

附錄一

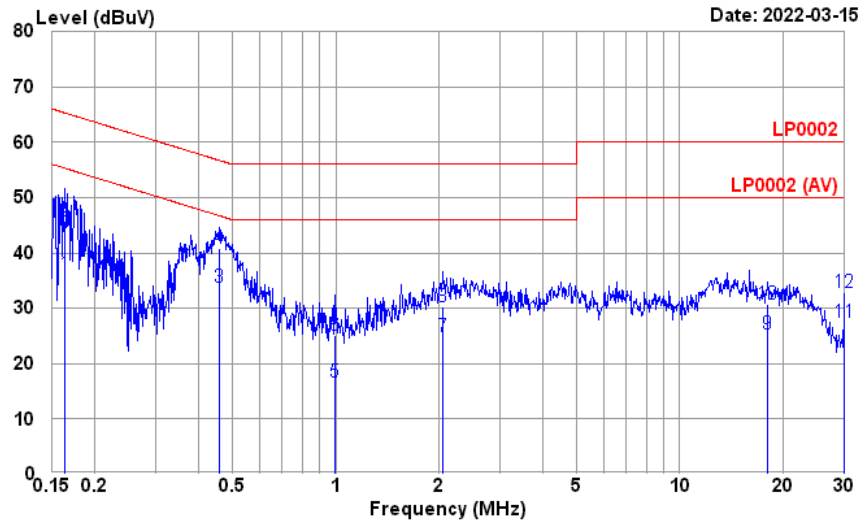
受測裝置之測試結果

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1. 電源線傳導干擾之量測

測試日期	2022/03/15	環境溫/濕度	24.6°C/58%
測試電壓	DC 5V (透過 USB 經筆記型電腦供電)		

Data: 1 File: C:\Documents and Settings\Sr-no7\桌面\1C1M2203013-C-D-RF\1C1M2202291-C-D-RF



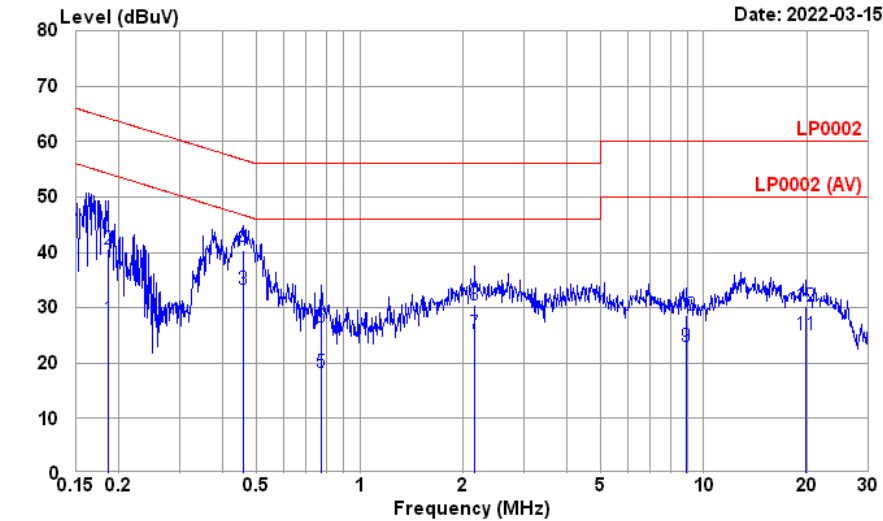
Site No. : No.7 Shielded Room Data No. : 1
Instrument 1 : Receiver ESCI(276)
Instrument 2 : ESH2-Z5 (366)(A) | CE-07 | ESH3-Z2 (495)
Limit : LP0002 Phase : NEUTRAL
Environment : 24.6°C / 58 % Engineer : Nick_Du
EUT Model : W201T Test Rating : DC 5V(VIA USB)
Test Mode : Operating

	Freq. (MHz)	AMN Factor (dB)	Cable Loss (dB)	Pulse Att. (dB)	Reading (dBμV)	Emission Level (dBμV)	Limits (dBμV)	Margin (dB)	Remark
1	0.163	0.16	0.03	9.85	26.15	36.19	55.30	19.11	Average
2	0.163	0.16	0.03	9.85	35.62	45.66	65.30	19.64	QP
3	0.459	0.18	0.03	9.86	23.74	33.81	46.71	12.90	Average
4	0.459	0.18	0.03	9.86	30.72	40.79	56.71	15.92	QP
5	1.000	0.20	0.04	9.86	6.54	16.64	46.00	29.36	Average
6	1.000	0.20	0.04	9.86	14.99	25.09	56.00	30.91	QP
7	2.055	0.23	0.06	9.86	14.81	24.96	46.00	21.04	Average
8	2.055	0.23	0.06	9.86	20.23	30.38	56.00	25.62	QP
9	18.039	0.70	0.20	9.93	14.47	25.30	50.00	24.70	Average
10	18.039	0.70	0.20	9.93	19.89	30.72	60.00	29.28	QP
11	30.000	0.69	0.26	10.01	16.48	27.44	50.00	22.56	Average
12	30.000	0.69	0.26	10.01	21.99	32.95	60.00	27.05	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	2022/03/15	環境溫/濕度	24.6°C/58%
測試電壓	DC 5V (透過 USB 經筆記型電腦供電)		

Data: 2 File: C:\Documents and Settings\Sr-no7\桌面\IC1M2203013-C-D-RF\IC1M2202291-C-D-RF



Site No.	: No.7 Shielded Room	Data No.	: 2
Instrument 1	: Receiver ESCI(276)		
Instrument 2	: ESH2-Z5 (366)(A) CE-07 ESH3-Z2 (495)		
Limit	: LP0002	Phase	: LINE
Environment	: 24.6°C / 58 %	Engineer	: Hick_Du
EUT Model	: W201T	Test Rating	: DC 5V(VIA USB)
Test Mode	: Operating		

	Freq. (MHz)	AMN Factor (dB)	Cable Loss (dB)	Pulse Att. (dB)	Reading (dBμV)	Emission Level (dBμV)	Limits (dBμV)	Margin (dB)	Remark
1	0.185	0.12	0.03	9.85	18.00	28.00	54.24	26.24	Average
2	0.185	0.12	0.03	9.85	30.69	40.69	64.24	23.55	QP
3	0.459	0.13	0.03	9.86	23.39	33.41	46.71	13.30	Average
4	0.459	0.13	0.03	9.86	30.40	40.42	56.71	16.29	QP
5	0.775	0.15	0.04	9.86	8.33	18.38	46.00	27.62	Average
6	0.775	0.15	0.04	9.86	16.59	26.64	56.00	29.36	QP
7	2.155	0.19	0.06	9.86	15.13	25.24	46.00	20.76	Average
8	2.155	0.19	0.06	9.86	20.36	30.47	56.00	25.53	QP
9	8.869	0.30	0.14	9.88	12.76	23.08	50.00	26.92	Average
10	8.869	0.30	0.14	9.88	18.23	28.55	60.00	31.45	QP
11	19.845	0.59	0.21	9.94	14.49	25.23	50.00	24.77	Average
12	19.845	0.59	0.21	9.94	19.53	30.27	60.00	29.73	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

本裝置有兩種電源供應模式分別為(1)電池(DC 7.4V)、(2)USB 供電(DC 5V)，實驗室以 USB 供電(DC 5V)進行量測，依下列測試模式進行量測，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：

模式	動作狀態	基本頻率	量測頻率範圍
BLE	發射	2402MHz*	30-1000MHz
			1000-25000MHz
		2440MHz	1000-25000MHz
	接收	2480MHz	1000-25000MHz
		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
BLE	發射	2402MHz	2310-2410MHz
		2480MHz	2430-2930MHz

測試日期	2022/03/11 ~ 16	環境溫/濕度	22-23.7°C/52-62%
測試電壓	DC 5V (透過 USB 經筆記型電腦供電)	測試人員	Martin Chen

2.1. 30-1000MHz 頻率範圍，其他不必要發射量測

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
104.69	16.88	2.33	26.27	48.05	40.99	43.50	2.51	Peak
278.32	18.71	4.12	25.71	45.99	43.11	46.00	2.89	Peak
480.08	22.81	6.27	27.06	41.13	43.15	46.00	2.85	Peak
700.27	24.78	7.27	27.46	36.01	40.60	46.00	5.40	Peak
842.86	26.10	8.09	27.20	35.08	42.07	46.00	3.93	Peak
882.63	26.24	8.33	27.09	35.93	43.41	46.00	2.59	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
30.00	23.65	1.41	0.00	11.40	36.46	40.00	3.54	Peak
46.49	15.61	1.76	0.00	21.60	38.97	40.00	1.03	Peak
286.08	18.84	4.19	25.70	42.56	39.89	46.00	6.11	Peak
480.08	22.81	6.27	27.06	40.74	42.76	46.00	3.24	Peak
708.03	24.90	7.33	27.45	35.46	40.24	46.00	5.76	Peak
903.00	26.33	8.46	27.01	34.87	42.65	46.00	3.35	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
106.63	17.05	2.36	26.25	47.87	41.03	43.50	2.47	Peak
285.11	18.82	4.18	25.70	45.33	42.63	46.00	3.37	Peak
471.35	22.68	6.20	27.00	40.57	42.45	46.00	3.55	Peak
700.27	24.78	7.27	27.46	35.90	40.49	46.00	5.51	Peak
870.99	26.20	8.27	27.11	35.01	42.37	46.00	3.63	Peak
938.89	26.63	8.65	26.88	35.26	43.66	46.00	2.34	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
30.00	23.65	1.41	0.00	11.60	36.66	40.00	3.34	Peak
46.49	15.61	1.76	0.00	21.50	38.87	40.00	1.13	Peak
290.93	18.92	4.23	25.70	43.00	40.45	46.00	5.55	Peak
480.08	22.81	6.27	27.06	41.63	43.65	46.00	2.35	Peak
817.64	26.01	7.94	27.27	34.65	41.33	46.00	4.67	Peak
936.95	26.60	8.63	26.91	34.56	42.88	46.00	3.12	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	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
4804.00	33.30	10.80	34.44	30.89	40.55	54.00	13.45	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
4804.00	33.30	10.80	34.44	31.01	40.67	54.00	13.33	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
4880.00	33.40	10.92	34.43	32.20	42.09	54.00	11.91	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
4880.00	33.40	10.92	34.43	31.69	41.58	54.00	12.42	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
4960.00	33.55	11.09	34.41	33.61	43.84	54.00	10.16	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
4960.00	33.55	11.09	34.41	31.94	42.17	54.00	11.83	Peak

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

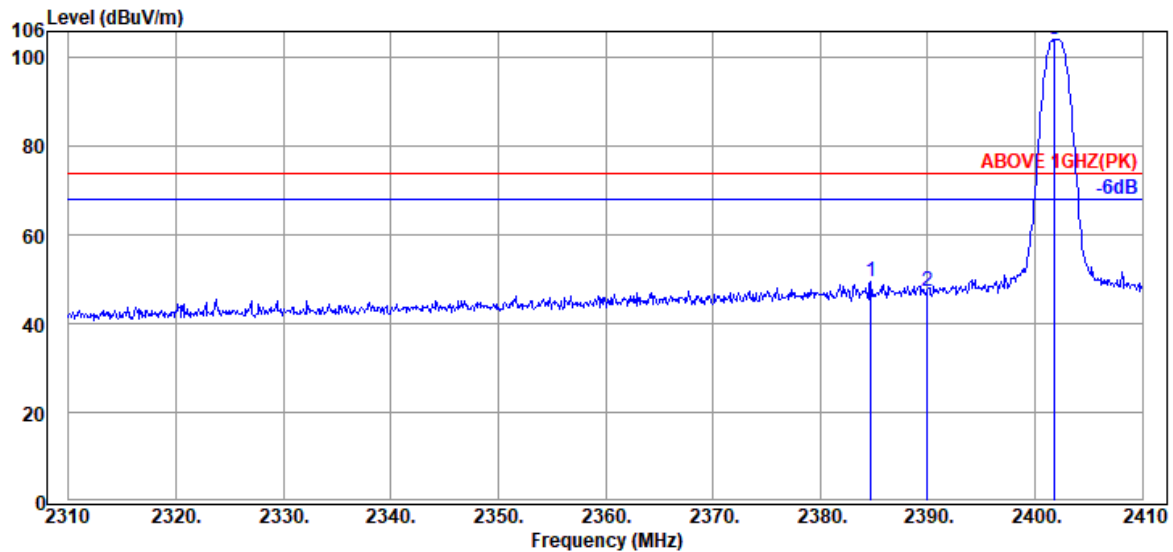
Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Gain (dB)	Reading Level (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
4880.00	33.40	10.92	34.43	32.75	42.64	54.00	11.36	Peak

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
4880.00	33.40	10.92	34.43	31.33	41.22	54.00	12.78	Peak

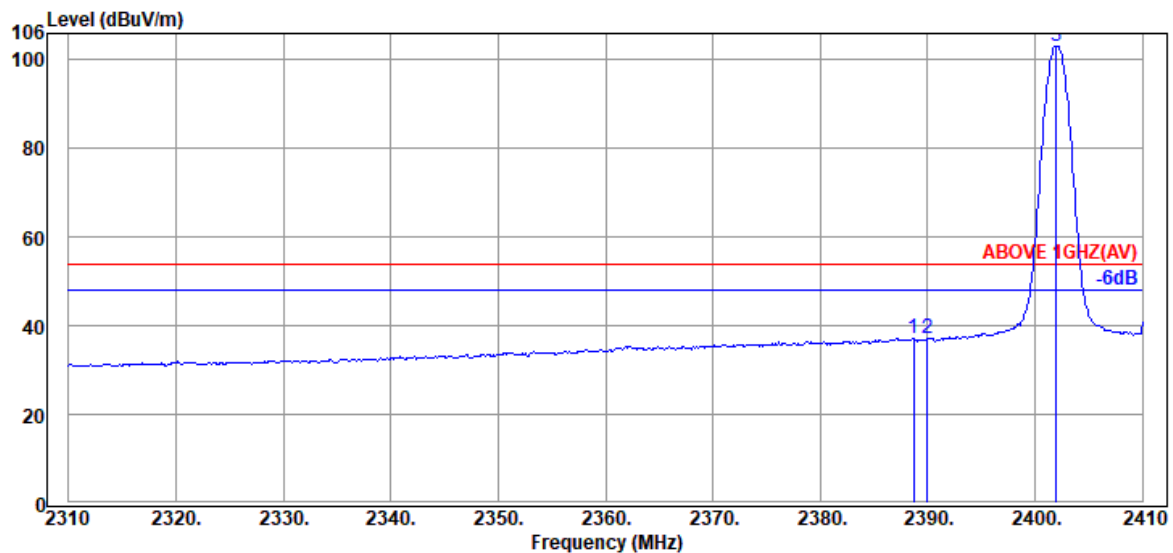
2.3. 禁用頻帶量測結果 (其他不必要發射)

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
2384.70	28.27	8.27	34.53	47.50	49.51	74.00	24.49	Peak
2390.00	28.27	8.27	34.54	45.45	47.45	74.00	26.55	Peak
@ 2401.80	28.30	8.29	34.54	102.18	104.23	---	---	Peak

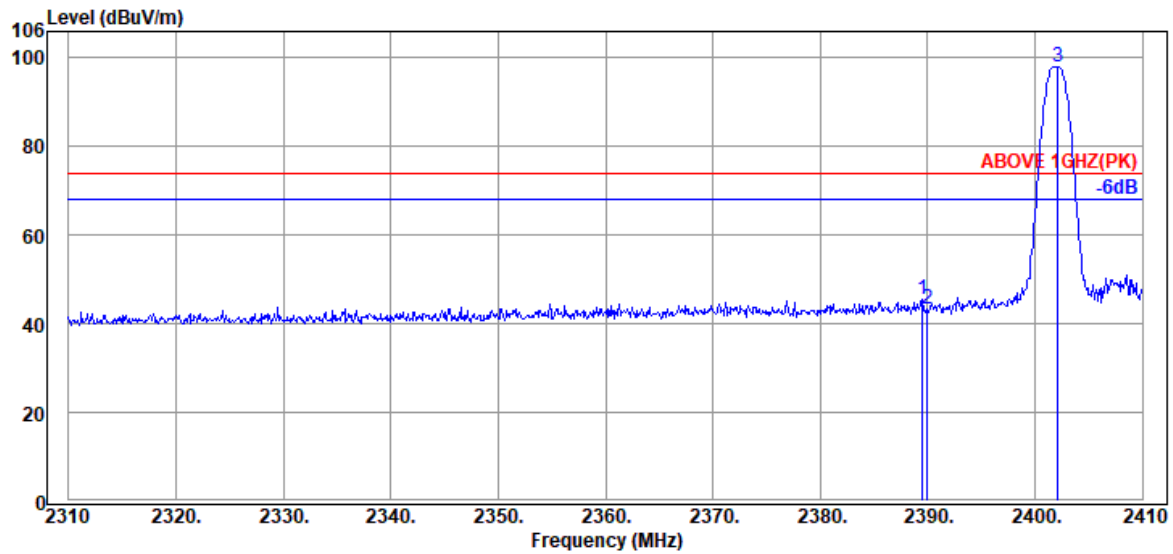


Antenna at Horizontal Polarization

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
2388.70	28.27	8.27	34.53	35.13	37.14	54.00	16.86	Average
2390.00	28.27	8.27	34.54	35.04	37.04	54.00	16.96	Average
@ 2402.00	28.30	8.29	34.54	101.09	103.14	---	---	Average

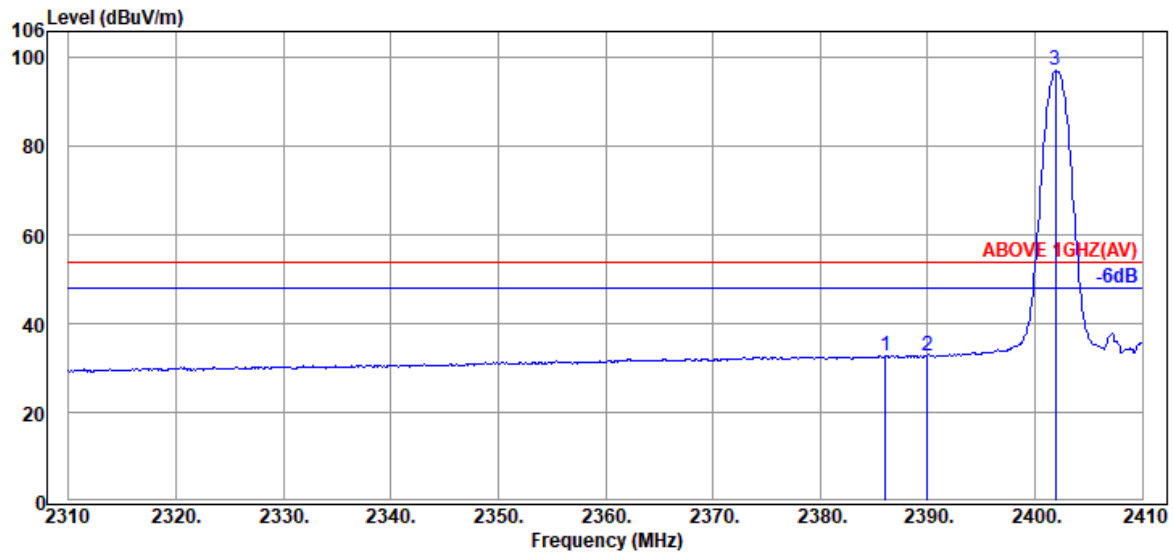
備註：“@”為主波，在此章節是不予以判定。

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
2389.50	28.27	8.27	34.53	43.35	45.36	74.00	28.64	Peak
2390.00	28.27	8.27	34.54	41.33	43.33	74.00	30.67	Peak
@ 2402.10	28.30	8.29	34.54	96.02	98.07	---	---	Peak

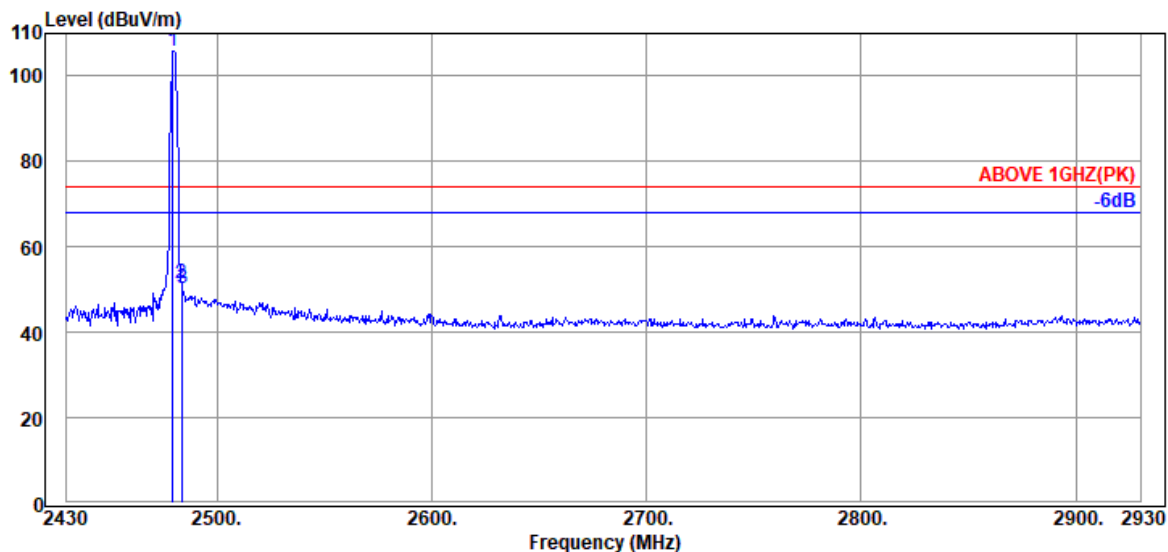


Antenna at Vertical Polarization

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
2386.10	28.27	8.27	34.53	30.77	32.78	54.00	21.22	Average
2390.00	28.27	8.27	34.54	30.93	32.93	54.00	21.07	Average
@ 2401.90	28.30	8.29	34.54	95.10	97.15	---	---	Average

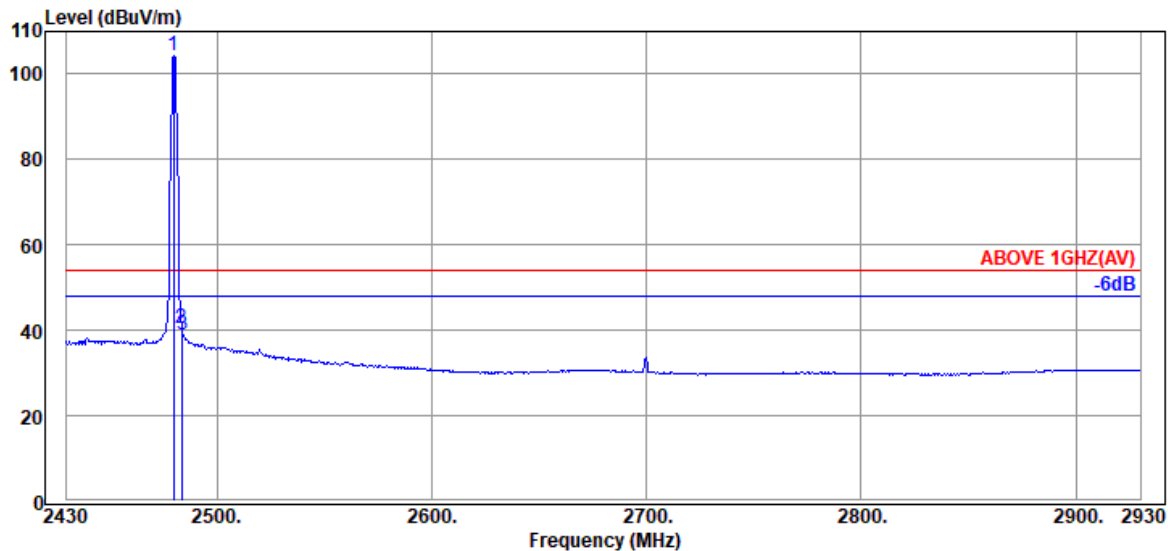
備註：“@”為主波，在此章節是不予以判定。

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 (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
@	2479.50	28.56	8.36	34.55	103.43	105.80	---	---	Peak
	2483.50	28.57	8.36	34.55	49.09	51.47	74.00	22.53	Peak
	2484.00	28.57	8.36	34.55	47.96	50.34	74.00	23.66	Peak

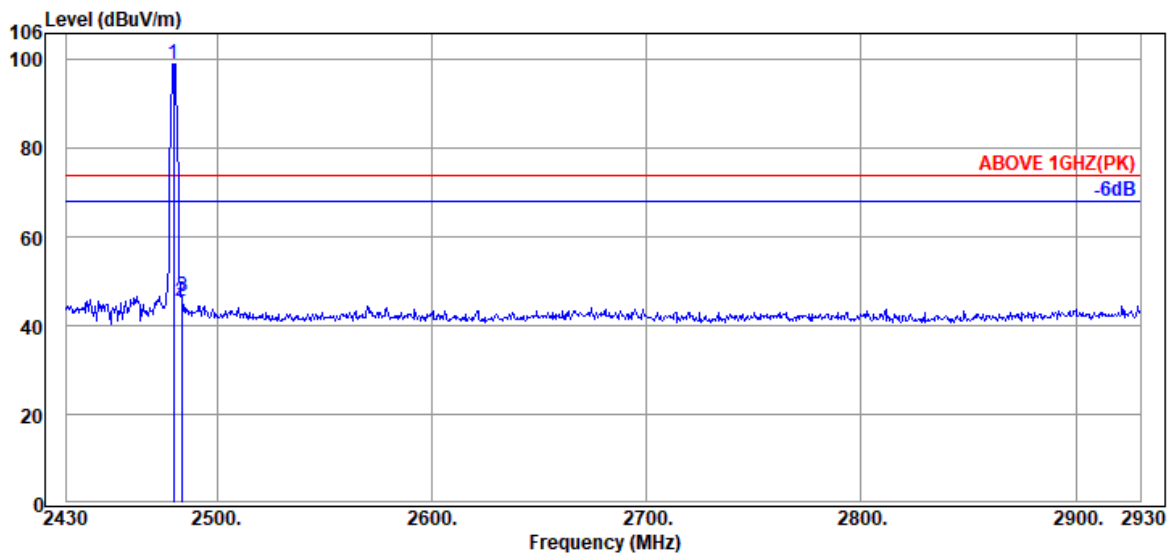


Antenna at Horizontal Polarization

	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
@	2480.00	28.56	8.36	34.55	102.07	104.44	---	---	Average
	2483.50	28.57	8.36	34.55	38.20	40.58	54.00	13.42	Average
	2484.00	28.57	8.36	34.55	36.56	38.94	54.00	15.06	Average

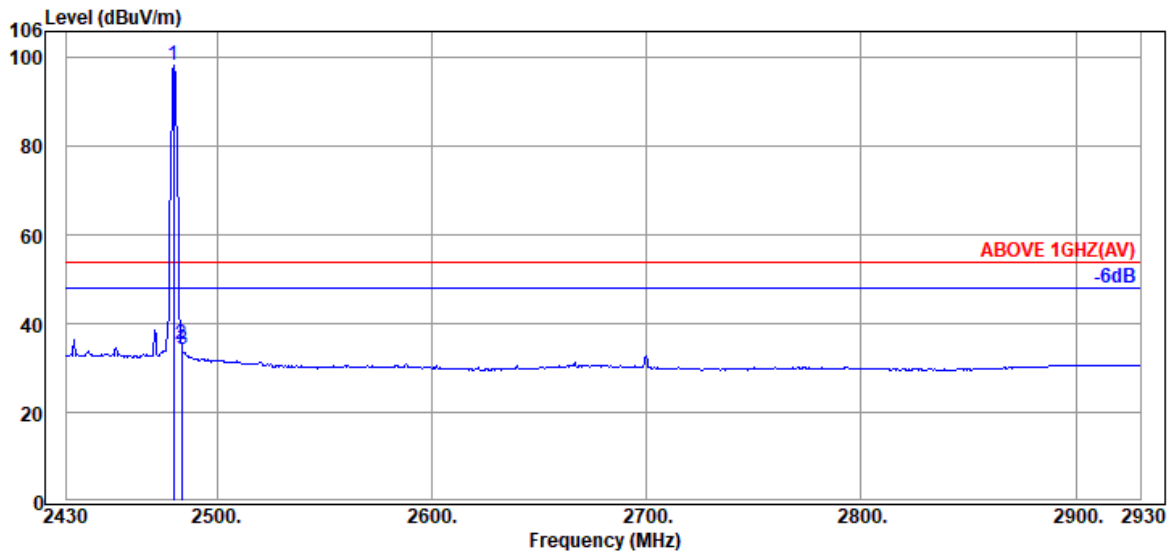
備註：“@”為主波，在此章節是不予以判定。

Mode	BLE	Frequency	TX 2480MHz
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Antenna at Vertical Polarization

	Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Gain (dB)	Reading Level (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
@	2480.00	28.56	8.36	34.55	96.84	99.21	---	---	Peak
	2483.50	28.57	8.36	34.55	43.17	45.55	74.00	28.45	Peak
	2484.00	28.57	8.36	34.55	44.26	46.64	74.00	27.36	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
@	2480.00	28.56	8.36	34.55	96.06	98.43	---	---	Average
	2483.50	28.57	8.36	34.55	32.98	35.36	54.00	18.64	Average
	2484.00	28.57	8.36	34.55	31.84	34.22	54.00	19.78	Average

備註：“@”為主波，在此章節是不予以判定。

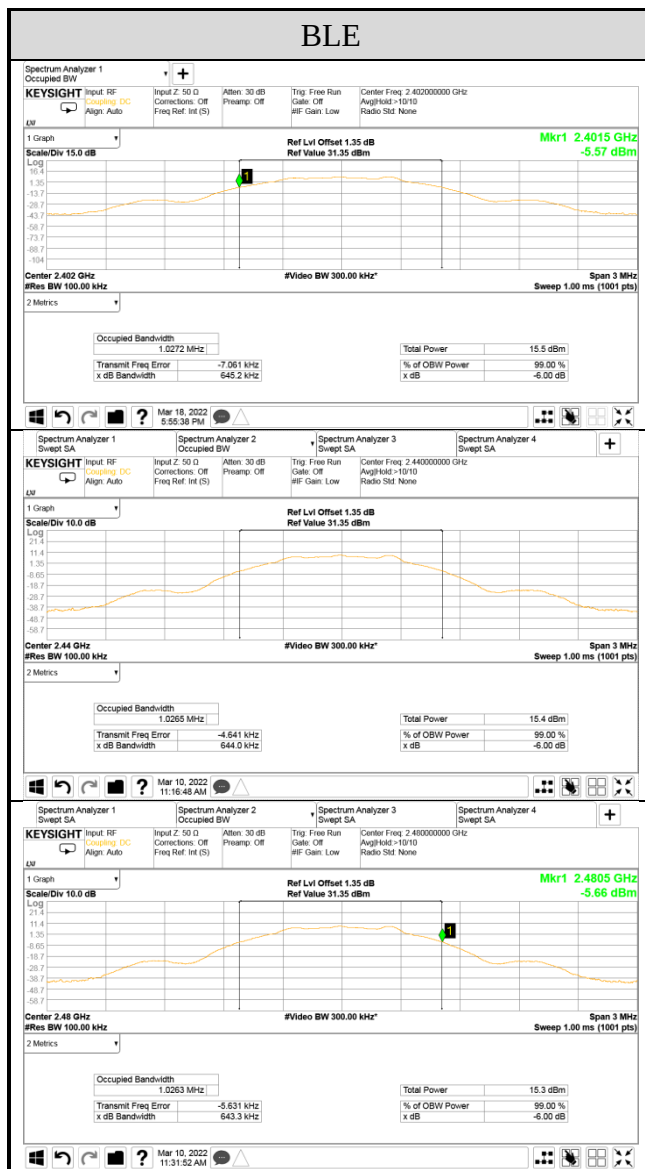
3. 發射頻寬之量測

測試日期	2022/03/10 ~ 18	環境溫/濕度	21 ~ 23°C/57 ~ 60%
測試電壓	DC 7.4V (內建鋰電池供電)	電纜損失	1.35dB
		測試人員	Martin Chen

3.1. 發射頻寬

模式	測試頻率 (MHz)	6dB 頻寬 (MHz)	限制值 (kHz)
BLE	2402	0.6452	>500
	2440	0.6440	
	2480	0.6433	

3.2. 發射頻寬之量測圖



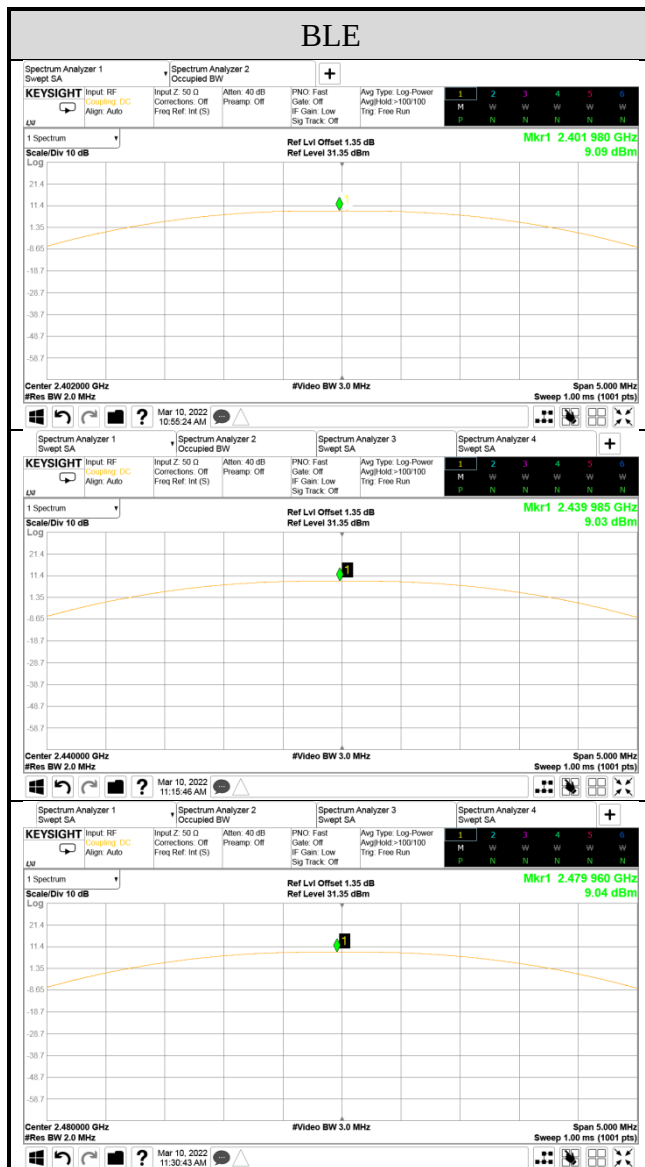
4. 峰值輸出功率之量測

測試日期	2022/03/10	環境溫/濕度	21°C/60%
測試電壓	DC 7.4V (內建鋰電池供電)	電纜損失	1.35dB
		測試人員	Martin Chen

4.1. 峰值輸出功率

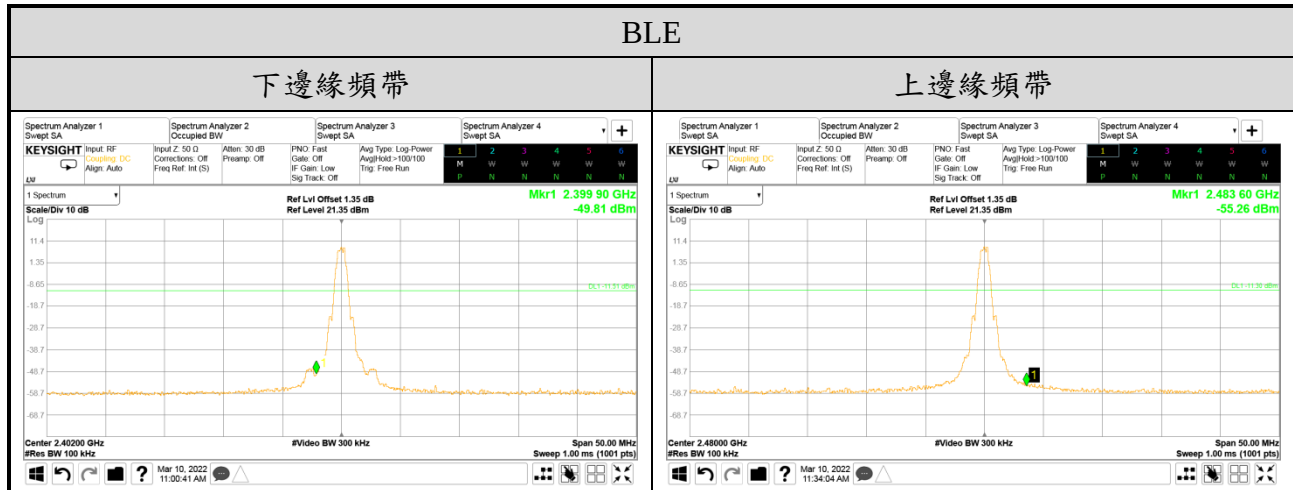
模式	測試頻率 (MHz)	最大輸出功率(dBm)	限制值 (dBm)
BLE	2402	9.09	30
	2440	9.03	
	2480	9.04	

4.2. 峰值輸出功率之量測圖



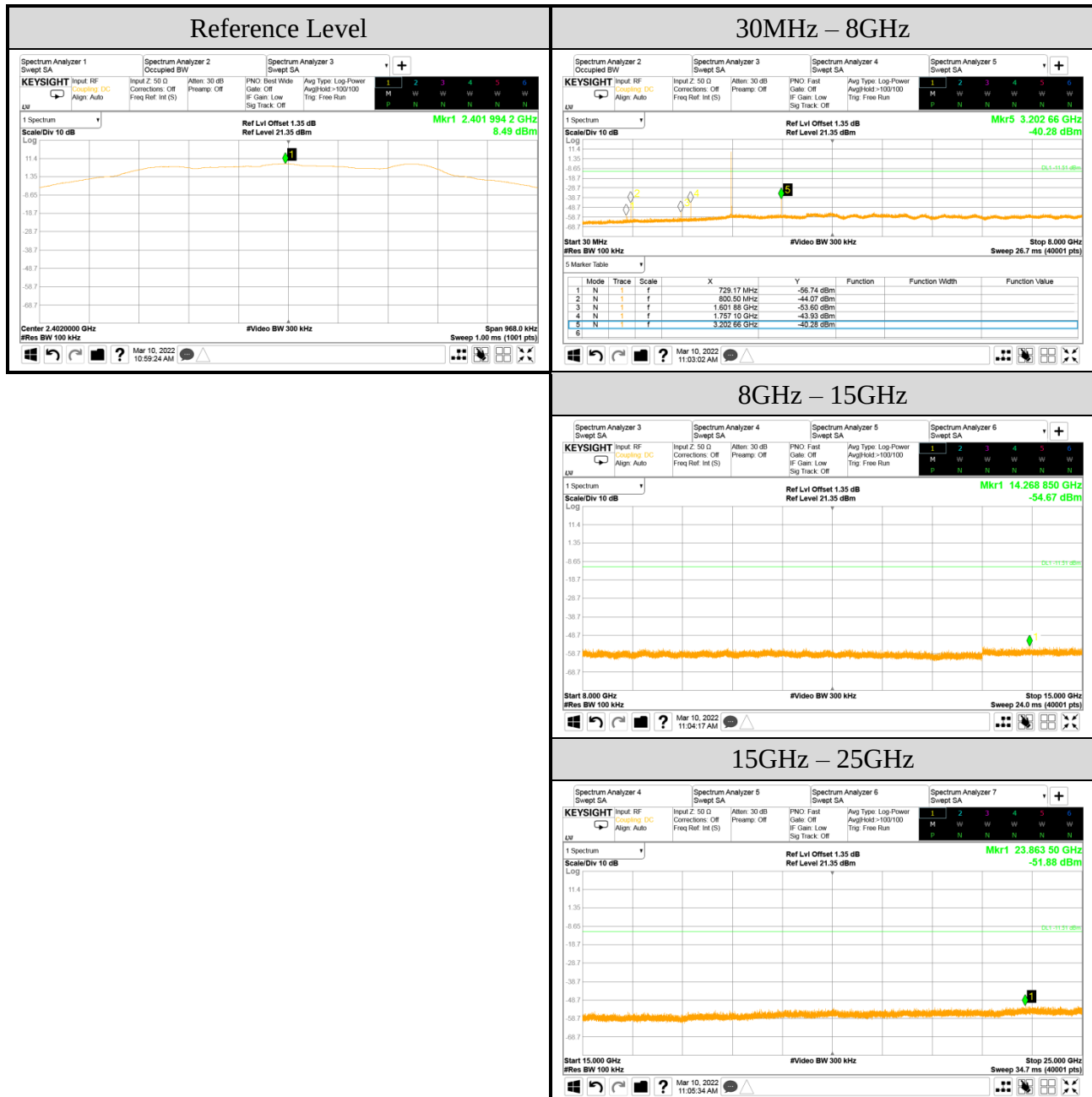
5. 頻帶邊緣之 RF 傳導發射之量測

測試日期	2022/03/10	環境溫/濕度	21°C/60%
測試電壓	DC 7.4V (內建鋰電池供電)	電纜損失	1.35dB
		測試人員	Martin Chen

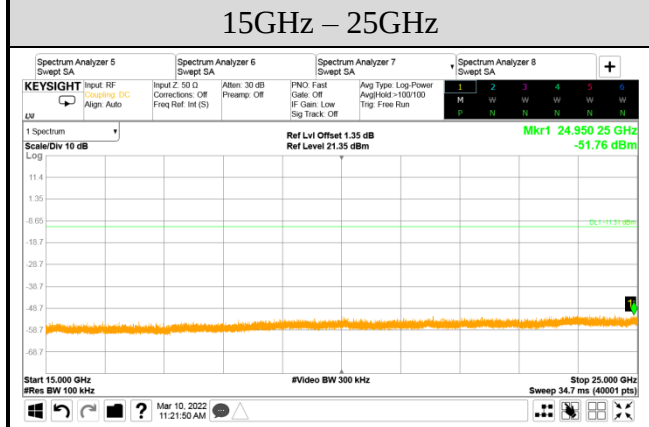
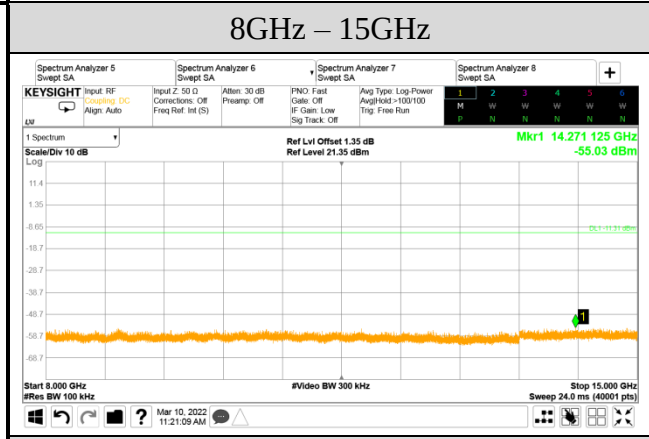
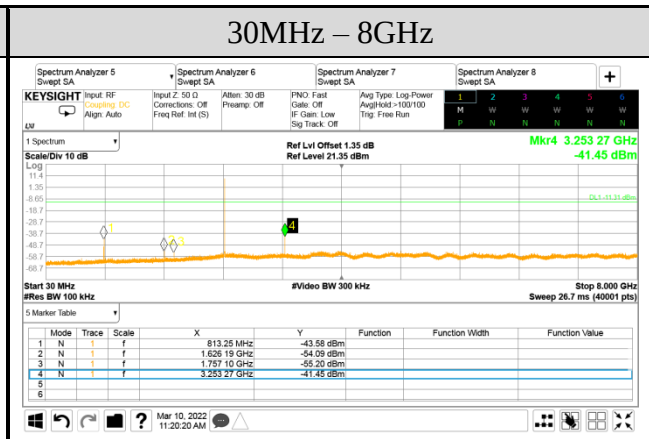
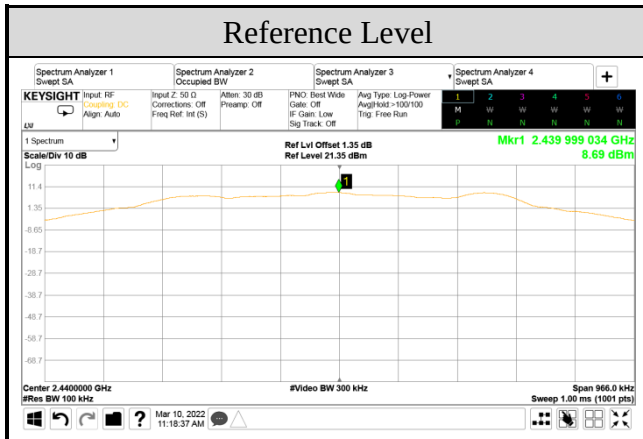


6. 混附發射之 RF 傳導發射之量測

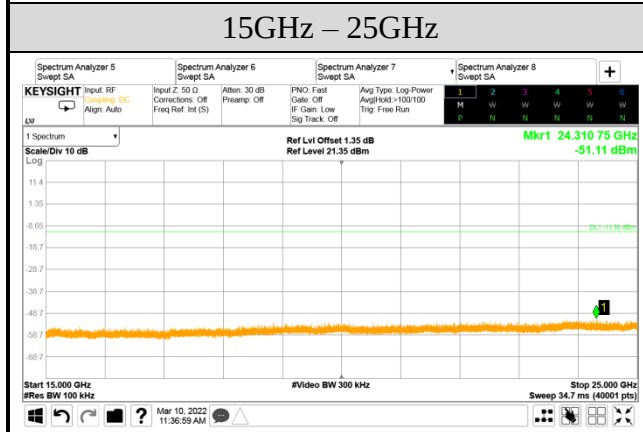
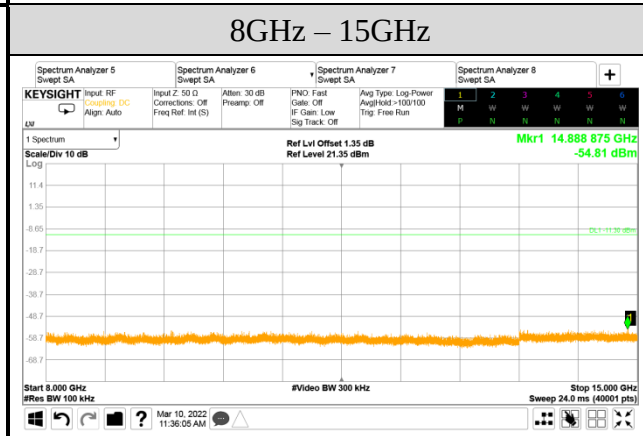
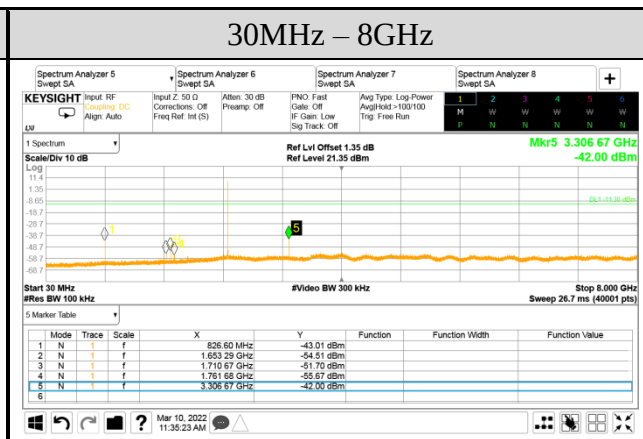
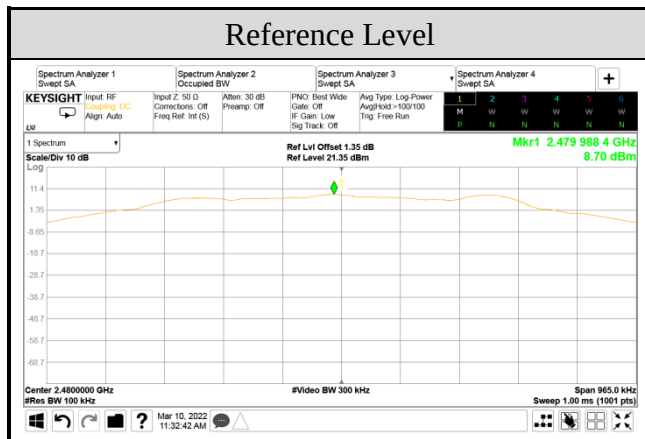
測試日期	2022/03/10	環境溫/濕度	21°C/60%
電纜損失	1.35dB	測試人員	Martin Chen
測試電壓	DC 7.4V (內建鋰電池供電)	模式	BLE
		測試頻率	2402MHz



測試日期	2022/03/10	環境溫/濕度	21°C/60%
電纜損失	1.35dB	測試人員	Martin Chen
測試電壓	DC 7.4V (內建鋰電池供電)	模式	BLE
		測試頻率	2440MHz



測試日期	2022/03/10	環境溫/濕度	21°C/60%
電纜損失	1.35dB	測試人員	Martin Chen
測試電壓	DC 7.4V (內建鋰電池供電)	模式	BLE
		測試頻率	2480MHz



7. 功率密度之量測

測試日期	2022/03/10 ~ 18	環境溫/濕度	21 ~ 23°C/57 ~ 60%
測試電壓	DC 7.4V (內建鋰電池供電)	電纜損失	1.35dB
		測試人員	Martin Chen

7.1. 功率密度

模式	測試頻率 (MHz)	功率密度 (dBm)	限制值 (dBm)
BLE	2402	-6.88	<8dBm/3kHz
	2440	-6.81	
	2480	-7.00	

7.2. 功率密度之量測圖

