

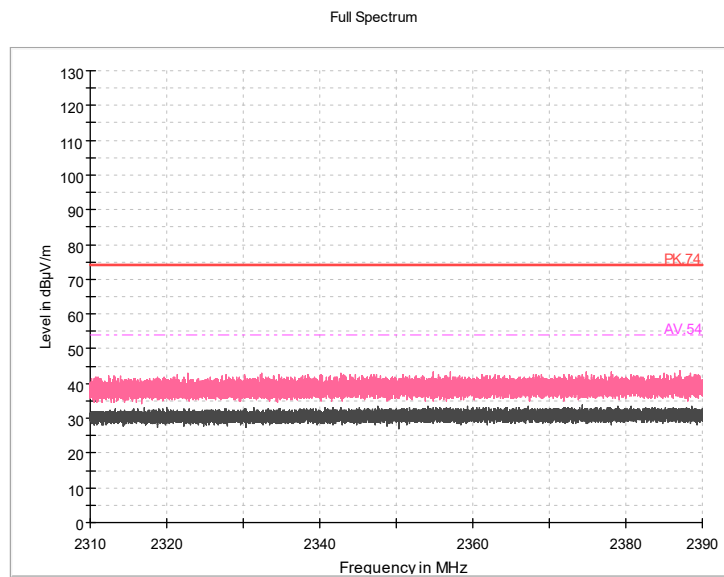
## **APPENDIX B – TEST DATA OF RADIATED EMISSION**

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

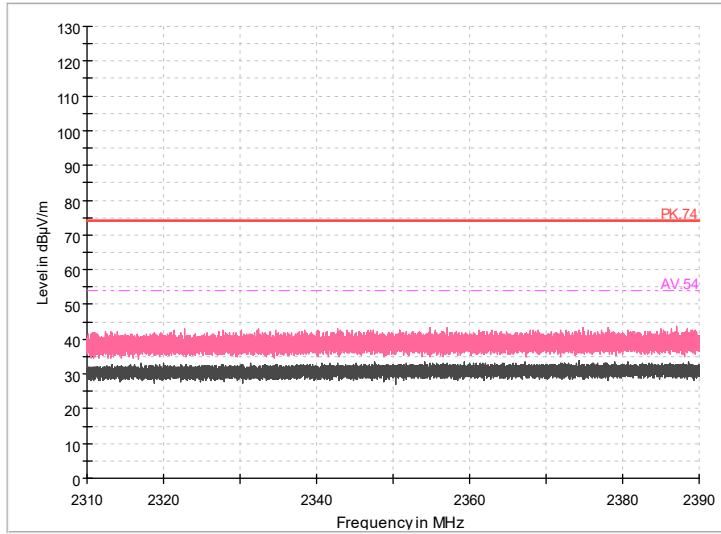
### **Radiated Emission Band Edge**

For 802.11b、802.11g is ANT1 For 802.11n(HT20/HT40/HT80) 802.11ax(HE20/HE40/HE80) is ANT MIMO



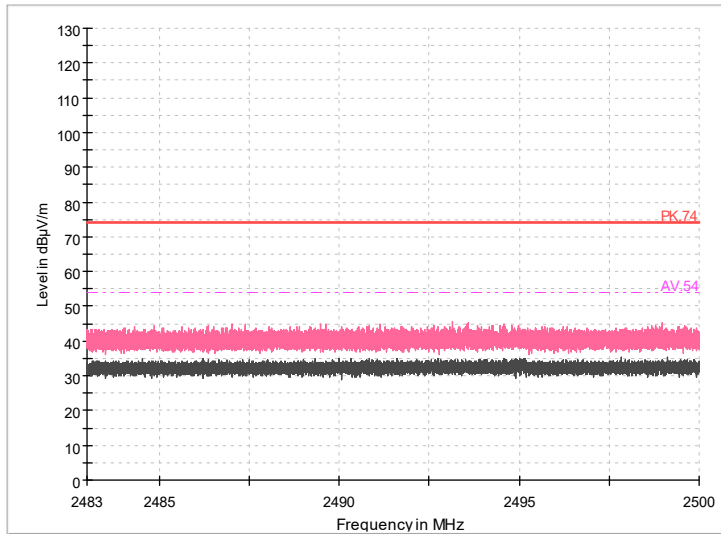
Radiated Emission Band Edge  
Channel No.:1  
Test Mode: 802.11b  
Polarization: V

Full Spectrum



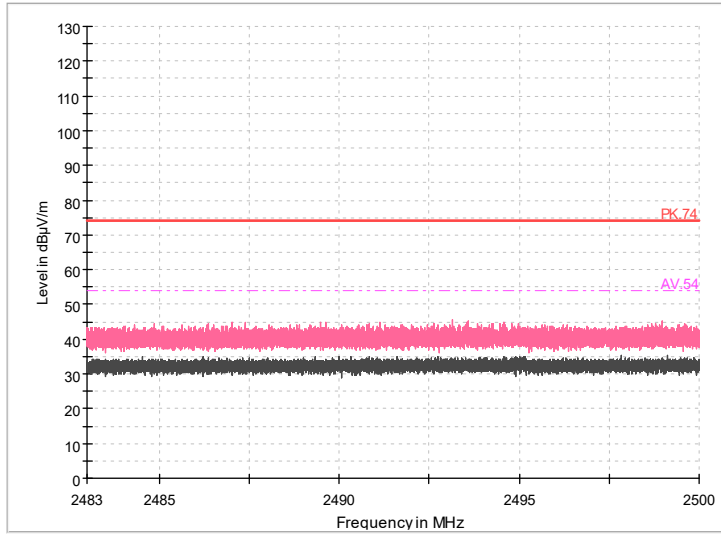
Radiated Emission Band Edge  
 Channel No.:1  
 Test Mode: 802.11b  
 Polarization: H

Full Spectrum



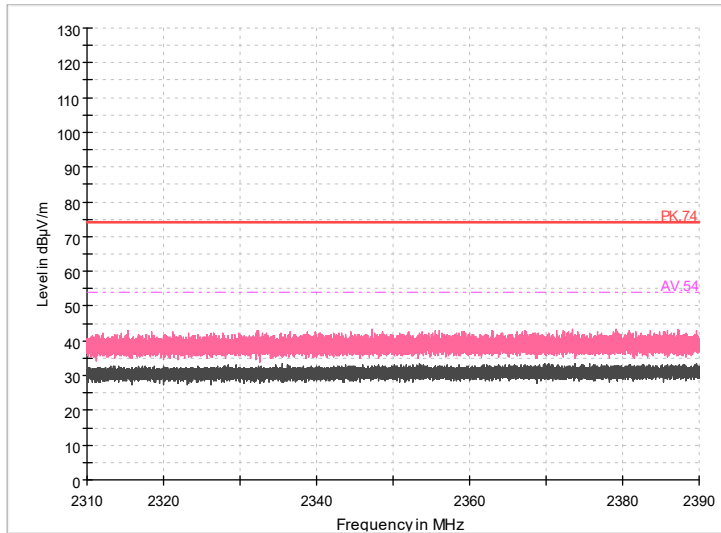
Radiated Emission Band Edge  
 Channel No.:11  
 Test Mode: 802.11b  
 Polarization: V

Full Spectrum



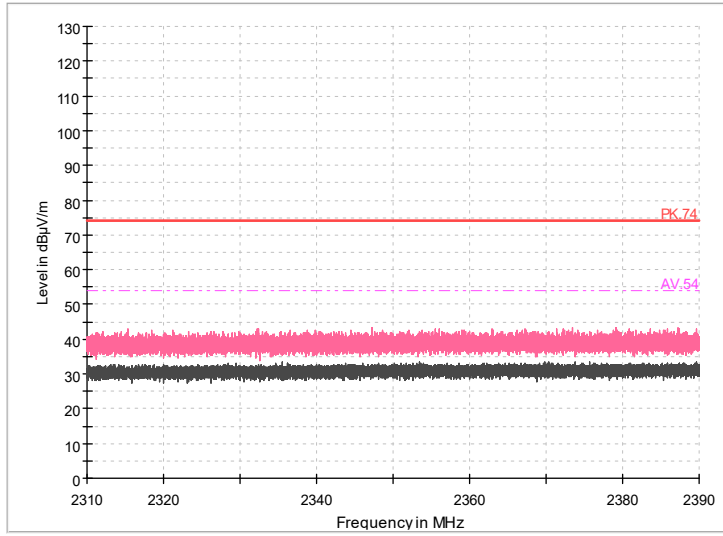
Radiated Emission Band Edge  
 Channel No.:11  
 Test Mode: 802.11b  
 Polarization: H

Full Spectrum



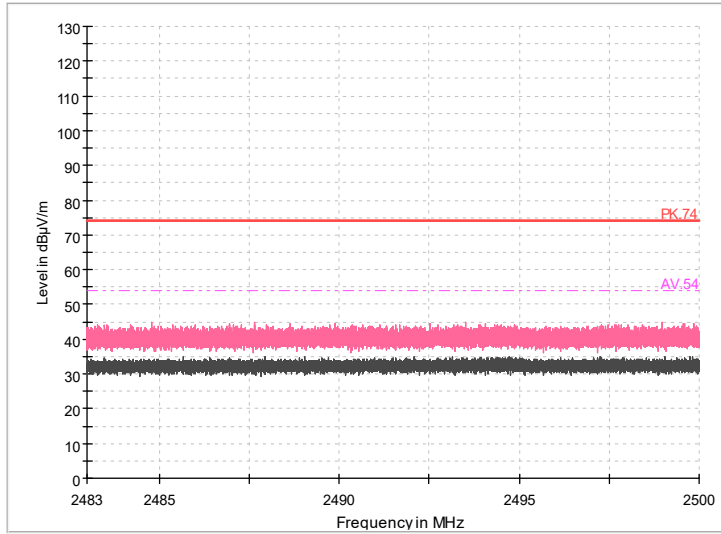
Radiated Emission Band Edge  
 Channel No.:1  
 Test Mode: 802.11g  
 Polarization: V

Full Spectrum



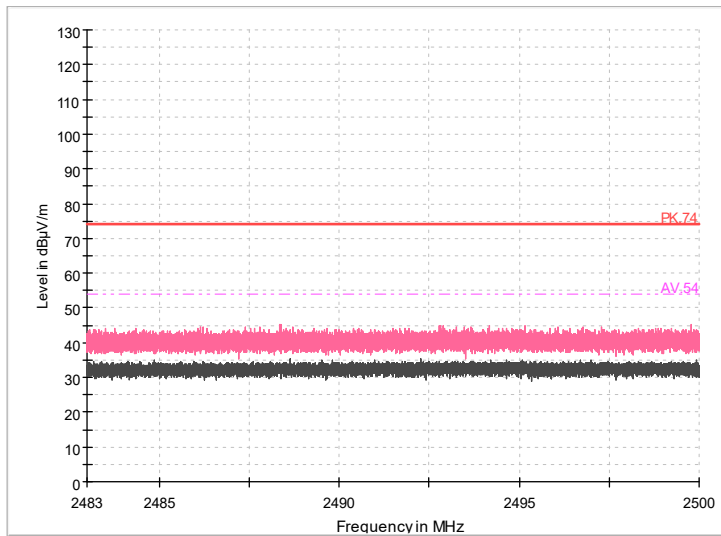
Radiated Emission Band Edge  
Channel No.:1  
Test Mode: 802.11g  
Polarization: H

Full Spectrum

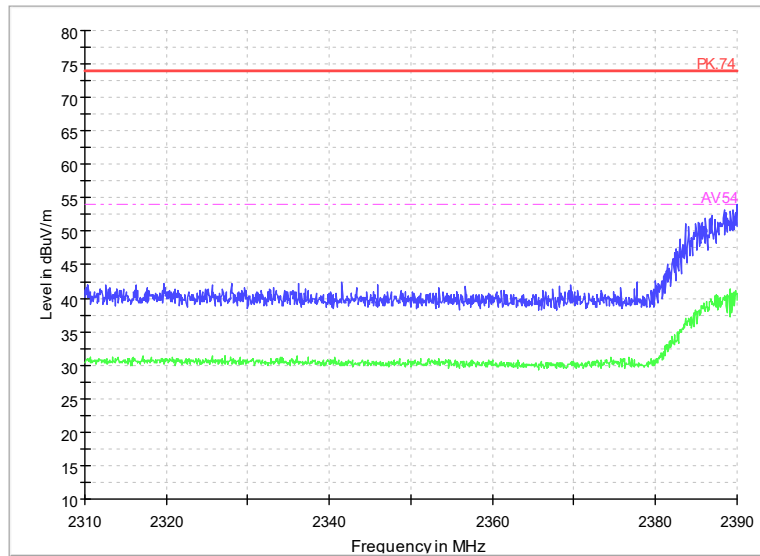


Radiated Emission Band Edge  
 Channel No.:11  
 Test Mode: 802.11g  
 Polarization: V

Full Spectrum

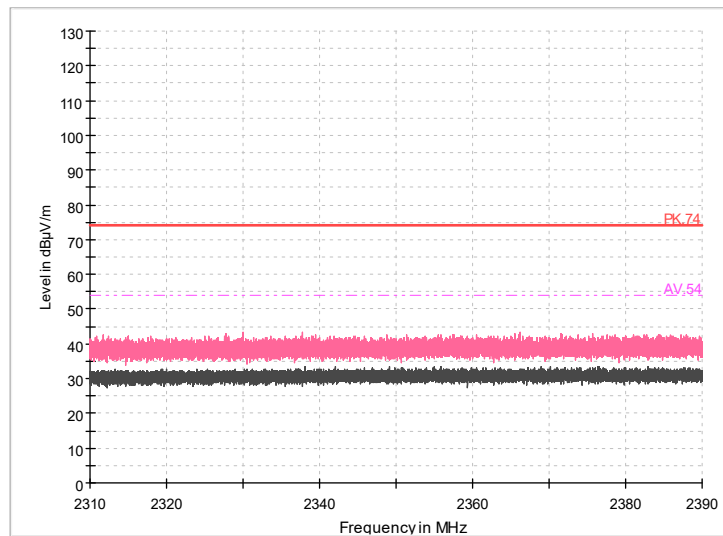


Radiated Emission Band Edge  
 Channel No.:11  
 Test Mode: 802.11g  
 Polarization: H



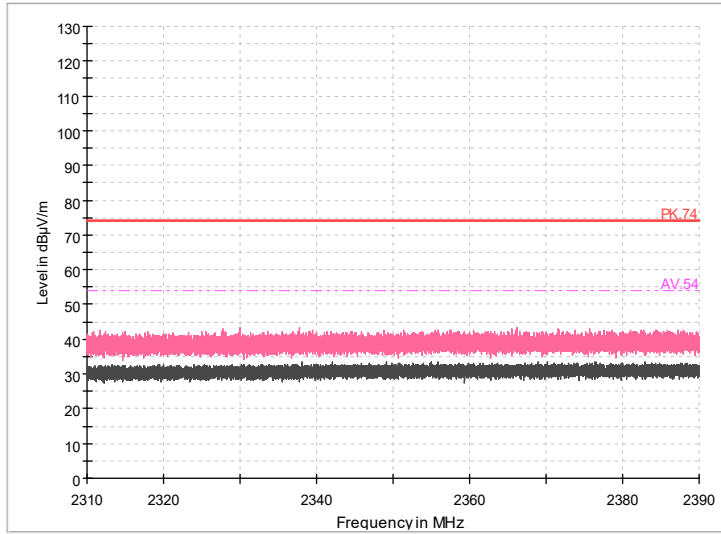
Radiated Emission Band Edge  
 Channel No.:1  
 Test Mode: 802.11n  
 Polarization: V

Full Spectrum



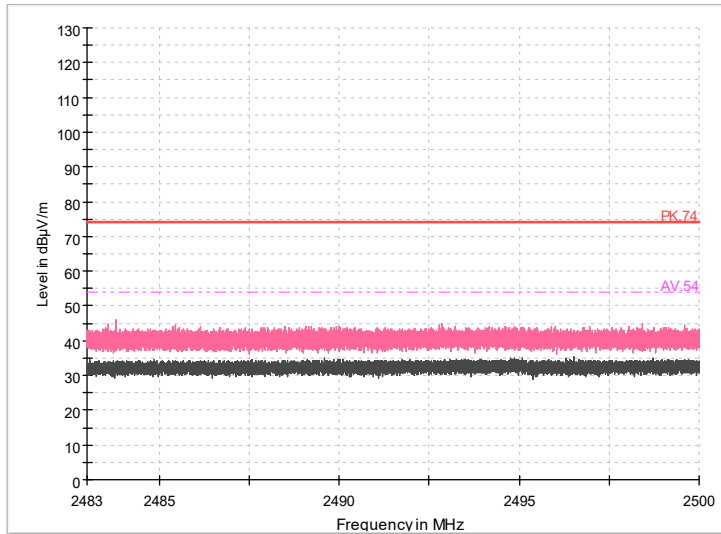
Radiated Emission Band Edge  
 Channel No.:1  
 Test Mode: 802.11n  
 Polarization: H

Full Spectrum



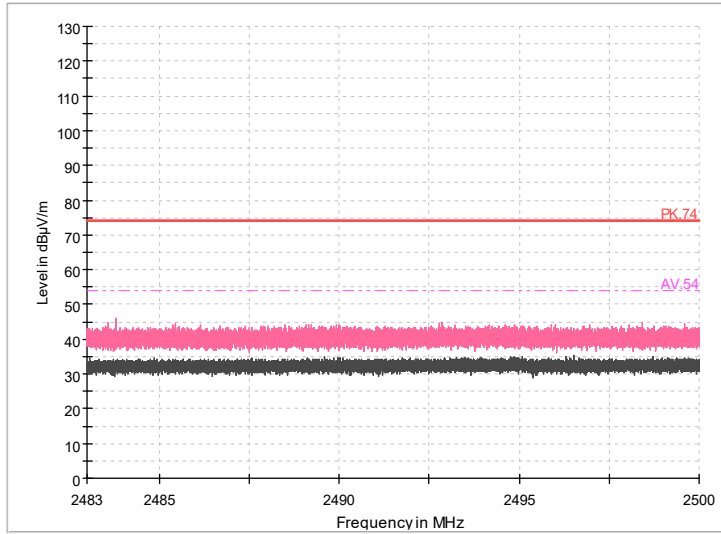
Radiated Emission Band Edge  
 Channel No.:11  
 Test Mode: 802.11n  
 Polarization: V

Full Spectrum



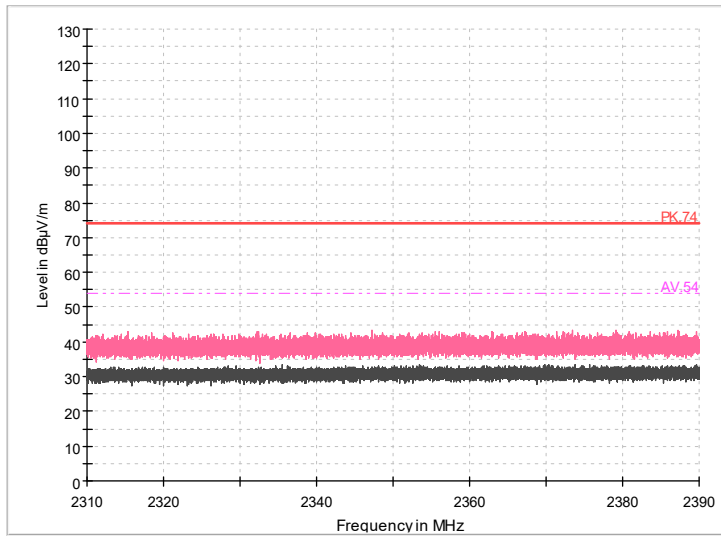
Radiated Emission Band Edge  
 Channel No.:11  
 Test Mode: 802.11n  
 Polarization: H

Full Spectrum



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

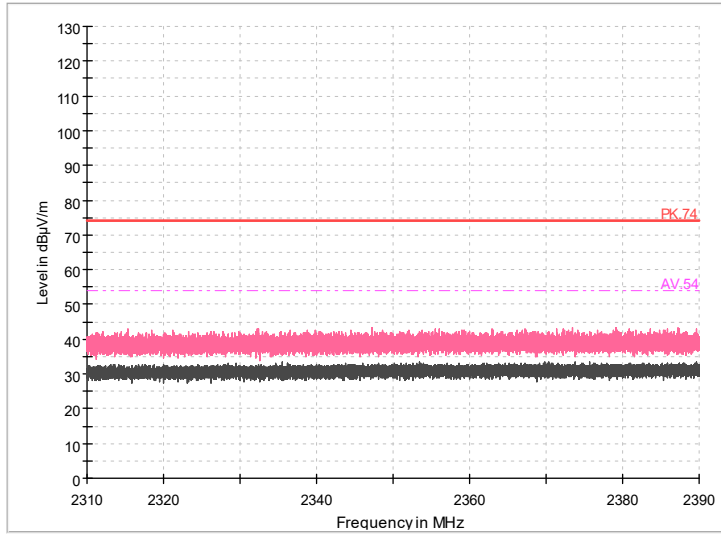
Full Spectrum



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

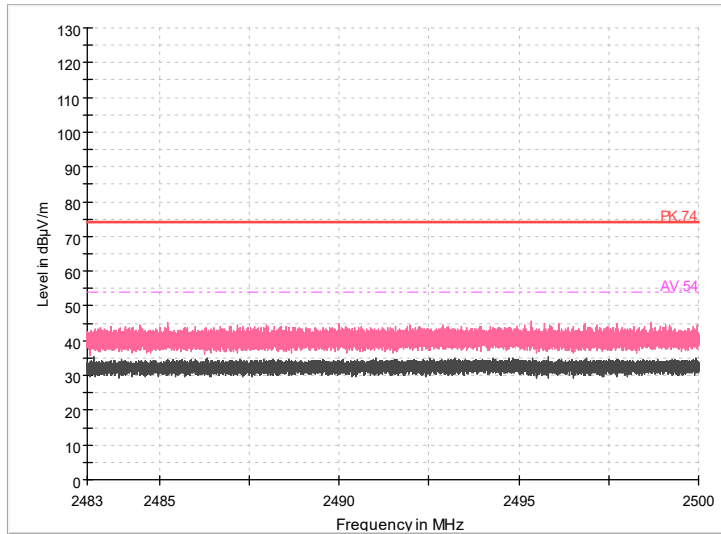


Full Spectrum



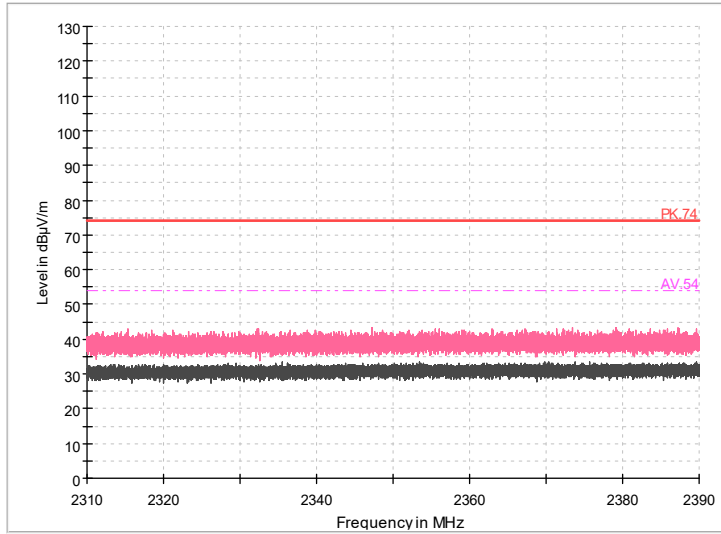
Radiated Emission Band Edge  
 Channel No.:11  
 Test Mode: 802.11ax  
 Polarization: V

Full Spectrum



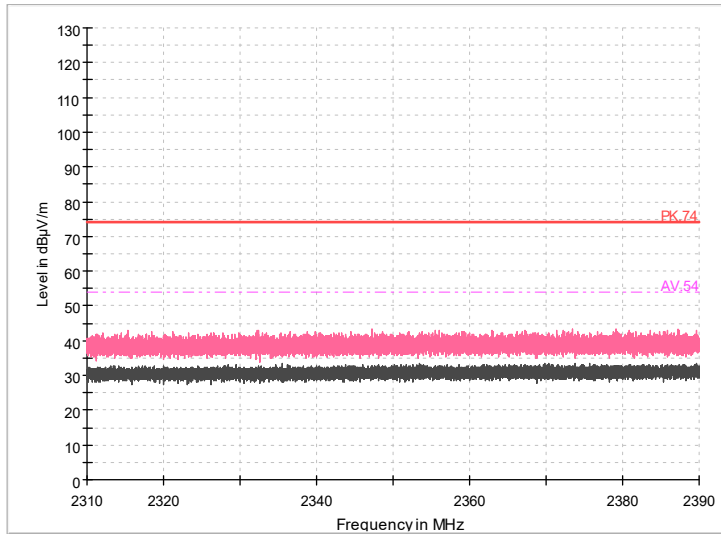
Radiated Emission Band Edge  
 Channel No.:11  
 Test Mode: 802.11ax  
 Polarization: H

Full Spectrum



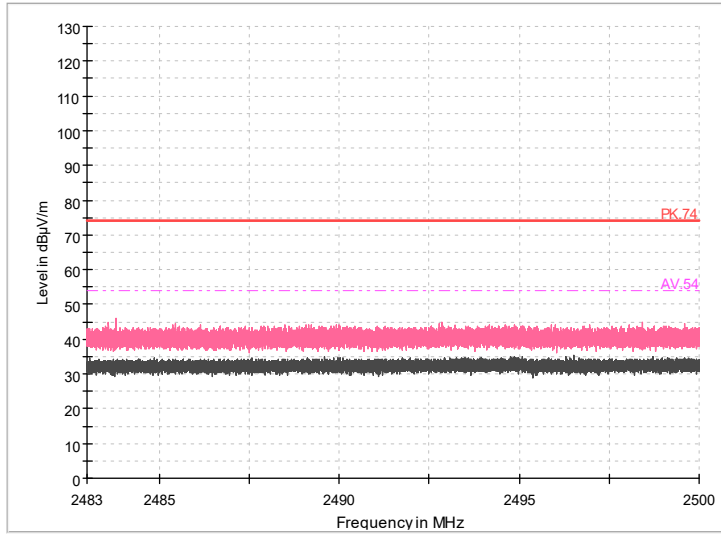
Radiated Emission Band Edge  
 Channel No.:3  
 Test Mode: 802.11n40  
 Polarization: V

Full Spectrum



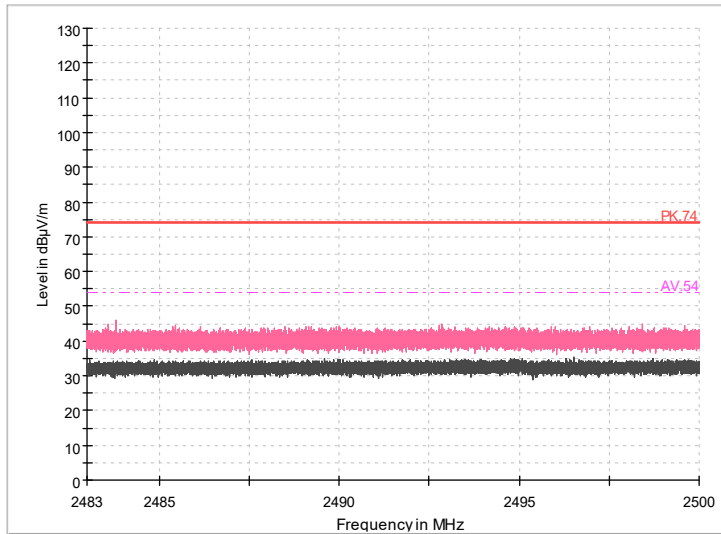
Radiated Emission Band Edge  
 Channel No.:3  
 Test Mode: 802.11n40  
 Polarization: H

Full Spectrum



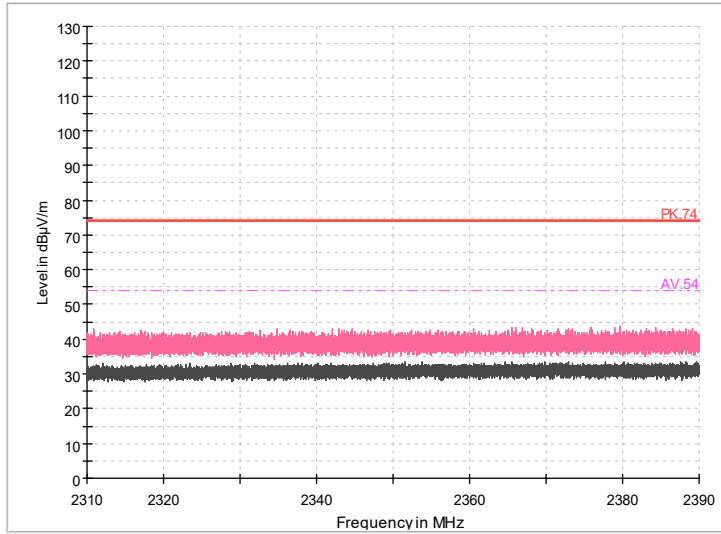
**Radiated Emission Band Edge**  
 Channel No.:9  
 Test Mode: 802.11n40  
 Polarization: V

Full Spectrum



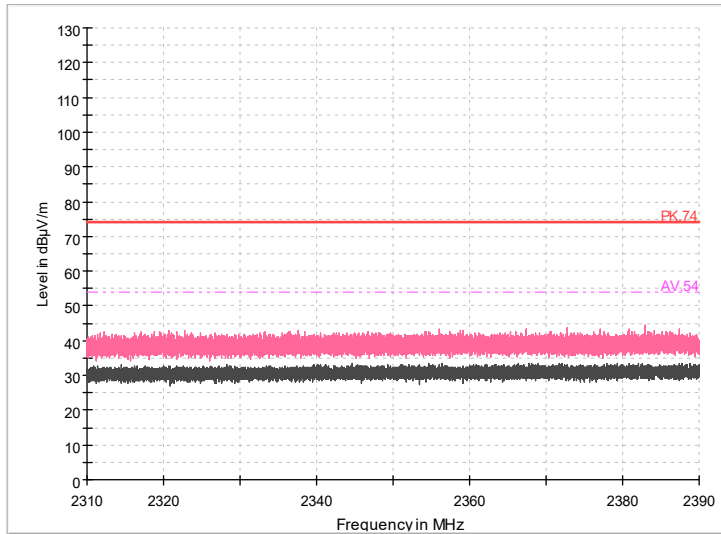
**Radiated Emission Band Edge**  
 Channel No.:9  
 Test Mode: 802.11n40  
 Polarization: H

Full Spectrum



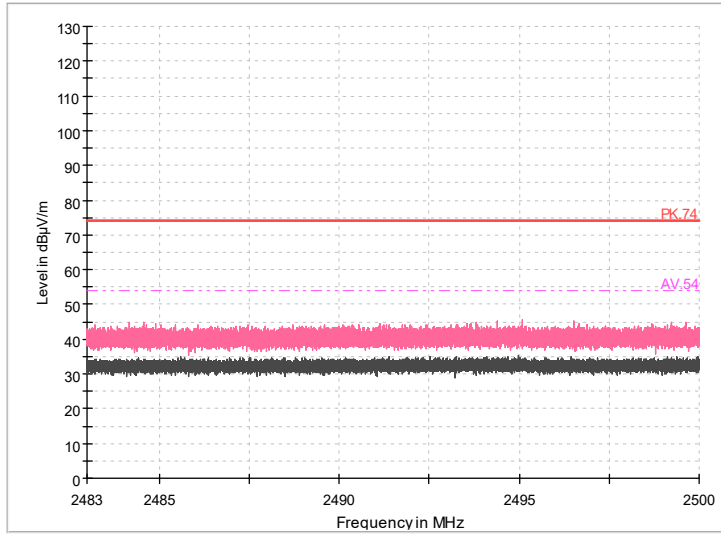
Radiated Emission Band Edge  
 Channel No.:3  
 Test Mode: 802.11ax40  
 Polarization: V

Full Spectrum



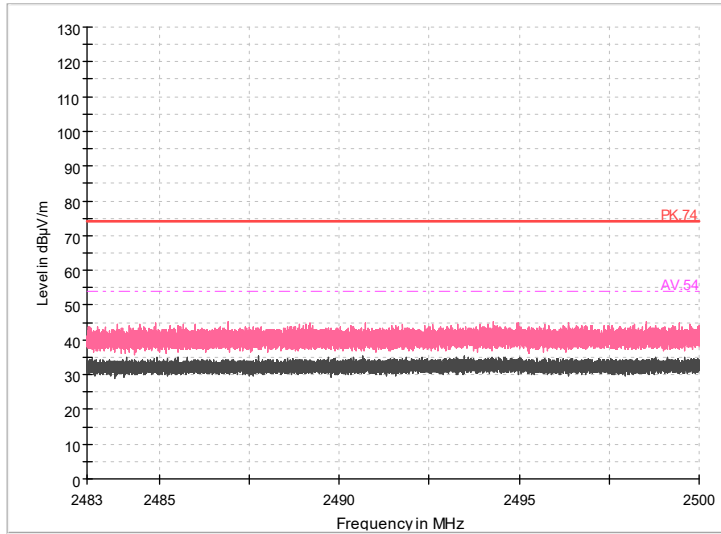
Radiated Emission Band Edge  
 Channel No.:3  
 Test Mode: 802.11ax40  
 Polarization: H

Full Spectrum



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

Full Spectrum



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

## Radiated 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:  $(6.22\text{dB}\mu\text{V}/\text{m}) = (24.52\text{dB}\mu\text{V}) + (-18.3\text{dB}/\text{m})$ , the corresponding frequency is 46.587MHz.

For 802.11b、802.11g is ANT1 For 802.11n(HT20/HT40/HT80) 802.11ax(HE20/HE40/HE80) is ANT MIMO

NOTE: Horizontal and vertical have been tested, but due to poorer vertical polarity, only vertical polarity data has been retained

#### For 802.11b Channel No.:1

Frequency(MHz)	Result(dBuV/m)	ARpl (dB)	Pmea (dBuV/m)	Polarity	Limit (dBuV/m)	Margin (dB)
46.587	6.22	-18.3	40.09	Vertical	40	33.78
58.4695	6.1	-19.1	40.84	Vertical	40	33.9
117.6395	5.35	-19.4	38.28	Vertical	43.5	38.15
303.346	7.79	-15.7	34.75	Vertical	46	38.21
553.218	12.96	-9.3	39.81	Horizontal	46	33.04
959.0175	18.44	-2.7	29.55	Horizontal	46	27.56

#### For 802.11g Channel No.:1

Frequency(MHz)	Result(dBuV/m)	ARpl (dB)	Pmea (dBuV/m)	Polarity	Limit (dBuV/m)	Margin (dB)
44.032667	14.52	-24	25.12	Vertical	30.00	15.48
59.336667	8.14	-24	25.09	Vertical	30.00	21.86
90.075333	15.61	-27	24.62	Vertical	33.50	17.89
93.793667	12.35	-26	23.23	Vertical	33.50	21.15
106.080333	10.09	-25	22.43	Horizontal	33.50	23.41
605.488333	16.39	-13	21.34	Horizontal	36.00	19.61

#### For 802.11n(HT20) Channel No.:1

Frequency(MHz)	Result(dBuV/m)	ARpl (dB)	Pmea (dBuV/m)	Polarity	Limit (dBuV/m)	Margin (dB)
44.105000	14.12	-24	38.12	Vertical	30.00	15.88
53.678333	9.02	-23	32.02	Vertical	30.00	20.98
62.142000	7.44	-25	32.44	Vertical	30.00	22.56
90.115333	16.03	-27	43.03	Vertical	33.50	17.47
93.801333	12.04	-26	38.04	Vertical	33.50	21.46

102.782333	8.60	-25	33.60	Horizontal	33.50	24.90
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For 802.11ax(HE20) Channel No.:1

Frequency(MHz)	Result(dBuV/m)	ARpl (dB)	Pmea (dBuV/m)	Polarity	Limit (dBuV/m)	Margin (dB)
38.414333	15.13	-25	40.13	Vertical	30.00	14.87
44.169667	16.81	-24	40.81	Vertical	30.00	13.19
60.009667	8.82	-24	32.82	Vertical	30.00	21.18
90.115333	16.48	-27	43.48	Vertical	33.50	17.02
93.793667	11.85	-26	37.85	Vertical	33.50	21.65
268.781667	16.21	-22	38.21	Horizontal	36.00	19.79

For 802.11b Channel No.:6

Frequency(MHz)	Result(dBuV/m)	ARpl (dB)	Pmea (dBuV/m)	Polarity	Limit (dBuV/m)	Margin (dB)
38.414333	14.83	-25	39.83	Vertical	30.00	15.17
44.032667	14.64	-24	38.64	Vertical	30.00	15.36
90.115333	15.02	-27	42.02	Vertical	33.50	18.48
93.793667	12.67	-26	38.67	Vertical	33.50	20.83
268.781667	17.72	-22	39.72	Horizontal	36.00	18.28
444.369667	13.94	-17	30.94	Horizontal	36.00	22.06

For 802.11g Channel No.:6

Frequency(MHz)	Result(dBuV/m)	ARpl (dB)	Pmea (dBuV/m)	Polarity	Limit (dBuV/m)	Margin (dB)
44.080333	15.49	-24	39.49	Vertical	30.00	14.51
47.243000	9.48	-23	32.48	Vertical	30.00	20.52
59.990000	8.55	-24	32.55	Vertical	30.00	21.45
88.523333	14.37	-27	41.37	Vertical	33.50	19.13
93.801333	11.95	-26	37.95	Vertical	33.50	21.55
244.665333	7.35	-22	29.35	Horizontal	36.00	28.65

For 802.11n(HT20) Channel No.:6

Frequency(MHz)	Result(dBuV/m)	ARpl (dB)	Pmea (dBuV/m)	Polarity	Limit (dBuV/m)	Margin (dB)
44.072667	16.38	-24	40.38	Vertical	30.00	13.62
56.259667	8.71	-24	32.71	Vertical	30.00	21.29
90.083000	17.79	-27	44.79	Vertical	33.50	15.71
93.793667	11.85	-26	37.85	Vertical	33.50	21.65
106.105000	9.63	-25	34.63	Vertical	33.50	23.87
113.495000	5.15	-25	30.15	Horizontal	33.50	28.35

For 802.11ax(HE20) Channel No.:6

Frequency(MHz)	Result(dBuV/m)	ARpl (dB)	Pmea (dBuV/m)	Polarity	Limit (dBuV/m)	Margin (dB)
38.414333	14.90	-25	39.90	Vertical	30.00	15.10
44.137333	17.12	-24	41.12	Vertical	30.00	12.88
64.003667	8.99	-25	33.99	Vertical	30.00	21.01
90.107667	16.49	-27	43.49	Vertical	33.50	17.01
99.556667	9.17	-25	34.17	Vertical	33.50	24.33
238.585000	7.46	-23	30.46	Horizontal	36.00	28.54

For 802.11b Channel No.:11

Frequency(MHz)	Result(dBuV/m)	ARpl (dB)	Pmea (dBuV/m)	Polarity	Limit (dBuV/m)	Margin (dB)
38.414333	14.96	-25	39.96	Vertical	30.00	15.04
44.040333	15.70	-24	39.70	Vertical	30.00	14.30
74.146000	7.78	-29	36.78	Vertical	30.00	22.22
88.571000	13.61	-27	40.61	Vertical	33.50	19.89
268.781667	17.81	-22	39.81	Horizontal	36.00	18.19
286.346333	15.32	-21	36.32	Horizontal	36.00	20.68

For 802.11g Channel No.:11

Frequency(MHz)	Result(dBuV/m)	ARpl (dB)	Pmea (dBuV/m)	Polarity	Limit (dBuV/m)	Margin (dB)
44.072667	15.98	-24	39.98	Vertical	30.00	14.02
47.190333	9.52	-23	32.52	Vertical	30.00	20.48
60.013000	8.59	-24	32.59	Vertical	30.00	21.41
90.083000	16.55	-27	43.55	Vertical	33.50	16.95
93.793667	10.82	-26	36.82	Vertical	33.50	22.68
106.921000	9.34	-25	34.34	Horizontal	33.50	24.16

For 802.11n(HT20) Channel No.:11

Frequency(MHz)	Result(dBuV/m)	ARpl (dB)	Pmea (dBuV/m)	Polarity	Limit (dBuV/m)	Margin (dB)
44.072667	16.47	-24	40.47	Vertical	30.00	13.53
54.001667	9.76	-23	32.76	Vertical	30.00	20.24
90.075333	16.55	-27	43.55	Vertical	33.50	16.95
93.793667	12.39	-26	38.39	Vertical	33.50	21.11
102.782333	7.92	-25	32.92	Vertical	33.50	25.58
516.596333	14.57	-15	29.57	Horizontal	36.00	21.43

For 802.11ax(HE20) Channel No.:11

Frequency(MHz)	Result(dBuV/m)	ARpl (dB)	Pmea (dBuV/m)	Polarity	Limit (dBuV/m)	Margin (dB)
38.422000	14.82	-25	39.82	Vertical	30.00	15.18



44.137333	17.59	-24	41.59	Vertical	30.00	12.41
90.115333	16.37	-27	43.37	Vertical	33.50	17.13
93.793667	11.37	-26	37.37	Vertical	33.50	22.13
268.781667	16.56	-22	38.56	Horizontal	36.00	19.44
286.532667	15.48	-21	36.48	Vertical	36.00	20.52

For 802.11n(HT40) Channel No.:3

Frequency(MHz)	Result(dBuV/m)	ARpl (dB)	Pmea (dBuV/m)	Polarity	Limit (dBuV/m)	Margin (dB)
38.414333	15.38	-25	40.38	Vertical	30.00	14.62
44.162000	16.69	-24	40.69	Vertical	30.00	13.31
88.588000	15.14	-27	42.14	Vertical	33.50	18.36
90.115333	17.41	-27	44.41	Vertical	33.50	16.09
102.774667	10.67	-25	35.67	Vertical	33.50	22.83
268.781667	15.72	-22	37.72	Horizontal	36.00	20.29

For 802.11ax(HE40) Channel No.:3

Frequency(MHz)	Result(dBuV/m)	ARpl (dB)	Pmea (dBuV/m)	Polarity	Limit (dBuV/m)	Margin (dB)
38.382000	8.87	-25	33.87	Vertical	30.00	21.13
44.129667	17.51	-24	41.51	Vertical	30.00	12.49
88.611000	13.49	-27	40.49	Vertical	33.50	20.01
90.107667	16.33	-27	43.33	Vertical	33.50	17.17
106.088000	8.43	-25	33.43	Horizontal	33.50	25.07
268.981667	8.07	-22	30.07	Vertical	36.00	27.93

For 802.11n(HT40) Channel No.:6

Frequency(MHz)	Result(dBuV/m)	ARpl (dB)	Pmea (dBuV/m)	Polarity	Limit (dBuV/m)	Margin (dB)
36.001333	11.77	-26	37.77	Vertical	30.00	18.23
38.414333	15.44	-25	40.44	Vertical	30.00	14.56
44.169667	17.64	-24	41.64	Vertical	30.00	12.36
88.523333	13.88	-27	40.88	Vertical	33.50	19.62
90.115333	16.72	-27	43.72	Vertical	33.50	16.78
268.781667	15.63	-22	37.63	Horizontal	36.00	20.37

For 802.11ax(HE40) Channel No.:6

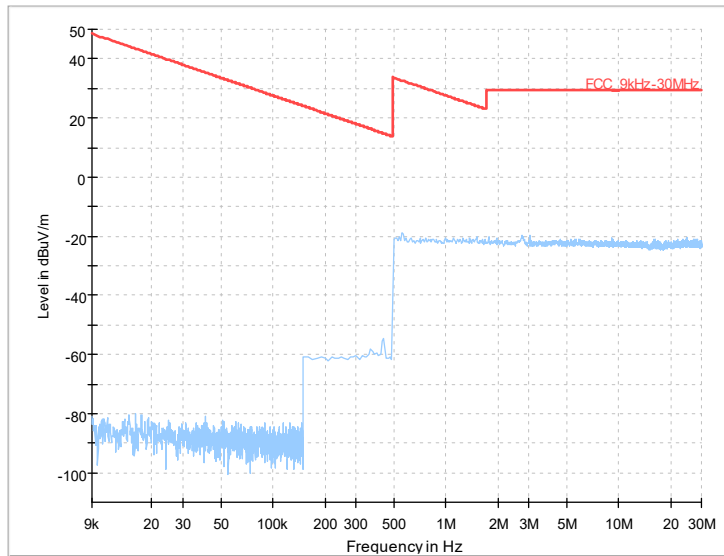
Frequency(MHz)	Result(dBuV/m)	ARpl (dB)	Pmea (dBuV/m)	Polarity	Limit (dBuV/m)	Margin (dB)
38.382000	8.87	-25	33.87	Vertical	30.00	21.13
44.129667	17.51	-24	41.51	Vertical	30.00	12.49
88.611000	13.49	-27	40.49	Vertical	33.50	20.01
90.107667	16.33	-27	43.33	Vertical	33.50	17.17
106.088000	8.43	-25	33.43	Horizontal	33.50	25.07
268.981667	8.07	-22	30.07	Vertical	36.00	27.93

For 802.11n(HT40) Channel No.:9

Frequency(MHz)	Result(dBuV/m)	ARpl (dB)	Pmea (dBuV/m)	Polarity	Limit (dBuV/m)	Margin (dB)
38.414333	14.96	-25	39.96	Vertical	30.00	15.04
44.169667	17.18	-24	41.18	Vertical	30.00	12.82
88.540333	14.41	-27	41.41	Vertical	33.50	19.09
90.115333	17.33	-27	44.33	Vertical	33.50	16.17
106.881000	9.57	-25	34.57	Horizontal	33.50	23.93
268.781667	15.93	-22	37.93	Horizontal	36.00	20.07

For 802.11ax(HE40) Channel No.:9

Frequency(MHz)	Result(dBuV/m)	ARpl (dB)	Pmea (dBuV/m)	Polarity	Limit (dBuV/m)	Margin (dB)
38.414333	17.74	-25	42.74	Vertical	30.00	12.26
44.331333	21.89	-24	45.89	Vertical	30.00	8.11
88.588000	20.70	-27	47.70	Vertical	33.50	12.80
90.075333	20.83	-27	47.83	Vertical	33.50	12.67
102.790000	12.18	-25	37.18	Horizontal	33.50	21.32
151.781667	11.42	-27	38.42	Vertical	33.50	22.08

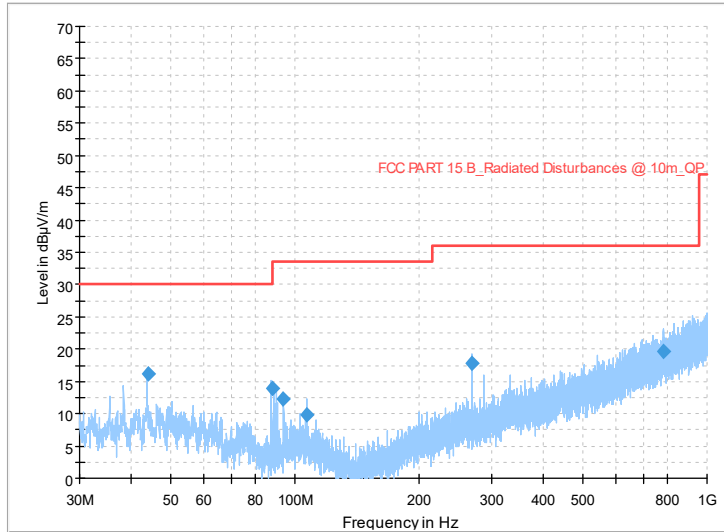


Frequency Range: 9kHz -30MHz  
Detector: QP mode

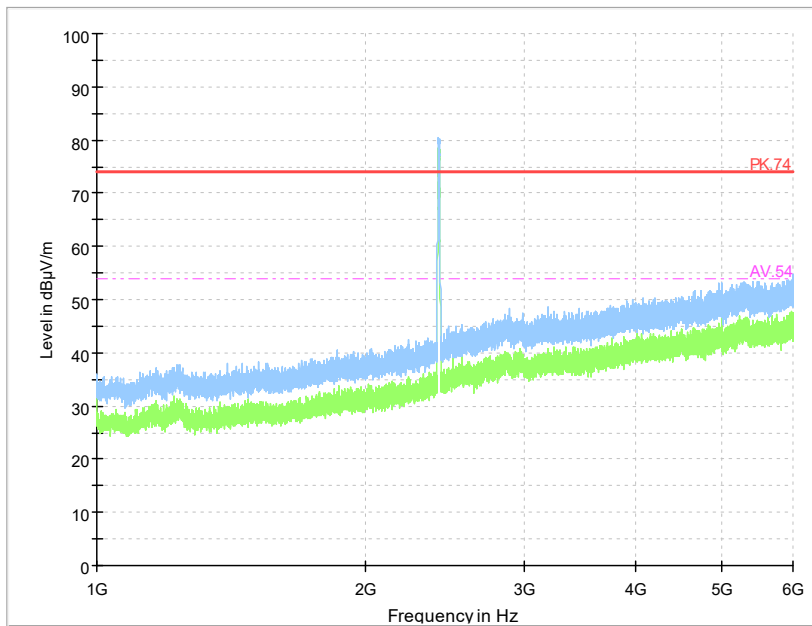
Note: The relevant tests have been performed in order to verify in which mode would have the worst features, the result show above is the worst case.

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

Full Spectrum

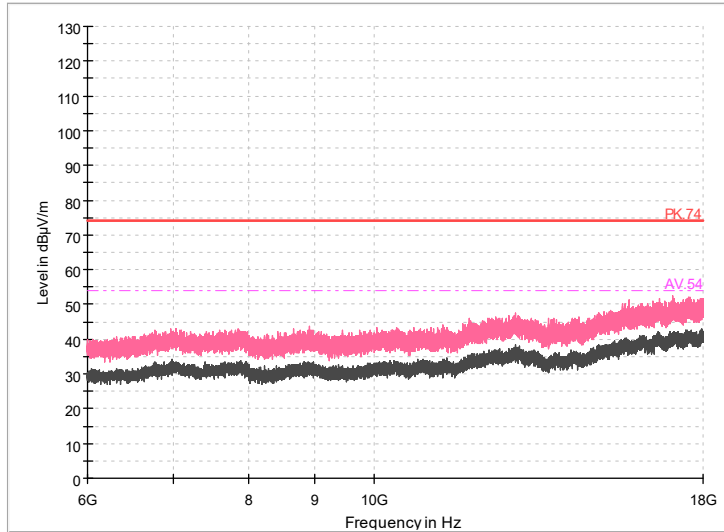


Frequency Range 30MHz -1GHz  
 Detector: Av mode and PK mode  
 Modulation type: 802.11b

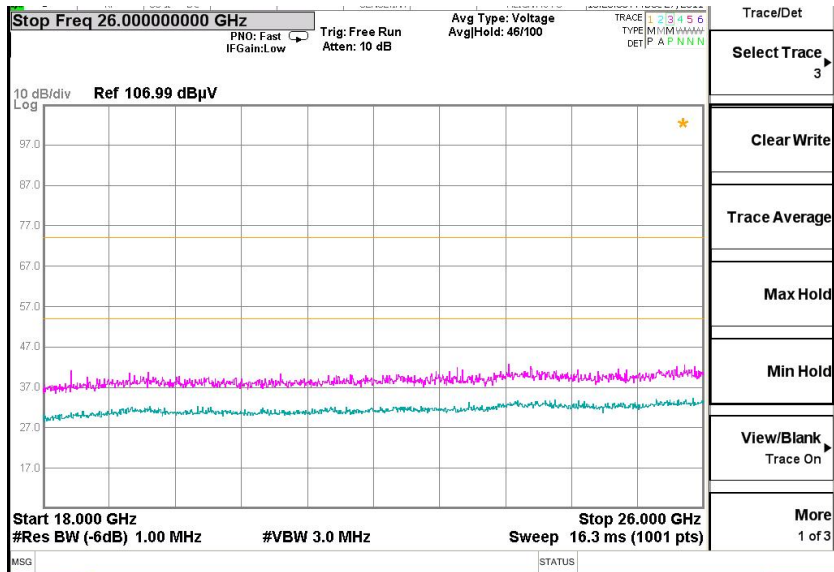


Frequency Range: 1GHz -6GHz  
 Detector: Av mode and PK mode  
 Modulation type: 802.11b

Full Spectrum

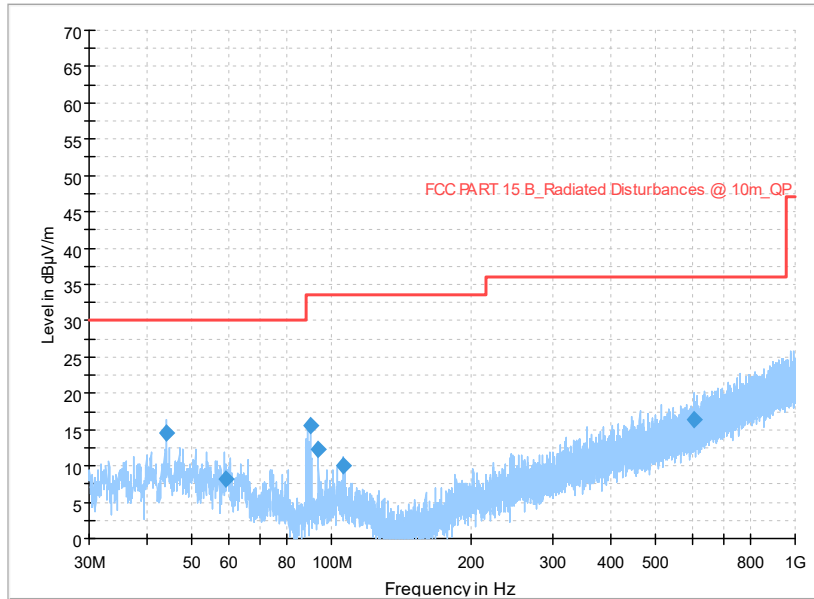


Frequency Range: 6GHz -18GHz  
Detector: Av mode and PK mode  
Modulation type: 802.11b

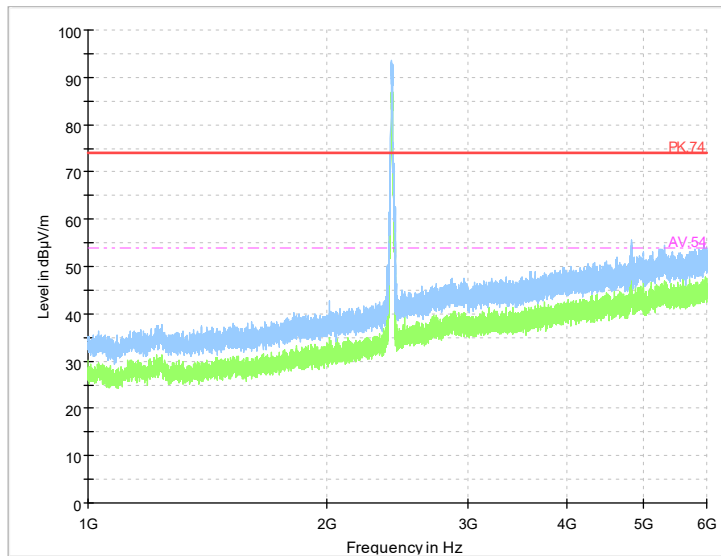


Frequency Range: 18GHz -26GHz  
Detector: Av mode and PK mode  
Modulation type: 802.11b

Full Spectrum

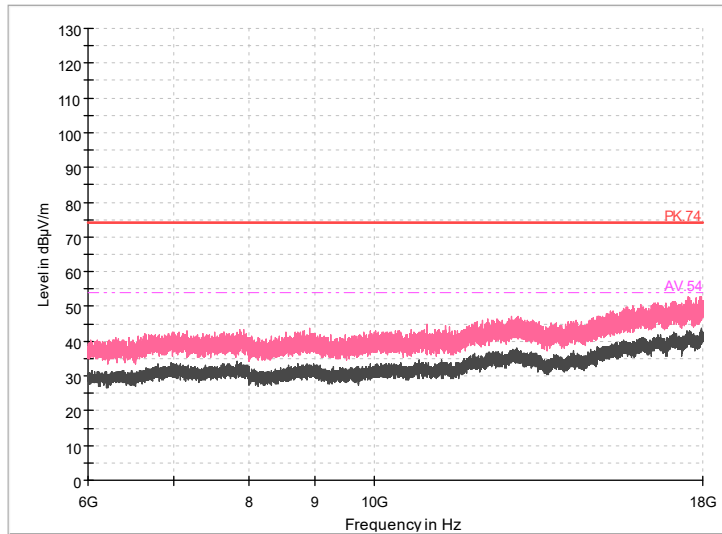


Frequency Range: 30MHz -1GHz  
 Detector: Av mode and PK mode  
 Modulation type: 802.11g

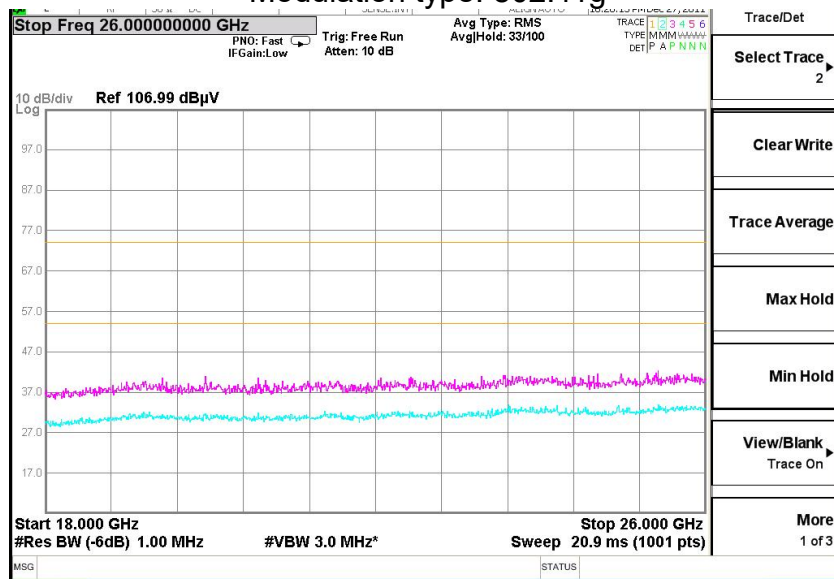


Frequency Range: 1GHz -6GHz  
 Detector: Av mode and PK mode  
 Modulation type: 802.11g

Full Spectrum

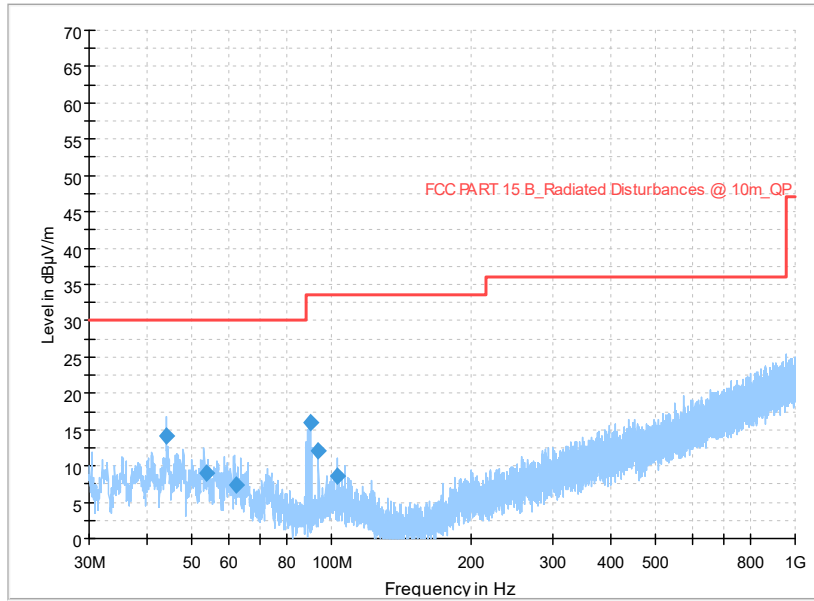


Frequency Range: 6GHz -18GHz  
Detector: Av mode and PK mode  
Modulation type: 802.11g

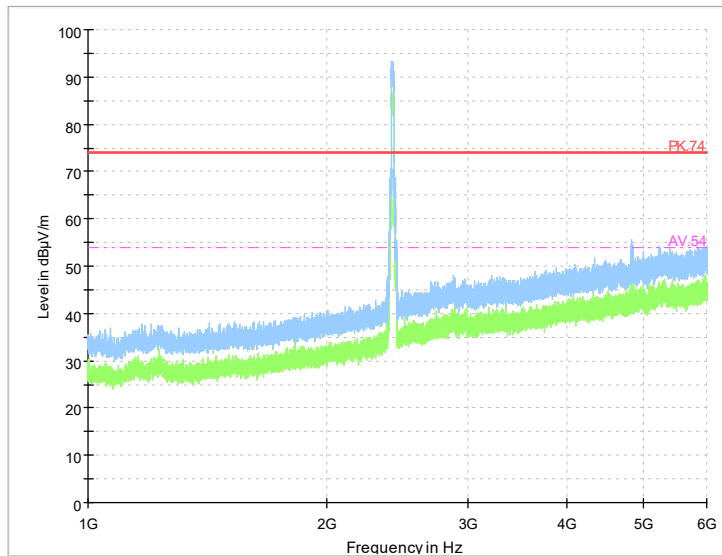


Frequency Range: 18GHz -26GHz  
Detector: Av mode and PK mode  
Modulation type: 802.11g

Full Spectrum



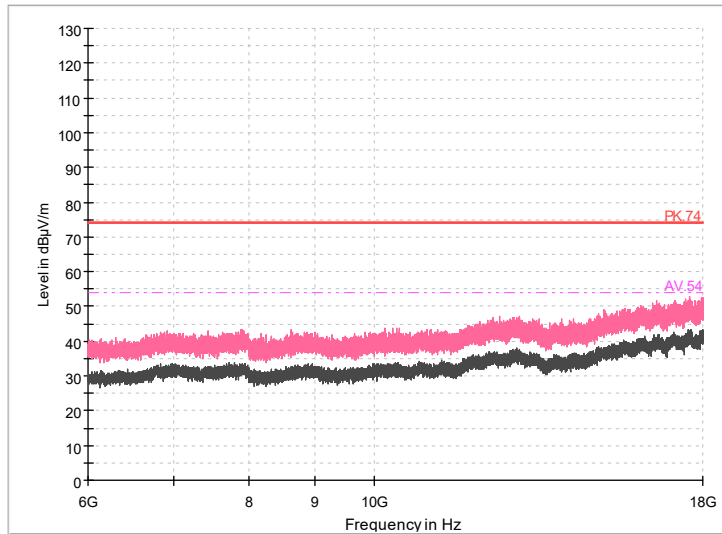
Frequency Range: 30MHz -1GHz  
 Detector: Av mode and PK mode  
 Modulation type: 802.11n(HT20)



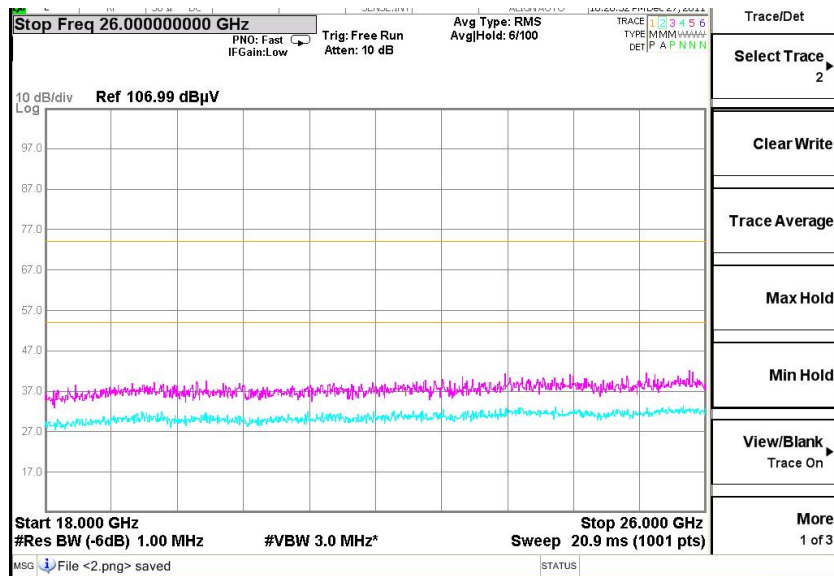
Frequency Range: 1GHz -6GHz  
 Detector: Av mode and PK mode  
 Modulation type: 802.11n(HT20)



Full Spectrum

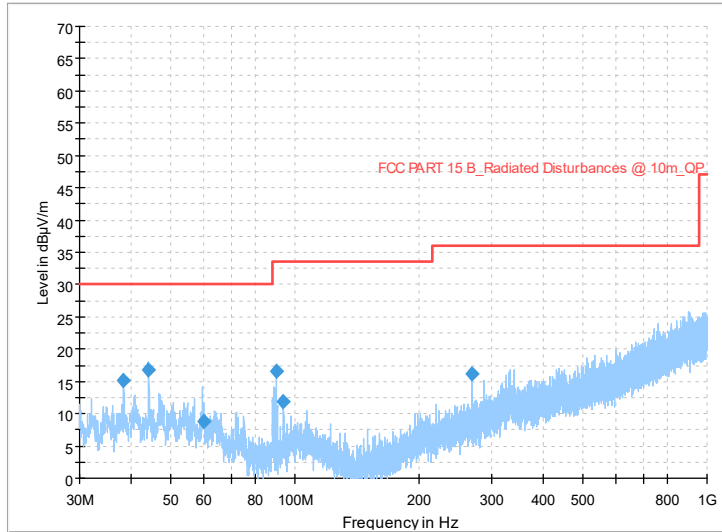


Frequency Range: 6GHz -18GHz  
Detector: Av mode and PK mode  
Modulation type: 802.11n(HT20)

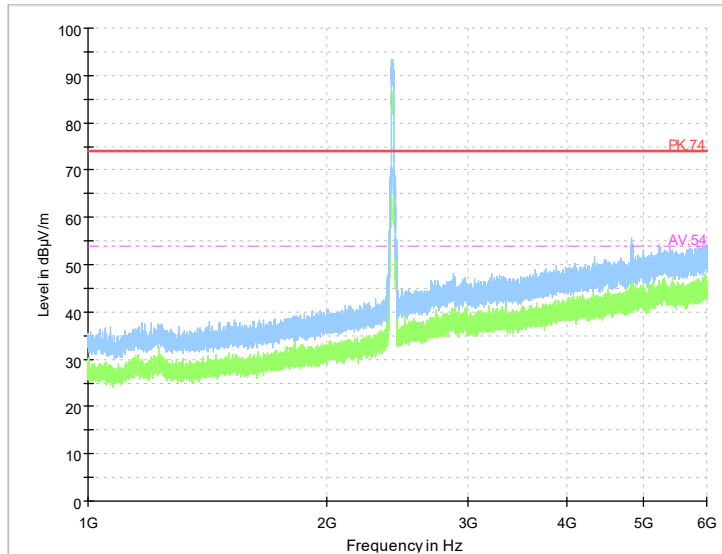


Frequency Range: 18GHz -26GHz  
Detector: Av mode and PK mode  
Modulation type: 802.11n(HT20)

Full Spectrum

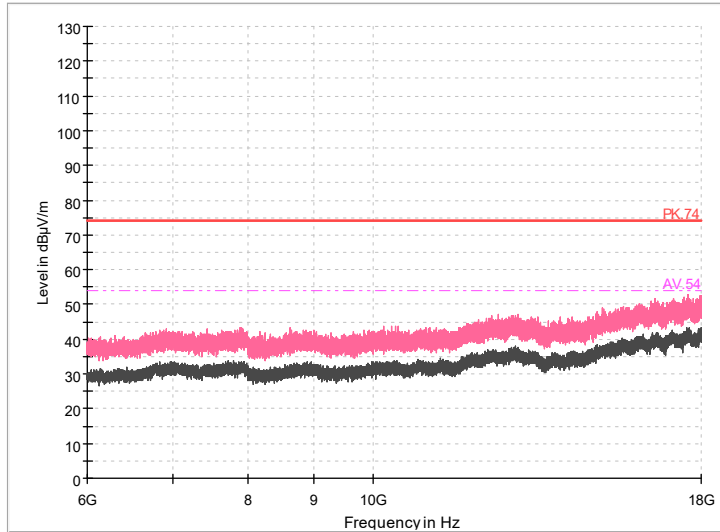


Frequency Range: 30MHz -1GHz  
 Detector: Av mode and PK mode  
 Modulation type: 802.11ax(HE20)

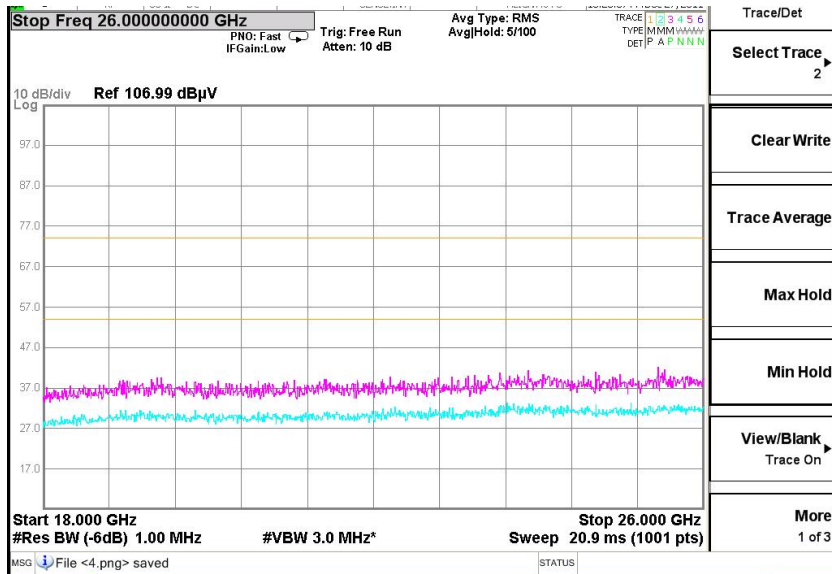


Frequency Range: 1GHz -6GHz  
 Detector: Av mode and PK mode  
 Modulation type: 802.11ax(HE20)

Full Spectrum



Frequency Range: 6GHz -18GHz  
Detector: Av mode and PK mode  
Modulation type: 802.11ax(HE20)

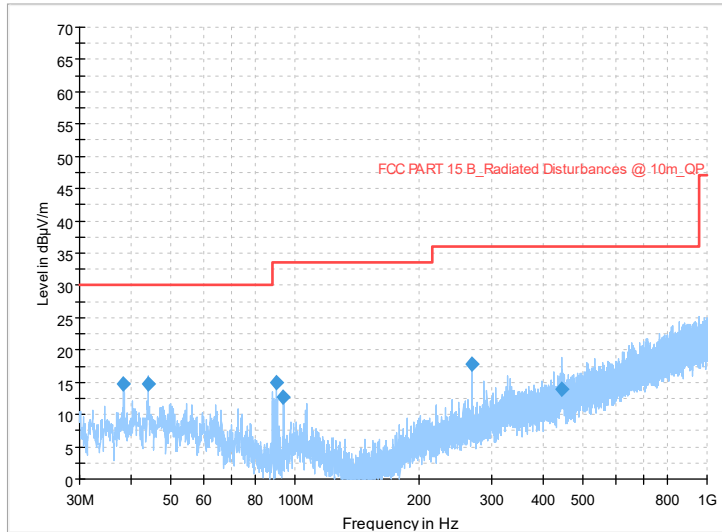


Frequency Range: 18GHz -26GHz  
Detector: Av mode and PK mode  
Modulation type: 802.11ax(HE20)

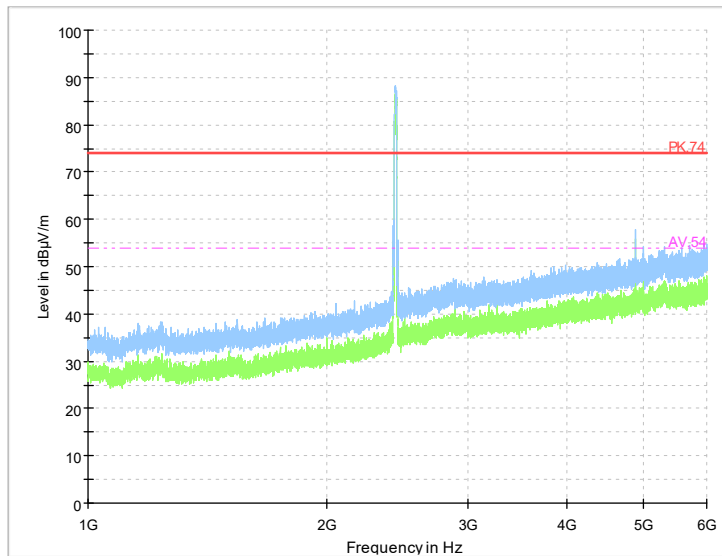
Carrier frequency (MHz): 2437

Channel No.:6

Full Spectrum

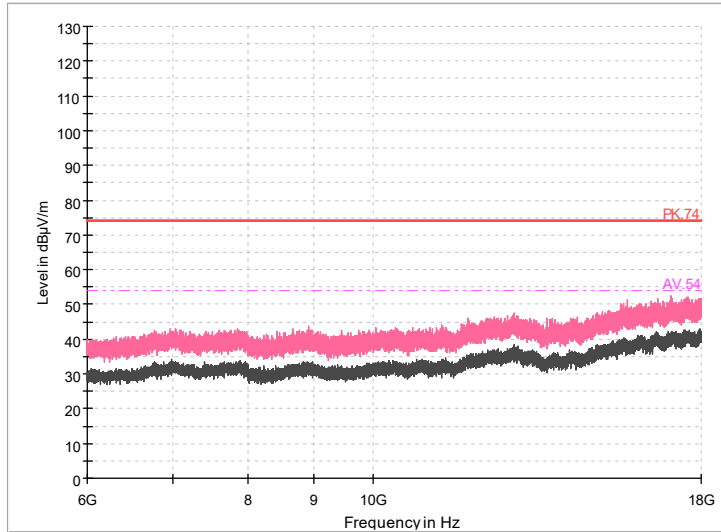


Frequency Range: 30MHz -1GHz  
 Detector: Av mode and PK mode  
 Modulation type: 802.11b

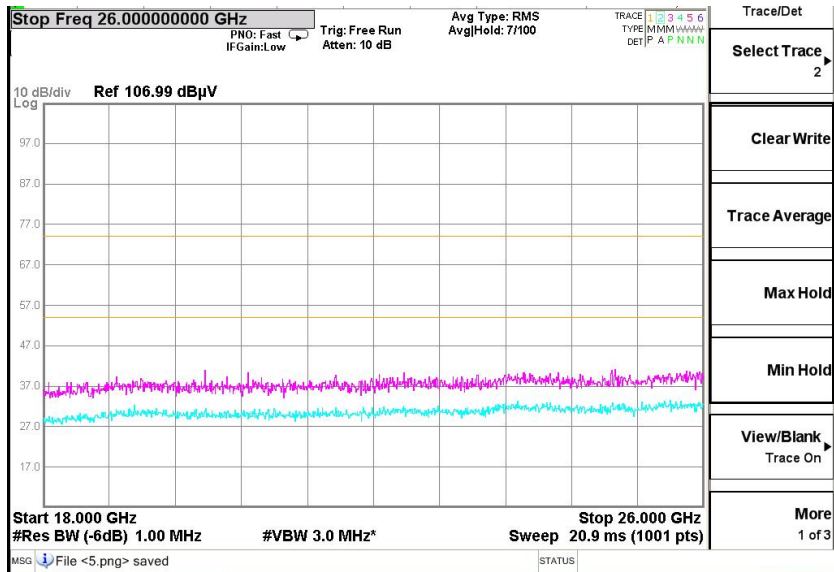


Frequency Range: 1GHz -6GHz  
 Detector: Av mode and PK mode  
 Modulation type: 802.11b

Full Spectrum

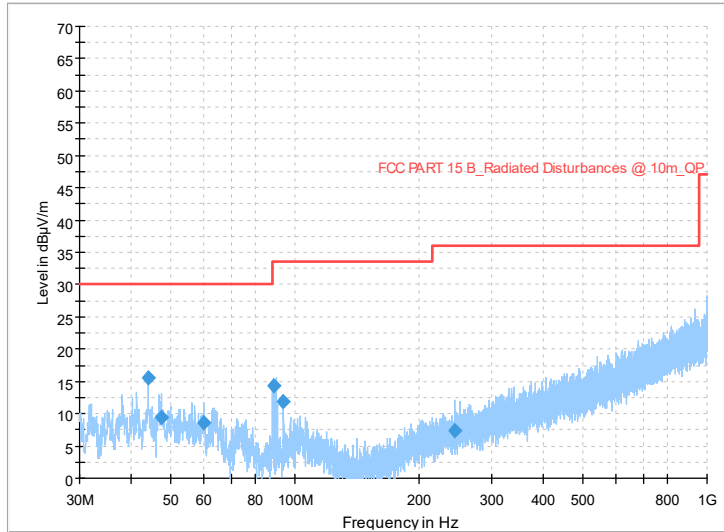


Frequency Range: 3GHz -18GHz  
Detector: Av mode and PK mode  
Modulation type: 802.11b

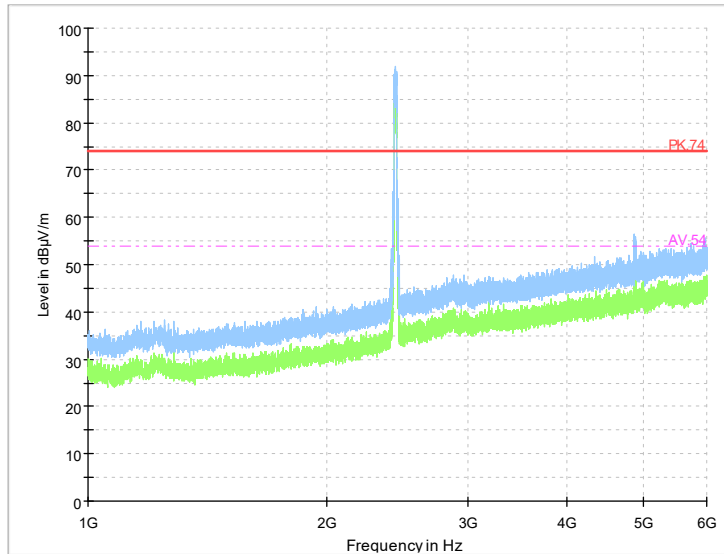


Frequency Range: 18GHz -26GHz  
Detector: Av mode and PK mode  
Modulation type: 802.11b

Full Spectrum

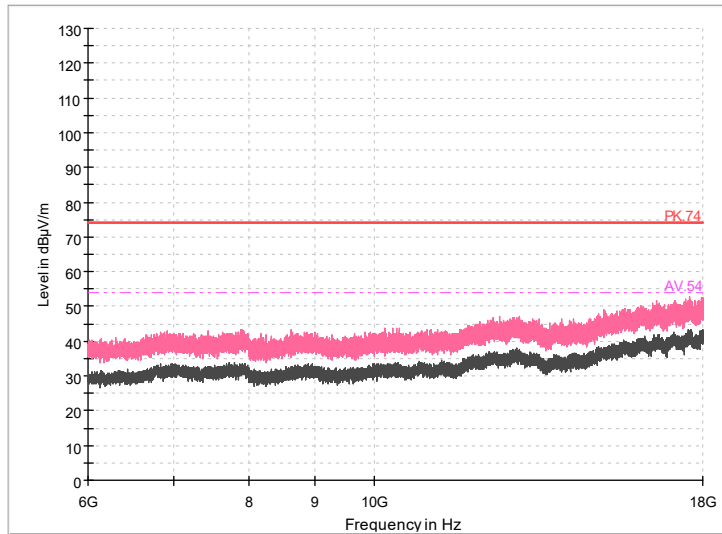


Frequency Range: 30MHz -1GHz  
 Detector: Av mode and PK mode  
 Modulation type: 802.11g

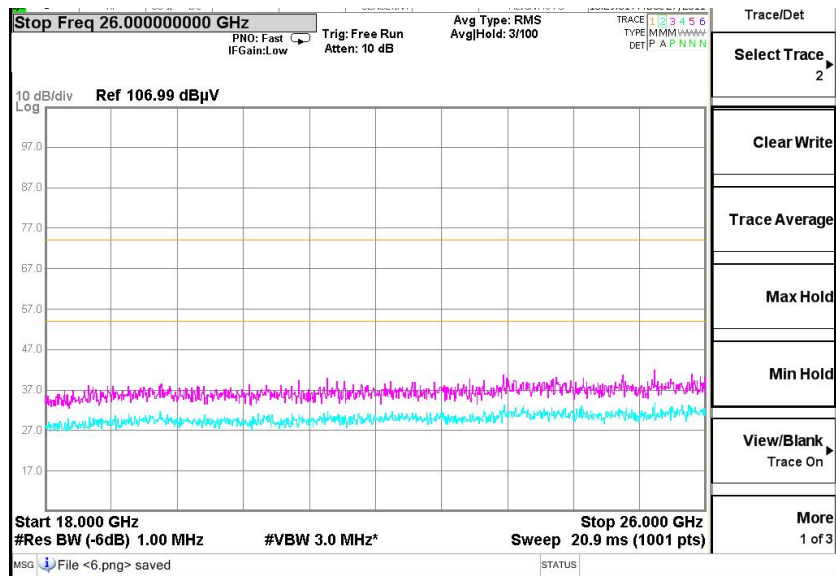


Frequency Range: 1GHz -6GHz  
 Detector: Av mode and PK mode  
 Modulation type: 802.11g

Full Spectrum

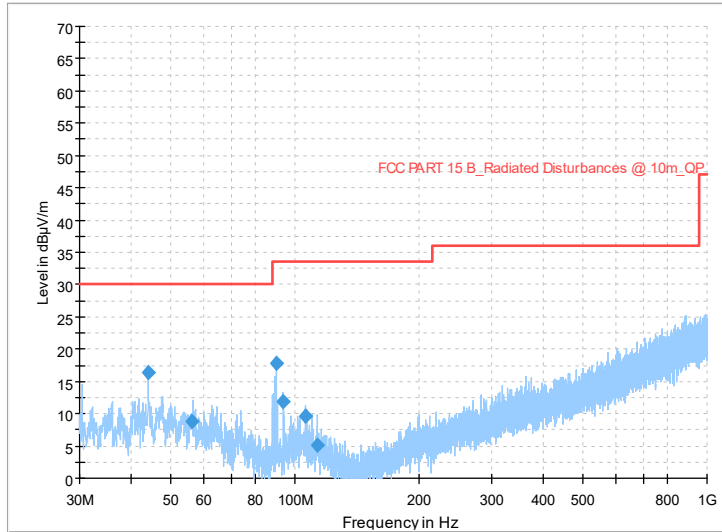


Frequency Range: 6GHz -18GHz  
Detector: Av mode and PK mode  
Modulation type: 802.11g

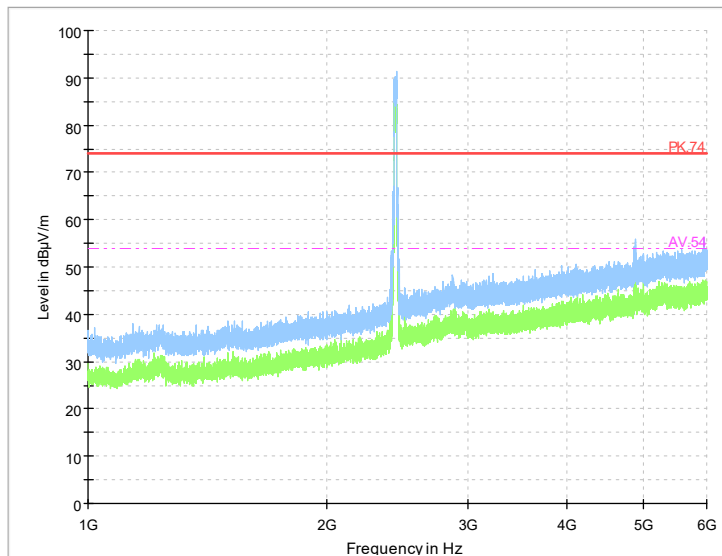


Frequency Range: 18GHz -26GHz  
Detector: Av mode and PK mode  
Modulation type: 802.11g

Full Spectrum



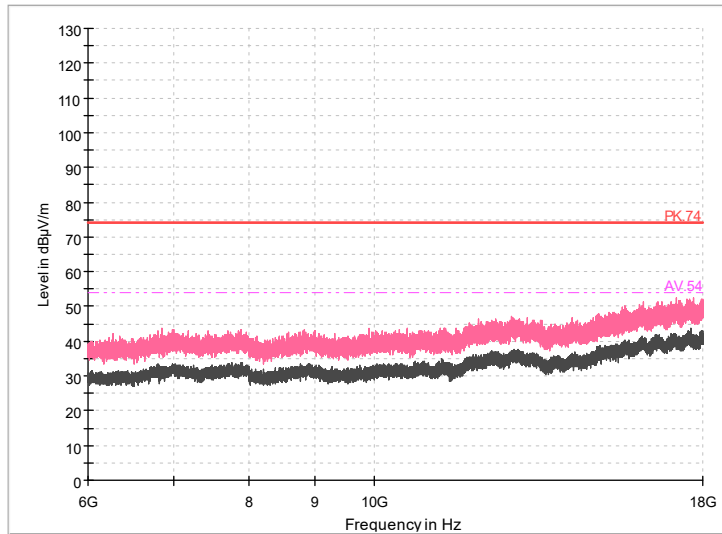
Frequency Range: 30MHz -1GHz  
 Detector: Av mode and PK mode  
 Modulation type: 802.11n(HT20)



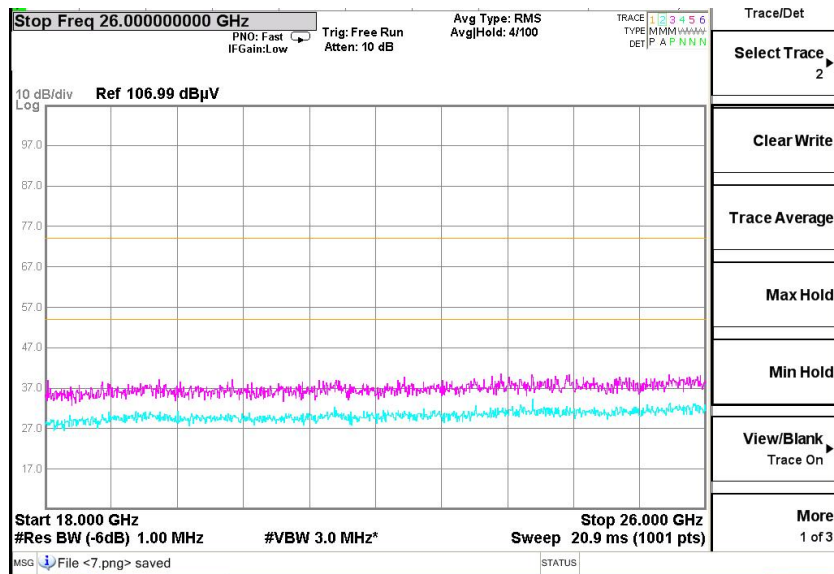
Frequency Range: 1GHz -6GHz  
 Detector: Av mode and PK mode  
 Modulation type: 802.11n(HT20)



Full Spectrum

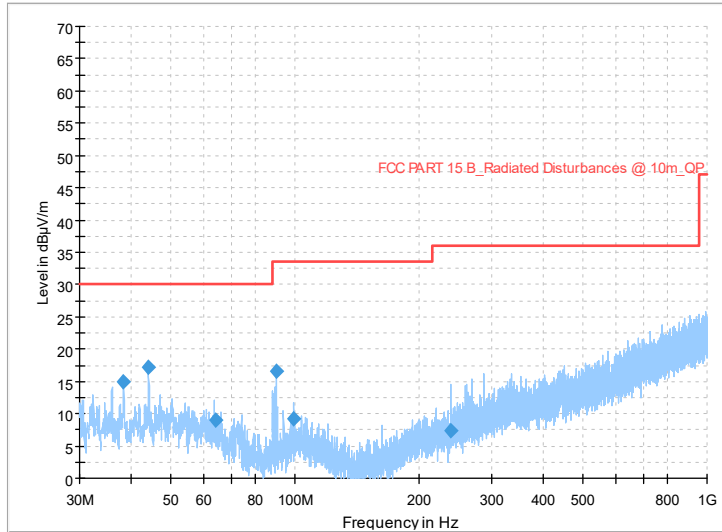


Frequency Range: 3GHz -18GHz  
Detector: Av mode and PK mode  
Modulation type: 802.11n(HT20)

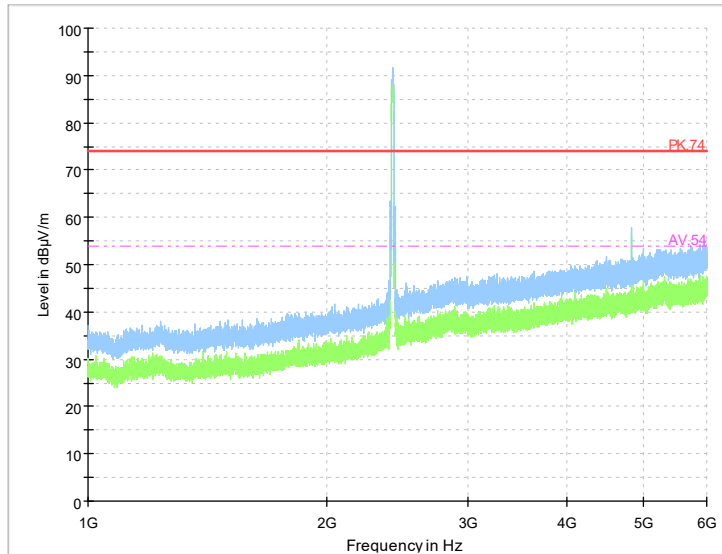


Frequency Range: 18GHz -26GHz  
Detector: Av mode and PK mode  
Modulation type: 802.11n(HT20)

Full Spectrum

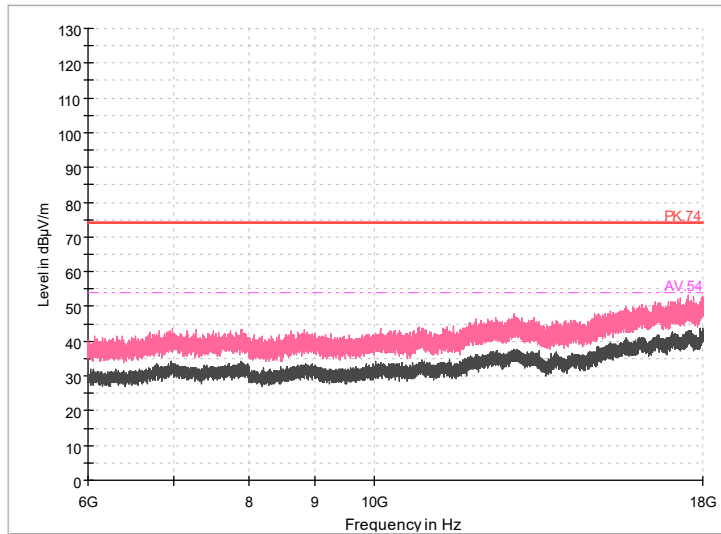


Frequency Range: 30MHz -1GHz  
Detector: Av mode and PK mode  
Modulation type: 802.11ax(HE20)

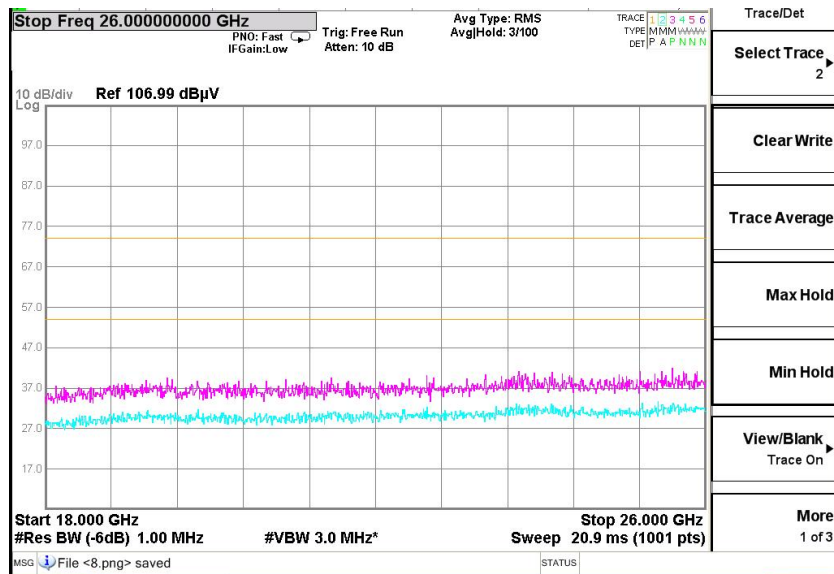


Frequency Range: 1GHz -6GHz  
Detector: Av mode and PK mode  
Modulation type: 802.11ax(HE20)

Full Spectrum

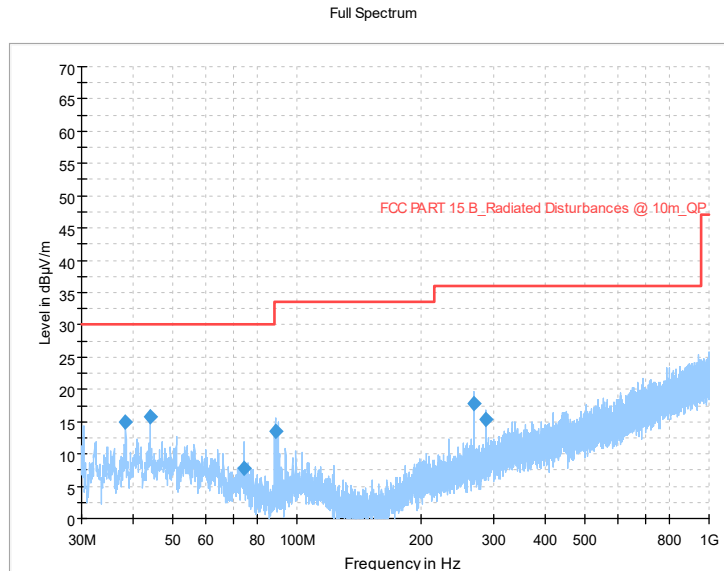


Frequency Range: 6GHz -18GHz  
Detector: Av mode and PK mode  
Modulation type: 802.11ax(HE20)

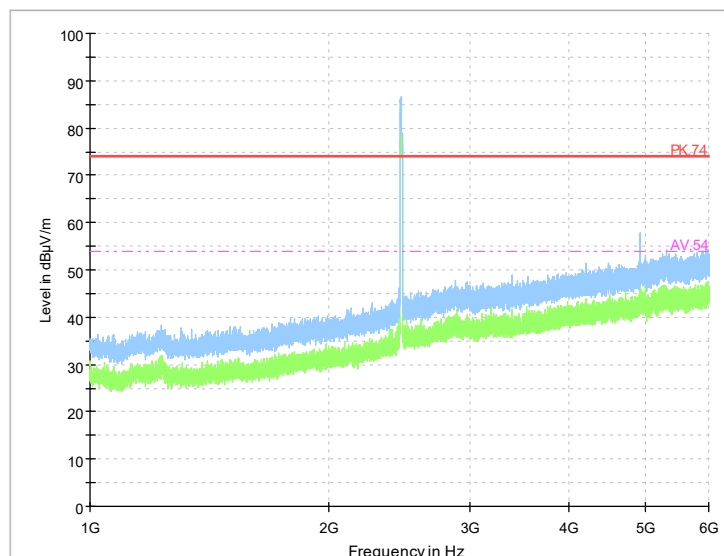


Frequency Range: 18GHz -26GHz  
Detector: Av mode and PK mode  
Modulation type: 802.11ax(HE20)

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

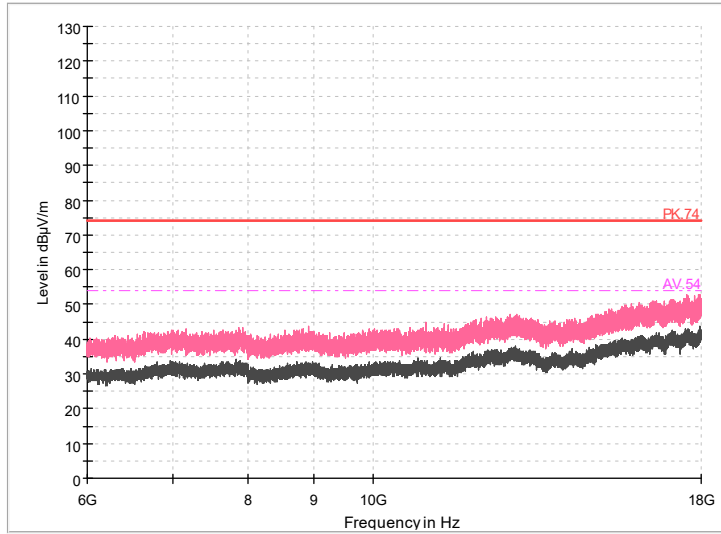


Frequency Range: 30MHz -1GHz  
 Detector: Av mode and PK mode  
 Modulation type: 802.11b

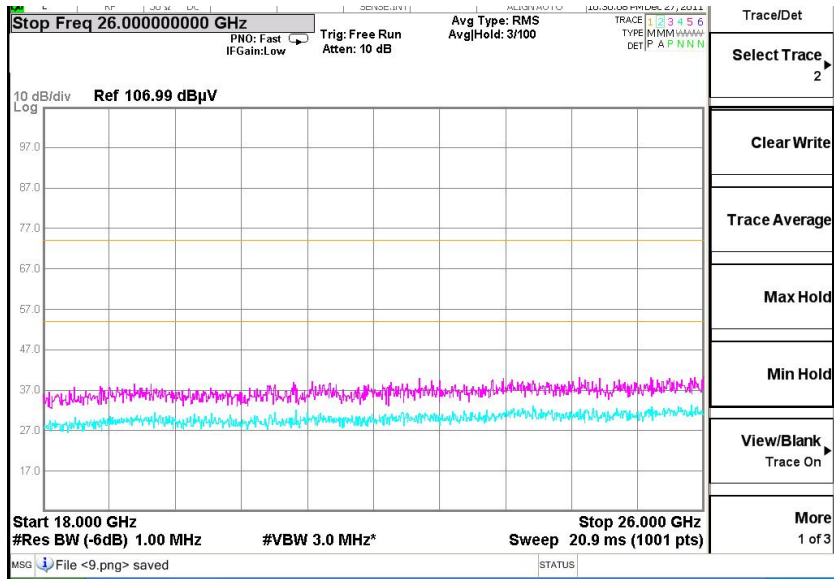


Frequency Range: 1GHz -6GHz  
 Detector: Av mode and PK mode  
 Modulation type: 802.11b

Full Spectrum

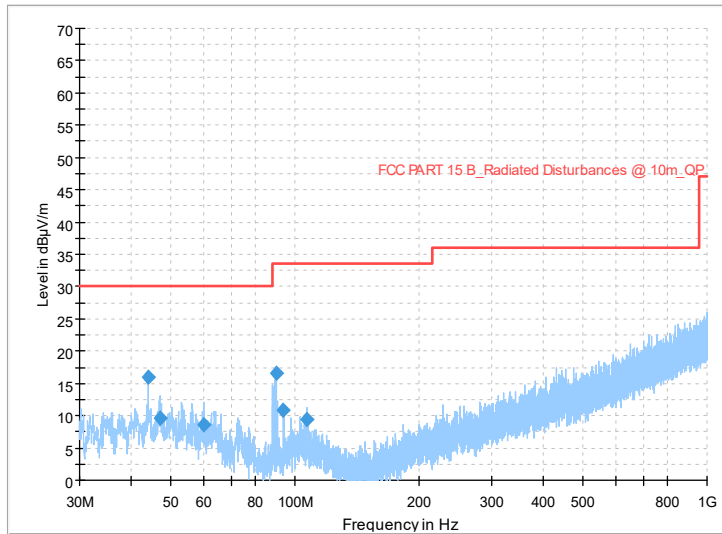


Frequency Range: 6GHz -18GHz  
Detector: Av mode and PK mode  
Modulation type: 802.11b

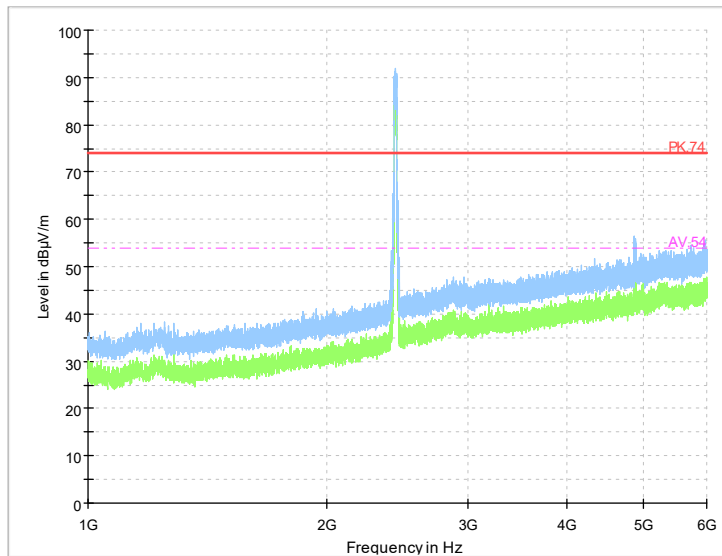


Frequency Range: 18GHz -26GHz  
Detector: Av mode and PK mode  
Modulation type: 802.11b

Full Spectrum



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



Frequency Range: 1GHz -6GHz  
 Detector: Av mode and PK mode  
 Modulation type: 802.11g