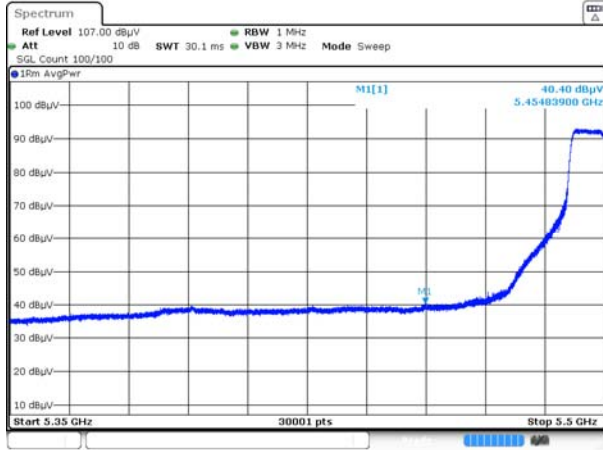


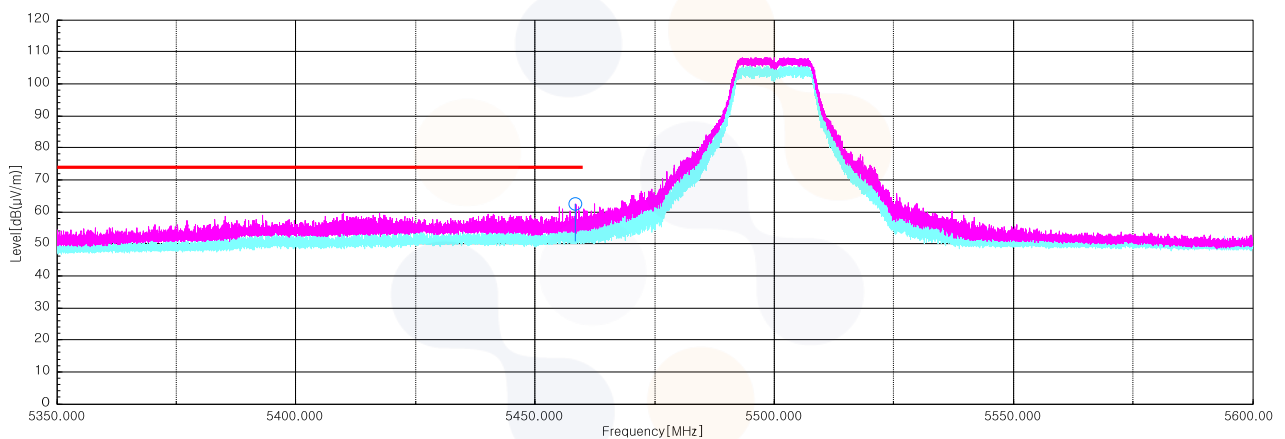
802.11a_Lowest Channel (5 500 MHz)

Average data



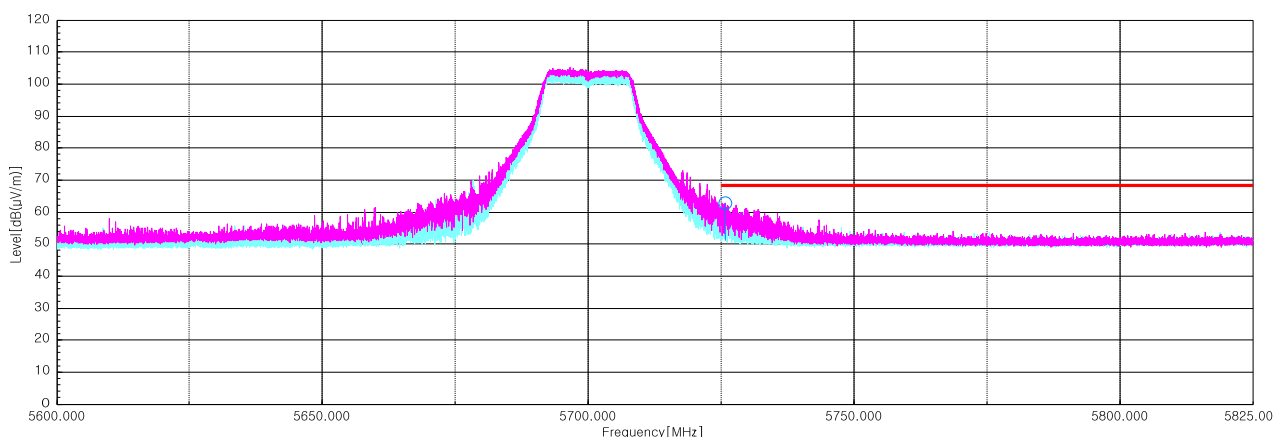
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Horizontal/Vertical for Band-edge



Highest Channel (5 700 MHz)

Horizontal/Vertical for Band-edge



802.11n_HT20_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								
5 459.37 ¹⁾	H	61.30	33.00	-26.74	-	67.56	74.00	6.44
10 959.70 ¹⁾	H	53.20	39.18	-43.88	-	48.50	74.00	25.50
16 441.37	V	55.00	38.18	-41.48	-	51.70	68.20	16.50
Average Data								
5 459.37 ¹⁾	H	42.54	33.00	-26.74	0.32	49.12	54.00	4.88

802.11n_HT20_Middle Channel (5 600 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								
11 290.90 ¹⁾	H	54.10	39.10	-43.39	-	49.81	74.00	24.19
16 825.47	H	54.90	38.10	-41.89	-	51.11	68.20	17.09
Average Data								
No spurious emissions were detected within 20 dB of the limit.								

802.11n_HT20_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								
5 726.02	H	56.40	33.76	-26.66	-	63.50	68.20	4.70
11 386.73 ¹⁾	V	53.80	39.20	-43.09	-	49.91	74.00	24.09
17 119.87	H	54.50	38.10	-41.84	-	50.76	68.20	17.44
Average Data								
No spurious emissions were detected within 20 dB of the limit.								

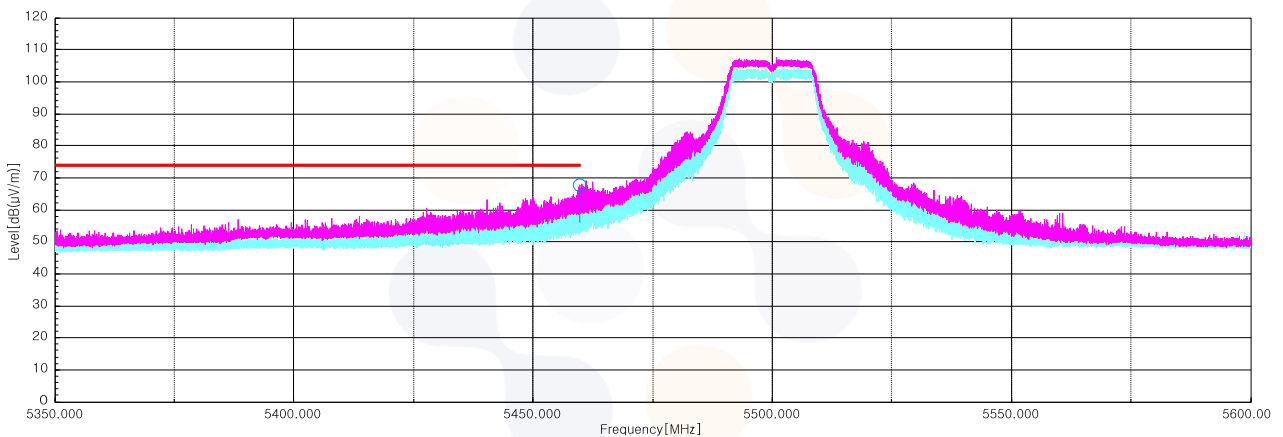
802.11n_HT20_Lowest Channel (5 500 MHz)

Average data



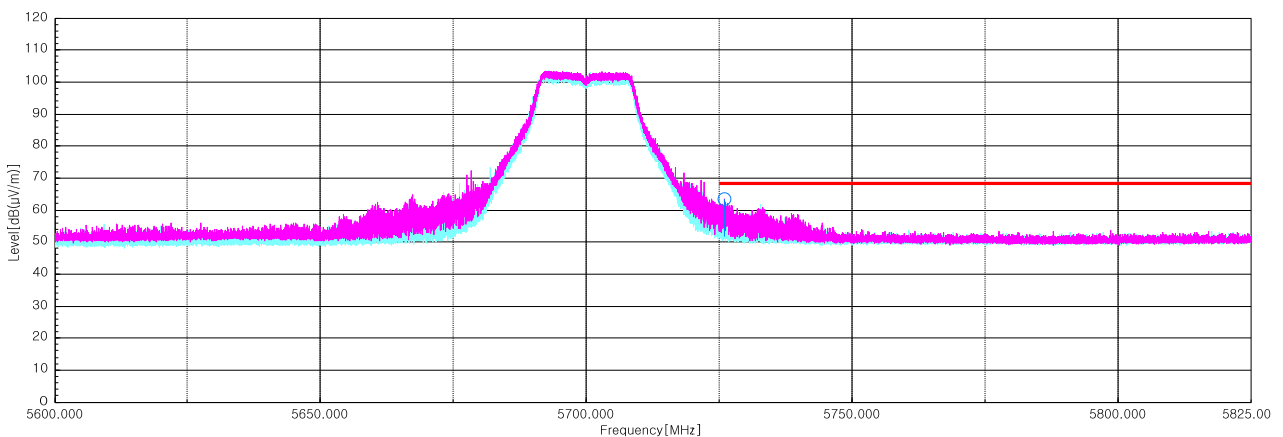
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Horizontal/Vertical for Band-edge



Highest Channel (5 700 MHz)

Horizontal/Vertical for Band-edge



802.11n_HT40_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								
5 456.18 ¹⁾	H	59.40	33.00	-26.74	-	65.66	74.00	8.34
11 003.78 ¹⁾	V	52.70	39.09	-43.77	-	48.02	74.00	25.98
16 498.87	V	54.80	38.10	-41.38	-	51.52	68.20	16.68
Average Data								
5 456.18 ¹⁾	H	40.69	33.00	-26.74	0.61	47.56	54.00	6.44

802.11n_HT40_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								
11 233.02 ¹⁾	H	54.00	39.17	-43.54	-	49.63	74.00	24.37
16 838.50	V	55.20	38.10	-41.93	-	51.37	68.20	16.83
Average Data								
No spurious emissions were detected within 20 dB of the limit.								

802.11n_HT40_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								
5 725.36	V	56.40	33.75	-26.66	-	63.49	68.20	4.71
11 390.95 ¹⁾	V	54.10	39.20	-43.08	-	50.22	74.00	23.78
16 988.38	V	55.30	37.82	-42.43	-	50.69	68.20	17.51
Average Data								
No spurious emissions were detected within 20 dB of the limit.								

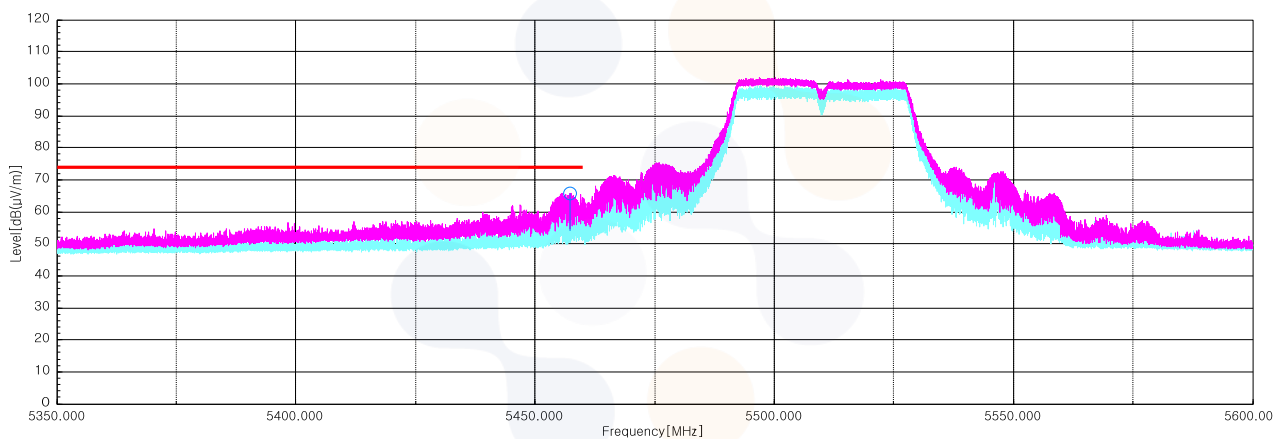
802.11n_HT40_Lowest Channel (5 510 MHz)

Average data



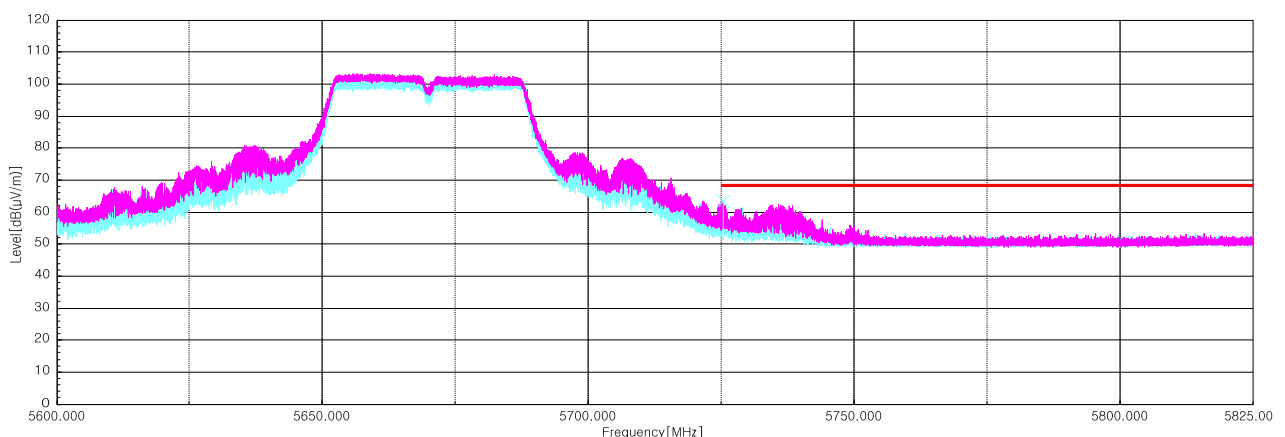
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Horizontal/Vertical for Band-edge



Highest Channel (5 670 MHz)

Horizontal/Vertical for Band-edge



802.11ac_VHT20_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								
5 459.96 ¹⁾	H	61.20	33.00	-26.73	-	67.47	74.00	6.53
11 004.93 ¹⁾	V	53.30	39.09	-43.77	-	48.62	74.00	25.38
16 431.02	H	55.00	38.16	-41.50	-	51.66	68.20	16.54
Average Data								
5 459.96 ¹⁾	H	42.44	33.00	-26.73	0.29	49.00	54.00	5.00

802.11ac_VHT20_Middle Channel (5 600 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								
11 297.42 ¹⁾	V	53.80	39.10	-43.37	-	49.53	74.00	24.47
16 815.88	H	55.90	38.10	-41.86	-	52.14	68.20	16.06
Average Data								
No spurious emissions were detected within 20 dB of the limit.								

802.11ac_VHT20_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								
5 725.27	V	56.10	33.75	-26.66	-	63.19	68.20	5.01
11 404.37 ¹⁾	H	54.50	39.20	-43.04	-	50.66	74.00	23.34
17 117.95	H	54.90	38.10	-41.85	-	51.15	68.20	17.05
Average Data								
No spurious emissions were detected within 20 dB of the limit.								

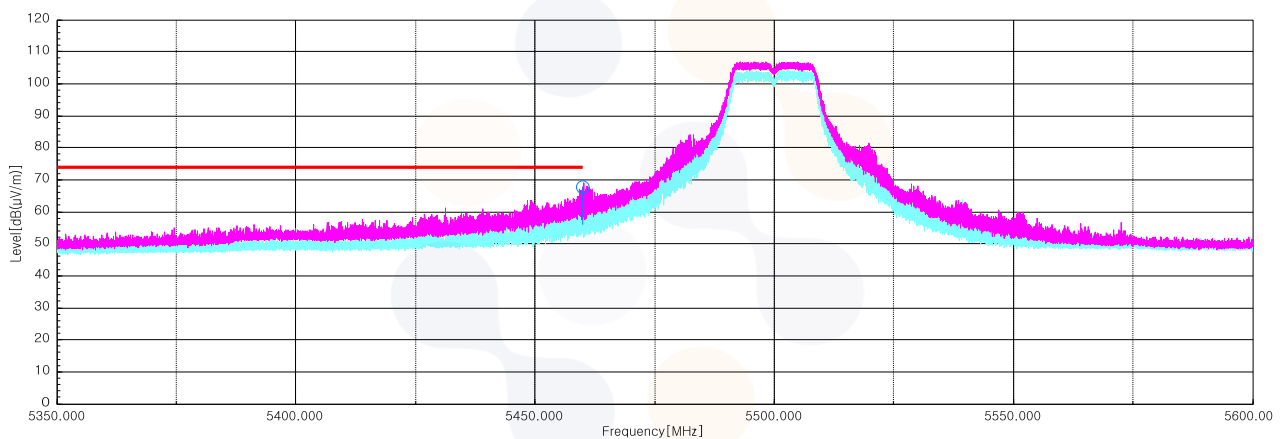
802.11ac_VHT20_Lowest Channel (5 500 MHz)

Average data



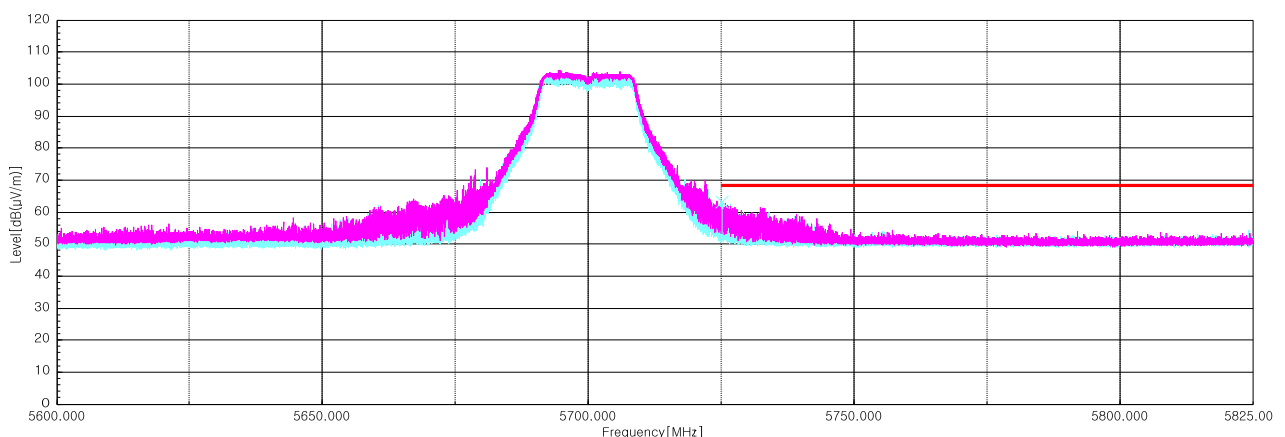
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Horizontal/Vertical for Band-edge



Highest Channel (5 700 MHz)

Horizontal/Vertical for Band-edge



802.11ac_VHT40_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								
5 459.11 ¹⁾	H	58.40	33.00	-26.74	-	64.66	74.00	9.34
11 095.40 ¹⁾	H	52.70	38.91	-43.67	-	47.94	74.00	26.06
16 580.90	V	54.30	38.10	-41.46	-	50.94	68.20	17.26
Average Data								
5 459.11 ¹⁾	H	41.64	33.00	-26.74	0.66	48.56	54.00	5.44

802.11ac_VHT40_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								
11 275.18 ¹⁾	V	54.80	39.10	-43.44	-	50.46	74.00	23.54
16 717.75	V	54.50	38.20	-41.61	-	51.09	68.20	17.11
Average Data								
No spurious emissions were detected within 20 dB of the limit.								

802.11ac_VHT40_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								
5 725.18	H	56.60	33.75	-26.66	-	63.69	68.20	4.51
11 253.33 ¹⁾	V	54.50	39.10	-43.51	-	50.09	74.00	23.91
17 031.70	H	54.90	38.06	-42.30	-	50.66	68.20	17.54
Average Data								
No spurious emissions were detected within 20 dB of the limit.								

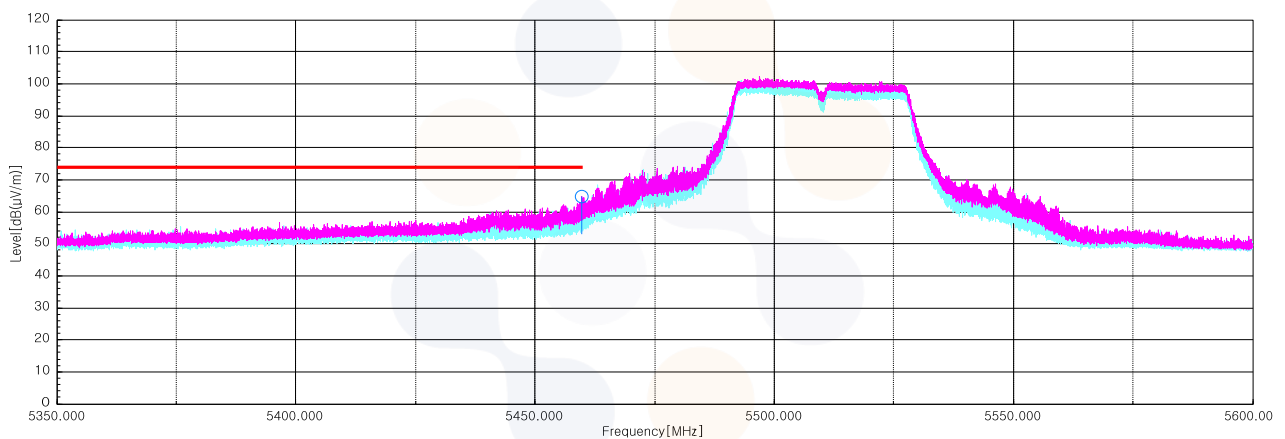
802.11ac_VHT40_Lowest Channel (5 510 MHz)

Average data



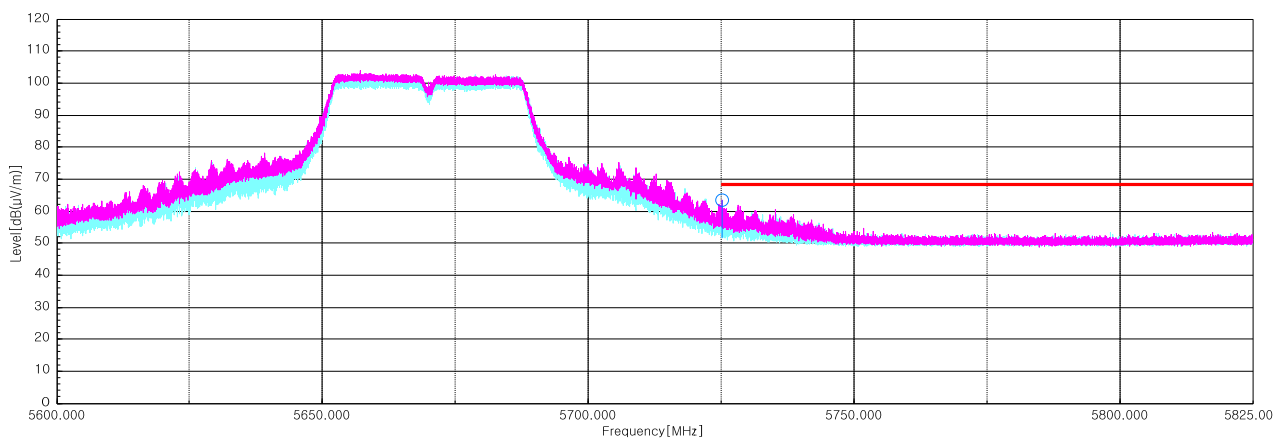
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Horizontal/Vertical for Band-edge



Highest Channel (5 670 MHz)

Horizontal/Vertical for Band-edge



Eurofins KCTL Co.,Ltd. 65, Sinwon-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do, 16677, Korea TEL: 82-70-5008-1021 FAX: 82-505-299-8311 www.kctl.co.kr	Report No.: KR23-SRF0225-A Page (170) of (216)	
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802.11ac_VHT80_Lowest Channel (5 530 MHz)

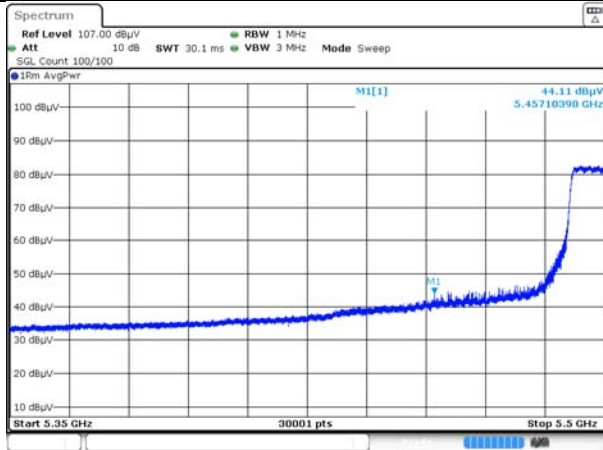
Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μV))	(dB)	(dB)	(dB)	(dB(μV/m))	(dB(μV/m))	(dB)
Peak data								
5 457.10 ¹⁾	H	64.80	33.00	-26.74	-	71.06	74.00	2.94
10 985.38 ¹⁾	V	53.20	39.13	-43.81	-	48.52	74.00	25.48
16 605.05	H	55.30	38.21	-41.49	-	52.02	68.20	16.18
Average Data								
5 457.10 ¹⁾	H	44.11	33.00	-26.74	1.15	51.52	54.00	2.48

802.11ac_VHT80_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(μV/m))	(dB(μV/m))	(dB)
Peak data								
5 804.27	V	46.30	34.02	-26.45	-	53.87	68.20	14.33
11 299.72 ¹⁾	H	53.70	39.10	-43.36	-	49.44	74.00	24.56
16 782.92	V	55.60	38.03	-41.75	-	51.88	68.20	16.32
Average Data								
No spurious emissions were detected within 20 dB of the limit.								

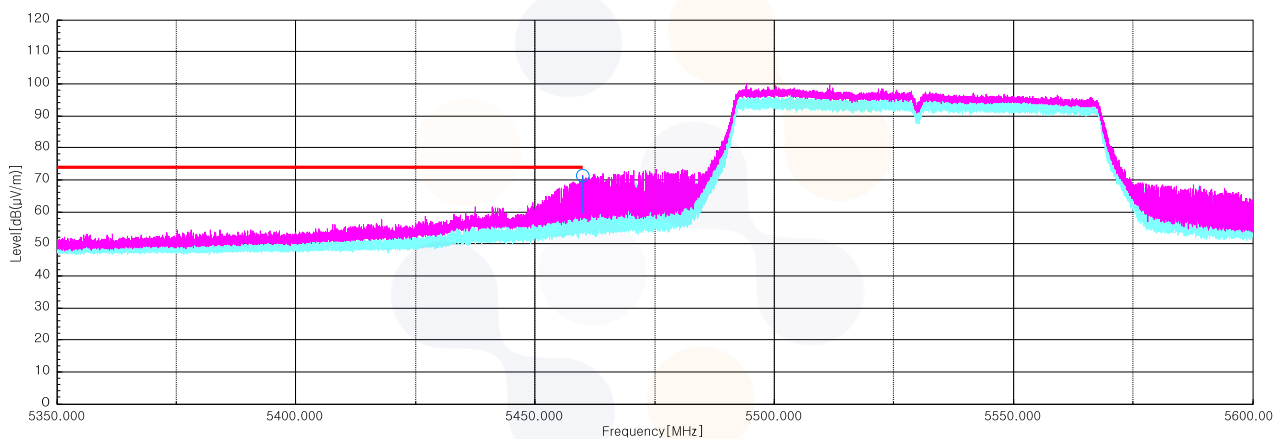
802.11ac_VHT80_Lowest Channel (5 530 MHz)

Average data



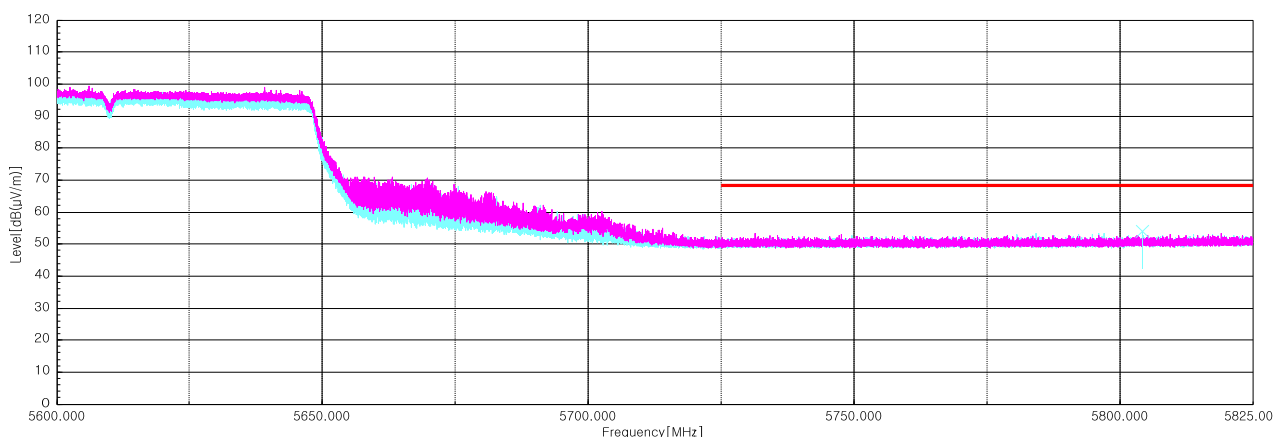
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Horizontal/Vertical for Band-edge



Highest Channel (5 610MHz)

Horizontal/Vertical for Band-edge



UNII-2C 2TX MIMO

802.11a_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								
5 454.92 ¹⁾	H	57.70	33.10	-26.80	-	64.00	74.00	10.00
10 935.93 ¹⁾	V	53.80	39.30	-43.94	-	49.16	74.00	24.84
16 561.73	H	54.60	38.10	-41.44	-	51.26	68.20	16.94
Average Data								
5 454.92 ¹⁾	H	42.50	33.10	-26.80	0.25	47.77	54.00	6.23

802.11a_Middle Channel (5 600 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								
11 273.27 ¹⁾	H	54.30	39.10	-43.45	-	49.95	74.00	24.05
16 876.83	V	56.20	37.95	-42.06	-	52.09	68.20	16.11
Average Data								
No spurious emissions were detected within 20 dB of the limit.								

802.11a_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								
5 725.50	H	53.33	33.75	-26.66	-	60.42	68.20	7.78
5 726.50	H	51.13	33.76	-26.66	-	58.23	68.20	9.97
11 390.57 ¹⁾	H	54.80	39.20	-43.08	-	50.92	74.00	23.08
17 157.82	H	54.60	38.10	-41.64	-	51.06	68.20	17.14
Average Data								
No spurious emissions were detected within 20 dB of the limit.								

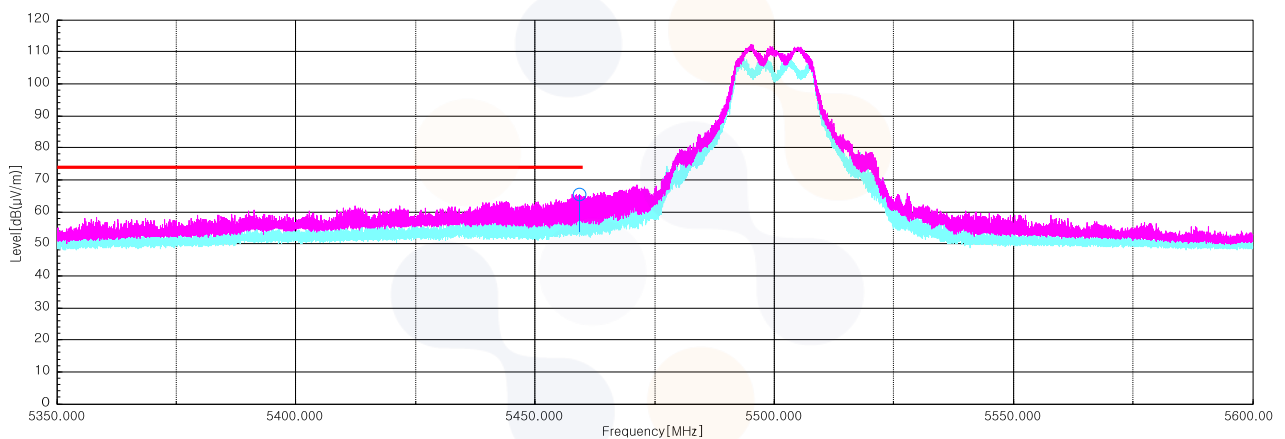
802.11a_Lowest Channel (5 500 MHz)

Average data



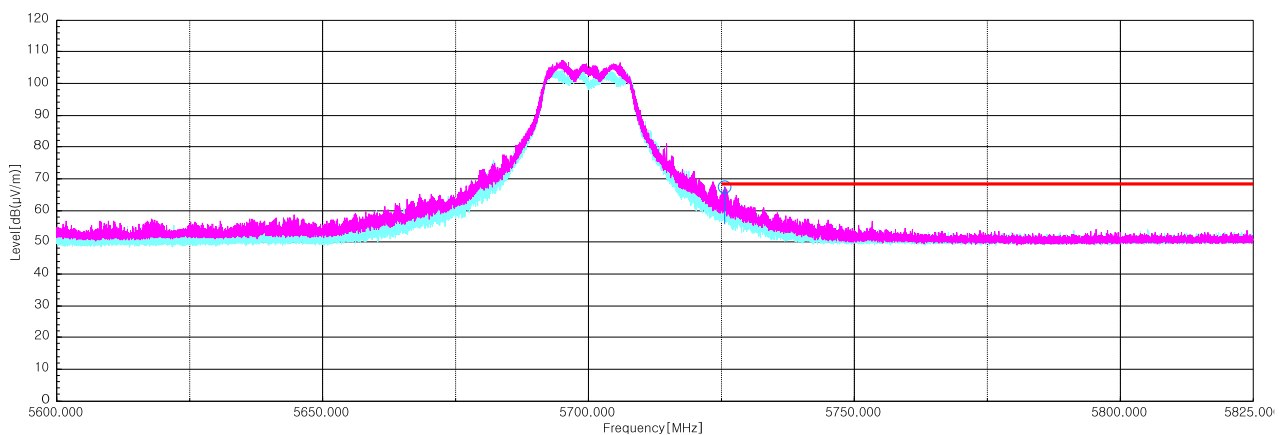
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Horizontal/Vertical for Band-edge



Highest Channel (5 700 MHz)

Horizontal/Vertical for Band-edge



802.11n HT20_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								
5 457.80 ¹⁾	H	57.70	33.10	-26.80	-	64.00	74.00	10.00
10 976.18 ¹⁾	H	53.50	39.15	-43.83	-	48.82	74.00	25.18
16 491.58	H	54.30	38.10	-41.39	-	51.01	68.20	17.19
Average Data								
5 457.80 ¹⁾	H	41.47	33.10	-26.80	0.54	47.77	54.00	5.69

802.11n HT20_Middle Channel (5 600 MHz)

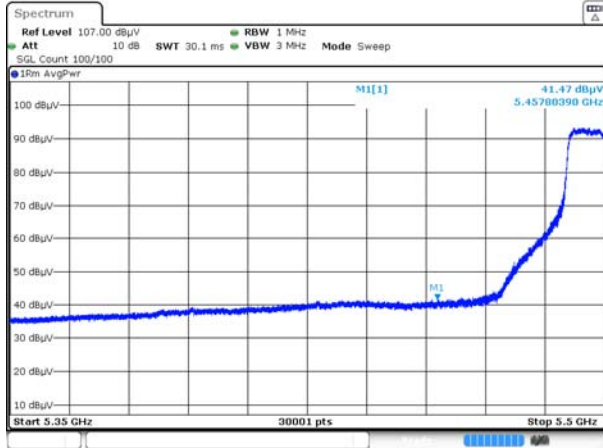
Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μV))	(dB)	(dB)	(dB)	(dB(μV/m))	(dB(μV/m))	(dB)
Peak data								
11 232.25 ¹⁾	V	53.20	39.16	-43.54	-	48.82	74.00	25.18
16 799.78	V	55.60	38.00	-41.81	-	51.79	68.20	16.41
Average Data								
No spurious emissions were detected within 20 dB of the limit.								

802.11n HT20_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								
5 727.55	H	53.80	33.77	-26.66	-	60.91	68.20	7.29
11 409.35 ¹⁾	H	54.10	39.20	-43.02	-	50.28	74.00	23.72
17 206.12	H	54.40	38.32	-41.38	-	51.34	68.20	16.86
Average Data								
No spurious emissions were detected within 20 dB of the limit.								

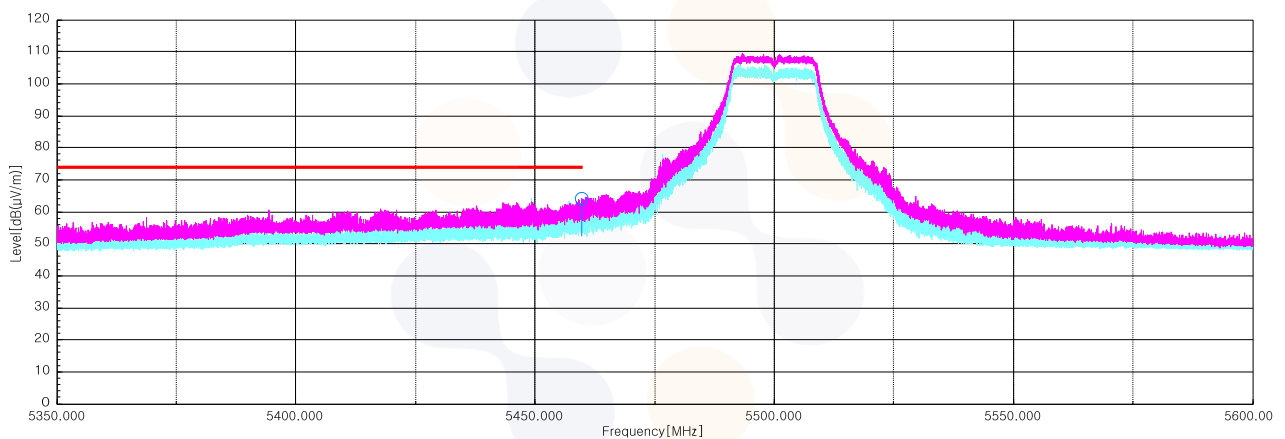
802.11n HT20_Lowest Channel (5 500 MHz)

Average data



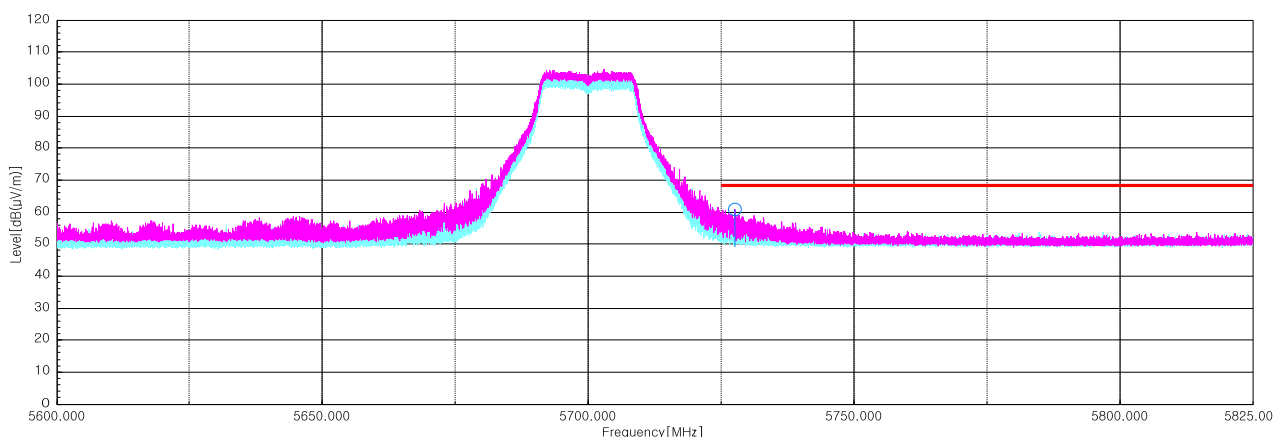
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Horizontal/Vertical for Band-edge



Highest Channel (5 700 MHz)

Horizontal/Vertical for Band-edge



802.11n HT40_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								
5 458.64 ¹⁾	H	55.50	32.98	-26.74	-	61.74	74.00	12.26
10 948.58 ¹⁾	V	53.30	39.30	-43.91	-	48.69	74.00	25.31
16 593.17	V	54.30	38.10	-41.48	-	50.92	68.20	17.28
Average Data								
5 458.64 ¹⁾	H	40.83	32.98	-26.74	1.17	47.07	54.00	5.76

802.11n HT40_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								
11 300.87 ¹⁾	V	54.50	39.20	-43.36	-	50.34	74.00	23.66
16 656.03	H	55.00	38.20	-41.54	-	51.66	68.20	16.54
Average Data								
No spurious emissions were detected within 20 dB of the limit.								

802.11n HT40_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								
5 726.51	H	52.50	33.76	-26.66	-	59.60	68.20	8.60
11 342.65 ¹⁾	V	54.00	39.29	-43.23	-	50.06	74.00	23.94
17 048.57	H	54.90	38.10	-42.21	-	50.79	68.20	17.41
Average Data								
No spurious emissions were detected within 20 dB of the limit.								

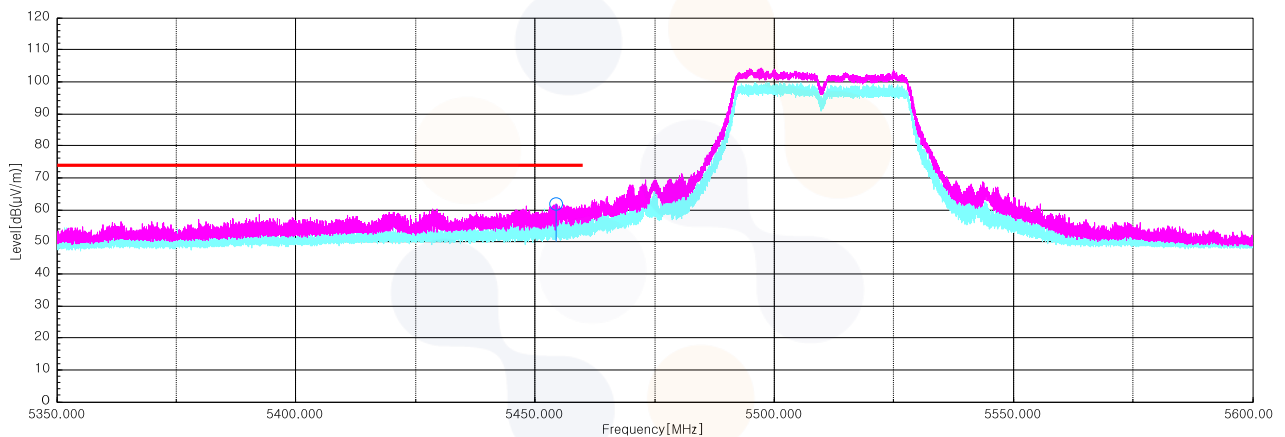
802.11n HT40_Lowest Channel (5 510 MHz)

Average data



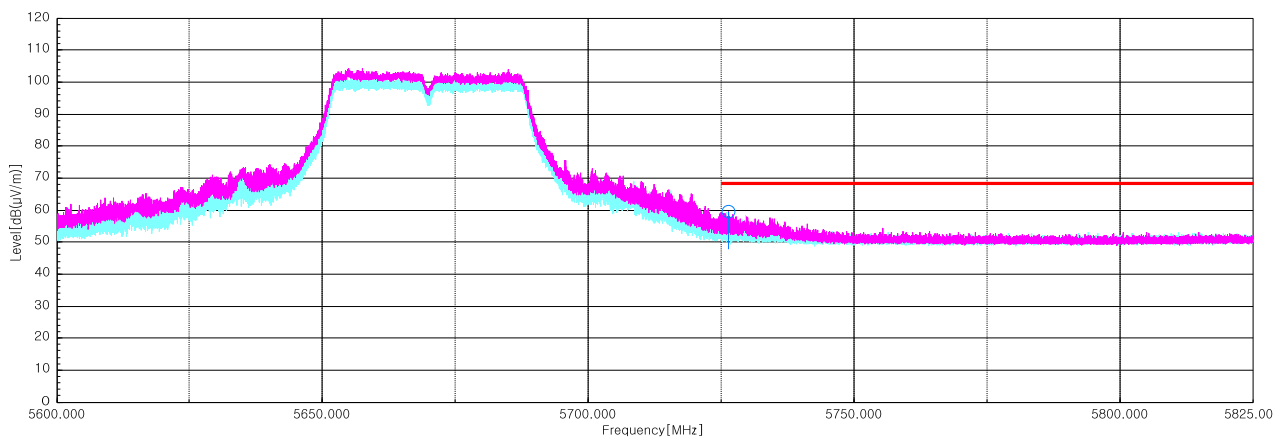
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Horizontal/Vertical for Band-edge



Highest Channel (5 670 MHz)

Horizontal/Vertical for Band-edge



802.11ac VHT20_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								
5 439.47 ¹⁾	H	58.70	33.10	-26.80	-	65.00	74.00	9.00
10 991.52 ¹⁾	H	53.20	39.12	-43.79	-	48.53	74.00	25.47
16 567.10	H	54.00	38.10	-41.45	-	50.65	68.20	17.55
Average Data								
5 439.47 ¹⁾	H	42.58	33.10	-26.80	0.64	48.88	54.00	4.48

802.11ac VHT20_Middle Channel (5 600 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								
11 276.33 ¹⁾	V	54.10	39.10	-43.44	-	49.76	74.00	24.24
16 758.38	H	54.50	38.08	-41.67	-	50.91	68.20	17.29
Average Data								
No spurious emissions were detected within 20 dB of the limit.								

802.11ac VHT20_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								
5 725.53	H	55.90	33.75	-26.66	-	62.99	68.20	5.21
11 344.95 ¹⁾	H	54.70	39.29	-43.22	-	50.77	74.00	23.23
17 053.17	V	55.00	38.11	-42.19	-	50.92	68.20	17.28
Average Data								
No spurious emissions were detected within 20 dB of the limit.								

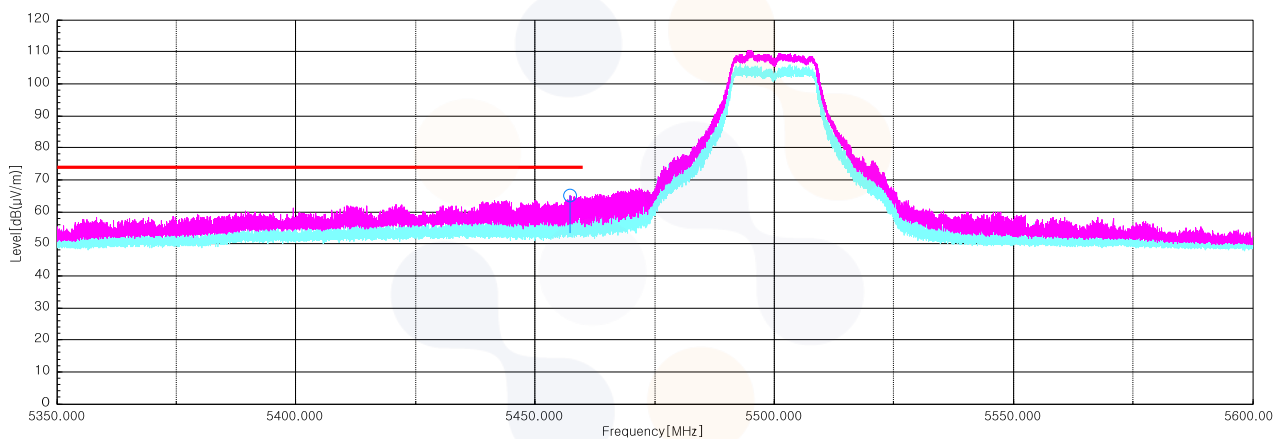
802.11ac VHT20_Lowest Channel (5 500 MHz)

Average data



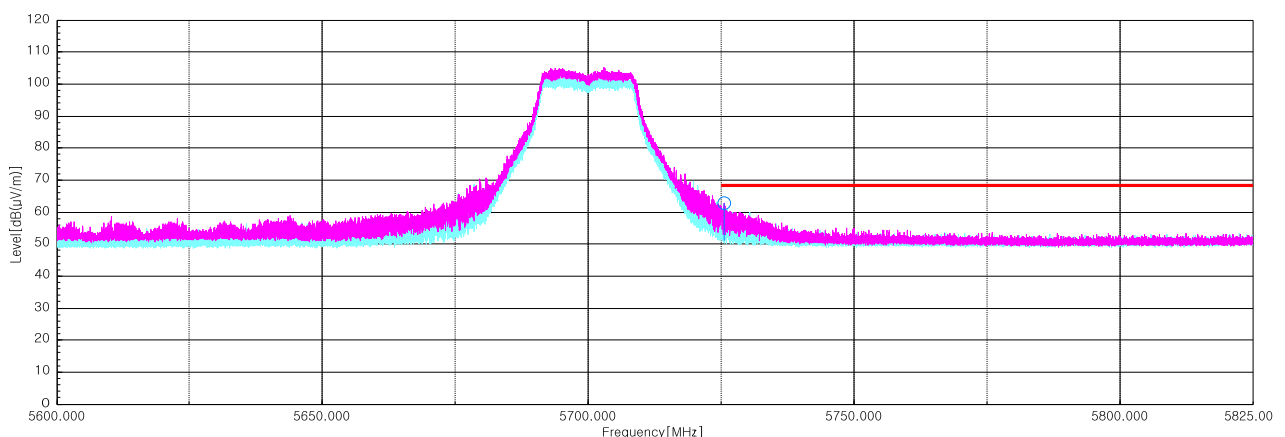
Blank

Horizontal/Vertical for Band-edge



Highest Channel (5 700 MHz)

Horizontal/Vertical for Band-edge



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802.11ac VHT40_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								
5 459.05 ¹⁾	H	55.40	32.98	-26.74	-	61.64	74.00	12.36
11 048.63 ¹⁾	V	53.00	39.00	-43.72	-	48.28	74.00	25.72
16 548.32	V	54.30	38.10	-41.43	-	50.97	68.20	17.23
Average Data								
5 459.05 ¹⁾	H	40.87	32.98	-26.74	0.90	47.11	54.00	5.99

802.11ac VHT40_Middle Channel (5 590 MHz)

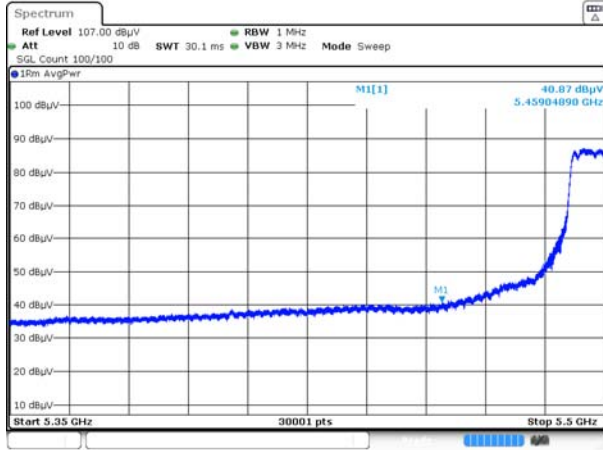
Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μV))	(dB)	(dB)	(dB)	(dB(μV/m))	(dB(μV/m))	(dB)
Peak data								
11 182.80 ¹⁾	V	54.10	39.00	-43.59	-	49.51	74.00	24.49
16 661.78	V	54.70	38.20	-41.55	-	51.35	68.20	16.85
Average Data								
No spurious emissions were detected within 20 dB of the limit.								

802.11ac VHT40_Highest Channel (5 670 MHz)

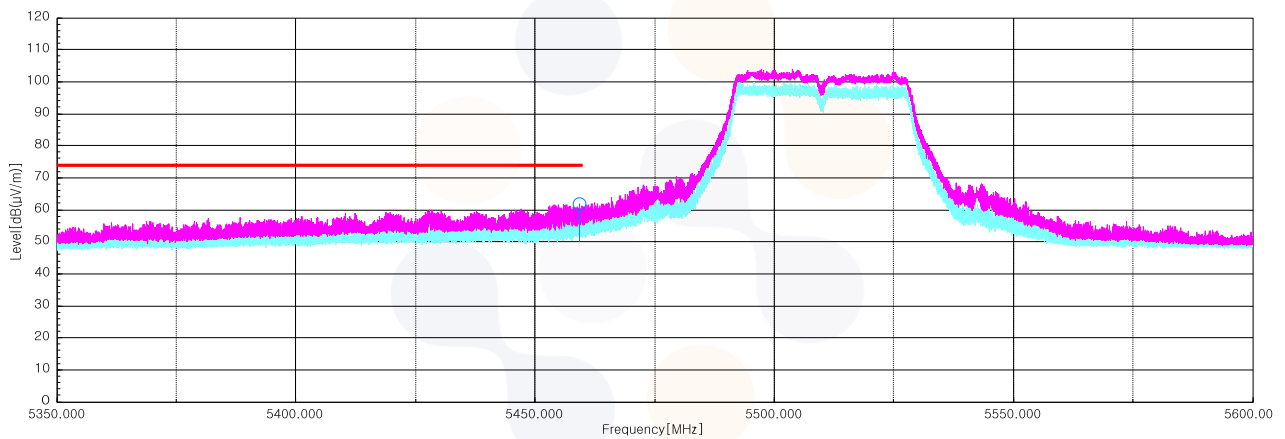
Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μV))	(dB)	(dB)	(dB)	(dB(μV/m))	(dB(μV/m))	(dB)
Peak data								
5 727.19	H	52.70	33.76	-26.66	-	59.80	68.20	8.40
11 328.47 ¹⁾	V	54.00	39.26	-43.28	-	49.98	74.00	24.02
17 050.48	V	54.50	38.10	-42.20	-	50.40	68.20	17.80
Average Data								
No spurious emissions were detected within 20 dB of the limit.								

802.11ac VHT40_Lowest Channel (5 510 MHz)

Average data

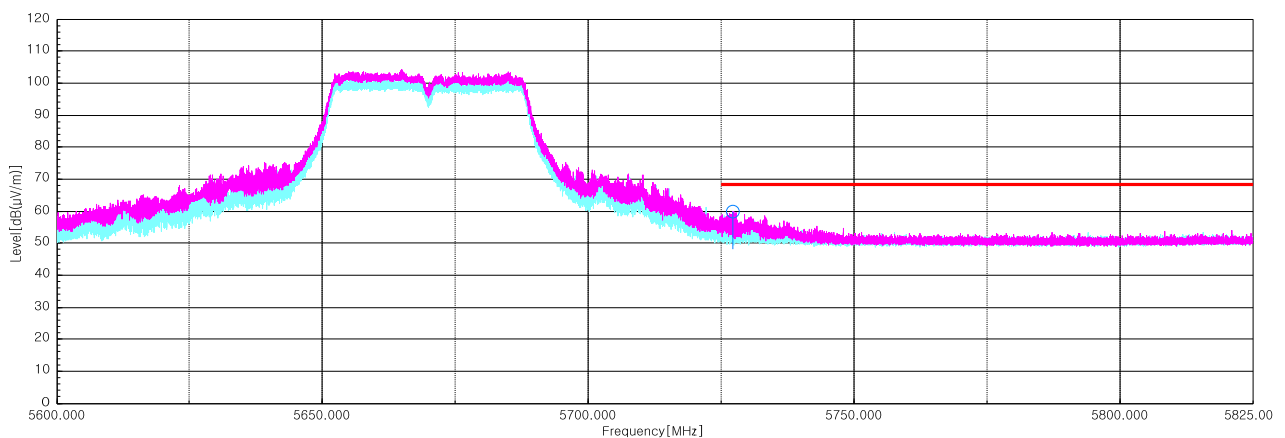


Horizontal/Vertical for Band-edge



Highest Channel (5 670 MHz)

Horizontal/Vertical for Band-edge



802.11ac VHT80_Lowest Channel (5 530 MHz)

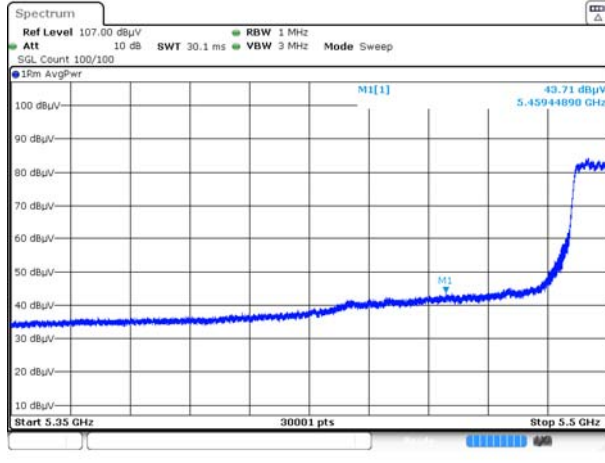
Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μV))	(dB)	(dB)	(dB)	(dB(μV/m))	(dB(μV/m))	(dB)
Peak data								
5 459.94 ¹⁾	H	57.50	32.98	-26.73	-	63.75	74.00	10.25
11 044.03 ¹⁾	H	52.60	39.01	-43.73	-	47.88	74.00	26.12
16 631.50	H	54.50	38.26	-41.52	-	51.24	68.20	16.96
Average Data								
5 459.45 ¹⁾	H	43.71	32.98	-26.73	1.87	51.83	54.00	2.17

802.11ac VHT80_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(μV/m))	(dB(μV/m))	(dB)
Peak data								
5 800.46	V	46.40	34.00	-26.46	-	53.94	68.20	14.26
11 321.18 ¹⁾	V	54.10	39.24	-43.30	-	50.04	74.00	23.96
16 831.60	V	55.10	38.10	-41.91	-	51.29	68.20	16.91
Average Data								
No spurious emissions were detected within 20 dB of the limit.								

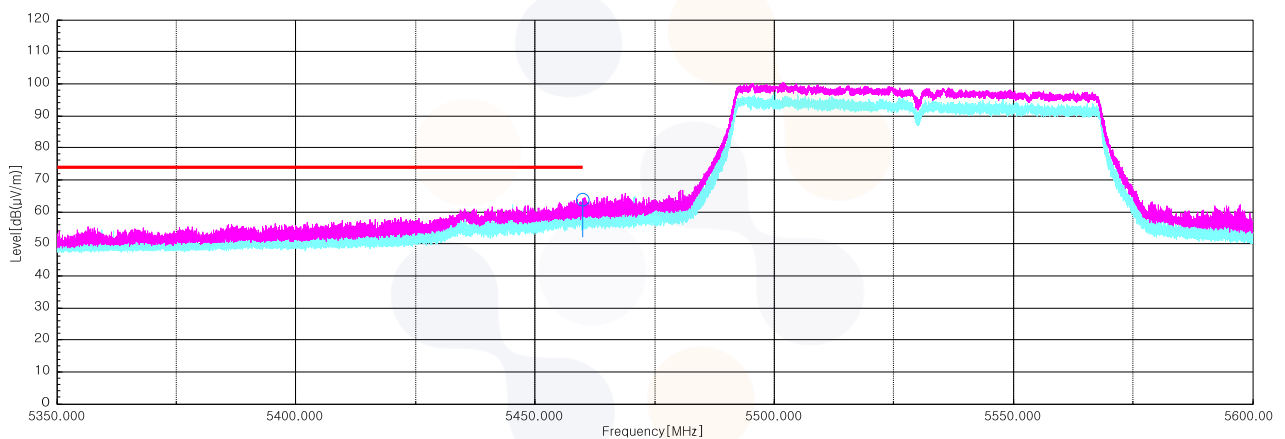
802.11ac VHT80_Lowest Channel (5 530 MHz)

Average data



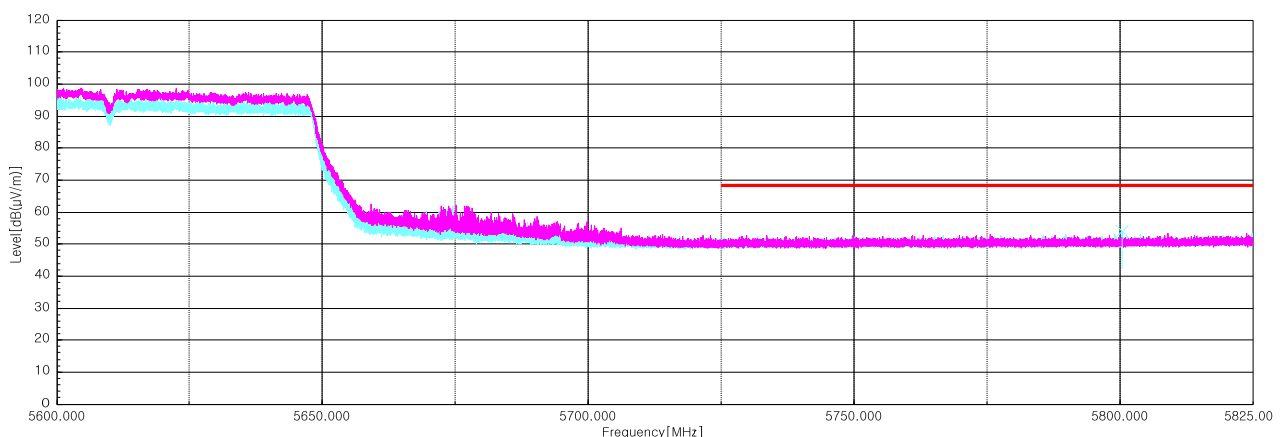
Blank

Horizontal/Vertical for Band-edge



Highest Channel (5 610MHz)

Horizontal/Vertical for Band-edge

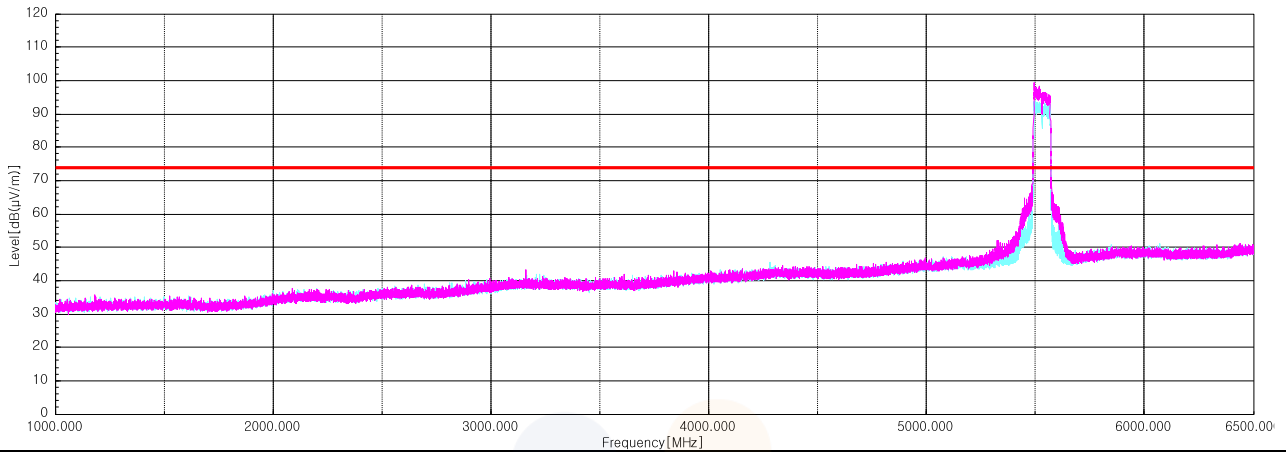


Plot of Harmonics and Spurious Emissions

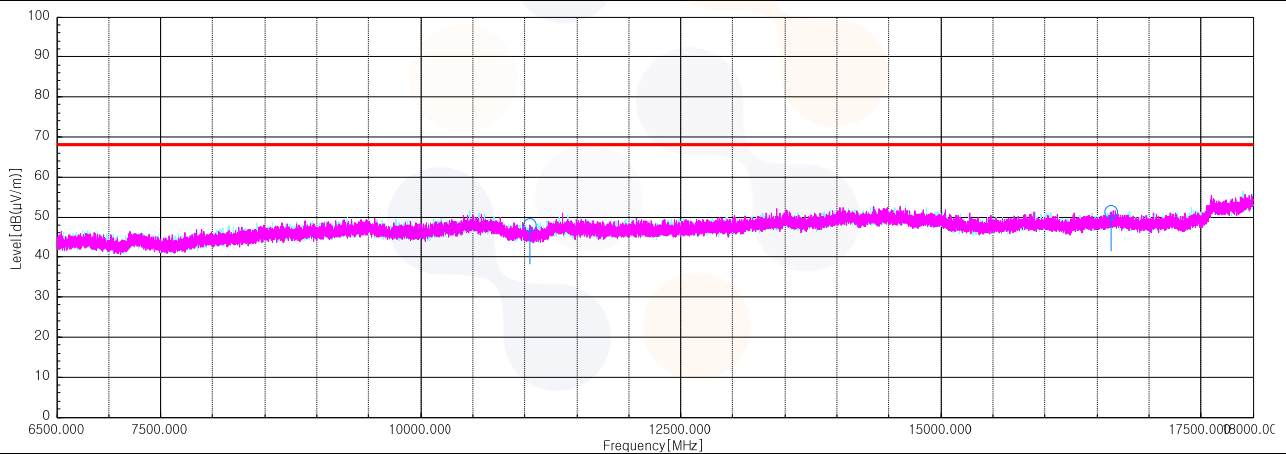
In order to simplify the report, attached plots were only the lowest margin condition

802.11ac VHT80_UNII-2C_2TX MIMO_ Low Channel (5 530 MHz)

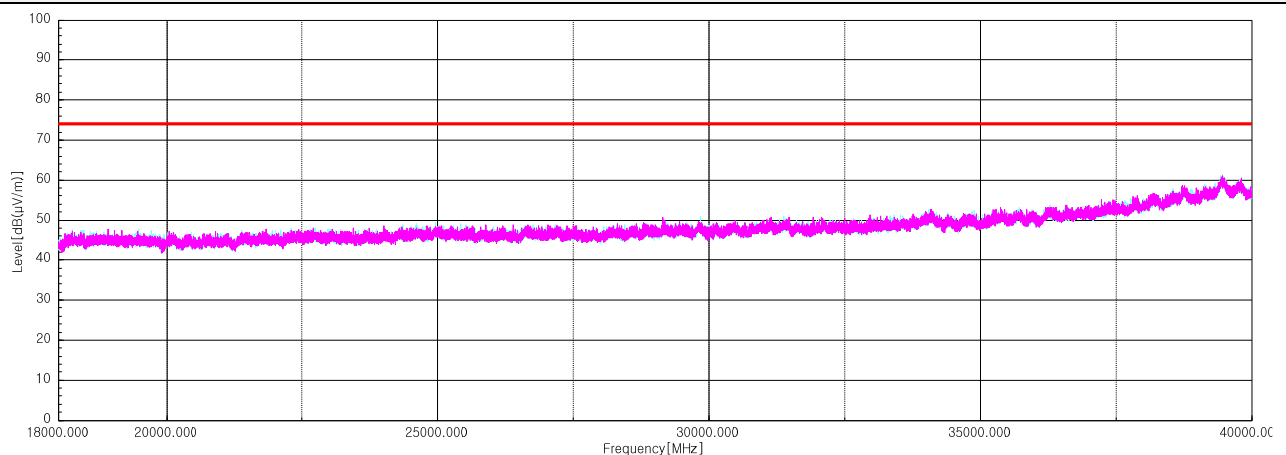
Horizontal/Vertical for 1 GHz ~ 6.5 GHz



Horizontal/Vertical for 6.5 GHz ~ 18 GHz



Horizontal/Vertical for 18 GHz ~ 40 GHz



Straddle Channel SISO

802.11a (5 720 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								
11 362.20 ¹⁾	H	54.20	39.20	-43.17	-	50.23	74.00	23.77
17 229.88	V	54.10	38.42	-41.26	-	51.26	68.20	16.94
Average Data								
No spurious emissions were detected within 20 dB of the limit.								

802.11n HT20 (5 720 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								
11 410.12 ¹⁾	V	53.70	39.20	-43.02	-	49.88	74.00	24.12
17 213.78	H	54.00	38.36	-41.34	-	51.02	68.20	17.18
Average Data								
No spurious emissions were detected within 20 dB of the limit.								

802.11n HT40 (5 710 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								
11 414.72 ¹⁾	H	53.60	39.20	-43.01	-	49.79	74.00	24.21
17 046.27	V	55.40	38.09	-42.23	-	51.26	68.20	16.94
Average Data								
No spurious emissions were detected within 20 dB of the limit.								

802.11ac VHT20 (5 720 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								
11 408.20 ¹⁾	V	54.00	39.20	-43.03	-	50.17	74.00	23.83
17 229.50	H	54.50	38.42	-41.26	-	51.66	68.20	16.54
Average Data								
No spurious emissions were detected within 20 dB of the limit.								

802.11ac VHT40 (5 710 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								
11 368.72 ¹⁾	H	53.80	39.20	-43.15	-	49.85	74.00	24.15
17 211.10	V	54.60	38.34	-41.36	-	51.58	68.20	16.62
Average Data								
No spurious emissions were detected within 20 dB of the limit.								

802.11ac VHT80 (5 690 MHz)

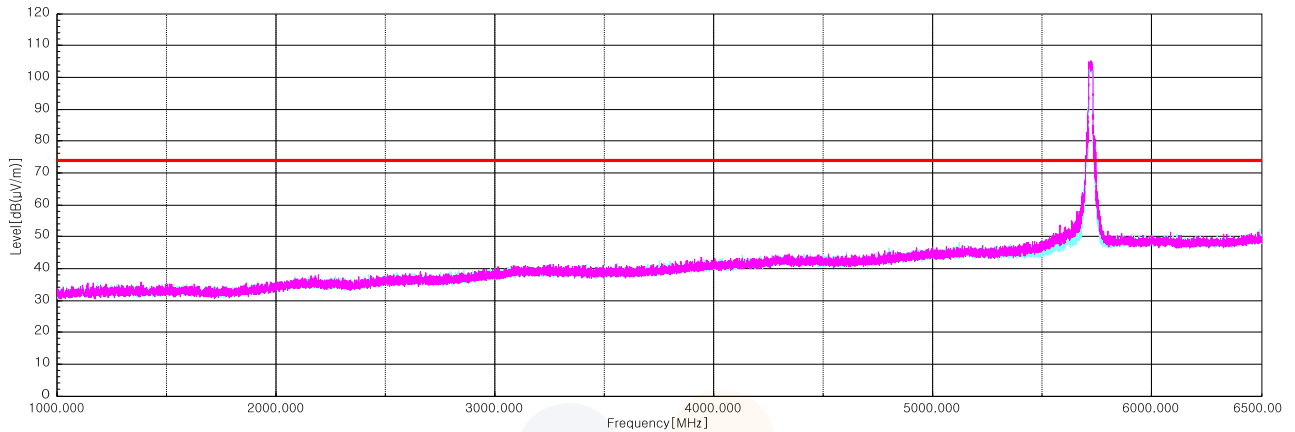
Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μV))	(dB)	(dB)	(dB)	(dB(μV/m))	(dB(μV/m))	(dB)
Peak data								
11 347.25 ¹⁾	V	54.00	39.29	-43.22	-	50.07	74.00	23.93
17 117.57	V	54.80	38.10	-41.85	-	51.05	68.20	17.15
Average Data								
No spurious emissions were detected within 20 dB of the limit.								

Plot of Harmonics and Spurious Emissions

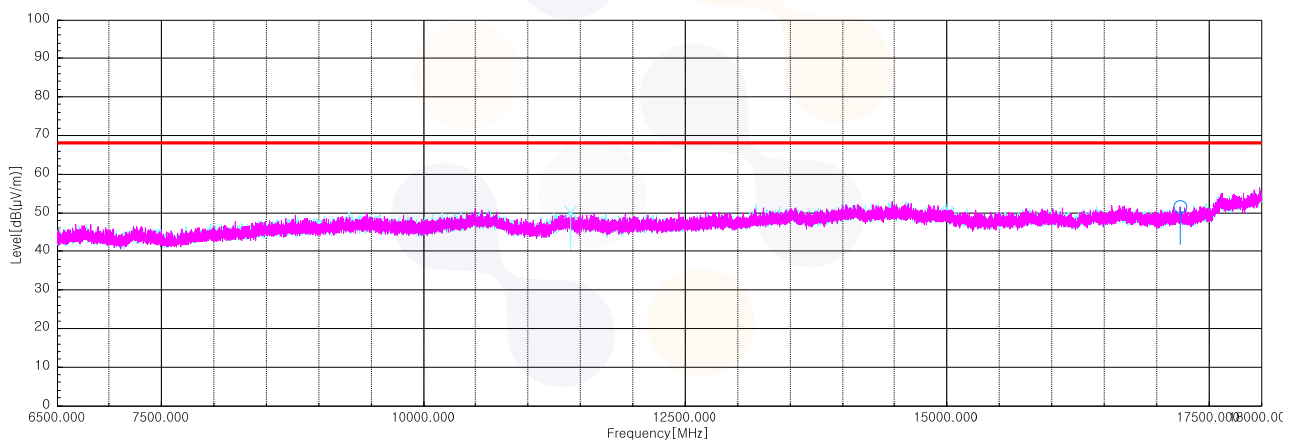
In order to simplify the report, attached plots were only the lowest margin condition

802.11ac VHT20_Straddle Channel (5 720 MHz)

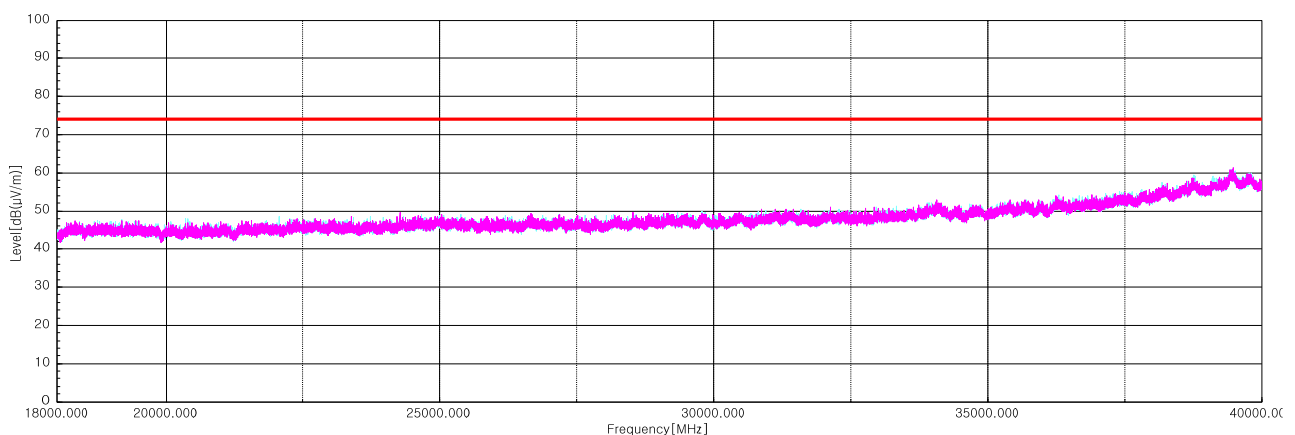
Horizontal/Vertical for 1 GHz ~ 6.5 GHz



Horizontal/Vertical for 6.5 GHz ~ 18 GHz



Horizontal/Vertical for 18 GHz ~ 40 GHz



Straddle Channel MIMO

802.11a (5 720 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								
11 369.48 ¹⁾	H	54.10	39.20	-43.15	-	50.15	74.00	23.85
17 071.18	H	55.80	38.14	-42.09	-	51.85	68.20	16.35
Average Data								
No spurious emissions were detected within 20 dB of the limit.								

802.11n HT20 (5 720 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								
11 430.82 ¹⁾	H	53.80	39.20	-42.96	-	50.04	74.00	23.96
17 205.35	H	54.60	38.32	-41.39	-	51.53	68.20	16.67
Average Data								
No spurious emissions were detected within 20 dB of the limit.								

802.11n HT40 (5 710 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								
11 341.12 ¹⁾	H	54.10	39.28	-43.24	-	50.14	74.00	23.86
17 257.87	V	54.20	38.42	-41.17	-	51.45	68.20	16.75
Average Data								
No spurious emissions were detected within 20 dB of the limit.								

802.11ac VHT20 (5 720 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								
11 428.90 ¹⁾	V	53.40	39.20	-42.96	-	49.64	74.00	24.36
17 219.53	H	55.00	38.38	-41.31	-	52.07	68.20	16.13
Average Data								
No spurious emissions were detected within 20 dB of the limit.								

802.11ac VHT40 (5 710 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								
11 336.52 ¹⁾	H	54.60	39.27	-43.25	-	50.62	74.00	23.38
17 236.40	H	54.30	38.45	-41.22	-	51.53	68.20	16.67
Average Data								
No spurious emissions were detected within 20 dB of the limit.								

802.11ac VHT80 (5 690 MHz)

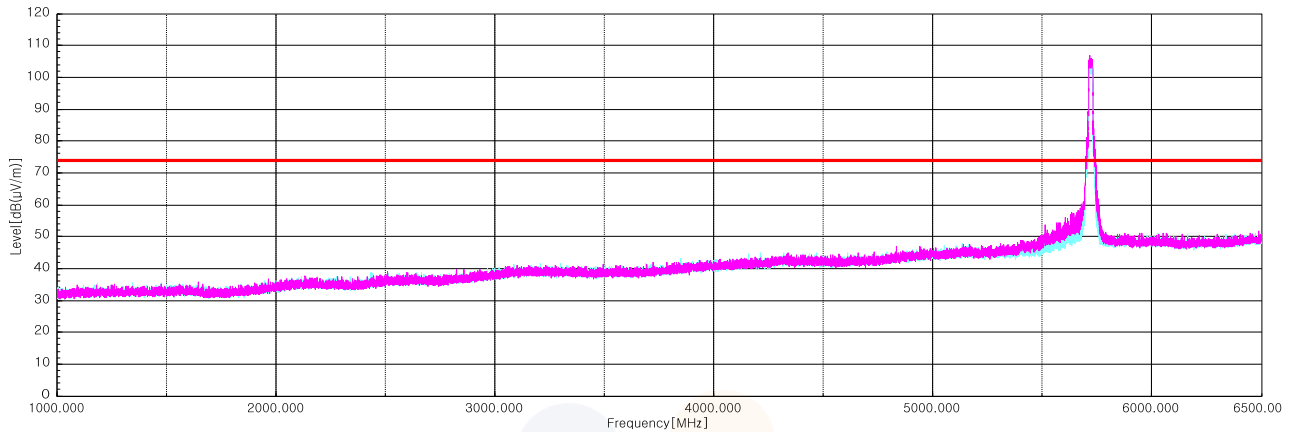
Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μV))	(dB)	(dB)	(dB)	(dB(μV/m))	(dB(μV/m))	(dB)
Peak data								
11 261.38 ¹⁾	V	54.30	39.10	-43.48	-	49.92	74.00	24.08
17 005.63	H	55.60	38.01	-42.44	-	51.17	68.20	17.03
Average Data								
No spurious emissions were detected within 20 dB of the limit.								

Plot of Harmonics and Spurious Emissions

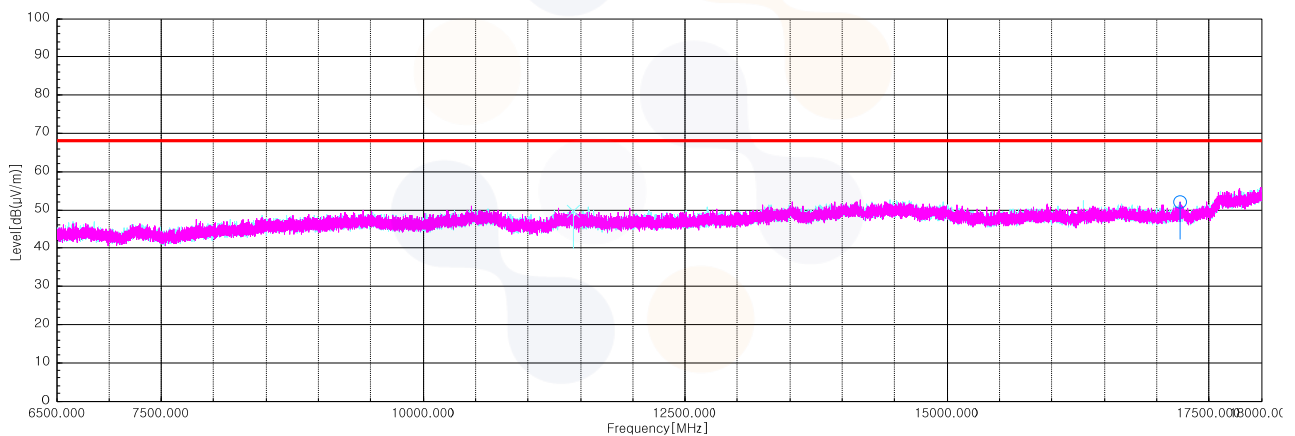
In order to simplify the report, attached plots were only the lowest margin condition

802.11ac VHT20_Straddle Channel (5 720 MHz)

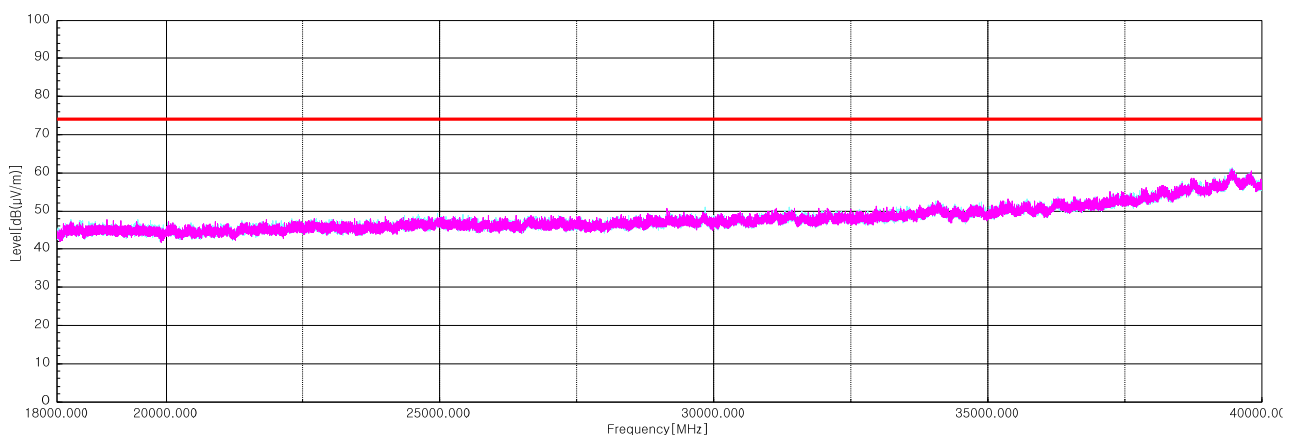
Horizontal/Vertical for 1 GHz ~ 6.5 GHz



Horizontal/Vertical for 6.5 GHz ~ 18 GHz



Horizontal/Vertical for 18 GHz ~ 40 GHz



UNII-3 SISO

802.11a_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(μV/m))	(dB(μV/m))	(dB)
Peak data								
5 724.75	V	73.40	33.75	-26.65	-	80.50	121.60	41.10
11 521.67 ¹⁾	H	54.00	38.96	-42.68	-	50.28	74.00	23.72
17 177.37	H	54.30	38.10	-41.53	-	50.87	68.20	17.33
Average Data								
No spurious emissions were detected within 20 dB of the limit.								

802.11a_Middle Channel (5 785 MHz)

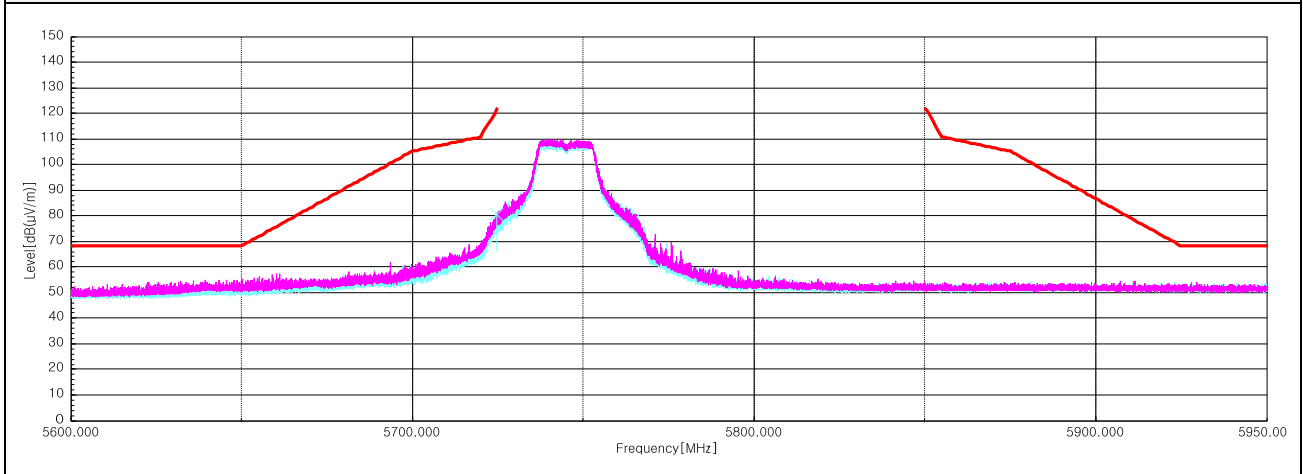
Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μV))	(dB)	(dB)	(dB)	(dB(μV/m))	(dB(μV/m))	(dB)
Peak data								
11 584.92 ¹⁾	H	53.90	38.83	-42.50	-	50.23	74.00	23.77
17 301.95	H	53.30	38.50	-41.31	-	50.49	68.20	17.71
Average Data								
No spurious emissions were detected within 20 dB of the limit.								

802.11a_Highest Channel (5 825 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								
5 850.38	H	61.60	34.20	-26.26	-	69.54	121.30	51.76
11 677.68 ¹⁾	H	53.00	38.80	-42.24	-	49.56	74.00	24.44
17 357.53	H	52.40	38.73	-41.48	-	49.65	68.20	18.55
Average Data								
No spurious emissions were detected within 20 dB of the limit.								

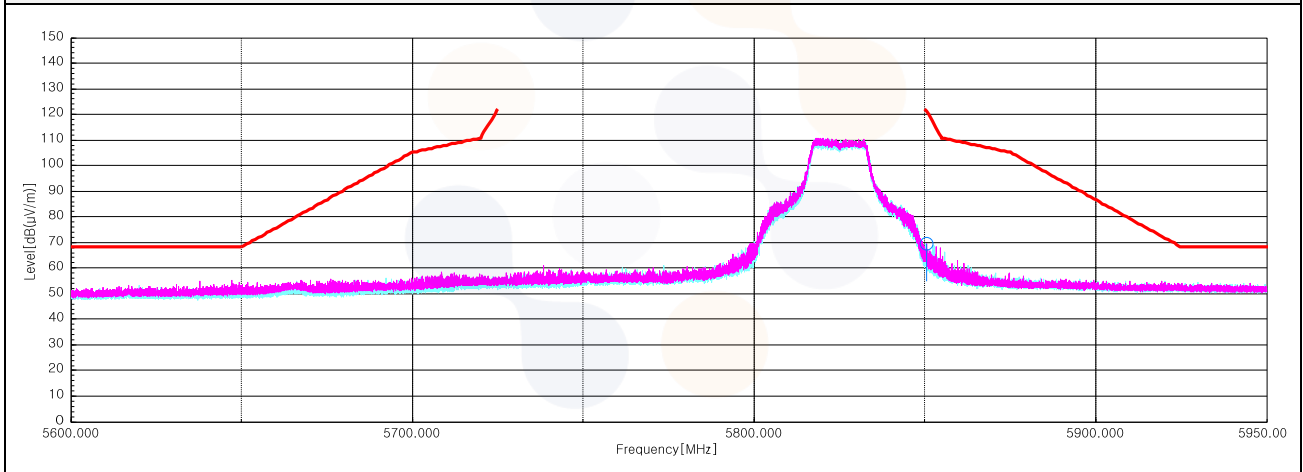
802.11a_Lowest Channel (5 745 MHz)

Horizontal/Vertical for Band-edge



802.11a_Highest Channel (5 825 MHz)

Horizontal/Vertical for Band-edge



Eurofins KCTL Co.,Ltd. 65, Sinwon-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do, 16677, Korea TEL: 82-70-5008-1021 FAX: 82-505-299-8311 www.kctl.co.kr	Report No.: KR23-SRF0225-A Page (193) of (216)	
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802.11n_HT20_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(μV/m))	(dB(μV/m))	(dB)
Peak data								
5 723.54	H	74.10	33.74	-26.65	-	81.19	118.90	37.71
11 516.30 ¹⁾	H	53.70	38.97	-42.69	-	49.98	74.00	24.02
17 247.52	H	53.60	38.49	-41.16	-	50.93	68.20	17.27
Average Data								
No spurious emissions were detected within 20 dB of the limit.								

802.11n_HT20_Middle Channel (5 785 MHz)

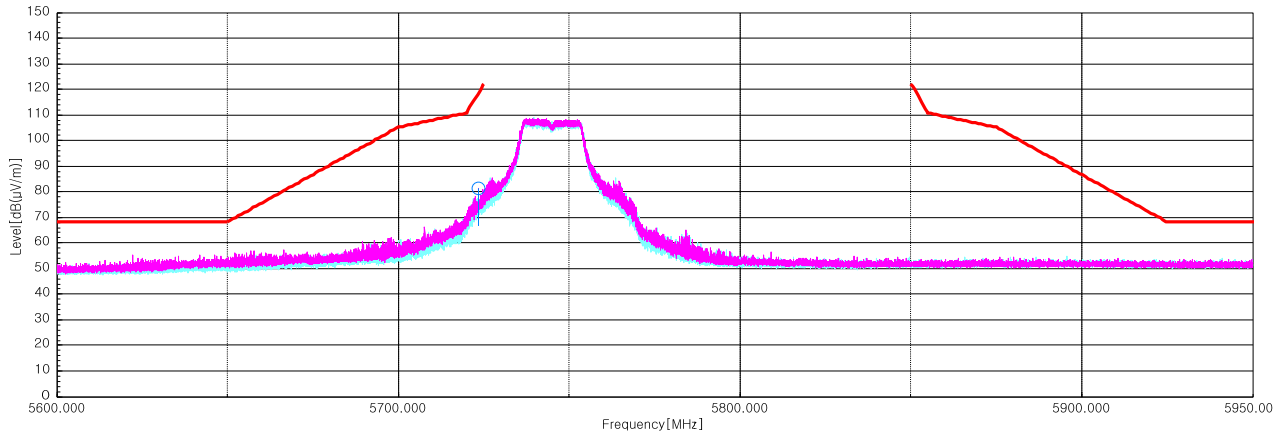
Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μV))	(dB)	(dB)	(dB)	(dB(μV/m))	(dB(μV/m))	(dB)
Peak data								
11 536.23 ¹⁾	V	54.10	38.93	-42.64	-	50.39	74.00	23.61
17 272.43	H	53.90	38.44	-41.22	-	51.12	68.20	17.08
Average Data								
No spurious emissions were detected within 20 dB of the limit.								

802.11n_HT20_Highest Channel (5 825 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								
5 850.04	V	65.90	34.20	-26.26	-	73.84	122.10	48.26
11 586.07 ¹⁾	H	53.60	38.83	-42.50	-	49.93	74.00	24.07
17 401.23	V	51.60	39.01	-41.61	-	49.00	68.20	19.20
Average Data								
No spurious emissions were detected within 20 dB of the limit.								

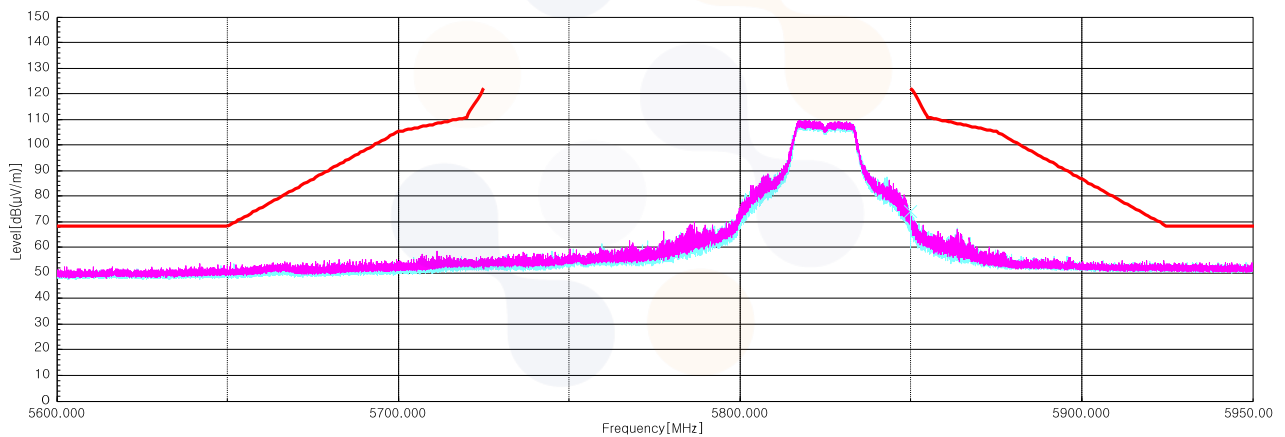
802.11n_HT20_Lowest Channel (5 745 MHz)

Horizontal/Vertical for Band-edge



802.11n_HT20_Highest Channel (5 825 MHz)

Horizontal/Vertical for Band-edge



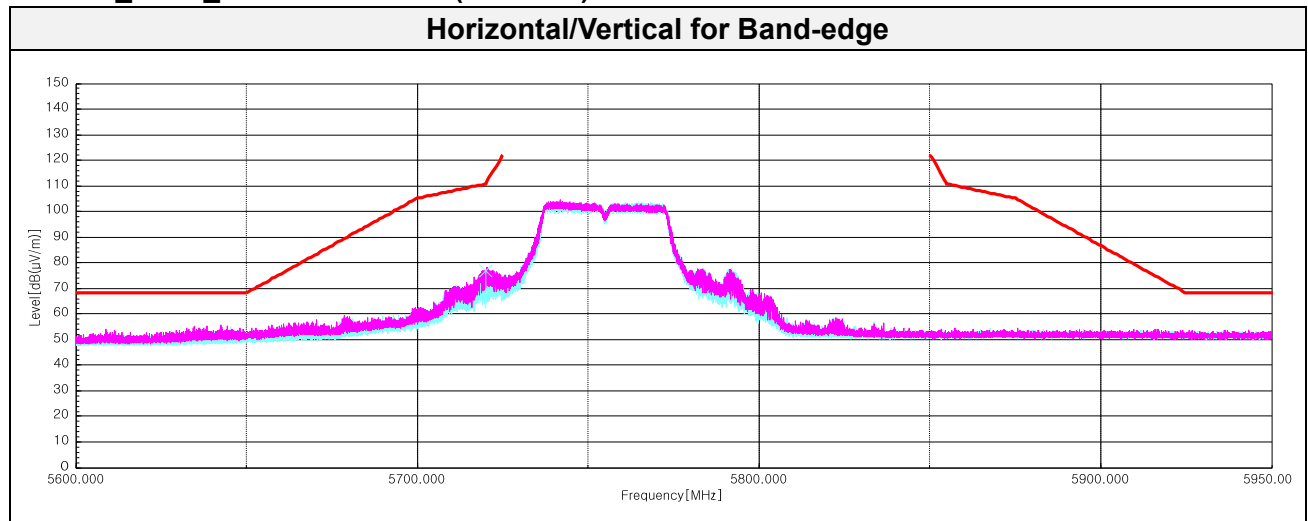
802.11n_HT40_Lowest Channel (5 755 MHz)

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μV))	(dB)	(dB)	(dB)	(dB(μV/m))	(dB(μV/m))	(dB)
Peak data								
5 719.92	V	69.80	33.72	-26.65	-	76.87	110.80	33.93
11 519.75 ¹⁾	V	54.10	38.96	-42.68	-	50.38	74.00	23.62
17 211.87	V	54.50	38.35	-41.35	-	51.50	68.20	16.70
Average Data								
No spurious emissions were detected within 20 dB of the limit.								

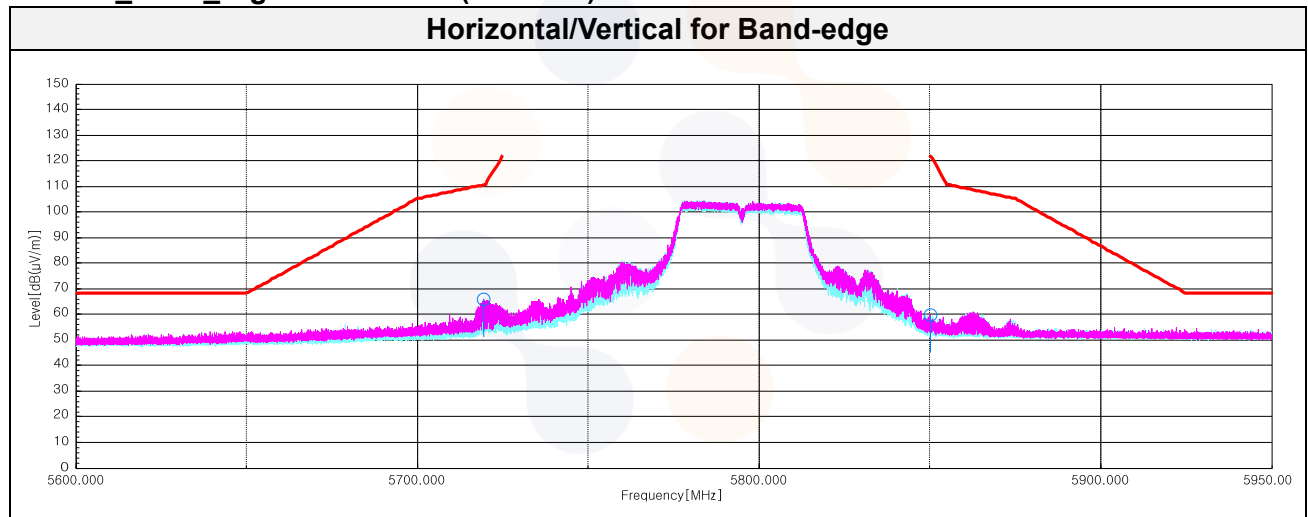
802.11n_HT40_Highest Channel (5 795 MHz)

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μV))	(dB)	(dB)	(dB)	(dB(μV/m))	(dB(μV/m))	(dB)
Peak data								
5 719.46	H	58.80	33.72	-26.65	-	65.87	110.60	44.73
5 850.13	H	51.90	34.20	-26.26	-	59.84	121.90	62.06
11 574.57 ¹⁾	H	53.60	38.85	-42.53	-	49.92	74.00	24.08
17 401.23	H	53.50	39.01	-41.61	-	50.90	68.20	17.30
Average Data								
No spurious emissions were detected within 20 dB of the limit.								

802.11n_HT40_Lowest Channel (5 755 MHz)



802.11n_HT40_Highest Channel (5 795 MHz)



802.11ac_VHT20_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(μV/m))	(dB(μV/m))	(dB)
Peak data								
5 724.67	V	74.20	33.75	-26.65	-	81.30	121.40	40.10
11 519.37 ¹⁾	H	53.50	38.96	-42.68	-	49.78	74.00	24.22
17 232.18	V	54.20	38.43	-41.24	-	51.39	68.20	16.81
Average Data								
No spurious emissions were detected within 20 dB of the limit.								

802.11ac_VHT20_Middle Channel (5 785 MHz)

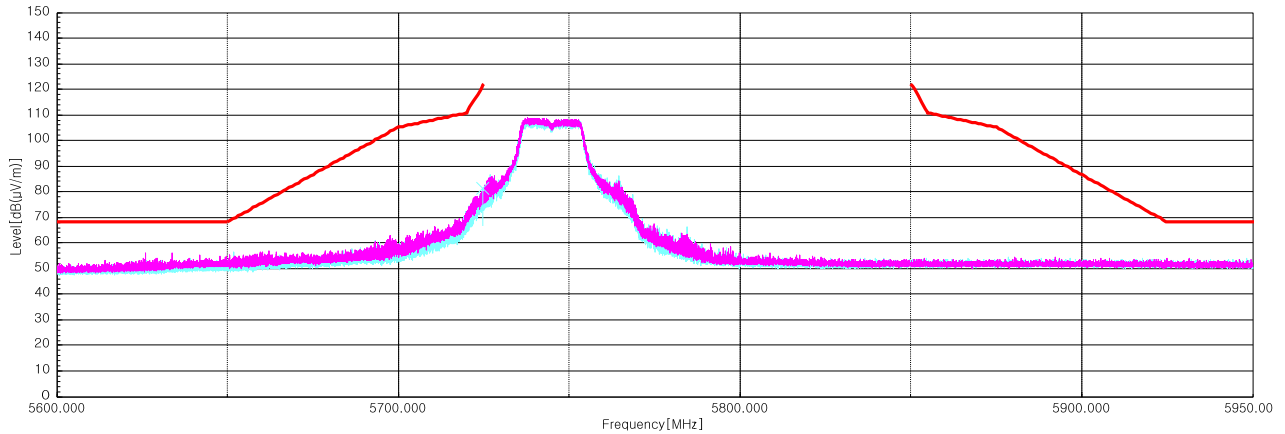
Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μV))	(dB)	(dB)	(dB)	(dB(μV/m))	(dB(μV/m))	(dB)
Peak data								
11 564.22 ¹⁾	H	53.60	38.87	-42.56	-	49.91	74.00	24.09
17 245.98	V	54.20	38.48	-41.17	-	51.51	68.20	16.69
Average Data								
No spurious emissions were detected within 20 dB of the limit.								

802.11ac_VHT20_Highest Channel (5 825 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								
5 852.00	V	64.30	34.21	-26.26	-	72.25	117.60	45.35
11 667.72 ¹⁾	V	54.20	38.80	-42.26	-	50.74	74.00	23.26
17 452.22	H	54.60	39.21	-41.76	-	52.05	68.20	16.15
Average Data								
No spurious emissions were detected within 20 dB of the limit.								

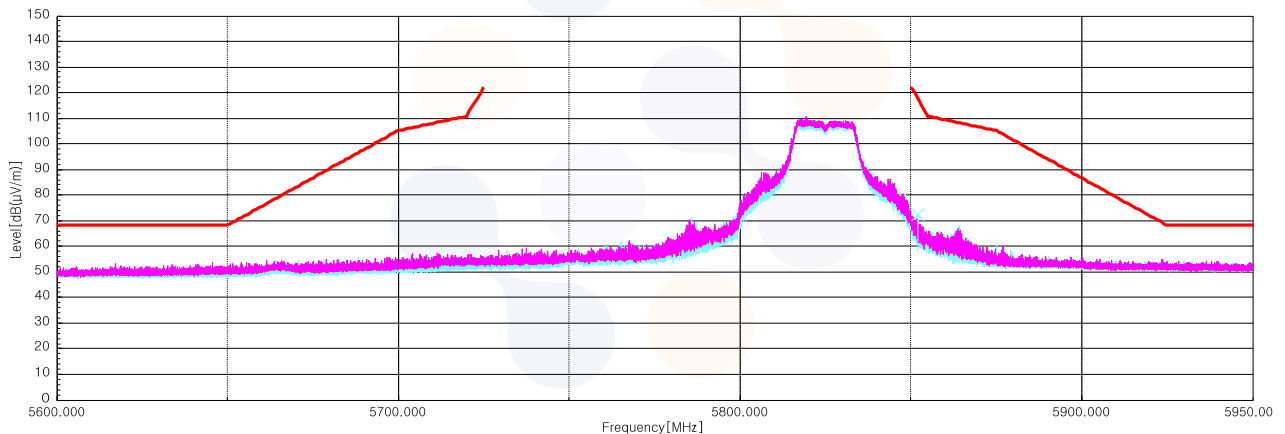
802.11ac_VHT20_Lowest Channel (5 745 MHz)

Horizontal/Vertical for Band-edge



802.11ac_VHT20_Highest Channel (5 825 MHz)

Horizontal/Vertical for Band-edge



802.11ac_VHT40_Lowest Channel (5 755 MHz)

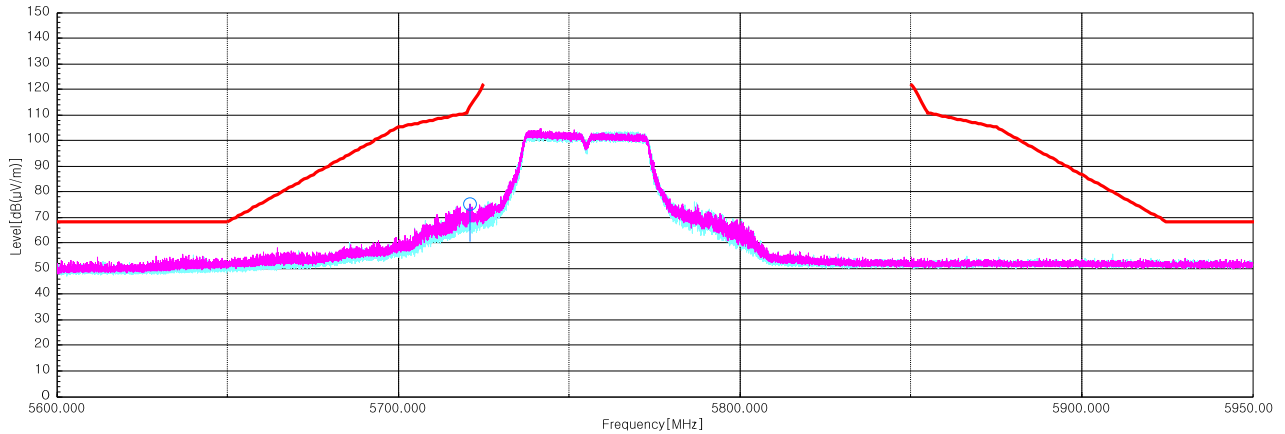
Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μV))	(dB)	(dB)	(dB)	(dB(μV/m))	(dB(μV/m))	(dB)
Peak data								
5 720.98	H	68.10	33.73	-26.65	-	75.18	113.00	37.82
11 423.53 ¹⁾	V	54.00	39.20	-42.98	-	50.22	74.00	23.78
17 144.02	H	54.70	38.10	-41.71	-	51.09	68.20	17.11
Average Data								
No spurious emissions were detected within 20 dB of the limit.								

802.11ac_VHT40_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(μV/m))	(dB(μV/m))	(dB)
Peak data								
5 850.82	V	52.50	34.20	-26.26	-	60.44	120.30	59.86
11 589.13 ¹⁾	H	53.40	38.82	-42.49	-	49.73	74.00	24.27
17 395.87	H	54.10	38.88	-41.59	-	51.39	68.20	16.81
Average Data								
No spurious emissions were detected within 20 dB of the limit.								

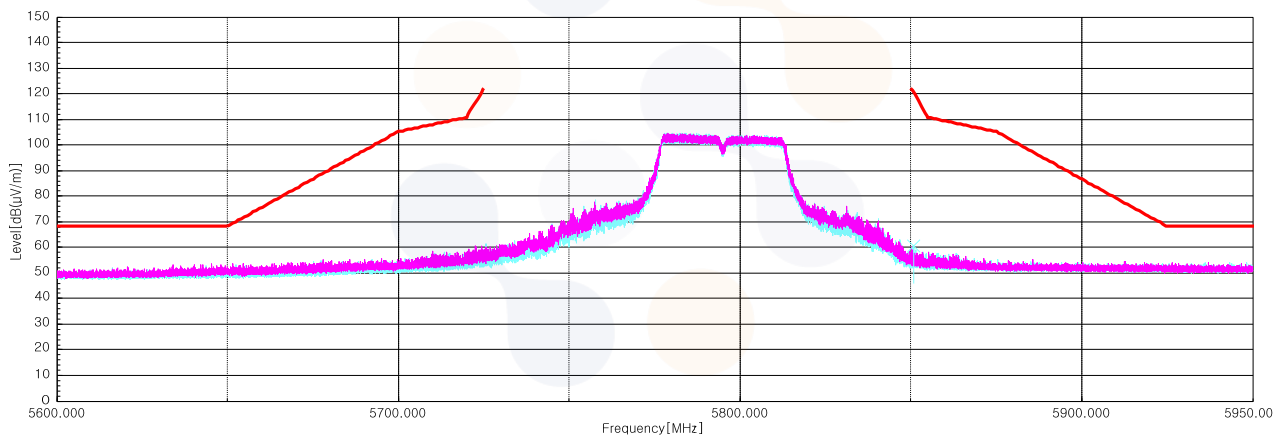
802.11ac_VHT40_Lowest Channel (5 755 MHz)

Horizontal/Vertical for Band-edge



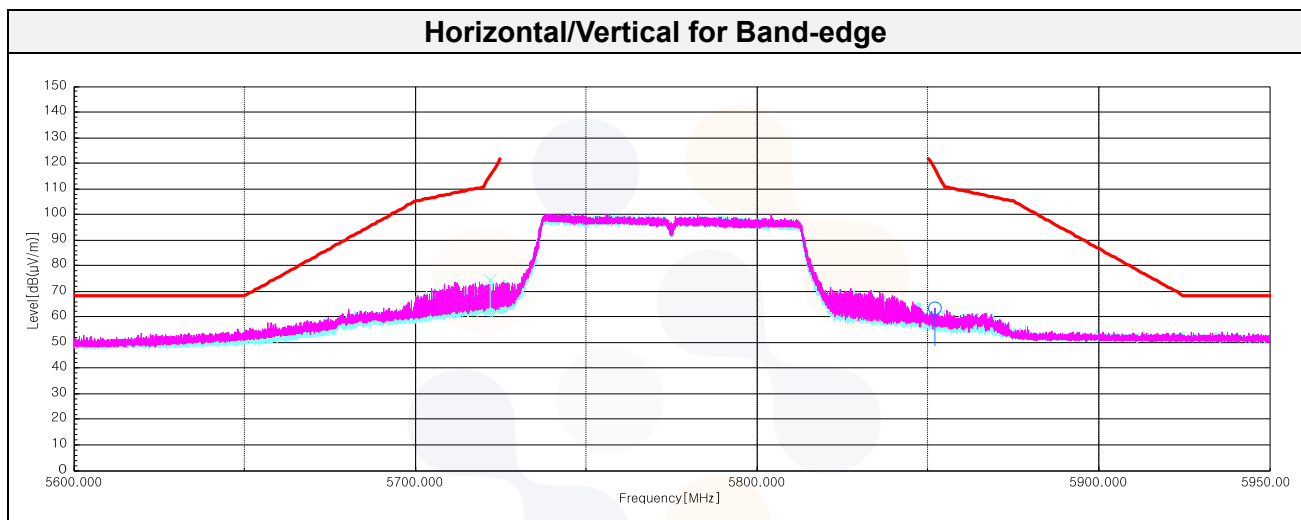
802.11ac_VHT40_Highest Channel (5 795 MHz)

Horizontal/Vertical for Band-edge



802.11ac_VHT80_Middle Channel (5 775 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								
5 722.02	V	67.30	33.73	-26.65	-	74.38	115.40	41.02
5 852.05	H	55.30	34.21	-26.26	-	63.25	117.50	54.25
11 614.82 ¹⁾	H	53.40	38.77	-42.41	-	49.76	74.00	24.24
17 247.52	V	54.80	38.49	-41.16	-	52.13	68.20	16.07
Average Data								
No spurious emissions were detected within 20 dB of the limit.								



UNII-3 2TX MIMO

802.11a_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								
5 724.89	H	70.40	33.75	-26.65	-	77.50	122.00	44.50
11 412.80 ¹⁾	V	53.80	39.20	-43.01	-	49.99	74.00	24.01
17 250.20	V	54.90	38.40	-41.15	-	52.15	68.20	16.05
Average Data								
No spurious emissions were detected within 20 dB of the limit.								

802.11a_Middle Channel (5 785 MHz)

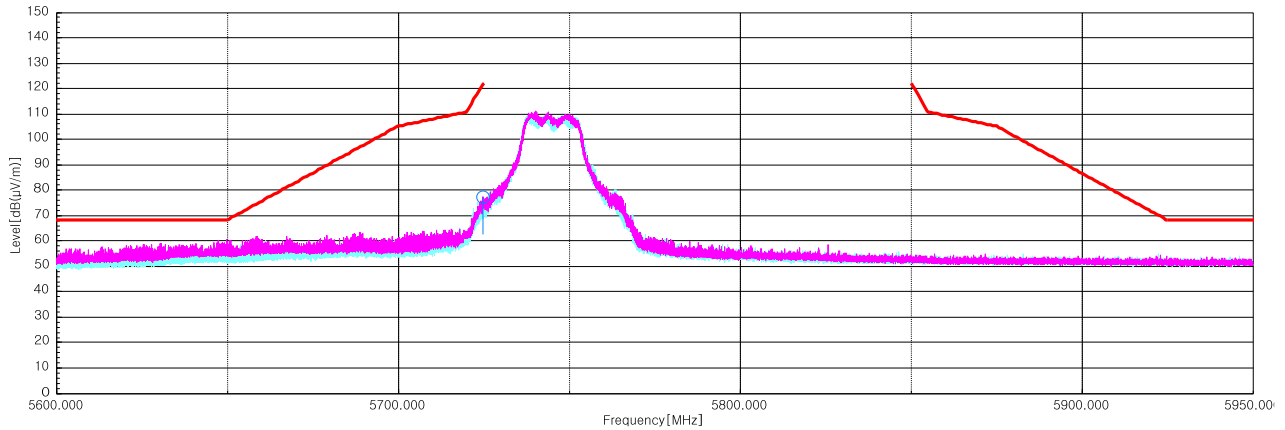
Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μ V))	(dB)	(dB)	(dB)	(dB(μ V/m))	(dB(μ V/m))	(dB)
Peak data								
11 605.23 ¹⁾	V	53.00	38.79	-42.44	-	49.35	74.00	24.65
17 316.90	H	53.50	38.53	-41.35	-	50.68	68.20	17.52
Average Data								
No spurious emissions were detected within 20 dB of the limit.								

802.11a_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								
5 850.65	V	61.10	34.20	-26.26	-	69.04	120.70	51.66
11 656.22 ¹⁾	V	53.30	38.80	-42.30	-	49.80	74.00	24.20
17 420.78	H	54.20	39.12	-41.67	-	51.65	68.20	16.55
Average Data								
No spurious emissions were detected within 20 dB of the limit.								

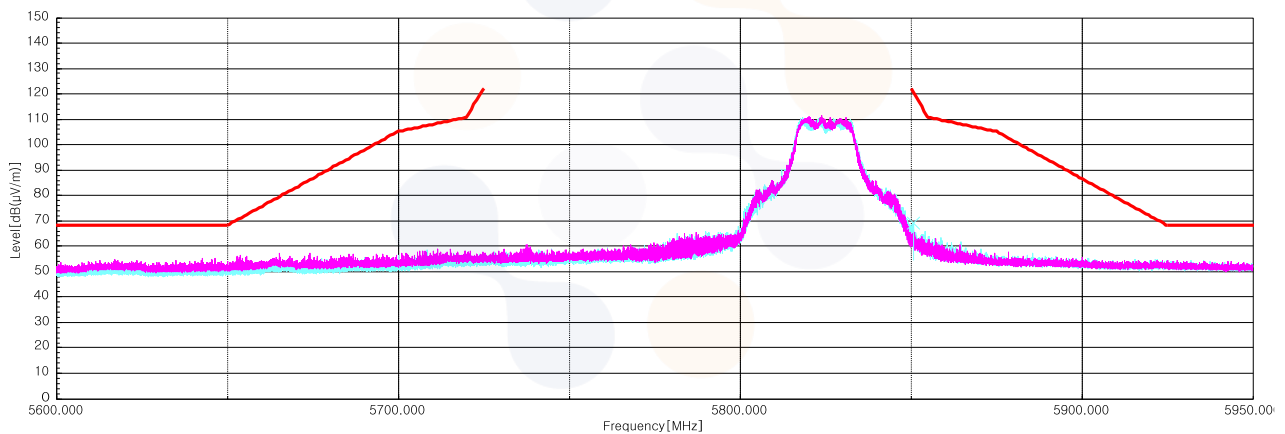
802.11a_Lowest Channel (5 745 MHz)

Horizontal/Vertical for Band-edge



802.11a_Highest Channel (5 825 MHz)

Horizontal/Vertical for Band-edge



802.11n_HT20_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(μV/m))	(dB(μV/m))	(dB)
Peak data								
5 723.53	V	65.50	33.74	-26.65	-	72.59	118.80	46.21
11 550.42 ¹⁾	H	54.60	38.90	-42.60	-	50.90	74.00	23.10
17 160.88	H	54.60	38.10	-41.62	-	51.08	68.20	17.12
Average Data								
No spurious emissions were detected within 20 dB of the limit.								

802.11n_HT20_Middle Channel (5 785 MHz)

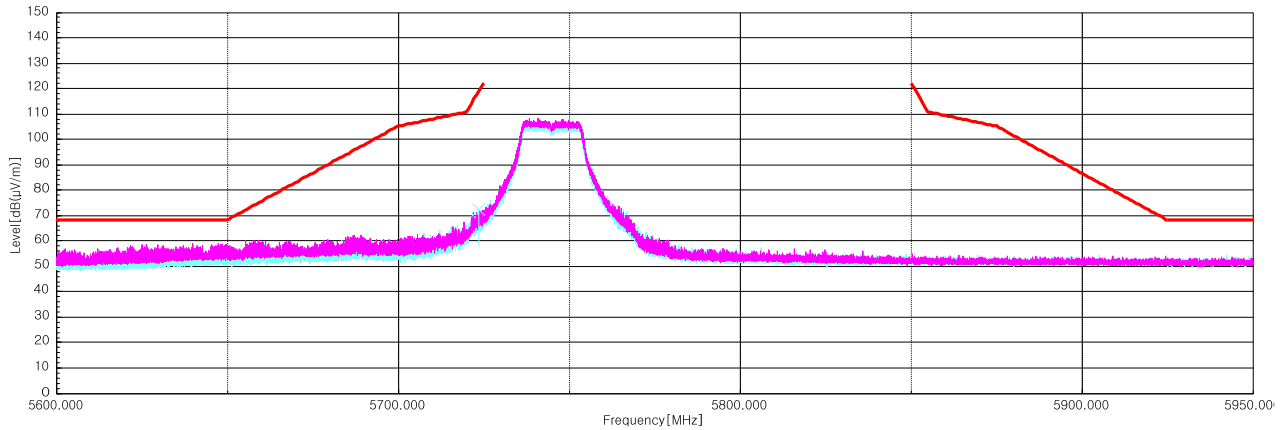
Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μV))	(dB)	(dB)	(dB)	(dB(μV/m))	(dB(μV/m))	(dB)
Peak data								
11 540.45 ¹⁾	V	53.10	38.92	-42.63	-	49.39	74.00	24.61
17 214.55	H	54.70	38.36	-41.34	-	51.72	68.20	16.48
Average Data								
No spurious emissions were detected within 20 dB of the limit.								

802.11n_HT20_Highest Channel (5 825 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								
5 850.01	H	59.80	34.20	-26.26	-	67.74	122.20	54.46
11 607.53 ¹⁾	H	53.50	38.78	-42.43	-	49.85	74.00	24.15
17 472.53	H	53.70	39.29	-41.83	-	51.16	68.20	17.04
Average Data								
No spurious emissions were detected within 20 dB of the limit.								

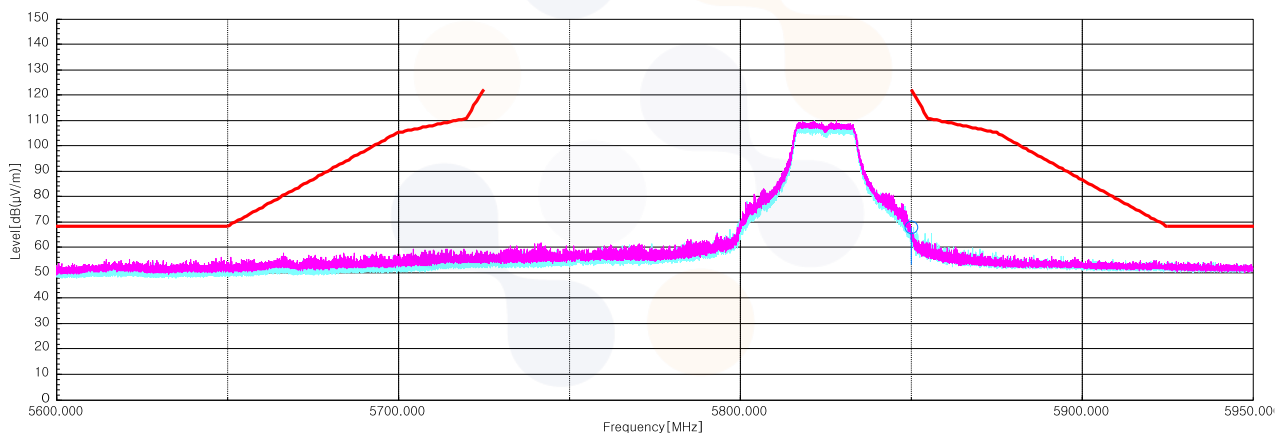
802.11n_HT20_Lowest Channel (5 745 MHz)

Horizontal/Vertical for Band-edge



802.11n_HT20_Highest Channel (5 825 MHz)

Horizontal/Vertical for Band-edge



802.11n_HT40_Lowest Channel (5 755 MHz)

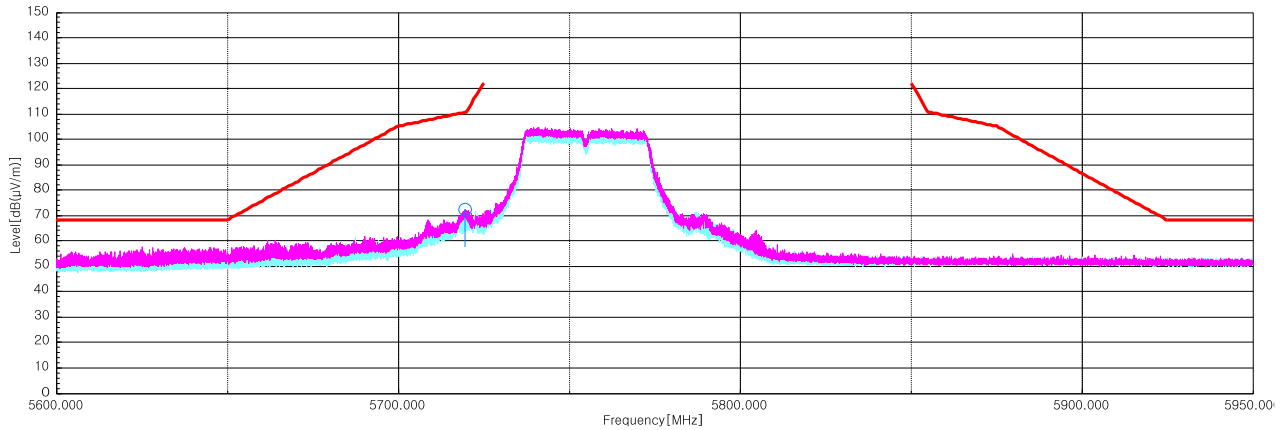
Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μV))	(dB)	(dB)	(dB)	(dB(μV/m))	(dB(μV/m))	(dB)
Peak data								
5 719.53	H	65.20	33.72	-26.65	-	72.27	110.70	38.43
11 524.73 ¹⁾	H	53.00	38.95	-42.67	-	49.28	74.00	24.72
17 141.33	V	55.00	38.10	-41.72	-	51.38	68.20	16.82
Average Data								
No spurious emissions were detected within 20 dB of the limit.								

802.11n_HT40_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(μV/m))	(dB(μV/m))	(dB)
Peak data								
5 850.45	V	50.00	34.20	-26.26	-	57.94	121.20	63.26
11 552.72 ¹⁾	H	54.10	38.89	-42.59	-	50.40	74.00	23.60
17 415.03	H	54.30	39.09	-41.65	-	51.74	68.20	16.46
Average Data								
No spurious emissions were detected within 20 dB of the limit.								

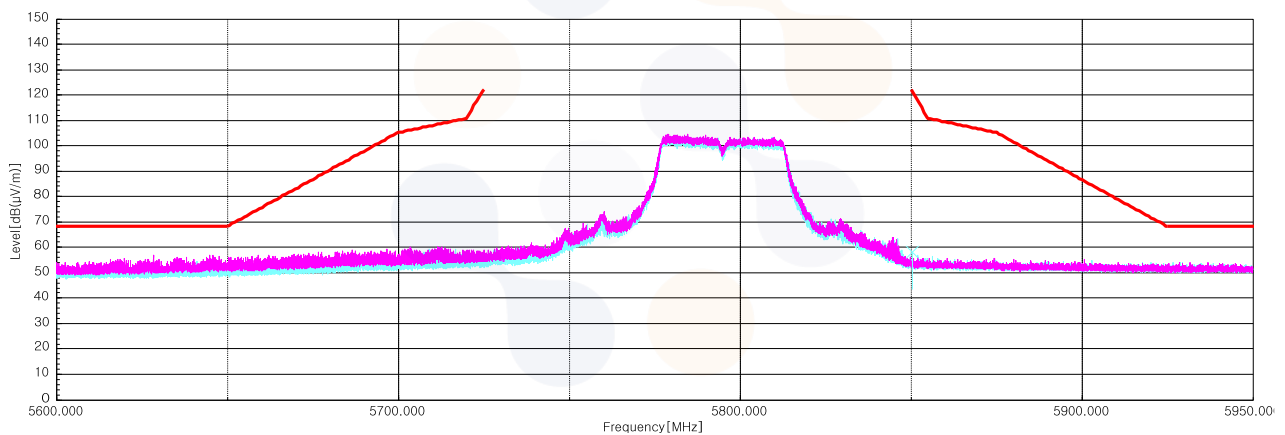
802.11n_HT40_Lowest Channel (5 755 MHz)

Horizontal/Vertical for Band-edge



802.11n_HT40_Highest Channel (5 795 MHz)

Horizontal/Vertical for Band-edge



802.11ac_VHT20_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(μV/m))	(dB(μV/m))	(dB)
Peak data								
5 723.96	H	67.50	33.74	-26.65	-	74.59	119.80	45.21
11 406.67 ¹⁾	H	54.00	39.20	-43.03	-	50.17	74.00	23.83
17 207.27	H	54.70	38.33	-41.38	-	51.65	68.20	16.55
Average Data								
No spurious emissions were detected within 20 dB of the limit.								

802.11ac_VHT20_Middle Channel (5 785 MHz)

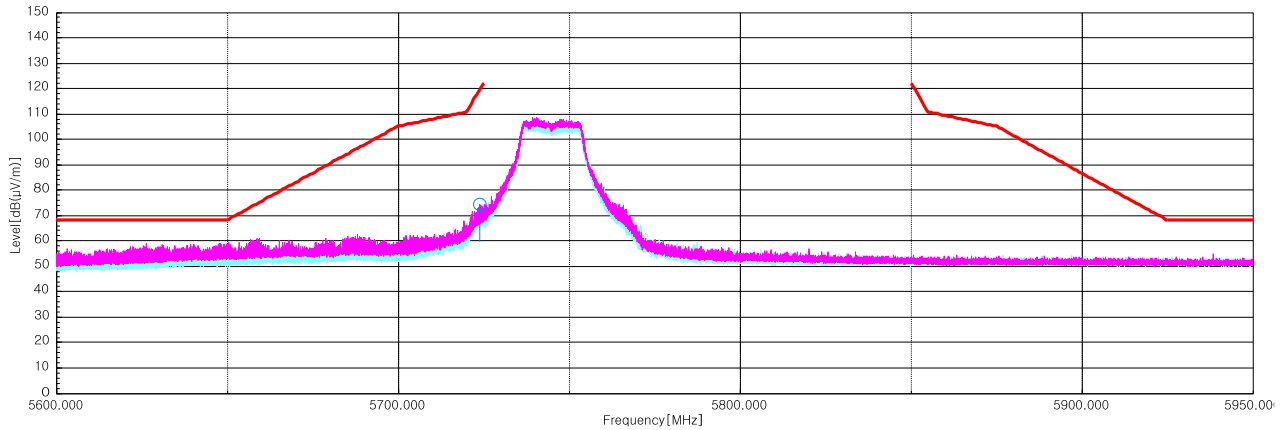
Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μV))	(dB)	(dB)	(dB)	(dB(μV/m))	(dB(μV/m))	(dB)
Peak data								
11 569.20 ¹⁾	V	53.20	38.86	-42.54	-	49.52	74.00	24.48
17 262.47	H	53.50	38.42	-41.19	-	50.73	68.20	17.47
Average Data								
No spurious emissions were detected within 20 dB of the limit.								

802.11ac_VHT20_Highest Channel (5 825 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								
5 850.02	V	60.00	34.20	-26.26	-	67.94	122.20	54.26
11 652.38 ¹⁾	H	53.80	38.80	-42.31	-	50.29	74.00	23.71
17 461.80	H	54.40	39.25	-41.79	-	51.86	68.20	16.34
Average Data								
No spurious emissions were detected within 20 dB of the limit.								

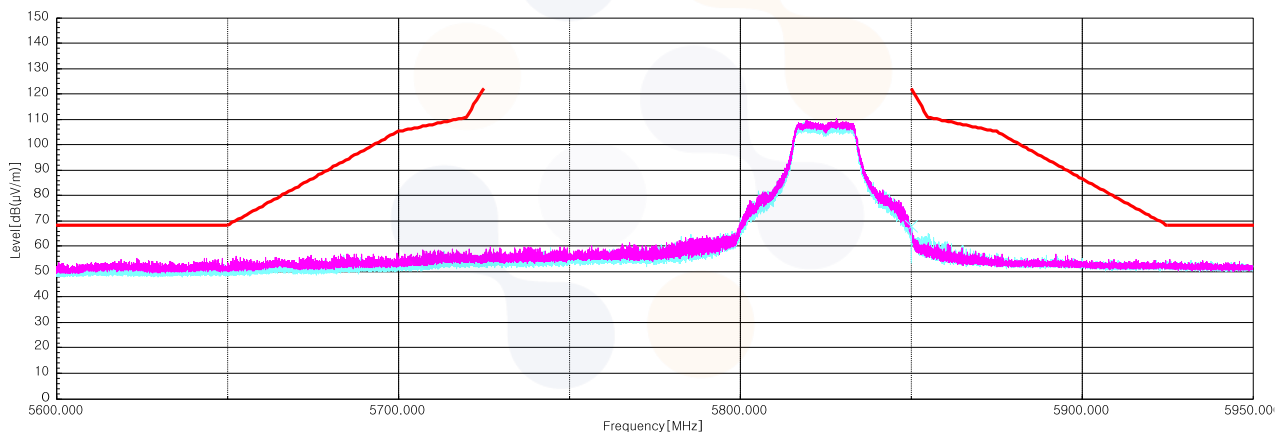
802.11ac_VHT20_Lowest Channel (5 745 MHz)

Horizontal/Vertical for Band-edge



802.11ac_VHT20_Highest Channel (5 825 MHz)

Horizontal/Vertical for Band-edge



Eurofins KCTL Co.,Ltd. 65, Sinwon-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do, 16677, Korea TEL: 82-70-5008-1021 FAX: 82-505-299-8311 www.kctl.co.kr	Report No.: KR23-SRF0225-A Page (210) of (216)	
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802.11ac_VHT40_Lowest Channel (5 755 MHz)

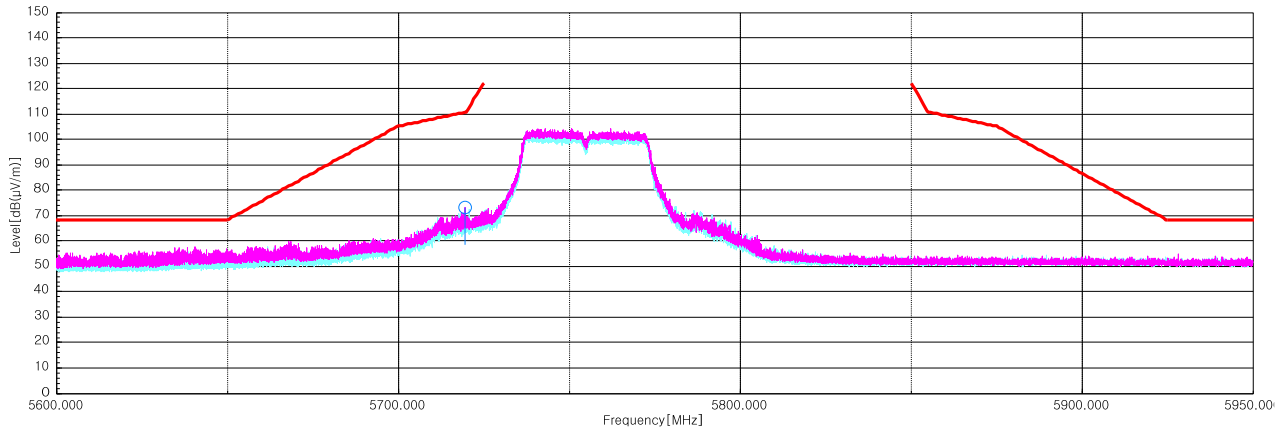
Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μV))	(dB)	(dB)	(dB)	(dB(μV/m))	(dB(μV/m))	(dB)
Peak data								
5 719.54	H	66.00	33.72	-26.65	-	73.07	110.70	37.63
11 518.22 ¹⁾	H	53.50	38.96	-42.69	-	49.77	74.00	24.23
17 469.08	V	55.40	39.28	-41.82	-	52.86	68.20	15.34
Average Data								
No spurious emissions were detected within 20 dB of the limit.								

802.11ac_VHT40_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(μV/m))	(dB(μV/m))	(dB)
Peak data								
5 855.27	V	49.60	34.22	-26.24	-	57.58	110.70	53.12
11 541.22 ¹⁾	V	53.50	38.92	-42.62	-	49.80	74.00	24.20
17 291.98	H	53.90	38.48	-41.28	-	51.10	68.20	17.10
Average Data								
No spurious emissions were detected within 20 dB of the limit.								

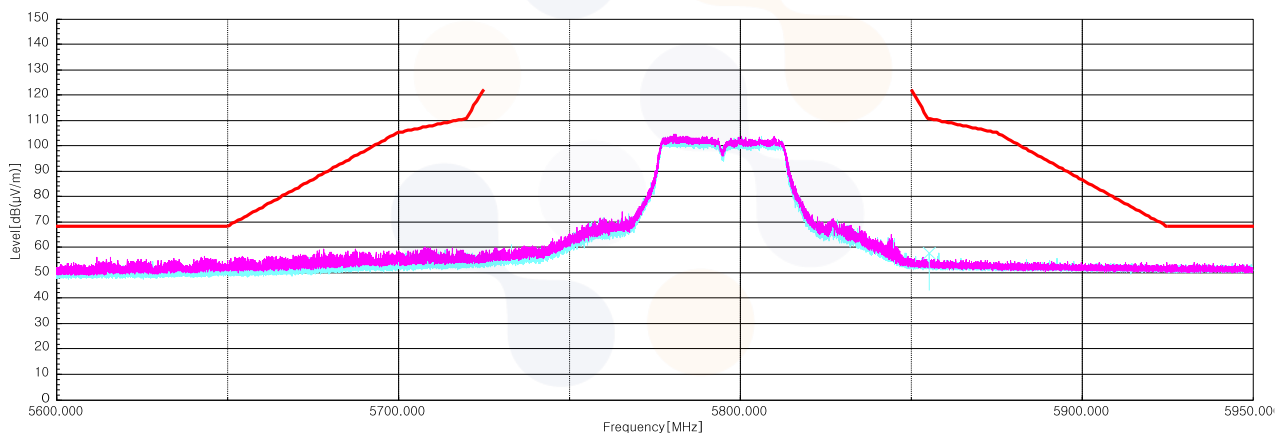
802.11ac_VHT40_Lowest Channel (5 755 MHz)

Horizontal/Vertical for Band-edge



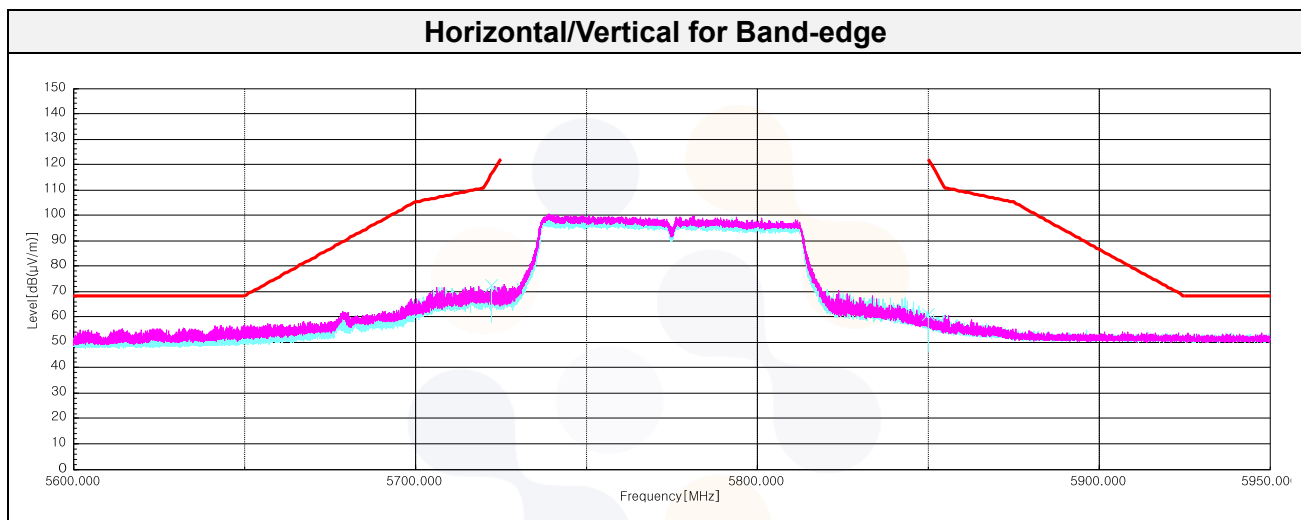
802.11ac_VHT40_Highest Channel (5 795 MHz)

Horizontal/Vertical for Band-edge



802.11ac_VHT80_Middle Channel (5 775 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								
5 722.51	V	65.50	33.74	-26.65	-	72.59	116.50	43.91
5 850.01	V	53.20	34.20	-26.26	-	61.14	122.20	61.06
11 568.82 ¹⁾	H	54.10	38.86	-42.54	-	50.42	74.00	23.58
17 231.03	V	54.40	38.42	-41.25	-	51.57	68.20	16.63
Average Data								
No spurious emissions were detected within 20 dB of the limit.								

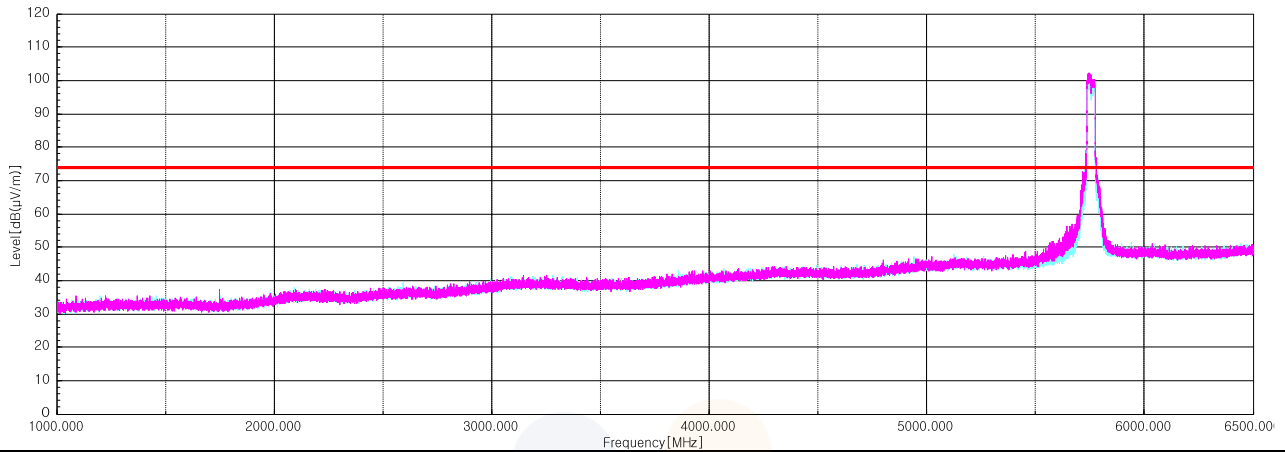


Plot of Harmonics and Spurious Emissions

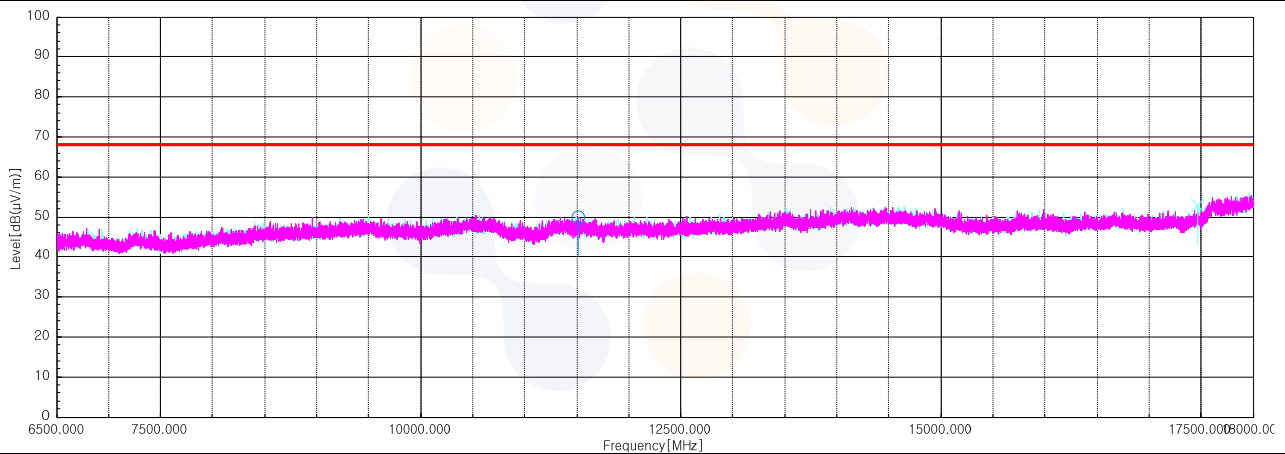
In order to simplify the report, attached plots were only the lowest margin condition

802.11ac VHT40_UNII-3_2TX MIMO_Low Channel (5 755 MHz)

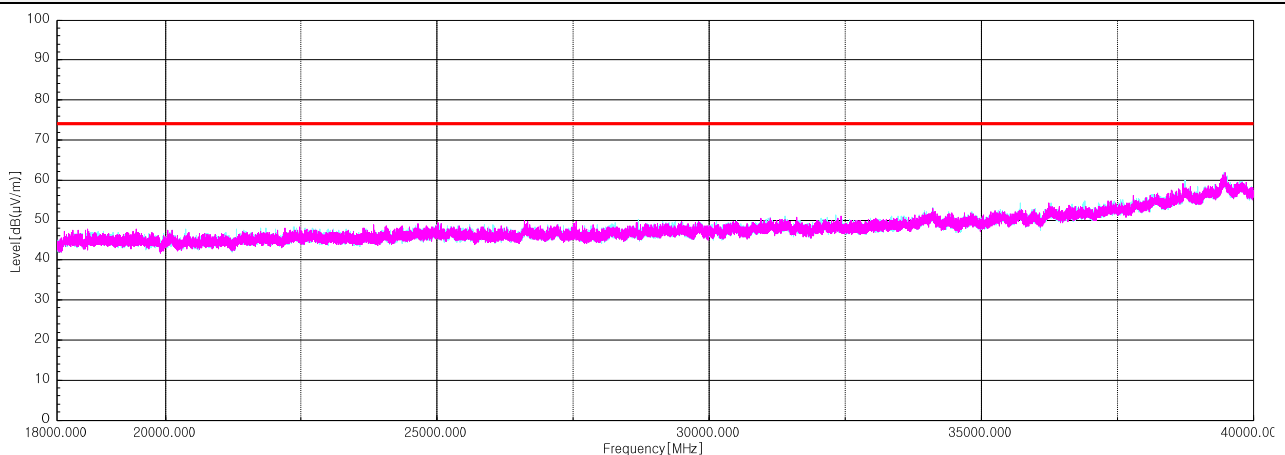
Horizontal/Vertical for 1 GHz ~ 6.5 GHz



Horizontal/Vertical for 6.5 GHz ~ 18 GHz

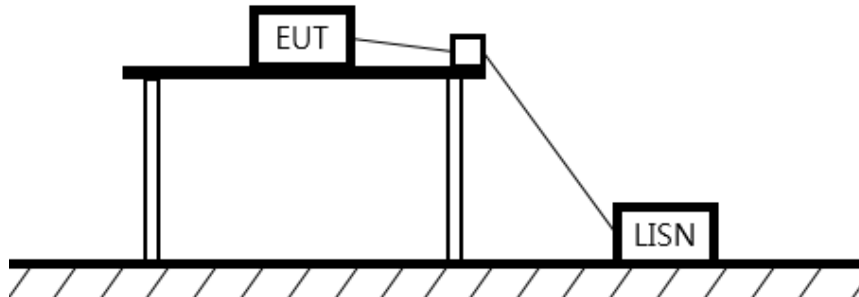


Horizontal/Vertical for 18 GHz ~ 40 GHz



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.

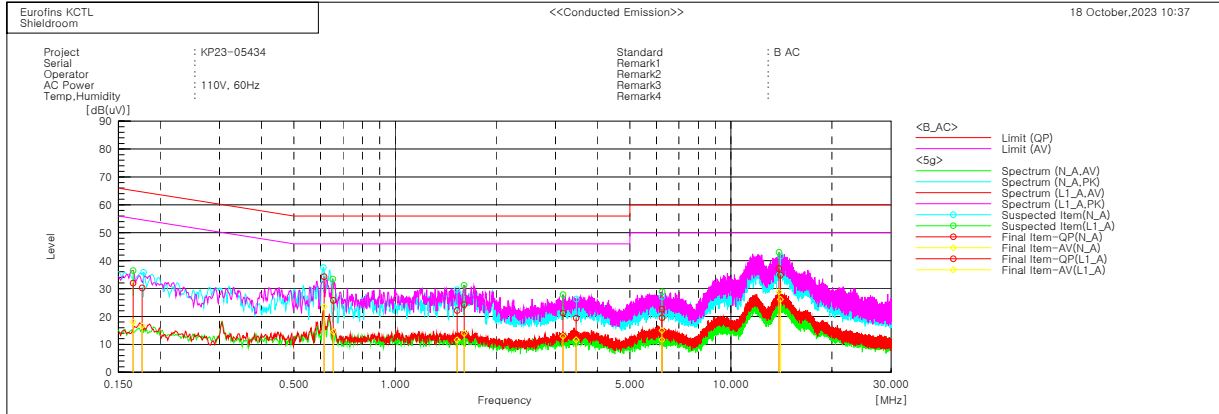
Frequency of Emission (MHz)	Conducted limit (dBμV/m)	
	Quasi-peak	Average
0.15 – 0.50	66 - 56*	56 - 46*
0.50 – 5.00	56	46
5.00 – 30.0	60	50

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 50Ω/50μH 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

Worst case: 802.11a 2TX MIMO / UNII-2C_5 500 MHz



Final Result

--- N_A Phase ---										
No.	Frequency	Reading QP	Reading CAV	c.f	Result QP	Result CAV	Limit QP	Limit AV	Margin QP	Margin CAV
	[MHz]	[dB(uV)]	[dB(uV)]	[dB]	[dB(uV)]	[dB(uV)]	[dB(uV)]	[dB(uV)]	[dB]	[dB]
1	0.17666	20.0	6.4	10.2	30.2	16.6	64.6	54.6	34.4	38.0
2	0.6148	24.3	13.6	9.9	34.2	23.5	56.0	46.0	21.8	22.5
3	1.53061	12.3	1.8	9.8	22.1	11.6	56.0	46.0	33.9	34.4
4	3.46235	9.6	1.9	9.8	19.4	11.7	56.0	46.0	36.6	34.3
5	6.23558	9.6	1.8	9.9	19.5	11.7	60.0	50.0	40.5	38.3
6	14.0539	24.1	15.4	10.7	34.8	26.1	60.0	50.0	25.2	23.9

--- L1_A Phase ---										
No.	Frequency	Reading QP	Reading CAV	c.f	Result QP	Result CAV	Limit QP	Limit AV	Margin QP	Margin CAV
	[MHz]	[dB(uV)]	[dB(uV)]	[dB]	[dB(uV)]	[dB(uV)]	[dB(uV)]	[dB(uV)]	[dB]	[dB]
1	0.16593	21.7	7.8	10.2	31.9	18.0	65.2	55.2	33.3	37.2
2	0.65479	15.9	4.6	9.9	25.8	14.5	56.0	46.0	30.2	31.5
3	1.60754	14.4	4.1	9.8	24.2	13.9	56.0	46.0	31.8	32.1
4	3.1622	11.5	3.1	9.8	21.3	12.9	56.0	46.0	34.7	33.1
5	6.2355	12.7	5.1	9.9	22.6	15.0	60.0	50.0	37.4	35.0
6	13.90073	26.5	18.1	10.7	37.2	28.8	60.0	50.0	22.8	21.2

8. Measurement equipment

Equipment Name	Manufacturer	Model No.	Serial No.	Next Cal. Date
Spectrum Analyzer	R&S	FSV30	100810	24.07.03
DC Power Supply	AGILENT	E3632A	KR75304571	24.04.27
Attenuator	API Inmet	40AH2W-10	16	24.05.03
Vector Signal Generator	R&S	SMBV100A	257566	24.07.04
Signal Generator	R&S	SMB100A	176206	24.01.19
Power Sensor	R&S	NRP-Z81	1137.9009.02-106224-tg	24.09.12
Attenuator	R&S	DNF Dämpfungsglied 10 dB in N-50 Ohm	0001	24.04.25
Spectrum Analyzer	R&S	FSVA40	101575	24.06.19
PSA Spectrum Analyzer	Agilent	E4440A	MY46186407	24.03.22
Broadband PreAmplifier	SCHWARZBECK	BBV9718D	57	24.03.17
Low Noise Amplifier	TESTEK	TK-PA18H	220124-L	24.10.12**
Low Noise Amplifier	TESTEK	TK-PA1840H	220133-L	24.10.17**
Amplifier	SONOMA INSTRUMENT	310N	421821	24.10.12**
Horn Antenna	SCHWARZBECK	BBHA9120D	2763	24.10.18**
Horn Antenna	SCHWARZBECK	BBHA9170	1267	24.10.16**
Horn Antenna	ETS-LINDGREN	3117	246058	24.03.23
Bilog Antenna	Teseq GmbH	CBL 6112D	63756	24.11.17
Loop Antenna	R&S	HFH2-Z2	100355	24.08.10
High Pass Filter	Wainwright Instruments GmbH	WHKX8-5655-6500- 18000-40SS	SN8	24.10.16**
TWO-LINE V - NETWORK	R&S	ENV216	101358	24.09.27*
EMI TEST RECEIVER	R&S	ESCI3	100001	24.08.18
Controller	INNCO SYSTEMS	CO3000	1441/54370322/P	-
Antenna Mast	INNCO SYSTEMS	MA4640-XP-ET	-	-
Turn Device	INNCO SYSTEMS	DS1200-S-1t	-	-

*This equipment was calibrated during the test period, and was used after calibration.

**This equipment was calibrated during the test period, and was used before calibration.

End of test report