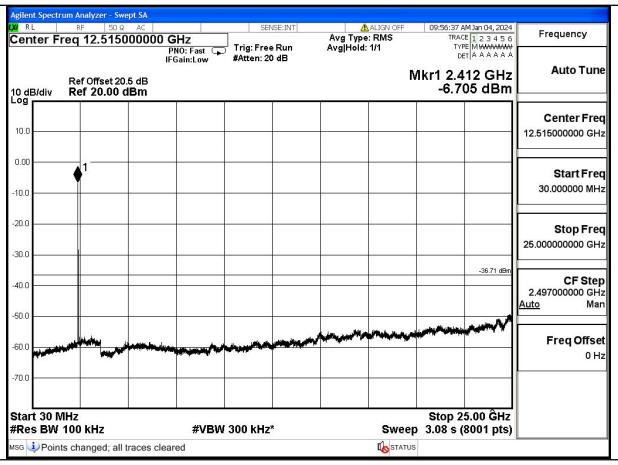
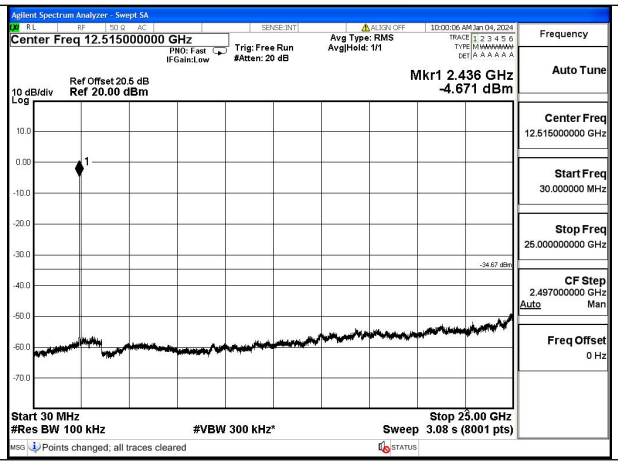
Conducted Out of band emission measurement

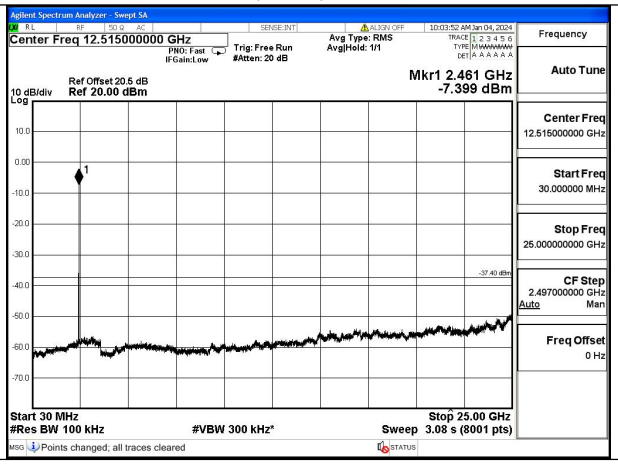
Test Mode: 802.11b



Mode:802.11b Frequency:2412MHz Ant:Chain0

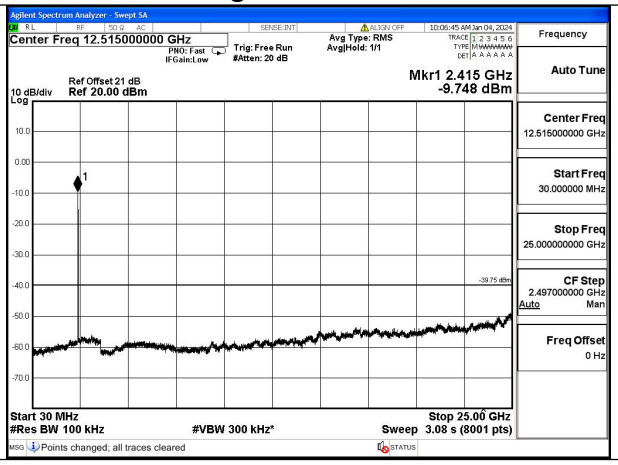


Mode:802.11b Frequency:2437MHz Ant:Chain0

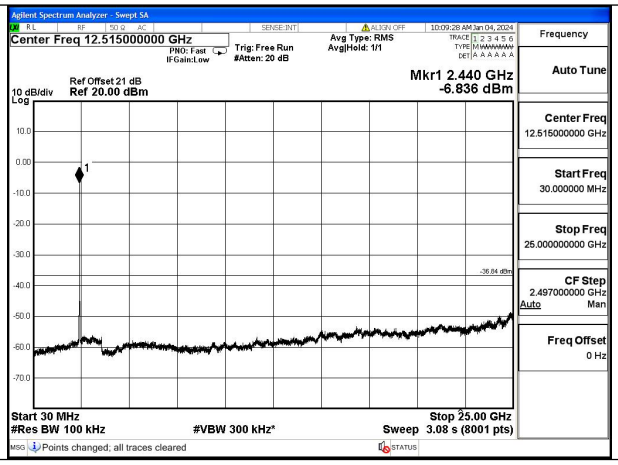


Mode:802.11b Frequency:2462MHz Ant:Chain0

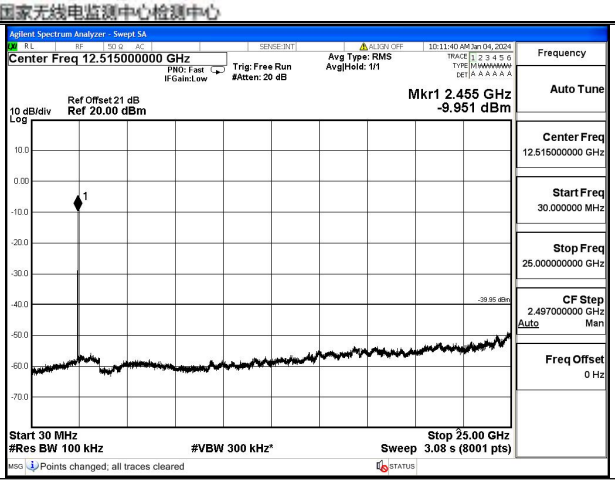
Test Mode: 802.11g



Mode:802.11g Frequency:2412MHz Ant:Chain0

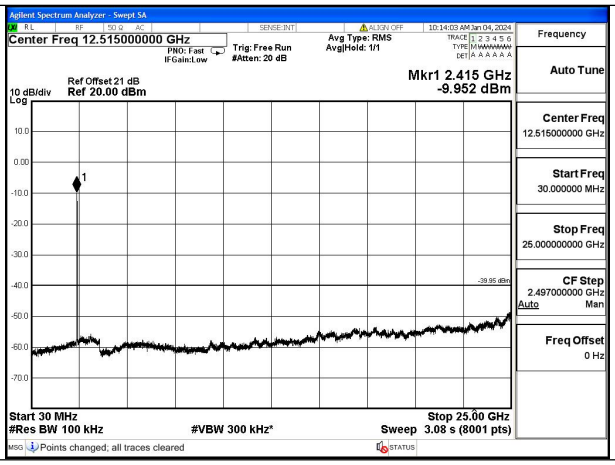


Mode:802.11g Frequency:2437MHz Ant:Chain0

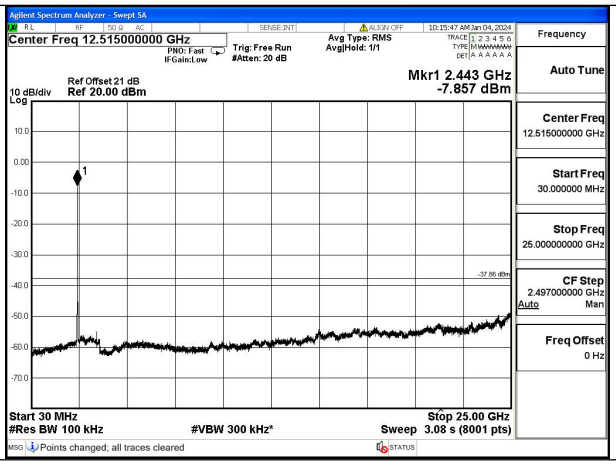


Mode:802.11g Frequency:2462MHz Ant:Chain0

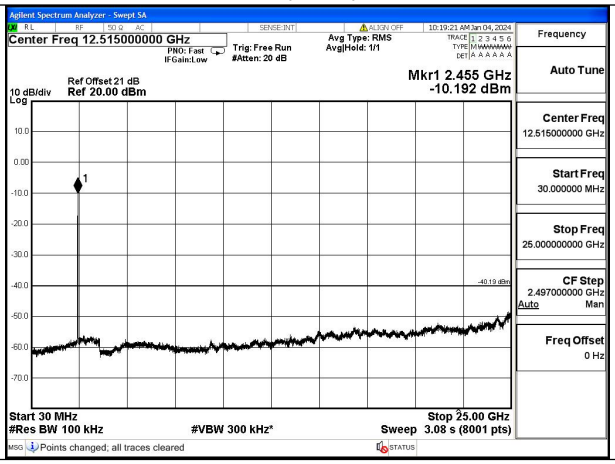
Test Mode: 802.11n HT20



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

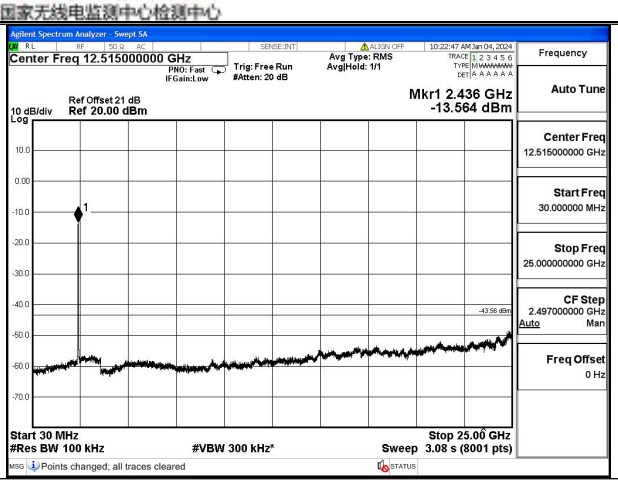


Mode:802.11n HT20 Frequency:2437MHz Ant:Chain0

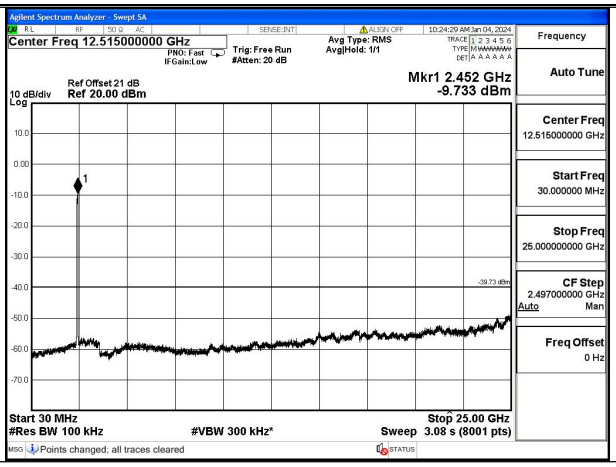


Mode:802.11n HT20 Frequency:2462MHz Ant:Chain0

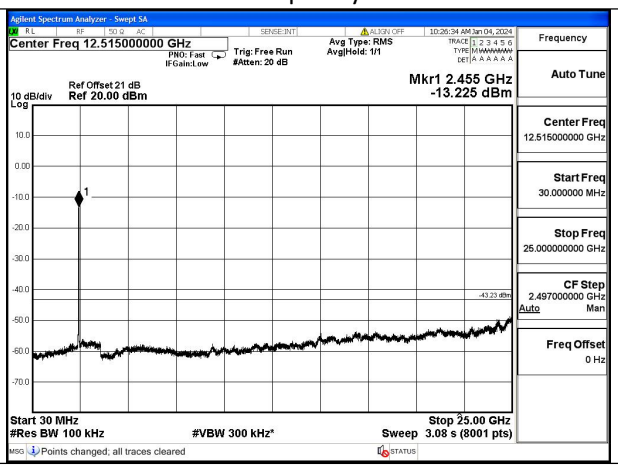
Test Mode: 802.11n HT40



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



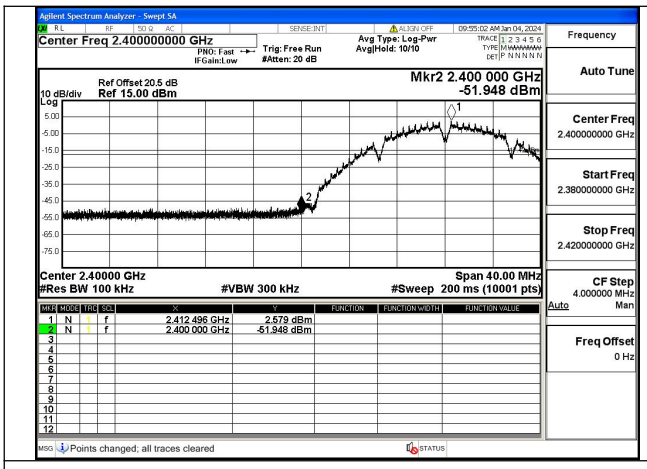
Mode:802.11n HT40 Frequency:2437MHz Ant:Chain0



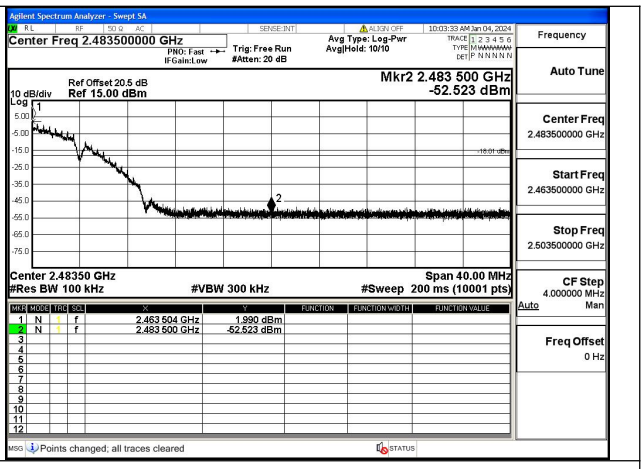
Mode:802.11n HT40 Frequency:2452MHz Ant:Chain0

Band edge measurement

Test Mode: 802.11b

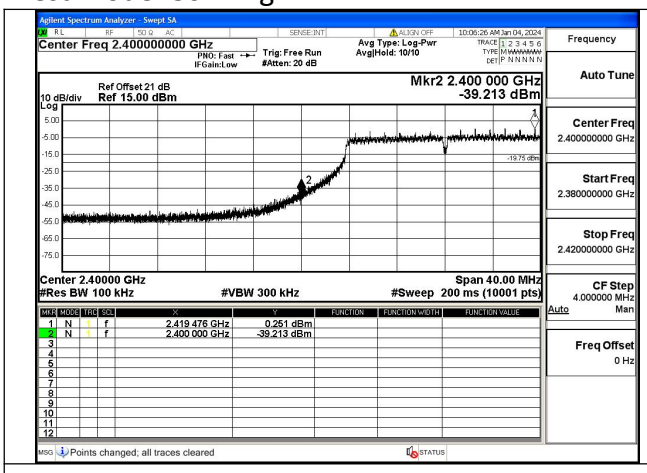


Mode:802.11b Frequency:2412MHz Ant:Chain0

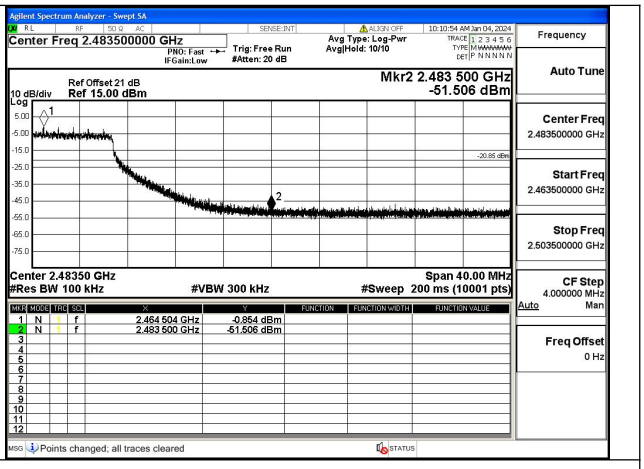


Mode:802.11b Frequency:2462MHz Ant:Chain0

Test Mode: 802.11g

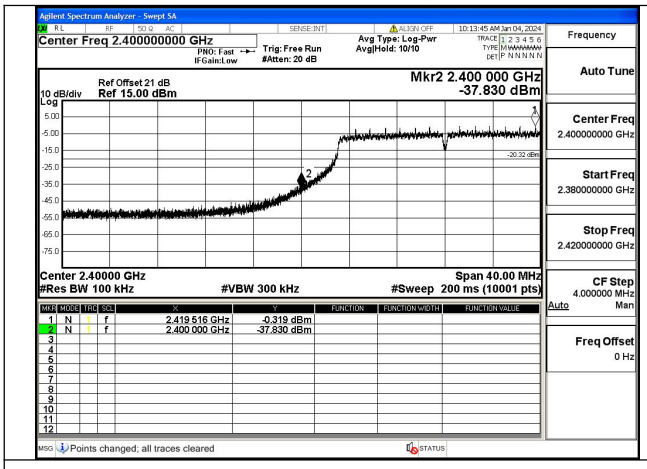


Mode:802.11g Frequency:2412MHz Ant:Chain0

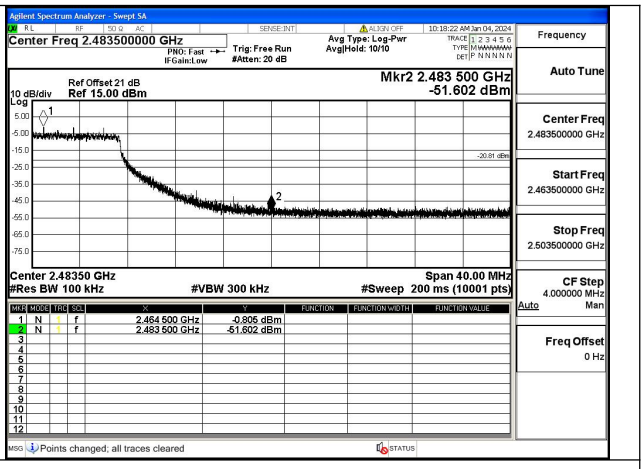


Mode:802.11g Frequency:2462MHz Ant:Chain0

Test Mode: 802.11n HT20

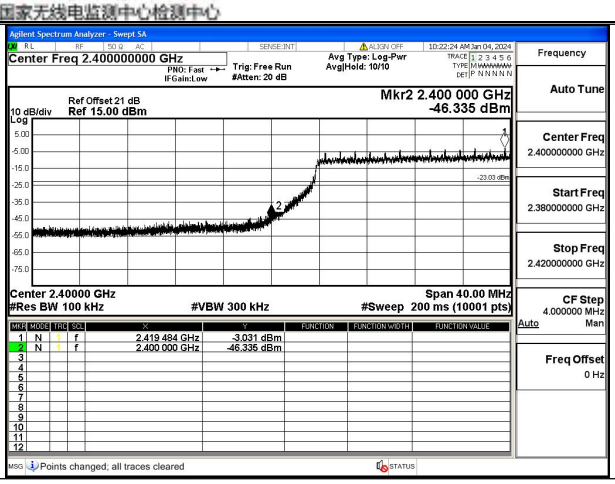


Mode:802.11n HT20 Frequency:2412MHz Ant:Chain0

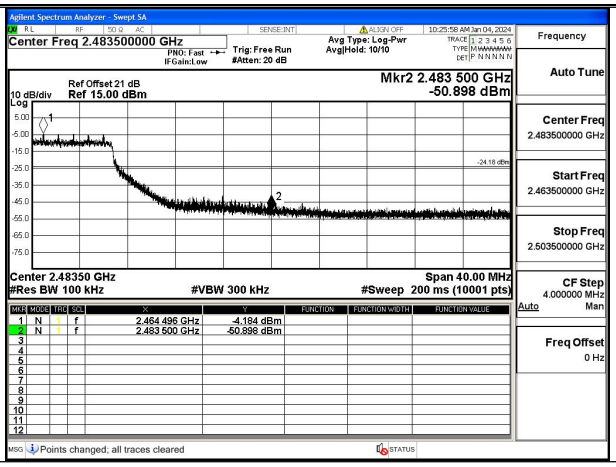


Mode:802.11n HT20 Frequency:2462MHz Ant:Chain0

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

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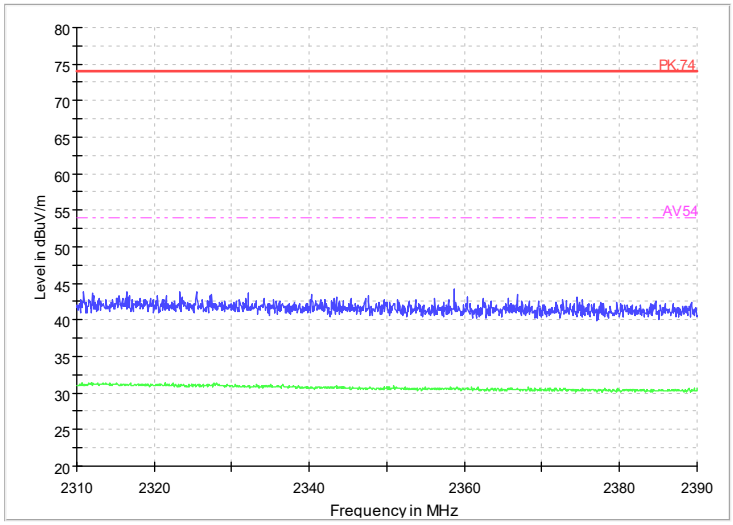
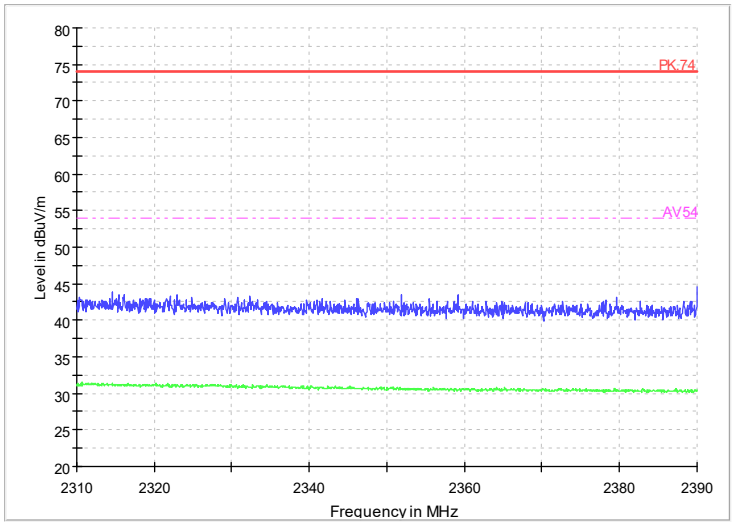
Radiated Emission Band Edge



Comment

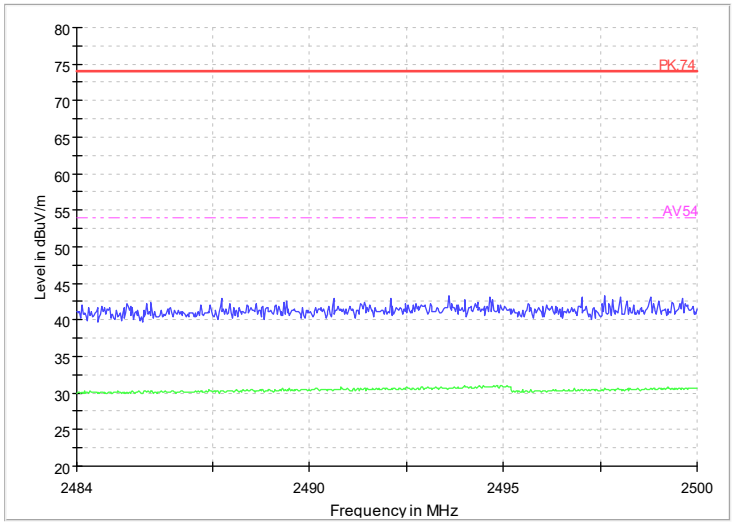
Radiated Emission Band Edge
Channel No.:1
Test Mode: 802.11b
Polarization：V



Comment

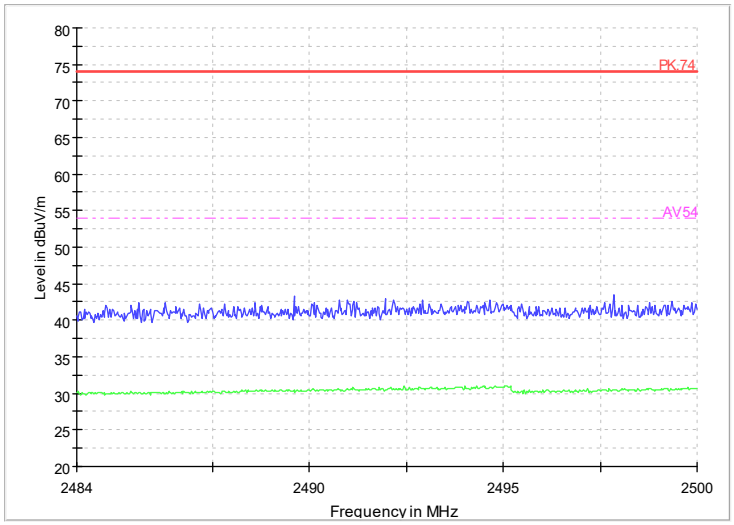
Radiated Emission Band Edge

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



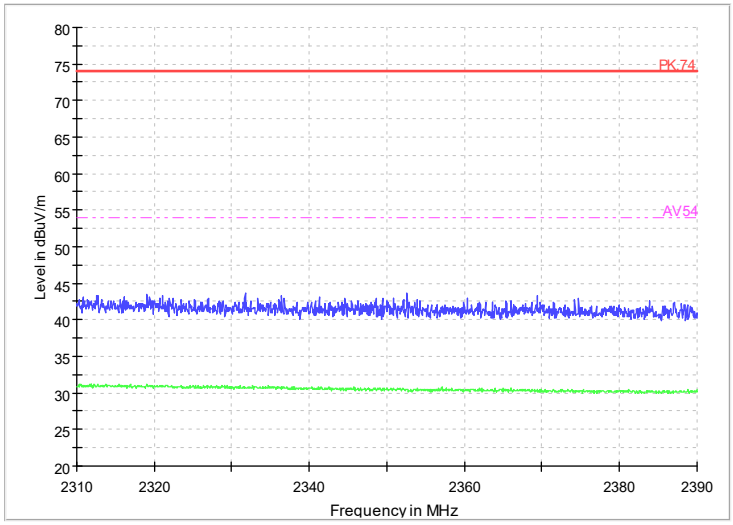
Comment

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



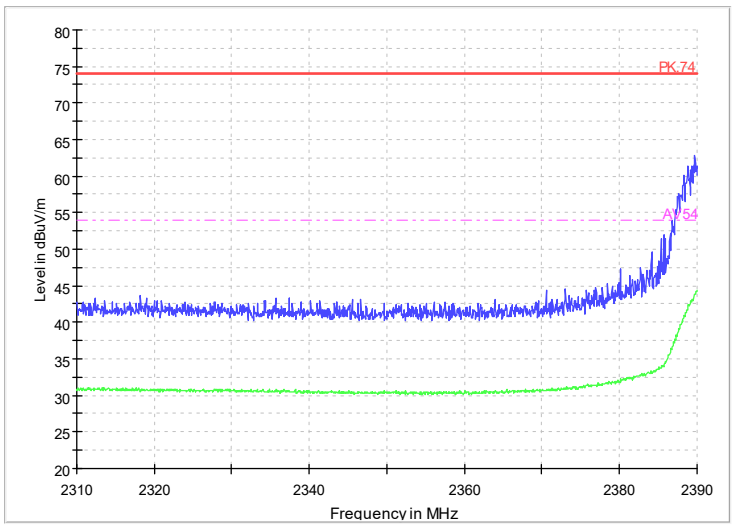
Comment

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



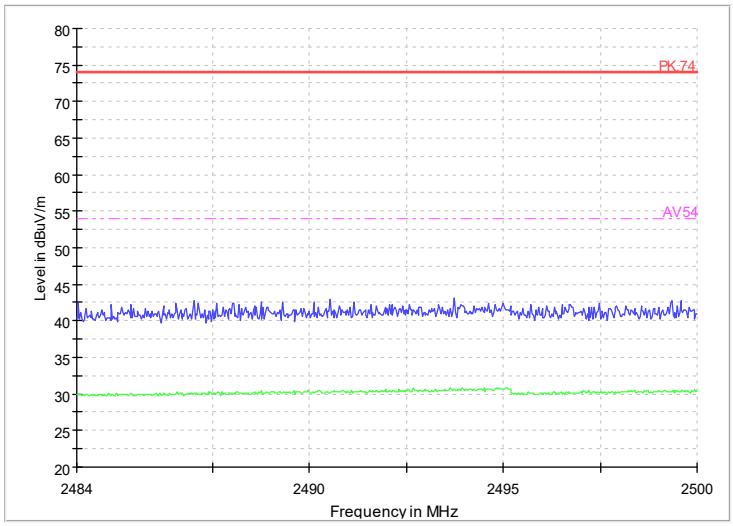
Comment

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



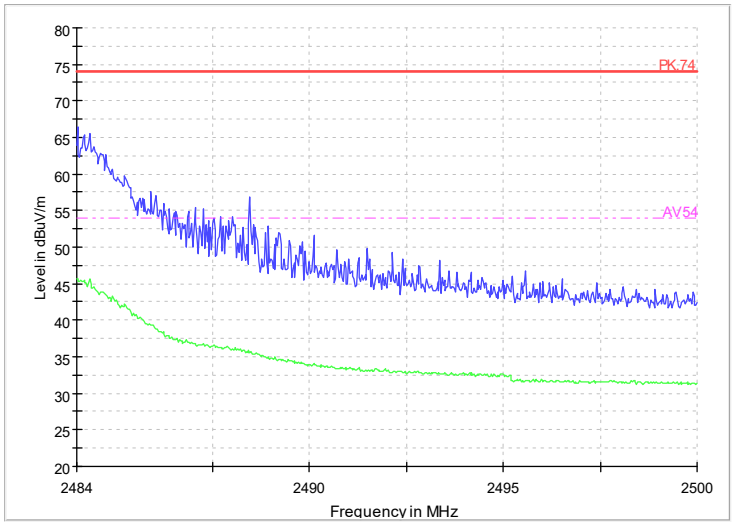
Comment

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



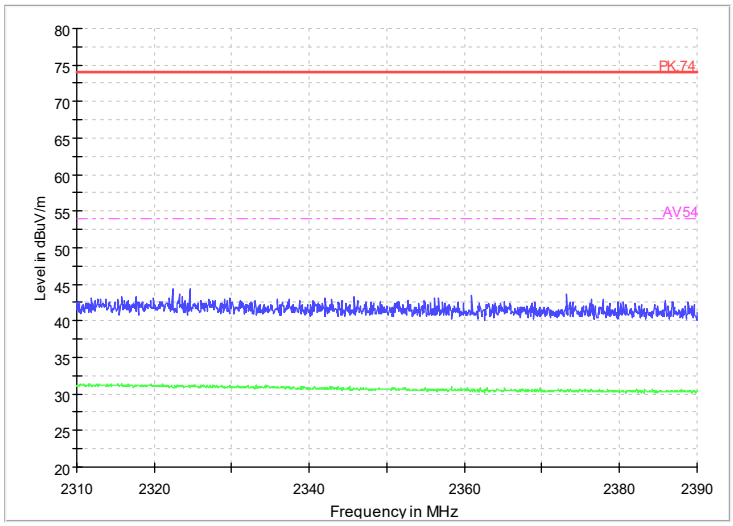
Comment

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



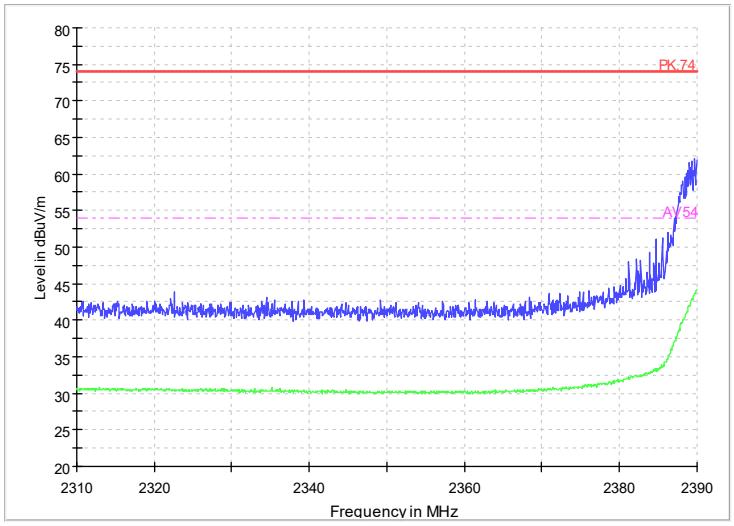
Comment

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



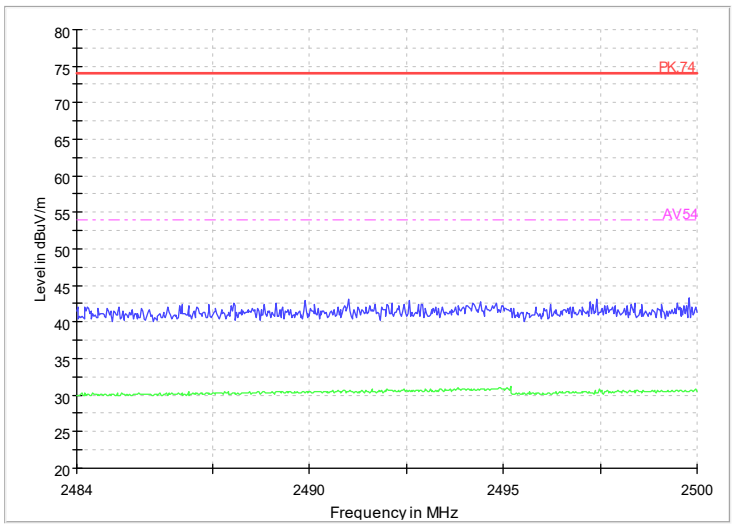
Comment

Radiated Emission Band Edge
Channel No.:1
Test Mode: 802.11n(HT20)
Polarization：V



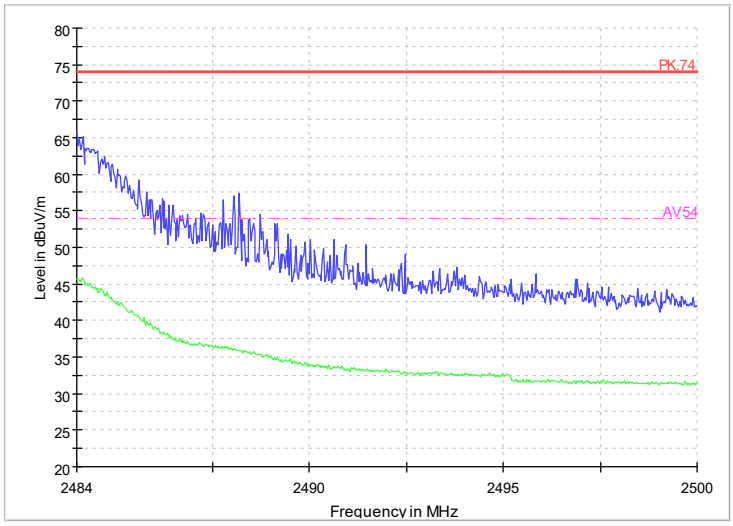
Comment

Radiated Emission Band Edge
Channel No.:1
Test Mode: 802.11n(HT20)
Polarization：H



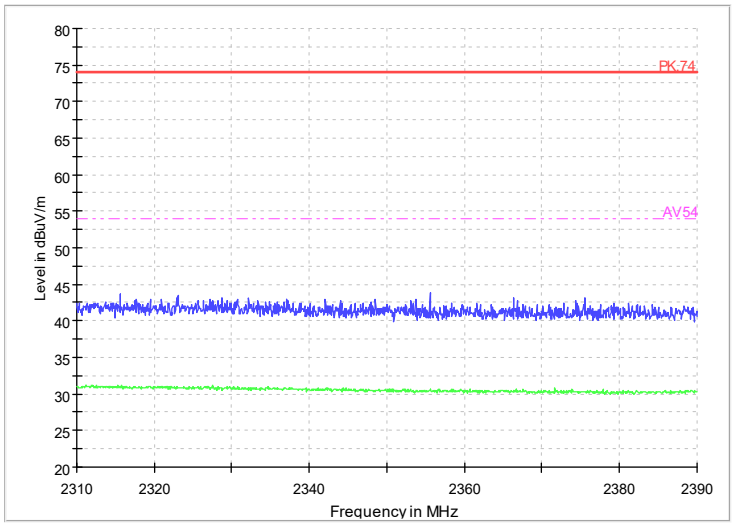
Comment

Radiated Emission Band Edge
Channel No.:11
Test Mode: 802.11n(HT20)
Polarization：V



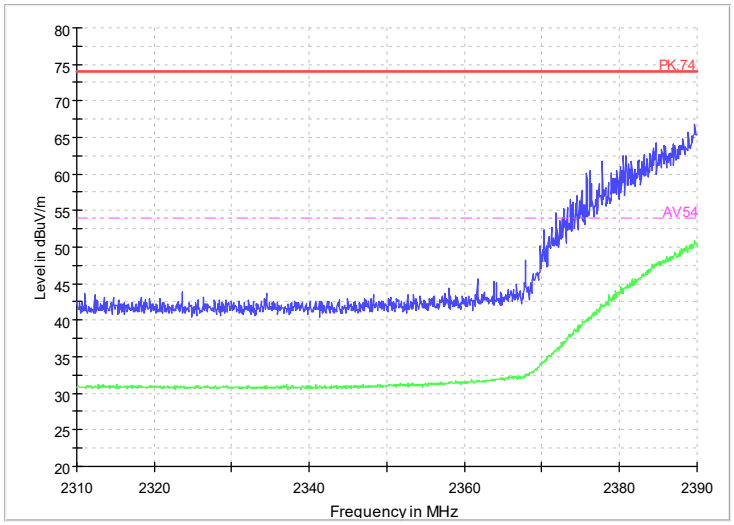
Comment

Radiated Emission Band Edge
Channel No.:11
Test Mode: 802.11n(HT20)
Polarization：H



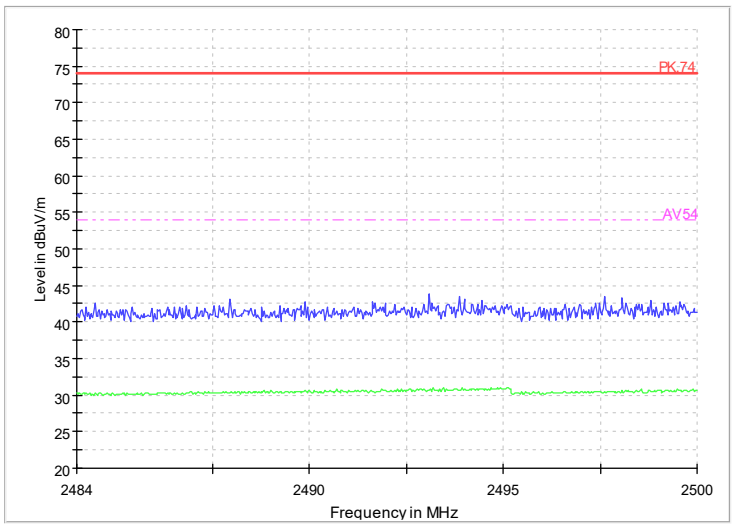
Comment

Radiated Emission Band Edge
Channel No.:3
Test Mode: 802.11n(HT40)
Polarization：V



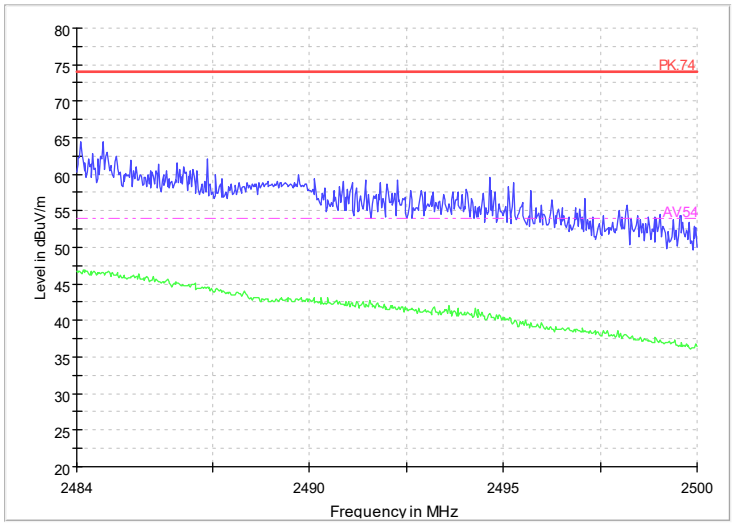
Comment

Radiated Emission Band Edge
Channel No.:3
Test Mode: 802.11n(HT40)
Polarization：H



Comment

Radiated Emission Band Edge
Channel No.:9
Test Mode: 802.11n(HT40)
Polarization：V



Comment

Radiated Emission Band Edge
Channel No.:9
Test Mode: 802.11n(HT40)
Polarization：H

Radiated Emission

Sample Calculations

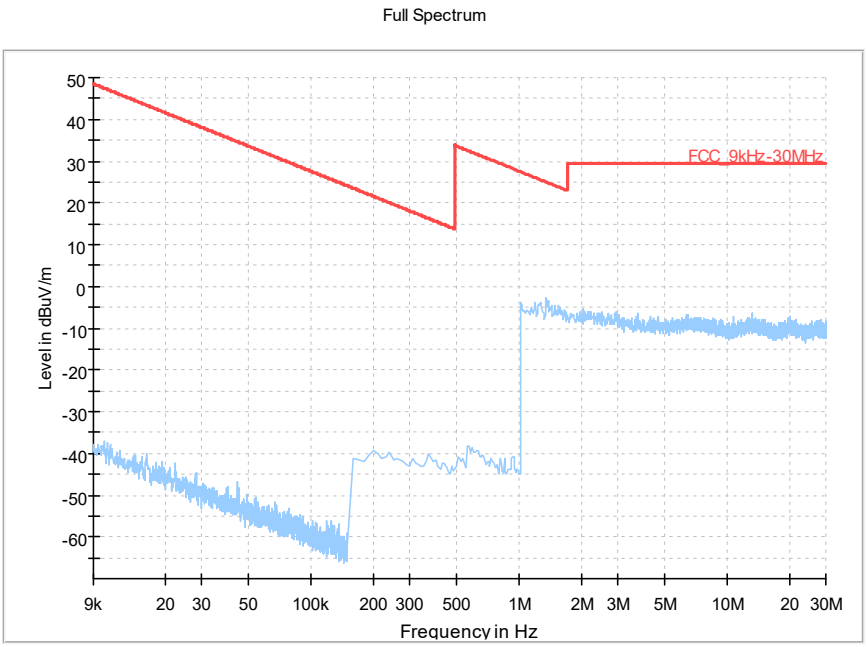
After comparison,the worst case attitude is EUT lay down.

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:
Result= P_{mea} + A_{Rpl}
Sample calculation: (8.68dBμV/m) = (27.48dBμV) + (-18.8dB/m), the corresponding frequency is38.924000MHz.

For 802.11b Channel No.:1

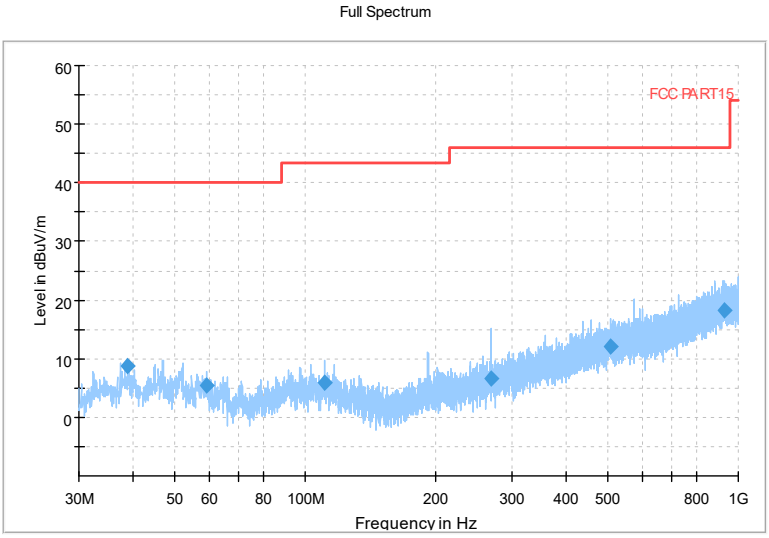
Frequency(MHz)	Result(dBuV/m)	ARpl (dB)	Pmea (dBuV/m)	Polarity	Limit (dBuV/m)	Margin (dB)
38.924000	8.68	-18.8	27.48	Vertical	40.00	31.32
59.245500	5.51	-19.2	24.71	Vertical	40.00	34.49
110.752500	5.92	-18.9	24.82	Vertical	43.50	37.58
269.105000	6.63	-16.7	23.33	Vertical	46.00	39.37
508.355500	12.12	-10.4	22.52	Vertical	46.00	33.88
929.820500	18.24	-3.0	21.24	Vertical	46.00	27.76



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

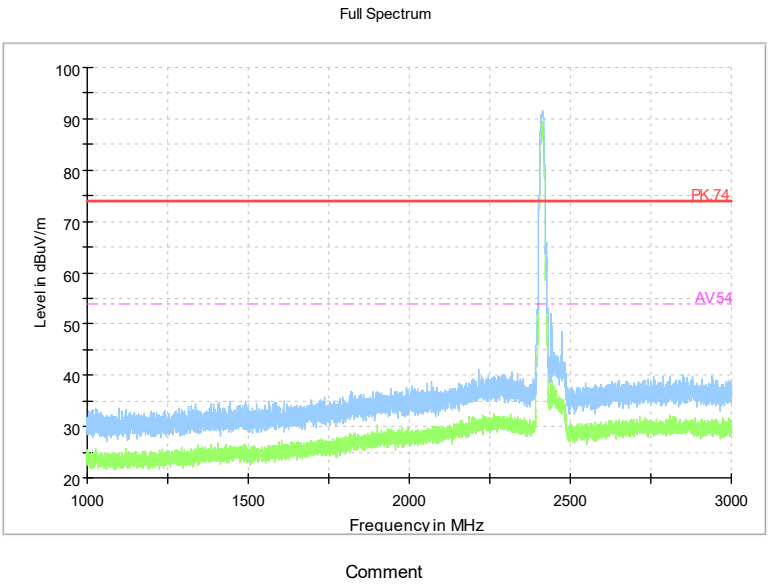
Note：The relevant tests have been performed in order to verify in which mode would have the worstfeatures, the result show above is the worst case.

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

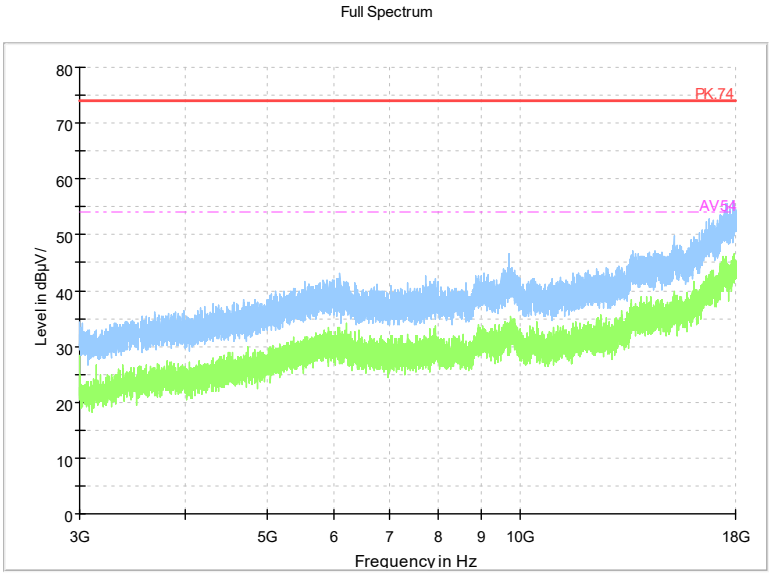


Frequency Range30MHz -1GHz
Detector: Av mode and PK mode
Modulation type: 802.11b

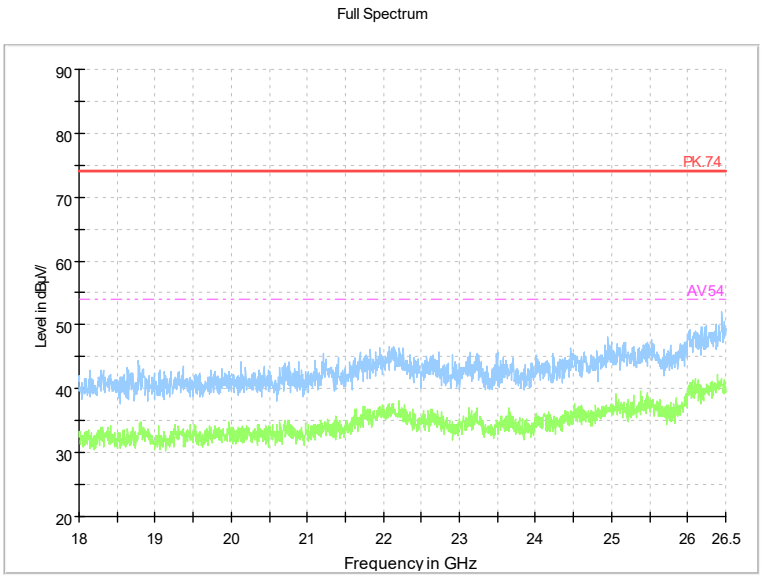
Note：The relevant tests have been performed in order to verify in which mode would have the worst features, the result show above is the worst case.



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

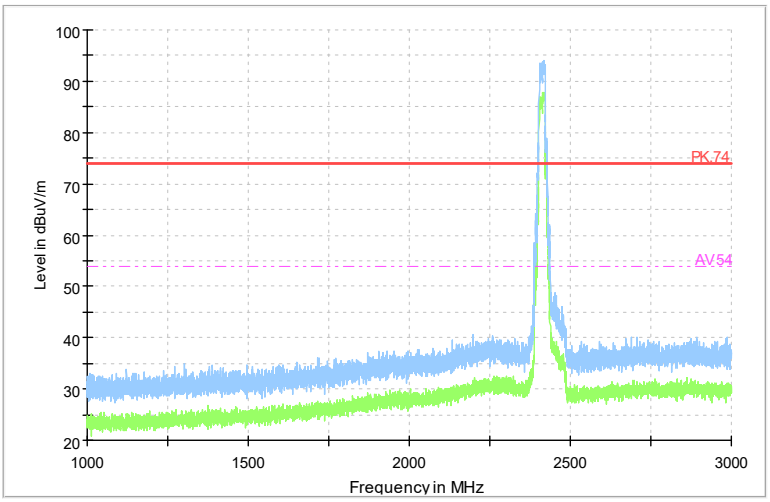


Frequency Range: 3GHz -18GHz
Detector: Av mode and PK mode
Modulation type: 802.11b



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

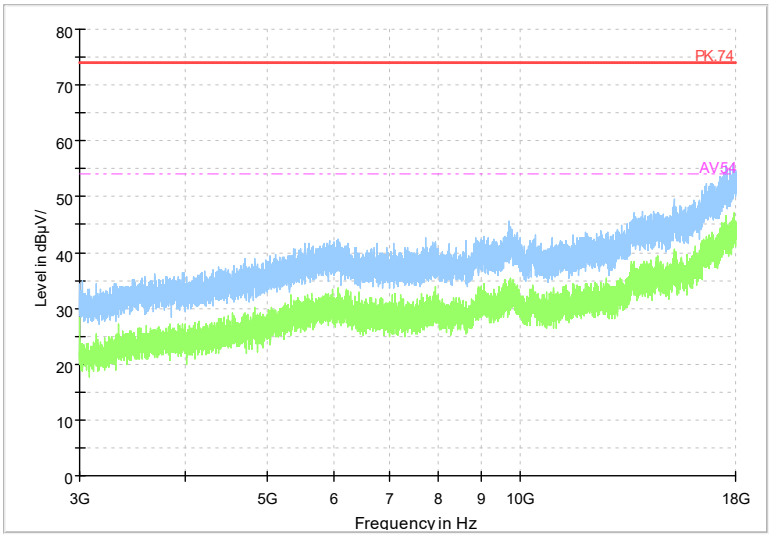
Full Spectrum



Comment

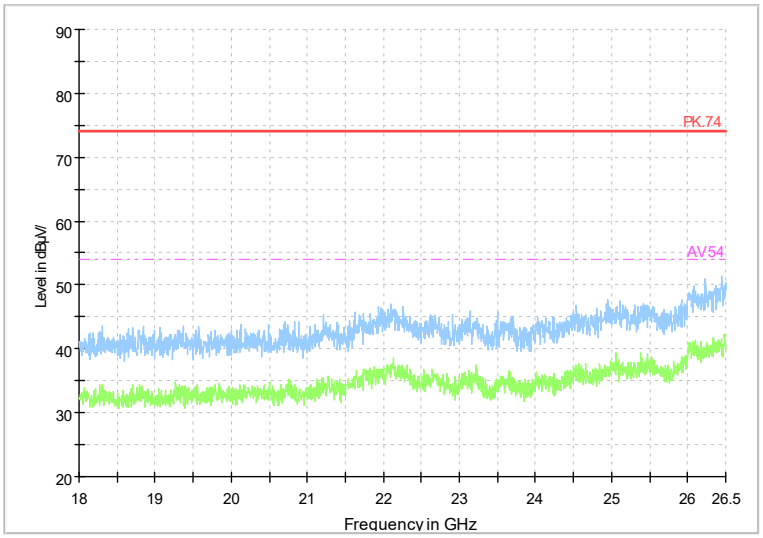
Frequency Range: 1GHz -3GHz
Detector: Av mode and PK mode
Modulation type: 802.11g

Full Spectrum



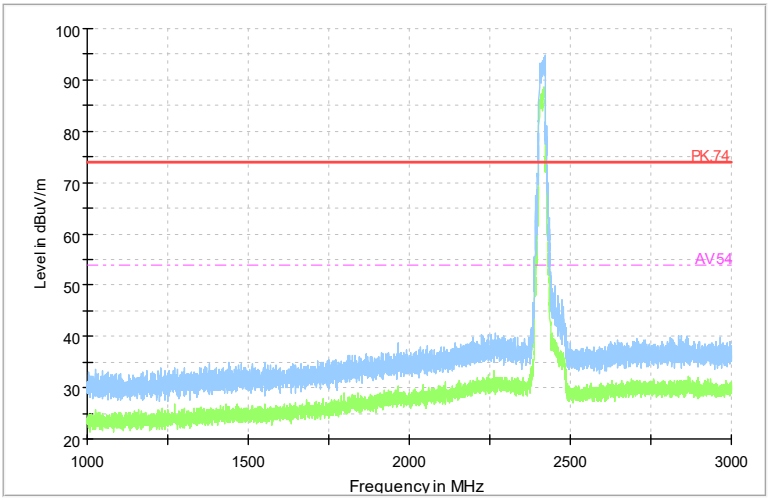
Frequency Range: 3GHz -18GHz
Detector: Av mode and PK mode
Modulation type: 802.11g

Full Spectrum



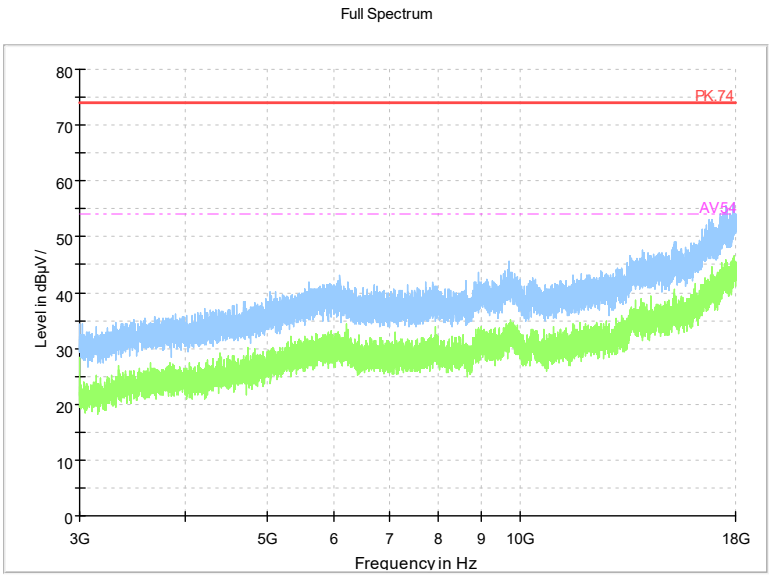
Frequency Range: 18GHz -26GHz
Detector: Av mode and PK mode
Modulation type: 802.11g

Full Spectrum

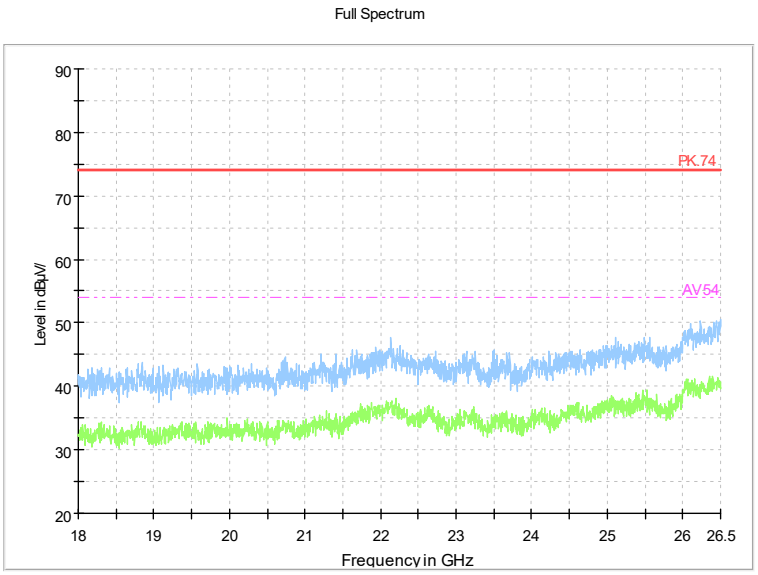


Comment

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



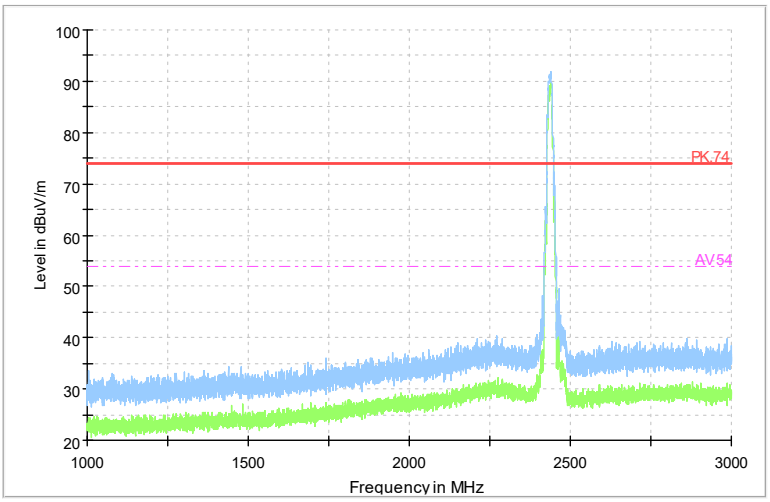
Frequency Range: 3GHz -18GHz
Detector: Av mode and PK mode
Modulation type: 802.11n(HT20)



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

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

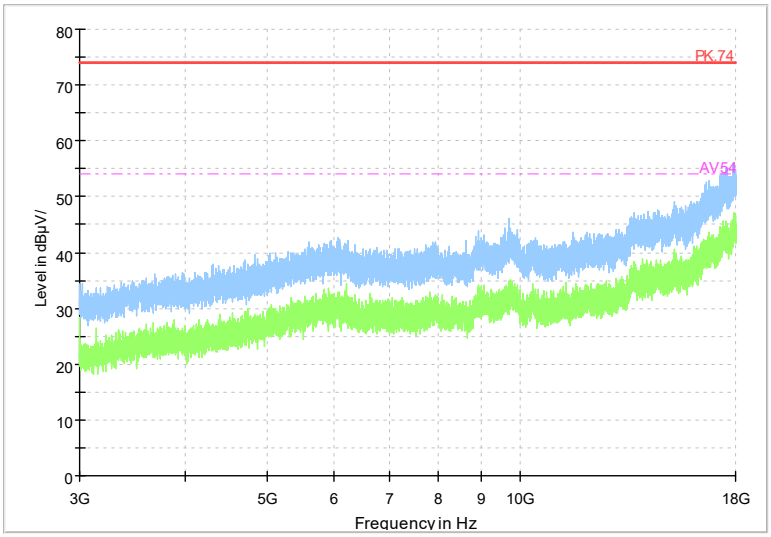
Full Spectrum



Comment

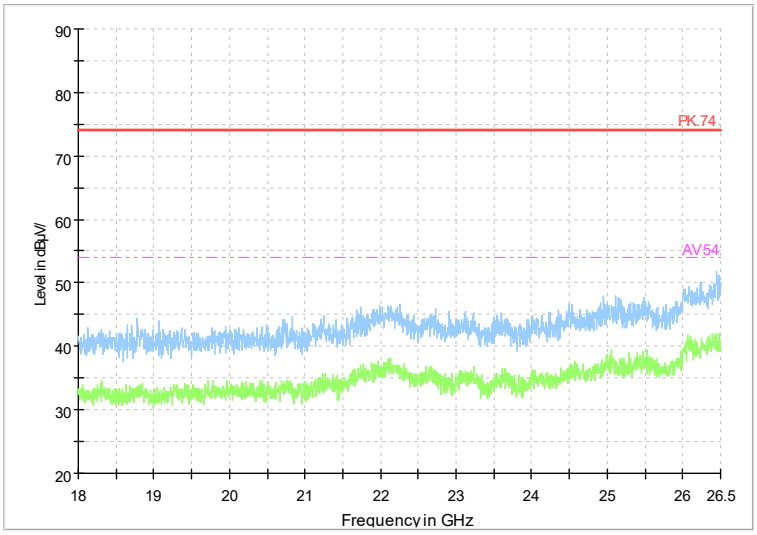
Frequency Range: 1GHz -3GHz
Detector: Av mode and PK mode
Modulation type: 802.11b

Full Spectrum



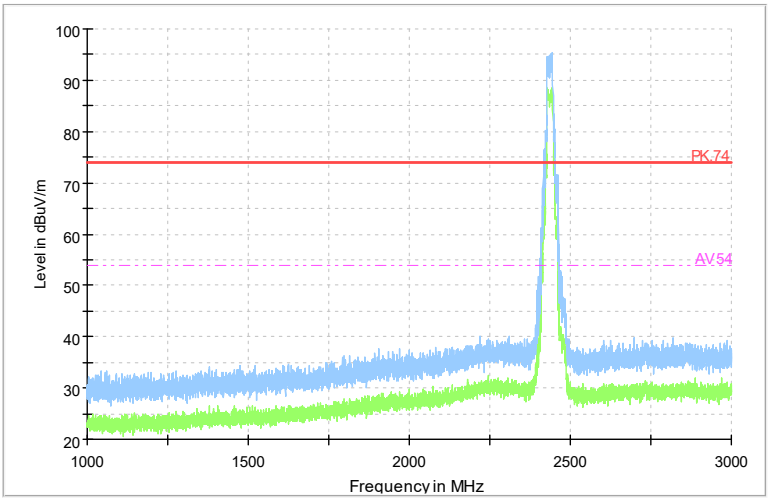
Frequency Range: 3GHz -18GHz
Detector: Av mode and PK mode
Modulation type: 802.11b

Full Spectrum



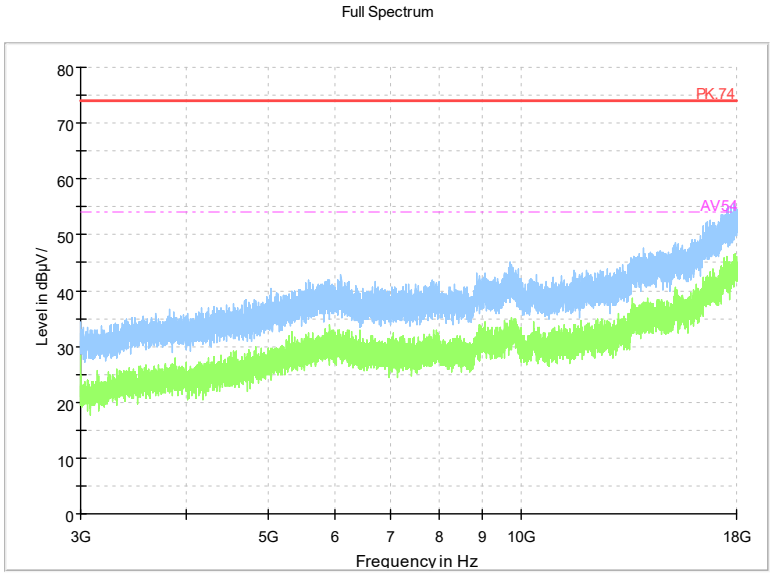
Frequency Range: 18GHz -26GHz
Detector: Av mode and PK mode
Modulation type: 802.11b

Full Spectrum

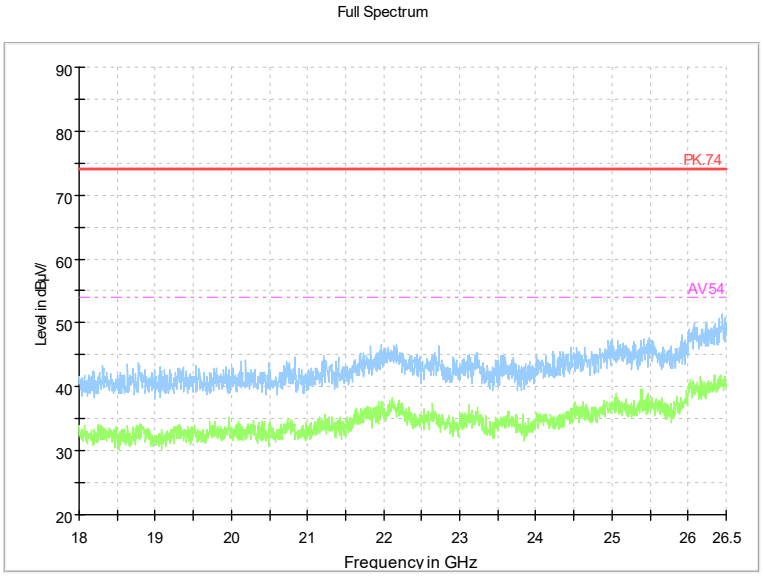


Comment

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

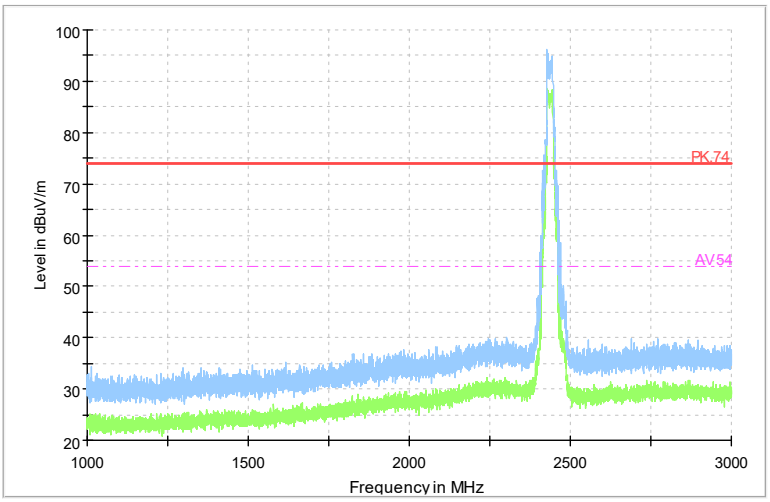


Frequency Range: 3GHz -18GHz
Detector: Av mode and PK mode
Modulation type: 802.11g



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

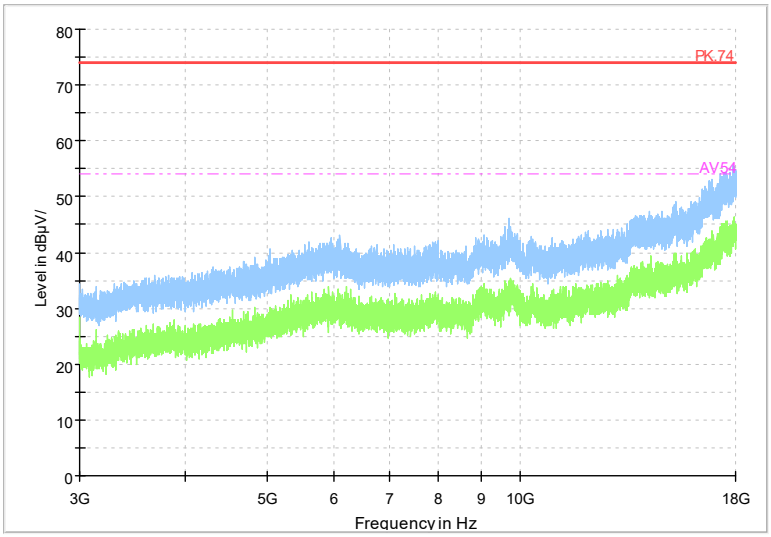
Full Spectrum



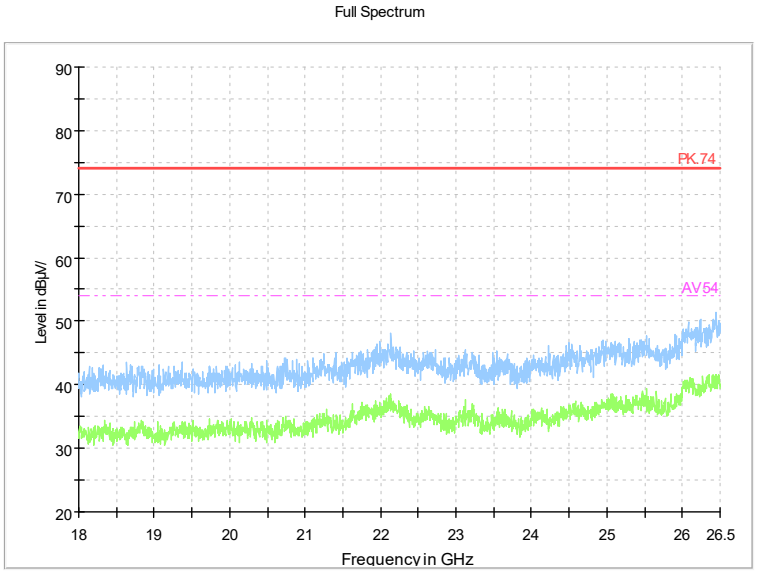
Comment

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

Full Spectrum

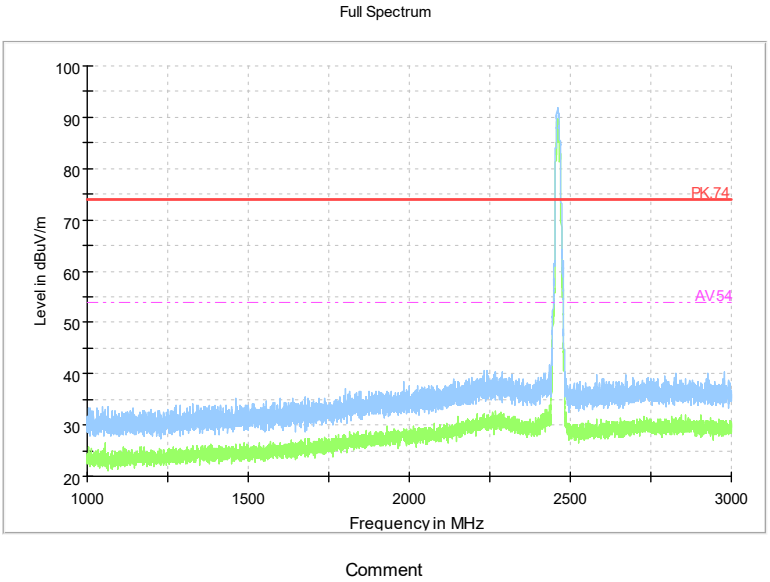


Frequency Range: 3GHz -18GHz
Detector: Av mode and PK mode
Modulation type: 802.11n(HT20)



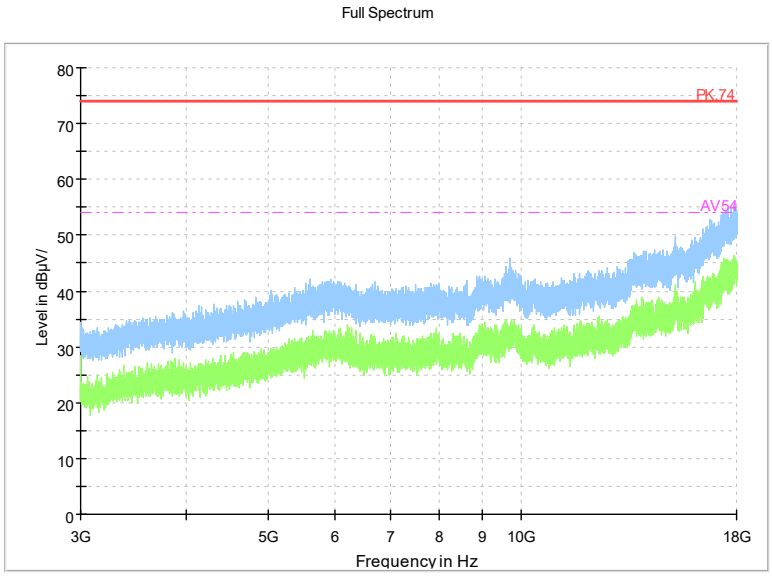
Frequency Range: 18GHz -26GHz
Detector: Av mode and PK mode
Modulation type: 802.11n(HT20)

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

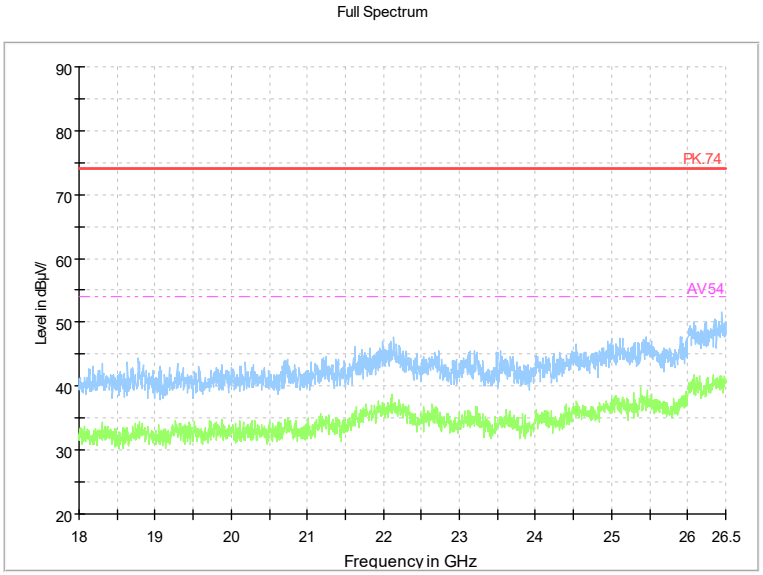


Frequency Range: 1GHz -3GHz

Detector: Av mode and PK mode
Modulation type: 802.11b

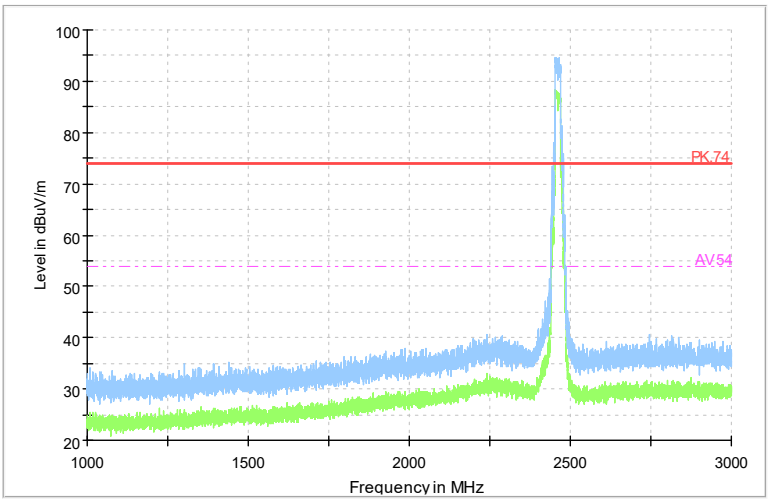


Frequency Range: 3GHz -18GHz
Detector: Av mode and PK mode
Modulation type: 802.11b



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

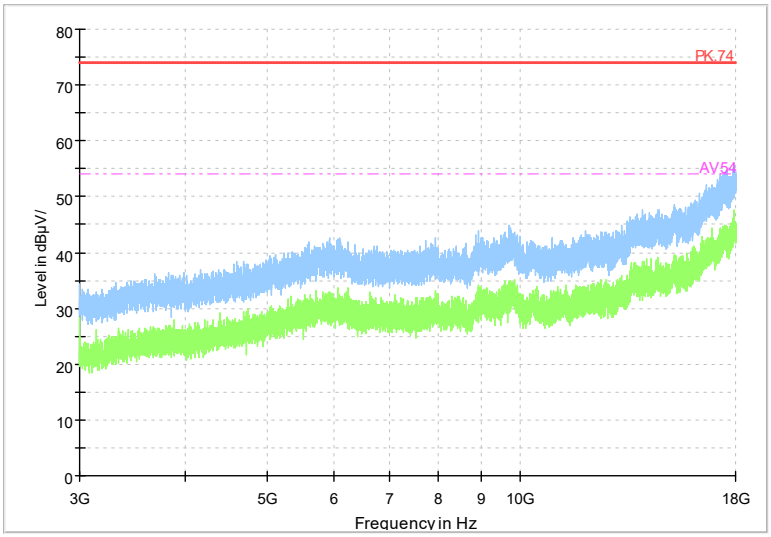
Full Spectrum



Comment

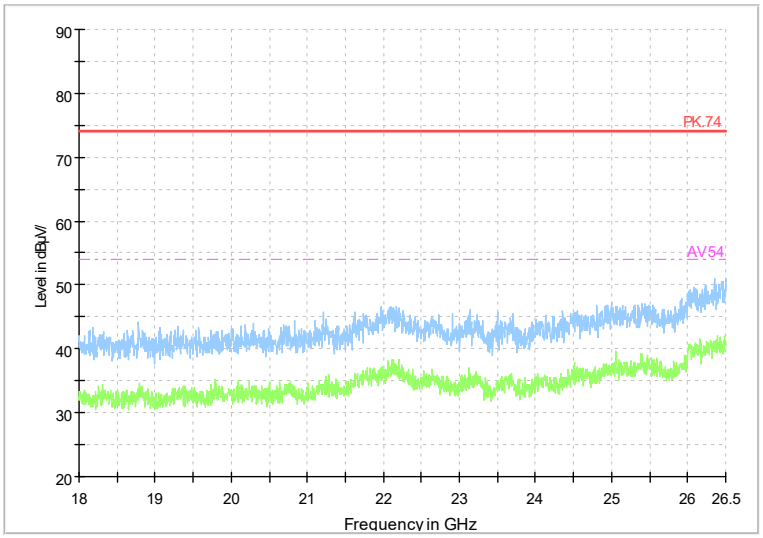
Frequency Range: 1GHz -3GHz
Detector: Av mode and PK mode
Modulation type: 802.11g

Full Spectrum



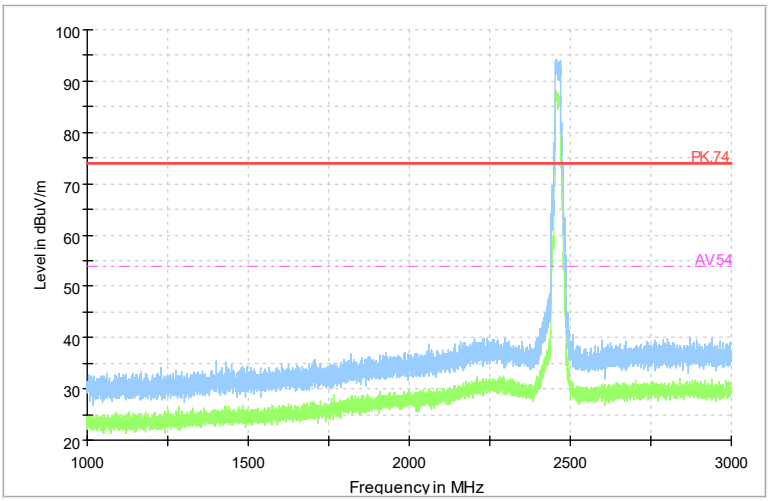
Frequency Range: 3GHz -18GHz
Detector: Av mode and PK mode
Modulation type: 802.11g

Full Spectrum



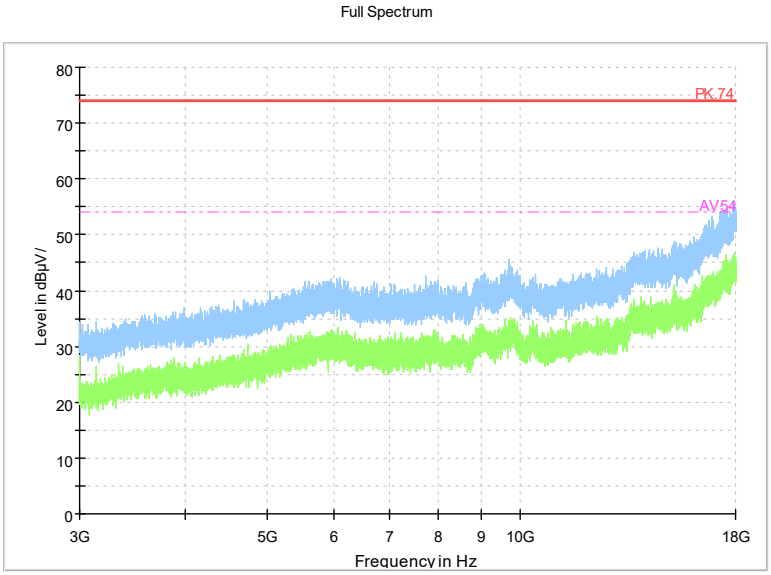
Frequency Range: 18GHz -26GHz
Detector: Av mode and PK mode
Modulation type: 802.11g

Full Spectrum

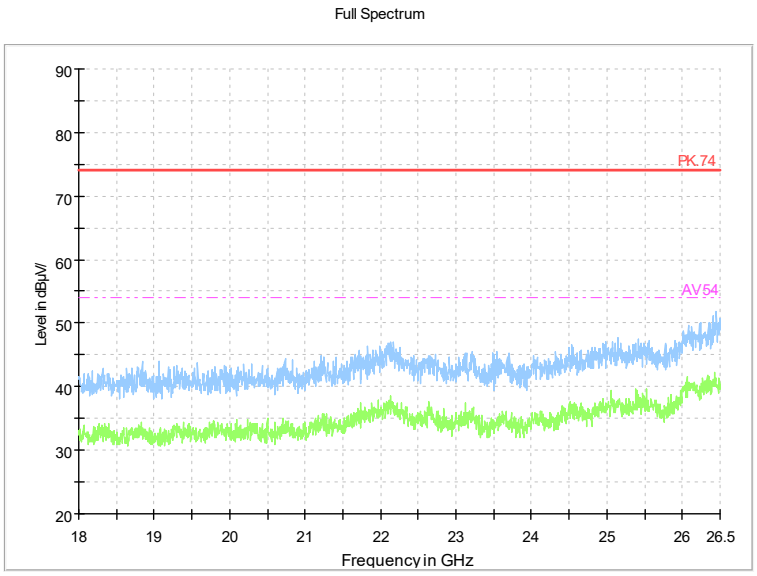


Comment

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



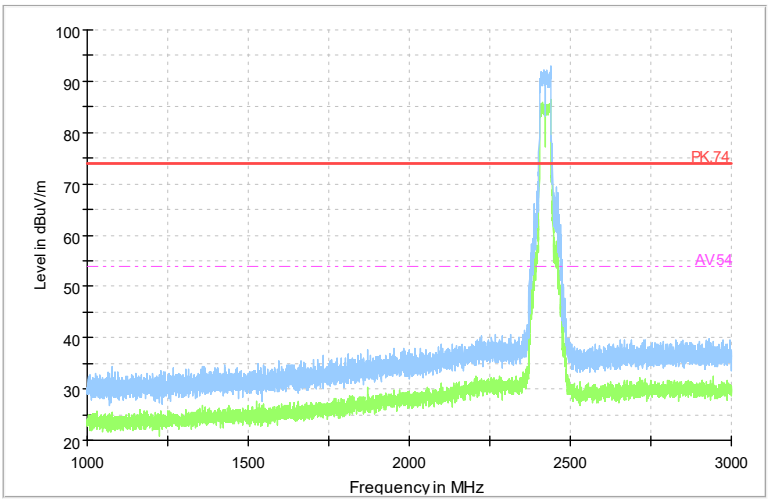
Frequency Range: 3GHz -18GHz
Detector: Av mode and PK mode
Modulation type: 802.11n(HT20)



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

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

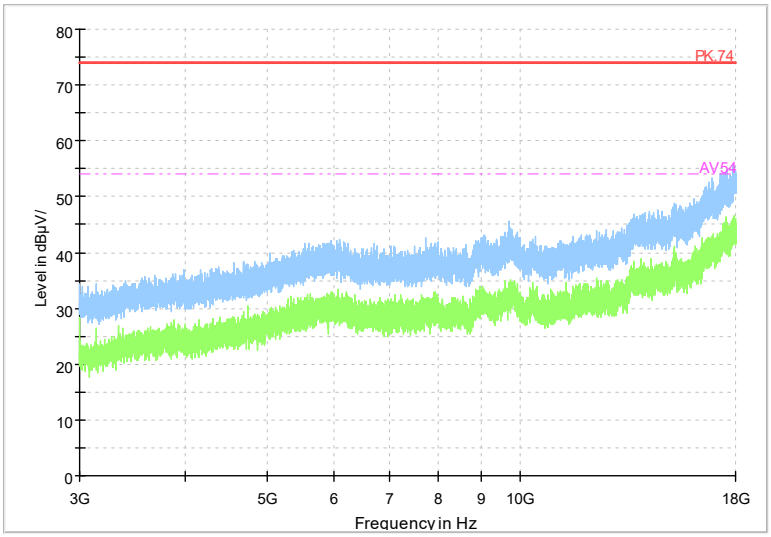
Full Spectrum



Comment

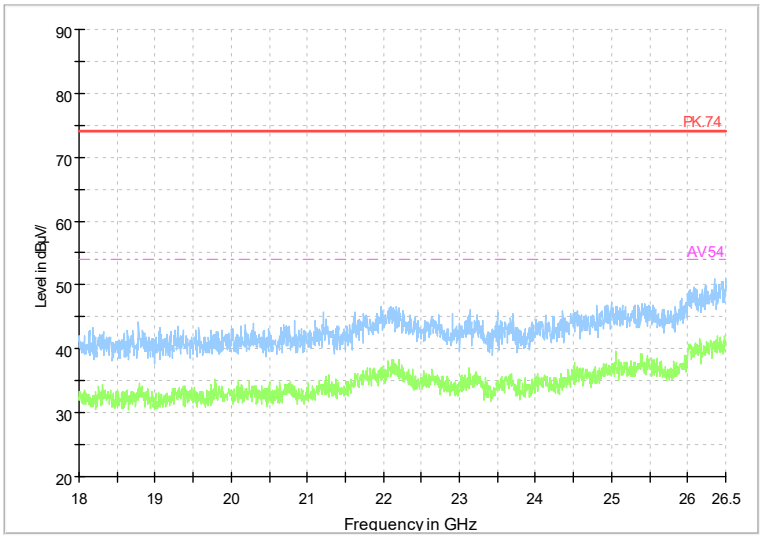
Frequency Range: 1GHz -3GHz
Detector: Av mode and PK mode
Modulation type: 802.11n(HT40)

Full Spectrum



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

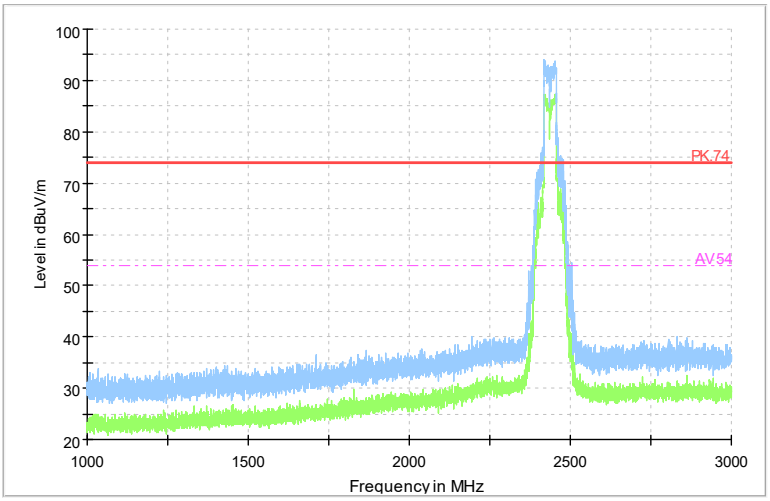
Full Spectrum



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

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

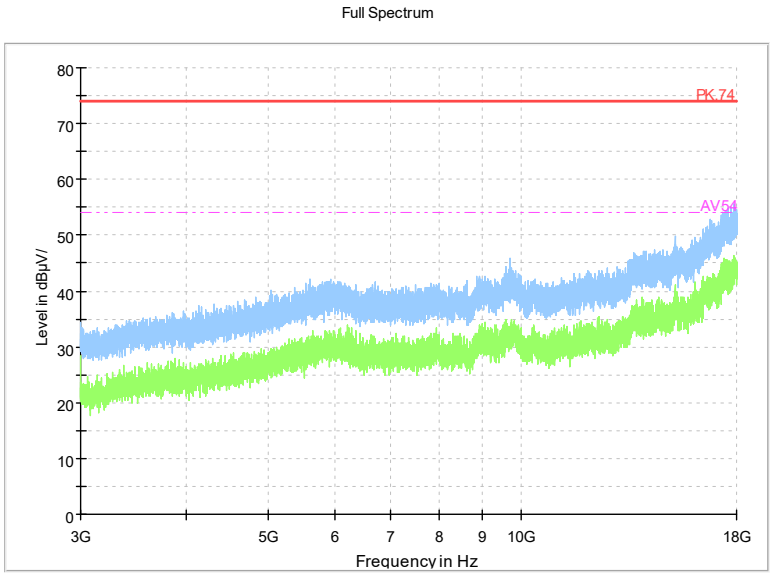
Full Spectrum



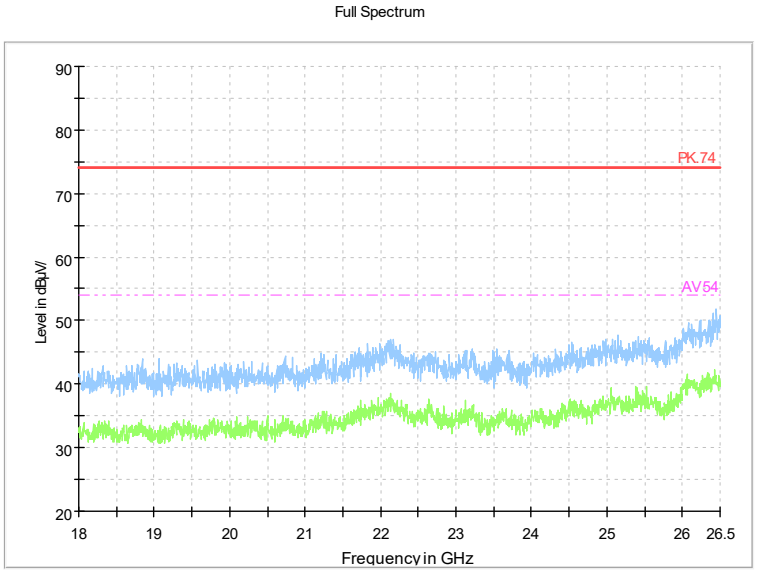
Comment

Frequency Range: 1GHz -3GHz

Detector: Av mode and PK mode
Modulation type: 802.11n(HT40)



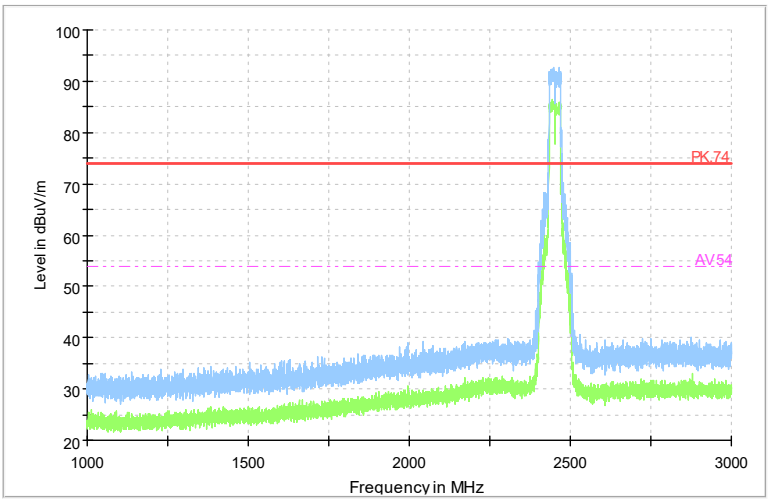
Frequency Range: 3GHz -18GHz
Detector: Av mode and PK mode
Modulation type: 802.11n(HT40)



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

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

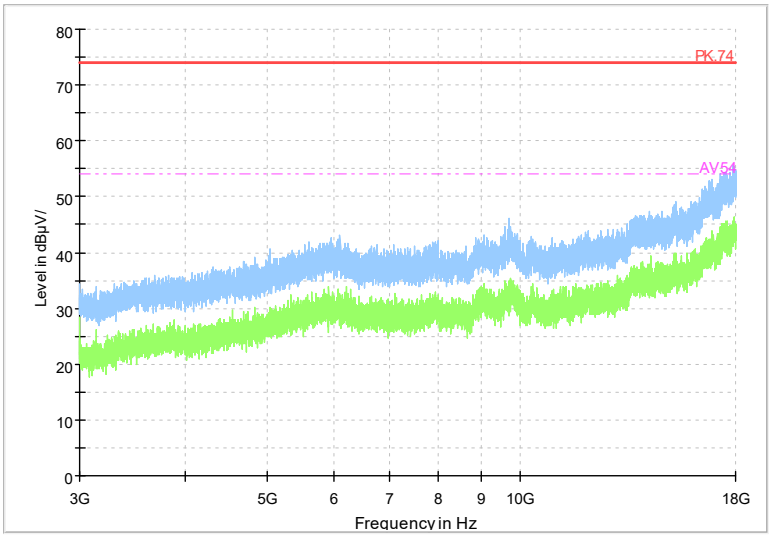
Full Spectrum



Comment

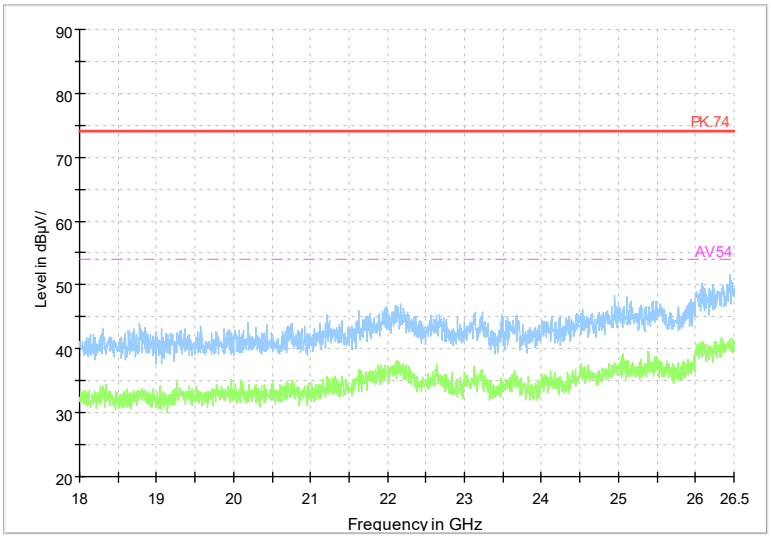
Frequency Range: 1GHz -3GHz
Detector: Av mode and PK mode
Modulation type: 802.11n(HT40)

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)

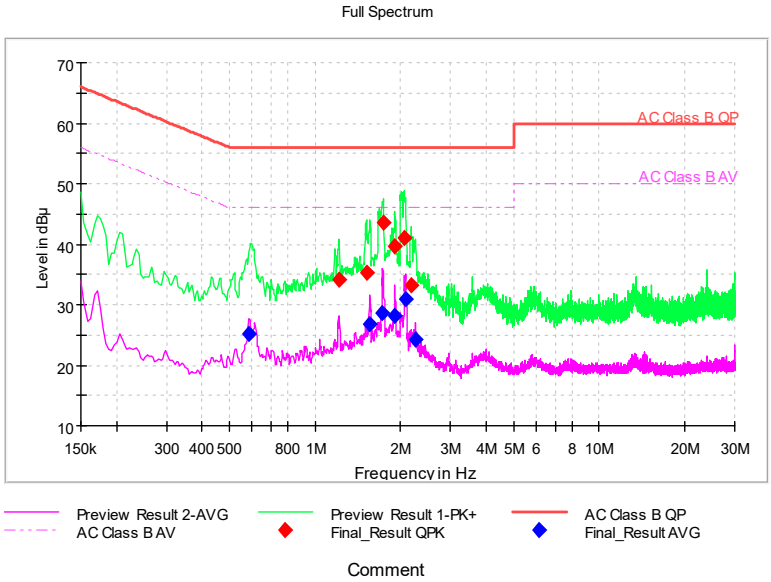
AC Power line Conducted Emission

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: (25.07dBμV) = (-4.73BμV) + (29.8 dB), the corresponding frequency is0.584957MHz.



L+N Line

MEASUREMENT RESULT:

Frequency (MHz)	QuasiPeak (dBμV)	Average (dBμV)	Limit (dBμV)	Margin (dB)	Line	Corr. (dB)	PmeaQuasiPeak (dBμV)	Pmea Average (dBμV)
0.584957	---	25.07	46.00	20.93	L1	29.8	---	-4.73
1.216072	34.12	---	56.00	21.88	L1	29.9	4.22	---
1.514572	35.24	---	56.00	20.76	L1	29.9	5.34	---
1.561479	---	26.76	46.00	19.24	L1	29.9	---	-3.14
1.732050	---	28.51	46.00	17.49	L1	29.9	---	-1.39
1.740579	43.66	---	56.00	12.34	L1	29.9	13.76	---
1.906886	---	28.05	46.00	17.95	L1	29.9	---	-1.85
1.911150	39.75	---	56.00	16.25	L1	29.9	9.85	---
2.051872	40.96	---	56.00	15.04	L1	29.9	11.06	---
2.081722	---	30.87	46.00	15.13	N	29.9	---	0.97
2.184064	33.26	---	56.00	22.74	L1	29.9	3.36	---
2.256557	---	24.25	46.00	21.75	N	29.9	---	-5.65

---End of Test Report---