

8.5. 使用頻率範圍外之任意 100 千赫雜訊測試結果

待測物名稱：Bluetooth Headset

待測物型號：HSC090W

測試頻道：CH 00 (2402MHz)

6 dB 頻寬：1MHz

量測天線：9120D/305 / BBHA9170/208

檢測器：峰值 & 平均值

測試日期：107 年 11 月 08 日

測試項目：使用頻率範圍外之任意 100 千赫雜訊

測試模式：Mode 1: 發射器 - 1Mbps (GFSK)

視頻頻寬：Peak: 1MHz, Average: 10Hz

測試距離：3 M (Horizontal)

環境溫度：23 °C

環境濕度：55 %

RF Radiated Measurement (Horizontal):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Result
00 (Peak)	2382.100	-2.722	61.170	58.448	74.000	54.000	Pass
00 (Peak)	2390.000	-2.687	59.359	56.672	74.000	54.000	Pass
00 (Peak)	2400.000	-2.660	76.705	74.045	--	--	--
00 (Peak)	2402.200	-2.657	110.673	108.016	--	--	--
00 (Average)	2376.000	-2.748	48.002	45.253	74.000	54.000	Pass
00 (Average)	2390.000	-2.687	47.835	45.148	74.000	54.000	Pass
00 (Average)	2400.000	-2.660	63.178	60.518	74.000	54.000	Pass
00 (Average)	2402.000	-2.657	97.733	95.076	--	--	--

Figure Channel 00:

Horizontal (Peak)

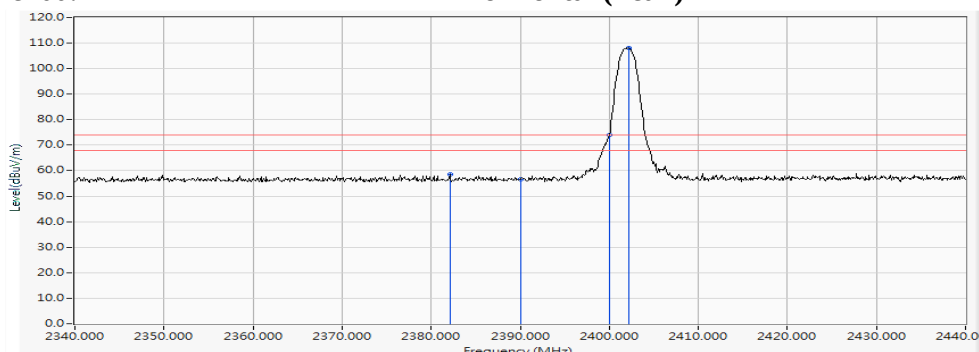
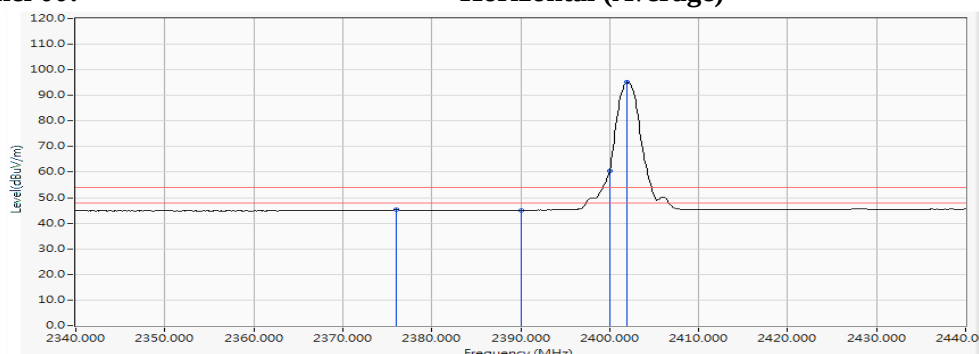


Figure Channel 00:

Horizontal (Average)



Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “*” means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

待測物名稱：Bluetooth Headset

待測物型號：HSC090W

測試頻道：CH 00 (2402MHz)

6 dB 頻寬：1MHz

量測天線：9120D/305 / BBHA9170/208

檢測器：峰值 & 平均值

測試日期：107 年 11 月 08 日

測試項目：使用頻率範圍外之任意 100 千赫雜訊

測試模式：Mode 1: 發射器 - 1Mbps (GFSK)

視頻頻寬：Peak: 1MHz, Average: 10Hz

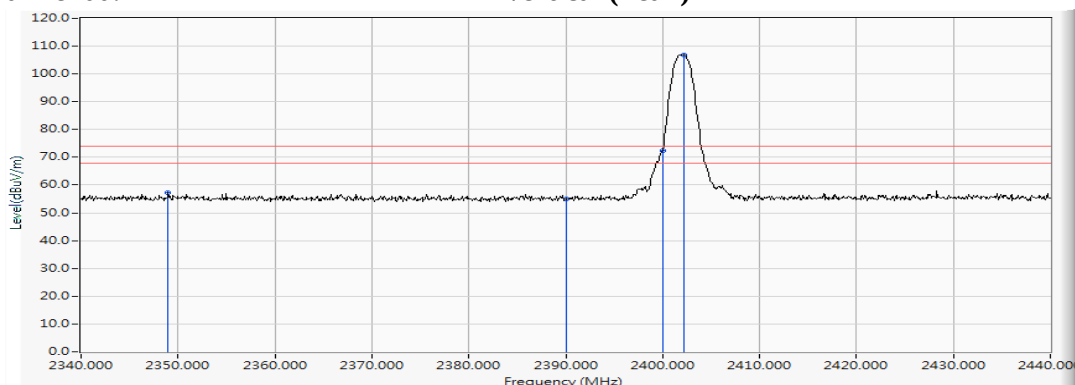
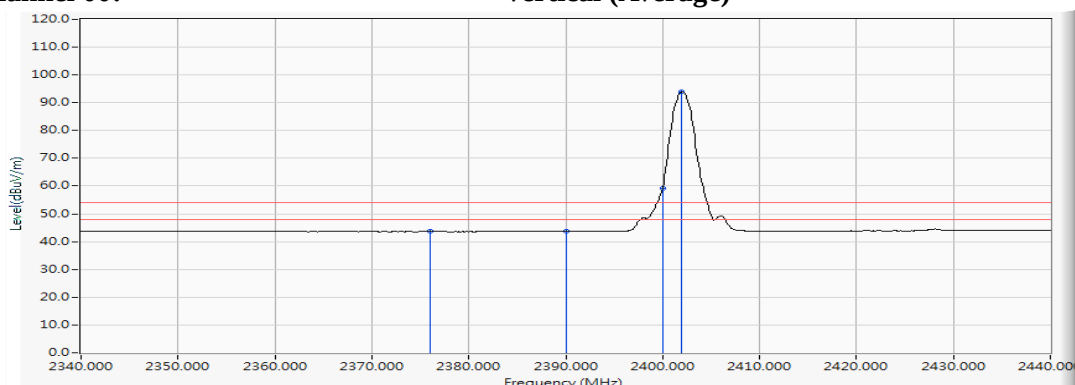
測試距離：3 M (Horizontal)

環境溫度：23 °C

環境濕度：55 %

RF Radiated Measurement (Vertical):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Result
00 (Peak)	2349.000	-3.982	61.400	57.419	74.000	54.000	Pass
00 (Peak)	2390.000	-4.159	59.034	54.875	74.000	54.000	Pass
00 (Peak)	2400.000	-4.171	76.689	72.518	74.000	54.000	Pass
00 (Peak)	2402.200	-4.171	111.065	106.894	--	--	--
00 (Average)	2376.000	-4.112	47.958	43.846	74.000	54.000	Pass
00 (Average)	2390.000	-4.159	47.816	43.657	74.000	54.000	Pass
00 (Average)	2400.000	-4.171	63.364	59.193	74.000	54.000	Pass
00 (Average)	2402.000	-4.171	97.990	93.819	--	--	--

Figure Channel 00:**Vertical (Peak)****Figure Channel 00:****Vertical (Average)**

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “*”, means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

待測物名稱：Bluetooth Headset

待測物型號：HSC090W

測試頻道：CH 78 (2480MHz)

6 dB 頻寬：1MHz

量測天線：9120D/305 / BBHA9170/208

檢測器：峰值 & 平均值

測試日期：107 年 11 月 08 日

測試項目：使用頻率範圍外之任意 100 千赫雜訊

測試模式：Mode 1: 發射器 - 1Mbps (GFSK)

視頻頻寬：Peak: 1MHz, Average: 10Hz

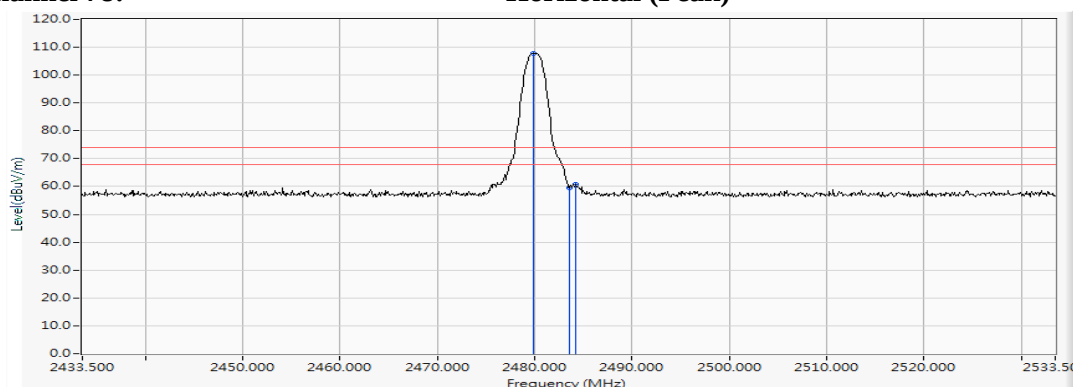
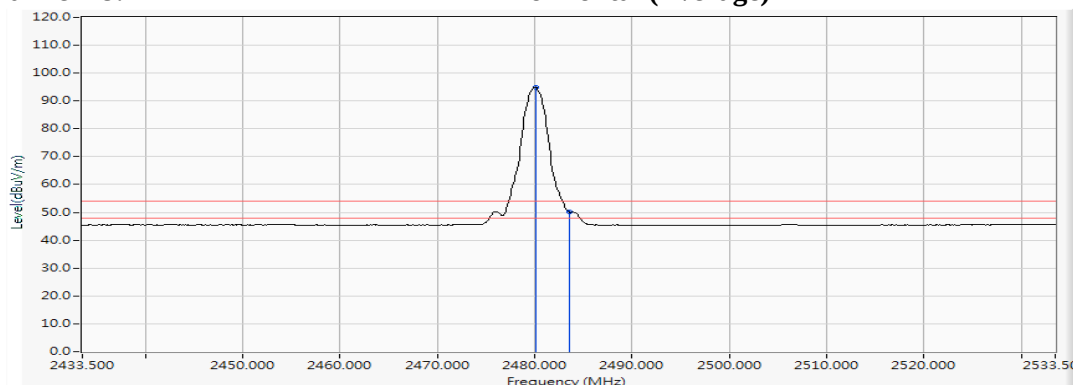
測試距離：3 M (Horizontal)

環境溫度：23 °C

環境濕度：55 %

RF Radiated Measurement (Horizontal):

	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Result
78 (Peak)	2479.800	-2.605	110.450	107.845	--	--	--
78 (Peak)	2483.500	-2.601	62.261	59.659	74.000	54.000	Pass
78 (Peak)	2484.200	-2.602	63.537	60.936	74.000	54.000	Pass
78 (Average)	2480.100	-2.605	97.556	94.951	--	--	--
78 (Average)	2483.500	-2.601	52.704	50.102	74.000	54.000	Pass

Figure Channel 78:**Horizontal (Peak)****Figure Channel 78:****Horizontal (Average)****Note:**

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “ * ”, means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

待測物名稱：Bluetooth Headset

待測物型號：HSC090W

測試頻道：CH 78 (2480MHz)

6 dB 頻寬：1MHz

量測天線：9120D/305 / BBHA9170/208

檢測器：峰值 & 平均值

測試日期：107 年 11 月 08 日

測試項目：使用頻率範圍外之任意 100 千赫雜訊

測試模式：Mode 1: 發射器 - 1Mbps (GFSK)

視頻頻寬：Peak: 1MHz, Average: 10Hz

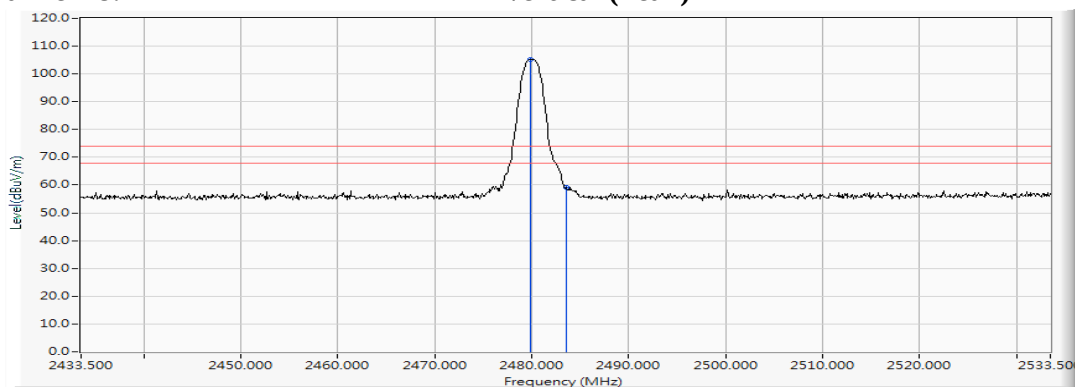
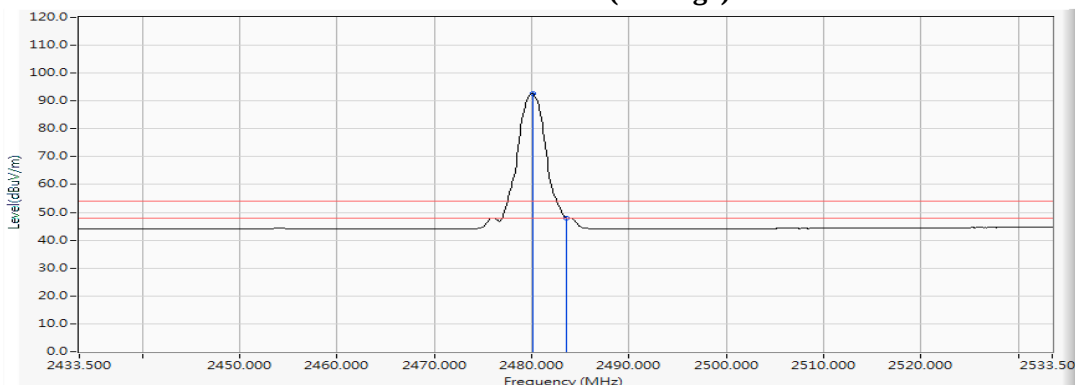
測試距離：3 M (Horizontal)

環境溫度：23 °C

環境濕度：55 %

RF Radiated Measurement (Vertical):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Result
78 (Peak)	2479.800	-3.978	109.240	105.262	--	--	--
78 (Peak)	2483.500	-3.966	63.140	59.173	74.000	54.000	Pass
78 (Average)	2480.100	-3.977	96.591	92.614	--	--	--
78 (Average)	2483.500	-3.966	51.997	48.030	74.000	54.000	Pass

Figure Channel 78:**Vertical (Peak)****Figure Channel 78:****Vertical (Average)****Note:**

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “ * ”, means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

待測物名稱：Bluetooth Headset

待測物型號：HSC090W

測試頻道：CH 00 (2402MHz)

6 dB 頻寬：1MHz

量測天線：9120D/305 / BBHA9170/208

檢測器：峰值 & 平均值

測試日期：107 年 11 月 08 日

測試項目：使用頻率範圍外之任意 100 千赫雜訊

測試模式：Mode 1: 發射器 - 3Mbps (8DPSK)

視頻頻寬：Peak: 1MHz, Average: 10Hz

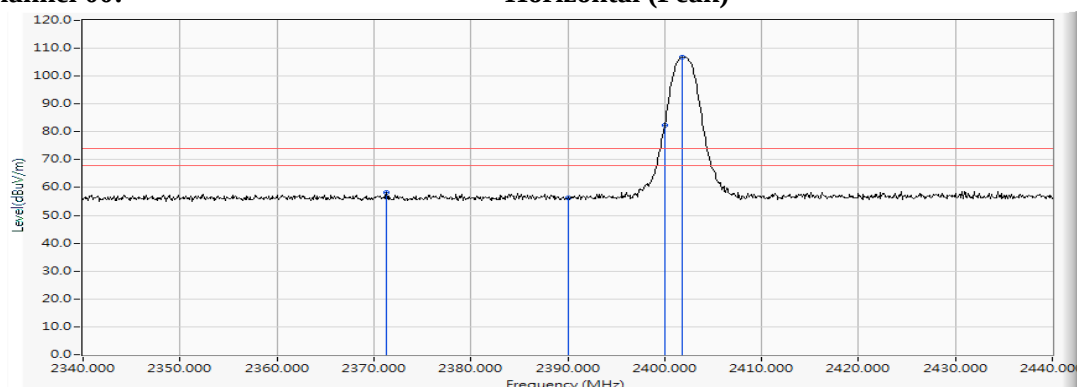
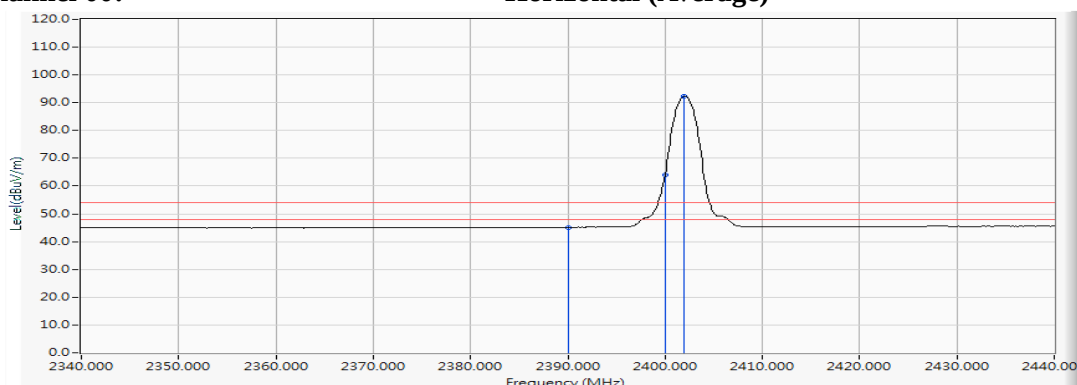
測試距離：3 M (Horizontal)

環境溫度：23 °C

環境濕度：55 %

RF Radiated Measurement (Horizontal):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Result
00 (Peak)	2371.300	-2.769	60.969	58.199	74.000	54.000	Pass
00 (Peak)	2390.000	-2.687	58.890	56.203	74.000	54.000	Pass
00 (Peak)	2400.000	-2.660	84.875	82.215	--	--	--
00 (Peak)	2401.800	-2.658	109.557	106.899	--	--	--
00 (Average)	2390.000	-2.687	47.830	45.143	74.000	54.000	Pass
00 (Average)	2400.000	-2.660	66.688	64.028	74.000	54.000	Pass
00 (Average)	2402.000	-2.657	94.979	92.322	--	--	--

Figure Channel 00:**Horizontal (Peak)****Figure Channel 00:****Horizontal (Average)**

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “*”, means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

待測物名稱：Bluetooth Headset

待測物型號：HSC090W

測試頻道：CH 00 (2402MHz)

6 dB 頻寬：1MHz

量測天線：9120D/305 / BBHA9170/208

檢測器：峰值 & 平均值

測試日期：107 年 11 月 08 日

測試項目：使用頻率範圍外之任意 100 千赫雜訊

測試模式：Mode 1: 發射器 - 3Mbps (8DPSK)

視頻頻寬：Peak: 1MHz, Average: 10Hz

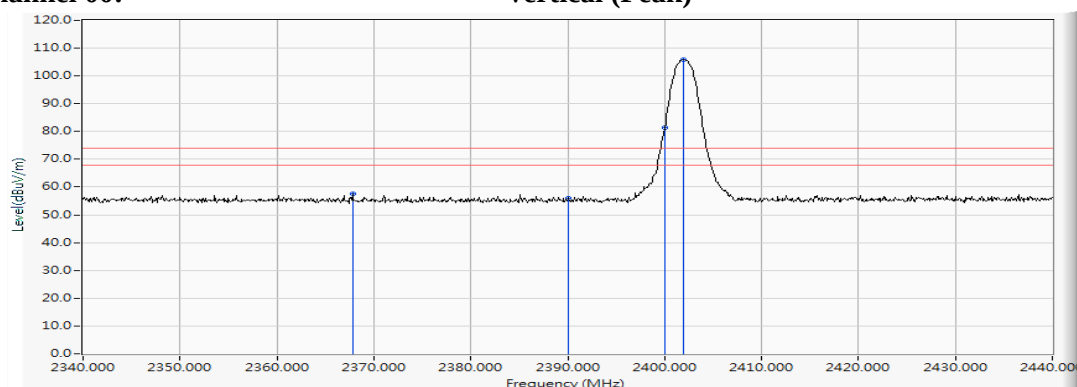
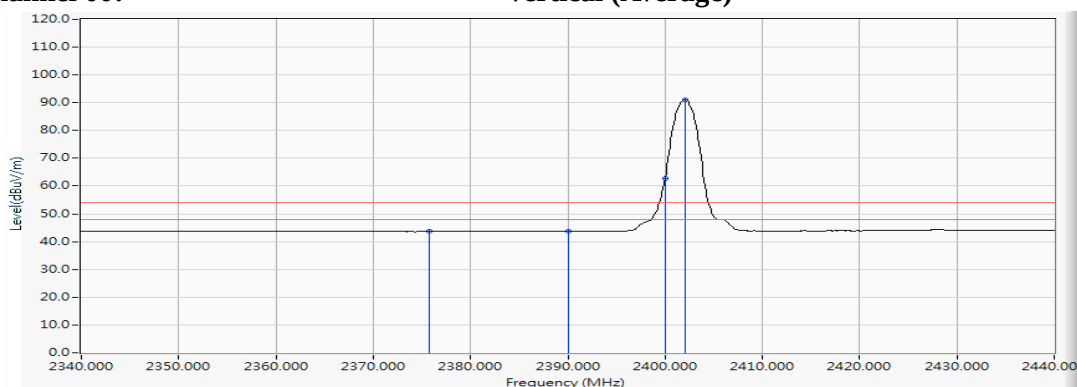
測試距離：3 M (Horizontal)

環境溫度：23 °C

環境濕度：55 %

RF Radiated Measurement (Vertical):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Result
00 (Peak)	2367.800	-4.083	61.526	57.443	74.000	54.000	Pass
00 (Peak)	2390.000	-4.159	60.009	55.850	74.000	54.000	Pass
00 (Peak)	2400.000	-4.171	85.414	81.243	--	--	--
00 (Peak)	2402.000	-4.171	109.957	105.786	--	--	--
00 (Average)	2375.700	-4.111	47.895	43.784	74.000	54.000	Pass
00 (Average)	2390.000	-4.159	47.850	43.691	74.000	54.000	Pass
00 (Average)	2400.000	-4.171	66.889	62.718	74.000	54.000	Pass
00 (Average)	2402.100	-4.171	95.303	91.132	--	--	--

Figure Channel 00:**Vertical (Peak)****Figure Channel 00:****Vertical (Average)**

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “ * ”, means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

待測物名稱：Bluetooth Headset

待測物型號：HSC090W

測試頻道：CH 78 (2480MHz)

6 dB 頻寬：1MHz

量測天線：9120D/305 / BBHA9170/208

檢測器：峰值 & 平均值

測試日期：107 年 11 月 08 日

測試項目：使用頻率範圍外之任意 100 千赫雜訊

測試模式：Mode 1: 發射器 - 3Mbps (8DPSK)

視頻頻寬：Peak: 1MHz, Average: 10Hz

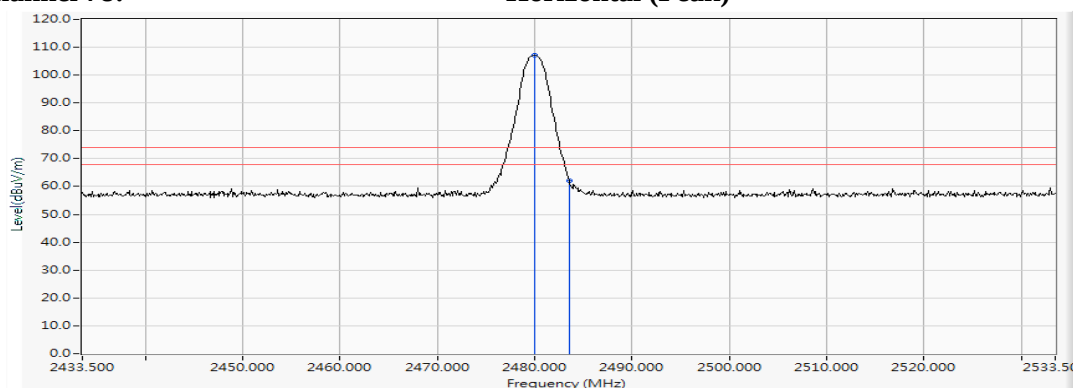
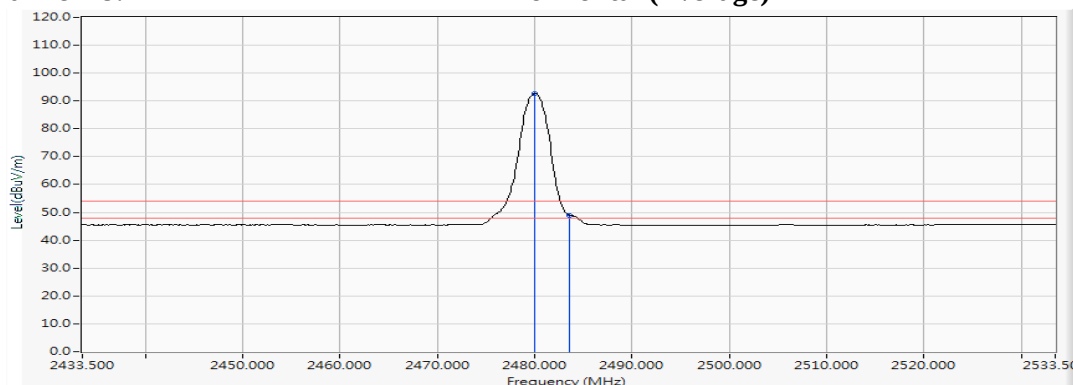
測試距離：3 M (Horizontal)

環境溫度：23 °C

環境濕度：55 %

RF Radiated Measurement (Horizontal):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Result
78 (Peak)	2480.000	-2.605	109.653	107.048	--	--	--
78 (Peak)	2483.500	-2.601	64.563	61.961	74.000	54.000	Pass
78 (Average)	2480.000	-2.605	95.306	92.701	--	--	--
78 (Average)	2483.500	-2.601	51.615	49.013	74.000	54.000	Pass

Figure Channel 78:**Horizontal (Peak)****Figure Channel 78:****Horizontal (Average)****Note:**

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “*”, means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

待測物名稱：Bluetooth Headset

待測物型號：HSC090W

測試頻道：CH 78 (2480MHz)

6 dB 頻寬：1MHz

量測天線：9120D/305 / BBHA9170/208

檢測器：峰值 & 平均值

測試日期：107 年 11 月 08 日

測試項目：使用頻率範圍外之任意 100 千赫雜訊

測試模式：Mode 1: 發射器 - 3Mbps (8DPSK)

視頻頻寬：Peak: 1MHz, Average: 10Hz

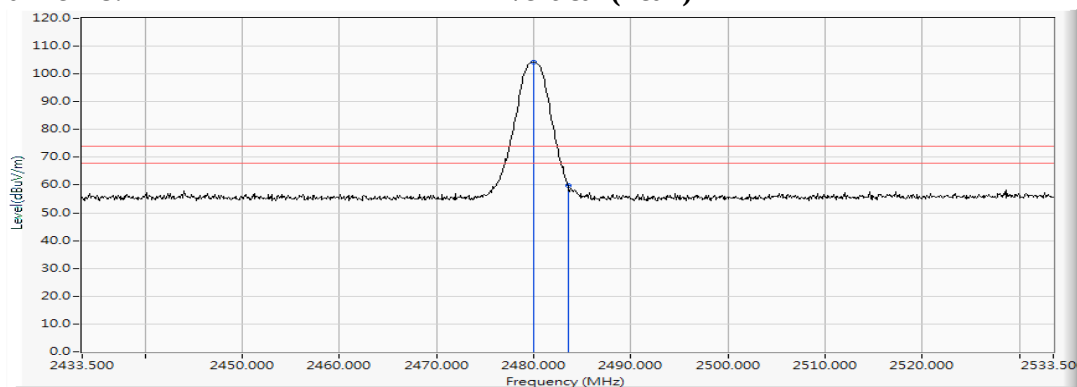
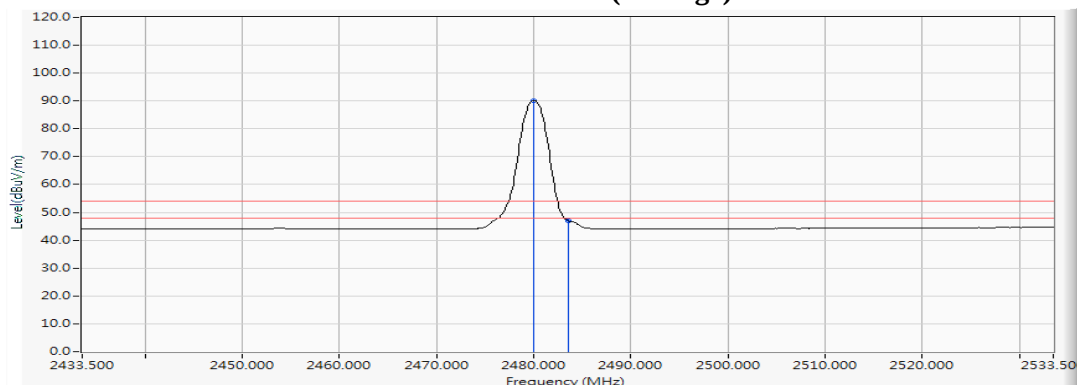
測試距離：3 M (Horizontal)

環境溫度：23 °C

環境濕度：55 %

RF Radiated Measurement (Vertical):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Result
78 (Peak)	2480.000	-3.978	108.199	104.221	--	--	--
78 (Peak)	2483.500	-3.966	63.689	59.722	74.000	54.000	Pass
78 (Average)	2480.000	-3.978	94.127	90.149	--	--	--
78 (Average)	2483.500	-3.966	50.965	46.998	74.000	54.000	Pass

Figure Channel 78:**Vertical (Peak)****Figure Channel 78:****Vertical (Average)****Note:**

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “ * ”, means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

待測物名稱：Bluetooth Headset

待測物型號：HSC090W

測試頻道：CH 00 (2402MHz)

6 dB 頻寬：1MHz

量測天線：9120D/305 / BBHA9170/208

檢測器：峰值 & 平均值

測試日期：107 年 11 月 08 日

測試項目：使用頻率範圍外之任意 100 千赫雜訊

測試模式：Mode 1: 發射器 - BLE Mode

視頻頻寬：Peak: 1MHz, Average: 10Hz

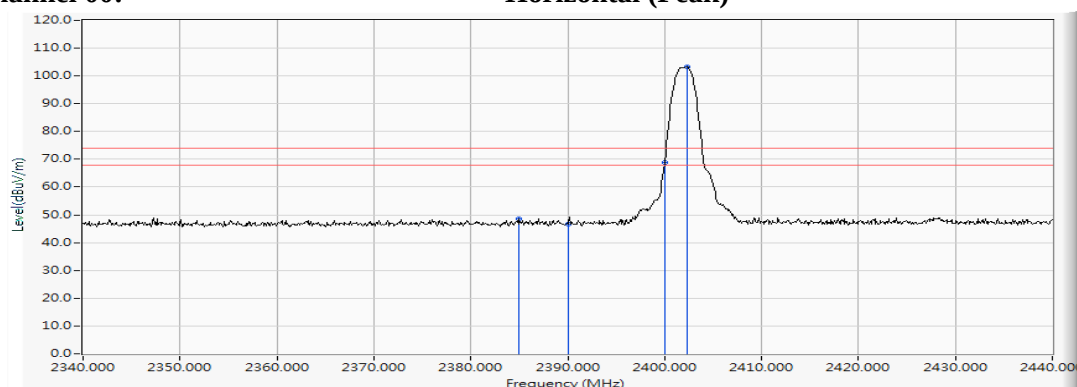
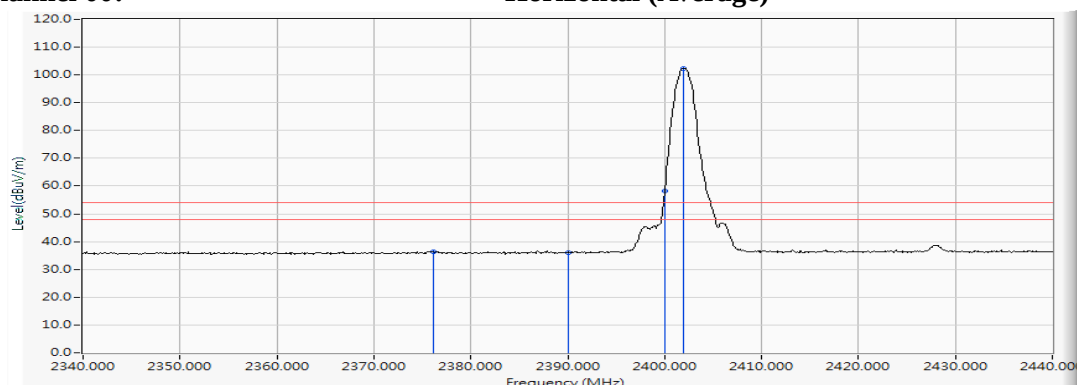
測試距離：3 M (Horizontal)

環境溫度：23 °C

環境濕度：55 %

RF Radiated Measurement (Horizontal):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Result
00 (Peak)	2385.000	-2.710	51.224	48.515	74.000	54.000	Pass
00 (Peak)	2390.000	-2.687	49.263	46.576	74.000	54.000	Pass
00 (Peak)	2400.000	-2.660	71.473	68.813	--	--	--
00 (Peak)	2402.300	-2.657	105.889	103.232	--	--	--
00 (Average)	2376.100	-2.748	39.260	36.512	74.000	54.000	Pass
00 (Average)	2390.000	-2.687	38.724	36.037	74.000	54.000	--
00 (Average)	2400.000	-2.660	60.929	58.269	--	--	--
00 (Average)	2402.000	-2.657	105.079	102.422	--	--	--

Figure Channel 00:**Horizontal (Peak)****Figure Channel 00:****Horizontal (Average)**

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “*”, means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

待測物名稱：Bluetooth Headset

待測物型號：HSC090W

測試頻道：CH 00 (2402MHz)

6 dB 頻寬：1MHz

量測天線：9120D/305 / BBHA9170/208

檢測器：峰值 & 平均值

測試日期：107 年 11 月 08 日

測試項目：使用頻率範圍外之任意 100 千赫雜訊

測試模式：Mode 1: 發射器 - BLE Mode

視頻頻寬：Peak: 1MHz, Average: 10Hz

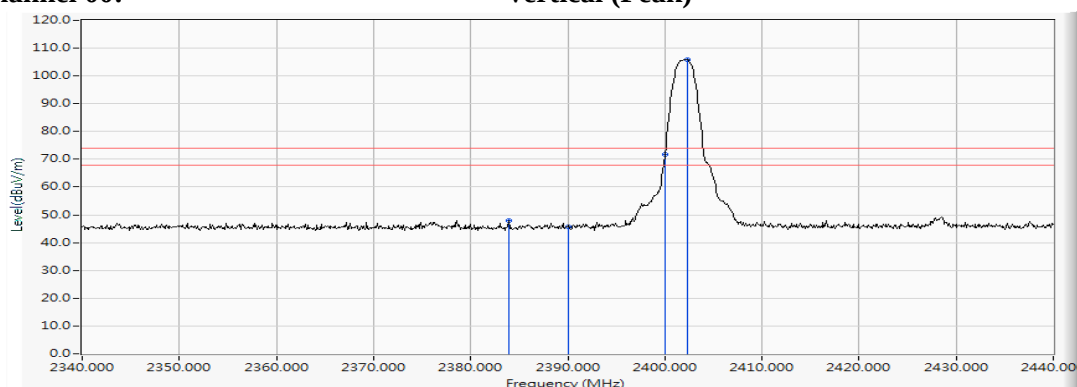
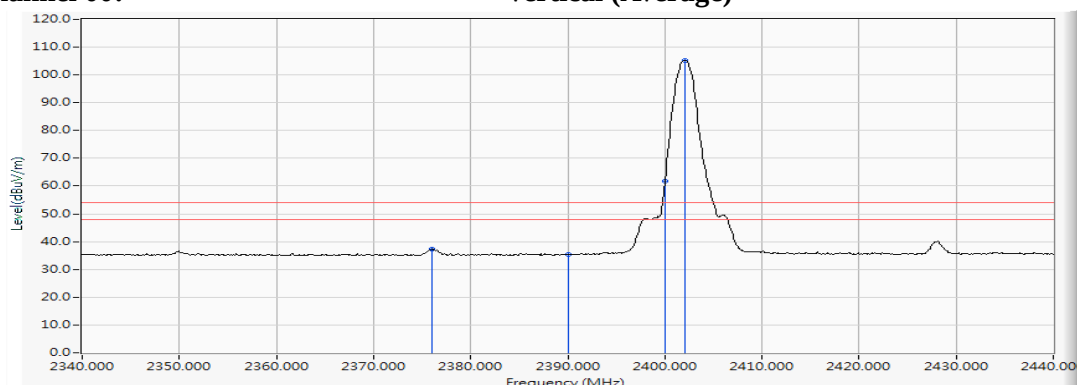
測試距離：3 M (Horizontal)

環境溫度：23 °C

環境濕度：55 %

RF Radiated Measurement (Vertical):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Result
00 (Peak)	2383.900	-4.138	52.187	48.049	74.000	54.000	Pass
00 (Peak)	2390.000	-4.159	49.767	45.608	74.000	54.000	Pass
00 (Peak)	2400.000	-4.171	75.895	71.724	--	--	--
00 (Peak)	2402.300	-4.171	110.134	105.963	--	--	--
00 (Average)	2376.000	-4.112	41.400	37.288	74.000	54.000	Pass
00 (Average)	2390.000	-4.159	39.456	35.297	74.000	54.000	Pass
00 (Average)	2400.000	-4.171	65.806	61.635	--	--	--
00 (Average)	2402.100	-4.171	109.415	105.244	--	--	--

Figure Channel 00:**Vertical (Peak)****Figure Channel 00:****Vertical (Average)**

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “*”, means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

待測物名稱：Bluetooth Headset

待測物型號：HSC090W

測試頻道：CH 39 (2480MHz)

6 dB 頻寬：1MHz

量測天線：9120D/305 / BBHA9170/208

檢測器：峰值 & 平均值

測試日期：107 年 11 月 08 日

測試項目：使用頻率範圍外之任意 100 千赫雜訊

測試模式：Mode 1: 發射器 - BLE Mode

視頻頻寬：Peak: 1MHz, Average: 10Hz

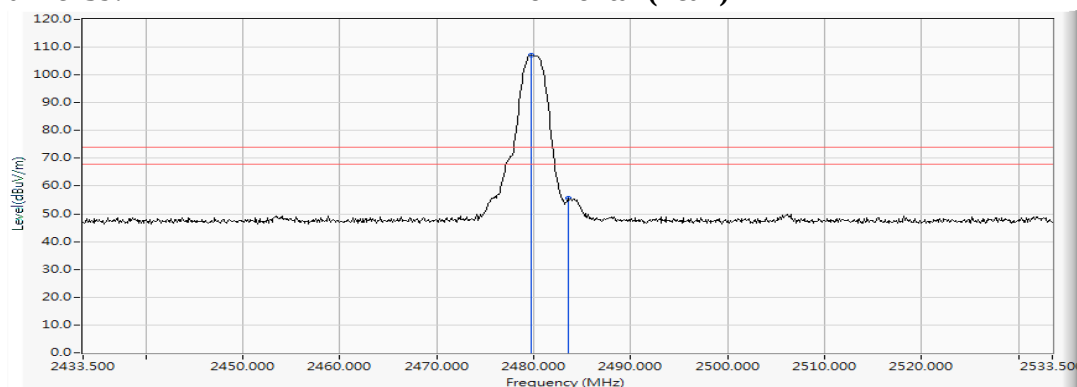
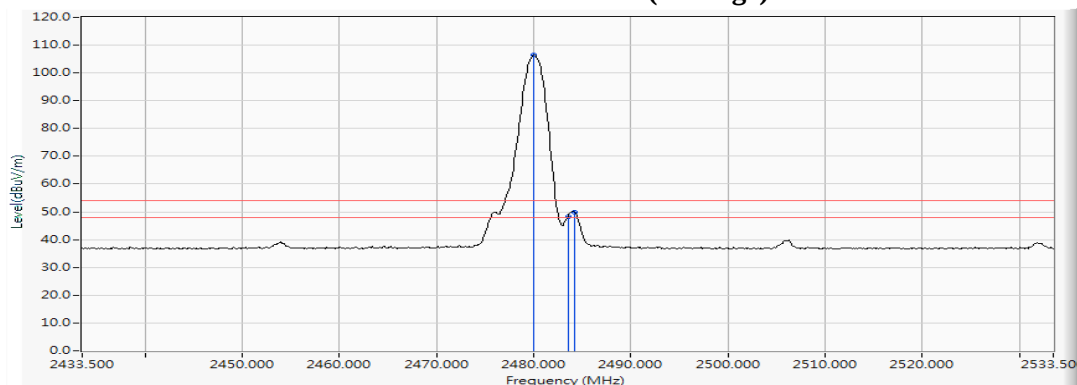
測試距離：3 M (Horizontal)

環境溫度：23 °C

環境濕度：55 %

RF Radiated Measurement (Horizontal):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Result
39 (Peak)	2479.700	-2.604	109.759	107.154	--	--	--
39 (Peak)	2483.500	-2.601	58.132	55.530	74.000	54.000	Pass
39 (Average)	2480.000	-2.605	109.011	106.406	--	--	--
39 (Average)	2483.500	-2.601	50.830	48.228	74.000	54.000	Pass
39 (Average)	2484.200	-2.602	52.623	50.022	74.000	54.000	Pass

Figure Channel 39:**Horizontal (Peak)****Figure Channel 39:****Horizontal (Average)**

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “ * ”, means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

待測物名稱：Bluetooth Headset

待測物型號：HSC090W

測試頻道：CH 39 (2480MHz)

6 dB 頻寬：1MHz

量測天線：9120D/305 / BBHA9170/208

檢測器：峰值 & 平均值

測試日期：107 年 11 月 06 日

測試項目：使用頻率範圍外之任意 100 千赫雜訊

測試模式：Mode 1: 發射器 - BLE Mode

視頻頻寬：Peak: 1MHz, Average: 10Hz

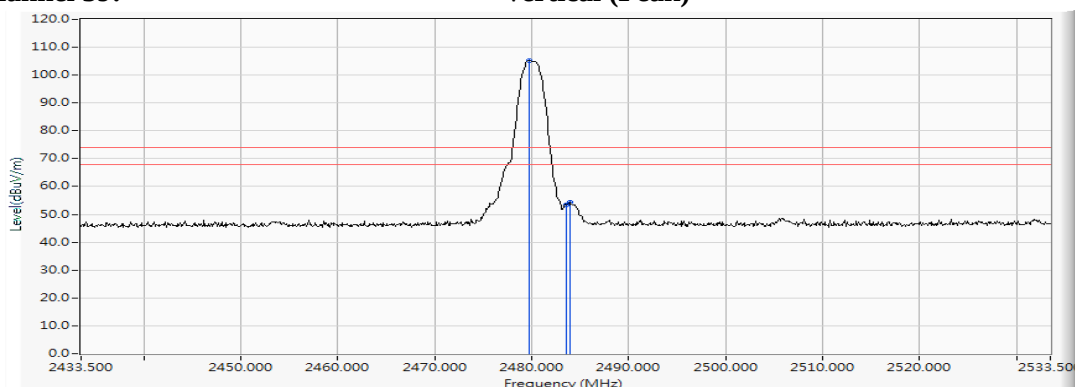
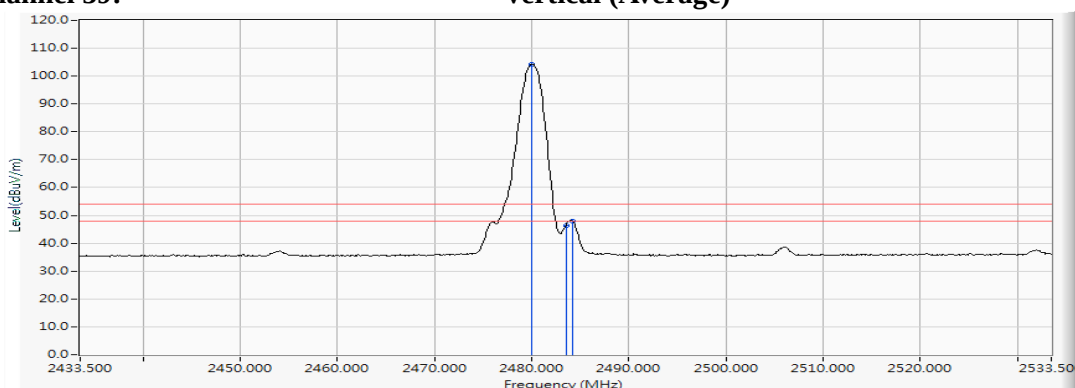
測試距離：3 M (Horizontal)

環境溫度：23 °C

環境濕度：55 %

RF Radiated Measurement (Vertical):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Result
39 (Peak)	2479.700	-3.978	109.158	105.179	--	--	--
39 (Peak)	2483.500	-3.966	57.362	53.395	74.000	54.000	Pass
39 (Peak)	2483.900	-3.965	58.303	54.338	74.000	54.000	Pass
39 (Average)	2480.000	-3.978	108.344	104.366	--	--	--
39 (Average)	2483.500	-3.966	50.341	46.374	74.000	54.000	Pass
39 (Average)	2484.200	-3.965	51.916	47.951	74.000	54.000	Pass

Figure Channel 39:**Vertical (Peak)****Figure Channel 39:****Vertical (Average)**

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “*”, means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

待測物名稱：Bluetooth Headset

待測物型號：HSC090W

測試頻道：CH 00 (2402MHz)

CH 78 (2480MHz)

6 dB 頻寬：100KHz

檢測器：峰值

測試日期：107 年 11 月 05 日

測試項目：使用頻率範圍外之任意 100 千赫雜訊

測試模式：Mode 1: 發射器 - 1Mbps (GFSK)_

Hopping off Bandedge

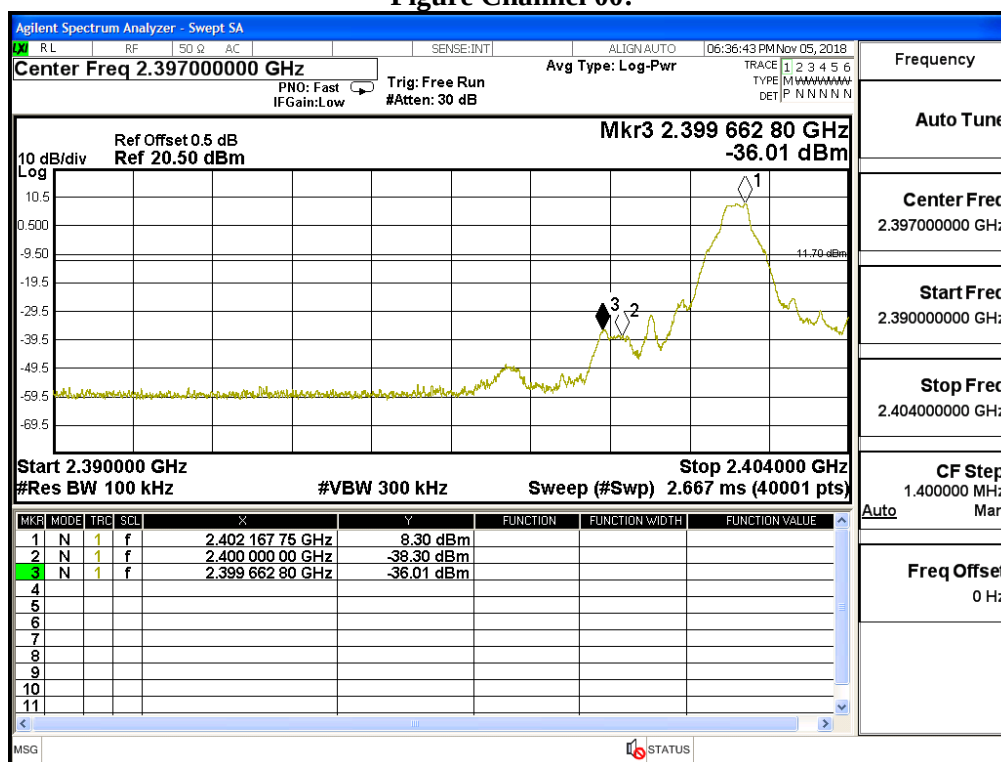
視頻頻寬：300KHz

環境溫度：23 °C

環境濕度：55 %

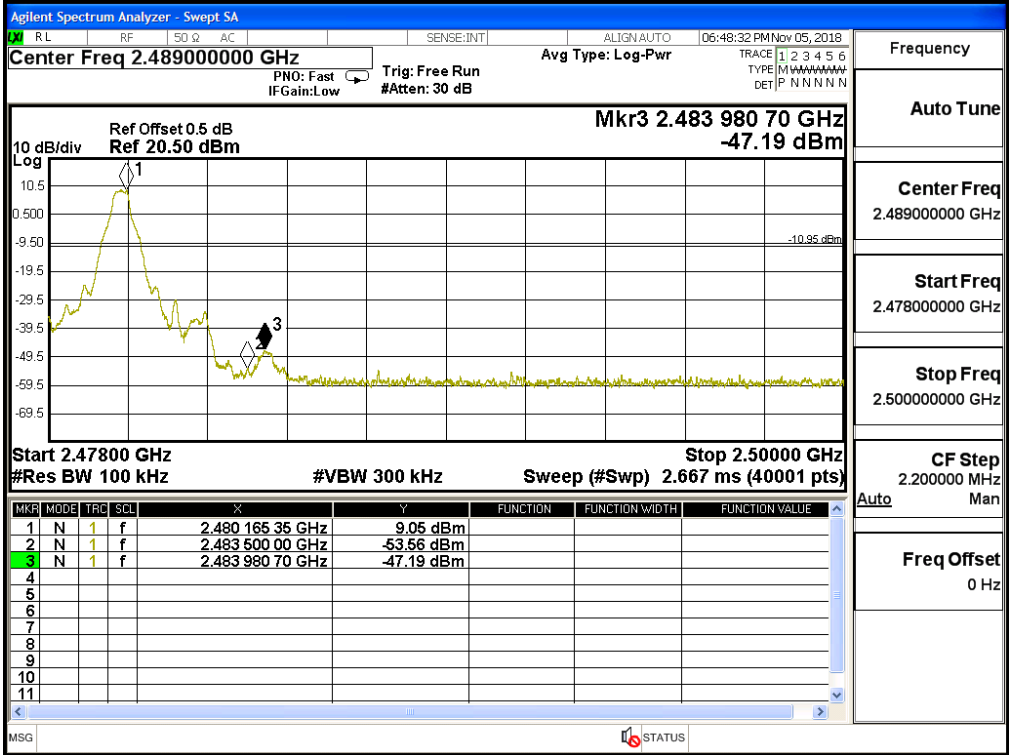
Measurement Level	Result
Δ (dB)	
> 20	PASS

Figure Channel 00:



Measurement Level	Result
Δ (dB)	
> 20	PASS

Figure Channel 78:



待測物名稱：Bluetooth Headset

待測物型號：HSC090W

測試頻道：CH 00 (2402MHz)

CH 78 (2480MHz)

6 dB 頻寬：100KHz

檢測器：峰值

測試日期：107 年 11 月 05 日

測試項目：使用頻率範圍外之任意 100 千赫雜訊

測試模式：Mode 1: 發射器 - 3Mbps (8DPSK) _
Hopping off Bandedge

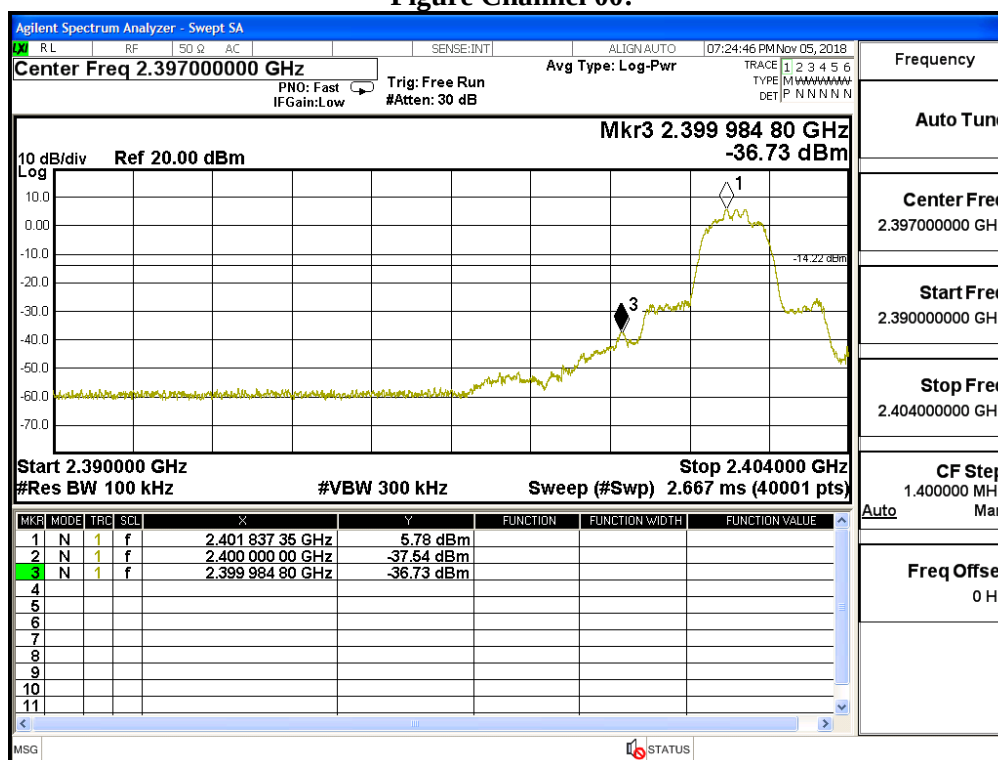
視頻頻寬：300KHz

環境溫度：23 °C

環境濕度：55 %

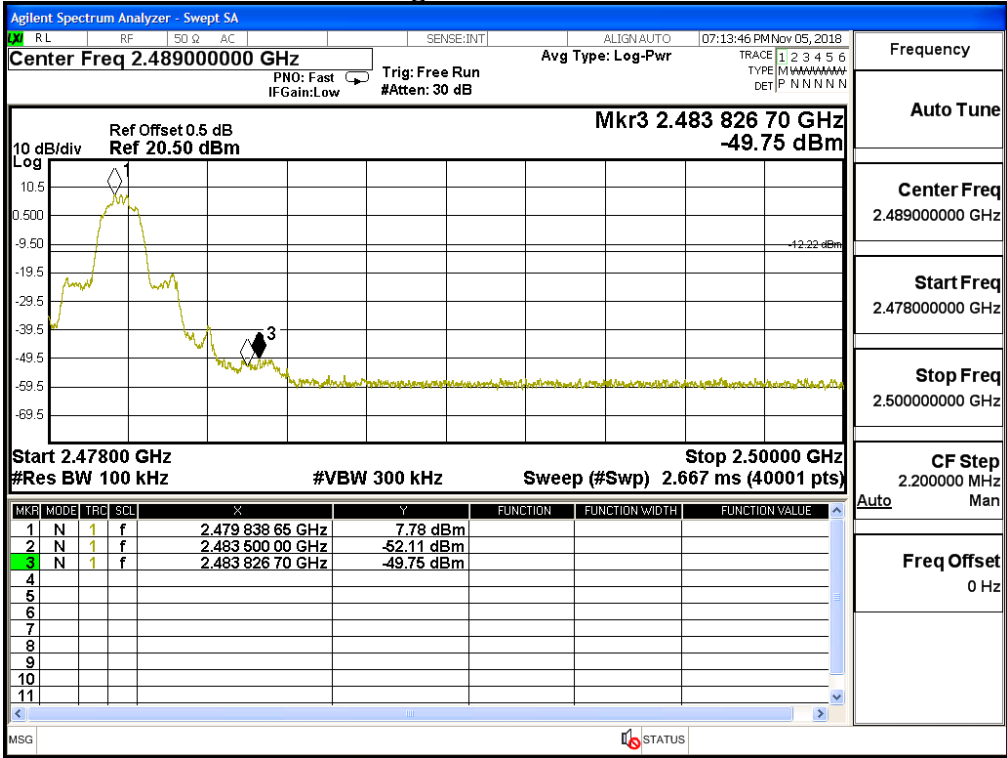
Measurement Level	Result
Δ (dB)	
> 20	PASS

Figure Channel 00:



Measurement Level	Result
Δ (dB)	
> 20	PASS

Figure Channel 78:



待測物名稱：Bluetooth Headset

待測物型號：HSC090W

測試頻道：--

測試項目：使用頻率範圍外之任意 100 千赫雜訊

測試模式：Mode 1: 發射器 - 1Mbps (GFSK) _
Hopping on Bandedge

6 dB 頻寬：100KHz

視頻頻寬：300KHz

檢測器：峰值

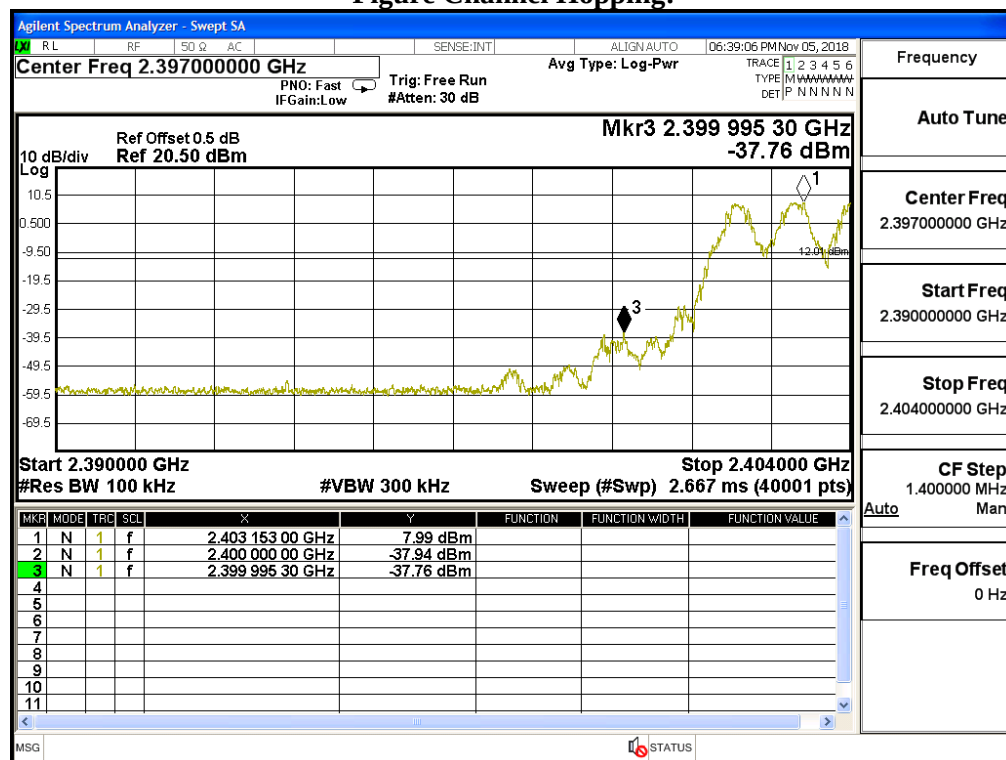
環境溫度：23 °C

測試日期：107 年 11 月 05 日

環境濕度：55 %

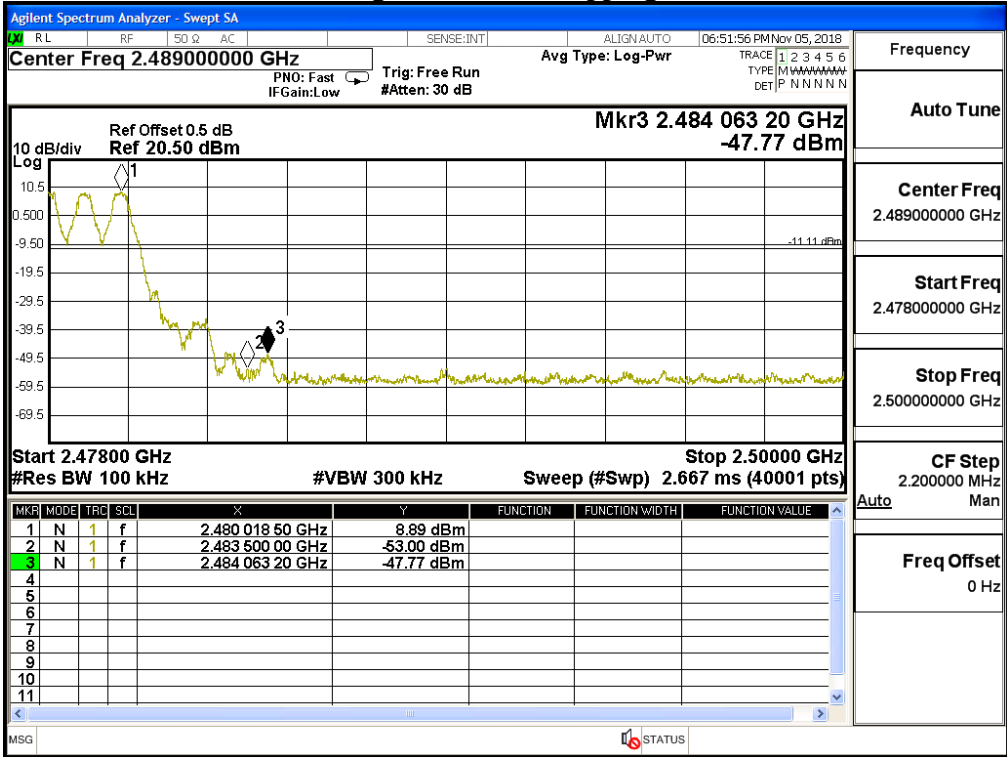
Measurement Level	Result
Δ (dB)	
> 20	PASS

Figure Channel Hopping:



Measurement Level	Result
Δ (dB)	
> 20	PASS

Figure Channel Hopping:



待測物名稱：Bluetooth Headset

待測物型號：HSC090W

測試頻道：--

測試項目：使用頻率範圍外之任意 100 千赫雜訊

測試模式：Mode 1: 發射器 - 3Mbps (8DPSK) _
Hopping on Bandedge

6 dB 頻寬：100KHz

視頻頻寬：300KHz

檢測器：峰值

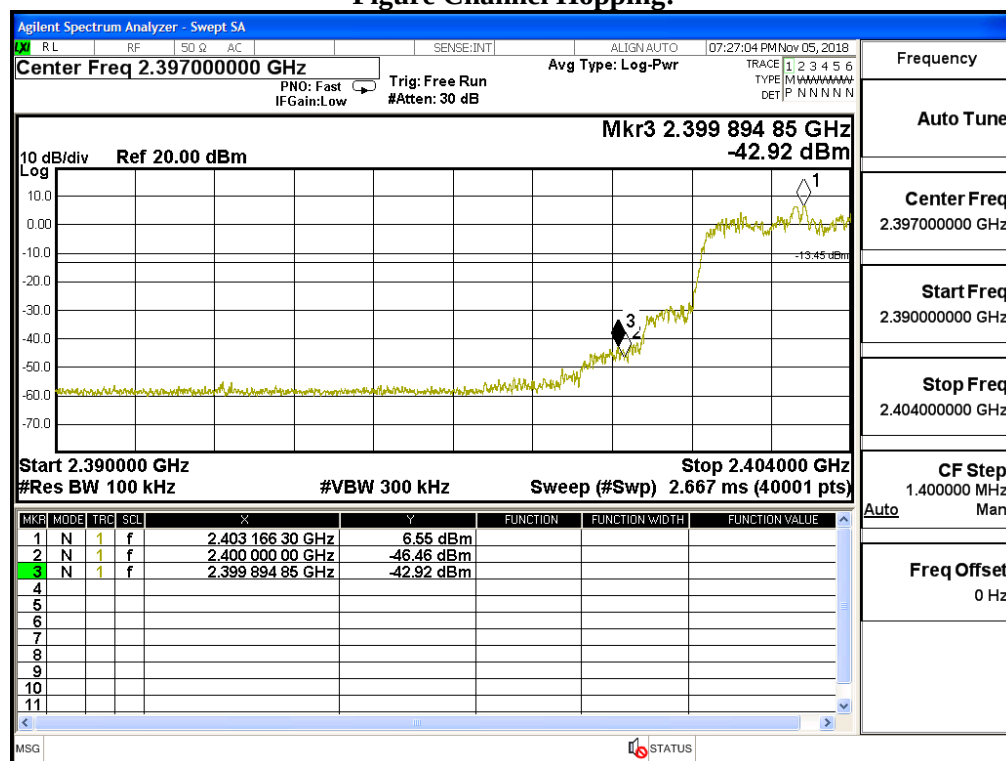
環境溫度：23 °C

測試日期：107 年 11 月 05 日

環境濕度：55 %

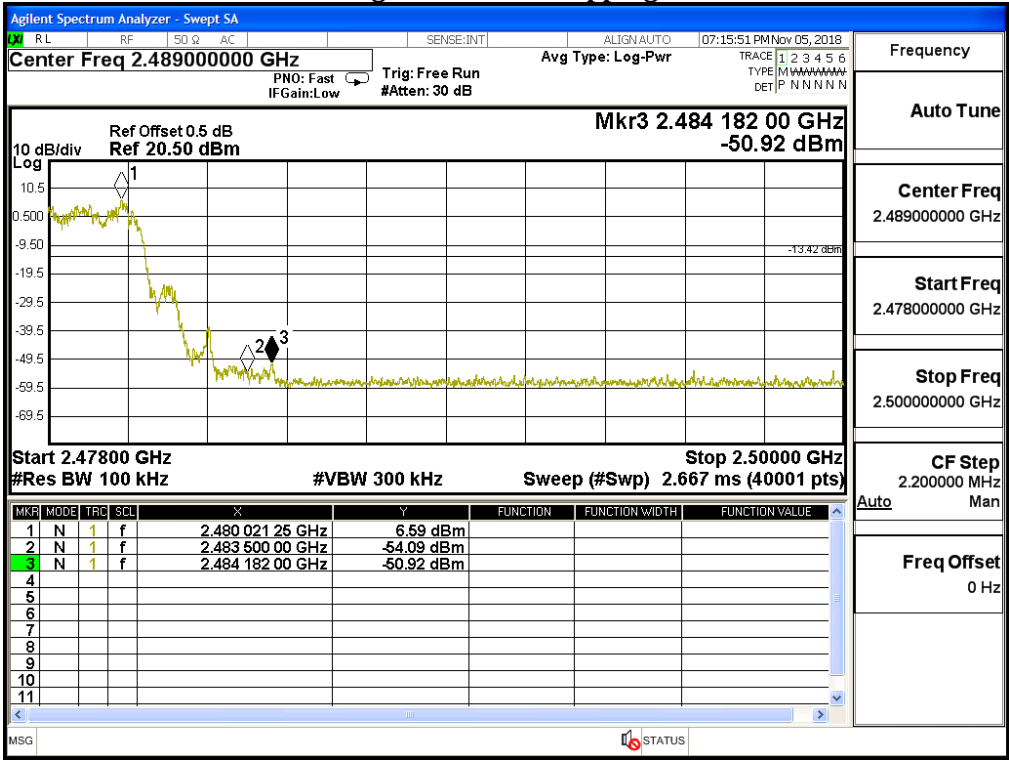
Measurement Level	Result
Δ (dB)	
> 20	PASS

Figure Channel Hopping:



Measurement Level	Result
Δ (dB)	
> 20	PASS

Figure Channel Hopping:



使用頻率範圍外之任意 100 千赫雜訊測試結果:

PASS

9. 載波頻率間隔

9.1. 適用標準

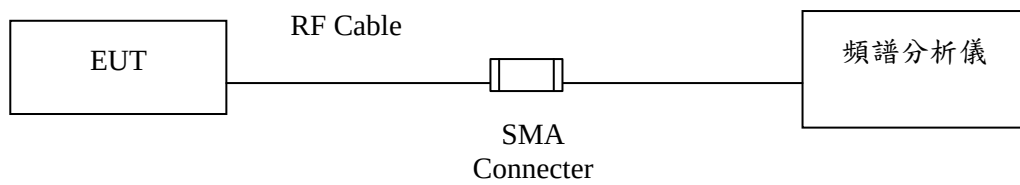
依據國家通訊傳播委員會低功率射頻電機技術規範之第3.10.1.6之要求，跳頻系統之載波頻率頻道間隔應至少25千赫(kHz)或跳頻頻道之20dB頻寬，兩者取較寬者。

9.2. 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，啟動待測物之跳頻功能。設定頻譜分析儀之解析度頻寬不小於 1% 的頻率掃描範圍，視訊頻寬不小於解析度頻寬，掃描時間為自動，檢波功能為峰值，利用差值記號功能以決定兩鄰近頻道波峰之間隔。

待測物應在正常發射狀態下量測。

9.3. 測試架構圖



9.4. 量測不確定度

此項測試之量測不確定度為 $\pm 283\text{Hz}$

9.5. 載波頻率間隔測試結果

待測物名稱：Bluetooth Headset

待測物型號：HSC090W

測試頻道：CH 00 (2402MHz)

6 dB 頻寬：100kHz

檢測器：峰值

測試日期：107年11月05日

測試項目：載波頻率間隔

測試模式：Mode 1: 發射器 - 1Mbps (GFSK)

視頻頻寬：100kHz

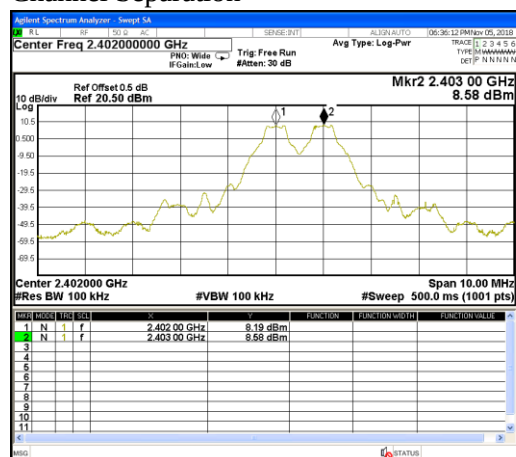
環境溫度：22 °C

環境濕度：55 %

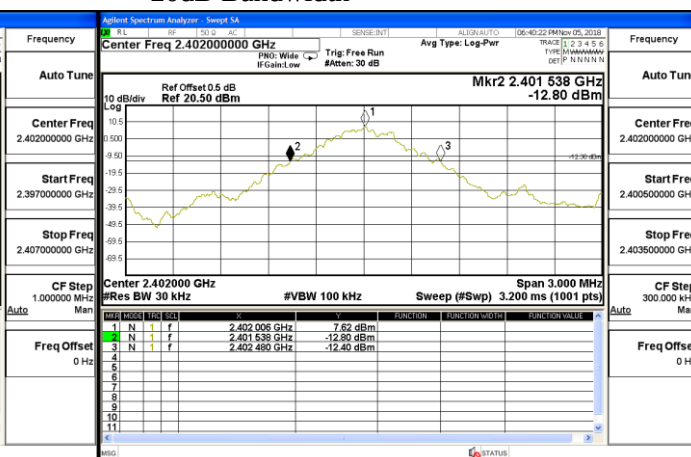
Frequency (MHz)	Measurement Level (kHz)	Limit (kHz)	Limit of (2/3)*20dB Bandwidth (kHz)	Result
2402	1000	>25 kHz	628.0	Pass

Figure:

Channel Separation



20dB Bandwidth



待測物名稱：Bluetooth Headset

待測物型號：HSC090W

測試頻道：CH 39 (2441MHz)

6 dB 頻寬：100kHz

檢測器：峰值

測試日期：107 年 11 月 05 日

測試項目：載波頻率間隔

測試模式：Mode 1: 發射器 - 1Mbps (GFSK)

視頻頻寬：100kHz

環境溫度：22 °C

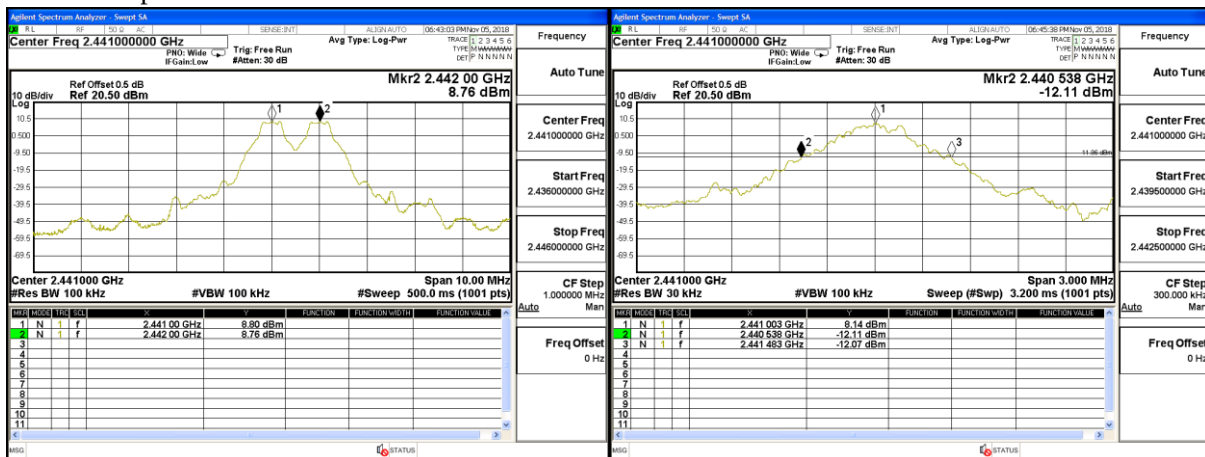
環境濕度：55 %

Frequency (MHz)	Measurement Level (kHz)	Limit (kHz)	Limit of (2/3)*20dB Bandwidth (kHz)	Result
2441	1000	>25 kHz	630.0	Pass

Figure:

Channel Separation

20dB Bandwidth



待測物名稱：Bluetooth Headset

待測物型號：HSC090W

測試頻道：CH 78 (2480MHz)

6 dB 頻寬：100kHz

檢測器：峰值

測試日期：107 年 11 月 05 日

測試項目：載波頻率間隔

測試模式：Mode 1: 發射器 - 1Mbps (GFSK)

視頻頻寬：100kHz

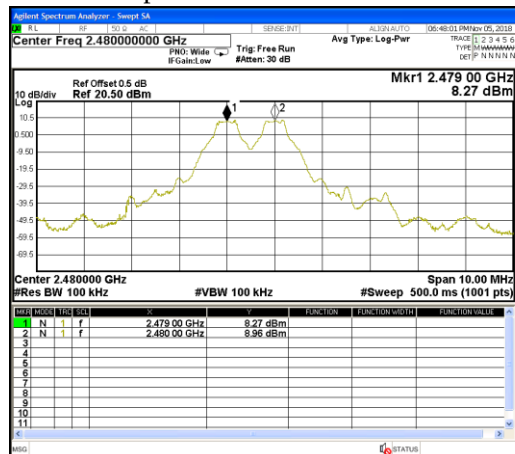
環境溫度：22 °C

環境濕度：55 %

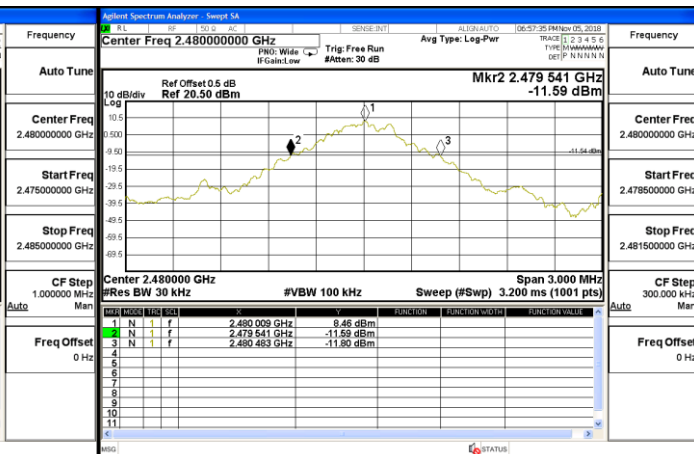
Frequency (MHz)	Measurement Level (kHz)	Limit (kHz)	Limit of (2/3)*20dB Bandwidth (kHz)	Result
2480	1000	>25 kHz	628.0	Pass

Figure:

Channel Separation



20dB Bandwidth



待測物名稱：Bluetooth Headset

待測物型號：HSC090W

測試頻道：CH 00 (2402MHz)

6 dB 頻寬：100kHz

檢測器：峰值

測試日期：107 年 11 月 05 日

測試項目：載波頻率間隔

測試模式：Mode 1: 發射器 - 3Mbps (8DPSK)

視頻頻寬：100kHz

環境溫度：22 °C

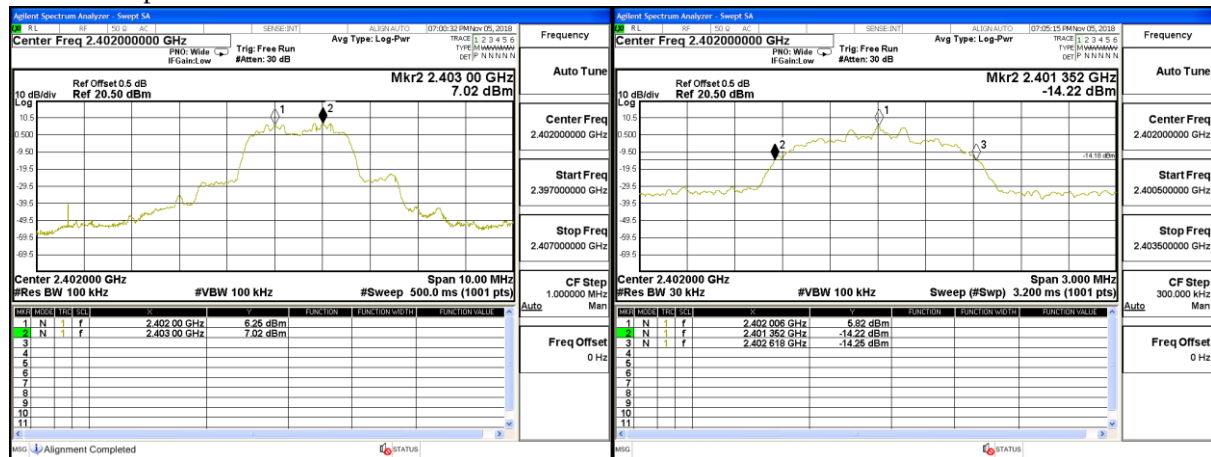
環境濕度：55 %

Frequency (MHz)	Measurement Level (kHz)	Limit (kHz)	Limit of (2/3)*20dB Bandwidth (kHz)	Result
2402	1000	>25 kHz	844.0	Pass

Figure:

Channel Separation

20dB Bandwidth



待測物名稱：Bluetooth Headset

待測物型號：HSC090W

測試頻道：CH 39 (2441MHz)

6 dB 頻寬：100kHz

檢測器：峰值

測試日期：107 年 11 月 05 日

測試項目：載波頻率間隔

測試模式：Mode 1: 發射器 - 3Mbps (8DPSK)

視頻頻寬：100kHz

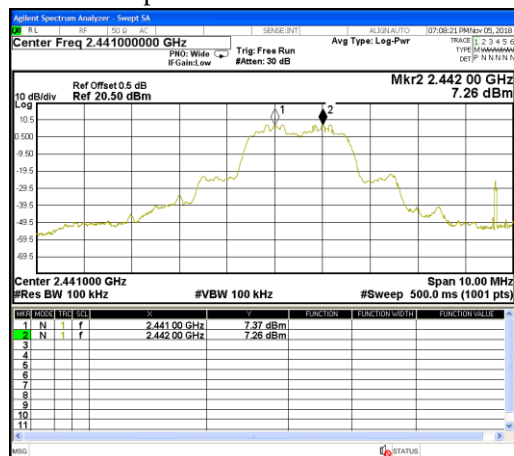
環境溫度：22 °C

環境濕度：55 %

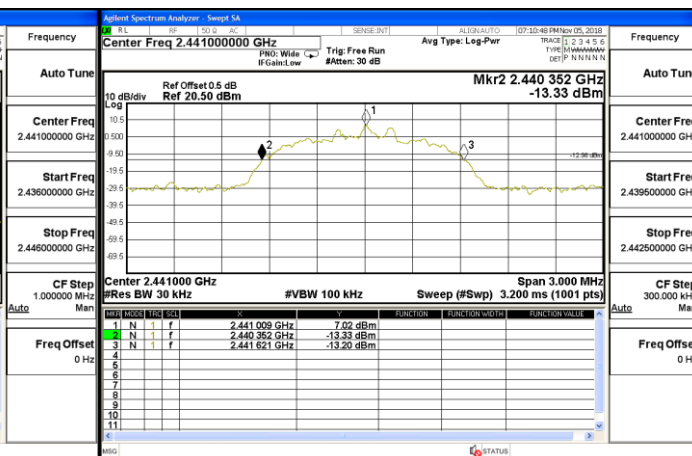
Frequency (MHz)	Measurement Level (kHz)	Limit (kHz)	Limit of (2/3)*20dB Bandwidth (kHz)	Result
2441	1000	>25 kHz	846.0	Pass

Figure:

Channel Separation



20dB Bandwidth



待測物名稱：Bluetooth Headset

待測物型號：HSC090W

測試頻道：CH 78 (2480MHz)

6 dB 頻寬：100kHz

檢測器：峰值

測試日期：107 年 11 月 05 日

測試項目：載波頻率間隔

測試模式：Mode 1: 發射器 - 3Mbps (8DPSK)

視頻頻寬：100kHz

環境溫度：22 °C

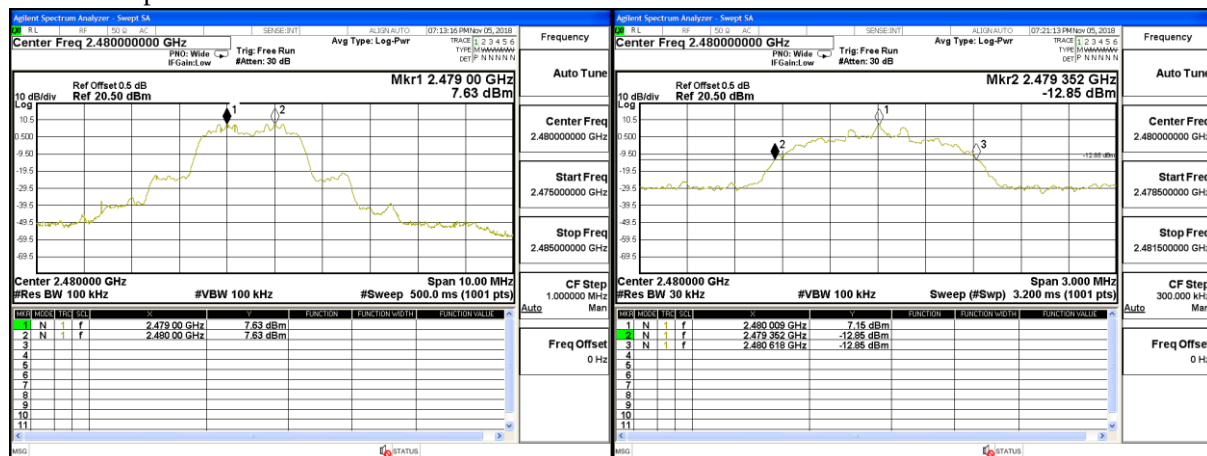
環境濕度：55 %

Frequency (MHz)	Measurement Level (kHz)	Limit (kHz)	Limit of (2/3)*20dB Bandwidth (kHz)	Result
2480	1000	>25 kHz	844.0	Pass

Figure:

Channel Separation

20dB Bandwidth



載波頻率間隔測試結果:

PASS

10. 跳頻頻率數目

10.1. 適用標準

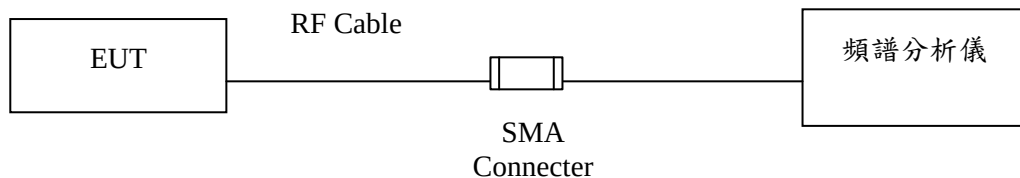
依據國家通訊傳播委員會低功率射頻電機技術規範之第3.10.1.6節，操作於2400-2483.5 MHz之展頻跳頻系統，須使用至少15個無重疊的頻道。應使用智慧型跳頻技術，以避免占用於特定跳頻頻道。

10.2. 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，啟動待測物之跳頻功能。設定頻譜分析儀之解析度頻寬不小於 1% 的頻率掃瞄範圍，頻率掃瞄範圍為待測物之操作頻帶，視訊頻寬不小於解析度頻寬，掃瞄時間為自動，檢波功能為峰值。

待測物應在正常發射狀態下量測。

10.3. 測試架構圖



10.4. 量測不確定度

N/A

10.5. 跳頻頻率數目測試結果

待測物名稱：Bluetooth Headset

待測物型號：HSC090W

測試頻道：CH 00-78

6 dB 頻寬：100kHz

檢測器：峰值

測試日期：107 年 11 月 05 日

測試項目：跳頻頻率數目

測試模式：Mode 1: 發射器 - 1Mbps (GFSK)

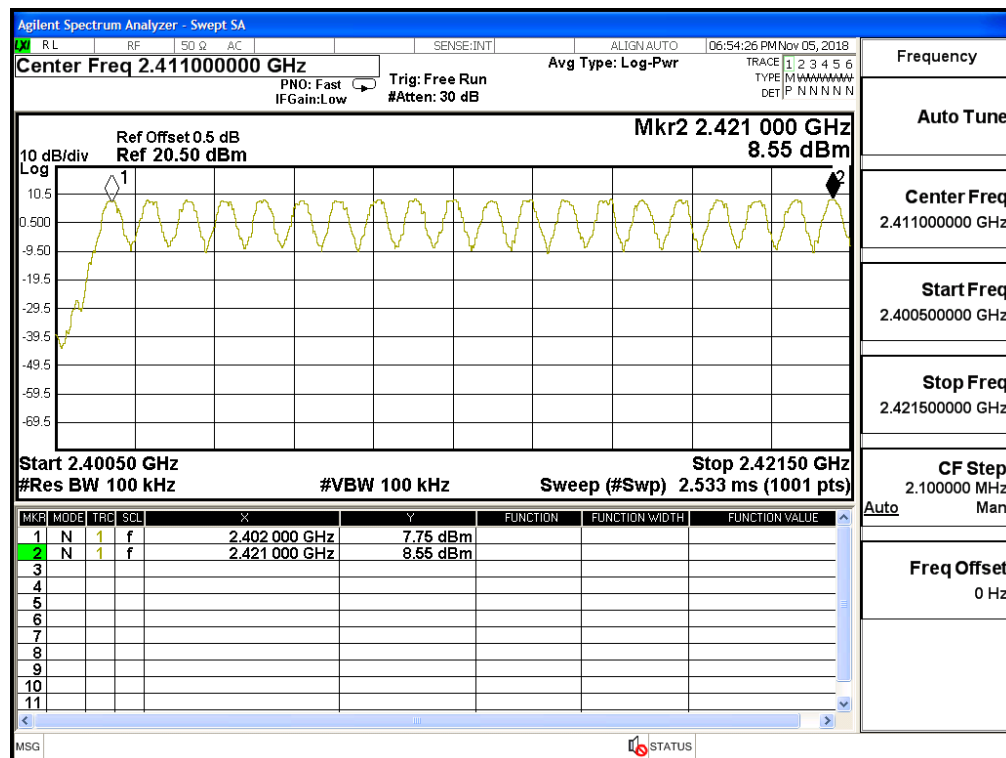
視頻頻寬：100kHz

環境溫度：22 °C

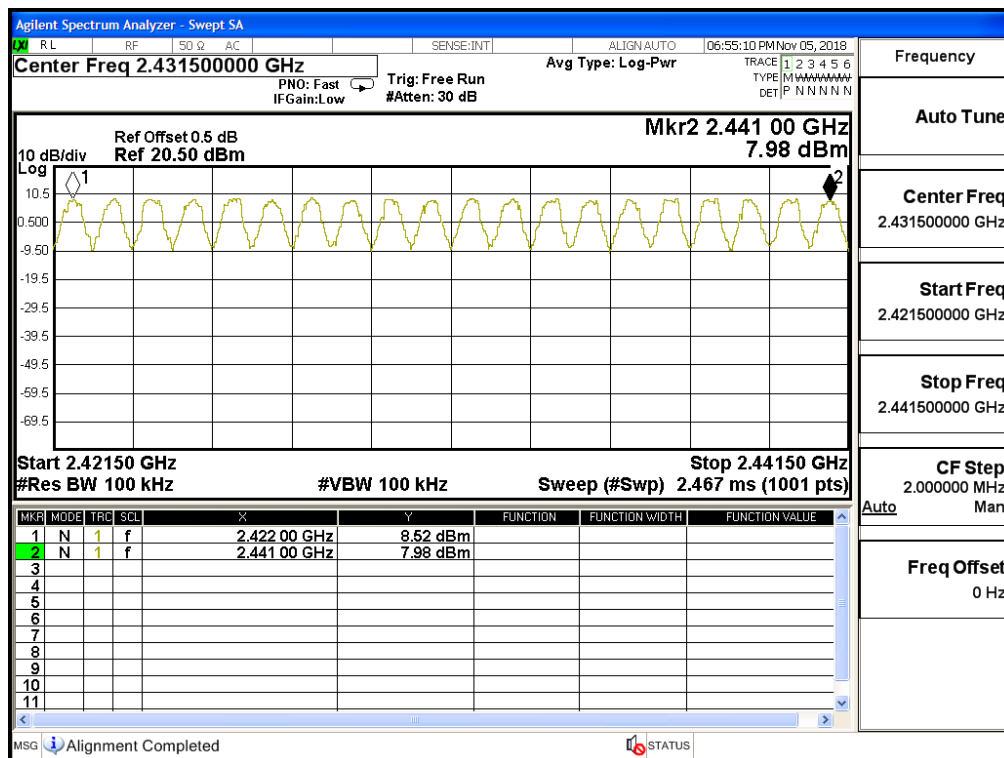
環境濕度：55 %

Measure Level (Channel)	Limit (Channel)	Result
79	> 75	Pass

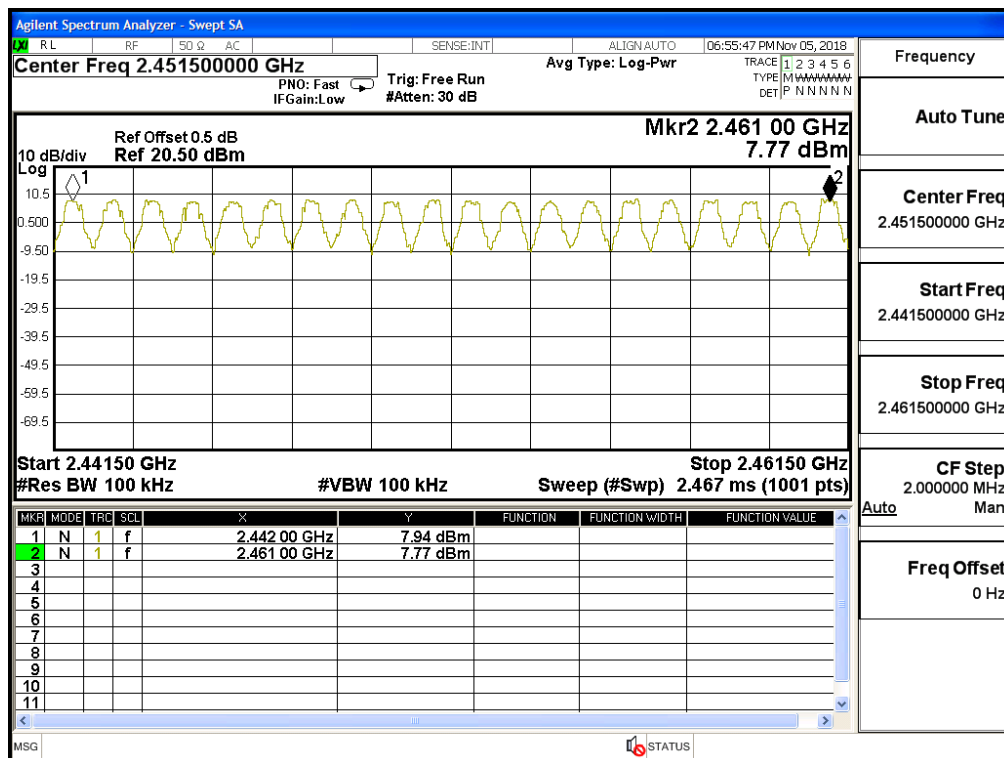
2402-2421MHz



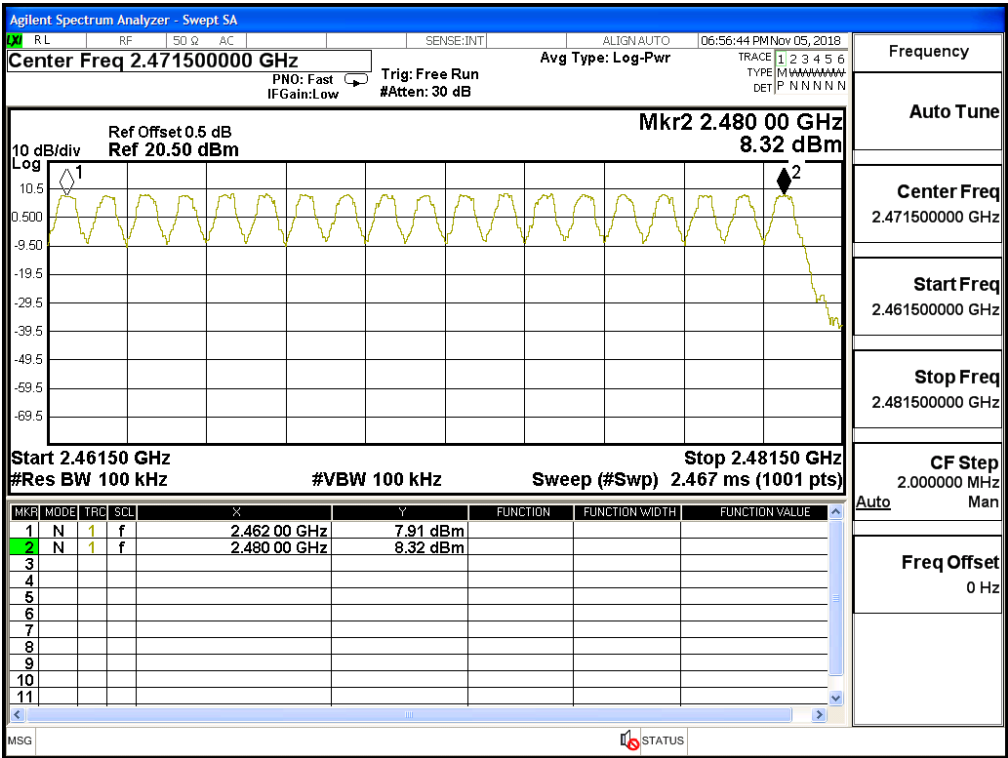
2422-2441MHz



2442-2461MHz



2462-2480MHz



待測物名稱：Bluetooth Headset

待測物型號：HSC090W

測試頻道：CH 00-78

6 dB 頻寬：100kHz

檢測器：峰值

測試日期：107 年 11 月 05 日

測試項目：跳頻頻率數目

測試模式：Mode 1: 發射器 - 3Mbps (8DPSK)

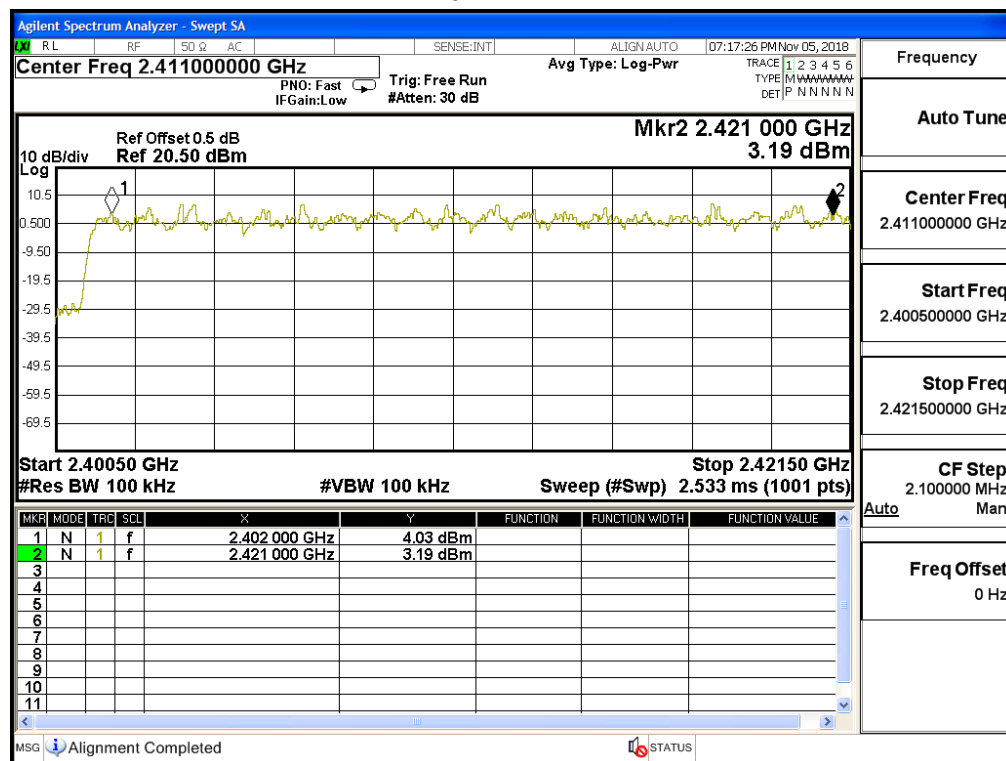
視頻頻寬：100kHz

環境溫度：22 °C

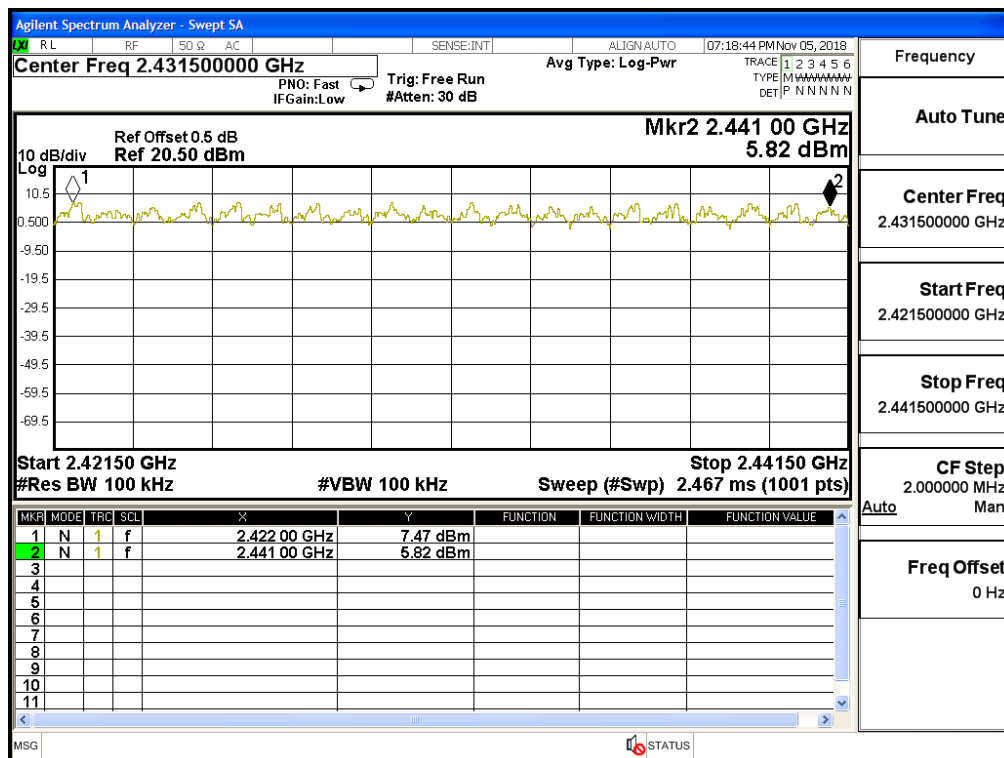
環境濕度：55 %

Measure Level (Channel)	Limit (Channel)	Result
79	> 75	Pass

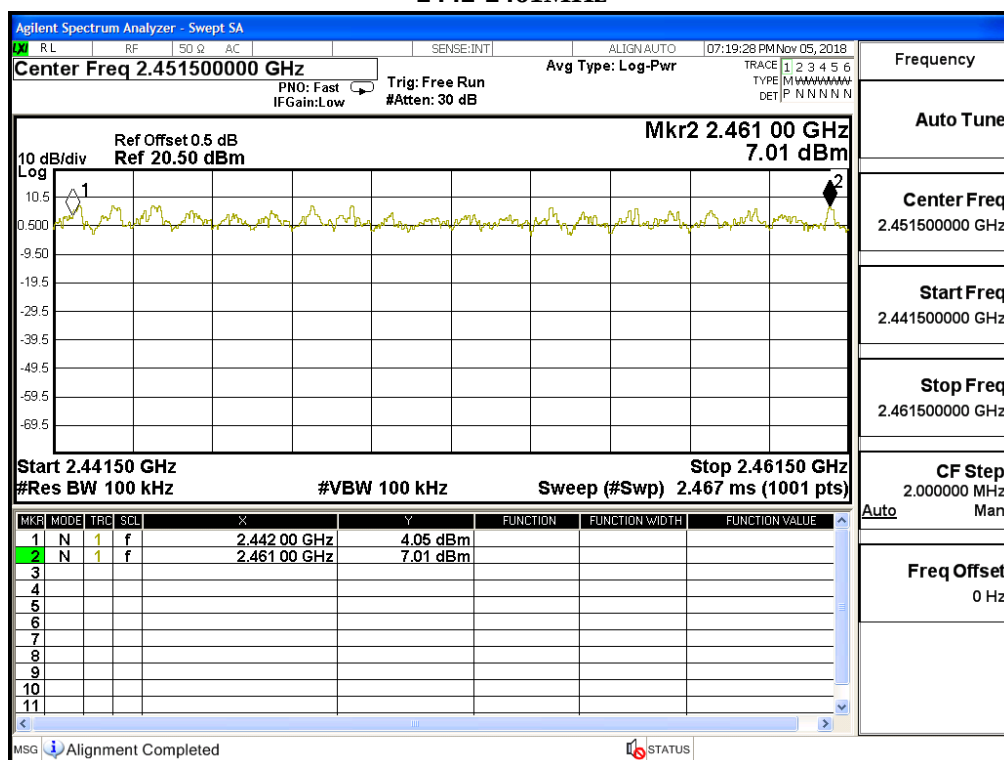
2402-2421MHz



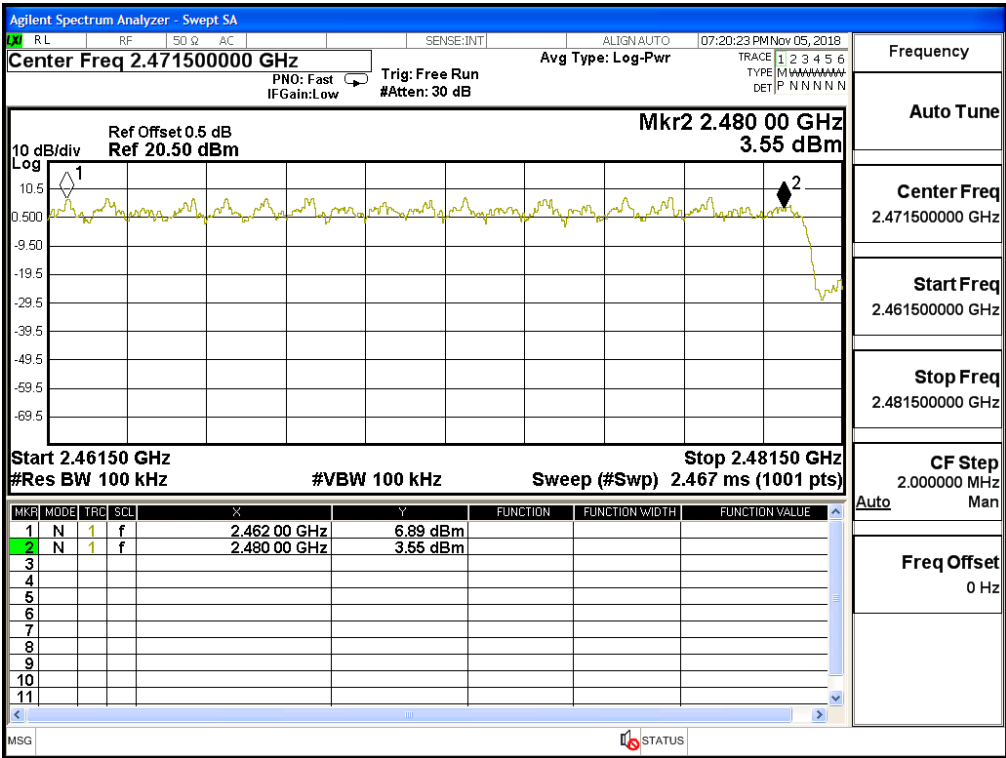
2422-2441MHz



2442-2461MHz



2462-2480MHz



11. 停留時間

11.1. 適用標準

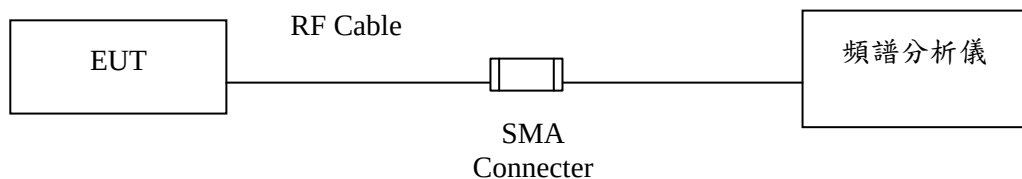
依據國家通訊傳播委員會低功率射頻電機技術規範之 3.10.1.6，操作於 2400-2483.5 MHz 之展頻跳頻系統，在 0.4 秒乘以跳頻頻道數之週期內，任一頻率佔用之平均時間不得超過 0.4 秒。

11.2. 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，啟動待測物之跳頻功能。設定頻譜分析儀之解析度頻寬為 1MHz，視訊頻寬不小於解析度頻寬，頻率掃瞄範圍為零，中心頻率為跳頻頻道，掃瞄時間為足以測得每一個跳頻頻道之所有停留時間，檢波功能為峰值，利用差值記號功能以決定停留時間。

待測物應在正常發射狀態下量測。

11.3. 測試架構圖



11.4. 量測不確定度

此項測試之量測不確定度為 $\pm 2.31\text{msec}$

11.5. 停留時間量測結果

待測物名稱：Bluetooth Headset

待測物型號：HSC090W

測試頻道：CH 00, CH39, CH78

6 dB 頻寬：1MHz

檢測器：峰值

測試日期：107 年 11 月 05 日

測試項目：停留時間

測試模式：Mode 1: 發射器 - 1Mbps (GFSK)-DH5

視頻頻寬：1MHz

環境溫度：22 °C

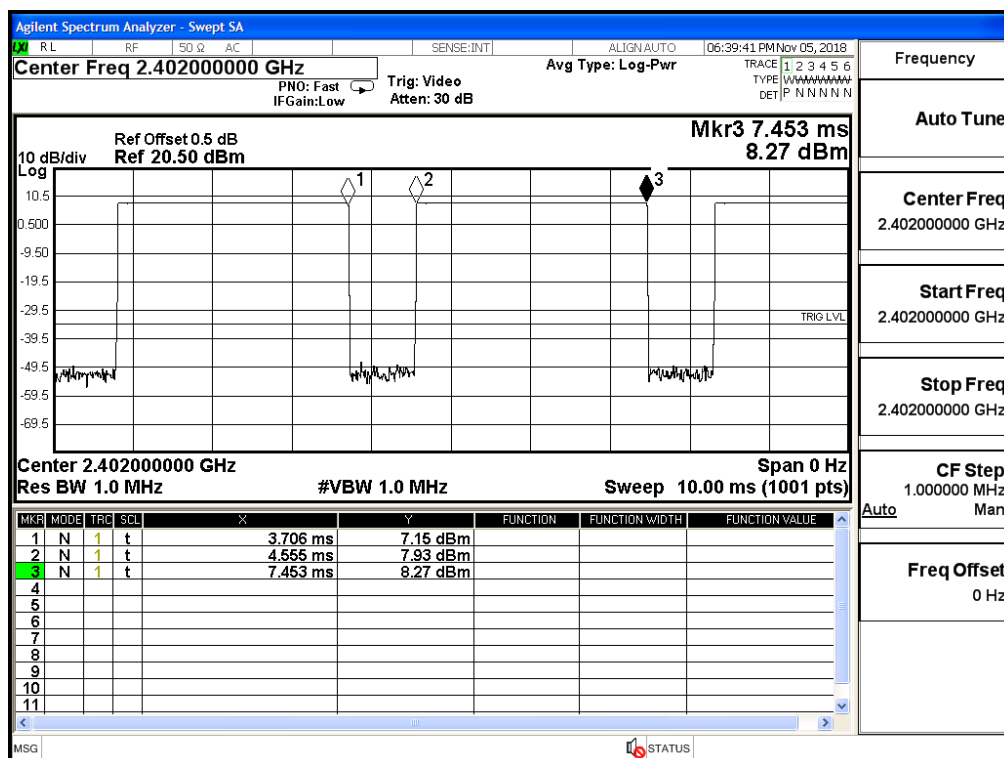
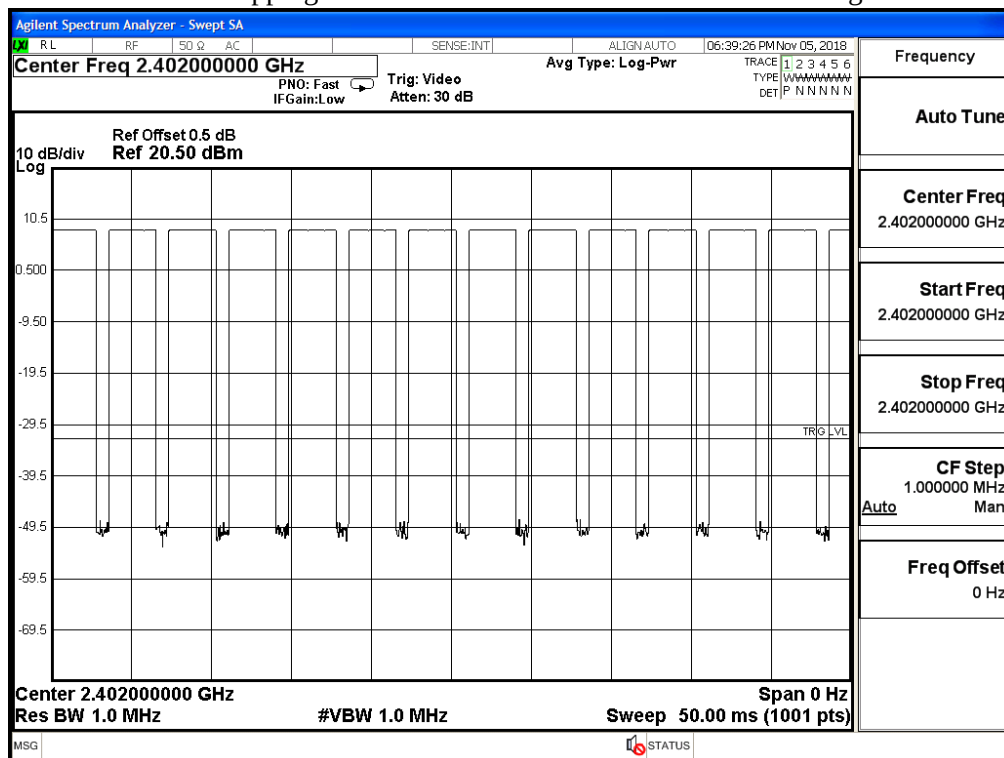
環境濕度：55 %

Frequency (MHz)	Time slot length (ms)	Hopping of Number	Sweep time (ms)	Duty cycle	Dwell Time (Sec)	Limit (Sec)	Result
2402	2.898	13	50	0.75	0.301	0.4	Pass
2441	2.897	13	50	0.75	0.301	0.4	Pass
2480	2.897	13	50	0.75	0.301	0.4	Pass

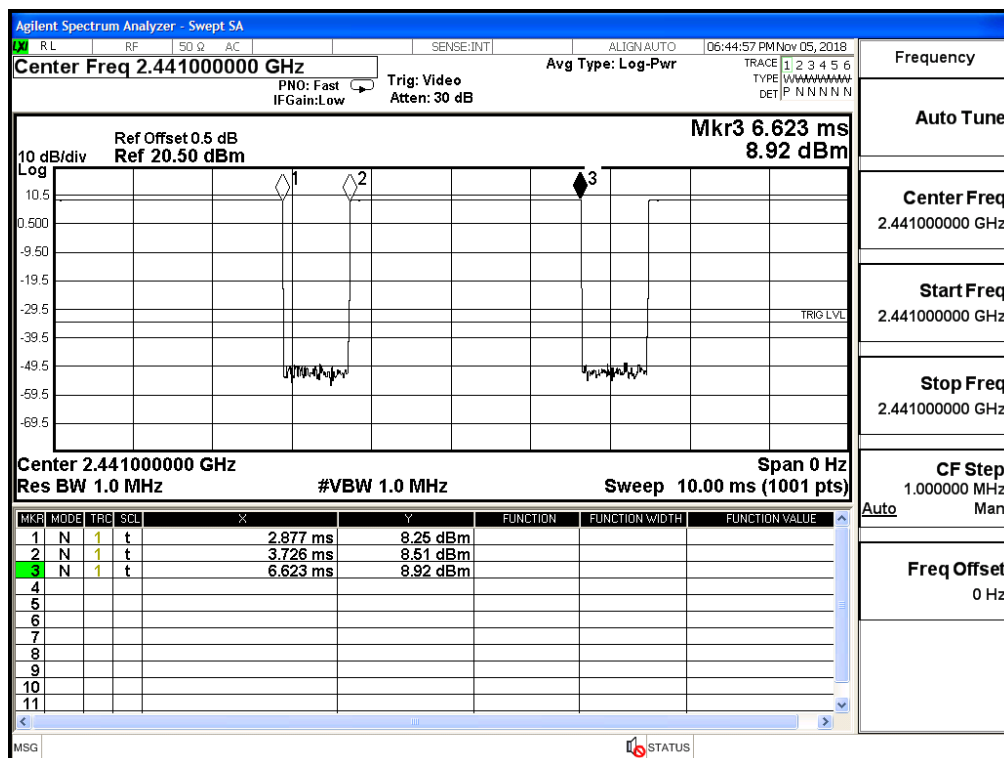
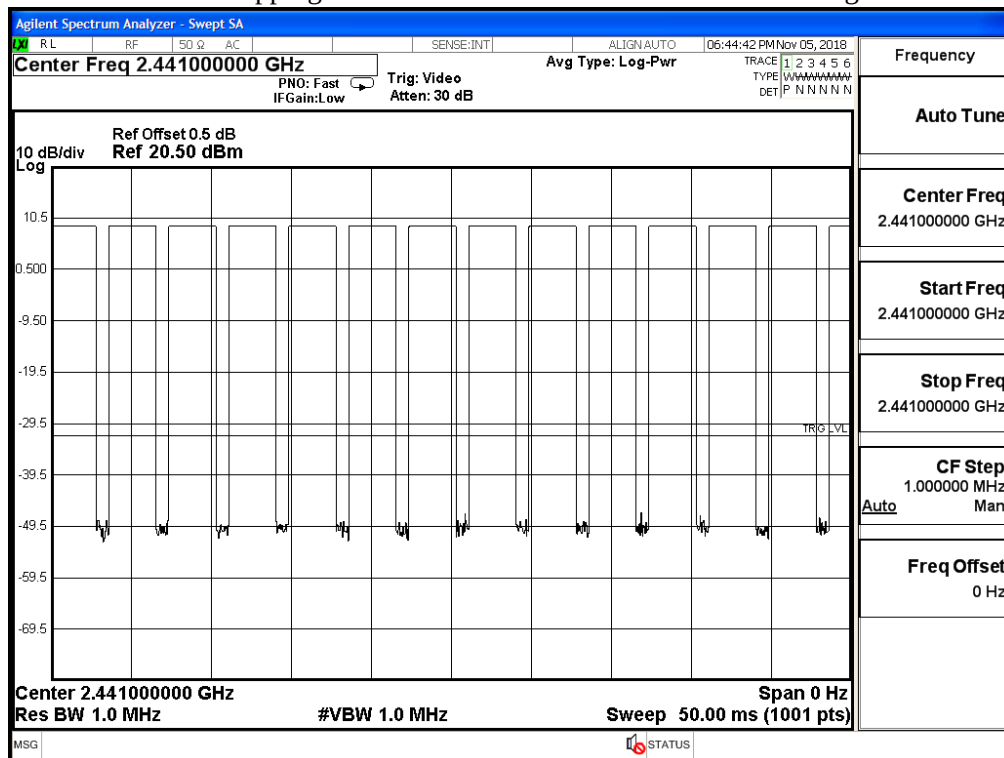
Note: Duty cycle = ((Time slot length (ms) * Hopping of Number) / Sweep time (ms))

Dwell time = (Duty cycle / 79) * (79 * 0.4)

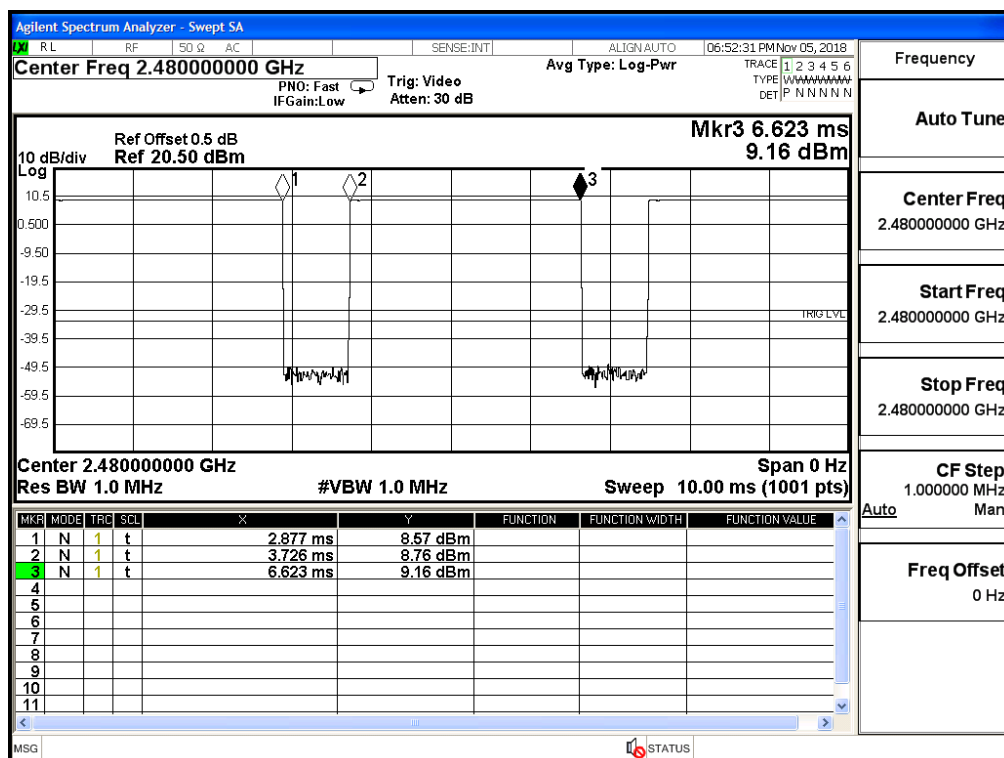
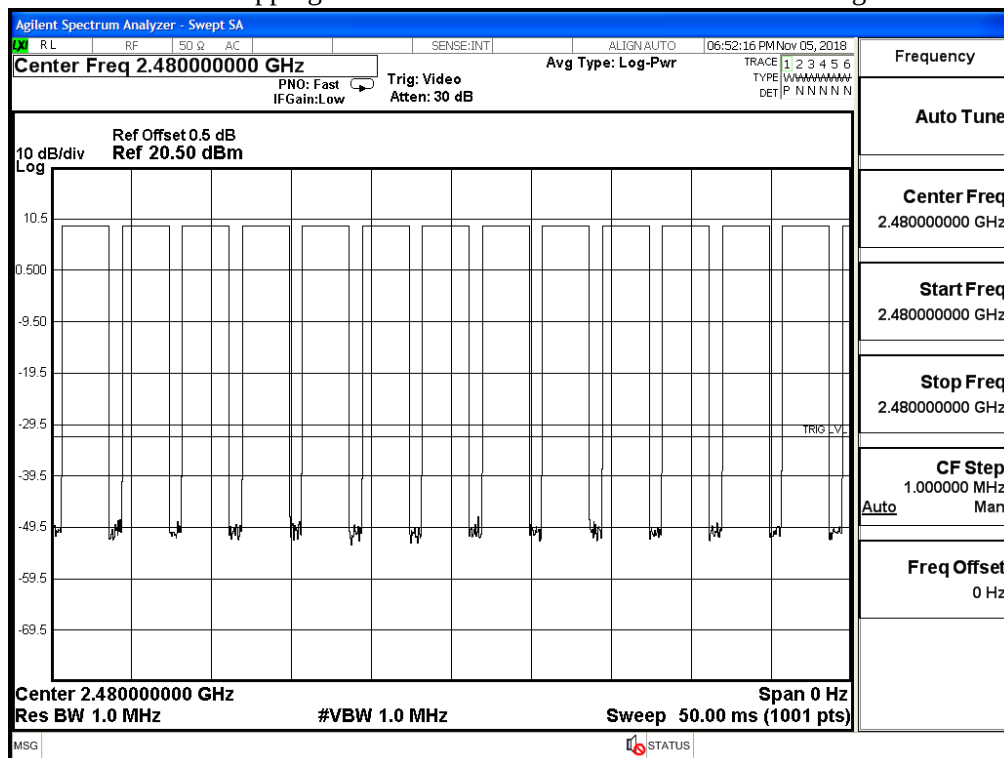
CH00 Hopping of Number at 50ms and CH 00 Time slot length



CH39 Hopping of Number at 50ms and CH39 Time slot length



CH 78 Hopping of Number at 50ms and CH 78 Time slot length



Note:

The dwell times of the packet type of DH1, DH3, and DH5 are tested. Only the worst case is shown on the report.

待測物名稱：Bluetooth Headset

待測物型號：HSC090W

測試頻道：CH 00, CH39, CH78

6 dB 頻寬：1MHz

檢測器：峰值

測試日期：107 年 11 月 05 日

測試項目：停留時間

測試模式：Mode 1: 發射器 - 3Mbps (8DPSK)-DH5

視頻頻寬：1MHz

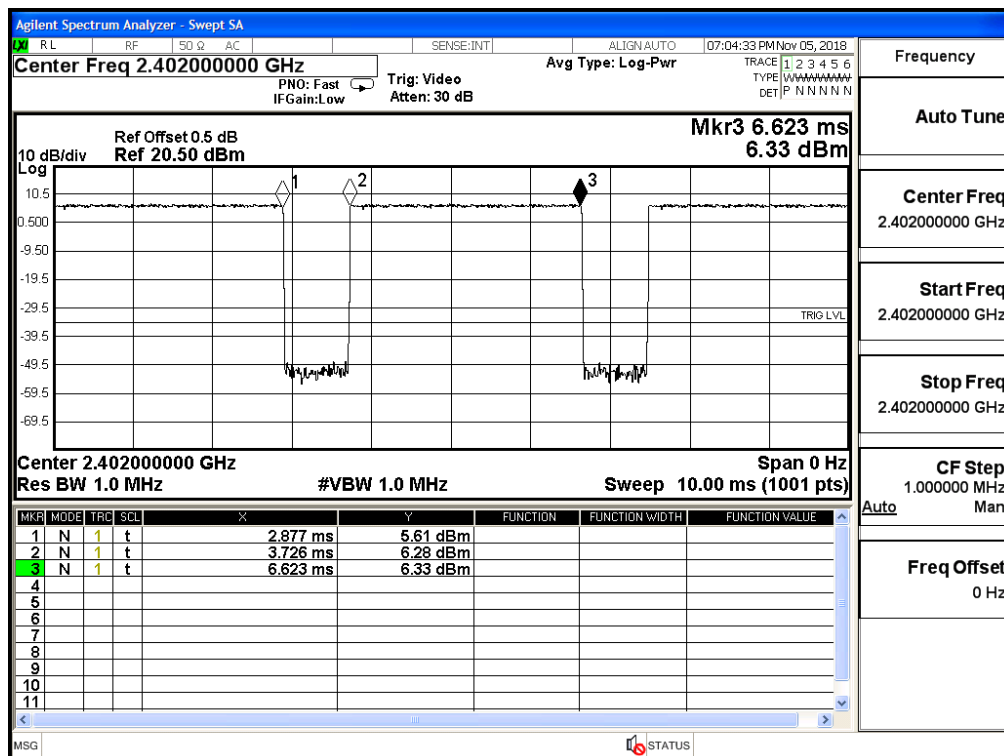
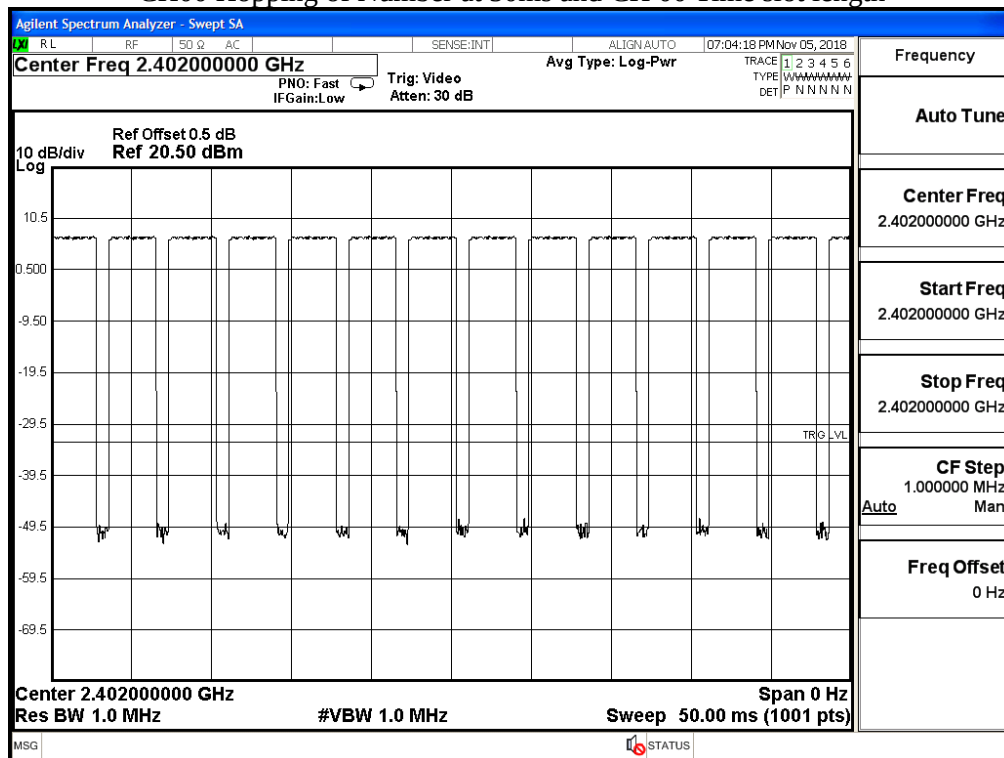
環境溫度：22 °C

環境濕度：55 %

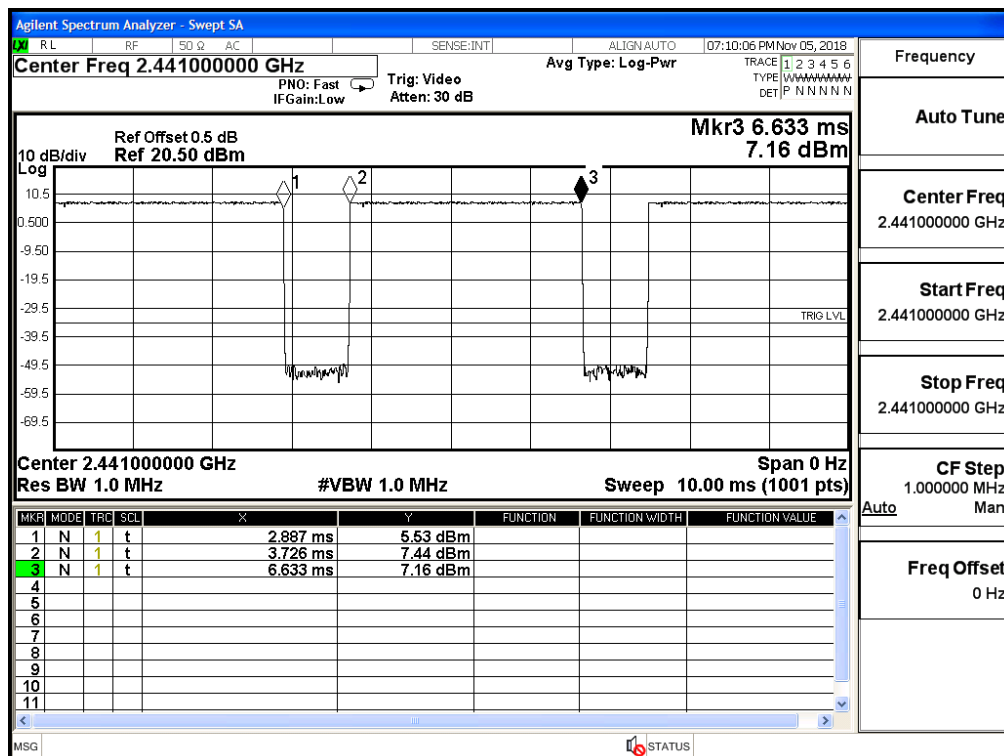
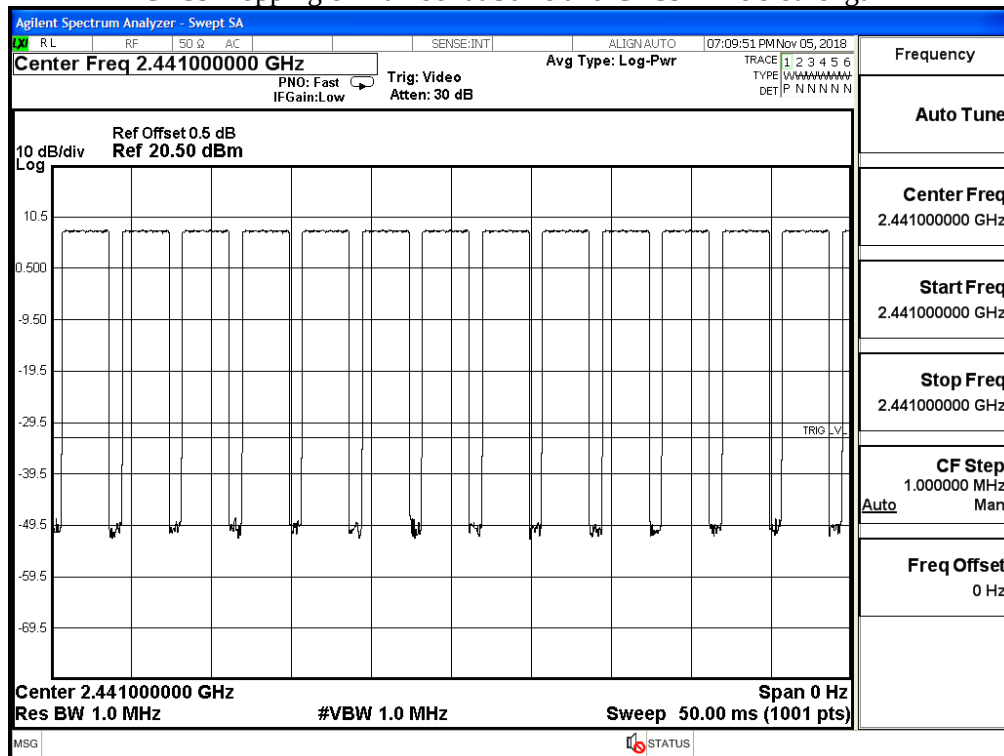
Frequency (MHz)	Time slot length (ms)	Hopping of Number	Sweep time (ms)	Duty cycle	Dwell Time (Sec)	Limit (Sec)	Result
2402	2.897	13	50	0.75	0.301	0.4	Pass
2441	2.907	13	50	0.76	0.302	0.4	Pass
2480	2.907	13	50	0.76	0.302	0.4	Pass

Note: $\text{Duty cycle} = ((\text{Time slot length (ms)} * \text{Hopping of Number}) / \text{Sweep time (ms)})$ $\text{Dwell time} = (\text{Duty cycle} / 79) * (79 * 0.4)$

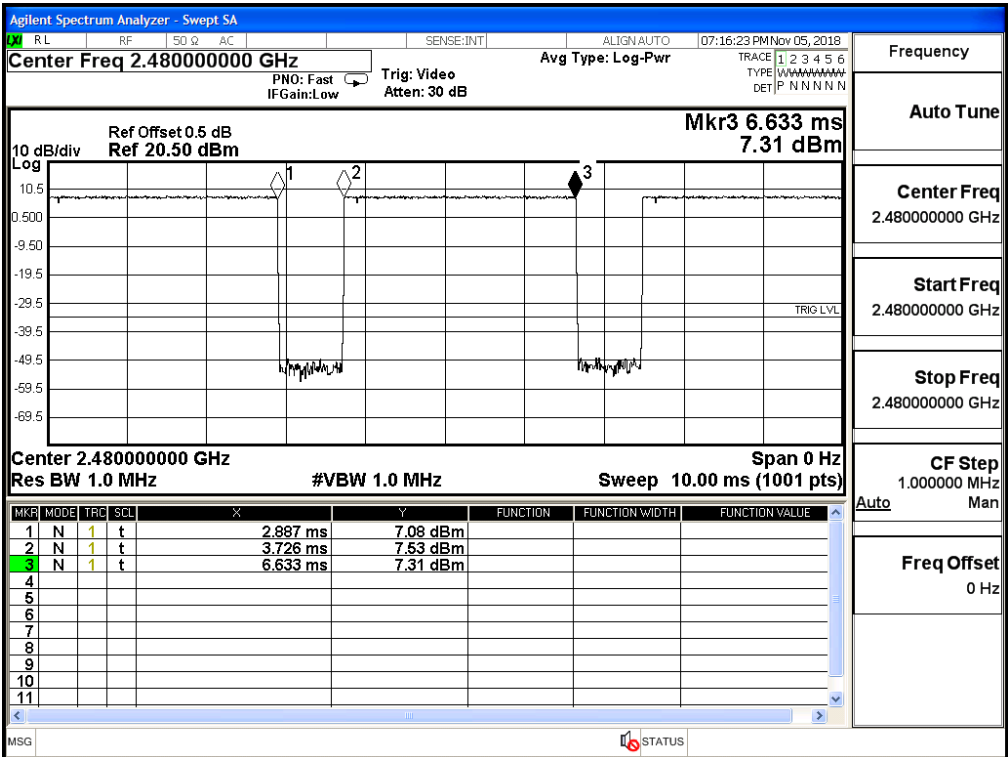
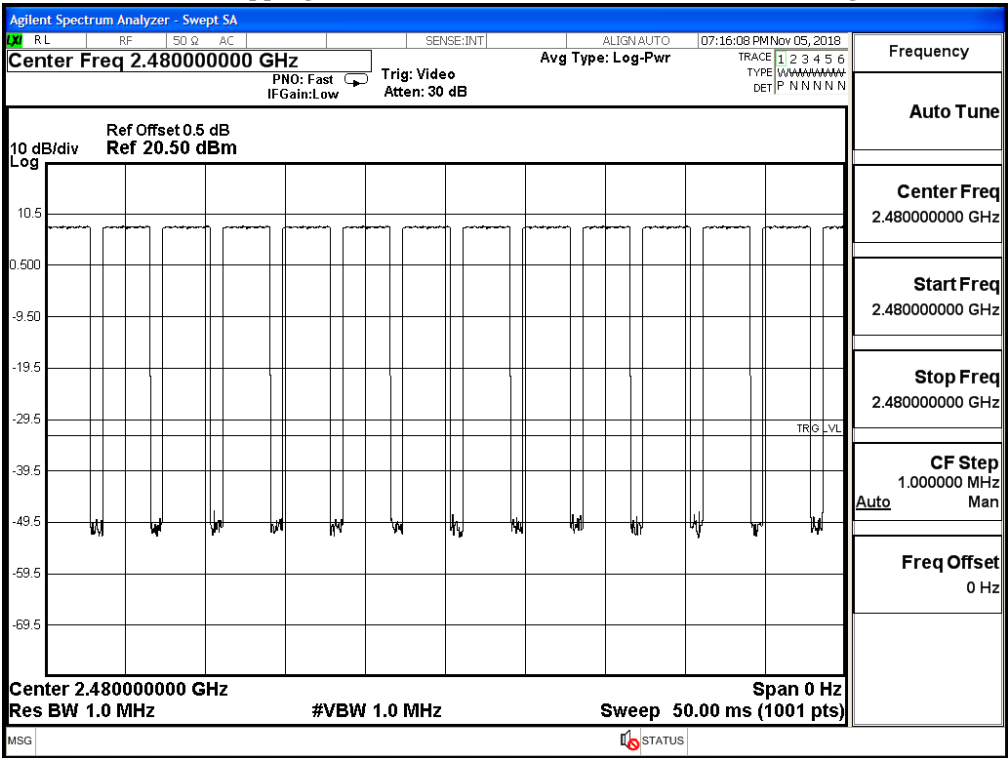
CH00 Hopping of Number at 50ms and CH 00 Time slot length



CH39 Hopping of Number at 50ms and CH39 Time slot length



CH 78 Hopping of Number at 50ms and CH 78 Time slot length



Note:

The dwell times of the packet type of DH1, DH3, and DH5 are tested. Only the worst case is shown on the report.

12. 佔用頻道寬度

12.1. 適用標準

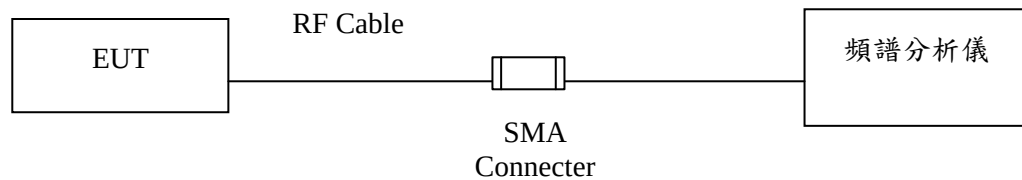
依據國家通訊傳播委員會低功率射頻電機技術規範之第3.10.1.6之要求，6dB寬至少應有500千赫(kHz)。

12.2. 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，設定頻譜分析儀之解析度頻寬為 300kHz，視訊頻寬不小於解析度頻寬，頻率掃瞄範圍(SPAN)遠大於解析度頻寬。

待測物應在正常發射狀態下量測。

12.3. 測試架構圖



12.4. 量測不確定度

此項測試之量測不確定度為 $\pm 283\text{Hz}$

12.5. 佔用頻帶寬度測試結果

待測物名稱：Bluetooth Headset

待測物型號：HSC090W

測試頻道：CH 00 (2402MHz)

6 dB 頻寬：100kHz

量測天線：--

檢測器：峰值

測試日期：107 年 11 月 05 日

測試項目：佔用頻帶寬度

測試模式：Mode 1: 發射器 - BLE Mode

視頻頻寬：300kHz

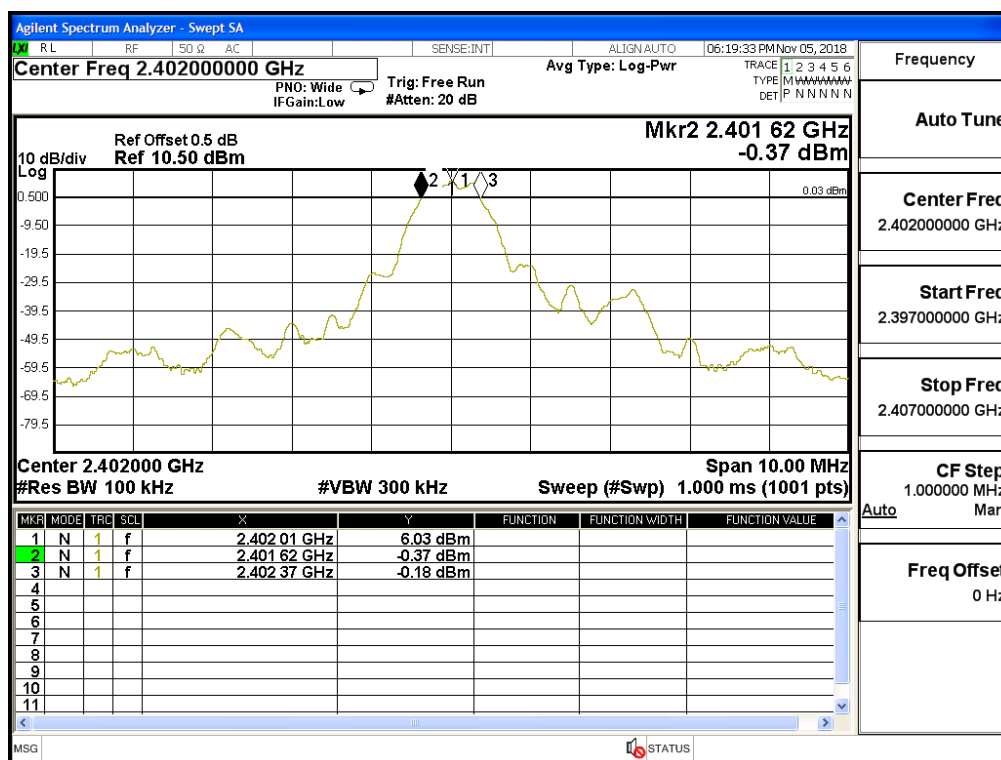
測試距離：Conducted

環境溫度：20 °C

環境濕度：52 %

Channel No.	Frequency (MHz)	Measure Level (kHz)	Limit (kHz)	Result
00	2402.00	750.0	>500	Pass

Figure Channel 00:



待測物名稱：Bluetooth Headset

待測物型號：HSC090W

測試頻道：CH 19 (2440MHz)

6 dB 頻寬：100kHz

量測天線：--

檢測器：峰值

測試日期：107 年 11 月 05 日

測試項目：佔用頻帶寬度

測試模式：Mode 1: 發射器 - BLE Mode

視頻頻寬：300kHz

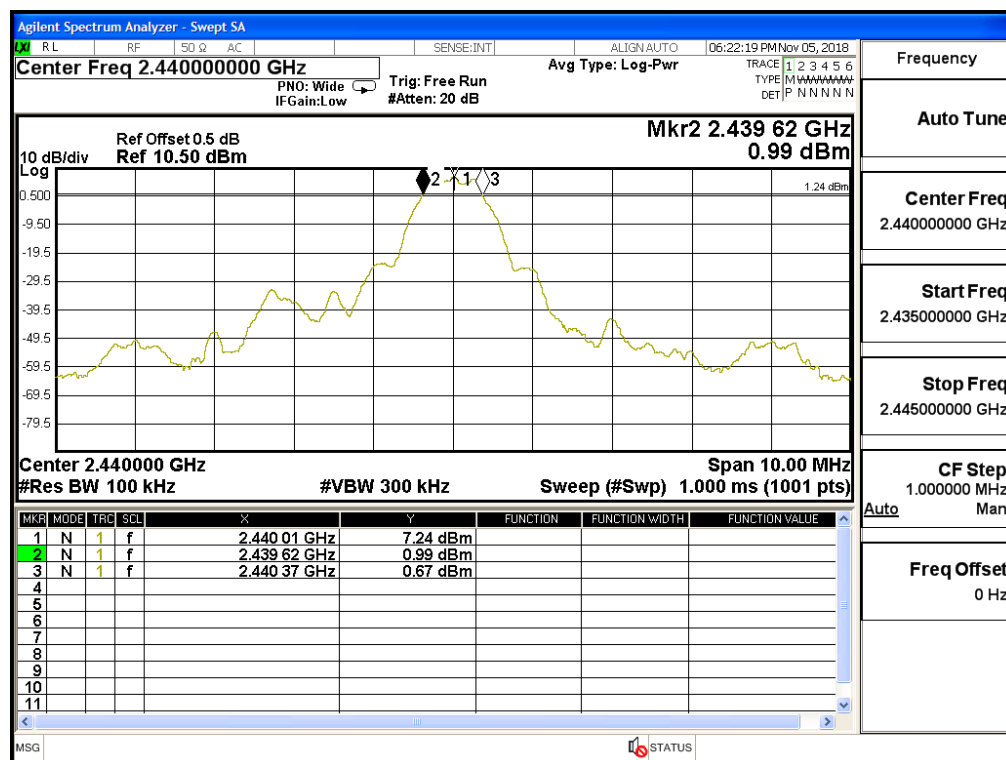
測試距離：Conducted

環境溫度：20 °C

環境濕度：52 %

Channel No.	Frequency (MHz)	Measure Level (kHz)	Limit (kHz)	Result
19	2440.00	750.0	>500	Pass

Figure Channel 19:



待測物名稱：Bluetooth Headset

待測物型號：HSC090W

測試頻道：CH 39 (2480MHz)

6 dB 頻寬：100kHz

量測天線：--

檢測器：峰值

測試日期：107 年 11 月 05 日

測試項目：佔用頻帶寬度

測試模式：Mode 1: 發射器 - BLE Mode

視頻頻寬：300kHz

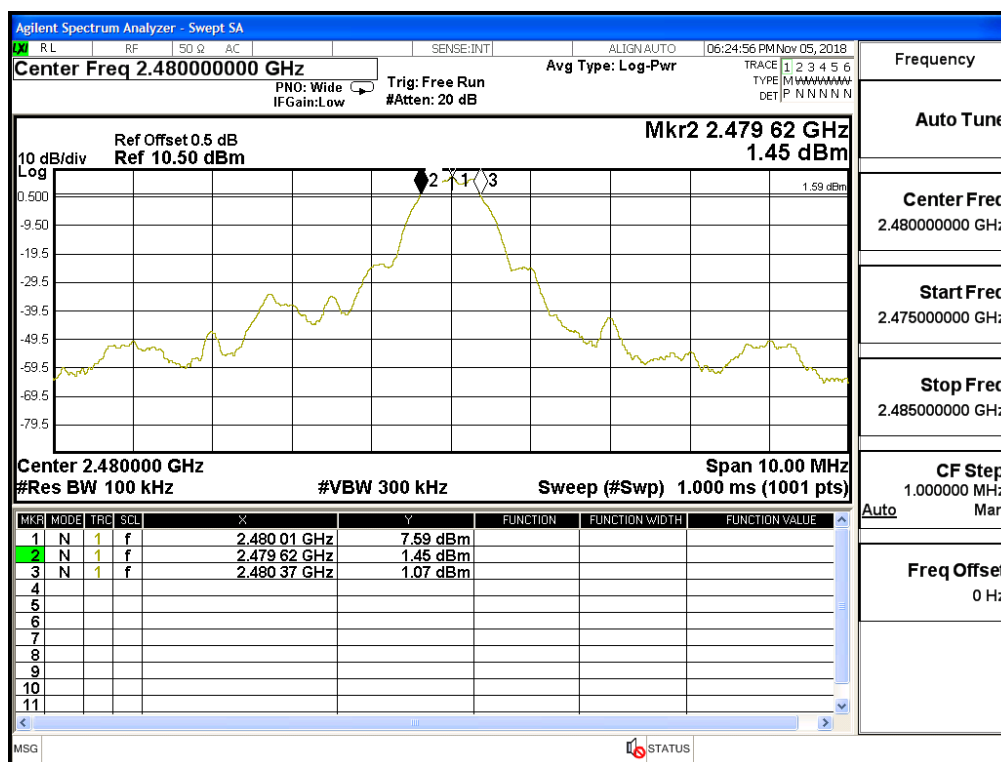
測試距離：Conducted

環境溫度：20 °C

環境濕度：52 %

Channel No.	Frequency (MHz)	Measure Level (kHz)	Limit (kHz)	Result
39	2480.00	750.0	>500	Pass

Figure Channel 39:



佔用頻道寬度測試結果:

PASS

13. 發射電功率密度

13.1. 適用標準

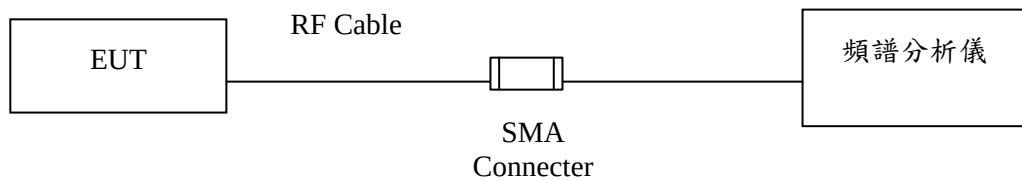
依據國家通訊傳播委員會低功率射頻電機技術規範之第 3.10.1.6 節，在使用頻率範圍之任意 3 千赫(kHz)頻寬內，由發射機傳導至天線之峰值發射電功率密度在任意期間內，皆不得大於 8dBm，且應依 3.10.1.3 之方式降低功率頻譜密度限制值。

13.2. 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。找出發射峰值並擴展於通帶內，設定頻譜分析儀之解析度頻寬為 3kHz，視訊頻寬大於解析度頻寬，掃瞄時間為頻率掃瞄範圍除以 100kHz。(SWEEP TIME = SPAN/3kHz)。

待測物應在正常發射狀態下量測。

13.3. 測試架構圖



13.4. 量測不確定度

此項測試之量測不確定度為 $\pm 1.20\text{dB}$ 。

13.5. 功率密度量測結果

待測物名稱：Bluetooth Headset

待測物型號：HSC090W

測試頻道：CH 00 (2402MHz)

6 dB 頻寬：100kHz

量測天線：--

檢測器：峰值

測試日期：107 年 11 月 13 日

測試項目：功率密度

測試模式：Mode 1: 發射器 - BLE Mode

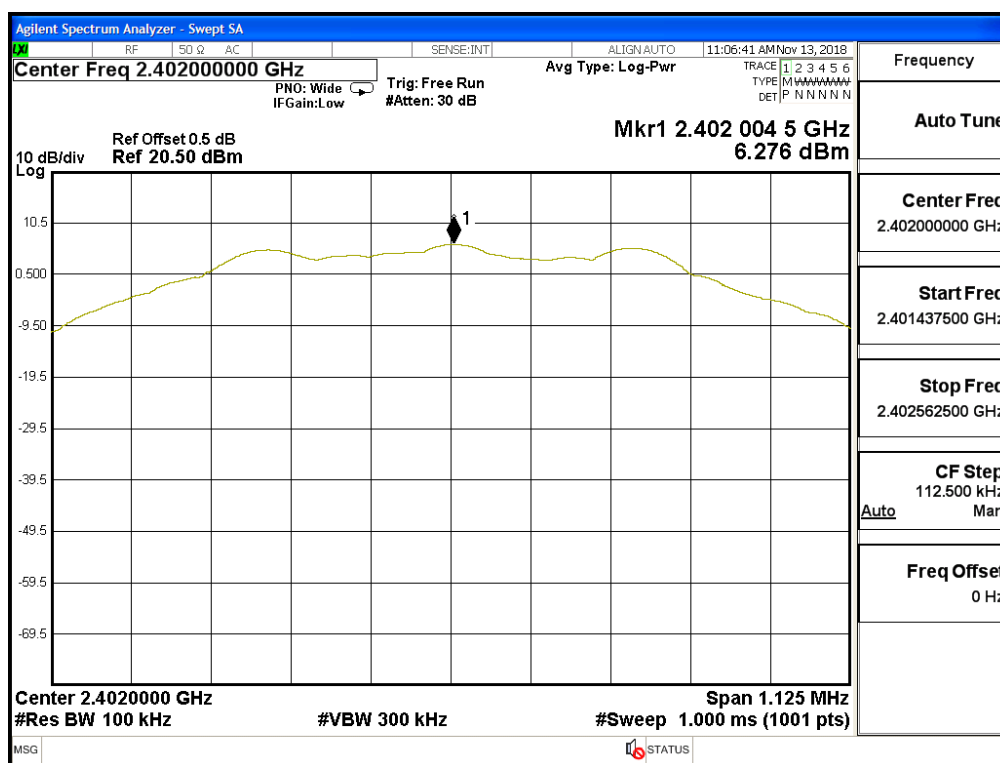
視頻頻寬：300kHz

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
00	2402.00	6.276	< 8dBm	Pass

Figure Channel 00:

待測物名稱：Bluetooth Headset

待測物型號：HSC090W

測試頻道：CH 19 (2440MHz)

6 dB 頻寬：100kHz

量測天線：--

檢測器：峰值

測試日期：107 年 11 月 07 日

測試項目：功率密度

測試模式：Mode 1: 發射器 - BLE Mode

視頻頻寬：300kHz

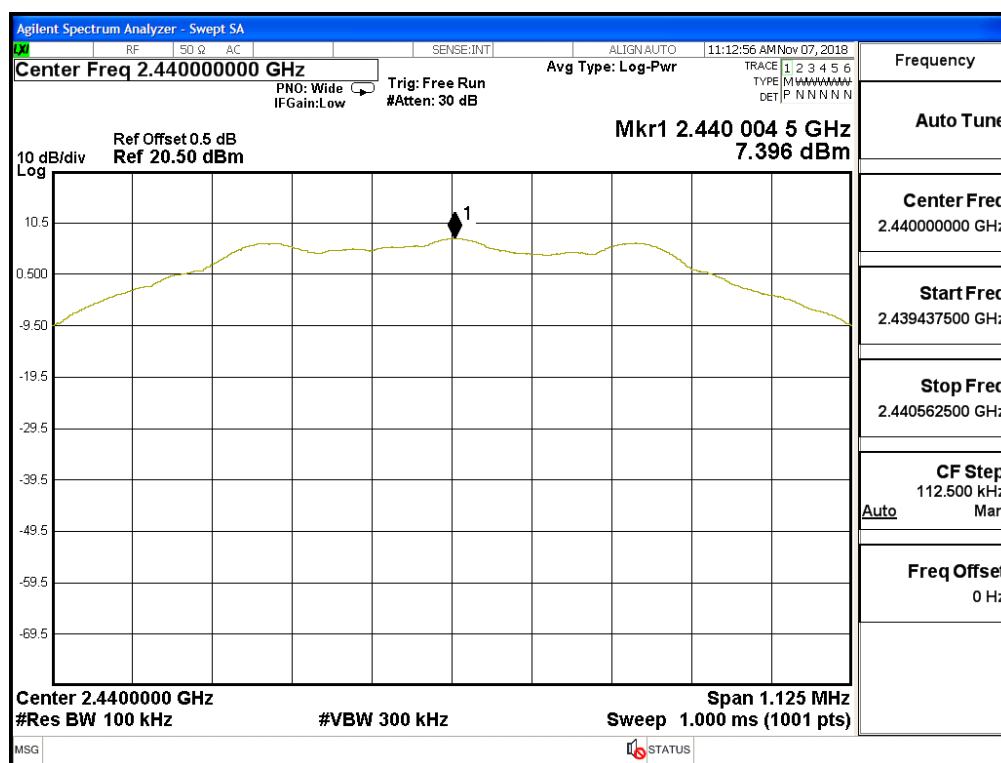
測試距離：Conducted

環境溫度：20 °C

環境濕度：50 %

Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
19	2440.000	7.396	< 8dBm	Pass

Figure Channel 19:



待測物名稱：Bluetooth Headset

待測物型號：HSC090W

測試頻道：CH 39 (2480MHz)

6 dB 頻寬：100kHz

量測天線：--

檢測器：峰值

測試日期：107 年 11 月 07 日

測試項目：功率密度

測試模式：Mode 1: 發射器 - BLE Mode

視頻頻寬：300kHz

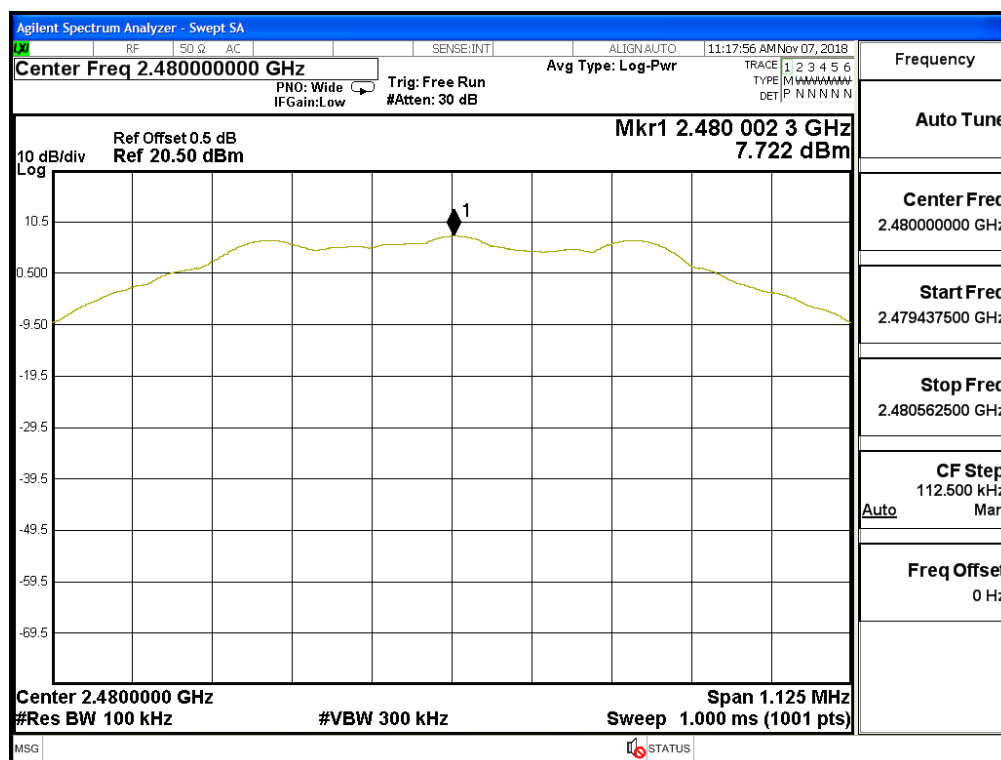
測試距離：Conducted

環境溫度：20 °C

環境濕度：50 %

Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
39	2480.00	7.722	< 8dBm	Pass

Figure Channel 39:



功率密度測試結果:

PASS

附件 1: 待測物測試擺設相片

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)

