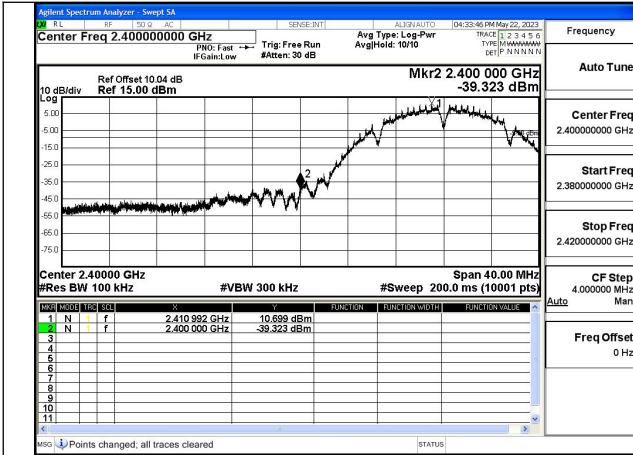
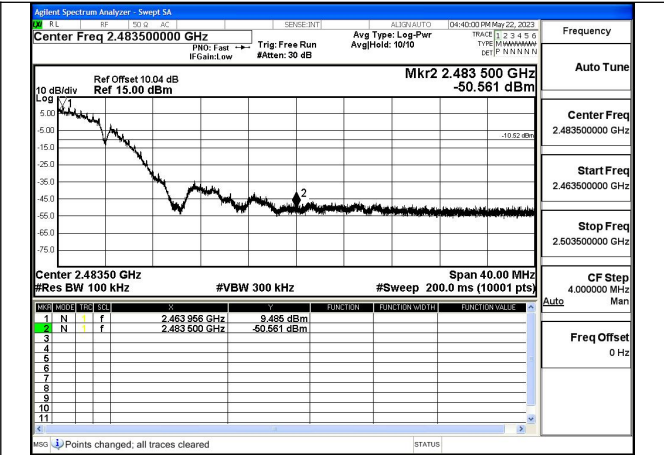


Band edge measurement

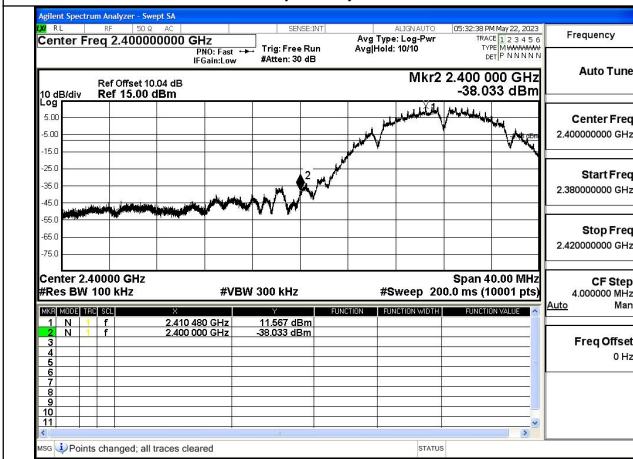
Test Mode: 802.11b



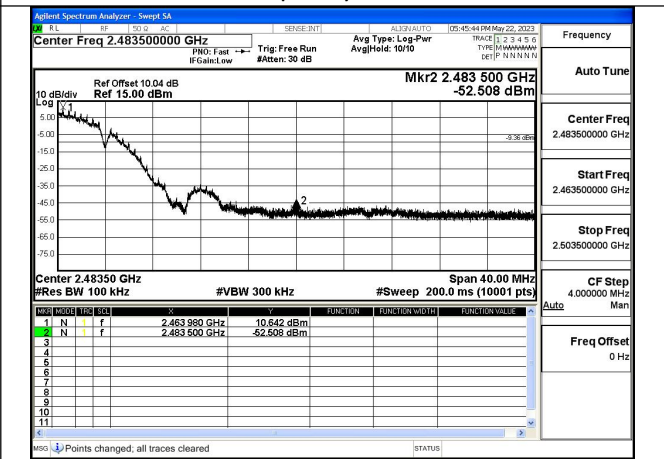
Mode:802.11b Frequency:2412MHz Ant:Chain0



Mode:802.11b Frequency:2462MHz Ant:Chain0

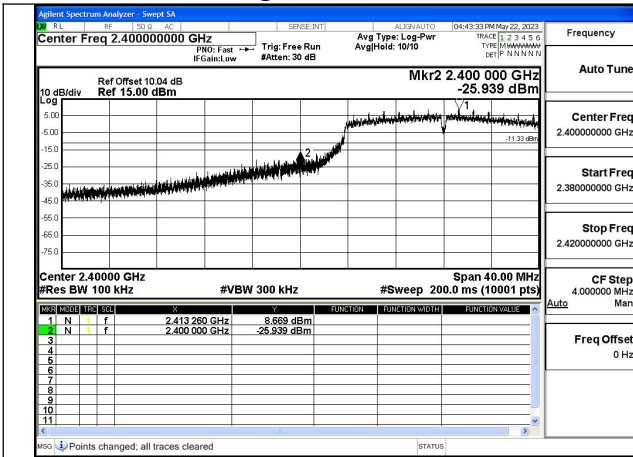


Mode:802.11b Frequency:2412MHz Ant:Chain1

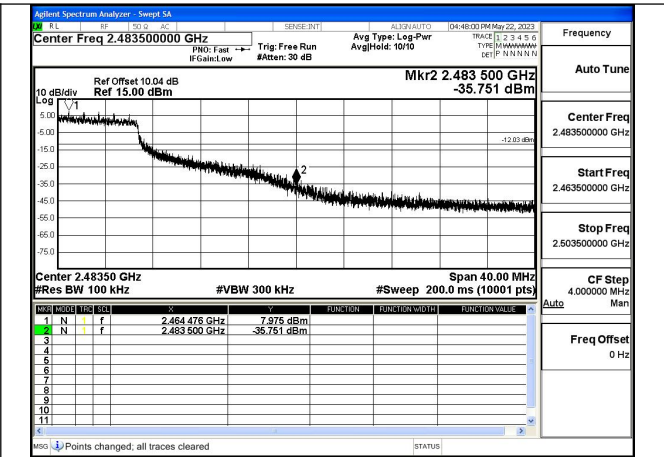


Mode:802.11b Frequency:2462MHz Ant:Chain1

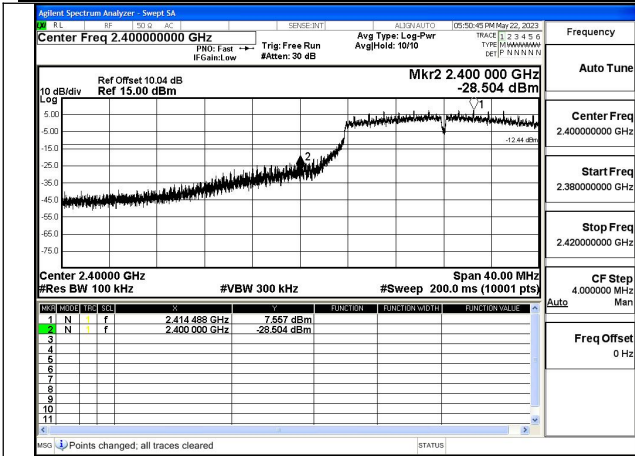
Test Mode: 802.11g



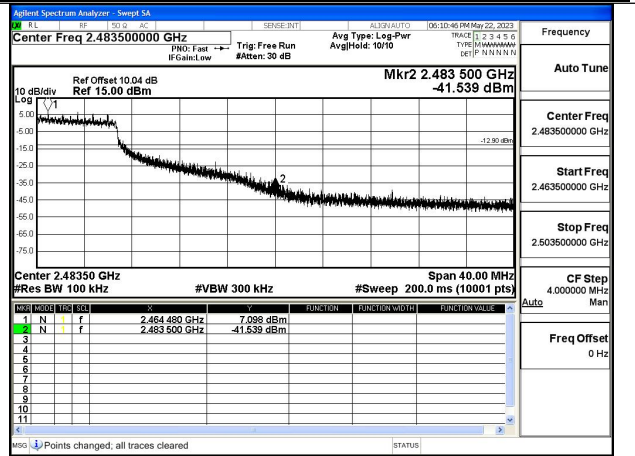
Mode:802.11g Frequency:2412MHz Ant:Chain0



Mode:802.11g Frequency:2462MHz Ant:Chain0

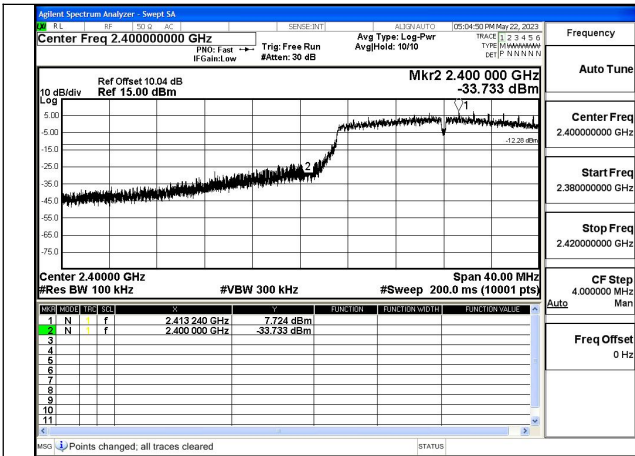


Mode:802.11g Frequency:2412MHz Ant:Chain1

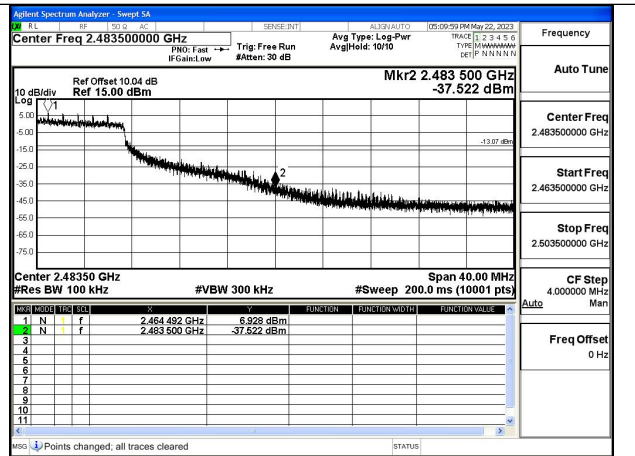


Mode:802.11g Frequency:2462MHz Ant:Chain1

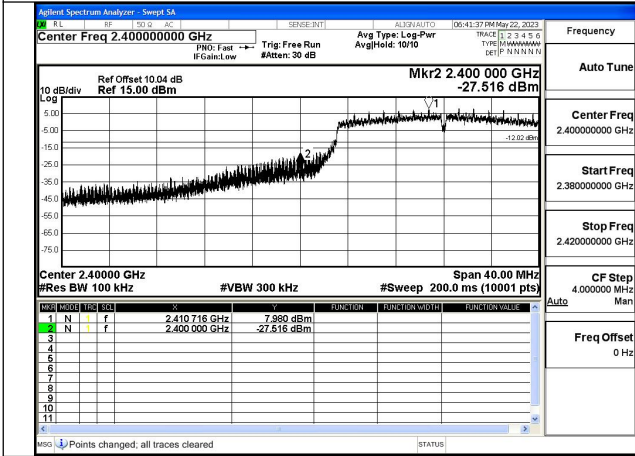
Test Mode: 802.11n HT20



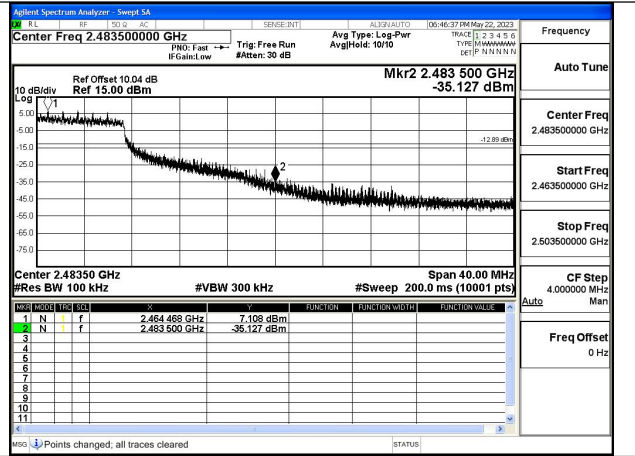
Mode:802.11n HT20 Frequency:2412MHz Ant:Chain0



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

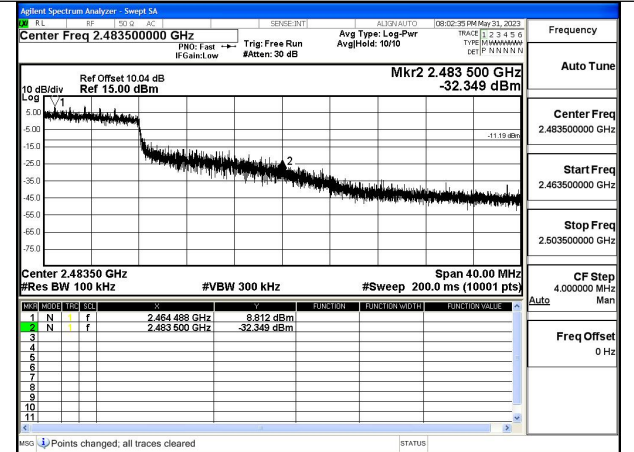
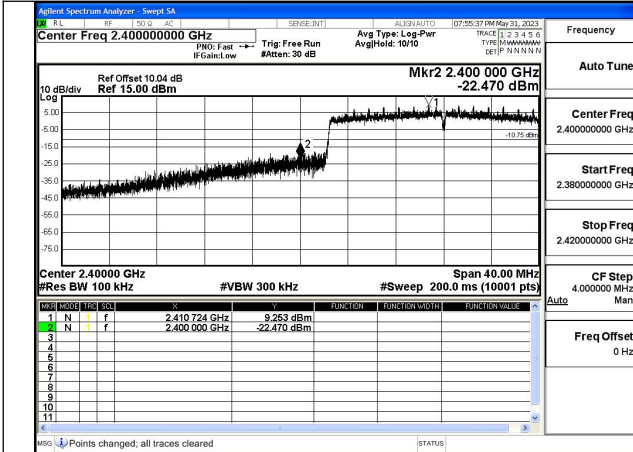


Mode:802.11n HT20 Frequency:2412MHz Ant:Chain1



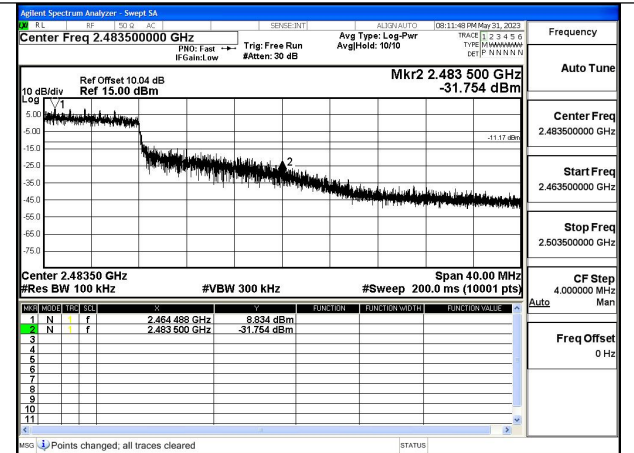
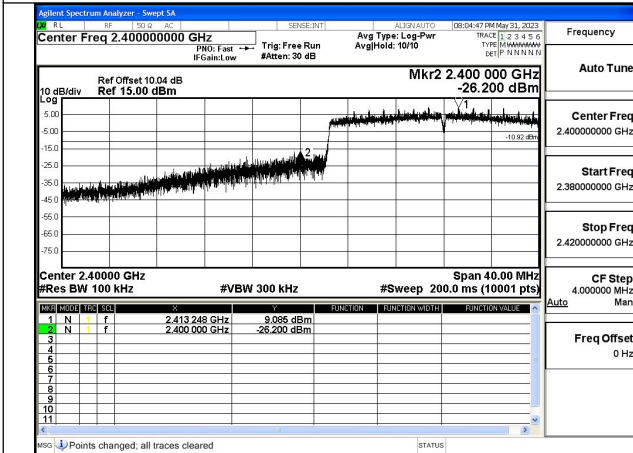
Mode:802.11n HT20 Frequency:2462MHz Ant:Chain1

Test Mode: 802.11ax HE20



Mode:802.11ax HE20 Frequency:2412MHz Ant:Chain0

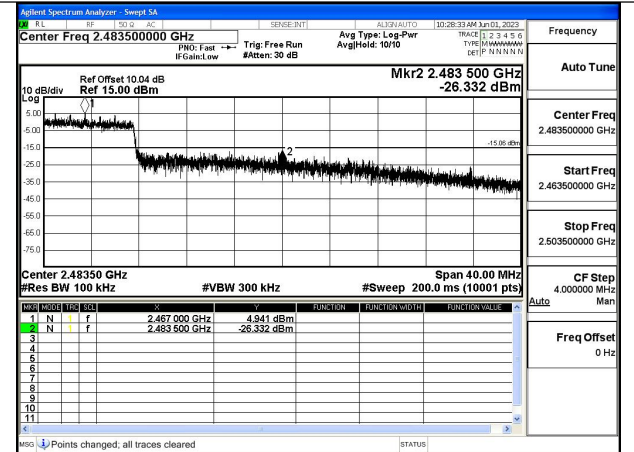
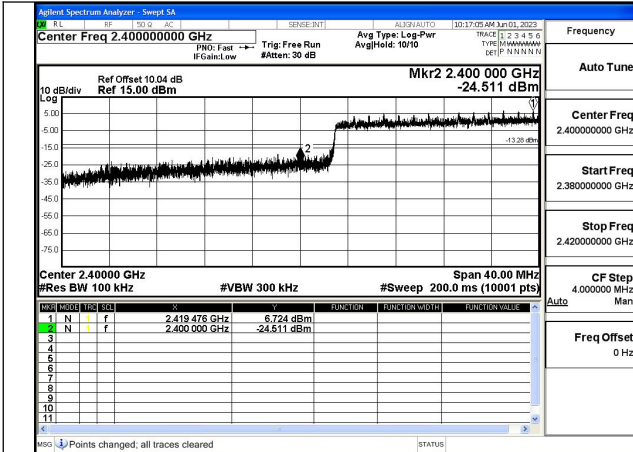
Mode:802.11ax HE20 Frequency:2462MHz Ant:Chain0



Mode:802.11ax HE20 Frequency:2412MHz Ant:Chain1

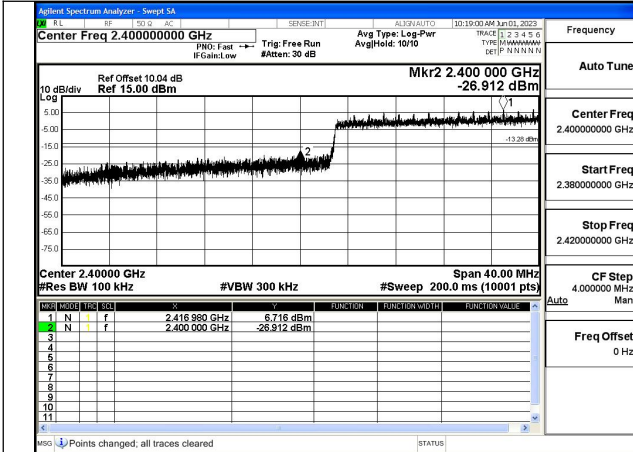
Mode:802.11ax HE20 Frequency:2462MHz Ant:Chain1

Test Mode: 802.11ax HE40

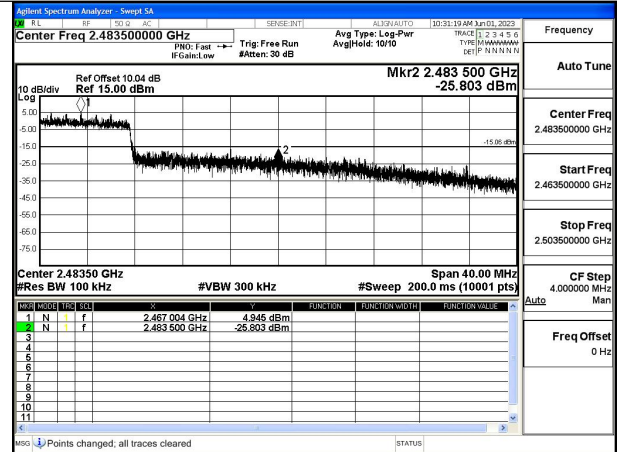


Mode:802.11ax HE40 Frequency:2422MHz Ant:Chain0

Mode:802.11ax HE40 Frequency:2452MHz Ant:Chain0

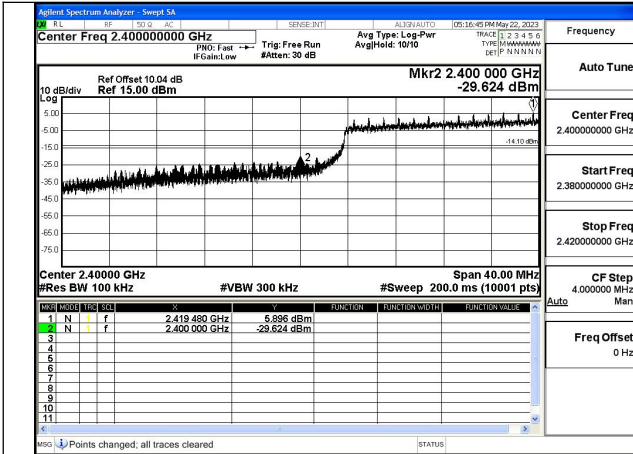


Mode:802.11ax HE40 Frequency:2422MHz Ant:Chain1

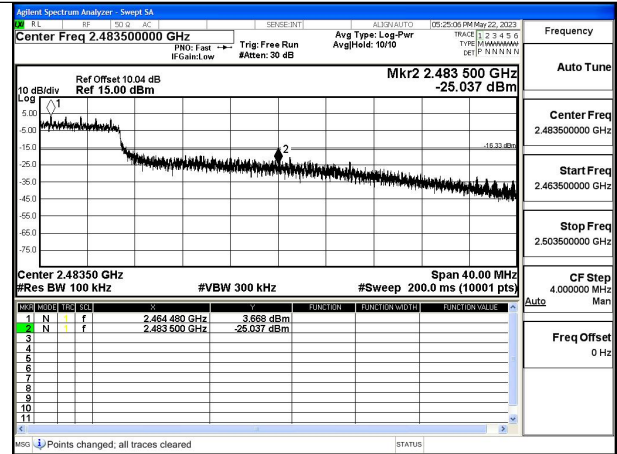


Mode:802.11ax HE40 Frequency:2452MHz Ant:Chain1

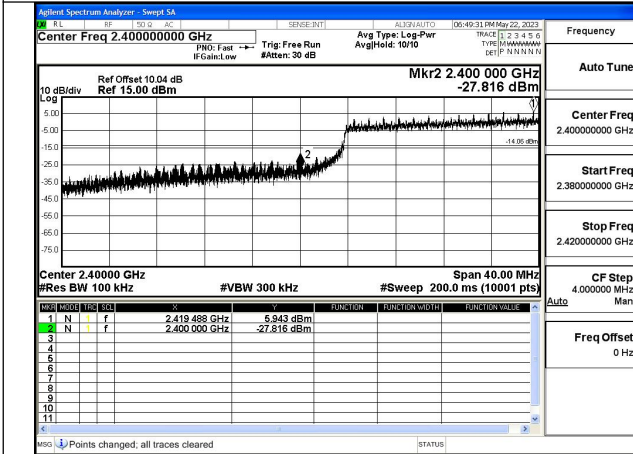
Test Mode: 802.11n HT40



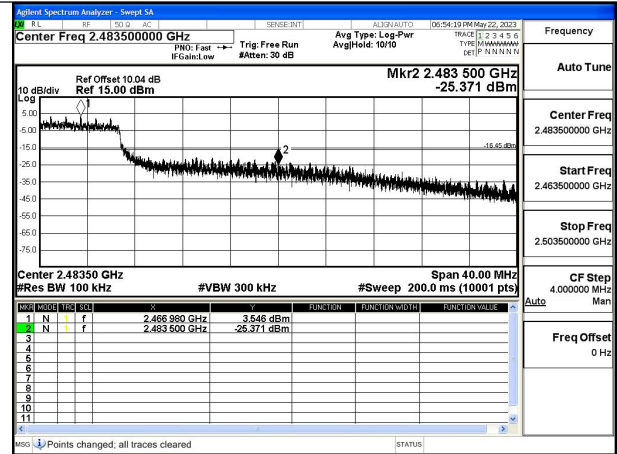
Mode:802.11n HT40 Frequency:2422MHz Ant:Chain0



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



Mode:802.11n HT40 Frequency:2422MHz Ant:Chain1



Mode:802.11n HT40 Frequency:2452MHz Ant:Chain1

APPENDIX B – TEST DATA OF RADIATED EMISSION

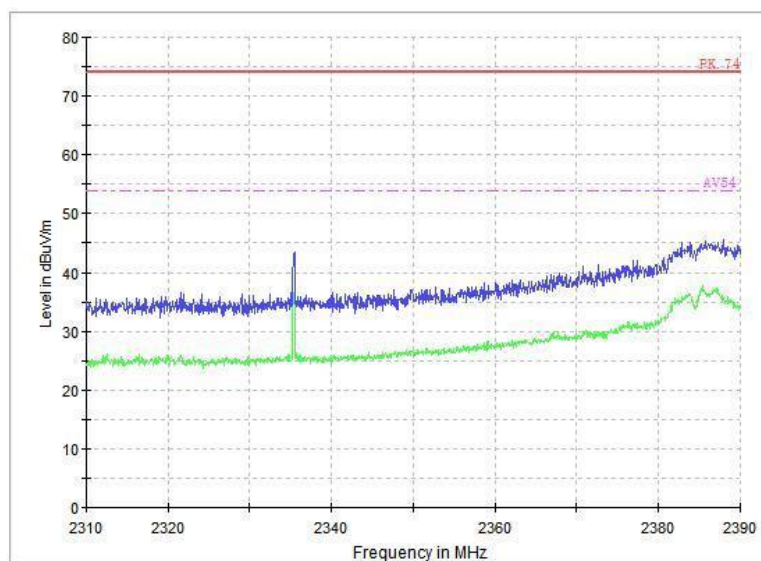
Note1: Both horizontal and vertical polarizations of the antenna are set to make the measurement.

Note2: Three-axis equipment has been evaluated in test.

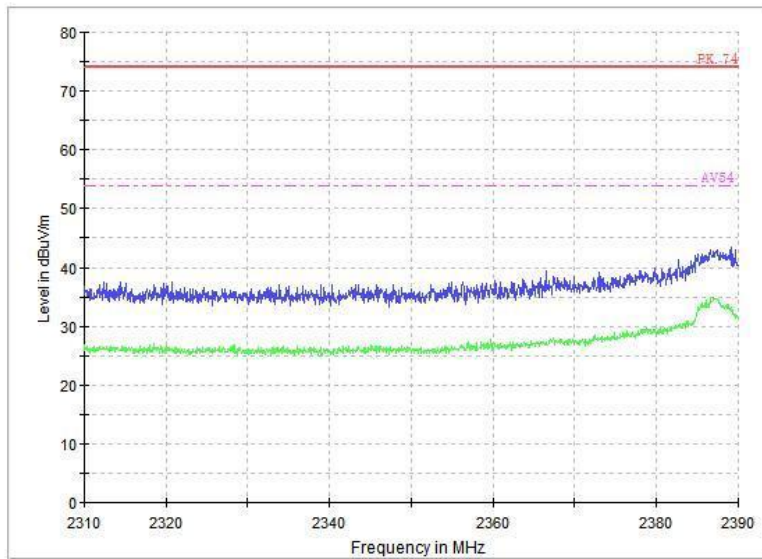
Note3: for 802.11ax, all Ru configuration has been evaluated in test. only show the result of worse case. (worse case: full Ru)

Radiated Emission : unwanted emission

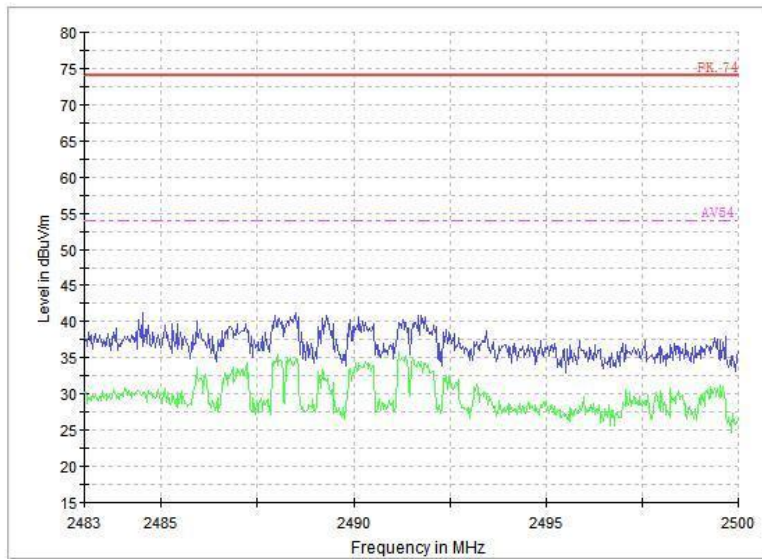
After comparison the worst case attitude is EUT vertical. The relevant tests have been performed in order to verify in which mode would have the worst features, the result show above is the worst case.



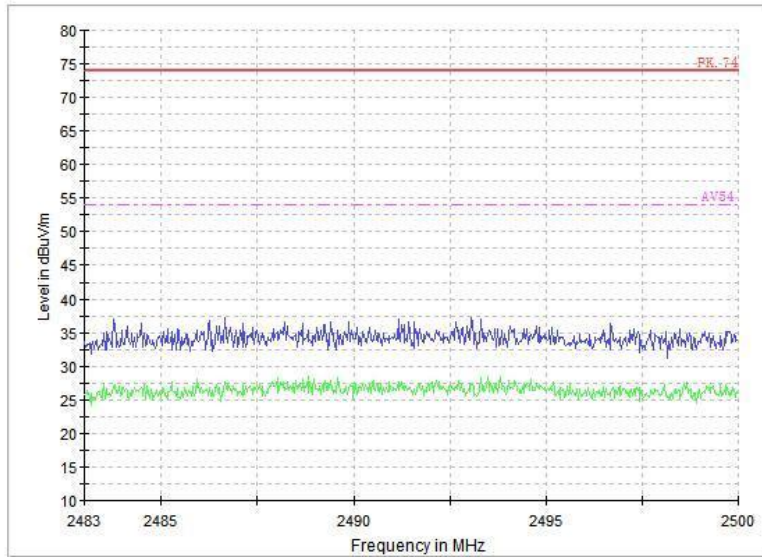
Radiated Emission Band Edge
Channel No.:1
Test Mode: 802.11b
Polarization: V



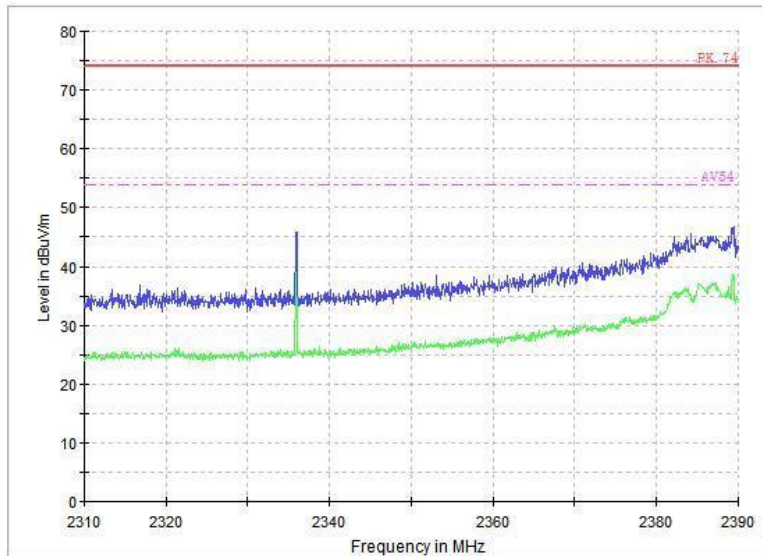
Radiated Emission Band Edge
 Channel No.:1
 Test Mode: 802.11b
 Polarization: H



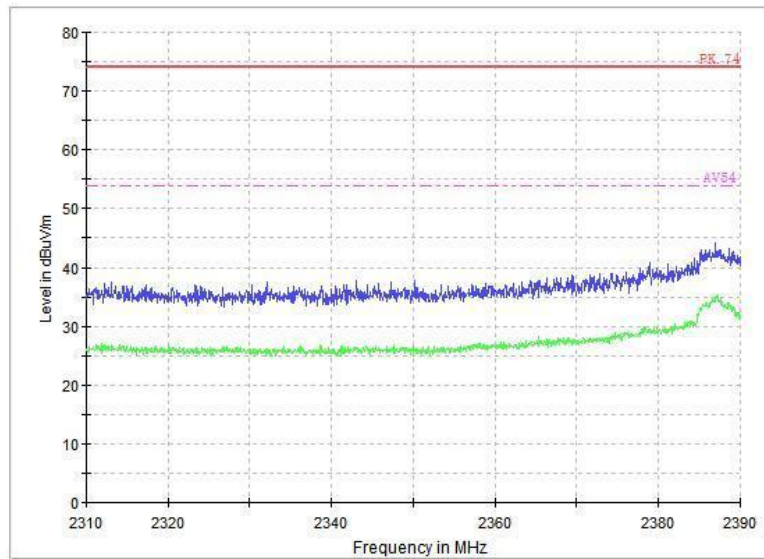
Radiated Emission Band Edge
 Channel No.:11
 Test Mode: 802.11b
 Polarization: V



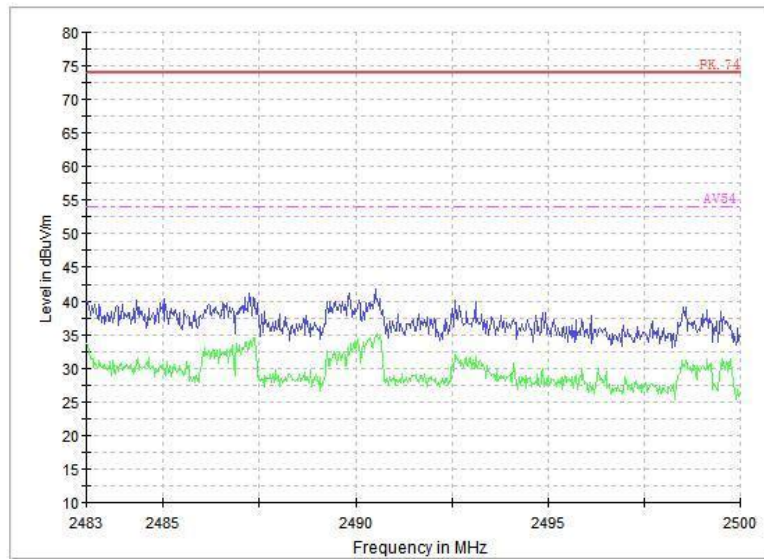
Radiated Emission Band Edge
 Channel No.:11
 Test Mode: 802.11b
 Polarization: H



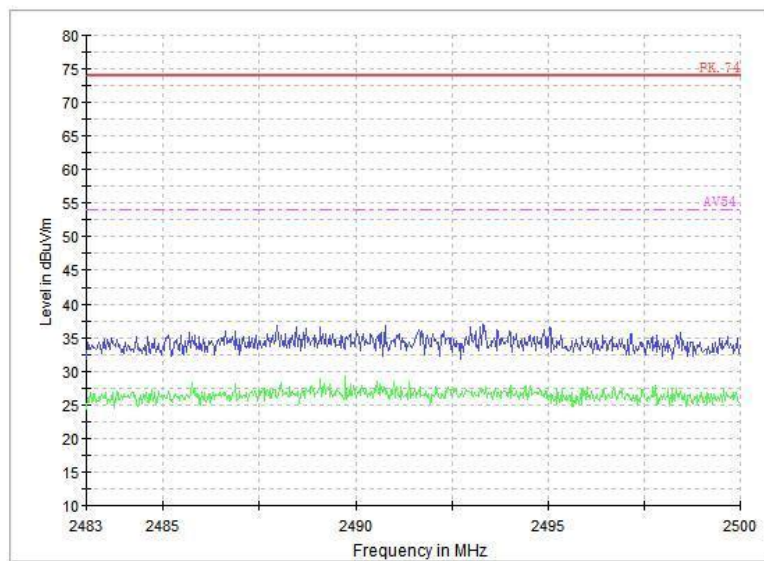
Radiated Emission Band Edge
 Channel No.:1
 Test Mode: 802.11g
 Polarization: V



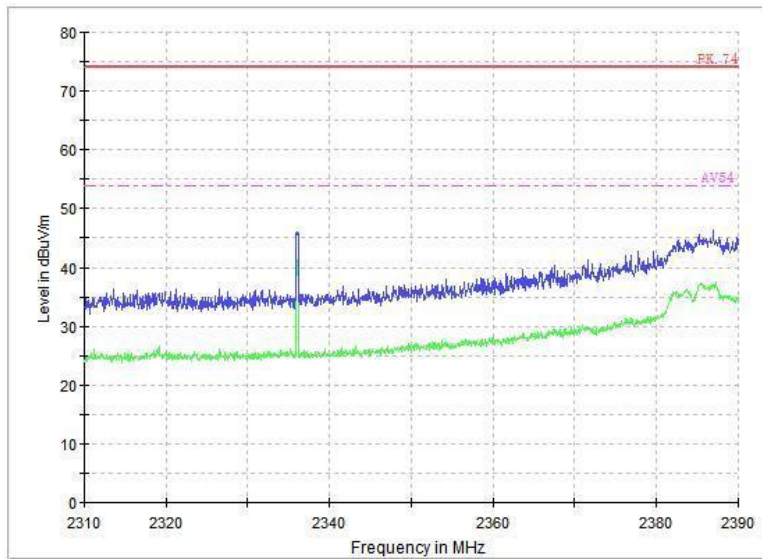
Radiated Emission Band Edge
Channel No.:1
Test Mode: 802.11g
Polarization: H



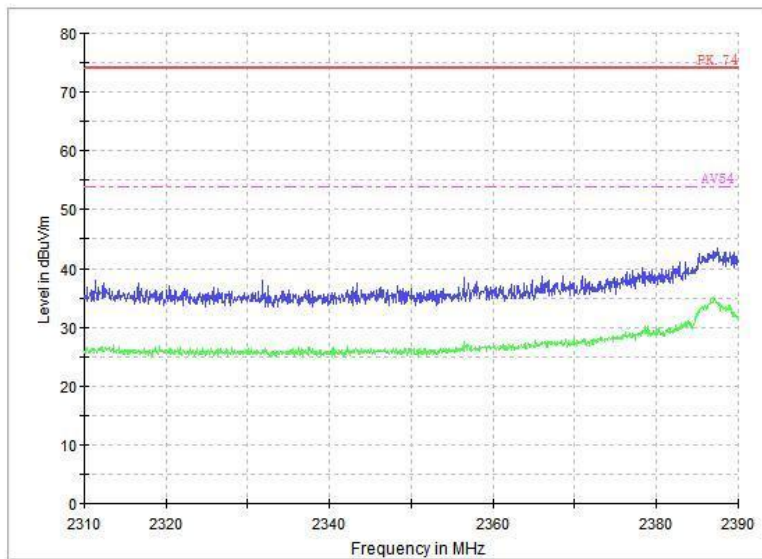
Radiated Emission Band Edge
Channel No.:11
Test Mode: 802.11g
Polarization: V



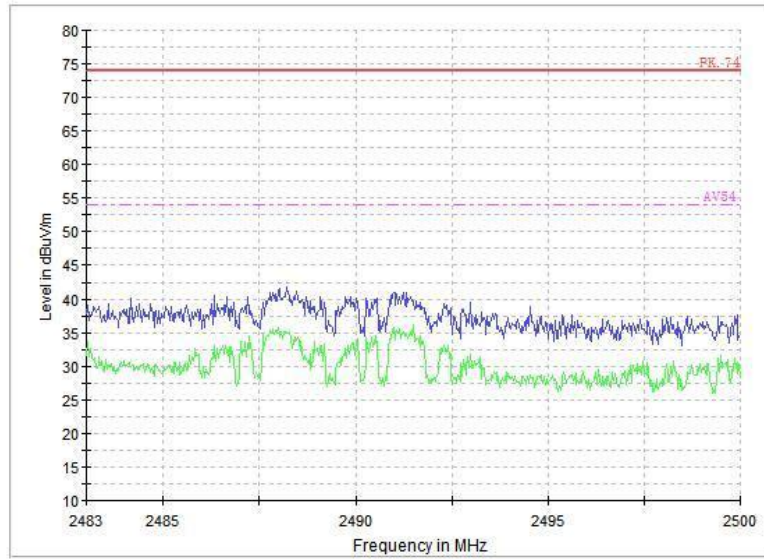
Radiated Emission Band Edge
Channel No.:11
Test Mode: 802.11g
Polarization: H



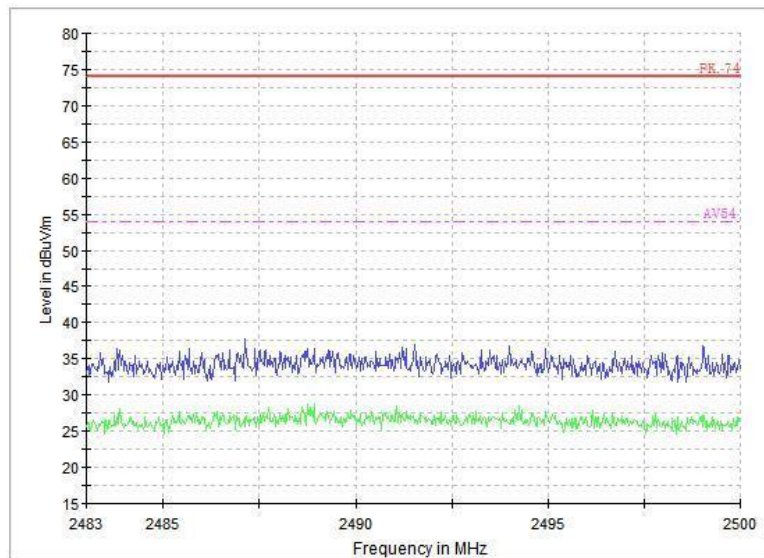
Radiated Emission Band Edge
Channel No.:1
Test Mode: 802.11n
Polarization: V



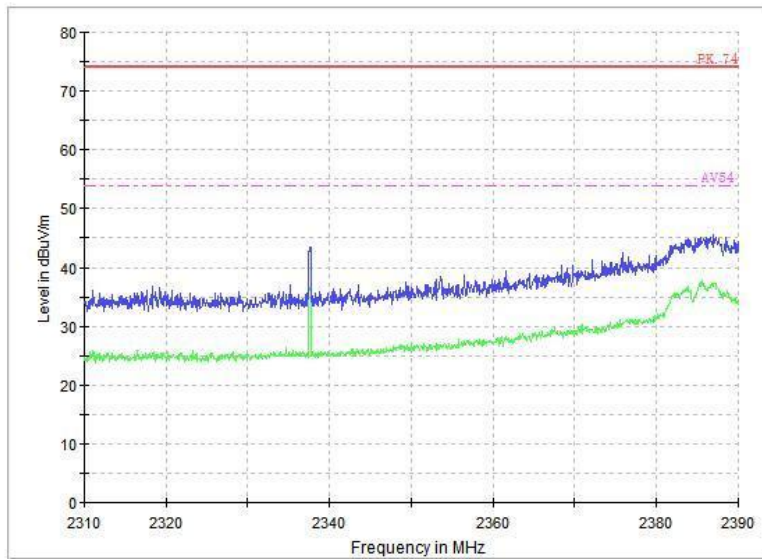
Radiated Emission Band Edge
Channel No.:1
Test Mode: 802.11n
Polarization: H



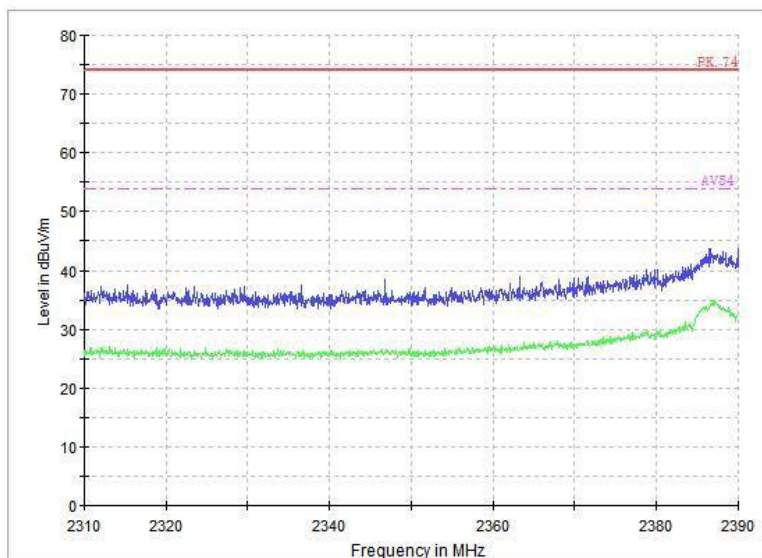
Radiated Emission Band Edge
Channel No.:11
Test Mode: 802.11n
Polarization: V



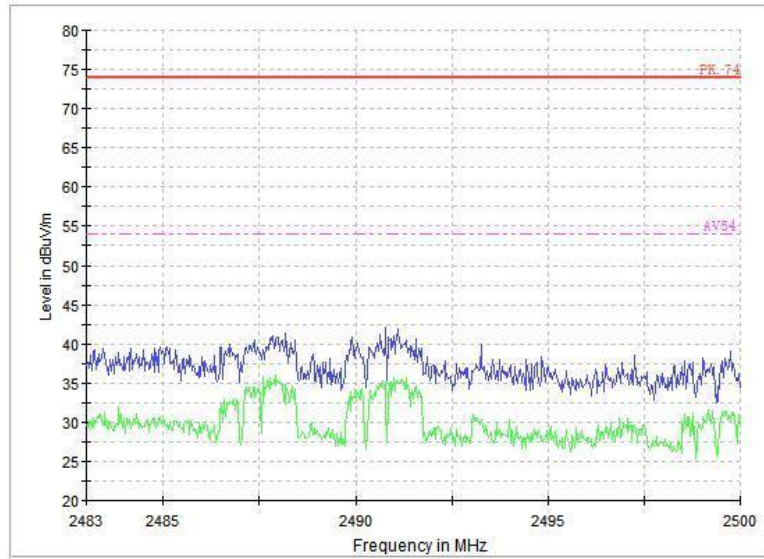
Radiated Emission Band Edge
Channel No.:11
Test Mode: 802.11n
Polarization: H



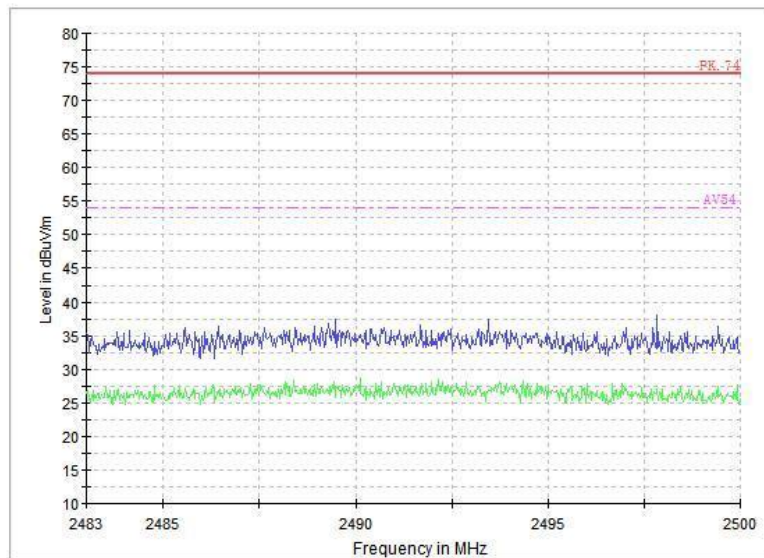
Radiated Emission Band Edge
Channel No.:1
Test Mode: 802.11ax
Polarization: V



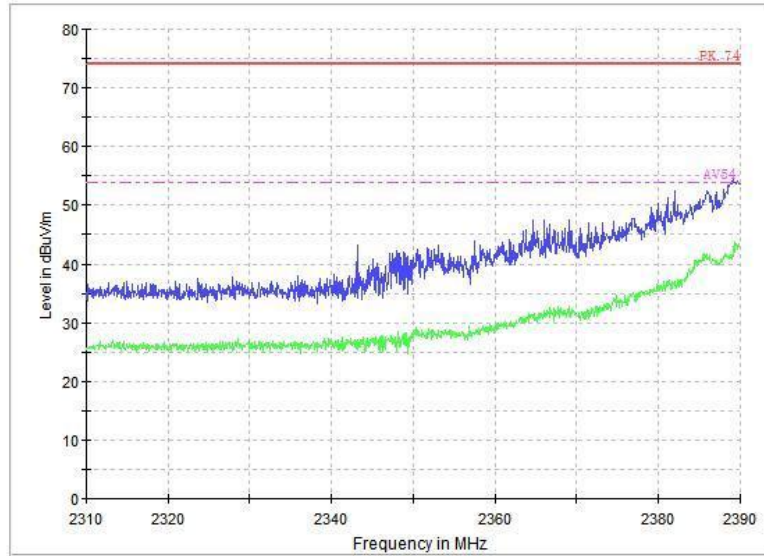
Radiated Emission Band Edge
Channel No.:1
Test Mode: 802.11ax
Polarization: H



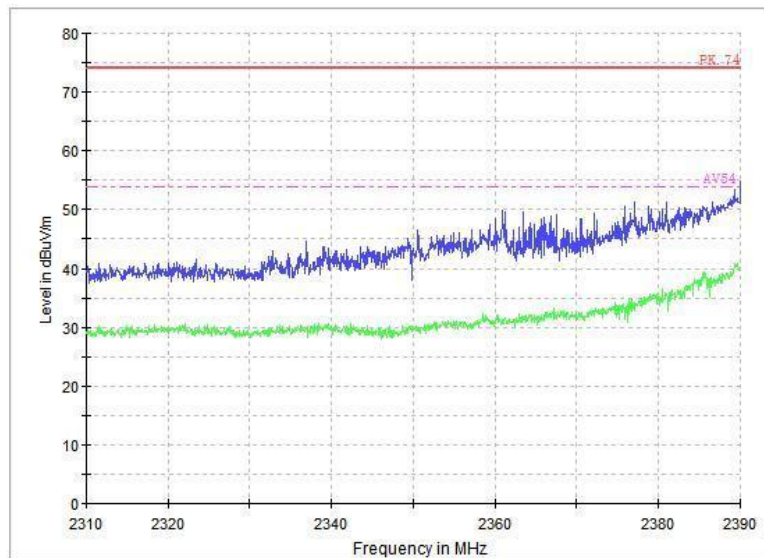
Radiated Emission Band Edge
Channel No.:11
Test Mode: 802.11ax
Polarization: V



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



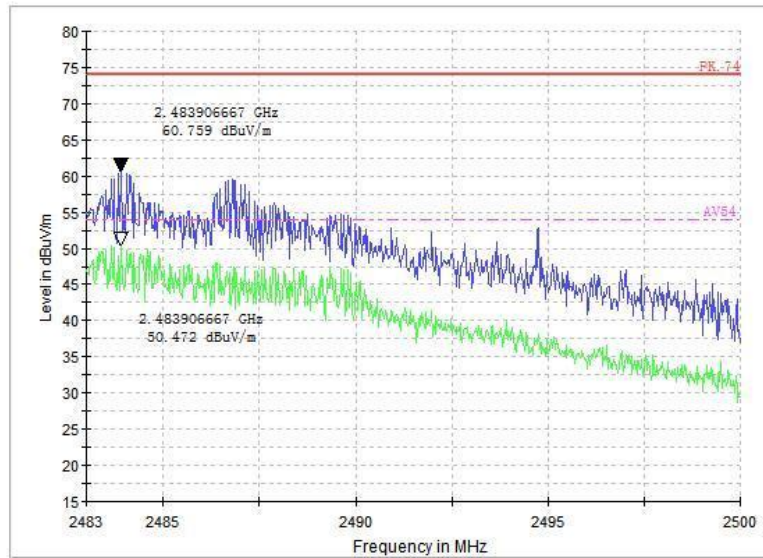
Radiated Emission Band Edge
 Channel No.:3
 Test Mode: 802.11n40
 Polarization: V



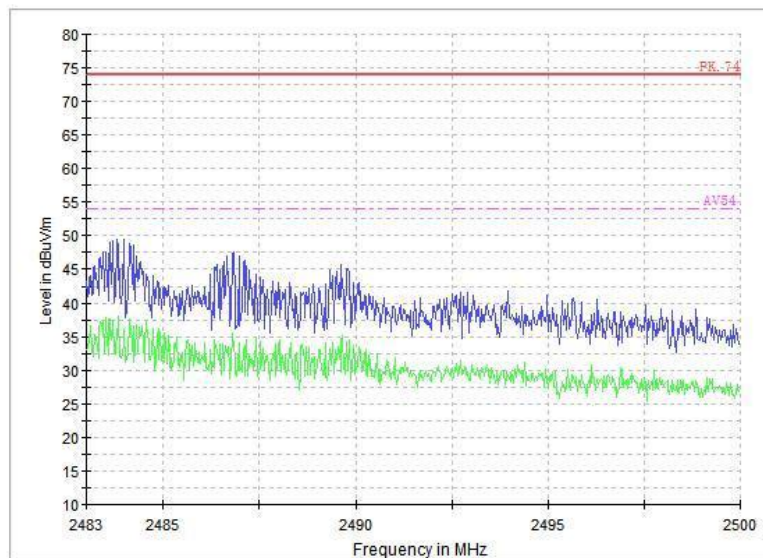
Radiated Emission Band Edge
 Channel No.:3
 Test Mode: 802.11n40
 Polarization: H

Carrier frequency (MHz): 2452
Channel No.:9
Test Mode: 802.11 n(HT40)
Polarity:Vertical

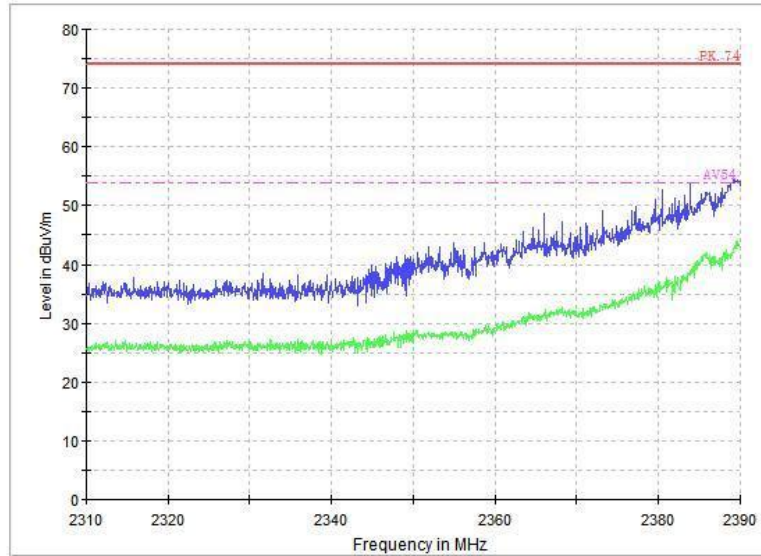
No	Frequency (GHz)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	2.4839	60.759	74	13.241	Peak
2	2.4839	50.472	54	3.528	Average



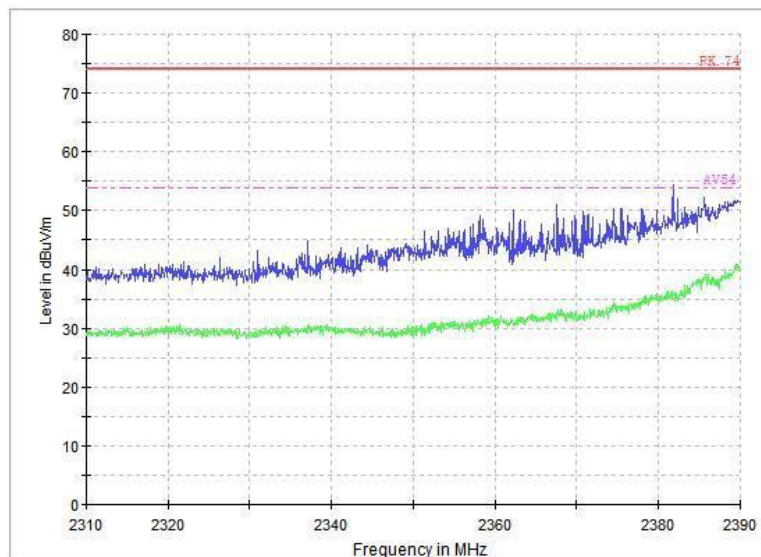
Radiated Emission Band Edge
Channel No.:9
Test Mode: 802.11n40
Polarization: V



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



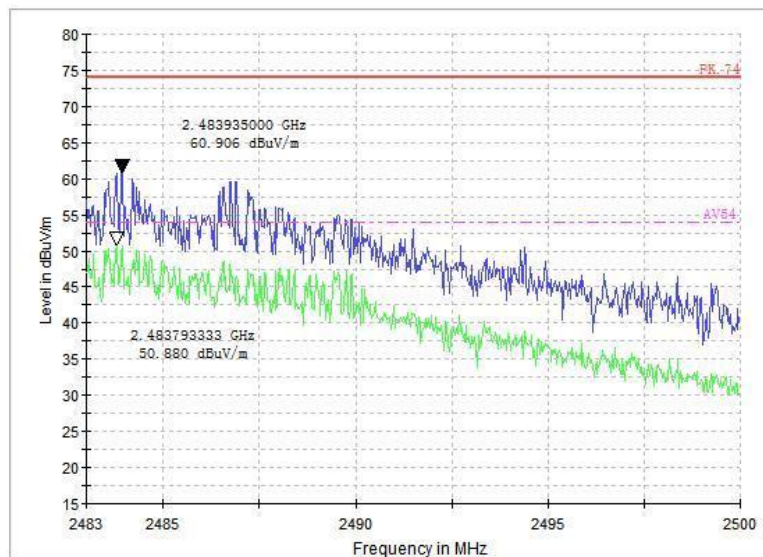
Radiated Emission Band Edge
Channel No.:3
Test Mode: 802.11ax40
Polarization: V



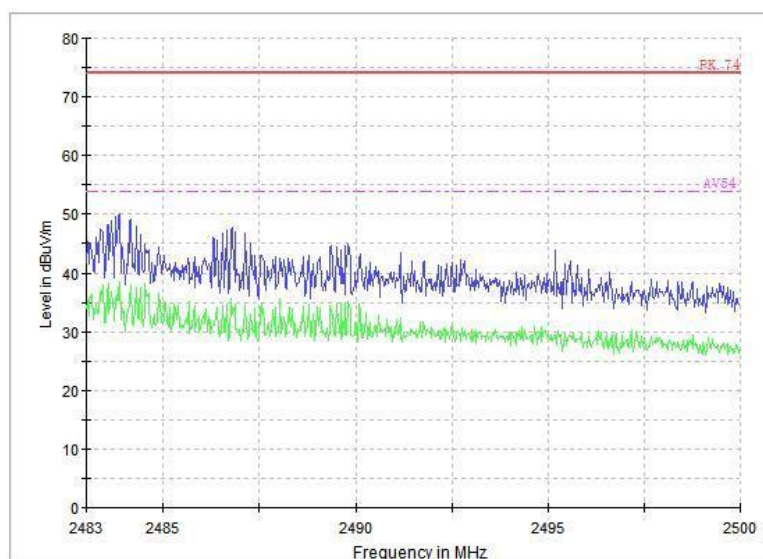
Radiated Emission Band Edge
Channel No.:3
Test Mode: 802.11ax40
Polarization: H

Carrier frequency (MHz): 2452
Channel No.:9
Test Mode: 802.11 ax(HE40)
Polarity:Vertical

No	Frequency (GHz)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	2.4839	60.906	74	13.094	Peak
2	2.4838	50.880	54	3.12	Average



Radiated Emission Band Edge
Channel No.:9
Test Mode: 802.11ax40
Polarization: V



Radiated Emission Band Edge

Channel No.:9
Test Mode: 802.11ax40
Polarization: H

Radiated Emission : unwanted emission

Sample Calculations

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: $(28.53 \text{ dB}\mu\text{V/m}) = (48.63 \text{ dB}\mu\text{V}) + (-20.1 \text{ dB/m})$, the corresponding frequency is 36.014MHz.

For 802.11b Channel No.:1

Frequency(MHz)	Result(dBuV/m)	ARpl (dB)	Pmea (dBuV/m)	Polarity	Limit (dBuV/m)	Margin (dB)
36.014	28.53	-20.1	48.63	Vertical	40	11.47
78.112	17.53	-24	41.53	Vertical	40	22.47
138.252	19.75	-22.6	42.35	Vertical	43.5	23.75
180.35	9.65	-20.8	30.45	Vertical	43.5	33.85
544.003	11.19	-9.8	20.99	Vertical	46	34.81
958.387	17.24	-2.8	20.04	Vertical	46	28.76

For 802.11g Channel No.:1

Frequency(MHz)	Result(dBuV/m)	ARpl (dB)	Pmea (dBuV/m)	Polarity	Limit (dBuV/m)	Margin (dB)
36.014	28.49	-20.1	48.59	Vertical	40	11.51
78.112	17.52	-24	41.52	Vertical	40	22.48
138.252	19.76	-22.6	42.36	Vertical	43.5	23.74
180.35	9.64	-20.8	30.44	Vertical	43.5	33.86
553.6545	11.28	-9.6	20.88	Vertical	46	34.72
905.134	17.2	-3.1	20.3	Vertical	46	28.8

For 802.11n(HT20) Channel No.:1

Frequency(MHz)	Result(dBuV/m)	ARpl (dB)	Pmea (dBuV/m)	Polarity	Limit (dBuV/m)	Margin (dB)
36.014	28.47	-20.1	48.57	Vertical	40	11.53
78.112	17.49	-24	41.49	Vertical	40	22.51
138.252	19.74	-22.6	42.34	Vertical	43.5	23.76
180.35	9.63	-20.8	30.43	Vertical	43.5	33.87
519.171	11.05	-10.3	21.35	Vertical	46	34.95
955.671	17.14	-2.9	20.04	Vertical	46	28.86

For 802.11ax(HE20) Channel No.:1

Frequency(MHz)	Result(dBuV/m)	ARpl (dB)	Pmea (dBuV/m)	Polarity	Limit (dBuV/m)	Margin (dB)
36.014	28.46	-20.1	48.56	Vertical	40	11.54
78.112	17.32	-24	41.32	Vertical	40	22.68
138.252	19.72	-22.6	42.32	Vertical	43.5	23.78
300.5815	10.71	-15.8	26.51	Vertical	46	35.29
534.6425	11.37	-10	21.37	Vertical	46	34.63
902.1755	17.14	-3.1	20.24	Vertical	46	28.86

For 802.11b Channel No.:6

Frequency(MHz)	Result(dBuV/m)	ARpl (dB)	Pmea (dBuV/m)	Polarity	Limit (dBuV/m)	Margin (dB)
36.014	28.46	-20.1	48.56	Vertical	40	11.54
78.112	17.26	-24	41.26	Vertical	40	22.74
138.252	19.7	-22.6	42.3	Vertical	43.5	23.8
180.35	9.57	-20.8	30.37	Vertical	43.5	33.93
542.839	11.1	-9.8	20.9	Vertical	46	34.9
899.217	17.08	-3.2	20.28	Vertical	46	28.92

For 802.11g Channel No.:6

Frequency(MHz)	Result(dBuV/m)	ARpl (dB)	Pmea (dBuV/m)	Polarity	Limit (dBuV/m)	Margin (dB)
36.014	28.46	-20.1	48.56	Vertical	40	11.54
78.112	17.19	-24	41.19	Vertical	40	22.81
138.252	19.7	-22.6	42.3	Vertical	43.5	23.8
180.35	9.58	-20.8	30.38	Vertical	43.5	33.92
530.326	11.03	-10.1	21.13	Vertical	46	34.97
843.151	15.74	-4.4	20.14	Vertical	46	30.26

For 802.11n(HT20) Channel No.:6

Frequency(MHz)	Result(dBuV/m)	ARpl (dB)	Pmea (dBuV/m)	Polarity	Limit (dBuV/m)	Margin (dB)
36.014	28.47	-20.1	48.57	Vertical	40	11.53
78.112	17.01	-24	41.01	Vertical	40	22.99
138.252	20.58	-22.6	43.18	Vertical	43.5	22.92
174.336	8.04	-21.2	29.24	Vertical	43.5	35.46
547.9315	11.08	-9.8	20.88	Vertical	46	34.92
898.1985	16.98	-3.2	20.18	Vertical	46	29.02

For 802.11ax(HE20) Channel No.:6

Frequency(MHz)	Result(dBuV/m)	ARpl (dB)	Pmea (dBuV/m)	Polarity	Limit (dBuV/m)	Margin (dB)
36.014	28.47	-20.1	48.57	Vertical	40	11.53
78.112	16.88	-24	40.88	Vertical	40	23.12
138.252	19.67	-22.6	42.27	Vertical	43.5	23.83
180.35	9.57	-20.8	30.37	Vertical	43.5	33.93

531.781	11.15	-10.1	21.25	Vertical	46	34.85
862.9875	16.11	-4	20.11	Vertical	46	29.89

For 802.11b Channel No.:11

Frequency(MHz)	Result(dBuV/m)	ARpl (dB)	Pmea (dBuV/m)	Polarity	Limit (dBuV/m)	Margin (dB)
36.014	28.5	-20.1	48.6	Vertical	40	11.5
78.112	16.76	-24	40.76	Vertical	40	23.24
138.252	19.67	-22.6	42.27	Vertical	43.5	23.83
180.35	9.56	-20.8	30.36	Vertical	43.5	33.94
492.9325	10.27	-10.8	21.07	Vertical	46	35.73
913.6215	17.24	-3	20.24	Vertical	46	28.76

For 802.11g Channel No.:11

Frequency(MHz)	Result(dBuV/m)	ARpl (dB)	Pmea (dBuV/m)	Polarity	Limit (dBuV/m)	Margin (dB)
36.014	28.52	-20.1	48.62	Vertical	40	11.48
78.112	16.65	-24	40.65	Vertical	40	23.35
138.252	19.67	-22.6	42.27	Vertical	43.5	23.83
210.226	6.91	-18.4	25.31	Vertical	43.5	36.59
504.1845	10.51	-10.6	21.11	Vertical	46	35.49
894.464	16.97	-3.3	20.27	Vertical	46	29.03

For 802.11n(HT20) Channel No.:11

Frequency(MHz)	Result(dBuV/m)	ARpl (dB)	Pmea (dBuV/m)	Polarity	Limit (dBuV/m)	Margin (dB)
36.014	28.54	-20.1	48.64	Vertical	40	11.46
78.112	16.57	-24	40.57	Vertical	40	23.43
138.252	19.86	-22.6	42.46	Vertical	43.5	23.64
180.35	9.5	-20.8	30.3	Vertical	43.5	34
520.238	11.13	-10.3	21.43	Vertical	46	34.87
901.06	17.12	-3.1	20.22	Vertical	46	28.88

For 802.11ax(HE20) Channel No.:11

Frequency(MHz)	Result(dBuV/m)	ARpl (dB)	Pmea (dBuV/m)	Polarity	Limit (dBuV/m)	Margin (dB)
36.014	28.57	-20.1	48.67	Vertical	40	11.43
78.112	16.52	-24	40.52	Vertical	40	23.48
138.252	19.65	-22.6	42.25	Vertical	43.5	23.85
180.35	9.53	-20.8	30.33	Vertical	43.5	33.97
533.721	11.07	-10	21.07	Vertical	46	34.93
902.903	17.06	-3.1	20.16	Vertical	46	28.94

For 802.11n(HT40) Channel No.:3

Frequency(MHz)	Result(dBuV/m)	ARpl (dB)	Pmea (dBuV/m)	Polarity	Limit (dBuV/m)	Margin (dB)

36.014	28.56	-20.1	48.66	Vertical	40	11.44
78.112	16.48	-24	40.48	Vertical	40	23.52
138.252	19.64	-22.6	42.24	Vertical	43.5	23.86
180.35	9.53	-20.8	30.33	Vertical	43.5	33.97
544.585	11.08	-9.8	20.88	Vertical	46	34.92
916.386	17.2	-3	20.2	Vertical	46	28.8

For 802.11ax(HE40) Channel No.:3

Frequency(MHz)	Result(dBuV/m)	ARpl (dB)	Pmea (dBuV/m)	Polarity	Limit (dBuV/m)	Margin (dB)
36.014	28.58	-20.1	48.68	Vertical	40	11.42
78.112	16.41	-24	40.41	Vertical	40	23.59
138.252	19.63	-22.6	42.23	Vertical	43.5	23.87
180.35	9.51	-20.8	30.31	Vertical	43.5	33.99
535.1275	11.06	-10	21.06	Vertical	46	34.94
923.273	17.13	-3	20.13	Vertical	46	28.87

For 802.11n(HT40) Channel No.:6

Frequency(MHz)	Result(dBuV/m)	ARpl (dB)	Pmea (dBuV/m)	Polarity	Limit (dBuV/m)	Margin (dB)
36.014	28.57	-20.1	48.67	Vertical	40	11.43
78.112	16.4	-24	40.4	Vertical	40	23.6
138.252	19.62	-22.6	42.22	Vertical	43.5	23.88
180.35	9.47	-20.8	30.27	Vertical	43.5	34.03
531.684	11.09	-10.1	21.19	Vertical	46	34.91
923.855	17.18	-3	20.18	Vertical	46	28.82

For 802.11ax(HE40) Channel No.:6

Frequency(MHz)	Result(dBuV/m)	ARpl (dB)	Pmea (dBuV/m)	Polarity	Limit (dBuV/m)	Margin (dB)
36.014	30.02	-20.1	50.12	Vertical	40	9.98
78.112	20.03	-24	44.03	Vertical	40	19.97
150.28	14.58	-22.6	37.18	Vertical	43.5	28.92
300.5815	14.71	-15.8	30.51	Vertical	46	31.29
520.432	10.76	-10.3	21.06	Vertical	46	35.24
907.8015	17.07	-3.1	20.17	Vertical	46	28.93

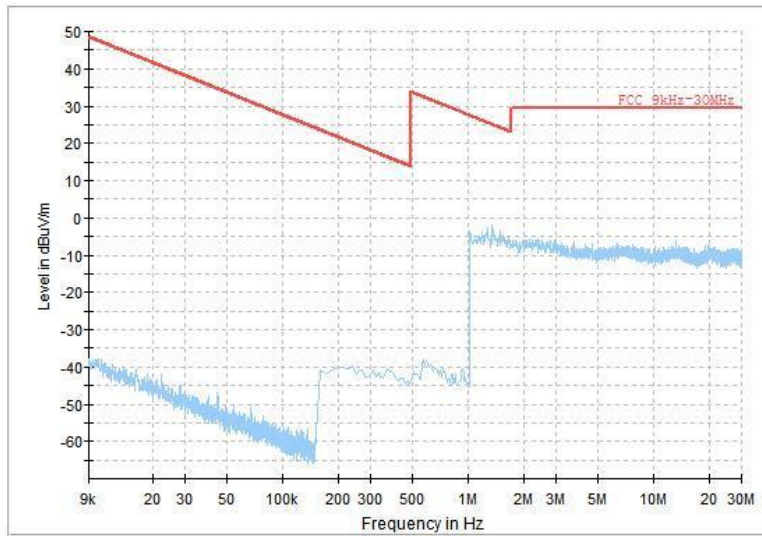
For 802.11n(HT40) Channel No.:9

Frequency(MHz)	Result(dBuV/m)	ARpl (dB)	Pmea (dBuV/m)	Polarity	Limit (dBuV/m)	Margin (dB)
36.014	30.01	-20.1	50.11	Vertical	40	9.99
78.112	20.01	-24	44.01	Vertical	40	19.99
138.252	14.68	-22.6	37.28	Vertical	43.5	28.82
300.5815	14.71	-15.8	30.51	Vertical	46	31.29
536.243	10.88	-10	20.88	Vertical	46	35.12
924.8735	16.93	-3	19.93	Vertical	46	29.07

For 802.11ax(HE40) Channel No.:9

Frequency(MHz)	Result(dBuV/m)	ARpl (dB)	Pmea (dBuV/m)	Polarity	Limit (dBuV/m)	Margin (dB)
36.014	30.02	-20.1	50.12	Vertical	40	9.98
75.105	19.75	-23.2	42.95	Vertical	40	20.25
150.28	14.54	-22.6	37.14	Vertical	43.5	28.96
300.5815	14.7	-15.8	30.5	Vertical	46	31.3
527.1735	10.87	-10.2	21.07	Vertical	46	35.13
953.149	16.99	-2.9	19.89	Vertical	46	29.01

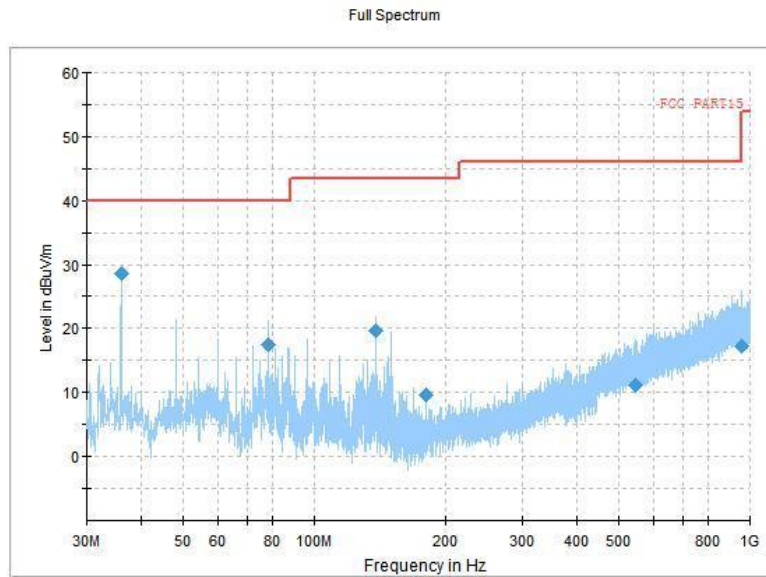
Full Spectrum



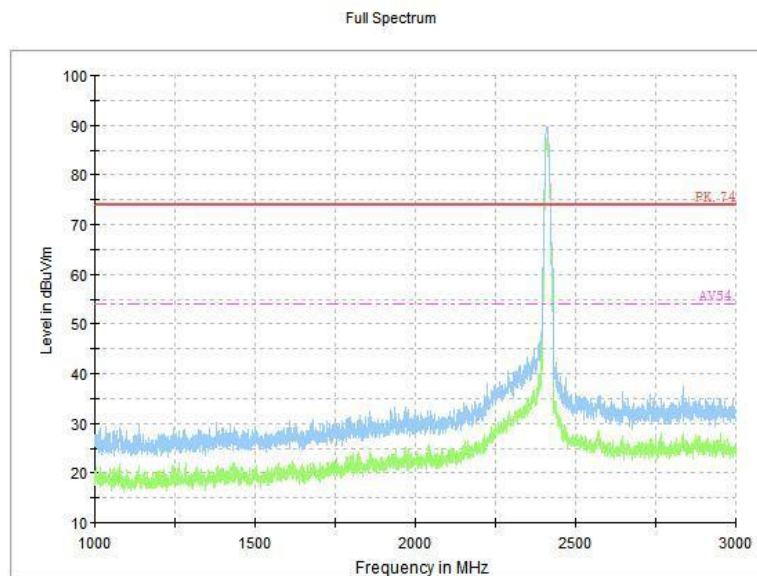
Frequency Range: 9kHz -30MHz
Detector: QP mode

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

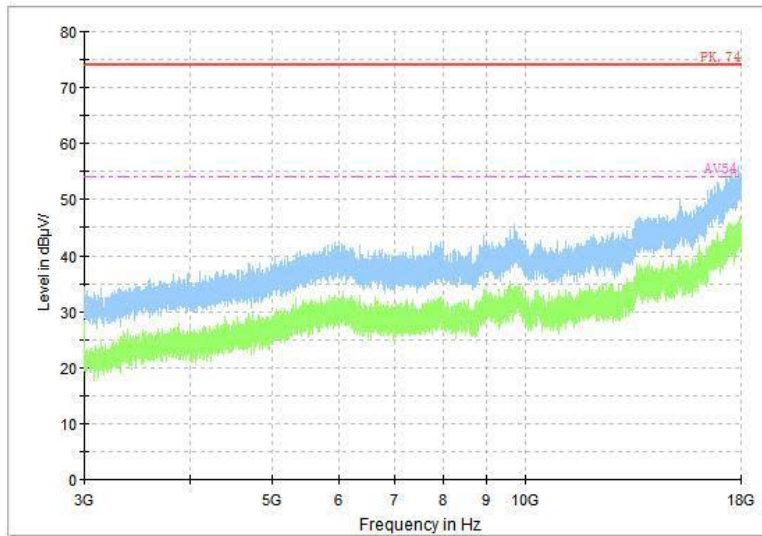


Frequency Range 30MHz -1GHz
 Detector: Av mode and PK mode
 Modulation type: 802.11b



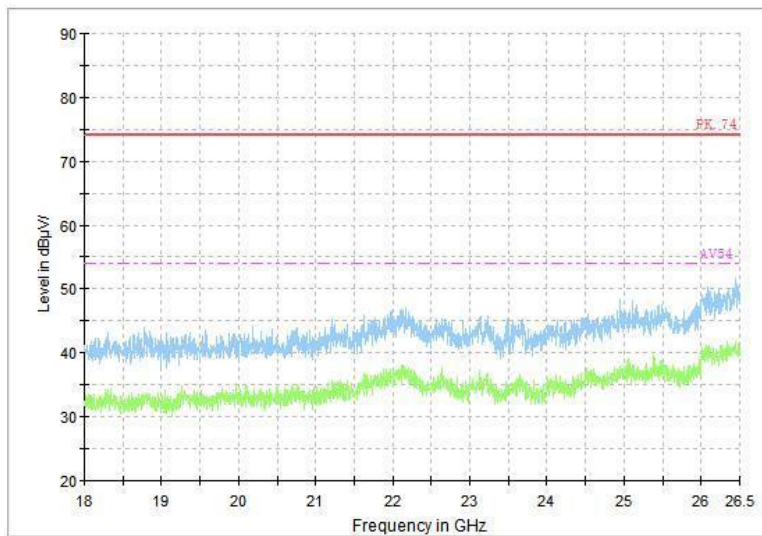
Frequency Range: 1GHz -3GHz
 Detector: Av mode and PK mode
 Modulation type: 802.11b

Full Spectrum

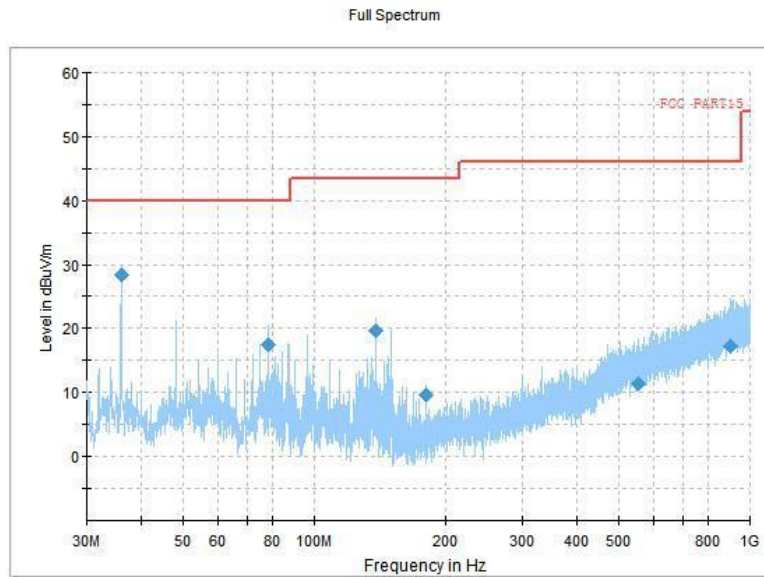


Frequency Range: 3GHz -18GHz
 Detector: Av mode and PK mode
 Modulation type: 802.11b

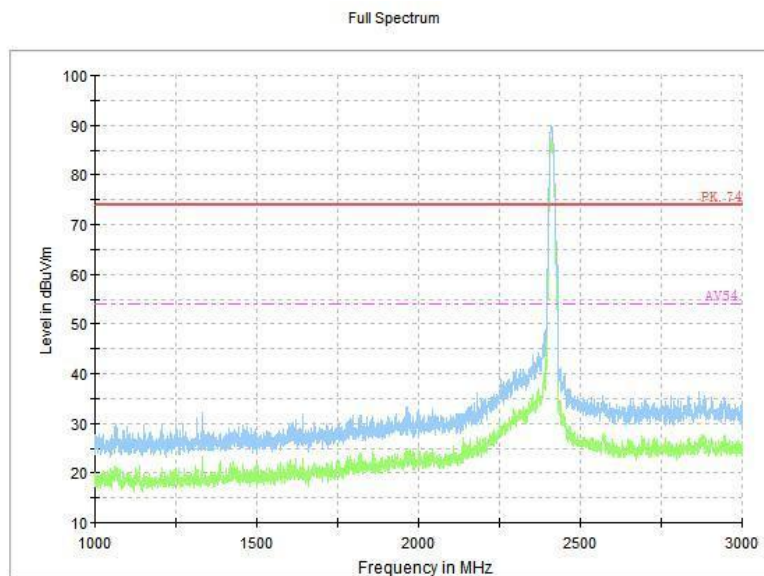
Full Spectrum



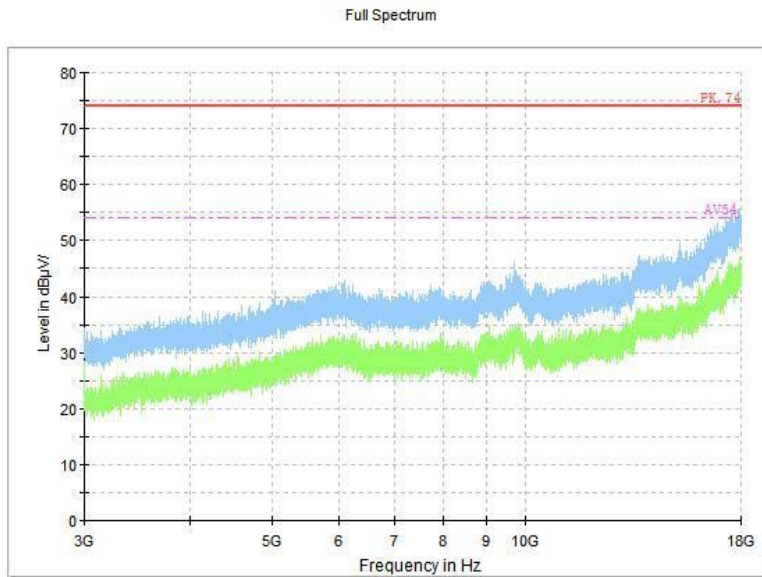
Frequency Range: 18GHz -26GHz
 Detector: Av mode and PK mode
 Modulation type: 802.11b



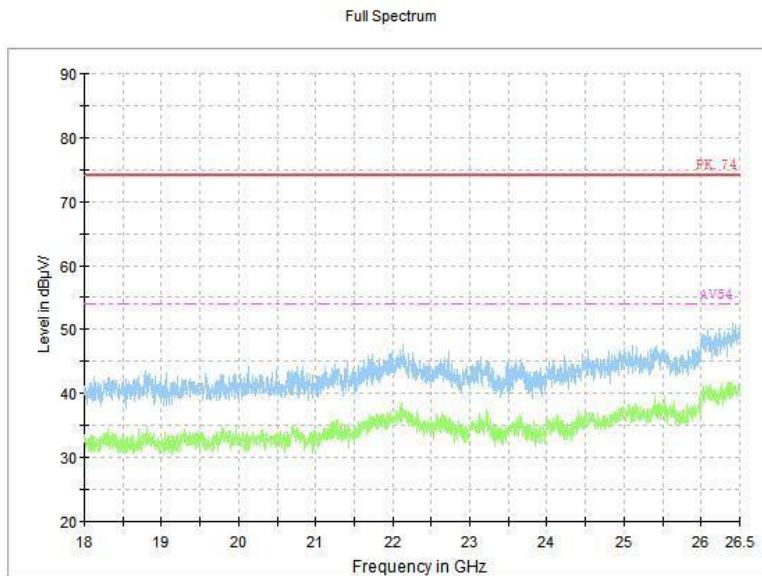
Frequency Range: 30MHz -1GHz
 Detector: Av mode and PK mode
 Modulation type: 802.11g



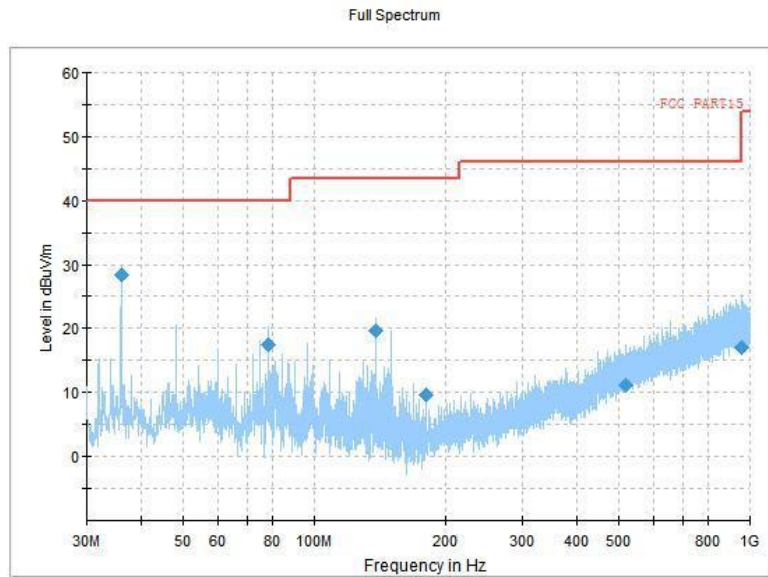
Frequency Range: 1GHz -3GHz
 Detector: Av mode and PK mode
 Modulation type: 802.11g



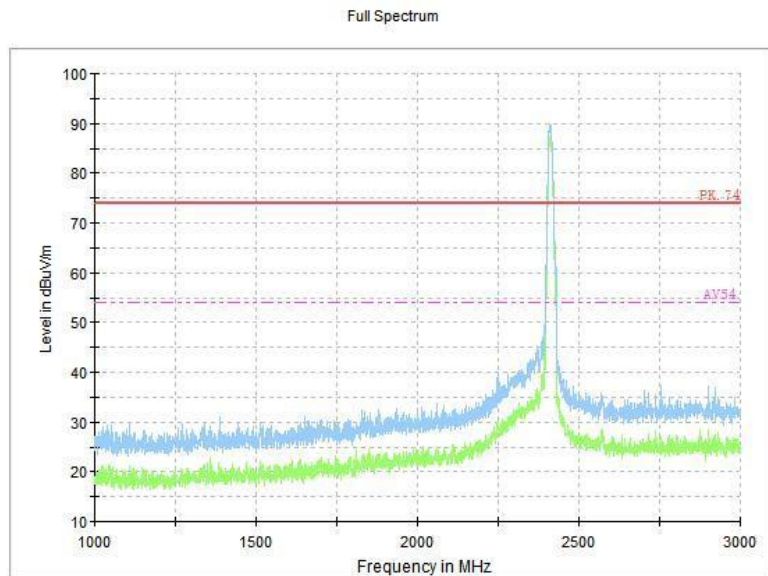
Frequency Range: 3GHz -18GHz
 Detector: Av mode and PK mode
 Modulation type: 802.11g



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



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



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