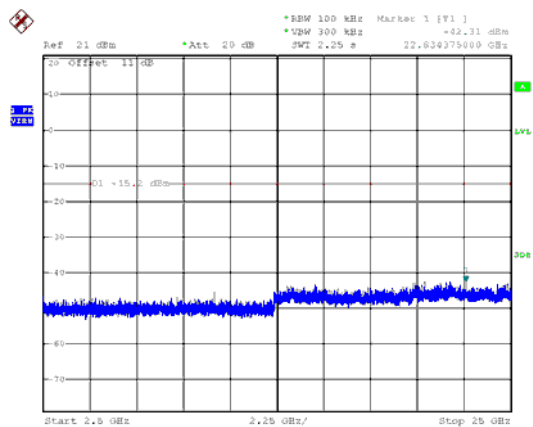
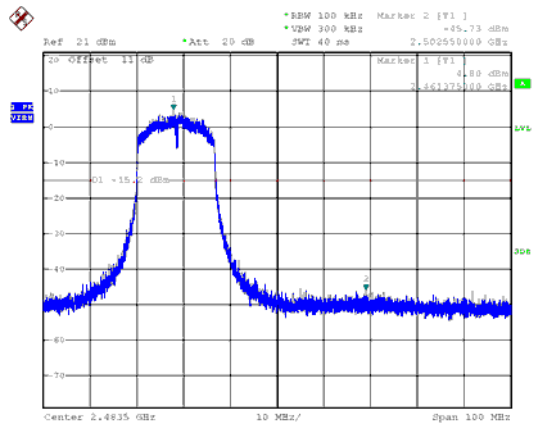
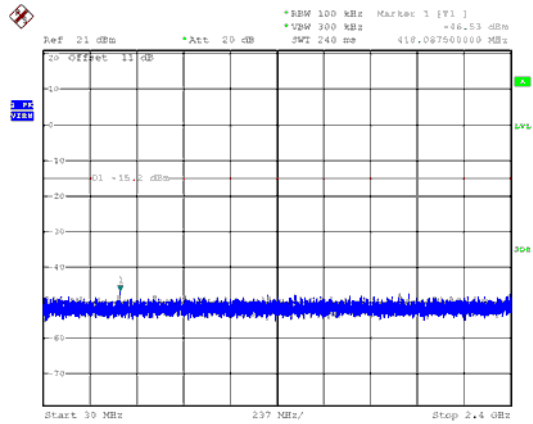
Modulation Mode: 802.11g, CH06





ANT B

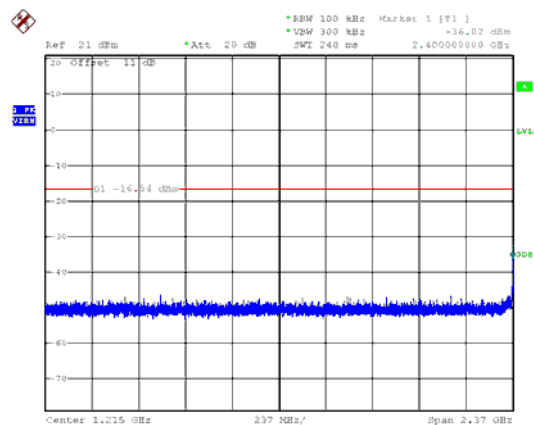
Modulation Mode: 802.11g, CH11



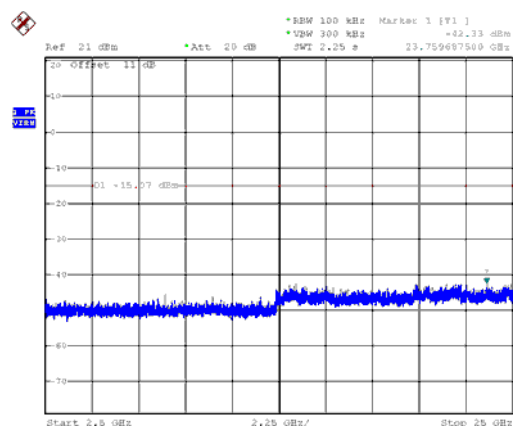
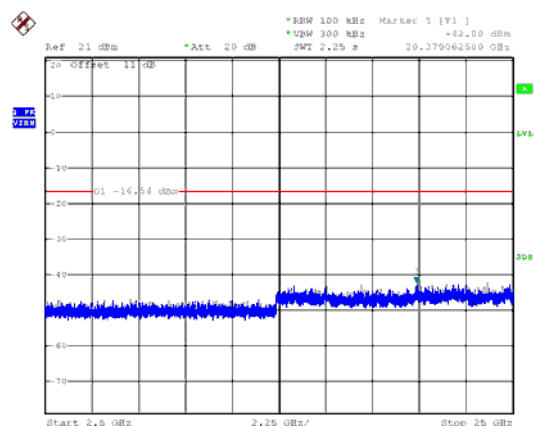
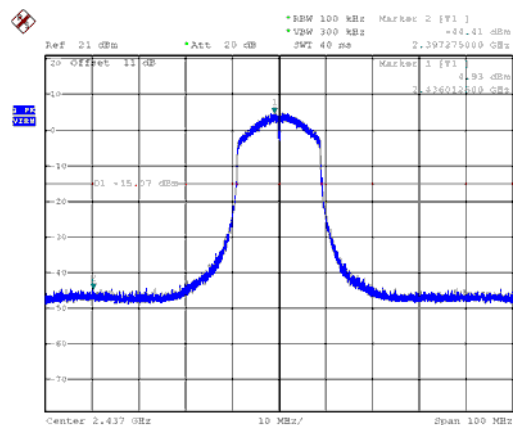
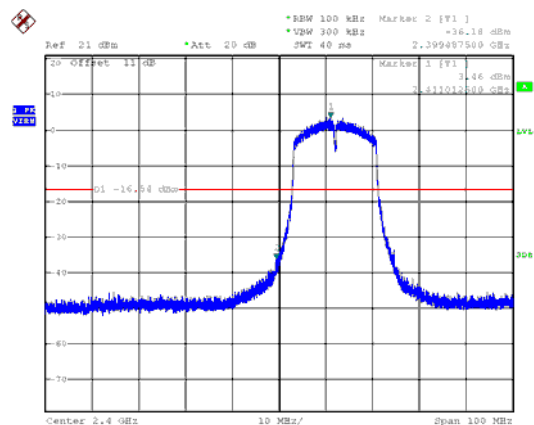
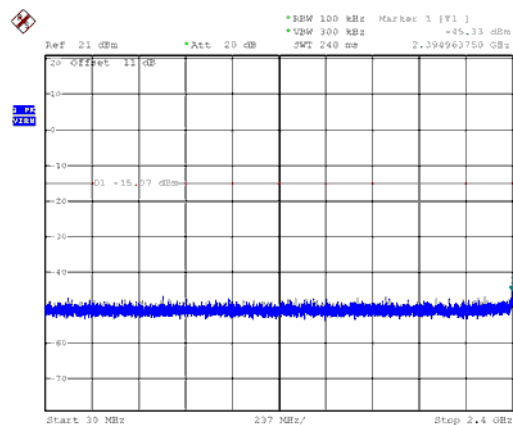


ANT B

Modulation Mode: 802.11n HT20, CH01



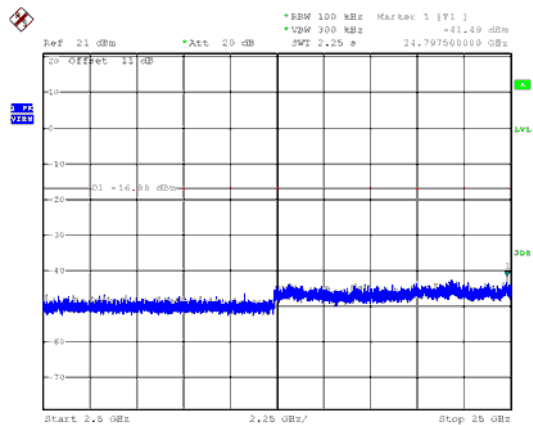
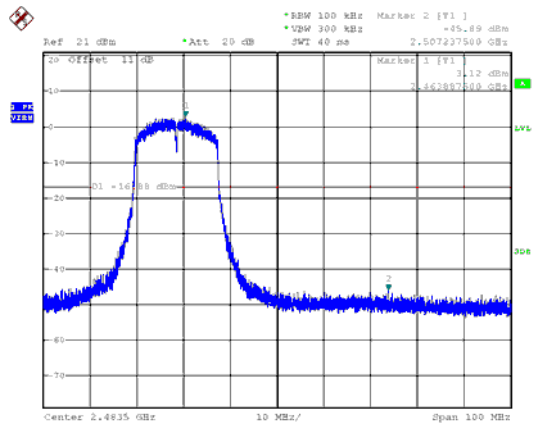
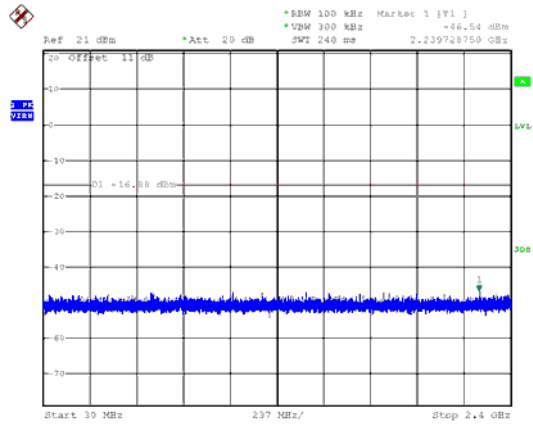
Modulation Mode: 802.11n HT20, CH06





ANT B

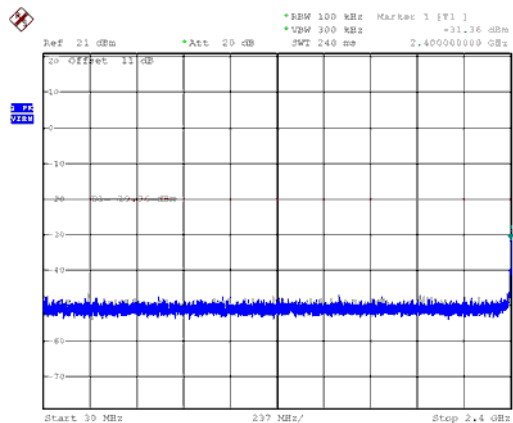
Modulation Mode: 802.11n HT20, CH09



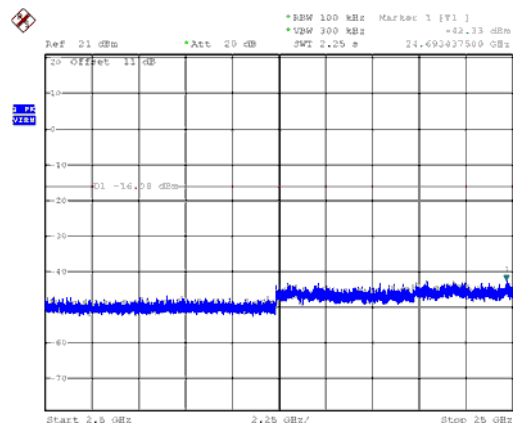
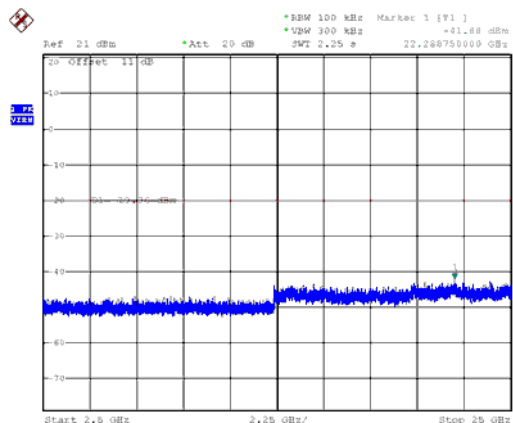
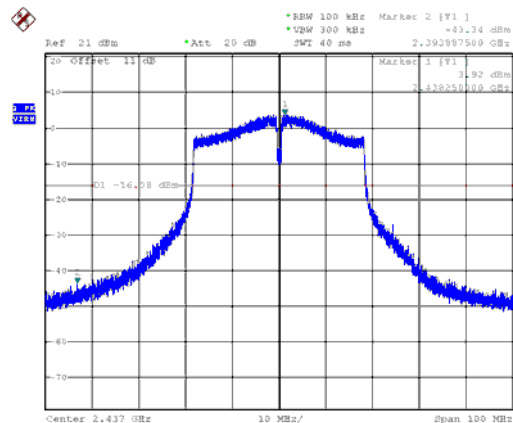
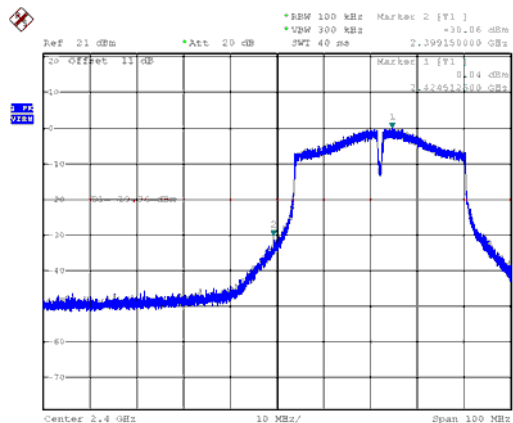
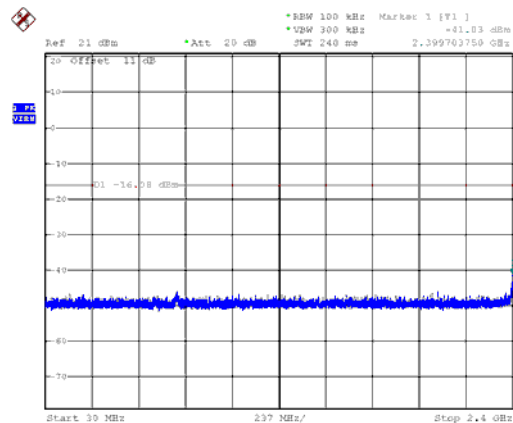


ANT B

Modulation Mode: 802.11n HT40, CH03



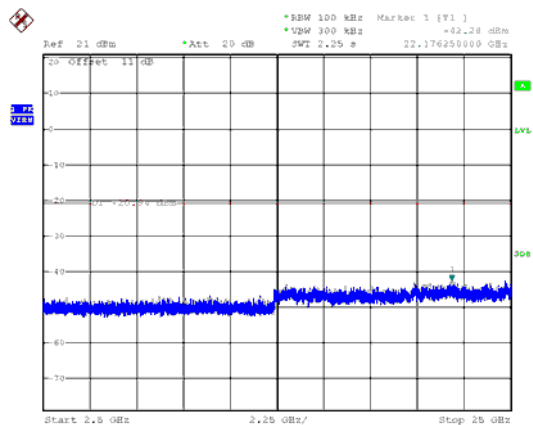
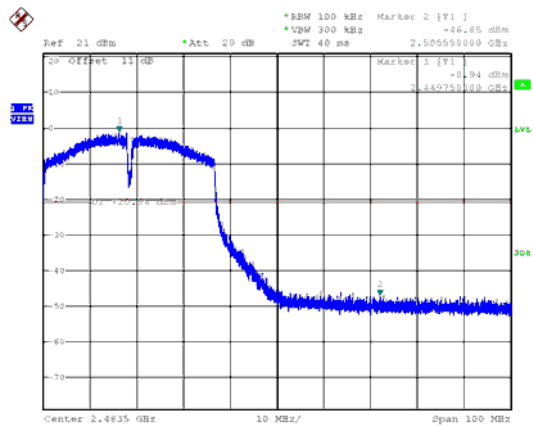
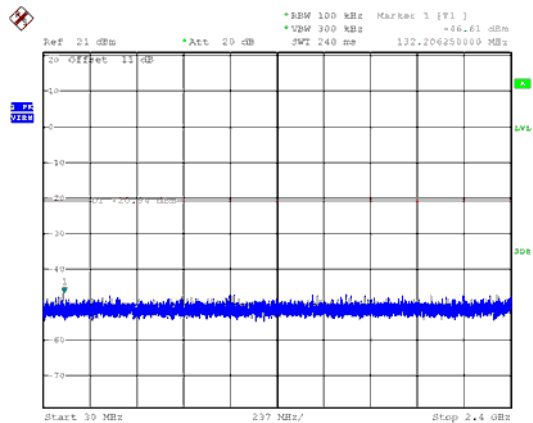
Modulation Mode: 802.11n HT40, CH06





ANT B

Modulation Mode: 802.11n HT40, CH09





10. 功率密度之規定

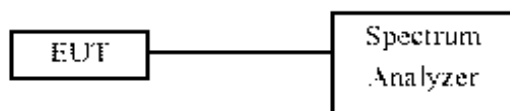
10.1. 適用標準

依據國家通訊傳播委員會低功率射頻電機技術規範 3.10.1.6 節之(2)(B)規定，對數位調變技術系統，在使用任意 3 kHz 之頻寬內，由發射機傳導至天線之峰值發射電功率密度在任意期間內，皆不得大於 8dBm，且應依 3.10.1.3 之方式降低功率頻譜密度限制值。

10.2. 測試方法

1. 將待測物和儀器相連接。
2. 設定儀器解析頻寬為 3kHz、視訊頻寬為 30 kHz。
3. 量測並記錄於報告中。

10.3. 測試配置



10.4. 功率密度之量測結果及數據

Temperature : 21°C Humidity : 62%
Test Date : Jan. 29, 2019

Modulation Mode	Channel	Frequency (MHz)	Maximum Power Density of 10 kHz Bandwidth (dBm)		Sum chain (dBm)	Duty Cycle CF(dB)	Total PSD (dBm)	Limit (dBm)
			ANT A	ANT B				
IEEE 802.11b (1Mbps)	01	2412	-1.67	-0.63	1.89	0.00	1.89	8.00
	06	2437	-0.54	-0.81	2.34	0.00	2.34	8.00
	11	2462	-0.51	-1.16	2.19	0.00	2.19	8.00
IEEE 802.11g (6Mbps)	01	2412	-7.65	-7	-4.30	0.00	-4.30	8.00
	06	2437	-7.18	-7.36	-4.26	0.00	-4.26	8.00
	11	2462	-7.68	-7.9	-4.78	0.00	-4.78	8.00
802.11n HT20 (6.5Mbps)	01	2412	-8.45	-8.18	-5.30	0.00	-5.30	8.00
	06	2437	-7.06	-7.63	-4.33	0.00	-4.33	8.00
	11	2462	-8.52	-8.37	-5.43	0.00	-5.43	8.00
802.11n HT40 (6.5Mbps)	03	2422	-12.59	-12.18	-9.37	0.00	-9.37	8.00
	06	2437	-11.26	-11.05	-8.14	0.00	-8.14	8.00
	09	2452	-13.65	-13.4	-10.51	0.00	-10.51	8.00

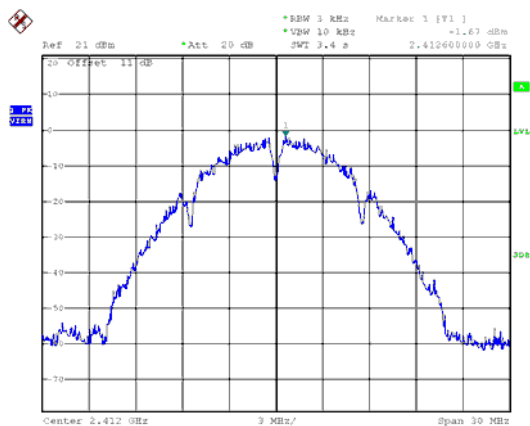
備註：繪圖資料請參考下頁。

10.5. 結果判定

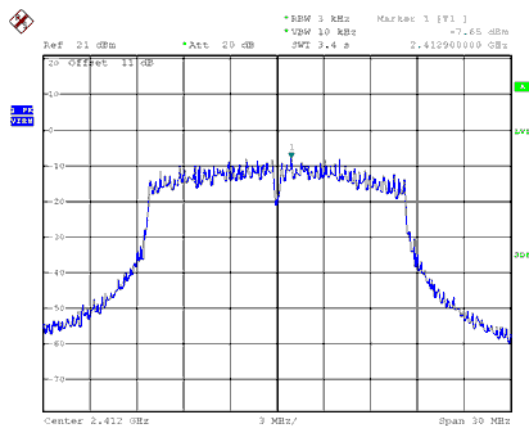
高、中、低頻段的 3 kHz 功率密度皆低於 8 dBm，合乎標準規定。



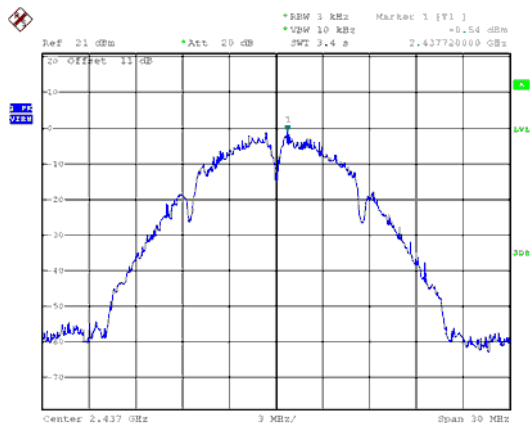
ANT A
Modulation Mode: 802.11b
CH01



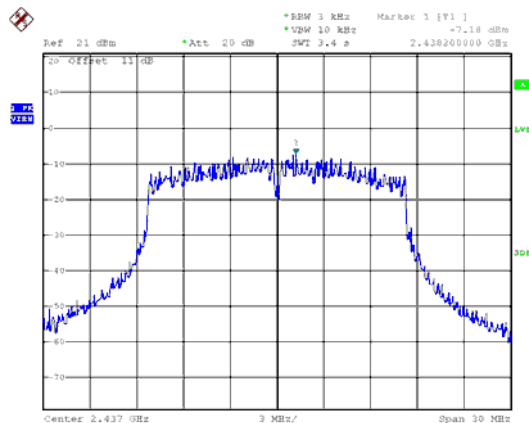
Modulation Mode: 802.11g
CH01



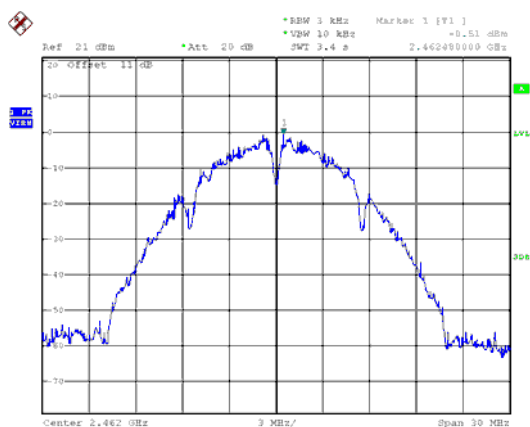
CH06



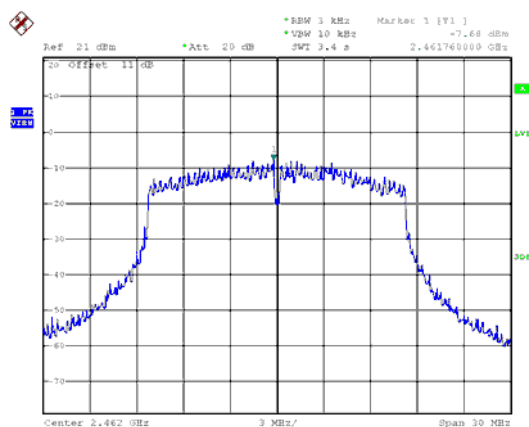
CH06



CH11

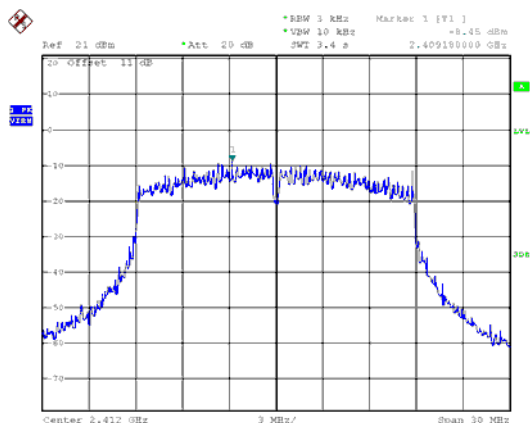


CH11

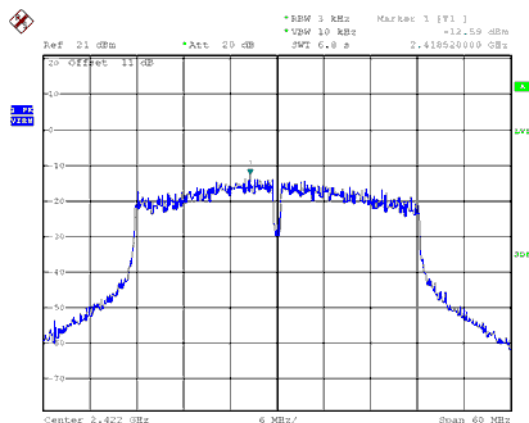




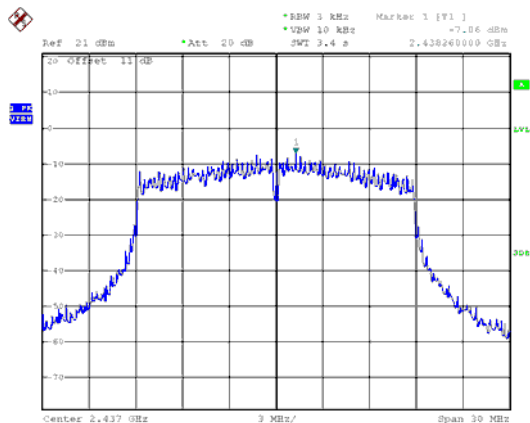
ANT A
Modulation Mode: 802.11n HT20
CH01



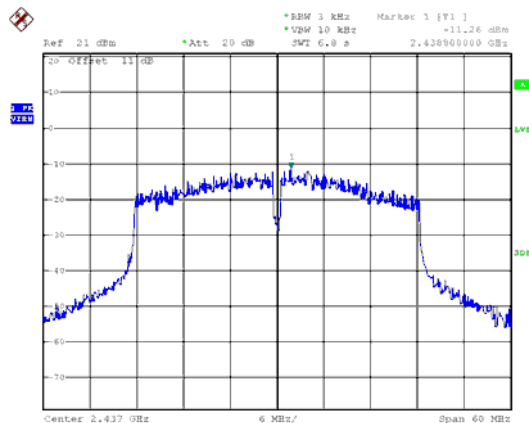
Modulation Mode: 802.11n HT40
CH03



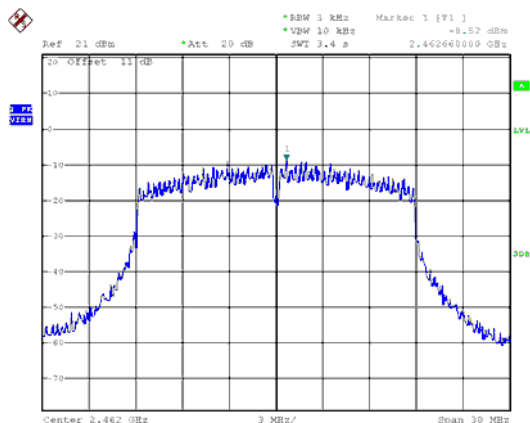
CH06



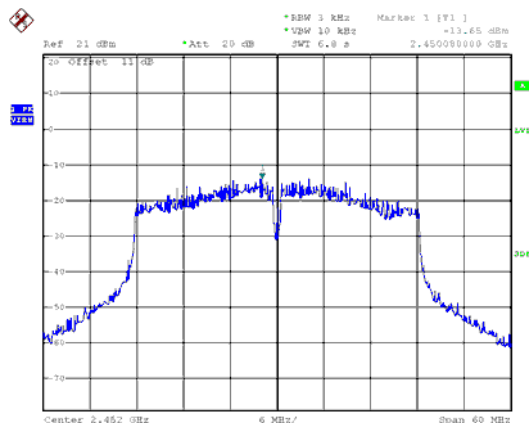
CH06



CH11

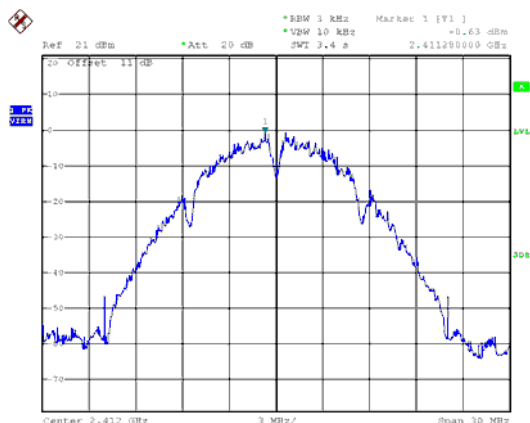


CH09

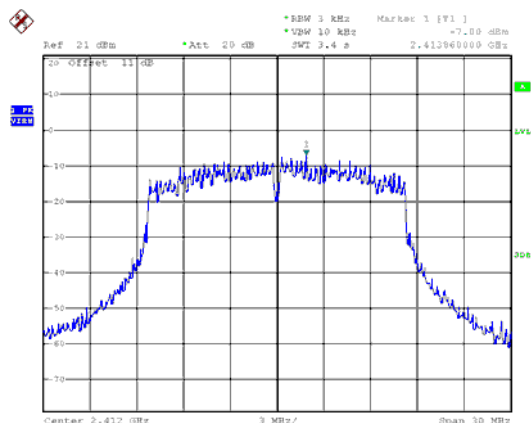




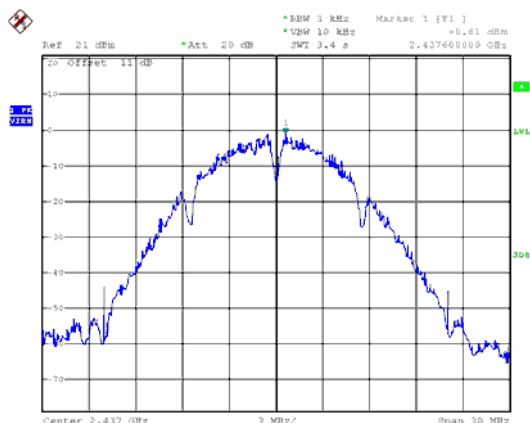
ANT B
Modulation Mode: 802.11b
CH01



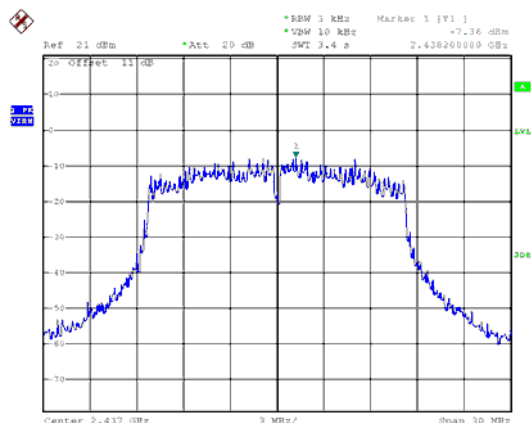
Modulation Mode: 802.11g
CH01



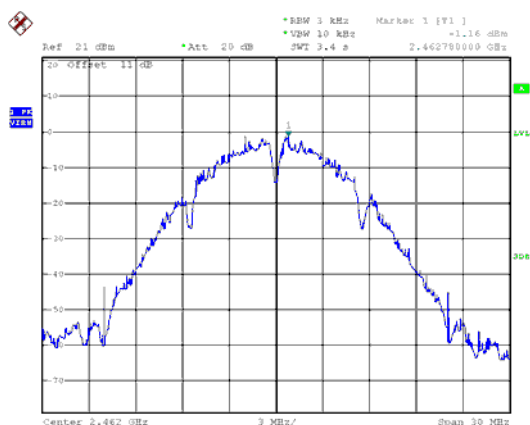
CH06



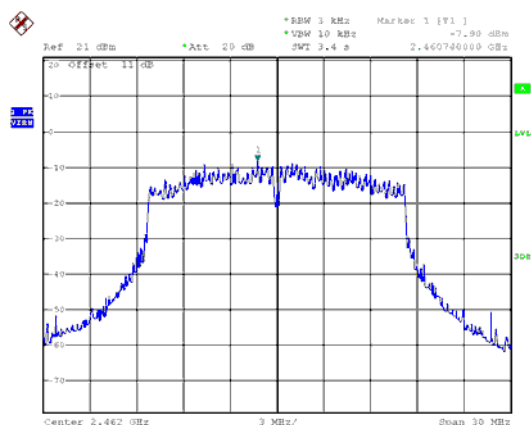
CH06



CH11

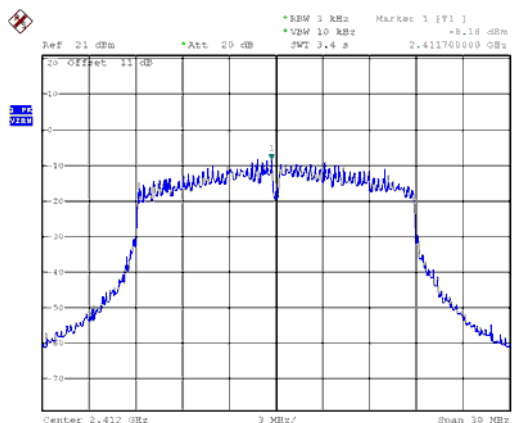


CH11

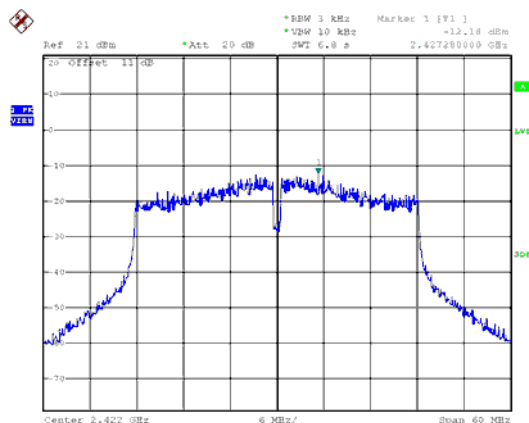




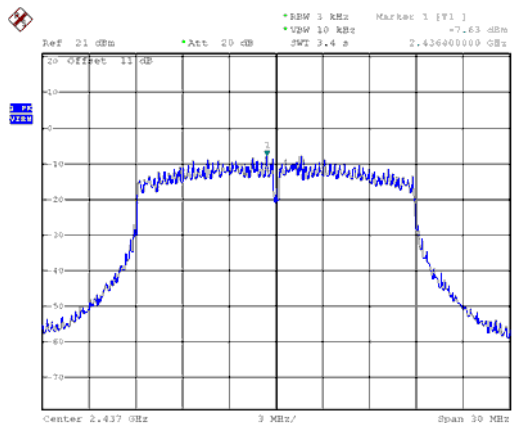
ANT B
Modulation Mode: 802.11n HT20
CH01



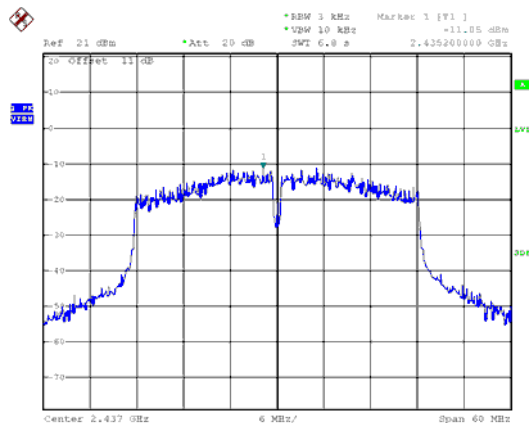
Modulation Mode: 802.11n HT40
CH03



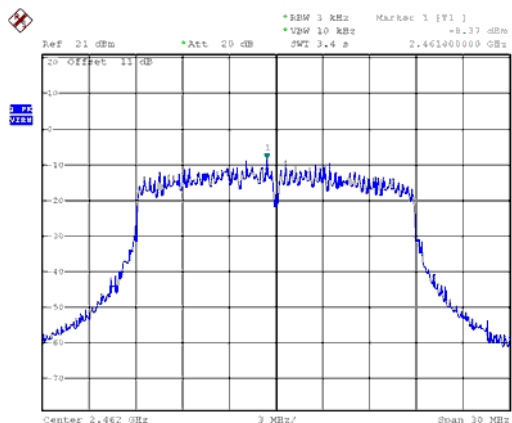
CH06



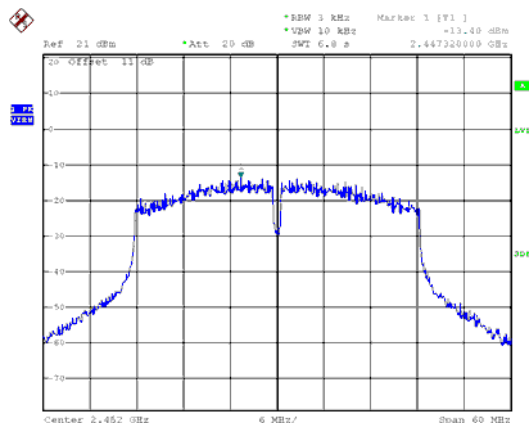
CH06



CH11



CH09





11. 電波暴露量之評估

11.1. 適用標準

依據國家通訊傳播委員會低功率射頻電機技術規範 5.20 節之(5.20.2)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)以證明其符電波暴露量之要求。限制值如下：

(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 (minutes)
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：百萬赫(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 (minutes)
0.3-3.0	614	1.63	*100	30
3-30	1842/f	4.89/f	*180/f ²	30
30-300	27.5	0.073	1.0	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：百萬赫(MHz)。



11.2. 電波暴露量之評估結果及數據

Channel Frequency (MHz)	Max. Conducted output power(dBm)	Antenna Gain(dBi)	Distance (cm)	Power Density (mW/cm ²)	Limit (mW/cm ²)
2412-2462	29.97	1.9	20	0.306	1

Maximum Permissible Exposure (Co-location)

(2.4G Non-Beamforming + 5G Band 4 Non-Beamforming)

Modulation Mode	Channel Frequency (MHz)	Max. Conducted output power (dBm)	Antenna Gain(dBi)	Distance (cm)	Power Density (mW/cm ²)	Limit (mW/cm ²)	MPE Ratio
802.11g	2412-2462	29.97	1.9	20	0.306	1.000	0.306
11ac VHT40	5725-5850	21.95	3.7	20	0.073	1.000	0.073
Co-location Total							0.379
Σ MPE ratios Limit							1

(2.4G Non-Beamforming + 5G Band 3 Non-Beamforming)

Modulation Mode	Channel Frequency (MHz)	Max. Conducted output power (dBm)	Antenna Gain(dBi)	Distance (cm)	Power Density (mW/cm ²)	Limit (mW/cm ²)	MPE Ratio
802.11g	2412-2462	29.97	1.9	20	0.306	1.000	0.306
11ac VHT40	5470-5725	21.85	3.5	20	0.068	1.000	0.068
Co-location Total							0.374
Σ MPE ratios Limit							1

**(2.4G Non-Beamforming + 5G Band 4 Beamforming)**

Modulation Mode	Channel Frequency (MHz)	Max. Conducted output power (dBm)	Antenna Gain(dBi)	Distance (cm)	Power Density (mW/cm ²)	Limit (mW/cm ²)	MPE Ratio
802.11g	2412-2462	29.97	1.9	20	0.306	1.000	0.306
11ac VHT40	5725-5850	18.94	6.71	20	0.073	1.000	0.073
Co-location Total							0.379
Maximum Permissible Exposure Limit							1

(2.4G Non-Beamforming + 5G Band 3 Beamforming)

Modulation Mode	Channel Frequency (MHz)	Max. Conducted output power (dBm)	Antenna Gain(dBi)	Distance (cm)	Power Density (mW/cm ²)	Limit (mW/cm ²)	MPE Ratio
802.11g	2412-2462	29.97	1.9	20	0.306	1.000	0.306
11ac VHT40	5470-5725	18.84	6.31	20	0.065	1.000	0.065
Co-location Total							0.371
Maximum Permissible Exposure Limit							1

11.3. 結果判定

高、中、低頻段的電波暴露量皆低於限制值，合乎標準規定。



12. 限制使用之頻帶

Only spurious emissions are permitted in any of the frequency bands listed below:

頻率(兆赫)	頻率(兆赫)	頻率(兆赫)
0.090 - 0.110	240.00 - 285.00	3332.0 - 3339.0
0.490 - 0.510	322.00 - 335.40	3345.8 - 3358.0
2.172 - 2.198	399.90 - 410.00	3500.0 - 4400.0
3.013 - 3.033	485.00 - 510.00	4500.0 - 5250.0
4.115 - 4.198	608.00 - 614.00	5350.0 - 5460.0
5.670 - 5.690	703.00 - 748.00	7250.0 - 7750.0
6.200 - 6.300	758.00 - 803.00	8025.0 - 8500.0
8.230 - 8.400	825.00 - 915.00	9000.0 - 9200.0
12.265 - 12.600	930.00 - 1240.0	9300.0 - 9500.0
13.340 - 13.430	1300.0 - 1427.0	10600 - 12700
14.965 - 15.020	1435.0 - 1626.5	13250 - 13400
16.700 - 16.755	1660.0 - 1770.0	14470 - 14500
19.965 - 20.020	1805.0 - 1865.0	15350 - 16200
25.500 - 25.700	1885.0 - 1900.0	17700 - 21400
37.475 - 38.275	1905.0 - 1985.0	22010 - 23120
73.500 - 75.400	2015.0 - 2025.0	23600 - 24000
108.00 - 138.00	2125.0 - 2165.0	31200 - 31800
149.90 - 150.05	2200.0 - 2300.0	36430 - 36500
156.70 - 156.90	2310.0 - 2390.0	38600 以上
162.01 - 167.17	2483.5 - 2900.0	
167.72 - 173.20	3260.0 - 3267.0	