

14.2 測試方法

參考本報告第 6.2 章節

14.3 測試配置圖

參考本報告第 6.3 章節

14.4 場強度之計算

有效等向輻射功率限制值轉換場強值如下：

頻率 (MHz)	有效等向輻射功率限制值 (dBm)	相對於 3m 之場強 (dBμV/m)
Out of 5150~5350	- 27	68.2
Out of 5470~5725		
Out of 5715~5835		

備註:

有效等向輻射功率限制值轉換場強之公式如下:

$$E = \sqrt{30PG}/d$$

E: 以最寬解析頻寬所測得之最大場強值，單位:V/m。

G: 發射天線相對於全向性輻射器之數值增益。

d: 測試場強的距離，單位: m。

P: 求得之功率，單位:W。

14.5 測試結果

經本實驗室證實，待測物在 802.11n(HT20) Chain0+1 Channel 6 為 EMI 最差之模式，其測試數據請參考報告第 6.4.1 & 6.4.2 章節。

14.5.2 頻率範圍大於 1GHz

Chain0

Mode	Frequency (MHz)	Spectrum Analyzer Detector	Ant. Pol. (V/H)	Correction Factor (dB/m)	Reading (dBμV)	Corrected Reading (dBμV/m)	Limit @ 3 m (dBμV/m)	Margin (dB)
802.11a_Ch36	1440	PK	V	-7.70	42.88	35.19	74.00	-38.81
	10360	PK	V	20.22	30.76	50.97	74.00	-23.03
	15540	PK	V	24.26	23.76	48.02	74.00	-25.98
	1440	PK	H	-7.70	44.28	36.58	74.00	-37.42
	10360	PK	H	20.22	30.16	50.37	74.00	-23.63
	15540	PK	H	24.26	27.88	52.15	74.00	-21.85
802.11a_Ch44	1440	PK	V	-7.70	41.67	33.97	74.00	-40.03
	10440	PK	V	20.35	30.19	50.54	74.00	-23.46
	15660	PK	V	24.03	21.46	45.49	74.00	-28.51
	1440	PK	H	-7.70	43.33	35.64	74.00	-38.36
	10440	PK	H	20.35	30.66	51.01	74.00	-22.99
	15660	PK	H	24.03	27.85	51.88	74.00	-22.12
802.11a_Ch48	1440	PK	V	-7.70	41.43	33.73	74.00	-40.27
	10480	PK	V	20.42	30.83	51.25	74.00	-22.75
	15720	PK	V	23.92	19.00	42.91	74.00	-31.09
	1440	PK	H	-7.70	44.74	37.04	74.00	-36.96
	10480	PK	H	20.42	30.32	50.74	74.00	-23.26
	15720	PK	H	23.92	24.10	48.02	74.00	-25.98
802.11a_Ch52	1440	PK	V	-7.70	43.56	35.86	74.00	-38.14
	10520	PK	V	20.52	30.73	51.25	74.00	-22.75
	15780	PK	V	23.80	21.80	45.61	74.00	-28.39
	1440	PK	H	-7.70	43.54	35.84	74.00	-38.16
	10520	PK	H	20.52	32.20	52.73	74.00	-21.27
	15780	PK	H	23.80	19.61	43.42	74.00	-30.58
802.11a_Ch60	1440	PK	V	-7.70	41.66	33.97	74.00	-40.03
	10600	PK	V	20.82	29.87	50.69	74.00	-23.31
	1440	PK	H	-7.70	44.11	36.41	74.00	-37.59
	10600	PK	H	20.82	33.25	54.07	74.00	-19.93

Remark: Correction Factor = Antenna Factor + Cable Loss + High Pass Filter Loss(Above 6.5GHz) - Pre_Amplifier gain

Chain0

Mode	Frequency (MHz)	Spectrum Analyzer Detector	Ant. Pol. (V/H)	Correction Factor (dB/m)	Reading (dBμV)	Corrected Reading (dBμV/m)	Limit @ 3 m (dBμV/m)	Margin (dB)
802.11a_Ch64	1440	PK	V	-7.70	41.94	34.24	74.00	-39.76
	10640	PK	V	20.96	26.94	47.90	74.00	-26.10
	1440	PK	H	-7.70	44.69	36.99	74.00	-37.01
	10640	PK	H	20.96	29.87	50.84	74.00	-23.16
802.11a_Ch100	1440	PK	V	-7.70	42.31	34.62	74.00	-39.38
	11000	PK	V	22.28	28.26	50.54	74.00	-23.46
	1440	PK	H	-7.70	44.73	37.04	74.00	-36.96
	11000	PK	H	22.28	31.49	53.77	74.00	-20.23
802.11a_Ch120	1440	PK	V	-7.70	41.38	33.68	74.00	-40.32
	11200	PK	V	22.41	25.10	47.51	74.00	-26.49
	1440	PK	H	-7.70	44.43	36.73	74.00	-37.27
	11200	PK	H	22.41	30.39	52.80	74.00	-21.20
802.11a_Ch140	1440	PK	V	-7.70	42.14	34.44	74.00	-39.56
	11400	PK	V	22.53	26.37	48.90	74.00	-25.10
	1440	PK	H	-7.70	44.90	37.21	74.00	-36.79
	11400	PK	H	22.53	29.58	52.11	74.00	-21.89
802.11a_Ch149	1440	PK	V	-7.70	43.02	35.33	74.00	-38.67
	11490	PK	V	22.59	27.36	49.94	74.00	-24.06
	1440	PK	H	-7.70	44.27	36.57	74.00	-37.43
	11490	PK	H	22.59	28.56	51.14	74.00	-22.86
802.11a_Ch157	1440	PK	V	-7.70	42.47	34.78	74.00	-39.22
	11570	PK	V	22.49	26.70	49.19	74.00	-24.81
	1440	PK	H	-7.70	44.39	36.69	74.00	-37.31
	11570	PK	H	22.49	30.94	53.43	74.00	-20.57
802.11a_Ch165	1440	PK	V	-7.70	42.30	34.60	74.00	-39.40
	11650	PK	V	22.37	27.13	49.50	74.00	-24.50
	1440	PK	H	-7.70	45.00	37.30	74.00	-36.70
	11650	PK	H	22.37	30.07	52.45	74.00	-21.55

Remark: Correction Factor = Antenna Factor + Cable Loss + High Pass Filter Loss(Above 6.5GHz) - Pre_Amplifier gain

Chain1

Mode	Frequency (MHz)	Spectrum Analyzer Detector	Ant. Pol. (H/V)	Correction Factor (dB/m)	Reading (dBμV)	Corrected Reading (dBμV/m)	Limit @ 3 m (dBμV/m)	Margin (dB)
802.11a_Ch36	1440	PK	V	-7.70	41.88	34.19	74.00	-39.81
	10360	PK	V	20.22	25.33	45.54	74.00	-28.46
	1440	PK	H	-7.70	44.98	37.29	74.00	-36.71
	10360	PK	H	20.22	25.22	45.44	74.00	-28.56
802.11a_Ch44	1440	PK	V	-7.70	41.33	33.64	74.00	-40.36
	10440	PK	V	20.35	25.16	45.51	74.00	-28.49
	1440	PK	H	-7.70	44.42	36.72	74.00	-37.28
	10440	PK	H	20.35	25.56	45.92	74.00	-28.08
802.11a_Ch48	1440	PK	V	-7.70	42.23	34.54	74.00	-39.46
	10480	PK	V	20.42	25.18	45.60	74.00	-28.40
	1440	PK	H	-7.70	44.88	37.18	74.00	-36.82
	10480	PK	H	20.42	25.33	45.75	74.00	-28.25
802.11a_Ch52	1440	PK	V	-7.70	41.17	33.47	74.00	-40.53
	10520	PK	V	20.52	25.50	46.03	74.00	-27.97
	1440	PK	H	-7.70	44.21	36.51	74.00	-37.49
	10520	PK	H	20.52	25.52	46.05	74.00	-27.95
802.11a_Ch60	1440	PK	V	-7.70	40.86	33.16	74.00	-40.84
	10600	PK	V	20.82	23.99	44.80	74.00	-29.20
	1440	PK	H	-7.70	43.06	35.37	74.00	-38.63
	10600	PK	H	20.82	23.75	44.57	74.00	-29.43
802.11a_Ch64	1440	PK	V	-7.70	41.10	33.41	74.00	-40.59
	10640	PK	V	20.96	24.88	45.84	74.00	-28.16
	1440	PK	H	-7.70	42.81	35.11	74.00	-38.89
	10640	PK	H	20.96	23.81	44.78	74.00	-29.22

Remark: Correction Factor = Antenna Factor + Cable Loss + High Pass Filter Loss(Above 6.5GHz) - Pre_Amplifier gain

Chain1

Mode	Frequency (MHz)	Spectrum Analyzer Detector	Ant. Pol. (H/V)	Correction Factor (dB/m)	Reading (dBμV)	Corrected Reading (dBμV/m)	Limit @ 3 m (dBμV/m)	Margin (dB)
802.11a_Ch100	1440	PK	V	-7.70	41.10	33.40	74.00	-40.60
	11000	PK	V	22.28	25.58	47.86	74.00	-26.14
	1440	PK	H	-7.70	44.53	36.84	74.00	-37.16
	11000	PK	H	22.28	30.14	52.42	74.00	-21.58
802.11a_Ch120	1440	PK	V	-7.70	40.94	33.24	74.00	-40.76
	11200	PK	V	22.41	25.36	47.77	74.00	-26.23
	1440	PK	H	-7.70	42.38	34.69	74.00	-39.31
	11200	PK	H	22.41	30.12	52.52	74.00	-21.48
802.11a_Ch140	1440	PK	V	-7.70	41.28	33.58	74.00	-40.42
	11400	PK	V	22.53	26.26	48.79	74.00	-25.21
	1440	PK	H	-7.70	43.45	35.75	74.00	-38.25
	11400	PK	H	22.53	28.21	50.74	74.00	-23.26
802.11a_Ch149	1440	PK	V	-7.70	41.82	34.13	74.00	-39.87
	11490	PK	V	22.59	24.42	47.01	74.00	-26.99
	1440	PK	H	-7.70	43.10	35.41	74.00	-38.59
	11490	PK	H	22.59	27.72	50.31	74.00	-23.69
802.11a_Ch157	1440	PK	V	-7.70	41.06	33.37	74.00	-40.63
	11570	PK	V	22.49	24.83	47.32	74.00	-26.68
	1440	PK	H	-7.70	42.84	35.14	74.00	-38.86
	11570	PK	H	22.49	28.86	51.35	74.00	-22.65
802.11a_Ch165	1440	PK	V	-7.70	41.29	33.59	74.00	-40.41
	11650	PK	V	22.37	23.77	46.15	74.00	-27.85
	1440	PK	H	-7.70	42.35	34.65	74.00	-39.35
	11650	PK	H	22.37	31.23	53.60	74.00	-20.40

Remark: Correction Factor = Antenna Factor + Cable Loss + High Pass Filter Loss(Above 6.5GHz) - Pre_Amplifier gain

Chain0+1

Mode	Frequency (MHz)	Spectrum Analyzer Detector	Ant. Pol. (H/V)	Correction Factor (dB/m)	Reading (dBμV)	Corrected Reading (dBμV/m)	Limit @ 3 m (dBμV/m)	Margin (dB)
802.11ac(VHT20)_Ch36	1440	PK	V	-7.70	41.60	33.90	74.00	-40.10
	10360	PK	V	20.22	28.45	48.67	74.00	-25.33
	15540	PK	V	24.26	27.27	51.53	74.00	-22.47
	1440	PK	H	-7.70	42.46	34.76	74.00	-39.24
	10360	PK	H	20.22	27.19	47.40	74.00	-26.60
	15540	PK	H	24.26	29.34	53.61	74.00	-20.39
802.11ac(VHT20)_Ch44	1440	PK	V	-7.70	40.80	33.10	74.00	-40.90
	10440	PK	V	20.35	28.32	48.67	74.00	-25.33
	15660	PK	V	24.03	25.98	50.01	74.00	-23.99
	1440	PK	H	-7.70	42.89	35.20	74.00	-38.80
	10440	PK	H	20.35	28.14	48.49	74.00	-25.51
	15660	PK	H	24.03	25.65	49.68	74.00	-24.32
802.11ac(VHT20)_Ch48	1440	PK	V	-7.70	41.34	33.64	74.00	-40.36
	10480	PK	V	20.42	28.27	48.69	74.00	-25.31
	15720	PK	V	23.92	21.08	45.00	74.00	-29.00
	1440	PK	H	-7.70	43.61	35.91	74.00	-38.09
	10480	PK	H	20.42	30.43	50.85	74.00	-23.15
	15720	PK	H	23.92	20.26	44.18	74.00	-29.82
802.11ac(VHT20)_Ch52	1440	PK	V	-7.70	40.80	33.11	74.00	-40.89
	10520	PK	V	20.52	28.54	49.06	74.00	-24.94
	15780	PK	V	23.80	21.18	44.98	74.00	-29.02
	1440	PK	H	-7.70	42.92	35.23	74.00	-38.77
	10520	PK	H	20.52	30.16	50.68	74.00	-23.32
	15780	PK	H	23.80	22.99	46.79	74.00	-27.21
802.11ac(VHT20)_Ch60	1440	PK	V	-7.70	41.14	33.44	74.00	-40.56
	10600	PK	V	20.82	25.36	46.18	74.00	-27.82
	1440	PK	H	-7.70	43.44	35.75	74.00	-38.25
	10600	PK	H	20.82	30.42	51.24	74.00	-22.76
802.11ac(VHT20)_Ch64	1440	PK	V	-7.70	40.50	32.81	74.00	-41.19
	10640	PK	V	20.96	25.69	46.65	74.00	-27.35
	1440	PK	H	-7.70	42.61	34.91	74.00	-39.09
	10640	PK	H	20.96	27.77	48.73	74.00	-25.27

Remark: Correction Factor = Antenna Factor + Cable Loss + High Pass Filter Loss(Above 6.5GHz) - Pre_Amplifier gain

Chain0+1

Mode	Frequency (MHz)	Spectrum Analyzer Detector	Ant. Pol. (H/V)	Correction Factor (dB/m)	Reading (dBμV)	Corrected Reading (dBμV/m)	Limit @ 3 m (dBμV/m)	Margin (dB)
802.11ac(VHT20)_Ch100	1440	PK	V	-7.70	40.65	32.95	74.00	-41.05
	11000	PK	V	22.28	27.86	50.14	74.00	-23.86
	1440	PK	H	-7.70	44.46	36.76	74.00	-37.24
	11000	PK	H	22.28	31.29	53.57	74.00	-20.43
802.11ac(VHT20)_Ch120	1440	PK	V	-7.70	41.23	33.53	74.00	-40.47
	11200	PK	V	22.41	24.85	47.26	74.00	-26.74
	1440	PK	H	-7.70	42.84	35.14	74.00	-38.86
	11200	PK	H	22.41	30.53	52.93	74.00	-21.07
802.11ac(VHT20)_Ch140	1440	PK	V	-7.70	41.27	33.57	74.00	-40.43
	11400	PK	V	22.53	27.90	50.43	74.00	-23.57
	1440	PK	H	-7.70	43.58	35.88	74.00	-38.12
	11400	PK	H	22.53	28.16	50.69	74.00	-23.31
802.11ac(VHT20)_Ch149	1440	PK	V	-7.70	40.10	32.41	74.00	-41.59
	11490	PK	V	22.59	26.99	49.58	74.00	-24.42
	1440	PK	H	-7.70	43.92	36.22	74.00	-37.78
	11490	PK	H	22.59	27.87	50.46	74.00	-23.54
802.11ac(VHT20)_Ch157	1440	PK	V	-7.70	41.11	33.41	74.00	-40.59
	11570	PK	V	22.49	27.51	50.00	74.00	-24.00
	1440	PK	H	-7.70	43.24	35.54	74.00	-38.46
	11570	PK	H	22.49	29.00	51.50	74.00	-22.50
802.11ac(VHT20)_Ch165	1440	PK	V	-7.70	39.99	32.30	74.00	-41.70
	11650	PK	V	22.37	25.81	48.18	74.00	-25.82
	1440	PK	H	-7.70	43.53	35.83	74.00	-38.17
	11650	PK	H	22.37	31.06	53.43	74.00	-20.57

Remark: Correction Factor = Antenna Factor + Cable Loss + High Pass Filter Loss(Above 6.5GHz) - Pre_Amplifier Gain

Chain0+1

Mode	Frequency (MHz)	Spectrum Analyzer Detector	Ant. Pol. (H/V)	Correction Factor (dB/m)	Reading (dBμV)	Corrected Reading (dBμV/m)	Limit @ 3 m (dBμV/m)	Margin (dB)
802.11ac(VHT40)_Ch38	1440	PK	V	-7.70	40.82	33.12	74.00	-40.88
	10380	PK	V	20.25	29.26	49.51	74.00	-24.49
	15570	PK	V	24.21	24.11	48.32	74.00	-25.68
	1440	PK	H	-7.70	43.50	35.81	74.00	-38.19
	10380	PK	H	20.25	27.03	47.28	74.00	-26.72
	15570	PK	H	24.21	27.73	51.93	74.00	-22.07
802.11ac(VHT40)_Ch46	1440	PK	V	-7.70	40.11	32.42	74.00	-41.58
	10460	PK	V	20.38	27.42	47.81	74.00	-26.19
	15690	PK	V	23.97	19.27	43.24	74.00	-30.76
	1440	PK	H	-7.70	43.08	35.38	74.00	-38.62
	10460	PK	H	20.38	27.55	47.93	74.00	-26.07
	15690	PK	H	23.97	19.08	43.05	74.00	-30.95
802.11ac(VHT40)_Ch54	1440	PK	V	-7.70	42.52	34.82	74.00	-39.18
	10540	PK	V	20.60	26.13	46.73	74.00	-27.27
	1440	PK	H	-7.70	44.98	37.28	74.00	-36.72
	10540	PK	H	20.60	26.46	47.06	74.00	-26.94
802.11ac(VHT40)_Ch62	1440	PK	V	-7.70	41.98	34.28	74.00	-39.72
	10620	PK	V	20.89	27.56	48.45	74.00	-25.55
	1440	PK	H	-7.70	45.24	37.54	74.00	-36.46
	10620	PK	H	20.89	27.90	48.79	74.00	-25.21
802.11ac(VHT40)_Ch102	1440	PK	V	-7.70	41.90	34.20	74.00	-39.80
	11020	PK	V	22.29	27.19	49.49	74.00	-24.51
	1440	PK	H	-7.70	44.89	37.20	74.00	-36.80
	11020	PK	H	22.29	28.45	50.75	74.00	-23.25
802.11ac(VHT40)_Ch118	1440	PK	V	-7.70	41.86	34.16	74.00	-39.84
	11180	PK	V	22.39	25.97	48.36	74.00	-25.64
	1440	PK	H	-7.70	44.33	36.64	74.00	-37.36
	11180	PK	H	22.39	28.99	51.38	74.00	-22.62
802.11ac(VHT40)_Ch134	1440	PK	V	-7.70	41.50	33.81	74.00	-40.19
	11340	PK	V	22.49	26.43	48.93	74.00	-25.07
	1440	PK	H	-7.70	45.53	37.83	74.00	-36.17
	11340	PK	H	22.49	28.89	51.39	74.00	-22.61
802.11ac(VHT40)_Ch151	1440	PK	V	-7.70	42.66	34.96	74.00	-39.04
	11510	PK	V	22.58	25.61	48.19	74.00	-25.81
	1440	PK	H	-7.70	46.38	38.68	74.00	-35.32
	11510	PK	H	22.58	26.99	49.57	74.00	-24.43

Remark: Correction Factor = Antenna Factor + Cable Loss + High Pass Filter Loss(Above 6.5GHz) - Pre_Amplifier Gain

Chain0+1

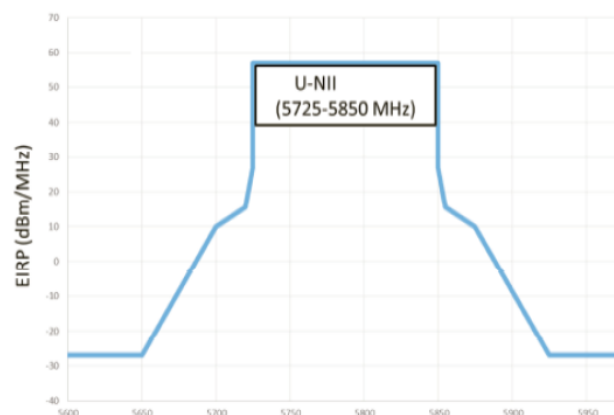
Mode	Frequency (MHz)	Spectrum Analyzer Detector	Ant. Pol. (H/V)	Correction Factor (dB/m)	Reading (dBμV)	Corrected Reading (dBμV/m)	Limit @ 3 m (dBμV/m)	Margin (dB)
802.11ac(VHT80)_Ch42	1440	PK	V	-7.70	41.45	33.75	74.00	-40.25
	10420	PK	V	20.32	25.80	46.12	74.00	-27.88
	1440	PK	H	-7.70	45.31	37.61	74.00	-36.39
	10420	PK	H	20.32	25.42	45.73	74.00	-28.27
802.11ac(VHT80)_Ch58	1440	PK	V	-7.70	41.72	34.03	74.00	-39.97
	10580	PK	V	20.74	25.03	45.77	74.00	-28.23
	1440	PK	H	-7.70	45.20	37.50	74.00	-36.50
	10580	PK	H	20.74	25.28	46.02	74.00	-27.98
802.11ac(VHT80)_Ch106	1440	PK	V	-7.70	41.73	34.03	74.00	-39.97
	11060	PK	V	22.32	24.63	46.95	74.00	-27.05
	1440	PK	H	-7.70	44.28	36.59	74.00	-37.41
	11060	PK	H	22.32	26.50	48.82	74.00	-25.18
802.11ac(VHT80)_Ch122	1440	PK	V	-7.70	41.81	34.11	74.00	-39.89
	11220	PK	V	22.42	24.19	46.61	74.00	-27.39
	1440	PK	H	-7.70	45.44	37.75	74.00	-36.25
	11220	PK	H	22.42	24.88	47.30	74.00	-26.70
802.11ac(VHT80)_Ch155	1440	PK	V	-7.70	41.35	33.66	74.00	-40.34
	11550	PK	V	22.52	24.99	47.51	74.00	-26.49
	1440	PK	H	-7.70	46.16	38.46	74.00	-35.54
	11550	PK	H	22.52	24.95	47.47	74.00	-26.53

Remark: Correction Factor = Antenna Factor + Cable Loss + High Pass Filter Loss(Above 6.5GHz) - Pre_Amplifier Gain

15. 頻帶邊緣測試

15.1 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 4.7.4.6 之規定，落於第 2.7 節禁用頻段之輻射發射，應符合第 2.8 節之規定。依據國家通訊傳播委員會低功率射頻電機技術規範 4.7.4.2 之規定，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 ~ 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 ~ 25 MHz，有效等向輻射功率(EIRP) $\leq$ 15.6 dBm/MHz ~ 10 dBm/MHz (以線性法計算對應之限制值)；所有頻帶邊緣外 25 MHz ~ 75 MHz，有效等向輻射功率(EIRP) $\leq$ 10 dBm/MHz ~ -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。



15.2 場強度之計算

有效等向輻射功率限制值轉換場強值如下：

頻率 (MHz)	有效等向輻射功率限制值 (dBm)	相對於 3m 之場強 (dBμV/m)
5715~5725 and 5825~5835	-27	68.2

備註:

有效等向輻射功率限制值轉換場強之公式如下:

$$E = \sqrt{30PG}/d$$

E: 以最寬解析頻寬所測得之最大場強值，單位:V/m。

G: 發射天線相對於全向性輻射器之數值增益。

d: 測試場強的距離，單位: m。

P: 求得之功率，單位:W。

15.3 量測儀器

參考本報告第 9.2 章節

15.4 測試配置圖

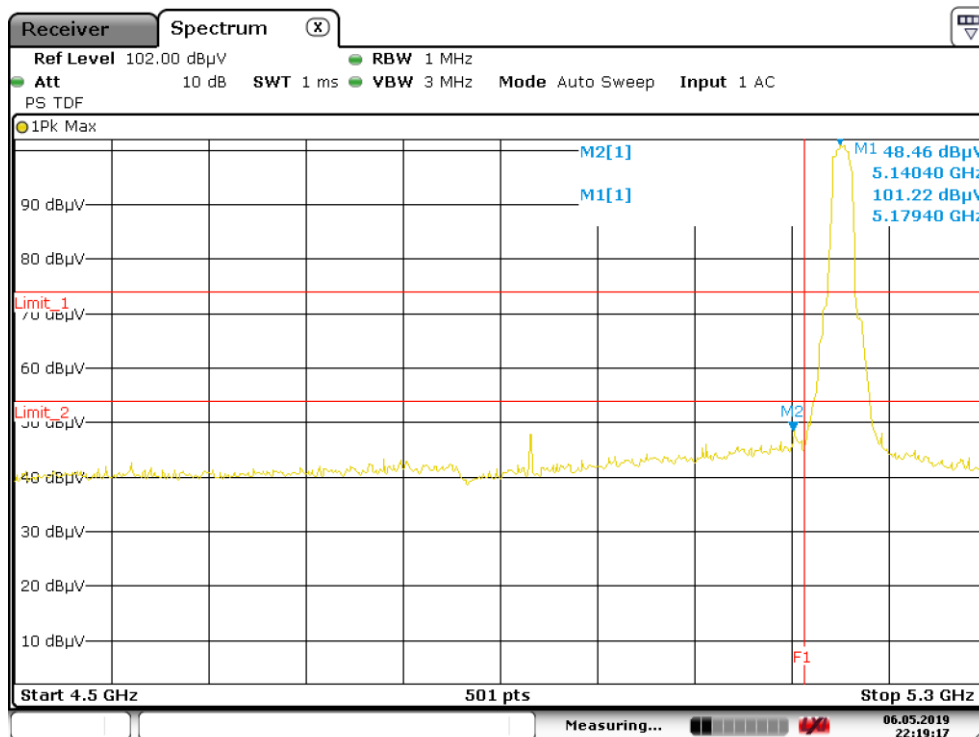
參考本報告第 9.3 章節

15.5 測試結果

Mode	Frequency (MHz)	Spectrum Analyzer Detector	Ant. Pol. (H/V)	Correction Factor (dB/m)	Reading (dBμV)	Corrected Reading (dBμV/m)	Limit @ 3 m (dBμV/m)	Margin (dB)	Restricted band (MHz)
802.11a Chain0	5140.40	PK	V	6.04	42.42	48.46	74	-25.54	4500~5150
	5137.20	AV	V	6.04	30.45	36.49	54	-17.51	
	5302.59	PK	V	6.23	38.96	45.19	74	-28.81	5350~5460
	5307.78	AV	V	6.23	27.59	33.82	54	-20.18	
802.11a Chain1	5148.40	PK	V	6.05	45.17	51.22	74	-22.78	4500~5150
	5150.00	AV	V	6.05	29.59	35.64	54	-18.36	
	5316.09	PK	V	6.24	37.95	44.19	74	-29.81	5350~5460
	5302.08	AV	V	6.23	26.49	32.72	54	-21.28	
802.11ac (VHT20) Chain0+1	4880.80	PK	V	5.44	51.90	57.34	74	-16.66	4500~5150
	5150.00	AV	V	6.05	30.78	36.83	54	-17.17	
	5379.58	PK	V	6.32	37.24	43.56	74	-30.44	5350~5460
	5351.56	AV	V	6.28	24.02	30.30	54	-23.70	
802.11ac (VHT40) Chain0+1	5148.40	PK	V	6.05	55.04	61.09	74	-12.91	4500~5150
	5150.00	AV	V	6.05	35.30	41.35	54	-12.65	
	5359.60	PK	V	6.29	36.48	42.77	74	-31.23	5350~5460
	5352.18	AV	V	6.29	23.37	29.66	54	-24.34	
802.11ac (VHT80) Chain0+1	5123.70	PK	V	6.02	49.47	55.49	74	-18.51	4500~5150
	5150.00	AV	V	6.05	44.80	50.85	54	-3.15	
	5350.00	PK	V	6.28	41.76	48.04	74	-25.96	5350~5460
	5350.00	AV	V	6.28	27.13	33.41	54	-20.59	

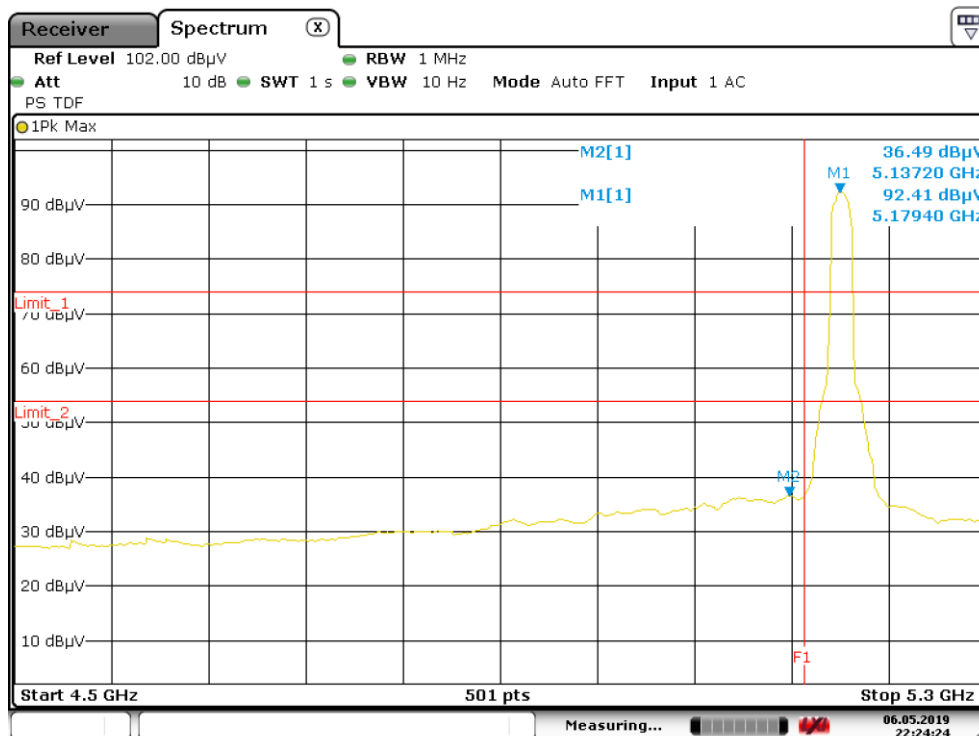
Remark: Correction Factor = Antenna Factor + Cable Loss - Pre_Amplifier Gain

Chain0 : Restricted Band Bandedge @ 802.11a Mode Ch36 PK



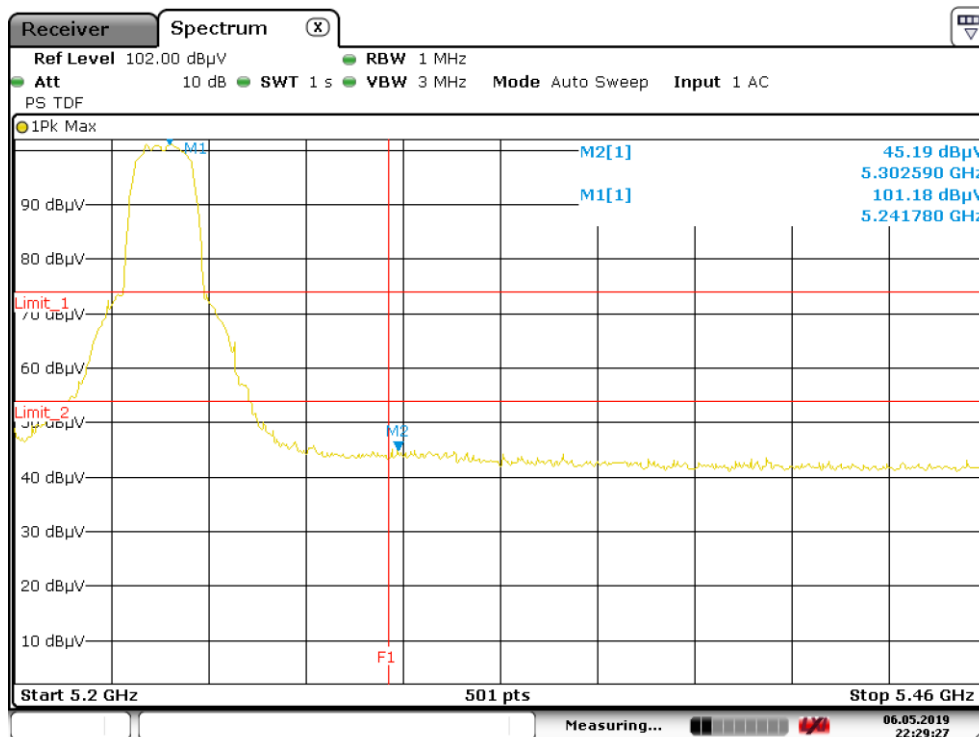
Date: 6.MAY.2019 22:19:17

Chain0 : Restricted Band Bandedge @ 802.11a Mode Ch36 AV



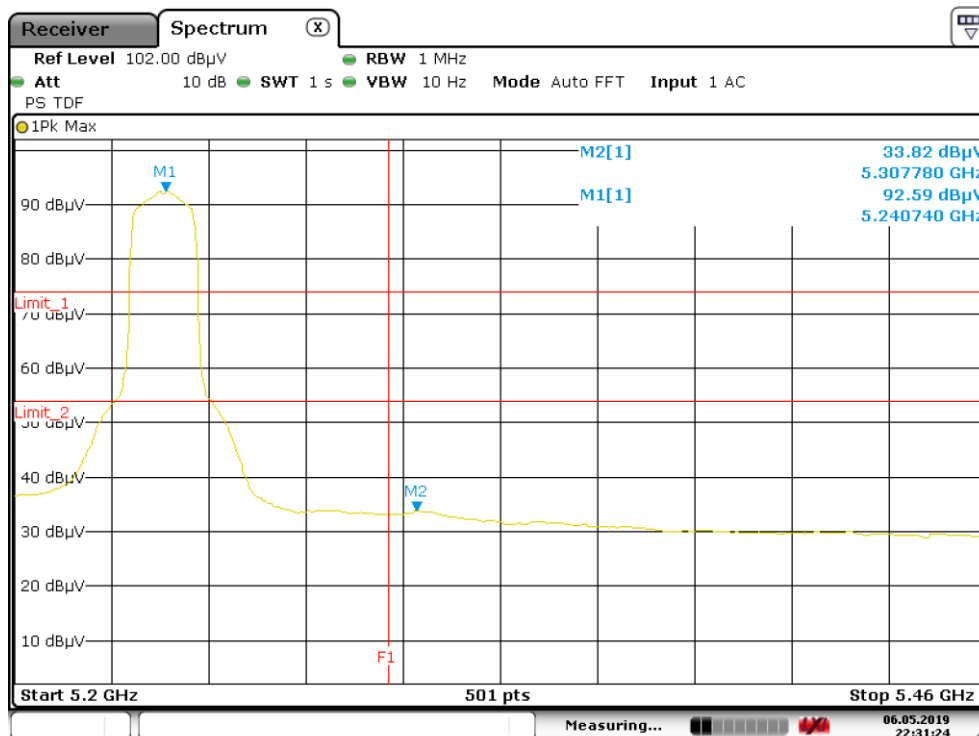
Date: 6.MAY.2019 22:24:25

Chain0 : Restricted Band Bandedge @ 802.11a Mode Ch48 PK



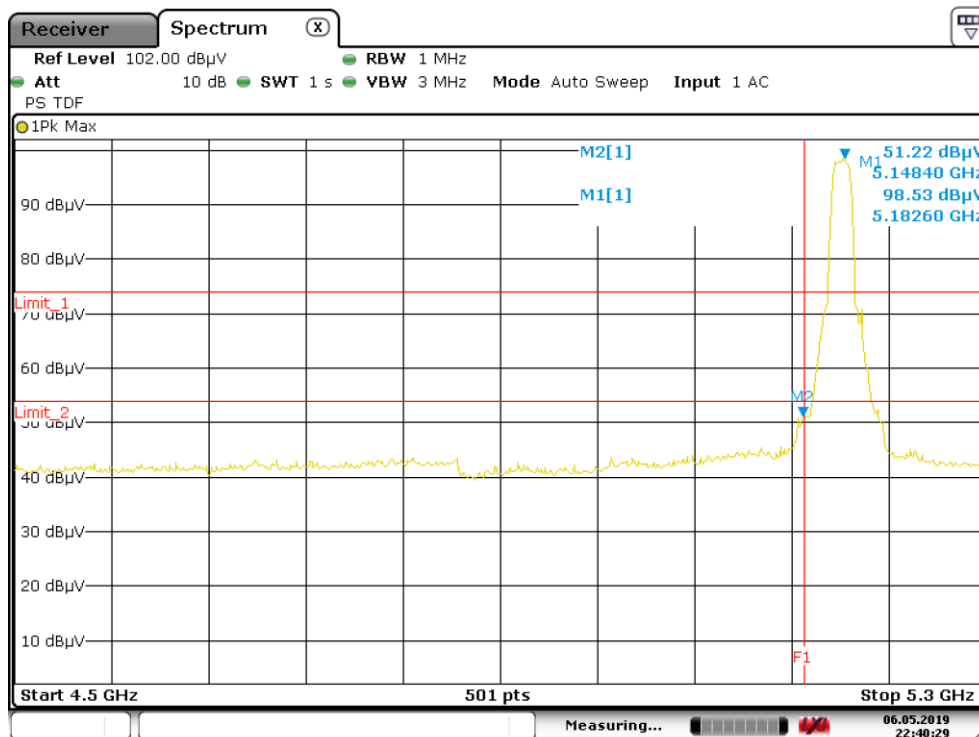
Date: 6.MAY.2019 22:29:27

Chain0 : Restricted Band Bandedge @ 802.11a Mode Ch48 AV



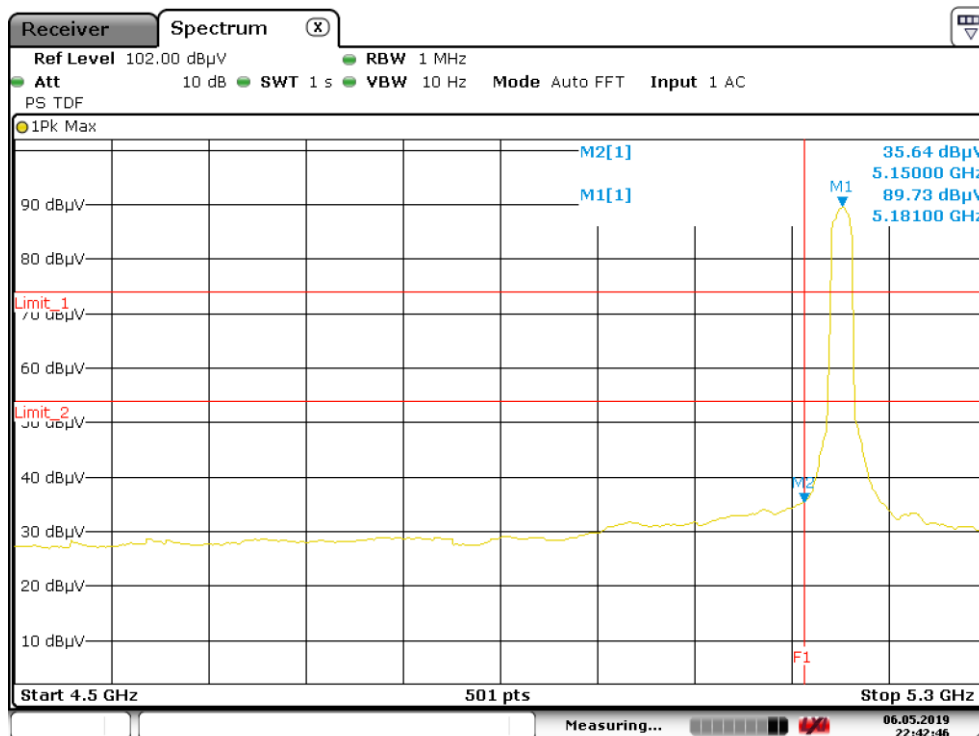
Date: 6.MAY.2019 22:31:25

Chain1 : Restricted Band Bandedge @ 802.11a Mode Ch36 PK



Date: 6.MAY.2019 22:40:30

Chain1 : Restricted Band Bandedge @ 802.11a Mode Ch36 AV

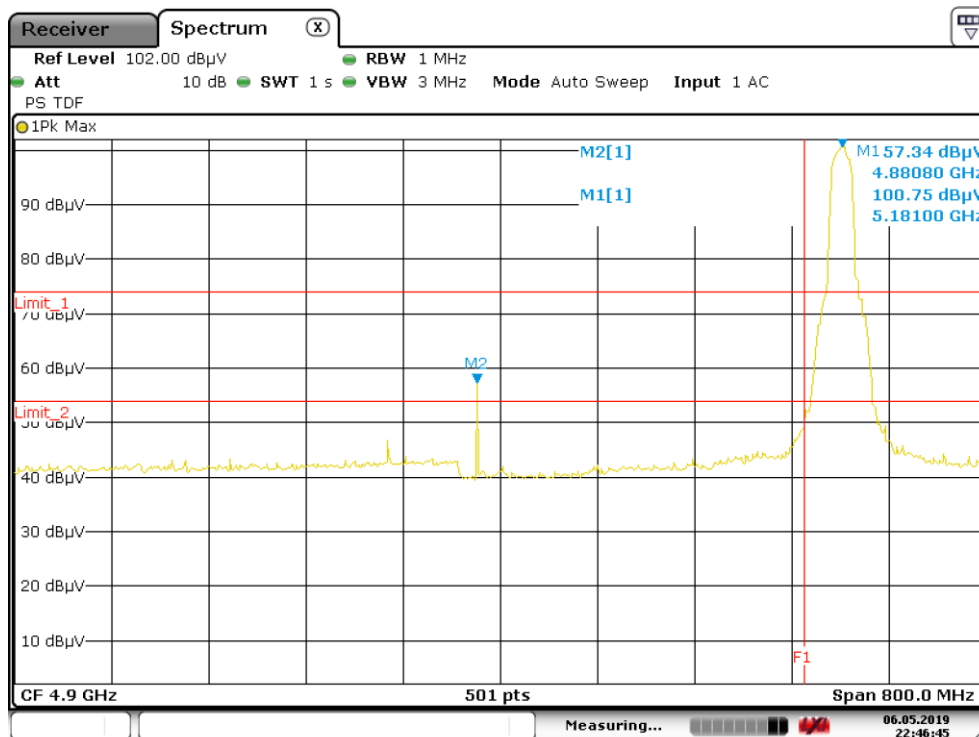


Date: 6.MAY.2019 22:42:47

Date: 6.MAY.2019 22:34:05

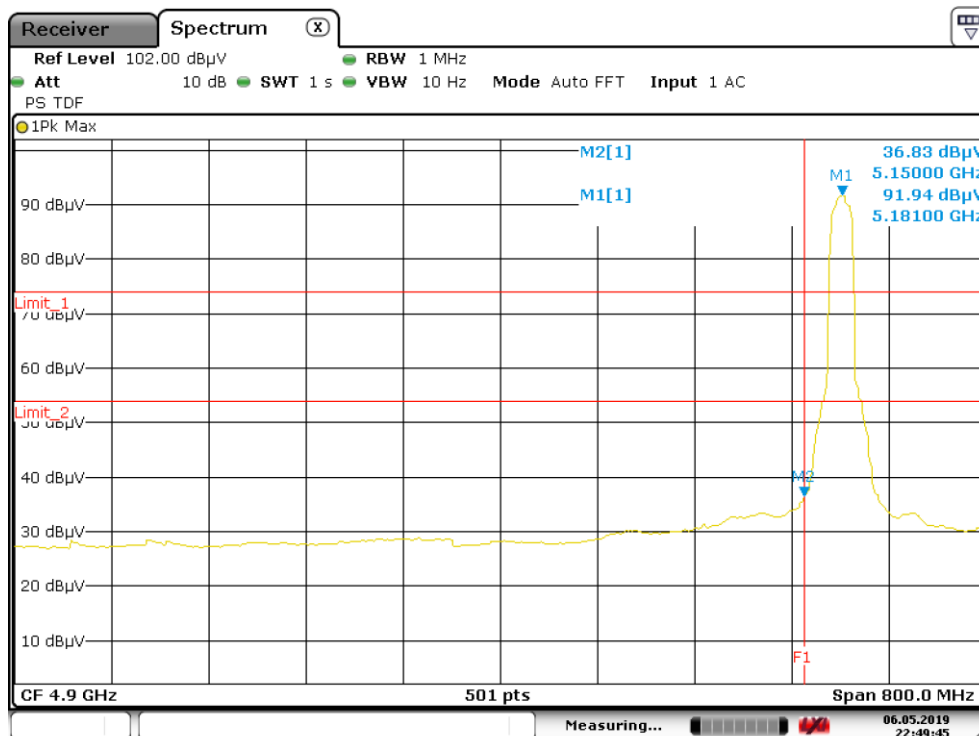
Date: 6.MAY.2019 22:36:36

Chain0+1 : Restricted Band Bandedge @ 802.11ac(VHT20) Mode Ch36 PK



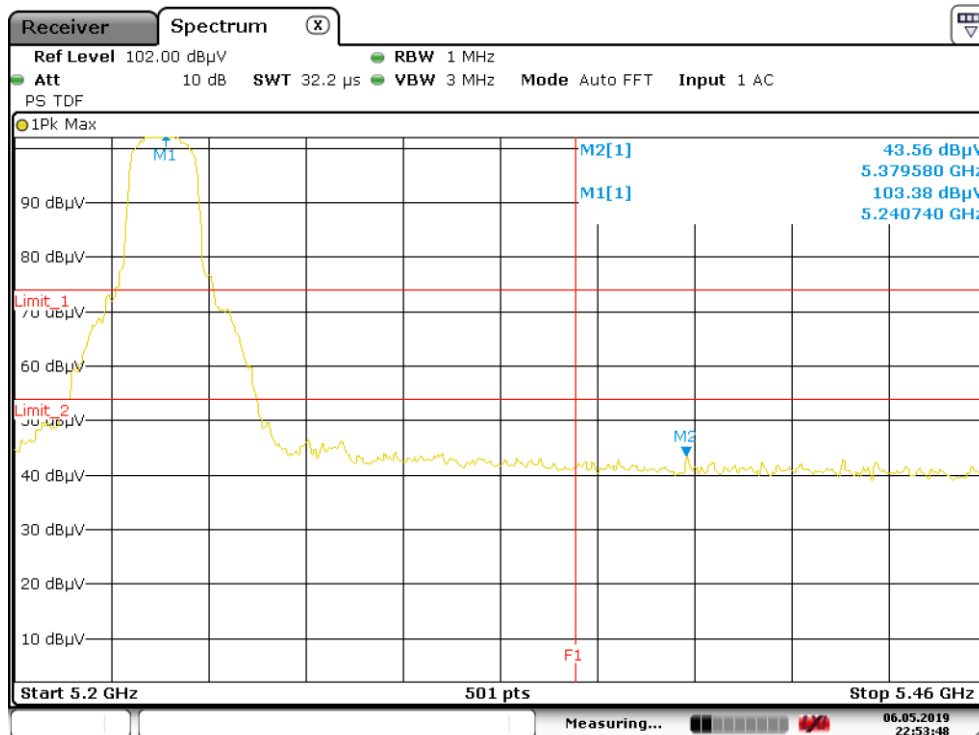
Date: 6.MAY.2019 22:46:46

Chain0+1 : Restricted Band Bandedge @ 802.11ac(VHT20) Mode Ch36 AV



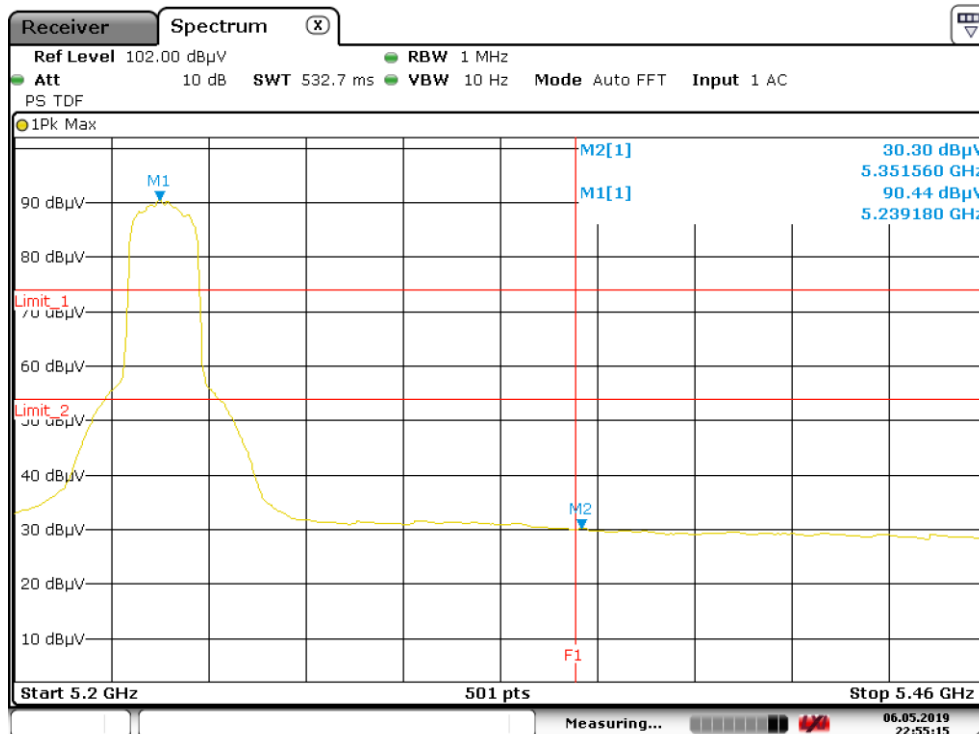
Date: 6.MAY.2019 22:49:46

Chain0+1 : Restricted Band Bandedge @ 802.11ac(VHT20) Mode Ch48 PK



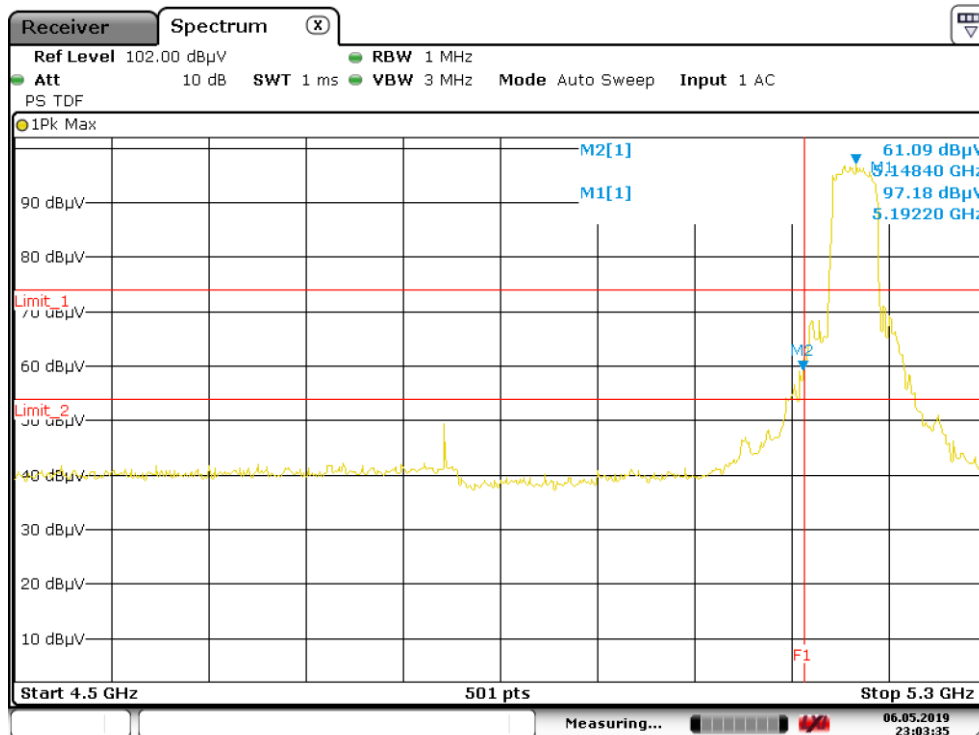
Date: 6.MAY.2019 22:53:48

Chain0+1 : Restricted Band Bandedge @ 802.11ac(VHT20) Mode Ch48 AV



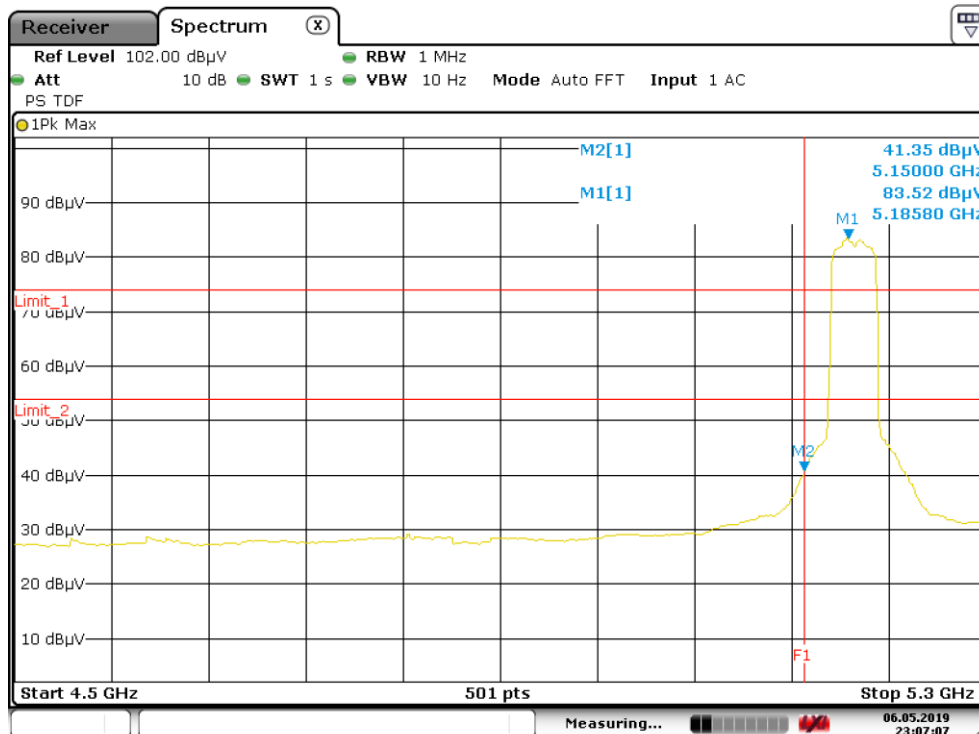
Date: 6.MAY.2019 22:55:15

Chain0+1 : Restricted Band Bandedge @ 802.11ac(VHT40) Mode Ch38 PK



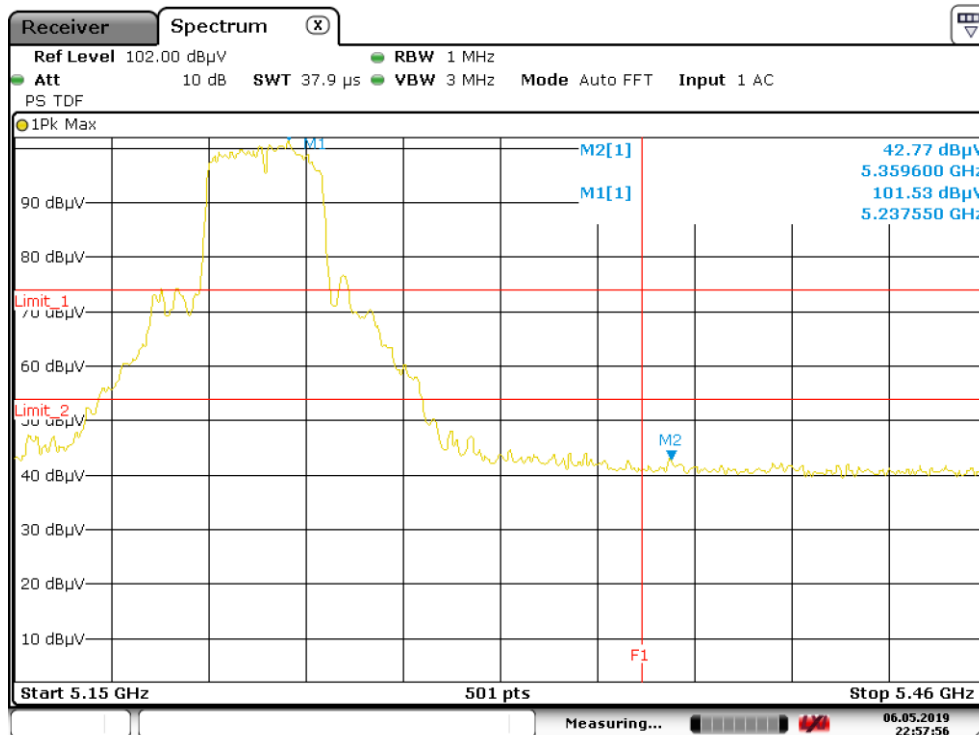
Date: 6.MAY.2019 23:03:36

Chain0+1 : Restricted Band Bandedge @ 802.11ac(VHT40) Mode Ch38 AV



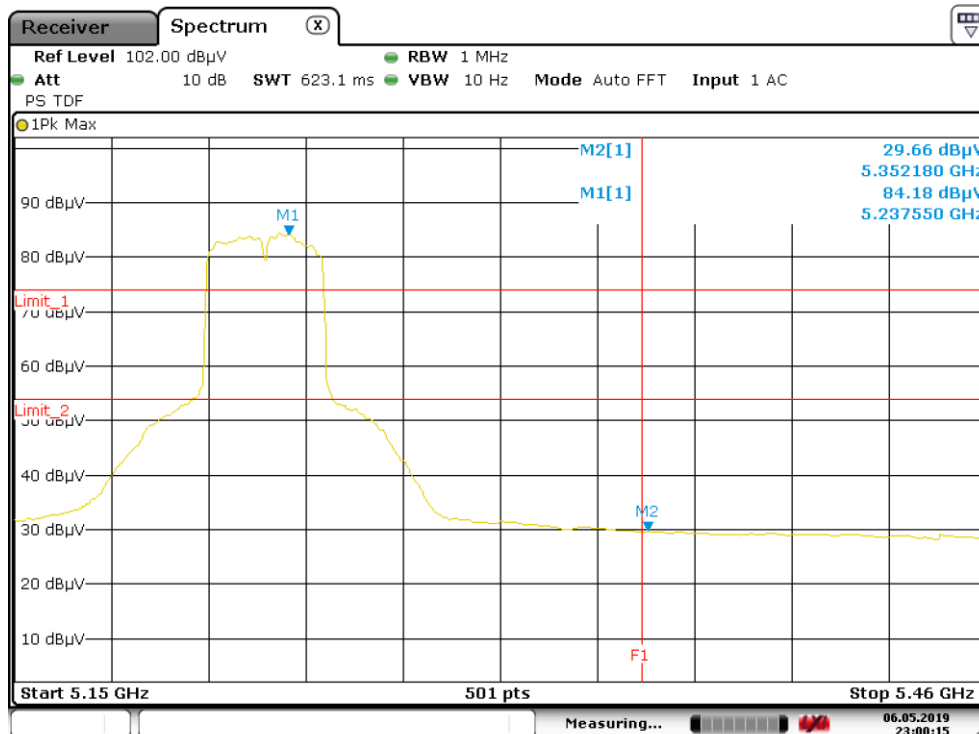
Date: 6.MAY.2019 23:07:08

Chain0+1 : Restricted Band Bandedge @ 802.11ac(VHT40) Mode Ch46 PK



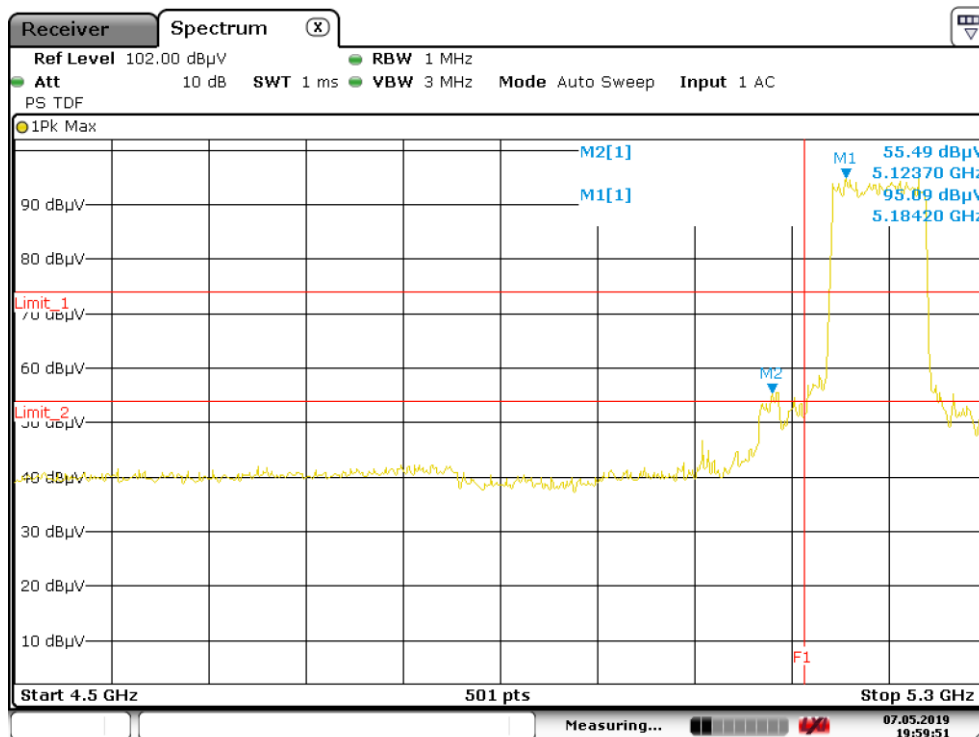
Date: 6.MAY.2019 22:57:57

Chain0+1 : Restricted Band Bandedge @ 802.11ac(VHT40) Mode Ch46 AV



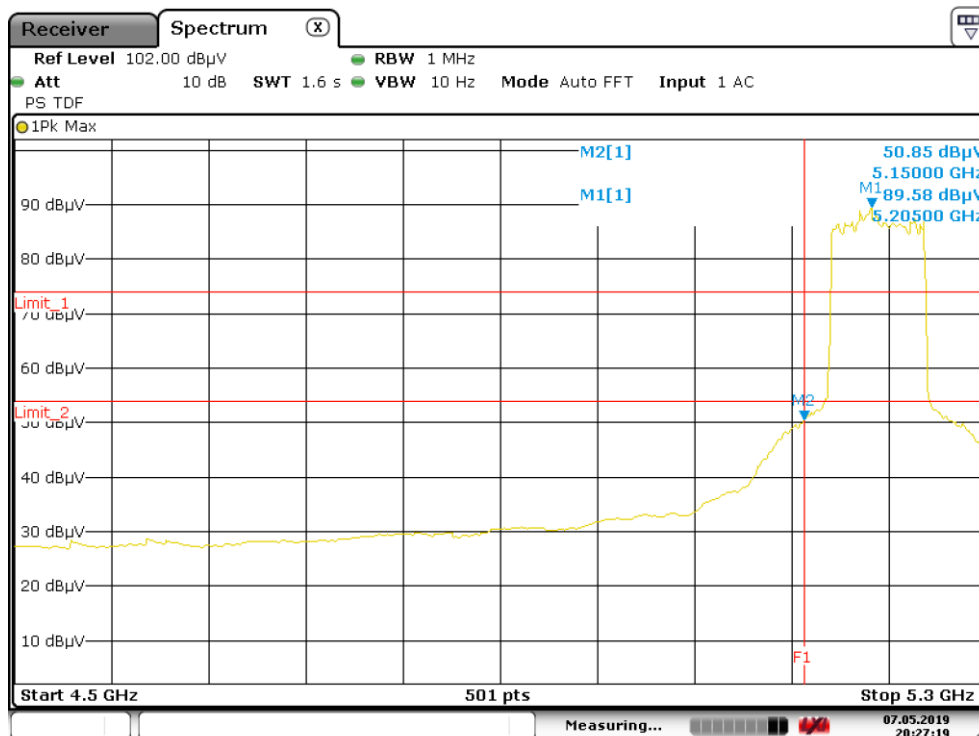
Date: 6.MAY.2019 23:00:16

Chain0+1 : Restricted Band Bandedge @ 802.11ac(VHT80) Mode Ch42 Lower PK



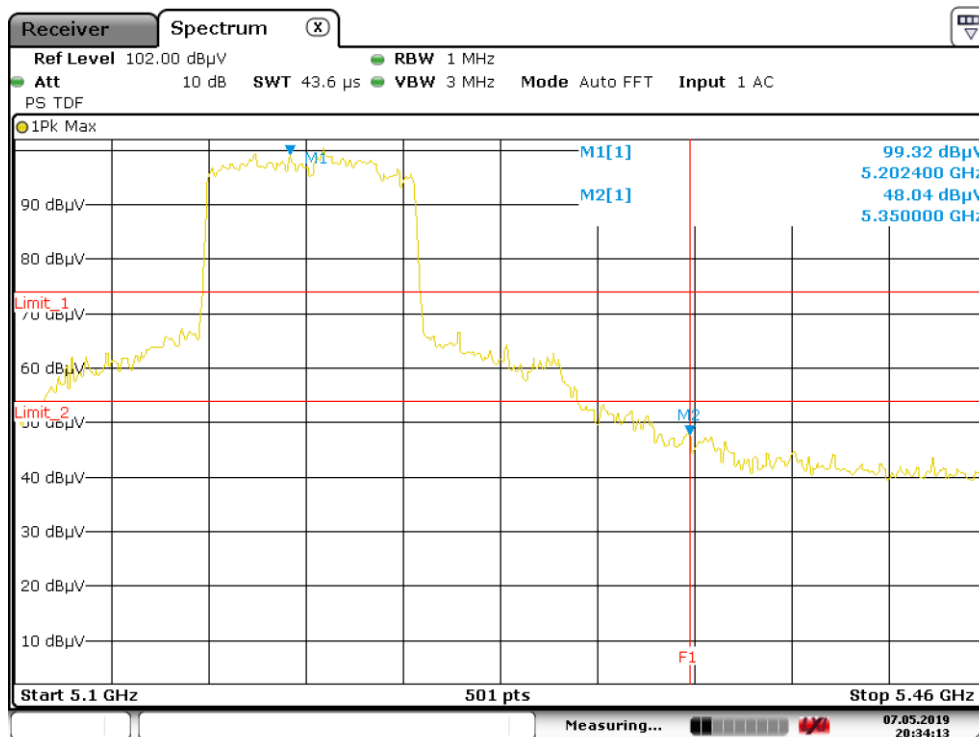
Date: 7.MAY.2019 19:59:51

Chain0+1 : Restricted Band Bandedge @ 802.11ac(VHT80) Mode Ch42 Lower AV



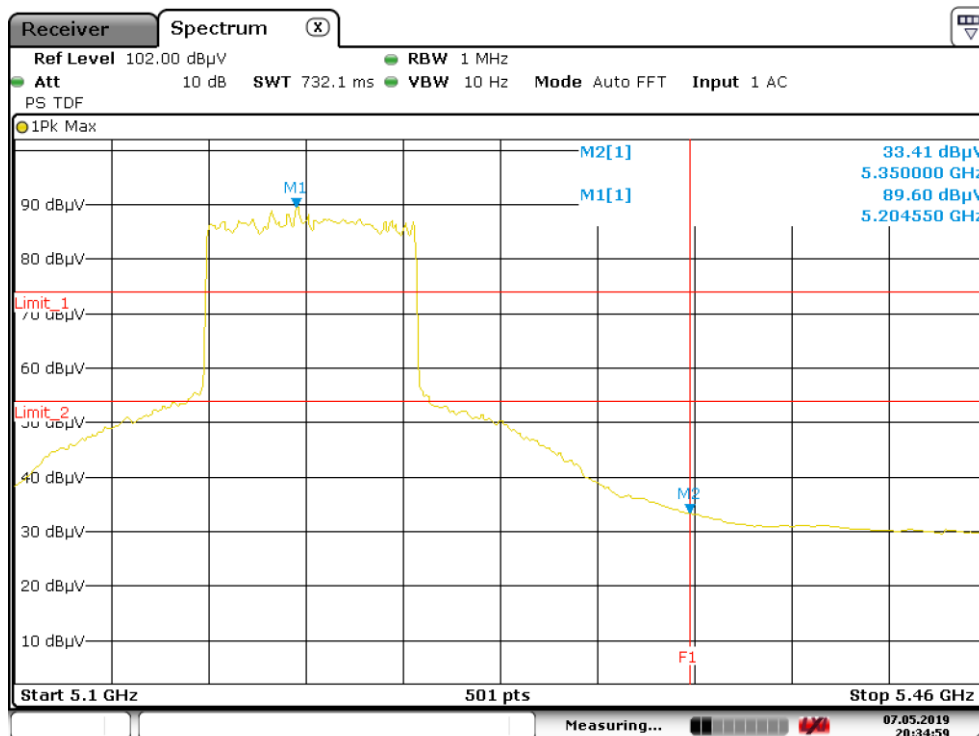
Date: 7.MAY.2019 20:27:20

Chain0+1 : Restricted Band Bandedge @ 802.11ac(VHT80) Mode Ch42 Upper PK



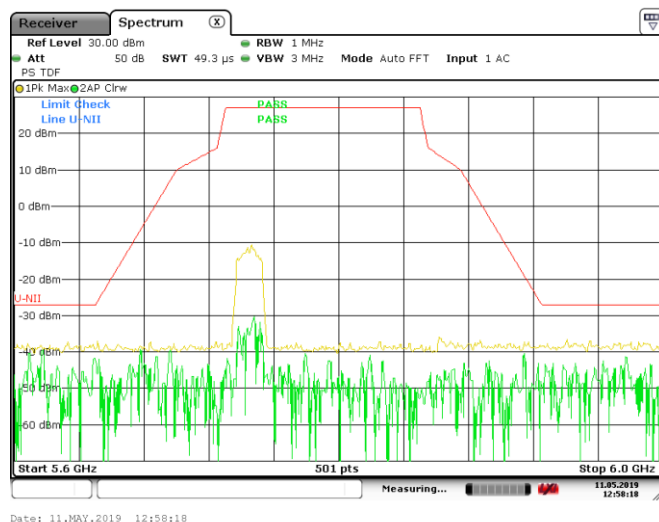
Date: 7.MAY.2019 20:34:13

Chain0+1 : Restricted Band Bandedge @ 802.11ac(VHT80) Mode Ch42 Upper AV

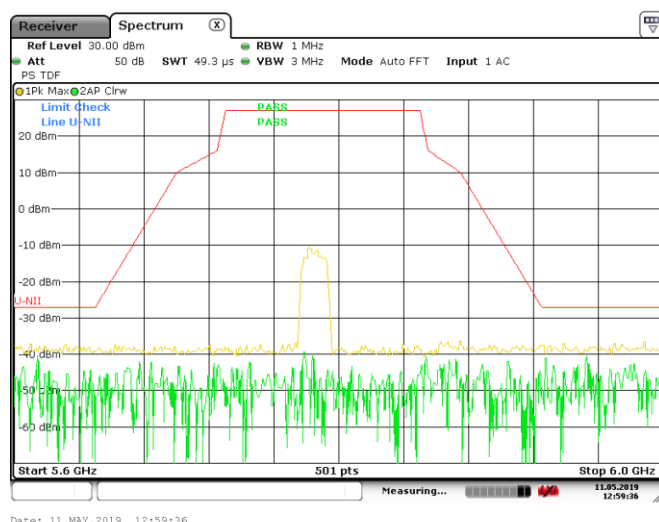


Date: 7.MAY.2019 20:35:00

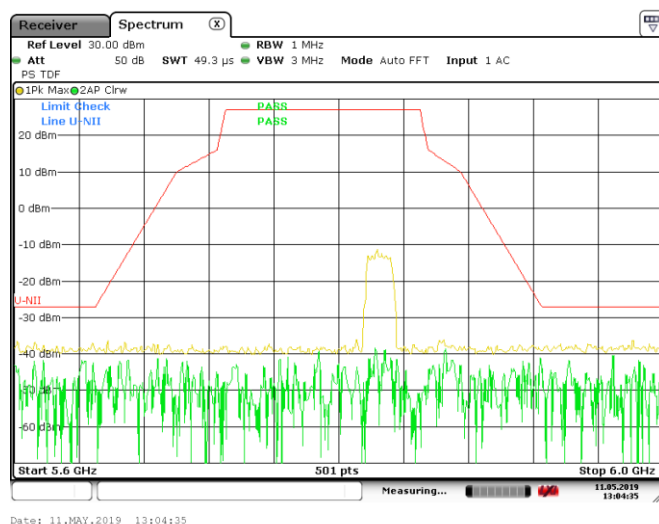
Chain0 : Out-of-band emission limits for U-NII-3 @ mode 802.11a Ch149



Chain0 : Out-of-band emission limits for U-NII-3 @ mode 802.11a Ch157



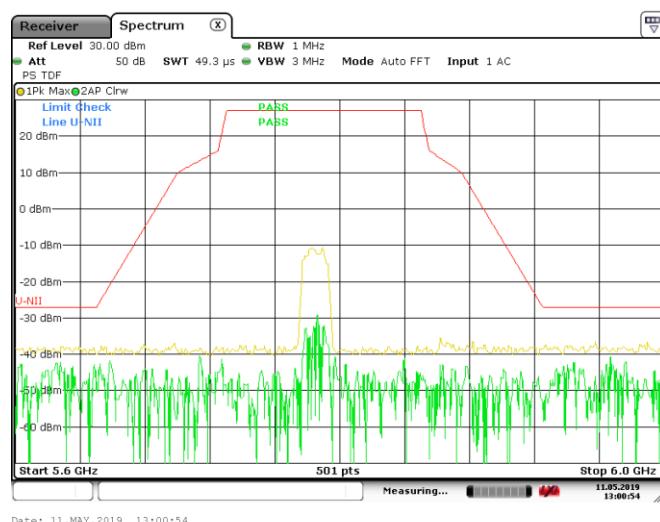
Chain0 : Out-of-band emission limits for U-NII-3 @ mode 802.11a Ch165



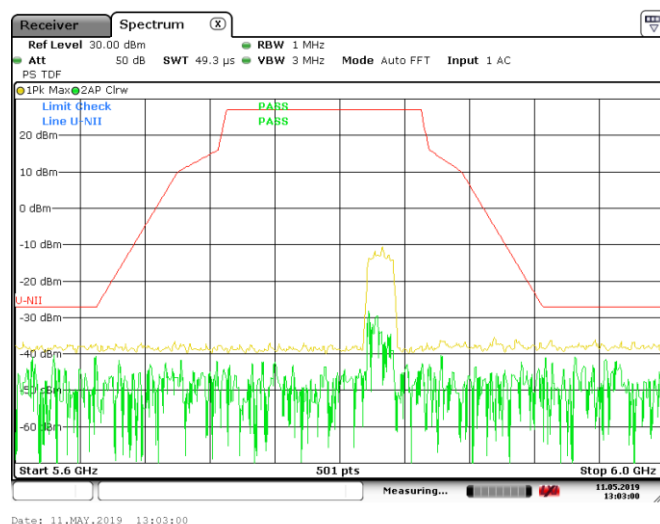
Chain1 : Out-of-band emission limits for U-NII-3 @ mode 802.11a Ch149



Chain1 : Out-of-band emission limits for U-NII-3 @ mode 802.11a Ch157



Chain1 : Out-of-band emission limits for U-NII-3 @ mode 802.11a Ch165



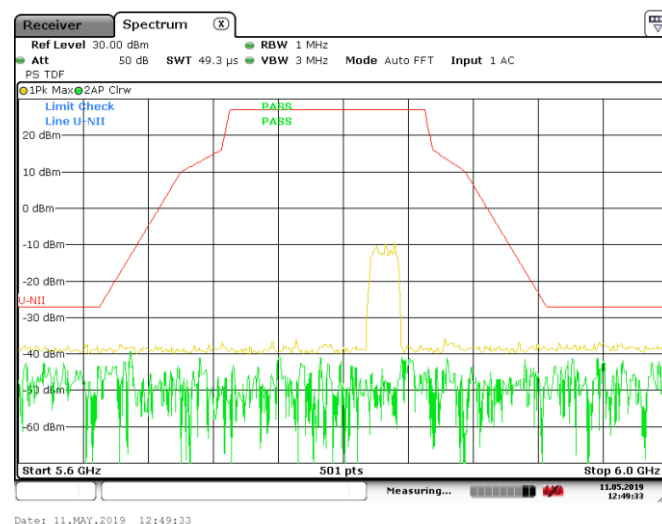
Chain0+1 : Out-of-band emission limits for U-NII-3 @ mode 802.11ac(VHT20) Ch149



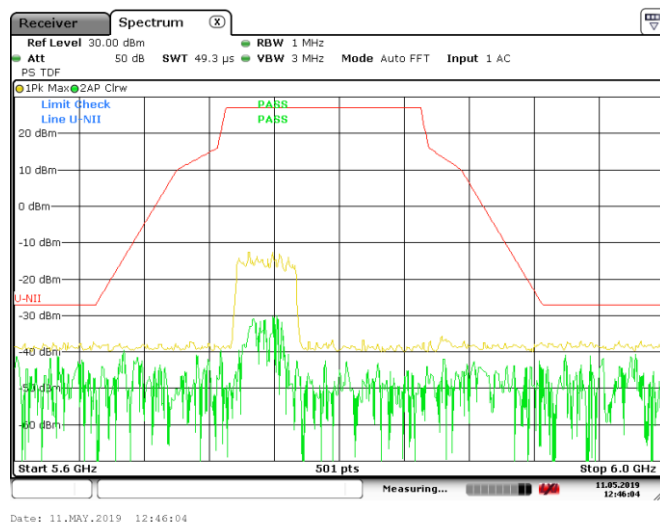
Chain0+1 : Out-of-band emission limits for U-NII-3 @ mode 802.11ac(VHT20) Ch157



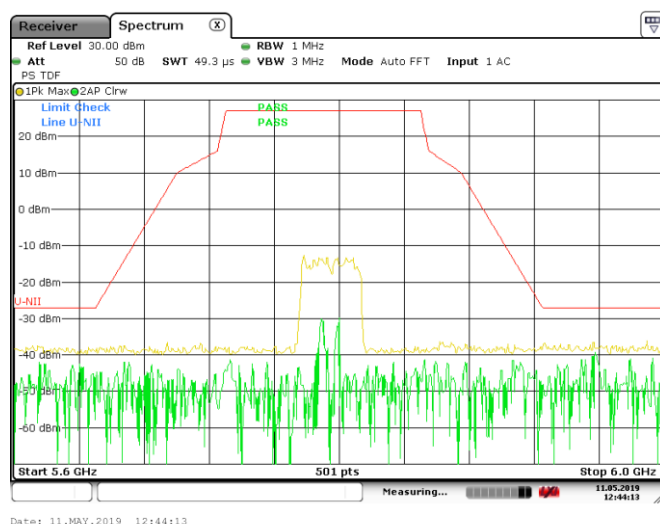
Chain0+1 : Out-of-band emission limits for U-NII-3 @ mode 802.11ac(VHT20) Ch165



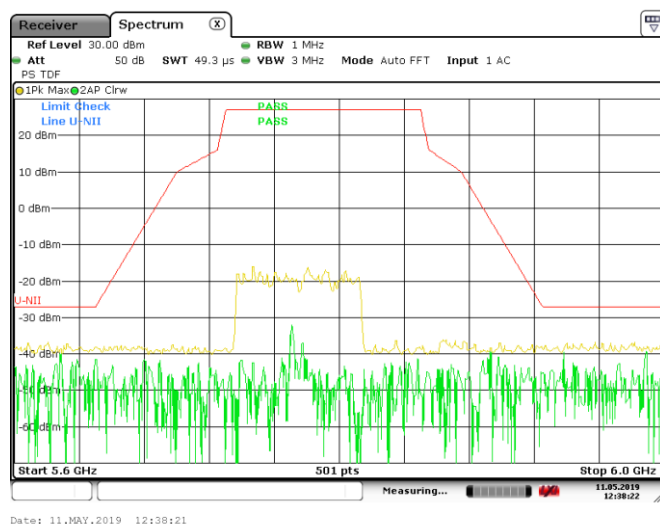
Chain0+1 : Out-of-band emission limits for U-NII-3 @ mode 802.11ac(VHT40) Ch151



Chain0+1 : Out-of-band emission limits for U-NII-3 @ mode 802.11ac(VHT40) Ch159



Chain0+1 : Out-of-band emission limits for U-NII-3 @ mode 802.11ac(VHT80) Ch155



16. 佔用頻寬

16.1 適用規範

發射頻寬(emission bandwidth)：係測量訊號兩點之間寬度而得，此兩點 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。26 dB 發射頻寬可用於最大傳導輸出功率限制值之計算。

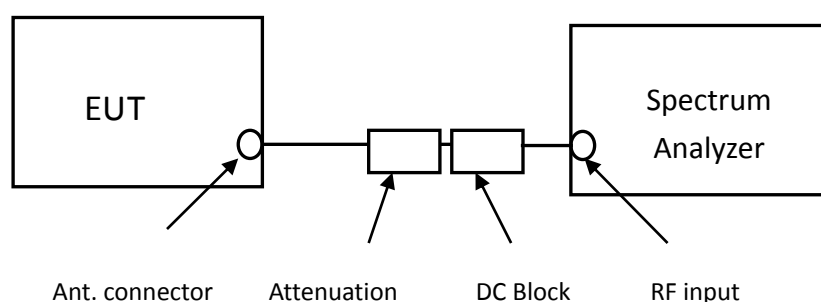
依據國家通訊傳播緯原會低功率射頻電機技術規範4.7.5之規定，5.725 GHz ~ 5.850 GHz 頻段，6 dB頻寬至少應有500 kHz。

針對操作在 5.15 GHz ~ 5.25 GHz 和 5.725 GHz ~ 5.850 GHz 的發射機 99%頻寬如占用到 5.25 GHz ~ 5.35 GHz 及 5.47 GHz ~ 5.725 GHz 須測試 DFS。

16.2 測試方法

此為 RF 傳導測試，將發射機之天線埠經由適當之衰減直接連接至測試儀器。

16.3 測試配置圖



16.4 測試結果

溫度 : 26 °C

相對濕度 : 59 %

儀器設定

RBW : 100 kHz

VBW : 300 kHz

SISO

Mode	Channel	Frequency (MHz)	6dB Bandwidth (MHz)	26dB Bandwidth (MHz)	Limit (MHz)	Result
802.11a Chain0	36	5180		20.37	N/A	Pass
	44	5220		20.46		Pass
	48	5240		20.37		Pass
	52	5260		20.28		Pass
	60	5300		20.37		Pass
	64	5320		20.37		Pass
	100	5500		20.24		Pass
	120	5600		20.40		Pass
	140	5700		20.47		Pass
	149	5745	15.02		>0.5	Pass
	157	5785	15.11			Pass
	165	5825	13.80			Pass
802.11a Chain1	36	5180		20.45	N/A	Pass
	44	5220		20.20		Pass
	48	5240		20.32		Pass
	52	5260		20.24		Pass
	60	5300		20.35		Pass
	64	5320		20.21		Pass
	100	5500		20.12		Pass
	120	5600		20.15		Pass
	140	5700		20.36		Pass
	149	5745	12.75		>0.5	Pass
	157	5785	15.10			Pass
	165	5825	13.86			Pass
802.11ac (VHT20) Chain0	36	5180		20.58	N/A	Pass
	44	5220		20.76		Pass
	48	5240		20.77		Pass
	52	5260		20.69		Pass
	60	5300		20.86		Pass
	64	5320		20.69		Pass
	100	5500		20.75		Pass
	120	5600		20.78		Pass
	140	5700		20.94		Pass
	149	5745	16.29		>0.5	Pass
	157	5785	15.73			Pass
	165	5825	15.05			Pass

Mode	Channel	Frequency (MHz)	6dB Bandwidth (MHz)	26dB Bandwidth (MHz)	Limit (MHz)	Result
802.11ac (VHT20) Chain1	36	5180		20.73	N/A	Pass
	44	5220		20.70		Pass
	48	5240		20.66		Pass
	52	5260		20.71		Pass
	60	5300		20.80		Pass
	64	5320		20.75		Pass
	100	5500		20.68		Pass
	120	5600		20.96		Pass
	140	5700		21.24		Pass
	149	5745	15.06		>0.5	Pass
	157	5785	14.86			Pass
	165	5825	14.28			Pass
802.11ac (VHT40) Chain0	38	5190		41.07	N/A	Pass
	46	5230		41.30		Pass
	54	5270		41.12		Pass
	62	5310		41.20		Pass
	102	5510		41.24		Pass
	118	5590		40.97		Pass
	134	5670		41.21		Pass
	151	5755	5755.00		>0.5	Pass
	159	5795	5795.00			Pass
802.11ac (VHT40) Chain1	38	5190		41.15	N/A	Pass
	46	5230		41.03		Pass
	54	5270		40.95		Pass
	62	5310		41.15		Pass
	102	5510		41.12		Pass
	118	5590		41.14		Pass
	134	5670		41.29		Pass
	151	5755	35.15		>0.5	Pass
	159	5795	35.10			Pass
802.11ac (VHT80) Chain0	42	5210		81.37	N/A	Pass
	58	5290		81.33		Pass
	106	5530		80.94		Pass
	122	5610		80.97		Pass
	155	5775	75.75		>0.5	Pass