

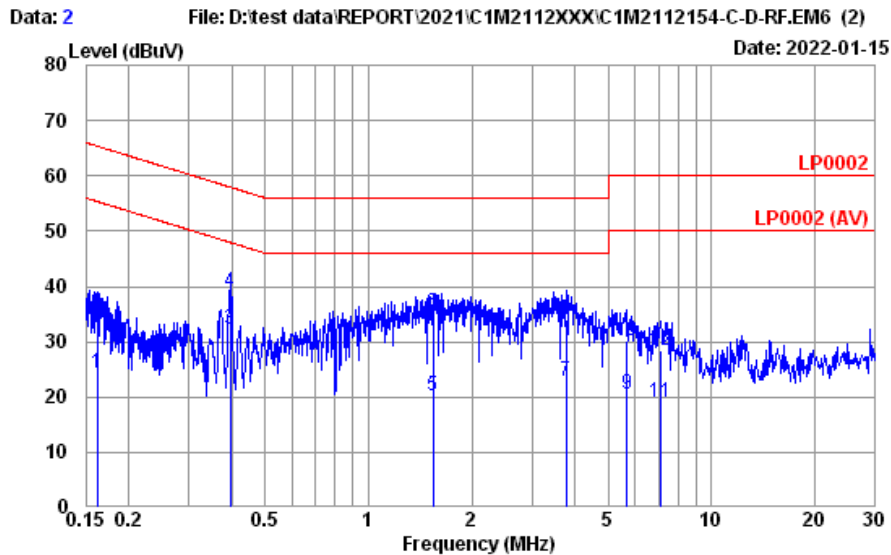
附錄一

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	2022/01/15	環境溫/濕度	21°C/60%
測試電壓	AC 110V 60Hz (經電源供應器供電)	測試人員	Roy Hung

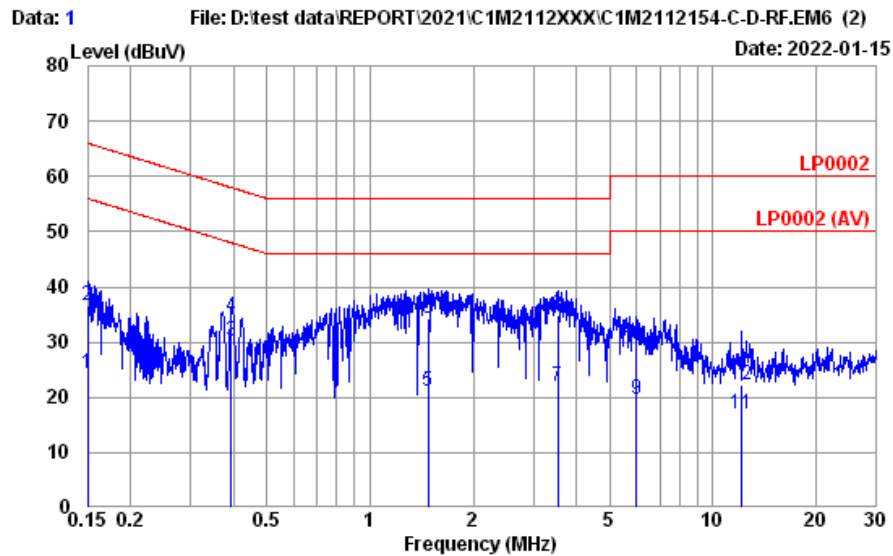


Site No. : No.8 Shielded Room Data No. : 2
Instrument 1 : Receiver ESR3(774)
Instrument 2 : EMI432 (567)(A) | CE-08 | ESH3-Z2 (354)
Limit : LP0002 Phase : LINE
Environment : 21°C / 60% Engineer : Roy Hung
EUT Model : coaguchek Test Rating : 110Vac/60Hz
Test Mode : Charge

	Freq. (MHz)	AMN Factor (dB)	Cable Loss (dB)	Pulse Att. (dB)	Reading (dBμV)	Emission Level (dBμV)	Limits (dBμV)	Margin (dB)	Remark
1	0.162	10.40	0.03	9.85	3.95	24.23	55.38	31.15	Average
2	0.162	10.40	0.03	9.85	14.81	35.09	65.38	30.29	QP
3	0.396	10.37	0.03	9.85	11.88	32.13	47.95	15.82	Average
4	0.396	10.37	0.03	9.85	18.70	38.95	57.95	19.00	QP
5	1.544	10.39	0.05	9.86	-0.14	20.16	46.00	25.84	Average
6	1.544	10.39	0.05	9.86	14.91	35.21	56.00	20.79	QP
7	3.759	10.42	0.09	9.86	2.62	22.99	46.00	23.01	Average
8	3.759	10.42	0.09	9.86	13.63	34.00	56.00	22.00	QP
9	5.683	10.47	0.11	9.87	0.05	20.50	50.00	29.50	Average
10	5.683	10.47	0.11	9.87	9.76	30.21	60.00	29.79	QP
11	7.100	10.51	0.12	9.87	-1.31	19.19	50.00	30.81	Average
12	7.100	10.51	0.12	9.87	7.92	28.42	60.00	31.58	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	2022/01/15	環境溫/濕度	21°C/60%
測試電壓	AC 110V 60Hz (經電源供應器供電)	測試人員	Roy Hung



Site No.	: No.8 Shielded Room	Data No.	: 1
Instrument 1	: Receiver ESR3(774)		
Instrument 2	: EHV432 (567)(A) CE-08 ESH3-Z2 (354)		
Limit	: LP0002	Phase	: NEUTRAL
Environment	: 21°C / 60%	Engineer	: Roy Hung
EUT Model	: coaguchek	Test Rating	: 110Vac/60Hz
Test Mode	: Charge		

	Freq. (MHz)	AMN Factor (dB)	Cable Loss (dB)	Pulse Att. (dB)	Reading (dBμV)	Emission Level (dBμV)	Limits (dBμV)	Margin (dB)	Remark
1	0.150	10.41	0.03	9.85	4.07	24.36	56.00	31.64	Average
2	0.150	10.41	0.03	9.85	16.27	36.56	66.00	29.44	QP
3	0.393	10.37	0.03	9.85	10.04	30.29	47.99	17.70	Average
4	0.393	10.37	0.03	9.85	14.21	34.46	57.99	23.53	QP
5	1.480	10.40	0.05	9.86	0.73	21.04	46.00	24.96	Average
6	1.480	10.40	0.05	9.86	14.09	34.40	56.00	21.60	QP
7	3.528	10.44	0.08	9.86	1.49	21.87	46.00	24.13	Average
8	3.528	10.44	0.08	9.86	14.48	34.86	56.00	21.14	QP
9	5.993	10.55	0.11	9.87	-0.96	19.57	50.00	30.43	Average
10	5.993	10.55	0.11	9.87	8.37	28.90	60.00	31.10	QP
11	12.124	10.79	0.15	9.90	-3.98	16.86	50.00	33.14	Average
12	12.124	10.79	0.15	9.90	1.41	22.25	60.00	37.75	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

本裝置有兩種電源供應模式分別為電源供應器(AC 110V, 60Hz)、電池(DC 3.7V)，實驗室以單機(電池供電)先行評估平放、站立、側立三軸其中平放為最差模式，以低、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。另搭配電源供應器(AC 110V, 60Hz)執行充電模式，經評估充電模式不影響 1GHz 以上訊號結果，此模式僅呈現 30MHz-1GHz 測試結果於此份報告。所得讀值資料請見章節 2.1 ~2.2：

● Charge 模式

模式	動作狀態	基本頻率	量測頻率範圍
Charge	Operating	---	30-1000MHz

● 發射/接收模式

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(CH1)	1000-25000MHz
802.11g	發射	2437MHz (CH6)*	30-1000MHz
			1000-25000MHz
802.11n-HT20	發射	2437MHz(CH6)	1000-25000MHz
802.11n-HT40	發射	2437MHz(CH6)	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。

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
		2462MHz (CH11)	2430-2930MHz
802.11n-HT40	發射	2422MHz (CH3)	2310-2450MHz
		2452MHz (CH9)	2425-2925MHz

測試日期	2022/01/04	環境溫/濕度	19°C/61%
測試電壓	(1)AC 110V 60Hz (經電源供應器供電) (2)DC 3.7V (經鋰電池供電)	測試人員	Sam Chang

2.1. 30-1000MHz 頻率範圍，其他不必要發射量測

● Charge 模式

Mode	Charge	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
108.57	16.16	0.92	32.55	45.15	29.68	43.50	13.82	Peak
157.07	19.99	1.08	32.49	47.41	35.99	43.50	7.51	Peak
384.05	22.07	1.82	32.45	43.61	35.05	46.00	10.95	Peak
480.08	23.82	2.15	32.43	41.86	35.40	46.00	10.60	Peak
527.61	24.82	2.28	32.44	43.55	38.21	46.00	7.79	Peak
576.11	25.92	2.39	32.47	41.51	37.35	46.00	8.65	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	46.24	33.37	40.00	6.63	Peak
67.83	18.91	0.74	32.61	45.86	32.90	40.00	7.10	Peak
265.71	18.82	1.43	32.47	44.21	31.99	46.00	14.01	Peak
398.60	22.40	1.88	32.45	40.38	32.21	46.00	13.79	Peak
527.61	24.82	2.28	32.44	39.72	34.38	46.00	11.62	Peak
892.33	29.60	3.10	31.71	33.54	34.53	46.00	11.47	Peak

● 發射/接收模式

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)	Read Level (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
110.51	16.44	0.93	32.55	46.17	30.99	43.50	12.51	Peak
158.04	20.03	1.08	32.49	47.69	36.31	43.50	7.19	Peak
384.05	22.07	1.82	32.45	43.41	34.85	46.00	11.15	Peak
480.08	23.82	2.15	32.43	41.50	35.04	46.00	10.96	Peak
527.61	24.82	2.28	32.44	43.98	38.64	46.00	7.36	Peak
576.11	25.92	2.39	32.47	41.88	37.72	46.00	8.28	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
35.82	19.36	0.58	32.66	46.22	33.50	40.00	6.50	Peak
45.52	20.32	0.65	32.65	45.08	33.40	40.00	6.60	Peak
67.83	18.91	0.74	32.61	45.19	32.23	40.00	7.77	Peak
265.71	18.82	1.43	32.47	44.50	32.28	46.00	13.72	Peak
527.61	24.82	2.28	32.44	39.52	34.18	46.00	11.82	Peak
672.14	27.45	2.74	32.35	35.46	33.30	46.00	12.70	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
35.82	19.36	0.58	32.66	43.72	31.00	40.00	9.00	Peak
158.04	20.03	1.08	32.49	47.32	35.94	43.50	7.56	Peak
384.05	22.07	1.82	32.45	43.17	34.61	46.00	11.39	Peak
480.08	23.82	2.15	32.43	42.00	35.54	46.00	10.46	Peak
527.61	24.82	2.28	32.44	43.79	38.45	46.00	7.55	Peak
576.11	25.92	2.39	32.47	41.82	37.66	46.00	8.34	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	47.71	34.84	40.00	5.16	Peak
46.49	20.33	0.66	32.65	44.86	33.20	40.00	6.80	Peak
68.80	18.77	0.75	32.61	45.25	32.16	40.00	7.84	Peak
265.71	18.82	1.43	32.47	45.18	32.96	46.00	13.04	Peak
527.61	24.82	2.28	32.44	39.98	34.64	46.00	11.36	Peak
963.14	30.27	3.21	31.15	33.32	35.65	54.00	18.35	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	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
4824.00	32.77	8.92	31.69	37.26	47.26	54.00	6.74	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
4824.00	32.77	8.92	31.69	36.64	46.64	54.00	7.36	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)	Read Level (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
4874.00	32.90	8.96	31.67	37.02	47.21	54.00	6.79	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
4874.00	32.90	8.96	31.67	36.95	47.14	54.00	6.86	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
4874.00	32.90	8.96	31.67	36.38	46.57	54.00	7.43	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
4874.00	32.90	8.96	31.67	37.24	47.43	54.00	6.57	Peak

Mode	802.11n-HT40	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
4874.00	32.90	8.96	31.67	36.69	46.88	54.00	7.12	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
4874.00	32.90	8.96	31.67	37.14	47.33	54.00	6.67	Peak

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

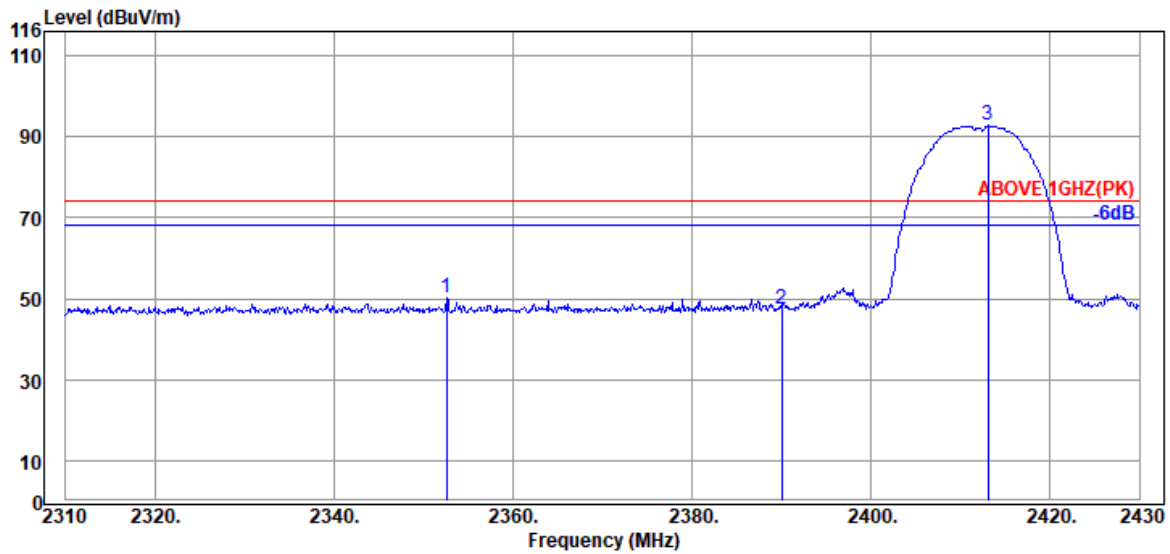
Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Gain (dB)	Read Level (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
4874.00	32.90	8.96	31.67	36.98	47.17	54.00	6.83	Peak

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
4874.00	32.90	8.96	31.67	36.58	46.77	54.00	7.23	Peak

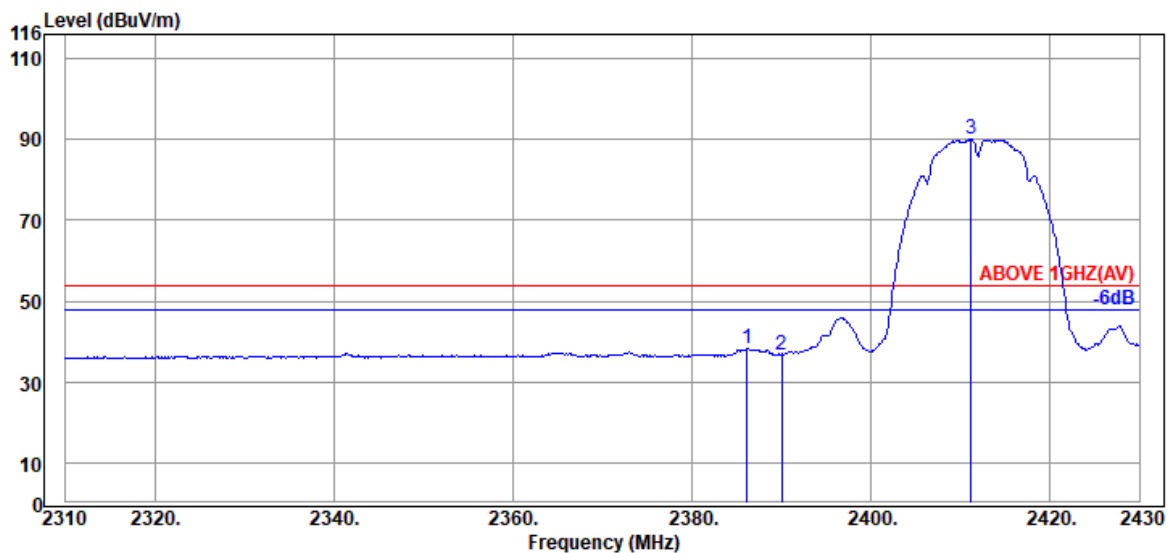
2.3. 禁用頻帶量測結果 (其他不必要發射)

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)	Read Level (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
2352.60	27.50	6.27	33.23	49.59	50.13	74.00	23.87	Peak
2390.04	27.57	6.31	33.19	46.64	47.33	74.00	26.67	Peak
@ 2412.08	27.66	6.33	33.17	91.91	92.73	---	---	Peak

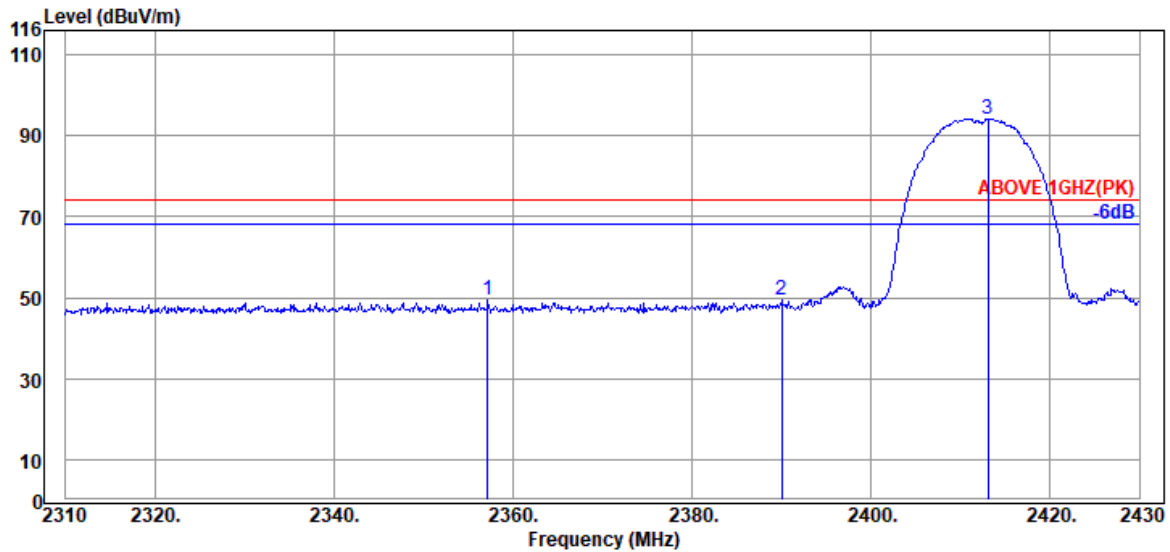


Antenna at Horizontal Polarization

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
2386.20	27.57	6.31	33.20	37.61	38.29	54.00	15.71	Average
2390.04	27.57	6.31	33.19	36.14	36.83	54.00	17.17	Average
@ 2411.16	27.63	6.33	33.17	89.28	90.07	---	---	Average

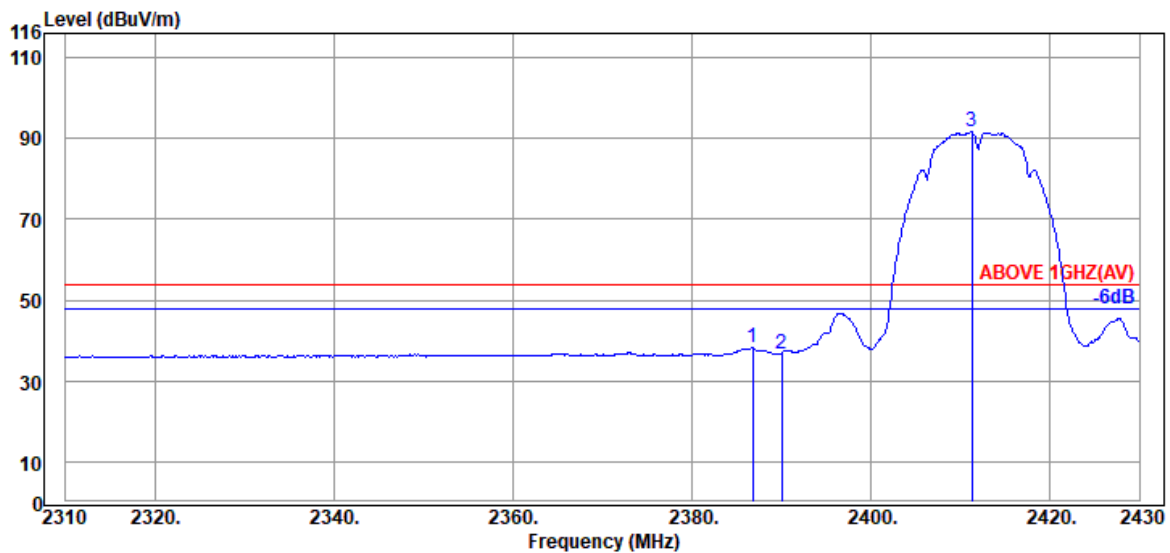
備註：“@”為主波，在此章節是不予以判定。

Mode	802.11b	Frequency	TX 2412MHz
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Antenna at Vertical Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Gain (dB)	Read Level (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
2357.16	27.51	6.27	33.22	48.91	49.47	74.00	24.53	Peak
2390.04	27.57	6.31	33.19	48.78	49.47	74.00	24.53	Peak
@ 2413.08	27.66	6.33	33.17	93.34	94.16	---	---	Peak

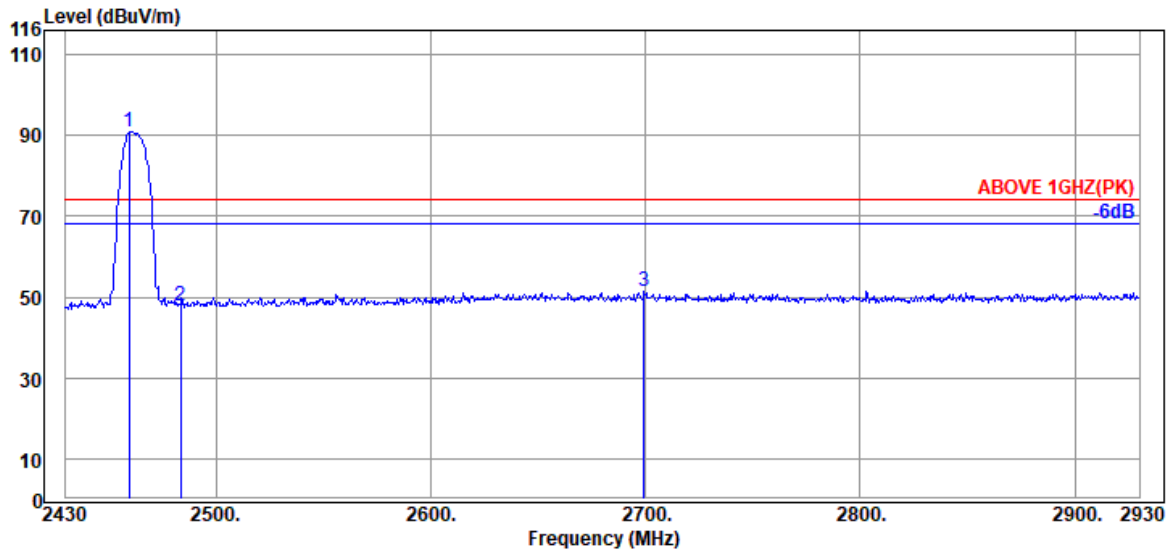


Antenna at Vertical Polarization

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
2386.80	27.57	6.31	33.20	37.50	38.18	54.00	15.82	Average
2390.04	27.57	6.31	33.19	36.15	36.84	54.00	17.16	Average
@ 2411.28	27.66	6.33	33.17	90.79	91.61	---	---	Average

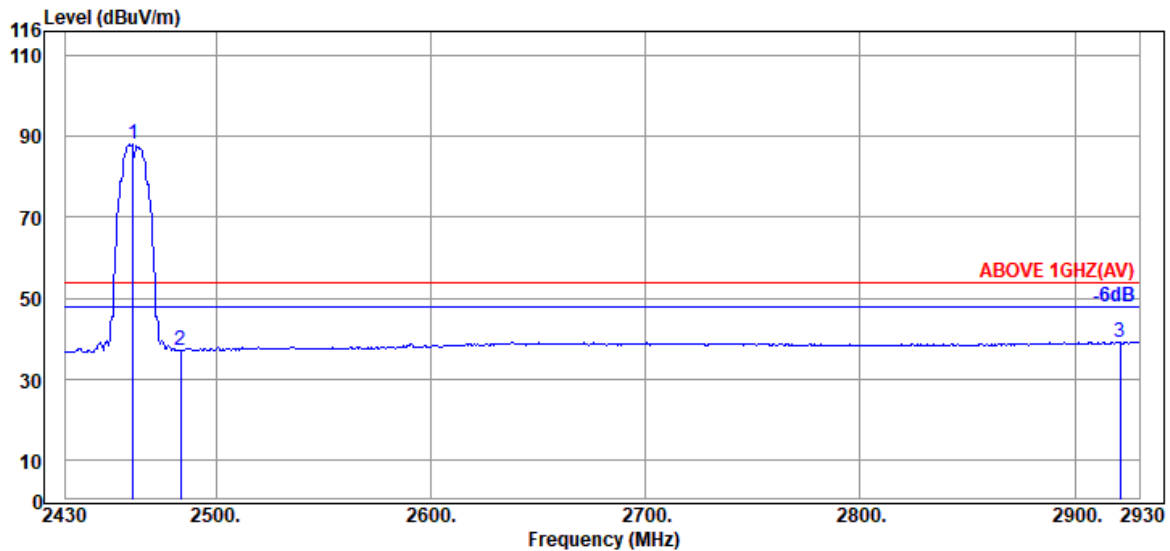
備註：“@”為主波，在此章節是不予以判定。

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)	Read Level (dBμV)	Emission Level (dBUV/m)	Limits (dBμV/m)	Margin (dB)	Detector
@ 2459.50	27.84	6.40	33.13	89.79	90.90	---	---	Peak
2483.50	28.01	6.43	33.11	46.40	47.73	74.00	26.27	Peak
2699.50	28.90	6.67	32.95	48.96	51.58	74.00	22.42	Peak

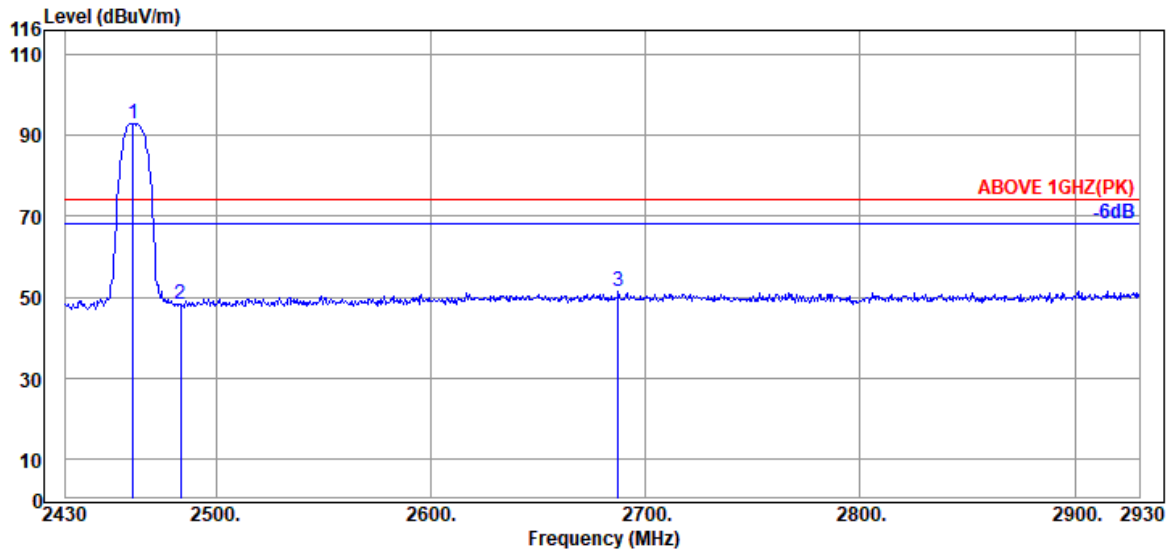


Antenna at Horizontal Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Gain (dB)	Read Level (dBμV)	Emission Level (dBUV/m)	Limits (dBμV/m)	Margin (dB)	Detector
@ 2461.50	27.89	6.40	33.13	87.00	88.16	---	---	Average
2483.50	28.01	6.43	33.11	35.71	37.04	54.00	16.96	Average
2921.00	29.20	6.90	32.80	35.89	39.19	54.00	14.81	Average

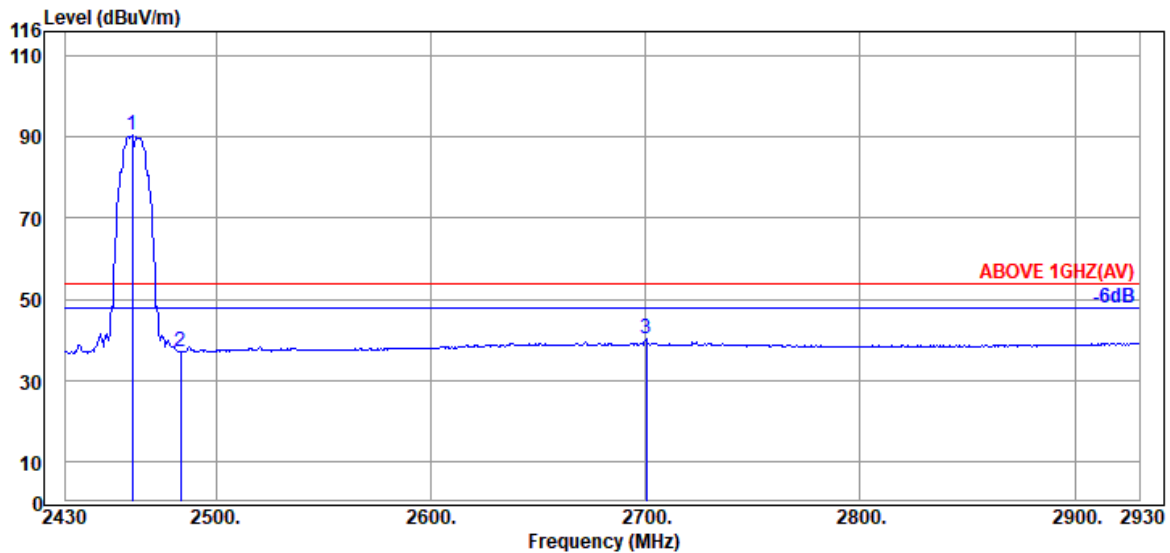
備註：“@”為主波，在此章節是不予以判定。

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
@ 2461.50	27.89	6.40	33.13	91.91	93.07	---	---	Peak
2483.50	28.01	6.43	33.11	46.84	48.17	74.00	25.83	Peak
2687.50	28.87	6.65	32.96	48.79	51.35	74.00	22.65	Peak

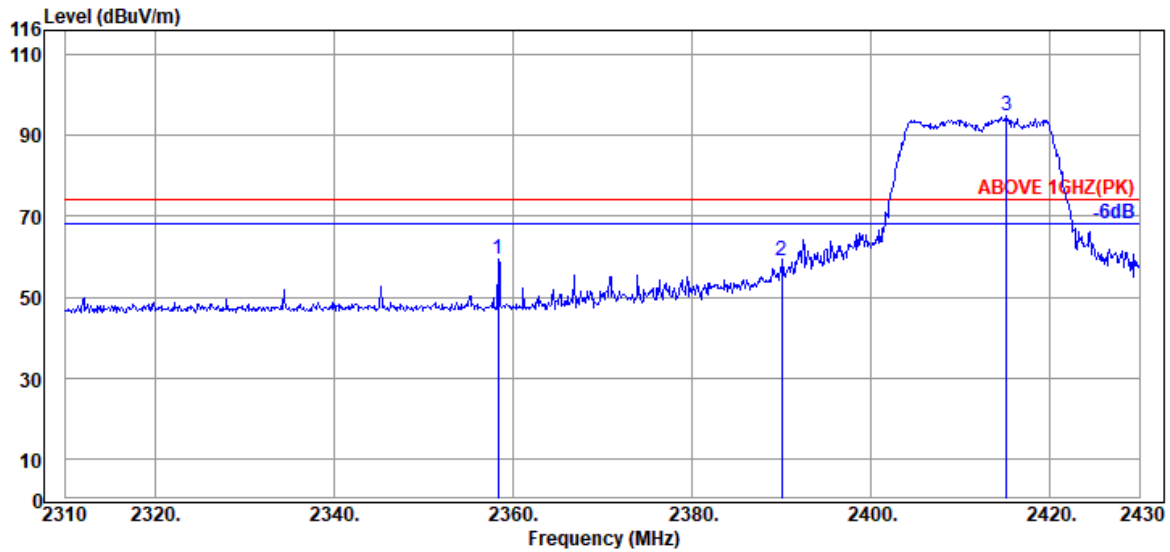


Antenna at Vertical Polarization

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
@ 2461.00	27.89	6.40	33.13	89.21	90.37	---	---	Average
2483.50	28.01	6.43	33.11	35.81	37.14	54.00	16.86	Average
2700.50	28.90	6.67	32.95	37.57	40.19	54.00	13.81	Average

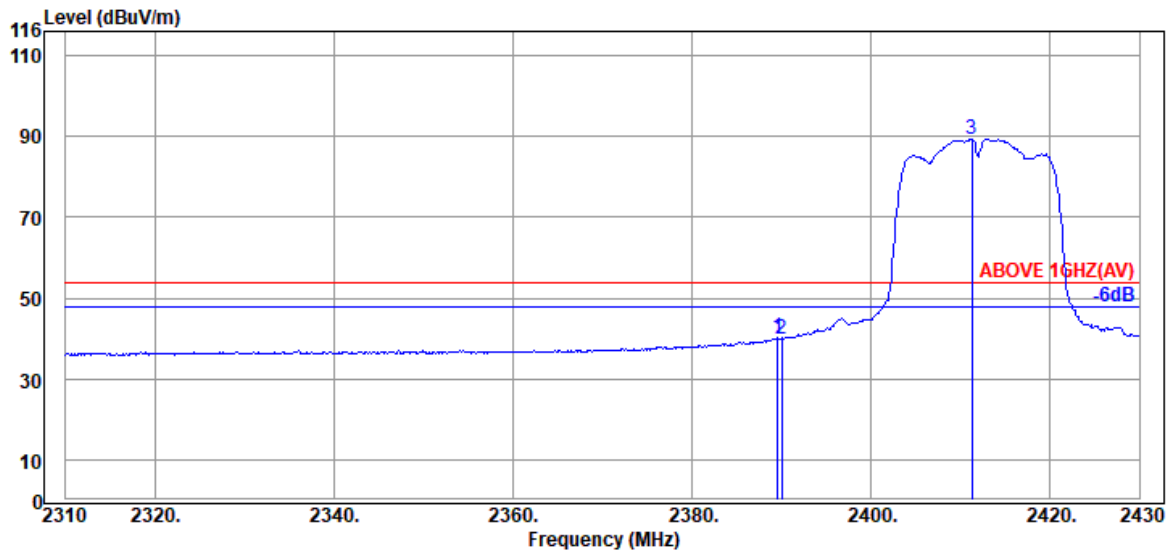
備註：“@”為主波，在此章節是不予以判定。

Mode	802.11g	Frequency	TX 2412MHz
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Antenna at Horizontal Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Gain (dB)	Read Level (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
2358.36	27.51	6.27	33.22	58.84	59.40	74.00	14.60	Peak
2390.04	27.57	6.31	33.19	58.14	58.83	74.00	15.17	Peak
@ 2415.12	27.66	6.33	33.17	93.88	94.70	---	---	Peak

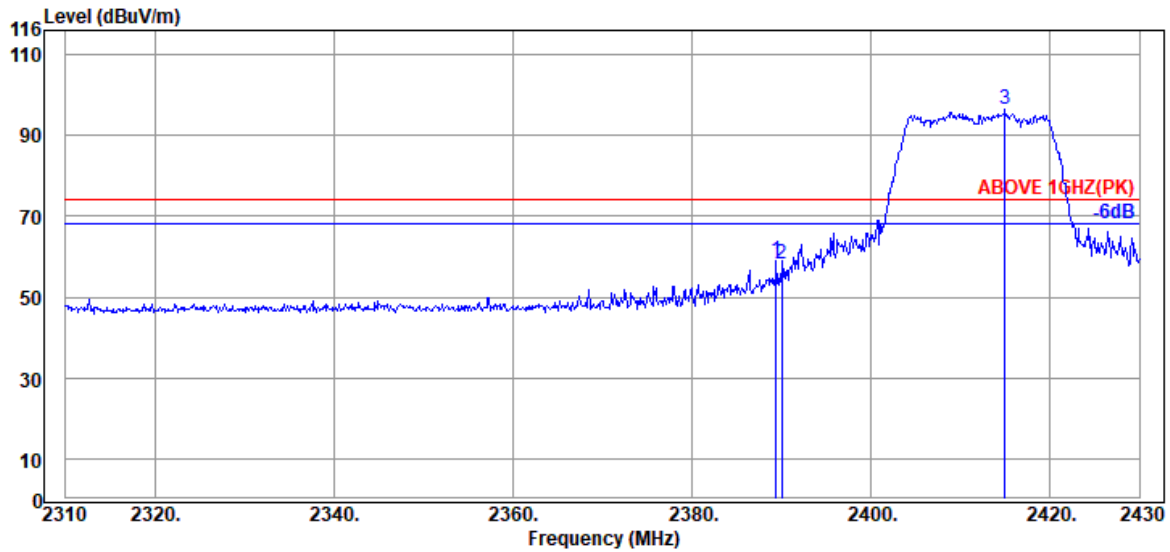


Antenna at Horizontal Polarization

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
2389.56	27.57	6.31	33.19	39.56	40.25	54.00	13.75	Average
2390.04	27.57	6.31	33.19	39.35	40.04	54.00	13.96	Average
@ 2411.28	27.66	6.33	33.17	88.62	89.44	---	---	Average

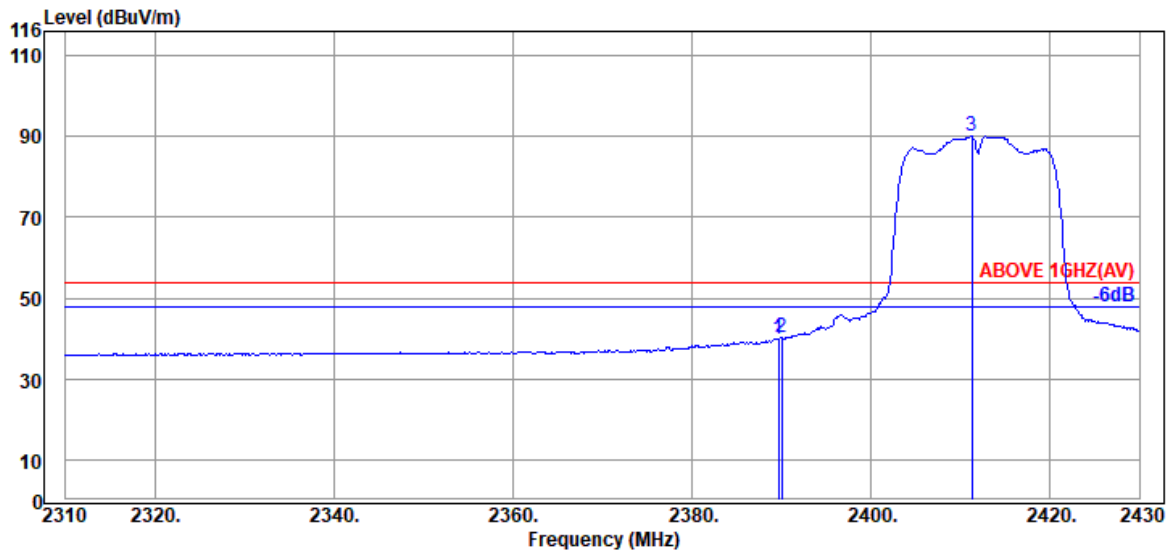
備註：“@”為主波，在此章節是不予以判定。

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)	Read Level (dBμV)	Emission Level (dBUV/m)	Limits (dBUV/m)	Margin (dB)	Detector
2389.44	27.57	6.31	33.19	58.19	58.88	74.00	15.12	Peak
2390.04	27.57	6.31	33.19	57.36	58.05	74.00	15.95	Peak
@ 2415.00	27.66	6.33	33.17	95.59	96.41	---	---	Peak

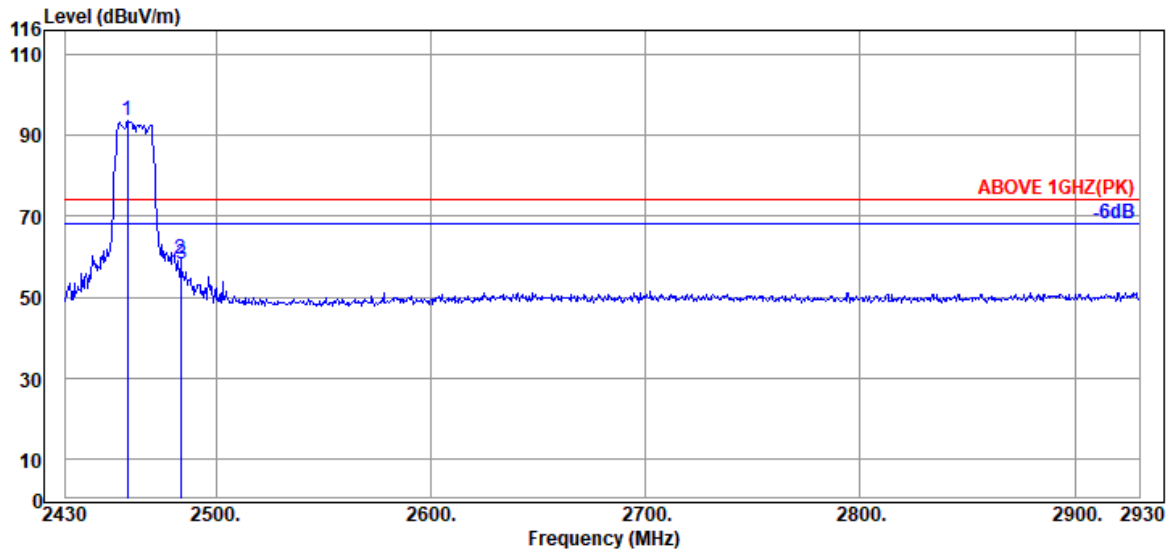


Antenna at Vertical Polarization

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
2389.68	27.57	6.31	33.19	39.24	39.93	54.00	14.07	Average
2390.04	27.57	6.31	33.19	39.43	40.12	54.00	13.88	Average
@ 2411.28	27.66	6.33	33.17	89.27	90.09	---	---	Average

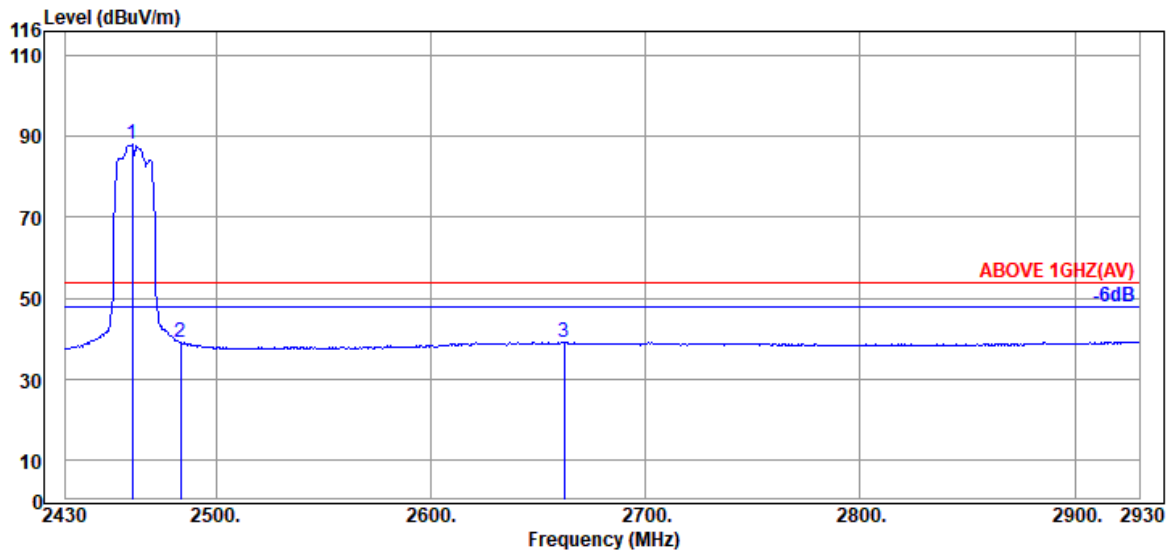
備註：“@”為主波，在此章節是不予以判定。

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
@ 2459.00	27.84	6.40	33.13	92.39	93.50	---	---	Peak
2483.50	28.01	6.43	33.11	57.93	59.26	74.00	14.74	Peak
2484.00	28.01	6.43	33.11	56.74	58.07	74.00	15.93	Peak

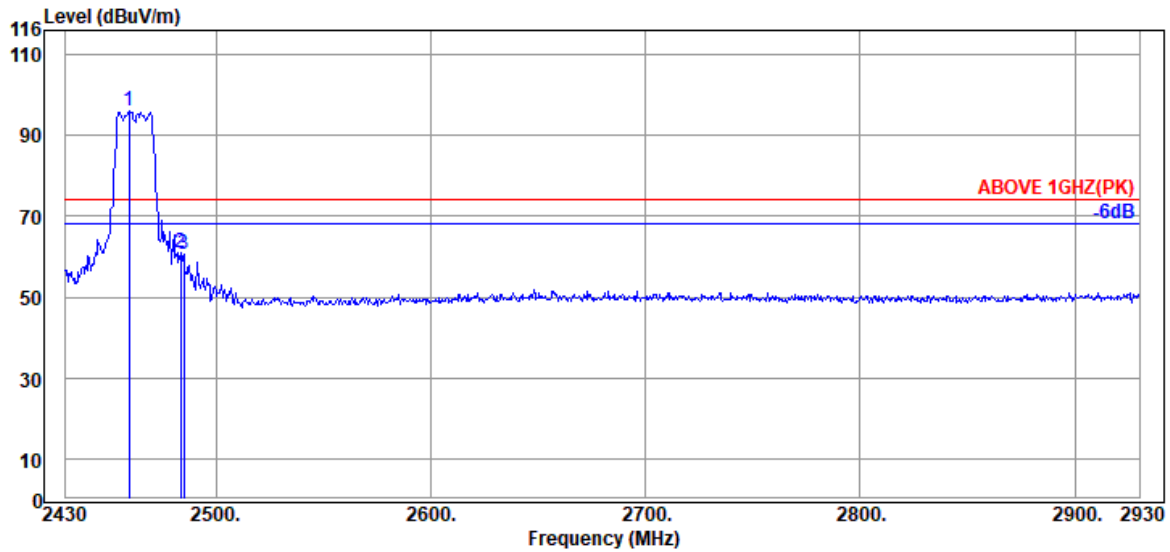


Antenna at Horizontal Polarization

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
@ 2461.00	27.89	6.40	33.13	86.91	88.07	---	---	Average
2483.50	28.01	6.43	33.11	37.68	39.01	54.00	14.99	Average
2662.00	28.83	6.63	32.98	36.75	39.23	54.00	14.77	Average

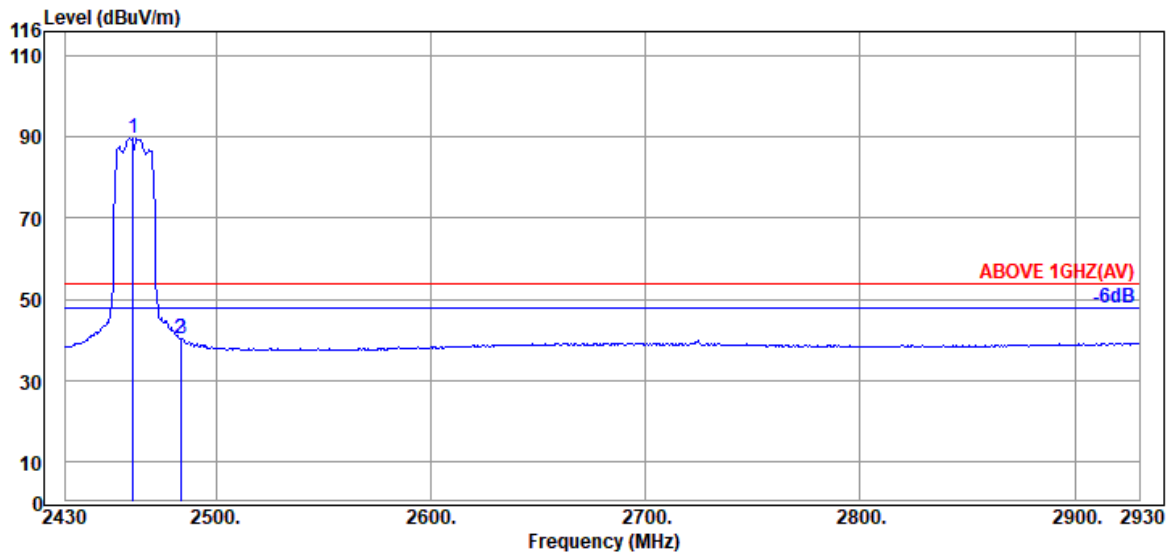
備註：“@”為主波，在此章節是不予以判定。

Mode	802.11g	Frequency	TX 2462MHz
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Antenna at Vertical Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Gain (dB)	Read Level (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
@ 2459.50	27.84	6.40	33.13	94.88	95.99	---	---	Peak
2483.50	28.01	6.43	33.11	59.73	61.06	74.00	12.94	Peak
2485.00	28.01	6.43	33.11	59.41	60.74	74.00	13.26	Peak

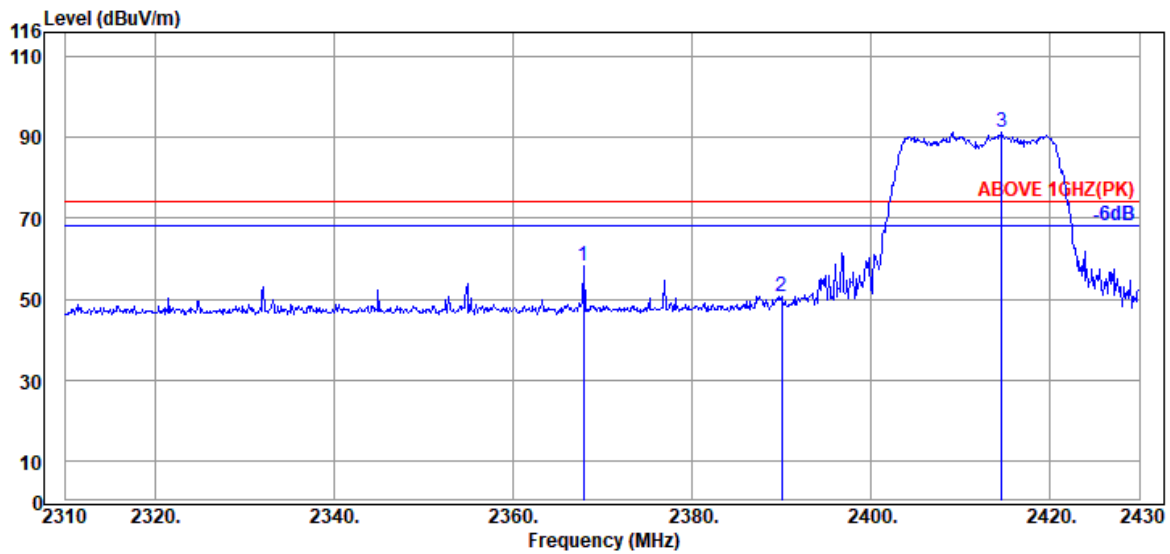


Antenna at Vertical Polarization

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
@ 2461.50	27.89	6.40	33.13	88.67	89.83	---	---	Average
2483.50	28.01	6.43	33.11	39.06	40.39	54.00	13.61	Average
2484.00	28.01	6.43	33.11	39.05	40.38	54.00	13.62	Average

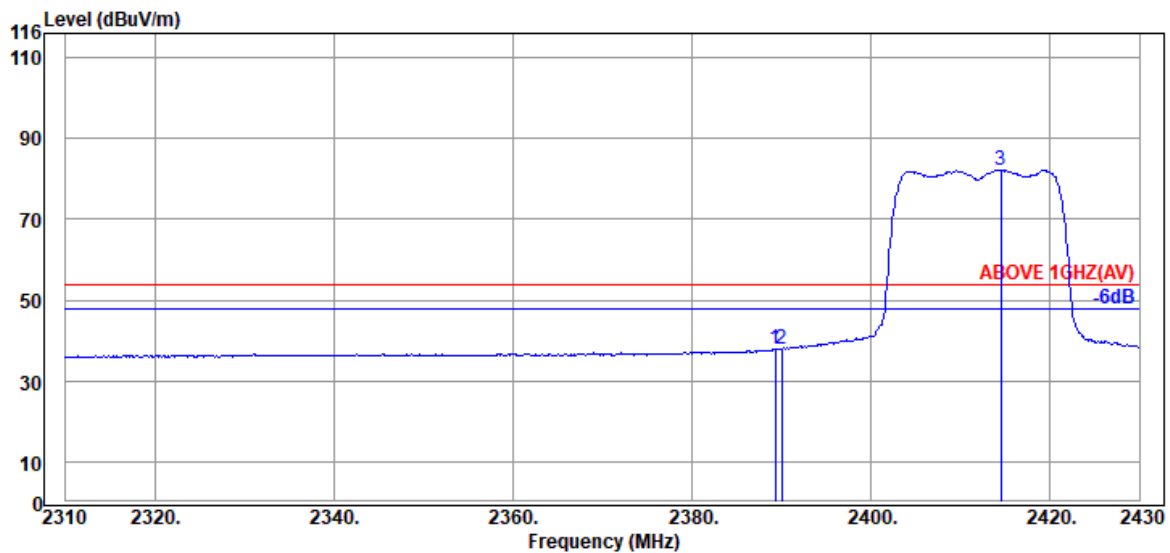
備註：“@”為主波，在此章節是不予以判定。

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)	Preamp Gain (dB)	Read Level (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
2367.84	27.53	6.27	33.21	57.76	58.35	74.00	15.65	Peak
2390.04	27.57	6.31	33.19	50.07	50.76	74.00	23.24	Peak
@ 2414.64	27.66	6.33	33.17	90.41	91.23	---	---	Peak

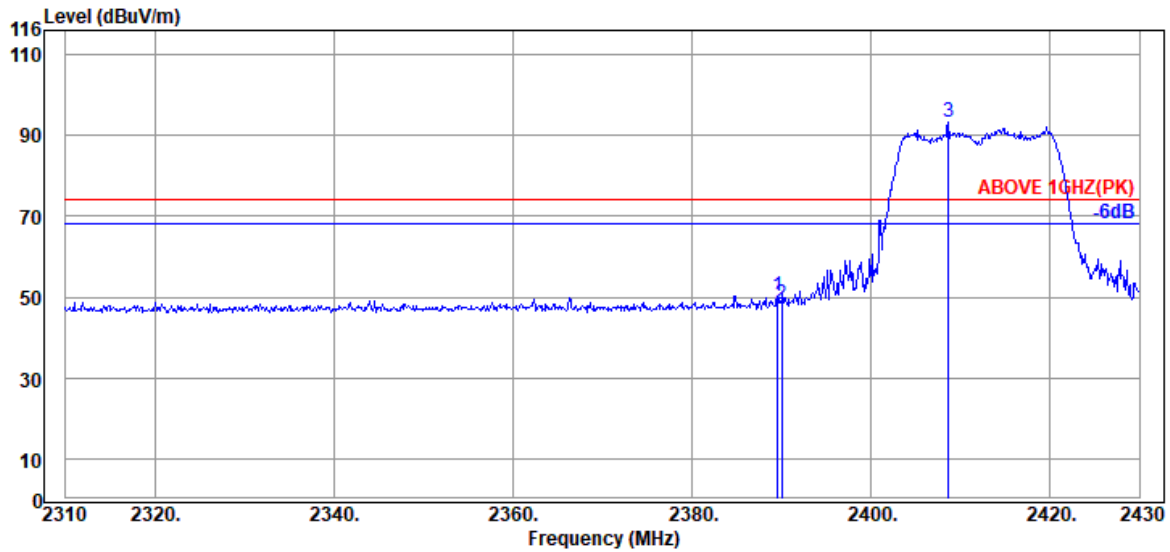


Antenna at Horizontal Polarization

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
2389.32	27.57	6.31	33.19	37.33	38.02	54.00	15.98	Average
2390.04	27.57	6.31	33.19	37.23	37.92	54.00	16.08	Average
@ 2414.52	27.66	6.33	33.17	81.45	82.27	---	---	Average

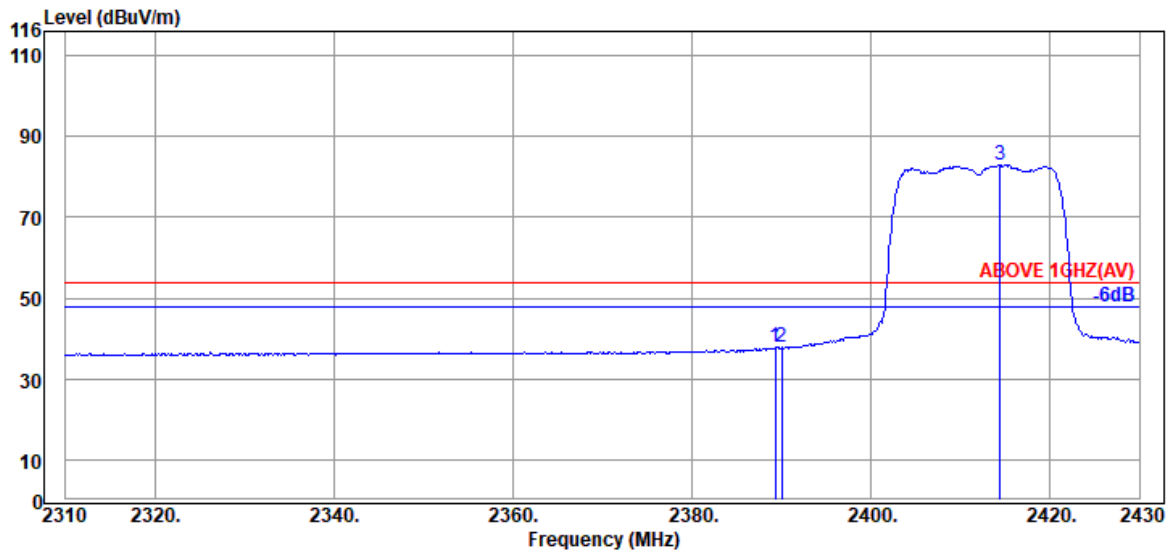
備註：“@”為主波，在此章節是不予以判定。

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)	Preamp Gain (dB)	Read Level (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
2389.56	27.57	6.31	33.19	49.73	50.42	74.00	23.58	Peak
2390.04	27.57	6.31	33.19	47.72	48.41	74.00	25.59	Peak
@ 2408.64	27.63	6.33	33.18	92.52	93.30	---	---	Peak

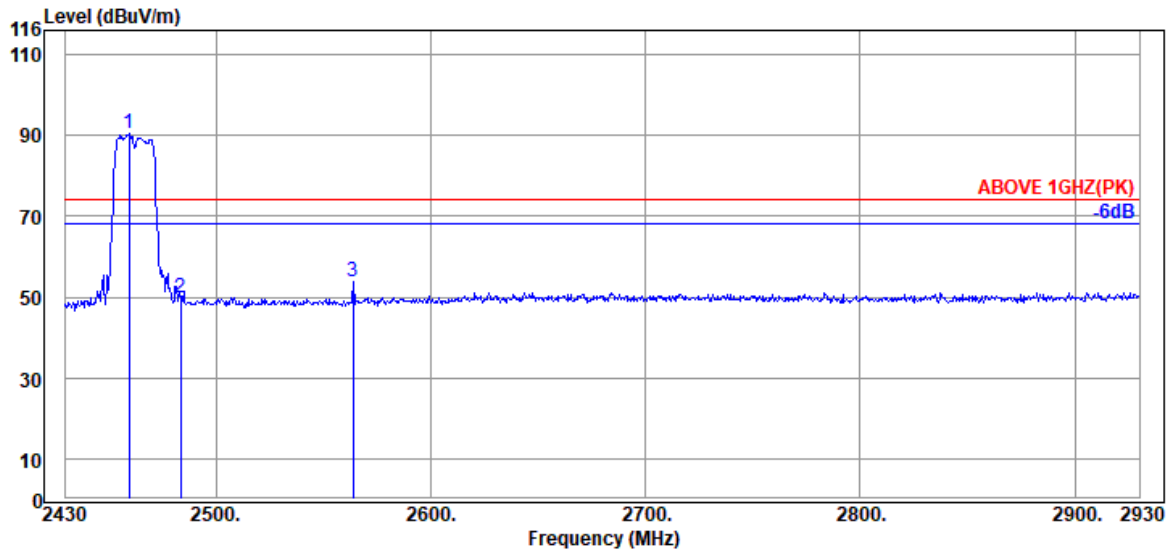


Antenna at Vertical Polarization

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
2389.32	27.57	6.31	33.19	37.10	37.79	54.00	16.21	Average
2390.04	27.57	6.31	33.19	36.99	37.68	54.00	16.32	Average
@ 2414.40	27.66	6.33	33.17	82.21	83.03	---	---	Average

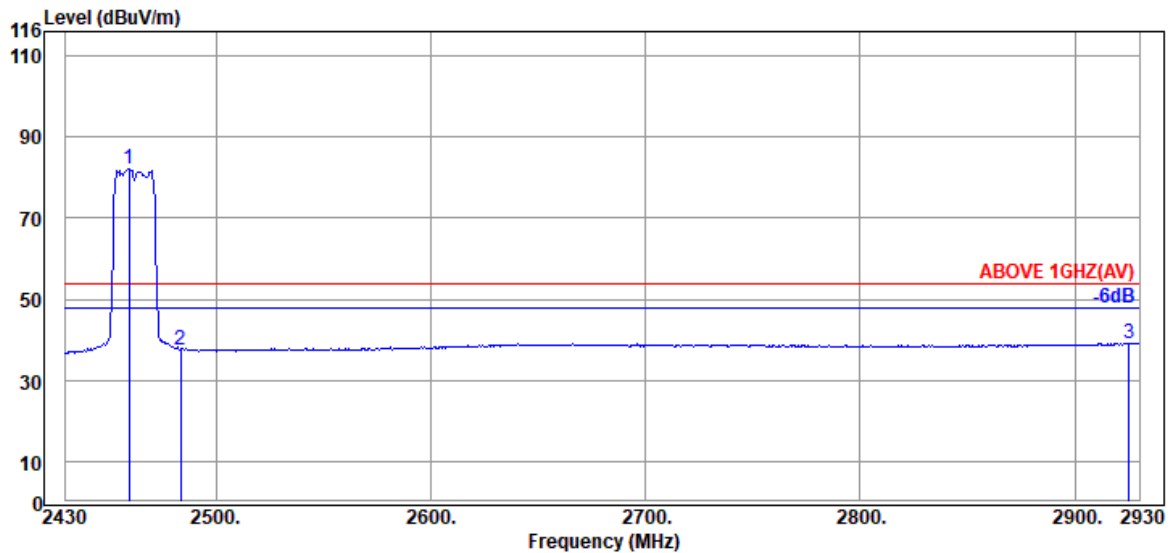
備註：“@”為主波，在此章節是不予以判定。

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)	Preamp Gain (dB)	Read Level (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
@	2459.50	27.84	6.40	33.13	89.53	90.64	---	---	Peak
	2483.50	28.01	6.43	33.11	48.54	49.87	74.00	24.13	Peak
	2564.00	28.29	6.52	33.06	52.09	53.84	74.00	20.16	Peak

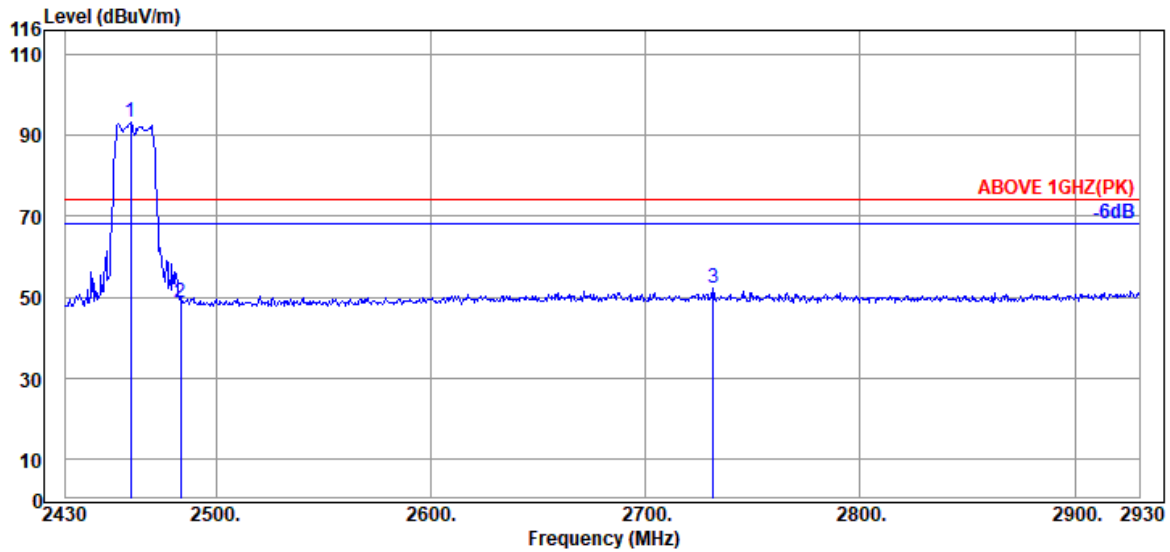


Antenna at Horizontal Polarization

	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
@	2459.50	27.84	6.40	33.13	81.19	82.30	---	---	Average
	2483.50	28.01	6.43	33.11	36.33	37.66	54.00	16.34	Average
	2925.00	29.20	6.90	32.79	35.81	39.12	54.00	14.88	Average

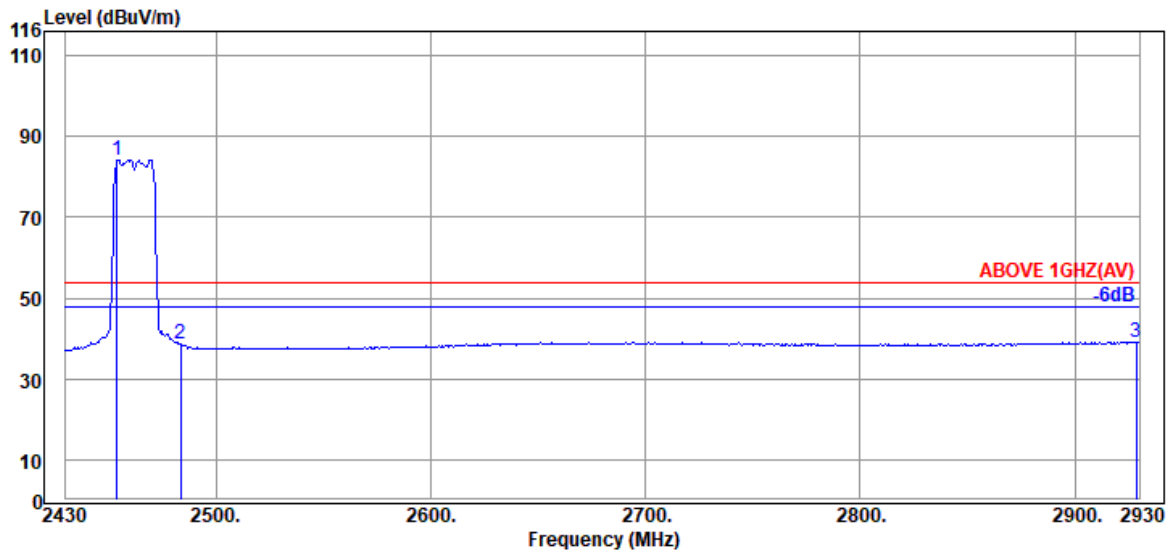
備註：“@”為主波，在此章節是不予以判定。

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 (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
@ 2460.50	27.89	6.40	33.13	92.04	93.20	---	---	Peak
2483.50	28.01	6.43	33.11	47.27	48.60	74.00	25.40	Peak
2731.50	28.90	6.70	32.93	49.49	52.16	74.00	21.84	Peak

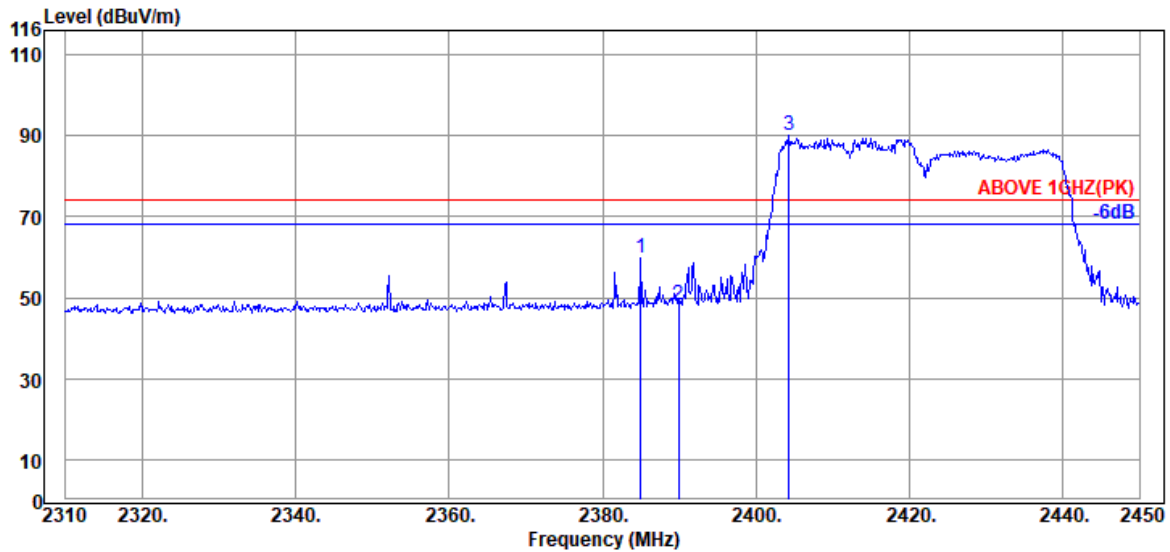


Antenna at Vertical Polarization

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
@ 2454.00	27.84	6.40	33.14	83.11	84.21	---	---	Average
2483.50	28.01	6.43	33.11	37.43	38.76	54.00	15.24	Average
2928.50	29.20	6.90	32.79	35.90	39.21	54.00	14.79	Average

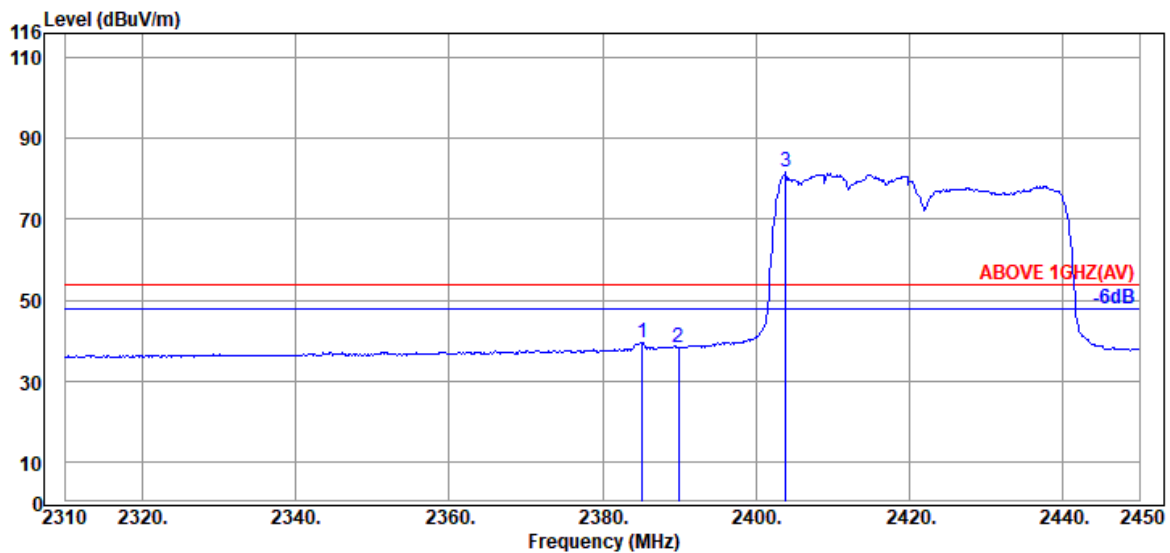
備註：“@”為主波，在此章節是不予以判定。

Mode	802.11n-HT40	Frequency	TX 2422MHz
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Antenna at Horizontal 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
2385.04	27.57	6.29	33.20	59.12	59.78	74.00	14.22	Peak
2389.94	27.57	6.31	33.19	47.73	48.42	74.00	25.58	Peak
@ 2404.36	27.63	6.33	33.18	89.41	90.19	---	---	Peak

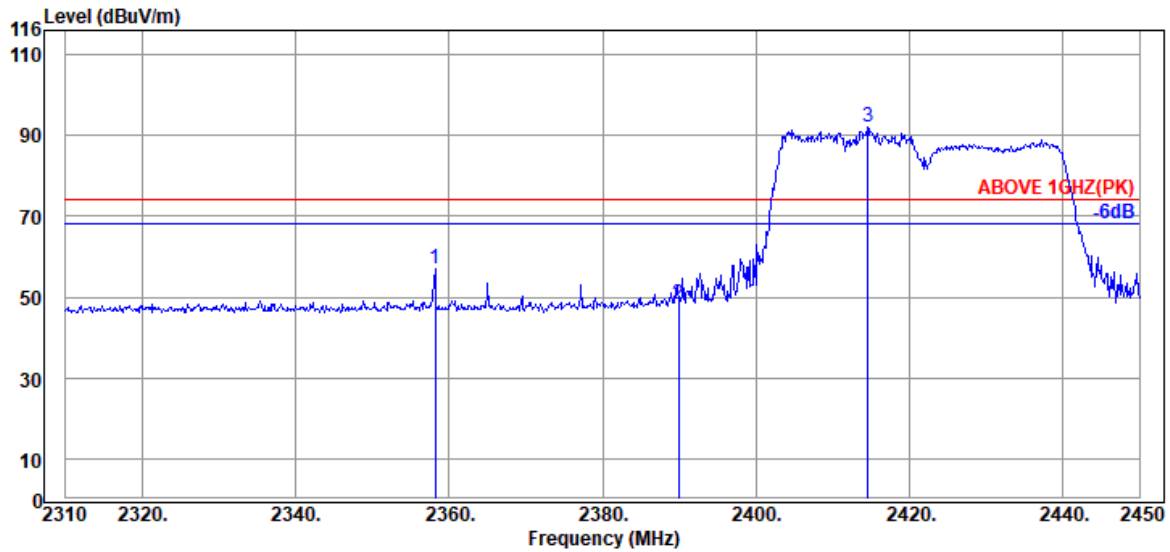


Antenna at Horizontal Polarization

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
2385.18	27.57	6.29	33.20	38.92	39.58	54.00	14.42	Average
2389.94	27.57	6.31	33.19	37.71	38.40	54.00	15.60	Average
@ 2403.94	27.60	6.33	33.18	80.82	81.57	---	---	Average

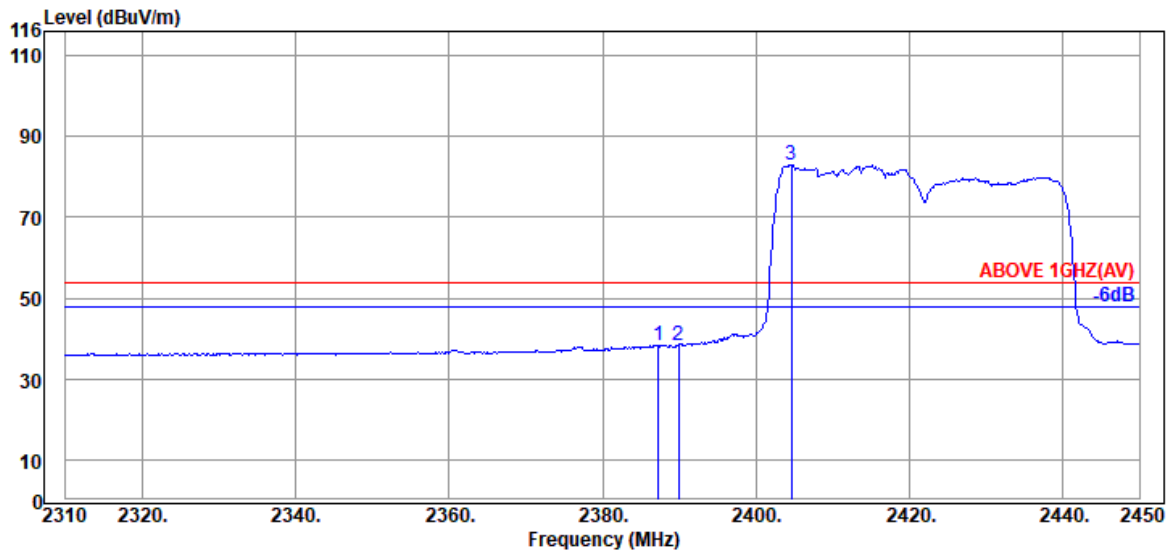
備註：“@”為主波，在此章節是不予以判定。

Mode	802.11n-HT40	Frequency	TX 2422MHz
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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
2358.16	27.51	6.27	33.22	56.25	56.81	74.00	17.19	Peak
2389.94	27.57	6.31	33.19	47.54	48.23	74.00	25.77	Peak
@ 2414.58	27.66	6.33	33.17	91.27	92.09	---	---	Peak

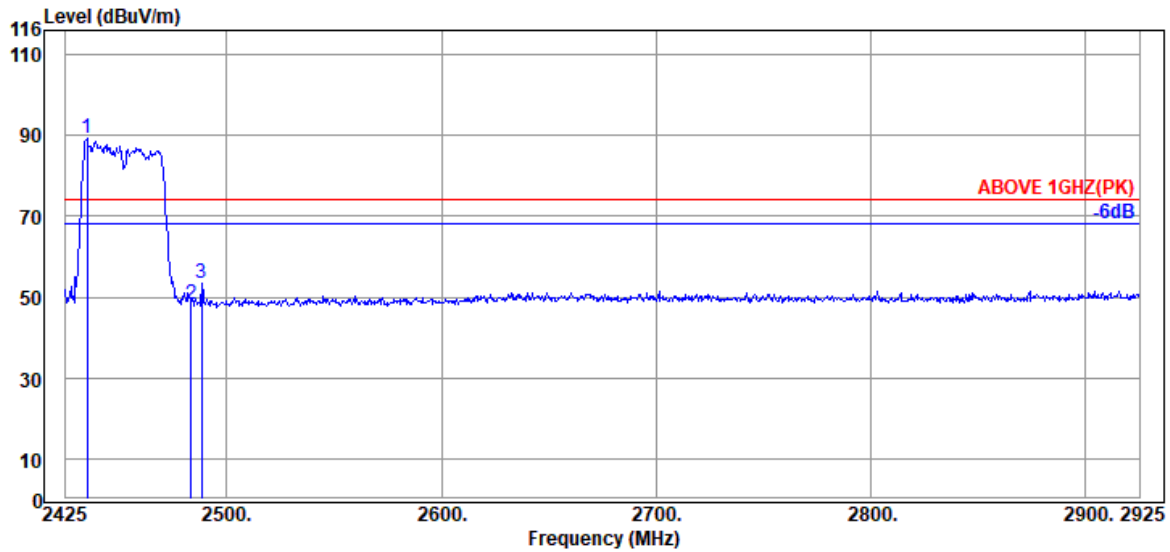


Antenna at Vertical Polarization

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
2387.28	27.57	6.31	33.19	37.66	38.35	54.00	15.65	Average
2389.94	27.57	6.31	33.19	37.66	38.35	54.00	15.65	Average
@ 2404.64	27.63	6.33	33.18	82.22	83.00	---	---	Average

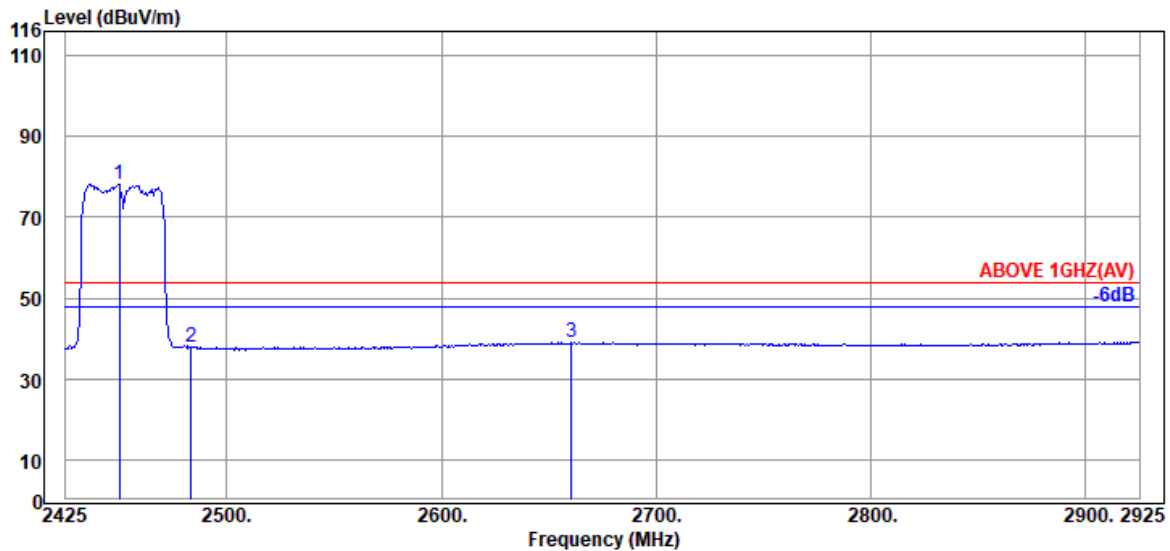
備註：“@”為主波，在此章節是不予以判定。

Mode	802.11n-HT40	Frequency	TX 2452MHz
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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
@	2435.00	27.74	6.36	33.15	88.35	89.30	---	---	Peak
	2483.50	28.01	6.43	33.11	46.92	48.25	74.00	25.75	Peak
	2488.50	28.01	6.45	33.11	52.10	53.45	74.00	20.55	Peak

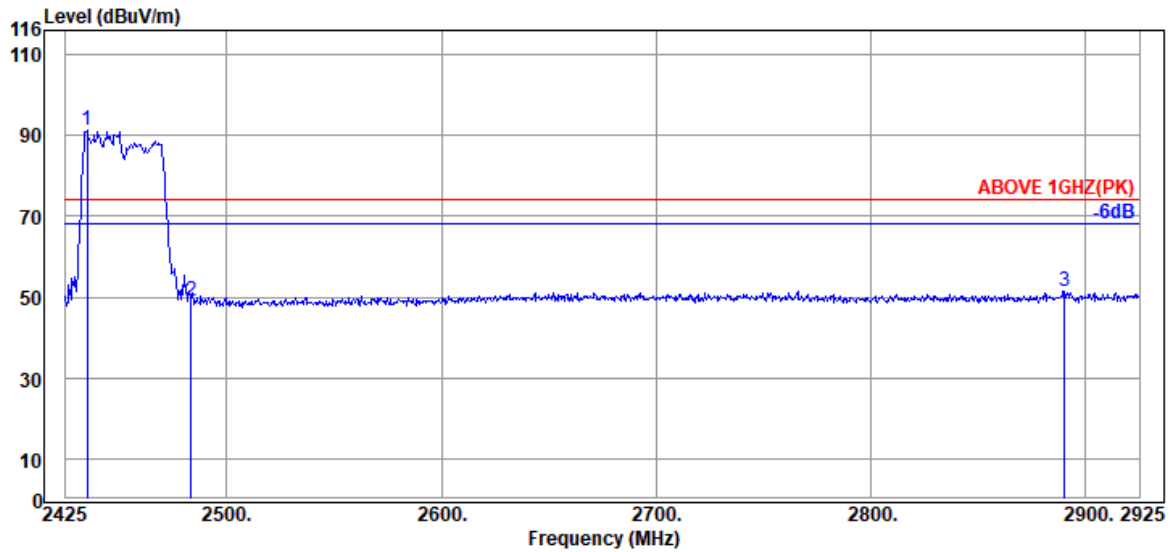


Antenna at Horizontal Polarization

	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
@	2450.00	27.80	6.38	33.15	77.16	78.19	---	---	Average
	2483.50	28.01	6.43	33.11	36.70	38.03	54.00	15.97	Average
	2660.50	28.83	6.63	32.98	36.61	39.09	54.00	14.91	Average

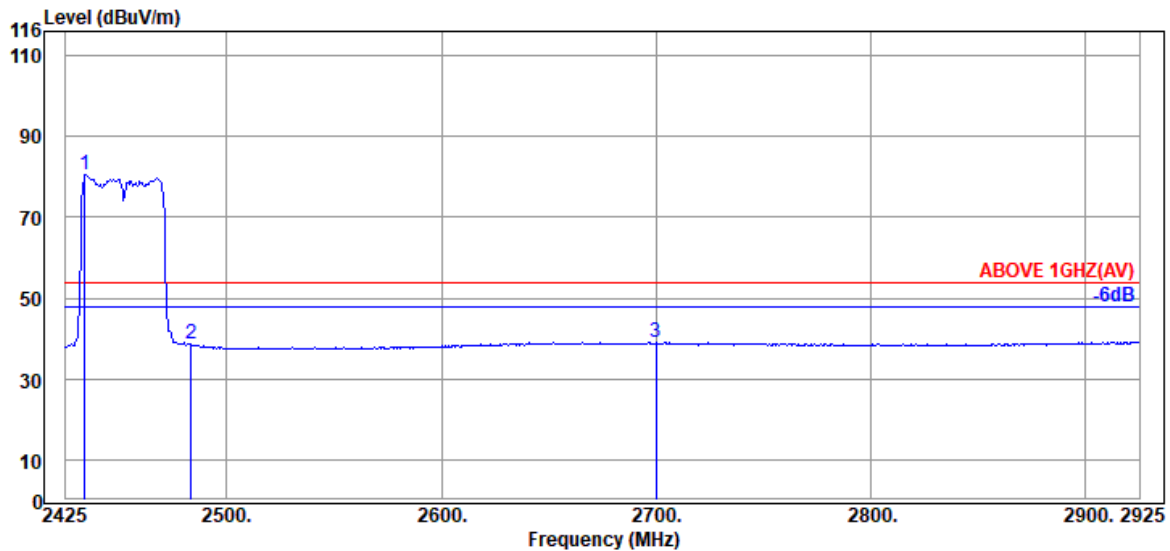
備註：“@”為主波，在此章節是不予以判定。

Mode	802.11n-HT40	Frequency	TX 2452MHz
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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
@ 2435.00	27.74	6.36	33.15	90.14	91.09	---	---	Peak
2483.50	28.01	6.43	33.11	47.77	49.10	74.00	24.90	Peak
2890.00	29.15	6.86	32.82	48.10	51.29	74.00	22.71	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
@ 2434.00	27.74	6.36	33.16	79.58	80.52	---	---	Average
2483.50	28.01	6.43	33.11	37.23	38.56	54.00	15.44	Average
2700.00	28.90	6.67	32.95	36.50	39.12	54.00	14.88	Average

備註：“@”為主波，在此章節是不予以判定。

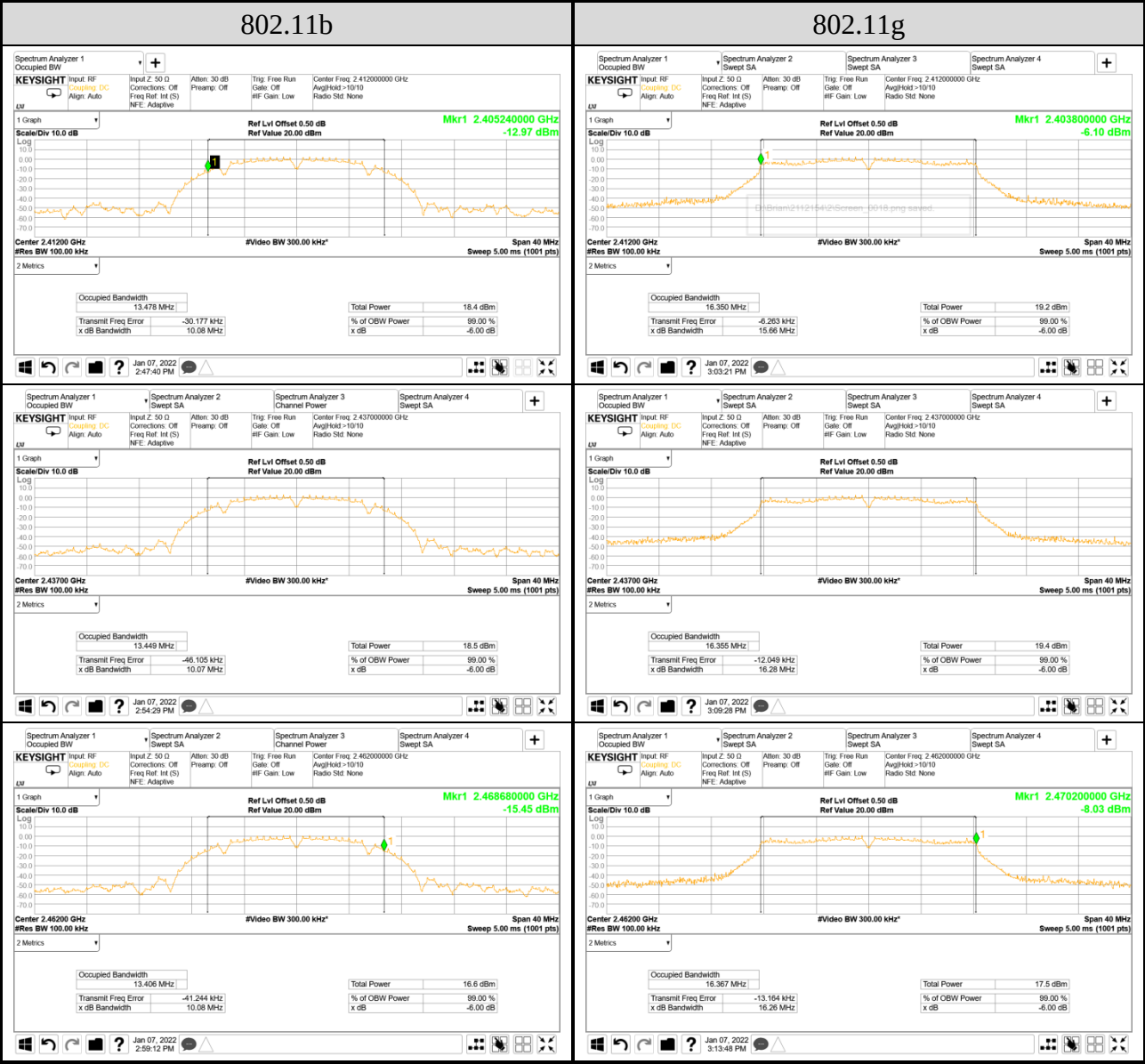
3. 發射頻寬之量測

測試日期	2022/01/07	環境溫/濕度	17°C /69%
電纜損失	0.5dB	測試人員	Sam Chang
測試電壓	DC 3.7V (經鋰電池供電)		

3.1. 發射頻寬

模式	測試頻率 (MHz)	6dB 頻寬 (MHz)	限制值 (kHz)
802.11b	2412	10.08	>500
	2437	10.07	
	2462	10.08	
802.11g	2412	15.66	
	2437	16.28	
	2462	16.26	
802.11n-HT20	2412	17.59	
	2437	17.58	
	2462	17.58	
802.11n-HT40	2422	36.40	
	2437	36.36	
	2452	36.42	

3.2. 發射頻寬之量測圖



4. 峰值輸出功率之量測

測試日期	2022/01/07 ~ 08	環境溫/濕度	17°C/65-69%
電纜損失	0.5dB	測試人員	Sam Chang
測試電壓	DC 3.7V (經鋰電池供電)	Duty Cycle	802.11b: 1.000 802.11g: 0.994 802.11n-HT20: 0.994 802.11n-HT40: 0.987

4.1. 峰值輸出功率

模式	測試頻率(MHz)	輸出功率(dBm)	限制值(dBm)
802.11b	2412	13.16	<30
	2437	13.11	
	2462	10.92	
802.11g	2412	22.41	
	2437	22.84	
	2462	21.86	
802.11n-HT20	2412	19.82	
	2437	21.12	
	2462	20.12	
802.11n-HT40	2422	20.72	
	2437	21.56	
	2452	19.86	

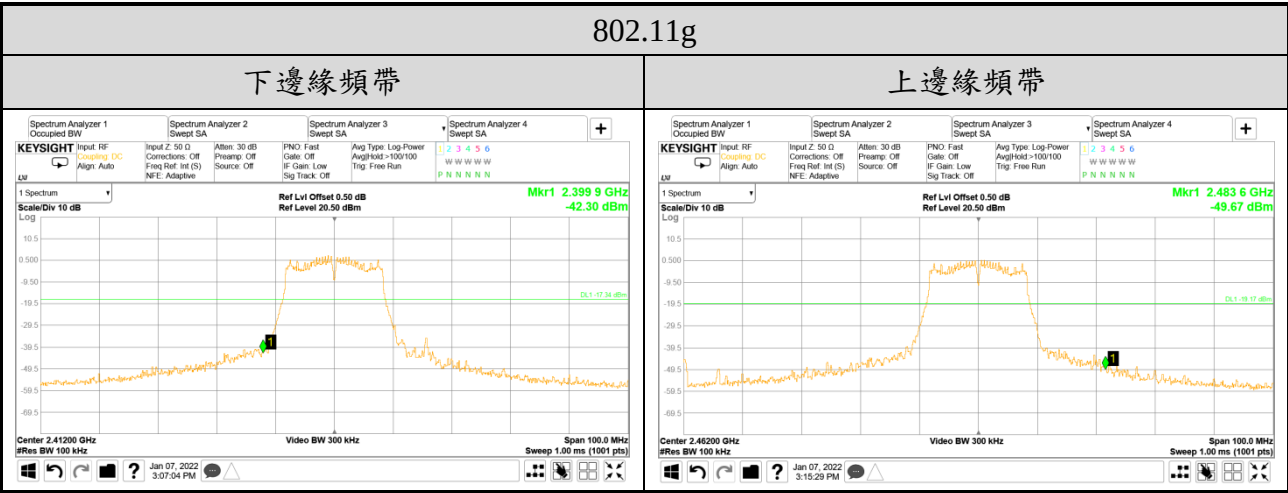
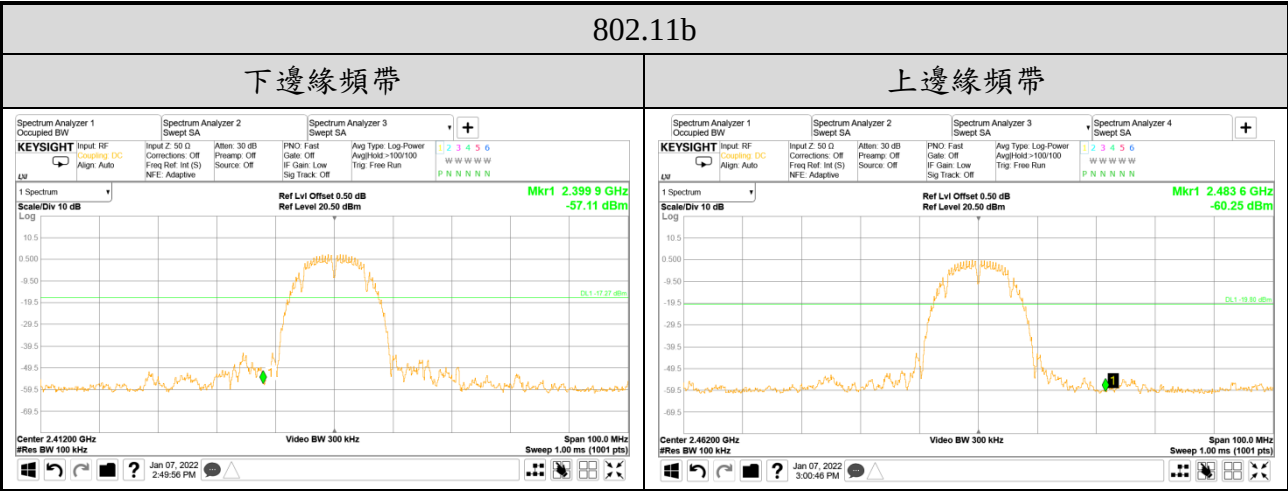
4.2. 平均輸出功率(參考用)

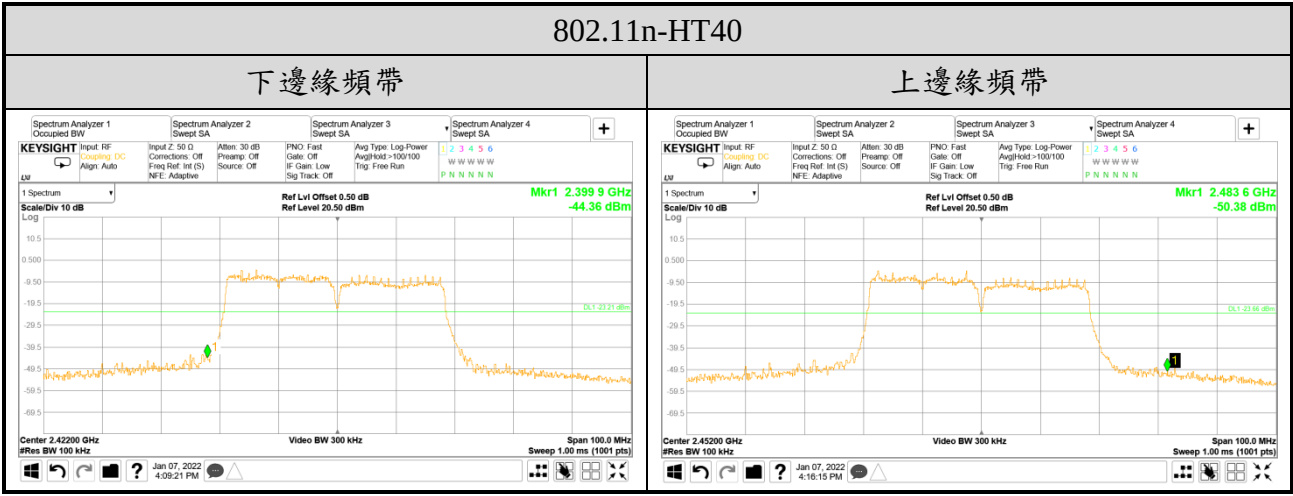
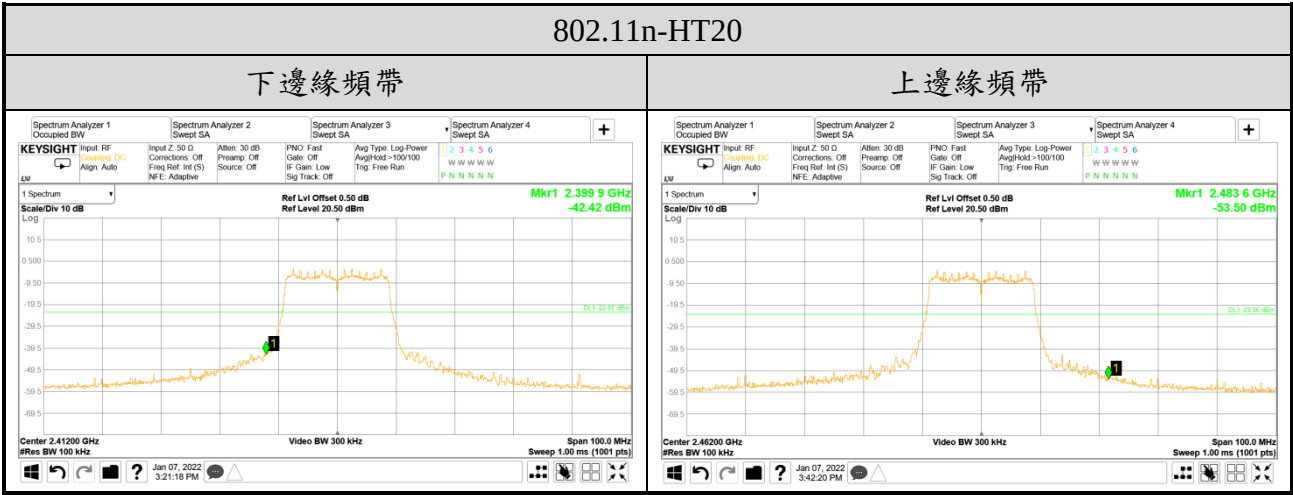
模式	測試頻率(MHz)	Duty Cycle(X)	輸出功率			限制值(dBm)
			輸出功率(dBm)	$10\log(1/X)$	Total 輸出功率(dBm)	
802.11b	2412	1.000	10.57	N/A	10.57	30
	2437		10.39		10.39	
	2462		8.02		8.02	
802.11g	2412	0.994	10.33	N/A	10.33	
	2437		10.72		10.72	
	2462		9.06		9.06	
802.11n-HT20	2412	0.994	9.65	N/A	9.65	
	2437		10.56		10.56	
	2462		8.94		8.94	
802.11n-HT40	2422	0.987	8.94	N/A	8.94	
	2437		9.52		9.52	
	2452		8.14		8.14	

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

5. 頻帶邊緣之 RF 傳導發射之量測

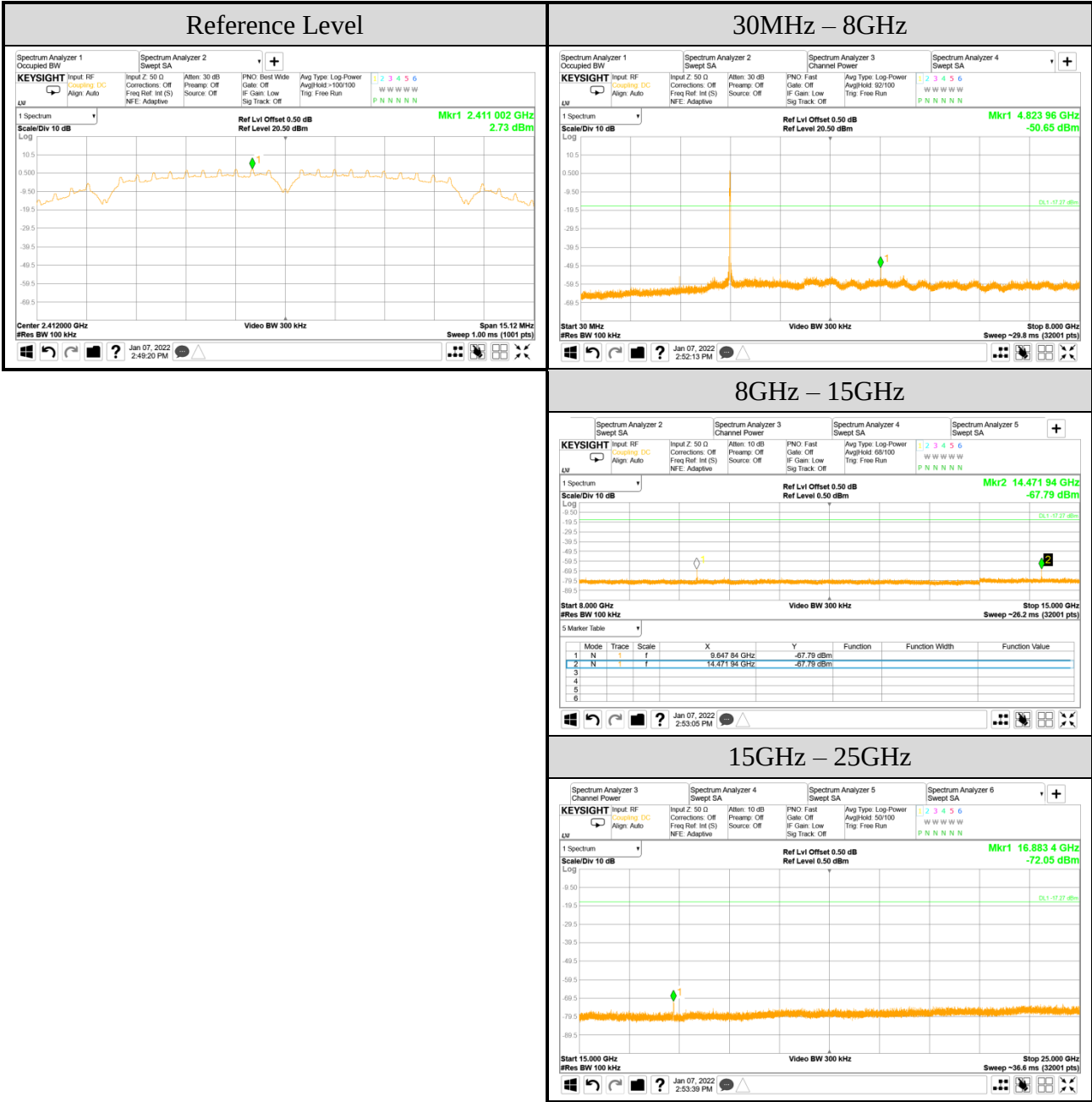
測試日期	2022/01/07	環境溫/濕度	17°C /69%
電纜損失	0.5dB	測試人員	Sam Chang
測試電壓	DC 3.7V (經鋰電池供電)		
Simultaneous Factor10 log(n) (Note: “n” is antenna number)			0dB



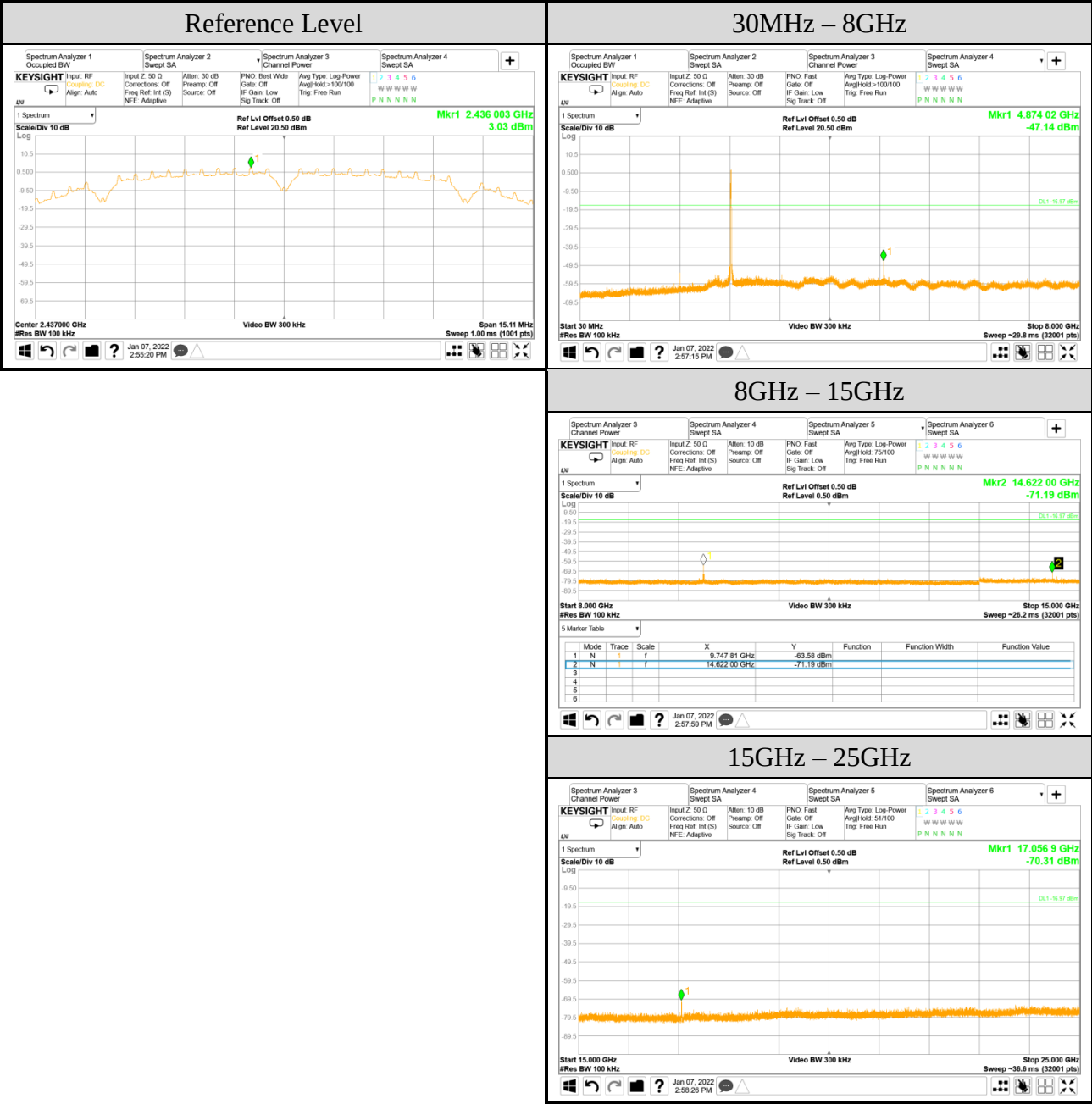


6. 混附發射之 RF 傳導發射之量測

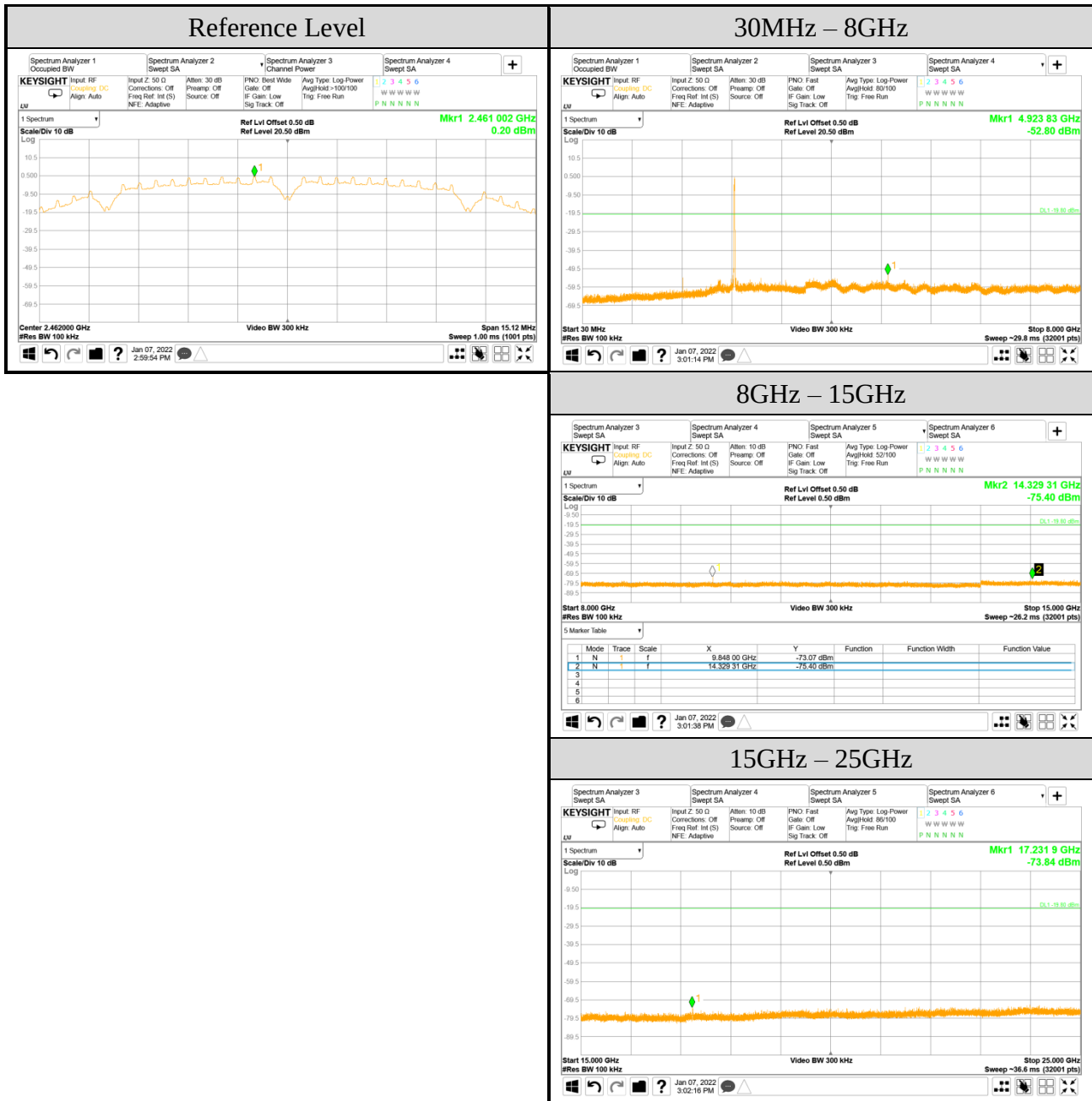
測試日期	2022/01/07	環境溫/濕度	17°C /69%
電纜損失	0.5dB	模式	802.11b
		測試頻率	2412MHz
測試電壓	DC 3.7V (經鋰電池供電)	測試人員	Sam Chang
Simultaneous Factor10 log(n) (Note: “n” is antenna number)			0dB



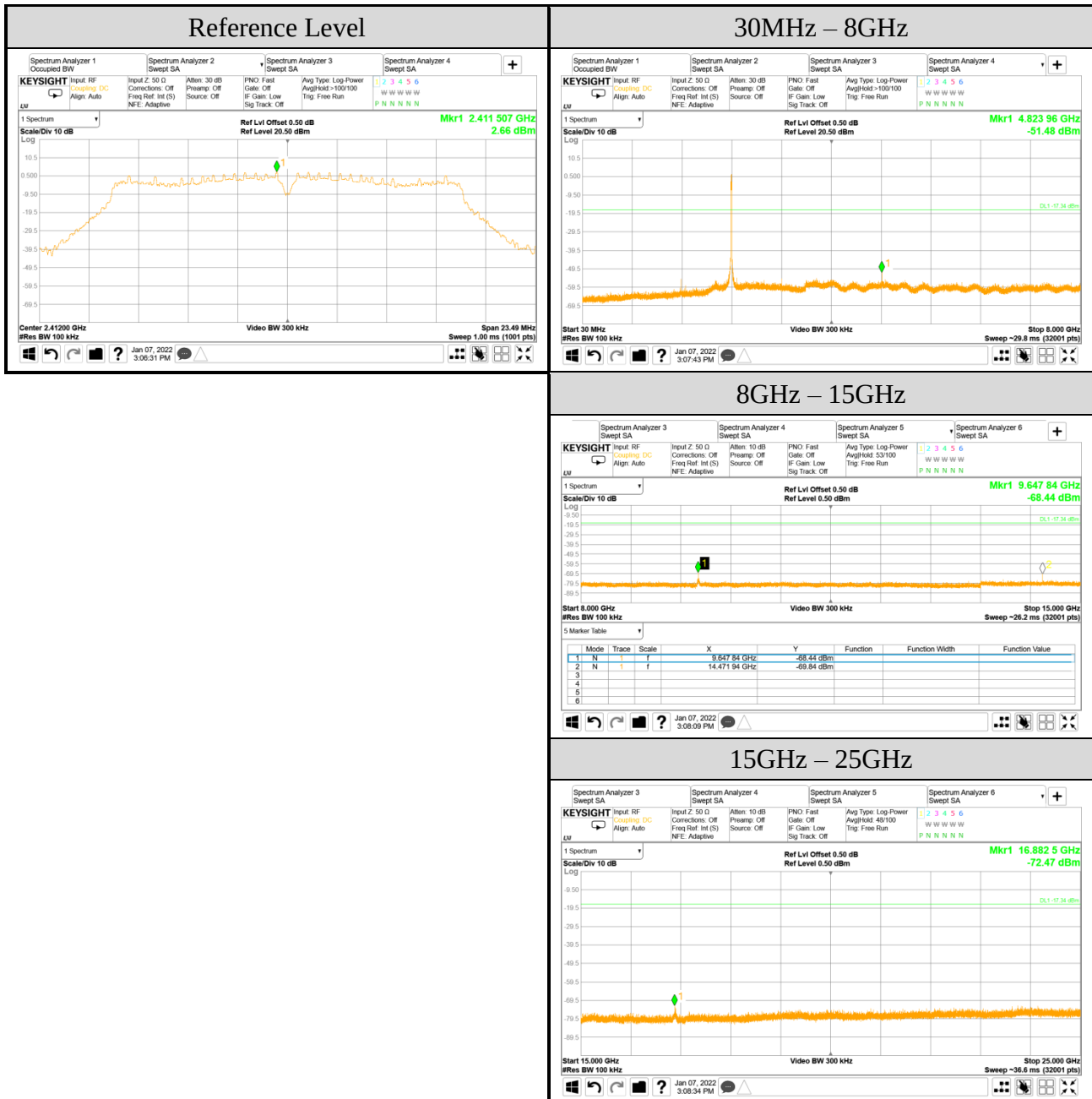
測試日期	2022/01/07	環境溫/濕度	17°C /69%
電纜損失	0.5dB	模式	802.11b
		測試頻率	2437MHz
測試電壓	DC 3.7V (經鋰電池供電)	測試人員	Sam Chang
Simultaneous Factor10 log(n) (Note: “n” is antenna number)			0dB



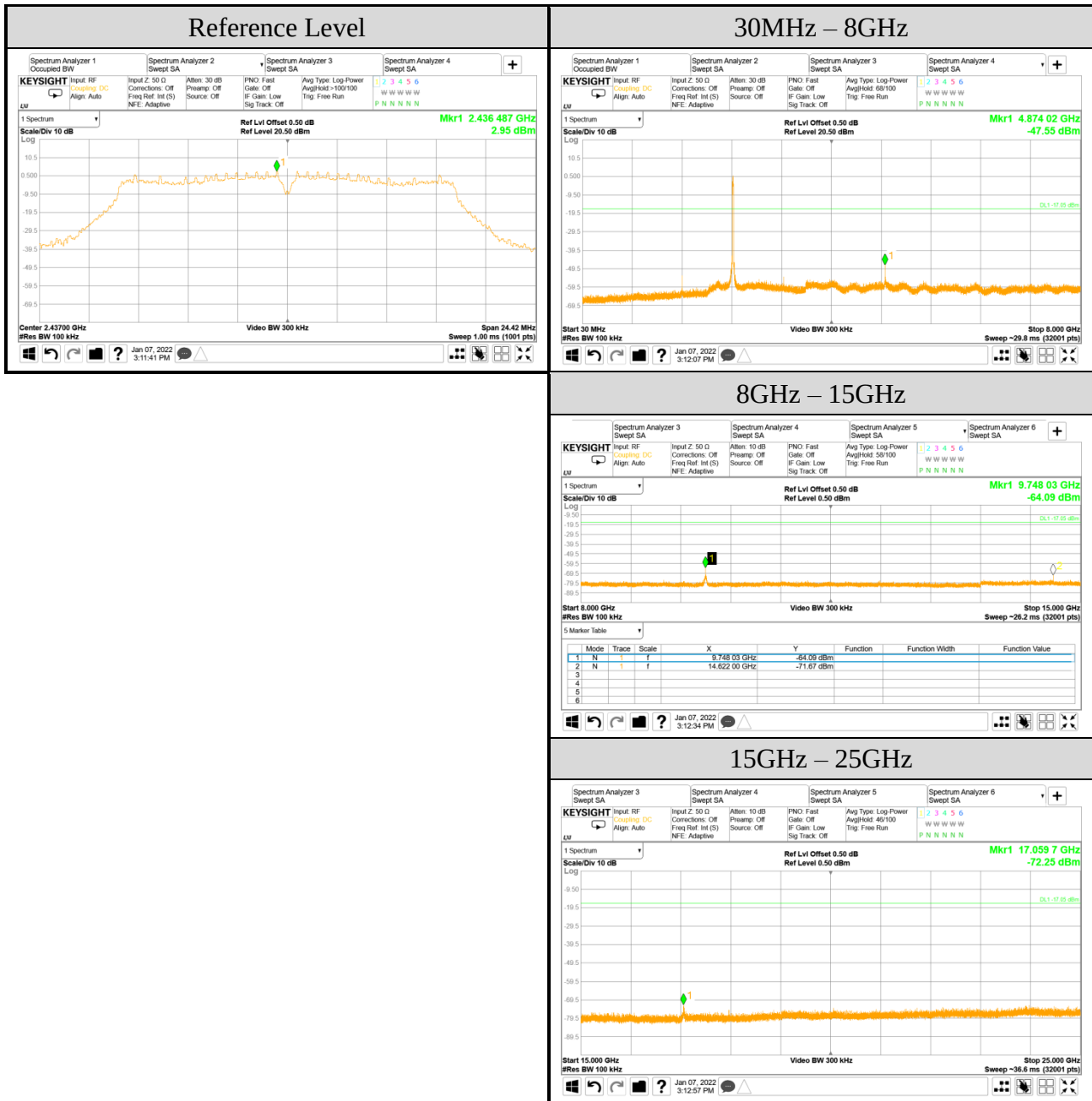
測試日期	2022/01/07	環境溫/濕度	17°C/69%
電纜損失	0.5dB	模式	802.11b
		測試頻率	2462MHz
測試電壓	DC 3.7V (經鋰電池供電)	測試人員	Sam Chang
Simultaneous Factor10 log(n) (Note: “n” is antenna number)			0dB



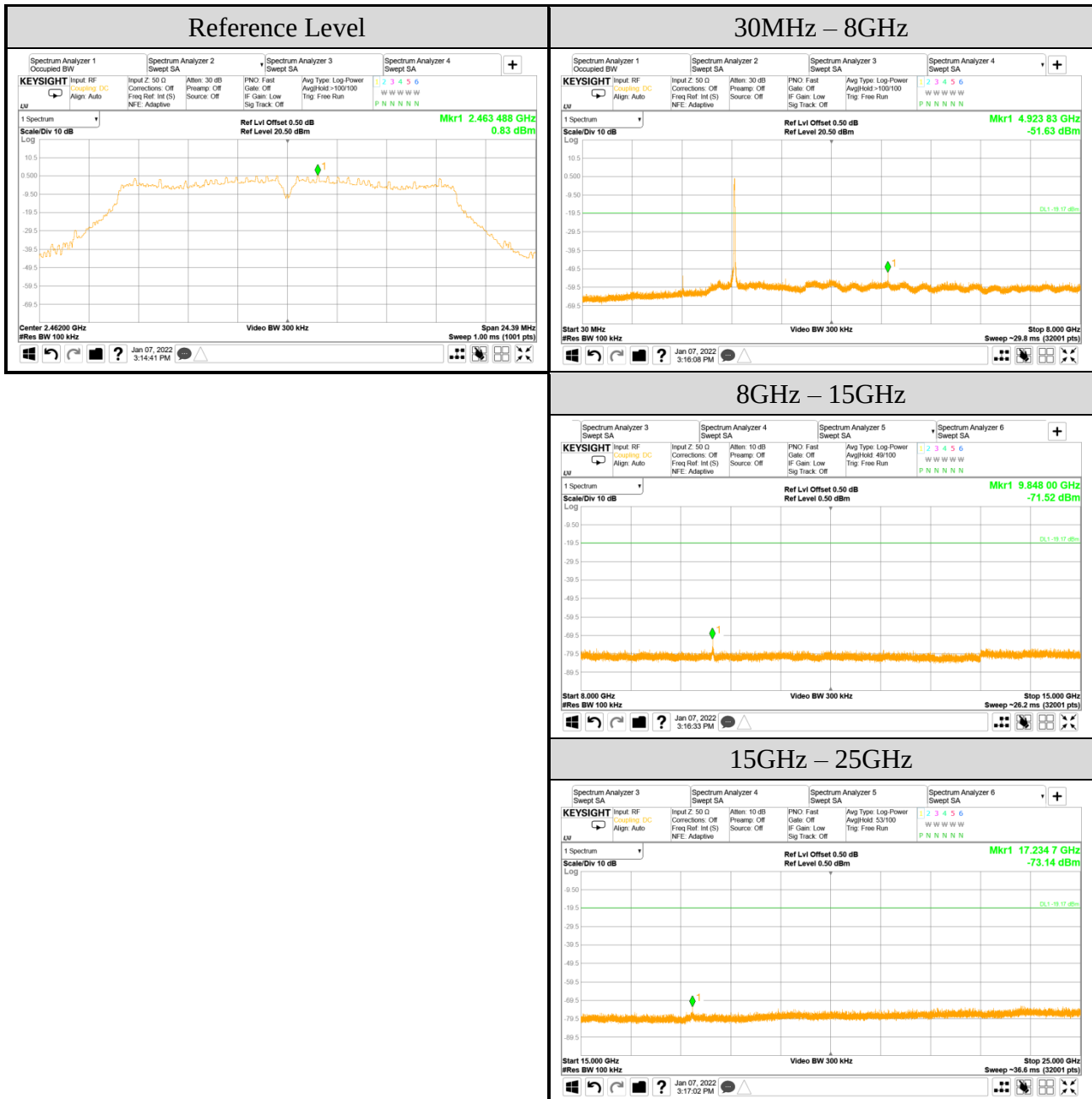
測試日期	2022/01/07	環境溫/濕度	17°C/69%
電纜損失	0.5dB	模式	802.11g
		測試頻率	2412MHz
測試電壓	DC 3.7V (經鋰電池供電)	測試人員	Sam Chang
Simultaneous Factor10 log(n) (Note: “n” is antenna number)			0dB



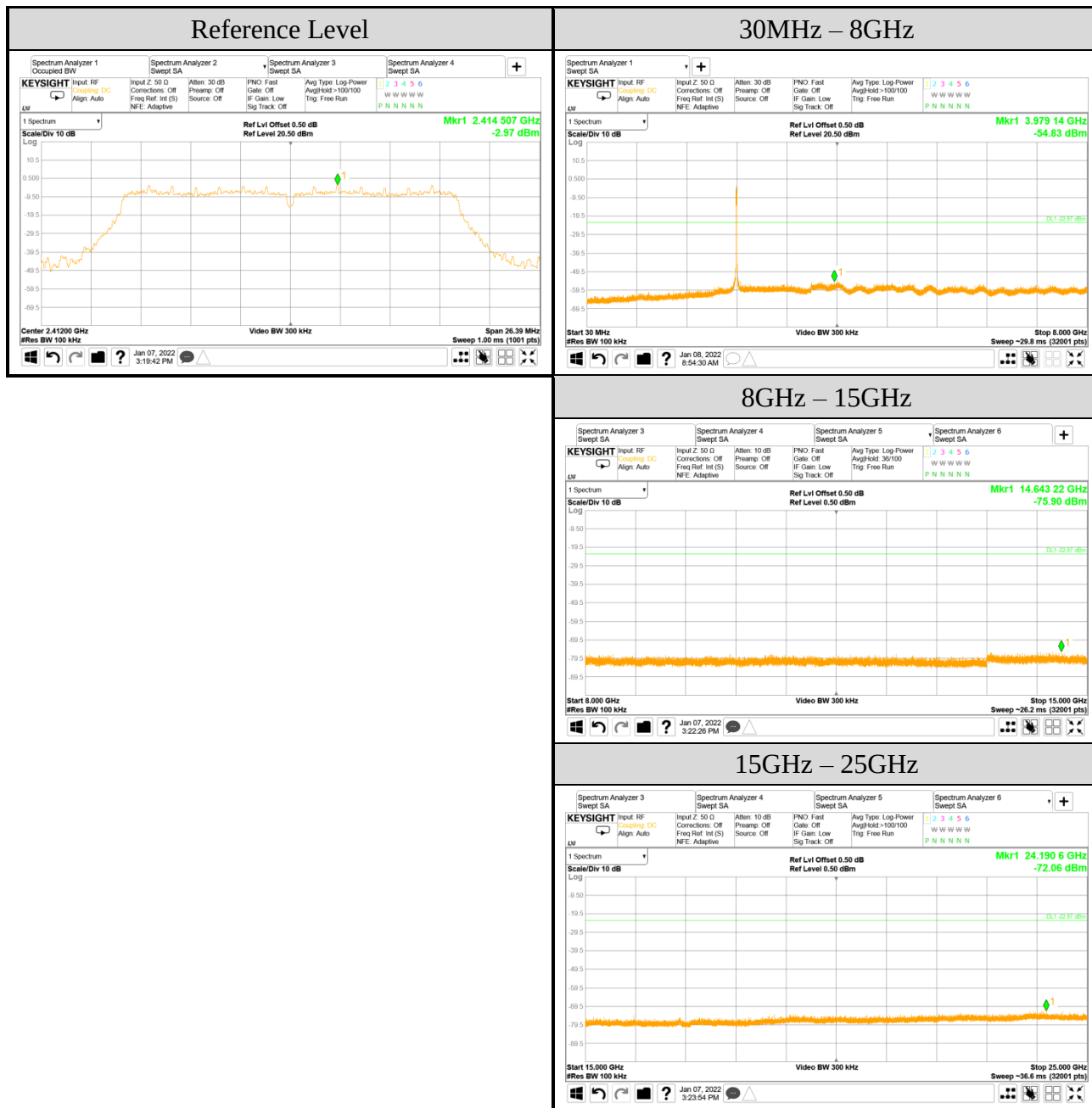
測試日期	2022/01/07	環境溫/濕度	17°C/69%
電纜損失	0.5dB	模式	802.11g
		測試頻率	2437MHz
測試電壓	DC 3.7V (經鋰電池供電)	測試人員	Sam Chang
Simultaneous Factor10 log(n) (Note: “n” is antenna number)			0dB



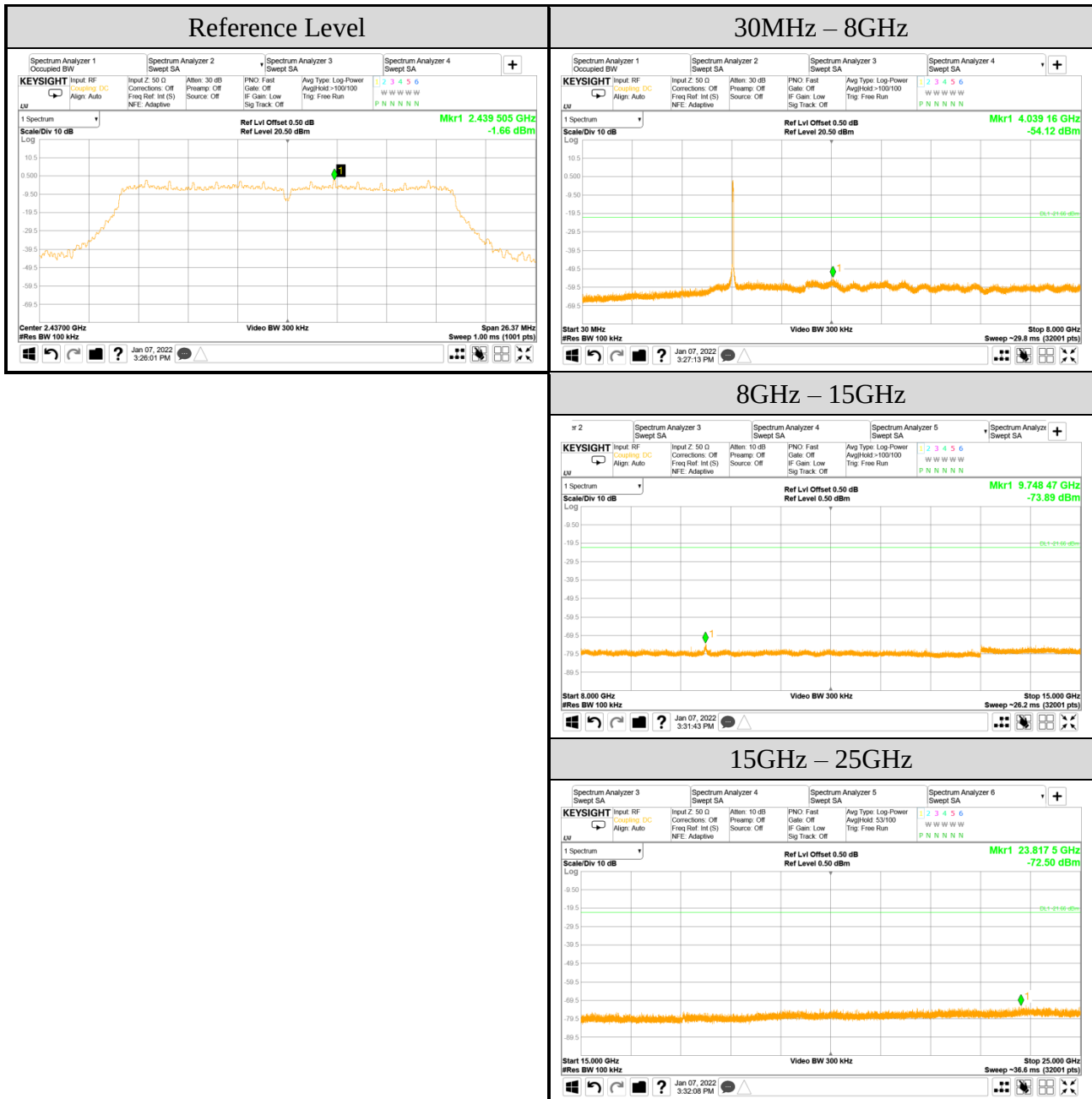
測試日期	2022/01/07	環境溫/濕度	17°C/69%
電纜損失	0.5dB	模式	802.11g
		測試頻率	2462MHz
測試電壓	DC 3.7V (經鋰電池供電)	測試人員	Sam Chang
Simultaneous Factor10 log(n) (Note: “n” is antenna number)			0dB



測試日期	2022/01/07	環境溫/濕度	17°C /69%
電纜損失	0.5dB	模式	802.11n-HT20
		測試頻率	2412MHz
測試電壓	DC 3.7V (經鋰電池供電)	測試人員	Sam Chang
Simultaneous Factor10 log(n) (Note: “n” is antenna number)			0dB



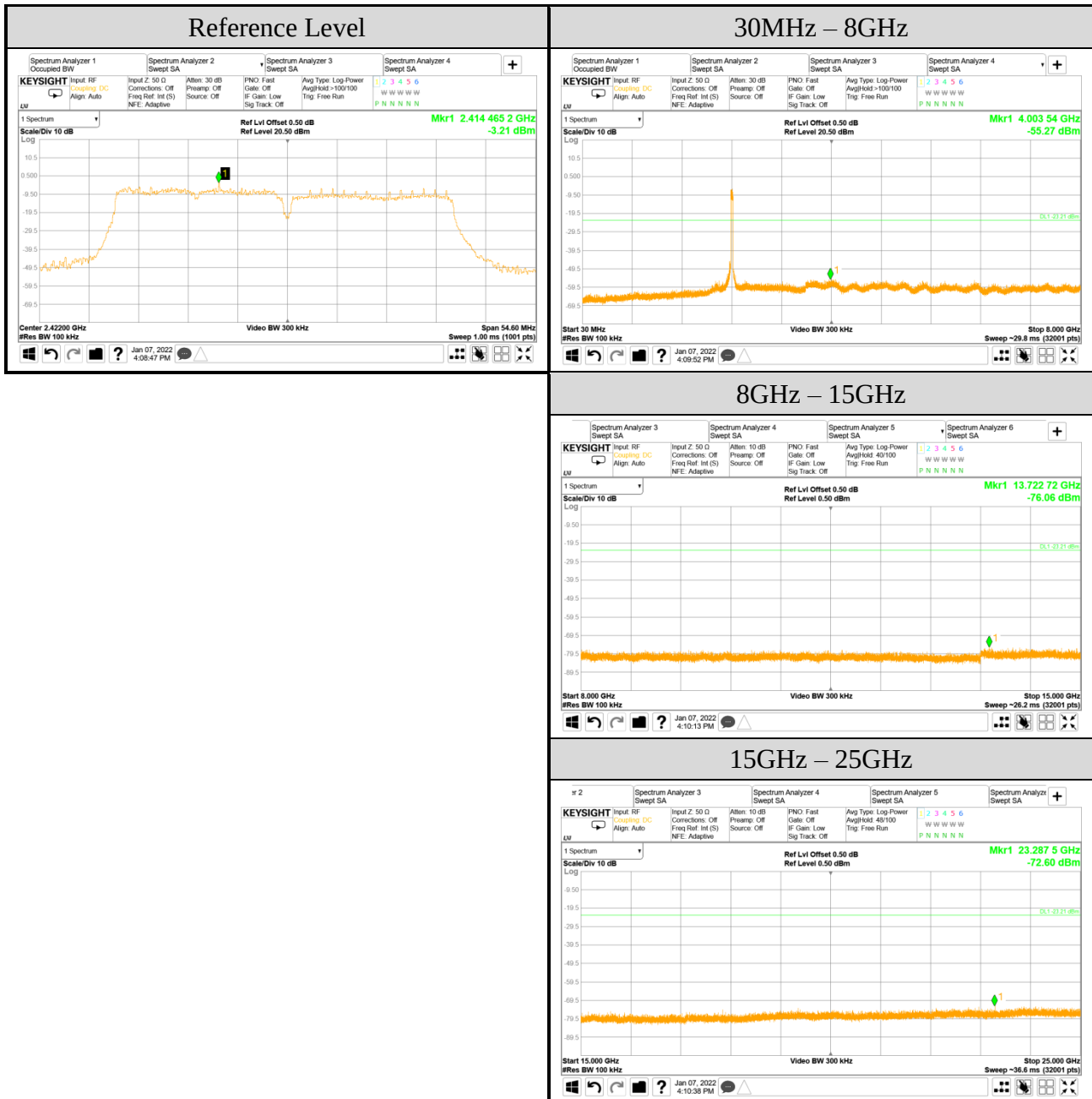
測試日期	2022/01/07	環境溫/濕度	17°C/69%
電纜損失	0.5dB	模式	802.11n-HT20
		測試頻率	2437MHz
測試電壓	DC 3.7V (經鋰電池供電)	測試人員	Sam Chang
Simultaneous Factor10 log(n) (Note: “n” is antenna number)			0dB



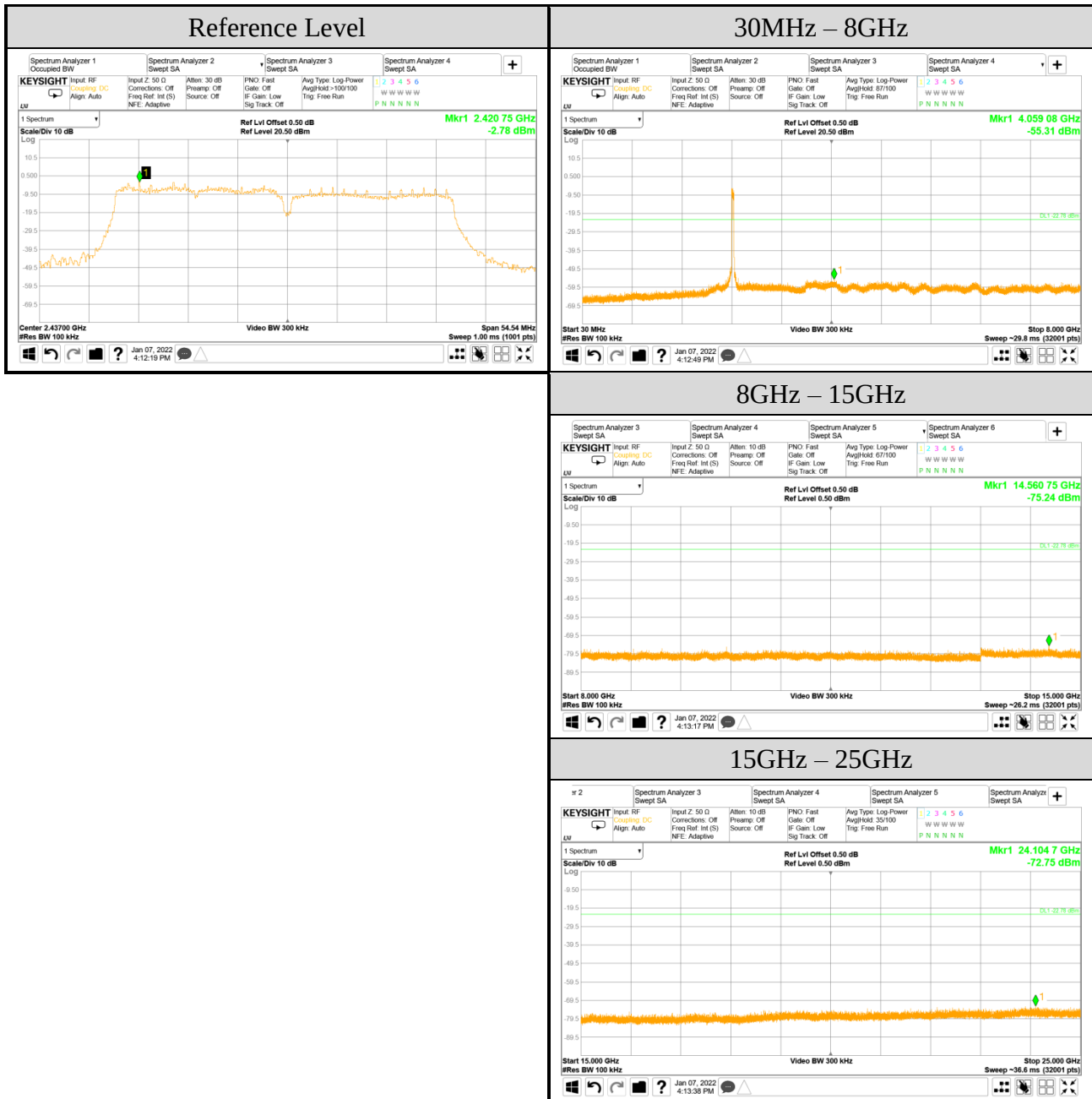
測試日期	2022/01/07	環境溫/濕度	17°C /69%
電纜損失	0.5dB	模式	802.11n-HT20
		測試頻率	2462MHz
測試電壓	DC 3.7V (經鋰電池供電)	測試人員	Sam Chang
Simultaneous Factor10 log(n) (Note: “n” is antenna number)			0dB



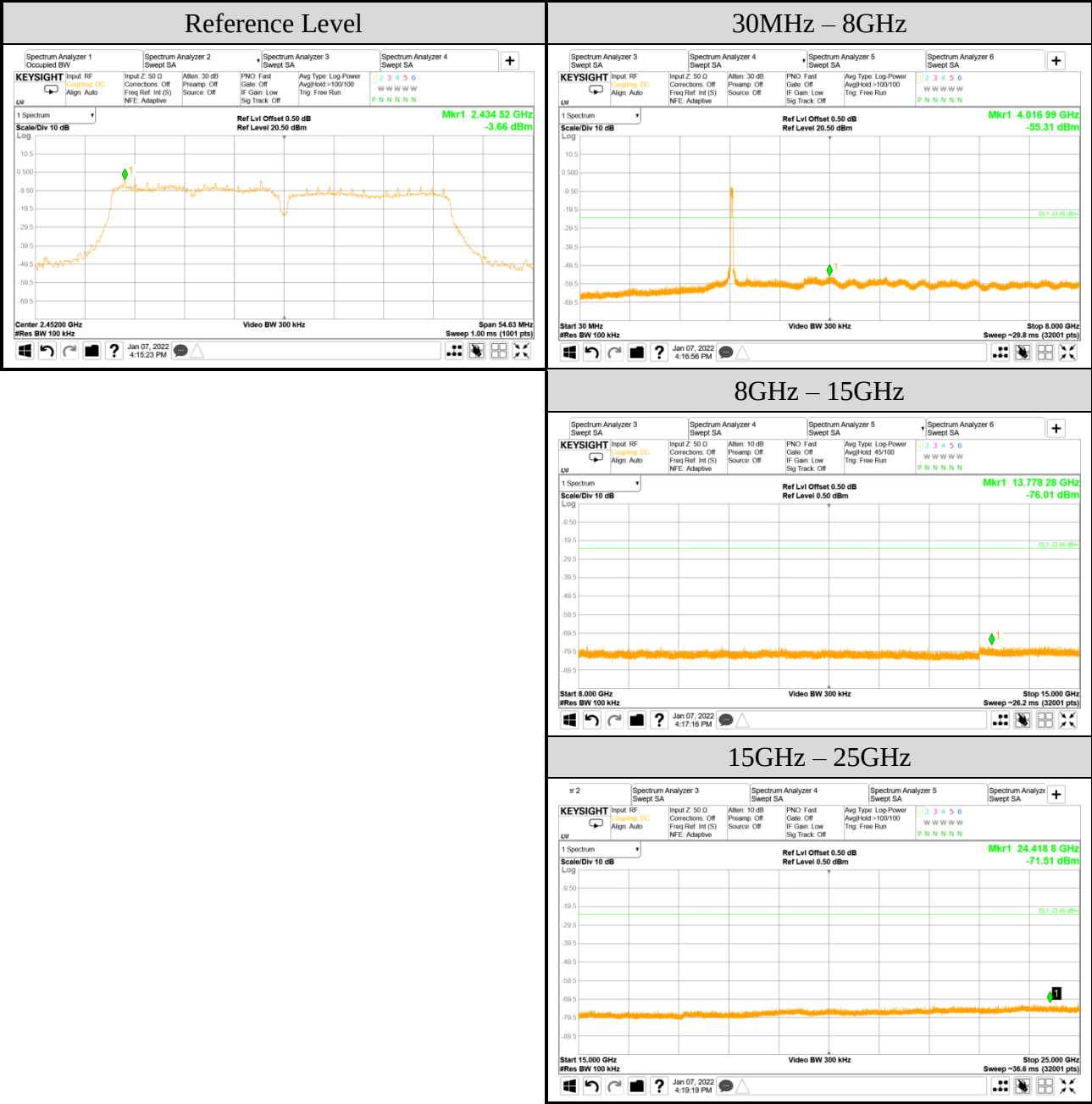
測試日期	2022/01/07	環境溫/濕度	17°C /69%
電纜損失	0.5dB	模式	802.11n-HT40
		測試頻率	2422MHz
測試電壓	DC 3.7V (經鋰電池供電)	測試人員	Sam Chang
Simultaneous Factor10 log(n) (Note: “n” is antenna number)			0dB



測試日期	2022/01/07	環境溫/濕度	17°C /69%
電纜損失	0.5dB	模式	802.11n-HT40
		測試頻率	2437MHz
測試電壓	DC 3.7V (經鋰電池供電)	測試人員	Sam Chang
Simultaneous Factor10 log(n) (Note: “n” is antenna number)			0dB



測試日期	2022/01/07	環境溫/濕度	17°C /69%
電纜損失	0.5dB	模式	802.11n-HT40
		測試頻率	2452MHz
測試電壓	DC 3.7V (經鋰電池供電)	測試人員	Sam Chang
Simultaneous Factor10 log(n) (Note: “n” is antenna number)			0dB



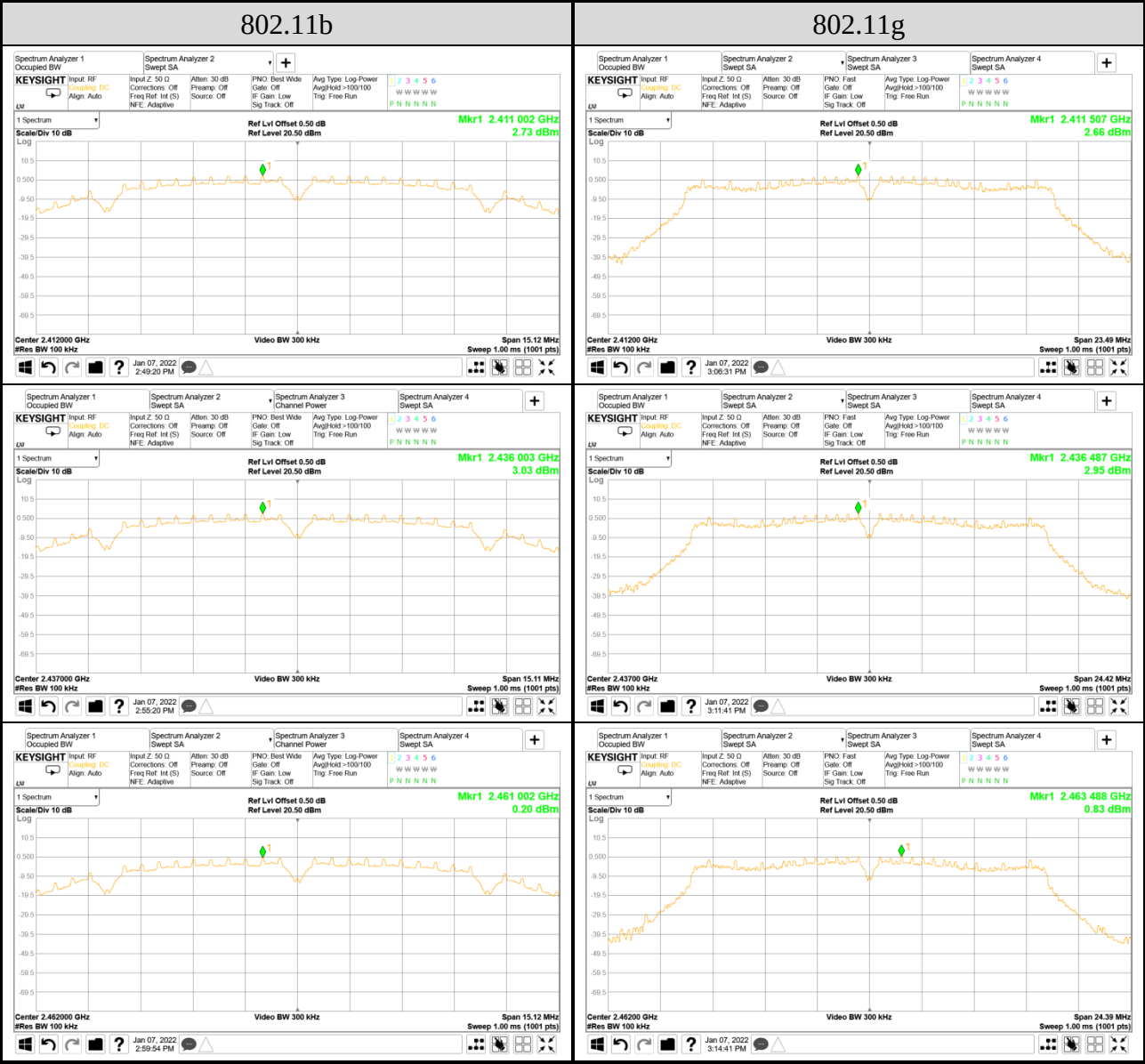
7. 功率密度之量測

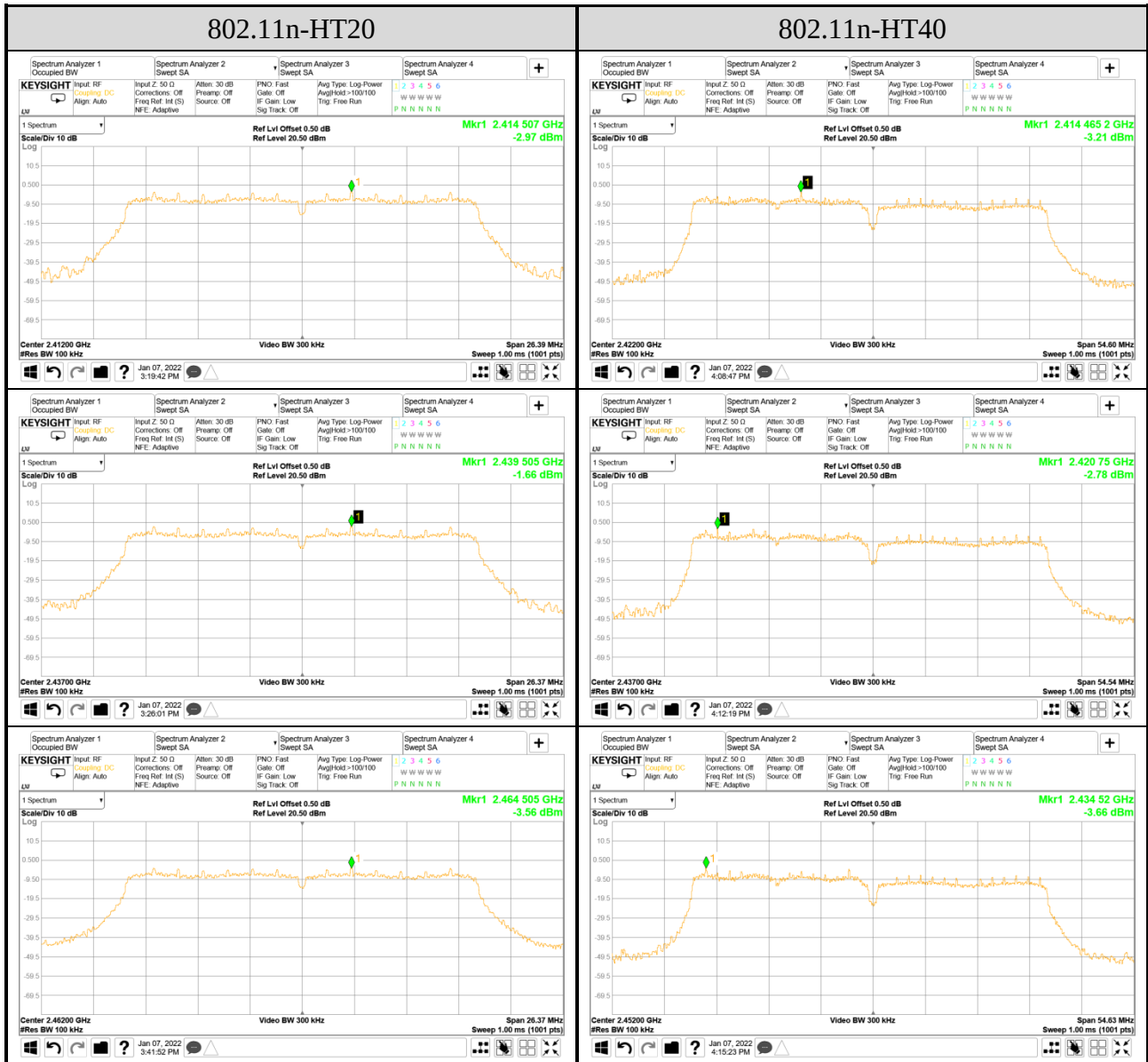
測試日期	2022/01/07	環境溫/濕度	17°C /69%
電纜損失	0.5dB	測試人員	Sam Chang
測試電壓	DC 3.7V (經鋰電池供電)		
Simultaneous Factor10 log(n) (Note: “n” is antenna number)			0dB

7.1. 功率密度

模式	測試頻率(MHz)	功率密度 (dBm/100kHz)	限制值 (dBm/3kHz)
802.11b	2412	2.73	<8
	2437	3.03	
	2462	0.20	
802.11g	2412	2.66	
	2437	2.95	
	2462	0.83	
802.11n-HT20	2412	-2.97	
	2437	-1.66	
	2462	-3.56	
802.11n-HT40	2422	-3.21	
	2437	-2.78	
	2452	-3.66	

7.2. 功率密度之量測圖





8. 電波暴露量之量測

測試日期	2022/01/07 ~ 08	環境溫/濕度	17°C/65-69%
電纜損失	0.5dB	測試人員	Sam Chang
測試電壓	DC 3.7V (經鋰電池供電)		

● WLAN 2.4G

距離人體(r):	20	cm		
最大發射功率(P):	22.84	dBm	=	192.309 mW
最大天線增益(G):	2.1	dBi	=	1.622 Numerical
MPE (S) = (P*G) / (4*π*r ²) =	0.0621		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：0.0621mW/cm ²				

● WLAN 5G

距離人體(r):	20	cm		
最大發射功率(P):	9.98	dBm	=	9.954 mW
最大天線增益(G):	2.3	dBi	=	1.698 Numerical
MPE (S) = (P*G) / (4*π*r ²) =	0.0034		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：0.0034mW/cm ²				