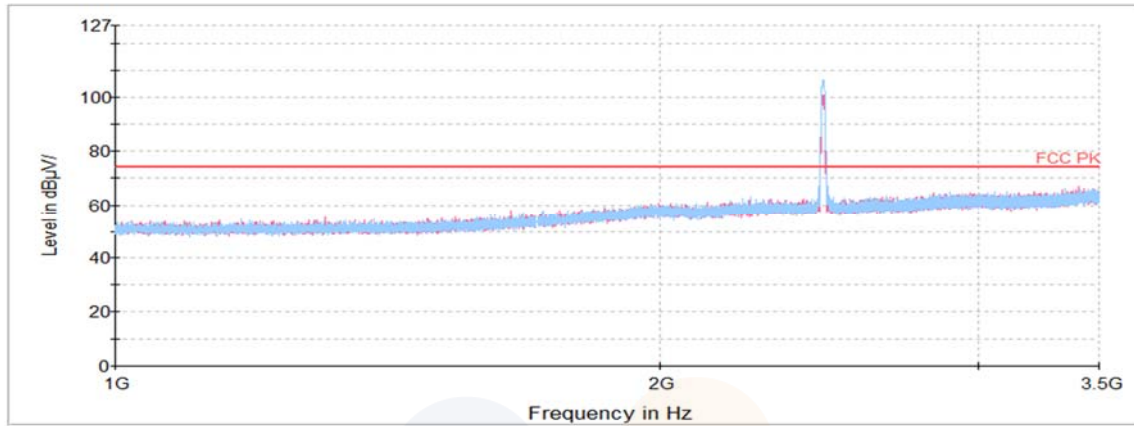
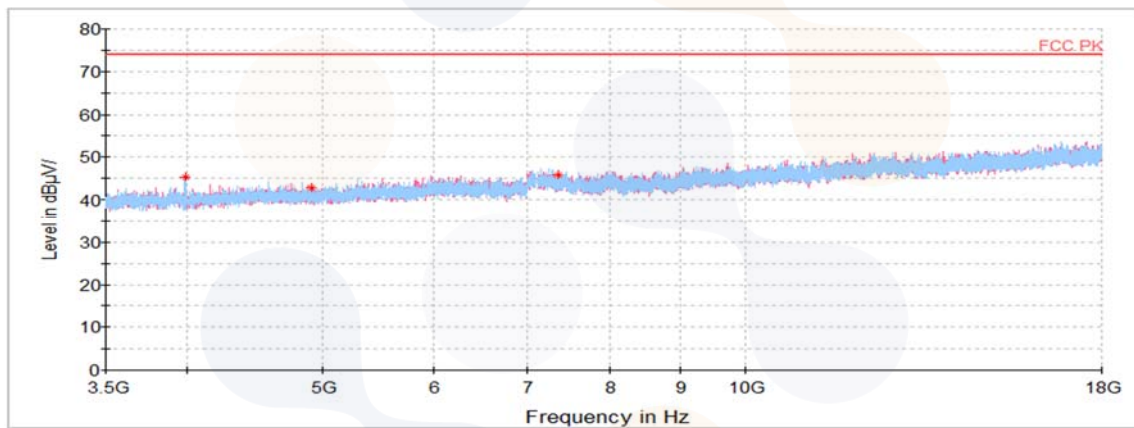


Horizontal/Vertical for 1 GHz ~ 3.5 GHz



Horizontal/Vertical for 3.5 GHz ~ 18 GHz



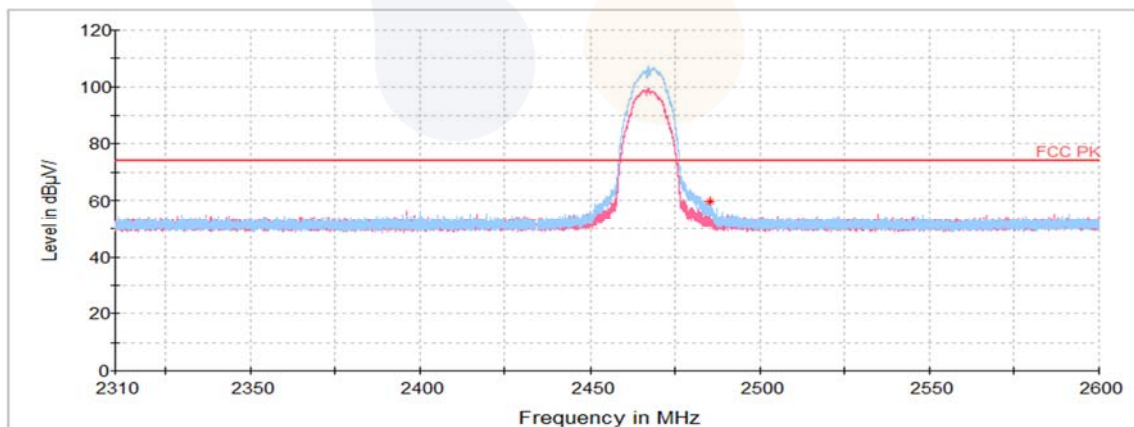
802.11b_2 467 MHz

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								
2 484.18 ¹⁾	H	44.71	32.18	-17.81	-	59.08	74.00	14.92
4 947.58 ¹⁾	H	65.37	34.08	-55.64	-	43.81	74.00	30.19
7 395.18 ¹⁾	V	62.55	35.80	-52.26	-	46.09	74.00	27.91
Average Data								
2 484.18 ¹⁾	H	36.73	32.18	-17.81	-	51.10	54.00	2.90

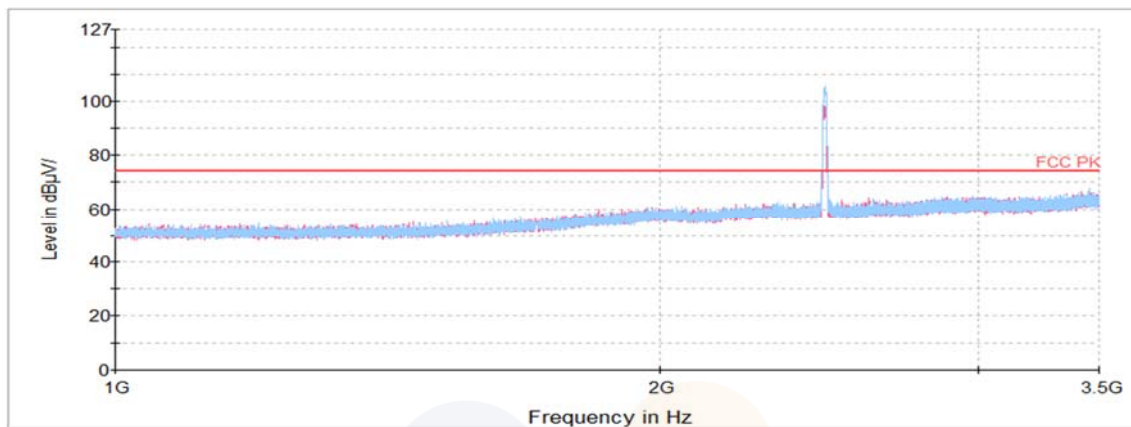
Average data



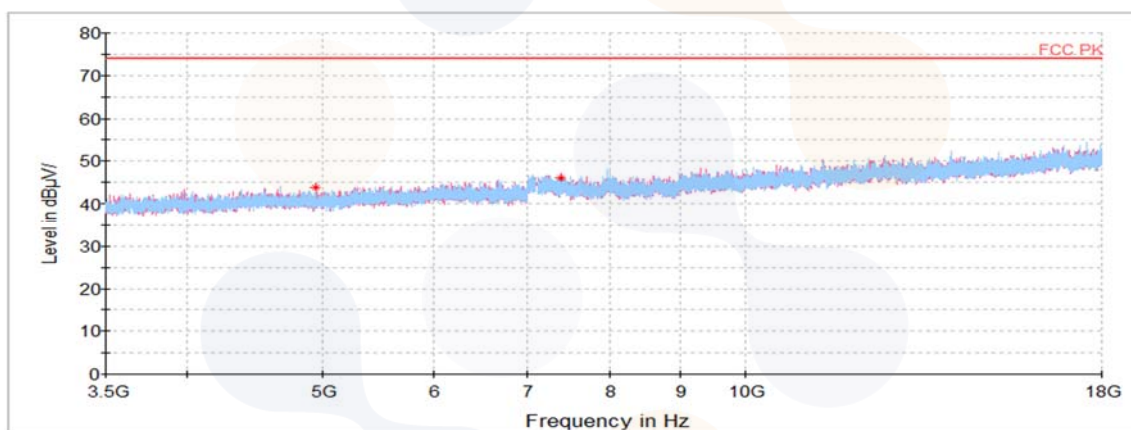
Horizontal/Vertical for Band-edge



Horizontal/Vertical for 1 GHz ~ 3.5 GHz



Horizontal/Vertical for 3.5 GHz ~ 18 GHz



802.11b_2 472 MHz

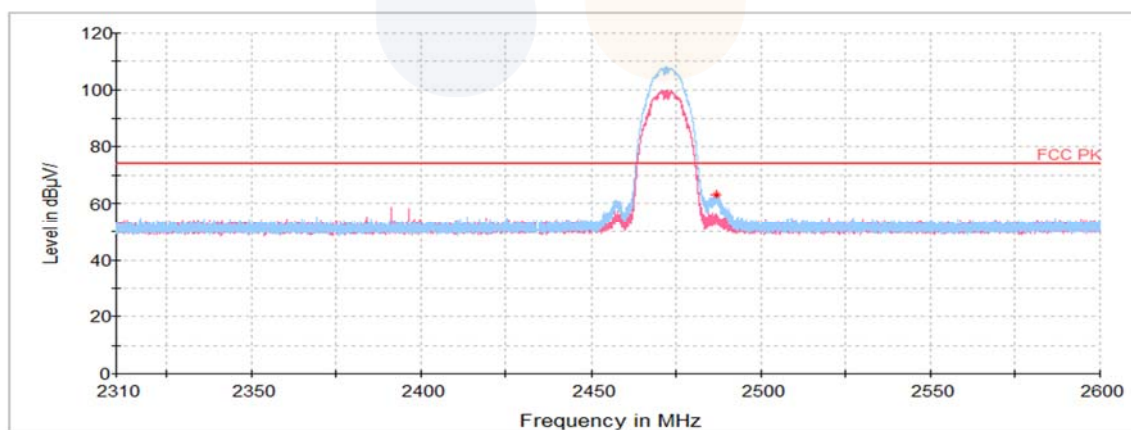
Frequency	Pol.	Reading	Ant. Factor	Amp. + Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μV))	(dB)	(dB)	(dB)	(dB(μV/m))	(dB(μV/m))	(dB)
Peak data								
2 484.53 ⁽¹⁾	H	44.09	32.18	-17.81	-	58.46	74.00	15.54
3 999.77 ⁽¹⁾	V	69.99	33.30	-56.88	-	46.41	74.00	27.59
4 996.40 ⁽¹⁾	V	64.91	34.10	-55.54	-	43.47	74.00	30.53
7 427.57 ⁽¹⁾	V	62.87	35.80	-52.30	-	46.37	74.00	27.63
Average Data								
2 484.53 ⁽¹⁾	H	37.20	32.18	-17.81	-	51.57	54.00	2.43

Average data

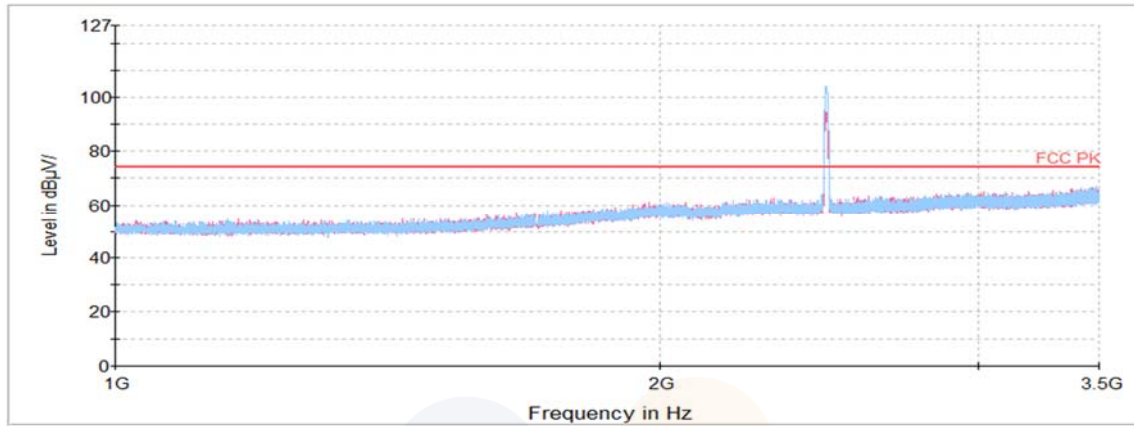


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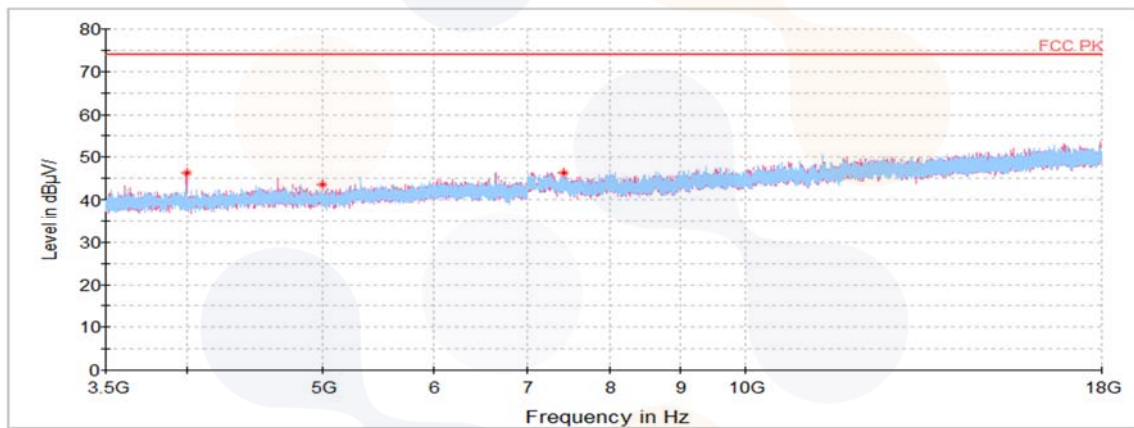
Horizontal/Vertical for Band-edge



Horizontal/Vertical for 1 GHz ~ 3.5 GHz



Horizontal/Vertical for 3.5 GHz ~ 18 GHz



802.11g_2 412 MHz

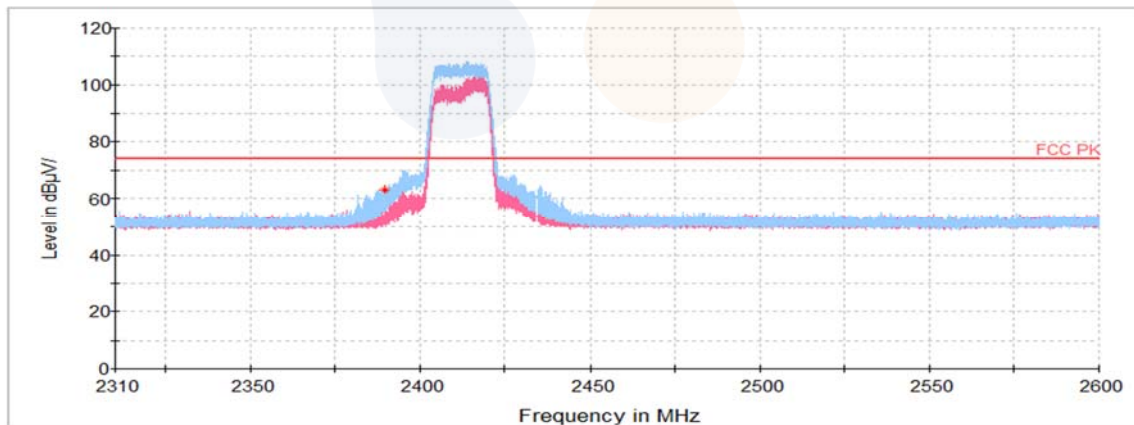
Frequency	Pol.	Reading	Ant. Factor	Amp. + Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μV))	(dB)	(dB)	(dB)	(dB(μV/m))	(dB(μV/m))	(dB)
Peak data								
2 389.95 ¹⁾	H	48.91	32.09	-17.87	-	63.13	74.00	10.87
4 791.47 ¹⁾	V	64.14	34.02	-55.73	-	42.43	74.00	31.57
7 243.90	V	62.82	35.80	-52.11	-	46.51	74.00	27.49
Average Data								
2 389.95 ¹⁾	H	36.86	32.09	-17.87	0.22	51.30	54.00	2.70

Average data

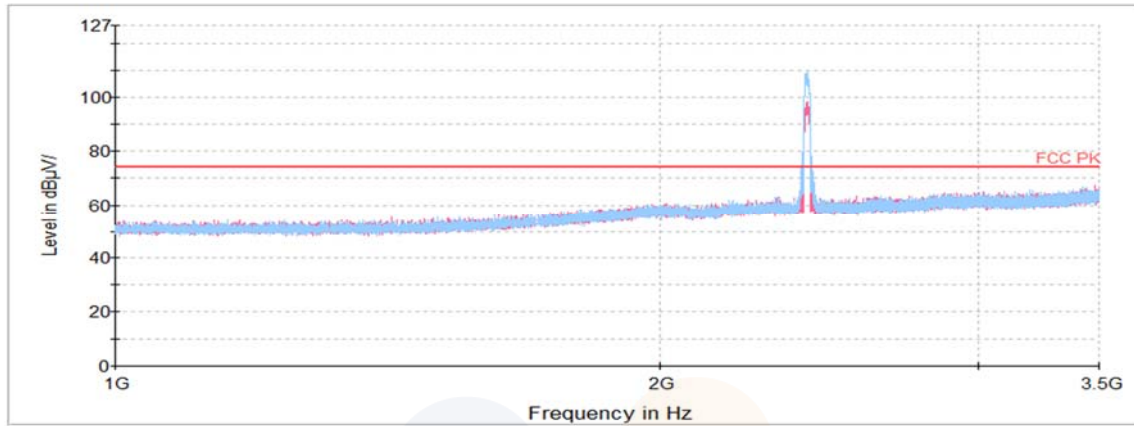


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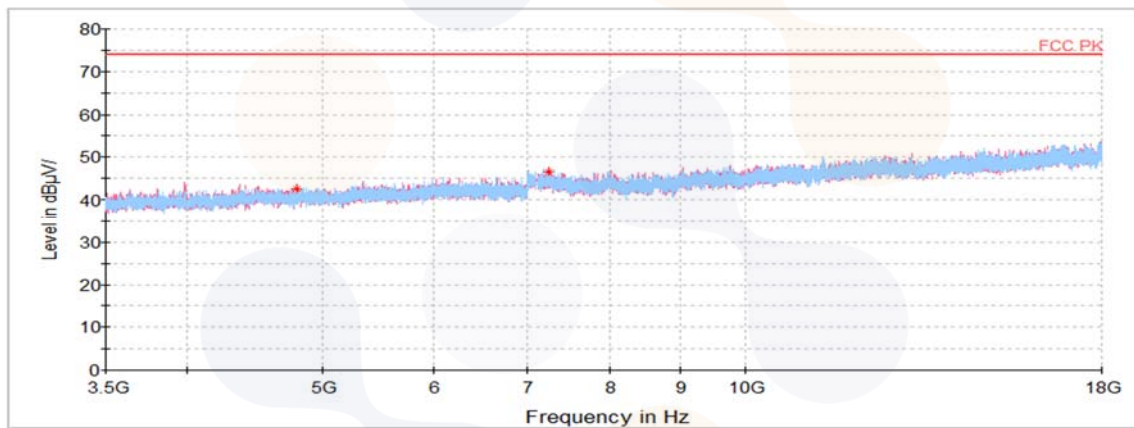
Horizontal/Vertical for Band-edge



Horizontal/Vertical for 1 GHz ~ 3.5 GHz



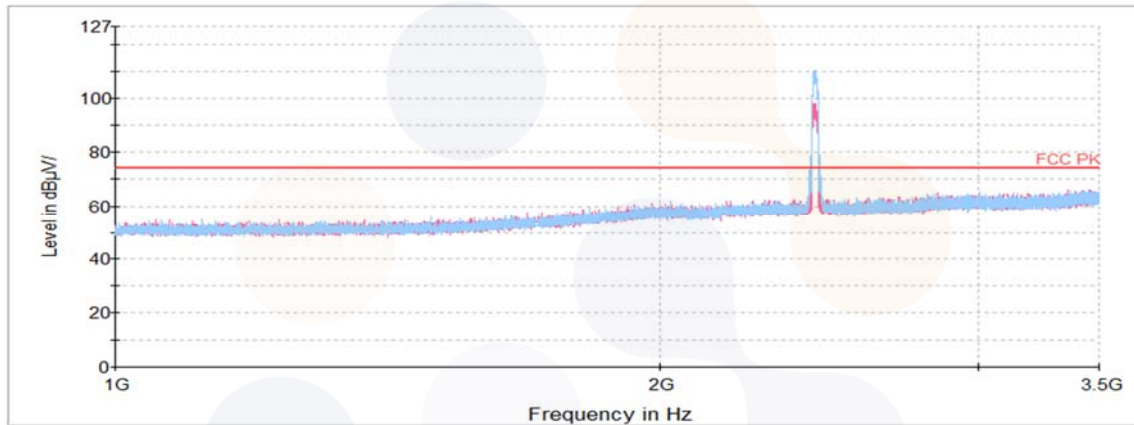
Horizontal/Vertical for 3.5 GHz ~ 18 GHz



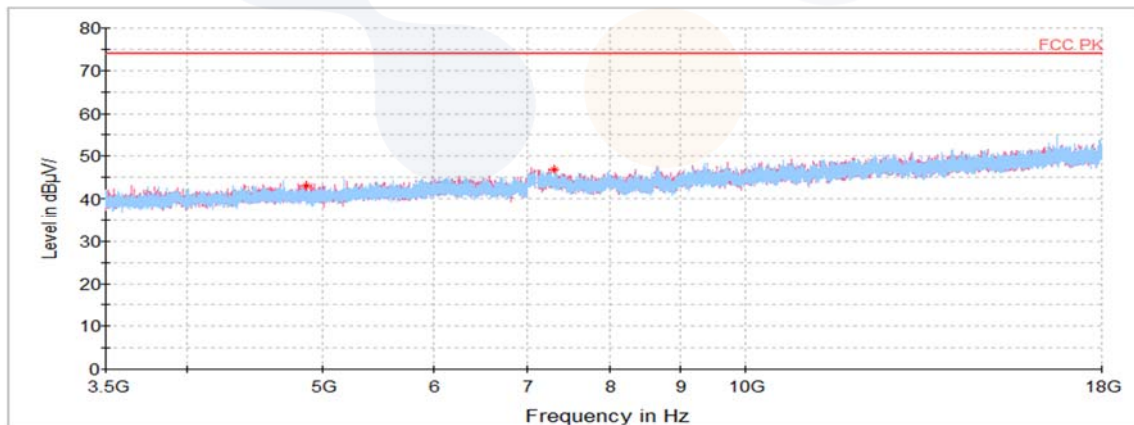
802.11g_2 437 MHz

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								
4 866.38 ¹⁾	V	64.68	34.05	-55.72	-	43.01	74.00	30.99
7 302.87 ¹⁾	V	63.16	35.80	-52.17	-	46.79	74.00	27.21
Average Data								
No spurious emissions were detected within 20 dB of the limit.								

Horizontal/Vertical for 1 GHz ~ 3.5 GHz



Horizontal/Vertical for 3.5 GHz ~ 18 GHz



802.11g_2 462 MHz

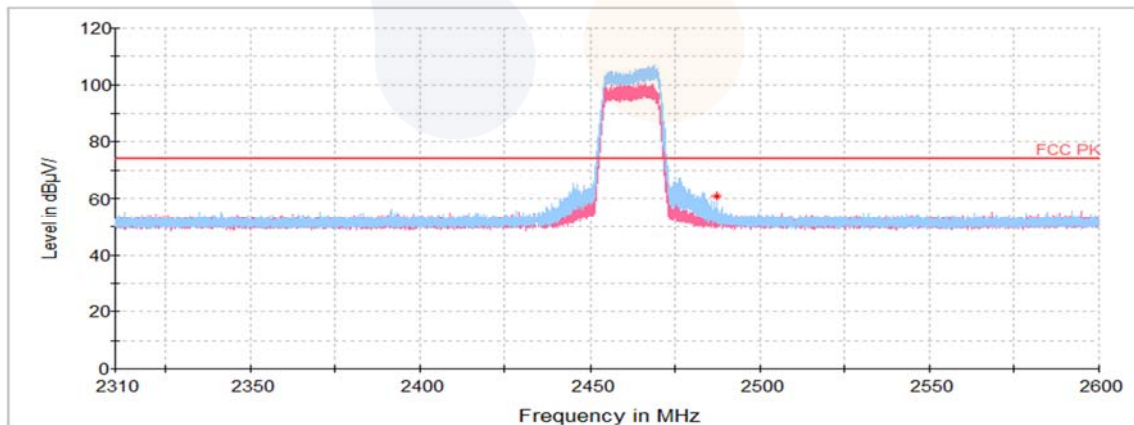
Frequency	Pol.	Reading	Ant. Factor	Amp. + Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μV))	(dB)	(dB)	(dB)	(dB(μV/m))	(dB(μV/m))	(dB)
Peak data								
2 483.54 ¹⁾	H	46.20	32.18	-17.81	-	60.57	74.00	13.43
4 952.42 ¹⁾	V	64.22	34.08	-55.63	-	42.67	74.00	31.33
7 360.38 ¹⁾	V	62.56	35.80	-52.23	-	46.13	74.00	27.87
Average Data								
2 483.54 ¹⁾	H	35.05	32.18	-17.81	0.22	49.64	54.00	4.36

Average data

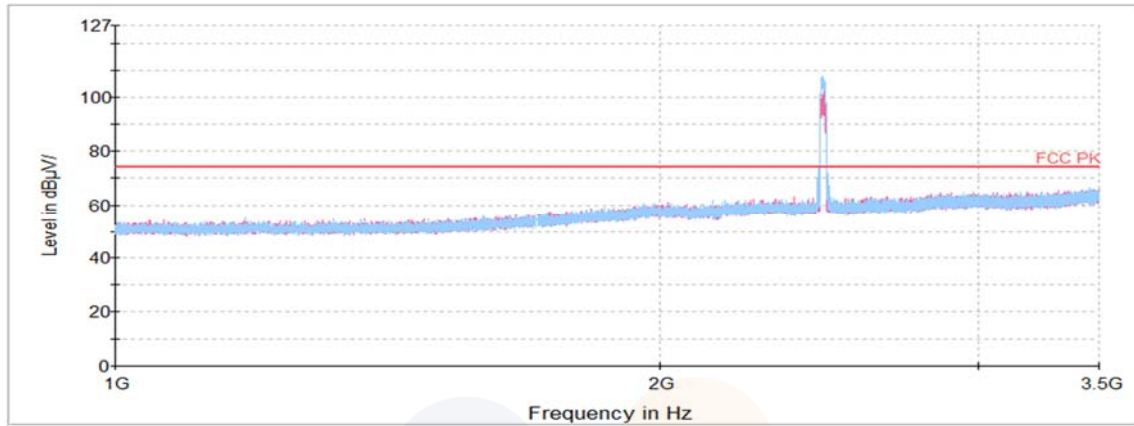


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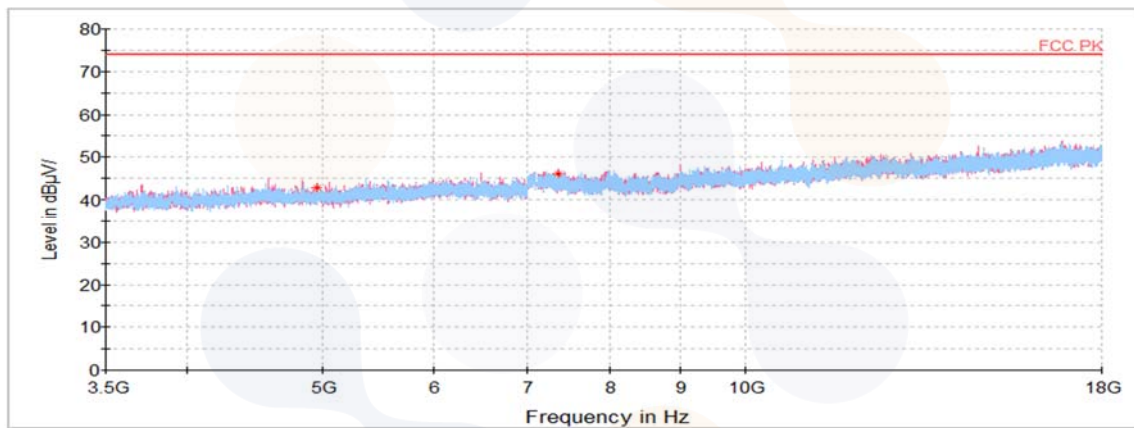
Horizontal/Vertical for Band-edge



Horizontal/Vertical for 1 GHz ~ 3.5 GHz



Horizontal/Vertical for 3.5 GHz ~ 18 GHz



802.11g_2 467 MHz

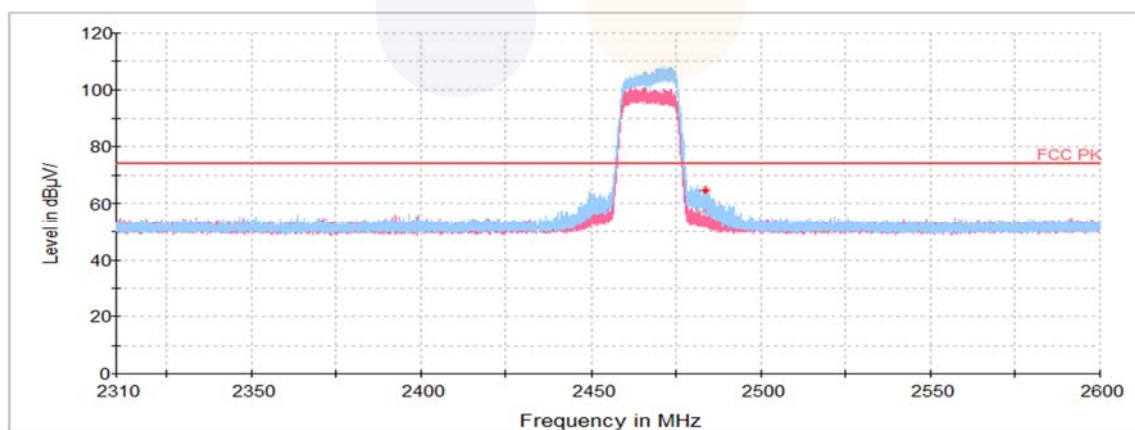
Frequency	Pol.	Reading	Ant. Factor	Amp. + Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μV))	(dB)	(dB)	(dB)	(dB(μV/m))	(dB(μV/m))	(dB)
Peak data								
2 483.52 ¹⁾	H	48.58	32.18	-17.81	-	62.95	74.00	11.05
3 982.37 ¹⁾	V	67.69	33.29	-56.84	-	44.14	74.00	29.86
4 935.50 ¹⁾	H	64.67	34.07	-55.66	-	43.08	74.00	30.92
7 434.33 ¹⁾	V	62.82	35.80	-52.30	-	46.32	74.00	27.68
Average Data								
2 483.52 ¹⁾	H	37.10	32.18	-17.81	0.22	51.69	54.00	2.31

Average data

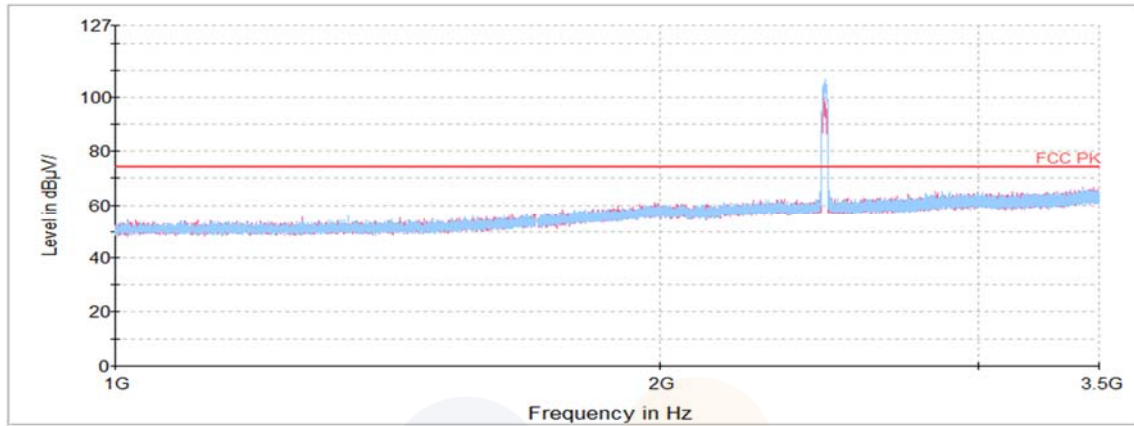


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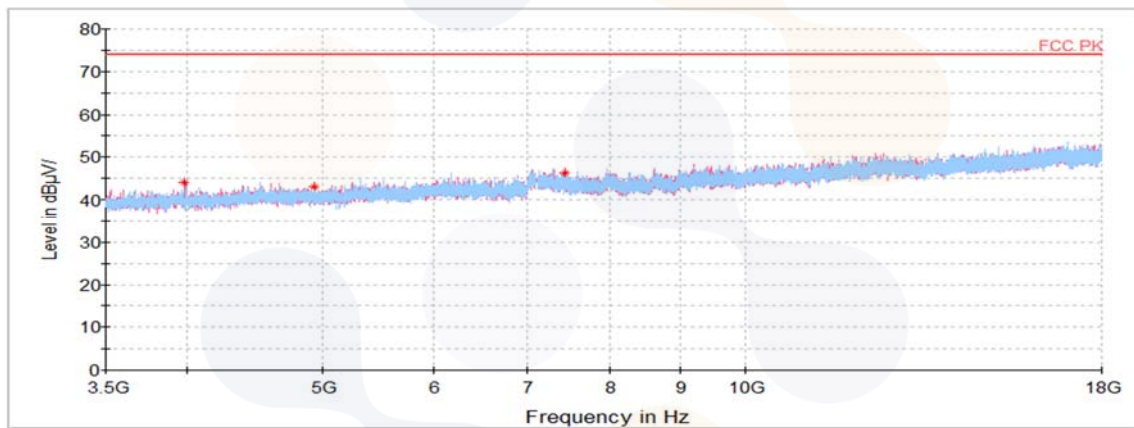
Horizontal/Vertical for Band-edge



Horizontal/Vertical for 1 GHz ~ 3.5 GHz



Horizontal/Vertical for 3.5 GHz ~ 18 GHz



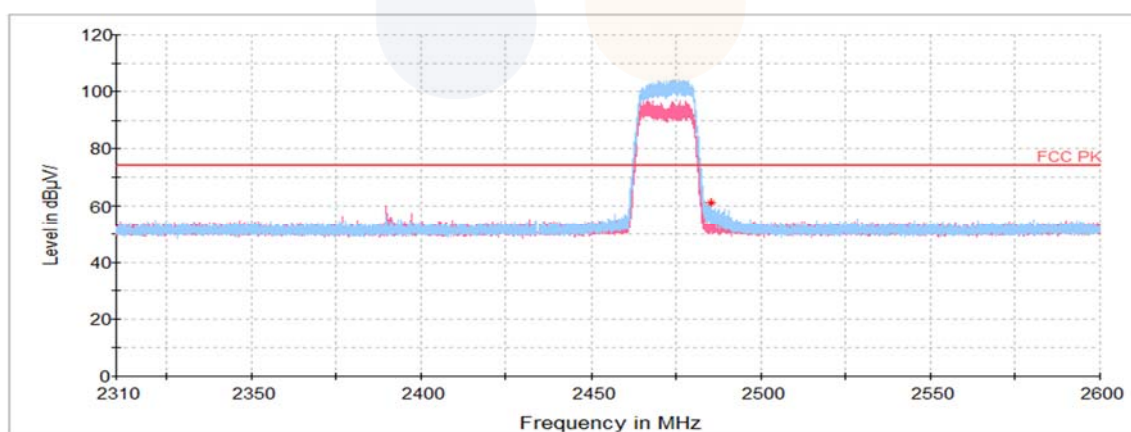
802.11g_2 472 MHz

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								
2 483.51 ¹⁾	H	46.66	32.18	-17.81	-	61.03	74.00	12.97
3 995.90 ¹⁾	V	68.41	33.30	-56.87	-	44.84	74.00	29.16
4 964.98 ¹⁾	H	62.82	34.09	-55.60	-	41.31	74.00	32.69
7 420.80 ¹⁾	H	61.89	35.80	-52.29	-	45.40	74.00	28.60
Average Data								
2 483.51 ¹⁾	H	37.08	32.18	-17.81	0.22	51.67	54.00	2.33

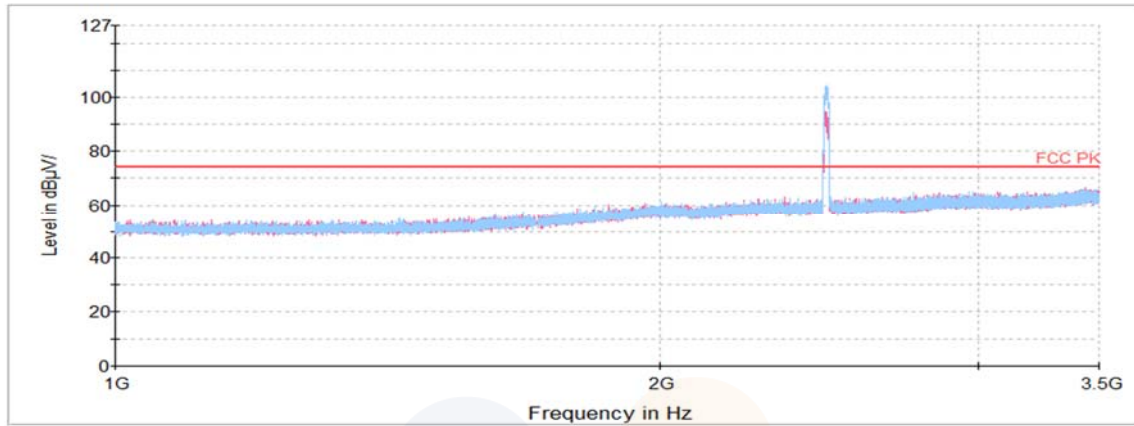
Average data



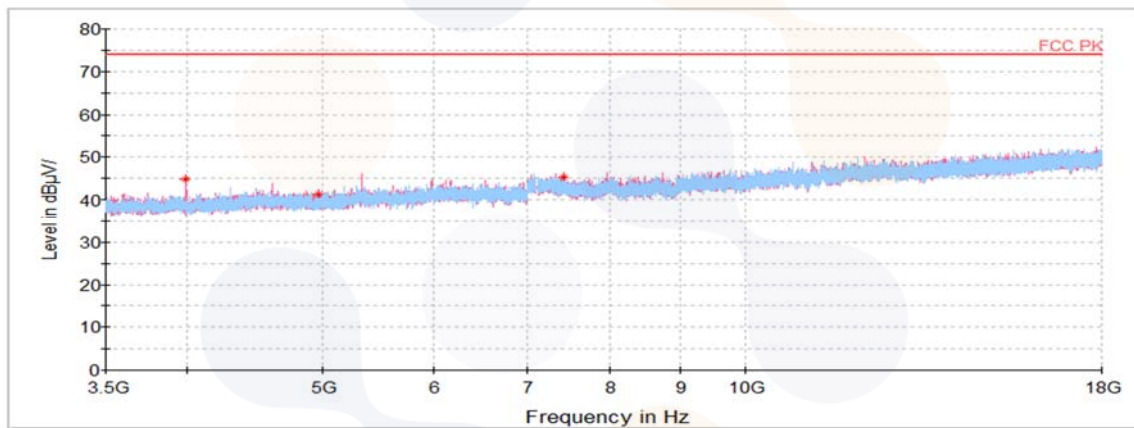
Horizontal/Vertical for Band-edge



Horizontal/Vertical for 1 GHz ~ 3.5 GHz



Horizontal/Vertical for 3.5 GHz ~ 18 GHz



802.11n_HT20_2 412 MHz

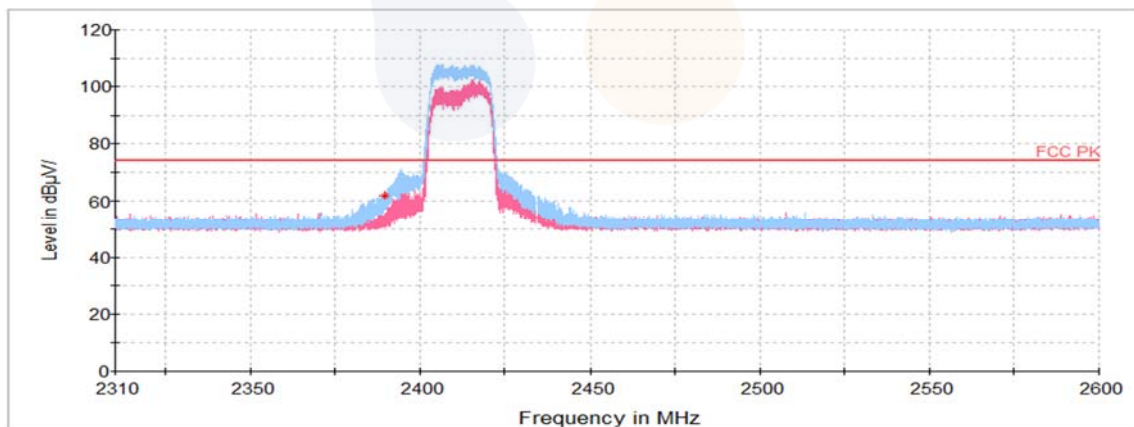
Frequency	Pol.	Reading	Ant. Factor	Amp. + Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μV))	(dB)	(dB)	(dB)	(dB(μV/m))	(dB(μV/m))	(dB)
Peak data								
2 389.93 ¹⁾	H	47.41	32.09	-17.87	-	61.63	74.00	12.37
4 822.40 ¹⁾	H	64.90	34.03	-55.71	-	43.22	74.00	30.78
7 250.18 ¹⁾	V	63.44	35.80	-52.11	-	47.13	74.00	26.87
Average Data								
2 389.93 ¹⁾	H	36.82	32.09	-17.87	0.26	51.30	54.00	2.70

Average data

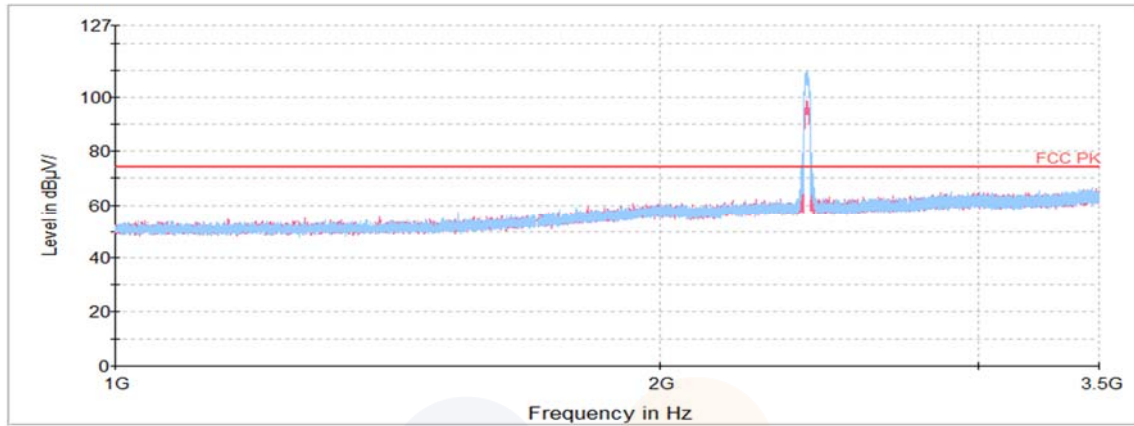


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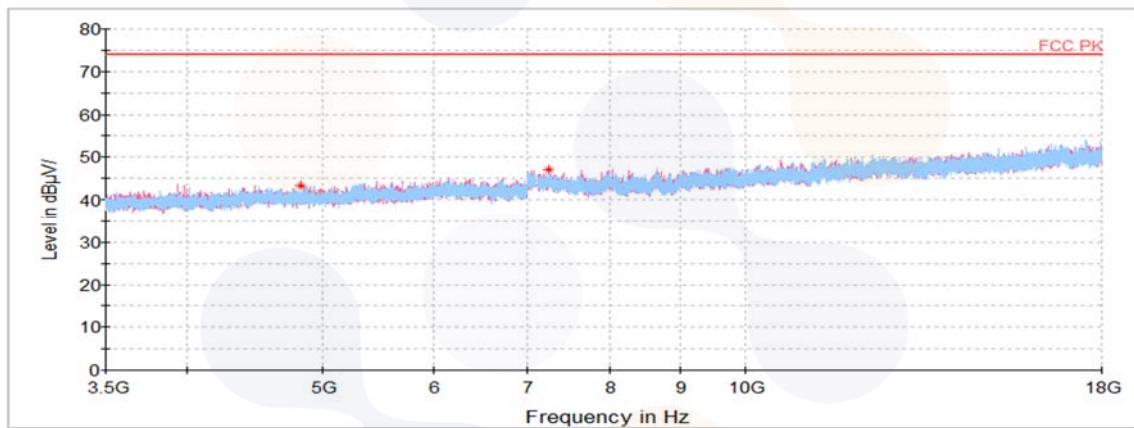
Horizontal/Vertical for Band-edge



Horizontal/Vertical for 1 GHz ~ 3.5 GHz



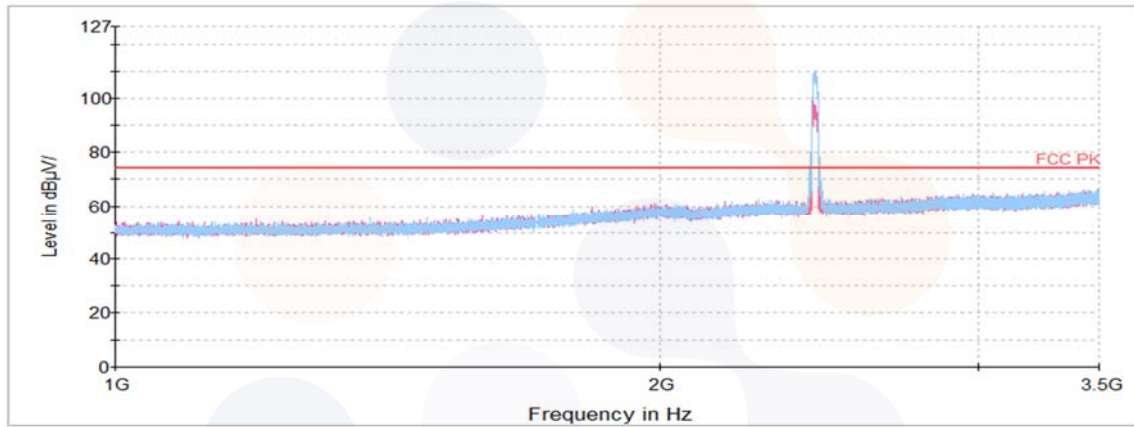
Horizontal/Vertical for 3.5 GHz ~ 18 GHz



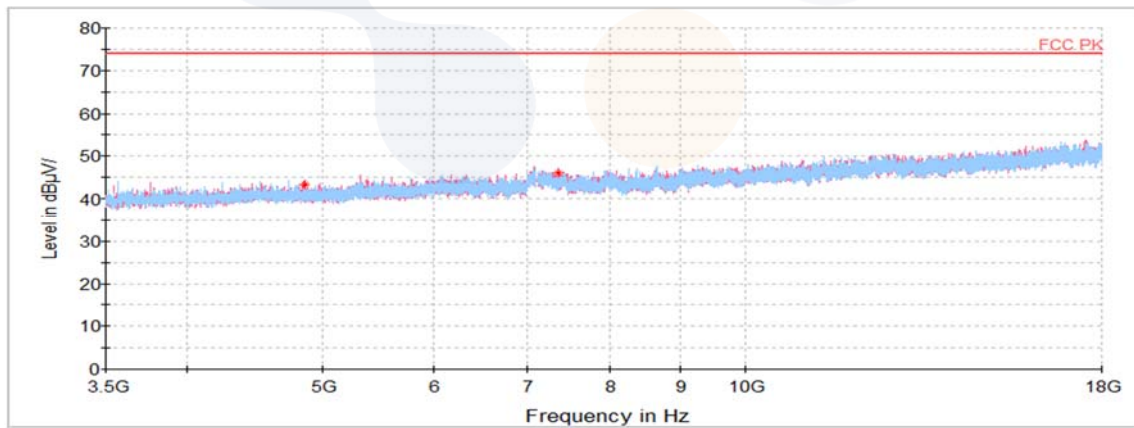
802.11n_HT20_2 437 MHz

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								
4 857.68 ¹⁾	V	65.04	34.04	-55.72	-	43.36	74.00	30.64
7 355.55 ¹⁾	H	62.51	35.80	-52.22	-	46.09	74.00	27.91
Average Data								
No spurious emissions were detected within 20 dB of the limit.								

Horizontal/Vertical for 1 GHz ~ 3.5 GHz



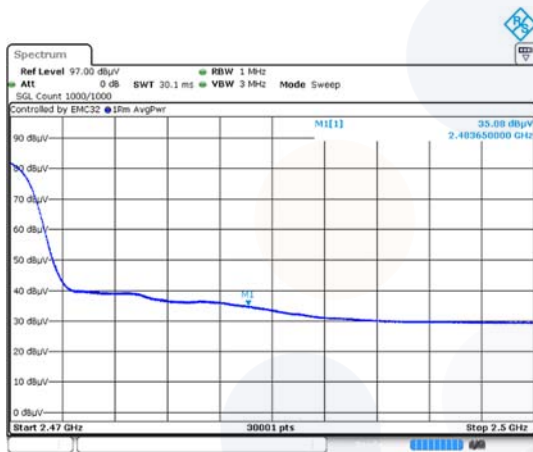
Horizontal/Vertical for 3.5 GHz ~ 18 GHz



802.11n_HT20_2 462 MHz

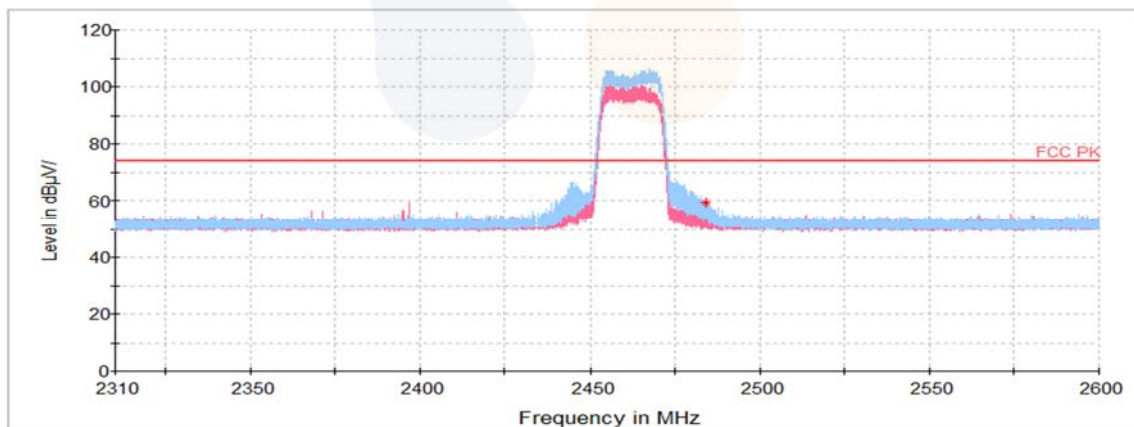
Frequency	Pol.	Reading	Ant. Factor	Amp. + Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μV))	(dB)	(dB)	(dB)	(dB(μV/m))	(dB(μV/m))	(dB)
Peak data								
2 483.65 ¹⁾	H	44.98	32.18	-17.81	-	59.35	74.00	14.65
4 941.78 ¹⁾	H	64.69	34.08	-55.65	-	43.12	74.00	30.88
7 373.43 ¹⁾	H	63.90	35.80	-52.24	-	47.46	74.00	26.54
Average Data								
2 483.65 ¹⁾	H	35.08	32.18	-17.81	0.26	49.71	54.00	4.29

Average data

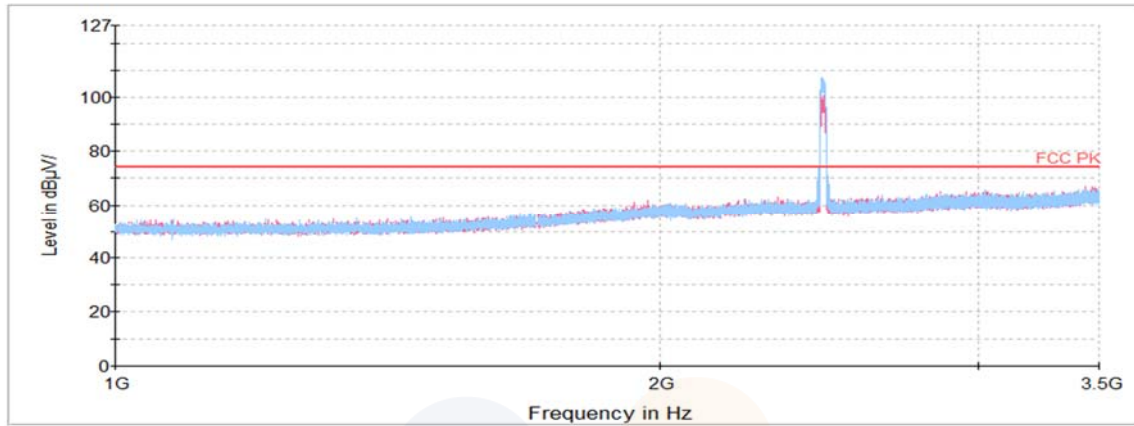


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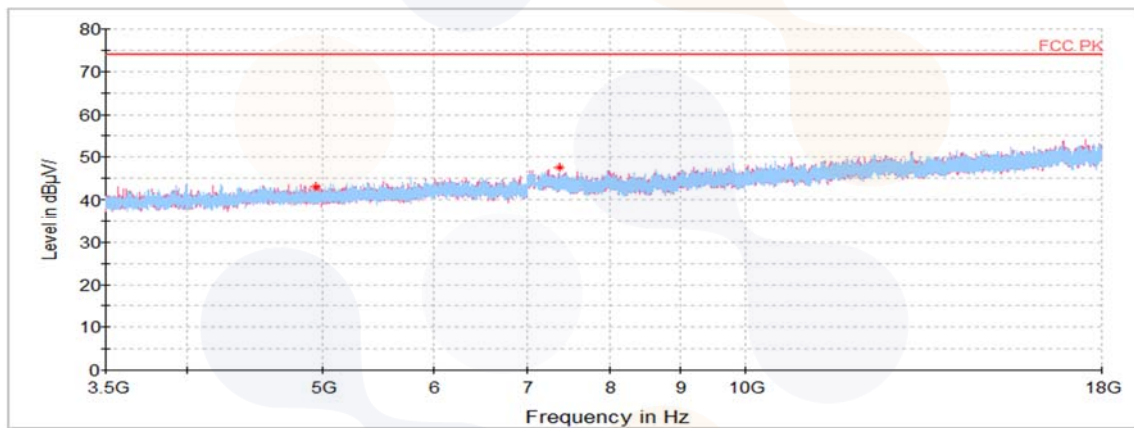
Horizontal/Vertical for Band-edge



Horizontal/Vertical for 1 GHz ~ 3.5 GHz



Horizontal/Vertical for 3.5 GHz ~ 18 GHz



802.11n_HT20_2 467 MHz

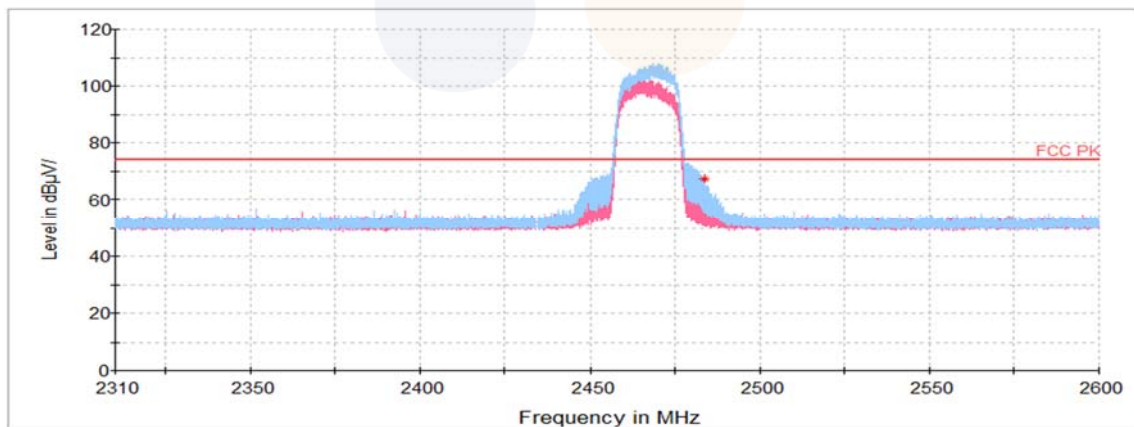
Frequency	Pol.	Reading	Ant. Factor	Amp. + Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μV))	(dB)	(dB)	(dB)	(dB(μV/m))	(dB(μV/m))	(dB)
Peak data								
2 483.55 ¹⁾	H	49.93	32.18	-17.81	-	64.30	74.00	9.70
3 990.10 ¹⁾	V	67.98	33.29	-56.86	-	44.41	74.00	29.59
4 908.92 ¹⁾	V	65.25	34.06	-55.71	-	43.60	74.00	30.40
7 429.98 ¹⁾	V	63.47	35.80	-52.30	-	46.97	74.00	27.03
Average Data								
2 483.55 ¹⁾	H	36.90	32.18	-17.81	0.26	51.53	54.00	2.47

Average data

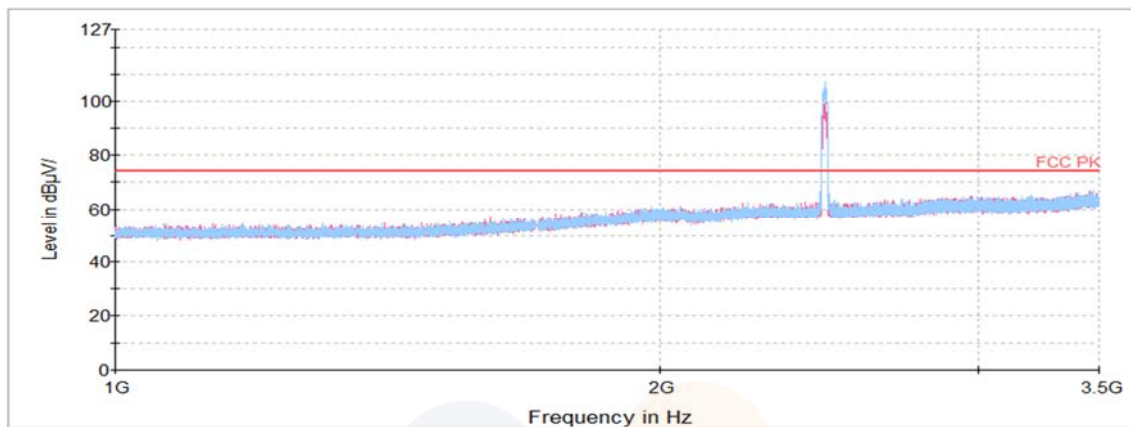


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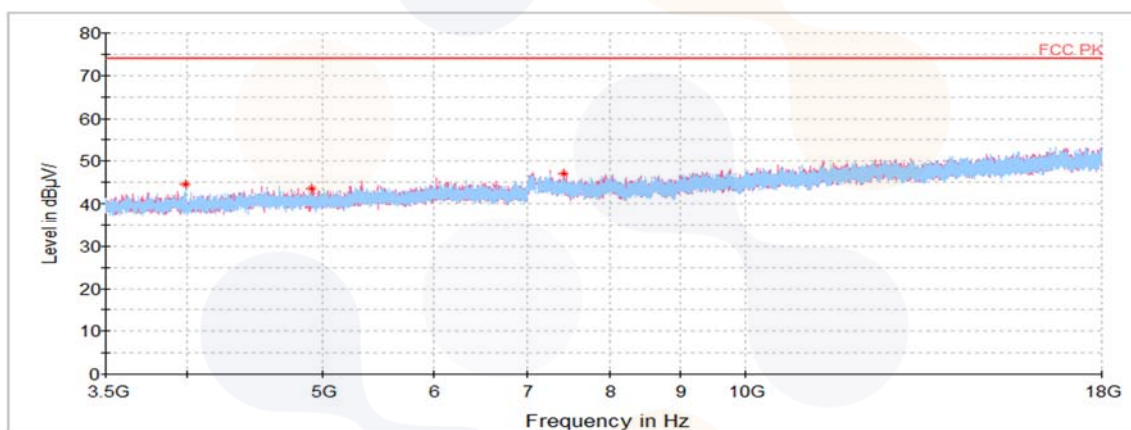
Horizontal/Vertical for Band-edge



Horizontal/Vertical for 1 GHz ~ 3.5 GHz



Horizontal/Vertical for 3.5 GHz ~ 18 GHz



802.11n_HT20_2 472 MHz

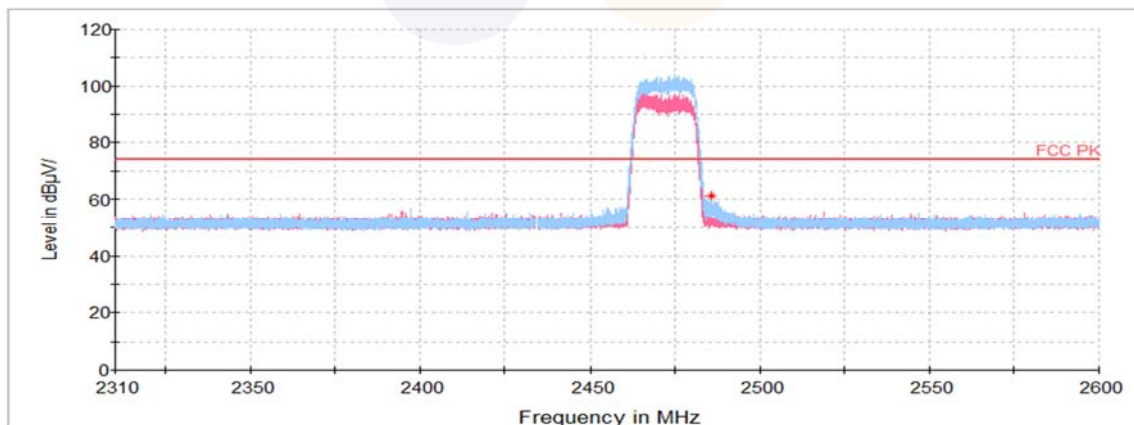
Frequency	Pol.	Reading	Ant. Factor	Amp. + Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μV))	(dB)	(dB)	(dB)	(dB(μV/m))	(dB(μV/m))	(dB)
Peak data								
2 483.54 ¹⁾	H	46.94	32.18	-17.81	-	61.31	74.00	12.69
3 995.90 ¹⁾	V	69.60	33.30	-56.87	-	46.03	74.00	27.97
4 938.88 ¹⁾	V	63.33	34.08	-55.66	-	41.75	74.00	32.25
5 309.60 ¹⁾	V	71.18	34.35	-54.63	-	50.90	74.00	23.10
7 401.95 ¹⁾	V	61.76	35.80	-52.27	-	45.29	74.00	28.71
Average Data								
2 483.54 ¹⁾	H	37.01	32.18	-17.81	0.26	51.64	54.00	2.36

Average data

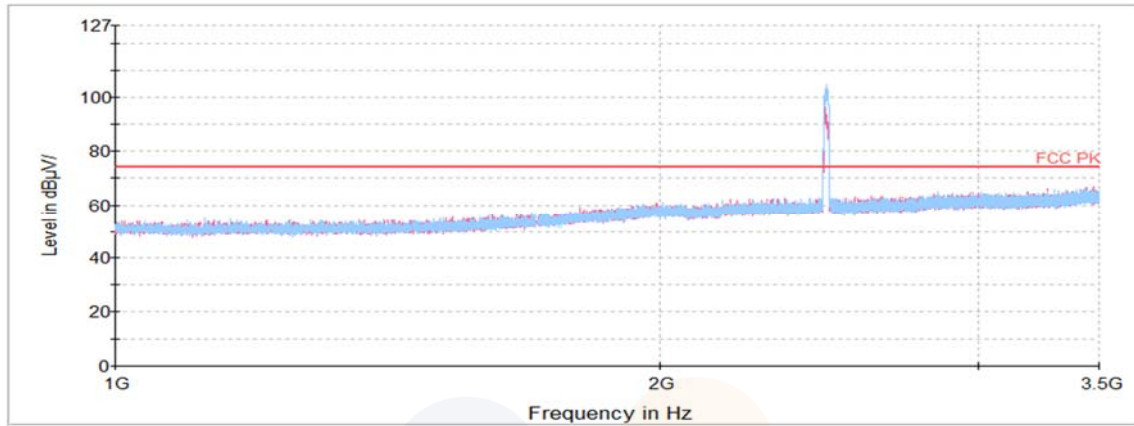


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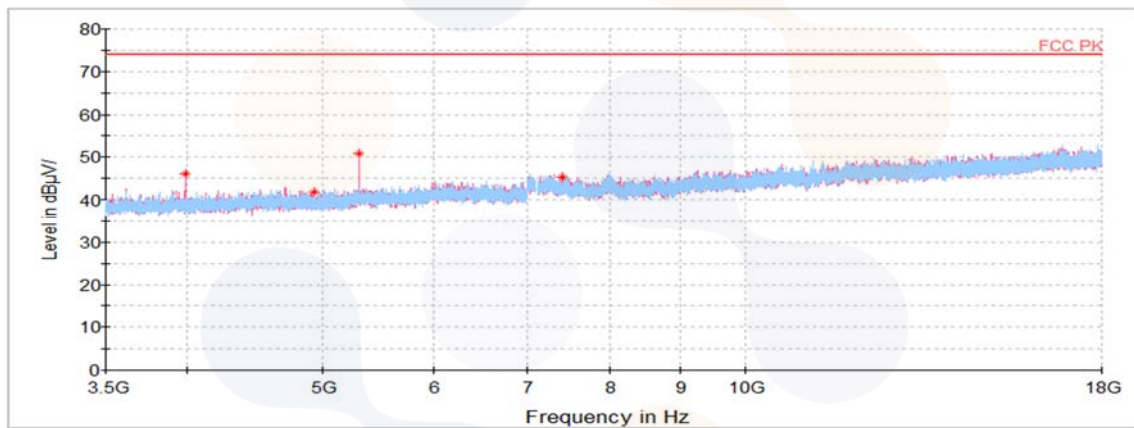
Horizontal/Vertical for Band-edge

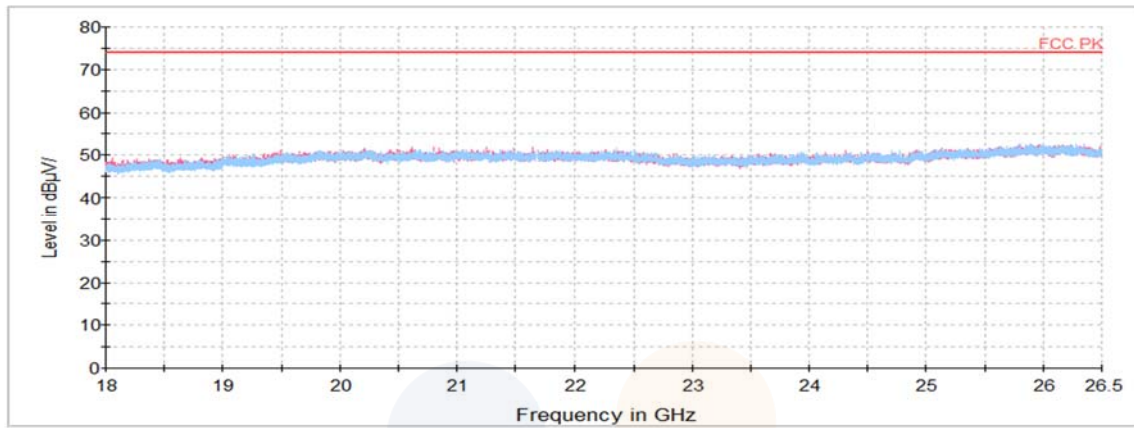


Horizontal/Vertical for 1 GHz ~ 3.5 GHz



Horizontal/Vertical for 3.5 GHz ~ 18 GHz

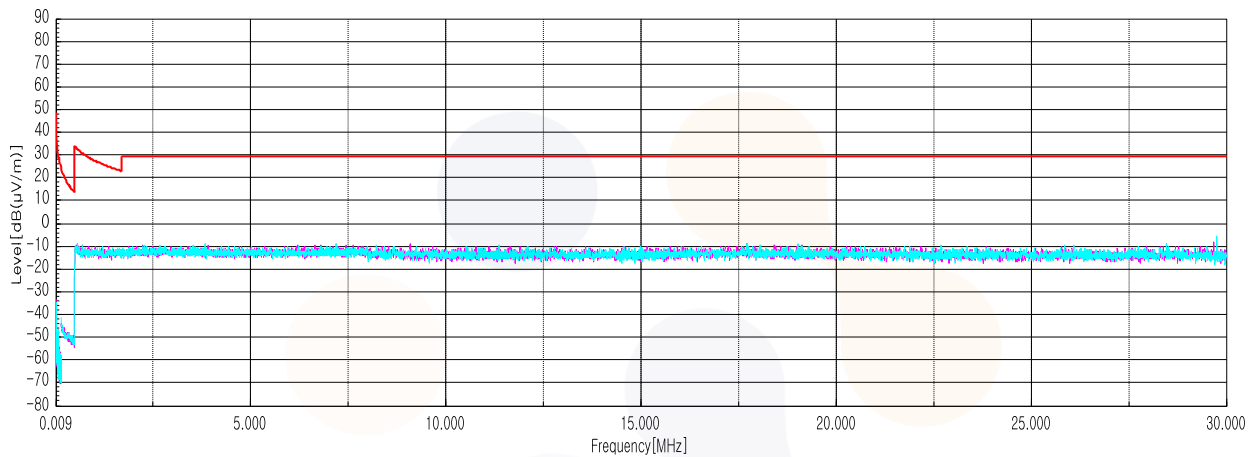


Test results (Above 18 GHz) – Worst case: 802.11g / 2 467 MHz**Horizontal/Vertical for 18 GHz ~ 26.5 GHz**

Note: The Worst case was based on the lowest margin condition considering Harmonic and Spurious Emission

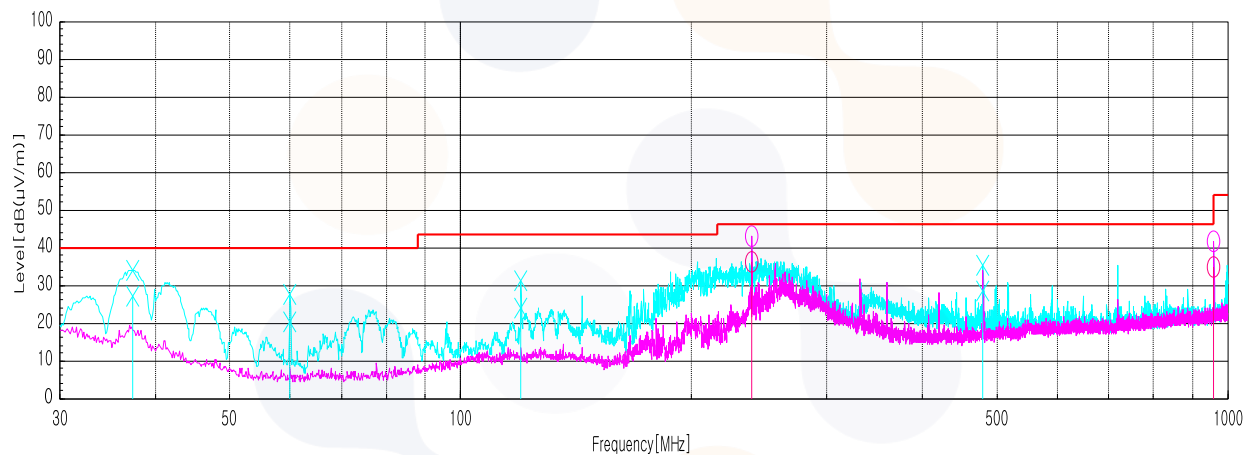
[DC 12 V]**Test results (Below 30 MHz) – Worst case: 802.11b / 2 462 MHz**

Frequency	Pol.	Reading	Antenna Factor	Amp. + Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μV))	(dB)	(dB)	(dB)	(dB(μV/m))	(dB(μV/m))	(dB)
Quasi peak data								
No spurious emissions were detected within 20 dB of the limit.								

Horizontal/Vertical

Test results (Below 1 000 MHz) – Worst case: 802.11b / 2 462 MHz

Frequency	Pol.	Reading	Antenna Factor	Amp. + Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μV))	(dB)	(dB)	(dB)	(dB(μV/m))	(dB(μV/m))	(dB)
Quasi peak data								
37.40	V	37.50	20.82	-31.25	-	27.07	40.00	12.93
59.95	V	39.10	12.09	-30.89	-	20.30	40.00	19.70
119.97 ¹⁾	V	36.40	17.70	-30.05	-	24.05	43.50	19.45
240.01 ¹⁾	H	47.80	17.10	-28.80	-	36.10	46.00	9.90
479.96	V	32.60	22.70	-26.91	-	28.39	46.00	17.61
960.11 ¹⁾	H	31.20	26.40	-23.05	-	34.55	54.00	19.45

Horizontal/Vertical

802.11b_2 412 MHz

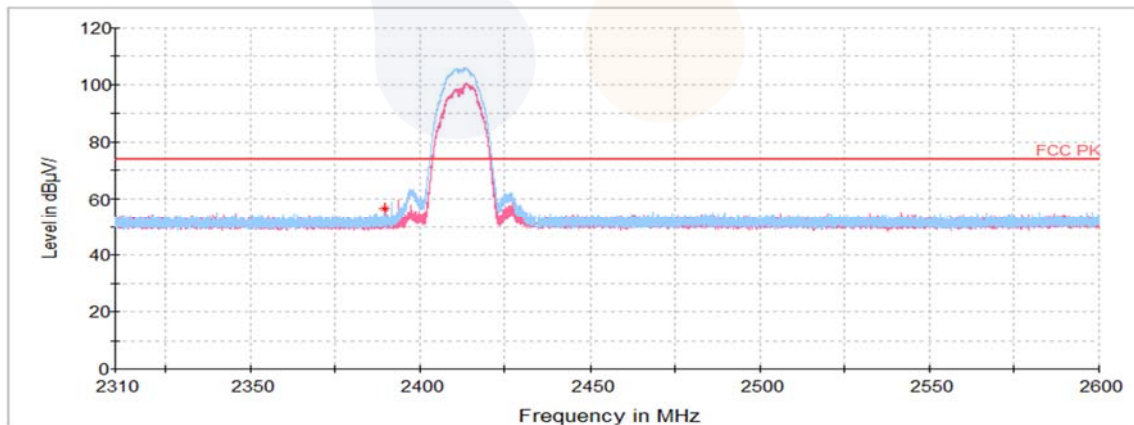
Frequency	Pol.	Reading	Ant. Factor	Amp. + Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μV))	(dB)	(dB)	(dB)	(dB(μV/m))	(dB(μV/m))	(dB)
Peak data								
2 389.68 ¹⁾	H	42.46	32.09	-17.87	-	56.68	74.00	17.32
4 819.98 ¹⁾	H	64.45	34.03	-55.71	-	42.77	74.00	31.23
7 253.08 ¹⁾	H	62.75	35.80	-52.12	-	46.43	74.00	27.57
Average Data								
2 389.68 ¹⁾	H	30.38	32.09	-17.87	-	44.60	54.00	9.40

Average data

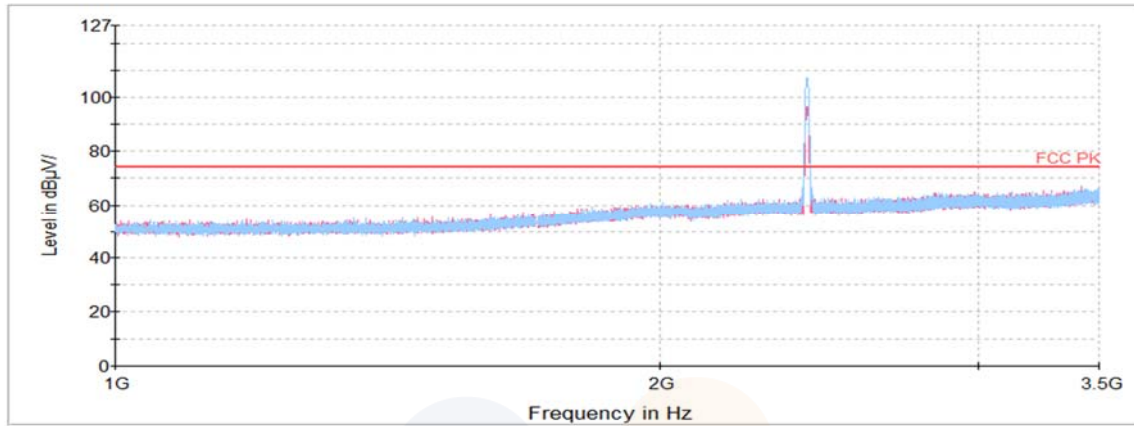


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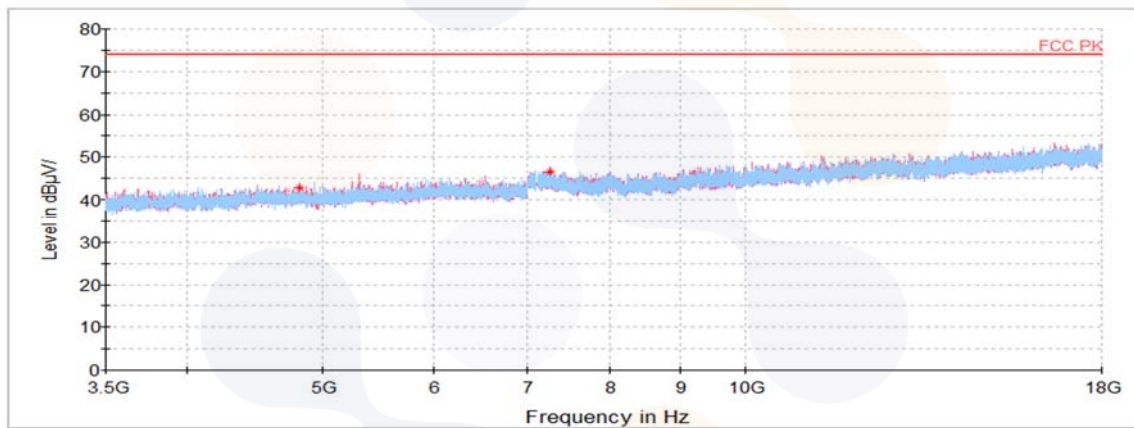
Horizontal/Vertical for Band-edge



Horizontal/Vertical for 1 GHz ~ 3.5 GHz



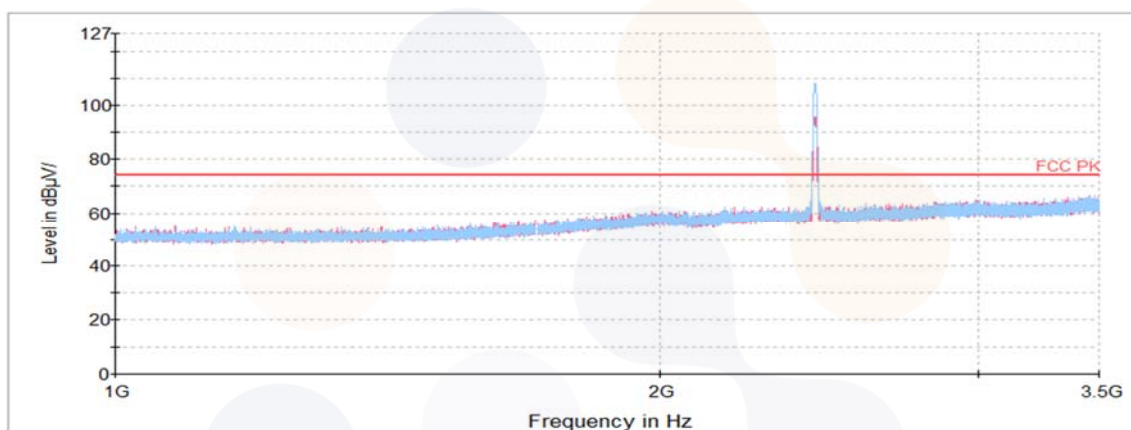
Horizontal/Vertical for 3.5 GHz ~ 18 GHz



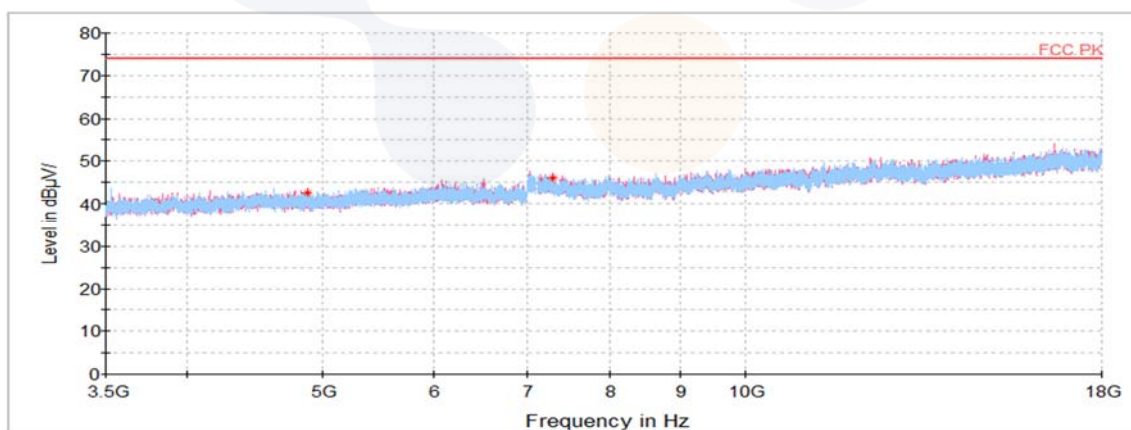
802.11b_2 437 MHz

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								
4 879.43 ¹⁾	V	64.06	34.05	-55.72	-	42.39	74.00	31.61
7 299.97 ¹⁾	V	62.48	35.80	-52.16	-	46.12	74.00	27.88
Average Data								
No spurious emissions were detected within 20 dB of the limit.								

Horizontal/Vertical for 1 GHz ~ 3.5 GHz



Horizontal/Vertical for 3.5 GHz ~ 18 GHz



802.11b_2 462 MHz

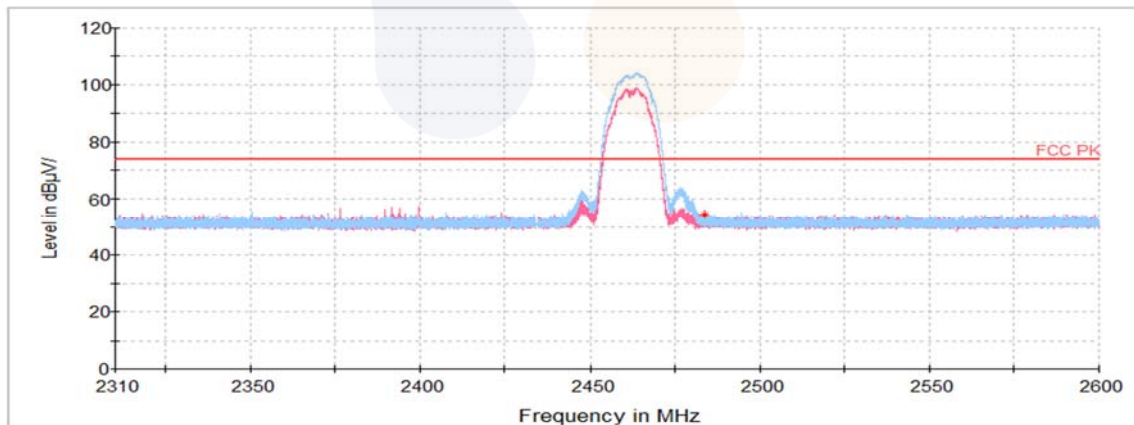
Frequency	Pol.	Reading	Ant. Factor	Amp. + Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μV))	(dB)	(dB)	(dB)	(dB(μV/m))	(dB(μV/m))	(dB)
Peak data								
2 483.58 ¹⁾	H	40.29	32.18	-17.81	-	54.66	74.00	19.34
4 920.52 ¹⁾	V	63.86	34.07	-55.69	-	42.24	74.00	31.76
7 302.87 ¹⁾	V	64.00	35.80	-52.17	-	47.63	74.00	26.37
Average Data								
2 483.54 ¹⁾	H	30.91	32.18	-17.81	-	45.28	54.00	8.72

Average data

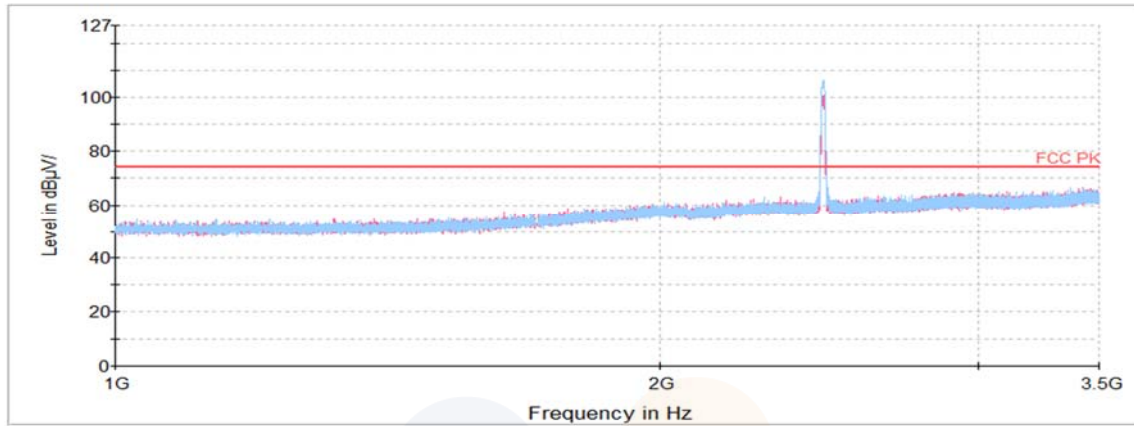


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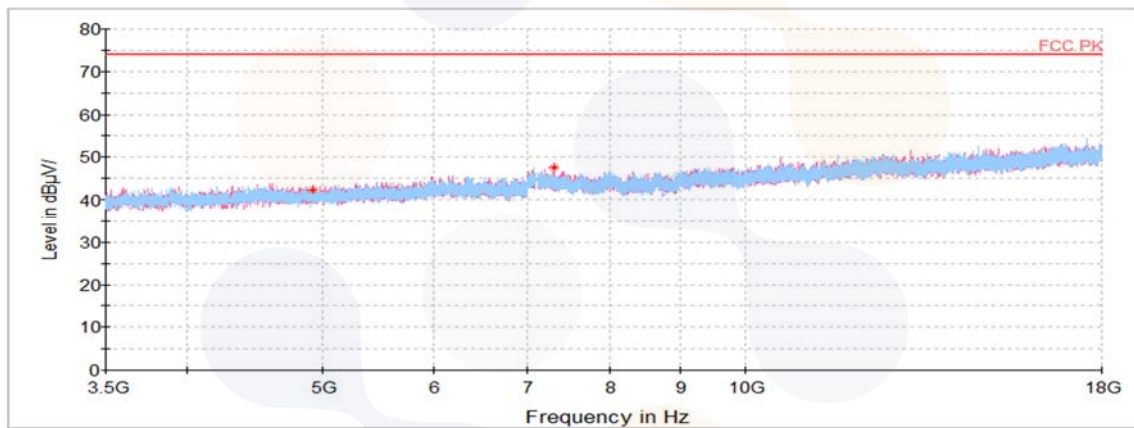
Horizontal/Vertical for Band-edge



Horizontal/Vertical for 1 GHz ~ 3.5 GHz



Horizontal/Vertical for 3.5 GHz ~ 18 GHz



802.11b_2 467 MHz

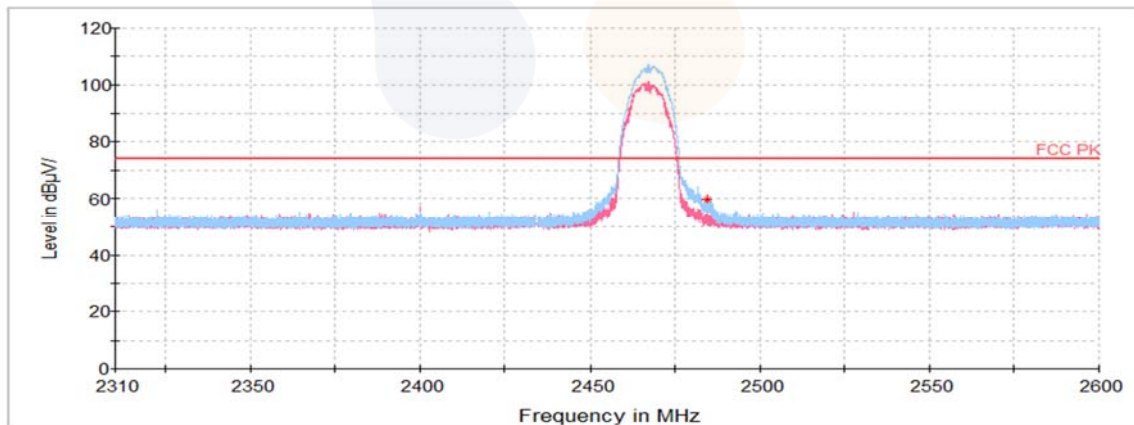
Frequency	Pol.	Reading	Ant. Factor	Amp. + Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μ V))	(dB)	(dB)	(dB)	(dB(μ V/m))	(dB(μ V/m))	(dB)
Peak data								
2 484.20 ¹⁾	H	44.48	32.18	-17.81	-	58.85	74.00	15.15
4 916.17 ¹⁾	H	64.19	34.07	-55.70	-	42.56	74.00	31.44
7 423.22 ¹⁾	V	62.75	35.80	-52.29	-	46.26	74.00	27.74
Average Data								
2 484.20 ¹⁾	H	36.74	32.18	-17.81	-	51.11	54.00	2.89

Average data

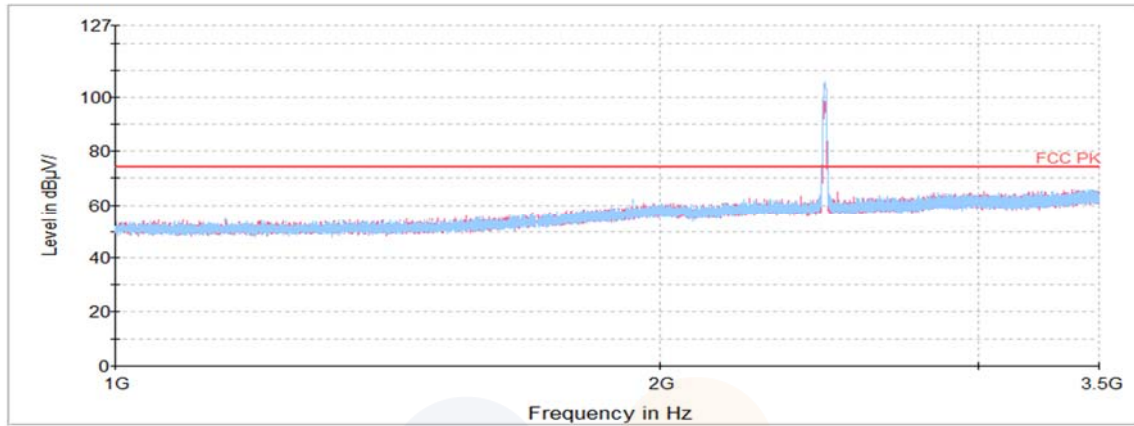


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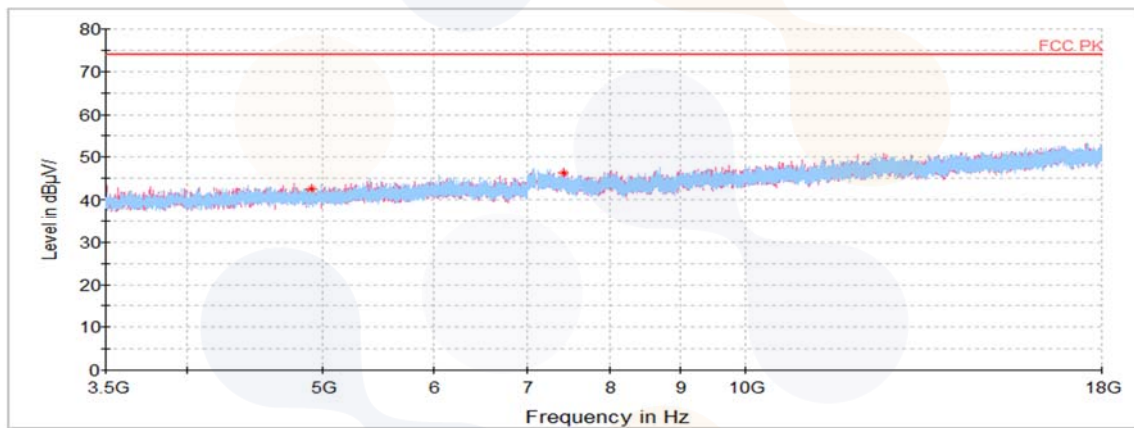
Horizontal/Vertical for Band-edge



Horizontal/Vertical for 1 GHz ~ 3.5 GHz



Horizontal/Vertical for 3.5 GHz ~ 18 GHz



802.11b_2 472 MHz

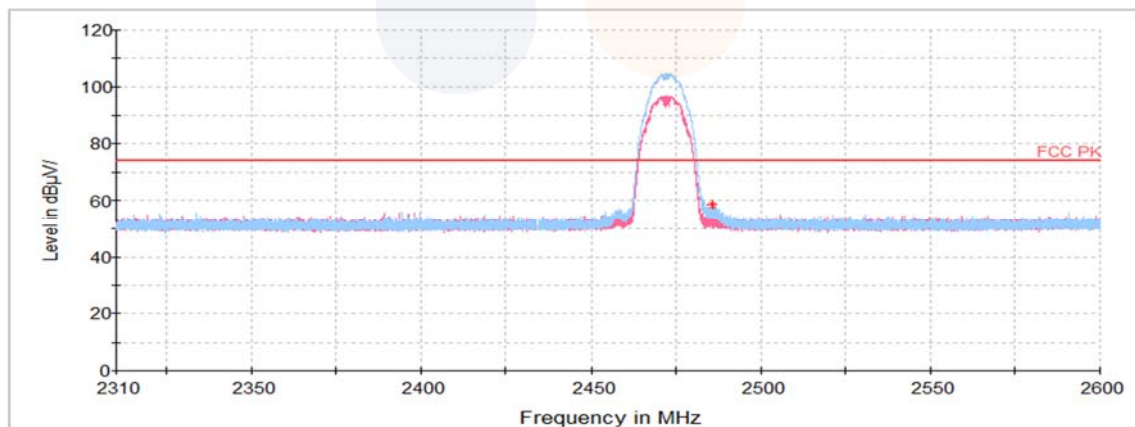
Frequency	Pol.	Reading	Ant. Factor	Amp. + Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μV))	(dB)	(dB)	(dB)	(dB(μV/m))	(dB(μV/m))	(dB)
Peak data								
2 484.60	H	44.13	32.18	-17.81	-	58.50	74.00	15.50
3 992.52	V	72.50	33.29	-56.86	-	48.93	74.00	25.07
4 942.75	V	63.78	34.08	-55.65	-	42.21	74.00	31.79
7 384.07	V	61.88	35.80	-52.25	-	45.43	74.00	28.57
Average Data								
2 484.60	H	37.14	32.18	-17.81	-	51.51	54.00	2.49

Average data

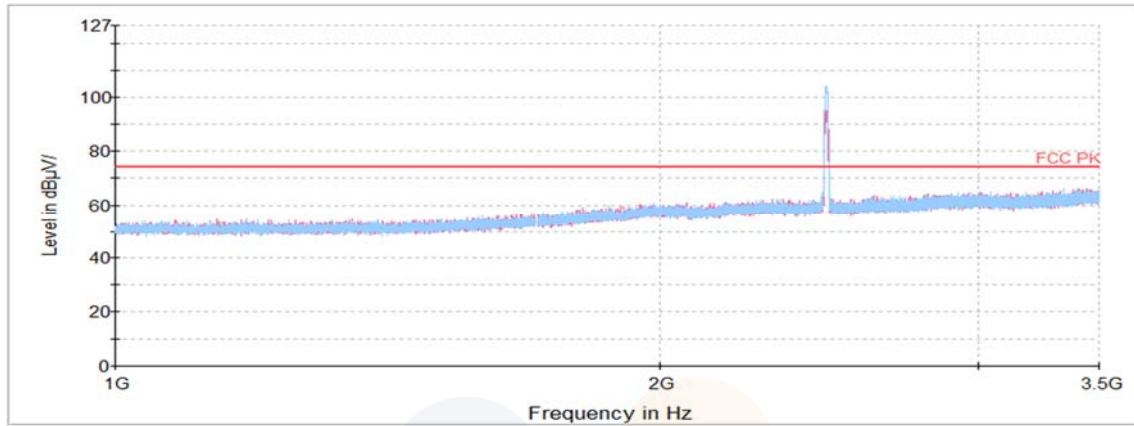


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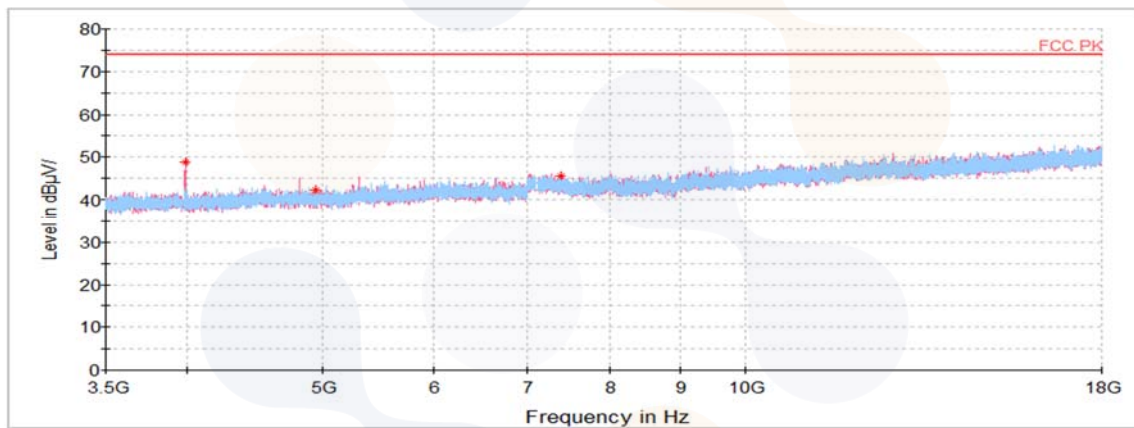
Horizontal/Vertical for Band-edge



Horizontal/Vertical for 1 GHz ~ 3.5 GHz



Horizontal/Vertical for 3.5 GHz ~ 18 GHz



802.11g_2 412 MHz

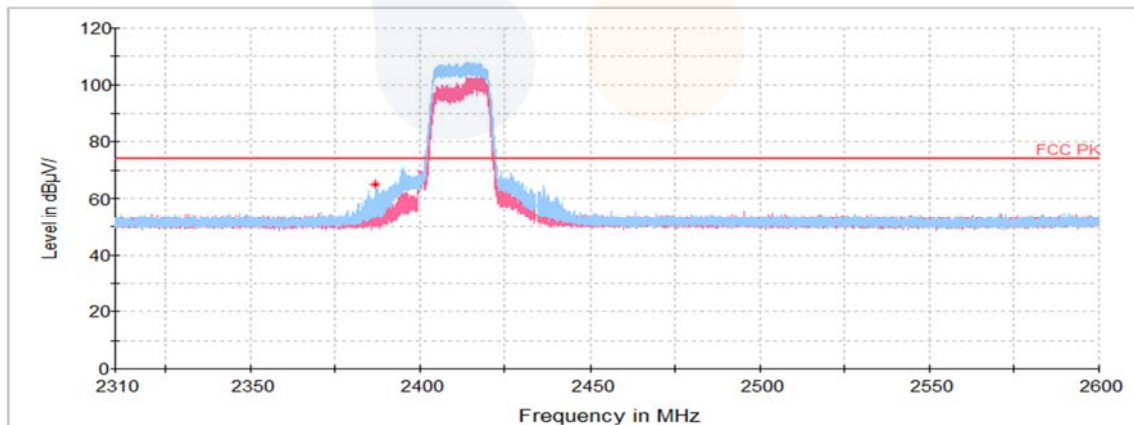
Frequency	Pol.	Reading	Ant. Factor	Amp. + Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μV))	(dB)	(dB)	(dB)	(dB(μV/m))	(dB(μV/m))	(dB)
Peak data								
2 389.98 ¹⁾	H	50.61	32.09	-17.87	-	64.83	74.00	9.17
4 817.08 ¹⁾	H	64.74	34.03	-55.70	-	43.07	74.00	30.93
7 250.67 ¹⁾	V	62.68	35.80	-52.11	-	46.37	74.00	27.63
Average Data								
2 389.98 ¹⁾	H	36.95	32.09	-17.87	0.22	51.39	54.00	2.61

Average data

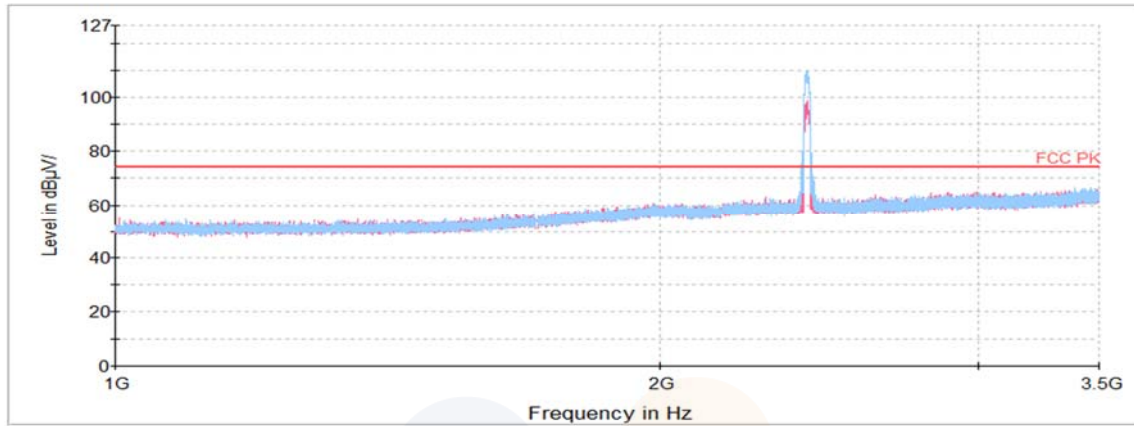


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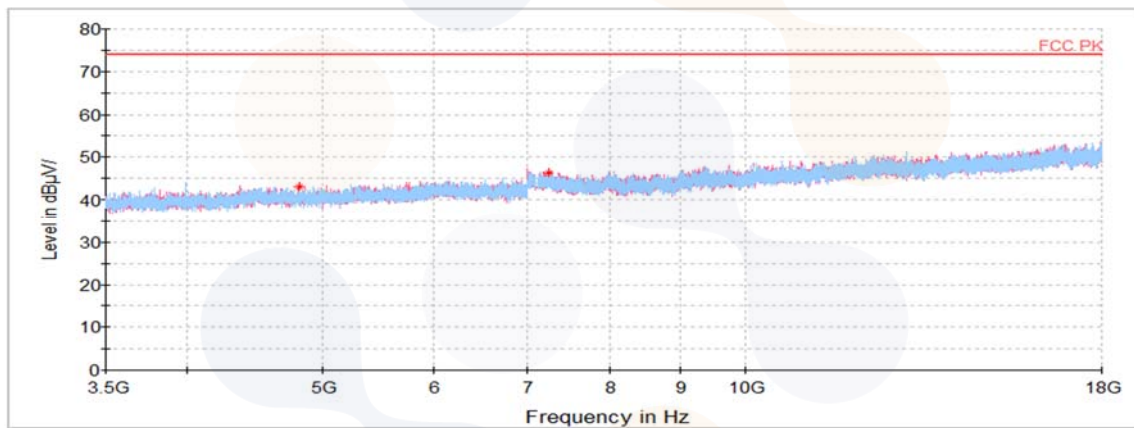
Horizontal/Vertical for Band-edge



Horizontal/Vertical for 1 GHz ~ 3.5 GHz



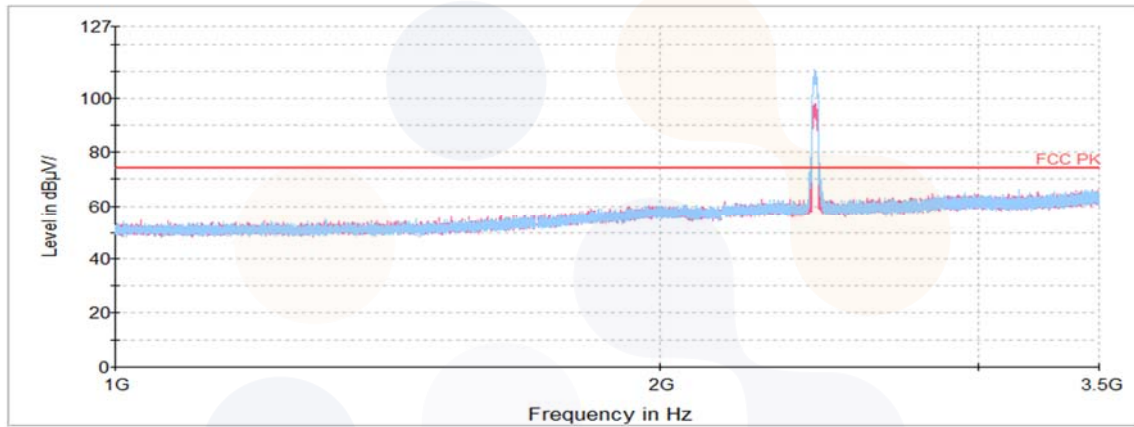
Horizontal/Vertical for 3.5 GHz ~ 18 GHz



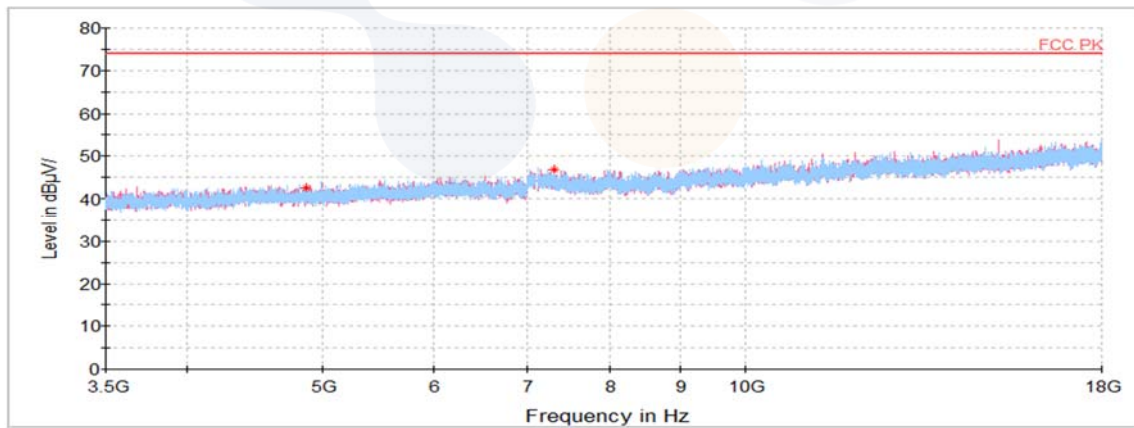
802.11g_2 437 MHz

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								
4 865.90 ¹⁾	H	64.28	34.05	-55.72	-	42.61	74.00	31.39
7 301.42 ¹⁾	V	63.13	35.80	-52.17	-	46.76	74.00	27.24
Average Data								
No spurious emissions were detected within 20 dB of the limit.								

Horizontal/Vertical for 1 GHz ~ 3.5 GHz



Horizontal/Vertical for 3.5 GHz ~ 18 GHz



802.11g_2 462 MHz

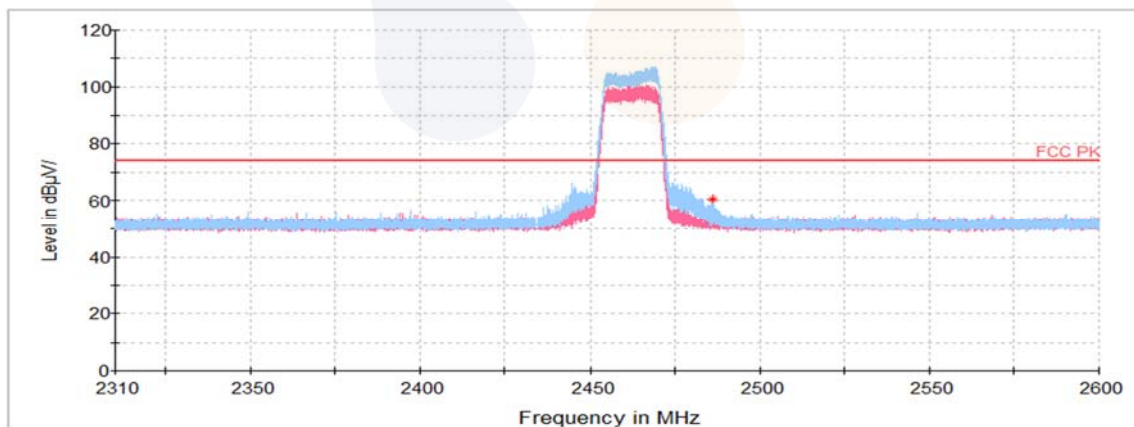
Frequency	Pol.	Reading	Ant. Factor	Amp. + Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μV))	(dB)	(dB)	(dB)	(dB(μV/m))	(dB(μV/m))	(dB)
Peak data								
2 483.64 ¹⁾	H	46.13	32.18	-17.81	-	60.50	74.00	13.50
4 954.83 ¹⁾	H	64.30	34.08	-55.62	-	42.76	74.00	31.24
7 399.05 ¹⁾	H	62.17	35.80	-52.27	-	45.70	74.00	28.30
Average Data								
2 483.64 ¹⁾	H	35.12	32.18	-17.81	0.22	49.71	54.00	4.29

Average data

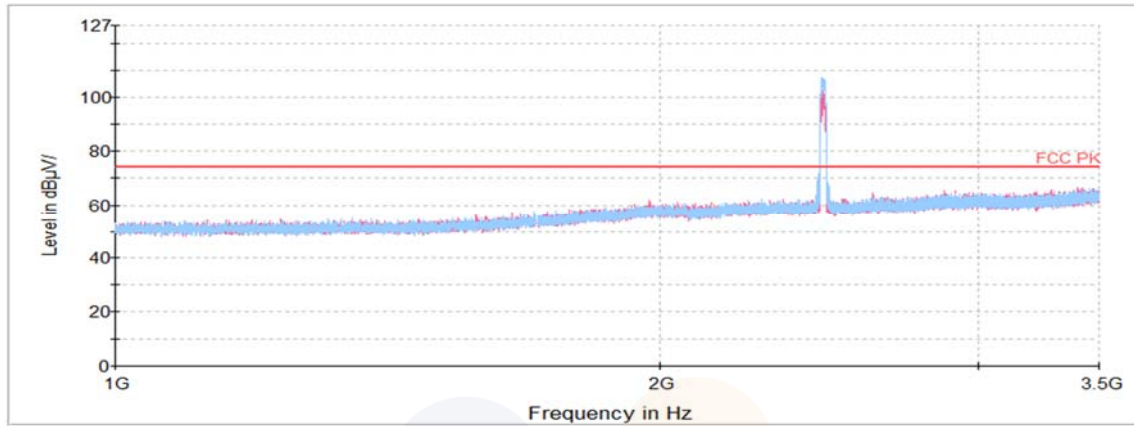


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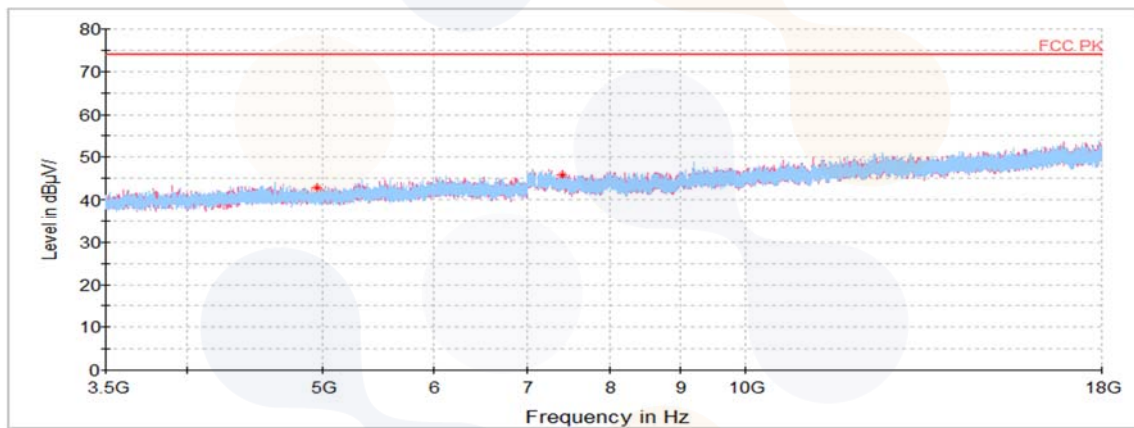
Horizontal/Vertical for Band-edge



Horizontal/Vertical for 1 GHz ~ 3.5 GHz



Horizontal/Vertical for 3.5 GHz ~ 18 GHz



802.11g_2 467 MHz

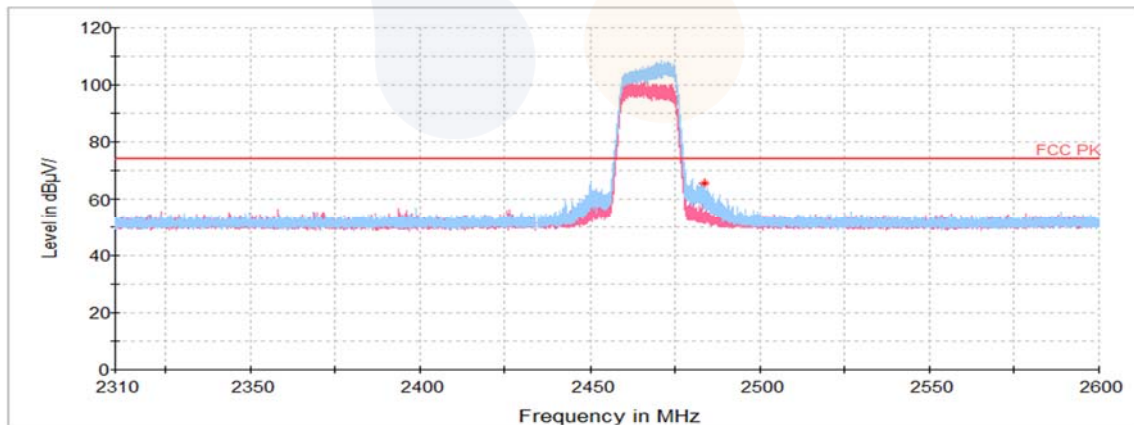
Frequency	Pol.	Reading	Ant. Factor	Amp. + Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μV))	(dB)	(dB)	(dB)	(dB(μV/m))	(dB(μV/m))	(dB)
Peak data								
2 483.53 ¹⁾	H	48.35	32.18	-17.81	-	62.72	74.00	11.28
4 951.93 ¹⁾	V	64.63	34.08	-55.63	-	43.08	74.00	30.92
7 383.58 ¹⁾	V	62.52	35.80	-52.25	-	46.07	74.00	27.93
Average Data								
2 483.53 ¹⁾	H	37.11	32.18	-17.81	0.22	51.70	54.00	2.30

Average data

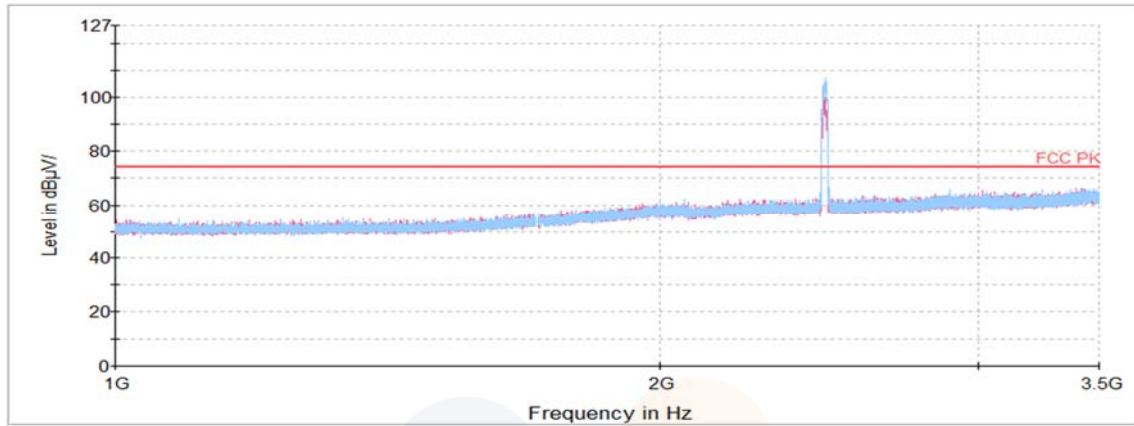


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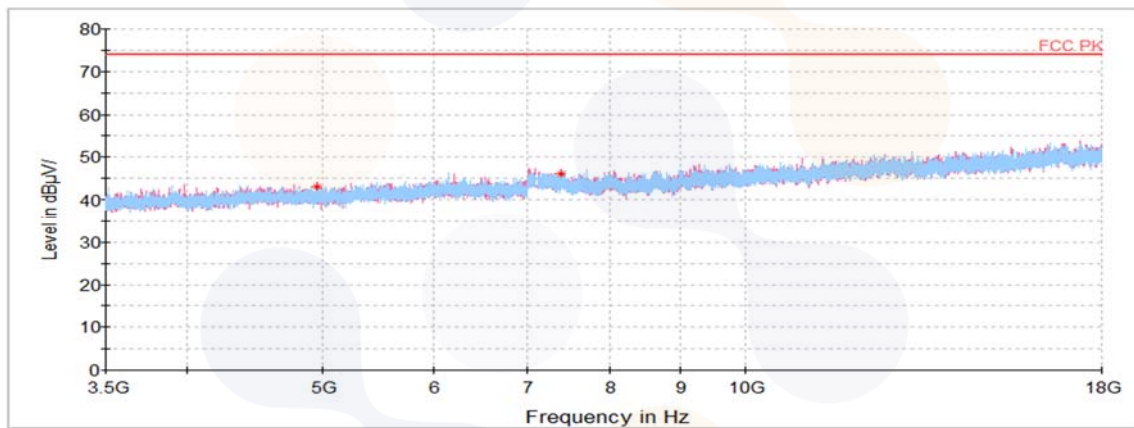
Horizontal/Vertical for Band-edge



Horizontal/Vertical for 1 GHz ~ 3.5 GHz



Horizontal/Vertical for 3.5 GHz ~ 18 GHz



802.11g_2 472 MHz

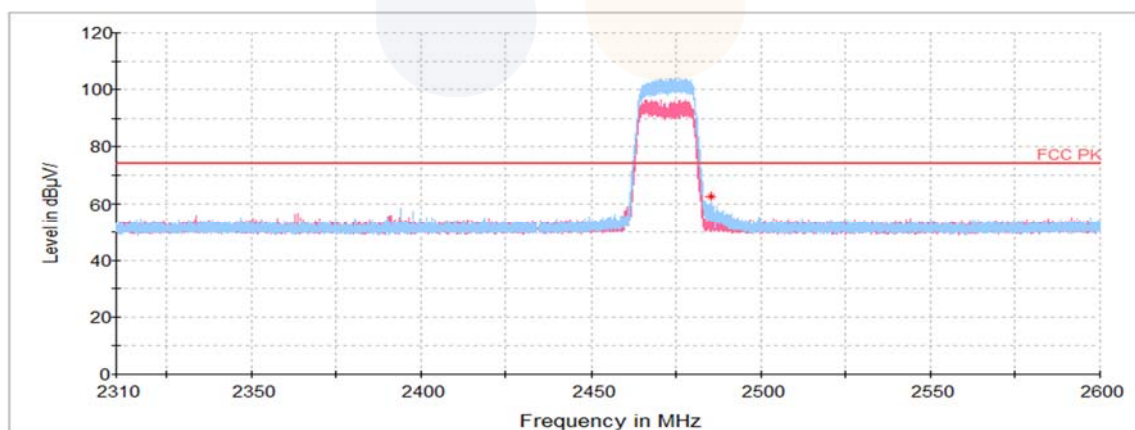
Frequency	Pol.	Reading	Ant. Factor	Amp. + Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μV))	(dB)	(dB)	(dB)	(dB(μV/m))	(dB(μV/m))	(dB)
Peak data								
2 483.51 ¹⁾	H	47.93	32.18	-17.81	-	62.30	74.00	11.70
3 993.48 ¹⁾	V	71.58	33.29	-56.87	-	48.00	74.00	26.00
4 935.50 ¹⁾	V	63.66	34.07	-55.66	-	42.07	74.00	31.93
7 397.60 ¹⁾	V	62.02	35.80	-52.27	-	45.55	74.00	28.45
Average Data								
2 483.51 ¹⁾	H	37.19	32.18	-17.81	0.22	51.78	54.00	2.22

Average data

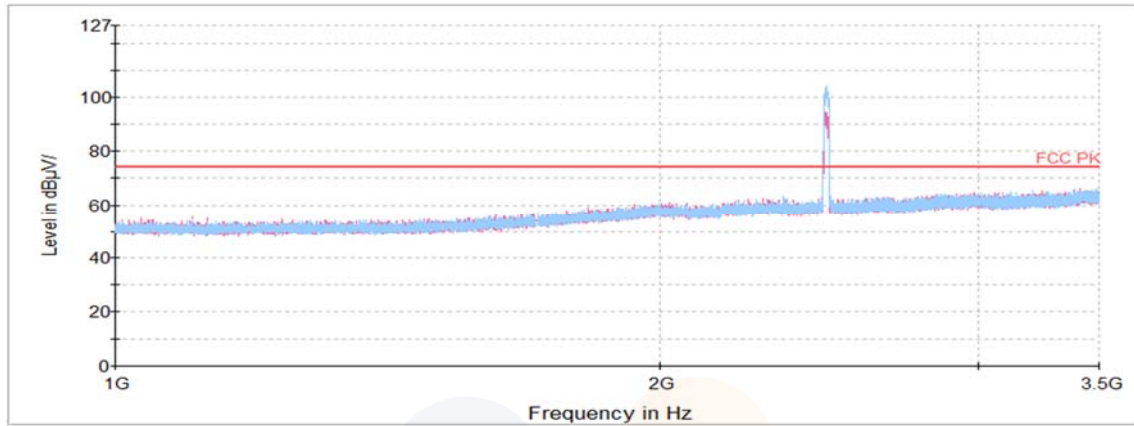


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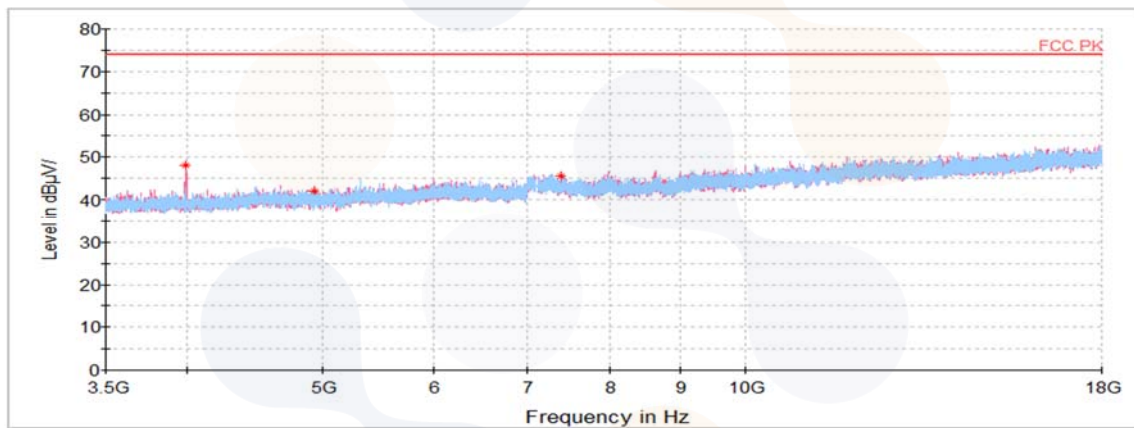
Horizontal/Vertical for Band-edge



Horizontal/Vertical for 1 GHz ~ 3.5 GHz



Horizontal/Vertical for 3.5 GHz ~ 18 GHz



802.11n_HT20_2 412 MHz

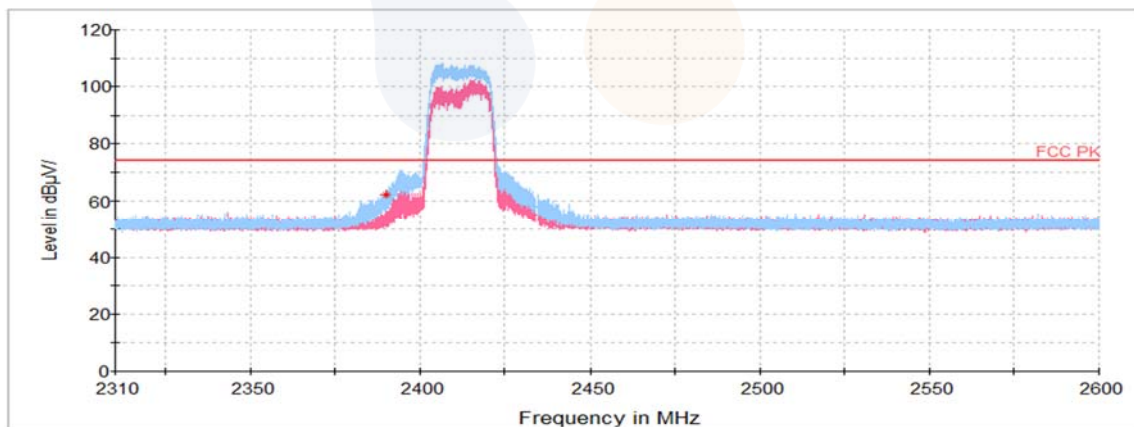
Frequency	Pol.	Reading	Ant. Factor	Amp. + Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μV))	(dB)	(dB)	(dB)	(dB(μV/m))	(dB(μV/m))	(dB)
Peak data								
2 389.93 ¹⁾	H	48.02	32.09	-17.87	-	62.24	74.00	11.76
4 811.28 ¹⁾	H	64.83	34.02	-55.70	-	43.15	74.00	30.85
7 217.80	H	62.98	35.80	-52.08	-	46.70	74.00	27.30
Average Data								
2 389.93 ¹⁾	H	36.99	32.09	-17.87	0.26	51.47	54.00	2.53

Average data

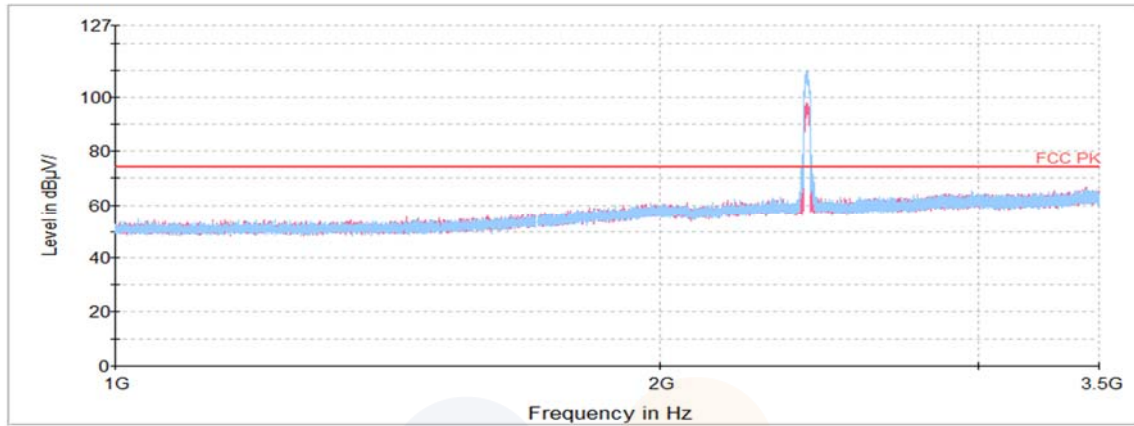


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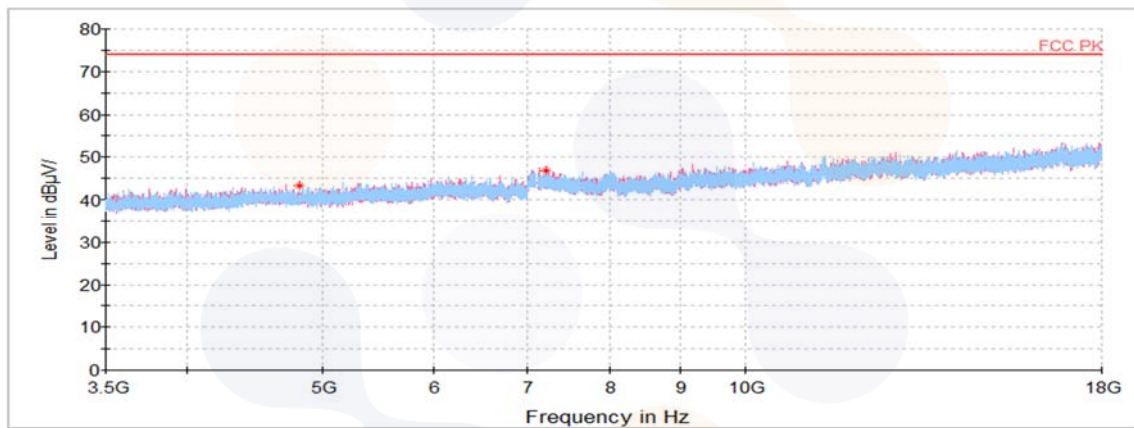
Horizontal/Vertical for Band-edge



Horizontal/Vertical for 1 GHz ~ 3.5 GHz



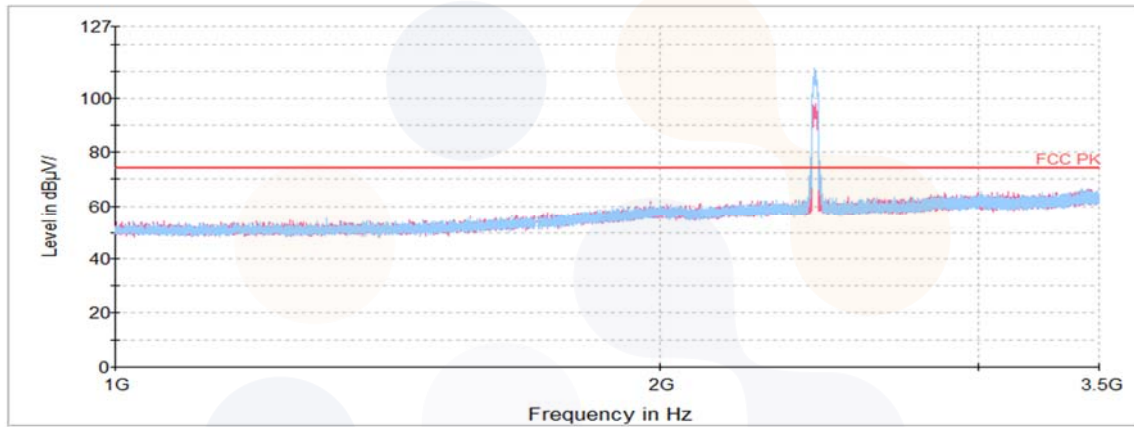
Horizontal/Vertical for 3.5 GHz ~ 18 GHz



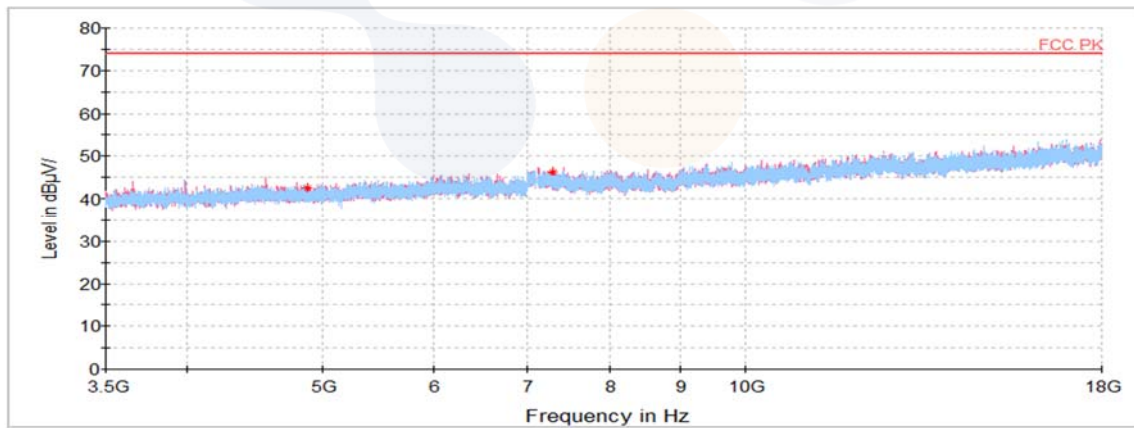
802.11n_HT20_2 437 MHz

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								
4 880.40 ¹⁾	V	64.15	34.05	-55.72	-	42.48	74.00	31.52
7 293.20 ¹⁾	H	62.63	35.80	-52.16	-	46.27	74.00	27.73
Average Data								
No spurious emissions were detected within 20 dB of the limit.								

Horizontal/Vertical for 1 GHz ~ 3.5 GHz



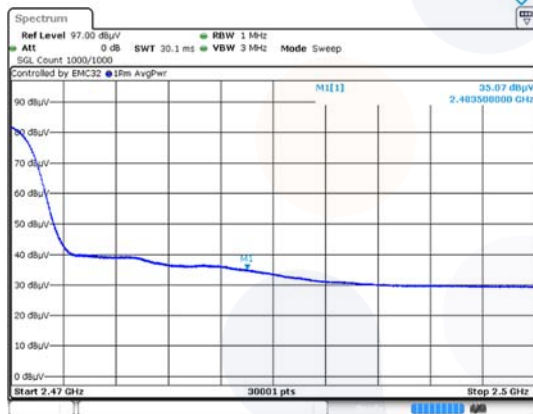
Horizontal/Vertical for 3.5 GHz ~ 18 GHz



802.11n_HT20_2 462 MHz

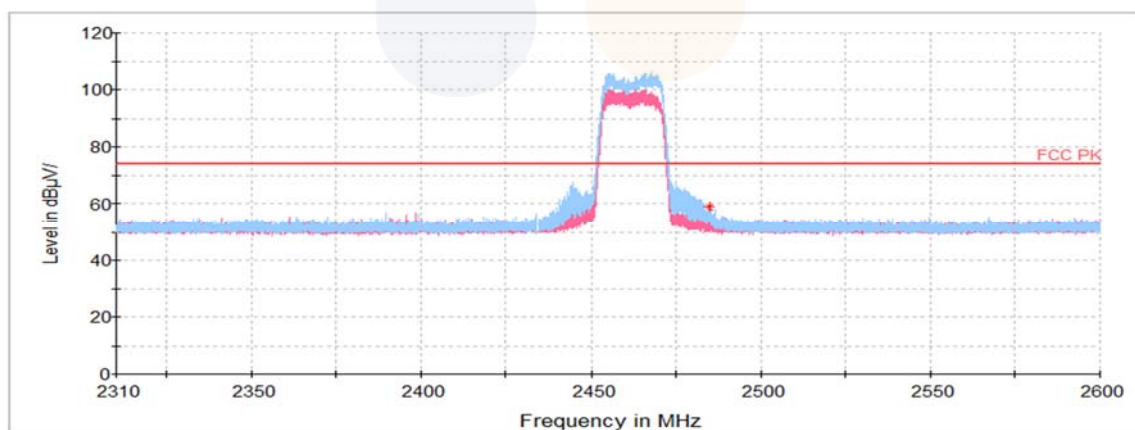
Frequency	Pol.	Reading	Ant. Factor	Amp. + Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μV))	(dB)	(dB)	(dB)	(dB(μV/m))	(dB(μV/m))	(dB)
Peak data								
2 483.51 ¹⁾	H	44.58	32.18	-17.81	-	58.95	74.00	15.05
3 997.35 ¹⁾	H	67.94	33.30	-56.88	-	44.36	74.00	29.64
4 943.72 ¹⁾	H	64.44	34.08	-55.65	-	42.87	74.00	31.13
7 373.92 ¹⁾	V	62.39	35.80	-52.24	-	45.95	74.00	28.05
Average Data								
2 483.51 ¹⁾	H	35.07	32.18	-17.81	0.26	49.70	54.00	4.30

Average data

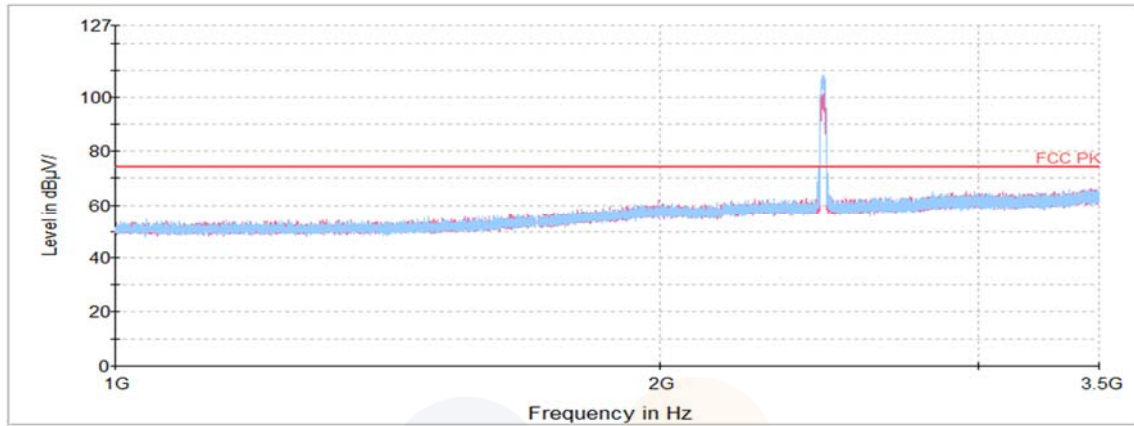


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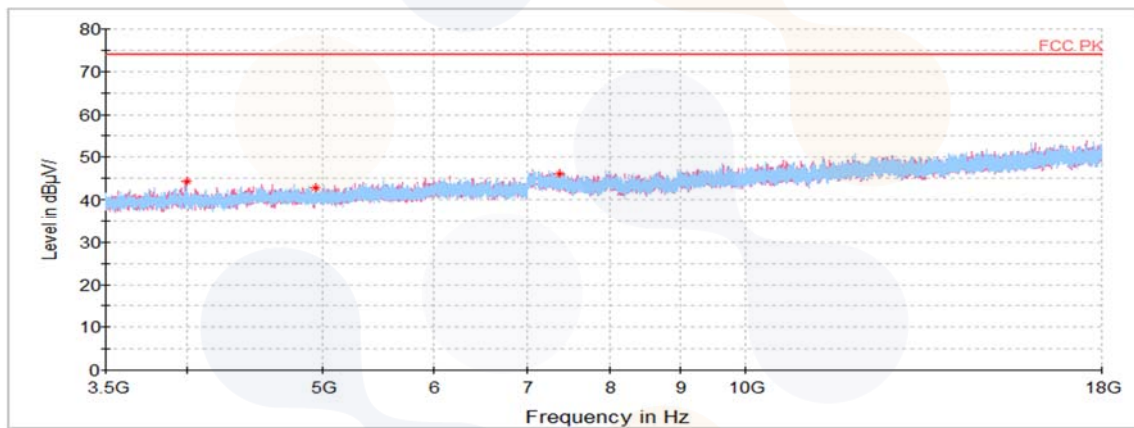
Horizontal/Vertical for Band-edge



Horizontal/Vertical for 1 GHz ~ 3.5 GHz



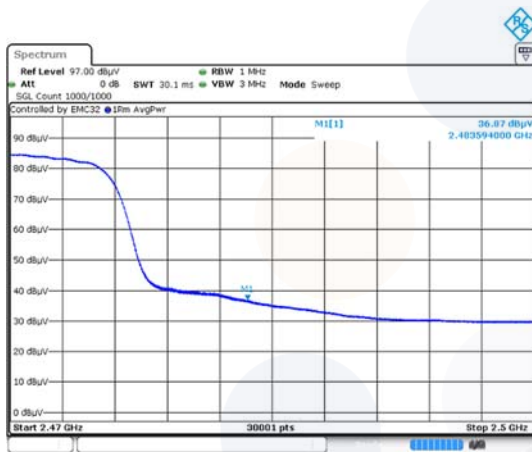
Horizontal/Vertical for 3.5 GHz ~ 18 GHz



802.11n_HT20_2 467 MHz

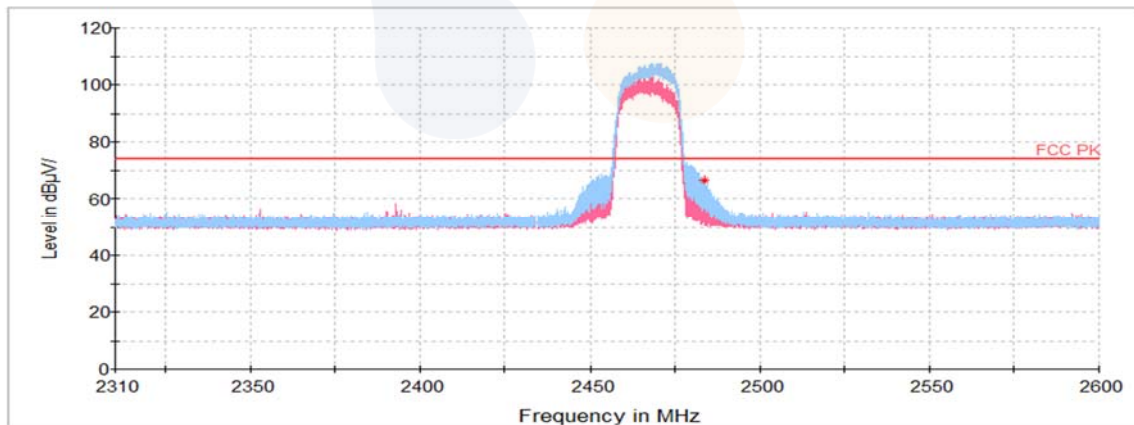
Frequency	Pol.	Reading	Ant. Factor	Amp. + Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μV))	(dB)	(dB)	(dB)	(dB(μV/m))	(dB(μV/m))	(dB)
Peak data								
2 483.59 ¹⁾	H	49.66	32.18	-17.81	-	64.03	74.00	9.97
4 918.10 ¹⁾	H	64.91	34.07	-55.70	-	43.28	74.00	30.72
7 405.82 ¹⁾	V	63.02	35.80	-52.27	-	46.55	74.00	27.45
Average Data								
2 483.59 ¹⁾	H	36.87	32.18	-17.81	0.26	51.50	54.00	2.50

Average data

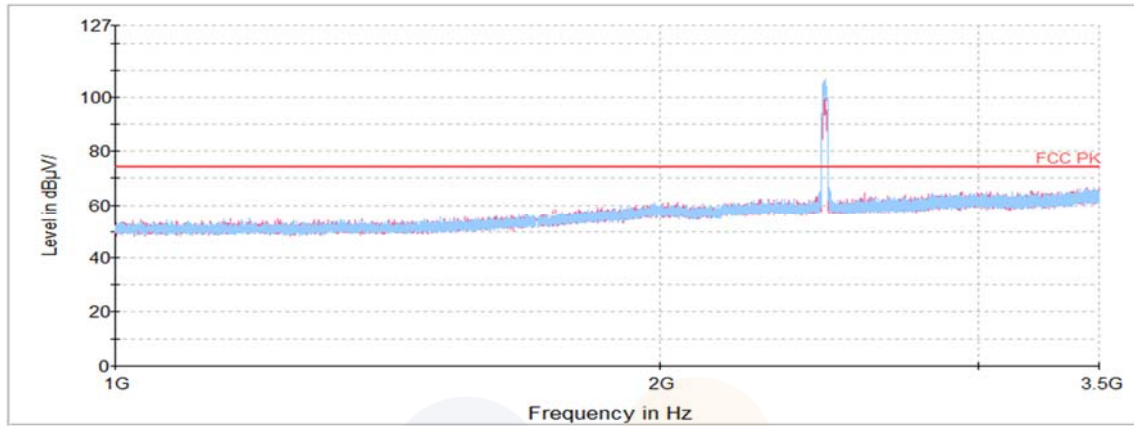


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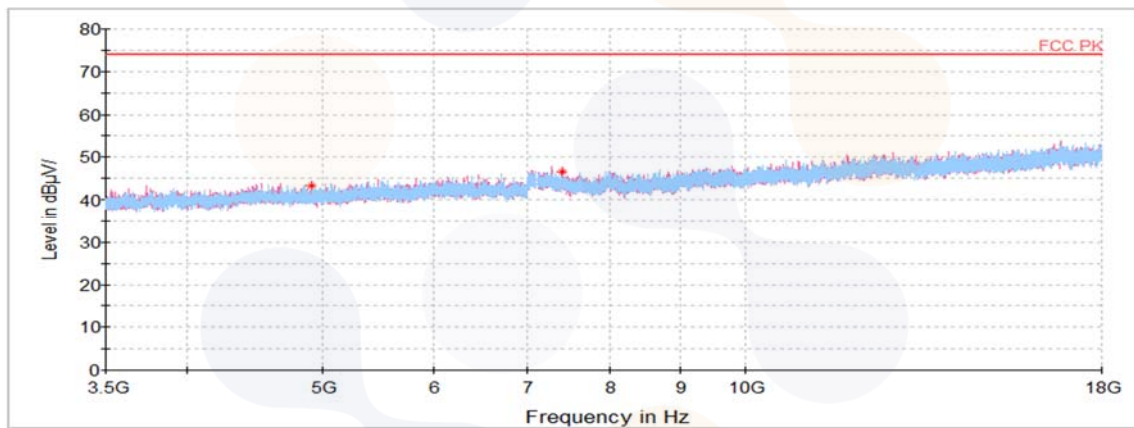
Horizontal/Vertical for Band-edge



Horizontal/Vertical for 1 GHz ~ 3.5 GHz



Horizontal/Vertical for 3.5 GHz ~ 18 GHz



802.11n_HT20_2 472 MHz

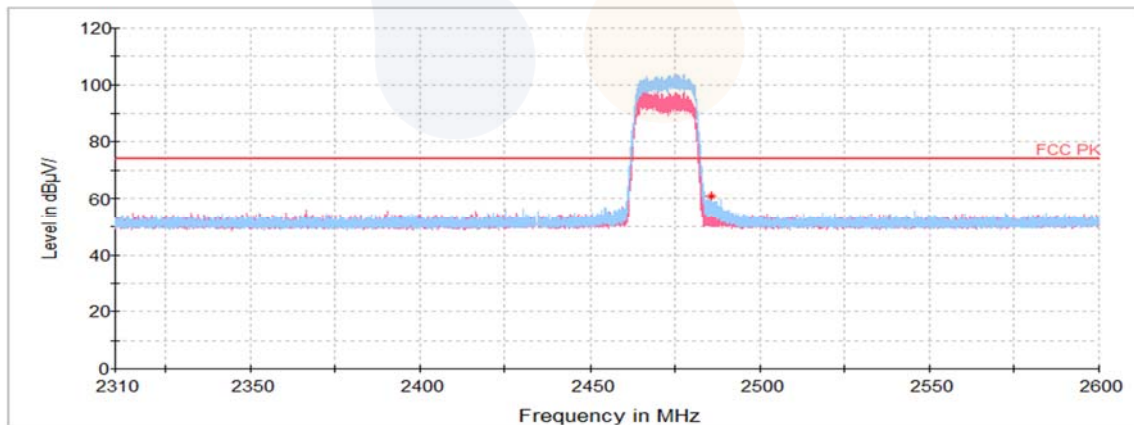
Frequency	Pol.	Reading	Ant. Factor	Amp. + Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μV))	(dB)	(dB)	(dB)	(dB(μV/m))	(dB(μV/m))	(dB)
Peak data								
2 483.55 ¹⁾	H	46.41	32.18	-17.81	-	60.78	74.00	13.22
4 973.68 ¹⁾	V	63.27	34.09	-55.59	-	41.77	74.00	32.23
7 450.28 ¹⁾	H	61.79	35.80	-52.32	-	45.27	74.00	28.73
Average Data								
2 483.55 ¹⁾	H	36.88	32.18	-17.81	0.26	51.51	54.00	2.49

Average data

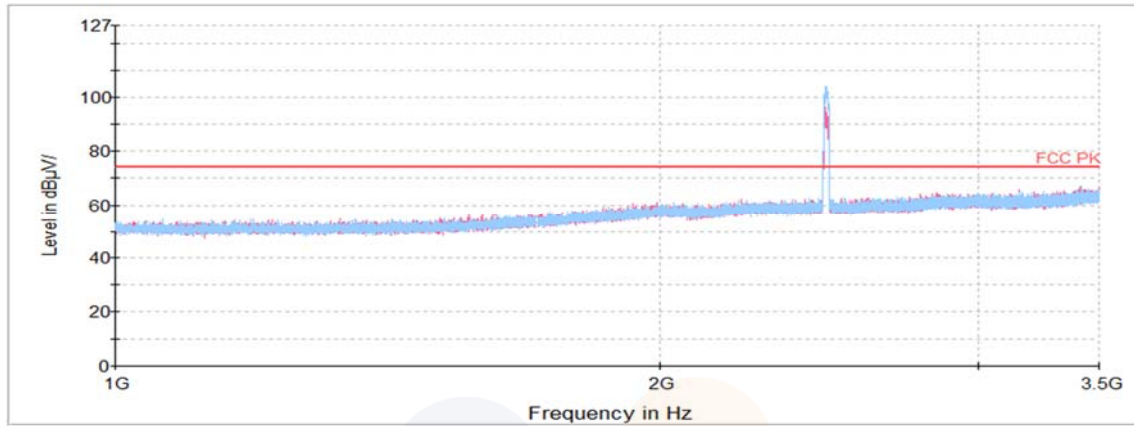


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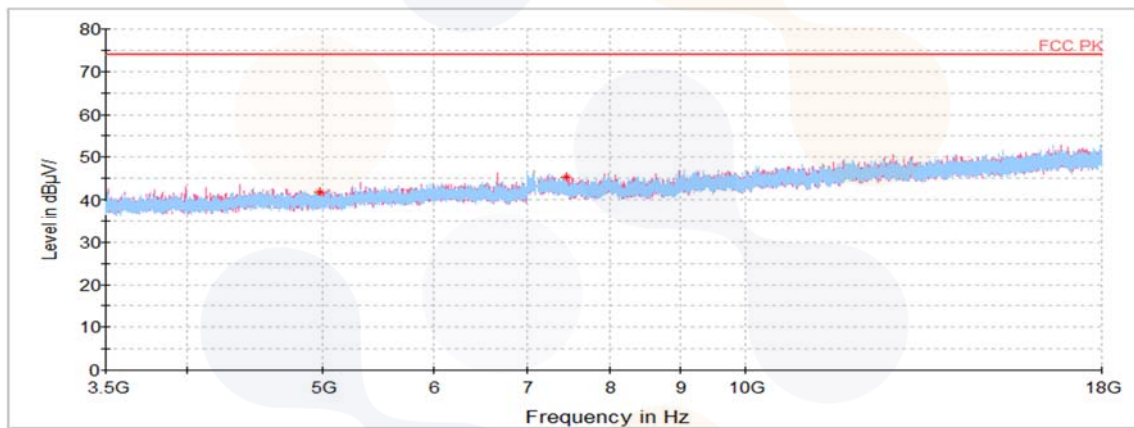
Horizontal/Vertical for Band-edge

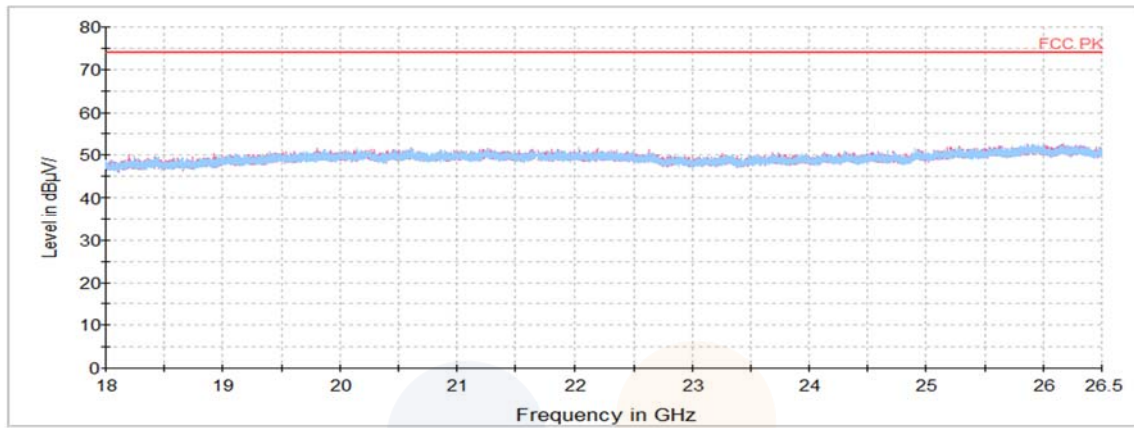


Horizontal/Vertical for 1 GHz ~ 3.5 GHz



Horizontal/Vertical for 3.5 GHz ~ 18 GHz

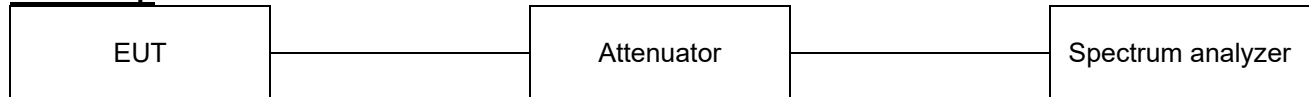


Test results (Above 18 GHz) – Worst case: 802.11g / 2 472 MHz**Horizontal/Vertical for 18 GHz ~ 26.5 GHz**

Note: The Worst case was based on the lowest margin condition considering Harmonic and Spurious Emission

7.5. Conducted Spurious Emission

Test setup



Limit

According to §15.247(d) and RSS-247(5.5), In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operation, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation specified in §15.209(a) is not required. In addition, radiated emission limits specified in §15.209(a) (see §15.205(c)).

Limit : 20 dBc

Test procedure

ANSI C63.10 - Section 11.11.3, 14.3.3

KDB 558074 D01 v05 - Section 8.5

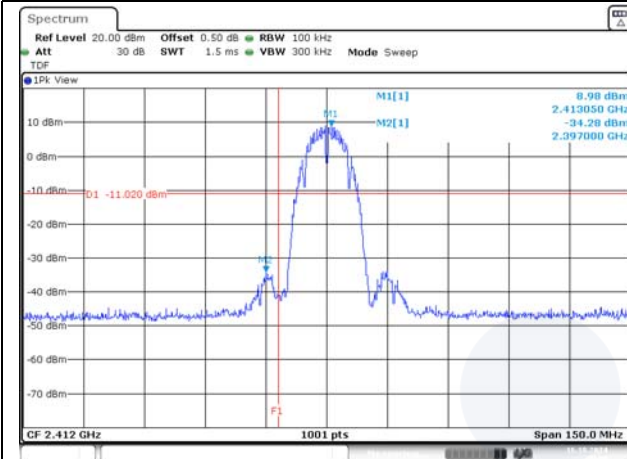
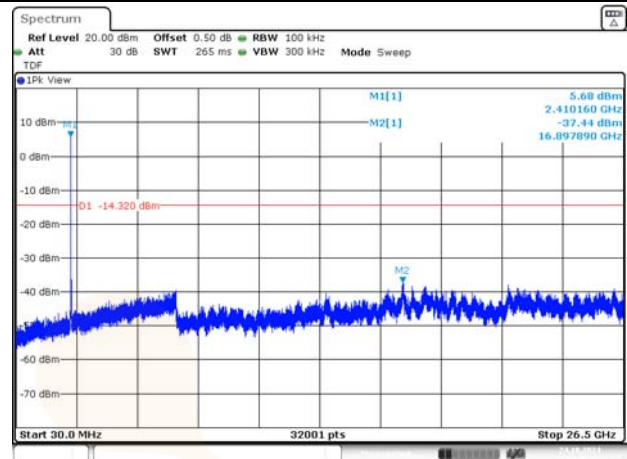
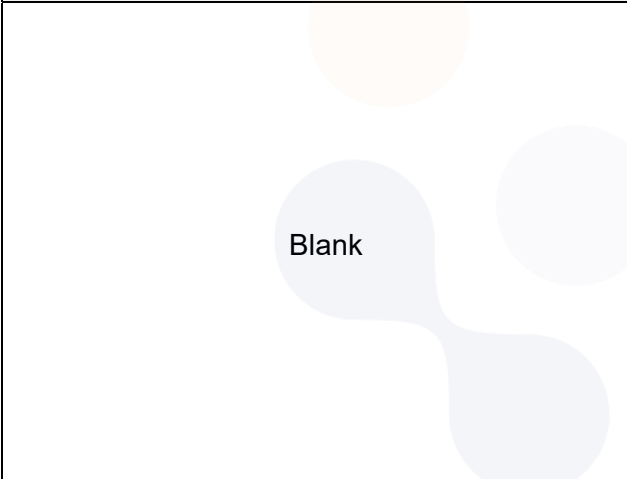
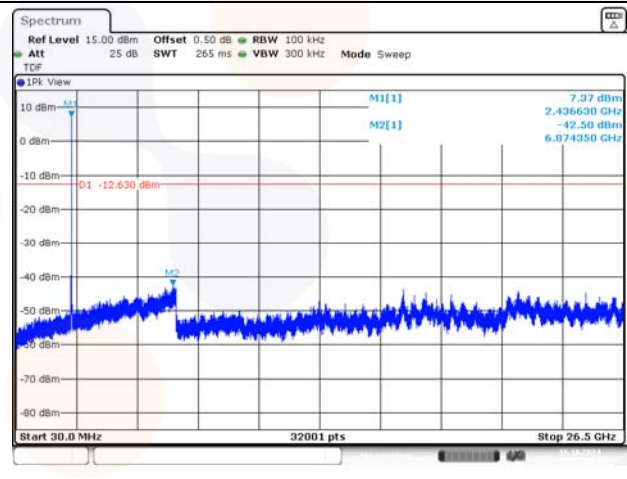
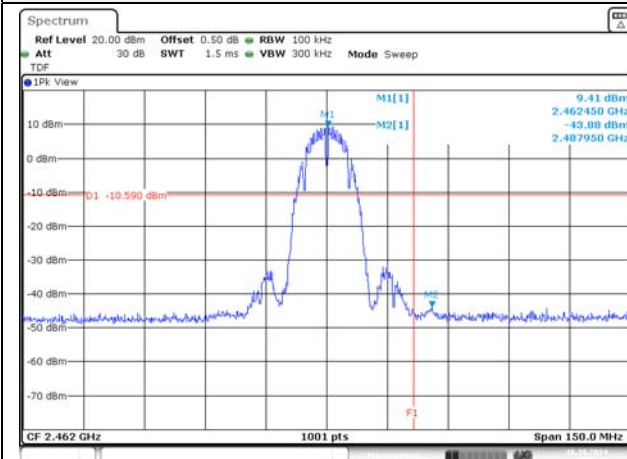
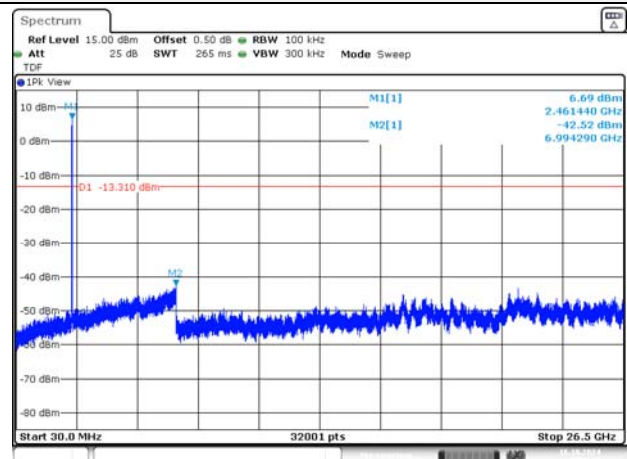
KDB 662911 D01 v02r01 – section (E)(3)(b)

Test settings

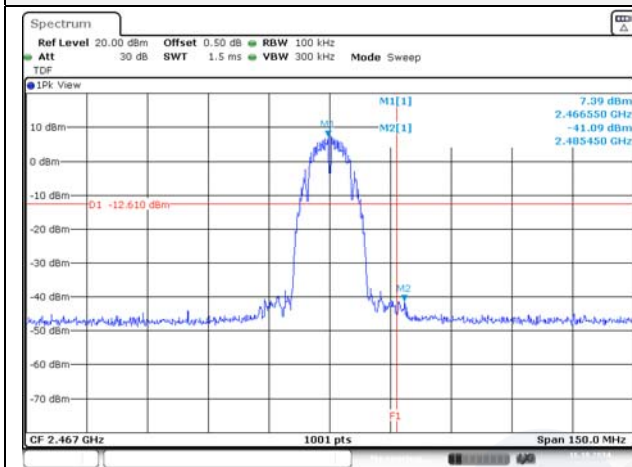
Establish an emission level by using the following procedure:

- 1) Set the center frequency and span to encompass frequency range to be measured.
- 2) Set the RBW = 100 kHz
- 3) Set the VBW $\geq [3 \times \text{RBW}]$
- 4) Detector = peak
- 5) Sweep time = auto couple
- 6) Trace mode = max hold
- 7) Allow trace to fully stabilize.
- 8) Use the peak marker function to determine the maximum amplitude level.

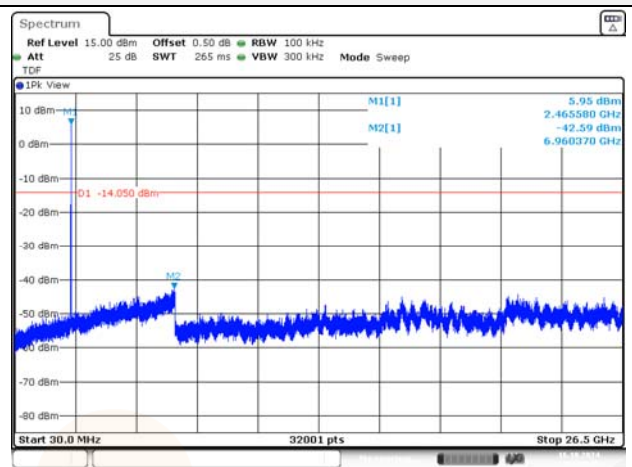
Ensure that the amplitude of all unwanted emissions outside of the authorized frequency band (excluding restricted frequency bands) is attenuated by at least the minimum requirements specified in 11.11. Report the three highest emissions relative to the limit.

Test results**[DC 5 V]****802.11b****Conducted band-edge / 2 412 MHz****Conducted spurious / 2 412 MHz****Conducted band-edge / 2 437 MHz****Conducted spurious / 2 437 MHz****Conducted band-edge / 2 462 MHz****Conducted spurious / 2 462 MHz**

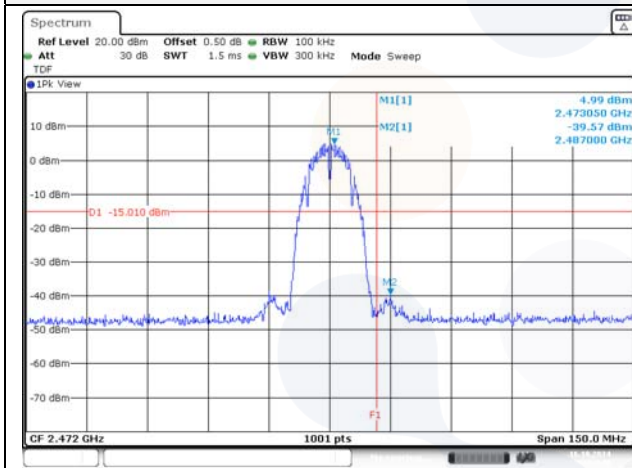
Conducted band-edge / 2 467 MHz



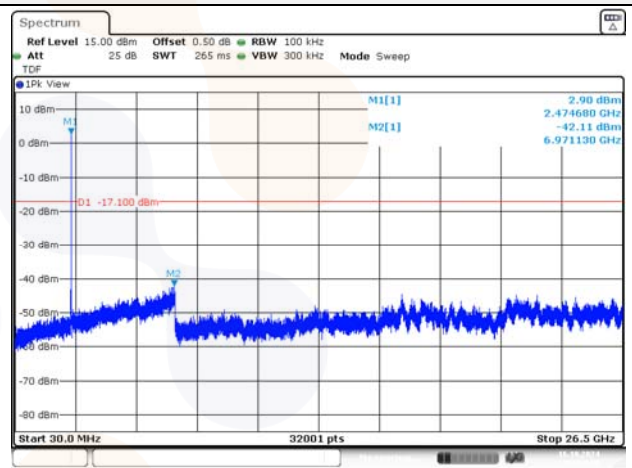
Conducted spurious / 2 467 MHz



Conducted band-edge / 2 472 MHz

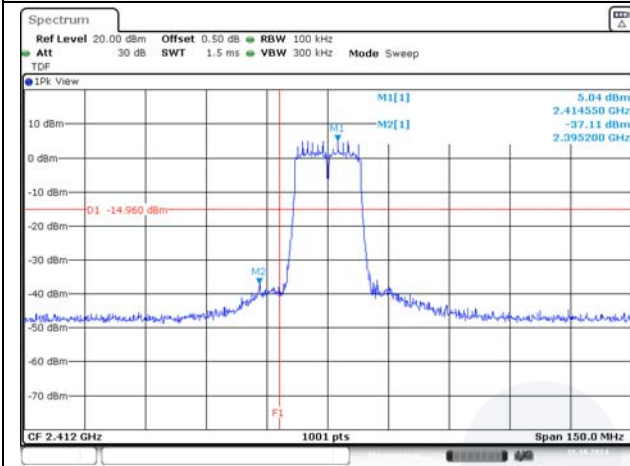


Conducted spurious / 2 472 MHz

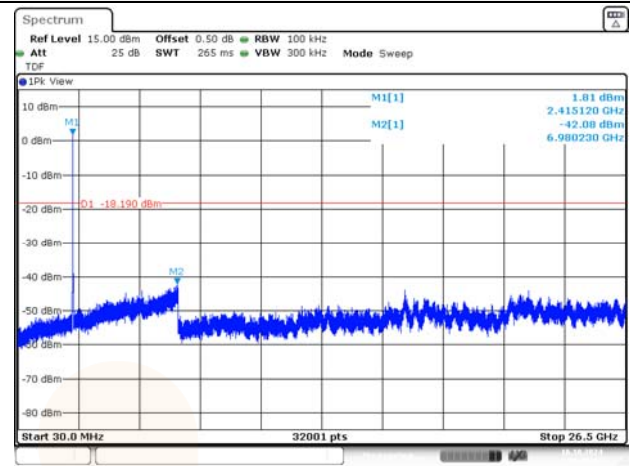


802.11g

Conducted band-edge / 2 412 MHz



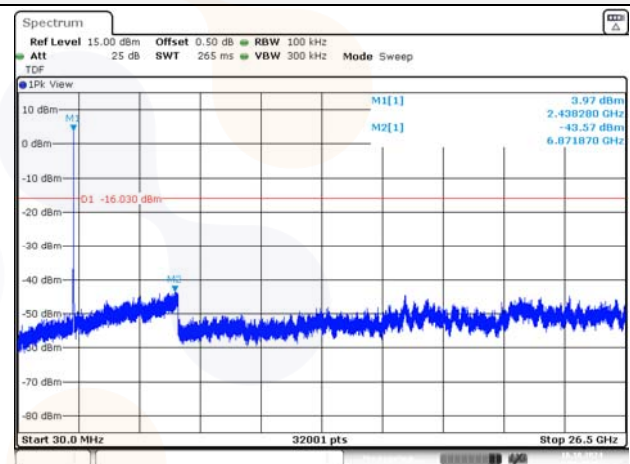
Conducted spurious / 2 412 MHz



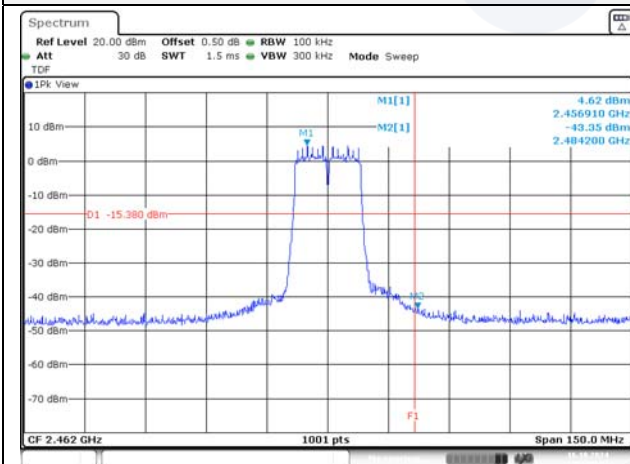
Conducted band-edge / 2 437 MHz

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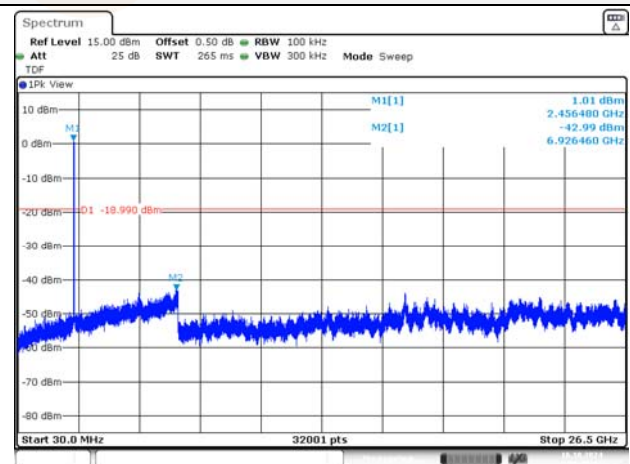
Conducted spurious / 2 437 MHz



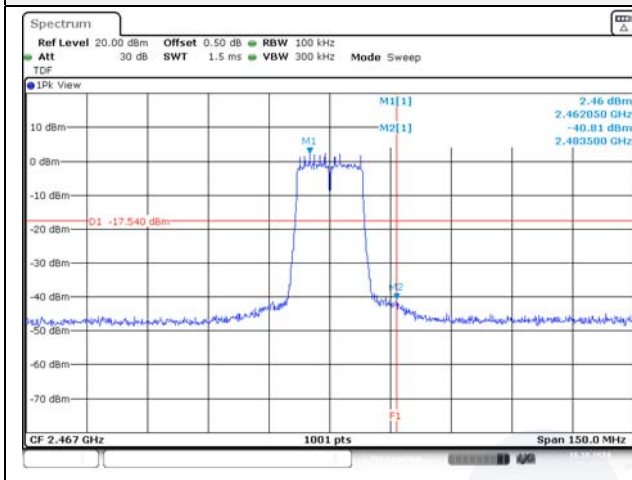
Conducted band-edge / 2 462 MHz



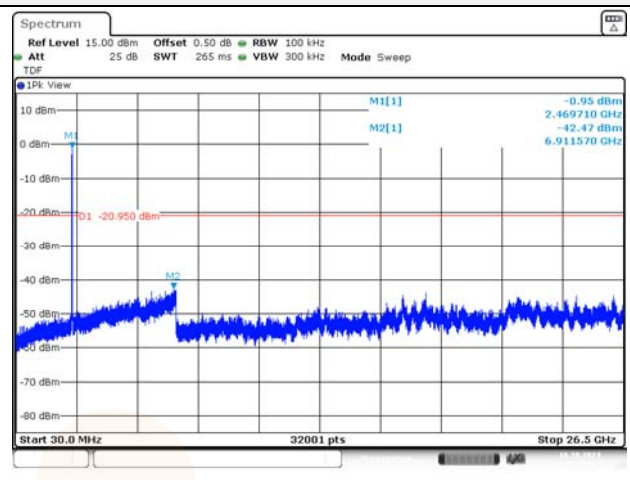
Conducted spurious / 2 462 MHz



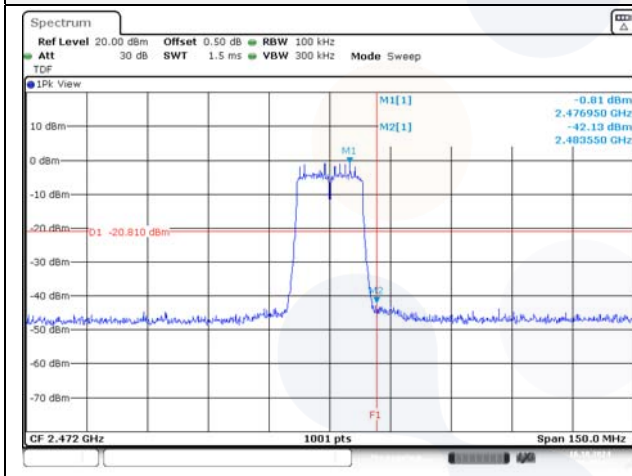
Conducted band-edge / 2 467 MHz



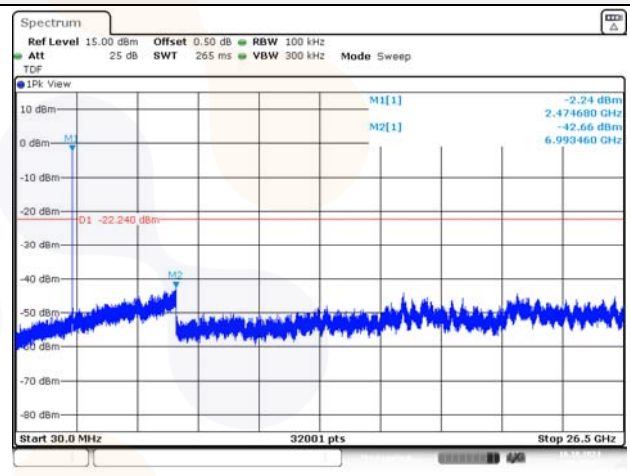
Conducted spurious / 2 467 MHz



Conducted band-edge / 2 472 MHz

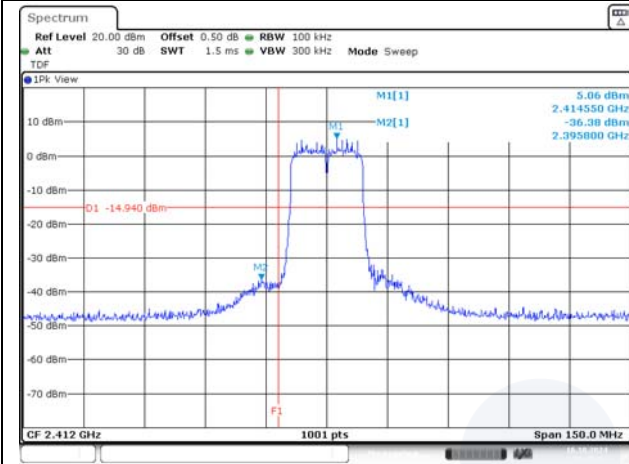


Conducted spurious / 2 472 MHz

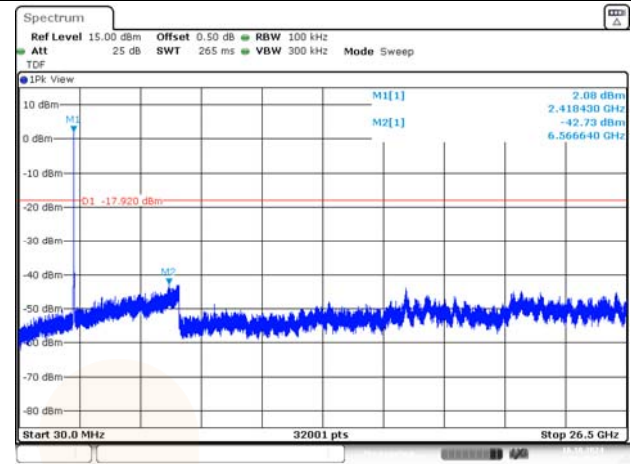


802.11n_HT20

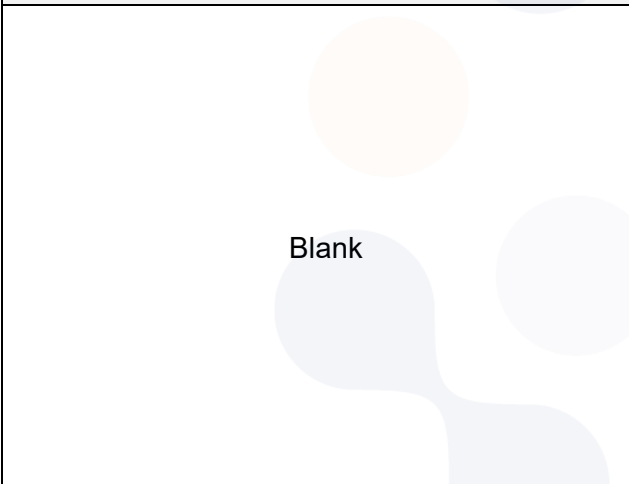
Conducted band-edge / 2 412 MHz



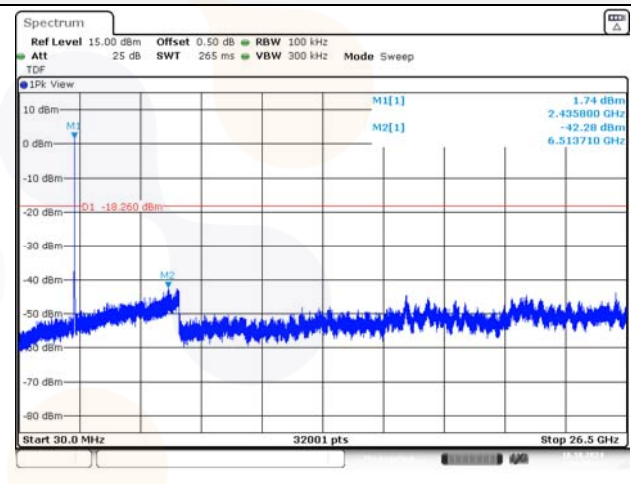
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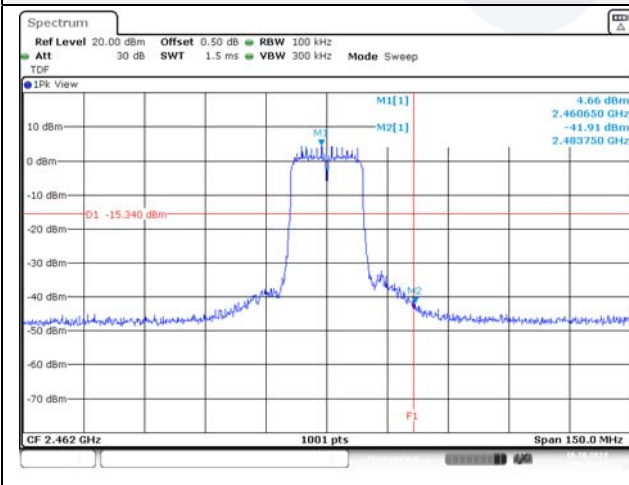
Conducted band-edge / 2 437 MHz



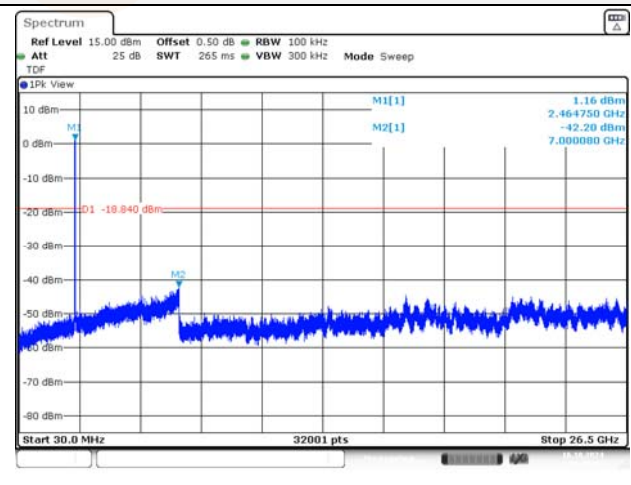
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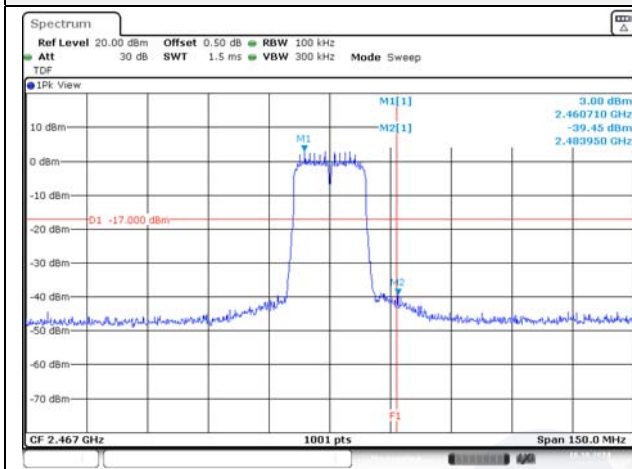
Conducted band-edge / 2 462 MHz



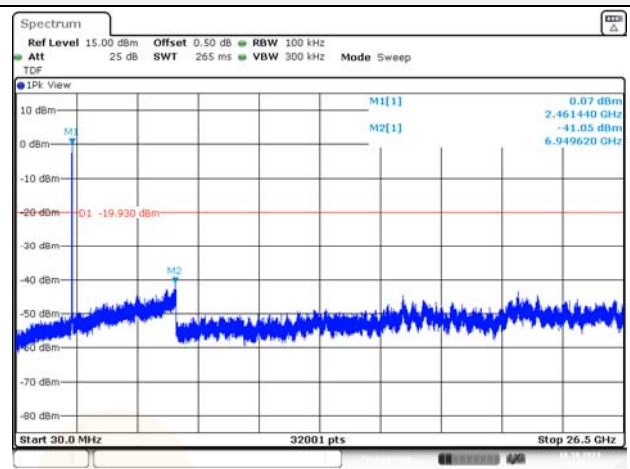
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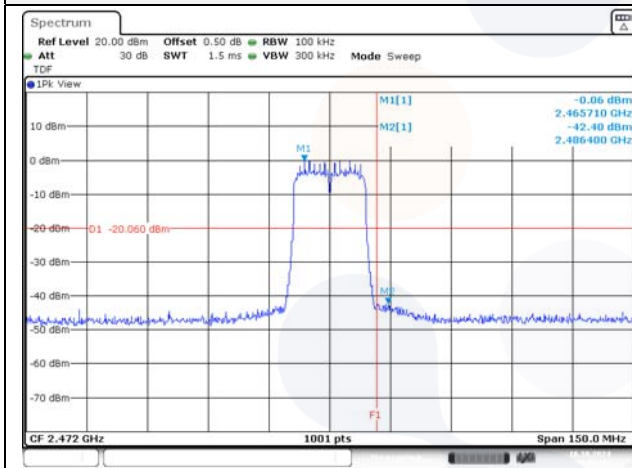
Conducted band-edge / 2 467 MHz



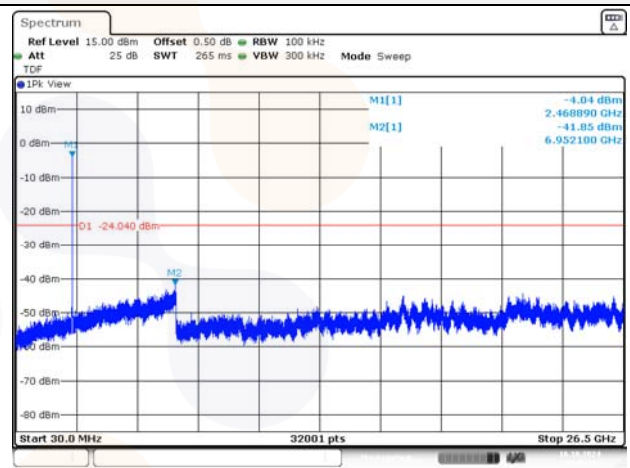
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Conducted band-edge / 2 472 MHz



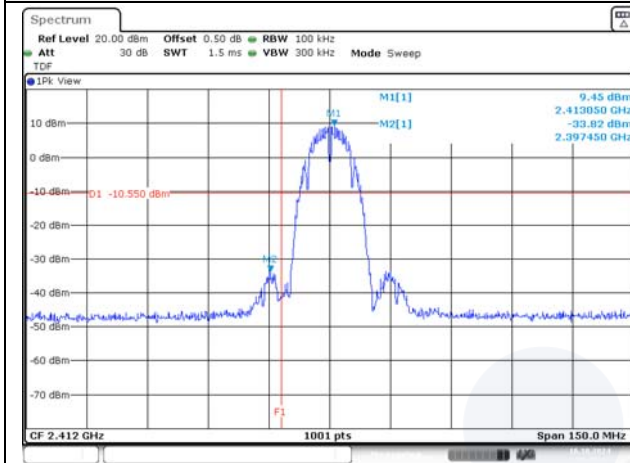
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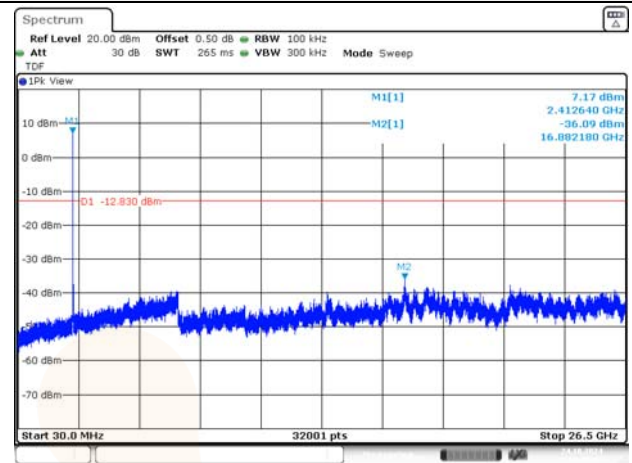
[DC 12 V]

802.11b

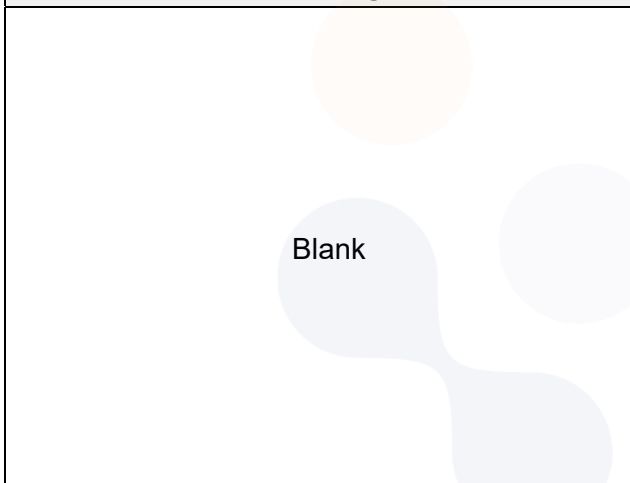
Conducted band-edge / 2 412 MHz



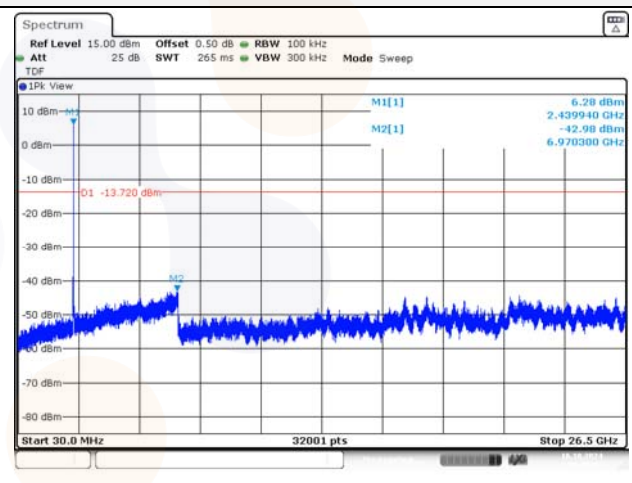
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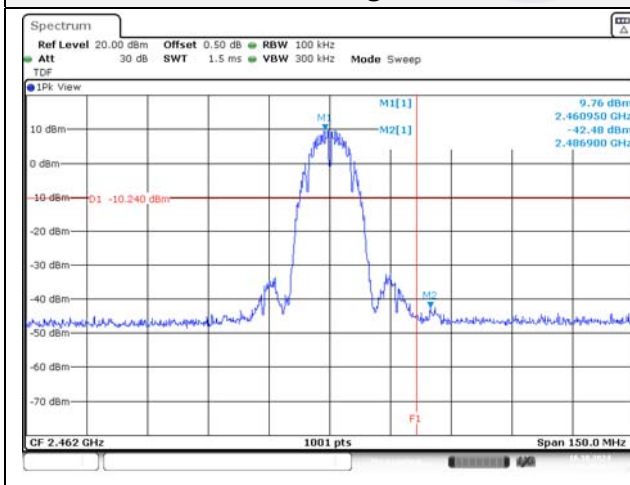
Conducted band-edge / 2 437 MHz



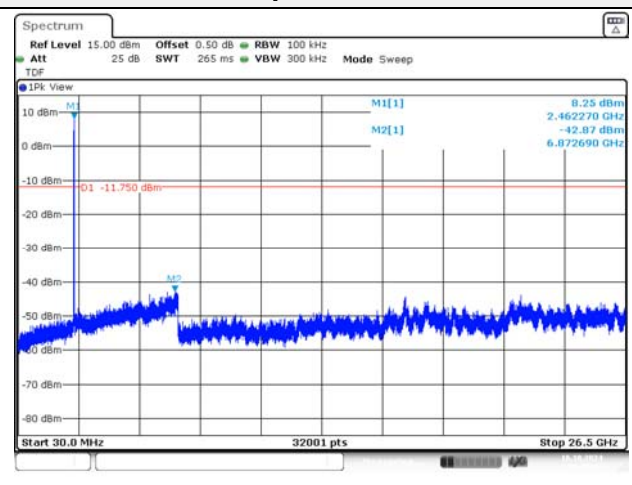
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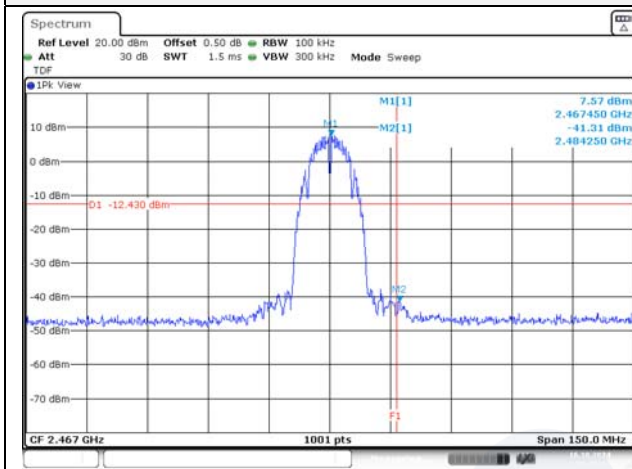
Conducted band-edge / 2 462 MHz



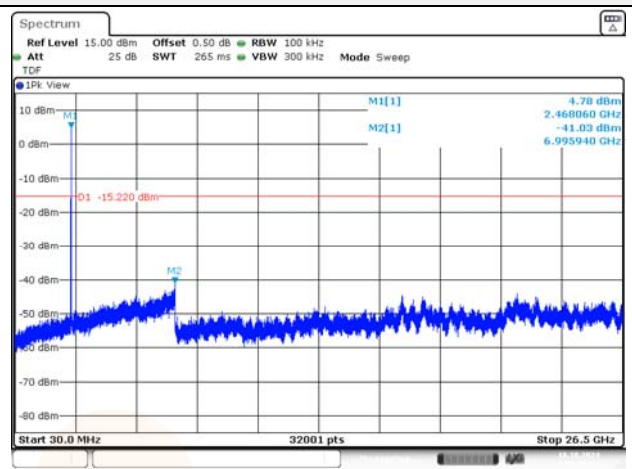
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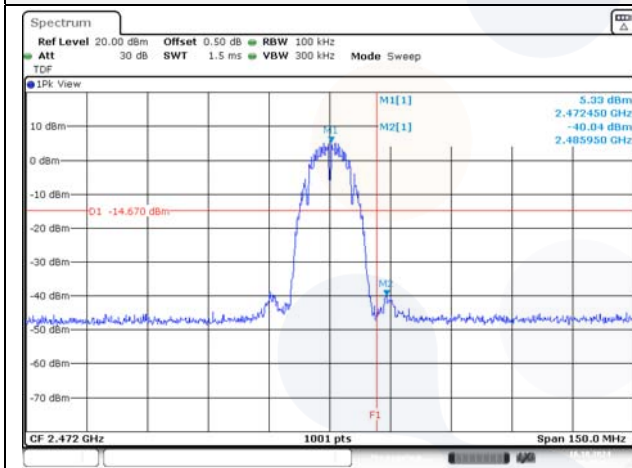
Conducted band-edge / 2 467 MHz



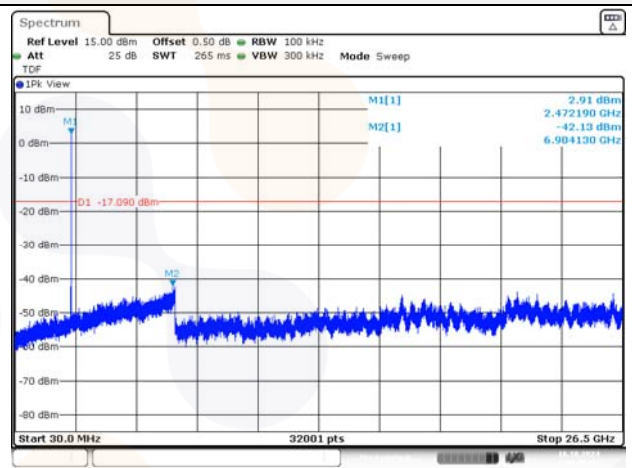
Conducted spurious / 2 467 MHz



Conducted band-edge / 2 472 MHz

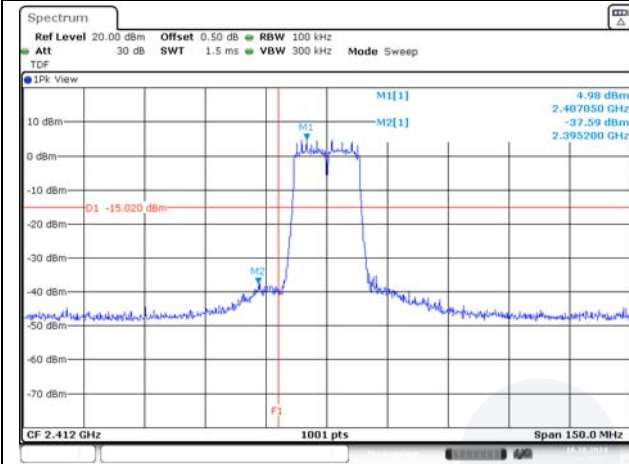


Conducted spurious / 2 472 MHz

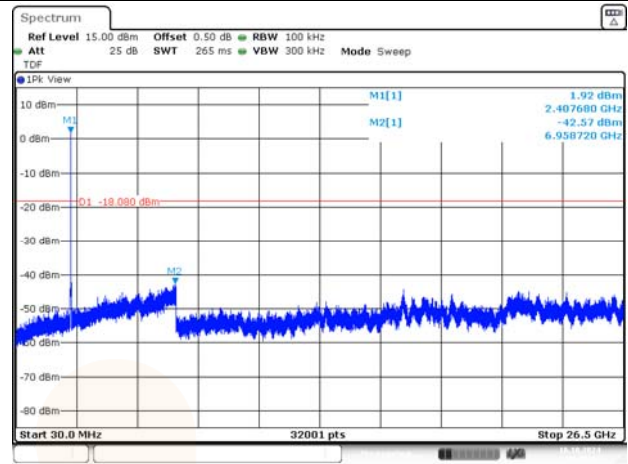


802.11g

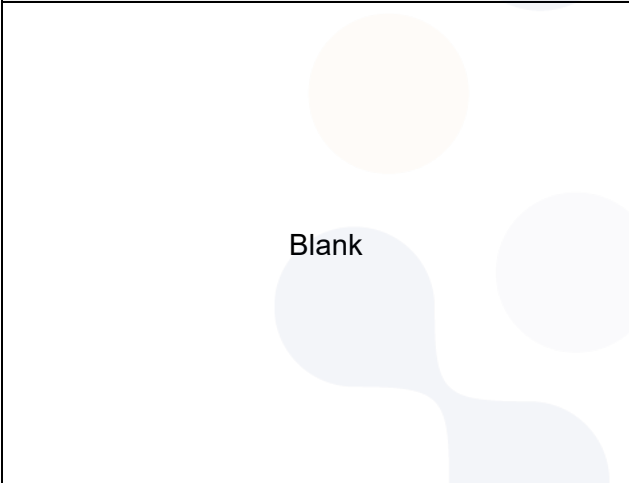
Conducted band-edge / 2 412 MHz



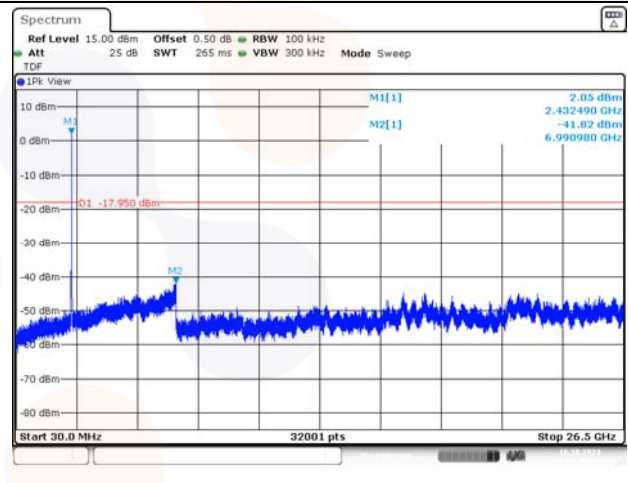
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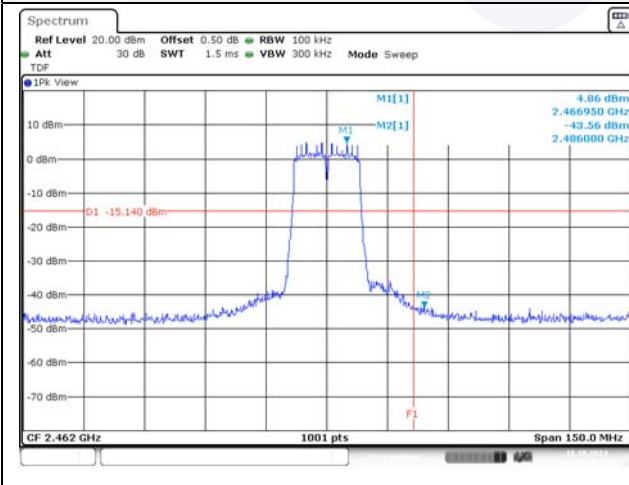
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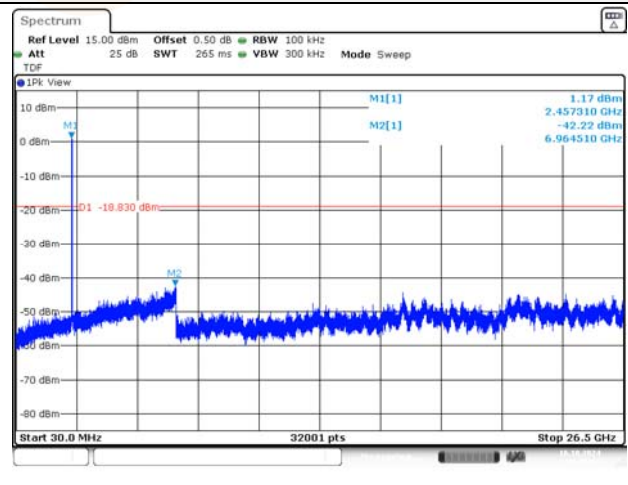
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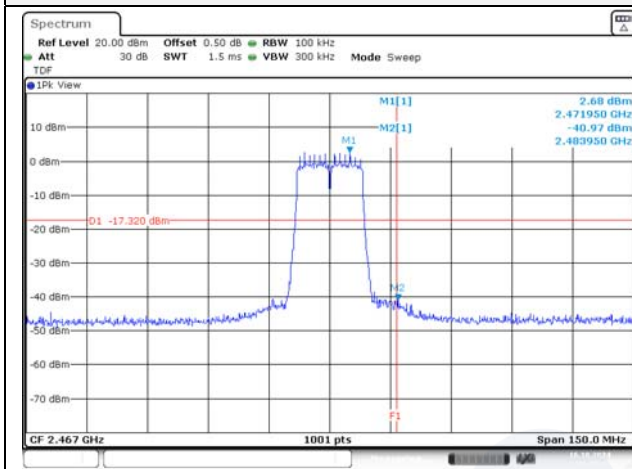
Conducted band-edge / 2 462 MHz



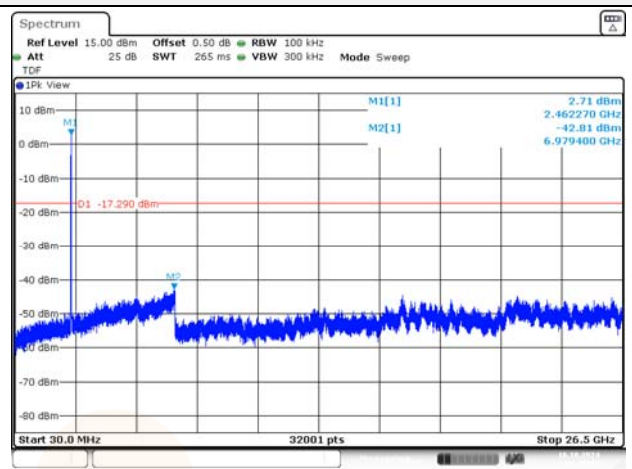
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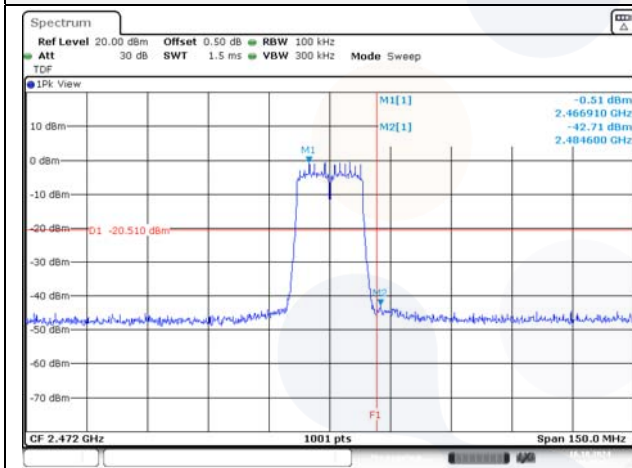
Conducted band-edge / 2 467 MHz



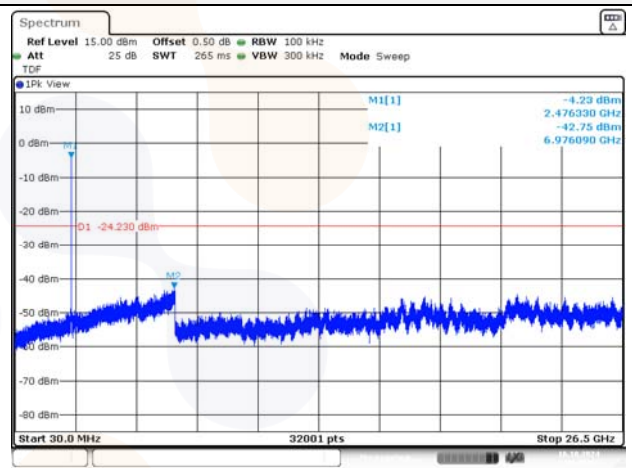
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Conducted band-edge / 2 472 MHz

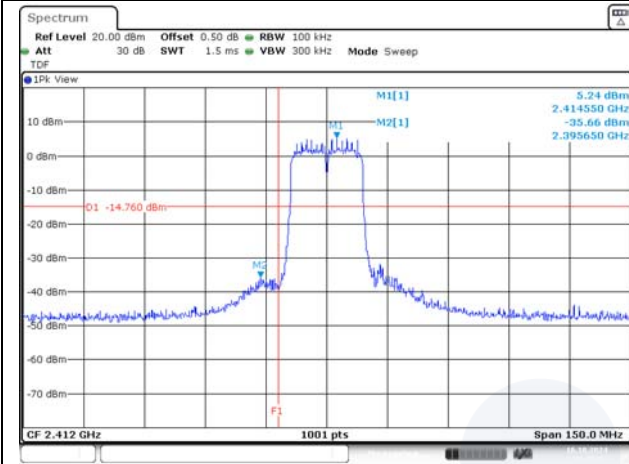


Conducted spurious / 2 472 MHz

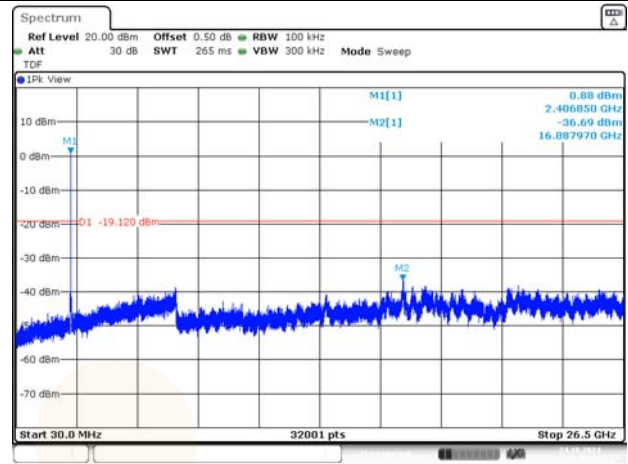


802.11n_HT20

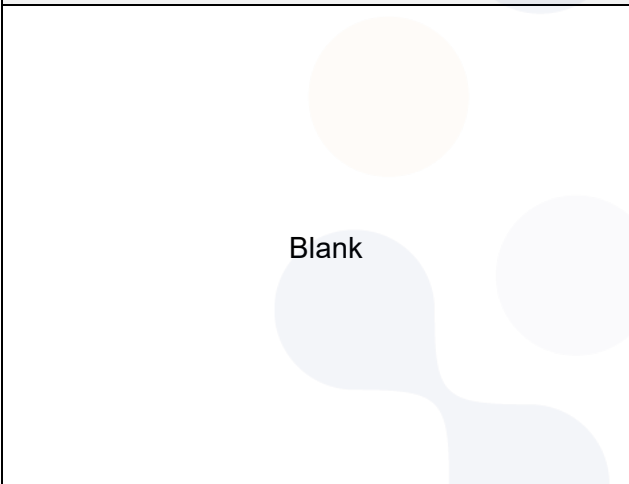
Conducted band-edge / 2 412 MHz



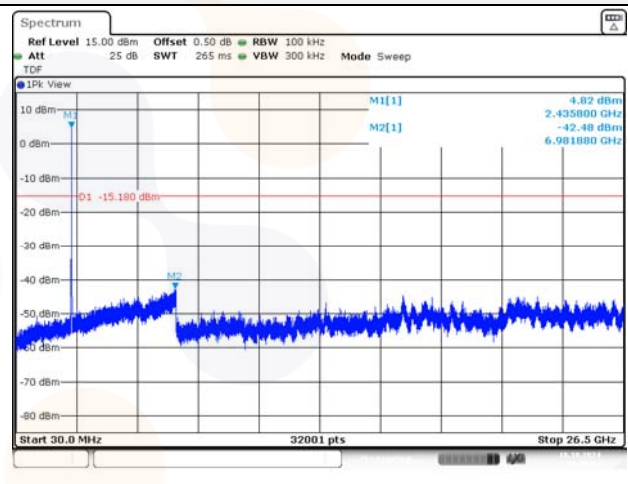
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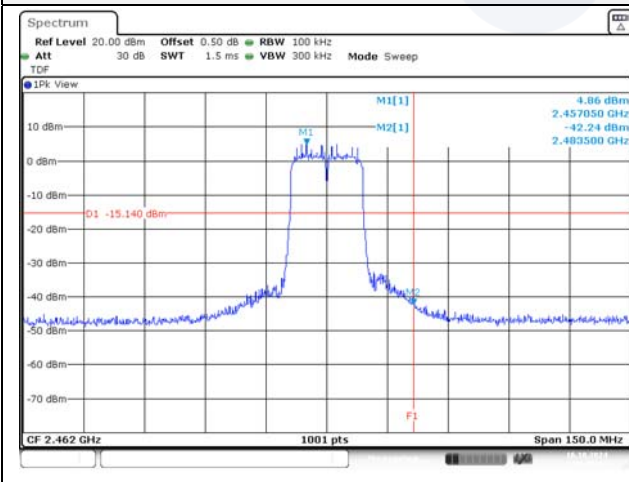
Conducted band-edge / 2 437 MHz



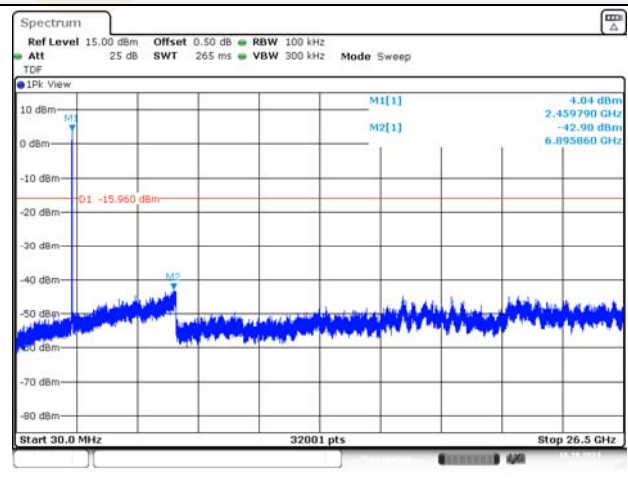
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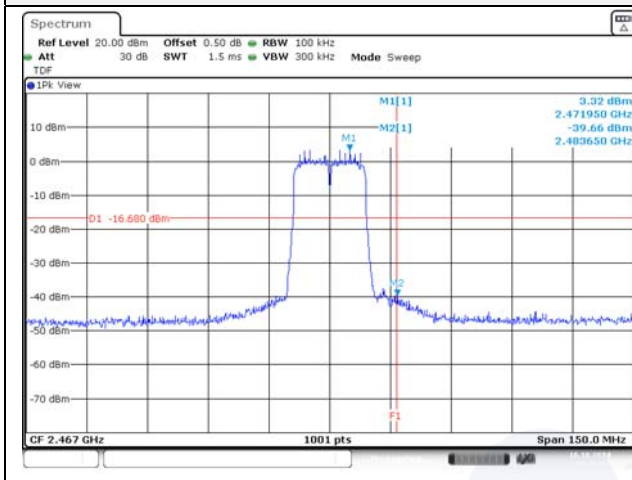
Conducted band-edge / 2 462 MHz



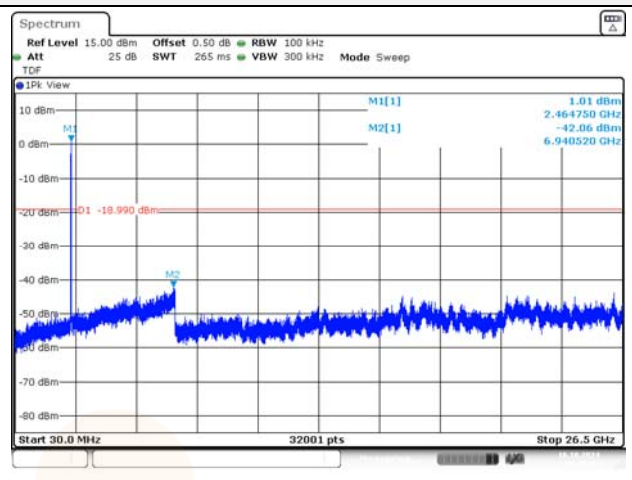
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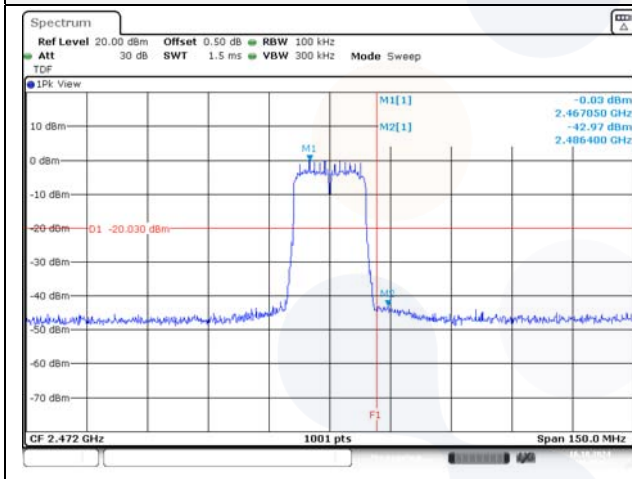
Conducted band-edge / 2 467 MHz



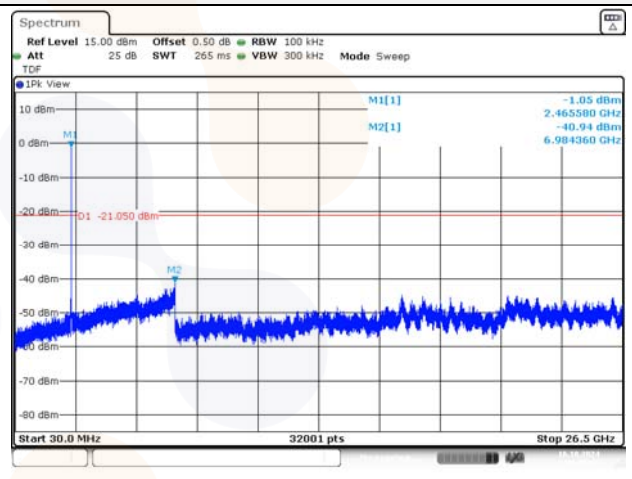
Conducted spurious / 2 467 MHz



Conducted band-edge / 2 472 MHz

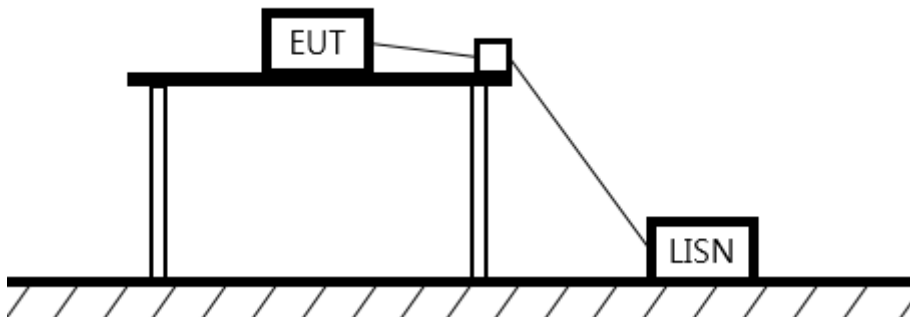


Conducted spurious / 2 472 MHz



7.6. AC Conducted emission

Test setup



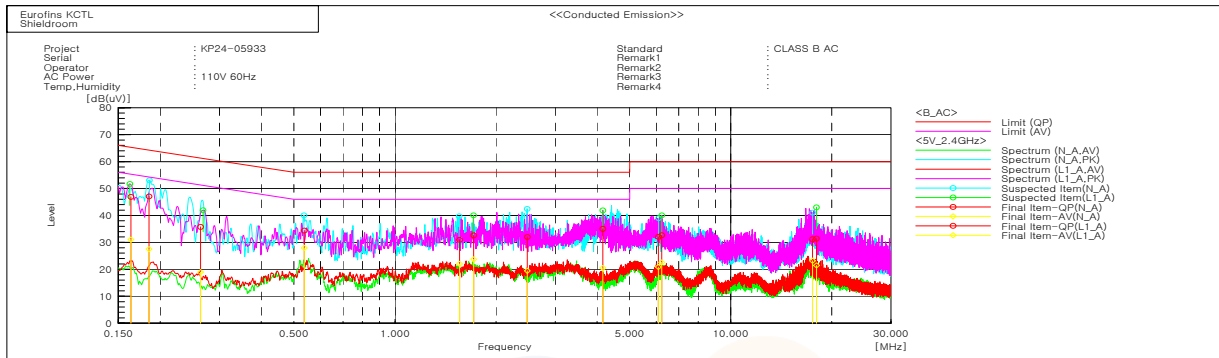
Limit

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 50 μ H/50 ohm line impedance stabilization network (LISN). Compliance with the provision of this paragraph shall be 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

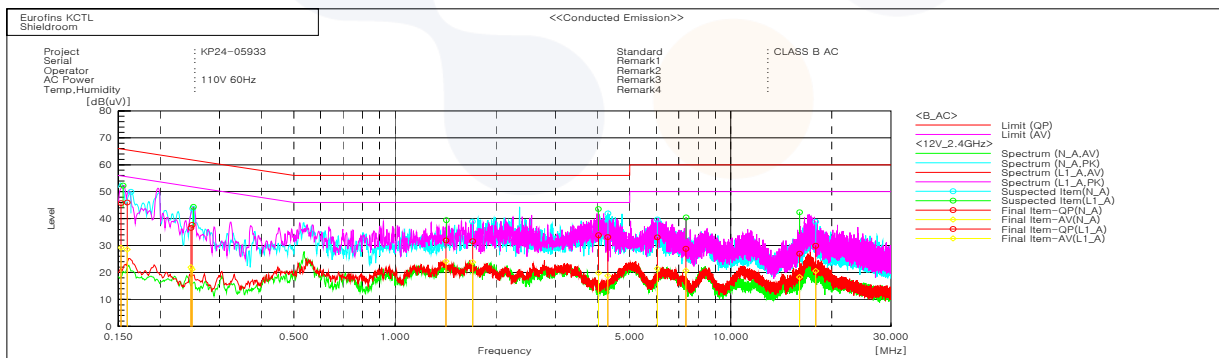
Measurement procedure

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.

Test results**[DC 5 V]****Worst case: 802.11b / 2 462 MHz****Final Result**

N_A Phase		Reading	Reading	c.f	Result	Result	Limit	Limit	Margin	Margin
No.	Frequency	QP	CAV		QP	CAV	QP	AV	QP	CAV
	[MHz]	[dB(uV)]	[dB(uV)]	[dB]	[dB(uV)]	[dB(uV)]	[dB(uV)]	[dB(uV)]	[dB]	[dB]
1	0.1852	37.0	17.4	10.1	47.1	27.5	64.2	54.2	17.1	26.7
2	0.53719	24.4	17.9	10.0	34.4	27.9	56.0	46.0	21.6	18.1
3	1.55656	21.0	12.1	9.9	30.9	22.0	56.0	46.0	25.1	24.0
4	2.48048	22.0	9.5	10.0	32.0	19.5	56.0	46.0	24.0	26.5
5	6.09396	22.0	10.8	10.1	32.1	20.9	60.0	50.0	27.9	29.1
6	17.53618	20.6	12.6	10.6	31.2	23.2	60.0	50.0	28.8	26.8

L1_A Phase		Reading	Reading	c.f	Result	Result	Limit	Limit	Margin	Margin
No.	Frequency	QP	CAV		QP	CAV	QP	AV	QP	CAV
	[MHz]	[dB(uV)]	[dB(uV)]	[dB]	[dB(uV)]	[dB(uV)]	[dB(uV)]	[dB(uV)]	[dB]	[dB]
1	0.16358	36.8	21.0	10.1	46.9	31.1	65.3	55.3	18.4	24.2
2	0.26372	26.1	9.3	9.7	35.8	19.0	61.3	51.3	25.5	32.3
3	1.71594	22.7	13.8	9.9	32.6	23.7	56.0	46.0	23.4	22.3
4	4.15786	25.0	10.5	10.0	35.0	20.5	56.0	46.0	21.0	25.5
5	6.23407	22.5	12.5	10.1	32.6	22.6	60.0	50.0	27.4	27.4
6	18.00183	20.6	10.7	10.8	31.4	21.5	60.0	50.0	28.6	28.5

[DC 12 V]**Worst case: 802.11b / 2 462 MHz****Final Result**

N_A Phase		Reading	Reading	c.f	Result	Result	Limit	Limit	Margin	Margin
No.	Frequency	QP	CAV		QP	CAV	QP	AV	QP	CAV
	[MHz]	[dB(uV)]	[dB(uV)]	[dB]	[dB(uV)]	[dB(uV)]	[dB(uV)]	[dB(uV)]	[dB]	[dB]
1	0.15944	36.0	18.5	10.0	46.0	28.5	65.5	55.5	19.5	27.0
2	0.24853	28.0	11.5	9.7	37.7	21.2	61.8	51.8	24.1	30.6
3	1.70454	21.7	13.0	9.9	31.6	23.8	56.0	46.0	24.4	22.2
4	4.30609	23.2	8.8	10.0	33.2	18.8	56.0	46.0	22.8	27.2
5	6.04583	22.9	11.3	10.1	33.0	21.4	60.0	50.0	27.0	28.6
6	17.9134	19.2	9.8	10.7	29.9	20.5	60.0	50.0	30.1	29.5

L1_A Phase		Reading	Reading	c.f	Result	Result	Limit	Limit	Margin	Margin
No.	Frequency	QP	CAV		QP	CAV	QP	AV	QP	CAV
	[MHz]	[dB(uV)]	[dB(uV)]	[dB]	[dB(uV)]	[dB(uV)]	[dB(uV)]	[dB(uV)]	[dB]	[dB]
1	0.15268	35.9	19.4	9.9	45.8	29.3	65.9	55.9	20.1	26.6
2	0.24671	26.9	12.3	9.7	36.6	22.0	61.9	51.9	25.3	29.9
3	1.41863	22.0	14.3	9.9	31.9	24.2	56.0	46.0	24.1	21.8
4	4.03946	23.8	9.8	10.0	33.8	19.8	56.0	46.0	22.2	26.2
5	7.35963	18.6	10.5	10.2	28.8	20.7	60.0	50.0	31.2	29.3
6	16.03896	16.3	7.6	10.7	27.0	18.3	60.0	50.0	33.0	31.7

8. Measurement equipment

Equipment Name	Manufacturer	Model No.	Serial No.	Next Cal. Date
Spectrum Analyzer	R&S	FSV30	100808	25.07.01
DC Power Supply	TOYOTECH	TL305TP	21040092	25.07.01
Attenuator	Weinschel ENGINEERING	56-10	51395	25.01.19
Power Sensor	R&S	NRP-Z81	1137.9009.02- 106223-bB	25.04.24
Attenuator	R&S	DNF	0006	25.01.18
Vector Signal Generator	R&S	SMBV100A	257566	25.07.01
Signal Generator	R&S	SMB100A	176206	25.01.18
Spectrum Analyzer	R&S	FSV40	100989	25.10.10
Horn antenna	ETS.lindgren	3117	00251528	25.01.26
Horn antenna	ETS.lindgren	3116	00086635	25.01.25
AMPLIFIER	B&Z Technologies	BZRT-00504000- 481055-382525	26299-27735	25.06.24
AMPLIFIER	B&Z Technologies	BZR-0050400- 551028-252525	27736	25.06.24
Attenuator	API Inmet	40AH2W-10	12	25.04.30
High pass Filter	WT	WT-A1698-HS	WT160411001	25.04.25
High pass Filter	Qotana	DBHF058004000A	20070100016	25.06.24
EMI TEST RECEIVER	R&S	ESCI7	100732	25.02.28
Bi-Log Antenna	TESEQ	CBL 6112D	62438	25.05.25
Amplifier	SONOMA INSTRUMENT	310N	284608	25.08.13
ATTENUATOR	KEYSIGHT	8491B-6dB	MY39271082	25.05.25
LOOP Antenna	R&S	HFH2-Z2	100355	26.06.25
ISOLATION TRANSFORMER	ONETECH CO.,LTD	OT-IT500VA	OTR1-16026	25.03.21
EMI TEST RECEIVER	R&S	ESCI7	100732	25.02.28
TWO-LINE V - NETWORK	R&S	ENV216	101353	25.03.27
EMI TEST RECEIVER	R&S	ESCI3	100001	25.08.12
Antenna Mast	Innco Systems	MA4640/800-XP-ET	-	-
Turn Table	Innco Systems	DT2000	79	-
Antenna Mast	Innco Systems	MA4640-XP-ET	MA4000/396/30 810213/L	-
Controller	Innco Systems	CO3000	1175/45850319/ P	-

End of test report