

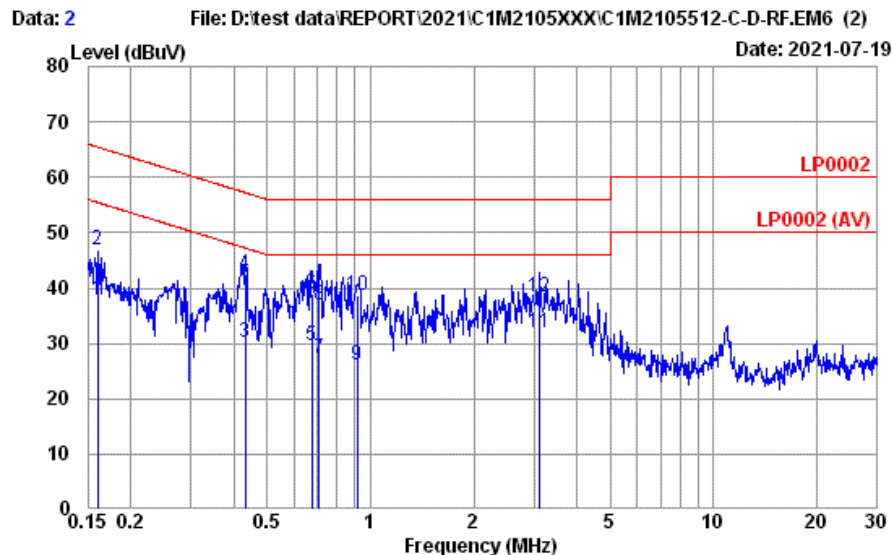
附錄一

受測裝置之測試結果

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1. 電源線傳導干擾之量測

測試日期	2021/07/19	環境溫/濕度	27°C/51%
測試電壓	AC 110V 60Hz	測試人員	Roy Hung

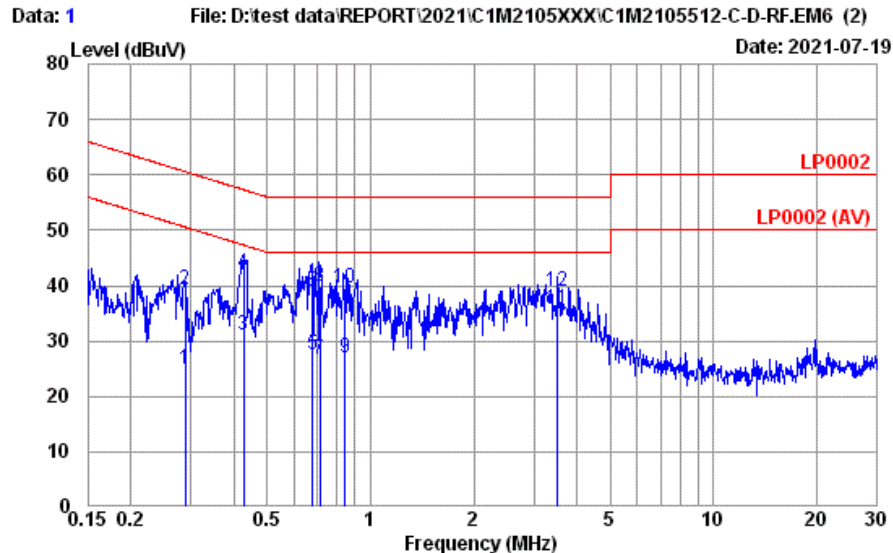


Site No. : No.8 Shielded Room Data No. : 2
 Instrument 1 : Receiver ESR3(774)
 Instrument 2 : ENH432 (567)(A)|CE-08|ESH3-Z2 (354)
 Limit : LP0002 Phase : NEUTRAL
 Environment : 27°C / 51% Engineer : Roy Hung
 EUT Model : HT-A7000 Test Rating : 110Vac/60Hz
 Test Mode : Normal

	Freq. (MHz)	AMN Factor (dB)	Cable Loss (dB)	Pulse Att. (dB)	Reading (dBμV)	Emission Level (dBμV)	Limits (dBμV)	Margin (dB)	Remark
1	0.160	10.41	0.03	9.85	17.46	37.75	55.47	17.72	Average
2	0.160	10.41	0.03	9.85	26.51	46.80	65.47	18.67	QP
3	0.431	10.37	0.03	9.85	10.02	30.27	47.24	16.97	Average
4	0.431	10.37	0.03	9.85	22.13	42.38	57.24	14.86	QP
5	0.675	10.38	0.04	9.85	9.29	29.56	46.00	16.44	Average
6	0.675	10.38	0.04	9.85	18.70	38.97	56.00	17.03	QP
7	0.708	10.38	0.04	9.85	7.12	27.39	46.00	18.61	Average
8	0.708	10.38	0.04	9.85	16.72	36.99	56.00	19.01	QP
9	0.914	10.38	0.04	9.85	5.95	26.22	46.00	19.78	Average
10	0.914	10.38	0.04	9.85	18.37	38.64	56.00	17.36	QP
11	3.107	10.44	0.08	9.86	11.69	32.07	46.00	13.93	Average
12	3.107	10.44	0.08	9.86	17.88	38.26	56.00	17.74	QP

Remarks: 1. Emission Level= AMN Factor + Cable Loss + Pulse Att. + Reading.
 2. If the average limit is met when using a quasi-peak detector,
 the EUT shall be deemed to meet both limits and measurement
 with average detector is unnecessary.

測試日期	2021/07/19	環境溫/濕度	27°C/51%
測試電壓	AC 110V 60Hz	測試人員	Roy Hung



Site No. : No.8 Shielded Room Data No. : 1
 Instrument 1 : Receiver ESR3(774)
 Instrument 2 : ENH432 (567)(A)|CE-08|ESH3-Z2 (354)
 Limit : LP0002 Phase : LINE
 Environment : 27°C / 51% Engineer : Roy Hung
 EUT Model : HT-A7000 Test Rating : 110Vac/60Hz
 Test Mode : Normal

	Freq. (MHz)	AMN Factor (dB)	Cable Loss (dB)	Pulse Att. (dB)	Reading (dBμV)	Emission Level (dBμV)	Limits (dBμV)	Margin (dB)	Remark
1	0.288	10.38	0.03	9.85	4.53	24.79	50.59	25.80	Average
2	0.288	10.38	0.03	9.85	19.03	39.29	60.59	21.30	QP
3	0.427	10.37	0.03	9.85	10.67	30.92	47.32	16.40	Average
4	0.427	10.37	0.03	9.85	21.96	42.21	57.32	15.11	QP
5	0.677	10.38	0.04	9.85	7.33	27.60	46.00	18.40	Average
6	0.677	10.38	0.04	9.85	18.78	39.05	56.00	16.95	QP
7	0.710	10.38	0.04	9.85	6.46	26.73	46.00	19.27	Average
8	0.710	10.38	0.04	9.85	19.53	39.80	56.00	16.20	QP
9	0.841	10.38	0.04	9.85	6.74	27.01	46.00	18.99	Average
10	0.841	10.38	0.04	9.85	19.24	39.51	56.00	16.49	QP
11	3.510	10.42	0.08	9.86	15.32	35.68	46.00	10.32	Average
12	3.510	10.42	0.08	9.86	18.65	39.01	56.00	16.99	QP

Remarks: 1. Emission Level= AMN Factor + Cable Loss + Pulse Att. + Reading.
 2. If the average limit is met when using a quasi-peak detector,
 the EUT shall be deemed to meet both limits and measurement
 with average detector is unnecessary.

2. 場強輻射之量測

對受測物裝置之其他不必要之發射(測至本地振盪頻率之 10 次諧波)依下列測試模式分別於電波暗室內進行量測，選擇低、中、高頻率來進行量測，並將下列測試模式之測試數據隨案件所附。所得讀值資料請見章節 2.1 ~2.2：

Normal 模式

模式	動作狀態	基本頻率	量測頻率範圍
Normal	---	---	30-1000MHz
			1000-40000MHz

Wireless LAN 模式

支援 802.11b/g/n，依測試要求評估低、中、高頻率，並檢附三頻率之最差模式於此測試報告中。

模式	動作狀態	基本頻率	量測頻率範圍
802.11b	發射	2412MHz	1000-25000MHz
802.11g	發射	2412MHz*	30-1000MHz
			1000-25000MHz
802.11n-HT20	發射	2437MHz	1000-25000MHz
---	接收	2437MHz	30-1000MHz
			1000-25000MHz

註:*: 經評估後，以最差頻率進行 30-1000MHz 量測。

BLE 測試模式

模式	動作狀態	基本頻率	量測頻率範圍
BLE (2M)	發射	2402MHz*	30-1000MHz
			1000-25000MHz
		2440MHz	1000-25000MHz
		2480MHz	1000-25000MHz
	接收	2440MHz	30-1000MHz
			1000-25000MHz

註:*: 經評估後，以最差頻率進行 30-1000MHz 量測。

對受測物裝置落於技術規範第 3.5 章節的禁用頻帶之混附發射以下列測試模式依規定分別進行量測，所得量測資料請見章節 2.3。

模式	動作狀態	基本頻率	量測頻率範圍
802.11b	發射	2412MHz	2310-2430MHz
		2462MHz	2430-2930MHz
802.11g	發射	2412MHz	2310-2430MHz
		2462MHz	2430-2930MHz
802.11n-HT20	發射	2412MHz	2310-2430MHz
		2462MHz	2430-2930MHz
BLE (2M)	發射	2402MHz	2310-2410MHz
		2480MHz	2430-2930MHz

測試日期	2021/07/06 ~ 09/10	環境溫/濕度	25~26°C/54~61%
測試電壓	AC 110V 60Hz	測試人員	(1)Hua Wu (2)Sam Chang

2.1. 30-1000MHz 頻率範圍，其他不必要發射量測

● Normal 模式

Mode	Normal	Frequency	---
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Antenna at Horizontal Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Gain (dB)	Read level (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
33.88	19.23	0.56	32.66	43.94	31.07	40.00	8.93	Peak
119.24	17.67	0.96	32.53	51.29	37.39	43.50	6.11	Peak
133.79	18.86	1.00	32.52	49.57	36.91	43.50	6.59	Peak
244.37	18.07	1.36	32.47	55.80	42.76	46.00	3.24	Peak
517.91	24.56	2.25	32.44	49.80	44.17	46.00	1.83	Peak
696.39	27.77	2.83	32.30	44.13	42.43	46.00	3.57	Peak

Antenna at Vertical Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Gain (dB)	Read level (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
34.85	19.22	0.57	32.66	50.99	38.12	40.00	1.88	Peak
46.49	20.33	0.66	32.65	47.50	35.84	40.00	4.16	Peak
140.58	19.35	1.02	32.51	50.42	38.28	43.50	5.22	Peak
168.71	19.13	1.12	32.48	49.98	37.75	43.50	5.75	Peak
356.89	21.45	1.72	32.46	51.75	42.46	46.00	3.54	Peak
399.57	22.40	1.88	32.45	47.77	39.60	46.00	6.40	Peak

● Wireless LAN 模式

Mode	802.11g	Frequency	TX 2412MHz
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Antenna at Horizontal Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Gain (dB)	Read level (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
33.880	22.12	1.26	26.51	38.01	34.88	40.00	5.12	Peak
126.030	17.66	2.59	26.13	44.85	38.97	43.50	4.53	Peak
215.270	16.12	3.53	25.79	41.56	35.42	43.50	8.08	Peak
238.550	17.53	3.74	25.76	41.69	37.20	46.00	8.80	Peak
321.000	19.61	4.59	25.88	38.20	36.52	46.00	9.48	Peak
450.010	22.30	6.01	26.86	33.40	34.85	46.00	11.15	Peak

Antenna at Vertical Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Gain (dB)	Read level (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
32.910	22.52	1.24	26.51	41.06	38.31	40.00	1.69	Peak
79.470	12.86	2.02	26.36	49.22	37.74	40.00	2.26	Peak
124.090	17.75	2.57	26.15	44.82	38.99	43.50	4.51	Peak
140.580	16.95	2.75	26.06	39.83	33.47	43.50	10.03	Peak
219.150	16.36	3.56	25.78	36.35	30.49	46.00	15.51	Peak
613.940	24.38	6.85	27.44	31.99	35.78	46.00	10.22	Peak

Mode	---	Frequency	RX 2437MHz
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Antenna at Horizontal Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Gain (dB)	Read level (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
33.880	22.12	1.26	26.51	37.59	34.46	40.00	5.54	Peak
126.030	17.66	2.59	26.13	44.10	38.22	43.50	5.28	Peak
215.270	16.12	3.53	25.79	42.86	36.72	43.50	6.78	Peak
238.550	17.53	3.74	25.76	42.22	37.73	46.00	8.27	Peak
313.240	19.41	4.49	25.82	35.23	33.31	46.00	12.69	Peak
466.500	22.59	6.16	26.97	30.80	32.58	46.00	13.42	Peak

Antenna at Vertical Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Gain (dB)	Read level (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
32.910	22.52	1.24	26.51	41.03	38.28	40.00	1.72	Peak
75.590	12.59	1.97	26.37	49.33	37.52	40.00	2.48	Peak
124.090	17.75	2.57	26.15	45.15	39.32	43.50	4.18	Peak
145.430	16.61	2.80	26.03	37.30	30.68	43.50	12.82	Peak
221.090	16.51	3.59	25.78	34.40	28.72	46.00	17.28	Peak
399.570	21.37	5.53	26.49	35.85	36.26	46.00	9.74	Peak

● BLE 測試模式

Mode	BLE (2M)	Frequency	TX 2402MHz
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Antenna at Horizontal Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Gain (dB)	Read level (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
126.03	18.24	0.98	32.53	50.22	36.91	43.50	6.59	Peak
160.95	19.97	1.09	32.49	45.24	33.81	43.50	9.69	Peak
218.18	17.24	1.27	32.46	50.66	36.71	46.00	9.29	Peak
243.40	18.04	1.36	32.47	49.37	36.30	46.00	9.70	Peak
286.08	19.52	1.50	32.47	45.53	34.08	46.00	11.92	Peak
712.88	27.91	2.87	32.27	37.96	36.47	46.00	9.53	Peak

Antenna at Vertical Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Gain (dB)	Read level (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
36.79	19.51	0.59	32.66	45.20	32.64	40.00	7.36	Peak
49.40	20.36	0.67	32.65	47.46	35.84	40.00	4.16	Peak
121.18	17.84	0.96	32.53	47.94	34.21	43.50	9.29	Peak
133.79	18.86	1.00	32.52	46.53	33.87	43.50	9.63	Peak
245.34	18.10	1.36	32.47	47.55	34.54	46.00	11.46	Peak
293.84	19.79	1.52	32.47	43.68	32.52	46.00	13.48	Peak

Mode	---	Frequency	RX 2440MHz
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Antenna at Horizontal Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Gain (dB)	Read level (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
48.43	20.35	0.66	32.65	35.05	23.41	40.00	16.59	Peak
128.94	18.49	0.99	32.52	50.48	37.44	43.50	6.06	Peak
175.50	18.48	1.14	32.48	45.50	32.64	43.50	10.86	Peak
219.15	17.27	1.28	32.46	50.10	36.19	46.00	9.81	Peak
243.40	18.04	1.36	32.47	49.85	36.78	46.00	9.22	Peak
295.78	19.86	1.53	32.47	52.94	41.86	46.00	4.14	Peak

Antenna at Vertical Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Gain (dB)	Read level (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
36.79	19.51	0.59	32.66	45.74	33.18	40.00	6.82	Peak
48.43	20.35	0.66	32.65	47.67	36.03	40.00	3.97	Peak
128.94	18.49	0.99	32.52	44.79	31.75	43.50	11.75	Peak
168.71	19.13	1.12	32.48	43.28	31.05	43.50	12.45	Peak
219.15	17.27	1.28	32.46	45.38	31.47	46.00	14.53	Peak
293.84	19.79	1.52	32.47	43.74	32.58	46.00	13.42	Peak

2.2. 1000MHz 以上頻率範圍，其他不必要發射量測

頻率範圍量測至主波發射的 10 倍諧波，其他未列在報告上乃因訊號太小無法量測。

● Normal 模式

Mode	Normal				Frequency	---		
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Antenna at Horizontal Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Gain (dB)	Read level (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
3165.00	30.92	7.18	39.94	54.53	52.69	74.00	21.31	Peak

Antenna at Vertical Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Gain (dB)	Read level (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
3165.00	30.92	7.18	39.94	56.36	54.52	74.00	19.48	Peak

● Wireless LAN 模式

Mode	802.11b				Frequency	TX 2412MHz		
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Antenna at Horizontal Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Gain (dB)	Read level (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
4824.000	33.67	10.49	34.44	33.13	42.85	54.00	11.15	Peak
7236.000	35.40	12.27	34.66	30.04	43.05	54.00	10.95	Peak

Antenna at Vertical Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Gain (dB)	Read level (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
4824.000	33.67	10.49	34.44	33.71	43.43	54.00	10.57	Peak
7236.000	35.40	12.27	34.66	30.06	43.07	54.00	10.93	Peak

Mode	802.11g				Frequency	TX 2412MHz		
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Antenna at Horizontal Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Gain (dB)	Read level (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
4824.000	33.67	10.49	34.44	32.49	42.21	54.00	11.79	Peak
7236.000	35.40	12.27	34.66	31.38	44.39	54.00	9.61	Peak

Antenna at Vertical Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Gain (dB)	Read level (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
4824.000	33.67	10.49	34.44	31.59	41.31	54.00	12.69	Peak
7236.000	35.40	12.27	34.66	29.49	42.50	54.00	11.50	Peak

Mode	802.11n-HT20	Frequency	TX 2437MHz
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Antenna at Horizontal Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Gain (dB)	Read level (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
4874.000	33.85	10.54	34.43	31.18	41.14	54.00	12.86	Peak
7311.000	35.50	12.29	34.69	29.95	43.05	54.00	10.95	Peak

Antenna at Vertical Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Gain (dB)	Read level (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
4874.000	33.85	10.54	34.43	30.86	40.82	54.00	13.18	Peak
7311.000	35.50	12.29	34.69	29.71	42.81	54.00	11.19	Peak

Mode	---	Frequency	RX 2437MHz
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Antenna at Horizontal Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Gain (dB)	Read level (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
4874.000	33.85	10.54	34.43	32.42	42.38	54.00	11.62	Peak

Antenna at Vertical Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Gain (dB)	Read level (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
4874.000	33.85	10.54	34.43	31.56	41.52	54.00	12.48	Peak

● BLE 測試模式

Mode	BLE (2M)	Frequency	TX 2402MHz
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Antenna at Horizontal Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Gain (dB)	Read level (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
4804.00	33.60	10.49	34.44	32.59	42.24	54.00	11.76	Peak

Antenna at Vertical Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Gain (dB)	Read level (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
4804.00	33.60	10.49	34.44	31.70	41.35	54.00	12.65	Peak

Mode	BLE (2M)	Frequency	TX 2440MHz
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Antenna at Horizontal Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Gain (dB)	Read level (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
4880.00	33.85	10.54	34.43	31.67	41.63	54.00	12.37	Peak

Antenna at Vertical Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Gain (dB)	Read level (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
4880.00	33.85	10.54	34.43	30.11	40.07	54.00	13.93	Peak

Mode	BLE (2M)	Frequency	TX 2480MHz
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Antenna at Horizontal Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Gain (dB)	Read level (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
4960.00	33.83	10.60	34.41	31.51	41.53	54.00	14.23	Peak

Antenna at Vertical Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Gain (dB)	Read level (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
4960.00	33.83	10.60	34.41	30.20	40.22	54.00	13.78	Peak

Mode	---	Frequency	RX 2440MHz
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Antenna at Horizontal Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Gain (dB)	Read level (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
4880.00	33.85	10.54	34.43	31.26	41.22	54.00	12.78	Peak

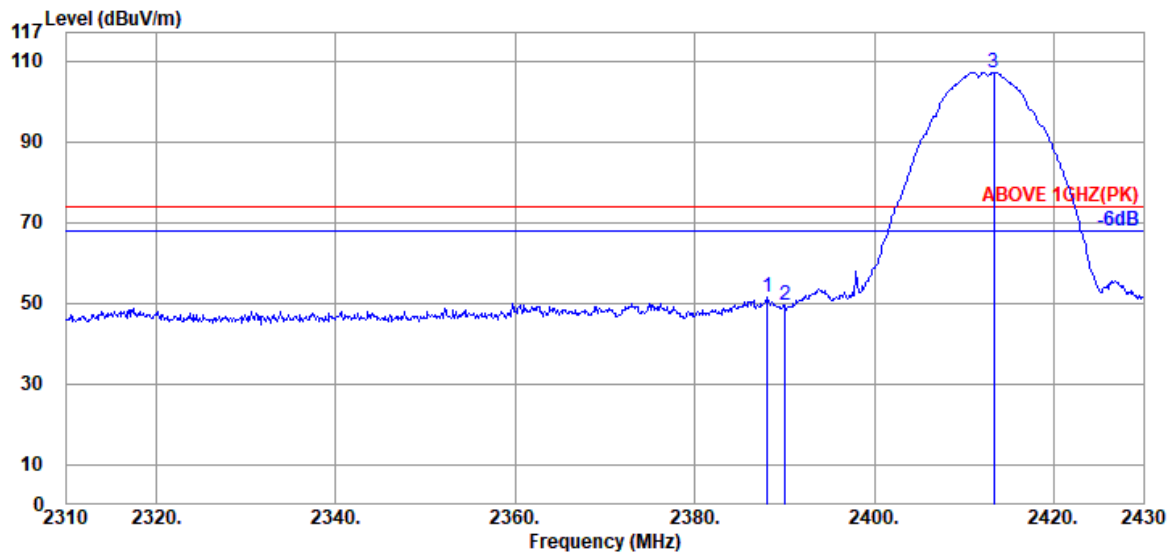
Antenna at Vertical Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Gain (dB)	Read level (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
4880.00	33.85	10.54	34.43	30.42	40.38	54.00	13.62	Peak

2.3. 禁用頻帶量測結果 (其他不必要發射)

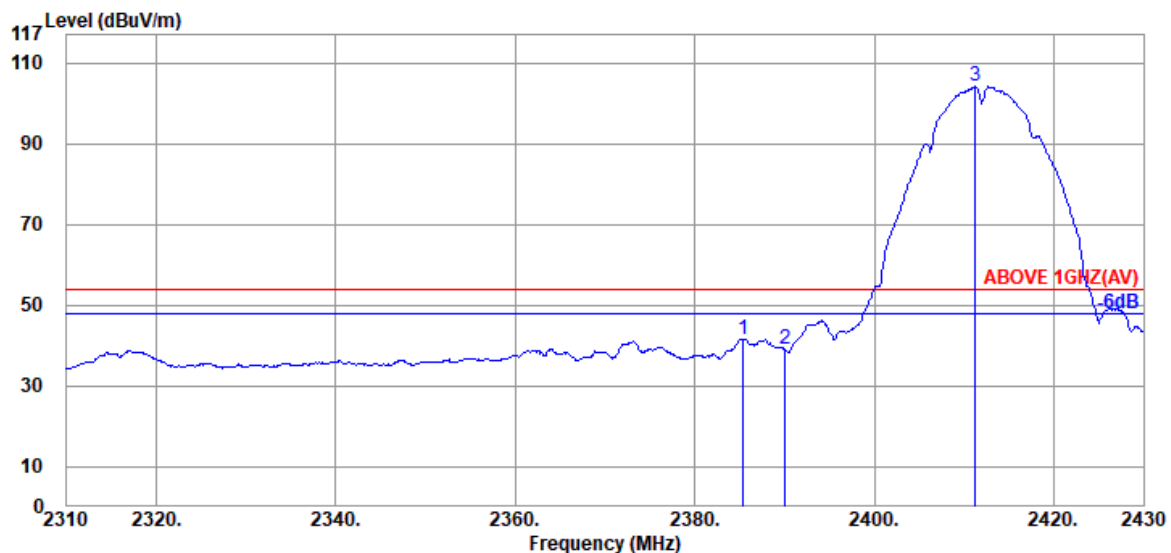
- Wireless LAN 模式

Mode	802.11b	Frequency	TX 2412MHz
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Antenna at Horizontal Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Gain (dB)	Read level (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
2388.120	31.89	7.95	34.53	46.01	51.32	74.00	22.68	Peak
2390.040	31.89	7.95	34.54	44.13	49.43	74.00	24.57	Peak
@ 2413.320	31.94	7.96	34.54	101.75	107.11	---	---	Peak

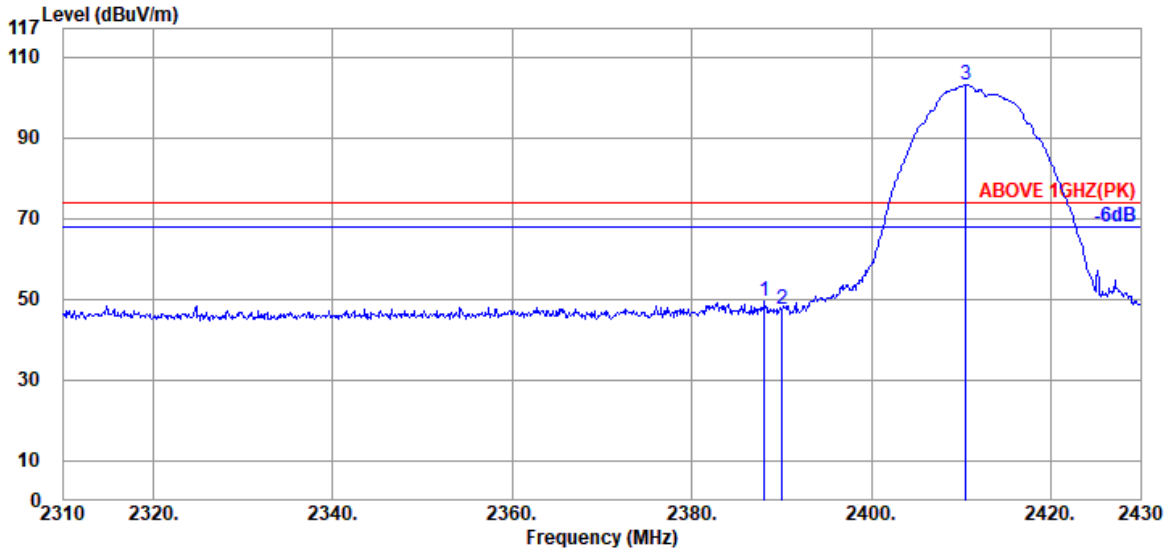


Antenna at Horizontal Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Gain (dB)	Read level (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
2385.360	31.89	7.95	34.53	36.28	41.59	54.00	12.41	Average
2390.040	31.89	7.95	34.54	33.75	39.05	54.00	14.95	Average
@ 2411.280	31.94	7.96	34.54	98.81	104.17	---	---	Average

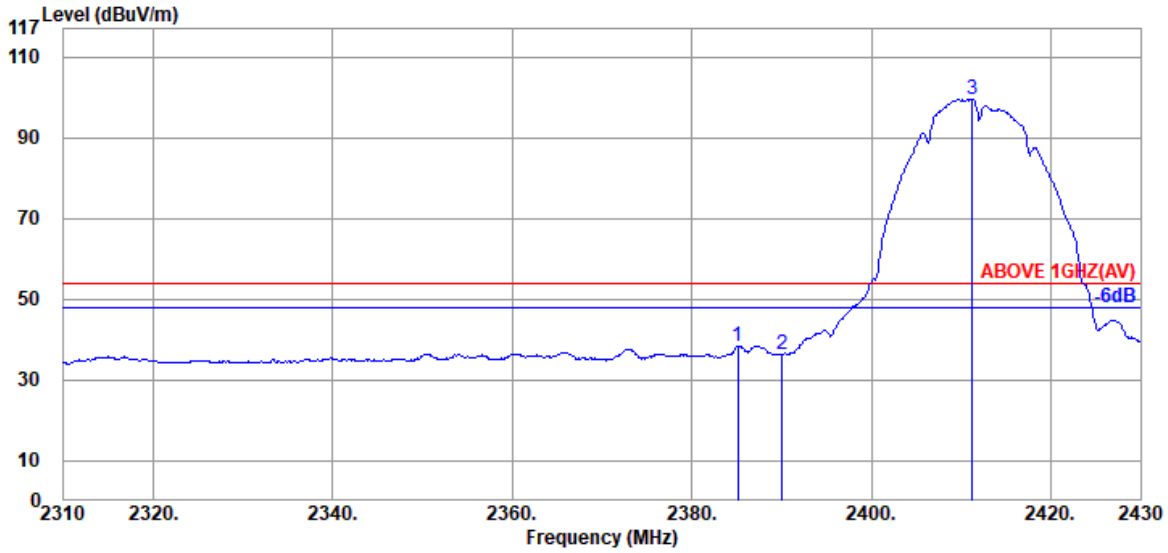
備註：“@”為主波，在此章節是不予以判定。

Mode	802.11b	Frequency	TX 2412MHz
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Antenna at Vertical Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Gain (dB)	Read level (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
2388.120	31.89	7.95	34.53	44.26	49.57	74.00	24.43	Peak
2390.040	31.89	7.95	34.54	42.37	47.67	74.00	26.33	Peak
@ 2412.280	31.87	7.96	34.54	97.66	102.95	---	---	Peak

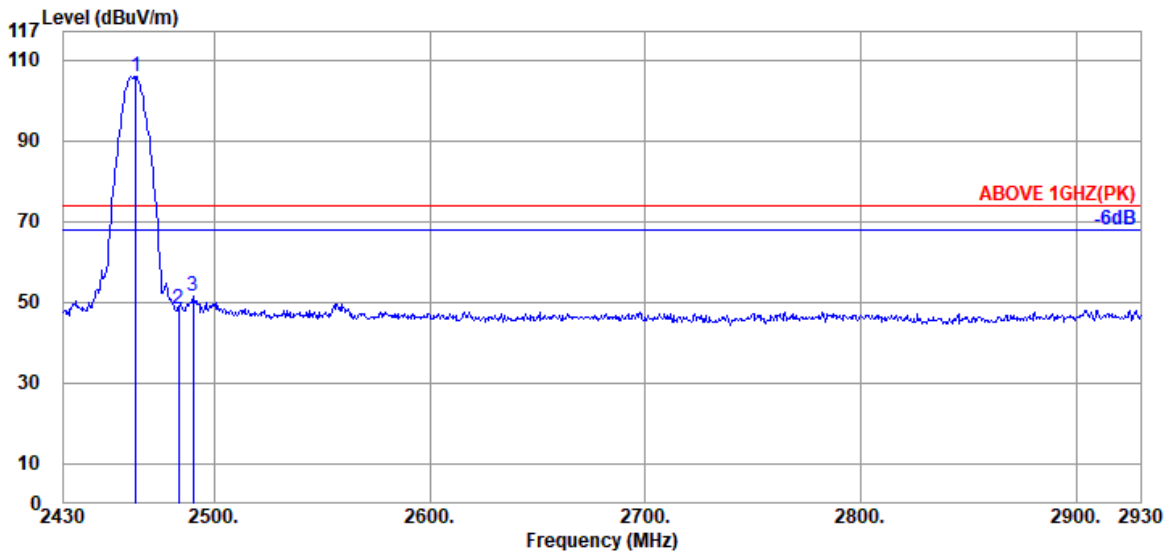


Antenna at Vertical Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Gain (dB)	Read level (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
2385.120	31.89	7.95	34.53	33.03	38.34	54.00	15.66	Average
2390.040	31.89	7.95	34.54	31.04	36.34	54.00	17.66	Average
@ 2411.280	31.94	7.96	34.54	94.10	99.46	---	---	Average

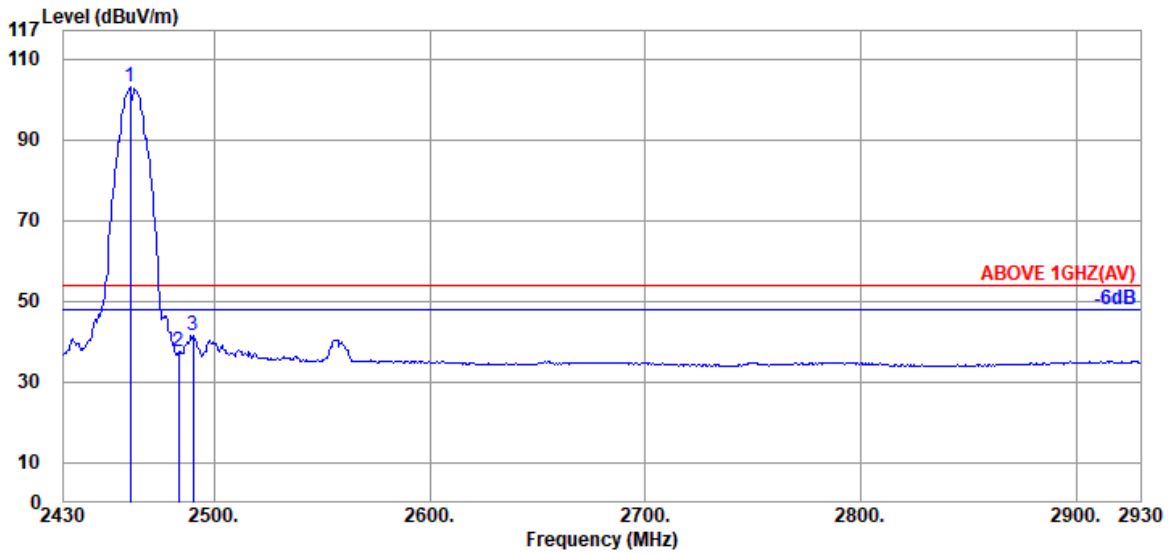
備註：“@”為主波，在此章節是不予以判定。

Mode	802.11b	Frequency	TX 2462MHz
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Antenna at Horizontal Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Gain (dB)	Read level (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
@ 2463.500	32.30	7.98	34.55	100.03	105.76	---	---	Peak
2483.500	32.30	7.99	34.55	42.46	48.20	74.00	25.80	Peak
2490.000	32.30	8.00	34.55	45.79	51.54	74.00	22.46	Peak

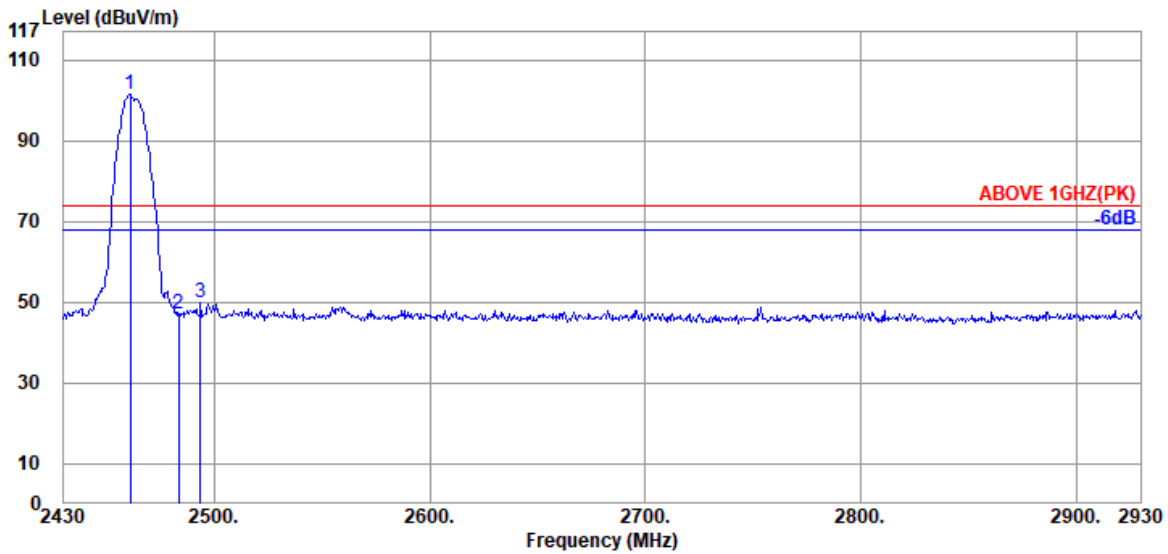


Antenna at Horizontal Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Gain (dB)	Read level (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
@ 2461.000	32.30	7.98	34.55	97.13	102.86	---	---	Average
2483.500	32.30	7.99	34.55	31.66	37.40	54.00	16.60	Average
2490.000	32.30	8.00	34.55	35.65	41.40	54.00	12.60	Average

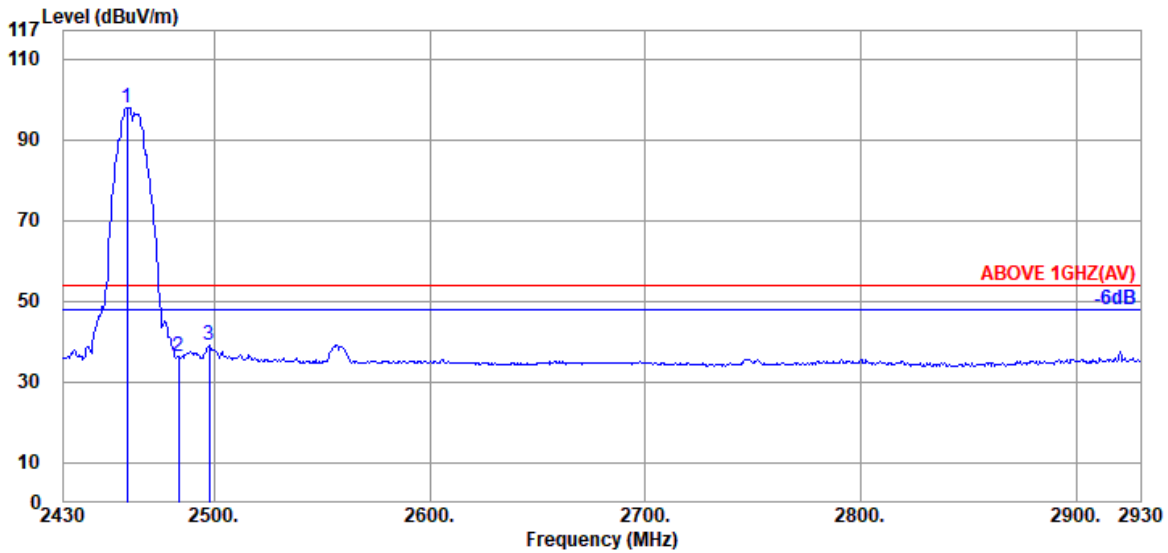
備註：“@”為主波，在此章節是不予以判定。

Mode	802.11b	Frequency	TX 2462MHz
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Antenna at Vertical Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Gain (dB)	Read level (dBμV)	Emission Level (dBUV/m)	Limits (dBUV/m)	Margin (dB)	Detector
@ 2461.000	32.30	7.98	34.55	95.74	101.47	---	---	Peak
2483.500	32.30	7.99	34.55	41.35	47.09	74.00	26.91	Peak
2493.500	32.30	8.00	34.56	44.12	49.86	74.00	24.14	Peak

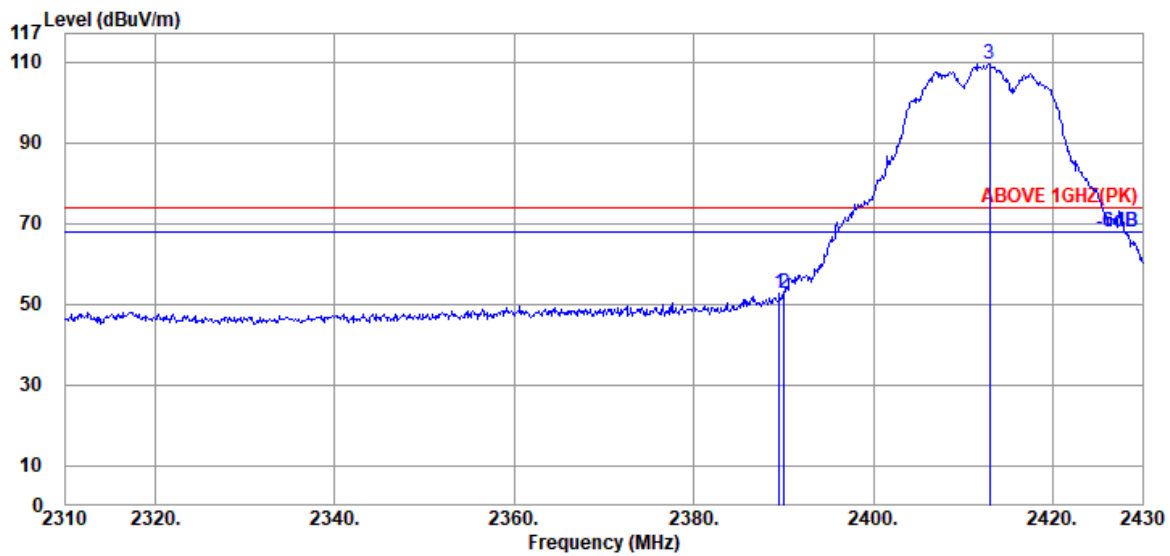


Antenna at Vertical Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Gain (dB)	Read level (dBμV)	Emission Level (dBUV/m)	Limits (dBUV/m)	Margin (dB)	Detector
@ 2459.500	32.30	7.98	34.55	92.17	97.90	---	---	Average
2483.500	32.30	7.99	34.55	30.45	36.19	54.00	17.81	Average
2497.500	32.30	8.00	34.56	33.45	39.19	54.00	14.81	Average

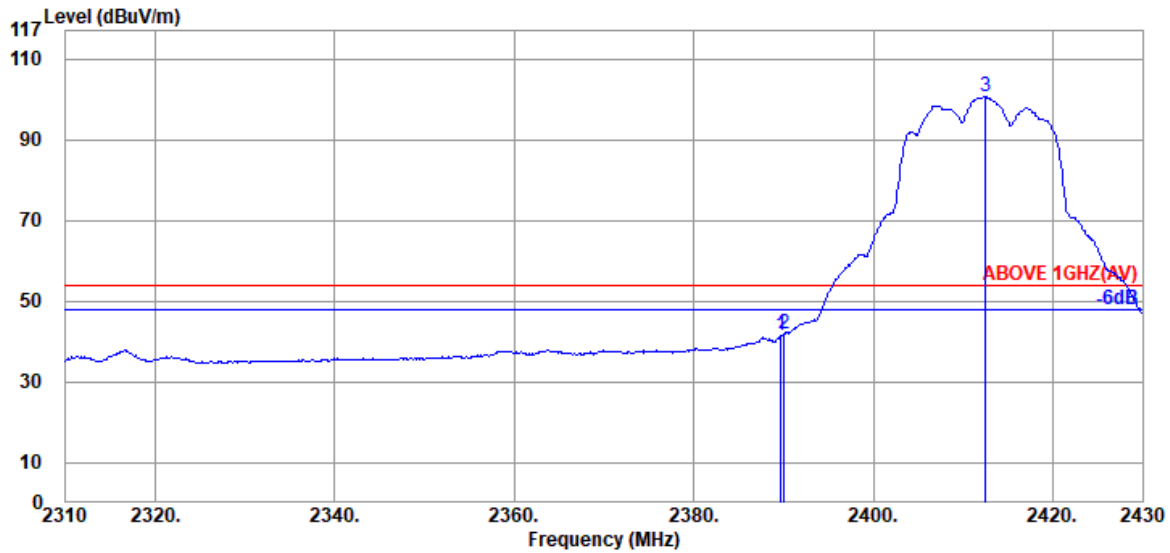
備註：“@”為主波，在此章節是不予以判定。

Mode	802.11g	Frequency	TX 2412MHz
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Antenna at Horizontal Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Gain (dB)	Read level (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
2389.560	31.89	7.95	34.53	47.42	52.73	74.00	21.27	Peak
2390.040	31.89	7.95	34.54	47.39	52.69	74.00	21.31	Peak
@ 2412.960	31.94	7.96	34.54	104.24	109.60	---	---	Peak

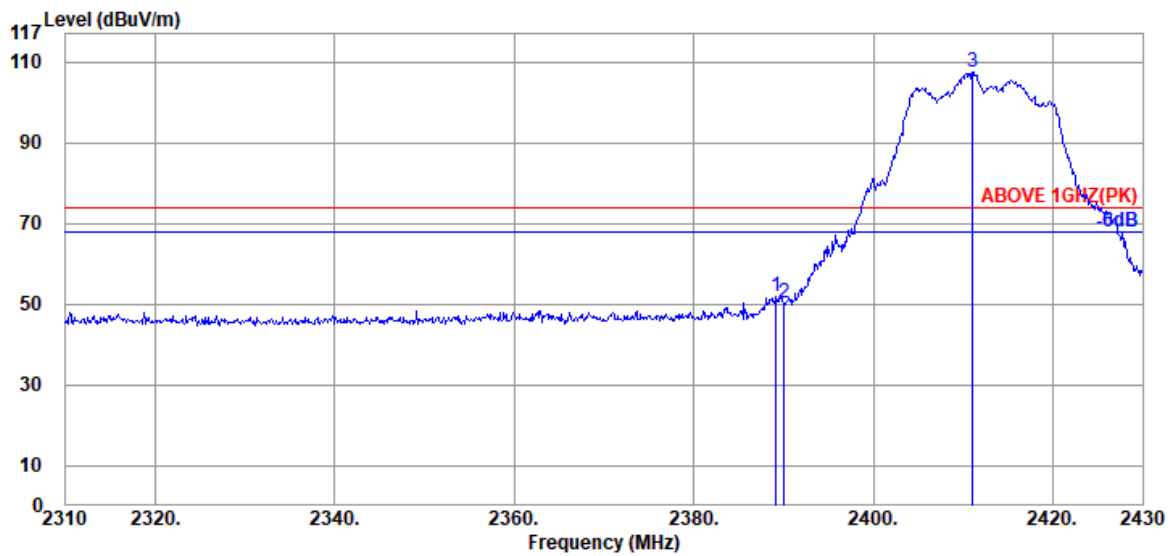


Antenna at Horizontal Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Gain (dB)	Read level (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
2389.680	31.89	7.95	34.53	36.03	41.34	54.00	12.66	Average
2390.040	31.89	7.95	34.54	36.69	41.99	54.00	12.01	Average
@ 2412.480	31.94	7.96	34.54	95.26	100.62	---	---	Average

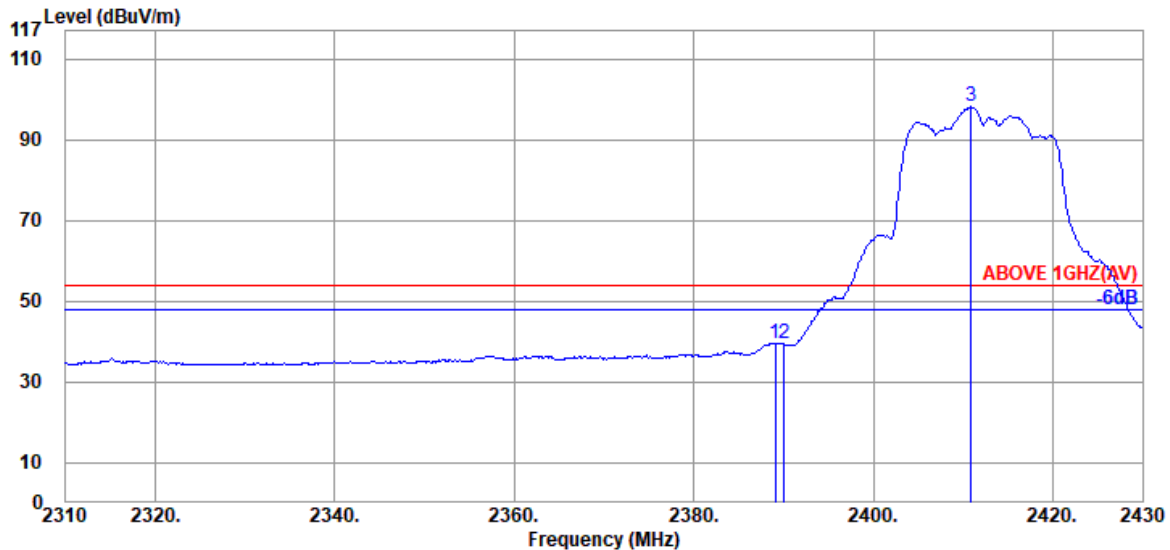
備註：“@”為主波，在此章節是不予以判定。

Mode	802.11g	Frequency	TX 2412MHz
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Antenna at Vertical Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Gain (dB)	Read level (dBμV)	Emission Level (dBUV/m)	Limits (dBUV/m)	Margin (dB)	Detector
2389.200	31.89	7.95	34.53	46.44	51.75	74.00	22.25	Peak
2390.040	31.89	7.95	34.54	44.89	50.19	74.00	23.81	Peak
@ 2411.040	31.87	7.96	34.54	102.00	107.29	---	---	Peak

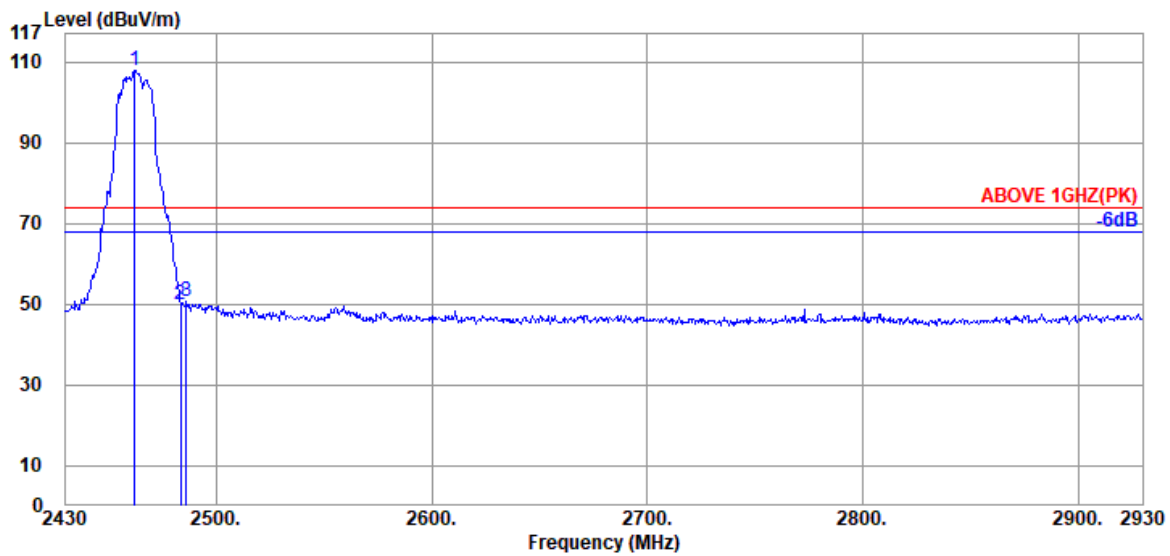


Antenna at Vertical Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Gain (dB)	Read level (dBμV)	Emission Level (dBUV/m)	Limits (dBUV/m)	Margin (dB)	Detector
2389.080	31.89	7.95	34.53	34.29	39.60	54.00	14.40	Average
2390.040	31.89	7.95	34.54	34.20	39.50	54.00	14.50	Average
@ 2410.920	31.87	7.96	34.54	92.82	98.11	---	---	Average

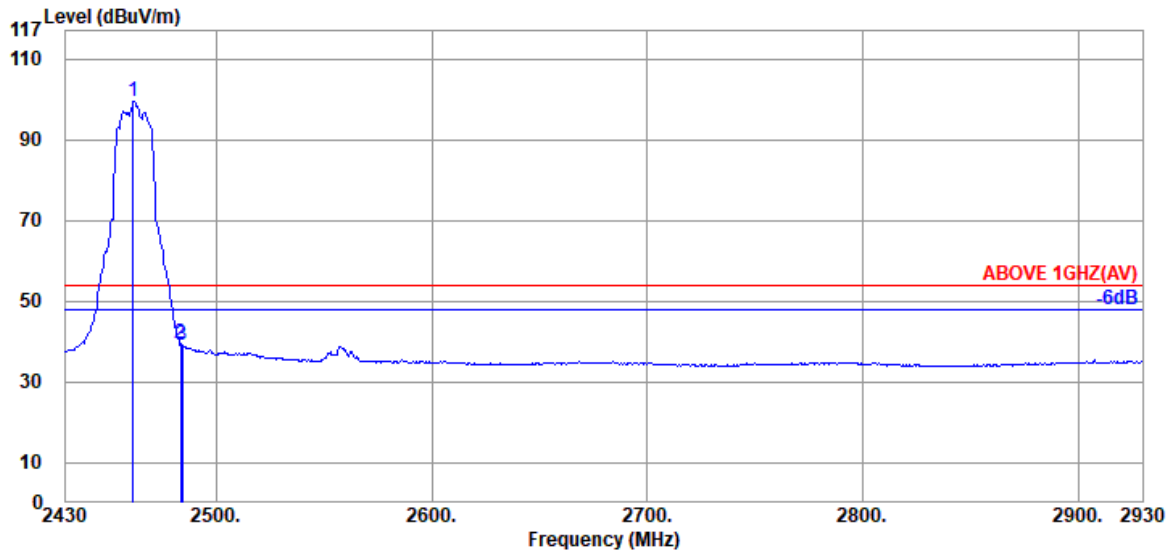
備註：“@”為主波，在此章節是不予以判定。

Mode	802.11g	Frequency	TX 2462MHz
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Antenna at Horizontal Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Gain (dB)	Read level (dBμV)	Emission Level (dBUV/m)	Limits (dBUV/m)	Margin (dB)	Detector
@ 2462.000	32.30	7.98	34.55	102.16	107.89	---	---	Peak
2483.500	32.30	7.99	34.55	44.34	50.08	74.00	23.92	Peak
2486.000	32.30	8.00	34.55	45.06	50.81	74.00	23.19	Peak

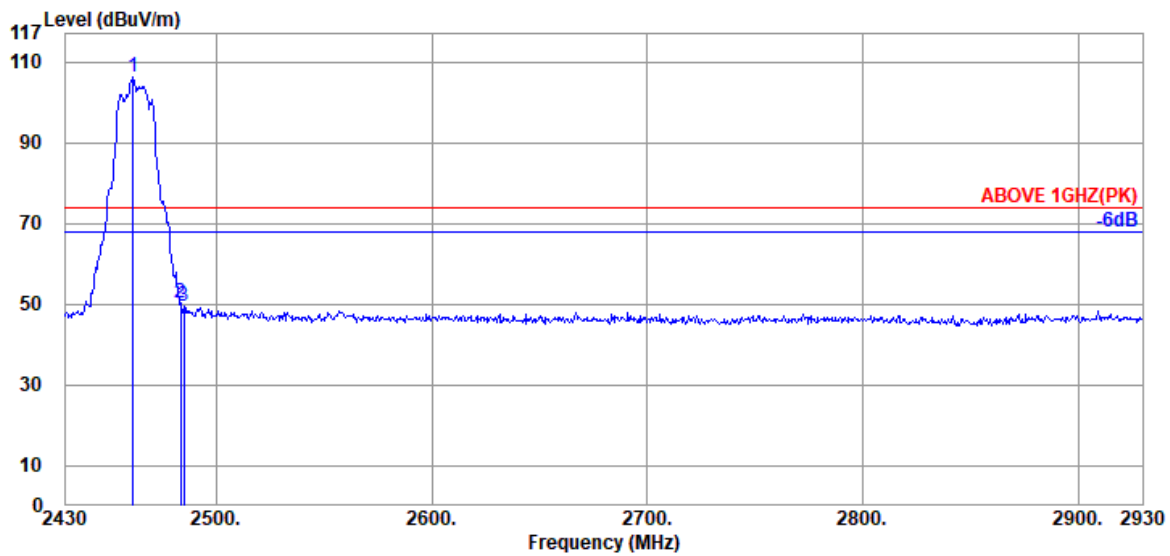


Antenna at Horizontal Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Gain (dB)	Read level (dBμV)	Emission Level (dBUV/m)	Limits (dBUV/m)	Margin (dB)	Detector
@ 2461.500	32.30	7.98	34.55	93.73	99.46	---	---	Average
2483.500	32.30	7.99	34.55	33.69	39.43	54.00	14.57	Average
2484.000	32.30	7.99	34.55	33.44	39.18	54.00	14.82	Average

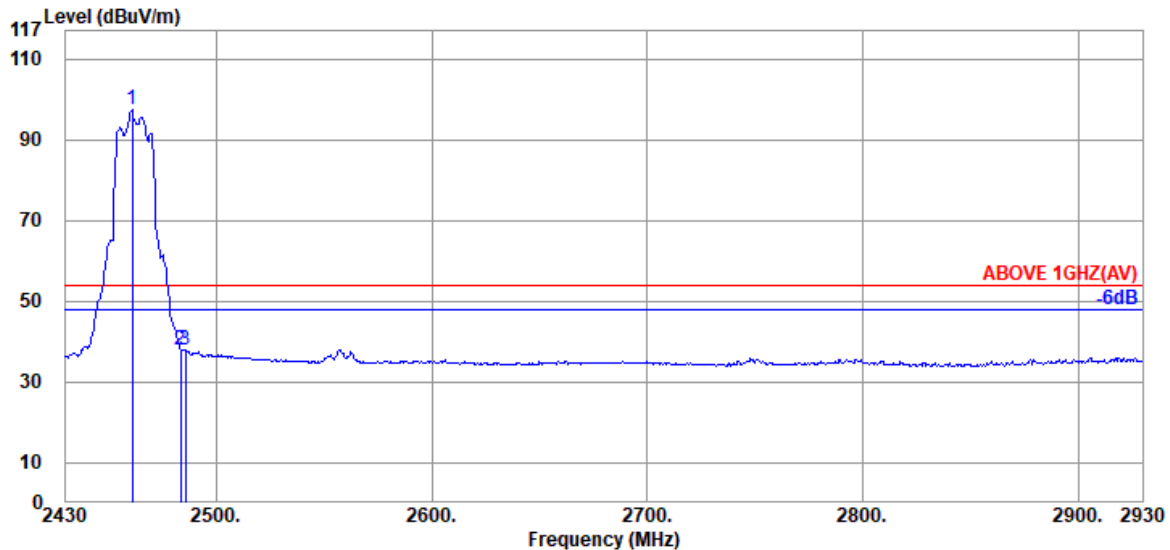
備註：“@”為主波，在此章節是不予以判定。

Mode	802.11g	Frequency	TX 2462MHz
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Antenna at Vertical Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Gain (dB)	Read level (dBμV)	Emission Level (dBUV/m)	Limits (dBUV/m)	Margin (dB)	Detector
@ 2461.500	32.30	7.98	34.55	100.52	106.25	---	---	Peak
2483.500	32.30	7.99	34.55	44.43	50.17	74.00	23.83	Peak
2485.000	32.30	7.99	34.55	43.92	49.66	74.00	24.34	Peak

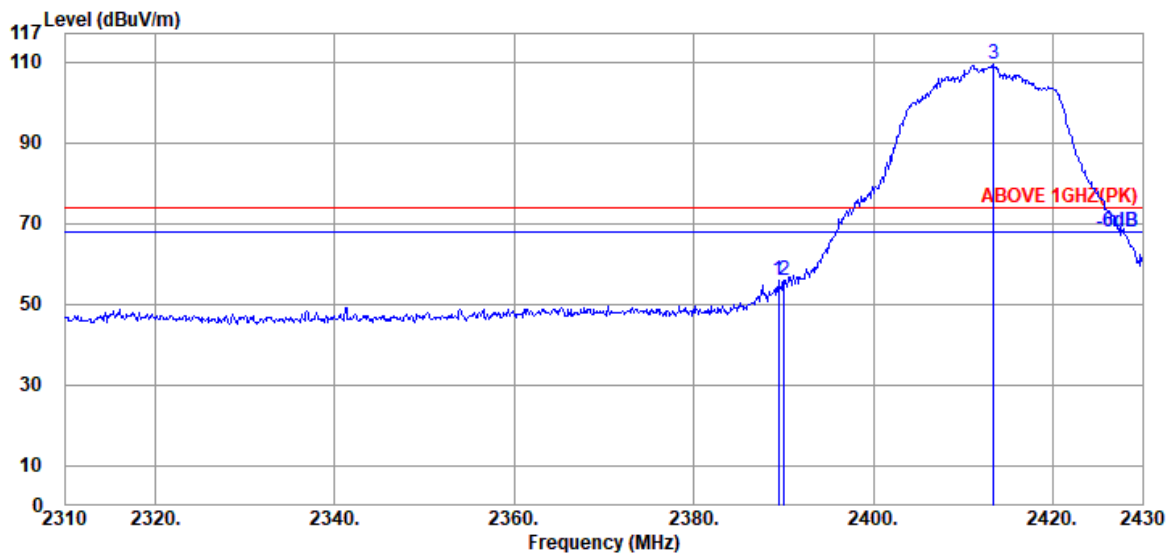


Antenna at Vertical Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Gain (dB)	Read level (dBμV)	Emission Level (dBUV/m)	Limits (dBUV/m)	Margin (dB)	Detector
@ 2461.000	32.30	7.98	34.55	91.57	97.30	---	---	Average
2483.500	32.30	7.99	34.55	32.07	37.81	54.00	16.19	Average
2485.500	32.30	7.99	34.55	32.37	38.11	54.00	15.89	Average

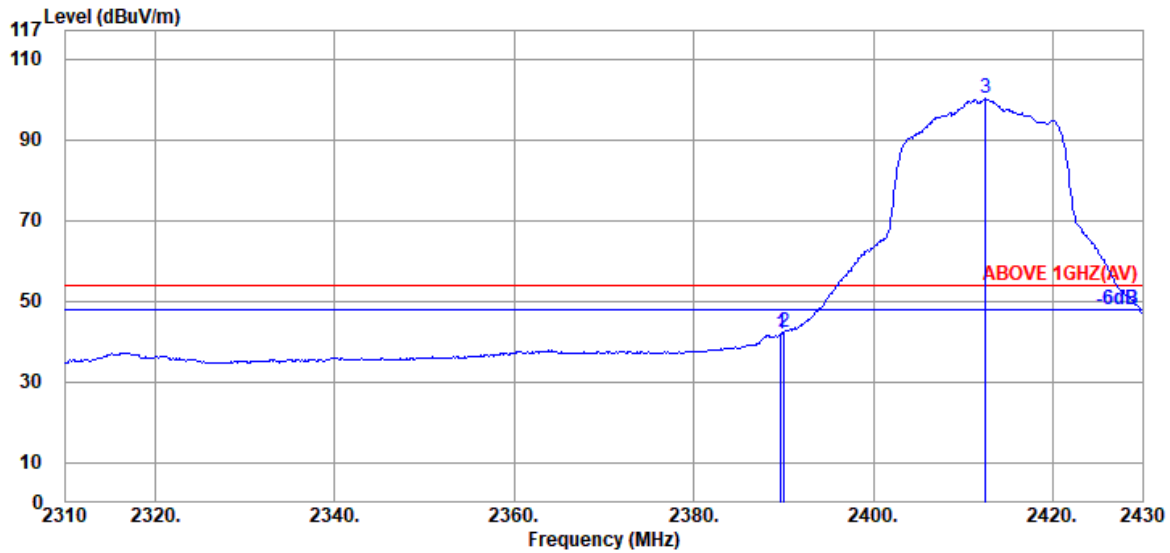
備註：“@”為主波，在此章節是不予以判定。

Mode	802.11n-HT20	Frequency	TX 2412MHz
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Antenna at Horizontal Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Gain (dB)	Read level (dBμV)	Emission Level (dBUV/m)	Limits (dBUV/m)	Margin (dB)	Detector
2389.440	31.89	7.95	34.53	50.57	55.88	74.00	18.12	Peak
2390.040	31.89	7.95	34.54	50.47	55.77	74.00	18.23	Peak
@ 2413.440	31.94	7.96	34.54	104.07	109.43	---	---	Peak

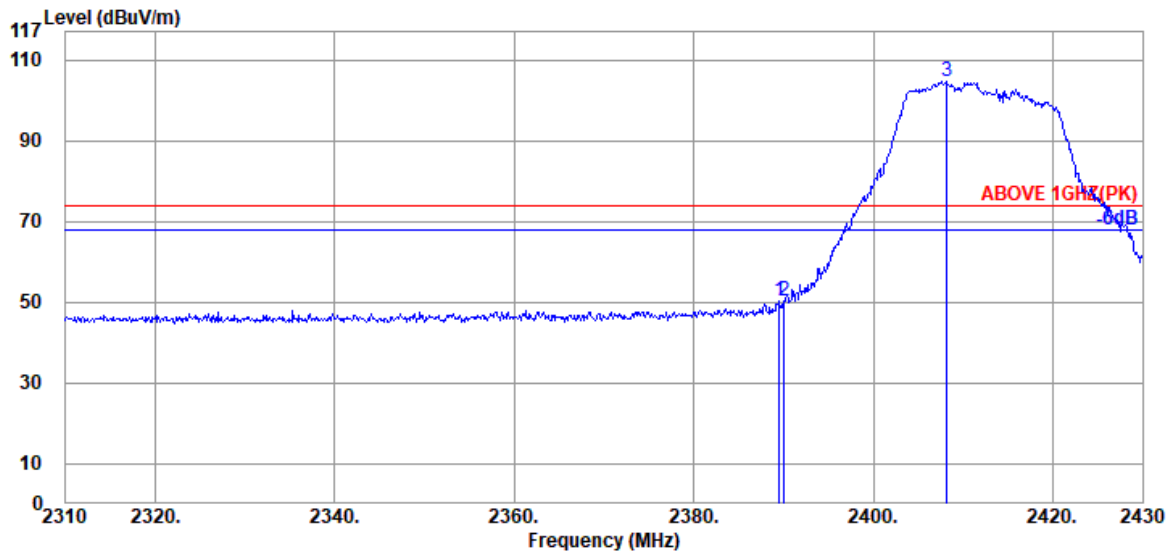


Antenna at Horizontal Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Gain (dB)	Read level (dBμV)	Emission Level (dBUV/m)	Limits (dBUV/m)	Margin (dB)	Detector
2389.680	31.89	7.95	34.53	36.60	41.91	54.00	12.09	Average
2390.040	31.89	7.95	34.54	37.13	42.43	54.00	11.57	Average
@ 2412.480	31.94	7.96	34.54	94.68	100.04	---	---	Average

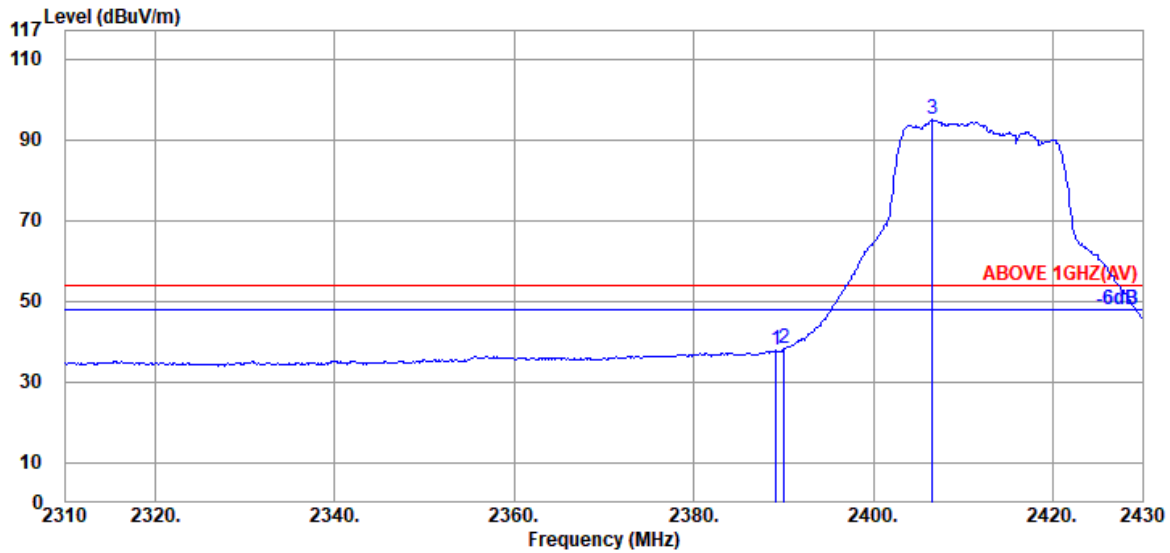
備註：“@”為主波，在此章節是不予以判定。

Mode	802.11n-HT20	Frequency	TX 2412MHz
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Antenna at Vertical Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Gain (dB)	Read level (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
2389.560	31.89	7.95	34.53	44.87	50.18	74.00	23.82	Peak
2390.040	31.89	7.95	34.54	44.91	50.21	74.00	23.79	Peak
@ 2408.160	31.87	7.96	34.54	99.44	104.73	---	---	Peak

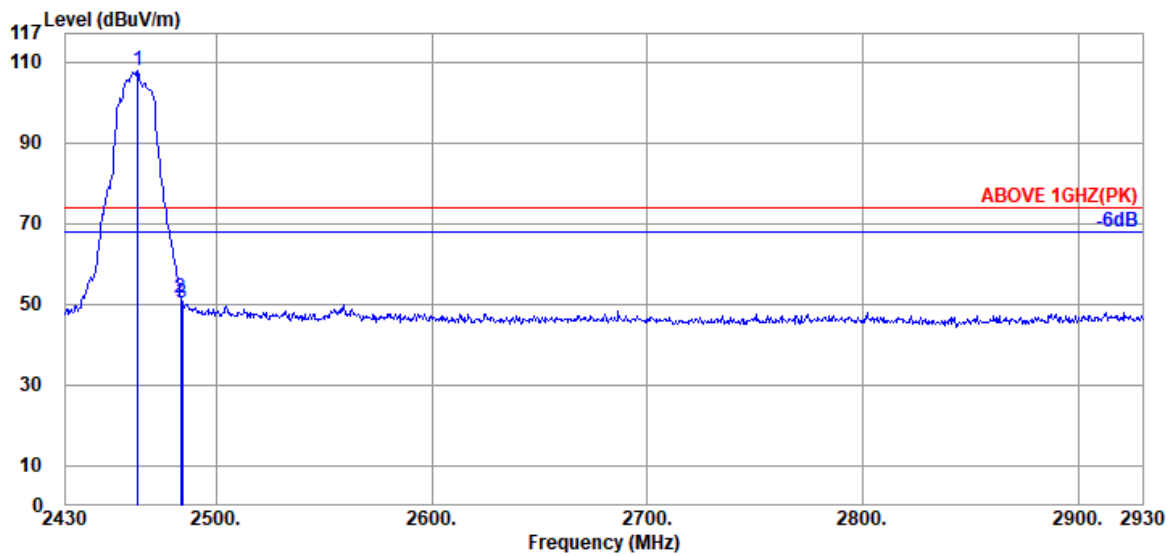


Antenna at Vertical Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Gain (dB)	Read level (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
2389.200	31.89	7.95	34.53	32.60	37.91	54.00	16.09	Average
2390.040	31.89	7.95	34.54	33.05	38.35	54.00	15.65	Average
@ 2406.600	31.87	7.95	34.54	89.61	94.89	---	---	Average

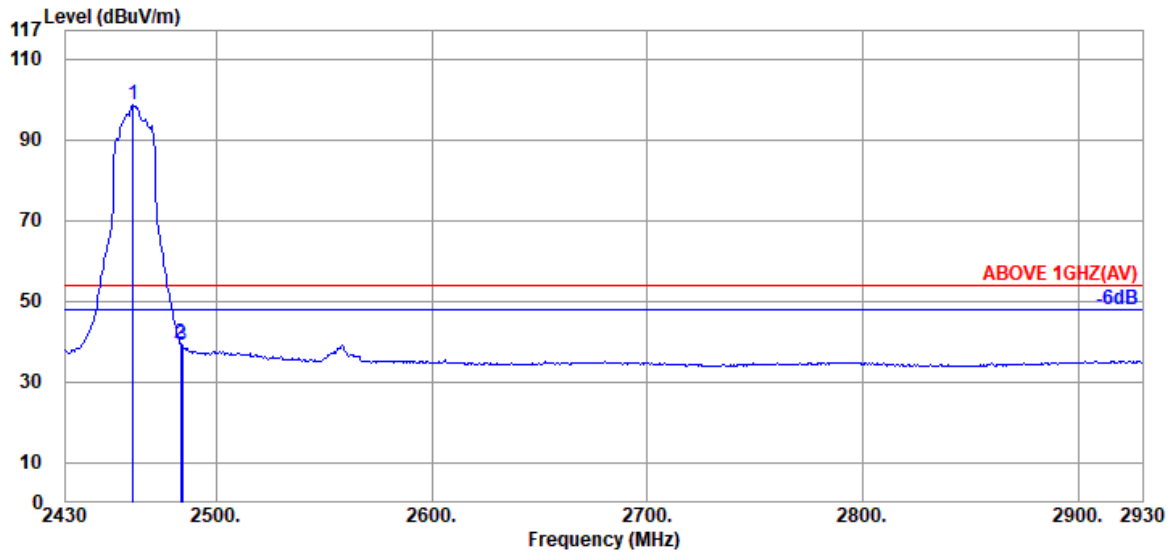
備註：“@”為主波，在此章節是不予以判定。

Mode	802.11n-HT20	Frequency	TX 2462MHz
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Antenna at Horizontal Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Gain (dB)	Read level (dBμV)	Emission Level (dBUV/m)	Limits (dBUV/m)	Margin (dB)	Detector
@ 2463.500	32.30	7.98	34.55	102.15	107.88	---	---	Peak
2483.500	32.30	7.99	34.55	45.75	51.49	74.00	22.51	Peak
2484.000	32.30	7.99	34.55	44.66	50.40	74.00	23.60	Peak

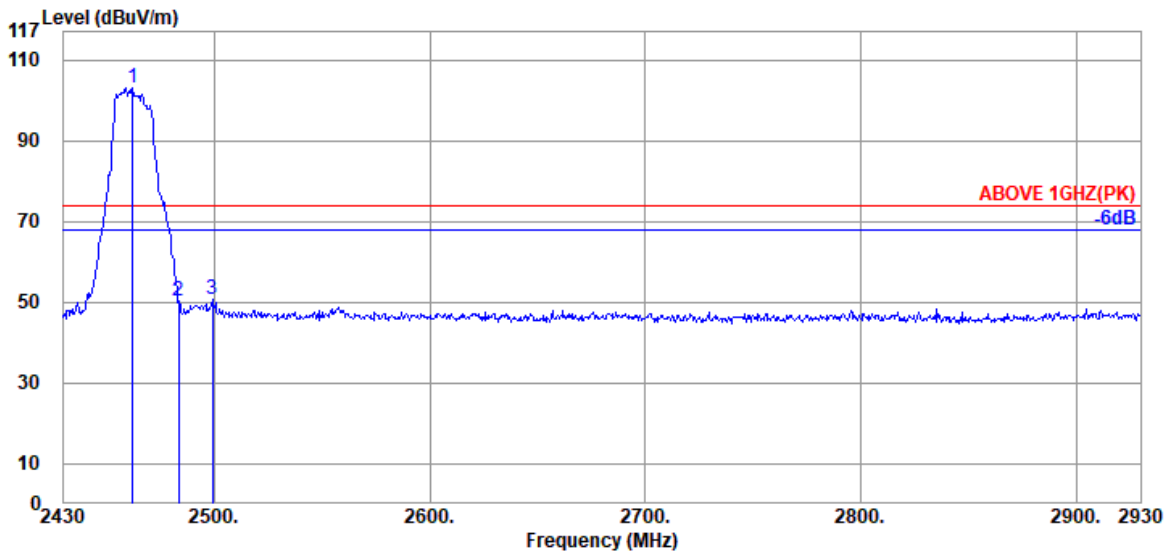


Antenna at Horizontal Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Gain (dB)	Read level (dBμV)	Emission Level (dBUV/m)	Limits (dBUV/m)	Margin (dB)	Detector
@ 2461.500	32.30	7.98	34.55	93.10	98.83	---	---	Average
2483.500	32.30	7.99	34.55	33.73	39.47	54.00	14.53	Average
2484.000	32.30	7.99	34.55	33.49	39.23	54.00	14.77	Average

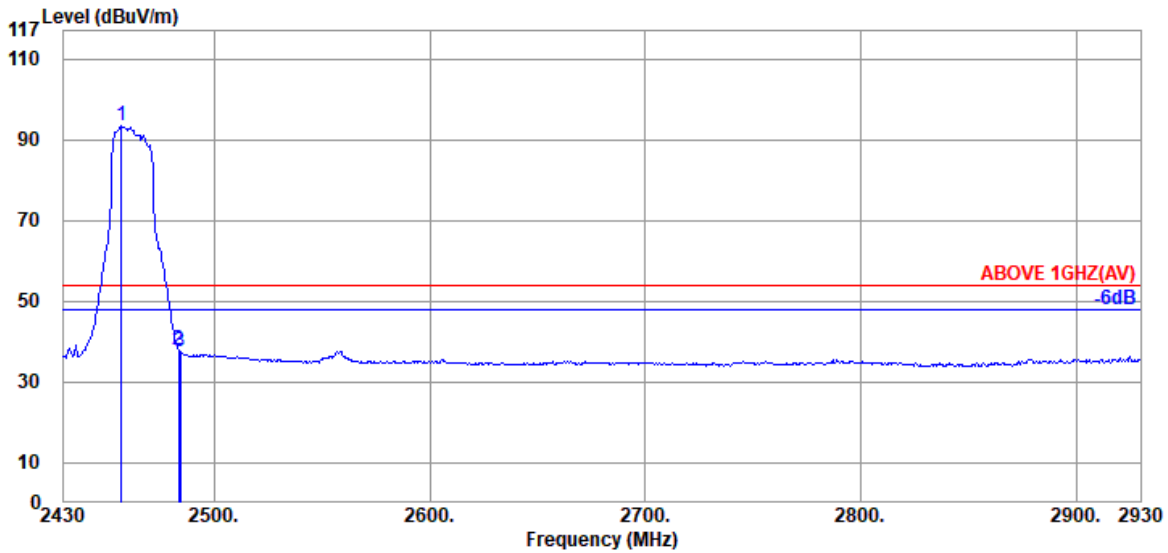
備註：“@”為主波，在此章節是不予以判定。

Mode	802.11n-HT20	Frequency	TX 2462MHz
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Antenna at Vertical Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Gain (dB)	Read level (dBμV)	Emission Level (dBUV/m)	Limits (dBUV/m)	Margin (dB)	Detector
@ 2462.000	32.30	7.98	34.55	97.17	102.90	---	---	Peak
2483.500	32.30	7.99	34.55	44.41	50.15	74.00	23.85	Peak
2499.000	32.30	8.00	34.56	44.89	50.63	74.00	23.37	Peak



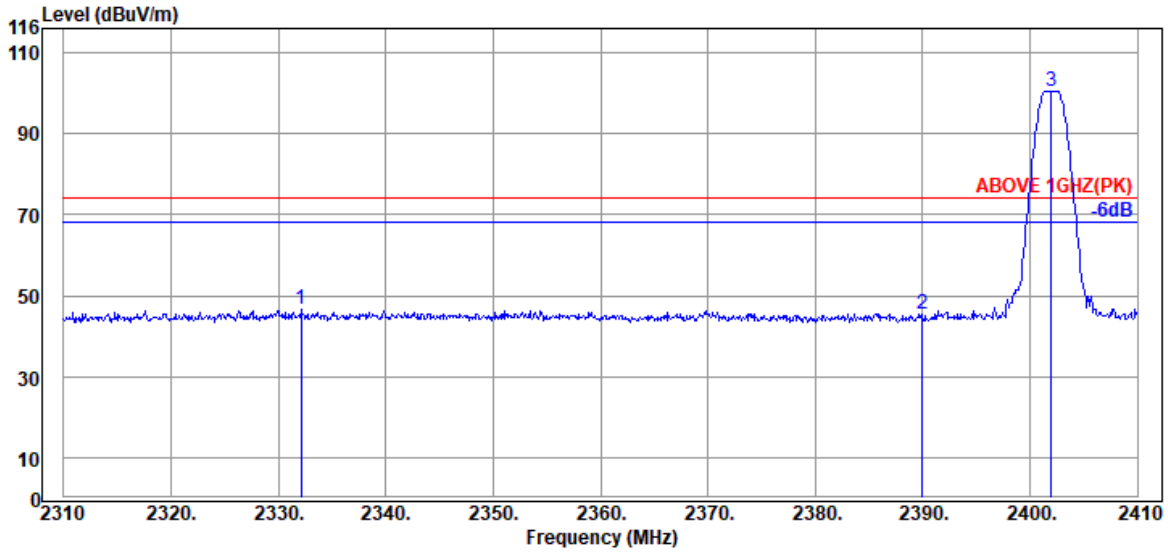
Antenna at Vertical Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Gain (dB)	Read level (dBμV)	Emission Level (dBUV/m)	Limits (dBUV/m)	Margin (dB)	Detector
@ 2457.000	32.30	7.98	34.55	87.90	93.63	---	---	Average
2483.500	32.30	7.99	34.55	32.19	37.93	54.00	16.07	Average
2484.000	32.30	7.99	34.55	31.83	37.57	54.00	16.43	Average

備註：“@”為主波，在此章節是不予以判定。

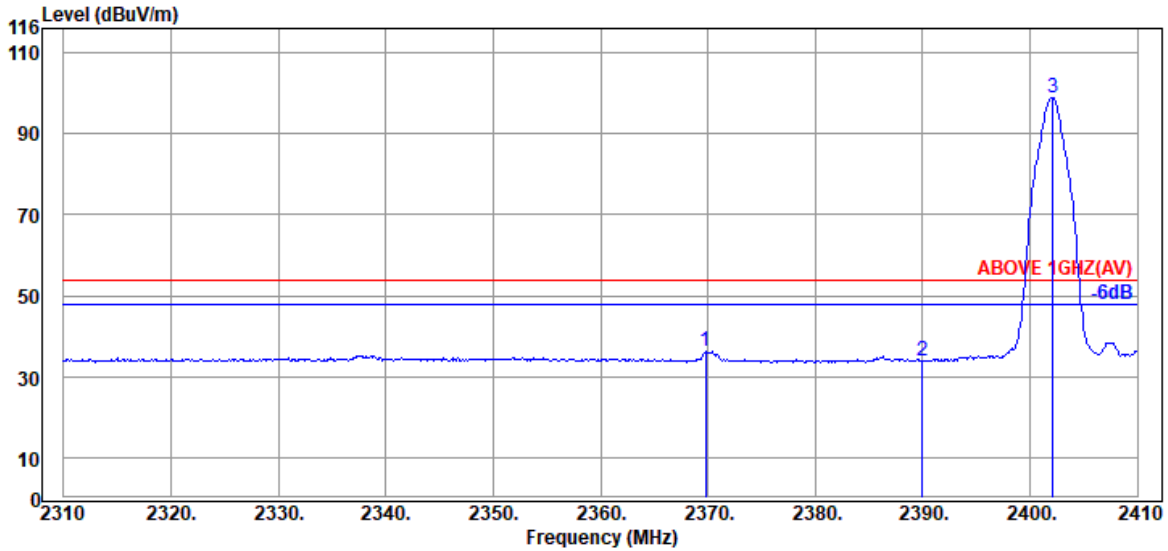
● BLE 模式

Mode	BLE (2M)	Frequency	TX 2402MHz
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Antenna at Horizontal Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Gain (dB)	Read Level (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
2332.10	32.02	7.92	34.52	41.02	46.44	74.00	27.56	Peak
2390.00	31.89	7.95	34.54	39.99	45.29	74.00	28.71	Peak
@ 2402.00	31.80	7.95	34.54	95.42	100.63	---	---	Peak

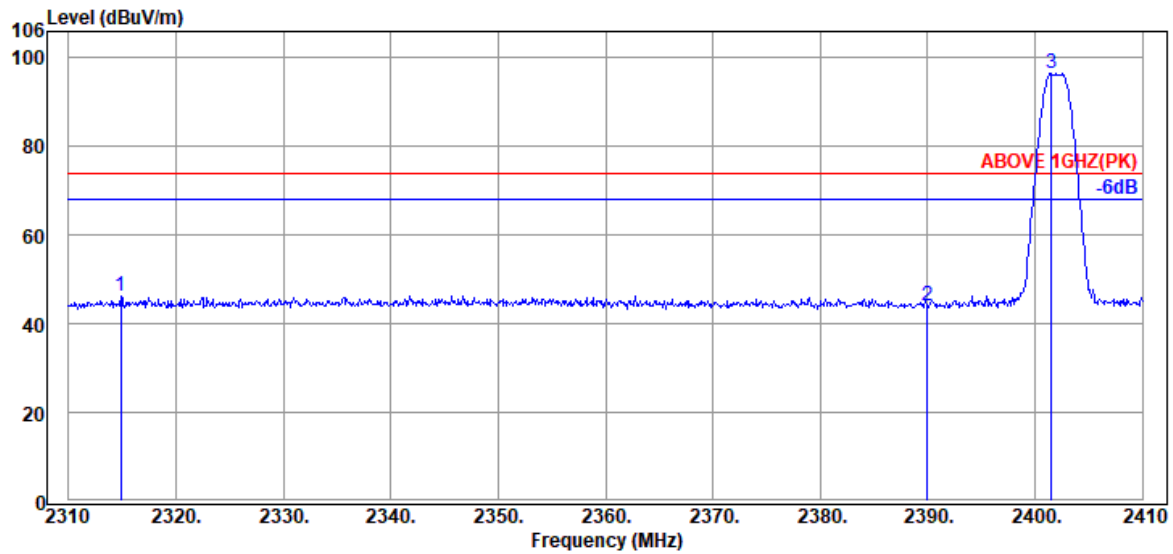


Antenna at Horizontal Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Gain (dB)	Read Level (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
2369.80	31.97	7.94	34.53	30.87	36.25	54.00	17.75	Average
2390.00	31.89	7.95	34.54	28.64	33.94	54.00	20.06	Average
@ 2402.10	31.80	7.95	34.54	93.70	98.91	---	---	Average

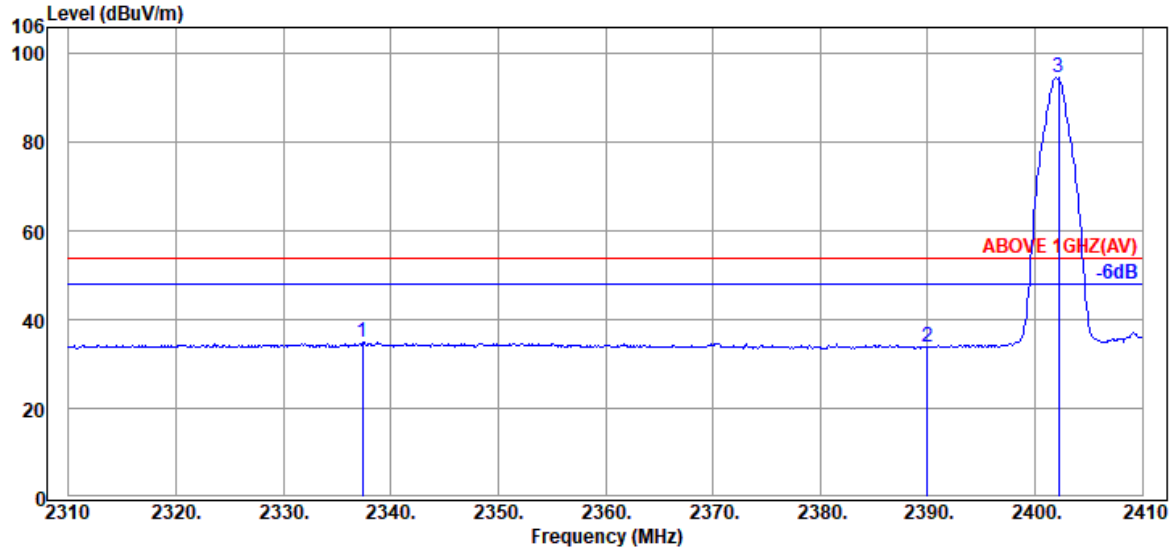
備註：“@”為主波，在此章節是不予以判定。

Mode	BLE (2M)	Frequency	TX 2402MHz
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Antenna at Vertical Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Gain (dB)	Read Level (dBμV)	Emission Level (dBUV/m)	Limits (dBUV/m)	Margin (dB)	Detector
2314.90	31.95	7.91	34.52	40.95	46.29	74.00	27.71	Peak
2390.00	31.89	7.95	34.54	38.68	43.98	74.00	30.02	Peak
@ 2401.50	31.80	7.95	34.54	91.16	96.37	---	---	Peak

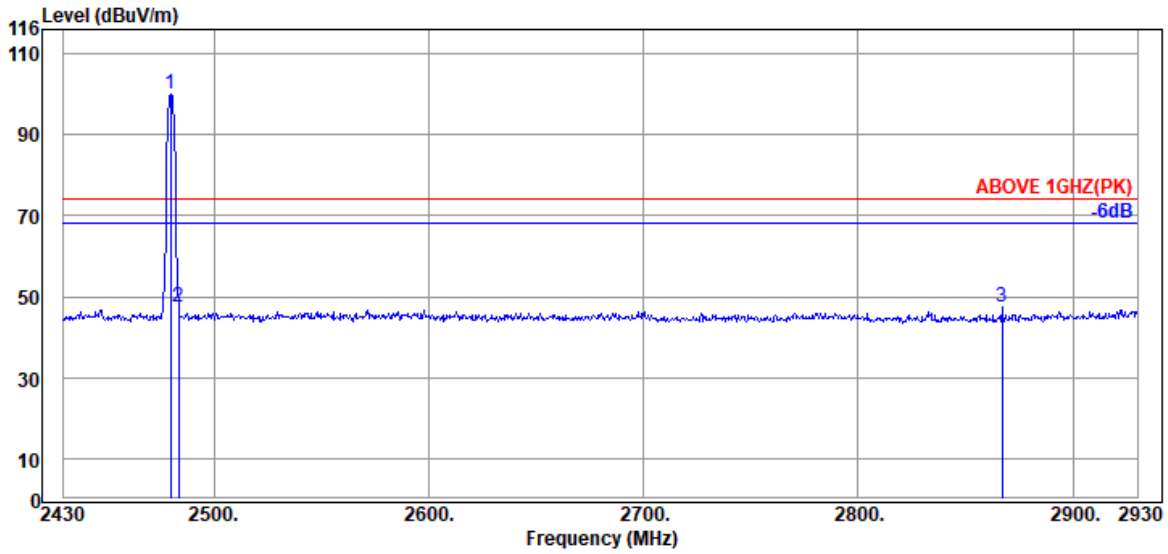


Antenna at Vertical Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Gain (dB)	Read Level (dBμV)	Emission Level (dBUV/m)	Limits (dBUV/m)	Margin (dB)	Detector
2337.40	32.05	7.92	34.52	29.41	34.86	54.00	19.14	Average
2390.00	31.89	7.95	34.54	28.75	34.05	54.00	19.95	Average
@ 2402.20	31.80	7.95	34.54	89.35	94.56	---	---	Average

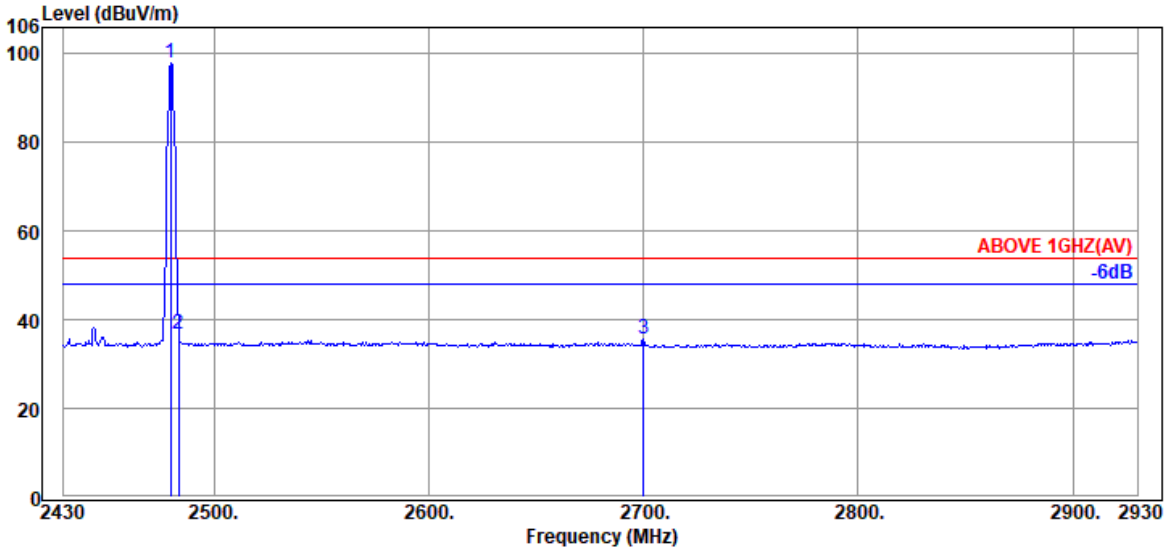
備註：“@”為主波，在此章節是不予以判定。

Mode	BLE (2M)	Frequency	TX 2480MHz
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Antenna at Horizontal Polarization

	Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Gain (dB)	Read Level (dBμV)	Emission Level (dBUV/m)	Limits (dBUV/m)	Margin (dB)	Detector
@	2480.00	32.30	7.99	34.55	94.13	99.87	---	---	Peak
	2483.50	32.30	7.99	34.55	41.84	47.58	74.00	26.42	Peak
	2867.00	32.37	8.17	34.63	41.50	47.41	74.00	26.59	Peak

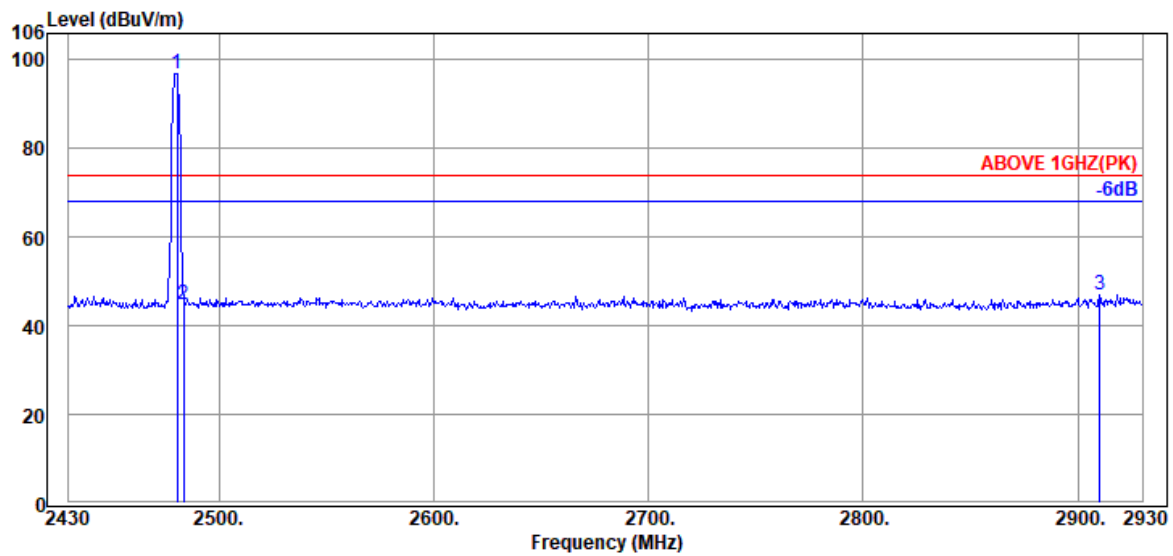


Antenna at Horizontal Polarization

	Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Gain (dB)	Read Level (dBμV)	Emission Level (dBUV/m)	Limits (dBUV/m)	Margin (dB)	Detector
@	2480.00	32.30	7.99	34.55	92.35	98.09	---	---	Average
	2483.50	32.30	7.99	34.55	31.01	36.75	54.00	17.25	Average
	2700.00	32.20	8.09	34.60	30.05	35.74	54.00	18.26	Average

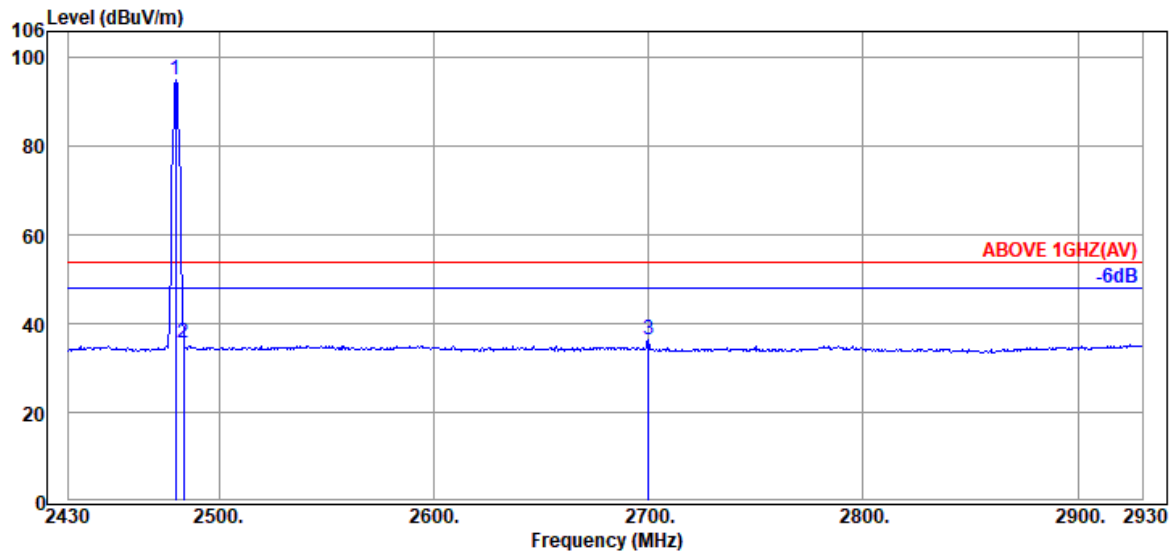
備註：“@”為主波，在此章節是不予以判定。

Mode	BLE (2M)	Frequency	TX 2480MHz
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Antenna at Vertical Polarization

	Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Gain (dB)	Read Level (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
@	2480.50	32.30	7.99	34.55	91.19	96.93	---	---	Peak
	2483.50	32.30	7.99	34.55	39.21	44.95	74.00	29.05	Peak
	2910.00	32.83	8.18	34.64	40.71	47.08	74.00	26.92	Peak



Antenna at Vertical Polarization

	Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Gain (dB)	Read Level (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
@	2480.00	32.30	7.99	34.55	89.19	94.93	---	---	Average
	2483.50	32.30	7.99	34.55	29.95	35.69	54.00	18.31	Average
	2700.00	32.20	8.09	34.60	30.73	36.42	54.00	17.58	Average

備註：“@”為主波，在此章節是不予以判定。

3. 發射頻寬之量測

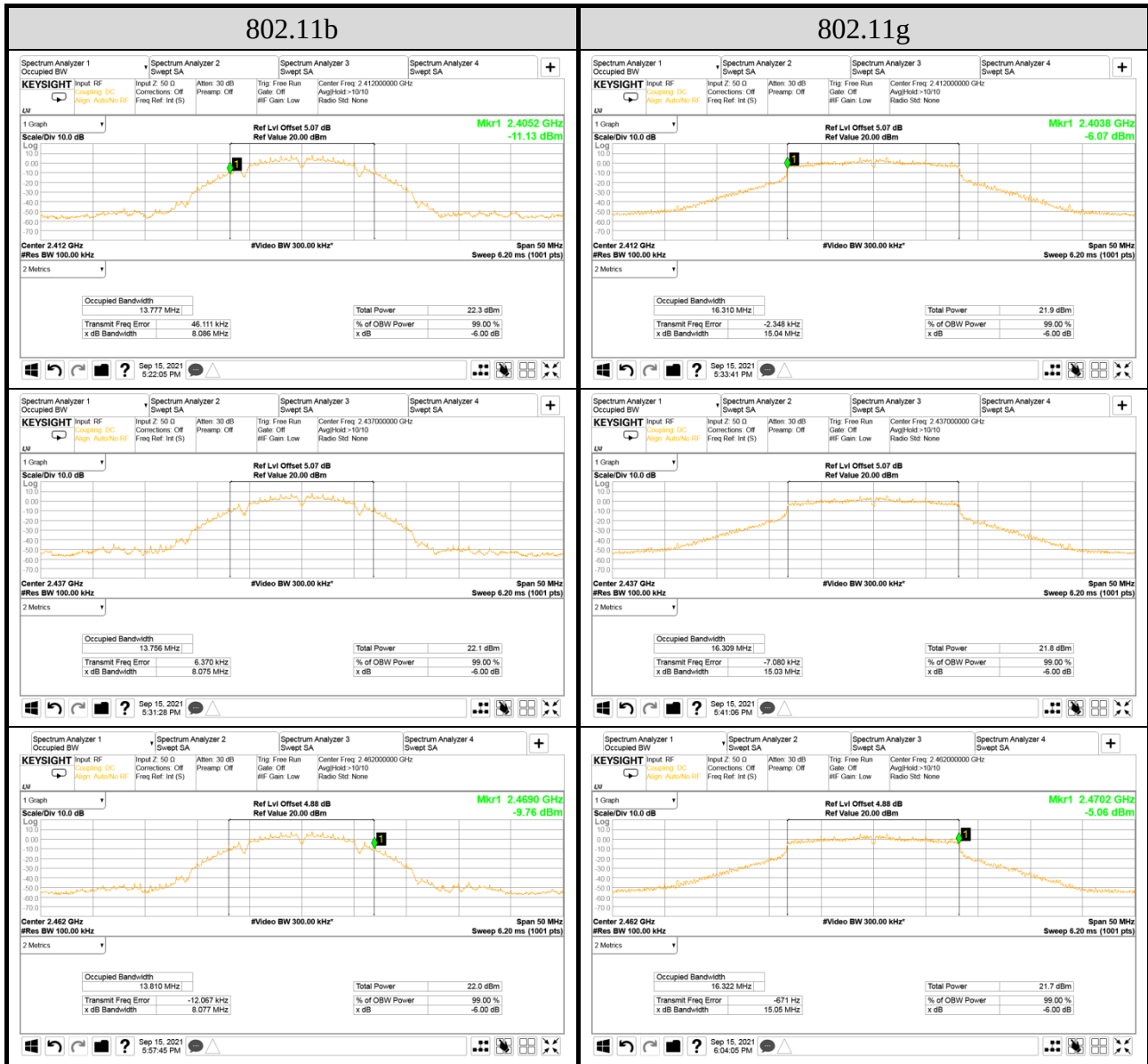
測試日期	2021/07/02 ~ 09/15	環境溫/濕度	23~24°C/53~55%
電纜損失	WLAN: 1.88dB or 2.07dB BLE: 5.08dB	測試人員	(1)Hua Wu (2)Sam Chang
測試電壓	AC 110V 60Hz		

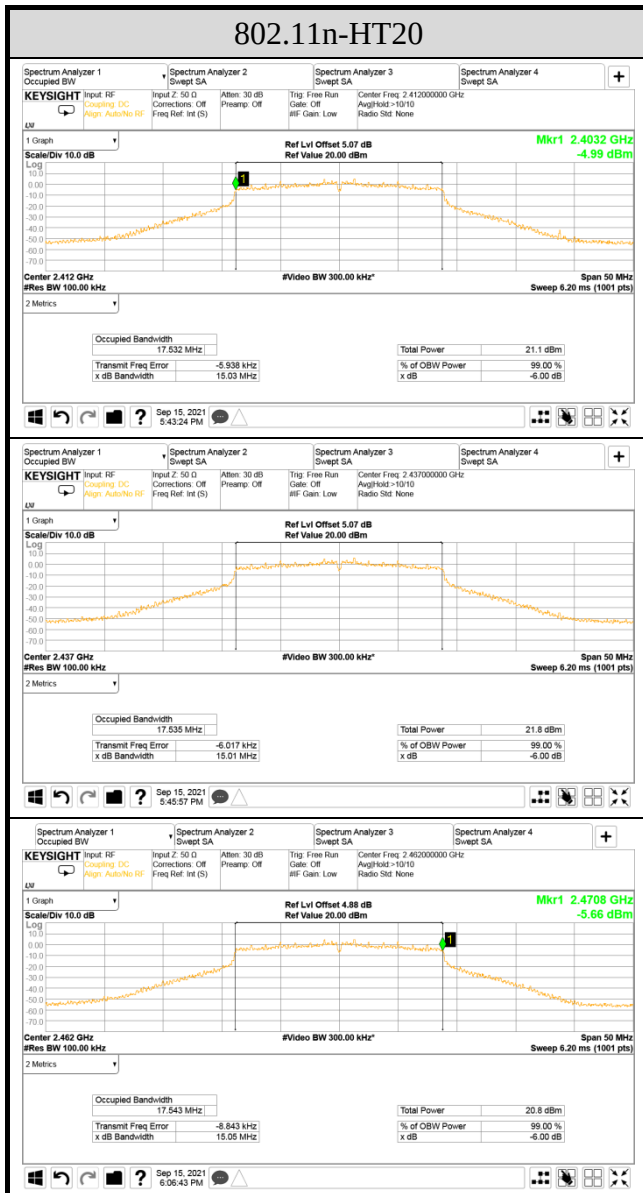
3.1. 發射頻寬

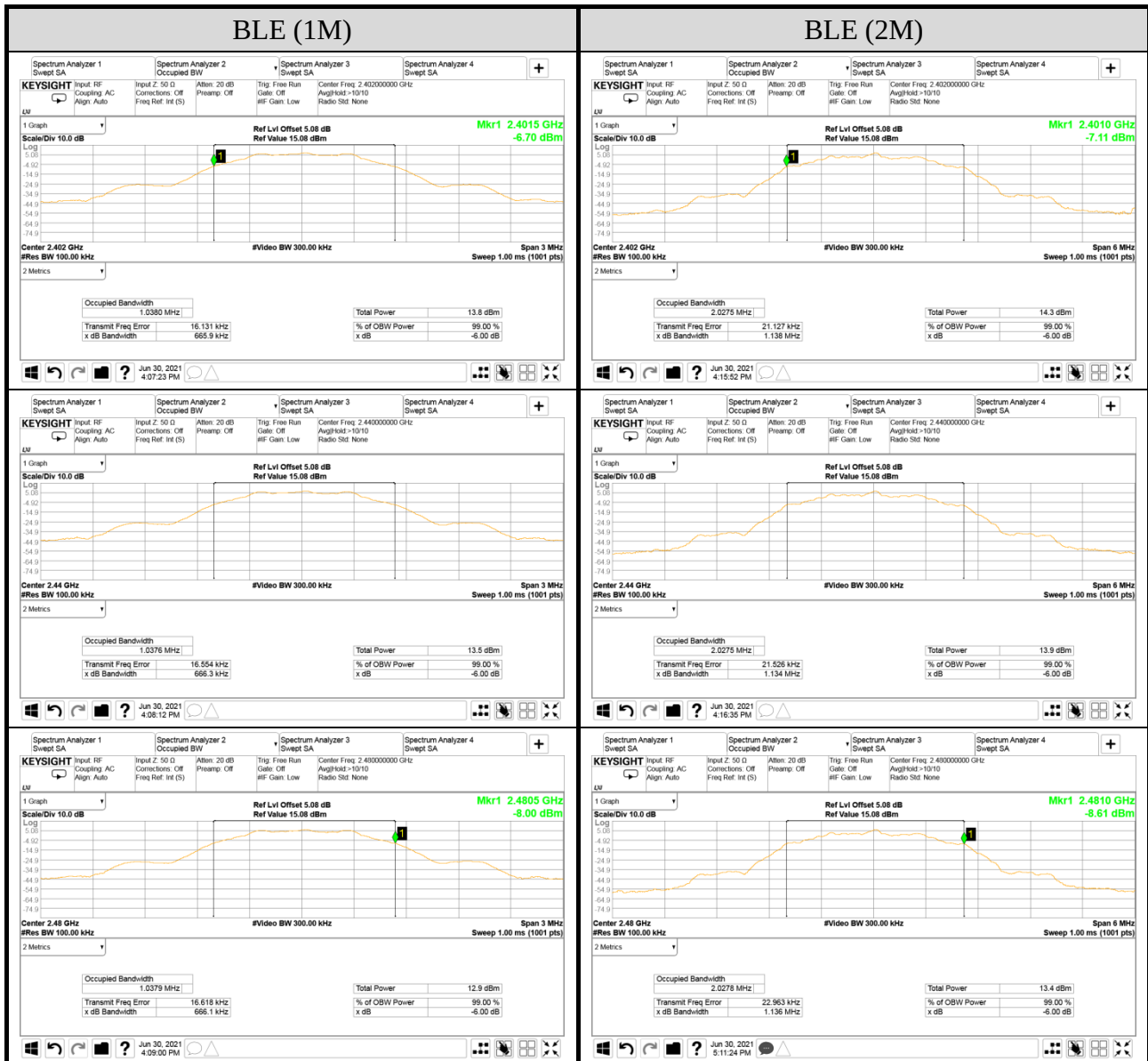
WLAN 模式	測試頻率 (MHz)	6dB 頻寬 (MHz)	限制值 (kHz)
802.11b	2412	8.086	>500
	2437	8.075	
	2462	8.077	
802.11g	2412	15.04	
	2437	15.03	
	2462	15.05	
802.11n-HT20	2412	15.03	
	2437	15.01	
	2462	15.05	

BLE 模式	測試頻率 (MHz)	6dB 頻寬 (MHz)	限制值 (kHz)
1M	2402	0.6659	>500
	2440	0.6663	
	2480	0.6661	
2M	2402	1.138	
	2440	1.134	
	2480	1.136	

3.2. 發射頻寬之量測圖







4. 峰值輸出功率之量測

測試日期	2021/06/30 ~ 09/07	環境溫/濕度	23~25°C/51~53%
電纜損失	WLAN: 1.88dB or 2.07dB BLE: 5.08dB	測試人員	(1)Hua Wu (2)Sam Chang
測試電壓	AC 110V 60Hz		

4.1. 峰值輸出功率

WLAN 模式	測試頻率 (MHz)	輸出功率(dBm)		Total 輸出功率 (dBm)	限制值 (dBm)
		Antenna 0	Antenna 1		
802.11b	2412	16.60	16.85	19.74	30
	2437	16.50	16.53	19.53	
	2462	16.72	16.53	19.64	
802.11g	2412	18.34	18.76	21.57	
	2437	18.30	18.38	21.35	
	2462	18.46	18.24	21.36	
802.11n-HT20	2412	17.61	18.16	20.90	
	2437	18.28	18.44	21.37	
	2462	17.65	17.64	20.66	

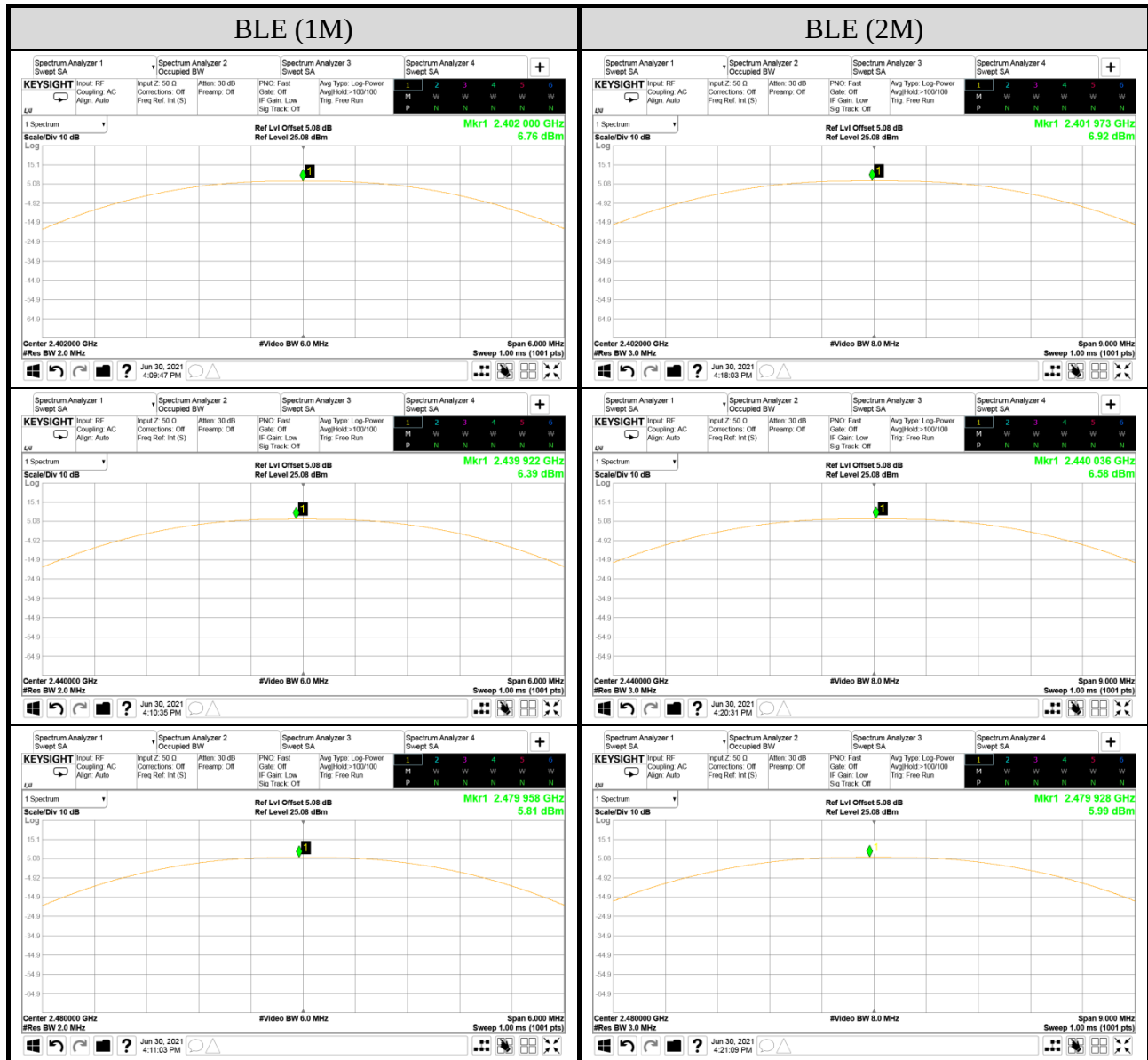
BLE 模式	測試頻率 (MHz)	輸出功率(dBm)	限制值 (kHz)
1M	2402	6.76	30
	2440	6.39	
	2480	5.81	
2M	2402	6.92	
	2440	6.58	
	2480	5.99	

4.2. 平均輸出功率(參考用)

WLAN 模式	測試頻率 (MHz)	Duty Cycle (X)	輸出功率(dBm)			Total 輸出功率 (dBm)	限制值 (dBm)
			Antenna 0	Antenna 1	10log(1/X)		
802.11b	2412	0.980	14.30	14.43	0.09	17.46	30
	2437		14.10	14.17		17.23	
	2462		14.38	14.10		17.34	
802.11g	2412	0.963	13.74	14.10	0.16	17.10	
	2437		13.72	13.70		16.88	
	2462		13.94	13.59		16.94	
802.11n-HT20	2412	0.955	12.82	13.21	0.20	16.23	
	2437		13.51	15.52		17.84	
	2462		12.88	12.67		15.98	

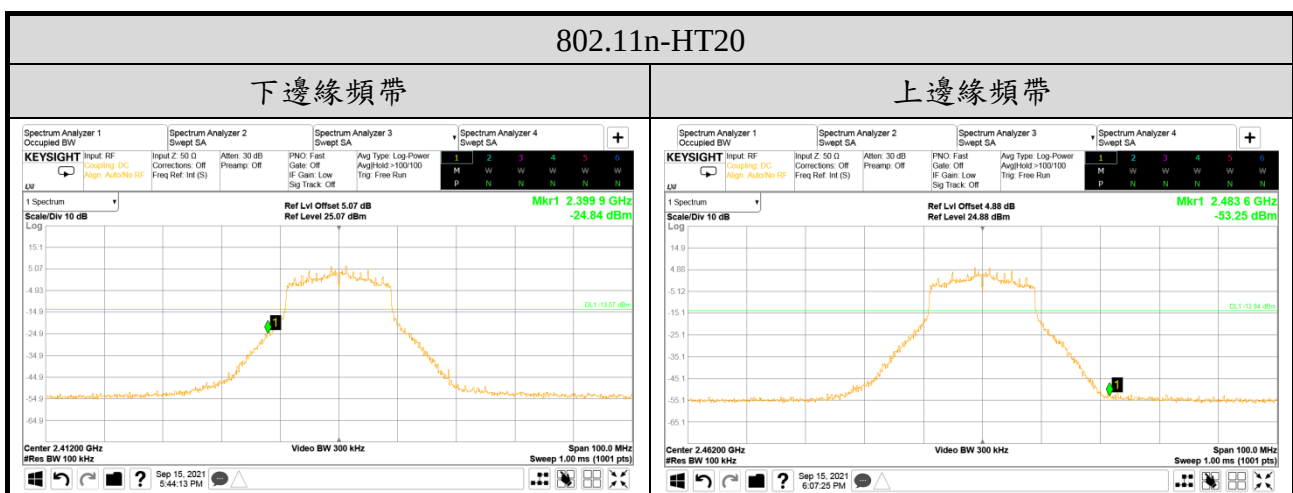
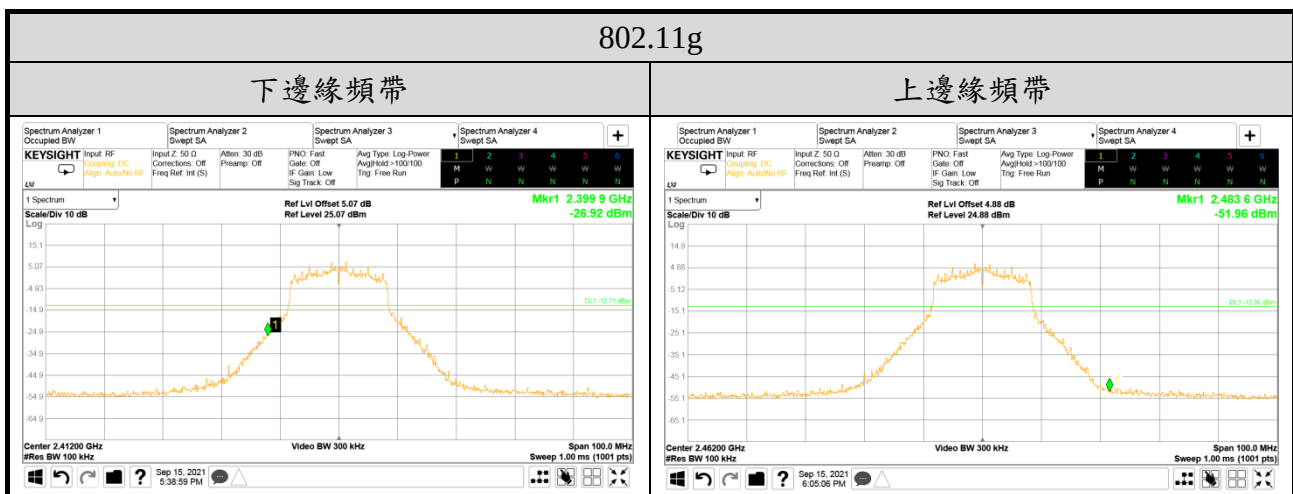
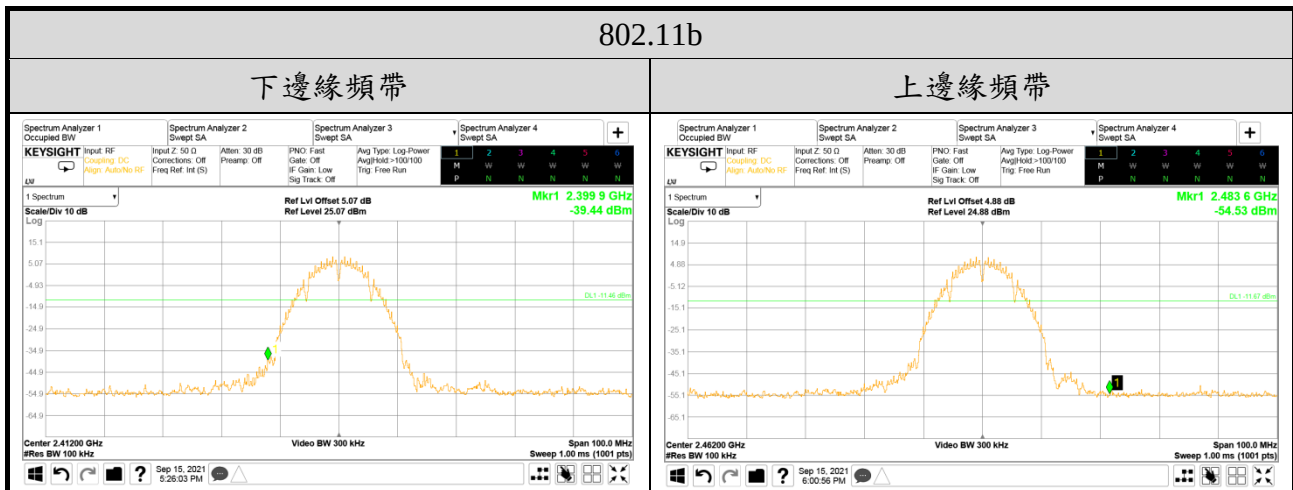
註:當 Duty cycle<98%, 最大輸出功率必需要加上 duty cycle factor 10log(1/x)。(x=duty cycle)

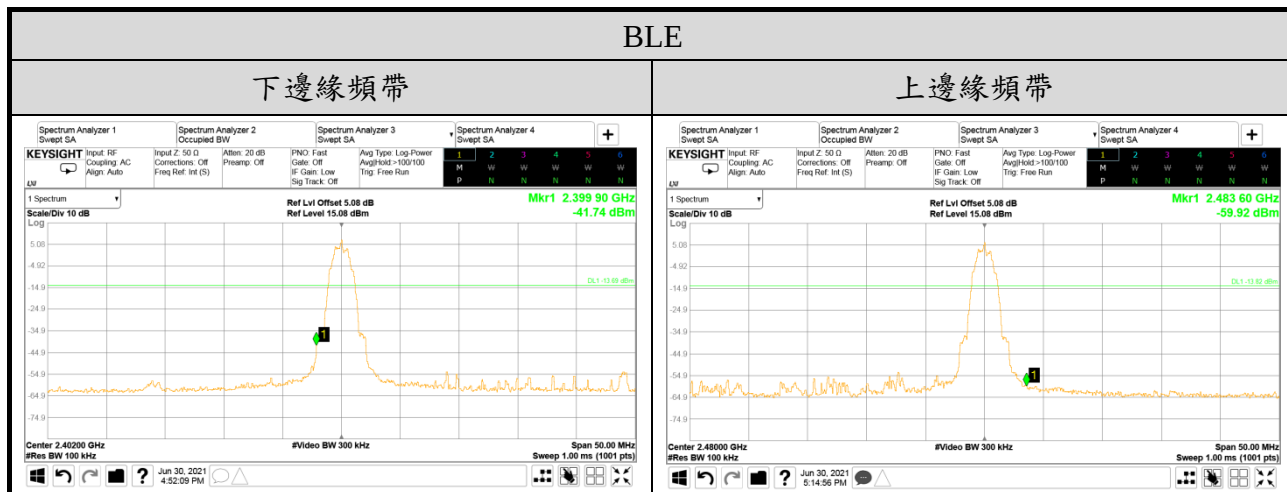
4.3. 峰值輸出功率之量測圖



5. 頻帶邊緣之 RF 傳導發射之量測

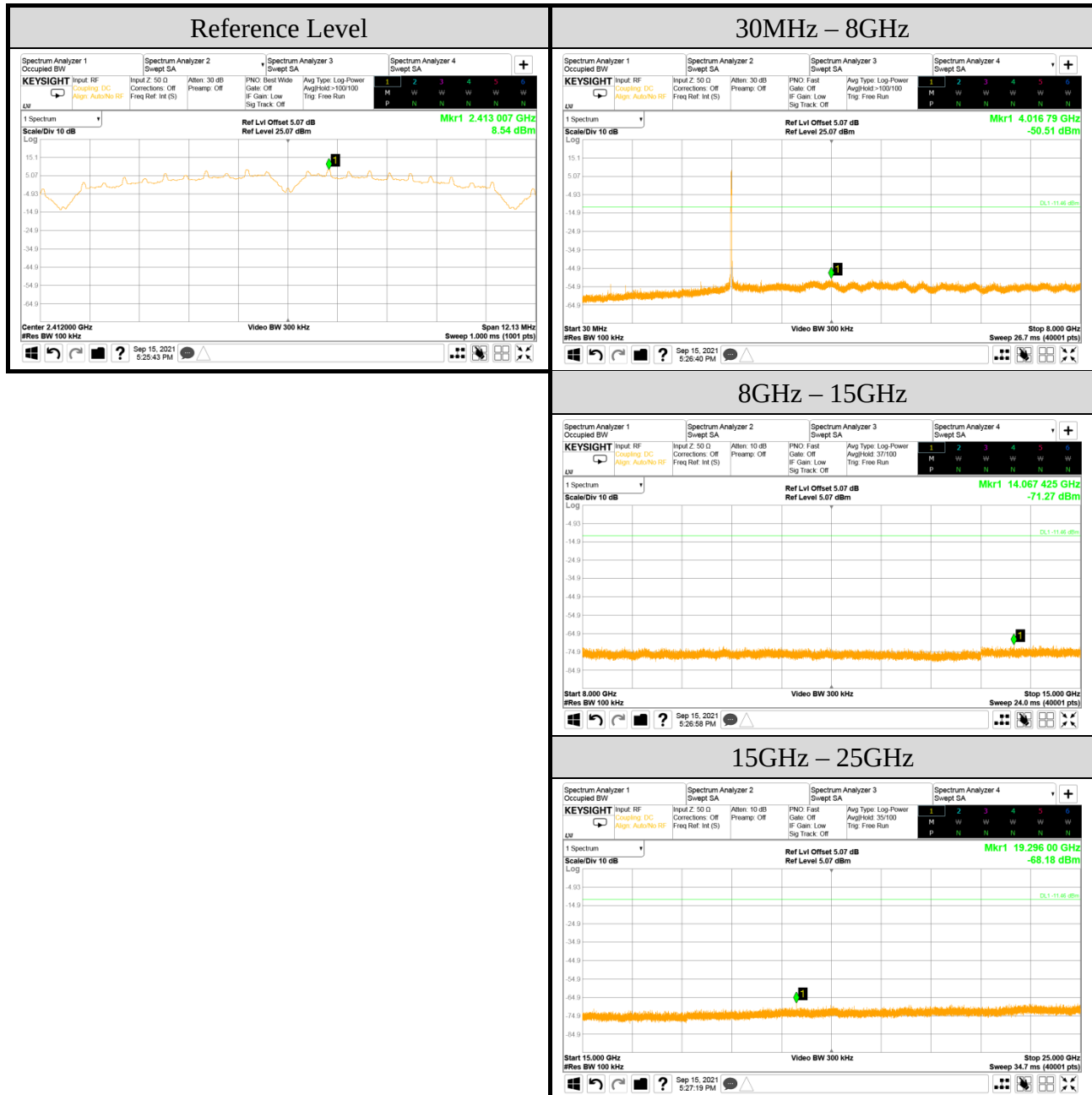
測試日期	2021/06/30 ~ 09/15	環境溫/濕度	24~25°C/51~55%
電纜損失	WLAN: 1.88dB or 2.07dB BLE: 5.08dB	測試人員	(1)Hua Wu (2)Sam Chang
測試電壓	AC 110V 60Hz		



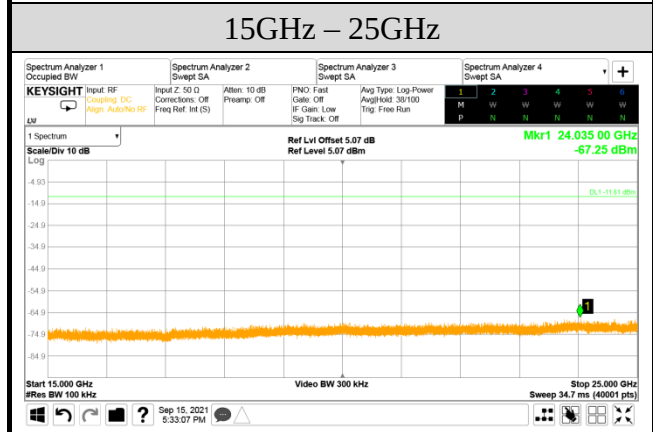
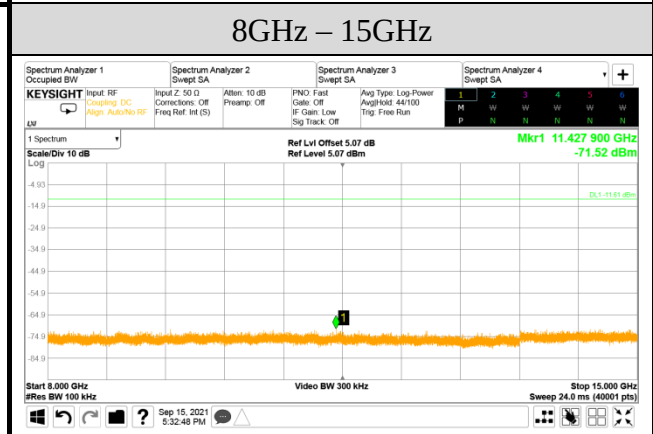
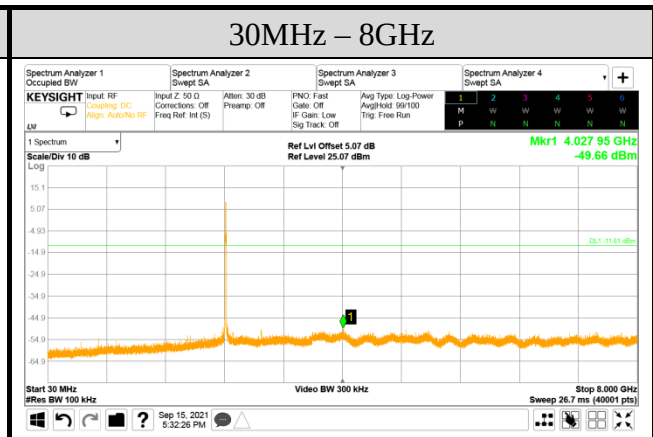
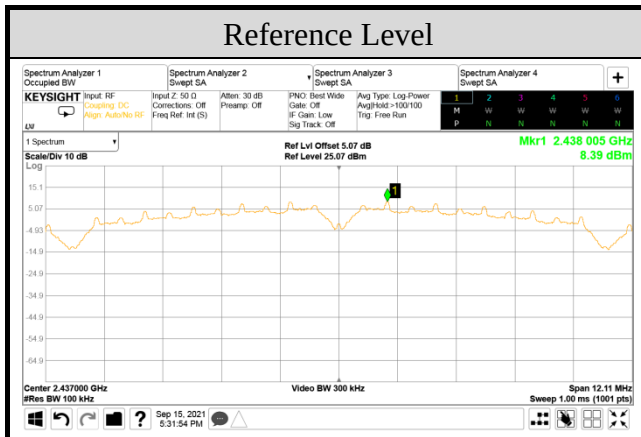


6. 混附發射之 RF 傳導發射之量測

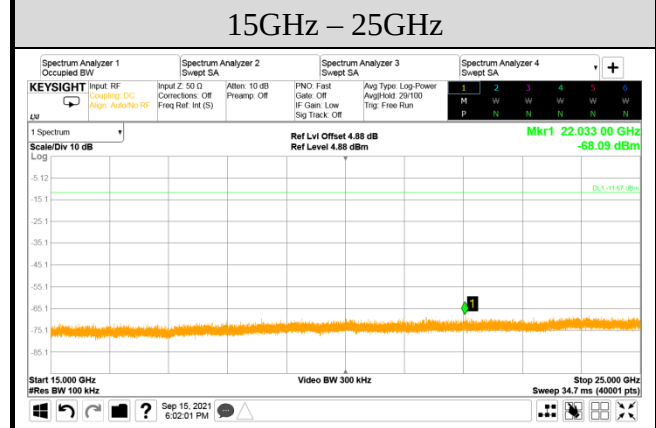
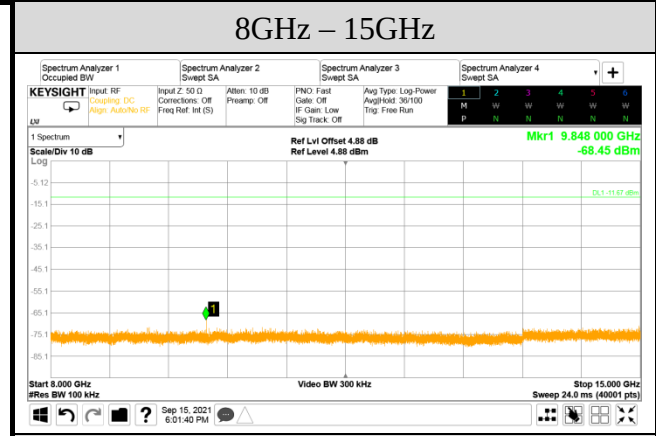
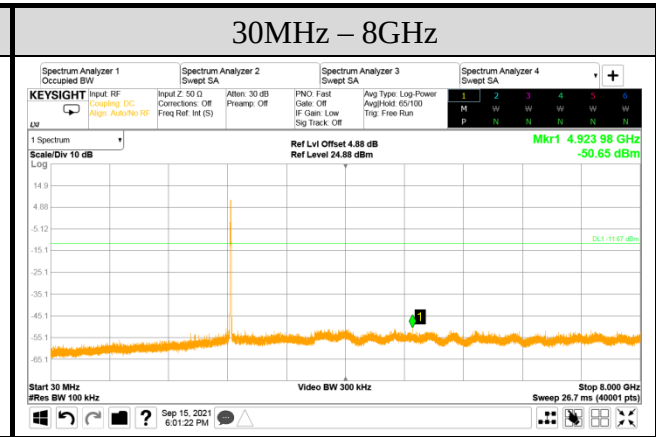
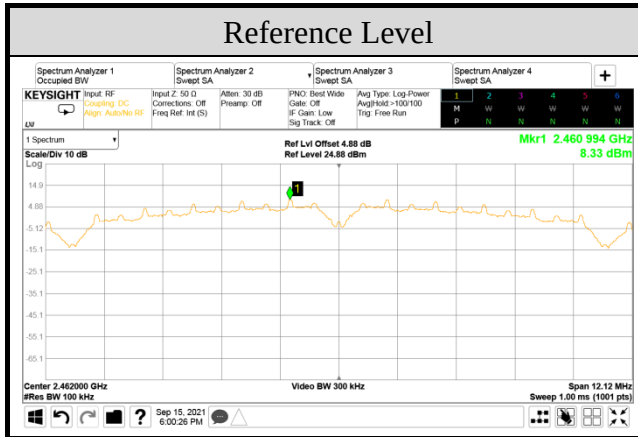
測試日期	2021/09/15	環境溫/濕度	24°C/55%
電纜損失	2.07dB	模式	802.11b
測試電壓	AC 110V 60Hz	測試頻率	2412MHz
Simultaneous Factor10 log(n) (Note: “n” is antenna number)			3dB



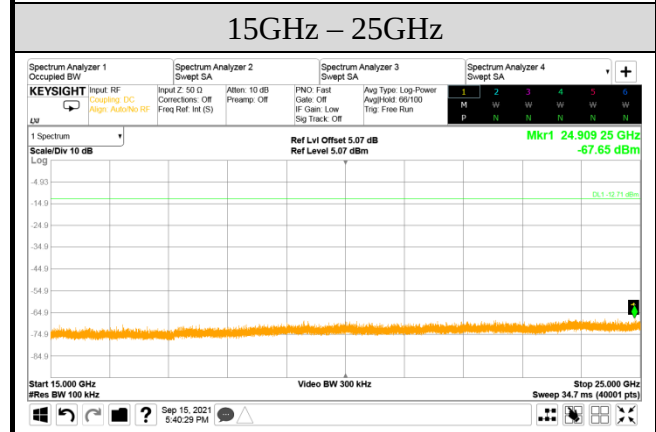
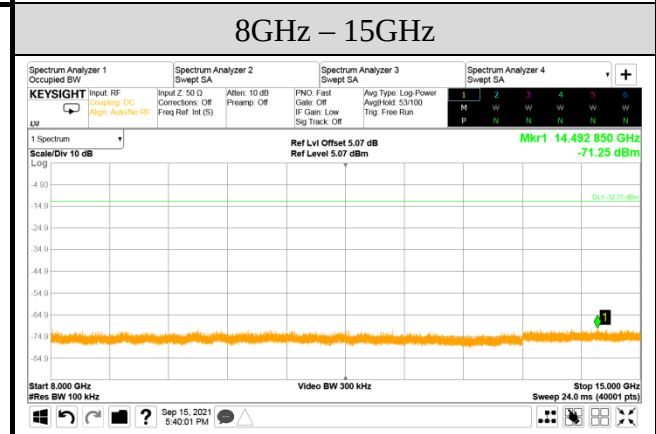
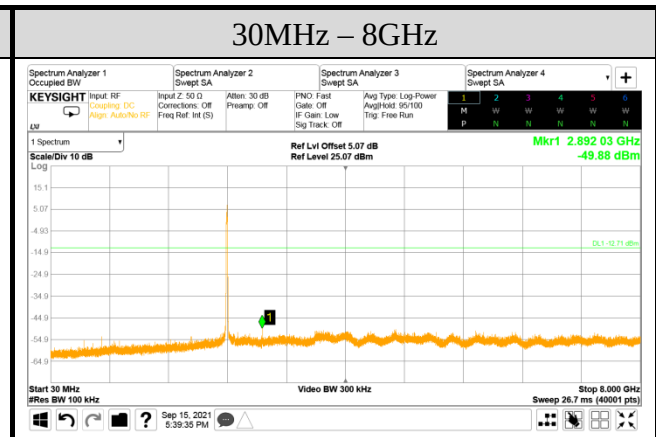
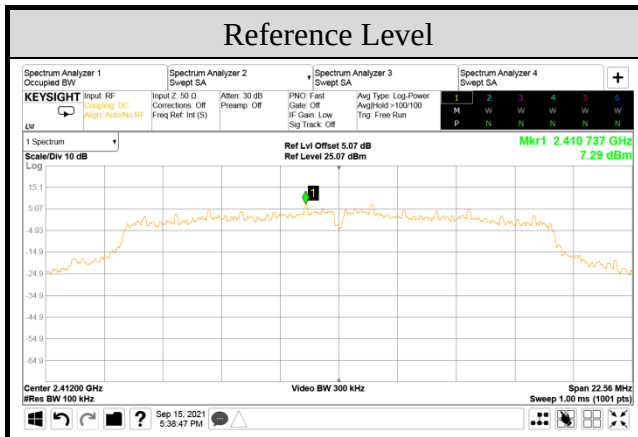
測試日期	2021/09/15	環境溫/濕度	24°C/55%
電纜損失	2.07dB	模式	802.11b
測試電壓	AC 110V 60Hz	測試頻率	2437MHz
		測試人員	Sam Chang
Simultaneous Factor10 log(n) (Note: “n” is antenna number)			3dB



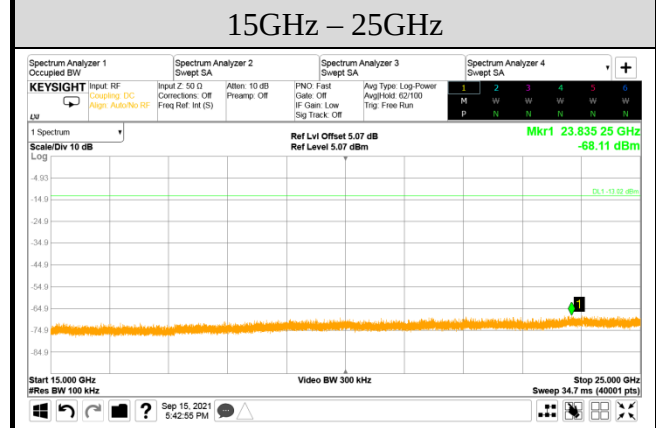
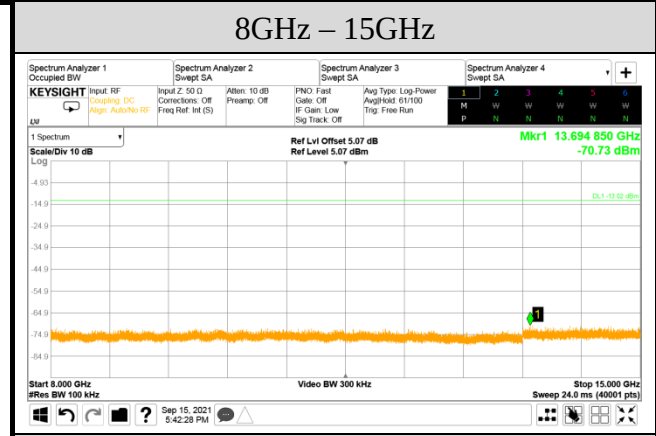
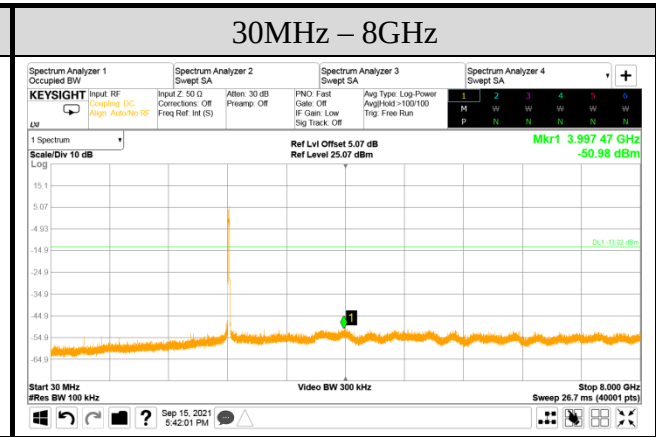
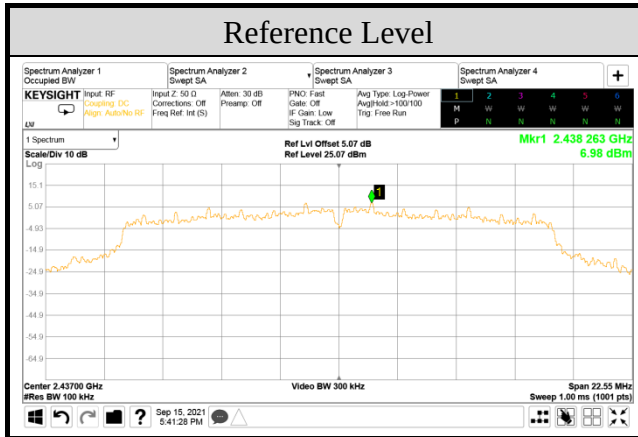
測試日期	2021/09/15	環境溫/濕度	24°C/55%
電纜損失	1.88dB	模式	802.11b
測試電壓	AC 110V 60Hz	測試頻率	2462MHz
		測試人員	Sam Chang
Simultaneous Factor10 log(n) (Note: “n” is antenna number)			3dB



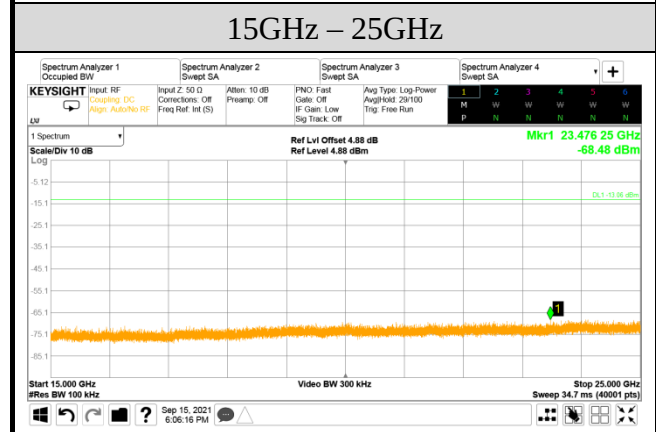
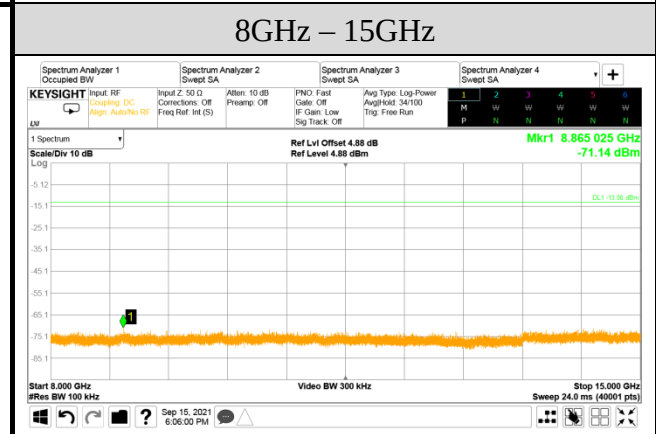
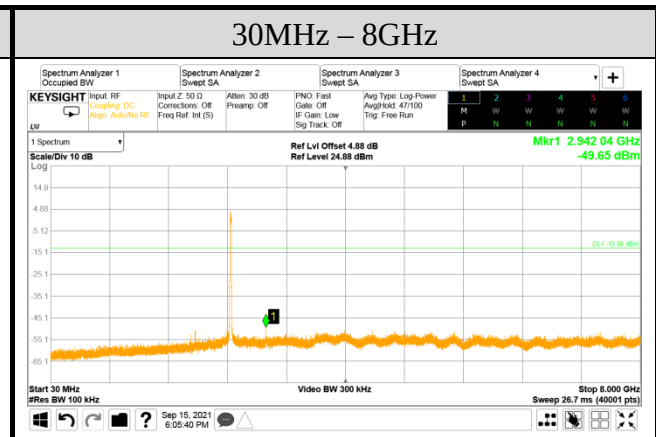
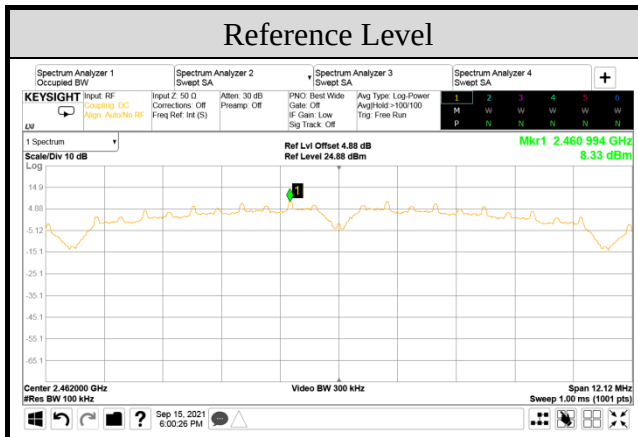
測試日期	2021/09/15	環境溫/濕度	24°C/55%
電纜損失	2.07dB	模式	802.11g
測試電壓	AC 110V 60Hz	測試頻率	2412MHz
		測試人員	Sam Chang
Simultaneous Factor10 log(n) (Note: “n” is antenna number)			3dB



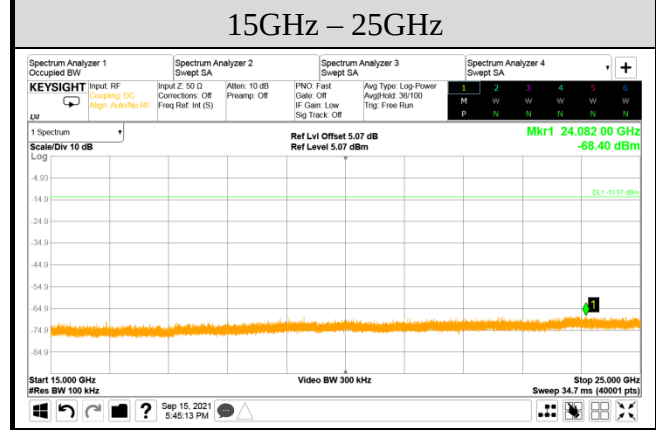
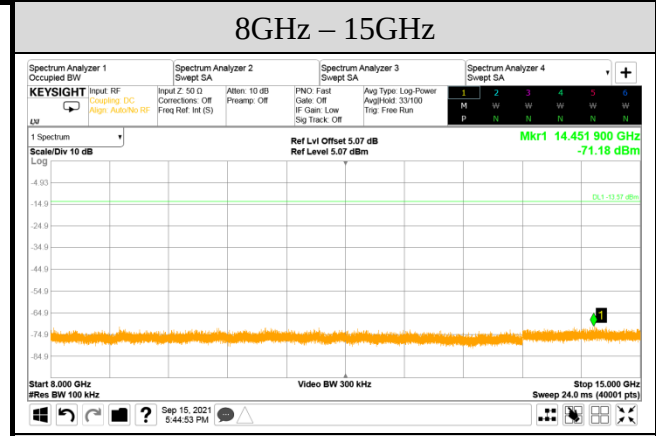
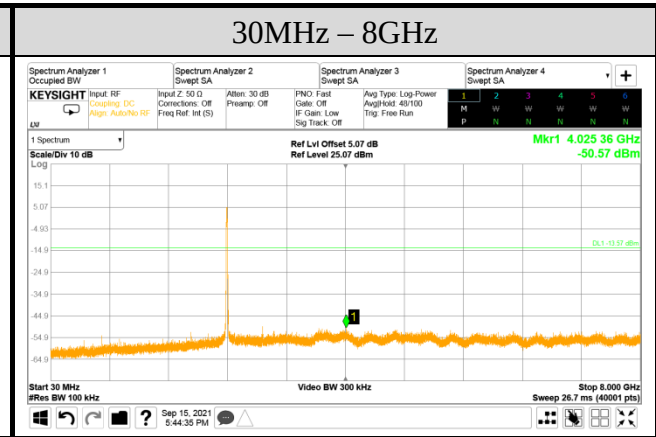
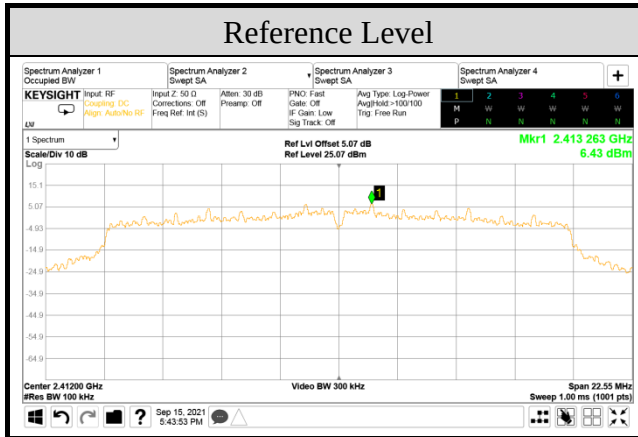
測試日期	2021/09/15	環境溫/濕度	24°C/55%
電纜損失	2.07dB	模式	802.11g
測試電壓	AC 110V 60Hz	測試頻率	2437MHz
		測試人員	Sam Chang
Simultaneous Factor10 log(n) (Note: “n” is antenna number)			3dB



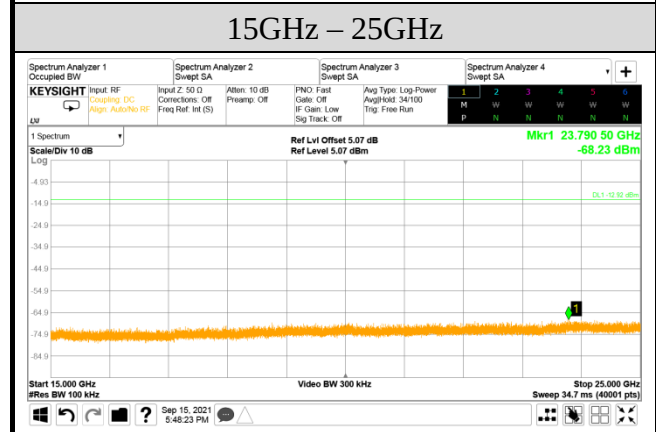
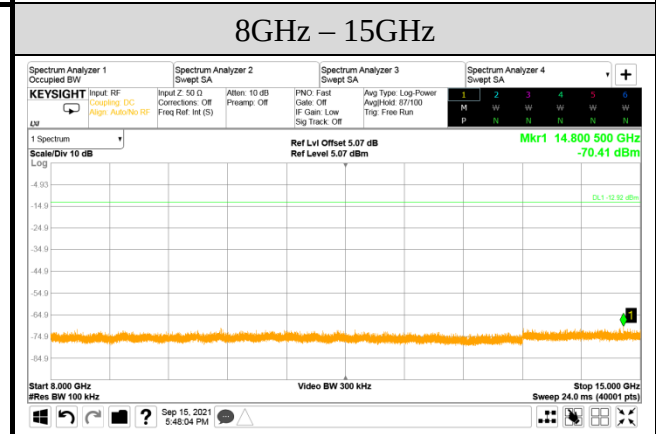
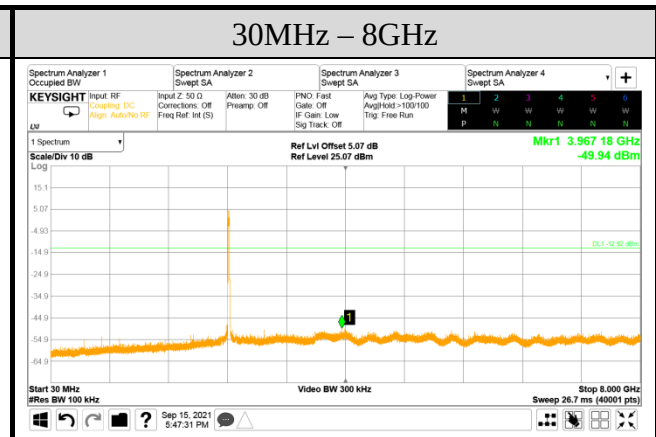
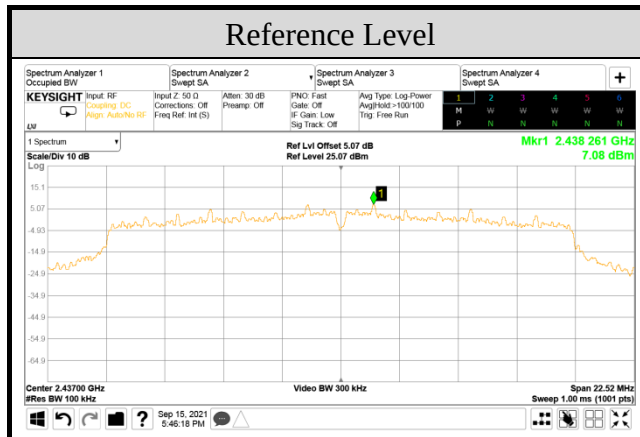
測試日期	2021/09/15	環境溫/濕度	24°C/55%
電纜損失	1.88dB	模式	802.11g
測試電壓	AC 110V 60Hz	測試頻率	2462MHz
		測試人員	Sam Chang
Simultaneous Factor10 log(n) (Note: “n” is antenna number)			3dB



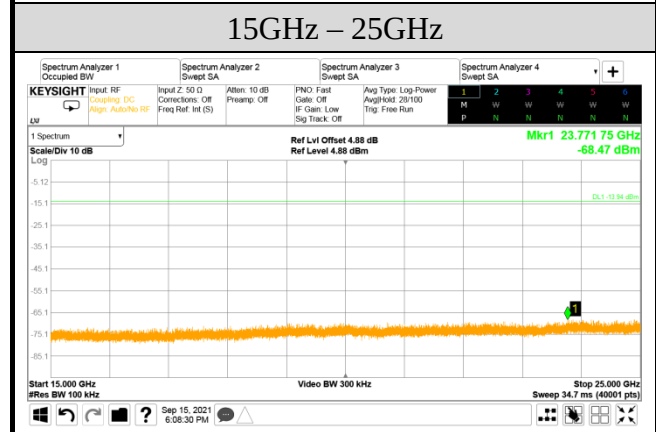
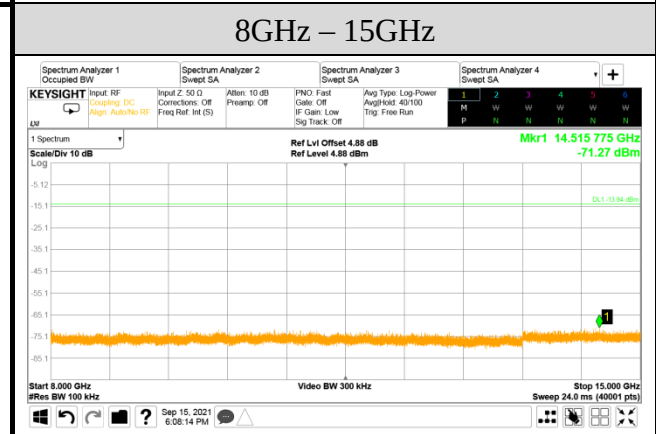
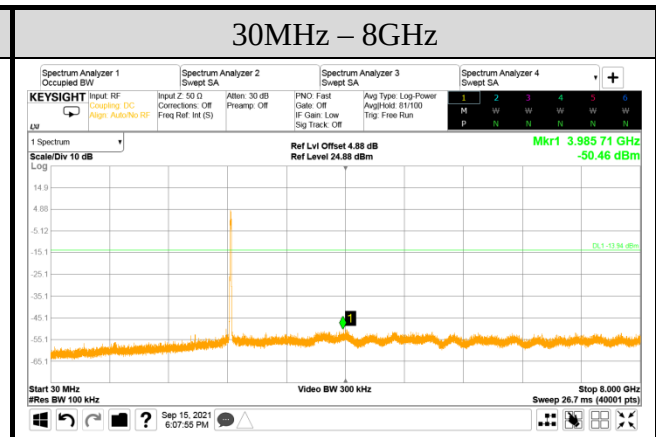
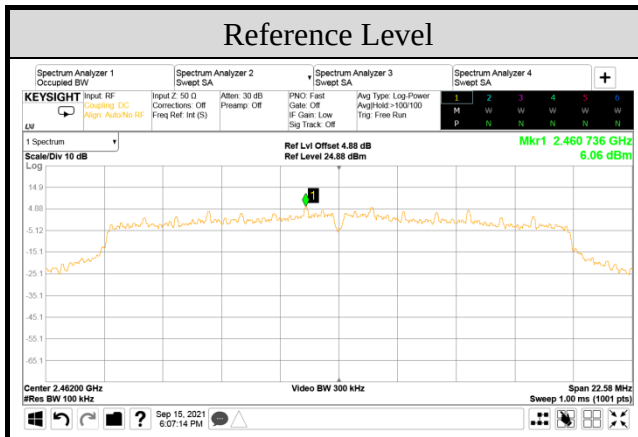
測試日期	2021/09/15	環境溫/濕度	24℃/55%
電纜損失	2.07dB	模式	802.11n-HT20
測試電壓	AC 110V 60Hz	測試頻率	2412MHz
		測試人員	Sam Chang
Simultaneous Factor10 log(n) (Note: “n” is antenna number)			3dB



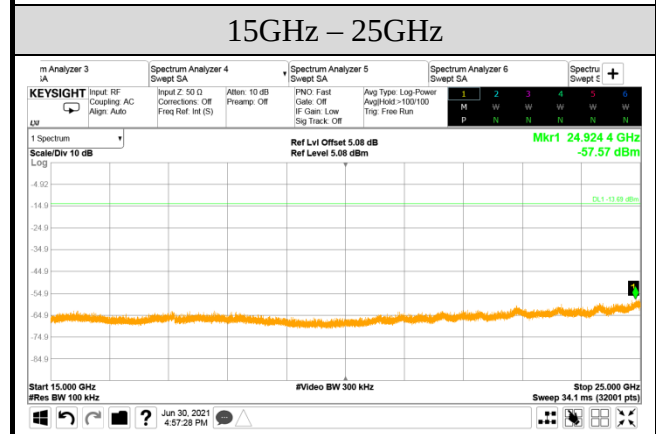
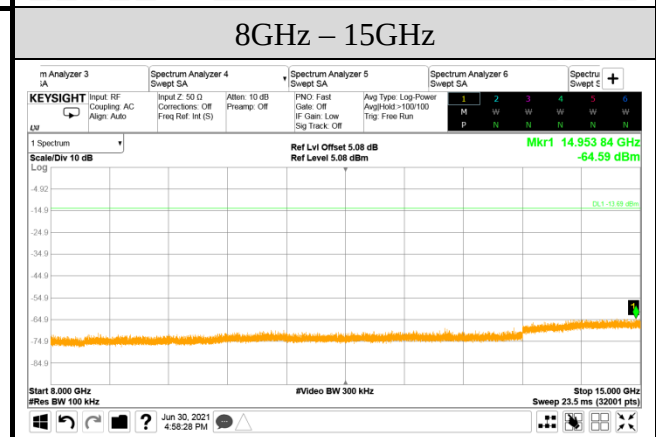
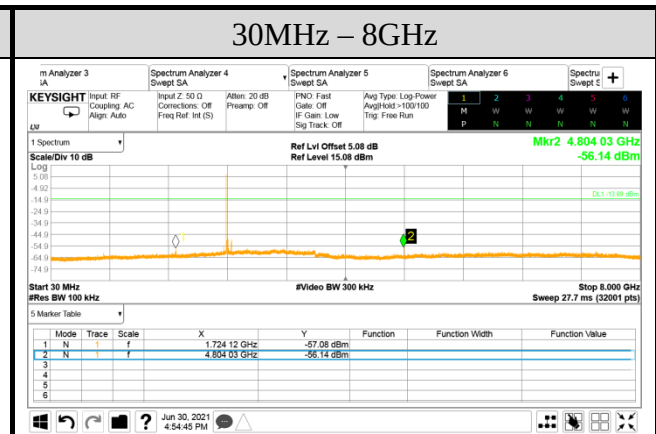
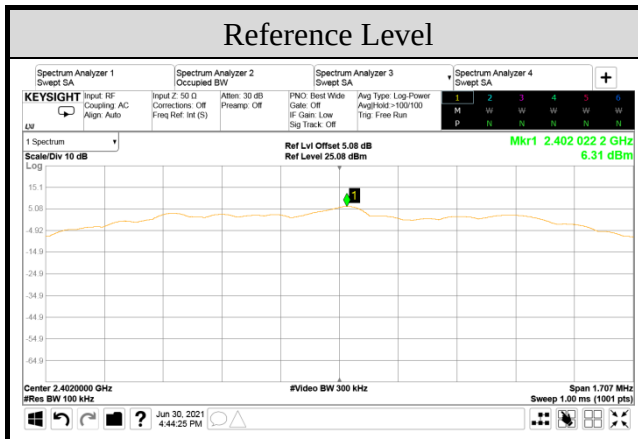
測試日期	2021/09/15	環境溫/濕度	24°C/55%
電纜損失	1.88dB	模式	802.11n-HT20
測試電壓	AC 110V 60Hz	測試頻率	2437MHz
		測試人員	Sam Chang
Simultaneous Factor10 log(n) (Note: “n” is antenna number)			3dB



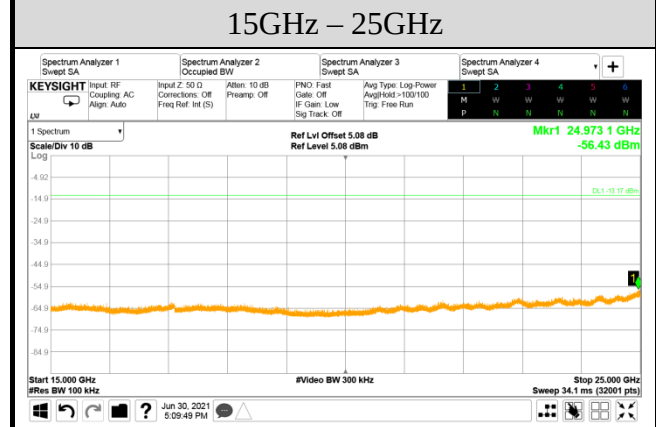
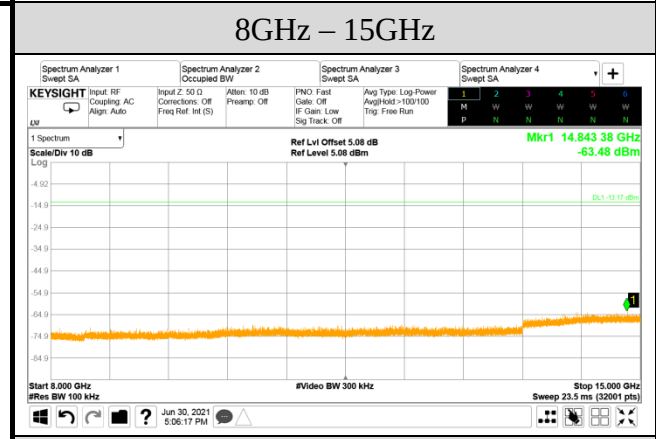
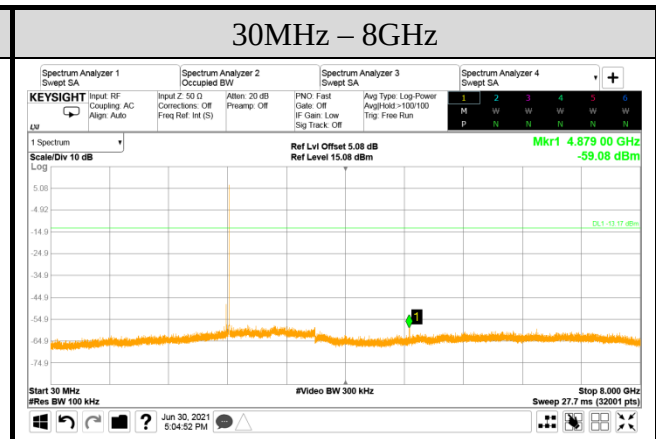
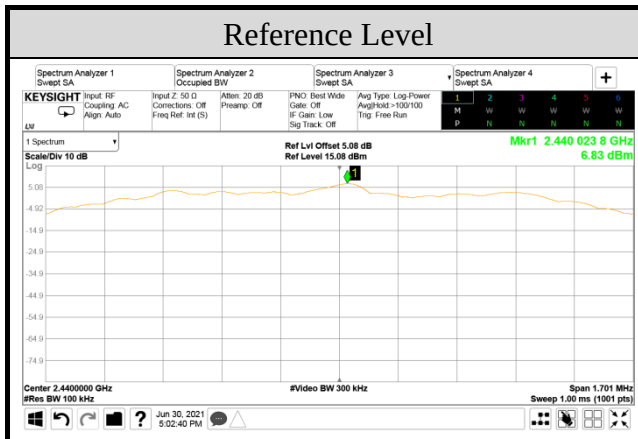
測試日期	2021/09/15	環境溫/濕度	24℃/55%
電纜損失	1.88dB	模式	802.11n-HT20
測試電壓	AC 110V 60Hz	測試頻率	2462MHz
		測試人員	Sam Chang
Simultaneous Factor10 log(n) (Note: “n” is antenna number)			3dB



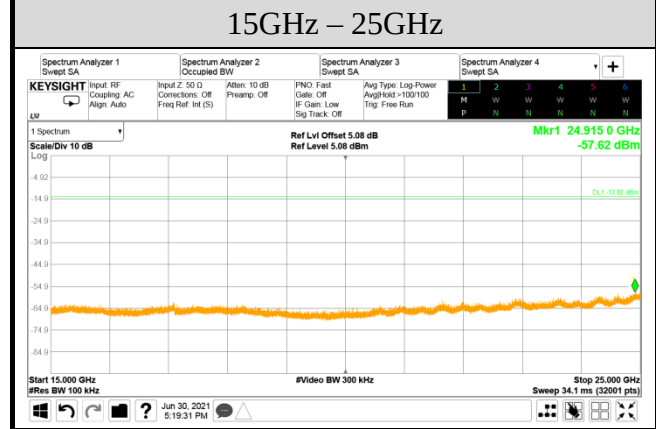
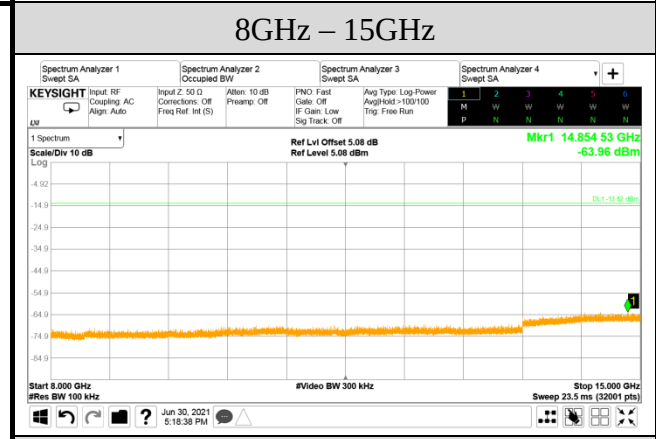
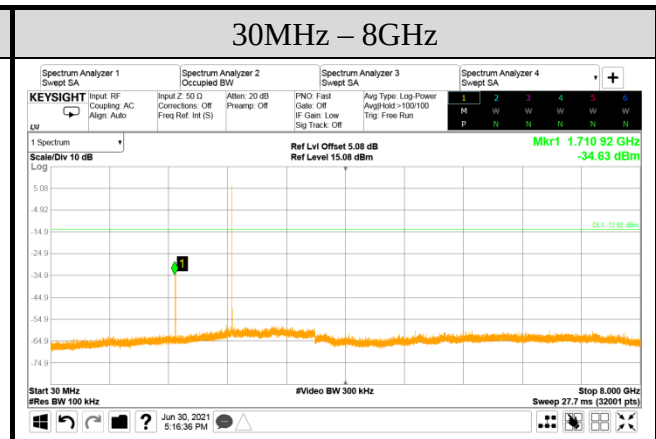
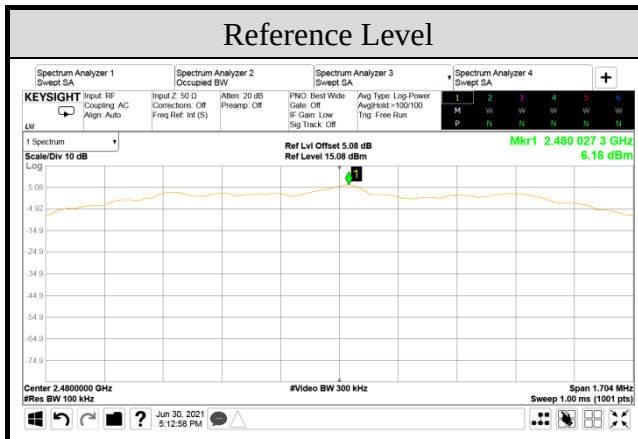
測試日期	2021/06/30	環境溫/濕度	25°C/51%
電纜損失	5.08dB	模式	BLE
測試電壓	AC 110V 60Hz	測試頻率	2402MHz
		測試人員	Hua Wu
Simultaneous Factor10 log(n) (Note: “n” is antenna number)			0dB



測試日期	2021/06/30	環境溫/濕度	25°C/51%
電纜損失	5.08dB	模式	BLE
測試電壓	AC 110V 60Hz	測試頻率	2440MHz
		測試人員	Hua Wu
Simultaneous Factor10 log(n) (Note: “n” is antenna number)			0dB



測試日期	2021/06/30	環境溫/濕度	25°C/51%
電纜損失	5.08dB	模式	BLE
測試電壓	AC 110V 60Hz	測試頻率	2480MHz
		測試人員	Hua Wu
Simultaneous Factor10 log(n) (Note: “n” is antenna number)			0dB



7. 功率密度之量測

測試日期	2021/06/30 ~ 09/23	環境溫/濕度	23~24℃/51~55%
電纜損失	WLAN: 1.88dB or 2.07dB BLE: 5.08dB	測試人員	(1)Hua Wu (2)Sam Chang
測試電壓	AC 110V 60Hz		
Simultaneous Factor10 log(n) (Note: “n” is antenna number)			WLAN: 3dB, BLE: 0dB

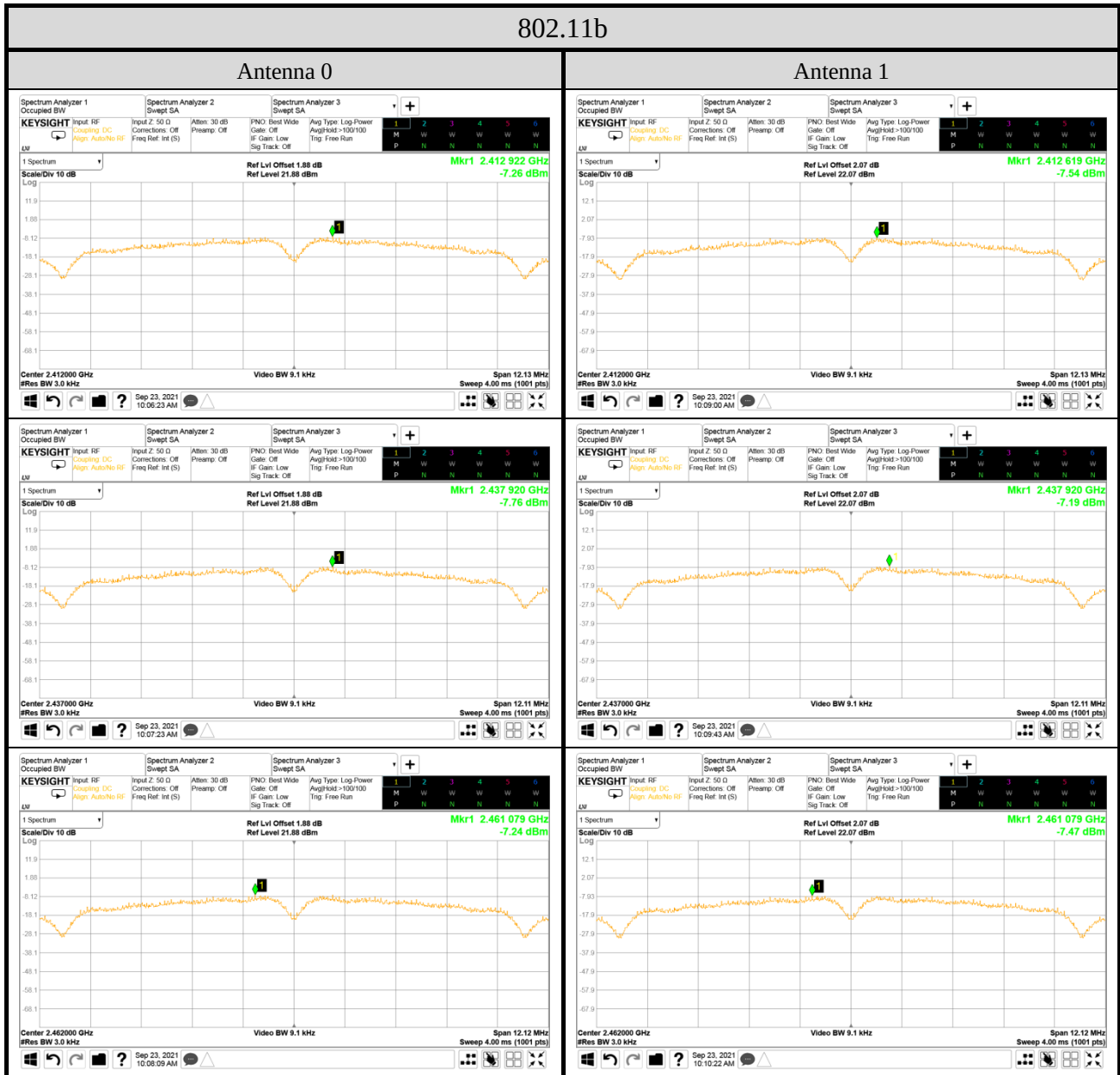
7.1. 功率密度

模式	測試頻率 (MHz)	功率密度 (dBm)		Total 功率密度 (dBm)	限制值 (dBm)
		Antenna 0	Antenna 1		
802.11b	2412	-7.26	-7.54	-4.39	8 dBm/3kHz
	2437	-7.76	-7.19	-4.46	
	2462	-7.24	-7.47	-4.34	
802.11g	2412	-11.01	-9.89	-7.40	
	2437	-10.66	-10.29	-7.46	
	2462	-9.77	-10.04	-6.89	
802.11n-HT20	2412	-10.33	-10.49	-7.40	
	2437	-9.74	-9.90	-6.81	
	2462	-11.10	-10.36	-7.70	

模式	測試頻率 (MHz)	功率密度 (dBm)	限制值 (dBm)
BLE	2402	6.31	8 dBm/3kHz
	2440	6.83	
	2480	6.18	

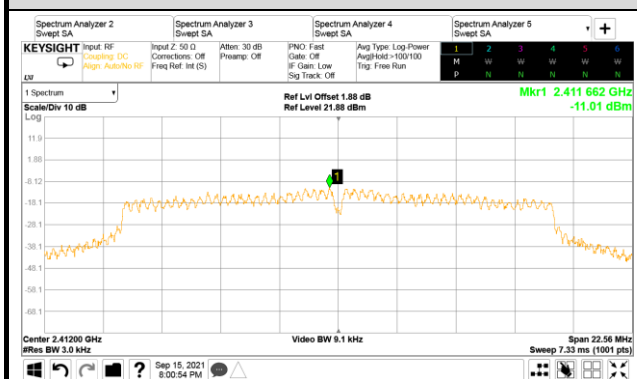
測試結果係依照 FCC 公告之 KDB558074 D01V04，且解析頻寬以 100kHz 量測其測試結果較 3kHz 嚴格。

7.2. 功率密度之量測圖

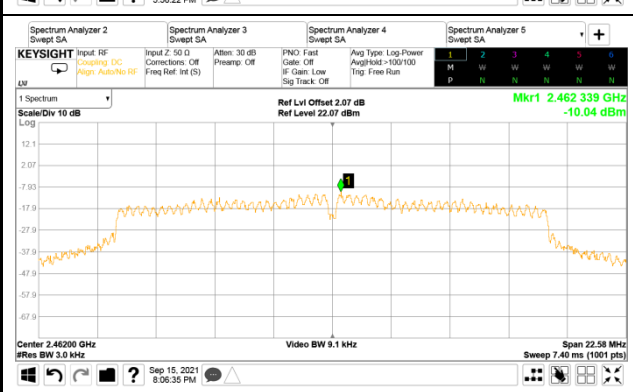
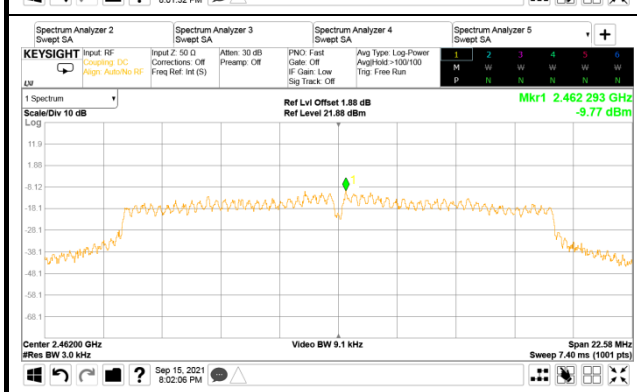
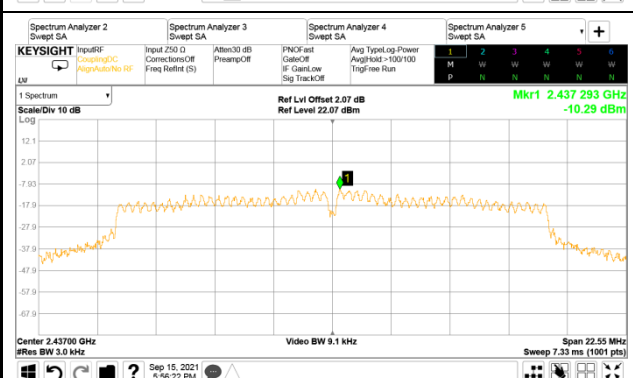
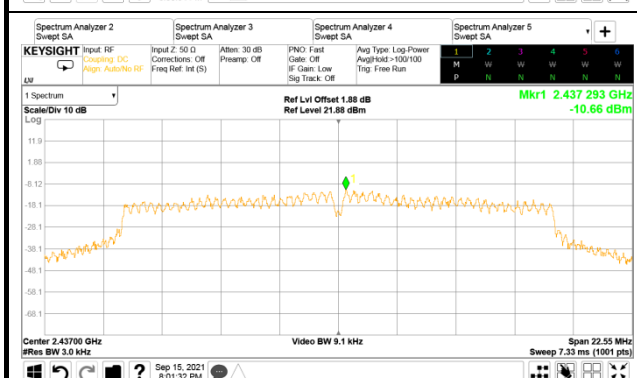
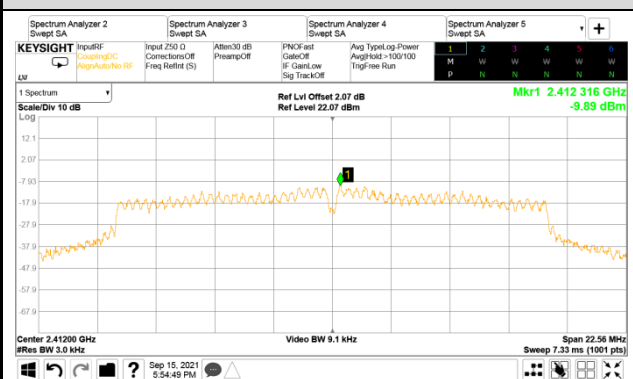


802.11g

Antenna 0

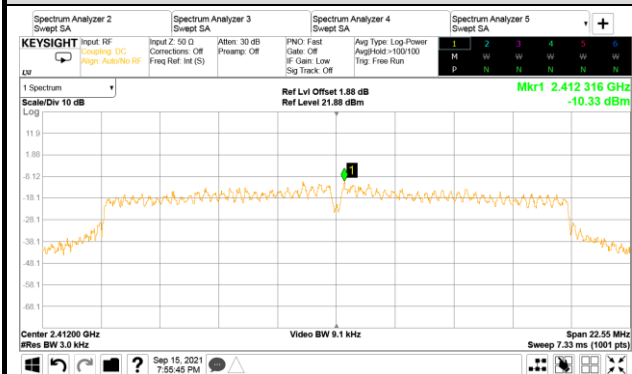


Antenna 1

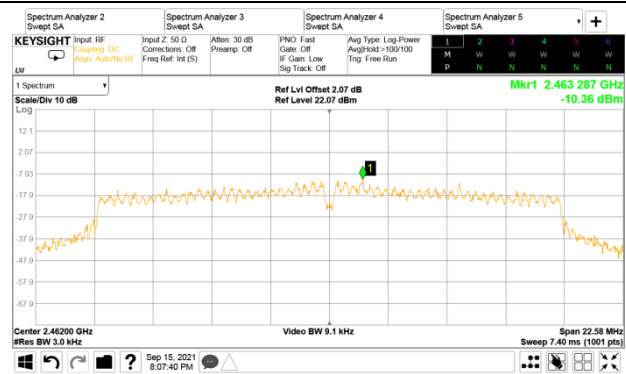
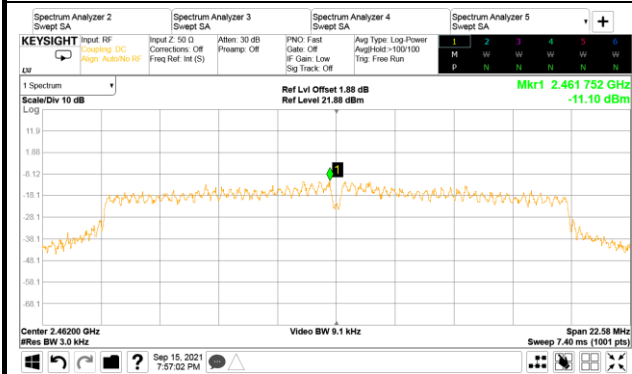
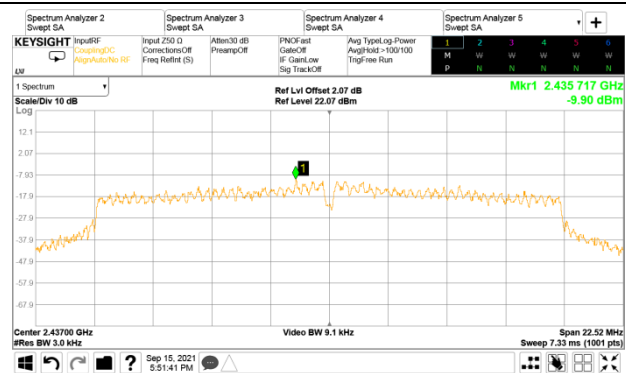
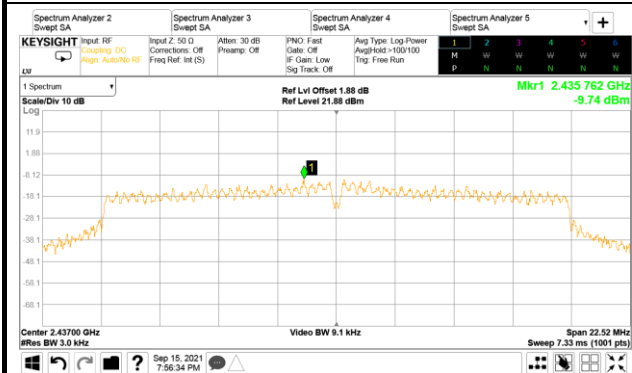
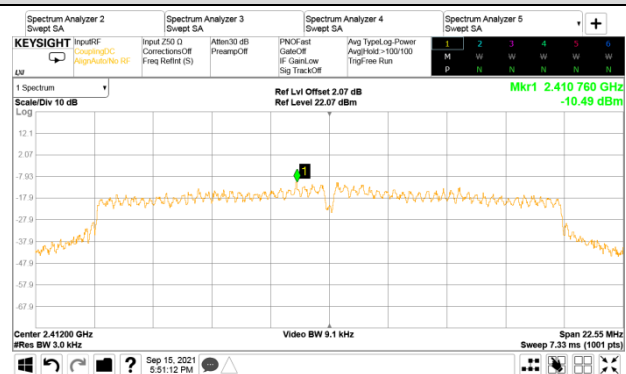


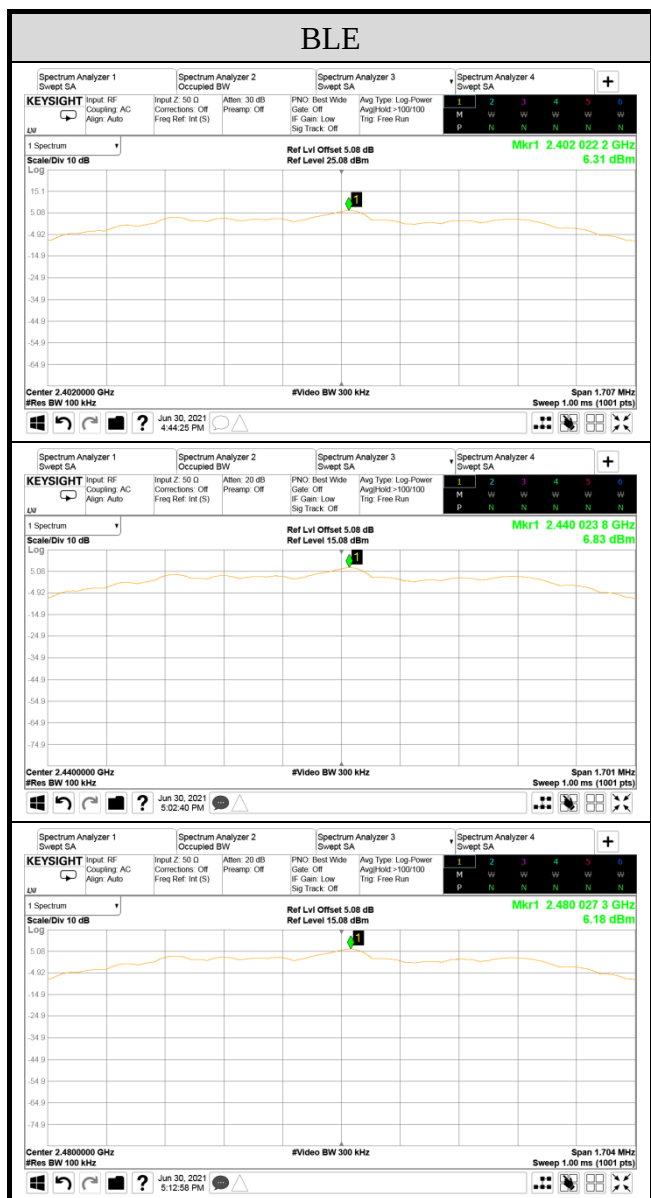
802.11n-HT20

Antenna 0



Antenna 1





8. 電波暴露量之量測

測試日期	2021/06/30~09/07	環境溫/濕度	23~25°C/51~53%
測試電壓	AC 110V 60Hz	測試人員	(1)Hua Wu (2)Sam Chang

無線模組: WM-BAC-AT-49

● WLAN 2.4GHz

距離人體(r):	20	cm		
最大發射功率(P):	21.57	dBm	=	143.549 mW
最大天線增益(G):	-1.50	dB	=	0.708 Numerical
MPE (S) = (P*G) / (4*π*r ²) =	0.0202 mW/cm ²			
註：1. 最大發射功率系指2.4GHz各模式/頻道中最大之發射功率功率。				
2. 電磁波曝露量MPE標準值1mW/cm ² ，送測產品實測值為：0.0202 mW/cm ²				

● WLAN 5GHz

距離人體(r):	20	cm		
最大發射功率(P):	14.70	dBm	=	29.512 mW
最大天線增益(G):	-0.65	dB	=	0.861 Numerical
MPE (S) = (P*G) / (4*π*r ²) =	0.0051		mW/cm ²	
註：1. 最大發射功率系指5GHz各模式/頻道中最大之發射功率功率。				
2. 電磁波曝露量MPE標準值1mW/cm ² ，送測產品實測值為：0.0051 mW/cm ²				

● BT

距離人體(r):	20	cm		
最大發射功率(P):	7.59	dBm	=	5.741 mW
最大天線增益(G):	-1.50	dB	=	0.708 Numerical
MPE (S) = (P*G) / (4*π*r ²) =	0.0008 mW/cm ²			
註：1. 最大發射功率系指BT/BLE各模式/頻道中最大之發射功率功率。				
2. 電磁波曝露量MPE標準值1mW/cm ² ，送測產品實測值為：0.0008 mW/cm ²				

● 同時發射模式

WLAN 2.4GHz (mW/cm ²)	BT (mW/cm ²)	Total (mW/cm ²)	Limit (mW/cm ²)
0.0202	0.0008	0.0210	≤1
註：電磁波曝露量MPE標準值1mW/cm ² ，送測產品實測值為：0.0210 mW/cm ²			

WLAN 5GHz (mW/cm ²)	BT (mW/cm ²)	Total (mW/cm ²)	Limit (mW/cm ²)
0.0051	0.0008	0.0059	≤1
註：電磁波曝露量MPE標準值1mW/cm ² ，送測產品實測值為：0.0059 mW/cm ²			

無線模組: LBEE5ZZ1PJ

● WLAN 5GHz

距離人體(r):	20	cm		
最大發射功率(P):	12.34	dBm	=	17.140 mW
最大天線增益(G):	-2.36	dBi	=	0.581 Numerical
MPE (S) = (P*G) / (4* π *r ²) =			0.0020	mW/cm ²
註：1. 最大發射功率系指5GHz各模式/頻道中最大之發射功率功率。 2. 電磁波曝露量MPE標準值1mW/cm ² ，送測產品實測值為：0.0020 mW/cm ²				