

13.3 測試結果

溫度 : 26 °C

相對濕度 : 59 %

儀器設定

5.15~5.25GHz , 5.25-5.35 GHz , 5.47-5.725 GHz

RBW : 1 MHz

VBW : 3 MHz

5.725-5.850 GHz

RBW : 100 kHz

VBW : 300 kHz

如為 MIMO , 還需將測試結果加上 $10\log(\text{發射天線數})$ 。

另外 , 當測試 5.725-5.850 GHz 之功率頻譜密度時 , 將測試結果加上 100kHz 轉換為 500kHz 的係數($10\log(500\text{kHz}/100\text{kHz})$) , 直接補償至頻譜之 offset 內。

SISO

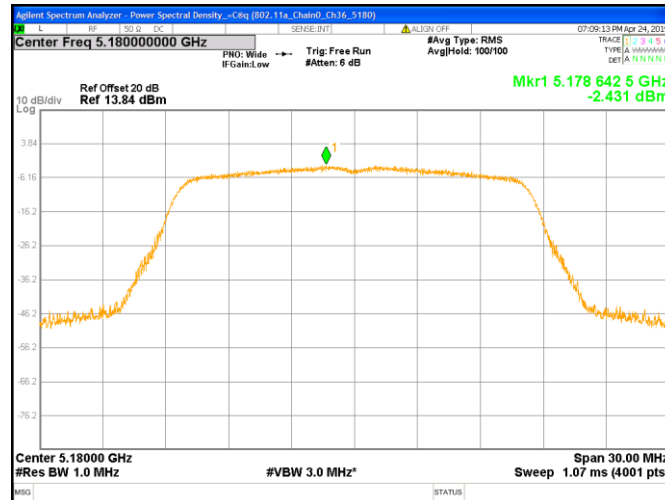
Mode	Channel	Frequency (MHz)	PSD		Result	Limit (dBm)	Margin (dB)
			(dBm)	(mW)			
802.11a Chain0	36	5180	-2.43	0.57	-2.43	11	-13.43
	44	5220	-2.20	0.60	-2.2	11	-13.20
	48	5240	-2.49	0.56	-2.49	11	-13.49
	52	5260	-2.82	0.52	-2.82	11	-13.82
	60	5300	-2.45	0.57	-2.45	11	-13.45
	64	5320	-1.91	0.64	-1.91	11	-12.91
	100	5500	-2.20	0.60	-2.2	11	-13.20
	120	5600	-2.36	0.58	-2.36	11	-13.36
	140	5700	-3.39	0.46	-3.39	11	-14.39
	149	5745	-5.22	0.30	-5.22	30	-35.22
	157	5785	-4.03	0.40	-4.03	30	-34.03
	165	5825	-3.81	0.42	-3.81	30	-33.81
802.11a Chain1	36	5180	-0.76	0.84	-0.76	11	-11.76
	44	5220	-0.14	0.97	-0.14	11	-11.14
	48	5240	0.21	1.05	0.21	11	-10.79
	52	5260	0.59	1.15	0.59	11	-10.41
	60	5300	0.75	1.19	0.75	11	-10.25
	64	5320	1.13	1.30	1.13	11	-9.87
	100	5500	0.03	1.01	0.03	11	-10.97
	120	5600	-0.23	0.95	-0.23	11	-11.23
	140	5700	-0.30	0.93	-0.3	11	-11.30
	149	5745	-2.16	0.61	-2.16	30	-32.16
	157	5785	-2.21	0.60	-2.21	30	-32.21
	165	5825	-1.62	0.69	-1.62	30	-31.62

MIMO

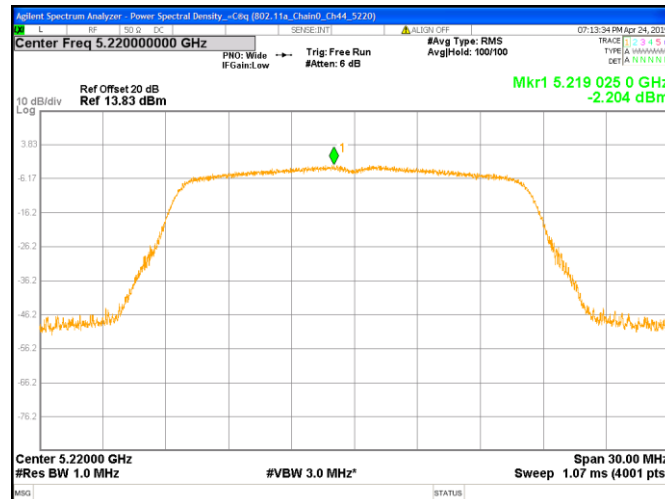
Mode	Channel	Frequency (MHz)	PSD (dBm)		Total PSD		MIMO	Result	Limit (dBm)	Margin (dB)
			chain0	chain1	mW	dBm	Correction			
802.11ac (VHT20)	36	5180	-2.98	-1.54	1.20	0.81	3.01	3.82	11	-7.18
	44	5220	-2.39	-0.92	1.39	1.42	3.01	4.43	11	-6.57
	48	5240	-2.97	-0.62	1.37	1.37	3.01	4.38	11	-6.62
	52	5260	-3.30	-1.03	1.26	0.99	3.01	4.00	11	-7.00
	60	5300	-2.84	-0.68	1.38	1.38	3.01	4.39	11	-6.61
	64	5320	-0.37	-0.69	1.77	2.48	3.01	5.49	11	-5.51
	100	5500	-0.39	-0.90	1.73	2.37	3.01	5.38	11	-5.62
	120	5600	-1.09	-0.66	1.64	2.14	3.01	5.15	11	-5.85
	140	5700	-1.51	-0.68	1.56	1.94	3.01	4.95	11	-6.05
	149	5745	-3.69	-3.62	0.86	-0.64	3.01	2.37	30	-27.63
	157	5785	-3.10	-3.57	0.93	-0.32	3.01	2.69	30	-27.31
802.11ac (VHT40)	165	5825	-2.57	-3.24	1.03	0.12	3.01	3.13	30	-26.87
	38	5190	-5.17	-6.12	0.55	-2.61	3.01	0.40	11	-10.60
	46	5230	-5.12	-5.32	0.60	-2.21	3.01	0.80	11	-10.20
	54	5270	-4.88	-4.53	0.68	-1.69	3.01	1.32	11	-9.68
	62	5310	-4.34	-4.24	0.74	-1.28	3.01	1.73	11	-9.27
	102	5510	-4.94	-4.81	0.65	-1.86	3.01	1.15	11	-9.85
	118	5590	-4.78	-4.29	0.71	-1.52	3.01	1.49	11	-9.51
	134	5670	-4.52	-5.68	0.62	-2.05	3.01	0.96	11	-10.04
	151	5755	-7.00	-7.33	0.38	-4.15	3.01	-1.14	30	-31.14
802.11ac (VHT80)	159	5795	-6.67	-6.58	0.44	-3.61	3.01	-0.60	30	-30.60
	42	5210	-10.21	-10.82	0.18	-7.49	3.01	-4.48	11	-15.48
	58	5290	-9.74	-9.94	0.21	-6.83	3.01	-3.82	11	-14.82
	106	5530	-10.10	-9.78	0.20	-6.93	3.01	-3.92	11	-14.92
	122	5610	-10.31	-9.50	0.21	-6.88	3.01	-3.87	11	-14.87
	155	5775	-11.29	-12.05	0.14	-8.64	3.01	-5.63	30	-35.63

13.4 繪圖資料

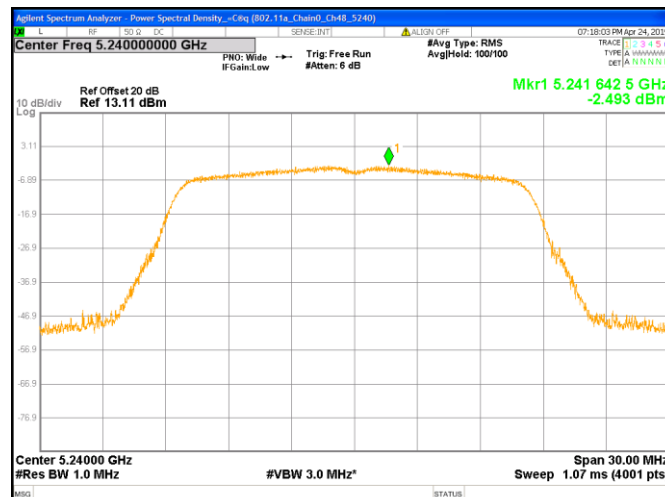
Chain0 : Power Spectral Density @ 802.11a Mode Ch36



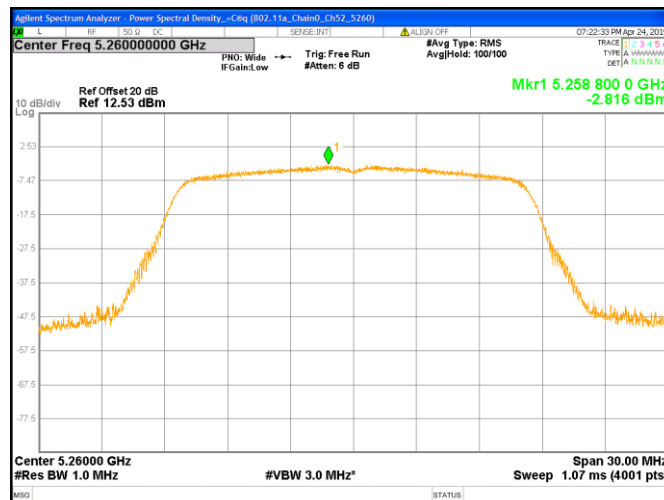
Chain0 : Power Spectral Density @ 802.11a Mode Ch44



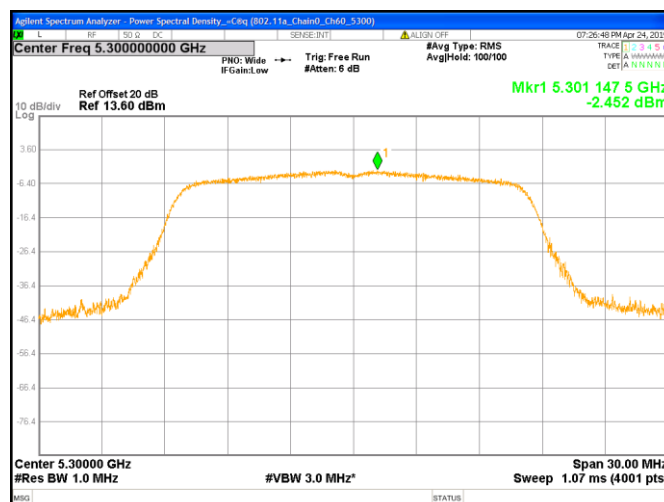
Chain0 : Power Spectral Density @ 802.11a Mode Ch48



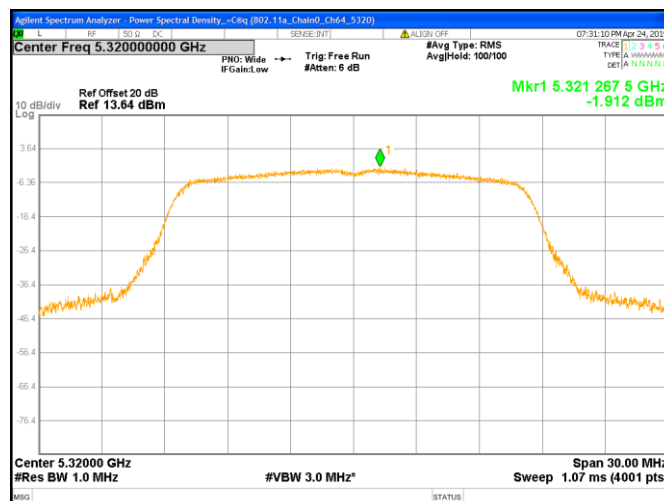
Chain0 : Power Spectral Density @ 802.11a Mode Ch52



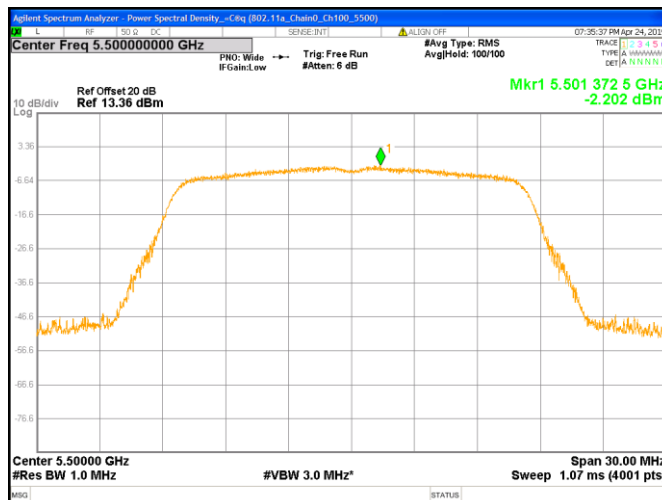
Chain0 : Power Spectral Density @ 802.11a Mode Ch60



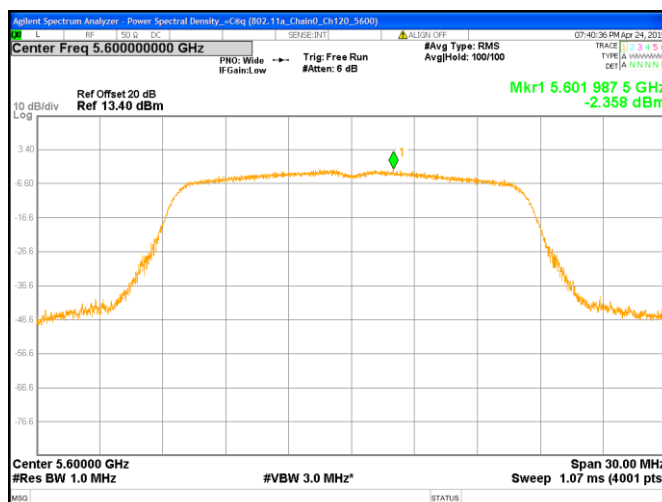
Chain0 : Power Spectral Density @ 802.11a Mode Ch64



Chain0 : Power Spectral Density @ 802.11a Mode Ch100



Chain0 : Power Spectral Density @ 802.11a Mode Ch120



Chain0 : Power Spectral Density @ 802.11a Mode Ch140



Chain0 : Power Spectral Density @ 802.11a Mode Ch149



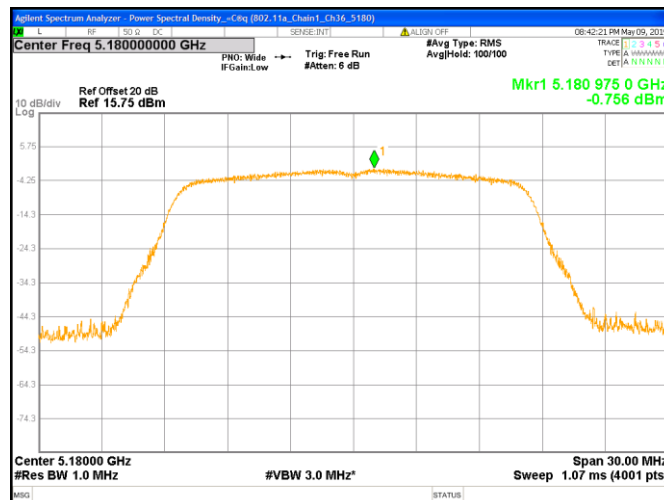
Chain0 : Power Spectral Density @ 802.11a Mode Ch157



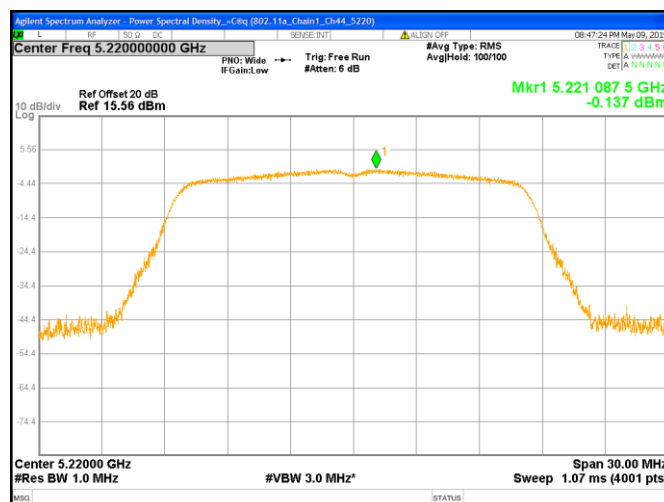
Chain0 : Power Spectral Density @ 802.11a Mode Ch165



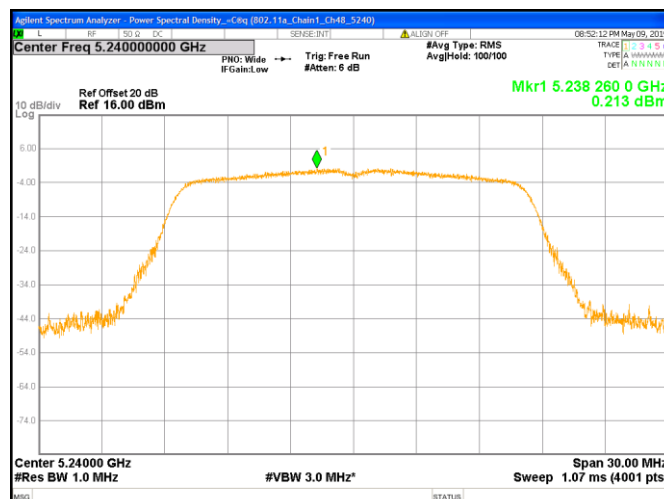
Chain1 : Power Spectral Density @ 802.11a Mode Ch36



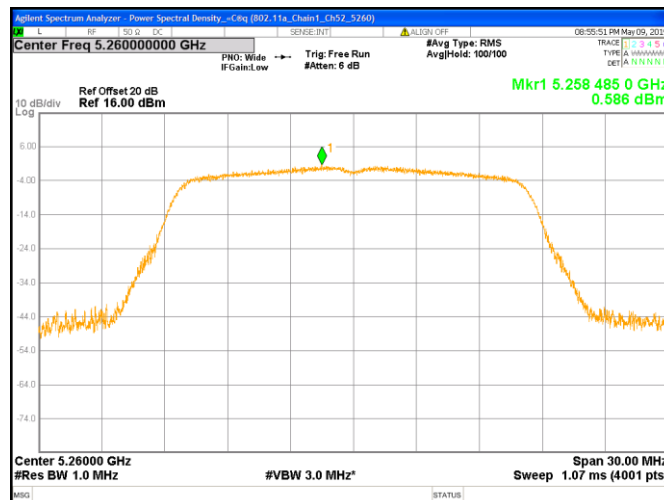
Chain1 : Power Spectral Density @ 802.11a Mode Ch44



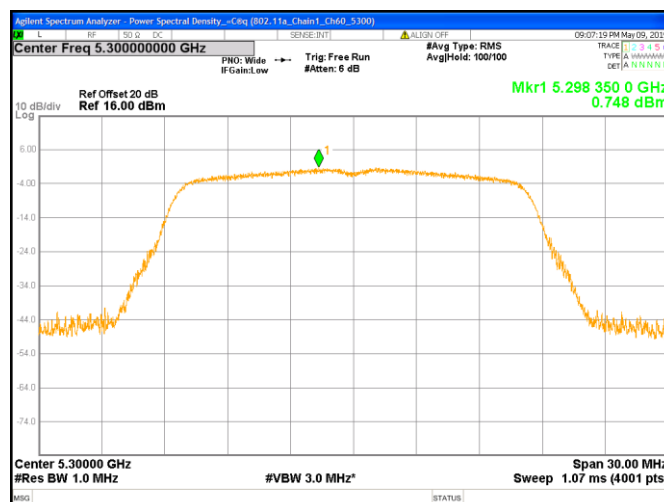
Chain1 : Power Spectral Density @ 802.11a Mode Ch48



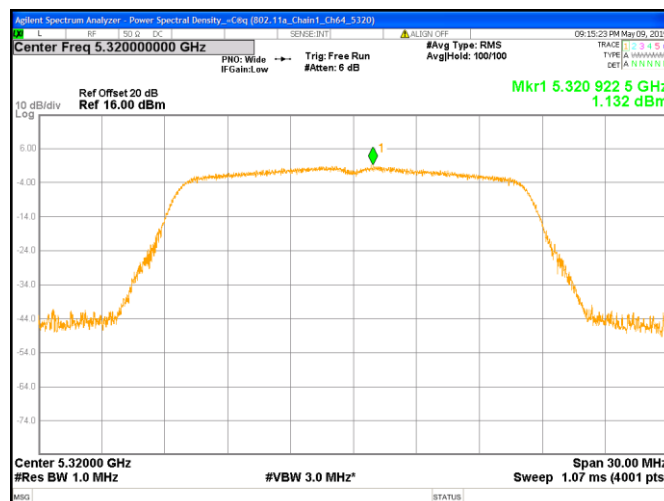
Chain1 : Power Spectral Density @ 802.11a Mode Ch52



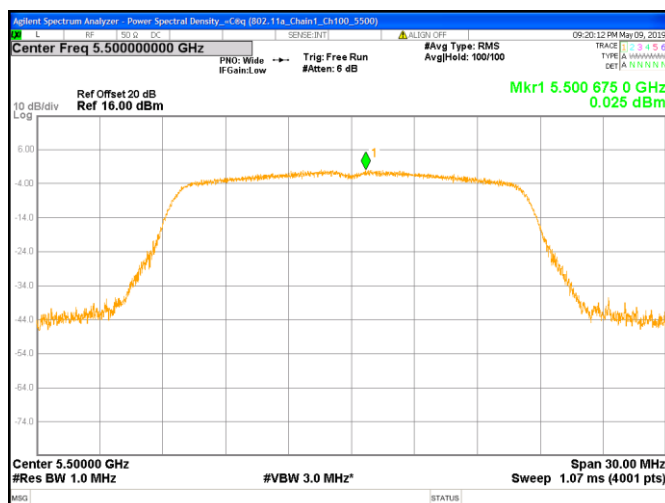
Chain1 : Power Spectral Density @ 802.11a Mode Ch60



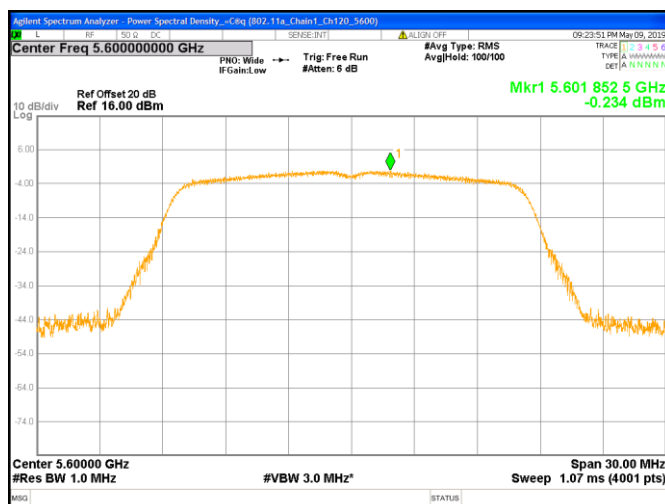
Chain1 : Power Spectral Density @ 802.11a Mode Ch64



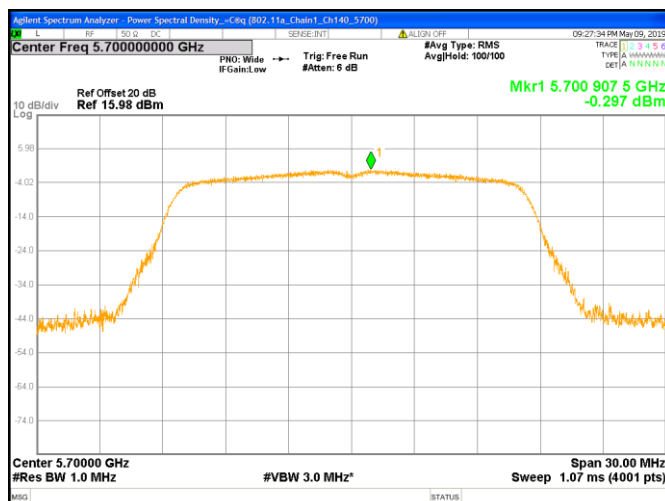
Chain1 : Power Spectral Density @ 802.11a Mode Ch100



Chain1 : Power Spectral Density @ 802.11a Mode Ch120



Chain1 : Power Spectral Density @ 802.11a Mode Ch140



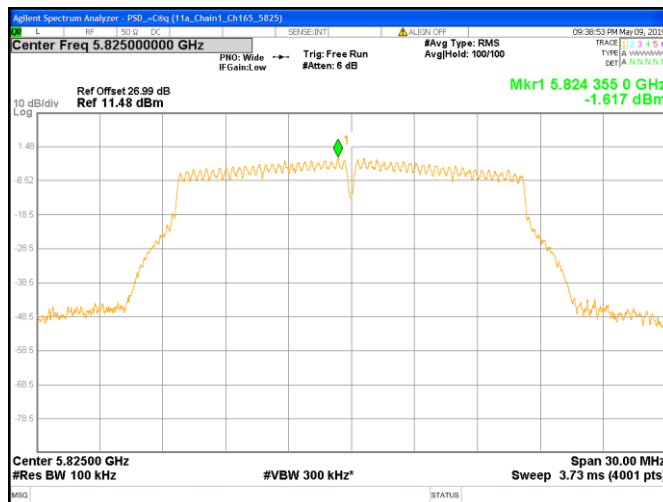
Chain1 : Power Spectral Density @ 802.11a Mode Ch149



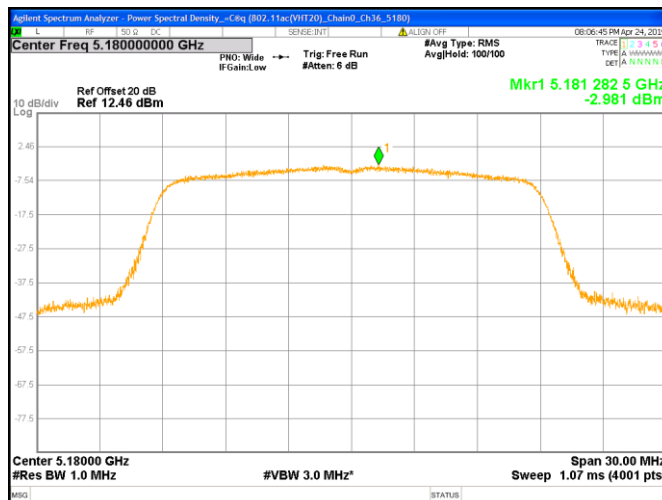
Chain1 : Power Spectral Density @ 802.11a Mode Ch157



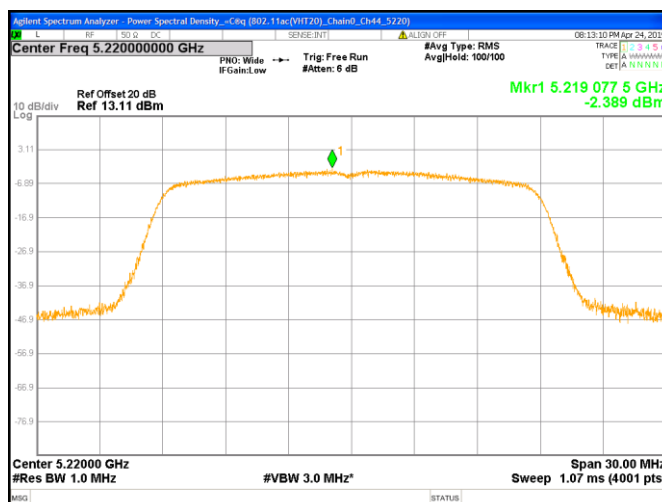
Chain1 : Power Spectral Density @ 802.11a Mode Ch165



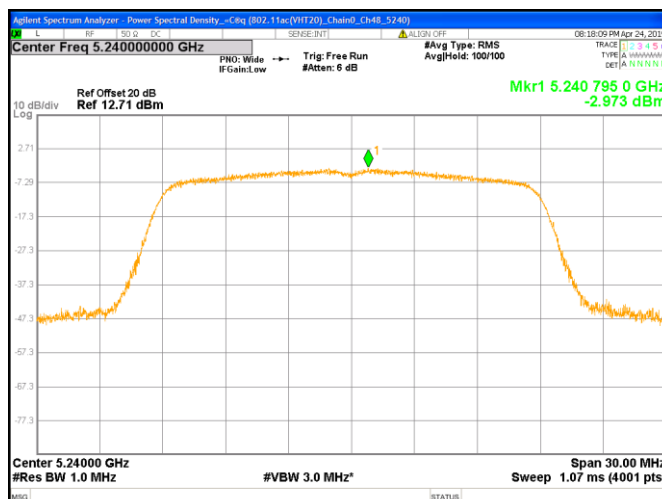
Chain0 : Power Spectral Density @ 802.11ac(VHT20) Mode Ch36



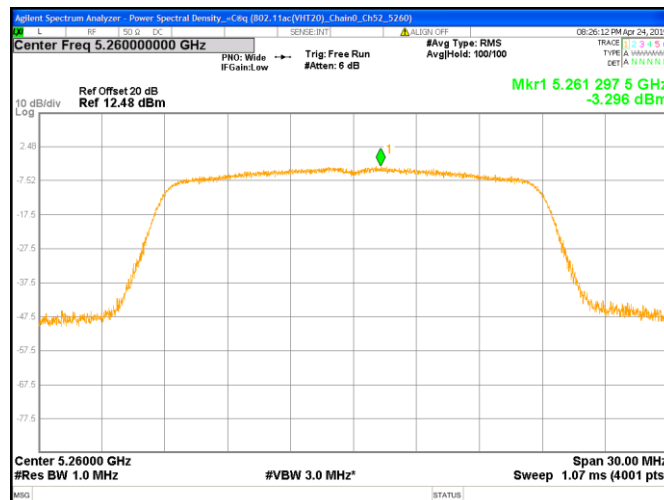
Chain0 : Power Spectral Density @ 802.11ac(VHT20) Mode Ch44



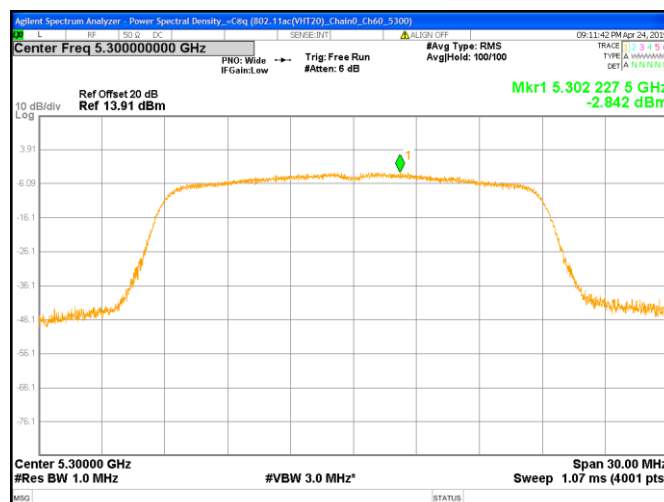
Chain0 : Power Spectral Density @ 802.11ac(VHT20) Mode Ch48



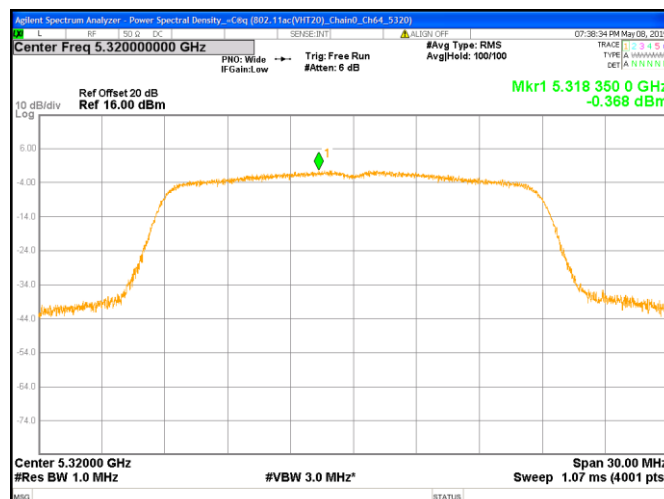
Chain0 : Power Spectral Density @ 802.11ac(VHT20) Mode Ch52



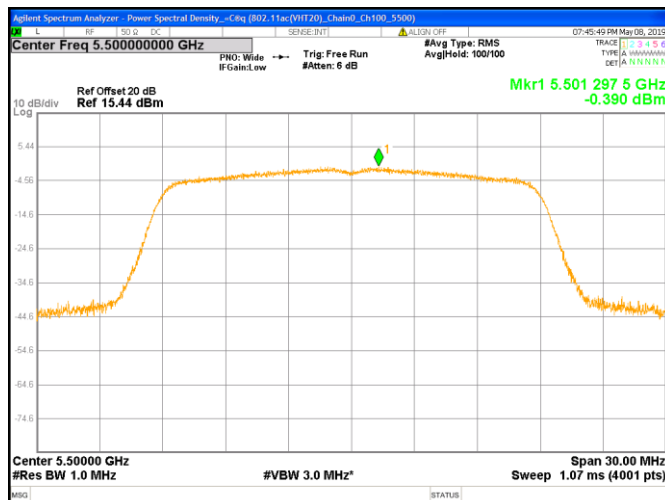
Chain0 : Power Spectral Density @ 802.11ac(VHT20) Mode Ch60



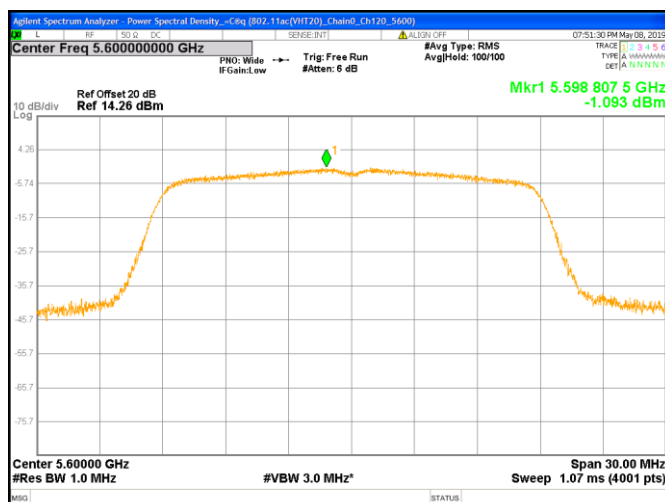
Chain0 : Power Spectral Density @ 802.11ac(VHT20) Mode Ch64



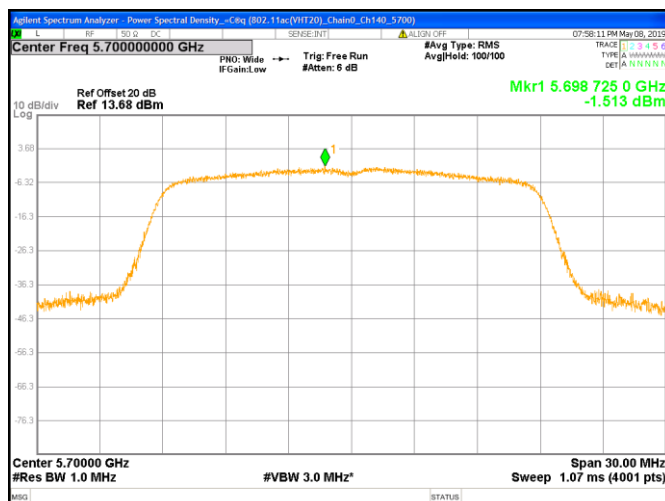
Chain0 : Power Spectral Density @ 802.11ac(VHT20) Mode Ch100



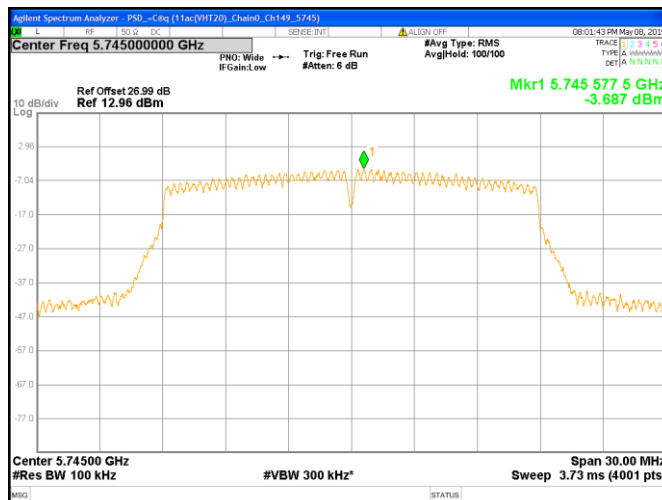
Chain0 : Power Spectral Density @ 802.11ac(VHT20) Mode Ch120



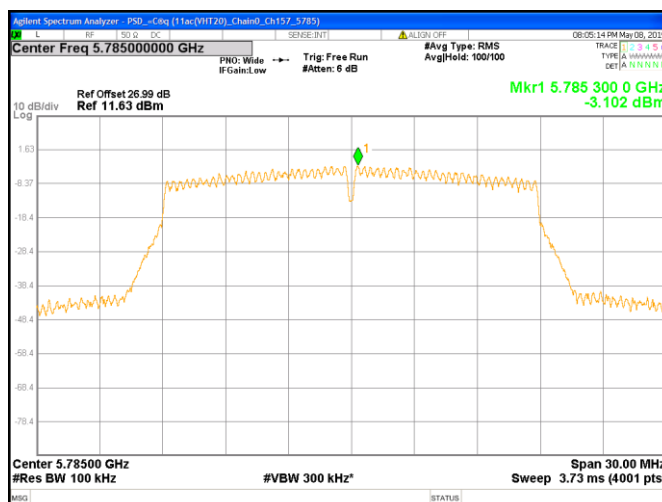
Chain0 : Power Spectral Density @ 802.11ac(VHT20) Mode Ch140



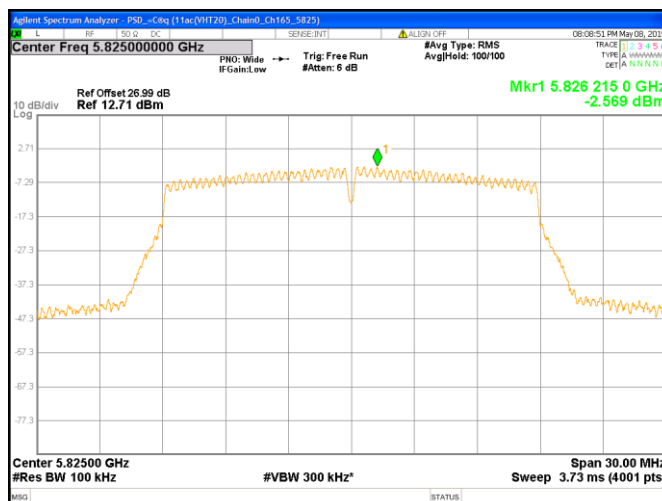
Chain0 : Power Spectral Density @ 802.11ac(VHT20) Mode Ch149



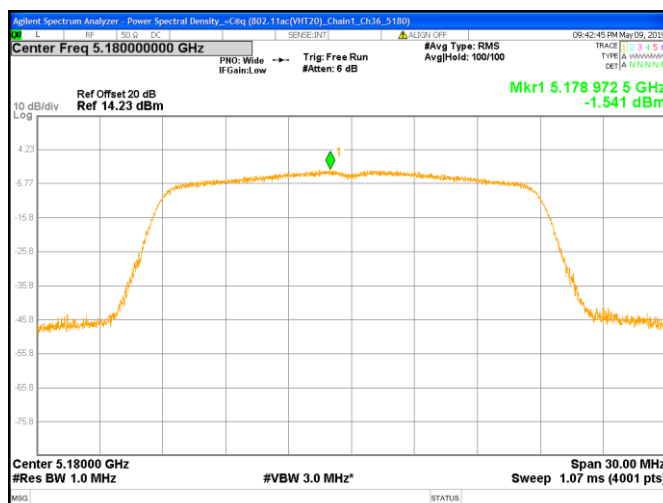
Chain0 : Power Spectral Density @ 802.11ac(VHT20) Mode Ch157



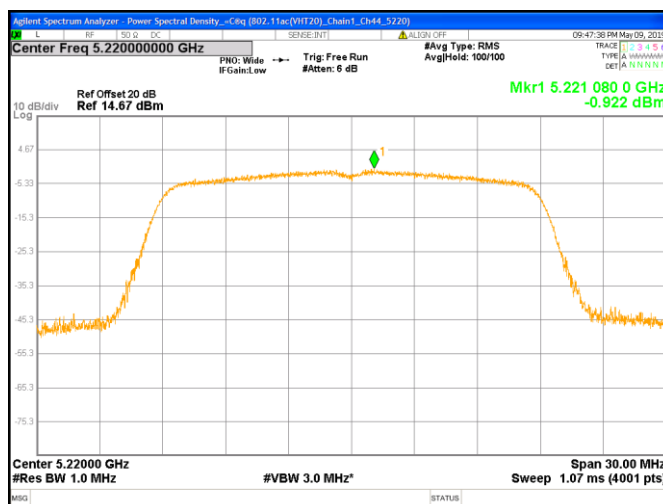
Chain0 : Power Spectral Density @ 802.11ac(VHT20) Mode Ch165



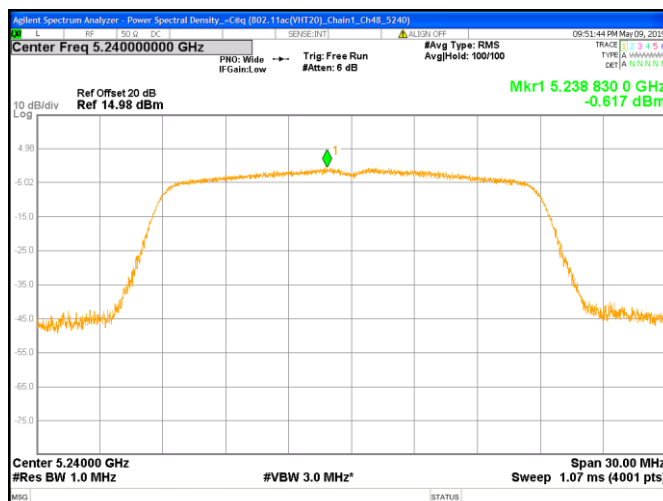
Chain1 : Power Spectral Density @ 802.11ac(VHT20) Mode Ch36



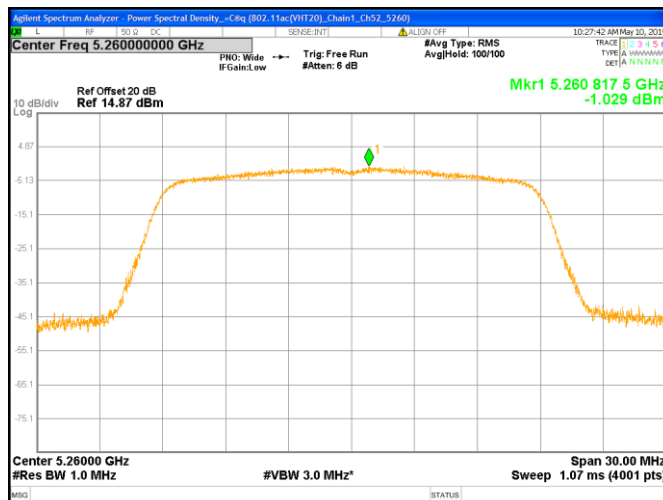
Chain1 : Power Spectral Density @ 802.11ac(VHT20) Mode Ch44



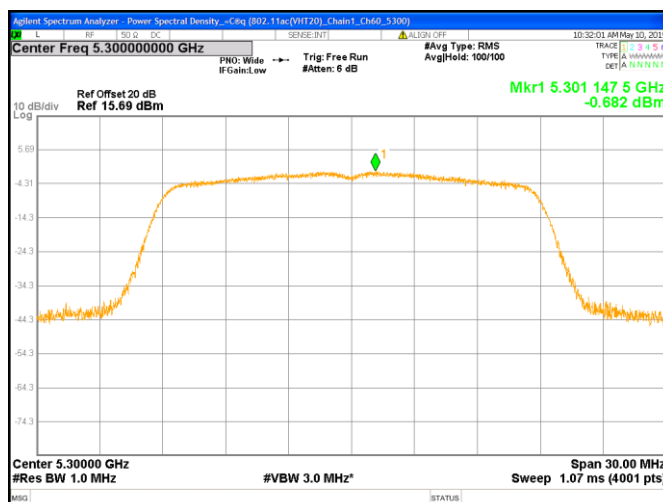
Chain1 : Power Spectral Density @ 802.11ac(VHT20) Mode Ch48



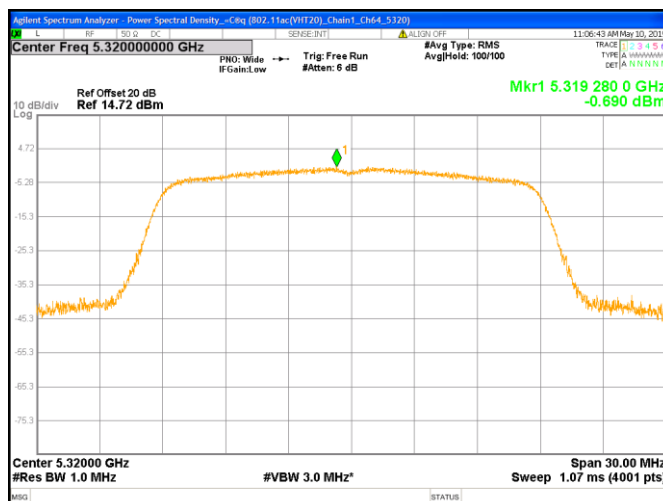
Chain1 : Power Spectral Density @ 802.11ac(VHT20) Mode Ch52



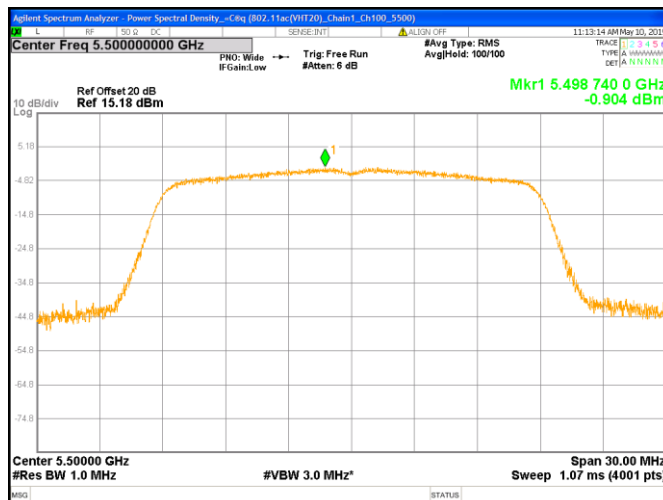
Chain1 : Power Spectral Density @ 802.11ac(VHT20) Mode Ch60



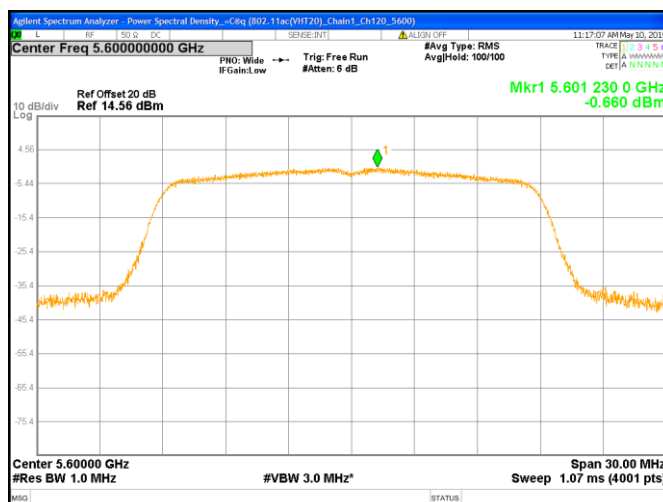
Chain1 : Power Spectral Density @ 802.11ac(VHT20) Mode Ch64



Chain1 : Power Spectral Density @ 802.11ac(VHT20) Mode Ch100



Chain1 : Power Spectral Density @ 802.11ac(VHT20) Mode Ch120



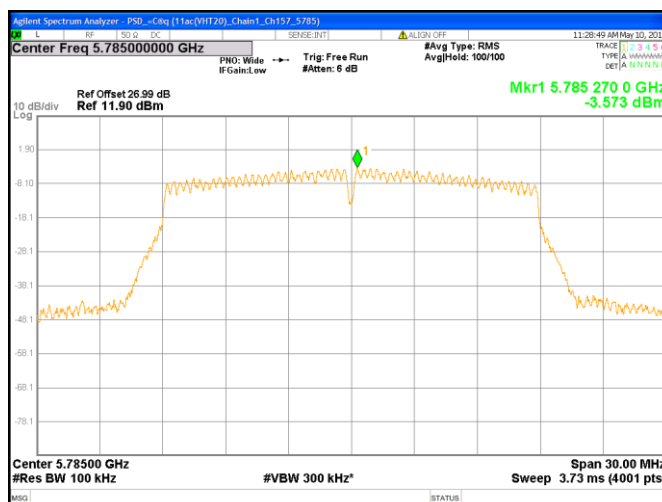
Chain1 : Power Spectral Density @ 802.11ac(VHT20) Mode Ch140



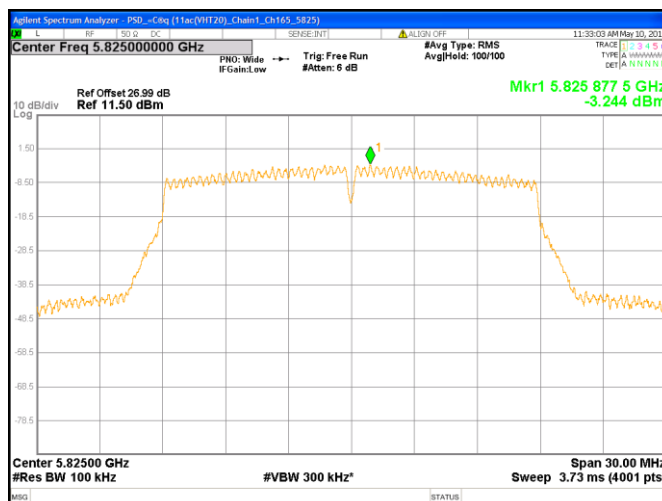
Chain1 : Power Spectral Density @ 802.11ac(VHT20) Mode Ch149



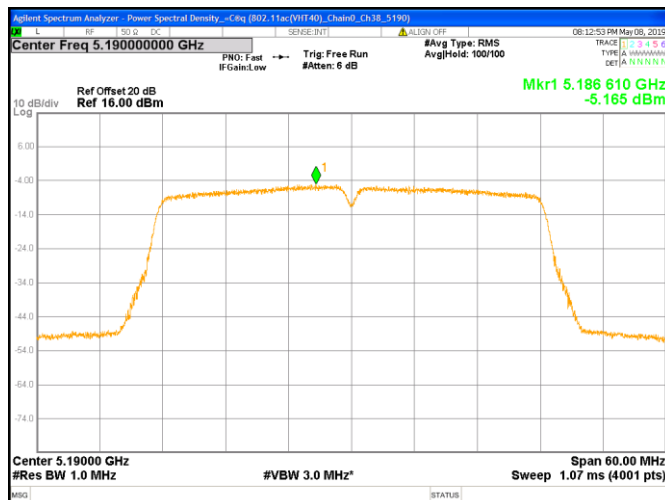
Chain1 : Power Spectral Density @ 802.11ac(VHT20) Mode Ch157



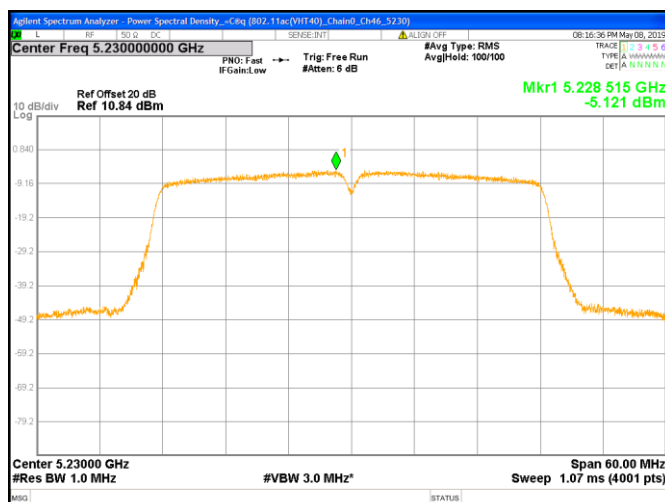
Chain1 : Power Spectral Density @ 802.11ac(VHT20) Mode Ch165



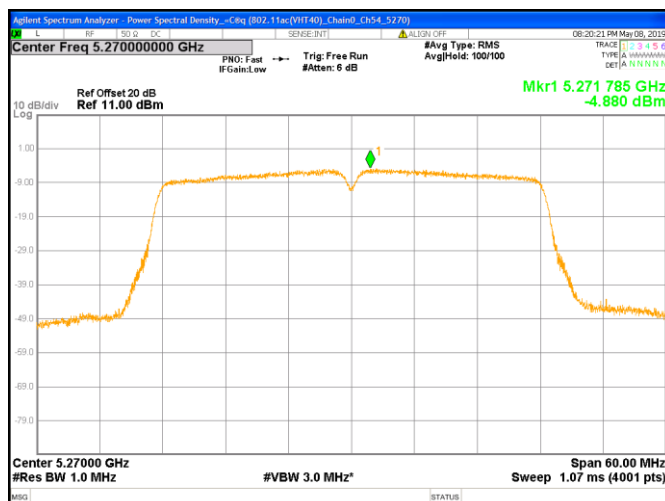
Chain0 : Power Spectral Density @ 802.11ac(VHT40) Mode Ch38



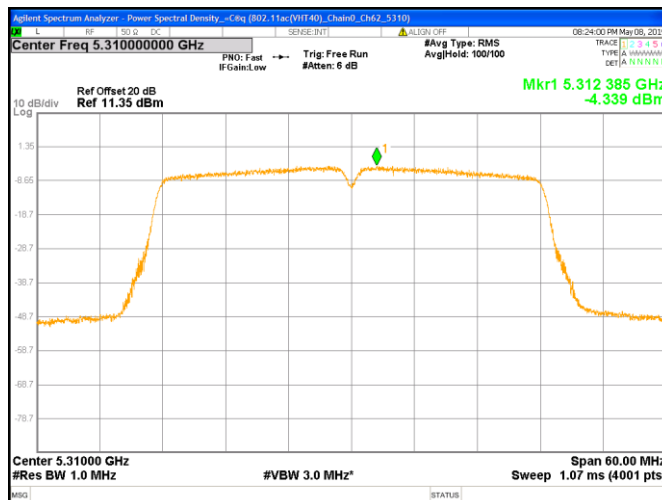
Chain0 : Power Spectral Density @ 802.11ac(VHT40) Mode Ch46



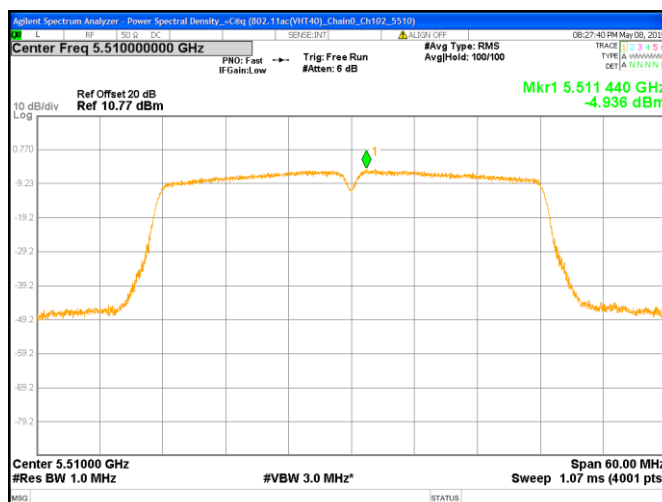
Chain0 : Power Spectral Density @ 802.11ac(VHT40) Mode Ch54



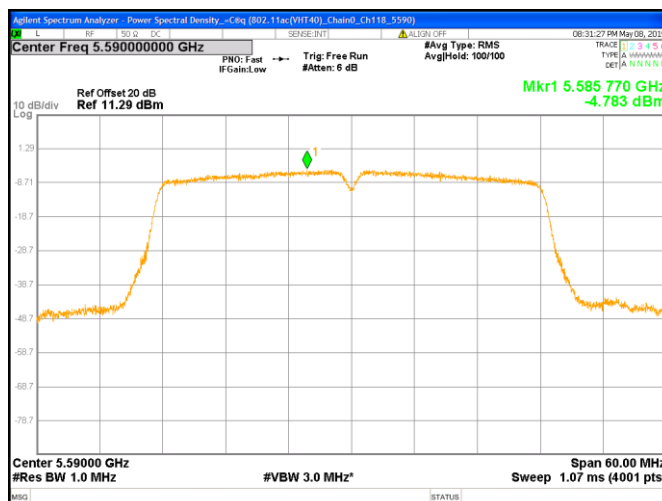
Chain0 : Power Spectral Density @ 802.11ac(VHT40) Mode Ch62



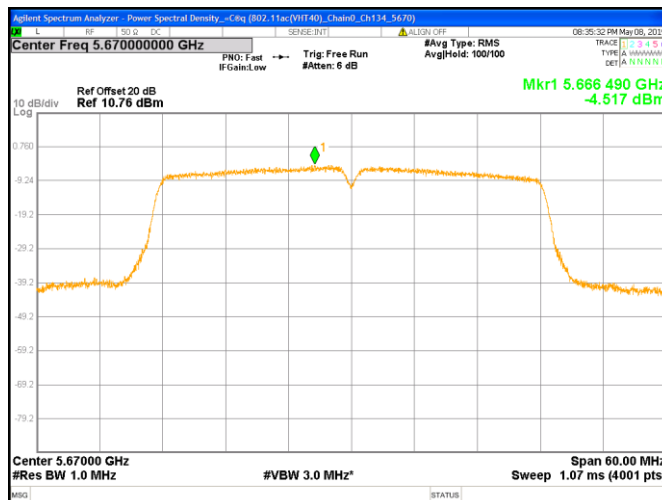
Chain0 : Power Spectral Density @ 802.11ac(VHT40) Mode Ch102



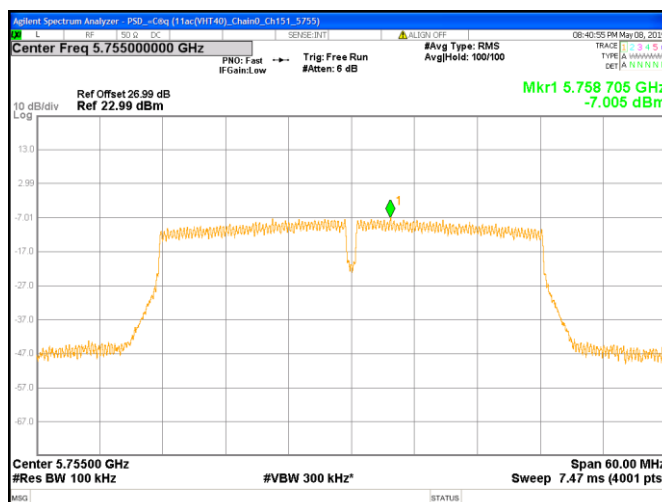
Chain0 : Power Spectral Density @ 802.11ac(VHT40) Mode Ch118



Chain0 : Power Spectral Density @ 802.11ac(VHT40) Mode Ch134



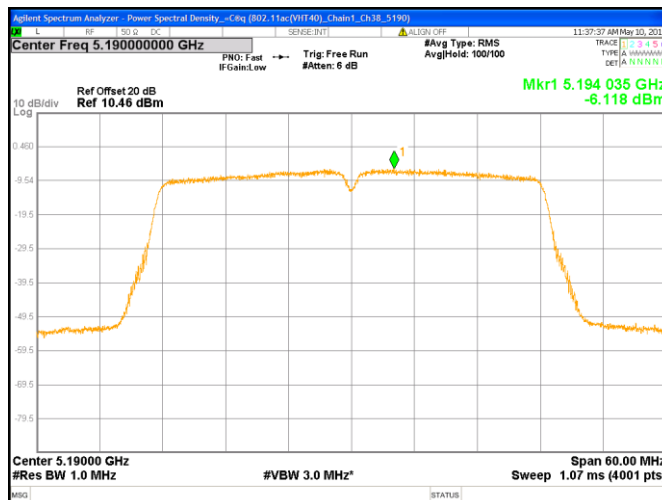
Chain0 : Power Spectral Density @ 802.11ac(VHT40) Mode Ch151



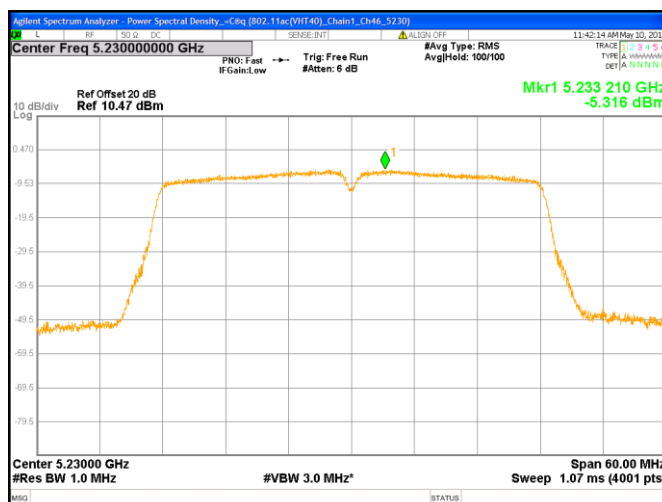
Chain0 : Power Spectral Density @ 802.11ac(VHT40) Mode Ch159



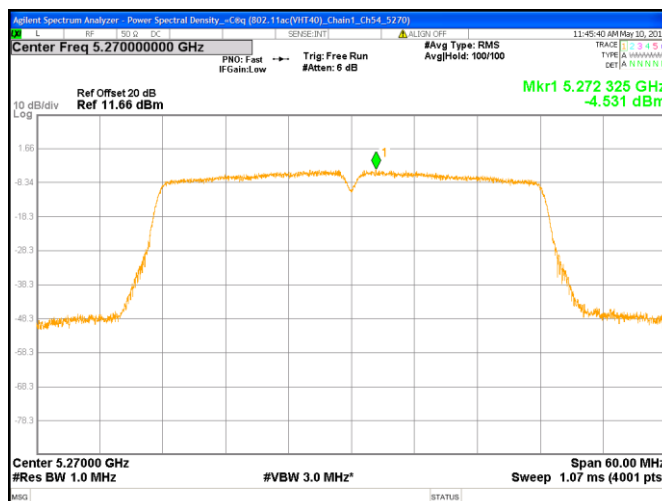
Chain1 : Power Spectral Density @ 802.11ac(VHT40) Mode Ch38



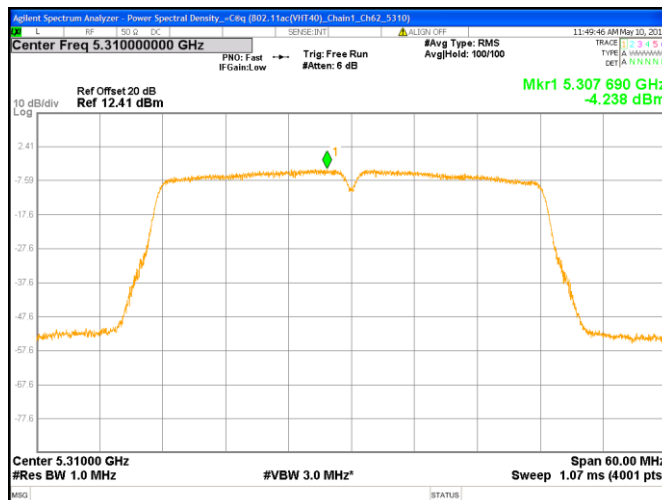
Chain1 : Power Spectral Density @ 802.11ac(VHT40) Mode Ch46



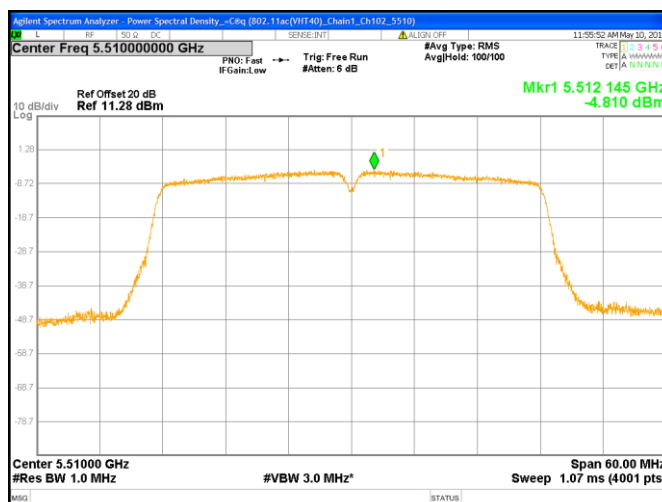
Chain1 : Power Spectral Density @ 802.11ac(VHT40) Mode Ch54



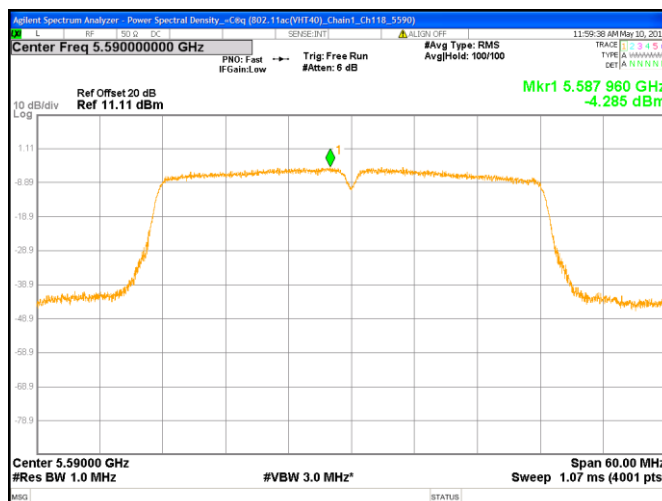
Chain1 : Power Spectral Density @ 802.11ac(VHT40) Mode Ch62



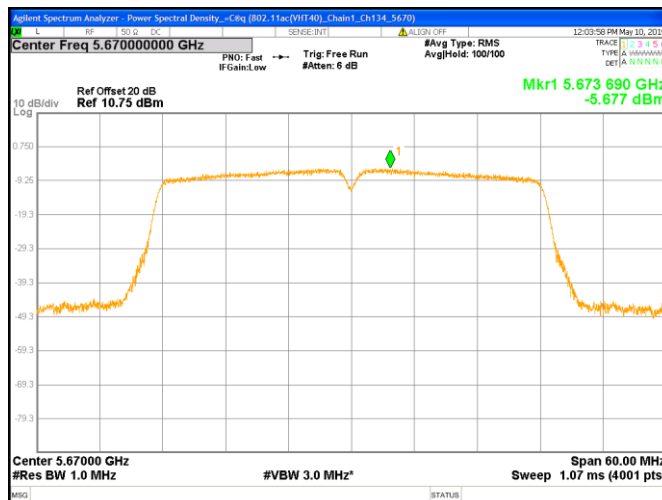
Chain1 : Power Spectral Density @ 802.11ac(VHT40) Mode Ch102



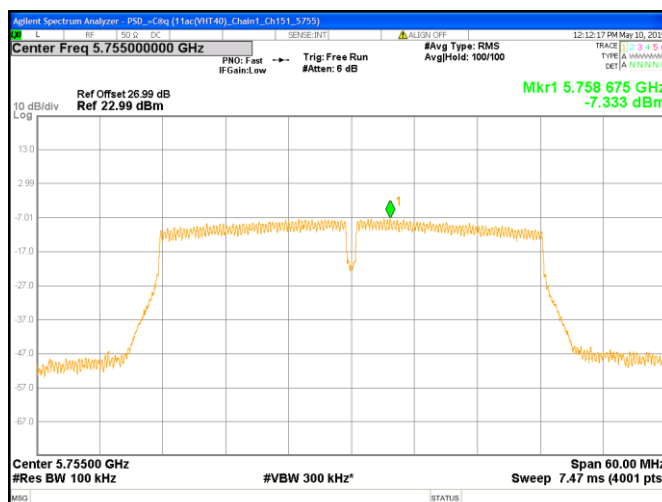
Chain1 : Power Spectral Density @ 802.11ac(VHT40) Mode Ch118



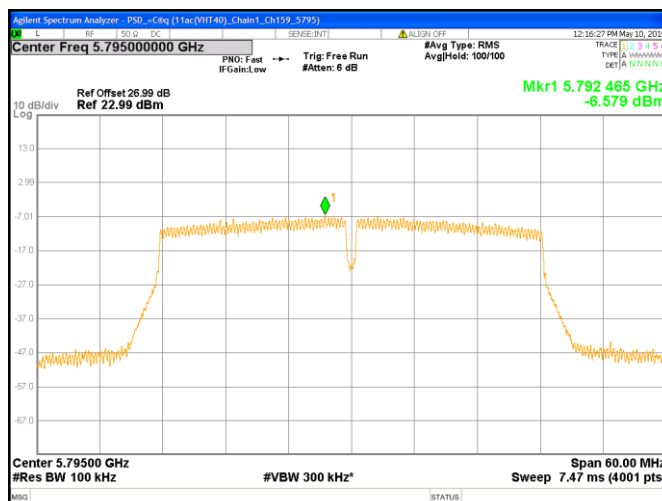
Chain1 : Power Spectral Density @ 802.11ac(VHT40) Mode Ch134



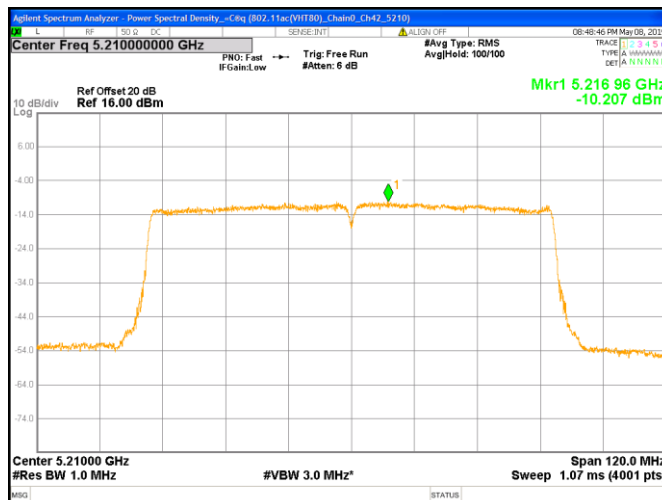
Chain1 : Power Spectral Density @ 802.11ac(VHT40) Mode Ch151



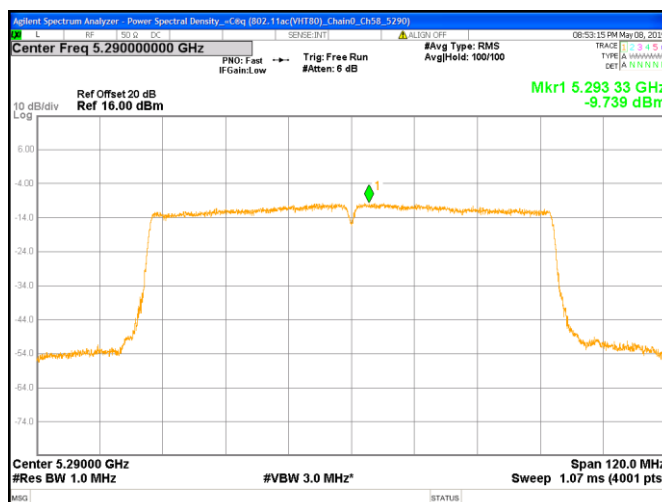
Chain1 : Power Spectral Density @ 802.11ac(VHT40) Mode Ch159



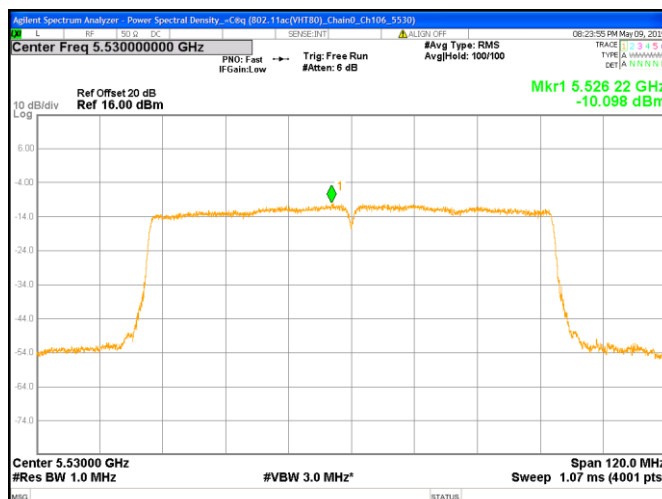
Chain0 : Power Spectral Density @ 802.11ac(VHT80) Mode Ch42



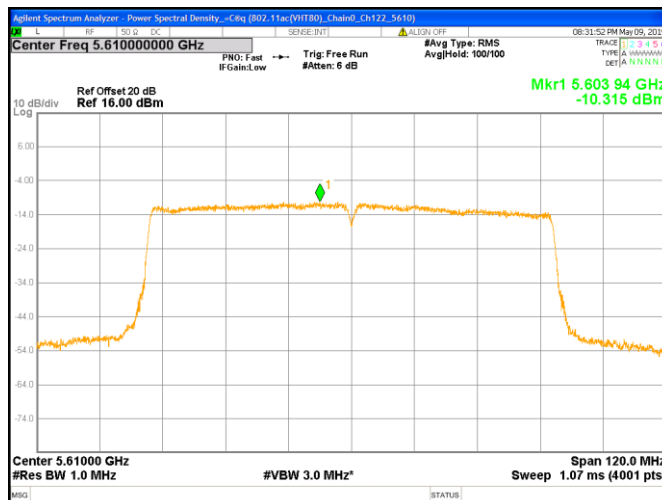
Chain0 : Power Spectral Density @ 802.11ac(VHT80) Mode Ch58



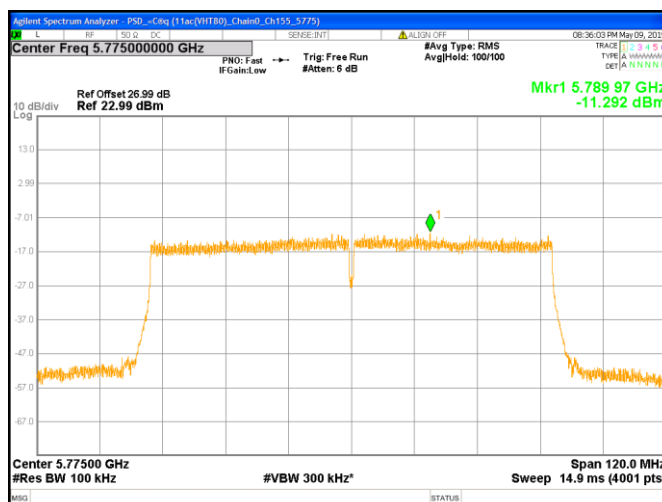
Chain0 : Power Spectral Density @ 802.11ac(VHT80) Mode Ch106



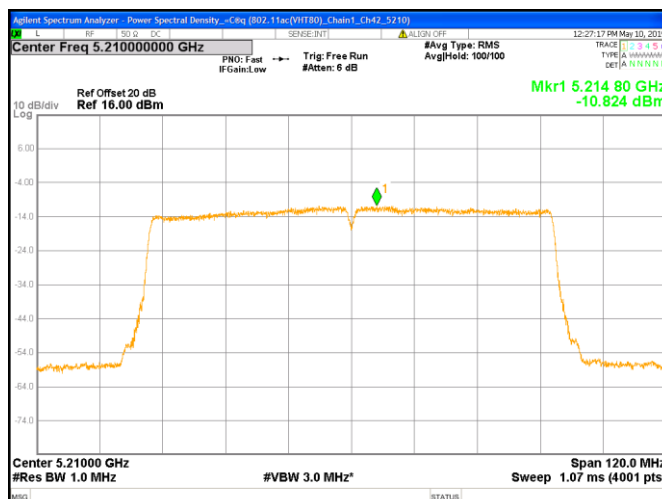
Chain0 : Power Spectral Density @ 802.11ac(VHT80) Mode Ch122



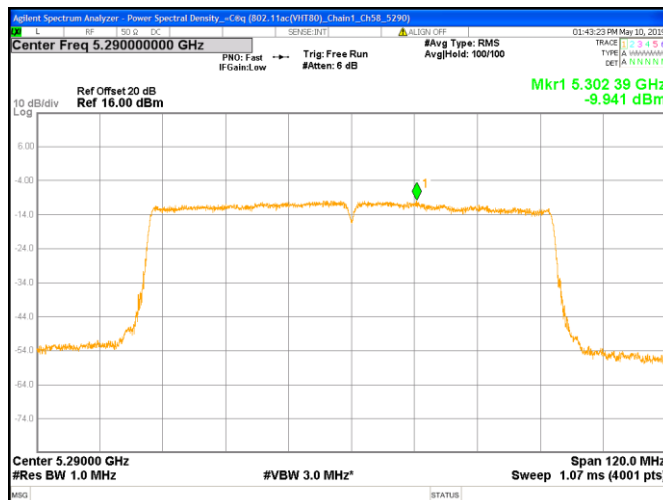
Chain0 : Power Spectral Density @ 802.11ac(VHT80) Mode Ch155



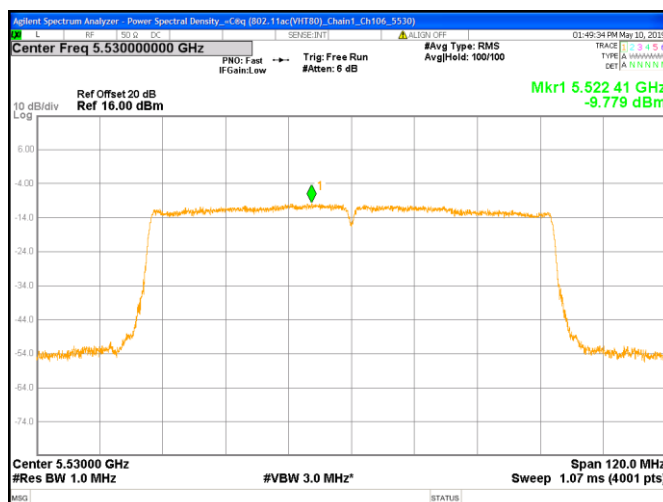
Chain1 : Power Spectral Density @ 802.11ac(VHT80) Mode Ch42



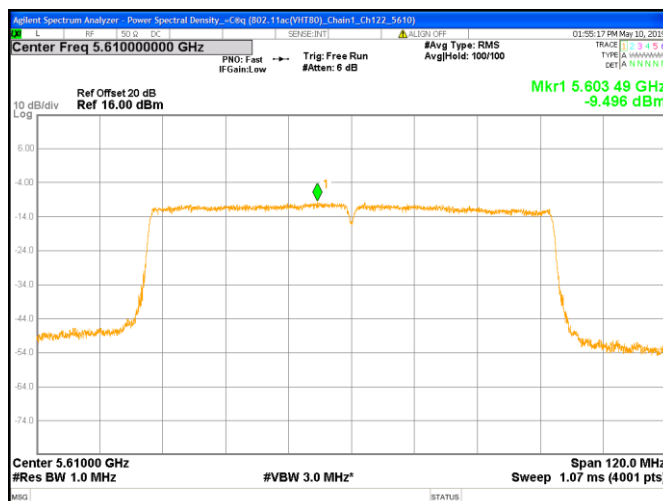
Chain1 : Power Spectral Density @ 802.11ac(VHT80) Mode Ch58



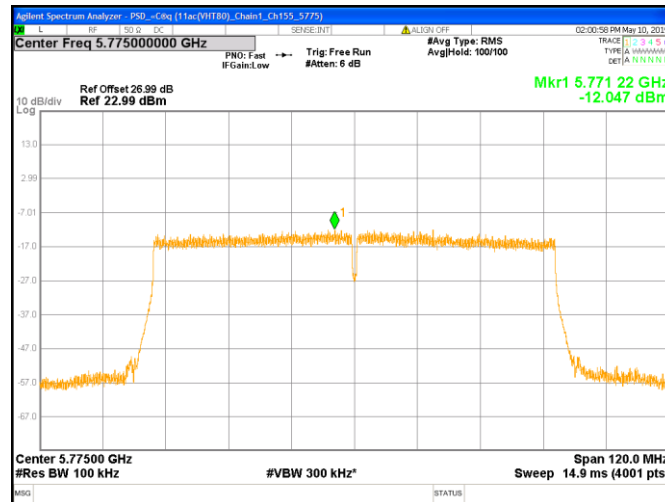
Chain1 : Power Spectral Density @ 802.11ac(VHT80) Mode Ch106



Chain1 : Power Spectral Density @ 802.11ac(VHT80) Mode Ch122



Chain1 : Power Spectral Density @ 802.11ac(VHT80) Mode Ch155



14. 不必要之發射

14.1 適用規範

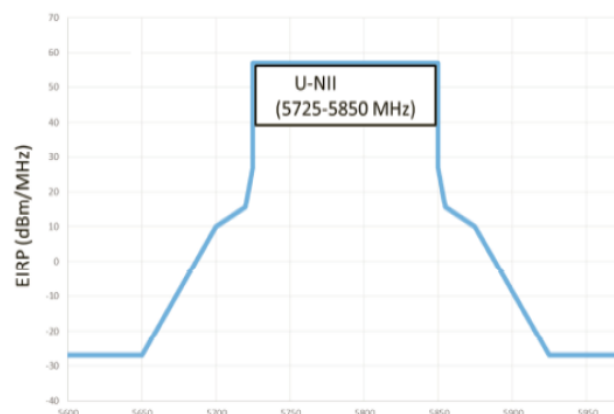
依據國家通訊傳播委員會低功率射頻電機技術規範之 4.7.4 節之要求，在操作頻帶外的峰值發射應衰減至符合下列限值：

- (1) 在 5.15-5.35GHz 及 5.47-5.725GHz 頻帶操作的發射器：

所有在 5.15-5.35GHz、5.47-5.725GHz 頻率以外的發射，其有效等向輻射功率 (EIRP) 不應超過 -27dBm/MHz。

- (2) 在 5.725-5.850GHz 頻帶操作的發射器：

所有頻帶邊緣向外 5 MHz 內頻率之發射，有效等向輻射功率(EIRP) $\leq$ 27 dBm/MHz $\sim$ 15.6 dBm/MHz (以線性法計算對應之限制值)；所有頻帶邊緣向外 5 MHz $\sim$ 25 MHz，有效等向輻射功率(EIRP) $\leq$ 15.6 dBm/MHz $\sim$ 10 dBm/MHz (以線性法計算對應之限制值)；所有頻帶邊緣外 25 MHz $\sim$ 75 MHz，有效等向輻射功率(EIRP) $\leq$ 10 dBm/MHz $\sim$ -27 dBm/MHz (以線性法計算對應之限制值)；所有頻帶邊緣外 $\geq$ 75 MHz 的頻率之發射，有效等向輻射功率(EIRP) $\leq$ -27 dBm/MHz；有關遮罩限制值詳如下圖。



- (3) 應符合標準第 2.7 及 2.8 章節的規定。