

待測物名稱：Intel® Wi-Fi 6 AX201

待測物型號：AX201NGW

測試頻道：--

量測天線：--

檢測器：峰值

測試日期：107年09月21日

測試項目：功率密度

測試模式：Mode 1: SISO A: 發射器 802.11ax (20MHz)

測試距離：Conducted

環境溫度：20 °C

環境濕度：50 %

Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
01	2412	5.55	$\leq 8\text{dBm}$	Pass
07	2442	7.86	$\leq 8\text{dBm}$	Pass
11	2462	6.91	$\leq 8\text{dBm}$	Pass
12	2467	3.68	$\leq 8\text{dBm}$	Pass
13	2472	-10.99	$\leq 8\text{dBm}$	Pass

Figure Channel 01:

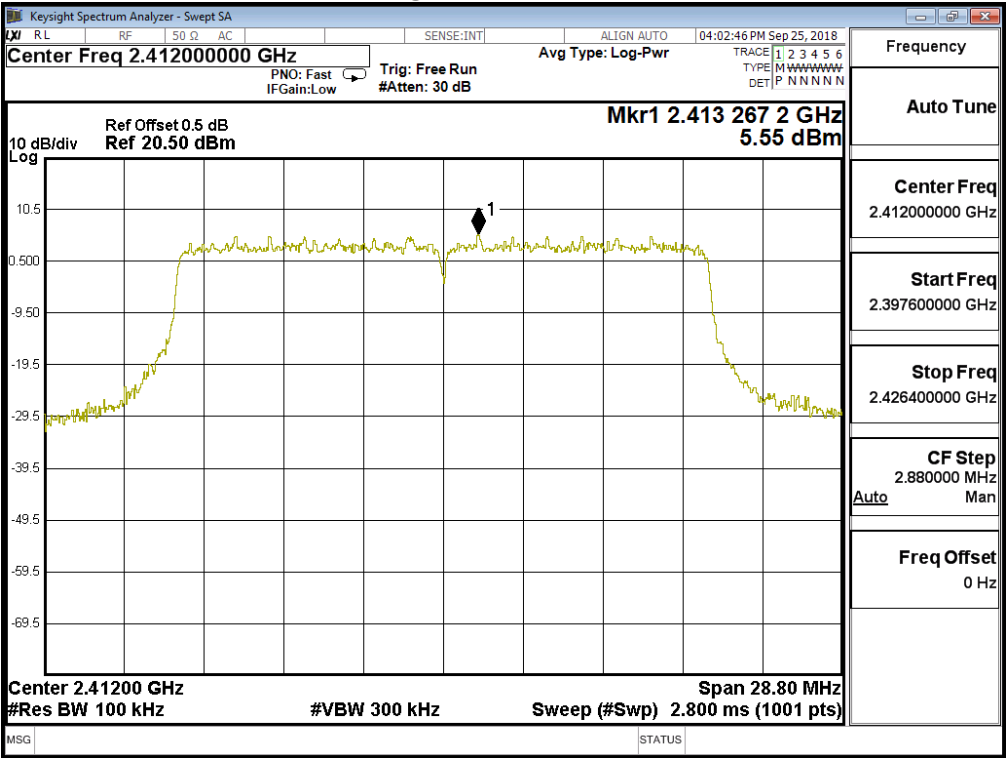


Figure Channel 07:

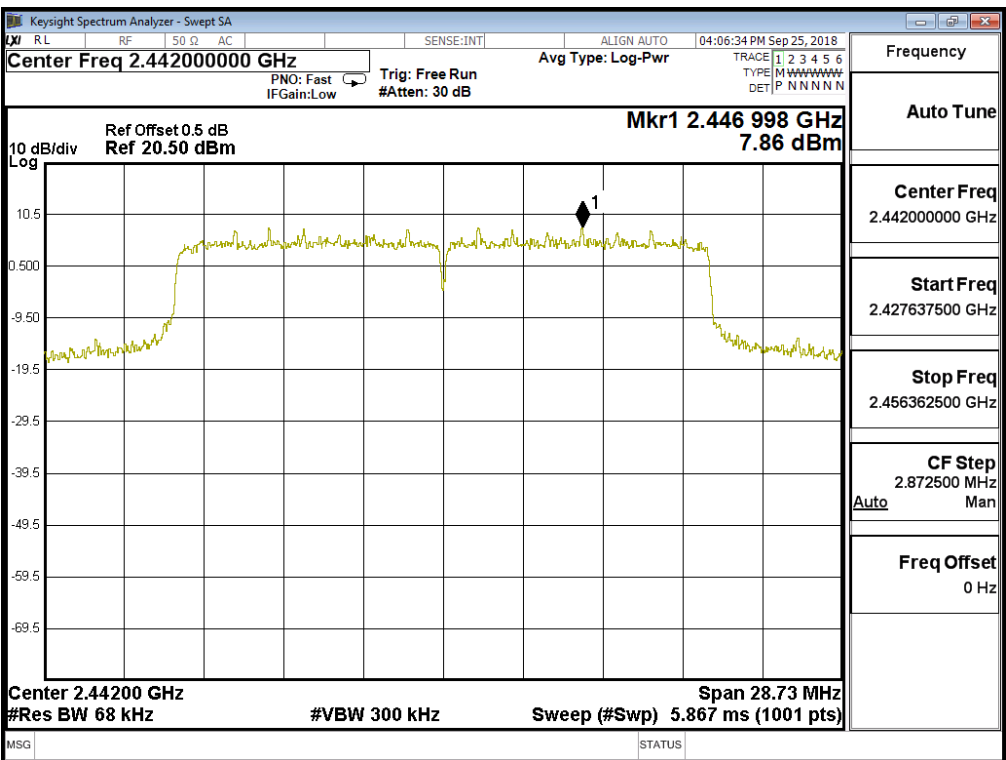


Figure Channel 11:

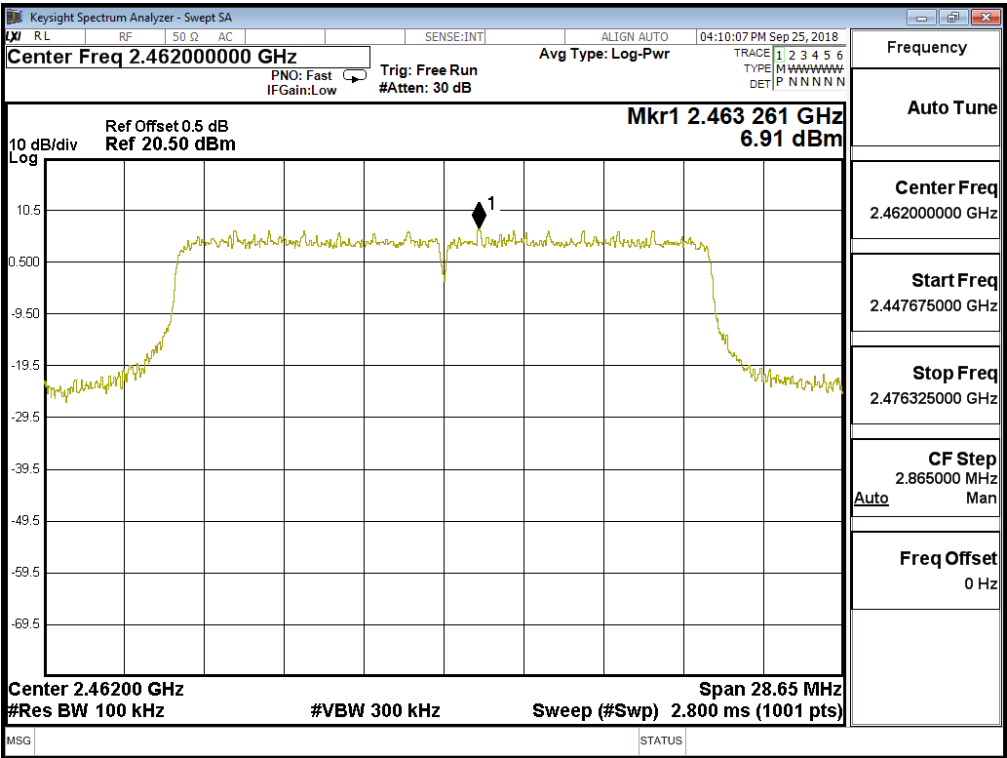


Figure Channel 12:

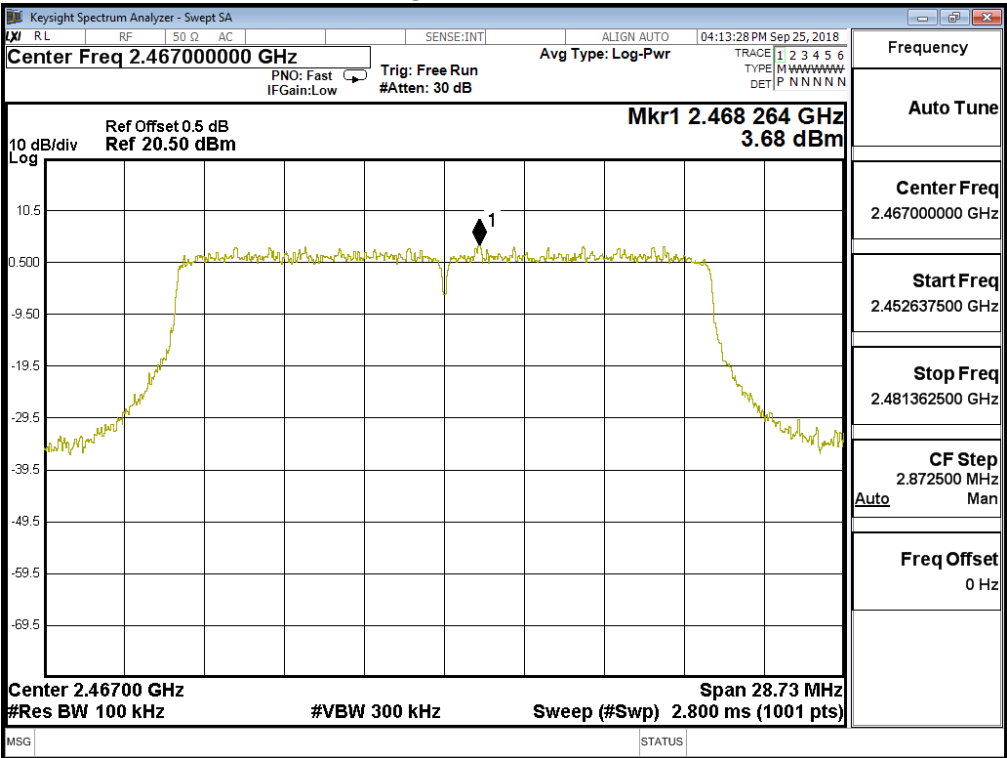
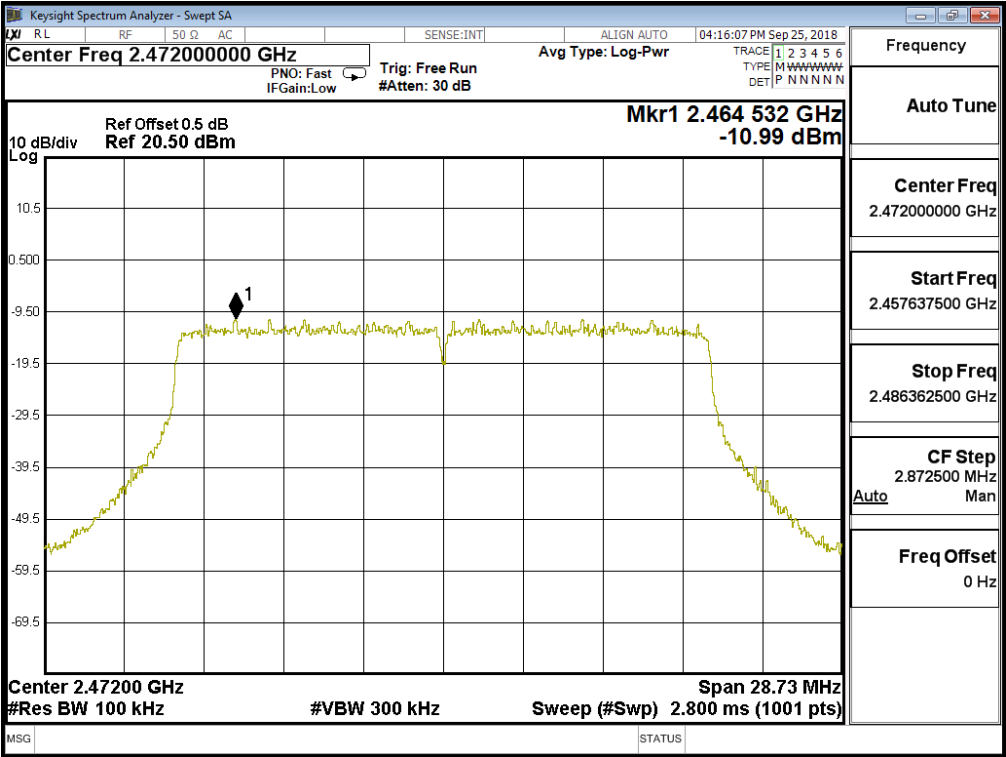


Figure Channel 13:



待測物名稱：Intel® Wi-Fi 6 AX201

待測物型號：AX201NGW

測試頻道：--

量測天線：--

檢測器：峰值

測試日期：107年09月21日

測試項目：功率密度

測試模式：Mode 1: SISO A: 發射器 802.11ax (40MHz)

測試距離：Conducted

環境溫度：20 °C

環境濕度：50 %

Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
03	2422	2.03	$\leq 8\text{dBm}$	Pass
07	2442	3.17	$\leq 8\text{dBm}$	Pass
09	2452	1.76	$\leq 8\text{dBm}$	Pass
10	2457	-1.77	$\leq 8\text{dBm}$	Pass
11	2462	-9.35	$\leq 8\text{dBm}$	Pass

Figure Channel 03:

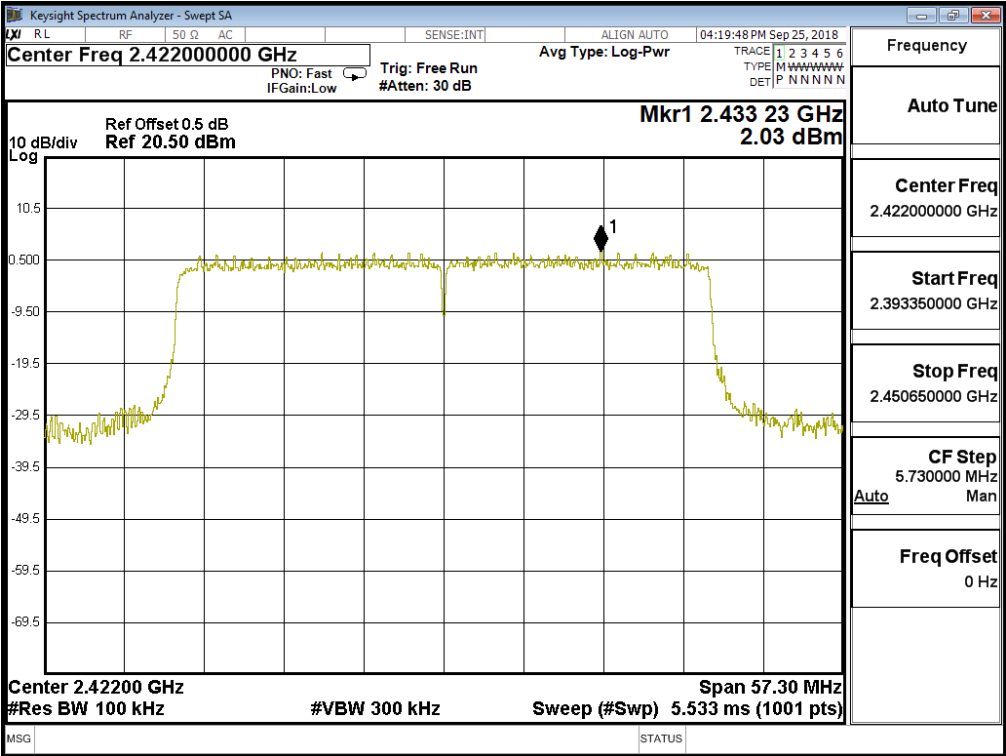


Figure Channel 07:

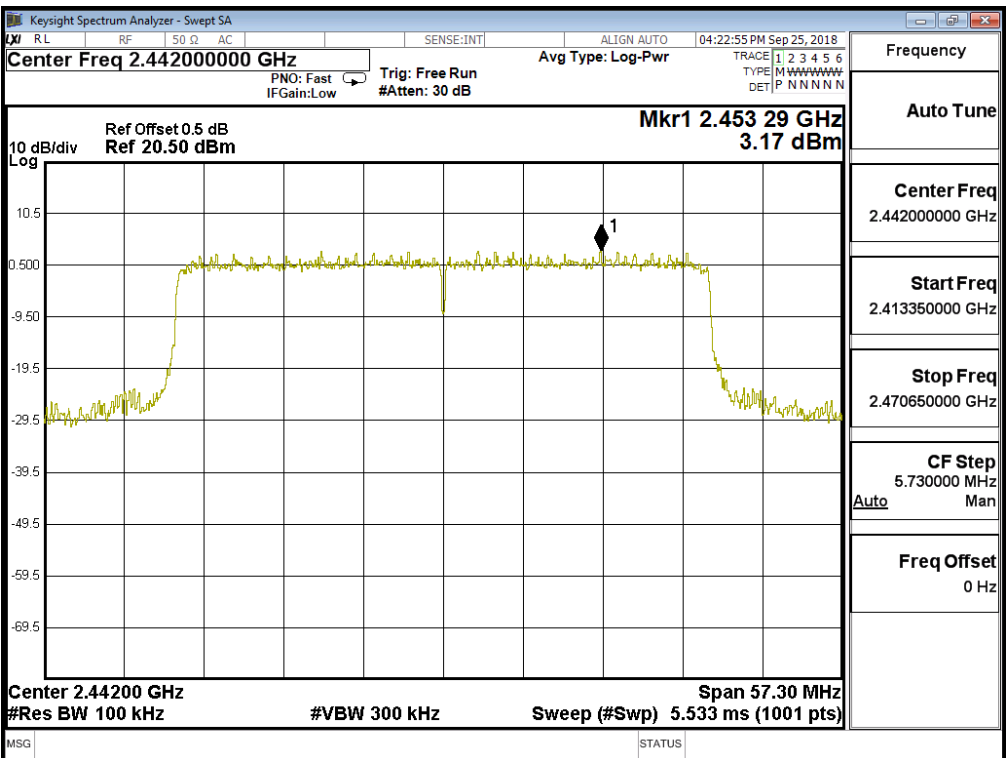


Figure Channel 09:

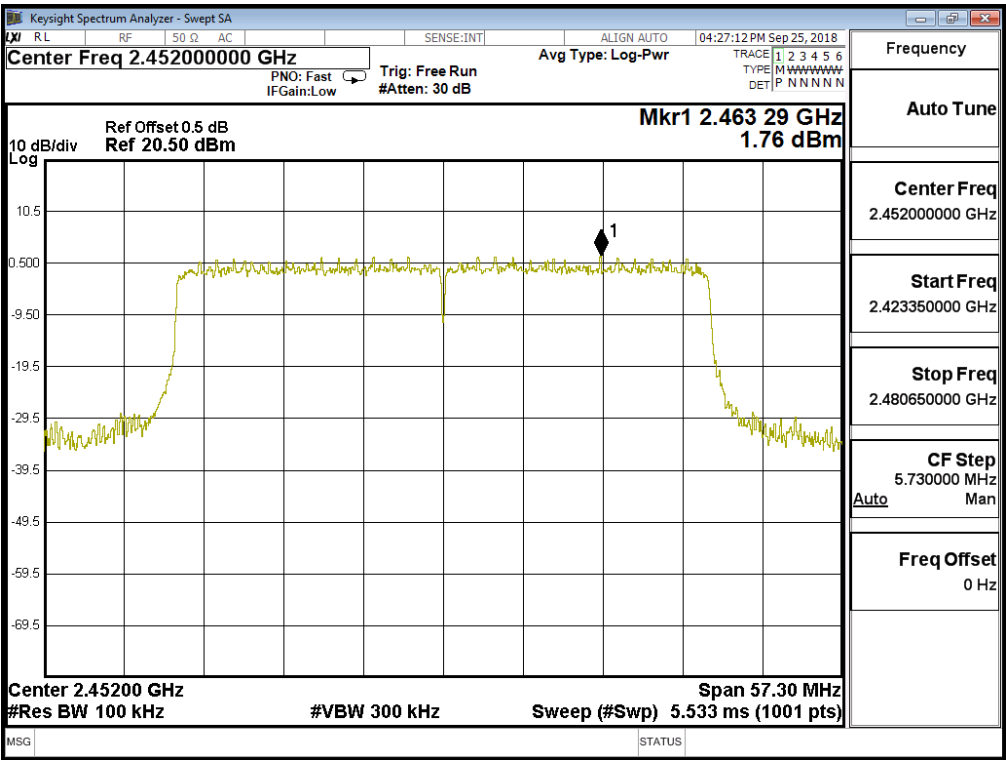


Figure Channel 10:

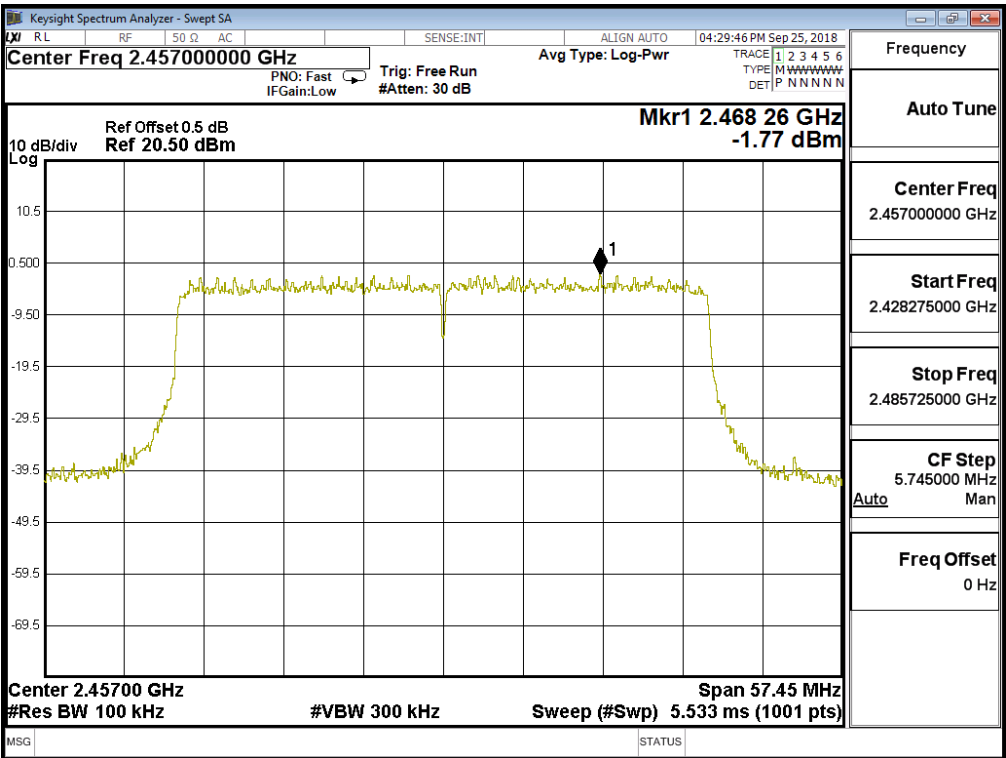
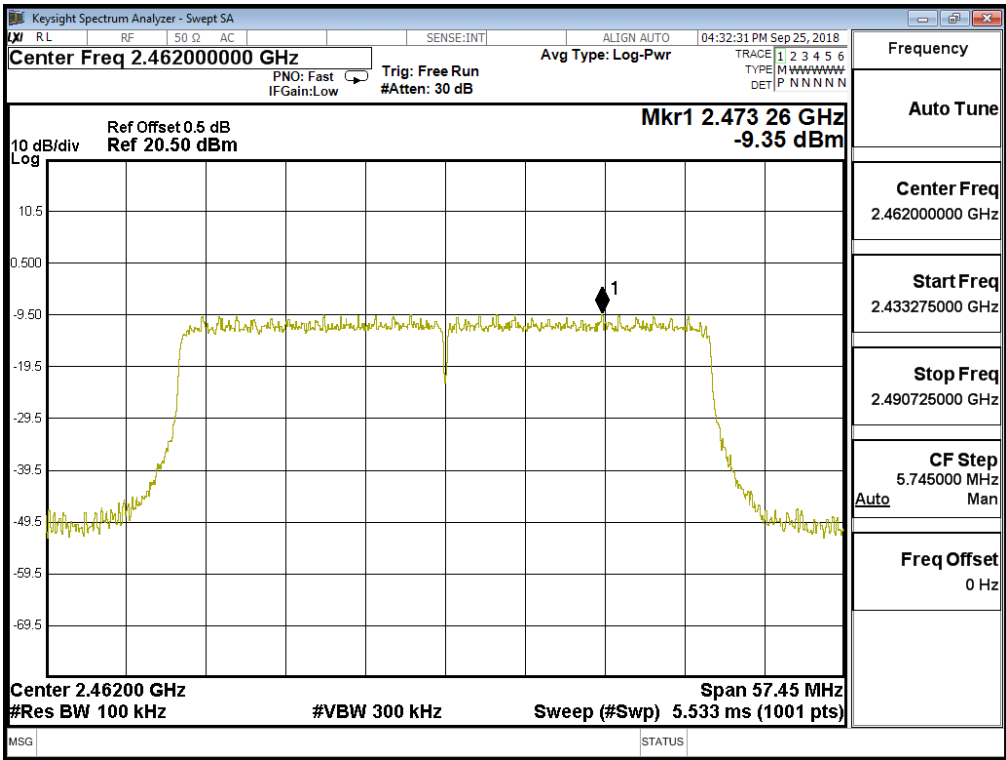


Figure Channel 11:



待測物名稱：Intel® Wi-Fi 6 AX201

待測物型號：AX201NGW

測試頻道：--

量測天線：--

檢測器：峰值

測試日期：107年09月21日

測試項目：功率密度

測試模式：Mode 2: SISO B: 發射器 802.11ax (20MHz)

測試距離：Conducted

環境溫度：20 °C

環境濕度：50 %

Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
01	2412	5.61	≤8dBm	Pass
07	2442	7.68	≤8dBm	Pass
11	2462	6.83	≤8dBm	Pass
12	2467	3.64	≤8dBm	Pass
13	2472	-9.73	≤8dBm	Pass

Figure Channel 01:

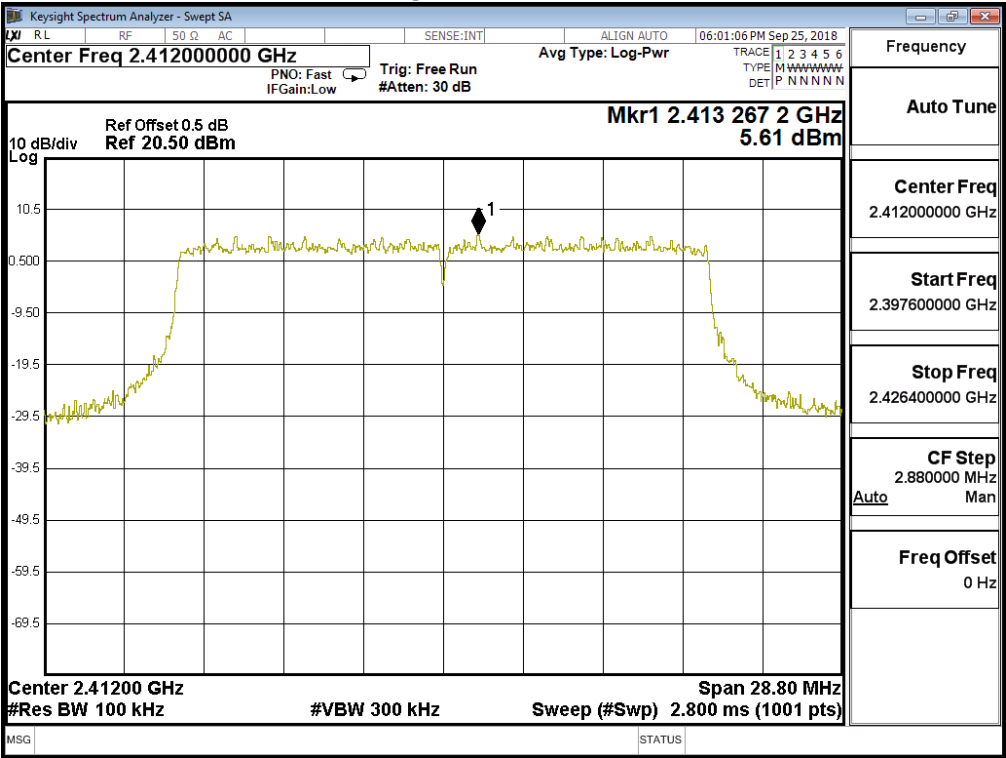


Figure Channel 07:

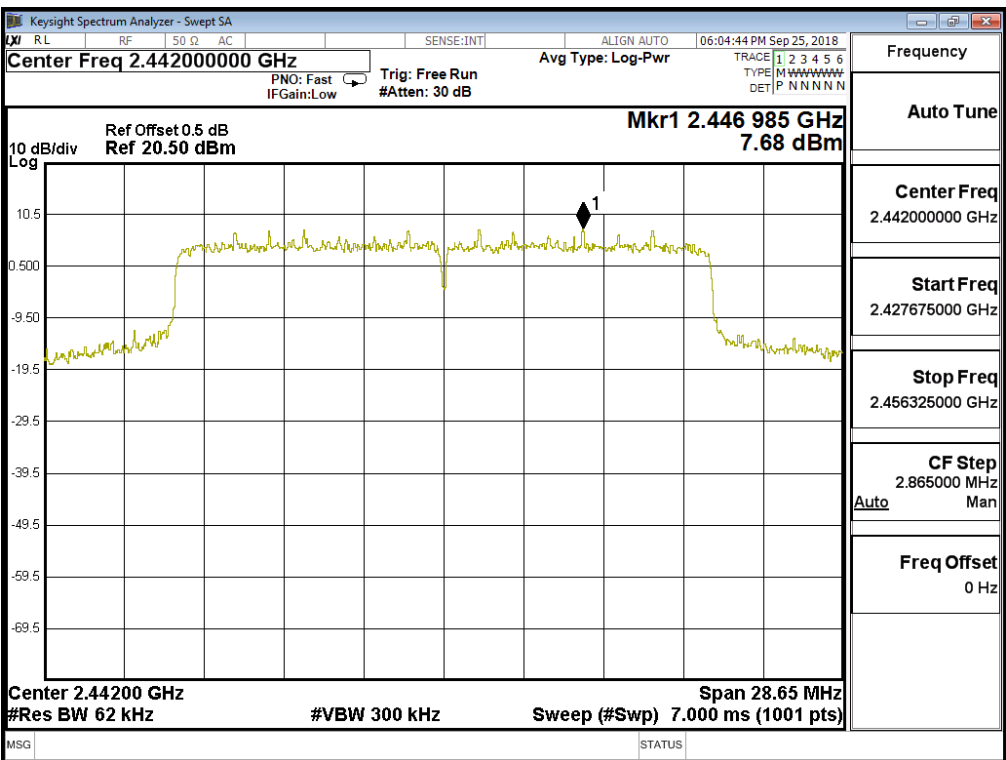


Figure Channel 11:

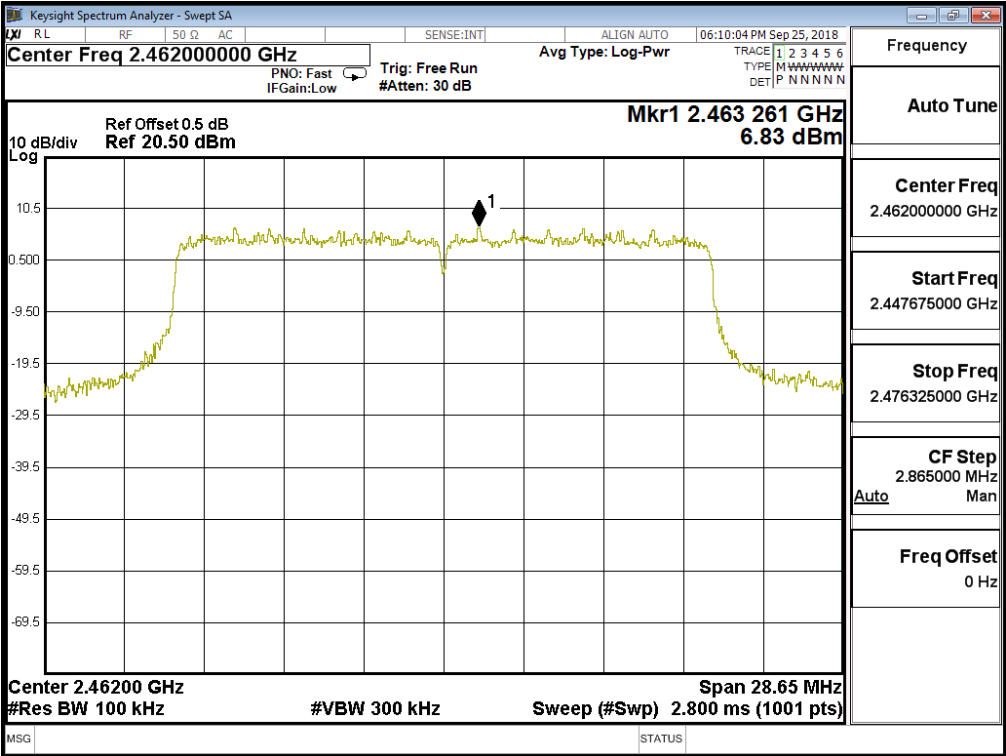


Figure Channel 12:

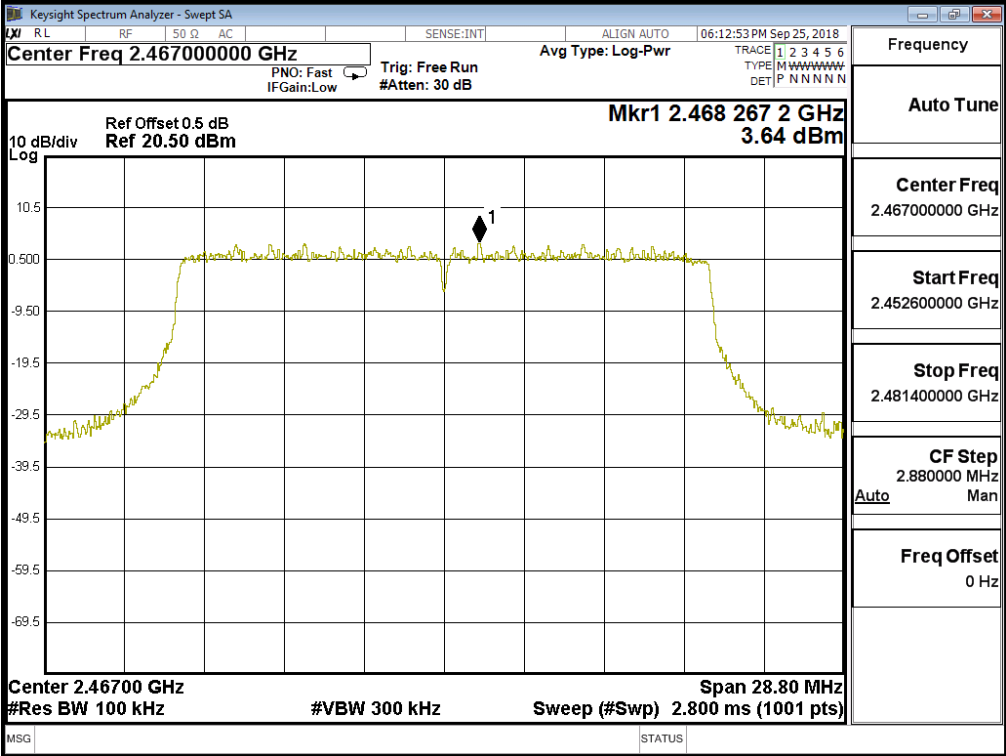
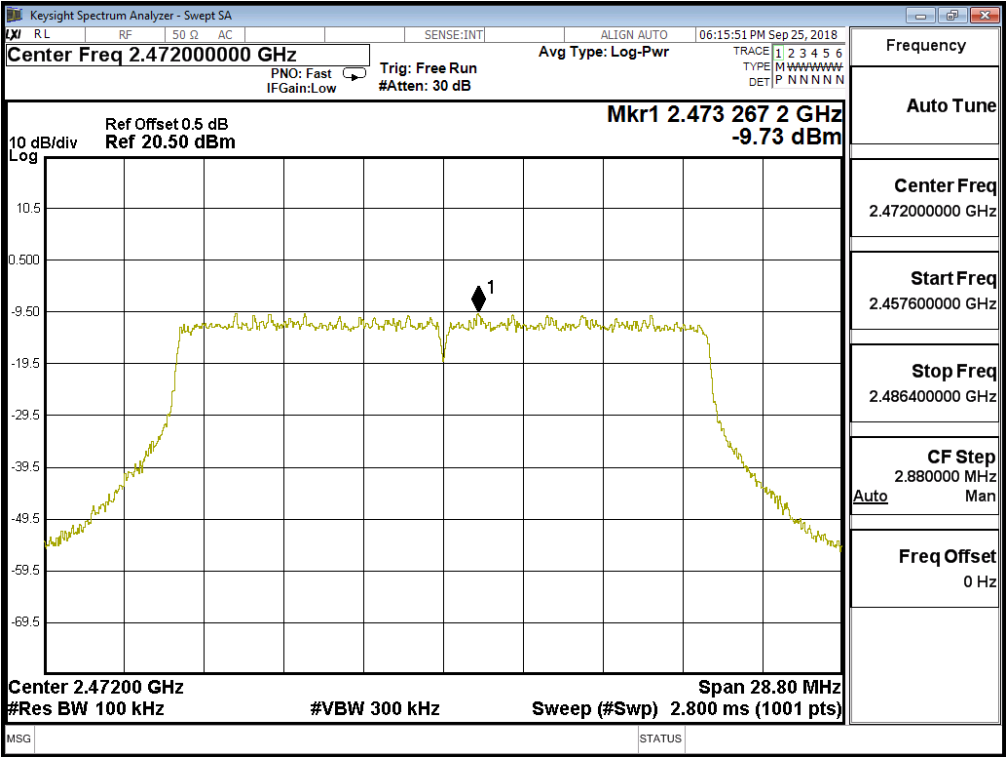


Figure Channel 13:



待測物名稱：Intel® Wi-Fi 6 AX201

待測物型號：AX201NGW

測試頻道：--

量測天線：--

檢測器：峰值

測試日期：107年09月21日

測試項目：功率密度

測試模式：Mode 2: SISO B: 發射器 802.11ax (40MHz)

測試距離：Conducted

環境溫度：20 °C

環境濕度：50 %

Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
03	2422	2.01	$\leq 8\text{dBm}$	Pass
07	2442	3.28	$\leq 8\text{dBm}$	Pass
09	2452	1.54	$\leq 8\text{dBm}$	Pass
10	2457	-2.19	$\leq 8\text{dBm}$	Pass
11	2462	-10.31	$\leq 8\text{dBm}$	Pass

Figure Channel 03:

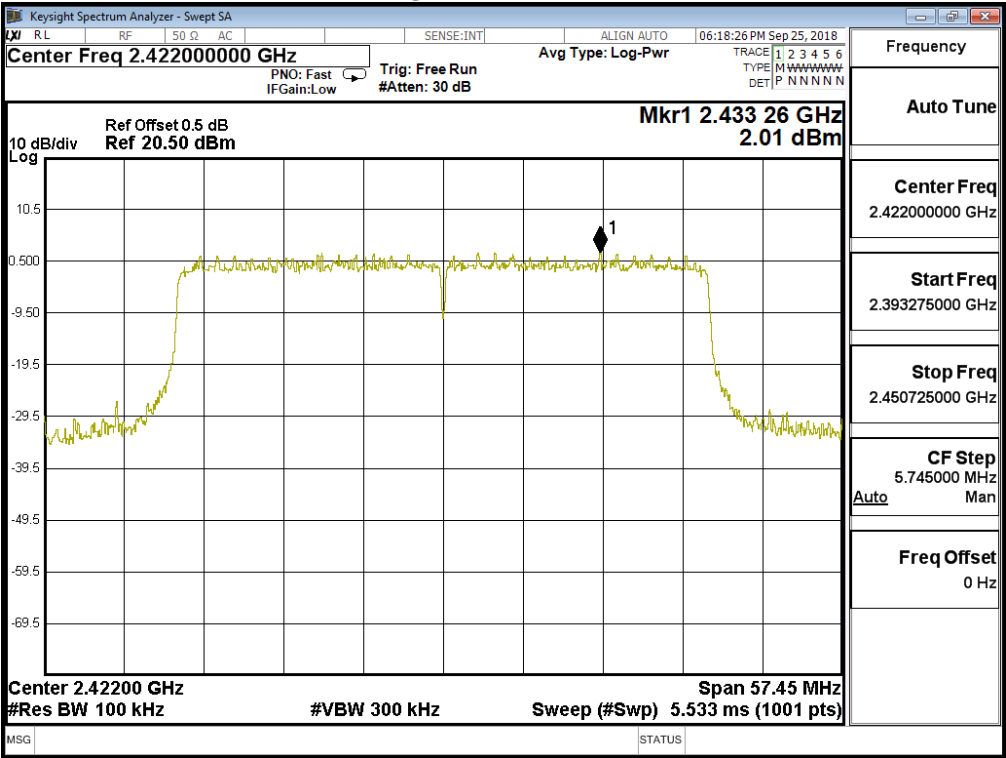


Figure Channel 07:

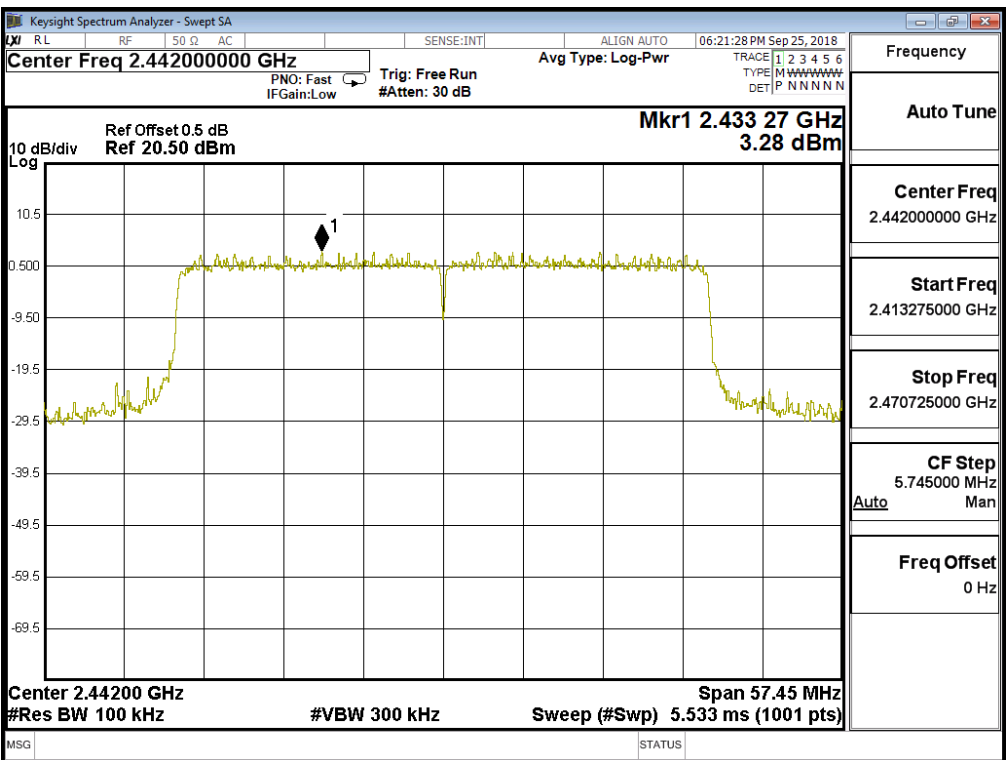


Figure Channel 09:

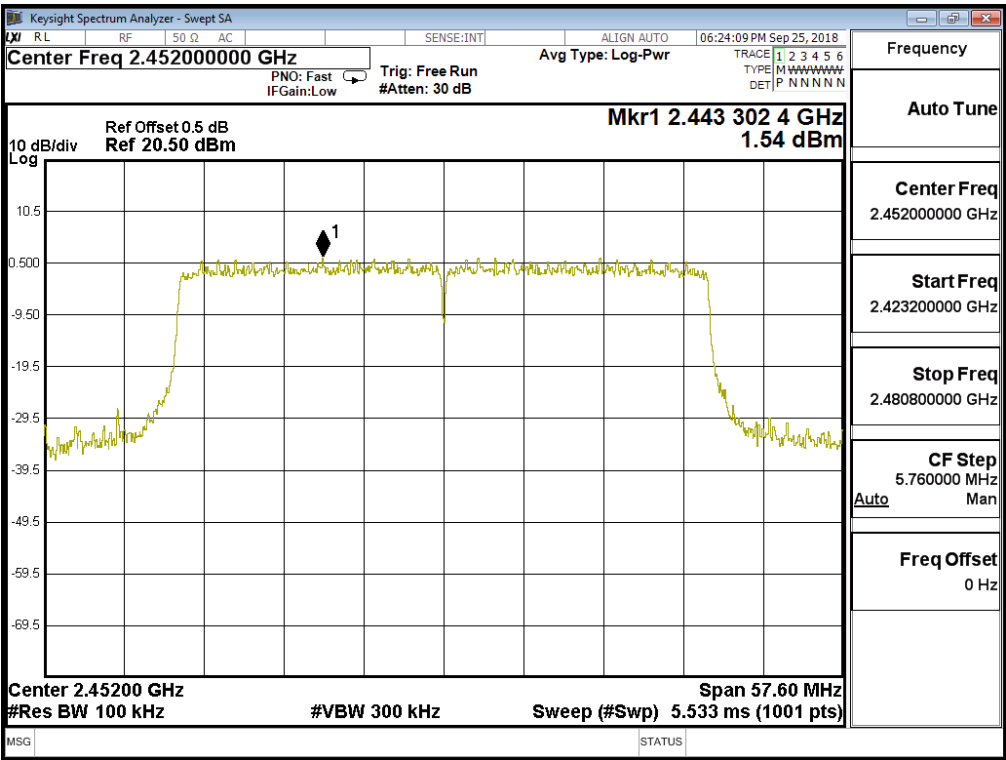


Figure Channel 10:

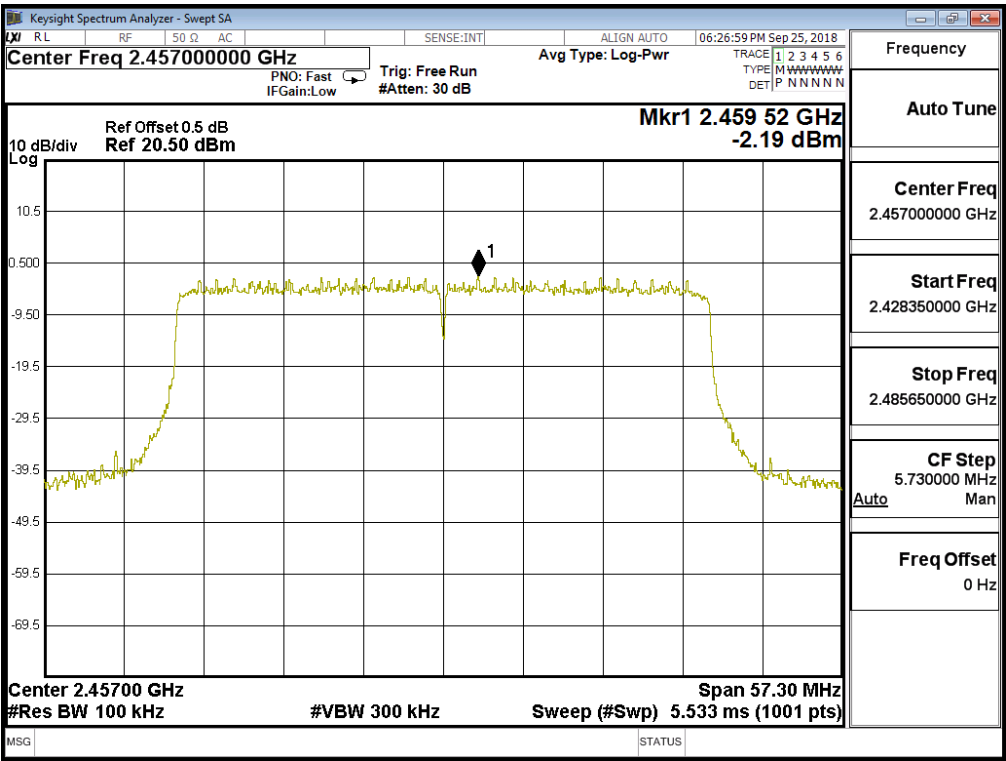
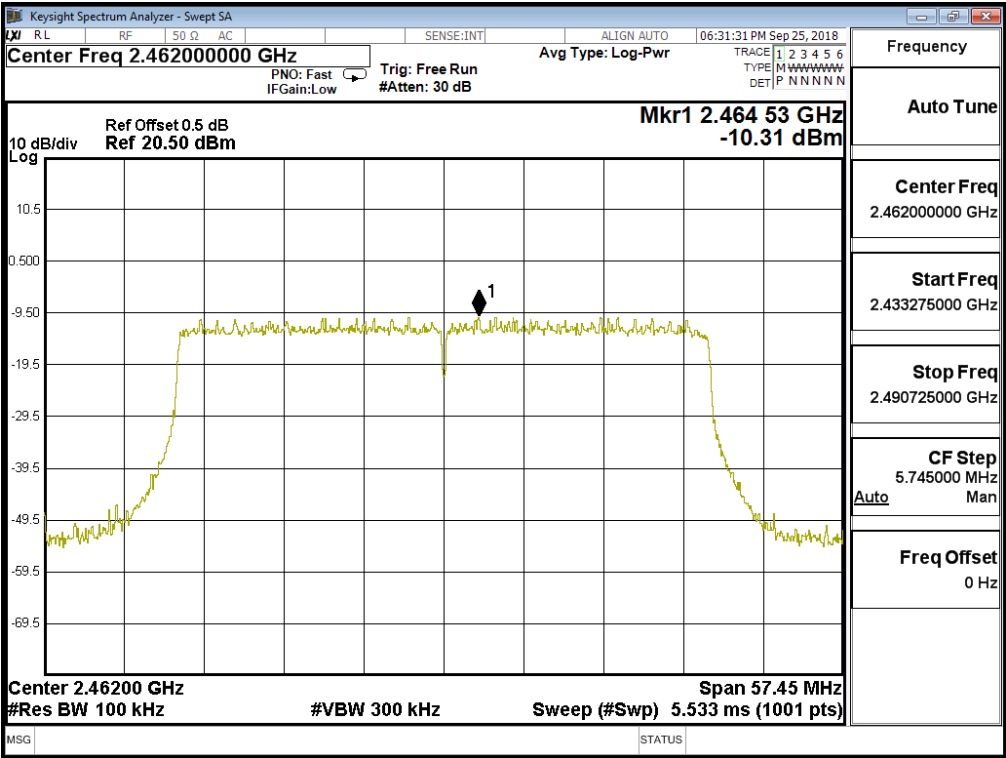


Figure Channel 11:



待測物名稱：Intel® Wi-Fi 6 AX201

待測物型號：AX201NGW

測試項目：功率密度

測試頻道：--

測試模式：Mode 3: MIMO: 發射器 802.11ax (20MHz)

量測天線：--

測試距離：Conducted

檢測器：峰值

環境溫度：20 °C

測試日期：107 年 09 月 21 日

環境濕度：50 %

Channel No.	Frequency (MHz)	Chain	PPSD/MHz (dBm)	10*log(2) (dB)	Measure Level (dBm)	Limit (dBm)	Result
01	2412.000	A	2.670	3.010	5.680	≤ 8dBm	Pass
		B	2.460	3.010	5.470	≤ 8dBm	Pass
07	2442.000	A	4.870	3.010	7.880	≤ 8dBm	Pass
		B	4.600	3.010	7.610	≤ 8dBm	Pass
11	2462.000	A	3.780	3.010	6.790	≤ 8dBm	Pass
		B	3.640	3.010	6.650	≤ 8dBm	Pass
12	2467.00	A	0.670	3.010	3.680	≤ 8dBm	Pass
		B	0.430	3.010	3.440	≤ 8dBm	Pass
13	2472.00	A	-13.920	3.010	-10.910	≤ 8dBm	Pass
		B	-13.370	3.010	-10.360	≤ 8dBm	Pass

Note:

The quantity 10*log 2 (two antennas) is added to the spectrum peak value according to document 662911 D01.

Figure Channel 01: (Chain A)

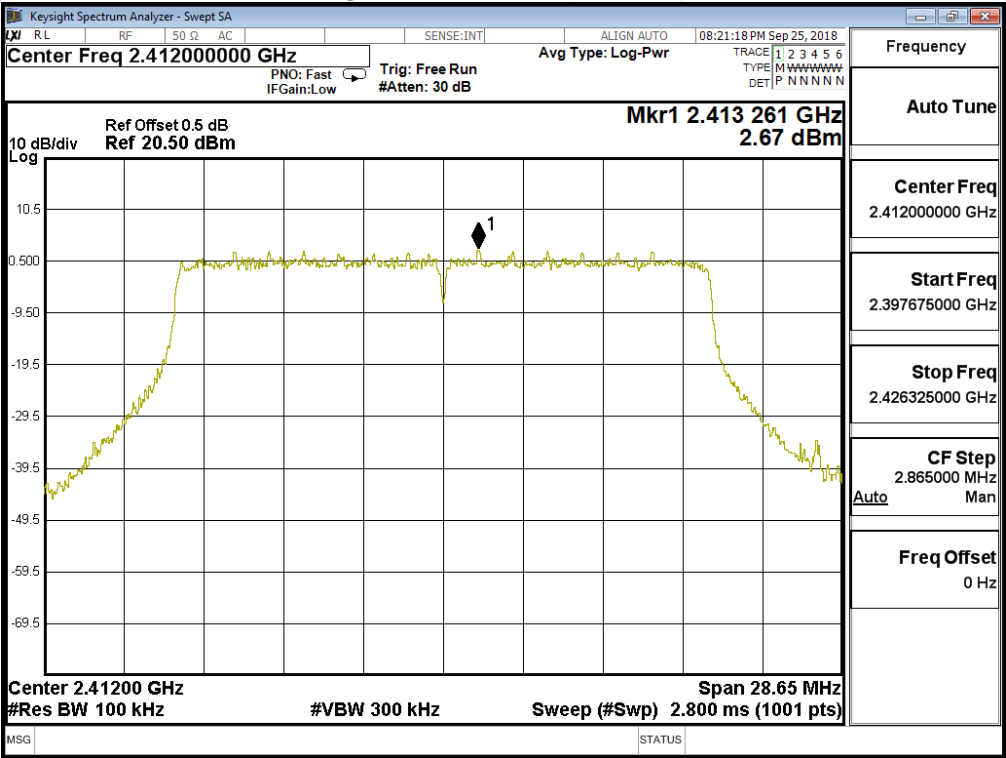


Figure Channel 01: (Chain B)

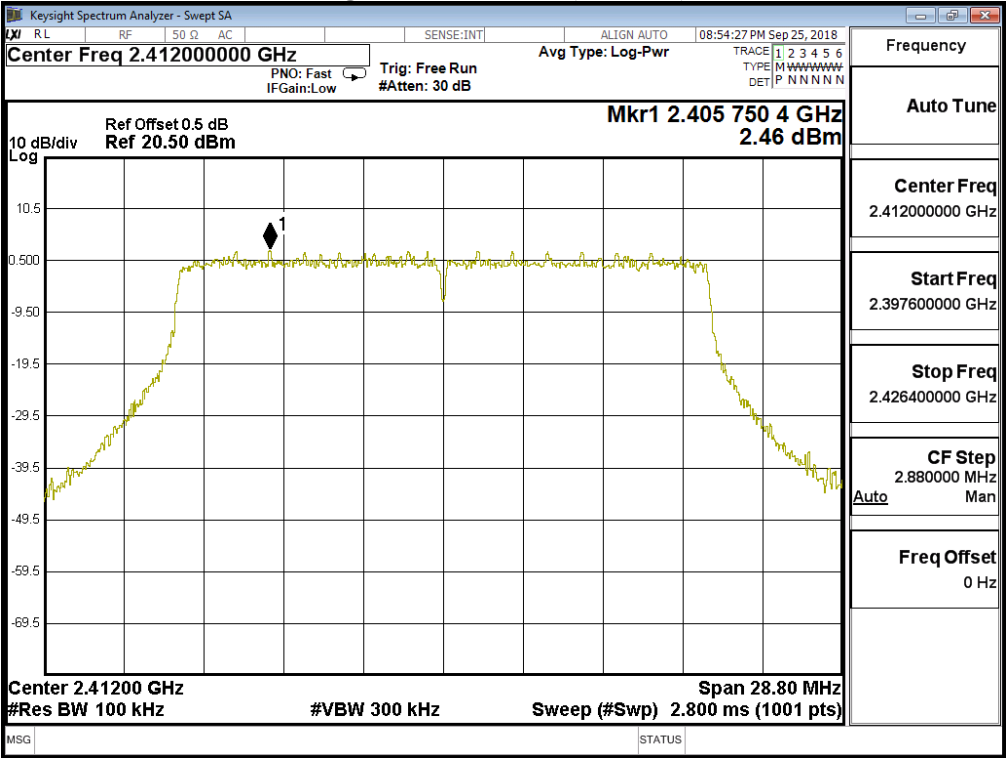


Figure Channel 07: (Chain A)

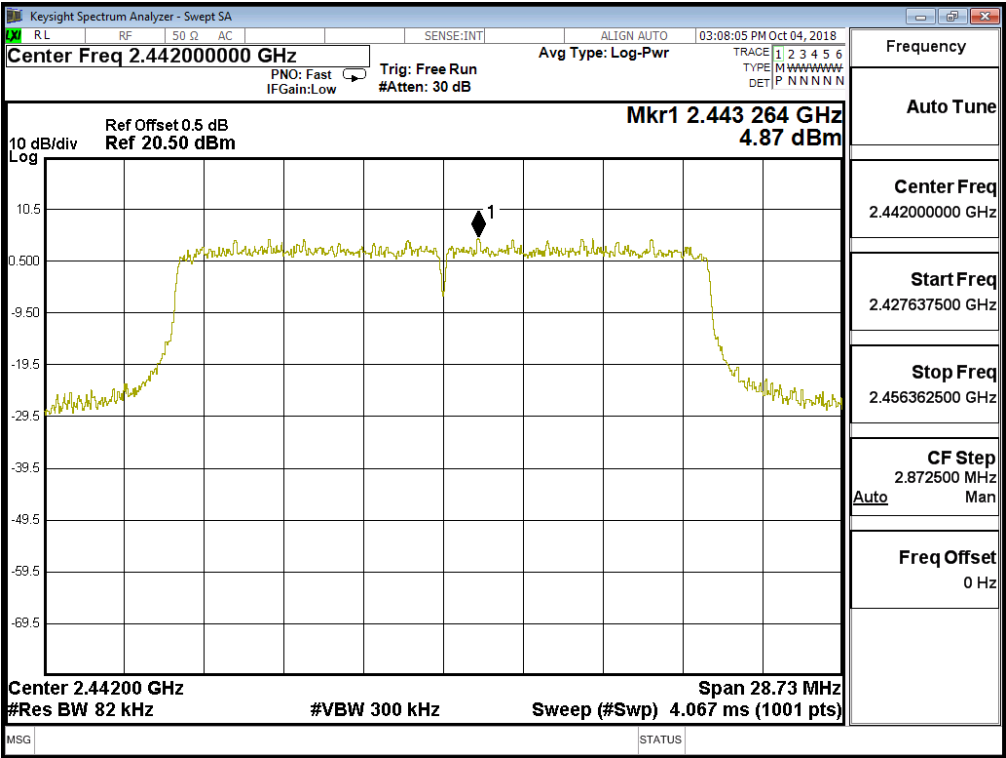


Figure Channel 07: (Chain B)

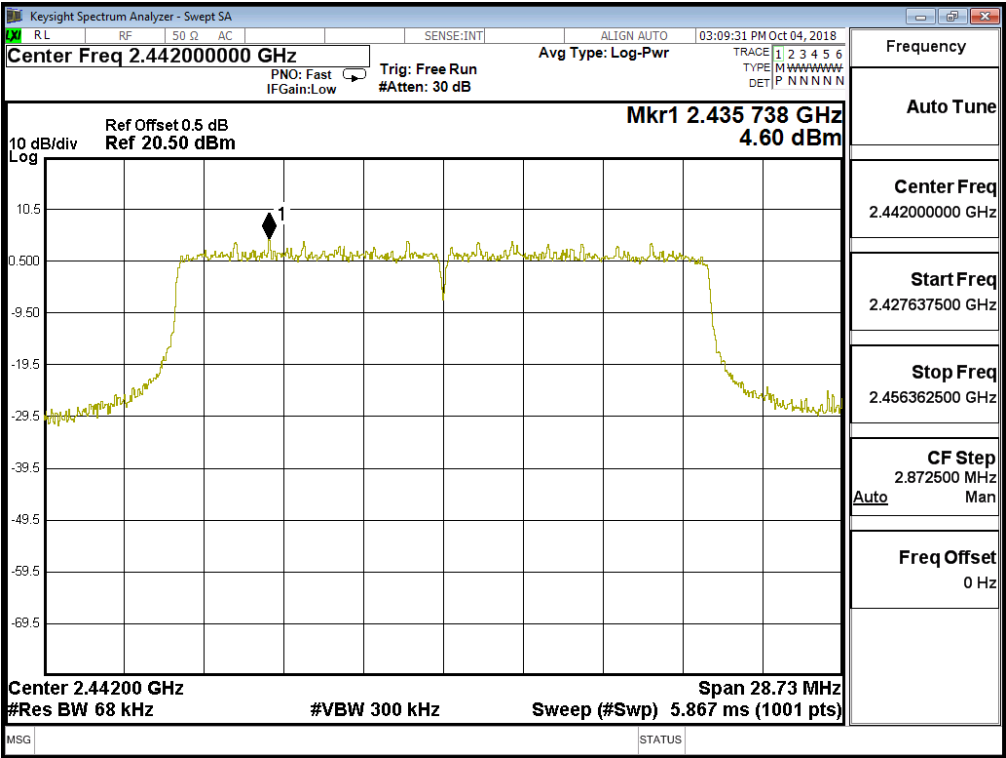


Figure Channel 11: (Chain A)

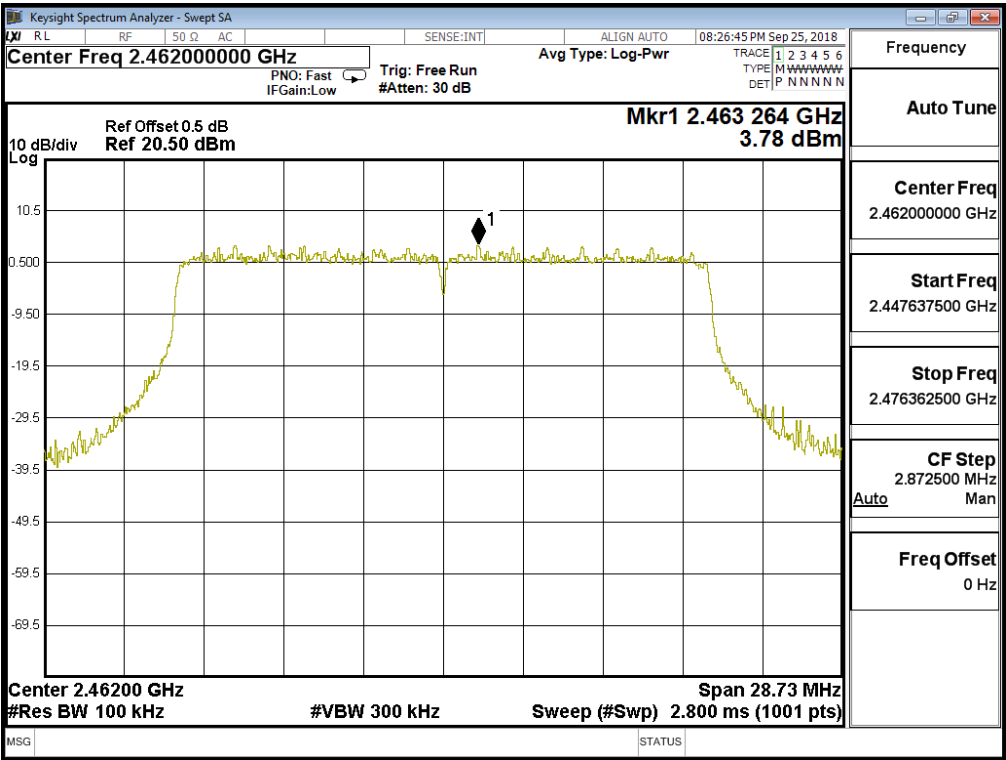


Figure Channel 11: (Chain B)

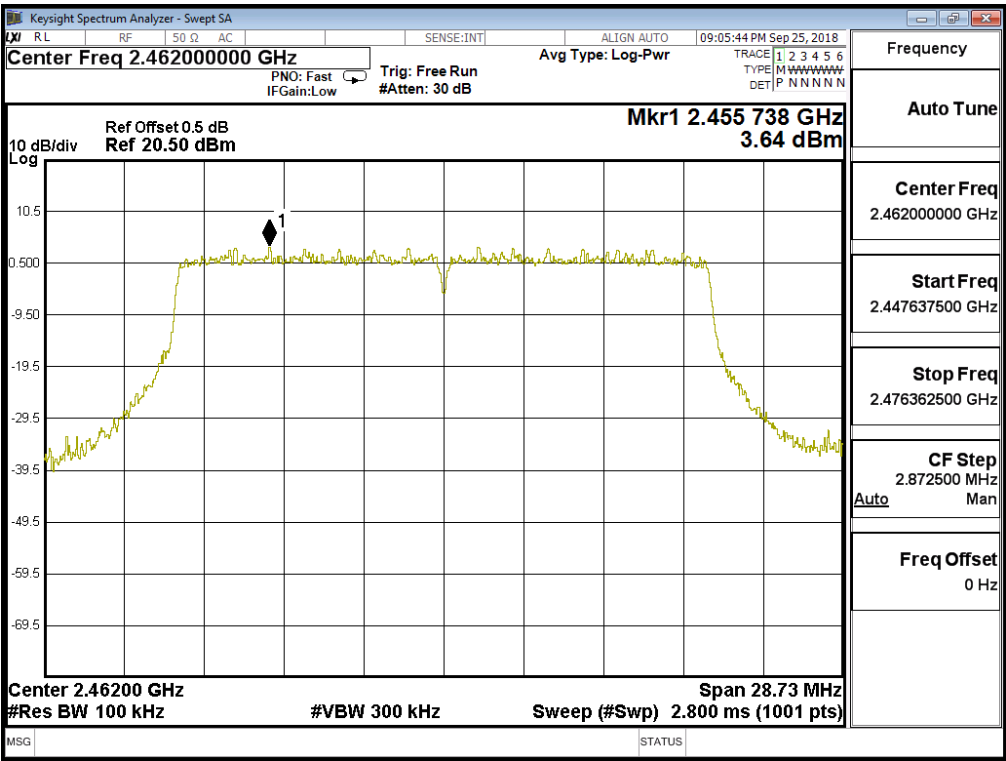


Figure Channel 12: (Chain A)

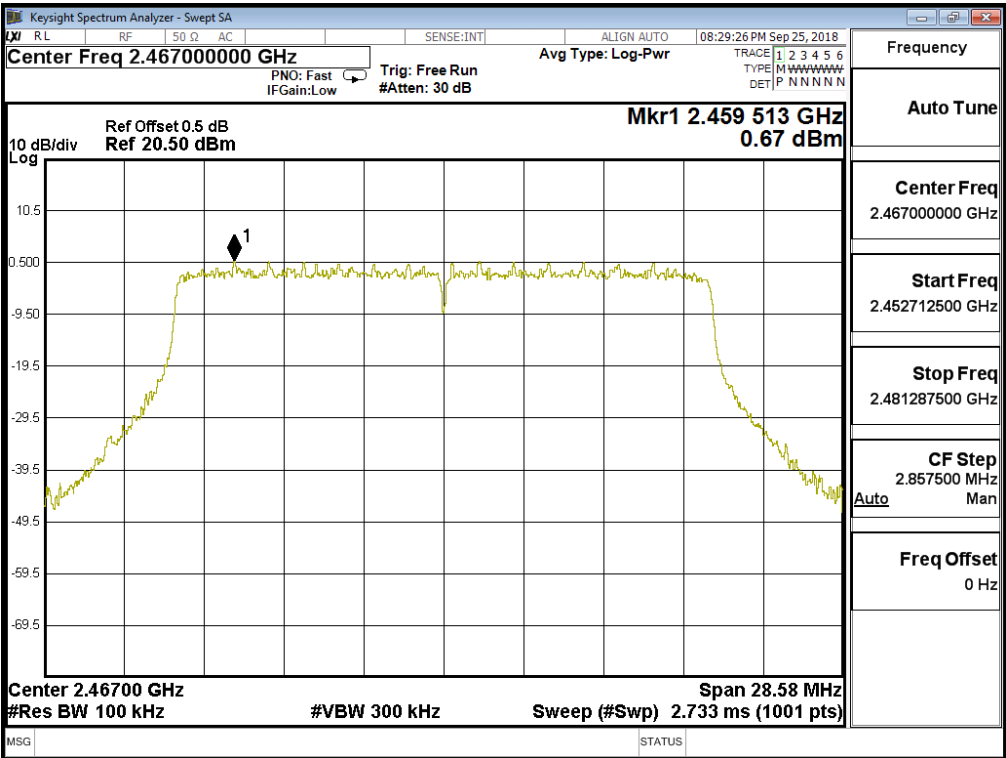


Figure Channel 12: (Chain B)

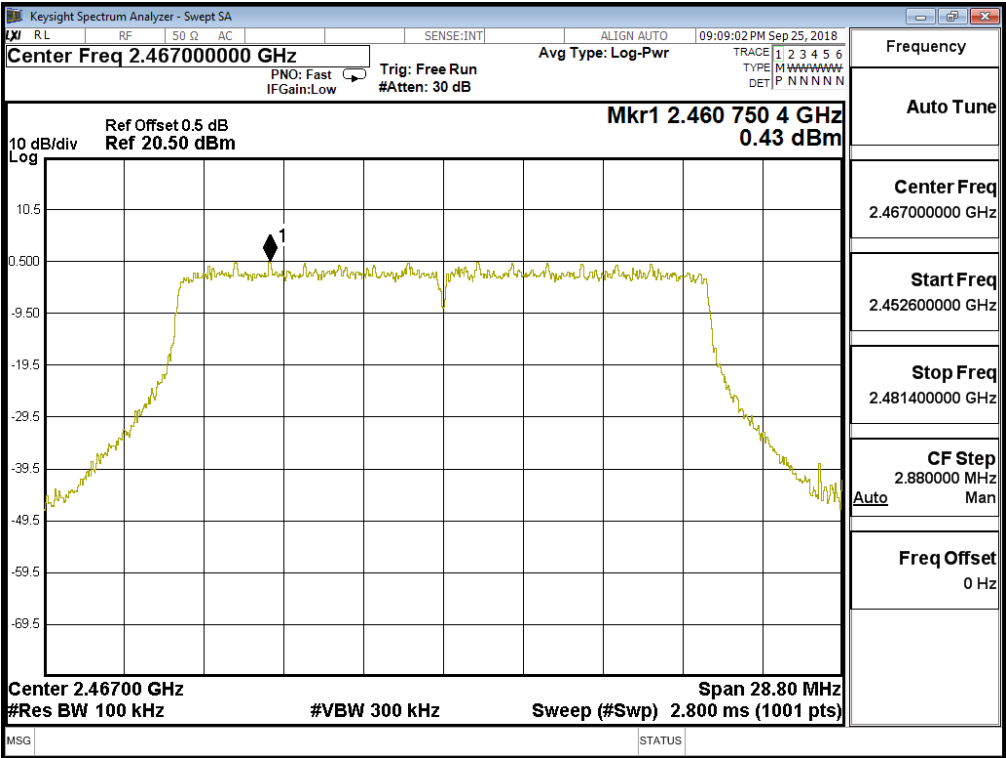


Figure Channel 13: (Chain A)

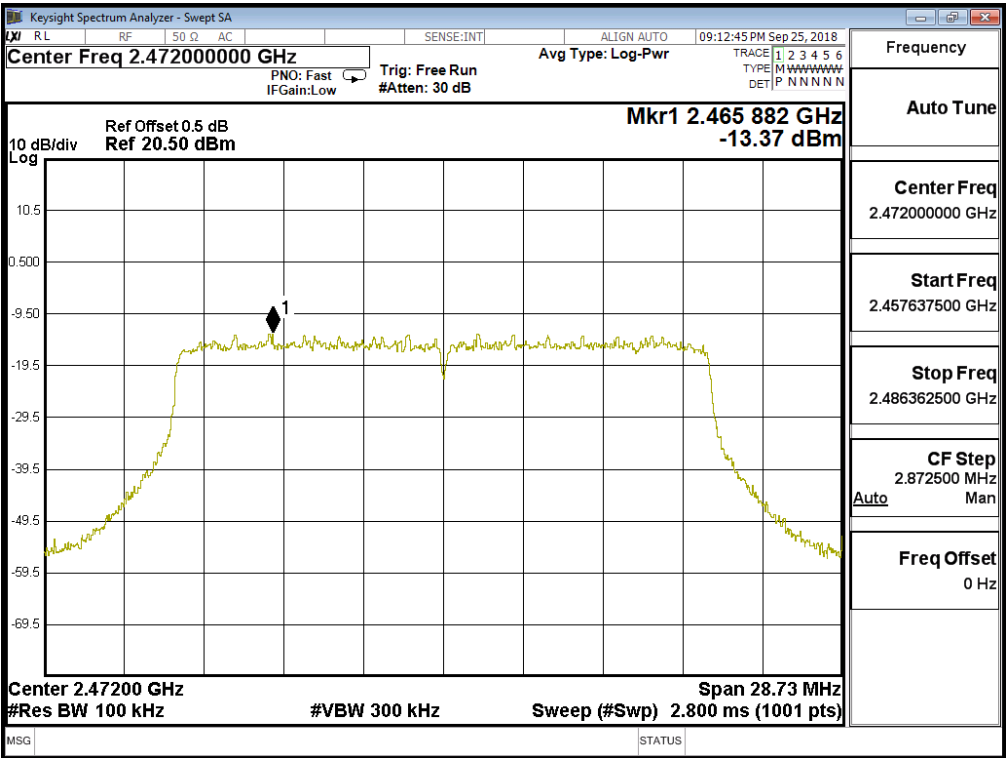
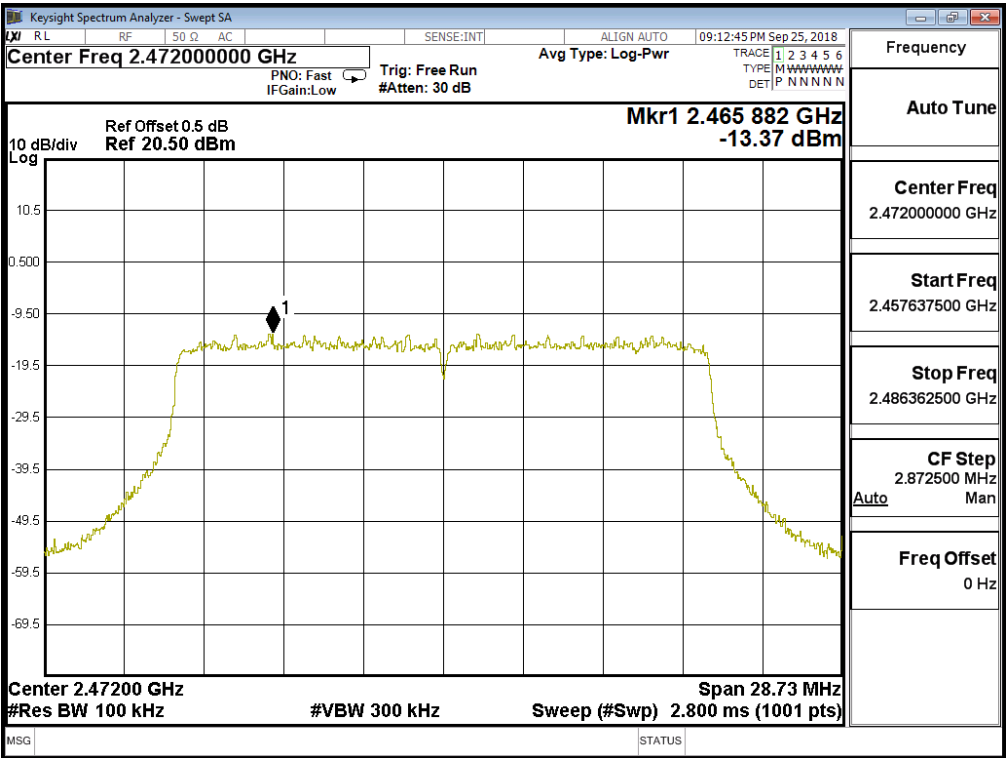


Figure Channel 13: (Chain B)



待測物名稱：Intel® Wi-Fi 6 AX201

待測物型號：AX201NGW

測試項目：功率密度

測試頻道：--

測試模式：Mode 3: MIMO: 發射器 802.11ax (40MHz)

量測天線：--

測試距離：Conducted

檢測器：峰值

環境溫度：20 °C

測試日期：107 年 09 月 21 日

環境濕度：50 %

Channel No.	Frequency (MHz)	Chain	PPSD/MHz (dBm)	10*log(2) (dB)	Measure Level (dBm)	Limit (dBm)	Result
03	2422.000	A	-0.900	3.010	2.110	≤ 8dBm	Pass
		B	-0.870	3.010	2.140	≤ 8dBm	Pass
07	2442.000	A	-0.450	3.010	2.560	≤ 8dBm	Pass
		B	-0.530	3.010	2.480	≤ 8dBm	Pass
09	2452.000	A	-1.050	3.010	1.960	≤ 8dBm	Pass
		B	-1.270	3.010	1.740	≤ 8dBm	Pass
10	2457.00	A	-4.920	3.010	-1.910	≤ 8dBm	Pass
		B	-4.840	3.010	-1.830	≤ 8dBm	Pass
11	2462.00	A	-13.040	3.010	-10.030	≤ 8dBm	Pass
		B	-13.270	3.010	-10.260	≤ 8dBm	Pass

Note:

The quantity 10*log 2 (two antennas) is added to the spectrum peak value according to document 662911 D01.

Figure Channel 03: (Chain A)

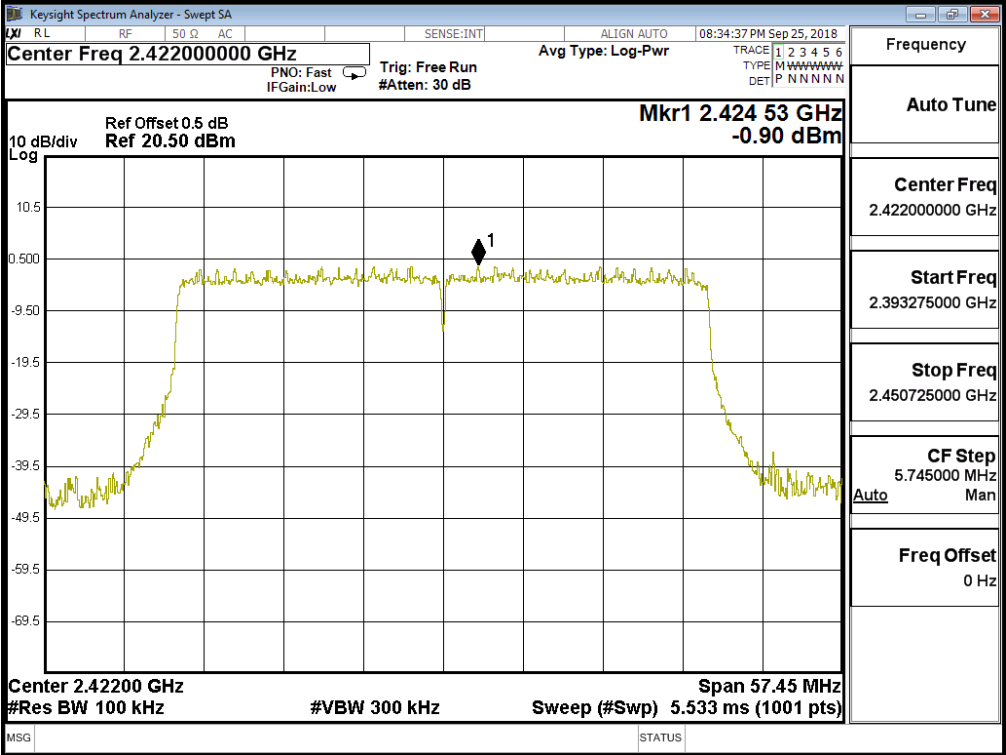


Figure Channel 03: (Chain B)

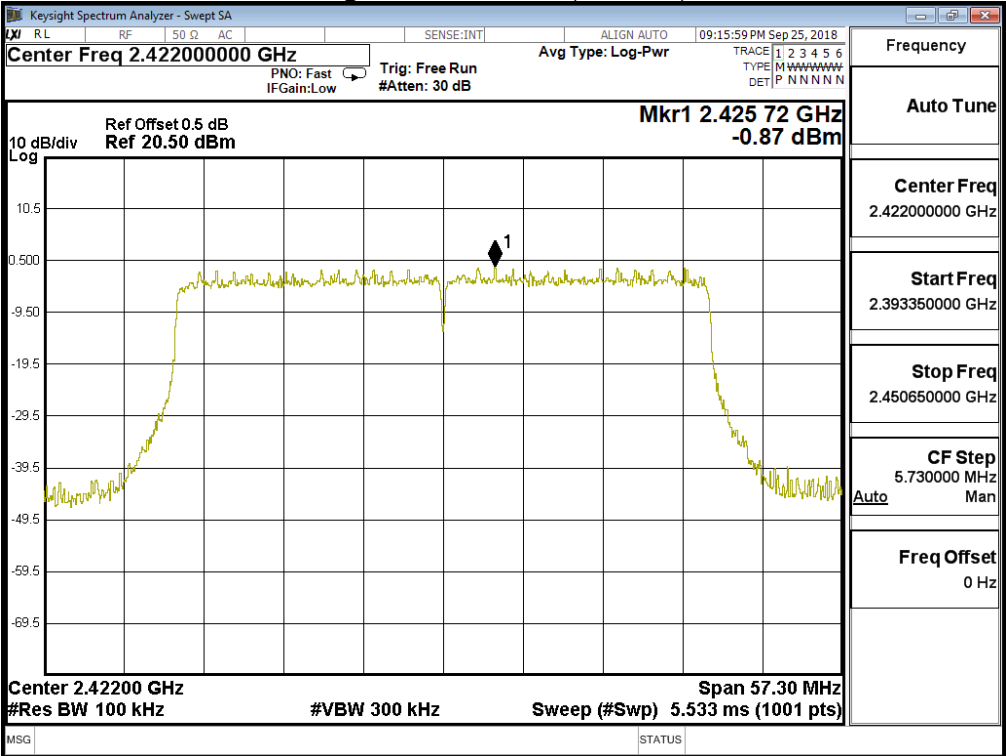


Figure Channel 07: (Chain A)

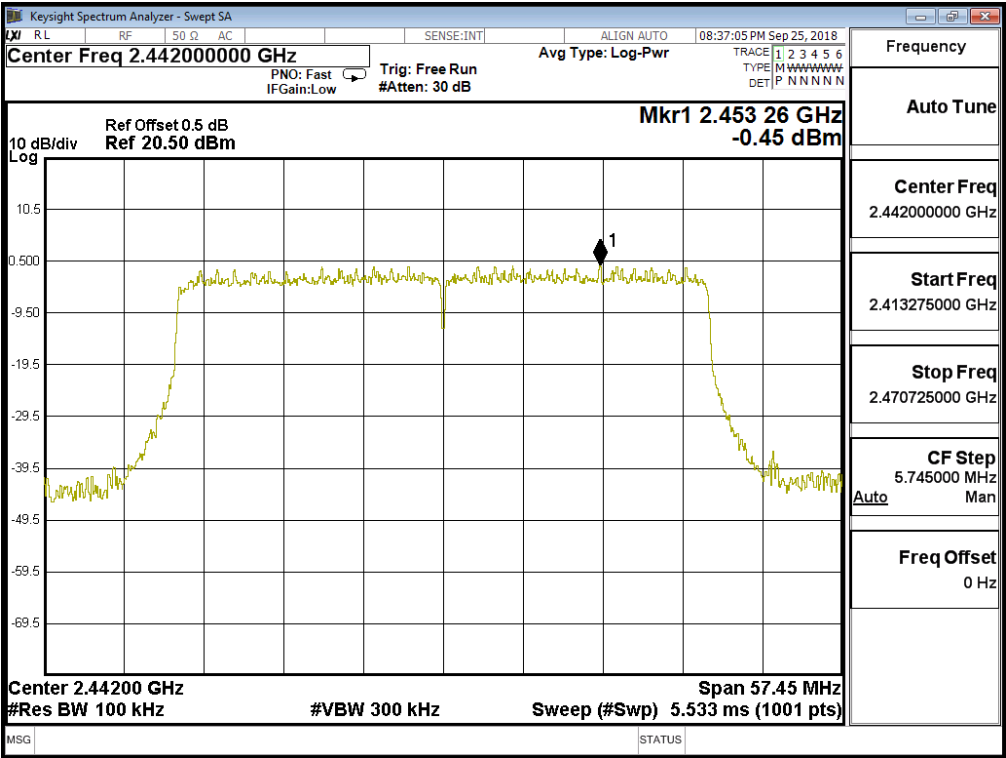


Figure Channel 07: (Chain B)

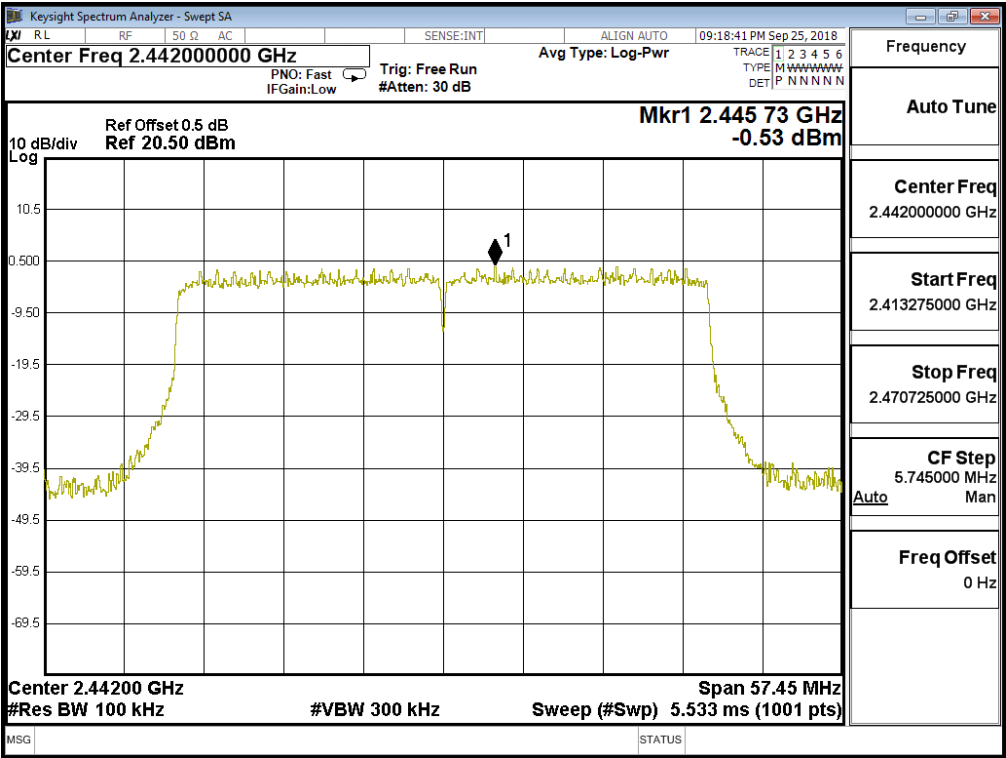


Figure Channel 09: (Chain A)

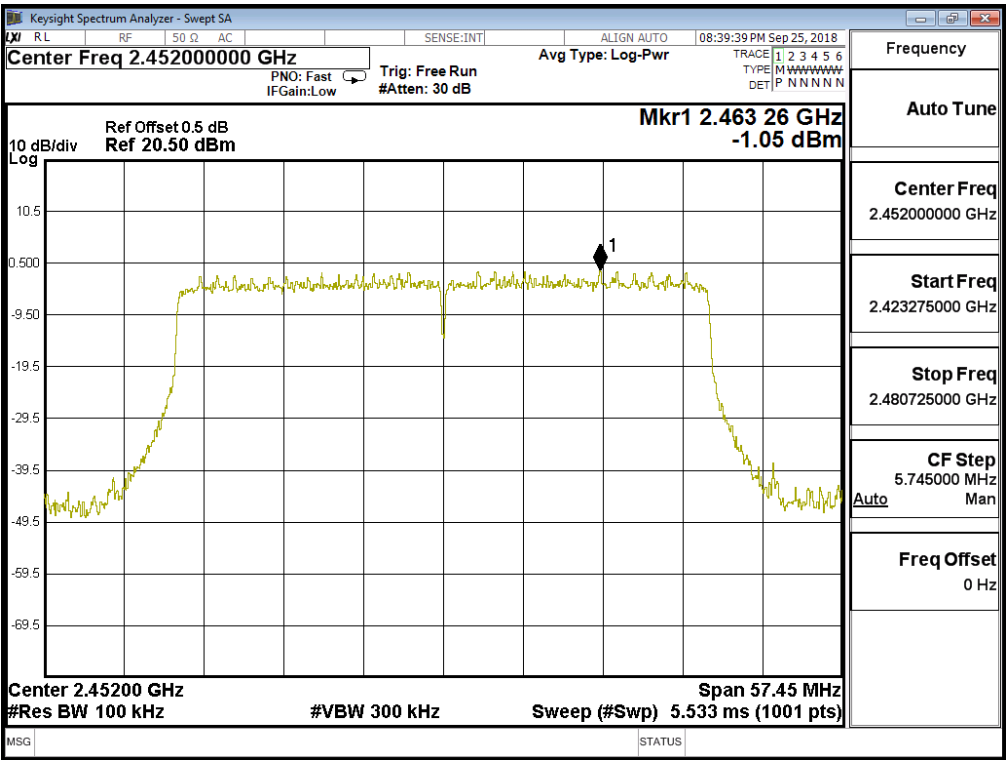


Figure Channel 09: (Chain B)

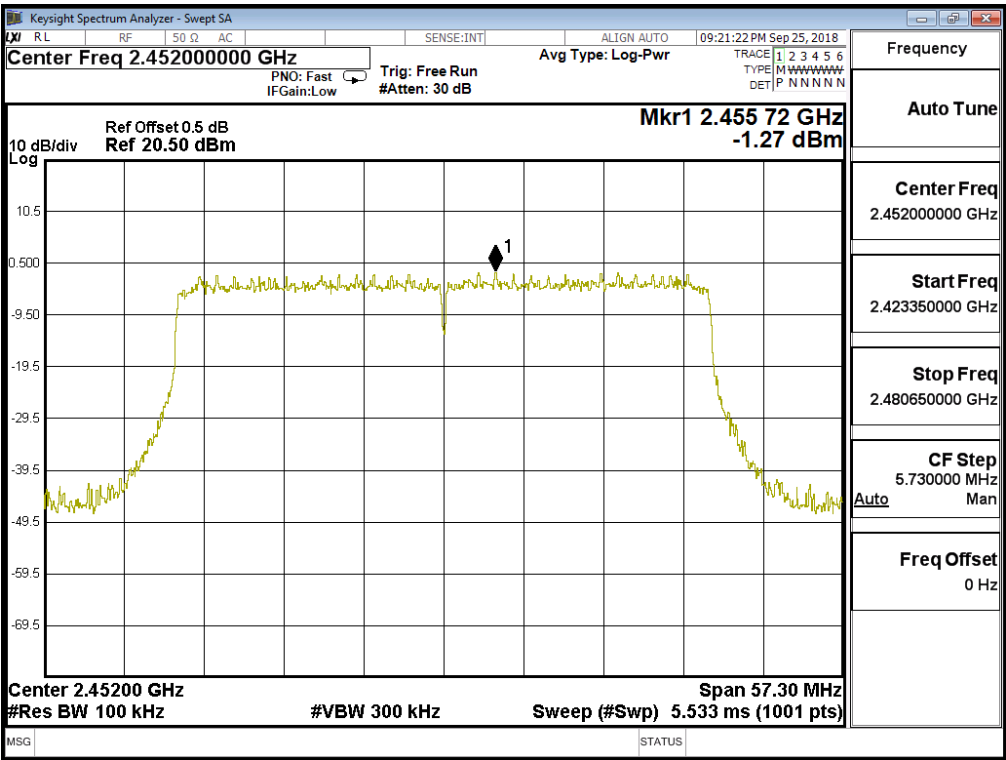


Figure Channel 10: (Chain A)

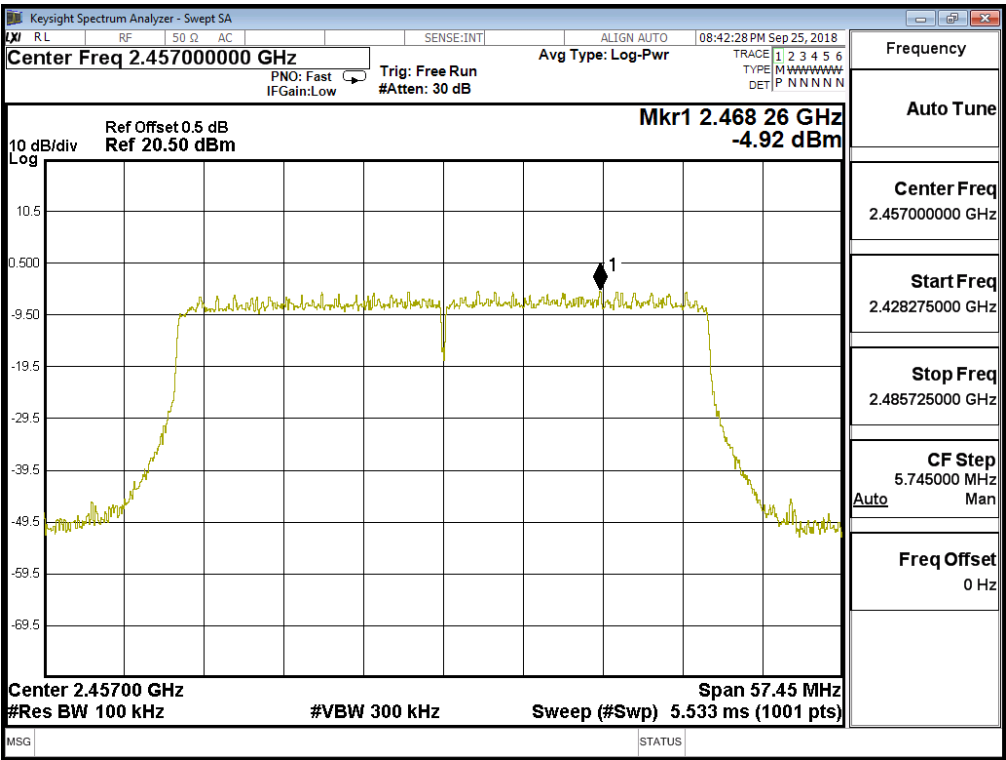


Figure Channel 10: (Chain B)

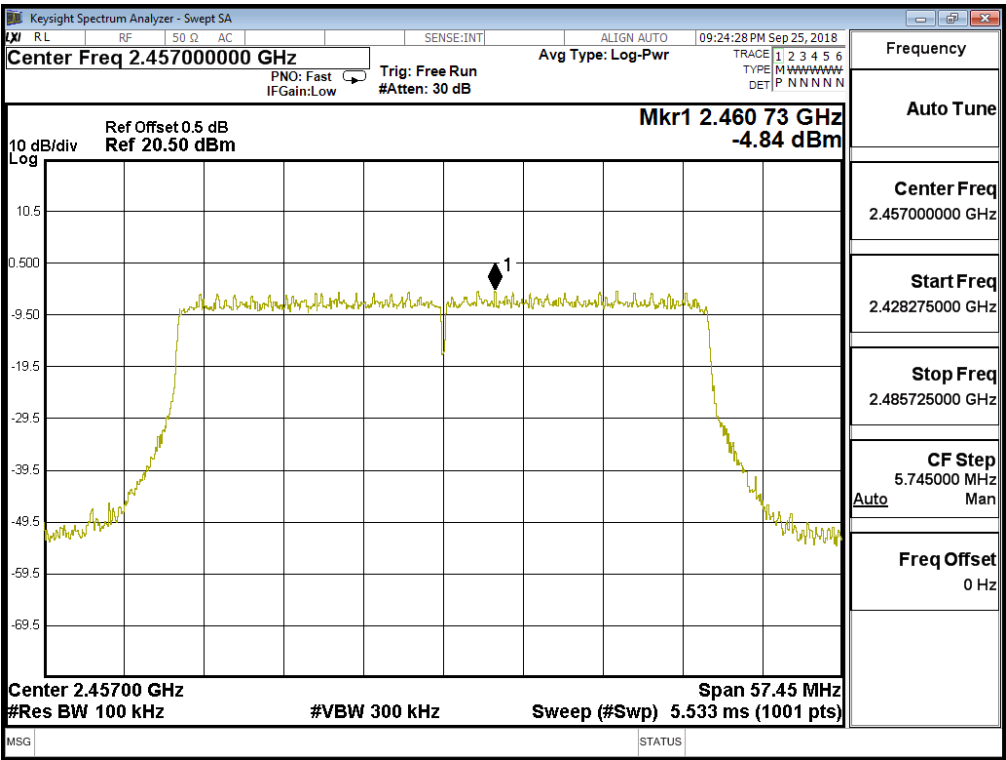


Figure Channel 11: (Chain A)

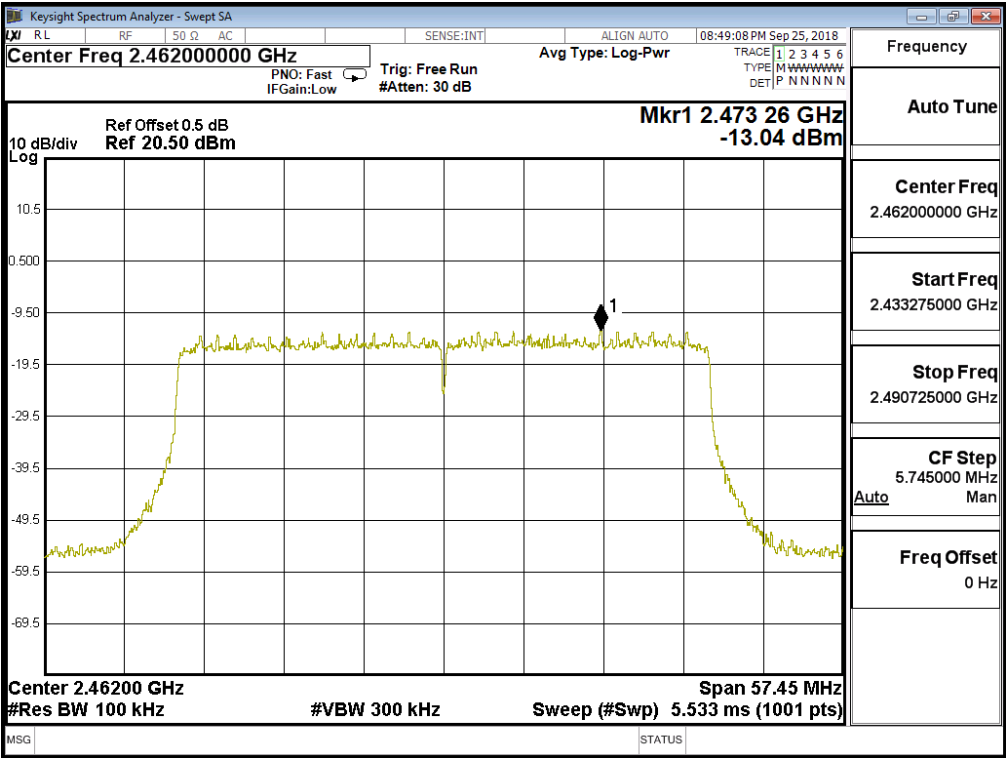
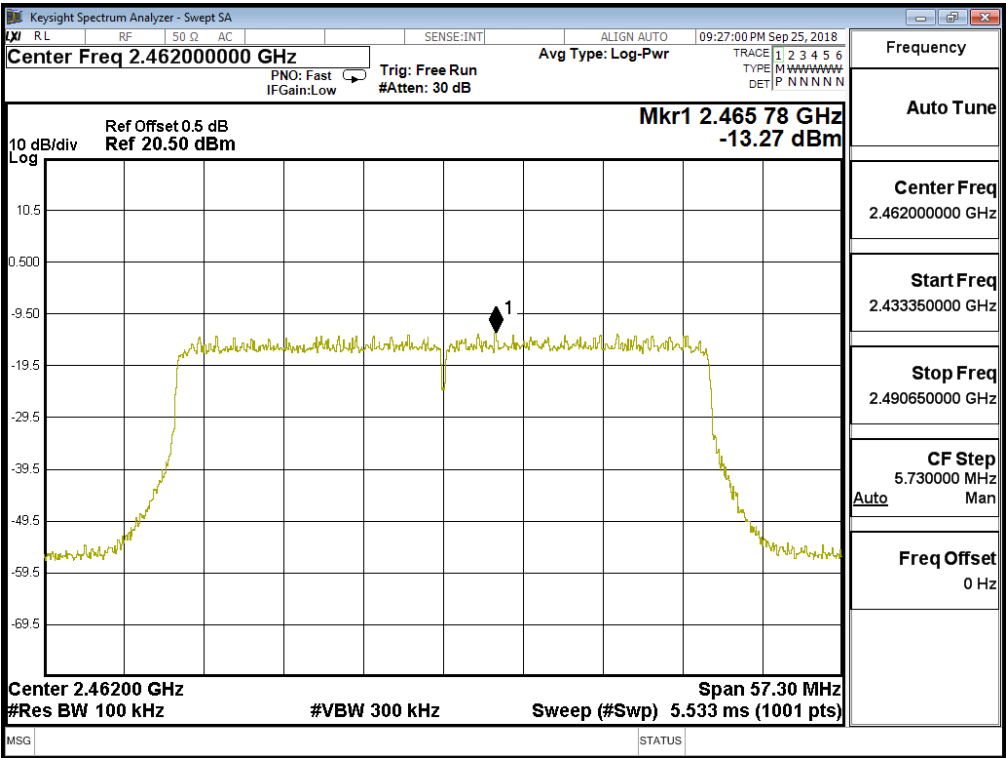


Figure Channel 11: (Chain B)



功率密度測試結果:

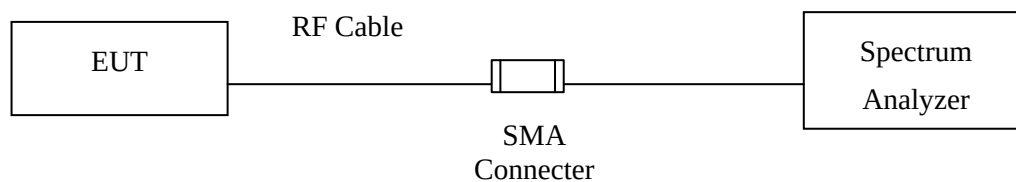
PASS

11. Duty Cycle

11.1. 量測方法

待測物之天線埠經由適當之衰減直接連至頻譜分析儀RF輸入端，
待測物應在正常發射狀態下量測。

11.2. 測試架構圖



11.3. 量測不確定度

此項測試之量測不確定度為 $\pm 2.31\text{msec}$

11.4. Duty Cycle 測試結果

待測物名稱：Intel® Wi-Fi 6 AX201

待測物型號：AX201NGW

測試頻道：--

量測天線：--

檢測器：峰值

測試日期：107年10月19日

測試項目：Duty Cycle

測試模式：--

測試距離：Conducted

環境溫度：20 °C

環境濕度：50 %

Duty Cycle Formula:

Duty Cycle = Ton / (Ton + Toff)

Duty Factor = 10 Log (1/Duty Cycle)

Results:

SISO A

2.4GHz band	Ton (ms)	Ton + Toff (ms)	Duty Cycle (%)	Duty Factor (dB)
802.11b	8.3913	8.6522	96.98	0.13
802.11g	2.1014	2.3623	88.96	0.51
802.11n20	24.7826	25.0725	98.84	0.05
802.11n40	17.8551	18.1449	98.40	0.07
802.11ax20	24.6377	24.9275	98.84	0.05
802.11ax40	19.7826	20.0725	98.56	0.06

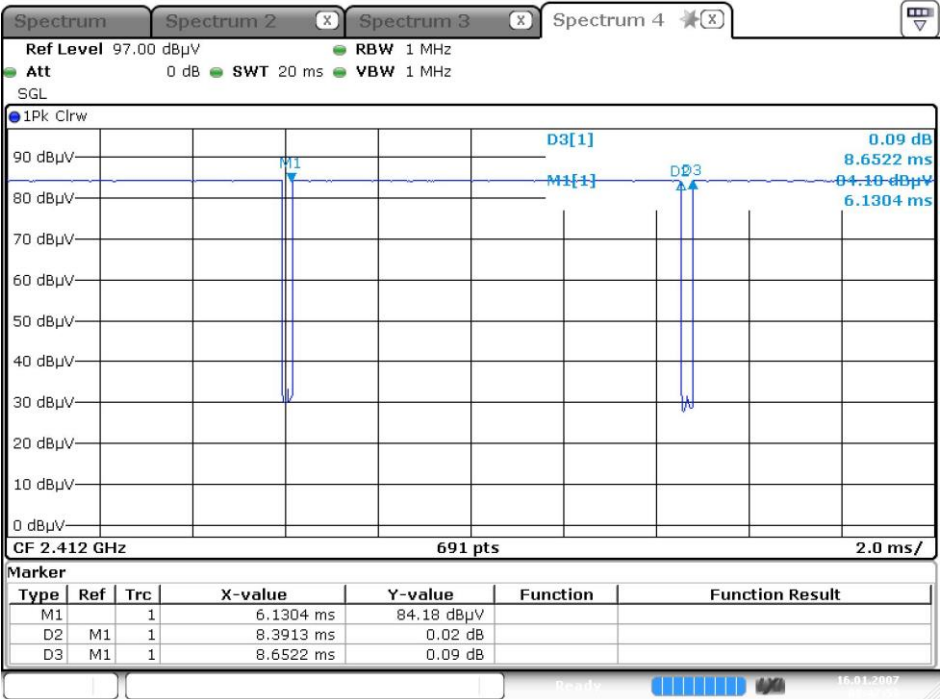
SISO B

2.4GHz band	Ton (ms)	Ton + Toff (ms)	Duty Cycle (%)	Duty Factor (dB)
802.11b	8.3913	8.6522	96.98	0.13
802.11g	2.0870	2.3623	88.35	0.54
802.11n20	24.7681	25.0435	98.90	0.05
802.11n40	17.8116	18.1594	98.08	0.08
802.11ax20	24.6957	24.9710	98.90	0.05
802.11ax40	19.7681	20.0435	98.63	0.06

MIMO

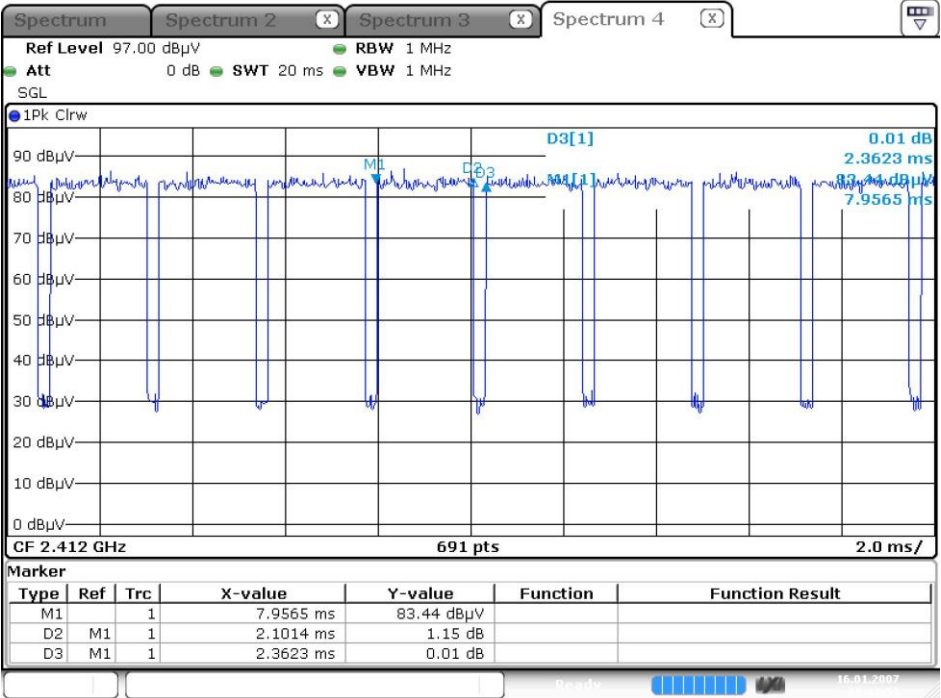
2.4GHz band	Ton (ms)	Ton + Toff (ms)	Duty Cycle (%)	Duty Factor (dB)
802.11n20	18.5507	18.8696	98.31	0.07
802.11n40	8.9565	9.2464	96.86	0.14
802.11ax20	19.8406	20.1159	98.63	0.06
802.11ax40	9.9130	10.2609	96.61	0.15

802.11b (SISO A)



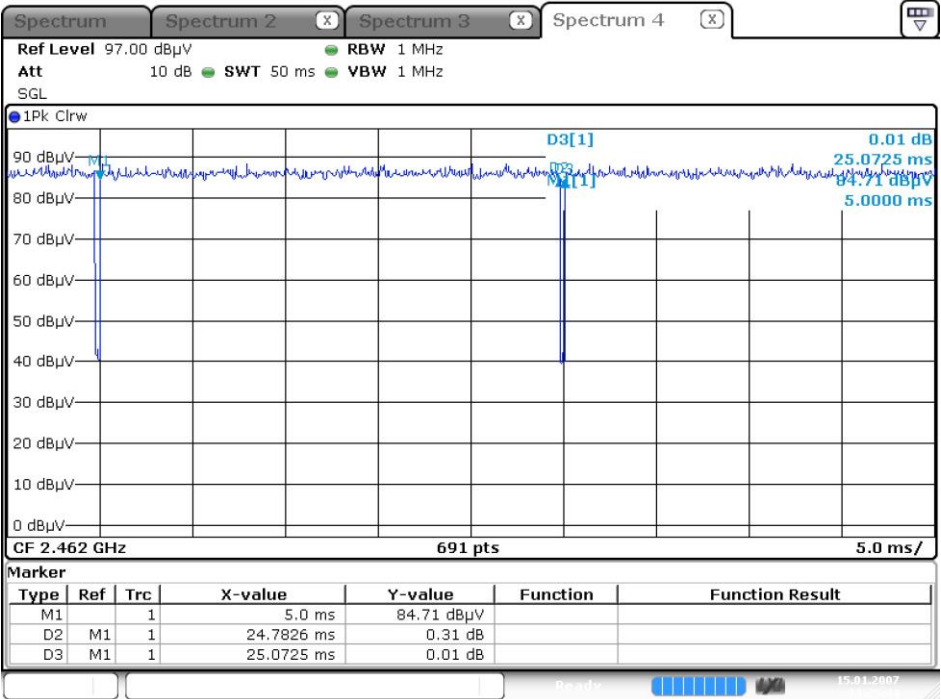
Date: 16.JAN.2007 08:47:59

802.11g (SISO A)



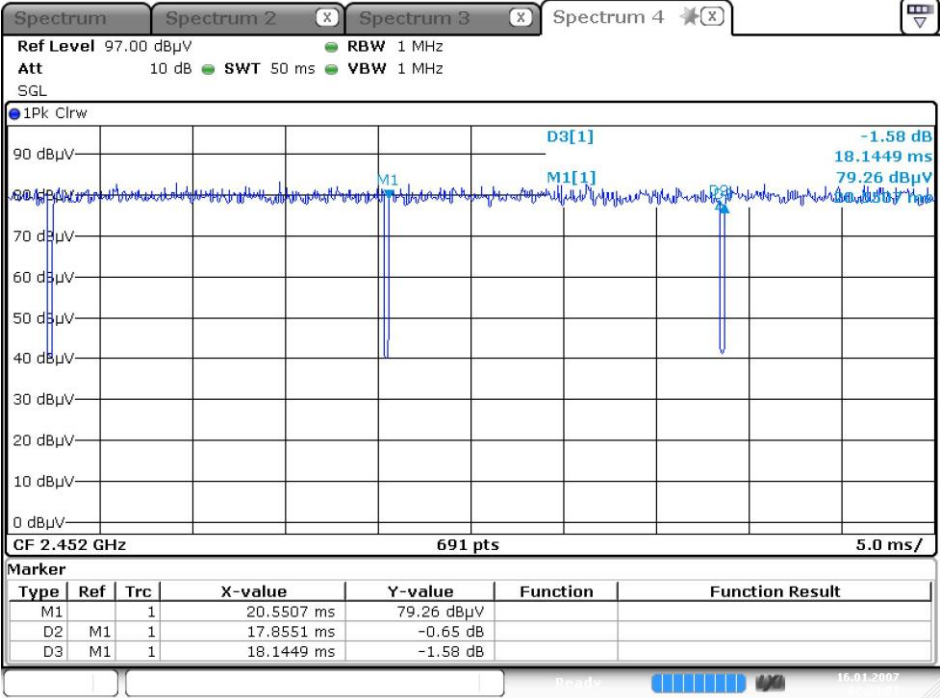
Date: 16.JAN.2007 08:48:59

802.11n20 (SISO A)



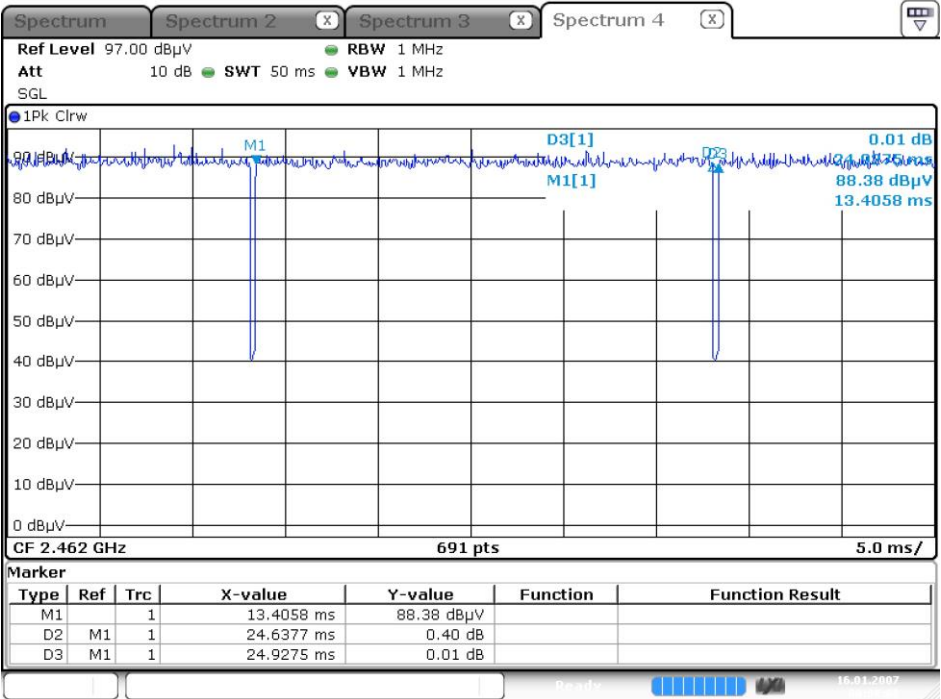
Date: 15.JAN.2007 23:25:43

802.11n40 (SISO A)



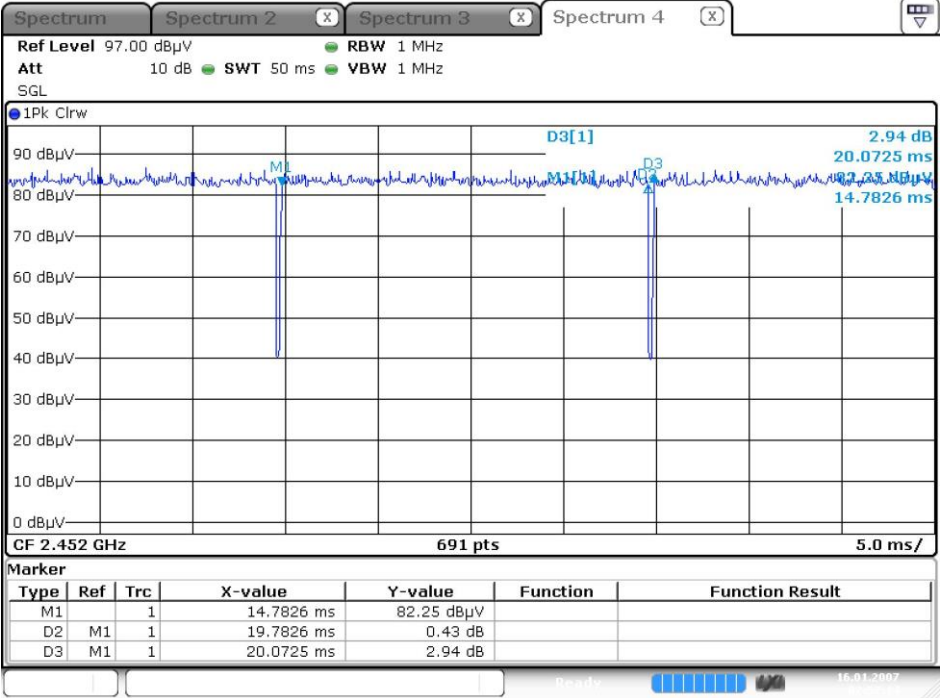
Date: 16.JAN.2007 02:29:00

802.11ax20 (SISO A)



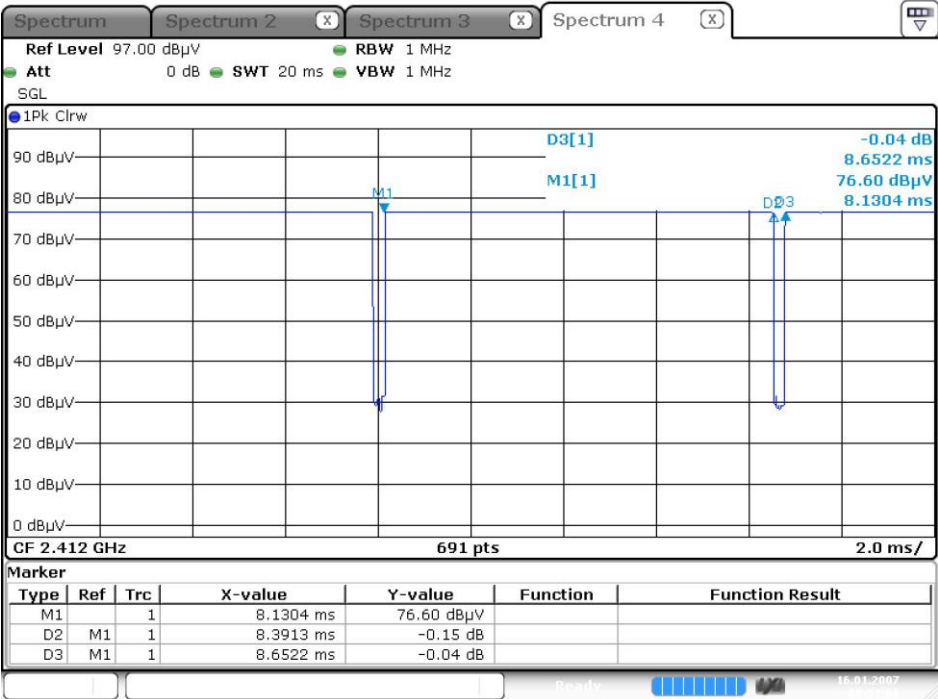
Date: 16.JAN.2007 00:08:08

802.11ax40 (SISO A)



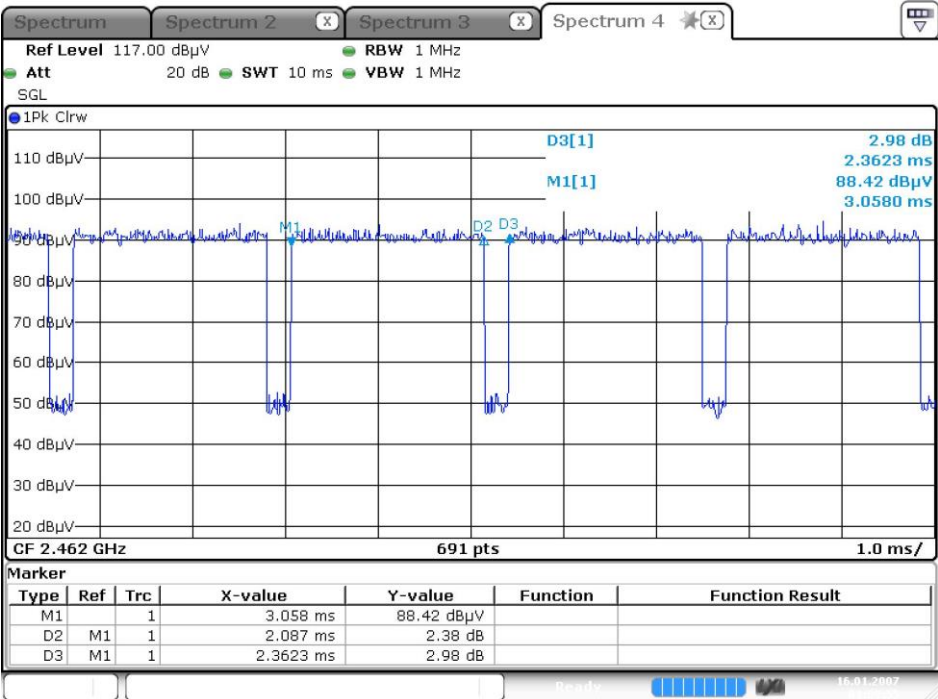
Date: 16.JAN.2007 02:52:14

802.11b (SISO B)



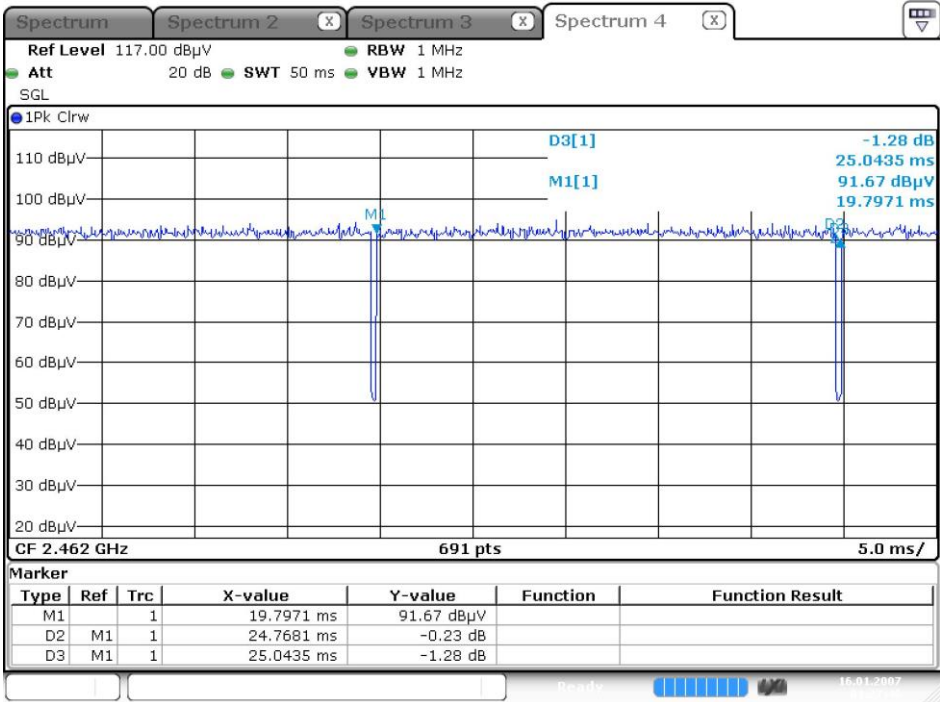
Date: 16.JAN.2007 08:51:09

802.11g (SISO B)



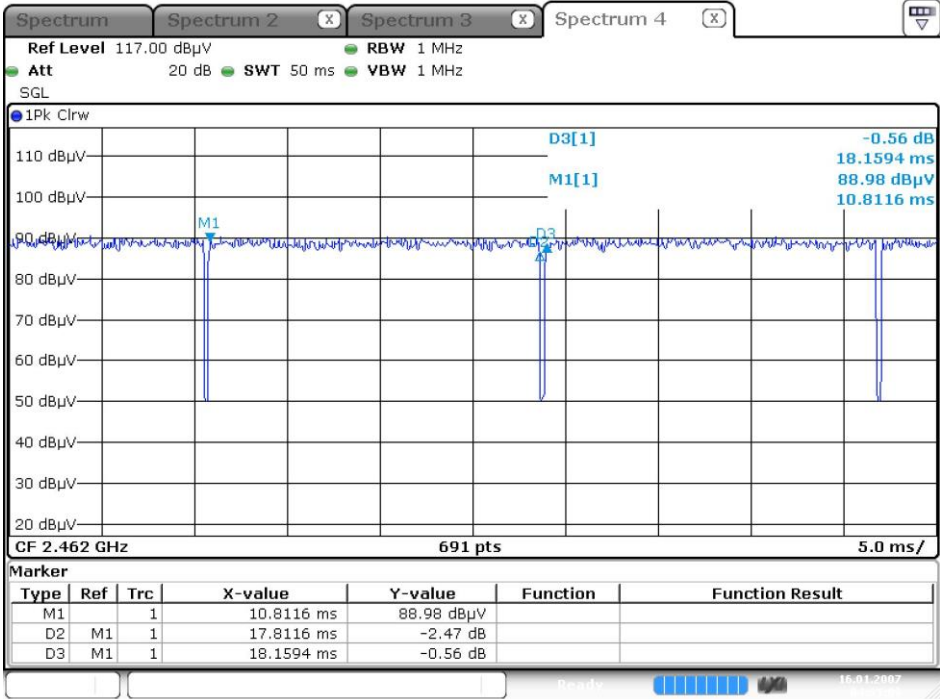
Date: 16.JAN.2007 03:09:55

802.11n20 (SISO B)



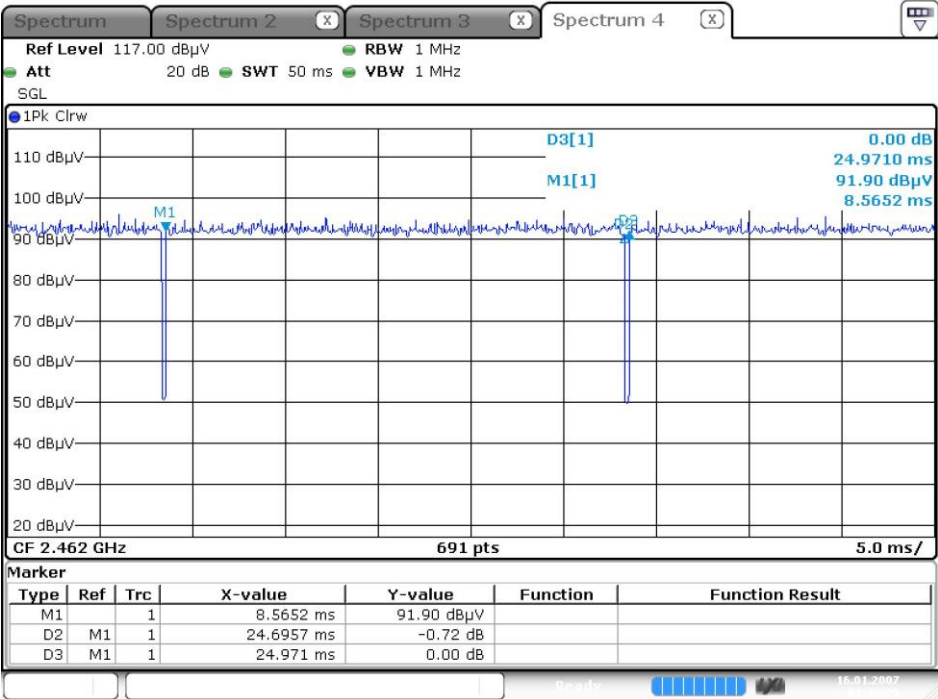
Date: 16.JAN.2007 03:27:46

802.11n40 (SISO B)



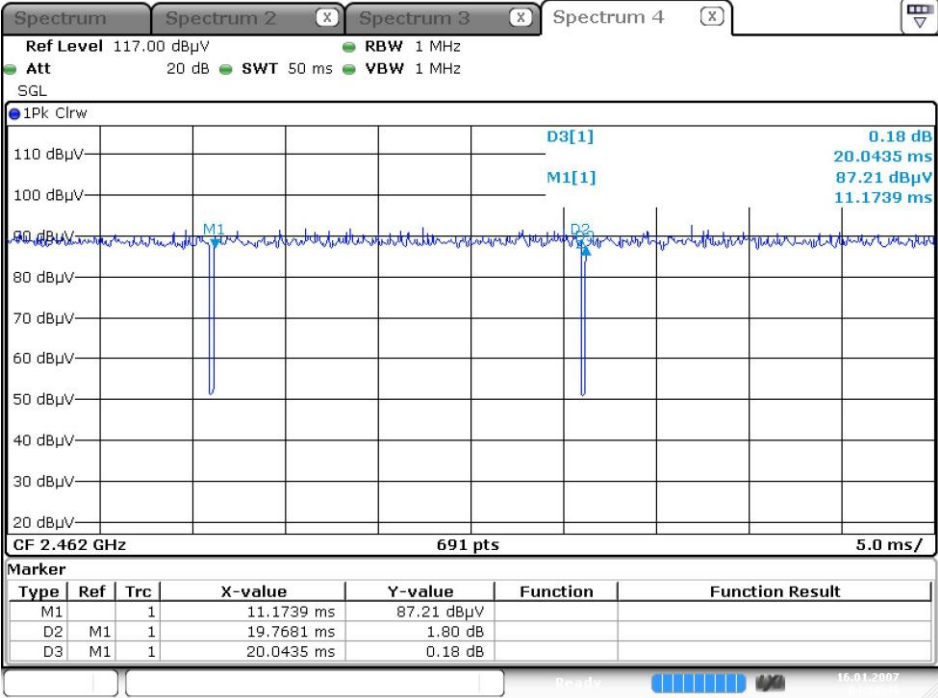
Date: 16.JAN.2007 04:35:10

802.11ax20 (SISO B)



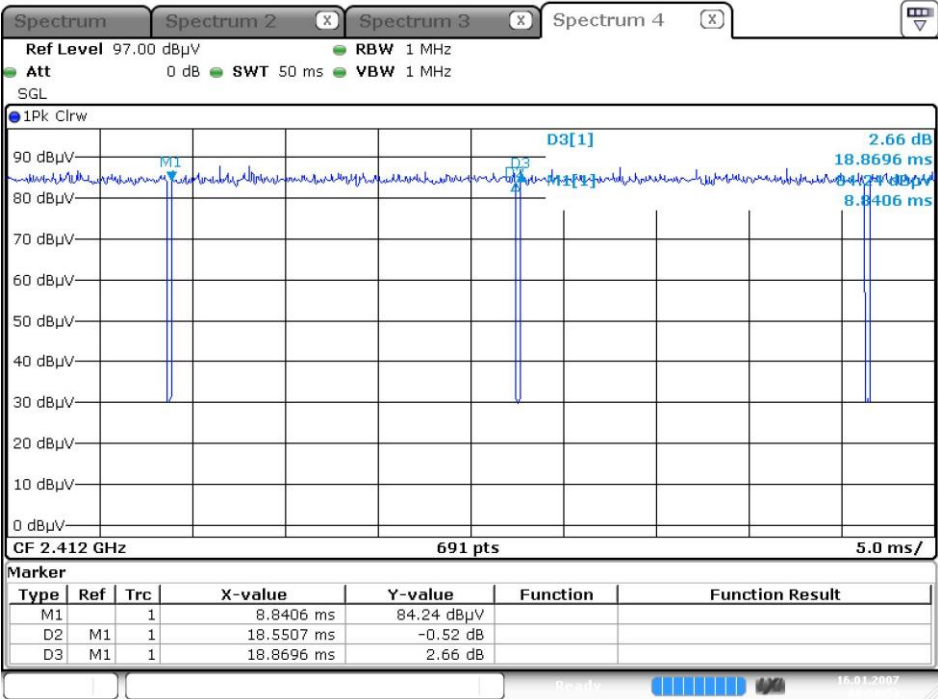
Date: 16.JAN.2007 03:38:23

802.11ax40 (SISO B)



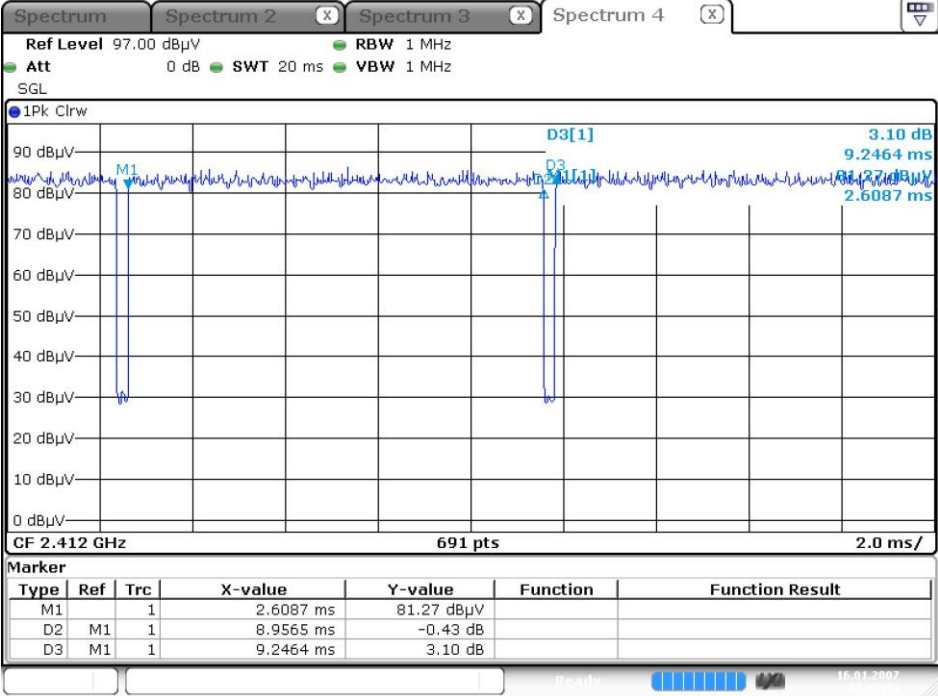
Date: 16.JAN.2007 04:38:49

802.11n20 (MIMO)



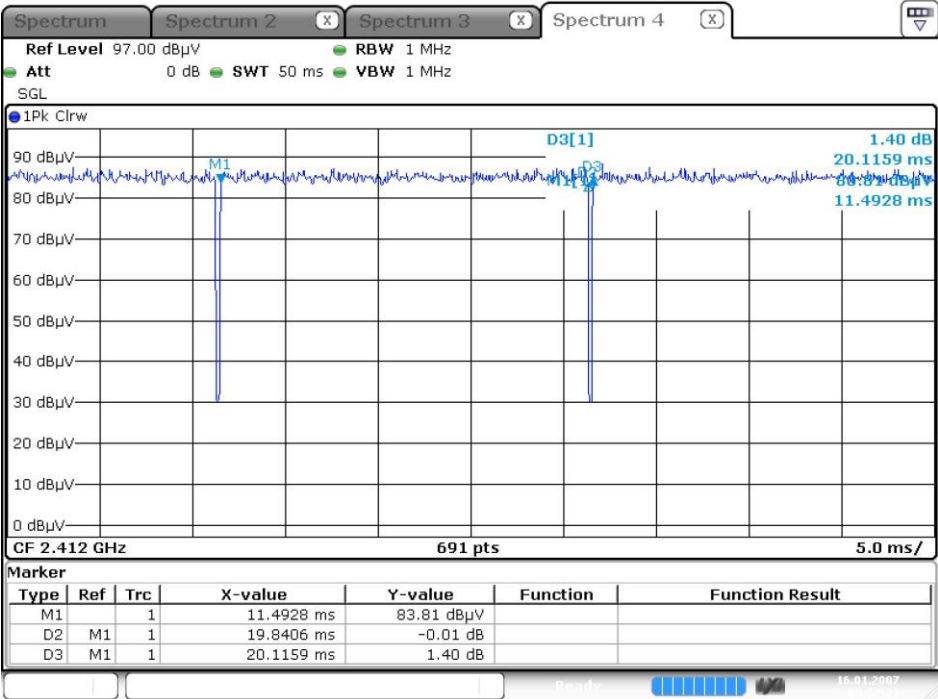
Date: 16. JAN 2007 08:58:53

802.11n40 (MIMO)



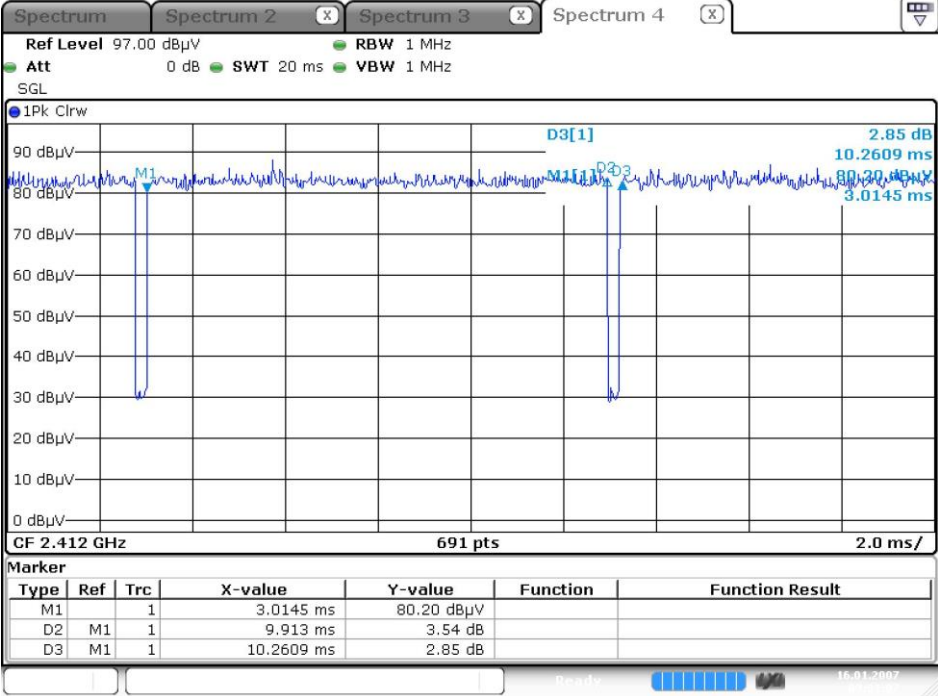
Date: 16. JAN 2007 08:59:53

802.11ax20 (MIMO)



Date: 16.JAN.2007 09:02:22

802.11ax40 (MIMO)



Date: 16.JAN.2007 09:01:06

附件 1: 待測物測試擺設相片

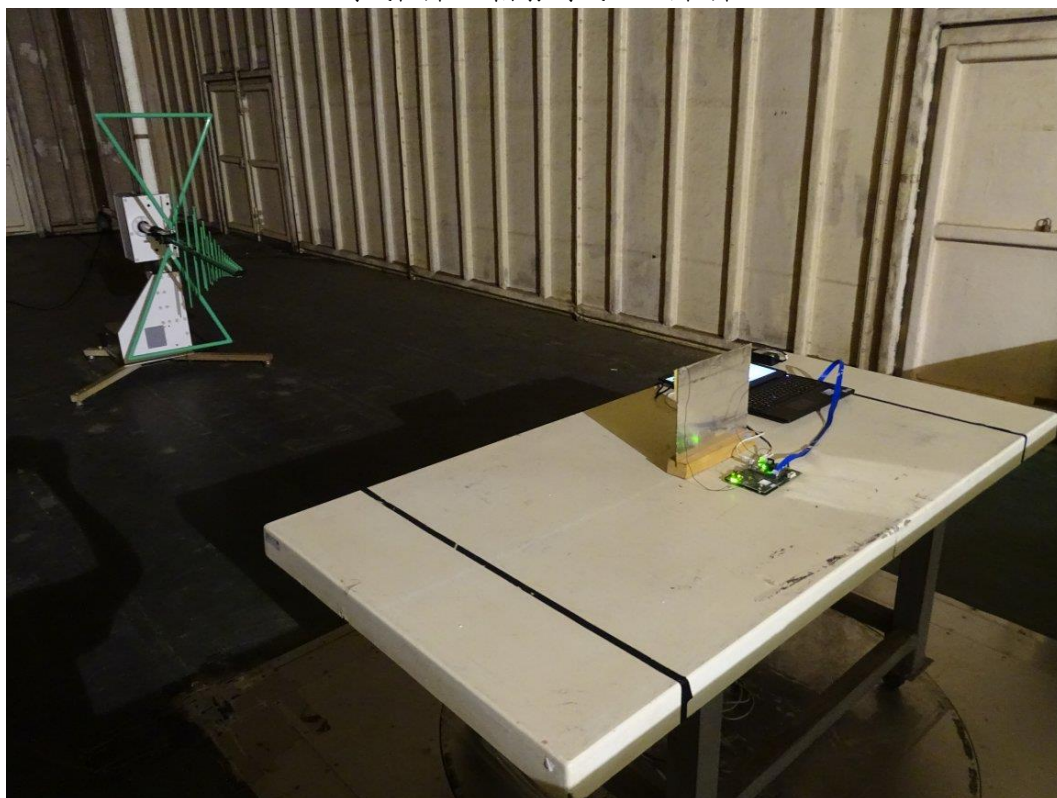
測試相片：電源端點測試 正面相片



測試相片：電源端點測試 背面相片



測試相片：輻射測試 正面相片



測試相片：輻射測試 背面相片



測試相片：輻射測試 正面相片(Horn)



測試相片：輻射測試 背面相片(Horn)

