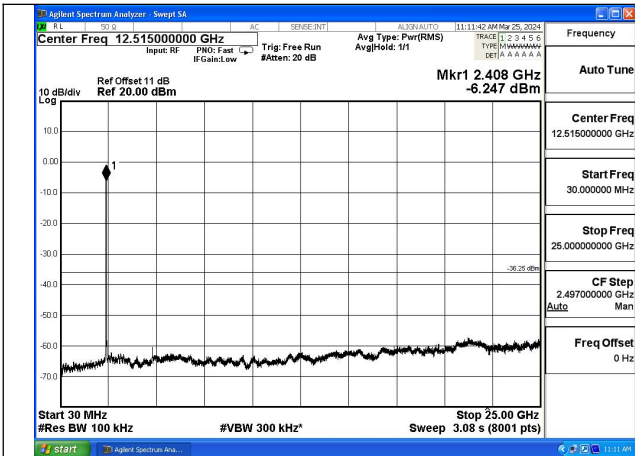
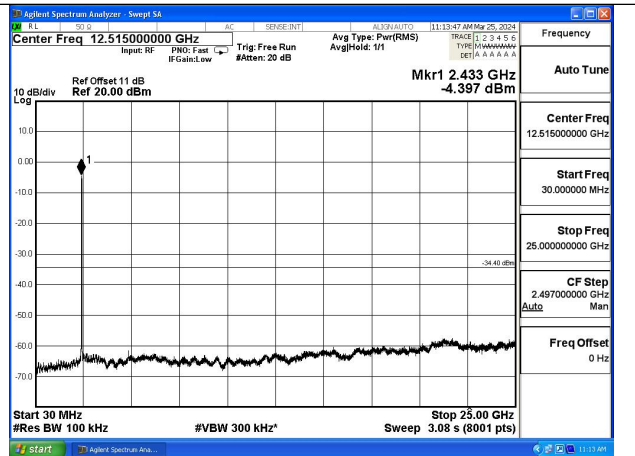


Mode:802.11g Frequency:2462MHz Ant:Chain0

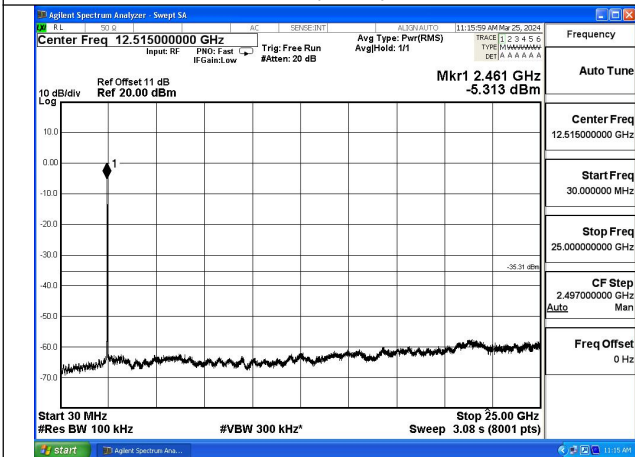
Test Mode: 802.11n HT20



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



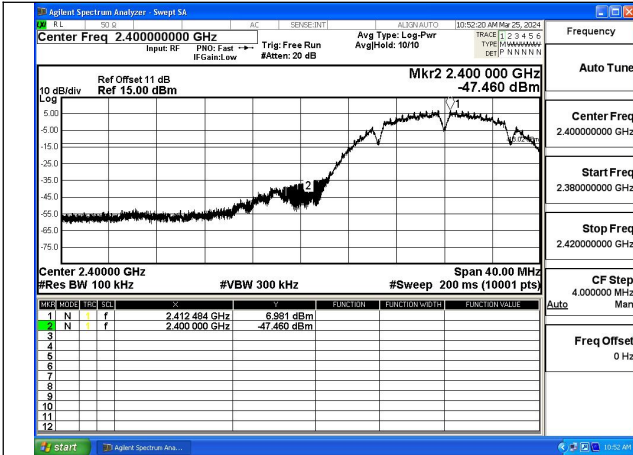
Mode:802.11n HT20 Frequency:2437MHz Ant:Chain0



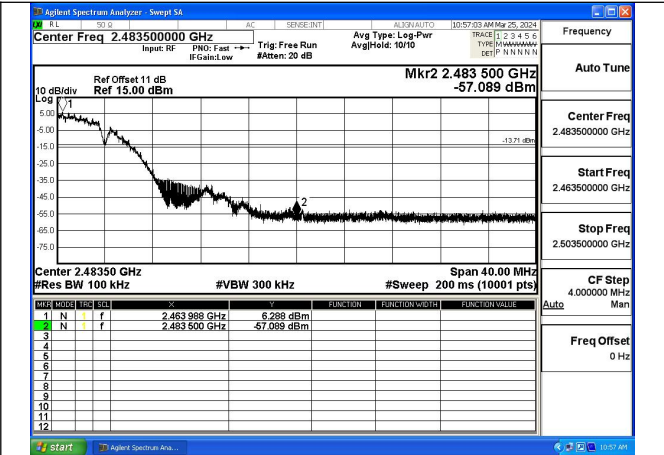
Mode:802.11n HT20 Frequency:2462MHz Ant:Chain0

# Band edge measurement

Test Mode: 802.11b

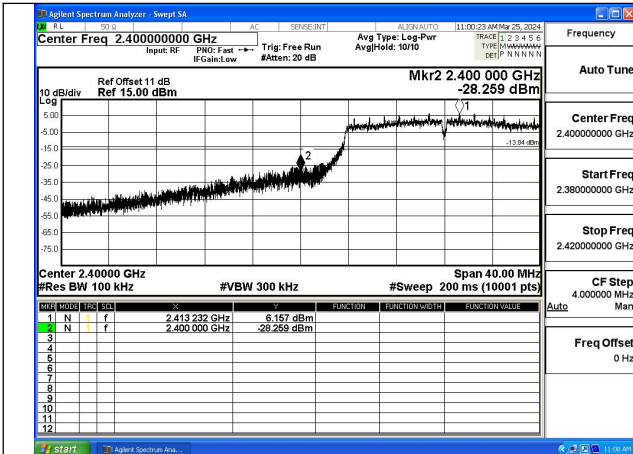


Mode:802.11b Frequency:2412MHz Ant:Chain0

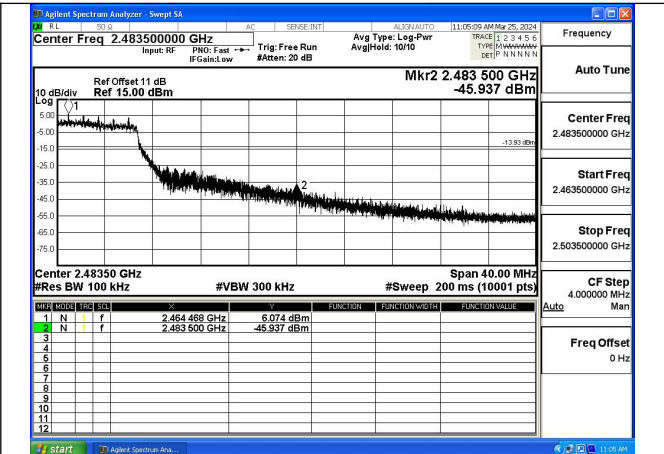


Mode:802.11b Frequency:2462MHz Ant:Chain0

Test Mode: 802.11g

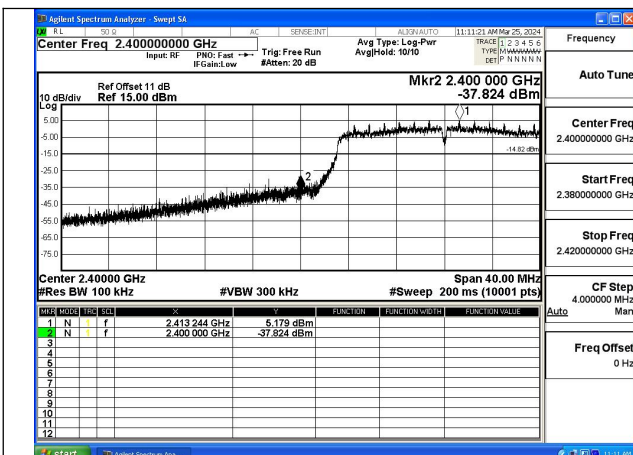


Mode:802.11g Frequency:2412MHz Ant:Chain0

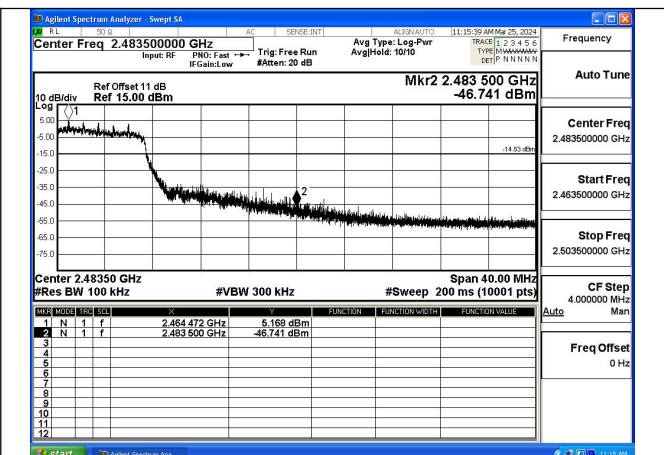


Mode:802.11g Frequency:2462MHz Ant:Chain0

Test Mode: 802.11n HT20



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



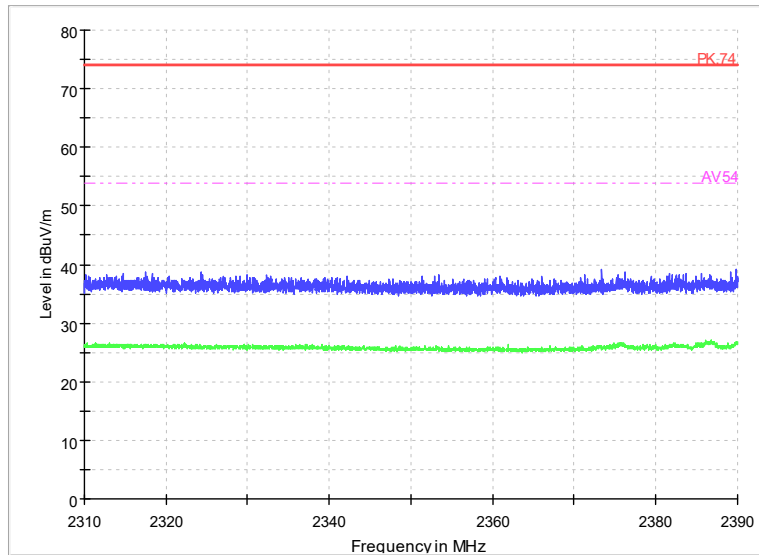
Mode:802.11n HT20 Frequency:2462MHz Ant:Chain0

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

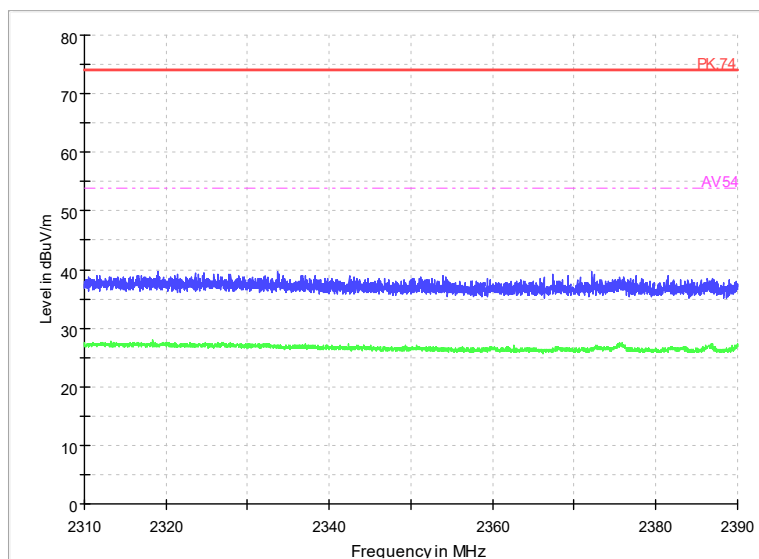
Note: The worst channel results are reflected in the report.

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**

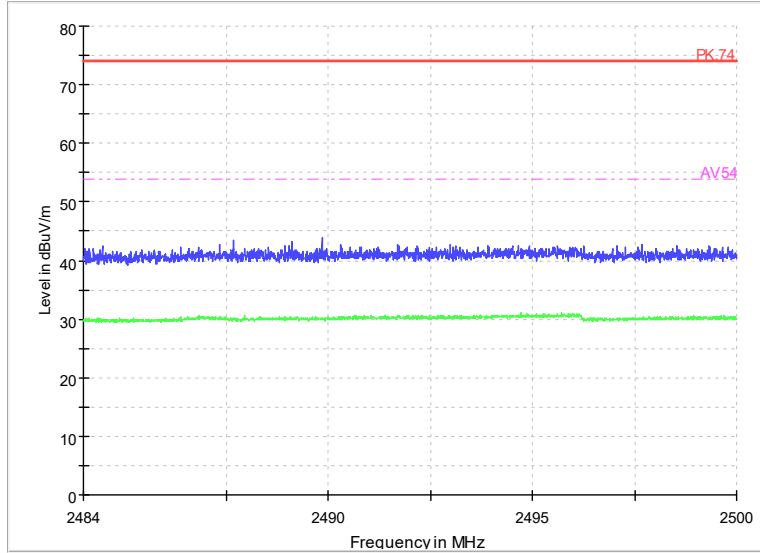


Radiated Emission Band Edge  
Channel No.:1  
Test Mode: 802.11b  
Polarization: V

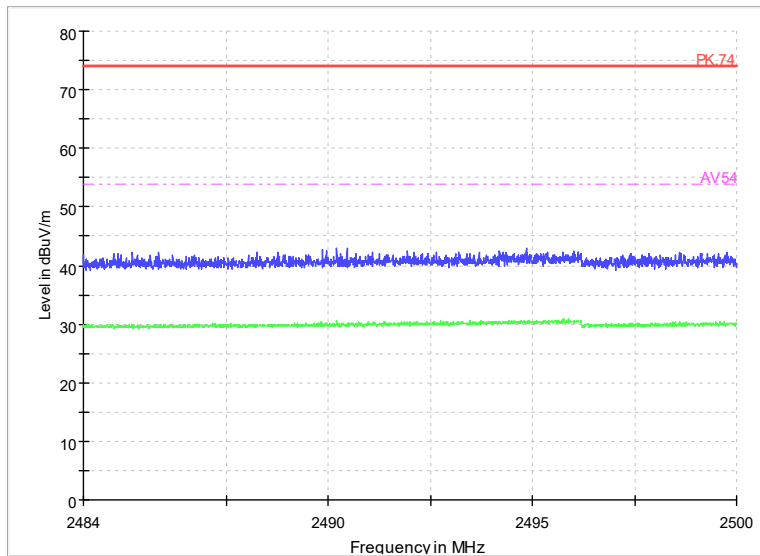


Radiated Emission Band Edge

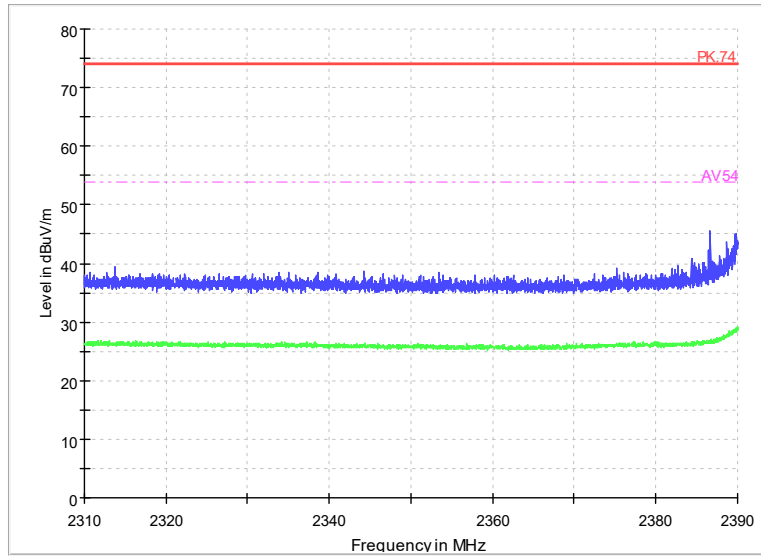
Channel No.:1  
Test Mode: 802.11b  
Polarization: H



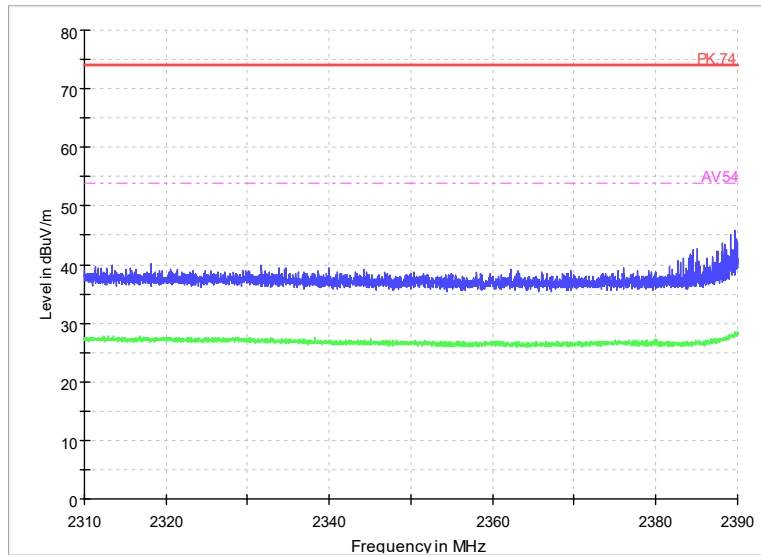
Radiated Emission Band Edge  
Channel No.:11  
Test Mode: 802.11b  
Polarization: V



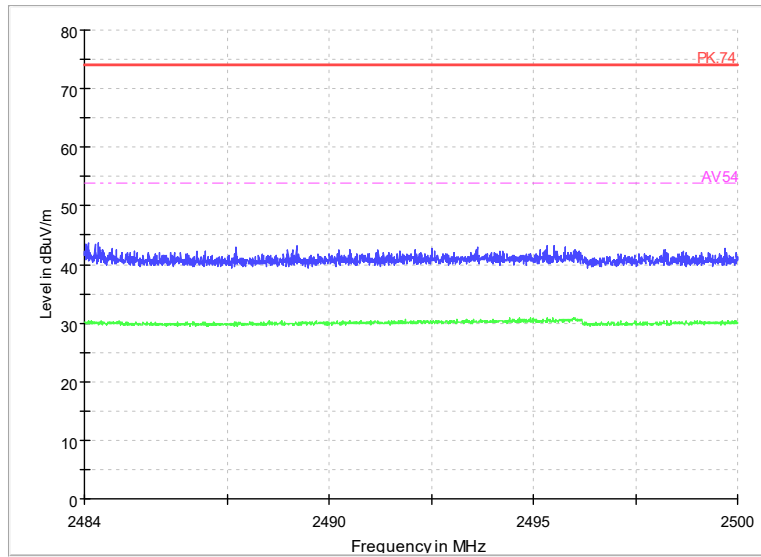
Radiated Emission Band Edge  
Channel No.:11  
Test Mode: 802.11b  
Polarization: H



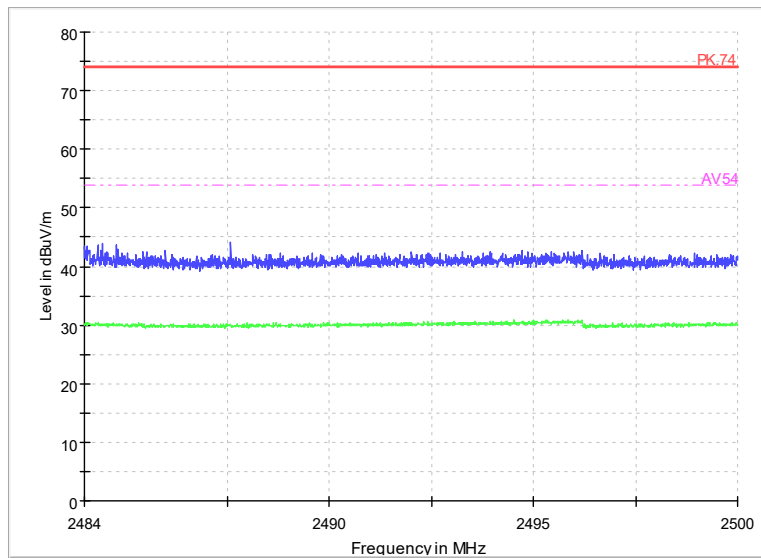
Radiated Emission Band Edge  
 Channel No.:1  
 Test Mode: 802.11g  
 Polarization: V



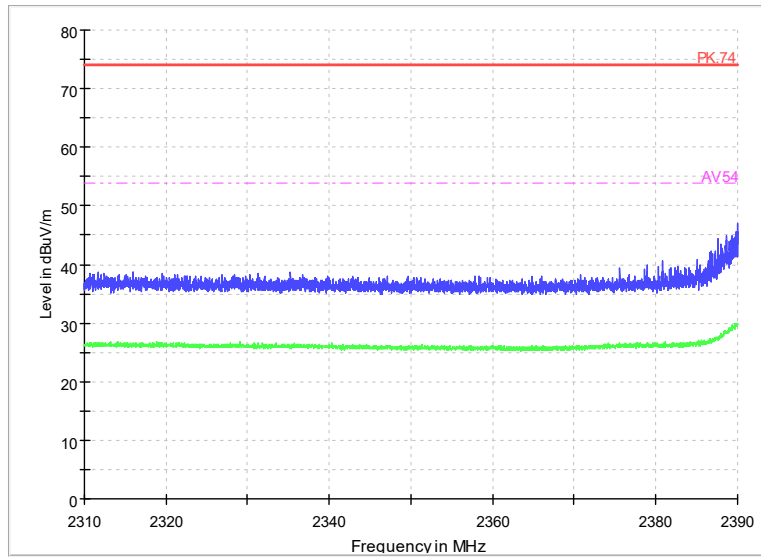
Radiated Emission Band Edge  
 Channel No.:1  
 Test Mode: 802.11g  
 Polarization: H



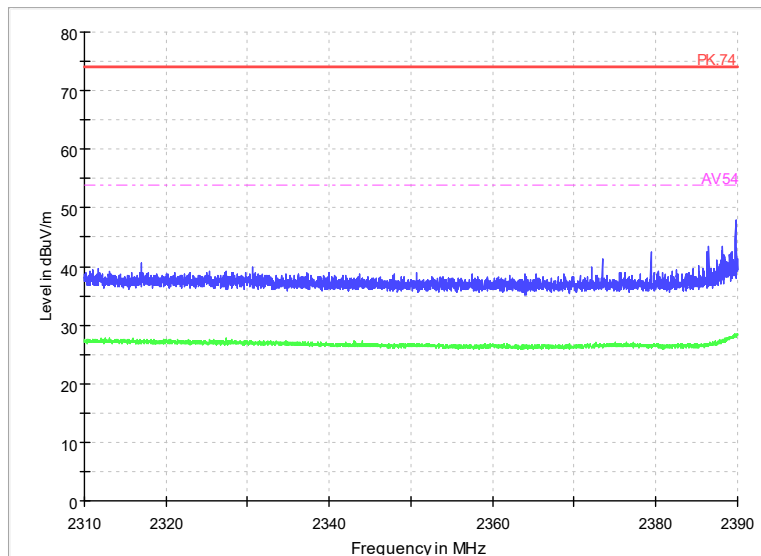
Radiated Emission Band Edge  
Channel No.:11  
Test Mode: 802.11g  
Polarization: V



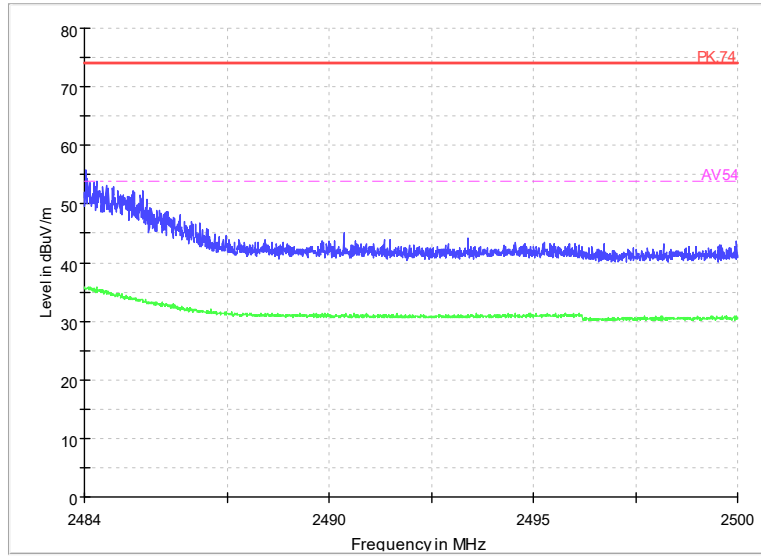
Radiated Emission Band Edge  
Channel No.:11  
Test Mode: 802.11g  
Polarization: H



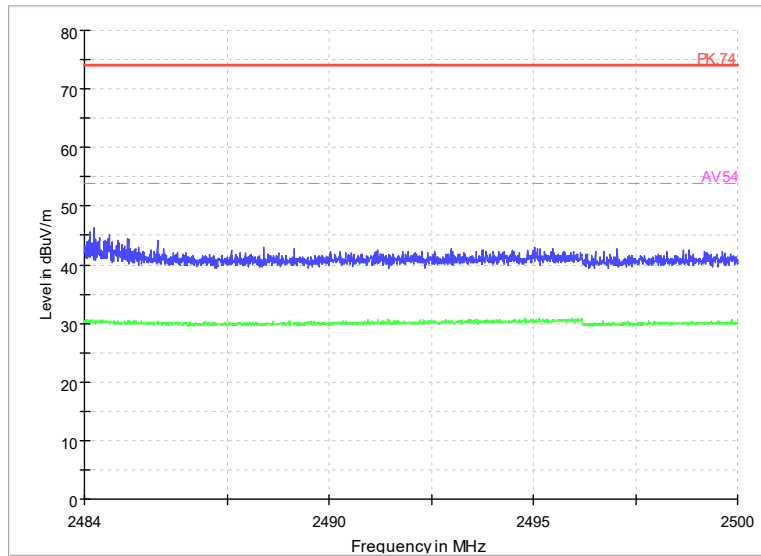
Radiated Emission Band Edge  
Channel No.:1  
Test Mode: 802.11n(HT20)  
Polarization: V



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



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



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



### 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:  $(5.53 \text{ dB}\mu\text{V/m}) = (24.63 \text{ dB}\mu\text{V}) + (-19.1 \text{ dB/m})$ , 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) |
|----------------|----------------|-----------|---------------|----------|----------------|-------------|
| 40.185         | 5.53           | -19.1     | 24.63         | Vertical | 40             | 34.47       |
| 58.0815        | 5.59           | -19.7     | 25.29         | Vertical | 40             | 34.41       |
| 124.866        | 3.11           | -21.1     | 24.21         | Vertical | 43.5           | 40.39       |
| 213.524        | 4.07           | -19.5     | 23.57         | Vertical | 43.5           | 39.43       |
| 552.8785       | 11.18          | -11.1     | 22.28         | Vertical | 46             | 34.82       |
| 931.4695       | 16.26          | -5.2      | 21.46         | Vertical | 46             | 29.74       |

For 802.11g Channel No.:1

| Frequency(MHz) | Result(dBuV/m) | ARpl (dB) | Pmea (dBuV/m) | Polarity | Limit (dBuV/m) | Margin (dB) |
|----------------|----------------|-----------|---------------|----------|----------------|-------------|
| 33.007         | 4.84           | -20.3     | 25.14         | Vertical | 40             | 35.16       |
| 58.712         | 5.24           | -19.7     | 24.94         | Vertical | 40             | 34.76       |
| 97.9           | 5.13           | -19.5     | 24.63         | Vertical | 43.5           | 38.37       |
| 309.457        | 6.61           | -16.8     | 23.41         | Vertical | 46             | 39.39       |
| 545.943        | 11.33          | -11.2     | 22.53         | Vertical | 46             | 34.67       |
| 931.9545       | 16.24          | -5.2      | 21.44         | Vertical | 46             | 29.76       |

For 802.11n(HT20) Channel No.:1

| Frequency(MHz) | Result(dBuV/m) | ARpl (dB) | Pmea (dBuV/m) | Polarity | Limit (dBuV/m) | Margin (dB) |
|----------------|----------------|-----------|---------------|----------|----------------|-------------|
| 52.116         | 5.95           | -19.1     | 25.05         | Vertical | 40             | 34.05       |
| 86.939         | 3.4            | -20.6     | 24            | Vertical | 40             | 36.6        |
| 110.7525       | 5.01           | -19.8     | 24.81         | Vertical | 43.5           | 38.49       |
| 309.554        | 6.56           | -16.8     | 23.36         | Vertical | 46             | 39.44       |
| 513.3025       | 10.84          | -11.9     | 22.74         | Vertical | 46             | 35.16       |
| 933.4095       | 16.34          | -5.2      | 21.54         | Vertical | 46             | 29.66       |

For 802.11b Channel No.:6

| Frequency(MHz) | Result(dBuV/m) | ARpl (dB) | Pmea (dBuV/m) | Polarity | Limit (dBuV/m) | Margin (dB) |
|----------------|----------------|-----------|---------------|----------|----------------|-------------|
| 45.1805        | 6.2            | -18.9     | 25.1          | Vertical | 40             | 33.8        |
| 58.0815        | 5.51           | -19.7     | 25.21         | Vertical | 40             | 34.49       |

|          |       |       |       |          |      |       |
|----------|-------|-------|-------|----------|------|-------|
| 98.1425  | 5.12  | -19.5 | 24.62 | Vertical | 43.5 | 38.38 |
| 206.152  | 3.94  | -19.7 | 23.64 | Vertical | 43.5 | 39.56 |
| 540.705  | 11.25 | -11.4 | 22.65 | Vertical | 46   | 34.75 |
| 917.9865 | 15.99 | -5.3  | 21.29 | Vertical | 46   | 30.01 |

For 802.11g Channel No.:6

| Frequency(MHz) | Result(dBuV/m) | ARpl (dB) | Pmea (dBuV/m) | Polarity | Limit (dBuV/m) | Margin (dB) |
|----------------|----------------|-----------|---------------|----------|----------------|-------------|
| 39.7485        | 5.68           | -19.2     | 24.88         | Vertical | 40             | 34.32       |
| 58.615         | 5.31           | -19.7     | 25.01         | Vertical | 40             | 34.69       |
| 115.2145       | 3.77           | -20.1     | 23.87         | Vertical | 43.5           | 39.73       |
| 288.9415       | 5.91           | -17.4     | 23.31         | Vertical | 46             | 40.09       |
| 543.4695       | 11.25          | -11.3     | 22.55         | Vertical | 46             | 34.75       |
| 907.0255       | 15.91          | -5.4      | 21.31         | Vertical | 46             | 30.09       |

For 802.11n(HT20) Channel No.:6

| Frequency(MHz) | Result(dBuV/m) | ARpl (dB) | Pmea (dBuV/m) | Polarity | Limit (dBuV/m) | Margin (dB) |
|----------------|----------------|-----------|---------------|----------|----------------|-------------|
| 50.952         | 5.87           | -19       | 24.87         | Vertical | 40             | 34.13       |
| 57.9845        | 5.45           | -19.7     | 25.15         | Vertical | 40             | 34.55       |
| 97.9485        | 5.21           | -19.5     | 24.71         | Vertical | 43.5           | 38.29       |
| 213.815        | 4.08           | -19.5     | 23.58         | Vertical | 43.5           | 39.42       |
| 545.555        | 11.3           | -11.2     | 22.5          | Vertical | 46             | 34.7        |
| 924.4855       | 16.06          | -5.3      | 21.36         | Vertical | 46             | 29.94       |

For 802.11b Channel No.:11

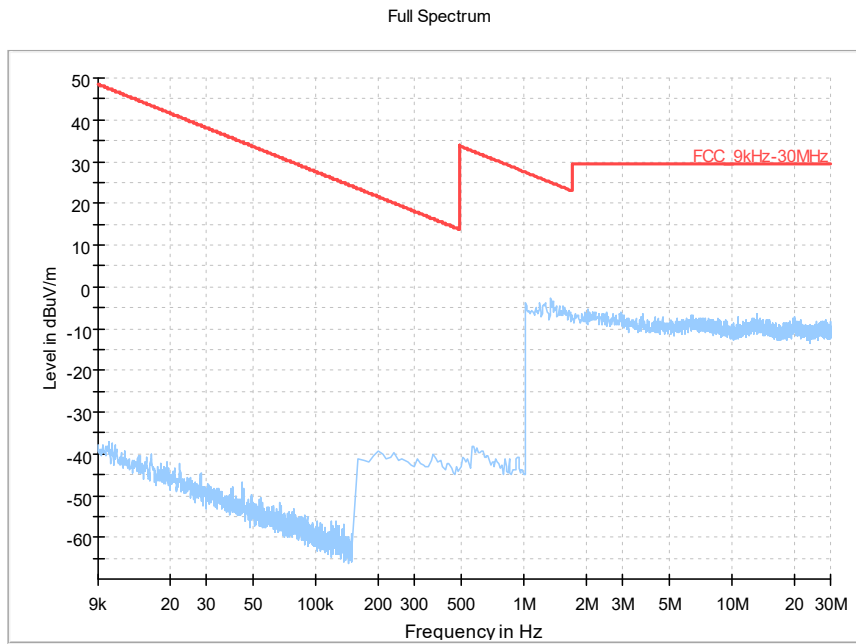
| Frequency(MHz) | Result(dBuV/m) | ARpl (dB) | Pmea (dBuV/m) | Polarity | Limit (dBuV/m) | Margin (dB) |
|----------------|----------------|-----------|---------------|----------|----------------|-------------|
| 45.5685        | 6.07           | -18.9     | 24.97         | Vertical | 40             | 33.93       |
| 86.7935        | 3.49           | -20.6     | 24.09         | Vertical | 40             | 36.51       |
| 109.831        | 4.63           | -19.7     | 24.33         | Vertical | 43.5           | 38.87       |
| 303.2005       | 6.42           | -17       | 23.42         | Vertical | 46             | 39.58       |
| 519.85         | 10.95          | -11.8     | 22.75         | Vertical | 46             | 35.05       |
| 932.682        | 16.18          | -5.2      | 21.38         | Vertical | 46             | 29.82       |

For 802.11g Channel No.:11

| Frequency(MHz) | Result(dBuV/m) | ARpl (dB) | Pmea (dBuV/m) | Polarity | Limit (dBuV/m) | Margin (dB) |
|----------------|----------------|-----------|---------------|----------|----------------|-------------|
| 40.3305        | 5.3            | -19.1     | 24.4          | Vertical | 40             | 34.7        |
| 57.16          | 5.14           | -19.6     | 24.74         | Vertical | 40             | 34.86       |
| 111.3345       | 4.79           | -19.8     | 24.59         | Vertical | 43.5           | 38.71       |
| 189.9045       | 3.15           | -20.5     | 23.65         | Vertical | 43.5           | 40.35       |
| 549.629        | 11.09          | -11.2     | 22.29         | Vertical | 46             | 34.91       |
| 926.5225       | 16.2           | -5.2      | 21.4          | Vertical | 46             | 29.8        |

For 802.11n(HT20) Channel No.:11

| Frequency(MHz) | Result(dBuV/m) | ARpl (dB) | Pmea (dBuV/m) | Polarity | Limit (dBuV/m) | Margin (dB) |
|----------------|----------------|-----------|---------------|----------|----------------|-------------|
| 51.3885        | 6.11           | -19       | 25.11         | Vertical | 40             | 33.89       |
| 55.511         | 3.67           | -19.4     | 23.07         | Vertical | 40             | 36.33       |
| 119.337        | 3.45           | -20.4     | 23.85         | Vertical | 43.5           | 40.05       |
| 282.103        | 5.75           | -17.6     | 23.35         | Vertical | 46             | 40.25       |
| 552.0055       | 11.27          | -11.1     | 22.37         | Vertical | 46             | 34.73       |
| 927.8805       | 16.31          | -5.2      | 21.51         | Vertical | 46             | 29.69       |

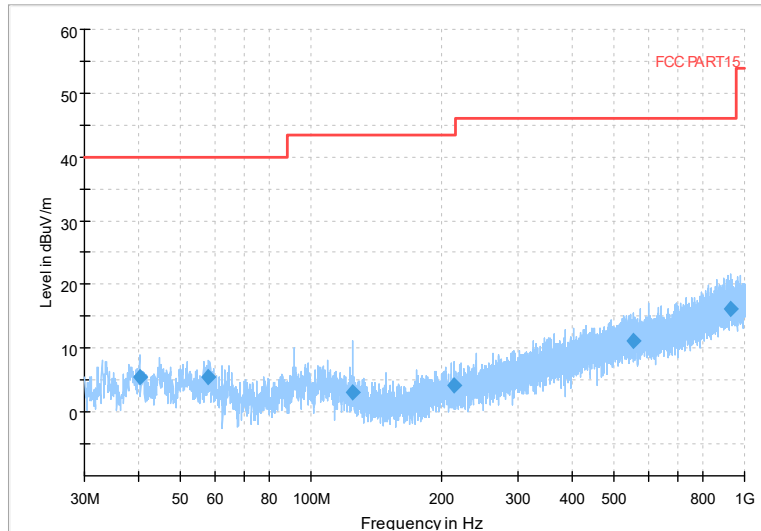


Frequency Range: 9kHz -30MHz  
Detector: QP mode

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.

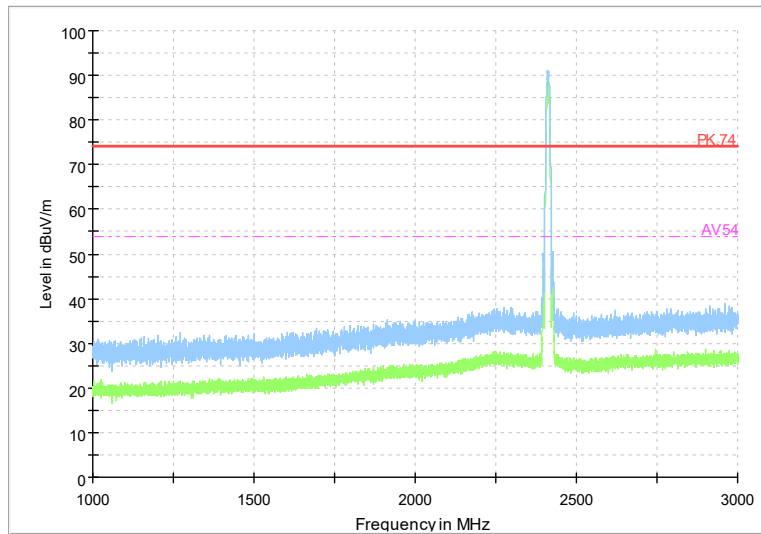
Carrier frequency (MHz): 2412  
Channel No.:1

Full Spectrum



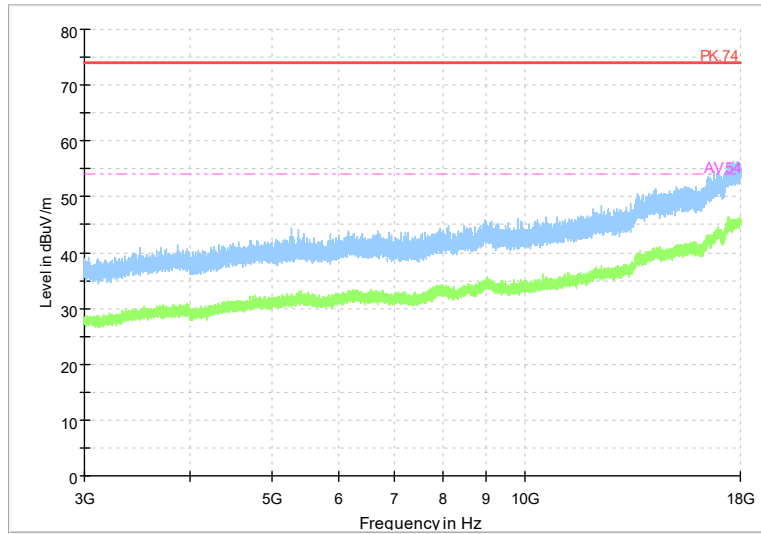
Frequency Range 30MHz -1GHz  
 Detector: QP mode  
 Modulation type: 802.11b

Full Spectrum



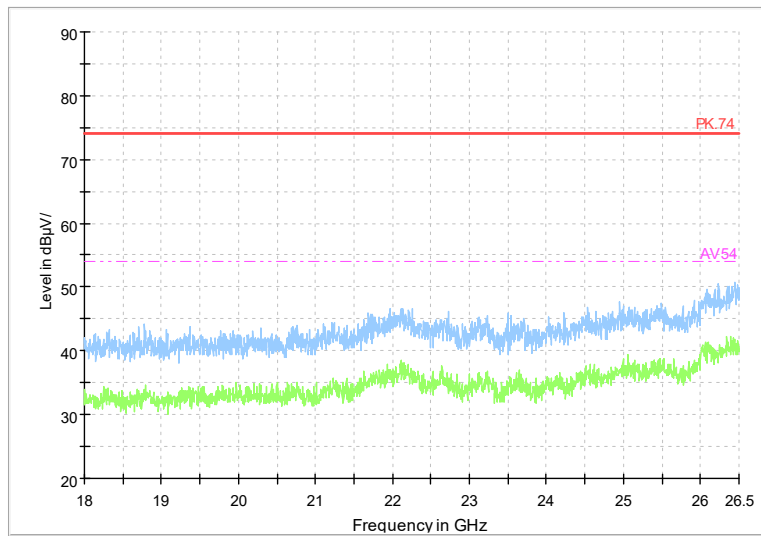
Frequency Range: 1GHz -3GHz  
 Detector: Av mode and PK mode  
 Modulation type: 802.11b

Full Spectrum



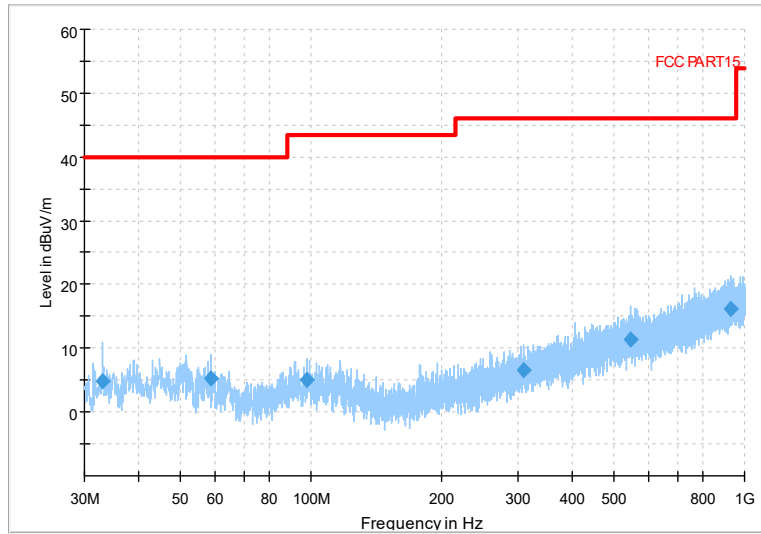
Frequency Range: 3GHz -18GHz  
Detector: Av mode and PK mode  
Modulation type: 802.11b

Full Spectrum



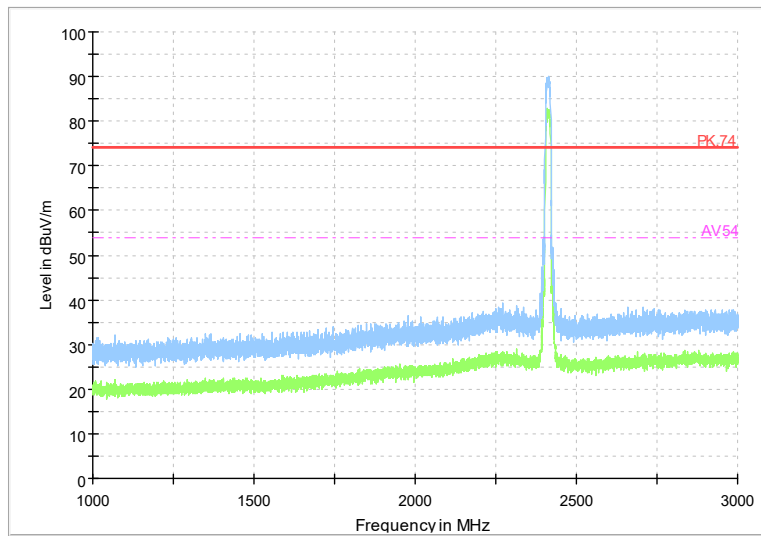
Frequency Range: 18GHz -26GHz  
Detector: Av mode and PK mode  
Modulation type: 802.11b

Full Spectrum



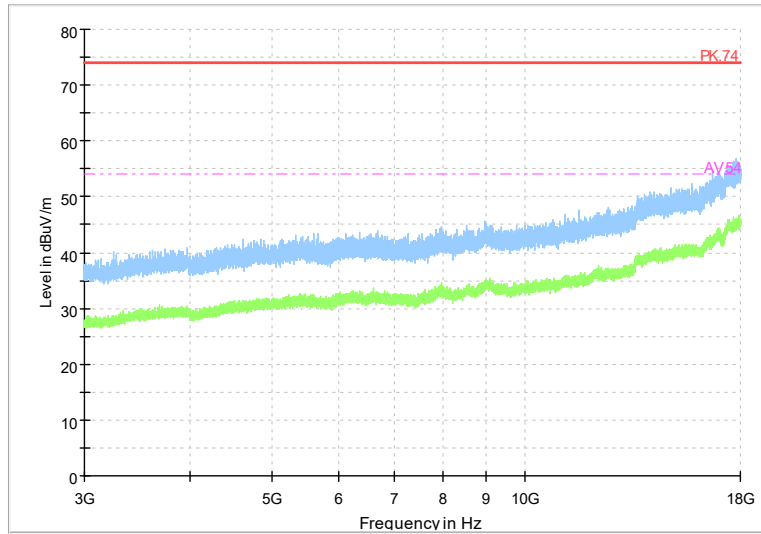
Frequency Range: 30MHz -1GHz  
 Detector: QP mode  
 Modulation type: 802.11g

Full Spectrum



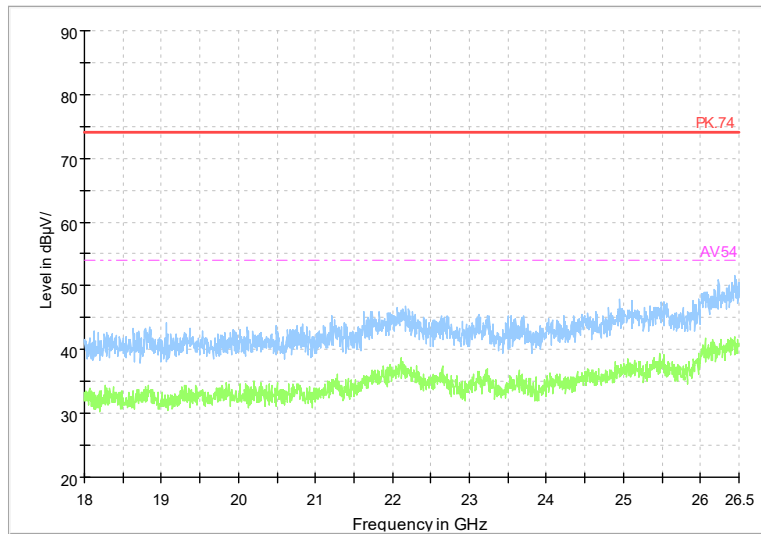
Frequency Range: 1GHz -3GHz  
 Detector: Av mode and PK mode  
 Modulation type: 802.11g

Full Spectrum



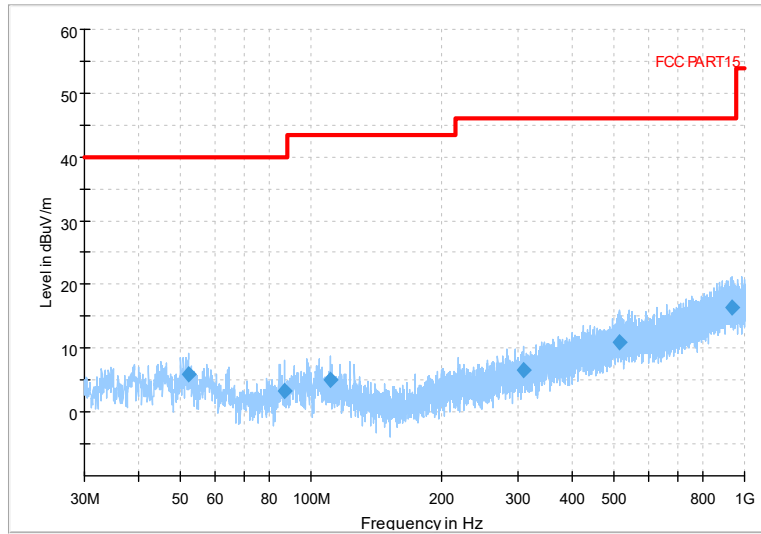
Frequency Range: 3GHz -18GHz  
 Detector: Av mode and PK mode  
 Modulation type: 802.11g

Full Spectrum



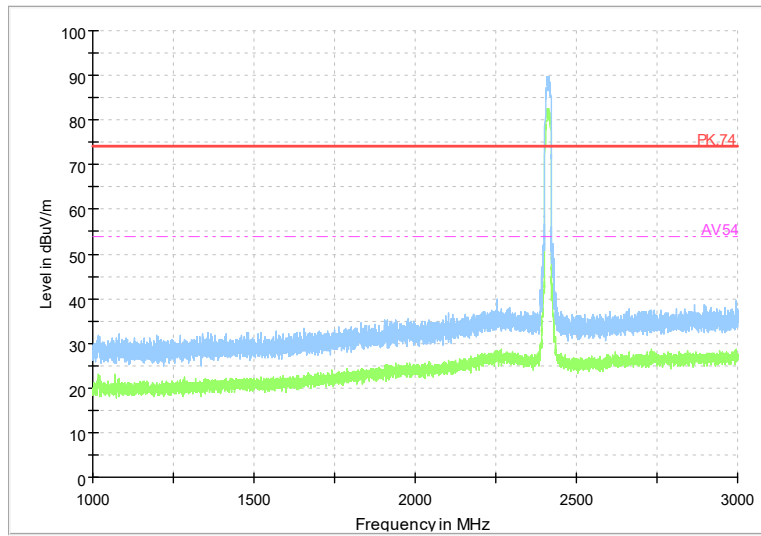
Frequency Range: 18GHz -26GHz  
 Detector: Av mode and PK mode  
 Modulation type: 802.11g

Full Spectrum



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

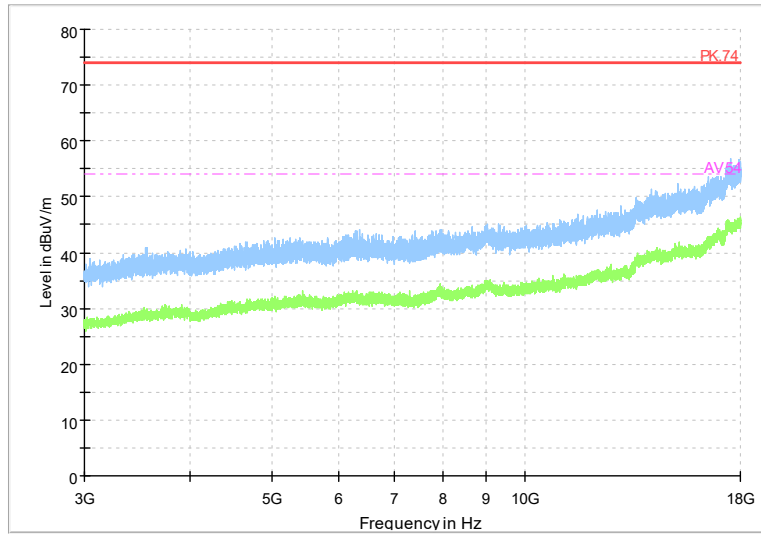
Full Spectrum



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

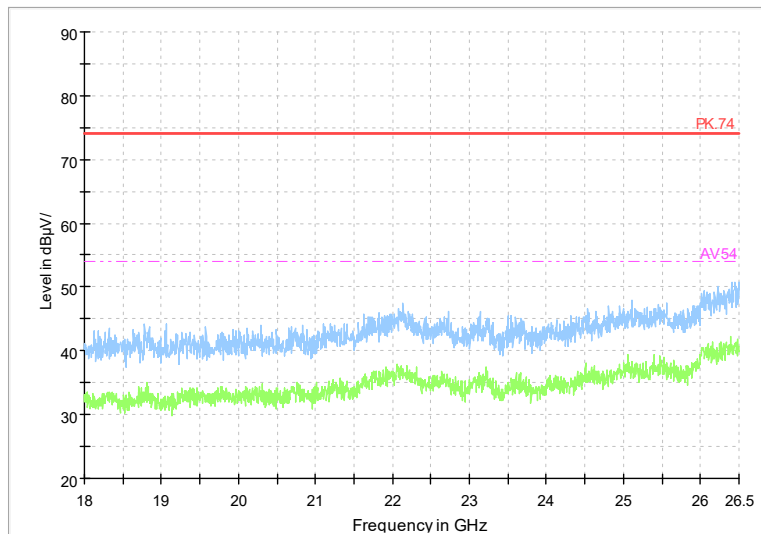


Full Spectrum



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

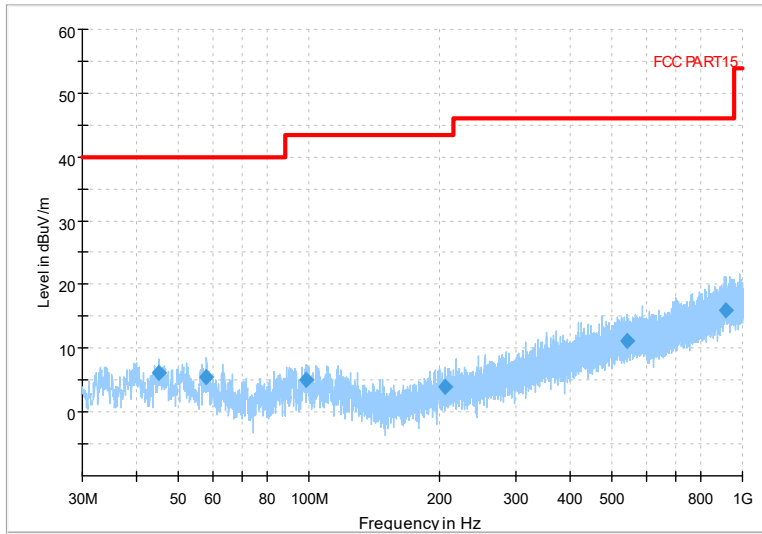
Full Spectrum



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

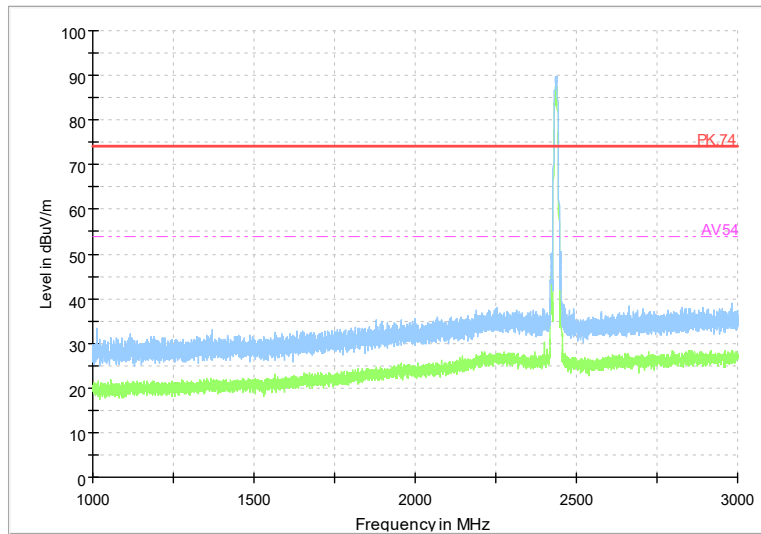
Carrier frequency (MHz): 2437  
 Channel No.:6

Full Spectrum



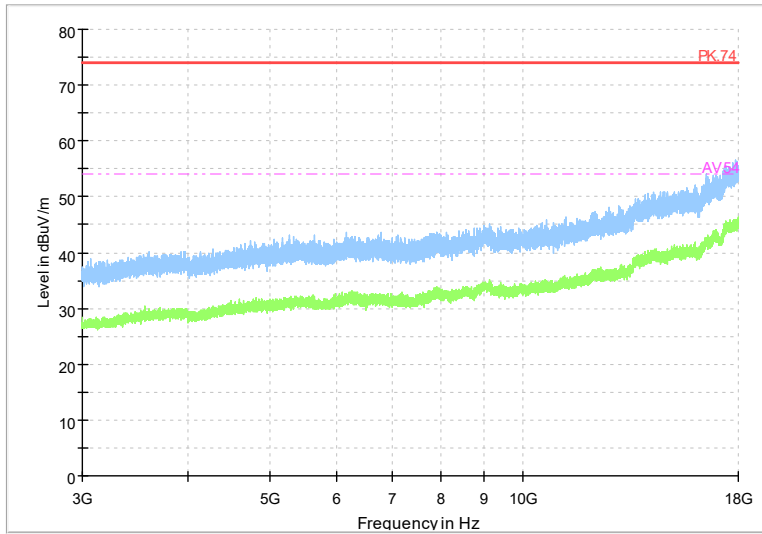
Frequency Range: 30MHz -1GHz  
Detector: QP mode  
Modulation type: 802.11b

Full Spectrum



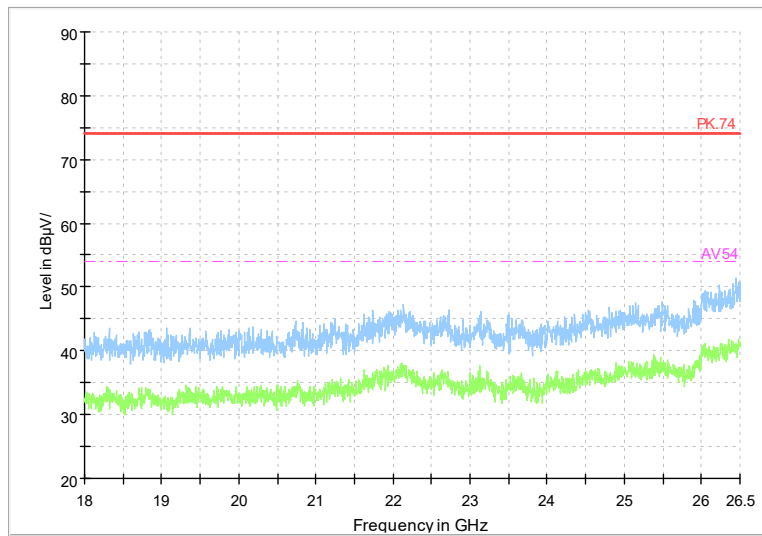
Frequency Range: 1GHz -3GHz  
Detector: Av mode and PK mode  
Modulation type: 802.11b

Full Spectrum



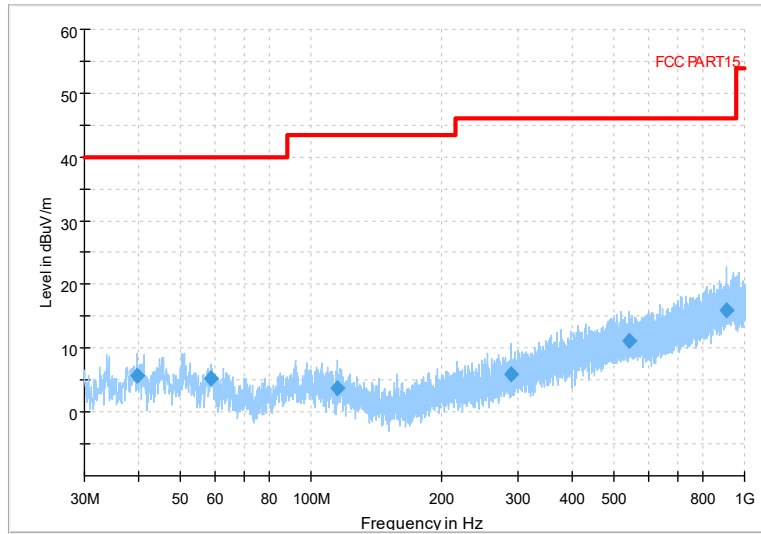
Frequency Range: 3GHz -18GHz  
 Detector: Av mode and PK mode  
 Modulation type: 802.11b

Full Spectrum



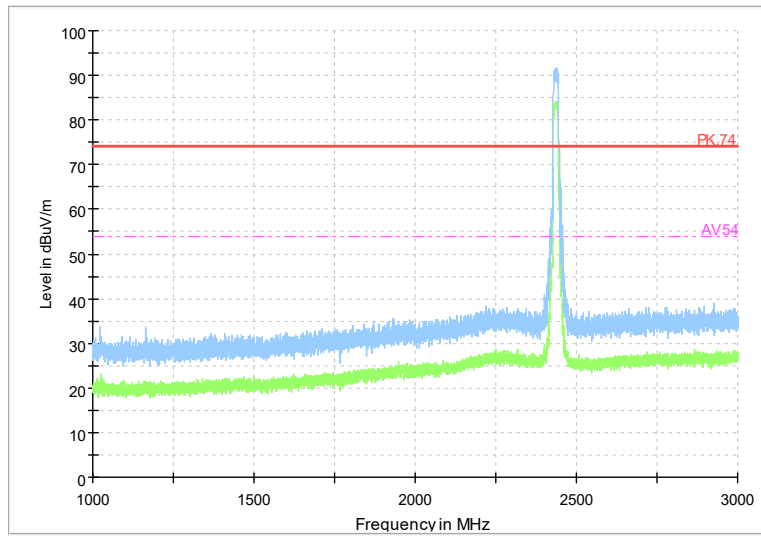
Frequency Range: 18GHz -26GHz  
 Detector: Av mode and PK mode  
 Modulation type: 802.11b

Full Spectrum



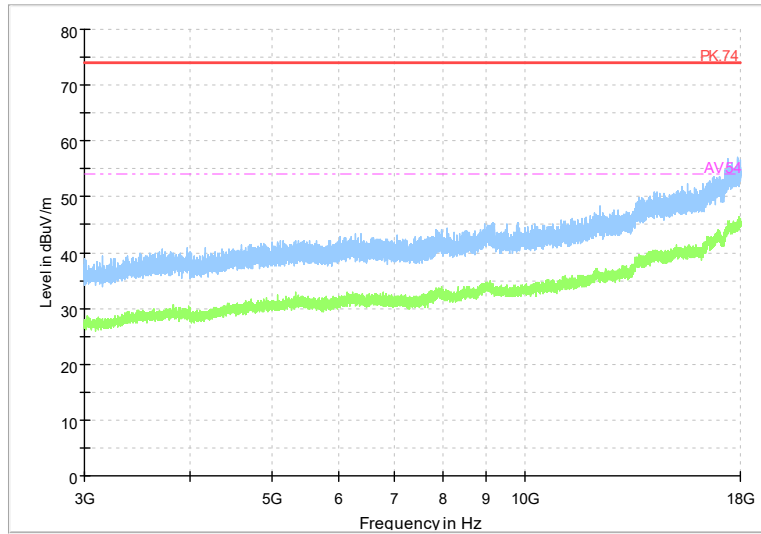
Frequency Range: 30MHz -1GHz  
 Detector: QP mode  
 Modulation type: 802.11g

Full Spectrum



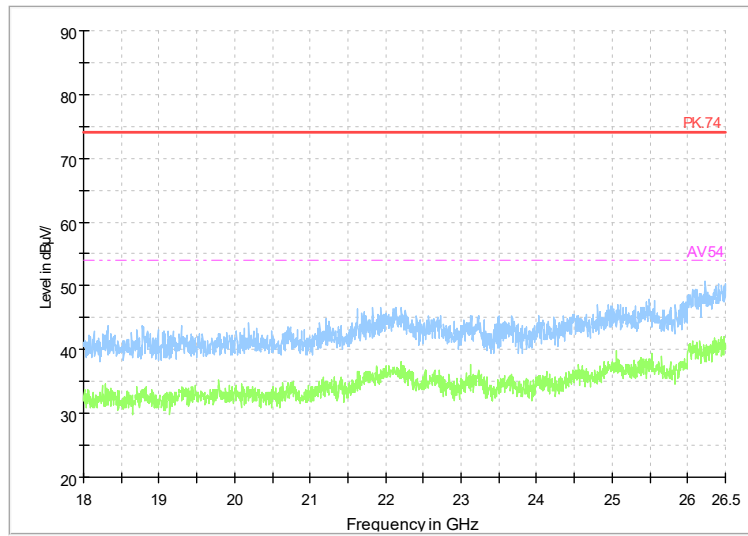
Frequency Range: 1GHz -3GHz  
 Detector: Av mode and PK mode  
 Modulation type: 802.11g

Full Spectrum



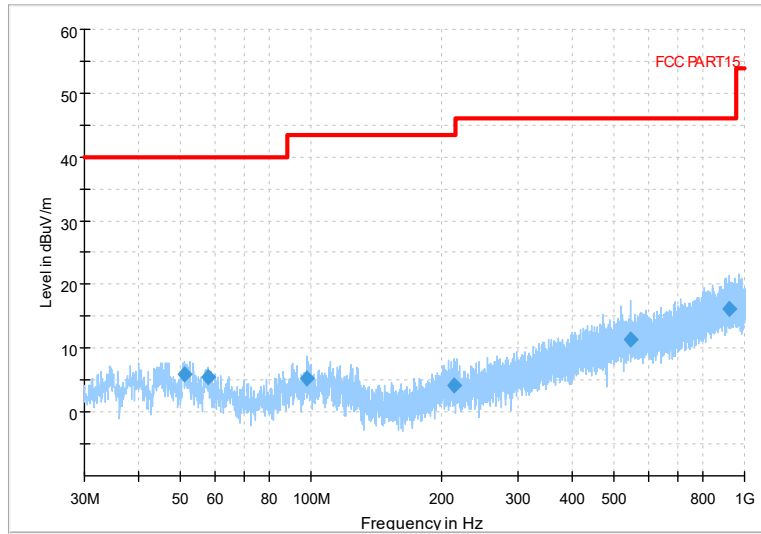
Frequency Range: 3GHz -18GHz  
Detector: Av mode and PK mode  
Modulation type: 802.11g

Full Spectrum



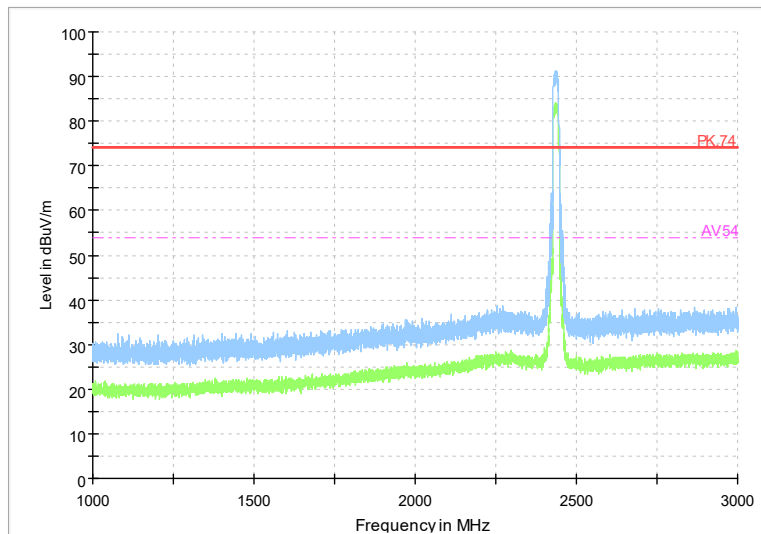
Frequency Range: 18GHz -26GHz  
Detector: Av mode and PK mode  
Modulation type: 802.11g

Full Spectrum



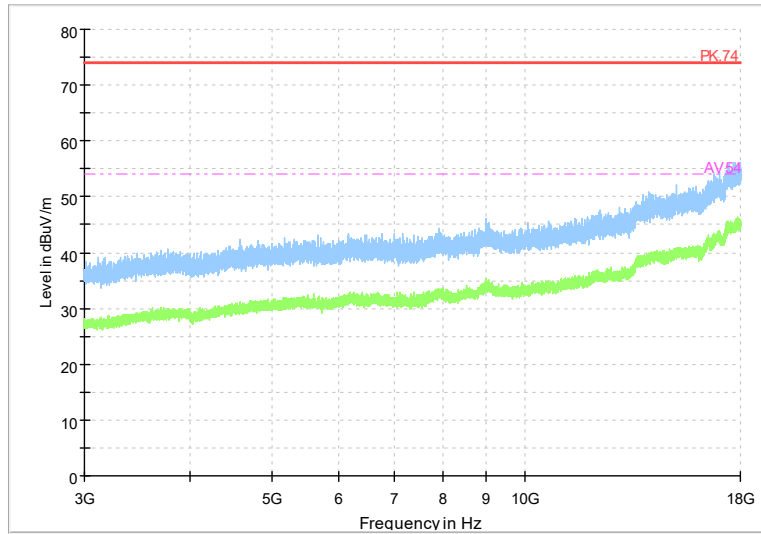
Frequency Range: 30MHz -1GHz  
 Detector: QP mode  
 Modulation type: 802.11n(HT20)

Full Spectrum



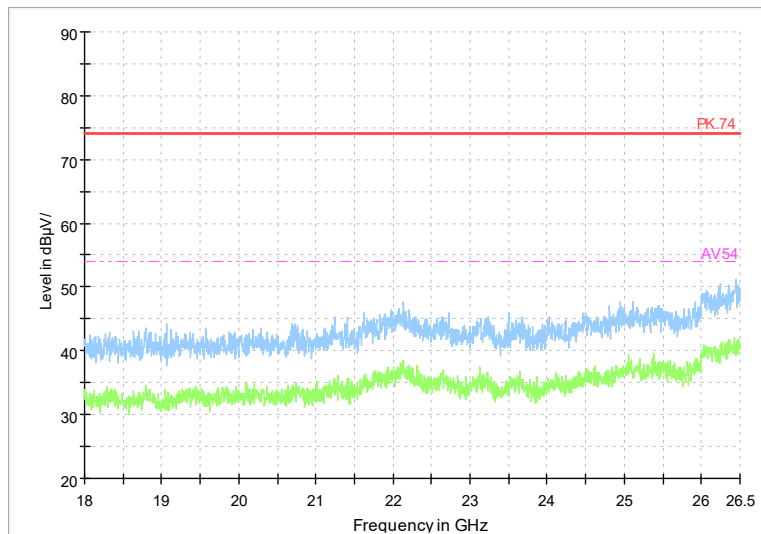
Frequency Range: 1GHz -3GHz  
 Detector: Av mode and PK mode  
 Modulation type: 802.11n(HT20)

Full Spectrum



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

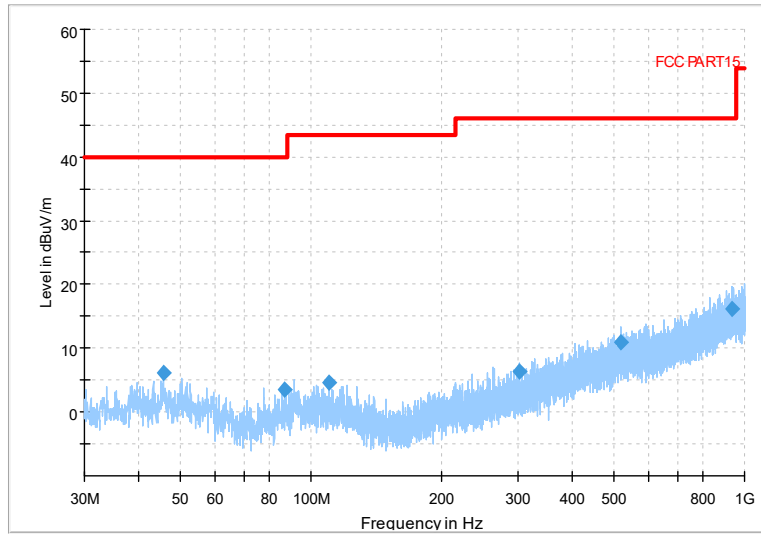
Full Spectrum



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

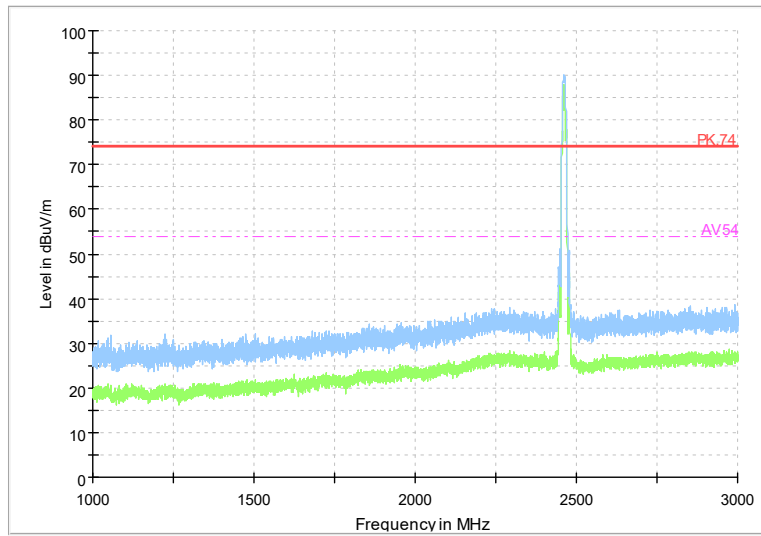
Carrier frequency (MHz): 2462  
 Channel No.:11

Full Spectrum



Frequency Range: 30MHz -1GHz  
 Detector: QP mode  
 Modulation type: 802.11b

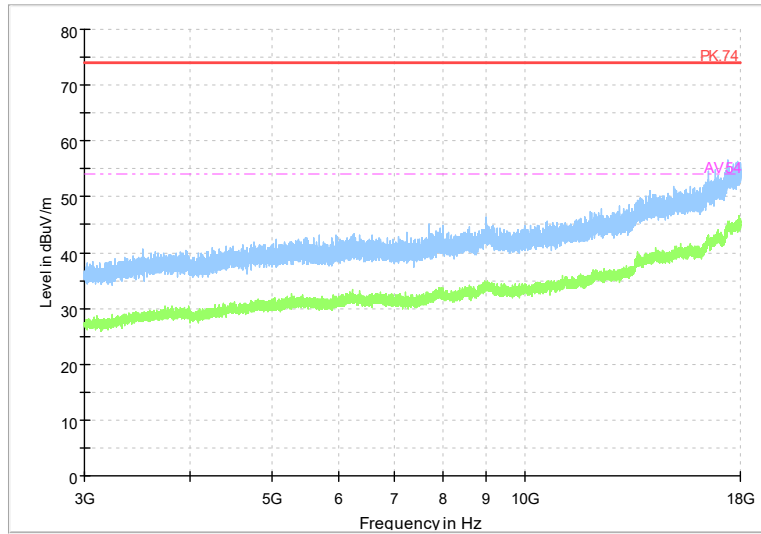
Full Spectrum



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

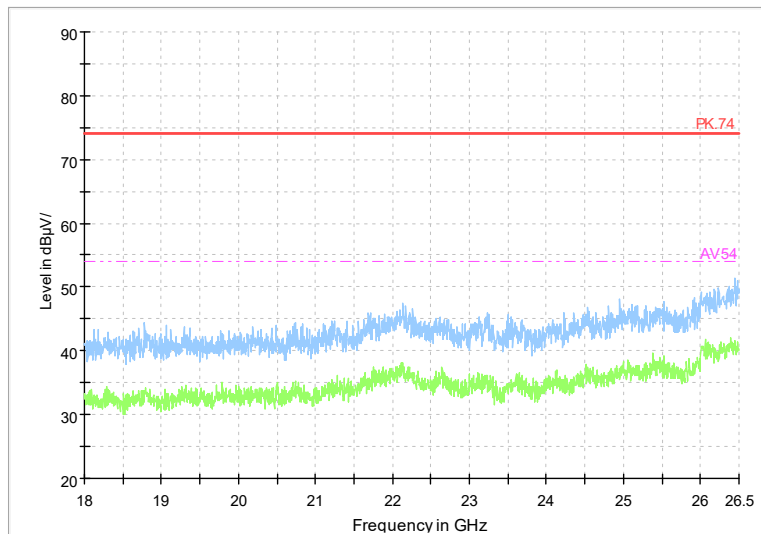


Full Spectrum



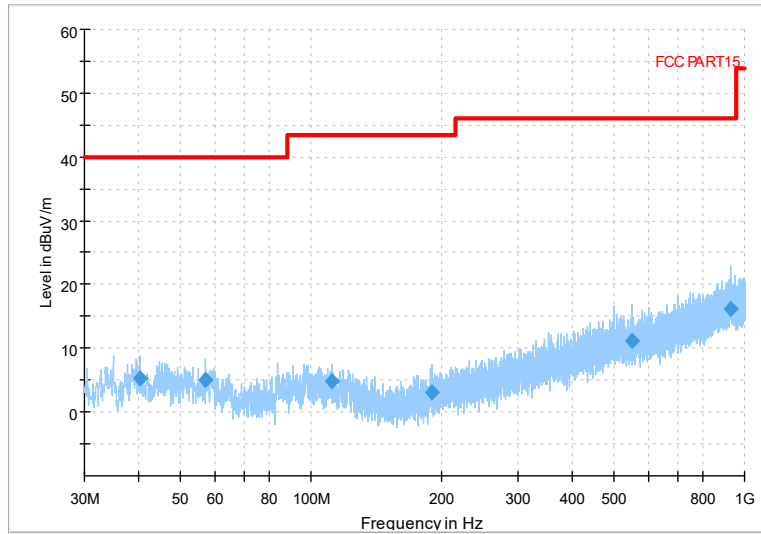
Frequency Range: 3GHz -18GHz  
 Detector: Av mode and PK mode  
 Modulation type: 802.11b

Full Spectrum



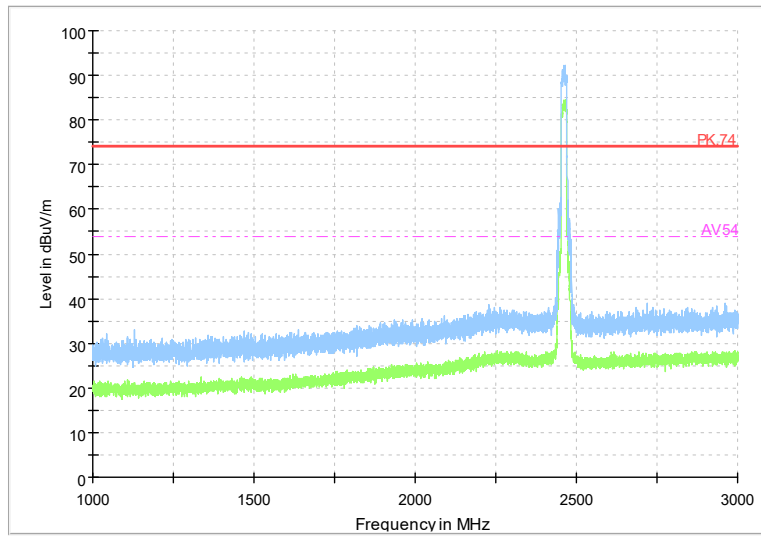
Frequency Range: 18GHz -26GHz  
 Detector: Av mode and PK mode  
 Modulation type: 802.11b

Full Spectrum



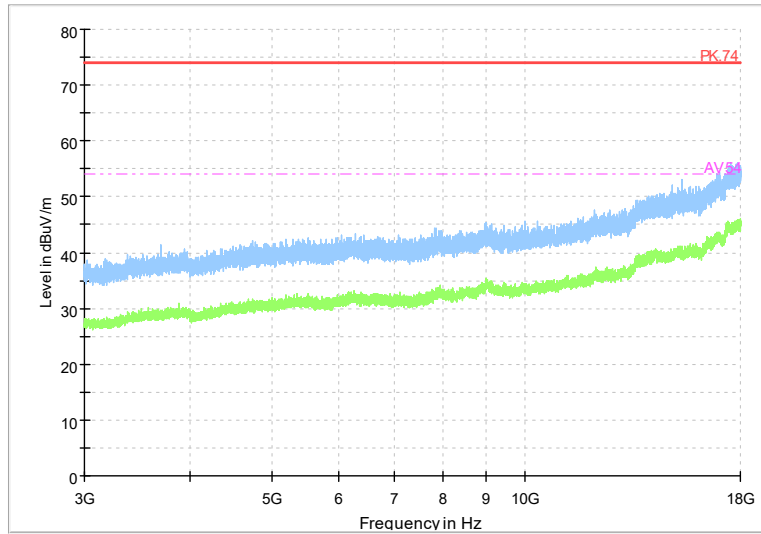
Frequency Range: 30MHz -1GHz  
Detector: QP mode  
Modulation type: 802.11g

Full Spectrum



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

Full Spectrum



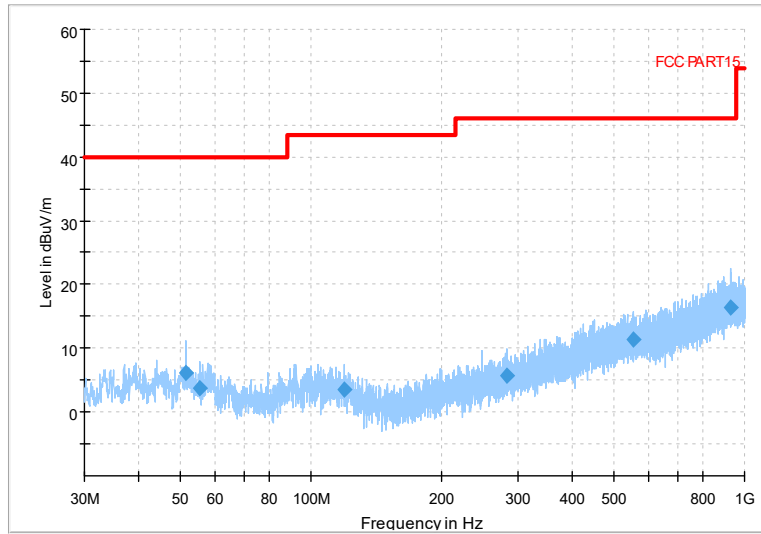
Frequency Range: 3GHz -18GHz  
 Detector: Av mode and PK mode  
 Modulation type: 802.11g

Full Spectrum



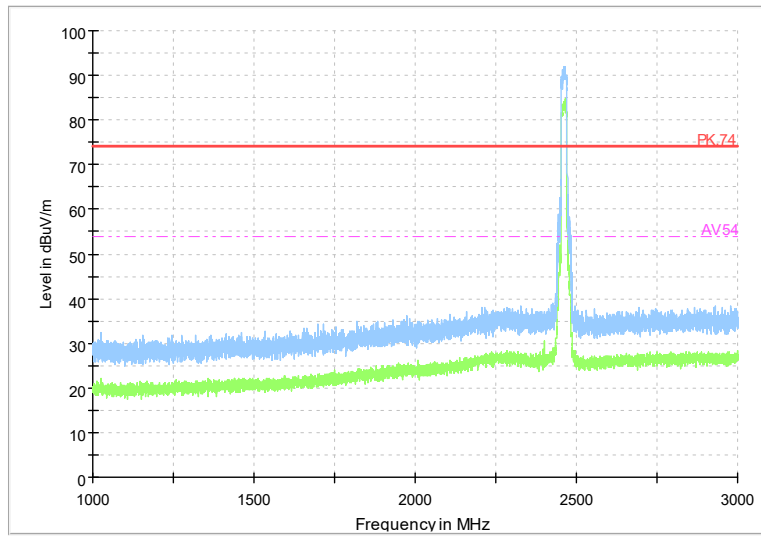
Frequency Range: 18GHz -26GHz  
 Detector: Av mode and PK mode  
 Modulation type: 802.11g

Full Spectrum



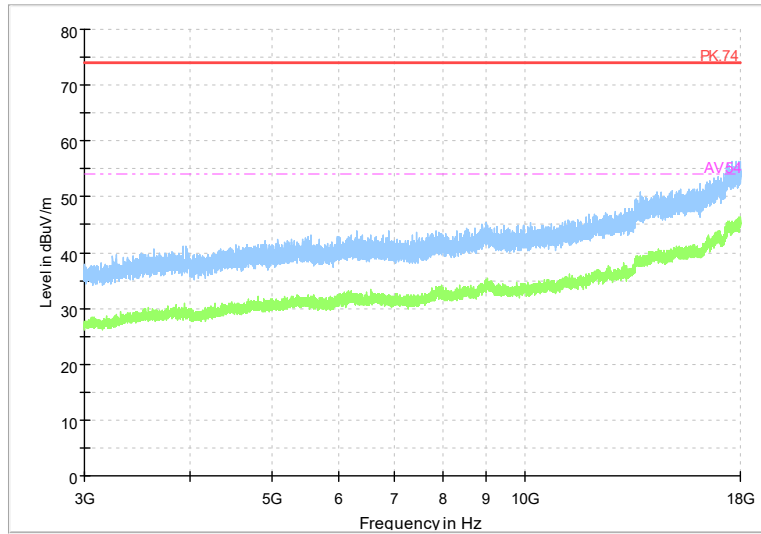
Frequency Range: 30MHz -1GHz  
 Detector: QP mode  
 Modulation type: 802.11n(HT20)

Full Spectrum



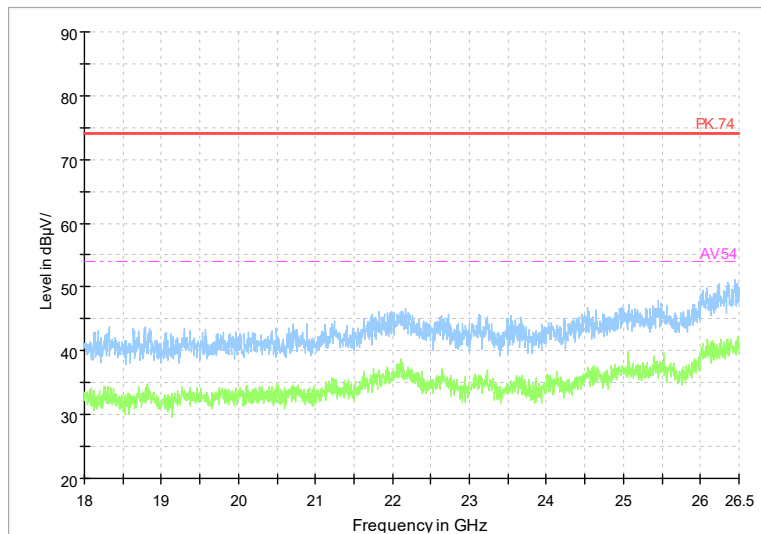
Frequency Range: 1GHz -3GHz  
 Detector: Av mode and PK mode  
 Modulation type: 802.11n(HT20)

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)

---End of Test Report---