

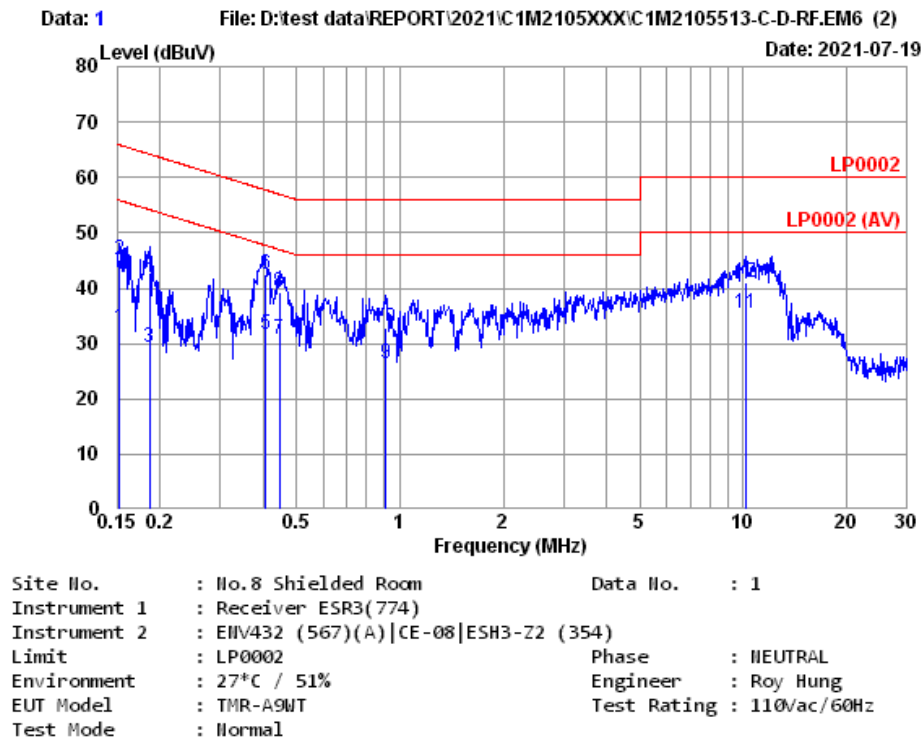
附錄一

受測裝置之測試結果

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1. 電源線傳導干擾之量測

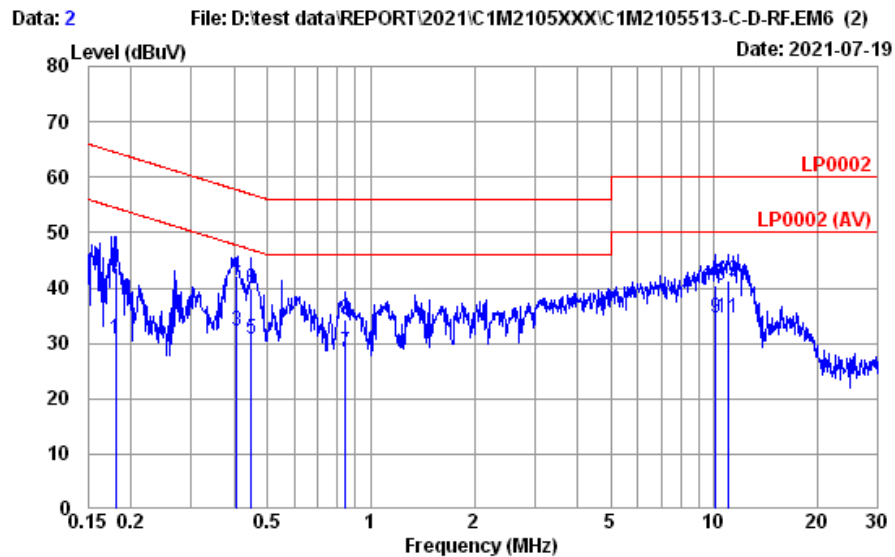
測試日期	2021/07/19	環境溫/濕度	27°C/51%
測試電壓	AC 110V, 60Hz (經電源供應器)		



	Freq. (MHz)	AMN Factor (dB)	Cable Loss (dB)	Pulse Att. (dB)	Reading (dBμV)	Emission Level (dBμV)	Limits (dBμV)	Margin (dB)	Remark
1	0.152	10.41	0.03	9.85	12.60	32.89	55.87	22.98	Average
2	0.152	10.41	0.03	9.85	24.71	45.00	65.87	20.87	QP
3	0.186	10.39	0.03	9.85	9.02	29.29	54.20	24.91	Average
4	0.186	10.39	0.03	9.85	22.65	42.92	64.20	21.28	QP
5	0.406	10.37	0.03	9.85	11.32	31.57	47.73	16.16	Average
6	0.406	10.37	0.03	9.85	22.10	42.35	57.73	15.38	QP
7	0.447	10.37	0.03	9.85	10.38	30.63	46.93	16.30	Average
8	0.447	10.37	0.03	9.85	18.89	39.14	56.93	17.79	QP
9	0.909	10.38	0.04	9.85	5.96	26.23	46.00	19.77	Average
10	0.909	10.38	0.04	9.85	12.60	32.87	56.00	23.13	QP
11	10.125	10.68	0.14	9.89	14.78	35.49	50.00	14.51	Average
12	10.125	10.68	0.14	9.89	20.32	41.03	60.00	18.97	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 (經電源供應器供電)		



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 : LINE
Environment : 27°C / 51% Engineer : Roy Hung
EUT Model : TMR-A9MT 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	0.181	10.39	0.03	9.85	10.49	30.76	54.46	23.70	Average
2	0.181	10.39	0.03	9.85	23.26	43.53	64.46	20.93	QP
3	0.406	10.37	0.03	9.85	11.84	32.09	47.73	15.64	Average
4	0.406	10.37	0.03	9.85	21.91	42.16	57.73	15.57	QP
5	0.449	10.37	0.03	9.85	10.48	30.73	46.89	16.16	Average
6	0.449	10.37	0.03	9.85	19.60	39.85	56.89	17.04	QP
7	0.844	10.38	0.04	9.85	8.02	28.29	46.00	17.71	Average
8	0.844	10.38	0.04	9.85	14.13	34.40	56.00	21.60	QP
9	10.072	10.56	0.14	9.89	14.08	34.67	50.00	15.33	Average
10	10.072	10.56	0.14	9.89	19.94	40.53	60.00	19.47	QP
11	10.963	10.59	0.15	9.89	14.02	34.65	50.00	15.35	Average
12	10.963	10.59	0.15	9.89	20.64	41.27	60.00	18.73	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	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	2437MHz (CH6)	1000-25000MHz
802.11g	發射	2437MHz (CH6)	1000-25000MHz
802.11n-HT20	發射	2417MHz (CH2)*	30-1000MHz
			1000-25000MHz
---	接收	2437MHz(CH6)	30-1000MHz
			1000-25000MHz

註:*. 經評估後，以最差頻率進行 30-1000MHz 量測。

【經實驗室評估量測後，以最差之傳輸速率 2M 進行本章節之測試】

BLE 測試模式

模式	動作狀態	基本頻率	量測頻率範圍
BLE	發射	2402MHz (CH37)*	30-1000MHz
			1000-25000MHz
	發射	2440MHz (CH17)	1000-25000MHz
	發射	2480MHz(CH39)	1000-25000MHz
	接收	2440MHz (CH17)	30-1000MHz
			1000-25000MHz

註:*. 經評估後，以最差頻率進行 30-1000MHz 量測。

對受測物裝置落於低功率射頻器材技術規範第 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 (CH1)	2310-2430MHz
		2462MHz (CH11)	2430-2930MHz
802.11g	發射	2412MHz (CH1)	2310-2430MHz
		2462MHz (CH11)	2430-2930MHz
802.11n-HT20	發射	2412MHz (CH1)	2310-2430MHz
		2417MHz (CH2)	2310-2430MHz
		2462MHz (CH11)	2430-2930MHz
BLE	發射	2402MHz (CH37)	2310-2410MHz
	發射	2480MHz (CH39)	2430-2930MHz

測試日期	2021/07/09 ~ 16	環境溫/濕度	26°C/60 ~ 61%
測試電壓	AC 110V, 60Hz (經電源供應器供電)	測試人員	Sam Chang

2.1. 30-1000MHz 頻率範圍，其他不必要發射量測

Mode	Normal	Frequency	---
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Antenna at Horizontal Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Gain (dB)	Reading level (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
241.460	17.99	1.35	32.46	53.09	39.97	46.00	6.03	Peak
375.320	21.89	1.79	32.45	48.89	40.12	46.00	5.88	Peak
445.160	23.23	2.04	32.44	44.56	37.39	46.00	8.61	Peak
517.910	24.56	2.25	32.44	48.10	42.47	46.00	3.53	Peak
693.480	27.74	2.82	32.31	36.22	34.47	46.00	11.53	Peak
885.540	29.51	3.10	31.75	37.05	37.91	46.00	8.09	Peak

Antenna at Vertical Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Gain (dB)	Reading level (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
87.230	14.56	0.83	32.58	55.08	37.89	40.00	2.11	Peak
180.350	18.01	1.15	32.47	46.95	33.64	43.50	9.86	Peak
245.340	18.10	1.36	32.47	48.44	35.43	46.00	10.57	Peak
360.770	21.54	1.74	32.46	47.61	38.43	46.00	7.57	Peak
445.160	23.23	2.04	32.44	43.04	35.87	46.00	10.13	Peak
593.570	26.27	2.43	32.47	38.77	35.00	46.00	11.00	Peak

● Wireless LAN 模式

Mode	802.11n-HT20	Frequency	TX 2417MHz
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Antenna at Horizontal Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Gain (dB)	Reading level (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
142.520	19.43	1.03	32.51	45.79	33.74	43.50	9.76	Peak
309.360	20.23	1.57	32.47	41.77	31.10	46.00	14.90	Peak
483.960	23.88	2.16	32.43	38.92	32.53	46.00	13.47	Peak
664.380	27.32	2.71	32.36	35.05	32.72	46.00	13.28	Peak
827.340	28.93	3.05	32.01	41.75	41.72	46.00	4.28	Peak
981.570	30.46	3.24	30.99	38.47	41.18	54.00	12.82	Peak

Antenna at Vertical Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Gain (dB)	Reading level (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
47.460	20.34	0.66	32.65	48.97	37.32	40.00	2.68	Peak
103.720	15.43	0.90	32.55	46.02	29.80	43.50	13.70	Peak
140.580	19.35	1.02	32.51	42.73	30.59	43.50	12.91	Peak
193.930	17.04	1.19	32.46	48.71	34.48	43.50	9.02	Peak
665.350	27.35	2.71	32.36	42.89	40.59	46.00	5.41	Peak
885.540	29.51	3.10	31.75	38.39	39.25	46.00	6.75	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)	Reading level (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
143.490	19.47	1.03	32.51	46.63	34.62	43.50	8.88	Peak
199.750	16.60	1.21	32.46	48.80	34.15	43.50	9.35	Peak
312.270	20.32	1.58	32.47	42.34	31.77	46.00	14.23	Peak
484.930	23.91	2.16	32.43	38.80	32.44	46.00	13.56	Peak
831.220	28.96	3.05	31.98	41.27	41.30	46.00	4.70	Peak
965.080	30.30	3.21	31.15	38.88	41.24	54.00	12.76	Peak

Antenna at Vertical Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Gain (dB)	Reading level (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
48.430	20.35	0.66	32.65	49.57	37.93	40.00	2.07	Peak
105.660	15.71	0.91	32.55	48.37	32.44	43.50	11.06	Peak
139.610	19.33	1.02	32.51	43.15	30.99	43.50	12.51	Peak
190.050	17.33	1.18	32.47	48.22	34.26	43.50	9.24	Peak
664.380	27.32	2.71	32.36	41.20	38.87	46.00	7.13	Peak
830.250	28.96	3.05	31.98	36.20	36.23	46.00	9.77	Peak

● BLE 測試模式

Mode	BLE	Frequency	TX 2402MHz
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Antenna at Horizontal Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Gain (dB)	Reading level (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
143.490	19.47	1.03	32.51	46.31	34.30	43.50	9.20	Peak
199.750	16.60	1.21	32.46	48.90	34.25	43.50	9.25	Peak
319.060	20.50	1.60	32.47	40.95	30.58	46.00	15.42	Peak
483.960	23.88	2.16	32.43	38.55	32.16	46.00	13.84	Peak
831.220	28.96	3.05	31.98	41.11	41.14	46.00	4.86	Peak
980.600	30.43	3.24	30.99	38.18	40.86	54.00	13.14	Peak

Antenna at Vertical Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Gain (dB)	Reading level (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
47.460	20.34	0.66	32.65	48.86	37.21	40.00	2.79	Peak
103.720	15.43	0.90	32.55	45.58	29.36	43.50	14.14	Peak
142.520	19.43	1.03	32.51	43.51	31.46	43.50	12.04	Peak
191.990	17.18	1.19	32.47	48.25	34.15	43.50	9.35	Peak
645.950	27.07	2.63	32.39	42.21	39.52	46.00	6.48	Peak
827.340	28.93	3.05	32.01	35.07	35.04	46.00	10.96	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)	Reading level (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
143.490	19.47	1.03	32.51	46.16	34.15	43.50	9.35	Peak
276.380	19.19	1.46	32.47	46.15	34.33	46.00	11.67	Peak
484.930	23.91	2.16	32.43	37.21	30.85	46.00	15.15	Peak
666.320	27.35	2.71	32.36	34.53	32.23	46.00	13.77	Peak
830.250	28.96	3.05	31.98	41.15	41.18	46.00	4.82	Peak
948.590	30.14	3.19	31.30	41.31	43.34	46.00	2.66	Peak

Antenna at Vertical Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Gain (dB)	Reading level (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
47.460	20.34	0.66	32.65	48.72	37.07	40.00	2.93	Peak
103.720	15.43	0.90	32.55	45.97	29.75	43.50	13.75	Peak
142.520	19.43	1.03	32.51	43.93	31.88	43.50	11.62	Peak
188.110	17.43	1.17	32.47	48.15	34.28	43.50	9.22	Peak
670.200	27.42	2.73	32.35	40.81	38.61	46.00	7.39	Peak
885.540	29.51	3.10	31.75	38.04	38.90	46.00	7.10	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。

Mode	Normal	Frequency	---
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Antenna at Horizontal Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Gain (dB)	Reading level (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
3160.000	30.86	7.18	39.95	54.28	52.37	54.00	1.63	Peak
4212.000	32.20	8.39	39.55	48.92	49.96	54.00	4.04	Peak

Antenna at Vertical Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Gain (dB)	Reading level (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
3166.000	30.92	7.18	39.94	54.23	52.39	54.00	1.61	Peak
4244.000	32.12	8.43	39.55	48.61	49.61	54.00	4.39	Peak

● Wireless LAN 模式

Mode	802.11b	Frequency	TX 2437MHz
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Antenna at Horizontal Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Gain (dB)	Reading level (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
4874.000	33.85	10.54	34.43	31.84	41.80	54.00	12.20	Peak

Antenna at Vertical Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Gain (dB)	Reading level (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
4874.000	33.85	10.54	34.43	31.04	41.00	54.00	13.00	Peak

Mode	802.11g	Frequency	TX 2437MHz
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Antenna at Horizontal Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Gain (dB)	Reading level (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
4874.000	33.85	10.54	34.43	30.99	40.95	54.00	13.05	Peak

Antenna at Vertical Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Gain (dB)	Reading level (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
4874.000	33.85	10.54	34.43	32.18	42.14	54.00	11.86	Peak

Mode	802.11n-HT20	Frequency	TX 2417MHz
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Antenna at Horizontal Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Gain (dB)	Reading level (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
4834.000	33.73	10.49	34.44	31.92	41.70	54.00	12.30	Peak

Antenna at Vertical Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Gain (dB)	Reading level (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
4834.000	33.73	10.49	34.44	32.47	42.25	54.00	11.75	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)	Reading level (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
4875.000	33.85	10.54	34.43	31.76	41.72	54.00	12.28	Peak

Antenna at Vertical Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Gain (dB)	Reading level (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
4875.000	33.85	10.54	34.43	32.64	42.60	54.00	11.40	Peak

● BLE 測試模式

Mode	BLE	Frequency	TX 2402MHz
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Antenna at Horizontal Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Gain (dB)	Reading level (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
4804.000	33.60	10.49	34.44	32.19	41.84	54.00	12.16	Peak

Antenna at Vertical Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Gain (dB)	Reading level (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
4804.000	33.60	10.49	34.44	32.03	41.68	54.00	12.32	Peak

Mode	BLE	Frequency	TX 2440MHz
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Antenna at Horizontal Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Gain (dB)	Reading level (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
4880.000	33.85	10.54	34.43	31.90	41.86	54.00	12.14	Peak

Antenna at Vertical Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Gain (dB)	Reading level (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
4880.000	33.85	10.54	34.43	31.38	41.34	54.00	12.66	Peak

Mode	BLE	Frequency	TX 2480MHz
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Antenna at Horizontal Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Gain (dB)	Reading level (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
4960.000	33.83	10.60	34.41	30.63	40.65	54.00	13.35	Peak

Antenna at Vertical Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Gain (dB)	Reading level (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
4960.000	33.83	10.60	34.41	30.86	40.88	54.00	13.12	Peak

Mode	---	Frequency	RX2440MHz
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Antenna at Horizontal Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Gain (dB)	Reading level (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
4880.000	33.85	10.54	34.43	31.01	40.97	54.00	13.03	Peak

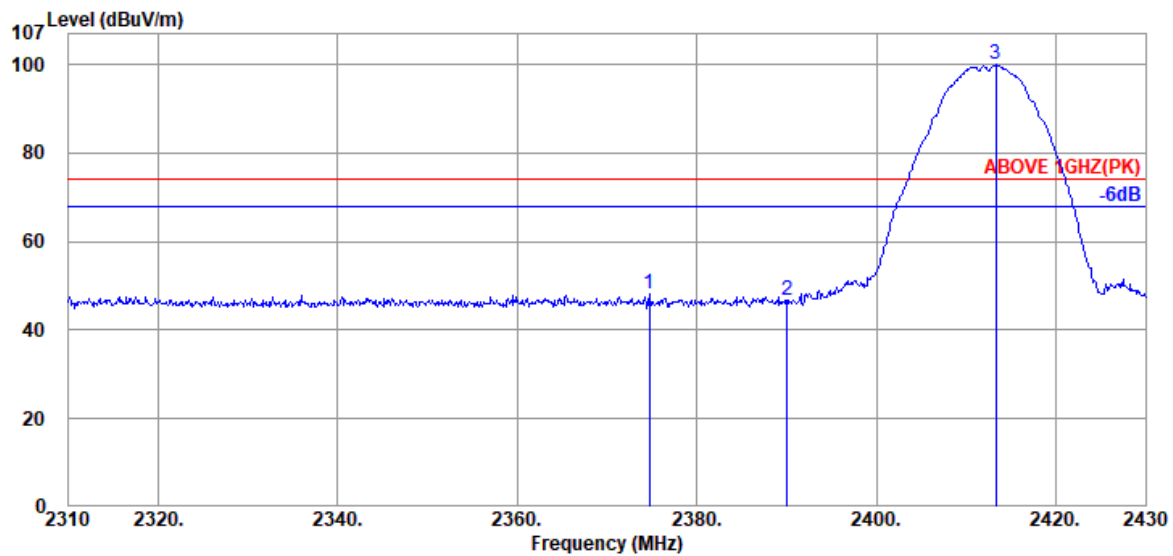
Antenna at Vertical Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Gain (dB)	Reading level (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
4880.000	33.85	10.54	34.43	31.72	41.68	54.00	12.32	Peak

2.3. 禁用頻帶量測結果 (其他不必要發射)

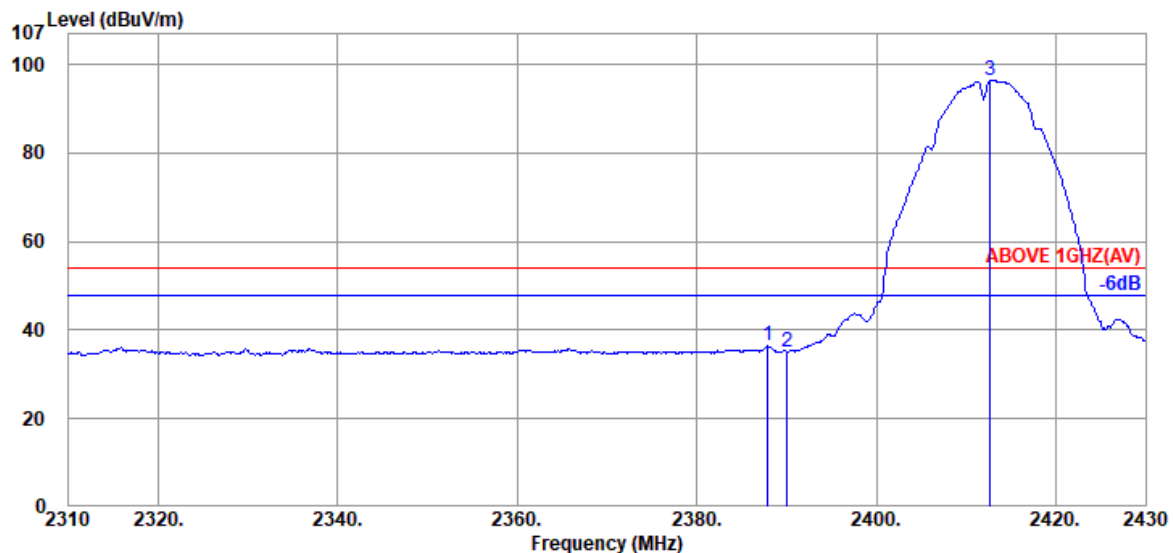
● Wireless LAN 模式

Mode	802.11b	Frequency	TX 2412MHz
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Antenna at Horizontal Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Gain (dB)	Reading level (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
2374.680	31.97	7.94	34.53	42.72	48.10	74.00	25.90	Peak
2390.040	31.89	7.95	34.54	41.27	46.57	74.00	27.43	Peak
@ 2412.720	31.94	7.96	34.54	94.52	99.88	---	---	Peak

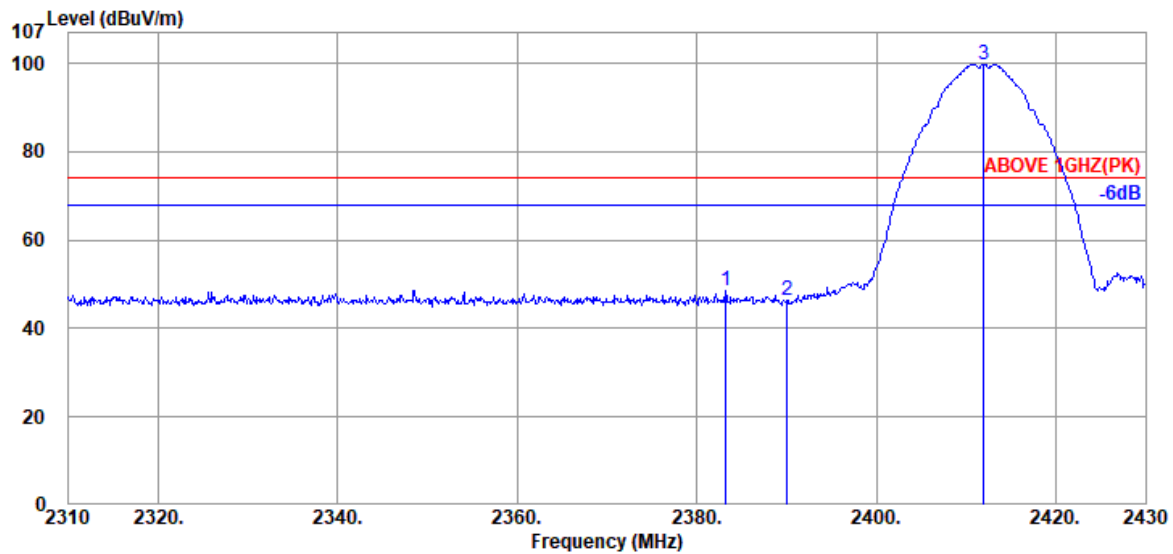


Antenna at Horizontal Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Gain (dB)	Reading level (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
2387.880	31.89	7.95	34.53	31.05	36.36	54.00	17.64	Average
2390.040	31.89	7.95	34.54	29.87	35.17	54.00	18.83	Average
@ 2412.720	31.94	7.96	34.54	91.07	96.43	---	---	Average

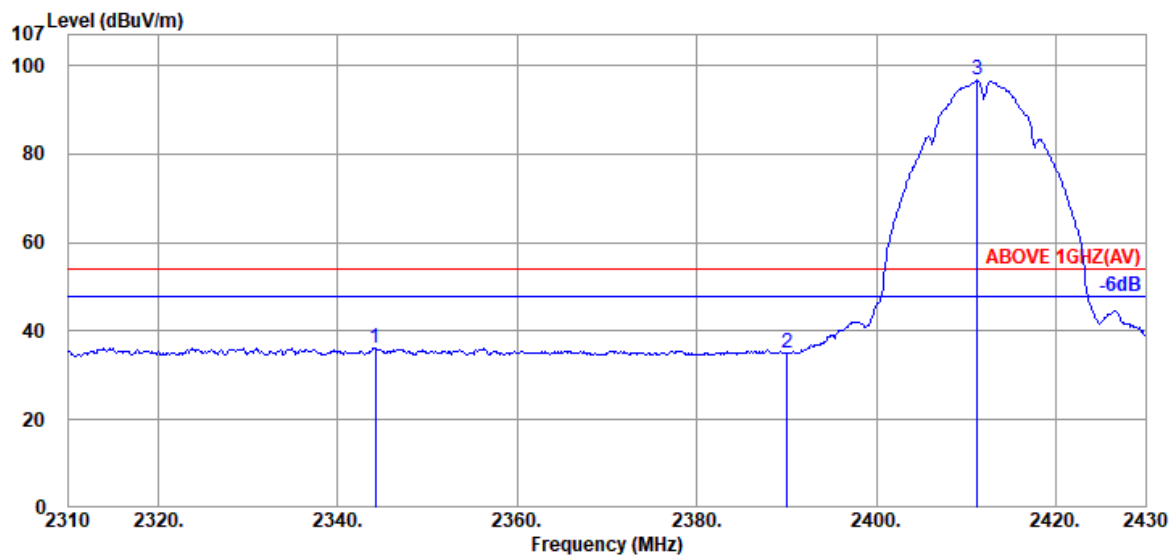
備註：“@”為主波，在此章節是不予以判定。

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)	Reading level (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
2383.200	31.93	7.95	34.53	43.39	48.74	74.00	25.26	Peak
2390.040	31.89	7.95	34.54	40.97	46.27	74.00	27.73	Peak
@ 2412.000	31.94	7.96	34.54	94.50	99.86	---	---	Peak

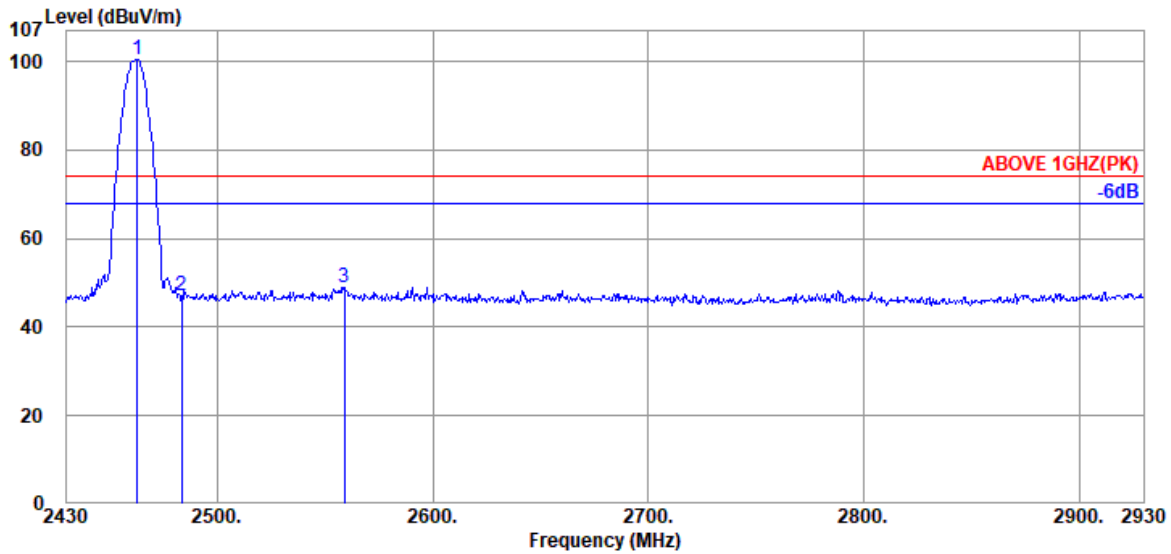


Antenna at Vertical Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Gain (dB)	Reading level (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
2344.200	32.07	7.92	34.53	30.64	36.10	54.00	17.90	Average
2390.040	31.89	7.95	34.54	29.60	34.90	54.00	19.10	Average
@ 2411.280	31.94	7.96	34.54	91.34	96.70	---	---	Average

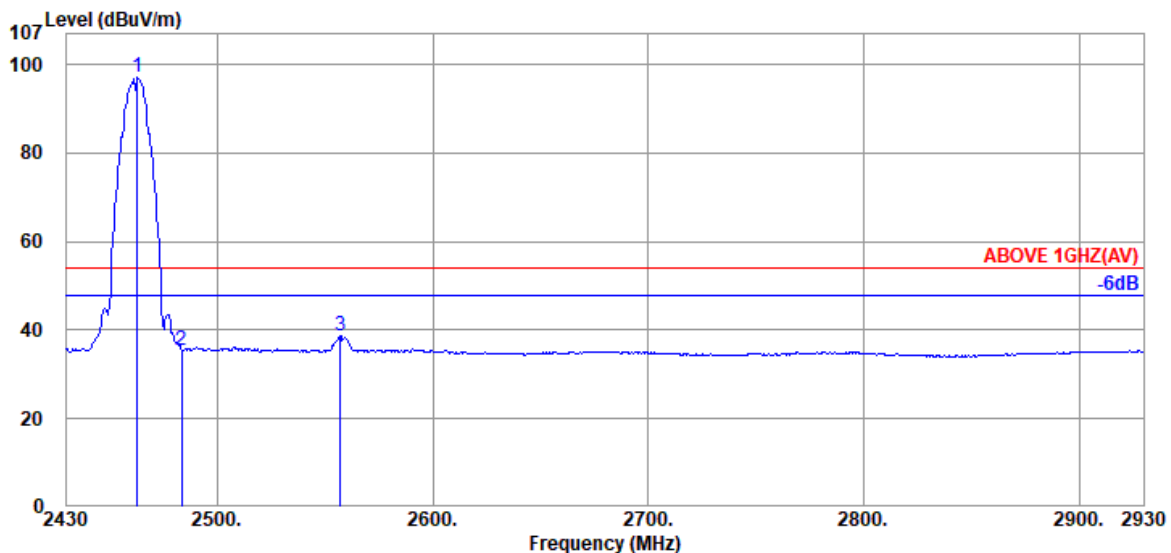
備註：“@”為主波，在此章節是不予以判定。

Mode	802.11b	Frequency	TX 2462MHz
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Antenna at Horizontal Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Gain (dB)	Reading level (dBμV)	Emission Level (dBUV/m)	Limits (dBUV/m)	Margin (dB)	Detector
@ 2463.000	32.30	7.98	34.55	94.81	100.54	---	---	Peak
2483.500	32.30	7.99	34.55	41.27	47.01	74.00	26.99	Peak
2559.000	32.50	8.03	34.57	43.10	49.06	74.00	24.94	Peak

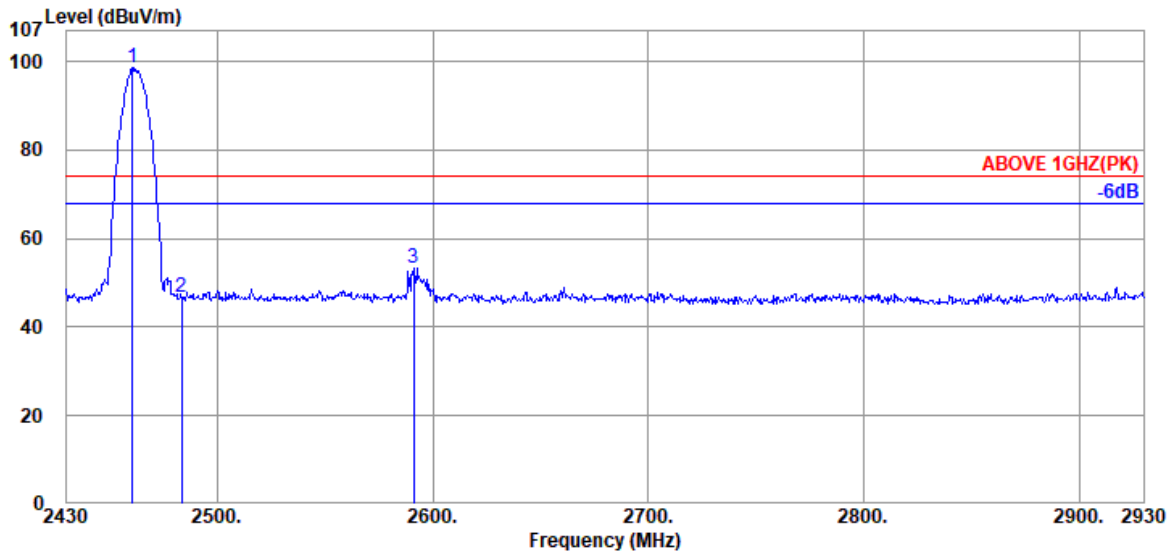


Antenna at Horizontal Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Gain (dB)	Reading level (dBμV)	Emission Level (dBUV/m)	Limits (dBUV/m)	Margin (dB)	Detector
@ 2463.000	32.30	7.98	34.55	91.29	97.02	---	---	Average
2483.500	32.30	7.99	34.55	29.74	35.48	54.00	18.52	Average
2557.000	32.50	8.03	34.57	32.59	38.55	54.00	15.45	Average

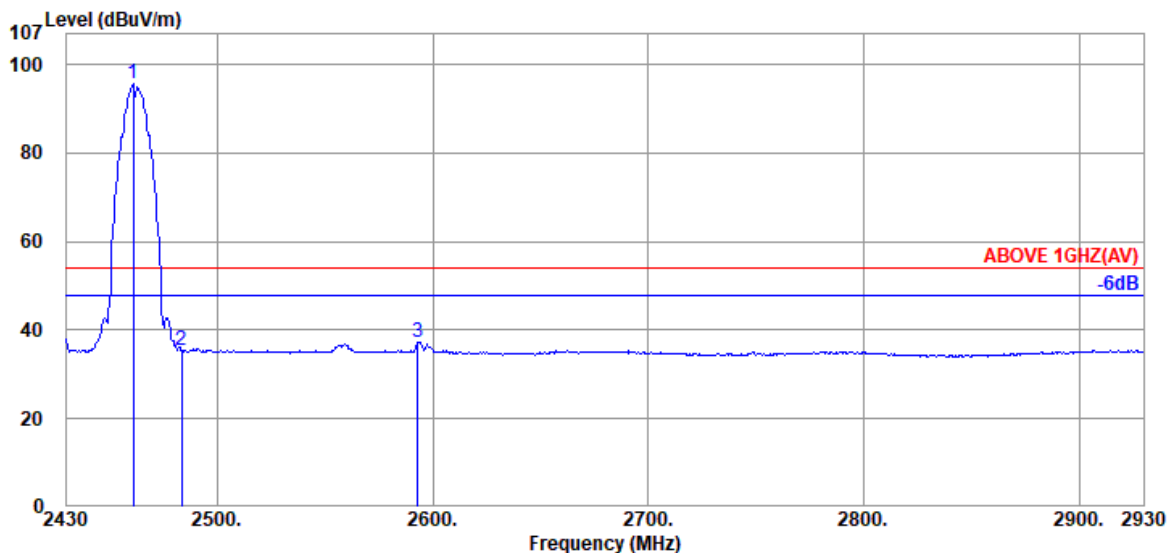
備註：“@”為主波，在此章節是不予以判定。

Mode	802.11b	Frequency	TX 2462MHz
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Antenna at Vertcial Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Gain (dB)	Reading level (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
@ 2460.500	32.30	7.98	34.55	92.77	98.50	---	---	Peak
2483.500	32.30	7.99	34.55	41.01	46.75	74.00	27.25	Peak
2591.000	32.50	8.05	34.58	47.26	53.23	74.00	20.77	Peak

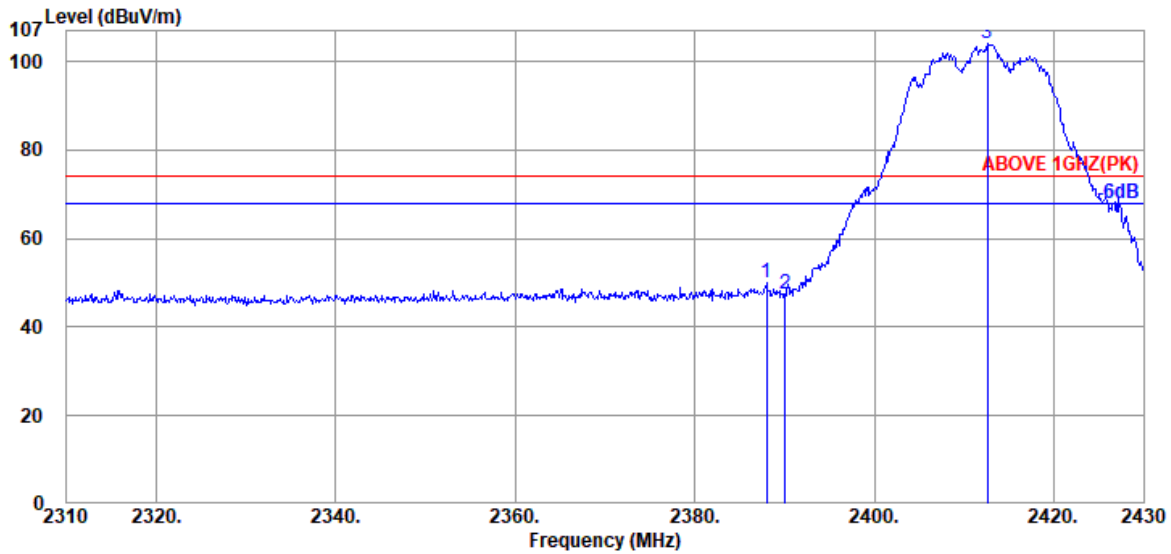


Antenna at Vertcial Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Gain (dB)	Reading level (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
@ 2461.000	32.30	7.98	34.55	89.91	95.64	---	---	Average
2483.500	32.30	7.99	34.55	29.61	35.35	54.00	18.65	Average
2593.000	32.50	8.05	34.58	31.28	37.25	54.00	16.75	Average

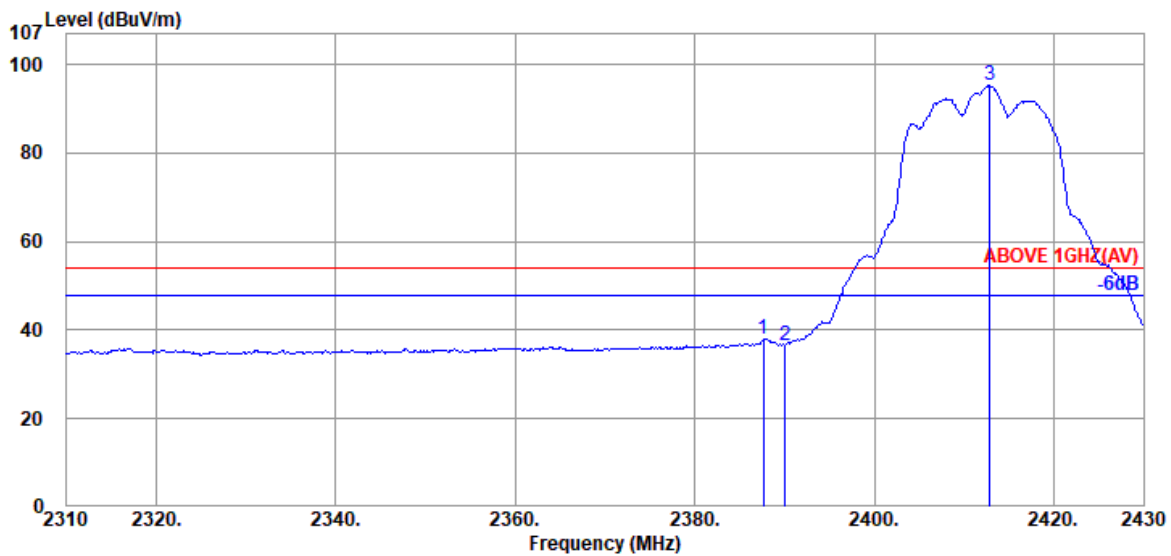
備註：“@”為主波，在此章節是不予以判定。

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)	Reading level (dBUV)	Emission Level (dBUV/m)	Limits (dBUV/m)	Margin (dB)	Detector
2388.000	31.89	7.95	34.53	44.73	50.04	74.00	23.96	Peak
2390.040	31.89	7.95	34.54	42.29	47.59	74.00	26.41	Peak
@ 2412.600	31.94	7.96	34.54	98.62	103.98	---	---	Peak

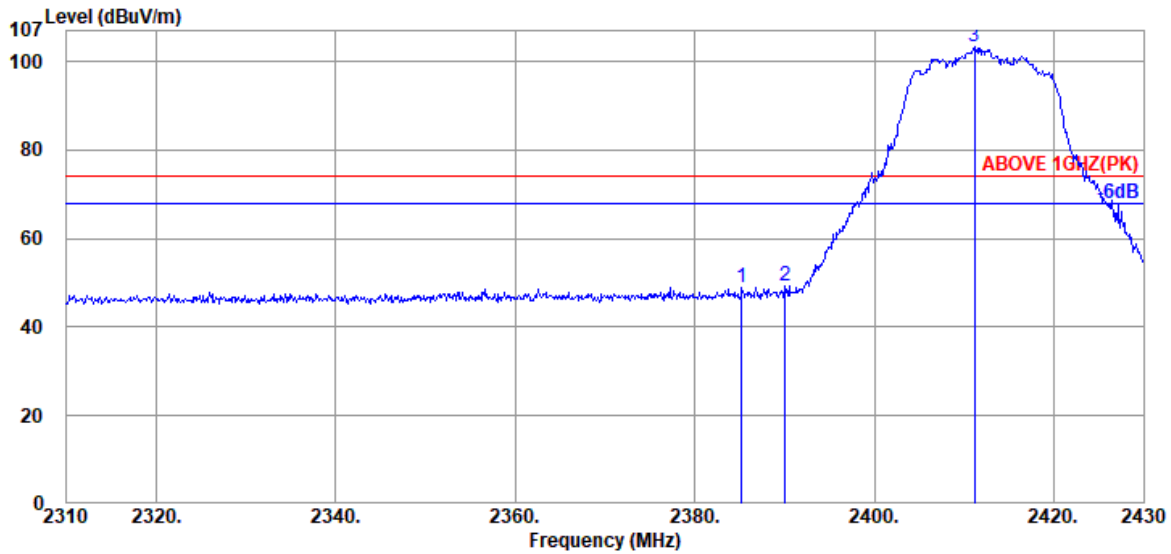


Antenna at Horizontal Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Gain (dB)	Reading level (dBUV)	Emission Level (dBUV/m)	Limits (dBUV/m)	Margin (dB)	Detector
2387.640	31.89	7.95	34.53	32.77	38.08	54.00	15.92	Average
2390.040	31.89	7.95	34.54	31.38	36.68	54.00	17.32	Average
@ 2412.840	31.94	7.96	34.54	89.97	95.33	---	---	Average

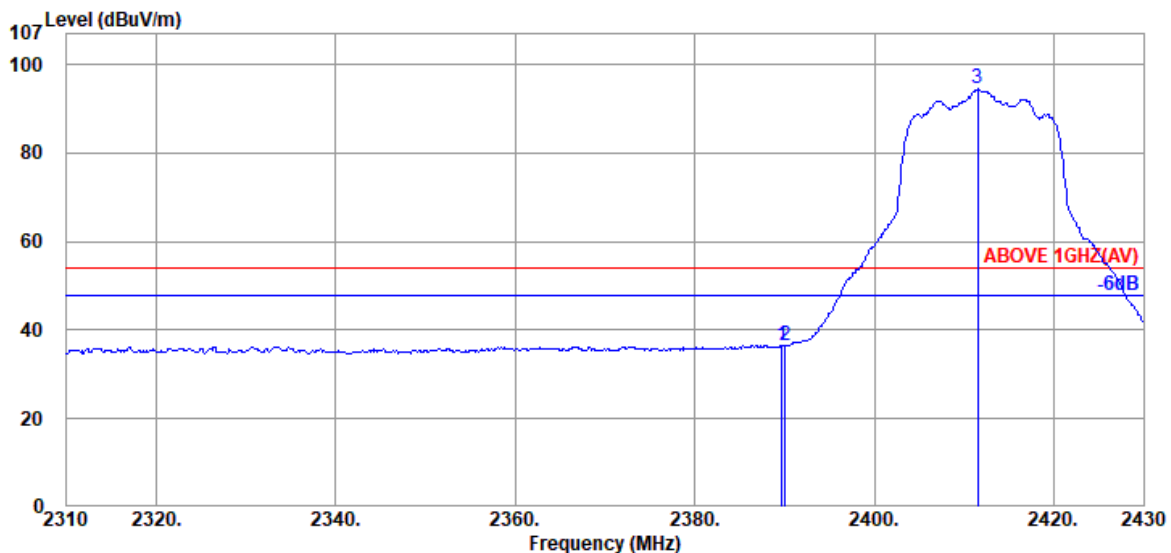
備註：“@”為主波，在此章節是不予以判定。

Mode	802.11g	Frequency	TX 2412MHz
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Antenna at Vertical Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Gain (dB)	Reading level (dBUV)	Emission Level (dBUV/m)	Limits (dBUV/m)	Margin (dB)	Detector
2385.240	31.89	7.95	34.53	43.65	48.96	74.00	25.04	Peak
2390.040	31.89	7.95	34.54	43.96	49.26	74.00	24.74	Peak
@ 2411.160	31.87	7.96	34.54	97.89	103.18	---	---	Peak

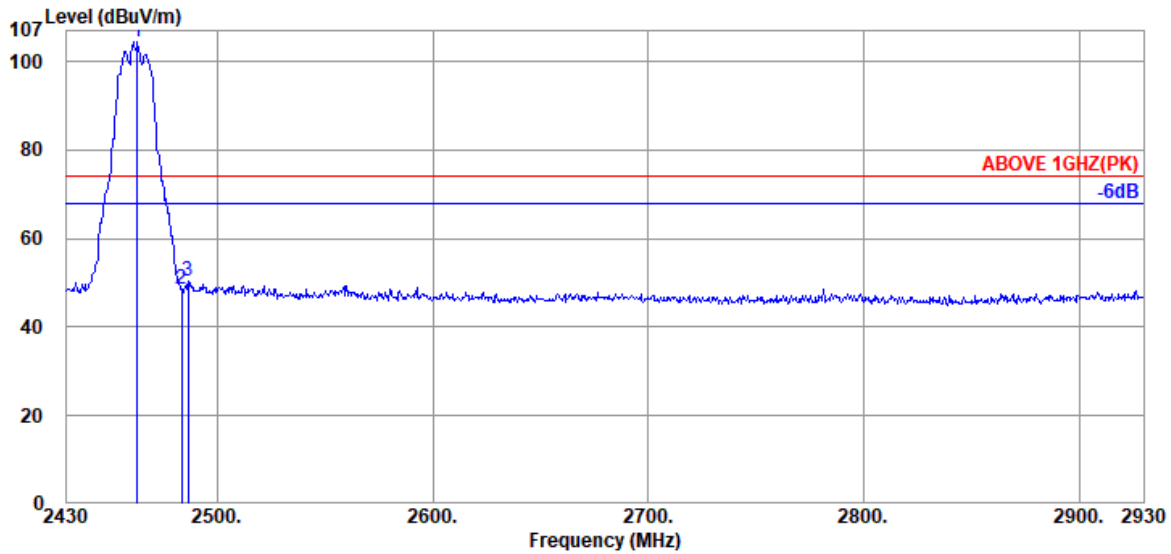


Antenna at Vertical Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Gain (dB)	Reading level (dBUV)	Emission Level (dBUV/m)	Limits (dBUV/m)	Margin (dB)	Detector
2389.680	31.89	7.95	34.53	31.26	36.57	54.00	17.43	Average
2390.040	31.89	7.95	34.54	31.17	36.47	54.00	17.53	Average
@ 2411.520	31.94	7.96	34.54	89.10	94.46	---	---	Average

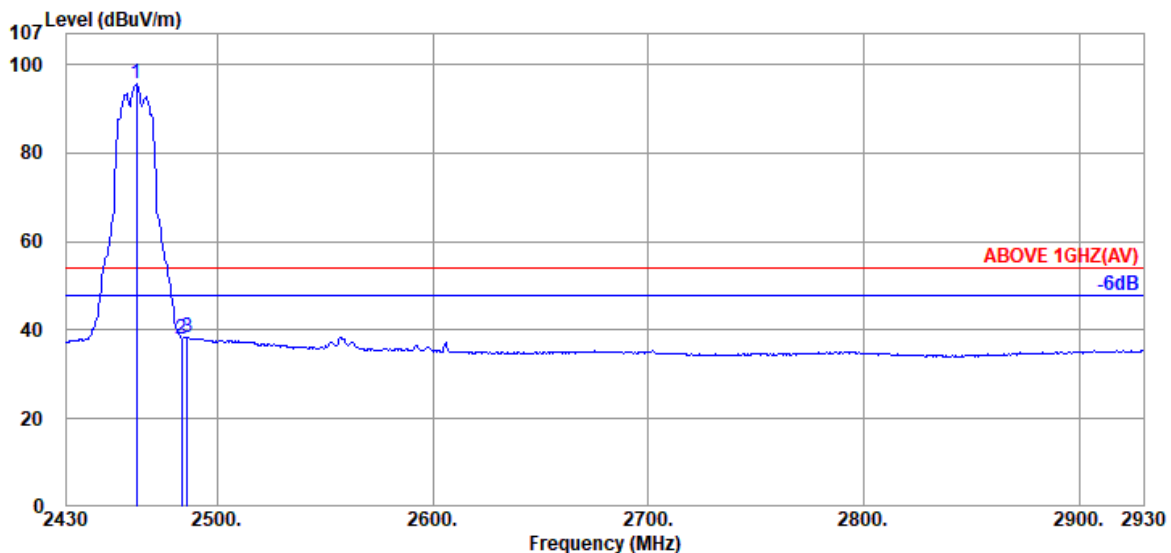
備註：“@”為主波，在此章節是不予以判定。

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)	Reading level (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
@ 2463.000	32.30	7.98	34.55	98.79	104.52	---	---	Peak
2483.500	32.30	7.99	34.55	42.72	48.46	74.00	25.54	Peak
2486.500	32.30	8.00	34.55	44.69	50.44	74.00	23.56	Peak

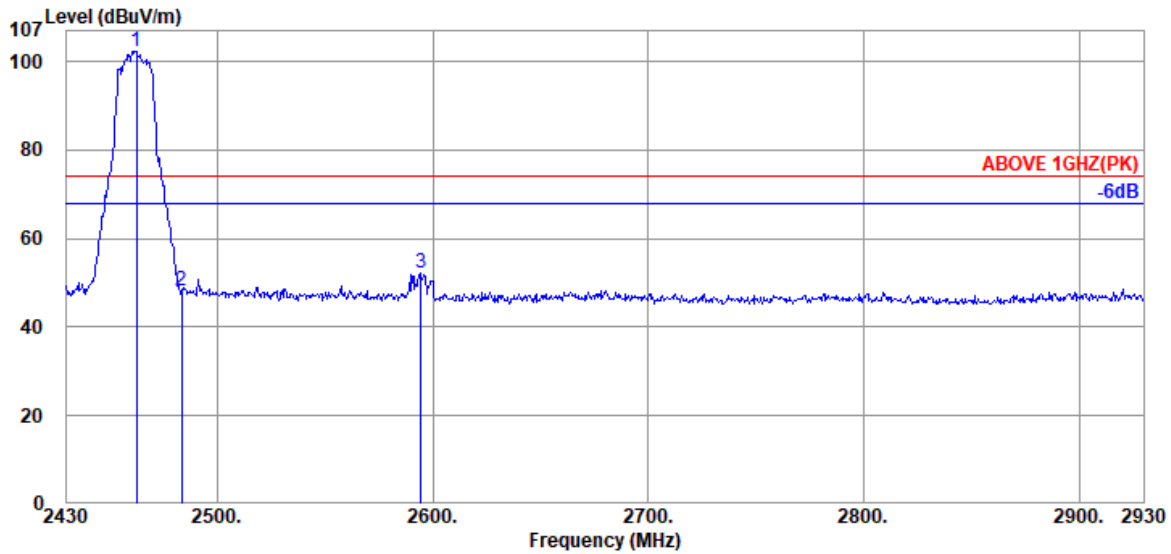


Antenna at Horizontal Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Gain (dB)	Reading level (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
@ 2462.500	32.30	7.98	34.55	89.88	95.61	---	---	Average
2483.500	32.30	7.99	34.55	32.39	38.13	54.00	15.87	Average
2486.000	32.30	8.00	34.55	32.69	38.44	54.00	15.56	Average

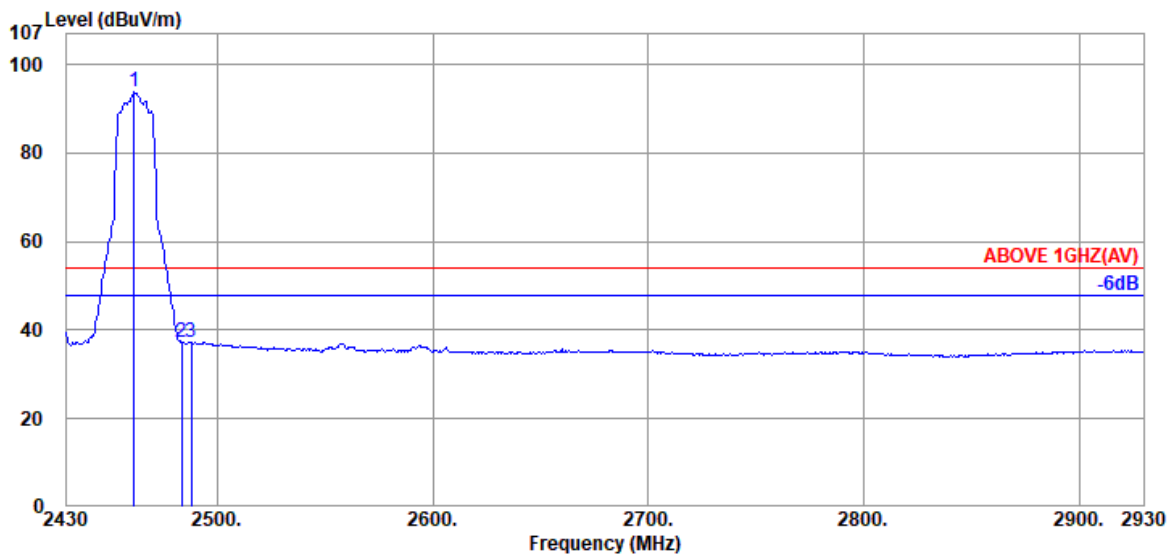
備註：“@”為主波，在此章節是不予以判定。

Mode	802.11g	Frequency	TX 2462MHz
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Antenna at Vertcial Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Gain (dB)	Reading level (dBμV)	Emission Level (dBUV/m)	Limits (dBUV/m)	Margin (dB)	Detector
@ 2462.500	32.30	7.98	34.55	96.68	102.41	---	---	Peak
2483.500	32.30	7.99	34.55	42.35	48.09	74.00	25.91	Peak
2594.500	32.50	8.05	34.58	46.27	52.24	74.00	21.76	Peak

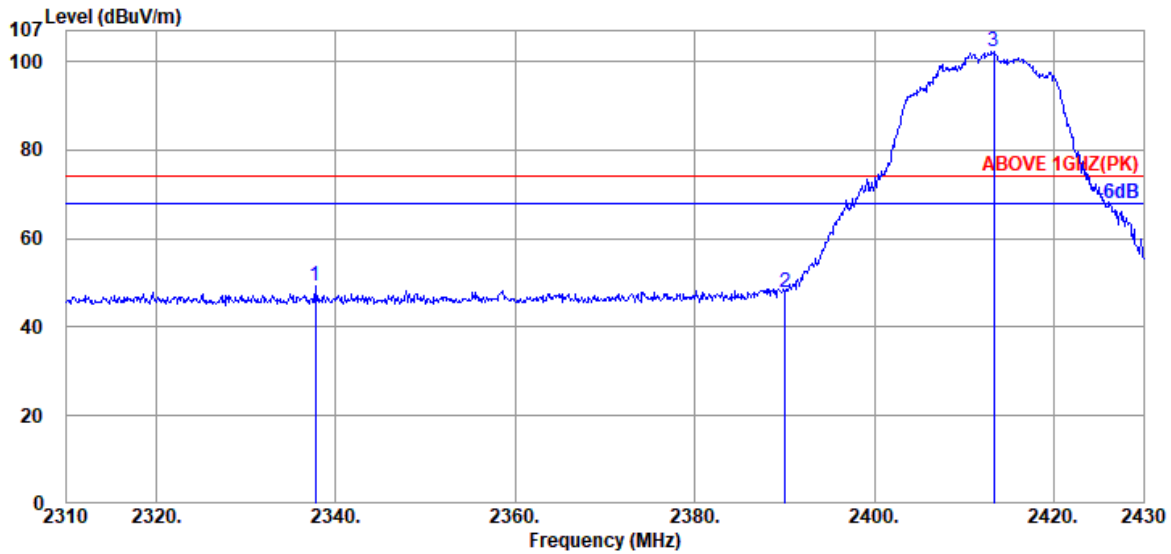


Antenna at Vertcial Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Gain (dB)	Reading level (dBμV)	Emission Level (dBUV/m)	Limits (dBUV/m)	Margin (dB)	Detector
@ 2461.500	32.30	7.98	34.55	88.06	93.79	---	---	Average
2483.500	32.30	7.99	34.55	31.68	37.42	54.00	16.58	Average
2488.000	32.30	8.00	34.55	31.51	37.26	54.00	16.74	Average

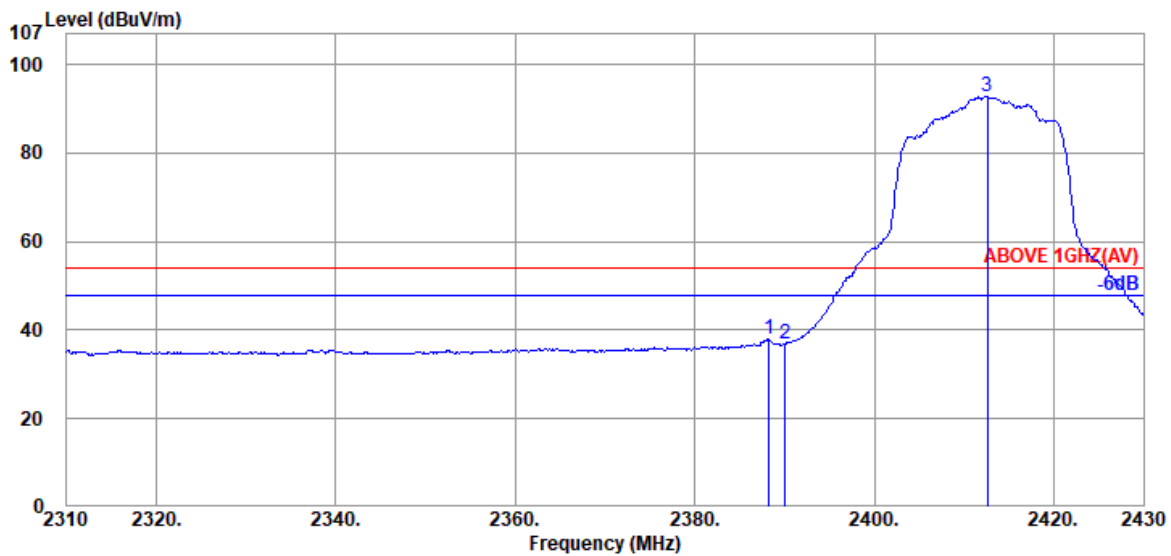
備註：“@”為主波，在此章節是不予以判定。

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)	Reading level (dBUV)	Emission Level (dBUV/m)	Limits (dBUV/m)	Margin (dB)	Detector
2337.720	32.05	7.92	34.52	43.96	49.41	74.00	24.59	Peak
2390.040	31.89	7.95	34.54	42.38	47.68	74.00	26.32	Peak
@ 2412.600	31.94	7.96	34.54	96.93	102.29	---	---	Peak

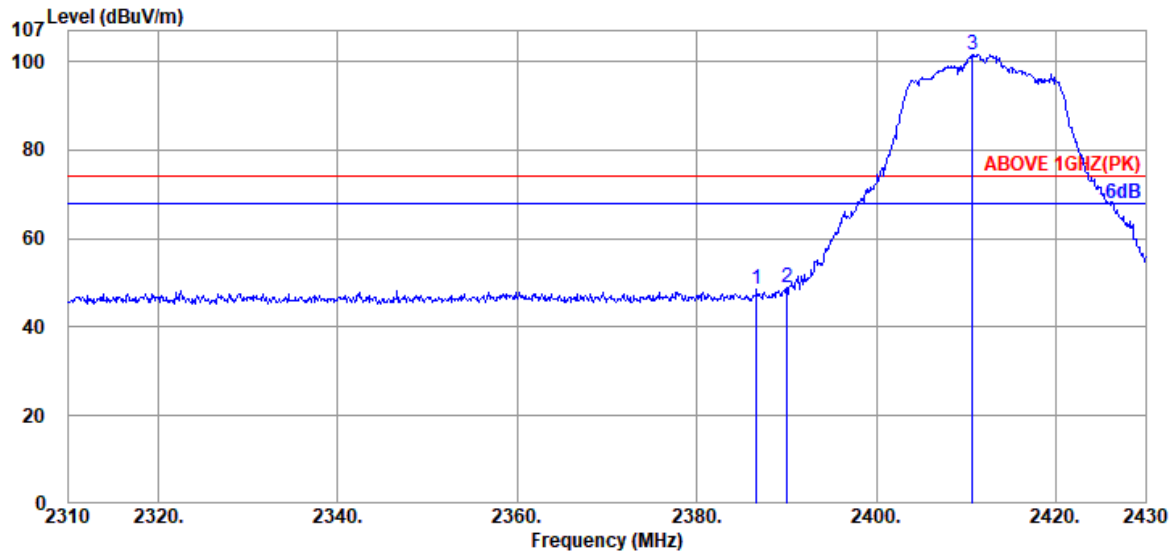


Antenna at Horizontal Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Gain (dB)	Reading level (dBUV)	Emission Level (dBUV/m)	Limits (dBUV/m)	Margin (dB)	Detector
2388.240	31.89	7.95	34.53	32.58	37.89	54.00	16.11	Average
2390.040	31.89	7.95	34.54	31.73	37.03	54.00	16.97	Average
@ 2412.600	31.94	7.96	34.54	87.44	92.80	---	---	Average

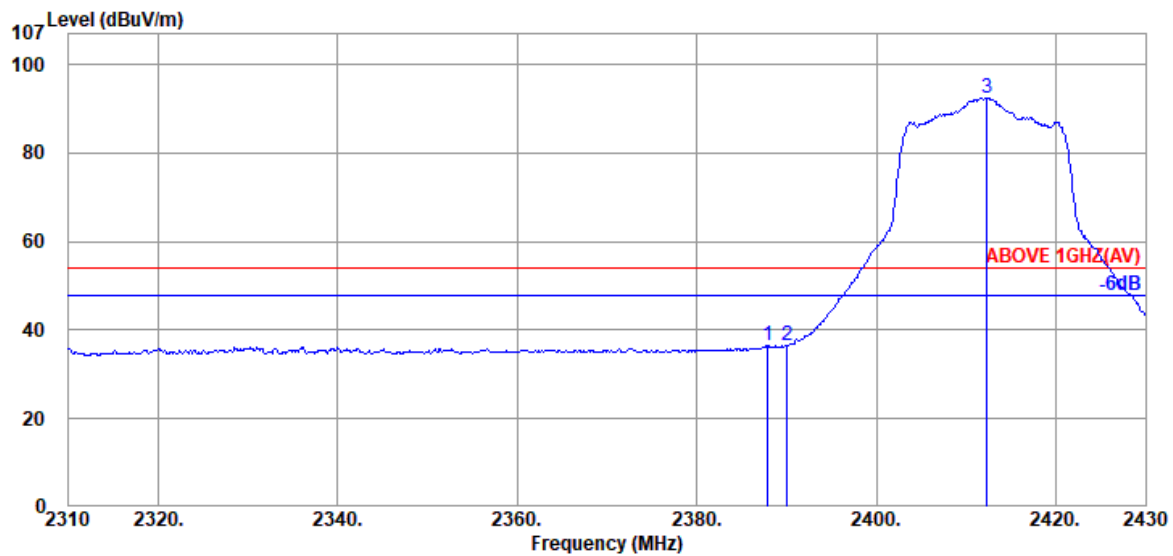
備註：“@”為主波，在此章節是不予以判定。

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)	Reading level (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
2386.680	31.89	7.95	34.53	43.18	48.49	74.00	25.51	Peak
2390.040	31.89	7.95	34.54	43.58	48.88	74.00	25.12	Peak
@ 2410.680	31.87	7.96	34.54	96.40	101.69	---	---	Peak

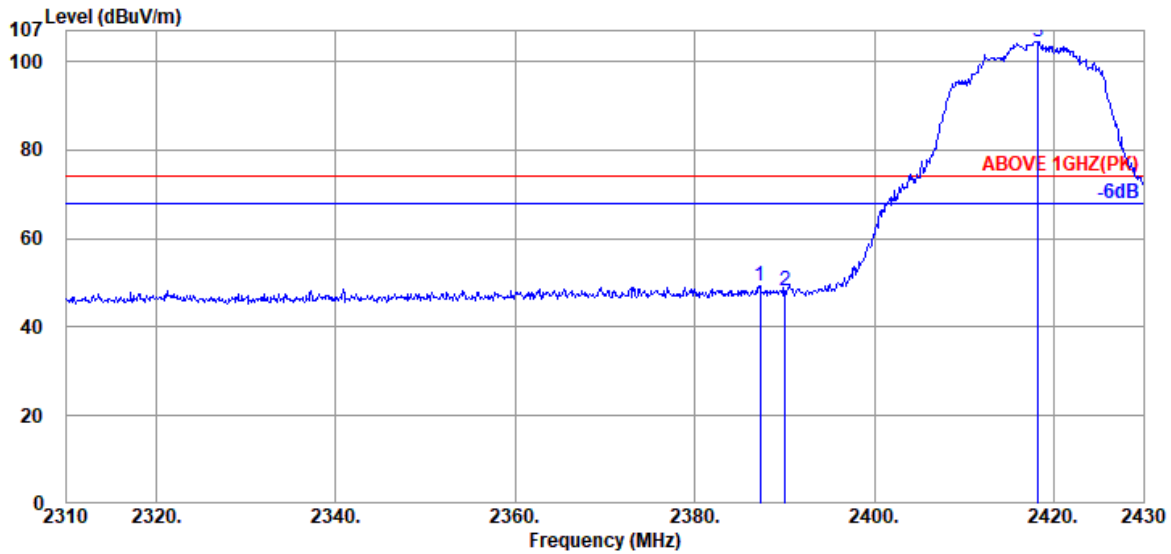


Antenna at Vertical Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Gain (dB)	Reading level (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
2387.880	31.89	7.95	34.53	31.23	36.54	54.00	17.46	Average
2390.040	31.89	7.95	34.54	31.31	36.61	54.00	17.39	Average
@ 2412.360	31.94	7.96	34.54	87.17	92.53	---	---	Average

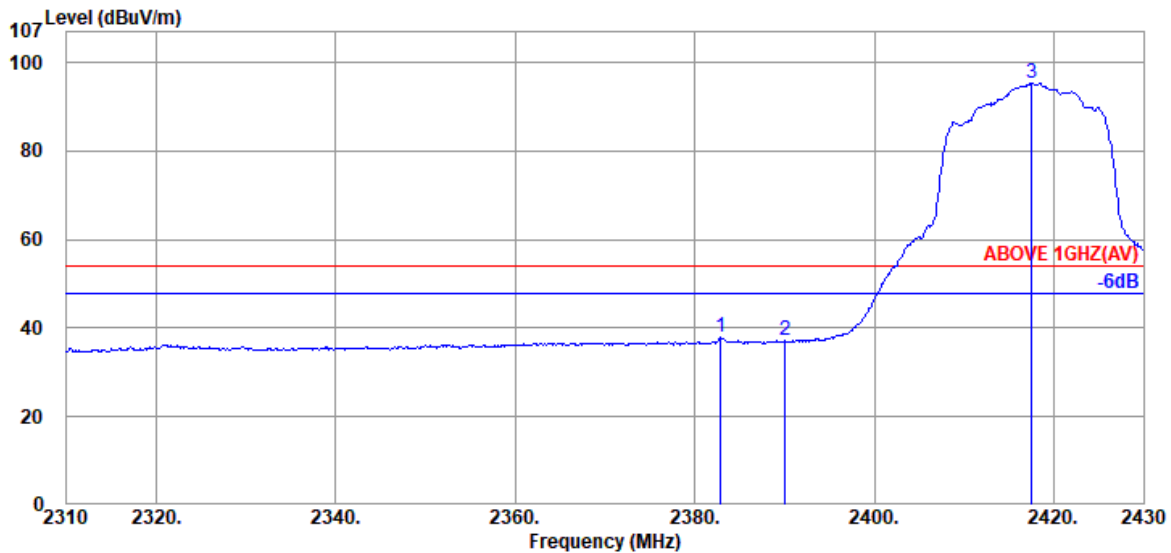
備註：“@”為主波，在此章節是不予以判定。

Mode	802.11n-HT20	Frequency	TX 2417MHz
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Antenna at Horizontal Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Gain (dB)	Reading level (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
2387.280	31.89	7.95	34.53	44.03	49.34	74.00	24.66	Peak
2390.040	31.89	7.95	34.54	42.87	48.17	74.00	25.83	Peak
@ 2418.240	32.01	7.96	34.54	98.95	104.38	---	---	Peak

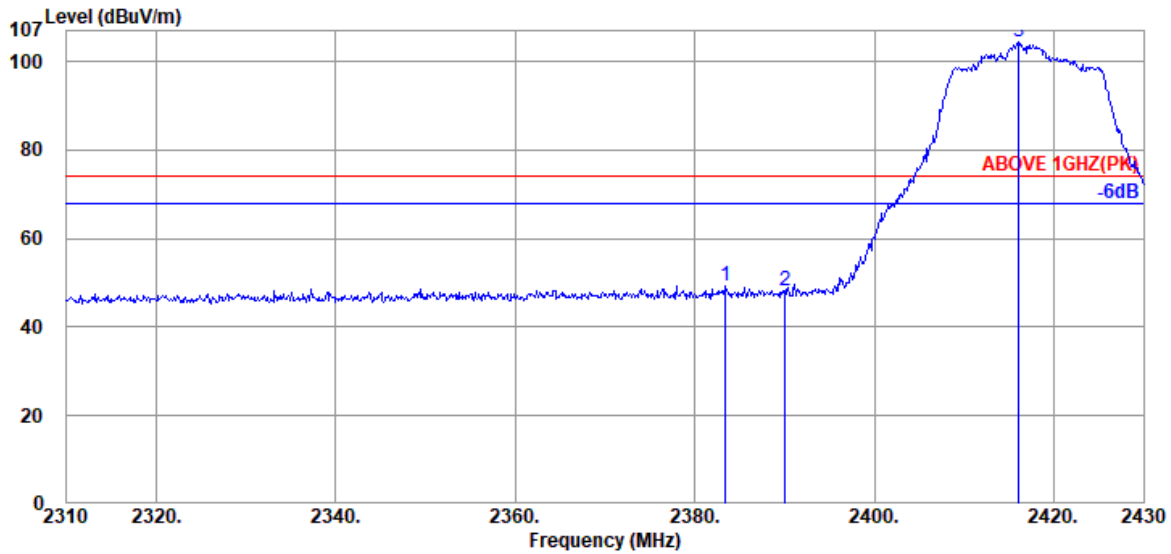


Antenna at Horizontal Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Gain (dB)	Reading level (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
2382.840	31.93	7.95	34.53	32.48	37.83	54.00	16.17	Average
2390.040	31.89	7.95	34.54	31.77	37.07	54.00	16.93	Average
@ 2417.520	31.94	7.96	34.54	90.09	95.45	---	---	Average

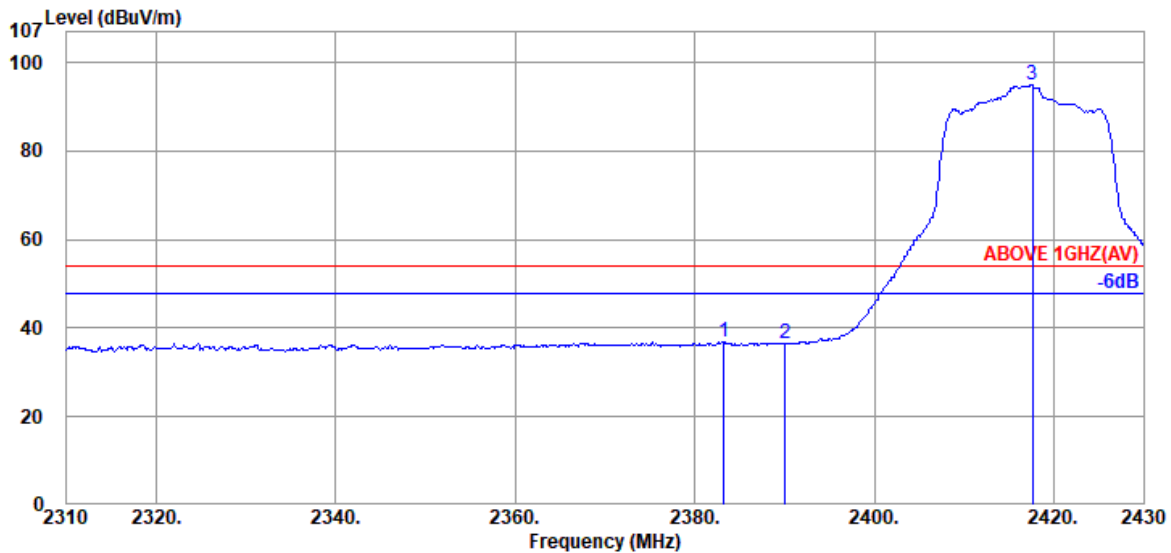
備註：“@”為主波，在此章節是不予以判定。

Mode	802.11n-HT20	Frequency	TX 2417MHz
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Antenna at Vertical Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Gain (dB)	Reading level (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
2383.440	31.93	7.95	34.53	44.05	49.40	74.00	24.60	Peak
2390.040	31.89	7.95	34.54	42.73	48.03	74.00	25.97	Peak
@ 2416.080	31.94	7.96	34.54	98.93	104.29	---	---	Peak

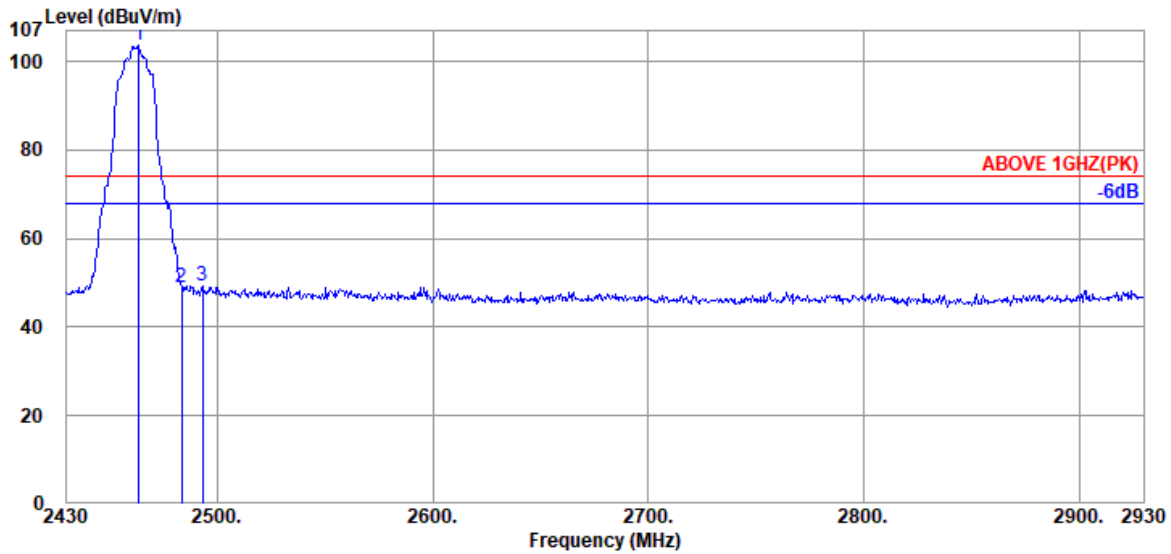


Antenna at Vertical Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Gain (dB)	Reading level (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
2383.200	31.93	7.95	34.53	31.55	36.90	54.00	17.10	Average
2390.040	31.89	7.95	34.54	31.18	36.48	54.00	17.52	Average
@ 2417.640	31.94	7.96	34.54	89.67	95.03	---	---	Average

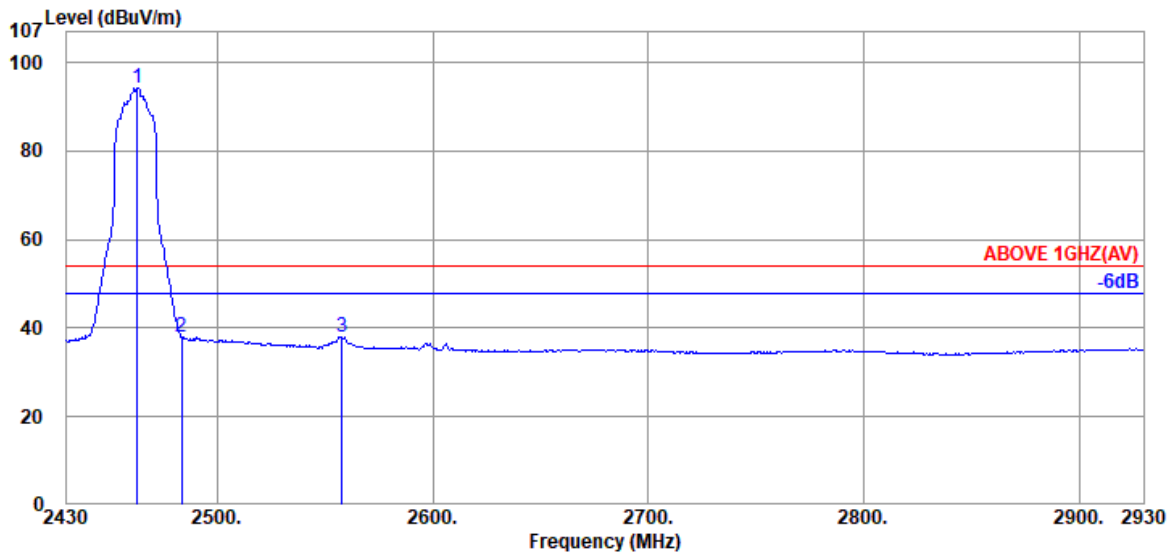
備註：“@”為主波，在此章節是不予以判定。

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)	Reading level (dBμV)	Emission Level (dBUV/m)	Limits (dBUV/m)	Margin (dB)	Detector
@ 2463.500	32.30	7.98	34.55	98.07	103.80	---	---	Peak
2483.500	32.30	7.99	34.55	43.23	48.97	74.00	25.03	Peak
2493.000	32.30	8.00	34.56	43.65	49.39	74.00	24.61	Peak

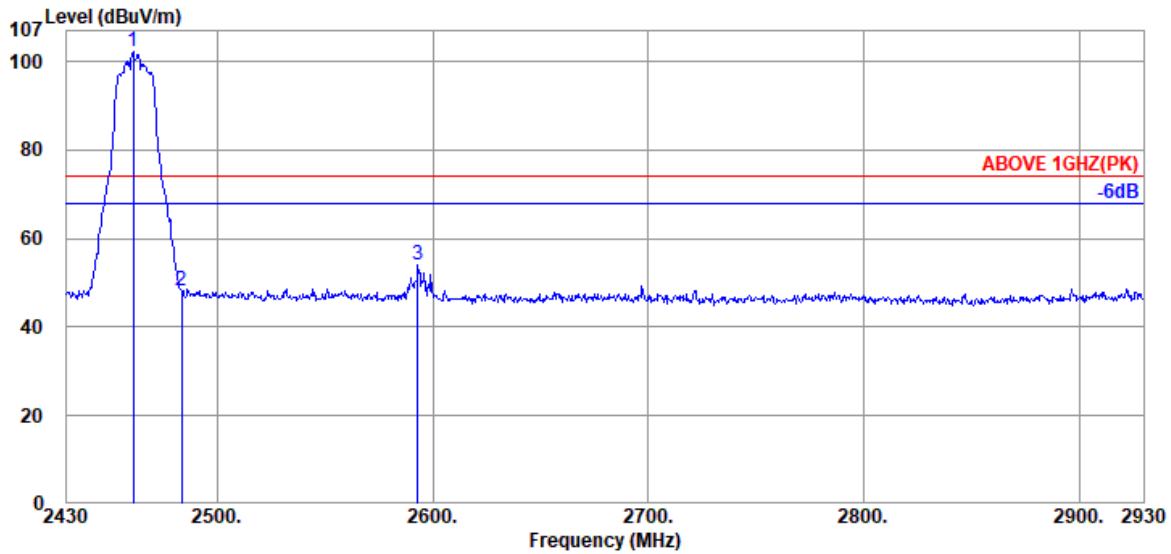


Antenna at Horizontal Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Gain (dB)	Reading level (dBμV)	Emission Level (dBUV/m)	Limits (dBUV/m)	Margin (dB)	Detector
@ 2463.000	32.30	7.98	34.55	88.51	94.24	---	---	Average
2483.500	32.30	7.99	34.55	32.32	38.06	54.00	15.94	Average
2558.000	32.50	8.03	34.57	32.02	37.98	54.00	16.02	Average

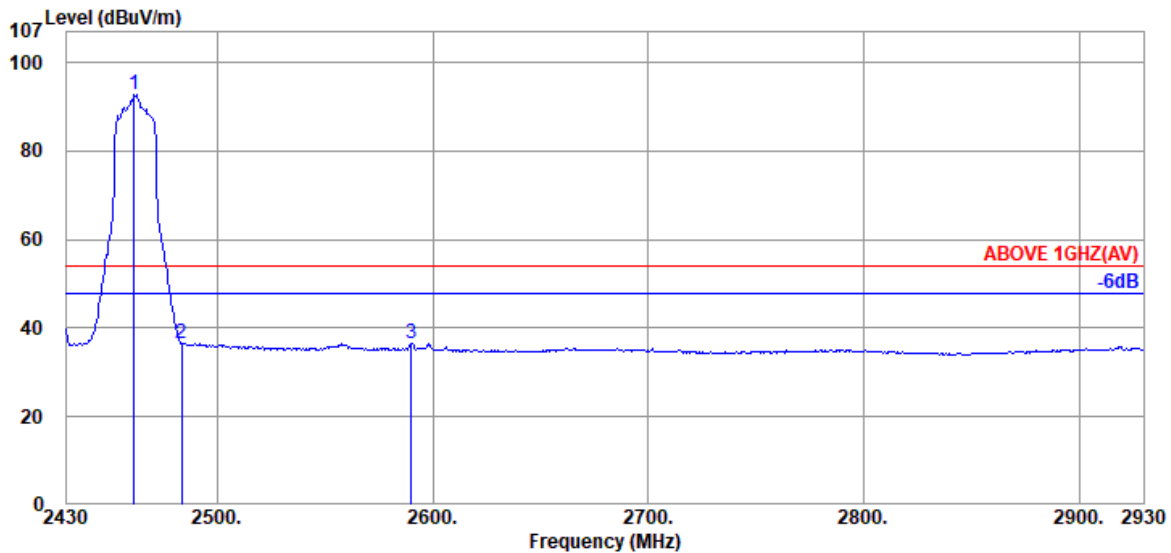
備註：“@”為主波，在此章節是不予以判定。

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)	Reading level (dBμV)	Emission Level (dBUV/m)	Limits (dBUV/m)	Margin (dB)	Detector
@ 2461.000	32.30	7.98	34.55	96.37	102.10	---	---	Peak
2483.500	32.30	7.99	34.55	42.62	48.36	74.00	25.64	Peak
2593.000	32.50	8.05	34.58	48.15	54.12	74.00	19.88	Peak



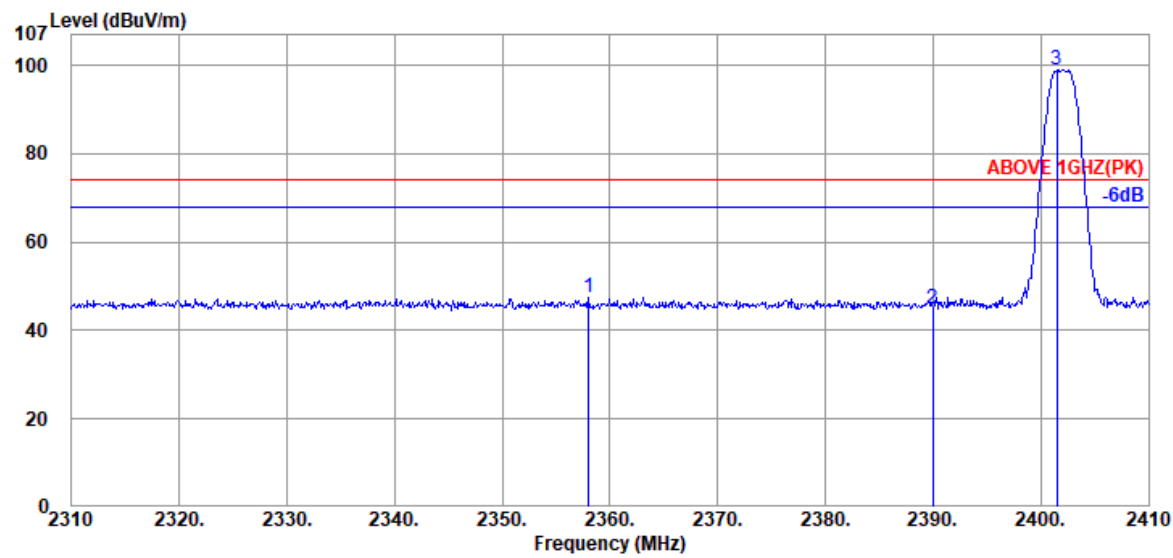
Antenna at Vertical Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Gain (dB)	Reading level (dBμV)	Emission Level (dBUV/m)	Limits (dBUV/m)	Margin (dB)	Detector
@ 2461.500	32.30	7.98	34.55	87.07	92.80	---	---	Average
2483.500	32.30	7.99	34.55	30.67	36.41	54.00	17.59	Average
2590.000	32.50	8.05	34.58	30.73	36.70	54.00	17.30	Average

備註：“@”為主波，在此章節是不予以判定。

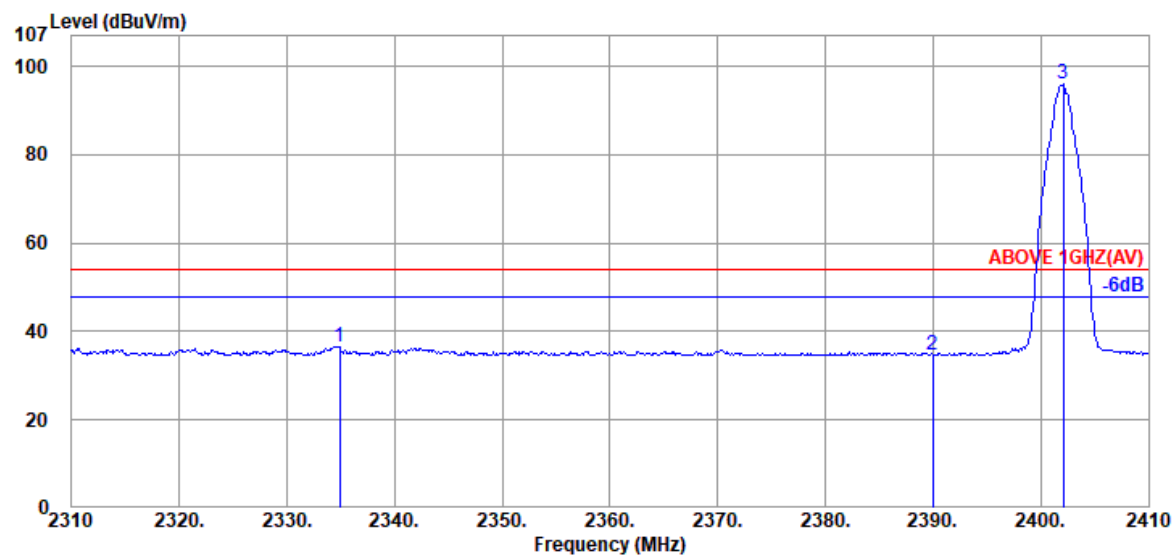
● BLE 測試模式

Mode	BLE	Frequency	TX 2402MHz
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Antenna at Horizontal Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Gain (dB)	Reading level (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
2358.000	32.06	7.93	34.53	42.01	47.47	74.00	26.53	Peak
2390.000	31.89	7.95	34.54	39.66	44.96	74.00	29.04	Peak
@ 2401.500	31.80	7.95	34.54	93.65	98.86	---	---	Peak

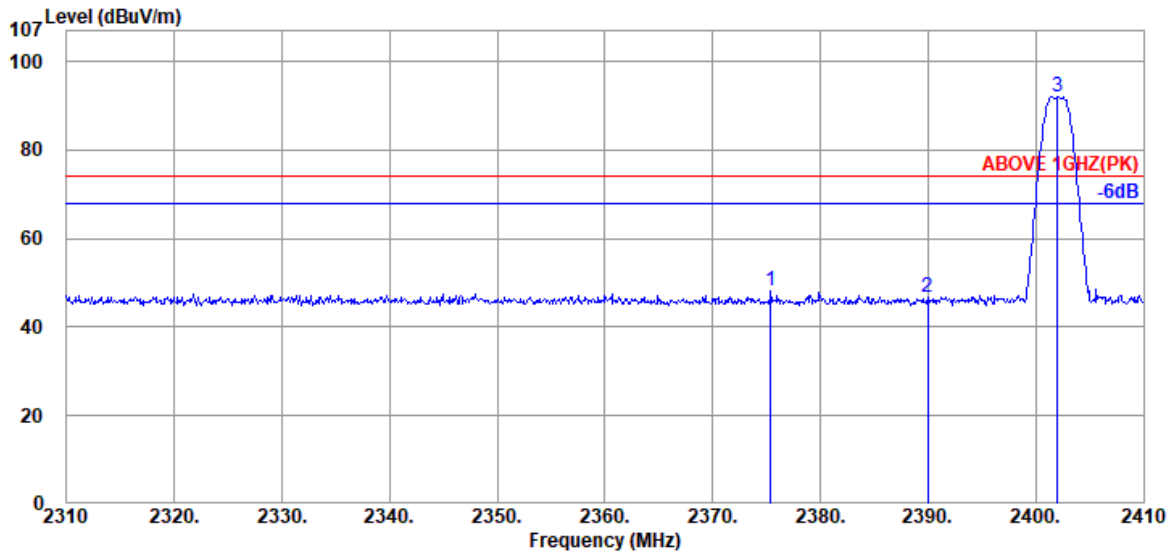


Antenna at Horizontal Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Gain (dB)	Reading level (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
2334.900	32.02	7.92	34.52	31.16	36.58	54.00	17.42	Average
2390.000	31.89	7.95	34.54	29.53	34.83	54.00	19.17	Average
@ 2402.100	31.80	7.95	34.54	90.73	95.94	---	---	Average

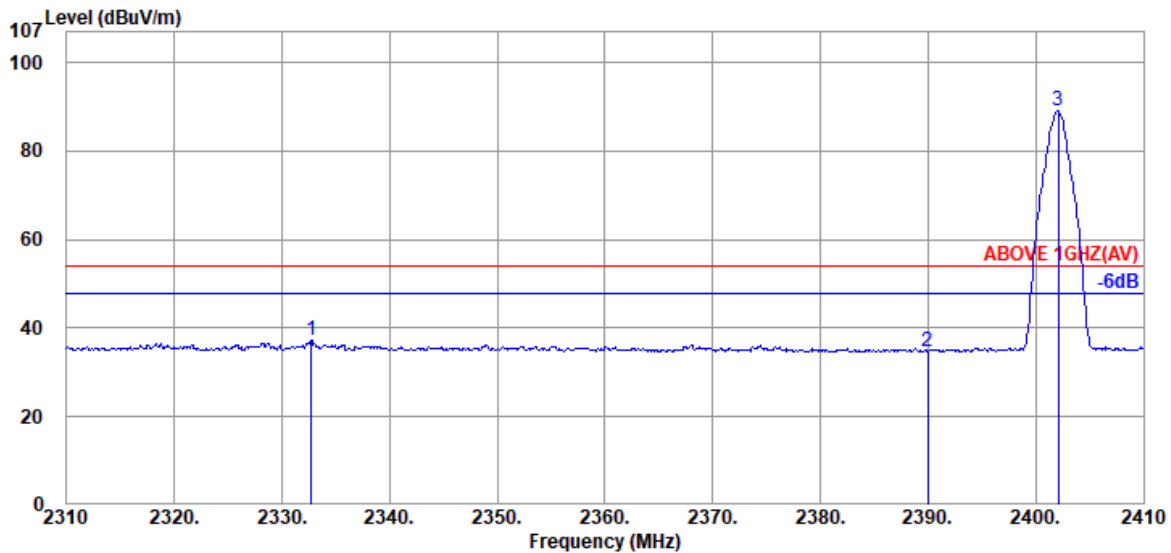
備註：“@”為主波，在此章節是不予以判定。

Mode	BLE	Frequency	TX 2402MHz
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Antenna at Vertical Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Gain (dB)	Reading level (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
2375.400	31.97	7.94	34.53	42.72	48.10	74.00	25.90	Peak
2390.000	31.89	7.95	34.54	41.43	46.73	74.00	27.27	Peak
@ 2402.000	31.80	7.95	34.54	86.79	92.00	---	---	Peak

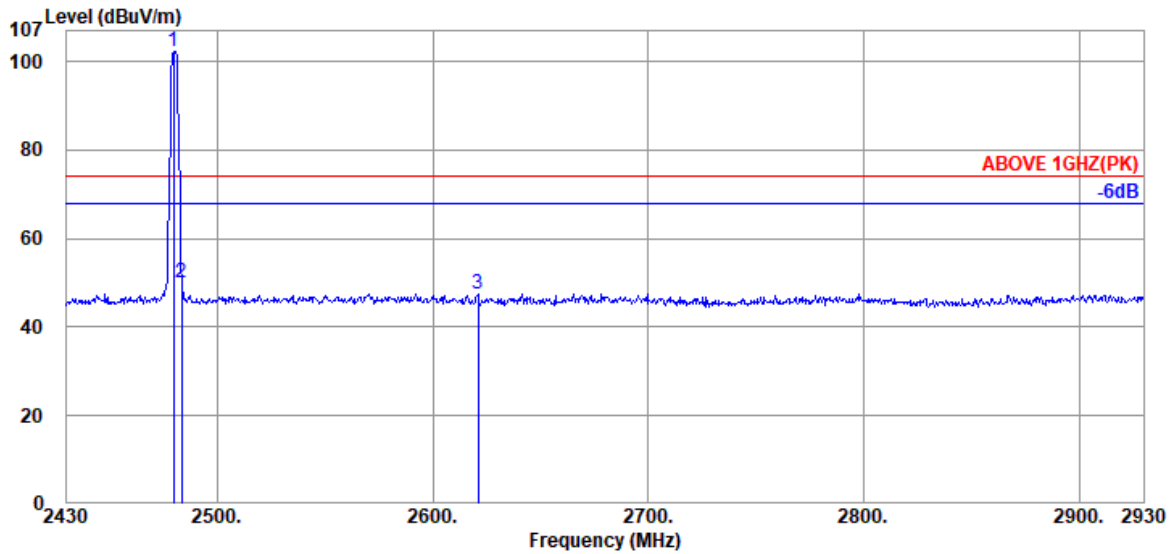


Antenna at Vertical Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Gain (dB)	Reading level (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
2332.700	32.02	7.92	34.52	31.75	37.17	54.00	16.83	Average
2390.000	31.89	7.95	34.54	29.52	34.82	54.00	19.18	Average
@ 2402.100	31.80	7.95	34.54	83.88	89.09	---	---	Average

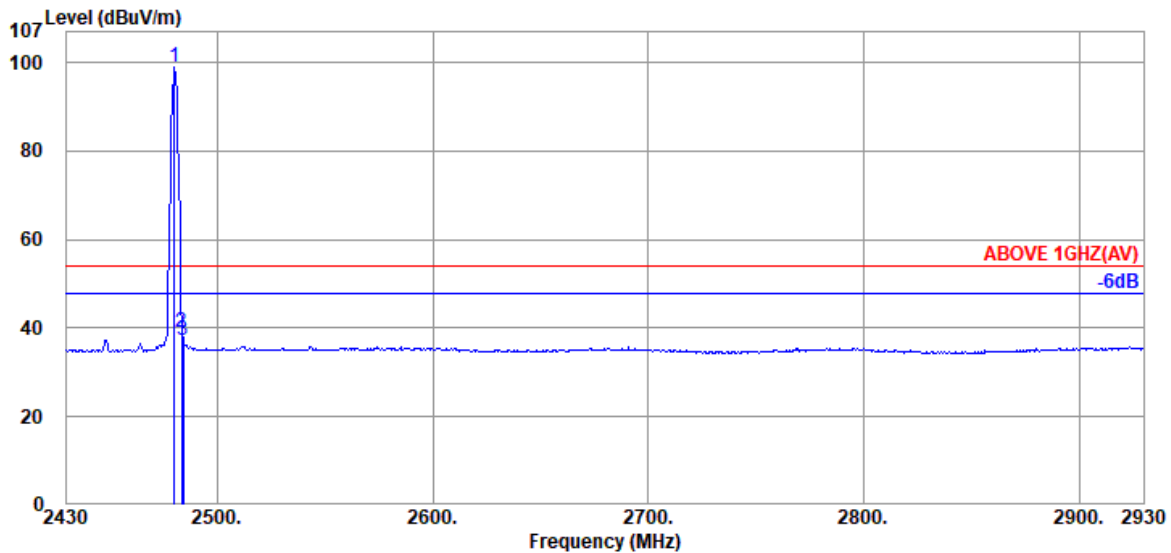
備註：“@”為主波，在此章節是不予以判定。

Mode	BLE	Frequency	TX 2480MHz
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Antenna at Horizontal Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Gain (dB)	Reading level (dBμV)	Emission Level (dBUV/m)	Limits (dBUV/m)	Margin (dB)	Detector
@ 2479.500	32.30	7.99	34.55	96.62	102.36	---	---	Peak
2483.500	32.30	7.99	34.55	44.29	50.03	74.00	23.97	Peak
2621.000	32.40	8.06	34.59	41.70	47.57	74.00	26.43	Peak

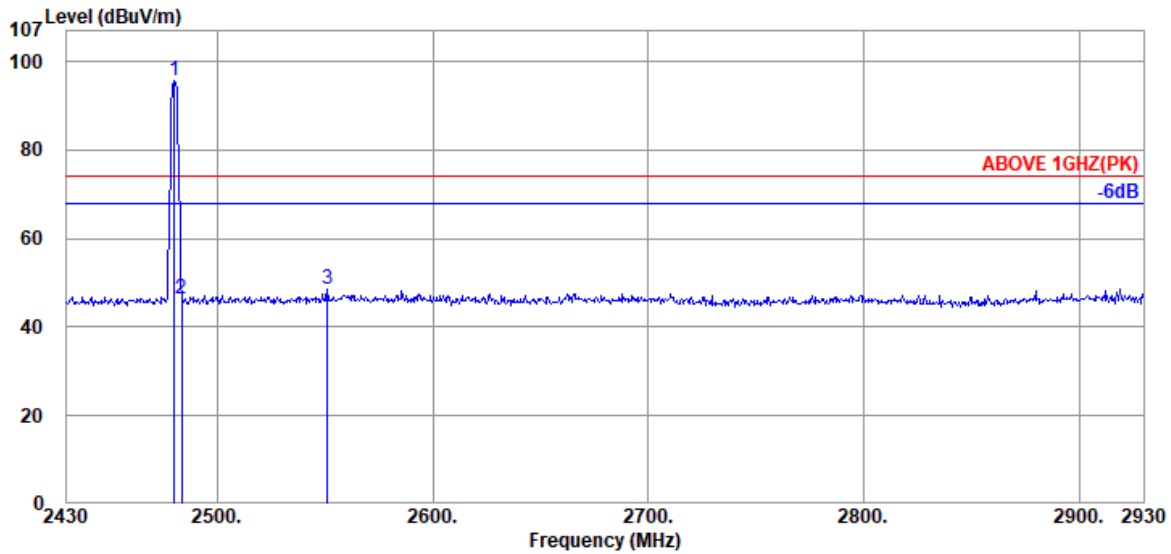


Antenna at Horizontal Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Gain (dB)	Reading level (dBμV)	Emission Level (dBUV/m)	Limits (dBUV/m)	Margin (dB)	Detector
@ 2480.000	32.30	7.99	34.55	93.13	98.87	---	---	Average
2483.500	32.30	7.99	34.55	33.35	39.09	54.00	14.91	Average
2484.000	32.30	7.99	34.55	31.39	37.13	54.00	16.87	Average

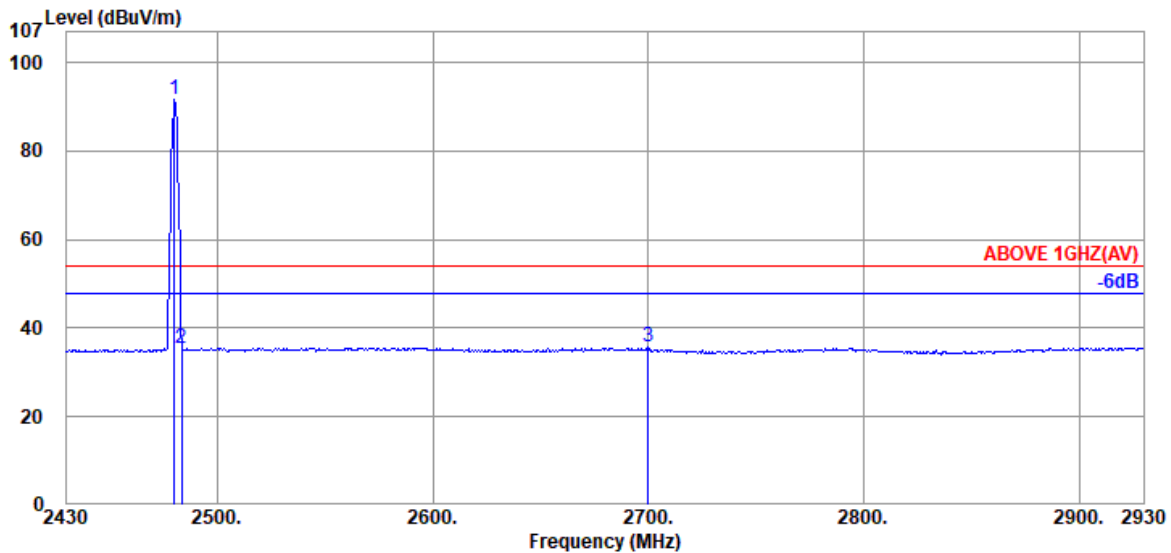
備註：“@”為主波，在此章節是不予以判定。

Mode	BLE	Frequency	TX 2480MHz
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Antenna at Vertical Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Gain (dB)	Reading level (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
@ 2480.000	32.30	7.99	34.55	89.78	95.52	---	---	Peak
2483.500	32.30	7.99	34.55	40.50	46.24	74.00	27.76	Peak
2551.000	32.50	8.03	34.57	42.51	48.47	74.00	25.53	Peak



Antenna at Vertical Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Gain (dB)	Reading level (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
@ 2480.000	32.30	7.99	34.55	86.07	91.81	---	---	Average
2483.500	32.30	7.99	34.55	29.67	35.41	54.00	18.59	Average
2700.000	32.20	8.09	34.60	29.96	35.65	54.00	18.35	Average

備註：“@”為主波，在此章節是不予以判定。

3. 發射頻寬之量測

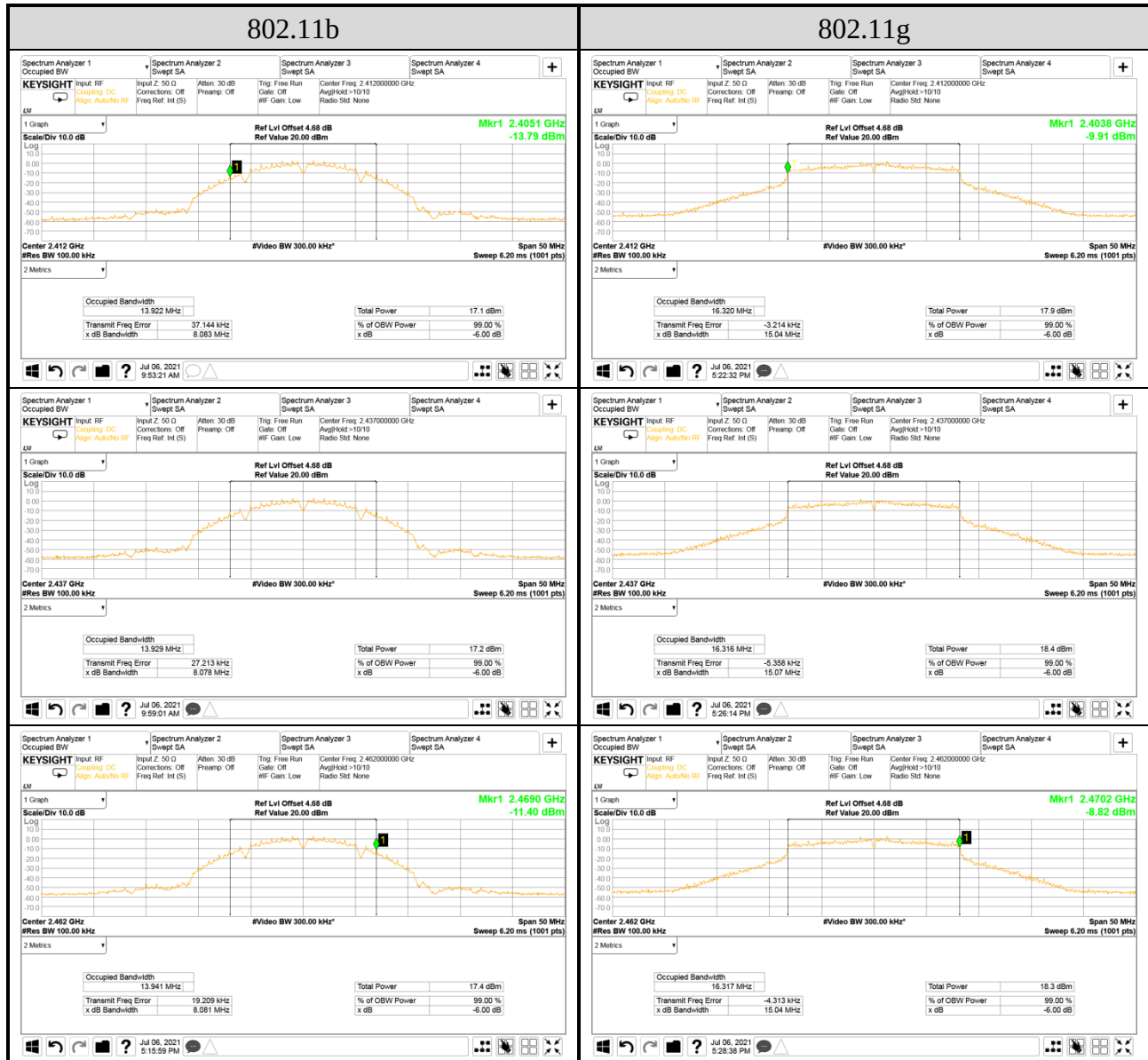
測試日期	2021/06/30 ~ 07/06	環境溫/濕度	24 ~ 25°C / 51 ~ 52%
電纜損失	802.11b/g/n-HT20: 1.68dB BLE: 1.61dB	測試人員	Sam Chang
測試電壓	AC 110V, 60Hz (經電源供應器供電)		

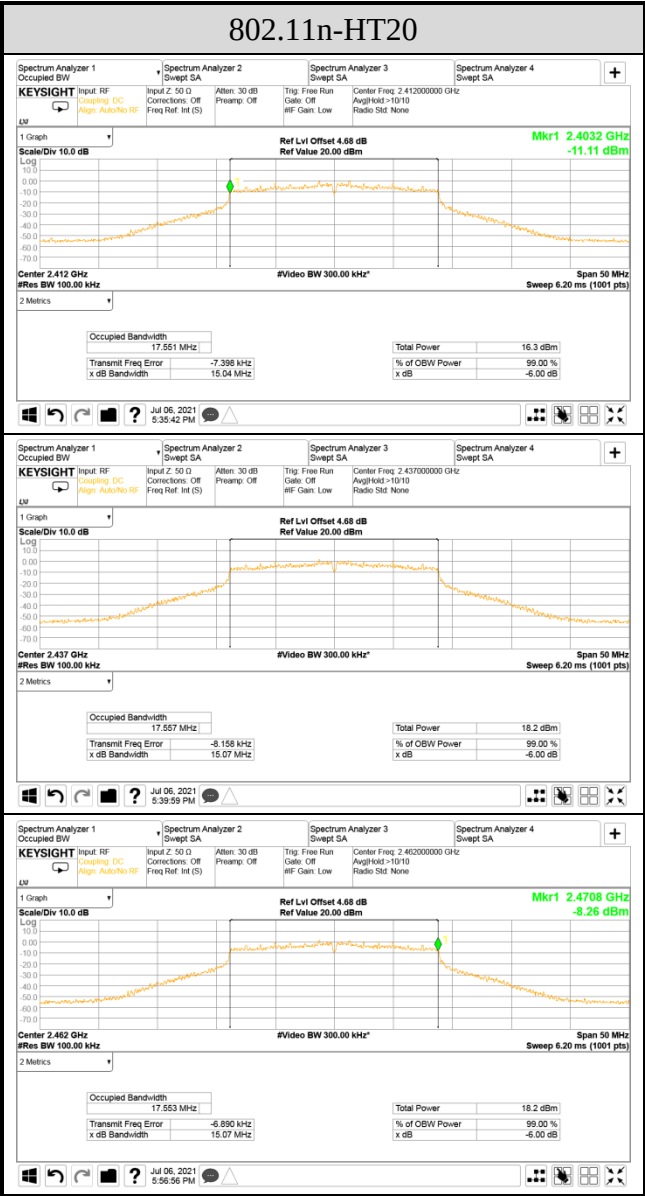
3.1. 發射頻寬

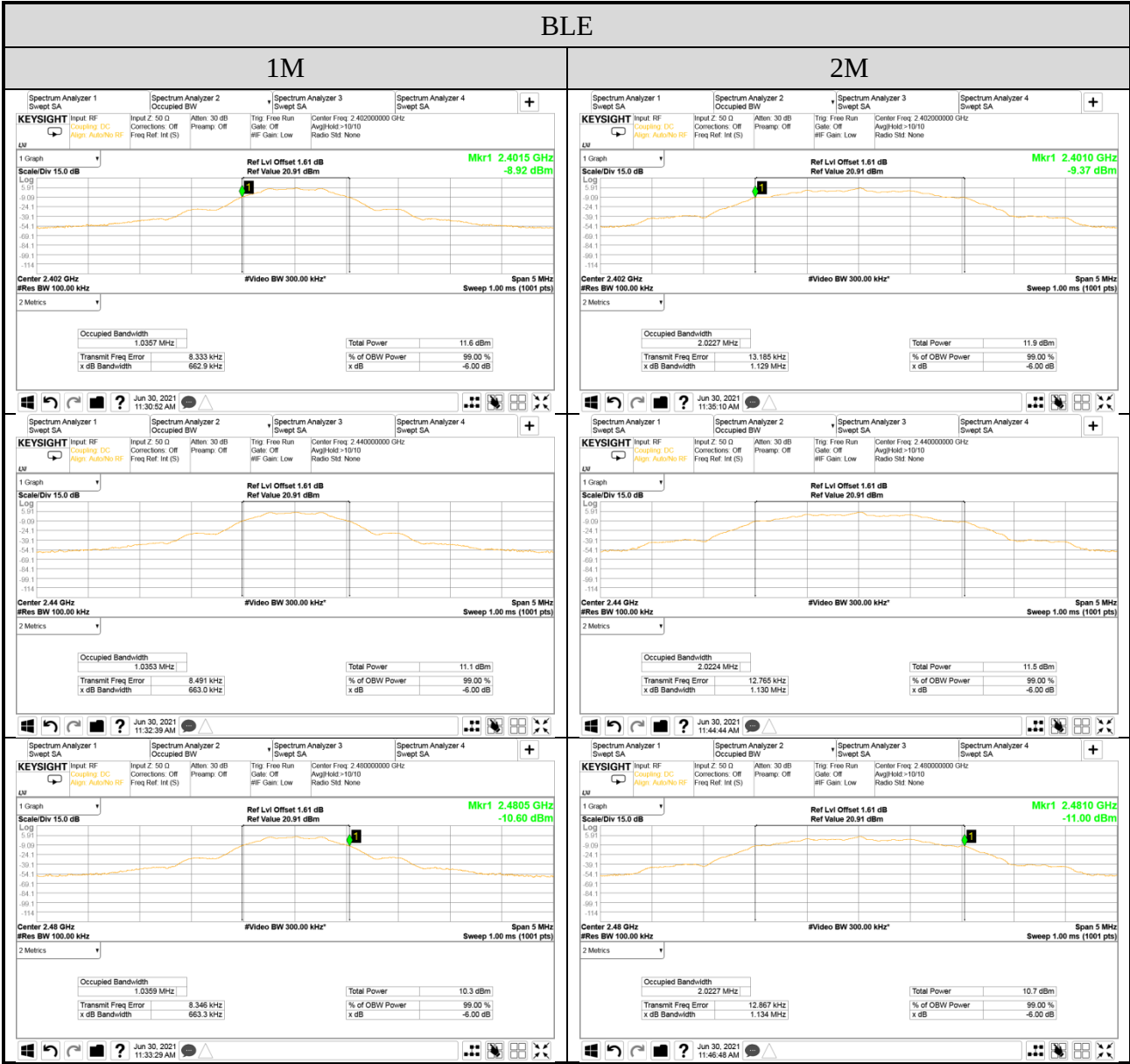
模式	測試頻率 (MHz)	6dB 頻寬 (MHz)	限制值 (kHz)
802.11b	2412	8.083	>500
	2437	8.078	
	2462	8.081	
802.11g	2412	15.04	
	2437	15.07	
	2462	15.04	
802.11n-HT20	2412	15.04	
	2437	15.07	
	2462	15.07	

模式	傳輸速率	測試頻率 (MHz)	6dB 頻寬 (MHz)	限制值 (kHz)
BLE	1M	2402	0.6629	>500
		2440	0.6630	
		2480	0.6633	
BLE	2M	2402	1.129	>500
		2440	1.130	
		2480	1.134	

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 ~ 07/06	環境溫/濕度	24 ~ 25°C/51 ~ 52%
電纜損失	802.11b/g/n-HT20: 1.68dB BLE: 1.61dB	測試人員	Sam Chang
測試電壓	AC 110V, 60Hz (經電源供應器供電)		

4.1. 峰值輸出功率

模式	測試頻率 (MHz)	輸出功率(dBm)			限制值 (dBm)
		Ant 0	Ant 1	Total	
802.11b	2412	10.80	12.10	14.51	30
	2437	10.74	12.18	14.53	
	2462	10.83	11.98	14.45	
802.11g	2412	13.43	14.84	17.20	
	2437	14.11	15.49	17.86	
	2462	14.29	15.22	17.79	
802.11n-HT20	2412	11.95	13.54	15.83	
	2417	14.33	15.87	18.18	
	2437	14.14	15.50	17.88	
	2462	13.42	14.20	16.84	

模式 (Mode)	傳輸速率	測試頻率 (MHz)	最大輸出功率 (dBm)	限制值 (dBm)
BLE	1M	2402	5.21	30
		2440	4.84	
		2480	3.97	
	2M	2402	5.26	30
		2440	4.88	
		2480	4.00	

4.2. 平均輸出功率(參考用)

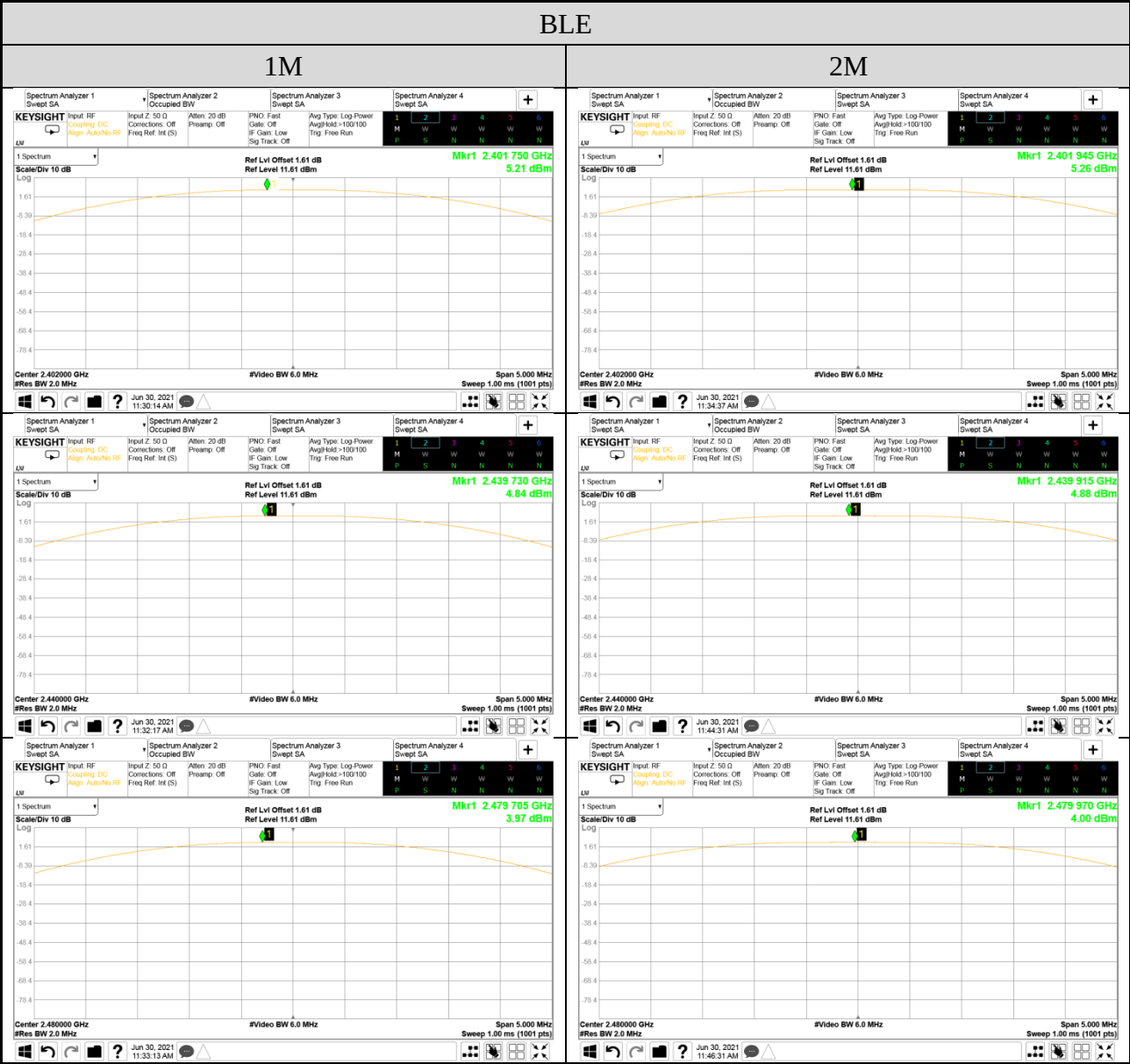
Mode	Centre Frequency (MHz)	Average Output Power (dBm)		10log (1/X)	Total Average Output Power		Limit
		Chain 0	Chain1		(dBm)	(W)	
802.11b	2412	8.14	9.5	0.08	11.97	0.016	<30dBm (1W)
	2437	8.07	9.54		11.96	0.016	
	2462	8.2	9.32		11.89	0.015	

Mode	Centre Frequency (MHz)	Average Output Power (dBm)		10log (1/X)	Total Average Output Power		Limit
		Chain 0	Chain1		(dBm)	(W)	
802.11g	2412	8.63	9.98	0.17	12.54	0.018	<30dBm (1W)
	2437	9.3	10.66		13.21	0.021	
	2462	9.37	10.46		13.13	0.021	

Mode	Centre Frequency (MHz)	Average Output Power (dBm)		10log (1/X)	Total Average Output Power		Limit
		Chain 0	Chain1		(dBm)	(W)	
802.11n-HT20	2412	6.77	8.38	0.20	10.86	0.012	<30dBm (1W)
	2417	9.26	10.73		13.26	0.021	
	2437	9.10	10.45		13.03	0.020	
	2462	8.32	9.18		11.98	0.016	

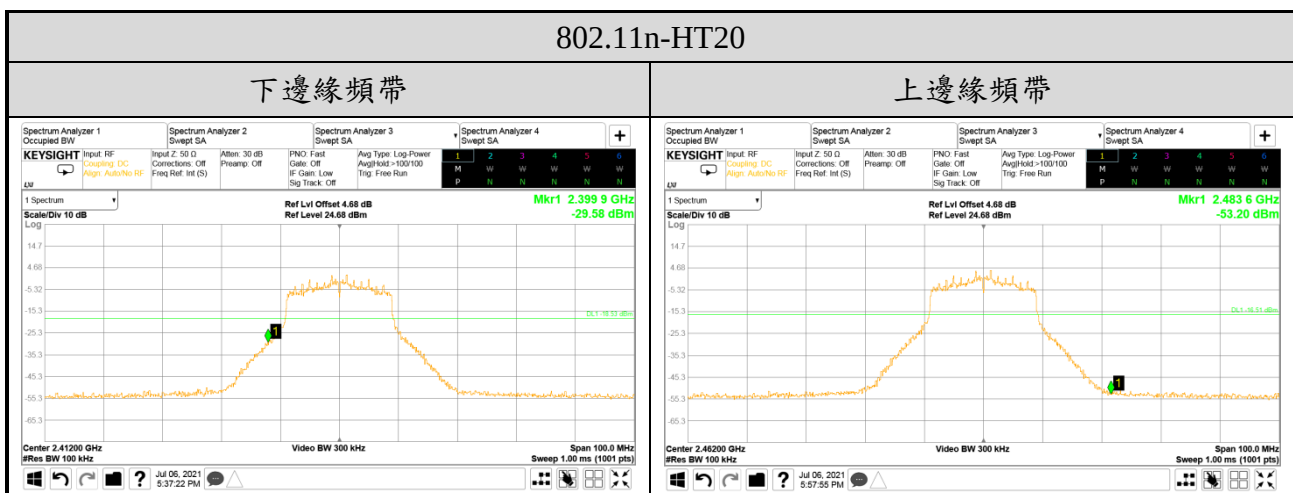
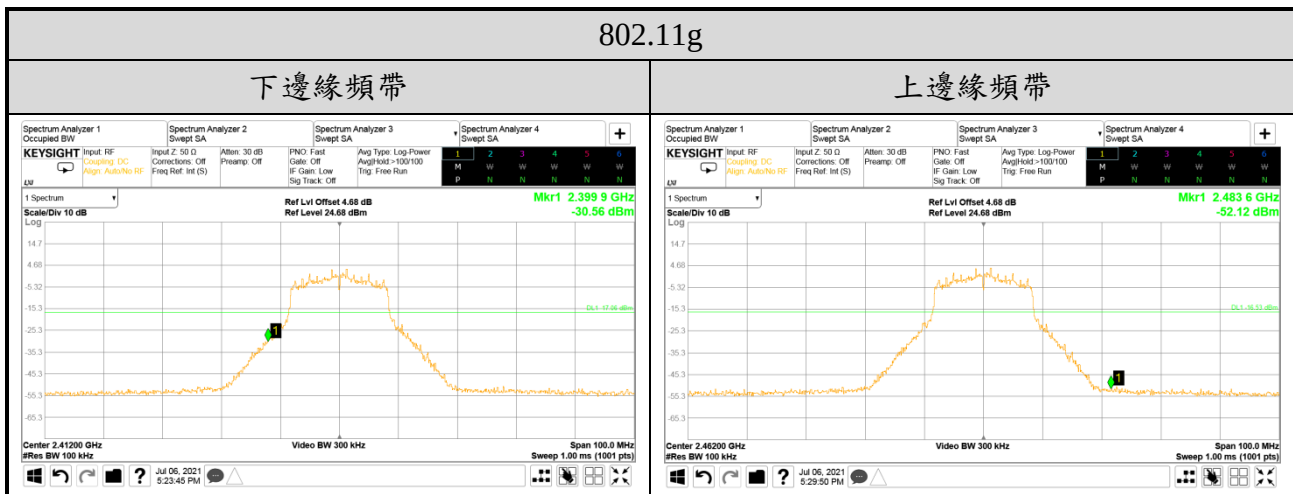
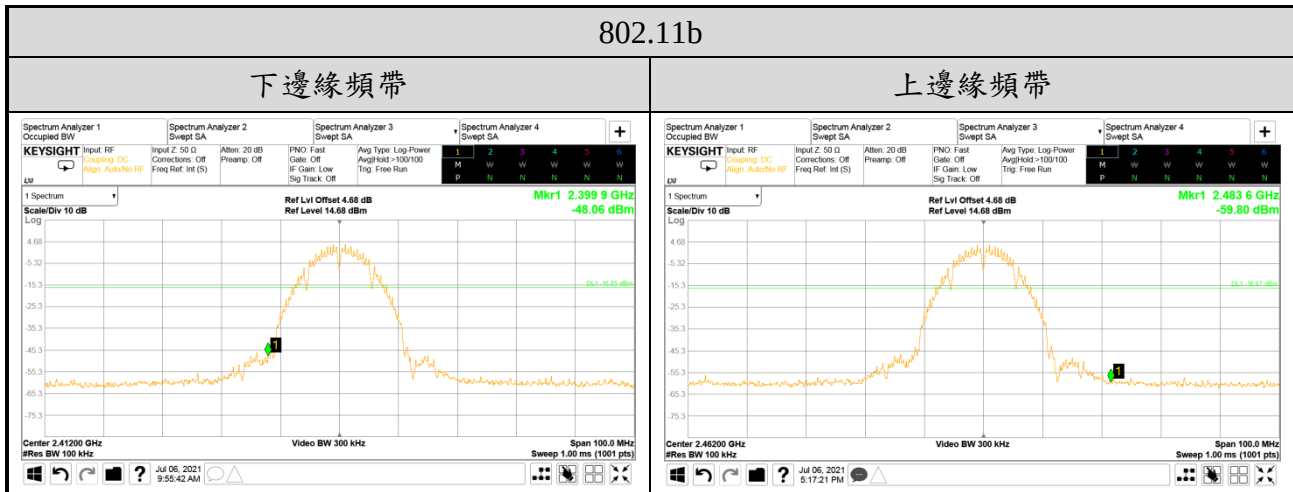
註：當 Duty cycle<98%，最大輸出功率必需要加上 duty cycle factor 10log(1/x)。(x=duty cycle)

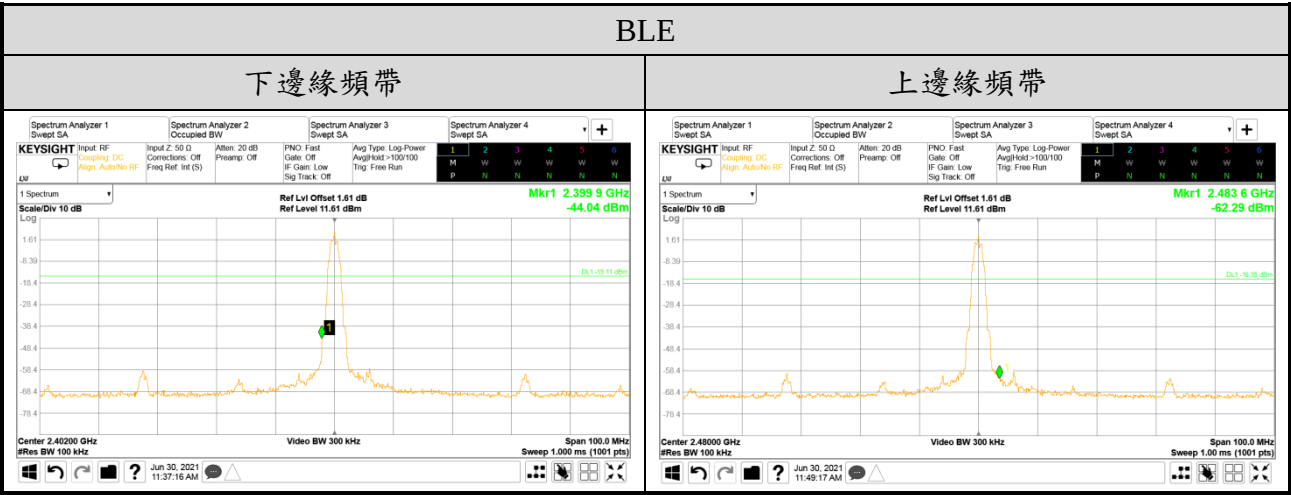
4.3. 峰值輸出功率之量測圖



5. 頻帶邊緣之 RF 傳導發射之量測

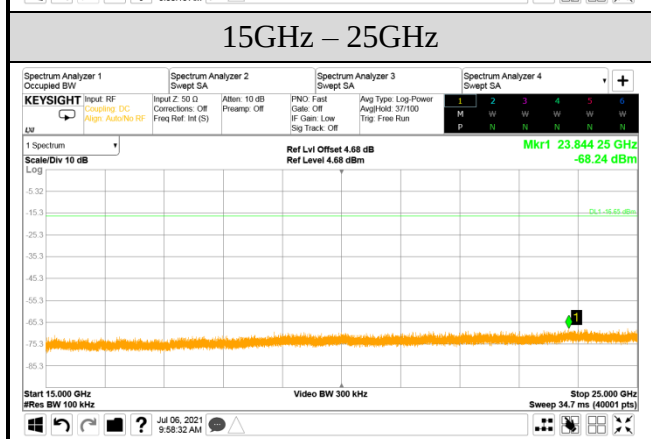
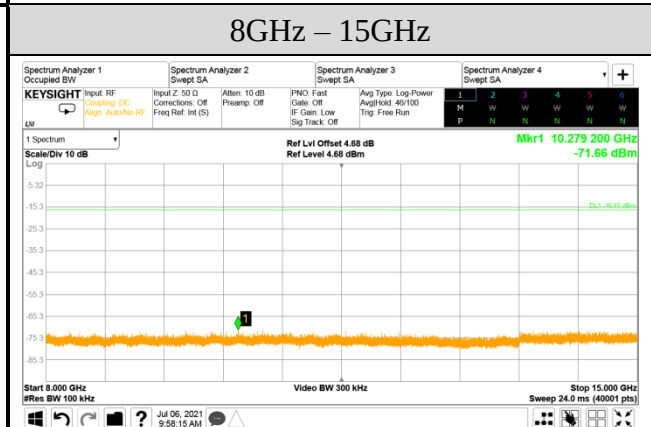
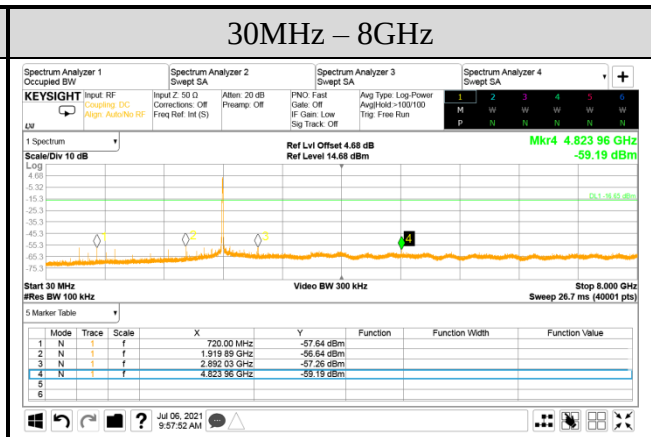
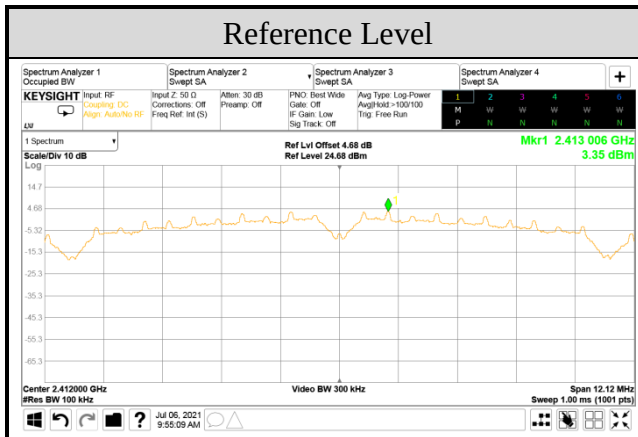
測試日期	2021/06/30 ~ 07/06	環境溫/濕度	24 ~ 25°C/51 ~ 52%
電纜損失	802.11b/g/n-HT20: 1.68dB BLE: 1.61dB	測試人員	Sam Chang
測試電壓	AC 110V, 60Hz (經電源供應器供電)		



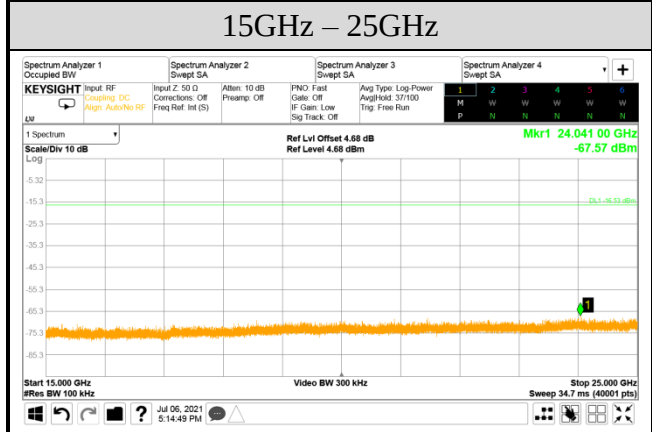
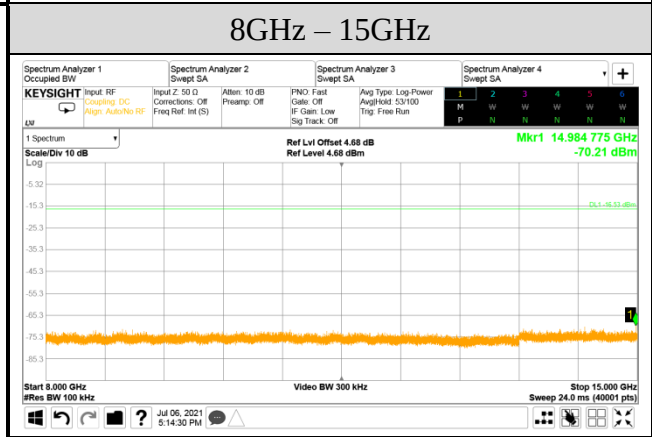
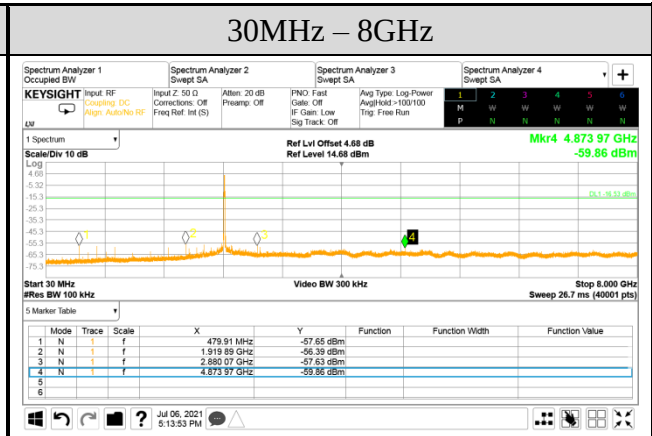
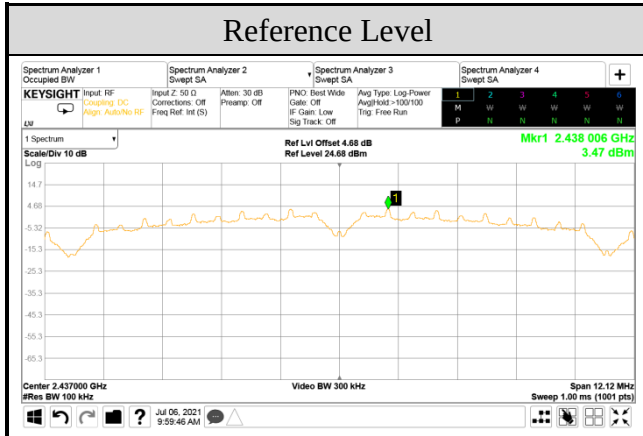


6. 混附發射之 RF 傳導發射之量測

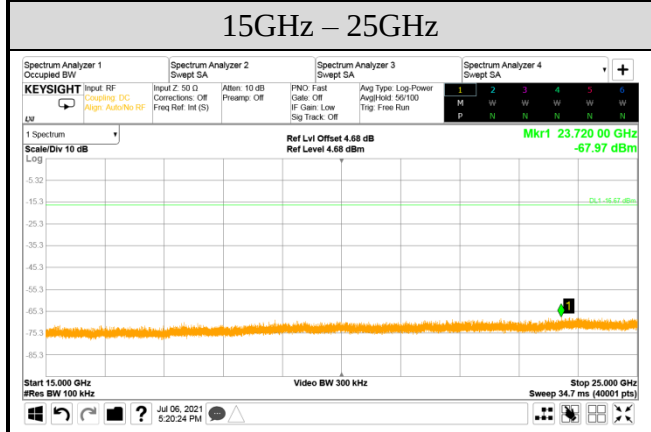
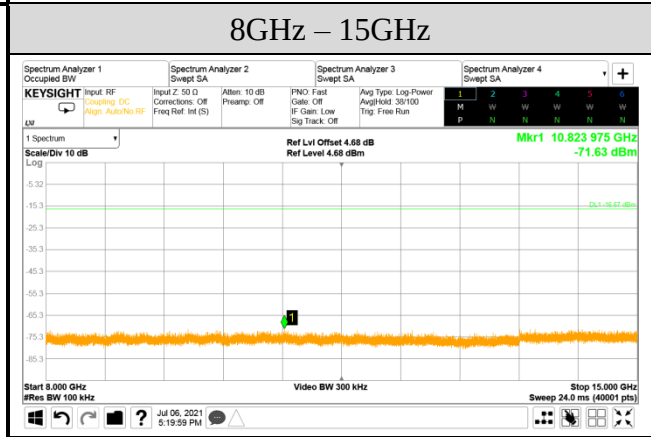
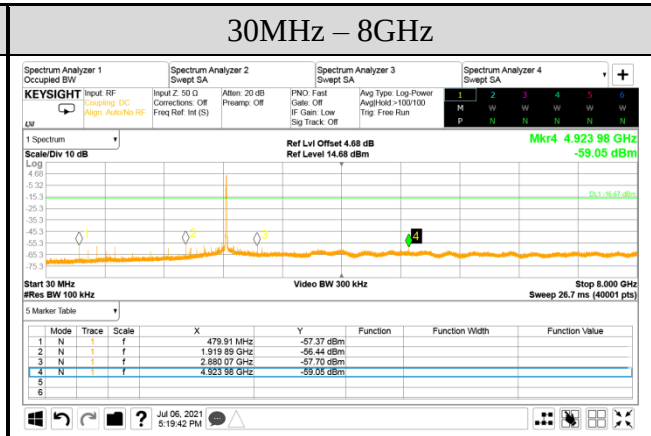
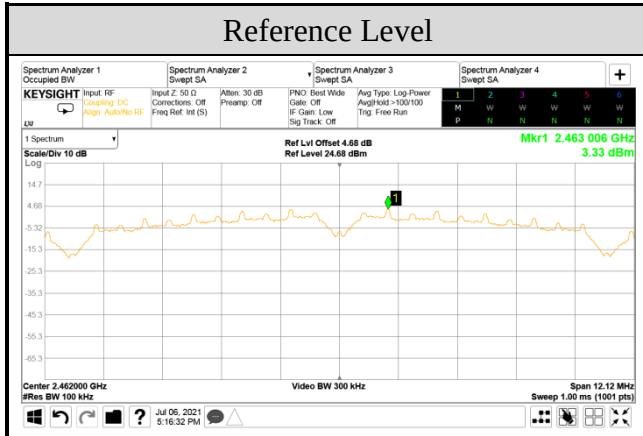
測試日期	2021/07/06	環境溫/濕度	24°C/52%
電纜損失	1.68dB	模式	802.11b
測試電壓	AC 110V, 60Hz (經電源供應器供電)	測試頻率	2412MHz
Simultaneous Factor10 log(n) (Note: “n” is antenna number)		測試人員	Sam Chang
			3dB



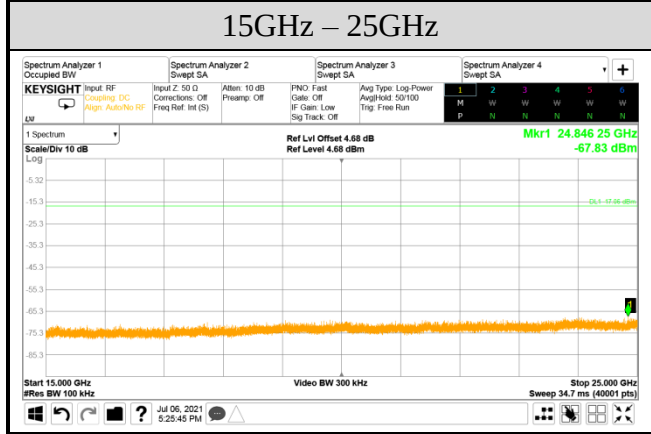
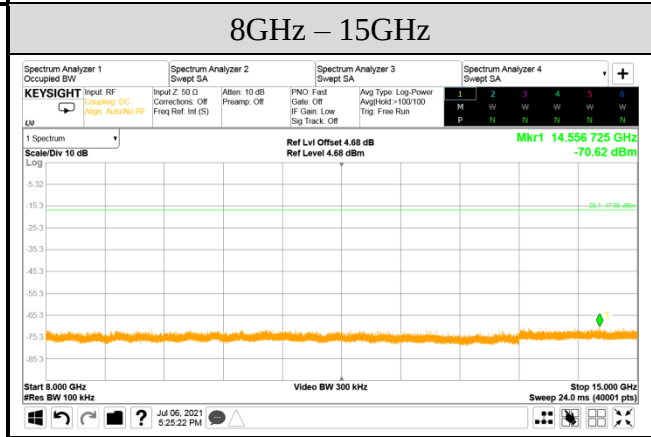
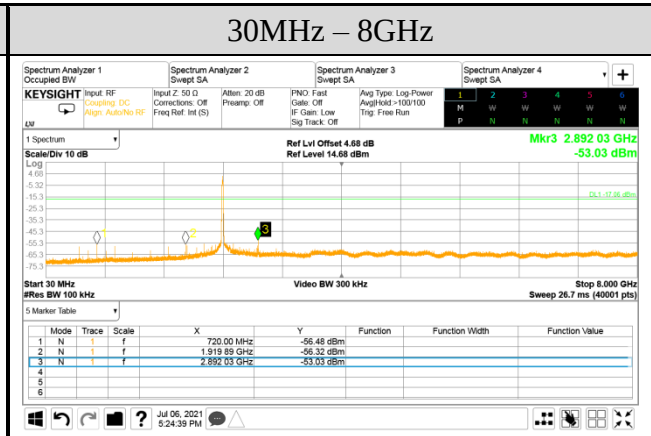
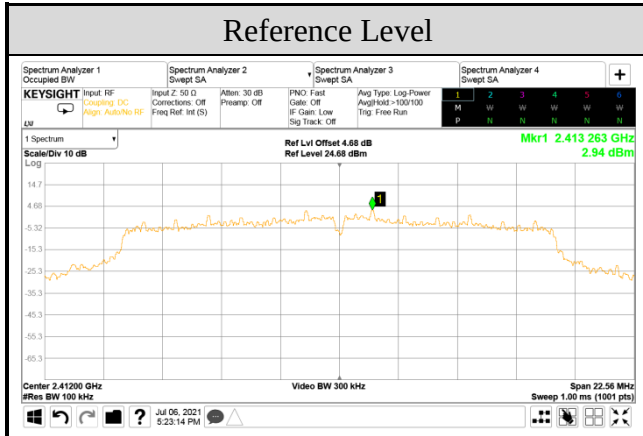
測試日期	2021/07/06	環境溫/濕度	24°C/52%
電纜損失	1.68dB	模式	802.11b
測試電壓	AC 110V, 60Hz (經電源供應器供電)	測試頻率	2437MHz
		測試人員	Sam Chang
Simultaneous Factor10 log(n) (Note: “n” is antenna number)			3dB



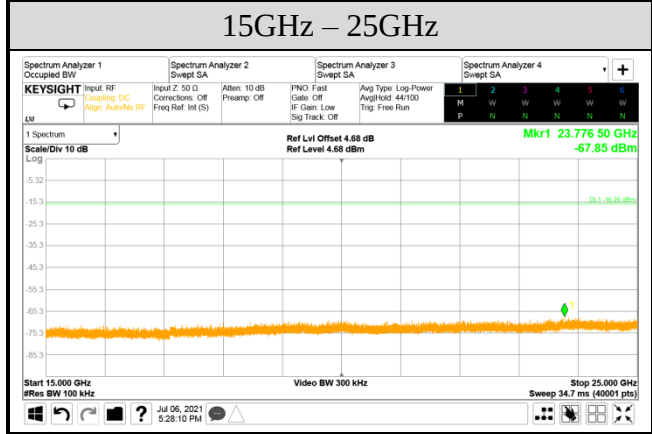
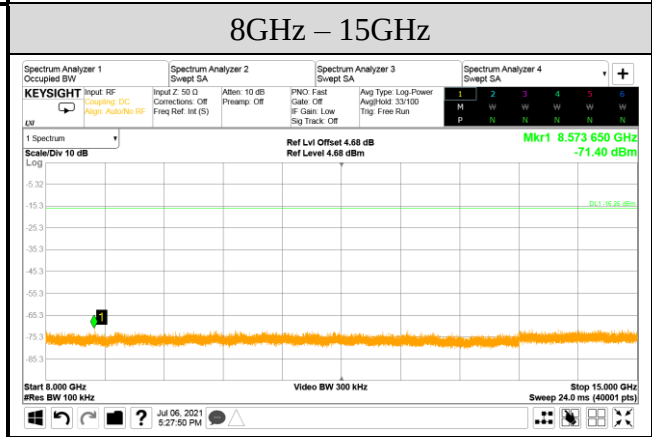
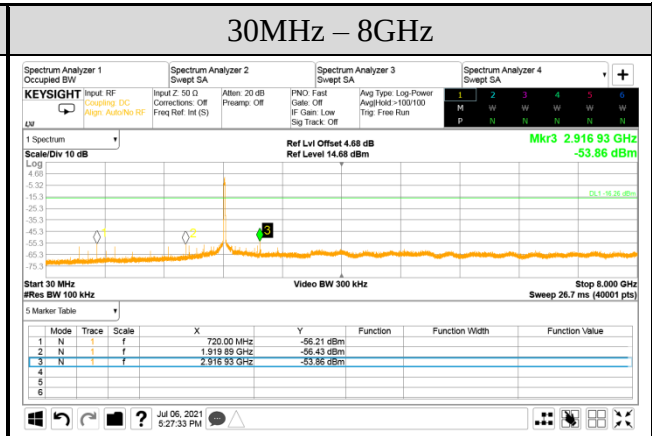
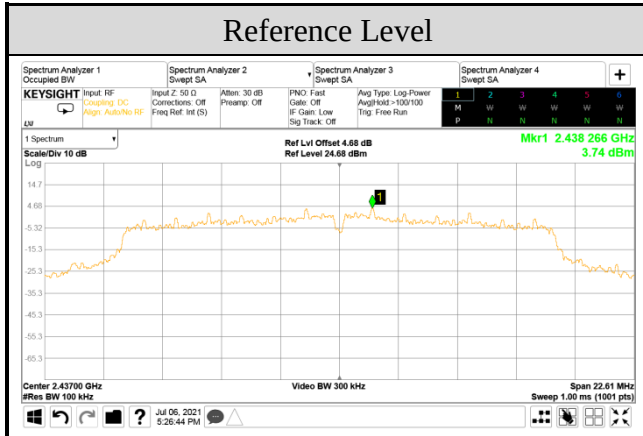
測試日期	2021/07/06	環境溫/濕度	24°C/52%
電纜損失	1.68dB	模式	802.11b
測試電壓	AC 110V, 60Hz (經電源供應器供電)	測試頻率	2462MHz
Simultaneous Factor10 log(n) (Note: “n” is antenna number)		測試人員	Sam Chang
			3dB



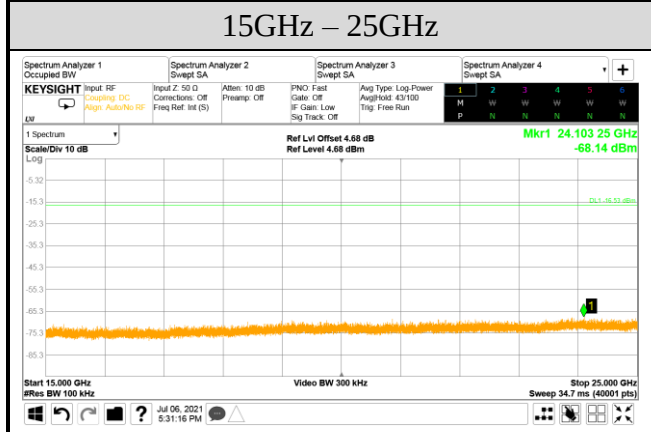
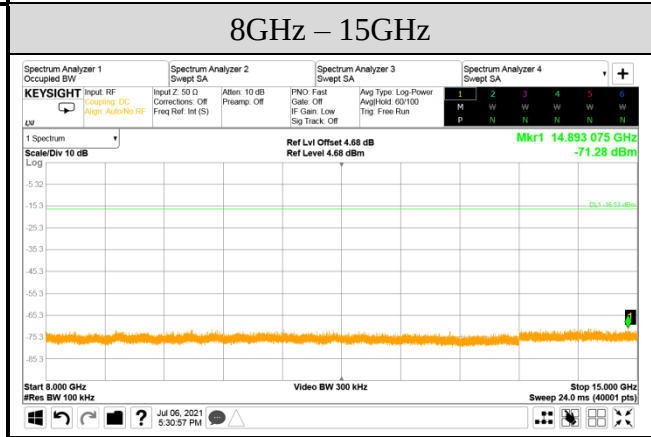
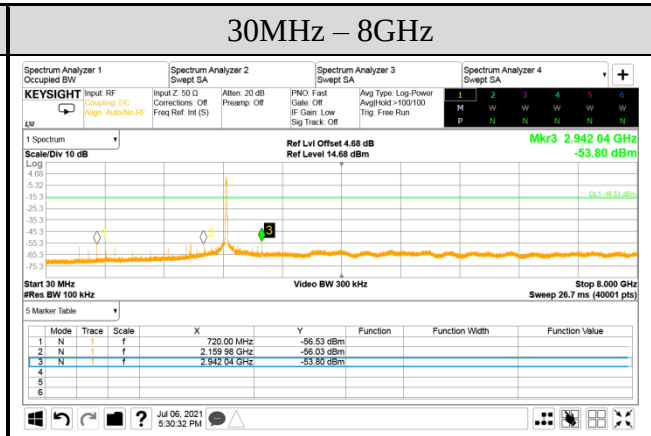
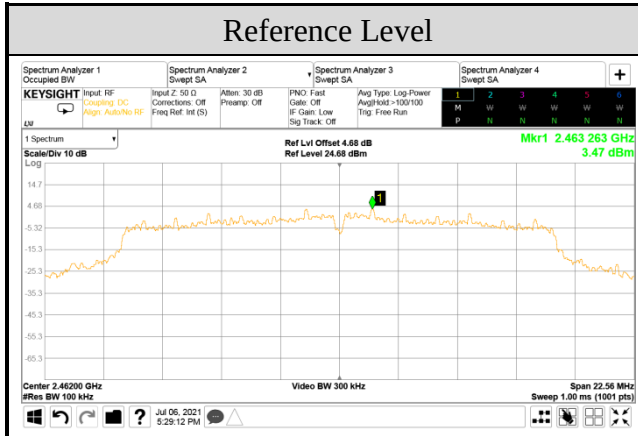
測試日期	2021/07/06	環境溫/濕度	24℃/52%
電纜損失	1.68dB	模式	802.11g
測試電壓	AC 110V, 60Hz (經電源供應器供電)	測試頻率	2412MHz
		測試人員	Sam Chang
Simultaneous Factor10 log(n) (Note: “n” is antenna number)			3dB



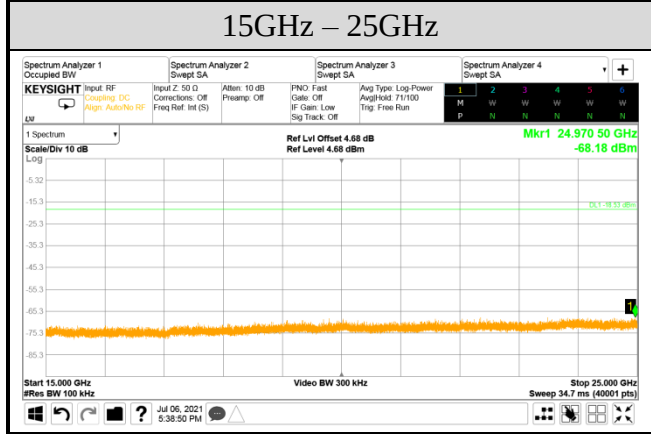
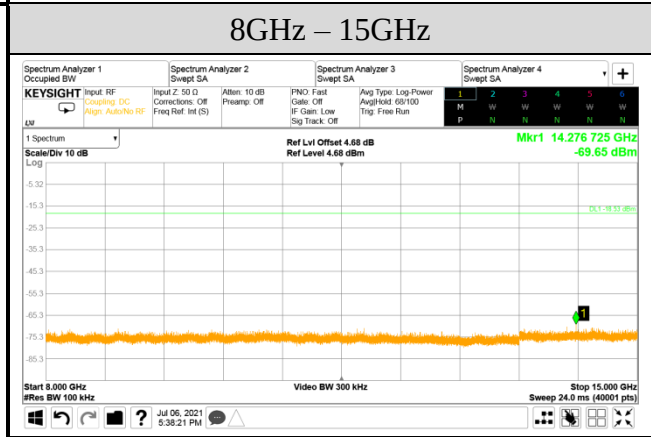
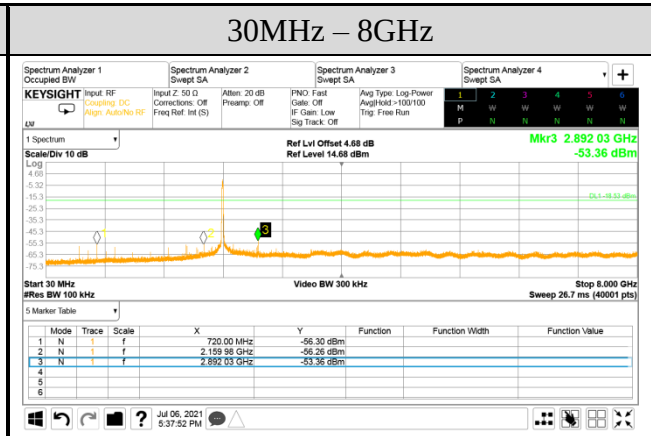
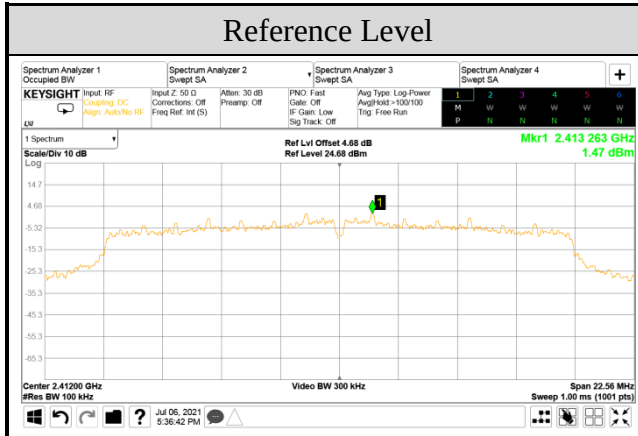
測試日期	2021/07/06	環境溫/濕度	24°C/52%
電纜損失	1.68dB	模式	802.11g
測試電壓	AC 110V, 60Hz (經電源供應器供電)	測試頻率	2437MHz
		測試人員	Sam Chang
Simultaneous Factor10 log(n) (Note: “n” is antenna number)			3dB



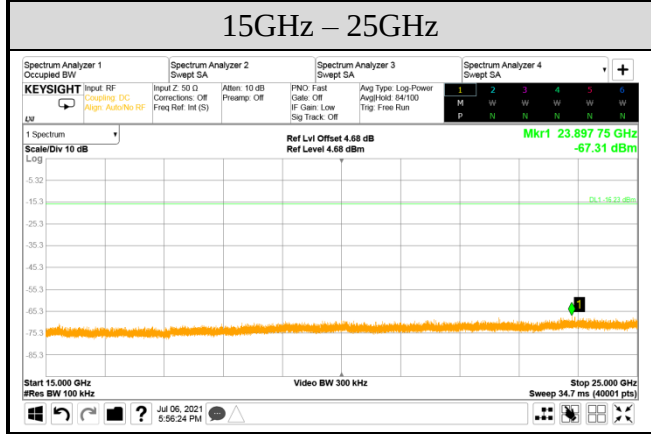
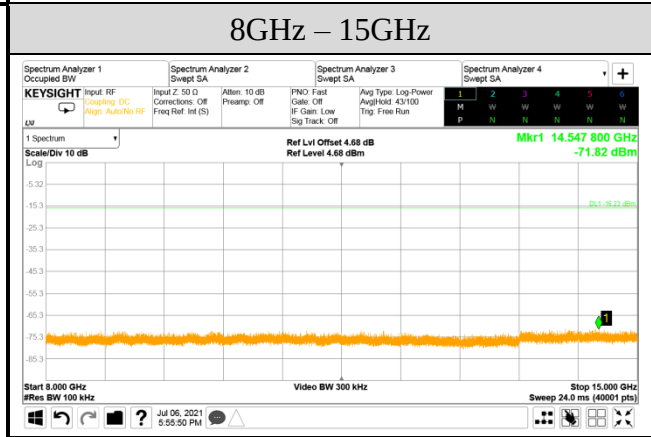
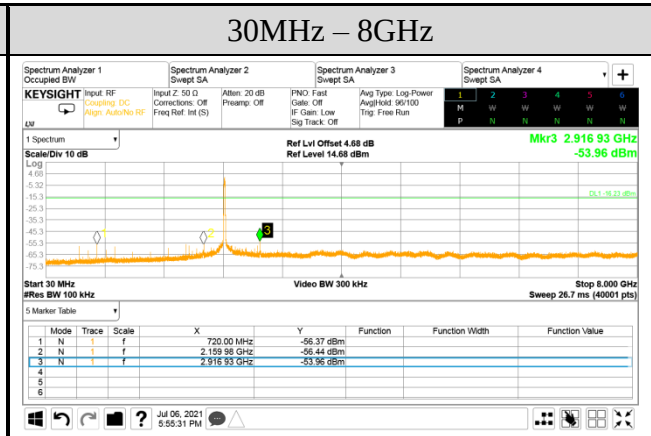
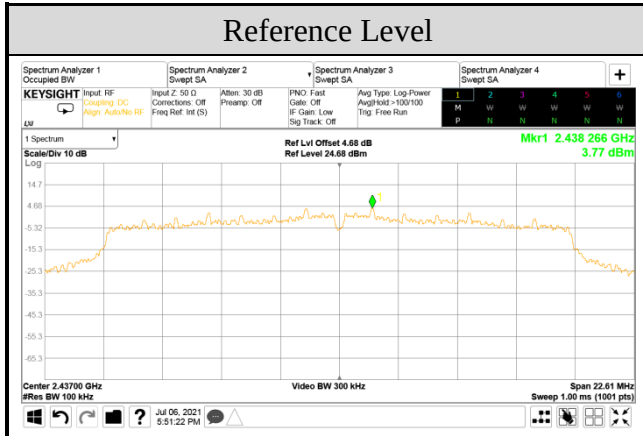
測試日期	2021/07/06	環境溫/濕度	24℃/52%
電纜損失	1.68dB	模式	802.11g
測試電壓	AC 110V, 60Hz (經電源供應器供電)	測試頻率	2462MHz
		測試人員	Sam Chang
Simultaneous Factor10 log(n) (Note: “n” is antenna number)			3dB



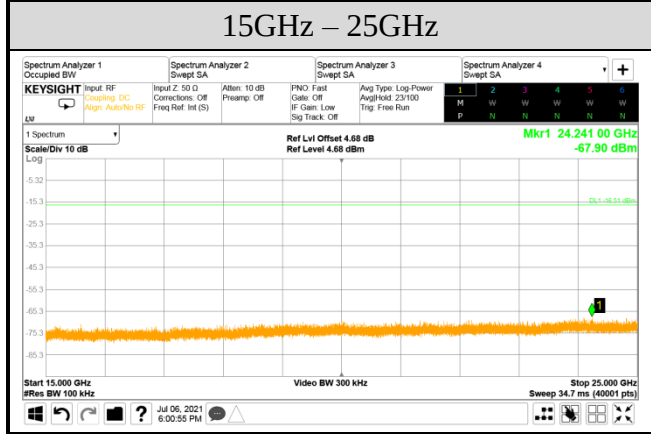
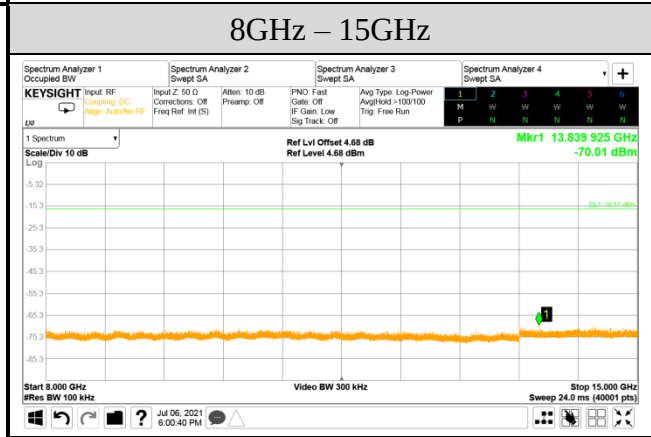
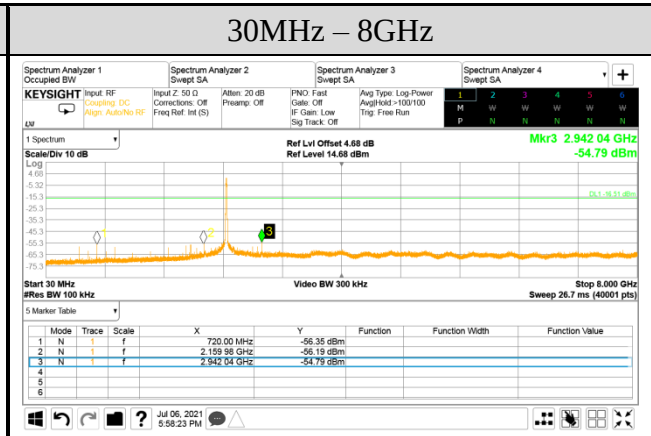
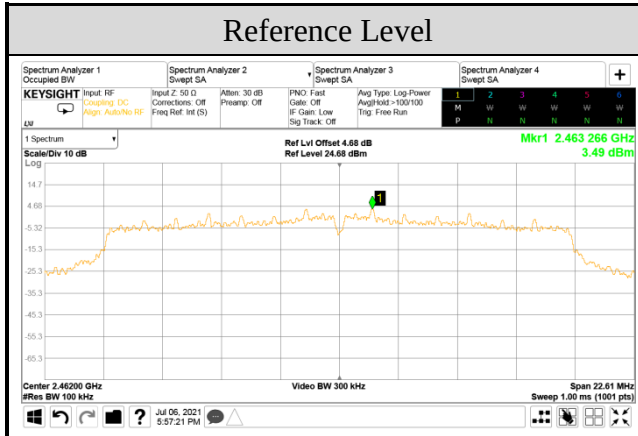
測試日期	2021/07/06	環境溫/濕度	24℃/52%
電纜損失	1.68dB	模式	802.11n-HT20
測試電壓	AC 110V, 60Hz (經電源供應器供電)	測試頻率	2412MHz
		測試人員	Sam Chang
Simultaneous Factor10 log(n) (Note: “n” is antenna number)			3dB



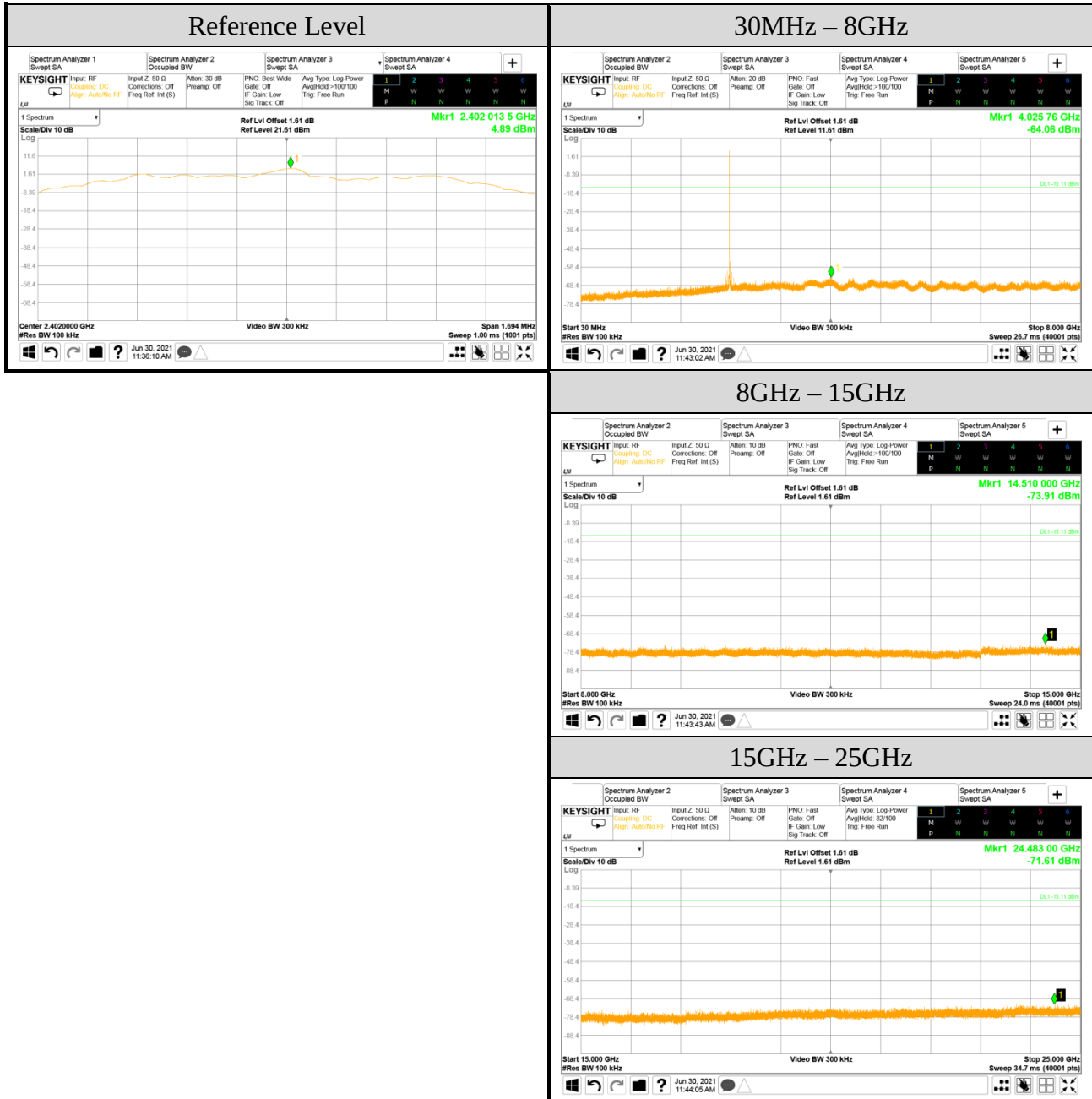
測試日期	2021/07/06	環境溫/濕度	24°C/52%
電纜損失	1.68dB	模式	802.11n-HT20
測試電壓	AC 110V, 60Hz (經電源供應器供電)	測試頻率	2437MHz
		測試人員	Sam Chang
Simultaneous Factor10 log(n) (Note: “n” is antenna number)			3dB



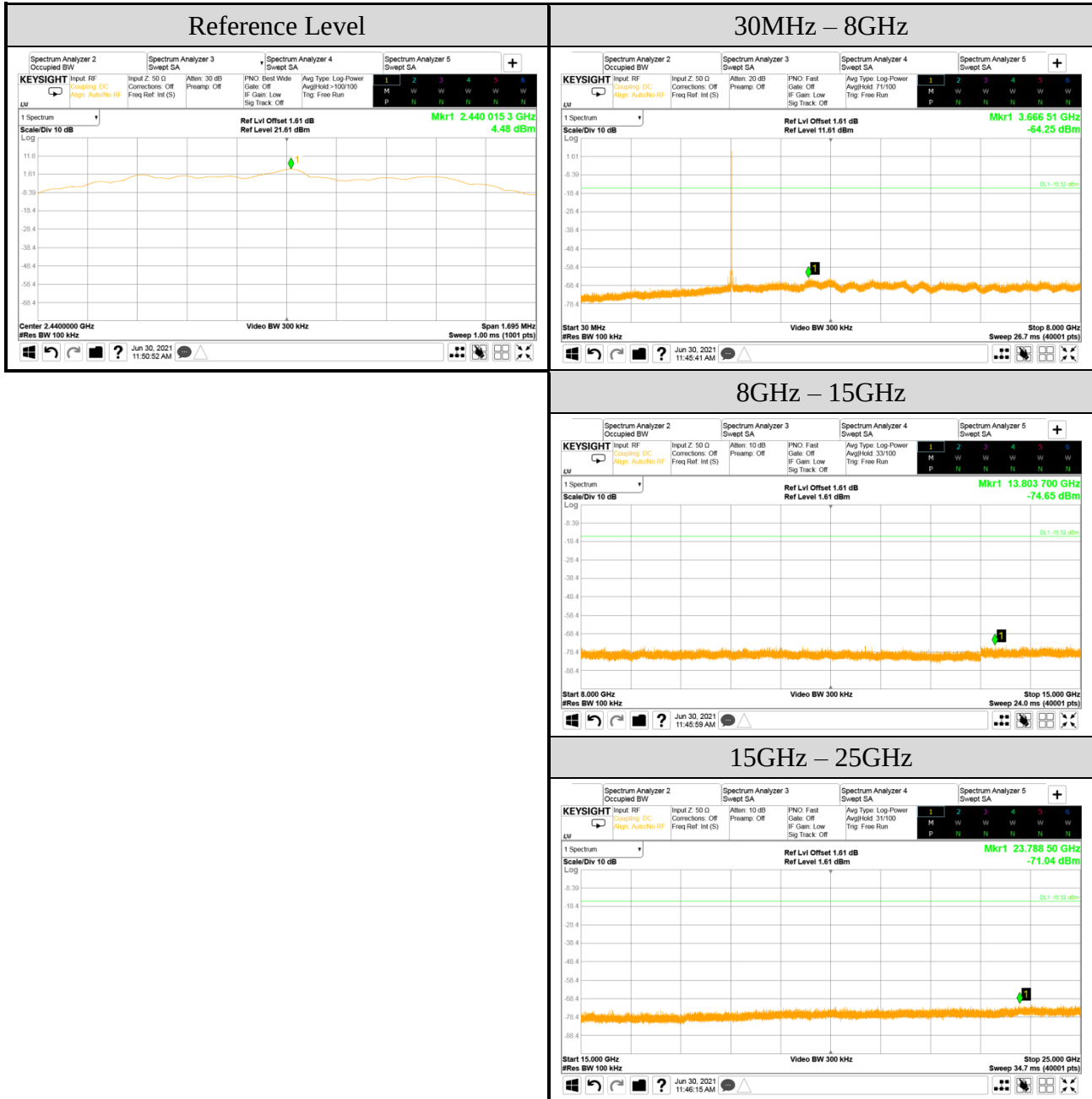
測試日期	2021/07/06	環境溫/濕度	24°C/52%
電纜損失	1.68dB	模式	802.11n-HT20
測試電壓	AC 110V, 60Hz (經電源供應器供電)	測試頻率	2462MHz
		測試人員	Sam Chang
Simultaneous Factor10 log(n) (Note: “n” is antenna number)			3dB



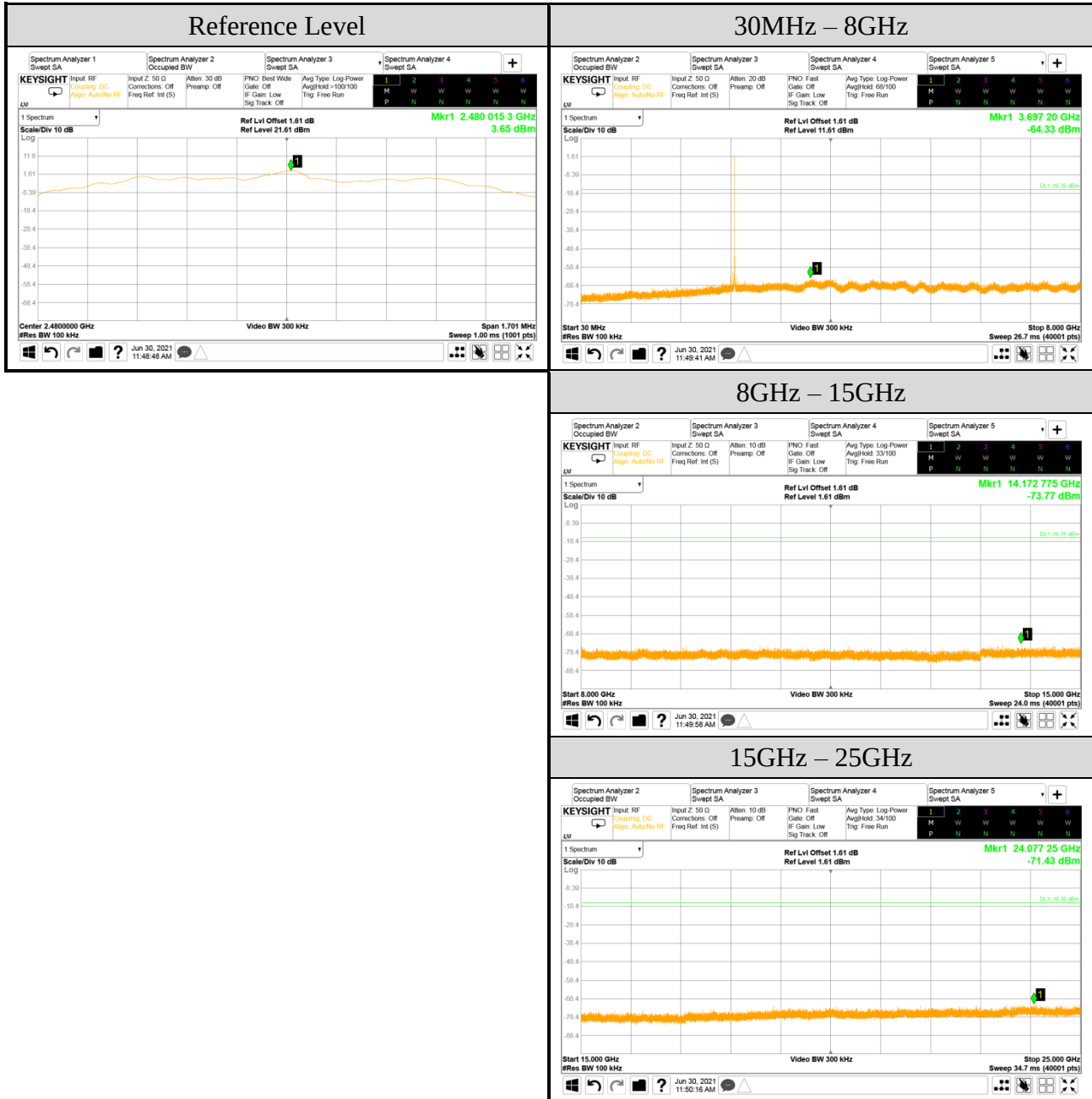
測試日期	2021/06/30	環境溫/濕度	25°C/51%
電纜損失	1.61dB	模式	BLE
測試電壓	AC 110V, 60Hz (經電源供應器供電)	測試頻率	2402MHz
		測試人員	Sam Chang
Simultaneous Factor10 log(n) (Note: “n” is antenna number)			0dB



測試日期	2021/06/30	環境溫/濕度	25°C/51%
電纜損失	1.61dB	模式	BLE
測試電壓	AC 110V, 60Hz (經電源供應器供電)	測試頻率	2440MHz
		測試人員	Sam Chang
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	1.61dB	模式	BLE
測試電壓	AC 110V, 60Hz (經電源供應器供電)	測試頻率	2480MHz
		測試人員	Sam Chang
Simultaneous Factor10 log(n) (Note: “n” is antenna number)			0dB



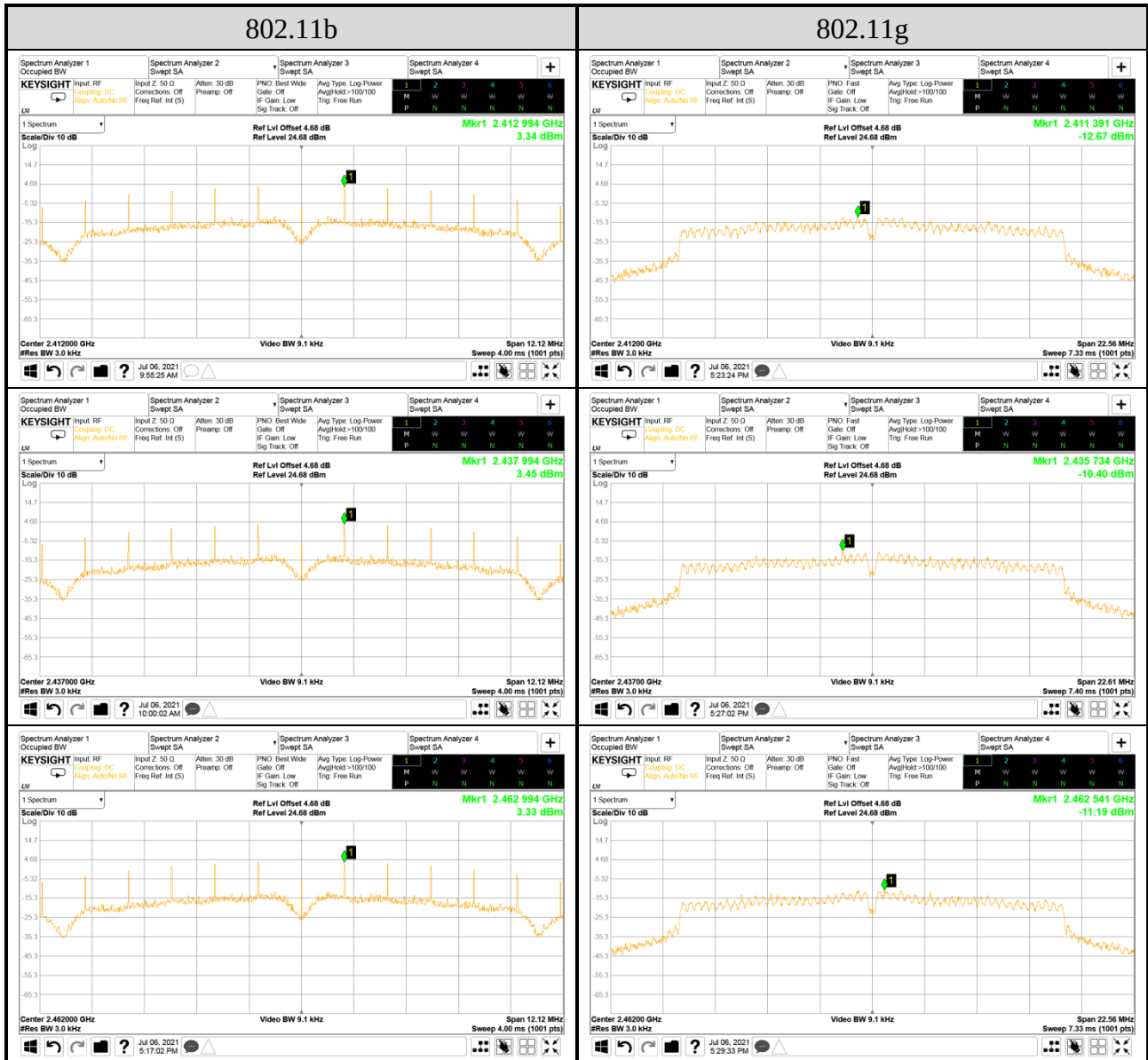
7. 功率密度之量測

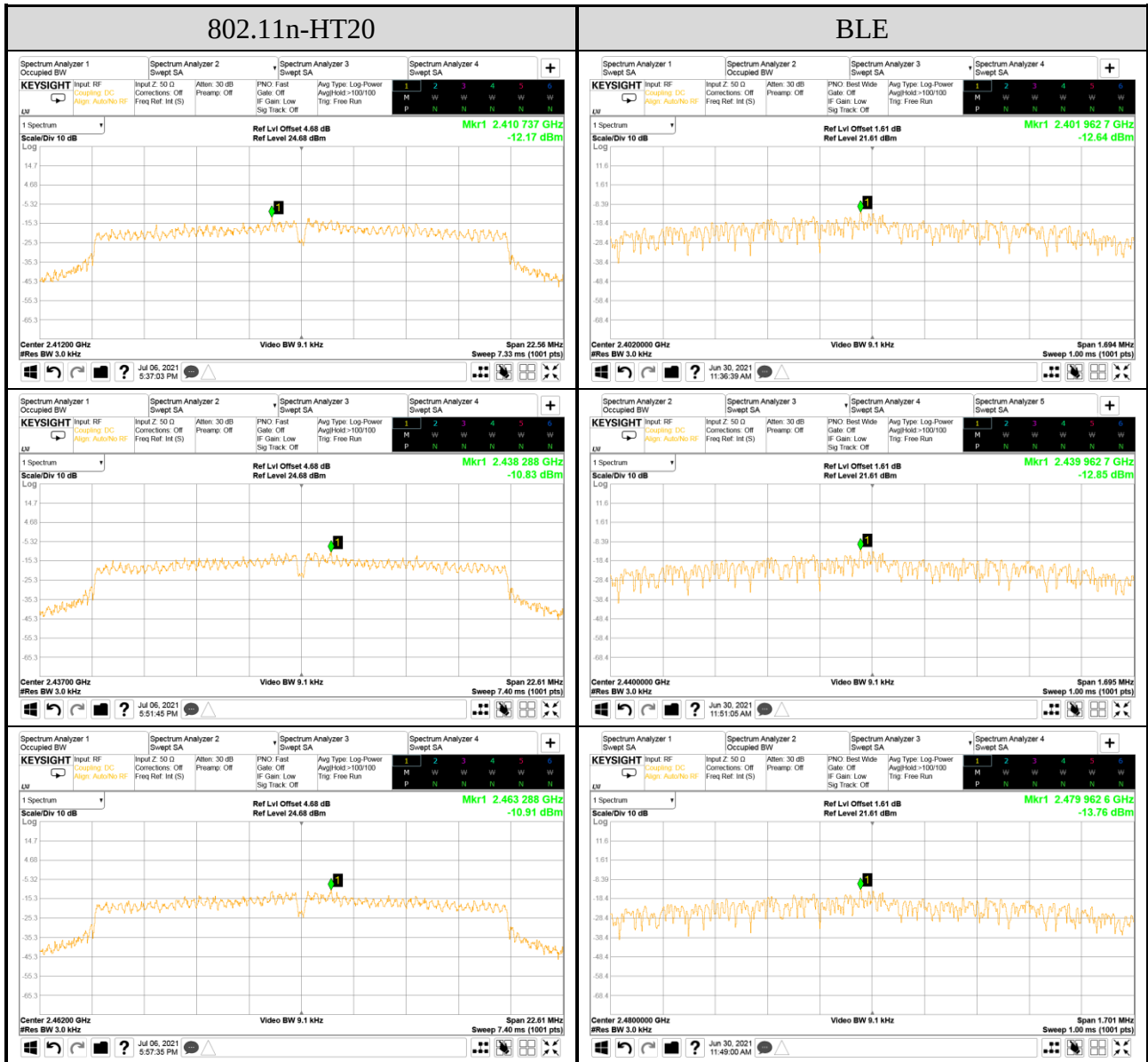
測試日期	2021/06/30 ~ 07/06	環境溫/濕度	24 ~ 25°C/51 ~ 52%
電纜損失	802.11b/g/n-HT20: 1.68dB BLE: 1.61dB	測試人員	Sam Chang
測試電壓	AC 110V, 60Hz (經電源供應器供電)		
Simultaneous Factor10 log(n) (Note: “n” is antenna number)			802.11b/g/HT20: 3dB BLE: 0dB

7.1. 功率密度

模式	測試頻率 (MHz)	功率密度 (dBm)	限制值 (dBm)
802.11b	2412	3.34	8
	2437	3.45	
	2462	3.33	
802.11g	2412	-12.67	
	2437	-10.40	
	2462	-11.19	
802.11n-HT20	2412	-12.17	
	2437	-10.83	
	2462	-10.91	
BLE	2402	-12.64	
	2440	-12.85	
	2480	-13.76	

7.2. 功率密度之量測圖





8. 電波暴露量之量測

測試日期	2021/06/30 ~ 07/06	環境溫/濕度	24 ~ 25°C/51 ~ 52%
測試電壓	AC 110V, 60Hz (經電源供應器供電)	測試人員	Sam Chang

無線模組	WM-BAC-AT-49
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● WLAN

距離人體(r):	20	cm		
最大發射功率(P):	18.18	dBm	=	65.766 mW
最大天線增益(G):	1.9	dBi	=	1.549 Numerical
MPE (S) = (P*G) / (4*π*r ²) =	0.0203 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：0.0203mW/cm ²				

● BT

距離人體(r):	20	cm		
最大發射功率(P):	6.13	dBm	=	4.102 mW
最大天線增益(G):	3.54	dBi	=	2.259 Numerical
MPE (S) = (P*G) / (4* π *r ²) =	0.0018 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：0.0018mW/cm ²				

● 5G

距離人體(r):	20	cm		
最大發射功率(P):	10.99	dBm	=	12.560 mW
最大天線增益(G):	5.79	dB	=	3.793 Numerical
MPE (S) = (P*G) / (4*π*r ²) =	0.0095 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。				
2. 電磁波曝露量MPE標準值1mW/cm ² ，送測產品實測值為：0.0095mW/cm ²				

● 同時發射模式

WLAN 2.4G (mW/cm ²)	BT (mW/cm ²)	Total (mW/cm ²)	Limit (mW/cm ²)
0.0203	0.0018	0.0221	≤1
註：電磁波曝露量MPE標準值1mW/cm ² ，送測產品實測值為：0.0221mW/cm ²			

WLAN 5G (mW/cm ²)	BT (mW/cm ²)	Total (mW/cm ²)	Limit (mW/cm ²)
0.0095	0.0018	0.0113	≤1
註：電磁波曝露量MPE標準值1mW/cm ² ，送測產品實測值為：0.0113mW/cm ²			

無線模組	LBEE5ZZ1PJ
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距離人體(r):	20	cm		
最大發射功率(P):	12.28	dBm	=	16.904 mW
最大天線增益(G):	4.76	dB	=	2.992 Numerical
MPE (S) = (P*G) / (4* π *r ²) =			0.0101	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。 2. 電磁波曝露量MPE標準值1mW/cm ² ，送測產品實測值為：0.0101mW/cm ²				