

KCTL Inc.

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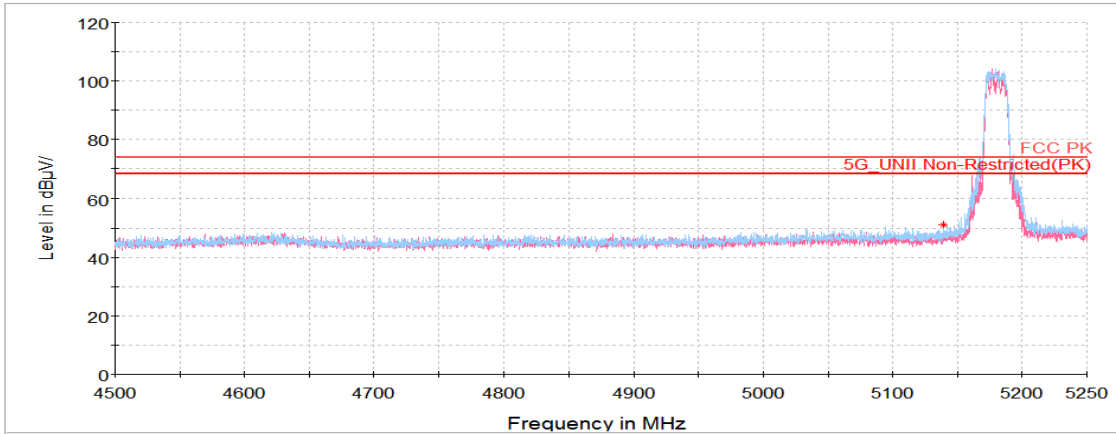
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802.11a UNII-1 2TX MIMO

Lowest Channel (5 180 MHz)

Horizontal/Vertical for Band-edge



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KCTL**802.11 HT20 UNII-1 ANT1****Lowest Channel (5 180 MHz)**

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μ V))	(dB)	(dB)	(dB)	(dB(μ V/m))	(dB(μ V/m))	(dB)
Peak data								
5 147.00 ¹⁾	H	42.77	34.16	-26.30	-	50.63	74.00	23.37
10 270.20	V	59.89	37.47	-49.90	-	47.46	68.20	20.74
15 666.22 ¹⁾	V	55.81	39.93	-46.12	-	49.62	74.00	24.38
Average Data								
No spurious emissions were detected within 20 dB of the limit								

Middle Channel (5 200 MHz)

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μ V))	(dB)	(dB)	(dB)	(dB(μ V/m))	(dB(μ V/m))	(dB)
Peak data								
10 394.55	V	58.80	37.59	-50.00	-	46.39	68.20	21.81
15 722.64 ¹⁾	H	55.49	39.91	-46.11	-	49.29	74.00	24.71
Average Data								
No spurious emissions were detected within 20 dB of the limit								

Highest Channel (5 240 MHz)

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μ V))	(dB)	(dB)	(dB)	(dB(μ V/m))	(dB(μ V/m))	(dB)
Peak data								
10 473.61	V	57.96	37.67	-50.07	-	45.56	68.20	22.64
15 662.63 ¹⁾	H	56.11	39.93	-46.12	-	49.92	74.00	24.08
Average Data								
No spurious emissions were detected within 20 dB of the limit.								

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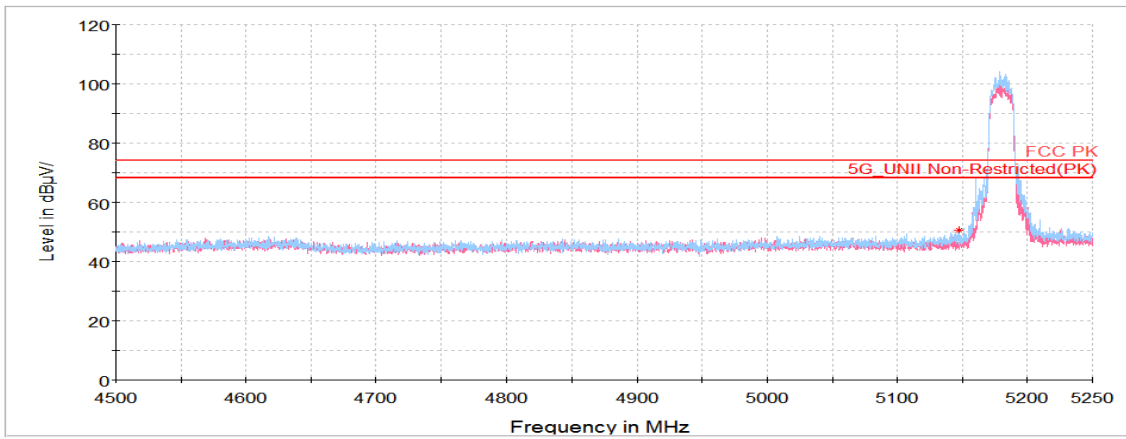
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802.11 HT20 UNII-1 ANT1

Lowest Channel (5 180 MHz)

Horizontal/Vertical for Band-edge



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KCTL**802.11 HT20 UNII-1 ANT2****Lowest Channel (5 180 MHz)**

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μ V))	(dB)	(dB)	(dB)	(dB(μ V/m))	(dB(μ V/m))	(dB)
Peak data								
5 144.42 ¹⁾	H	41.28	34.16	-26.33	-	49.11	74.00	24.89
10 396.34	V	57.34	37.60	-50.00	-	44.94	68.20	23.26
16 177.25 ¹⁾	H	56.56	40.81	-46.70	-	50.67	74.00	23.33
Average Data								
No spurious emissions were detected within 20 dB of the limit								

Middle Channel (5 200 MHz)

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μ V))	(dB)	(dB)	(dB)	(dB(μ V/m))	(dB(μ V/m))	(dB)
Peak data								
10 400.66	V	58.87	37.60	-50.01	-	46.46	68.20	21.74
16 806.16	H	57.71	41.24	-47.73	-	51.22	68.20	16.98
Average Data								
No spurious emissions were detected within 20 dB of the limit								

Highest Channel (5 240 MHz)

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μ V))	(dB)	(dB)	(dB)	(dB(μ V/m))	(dB(μ V/m))	(dB)
Peak data								
10 480.44	V	58.85	37.68	-50.07		46.46	68.20	21.74
16 291.53	H	57.60	40.95	-47.12		51.43	68.20	16.77
Average Data								
No spurious emissions were detected within 20 dB of the limit.								

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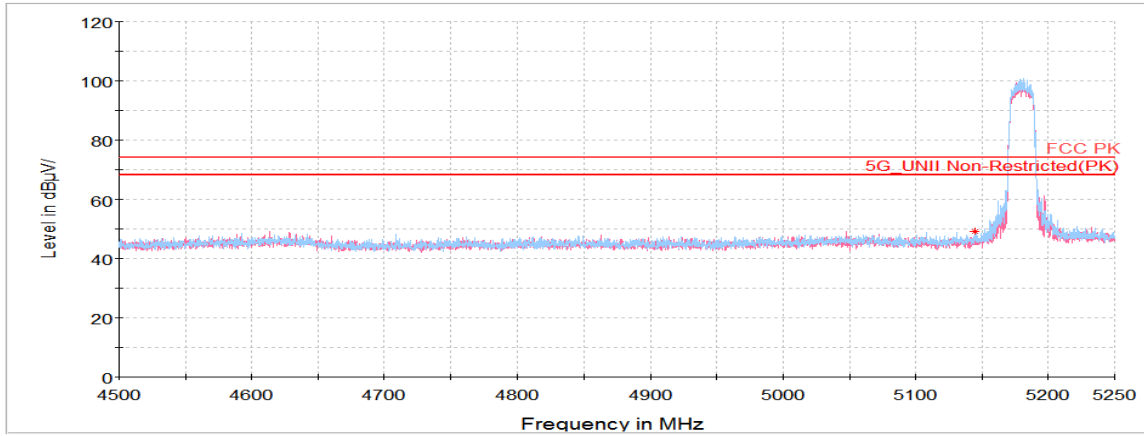
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802.11 HT20 UNII-1 ANT2

Lowest Channel (5 180 MHz)

Horizontal/Vertical for Band-edge



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KCTL**802.11 HT20 UNII-1 2TX MIMO****Lowest Channel (5 180 MHz)**

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μ V))	(dB)	(dB)	(dB)	(dB(μ V/m))	(dB(μ V/m))	(dB)
Peak data								
5 149.26 ¹⁾	H	43.09	34.17	-26.28	-	50.98	74.00	23.02
10 356.45	V	57.83	37.56	-49.97	-	45.42	68.20	22.78
16 283.63	H	57.73	40.94	-47.10	-	51.57	74.00	22.43
Average Data								
5 149.26 ¹⁾	H	34.07	34.17	-26.28	-	41.96	54.00	12.04

Middle Channel (5 200 MHz)

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μ V))	(dB)	(dB)	(dB)	(dB(μ V/m))	(dB(μ V/m))	(dB)
Peak data								
10 407.13	H	58.24	37.61	-50.01	-	45.84	68.20	22.36
16 215.22	V	57.32	40.86	-46.84	-	51.34	68.20	16.86
Average Data								
No spurious emissions were detected within 20 dB of the limit.								

Highest Channel (5 240 MHz)

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μ V))	(dB)	(dB)	(dB)	(dB(μ V/m))	(dB(μ V/m))	(dB)
Peak data								
10 461.39	H	58.53	37.66	-50.06	-	46.13	68.20	22.07
16 052.55 ¹⁾	H	56.54	40.66	-46.24	-	50.96	74.00	23.04
Average Data								
No spurious emissions were detected within 20 dB of the limit.								

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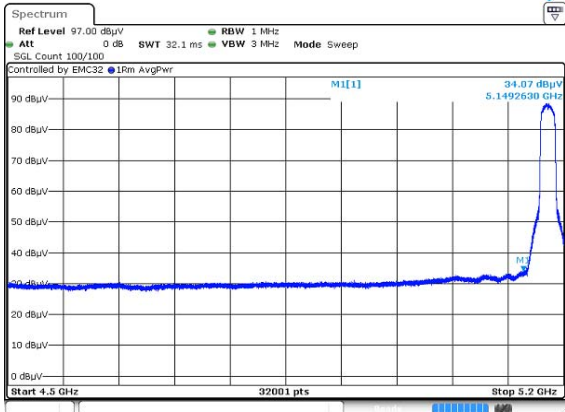
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802.11 HT20 UNII-1 2TX MIMO

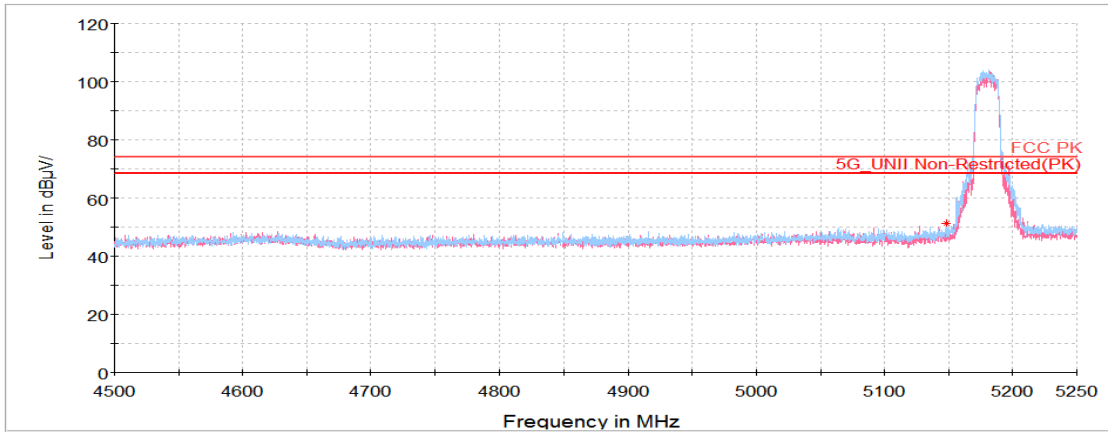
Lowest Channel (5 180 MHz)

Average data



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Horizontal/Vertical for Band-edge



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**802.11 HT40 UNII-1 ANT1****Lowest Channel (5 190 MHz)**

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μ V))	(dB)	(dB)	(dB)	(dB(μ V/m))	(dB(μ V/m))	(dB)
Peak data								
5 149.53 ¹⁾	H	45.60	34.17	-26.27	-	53.50	74.00	20.50
10 399.58	H	57.56	37.60	-50.00	-	45.16	68.20	23.04
15 806.38	H	56.25	39.88	-46.09	-	50.04	74.00	23.96
Average Data								
5 149.53 ¹⁾	H	43.86	34.17	-26.27	-	51.76	54.00	2.24

Highest Channel (5 230 MHz)

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μ V))	(dB)	(dB)	(dB)	(dB(μ V/m))	(dB(μ V/m))	(dB)
Peak data								
10 456.00	V	57.84	37.66	-50.05	-	45.45	68.20	22.75
15 655.44 ¹⁾	V	55.04	39.94	-46.12	-	48.86	74.00	25.14
Average Data								
No spurious emissions were detected within 20 dB of the limit.								

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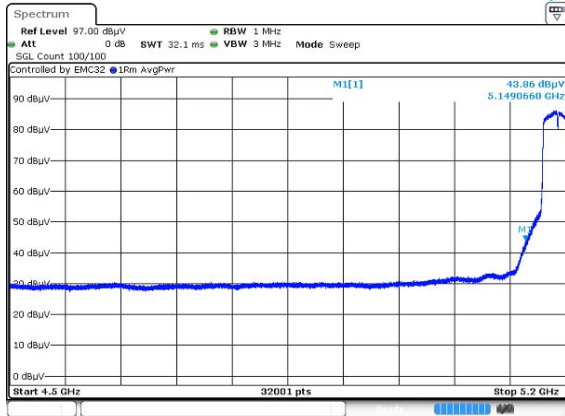
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802.11 HT40 UNII-1 ANT1

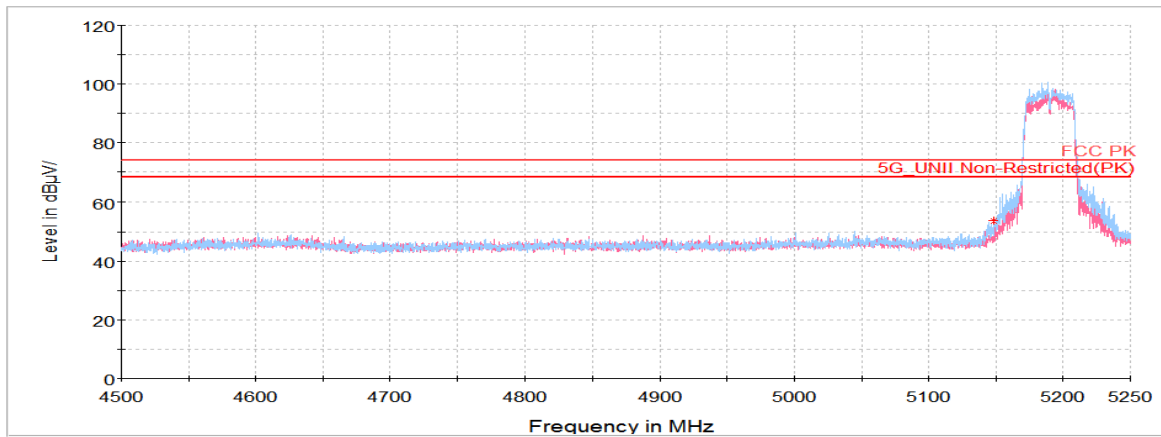
Lowest Channel (5 190 MHz)

Average data



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Horizontal/Vertical for Band-edge



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**802.11 HT40 UNII-1 ANT2****Lowest Channel (5 190 MHz)**

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μ V))	(dB)	(dB)	(dB)	(dB(μ V/m))	(dB(μ V/m))	(dB)
Peak data								
5 149.74 ¹⁾	H	45.74	34.17	-26.27	-	53.64	74.00	20.36
10 399.94	V	57.79	37.60	-50.01	-	45.38	68.20	22.82
16 165.39 ¹⁾	H	56.60	40.80	-46.66	-	50.74	74.00	23.26
Average Data								
5 149.74 ¹⁾	H	36.85	34.17	-26.27	-	44.75	54.00	9.25

Highest Channel (5 230 MHz)

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μ V))	(dB)	(dB)	(dB)	(dB(μ V/m))	(dB(μ V/m))	(dB)
Peak data								
10 459.59	H	58.07	37.66	-50.06	-	45.67	68.20	22.53
16 833.47	H	57.23	41.27	-47.72	-	50.78	68.20	17.42
Average Data								
No spurious emissions were detected within 20 dB of the limit.								

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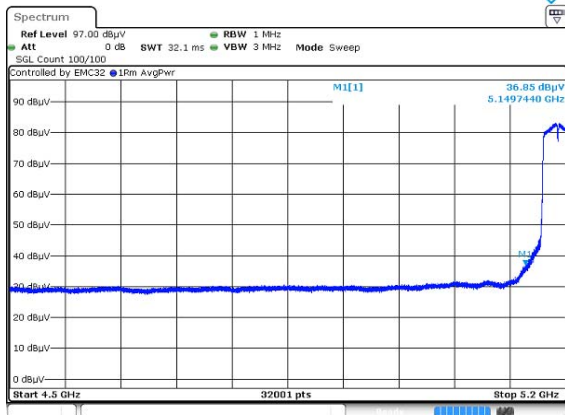
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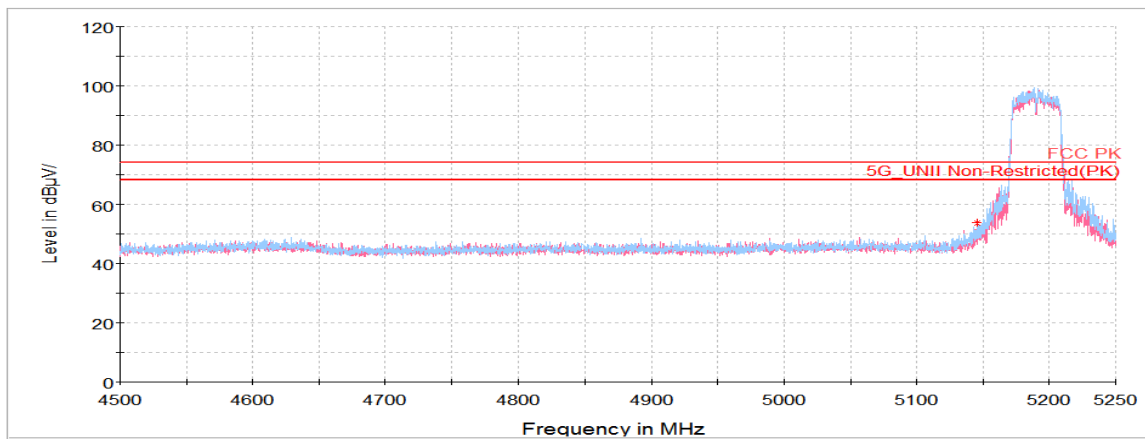
802.11 HT40 UNII-1 ANT2

Lowest Channel (5 190 MHz)

Average data



Horizontal/Vertical for Band-edge



802.11 HT40 UNII-1 2TX MIMO

Lowest Channel (5 190 MHz)

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μ V))	(dB)	(dB)	(dB)	(dB(μ V/m))	(dB(μ V/m))	(dB)
Peak data								
5 149.94 ¹⁾	H	43.50	34.17	-26.27	-	51.40	74.00	22.60
10 392.75	H	57.72	37.59	-50.00	-	45.31	68.20	22.89
15 576.38 ¹⁾	V	54.30	39.97	-46.14	-	48.13	74.00	25.87
Average Data								
5 149.94 ¹⁾	H	43.23	34.17	-26.27	-	51.13	54.00	2.87

Highest Channel (5 230 MHz)

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μ V))	(dB)	(dB)	(dB)	(dB(μ V/m))	(dB(μ V/m))	(dB)
Peak data								
10 462.11	V	58.68	37.66	-50.06	-	46.28	68.20	21.92
15 675.20 ¹⁾	V	55.25	39.93	-46.12	-	49.06	74.00	24.94
Average Data								
No spurious emissions were detected within 20 dB of the limit.								

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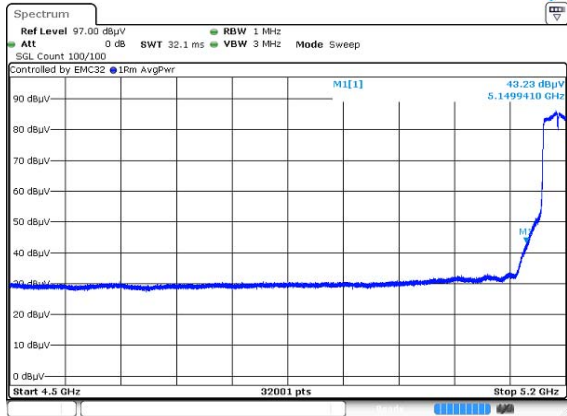
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802.11 HT40 UNII-1 2TX MIMO

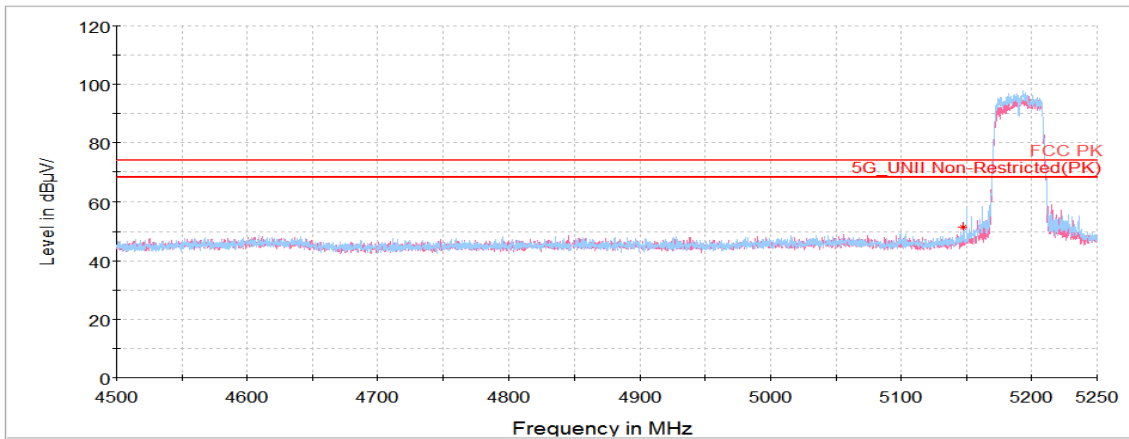
Lowest Channel (5 190 MHz)

Average data



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Horizontal/Vertical for Band-edge



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**802.11ac VHT20 UNII-1 ANT1****Lowest Channel (5 180 MHz)**

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μ V))	(dB)	(dB)	(dB)	(dB(μ V/m))	(dB(μ V/m))	(dB)
Peak data								
5 149.06 ¹⁾	H	43.10	34.17	-26.28	-	50.99	74.00	23.01
10 320.88	H	59.15	37.52	-49.94	-	46.73	68.20	21.47
15 582.84 ¹⁾	H	56.06	39.97	-46.14	-	49.89	74.00	24.11
Average Data								
No spurious emissions were detected within 20 dB of the limit								

Middle Channel (5 200 MHz)

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μ V))	(dB)	(dB)	(dB)	(dB(μ V/m))	(dB(μ V/m))	(dB)
Peak data								
10 395.27	H	58.57	37.60	-50.00	-	46.17	68.20	22.03
15 474.67 ¹⁾	V	55.63	40.11	-46.10	-	49.64	74.00	24.36
Average Data								
No spurious emissions were detected within 20 dB of the limit								

Highest Channel (5 240 MHz)

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μ V))	(dB)	(dB)	(dB)	(dB(μ V/m))	(dB(μ V/m))	(dB)
Peak data								
10 478.64	H	57.82	37.68	-50.07	-	45.43	68.20	22.77
15 668.73 ¹⁾	V	56.31	39.93	-46.12	-	50.12	74.00	23.88
Average Data								
No spurious emissions were detected within 20 dB of the limit.								

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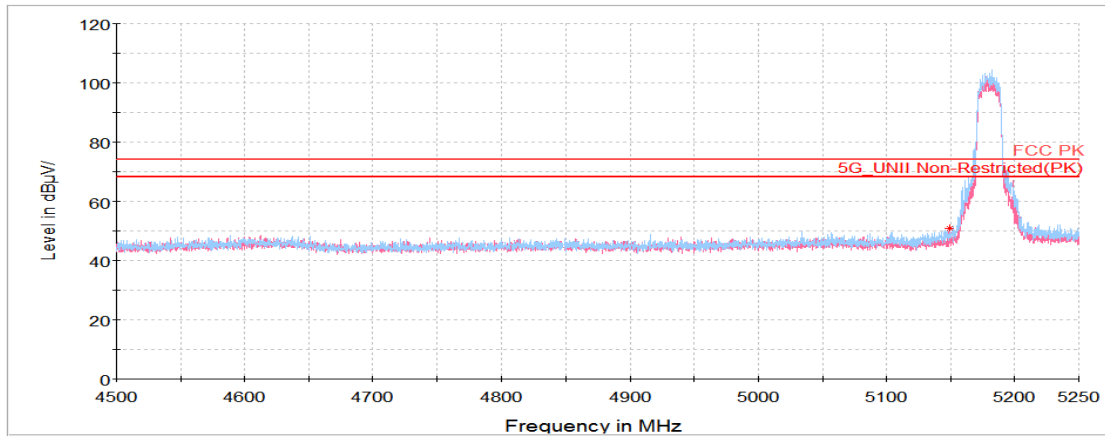
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802.11ac VHT20 UNII-1 ANT1

Lowest Channel (5 180 MHz)

Horizontal/Vertical for Band-edge



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KCTL**802.11ac VHT20 UNII-1 ANT2****Lowest Channel (5 180 MHz)**

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μ V))	(dB)	(dB)	(dB)	(dB(μ V/m))	(dB(μ V/m))	(dB)
Peak data								
5 146.48 ¹⁾	H	41.07	34.16	-26.31	-	48.92	74.00	25.08
10 398.14	H	57.59	37.60	-50.00	-	45.19	68.20	23.01
16 188.03 ¹⁾	V	56.81	40.83	-46.74	-	50.90	74.00	23.10
Average Data								
No spurious emissions were detected within 20 dB of the limit								

Middle Channel (5 200 MHz)

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μ V))	(dB)	(dB)	(dB)	(dB(μ V/m))	(dB(μ V/m))	(dB)
Peak data								
10 403.53	V	58.11	37.60	-50.01	-	45.70	68.20	22.50
16 800.41	V	57.74	41.24	-47.74	-	51.24	68.20	16.96
Average Data								
No spurious emissions were detected within 20 dB of the limit								

Highest Channel (5 240 MHz)

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μ V))	(dB)	(dB)	(dB)	(dB(μ V/m))	(dB(μ V/m))	(dB)
Peak data								
10 473.25	V	57.88	37.67	-50.07	-	45.48	68.20	22.72
16 198.45 ¹⁾	H	56.30	40.84	-46.78	-	50.36	74.00	23.64
Average Data								
No spurious emissions were detected within 20 dB of the limit.								

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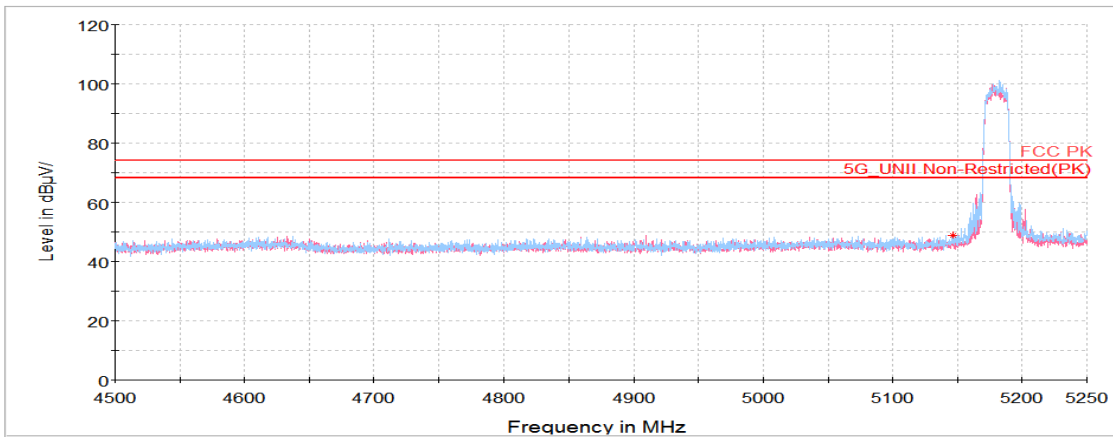
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802.11ac VHT20 UNII-1 ANT2

Lowest Channel (5 180 MHz)

Horizontal/Vertical for Band-edge



802.11ac VHT20 UNII-1 2TX MIMO

Lowest Channel (5 180 MHz)

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μ V))	(dB)	(dB)	(dB)	(dB(μ V/m))	(dB(μ V/m))	(dB)
Peak data								
5 144.77 ¹⁾	H	42.65	34.16	-26.32	-	50.49	74.00	23.51
10 359.69	V	62.34	37.56	-49.97	-	49.93	68.20	18.27
15 794.88 ¹⁾	H	56.66	39.88	-46.09	-	50.45	74.00	23.55
Average Data								
No spurious emissions were detected within 20 dB of the limit								

Middle Channel (5 200 MHz)

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μ V))	(dB)	(dB)	(dB)	(dB(μ V/m))	(dB(μ V/m))	(dB)
Peak data								
10 398.14	V	60.62	37.60	-50.00	-	48.22	68.20	19.98
16 195.94	H	56.58	40.84	-46.77	-	50.65	74.00	23.35
Average Data								
No spurious emissions were detected within 20 dB of the limit								

Highest Channel (5 240 MHz)

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μ V))	(dB)	(dB)	(dB)	(dB(μ V/m))	(dB(μ V/m))	(dB)
Peak data								
10 454.56	H	57.79	37.65	-50.05	-	45.39	68.20	22.81
15 932.88	V	56.69	39.83	-46.06	-	50.46	74.00	23.54
Average Data								
No spurious emissions were detected within 20 dB of the limit								

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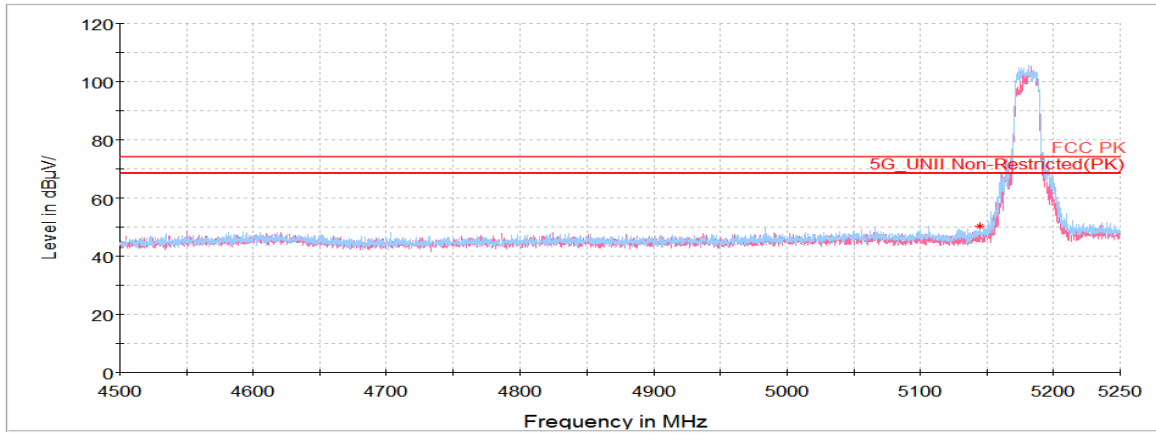
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802.11ac VHT20 UNII-1 2TX MIMO

Lowest Channel (5 180 MHz)

Horizontal/Vertical for Band-edge



802.11ac VHT40 UNII-1 ANT1

Lowest Channel (5 190 MHz)

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μ V))	(dB)	(dB)	(dB)	(dB(μ V/m))	(dB(μ V/m))	(dB)
Peak data								
5 149.81 ¹⁾	H	51.39	34.17	-26.27	-	59.29	74.00	14.71
10 388.80	V	57.48	37.59	-50.00	-	45.07	68.20	23.13
15 579.97 ¹⁾	H	54.62	39.97	-46.14	-	48.45	74.00	25.55
Average Data								
5 149.81 ¹⁾	H	43.25	34.17	-26.27	-	51.15	54.00	2.85

Highest Channel (5 230 MHz)

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μ V))	(dB)	(dB)	(dB)	(dB(μ V/m))	(dB(μ V/m))	(dB)
Peak data								
10 462.11	V	58.06	37.66	-50.06	-	45.66	68.20	22.54
15 659.39	V	54.72	39.94	-46.12	-	48.54	74.00	25.46
Average Data								
No spurious emissions were detected within 20 dB of the limit.								

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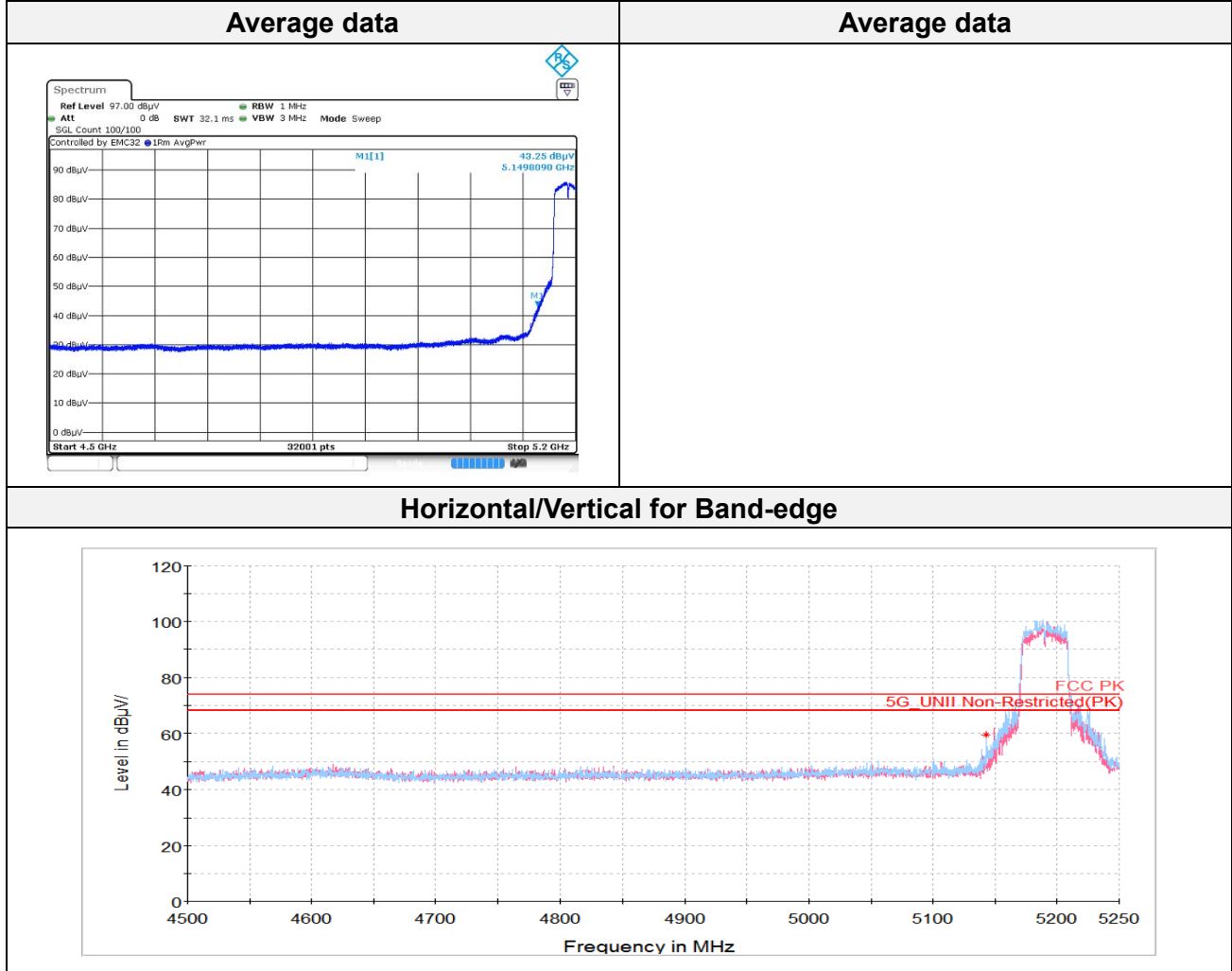
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802.11ac VHT40 UNII-1 ANT1

Lowest Channel (5 190 MHz)



802.11ac VHT40 UNII-1 ANT2

Lowest Channel (5 190 MHz)

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μ V))	(dB)	(dB)	(dB)	(dB(μ V/m))	(dB(μ V/m))	(dB)
Peak data								
5 149.90 ¹⁾	H	47.66	34.17	-26.27	-	55.56	74.00	18.44
10 385.92	V	58.33	37.59	-49.99	-	45.93	68.20	22.27
16 197.02 ¹⁾	H	56.73	40.84	-46.78	-	50.79	74.00	23.21
Average Data								
5 149.90 ¹⁾	H	38.34	34.17	-26.27	-	46.24	54.00	7.76

Highest Channel (5 230 MHz)

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μ V))	(dB)	(dB)	(dB)	(dB(μ V/m))	(dB(μ V/m))	(dB)
Peak data								
10 455.28	H	57.41	37.66	-50.05	-	45.02	68.20	23.18
16 823.41	V	57.31	41.26	-47.73	-	50.84	68.20	17.36
Average Data								
No spurious emissions were detected within 20 dB of the limit.								

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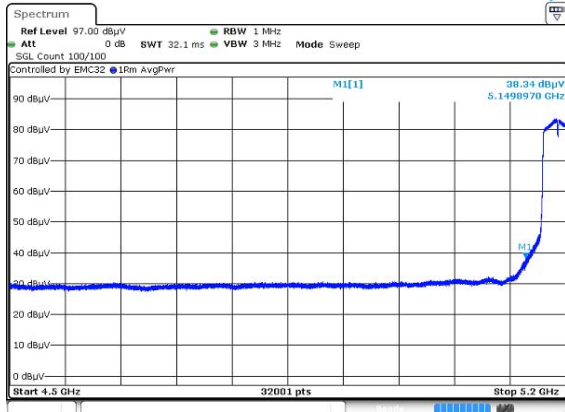
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802.11ac VHT40 UNII-1 ANT2

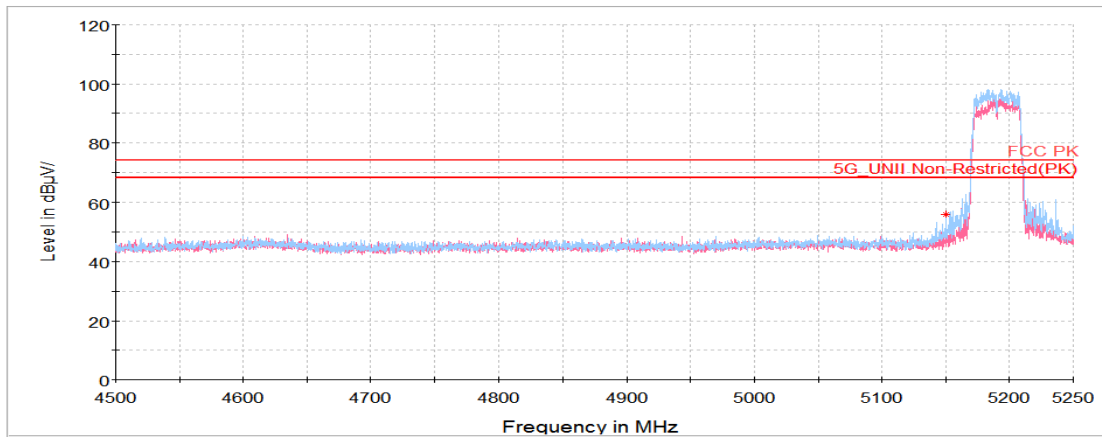
Lowest Channel (5 190 MHz)

Average data



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Horizontal/Vertical for Band-edge



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**802.11ac VHT40 UNII-1 2TX MIMO****Lowest Channel (5 190 MHz)**

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μ V))	(dB)	(dB)	(dB)	(dB(μ V/m))	(dB(μ V/m))	(dB)
Peak data								
5 149.81 ¹⁾	H	48.31	34.17	-26.27	-	56.21	74.00	17.79
10 399.94	V	58.40	37.60	-50.01	-	45.99	68.20	22.21
15 569.19 ¹⁾	V	54.50	39.97	-46.14	-	48.33	74.00	25.67
Average Data								
5 149.81 ¹⁾	H	43.34	34.17	-26.27	-	51.24	54.00	2.76

Highest Channel (5 230 MHz)

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μ V))	(dB)	(dB)	(dB)	(dB(μ V/m))	(dB(μ V/m))	(dB)
Peak data								
10 459.23	V	58.25	37.66	-50.05	-	45.86	68.20	22.34
15 673.05 ¹⁾	V	55.13	39.93	-46.12	-	48.94	74.00	25.06
Average Data								
No spurious emissions were detected within 20 dB of the limit.								

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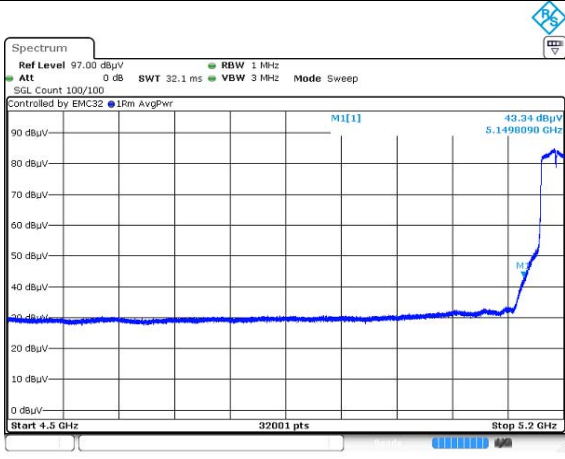
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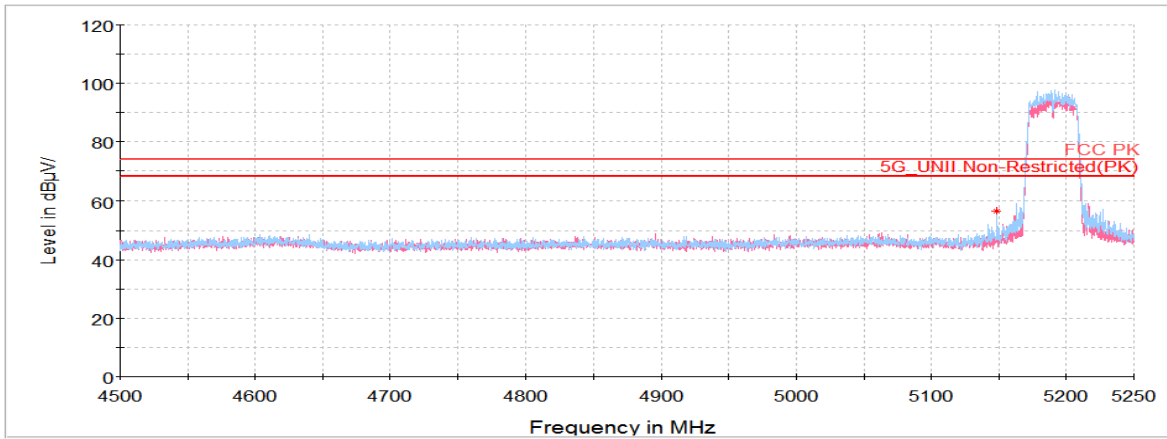
802.11ac VHT40 UNII-1 2TX MIMO Lowest Channel (5 190 MHz)

Average data



Blank

Horizontal/Vertical for Band-edge



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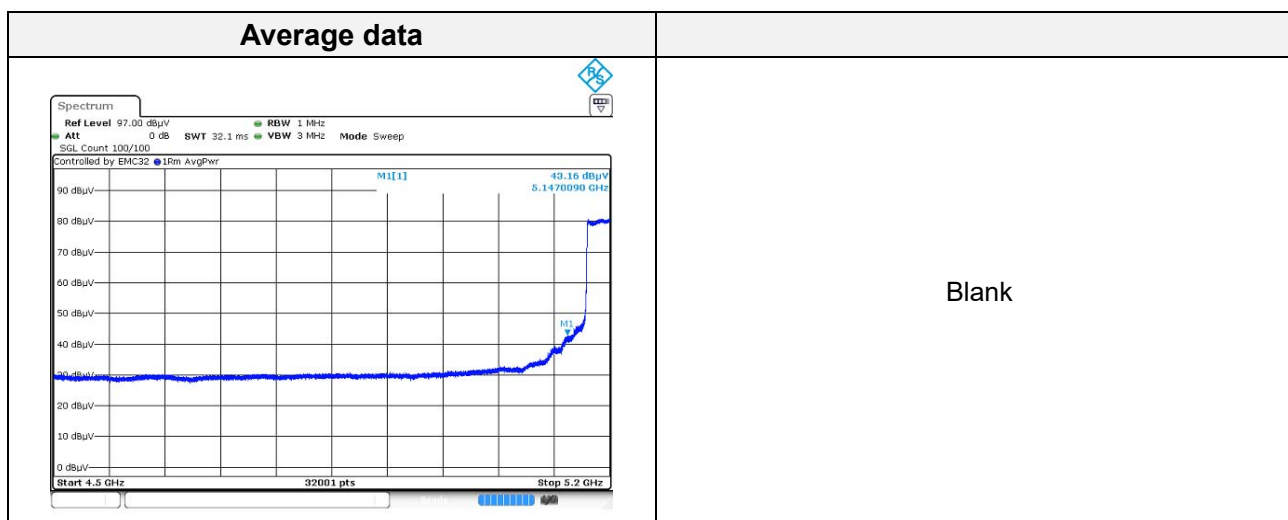
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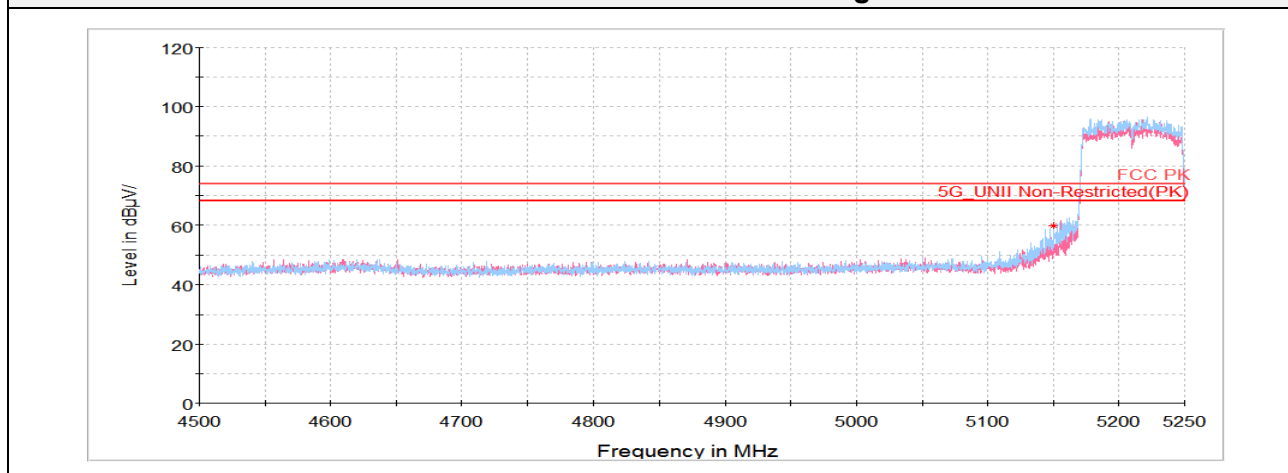
802.11ac VHT80 UNII-1 ANT1

Lowest Channel (5 210 MHz)

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μV))	(dB)	(dB)	(dB)	(dB(μV/m))	(dB(μV/m))	(dB)
Peak data								
5 147.01 ¹⁾	H	51.70	34.16	-26.30	-	59.56	74.00	14.44
10 463.91	V	57.44	37.66	-50.06	-	45.04	68.20	23.16
15 560.92 ¹⁾	V	54.82	39.98	-46.14	-	48.66	74.00	25.34
Average Data								
5 147.01 ¹⁾	H	43.16	34.16	-26.30	-	51.02	54.00	2.98



Horizontal/Vertical for Band-edge



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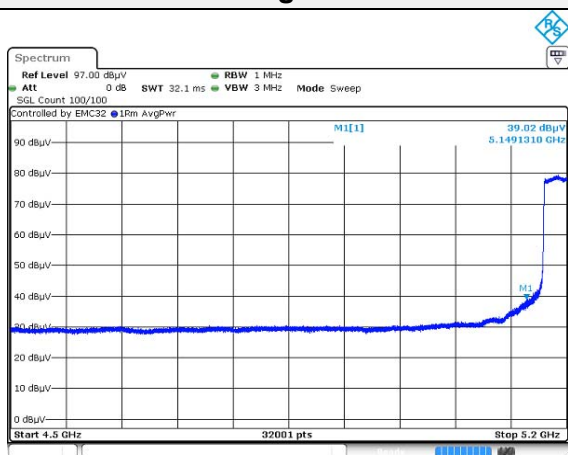


802.11ac VHT80 UNII-1 ANT2

Lowest Channel (5 210 MHz)

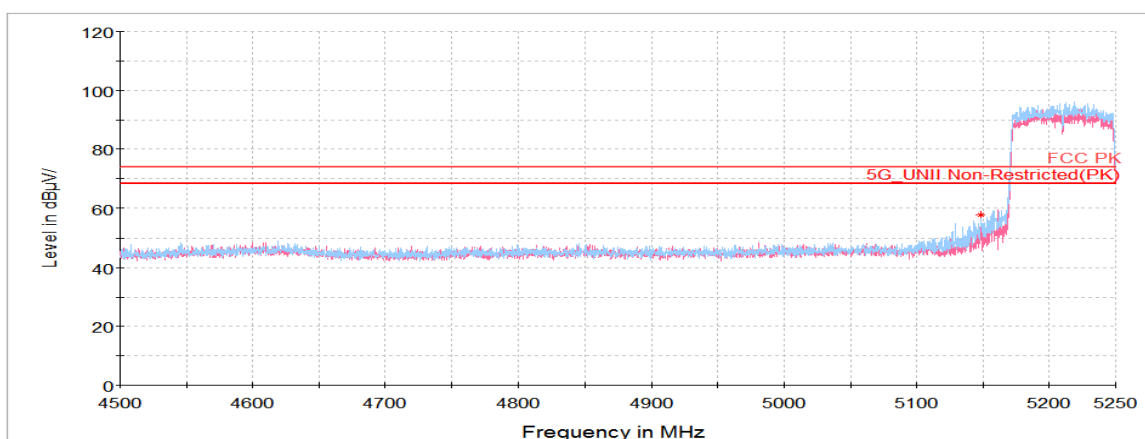
Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μ V))	(dB)	(dB)	(dB)	(dB(μ V/m))	(dB(μ V/m))	(dB)
Peak data								
5 149.13 ¹⁾	H	49.81	34.17	-26.28	-	57.70	74.00	16.30
10 449.17	H	57.25	37.65	-50.05	-	44.85	68.20	23.35
16 289.02	H	57.53	40.95	-47.12	-	51.36	68.20	16.84
Average Data								
5 149.13 ¹⁾	H	39.02	34.17	-26.28	-	46.91	54.00	7.09

Average data



Blank

Horizontal/Vertical for Band-edge



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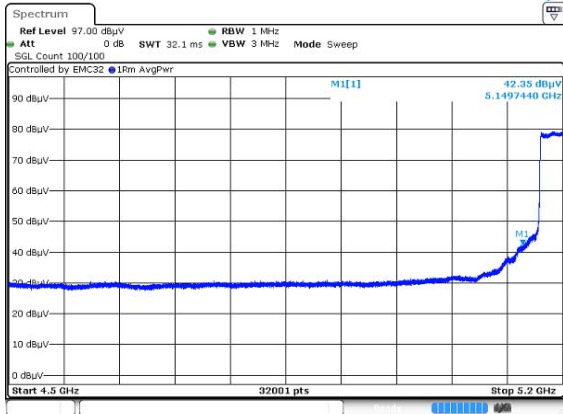


802.11ac VHT80 UNII-1 2TX MIMO

Lowest Channel (5 210 MHz)

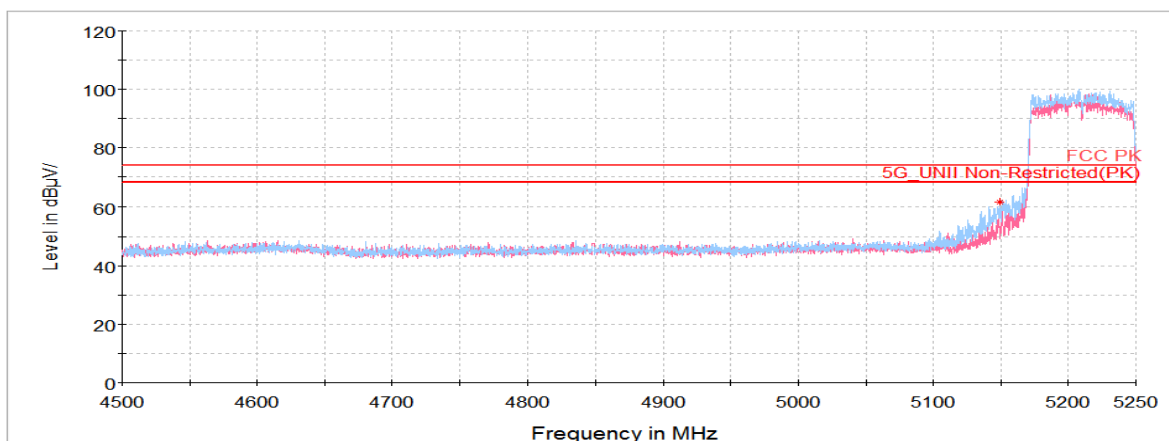
Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μ V))	(dB)	(dB)	(dB)	(dB(μ V/m))	(dB(μ V/m))	(dB)
Peak data								
5 149.74 ¹⁾	H	53.52	34.17	-26.27	-	61.42	74.00	12.58
10 407.48	H	57.42	37.61	-50.01	-	45.02	68.20	23.18
15 631.36 ¹⁾	H	54.51	39.95	-46.13	-	48.33	74.00	25.67
Average Data								
5 149.74 ¹⁾	H	42.35	34.17	-26.27	-	50.25	54.00	3.75

Average data



Blank

Horizontal/Vertical for Band-edge



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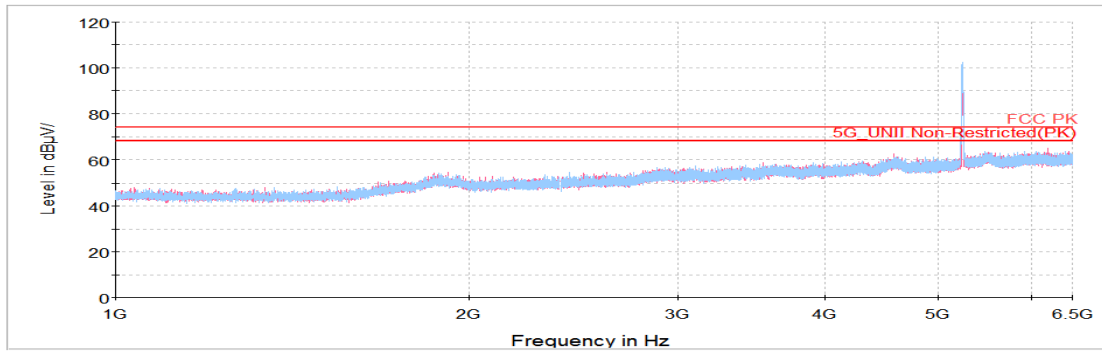


Plot of Harmonics and Spurious Emissions

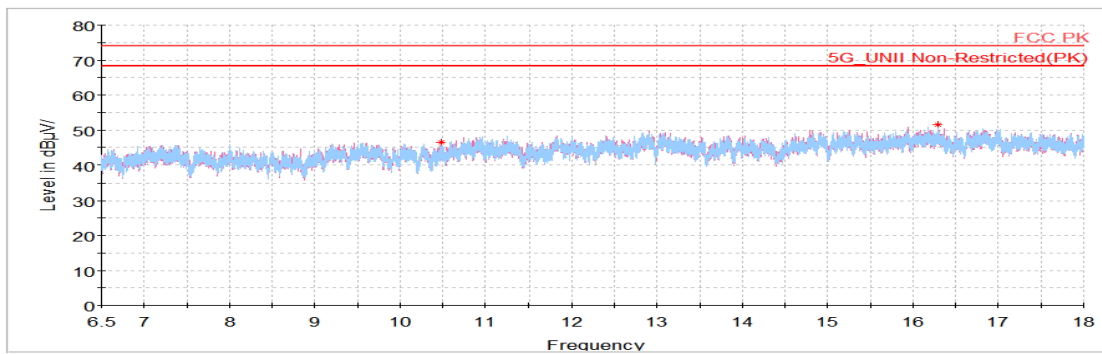
In order to simplify the report, attached plots were only the lowest margin condition

802.11n HT20_UNII-1_ANT2_Highest Channel (5 240 MHz)

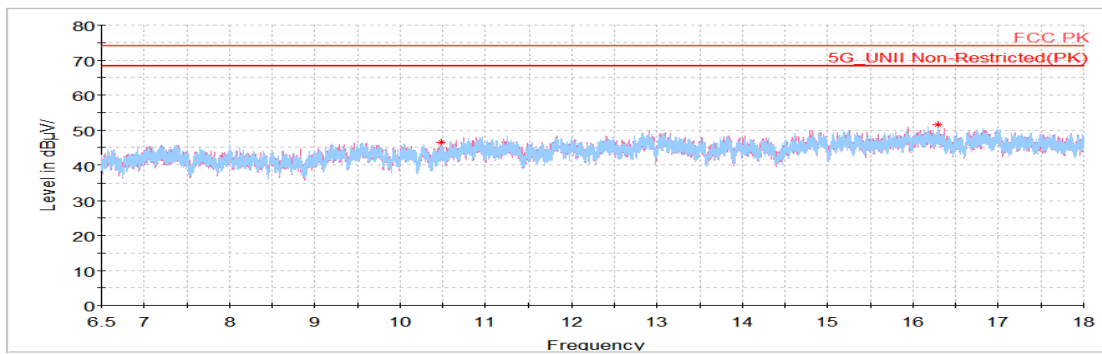
Horizontal/Vertical for 1 GHz ~ 6.5 GHz



Horizontal/Vertical for 6.5 GHz ~ 18 GHz



Horizontal/Vertical for 18 GHz ~ 40 GHz



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KCTL**802.11a UNII-2A ANT1****Lowest Channel (5 260 MHz)**

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μ V))	(dB)	(dB)	(dB)	(dB(μ V/m))	(dB(μ V/m))	(dB)
Peak data								
10 462.83	H	58.66	37.66	-50.06	-	46.26	68.20	21.94
15 678.80 ¹⁾	H	55.24	39.93	-46.12	-	49.05	74.00	24.95
Average Data								
No spurious emissions were detected within 20 dB of the limit.								

Middle Channel (5 280 MHz)

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μ V))	(dB)	(dB)	(dB)	(dB(μ V/m))	(dB(μ V/m))	(dB)
Peak data								
10 809.63 ¹⁾	H	60.00	38.01	-49.20	-	48.81	74.00	25.19
15 846.27 ¹⁾	V	55.56	39.86	-46.08	-	49.34	74.00	24.66
Average Data								
No spurious emissions were detected within 20 dB of the limit.								

Highest Channel (5 320 MHz)

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μ V))	(dB)	(dB)	(dB)	(dB(μ V/m))	(dB(μ V/m))	(dB)
Peak data								
5 350.38 ¹⁾	H	50.56	34.53	-26.11	-	58.98	74.00	15.02
10 638.92 ¹⁾	V	59.16	37.84	-49.69	-	47.31	74.00	26.69
15 931.44 ¹⁾	V	55.99	39.83	-46.06	-	49.76	74.00	24.24
Average Data								
5 350.38 ¹⁾	H	38.81	34.53	-26.11	-	47.23	54.00	6.77

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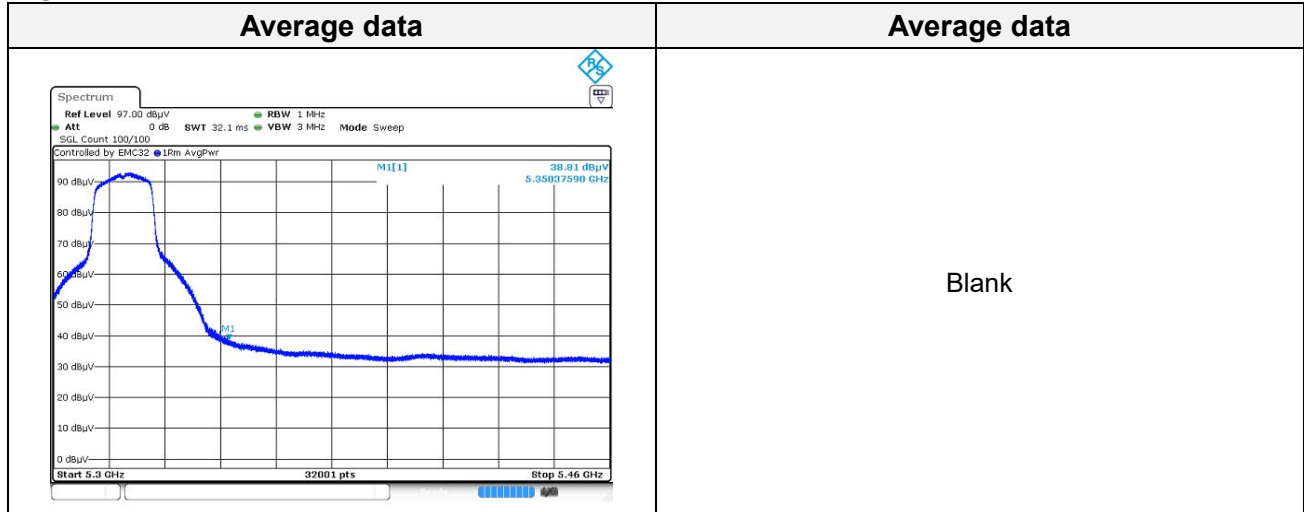
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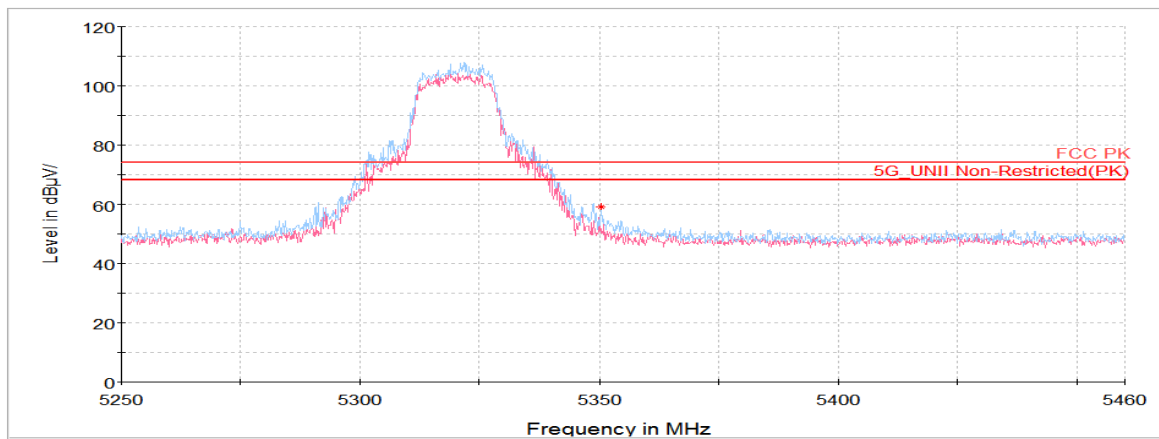


802.11a UNII-2A ANT1

Highest Channel (5 320 MHz)



Horizontal/Vertical for Band-edge



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KCTL**802.11a UNII-2A ANT2****Lowest Channel (5 260 MHz)**

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μ V))	(dB)	(dB)	(dB)	(dB(μ V/m))	(dB(μ V/m))	(dB)
Peak data								
10 582.86	H	58.65	37.78	-49.85	-	46.58	68.20	21.62
15 842.67 ¹⁾	H	56.30	39.86	-46.08	-	50.08	74.00	23.92
Average Data								
No spurious emissions were detected within 20 dB of the limit.								

Middle Channel (5 280 MHz)

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μ V))	(dB)	(dB)	(dB)	(dB(μ V/m))	(dB(μ V/m))	(dB)
Peak data								
10 557.70	V	58.77	37.76	-49.92	-	46.61	68.20	21.59
16 190.19 ¹⁾	V	56.70	40.83	-46.75	-	50.78	74.00	23.22
Average Data								
No spurious emissions were detected within 20 dB of the limit.								

Highest Channel (5 320 MHz)

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μ V))	(dB)	(dB)	(dB)	(dB(μ V/m))	(dB(μ V/m))	(dB)
Peak data								
5 350.58 ¹⁾	H	46.96	34.53	-26.11	-	55.38	74.00	18.62
10 642.52 ¹⁾	V	57.94	37.84	-49.68	-	46.10	74.00	27.90
16 239.78	H	56.44	40.89	-46.93	-	50.40	68.20	17.80
Average Data								
5 350.58 ¹⁾	H	36.60	34.53	-26.11	-	45.02	54.00	8.98

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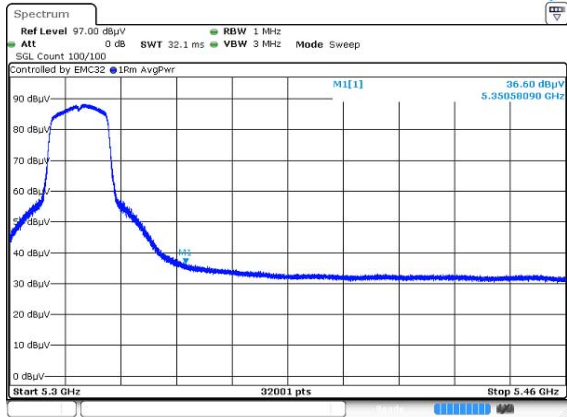
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802.11a UNII-2A ANT2

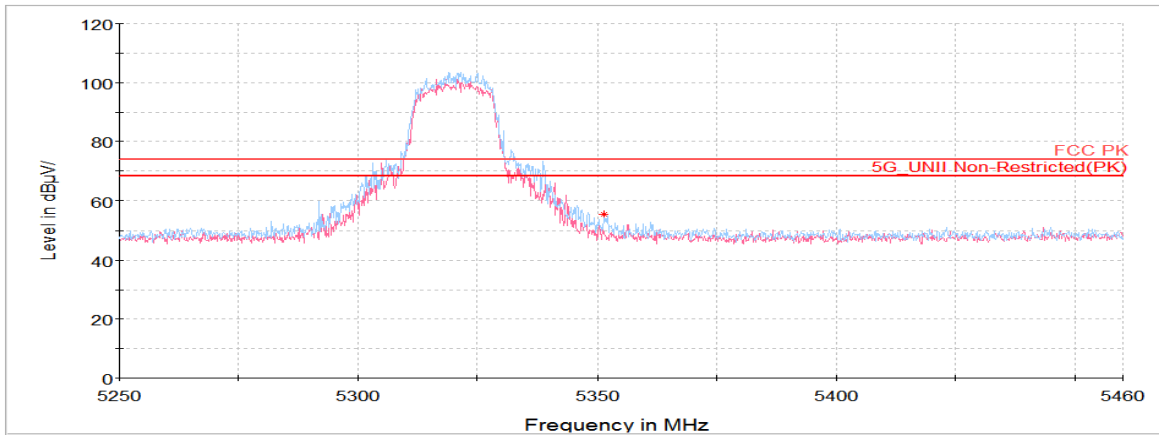
Highest Channel (5 320 MHz)

Average data



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Horizontal/Vertical for Band-edge



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KCTL**802.11a UNII-2A 2TX MIMO****Lowest Channel (5 260 MHz)**

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μ V))	(dB)	(dB)	(dB)	(dB(μ V/m))	(dB(μ V/m))	(dB)
Peak data								
10 669.83 ¹⁾	V	58.66	37.87	-49.60	-	46.93	74.00	27.07
15 915.27 ¹⁾	H	55.92	39.83	-46.07	-	49.68	74.00	24.32
Average Data								
No spurious emissions were detected within 20 dB of the limit.								

Middle Channel (5 280 MHz)

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μ V))	(dB)	(dB)	(dB)	(dB(μ V/m))	(dB(μ V/m))	(dB)
Peak data								
10 590.41	V	59.34	37.79	-49.83	-	47.30	68.20	20.90
15 906.28 ¹⁾	H	55.40	39.84	-46.07	-	49.17	74.00	24.83
Average Data								
No spurious emissions were detected within 20 dB of the limit.								

Highest Channel (5 320 MHz)

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μ V))	(dB)	(dB)	(dB)	(dB(μ V/m))	(dB(μ V/m))	(dB)
Peak data								
5 350.98 ¹⁾	H	45.04	34.53	-26.10	-	53.47	74.00	20.53
10 669.83 ¹⁾	V	58.66	37.87	-49.60	-	46.93	74.00	27.07
15 915.27 ¹⁾	H	55.92	39.83	-46.07	-	49.68	74.00	24.32
Average Data								
5 350.98 ¹⁾	H	35.28	34.53	-26.10	-	43.71	54.00	10.29

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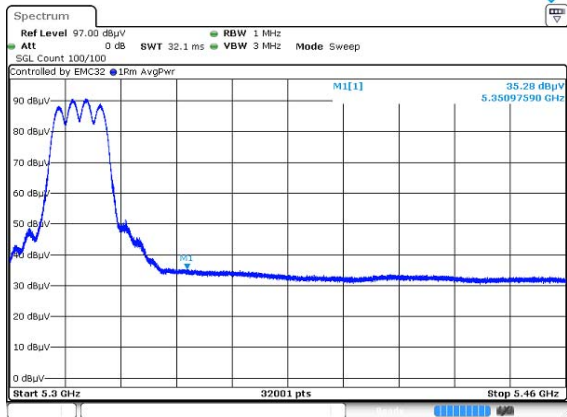
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802.11a UNII-2A 2TX MIMO

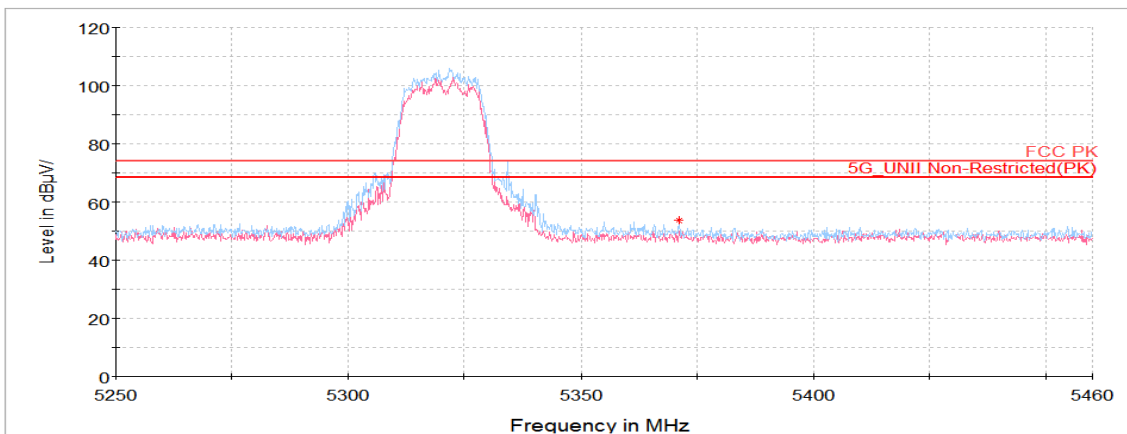
Highest Channel (5 320 MHz)

Average data



Blank

Horizontal/Vertical for Band-edge



802.11n HT20 UNII-2A ANT1

Lowest Channel (5 260 MHz)

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μ V))	(dB)	(dB)	(dB)	(dB(μ V/m))	(dB(μ V/m))	(dB)
Peak data								
10 524.28	V	58.27	37.72	-50.02	-	45.97	68.20	22.23
15 785.53 ¹⁾	V	55.46	39.89	-46.09	-	49.26	74.00	24.74
Average Data								
No spurious emissions were detected within 20 dB of the limit.								

Middle Channel (5 280 MHz)

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μ V))	(dB)	(dB)	(dB)	(dB(μ V/m))	(dB(μ V/m))	(dB)
Peak data								
10 592.20	V	59.00	37.79	-49.83	-	46.96	68.20	21.24
15 870.70 ¹⁾	V	55.53	39.85	-46.08	-	49.30	74.00	24.70
Average Data								
No spurious emissions were detected within 20 dB of the limit.								

Highest Channel (5 320 MHz)

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μ V))	(dB)	(dB)	(dB)	(dB(μ V/m))	(dB(μ V/m))	(dB)
Peak data								
5 351.03 ¹⁾	H	49.82	34.53	-26.10	-	58.25	74.00	15.75
10 635.33 ¹⁾	V	60.03	37.84	-49.70	-	48.17	74.00	25.83
15 937.55 ¹⁾	V	55.89	39.82	-46.06	-	49.65	74.00	24.35
Average Data								
5 351.03 ¹⁾	H	40.93	34.53	-26.10	-	49.36	54.00	4.64

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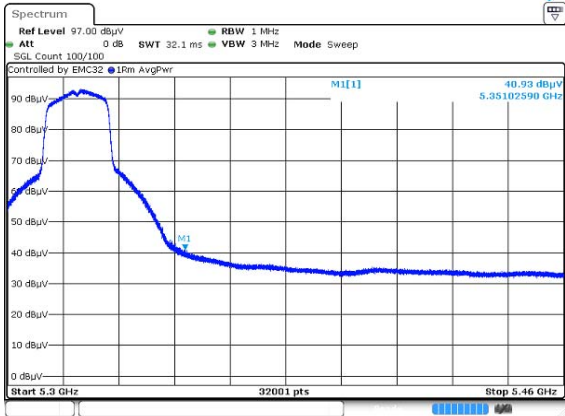
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802.11n HT20 UNII-2A ANT1

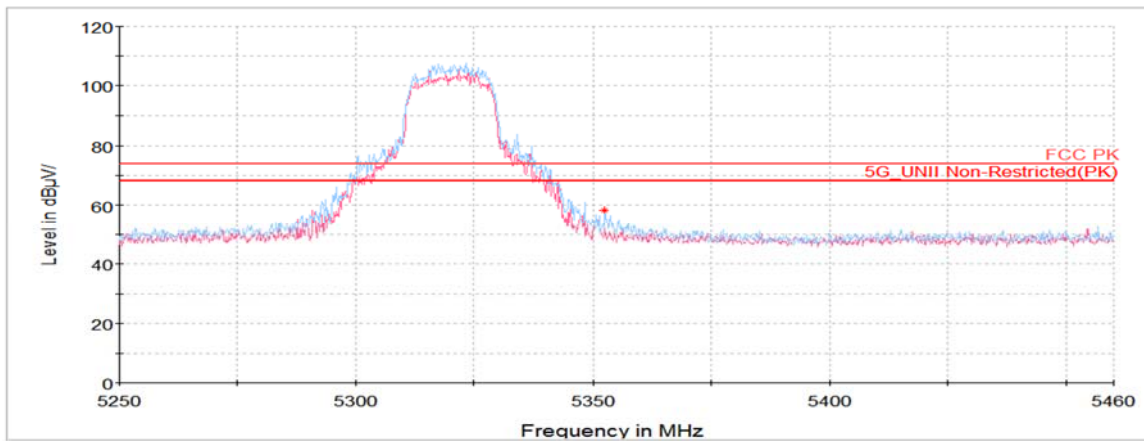
Highest Channel (5 320 MHz)

Average data



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Horizontal/Vertical for Band-edge



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KCTL**802.11n HT20 UNII-2A ANT2****Lowest Channel (5 260 MHz)**

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μ V))	(dB)	(dB)	(dB)	(dB(μ V/m))	(dB(μ V/m))	(dB)
Peak data								
10 516.02	V	59.34	37.72	-50.04	-	47.02	68.20	21.18
16 174.38 ¹⁾	H	56.64	40.81	-46.69	-	50.76	74.00	23.24
Average Data								
No spurious emissions were detected within 20 dB of the limit.								

Middle Channel (5 280 MHz)

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μ V))	(dB)	(dB)	(dB)	(dB(μ V/m))	(dB(μ V/m))	(dB)
Peak data								
10 581.78	H	57.89	37.78	-49.85	-	45.82	68.20	22.38
16 176.17 ¹⁾	H	56.45	40.81	-46.70	-	50.56	74.00	23.44
Average Data								
No spurious emissions were detected within 20 dB of the limit.								

Highest Channel (5 320 MHz)

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μ V))	(dB)	(dB)	(dB)	(dB(μ V/m))	(dB(μ V/m))	(dB)
Peak data								
5 350.17 ¹⁾	H	48.89	34.53	-26.11	-	57.31	74.00	16.69
10 632.45 ¹⁾	V	57.91	37.83	-49.71	-	46.03	74.00	27.97
16 168.27 ¹⁾	V	55.99	40.80	-46.67	-	50.12	74.00	23.88
Average Data								
5 350.17 ¹⁾	H	37.53	34.53	-26.11	-	45.95	54.00	8.05

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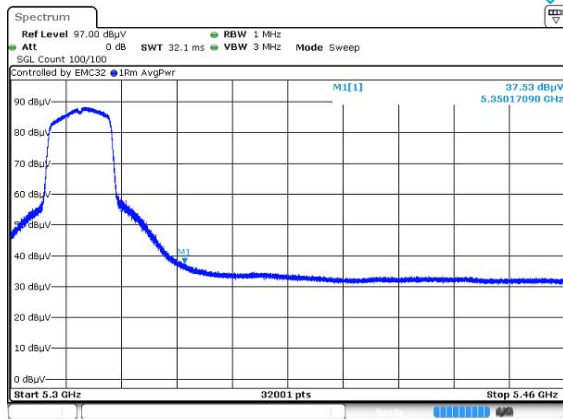
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802.11n HT20 UNII-2A ANT2

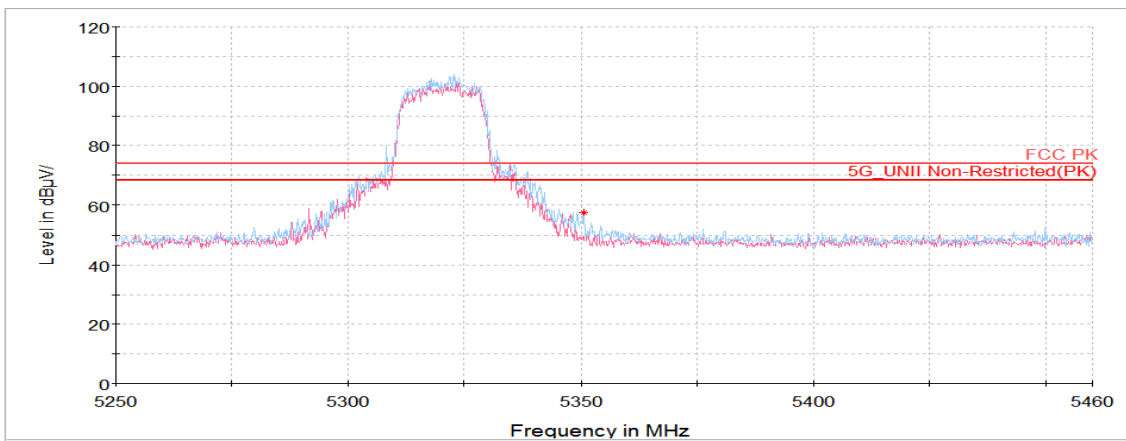
Highest Channel (5 320 MHz)

Average data



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Horizontal/Vertical for Band-edge



802.11n HT20 UNII-2A 2TX MIMO

Lowest Channel (5 260 MHz)

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μ V))	(dB)	(dB)	(dB)	(dB(μ V/m))	(dB(μ V/m))	(dB)
Peak data								
10 516.38	V	57.41	37.72	-50.04	-	45.09	68.20	23.11
15 772.95 ¹⁾	V	55.18	39.89	-46.10	-	48.97	74.00	25.03
Average Data								
No spurious emissions were detected within 20 dB of the limit.								

Middle Channel (5 280 MHz)

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μ V))	(dB)	(dB)	(dB)	(dB(μ V/m))	(dB(μ V/m))	(dB)
Peak data								
10 560.94	V	57.01	37.76	-49.91	-	44.86	68.20	23.34
15 904.84 ¹⁾	H	56.49	39.84	-46.07	-	50.26	74.00	23.74
Average Data								
No spurious emissions were detected within 20 dB of the limit.								

Highest Channel (5 320 MHz)

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μ V))	(dB)	(dB)	(dB)	(dB(μ V/m))	(dB(μ V/m))	(dB)
Peak data								
5 351.40 ¹⁾	H	43.79	34.53	-26.10	-	52.22	74.00	21.78
10 643.95 ¹⁾	V	58.02	37.84	-49.68	-	46.18	74.00	27.82
15 944.73 ¹⁾	V	55.53	39.82	-46.06	-	49.29	74.00	24.71
Average Data								
5 351.40 ¹⁾	H	35.44	34.53	-26.10	-	43.87	54.00	10.13

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802.11n HT20 UNII-2A 2TX MIMO

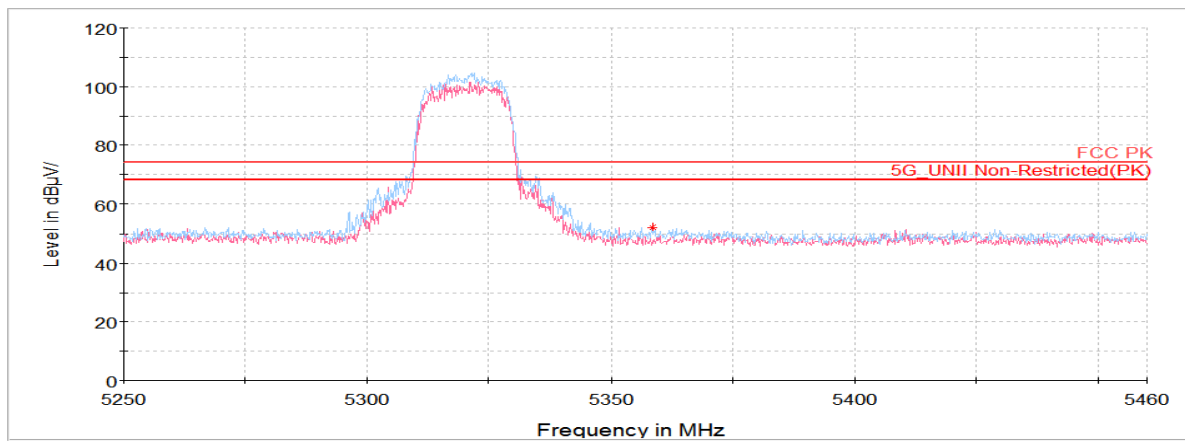
Highest Channel (5 320 MHz)

Average data



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Horizontal/Vertical for Band-edge



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**802.11n HT40 UNII-2A ANT1****Lowest Channel (5 270 MHz)**

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μ V))	(dB)	(dB)	(dB)	(dB(μ V/m))	(dB(μ V/m))	(dB)
Peak data								
10 509.55	V	58.66	37.71	-50.06	-	46.31	68.20	21.89
15 899.09 ¹⁾	V	56.44	39.84	-46.07	-	50.21	74.00	23.79
Average Data								
No spurious emissions were detected within 20 dB of the limit.								

Highest Channel (5 310 MHz)

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μ V))	(dB)	(dB)	(dB)	(dB(μ V/m))	(dB(μ V/m))	(dB)
Peak data								
5 350.28	H	53.24	34.53	-26.11	-	61.66	74.00	12.34
5 350.28	H	43.51	34.53	-26.11	-	51.93	54.00	2.07
10 648.27	V	59.35	37.85	-49.66	-	47.54	74.00	26.46
16 156.41	V	56.35	40.79	-46.63	-	50.51	74.00	23.49
Average Data								
No spurious emissions were detected within 20 dB of the limit.								

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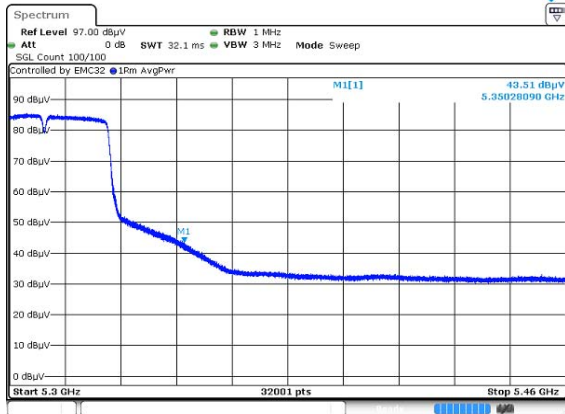
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802.11n HT40 UNII-2A ANT1

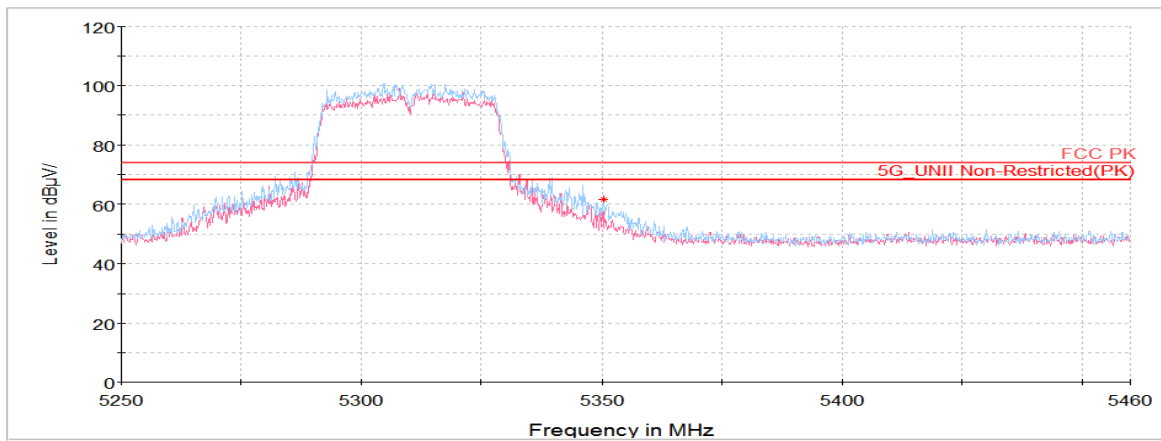
Highest Channel (5 310 MHz)

Average data



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Horizontal/Vertical for Band-edge



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KCTL**802.11n HT40 UNII-2A ANT2****Lowest Channel (5 270 MHz)**

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μ V))	(dB)	(dB)	(dB)	(dB(μ V/m))	(dB(μ V/m))	(dB)
Peak data								
10 546.56	H	57.18	37.75	-49.96	-	44.97	68.20	23.23
16 293.69	V	56.88	40.95	-47.13	-	50.70	68.20	17.50
Average Data								
No spurious emissions were detected within 20 dB of the limit.								

Highest Channel (5 310 MHz)

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μ V))	(dB)	(dB)	(dB)	(dB(μ V/m))	(dB(μ V/m))	(dB)
Peak data								
5 350.17 ¹⁾	H	52.82	34.53	-26.11	-	61.24	74.00	12.76
10 635.33 ¹⁾	H	58.89	37.84	-49.70	-	47.03	74.00	26.97
16 830.23	H	57.42	41.26	-47.72	-	50.96	68.20	17.24
Average Data								
5 350.17 ¹⁾	H	41.25	34.53	-26.11	-	49.67	54.00	4.33

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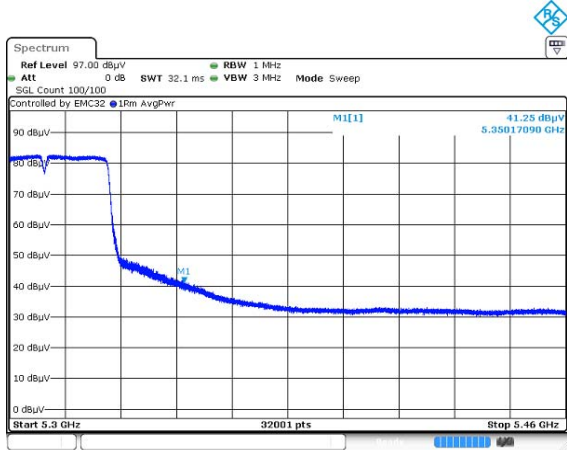
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802.11n HT40 UNII-2A ANT2

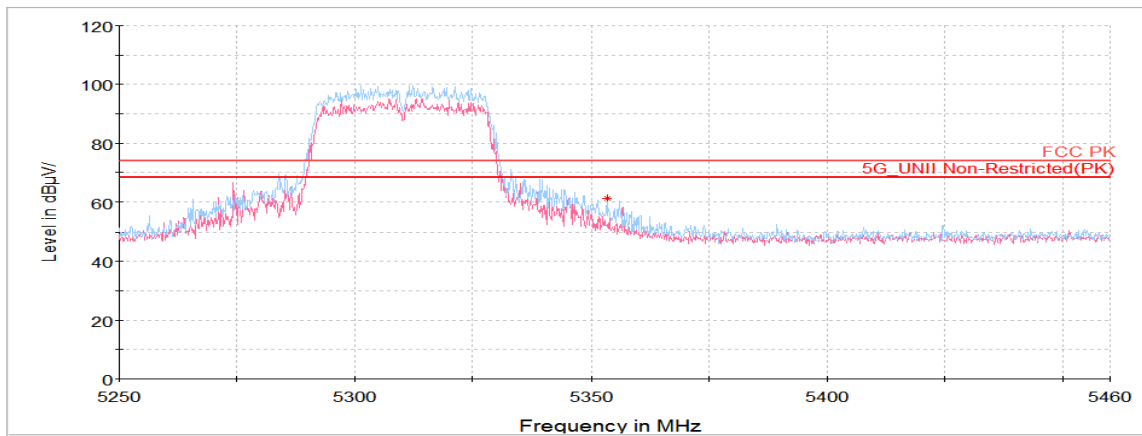
Highest Channel (5 310 MHz)

Average data



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Horizontal/Vertical for Band-edge



802.11n HT40 UNII-2A 2TX MIMO

Lowest Channel (5 270 MHz)

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μ V))	(dB)	(dB)	(dB)	(dB(μ V/m))	(dB(μ V/m))	(dB)
Peak data								
10 542.97	V	57.51	37.74	-49.97	-	45.28	68.20	22.92
15 820.03 ¹⁾	H	54.97	39.87	-46.09	-	48.75	74.00	25.25
Average Data								
No spurious emissions were detected within 20 dB of the limit.								

Highest Channel (5 310 MHz)

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μ V))	(dB)	(dB)	(dB)	(dB(μ V/m))	(dB(μ V/m))	(dB)
Peak data								
5 350.50 ¹⁾	H	49.93	34.53	-26.11	-	58.35	74.00	15.65
10 645.75 ¹⁾	V	57.99	37.85	-49.67	-	46.17	74.00	27.83
15 925.69 ¹⁾	V	55.52	39.83	-46.07	-	49.28	74.00	24.72
Average Data								
5 350.50 ¹⁾	H	42.45	34.53	-26.11	-	50.87	54.00	3.13

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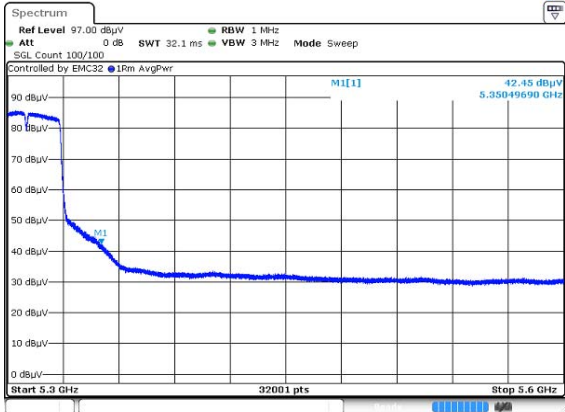
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802.11n HT40 UNII-2A 2TX MIMO

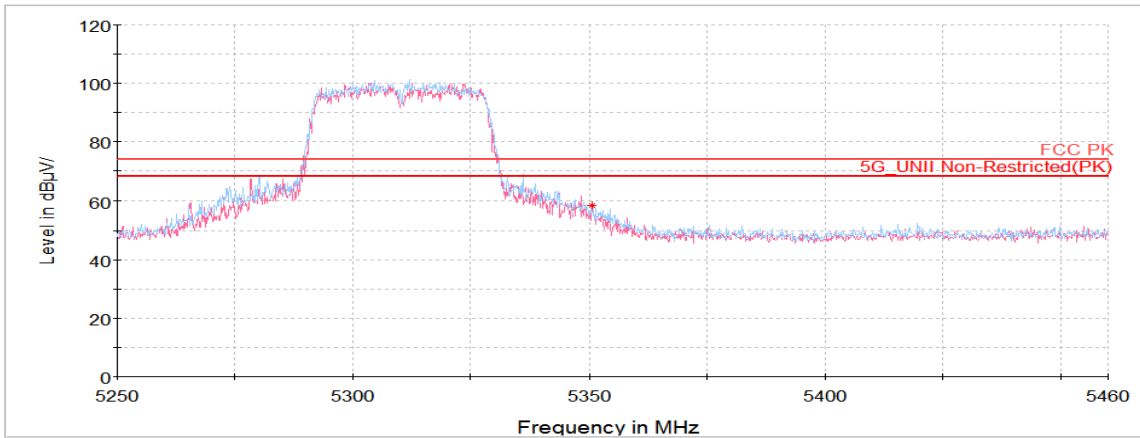
Highest Channel (5 310 MHz)

Average data



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Horizontal/Vertical for Band-edge



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**802.11ac VHT20 UNII-2A ANT1****Lowest Channel (5 260 MHz)**

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μ V))	(dB)	(dB)	(dB)	(dB(μ V/m))	(dB(μ V/m))	(dB)
Peak data								
10 519.97	V	58.49	37.72	-50.03	-	46.18	68.20	22.02
15 772.95 ¹⁾	V	55.02	39.89	-46.10	-	48.81	74.00	25.19
Average Data								
No spurious emissions were detected within 20 dB of the limit.								

Middle Channel (5 280 MHz)

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μ V))	(dB)	(dB)	(dB)	(dB(μ V/m))	(dB(μ V/m))	(dB)
Peak data								
10 593.64	V	58.39	37.79	-49.82	-	46.36	68.20	21.84
15 938.98	H	56.05	39.82	-46.06	-	49.81	74.00	24.19
Average Data								
No spurious emissions were detected within 20 dB of the limit.								

Highest Channel (5 320 MHz)

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μ V))	(dB)	(dB)	(dB)	(dB(μ V/m))	(dB(μ V/m))	(dB)
Peak data								
5 350.54 ¹⁾	H	54.27	34.53	-26.11	-	62.69	74.00	11.31
10 645.03 ¹⁾	H	58.85	37.85	-49.67	-	47.03	74.00	26.97
15 948.33 ¹⁾	V	56.25	39.82	-46.06	-	50.01	74.00	23.99
Average Data								
5 350.54 ¹⁾	H	41.63	34.53	-26.11	-	50.05	54.00	3.95

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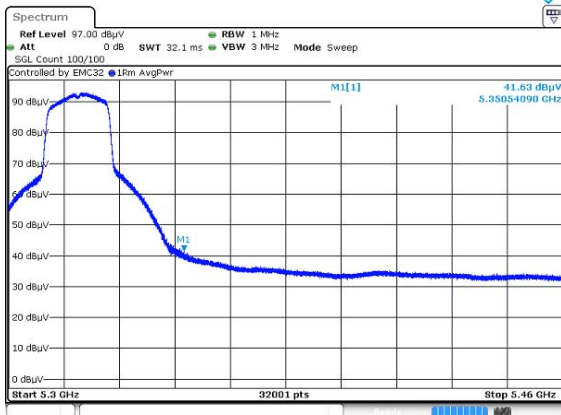
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802.11ac VHT20 UNII-2A ANT1

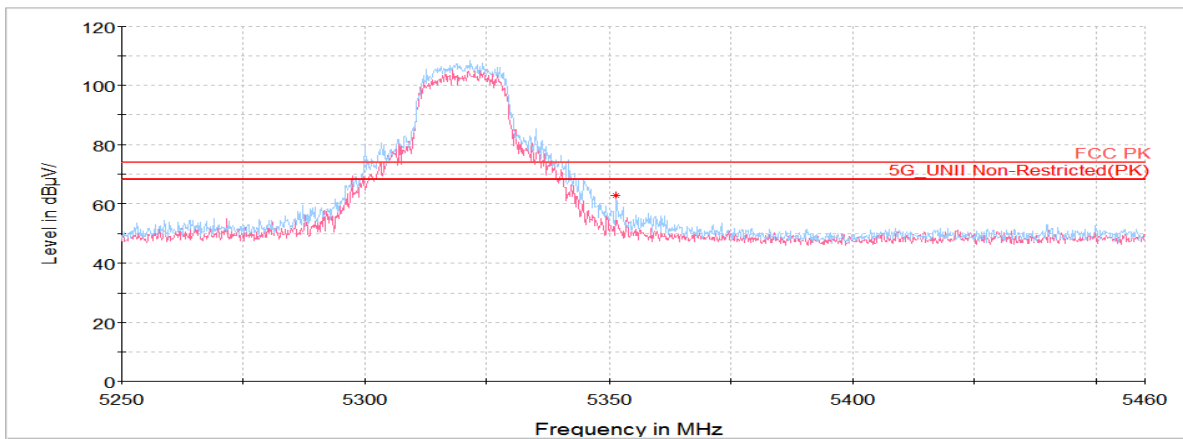
Highest Channel (5 320 MHz)

Average data



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Horizontal/Vertical for Band-edge



802.11ac VHT20 UNII-2A ANT2

Lowest Channel (5 260 MHz)

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μ V))	(dB)	(dB)	(dB)	(dB(μ V/m))	(dB(μ V/m))	(dB)
Peak data								
10 519.61	V	58.75	37.72	-50.03	-	46.44	68.20	21.76
15 938.63 ¹⁾	V	57.07	39.82	-46.06	-	50.83	74.00	23.17
Average Data								
No spurious emissions were detected within 20 dB of the limit.								

Middle Channel (5 280 MHz)

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μ V))	(dB)	(dB)	(dB)	(dB(μ V/m))	(dB(μ V/m))	(dB)
Peak data								
10 560.58	V	59.05	37.76	-49.92	-	46.89	68.20	21.31
16 193.06 ¹⁾	V	55.96	40.83	-46.76	-	50.03	74.00	23.97
Average Data								
No spurious emissions were detected within 20 dB of the limit.								

Highest Channel (5 320 MHz)

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μ V))	(dB)	(dB)	(dB)	(dB(μ V/m))	(dB(μ V/m))	(dB)
Peak data								
5 350.84 ¹⁾	H	49.01	34.53	-26.10	-	57.44	74.00	16.56
10 640.36 ¹⁾	V	58.39	37.84	-49.69	-	46.54	74.00	27.46
16 176.89 ¹⁾	V	56.53	40.81	-46.70	-	50.64	74.00	23.36
Average Data								
5 350.84 ¹⁾	H	37.22	34.53	-26.10	-	45.65	54.00	8.35

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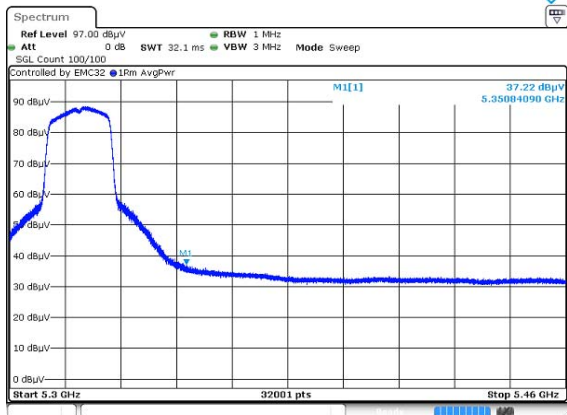
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802.11ac VHT20 UNII-2A ANT2

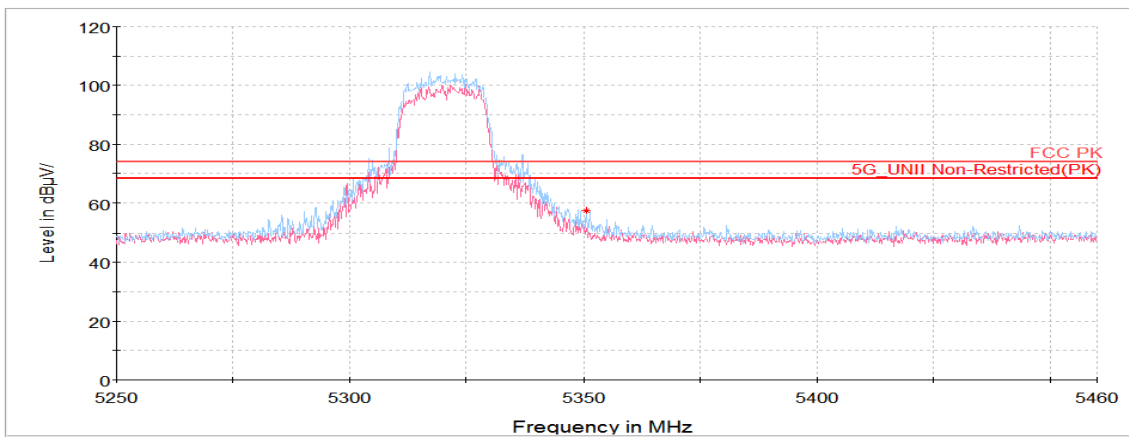
Highest Channel (5 320 MHz)

Average data



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Horizontal/Vertical for Band-edge



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KCTL**802.11ac VHT20 UNII-2A 2TX MIMO****Lowest Channel (5 260 MHz)**

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μ V))	(dB)	(dB)	(dB)	(dB(μ V/m))	(dB(μ V/m))	(dB)
Peak data								
10 512.42	H	57.92	37.71	-50.05	-	45.58	68.20	22.62
15 784.09 ¹⁾	H	55.56	39.89	-46.09	-	49.36	74.00	24.64
Average Data								
No spurious emissions were detected within 20 dB of the limit.								

Middle Channel (5 280 MHz)

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μ V))	(dB)	(dB)	(dB)	(dB(μ V/m))	(dB(μ V/m))	(dB)
Peak data								
10 556.27	V	58.00	37.76	-49.93	-	45.83	68.20	22.37
15 853.81 ¹⁾	H	55.24	39.86	-46.08	-	49.02	74.00	24.98
Average Data								
No spurious emissions were detected within 20 dB of the limit.								

Highest Channel (5 320 MHz)

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μ V))	(dB)	(dB)	(dB)	(dB(μ V/m))	(dB(μ V/m))	(dB)
Peak data								
5 350.47 ¹⁾	H	43.29	34.53	-26.11	-	51.71	74.00	22.29
10 647.91 ¹⁾	H	58.29	37.85	-49.67	-	46.47	74.00	27.53
15 936.83 ¹⁾	V	56.19	39.83	-46.06	-	49.96	74.00	24.04
Average Data								
5 350.47 ¹⁾	H	35.35	34.53	-26.11	-	43.77	54.00	10.23

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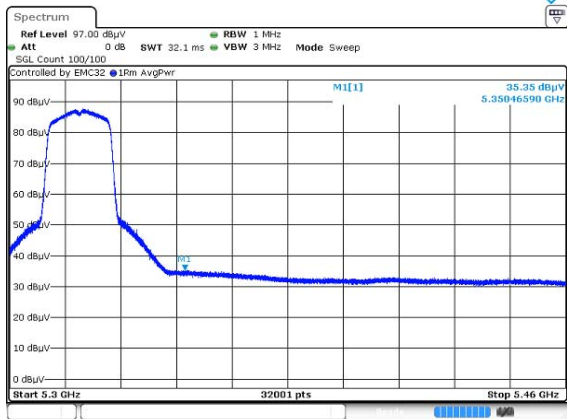
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802.11ac VHT20 UNII-2A 2TX MIMO

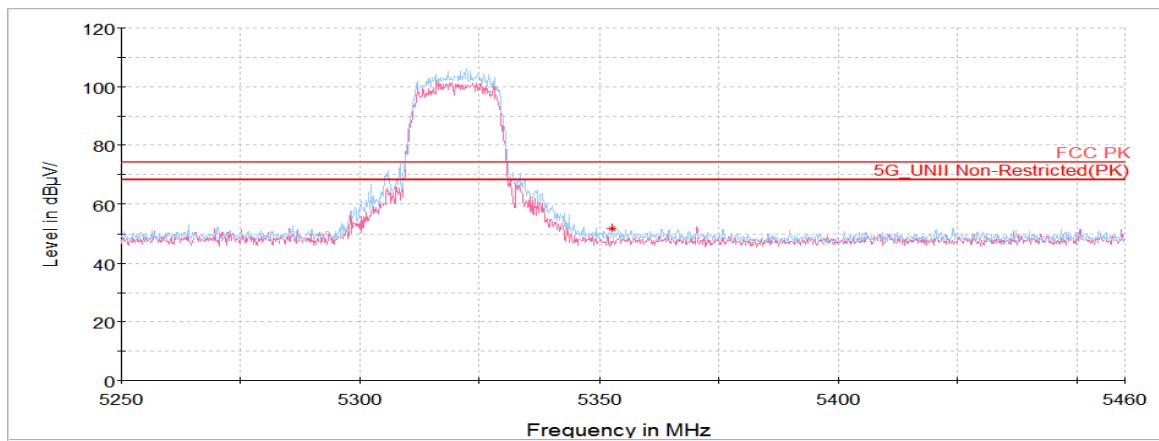
Highest Channel (5 320 MHz)

Average data



Blank

Horizontal/Vertical for Band-edge



802.11ac VHT40 UNII-2A ANT1

Lowest Channel (5 270 MHz)

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μ V))	(dB)	(dB)	(dB)	(dB(μ V/m))	(dB(μ V/m))	(dB)
Peak data								
10 588.25	V	58.16	37.79	-49.84	-	46.11	68.20	22.09
15 801.70	V	55.60	39.88	-46.09	-	49.39	74.00	24.61
Average Data								
No spurious emissions were detected within 20 dB of the limit.								

Highest Channel (5 310 MHz)

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μ V))	(dB)	(dB)	(dB)	(dB(μ V/m))	(dB(μ V/m))	(dB)
Peak data								
5 350.17 ¹⁾	H	52.05	34.53	-26.11	-	60.47	74.00	13.53
10 636.41 ¹⁾	V	58.08	37.84	-49.70	-	46.22	74.00	27.78
16 847.48	V	57.37	41.28	-47.71	-	50.94	68.20	17.26
Average Data								
5 350.17 ¹⁾	H	43.40	34.53	-26.11	-	51.82	54.00	2.18

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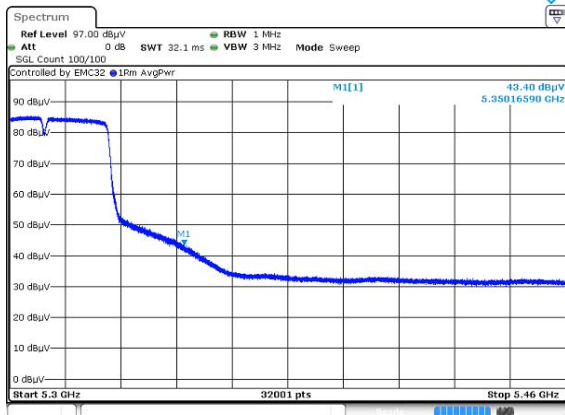
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802.11ac VHT40 UNII-2A ANT1

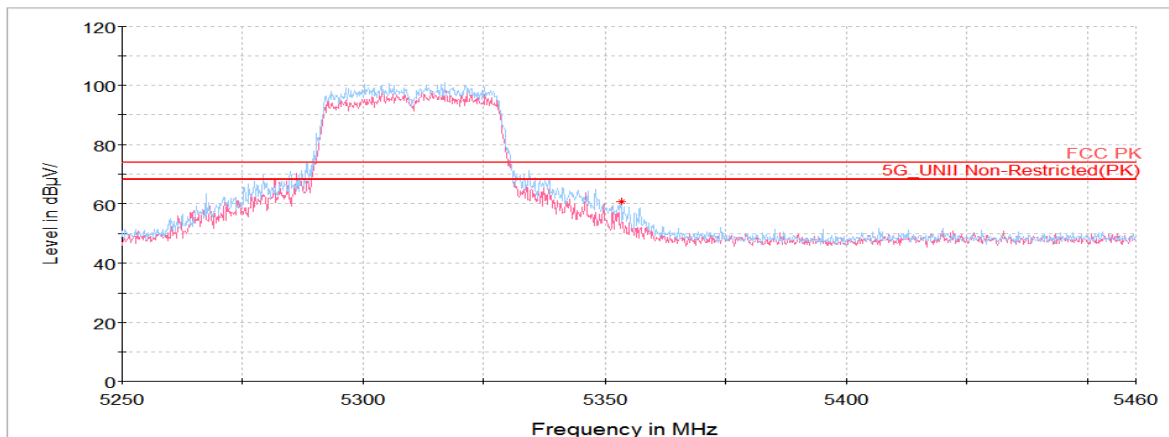
Highest Channel (5 310 MHz)

Average data



Blank

Horizontal/Vertical for Band-edge



802.11ac VHT40 UNII-2A ANT2

Lowest Channel (5 270 MHz)

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μ V))	(dB)	(dB)	(dB)	(dB(μ V/m))	(dB(μ V/m))	(dB)
Peak data								
10 546.20	V	57.35	37.75	-49.96	-	45.14	68.20	23.06
16 815.50	V	57.80	41.25	-47.73	-	51.32	68.20	16.88
Average Data								
No spurious emissions were detected within 20 dB of the limit.								

Highest Channel (5 310 MHz)

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μ V))	(dB)	(dB)	(dB)	(dB(μ V/m))	(dB(μ V/m))	(dB)
Peak data								
5 350.74 ¹⁾	H	53.56	34.53	-26.10	-	61.99	74.00	12.01
10 612.69 ¹⁾	V	58.04	37.81	-49.77	-	46.08	74.00	27.92
16 278.95	H	56.69	40.93	-47.08	-	50.54	68.20	17.66
Average Data								
5 350.74 ¹⁾	H	41.83	34.53	-26.10	-	50.26	54.00	3.74

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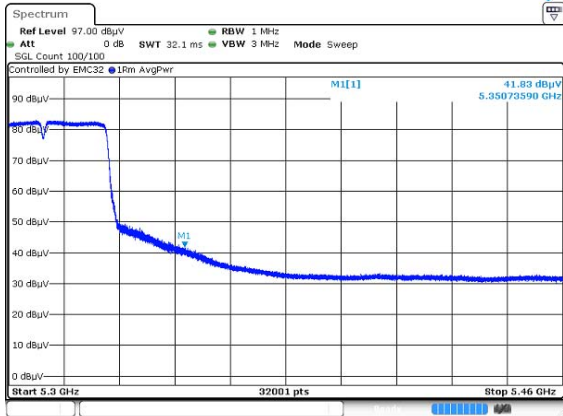
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802.11ac VHT40 UNII-2A ANT2

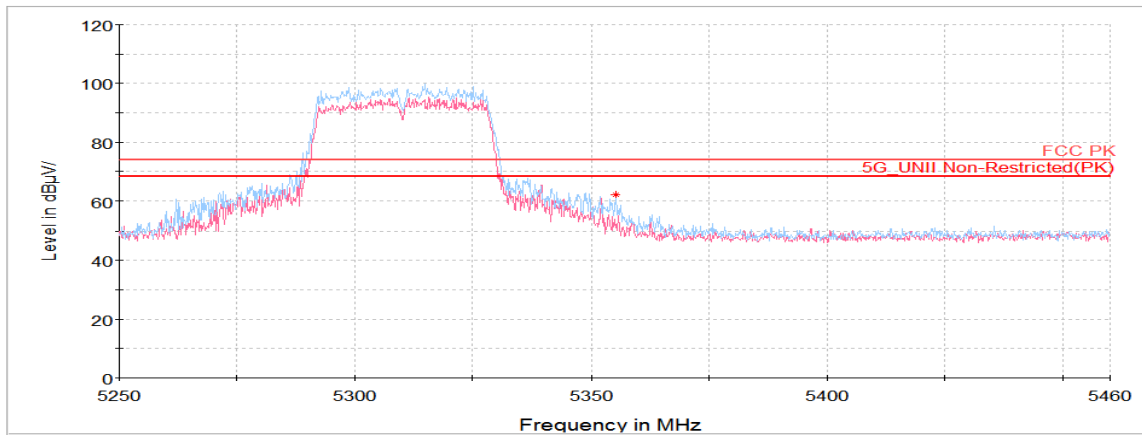
Highest Channel (5 310 MHz)


Average data



Blank

Horizontal/Vertical for Band-edge



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802.11ac VHT40 UNII-2A 2TX MIMO

Lowest Channel (5 270 MHz)

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μ V))	(dB)	(dB)	(dB)	(dB(μ V/m))	(dB(μ V/m))	(dB)
Peak data								
10 544.77	V	57.85	37.74	-49.96	-	45.63	68.20	22.57
15 799.55 ¹⁾	H	55.16	39.88	-46.09	-	48.95	74.00	25.05
Average Data								
No spurious emissions were detected within 20 dB of the limit.								

Highest Channel (5 310 MHz)

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μ V))	(dB)	(dB)	(dB)	(dB(μ V/m))	(dB(μ V/m))	(dB)
Peak data								
5 351.14 ¹⁾	H	49.09	34.53	-26.10	-	57.52	74.00	16.48
10 613.41 ¹⁾	V	57.83	37.81	-49.76	-	45.88	74.00	28.12
15 900.89 ¹⁾	H	55.84	39.84	-46.07	-	49.61	74.00	24.39
Average Data								
5 351.14 ¹⁾	H	42.89	34.53	-26.10	-	51.32	54.00	2.68

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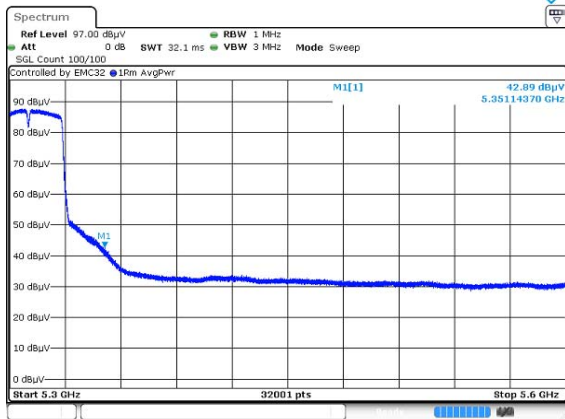
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802.11ac VHT40 UNII-2A 2TX MIMO

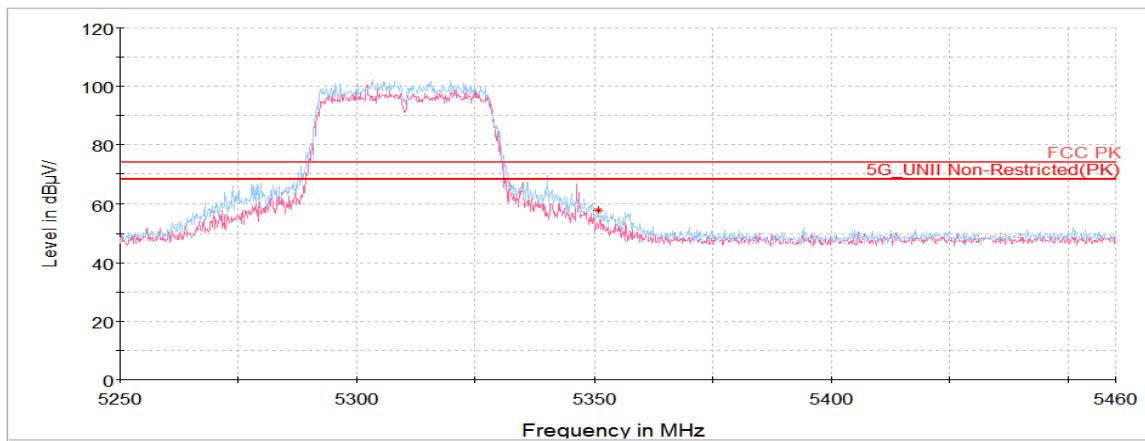
Highest Channel (5 310 MHz)

Average data



Blank

Horizontal/Vertical for Band-edge



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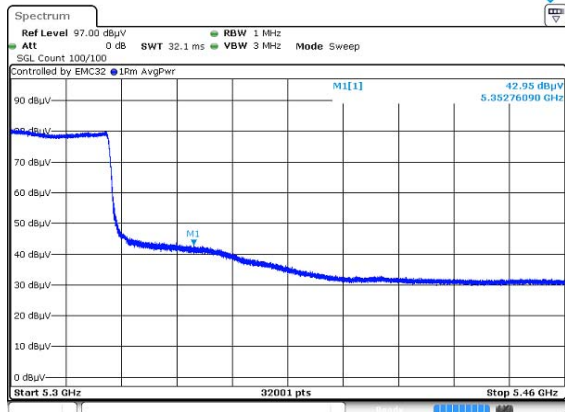


802.11ac VHT80 UNII-2A ANT1

Lowest Channel (5 290 MHz)

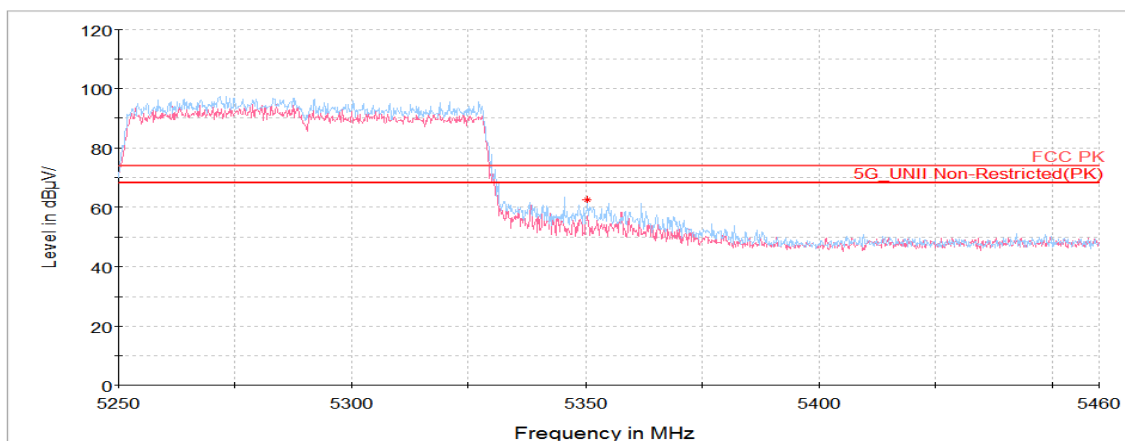
Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μV))	(dB)	(dB)	(dB)	(dB(μV/m))	(dB(μV/m))	(dB)
Peak data								
5 352.76 ¹⁾	H	54.02	34.53	-26.09	-	62.46	74.00	11.54
10 601.91 ¹⁾	V	58.17	37.80	-49.80	-	46.17	74.00	27.83
15 942.58 ¹⁾	V	55.71	39.82	-46.06	-	49.47	74.00	24.53
Average Data								
5 352.76 ¹⁾	H	42.95	34.53	-26.09	-	51.39	54.00	2.61

Average data



Blank

Horizontal/Vertical for Band-edge



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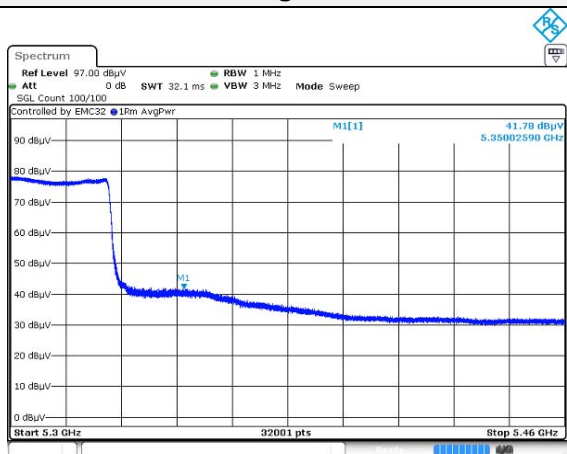


802.11ac VHT80 UNII-2A ANT2

Lowest Channel (5 290 MHz)

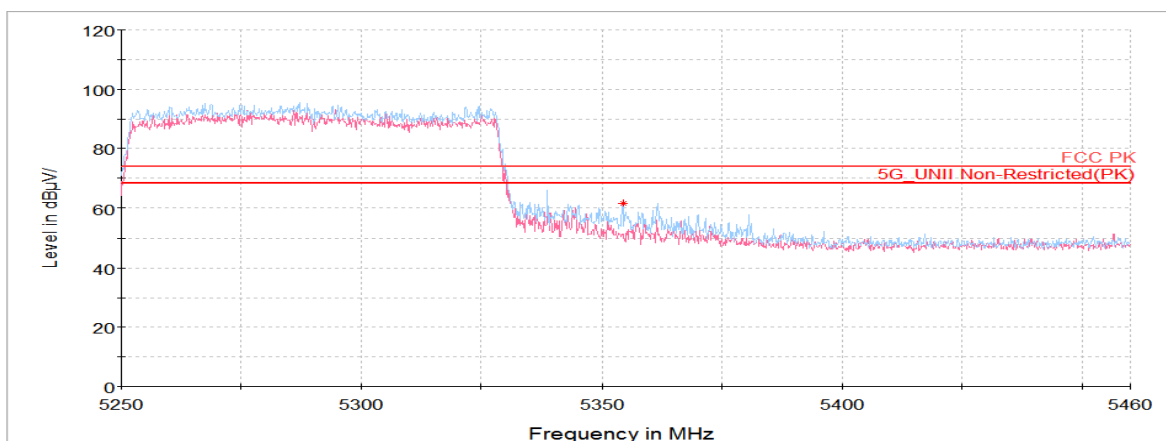
Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μ V))	(dB)	(dB)	(dB)	(dB(μ V/m))	(dB(μ V/m))	(dB)
Peak data								
5 350.03 ¹⁾	H	53.16	34.53	-26.11	-	61.58	74.00	12.42
10 610.53 ¹⁾	V	57.99	37.81	-49.77	-	46.03	74.00	27.97
15 231.38	H	56.02	40.15	-45.58	-	50.59	68.20	17.61
Average Data								
5 350.03 ¹⁾	H	41.78	34.53	-26.11	-	50.20	54.00	3.80

Average data



Blank

Horizontal/Vertical for Band-edge



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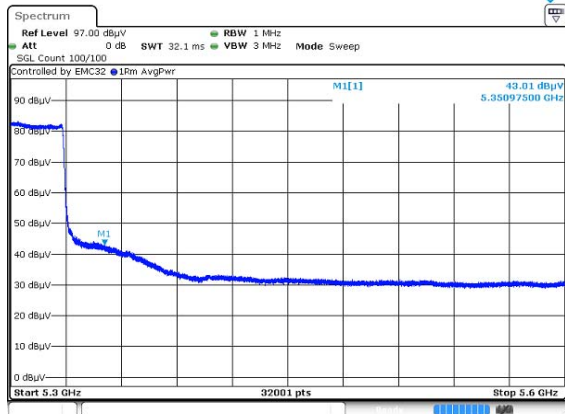


802.11ac VHT80 UNII-2A 2TX MIMO

Lowest Channel (5 290 MHz)

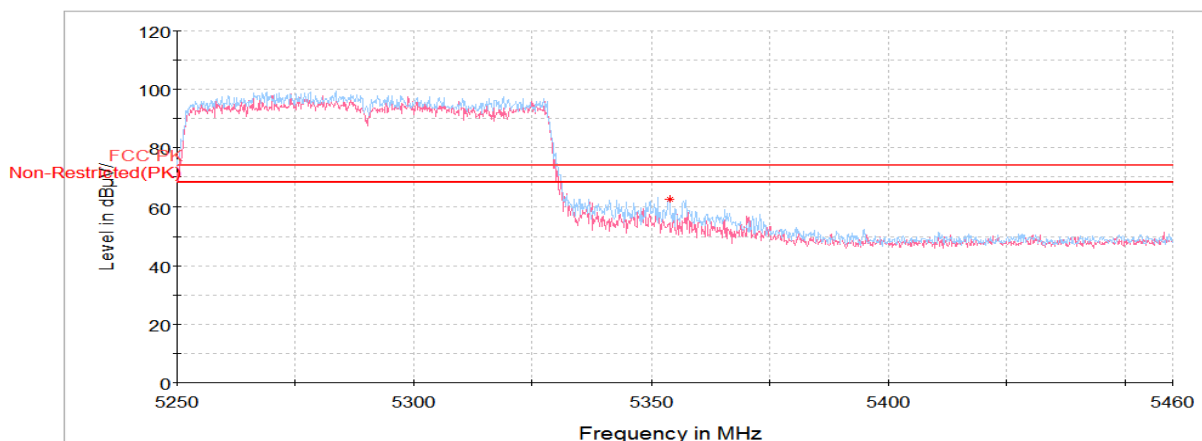
Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μV))	(dB)	(dB)	(dB)	(dB(μV/m))	(dB(μV/m))	(dB)
Peak data								
5 350.98 ¹⁾	H	54.02	34.53	-26.10	-	62.45	74.00	11.55
10 589.33	H	58.21	37.79	-49.83	-	46.17	68.20	22.03
15 878.97 ¹⁾	H	54.13	39.85	-46.08	-	47.90	74.00	26.10
Average Data								
5 350.98 ¹⁾	H	43.10	34.53	-26.10	-	51.53	54.00	2.47

Average data



Blank

Horizontal/Vertical for Band-edge



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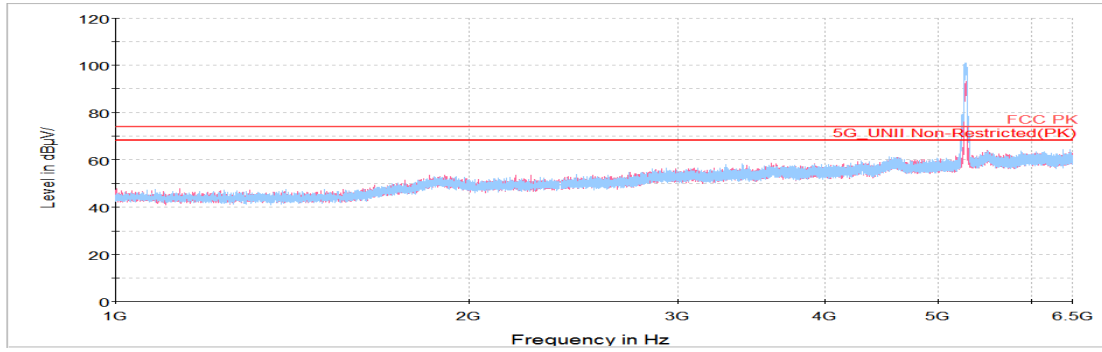


Plot of Harmonics and Spurious Emissions

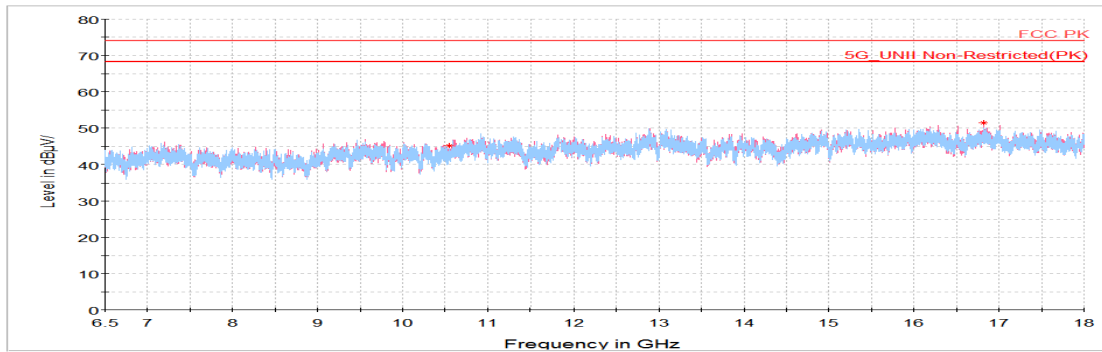
In order to simplify the report, attached plots were only the lowest margin condition

802.11ac VHT40 UNII-2A_ANT2_ Lowest Channel (5 270 MHz)

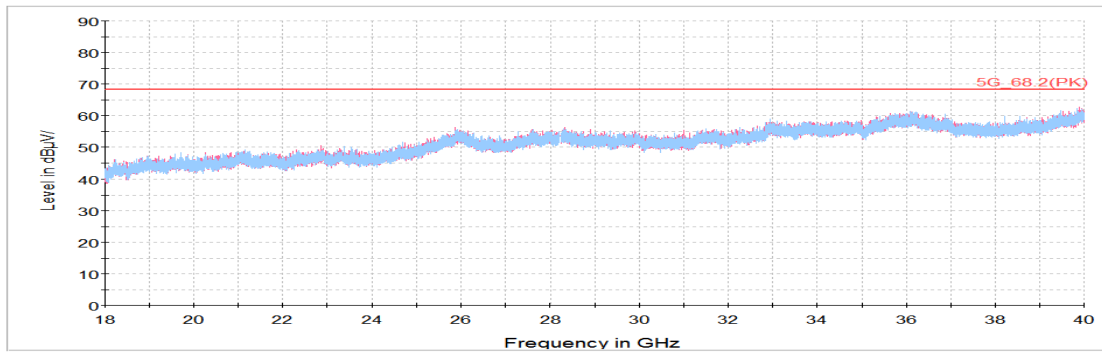
Horizontal/Vertical for 1 GHz ~ 6.5 GHz



Horizontal/Vertical for 6.5 GHz ~ 18 GHz



Horizontal/Vertical for 18 GHz ~ 40 GHz



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KCTL**802.11a UNII-2C ANT1****Lowest Channel (5 500 MHz)**

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μ V))	(dB)	(dB)	(dB)	(dB(μ V/m))	(dB(μ V/m))	(dB)
Peak data								
5 459.98 ¹⁾	H	45.97	34.73	-25.08	-	55.62	74.00	18.38
11 000.91 ¹⁾	V	62.87	38.20	-48.66	-	52.41	74.00	21.59
15 789.48 ¹⁾	H	55.79	39.88	-46.09	-	49.58	74.00	24.42
Average Data								
5 459.98 ¹⁾	H	37.83	34.73	-25.08	-	47.48	54.00	6.52
11 000.91 ¹⁾	V	53.58	38.20	-48.66	-	43.12	54.00	10.88

Middle Channel (5 580 MHz)

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μ V))	(dB)	(dB)	(dB)	(dB(μ V/m))	(dB(μ V/m))	(dB)
Peak data								
11 153.19 ¹⁾	V	61.53	38.23	-49.21	-	50.55	74.00	23.45
16 050.75 ¹⁾	H	56.56	40.66	-46.24	-	50.98	74.00	23.02
Average Data								
No spurious emissions were detected within 20 dB of the limit.								

Highest Channel (5 700 MHz)

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μ V))	(dB)	(dB)	(dB)	(dB(μ V/m))	(dB(μ V/m))	(dB)
Peak data								
5 726.91	H	47.39	35.03	-26.42	-	56.00	68.20	12.20
11 401.88 ¹⁾	V	61.16	38.28	-50.09	-	49.35	74.00	24.65
16 192.34 ¹⁾	V	56.69	40.83	-46.76	-	50.76	74.00	23.24
Average Data								
No spurious emissions were detected within 20 dB of the limit.								

KCTL Inc.

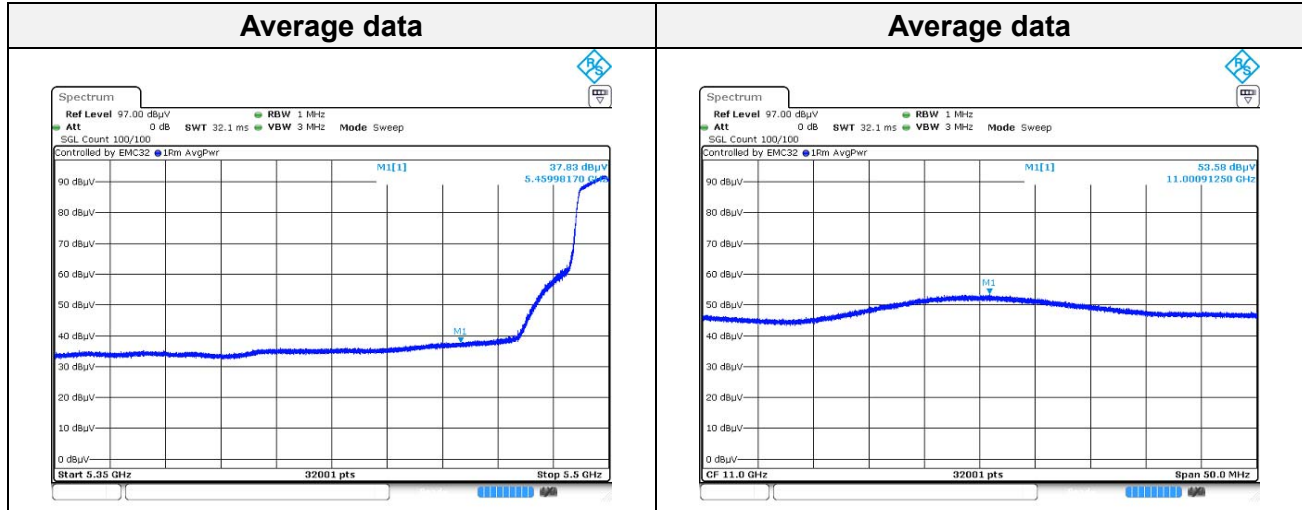
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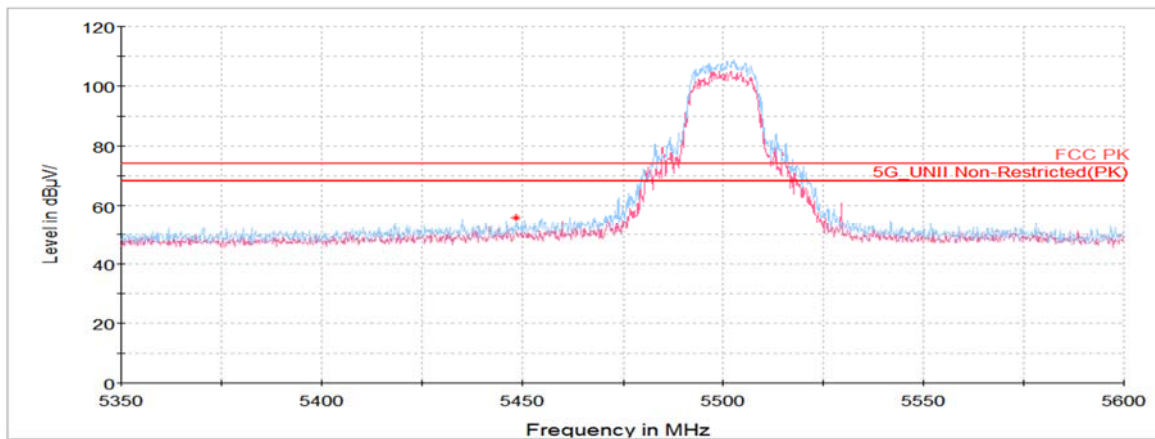


802.11a UNII-2C ANT1

Lowest Channel (5 500 MHz)

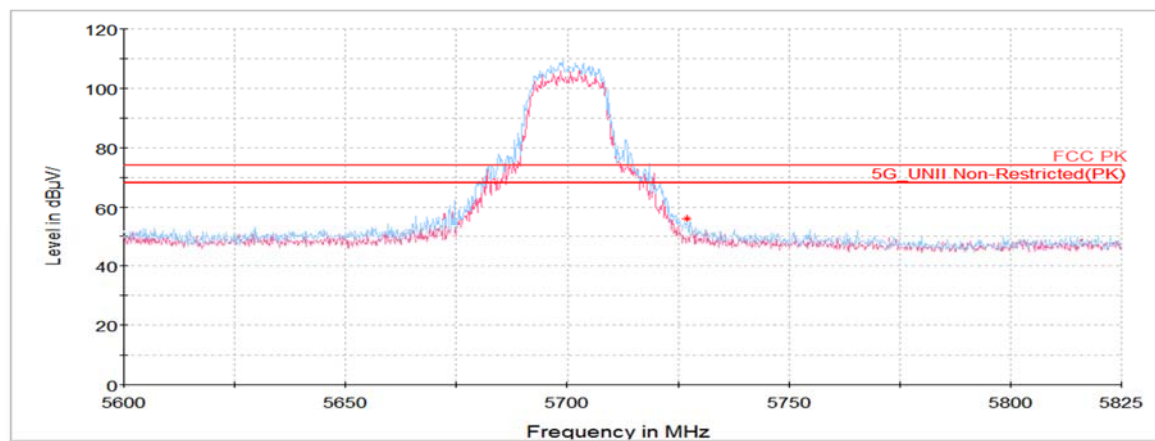


Horizontal/Vertical for Band-edge



Highest Channel (5 700 MHz)

Horizontal/Vertical for Band-edge



802.11a UNII-2C ANT2

Lowest Channel (5 500 MHz)

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μV))	(dB)	(dB)	(dB)	(dB(μV/m))	(dB(μV/m))	(dB)
Peak data								
5 454.46 ¹⁾	H	44.58	34.72	-25.14	-	54.16	74.00	19.84
10 933.97 ¹⁾	H	58.28	38.13	-48.85	-	47.56	74.00	26.44
15 921.38 ¹⁾	V	56.60	39.83	-46.07	-	50.36	74.00	23.64
Average Data								
5 454.46 ¹⁾	H	35.77	34.72	-25.14	-	45.35	54.00	8.65

Middle Channel (5 580 MHz)

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μV))	(dB)	(dB)	(dB)	(dB(μV/m))	(dB(μV/m))	(dB)
Peak data								
11 163.97 ¹⁾	H	57.95	38.23	-49.24	-	46.94	74.00	27.06
16 756.20	H	57.36	41.20	-47.76	-	50.80	68.20	17.40
Average Data								
No spurious emissions were detected within 20 dB of the limit.								

Highest Channel (5 700 MHz)

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μV))	(dB)	(dB)	(dB)	(dB(μV/m))	(dB(μV/m))	(dB)
Peak data								
5 726.73	H	43.75	35.03	-26.42	-	52.36	68.20	15.84
11 390.38 ¹⁾	H	58.34	38.28	-50.05	-	46.57	74.00	27.43
16 176.53 ¹⁾	V	56.59	40.81	-46.70	-	50.70	74.00	23.30
Average Data								
No spurious emissions were detected within 20 dB of the limit.								

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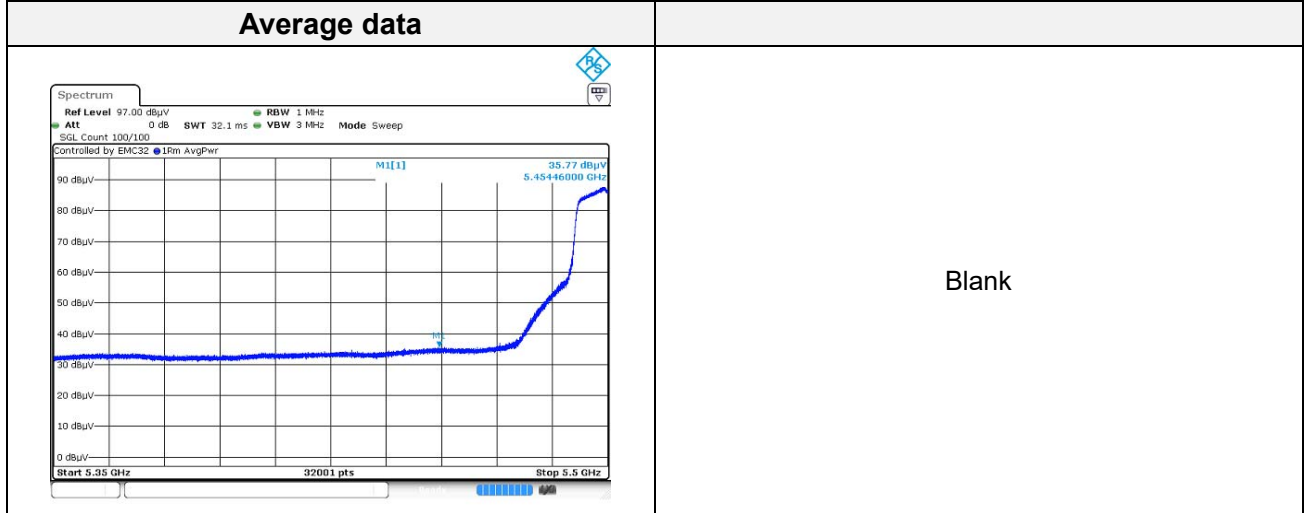
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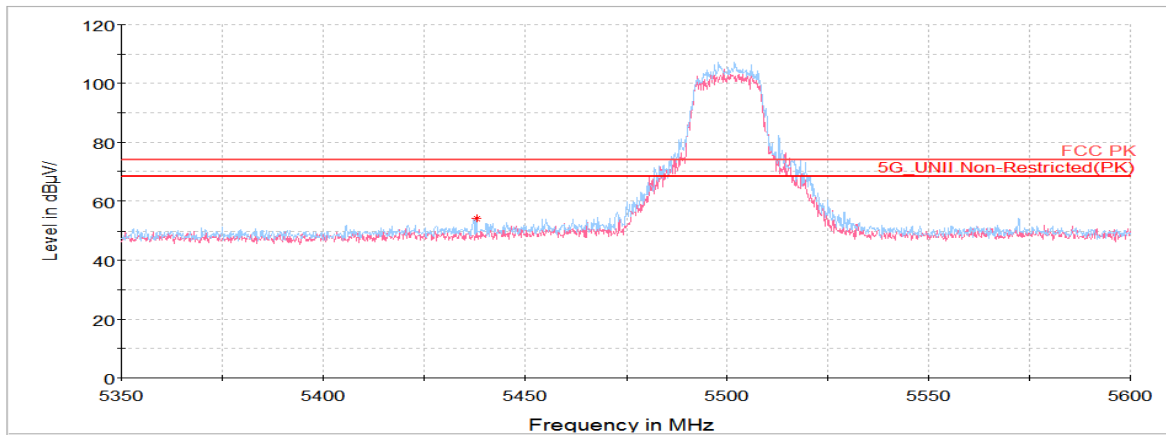


802.11a UNII-2C ANT2

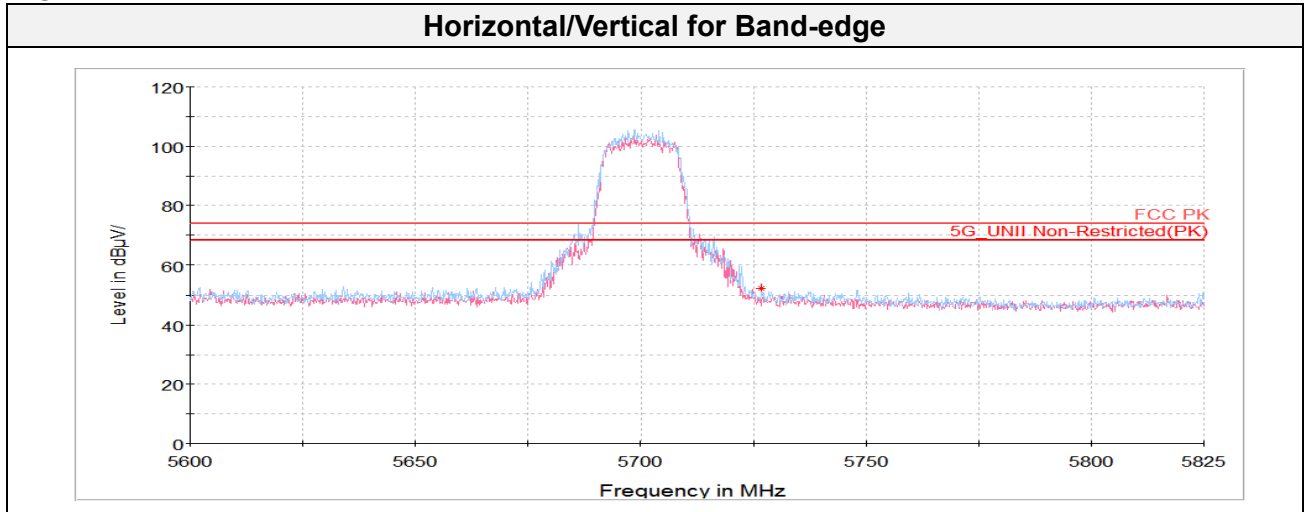
Lowest Channel (5 500 MHz)



Horizontal/Vertical for Band-edge



Highest Channel (5 700 MHz)



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**802.11a UNII-2C 2TX MIMO****Lowest Channel (5 500 MHz)**

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μ V))	(dB)	(dB)	(dB)	(dB(μ V/m))	(dB(μ V/m))	(dB)
Peak data								
5 458.05 ¹⁾	H	42.90	34.72	-25.10	-	52.52	74.00	21.48
10 958.05 ¹⁾	V	58.61	38.16	-48.78	-	47.99	74.00	26.01
15 584.28 ¹⁾	V	55.18	39.97	-46.14	-	49.01	74.00	24.99
Average Data								
5 458.05 ¹⁾	H	35.49	34.72	-25.10	-	45.11	54.00	8.89

Middle Channel (5 580 MHz)

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μ V))	(dB)	(dB)	(dB)	(dB(μ V/m))	(dB(μ V/m))	(dB)
Peak data								
11 215.36 ¹⁾	V	58.63	38.24	-49.43	-	47.44	74.00	26.56
16 821.25	V	56.47	41.26	-47.73	-	50.00	68.20	18.20
Average Data								
No spurious emissions were detected within 20 dB of the limit.								

Highest Channel (5 700 MHz)

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μ V))	(dB)	(dB)	(dB)	(dB(μ V/m))	(dB(μ V/m))	(dB)
Peak data								
5 727.77	H	42.38	35.03	-26.42	-	50.99	68.20	17.21
11 331.08 ¹⁾	H	58.74	38.27	-49.84	-	47.17	74.00	26.83
16 974.70	H	57.99	41.38	-47.65	-	51.72	68.20	16.48
Average Data								
No spurious emissions were detected within 20 dB of the limit.								

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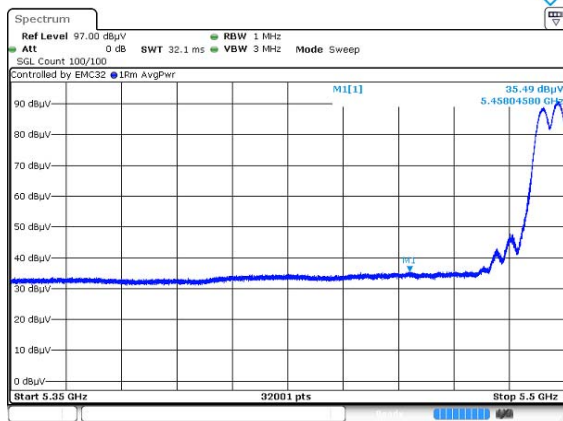
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802.11a UNII-2C 2TX MIMO

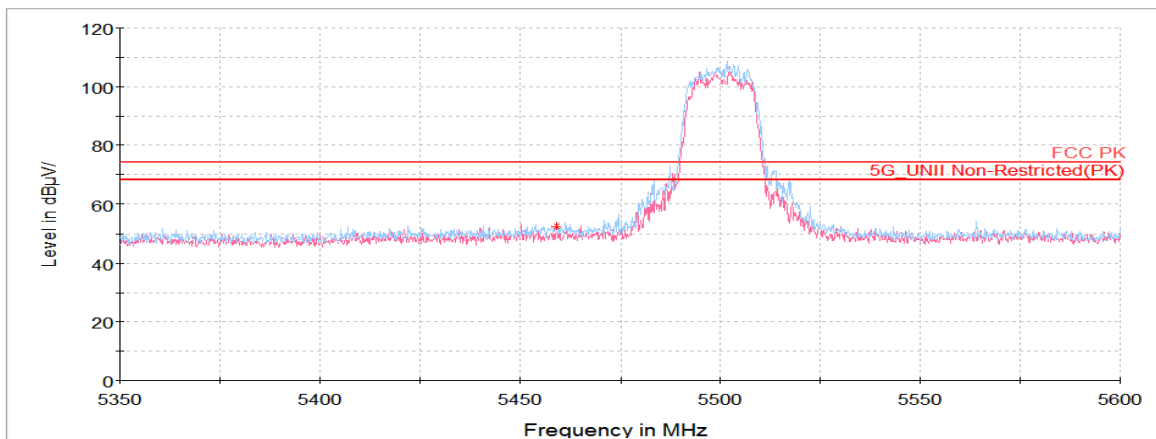
Lowest Channel (5 500 MHz)

Average data



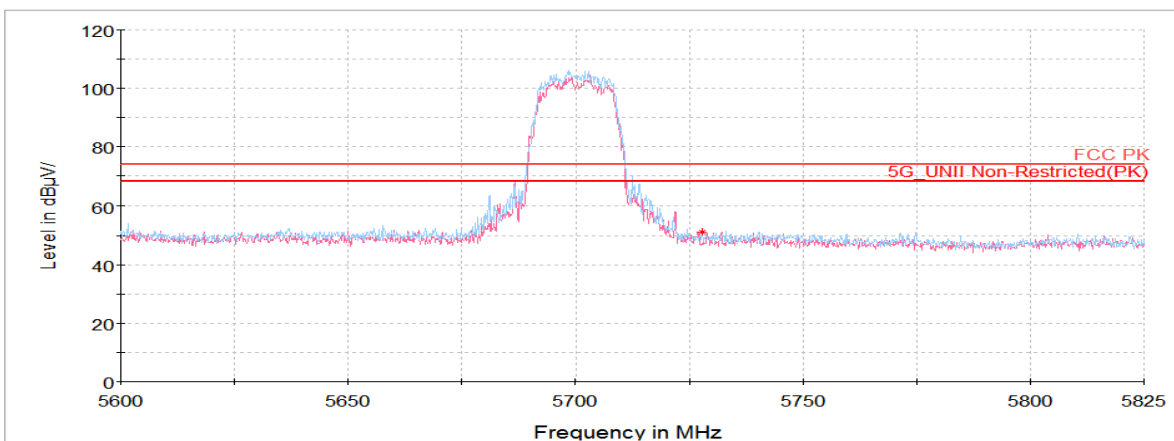
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Horizontal/Vertical for Band-edge



Highest Channel (5 700 MHz)

Horizontal/Vertical for Band-edge



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**802.11n HT20 UNII-2C ANT1****Lowest Channel (5 500 MHz)**

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μ V))	(dB)	(dB)	(dB)	(dB(μ V/m))	(dB(μ V/m))	(dB)
Peak data								
5 458.01 ¹⁾	H	45.83	34.72	-25.10	-	55.45	74.00	18.55
11 000.81 ¹⁾	V	60.90	38.20	-48.66	-	50.44	74.00	23.56
16 163.59 ¹⁾	H	56.32	40.80	-46.65	-	50.47	74.00	23.53
Average Data								
5 458.01 ¹⁾	H	38.45	34.72	-25.10	-	48.07	54.00	5.93

Middle Channel (5 580 MHz)

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μ V))	(dB)	(dB)	(dB)	(dB(μ V/m))	(dB(μ V/m))	(dB)
Peak data								
11 159.69 ¹⁾	H	62.54	38.23	-49.23	-	51.54	74.00	22.46
16 845.33	V	56.72	41.28	-47.71	-	50.29	68.20	17.91
Average Data								
11 159.69 ¹⁾	H	53.02	38.23	-49.23	-	42.02	54.00	11.98

Highest Channel (5 700 MHz)

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μ V))	(dB)	(dB)	(dB)	(dB(μ V/m))	(dB(μ V/m))	(dB)
Peak data								
5 725.70	H	48.18	35.03	-26.42	-	56.79	68.20	11.41
11 399.72 ¹⁾	V	59.60	38.28	-50.09	-	47.79	74.00	26.21
17 178.83	H	57.25	40.59	-47.75	-	50.09	68.20	18.11
Average Data								
No spurious emissions were detected within 20 dB of the limit.								

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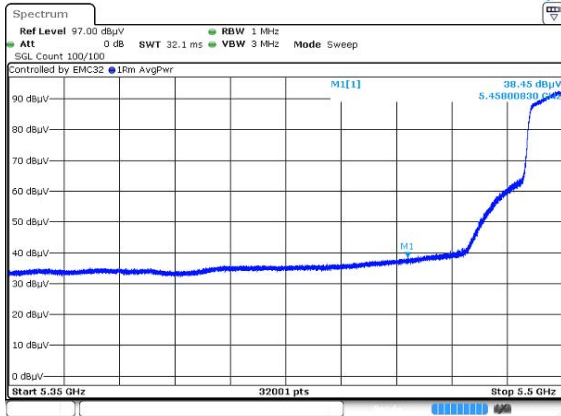
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802.11n HT20 UNII-2C ANT1

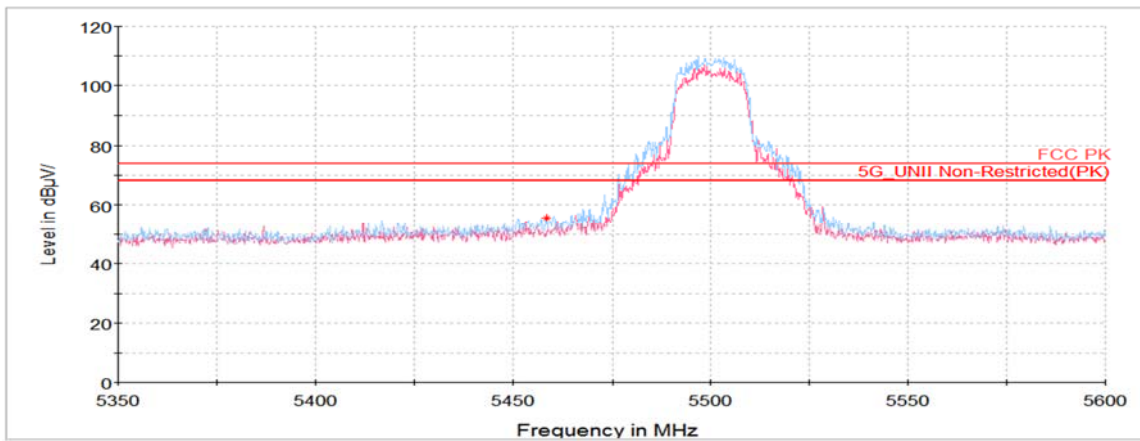
Lowest Channel (5 500 MHz)

Average data



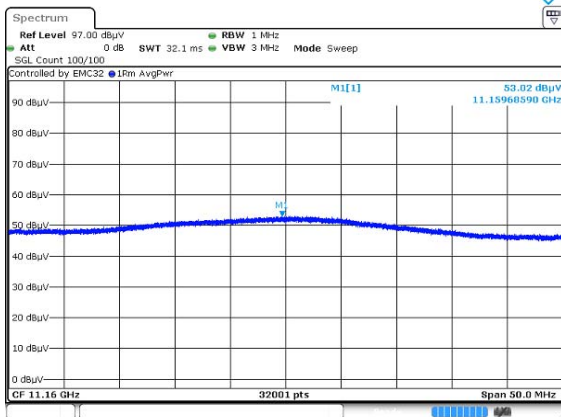
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Horizontal/Vertical for Band-edge



Middle Channel (5 580 MHz)

Average data



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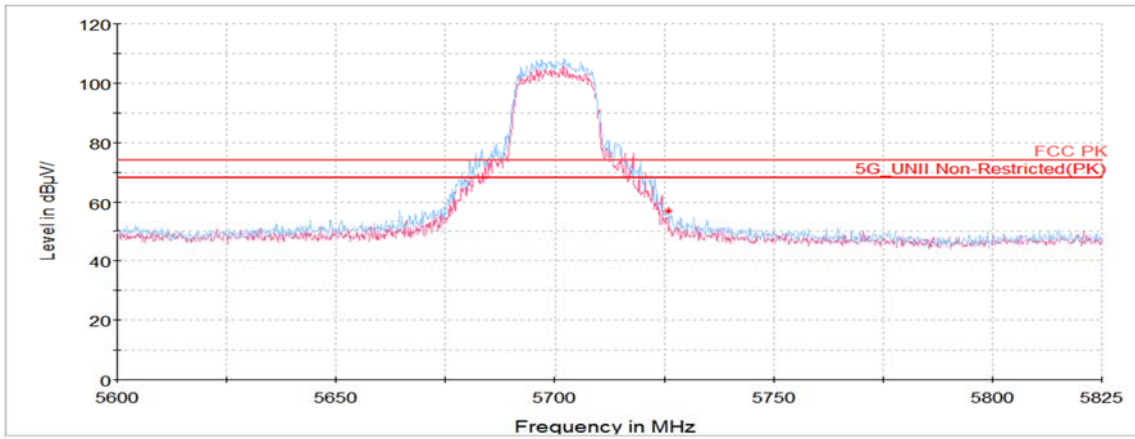
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Highest Channel (5 700 MHz)

Horizontal/Vertical for Band-edge



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KCTL**802.11n HT20 UNII-2C ANT2****Lowest Channel (5 500 MHz)**

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μ V))	(dB)	(dB)	(dB)	(dB(μ V/m))	(dB(μ V/m))	(dB)
Peak data								
5 454.75 ¹⁾	H	43.13	34.72	-25.14	-	52.71	74.00	21.29
11 026.69 ¹⁾	V	57.67	38.21	-48.75	-	47.13	74.00	26.87
15 189.33 ¹⁾	H	56.08	40.16	-45.49	-	50.75	68.20	17.45
Average Data								
5 454.75 ¹⁾	H	35.68	34.72	-25.14	-	45.26	54.00	8.74

Middle Channel (5 580 MHz)

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μ V))	(dB)	(dB)	(dB)	(dB(μ V/m))	(dB(μ V/m))	(dB)
Peak data								
11 150.31	V	57.67	38.23	-49.20	-	46.70	74.00	27.30
16 189.83 ¹⁾	V	56.21	40.83	-46.75	-	50.29	74.00	23.71
Average Data								
No spurious emissions were detected within 20 dB of the limit.								

Highest Channel (5 700 MHz)

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μ V))	(dB)	(dB)	(dB)	(dB(μ V/m))	(dB(μ V/m))	(dB)
Peak data								
5 736.02	H	43.50	35.04	-26.38	-	52.16	68.20	16.04
11 396.48 ¹⁾	H	57.73	38.28	-50.07	-	45.94	74.00	28.06
16 304.11	H	57.05	40.96	-47.17	-	50.84	68.20	17.36
Average Data								
No spurious emissions were detected within 20 dB of the limit.								

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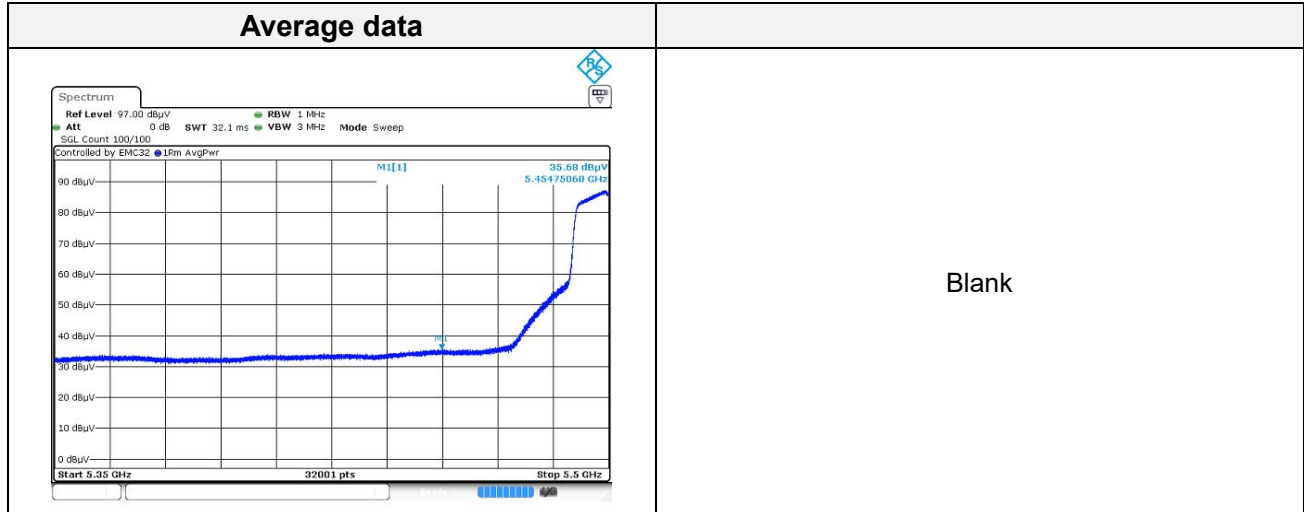
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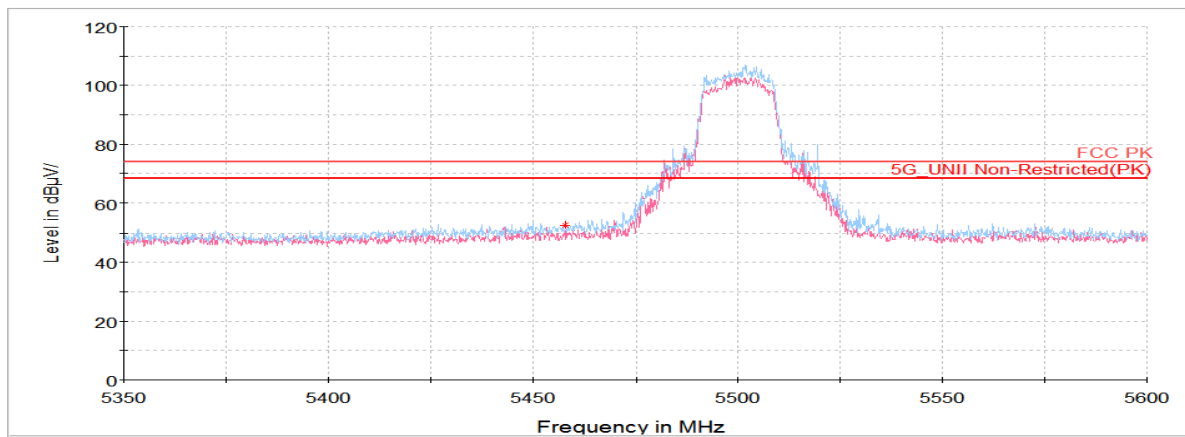


802.11n HT20 UNII-2C ANT2

Lowest Channel (5 500 MHz)

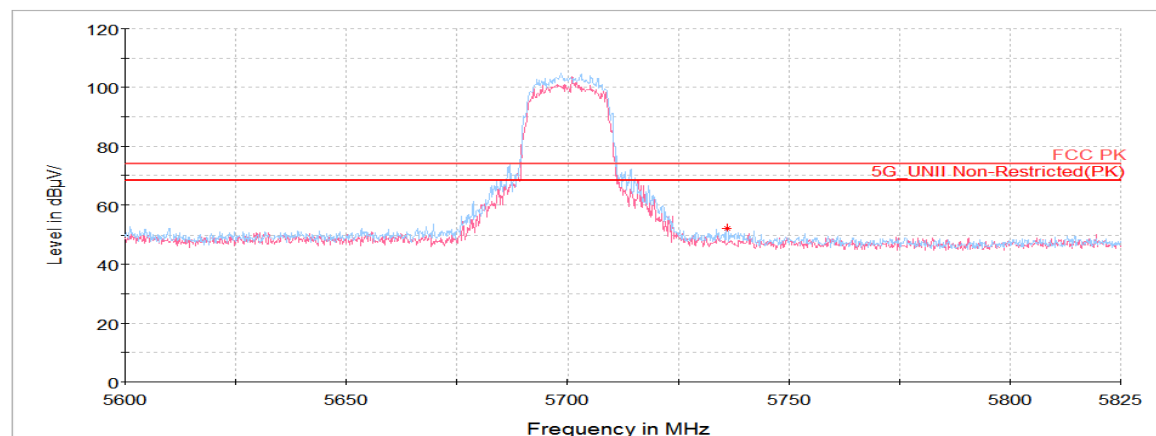


Horizontal/Vertical for Band-edge



Highest Channel (5 700 MHz)

Horizontal/Vertical for Band-edge



802.11n HT20 UNII-2C 2TX MIMO

Lowest Channel (5 500 MHz)

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μV))	(dB)	(dB)	(dB)	(dB(μV/m))	(dB(μV/m))	(dB)
Peak data								
5 457.17 ¹⁾	H	43.43	34.72	-25.11	-	53.04	74.00	20.96
11 074.48 ¹⁾	H	57.95	38.21	-48.92	-	47.24	74.00	26.76
16 829.16	V	56.74	41.26	-47.72	-	50.28	68.20	17.92
Average Data								
5 457.17 ¹⁾	H	35.40	34.72	-25.11	-	45.01	54.00	8.99

Middle Channel (5 580 MHz)

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μV))	(dB)	(dB)	(dB)	(dB(μV/m))	(dB(μV/m))	(dB)
Peak data								
11 157.50 ¹⁾	V	58.10	38.23	-49.22	-	47.11	74.00	26.89
16 856.11	H	56.86	41.28	-47.71	-	50.43	68.20	17.77
Average Data								
No spurious emissions were detected within 20 dB of the limit.								

Highest Channel (5 700 MHz)

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μV))	(dB)	(dB)	(dB)	(dB(μV/m))	(dB(μV/m))	(dB)
Peak data								
5 734.30	V	44.12	35.03	-26.39	-	52.76	68.20	15.44
11 368.45 ¹⁾	V	58.68	38.27	-49.97	-	46.98	74.00	27.02
16 286.86	H	57.00	40.94	-47.11	-	50.83	68.20	17.37
Average Data								
No spurious emissions were detected within 20 dB of the limit.								

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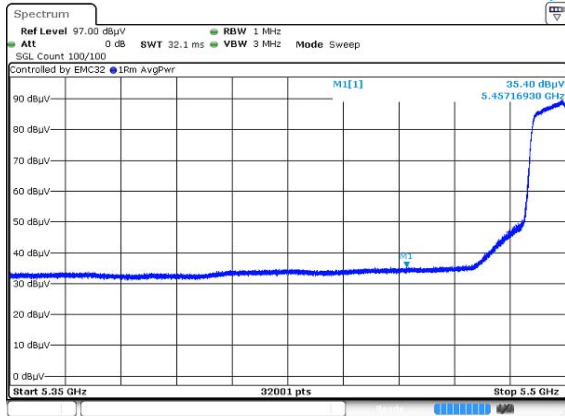
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802.11n HT20 UNII-2C 2TX MIMO

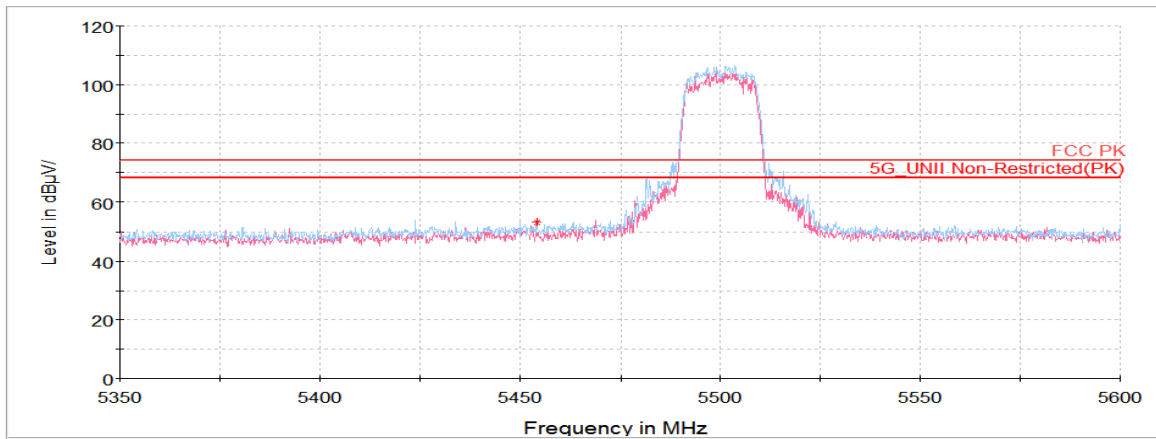
Lowest Channel (5 500 MHz)

Average data



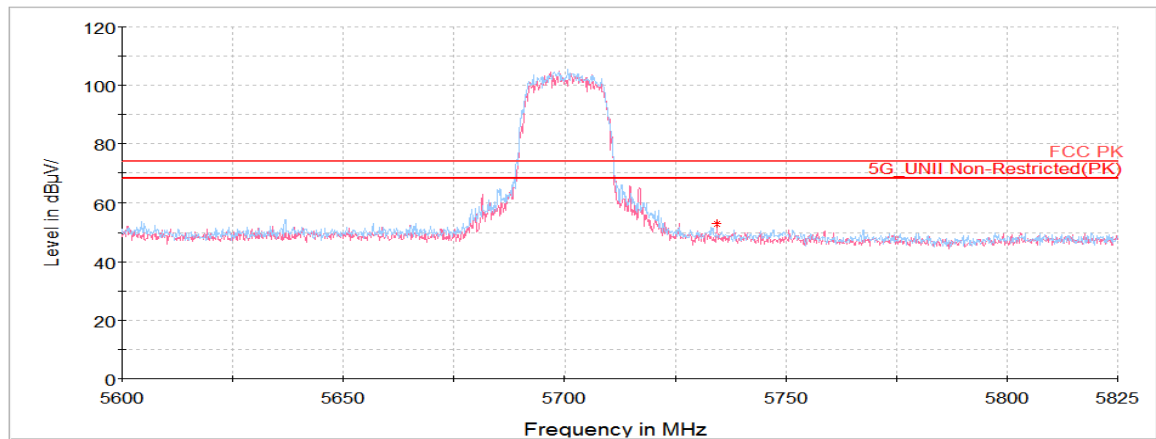
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Horizontal/Vertical for Band-edge



Highest Channel (5 700 MHz)

Horizontal/Vertical for Band-edge



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KCTL**802.11n HT40 UNII-2C ANT1****Lowest Channel (5 510 MHz)**

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μ V))	(dB)	(dB)	(dB)	(dB(μ V/m))	(dB(μ V/m))	(dB)
Peak data								
5 459.73 ¹⁾	H	50.75	34.73	-25.08	-	60.40	74.00	13.60
11 016.98 ¹⁾	V	60.58	38.20	-48.72	-	50.06	74.00	23.94
16 646.95	H	56.56	41.12	-47.82	-	49.86	68.20	18.34
Average Data								
5 459.73 ¹⁾	H	42.20	34.73	-25.08	-	51.85	54.00	2.15

Middle Channel (5 590 MHz)

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μ V))	(dB)	(dB)	(dB)	(dB(μ V/m))	(dB(μ V/m))	(dB)
Peak data								
11 185.17 ¹⁾	V	59.58	38.24	-49.32	-	48.50	74.00	25.50
16 991.23	V	56.80	41.39	-47.64	-	50.55	68.20	17.65
Average Data								
No spurious emissions were detected within 20 dB of the limit.								

Highest Channel (5 670 MHz)

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μ V))	(dB)	(dB)	(dB)	(dB(μ V/m))	(dB(μ V/m))	(dB)
Peak data								
5 727.42	H	44.55	35.03	-26.42	-	53.16	68.20	15.04
11 335.39 ¹⁾	H	59.65	38.27	-49.86	-	48.06	74.00	25.94
16 282.91	V	56.36	40.94	-47.09	-	50.21	68.20	17.99
Average Data								
No spurious emissions were detected within 20 dB of the limit.								

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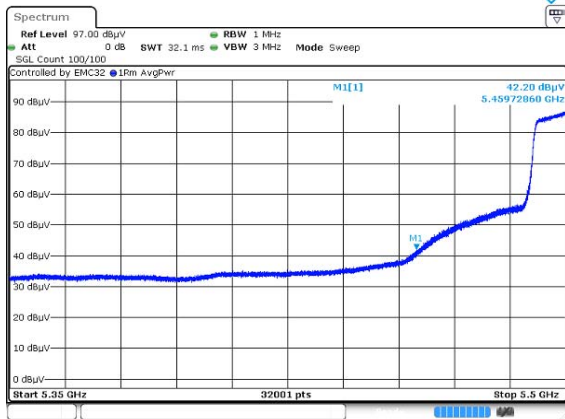
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802.11n HT40 UNII-2C ANT1

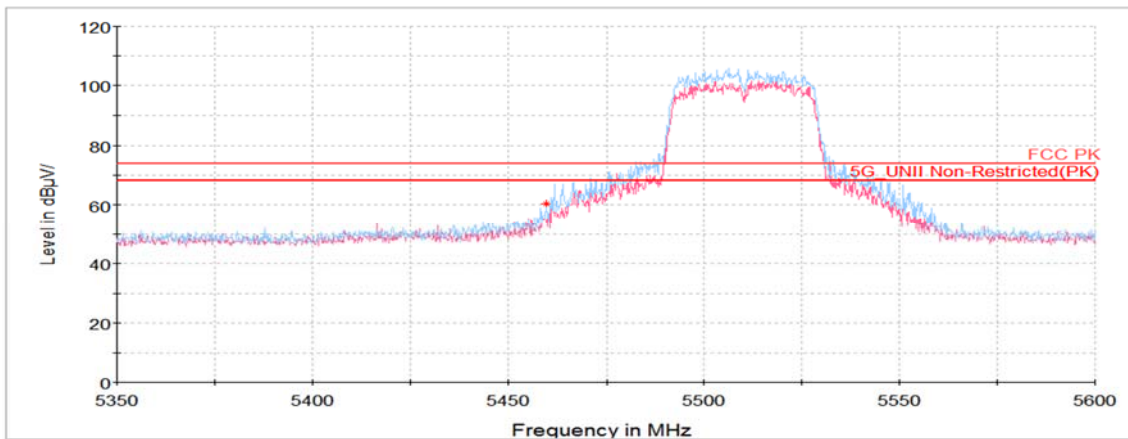
Lowest Channel (5 510 MHz)

Average data



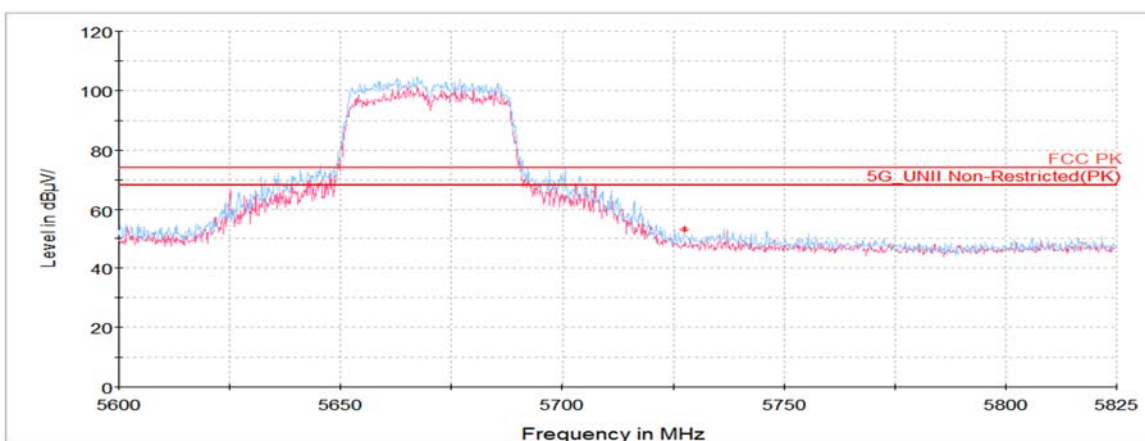
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Horizontal/Vertical for Band-edge



Highest Channel (5 670 MHz)

Horizontal/Vertical for Band-edge



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KCTL**802.11n HT40 UNII-2C ANT2****Lowest Channel (5 510 MHz)**

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μ V))	(dB)	(dB)	(dB)	(dB(μ V/m))	(dB(μ V/m))	(dB)
Peak data								
5 459.68 ¹⁾	H	51.17	34.73	-25.09	-	60.81	74.00	13.19
11 028.48 ¹⁾	H	57.12	38.21	-48.76	-	46.57	74.00	27.43
15 936.83 ¹⁾	V	57.19	39.83	-46.06	-	50.96	74.00	23.04
Average Data								
5 459.68 ¹⁾	H	42.15	34.73	-25.09	-	51.79	54.00	2.21

Middle Channel (5 590 MHz)

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μ V))	(dB)	(dB)	(dB)	(dB(μ V/m))	(dB(μ V/m))	(dB)
Peak data								
11 077.00 ¹⁾	H	57.25	38.22	-48.93	-	46.54	74.00	27.46
16 269.61	H	56.99	40.92	-47.04	-	50.87	68.20	17.33
Average Data								
No spurious emissions were detected within 20 dB of the limit.								

Highest Channel (5 670 MHz)

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μ V))	(dB)	(dB)	(dB)	(dB(μ V/m))	(dB(μ V/m))	(dB)
Peak data								
5 727.42	H	46.81	35.03	-26.42	-	55.42	68.20	12.78
11 350.48 ¹⁾	V	57.59	38.27	-49.91	-	45.95	74.00	28.05
15 930.00 ¹⁾	V	56.46	39.83	-46.06	-	50.23	74.00	23.77
Average Data								
No spurious emissions were detected within 20 dB of the limit.								

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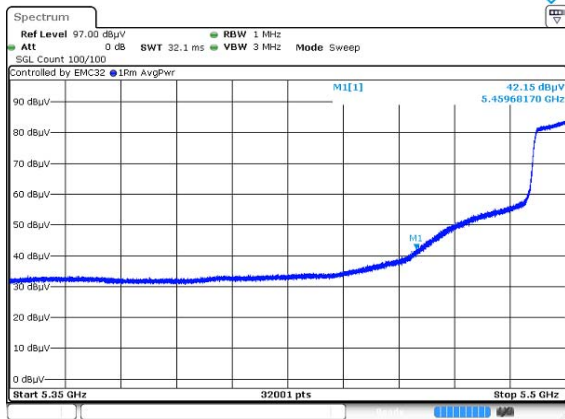
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802.11n HT40 UNII-2C ANT2

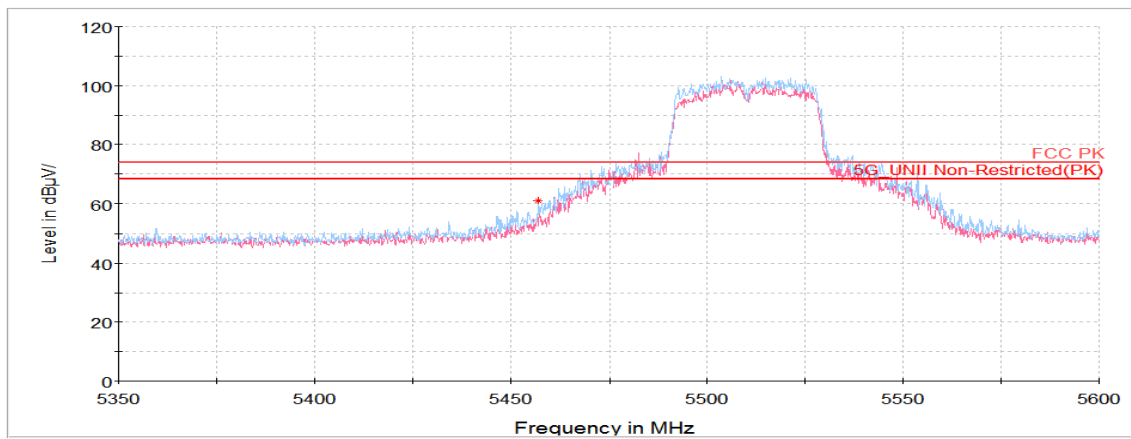
Lowest Channel (5 510 MHz)

Average data



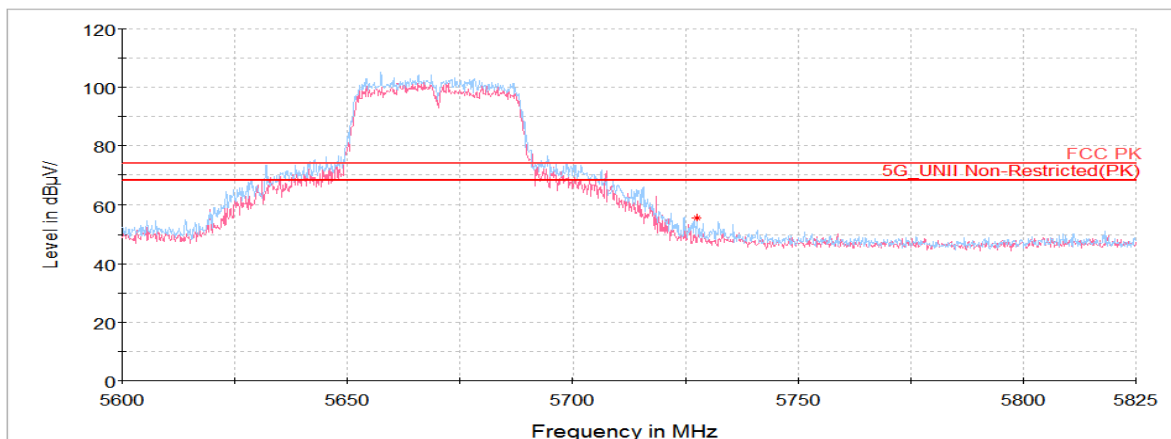
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Horizontal/Vertical for Band-edge



Highest Channel (5 670 MHz)

Horizontal/Vertical for Band-edge



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KCTL**802.11n HT40 UNII-2C 2TX MIMO****Lowest Channel (5 510 MHz)**

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μ V))	(dB)	(dB)	(dB)	(dB(μ V/m))	(dB(μ V/m))	(dB)
Peak data								
5 459.90 ¹⁾	H	46.38	34.73	-25.08	-	56.03	74.00	17.97
11 027.77 ¹⁾	V	59.77	38.21	-48.76	-	49.22	74.00	24.78
16 170.78 ¹⁾	H	56.27	40.80	-46.68	-	50.39	74.00	23.61
Average Data								
5 459.90 ¹⁾	H	40.23	34.73	-25.08	-	49.88	54.00	4.12

Middle Channel (5 590 MHz)

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μ V))	(dB)	(dB)	(dB)	(dB(μ V/m))	(dB(μ V/m))	(dB)
Peak data								
11 254.89 ¹⁾	V	58.77	38.25	-49.57	-	47.45	74.00	26.55
16 177.97 ¹⁾	H	56.59	40.81	-46.71	-	50.69	74.00	23.31
Average Data								
No spurious emissions were detected within 20 dB of the limit.								

Highest Channel (5 670 MHz)

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μ V))	(dB)	(dB)	(dB)	(dB(μ V/m))	(dB(μ V/m))	(dB)
Peak data								
5 727.42	H	43.22	35.03	-26.42	-	51.83	68.20	16.37
11 320.30 ¹⁾	V	58.85	38.26	-49.80	-	47.31	74.00	26.69
16 190.19 ¹⁾	V	56.45	40.83	-46.75	-	50.53	74.00	23.47
Average Data								
No spurious emissions were detected within 20 dB of the limit.								

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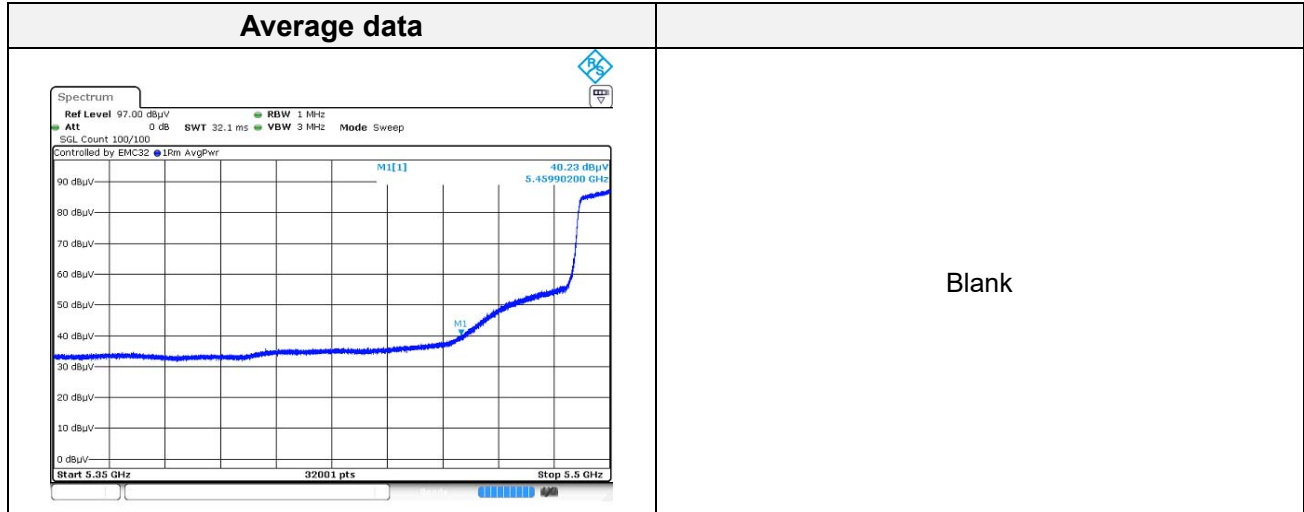
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802.11n HT40 UNII-2C 2TX MIMO

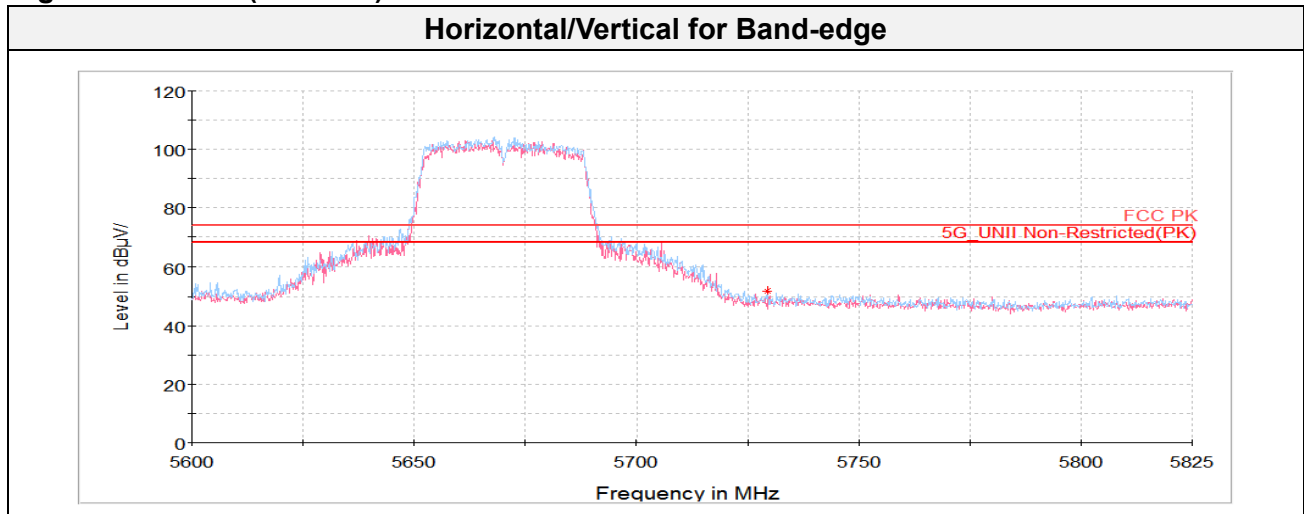
Lowest Channel (5 510 MHz)



Horizontal/Vertical for Band-edge



Highest Channel (5 670 MHz)



802.11ac VHT20 UNII-2C ANT1

Lowest Channel (5 500 MHz)

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μV))	(dB)	(dB)	(dB)	(dB(μV/m))	(dB(μV/m))	(dB)
Peak data								
5 459.70 ¹⁾	H	48.38	34.73	-25.08	-	58.03	74.00	15.97
10 998.66 ¹⁾	V	61.44	38.20	-48.66	-	50.98	74.00	23.02
15 516.00 ¹⁾	H	55.15	39.99	-46.15	-	48.99	74.00	25.01
Average Data								
5 459.70 ¹⁾	H	38.39	34.73	-25.08	-	48.04	54.00	5.96

Middle Channel (5 580 MHz)

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μV))	(dB)	(dB)	(dB)	(dB(μV/m))	(dB(μV/m))	(dB)
Peak data								
11 159.70 ¹⁾	H	62.21	38.23	-49.23	-	51.21	74.00	22.79
16 663.13	V	56.65	41.13	-47.81	-	49.97	68.20	18.23
Average Data								
11 159.70 ¹⁾	H	54.02	38.23	-49.23	-	43.02	54.00	10.98

Highest Channel (5 700 MHz)

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μV))	(dB)	(dB)	(dB)	(dB(μV/m))	(dB(μV/m))	(dB)
Peak data								
5 726.05	H	48.68	35.03	-26.42	-	57.29	68.20	10.91
11 391.81 ¹⁾	V	60.12	38.28	-50.06	-	48.34	74.00	25.66
17 212.61	V	56.91	40.57	-47.77	-	49.71	68.20	18.49
Average Data								
No spurious emissions were detected within 20 dB of the limit.								

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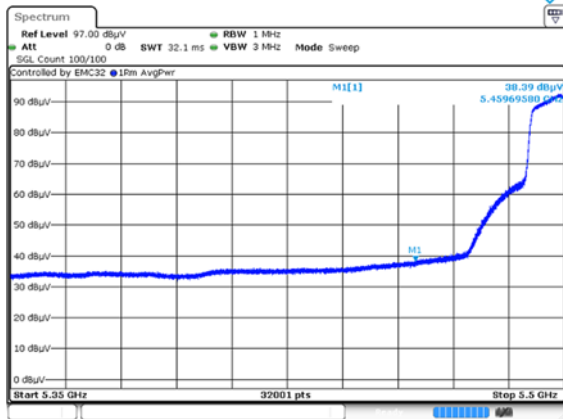
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802.11ac VHT20 UNII-2C ANT1

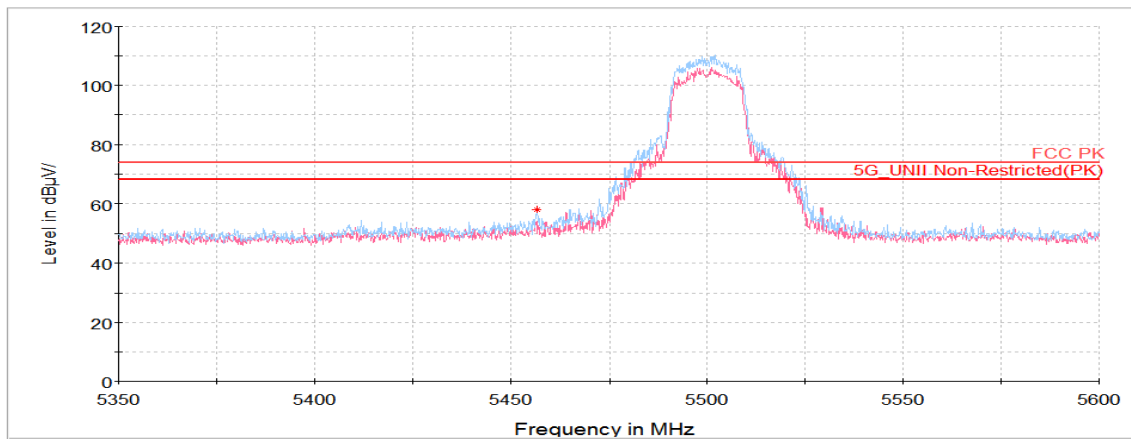
Lowest Channel (5 500 MHz)

Average data



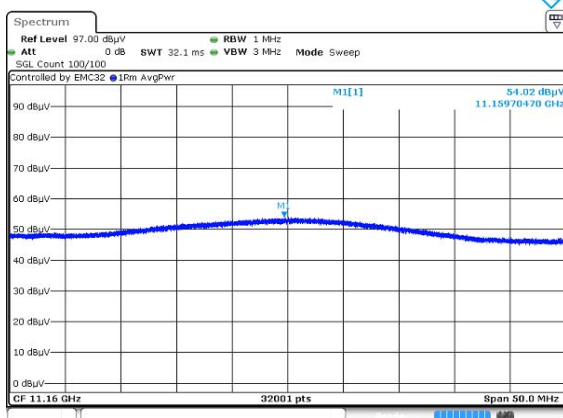
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Horizontal/Vertical for Band-edge



Middle Channel (5 580 MHz)

Average data



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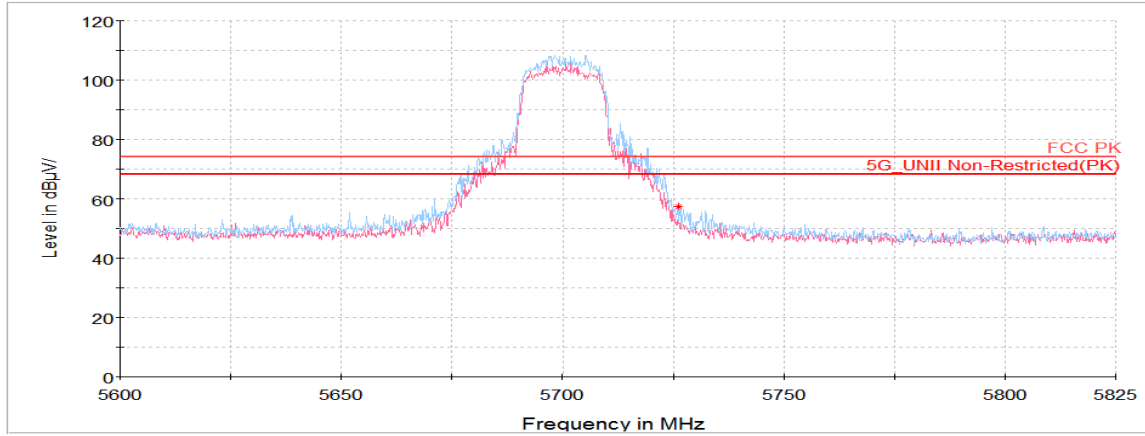
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Highest Channel (5 700 MHz)

Horizontal/Vertical for Band-edge



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KCTL**802.11ac VHT20 UNII-2C ANT2****Lowest Channel (5 500 MHz)**

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μ V))	(dB)	(dB)	(dB)	(dB(μ V/m))	(dB(μ V/m))	(dB)
Peak data								
5 457.26 ¹⁾	H	44.70	34.72	-25.11	-	54.31	74.00	19.69
10 958.41 ¹⁾	H	58.55	38.16	-48.78	-	47.93	74.00	26.07
16 832.39	V	56.94	41.27	-47.72	-	50.49	68.20	17.71
Average Data								
5 457.26 ¹⁾	H	35.57	34.72	-25.11	-	45.18	54.00	8.82

Middle Channel (5 580 MHz)

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μ V))	(dB)	(dB)	(dB)	(dB(μ V/m))	(dB(μ V/m))	(dB)
Peak data								
11 209.97 ¹⁾	V	58.21	38.24	-49.41	-	47.04	74.00	26.96
16 227.20	V	56.36	40.87	-46.89	-	50.34	68.20	17.86
Average Data								
No spurious emissions were detected within 20 dB of the limit.								

Highest Channel (5 700 MHz)

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μ V))	(dB)	(dB)	(dB)	(dB(μ V/m))	(dB(μ V/m))	(dB)
Peak data								
5 725.36	H	43.21	35.03	-26.42	-	51.82	68.20	16.38
11 398.28	V	57.94	38.28	-50.08	-	46.14	74.00	27.86
16 298.72	V	57.49	40.96	-47.15	-	51.30	68.20	16.90
Average Data								
No spurious emissions were detected within 20 dB of the limit.								

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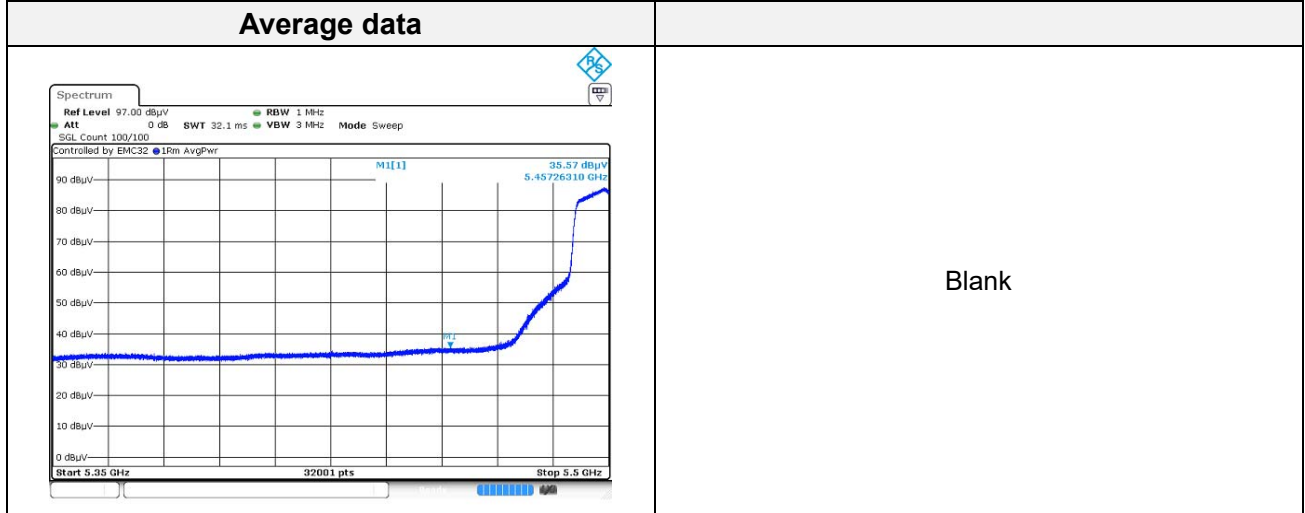
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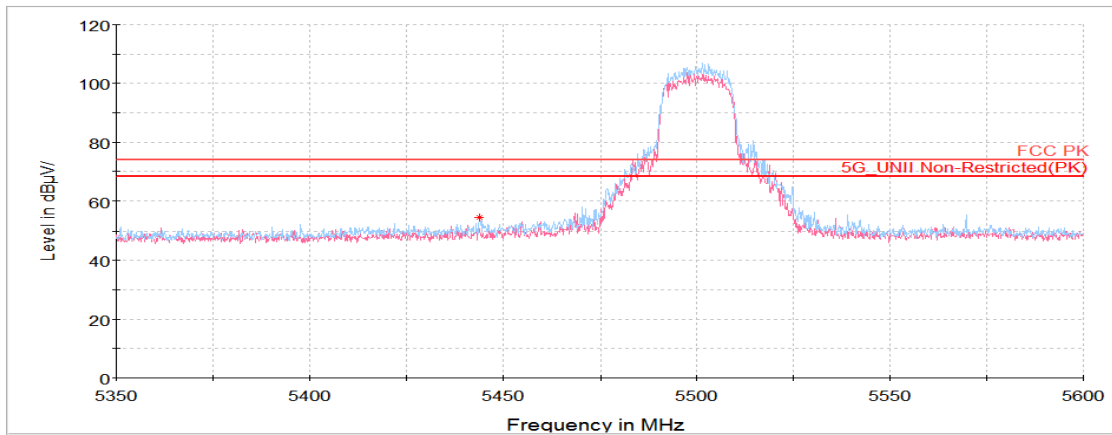


802.11ac VHT20 UNII-2C ANT2

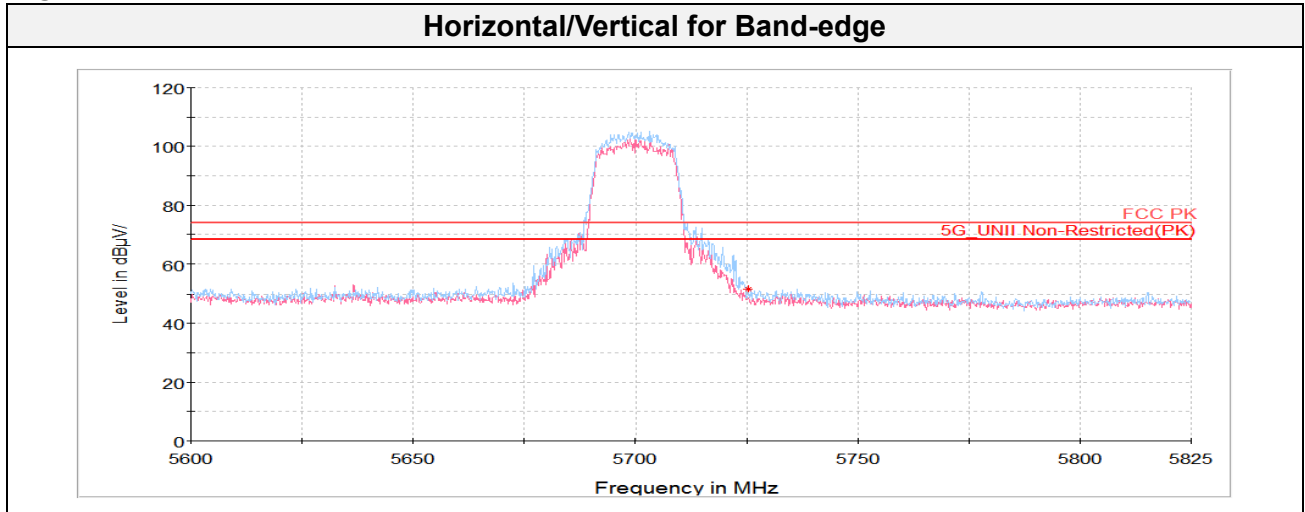
Lowest Channel (5 500 MHz)



Horizontal/Vertical for Band-edge



Highest Channel (5 700 MHz)



802.11ac VHT20 UNII-2C 2TX MIMO

Lowest Channel (5 500 MHz)

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μV))	(dB)	(dB)	(dB)	(dB(μV/m))	(dB(μV/m))	(dB)
Peak data								
5 455.59 ¹⁾	H	43.86	34.72	-25.13	-	53.45	74.00	20.55
10 917.80 ¹⁾	H	59.67	38.12	-48.89	-	48.90	74.00	25.10
16 181.20 ¹⁾	V	56.83	40.82	-46.72	-	50.93	74.00	23.07
Average Data								
5 455.59 ¹⁾	H	35.20	34.72	-25.13	-	44.79	54.00	9.21

Middle Channel (5 580 MHz)

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μV))	(dB)	(dB)	(dB)	(dB(μV/m))	(dB(μV/m))	(dB)
Peak data								
11 162.53 ¹⁾	V	58.39	38.23	-49.24	-	47.38	74.00	26.62
16 080.58 ¹⁾	H	55.88	40.70	-46.35	-	50.23	74.00	23.77
Average Data								
No spurious emissions were detected within 20 dB of the limit.								

Highest Channel (5 700 MHz)

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μV))	(dB)	(dB)	(dB)	(dB(μV/m))	(dB(μV/m))	(dB)
Peak data								
5 726.22 ¹⁾	H	43.67	35.03	-26.42	-	52.28	68.20	15.92
11 330.36 ¹⁾	H	58.73	38.27	-49.84	-	47.16	74.00	26.84
16 231.16 ¹⁾	H	55.84	40.88	-46.90	-	49.82	68.20	18.38
Average Data								
No spurious emissions were detected within 20 dB of the limit.								

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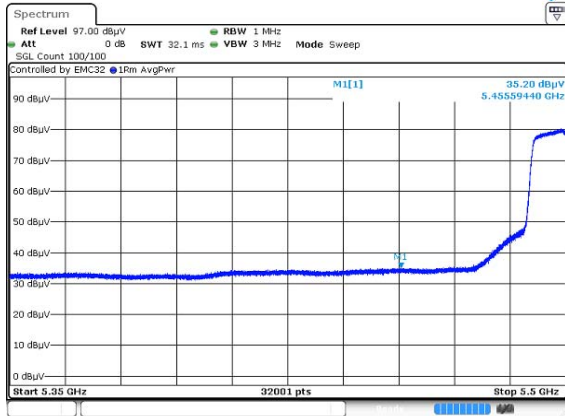
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802.11ac VHT20 UNII-2C 2TX MIMO

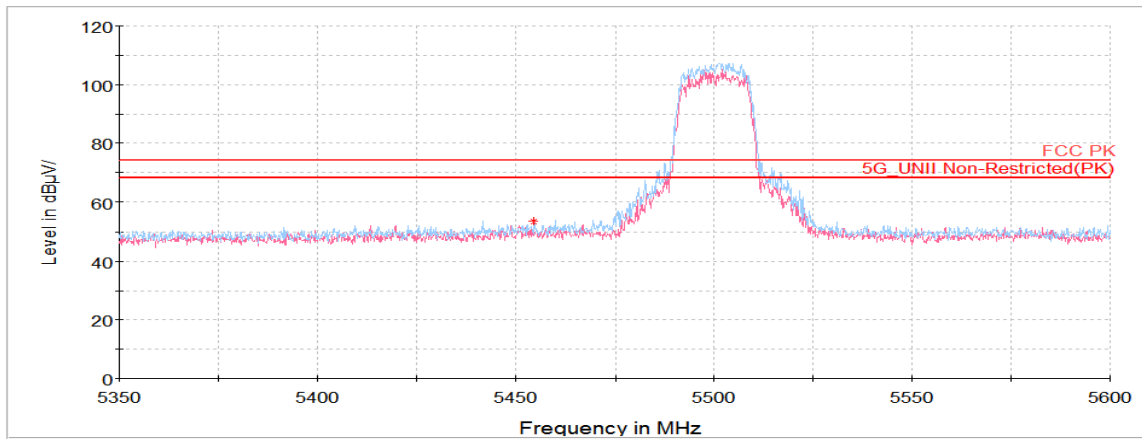
Lowest Channel (5 500 MHz)

Average data



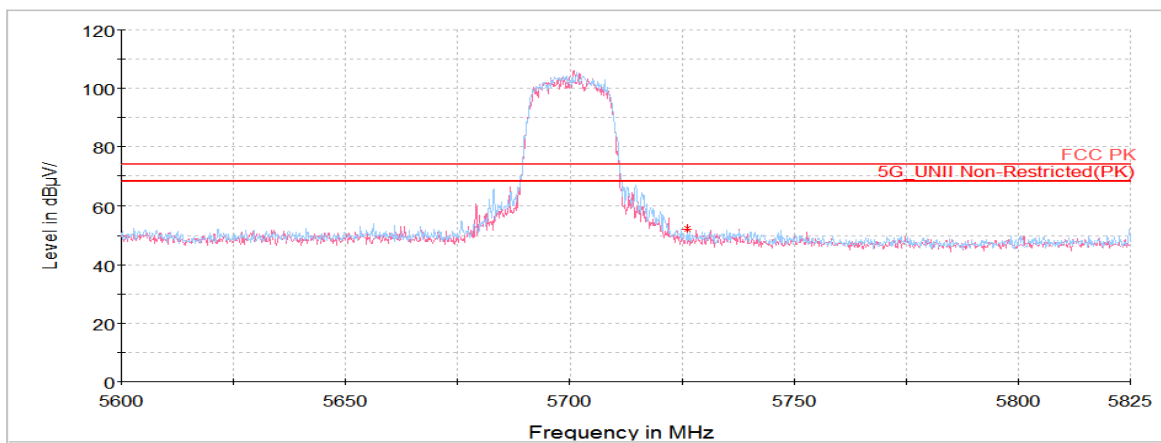
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Horizontal/Vertical for Band-edge



Highest Channel (5 700 MHz)

Horizontal/Vertical for Band-edge



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KCTL**802.11ac VHT40 UNII-2C ANT1****Lowest Channel (5 510 MHz)**

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μ V))	(dB)	(dB)	(dB)	(dB(μ V/m))	(dB(μ V/m))	(dB)
Peak data								
5 459.65 ¹⁾	H	51.57	34.73	-25.09	-	61.21	74.00	12.79
11 018.78 ¹⁾	H	59.34	38.20	-48.73	-	48.81	74.00	25.19
16 290.45	V	57.18	40.95	-47.12	-	51.01	68.20	17.19
Average Data								
5 459.65 ¹⁾	H	41.22	34.73	-25.09	-	50.86	54.00	3.14

Middle Channel (5 590 MHz)

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μ V))	(dB)	(dB)	(dB)	(dB(μ V/m))	(dB(μ V/m))	(dB)
Peak data								
11 191.64 ¹⁾	V	59.10	38.24	-49.34	-	48.00	74.00	26.00
16 031.34 ¹⁾	V	56.03	40.64	-46.17	-	50.50	74.00	23.50
Average Data								
No spurious emissions were detected within 20 dB of the limit.								

Highest Channel (5 670 MHz)

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μ V))	(dB)	(dB)	(dB)	(dB(μ V/m))	(dB(μ V/m))	(dB)
Peak data								
5 743.58	H	44.55	35.04	-26.36	-	53.23	68.20	14.97
11 326.41 ¹⁾	V	59.33	38.27	-49.82	-	47.78	74.00	26.22
16 993.03	H	57.35	41.39	-47.64	-	51.10	68.20	17.10
Average Data								
No spurious emissions were detected within 20 dB of the limit.								

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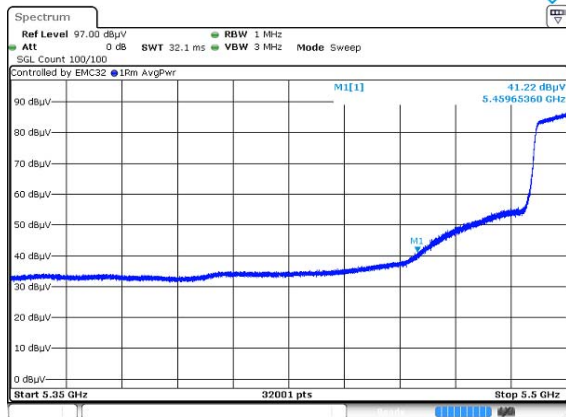
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802.11ac VHT40 UNII-2C ANT1

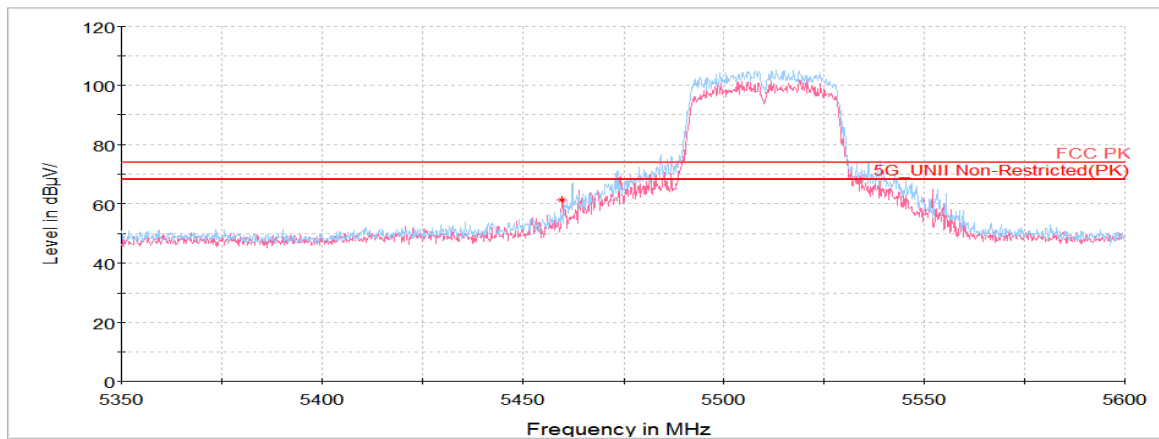
Lowest Channel (5 510 MHz)

Average data



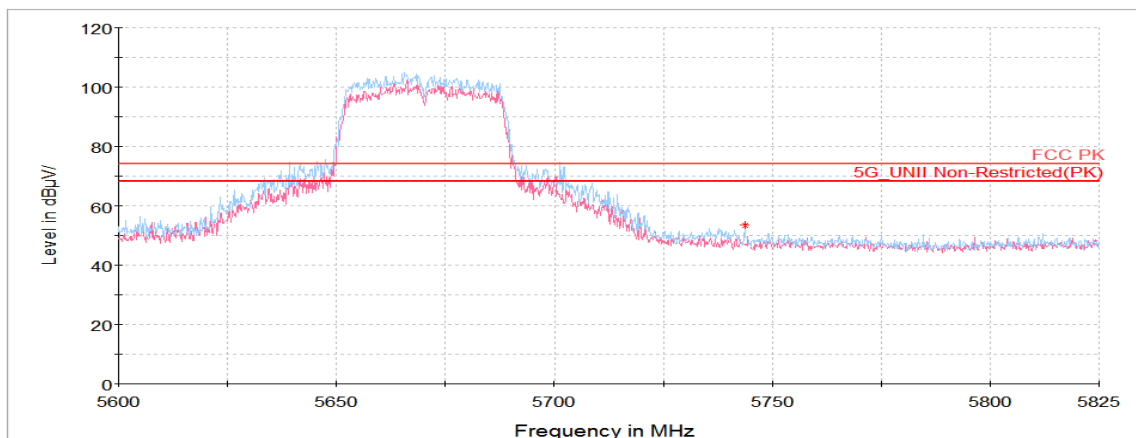
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Horizontal/Vertical for Band-edge



Highest Channel (5 670 MHz)

Horizontal/Vertical for Band-edge



802.11ac VHT40 UNII-2C ANT2

Lowest Channel (5 510 MHz)

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μV))	(dB)	(dB)	(dB)	(dB(μV/m))	(dB(μV/m))	(dB)
Peak data								
5 459.91 ¹⁾	H	49.99	34.73	-25.08	-	59.64	74.00	14.36
11 014.47 ¹⁾	H	57.81	38.20	-48.71	-	47.30	74.00	26.70
16 821.61	V	56.83	41.26	-47.73	-	50.36	68.20	17.84
Average Data								
5 459.91 ¹⁾	H	40.69	34.73	-25.08	-	50.34	54.00	3.66

Middle Channel (5 590 MHz)

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μV))	(dB)	(dB)	(dB)	(dB(μV/m))	(dB(μV/m))	(dB)
Peak data								
11 211.77 ¹⁾	V	58.44	38.24	-49.41	-	47.27	74.00	26.73
16 143.83 ¹⁾	V	56.39	40.77	-46.58	-	50.58	74.00	23.42
Average Data								
No spurious emissions were detected within 20 dB of the limit.								

Highest Channel (5 670 MHz)

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μV))	(dB)	(dB)	(dB)	(dB(μV/m))	(dB(μV/m))	(dB)
Peak data								
5 733.78	H	42.75	35.03	-26.39	-	51.39	68.20	16.81
11 294.78 ¹⁾	H	59.34	38.26	-49.71	-	47.89	74.00	26.11
14 804.44	V	55.87	40.85	-46.06	-	50.66	68.20	17.54
Average Data								
No spurious emissions were detected within 20 dB of the limit.								

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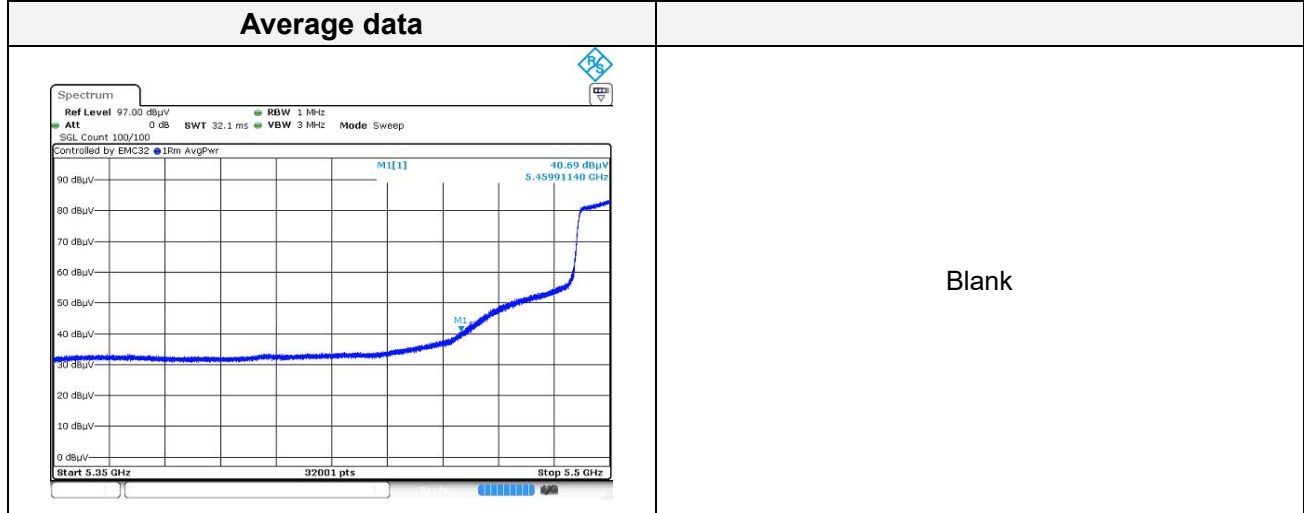
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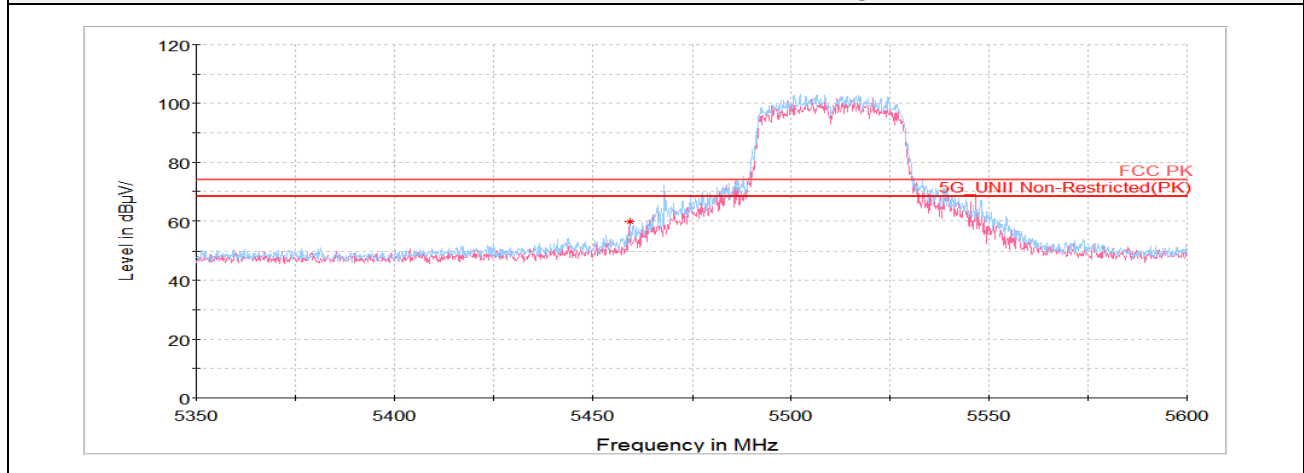


802.11ac VHT40 UNII-2C ANT2

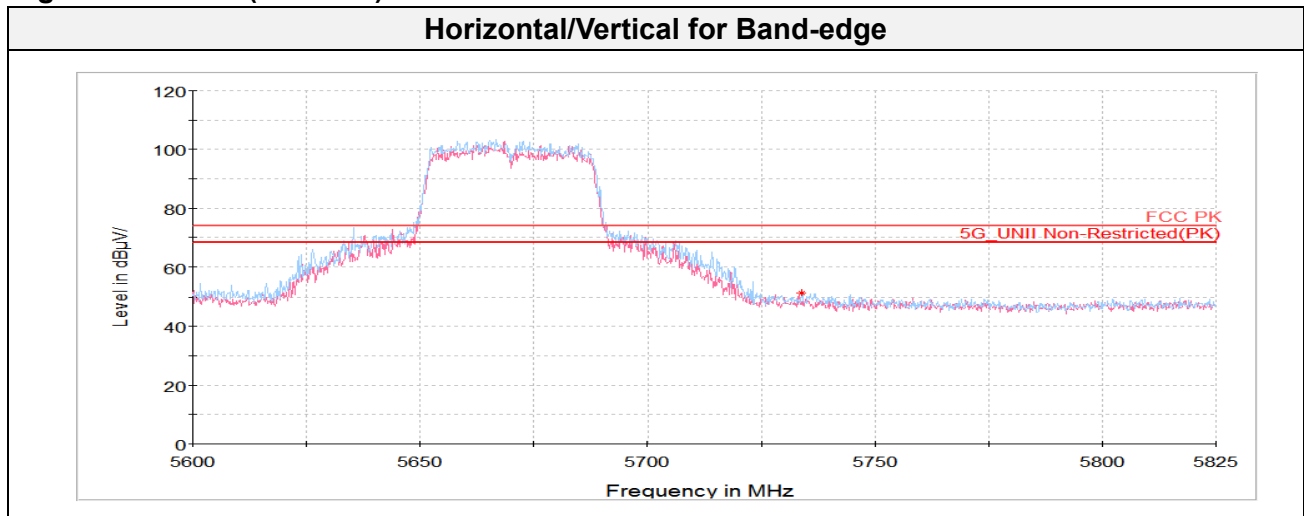
Lowest Channel (5 510 MHz)



Horizontal/Vertical for Band-edge



Highest Channel (5 670 MHz)



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**802.11ac VHT40 UNII-2C 2TX MIMO****Lowest Channel (5 510 MHz)**

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μ V))	(dB)	(dB)	(dB)	(dB(μ V/m))	(dB(μ V/m))	(dB)
Peak data								
5 459.97 ¹⁾	H	51.25	34.73	-25.08	-	60.90	74.00	13.10
11 024.17 ¹⁾	V	58.49	38.20	-48.74	-	47.95	74.00	26.05
17 184.22	H	57.28	40.59	-47.75	-	50.12	68.20	18.08
Average Data								
5 459.97 ¹⁾	H	41.37	34.73	-25.08	-	51.02	54.00	2.98

Middle Channel (5 590 MHz)

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μ V))	(dB)	(dB)	(dB)	(dB(μ V/m))	(dB(μ V/m))	(dB)
Peak data								
11 225.42 ¹⁾	H	59.13	38.25	-49.46	-	47.92	74.00	26.08
16 817.30	H	56.86	41.25	-47.73	-	50.38	68.20	17.82
Average Data								
No spurious emissions were detected within 20 dB of the limit.								

Highest Channel (5 670 MHz)

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μ V))	(dB)	(dB)	(dB)	(dB(μ V/m))	(dB(μ V/m))	(dB)
Peak data								
5 727.42	H	42.48	35.03	-26.42	-	51.09	68.20	17.11
11 392.89 ¹⁾	V	58.74	38.28	-50.06	-	46.96	74.00	27.04
15 937.91 ¹⁾	H	56.28	39.82	-46.06	-	50.04	74.00	23.96
Average Data								
No spurious emissions were detected within 20 dB of the limit.								

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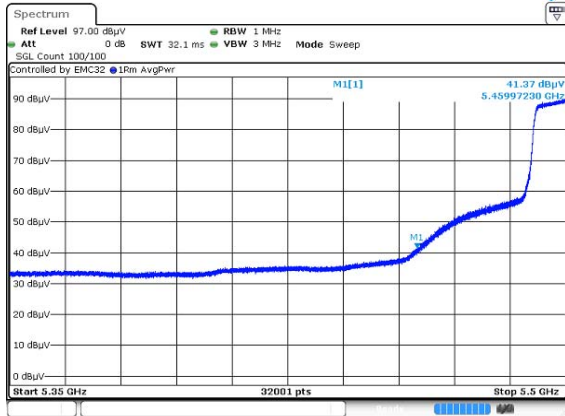
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802.11ac VHT40 UNII-2C 2TX MIMO

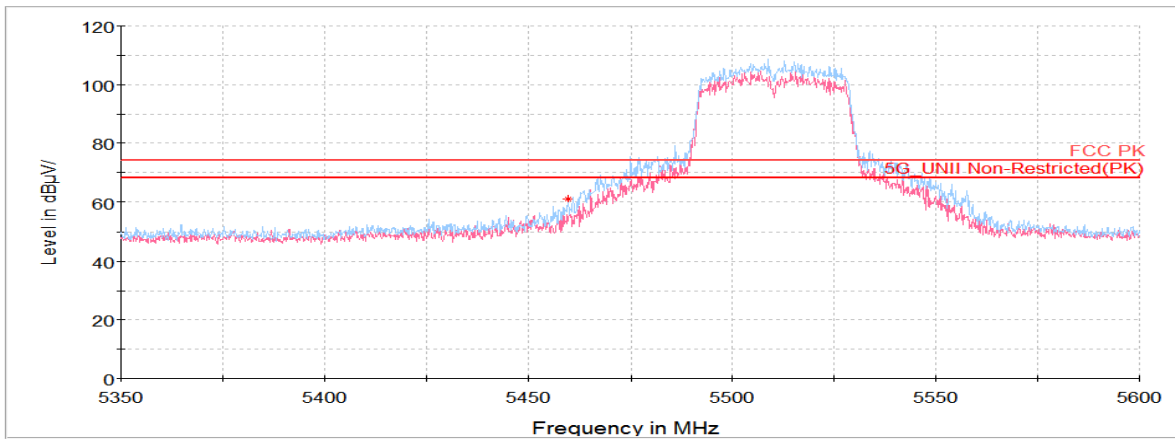
Lowest Channel (5 510 MHz)

Average data



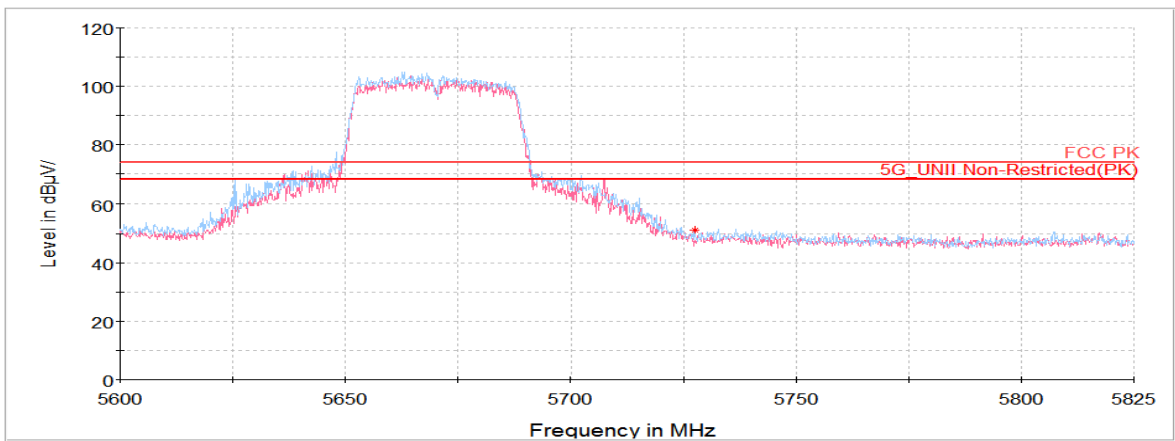
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Horizontal/Vertical for Band-edge



Highest Channel (5 670 MHz)

Horizontal/Vertical for Band-edge



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**802.11ac VHT80 UNII-2C ANT1****Lowest Channel (5 530 MHz)**

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μ V))	(dB)	(dB)	(dB)	(dB(μ V/m))	(dB(μ V/m))	(dB)
Peak data								
5 459.31 ¹⁾	H	49.61	34.73	-25.09	-	59.25	74.00	14.75
11 138.81 ¹⁾	H	59.76	38.23	-49.15	-	48.84	74.00	25.16
16 830.23	H	56.81	41.26	-47.72	-	50.35	68.20	17.85
Average Data								
5 459.31 ¹⁾	H	41.59	34.73	-25.09	-	51.23	54.00	2.77

Highest Channel (5 610 MHz)

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μ V))	(dB)	(dB)	(dB)	(dB(μ V/m))	(dB(μ V/m))	(dB)
Peak data								
5 740.83	H	42.36	35.04	-26.37	-	51.03	68.20	17.17
11 283.64 ¹⁾	H	59.79	38.26	-49.67	-	48.38	74.00	25.62
16 280.39	V	57.02	40.94	-47.08	-	50.88	68.20	17.32
Average Data								
No spurious emissions were detected within 20 dB of the limit.								

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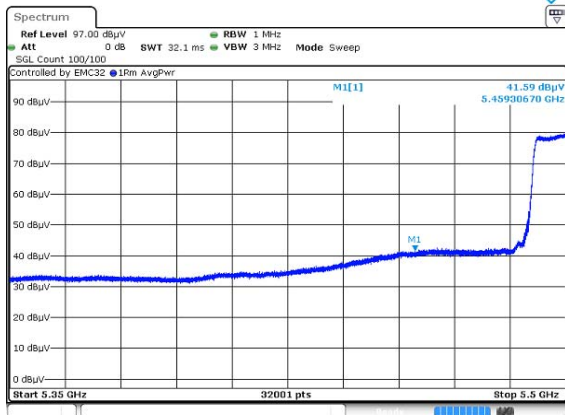
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802.11ac VHT80 UNII-2C ANT1

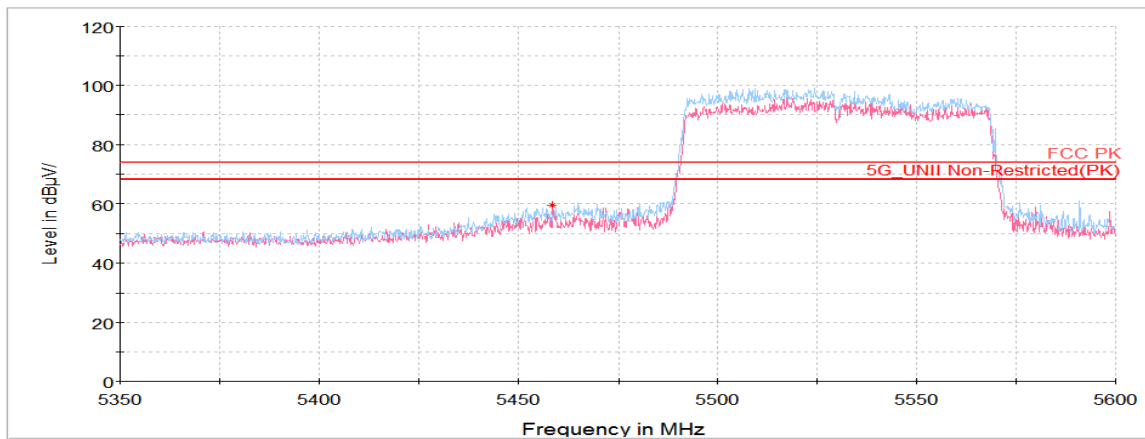
Lowest Channel (5 530 MHz)

Average data



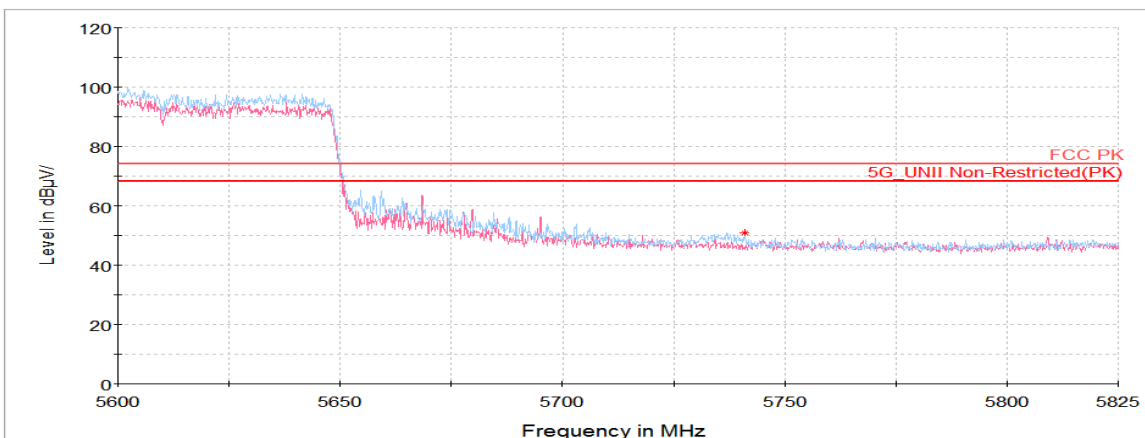
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Horizontal/Vertical for Band-edge



Highest Channel (5 610 MHz)

Horizontal/Vertical for Band-edge



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KCTL**802.11ac VHT80 UNII-2C ANT2****Lowest Channel (5 530 MHz)**

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μ V))	(dB)	(dB)	(dB)	(dB(μ V/m))	(dB(μ V/m))	(dB)
Peak data								
5 459.87 ¹⁾	H	51.99	34.73	-25.08	-	61.64	74.00	12.36
11 017.70 ¹⁾	H	57.75	38.20	-48.72	-	47.23	74.00	26.77
16 222.53	H	56.96	40.87	-46.87	-	50.96	68.20	17.24
Average Data								
5 459.87 ¹⁾	H	41.58	34.73	-25.08	-	51.23	54.00	2.77

Highest Channel (5 610 MHz)

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μ V))	(dB)	(dB)	(dB)	(dB(μ V/m))	(dB(μ V/m))	(dB)
Peak data								
5 730.34	H	42.27	35.03	-26.41	-	50.89	68.20	17.31
11 219.31 ¹⁾	V	58.30	38.24	-49.44	-	47.10	74.00	26.90
16 170.78 ¹⁾	H	56.60	40.80	-46.68	-	50.72	74.00	23.28
Average Data								
No spurious emissions were detected within 20 dB of the limit.								

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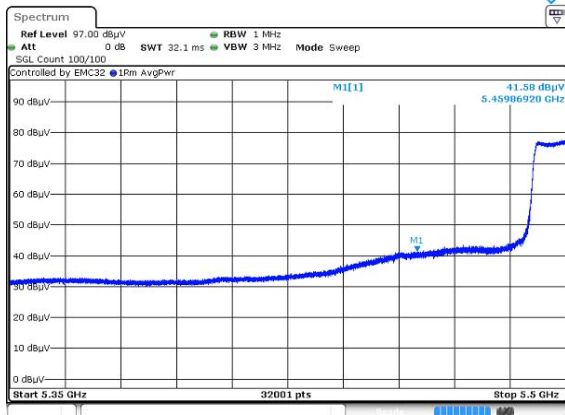
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802.11ac VHT80 UNII-2C ANT2

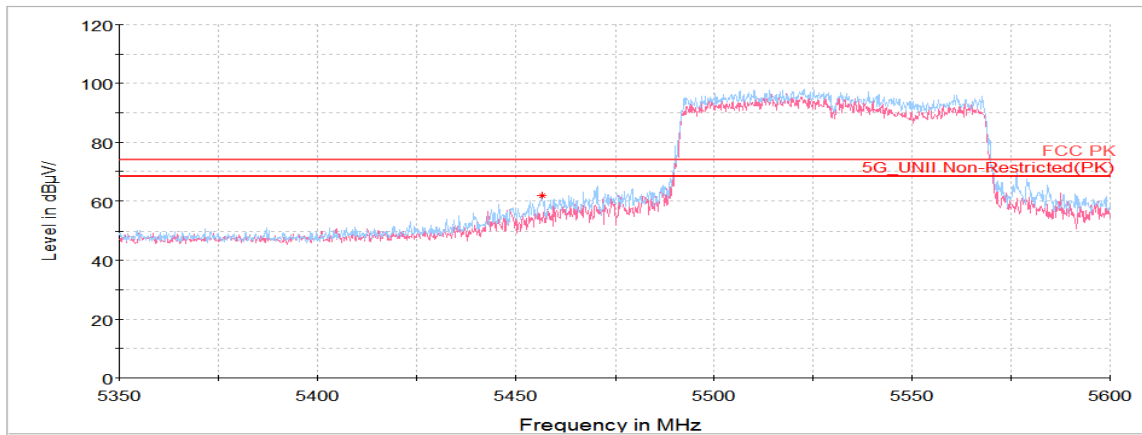
Lowest Channel (5 530 MHz)

Average data



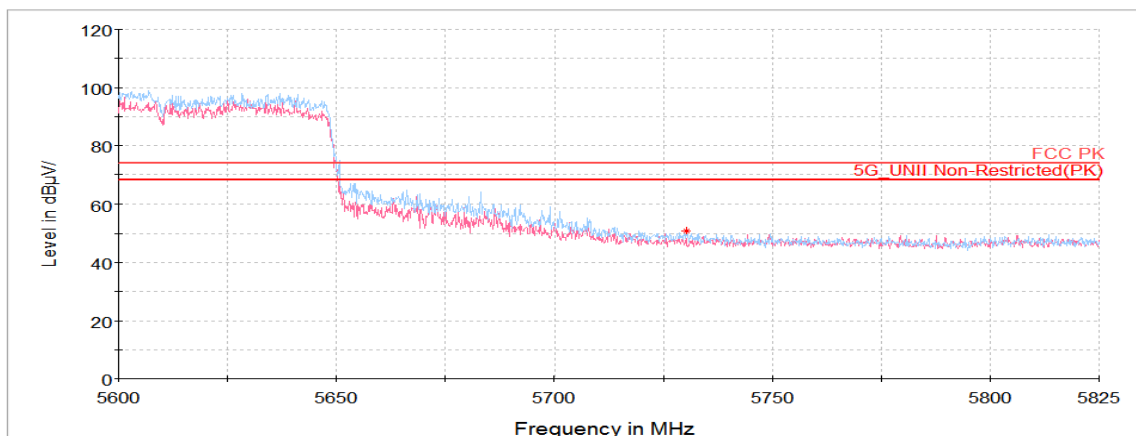
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Horizontal/Vertical for Band-edge



Highest Channel (5 610 MHz)

Horizontal/Vertical for Band-edge



802.11ac VHT80 UNII-2C 2TX MIMO

Lowest Channel (5 530 MHz)

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μV))	(dB)	(dB)	(dB)	(dB($\mu V/m$))	(dB($\mu V/m$))	(dB)
Peak data								
5 455.93 ¹⁾	H	48.53	34.72	-25.12	-	58.13	74.00	15.87
11 082.39 ¹⁾	H	57.39	38.22	-48.95	-	46.66	74.00	27.34
16 839.22	V	57.43	41.27	-47.72	-	50.98	68.20	17.22
Average Data								
5 455.93 ¹⁾	H	41.53	34.72	-25.12	-	51.13	54.00	2.87

Highest Channel (5 610 MHz)

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μV))	(dB)	(dB)	(dB)	(dB($\mu V/m$))	(dB($\mu V/m$))	(dB)
Peak data								
5 737.73	H	41.41	35.04	-26.38	-	50.07	68.20	18.13
11 218.95 ¹⁾	H	59.59	38.24	-49.44	-	48.39	74.00	25.61
16 184.44 ¹⁾	V	56.54	40.82	-46.73	-	50.63	74.00	23.37
Average Data								
No spurious emissions were detected within 20 dB of the limit.								

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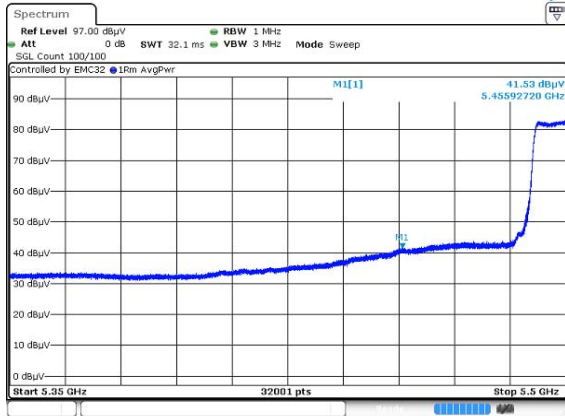
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802.11ac VHT80 UNII-2C 2TX MIMO

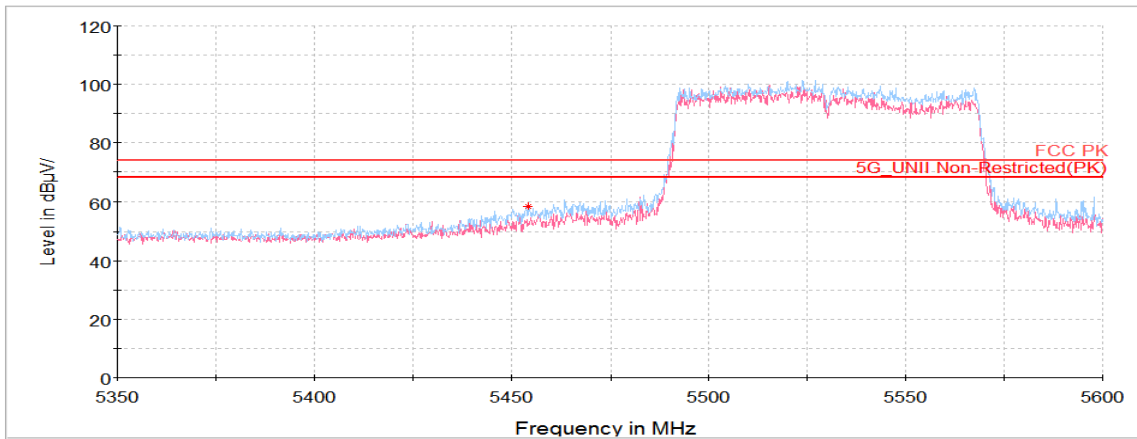
Lowest Channel (5 530 MHz)

Average data



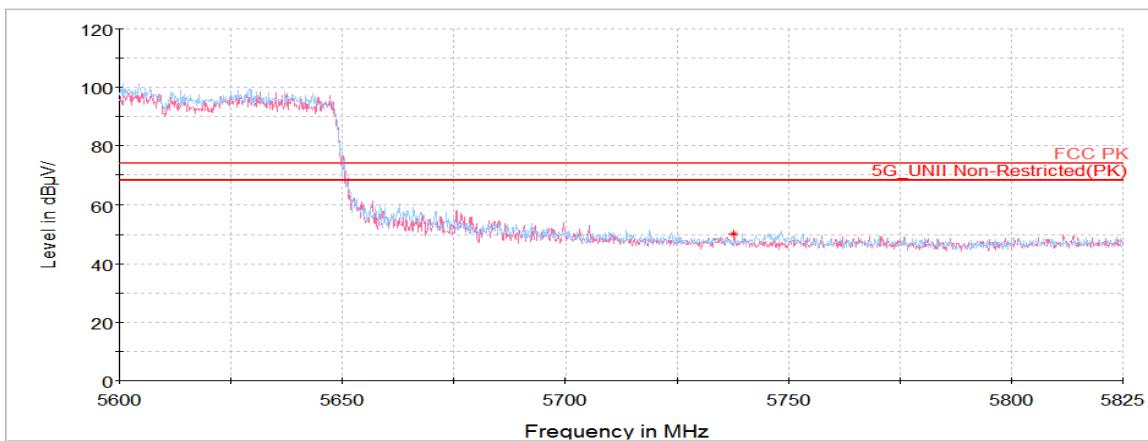
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Horizontal/Vertical for Band-edge



Highest Channel (5 610 MHz)

Horizontal/Vertical for Band-edge



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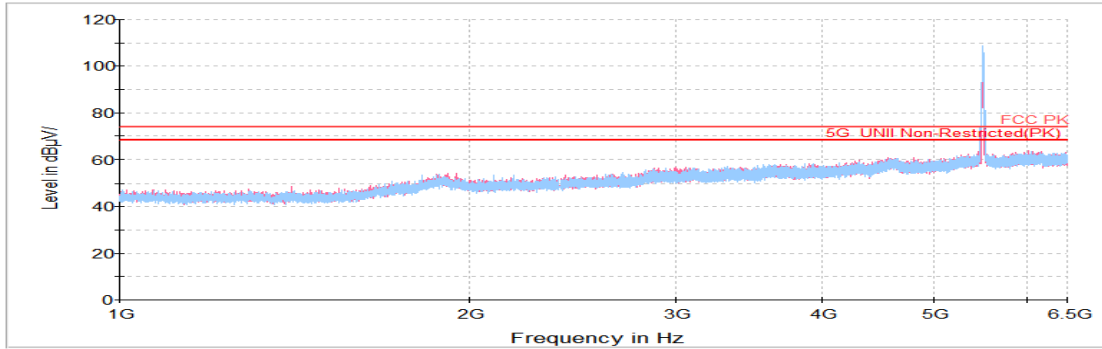


Plot of Harmonics and Spurious Emissions

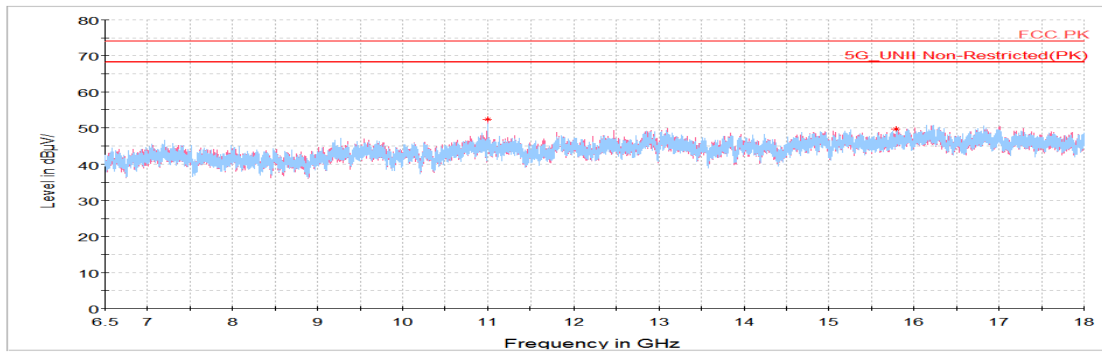
In order to simplify the report, attached plots were only the lowest margin condition

802.11a_UNII-2C_ANT1_ Lowest Channel (5 500 MHz)

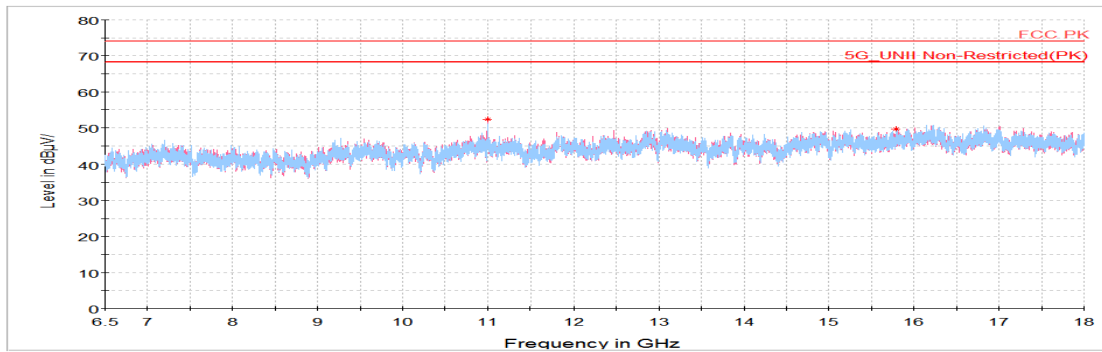
Horizontal/Vertical for 1 GHz ~ 6.5 GHz



Horizontal/Vertical for 6.5 GHz ~ 18 GHz



Horizontal/Vertical for 18 GHz ~ 40 GHz



802.11a UNII-2C Straddle channel ANT1

Straddle Channel (5 720 MHz)

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μ V))	(dB)	(dB)	(dB)	(dB(μ V/m))	(dB(μ V/m))	(dB)
Peak data								
11 476.63 ¹⁾	V	59.28	38.30	-50.36	-	47.22	74.00	26.78
16 862.94	H	56.89	41.29	-47.71	-	50.47	68.20	17.73
Average Data								
No spurious emissions were detected within 20 dB of the limit.								

802.11n HT20 UNII-2C Straddle channel ANT1

Straddle Channel (5 720 MHz)

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μ V))	(dB)	(dB)	(dB)	(dB(μ V/m))	(dB(μ V/m))	(dB)
Peak data								
11 539.88 ¹⁾	V	59.20	38.33	-50.31	-	47.22	74.00	26.78
16 015.89 ¹⁾	V	55.96	40.62	-46.11	-	50.47	74.00	23.53
Average Data								
No spurious emissions were detected within 20 dB of the limit.								

802.11n HT40 UNII-2C Straddle channel ANT1

Straddle Channel (5 710 MHz)

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μ V))	(dB)	(dB)	(dB)	(dB(μ V/m))	(dB(μ V/m))	(dB)
Peak data								
11 538.08 ¹⁾	V	58.45	38.33	-50.32	-	46.46	74.00	27.54
16 155.69 ¹⁾	V	56.42	40.79	-46.62	-	50.59	74.00	23.41
Average Data								
No spurious emissions were detected within 20 dB of the limit.								

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**802.11ac VHT20 UNII-2C Straddle channel ANT1****Straddle Channel (5 720 MHz)**

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μ V))	(dB)	(dB)	(dB)	(dB(μ V/m))	(dB(μ V/m))	(dB)
Peak data								
11 666.02 ¹⁾	V	57.52	38.43	-49.89	-	46.06	74.00	27.94
16 819.81	V	57.30	41.26	-47.73	-	50.83	68.20	17.37
Average Data								
No spurious emissions were detected within 20 dB of the limit.								

802.11ac VHT40 UNII-2C Straddle channel ANT1**Straddle Channel (5 710 MHz)**

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μ V))	(dB)	(dB)	(dB)	(dB(μ V/m))	(dB(μ V/m))	(dB)
Peak data								
11 493.88 ¹⁾	H	57.68	38.30	-50.42	-	45.56	74.00	28.44
17 384.75	H	57.69	40.47	-47.88	-	50.28	68.20	17.92
Average Data								
No spurious emissions were detected within 20 dB of the limit.								

802.11ac VHT80 UNII-2C Straddle channel ANT1**Straddle Channel (5 690 MHz)**

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μ V))	(dB)	(dB)	(dB)	(dB(μ V/m))	(dB(μ V/m))	(dB)
Peak data								
11 367.38 ¹⁾	H	58.12	38.27	-49.97	-	46.42	74.00	27.58
16 211.75	V	56.45	40.85	-46.83	-	50.47	68.20	17.73
Average Data								
No spurious emissions were detected within 20 dB of the limit.								

802.11a UNII-2C Straddle channel ANT2

Straddle Channel (5 720 MHz)

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μ V))	(dB)	(dB)	(dB)	(dB(μ V/m))	(dB(μ V/m))	(dB)
Peak data								
11 576.53 ¹⁾	H	57.74	38.36	-50.19	-	45.91	74.00	28.09
16 072.31 ¹⁾	V	55.86	40.69	-46.32	-	50.23	74.00	23.77
Average Data								
No spurious emissions were detected within 20 dB of the limit.								

802.11n HT20 UNII-2C Straddle channel ANT2

Straddle Channel (5 720 MHz)

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μ V))	(dB)	(dB)	(dB)	(dB(μ V/m))	(dB(μ V/m))	(dB)
Peak data								
11 326.05 ¹⁾	H	58.67	38.27	-49.82	-	47.12	74.00	26.88
15 904.13 ¹⁾	V	56.56	39.84	-46.07	-	50.33	74.00	23.67
Average Data								
No spurious emissions were detected within 20 dB of the limit.								

802.11n HT40 UNII-2C Straddle channel ANT2

Straddle Channel (5 710 MHz)

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μ V))	(dB)	(dB)	(dB)	(dB(μ V/m))	(dB(μ V/m))	(dB)
Peak data								
11 510.41 ¹⁾	V	57.28	38.31	-50.41	-	45.18	74.00	28.82
16 077.34 ¹⁾	H	56.41	40.69	-46.34	-	50.76	74.00	23.24
Average Data								
No spurious emissions were detected within 20 dB of the limit.								

802.11ac VHT20 UNII-2C Straddle channel ANT2

Straddle Channel (5 720 MHz)

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μV))	(dB)	(dB)	(dB)	(dB($\mu V/m$))	(dB($\mu V/m$))	(dB)
Peak data								
11 349.41 ¹⁾	H	58.10	38.27	-49.91	-	46.46	74.00	27.54
16 204.20	H	57.22	40.85	-46.80	-	51.27	68.20	16.93
Average Data								
No spurious emissions were detected within 20 dB of the limit.								

802.11ac VHT40 UNII-2C Straddle channel ANT2

Straddle Channel (5 710 MHz)

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μV))	(dB)	(dB)	(dB)	(dB($\mu V/m$))	(dB($\mu V/m$))	(dB)
Peak data								
11 476.63 ¹⁾	H	57.86	38.30	-50.36	-	45.80	74.00	28.20
15 917.42 ¹⁾	H	56.58	39.83	-46.07	-	50.34	74.00	23.66
Average Data								
No spurious emissions were detected within 20 dB of the limit.								

802.11ac VHT80 UNII-2C Straddle channel ANT2

Straddle Channel (5 690 MHz)

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μV))	(dB)	(dB)	(dB)	(dB($\mu V/m$))	(dB($\mu V/m$))	(dB)
Peak data								
11 363.06 ¹⁾	V	57.64	38.27	-49.95	-	45.96	74.00	28.04
16 206.72	V	56.44	40.85	-46.81	-	50.48	68.20	17.72
Average Data								
No spurious emissions were detected within 20 dB of the limit.								

802.11a UNII-2C Straddle channel 2TX MIIMO

Straddle Channel (5 720 MHz)

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μV))	(dB)	(dB)	(dB)	(dB($\mu V/m$))	(dB($\mu V/m$))	(dB)
Peak data								
11 479.14 ¹⁾	H	58.25	38.30	-50.37	-	46.18	74.00	27.82
16 834.91	V	55.99	41.27	-47.72	-	49.54	68.20	18.66
Average Data								
No spurious emissions were detected within 20 dB of the limit.								

802.11n HT20 UNII-2C Straddle channel 2TX MIIMO

Straddle Channel (5 720 MHz)

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μV))	(dB)	(dB)	(dB)	(dB($\mu V/m$))	(dB($\mu V/m$))	(dB)
Peak data								
11 488.48 ¹⁾	H	58.07	38.30	-50.40	-	45.97	74.00	28.03
16 180.84 ¹⁾	H	56.47	40.82	-46.72	-	50.57	74.00	23.43
Average Data								
No spurious emissions were detected within 20 dB of the limit.								

802.11n HT40 UNII-2C Straddle channel 2TX MIIMO

Straddle Channel (5 710 MHz)

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μV))	(dB)	(dB)	(dB)	(dB($\mu V/m$))	(dB($\mu V/m$))	(dB)
Peak data								
11 285.44 ¹⁾	H	59.05	38.26	-49.68	-	47.63	74.00	26.37
15 663.70 ¹⁾	V	56.44	39.93	-46.12	-	50.25	74.00	23.75
Average Data								
No spurious emissions were detected within 20 dB of the limit.								

802.11ac VHT20 UNII-2C Straddle channel 2TX MIIMO

Straddle Channel (5 720 MHz)

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μV))	(dB)	(dB)	(dB)	(dB($\mu V/m$))	(dB($\mu V/m$))	(dB)
Peak data								
11 538.08 ¹⁾	V	58.06	38.33	-50.32	-	46.07	74.00	27.93
17 198.59	H	58.04	40.58	-47.76	-	50.86	68.20	17.34
Average Data								
No spurious emissions were detected within 20 dB of the limit.								

802.11ac VHT40 UNII-2C Straddle channel 2TX MIIMO

Straddle Channel (5 710 MHz)

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μV))	(dB)	(dB)	(dB)	(dB($\mu V/m$))	(dB($\mu V/m$))	(dB)
Peak data								
11 358.39 ¹⁾	V	58.34	38.27	-49.94	-	46.67	74.00	27.33
15 189.33	V	55.36	40.16	-45.49	-	50.03	68.20	18.17
Average Data								
No spurious emissions were detected within 20 dB of the limit.								

802.11ac VHT80 UNII-2C Straddle channel 2TX MIIMO

Straddle Channel (5 690 MHz)

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μV))	(dB)	(dB)	(dB)	(dB($\mu V/m$))	(dB($\mu V/m$))	(dB)
Peak data								
11 380.31 ¹⁾	V	58.13	38.28	-50.02	-	46.39	74.00	27.61
16 177.25 ¹⁾	V	56.26	40.81	-46.70	-	50.37	74.00	23.63
Average Data								
No spurious emissions were detected within 20 dB of the limit.								

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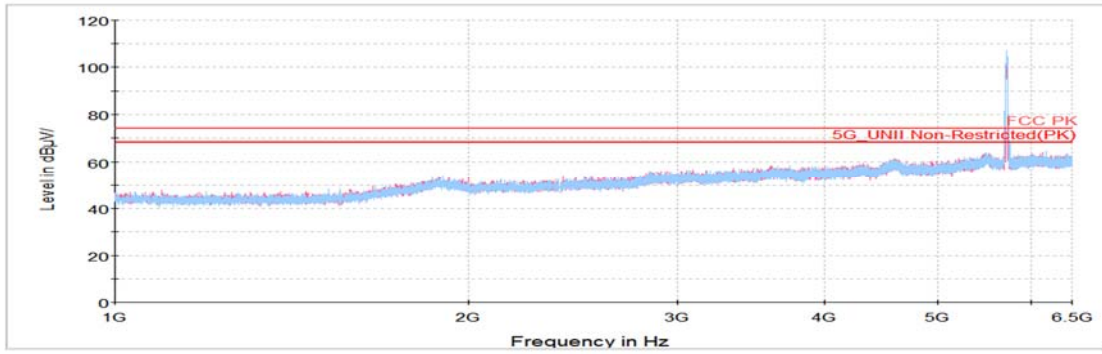


Plot of Harmonics and Spurious Emissions

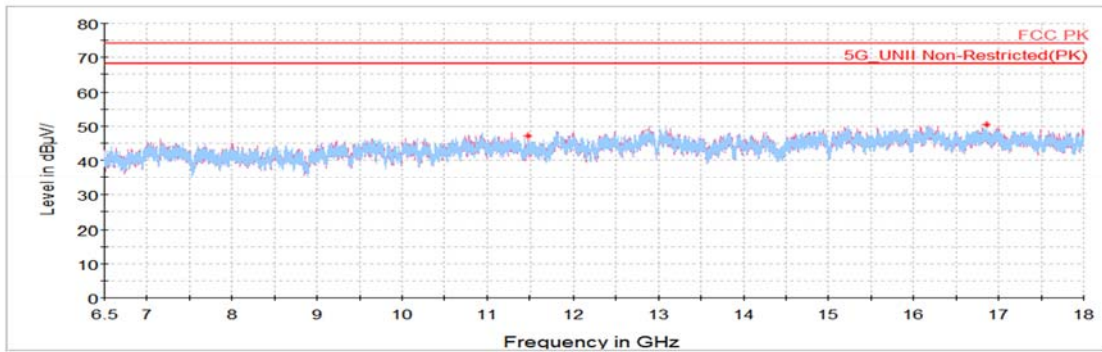
In order to simplify the report, attached plots were only the lowest margin condition

802.11a_UNII-2C_ANT1_ Straddle Channel (5 720 MHz)

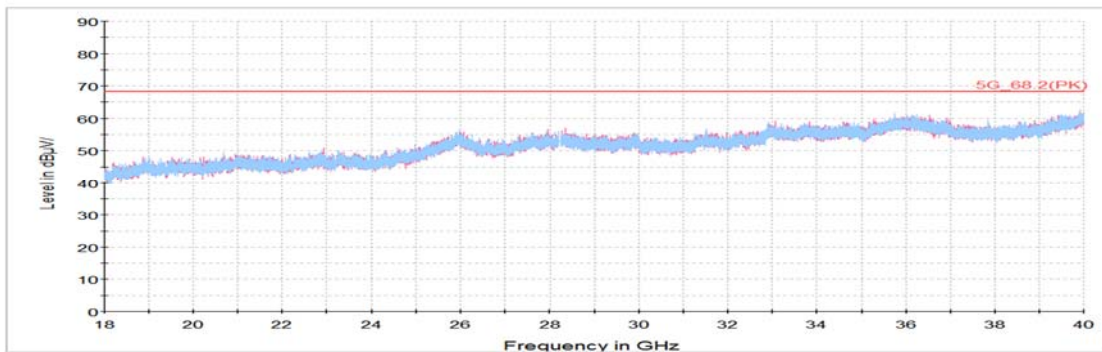
Horizontal/Vertical for 1 GHz ~ 6.5 GHz



Horizontal/Vertical for 6.5 GHz ~ 18 GHz



Horizontal/Vertical for 18 GHz ~ 40 GHz



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**802.11a UNII-3 ANT1****Lowest Channel (5 745 MHz)**

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μ V))	(dB)	(dB)	(dB)	(dB(μ V/m))	(dB(μ V/m))	(dB)
Peak data								
5 711.27	H	44.96	35.01	-26.48	-	53.49	108.35	54.86
11 482.73 ¹⁾	V	59.96	38.30	-50.38	-	47.88	74.00	26.12
17 321.50	V	56.64	40.51	-47.84	-	49.31	68.20	18.89
Average Data								
No spurious emissions were detected within 20 dB of the limit.								

Middle Channel (5 785 MHz)

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μ V))	(dB)	(dB)	(dB)	(dB(μ V/m))	(dB(μ V/m))	(dB)
Peak data								
11 570.06 ¹⁾	V	58.93	38.36	-50.21	-	47.08	74.00	26.92
16 043.56 ¹⁾	V	56.35	40.65	-46.21	-	50.79	74.00	23.21
Average Data								
No spurious emissions were detected within 20 dB of the limit.								

Highest Channel (5 825 MHz)

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μ V))	(dB)	(dB)	(dB)	(dB(μ V/m))	(dB(μ V/m))	(dB)
Peak data								
5 879.36	H	41.82	35.18	-24.98	-	52.02	101.97	49.96
11 646.97 ¹⁾	H	58.25	38.42	-49.96	-	46.71	74.00	27.29
17 501.91	V	55.89	40.80	-47.95	-	48.74	68.20	19.46
Average Data								
No spurious emissions were detected within 20 dB of the limit.								

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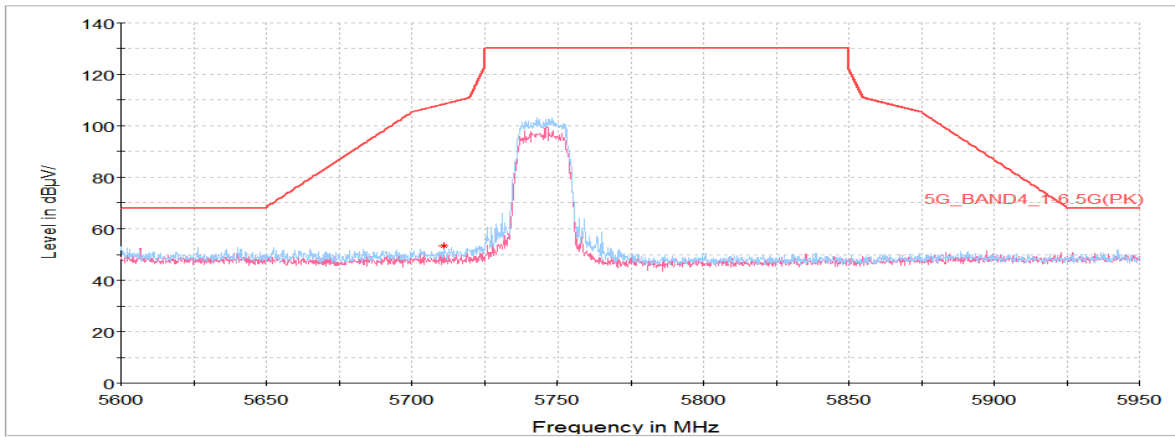
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802.11a UNII-3 ANT1

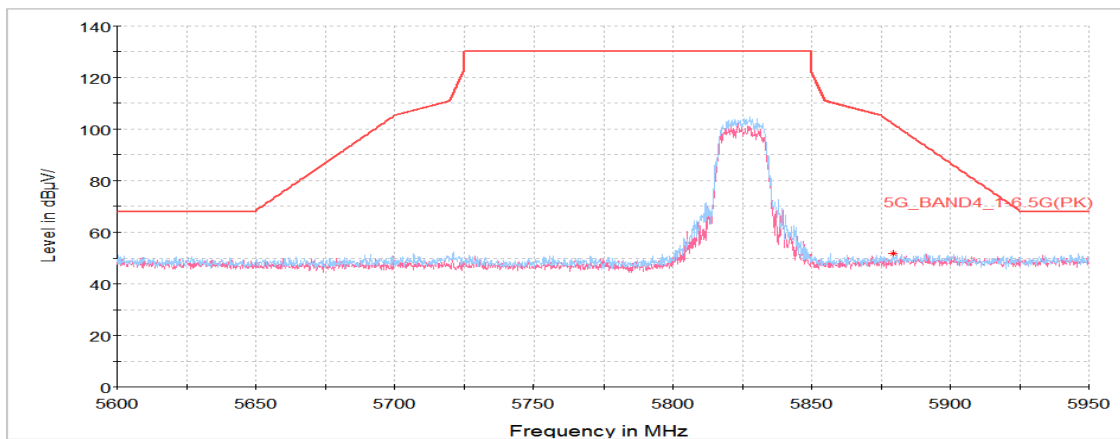
Lowest Channel (5 745 MHz)

Horizontal/Vertical for Band-edge



Highest Channel (5 825 MHz)

Horizontal/Vertical for Band-edge



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KCTL**802.11a UNII-3 ANT2****Lowest Channel (5 745 MHz)**

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μ V))	(dB)	(dB)	(dB)	(dB(μ V/m))	(dB(μ V/m))	(dB)
Peak data								
5 723.98	V	42.88	35.02	-26.43	-	51.47	119.88	68.42
11 292.27 ¹⁾	H	60.00	38.26	-49.70	-	48.56	74.00	25.44
17 266.16	H	56.09	40.54	-47.80	-	48.83	68.20	19.37
Average Data								
No spurious emissions were detected within 20 dB of the limit.								

Middle Channel (5 785 MHz)

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μ V))	(dB)	(dB)	(dB)	(dB(μ V/m))	(dB(μ V/m))	(dB)
Peak data								
11 672.84 ¹⁾	V	58.14	38.44	-49.87	-	46.71	74.00	27.29
16 289.02	H	56.57	40.95	-47.12	-	50.40	68.20	17.80
Average Data								
No spurious emissions were detected within 20 dB of the limit.								

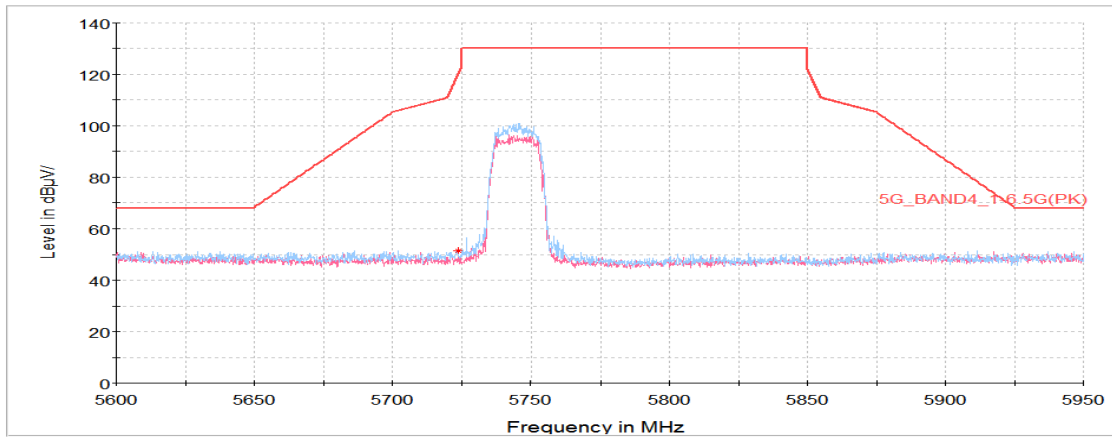
Highest Channel (5 825 MHz)

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μ V))	(dB)	(dB)	(dB)	(dB(μ V/m))	(dB(μ V/m))	(dB)
Peak data								
5 861.48	H	43.04	35.16	-25.24	-	52.96	108.98	56.03
11 779.58 ¹⁾	V	58.08	38.52	-49.52	-	47.08	74.00	26.92
16 301.23	H	56.74	40.96	-47.16	-	50.54	68.20	17.66
Average Data								
No spurious emissions were detected within 20 dB of the limit.								

802.11a UNII-3 ANT2

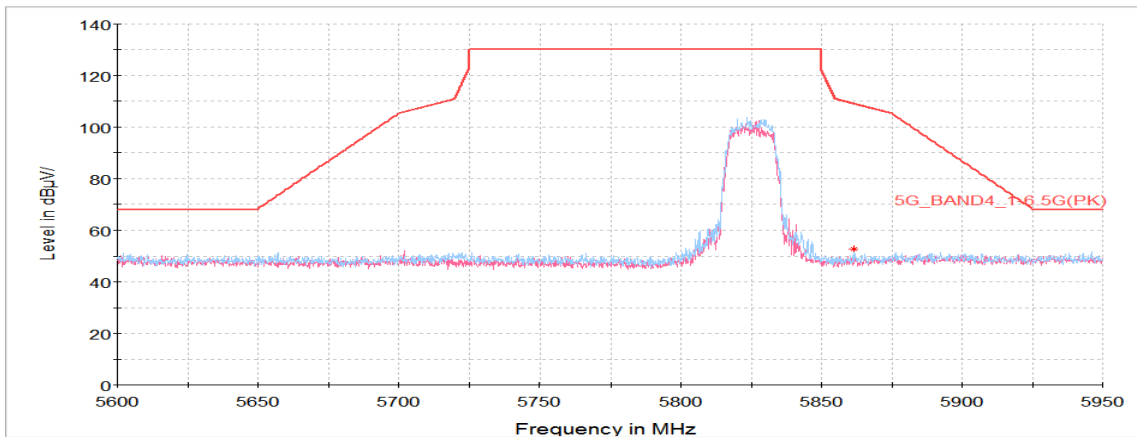
Lowest Channel (5 745 MHz)

Horizontal/Vertical for Band-edge



Highest Channel (5 825 MHz)

Horizontal/Vertical for Band-edge



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KCTL**802.11a UNII-3 2TX MIIMO****Lowest Channel (5 745 MHz)**

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μ V))	(dB)	(dB)	(dB)	(dB(μ V/m))	(dB(μ V/m))	(dB)
Peak data								
5 714.53	H	43.24	35.01	-26.46	-	51.79	109.27	57.48
11 551.02 ¹⁾	V	57.95	38.34	-50.27	-	46.02	74.00	27.98
16 999.86	H	56.97	41.40	-47.63	-	50.74	68.20	17.46
Average Data								
No spurious emissions were detected within 20 dB of the limit.								

Middle Channel (5 785 MHz)

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μ V))	(dB)	(dB)	(dB)	(dB(μ V/m))	(dB(μ V/m))	(dB)
Peak data								
11 496.75 ¹⁾	H	57.94	38.30	-50.43	-	45.81	74.00	28.19
16 811.19	V	57.31	41.25	-47.73	-	50.83	68.20	17.37
Average Data								
No spurious emissions were detected within 20 dB of the limit.								

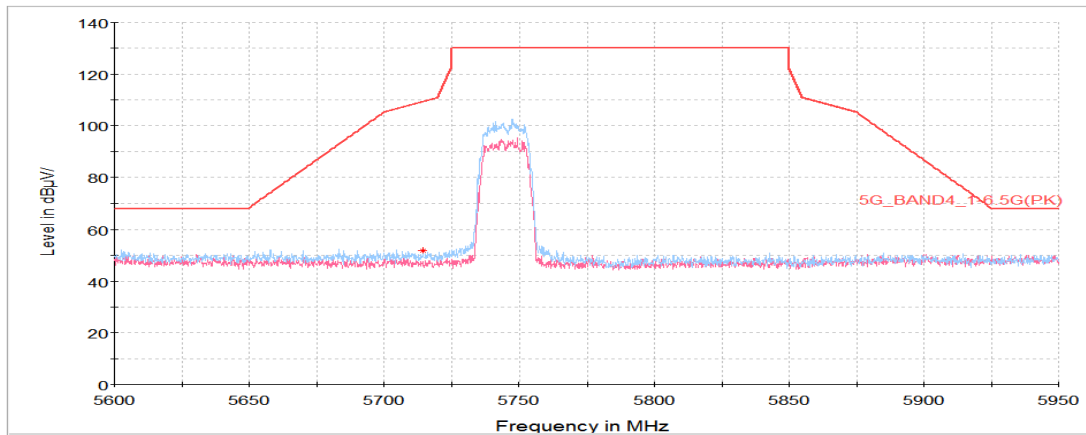
Highest Channel (5 825 MHz)

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μ V))	(dB)	(dB)	(dB)	(dB(μ V/m))	(dB(μ V/m))	(dB)
Peak data								
5 893.28	H	41.56	35.19	-24.77	-	51.98	91.67	39.69
11 663.14 ¹⁾	V	57.55	38.43	-49.90	-	46.08	74.00	27.92
16 071.95 ¹⁾	V	55.79	40.69	-46.32	-	50.16	74.00	23.84
Average Data								
No spurious emissions were detected within 20 dB of the limit.								

802.11a UNII-3 2TX MIIMO

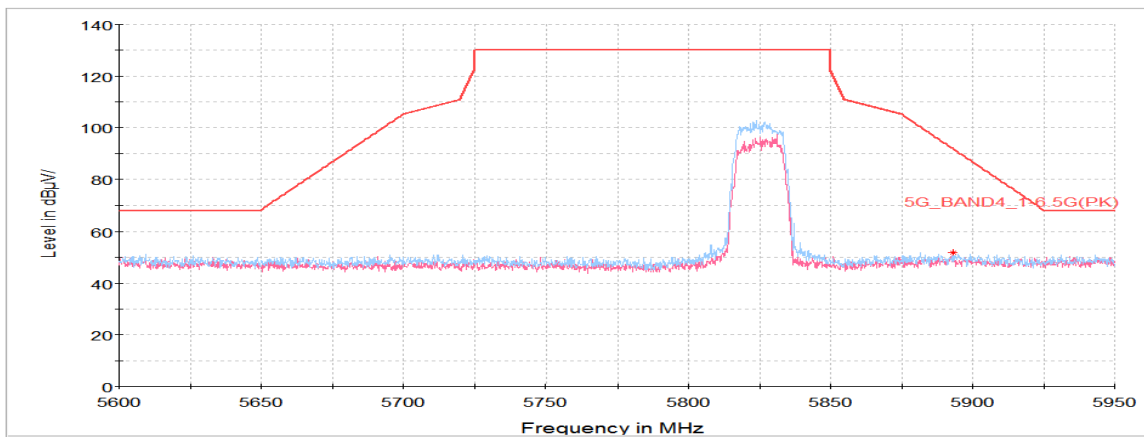
Lowest Channel (5 745 MHz)

Horizontal/Vertical for Band-edge



Highest Channel (5 825 MHz)

Horizontal/Vertical for Band-edge



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KCTL**802.11n HT20 UNII-3 ANT1****Lowest Channel (5 745 MHz)**

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μ V))	(dB)	(dB)	(dB)	(dB(μ V/m))	(dB(μ V/m))	(dB)
Peak data								
5 720.20	H	44.26	35.02	-26.44	-	52.84	111.26	58.43
11 493.88 ¹⁾	V	58.71	38.30	-50.42	-	46.59	74.00	27.41
16 170.42 ¹⁾	V	56.46	40.80	-46.68	-	50.58	74.00	23.42
Average Data								
No spurious emissions were detected within 20 dB of the limit.								

Middle Channel (5 785 MHz)

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μ V))	(dB)	(dB)	(dB)	(dB(μ V/m))	(dB(μ V/m))	(dB)
Peak data								
11 557.48	H	58.34	38.35	-50.25	-	46.44	74.00	27.56
16 172.94 ¹⁾	H	56.87	40.81	-46.69	-	50.99	74.00	23.01
Average Data								
No spurious emissions were detected within 20 dB of the limit.								

Highest Channel (5 825 MHz)

Frequency	Pol.	Reading	Amp. + Cable	Antenna Factor	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μ V))	(dB)	(dB)	(dB)	(dB(μ V/m))	(dB(μ V/m))	(dB)
Peak data								
5 892.77	H	41.75	35.19	-24.78	-	52.16	92.05	39.89
11 652.36 ¹⁾	V	58.16	38.42	-49.94	-	46.64	74.00	27.36
16 876.59	V	56.79	41.30	-47.70	-	50.39	68.20	17.81
Average Data								
No spurious emissions were detected within 20 dB of the limit.								

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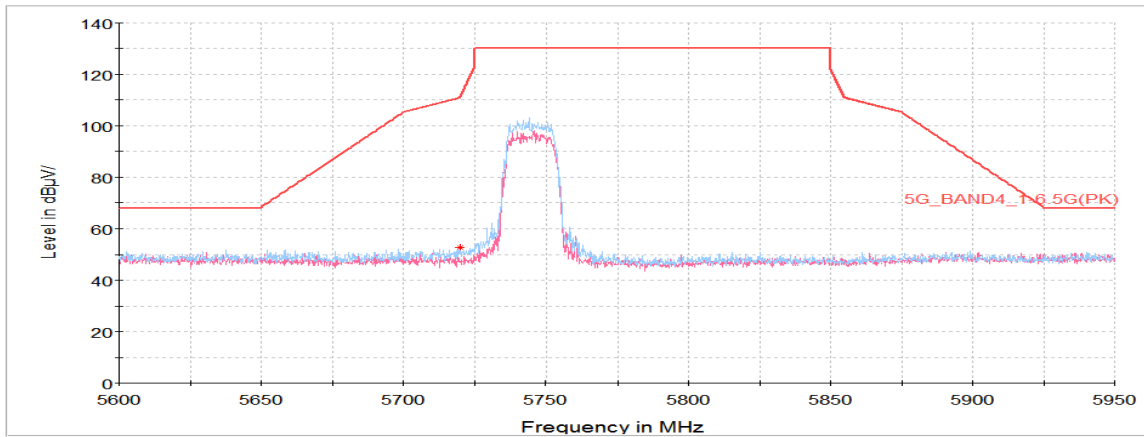
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802.11n HT20 UNII-3 ANT1

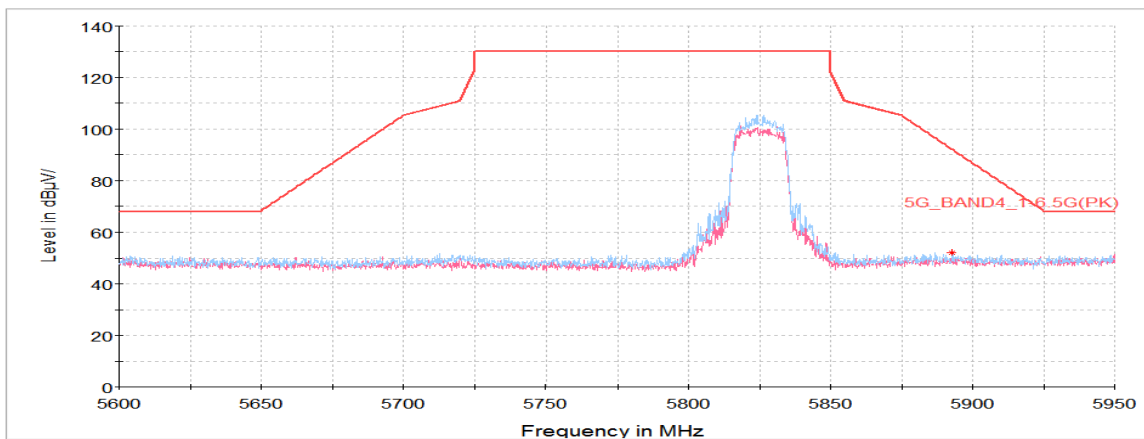
Lowest Channel (5 745 MHz)

Horizontal/Vertical for Band-edge



Highest Channel (5 825 MHz)

Horizontal/Vertical for Band-edge



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KCTL**802.11n HT20 UNII-3 ANT2****Lowest Channel (5 745 MHz)**

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μ V))	(dB)	(dB)	(dB)	(dB(μ V/m))	(dB(μ V/m))	(dB)
Peak data								
5 703.53	H	43.40	35.00	-26.51	-	51.89	106.19	54.30
11 529.81 ¹⁾	V	58.14	38.32	-50.34	-	46.12	74.00	27.88
16 161.80 ¹⁾	H	56.33	40.79	-46.65	-	50.47	74.00	23.53
Average Data								
No spurious emissions were detected within 20 dB of the limit.								

Middle Channel (5 785 MHz)

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μ V))	(dB)	(dB)	(dB)	(dB(μ V/m))	(dB(μ V/m))	(dB)
Peak data								
11 487.77 ¹⁾	H	59.33	38.30	-50.40	-	47.23	74.00	26.77
16 501.41	H	57.18	41.00	-47.89	-	50.29	68.20	17.91
Average Data								
No spurious emissions were detected within 20 dB of the limit.								

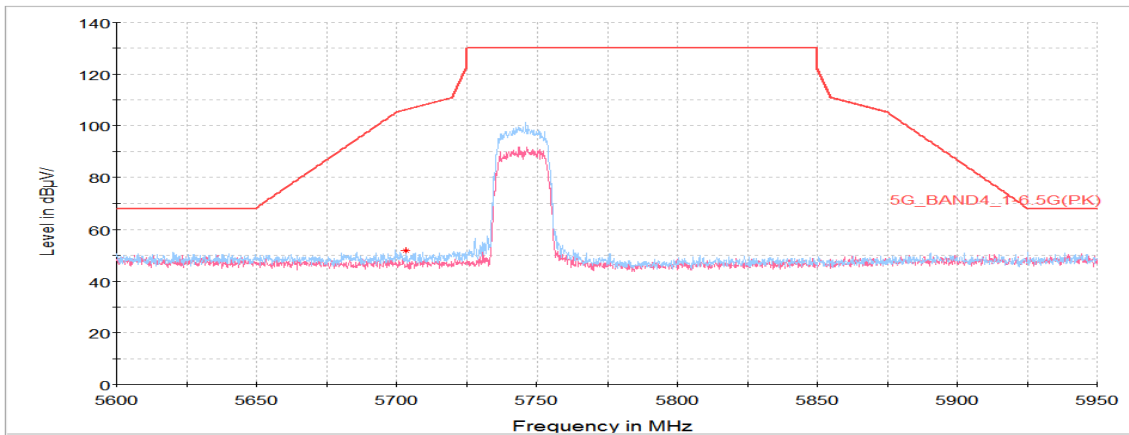
Highest Channel (5 825 MHz)

Frequency	Pol.	Reading	Amp. + Cable	Antenna Factor	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μ V))	(dB)	(dB)	(dB)	(dB(μ V/m))	(dB(μ V/m))	(dB)
Peak data								
5 879.88	H	41.21	35.18	-24.97	-	51.42	101.59	50.17
11 636.55 ¹⁾	H	57.73	38.41	-49.99	-	46.15	74.00	27.85
16 184.44 ¹⁾	V	56.02	40.82	-46.73	-	50.11	74.00	23.89
Average Data								
No spurious emissions were detected within 20 dB of the limit.								

802.11n HT20 UNII-3 ANT2

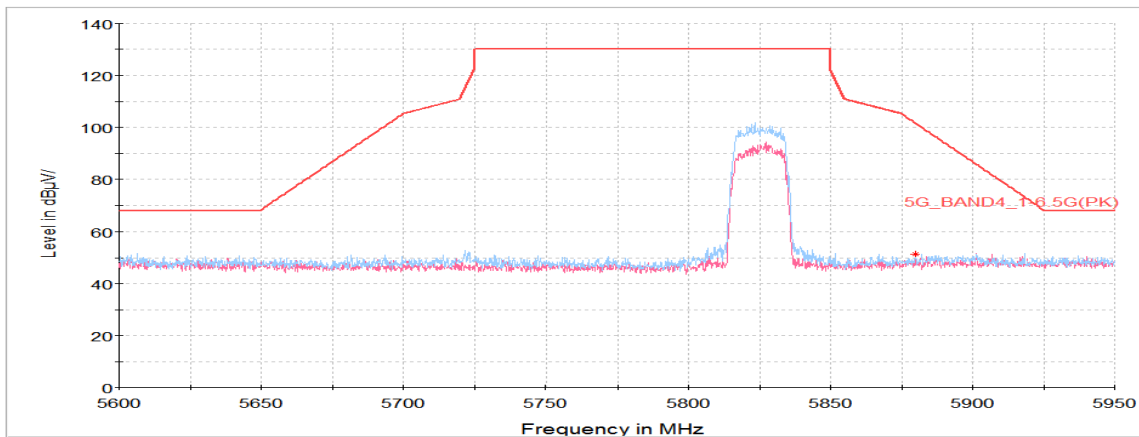
Lowest Channel (5 745 MHz)

Horizontal/Vertical for Band-edge



Highest Channel (5 825 MHz)

Horizontal/Vertical for Band-edge



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KCTL**802.11n HT20 UNII-3 2TX MIMO****Lowest Channel (5 745 MHz)**

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μ V))	(dB)	(dB)	(dB)	(dB(μ V/m))	(dB(μ V/m))	(dB)
Peak data								
5 696.66	H	44.85	35.00	-26.47	-	53.38	102.73	49.34
11 532.33 ¹⁾	H	57.47	38.33	-50.34	-	45.46	74.00	28.54
16 096.03 ¹⁾	V	56.24	40.72	-46.40	-	50.56	74.00	23.44
Average Data								
No spurious emissions were detected within 20 dB of the limit.								

Middle Channel (5 785 MHz)

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μ V))	(dB)	(dB)	(dB)	(dB(μ V/m))	(dB(μ V/m))	(dB)
Peak data								
11 642.30 ¹⁾	V	57.71	38.41	-49.97	-	46.15	74.00	27.85
16 298.36	V	57.25	40.96	-47.15	-	51.06	68.20	17.14
Average Data								
No spurious emissions were detected within 20 dB of the limit.								

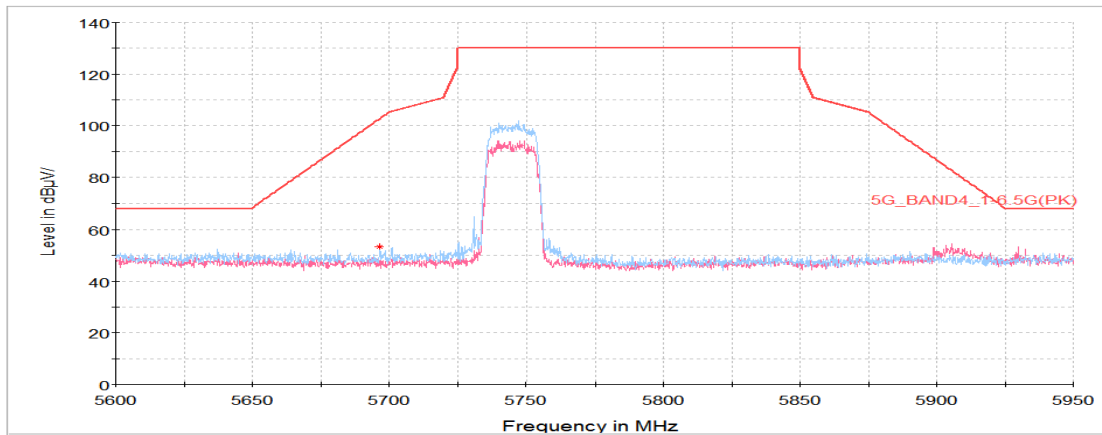
Highest Channel (5 825 MHz)

Frequency	Pol.	Reading	Amp. + Cable	Antenna Factor	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μ V))	(dB)	(dB)	(dB)	(dB(μ V/m))	(dB(μ V/m))	(dB)
Peak data								
5 878.33	H	41.88	35.18	-24.99	-	52.07	102.74	50.67
11 537.36 ¹⁾	H	58.38	38.33	-50.32	-	46.39	74.00	27.61
16 291.17	H	56.78	40.95	-47.12	-	50.61	68.20	17.59
Average Data								
No spurious emissions were detected within 20 dB of the limit.								

802.11n HT20 UNII-3 2TX MIMO

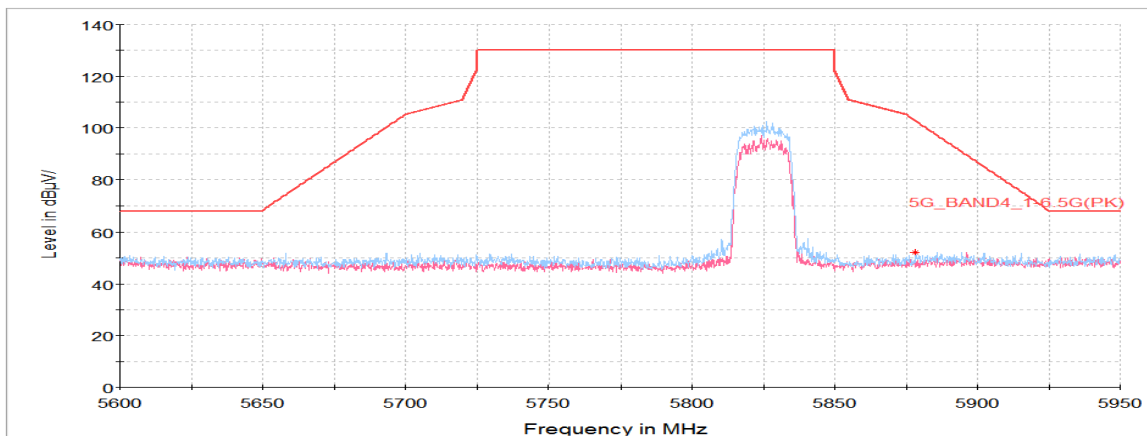
Lowest Channel (5 745 MHz)

Horizontal/Vertical for Band-edge



Highest Channel (5 825 MHz)

Horizontal/Vertical for Band-edge



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**802.11n HT40 UNII-3 ANT1****Lowest Channel (5 755 MHz)**

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μ V))	(dB)	(dB)	(dB)	(dB(μ V/m))	(dB(μ V/m))	(dB)
Peak data								
5 718.83	H	57.92	35.02	-26.45	-	66.49	110.47	43.98
11 515.44 ¹⁾	V	58.83	38.31	-50.39	-	46.75	74.00	27.25
15 927.84 ¹⁾	H	56.85	39.83	-46.07	-	50.61	74.00	23.39
Average Data								
No spurious emissions were detected within 20 dB of the limit.								

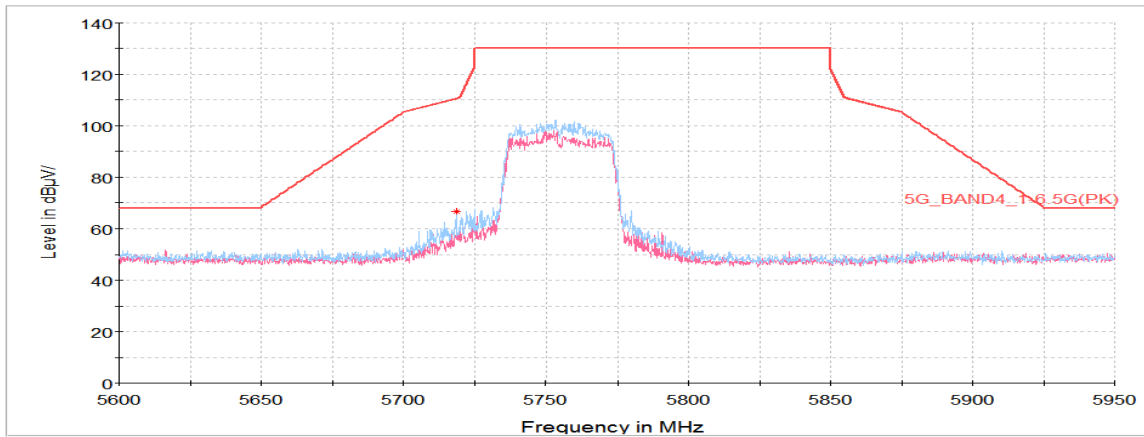
Highest Channel (5 795 MHz)

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μ V))	(dB)	(dB)	(dB)	(dB(μ V/m))	(dB(μ V/m))	(dB)
Peak data								
5 883.83	H	41.15	35.18	-24.91	-	51.42	98.67	47.25
11 523.70 ¹⁾	V	58.22	38.32	-50.36	-	46.18	74.00	27.82
16 831.31	H	57.04	41.27	-47.72	-	50.59	68.20	17.61
Average Data								
No spurious emissions were detected within 20 dB of the limit.								

802.11n HT40 UNII-3 ANT1

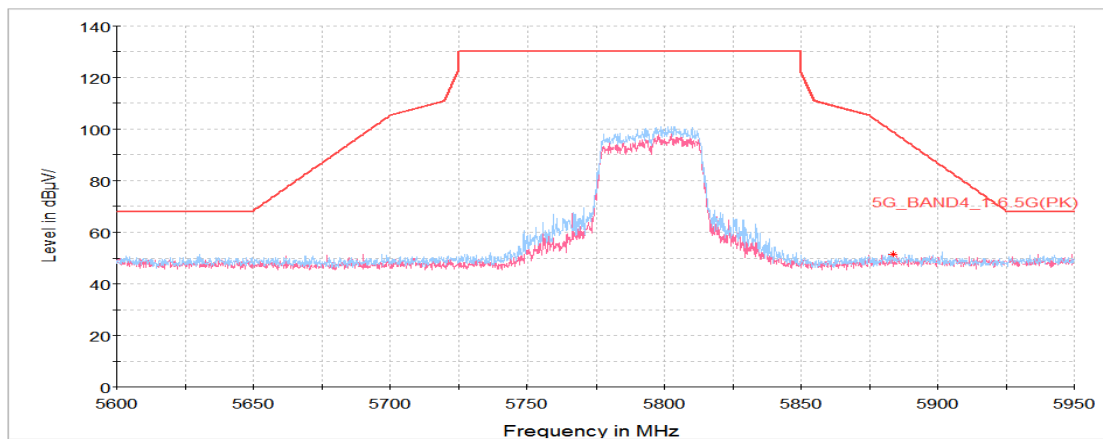
Lowest Channel (5 755 MHz)

Horizontal/Vertical for Band-edge



Highest Channel (5 795 MHz)

Horizontal/Vertical for Band-edge



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**802.11n HT40 UNII-3 ANT2****Lowest Channel (5 755 MHz)**

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μ V))	(dB)	(dB)	(dB)	(dB(μ V/m))	(dB(μ V/m))	(dB)
Peak data								
5 721.23	H	45.45	35.02	-26.44	-	54.03	113.61	59.58
11 517.95 ¹⁾	H	58.53	38.31	-50.38	-	46.46	74.00	27.54
16 298.36	V	56.90	40.96	-47.15	-	50.71	68.20	17.49
Average Data								
No spurious emissions were detected within 20 dB of the limit.								

Highest Channel (5 795 MHz)

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μ V))	(dB)	(dB)	(dB)	(dB(μ V/m))	(dB(μ V/m))	(dB)
Peak data								
5 893.28	H	41.26	35.19	-24.77	-	51.68	91.67	39.99
11 723.52 ¹⁾	H	58.42	38.48	-49.70	-	47.20	74.00	26.80
16 993.03	V	57.52	41.39	-47.64	-	51.27	68.20	16.93
Average Data								
No spurious emissions were detected within 20 dB of the limit.								

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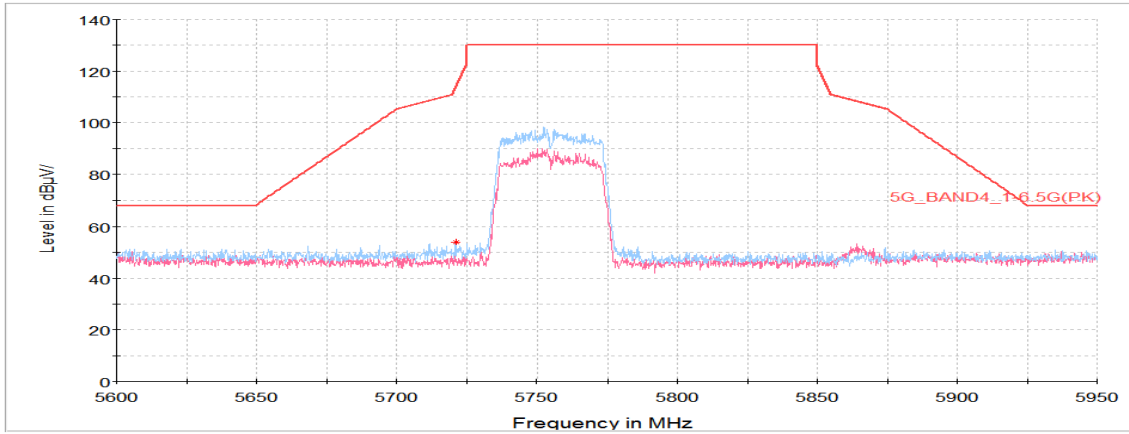
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802.11n HT40 UNII-3 ANT2

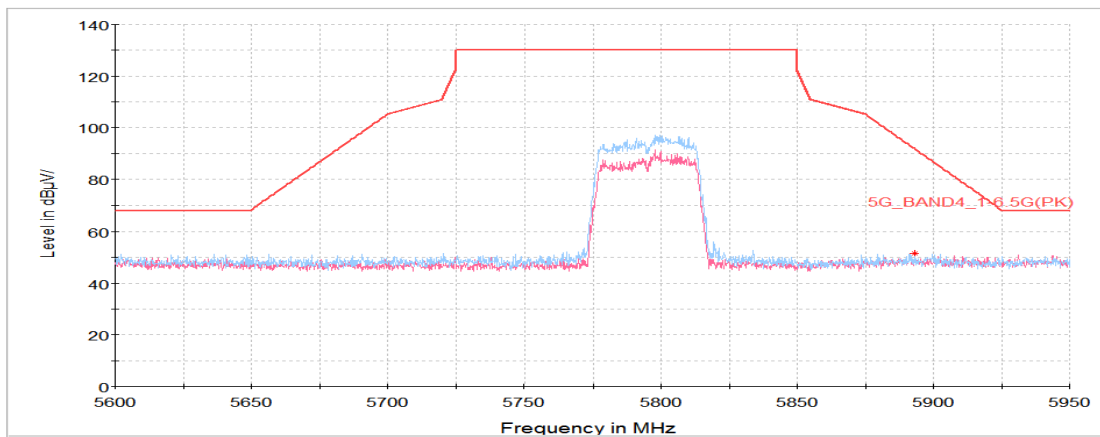
Lowest Channel (5 755 MHz)

Horizontal/Vertical for Band-edge



Highest Channel (5 795 MHz)

Horizontal/Vertical for Band-edge



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**802.11n HT40 UNII-3 2TX MIMO****Lowest Channel (5 755 MHz)**

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μ V))	(dB)	(dB)	(dB)	(dB(μ V/m))	(dB(μ V/m))	(dB)
Peak data								
5 721.23	H	45.02	35.02	-26.44	-	53.60	113.61	60.01
11 546.70 ¹⁾	V	57.44	38.34	-50.29	-	45.49	74.00	28.51
16 811.55	V	57.17	41.25	-47.73	-	50.69	68.20	17.51
Average Data								
No spurious emissions were detected within 20 dB of the limit.								

Highest Channel (5 795 MHz)

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μ V))	(dB)	(dB)	(dB)	(dB(μ V/m))	(dB(μ V/m))	(dB)
Peak data								
5 883.48	H	41.22	35.18	-24.92	-	51.48	98.92	47.44
11 557.84 ¹⁾	H	59.51	38.35	-50.25	-	47.61	74.00	26.39
16 962.84	V	56.53	41.37	-47.65	-	50.25	68.20	17.95
Average Data								
No spurious emissions were detected within 20 dB of the limit.								

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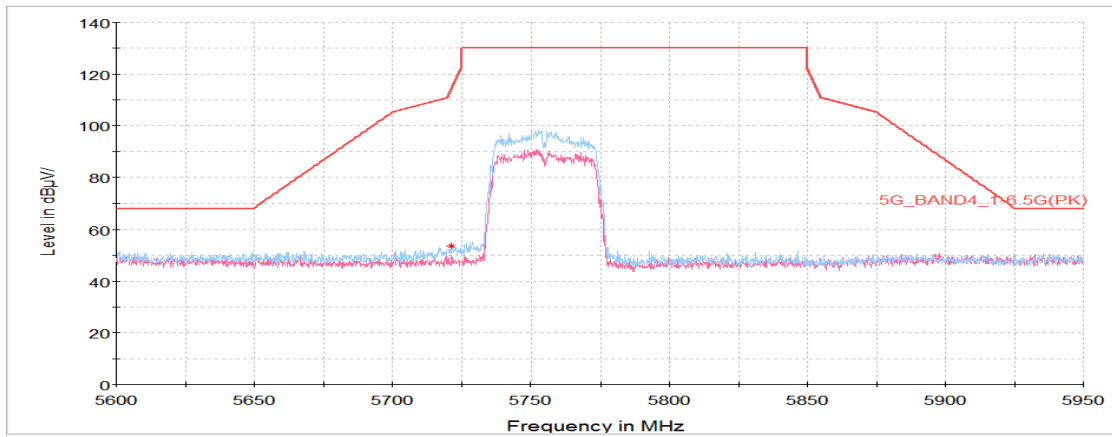
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802.11n HT40 UNII-3 2TX MIMO

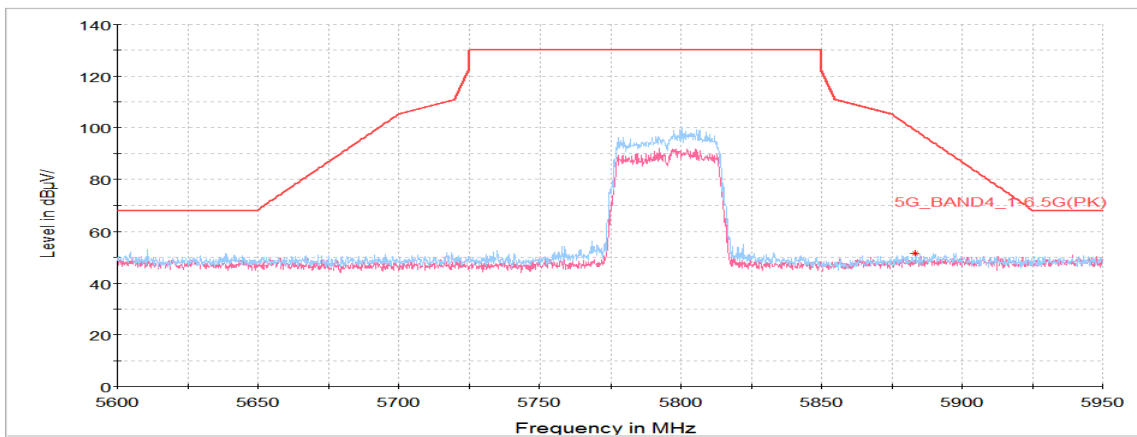
Lowest Channel (5 755 MHz)

Horizontal/Vertical for Band-edge



Highest Channel (5 795 MHz)

Horizontal/Vertical for Band-edge



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KCTL**802.11ac VHT20 UNII-3 ANT1****Lowest Channel (5 745 MHz)**

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μ V))	(dB)	(dB)	(dB)	(dB(μ V/m))	(dB(μ V/m))	(dB)
Peak data								
5 723.81	H	55.11	35.02	-26.43	-	63.70	119.49	55.80
11 496.75 ¹⁾	V	58.70	38.30	-50.43	-	46.57	74.00	27.43
16 233.67	H	56.21	40.88	-46.91	-	50.18	68.20	18.02
Average Data								
No spurious emissions were detected within 20 dB of the limit.								

Middle Channel (5 785 MHz)

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μ V))	(dB)	(dB)	(dB)	(dB(μ V/m))	(dB(μ V/m))	(dB)
Peak data								
11 568.63 ¹⁾	H	59.41	38.35	-50.22	-	47.54	74.00	26.46
16 304.11	H	56.57	40.96	-47.17	-	50.36	68.20	17.84
Average Data								
No spurious emissions were detected within 20 dB of the limit.								

Highest Channel (5 825 MHz)

Frequency	Pol.	Reading	Amp. + Cable	Antenna Factor	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μ V))	(dB)	(dB)	(dB)	(dB(μ V/m))	(dB(μ V/m))	(dB)
Peak data								
5 877.13	H	42.00	35.18	-25.01	-	52.17	103.63	51.45
11 657.75 ¹⁾	V	58.49	38.43	-49.92	-	47.00	74.00	27.00
16 179.05 ¹⁾	V	56.50	40.81	-46.71	-	50.60	74.00	23.40
Average Data								
No spurious emissions were detected within 20 dB of the limit.								

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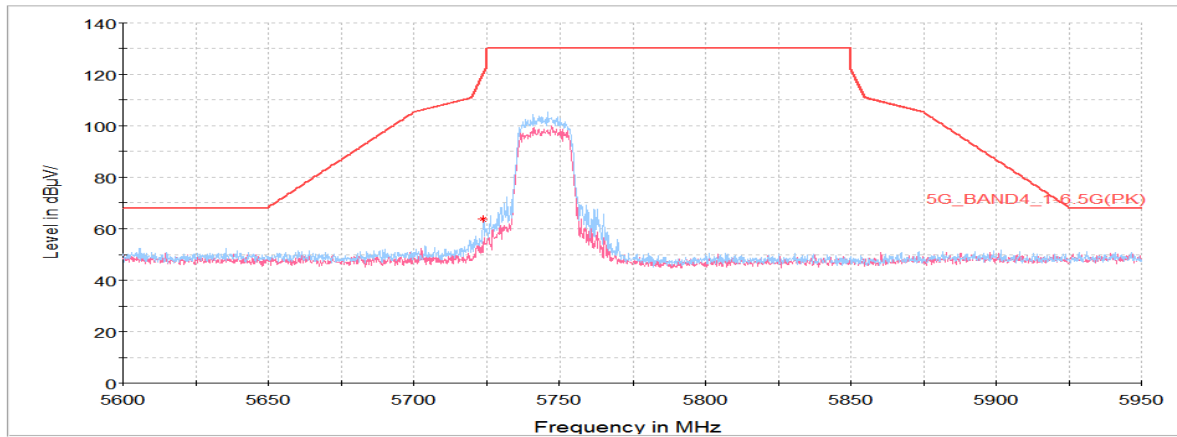
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802.11ac VHT20 UNII-3 ANT1

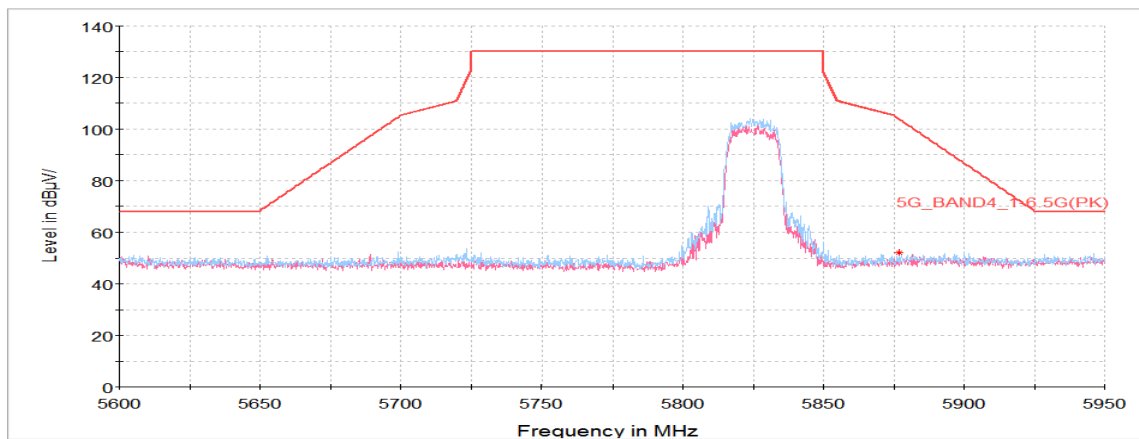
Lowest Channel (5 745 MHz)

Horizontal/Vertical for Band-edge



Highest Channel (5 825 MHz)

Horizontal/Vertical for Band-edge



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KCTL**802.11ac VHT20 UNII-3 ANT2****Lowest Channel (5 745 MHz)**

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μ V))	(dB)	(dB)	(dB)	(dB(μ V/m))	(dB(μ V/m))	(dB)
Peak data								
5 687.03	H	46.38	34.99	-26.33	-	55.04	95.60	40.56
11 559.28 ¹⁾	V	57.74	38.35	-50.25	-	45.84	74.00	28.16
16 173.30 ¹⁾	V	56.14	40.81	-46.69	-	50.26	74.00	23.74
Average Data								
No spurious emissions were detected within 20 dB of the limit.								

Middle Channel (5 785 MHz)

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μ V))	(dB)	(dB)	(dB)	(dB(μ V/m))	(dB(μ V/m))	(dB)
Peak data								
11 643.38 ¹⁾	H	57.35	38.41	-49.97	-	45.79	74.00	28.21
17 347.38	H	57.56	40.49	-47.85	-	50.20	68.20	18.00
Average Data								
No spurious emissions were detected within 20 dB of the limit.								

Highest Channel (5 825 MHz)

Frequency	Pol.	Reading	Amp. + Cable	Antenna Factor	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μ V))	(dB)	(dB)	(dB)	(dB(μ V/m))	(dB(μ V/m))	(dB)
Peak data								
5 891.91	H	40.76	35.19	-24.79	-	51.16	92.69	41.53
11 638.70 ¹⁾	H	57.16	38.41	-49.98	-	45.59	74.00	28.41
15 951.92 ¹⁾	H	56.66	39.82	-46.06	-	50.42	74.00	23.58
Average Data								
No spurious emissions were detected within 20 dB of the limit.								

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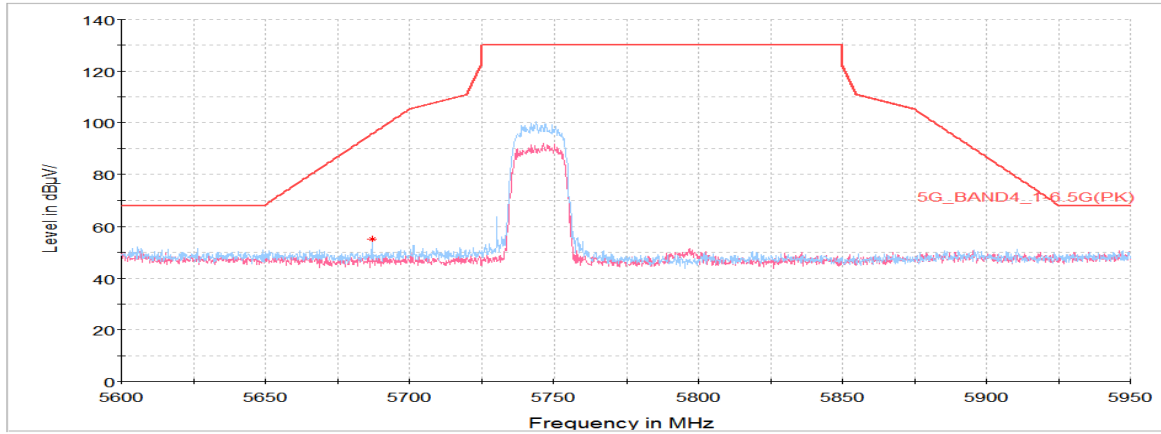
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802.11ac VHT20 UNII-3 ANT2

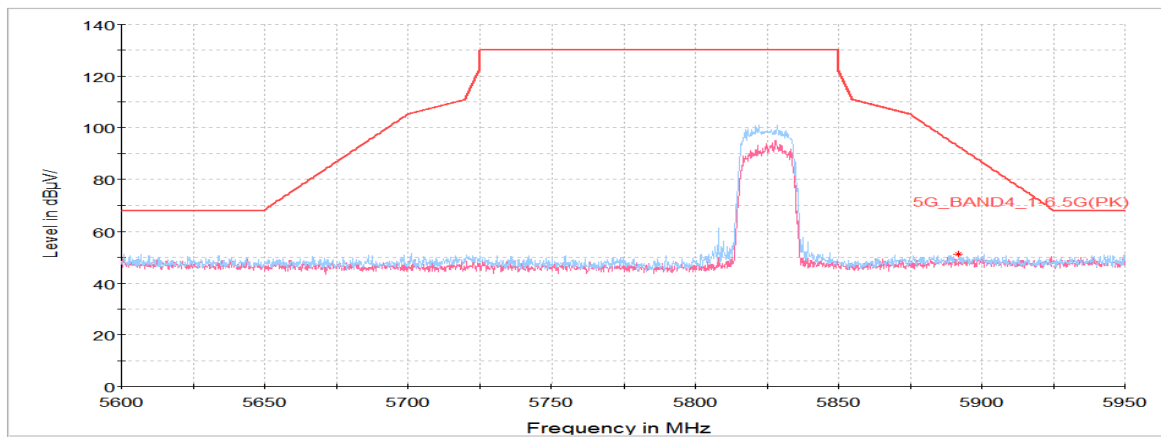
Lowest Channel (5 745 MHz)

Horizontal/Vertical for Band-edge



Highest Channel (5 825 MHz)

Horizontal/Vertical for Band-edge



802.11ac VHT20 UNII-3 2TX MIMO

Lowest Channel (5 745 MHz)

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μV))	(dB)	(dB)	(dB)	(dB($\mu V/m$))	(dB($\mu V/m$))	(dB)
Peak data								
5 710.75	H	43.17	35.01	-26.48	-	51.70	108.21	56.51
11 488.13 ¹⁾	H	57.75	38.30	-50.40	-	45.65	74.00	28.35
16 822.69	V	56.85	41.26	-47.73	-	50.38	68.20	17.82
Average Data								
No spurious emissions were detected within 20 dB of the limit.								

Middle Channel (5 785 MHz)

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μV))	(dB)	(dB)	(dB)	(dB($\mu V/m$))	(dB($\mu V/m$))	(dB)
Peak data								
11 519.75 ¹⁾	V	57.95	38.32	-50.38	-	45.89	74.00	28.11
16 990.52	V	56.83	41.39	-47.64	-	50.58	68.20	17.62
Average Data								
No spurious emissions were detected within 20 dB of the limit.								

Highest Channel (5 825 MHz)

Frequency	Pol.	Reading	Amp. + Cable	Antenna Factor	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μV))	(dB)	(dB)	(dB)	(dB($\mu V/m$))	(dB($\mu V/m$))	(dB)
Peak data								
5 887.44	H	41.09	35.19	-24.86	-	51.42	96.00	44.58
11 644.45 ¹⁾	H	57.74	38.42	-49.96	-	46.20	74.00	27.80
16 265.30	H	56.37	40.92	-47.03	-	50.26	68.20	17.94
Average Data								
No spurious emissions were detected within 20 dB of the limit.								

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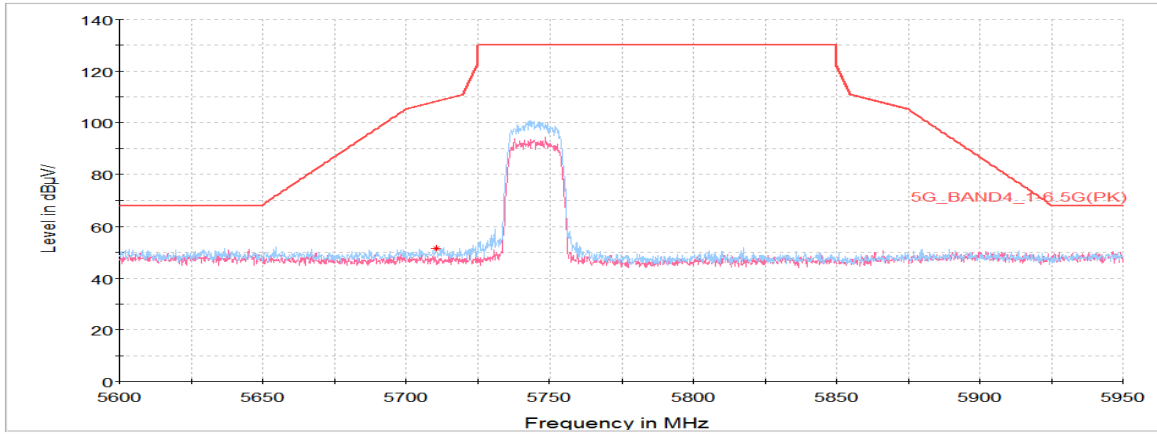
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802.11ac VHT20 UNII-3 2TX MIMO

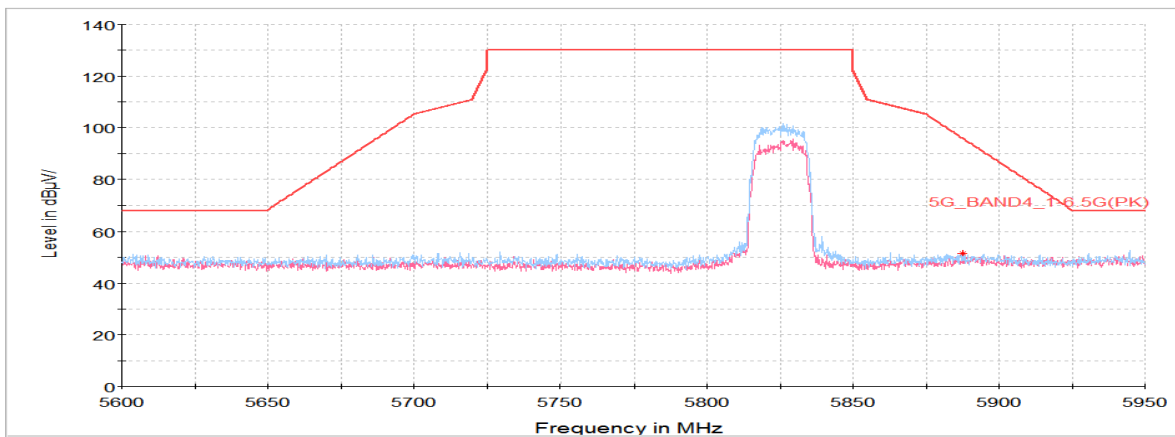
Lowest Channel (5 745 MHz)

Horizontal/Vertical for Band-edge



Highest Channel (5 825 MHz)

Horizontal/Vertical for Band-edge



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**802.11ac VHT40 UNII-3 ANT1****Lowest Channel (5 755 MHz)**

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μ V))	(dB)	(dB)	(dB)	(dB(μ V/m))	(dB(μ V/m))	(dB)
Peak data								
5 713.50	H	57.46	35.01	-26.47	-	66.00	108.98	42.98
11 546.34 ¹⁾	V	57.40	38.34	-50.29	-	45.45	74.00	28.55
16 983.33	V	56.89	41.39	-47.64	-	50.64	68.20	17.56
Average Data								
No spurious emissions were detected within 20 dB of the limit.								

Highest Channel (5 795 MHz)

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μ V))	(dB)	(dB)	(dB)	(dB(μ V/m))	(dB(μ V/m))	(dB)
Peak data								
5 878.67	H	42.05	35.18	-24.99	-	52.24	102.48	50.24
11 636.55 ¹⁾	V	57.29	38.41	-49.99	-	45.71	74.00	28.29
16 844.25	H	56.74	41.28	-47.71	-	50.31	68.20	17.89
Average Data								
No spurious emissions were detected within 20 dB of the limit.								

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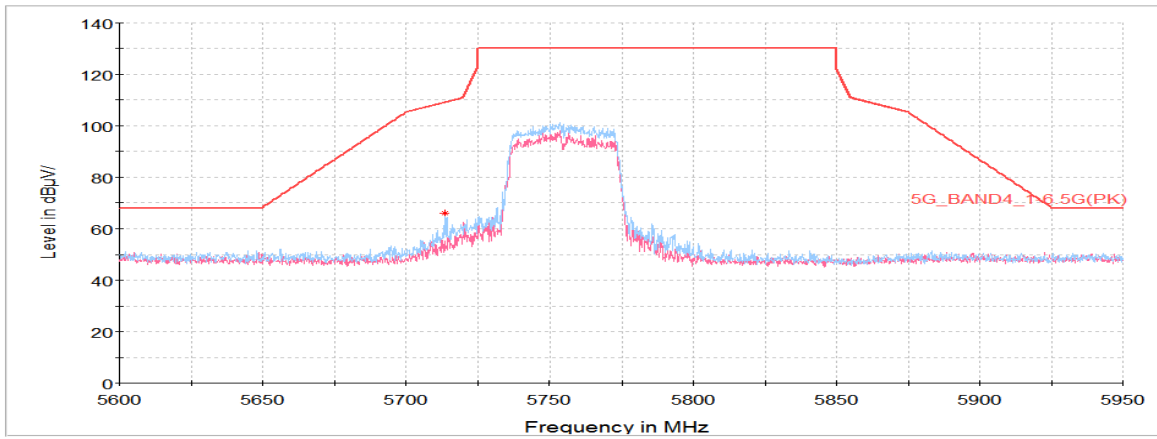
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802.11ac VHT40 UNII-3 ANT1

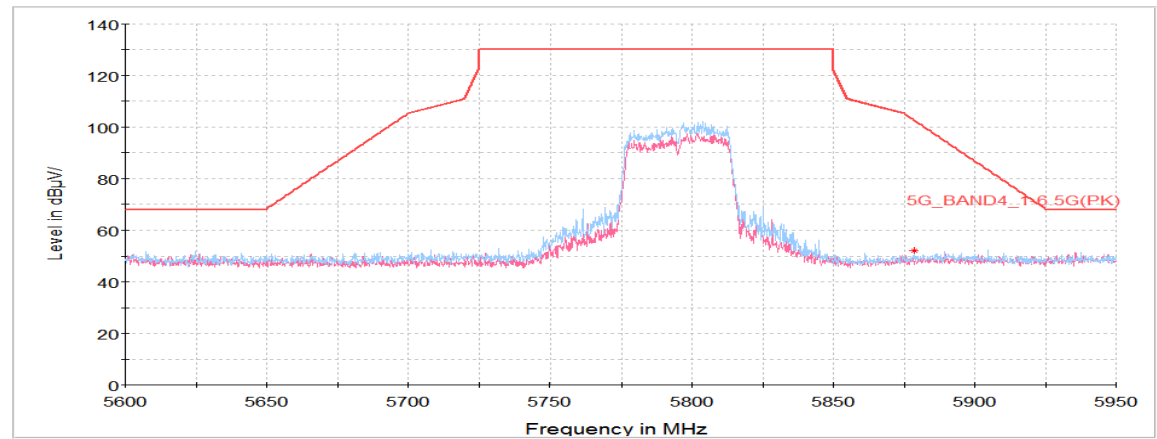
Lowest Channel (5 755 MHz)

Horizontal/Vertical for Band-edge



Highest Channel (5 795 MHz)

Horizontal/Vertical for Band-edge



802.11ac VHT40 UNII-3 ANT2

Lowest Channel (5 755 MHz)

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μV))	(dB)	(dB)	(dB)	(dB($\mu V/m$))	(dB($\mu V/m$))	(dB)
Peak data								
5 713.33	H	43.59	35.01	-26.47	-	52.13	108.93	56.81
11 540.23 ¹⁾	V	57.34	38.33	-50.31	-	45.36	74.00	28.64
16 777.77	V	56.87	41.22	-47.75	-	50.34	68.20	17.86
Average Data								
No spurious emissions were detected within 20 dB of the limit.								

Highest Channel (5 795 MHz)

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μV))	(dB)	(dB)	(dB)	(dB($\mu V/m$))	(dB($\mu V/m$))	(dB)
Peak data								
5 886.41	H	40.81	35.19	-24.87	-	51.13	96.76	45.63
11 544.55 ¹⁾	V	57.66	38.34	-50.30	-	45.70	74.00	28.30
16 175.09 ¹⁾	H	56.57	40.81	-46.70	-	50.68	74.00	23.32
Average Data								
No spurious emissions were detected within 20 dB of the limit.								

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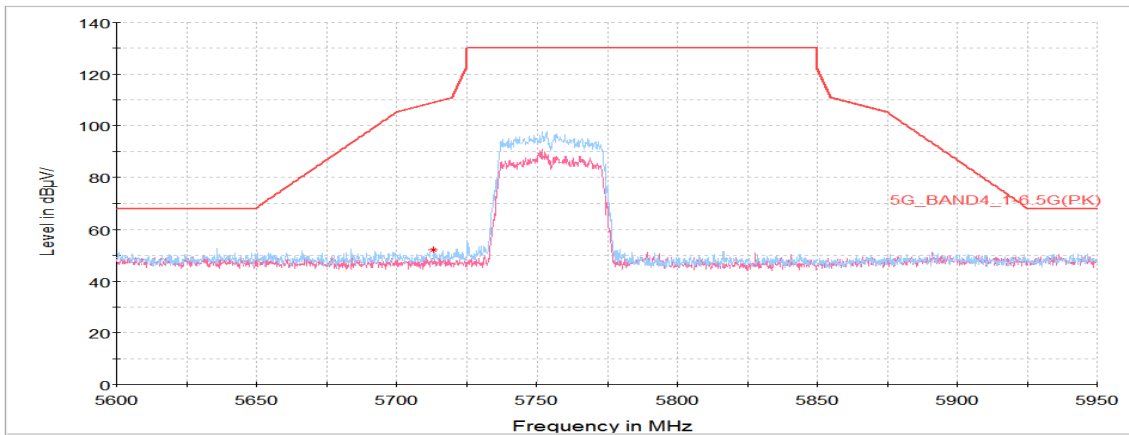
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802.11ac VHT40 UNII-3 ANT2

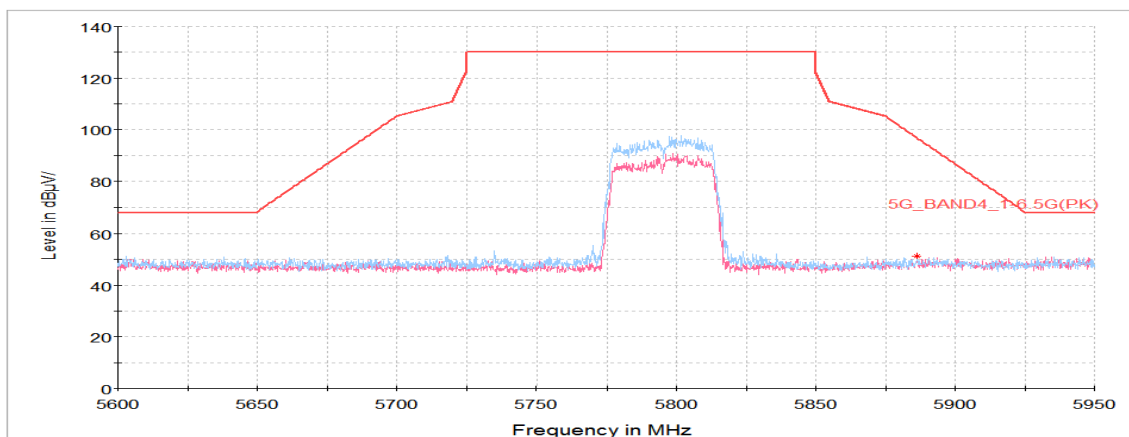
Lowest Channel (5 755 MHz)

Horizontal/Vertical for Band-edge



Highest Channel (5 795 MHz)

Horizontal/Vertical for Band-edge



802.11ac VHT40 UNII-3 2TX MIMO

Lowest Channel (5 755 MHz)

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μ V))	(dB)	(dB)	(dB)	(dB(μ V/m))	(dB(μ V/m))	(dB)
Peak data								
5 717.80	H	44.93	35.02	-26.45	-	53.50	110.18	56.68
11 641.58 ¹⁾	V	57.42	38.41	-49.97	-	45.86	74.00	28.14
16 181.92 ¹⁾	V	56.90	40.82	-46.72	-	51.00	74.00	23.00
Average Data								
No spurious emissions were detected within 20 dB of the limit.								

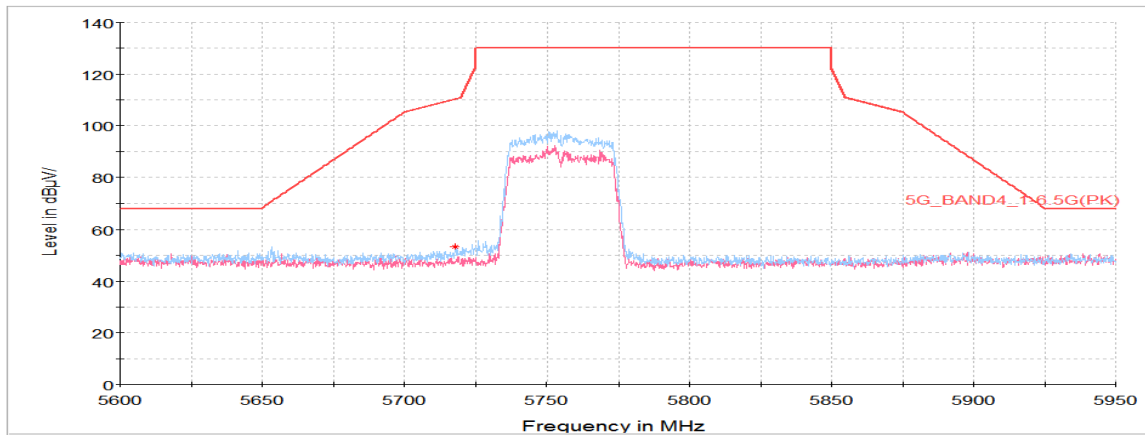
Highest Channel (5 795 MHz)

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μ V))	(dB)	(dB)	(dB)	(dB(μ V/m))	(dB(μ V/m))	(dB)
Peak data								
5 888.13	H	41.49	35.19	-24.85	41.49	51.83	95.49	43.66
11 636.19 ¹⁾	V	57.19	38.41	-49.99	57.19	45.61	74.00	28.39
16 275.00	H	56.72	40.93	-47.06	56.72	50.59	68.20	17.61
Average Data								
No spurious emissions were detected within 20 dB of the limit.								

802.11ac VHT40 UNII-3 2TX MIMO

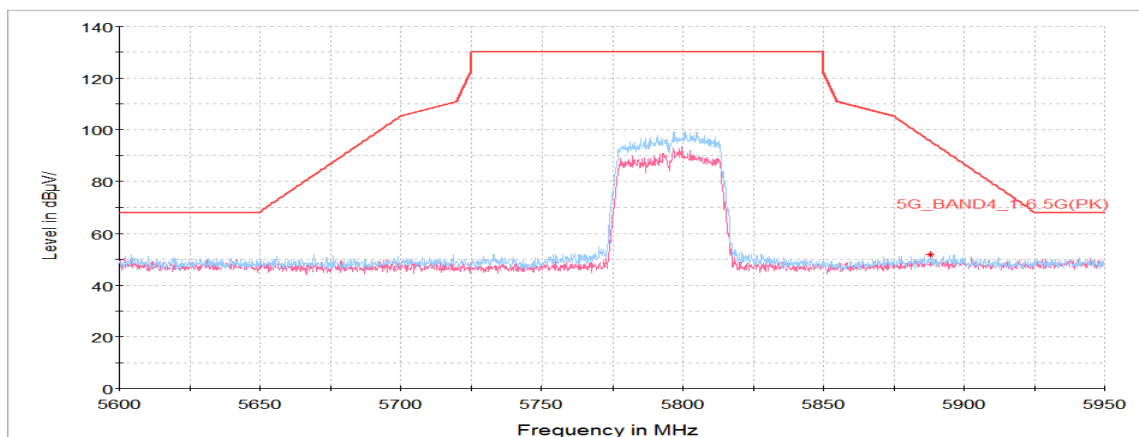
Lowest Channel (5 755 MHz)

Horizontal/Vertical for Band-edge



Highest Channel (5 795 MHz)

Horizontal/Vertical for Band-edge



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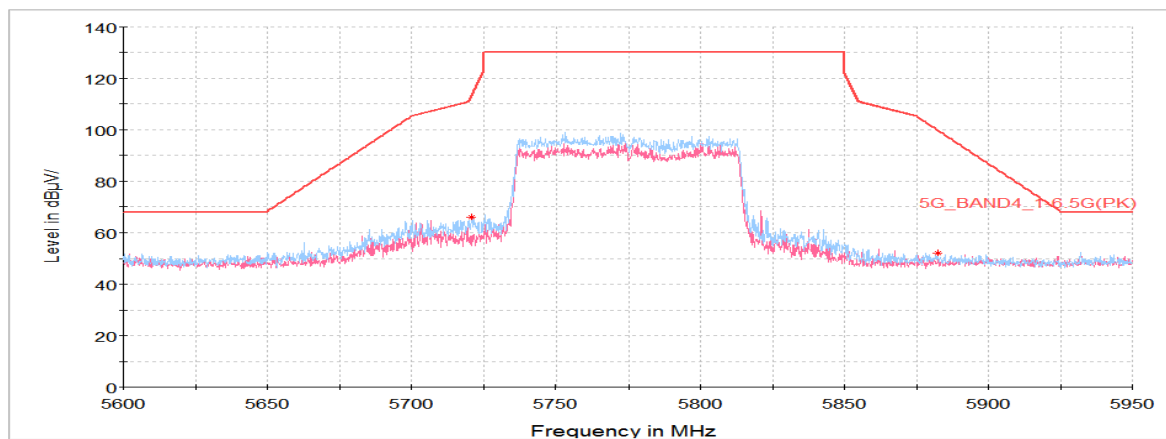
802.11ac VHT80 UNII-3 ANT1

Lowest Channel (5 775 MHz)

Frequency (MHz)	Pol. (V/H)	Reading (dB(μ V))	Ant. Factor (dB)	Amp.+Cable (dB)	DCF (dB)	Result (dB(μ V/m))	Limit (dB(μ V/m))	Margin (dB)
Peak data								
5 721.06	H	57.33	35.02	-26.44	-	65.91	113.22	47.32
5 882.45	H	41.87	35.18	-24.93	-	52.12	99.69	47.56
11 555.69 ¹⁾	V	57.99	38.34	-50.26	-	46.07	74.00	27.93
17 001.30	V	58.04	40.70	-47.64	-	51.10	68.20	17.10
Average Data								
No spurious emissions were detected within 20 dB of the limit.								

Lowest Channel (5 775 MHz)

Horizontal/Vertical for Band-edge



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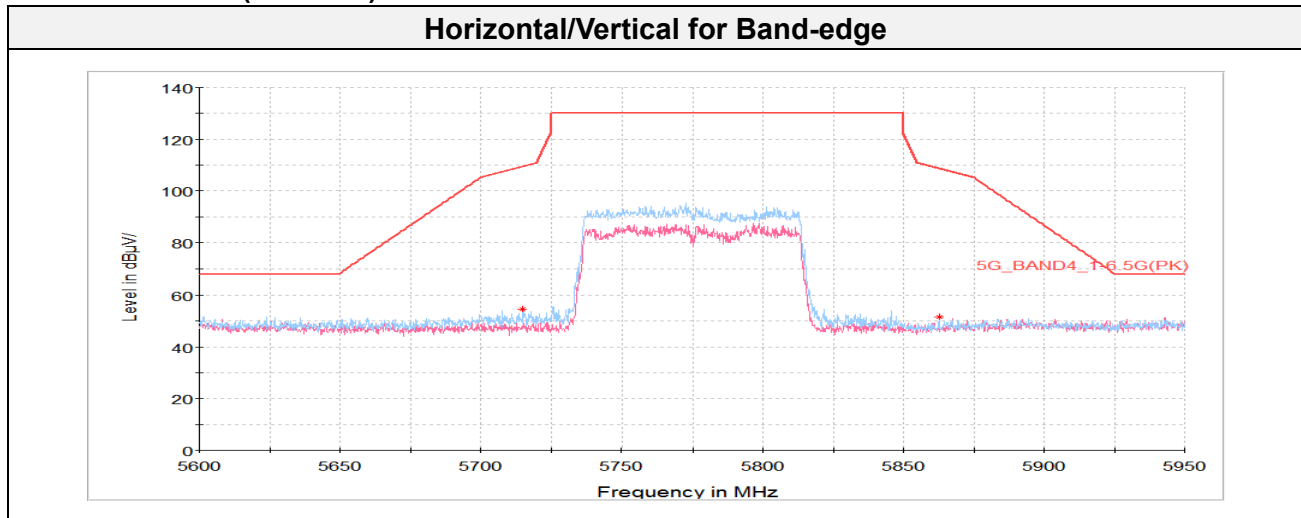


802.11ac VHT80 UNII-3 ANT2

Lowest Channel (5 775 MHz)

Frequency (MHz)	Pol. (V/H)	Reading (dB(μ V))	Ant. Factor (dB)	Amp.+Cable (dB)	DCF (dB)	Result (dB(μ V/m))	Limit (dB(μ V/m))	Margin (dB)
Peak data								
5 715.05	H	45.90	35.02	-26.46	-	54.46	109.41	54.96
5 862.69	H	41.71	35.16	-25.22	-	51.65	108.65	57.00
11 657.75 ¹⁾	V	58.10	38.43	-49.92	-	46.61	74.00	27.39
16 853.95	H	56.94	41.28	-47.71	-	50.51	68.20	17.69
Average Data								
No spurious emissions were detected within 20 dB of the limit.								

Lowest Channel (5 775 MHz)



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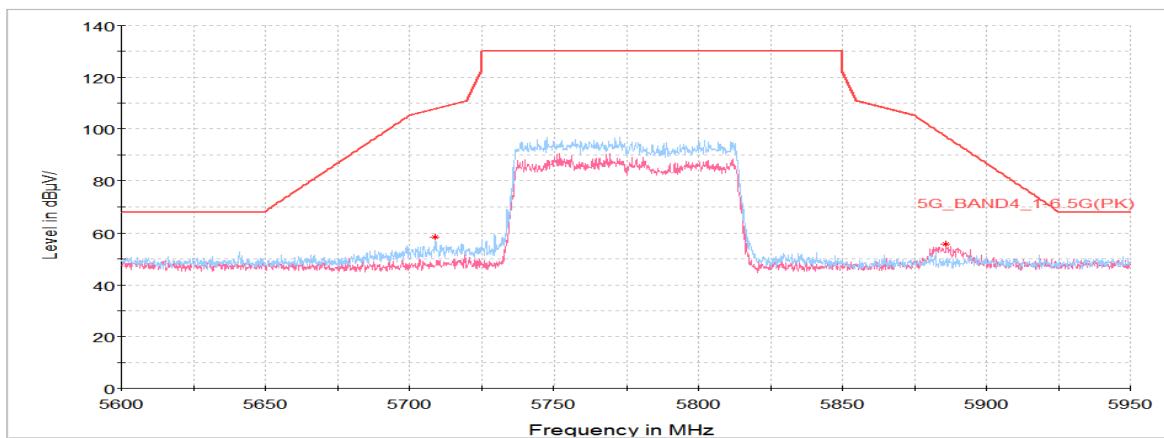
802.11ac VHT80 UNII-3 2TX MIMO

Lowest Channel (5 775 MHz)

Frequency (MHz)	Pol. (V/H)	Reading (dB(μ V))	Ant. Factor (dB)	Amp.+Cable (dB)	DCF (dB)	Result (dB(μ V/m))	Limit (dB(μ V/m))	Margin (dB)
Peak data								
5 709.03	H	49.80	35.01	-26.49	-	58.32	107.73	49.41
5 885.89	V	45.41	35.19	-24.88	-	55.72	97.14	41.42
11 560.00 ¹⁾	V	58.80	38.35	-50.24	-	46.91	74.00	27.09
16 081.30 ¹⁾	V	56.49	40.70	-46.35	-	50.84	74.00	23.16
Average Data								
No spurious emissions were detected within 20 dB of the limit.								

Lowest Channel (5 775 MHz)

Horizontal/Vertical for Band-edge

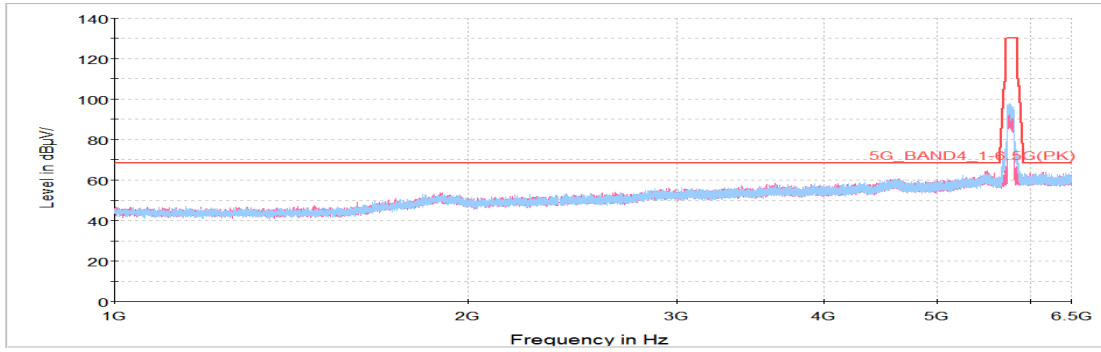


Plot of Harmonics and Spurious Emissions

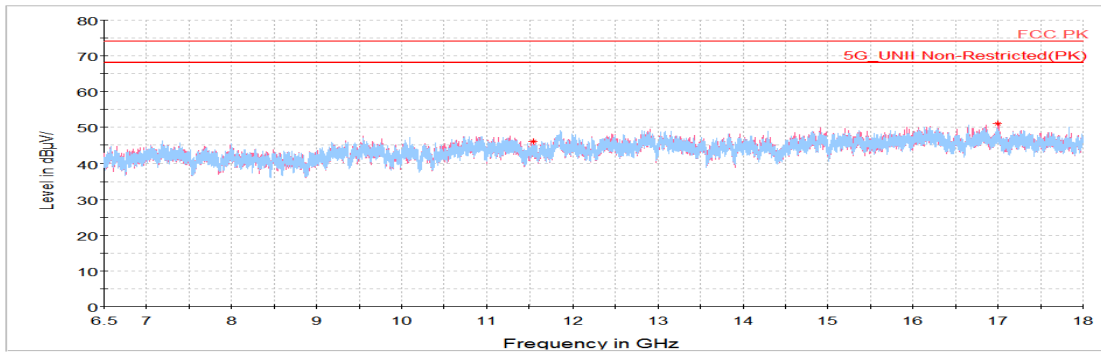
In order to simplify the report, attached plots were only the lowest margin condition

802.11ac VHT80_UNII-3_ANT1_Middle Channel (5 775 MHz)

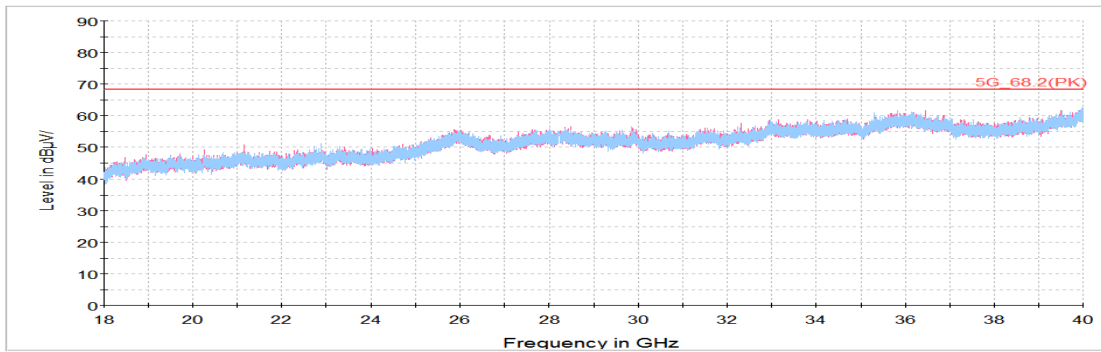
Horizontal/Vertical for 1 GHz ~ 6.5 GHz



Horizontal/Vertical for 6.5 GHz ~ 18 GHz



Horizontal/Vertical for 18 GHz ~ 40 GHz



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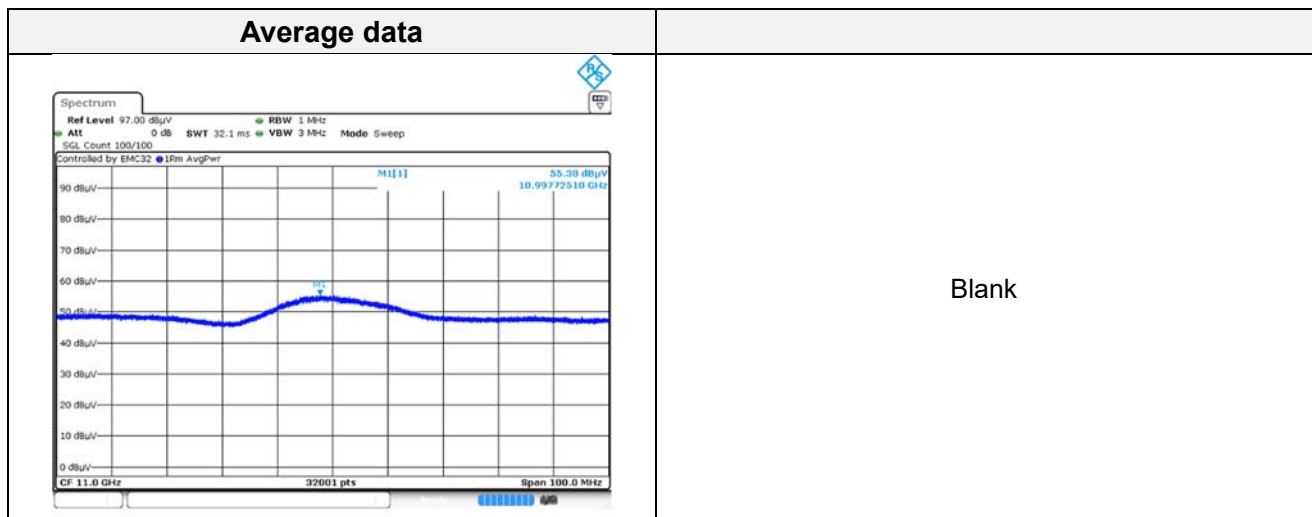


Spurious Emission for Simultaneous Tx Condition (Worst Case)

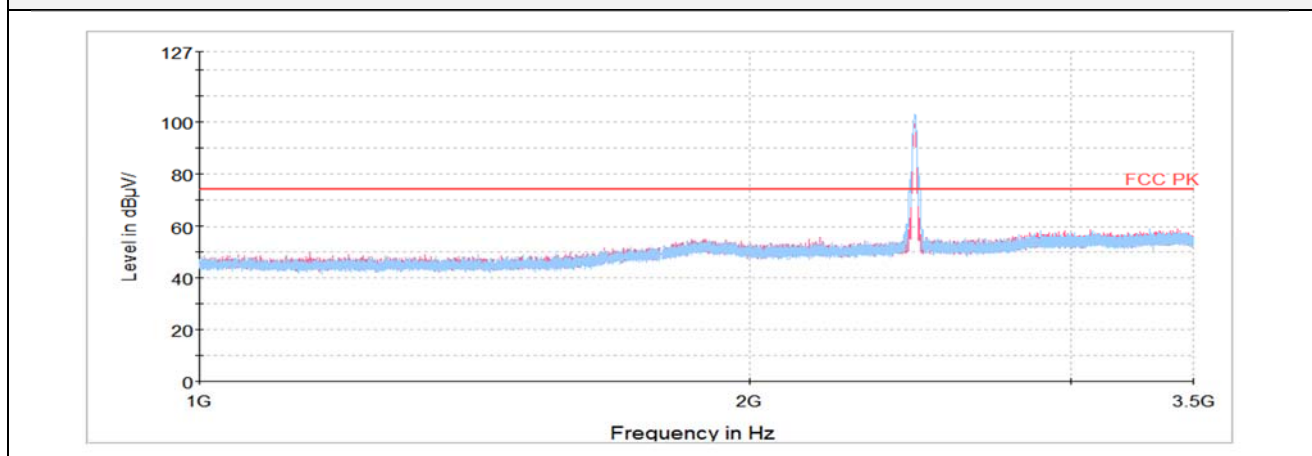
Test Mode

- Ant1 (11n HT20 – 5 500 MHz), Ant2 (11b – 2 462 MHz)

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μV))	(dB)	(dB)	(dB)	(dB(μV/m))	(dB(μV/m))	(dB)
Peak data								
4 923.72 ¹⁾	H	65.43	33.85	-53.22	-	46.06	74.00	27.94
7 386.22 ¹⁾	V	60.97	35.30	-50.49	-	45.78	74.00	28.22
10 997.73 ¹⁾	V	64.45	38.20	-48.67	-	53.98	74.00	20.02
16 508.95	H	58.37	41.01	-47.89	-	51.49	68.20	16.71
Average Data								
10 997.73 ¹⁾	V	55.38	38.20	-48.67	-	44.91	54.00	9.09



Horizontal/Vertical for 1 GHz ~ 3.5 GHz



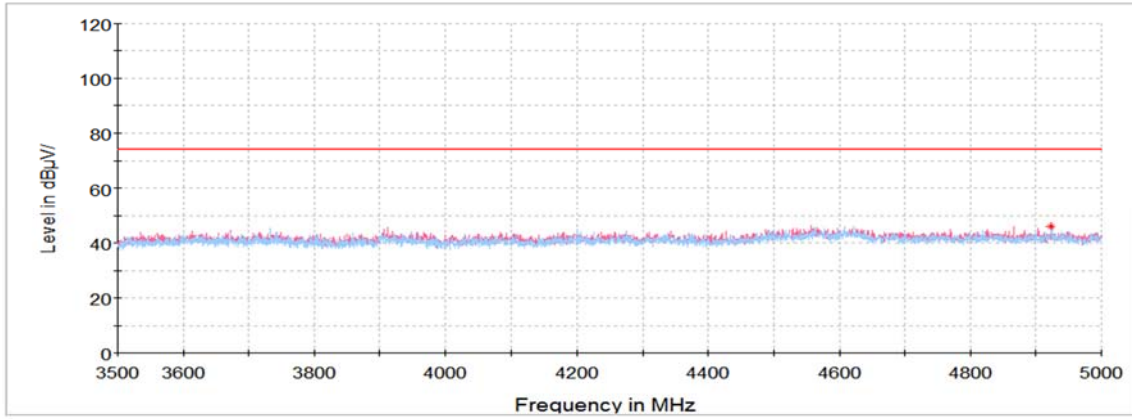
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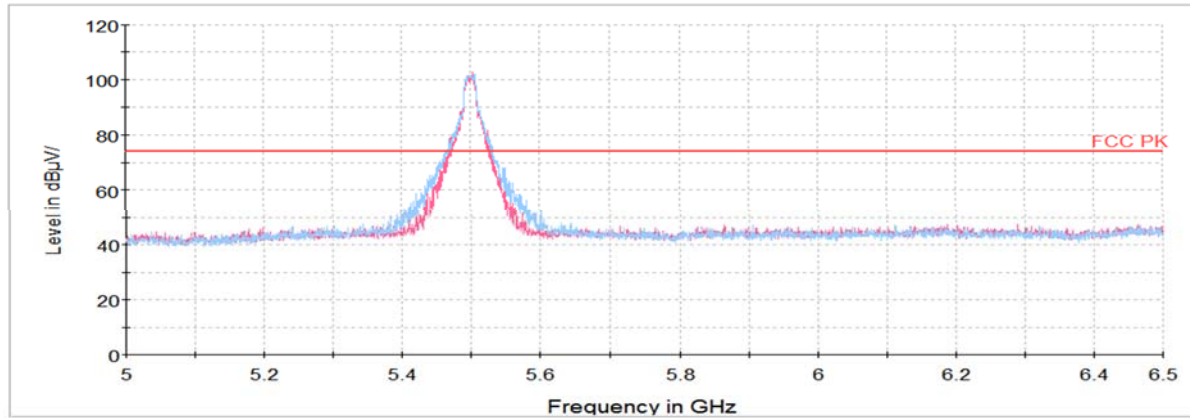
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Horizontal/Vertical for 3.5 GHz ~ 5 GHz



Horizontal/Vertical for 5 GHz ~ 6.5 GHz



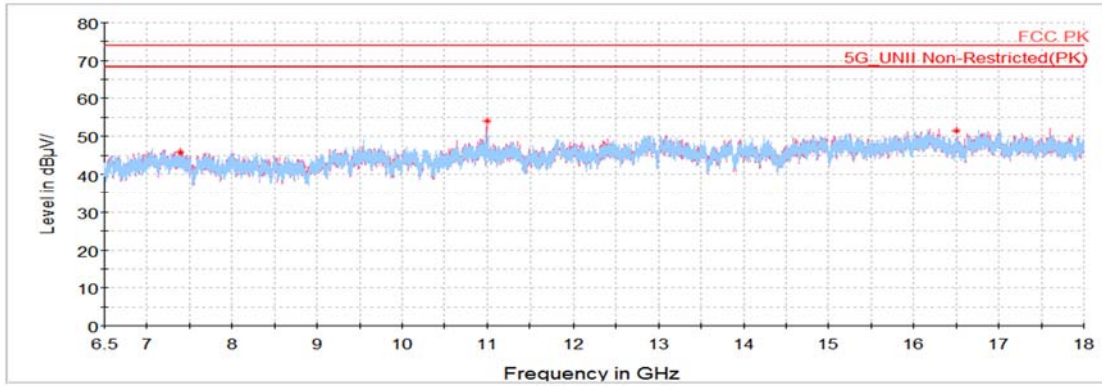
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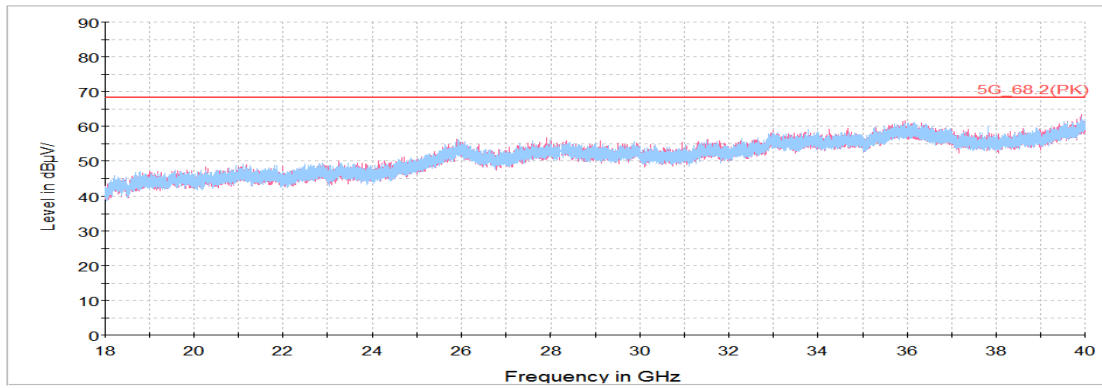
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Horizontal/Vertical for 6.5 GHz ~ 18 GHz

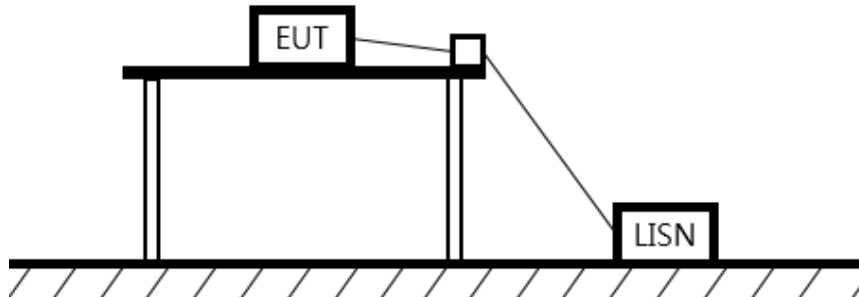


Horizontal/Vertical for 18 GHz ~ 40 GHz



7.7. AC Conducted emission

Test setup



Limit

§15.407

According to 15.207(a) and RSS-Gen (8.8), for an intentional radiator that is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies, within the band 150 kHz to 30 MHz, shall not exceed the limits in the following table, as measured using a 50uH/50 ohm line impedance stabilization network (LISN). Compliance with the provision of this paragraph shall on the measurement of the radio frequency voltage between each power line and ground at the power terminal. The lower applies at the boundary between the frequencies ranges.

Frequency of Emission (MHz)	Conducted limit (dB μ V/m)	
	Quasi-peak	Average
0.15 – 0.50	66 - 56*	56 - 46*
0.50 – 5.00	56	46
5.00 – 30.0	60	50

Measurement procedure

1. The EUT was placed on a wooden table of size, 1 m by 1.5 m, raised 80 cm in which is located 40 cm away from the vertical wall and 1.5m away from the side wall of the shielded room.
2. Each current-carrying conductor of the EUT power cord was individually connected through a 50 Ω /50 μ H LISN, which is an input transducer to a spectrum analyzer or an EMI/Field Intensity — Meter, to the input power source.
3. Exploratory measurements were made to identify the frequency of the emission that had the highest amplitude relative to the limit by operating the EUT in a range of typical modes of operation, cable position, and with a typical system equipment configuration and arrangement. Based on the exploratory tests of the EUT, the one EUT cable configuration and arrangement and mode of operation that had produced the emission with the highest amplitude relative to the limit was selected for the final measurement.
4. The final test on all current-carrying conductors of all of the power cords to the equipment that comprises the EUT (but not the cords associated with other non-EUT equipment is the system) was then performed over the frequency range of 0.15 MHz to 30 MHz.
5. The measurements were made with the detector set to peak amplitude within a bandwidth of 10 kHz or to quasi-peak and average within a bandwidth of 9 kHz. The EUT was in transmitting mode during the measurements.

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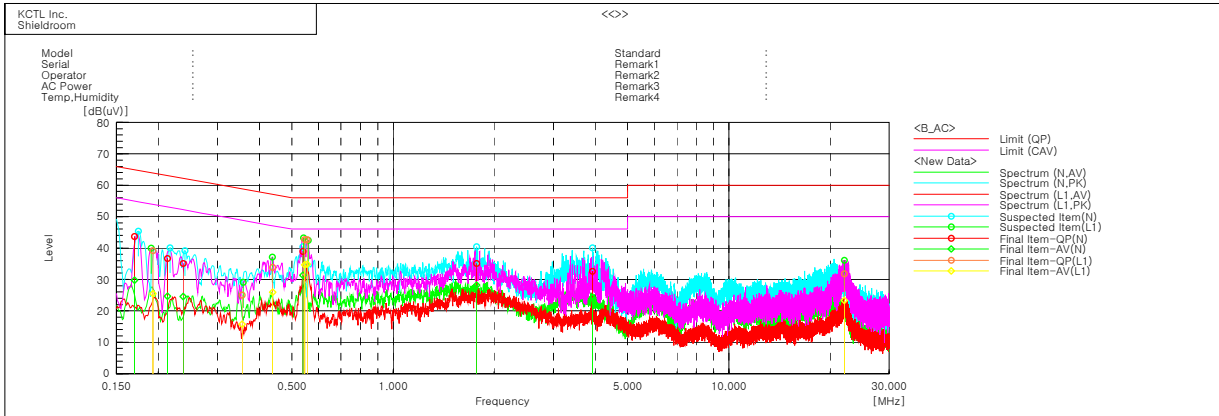
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Test results

Worst case: 802.11ac VHT 40 2TX MIMO / UNII-1 5 230 MHz



Final Result

--- N Phase ---

No.	Frequency [MHz]	Reading QP [dB(uV)]	Reading CAV [dB(uV)]	c.f [dB]	Result QP [dB(uV)]	Result CAV [dB(uV)]	Limit QP [dB(uV)]	Limit AV [dB(uV)]	Margin QP [dB]	Margin CAV [dB]
1	0.16991	33.6	19.7	10.1	43.7	29.8	65.0	55.0	21.3	25.2
2	0.21325	26.9	14.9	9.8	36.7	24.7	63.1	53.1	26.4	28.4
3	0.23716	25.4	14.9	9.7	35.1	24.6	62.2	52.2	27.1	27.6
4	0.53917	29.1	21.5	9.8	38.9	31.3	56.0	46.0	17.1	14.7
5	1.77184	25.4	18.5	9.7	35.1	28.2	56.0	46.0	20.9	17.8
6	3.92479	22.9	14.6	9.7	32.6	24.3	56.0	46.0	23.4	21.7

--- L1 Phase ---

No.	Frequency [MHz]	Reading QP [dB(uV)]	Reading CAV [dB(uV)]	c.f [dB]	Result QP [dB(uV)]	Result CAV [dB(uV)]	Limit QP [dB(uV)]	Limit AV [dB(uV)]	Margin QP [dB]	Margin CAV [dB]
1	0.193	29.1	15.5	10.0	39.1	25.5	63.9	53.9	24.8	28.4
2	0.35546	15.2	5.9	9.8	25.0	15.7	58.8	48.8	33.8	33.1
3	0.43856	23.9	16.0	9.9	33.8	25.9	57.1	47.1	23.3	21.2
4	0.54531	32.8	24.7	9.9	42.7	34.6	56.0	46.0	13.3	11.4
5	0.55482	32.8	25.0	9.9	42.7	34.9	56.0	46.0	13.3	11.1
6	22.07426	21.8	13.3	10.0	31.8	23.3	60.0	50.0	28.2	26.7

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KCTL**8. Measurement equipment**

Equipment Name	Manufacturer	Model No.	Serial No.	Next Cal. Date
Spectrum Analyzer	R&S	FSV40	100989	21.12.23
Spectrum Analyzer	R&S	FSV30	100810	21.07.29
Attenuator	API Inmet	40AH2W-10	17	22.05.11
EMI TEST RECEIVER	R&S	ESCI7	100732	22.03.05
Bi-Log Antenna	SCHWARZBECK	VULB9168	583	22.04.23
Step Attenuator	AGILENT	8494B	MY42140747	22.05.11
Step Attenuator	AGILENT	8495D	MY42144296	22.02.17
Power Divider	Aeroflex/ Weinschel,Inc	1580-1	NX380	21.07.29
Power Divider	Aeroflex/ Weinschel,Inc	1580-1	PE430	21.07.29
Amplifier	SONOMA INSTRUMENT	310N	284608	21.08.20
COAXIAL FIXED ATTENUATOR	Agilent	8491B-003	2708A18758	22.04.23
Horn antenna	ETS.lindgren	3117	155787	21.10.28
Horn antenna	ETS.lindgren	3116	86632	22.01.29
Attenuator	API Inmet	40AH2W-10	12	22.05.11
Broadband PreAmplifier	SCHWARZBECK	BBV9718	216	21.07.28
AMPLIFIER	L-3 Narda-MITEQ	AMF-7D-01001800- 22-10P	2003683	21.08.28
AMPLIFIER	L-3 Narda-MITEQ	JS44-18004000-33- 8P	2000996	22.01.21
LOOP Antenna	R&S	HFH2-Z2	100355	22.08.21
Antenna Mast	Innco Systems	MA4640-XP-ET	-	-
Turn Table	Innco Systems	DT2000	79	-
Antenna Mast	Innco Systems	MA4000-EP	303	-
Turn Table	Innco Systems	DT2000	79	-
Highpass Filter	WT	WT-A1699-HS	WT160411002	22.05.10
TWO-LINE V - NETWORK	R&S	ENV216	101358	21.09.29
EMI TEST RECEIVER	R&S	ESCI	100001	21.08.20
Vector Signal Generator	R&S	SMBV100A	257566	21.07.13
Signal Generator	R&S	SMB100A	176206	22.01.20
Cable Assembly	RadiAll	2301761768000PJ	1724.659	-
Cable Assembly	gigalane	RG-400	-	-
Cable Assembly	HUER+SUHNER	SUCOFLEX 104	MY4342/4	-

End of test report