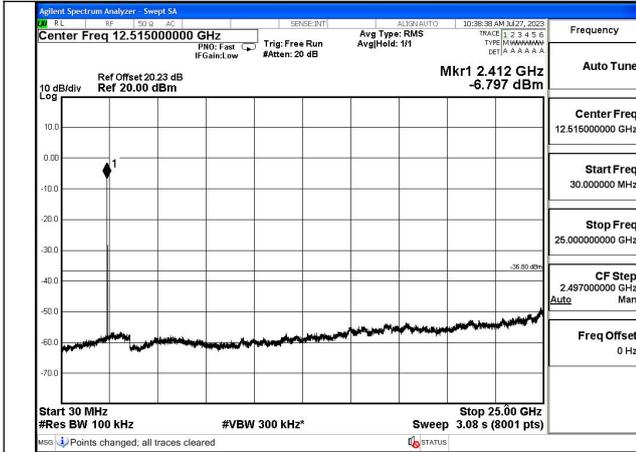
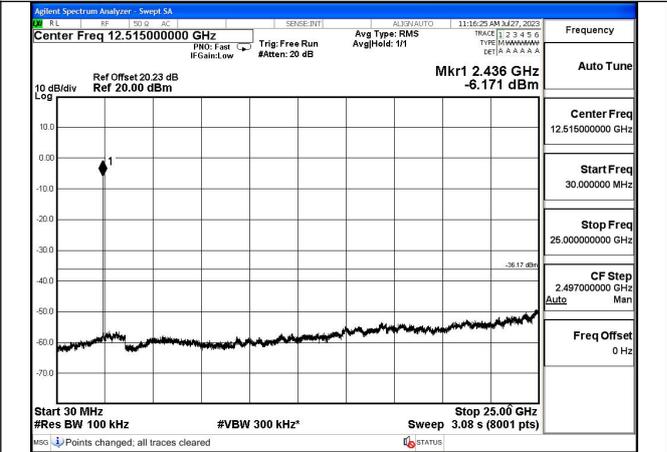


Conducted Out of band emission measurement

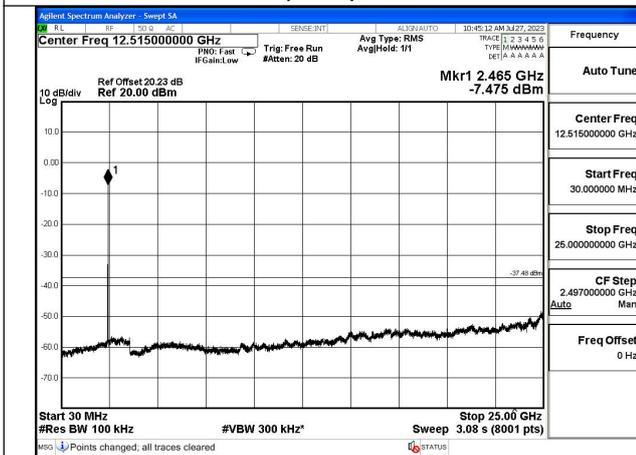
Test Mode: 802.11b



Mode:802.11b Frequency:2412MHz Ant:Chain0



Mode:802.11b Frequency:2437MHz Ant:Chain0

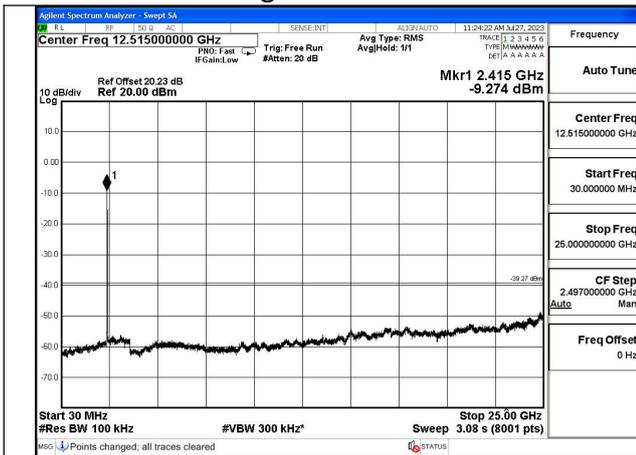


Mode:802.11b Frequency:2462MHz Ant:Chain0



Mode:802.11b Frequency:2473MHz Ant:Chain0

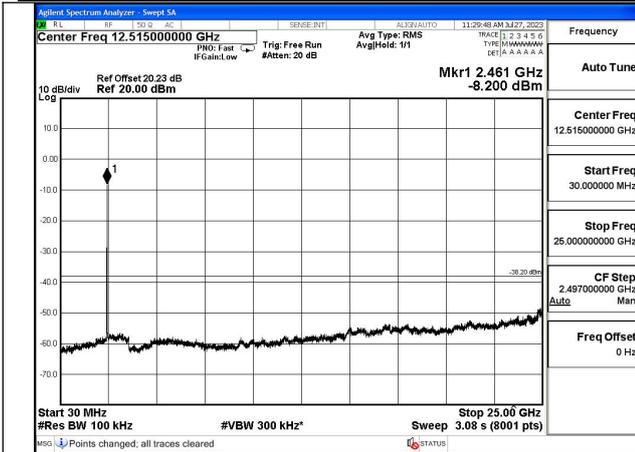
Test Mode: 802.11g



Mode:802.11g Frequency:2412MHz Ant:Chain0



Mode:802.11g Frequency:2437MHz Ant:Chain0

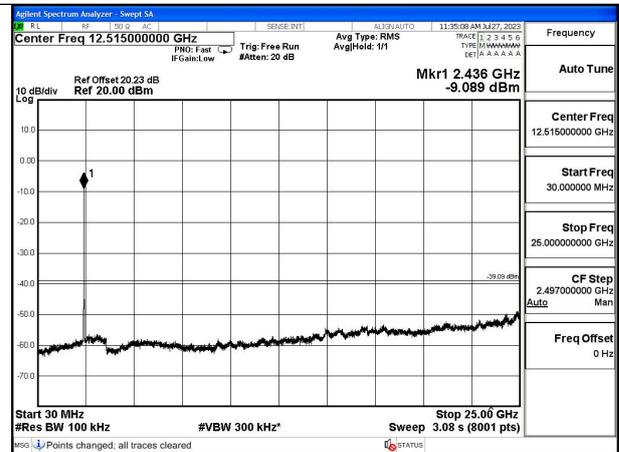


Mode:802.11g Frequency:2462MHz Ant:Chain0

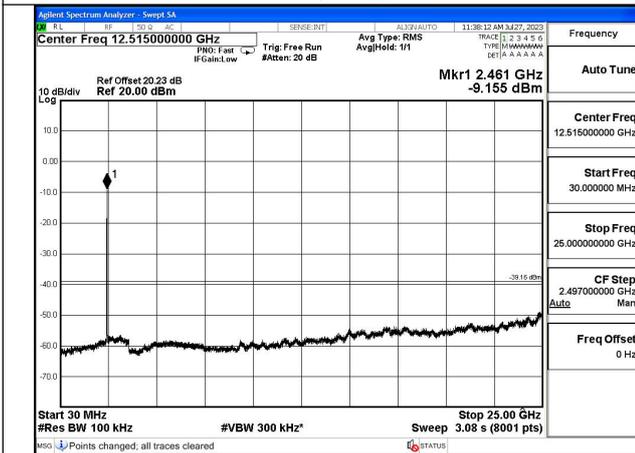
Test Mode: 802.11n HT20



Mode:802.11n HT20 Frequency:2412MHz Ant:Chain0



Mode:802.11n HT20 Frequency:2437MHz Ant:Chain0



Mode:802.11n HT20 Frequency:2462MHz Ant:Chain0

Test Mode: 802.11n HT40



Mode:802.11n HT40 Frequency:2422MHz Ant:Chain0

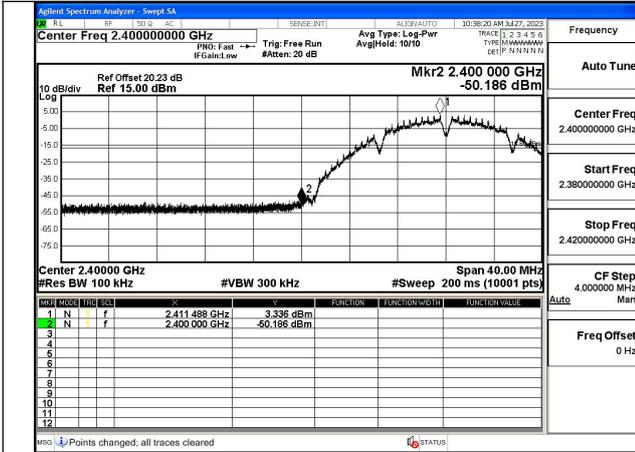
Mode:802.11n HT40 Frequency:2437MHz Ant:Chain0



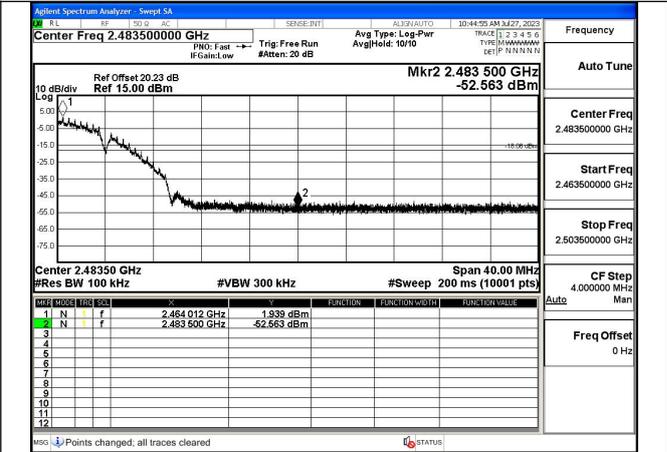
Mode:802.11n HT40 Frequency:2452MHz Ant:Chain0

Band edge measurement

Test Mode: 802.11b

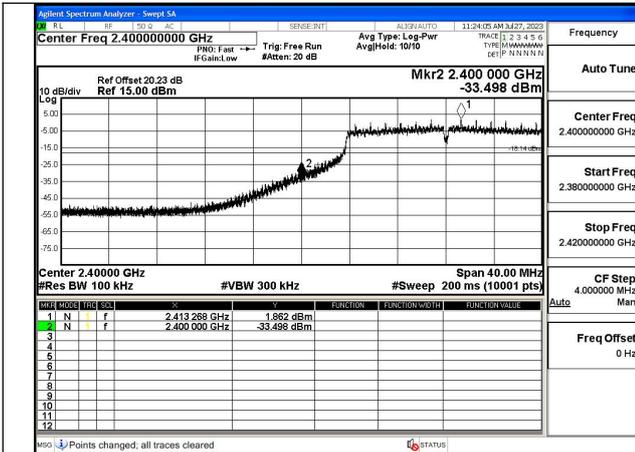


Mode:802.11b Frequency:2412MHz Ant:Chain0

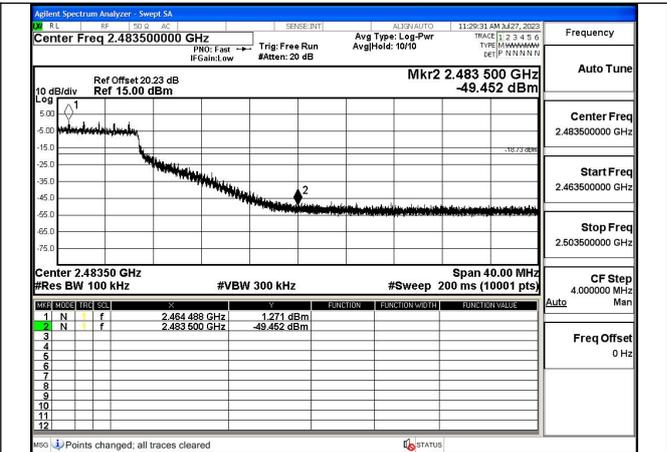


Mode:802.11b Frequency:2462MHz Ant:Chain0

Test Mode: 802.11g

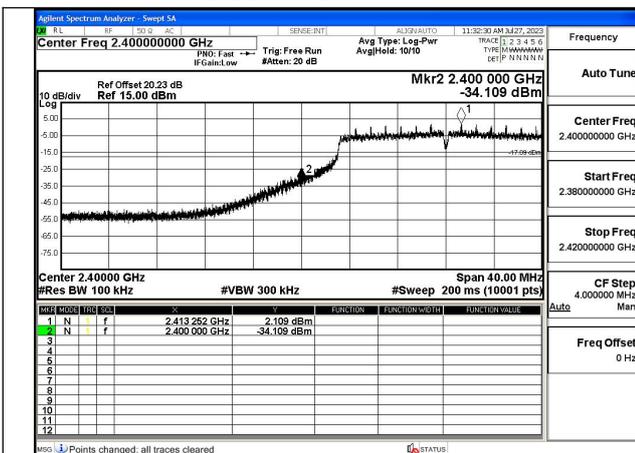


Mode:802.11g Frequency:2412MHz Ant:Chain0

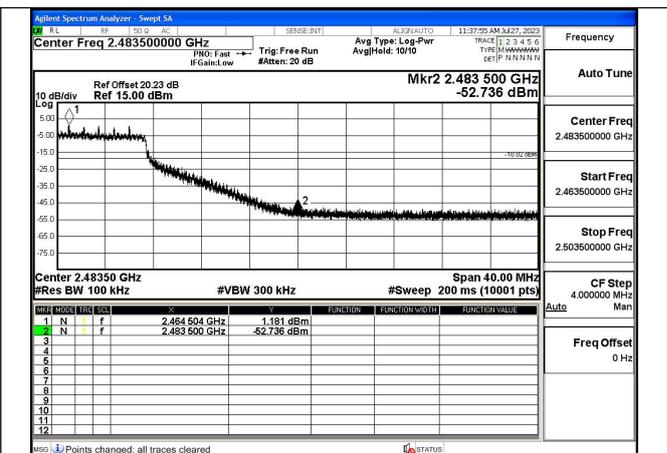


Mode:802.11g Frequency:2462MHz Ant:Chain0

Test Mode: 802.11n HT20

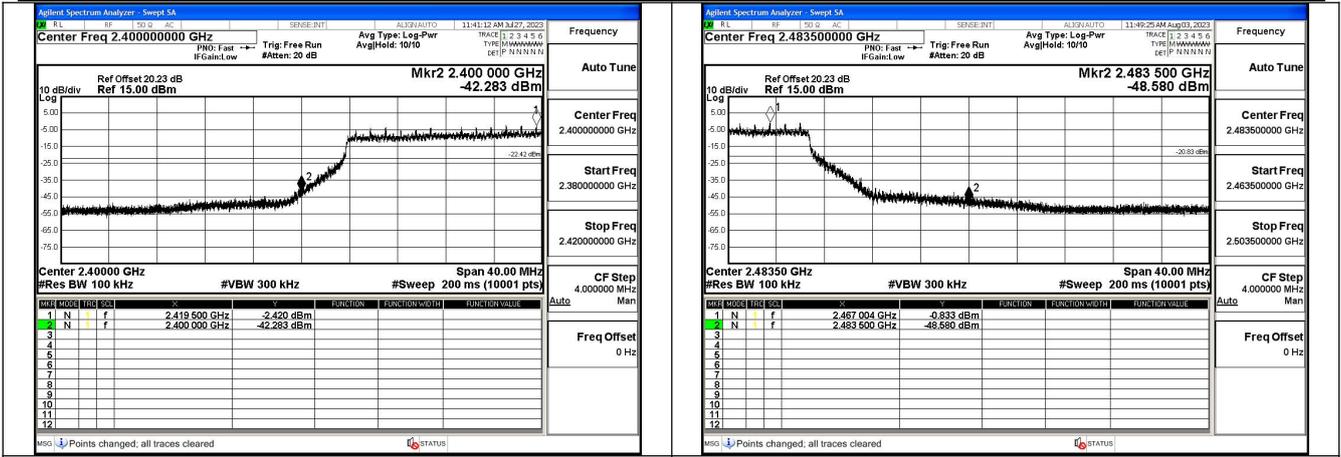


Mode:802.11n HT20 Frequency:2412MHz Ant:Chain0



Mode:802.11n HT20 Frequency:2462MHz Ant:Chain0

Test Mode: 802.11n HT40



Mode:802.11n HT40 Frequency:2422MHz Ant:Chain0

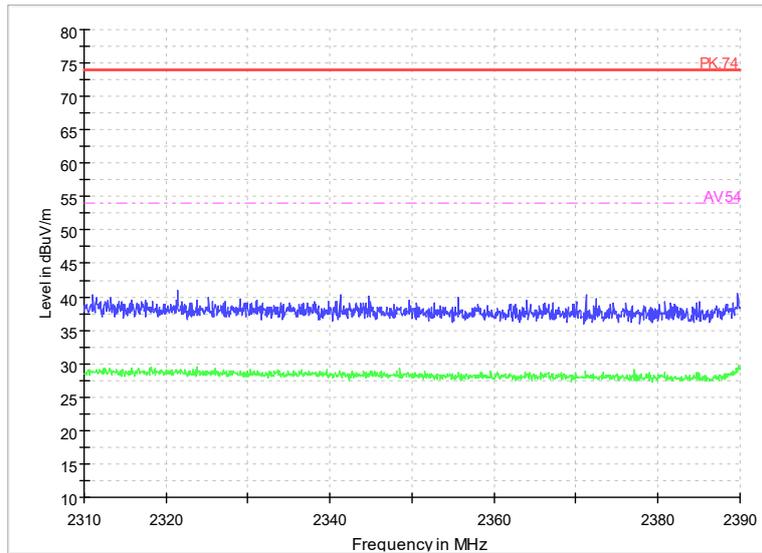
Mode:802.11n HT40 Frequency:2452MHz Ant:Chain0

APPENDIX B – TEST DATA OF RADIATED EMISSION

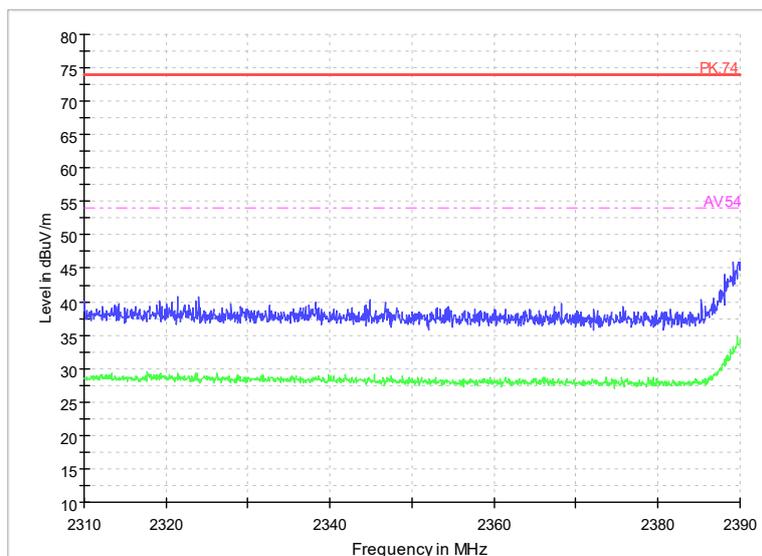
Note: The worst channel results are reflected in the report.

Note: The scanned graph represents the maximum of both horizontal and vertical polarizations and is not a single horizontal or vertical polarization scan

Radiated Emission Band Edge

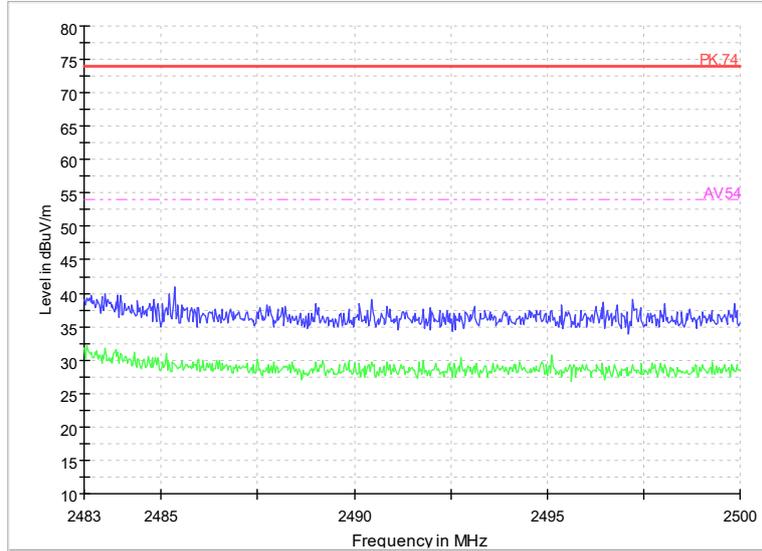


Radiated Emission Band Edge
Channel No.:1
Test Mode: 802.11b
Polarization: V

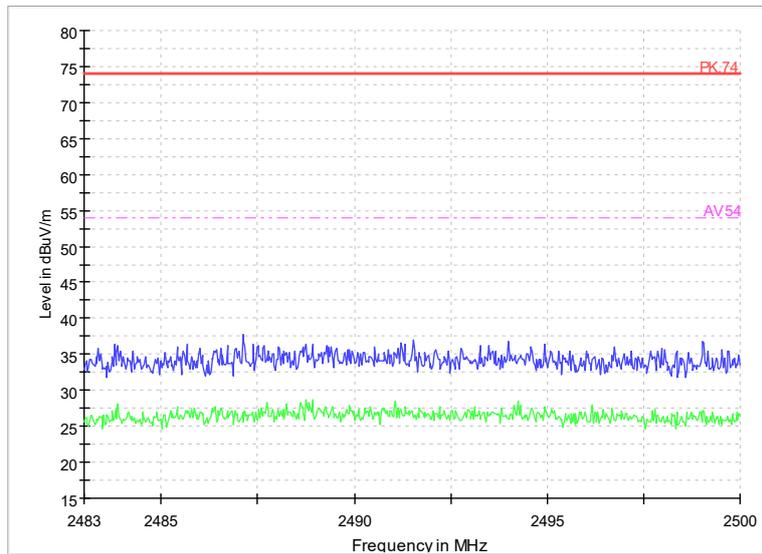


Radiated Emission Band Edge

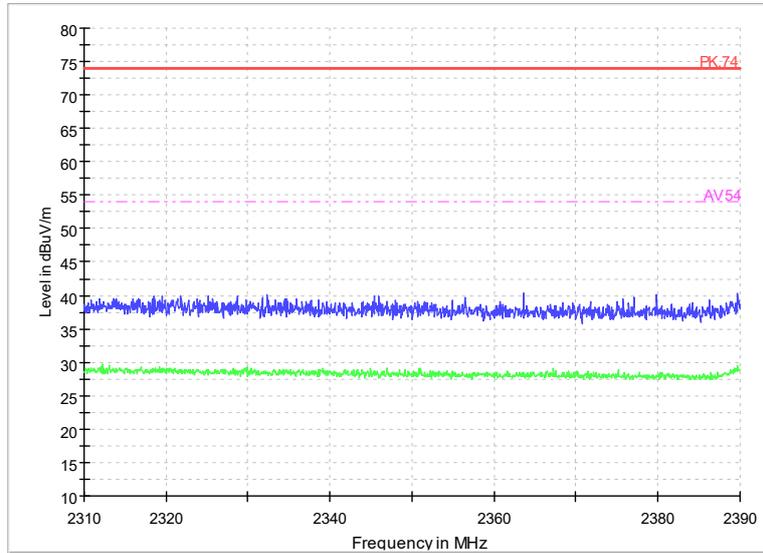
Channel No.:1
Test Mode: 802.11b
Polarization: H



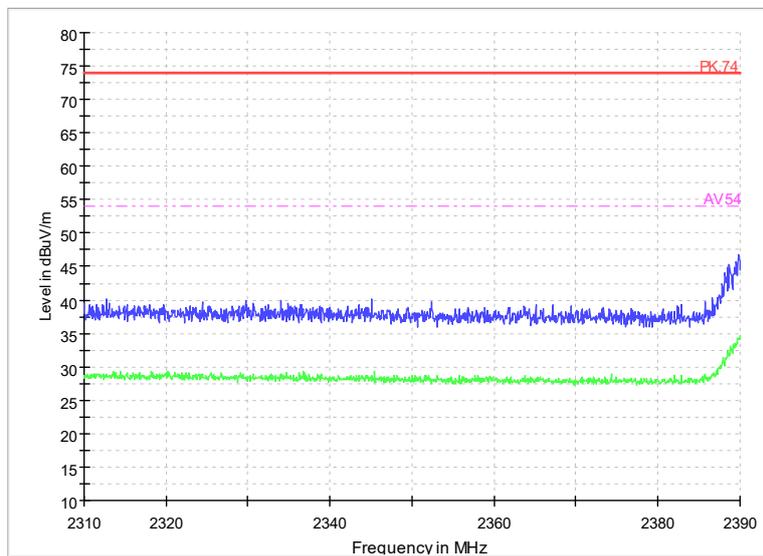
Radiated Emission Band Edge
Channel No.:11
Test Mode: 802.11b
Polarization: V



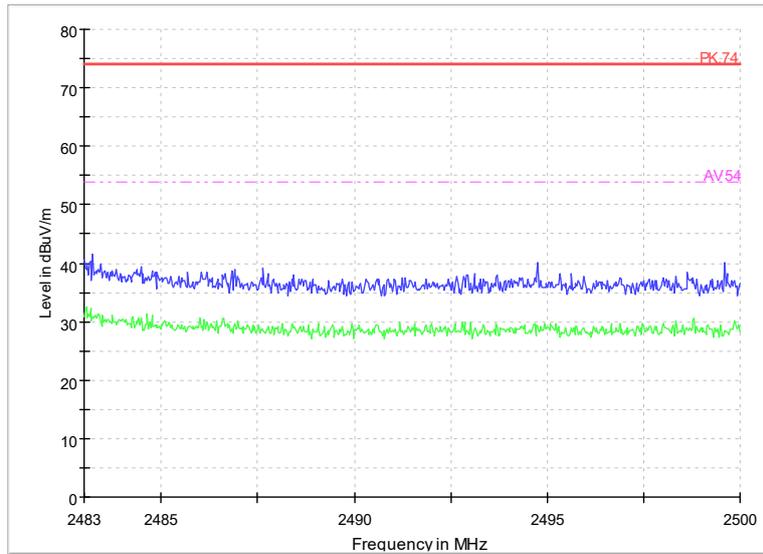
Radiated Emission Band Edge
Channel No.:11
Test Mode: 802.11b
Polarization: H



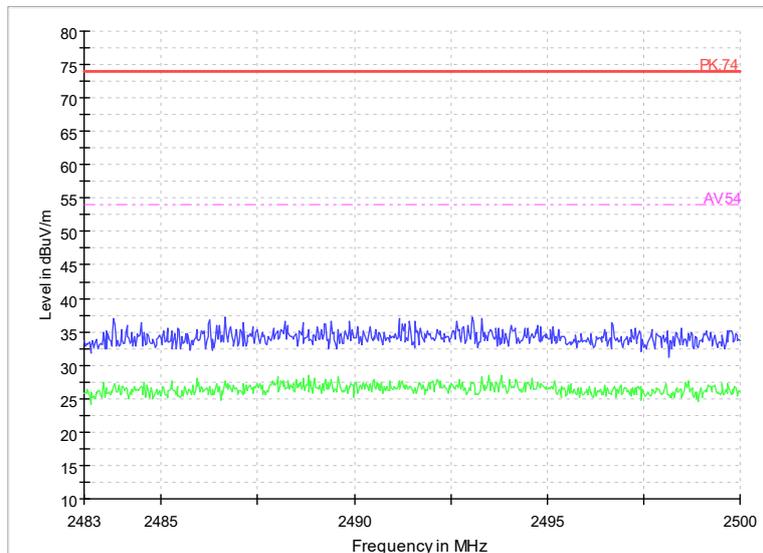
Radiated Emission Band Edge
 Channel No.:1
 Test Mode: 802.11g
 Polarization: V



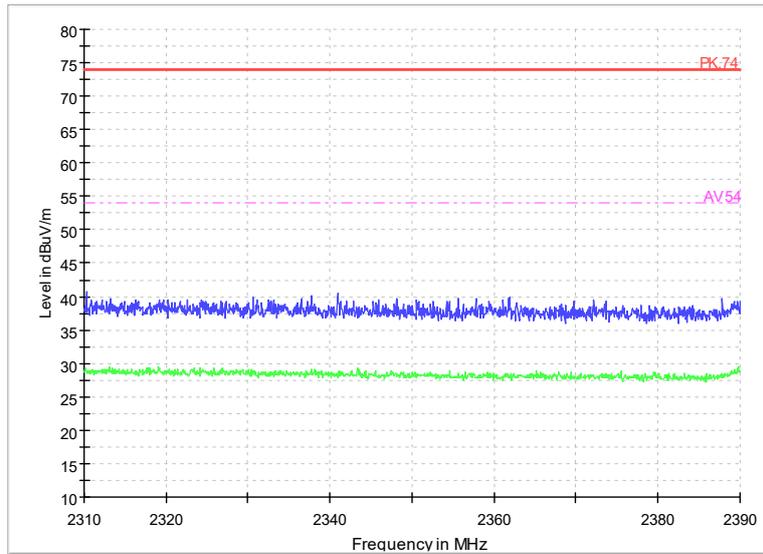
Radiated Emission Band Edge
 Channel No.:1
 Test Mode: 802.11g
 Polarization: H



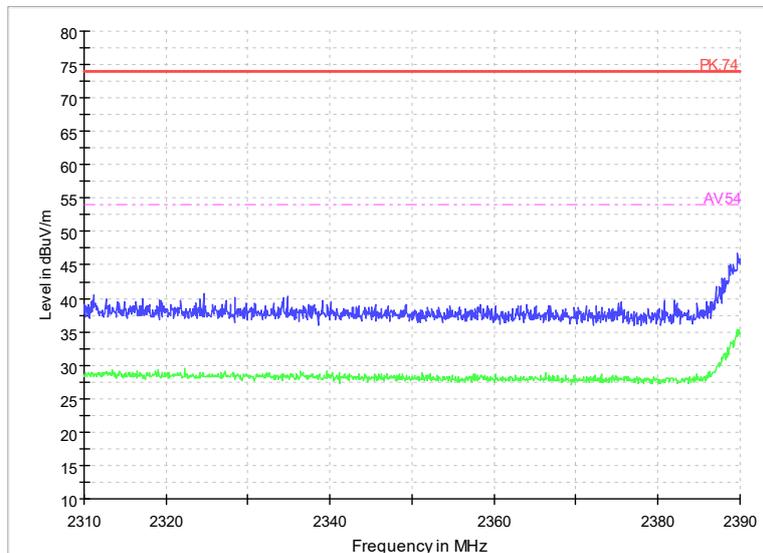
Radiated Emission Band Edge
 Channel No.:11
 Test Mode: 802.11g
 Polarization: V



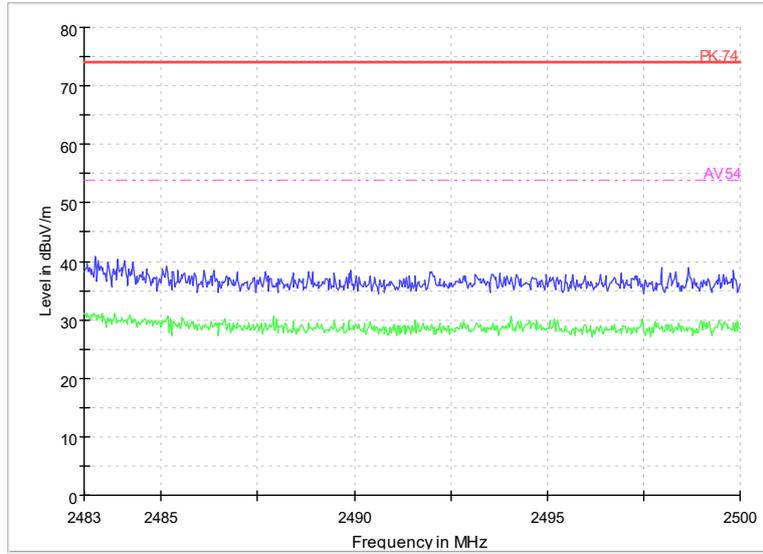
Radiated Emission Band Edge
 Channel No.:11
 Test Mode: 802.11g
 Polarization: H



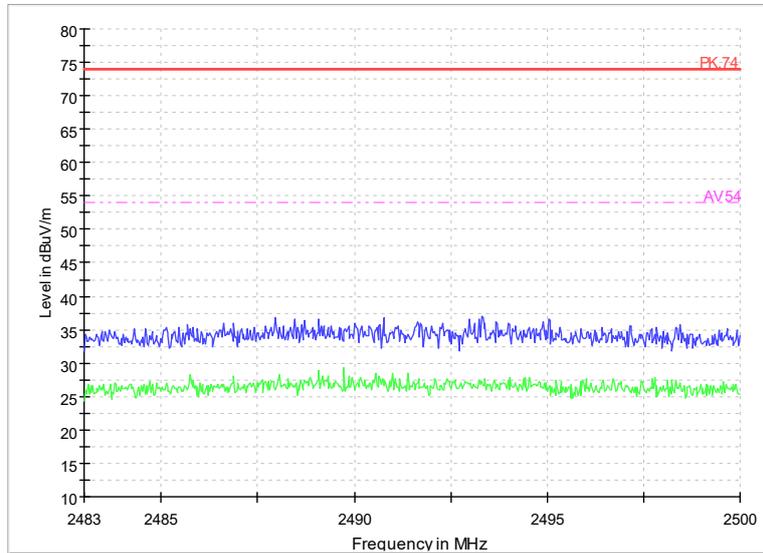
Radiated Emission Band Edge
Channel No.:1
Test Mode: 802.11n
Polarization: V



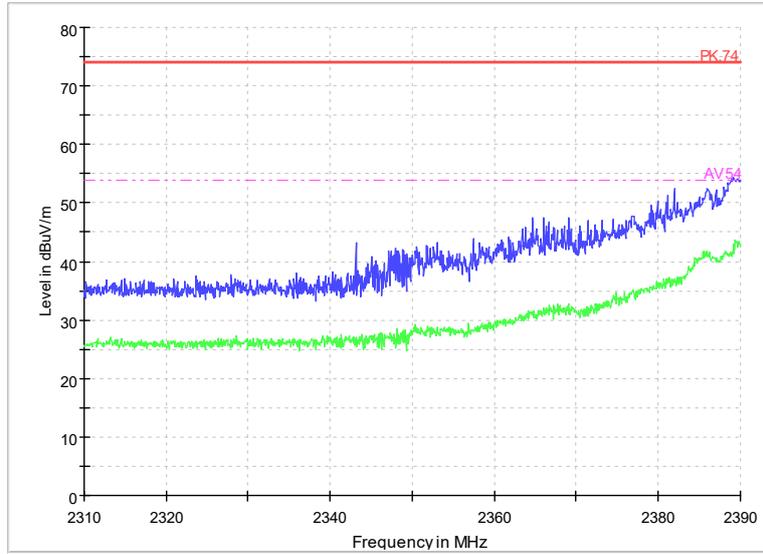
Radiated Emission Band Edge
Channel No.:1
Test Mode: 802.11n
Polarization: H



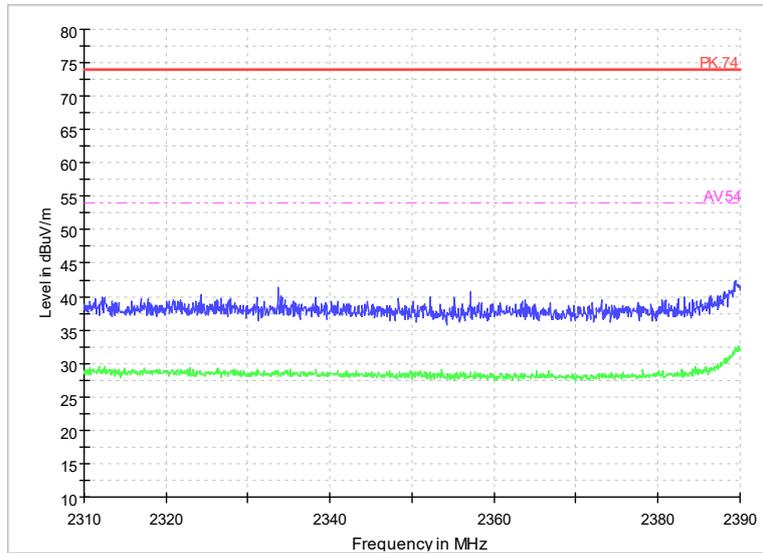
Radiated Emission Band Edge
 Channel No.:11
 Test Mode: 802.11n
 Polarization: V



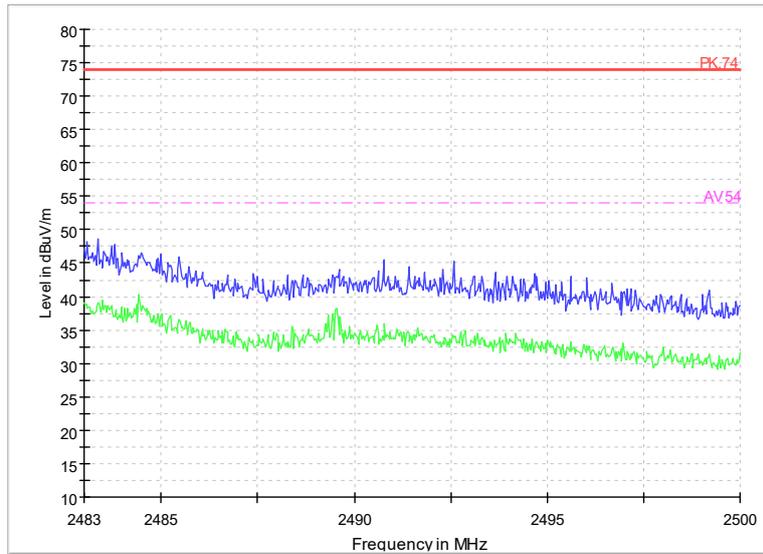
Radiated Emission Band Edge
 Channel No.:11
 Test Mode: 802.11n
 Polarization: H



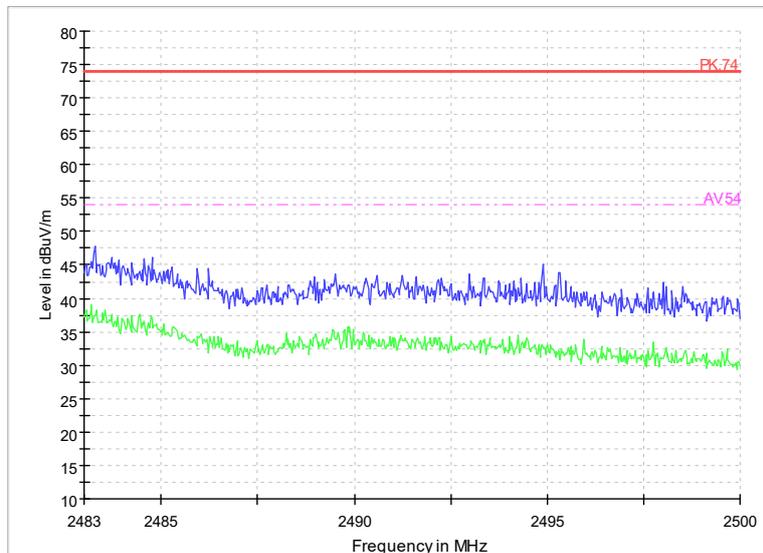
Radiated Emission Band Edge
 Channel No.:3
 Test Mode: 802.11n40
 Polarization: V



Radiated Emission Band Edge
 Channel No.:3
 Test Mode: 802.11n40
 Polarization: H



Radiated Emission Band Edge
 Channel No.:9
 Test Mode: 802.11n40
 Polarization: V



Radiated Emission Band Edge
 Channel No.:9
 Test Mode: 802.11n40
 Polarization: H

Radiated Emission

Sample Calculations

After comparison, the worst case attitude is EUT lay down.

Determining Spurious Emissions Levels

A “reference path loss” is established and the A_{Rpl} is the attenuation of “reference path loss”, and including the gain of receive antenna, the gain of the preamplifier, the cable loss.

The measurement results are obtained as described below:

$$\text{Result} = P_{\text{mea}} + A_{Rpl}$$

Sample calculation: $(8.58 \text{ dB}\mu\text{V/m}) = (26.88 \text{ dB}\mu\text{V}) + (-18.3 \text{ dB/m})$, the corresponding frequency is 46.199MHz.

For 802.11b Channel No.:1

Frequency(MHz)	Result(dBuV/m)	ARpl (dB)	Pmea (dBuV/m)	Polarity	Limit (dBuV/m)	Margin (dB)
46.199	8.58	-18.3	26.88	Vertical	40	31.42
87.909	10.17	-19.7	29.87	Vertical	40	29.83
97.1725	7.49	-18.8	26.29	Vertical	43.5	36.01
292.288	8.87	-16	24.87	Vertical	46	37.13
501.6625	12.84	-10.6	23.44	Vertical	46	33.16
931.809	21.03	-3	24.03	Vertical	46	24.97

For 802.11g Channel No.:1

Frequency(MHz)	Result(dBuV/m)	ARpl (dB)	Pmea (dBuV/m)	Polarity	Limit (dBuV/m)	Margin (dB)
52.019	9.03	-18.5	27.53	Vertical	40	30.97
57.063	8.2	-19	27.2	Vertical	40	31.8
110.801	7.59	-18.9	26.49	Vertical	43.5	35.91
206.9765	6.62	-18.6	25.22	Vertical	43.5	36.88
514.7575	13.33	-10.2	23.53	Vertical	46	32.67
931.809	21.07	-3	24.07	Vertical	46	24.93

For 802.11n(HT20) Channel No.:1

Frequency(MHz)	Result(dBuV/m)	ARpl (dB)	Pmea (dBuV/m)	Polarity	Limit (dBuV/m)	Margin (dB)
45.811	8.79	-18.4	27.19	Vertical	40	31.21
87.5695	9.71	-19.7	29.41	Vertical	40	30.29
98.967	7.86	-18.7	26.56	Vertical	43.5	35.64
298.4475	9.06	-15.9	24.96	Vertical	46	36.94
533.333	13.91	-9.8	23.71	Vertical	46	32.09
921.915	21.05	-3.1	24.15	Vertical	46	24.95

For 802.11b Channel No.:6

Frequency(MHz)	Result(dBuV/m)	ARpl	Pmea	Polarity	Limit	Margin
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		(dB)	(dBuV/m)		(dBuV/m)	(dB)
37.8085	7.34	-19	26.34	Vertical	40	32.66
87.23	8.65	-19.8	28.45	Vertical	40	31.35
97.997	8.69	-18.8	27.49	Vertical	43.5	34.81
306.5955	9.07	-15.6	24.67	Vertical	46	36.93
546.2825	14.07	-9.5	23.57	Vertical	46	31.93
943.0125	21.13	-2.9	24.03	Vertical	46	24.87

For 802.11g Channel No.:6

Frequency(MHz)	Result(dBuV/m)	ARpl (dB)	Pmea (dBuV/m)	Polarity	Limit (dBuV/m)	Margin (dB)
44.5985	9.41	-18.4	27.81	Vertical	40	30.59
55.5595	6.57	-18.8	25.37	Vertical	40	33.43
97.318	8.19	-18.8	26.99	Vertical	43.5	35.31
292.7245	8.79	-16	24.79	Vertical	46	37.21
547.0585	14.04	-9.5	23.54	Vertical	46	31.96
950.0935	21.12	-2.8	23.92	Vertical	46	24.88

For 802.11n(HT20) Channel No.:6

Frequency(MHz)	Result(dBuV/m)	ARpl (dB)	Pmea (dBuV/m)	Polarity	Limit (dBuV/m)	Margin (dB)
44.5015	8.88	-18.4	27.28	Vertical	40	31.12
87.909	9.98	-19.7	29.68	Vertical	40	30.02
110.898	7.54	-18.9	26.44	Vertical	43.5	35.96
208.0435	6.67	-18.6	25.27	Vertical	43.5	36.83
530.1805	13.77	-9.9	23.67	Vertical	46	32.23
912.6515	20.8	-3.2	24	Vertical	46	25.2

For 802.11b Channel No.:11

Frequency(MHz)	Result(dBuV/m)	ARpl (dB)	Pmea (dBuV/m)	Polarity	Limit (dBuV/m)	Margin (dB)
35.044	7.25	-19.5	26.75	Vertical	40	32.75
56.772	7.91	-18.9	26.81	Vertical	40	32.09
103.0895	7.29	-18.7	25.99	Vertical	43.5	36.21
200.3805	6.47	-18.8	25.27	Vertical	43.5	37.03
551.957	14.14	-9.4	23.54	Vertical	46	31.86
890.293	20.42	-3.5	23.92	Vertical	46	25.58

For 802.11g Channel No.:11

Frequency(MHz)	Result(dBuV/m)	ARpl (dB)	Pmea (dBuV/m)	Polarity	Limit (dBuV/m)	Margin (dB)
44.55	8.87	-18.4	27.27	Vertical	40	31.13
87.23	8.76	-19.8	28.56	Vertical	40	31.24
96.736	7.4	-18.8	26.2	Vertical	43.5	36.1
295.9255	8.88	-15.9	24.78	Vertical	46	37.12
540.2685	13.93	-9.6	23.53	Vertical	46	32.07

943.3035	21.12	-2.9	24.02	Vertical	46	24.88
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For 802.11n(HT20) Channel No.:11

Frequency(MHz)	Result(dBuV/m)	ARpl (dB)	Pmea (dBuV/m)	Polarity	Limit (dBuV/m)	Margin (dB)
40.088	8.41	-18.6	27.01	Vertical	40	31.59
87.23	8.62	-19.8	28.42	Vertical	40	31.38
115.748	6.92	-19.3	26.22	Vertical	43.5	36.58
291.124	8.93	-16.1	25.03	Vertical	46	37.07
507.1915	13.15	-10.4	23.55	Vertical	46	32.85
928.6565	21.05	-3	24.05	Vertical	46	24.95

For 802.11n(HT40) Channel No.:3

Frequency(MHz)	Result(dBuV/m)	ARpl (dB)	Pmea (dBuV/m)	Polarity	Limit (dBuV/m)	Margin (dB)
33.977	7.87	-19.7	27.57	Vertical	40	32.13
80.8765	8.42	-21.3	29.72	Vertical	40	31.58
98.967	7.82	-18.7	26.52	Vertical	43.5	35.68
306.1105	9.14	-15.7	24.84	Vertical	46	36.86
541.772	13.91	-9.6	23.51	Vertical	46	32.09
925.795	21.05	-3	24.05	Vertical	46	24.95

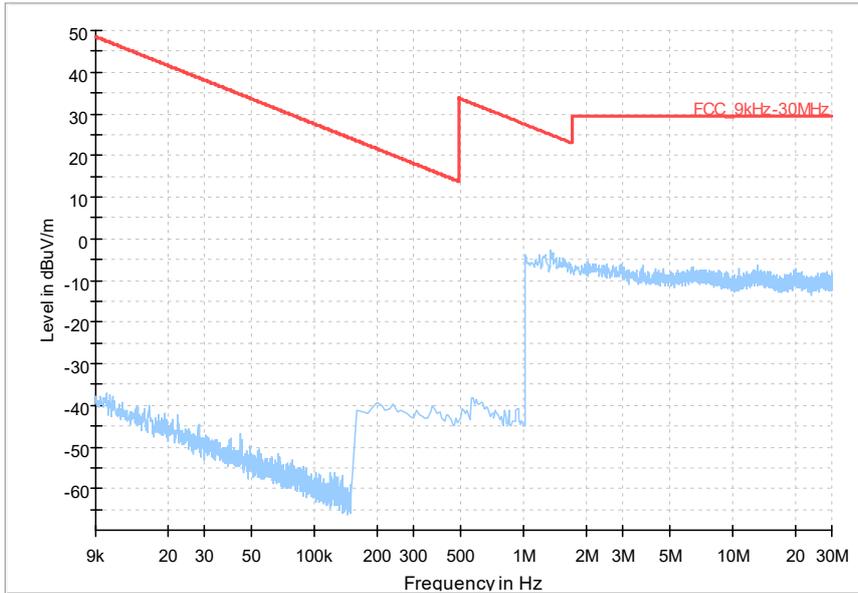
For 802.11n(HT40) Channel No.:6

Frequency(MHz)	Result(dBuV/m)	ARpl (dB)	Pmea (dBuV/m)	Polarity	Limit (dBuV/m)	Margin (dB)
50.5155	8.24	-18.4	26.64	Vertical	40	31.76
87.5695	9.57	-19.7	29.27	Vertical	40	30.43
104.011	7.61	-18.7	26.31	Vertical	43.5	35.89
214.882	6.71	-18.4	25.11	Vertical	43.5	36.79
547.7375	14.02	-9.5	23.52	Vertical	46	31.98
958.4355	21.08	-2.7	23.78	Vertical	46	24.92

For 802.11n(HT40) Channel No.:9

Frequency(MHz)	Result(dBuV/m)	ARpl (dB)	Pmea (dBuV/m)	Polarity	Limit (dBuV/m)	Margin (dB)
43.9195	8.42	-18.4	26.82	Vertical	40	31.58
58.6635	7.88	-19.1	26.98	Vertical	40	32.12
110.704	7.56	-18.9	26.46	Vertical	43.5	35.94
207.9465	6.63	-18.6	25.23	Vertical	43.5	36.87
551.5205	14.11	-9.4	23.51	Vertical	46	31.89
904.649	20.63	-3.3	23.93	Vertical	46	25.37

Full Spectrum

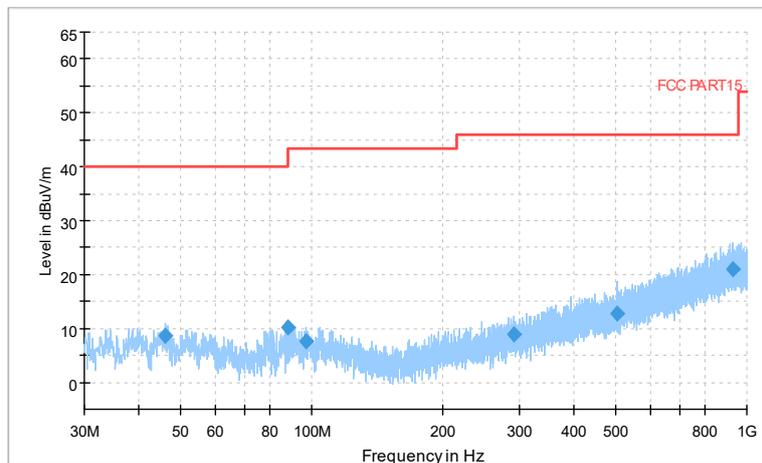


Frequency Range: 9kHz -30MHz
Detector: QP mode

Note: The relevant tests have been performed in order to verify in which mode would have the worst features, the result show above is the worst case.

Carrier frequency (MHz): 2412
Channel No.:1

Full Spectrum

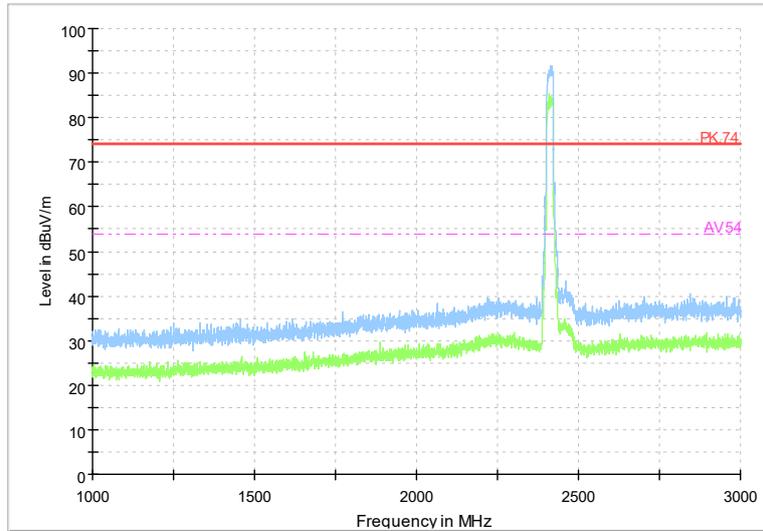


Preview Result 1-PK+ FCC PART15 Final_Result QPK

Comment

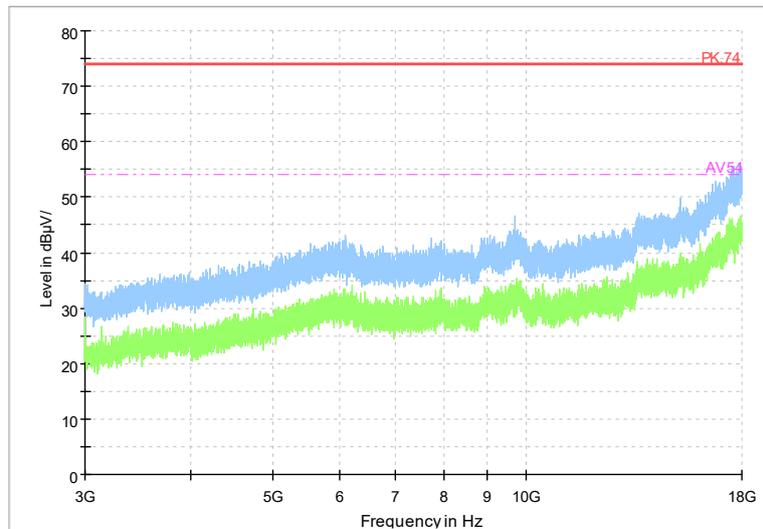
Frequency Range 30MHz -1GHz
Detector: Av mode and PK mode
Modulation type: 802.11b

Full Spectrum



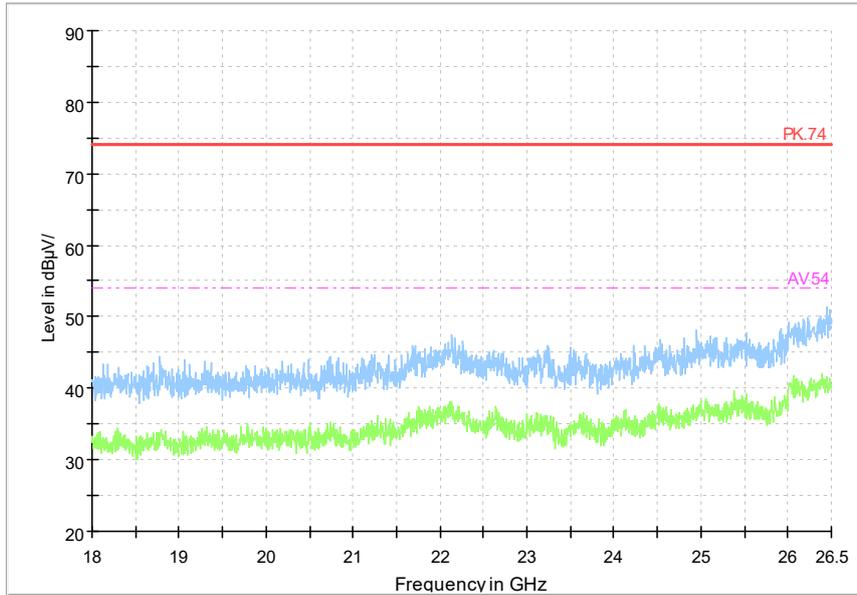
Frequency Range: 1GHz -3GHz
 Detector: Av mode and PK mode
 Modulation type: 802.11b

Full Spectrum



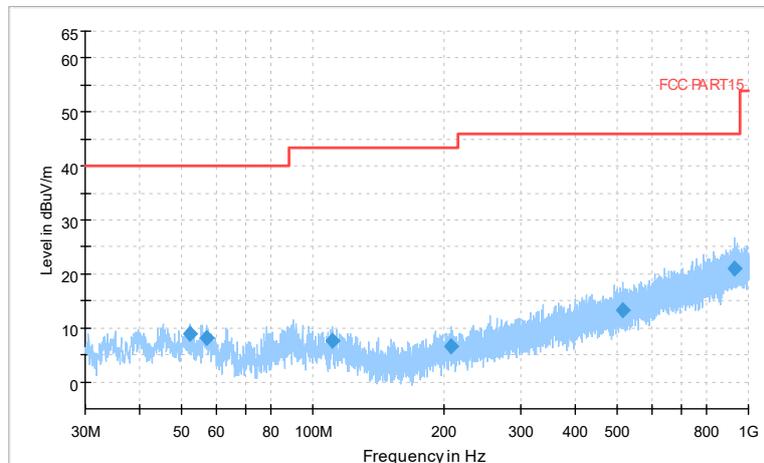
Frequency Range: 3GHz -18GHz
 Detector: Av mode and PK mode
 Modulation type: 802.11b

Full Spectrum



Frequency Range: 18GHz -26GHz
 Detector: Av mode and PK mode
 Modulation type: 802.11b

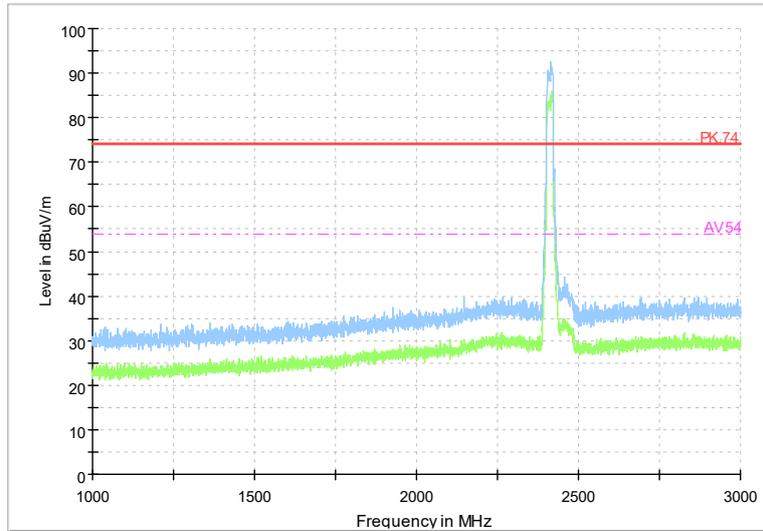
Full Spectrum



— Preview Result 1-PK+ — FCC PART15 ◆ Final_Result QPK
 Comment

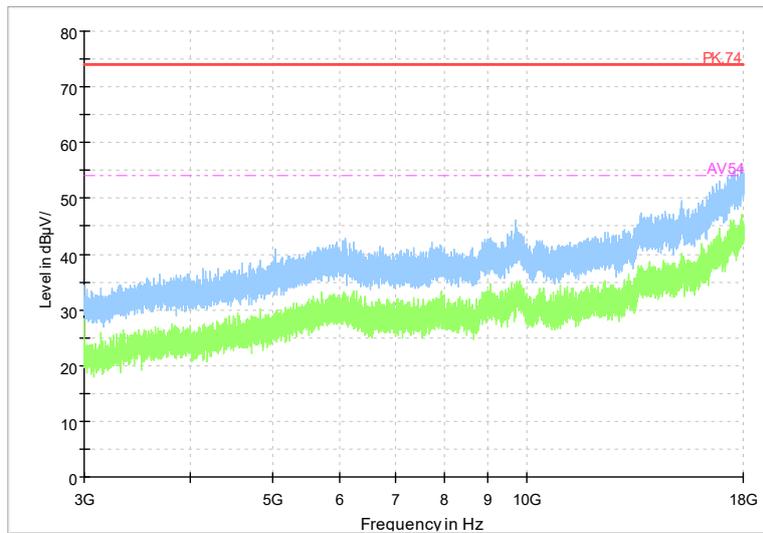
Frequency Range: 30MHz -1GHz
 Detector: Av mode and PK mode
 Modulation type: 802.11g

Full Spectrum



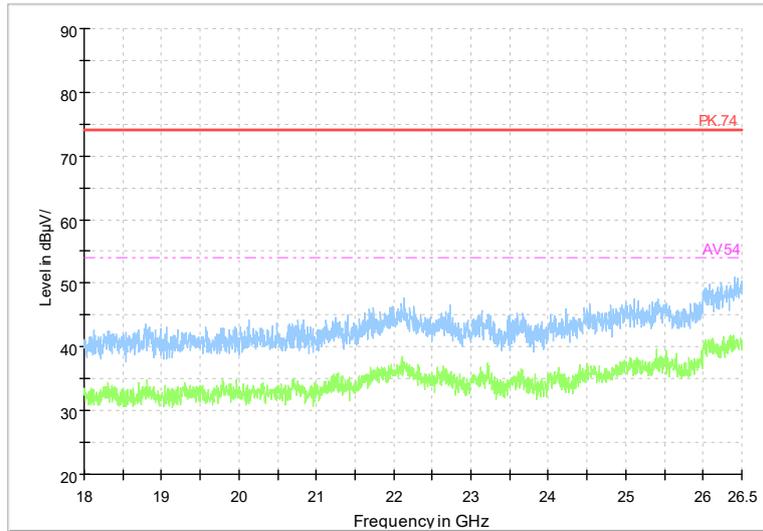
Frequency Range: 1GHz -3GHz
 Detector: Av mode and PK mode
 Modulation type: 802.11g

Full Spectrum



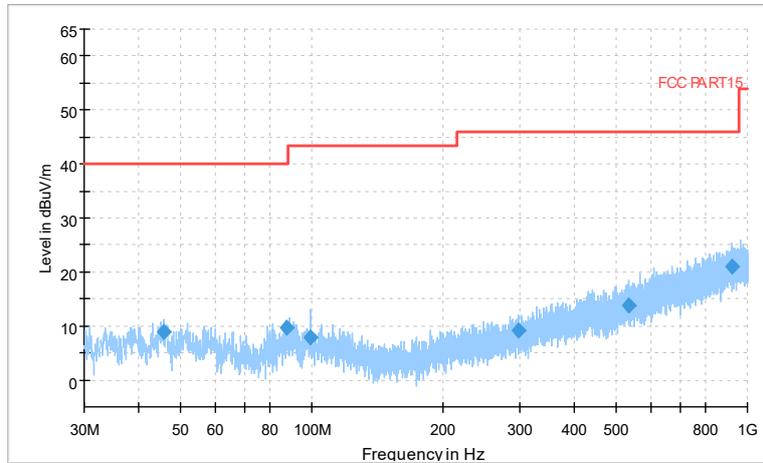
Frequency Range: 3GHz -18GHz
 Detector: Av mode and PK mode
 Modulation type: 802.11g

Full Spectrum



Frequency Range: 18GHz -26GHz
Detector: Av mode and PK mode
Modulation type: 802.11g

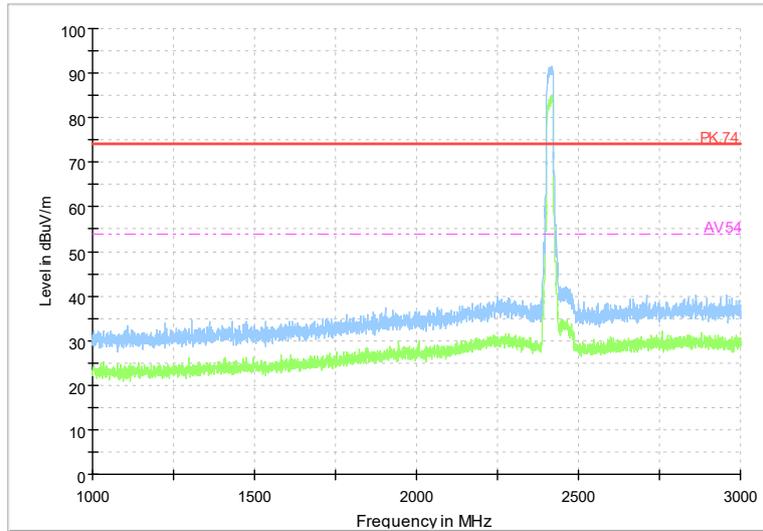
Full Spectrum



— Preview Result 1-PK+ — FCC PART15 ◆ Final_Result QPK
Comment

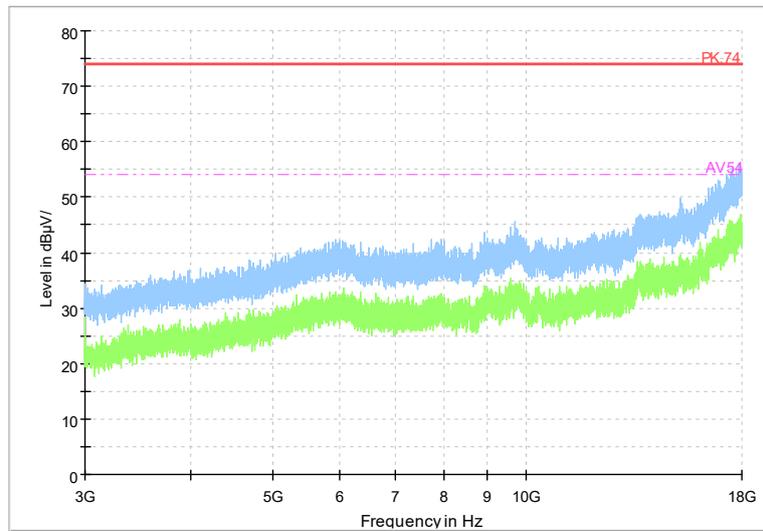
Frequency Range: 30MHz -1GHz
Detector: Av mode and PK mode
Modulation type: 802.11n(HT20)

Full Spectrum



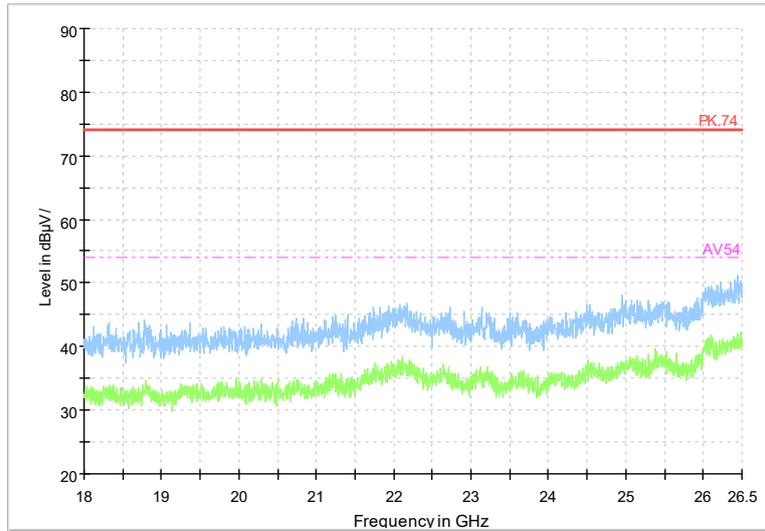
Frequency Range: 1GHz -3GHz
 Detector: Av mode and PK mode
 Modulation type: 802.11n(HT20)

Full Spectrum



Frequency Range: 3GHz -18GHz
 Detector: Av mode and PK mode
 Modulation type: 802.11n(HT20)

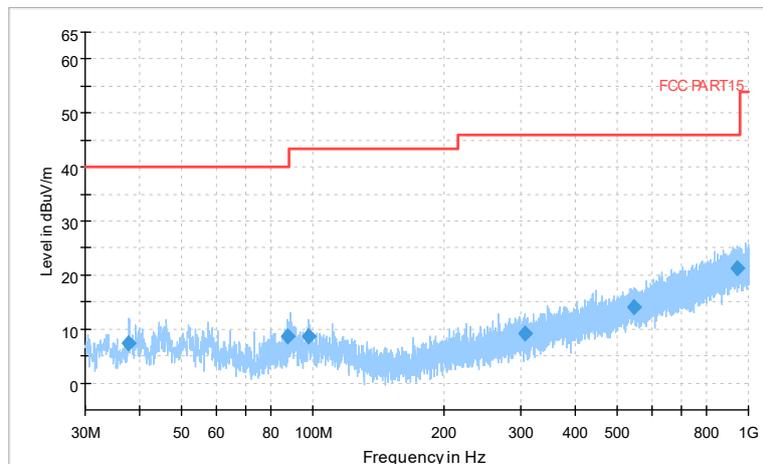
Full Spectrum



Frequency Range: 18GHz -26GHz
Detector: Av mode and PK mode
Modulation type: 802.11n(HT20)

Carrier frequency (MHz): 2437
Channel No.:6

Full Spectrum

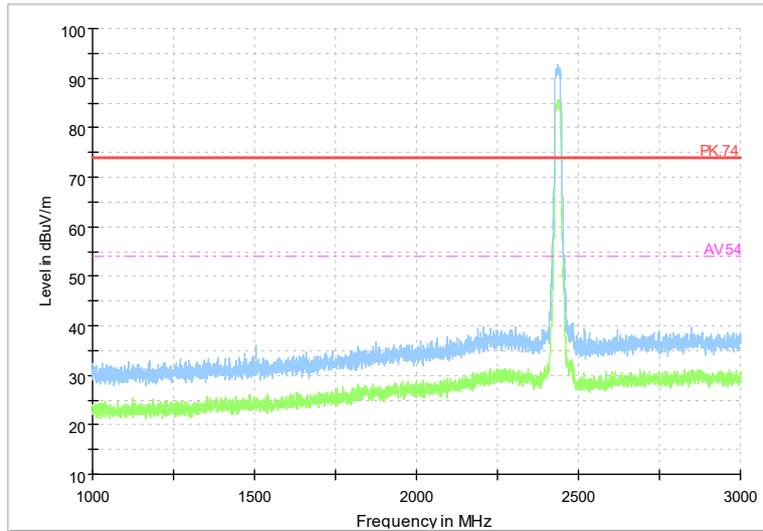


Preview Result 1-PK+ FCC PART15 Final_Result QPK

Comment

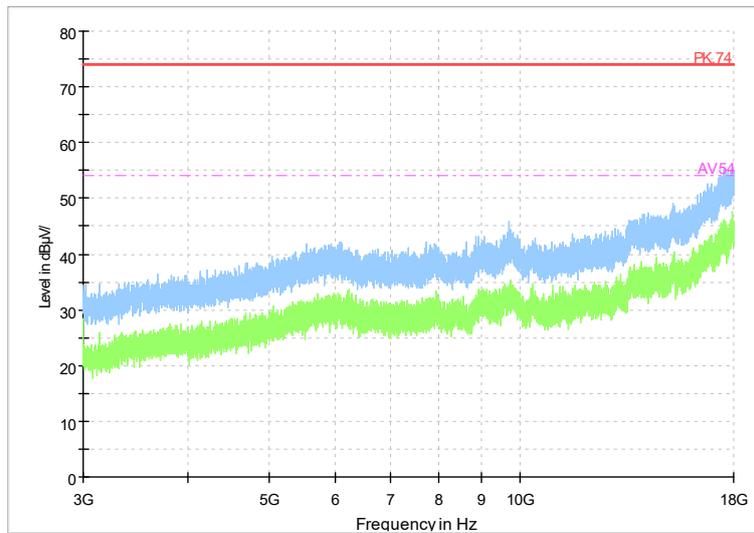
Frequency Range: 30MHz -1GHz
Detector: Av mode and PK mode
Modulation type: 802.11b

Full Spectrum



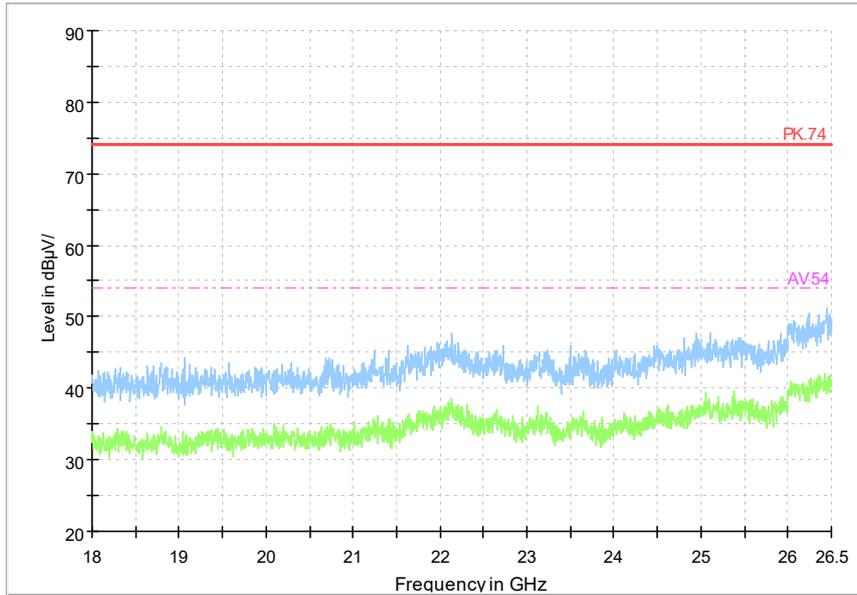
Frequency Range: 1GHz -3GHz
 Detector: Av mode and PK mode
 Modulation type: 802.11b

Full Spectrum



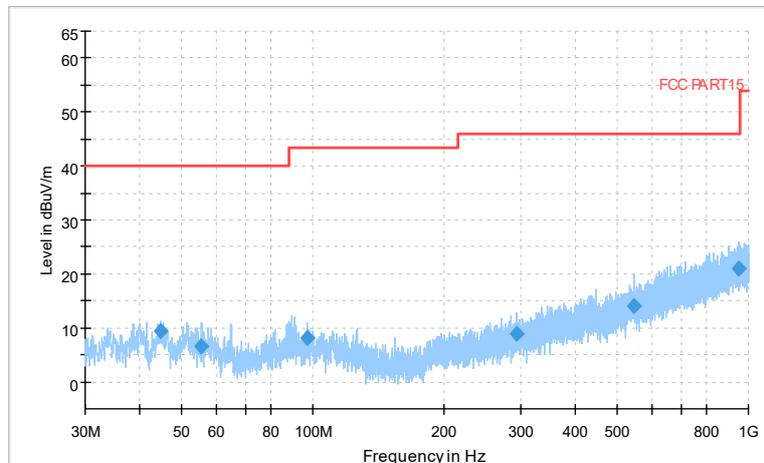
Frequency Range: 3GHz -18GHz
 Detector: Av mode and PK mode
 Modulation type: 802.11b

Full Spectrum



Frequency Range: 18GHz -26GHz
Detector: Av mode and PK mode
Modulation type: 802.11b

Full Spectrum

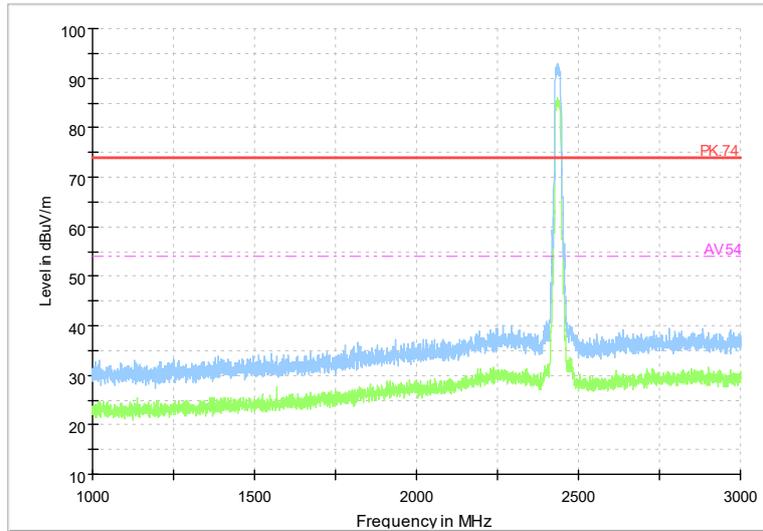


Preview Result 1-PK+ FCC PART15 Final_Result QPK

Comment

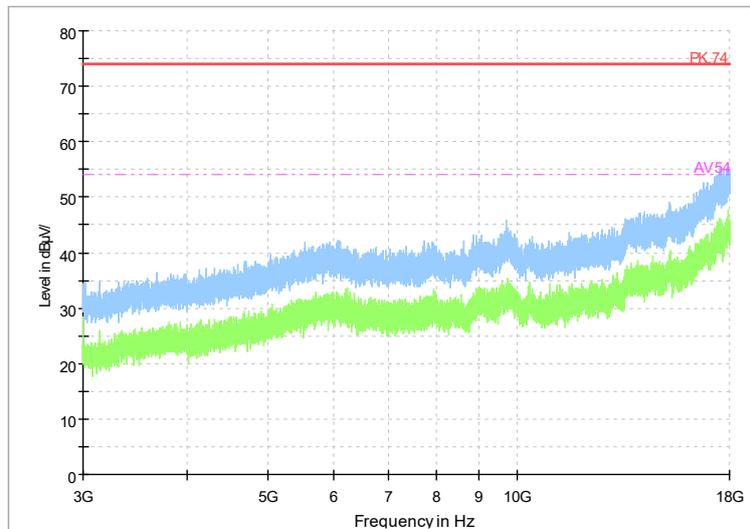
Frequency Range: 30MHz -1GHz
Detector: Av mode and PK mode
Modulation type: 802.11g

Full Spectrum



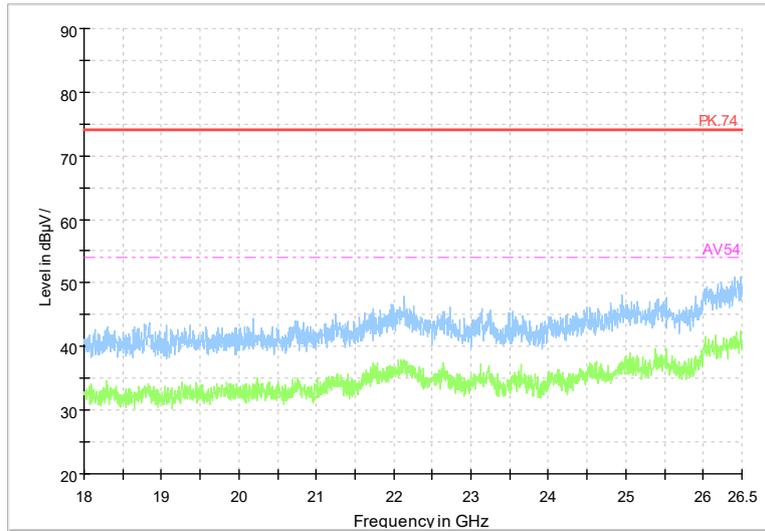
Frequency Range: 1GHz -3GHz
 Detector: Av mode and PK mode
 Modulation type: 802.11g

Full Spectrum



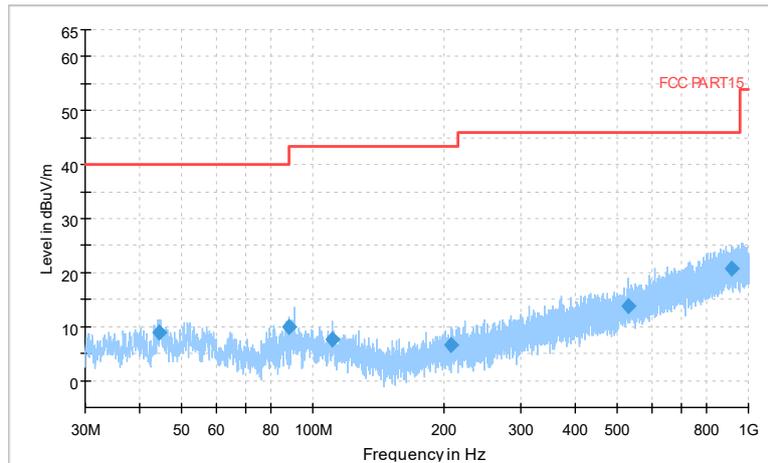
Frequency Range: 3GHz -18GHz
 Detector: Av mode and PK mode
 Modulation type: 802.11g

Full Spectrum



Frequency Range: 18GHz -26GHz
Detector: Av mode and PK mode
Modulation type: 802.11g

Full Spectrum

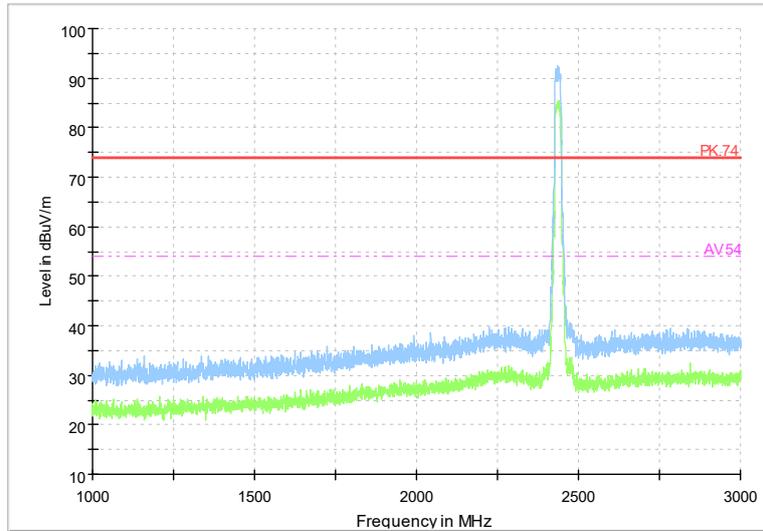


Preview Result 1-PK+ FCC PART15 Final_Result QPK

Comment

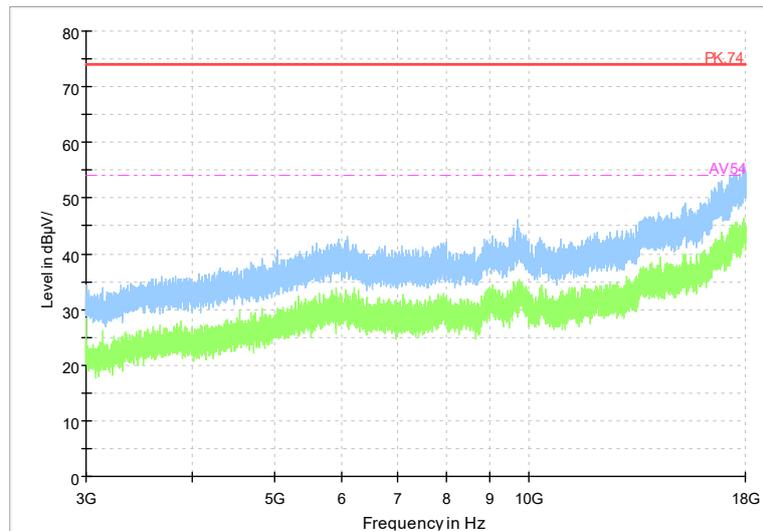
Frequency Range: 30MHz -1GHz
Detector: Av mode and PK mode
Modulation type: 802.11n(HT20)

Full Spectrum



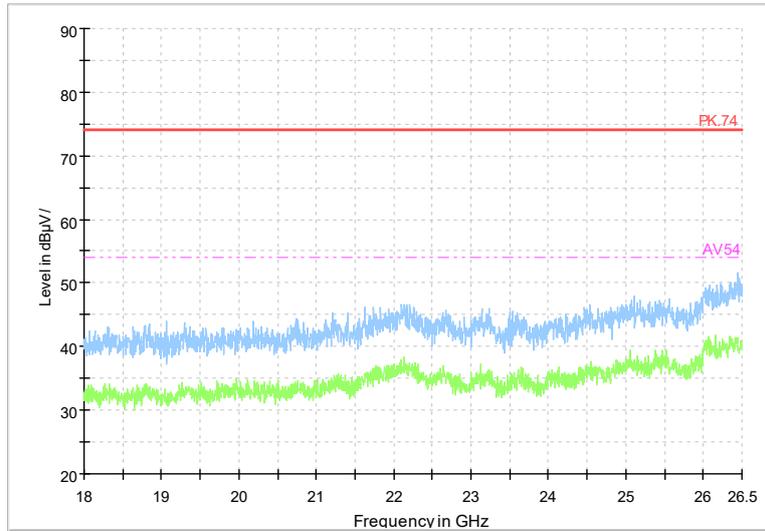
Frequency Range: 1GHz -3GHz
 Detector: Av mode and PK mode
 Modulation type: 802.11n(HT20)

Full Spectrum



Frequency Range: 3GHz -18GHz
 Detector: Av mode and PK mode
 Modulation type: 802.11n(HT20)

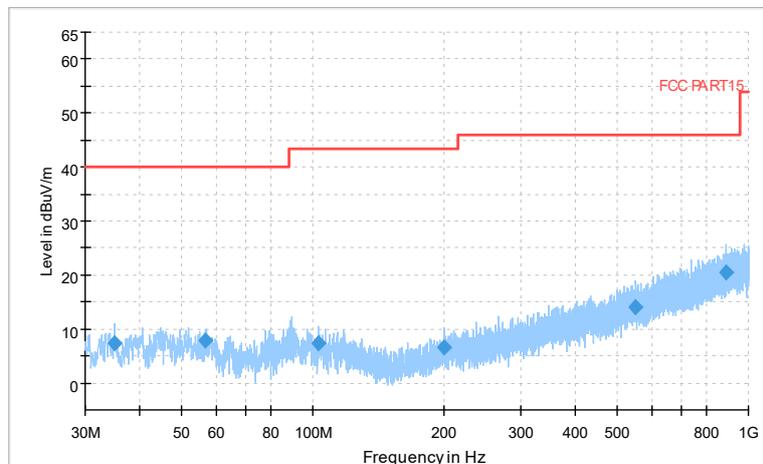
Full Spectrum



Frequency Range: 18GHz -26GHz
Detector: Av mode and PK mode
Modulation type: 802.11n(HT20)

Carrier frequency (MHz): 2462
Channel No.:11

Full Spectrum

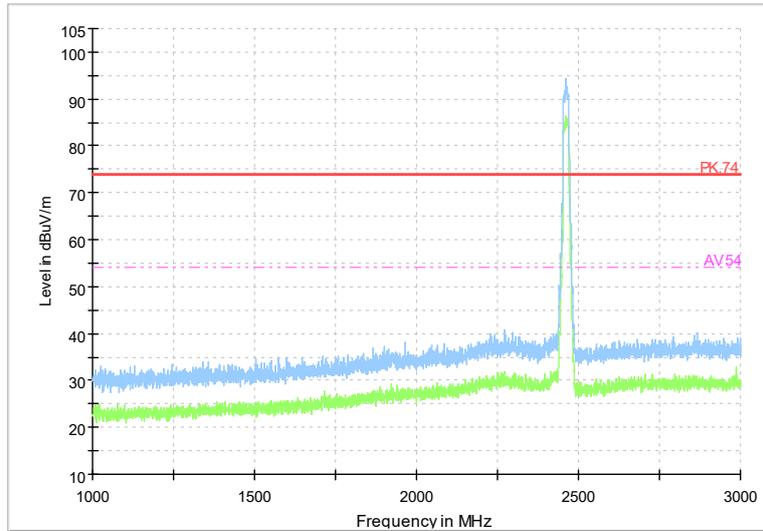


Preview Result 1-PK+ FCC PART15 Final_Result QPK

Comment

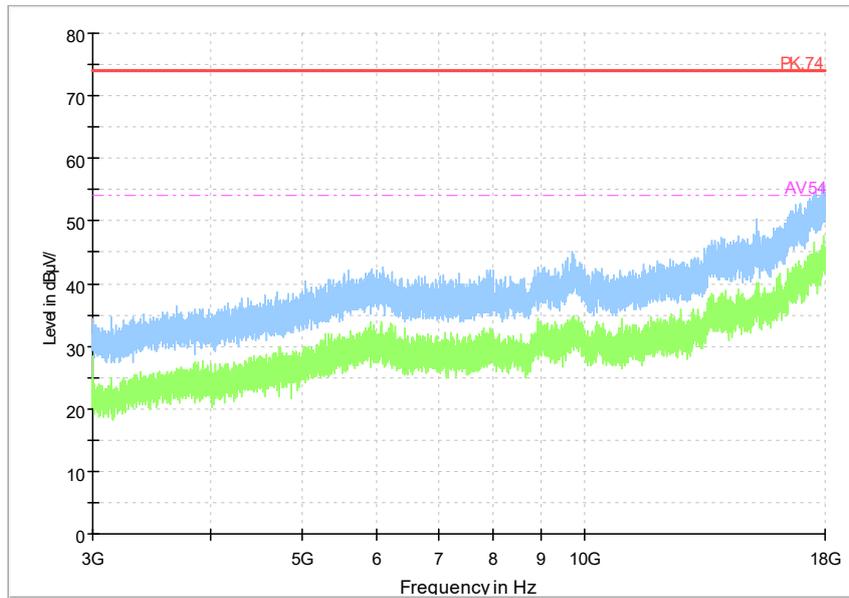
Frequency Range: 30MHz -1GHz
Detector: Av mode and PK mode
Modulation type: 802.11b

Full Spectrum



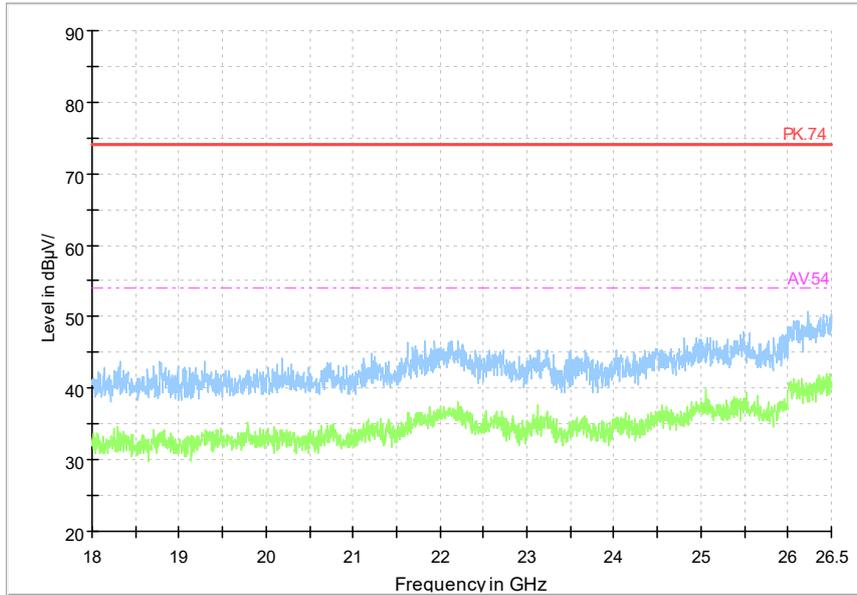
Frequency Range: 1GHz -3GHz
 Detector: Av mode and PK mode
 Modulation type: 802.11b

Full Spectrum



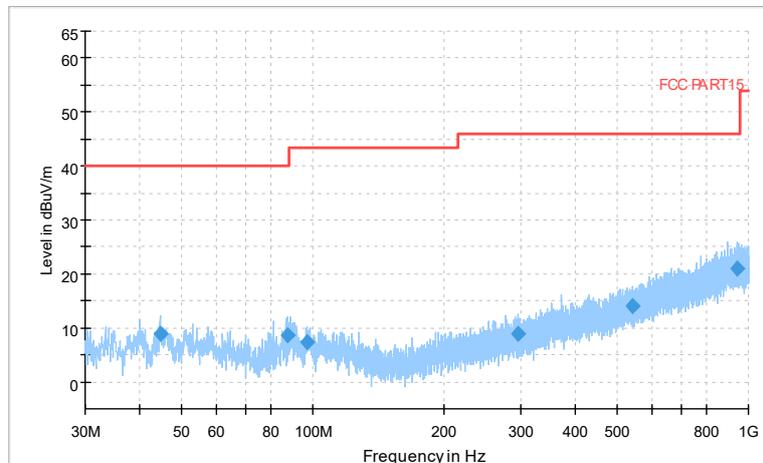
Frequency Range: 3GHz -18GHz
 Detector: Av mode and PK mode
 Modulation type: 802.11b

Full Spectrum



Frequency Range: 18GHz -26GHz
Detector: Av mode and PK mode
Modulation type: 802.11b

Full Spectrum

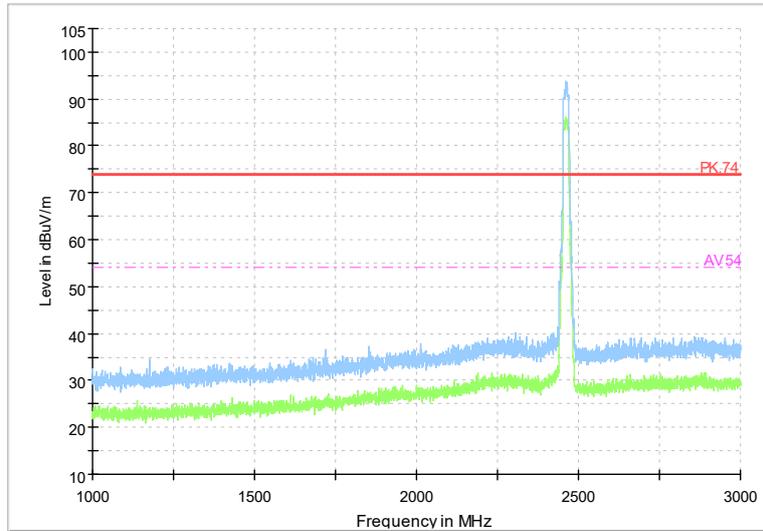


Preview Result 1-PK+ FCC PART15 Final_Result QPK

Comment

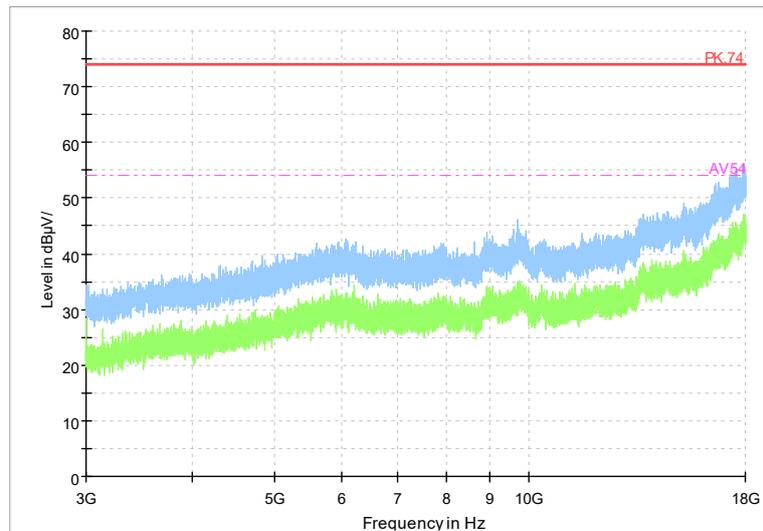
Frequency Range: 30MHz -1GHz
Detector: Av mode and PK mode
Modulation type: 802.11g

Full Spectrum



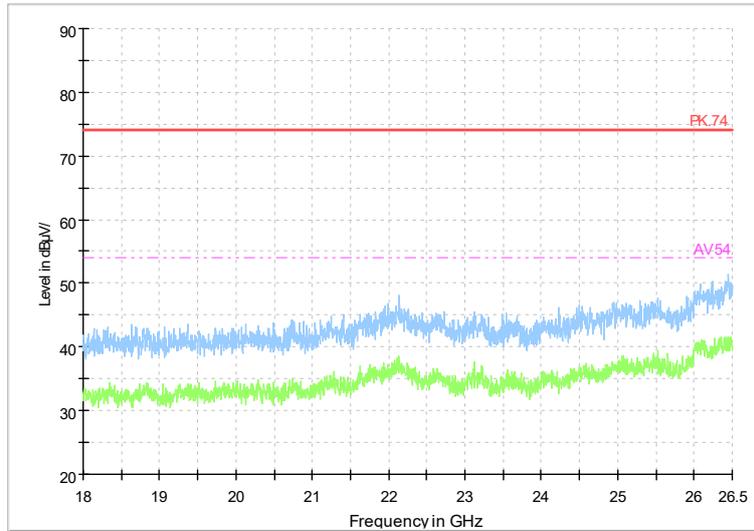
Frequency Range: 1GHz -3GHz
 Detector: Av mode and PK mode
 Modulation type: 802.11g

Full Spectrum



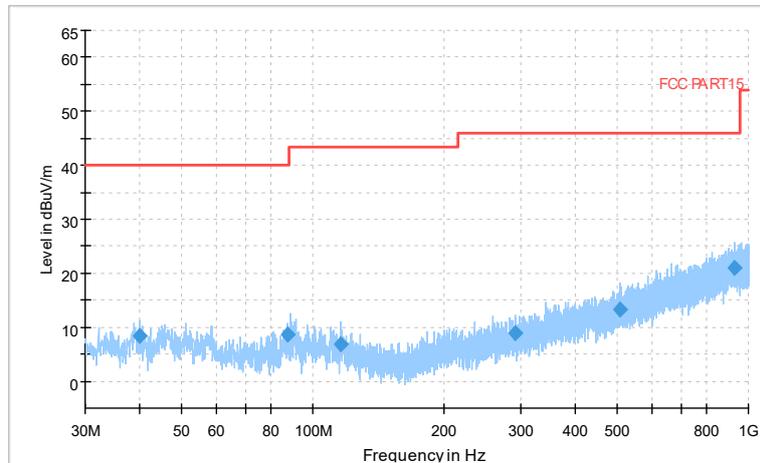
Frequency Range: 3GHz -18GHz
 Detector: Av mode and PK mode
 Modulation type: 802.11g

Full Spectrum



Frequency Range: 18GHz -26GHz
Detector: Av mode and PK mode
Modulation type: 802.11g

Full Spectrum

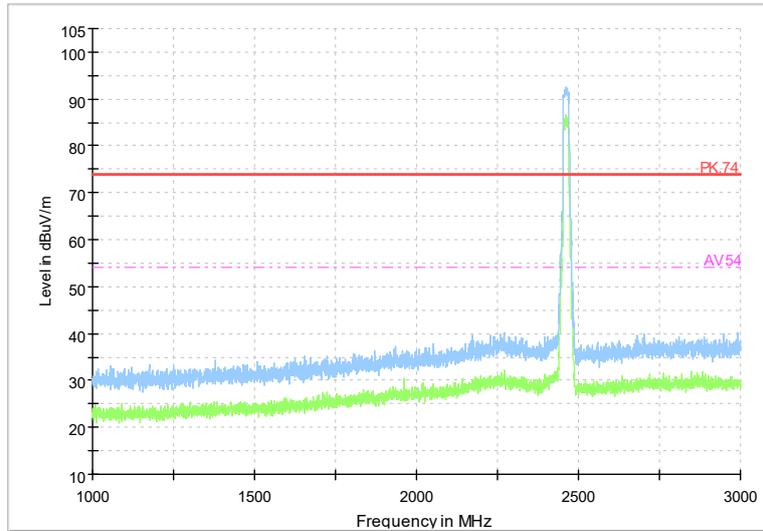


Preview Result 1-PK+ FCC PART15 Final_Result QPK

Comment

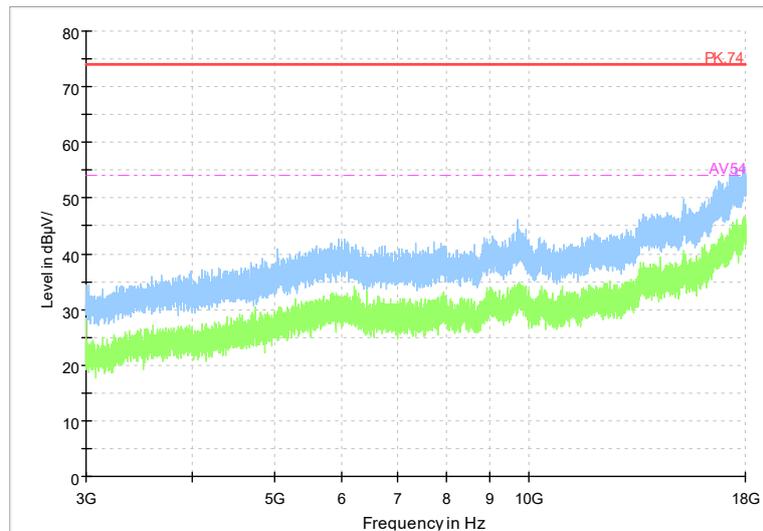
Frequency Range: 30MHz -1GHz
Detector: Av mode and PK mode
Modulation type: 802.11n(HT20)

Full Spectrum



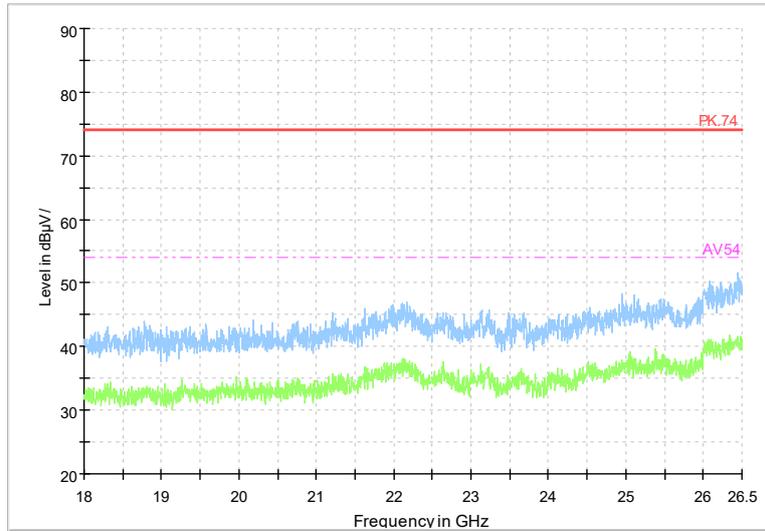
Frequency Range: 1GHz -3GHz
 Detector: Av mode and PK mode
 Modulation type: 802.11n(HT20)

Full Spectrum



Frequency Range: 3GHz -18GHz
 Detector: Av mode and PK mode
 Modulation type: 802.11n(HT20)

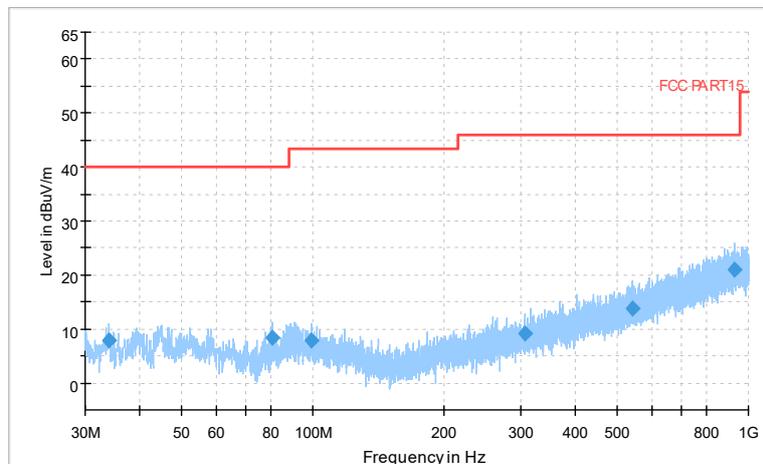
Full Spectrum



Frequency Range: 18GHz -26GHz
Detector: Av mode and PK mode
Modulation type: 802.11n(HT20)

Carrier frequency (MHz): 2422
Channel No.:3

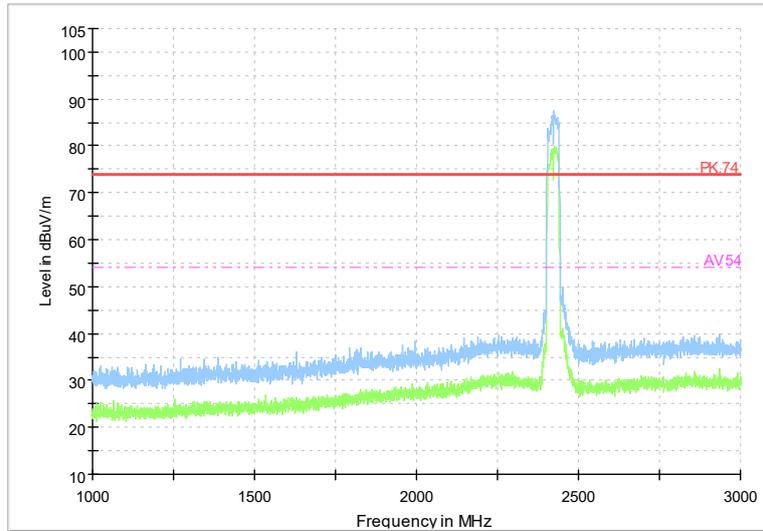
Full Spectrum



Comment

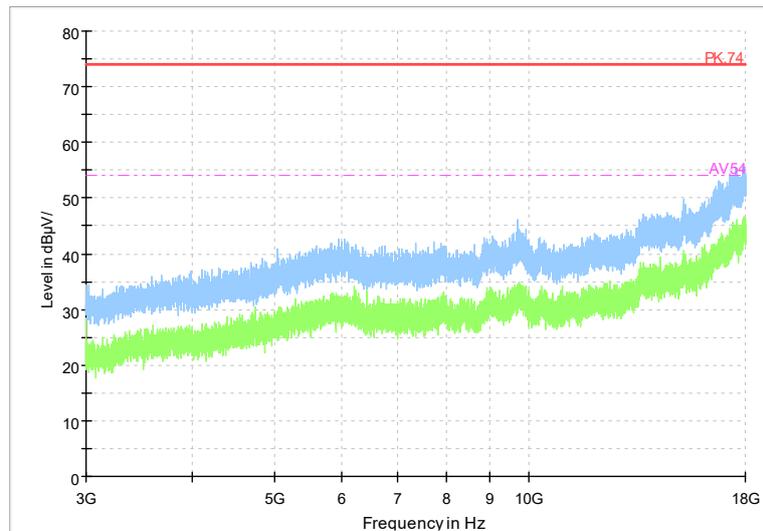
Frequency Range: 30MHz -1GHz
Detector: Av mode and PK mode
Modulation type: 802.11n(HT40)

Full Spectrum



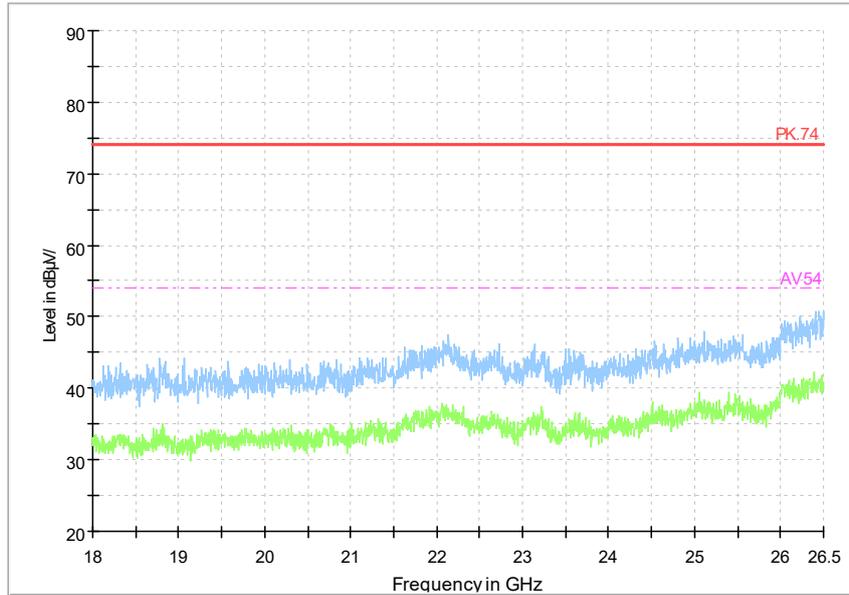
Frequency Range: 1GHz -3GHz
 Detector: Av mode and PK mode
 Modulation type: 802.11n(HT40)

Full Spectrum



Frequency Range: 3GHz -18GHz
 Detector: Av mode and PK mode
 Modulation type: 802.11n(HT40)

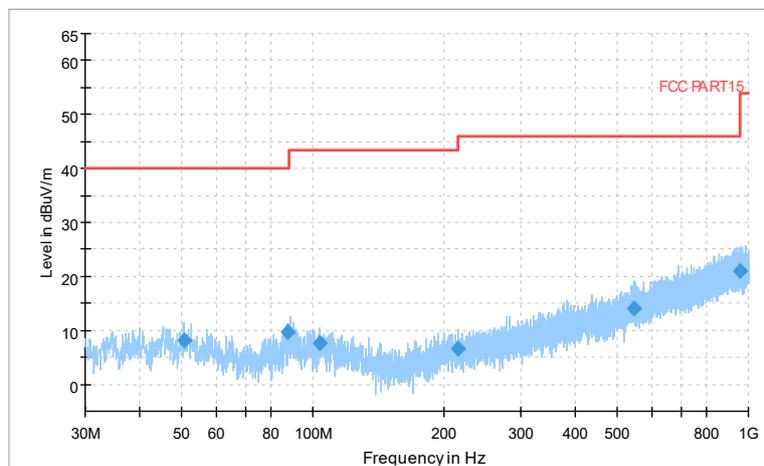
Full Spectrum



Frequency Range: 18GHz -26GHz
Detector: Av mode and PK mode
Modulation type: 802.11n(HT40)

Carrier frequency (MHz): 2437
Channel No.:6

Full Spectrum

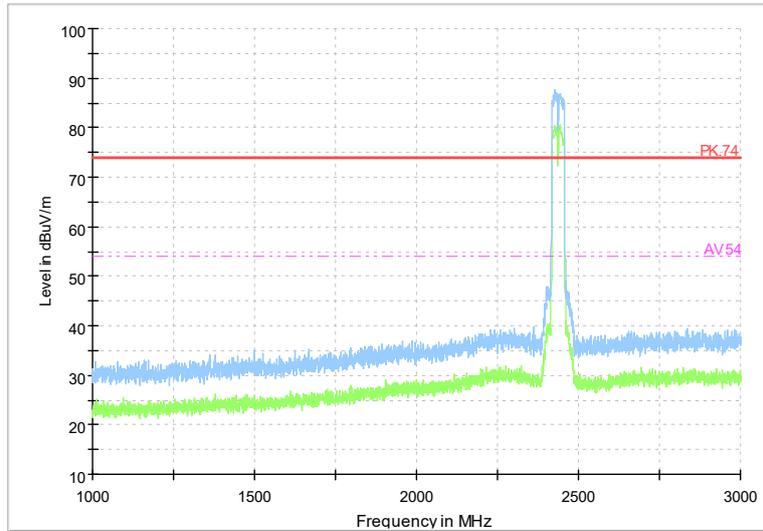


Preview Result 1-PK+ FCC PART15 Final_Result QPK

Comment

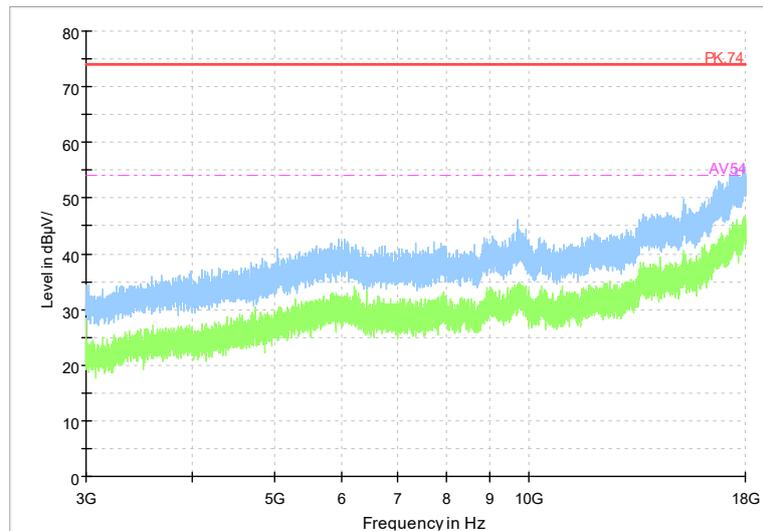
Frequency Range: 30MHz -1GHz
Detector: Av mode and PK mode
Modulation type: 802.11n(HT40)

Full Spectrum



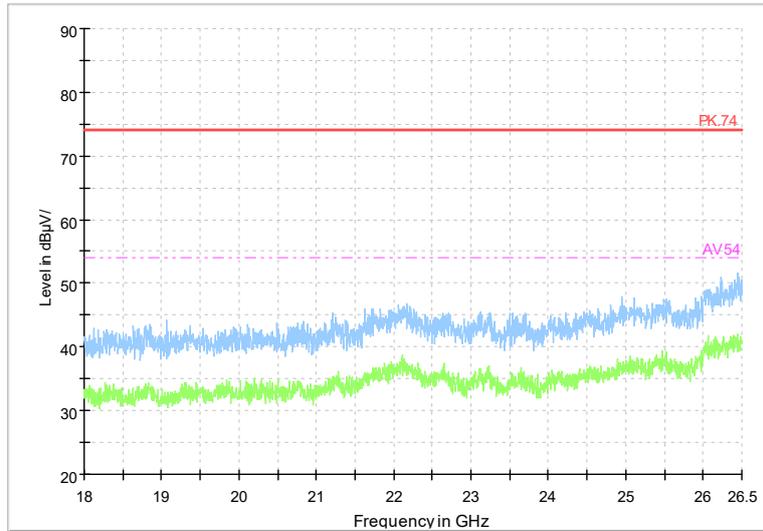
Frequency Range: 1GHz -3GHz
 Detector: Av mode and PK mode
 Modulation type: 802.11n(HT40)

Full Spectrum



Frequency Range: 3GHz -18GHz
 Detector: Av mode and PK mode
 Modulation type: 802.11n(HT40)

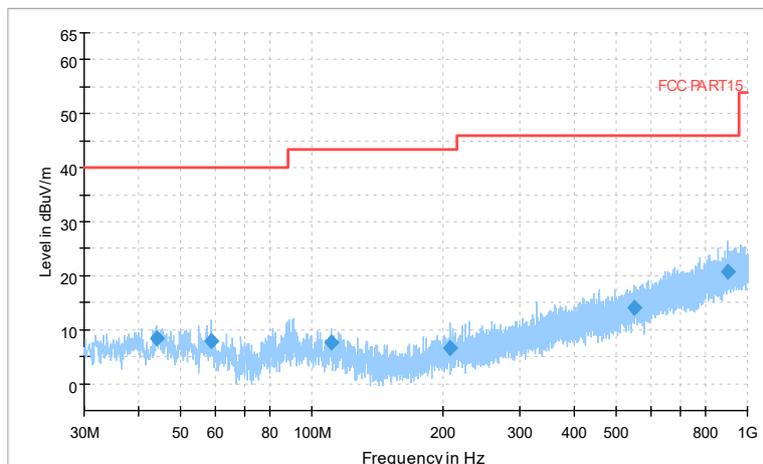
Full Spectrum



Frequency Range: 18GHz -26GHz
Detector: Av mode and PK mode
Modulation type: 802.11n(HT40)

Carrier frequency (MHz): 2452
Channel No.:9

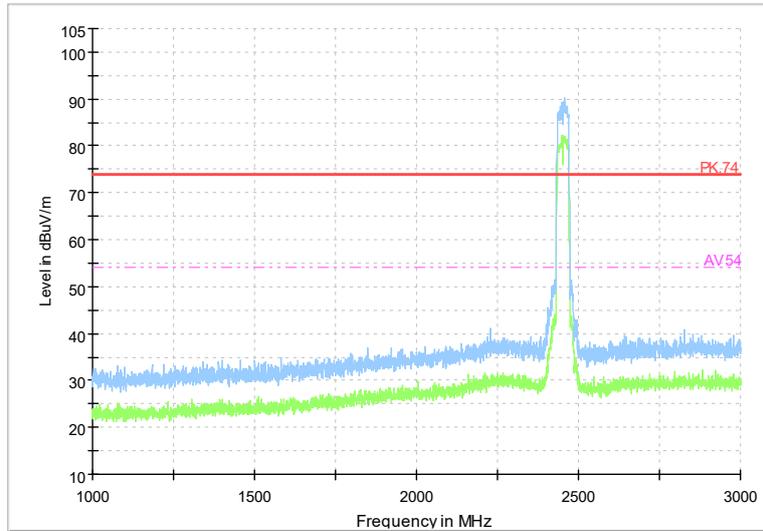
Full Spectrum



Preview Result 1-PK+ FCC PART 15 Final_Result QPK
Comment

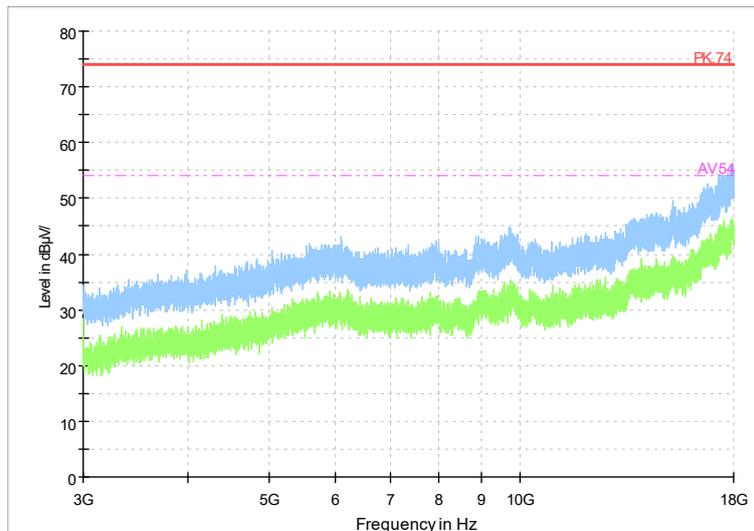
Frequency Range: 30MHz -1GHz
Detector: Av mode and PK mode
Modulation type: 802.11n(HT40)

Full Spectrum



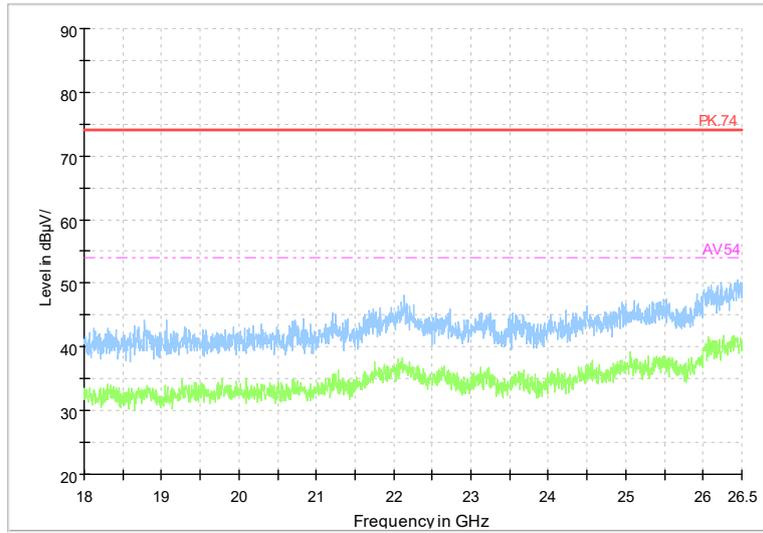
Frequency Range: 1GHz -3GHz
Detector: Av mode and PK mode
Modulation type: 802.11n(HT40)

Full Spectrum



Frequency Range: 3GHz -18GHz
Detector: Av mode and PK mode
Modulation type: 802.11n(HT40)

Full Spectrum



Frequency Range: 18GHz -26GHz
Detector: Av mode and PK mode
Modulation type: 802.11n(HT40)

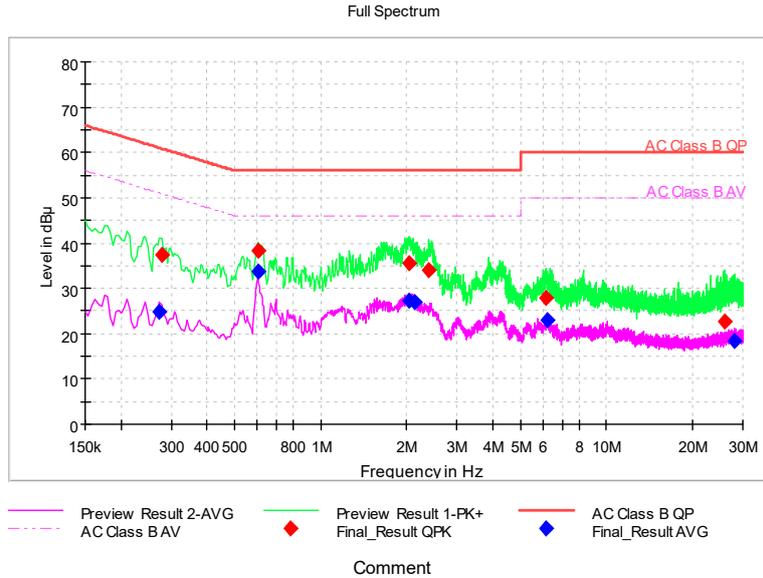
AC Power line Conducted Emission

A "reference path loss" Corr.(dB) is established and the $L_{cable}+ATT+VDF$ is the attenuation of "reference path loss", and including the cable loss, the attenuation of the attenuator, the voltage division factor of AMN.

The measurement results are obtained as described below:

$$P_{result} = P_{mea} + Corr.(dB)$$

Sample calculation: $(24.78dB\mu V) = (-5.02 dB\mu V) + (29.8 dB)$, the corresponding frequency is 0.27366MHz.



L+N Line

MEASUREMENT RESULT:

Frequency (MHz)	QuasiPeak (dBμV)	Average (dBμV)	Limit (dBμV)	Margin (dB)	Line	Corr. (dB)	Pmea QuasiPeak (dBμV)	Pmea Average (dBμV)
0.27366	---	24.78	51.01	26.22	L1	29.8	---	-5.02
0.27793	37.39	---	60.88	23.49	L1	29.8	7.59	---
0.60201	---	33.65	46	12.35	L1	29.8	---	3.85
0.60201	38.3	---	56	17.7	L1	29.8	8.5	---
2.03481	---	27.41	46	18.59	L1	29.8	---	-2.39
2.03481	35.6	---	56	20.4	N	29.8	5.8	---
2.13289	---	26.97	46	19.03	L1	29.8	---	-2.83
2.38875	33.91	---	56	22.09	N	29.8	4.11	---
6.16691	27.87	---	60	32.13	N	29.9	-2.03	---
6.1797	---	22.98	50	27.02	L1	29.9	---	-6.92
25.821	22.66	---	60	37.34	N	30.1	-7.44	---
28.064	---	18.54	50	31.46	N	30.1	---	-11.56

---End of Test Report---