



6. On Time, Duty Cycle and Measurement methods

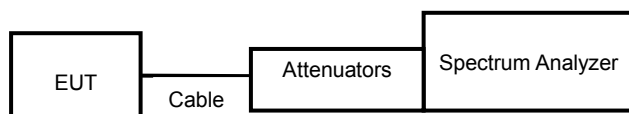
6.1. 適用標準

None; for reporting purposes only.

6.2. 測試方法

KDB 789033 Zero-Span Spectrum Analyzer Method.

6.3. 測試配置



6.4. 測試結果及數據

For 1TX

Modulation Type	On Time (msec)	Period Time (msec)	Duty Cycle (%)
802.11a	100.00	100.00	100.00%
802.11ac VHT20	100.00	100.00	100.00%
802.11ac VHT40	100.00	100.00	100.00%
802.11ac VHT80	100.00	100.00	100.00%

For 2TX

Modulation Type	On Time (msec)	Period Time (msec)	Duty Cycle (%)
802.11ac VHT20	100.00	100.00	100.00%
802.11ac VHT40	100.00	100.00	100.00%
802.11ac VHT80	100.00	100.00	100.00%

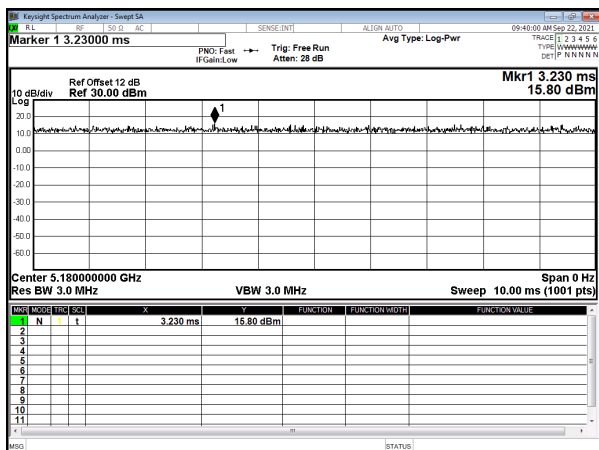
6.5. Measurement Methods

26 dB and 6dB Emission BW	KDB 789033 D02 v02r01, Section C
99% Occupied BW	KDB 789033 D02 v02r01, Section D
Conducted Output Power	KDB 789033 D02 v02r01, Section E.2.d and E.3.b (Method PM-G)
Power Spectral Density	KDB 789033 D02 v02r01, Section F
Unwanted emissions in restricted bands	KDB 789033 D02 v02r01, Sections G and H

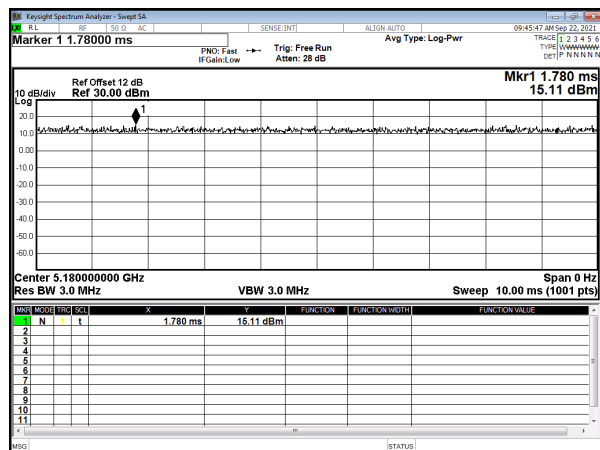


For 1TX

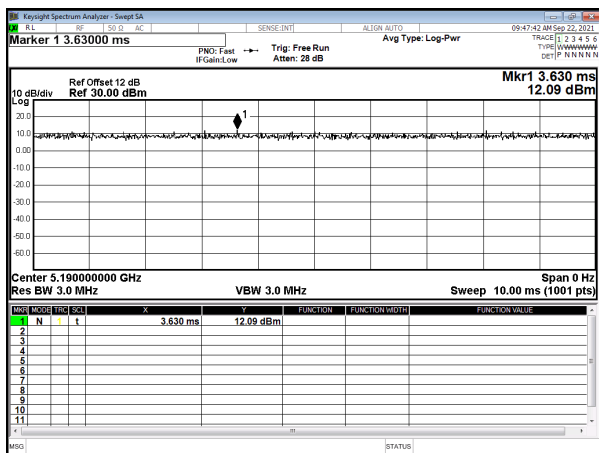
Modulation Type: 802.11a (6Mbps)



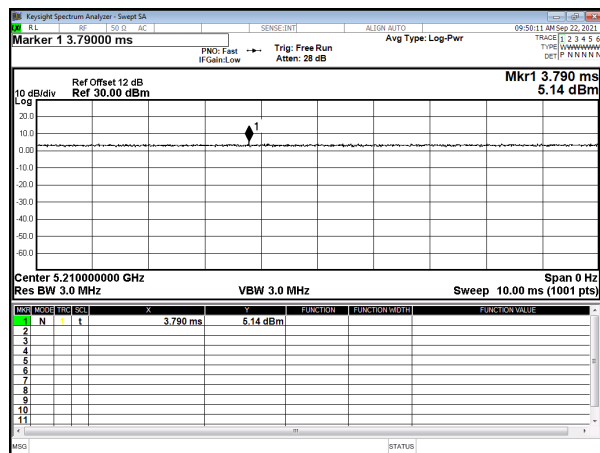
Modulation Type: 802.11ac VHT20 (6.5Mbps)



Modulation Type: 802.11ac VHT40 (13.5Mbps)



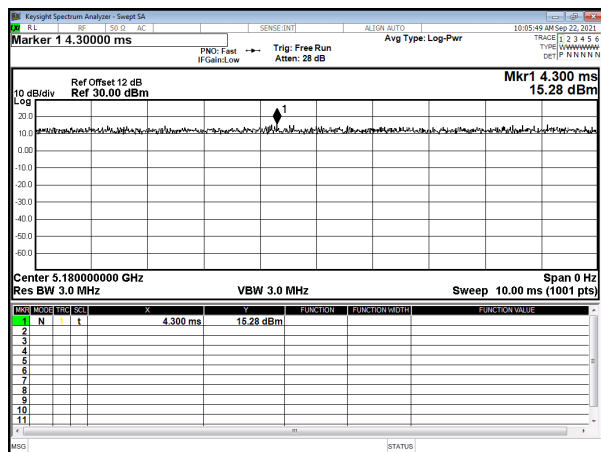
Modulation Type: 802.11ac VHT80 (29.3Mbps)



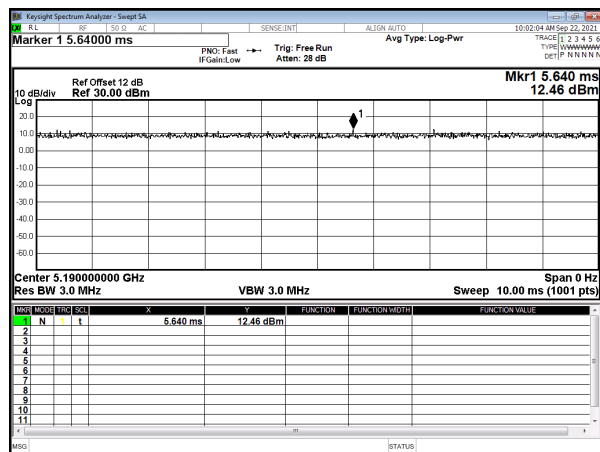


For 2TX

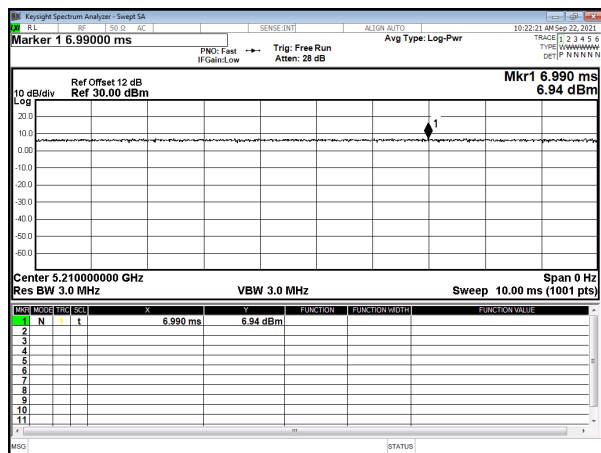
Modulation Type: 802.11ac VHT20 (13Mbps)



Modulation Type: 802.11ac VHT40 (27Mbps)



Modulation Type: 802.11ac VHT80 (58.5Mbps)





7. 6dB & 99% Occupied 頻寬之規定

7.1. 適用標準

依據國家通訊傳播委員會低功率射頻器材技術規範5.7.5節規定，載在5.725 GHz~5.850 GHz 頻段操作之設備，其6 dB 頻寬至少應有500 kHz。

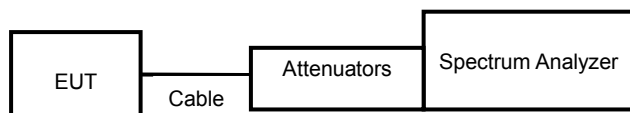
FCC §15.407

The minimum 6 dB bandwidth shall be at least 500 kHz.

7.2. 測試方法

Reference to 789033 D02 General UNII Test Procedures New Rules v01: The transmitter output is connected to a spectrum analyzer with the RBW set to 100KHz, the VBW $\geq 3 \times$ RBW, peak detector and max hold.

7.3. 測試配置





7.4. 測試結果及數據(6dB Bandwidth)

In the 5.8G Band

For 1TX

Modulation Type	Channel	Frequency (MHz)	6dB Bandwidth (MHz)	Minimum Limit (MHz)
			ANT A	
802.11a	149	5745	15.17	0.50
	157	5785	15.06	0.50
	165	5825	15.14	0.50
802.11ac VHT20	149	5745	14.43	0.50
	157	5785	14.06	0.50
	165	5825	15.46	0.50
802.11ac VHT40	151	5755	35.09	0.50
	159	5795	35.09	0.50
802.11ac VHT80	155	5775	76.11	0.50

For 2TX

Modulation Type	Channel	Frequency (MHz)	6dB Bandwidth (MHz)		Minimum Limit (MHz)
			ANT A	ANT B	
802.11ac VHT20	149	5745	15.18	16.72	0.50
	157	5785	15.36	16.95	0.50
	165	5825	15.06	15.34	0.50
802.11ac VHT40	151	5755	35.10	35.12	0.50
	159	5795	35.11	35.14	0.50
802.11ac VHT80	155	5775	73.90	76.08	0.50

備註：繪圖資料請參考下頁。

7.5. 測試結果及數據(99% Occupied Bandwidth)

In the 5.8G Band

For 1TX

Modulation Type	Channel	Frequency (MHz)	99% Bandwidth(MHz)
			ANT A
802.11a	149	5745	16.52
	157	5785	16.51
	165	5825	16.52
802.11ac VHT20	149	5745	17.61
	157	5785	17.66
	165	5825	17.63
802.11ac VHT40	151	5755	36.12
	159	5795	36.08
802.11ac VHT80	155	5775	75.49



For 2TX

Modulation Type	Channel	Frequency (MHz)	99% Bandwidth(MHz)	
			ANT A	ANT B
802.11ac VHT20	149	5745	17.68	17.66
	157	5785	17.63	17.64
	165	5825	17.67	17.68
802.11ac VHT40	151	5755	36.14	36.15
	159	5795	36.08	36.23
802.11ac VHT80	155	5775	75.58	75.57

備註：繪圖資料請參考下頁。

7.6. 結果判定

高、中、低頻段的 6dB 頻寬皆大於 500 KHz，合乎標準規定。

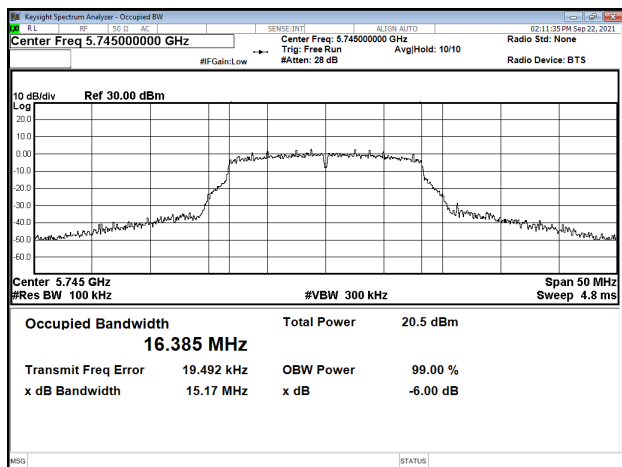


6dB Bandwidth

For 1TX: ANT A

Modulation Standard: 802.11a (6Mbps)

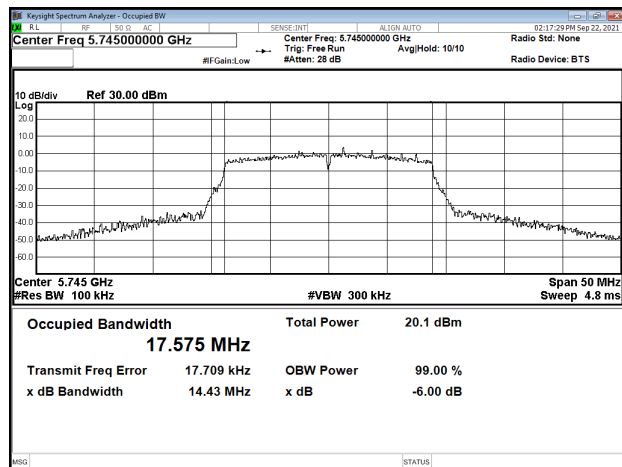
CH149



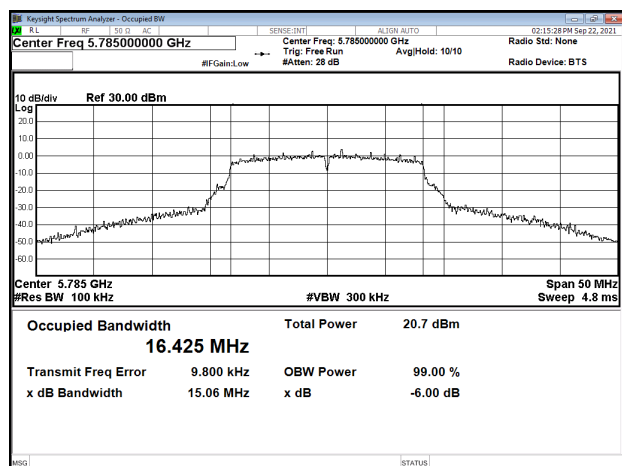
Modulation Standard: 802.11ac, VHT20

(6.5Mbps)

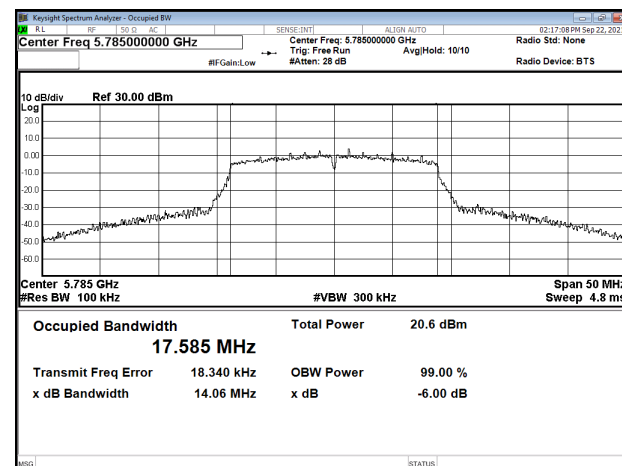
CH149



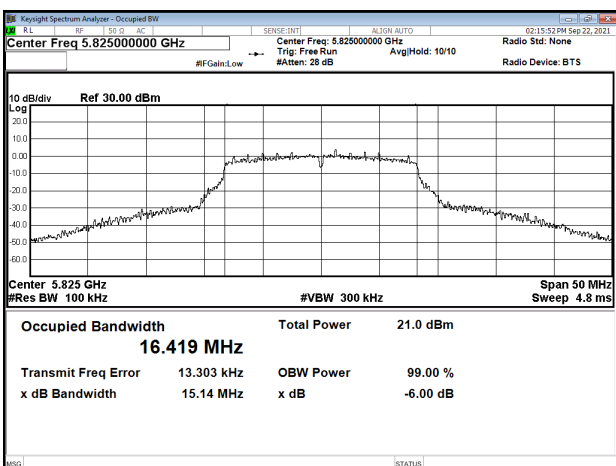
CH157



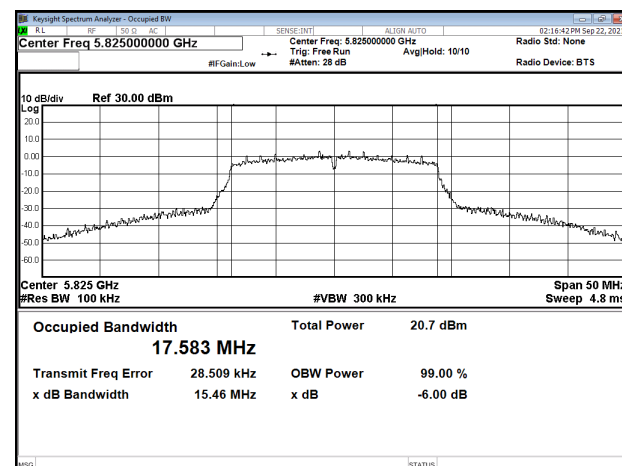
CH157



CH165

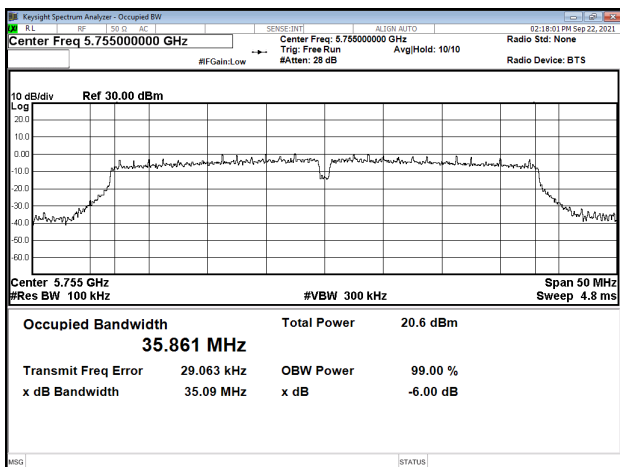


CH165

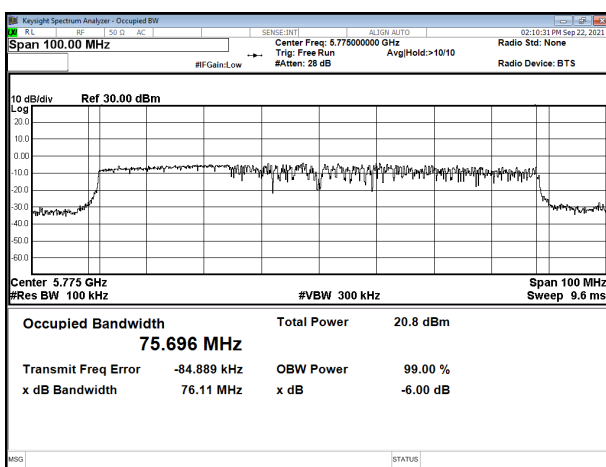




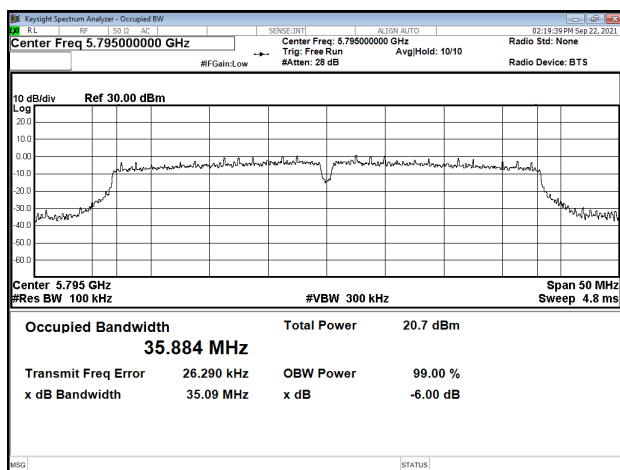
Modulation Standard: 802.11ac, VHT40
(13.5Mbps)
CH151



Modulation Standard: 802.11ac, VHT80
(29.3Mbps)
CH155

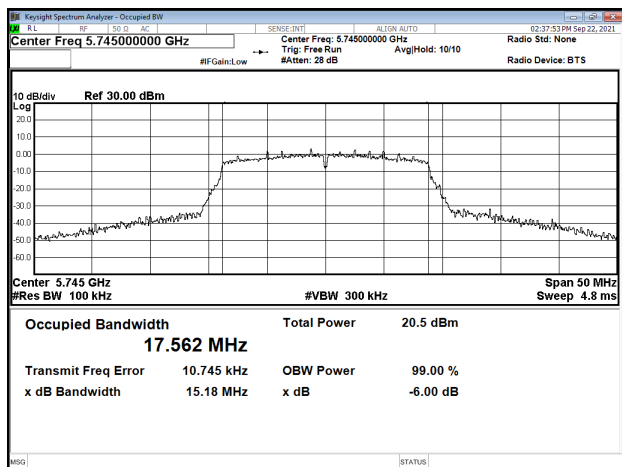


CH159

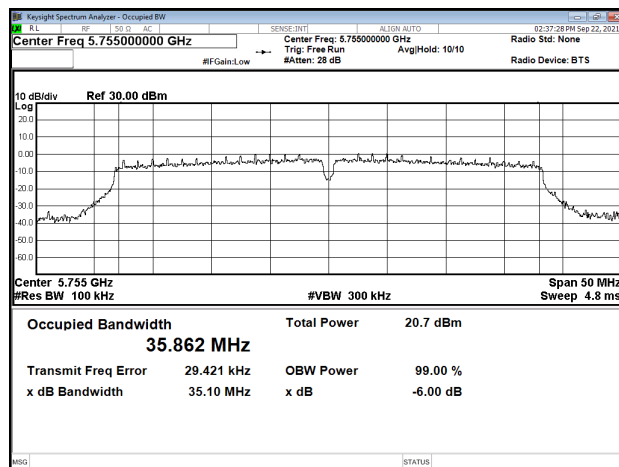




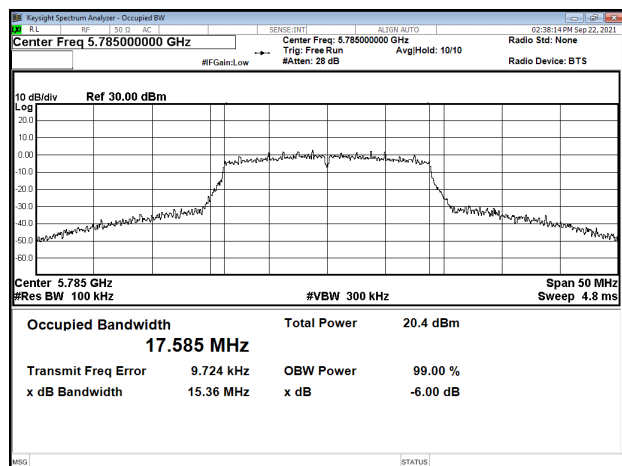
For 2TX: ANT A
Modulation Standard: 802.11ac, VHT20
(13Mbps)
CH149



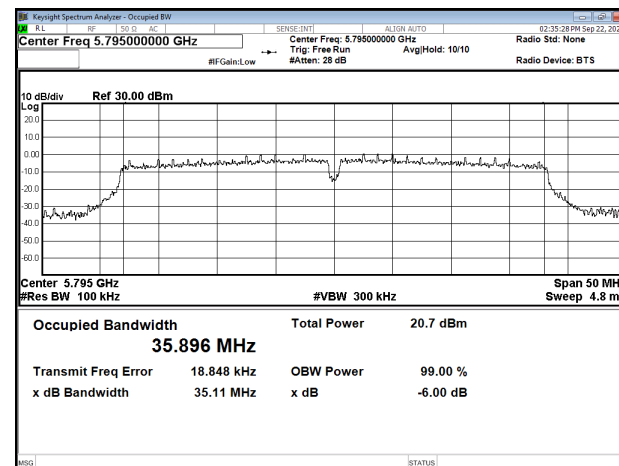
Modulation Standard: 802.11ac, VHT40 (27Mbps)
CH151



CH157

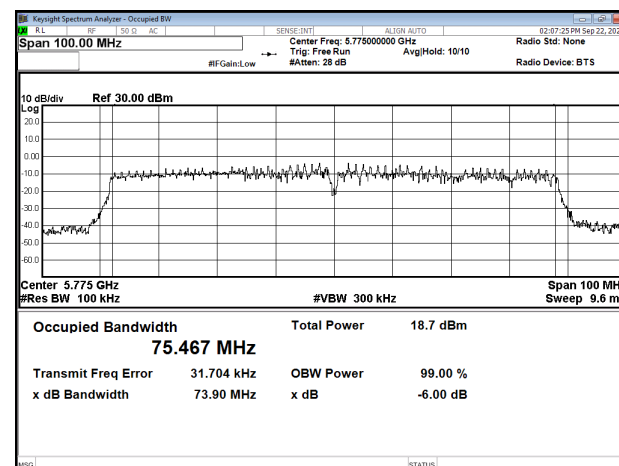
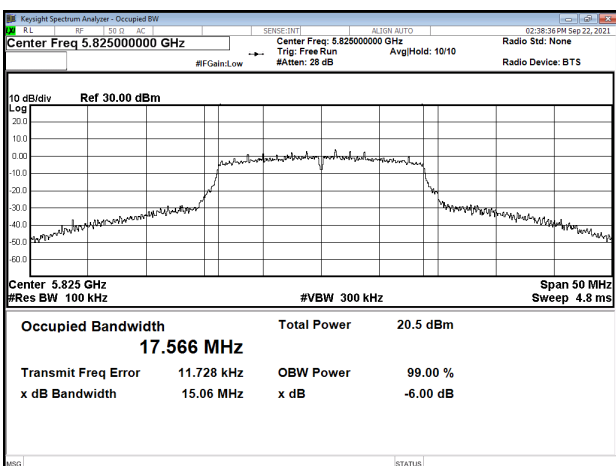


CH159



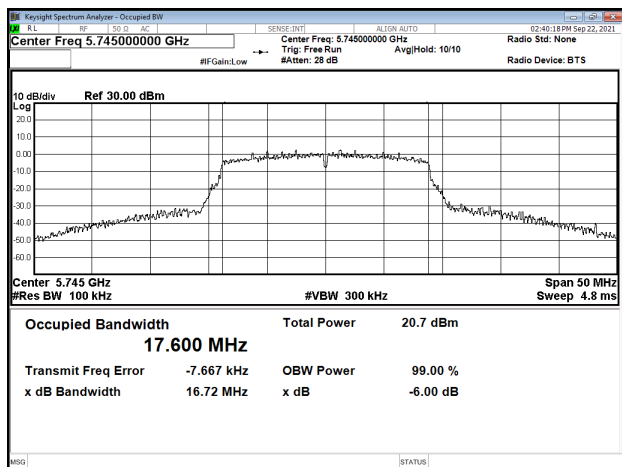
Modulation Standard: 802.11ac, VHT80
(58.5Mbps)
CH155

CH165

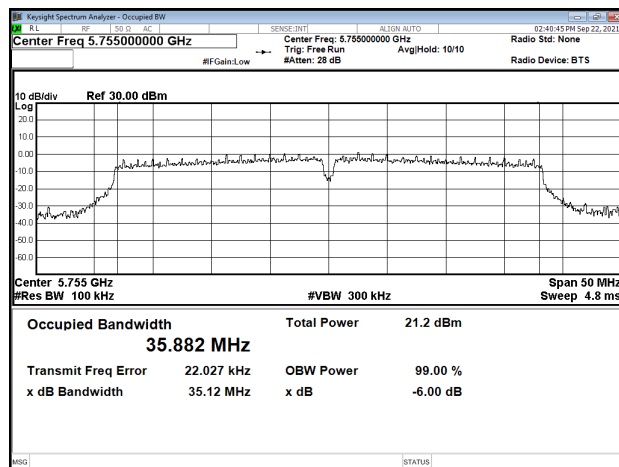




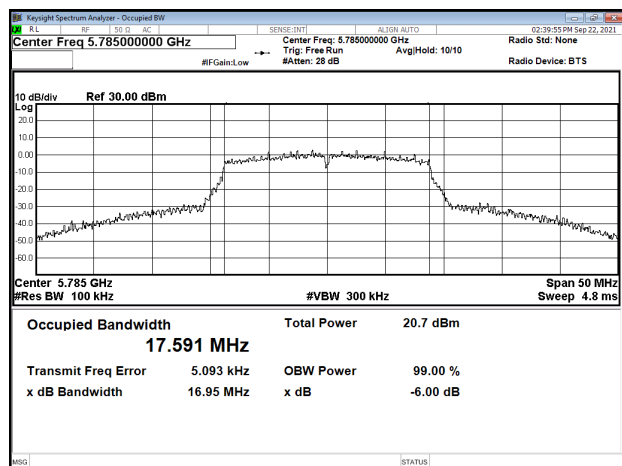
For 2TX: ANT B
Modulation Standard: 802.11ac, VHT20
(6.5Mbps)
CH149



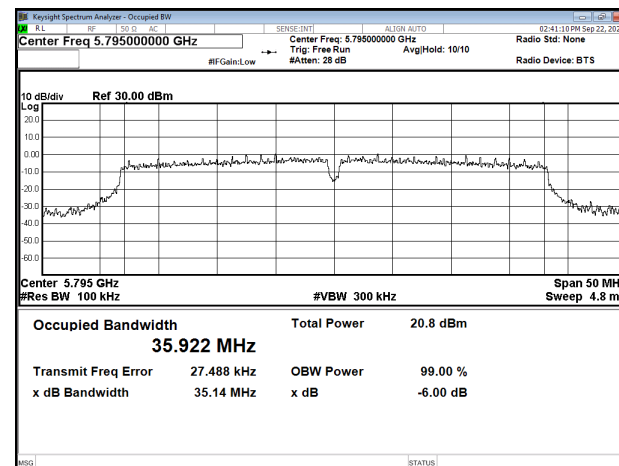
Modulation Standard: 802.11ac, VHT40
(13.5Mbps)
CH151



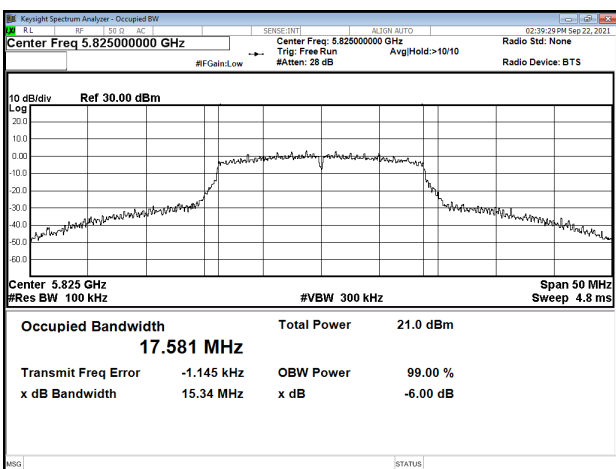
CH157



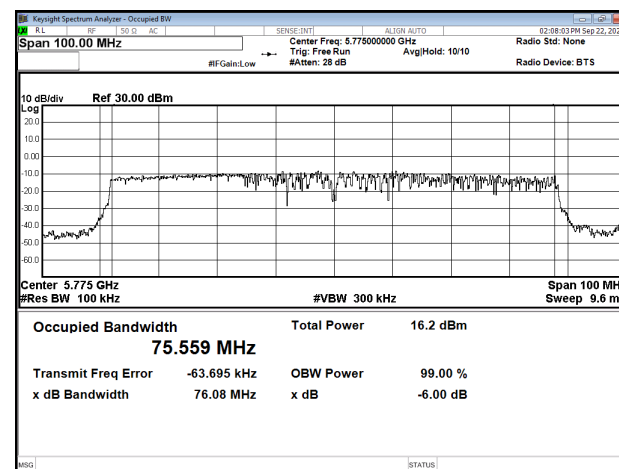
CH159



CH165



Modulation Standard: 802.11ac, VHT80
(29.3Mbps)
CH155



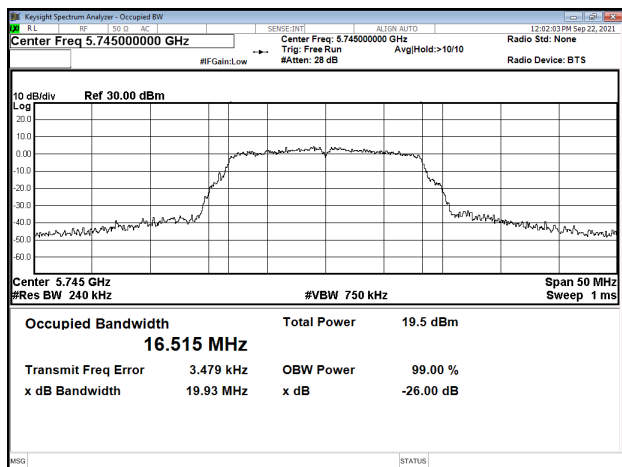


99% Occupied Bandwidth

For 1TX: ANT A

Modulation Standard: 802.11a (6Mbps)

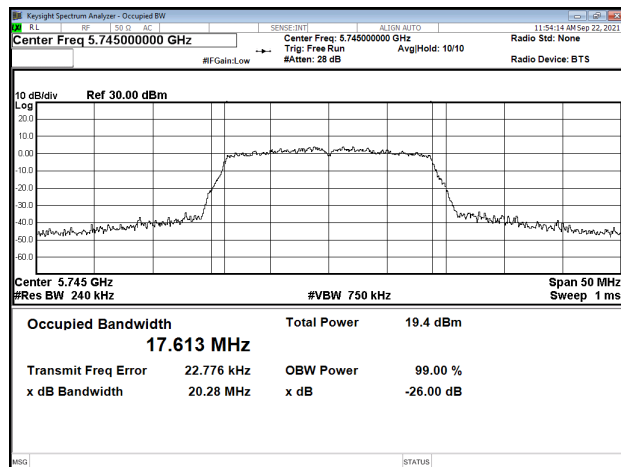
CH149



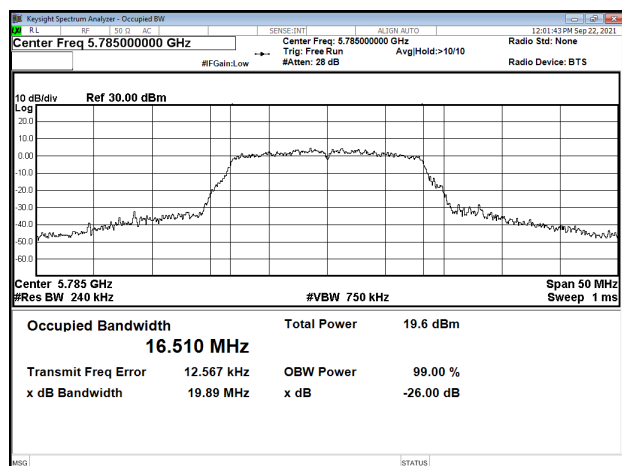
Modulation Standard: 802.11ac, VHT20

(6.5Mbps)

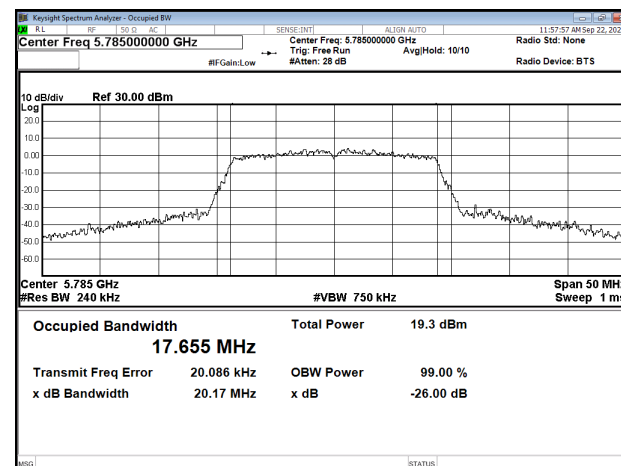
CH149



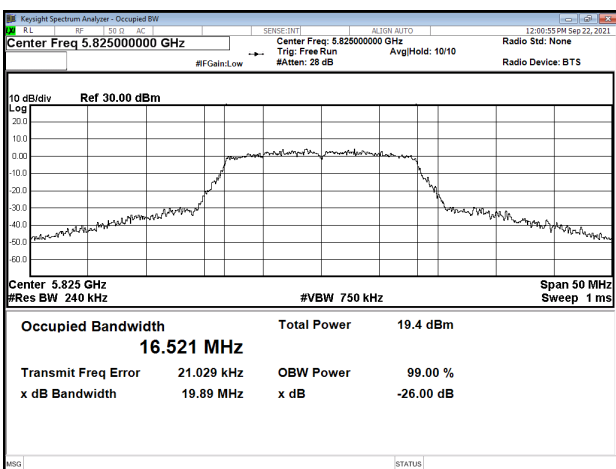
CH157



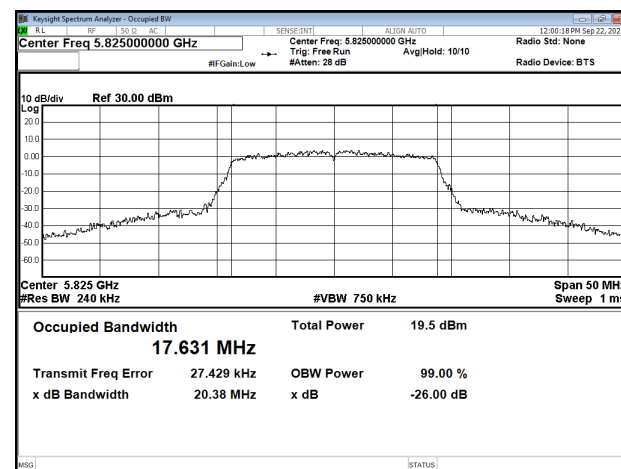
CH157



CH165

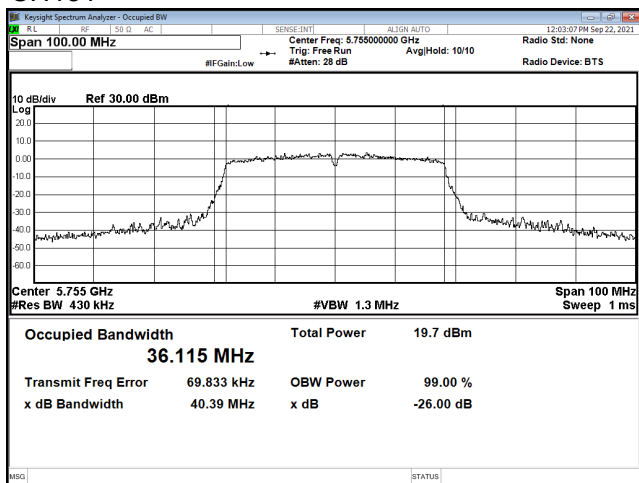


CH165

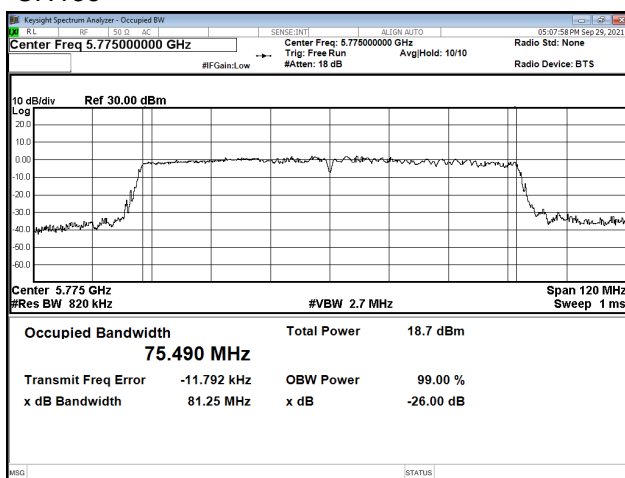




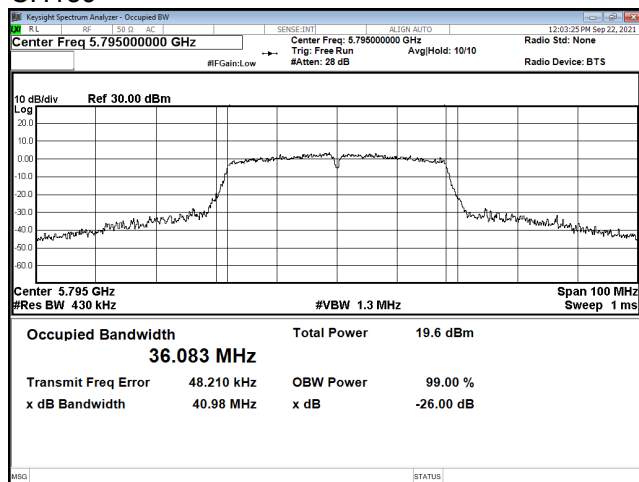
Modulation Standard: 802.11ac, VHT40
(13.5Mbps)
CH151



Modulation Standard: 802.11ac, VHT80
(29.3Mbps)
CH155

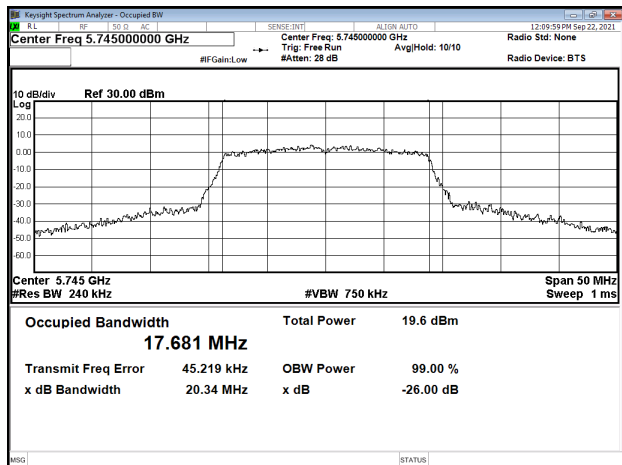


CH159

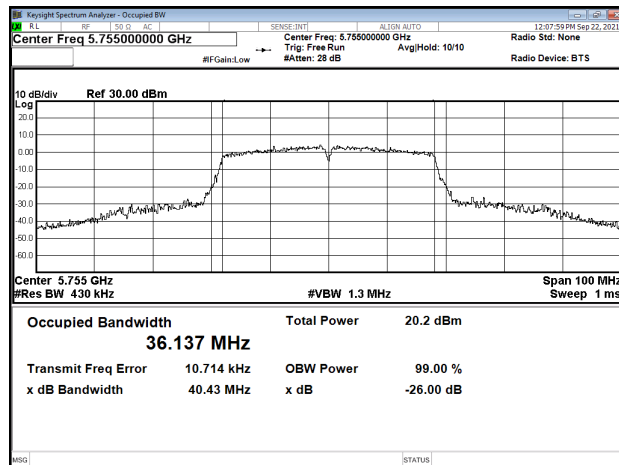




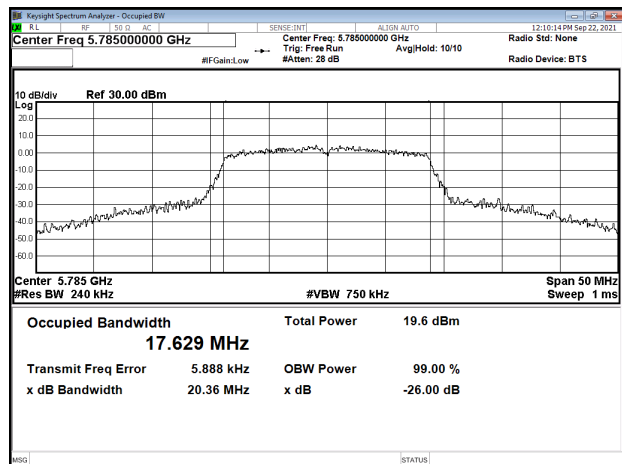
For 2TX: ANT A
Modulation Standard: 802.11ac, VHT20
(13Mbps)
CH149



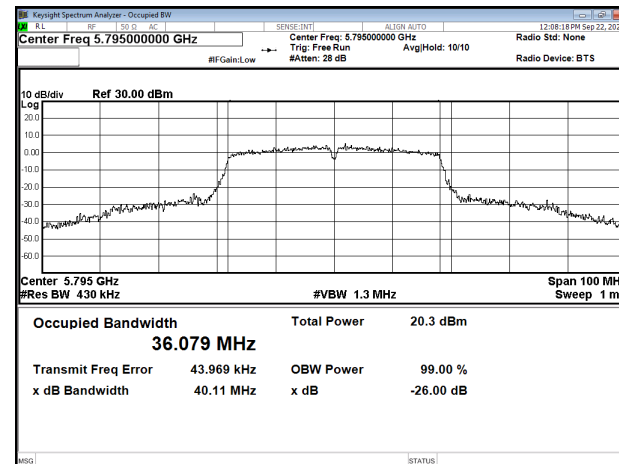
Modulation Standard: 802.11ac, VHT40
(27Mbps)
CH151



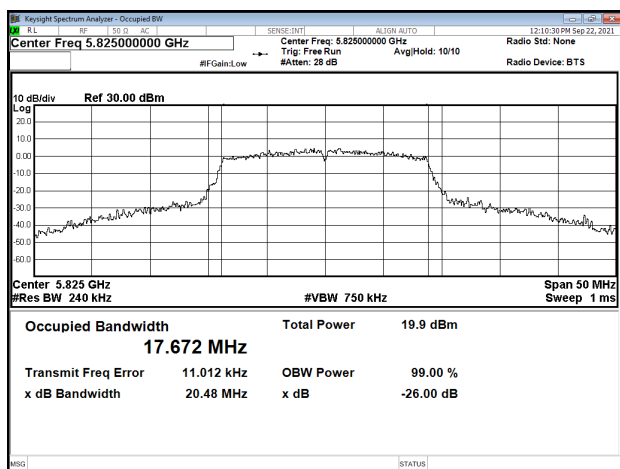
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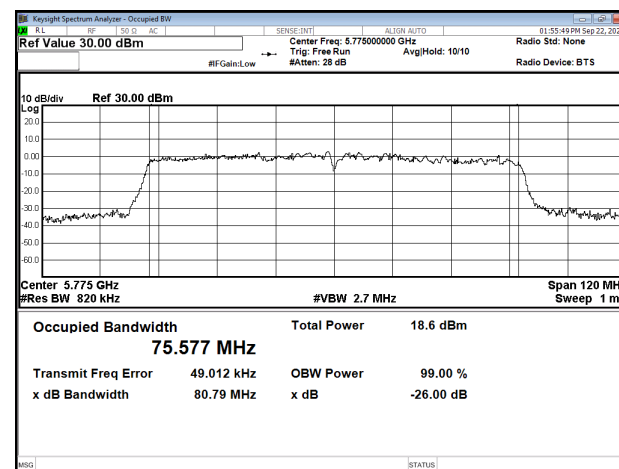
CH159



CH165

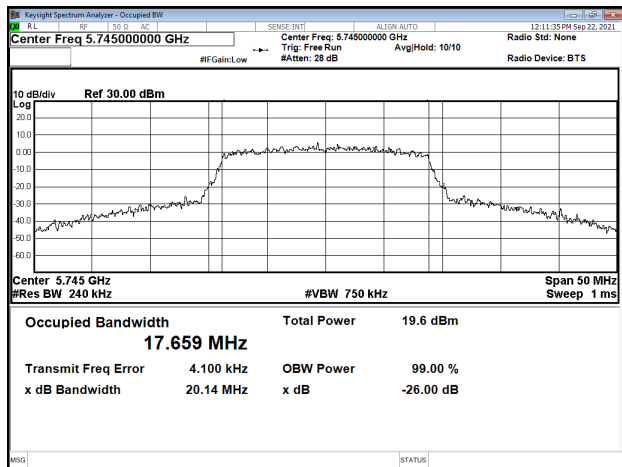


Modulation Standard: 802.11ac, VHT80
(58.5Mbps)
CH155

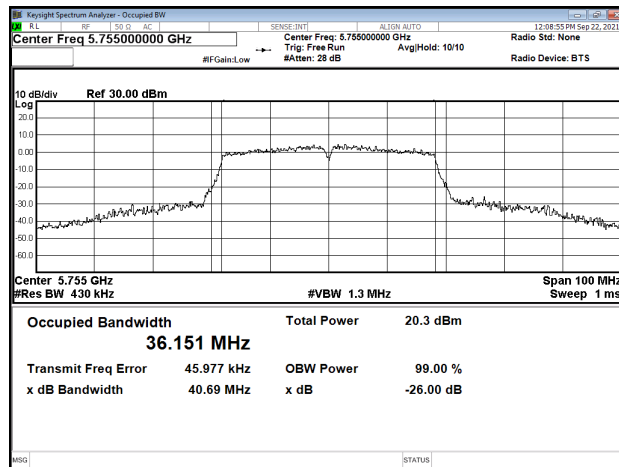




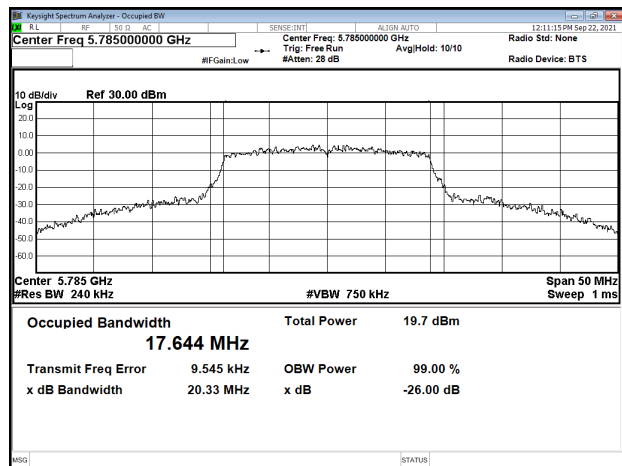
For 2TX: ANT B
Modulation Standard: 802.11ac, VHT20
(13Mbps)
CH149



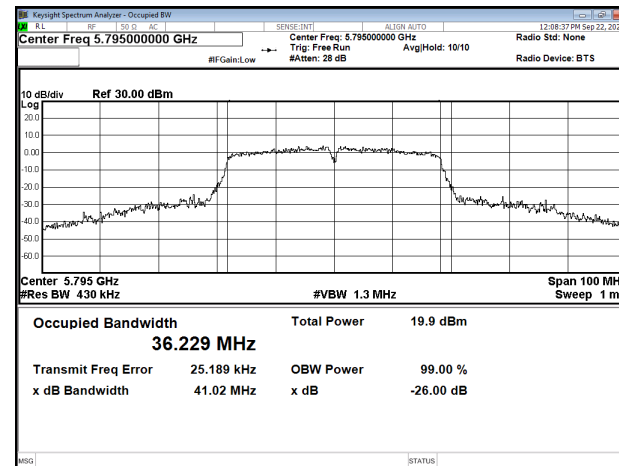
Modulation Standard: 802.11ac, VHT40
(27Mbps)
CH151



CH157

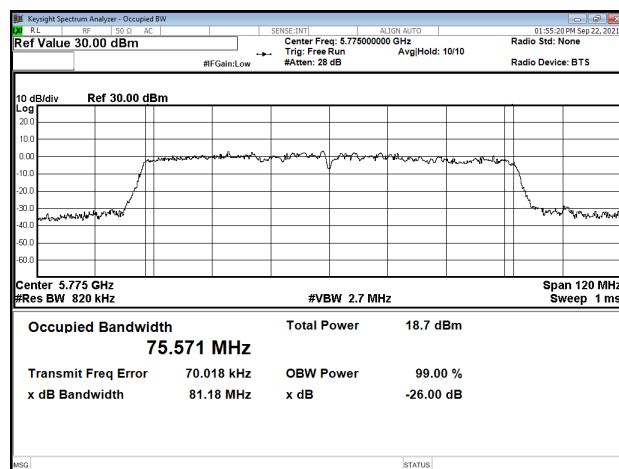
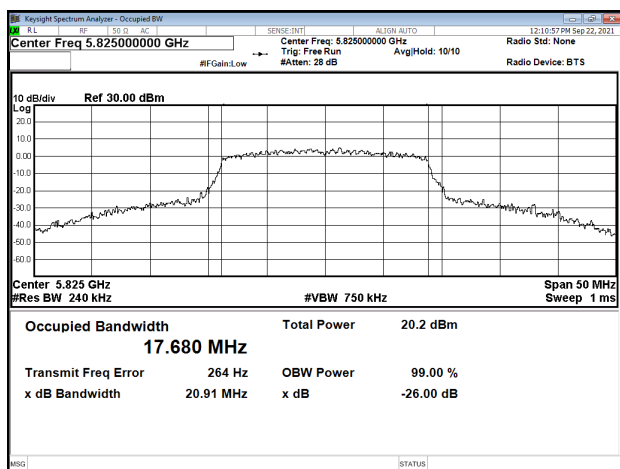


CH159



Modulation Standard: 802.11ac, VHT80
(58.5Mbps)
CH155

CH165





8. 26dB & 99% Occupied 頻寬之規定

8.1. 適用標準

依據國家通訊傳播委員會低功率射頻器材技術規範 5.7.3.2 節規定，載在使用頻率於 5.25 GHz ~5.35 GHz 與 5.470 GHz~5.725 GHz 頻段

最大傳導輸出功率應小於或等於 250 mW 或 $11\text{dBm} + 10\log B$ (B 是 26 dB

發射頻寬，單位 MHz) 之較小者

依據國家通訊傳播委員會低功率射頻器材技術規範 5.7.2.3 節規定，發射頻寬(emission bandwidth)：係測量訊號兩點之間寬度而得，此兩

點是調變載波中心頻率上下兩邊，相對其調變載波最高功率降低 26 dB

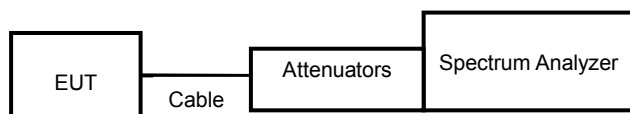
處。需使用峰值檢測(peak detector)功能及解析頻寬約等於受測物發射頻寬 1%之儀器。

None; for reporting purposes only.

8.2. 測試方法

Reference to 789033 D02 General UNII Test Procedures New Rules v01: The transmitter output is connected to a spectrum analyzer with the RBW set to approximately 1% of the emission bandwidth, the VBW $\geq$ RBW, peak detector and max hold.

8.3. 測試配置





8.4. 測試結果及數據(26dB Bandwidth)

In the 5.2G Band For 1TX

Mode	Channel	Frequency (MHz)	26dB Bandwidth (MHz)
			ANT A
802.11a	36	5180	20.04
	44	5220	19.89
	48	5240	20.39
802.11ac VHT20	36	5180	20.26
	44	5220	20.26
	48	5240	20.32
802.11ac VHT40	38	5190	40.28
	46	5230	40.77
802.11ac VHT80	42	5210	81.63

For 2TX

Mode	Channel	Frequency (MHz)	26dB Bandwidth (MHz)	
			ANT A	ANT B
802.11ac VHT20	36	5180	20.25	20.21
	44	5220	20.11	20.32
	48	5240	20.25	20.30
802.11ac VHT40	38	5190	40.24	40.36
	46	5230	40.52	39.93
802.11ac VHT80	42	5210	81.49	80.04

In the 5.3G Band For 1TX

Mode	Channel	Frequency (MHz)	26dB Bandwidth (MHz)
			ANT A
802.11a	52	5260	19.96
	60	5300	19.90
	64	5320	19.93
802.11ac VHT20	52	5260	20.44
	60	5300	20.12
	64	5320	20.18
802.11ac VHT40	54	5270	40.43
	62	5310	40.20
802.11ac VHT80	58	5290	81.57

For 2TX

Mode	Channel	Frequency (MHz)	26dB Bandwidth (MHz)	
			ANT A	ANT B
802.11ac VHT20	52	5260	20.25	20.29
	60	5300	20.48	20.10
	64	5320	20.39	20.13
802.11ac VHT40	54	5270	40.18	40.17
	62	5310	40.60	40.12
802.11ac VHT80	58	5290	81.04	79.97

**In the 5.5G Band****For 1TX**

Mode	Channel	Frequency (MHz)	26dB Bandwidth (MHz)
			ANT A
802.11a	100	5500	20.13
	116	5580	19.93
	140	5700	20.05
802.11ac VHT20	100	5500	20.01
	116	5580	20.16
	140	5700	20.43
802.11ac VHT40	102	5510	40.51
	110	5550	40.62
	134	5670	40.15
802.11ac VHT80	106	5530	81.79

For 2TX

Mode	Channel	Frequency (MHz)	26dB Bandwidth (MHz)	
			ANT A	ANT B
802.11ac VHT20	100	5500	20.33	20.37
	116	5580	20.51	20.33
	140	5700	20.30	20.31
802.11ac VHT40	102	5510	39.87	40.20
	110	5550	40.53	40.11
	134	5670	40.17	40.19
802.11ac VHT80	106	5530	81.82	80.70

備註：繪圖資料請參考下頁。

**8.5. 測試結果及數據(99% Occupied Bandwidth)****In the 5.2G Band
For 1TX**

Mode	Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)
			ANT A
802.11a	36	5180	16.51
	44	5220	16.46
	48	5240	16.60
802.11ac VHT20	36	5180	17.63
	44	5220	17.59
	48	5240	17.60
802.11ac VHT40	38	5190	36.06
	46	5230	36.07
802.11ac VHT80	42	5210	75.68

For 2TX

Mode	Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	
			ANT A	ANT B
802.11ac VHT20	36	5180	17.64	17.60
	44	5220	17.63	17.64
	48	5240	17.58	17.63
802.11ac VHT40	38	5190	36.02	36.06
	46	5230	36.10	36.09
802.11ac VHT80	42	5210	75.64	75.47

**In the 5.3G Band
For 1TX**

Mode	Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)
			ANT A
802.11a	52	5260	16.46
	60	5300	16.52
	64	5320	16.49
802.11ac VHT20	52	5260	17.62
	60	5300	17.60
	64	5320	17.62
802.11ac VHT40	54	5270	36.07
	62	5310	35.97
802.11ac VHT80	58	5290	75.46

For 2TX

Mode	Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	
			ANT A	ANT B
802.11ac VHT20	52	5260	17.61	17.62
	60	5300	17.62	17.63
	64	5320	17.61	17.58
802.11ac VHT40	54	5270	36.04	36.06
	62	5310	36.03	36.07
802.11ac VHT80	58	5290	75.41	75.57



**In the 5.5G Band
For 1TX**

Mode	Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)
			ANT A
802.11a	100	5500	16.46
	116	5580	16.50
	140	5700	16.51
802.11ac VHT20	100	5500	17.59
	116	5580	17.58
	140	5700	17.58
802.11ac VHT40	102	5510	36.08
	110	5550	36.06
	134	5670	36.06
802.11ac VHT80	106	5530	75.62

For 2TX

Mode	Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	
			ANT A	ANT B
802.11ac VHT20	100	5500	17.63	17.58
	116	5580	17.60	17.62
	140	5700	17.65	17.61
802.11ac VHT40	102	5510	36.15	35.94
	110	5550	36.03	36.02
	134	5670	36.05	36.08
802.11ac VHT80	106	5530	75.51	75.61

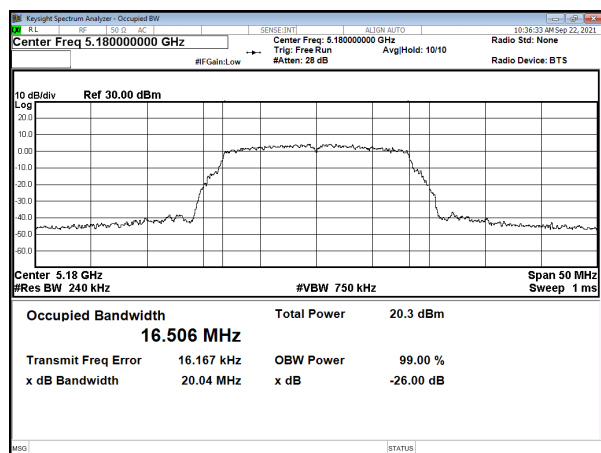
備註：繪圖資料請參考下頁。



For 1TX: ANT A
26dB Bandwidth &99% Occupied Bandwidth, Band 1

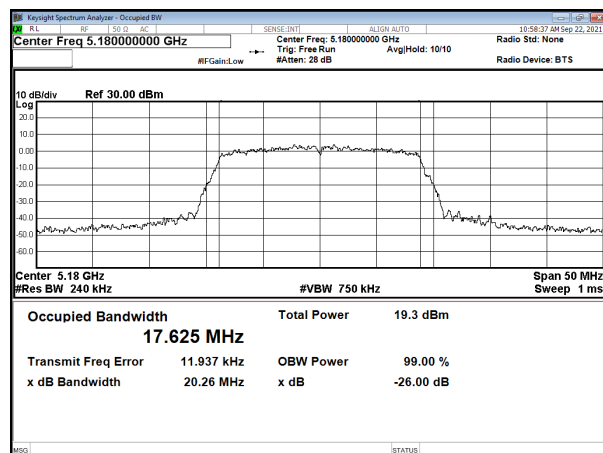
Modulation Standard: 802.11a (6Mbps)

CH36

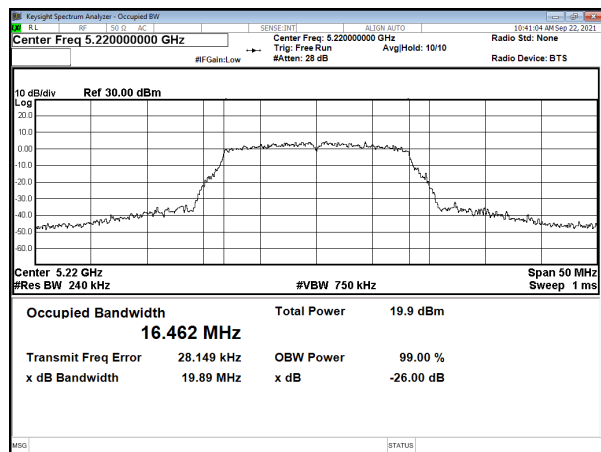


Modulation Standard: 802.11ac VHT20 (6.5Mbps)

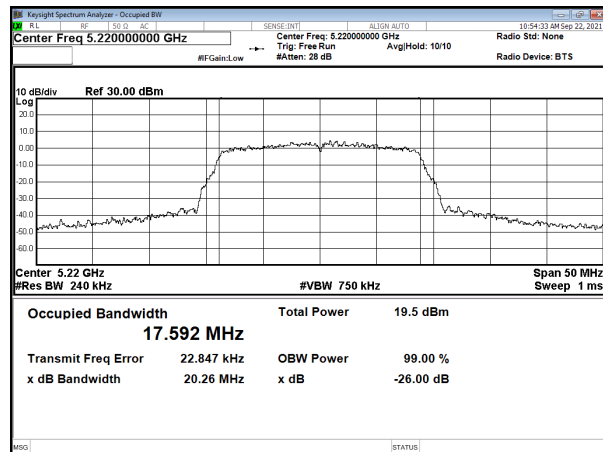
CH36



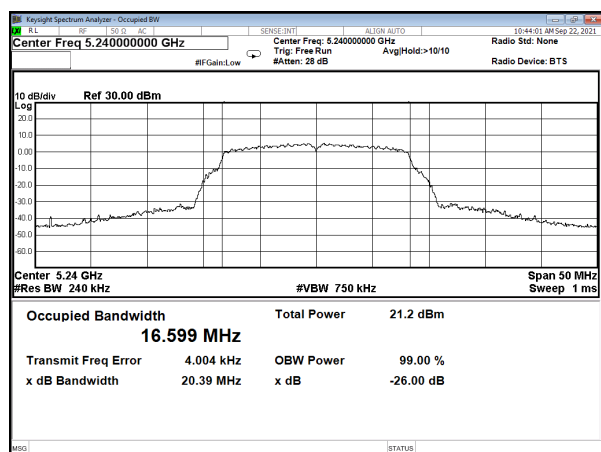
CH44



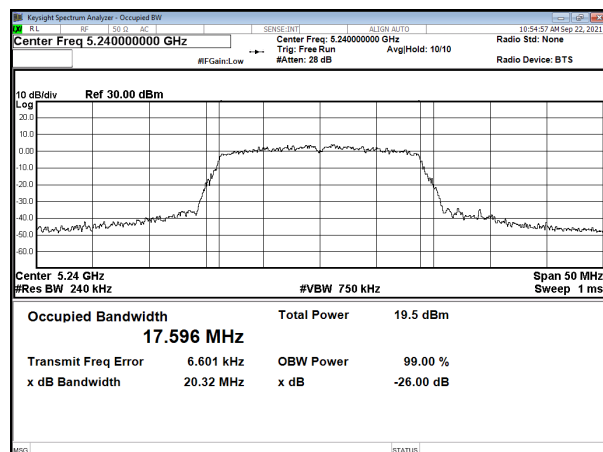
CH44



CH48



CH48

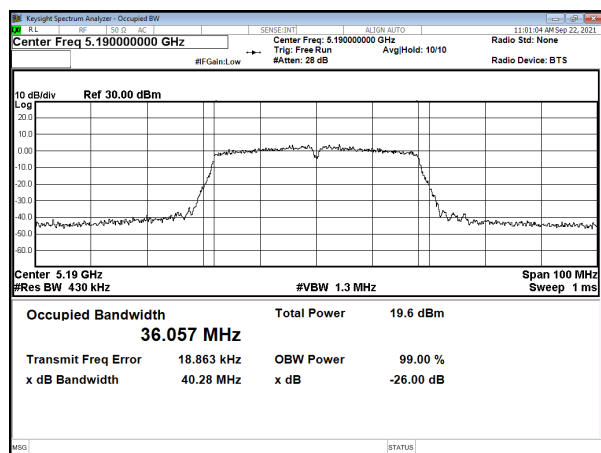




26dB Bandwidth &99% Occupied Bandwidth, Band 1

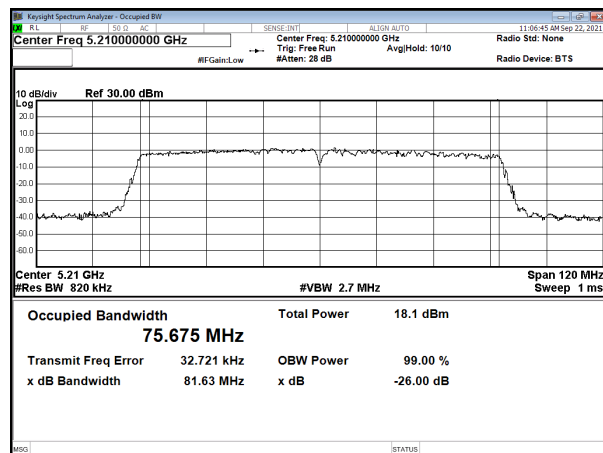
Modulation Standard: 802.11ac VHT40 (13.5Mbps)

CH38

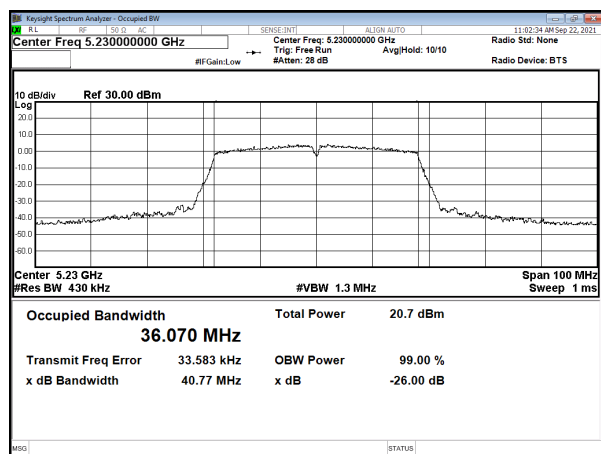


Modulation Standard: 802.11ac VHT80 (29.3Mbps)

CH42



CH46

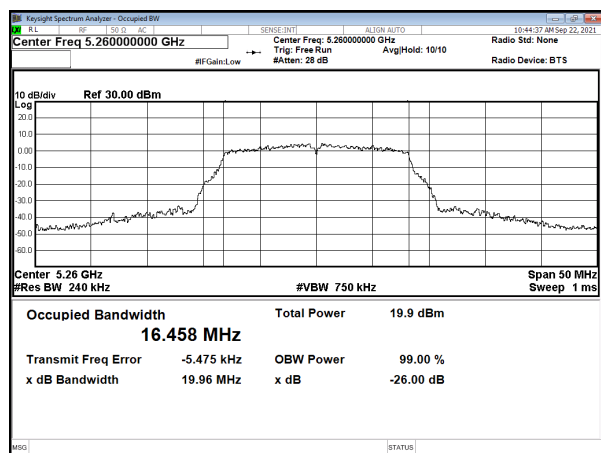




26dB Bandwidth & 99% Occupied Bandwidth, Band 2

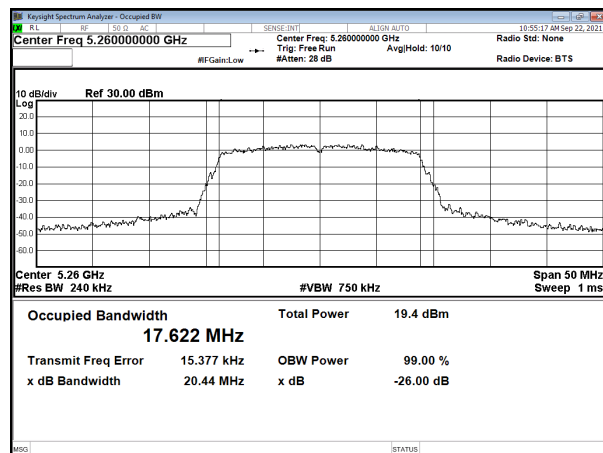
Modulation Standard: 802.11a (6Mbps)

CH52

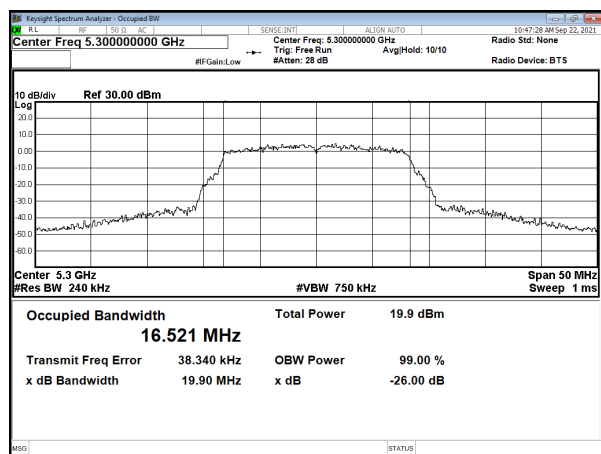


Modulation Standard: 802.11ac VHT20 (6.5Mbps)

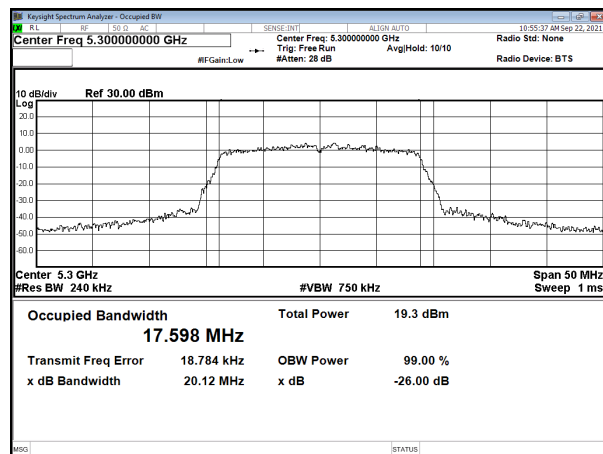
CH52



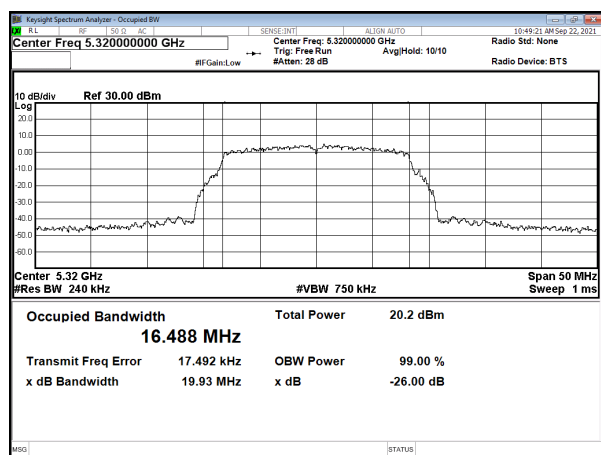
CH60



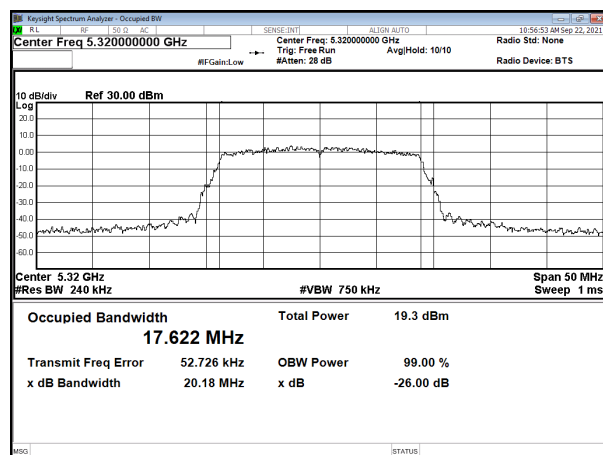
CH60



CH64



CH64

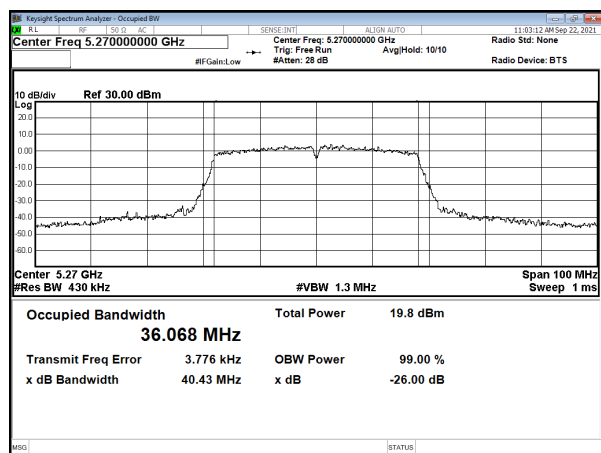




26dB Bandwidth &99% Occupied Bandwidth, Band 2

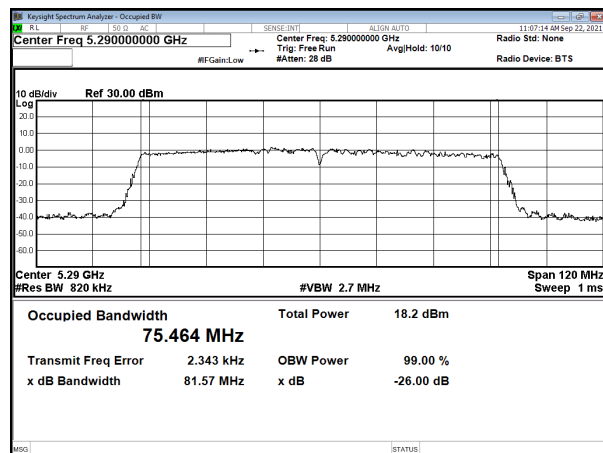
Modulation Standard: 802.11ac VHT40 (13.5Mbps)

CH54

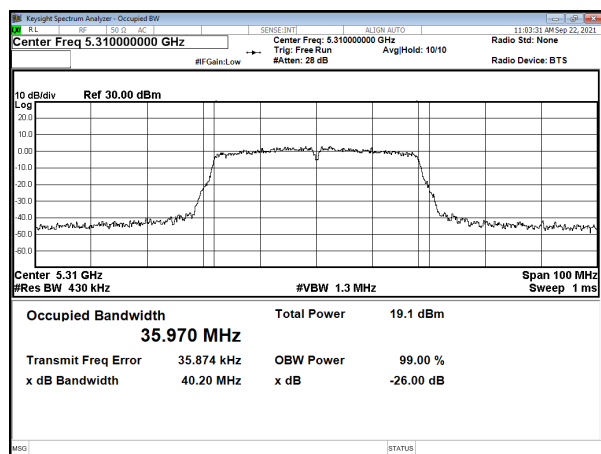


Modulation Standard: 802.11ac VHT80 (29.3Mbps)

CH58



CH62

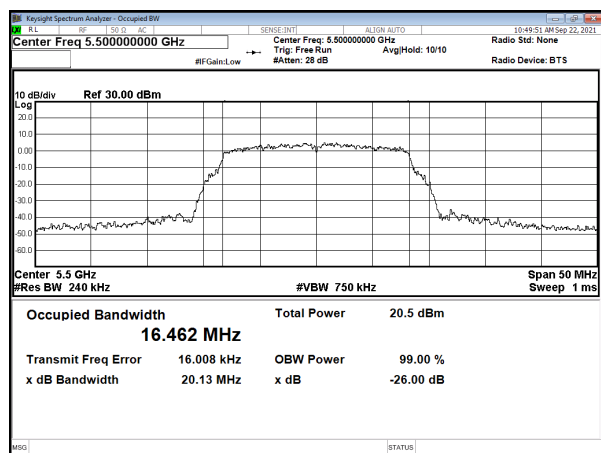




26dB Bandwidth &99% Occupied Bandwidth, Band 3

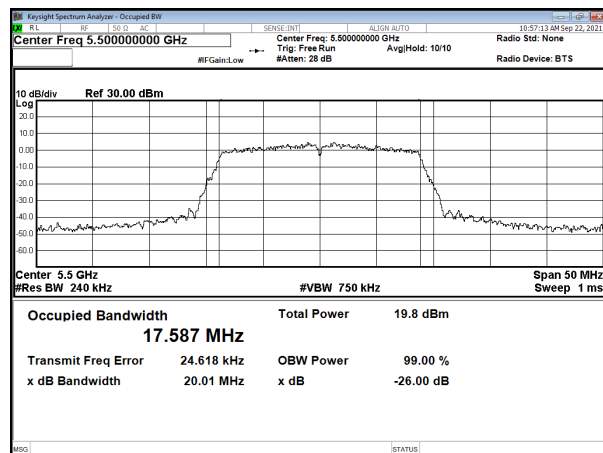
Modulation Standard: 802.11a (6Mbps)

CH100

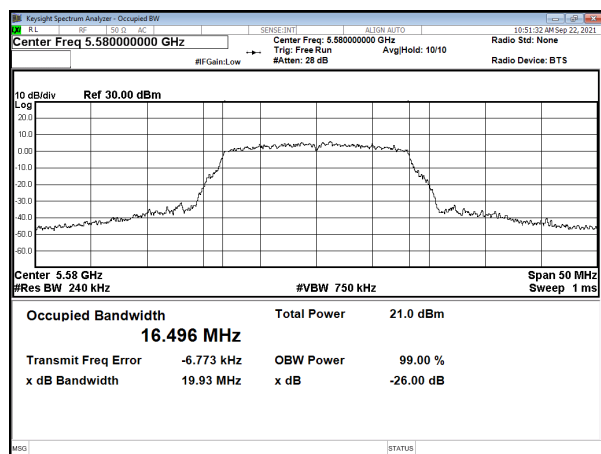


Modulation Standard: 802.11ac VHT20 (6.5Mbps)

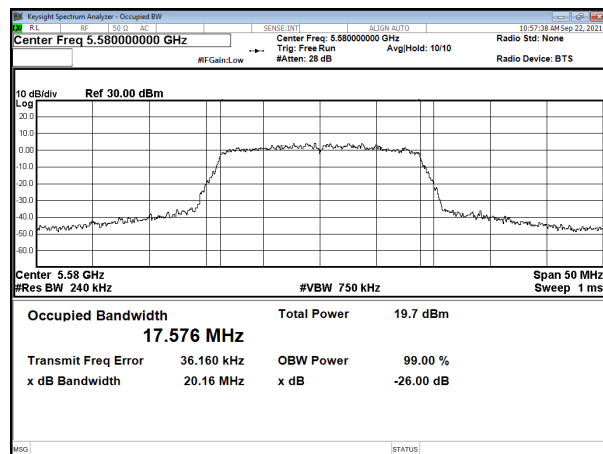
CH100



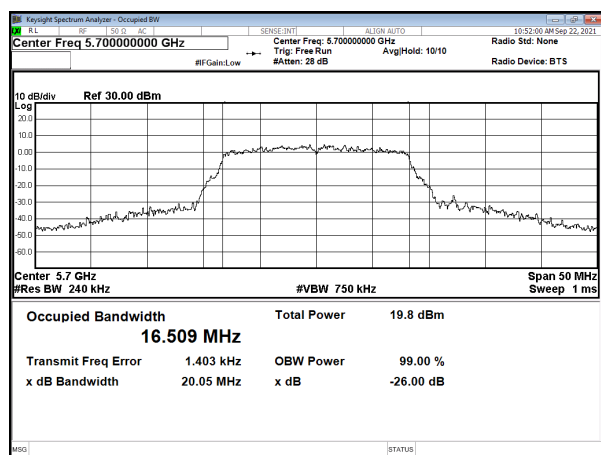
CH116



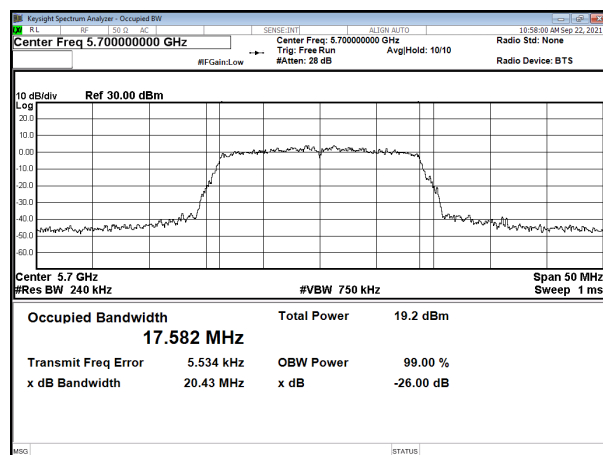
CH116



CH140



CH140

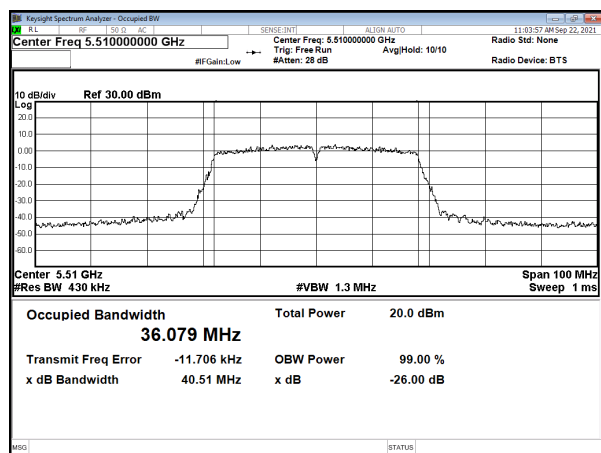




26dB Bandwidth &99% Occupied Bandwidth, Band 3

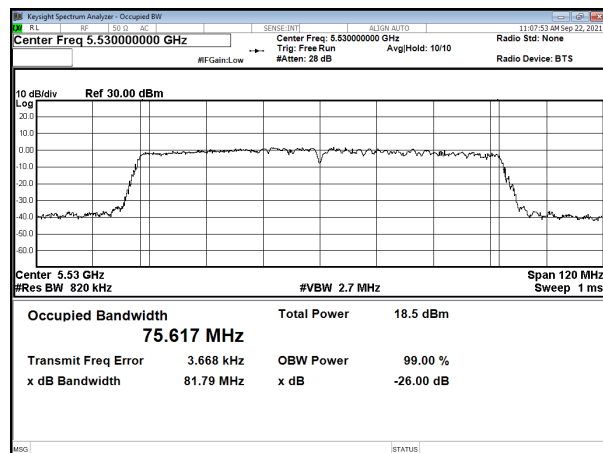
Modulation Standard: 802.11ac VHT40 (13.5Mbps)

CH102

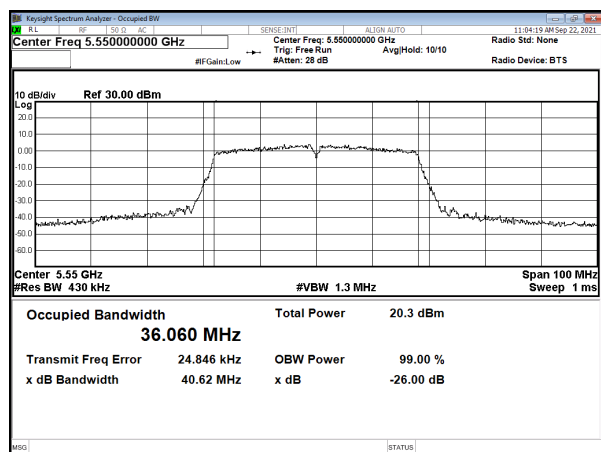


Modulation Standard: 802.11ac VHT80 (29.3Mbps)

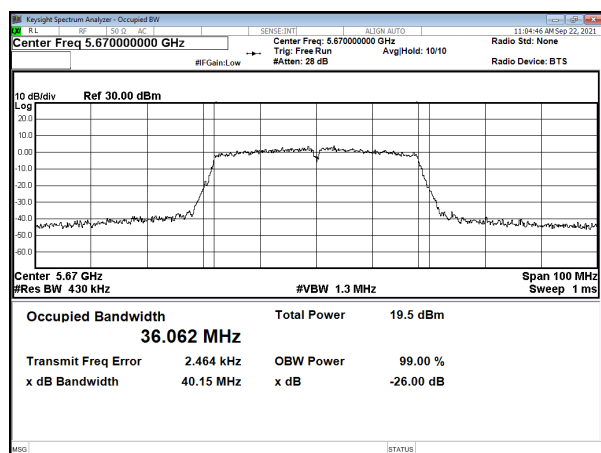
CH106



CH110



CH134

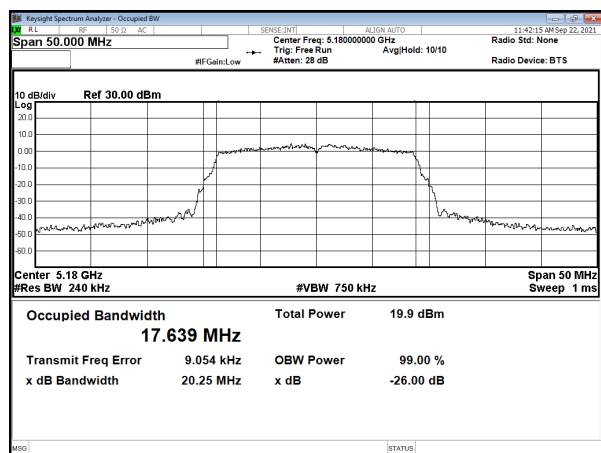




For 2TX: ANT A
26dB Bandwidth &99% Occupied Bandwidth, Band 1

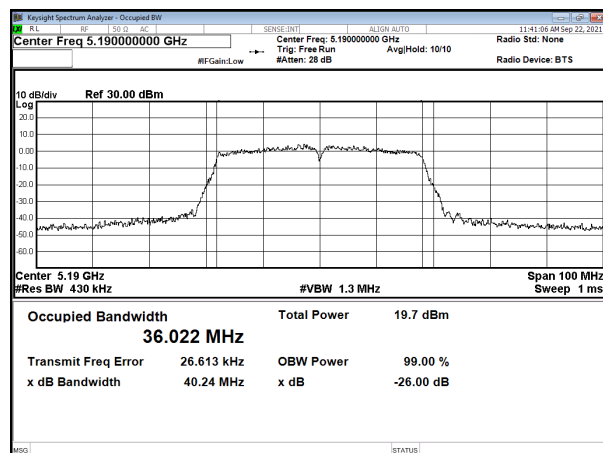
Modulation Standard: 802.11ac VHT20 (13Mbps)

CH36

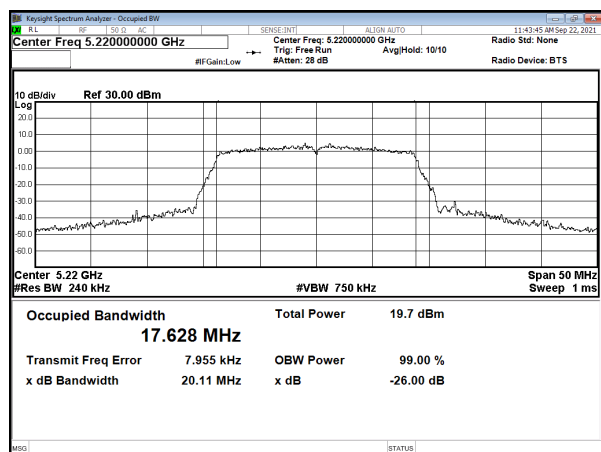


Modulation Standard: 802.11ac VHT40 (27Mbps)

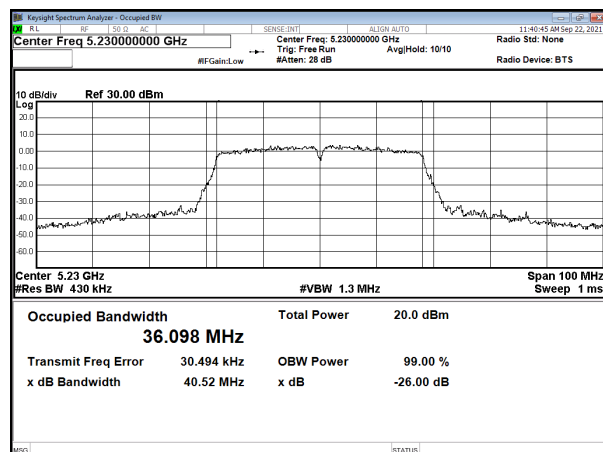
CH38



CH44

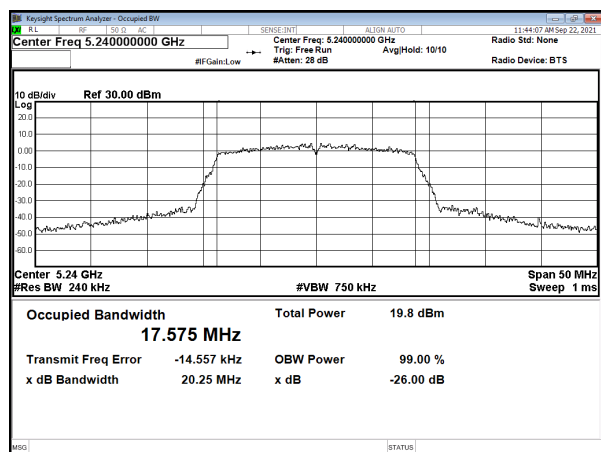


CH46

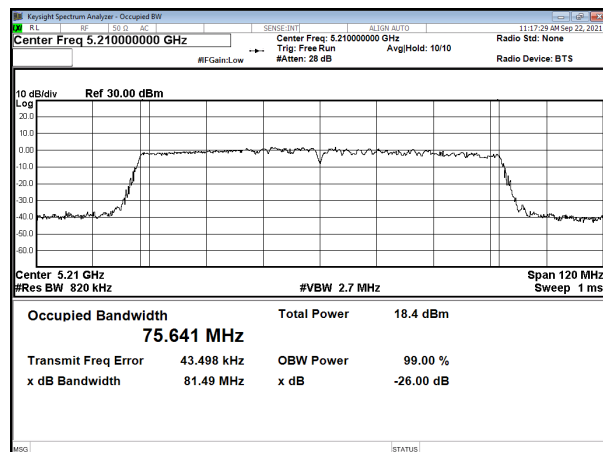


Modulation Standard: 802.11ac VHT80 (58.5Mbps)

CH48



CH42

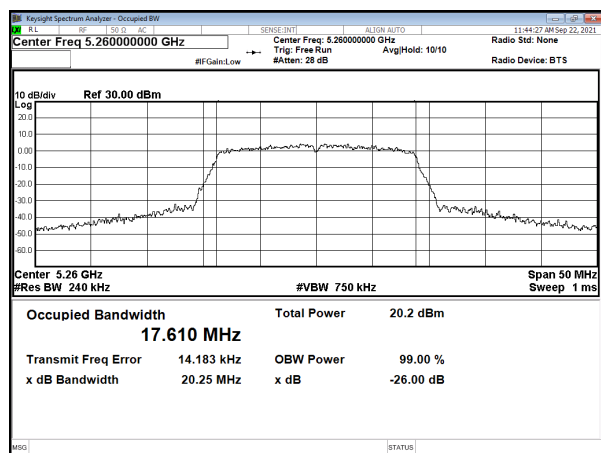




26dB Bandwidth & 99% Occupied Bandwidth, Band 2

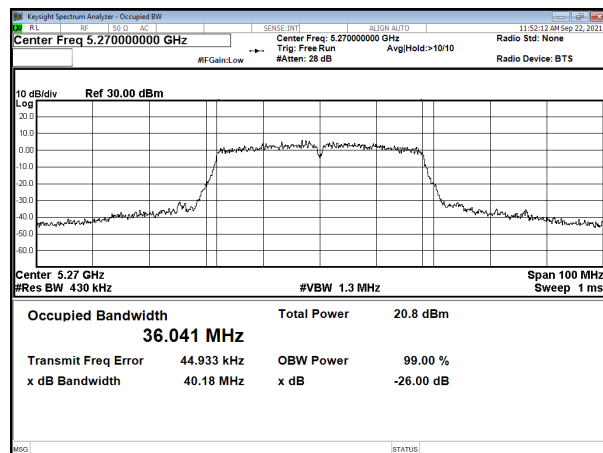
Modulation Standard: 802.11ac VHT20 (13Mbps)

CH52

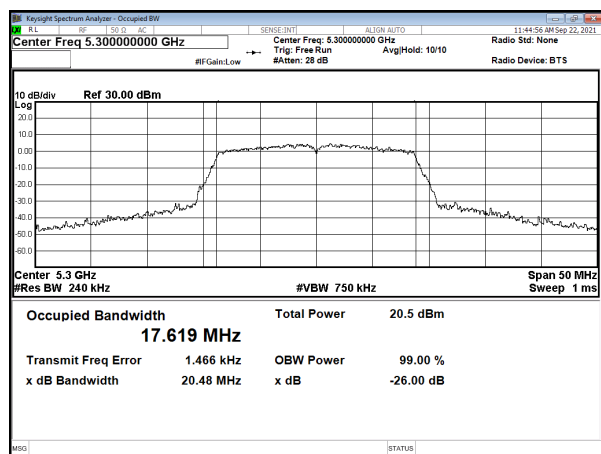


Modulation Standard: 802.11ac VHT40 (27Mbps)

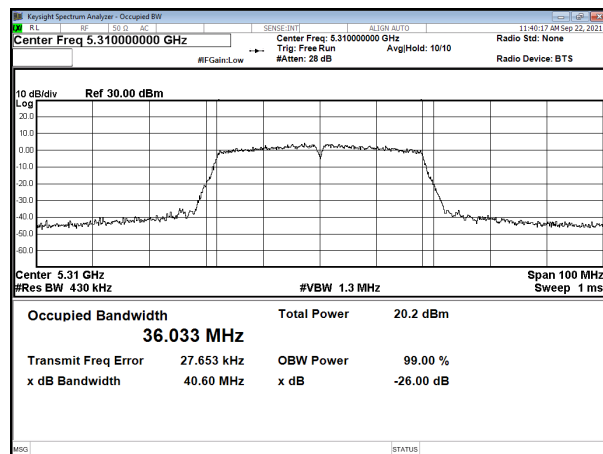
CH54



CH60

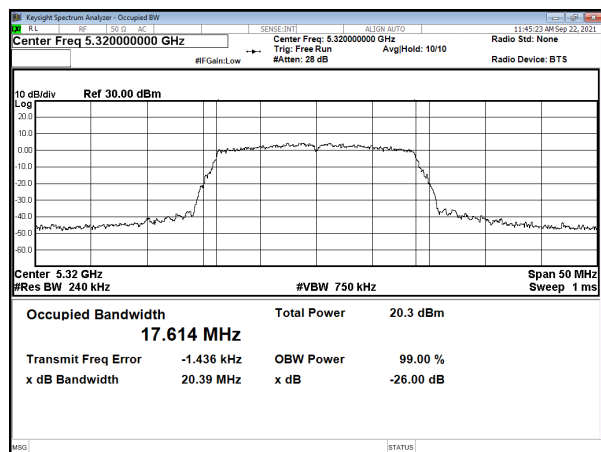


CH62

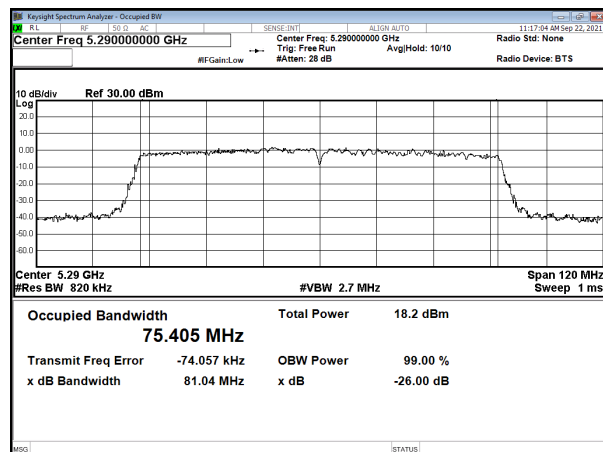


Modulation Standard: 802.11ac VHT80 (58.5Mbps)

CH64



CH58

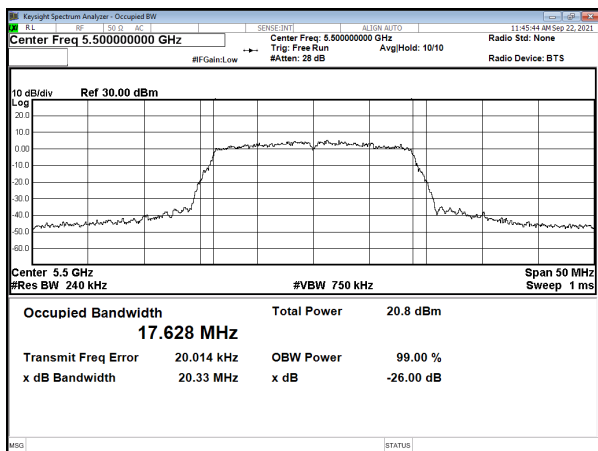




26dB Bandwidth &99% Occupied Bandwidth, Band 3

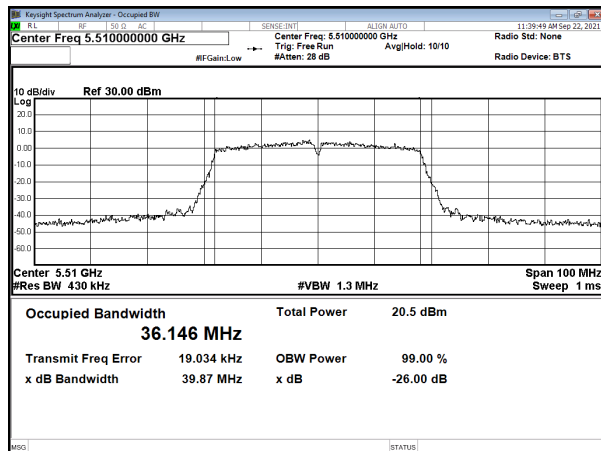
Modulation Standard: 802.11ac VHT20 (13Mbps)

CH100

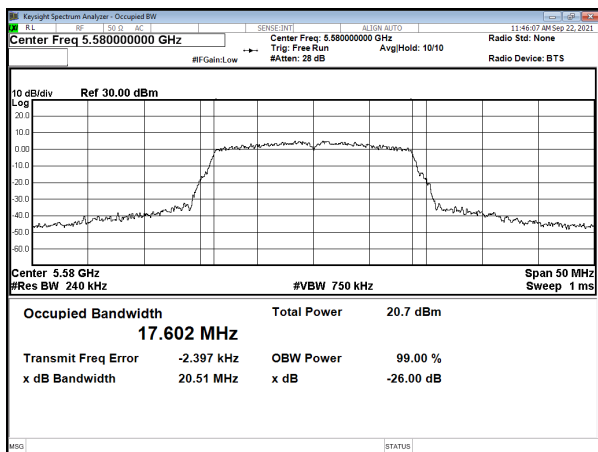


Modulation Standard: 802.11ac VHT40 (27Mbps)

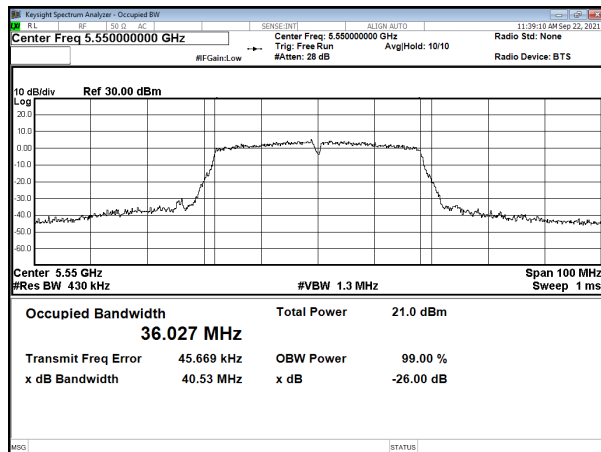
CH102



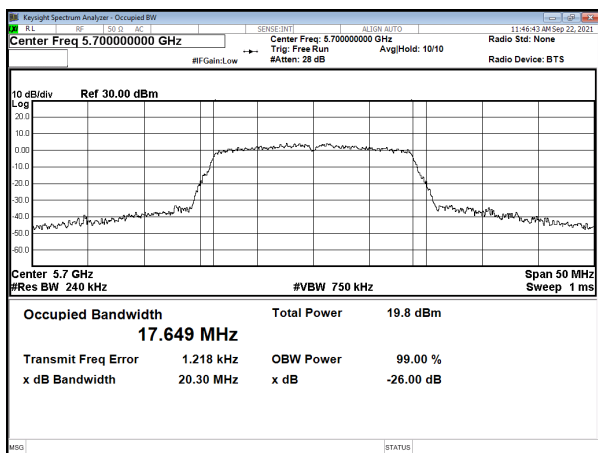
CH116



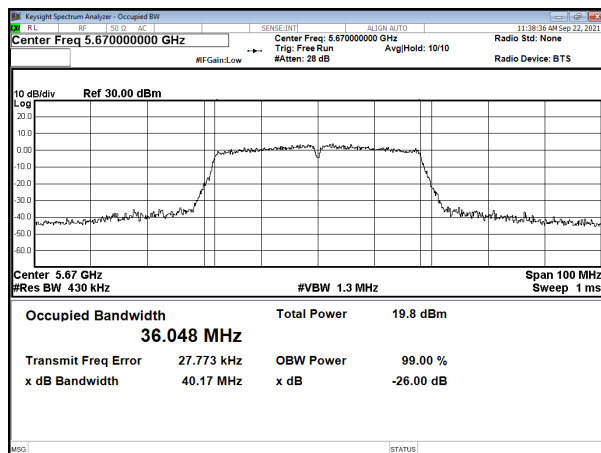
CH110



CH140



CH134

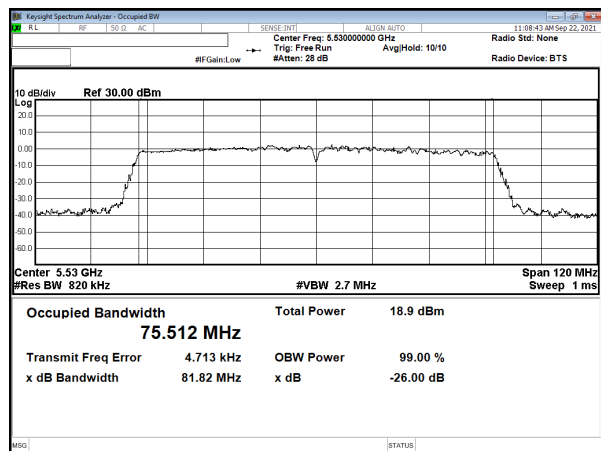




26dB Bandwidth &99% Occupied Bandwidth, Band 3

Modulation Standard: 802.11ac VHT80 (58.5Mbps)

CH106



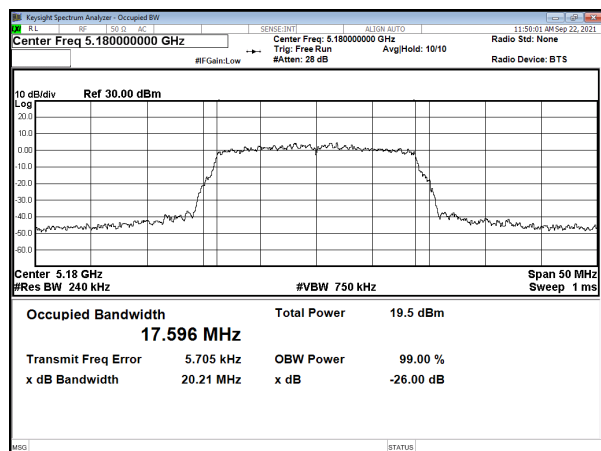


For 2TX: ANT B

26dB Bandwidth & 99% Occupied Bandwidth, Band 1

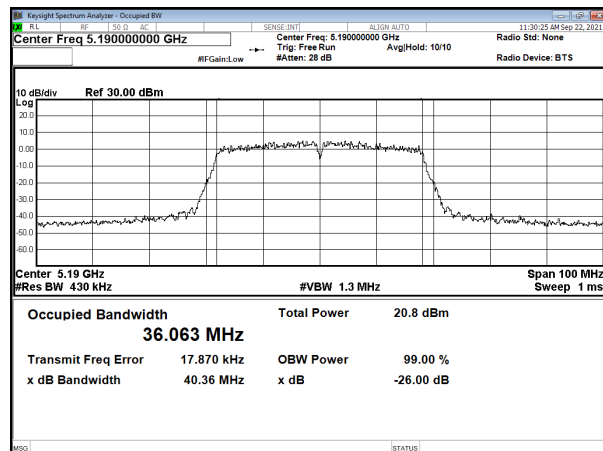
Modulation Standard: 802.11ac VHT20 (13Mbps)

CH36

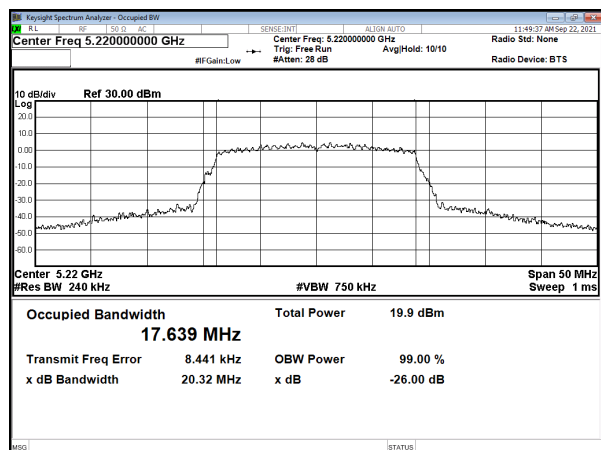


Modulation Standard: 802.11ac VHT40 (27Mbps)

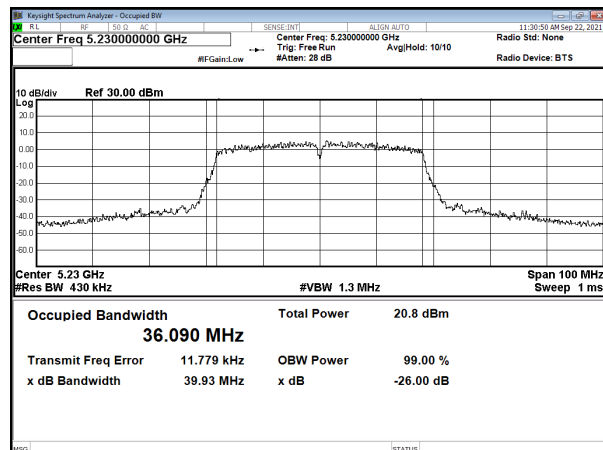
CH38



CH44

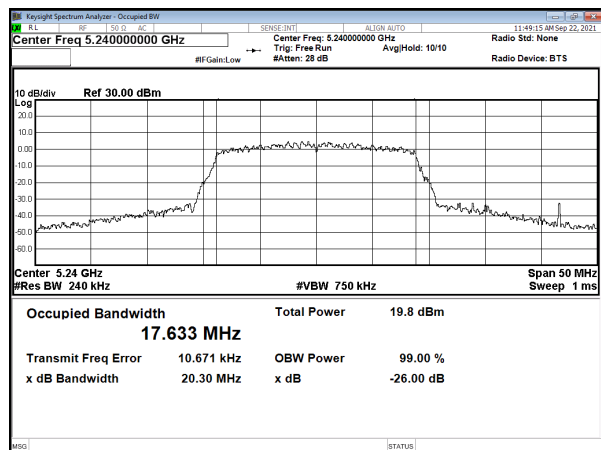


CH46

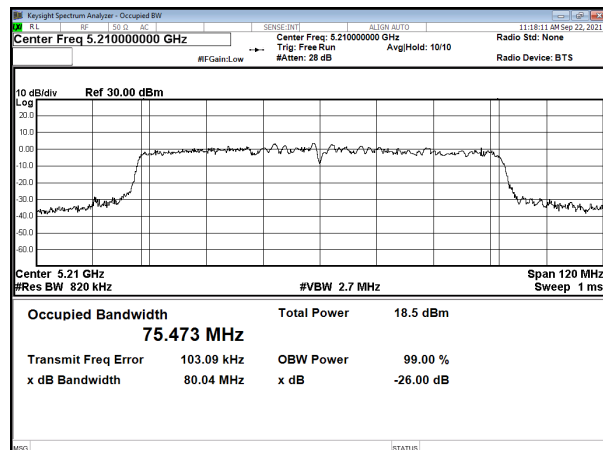


Modulation Standard: 802.11ac VHT80 (58.5Mbps)

CH48



CH42

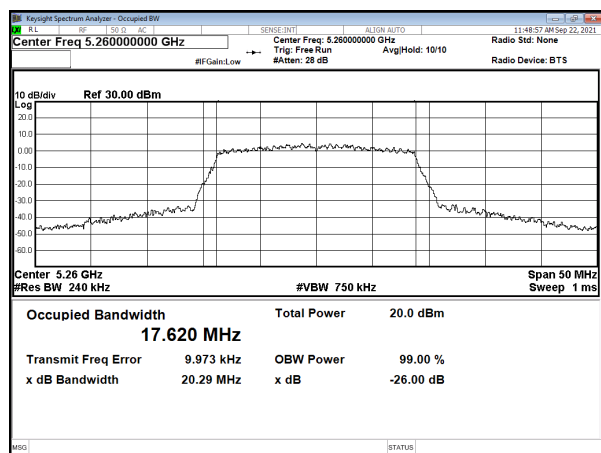




26dB Bandwidth &99% Occupied Bandwidth, Band 2

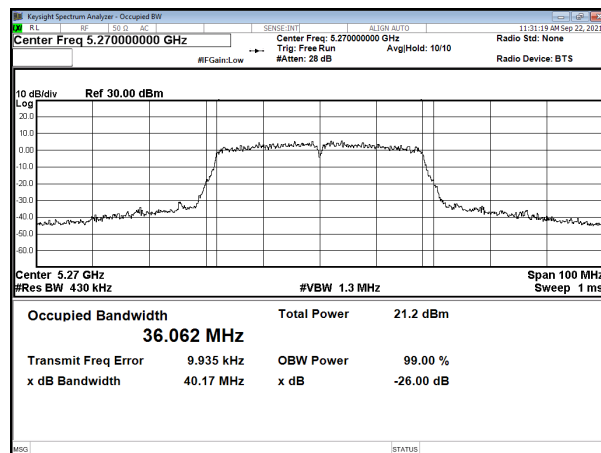
Modulation Standard: 802.11ac VHT20 (13Mbps)

CH52

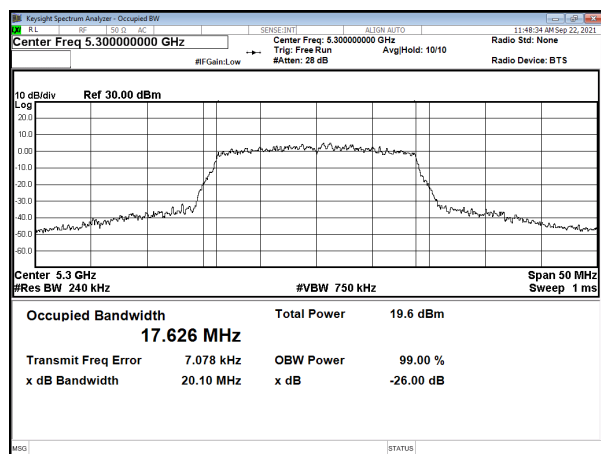


Modulation Standard: 802.11ac VHT40 (27Mbps)

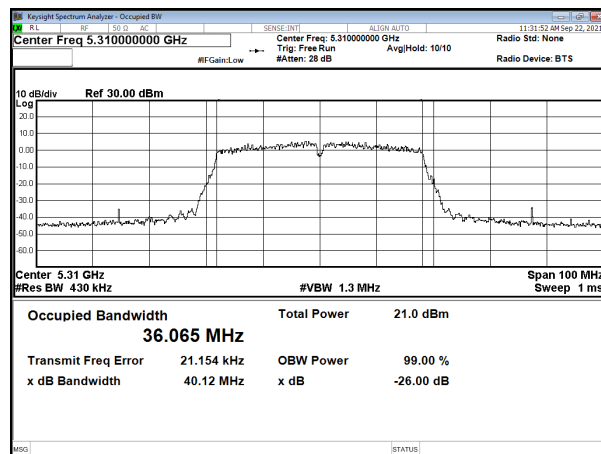
CH54



CH60

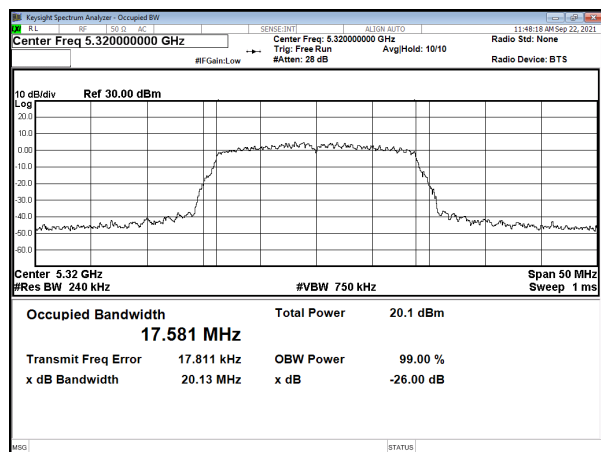


CH62

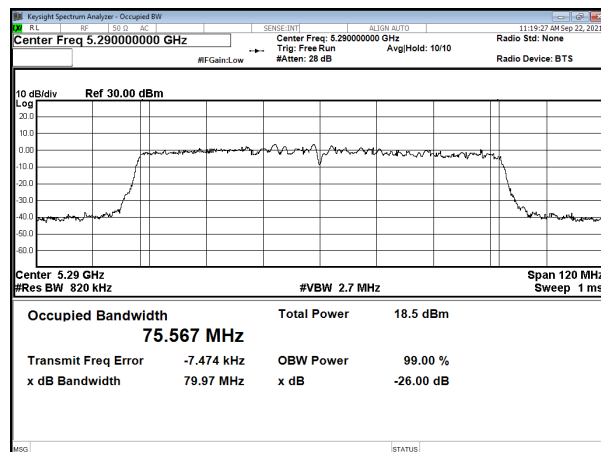


Modulation Standard: 802.11ac VHT80 (58.5Mbps)

CH64



CH58

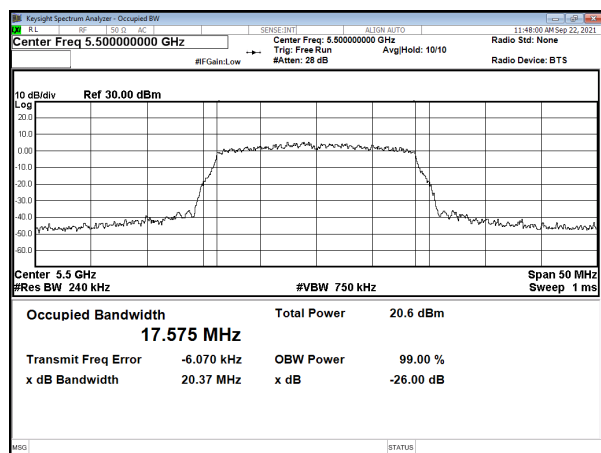




26dB Bandwidth & 99% Occupied Bandwidth, Band 3

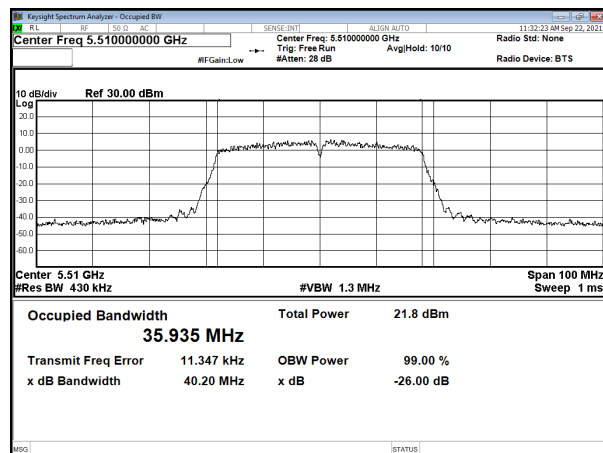
Modulation Standard: 802.11ac VHT20 (13Mbps)

CH100

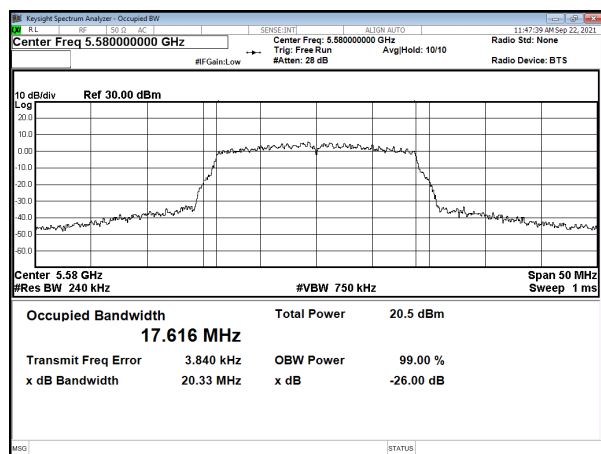


Modulation Standard: 802.11ac VHT40 (27Mbps)

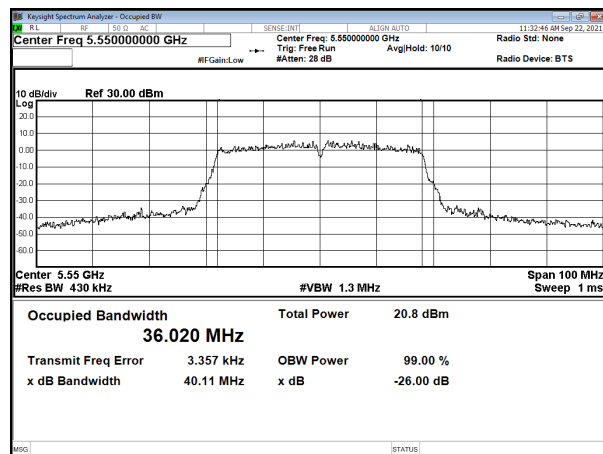
CH102



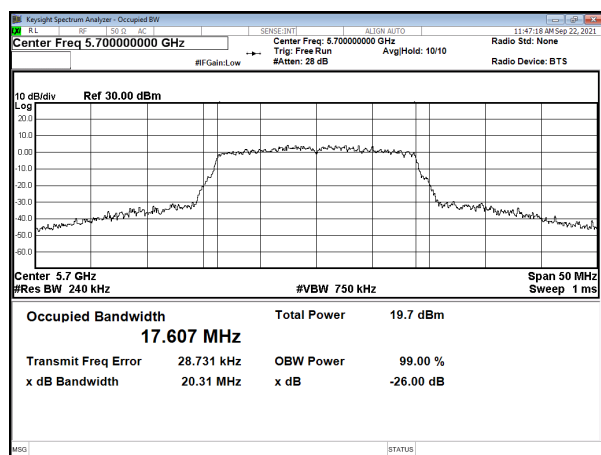
CH116



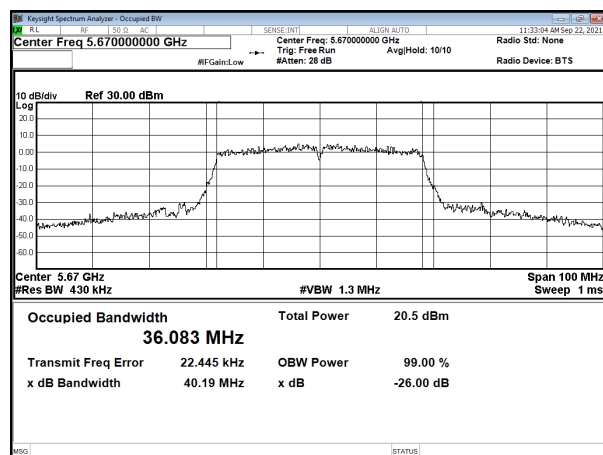
CH110



CH140



CH134

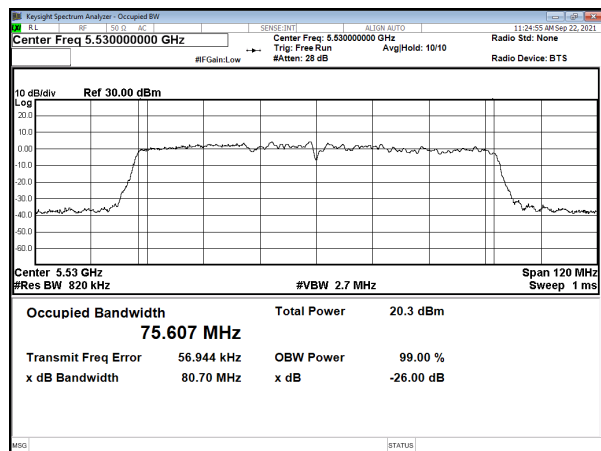




26dB Bandwidth &99% Occupied Bandwidth, Band 3

Modulation Standard: 802.11ac VHT80 (58.5Mbps)

CH106





9. 傳導輸出功率

9.1. 適用標準

依照國家通訊傳播委員會低功率射頻器材技術規範(5.7.3)節功率限制規定如下:

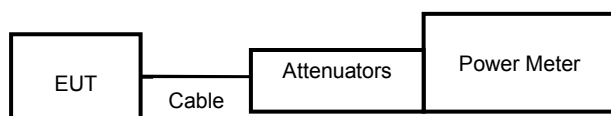
操作於 5.15G-5.25G 頻段者	
☐	供戶外操作使用：最大傳導輸出功率應小於 1W。
☐	供室內操作使用：最大傳導輸出功率應小於 1W。
☐	供固定式點對點操作使用：最大傳導輸出功率應小於 1W。
☒	供用戶端裝置(Client Device)操作使用：最大傳導輸出功率應小於 250mW。
操作於 5.25G-5.35G 與 5.470G-5.725G 頻段者 最大傳導輸出功率應小於 250mW 或 $11\text{dBm} + 10\log B$ (B 是 26dB 發射頻寬，單位 MHz) 之較小者。	
操作於 5.725G-5.850G 頻段者 最大傳導輸出功率應小於 1W。	

9.2. 測試方法

The transmitter output is connected to a power meter.

Measurements may be performed using a wideband gated RF power meter provided that the gate parameters are adjusted such that the power is measured only when the EUT is transmitting at its maximum power control level. Since the measurement is made only during the ON time of the transmitter, no duty cycle correction factor is required.

9.3. 測試配置





9.4. 測試結果及數據

In the 5.2G Band

For 1TX

Modulation Type	Data Rate	Setting	Channel	Frequency (MHz)	Avg Power Output (dBm)	Avg Power Output (mW)	Power Limit (dBm)
					ANT A	ANT A	
11a	6 Mbps	1A	36	5180	13.71	23.496	24.00
11a	6 Mbps	1A	44	5220	13.19	20.845	24.00
11a	6 Mbps	1A	48	5240	13.29	21.330	24.00
11n HT20	MCS 0	1A	36	5180	13.06	20.230	24.00
11n HT20	MCS 0	1A	44	5220	12.79	19.011	24.00
11n HT20	MCS 0	1A	48	5240	12.57	18.072	24.00
11n HT40	MCS 0	1A	38	5190	13.12	20.512	24.00
11n HT40	MCS 0	1A	46	5230	12.99	19.907	24.00
11ac VHT20	MCS 0	1A	36	5180	13.09	20.370	24.00
11ac VHT20	MCS 0	1A	44	5220	12.98	19.861	24.00
11ac VHT20	MCS 0	1A	48	5240	12.64	18.365	24.00
11ac VHT40	MCS 0	1A	38	5190	13.16	20.701	24.00
11ac VHT40	MCS 0	1A	46	5230	13.05	20.184	24.00
11ac VHT80	MCS 0	19	42	5210	11.51	14.158	24.00

For 2TX

Modulation Type	Data Rate	Setting	Channel	Frequency (MHz)	Avg Power Output (dBm)		Total Power (dBm)	Total Power (mW)	Power Limit (dBm)
					ANT A	ANT B	A+B	A+B	
11n HT20	MCS8	1A	36	5180	13.51	13.32	16.43	43.917	24.00
11n HT20	MCS8	1A	44	5220	13.35	13.45	16.41	43.758	24.00
11n HT20	MCS8	1A	48	5240	13.47	13.38	16.44	44.010	24.00
11n HT40	MCS8	1A	38	5190	13.45	13.46	16.47	44.313	24.00
11n HT40	MCS8	1A	46	5230	13.53	13.43	16.49	44.572	24.00
11ac VHT20	MCS8	1A	36	5180	13.53	13.35	16.45	44.170	24.00
11ac VHT20	MCS8	1A	44	5220	13.39	13.49	16.45	44.163	24.00
11ac VHT20	MCS8	1A	48	5240	13.54	13.40	16.48	44.472	24.00
11ac VHT40	MCS8	1A	38	5190	13.51	13.49	16.51	44.775	24.00
11ac VHT40	MCS8	1A	46	5230	13.57	13.46	16.53	44.933	24.00
11ac VHT80	MCS8	19	42	5210	11.98	12.05	15.03	31.809	24.00

**In the 5.3G Band
For 1TX**

Modulation Type	Data Rate	Setting	Channel	Frequency (MHz)	Avg Power Output (dBm)	Avg Power Output (mW)	Power Limit (dBm)
					ANT A	ANT A	
11a	6 Mbps	1A	52	5260	13.40	21.878	24.00
11a	6 Mbps	1A	60	5300	13.35	21.627	24.00
11a	6 Mbps	1A	64	5320	13.38	21.777	24.00
11n HT20	MCS 0	1A	52	5260	12.78	18.967	24.00
11n HT20	MCS 0	1A	60	5300	12.73	18.750	24.00
11n HT20	MCS 0	1A	64	5320	13.22	20.989	24.00
11n HT40	MCS 0	1A	54	5270	13.16	20.701	24.00
11n HT40	MCS 0	1A	62	5310	12.94	19.679	24.00
11ac VHT20	MCS 0	1A	52	5260	12.81	19.099	24.00
11ac VHT20	MCS 0	1A	60	5300	12.76	18.880	24.00
11ac VHT20	MCS 0	1A	64	5320	13.24	21.086	24.00
11ac VHT40	MCS 0	1A	54	5270	13.20	20.893	24.00
11ac VHT40	MCS 0	1A	62	5310	13.02	20.045	24.00
11ac VHT80	MCS 0	19	58	5290	11.56	14.322	24.00

For 2TX

Modulation Type	Data Rate	Setting	Channel	Frequency (MHz)	Avg Power Output (dBm)		Total Power (dBm)	Total Power (mW)	Power Limit (dBm)
					ANT A	ANT B	A+B	A+B	
11n HT20	MCS8	1A	52	5260	13.48	13.41	16.46	44.212	24.00
11n HT20	MCS8	1A	60	5300	13.56	13.49	16.54	45.034	24.00
11n HT20	MCS8	1A	64	5320	13.50	13.56	16.54	45.086	24.00
11n HT40	MCS8	1A	54	5270	13.62	13.58	16.61	45.818	24.00
11n HT40	MCS8	1A	62	5310	13.67	13.63	16.66	46.348	24.00
11ac VHT20	MCS8	1A	52	5260	13.51	13.43	16.48	44.468	24.00
11ac VHT20	MCS8	1A	60	5300	13.57	13.53	16.56	45.293	24.00
11ac VHT20	MCS8	1A	64	5320	13.54	13.57	16.57	45.345	24.00
11ac VHT40	MCS8	1A	54	5270	13.66	13.61	16.65	46.189	24.00
11ac VHT40	MCS8	1A	62	5310	13.71	13.67	16.70	46.777	24.00
11ac VHT80	MCS8	19	58	5290	11.95	12.06	15.02	31.737	24.00



In the 5.5G Band For 1TX

Modulation Type	Data Rate	Setting	Channel	Frequency (MHz)	Avg Power Output (dBm)	Avg Power Output (mW)	Power Limit (dBm)
					ANT A	ANT A	
11a	6 Mbps	1A	100	5500	13.81	24.044	24.00
11a	6 Mbps	1A	116	5580	13.80	23.988	24.00
11a	6 Mbps	1A	140	5700	13.02	20.045	24.00
11n HT20	MCS 0	1A	100	5500	13.63	23.067	24.00
11n HT20	MCS 0	1A	116	5580	13.61	22.961	24.00
11n HT20	MCS 0	1A	140	5700	12.88	19.409	24.00
11n HT40	MCS 0	1A	102	5510	13.36	21.677	24.00
11n HT40	MCS 0	1A	110	5550	13.41	21.928	24.00
11n HT40	MCS 0	1A	134	5670	12.45	17.579	24.00
11ac VHT20	MCS 0	1A	100	5500	13.70	23.442	24.00
11ac VHT20	MCS 0	1A	116	5580	13.65	23.174	24.00
11ac VHT20	MCS 0	1A	140	5700	12.91	19.543	24.00
11ac VHT40	MCS 0	1A	102	5510	13.40	21.878	24.00
11ac VHT40	MCS 0	1A	110	5550	13.44	22.080	24.00
11ac VHT40	MCS 0	1A	134	5670	12.48	17.701	24.00
11ac VHT80	MCS 0	19	106	5530	11.67	14.689	24.00

For 2TX

Modulation Type	Data Rate	Setting	Channel	Frequency (MHz)	Avg Power Output (dBm)		Total Power (dBm)	Total Power (mW)	Power Limit (dBm)
					ANT A	ANT B	A+B	A+B	
11n HT20	MCS8	1A	100	5500	13.92	14.05	17.00	50.070	24.00
11n HT20	MCS8	1A	116	5580	13.81	14.03	16.93	49.337	24.00
11n HT20	MCS8	1A	140	5700	12.86	13.15	16.02	39.973	24.00
11n HT40	MCS8	1A	102	5510	14.03	14.03	17.04	50.586	24.00
11n HT40	MCS8	1A	110	5550	14.08	14.17	17.14	51.707	24.00
11n HT40	MCS8	1A	134	5670	13.06	13.35	16.22	41.857	24.00
11ac VHT20	MCS 0	1A	100	5500	14.00	14.08	17.05	50.705	24.00
11ac VHT20	MCS 0	1A	116	5580	13.85	14.07	16.97	49.793	24.00
11ac VHT20	MCS 0	1A	140	5700	12.92	13.19	16.07	40.433	24.00
11ac VHT40	MCS 0	1A	102	5510	14.05	14.07	17.07	50.937	24.00
11ac VHT40	MCS 0	1A	110	5550	14.11	14.21	17.17	52.127	24.00
11ac VHT40	MCS 0	1A	134	5670	13.11	13.37	16.25	42.191	24.00
11ac VHT80	MCS 0	19	106	5530	12.21	12.51	15.37	34.458	24.00

**In the 5.8G Band
For 1TX**

Modulation Type	Data Rate	Setting	Channel	Frequency (MHz)	Avg Power Output (dBm)	Avg Power Output (mW)	Power Limit (dBm)
					ANT A	ANT A	
11a	6 Mbps	1A	149	5745	13.18	20.797	30.00
11a	6 Mbps	1A	157	5785	13.33	21.528	30.00
11a	6 Mbps	1A	165	5825	13.54	22.594	30.00
11n HT20	MCS 0	1A	149	5745	13.03	20.091	30.00
11n HT20	MCS 0	1A	157	5785	13.15	20.654	30.00
11n HT20	MCS 0	1A	165	5825	13.22	20.989	30.00
11n HT40	MCS 0	1A	151	5755	12.73	18.750	30.00
11n HT40	MCS 0	1A	159	5795	12.64	18.365	30.00
11ac VHT20	MCS 0	1A	149	5745	13.05	20.184	30.00
11ac VHT20	MCS 0	1A	157	5785	13.17	20.749	30.00
11ac VHT20	MCS 0	1A	165	5825	13.29	21.330	30.00
11ac VHT40	MCS 0	1A	151	5755	12.76	18.880	30.00
11ac VHT40	MCS 0	1A	159	5795	13.00	19.953	30.00
11ac VHT80	MCS 0	19	155	5775	11.33	13.583	30.00

For 2TX

Modulation Type	Data Rate	Setting	Channel	Frequency (MHz)	Avg Power Output (dBm)		Total Power (dBm)	Total Power (mW)	Power Limit (dBm)
					ANT A	ANT B	A+B	A+B	
11n HT20	MCS8	1A	149	5745	13.21	13.17	16.20	41.690	30.00
11n HT20	MCS8	1A	157	5785	13.34	13.45	16.41	43.708	30.00
11n HT20	MCS8	1A	165	5825	13.62	13.56	16.60	45.713	30.00
11n HT40	MCS8	1A	151	5755	13.30	13.51	16.42	43.818	30.00
11n HT40	MCS8	1A	159	5795	13.59	13.77	16.69	46.679	30.00
11ac VHT20	MCS 0	1A	149	5745	13.23	13.20	16.23	41.931	30.00
11ac VHT20	MCS 0	1A	157	5785	13.35	13.47	16.42	43.860	30.00
11ac VHT20	MCS 0	1A	165	5825	13.65	13.61	16.64	46.135	30.00
11ac VHT40	MCS 0	1A	151	5755	13.33	13.53	16.44	44.070	30.00
11ac VHT40	MCS 0	1A	159	5795	13.63	13.80	16.73	47.056	30.00
11ac VHT80	MCS 0	19	155	5775	12.02	12.20	15.12	32.518	30.00



10. 最大功率頻譜密度

10.1. 適用標準

依照國家通訊傳播委員會低功率射頻器材技術規範(5.7.3)節功率限制規定如下:

操作於 5.15G-5.25G 頻段者	
☐	供戶外操作使用：在任何 1MHz 頻帶中最大功率頻譜密度應小於或等於 17dBm。
☐	供室內操作使用：在任何 1MHz 頻帶中最大功率頻譜密度應小於或等於 17dBm。
☐	供固定式點對點操作使用：在任何 1MHz 頻帶中最大功率頻譜密度應小於或等 17dBm。
☒	供用戶端裝置(Client Device)操作使用：在任何 1MHz 頻帶中最大功率頻譜密度應小於或等於 11dBm。
操作於 5.25G-5.35G 與 5.470G-5.725G 頻段者 在任何 1MHz 頻帶中最大功率頻譜密度應小於或等於 11Bm。	
操作於 5.725G-5.850G 頻段者 在任何 500KHz 頻帶中最大功率頻譜密度應小於或等於 30Bm。	

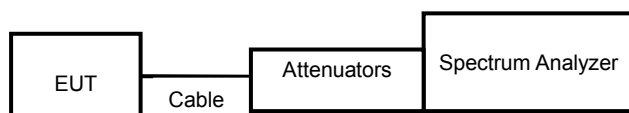
10.2. 測試方法

依照KDB 789033 D02 General UNII Test Procedures New Rules測試方法如下

For 5150~5250 MHz, 5250~5350 MHz, 5470~5725 MHz	
☒	Method SA-1 1. Set RBW = 1 MHz, VBW = 3 MHz, Sweep time = auto, Detector = RMS. 2. Trace average 100 traces. 3. Use the peak marker function to determine the maximum amplitude level.
☐	Method SA-2 Alternative 1. Set RBW = 1 MHz, VBW = 3 MHz, Detector = RMS. 2. Set sweep time $\geq 10 * (\text{number of points in sweep}) * (\text{total on/off period of the transmitted signal})$. 3. Perform a single sweep. 4. Use the peak marker function to determine the maximum amplitude level. 5. Add $10 \log(1/x)$, where x is the duty cycle.
For 5725~5850 MHz	
☒	Method SA-1 1. Set RBW = 1 MHz, VBW = 3 MHz, Sweep time = auto, Detector = RMS. 2. Trace average 100 traces. 3. Use the peak marker function to determine the maximum amplitude level. 4. Add $10 \log(500\text{KHz}/1000\text{KHz})$
☐	Method SA-2 Alternative 1. Set RBW = 1 MHz, VBW = 3 MHz, Detector = RMS. 2. Set sweep time $\geq 10 * (\text{number of points in sweep}) * (\text{total on/off period of the transmitted signal})$. 3. Perform a single sweep. 4. Use the peak marker function to determine the maximum amplitude level. 5. Add $10 \log(1/x)$, where x is the duty cycle 6. Add $10 \log(500\text{KHz}/1000\text{KHz})$



10.3.測試配置



10.4.測試結果及數據

In the 5.2G Band For 1TX

Modulation Type	CH	Freq. (MHz)	Meas PPSP (dBm/MHz)	Sum chain (dBm)	Duty Cycle CF(dB)	Total Corr'd PPSP (dBm/MHz)	PPSP Limit (dBm/MHz)
			ANT A				
11a	36	5180	2.69	2.69	0.00	2.69	11.00
11a	44	5220	2.67	2.67	0.00	2.67	11.00
11a	48	5240	3.00	3.00	0.00	3.00	11.00
11ac VHT20	36	5180	2.92	2.92	0.00	2.92	11.00
11ac VHT20	44	5220	2.52	2.52	0.00	2.52	11.00
11ac VHT20	48	5240	2.85	2.85	0.00	2.85	11.00
11ac VHT40	38	5190	-0.26	-0.26	0.00	-0.26	11.00
11ac VHT40	46	5230	-0.16	-0.16	0.00	-0.16	11.00
11ac VHT80	42	5210	-3.72	-3.72	0.00	-3.72	11.00

For 2TX

Modulation Type	CH	Freq. (MHz)	Meas PPSP (dBm/MHz)		Sum chain (dBm)	Duty Cycle CF(dB)	Total Corr'd PPSP (dBm/MHz)	PPSP Limit (dBm/MHz)
			ANT A	ANT B				
11ac VHT20	36	5180	3.34	3.11	6.24	0.00	6.24	11.00
11ac VHT20	44	5220	3.30	3.20	6.26	0.00	6.26	11.00
11ac VHT20	48	5240	3.12	2.85	6.00	0.00	6.00	11.00
11ac VHT40	38	5190	0.38	0.32	3.36	0.00	3.36	11.00
11ac VHT40	46	5230	0.32	0.19	3.26	0.00	3.26	11.00
11ac VHT80	42	5210	-3.54	-2.21	0.19	0.00	0.19	11.00

In the 5.3G Band For 1TX

Modulation Type	CH	Freq. (MHz)	Meas PPSP (dBm/MHz)	Sum chain (dBm)	Duty Cycle CF(dB)	Total Corr'd PPSP (dBm/MHz)	PPSP Limit (dBm/MHz)
			ANT A				
11a	52	5260	3.04	3.04	0.00	3.04	11.00
11a	60	5300	3.30	3.30	0.00	3.30	11.00
11a	64	5320	3.10	3.10	0.00	3.10	11.00
11ac VHT20	52	5260	2.77	2.77	0.00	2.77	11.00
11ac VHT20	60	5300	2.73	2.73	0.00	2.73	11.00
11ac VHT20	64	5320	3.25	3.25	0.00	3.25	11.00
11ac VHT40	54	5270	-0.22	-0.22	0.00	-0.22	11.00
11ac VHT40	62	5310	0.04	0.04	0.00	0.04	11.00
11ac VHT80	58	5290	-3.38	-3.38	0.00	-3.38	11.00

For 2TX

Modulation Type	CH	Freq. (MHz)	Meas PPSP (dBm/MHz)		Sum chain (dBm)	Duty Cycle CF(dB)	Total Corr'd PPSP (dBm/MHz)	PPSP Limit (dBm/MHz)
			ANT A	ANT B				
11ac VHT20	52	5260	3.09	2.91	6.01	0.00	6.01	11.00
11ac VHT20	60	5300	3.08	2.98	6.04	0.00	6.04	11.00
11ac VHT20	64	5320	2.94	3.30	6.13	0.00	6.13	11.00
11ac VHT40	54	5270	0.38	0.39	3.39	0.00	3.39	11.00
11ac VHT40	62	5310	0.43	0.35	3.40	0.00	3.40	11.00
11ac VHT80	58	5290	-3.79	-2.23	0.07	0.00	0.07	11.00



In the 5.5G Band For 1TX

Modulation Type	CH	Freq. (MHz)	Meas PPSP (dBm/MHz)	Sum chain (dBm)	Duty Cycle CF(dB)	Total Corr'd PPSP (dBm/MHz)	PPSP Limit (dBm/MHz)
			ANT A				
11a	100	5500	3.56	3.56	0.00	3.56	11.00
11a	116	5580	3.74	3.74	0.00	3.74	11.00
11a	140	5700	2.80	2.80	0.00	2.80	11.00
11ac VHT20	100	5500	3.35	3.35	0.00	3.35	11.00
11ac VHT20	116	5580	3.54	3.54	0.00	3.54	11.00
11ac VHT20	140	5700	2.73	2.73	0.00	2.73	11.00
11ac VHT40	102	5510	0.35	0.35	0.00	0.35	11.00
11ac VHT40	110	5550	0.49	0.49	0.00	0.49	11.00
11ac VHT40	134	5670	-0.08	-0.08	0.00	-0.08	11.00
11ac VHT80	106	5530	-3.15	-3.15	0.00	-3.15	11.00

For 2TX

Modulation Type	CH	Freq. (MHz)	Meas PPSP (dBm/MHz)		Sum chain (dBm)	Duty Cycle CF(dB)	Total Corr'd PPSP (dBm/MHz)	PPSP Limit (dBm/MHz)
			ANT A	ANT B				
11ac VHT20	100	5500	3.56	3.65	6.62	0.00	6.62	11.00
11ac VHT20	116	5580	3.46	3.89	6.69	0.00	6.69	11.00
11ac VHT20	140	5700	3.09	2.76	5.94	0.00	5.94	11.00
11ac VHT40	102	5510	1.21	1.02	4.12	0.00	4.12	11.00
11ac VHT40	110	5550	1.28	1.09	4.20	0.00	4.20	11.00
11ac VHT40	134	5670	0.79	0.55	3.68	0.00	3.68	11.00
11ac VHT80	106	5530	-3.35	-2.17	0.29	0.00	0.29	11.00

In the 5.8G Band For 1TX

Modulation Type	CH	Freq. (MHz)	Meas PPSP (dBm/MHz)	Sum chain (dBm)	Duty Cycle CF(dB)	10log(500K Hz/RBW) CF (dB)	Total Corr'd PPSP (dBm/MHz)	PPSP Limit (dBm/500KHz)
			ANT A					
11a	149	5745	2.54	2.54	0.00	-3.01	-0.47	30.00
11a	157	5785	2.65	2.65	0.00	-3.01	-0.36	30.00
11a	165	5825	2.71	2.71	0.00	-3.01	-0.30	30.00
11ac VHT20	149	5745	2.13	2.13	0.00	-3.01	-0.88	30.00
11ac VHT20	157	5785	2.40	2.40	0.00	-3.01	-0.61	30.00
11ac VHT20	165	5825	2.53	2.53	0.00	-3.01	-0.48	30.00
11ac VHT40	151	5755	0.44	0.44	0.00	-3.01	-2.57	30.00
11ac VHT40	159	5795	0.20	0.20	0.00	-3.01	-2.81	30.00
11ac VHT80	155	5775	-4.05	-4.05	0.00	-3.01	-7.06	30.00

For 2TX

Modulation Type	CH	Freq. (MHz)	Meas PPSP (dBm/MHz)		Sum chain (dBm)	Duty Cycle CF(dB)	10log(500K Hz/RBW) CF (dB)	Total Corr'd PPSP (dBm/MHz)	PPSP Limit (dBm/500KHz)
			ANT A	ANT B					
11ac VHT20	149	5745	3.28	3.59	6.45	0.00	-3.01	3.44	30.00
11ac VHT20	157	5785	3.40	3.77	6.60	0.00	-3.01	3.59	30.00
11ac VHT20	165	5825	3.33	3.68	6.52	0.00	-3.01	3.51	30.00
11ac VHT40	151	5755	0.64	0.58	3.62	0.00	-3.01	0.61	30.00
11ac VHT40	159	5795	0.46	0.67	3.58	0.00	-3.01	0.57	30.00
11ac VHT80	155	5775	-3.92	-2.59	-0.19	0.00	-3.01	-3.20	30.00

備註：繪圖資料請參考下頁。

10.5. 結果判定

高、中、低頻段的數值皆低於限制值要求，合乎標準規定。

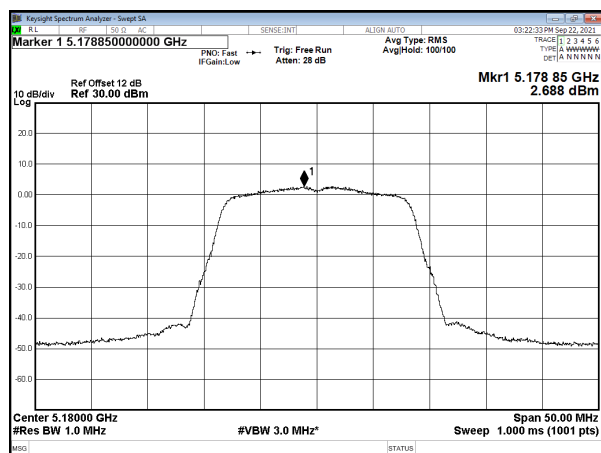


For 1TX: ANT A

5.2G, Band 1

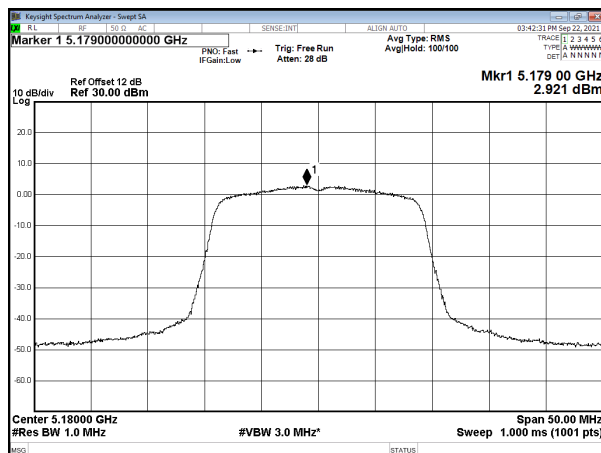
Modulation Standard: 802.11a (6Mbps)

CH36

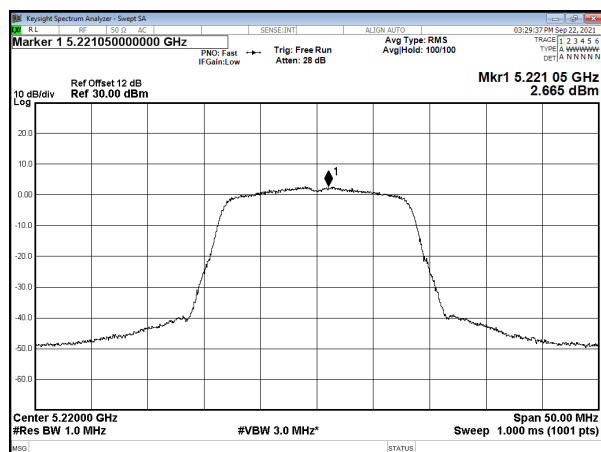


Modulation Standard: 802.11ac VHT20 (6.5Mbps)

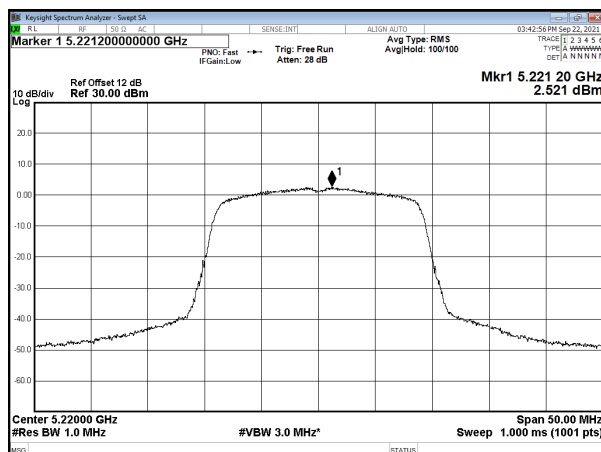
CH36



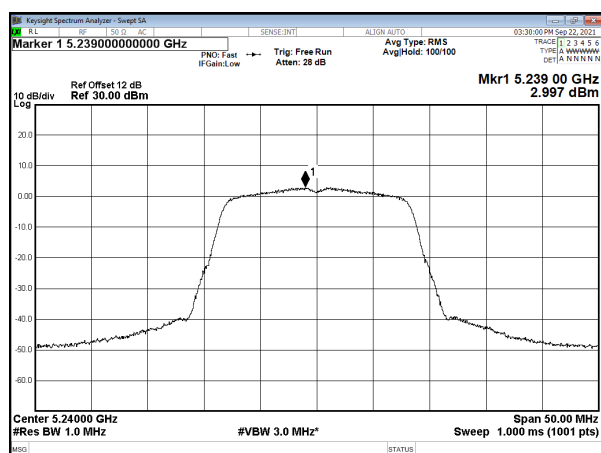
CH44



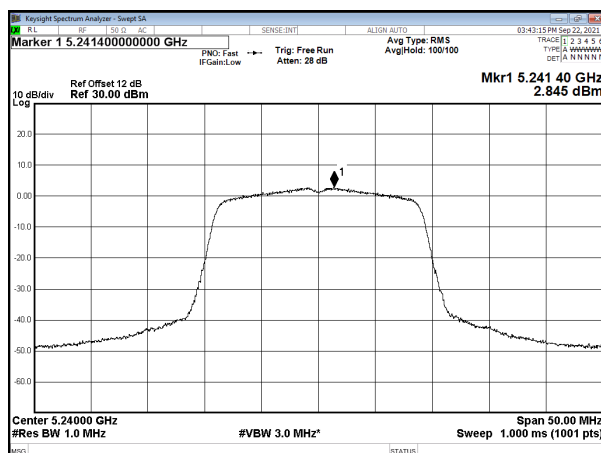
CH44



CH48



CH48

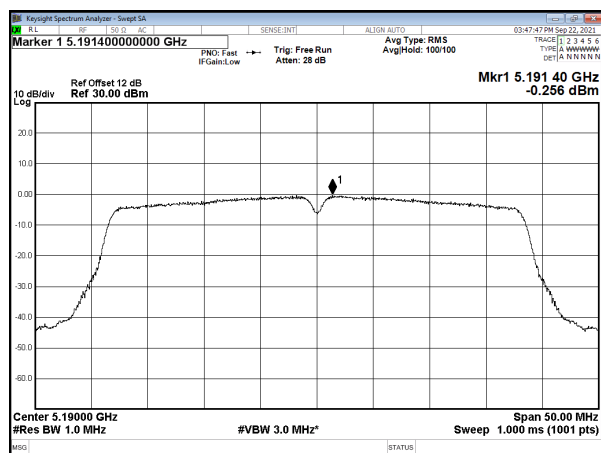




5.2G, Band 1

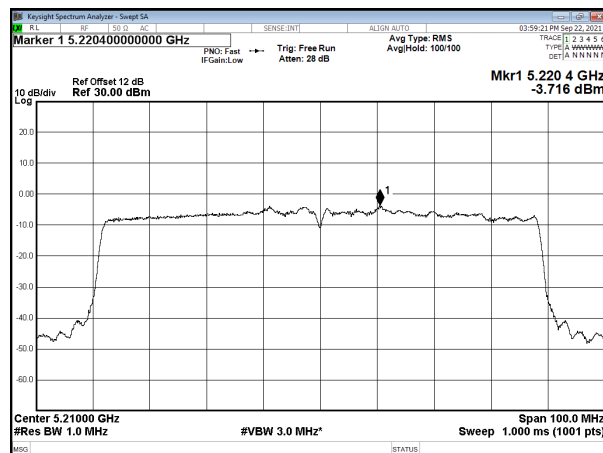
Modulation Standard: 802.11ac VHT40 (13.5Mbps)

CH38

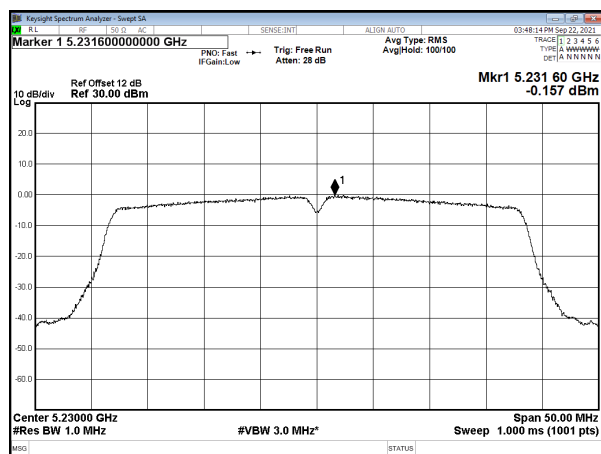


Modulation Standard: 802.11ac VHT80 (29.3Mbps)

CH42



CH46

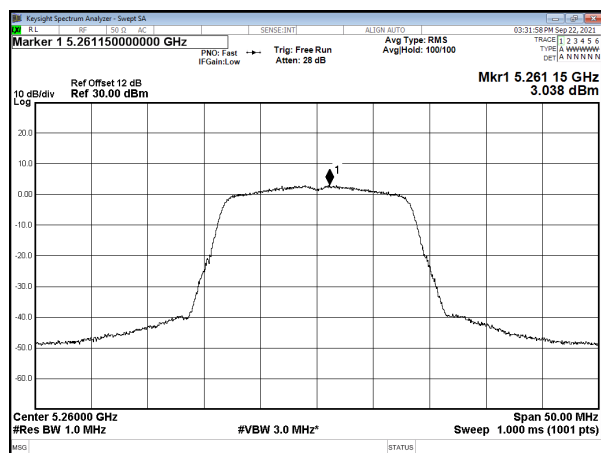




5.3G, Band 2

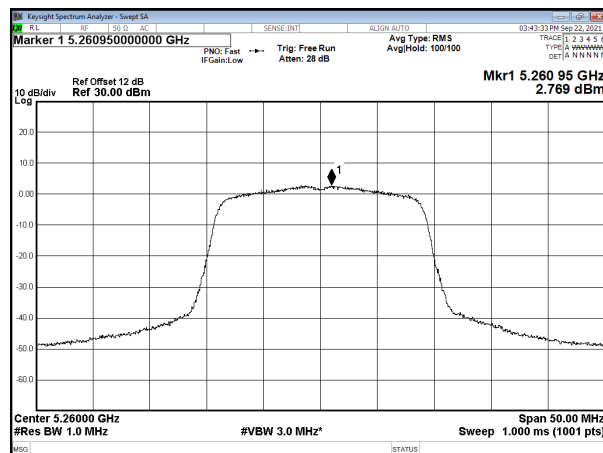
Modulation Standard: 802.11a (6Mbps)

CH52

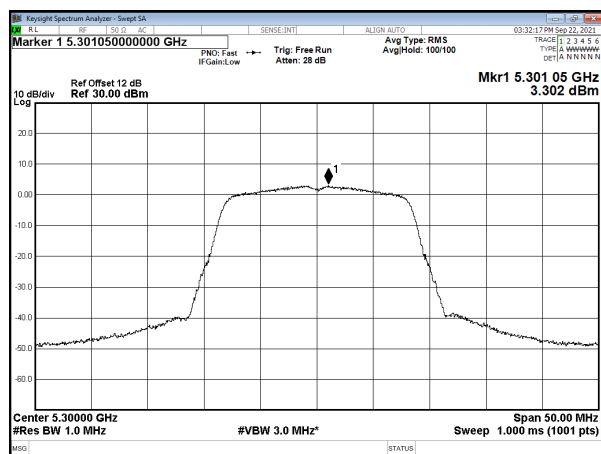


Modulation Standard: 802.11ac VHT20 (6.5Mbps)

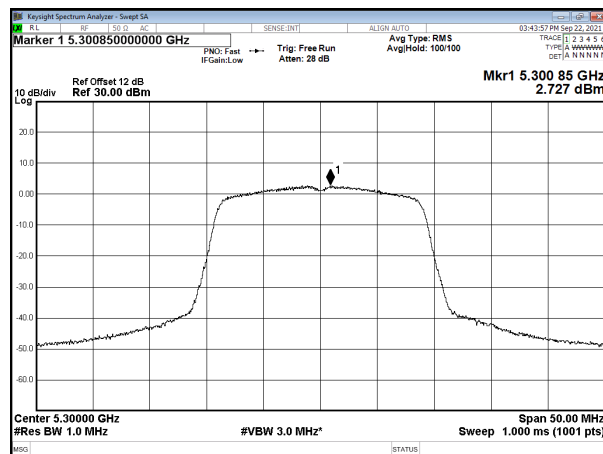
CH52



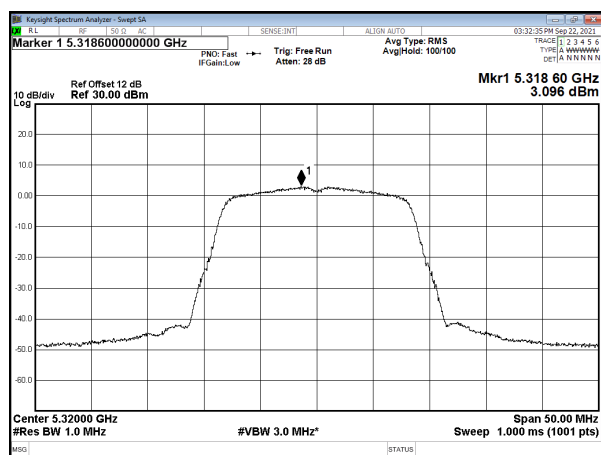
CH60



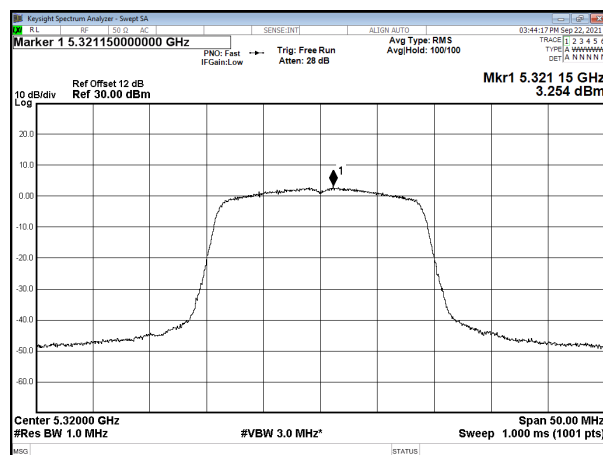
CH60



CH64



CH64

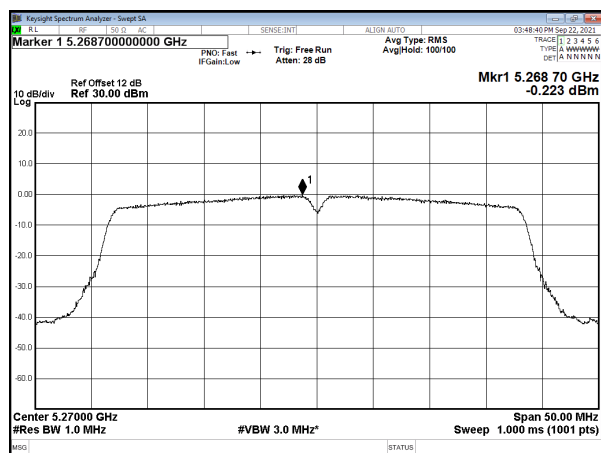




5.3G, Band 2

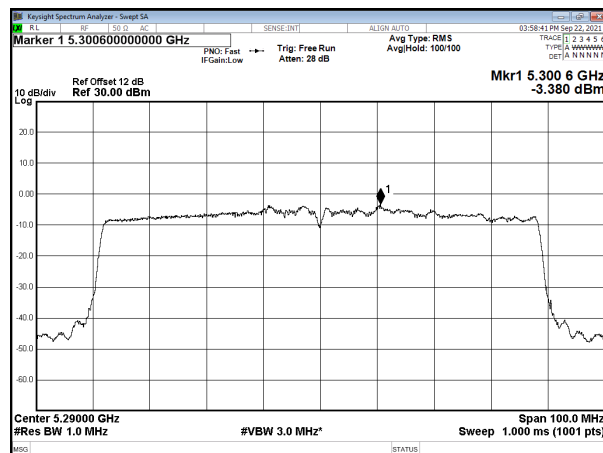
Modulation Standard: 802.11ac VHT40 (13.5Mbps)

CH54

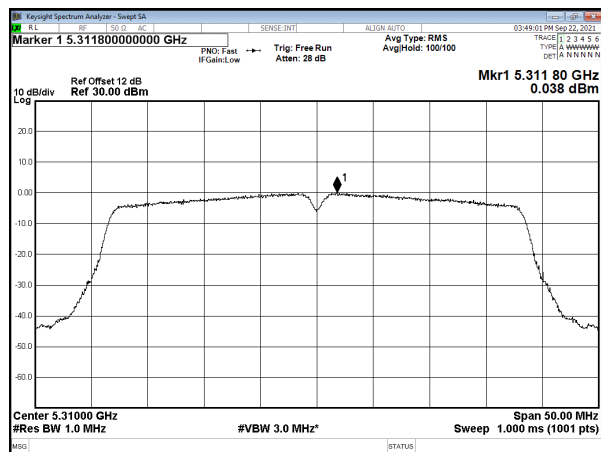


Modulation Standard: 802.11ac VHT80 (29.3Mbps)

CH58



CH62

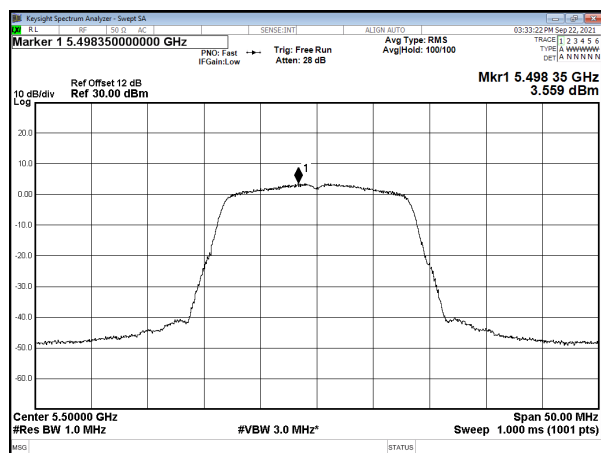




5.5G, Band 3

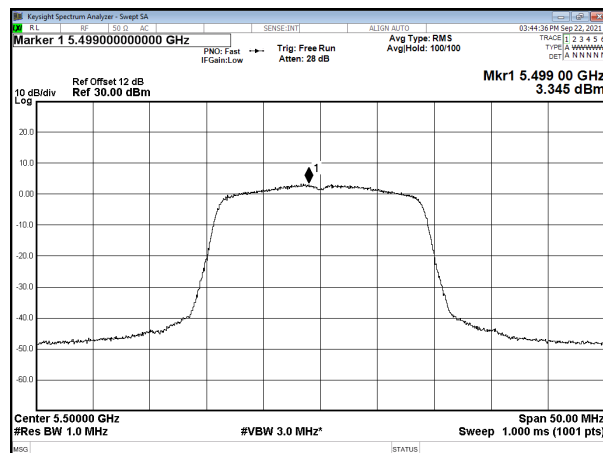
Modulation Standard: 802.11a (6Mbps)

CH100

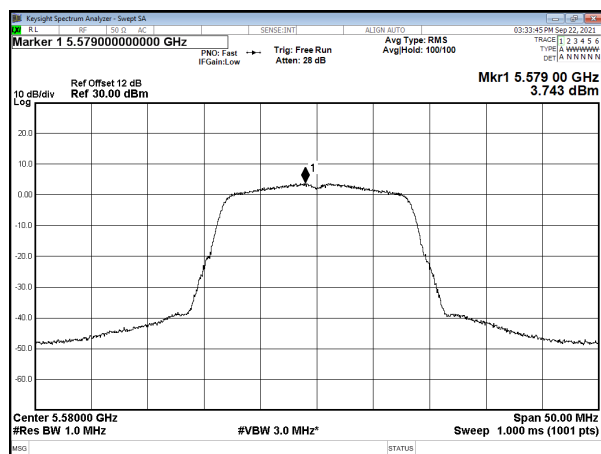


Modulation Standard: 802.11ac VHT20 (6.5Mbps)

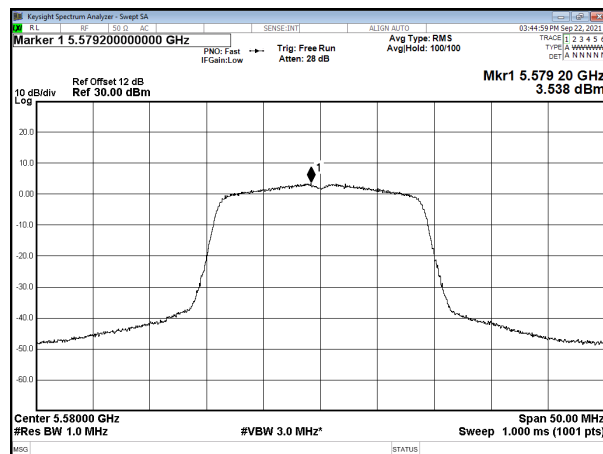
CH100



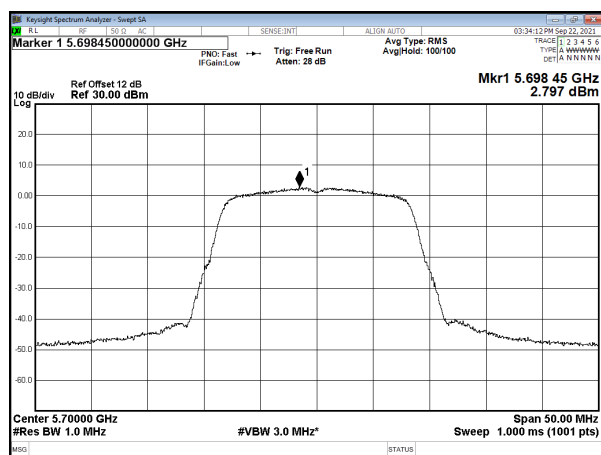
CH116



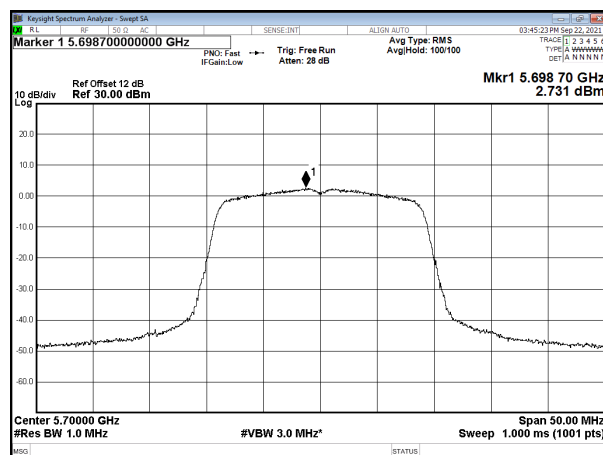
CH116



CH140



CH140

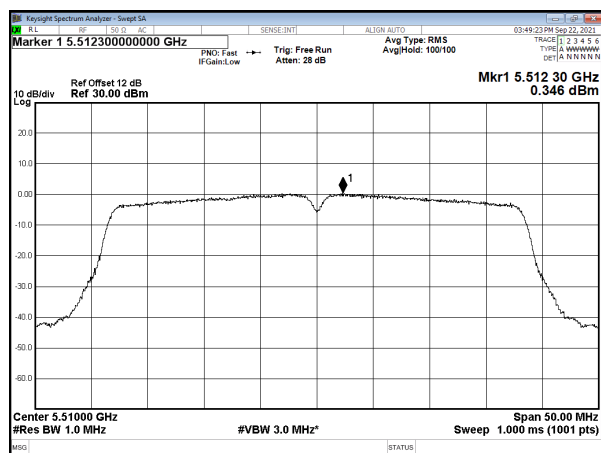




5.5G, Band 3

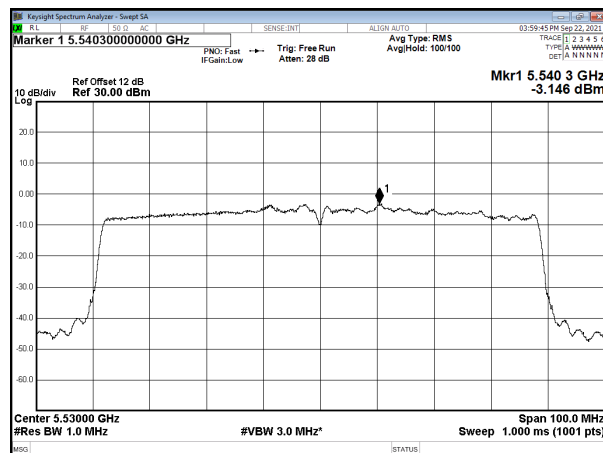
Modulation Standard: 802.11ac VHT40 (13.5Mbps)

CH102

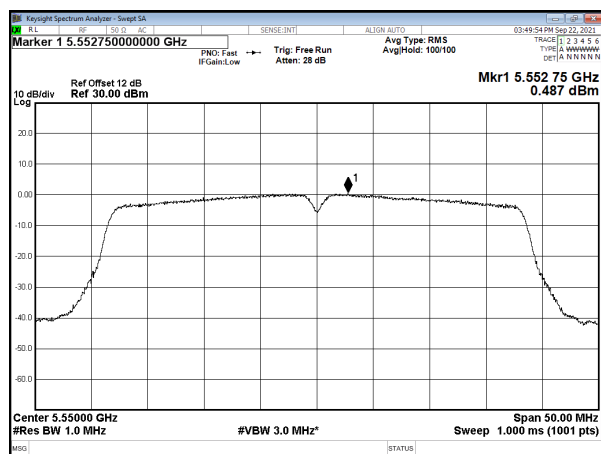


Modulation Standard: 802.11ac VHT80 (29.3Mbps)

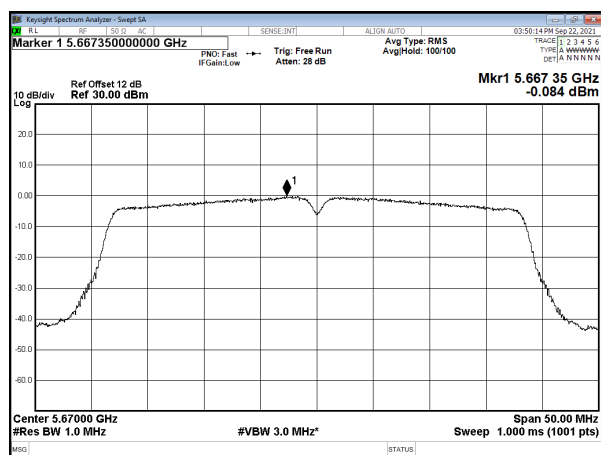
CH106



CH110



CH134

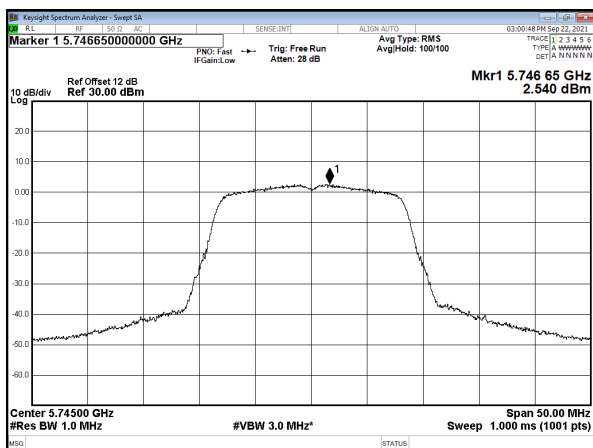




5.8G, Band 4

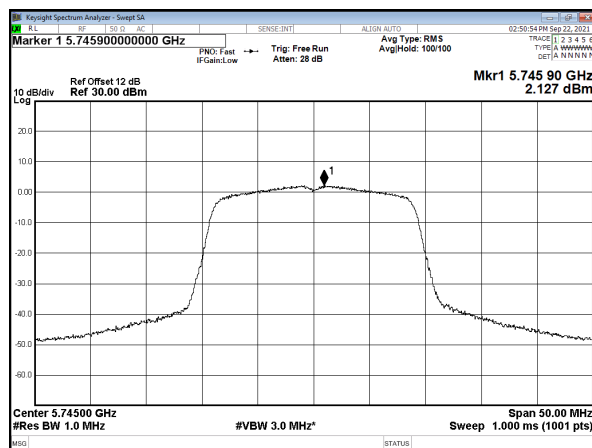
Modulation Standard: 802.11a (6 Mbps)

CH149

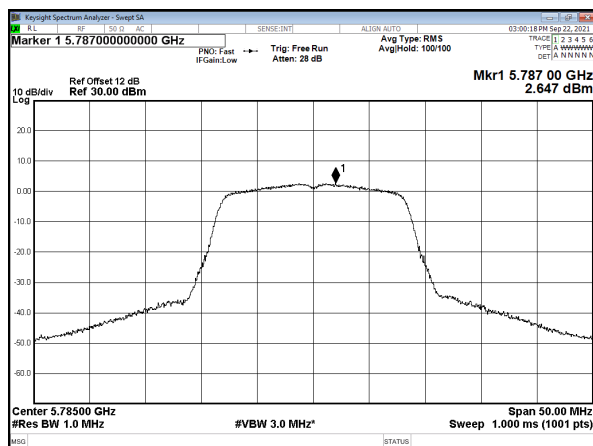


Modulation Standard: 802.11ac VHT20 (6.5 Mbps)

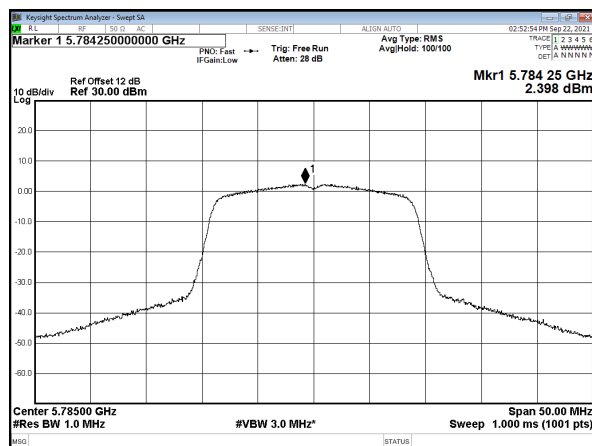
CH149



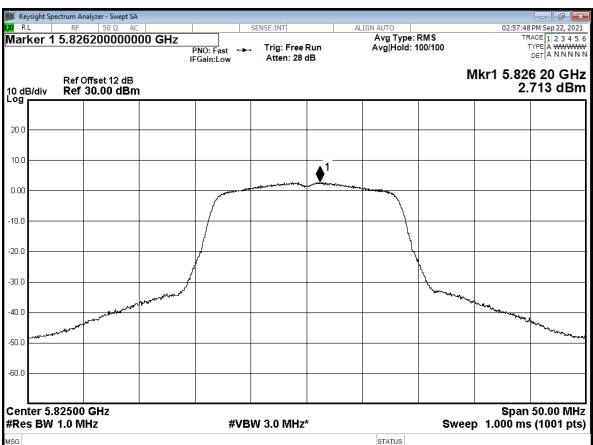
CH157



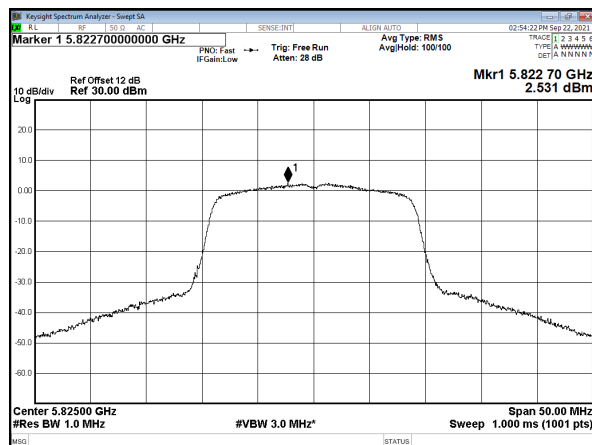
CH157



CH165



CH165

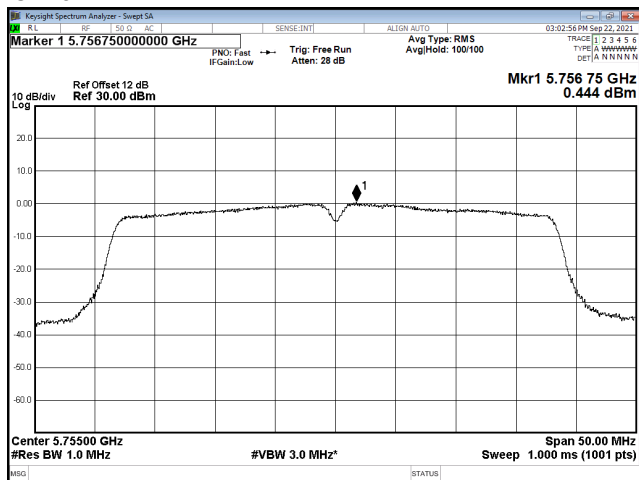




5.8G, Band 4

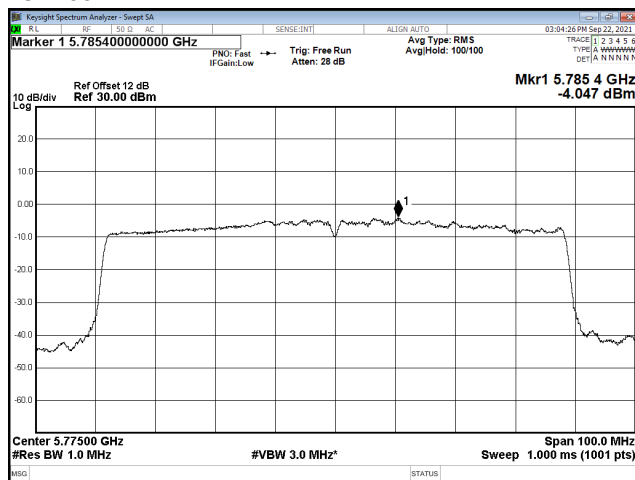
Modulation Standard: 802.11ac VHT40 (13.5 Mbps)

CH151

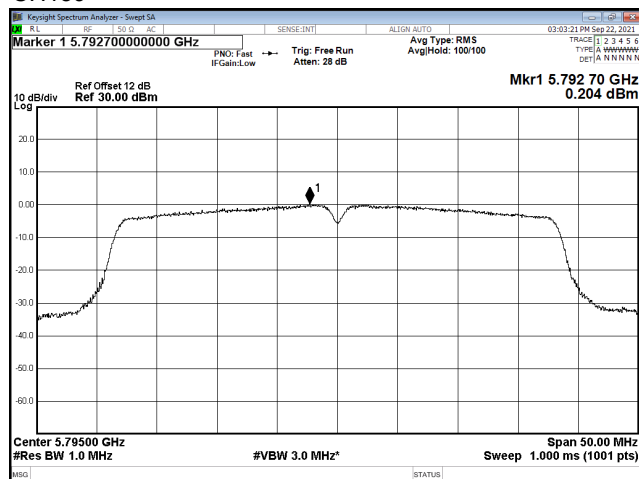


Modulation Standard: 802.11ac VHT80 (29.3 Mbps)

CH155



CH159

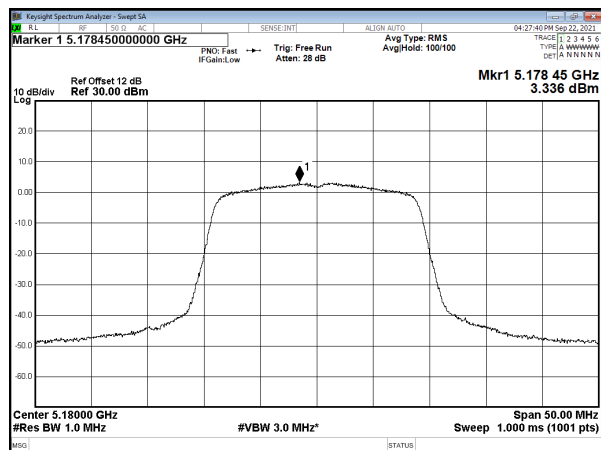




For 2TX: ANT A
5.2G, Band 1

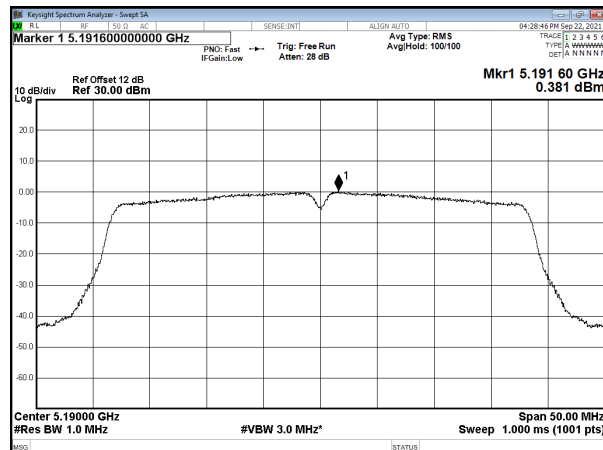
Modulation Standard: 802.11ac VHT20 (13Mbps)

CH36

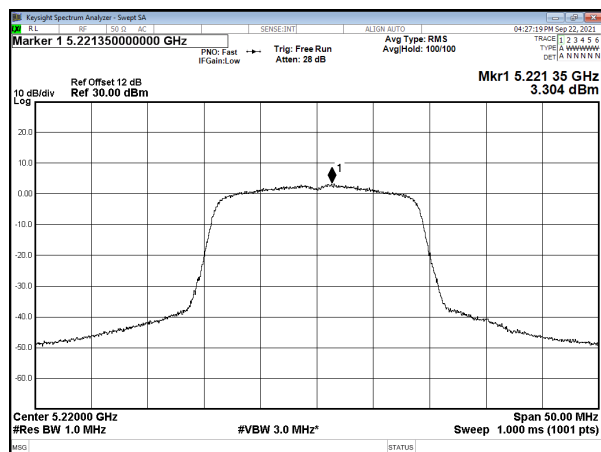


Modulation Standard: 802.11ac VHT40 (27Mbps)

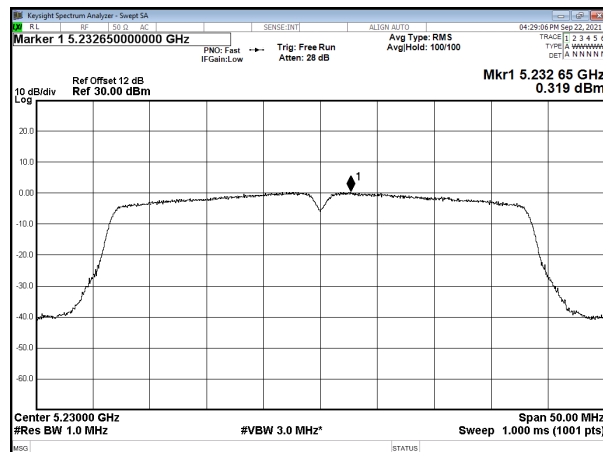
CH38



CH44

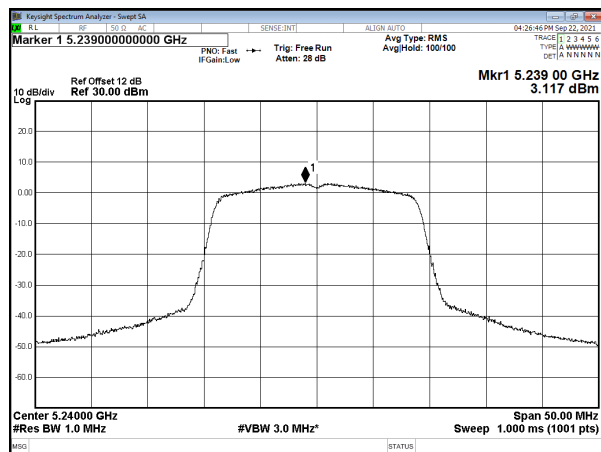


CH46

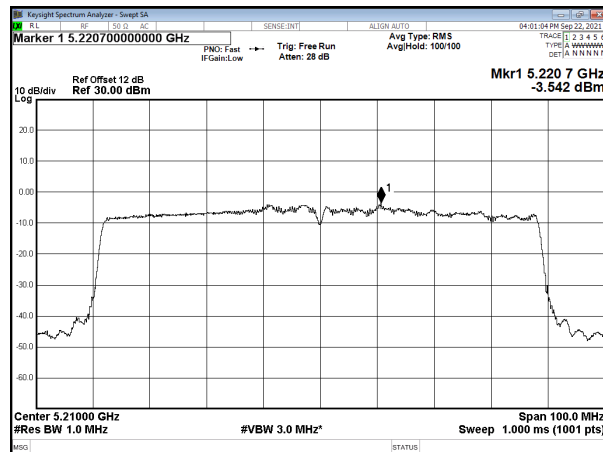


Modulation Standard: 802.11ac VHT80 (58.5Mbps)

CH48



CH42

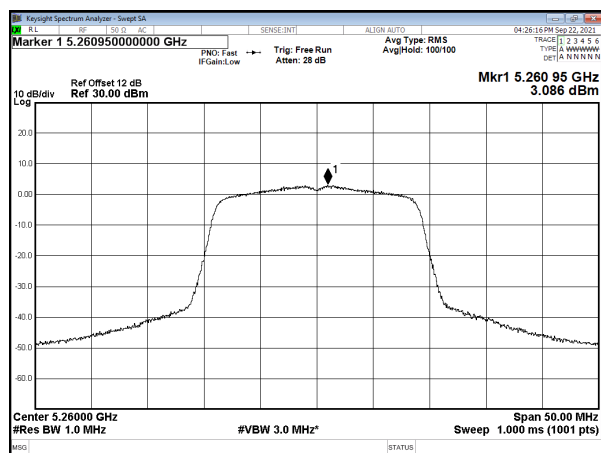




5.3G, Band 2

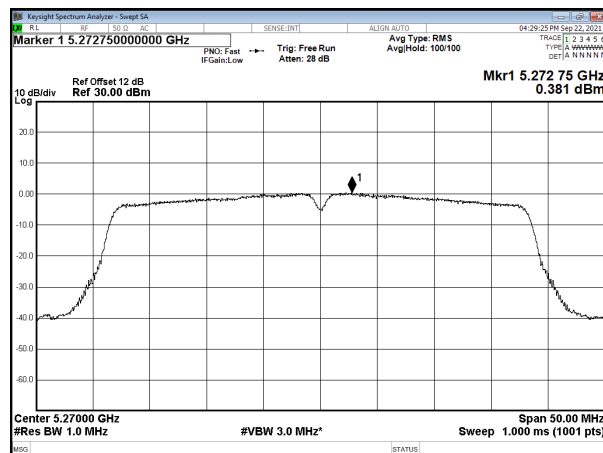
Modulation Standard: 802.11ac VHT20 (13Mbps)

CH52

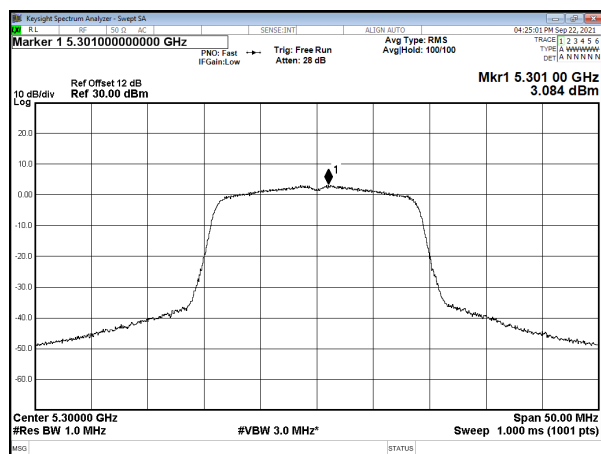


Modulation Standard: 802.11ac VHT40 (27Mbps)

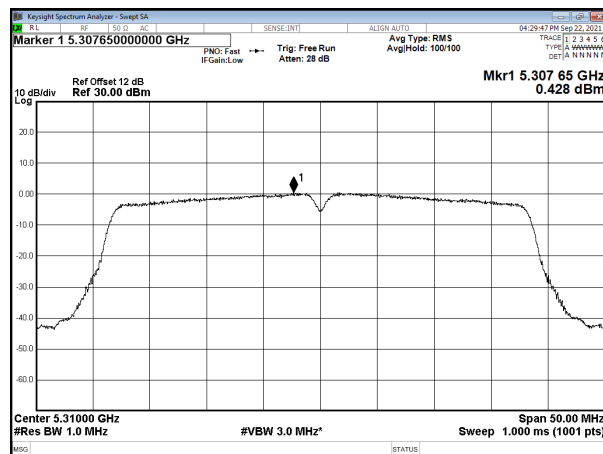
CH54



CH60

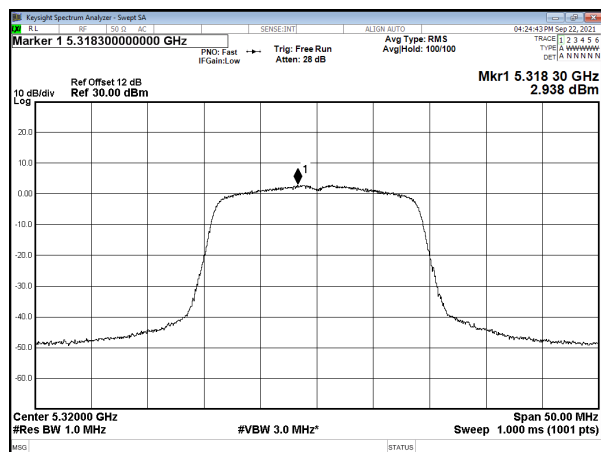


CH62

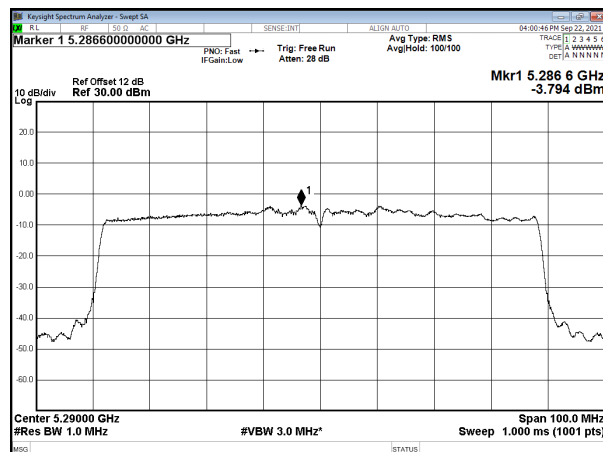


Modulation Standard: 802.11ac VHT80 (58.5Mbps)

CH64



CH58

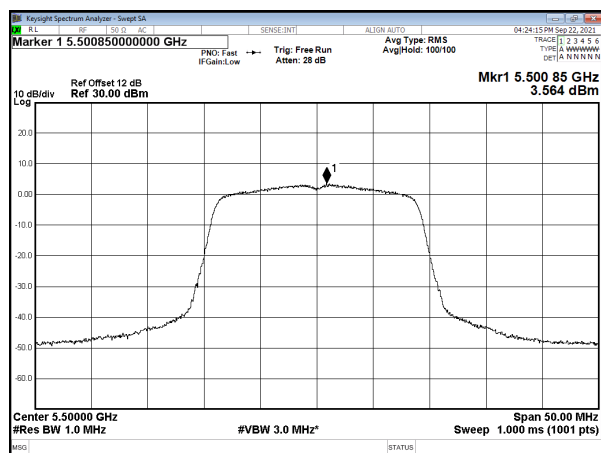




5.5G, Band 3

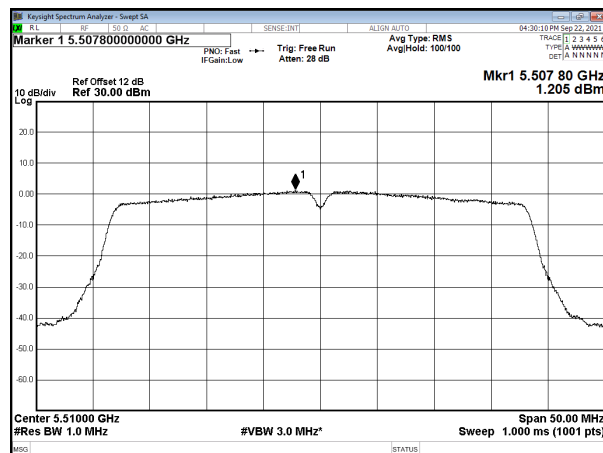
Modulation Standard: 802.11ac VHT20 (13Mbps)

CH100

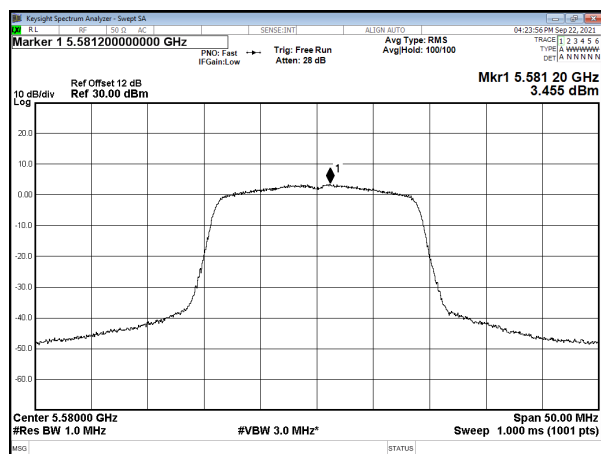


Modulation Standard: 802.11ac VHT40 (27Mbps)

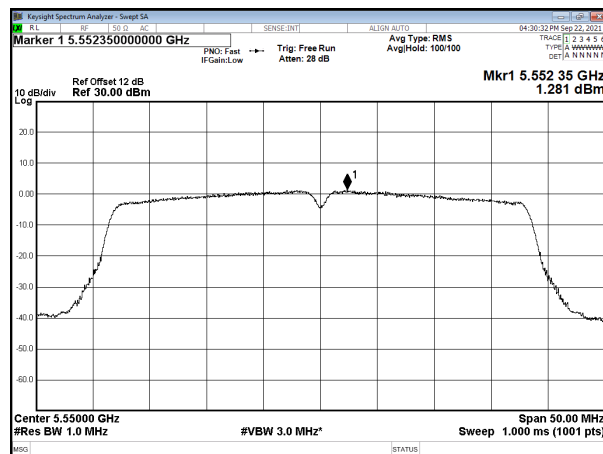
CH102



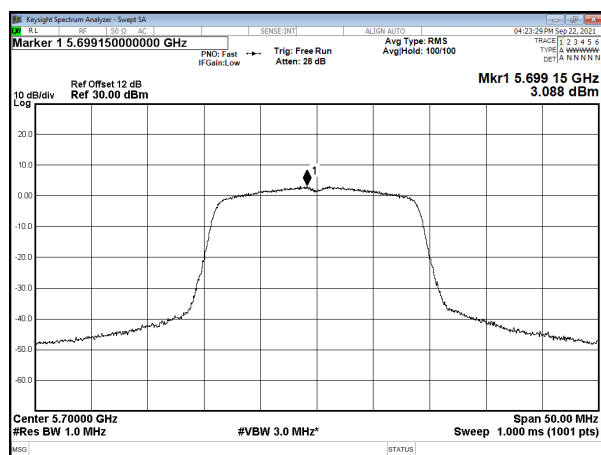
CH116



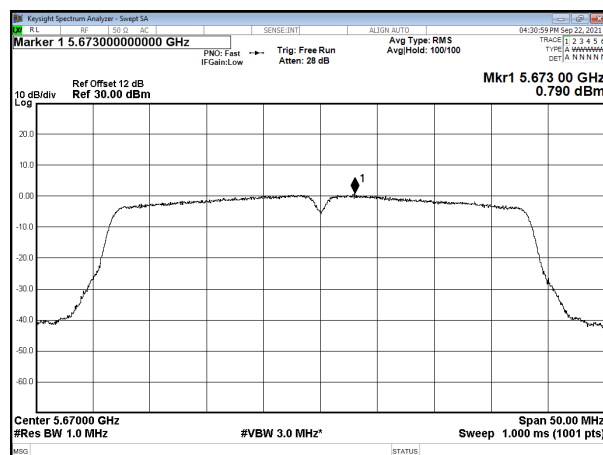
CH110



CH140



CH134

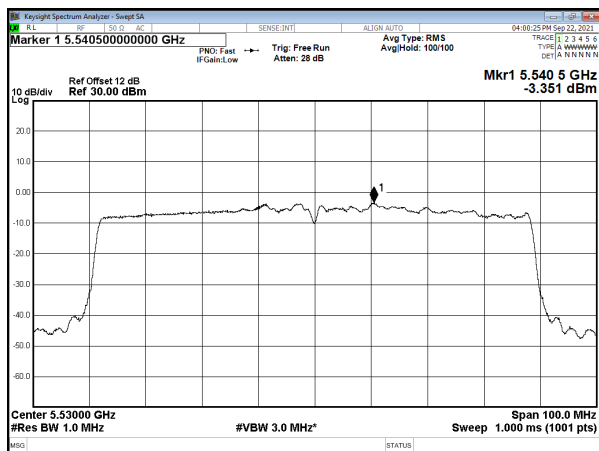




5.5G, Band 3

Modulation Standard: 802.11ac VHT80 (58.5Mbps)

CH106

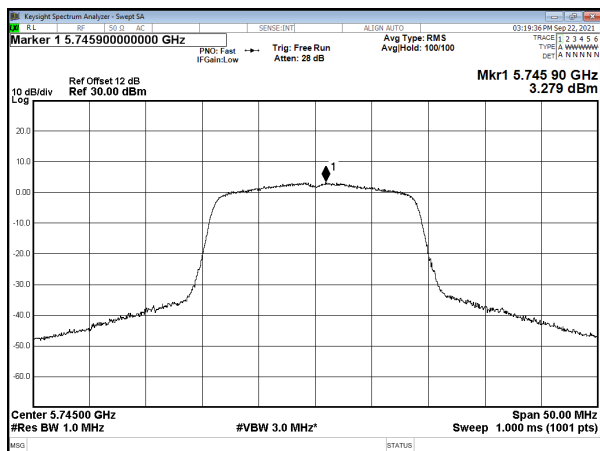




5.8G, Band 4

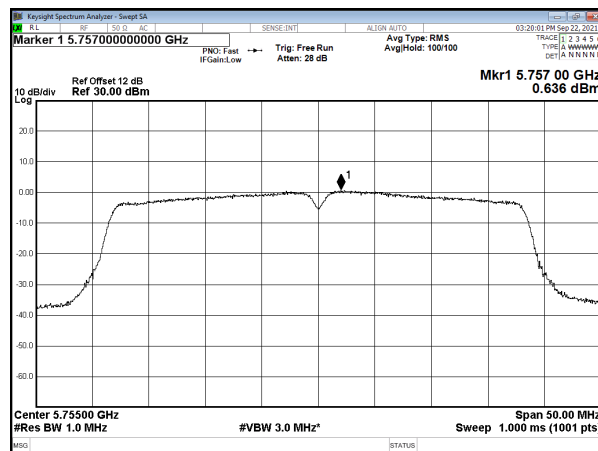
Modulation Standard: 802.11ac VHT20 (13 Mbps)

CH149

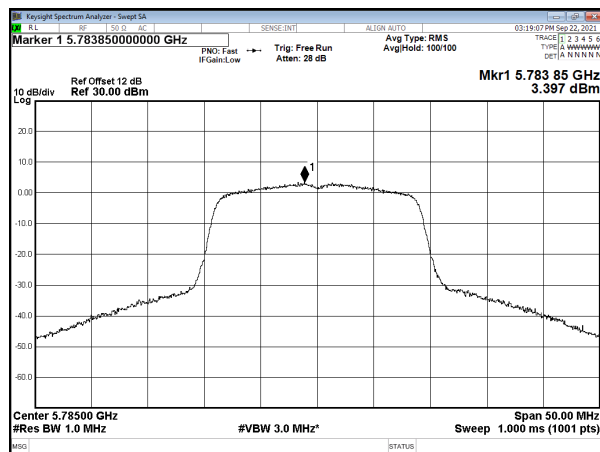


Modulation Standard: 802.11ac VHT40 (27 Mbps)

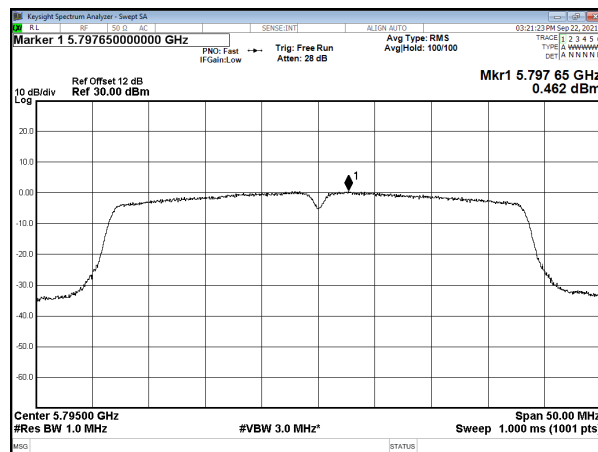
CH151



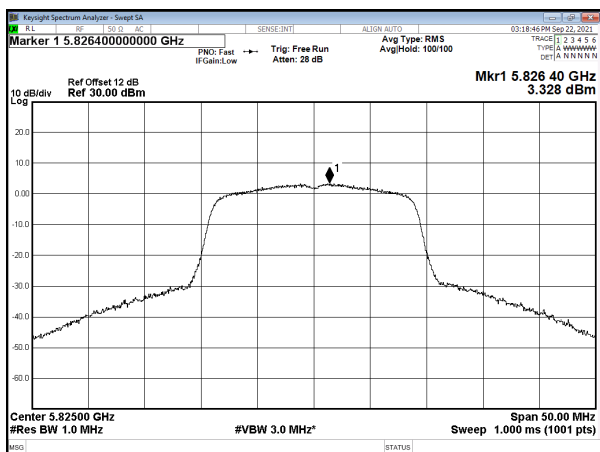
CH157



CH159

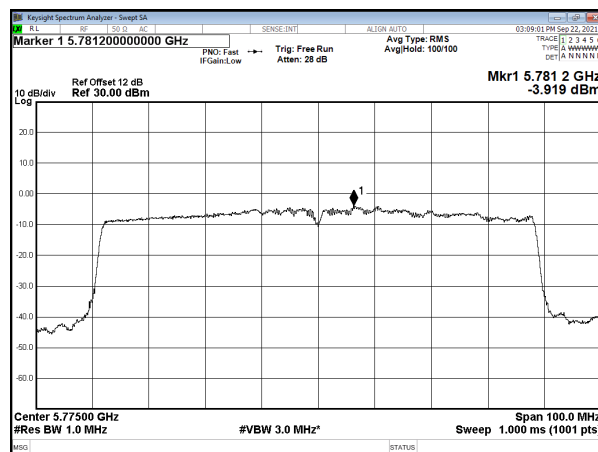


CH165



Modulation Standard: 802.11ac VHT80 (58.5 Mbps)

CH155



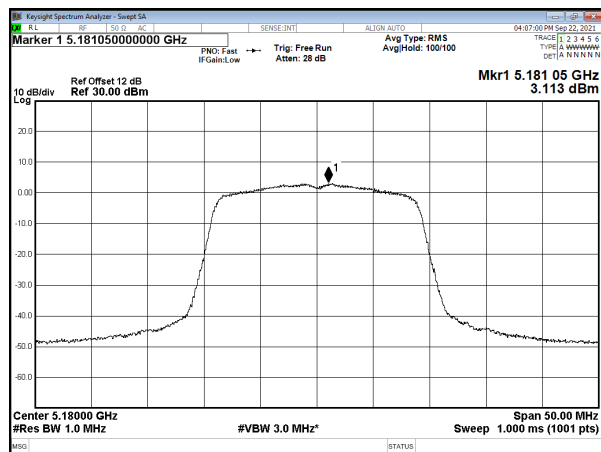


ANT B

5.2G, Band 1

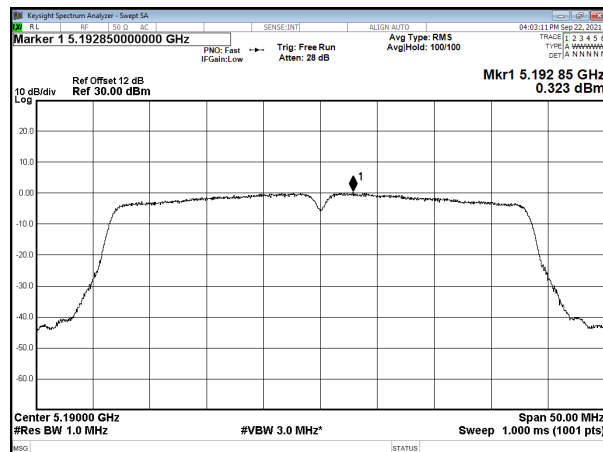
Modulation Standard: 802.11ac VHT20 (13Mbps)

CH36

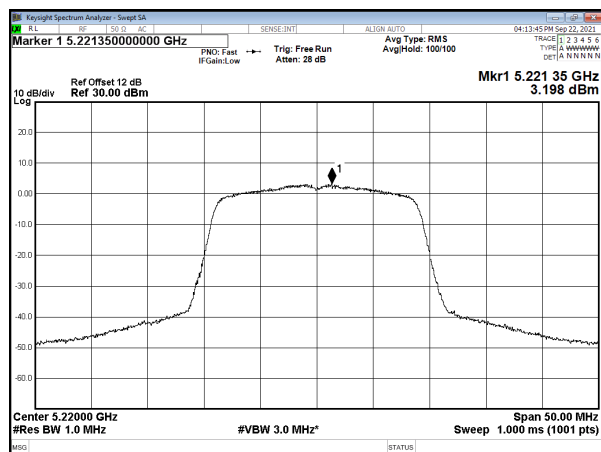


Modulation Standard: 802.11ac VHT40 (27Mbps)

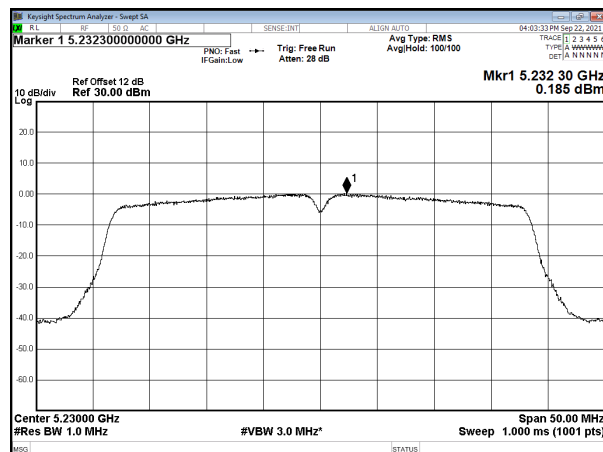
CH38



CH44

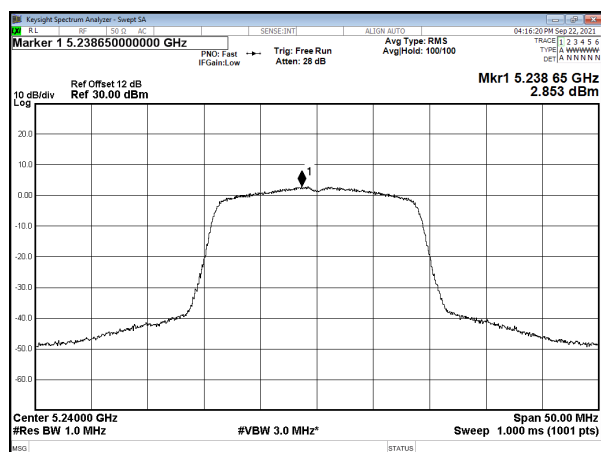


CH46

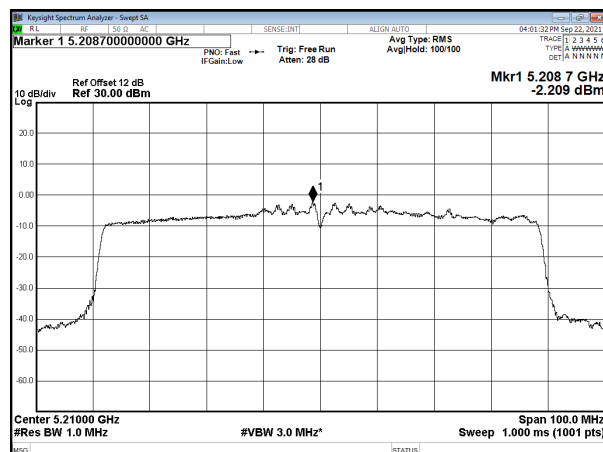


Modulation Standard: 802.11ac VHT80 (58.5Mbps)

CH48



CH42

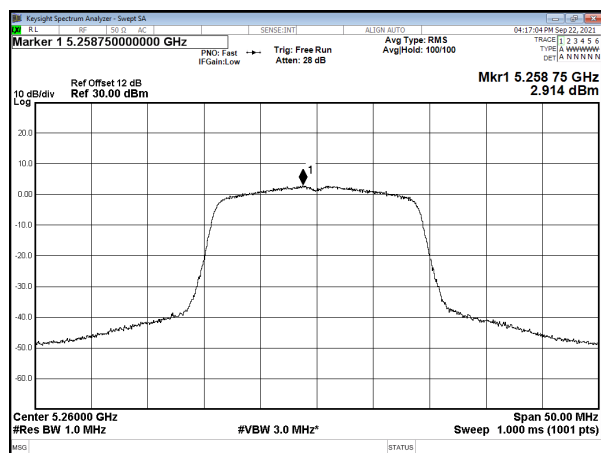




5.3G, Band 2

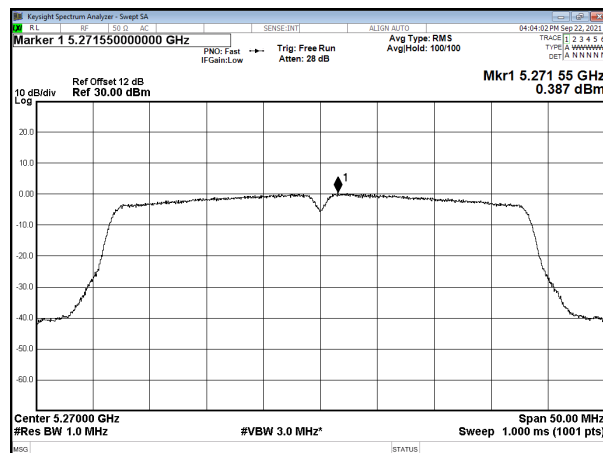
Modulation Standard: 802.11ac VHT20 (13Mbps)

CH52

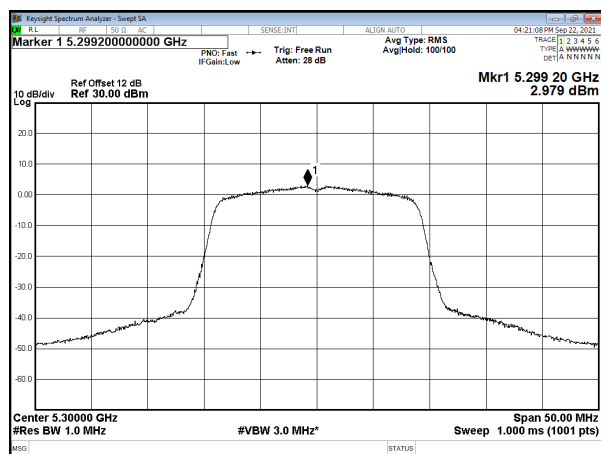


Modulation Standard: 802.11ac VHT40 (27Mbps)

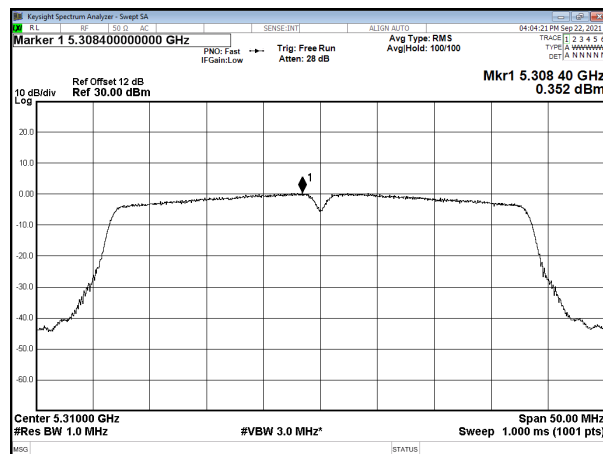
CH54



CH60

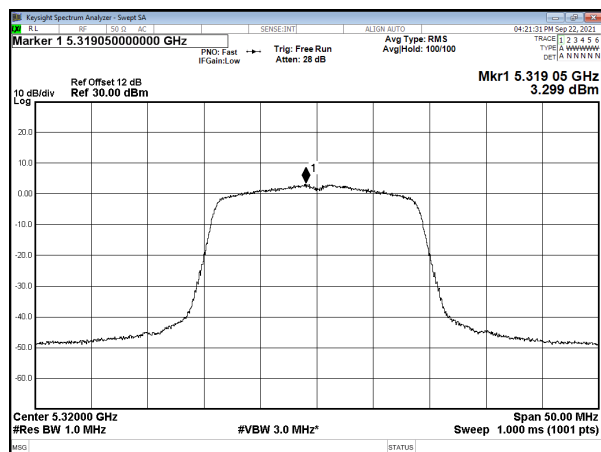


CH62

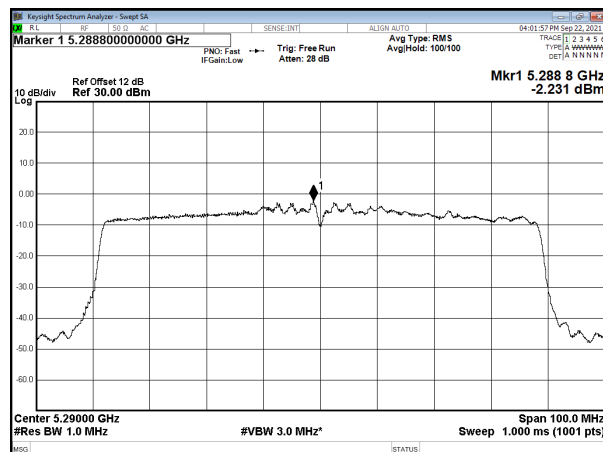


Modulation Standard: 802.11ac VHT80 (58.5Mbps)

CH64



CH58

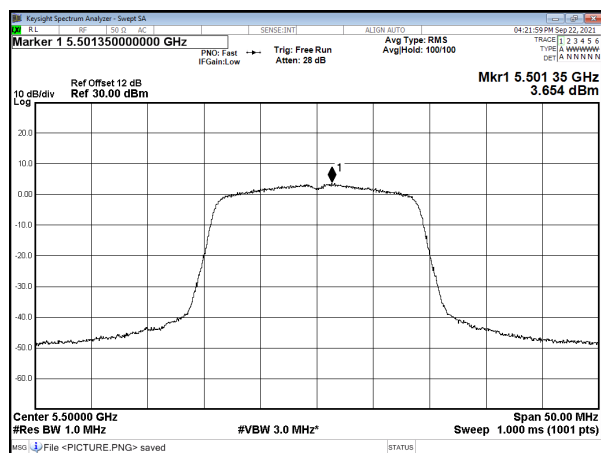




5.5G, Band 3

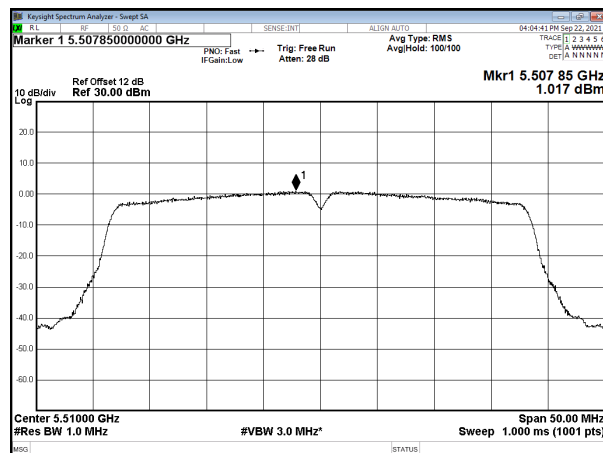
Modulation Standard: 802.11ac VHT20 (13Mbps)

CH100

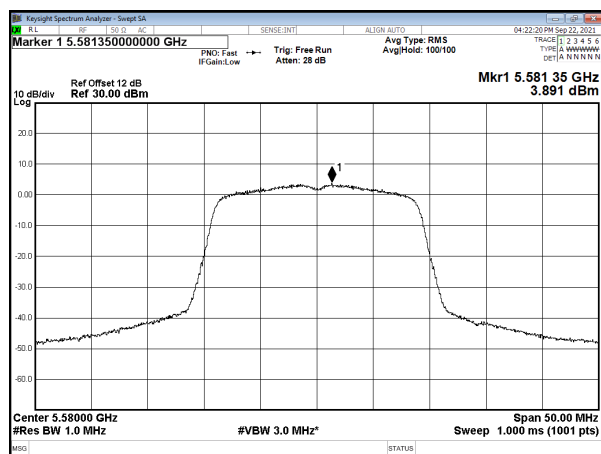


Modulation Standard: 802.11ac VHT40 (27Mbps)

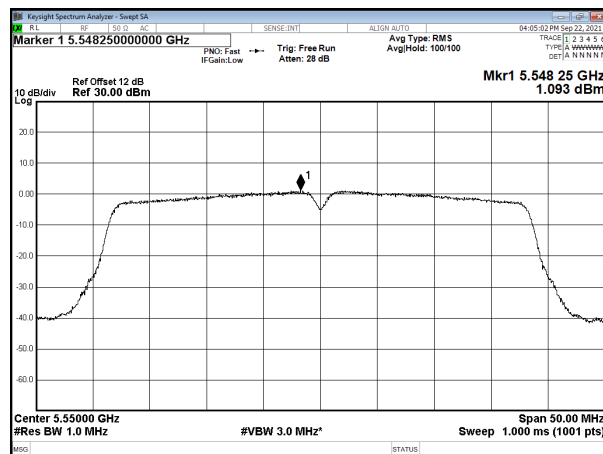
CH102



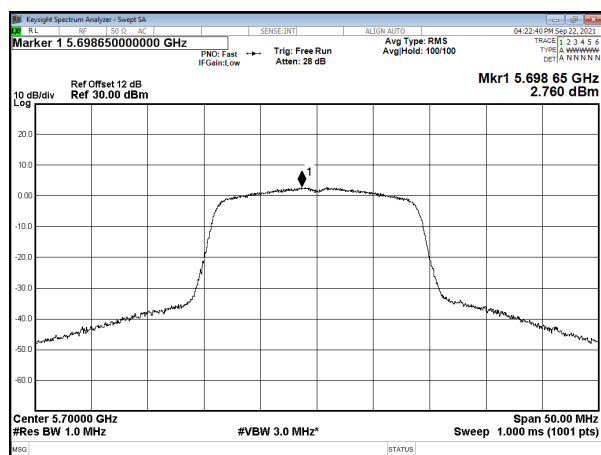
CH116



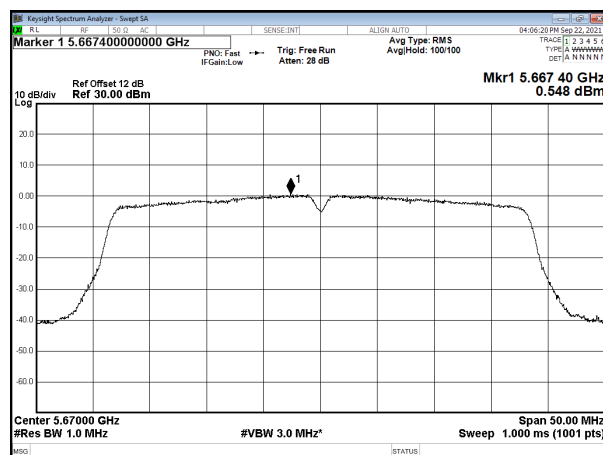
CH110



CH140



CH134

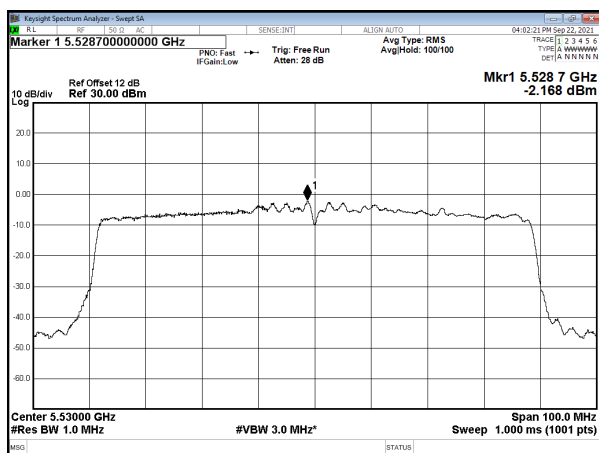




5.5G, Band 3

Modulation Standard: 802.11ac VHT80 (58.5Mbps)

CH106

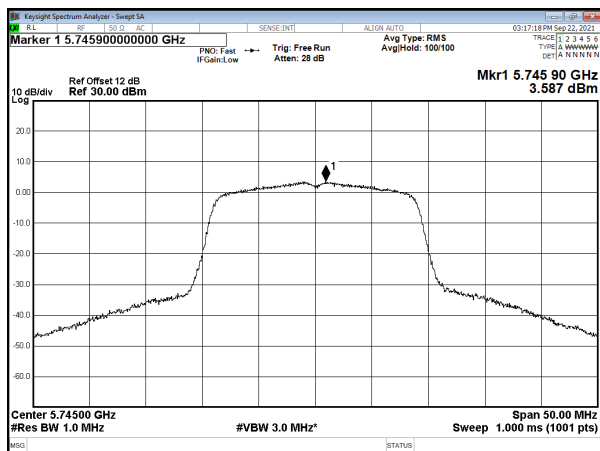




5.8G, Band 4

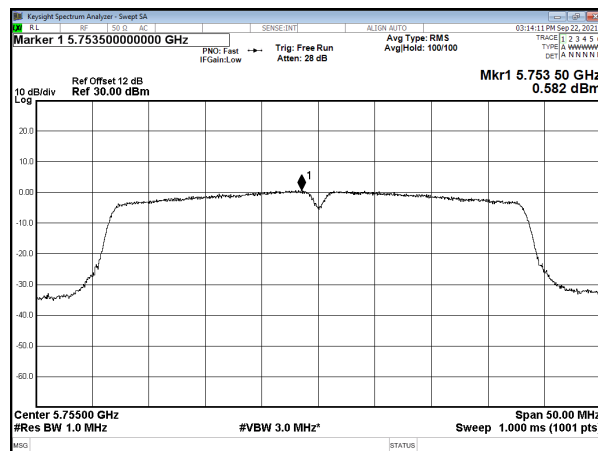
Modulation Standard: 802.11ac VHT20 (13 Mbps)

CH149

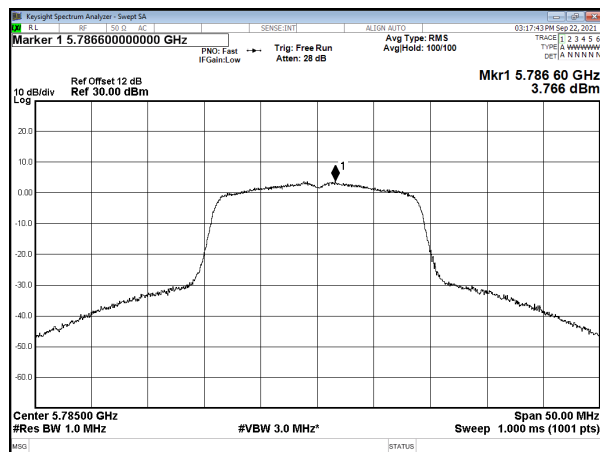


Modulation Standard: 802.11ac VHT40 (27 Mbps)

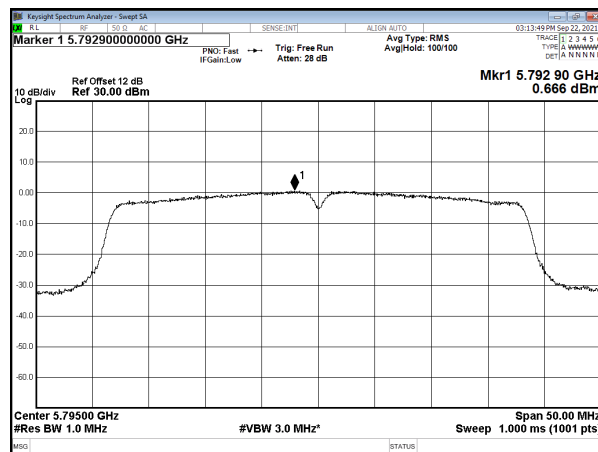
CH151



CH157

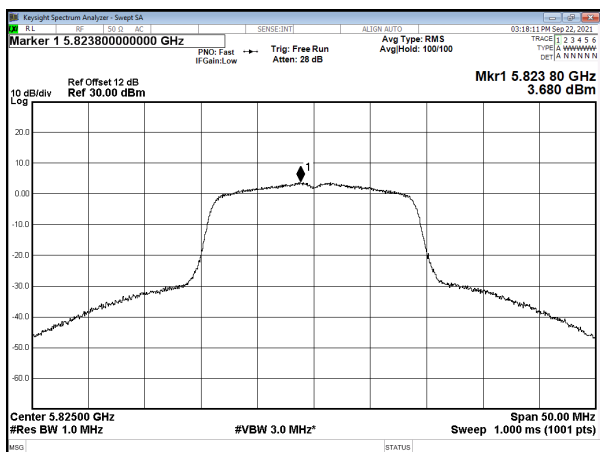


CH159

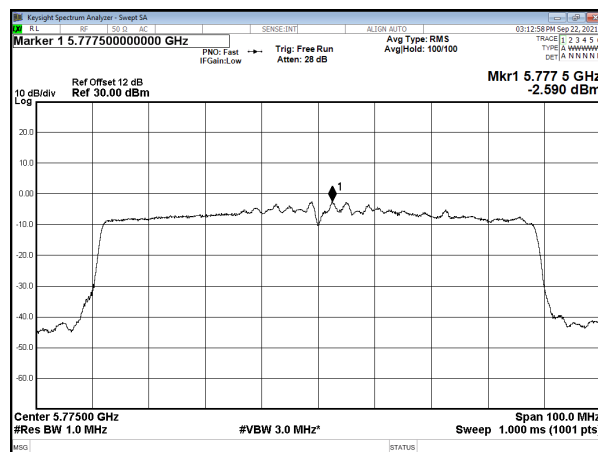


Modulation Standard: 802.11ac VHT80 (58.5 Mbps)

CH165



CH155



11. 頻率容許差度

11.1. 適用標準

應維持在主波頻率之 $\pm 0.01\%$ 以內。在正常供應電壓下，溫度在攝氏 -20°C 至 50°C 間變化；及在 20°C 下，供應電壓在額定值之 $\pm 15\%$ 內變化時。以電池作業者，應以新電池測試，須符合第 5.18 節之規定。

11.2. 測試方法

將 EUT 放置在可控制溫度和濕度設備室中。

發射機輸出連接到頻譜分析儀。

打開 EUT 並將其輸出耦合到頻譜分析儀。

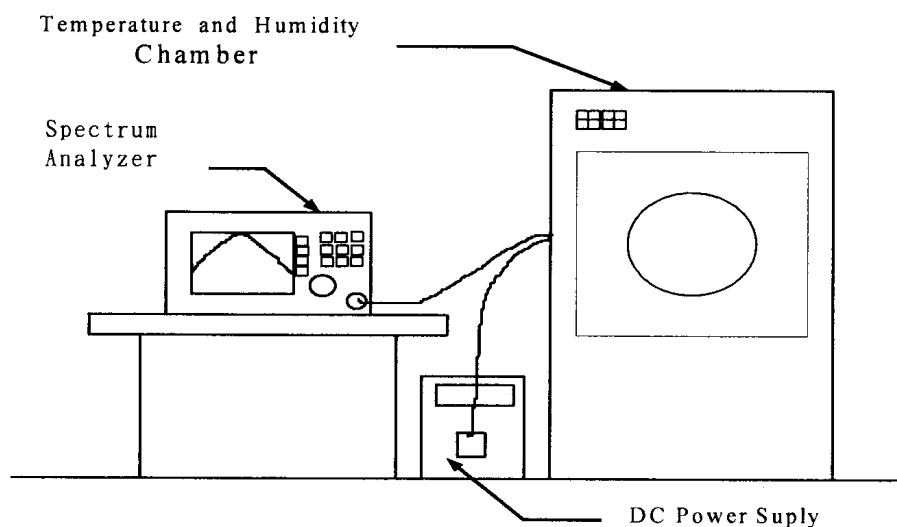
關閉 EUT 並將可控制溫度和濕度設備室設置為指定的最高溫度。

等待足夠的時間（約 30 分鐘）使可控制溫度和濕度設備室的溫度穩定，打開 EUT 並在 2 分鐘，5 分鐘和 10 分鐘後測量操作頻率。

重複步驟 2 和 3，將可控制溫度和濕度設備室設置為最低溫度。

使可控制溫度和濕度設備室在 $+20^{\circ}\text{C}$ 下穩定至少 30 分鐘。然後在 EUT 上將電源電壓從 85%調節到 115%並記錄頻率

11.3. 測試架構





11.4. 測試結果及數據

Operating frequency: 5180 MHz							
Temperature (°C)	Power supply (V)	2 minute		5 minute		10 minute	
		(MHz)	(%)	(MHz)	(%)	(MHz)	(%)
70	2.97	5179.9747	-0.000488	5179.9688	-0.000602	5179.9736	-0.000510
	3.3	5179.9735	-0.000512	5179.9687	-0.000604	5179.9734	-0.000514
	3.63	5179.9737	-0.000508	5179.9675	-0.000627	5179.9728	-0.000525
60	2.97	5179.9725	-0.000531	5179.9695	-0.000589	5179.9721	-0.000539
	3.3	5179.9733	-0.000515	5179.9687	-0.000604	5179.9708	-0.000564
	3.63	5179.9728	-0.000525	5179.9706	-0.000568	5179.9725	-0.000531
50	2.97	5179.9762	-0.000459	5179.9723	-0.000535	5179.9742	-0.000498
	3.3	5179.9746	-0.000490	5179.9725	-0.000531	5179.9728	-0.000525
	3.63	5179.9729	-0.000523	5179.9718	-0.000544	5179.9732	-0.000517
40	2.97	5179.9757	-0.000469	5179.9732	-0.000517	5179.9754	-0.000475
	3.3	5179.9772	-0.000440	5179.9708	-0.000564	5179.9766	-0.000452
	3.63	5179.9767	-0.000450	5179.9735	-0.000512	5179.9725	-0.000531
30	2.97	5179.9781	-0.000423	5179.9762	-0.000459	5179.9712	-0.000556
	3.3	5179.9776	-0.000432	5179.9747	-0.000488	5179.9739	-0.000504
	3.63	5179.9792	-0.000402	5179.9786	-0.000413	5179.9782	-0.000421
20	2.97	5179.9768	-0.000448	5179.9739	-0.000504	5179.9744	-0.000494
	3.3	5179.9795	-0.000396	5179.9727	-0.000527	5179.9776	-0.000432
	3.63	5179.9748	-0.000486	5179.9735	-0.000512	5179.9787	-0.000411
10	2.97	5179.9759	-0.000465	5179.9758	-0.000467	5179.9791	-0.000403
	3.3	5179.9754	-0.000475	5179.9723	-0.000535	5179.9729	-0.000523
	3.63	5179.9763	-0.000458	5179.9789	-0.000407	5179.9738	-0.000506
0	2.97	5179.9751	-0.000481	5179.9773	-0.000438	5179.9753	-0.000477
	3.3	5179.9779	-0.000427	5179.9757	-0.000469	5179.9791	-0.000403
	3.63	5179.9746	-0.000490	5179.9736	-0.000510	5179.9746	-0.000490
-10	2.97	5179.9742	-0.000498	5179.9767	-0.000450	5179.9773	-0.000438
	3.3	5179.9758	-0.000467	5179.9752	-0.000479	5179.9768	-0.000448
	3.63	5179.9763	-0.000458	5179.9747	-0.000488	5179.9757	-0.000469



12. 電波暴露量之評估

12.1. 適用標準

依據國家通訊傳播委員會低功率射頻器材技術規範 6.20 節之(6.20.2)規定，若受測物於正常操作模式下，其發射機距離人體 20 公分以上者，可測試最大暴露允許值(Maximum Permissible Exposure, MPE)以證明其符電波暴露量之要求。限制值如下：

(1) 職業性/可控制之暴露

頻率範圍 (MHz)	電場強度 (V/m)	磁場強度 (A/m)	功率密度 (mW/cm ²)	平均時間 (minutes)
0.3-3.0	614	1.63	*100	6
3-30	1842/f	4.89/f	*900/f ²	6
30-300	61.4	0.163	1.0	6
300-1,500	-----	-----	f/300	6
1,500-100,000	-----	-----	5.0	6

註 1：標記*表平面波等效功率密度。

註 2：f 表測試頻率，單位：百萬赫(MHz)。

(2) 一般人/不可控制之暴露

頻率範圍 (MHz)	電場強度 (V/m)	磁場強度 (A/m)	功率密度 (mW/cm ²)	平均時間 (minutes)
0.3-3.0	614	1.63	*100	30
3-30	1842/f	4.89/f	*180/f ²	30
30-300	27.5	0.073	1.0	30
300-1,500	-----	-----	f/1500	30
1,500-100,000	-----	-----	1.0	30

註 1：標記*表平面波等效功率密度。

註 2：f 表測試頻率，單位：百萬赫(MHz)。



12.2. 電波暴露量之評估結果及數據

For 1TX

Channel Frequency (MHz)	Max. Conducted output power(dBm)	Max. Tune up power (dBm)	Antenna Gain(dBi)	Distance (cm)	Power Density (mW/cm ²)	Limit (mW/cm ²)
5180-5240	13.71	15.71	3	20	0.015	1
5260-5320	13.40	15.40	3	20	0.014	1
5500-5700	13.81	15.81	3	20	0.015	1
5745-5825	13.54	15.54	3	20	0.014	1

For 2TX

Channel Frequency (MHz)	Max. Conducted output power(dBm)	Max. Tune up power (dBm)	Antenna Gain(dBi)	Distance (cm)	Power Density (mW/cm ²)	Limit (mW/cm ²)
5180-5240	16.53	18.53	3	20	0.028	1
5260-5320	16.70	18.70	3	20	0.029	1
5500-5700	17.17	19.17	3	20	0.033	1
5745-5825	16.73	18.73	3	20	0.030	1

12.3. 結果判定

高、中、低頻段的電波暴露量皆低於限制值，合乎標準規定。



13. 限制使用之頻帶

Only spurious emissions are permitted in any of the frequency bands listed below:

頻率(兆赫)	頻率(兆赫)	頻率(兆赫)
0.090 - 0.110	240.00 - 285.00	3332.0 - 3339.0
0.490 - 0.510	322.00 - 335.40	3345.8 - 3358.0
2.172 - 2.198	399.90 - 410.00	3500.0 - 4400.0
3.013 - 3.033	485.00 - 510.00	4500.0 - 5250.0
4.115 - 4.198	608.00 - 614.00	5350.0 - 5460.0
5.670 - 5.690	703.00 - 748.00	7250.0 - 7750.0
6.200 - 6.300	758.00 - 803.00	8025.0 - 8500.0
8.230 - 8.400	825.00 - 915.00	9000.0 - 9200.0
12.265 - 12.600	930.00 - 1240.0	9300.0 - 9500.0
13.340 - 13.430	1300.0 - 1427.0	10600 - 12700
14.965 - 15.020	1435.0 - 1626.5	13250 - 13400
16.700 - 16.755	1660.0 - 1785.0	14470 - 14500
19.965 - 20.020	1805.0 - 1880.0	15350 - 16200
25.500 - 25.700	1885.0 - 1900.0	17700 - 21400
37.475 - 38.275	1905.0 - 1985.0	22010 - 23120
73.500 - 75.400	2010.0 - 2025.0	23600 - 24000
108.00 - 138.00	2110.0 - 2170.0	31200 - 31800
149.90 - 150.05	2200.0 - 2300.0	36430 - 36500
156.70 - 156.90	2310.0 - 2390.0	38600 以上
162.01 - 167.17	2483.5 - 2900.0	
167.72 - 173.20	3260.0 - 3267.0	

-----THE END OF REPORT-----