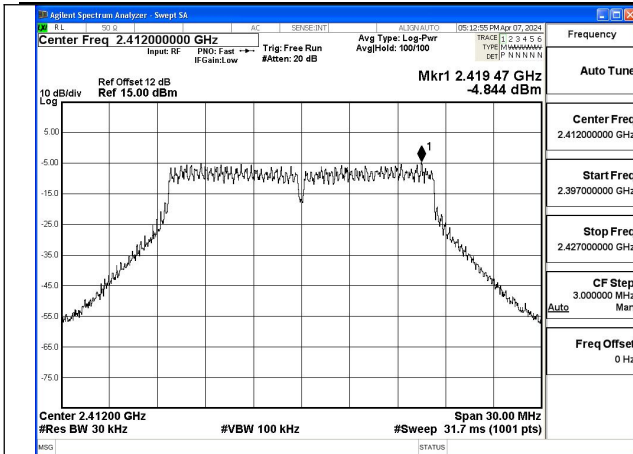
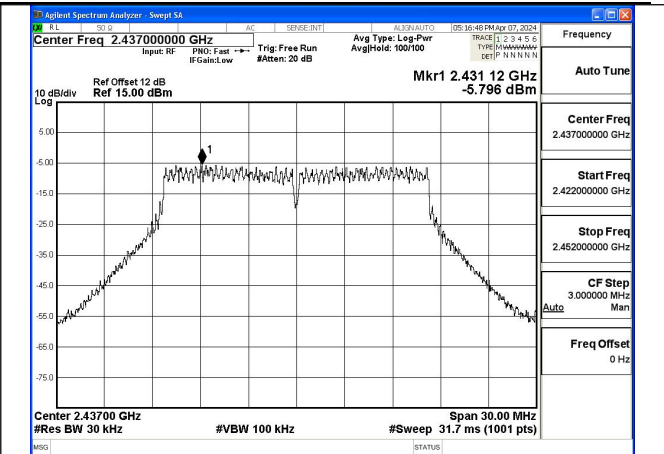
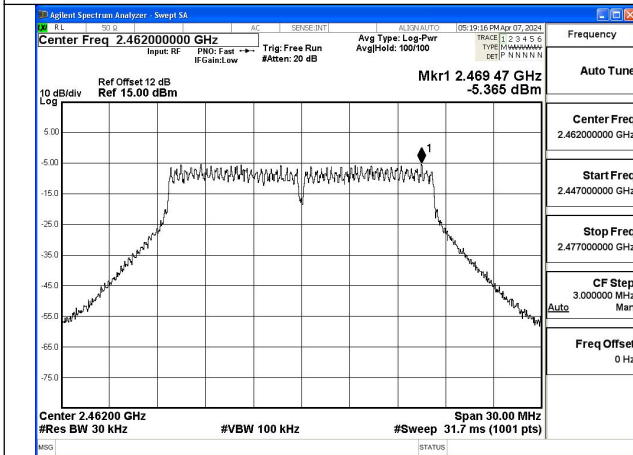




Mode:802.11g Frequency:2412MHz Ant:Chain0

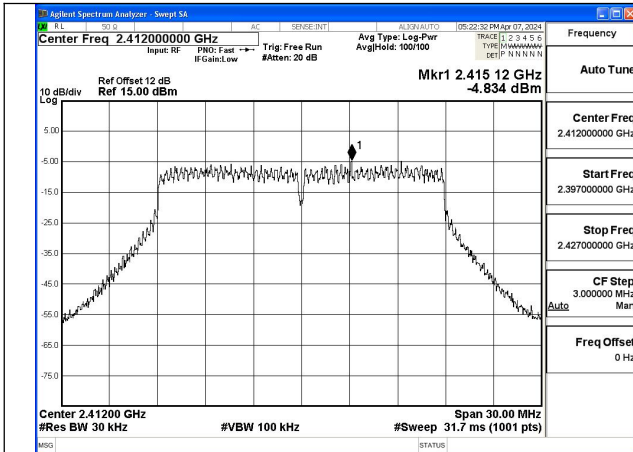


Mode:802.11g Frequency:2437MHz Ant:Chain0

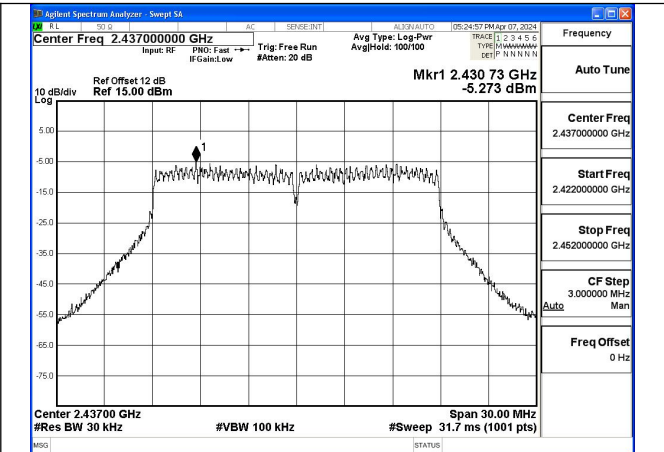


Mode:802.11g Frequency:2462MHz Ant:Chain0

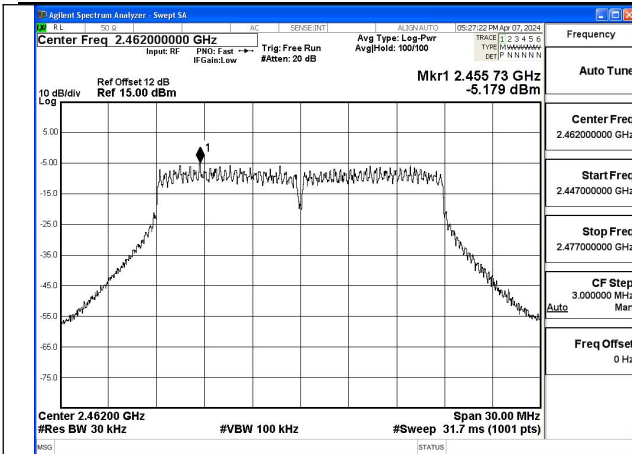
Test Mode: 802.11n HT20



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

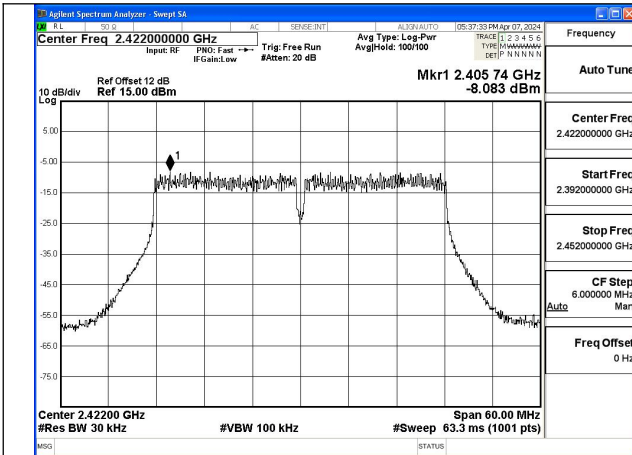


Mode:802.11n HT20 Frequency:2437MHz Ant:Chain0

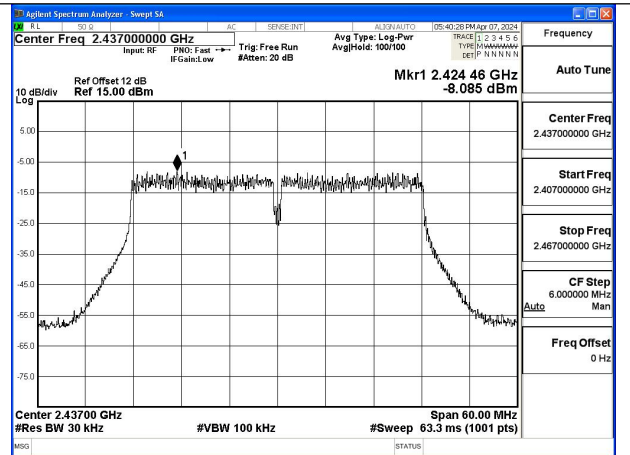


Mode:802.11n HT20 Frequency:2462MHz Ant:Chain0

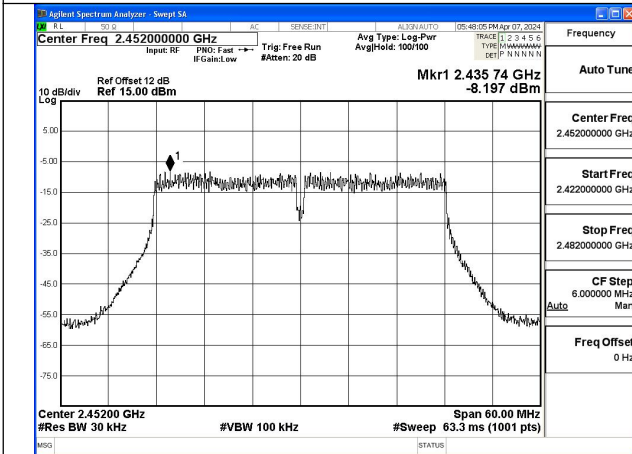
Test Mode: 802.11n HT40



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



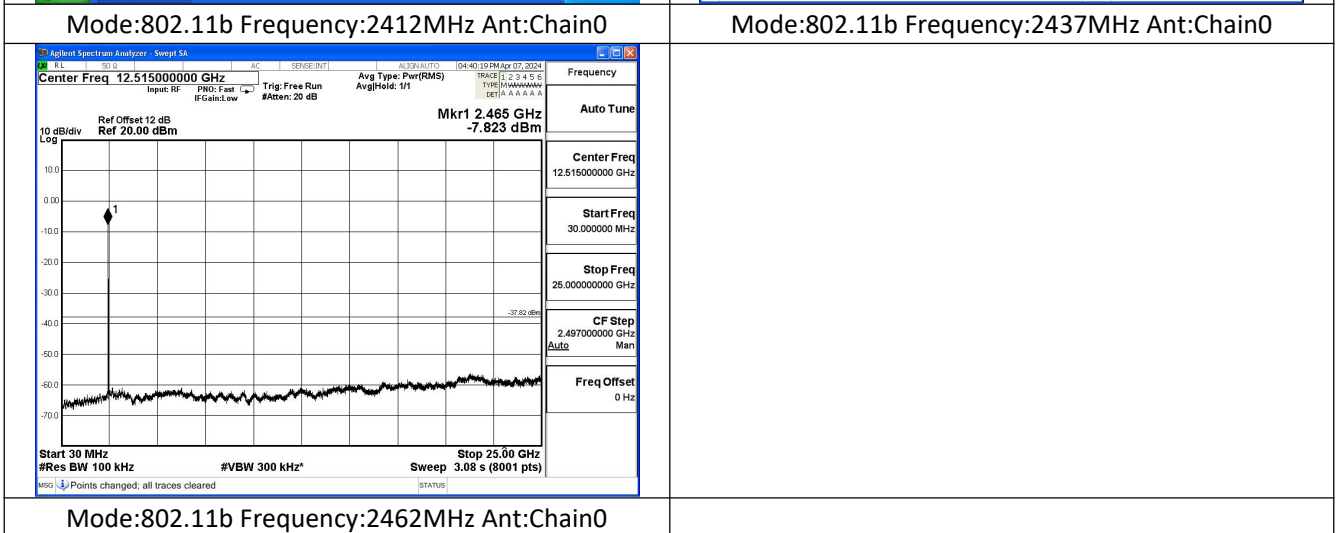
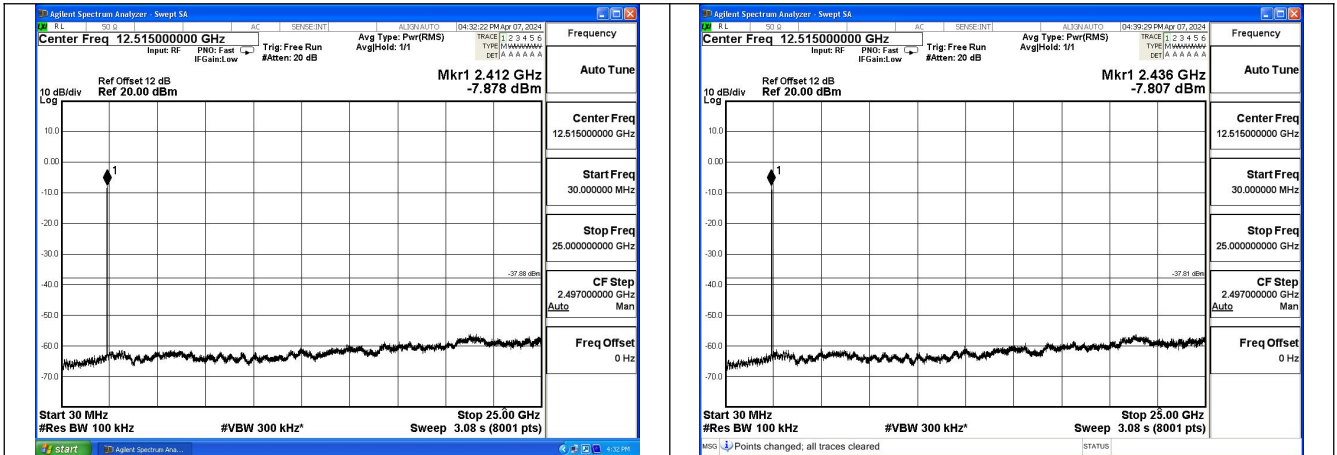
Mode:802.11n HT40 Frequency:2437MHz Ant:Chain0



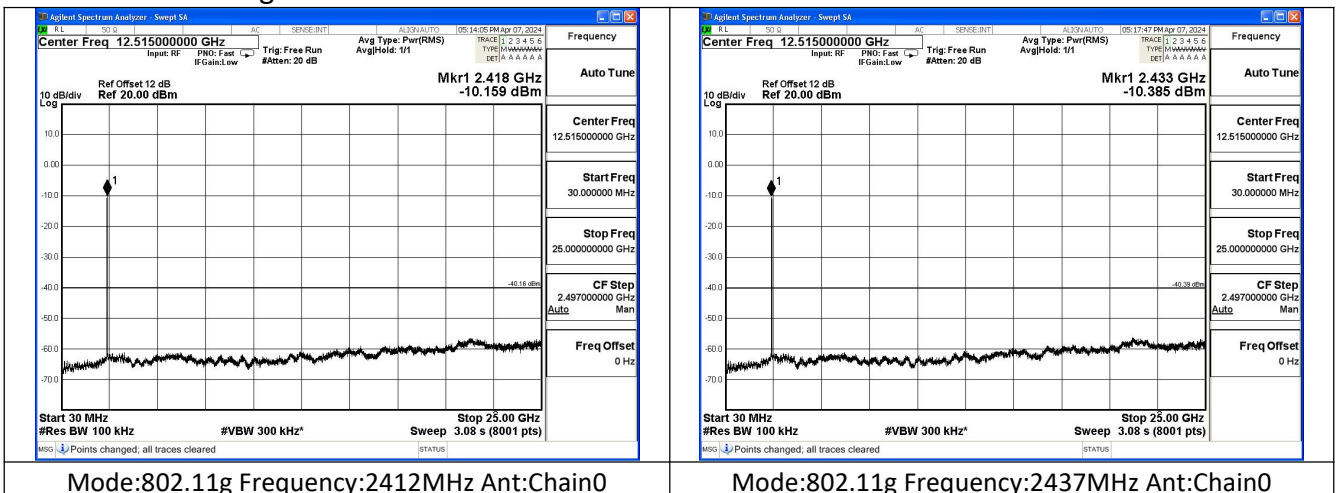
Mode:802.11n HT40 Frequency:2452MHz Ant:Chain0

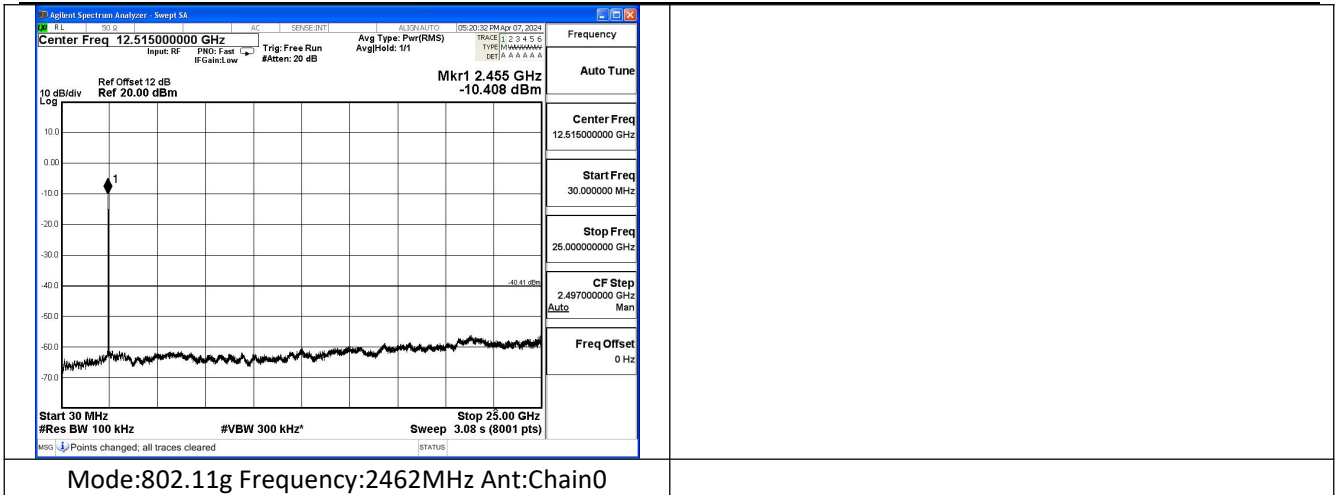
## Conducted Out of band emission measurement

Test Mode: 802.11b

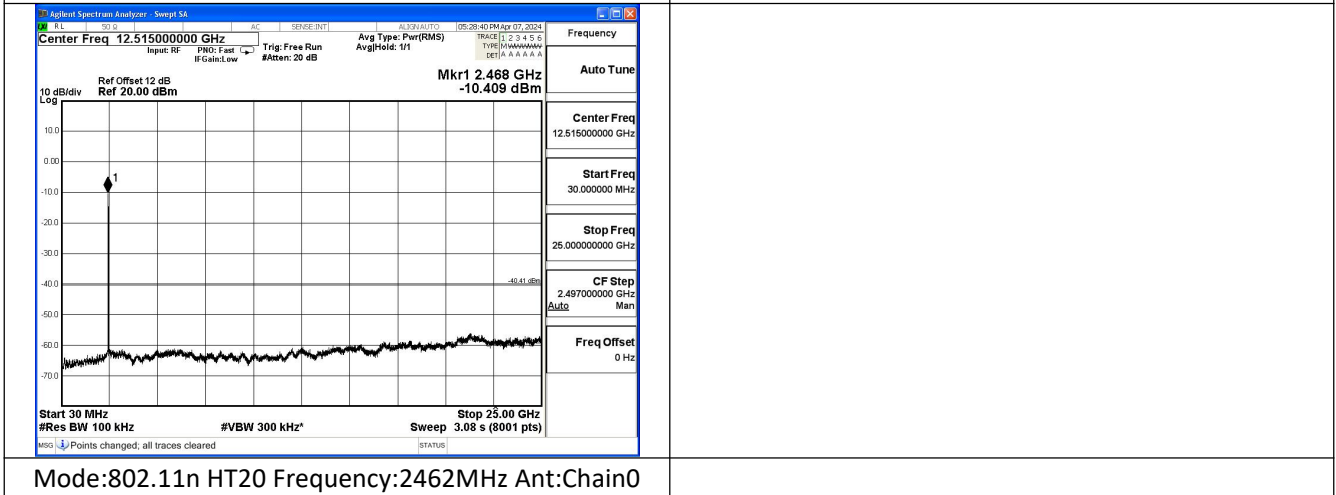
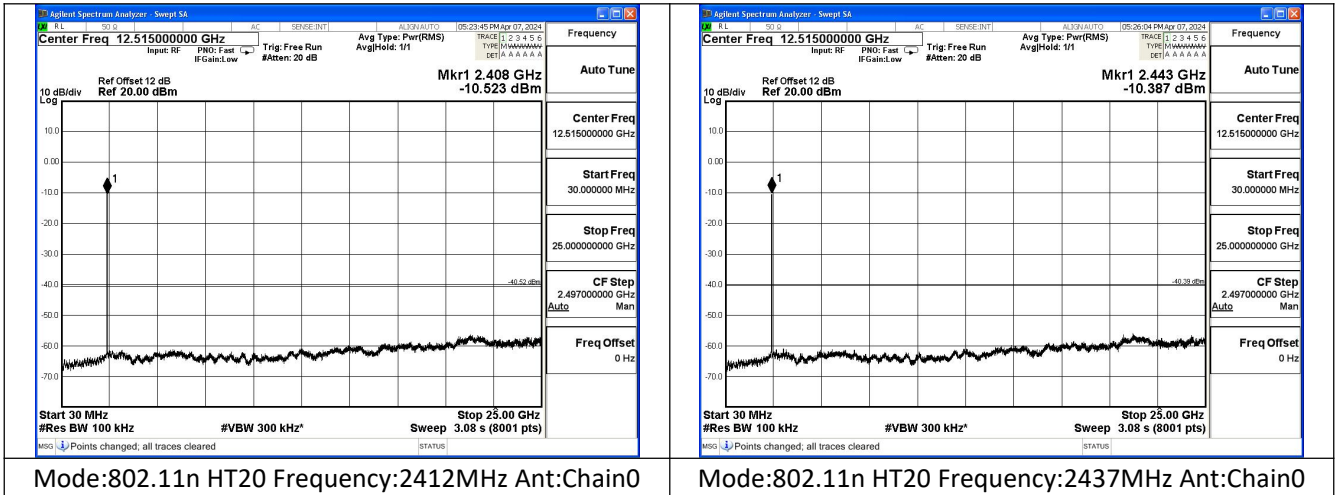


Test Mode: 802.11g

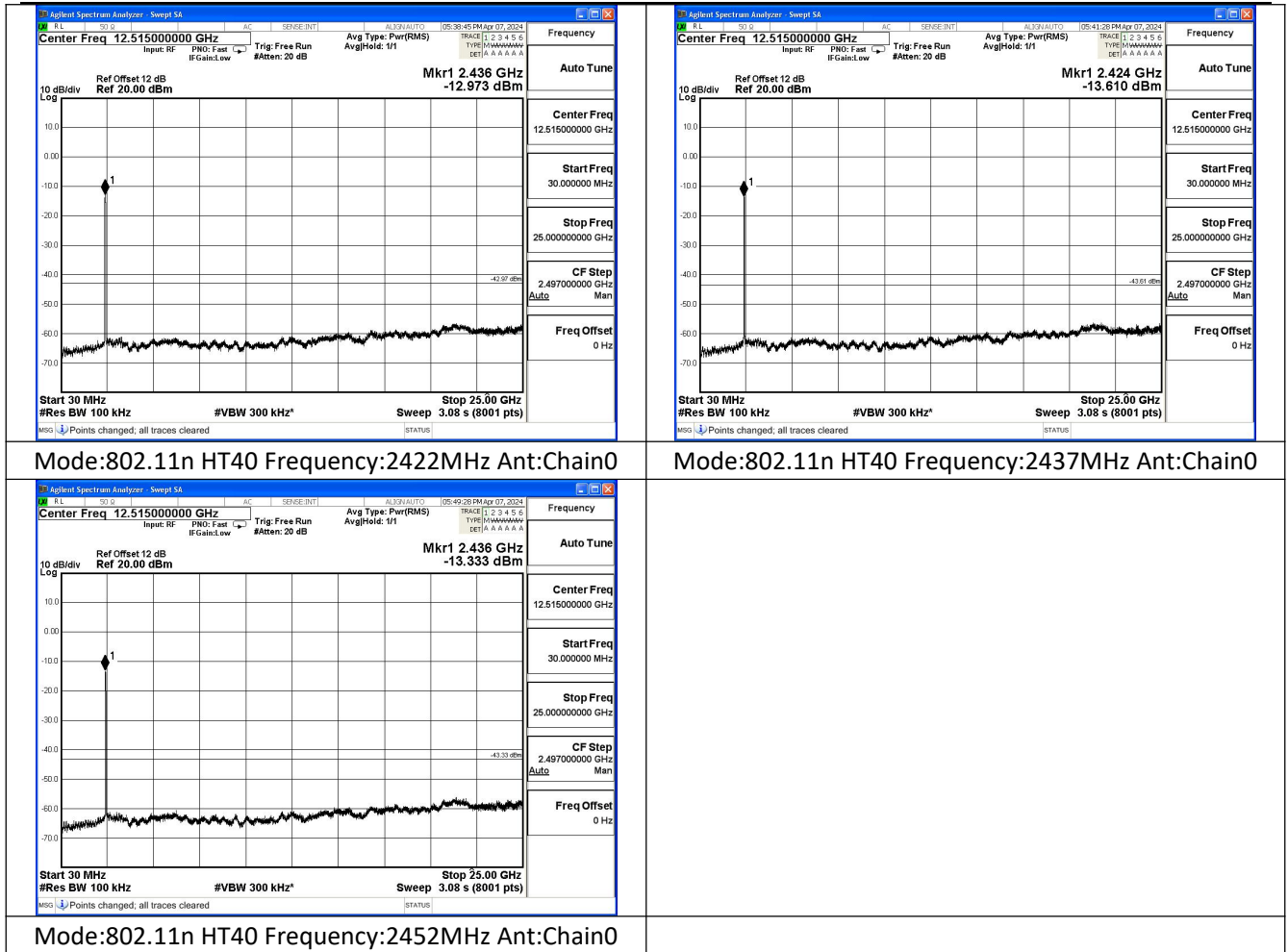




Test Mode: 802.11n HT20

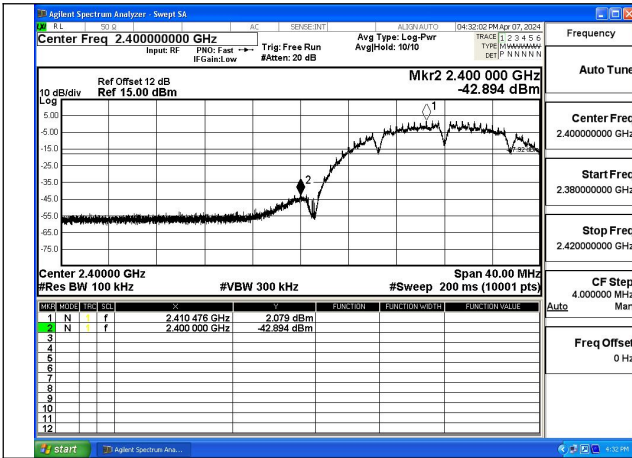


Test Mode: 802.11n HT40

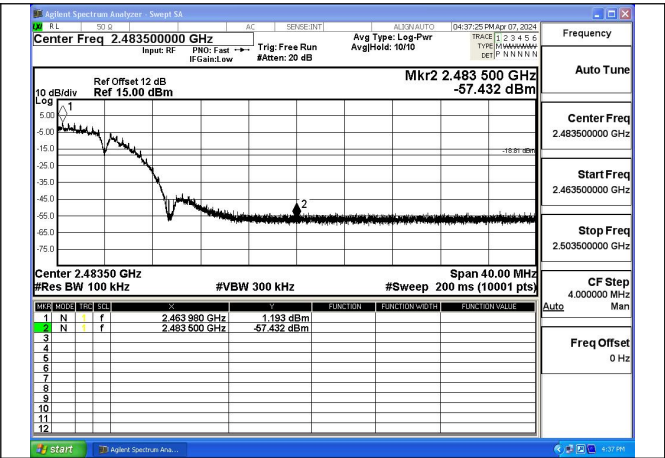


## Band edge measurement

Test Mode: 802.11b

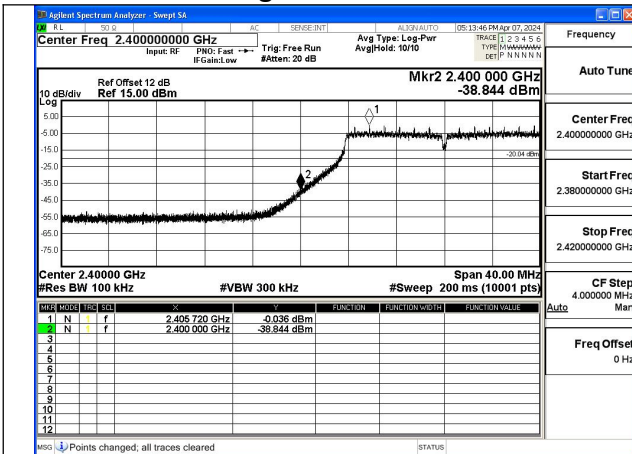


Mode:802.11b Frequency:2412MHz Ant:Chain0

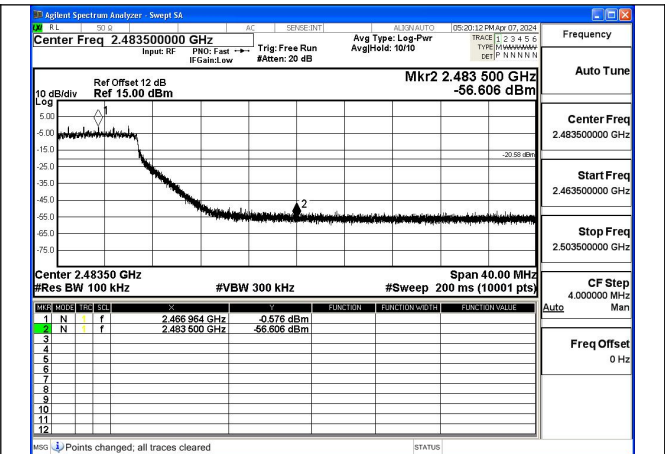


Mode:802.11b Frequency:2462MHz Ant:Chain0

Test Mode: 802.11g

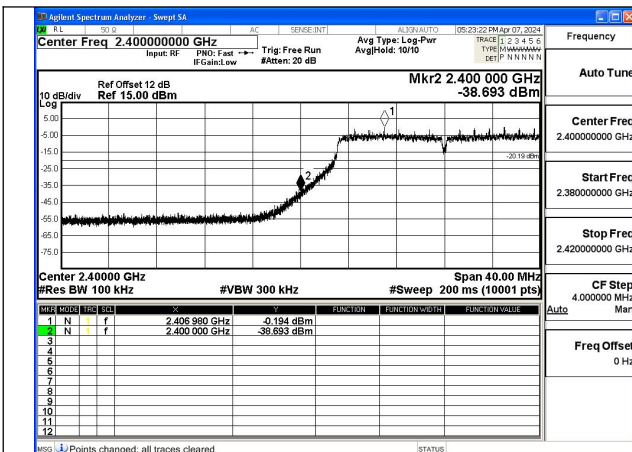


Mode:802.11g Frequency:2412MHz Ant:Chain0

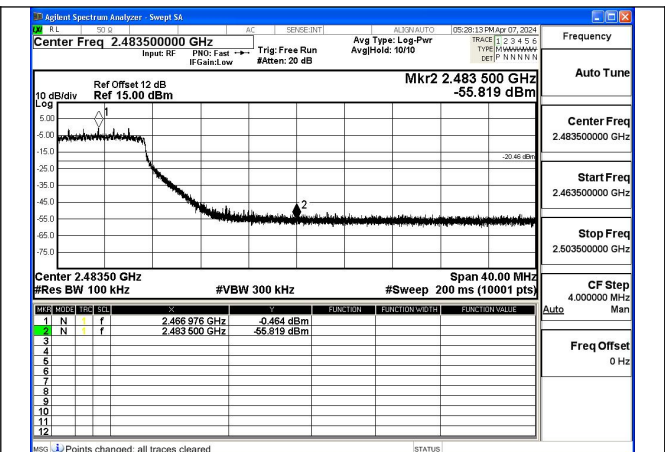


Mode:802.11g Frequency:2462MHz Ant:Chain0

Test Mode: 802.11n HT20

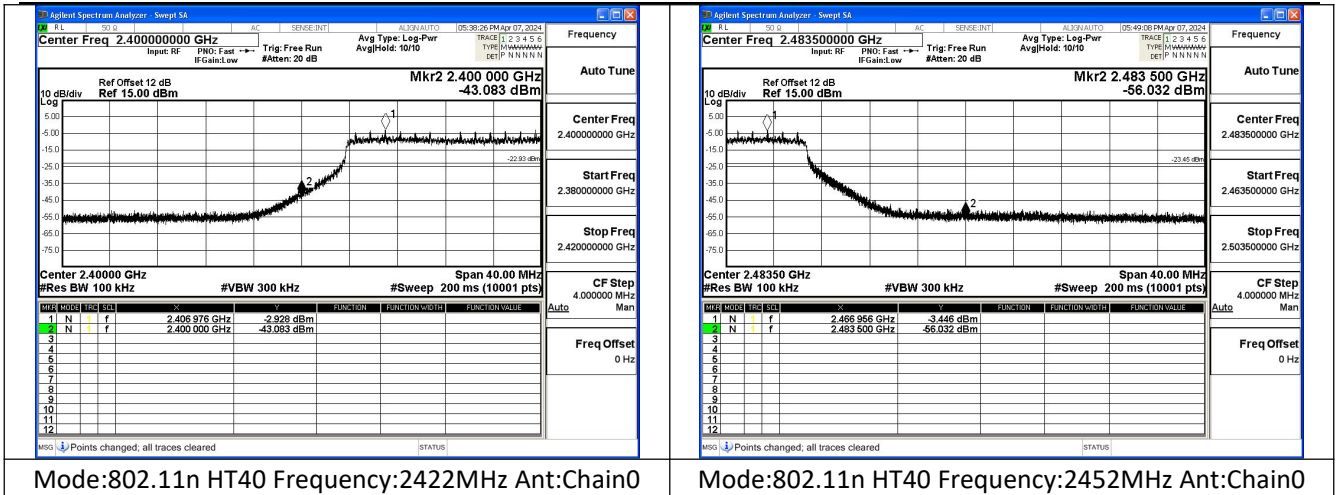


Mode:802.11n HT20 Frequency:2412MHz Ant:Chain0



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

Test Mode: 802.11n HT40



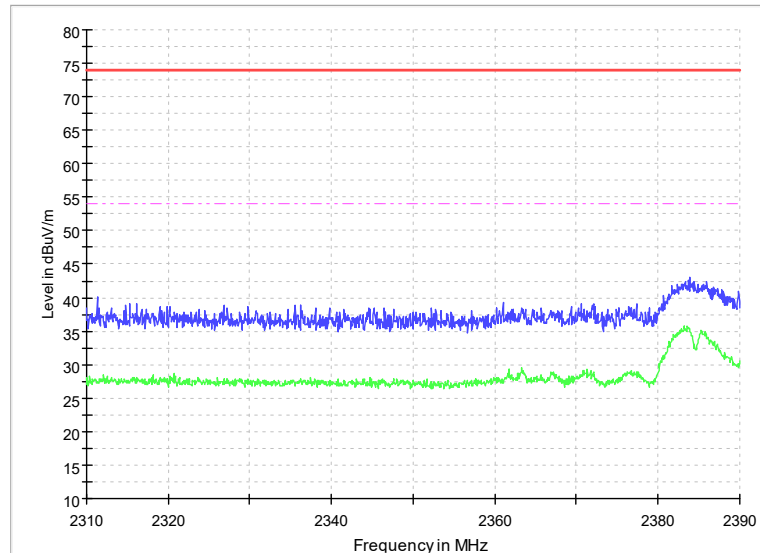


## **APPENDIX B – TEST DATA OF RADIATED EMISSION**

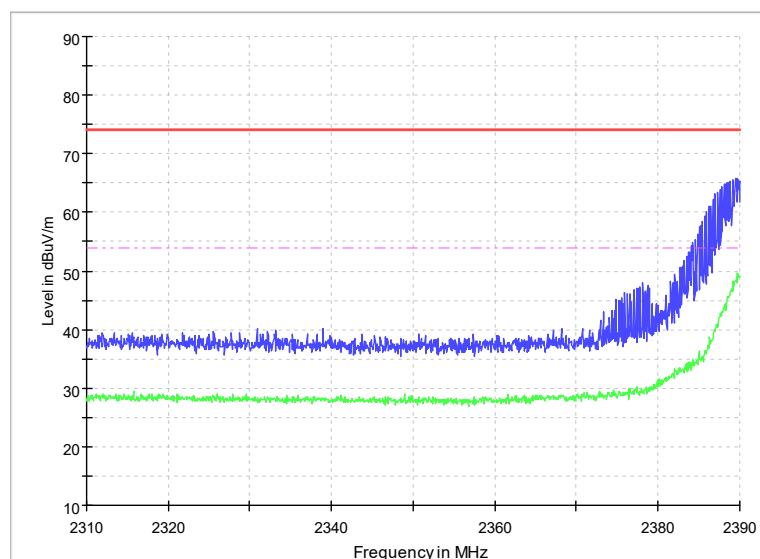
Note: The worst channel results are reflected in the report.

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

### **Radiated Emission Band Edge**



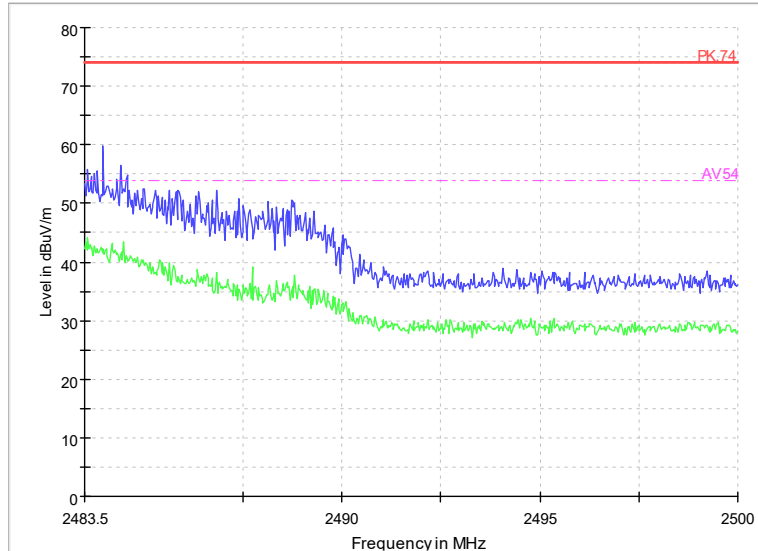
**Radiated Emission Band Edge**  
Channel No.:1  
Test Mode: 802.11b  
Polarization: V



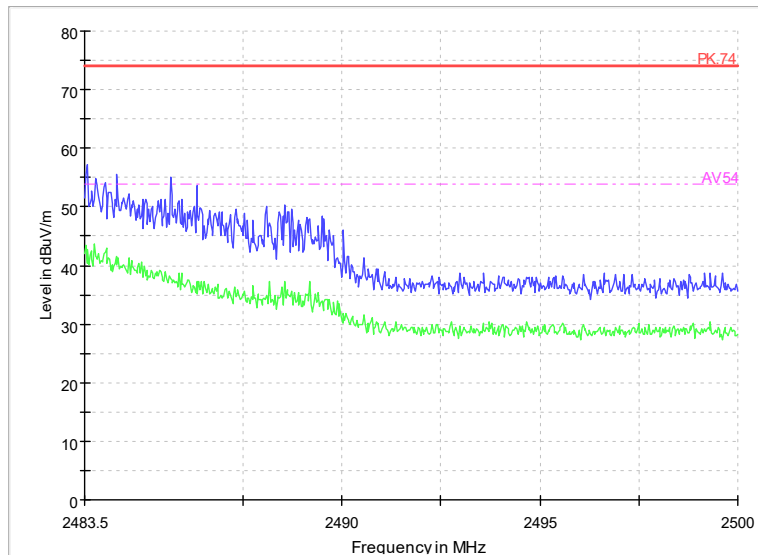
**Radiated Emission Band Edge**



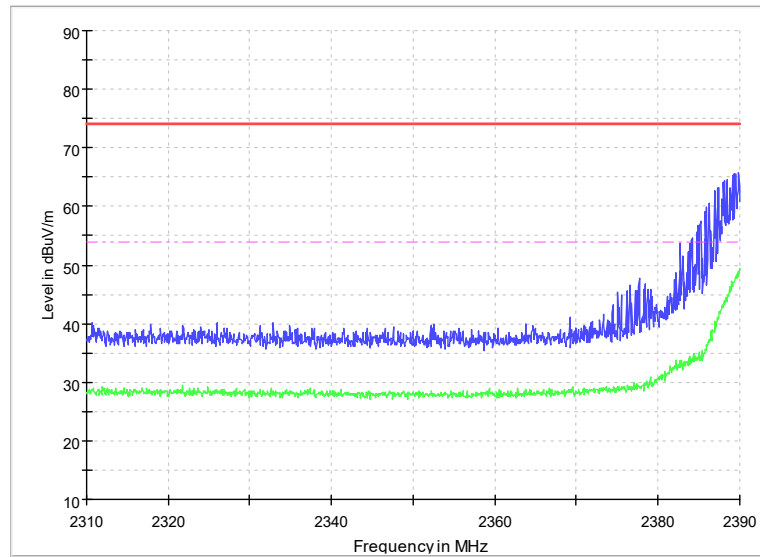
Channel No.:1  
Test Mode: 802.11b  
Polarization: H



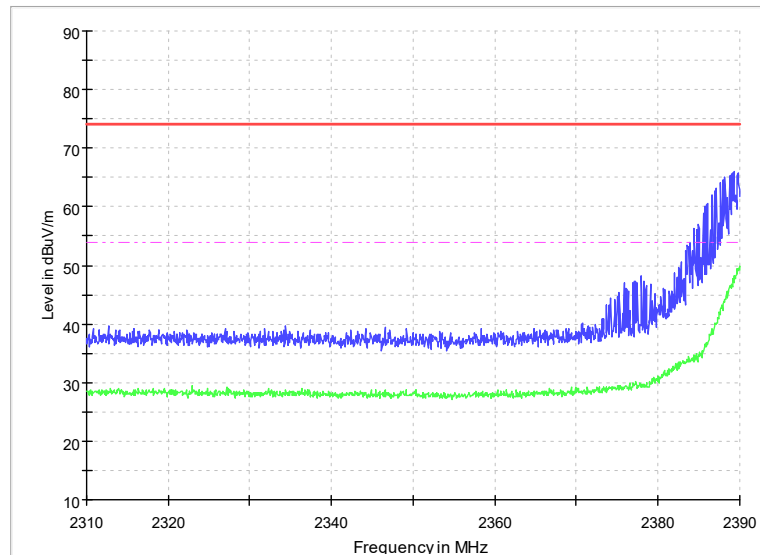
Radiated Emission Band Edge  
Channel No.:11  
Test Mode: 802.11b  
Polarization: V



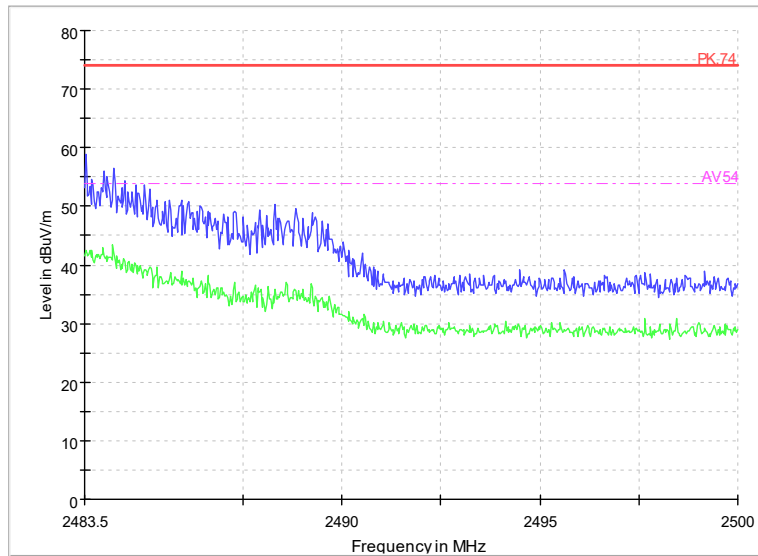
Radiated Emission Band Edge  
Channel No.:11  
Test Mode: 802.11b  
Polarization: H



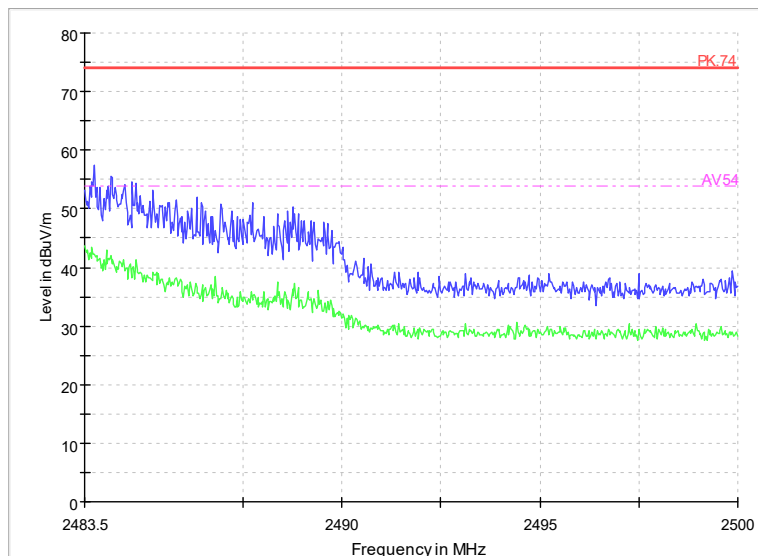
Radiated Emission Band Edge  
Channel No.:1  
Test Mode: 802.11g  
Polarization: V



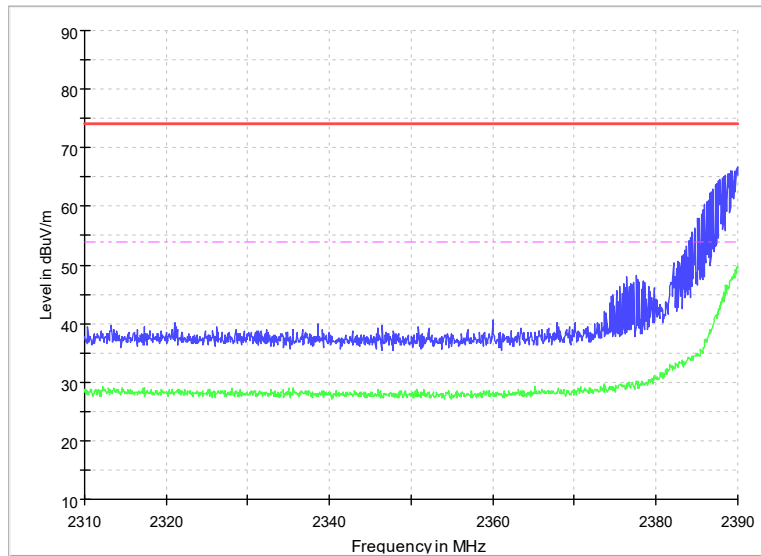
Radiated Emission Band Edge  
Channel No.:1  
Test Mode: 802.11g  
Polarization: H



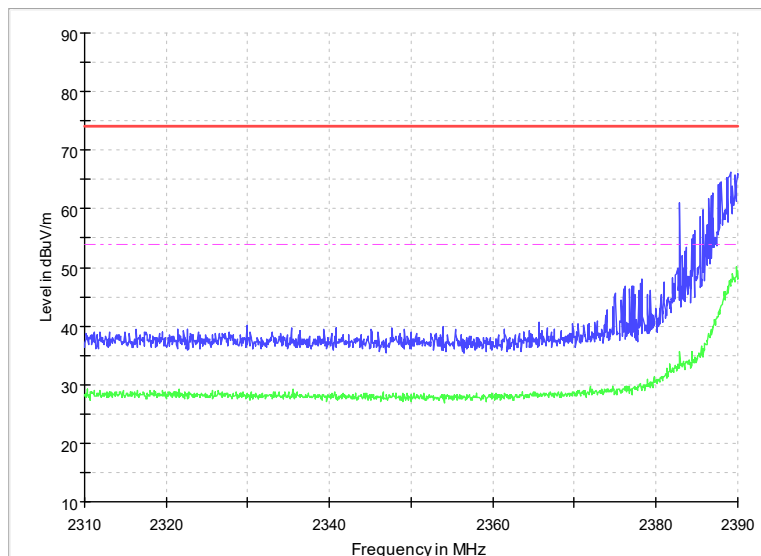
Radiated Emission Band Edge  
Channel No.:11  
Test Mode: 802.11g  
Polarization: V



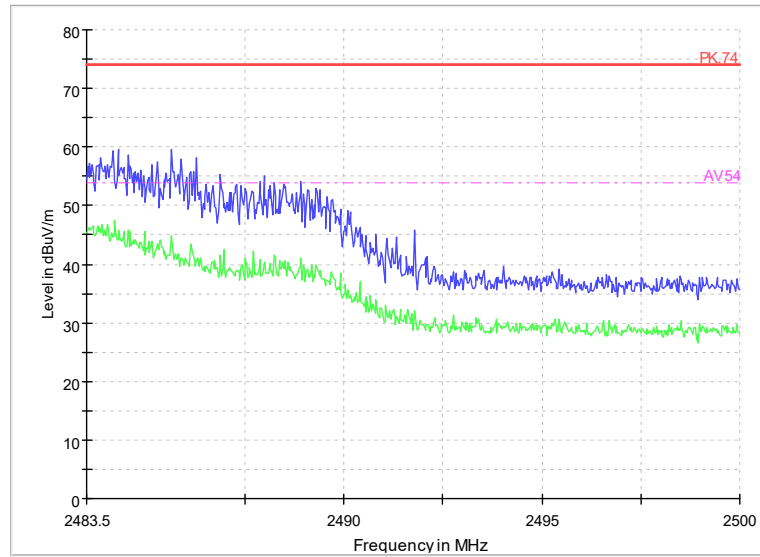
Radiated Emission Band Edge  
Channel No.:11  
Test Mode: 802.11g  
Polarization: H



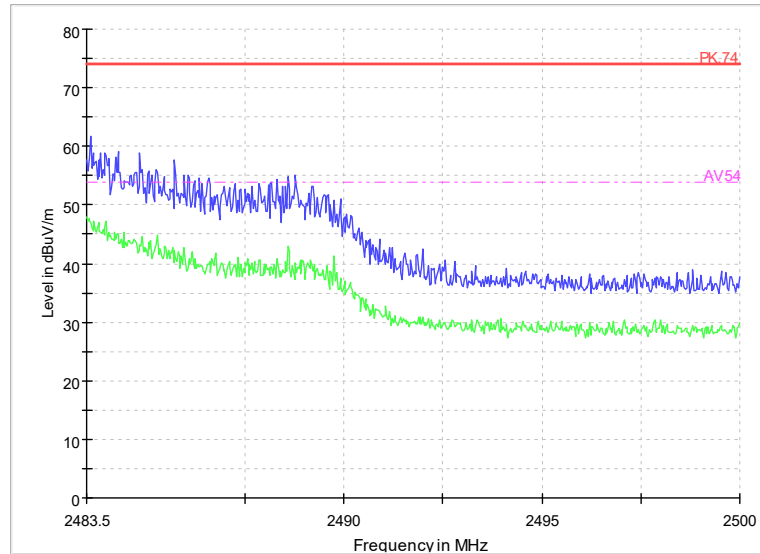
Radiated Emission Band Edge  
Channel No.:1  
Test Mode: 802.11n  
Polarization: V



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



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



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

## 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:  $(24.58 \text{ dB}\mu\text{V/m}) = (43.28 \text{ dB}\mu\text{V/m}) + (-18.7 \text{ dB})$ , the corresponding frequency is 39.312000MHz.

The worst case attitude: The mobile lay down.

For 802.11b Channel No.:1

| Frequency (MHz) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | ARpl (dB/m) | Pmea (dBuV) | Polarity |
|-----------------|-----------------|----------------|-------------|-------------|-------------|----------|
| 39.312000       | 24.58           | 40.00          | 15.42       | -18.7       | 43.28       | Vertical |
| 59.682000       | 28.71           | 40.00          | 11.29       | -19.2       | 47.91       | Vertical |
| 151.250000      | 29.35           | 43.50          | 14.15       | -21.7       | 51.05       | Vertical |
| 176.227500      | 23.54           | 43.50          | 19.96       | -20.5       | 44.04       | Vertical |
| 549.968500      | 31.07           | 46.00          | 14.93       | -9.4        | 40.47       | Vertical |
| 649.975500      | 30.67           | 46.00          | 15.33       | -7.6        | 38.27       | Vertical |

For 802.11g Channel No.:1

| Frequency (MHz) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | ARpl (dB/m) | Pmea (dBuV) | Polarity |
|-----------------|-----------------|----------------|-------------|-------------|-------------|----------|
| 48.818000       | 24.79           | 40.00          | 15.21       | -18.3       | 43.09       | Vertical |
| 59.779000       | 29.02           | 40.00          | 10.98       | -19.2       | 48.22       | Vertical |
| 145.284500      | 28.97           | 43.50          | 14.53       | -21.6       | 50.57       | Vertical |
| 174.869500      | 23.39           | 43.50          | 20.11       | -20.5       | 43.89       | Vertical |
| 549.968500      | 30.68           | 46.00          | 15.32       | -9.4        | 40.08       | Vertical |
| 649.975500      | 30.50           | 46.00          | 15.50       | -7.6        | 38.10       | Vertical |

For 802.11n(HT20) Channel No.:1

| Frequency (MHz) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | ARpl (dB/m) | Pmea (dBuV) | Polarity |
|-----------------|-----------------|----------------|-------------|-------------|-------------|----------|
| 46.781000       | 28.58           | 40.00          | 11.42       | -18.3       | 46.88       | Vertical |
| 59.391000       | 31.21           | 40.00          | 8.79        | -19.2       | 50.41       | Vertical |
| 154.645000      | 29.65           | 43.50          | 13.85       | -21.5       | 51.15       | Vertical |
| 176.470000      | 26.19           | 43.50          | 17.31       | -20.5       | 46.69       | Vertical |
| 549.968500      | 30.78           | 46.00          | 15.22       | -9.4        | 40.18       | Vertical |
| 649.975500      | 30.49           | 46.00          | 15.52       | -7.6        | 38.09       | Vertical |

For 802.11b Channel No.:6

| Frequency (MHz) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | ARpl (dB/m) | Pmea (dBuV) | Polarity |
|-----------------|-----------------|----------------|-------------|-------------|-------------|----------|
| 47.896500       | 26.59           | 40.00          | 13.41       | -18.3       | 44.89       | Vertical |
| 59.051500       | 28.61           | 40.00          | 11.39       | -19.1       | 47.71       | Vertical |
| 160.368000      | 27.86           | 43.50          | 15.64       | -21.2       | 49.06       | Vertical |
| 178.410000      | 23.17           | 43.50          | 20.33       | -20.4       | 43.57       | Vertical |
| 549.968500      | 30.90           | 46.00          | 15.10       | -9.4        | 40.30       | Vertical |
| 649.975500      | 30.51           | 46.00          | 15.49       | -7.6        | 38.11       | Vertical |

For 802.11g Channel No.:6

| Frequency (MHz) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | ARpl (dB/m) | Pmea (dBuV) | Polarity |
|-----------------|-----------------|----------------|-------------|-------------|-------------|----------|
| 47.217500       | 27.01           | 40.00          | 12.99       | -18.3       | 45.31       | Vertical |
| 60.070000       | 29.05           | 40.00          | 10.95       | -19.3       | 48.35       | Vertical |
| 149.698000      | 28.85           | 43.50          | 14.65       | -21.7       | 50.55       | Vertical |
| 179.816500      | 22.40           | 43.50          | 21.10       | -20.3       | 42.70       | Vertical |
| 549.968500      | 30.85           | 46.00          | 15.15       | -9.4        | 40.25       | Vertical |
| 649.975500      | 30.11           | 46.00          | 15.89       | -7.6        | 37.71       | Vertical |

For 802.11n(HT20) Channel No.:6

| Frequency (MHz) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | ARpl (dB/m) | Pmea (dBuV) | Polarity |
|-----------------|-----------------|----------------|-------------|-------------|-------------|----------|
| 48.818000       | 25.38           | 40.00          | 14.62       | -18.3       | 43.68       | Vertical |
| 59.439500       | 28.90           | 40.00          | 11.10       | -19.2       | 48.10       | Vertical |
| 159.301000      | 28.38           | 43.50          | 15.12       | -21.3       | 49.68       | Vertical |
| 176.809500      | 23.45           | 43.50          | 20.05       | -20.5       | 43.95       | Vertical |
| 549.968500      | 30.68           | 46.00          | 15.32       | -9.4        | 40.08       | Vertical |
| 649.975500      | 30.22           | 46.00          | 15.78       | -7.6        | 37.82       | Vertical |

For 802.11b Channel No.:11

| Frequency (MHz) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | ARpl (dB/m) | Pmea (dBuV) | Polarity |
|-----------------|-----------------|----------------|-------------|-------------|-------------|----------|
| 47.072000       | 27.10           | 40.00          | 12.90       | -18.3       | 45.40       | Vertical |
| 58.954500       | 28.48           | 40.00          | 11.52       | -19.1       | 47.58       | Vertical |
| 147.515500      | 28.57           | 43.50          | 14.93       | -21.6       | 50.17       | Vertical |
| 175.015000      | 23.20           | 43.50          | 20.30       | -20.5       | 43.70       | Vertical |
| 549.968500      | 30.75           | 46.00          | 15.25       | -9.4        | 40.15       | Vertical |
| 649.975500      | 29.97           | 46.00          | 16.03       | -7.6        | 37.57       | Vertical |

For 802.11g Channel No.:11

| Frequency (MHz) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | ARpl (dB/m) | Pmea (dBuV) | Polarity |
|-----------------|-----------------|----------------|-------------|-------------|-------------|----------|
| 46.781000       | 26.64           | 40.00          | 13.36       | -18.3       | 44.94       | Vertical |



|            |       |       |       |       |       |          |
|------------|-------|-------|-------|-------|-------|----------|
| 61.185500  | 26.93 | 40.00 | 13.07 | -19.5 | 46.43 | Vertical |
| 157.409500 | 27.86 | 43.50 | 15.64 | -21.4 | 49.26 | Vertical |
| 177.003500 | 23.34 | 43.50 | 20.16 | -20.5 | 43.84 | Vertical |
| 549.968500 | 31.26 | 46.00 | 14.74 | -9.4  | 40.66 | Vertical |
| 649.975500 | 30.37 | 46.00 | 15.63 | -7.6  | 37.97 | Vertical |

For 802.11n(HT20) Channel No.:11

| Frequency (MHz) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | ARpl (dB/m) | Pmea (dBuV) | Polarity |
|-----------------|-----------------|----------------|-------------|-------------|-------------|----------|
| 47.266000       | 27.09           | 40.00          | 12.91       | -18.3       | 45.39       | Vertical |
| 59.633500       | 28.72           | 40.00          | 11.28       | -19.2       | 47.92       | Vertical |
| 145.187500      | 28.66           | 43.50          | 14.84       | -21.6       | 50.26       | Vertical |
| 174.045000      | 22.97           | 43.50          | 20.53       | -20.6       | 43.57       | Vertical |
| 549.968500      | 30.87           | 46.00          | 15.13       | -9.4        | 40.27       | Vertical |
| 649.975500      | 30.40           | 46.00          | 15.60       | -7.6        | 38.00       | Vertical |

For 802.11n(HT40) Channel No.:3

| Frequency (MHz) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | ARpl (dB/m) | Pmea (dBuV) | Polarity |
|-----------------|-----------------|----------------|-------------|-------------|-------------|----------|
| 38.487500       | 24.27           | 40.00          | 15.73       | -18.9       | 43.17       | Vertical |
| 58.906000       | 28.11           | 40.00          | 11.89       | -19.1       | 47.21       | Vertical |
| 126.078500      | 27.33           | 43.50          | 16.17       | -20.4       | 47.73       | Vertical |
| 190.098500      | 24.25           | 43.50          | 19.25       | -19.4       | 43.65       | Vertical |
| 351.167000      | 29.05           | 46.00          | 16.95       | -14.3       | 43.35       | Vertical |
| 649.975500      | 27.39           | 46.00          | 18.61       | -7.6        | 34.99       | Vertical |

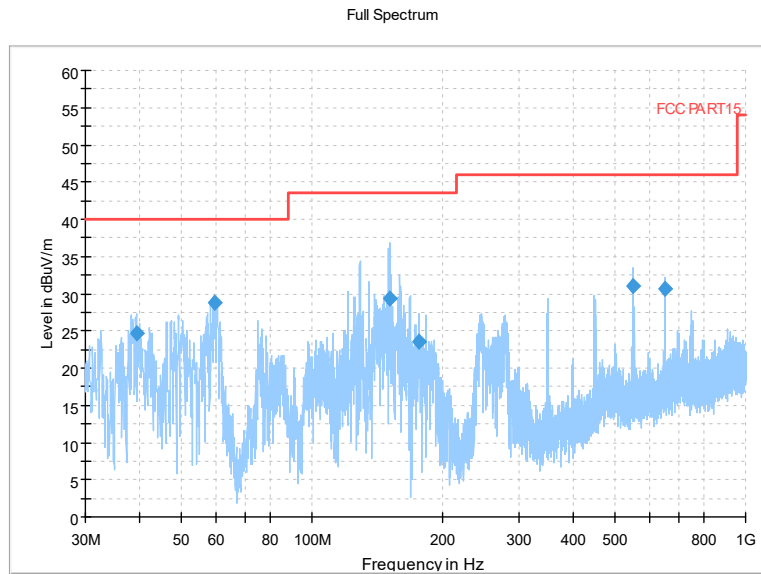
For 802.11n(HT40) Channel No.:6

| Frequency (MHz) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | ARpl (dB/m) | Pmea (dBuV) | Polarity |
|-----------------|-----------------|----------------|-------------|-------------|-------------|----------|
| 46.878000       | 26.36           | 40.00          | 13.64       | -18.3       | 44.66       | Vertical |
| 58.663500       | 27.93           | 40.00          | 12.07       | -19.1       | 47.03       | Vertical |
| 148.049000      | 28.42           | 43.50          | 15.08       | -21.7       | 50.12       | Vertical |
| 176.130500      | 23.71           | 43.50          | 19.79       | -20.5       | 44.21       | Vertical |
| 351.167000      | 29.09           | 46.00          | 16.91       | -14.3       | 43.39       | Vertical |
| 649.975500      | 27.39           | 46.00          | 18.61       | -7.6        | 34.99       | Vertical |

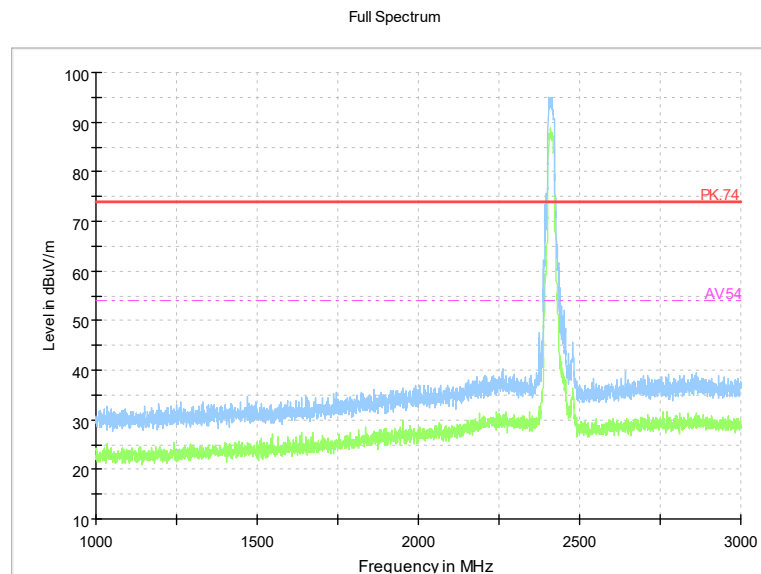
For 802.11n(HT40) Channel No.:9

| Frequency (MHz) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | ARpl (dB/m) | Pmea (dBuV) | Polarity |
|-----------------|-----------------|----------------|-------------|-------------|-------------|----------|
| 48.769500       | 24.58           | 40.00          | 15.42       | -18.3       | 42.88       | Vertical |
| 58.130000       | 27.04           | 40.00          | 12.96       | -19.1       | 46.14       | Vertical |
| 157.118500      | 25.83           | 43.50          | 17.67       | -21.4       | 47.23       | Vertical |
| 187.576500      | 23.61           | 43.50          | 19.89       | -19.6       | 43.21       | Vertical |
| 351.167000      | 29.08           | 46.00          | 16.92       | -14.3       | 43.38       | Vertical |
| 649.975500      | 27.40           | 46.00          | 18.60       | -7.6        | 35.00       | Vertical |

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

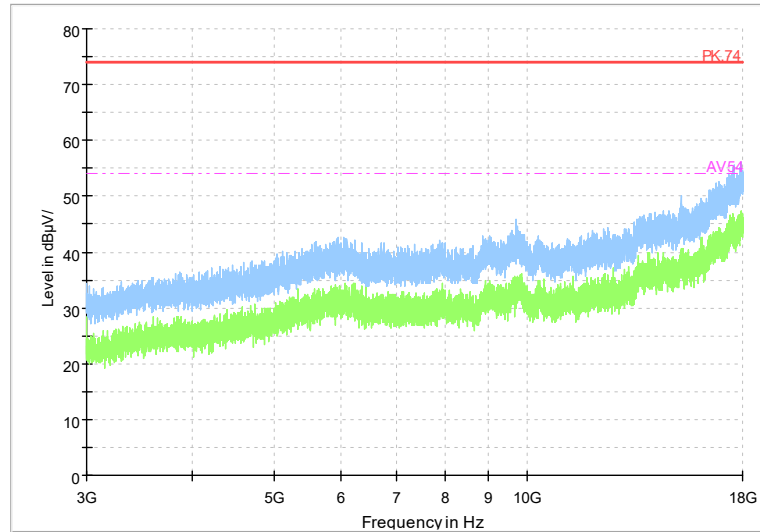


Frequency Range: 30MHz -1GHz  
Detector: QP mode  
Test Mode: 802.11b



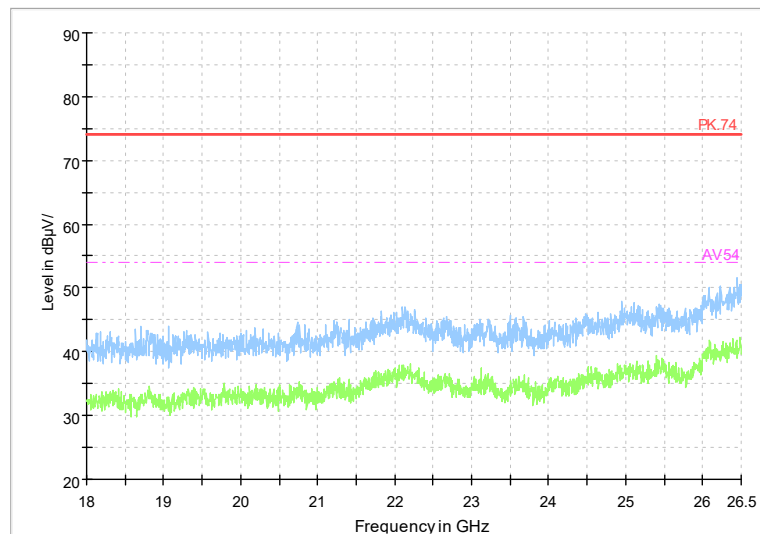
Frequency Range: 1GHz -3GHz  
Detector: Av mode and PK mode  
Modulation type: 802.11b

Full Spectrum



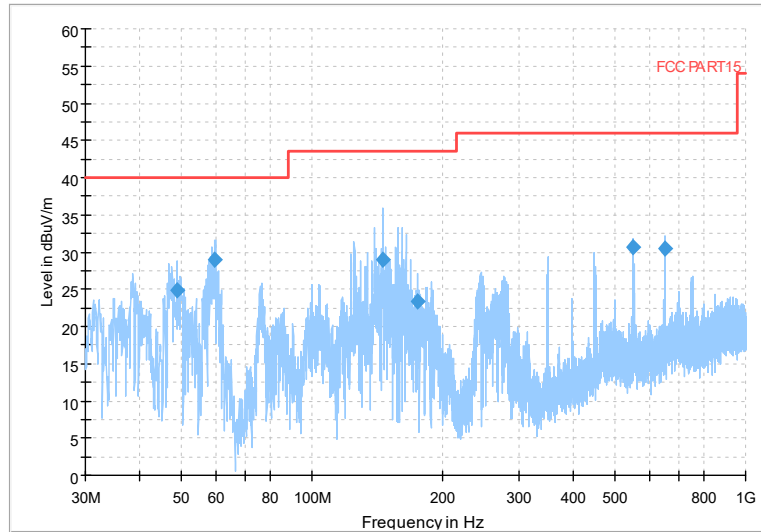
Frequency Range: 3GHz -18GHz  
Detector: Av mode and PK mode  
Modulation type: 802.11b

Full Spectrum



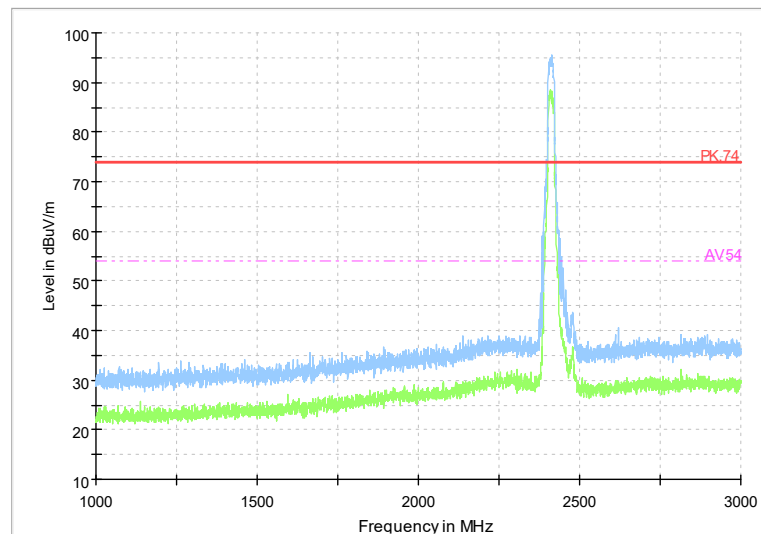
Frequency Range: 18GHz -25GHz  
Detector: Av mode and PK mode  
Modulation type: 802.11b

Full Spectrum



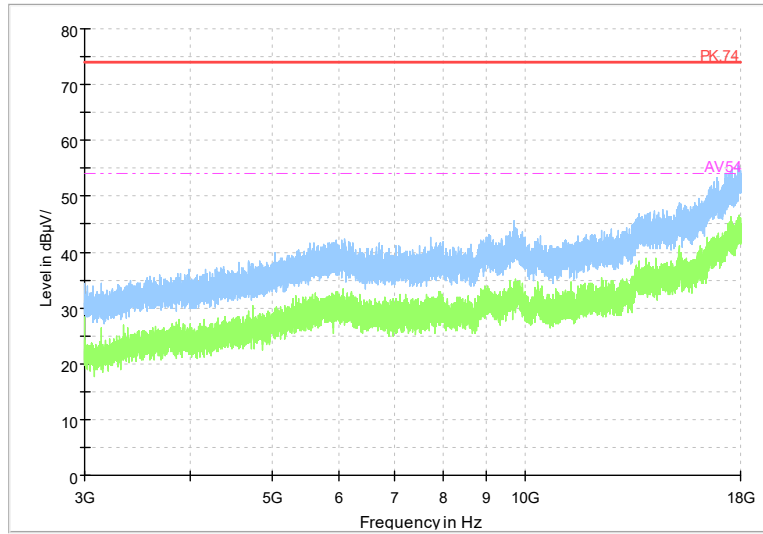
Frequency Range: 30MHz -1GHz  
Detector: QP mode  
Modulation type: 802.11g

Full Spectrum



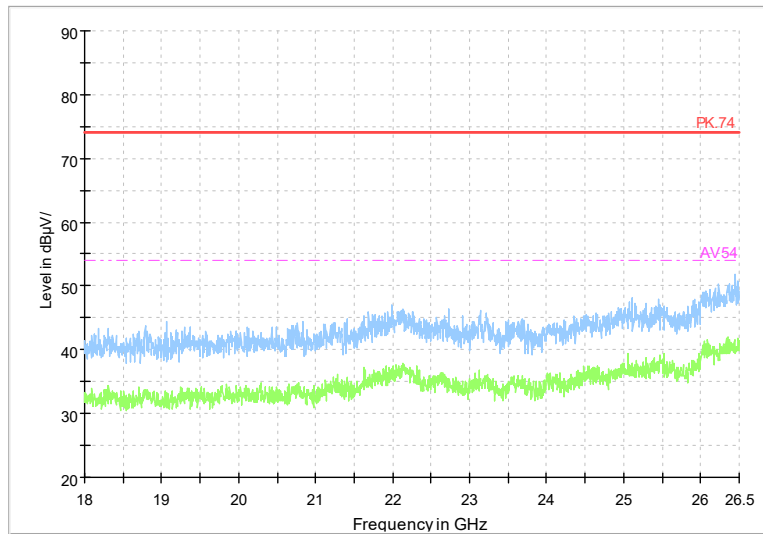
Frequency Range: 1GHz -3GHz  
Detector: Av mode and PK mode  
Modulation type: 802.11g

Full Spectrum



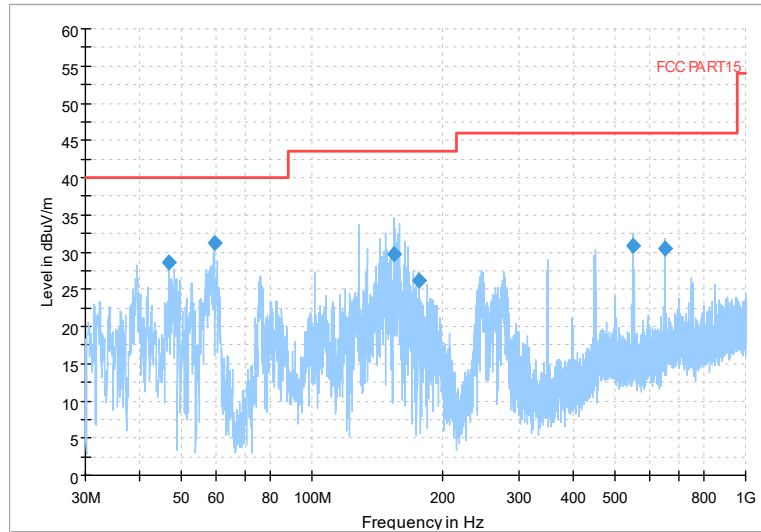
Frequency Range: 3GHz -18GHz  
Detector: Av mode and PK mode  
Modulation type: 802.11g

Full Spectrum



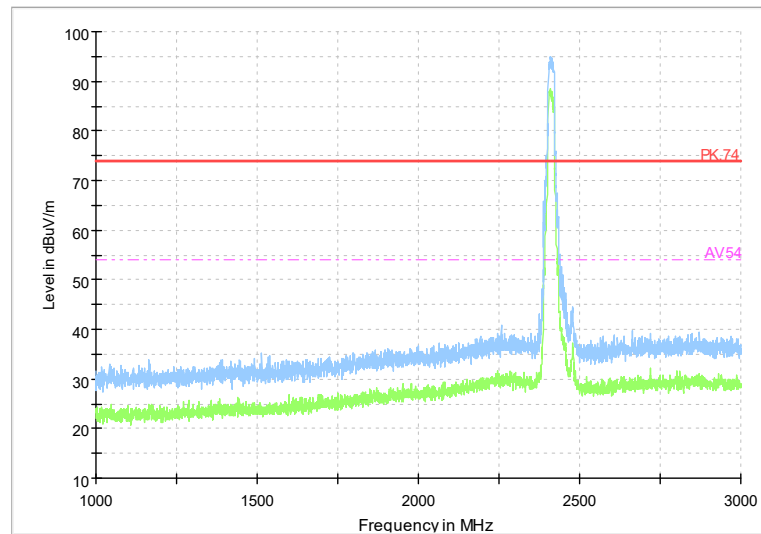
Frequency Range: 18GHz -25GHz  
Detector: Av mode and PK mode  
Modulation type: 802.11g

Full Spectrum



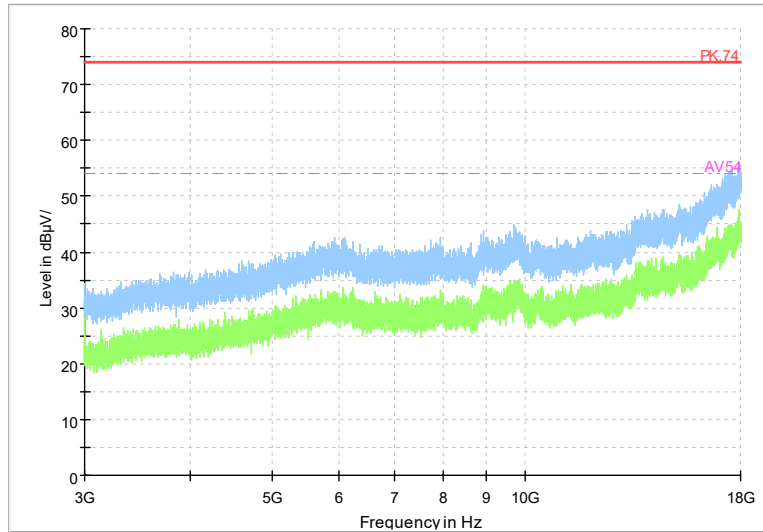
Frequency Range: 30MHz -1GHz  
Detector: QP mode  
Test Mode: 802.11n(HT20)

Full Spectrum



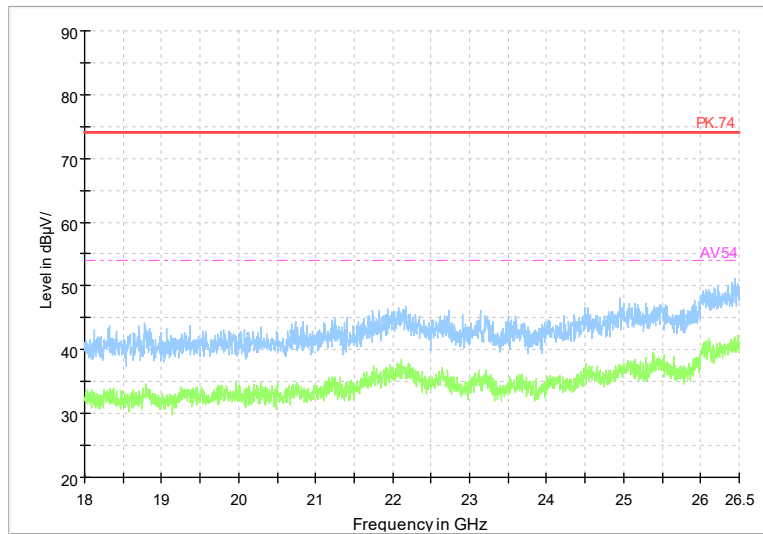
Frequency Range: 1GHz -3GHz  
Detector: Av mode and PK mode  
Modulation type: 802.11n(HT20)

Full Spectrum



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

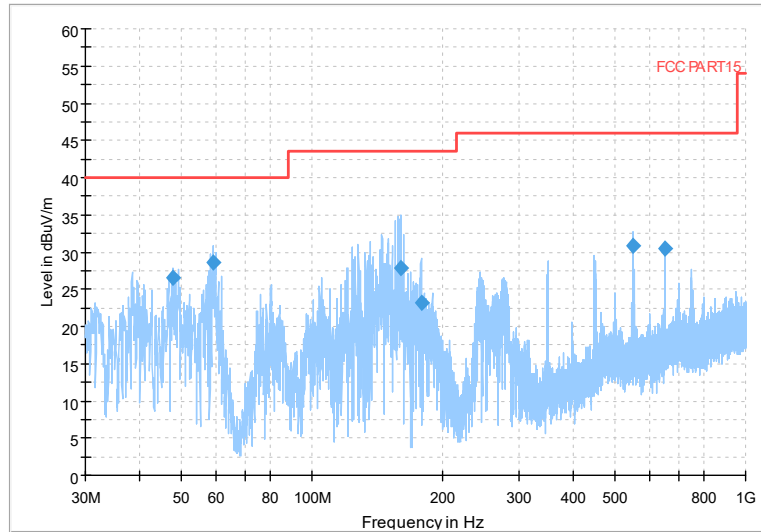
Full Spectrum



Frequency Range: 18GHz -25GHz  
Detector: Av mode and PK mode  
Modulation type: 802.11n(HT20)

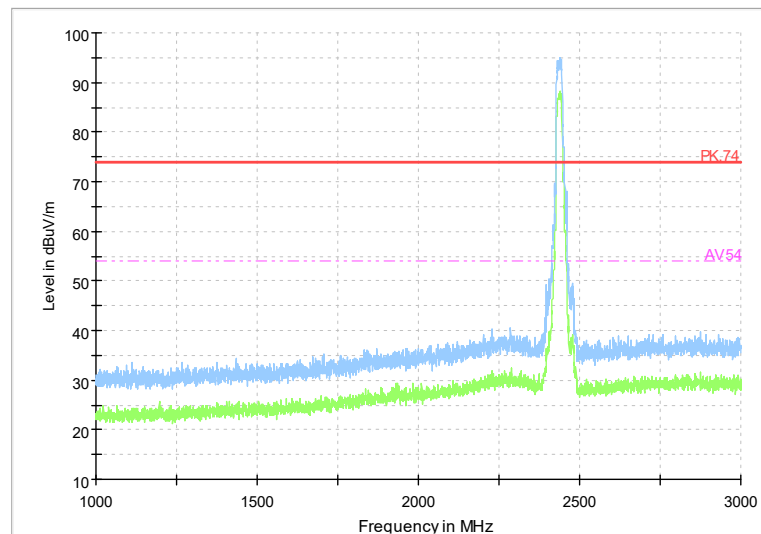
Carrier frequency (MHz): 2437  
Channel No.:6

Full Spectrum



Frequency Range: 30MHz -1GHz  
Detector: QP mode  
Test Mode: 802.11b

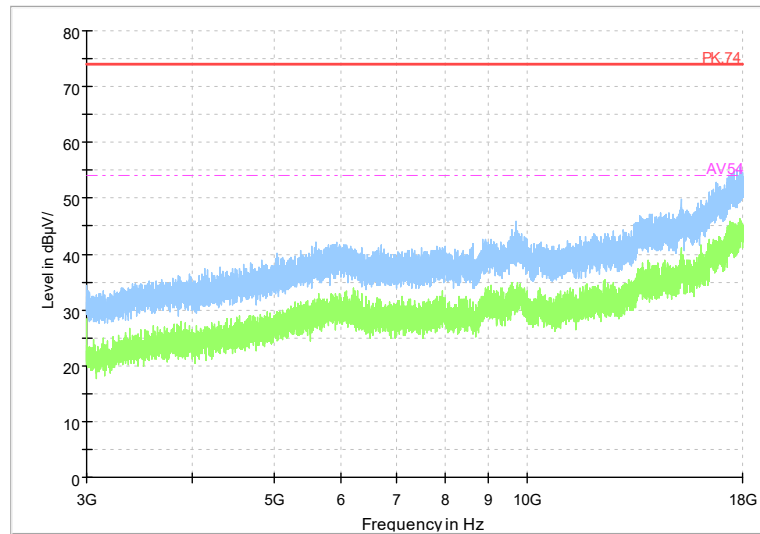
Full Spectrum



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

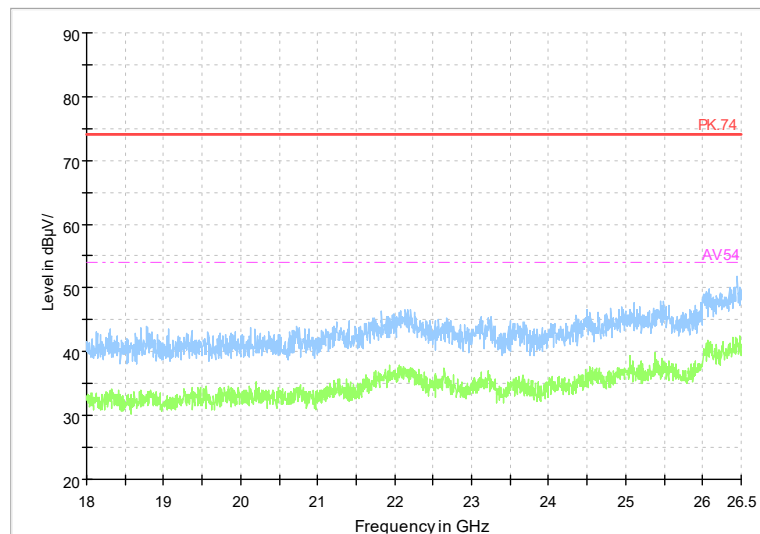


Full Spectrum



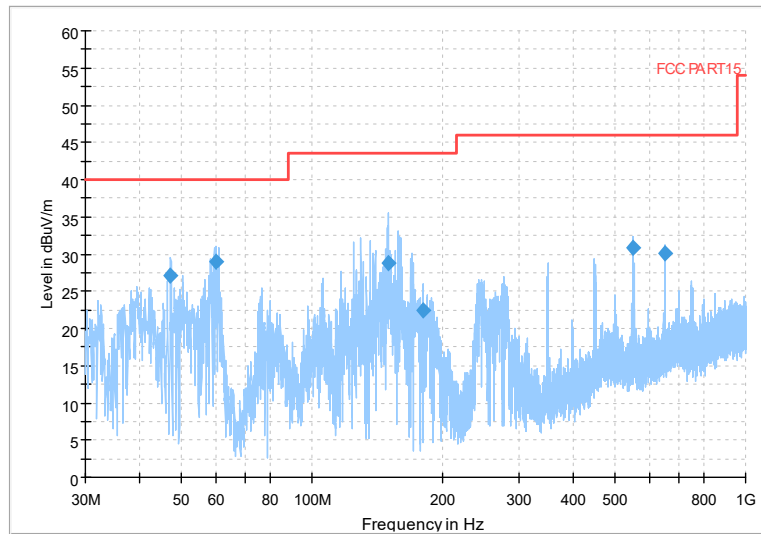
Frequency Range: 3GHz -18GHz  
Detector: Av mode and PK mode  
Modulation type: 802.11b

Full Spectrum



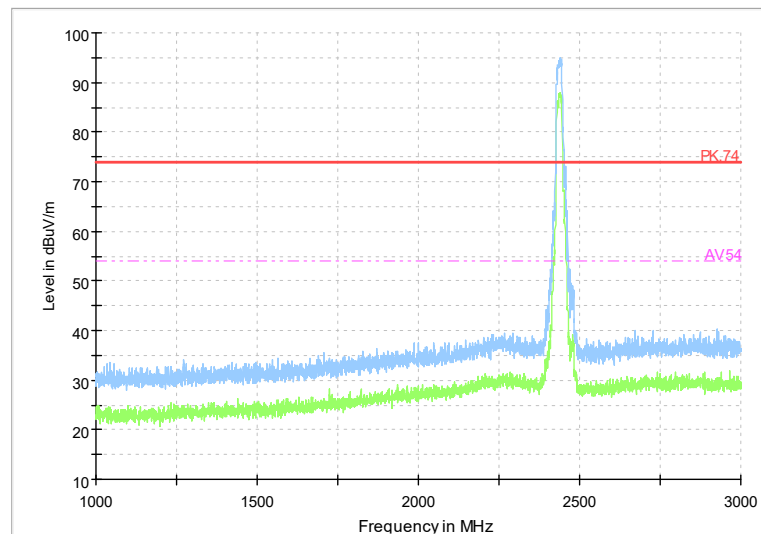
Frequency Range: 18GHz -25GHz  
Detector: Av mode and PK mode  
Modulation type: 802.11b

Full Spectrum



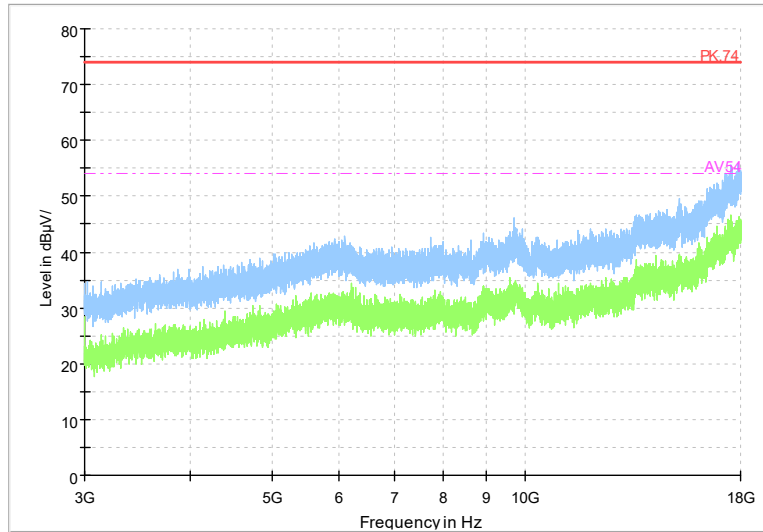
Frequency Range: 30MHz -1GHz  
Detector: QP mode  
Modulation type: 802.11g

Full Spectrum



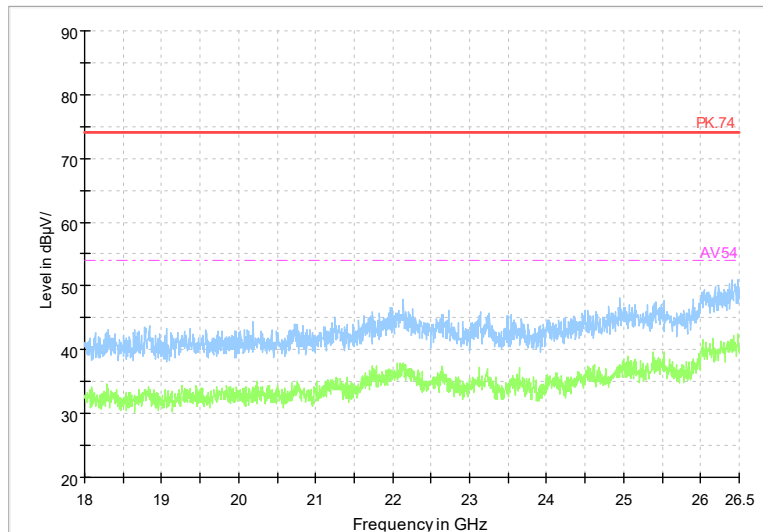
Frequency Range: 1GHz -3GHz  
Detector: Av mode and PK mode  
Modulation type: 802.11g

Full Spectrum



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

Full Spectrum



Frequency Range: 18GHz -25GHz  
Detector: Av mode and PK mode  
Modulation type: 802.11g