

# FCC 15.407 2015

## DUT Information

### Frequencies

|                        |                        |                        |
|------------------------|------------------------|------------------------|
| WLAN CH 38 (5190 MHz)  | WLAN CH 46 (5230 MHz)  | WLAN CH 151 (5755 MHz) |
| WLAN CH 159 (5795 MHz) | WLAN CH 54 (5270 MHz)  | WLAN CH 62 (5310 MHz)  |
| WLAN CH 102 (5510 MHz) | WLAN CH 110 (5550 MHz) | WLAN CH 118 (5590 MHz) |
| WLAN CH 134 (5670 MHz) |                        |                        |

### Bandwidths

40 MHz (40 MHz)

### Power

20.000 dBm (20 dBm)

### Beamforming Gain

20.000 dBm (20 dBm) 0 dB

### Gain Tables

20.000 dBm (20 dBm) Port 1: 0dBi;

### DUT Settings

|                            |          |
|----------------------------|----------|
| No. of transmission chains | 1        |
| DFS capability             | Yes      |
| DFS Mode                   | Master   |
| Equipment Type             | Portable |
| TPC                        | No       |

## Hardware Setup: WMS Measurements\Hardware Setup

|                    |                                                                                                                             |
|--------------------|-----------------------------------------------------------------------------------------------------------------------------|
| Spectrum Analyzer: | SA FSV 40 (SA FSV 40) @ VISA (ADR<br>TCPIP::192.168.48.111::INST0::INSTR), SN 1321.3008K39/101229,<br>FW 3.40               |
| Vector Generator:  | VG SMBV100B (VG SMBV100B) @ VISA (ADR<br>TCPIP::192.168.48.29::INST0::INSTR), SN 101685, FW 4.70.006.33                     |
| Generator:         | SMB100Aa (SMB100A) @ VISA (ADR<br>TCPIP::192.168.48.30::INST0::INSTR), SN 177894, FW / Drv:Rev<br>2.21.0, 07/2016, CVI 2015 |
| OSP:               | OSP-B157W (OSP-B157W) @ VISA (ADR<br>TCPIP::192.168.48.157::INST0::INSTR), SN 1527.1144. /, FW<br>1.23.0.2                  |

## Summary

| Test                            | Frequency<br>(MHz) | Nominal<br>Power<br>(dBm) | Nominal<br>Bandwidth<br>(MHz) | Result |
|---------------------------------|--------------------|---------------------------|-------------------------------|--------|
| Emission Bandwidth 26 dB        | 5190.000           | 20.0                      | 40.000000                     | PASS   |
| RF output power                 | 5190.000           | 20.0                      | 40.000000                     | PASS   |
| Power Spectral Density          | 5190.000           | 20.0                      | 40.000000                     | PASS   |
| Minimum Emission Bandwidth 6 dB | 5190.000           | 20.0                      | 40.000000                     | PASS   |
| Occupied Channel Bandwidth 99%  | 5190.000           | 20.0                      | 40.000000                     | PASS   |
| Band Edge low                   | 5190.000           | 20.0                      | 40.000000                     | PASS   |
| Emission Bandwidth 26 dB        | 5230.000           | 20.0                      | 40.000000                     | PASS   |
| RF output power                 | 5230.000           | 20.0                      | 40.000000                     | PASS   |
| Power Spectral Density          | 5230.000           | 20.0                      | 40.000000                     | PASS   |
| Minimum Emission Bandwidth 6 dB | 5230.000           | 20.0                      | 40.000000                     | PASS   |
| Occupied Channel Bandwidth 99%  | 5230.000           | 20.0                      | 40.000000                     | PASS   |
| Band Edge high                  | 5230.000           | 20.0                      | 40.000000                     | PASS   |

## Emission Bandwidth 26 dB (5190 MHz; 20.000 dBm; 40 MHz)

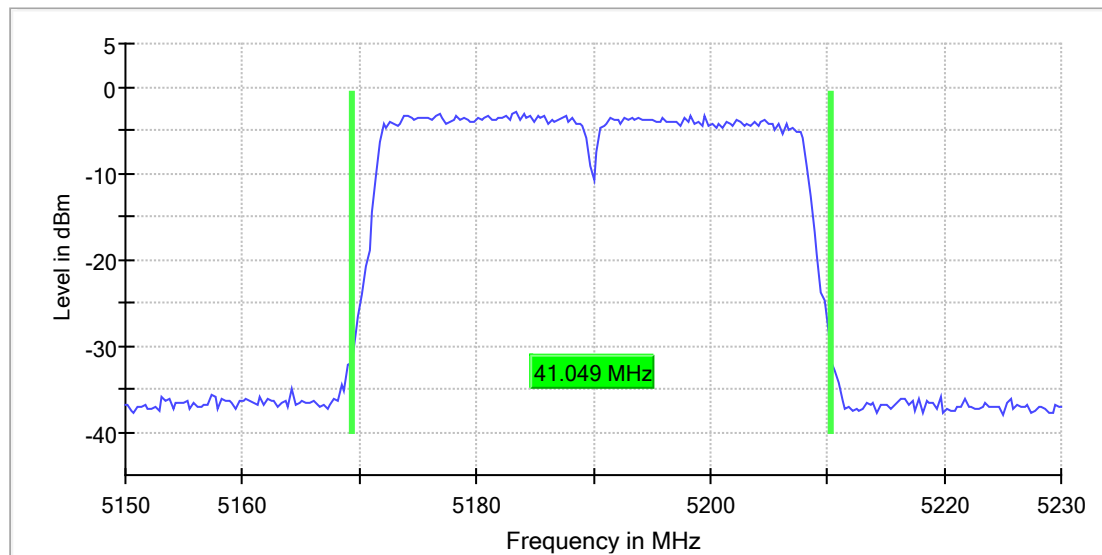
Test according to FCC title 47 part 15 §15.407(a),(e), KDB 789033 D02 General U-NII Test Procedures New Rules v01r03 and ANSI C63.10

### 26 dB Bandwidth

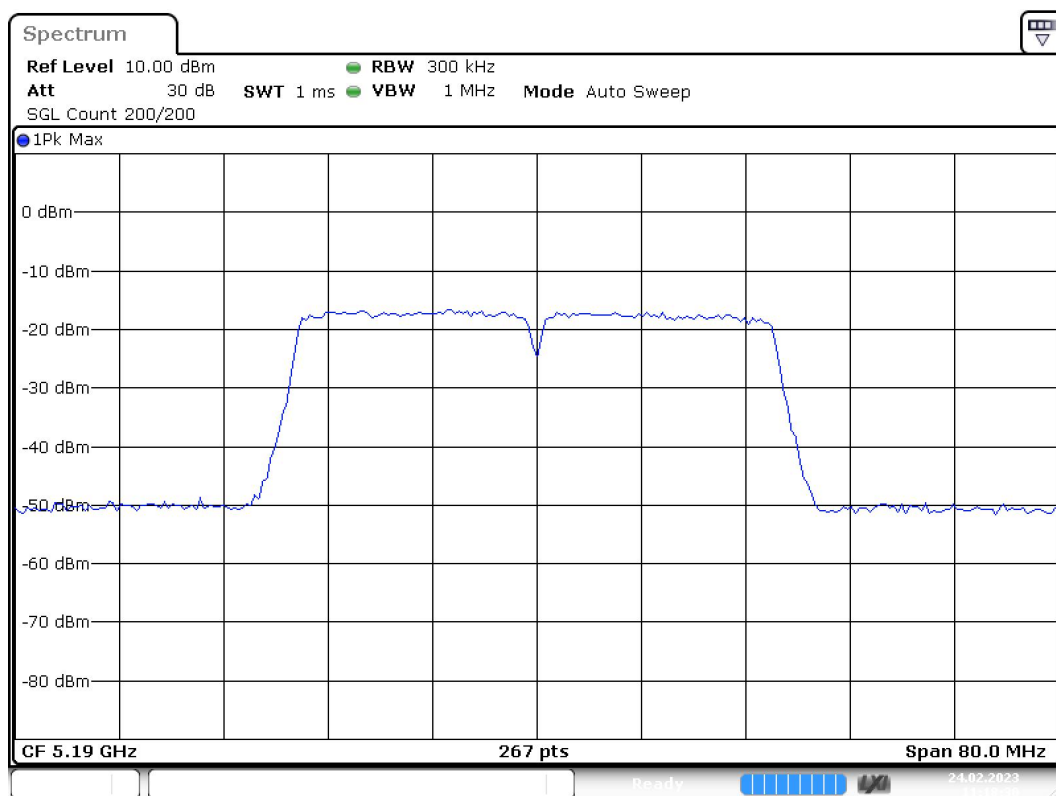
| DUT Frequency (MHz) | Bandwidth (MHz) | Limit Min (MHz) | Limit Max (MHz) | Band Edge Left (MHz) | Band Edge Right (MHz) |
|---------------------|-----------------|-----------------|-----------------|----------------------|-----------------------|
| 5190.000000         | 41.048689       | ---             | ---             | 5169.325843          | 5210.374532           |

(continuation of the "26 dB Bandwidth" table from column 6 ...)

| DUT Frequency (MHz) | Max Level (dBm) | Result |
|---------------------|-----------------|--------|
| 5190.000000         | -2.9            | PASS   |



Bandwidth



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## Measurement

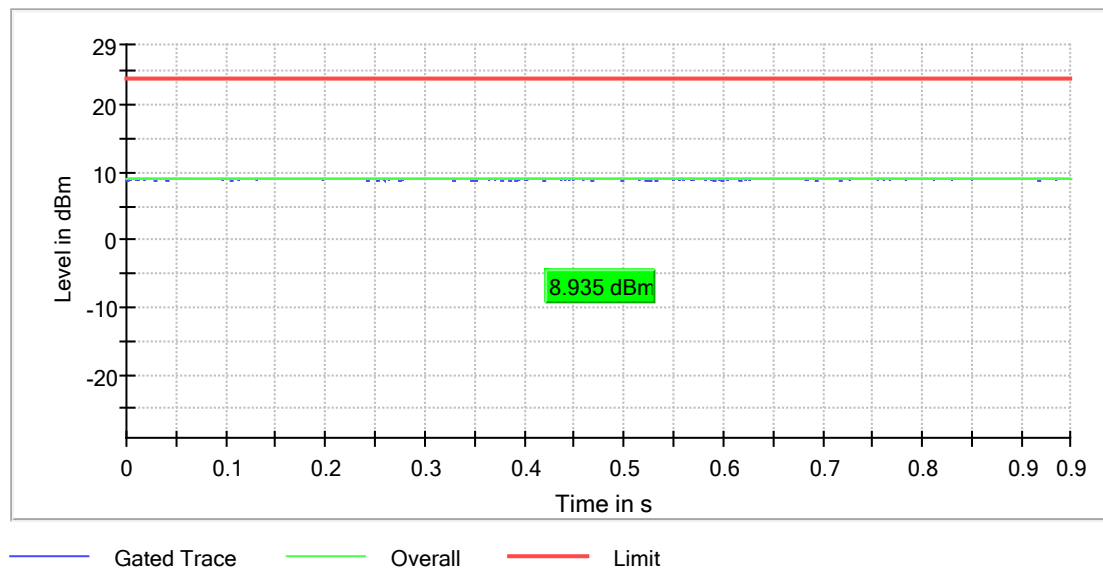
| Setting               | Instrument Value | Target Value   |
|-----------------------|------------------|----------------|
| Start Frequency       | 5.15000 GHz      | 5.15000 GHz    |
| Stop Frequency        | 5.23000 GHz      | 5.23000 GHz    |
| Span                  | 80.000 MHz       | 80.000 MHz     |
| RBW                   | 300.000 kHz      | ~ 400.000 kHz  |
| VBW                   | 1.000 MHz        | >= 900.000 kHz |
| SweepPoints           | 267              | ~ 267          |
| SweepTime             | 1.000 ms         | AUTO           |
| Reference Level       | 10.000 dBm       | 10.000 dBm     |
| Attenuation           | 30.000 dB        | AUTO           |
| Detector              | MaxPeak          | MaxPeak        |
| SweepCount            | 200              | 200            |
| Filter                | 3 dB             | 3 dB           |
| Trace Mode            | Max Hold         | Max Hold       |
| SweepType             | Sweep            | AUTO           |
| Preamp                | off              | off            |
| Stablemode            | Trace            | Trace          |
| Stablevalue           | 0.30 dB          | 0.30 dB        |
| Run                   | 69 / max. 150    | max. 150       |
| Stable                | 5 / 5            | 5              |
| Max Stable Difference | 0.00 dB          | 0.30 dB        |

## RF output power (5190 MHz; 20.000 dBm; 40 MHz)

Test according to FCC title 47 part 15 §15.407(a), KDB 789033 D02 General U-NII Test Procedures New Rules v01r03 and ANSI C63.10

### Result

| DUT Frequency (MHz) | Gated RMS (dBm) | Limit Max (dBm) | Gated EIRP (dBm) | DutyCycle (%) | Result |
|---------------------|-----------------|-----------------|------------------|---------------|--------|
| 5190.000000         | 8.9             | 24.0            | 8.9              | 94.764        | PASS   |



## Power Spectral Density (5190 MHz; 20.000 dBm; 40 MHz)

Customized settings.

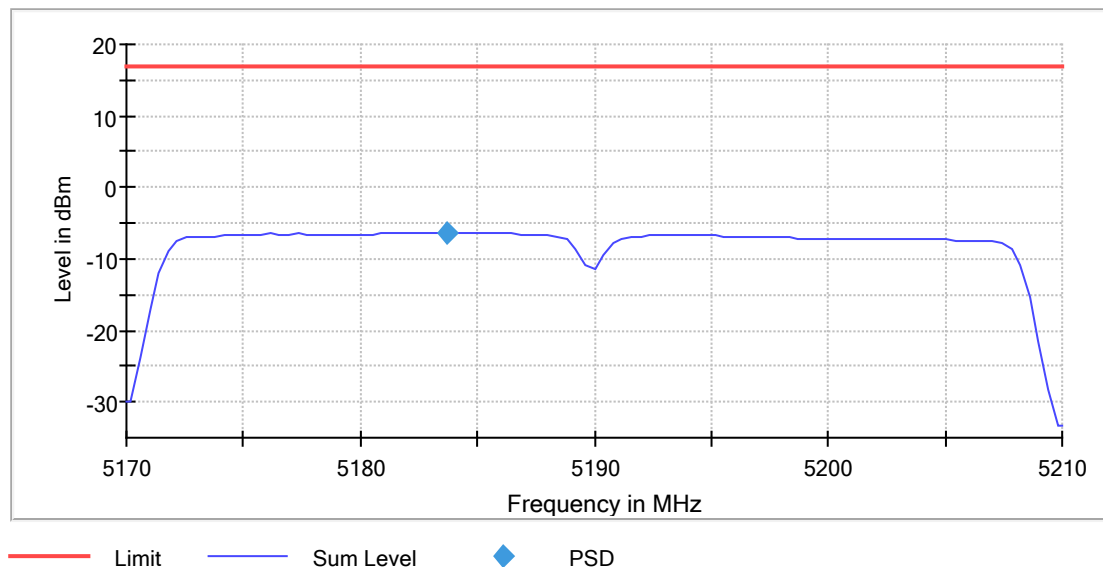
Test according to FCC title 47 part 15 §15.407(a), KDB 789033 D02 General U-NII Test Procedures New Rules v01r03 and ANSI C63.10

### Result

| DUT Frequency (MHz) | Frequency (MHz) | PSD (dBm) | Limit Max (dBm) | Result |
|---------------------|-----------------|-----------|-----------------|--------|
| 5190.000000         | 5183.663366     | -6.358    | 17.0            | PASS   |

### Ports

| Port | Duty Cycle (%) |
|------|----------------|
| 1    | 94.544         |



### Measurement

| Setting         | Instrument Value | Target Value |
|-----------------|------------------|--------------|
| Start Frequency | 5.17000 GHz      | 5.17000 GHz  |
| Stop Frequency  | 5.21000 GHz      | 5.21000 GHz  |
| Span            | 40.000 MHz       | 40.000 MHz   |
| RBW             | 1.000 MHz        | <= 1.000 MHz |
| VBW             | 3.000 MHz        | >= 3.000 MHz |
| SweepPoints     | 101              | ~ 80         |
| SweepTime       | 2.020 s          | 2.020 s      |
| Reference Level | 0.000 dBm        | 0.000 dBm    |
| Attenuation     | 20.000 dB        | AUTO         |
| Detector        | RMS              | RMS          |
| SweepCount      | 100              | 100          |
| Filter          | 3 dB             | 3 dB         |
| Trace Mode      | Max Hold         | Max Hold     |
| SweepType       | Sweep            | AUTO         |
| Preamp          | off              | off          |
| Stablemode      | Trace            | Trace        |
| Stablevalue     | 0.30 dB          | 0.30 dB      |

|                              |                    |                |
|------------------------------|--------------------|----------------|
| <b>Run</b>                   | <b>2 / max. 15</b> | <b>max. 15</b> |
| <b>Stable</b>                | <b>1 / 1</b>       | <b>1</b>       |
| <b>Max Stable Difference</b> | <b>0.01 dB</b>     | <b>0.30 dB</b> |

## Minimum Emission Bandwidth 6 dB (5190 MHz; 20.000 dBm; 40 MHz)

Customized settings.

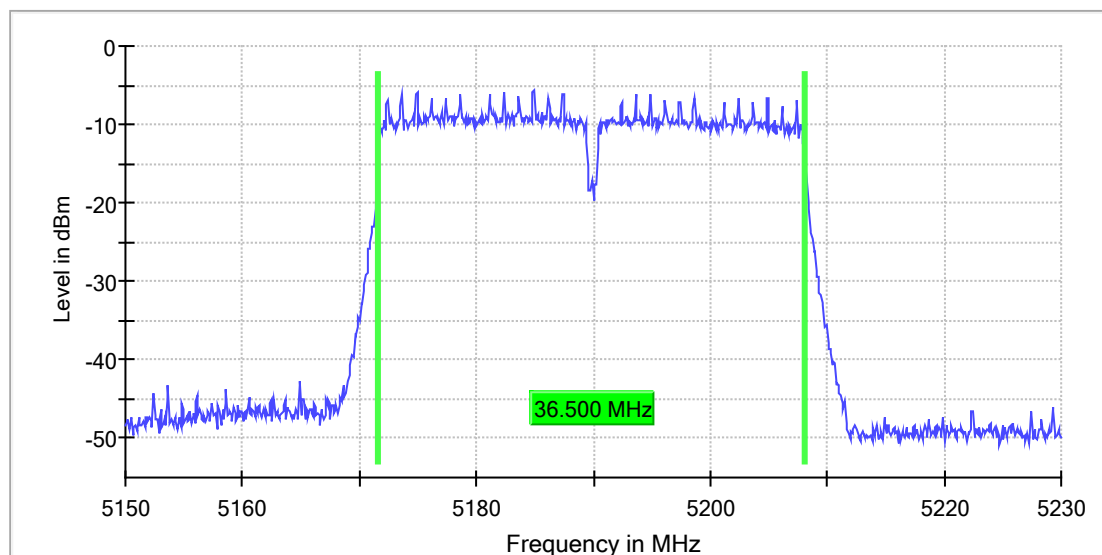
Test according to FCC title 47 part 15 §15.407(a),(e), KDB 789033 D02 General U-NII Test Procedures New Rules v01r03 and ANSI C63.10

### 6 dB Bandwidth

| DUT Frequency (MHz) | Bandwidth (MHz) | Limit Min (MHz) | Limit Max (MHz) | Band Edge Left (MHz) | Band Edge Right (MHz) |
|---------------------|-----------------|-----------------|-----------------|----------------------|-----------------------|
| 5190.000000         | 36.500000       | ---             | ---             | 5171.650000          | 5208.150000           |

(continuation of the "6 dB Bandwidth" table from column 6 ...)

| DUT Frequency (MHz) | Max Level (dBm) | Result |
|---------------------|-----------------|--------|
| 5190.000000         | -5.6            | PASS   |



### Measurement

| Setting         | Instrument Value | Target Value  |
|-----------------|------------------|---------------|
| Start Frequency | 5.15000 GHz      | 5.15000 GHz   |
| Stop Frequency  | 5.23000 GHz      | 5.23000 GHz   |
| Span            | 80.000 MHz       | 80.000 MHz    |
| RBW             | 100.000 kHz      | ~ 100.000 kHz |
| VBW             | 300.000 kHz      | ~ 300.000 kHz |
| SweepPoints     | 800              | ~ 800         |
| Sweeptime       | 1.070 ms         | AUTO          |
| Reference Level | 0.000 dBm        | 0.000 dBm     |
| Attenuation     | 20.000 dB        | AUTO          |
| Detector        | MaxPeak          | MaxPeak       |
| SweepCount      | 200              | 200           |
| Filter          | 3 dB             | 3 dB          |
| Trace Mode      | Max Hold         | Max Hold      |
| Sweeptype       | Sweep            | AUTO          |
| Preamp          | off              | off           |
| Stablemode      | Trace            | Trace         |

|                              |                      |                 |
|------------------------------|----------------------|-----------------|
| <b>Stablevalue</b>           | <b>0.30 dB</b>       | <b>0.30 dB</b>  |
| <b>Run</b>                   | <b>25 / max. 150</b> | <b>max. 150</b> |
| <b>Stable</b>                | <b>1 / 1</b>         | <b>1</b>        |
| <b>Max Stable Difference</b> | <b>0.26 dB</b>       | <b>0.30 dB</b>  |

## Occupied Channel Bandwidth 99% (5190 MHz; 20.000 dBm; 40 MHz)

Customized settings.

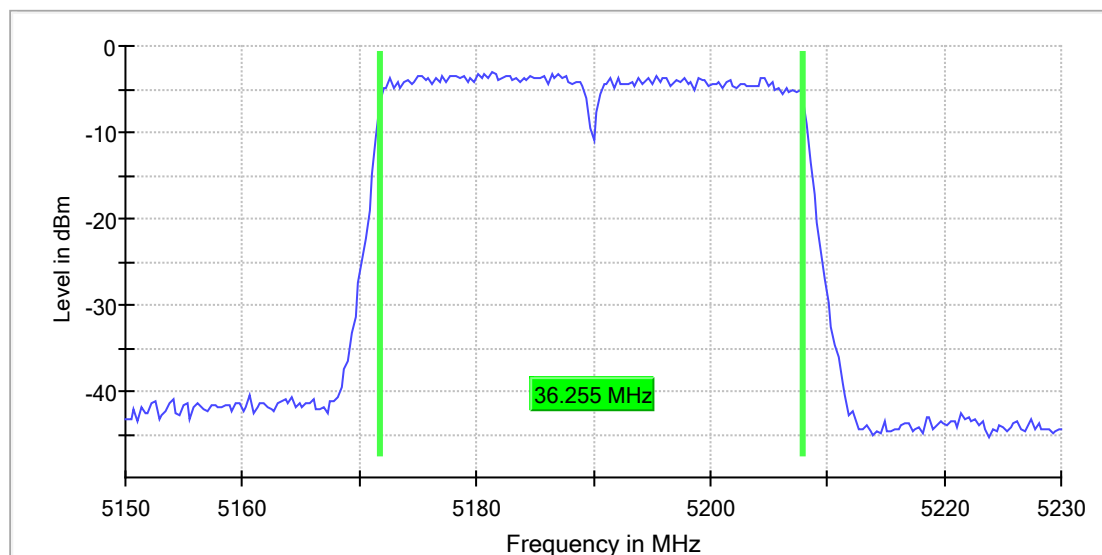
Test according to FCC title 47 part 15 §15.407(a),(e), KDB 789033 D02 General U-NII Test Procedures New Rules v01r03 and ANSI C63.10

### 99 % Bandwidth

| DUT Frequency (MHz) | Bandwidth (MHz) | Limit Min (MHz) | Limit Max (MHz) | Band Edge Left (MHz) | Band Edge Right (MHz) |
|---------------------|-----------------|-----------------|-----------------|----------------------|-----------------------|
| 5190.000000         | 36.254682       | ---             | ---             | 5171.722846          | 5207.977528           |

(continuation of the "99 % Bandwidth" table from column 6 ...)

| DUT Frequency (MHz) | Result |
|---------------------|--------|
| 5190.000000         | PASS   |



### Measurement

| Setting         | Instrument Value | Target Value   |
|-----------------|------------------|----------------|
| Start Frequency | 5.15000 GHz      | 5.15000 GHz    |
| Stop Frequency  | 5.23000 GHz      | 5.23000 GHz    |
| Span            | 80.000 MHz       | 80.000 MHz     |
| RBW             | 300.000 kHz      | <= 400.000 kHz |
| VBW             | 1.000 MHz        | >= 900.000 kHz |
| SweepPoints     | 267              | ~ 267          |
| SweepTime       | 1.000 ms         | AUTO           |
| Reference Level | 0.000 dBm        | 0.000 dBm      |
| Attenuation     | 20.000 dB        | AUTO           |
| Detector        | MaxPeak          | MaxPeak        |
| SweepCount      | 200              | 200            |
| Filter          | 3 dB             | 3 dB           |
| Trace Mode      | Max Hold         | Max Hold       |
| SweepType       | Sweep            | AUTO           |
| Preamp          | off              | off            |
| Stablemode      | Trace            | Trace          |
| Stablevalue     | 0.30 dB          | 0.30 dB        |
| Run             | 33 / max. 150    | max. 150       |

|                              |                |                |
|------------------------------|----------------|----------------|
| <b>Stable</b>                | <b>1 / 1</b>   | <b>1</b>       |
| <b>Max Stable Difference</b> | <b>0.26 dB</b> | <b>0.30 dB</b> |

## Band Edge low (5190 MHz; 20.000 dBm; 40 MHz)

Customized settings.

Test according to FCC title 47 part 15 §15.407(b), KDB 789033 D02 General U-NII Test Procedures New Rules v01r03 and ANSI C63.10

### Result

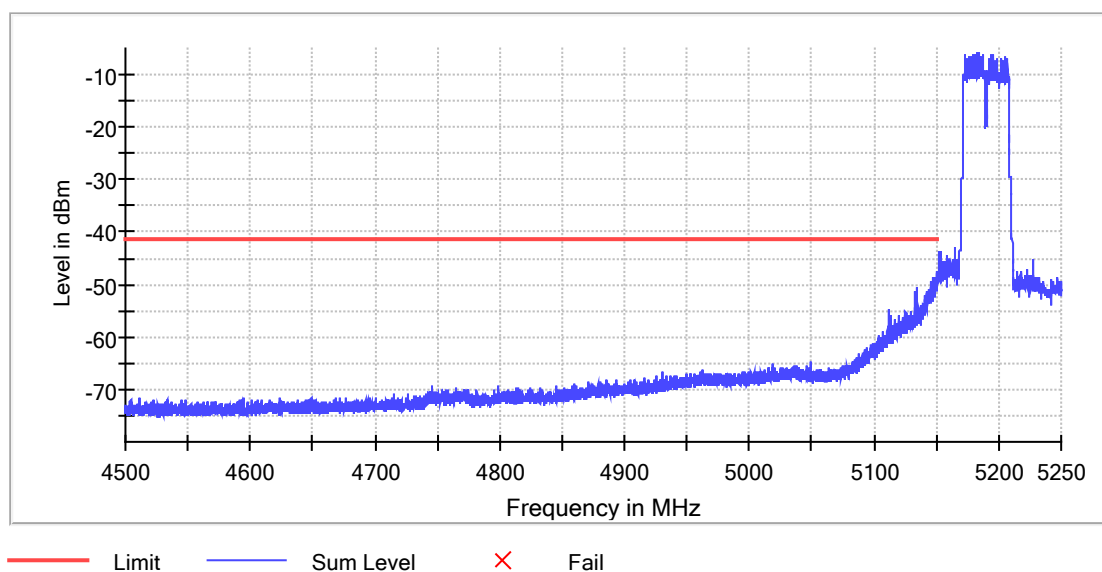
| DUT Frequency (MHz) | Result |
|---------------------|--------|
| 5190.000000         | PASS   |

### Inband Peak

| Frequency (MHz) | Level (dBm) |
|-----------------|-------------|
| 5184.875000     | -5.7        |

### Measurements

| Frequency (MHz) | Level (dBm) | Margin (dB) | Limit (dBm) | Result |
|-----------------|-------------|-------------|-------------|--------|
| 5146.775000     | -48.6       | 7.4         | -41.2       | PASS   |
| 5149.025000     | -48.6       | 7.4         | -41.2       | PASS   |
| 5148.975000     | -48.8       | 7.6         | -41.2       | PASS   |
| 5146.825000     | -48.9       | 7.7         | -41.2       | PASS   |
| 5149.875000     | -48.9       | 7.7         | -41.2       | PASS   |
| 5149.575000     | -48.9       | 7.7         | -41.2       | PASS   |
| 5149.925000     | -49.0       | 7.8         | -41.2       | PASS   |
| 5149.525000     | -49.4       | 8.2         | -41.2       | PASS   |
| 5145.825000     | -49.5       | 8.3         | -41.2       | PASS   |
| 5145.875000     | -49.5       | 8.3         | -41.2       | PASS   |
| 5149.325000     | -49.6       | 8.3         | -41.2       | PASS   |
| 5149.075000     | -49.6       | 8.4         | -41.2       | PASS   |
| 5146.725000     | -49.7       | 8.5         | -41.2       | PASS   |
| 5149.275000     | -49.7       | 8.5         | -41.2       | PASS   |
| 5148.625000     | -49.8       | 8.6         | -41.2       | PASS   |



### Measurement 1

| Setting               | Instrument Value | Target Value   |
|-----------------------|------------------|----------------|
| Start Frequency       | 5.15000 GHz      | 5.15000 GHz    |
| Stop Frequency        | 5.25000 GHz      | 5.25000 GHz    |
| Span                  | 100.000 MHz      | 100.000 MHz    |
| RBW                   | 100.000 kHz      | <= 100.000 kHz |
| VBW                   | 300.000 kHz      | >= 300.000 kHz |
| SweepPoints           | 2000             | ~ 2000         |
| SweepTime             | 227.813 $\mu$ s  | AUTO           |
| Reference Level       | 0.000 dBm        | 0.000 dBm      |
| Attenuation           | 20.000 dB        | AUTO           |
| Detector              | MaxPeak          | MaxPeak        |
| SweepCount            | 100              | 100            |
| Filter                | 3 dB             | 3 dB           |
| Trace Mode            | Max Hold         | Max Hold       |
| SweepType             | FFT              | AUTO           |
| Preamp                | off              | off            |
| Stablemode            | Trace            | Trace          |
| Stablevalue           | 0.50 dB          | 0.50 dB        |
| Run                   | 57 / max. 150    | max. 150       |
| Stable                | 3 / 3            | 3              |
| Max Stable Difference | 0.47 dB          | 0.50 dB        |

## Measurement 2

| Setting               | Instrument Value | Target Value   |
|-----------------------|------------------|----------------|
| Start Frequency       | 4.50000 GHz      | 4.50000 GHz    |
| Stop Frequency        | 5.15000 GHz      | 5.15000 GHz    |
| Span                  | 650.000 MHz      | 650.000 MHz    |
| RBW                   | 100.000 kHz      | <= 100.000 kHz |
| VBW                   | 300.000 kHz      | >= 300.000 kHz |
| SweepPoints           | 13000            | ~ 13000        |
| SweepTime             | 13.000 ms        | AUTO           |
| Reference Level       | -20.000 dBm      | -20.000 dBm    |
| Attenuation           | 0.000 dB         | AUTO           |
| Detector              | MaxPeak          | MaxPeak        |
| SweepCount            | 100              | 100            |
| Filter                | 3 dB             | 3 dB           |
| Trace Mode            | Max Hold         | Max Hold       |
| SweepType             | Sweep            | AUTO           |
| Preamp                | off              | off            |
| Stablemode            | Trace            | Trace          |
| Stablevalue           | 0.50 dB          | 0.50 dB        |
| Run                   | 53 / max. 150    | max. 150       |
| Stable                | 3 / 3            | 3              |
| Max Stable Difference | 0.18 dB          | 0.50 dB        |

## Emission Bandwidth 26 dB (5230 MHz; 20.000 dBm; 40 MHz)

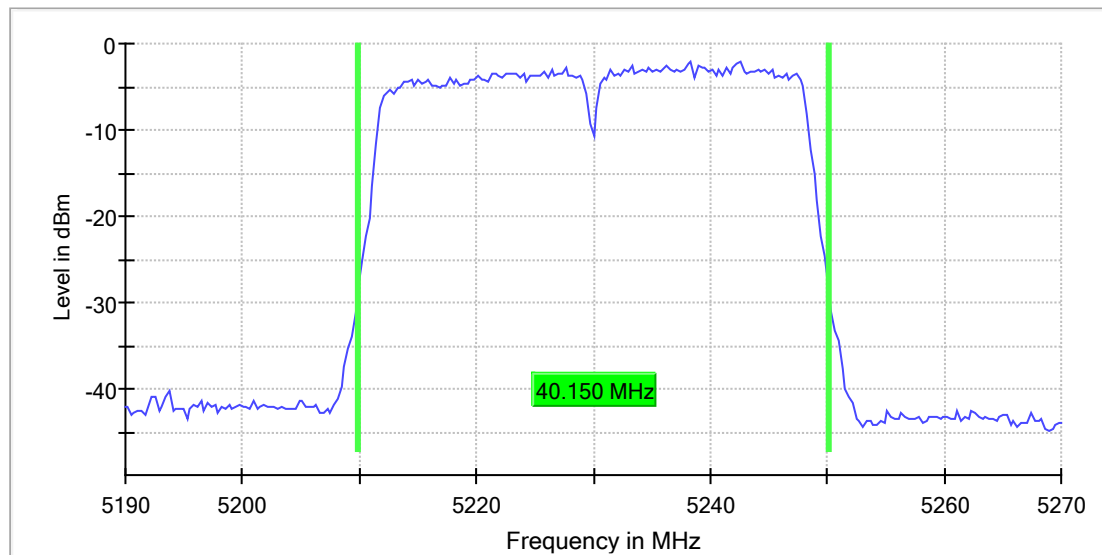
Test according to FCC title 47 part 15 §15.407(a),(e), KDB 789033 D02 General U-NII Test Procedures New Rules v01r03 and ANSI C63.10

### 26 dB Bandwidth

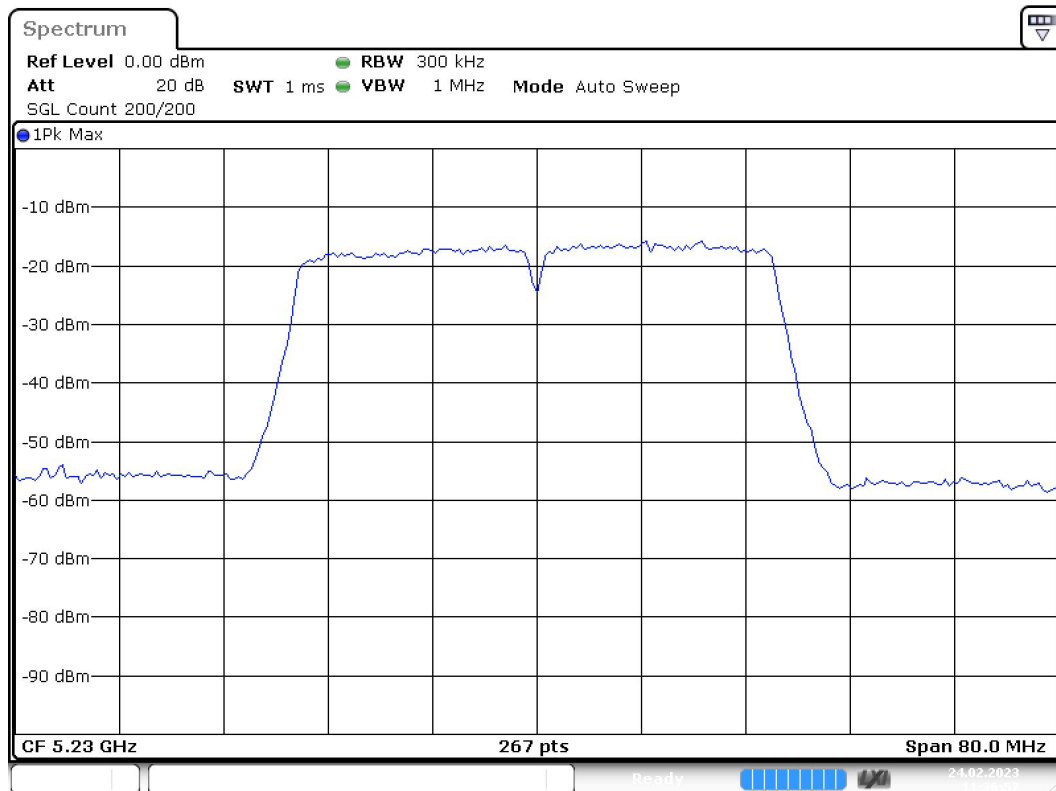
| DUT Frequency (MHz) | Bandwidth (MHz) | Limit Min (MHz) | Limit Max (MHz) | Band Edge Left (MHz) | Band Edge Right (MHz) |
|---------------------|-----------------|-----------------|-----------------|----------------------|-----------------------|
| 5230.000000         | 40.149812       | ---             | ---             | 5209.925094          | 5250.074906           |

(continuation of the "26 dB Bandwidth" table from column 6 ...)

| DUT Frequency (MHz) | Max Level (dBm) | Result |
|---------------------|-----------------|--------|
| 5230.000000         | -2.1            | PASS   |



Bandwidth



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## Measurement

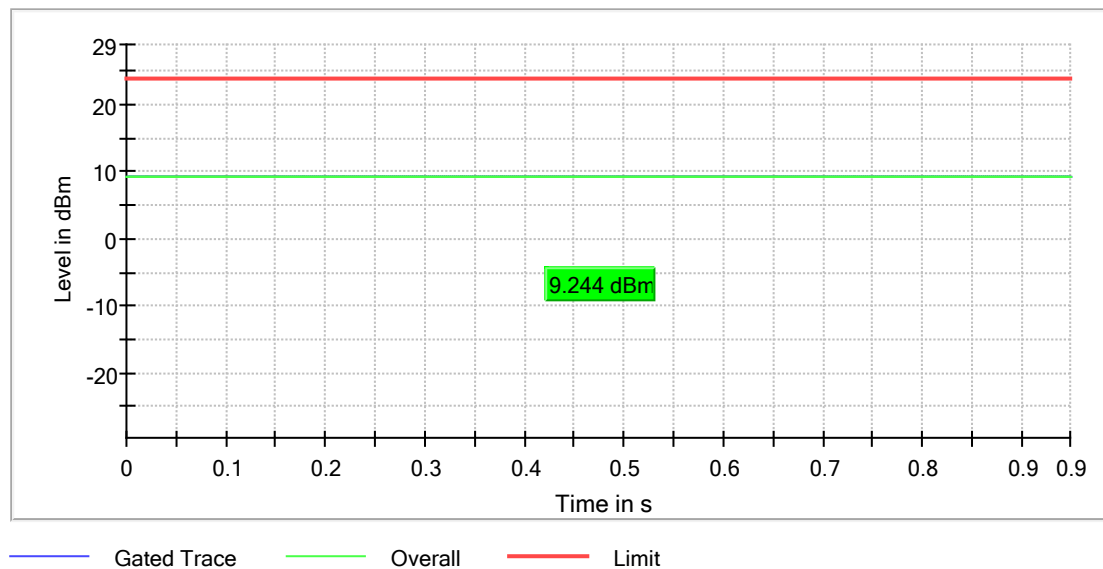
| Setting               | Instrument Value | Target Value   |
|-----------------------|------------------|----------------|
| Start Frequency       | 5.19000 GHz      | 5.19000 GHz    |
| Stop Frequency        | 5.27000 GHz      | 5.27000 GHz    |
| Span                  | 80.000 MHz       | 80.000 MHz     |
| RBW                   | 300.000 kHz      | ~ 400.000 kHz  |
| VBW                   | 1.000 MHz        | >= 900.000 kHz |
| SweepPoints           | 267              | ~ 267          |
| SweepTime             | 1.000 ms         | AUTO           |
| Reference Level       | 0.000 dBm        | 0.000 dBm      |
| Attenuation           | 20.000 dB        | AUTO           |
| Detector              | MaxPeak          | MaxPeak        |
| SweepCount            | 200              | 200            |
| Filter                | 3 dB             | 3 dB           |
| Trace Mode            | Max Hold         | Max Hold       |
| SweepType             | Sweep            | AUTO           |
| Preamp                | off              | off            |
| Stablemode            | Trace            | Trace          |
| Stablevalue           | 0.30 dB          | 0.30 dB        |
| Run                   | 87 / max. 150    | max. 150       |
| Stable                | 5 / 5            | 5              |
| Max Stable Difference | 0.00 dB          | 0.30 dB        |

## RF output power (5230 MHz; 20.000 dBm; 40 MHz)

Test according to FCC title 47 part 15 §15.407(a), KDB 789033 D02 General U-NII Test Procedures New Rules v01r03 and ANSI C63.10

### Result

| DUT Frequency (MHz) | Gated RMS (dBm) | Limit Max (dBm) | Gated EIRP (dBm) | DutyCycle (%) | Result |
|---------------------|-----------------|-----------------|------------------|---------------|--------|
| 5230.000000         | 9.2             | 24.0            | 9.2              | 94.755        | PASS   |



## Power Spectral Density (5230 MHz; 20.000 dBm; 40 MHz)

Customized settings.

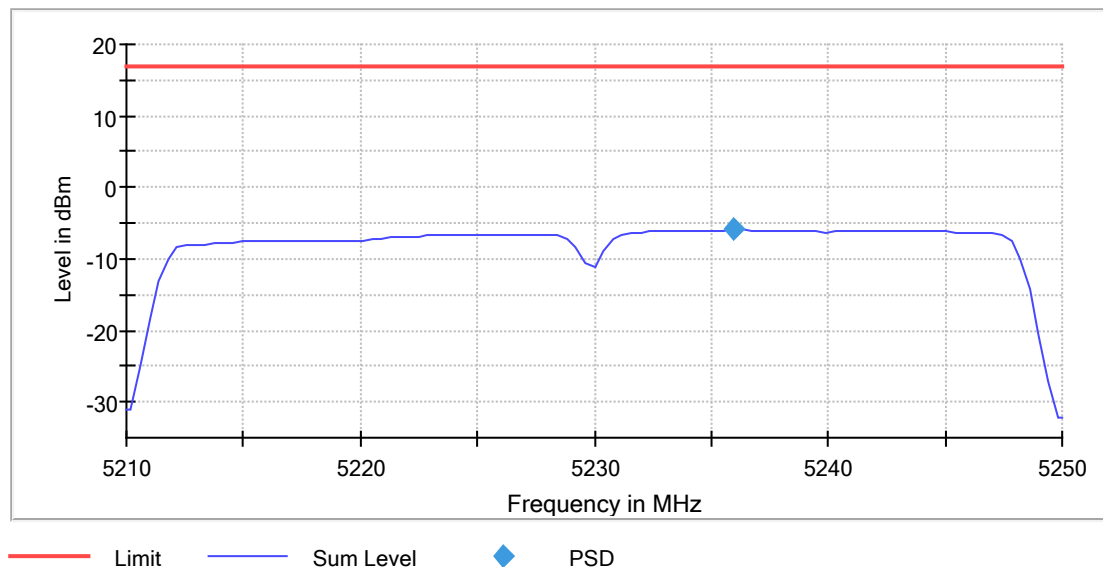
Test according to FCC title 47 part 15 §15.407(a), KDB 789033 D02 General U-NII Test Procedures New Rules v01r03 and ANSI C63.10

### Result

| DUT Frequency (MHz) | Frequency (MHz) | PSD (dBm) | Limit Max (dBm) | Result |
|---------------------|-----------------|-----------|-----------------|--------|
| 5230.000000         | 5235.940594     | -5.929    | 17.0            | PASS   |

### Ports

| Port | Duty Cycle (%) |
|------|----------------|
| 1    | 94.546         |



### Measurement

| Setting         | Instrument Value | Target Value |
|-----------------|------------------|--------------|
| Start Frequency | 5.21000 GHz      | 5.21000 GHz  |
| Stop Frequency  | 5.25000 GHz      | 5.25000 GHz  |
| Span            | 40.000 MHz       | 40.000 MHz   |
| RBW             | 1.000 MHz        | <= 1.000 MHz |
| VBW             | 3.000 MHz        | >= 3.000 MHz |
| SweepPoints     | 101              | ~ 80         |
| SweepTime       | 2.020 s          | 2.020 s      |
| Reference Level | 0.000 dBm        | 0.000 dBm    |
| Attenuation     | 20.000 dB        | AUTO         |
| Detector        | RMS              | RMS          |
| SweepCount      | 100              | 100          |
| Filter          | 3 dB             | 3 dB         |
| Trace Mode      | Max Hold         | Max Hold     |
| SweepType       | Sweep            | AUTO         |
| Preamp          | off              | off          |
| Stablemode      | Trace            | Trace        |
| Stablevalue     | 0.30 dB          | 0.30 dB      |

|                              |                    |                |
|------------------------------|--------------------|----------------|
| <b>Run</b>                   | <b>2 / max. 15</b> | <b>max. 15</b> |
| <b>Stable</b>                | <b>1 / 1</b>       | <b>1</b>       |
| <b>Max Stable Difference</b> | <b>0.00 dB</b>     | <b>0.30 dB</b> |

## Minimum Emission Bandwidth 6 dB (5230 MHz; 20.000 dBm; 40 MHz)

Customized settings.

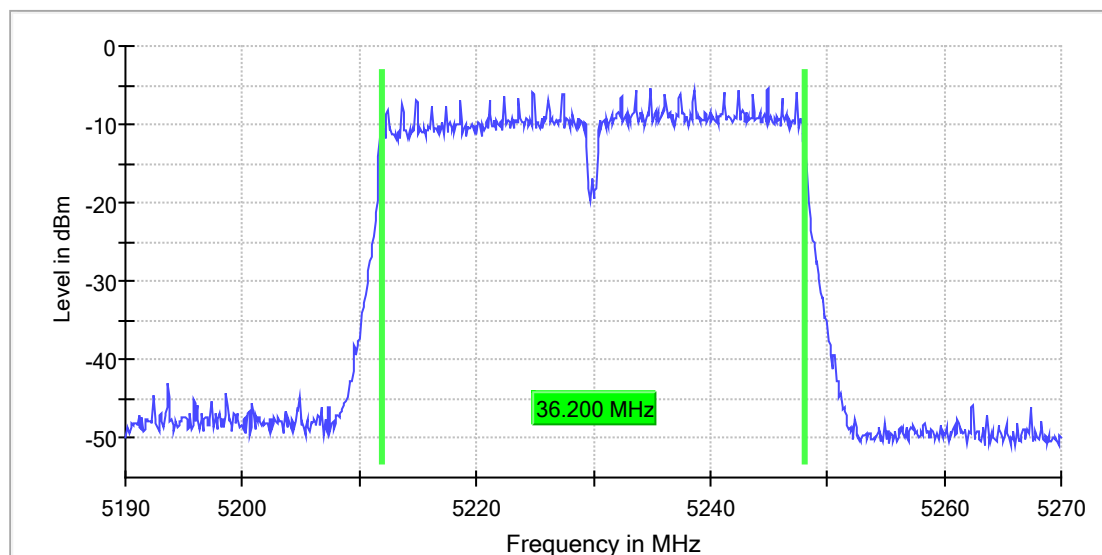
Test according to FCC title 47 part 15 §15.407(a),(e), KDB 789033 D02 General U-NII Test Procedures New Rules v01r03 and ANSI C63.10

### 6 dB Bandwidth

| DUT Frequency (MHz) | Bandwidth (MHz) | Limit Min (MHz) | Limit Max (MHz) | Band Edge Left (MHz) | Band Edge Right (MHz) |
|---------------------|-----------------|-----------------|-----------------|----------------------|-----------------------|
| 5230.000000         | 36.200000       | ---             | ---             | 5211.950000          | 5248.150000           |

(continuation of the "6 dB Bandwidth" table from column 6 ...)

| DUT Frequency (MHz) | Max Level (dBm) | Result |
|---------------------|-----------------|--------|
| 5230.000000         | -5.3            | PASS   |



### Measurement

| Setting         | Instrument Value | Target Value  |
|-----------------|------------------|---------------|
| Start Frequency | 5.19000 GHz      | 5.19000 GHz   |
| Stop Frequency  | 5.27000 GHz      | 5.27000 GHz   |
| Span            | 80.000 MHz       | 80.000 MHz    |
| RBW             | 100.000 kHz      | ~ 100.000 kHz |
| VBW             | 300.000 kHz      | ~ 300.000 kHz |
| SweepPoints     | 800              | ~ 800         |
| Sweeptime       | 1.070 ms         | AUTO          |
| Reference Level | 0.000 dBm        | 0.000 dBm     |
| Attenuation     | 20.000 dB        | AUTO          |
| Detector        | MaxPeak          | MaxPeak       |
| SweepCount      | 200              | 200           |
| Filter          | 3 dB             | 3 dB          |
| Trace Mode      | Max Hold         | Max Hold      |
| Sweeptype       | Sweep            | AUTO          |
| Preamp          | off              | off           |
| Stablemode      | Trace            | Trace         |

|                              |                      |                 |
|------------------------------|----------------------|-----------------|
| <b>Stablevalue</b>           | <b>0.30 dB</b>       | <b>0.30 dB</b>  |
| <b>Run</b>                   | <b>11 / max. 150</b> | <b>max. 150</b> |
| <b>Stable</b>                | <b>1 / 1</b>         | <b>1</b>        |
| <b>Max Stable Difference</b> | <b>0.29 dB</b>       | <b>0.30 dB</b>  |

## Occupied Channel Bandwidth 99% (5230 MHz; 20.000 dBm; 40 MHz)

Customized settings.

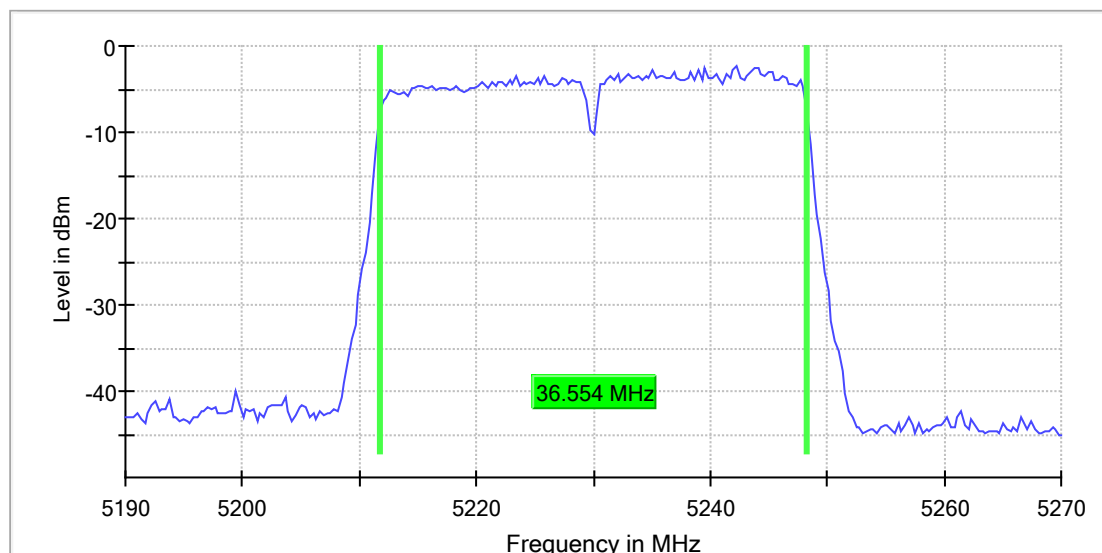
Test according to FCC title 47 part 15 §15.407(a),(e), KDB 789033 D02 General U-NII Test Procedures New Rules v01r03 and ANSI C63.10

### 99 % Bandwidth

| DUT Frequency (MHz) | Bandwidth (MHz) | Limit Min (MHz) | Limit Max (MHz) | Band Edge Left (MHz) | Band Edge Right (MHz) |
|---------------------|-----------------|-----------------|-----------------|----------------------|-----------------------|
| 5230.000000         | 36.554308       | ---             | ---             | 5211.722846          | 5248.277154           |

(continuation of the "99 % Bandwidth" table from column 6 ...)

| DUT Frequency (MHz) | Result |
|---------------------|--------|
| 5230.000000         | PASS   |



### Measurement

| Setting         | Instrument Value | Target Value   |
|-----------------|------------------|----------------|
| Start Frequency | 5.19000 GHz      | 5.19000 GHz    |
| Stop Frequency  | 5.27000 GHz      | 5.27000 GHz    |
| Span            | 80.000 MHz       | 80.000 MHz     |
| RBW             | 300.000 kHz      | <= 400.000 kHz |
| VBW             | 1.000 MHz        | >= 900.000 kHz |
| SweepPoints     | 267              | ~ 267          |
| SweepTime       | 1.000 ms         | AUTO           |
| Reference Level | 0.000 dBm        | 0.000 dBm      |
| Attenuation     | 20.000 dB        | AUTO           |
| Detector        | MaxPeak          | MaxPeak        |
| SweepCount      | 200              | 200            |
| Filter          | 3 dB             | 3 dB           |
| Trace Mode      | Max Hold         | Max Hold       |
| SweepType       | Sweep            | AUTO           |
| Preamp          | off              | off            |
| Stablemode      | Trace            | Trace          |
| Stablevalue     | 0.30 dB          | 0.30 dB        |
| Run             | 25 / max. 150    | max. 150       |

|                              |                |                |
|------------------------------|----------------|----------------|
| <b>Stable</b>                | <b>1 / 1</b>   | <b>1</b>       |
| <b>Max Stable Difference</b> | <b>0.28 dB</b> | <b>0.30 dB</b> |

## Band Edge high (5230 MHz; 20.000 dBm; 40 MHz)

Customized settings.

Test according to FCC title 47 part 15 §15.407(b), KDB 789033 D02 General U-NII Test Procedures New Rules v01r03 and ANSI C63.10

### Result

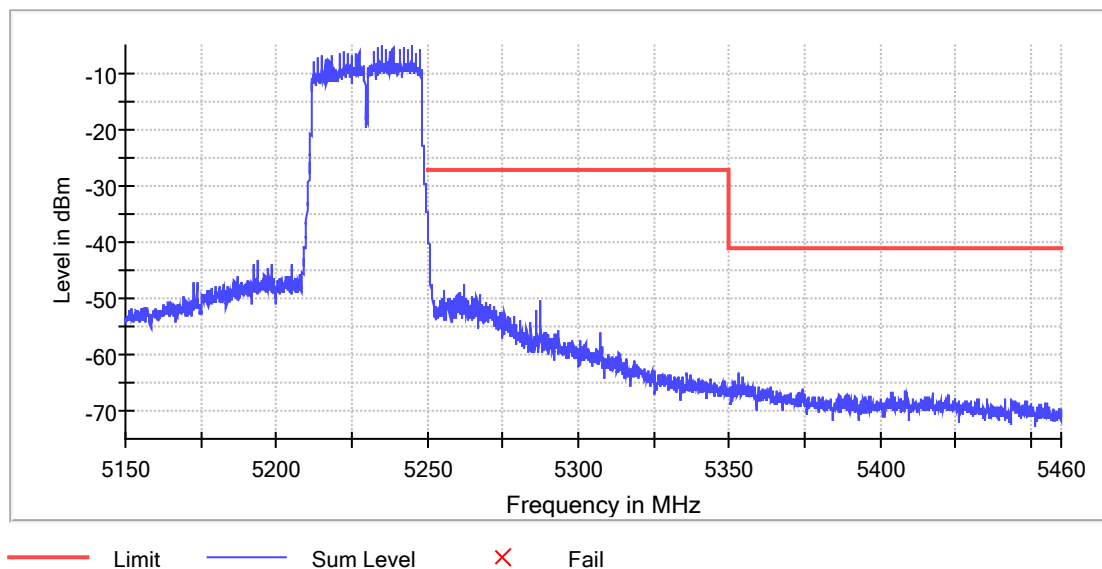
| DUT Frequency (MHz) | Result |
|---------------------|--------|
| 5230.000000         | PASS   |

### Inband Peak

| Frequency (MHz) | Level (dBm) |
|-----------------|-------------|
| 5234.875000     | -5.0        |

### Measurements

| Frequency (MHz) | Level (dBm) | Margin (dB) | Limit (dBm) | Result |
|-----------------|-------------|-------------|-------------|--------|
| 5250.125000     | -37.6       | 10.6        | -27.0       | PASS   |
| 5250.175000     | -37.7       | 10.7        | -27.0       | PASS   |
| 5250.225000     | -38.4       | 11.4        | -27.0       | PASS   |
| 5250.025000     | -38.4       | 11.4        | -27.0       | PASS   |
| 5250.075000     | -38.5       | 11.5        | -27.0       | PASS   |
| 5250.275000     | -39.2       | 12.2        | -27.0       | PASS   |
| 5250.325000     | -39.4       | 12.4        | -27.0       | PASS   |
| 5250.475000     | -39.6       | 12.6        | -27.0       | PASS   |
| 5250.375000     | -39.8       | 12.8        | -27.0       | PASS   |
| 5250.525000     | -40.2       | 13.2        | -27.0       | PASS   |
| 5250.575000     | -40.3       | 13.3        | -27.0       | PASS   |
| 5250.425000     | -40.3       | 13.3        | -27.0       | PASS   |
| 5250.625000     | -40.8       | 13.8        | -27.0       | PASS   |
| 5250.675000     | -42.2       | 15.2        | -27.0       | PASS   |
| 5250.875000     | -43.9       | 16.9        | -27.0       | PASS   |



### Measurement 1

| Setting               | Instrument Value | Target Value   |
|-----------------------|------------------|----------------|
| Start Frequency       | 5.15000 GHz      | 5.15000 GHz    |
| Stop Frequency        | 5.25000 GHz      | 5.25000 GHz    |
| Span                  | 100.000 MHz      | 100.000 MHz    |
| RBW                   | 100.000 kHz      | <= 100.000 kHz |
| VBW                   | 300.000 kHz      | >= 300.000 kHz |
| SweepPoints           | 2000             | ~ 2000         |
| SweepTime             | 227.813 $\mu$ s  | AUTO           |
| Reference Level       | 0.000 dBm        | 0.000 dBm      |
| Attenuation           | 20.000 dB        | AUTO           |
| Detector              | MaxPeak          | MaxPeak        |
| SweepCount            | 100              | 100            |
| Filter                | 3 dB             | 3 dB           |
| Trace Mode            | Max Hold         | Max Hold       |
| SweepType             | FFT              | AUTO           |
| Preamp                | off              | off            |
| Stablemode            | Trace            | Trace          |
| Stablevalue           | 0.50 dB          | 0.50 dB        |
| Run                   | 69 / max. 150    | max. 150       |
| Stable                | 3 / 3            | 3              |
| Max Stable Difference | 0.35 dB          | 0.50 dB        |

## Measurement 2

| Setting               | Instrument Value | Target Value   |
|-----------------------|------------------|----------------|
| Start Frequency       | 5.25000 GHz      | 5.25000 GHz    |
| Stop Frequency        | 5.46000 GHz      | 5.46000 GHz    |
| Span                  | 210.000 MHz      | 210.000 MHz    |
| RBW                   | 100.000 kHz      | <= 100.000 kHz |
| VBW                   | 300.000 kHz      | >= 300.000 kHz |
| SweepPoints           | 4200             | ~ 4200         |
| SweepTime             | 474.609 $\mu$ s  | AUTO           |
| Reference Level       | -20.000 dBm      | -20.000 dBm    |
| Attenuation           | 0.000 dB         | AUTO           |
| Detector              | MaxPeak          | MaxPeak        |
| SweepCount            | 100              | 100            |
| Filter                | 3 dB             | 3 dB           |
| Trace Mode            | Max Hold         | Max Hold       |
| SweepType             | FFT              | AUTO           |
| Preamp                | off              | off            |
| Stablemode            | Trace            | Trace          |
| Stablevalue           | 0.50 dB          | 0.50 dB        |
| Run                   | 14 / max. 150    | max. 150       |
| Stable                | 3 / 3            | 3              |
| Max Stable Difference | 0.29 dB          | 0.50 dB        |

# FCC 15.407 2015

## DUT Information

### Frequencies

|                        |                        |                        |
|------------------------|------------------------|------------------------|
| WLAN CH 38 (5190 MHz)  | WLAN CH 46 (5230 MHz)  | WLAN CH 151 (5755 MHz) |
| WLAN CH 159 (5795 MHz) | WLAN CH 54 (5270 MHz)  | WLAN CH 62 (5310 MHz)  |
| WLAN CH 102 (5510 MHz) | WLAN CH 110 (5550 MHz) | WLAN CH 118 (5590 MHz) |
| WLAN CH 134 (5670 MHz) |                        |                        |

### Bandwidths

40 MHz (40 MHz)

### Power

20.000 dBm (20 dBm)

### Beamforming Gain

|                        |                              |
|------------------------|------------------------------|
| Powerstep name (value) | Beamforming gain table names |
| 20.000 dBm (20 dBm)    | BFG_'20.000 dBm'_0.000dB;    |

### Gain Tables

|                        |                  |
|------------------------|------------------|
| Powerstep name (value) | Gain table names |
| 20.000 dBm (20 dBm)    | Port 1: 0dBi;    |

### DUT Settings

|                            |          |
|----------------------------|----------|
| No. of transmission chains | 1        |
| DFS capability             | Yes      |
| DFS Mode                   | Master   |
| Equipment Type             | Portable |
| TPC                        | No       |

## Hardware Setup: WMS Measurements\Hardware Setup

|                    |                                                                                                                             |
|--------------------|-----------------------------------------------------------------------------------------------------------------------------|
| Spectrum Analyzer: | SA FSV 40 (SA FSV 40) @ VISA (ADR<br>TCPIP::192.168.48.111::INST0::INSTR), SN 1321.3008K39/101229,<br>FW 3.40               |
| Vector Generator:  | VG SMBV100B (VG SMBV100B) @ VISA (ADR<br>TCPIP::192.168.48.29::INST0::INSTR), SN 101685, FW 4.70.006.33                     |
| Generator:         | SMB100Aa (SMB100A) @ VISA (ADR<br>TCPIP::192.168.48.30::INST0::INSTR), SN 177894, FW / Drv:Rev<br>2.21.0, 07/2016, CVI 2015 |
| OSP:               | OSP-B157W (OSP-B157W) @ VISA (ADR<br>TCPIP::192.168.48.157::INST0::INSTR), SN 1527.1144. /, FW<br>1.23.0.2                  |

## Summary

| Test                 | Frequency<br>(MHz) | Nominal<br>Power<br>(dBm) | Nominal<br>Bandwidth<br>(MHz) | Result |
|----------------------|--------------------|---------------------------|-------------------------------|--------|
| Tx Spurious Emission | 5190.000           | 20.0                      | 40.000000                     | PASS   |
| Tx Spurious Emission | 5230.000           | 20.0                      | 40.000000                     | PASS   |

## Tx Spurious Emission (5190 MHz; 20.000 dBm; 40 MHz)

Customized settings.

Test according to FCC title 47 part 15 §15.407(b), KDB 789033 D02 General U-NII Test Procedures New Rules v01r03 and ANSI C63.10-2013

### Result

| DUT Frequency (MHz) | Result |
|---------------------|--------|
| 5190.000000         | PASS   |

### Final measurements

| Frequency (MHz) | Level Pre Measurement (dBm) | level (dBm) | Limit (dBm) | Margin (dB) | Result |
|-----------------|-----------------------------|-------------|-------------|-------------|--------|
| ---             | ---                         | ---         | ---         | ---         | ---    |

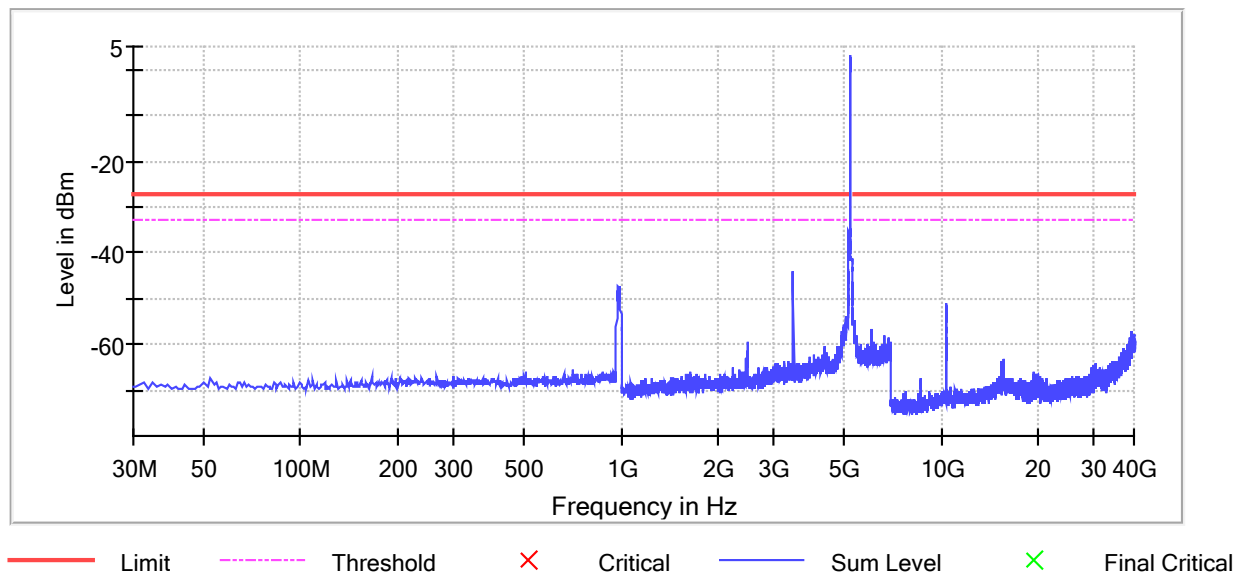
### Pre Measurements

| Frequency (MHz) | Level (dBm) | Margin (dB) | Limit (dBm) |
|-----------------|-------------|-------------|-------------|
| 5147.500000     | -38.8       | 11.8        | -27.0       |
| 5146.500000     | -38.1       | 11.1        | -27.0       |
| 5149.500000     | -38.5       | 11.5        | -27.0       |
| 5148.500000     | -38.5       | 11.5        | -27.0       |
| 5145.500000     | -38.3       | 11.3        | -27.0       |
| 5144.500000     | -39.3       | 12.3        | -27.0       |
| 5142.500000     | -39.9       | 12.9        | -27.0       |
| 5143.500000     | -41.0       | 14.0        | -27.0       |
| 5141.500000     | -41.4       | 14.4        | -27.0       |
| 5140.500000     | -42.1       | 15.1        | -27.0       |
| 5139.500000     | -42.6       | 15.6        | -27.0       |
| 5138.500000     | -42.9       | 15.9        | -27.0       |
| 5125.500000     | -43.8       | 16.8        | -27.0       |
| 5130.500000     | -43.8       | 16.8        | -27.0       |
| 5134.500000     | -43.9       | 16.9        | -27.0       |

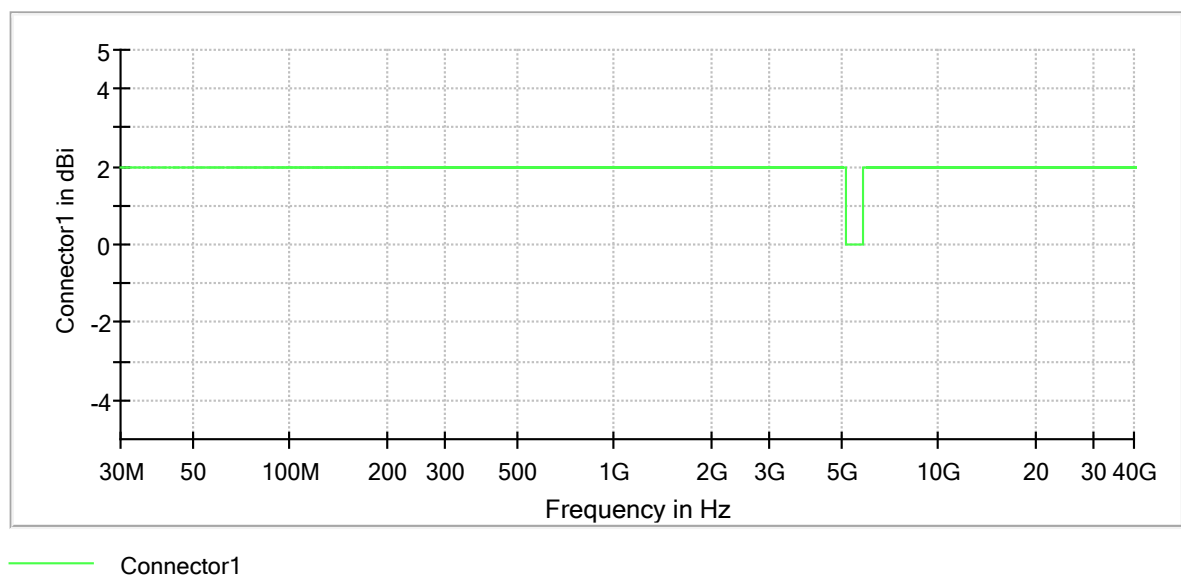
### Measurement Settings

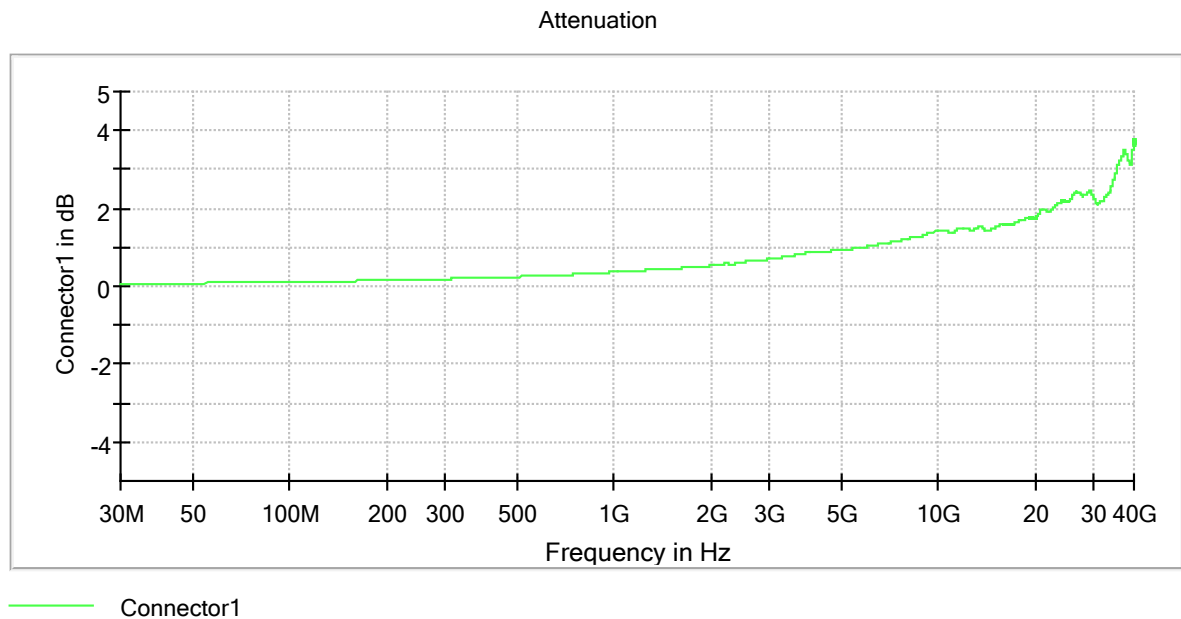
| Start Frequency (MHz) | Stop Frequency (MHz) | Pre Measurement | Final Measurement |
|-----------------------|----------------------|-----------------|-------------------|
| 30.000000             | 1000.000000          | 1               | 1                 |
| 1000.000000           | 5150.000000          | 2               | 2                 |
| 5150.000000           | 5250.000000          | 2               | 2                 |
| 5250.000000           | 5350.000000          | 2               | 2                 |
| 5350.000000           | 5470.000000          | 2               | 2                 |
| 5470.000000           | 5725.000000          | 2               | 2                 |
| 5725.000000           | 5850.000000          | 2               | 2                 |
| 5850.000000           | 7000.000000          | 2               | 2                 |
| 7000.000000           | 18000.000000         | 2               | 2                 |
| 18000.000000          | 26000.000000         | 2               | 2                 |
| 26000.000000          | 40000.000000         | 2               | 2                 |

Spurious



Gain





## Pre Measurement 1

| Setting               | Instrument Value | Target Value     |
|-----------------------|------------------|------------------|
| RBW                   | 1.000 MHz        | $\leq 1.000$ MHz |
| VBW                   | 3.000 MHz        | $\geq 3.000$ MHz |
| SweepPoints           | 970              | ~ 970            |
| SweepTime             | 194.000 ms       | AUTO             |
| Reference Level       | -20.000 dBm      | -30.000 dBm      |
| Attenuation           | 10.000 dB        | AUTO             |
| Detector              | MaxPeak          | QuasiPeak        |
| SweepCount            | 3                | 3                |
| Filter                | Channel          | Channel          |
| Trace Mode            | Max Hold         | Max Hold         |
| SweepType             | Sweep            | AUTO             |
| Preamp                | off              | off              |
| Stablemode            | Trace            | Trace            |
| Stablevalue           | 0.50 dB          | 0.50 dB          |
| Run                   | 20 / max. 150    | max. 150         |
| Stable                | 3 / 3            | 3                |
| Max Stable Difference | 0.00 dB          | 0.50 dB          |

## Pre Measurement 2

| Setting               | Instrument Value | Target Value     |
|-----------------------|------------------|------------------|
| RBW                   | 1.000 MHz        | $\leq 1.000$ MHz |
| VBW                   | 3.000 MHz        | $\geq 3.000$ MHz |
| SweepPoints           | 4150             | ~ 4150           |
| SweepTime             | 4.150 ms         | AUTO             |
| Reference Level       | -20.000 dBm      | -30.000 dBm      |
| Attenuation           | 10.000 dB        | AUTO             |
| Detector              | MaxPeak          | MaxPeak          |
| SweepCount            | 30               | 30               |
| Filter                | 3 dB             | 3 dB             |
| Trace Mode            | Max Hold         | Max Hold         |
| SweepType             | Sweep            | AUTO             |
| Preamp                | off              | off              |
| Stablemode            | Trace            | Trace            |
| Stablevalue           | 0.50 dB          | 0.50 dB          |
| Run                   | 6 / max. 150     | max. 150         |
| Stable                | 3 / 3            | 3                |
| Max Stable Difference | 0.35 dB          | 0.50 dB          |

## Tx Spurious Emission (5230 MHz; 20.000 dBm; 40 MHz)

Customized settings.

Test according to FCC title 47 part 15 §15.407(b), KDB 789033 D02 General U-NII Test Procedures New Rules v01r03 and ANSI C63.10-2013

### Result

| DUT Frequency (MHz) | Result |
|---------------------|--------|
| 5230.000000         | PASS   |

### Final measurements

| Frequency (MHz) | Level Pre Measurement (dBm) | level (dBm) | Limit (dBm) | Margin (dB) | Result |
|-----------------|-----------------------------|-------------|-------------|-------------|--------|
| ---             | ---                         | ---         | ---         | ---         | ---    |

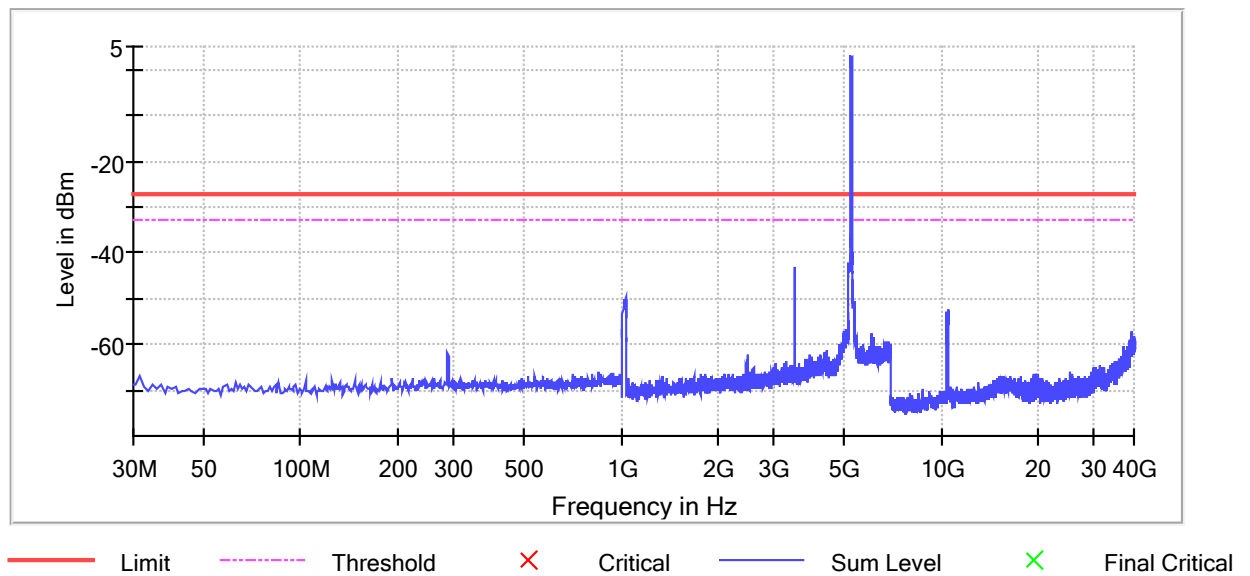
### Pre Measurements

| Frequency (MHz) | Level (dBm) | Margin (dB) | Limit (dBm) |
|-----------------|-------------|-------------|-------------|
| 3487.500000     | -43.1       | 16.1        | -27.0       |
| 3486.500000     | -43.6       | 16.6        | -27.0       |
| 1030.500000     | -49.8       | 22.8        | -27.0       |
| 1026.500000     | -50.2       | 23.2        | -27.0       |
| 5149.500000     | -50.3       | 23.3        | -27.0       |
| 1037.500000     | -50.3       | 23.3        | -27.0       |
| 1027.500000     | -50.4       | 23.4        | -27.0       |
| 1028.500000     | -50.4       | 23.4        | -27.0       |
| 5148.500000     | -50.6       | 23.6        | -27.0       |
| 3488.500000     | -50.7       | 23.7        | -27.0       |
| 1024.500000     | -50.7       | 23.7        | -27.0       |
| 5147.500000     | -50.8       | 23.8        | -27.0       |
| 1029.500000     | -50.9       | 23.9        | -27.0       |
| 5144.500000     | -51.1       | 24.1        | -27.0       |
| 5145.500000     | -51.2       | 24.2        | -27.0       |

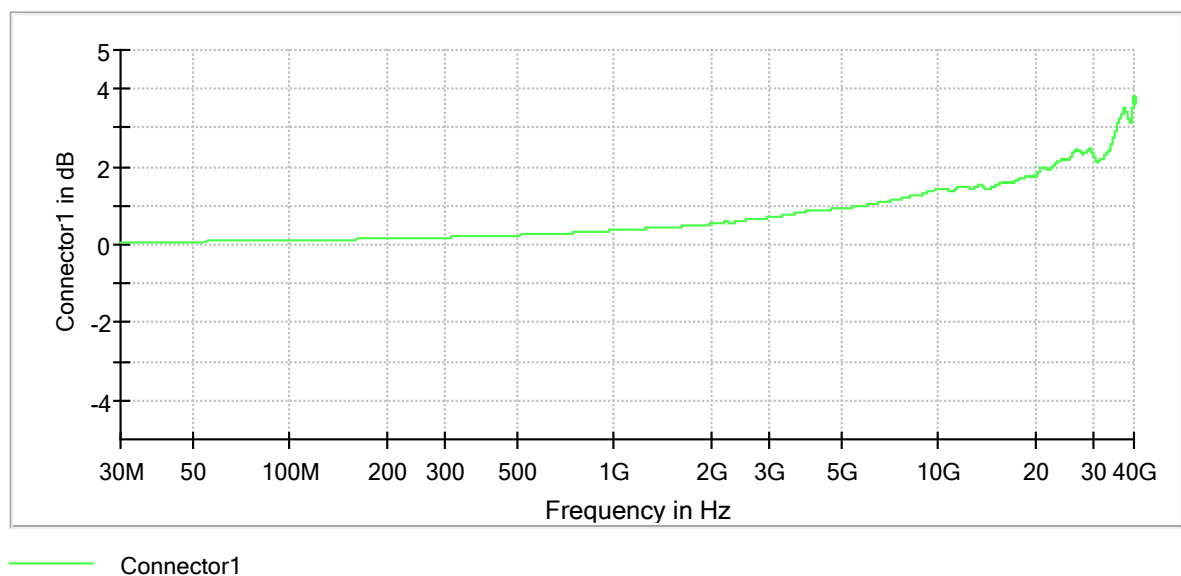
### Measurement Settings

| Start Frequency (MHz) | Stop Frequency (MHz) | Pre Measurement | Final Measurement |
|-----------------------|----------------------|-----------------|-------------------|
| 30.000000             | 1000.000000          | 1               | 1                 |
| 1000.000000           | 5150.000000          | 2               | 2                 |
| 5150.000000           | 5250.000000          | 2               | 2                 |
| 5250.000000           | 5350.000000          | 2               | 2                 |
| 5350.000000           | 5470.000000          | 2               | 2                 |
| 5470.000000           | 5725.000000          | 2               | 2                 |
| 5725.000000           | 5850.000000          | 2               | 2                 |
| 5850.000000           | 7000.000000          | 2               | 2                 |
| 7000.000000           | 18000.000000         | 2               | 2                 |
| 18000.000000          | 26000.000000         | 2               | 2                 |
| 26000.000000          | 40000.000000         | 2               | 2                 |

Spurious



Attenuation



## Pre Measurement 1

| Setting         | Instrument Value | Target Value     |
|-----------------|------------------|------------------|
| RBW             | 1.000 MHz        | $\leq 1.000$ MHz |
| VBW             | 3.000 MHz        | $\geq 3.000$ MHz |
| SweepPoints     | 970              | ~ 970            |
| SweepTime       | 194.000 ms       | AUTO             |
| Reference Level | -20.000 dBm      | -30.000 dBm      |
| Attenuation     | 10.000 dB        | AUTO             |
| Detector        | MaxPeak          | QuasiPeak        |
| SweepCount      | 3                | 3                |
| Filter          | Channel          | Channel          |
| Trace Mode      | Max Hold         | Max Hold         |
| SweepType       | Sweep            | AUTO             |
| Preamp          | off              | off              |
| Stablemode      | Trace            | Trace            |
| Stablevalue     | 0.50 dB          | 0.50 dB          |
| Run             | 4 / max. 150     | max. 150         |
| Stable          | 3 / 3            | 3                |

|                       |         |         |
|-----------------------|---------|---------|
| Max Stable Difference | 0.00 dB | 0.50 dB |
|-----------------------|---------|---------|

## Pre Measurement 2

| Setting               | Instrument Value | Target Value |
|-----------------------|------------------|--------------|
| RBW                   | 1.000 MHz        | <= 1.000 MHz |
| VBW                   | 3.000 MHz        | >= 3.000 MHz |
| SweepPoints           | 4150             | ~ 4150       |
| SweepTime             | 4.150 ms         | AUTO         |
| Reference Level       | -20.000 dBm      | -30.000 dBm  |
| Attenuation           | 10.000 dB        | AUTO         |
| Detector              | MaxPeak          | MaxPeak      |
| SweepCount            | 30               | 30           |
| Filter                | 3 dB             | 3 dB         |
| Trace Mode            | Max Hold         | Max Hold     |
| SweepType             | Sweep            | AUTO         |
| Preamp                | off              | off          |
| Stablemode            | Trace            | Trace        |
| Stablevalue           | 0.50 dB          | 0.50 dB      |
| Run                   | 4 / max. 150     | max. 150     |
| Stable                | 3 / 3            | 3            |
| Max Stable Difference | 0.00 dB          | 0.50 dB      |

# FCC 15.407 2015

## DUT Information

### Frequencies

|                        |                        |                        |
|------------------------|------------------------|------------------------|
| WLAN CH 38 (5190 MHz)  | WLAN CH 46 (5230 MHz)  | WLAN CH 151 (5755 MHz) |
| WLAN CH 159 (5795 MHz) | WLAN CH 54 (5270 MHz)  | WLAN CH 62 (5310 MHz)  |
| WLAN CH 102 (5510 MHz) | WLAN CH 110 (5550 MHz) | WLAN CH 118 (5590 MHz) |
| WLAN CH 134 (5670 MHz) |                        |                        |

### Bandwidths

40 MHz (40 MHz)

### Power

20.000 dBm (20 dBm)

### Beamforming Gain

20.000 dBm (20 dBm) 0 dB

### Gain Tables

20.000 dBm (20 dBm) Port 1: 0dBi;

### DUT Settings

|                            |          |
|----------------------------|----------|
| No. of transmission chains | 1        |
| DFS capability             | Yes      |
| DFS Mode                   | Master   |
| Equipment Type             | Portable |
| TPC                        | No       |

## Hardware Setup: WMS Measurements\TS8997

|                    |                                                                                                                             |
|--------------------|-----------------------------------------------------------------------------------------------------------------------------|
| Spectrum Analyzer: | SA FSV 40 (SA FSV 40) @ VISA (ADR<br>TCPIP::192.168.48.111::INST0::INSTR), SN 1321.3008K39/101229,<br>FW 3.40               |
| Vector Generator:  | VG SMBV100B (VG SMBV100B) @ VISA (ADR<br>TCPIP::192.168.48.29::INST0::INSTR), SN 101685, FW 4.70.006.33                     |
| Generator:         | SMB100Aa (SMB100A) @ VISA (ADR<br>TCPIP::192.168.48.30::INST0::INSTR), SN 177894, FW / Drv:Rev<br>2.21.0, 07/2016, CVI 2015 |
| OSP:               | OSP-B157W (OSP-B157W) @ VISA (ADR<br>TCPIP::192.168.48.157::INST0::INSTR), SN 1527.1144. /, FW<br>1.23.0.2                  |

## Summary

| Test                            | Frequency (MHz) | Nominal Power (dBm) | Nominal Bandwidth (MHz) | Result |
|---------------------------------|-----------------|---------------------|-------------------------|--------|
| Emission Bandwidth 26 dB        | 5755.000        | 20.0                | 40.000000               | PASS   |
| RF output power                 | 5755.000        | 20.0                | 40.000000               | PASS   |
| Power Spectral Density          | 5755.000        | 20.0                | 40.000000               | PASS   |
| Minimum Emission Bandwidth 6 dB | 5755.000        | 20.0                | 40.000000               | PASS   |
| Occupied Channel Bandwidth 99%  | 5755.000        | 20.0                | 40.000000               | PASS   |
| Band Edge low                   | 5755.000        | 20.0                | 40.000000               | PASS   |
| Emission Bandwidth 26 dB        | 5795.000        | 20.0                | 40.000000               | PASS   |
| RF output power                 | 5795.000        | 20.0                | 40.000000               | PASS   |
| Power Spectral Density          | 5795.000        | 20.0                | 40.000000               | PASS   |
| Minimum Emission Bandwidth 6 dB | 5795.000        | 20.0                | 40.000000               | PASS   |
| Occupied Channel Bandwidth 99%  | 5795.000        | 20.0                | 40.000000               | PASS   |
| Band Edge high                  | 5795.000        | 20.0                | 40.000000               | PASS   |

## Emission Bandwidth 26 dB (5755 MHz; 20.000 dBm; 40 MHz)

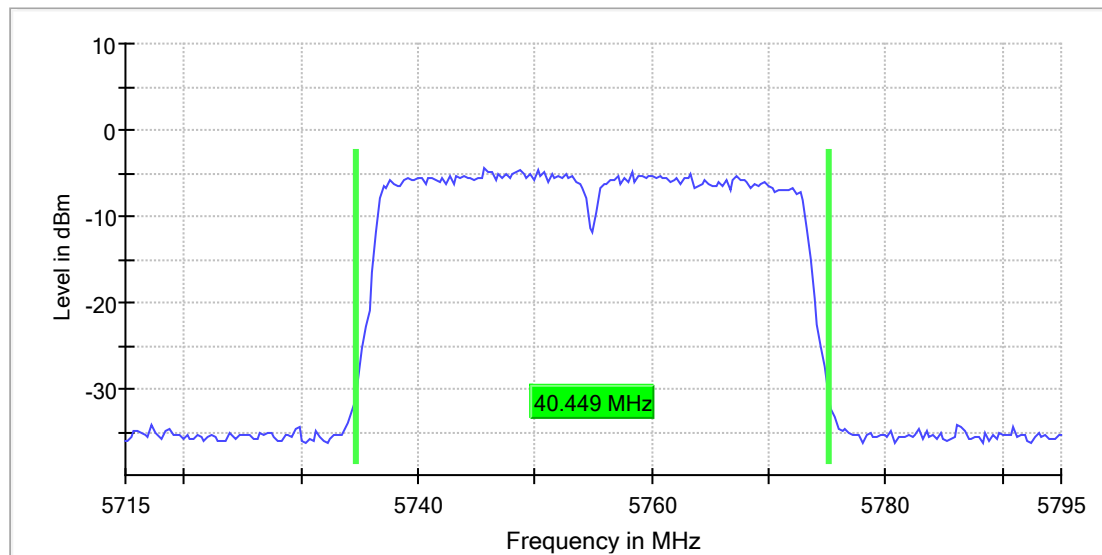
Test according to FCC title 47 part 15 §15.407(a),(e), KDB 789033 D02 General U-NII Test Procedures New Rules v01r03 and ANSI C63.10

### 26 dB Bandwidth

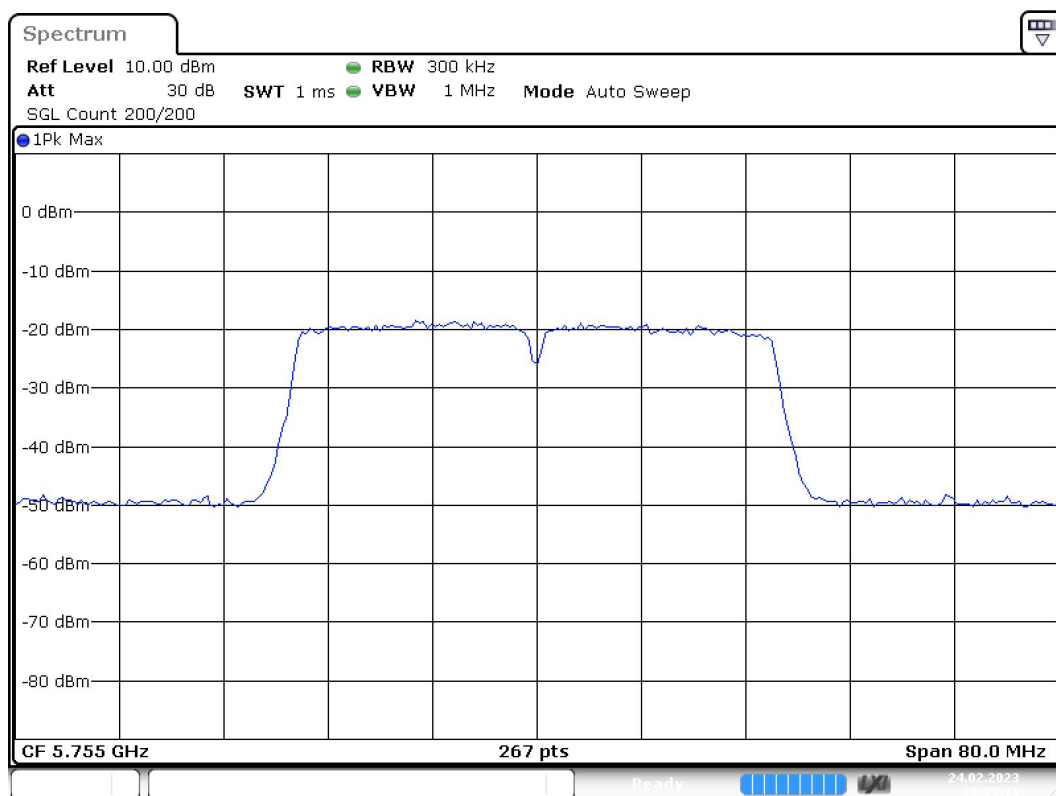
| DUT Frequency (MHz) | Bandwidth (MHz) | Limit Min (MHz) | Limit Max (MHz) | Band Edge Left (MHz) | Band Edge Right (MHz) |
|---------------------|-----------------|-----------------|-----------------|----------------------|-----------------------|
| 5755.000000         | 40.449438       | ---             | ---             | 5734.625468          | 5775.074906           |

(continuation of the "26 dB Bandwidth" table from column 6 ...)

| DUT Frequency (MHz) | Max Level (dBm) | Result |
|---------------------|-----------------|--------|
| 5755.000000         | -4.5            | PASS   |



Bandwidth



Date: 24.FEB.2023 10:39:12

## Measurement

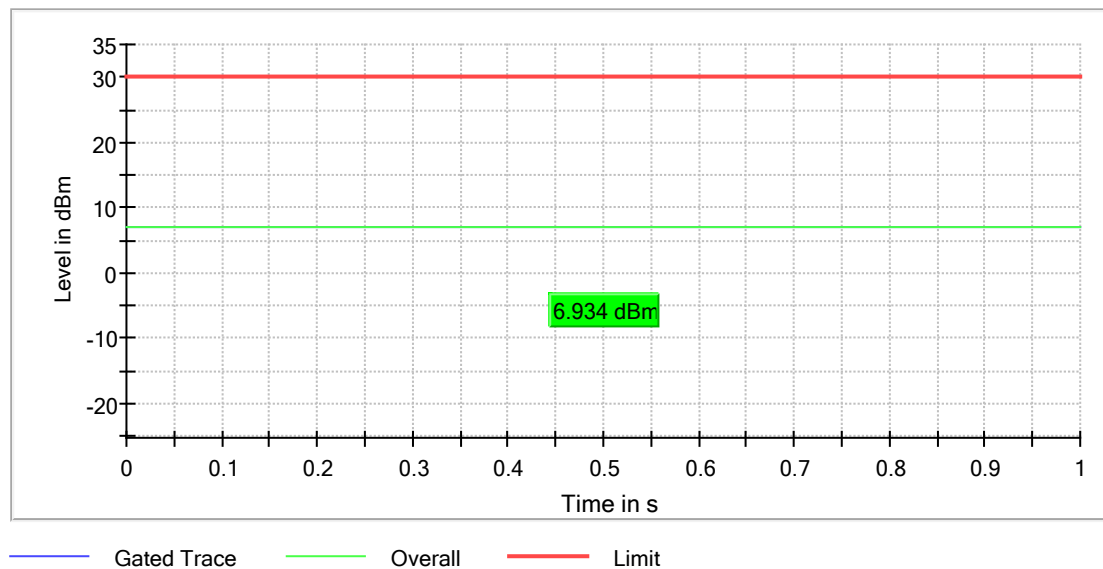
| Setting               | Instrument Value | Target Value   |
|-----------------------|------------------|----------------|
| Start Frequency       | 5.71500 GHz      | 5.71500 GHz    |
| Stop Frequency        | 5.79500 GHz      | 5.79500 GHz    |
| Span                  | 80.000 MHz       | 80.000 MHz     |
| RBW                   | 300.000 kHz      | ~ 400.000 kHz  |
| VBW                   | 1.000 MHz        | >= 900.000 kHz |
| SweepPoints           | 267              | ~ 267          |
| SweepTime             | 1.000 ms         | AUTO           |
| Reference Level       | 10.000 dBm       | 10.000 dBm     |
| Attenuation           | 30.000 dB        | AUTO           |
| Detector              | MaxPeak          | MaxPeak        |
| SweepCount            | 200              | 200            |
| Filter                | 3 dB             | 3 dB           |
| Trace Mode            | Max Hold         | Max Hold       |
| SweepType             | Sweep            | AUTO           |
| Preamp                | off              | off            |
| Stablemode            | Trace            | Trace          |
| Stablevalue           | 0.30 dB          | 0.30 dB        |
| Run                   | 83 / max. 150    | max. 150       |
| Stable                | 5 / 5            | 5              |
| Max Stable Difference | 0.22 dB          | 0.30 dB        |

## RF output power (5755 MHz; 20.000 dBm; 40 MHz)

Test according to FCC title 47 part 15 §15.407(a), KDB 789033 D02 General U-NII Test Procedures New Rules v01r03 and ANSI C63.10

### Result

| DUT Frequency (MHz) | Gated RMS (dBm) | Limit Max (dBm) | Gated EIRP (dBm) | DutyCycle (%) | Result |
|---------------------|-----------------|-----------------|------------------|---------------|--------|
| 5755.000000         | 6.9             | 30.0            | 6.9              | 100.000       | PASS   |



## Power Spectral Density (5755 MHz; 20.000 dBm; 40 MHz)

Customized settings.

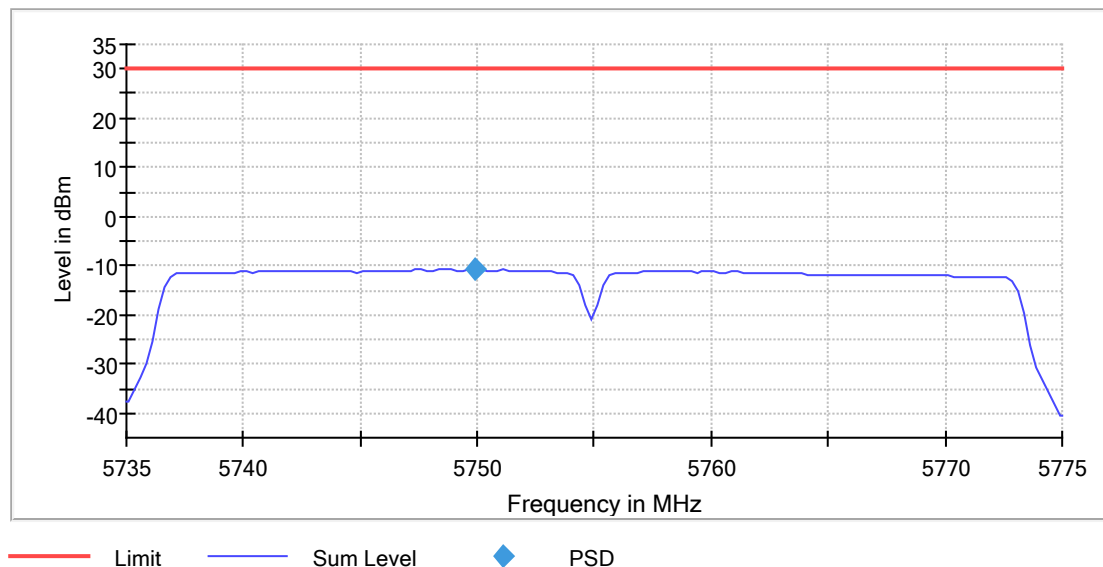
Test according to FCC title 47 part 15 §15.407(a), KDB 789033 D02 General U-NII Test Procedures New Rules v01r03 and ANSI C63.10

### Result

| DUT Frequency (MHz) | Frequency (MHz) | PSD (dBm) | Limit Max (dBm) | Result |
|---------------------|-----------------|-----------|-----------------|--------|
| 5755.000000         | 5749.875000     | -10.805   | 30.0            | PASS   |

### Ports

| Port | Duty Cycle (%) |
|------|----------------|
| 1    | 94.552         |



### Measurement

| Setting         | Instrument Value | Target Value   |
|-----------------|------------------|----------------|
| Start Frequency | 5.73500 GHz      | 5.73500 GHz    |
| Stop Frequency  | 5.77500 GHz      | 5.77500 GHz    |
| Span            | 40.000 MHz       | 40.000 MHz     |
| RBW             | 500.000 kHz      | <= 500.000 kHz |
| VBW             | 2.000 MHz        | >= 1.500 MHz   |
| SweepPoints     | 160              | ~ 160          |
| SweepTime       | 3.200 s          | 3.200 s        |
| Reference Level | 0.000 dBm        | 0.000 dBm      |
| Attenuation     | 20.000 dB        | AUTO           |
| Detector        | RMS              | RMS            |
| SweepCount      | 100              | 100            |
| Filter          | 3 dB             | 3 dB           |
| Trace Mode      | Max Hold         | Max Hold       |
| SweepType       | Sweep            | AUTO           |
| Preamp          | off              | off            |
| Stablemode      | Trace            | Trace          |
| Stablevalue     | 0.30 dB          | 0.30 dB        |

|                              |                    |                |
|------------------------------|--------------------|----------------|
| <b>Run</b>                   | <b>2 / max. 15</b> | <b>max. 15</b> |
| <b>Stable</b>                | <b>1 / 1</b>       | <b>1</b>       |
| <b>Max Stable Difference</b> | <b>0.02 dB</b>     | <b>0.30 dB</b> |

## Minimum Emission Bandwidth 6 dB (5755 MHz; 20.000 dBm; 40 MHz)

Customized settings.

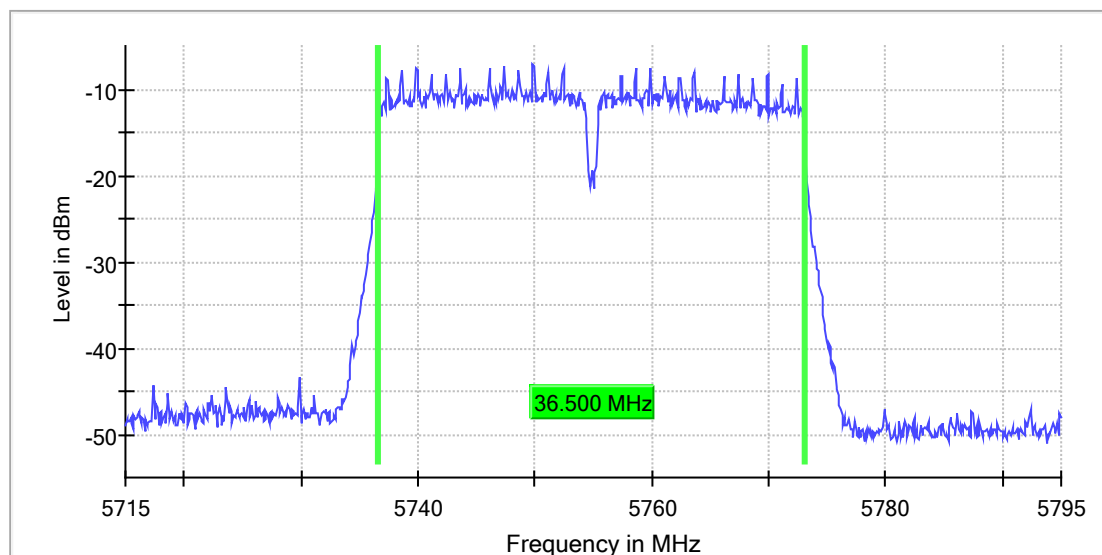
Test according to FCC title 47 part 15 §15.407(a),(e), KDB 789033 D02 General U-NII Test Procedures New Rules v01r03 and ANSI C63.10

### 6 dB Bandwidth

| DUT Frequency (MHz) | Bandwidth (MHz) | Limit Min (MHz) | Limit Max (MHz) | Band Edge Left (MHz) | Band Edge Right (MHz) |
|---------------------|-----------------|-----------------|-----------------|----------------------|-----------------------|
| 5755.000000         | 36.500000       | 0.500000        | ---             | 5736.650000          | 5773.150000           |

(continuation of the "6 dB Bandwidth" table from column 6 ...)

| DUT Frequency (MHz) | Max Level (dBm) | Result |
|---------------------|-----------------|--------|
| 5755.000000         | -7.1            | PASS   |



### Measurement

| Setting         | Instrument Value | Target Value  |
|-----------------|------------------|---------------|
| Start Frequency | 5.71500 GHz      | 5.71500 GHz   |
| Stop Frequency  | 5.79500 GHz      | 5.79500 GHz   |
| Span            | 80.000 MHz       | 80.000 MHz    |
| RBW             | 100.000 kHz      | ~ 100.000 kHz |
| VBW             | 300.000 kHz      | ~ 300.000 kHz |
| SweepPoints     | 800              | ~ 800         |
| Sweeptime       | 1.070 ms         | AUTO          |
| Reference Level | 0.000 dBm        | 0.000 dBm     |
| Attenuation     | 20.000 dB        | AUTO          |
| Detector        | MaxPeak          | MaxPeak       |
| SweepCount      | 200              | 200           |
| Filter          | 3 dB             | 3 dB          |
| Trace Mode      | Max Hold         | Max Hold      |
| SweepType       | Sweep            | AUTO          |
| Preamplifier    | off              | off           |
| Stablemode      | Trace            | Trace         |

|                              |                      |                 |
|------------------------------|----------------------|-----------------|
| <b>Stablevalue</b>           | <b>0.30 dB</b>       | <b>0.30 dB</b>  |
| <b>Run</b>                   | <b>18 / max. 150</b> | <b>max. 150</b> |
| <b>Stable</b>                | <b>1 / 1</b>         | <b>1</b>        |
| <b>Max Stable Difference</b> | <b>0.28 dB</b>       | <b>0.30 dB</b>  |

## Occupied Channel Bandwidth 99% (5755 MHz; 20.000 dBm; 40 MHz)

Customized settings.

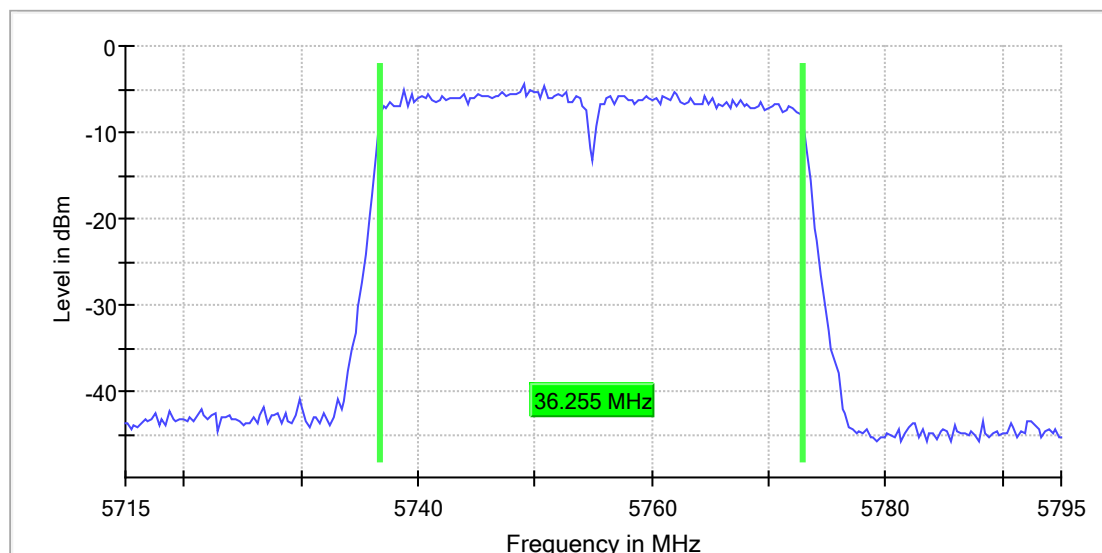
Test according to FCC title 47 part 15 §15.407(a),(e), KDB 789033 D02 General U-NII Test Procedures New Rules v01r03 and ANSI C63.10

### 99 % Bandwidth

| DUT Frequency (MHz) | Bandwidth (MHz) | Limit Min (MHz) | Limit Max (MHz) | Band Edge Left (MHz) | Band Edge Right (MHz) |
|---------------------|-----------------|-----------------|-----------------|----------------------|-----------------------|
| 5755.000000         | 36.254682       | ---             | ---             | 5736.722846          | 5772.977528           |

(continuation of the "99 % Bandwidth" table from column 6 ...)

| DUT Frequency (MHz) | Result |
|---------------------|--------|
| 5755.000000         | PASS   |



### Measurement

| Setting         | Instrument Value | Target Value   |
|-----------------|------------------|----------------|
| Start Frequency | 5.71500 GHz      | 5.71500 GHz    |
| Stop Frequency  | 5.79500 GHz      | 5.79500 GHz    |
| Span            | 80.000 MHz       | 80.000 MHz     |
| RBW             | 300.000 kHz      | <= 400.000 kHz |
| VBW             | 1.000 MHz        | >= 900.000 kHz |
| SweepPoints     | 267              | ~ 267          |
| Sweeptime       | 1.000 ms         | AUTO           |
| Reference Level | 0.000 dBm        | 0.000 dBm      |
| Attenuation     | 20.000 dB        | AUTO           |
| Detector        | MaxPeak          | MaxPeak        |
| SweepCount      | 200              | 200            |
| Filter          | 3 dB             | 3 dB           |
| Trace Mode      | Max Hold         | Max Hold       |
| SweepType       | Sweep            | AUTO           |
| Preamp          | off              | off            |
| Stablemode      | Trace            | Trace          |
| Stablevalue     | 0.30 dB          | 0.30 dB        |
| Run             | 7 / max. 150     | max. 150       |

|                              |                |                |
|------------------------------|----------------|----------------|
| <b>Stable</b>                | <b>1 / 1</b>   | <b>1</b>       |
| <b>Max Stable Difference</b> | <b>0.23 dB</b> | <b>0.30 dB</b> |

## Band Edge low (5755 MHz; 20.000 dBm; 40 MHz)

Customized settings.

Test according to FCC title 47 part 15 §15.407(b), KDB 789033 D02 General U-NII Test Procedures New Rules v01r03 and ANSI C63.10

### Result

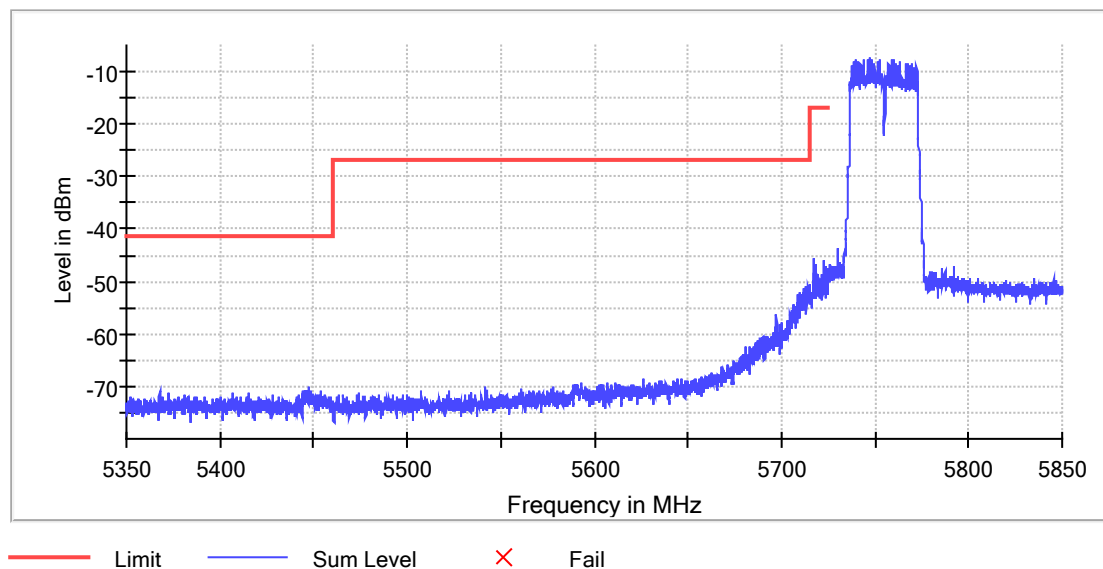
| DUT Frequency (MHz) | Result |
|---------------------|--------|
| 5755.000000         | PASS   |

### Inband Peak

| Frequency (MHz) | Level (dBm) |
|-----------------|-------------|
| 5747.375000     | -7.5        |

### Measurements

| Frequency (MHz) | Level (dBm) | Margin (dB) | Limit (dBm) | Result |
|-----------------|-------------|-------------|-------------|--------|
| 5713.275000     | -50.9       | 23.9        | -27.0       | PASS   |
| 5714.525000     | -51.1       | 24.1        | -27.0       | PASS   |
| 5714.475000     | -51.2       | 24.2        | -27.0       | PASS   |
| 5713.325000     | -51.2       | 24.2        | -27.0       | PASS   |
| 5712.125000     | -51.3       | 24.3        | -27.0       | PASS   |
| 5713.225000     | -51.4       | 24.4        | -27.0       | PASS   |
| 5713.025000     | -51.7       | 24.7        | -27.0       | PASS   |
| 5712.075000     | -51.8       | 24.8        | -27.0       | PASS   |
| 5712.975000     | -51.8       | 24.8        | -27.0       | PASS   |
| 5713.575000     | -51.9       | 24.9        | -27.0       | PASS   |
| 5713.625000     | -52.0       | 25.0        | -27.0       | PASS   |
| 5709.275000     | -52.0       | 25.0        | -27.0       | PASS   |
| 5714.225000     | -52.1       | 25.1        | -27.0       | PASS   |
| 5712.175000     | -52.1       | 25.1        | -27.0       | PASS   |
| 5714.275000     | -52.2       | 25.2        | -27.0       | PASS   |



### Measurement 1

| Setting               | Instrument Value | Target Value   |
|-----------------------|------------------|----------------|
| Start Frequency       | 5.72500 GHz      | 5.72500 GHz    |
| Stop Frequency        | 5.85000 GHz      | 5.85000 GHz    |
| Span                  | 125.000 MHz      | 125.000 MHz    |
| RBW                   | 100.000 kHz      | <= 100.000 kHz |
| VBW                   | 300.000 kHz      | >= 300.000 kHz |
| SweepPoints           | 2500             | ~ 2500         |
| SweepTime             | 284.766 $\mu$ s  | AUTO           |
| Reference Level       | 0.000 dBm        | 0.000 dBm      |
| Attenuation           | 20.000 dB        | AUTO           |
| Detector              | MaxPeak          | MaxPeak        |
| SweepCount            | 100              | 100            |
| Filter                | 3 dB             | 3 dB           |
| Trace Mode            | Max Hold         | Max Hold       |
| SweepType             | FFT              | AUTO           |
| Preamp                | off              | off            |
| Stablemode            | Trace            | Trace          |
| Stablevalue           | 0.50 dB          | 0.50 dB        |
| Run                   | 28 / max. 150    | max. 150       |
| Stable                | 1 / 1            | 1              |
| Max Stable Difference | 0.39 dB          | 0.50 dB        |

## Measurement 2

| Setting               | Instrument Value | Target Value   |
|-----------------------|------------------|----------------|
| Start Frequency       | 5.35000 GHz      | 5.35000 GHz    |
| Stop Frequency        | 5.72500 GHz      | 5.72500 GHz    |
| Span                  | 375.000 MHz      | 375.000 MHz    |
| RBW                   | 100.000 kHz      | <= 100.000 kHz |
| VBW                   | 300.000 kHz      | >= 300.000 kHz |
| SweepPoints           | 7500             | ~ 7500         |
| SweepTime             | 835.313 $\mu$ s  | AUTO           |
| Reference Level       | -20.000 dBm      | -20.000 dBm    |
| Attenuation           | 0.000 dB         | AUTO           |
| Detector              | MaxPeak          | MaxPeak        |
| SweepCount            | 100              | 100            |
| Filter                | 3 dB             | 3 dB           |
| Trace Mode            | Max Hold         | Max Hold       |
| SweepType             | FFT              | AUTO           |
| Preamp                | off              | off            |
| Stablemode            | Trace            | Trace          |
| Stablevalue           | 0.50 dB          | 0.50 dB        |
| Run                   | 6 / max. 150     | max. 150       |
| Stable                | 1 / 1            | 1              |
| Max Stable Difference | 0.46 dB          | 0.50 dB        |

## Emission Bandwidth 26 dB (5795 MHz; 20.000 dBm; 40 MHz)

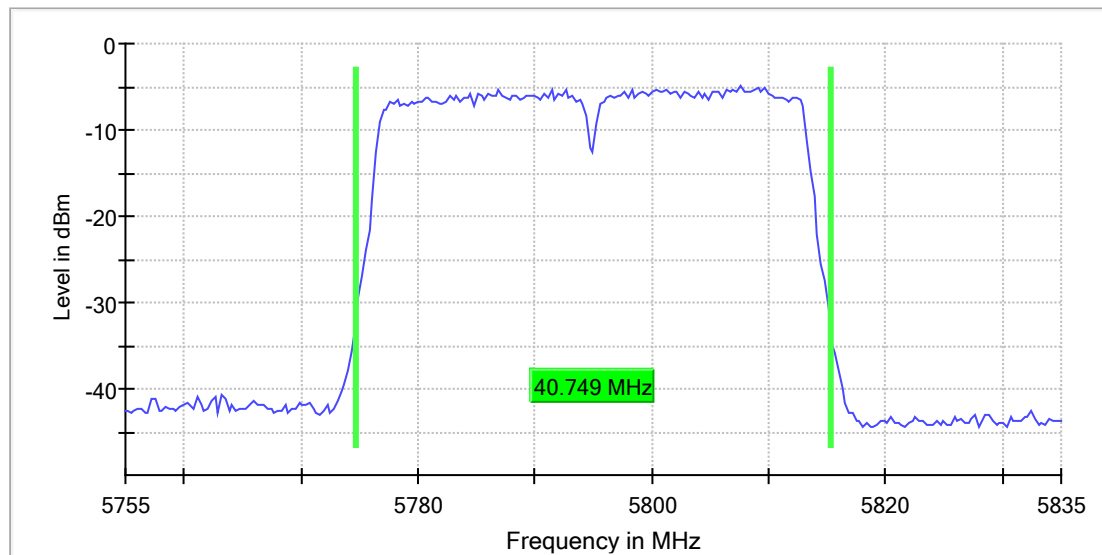
Test according to FCC title 47 part 15 §15.407(a),(e), KDB 789033 D02 General U-NII Test Procedures New Rules v01r03 and ANSI C63.10

### 26 dB Bandwidth

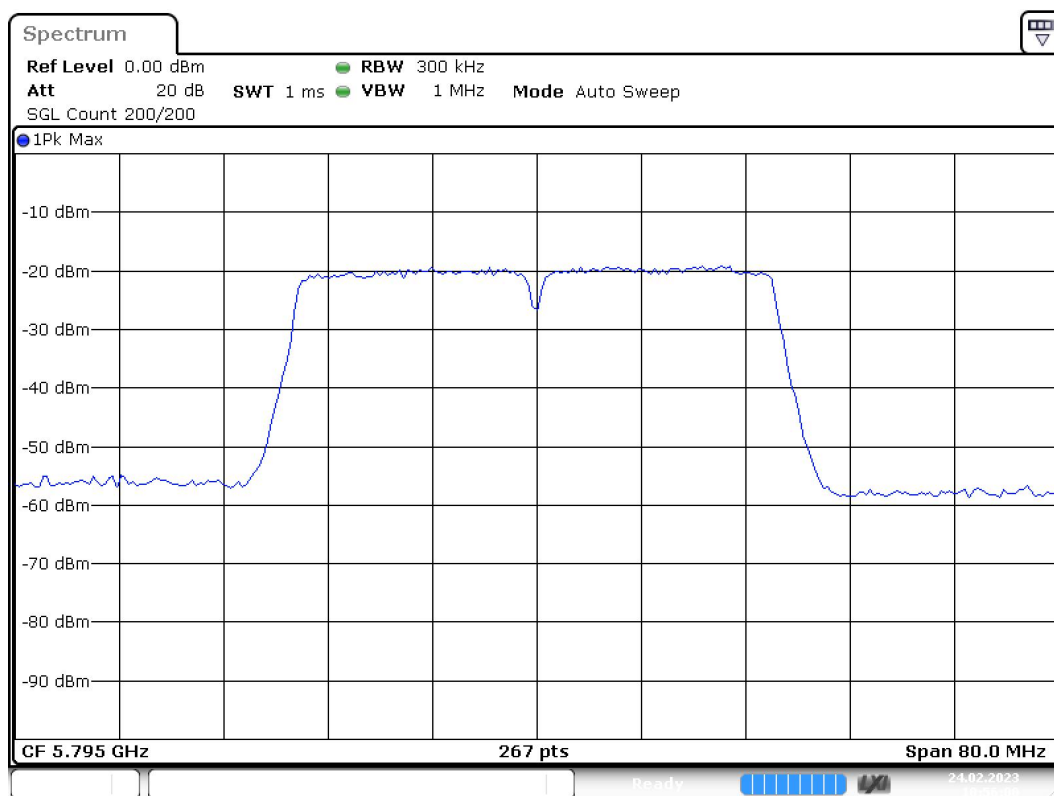
| DUT Frequency (MHz) | Bandwidth (MHz) | Limit Min (MHz) | Limit Max (MHz) | Band Edge Left (MHz) | Band Edge Right (MHz) |
|---------------------|-----------------|-----------------|-----------------|----------------------|-----------------------|
| 5795.000000         | 40.749064       | ---             | ---             | 5774.625468          | 5815.374532           |

(continuation of the "26 dB Bandwidth" table from column 6 ...)

| DUT Frequency (MHz) | Max Level (dBm) | Result |
|---------------------|-----------------|--------|
| 5795.000000         | -5.0            | PASS   |



Bandwidth



Date: 24.FEB.2023 10:56:01

## Measurement

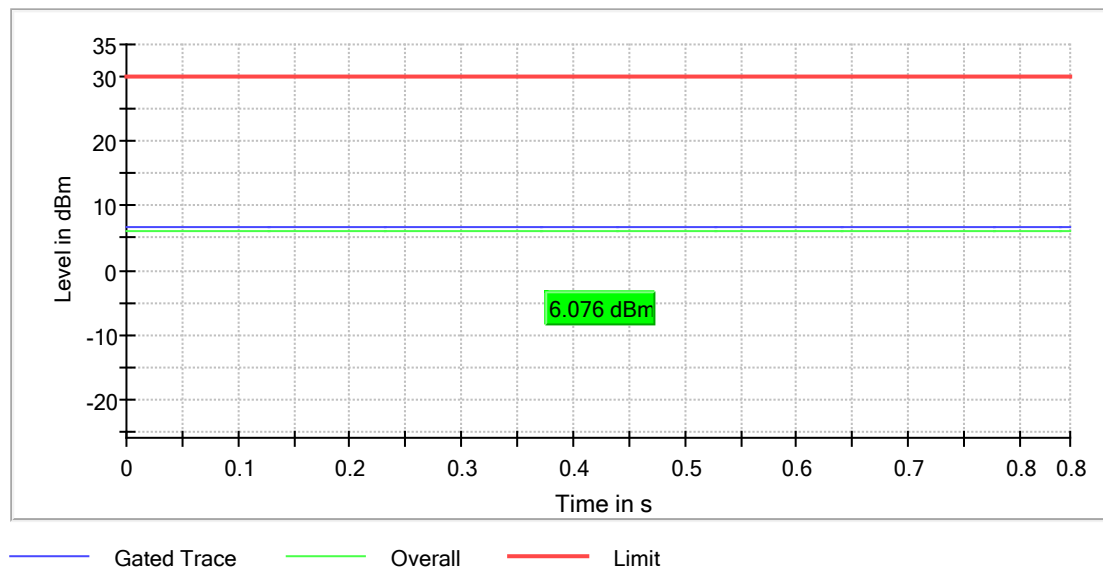
| Setting               | Instrument Value | Target Value   |
|-----------------------|------------------|----------------|
| Start Frequency       | 5.75500 GHz      | 5.75500 GHz    |
| Stop Frequency        | 5.83500 GHz      | 5.83500 GHz    |
| Span                  | 80.000 MHz       | 80.000 MHz     |
| RBW                   | 300.000 kHz      | ~ 400.000 kHz  |
| VBW                   | 1.000 MHz        | >= 900.000 kHz |
| SweepPoints           | 267              | ~ 267          |
| SweepTime             | 1.000 ms         | AUTO           |
| Reference Level       | 0.000 dBm        | 0.000 dBm      |
| Attenuation           | 20.000 dB        | AUTO           |
| Detector              | MaxPeak          | MaxPeak        |
| SweepCount            | 200              | 200            |
| Filter                | 3 dB             | 3 dB           |
| Trace Mode            | Max Hold         | Max Hold       |
| SweepType             | Sweep            | AUTO           |
| Preamp                | off              | off            |
| Stablemode            | Trace            | Trace          |
| Stablevalue           | 0.30 dB          | 0.30 dB        |
| Run                   | 68 / max. 150    | max. 150       |
| Stable                | 5 / 5            | 5              |
| Max Stable Difference | 0.00 dB          | 0.30 dB        |

## RF output power (5795 MHz; 20.000 dBm; 40 MHz)

Test according to FCC title 47 part 15 §15.407(a), KDB 789033 D02 General U-NII Test Procedures New Rules v01r03 and ANSI C63.10

### Result

| DUT Frequency (MHz) | Gated RMS (dBm) | Limit Max (dBm) | Gated EIRP (dBm) | DutyCycle (%) | Result |
|---------------------|-----------------|-----------------|------------------|---------------|--------|
| 5795.000000         | 6.1             | 30.0            | 6.1              | 100.000       | PASS   |



## Power Spectral Density (5795 MHz; 20.000 dBm; 40 MHz)

Customized settings.

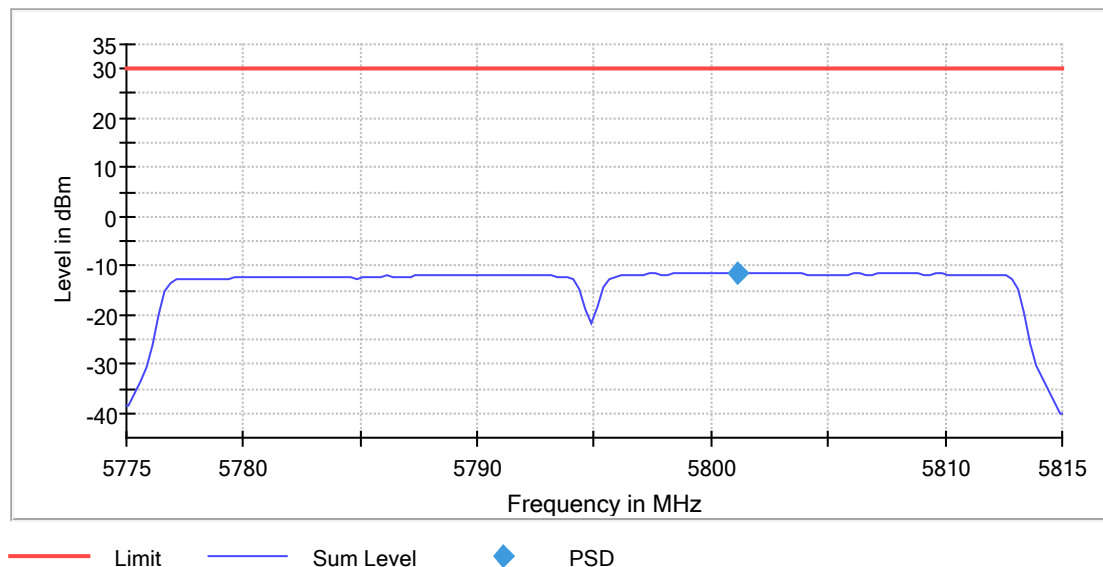
Test according to FCC title 47 part 15 §15.407(a), KDB 789033 D02 General U-NII Test Procedures New Rules v01r03 and ANSI C63.10

### Result

| DUT Frequency (MHz) | Frequency (MHz) | PSD (dBm) | Limit Max (dBm) | Result |
|---------------------|-----------------|-----------|-----------------|--------|
| 5795.000000         | 5801.125000     | -11.453   | 30.0            | PASS   |

### Ports

| Port | Duty Cycle (%) |
|------|----------------|
| 1    | 94.556         |



### Measurement

| Setting         | Instrument Value | Target Value   |
|-----------------|------------------|----------------|
| Start Frequency | 5.77500 GHz      | 5.77500 GHz    |
| Stop Frequency  | 5.81500 GHz      | 5.81500 GHz    |
| Span            | 40.000 MHz       | 40.000 MHz     |
| RBW             | 500.000 kHz      | <= 500.000 kHz |
| VBW             | 2.000 MHz        | >= 1.500 MHz   |
| SweepPoints     | 160              | ~ 160          |
| SweepTime       | 3.200 s          | 3.200 s        |
| Reference Level | 0.000 dBm        | 0.000 dBm      |
| Attenuation     | 20.000 dB        | AUTO           |
| Detector        | RMS              | RMS            |
| SweepCount      | 100              | 100            |
| Filter          | 3 dB             | 3 dB           |
| Trace Mode      | Max Hold         | Max Hold       |
| SweepType       | Sweep            | AUTO           |
| Preamp          | off              | off            |
| Stablemode      | Trace            | Trace          |
| Stablevalue     | 0.30 dB          | 0.30 dB        |

|                              |                    |                |
|------------------------------|--------------------|----------------|
| <b>Run</b>                   | <b>2 / max. 15</b> | <b>max. 15</b> |
| <b>Stable</b>                | <b>1 / 1</b>       | <b>1</b>       |
| <b>Max Stable Difference</b> | <b>0.00 dB</b>     | <b>0.30 dB</b> |

## Minimum Emission Bandwidth 6 dB (5795 MHz; 20.000 dBm; 40 MHz)

Customized settings.

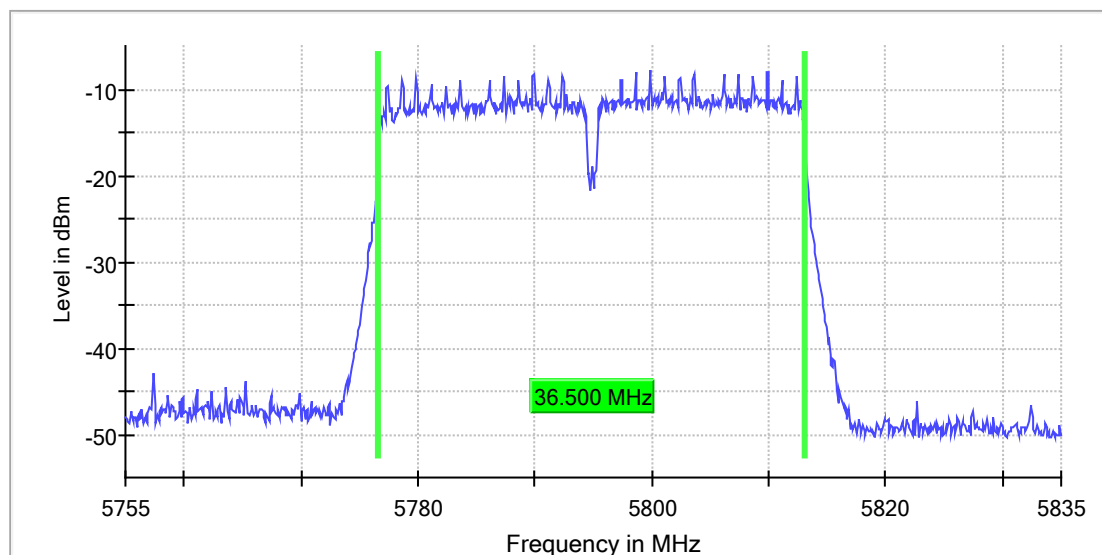
Test according to FCC title 47 part 15 §15.407(a),(e), KDB 789033 D02 General U-NII Test Procedures New Rules v01r03 and ANSI C63.10

### 6 dB Bandwidth

| DUT Frequency (MHz) | Bandwidth (MHz) | Limit Min (MHz) | Limit Max (MHz) | Band Edge Left (MHz) | Band Edge Right (MHz) |
|---------------------|-----------------|-----------------|-----------------|----------------------|-----------------------|
| 5795.000000         | 36.500000       | 0.500000        | ---             | 5776.650000          | 5813.150000           |

(continuation of the "6 dB Bandwidth" table from column 6 ...)

| DUT Frequency (MHz) | Max Level (dBm) | Result |
|---------------------|-----------------|--------|
| 5795.000000         | -7.9            | PASS   |



### Measurement

| Setting         | Instrument Value | Target Value  |
|-----------------|------------------|---------------|
| Start Frequency | 5.75500 GHz      | 5.75500 GHz   |
| Stop Frequency  | 5.83500 GHz      | 5.83500 GHz   |
| Span            | 80.000 MHz       | 80.000 MHz    |
| RBW             | 100.000 kHz      | ~ 100.000 kHz |
| VBW             | 300.000 kHz      | ~ 300.000 kHz |
| SweepPoints     | 800              | ~ 800         |
| SweepTime       | 1.070 ms         | AUTO          |
| Reference Level | 0.000 dBm        | 0.000 dBm     |
| Attenuation     | 20.000 dB        | AUTO          |
| Detector        | MaxPeak          | MaxPeak       |
| SweepCount      | 200              | 200           |
| Filter          | 3 dB             | 3 dB          |
| Trace Mode      | Max Hold         | Max Hold      |
| SweepType       | Sweep            | AUTO          |
| Preamp          | off              | off           |
| Stablemode      | Trace            | Trace         |

|                              |                      |                 |
|------------------------------|----------------------|-----------------|
| <b>Stablevalue</b>           | <b>0.30 dB</b>       | <b>0.30 dB</b>  |
| <b>Run</b>                   | <b>28 / max. 150</b> | <b>max. 150</b> |
| <b>Stable</b>                | <b>1 / 1</b>         | <b>1</b>        |
| <b>Max Stable Difference</b> | <b>0.25 dB</b>       | <b>0.30 dB</b>  |

## Occupied Channel Bandwidth 99% (5795 MHz; 20.000 dBm; 40 MHz)

Customized settings.

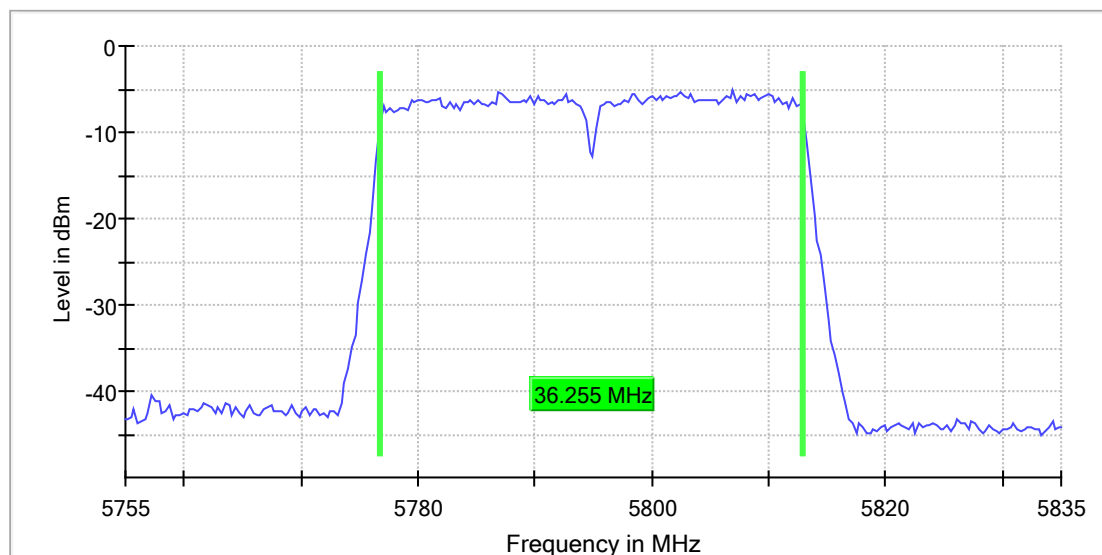
Test according to FCC title 47 part 15 §15.407(a),(e), KDB 789033 D02 General U-NII Test Procedures New Rules v01r03 and ANSI C63.10

### 99 % Bandwidth

| DUT Frequency (MHz) | Bandwidth (MHz) | Limit Min (MHz) | Limit Max (MHz) | Band Edge Left (MHz) | Band Edge Right (MHz) |
|---------------------|-----------------|-----------------|-----------------|----------------------|-----------------------|
| 5795.000000         | 36.254682       | ---             | ---             | 5776.722846          | 5812.977528           |

(continuation of the "99 % Bandwidth" table from column 6 ...)

| DUT Frequency (MHz) | Result |
|---------------------|--------|
| 5795.000000         | PASS   |



### Measurement

| Setting         | Instrument Value | Target Value   |
|-----------------|------------------|----------------|
| Start Frequency | 5.75500 GHz      | 5.75500 GHz    |
| Stop Frequency  | 5.83500 GHz      | 5.83500 GHz    |
| Span            | 80.000 MHz       | 80.000 MHz     |
| RBW             | 300.000 kHz      | <= 400.000 kHz |
| VBW             | 1.000 MHz        | >= 900.000 kHz |
| SweepPoints     | 267              | ~ 267          |
| SweepTime       | 1.000 ms         | AUTO           |
| Reference Level | 0.000 dBm        | 0.000 dBm      |
| Attenuation     | 20.000 dB        | AUTO           |
| Detector        | MaxPeak          | MaxPeak        |
| SweepCount      | 200              | 200            |
| Filter          | 3 dB             | 3 dB           |
| Trace Mode      | Max Hold         | Max Hold       |
| SweepType       | Sweep            | AUTO           |
| Preamp          | off              | off            |
| Stablemode      | Trace            | Trace          |
| Stablevalue     | 0.30 dB          | 0.30 dB        |
| Run             | 28 / max. 150    | max. 150       |

|                              |                |                |
|------------------------------|----------------|----------------|
| <b>Stable</b>                | <b>1 / 1</b>   | <b>1</b>       |
| <b>Max Stable Difference</b> | <b>0.22 dB</b> | <b>0.30 dB</b> |

## Band Edge high (5795 MHz; 20.000 dBm; 40 MHz)

Customized settings.

Test according to FCC title 47 part 15 §15.407(b), KDB 789033 D02 General U-NII Test Procedures New Rules v01r03 and ANSI C63.10

### Result

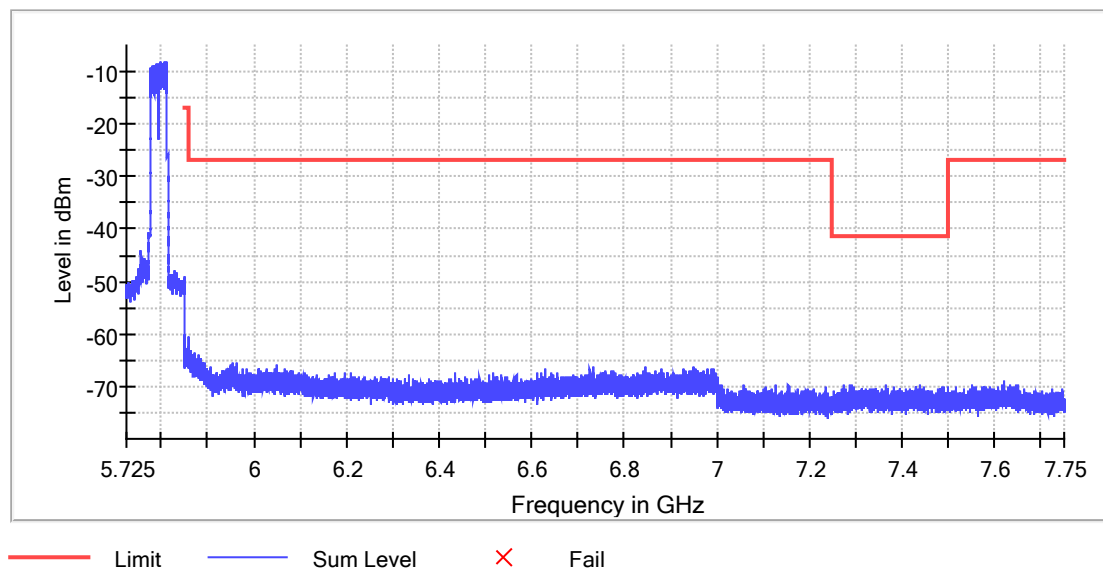
| DUT Frequency (MHz) | Result |
|---------------------|--------|
| 5795.000000         | PASS   |

### Inband Peak

| Frequency (MHz) | Level (dBm) |
|-----------------|-------------|
| 5809.875000     | -8.0        |

### Measurements

| Frequency (MHz) | Level (dBm) | Margin (dB) | Limit (dBm) | Result |
|-----------------|-------------|-------------|-------------|--------|
| 7438.425000     | -69.5       | 28.3        | -41.2       | PASS   |
| 7287.175000     | -69.7       | 28.4        | -41.2       | PASS   |
| 7364.575000     | -69.7       | 28.5        | -41.2       | PASS   |
| 7273.125000     | -69.7       | 28.5        | -41.2       | PASS   |
| 7291.525000     | -69.7       | 28.5        | -41.2       | PASS   |
| 7382.025000     | -69.9       | 28.7        | -41.2       | PASS   |
| 7492.425000     | -70.0       | 28.7        | -41.2       | PASS   |
| 7293.675000     | -70.0       | 28.7        | -41.2       | PASS   |
| 7438.475000     | -70.0       | 28.8        | -41.2       | PASS   |
| 7449.075000     | -70.0       | 28.8        | -41.2       | PASS   |
| 7431.275000     | -70.0       | 28.8        | -41.2       | PASS   |
| 7273.075000     | -70.1       | 28.9        | -41.2       | PASS   |
| 7488.175000     | -70.1       | 28.9        | -41.2       | PASS   |
| 7449.025000     | -70.1       | 28.9        | -41.2       | PASS   |
| 7488.125000     | -70.2       | 28.9        | -41.2       | PASS   |



### Measurement 1

| Setting               | Instrument Value | Target Value   |
|-----------------------|------------------|----------------|
| Start Frequency       | 5.72500 GHz      | 5.72500 GHz    |
| Stop Frequency        | 5.85000 GHz      | 5.85000 GHz    |
| Span                  | 125.000 MHz      | 125.000 MHz    |
| RBW                   | 100.000 kHz      | <= 100.000 kHz |
| VBW                   | 300.000 kHz      | >= 300.000 kHz |
| SweepPoints           | 2500             | ~ 2500         |
| SweepTime             | 284.766 $\mu$ s  | AUTO           |
| Reference Level       | 0.000 dBm        | 0.000 dBm      |
| Attenuation           | 20.000 dB        | AUTO           |
| Detector              | MaxPeak          | MaxPeak        |
| SweepCount            | 100              | 100            |
| Filter                | 3 dB             | 3 dB           |
| Trace Mode            | Max Hold         | Max Hold       |
| SweepType             | FFT              | AUTO           |
| Preamp                | off              | off            |
| Stablemode            | Trace            | Trace          |
| Stablevalue           | 0.50 dB          | 0.50 dB        |
| Run                   | 37 / max. 150    | max. 150       |
| Stable                | 1 / 1            | 1              |
| Max Stable Difference | 0.37 dB          | 0.50 dB        |

## Measurement 2

| Setting               | Instrument Value | Target Value   |
|-----------------------|------------------|----------------|
| Start Frequency       | 5.85000 GHz      | 5.85000 GHz    |
| Stop Frequency        | 6.40000 GHz      | 6.40000 GHz    |
| Span                  | 550.000 MHz      | 550.000 MHz    |
| RBW                   | 100.000 kHz      | <= 100.000 kHz |
| VBW                   | 300.000 kHz      | >= 300.000 kHz |
| SweepPoints           | 11000            | ~ 11000        |
| SweepTime             | 11.000 ms        | AUTO           |
| Reference Level       | -20.000 dBm      | -20.000 dBm    |
| Attenuation           | 0.000 dB         | AUTO           |
| Detector              | MaxPeak          | MaxPeak        |
| SweepCount            | 100              | 100            |
| Filter                | 3 dB             | 3 dB           |
| Trace Mode            | Max Hold         | Max Hold       |
| SweepType             | Sweep            | AUTO           |
| Preamp                | off              | off            |
| Stablemode            | Trace            | Trace          |
| Stablevalue           | 0.50 dB          | 0.50 dB        |
| Run                   | 2 / max. 150     | max. 150       |
| Stable                | 1 / 1            | 1              |
| Max Stable Difference | 0.00 dB          | 0.50 dB        |

# FCC 15.407 2015

## DUT Information

### Frequencies

|                        |                        |                        |
|------------------------|------------------------|------------------------|
| WLAN CH 38 (5190 MHz)  | WLAN CH 46 (5230 MHz)  | WLAN CH 151 (5755 MHz) |
| WLAN CH 159 (5795 MHz) | WLAN CH 54 (5270 MHz)  | WLAN CH 62 (5310 MHz)  |
| WLAN CH 102 (5510 MHz) | WLAN CH 110 (5550 MHz) | WLAN CH 118 (5590 MHz) |
| WLAN CH 134 (5670 MHz) |                        |                        |

### Bandwidths

40 MHz (40 MHz)

### Power

20.000 dBm (20 dBm)

### Beamforming Gain

|                        |                              |
|------------------------|------------------------------|
| Powerstep name (value) | Beamforming gain table names |
| 20.000 dBm (20 dBm)    | BFG_'20.000 dBm'_0.000dB;    |

### Gain Tables

|                        |                  |
|------------------------|------------------|
| Powerstep name (value) | Gain table names |
| 20.000 dBm (20 dBm)    | Port 1: 0dBi;    |

### DUT Settings

|                            |          |
|----------------------------|----------|
| No. of transmission chains | 1        |
| DFS capability             | Yes      |
| DFS Mode                   | Master   |
| Equipment Type             | Portable |
| TPC                        | No       |

## Hardware Setup: WMS Measurements\Hardware Setup

|                    |                                                                                                                             |
|--------------------|-----------------------------------------------------------------------------------------------------------------------------|
| Spectrum Analyzer: | SA FSV 40 (SA FSV 40) @ VISA (ADR<br>TCPIP::192.168.48.111::INST0::INSTR), SN 1321.3008K39/101229,<br>FW 3.40               |
| Vector Generator:  | VG SMBV100B (VG SMBV100B) @ VISA (ADR<br>TCPIP::192.168.48.29::INST0::INSTR), SN 101685, FW 4.70.006.33                     |
| Generator:         | SMB100Aa (SMB100A) @ VISA (ADR<br>TCPIP::192.168.48.30::INST0::INSTR), SN 177894, FW / Drv:Rev<br>2.21.0, 07/2016, CVI 2015 |
| OSP:               | OSP-B157W (OSP-B157W) @ VISA (ADR<br>TCPIP::192.168.48.157::INST0::INSTR), SN 1527.1144. /, FW<br>1.23.0.2                  |

## Summary

| Test                 | Frequency<br>(MHz) | Nominal<br>Power<br>(dBm) | Nominal<br>Bandwidth<br>(MHz) | Result |
|----------------------|--------------------|---------------------------|-------------------------------|--------|
| Tx Spurious Emission | 5755.000           | 20.0                      | 40.000000                     | PASS   |
| Tx Spurious Emission | 5795.000           | 20.0                      | 40.000000                     | PASS   |

## Tx Spurious Emission (5755 MHz; 20.000 dBm; 40 MHz)

Customized settings.

Test according to FCC title 47 part 15 §15.407(b), KDB 789033 D02 General U-NII Test Procedures New Rules v01r03 and ANSI C63.10-2013

### Result

| DUT Frequency (MHz) | Result |
|---------------------|--------|
| 5755.000000         | PASS   |

### Final measurements

| Frequency (MHz) | Level Pre Measurement (dBm) | level (dBm) | Limit (dBm) | Margin (dB) | Result |
|-----------------|-----------------------------|-------------|-------------|-------------|--------|
| ---             | ---                         | ---         | ---         | ---         | ---    |

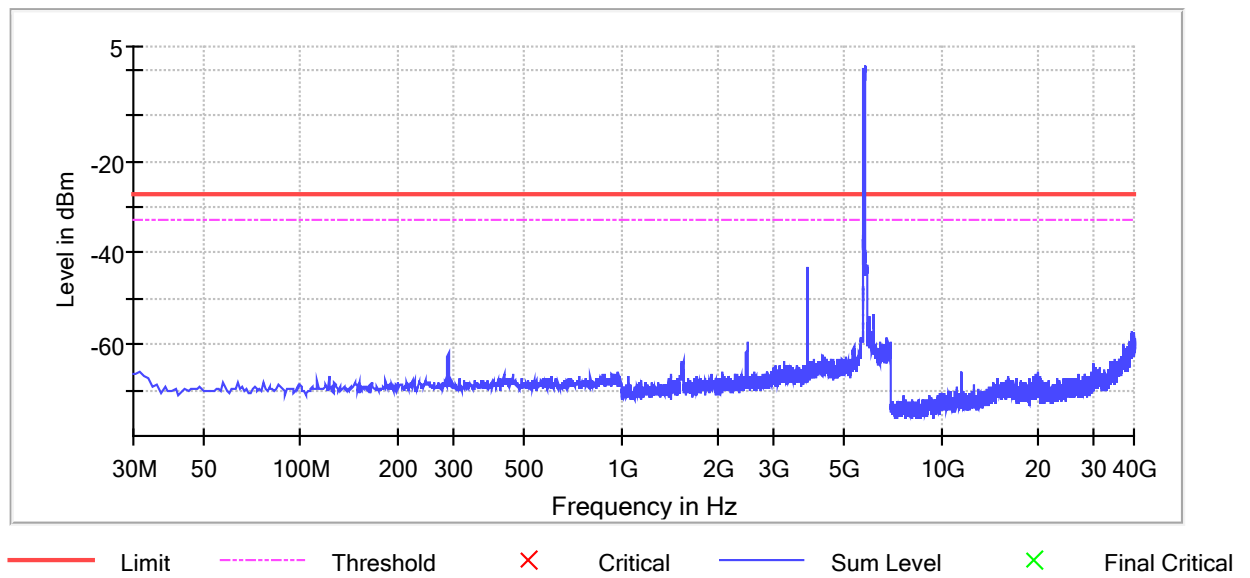
### Pre Measurements

| Frequency (MHz) | Level (dBm) | Margin (dB) | Limit (dBm) |
|-----------------|-------------|-------------|-------------|
| 5714.500000     | -38.1       | 11.1        | -27.0       |
| 5723.500000     | -38.1       | 11.1        | -27.0       |
| 5721.500000     | -38.2       | 11.2        | -27.0       |
| 5724.500000     | -38.8       | 11.8        | -27.0       |
| 5718.500000     | -38.2       | 11.2        | -27.0       |
| 5719.500000     | -38.4       | 11.4        | -27.0       |
| 5715.500000     | -38.4       | 11.4        | -27.0       |
| 5716.500000     | -38.6       | 11.6        | -27.0       |
| 5710.500000     | -38.7       | 11.7        | -27.0       |
| 5717.500000     | -38.7       | 11.7        | -27.0       |
| 5720.500000     | -39.5       | 12.5        | -27.0       |
| 5722.500000     | -39.6       | 12.6        | -27.0       |
| 5711.500000     | -39.8       | 12.8        | -27.0       |
| 5712.500000     | -39.9       | 12.9        | -27.0       |
| 5704.500000     | -39.9       | 12.9        | -27.0       |

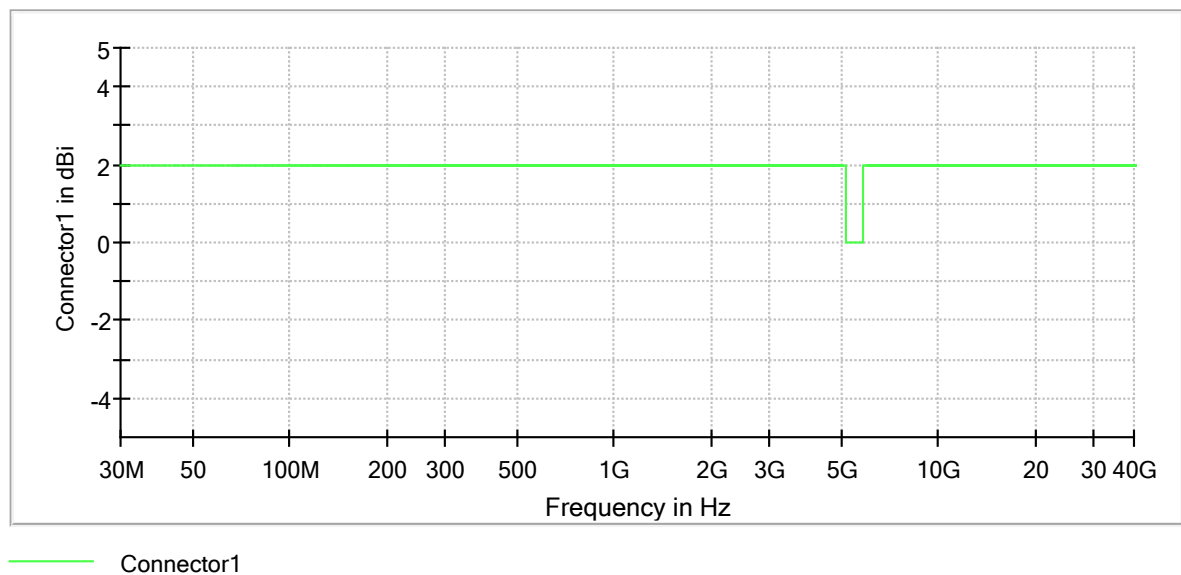
### Measurement Settings

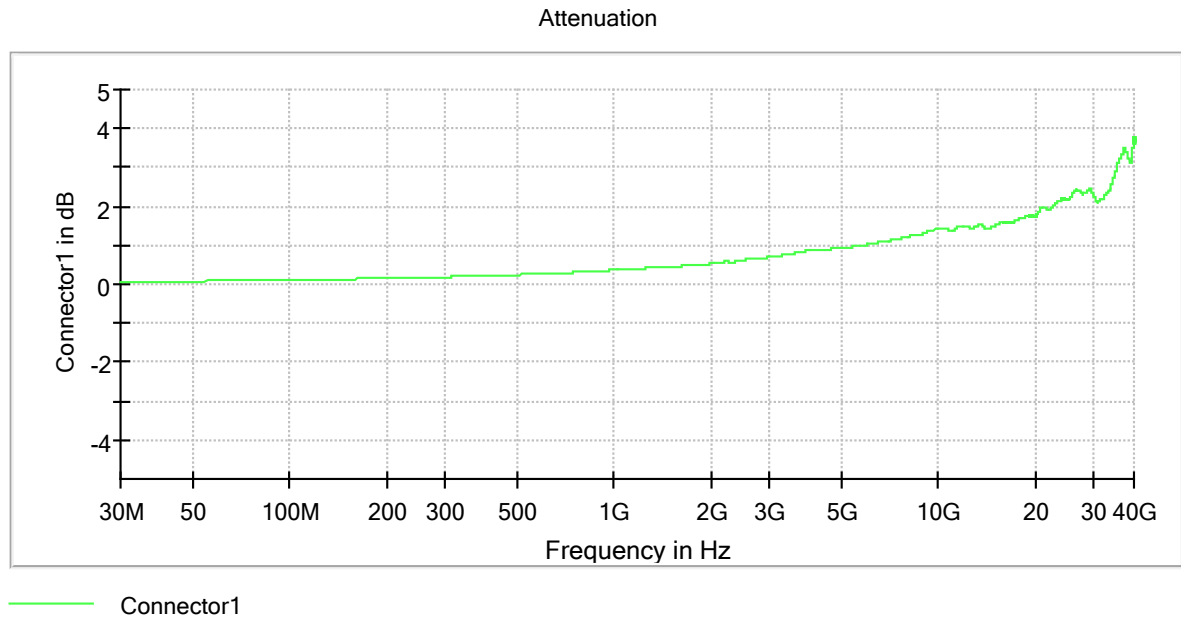
| Start Frequency (MHz) | Stop Frequency (MHz) | Pre Measurement | Final Measurement |
|-----------------------|----------------------|-----------------|-------------------|
| 30.000000             | 1000.000000          | 1               | 1                 |
| 1000.000000           | 5150.000000          | 2               | 2                 |
| 5150.000000           | 5250.000000          | 2               | 2                 |
| 5250.000000           | 5350.000000          | 2               | 2                 |
| 5350.000000           | 5470.000000          | 2               | 2                 |
| 5470.000000           | 5725.000000          | 2               | 2                 |
| 5725.000000           | 5850.000000          | 2               | 2                 |
| 5850.000000           | 7000.000000          | 2               | 2                 |
| 7000.000000           | 18000.000000         | 2               | 2                 |
| 18000.000000          | 26000.000000         | 2               | 2                 |
| 26000.000000          | 40000.000000         | 2               | 2                 |

Spurious



Gain





## Pre Measurement 1

| Setting               | Instrument Value | Target Value     |
|-----------------------|------------------|------------------|
| RBW                   | 1.000 MHz        | $\leq 1.000$ MHz |
| VBW                   | 3.000 MHz        | $\geq 3.000$ MHz |
| SweepPoints           | 970              | ~ 970            |
| SweepTime             | 194.000 ms       | AUTO             |
| Reference Level       | -20.000 dBm      | -30.000 dBm      |
| Attenuation           | 10.000 dB        | AUTO             |
| Detector              | MaxPeak          | QuasiPeak        |
| SweepCount            | 3                | 3                |
| Filter                | Channel          | Channel          |
| Trace Mode            | Max Hold         | Max Hold         |
| SweepType             | Sweep            | AUTO             |
| Preamp                | off              | off              |
| Stablemode            | Trace            | Trace            |
| Stablevalue           | 0.50 dB          | 0.50 dB          |
| Run                   | 4 / max. 150     | max. 150         |
| Stable                | 3 / 3            | 3                |
| Max Stable Difference | 0.00 dB          | 0.50 dB          |

## Pre Measurement 2

| Setting               | Instrument Value | Target Value     |
|-----------------------|------------------|------------------|
| RBW                   | 1.000 MHz        | $\leq 1.000$ MHz |
| VBW                   | 3.000 MHz        | $\geq 3.000$ MHz |
| SweepPoints           | 4150             | ~ 4150           |
| SweepTime             | 4.150 ms         | AUTO             |
| Reference Level       | -20.000 dBm      | -30.000 dBm      |
| Attenuation           | 10.000 dB        | AUTO             |
| Detector              | MaxPeak          | MaxPeak          |
| SweepCount            | 30               | 30               |
| Filter                | 3 dB             | 3 dB             |
| Trace Mode            | Max Hold         | Max Hold         |
| SweepType             | Sweep            | AUTO             |
| Preamp                | off              | off              |
| Stablemode            | Trace            | Trace            |
| Stablevalue           | 0.50 dB          | 0.50 dB          |
| Run                   | 4 / max. 150     | max. 150         |
| Stable                | 3 / 3            | 3                |
| Max Stable Difference | 0.00 dB          | 0.50 dB          |

## Tx Spurious Emission (5795 MHz; 20.000 dBm; 40 MHz)

Customized settings.

Test according to FCC title 47 part 15 §15.407(b), KDB 789033 D02 General U-NII Test Procedures New Rules v01r03 and ANSI C63.10-2013

### Result

| DUT Frequency (MHz) | Result |
|---------------------|--------|
| 5795.000000         | PASS   |

### Final measurements

| Frequency (MHz) | Level Pre Measurement (dBm) | level (dBm) | Limit (dBm) | Margin (dB) | Result |
|-----------------|-----------------------------|-------------|-------------|-------------|--------|
| ---             | ---                         | ---         | ---         | ---         | ---    |

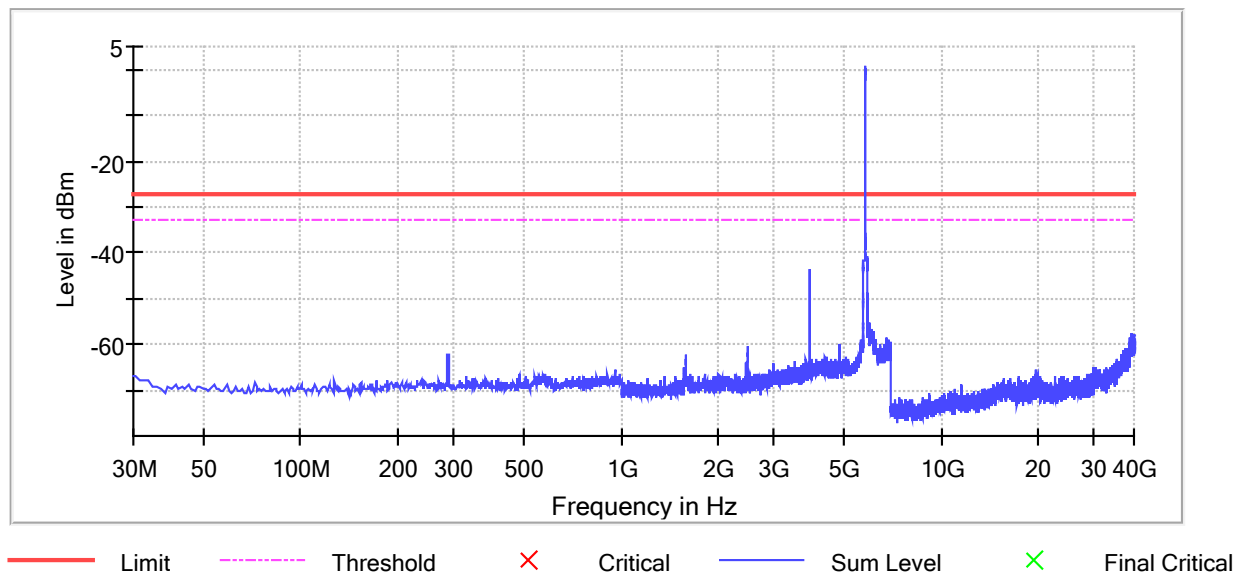
### Pre Measurements

| Frequency (MHz) | Level (dBm) | Margin (dB) | Limit (dBm) |
|-----------------|-------------|-------------|-------------|
| 3863.500000     | -43.7       | 16.7        | -27.0       |
| 3864.500000     | -43.8       | 16.8        | -27.0       |
| 5855.500000     | -48.8       | 21.8        | -27.0       |
| 5723.500000     | -48.8       | 21.8        | -27.0       |
| 5722.500000     | -49.3       | 22.3        | -27.0       |
| 5859.500000     | -49.9       | 22.9        | -27.0       |
| 5721.500000     | -50.0       | 23.0        | -27.0       |
| 5719.500000     | -50.3       | 23.3        | -27.0       |
| 5865.500000     | -50.4       | 23.4        | -27.0       |
| 5716.500000     | -50.5       | 23.5        | -27.0       |
| 5718.500000     | -50.6       | 23.6        | -27.0       |
| 5866.500000     | -50.7       | 23.7        | -27.0       |
| 5853.500000     | -50.9       | 23.9        | -27.0       |
| 5724.500000     | -51.0       | 24.0        | -27.0       |
| 5867.500000     | -51.0       | 24.0        | -27.0       |

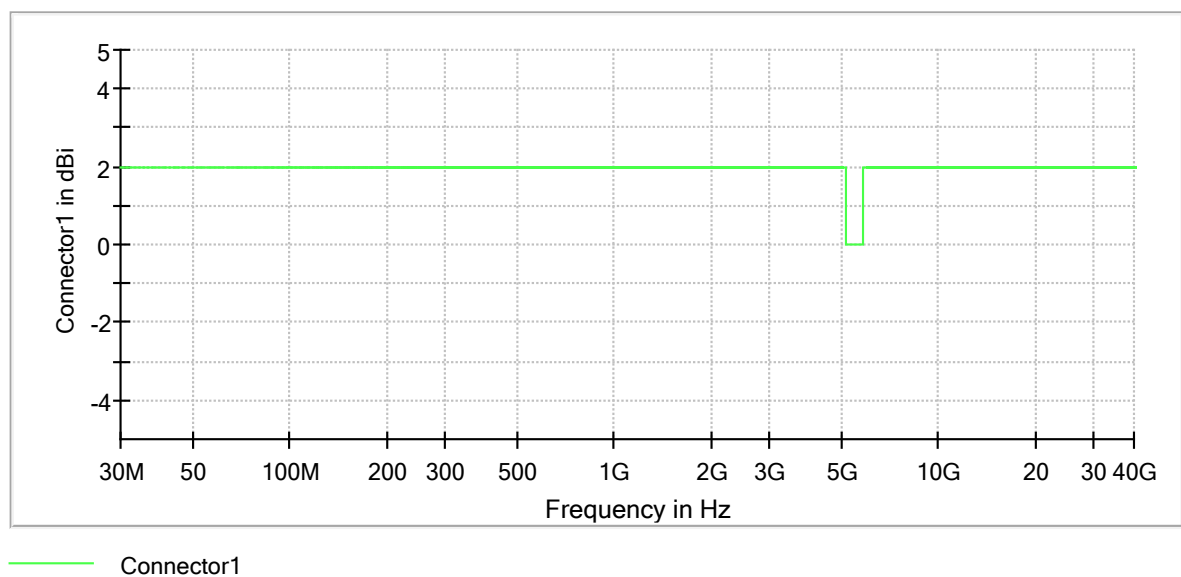
### Measurement Settings

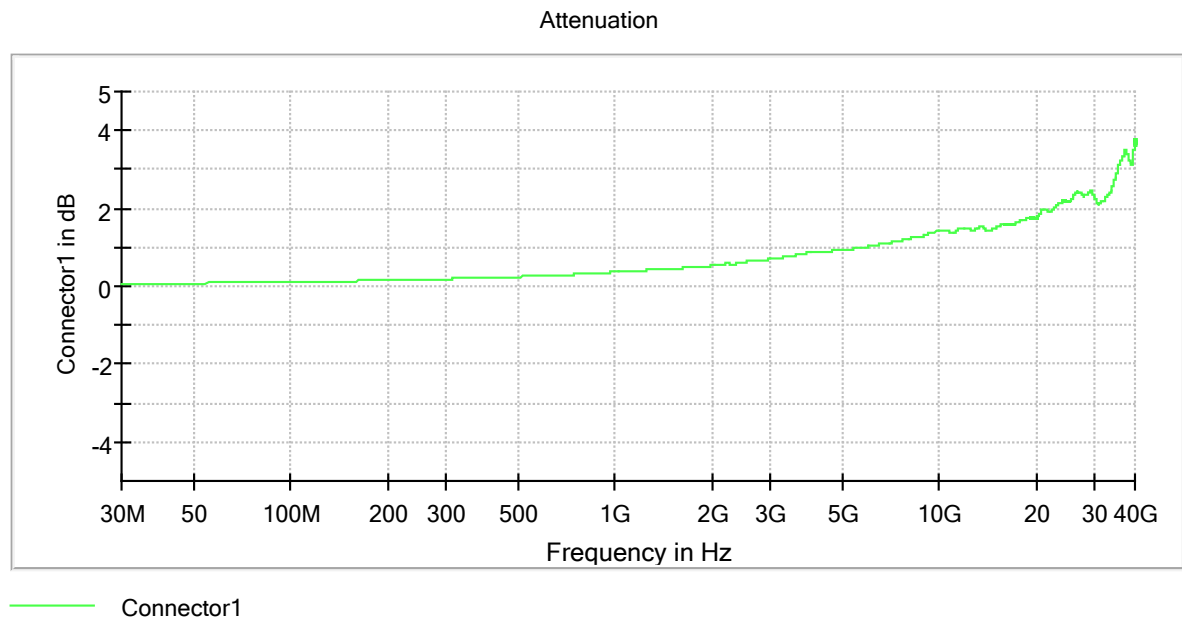
| Start Frequency (MHz) | Stop Frequency (MHz) | Pre Measurement | Final Measurement |
|-----------------------|----------------------|-----------------|-------------------|
| 30.000000             | 1000.000000          | 1               | 1                 |
| 1000.000000           | 5150.000000          | 2               | 2                 |
| 5150.000000           | 5250.000000          | 2               | 2                 |
| 5250.000000           | 5350.000000          | 2               | 2                 |
| 5350.000000           | 5470.000000          | 2               | 2                 |
| 5470.000000           | 5725.000000          | 2               | 2                 |
| 5725.000000           | 5850.000000          | 2               | 2                 |
| 5850.000000           | 7000.000000          | 2               | 2                 |
| 7000.000000           | 18000.000000         | 2               | 2                 |
| 18000.000000          | 26000.000000         | 2               | 2                 |
| 26000.000000          | 40000.000000         | 2               | 2                 |

Spurious



Gain





## Pre Measurement 1

| Setting               | Instrument Value | Target Value     |
|-----------------------|------------------|------------------|
| RBW                   | 1.000 MHz        | $\leq 1.000$ MHz |
| VBW                   | 3.000 MHz        | $\geq 3.000$ MHz |
| SweepPoints           | 970              | ~ 970            |
| SweepTime             | 194.000 ms       | AUTO             |
| Reference Level       | -20.000 dBm      | -30.000 dBm      |
| Attenuation           | 10.000 dB        | AUTO             |
| Detector              | MaxPeak          | QuasiPeak        |
| SweepCount            | 3                | 3                |
| Filter                | Channel          | Channel          |
| Trace Mode            | Max Hold         | Max Hold         |
| SweepType             | Sweep            | AUTO             |
| Preamp                | off              | off              |
| Stablemode            | Trace            | Trace            |
| Stablevalue           | 0.50 dB          | 0.50 dB          |
| Run                   | 4 / max. 150     | max. 150         |
| Stable                | 3 / 3            | 3                |
| Max Stable Difference | 0.00 dB          | 0.50 dB          |

## Pre Measurement 2

| Setting               | Instrument Value | Target Value     |
|-----------------------|------------------|------------------|
| RBW                   | 1.000 MHz        | $\leq 1.000$ MHz |
| VBW                   | 3.000 MHz        | $\geq 3.000$ MHz |
| SweepPoints           | 4150             | ~ 4150           |
| SweepTime             | 4.150 ms         | AUTO             |
| Reference Level       | -20.000 dBm      | -30.000 dBm      |
| Attenuation           | 10.000 dB        | AUTO             |
| Detector              | MaxPeak          | MaxPeak          |
| SweepCount            | 30               | 30               |
| Filter                | 3 dB             | 3 dB             |
| Trace Mode            | Max Hold         | Max Hold         |
| SweepType             | Sweep            | AUTO             |
| Preamp                | off              | off              |
| Stablemode            | Trace            | Trace            |
| Stablevalue           | 0.50 dB          | 0.50 dB          |
| Run                   | 4 / max. 150     | max. 150         |
| Stable                | 3 / 3            | 3                |
| Max Stable Difference | 0.00 dB          | 0.50 dB          |

# FCC 15.407 2015

## DUT Information

### Frequencies

|                        |                        |                        |
|------------------------|------------------------|------------------------|
| WLAN CH 38 (5190 MHz)  | WLAN CH 46 (5230 MHz)  | WLAN CH 151 (5755 MHz) |
| WLAN CH 159 (5795 MHz) | WLAN CH 54 (5270 MHz)  | WLAN CH 62 (5310 MHz)  |
| WLAN CH 102 (5510 MHz) | WLAN CH 110 (5550 MHz) | WLAN CH 118 (5590 MHz) |
| WLAN CH 134 (5670 MHz) |                        |                        |

### Bandwidths

40 MHz (40 MHz)

### Power

20.000 dBm (20 dBm)

### Beamforming Gain

20.000 dBm (20 dBm) 0 dB

### Gain Tables

20.000 dBm (20 dBm) Port 1: 0dBi;

### DUT Settings

|                            |          |
|----------------------------|----------|
| No. of transmission chains | 1        |
| DFS capability             | Yes      |
| DFS Mode                   | Master   |
| Equipment Type             | Portable |
| TPC                        | No       |

## Hardware Setup: WMS Measurements\Hardware Setup

|                    |                                                                                                                             |
|--------------------|-----------------------------------------------------------------------------------------------------------------------------|
| Spectrum Analyzer: | SA FSV 40 (SA FSV 40) @ VISA (ADR<br>TCPIP::192.168.48.111::INST0::INSTR), SN 1321.3008K39/101229,<br>FW 3.40               |
| Vector Generator:  | VG SMBV100B (VG SMBV100B) @ VISA (ADR<br>TCPIP::192.168.48.29::INST0::INSTR), SN 101685, FW 4.70.006.33                     |
| Generator:         | SMB100Aa (SMB100A) @ VISA (ADR<br>TCPIP::192.168.48.30::INST0::INSTR), SN 177894, FW / Drv:Rev<br>2.21.0, 07/2016, CVI 2015 |
| OSP:               | OSP-B157W (OSP-B157W) @ VISA (ADR<br>TCPIP::192.168.48.157::INST0::INSTR), SN 1527.1144. /, FW<br>1.23.0.2                  |

## Summary

| Test                            | Frequency<br>(MHz) | Nominal<br>Power<br>(dBm) | Nominal<br>Bandwidth<br>(MHz) | Result |
|---------------------------------|--------------------|---------------------------|-------------------------------|--------|
| Emission Bandwidth 26 dB        | 5190.000           | 20.0                      | 40.000000                     | PASS   |
| RF output power                 | 5190.000           | 20.0                      | 40.000000                     | PASS   |
| Power Spectral Density          | 5190.000           | 20.0                      | 40.000000                     | PASS   |
| Minimum Emission Bandwidth 6 dB | 5190.000           | 20.0                      | 40.000000                     | PASS   |
| Occupied Channel Bandwidth 99%  | 5190.000           | 20.0                      | 40.000000                     | PASS   |
| Band Edge low                   | 5190.000           | 20.0                      | 40.000000                     | PASS   |
| Emission Bandwidth 26 dB        | 5230.000           | 20.0                      | 40.000000                     | PASS   |
| RF output power                 | 5230.000           | 20.0                      | 40.000000                     | PASS   |
| Power Spectral Density          | 5230.000           | 20.0                      | 40.000000                     | PASS   |
| Minimum Emission Bandwidth 6 dB | 5230.000           | 20.0                      | 40.000000                     | PASS   |
| Occupied Channel Bandwidth 99%  | 5230.000           | 20.0                      | 40.000000                     | PASS   |
| Band Edge high                  | 5230.000           | 20.0                      | 40.000000                     | PASS   |

## Emission Bandwidth 26 dB (5190 MHz; 20.000 dBm; 40 MHz)

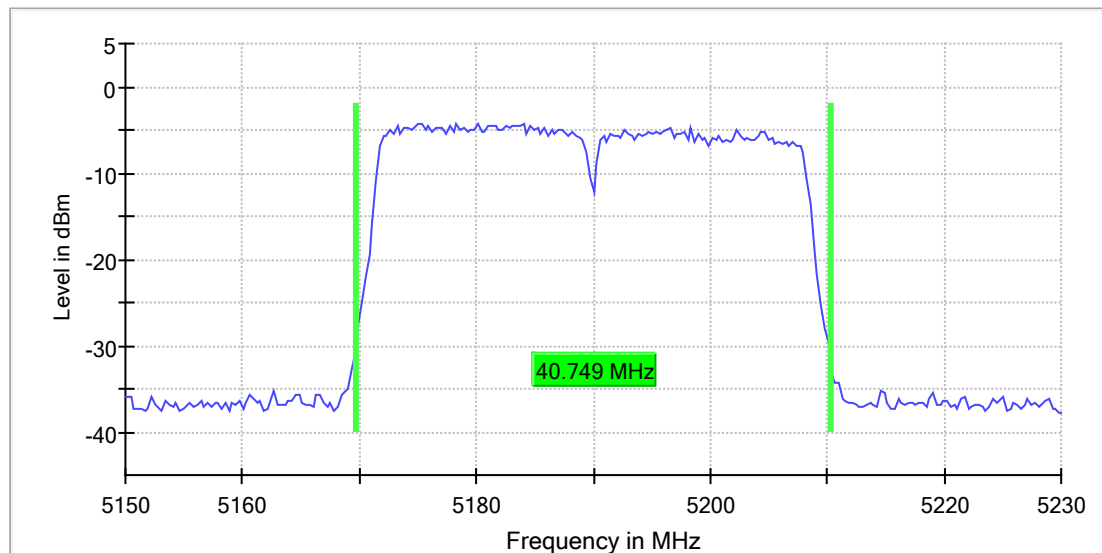
Test according to FCC title 47 part 15 §15.407(a),(e), KDB 789033 D02 General U-NII Test Procedures New Rules v01r03 and ANSI C63.10

### 26 dB Bandwidth

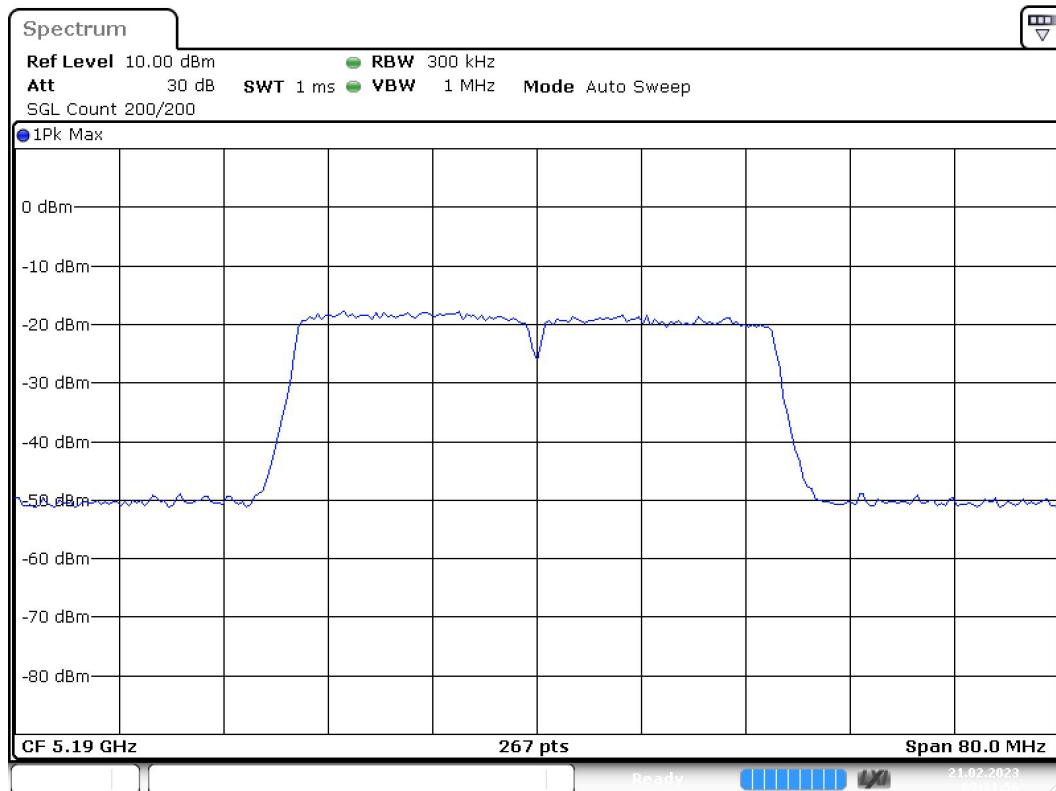
| DUT Frequency (MHz) | Bandwidth (MHz) | Limit Min (MHz) | Limit Max (MHz) | Band Edge Left (MHz) | Band Edge Right (MHz) |
|---------------------|-----------------|-----------------|-----------------|----------------------|-----------------------|
| 5190.000000         | 40.749064       | ---             | ---             | 5169.625468          | 5210.374532           |

(continuation of the "26 dB Bandwidth" table from column 6 ...)

| DUT Frequency (MHz) | Max Level (dBm) | Result |
|---------------------|-----------------|--------|
| 5190.000000         | -4.2            | PASS   |



Bandwidth



Date: 21.FEB.2023 09:31:57

## Measurement

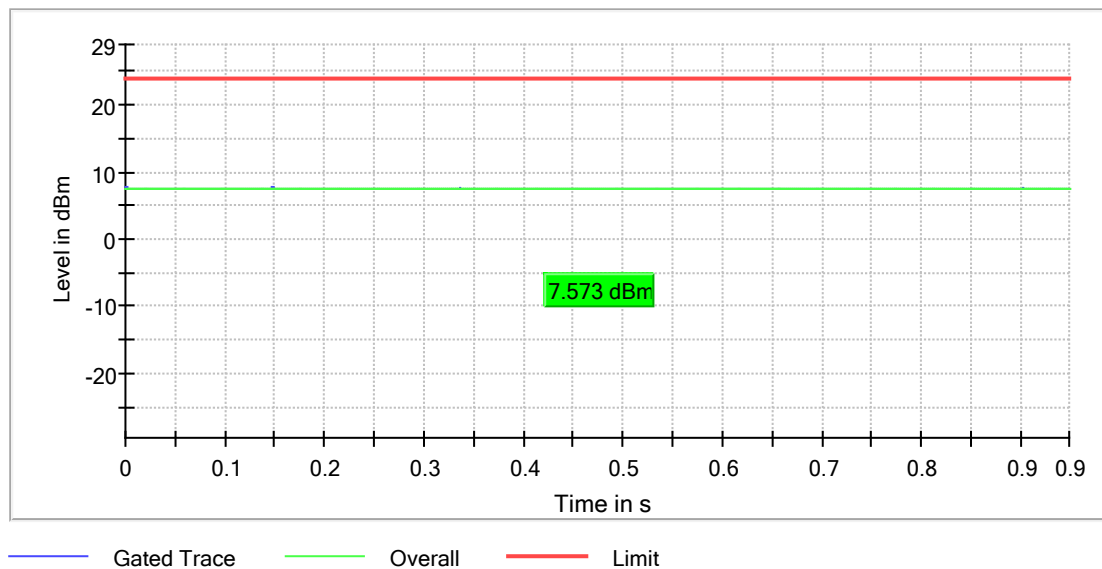
| Setting               | Instrument Value | Target Value   |
|-----------------------|------------------|----------------|
| Start Frequency       | 5.15000 GHz      | 5.15000 GHz    |
| Stop Frequency        | 5.23000 GHz      | 5.23000 GHz    |
| Span                  | 80.000 MHz       | 80.000 MHz     |
| RBW                   | 300.000 kHz      | ~ 400.000 kHz  |
| VBW                   | 1.000 MHz        | >= 900.000 kHz |
| SweepPoints           | 267              | ~ 267          |
| SweepTime             | 1.000 ms         | AUTO           |
| Reference Level       | 10.000 dBm       | 10.000 dBm     |
| Attenuation           | 30.000 dB        | AUTO           |
| Detector              | MaxPeak          | MaxPeak        |
| SweepCount            | 200              | 200            |
| Filter                | 3 dB             | 3 dB           |
| Trace Mode            | Max Hold         | Max Hold       |
| SweepType             | Sweep            | AUTO           |
| Preamp                | off              | off            |
| Stablemode            | Trace            | Trace          |
| Stablevalue           | 0.30 dB          | 0.30 dB        |
| Run                   | 78 / max. 150    | max. 150       |
| Stable                | 5 / 5            | 5              |
| Max Stable Difference | 0.10 dB          | 0.30 dB        |

## RF output power (5190 MHz; 20.000 dBm; 40 MHz)

Test according to FCC title 47 part 15 §15.407(a), KDB 789033 D02 General U-NII Test Procedures New Rules v01r03 and ANSI C63.10

### Result

| DUT Frequency (MHz) | Gated RMS (dBm) | Limit Max (dBm) | Gated EIRP (dBm) | DutyCycle (%) | Result |
|---------------------|-----------------|-----------------|------------------|---------------|--------|
| 5190.000000         | 7.6             | 24.0            | 7.6              | 94.783        | PASS   |



## Power Spectral Density (5190 MHz; 20.000 dBm; 40 MHz)

Customized settings.

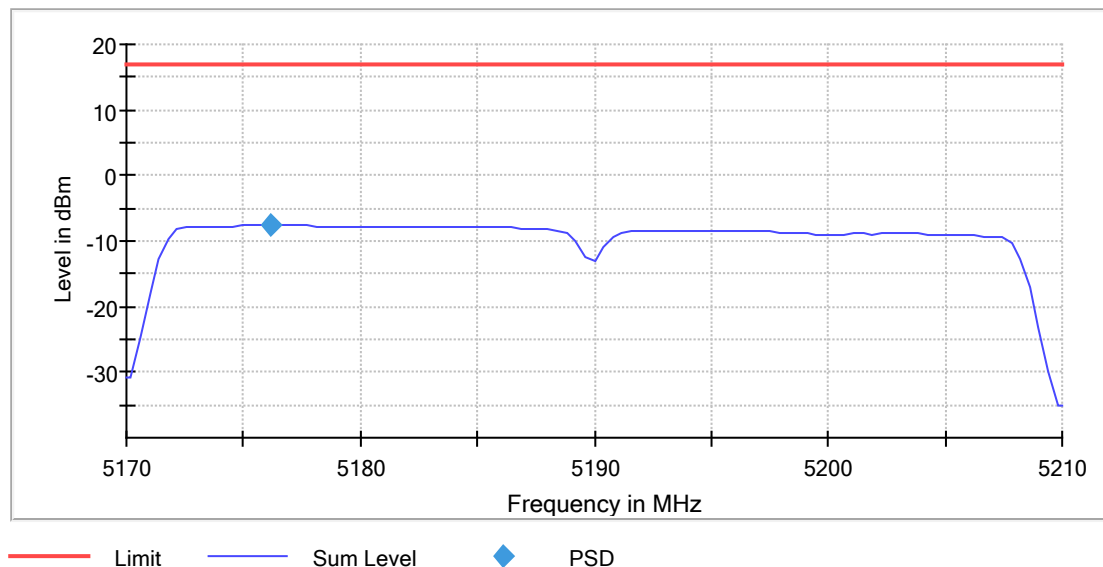
Test according to FCC title 47 part 15 §15.407(a), KDB 789033 D02 General U-NII Test Procedures New Rules v01r03 and ANSI C63.10

### Result

| DUT Frequency (MHz) | Frequency (MHz) | PSD (dBm) | Limit Max (dBm) | Result |
|---------------------|-----------------|-----------|-----------------|--------|
| 5190.000000         | 5176.138614     | -7.585    | 17.0            | PASS   |

### Ports

| Port | Duty Cycle (%) |
|------|----------------|
| 1    | 94.547         |



### Measurement

| Setting         | Instrument Value | Target Value |
|-----------------|------------------|--------------|
| Start Frequency | 5.17000 GHz      | 5.17000 GHz  |
| Stop Frequency  | 5.21000 GHz      | 5.21000 GHz  |
| Span            | 40.000 MHz       | 40.000 MHz   |
| RBW             | 1.000 MHz        | <= 1.000 MHz |
| VBW             | 3.000 MHz        | >= 3.000 MHz |
| SweepPoints     | 101              | ~ 80         |
| SweepTime       | 2.020 s          | 2.020 s      |
| Reference Level | 0.000 dBm        | 0.000 dBm    |
| Attenuation     | 20.000 dB        | AUTO         |
| Detector        | RMS              | RMS          |
| SweepCount      | 100              | 100          |
| Filter          | 3 dB             | 3 dB         |
| Trace Mode      | Max Hold         | Max Hold     |
| SweepType       | Sweep            | AUTO         |
| Preamp          | off              | off          |
| Stablemode      | Trace            | Trace        |
| Stablevalue     | 0.30 dB          | 0.30 dB      |

|                              |                    |                |
|------------------------------|--------------------|----------------|
| <b>Run</b>                   | <b>2 / max. 15</b> | <b>max. 15</b> |
| <b>Stable</b>                | <b>1 / 1</b>       | <b>1</b>       |
| <b>Max Stable Difference</b> | <b>0.00 dB</b>     | <b>0.30 dB</b> |

## Minimum Emission Bandwidth 6 dB (5190 MHz; 20.000 dBm; 40 MHz)

Customized settings.

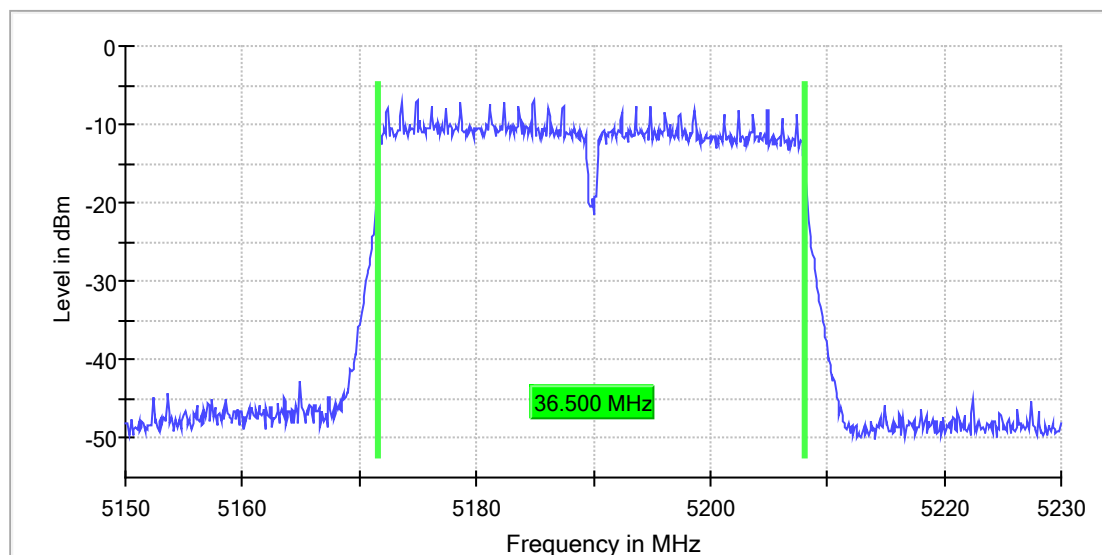
Test according to FCC title 47 part 15 §15.407(a),(e), KDB 789033 D02 General U-NII Test Procedures New Rules v01r03 and ANSI C63.10

### 6 dB Bandwidth

| DUT Frequency (MHz) | Bandwidth (MHz) | Limit Min (MHz) | Limit Max (MHz) | Band Edge Left (MHz) | Band Edge Right (MHz) |
|---------------------|-----------------|-----------------|-----------------|----------------------|-----------------------|
| 5190.000000         | 36.500000       | ---             | ---             | 5171.650000          | 5208.150000           |

(continuation of the "6 dB Bandwidth" table from column 6 ...)

| DUT Frequency (MHz) | Max Level (dBm) | Result |
|---------------------|-----------------|--------|
| 5190.000000         | -6.9            | PASS   |



### Measurement

| Setting         | Instrument Value | Target Value  |
|-----------------|------------------|---------------|
| Start Frequency | 5.15000 GHz      | 5.15000 GHz   |
| Stop Frequency  | 5.23000 GHz      | 5.23000 GHz   |
| Span            | 80.000 MHz       | 80.000 MHz    |
| RBW             | 100.000 kHz      | ~ 100.000 kHz |
| VBW             | 300.000 kHz      | ~ 300.000 kHz |
| SweepPoints     | 800              | ~ 800         |
| Sweeptime       | 1.070 ms         | AUTO          |
| Reference Level | 0.000 dBm        | 0.000 dBm     |
| Attenuation     | 20.000 dB        | AUTO          |
| Detector        | MaxPeak          | MaxPeak       |
| SweepCount      | 200              | 200           |
| Filter          | 3 dB             | 3 dB          |
| Trace Mode      | Max Hold         | Max Hold      |
| Sweeptype       | Sweep            | AUTO          |
| Preamp          | off              | off           |
| Stablemode      | Trace            | Trace         |

|                              |                      |                 |
|------------------------------|----------------------|-----------------|
| <b>Stablevalue</b>           | <b>0.30 dB</b>       | <b>0.30 dB</b>  |
| <b>Run</b>                   | <b>22 / max. 150</b> | <b>max. 150</b> |
| <b>Stable</b>                | <b>1 / 1</b>         | <b>1</b>        |
| <b>Max Stable Difference</b> | <b>0.28 dB</b>       | <b>0.30 dB</b>  |

## Occupied Channel Bandwidth 99% (5190 MHz; 20.000 dBm; 40 MHz)

Customized settings.

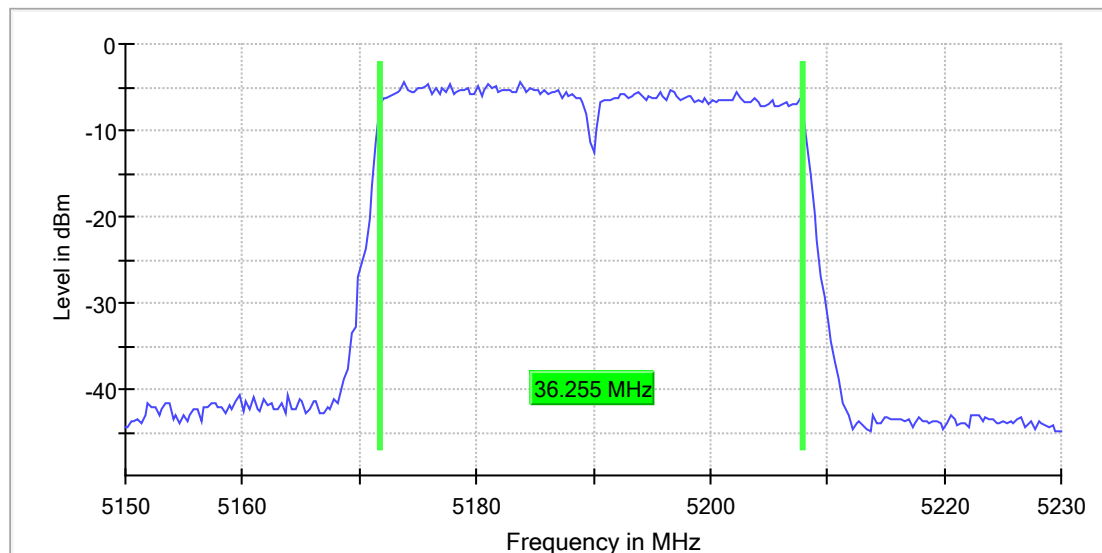
Test according to FCC title 47 part 15 §15.407(a),(e), KDB 789033 D02 General U-NII Test Procedures New Rules v01r03 and ANSI C63.10

### 99 % Bandwidth

| DUT Frequency (MHz) | Bandwidth (MHz) | Limit Min (MHz) | Limit Max (MHz) | Band Edge Left (MHz) | Band Edge Right (MHz) |
|---------------------|-----------------|-----------------|-----------------|----------------------|-----------------------|
| 5190.000000         | 36.254682       | ---             | ---             | 5171.722846          | 5207.977528           |

(continuation of the "99 % Bandwidth" table from column 6 ...)

| DUT Frequency (MHz) | Result |
|---------------------|--------|
| 5190.000000         | PASS   |



### Measurement

| Setting         | Instrument Value | Target Value   |
|-----------------|------------------|----------------|
| Start Frequency | 5.15000 GHz      | 5.15000 GHz    |
| Stop Frequency  | 5.23000 GHz      | 5.23000 GHz    |
| Span            | 80.000 MHz       | 80.000 MHz     |
| RBW             | 300.000 kHz      | <= 400.000 kHz |
| VBW             | 1.000 MHz        | >= 900.000 kHz |
| SweepPoints     | 267              | ~ 267          |
| SweepTime       | 1.000 ms         | AUTO           |
| Reference Level | 0.000 dBm        | 0.000 dBm      |
| Attenuation     | 20.000 dB        | AUTO           |
| Detector        | MaxPeak          | MaxPeak        |
| SweepCount      | 200              | 200            |
| Filter          | 3 dB             | 3 dB           |
| Trace Mode      | Max Hold         | Max Hold       |
| SweepType       | Sweep            | AUTO           |
| Preamp          | off              | off            |
| Stablemode      | Trace            | Trace          |
| Stablevalue     | 0.30 dB          | 0.30 dB        |
| Run             | 13 / max. 150    | max. 150       |

|                              |                |                |
|------------------------------|----------------|----------------|
| <b>Stable</b>                | <b>1 / 1</b>   | <b>1</b>       |
| <b>Max Stable Difference</b> | <b>0.26 dB</b> | <b>0.30 dB</b> |

## Band Edge low (5190 MHz; 20.000 dBm; 40 MHz)

Customized settings.

Test according to FCC title 47 part 15 §15.407(b), KDB 789033 D02 General U-NII Test Procedures New Rules v01r03 and ANSI C63.10

### Result

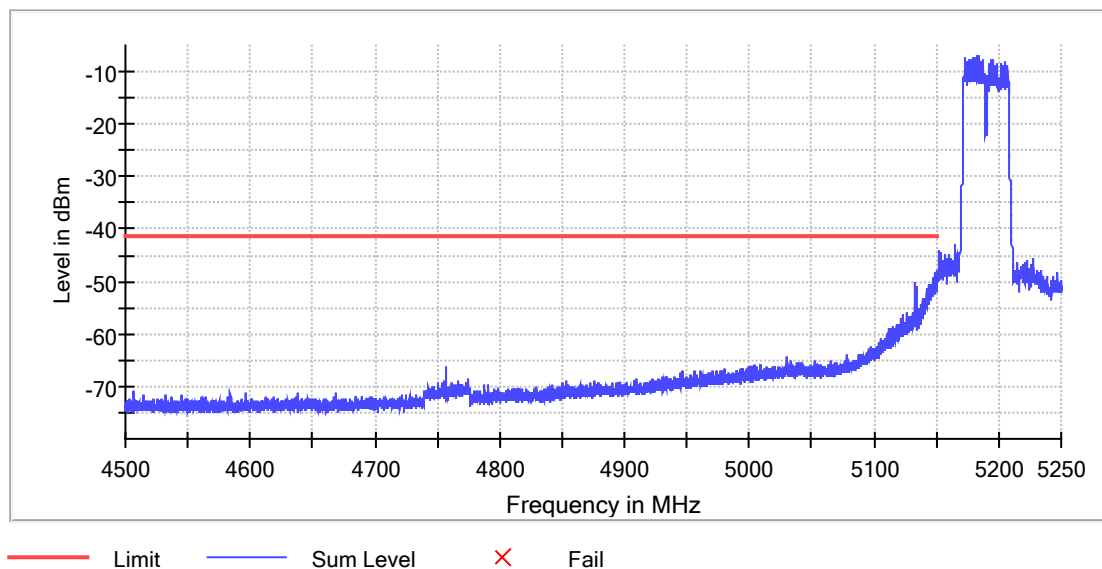
| DUT Frequency (MHz) | Result |
|---------------------|--------|
| 5190.000000         | PASS   |

### Inband Peak

| Frequency (MHz) | Level (dBm) |
|-----------------|-------------|
| 5182.375000     | -7.1        |

### Measurements

| Frequency (MHz) | Level (dBm) | Margin (dB) | Limit (dBm) | Result |
|-----------------|-------------|-------------|-------------|--------|
| 5149.875000     | -47.9       | 6.7         | -41.2       | PASS   |
| 5149.925000     | -48.2       | 7.0         | -41.2       | PASS   |
| 5148.375000     | -48.3       | 7.0         | -41.2       | PASS   |
| 5148.425000     | -48.6       | 7.4         | -41.2       | PASS   |
| 5149.275000     | -49.0       | 7.7         | -41.2       | PASS   |
| 5148.925000     | -49.0       | 7.8         | -41.2       | PASS   |
| 5149.325000     | -49.1       | 7.8         | -41.2       | PASS   |
| 5149.825000     | -49.3       | 8.1         | -41.2       | PASS   |
| 5148.025000     | -49.3       | 8.1         | -41.2       | PASS   |
| 5147.975000     | -49.4       | 8.1         | -41.2       | PASS   |
| 5149.625000     | -49.6       | 8.3         | -41.2       | PASS   |
| 5149.675000     | -49.6       | 8.4         | -41.2       | PASS   |
| 5149.525000     | -49.7       | 8.5         | -41.2       | PASS   |
| 5149.575000     | -49.8       | 8.6         | -41.2       | PASS   |
| 5148.275000     | -49.8       | 8.6         | -41.2       | PASS   |



### Measurement 1

| Setting               | Instrument Value | Target Value   |
|-----------------------|------------------|----------------|
| Start Frequency       | 5.15000 GHz      | 5.15000 GHz    |
| Stop Frequency        | 5.25000 GHz      | 5.25000 GHz    |
| Span                  | 100.000 MHz      | 100.000 MHz    |
| RBW                   | 100.000 kHz      | <= 100.000 kHz |
| VBW                   | 300.000 kHz      | >= 300.000 kHz |
| SweepPoints           | 2000             | ~ 2000         |
| SweepTime             | 227.813 $\mu$ s  | AUTO           |
| Reference Level       | 0.000 dBm        | 0.000 dBm      |
| Attenuation           | 20.000 dB        | AUTO           |
| Detector              | MaxPeak          | MaxPeak        |
| SweepCount            | 100              | 100            |
| Filter                | 3 dB             | 3 dB           |
| Trace Mode            | Max Hold         | Max Hold       |
| SweepType             | FFT              | AUTO           |
| Preamp                | off              | off            |
| Stablemode            | Trace            | Trace          |
| Stablevalue           | 0.50 dB          | 0.50 dB        |
| Run                   | 62 / max. 150    | max. 150       |
| Stable                | 3 / 3            | 3              |
| Max Stable Difference | 0.31 dB          | 0.50 dB        |

## Measurement 2

| Setting               | Instrument Value | Target Value   |
|-----------------------|------------------|----------------|
| Start Frequency       | 4.50000 GHz      | 4.50000 GHz    |
| Stop Frequency        | 5.15000 GHz      | 5.15000 GHz    |
| Span                  | 650.000 MHz      | 650.000 MHz    |
| RBW                   | 100.000 kHz      | <= 100.000 kHz |
| VBW                   | 300.000 kHz      | >= 300.000 kHz |
| SweepPoints           | 13000            | ~ 13000        |
| SweepTime             | 13.000 ms        | AUTO           |
| Reference Level       | -20.000 dBm      | -20.000 dBm    |
| Attenuation           | 0.000 dB         | AUTO           |
| Detector              | MaxPeak          | MaxPeak        |
| SweepCount            | 100              | 100            |
| Filter                | 3 dB             | 3 dB           |
| Trace Mode            | Max Hold         | Max Hold       |
| SweepType             | Sweep            | AUTO           |
| Preamp                | off              | off            |
| Stablemode            | Trace            | Trace          |
| Stablevalue           | 0.50 dB          | 0.50 dB        |
| Run                   | 58 / max. 150    | max. 150       |
| Stable                | 3 / 3            | 3              |
| Max Stable Difference | 0.02 dB          | 0.50 dB        |

## Emission Bandwidth 26 dB (5230 MHz; 20.000 dBm; 40 MHz)

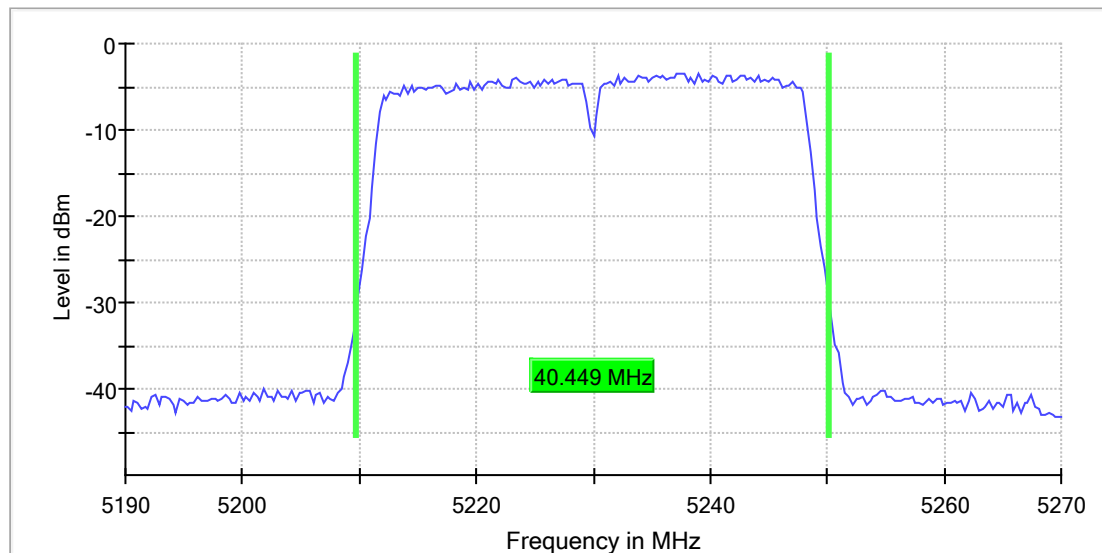
Test according to FCC title 47 part 15 §15.407(a),(e), KDB 789033 D02 General U-NII Test Procedures New Rules v01r03 and ANSI C63.10

### 26 dB Bandwidth

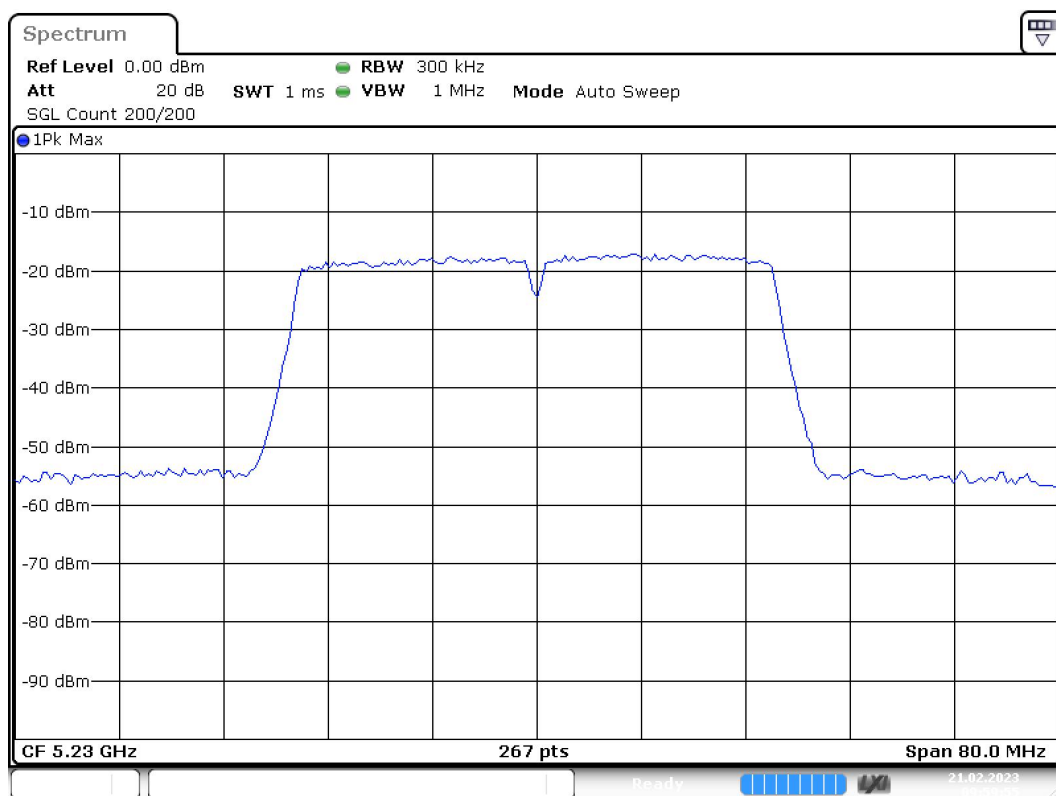
| DUT Frequency (MHz) | Bandwidth (MHz) | Limit Min (MHz) | Limit Max (MHz) | Band Edge Left (MHz) | Band Edge Right (MHz) |
|---------------------|-----------------|-----------------|-----------------|----------------------|-----------------------|
| 5230.000000         | 40.449438       | ---             | ---             | 5209.625468          | 5250.074906           |

(continuation of the "26 dB Bandwidth" table from column 6 ...)

| DUT Frequency (MHz) | Max Level (dBm) | Result |
|---------------------|-----------------|--------|
| 5230.000000         | -3.4            | PASS   |



Bandwidth



Date: 21.FEB.2023 09:59:56

## Measurement

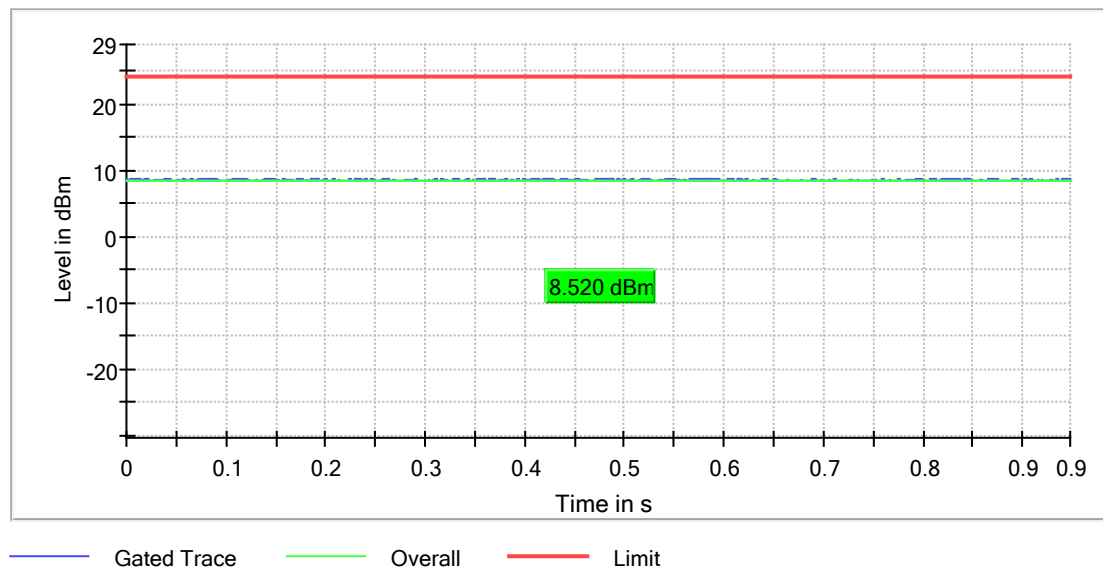
| Setting               | Instrument Value | Target Value   |
|-----------------------|------------------|----------------|
| Start Frequency       | 5.19000 GHz      | 5.19000 GHz    |
| Stop Frequency        | 5.27000 GHz      | 5.27000 GHz    |
| Span                  | 80.000 MHz       | 80.000 MHz     |
| RBW                   | 300.000 kHz      | ~ 400.000 kHz  |
| VBW                   | 1.000 MHz        | >= 900.000 kHz |
| SweepPoints           | 267              | ~ 267          |
| SweepTime             | 1.000 ms         | AUTO           |
| Reference Level       | 0.000 dBm        | 0.000 dBm      |
| Attenuation           | 20.000 dB        | AUTO           |
| Detector              | MaxPeak          | MaxPeak        |
| SweepCount            | 200              | 200            |
| Filter                | 3 dB             | 3 dB           |
| Trace Mode            | Max Hold         | Max Hold       |
| SweepType             | Sweep            | AUTO           |
| Preamp                | off              | off            |
| Stablemode            | Trace            | Trace          |
| Stablevalue           | 0.30 dB          | 0.30 dB        |
| Run                   | 85 / max. 150    | max. 150       |
| Stable                | 5 / 5            | 5              |
| Max Stable Difference | 0.00 dB          | 0.30 dB        |

## RF output power (5230 MHz; 20.000 dBm; 40 MHz)

Test according to FCC title 47 part 15 §15.407(a), KDB 789033 D02 General U-NII Test Procedures New Rules v01r03 and ANSI C63.10

### Result

| DUT Frequency (MHz) | Gated RMS (dBm) | Limit Max (dBm) | Gated EIRP (dBm) | DutyCycle (%) | Result |
|---------------------|-----------------|-----------------|------------------|---------------|--------|
| 5230.000000         | 8.5             | 24.0            | 8.5              | 94.765        | PASS   |



## Power Spectral Density (5230 MHz; 20.000 dBm; 40 MHz)

Customized settings.

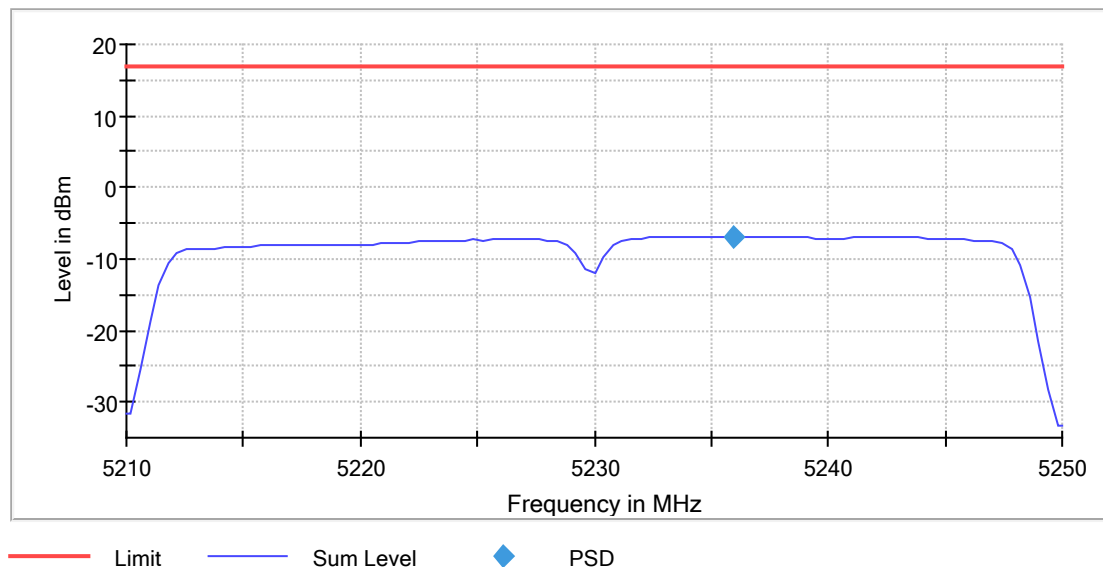
Test according to FCC title 47 part 15 §15.407(a), KDB 789033 D02 General U-NII Test Procedures New Rules v01r03 and ANSI C63.10

### Result

| DUT Frequency (MHz) | Frequency (MHz) | PSD (dBm) | Limit Max (dBm) | Result |
|---------------------|-----------------|-----------|-----------------|--------|
| 5230.000000         | 5235.940594     | -6.807    | 17.0            | PASS   |

### Ports

| Port | Duty Cycle (%) |
|------|----------------|
| 1    | 94.543         |



### Measurement

| Setting         | Instrument Value | Target Value |
|-----------------|------------------|--------------|
| Start Frequency | 5.21000 GHz      | 5.21000 GHz  |
| Stop Frequency  | 5.25000 GHz      | 5.25000 GHz  |
| Span            | 40.000 MHz       | 40.000 MHz   |
| RBW             | 1.000 MHz        | <= 1.000 MHz |
| VBW             | 3.000 MHz        | >= 3.000 MHz |
| SweepPoints     | 101              | ~ 80         |
| SweepTime       | 2.020 s          | 2.020 s      |
| Reference Level | 0.000 dBm        | 0.000 dBm    |
| Attenuation     | 20.000 dB        | AUTO         |
| Detector        | RMS              | RMS          |
| SweepCount      | 100              | 100          |
| Filter          | 3 dB             | 3 dB         |
| Trace Mode      | Max Hold         | Max Hold     |
| SweepType       | Sweep            | AUTO         |
| Preamp          | off              | off          |
| Stablemode      | Trace            | Trace        |
| Stablevalue     | 0.30 dB          | 0.30 dB      |

|                              |                    |                |
|------------------------------|--------------------|----------------|
| <b>Run</b>                   | <b>2 / max. 15</b> | <b>max. 15</b> |
| <b>Stable</b>                | <b>1 / 1</b>       | <b>1</b>       |
| <b>Max Stable Difference</b> | <b>0.00 dB</b>     | <b>0.30 dB</b> |

## Minimum Emission Bandwidth 6 dB (5230 MHz; 20.000 dBm; 40 MHz)

Customized settings.

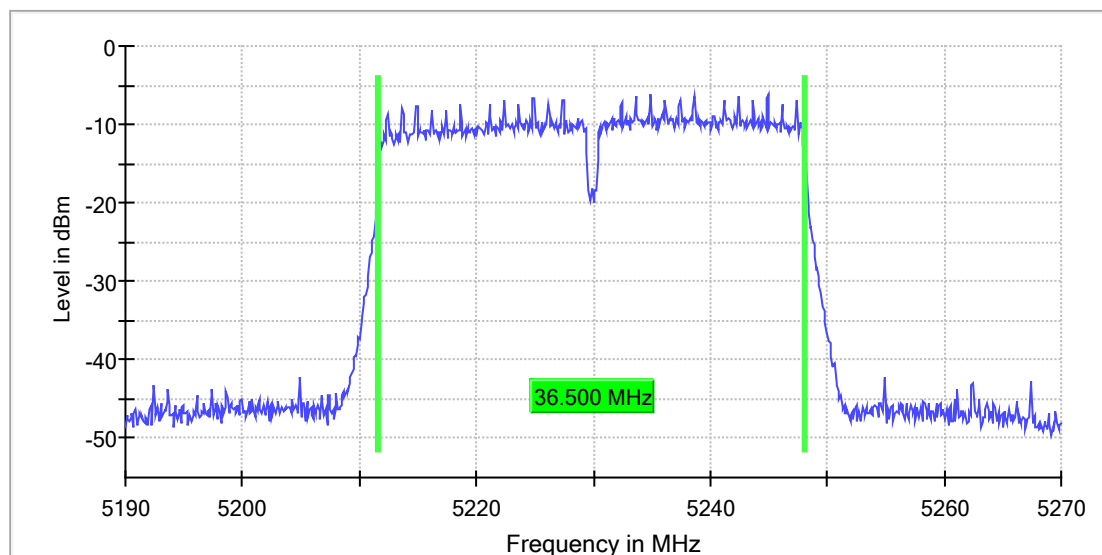
Test according to FCC title 47 part 15 §15.407(a),(e), KDB 789033 D02 General U-NII Test Procedures New Rules v01r03 and ANSI C63.10

### 6 dB Bandwidth

| DUT Frequency (MHz) | Bandwidth (MHz) | Limit Min (MHz) | Limit Max (MHz) | Band Edge Left (MHz) | Band Edge Right (MHz) |
|---------------------|-----------------|-----------------|-----------------|----------------------|-----------------------|
| 5230.000000         | 36.500000       | ---             | ---             | 5211.650000          | 5248.150000           |

(continuation of the "6 dB Bandwidth" table from column 6 ...)

| DUT Frequency (MHz) | Max Level (dBm) | Result |
|---------------------|-----------------|--------|
| 5230.000000         | -6.1            | PASS   |



### Measurement

| Setting         | Instrument Value | Target Value  |
|-----------------|------------------|---------------|
| Start Frequency | 5.19000 GHz      | 5.19000 GHz   |
| Stop Frequency  | 5.27000 GHz      | 5.27000 GHz   |
| Span            | 80.000 MHz       | 80.000 MHz    |
| RBW             | 100.000 kHz      | ~ 100.000 kHz |
| VBW             | 300.000 kHz      | ~ 300.000 kHz |
| SweepPoints     | 800              | ~ 800         |
| SweepTime       | 1.070 ms         | AUTO          |
| Reference Level | 0.000 dBm        | 0.000 dBm     |
| Attenuation     | 20.000 dB        | AUTO          |
| Detector        | MaxPeak          | MaxPeak       |
| SweepCount      | 200              | 200           |
| Filter          | 3 dB             | 3 dB          |
| Trace Mode      | Max Hold         | Max Hold      |
| SweepType       | Sweep            | AUTO          |
| Preamp          | off              | off           |
| Stablemode      | Trace            | Trace         |

|                              |                      |                 |
|------------------------------|----------------------|-----------------|
| <b>Stablevalue</b>           | <b>0.30 dB</b>       | <b>0.30 dB</b>  |
| <b>Run</b>                   | <b>32 / max. 150</b> | <b>max. 150</b> |
| <b>Stable</b>                | <b>1 / 1</b>         | <b>1</b>        |
| <b>Max Stable Difference</b> | <b>0.27 dB</b>       | <b>0.30 dB</b>  |

## Occupied Channel Bandwidth 99% (5230 MHz; 20.000 dBm; 40 MHz)

Customized settings.

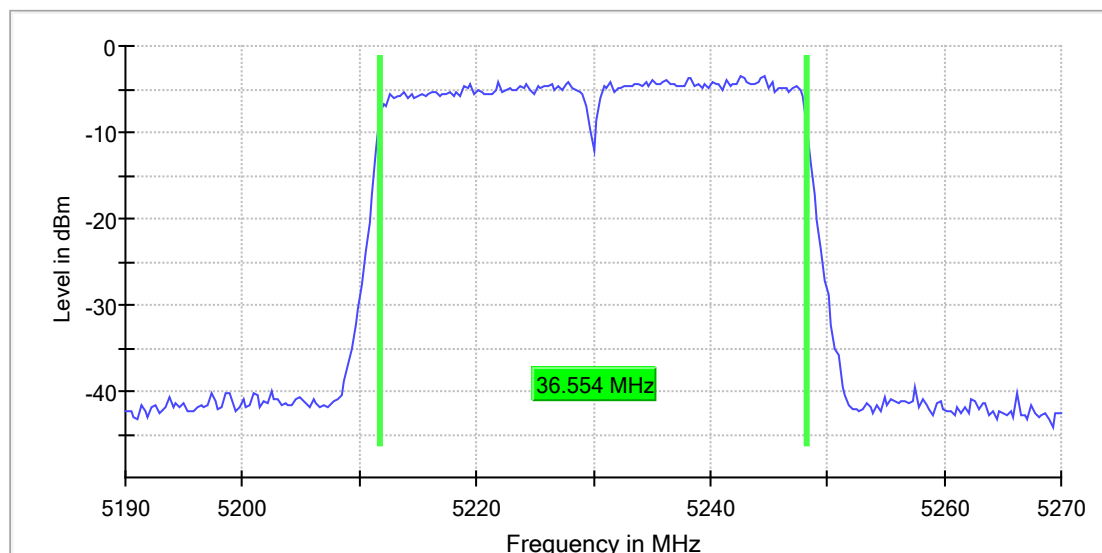
Test according to FCC title 47 part 15 §15.407(a),(e), KDB 789033 D02 General U-NII Test Procedures New Rules v01r03 and ANSI C63.10

### 99 % Bandwidth

| DUT Frequency (MHz) | Bandwidth (MHz) | Limit Min (MHz) | Limit Max (MHz) | Band Edge Left (MHz) | Band Edge Right (MHz) |
|---------------------|-----------------|-----------------|-----------------|----------------------|-----------------------|
| 5230.000000         | 36.554308       | ---             | ---             | 5211.722846          | 5248.277154           |

(continuation of the "99 % Bandwidth" table from column 6 ...)

| DUT Frequency (MHz) | Result |
|---------------------|--------|
| 5230.000000         | PASS   |



### Measurement

| Setting         | Instrument Value | Target Value   |
|-----------------|------------------|----------------|
| Start Frequency | 5.19000 GHz      | 5.19000 GHz    |
| Stop Frequency  | 5.27000 GHz      | 5.27000 GHz    |
| Span            | 80.000 MHz       | 80.000 MHz     |
| RBW             | 300.000 kHz      | <= 400.000 kHz |
| VBW             | 1.000 MHz        | >= 900.000 kHz |
| SweepPoints     | 267              | ~ 267          |
| SweepTime       | 1.000 ms         | AUTO           |
| Reference Level | 0.000 dBm        | 0.000 dBm      |
| Attenuation     | 20.000 dB        | AUTO           |
| Detector        | MaxPeak          | MaxPeak        |
| SweepCount      | 200              | 200            |
| Filter          | 3 dB             | 3 dB           |
| Trace Mode      | Max Hold         | Max Hold       |
| SweepType       | Sweep            | AUTO           |
| Preamp          | off              | off            |
| Stablemode      | Trace            | Trace          |
| Stablevalue     | 0.30 dB          | 0.30 dB        |
| Run             | 26 / max. 150    | max. 150       |

|                              |                |                |
|------------------------------|----------------|----------------|
| <b>Stable</b>                | <b>1 / 1</b>   | <b>1</b>       |
| <b>Max Stable Difference</b> | <b>0.01 dB</b> | <b>0.30 dB</b> |

## Band Edge high (5230 MHz; 20.000 dBm; 40 MHz)

Customized settings.

Test according to FCC title 47 part 15 §15.407(b), KDB 789033 D02 General U-NII Test Procedures New Rules v01r03 and ANSI C63.10

### Result

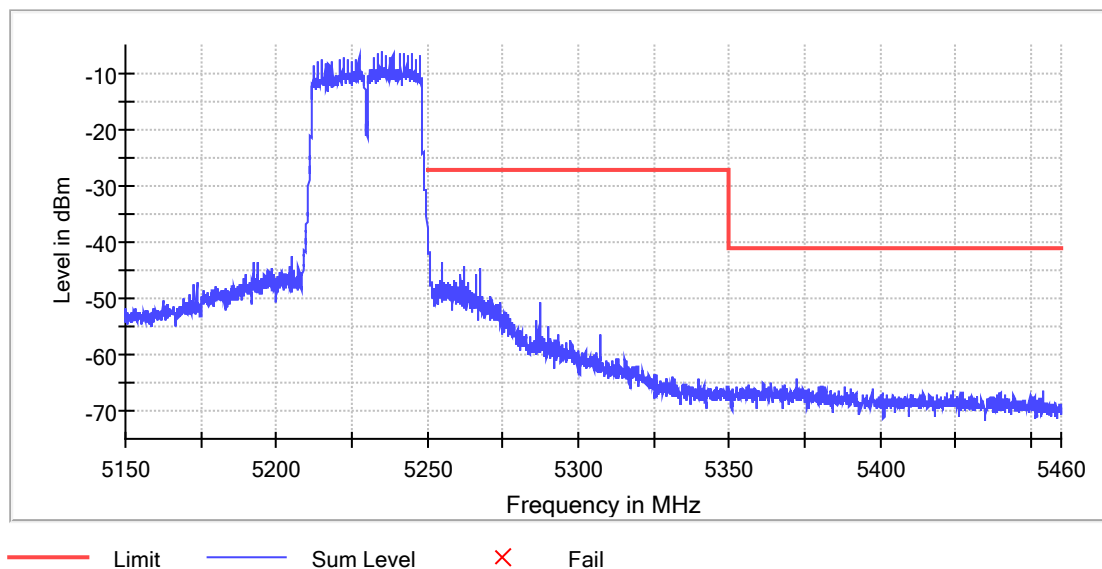
| DUT Frequency (MHz) | Result |
|---------------------|--------|
| 5230.000000         | PASS   |

### Inband Peak

| Frequency (MHz) | Level (dBm) |
|-----------------|-------------|
| 5234.875000     | -6.0        |

### Measurements

| Frequency (MHz) | Level (dBm) | Margin (dB) | Limit (dBm) | Result |
|-----------------|-------------|-------------|-------------|--------|
| 5250.125000     | -39.1       | 12.1        | -27.0       | PASS   |
| 5250.025000     | -39.1       | 12.1        | -27.0       | PASS   |
| 5250.075000     | -39.5       | 12.5        | -27.0       | PASS   |
| 5250.175000     | -40.3       | 13.3        | -27.0       | PASS   |
| 5250.225000     | -40.8       | 13.8        | -27.0       | PASS   |
| 5250.275000     | -40.9       | 13.9        | -27.0       | PASS   |
| 5250.575000     | -41.7       | 14.7        | -27.0       | PASS   |
| 5250.375000     | -41.8       | 14.8        | -27.0       | PASS   |
| 5250.475000     | -41.8       | 14.8        | -27.0       | PASS   |
| 5250.525000     | -41.9       | 14.9        | -27.0       | PASS   |
| 5250.425000     | -42.1       | 15.1        | -27.0       | PASS   |
| 5250.625000     | -42.1       | 15.1        | -27.0       | PASS   |
| 5250.325000     | -42.3       | 15.3        | -27.0       | PASS   |
| 5250.675000     | -43.0       | 16.0        | -27.0       | PASS   |
| 5254.875000     | -43.6       | 16.6        | -27.0       | PASS   |



### Measurement 1

| Setting               | Instrument Value | Target Value   |
|-----------------------|------------------|----------------|
| Start Frequency       | 5.15000 GHz      | 5.15000 GHz    |
| Stop Frequency        | 5.25000 GHz      | 5.25000 GHz    |
| Span                  | 100.000 MHz      | 100.000 MHz    |
| RBW                   | 100.000 kHz      | <= 100.000 kHz |
| VBW                   | 300.000 kHz      | >= 300.000 kHz |
| SweepPoints           | 2000             | ~ 2000         |
| SweepTime             | 227.813 $\mu$ s  | AUTO           |
| Reference Level       | 0.000 dBm        | 0.000 dBm      |
| Attenuation           | 20.000 dB        | AUTO           |
| Detector              | MaxPeak          | MaxPeak        |
| SweepCount            | 100              | 100            |
| Filter                | 3 dB             | 3 dB           |
| Trace Mode            | Max Hold         | Max Hold       |
| SweepType             | FFT              | AUTO           |
| Preamp                | off              | off            |
| Stablemode            | Trace            | Trace          |
| Stablevalue           | 0.50 dB          | 0.50 dB        |
| Run                   | 48 / max. 150    | max. 150       |
| Stable                | 3 / 3            | 3              |
| Max Stable Difference | 0.42 dB          | 0.50 dB        |

## Measurement 2

| Setting               | Instrument Value | Target Value   |
|-----------------------|------------------|----------------|
| Start Frequency       | 5.25000 GHz      | 5.25000 GHz    |
| Stop Frequency        | 5.46000 GHz      | 5.46000 GHz    |
| Span                  | 210.000 MHz      | 210.000 MHz    |
| RBW                   | 100.000 kHz      | <= 100.000 kHz |
| VBW                   | 300.000 kHz      | >= 300.000 kHz |
| SweepPoints           | 4200             | ~ 4200         |
| SweepTime             | 474.609 $\mu$ s  | AUTO           |
| Reference Level       | -20.000 dBm      | -20.000 dBm    |
| Attenuation           | 0.000 dB         | AUTO           |
| Detector              | MaxPeak          | MaxPeak        |
| SweepCount            | 100              | 100            |
| Filter                | 3 dB             | 3 dB           |
| Trace Mode            | Max Hold         | Max Hold       |
| SweepType             | FFT              | AUTO           |
| Preamp                | off              | off            |
| Stablemode            | Trace            | Trace          |
| Stablevalue           | 0.50 dB          | 0.50 dB        |
| Run                   | 10 / max. 150    | max. 150       |
| Stable                | 3 / 3            | 3              |
| Max Stable Difference | 0.50 dB          | 0.50 dB        |

# FCC 15.407 2015

## DUT Information

### Frequencies

|                        |                        |                        |
|------------------------|------------------------|------------------------|
| WLAN CH 38 (5190 MHz)  | WLAN CH 46 (5230 MHz)  | WLAN CH 151 (5755 MHz) |
| WLAN CH 159 (5795 MHz) | WLAN CH 54 (5270 MHz)  | WLAN CH 62 (5310 MHz)  |
| WLAN CH 102 (5510 MHz) | WLAN CH 110 (5550 MHz) | WLAN CH 118 (5590 MHz) |
| WLAN CH 134 (5670 MHz) |                        |                        |

### Bandwidths

40 MHz (40 MHz)

### Power

20.000 dBm (20 dBm)

### Beamforming Gain

|                        |                              |
|------------------------|------------------------------|
| Powerstep name (value) | Beamforming gain table names |
| 20.000 dBm (20 dBm)    | BFG_'20.000 dBm'_0.000dB;    |

### Gain Tables

|                        |                  |
|------------------------|------------------|
| Powerstep name (value) | Gain table names |
| 20.000 dBm (20 dBm)    | Port 1: 0dBi;    |

### DUT Settings

|                            |          |
|----------------------------|----------|
| No. of transmission chains | 1        |
| DFS capability             | Yes      |
| DFS Mode                   | Master   |
| Equipment Type             | Portable |
| TPC                        | No       |

## Hardware Setup: WMS Measurements\Hardware Setup

|                    |                                                                                                                             |
|--------------------|-----------------------------------------------------------------------------------------------------------------------------|
| Spectrum Analyzer: | SA FSV 40 (SA FSV 40) @ VISA (ADR<br>TCPIP::192.168.48.111::INST0::INSTR), SN 1321.3008K39/101229,<br>FW 3.40               |
| Vector Generator:  | VG SMBV100B (VG SMBV100B) @ VISA (ADR<br>TCPIP::192.168.48.29::INST0::INSTR), SN 101685, FW 4.70.006.33                     |
| Generator:         | SMB100Aa (SMB100A) @ VISA (ADR<br>TCPIP::192.168.48.30::INST0::INSTR), SN 177894, FW / Drv:Rev<br>2.21.0, 07/2016, CVI 2015 |
| OSP:               | OSP-B157W (OSP-B157W) @ VISA (ADR<br>TCPIP::192.168.48.157::INST0::INSTR), SN 1527.1144. /, FW<br>1.23.0.2                  |

## Summary

| Test                 | Frequency<br>(MHz) | Nominal<br>Power<br>(dBm) | Nominal<br>Bandwidth<br>(MHz) | Result |
|----------------------|--------------------|---------------------------|-------------------------------|--------|
| Tx Spurious Emission | 5190.000           | 20.0                      | 40.000000                     | PASS   |
| Tx Spurious Emission | 5230.000           | 20.0                      | 40.000000                     | PASS   |

## Tx Spurious Emission (5190 MHz; 20.000 dBm; 40 MHz)

Customized settings.

Test according to FCC title 47 part 15 §15.407(b), KDB 789033 D02 General U-NII Test Procedures New Rules v01r03 and ANSI C63.10-2013

### Result

| DUT Frequency (MHz) | Result |
|---------------------|--------|
| 5190.000000         | PASS   |

### Final measurements

| Frequency (MHz) | Level Pre Measurement (dBm) | level (dBm) | Limit (dBm) | Margin (dB) | Result |
|-----------------|-----------------------------|-------------|-------------|-------------|--------|
| ---             | ---                         | ---         | ---         | ---         | ---    |

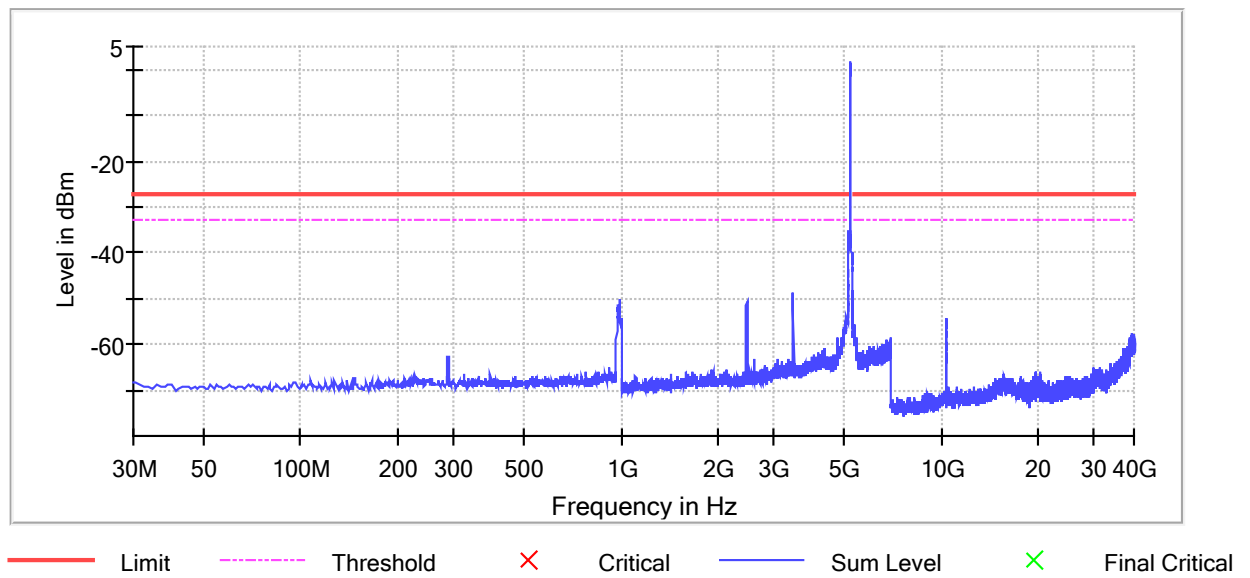
### Pre Measurements

| Frequency (MHz) | Level (dBm) | Margin (dB) | Limit (dBm) |
|-----------------|-------------|-------------|-------------|
| 5148.500000     | -38.1       | 11.1        | -27.0       |
| 5149.500000     | -39.0       | 12.0        | -27.0       |
| 5143.500000     | -38.7       | 11.7        | -27.0       |
| 5144.500000     | -38.7       | 11.7        | -27.0       |
| 5142.500000     | -38.5       | 11.5        | -27.0       |
| 5147.500000     | -38.6       | 11.6        | -27.0       |
| 5146.500000     | -38.9       | 11.9        | -27.0       |
| 5141.500000     | -39.5       | 12.5        | -27.0       |
| 5140.500000     | -40.1       | 13.1        | -27.0       |
| 5145.500000     | -40.2       | 13.2        | -27.0       |
| 5139.500000     | -40.6       | 13.6        | -27.0       |
| 5133.500000     | -43.5       | 16.5        | -27.0       |
| 5137.500000     | -43.9       | 16.9        | -27.0       |
| 5138.500000     | -44.0       | 17.0        | -27.0       |
| 5134.500000     | -44.2       | 17.2        | -27.0       |

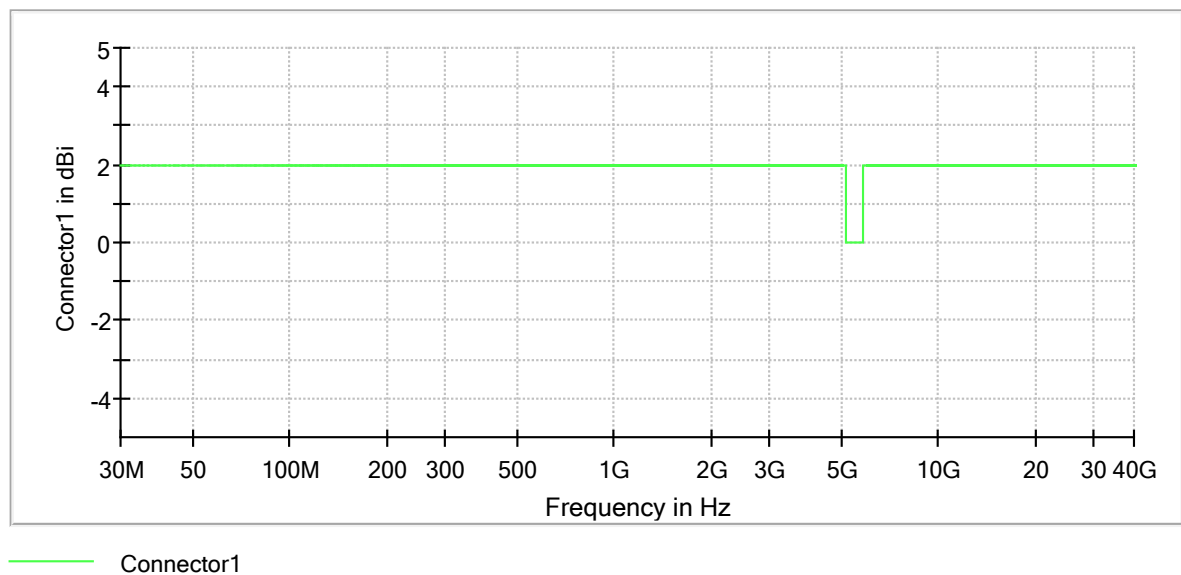
### Measurement Settings

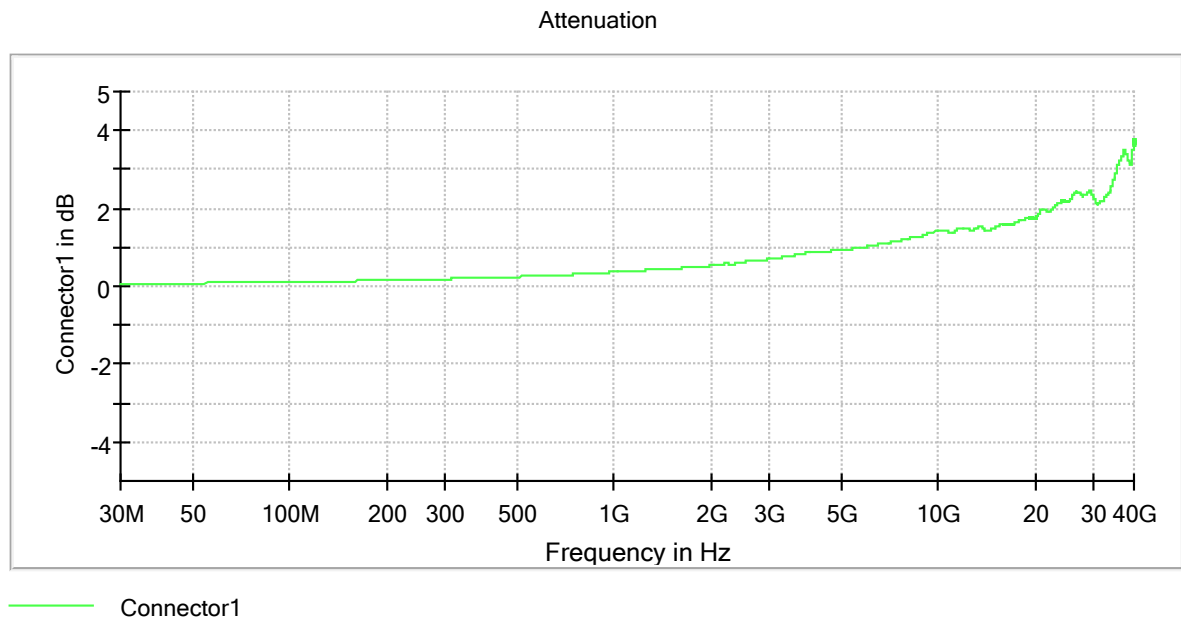
| Start Frequency (MHz) | Stop Frequency (MHz) | Pre Measurement | Final Measurement |
|-----------------------|----------------------|-----------------|-------------------|
| 30.000000             | 1000.000000          | 1               | 1                 |
| 1000.000000           | 5150.000000          | 2               | 2                 |
| 5150.000000           | 5250.000000          | 2               | 2                 |
| 5250.000000           | 5350.000000          | 2               | 2                 |
| 5350.000000           | 5470.000000          | 2               | 2                 |
| 5470.000000           | 5725.000000          | 2               | 2                 |
| 5725.000000           | 5850.000000          | 2               | 2                 |
| 5850.000000           | 7000.000000          | 2               | 2                 |
| 7000.000000           | 18000.000000         | 2               | 2                 |
| 18000.000000          | 26000.000000         | 2               | 2                 |
| 26000.000000          | 40000.000000         | 2               | 2                 |

Spurious



Gain





## Pre Measurement 1

| Setting               | Instrument Value | Target Value     |
|-----------------------|------------------|------------------|
| RBW                   | 1.000 MHz        | $\leq 1.000$ MHz |
| VBW                   | 3.000 MHz        | $\geq 3.000$ MHz |
| SweepPoints           | 970              | ~ 970            |
| SweepTime             | 194.000 ms       | AUTO             |
| Reference Level       | -20.000 dBm      | -30.000 dBm      |
| Attenuation           | 10.000 dB        | AUTO             |
| Detector              | MaxPeak          | QuasiPeak        |
| SweepCount            | 3                | 3                |
| Filter                | Channel          | Channel          |
| Trace Mode            | Max Hold         | Max Hold         |
| SweepType             | Sweep            | AUTO             |
| Preamp                | off              | off              |
| Stablemode            | Trace            | Trace            |
| Stablevalue           | 0.50 dB          | 0.50 dB          |
| Run                   | 13 / max. 150    | max. 150         |
| Stable                | 3 / 3            | 3                |
| Max Stable Difference | 0.48 dB          | 0.50 dB          |

## Pre Measurement 2

| Setting               | Instrument Value | Target Value     |
|-----------------------|------------------|------------------|
| RBW                   | 1.000 MHz        | $\leq 1.000$ MHz |
| VBW                   | 3.000 MHz        | $\geq 3.000$ MHz |
| SweepPoints           | 4150             | ~ 4150           |
| SweepTime             | 4.150 ms         | AUTO             |
| Reference Level       | -20.000 dBm      | -30.000 dBm      |
| Attenuation           | 10.000 dB        | AUTO             |
| Detector              | MaxPeak          | MaxPeak          |
| SweepCount            | 30               | 30               |
| Filter                | 3 dB             | 3 dB             |
| Trace Mode            | Max Hold         | Max Hold         |
| SweepType             | Sweep            | AUTO             |
| Preamp                | off              | off              |
| Stablemode            | Trace            | Trace            |
| Stablevalue           | 0.50 dB          | 0.50 dB          |
| Run                   | 19 / max. 150    | max. 150         |
| Stable                | 3 / 3            | 3                |
| Max Stable Difference | 0.17 dB          | 0.50 dB          |

## Tx Spurious Emission (5230 MHz; 20.000 dBm; 40 MHz)

Customized settings.

Test according to FCC title 47 part 15 §15.407(b), KDB 789033 D02 General U-NII Test Procedures New Rules v01r03 and ANSI C63.10-2013

### Result

| DUT Frequency (MHz) | Result |
|---------------------|--------|
| 5230.000000         | PASS   |

### Final measurements

| Frequency (MHz) | Level Pre Measurement (dBm) | level (dBm) | Limit (dBm) | Margin (dB) | Result |
|-----------------|-----------------------------|-------------|-------------|-------------|--------|
| ---             | ---                         | ---         | ---         | ---         | ---    |

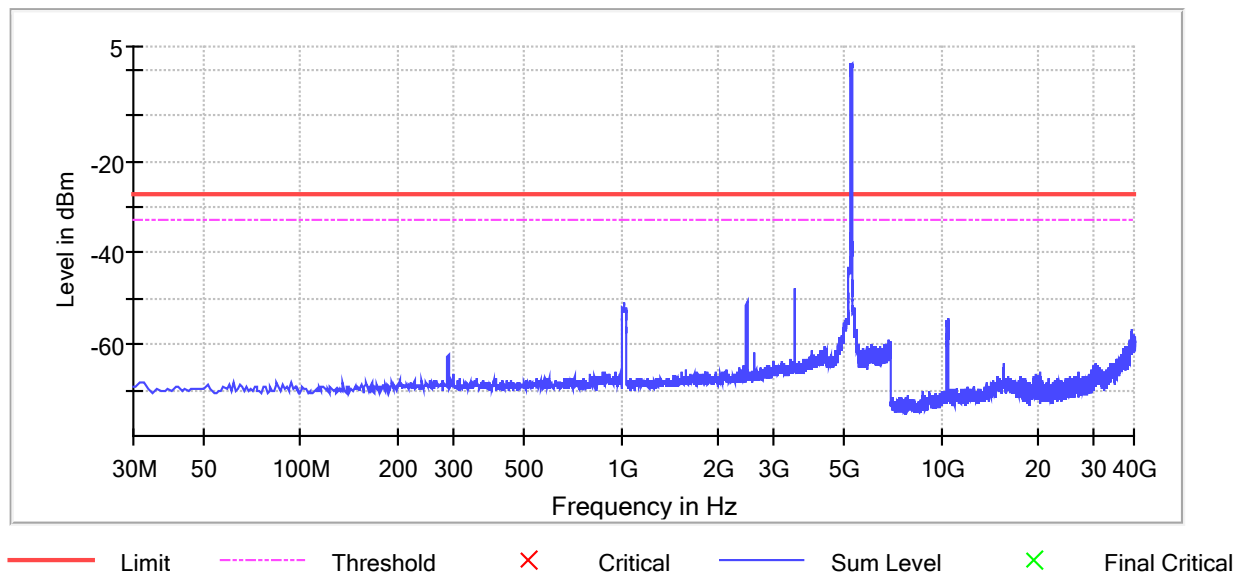
### Pre Measurements

| Frequency (MHz) | Level (dBm) | Margin (dB) | Limit (dBm) |
|-----------------|-------------|-------------|-------------|
| 5149.500000     | -46.8       | 19.8        | -27.0       |
| 3487.500000     | -47.8       | 20.8        | -27.0       |
| 3486.500000     | -48.4       | 21.4        | -27.0       |
| 5136.500000     | -48.6       | 21.6        | -27.0       |
| 5148.500000     | -48.7       | 21.7        | -27.0       |
| 5146.500000     | -48.7       | 21.7        | -27.0       |
| 5135.500000     | -48.7       | 21.7        | -27.0       |
| 5139.500000     | -49.3       | 22.3        | -27.0       |
| 5147.500000     | -49.4       | 22.4        | -27.0       |
| 5138.500000     | -49.5       | 22.5        | -27.0       |
| 5144.500000     | -49.7       | 22.7        | -27.0       |
| 5145.500000     | -49.8       | 22.8        | -27.0       |
| 5137.500000     | -50.0       | 23.0        | -27.0       |
| 5143.500000     | -50.0       | 23.0        | -27.0       |
| 2470.500000     | -50.4       | 23.4        | -27.0       |

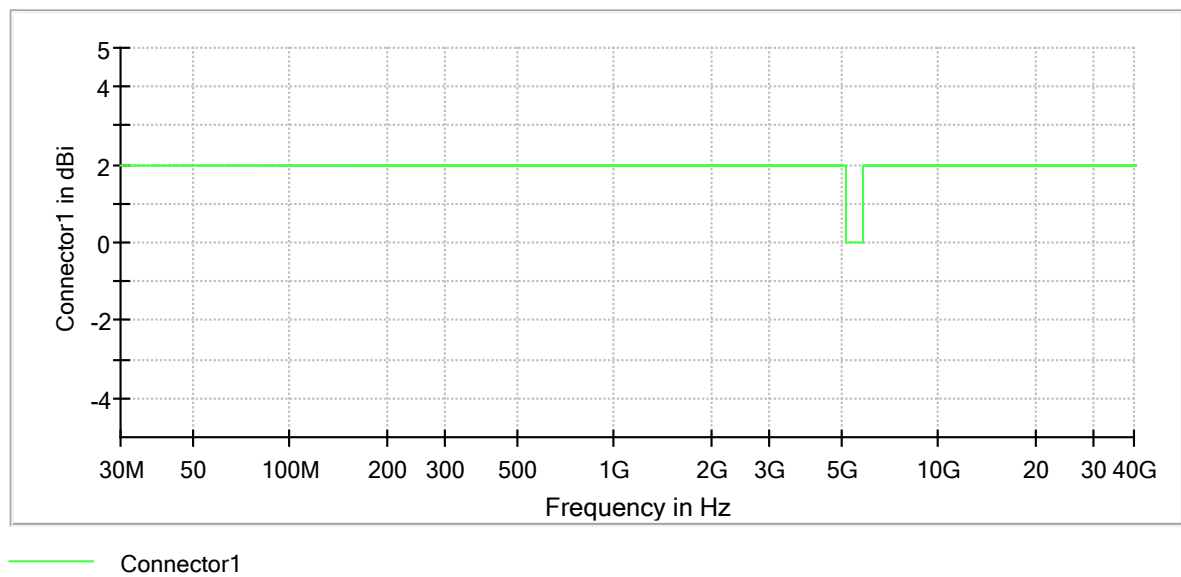
### Measurement Settings

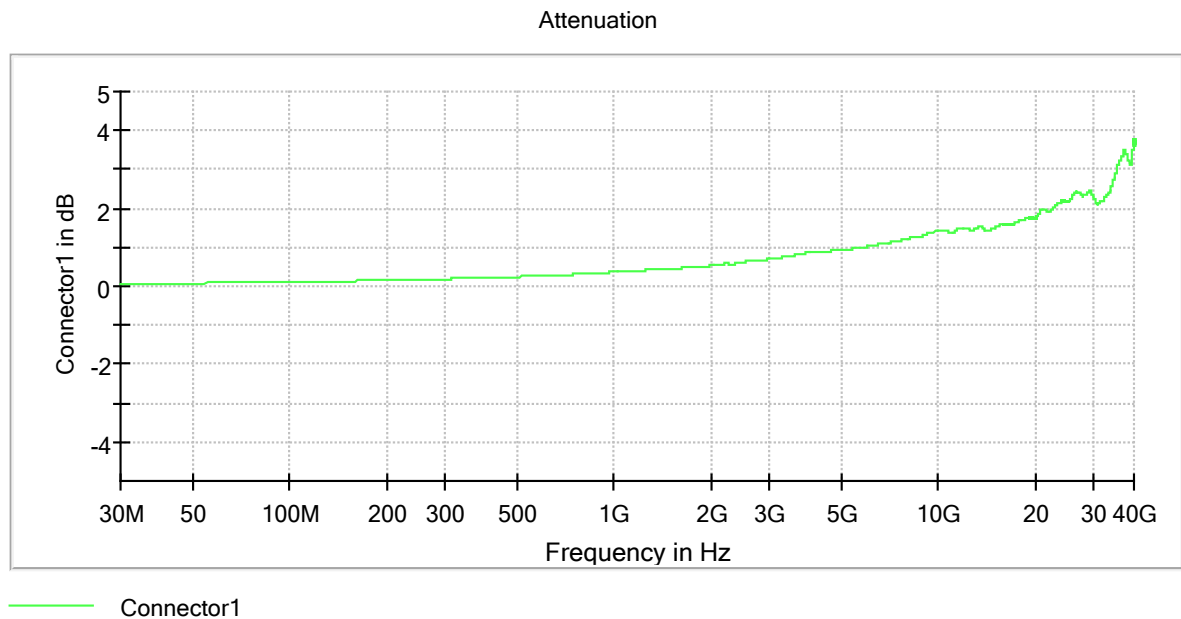
| Start Frequency (MHz) | Stop Frequency (MHz) | Pre Measurement | Final Measurement |
|-----------------------|----------------------|-----------------|-------------------|
| 30.000000             | 1000.000000          | 1               | 1                 |
| 1000.000000           | 5150.000000          | 2               | 2                 |
| 5150.000000           | 5250.000000          | 2               | 2                 |
| 5250.000000           | 5350.000000          | 2               | 2                 |
| 5350.000000           | 5470.000000          | 2               | 2                 |
| 5470.000000           | 5725.000000          | 2               | 2                 |
| 5725.000000           | 5850.000000          | 2               | 2                 |
| 5850.000000           | 7000.000000          | 2               | 2                 |
| 7000.000000           | 18000.000000         | 2               | 2                 |
| 18000.000000          | 26000.000000         | 2               | 2                 |
| 26000.000000          | 40000.000000         | 2               | 2                 |

Spurious



Gain





## Pre Measurement 1

| Setting               | Instrument Value | Target Value     |
|-----------------------|------------------|------------------|
| RBW                   | 1.000 MHz        | $\leq 1.000$ MHz |
| VBW                   | 3.000 MHz        | $\geq 3.000$ MHz |
| SweepPoints           | 970              | ~ 970            |
| SweepTime             | 194.000 ms       | AUTO             |
| Reference Level       | -20.000 dBm      | -30.000 dBm      |
| Attenuation           | 10.000 dB        | AUTO             |
| Detector              | MaxPeak          | QuasiPeak        |
| SweepCount            | 3                | 3                |
| Filter                | Channel          | Channel          |
| Trace Mode            | Max Hold         | Max Hold         |
| SweepType             | Sweep            | AUTO             |
| Preamp                | off              | off              |
| Stablemode            | Trace            | Trace            |
| Stablevalue           | 0.50 dB          | 0.50 dB          |
| Run                   | 4 / max. 150     | max. 150         |
| Stable                | 3 / 3            | 3                |
| Max Stable Difference | 0.00 dB          | 0.50 dB          |

## Pre Measurement 2

| Setting               | Instrument Value | Target Value     |
|-----------------------|------------------|------------------|
| RBW                   | 1.000 MHz        | $\leq 1.000$ MHz |
| VBW                   | 3.000 MHz        | $\geq 3.000$ MHz |
| SweepPoints           | 4150             | ~ 4150           |
| SweepTime             | 4.150 ms         | AUTO             |
| Reference Level       | -20.000 dBm      | -30.000 dBm      |
| Attenuation           | 10.000 dB        | AUTO             |
| Detector              | MaxPeak          | MaxPeak          |
| SweepCount            | 30               | 30               |
| Filter                | 3 dB             | 3 dB             |
| Trace Mode            | Max Hold         | Max Hold         |
| SweepType             | Sweep            | AUTO             |
| Preamp                | off              | off              |
| Stablemode            | Trace            | Trace            |
| Stablevalue           | 0.50 dB          | 0.50 dB          |
| Run                   | 54 / max. 150    | max. 150         |
| Stable                | 3 / 3            | 3                |
| Max Stable Difference | 0.07 dB          | 0.50 dB          |

# FCC 15.407 2015

## DUT Information

### Frequencies

|                        |                        |                        |
|------------------------|------------------------|------------------------|
| WLAN CH 38 (5190 MHz)  | WLAN CH 46 (5230 MHz)  | WLAN CH 151 (5755 MHz) |
| WLAN CH 159 (5795 MHz) | WLAN CH 54 (5270 MHz)  | WLAN CH 62 (5310 MHz)  |
| WLAN CH 102 (5510 MHz) | WLAN CH 110 (5550 MHz) | WLAN CH 118 (5590 MHz) |
| WLAN CH 134 (5670 MHz) |                        |                        |

### Bandwidths

40 MHz (40 MHz)

### Power

20.000 dBm (20 dBm)

### Beamforming Gain

20.000 dBm (20 dBm) 0 dB

### Gain Tables

20.000 dBm (20 dBm) Port 1: 0dBi;

### DUT Settings

|                            |          |
|----------------------------|----------|
| No. of transmission chains | 1        |
| DFS capability             | Yes      |
| DFS Mode                   | Master   |
| Equipment Type             | Portable |
| TPC                        | No       |

## Hardware Setup: WMS Measurements\TS8997

|                    |                                                                                                                             |
|--------------------|-----------------------------------------------------------------------------------------------------------------------------|
| Spectrum Analyzer: | SA FSV 40 (SA FSV 40) @ VISA (ADR<br>TCPIP::192.168.48.111::INST0::INSTR), SN 1321.3008K39/101229,<br>FW 3.40               |
| Vector Generator:  | VG SMBV100B (VG SMBV100B) @ VISA (ADR<br>TCPIP::192.168.48.29::INST0::INSTR), SN 101685, FW 4.70.006.33                     |
| Generator:         | SMB100Aa (SMB100A) @ VISA (ADR<br>TCPIP::192.168.48.30::INST0::INSTR), SN 177894, FW / Drv:Rev<br>2.21.0, 07/2016, CVI 2015 |
| OSP:               | OSP-B157W (OSP-B157W) @ VISA (ADR<br>TCPIP::192.168.48.157::INST0::INSTR), SN 1527.1144. /, FW<br>1.23.0.2                  |

## Summary

| Test                            | Frequency<br>(MHz) | Nominal<br>Power<br>(dBm) | Nominal<br>Bandwidth<br>(MHz) | Result |
|---------------------------------|--------------------|---------------------------|-------------------------------|--------|
| Emission Bandwidth 26 dB        | 5755.000           | 20.0                      | 40.000000                     | PASS   |
| RF output power                 | 5755.000           | 20.0                      | 40.000000                     | PASS   |
| Power Spectral Density          | 5755.000           | 20.0                      | 40.000000                     | PASS   |
| Minimum Emission Bandwidth 6 dB | 5755.000           | 20.0                      | 40.000000                     | PASS   |
| Occupied Channel Bandwidth 99%  | 5755.000           | 20.0                      | 40.000000                     | PASS   |
| Band Edge low                   | 5755.000           | 20.0                      | 40.000000                     | PASS   |
| Emission Bandwidth 26 dB        | 5795.000           | 20.0                      | 40.000000                     | PASS   |
| RF output power                 | 5795.000           | 20.0                      | 40.000000                     | PASS   |
| Power Spectral Density          | 5795.000           | 20.0                      | 40.000000                     | PASS   |
| Minimum Emission Bandwidth 6 dB | 5795.000           | 20.0                      | 40.000000                     | PASS   |
| Occupied Channel Bandwidth 99%  | 5795.000           | 20.0                      | 40.000000                     | PASS   |
| Band Edge high                  | 5795.000           | 20.0                      | 40.000000                     | PASS   |

## Emission Bandwidth 26 dB (5755 MHz; 20.000 dBm; 40 MHz)

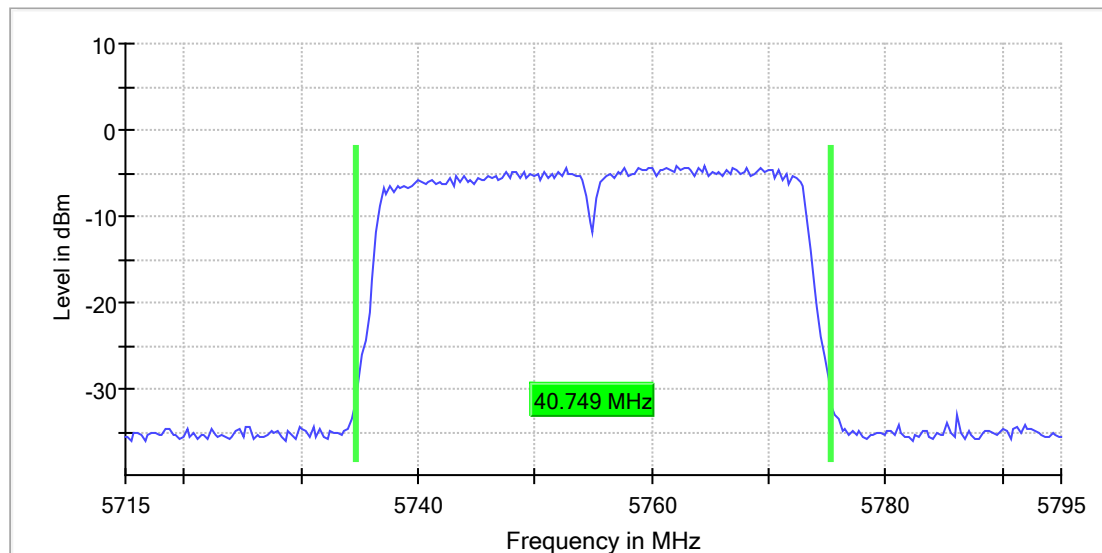
Test according to FCC title 47 part 15 §15.407(a),(e), KDB 789033 D02 General U-NII Test Procedures New Rules v01r03 and ANSI C63.10

### 26 dB Bandwidth

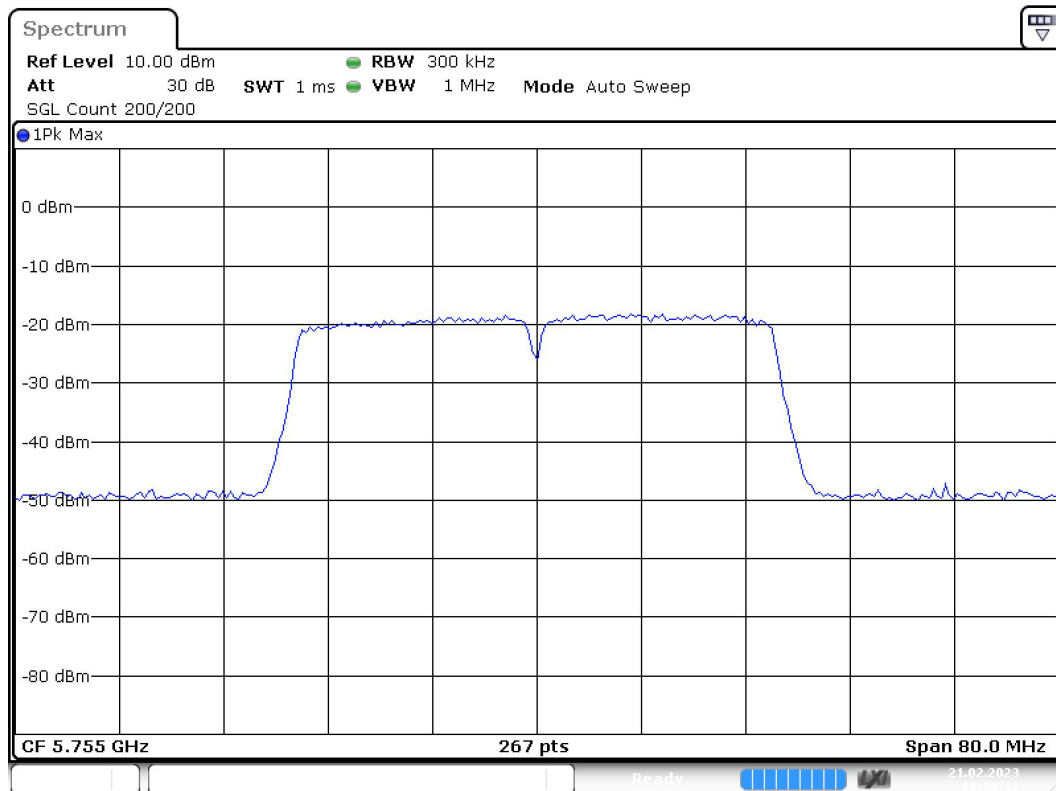
| DUT Frequency (MHz) | Bandwidth (MHz) | Limit Min (MHz) | Limit Max (MHz) | Band Edge Left (MHz) | Band Edge Right (MHz) |
|---------------------|-----------------|-----------------|-----------------|----------------------|-----------------------|
| 5755.000000         | 40.749064       | ---             | ---             | 5734.625468          | 5775.374532           |

(continuation of the "26 dB Bandwidth" table from column 6 ...)

| DUT Frequency (MHz) | Max Level (dBm) | Result |
|---------------------|-----------------|--------|
| 5755.000000         | -4.1            | PASS   |



Bandwidth



Date: 21.FEB.2023 10:20:13

## Measurement

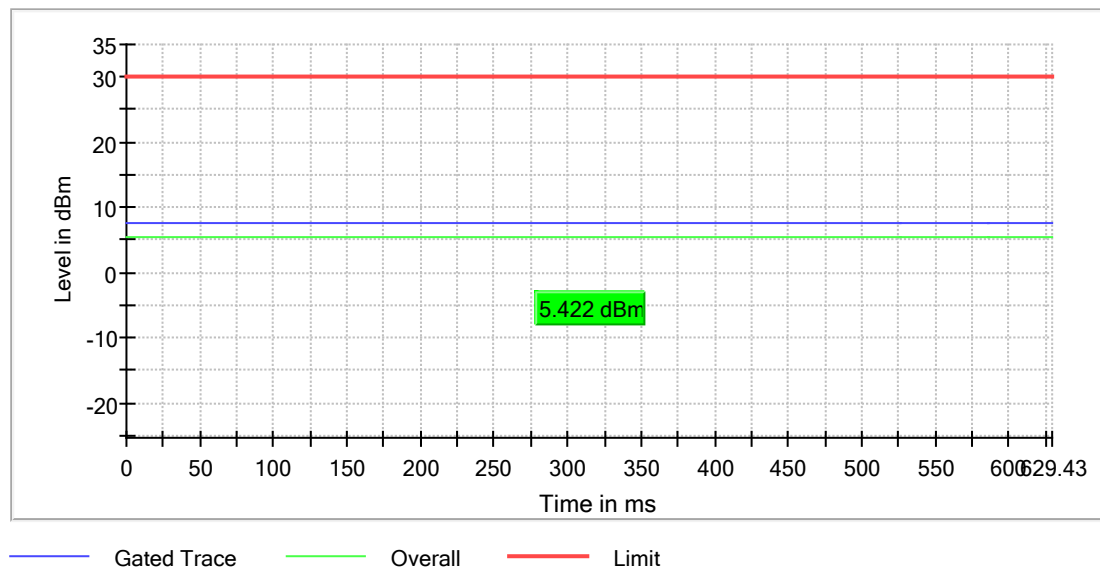
| Setting               | Instrument Value | Target Value   |
|-----------------------|------------------|----------------|
| Start Frequency       | 5.71500 GHz      | 5.71500 GHz    |
| Stop Frequency        | 5.79500 GHz      | 5.79500 GHz    |
| Span                  | 80.000 MHz       | 80.000 MHz     |
| RBW                   | 300.000 kHz      | ~ 400.000 kHz  |
| VBW                   | 1.000 MHz        | >= 900.000 kHz |
| SweepPoints           | 267              | ~ 267          |
| SweepTime             | 1.000 ms         | AUTO           |
| Reference Level       | 10.000 dBm       | 10.000 dBm     |
| Attenuation           | 30.000 dB        | AUTO           |
| Detector              | MaxPeak          | MaxPeak        |
| SweepCount            | 200              | 200            |
| Filter                | 3 dB             | 3 dB           |
| Trace Mode            | Max Hold         | Max Hold       |
| SweepType             | Sweep            | AUTO           |
| Preamp                | off              | off            |
| Stablemode            | Trace            | Trace          |
| Stablevalue           | 0.30 dB          | 0.30 dB        |
| Run                   | 73 / max. 150    | max. 150       |
| Stable                | 5 / 5            | 5              |
| Max Stable Difference | 0.25 dB          | 0.30 dB        |

## RF output power (5755 MHz; 20.000 dBm; 40 MHz)

Test according to FCC title 47 part 15 §15.407(a), KDB 789033 D02 General U-NII Test Procedures New Rules v01r03 and ANSI C63.10

### Result

| DUT Frequency (MHz) | Gated RMS (dBm) | Limit Max (dBm) | Gated EIRP (dBm) | DutyCycle (%) | Result |
|---------------------|-----------------|-----------------|------------------|---------------|--------|
| 5755.000000         | 5.4             | 30.0            | 5.4              | 100.000       | PASS   |



## Power Spectral Density (5755 MHz; 20.000 dBm; 40 MHz)

Customized settings.

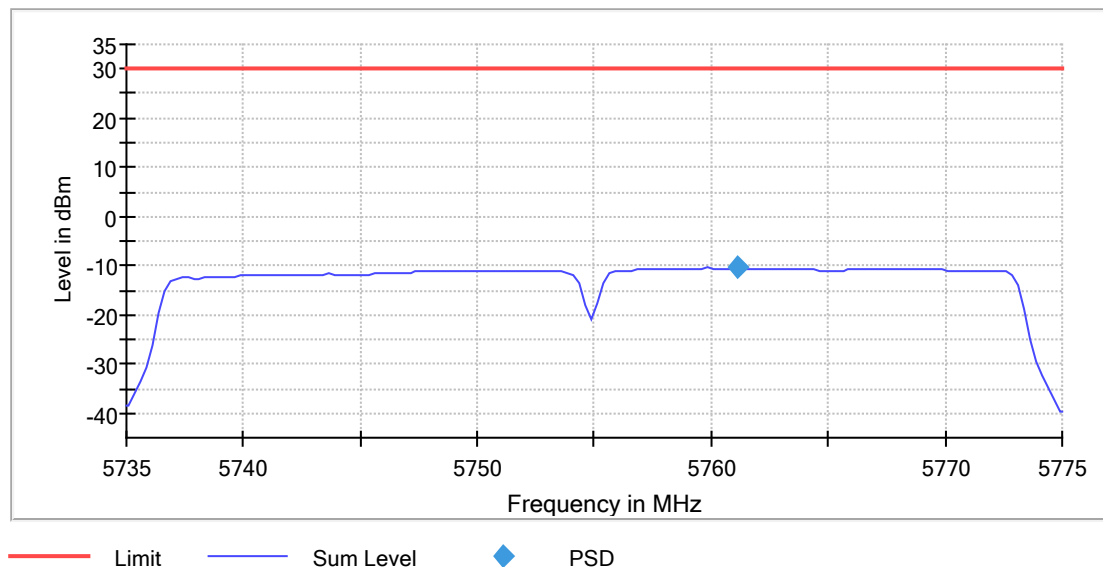
Test according to FCC title 47 part 15 §15.407(a), KDB 789033 D02 General U-NII Test Procedures New Rules v01r03 and ANSI C63.10

### Result

| DUT Frequency (MHz) | Frequency (MHz) | PSD (dBm) | Limit Max (dBm) | Result |
|---------------------|-----------------|-----------|-----------------|--------|
| 5755.000000         | 5761.125000     | -10.498   | 30.0            | PASS   |

### Ports

| Port | Duty Cycle (%) |
|------|----------------|
| 1    | 94.561         |



### Measurement

| Setting         | Instrument Value | Target Value   |
|-----------------|------------------|----------------|
| Start Frequency | 5.73500 GHz      | 5.73500 GHz    |
| Stop Frequency  | 5.77500 GHz      | 5.77500 GHz    |
| Span            | 40.000 MHz       | 40.000 MHz     |
| RBW             | 500.000 kHz      | <= 500.000 kHz |
| VBW             | 2.000 MHz        | >= 1.500 MHz   |
| SweepPoints     | 160              | ~ 160          |
| SweepTime       | 3.200 s          | 3.200 s        |
| Reference Level | 0.000 dBm        | 0.000 dBm      |
| Attenuation     | 20.000 dB        | AUTO           |
| Detector        | RMS              | RMS            |
| SweepCount      | 100              | 100            |
| Filter          | 3 dB             | 3 dB           |
| Trace Mode      | Max Hold         | Max Hold       |
| SweepType       | Sweep            | AUTO           |
| Preamp          | off              | off            |
| Stablemode      | Trace            | Trace          |
| Stablevalue     | 0.30 dB          | 0.30 dB        |

|                              |                    |                |
|------------------------------|--------------------|----------------|
| <b>Run</b>                   | <b>2 / max. 15</b> | <b>max. 15</b> |
| <b>Stable</b>                | <b>1 / 1</b>       | <b>1</b>       |
| <b>Max Stable Difference</b> | <b>0.00 dB</b>     | <b>0.30 dB</b> |

## Minimum Emission Bandwidth 6 dB (5755 MHz; 20.000 dBm; 40 MHz)

Customized settings.

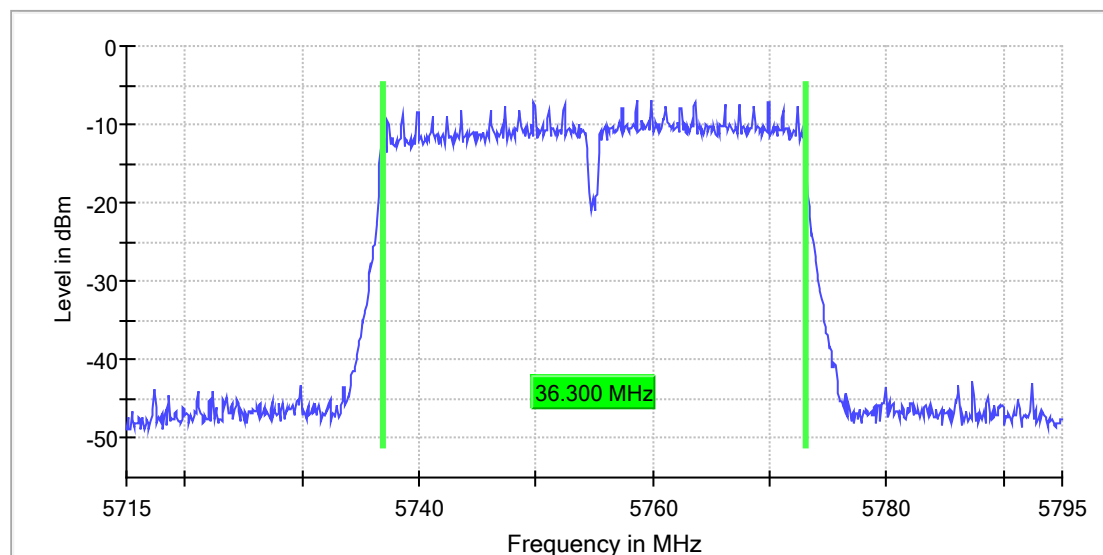
Test according to FCC title 47 part 15 §15.407(a),(e), KDB 789033 D02 General U-NII Test Procedures New Rules v01r03 and ANSI C63.10

### 6 dB Bandwidth

| DUT Frequency (MHz) | Bandwidth (MHz) | Limit Min (MHz) | Limit Max (MHz) | Band Edge Left (MHz) | Band Edge Right (MHz) |
|---------------------|-----------------|-----------------|-----------------|----------------------|-----------------------|
| 5755.000000         | 36.300000       | 0.500000        | ---             | 5736.850000          | 5773.150000           |

(continuation of the "6 dB Bandwidth" table from column 6 ...)

| DUT Frequency (MHz) | Max Level (dBm) | Result |
|---------------------|-----------------|--------|
| 5755.000000         | -6.8            | PASS   |



### Measurement

| Setting         | Instrument Value | Target Value  |
|-----------------|------------------|---------------|
| Start Frequency | 5.71500 GHz      | 5.71500 GHz   |
| Stop Frequency  | 5.79500 GHz      | 5.79500 GHz   |
| Span            | 80.000 MHz       | 80.000 MHz    |
| RBW             | 100.000 kHz      | ~ 100.000 kHz |
| VBW             | 300.000 kHz      | ~ 300.000 kHz |
| SweepPoints     | 800              | ~ 800         |
| SweepTime       | 1.070 ms         | AUTO          |
| Reference Level | 0.000 dBm        | 0.000 dBm     |
| Attenuation     | 20.000 dB        | AUTO          |
| Detector        | MaxPeak          | MaxPeak       |
| SweepCount      | 200              | 200           |
| Filter          | 3 dB             | 3 dB          |
| Trace Mode      | Max Hold         | Max Hold      |
| SweepType       | Sweep            | AUTO          |
| Preamp          | off              | off           |
| Stablemode      | Trace            | Trace         |

|                              |                      |                 |
|------------------------------|----------------------|-----------------|
| <b>Stablevalue</b>           | <b>0.30 dB</b>       | <b>0.30 dB</b>  |
| <b>Run</b>                   | <b>39 / max. 150</b> | <b>max. 150</b> |
| <b>Stable</b>                | <b>1 / 1</b>         | <b>1</b>        |
| <b>Max Stable Difference</b> | <b>0.23 dB</b>       | <b>0.30 dB</b>  |

## Occupied Channel Bandwidth 99% (5755 MHz; 20.000 dBm; 40 MHz)

Customized settings.

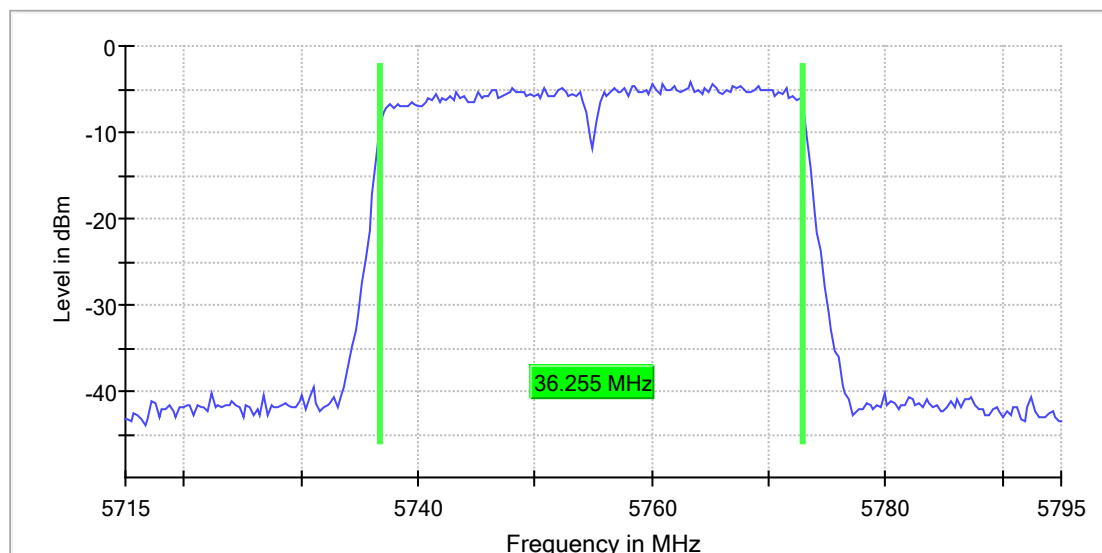
Test according to FCC title 47 part 15 §15.407(a),(e), KDB 789033 D02 General U-NII Test Procedures New Rules v01r03 and ANSI C63.10

### 99 % Bandwidth

| DUT Frequency (MHz) | Bandwidth (MHz) | Limit Min (MHz) | Limit Max (MHz) | Band Edge Left (MHz) | Band Edge Right (MHz) |
|---------------------|-----------------|-----------------|-----------------|----------------------|-----------------------|
| 5755.000000         | 36.254682       | ---             | ---             | 5736.722846          | 5772.977528           |

(continuation of the "99 % Bandwidth" table from column 6 ...)

| DUT Frequency (MHz) | Result |
|---------------------|--------|
| 5755.000000         | PASS   |



### Measurement

| Setting         | Instrument Value | Target Value   |
|-----------------|------------------|----------------|
| Start Frequency | 5.71500 GHz      | 5.71500 GHz    |
| Stop Frequency  | 5.79500 GHz      | 5.79500 GHz    |
| Span            | 80.000 MHz       | 80.000 MHz     |
| RBW             | 300.000 kHz      | <= 400.000 kHz |
| VBW             | 1.000 MHz        | >= 900.000 kHz |
| SweepPoints     | 267              | ~ 267          |
| SweepTime       | 1.000 ms         | AUTO           |
| Reference Level | 0.000 dBm        | 0.000 dBm      |
| Attenuation     | 20.000 dB        | AUTO           |
| Detector        | MaxPeak          | MaxPeak        |
| SweepCount      | 200              | 200            |
| Filter          | 3 dB             | 3 dB           |
| Trace Mode      | Max Hold         | Max Hold       |
| SweepType       | Sweep            | AUTO           |
| Preamp          | off              | off            |
| Stablemode      | Trace            | Trace          |
| Stablevalue     | 0.30 dB          | 0.30 dB        |
| Run             | 24 / max. 150    | max. 150       |

|                              |                |                |
|------------------------------|----------------|----------------|
| <b>Stable</b>                | <b>1 / 1</b>   | <b>1</b>       |
| <b>Max Stable Difference</b> | <b>0.03 dB</b> | <b>0.30 dB</b> |

## Band Edge low (5755 MHz; 20.000 dBm; 40 MHz)

Customized settings.

Test according to FCC title 47 part 15 §15.407(b), KDB 789033 D02 General U-NII Test Procedures New Rules v01r03 and ANSI C63.10

### Result

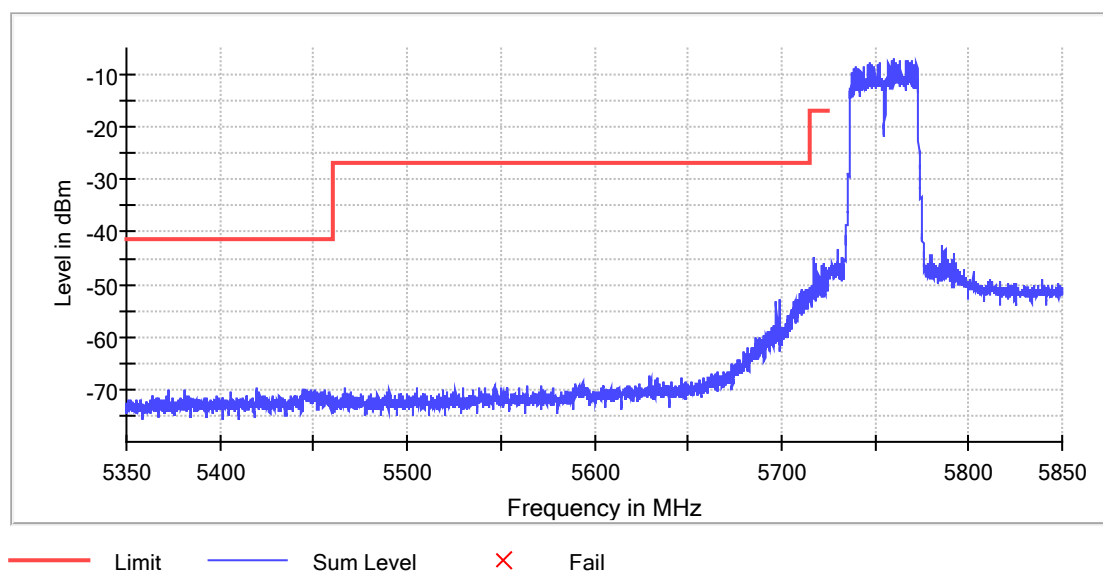
| DUT Frequency (MHz) | Result |
|---------------------|--------|
| 5755.000000         | PASS   |

### Inband Peak

| Frequency (MHz) | Level (dBm) |
|-----------------|-------------|
| 5759.875000     | -6.9        |

### Measurements

| Frequency (MHz) | Level (dBm) | Margin (dB) | Limit (dBm) | Result |
|-----------------|-------------|-------------|-------------|--------|
| 5710.825000     | -50.8       | 23.8        | -27.0       | PASS   |
| 5713.875000     | -50.8       | 23.8        | -27.0       | PASS   |
| 5714.225000     | -50.9       | 23.9        | -27.0       | PASS   |
| 5714.175000     | -51.0       | 24.0        | -27.0       | PASS   |
| 5710.775000     | -51.1       | 24.1        | -27.0       | PASS   |
| 5713.625000     | -51.1       | 24.1        | -27.0       | PASS   |
| 5712.975000     | -51.1       | 24.1        | -27.0       | PASS   |
| 5714.525000     | -51.2       | 24.2        | -27.0       | PASS   |
| 5713.925000     | -51.2       | 24.2        | -27.0       | PASS   |
| 5713.025000     | -51.2       | 24.2        | -27.0       | PASS   |
| 5713.675000     | -51.3       | 24.3        | -27.0       | PASS   |
| 5711.125000     | -51.3       | 24.3        | -27.0       | PASS   |
| 5710.875000     | -51.3       | 24.3        | -27.0       | PASS   |
| 5712.125000     | -51.3       | 24.3        | -27.0       | PASS   |
| 5711.075000     | -51.5       | 24.5        | -27.0       | PASS   |



### Measurement 1

| Setting               | Instrument Value | Target Value   |
|-----------------------|------------------|----------------|
| Start Frequency       | 5.72500 GHz      | 5.72500 GHz    |
| Stop Frequency        | 5.85000 GHz      | 5.85000 GHz    |
| Span                  | 125.000 MHz      | 125.000 MHz    |
| RBW                   | 100.000 kHz      | <= 100.000 kHz |
| VBW                   | 300.000 kHz      | >= 300.000 kHz |
| SweepPoints           | 2500             | ~ 2500         |
| SweepTime             | 284.766 $\mu$ s  | AUTO           |
| Reference Level       | 0.000 dBm        | 0.000 dBm      |
| Attenuation           | 20.000 dB        | AUTO           |
| Detector              | MaxPeak          | MaxPeak        |
| SweepCount            | 100              | 100            |
| Filter                | 3 dB             | 3 dB           |
| Trace Mode            | Max Hold         | Max Hold       |
| SweepType             | FFT              | AUTO           |
| Preamp                | off              | off            |
| Stablemode            | Trace            | Trace          |
| Stablevalue           | 0.50 dB          | 0.50 dB        |
| Run                   | 36 / max. 150    | max. 150       |
| Stable                | 1 / 1            | 1              |
| Max Stable Difference | 0.47 dB          | 0.50 dB        |

## Measurement 2

| Setting               | Instrument Value | Target Value   |
|-----------------------|------------------|----------------|
| Start Frequency       | 5.35000 GHz      | 5.35000 GHz    |
| Stop Frequency        | 5.72500 GHz      | 5.72500 GHz    |
| Span                  | 375.000 MHz      | 375.000 MHz    |
| RBW                   | 100.000 kHz      | <= 100.000 kHz |
| VBW                   | 300.000 kHz      | >= 300.000 kHz |
| SweepPoints           | 7500             | ~ 7500         |
| SweepTime             | 835.313 $\mu$ s  | AUTO           |
| Reference Level       | -20.000 dBm      | -20.000 dBm    |
| Attenuation           | 0.000 dB         | AUTO           |
| Detector              | MaxPeak          | MaxPeak        |
| SweepCount            | 100              | 100            |
| Filter                | 3 dB             | 3 dB           |
| Trace Mode            | Max Hold         | Max Hold       |
| SweepType             | FFT              | AUTO           |
| Preamp                | off              | off            |
| Stablemode            | Trace            | Trace          |
| Stablevalue           | 0.50 dB          | 0.50 dB        |
| Run                   | 12 / max. 150    | max. 150       |
| Stable                | 1 / 1            | 1              |
| Max Stable Difference | 0.00 dB          | 0.50 dB        |

## Emission Bandwidth 26 dB (5795 MHz; 20.000 dBm; 40 MHz)

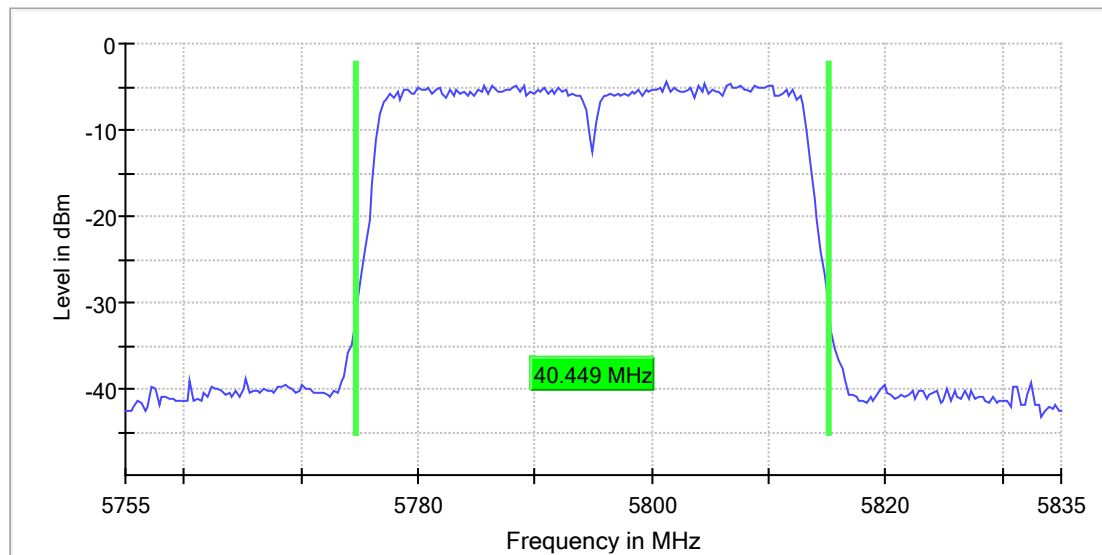
Test according to FCC title 47 part 15 §15.407(a),(e), KDB 789033 D02 General U-NII Test Procedures New Rules v01r03 and ANSI C63.10

### 26 dB Bandwidth

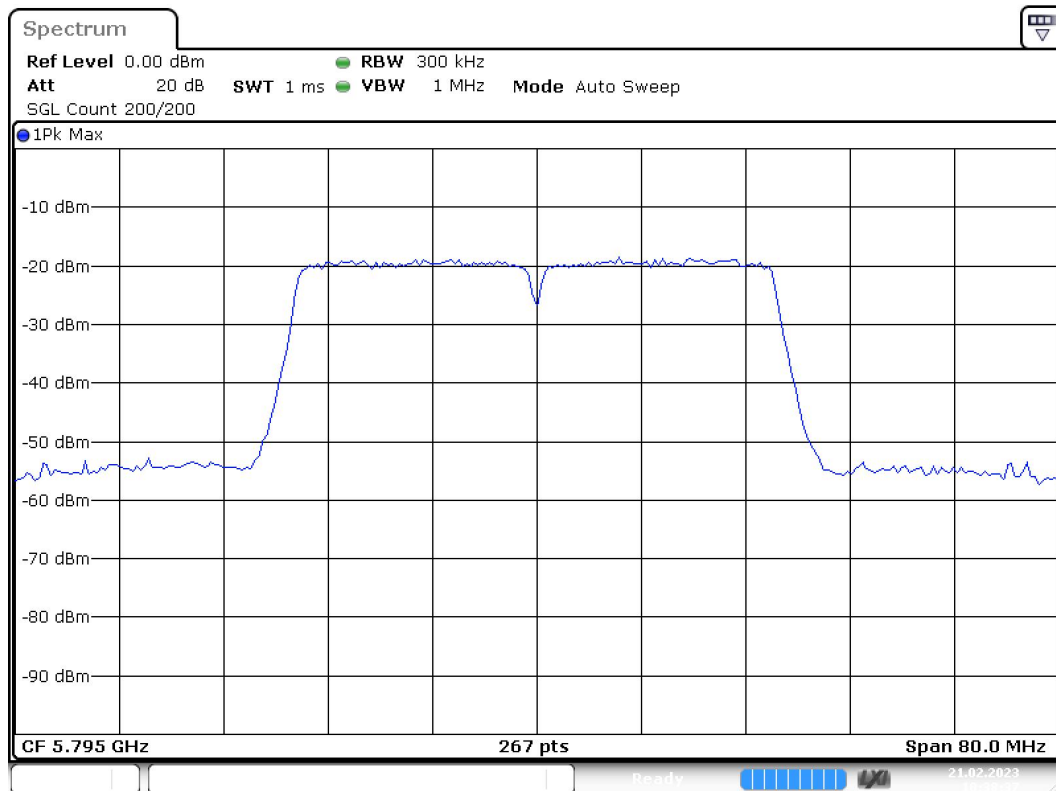
| DUT Frequency (MHz) | Bandwidth (MHz) | Limit Min (MHz) | Limit Max (MHz) | Band Edge Left (MHz) | Band Edge Right (MHz) |
|---------------------|-----------------|-----------------|-----------------|----------------------|-----------------------|
| 5795.000000         | 40.449438       | ---             | ---             | 5774.625468          | 5815.074906           |

(continuation of the "26 dB Bandwidth" table from column 6 ...)

| DUT Frequency (MHz) | Max Level (dBm) | Result |
|---------------------|-----------------|--------|
| 5795.000000         | -4.4            | PASS   |



Bandwidth



Date: 21.FEB.2023 10:38:38

## Measurement

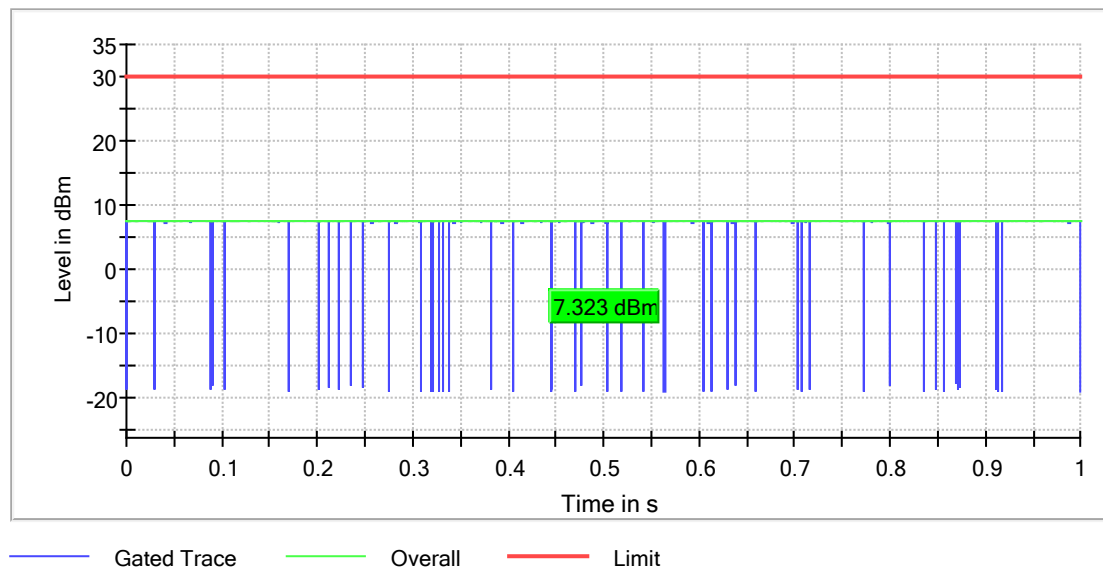
| Setting               | Instrument Value | Target Value   |
|-----------------------|------------------|----------------|
| Start Frequency       | 5.75500 GHz      | 5.75500 GHz    |
| Stop Frequency        | 5.83500 GHz      | 5.83500 GHz    |
| Span                  | 80.000 MHz       | 80.000 MHz     |
| RBW                   | 300.000 kHz      | ~ 400.000 kHz  |
| VBW                   | 1.000 MHz        | >= 900.000 kHz |
| SweepPoints           | 267              | ~ 267          |
| SweepTime             | 1.000 ms         | AUTO           |
| Reference Level       | 0.000 dBm        | 0.000 dBm      |
| Attenuation           | 20.000 dB        | AUTO           |
| Detector              | MaxPeak          | MaxPeak        |
| SweepCount            | 200              | 200            |
| Filter                | 3 dB             | 3 dB           |
| Trace Mode            | Max Hold         | Max Hold       |
| SweepType             | Sweep            | AUTO           |
| Preamp                | off              | off            |
| Stablemode            | Trace            | Trace          |
| Stablevalue           | 0.30 dB          | 0.30 dB        |
| Run                   | 64 / max. 150    | max. 150       |
| Stable                | 5 / 5            | 5              |
| Max Stable Difference | 0.17 dB          | 0.30 dB        |

## RF output power (5795 MHz; 20.000 dBm; 40 MHz)

Test according to FCC title 47 part 15 §15.407(a), KDB 789033 D02 General U-NII Test Procedures New Rules v01r03 and ANSI C63.10

### Result

| DUT Frequency (MHz) | Gated RMS (dBm) | Limit Max (dBm) | Gated EIRP (dBm) | DutyCycle (%) | Result |
|---------------------|-----------------|-----------------|------------------|---------------|--------|
| 5795.000000         | 7.3             | 30.0            | 7.3              | 100.000       | PASS   |



## Power Spectral Density (5795 MHz; 20.000 dBm; 40 MHz)

Customized settings.

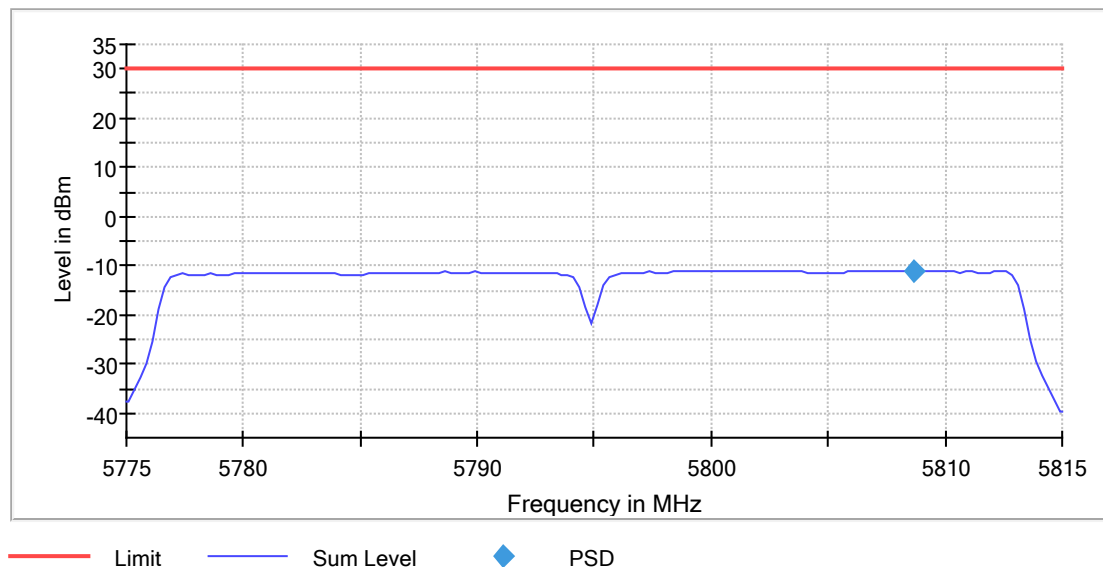
Test according to FCC title 47 part 15 §15.407(a), KDB 789033 D02 General U-NII Test Procedures New Rules v01r03 and ANSI C63.10

### Result

| DUT Frequency (MHz) | Frequency (MHz) | PSD (dBm) | Limit Max (dBm) | Result |
|---------------------|-----------------|-----------|-----------------|--------|
| 5795.000000         | 5808.625000     | -11.016   | 30.0            | PASS   |

### Ports

| Port | Duty Cycle (%) |
|------|----------------|
| 1    | 94.562         |



### Measurement

| Setting         | Instrument Value | Target Value   |
|-----------------|------------------|----------------|
| Start Frequency | 5.77500 GHz      | 5.77500 GHz    |
| Stop Frequency  | 5.81500 GHz      | 5.81500 GHz    |
| Span            | 40.000 MHz       | 40.000 MHz     |
| RBW             | 500.000 kHz      | <= 500.000 kHz |
| VBW             | 2.000 MHz        | >= 1.500 MHz   |
| SweepPoints     | 160              | ~ 160          |
| SweepTime       | 3.200 s          | 3.200 s        |
| Reference Level | 0.000 dBm        | 0.000 dBm      |
| Attenuation     | 20.000 dB        | AUTO           |
| Detector        | RMS              | RMS            |
| SweepCount      | 100              | 100            |
| Filter          | 3 dB             | 3 dB           |
| Trace Mode      | Max Hold         | Max Hold       |
| SweepType       | Sweep            | AUTO           |
| Preamp          | off              | off            |
| Stablemode      | Trace            | Trace          |
| Stablevalue     | 0.30 dB          | 0.30 dB        |

|                              |                    |                |
|------------------------------|--------------------|----------------|
| <b>Run</b>                   | <b>2 / max. 15</b> | <b>max. 15</b> |
| <b>Stable</b>                | <b>1 / 1</b>       | <b>1</b>       |
| <b>Max Stable Difference</b> | <b>0.00 dB</b>     | <b>0.30 dB</b> |

## Minimum Emission Bandwidth 6 dB (5795 MHz; 20.000 dBm; 40 MHz)

Customized settings.

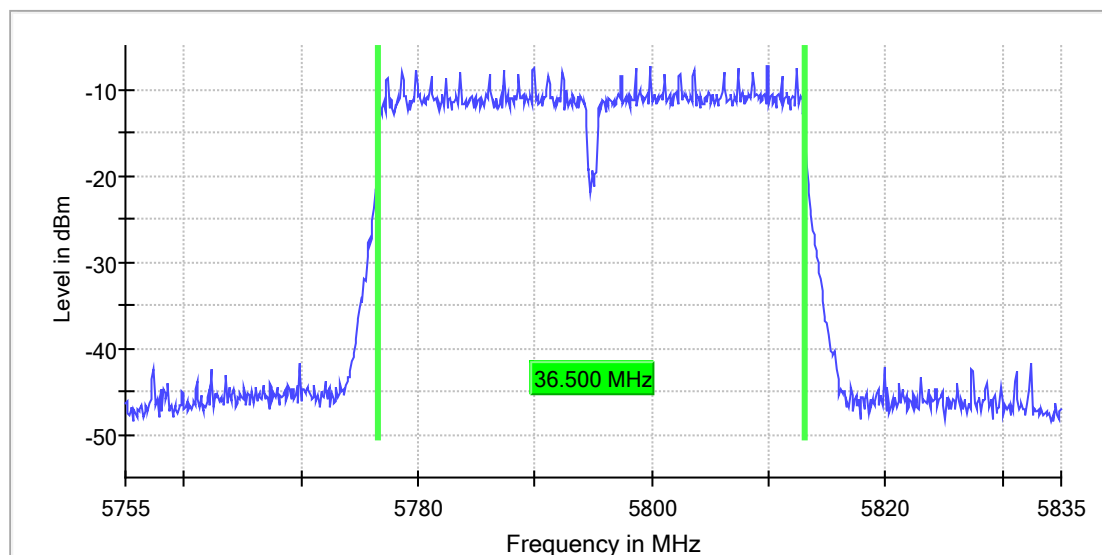
Test according to FCC title 47 part 15 §15.407(a),(e), KDB 789033 D02 General U-NII Test Procedures New Rules v01r03 and ANSI C63.10

### 6 dB Bandwidth

| DUT Frequency (MHz) | Bandwidth (MHz) | Limit Min (MHz) | Limit Max (MHz) | Band Edge Left (MHz) | Band Edge Right (MHz) |
|---------------------|-----------------|-----------------|-----------------|----------------------|-----------------------|
| 5795.000000         | 36.500000       | 0.500000        | ---             | 5776.650000          | 5813.150000           |

(continuation of the "6 dB Bandwidth" table from column 6 ...)

| DUT Frequency (MHz) | Max Level (dBm) | Result |
|---------------------|-----------------|--------|
| 5795.000000         | -7.3            | PASS   |



### Measurement

| Setting         | Instrument Value | Target Value  |
|-----------------|------------------|---------------|
| Start Frequency | 5.75500 GHz      | 5.75500 GHz   |
| Stop Frequency  | 5.83500 GHz      | 5.83500 GHz   |
| Span            | 80.000 MHz       | 80.000 MHz    |
| RBW             | 100.000 kHz      | ~ 100.000 kHz |
| VBW             | 300.000 kHz      | ~ 300.000 kHz |
| SweepPoints     | 800              | ~ 800         |
| SweepTime       | 1.070 ms         | AUTO          |
| Reference Level | 0.000 dBm        | 0.000 dBm     |
| Attenuation     | 20.000 dB        | AUTO          |
| Detector        | MaxPeak          | MaxPeak       |
| SweepCount      | 200              | 200           |
| Filter          | 3 dB             | 3 dB          |
| Trace Mode      | Max Hold         | Max Hold      |
| SweepType       | Sweep            | AUTO          |
| Preamp          | off              | off           |
| Stablemode      | Trace            | Trace         |

|                              |                      |                 |
|------------------------------|----------------------|-----------------|
| <b>Stablevalue</b>           | <b>0.30 dB</b>       | <b>0.30 dB</b>  |
| <b>Run</b>                   | <b>28 / max. 150</b> | <b>max. 150</b> |
| <b>Stable</b>                | <b>1 / 1</b>         | <b>1</b>        |
| <b>Max Stable Difference</b> | <b>0.24 dB</b>       | <b>0.30 dB</b>  |

## Occupied Channel Bandwidth 99% (5795 MHz; 20.000 dBm; 40 MHz)

Customized settings.

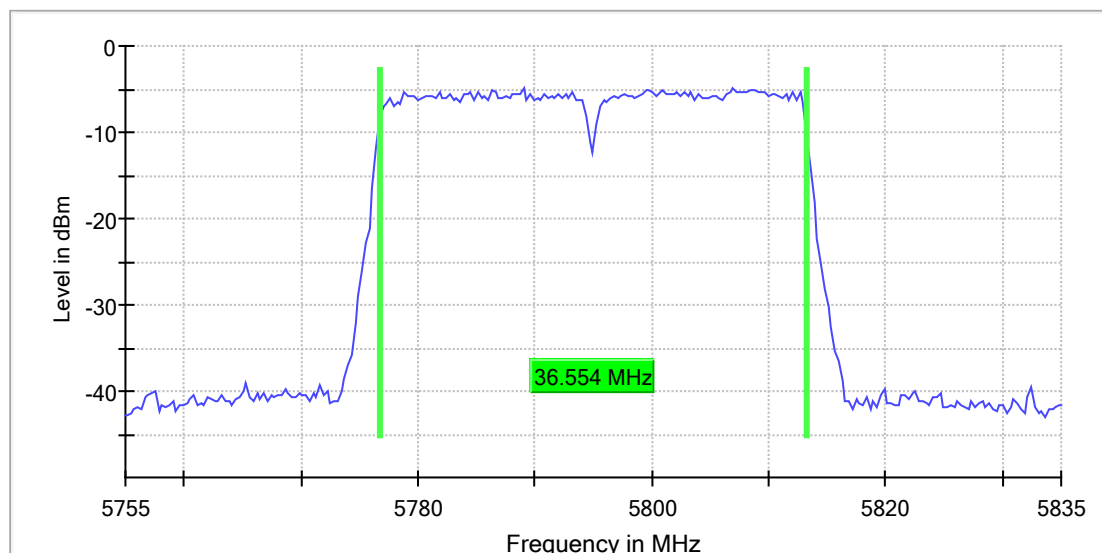
Test according to FCC title 47 part 15 §15.407(a),(e), KDB 789033 D02 General U-NII Test Procedures New Rules v01r03 and ANSI C63.10

### 99 % Bandwidth

| DUT Frequency (MHz) | Bandwidth (MHz) | Limit Min (MHz) | Limit Max (MHz) | Band Edge Left (MHz) | Band Edge Right (MHz) |
|---------------------|-----------------|-----------------|-----------------|----------------------|-----------------------|
| 5795.000000         | 36.554308       | ---             | ---             | 5776.722846          | 5813.277154           |

(continuation of the "99 % Bandwidth" table from column 6 ...)

| DUT Frequency (MHz) | Result |
|---------------------|--------|
| 5795.000000         | PASS   |



### Measurement

| Setting         | Instrument Value | Target Value   |
|-----------------|------------------|----------------|
| Start Frequency | 5.75500 GHz      | 5.75500 GHz    |
| Stop Frequency  | 5.83500 GHz      | 5.83500 GHz    |
| Span            | 80.000 MHz       | 80.000 MHz     |
| RBW             | 300.000 kHz      | <= 400.000 kHz |
| VBW             | 1.000 MHz        | >= 900.000 kHz |
| SweepPoints     | 267              | ~ 267          |
| SweepTime       | 1.000 ms         | AUTO           |
| Reference Level | 0.000 dBm        | 0.000 dBm      |
| Attenuation     | 20.000 dB        | AUTO           |
| Detector        | MaxPeak          | MaxPeak        |
| SweepCount      | 200              | 200            |
| Filter          | 3 dB             | 3 dB           |
| Trace Mode      | Max Hold         | Max Hold       |
| SweepType       | Sweep            | AUTO           |
| Preamp          | off              | off            |
| Stablemode      | Trace            | Trace          |
| Stablevalue     | 0.30 dB          | 0.30 dB        |
| Run             | 27 / max. 150    | max. 150       |

|                              |                |                |
|------------------------------|----------------|----------------|
| <b>Stable</b>                | <b>1 / 1</b>   | <b>1</b>       |
| <b>Max Stable Difference</b> | <b>0.01 dB</b> | <b>0.30 dB</b> |

## Band Edge high (5795 MHz; 20.000 dBm; 40 MHz)

Customized settings.

Test according to FCC title 47 part 15 §15.407(b), KDB 789033 D02 General U-NII Test Procedures New Rules v01r03 and ANSI C63.10

### Result

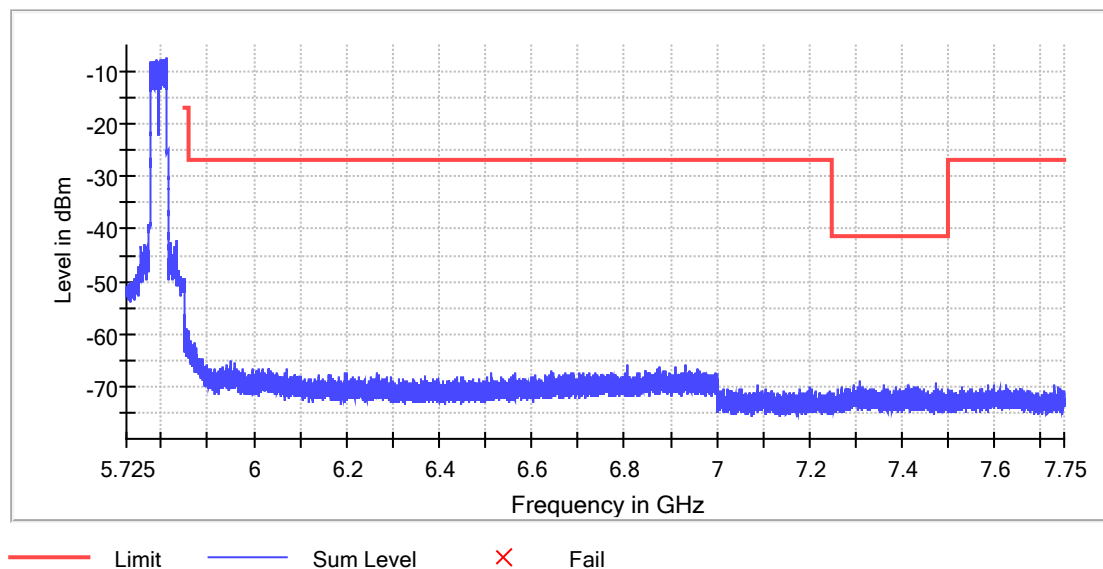
| DUT Frequency (MHz) | Result |
|---------------------|--------|
| 5795.000000         | PASS   |

### Inband Peak

| Frequency (MHz) | Level (dBm) |
|-----------------|-------------|
| 5809.875000     | -7.3        |

### Measurements

| Frequency (MHz) | Level (dBm) | Margin (dB) | Limit (dBm) | Result |
|-----------------|-------------|-------------|-------------|--------|
| 7308.375000     | -69.0       | 27.8        | -41.2       | PASS   |
| 7474.225000     | -69.3       | 28.1        | -41.2       | PASS   |
| 7474.275000     | -69.3       | 28.1        | -41.2       | PASS   |
| 7294.525000     | -69.7       | 28.5        | -41.2       | PASS   |
| 7361.725000     | -69.8       | 28.5        | -41.2       | PASS   |
| 7412.475000     | -69.8       | 28.6        | -41.2       | PASS   |
| 7361.675000     | -69.9       | 28.6        | -41.2       | PASS   |
| 7434.725000     | -69.9       | 28.7        | -41.2       | PASS   |
| 7308.325000     | -70.0       | 28.7        | -41.2       | PASS   |
| 7295.525000     | -70.0       | 28.8        | -41.2       | PASS   |
| 7314.725000     | -70.0       | 28.8        | -41.2       | PASS   |
| 7424.875000     | -70.1       | 28.8        | -41.2       | PASS   |
| 7269.875000     | -70.1       | 28.9        | -41.2       | PASS   |
| 7428.825000     | -70.1       | 28.9        | -41.2       | PASS   |
| 7388.175000     | -70.1       | 28.9        | -41.2       | PASS   |



### Measurement 1

| Setting               | Instrument Value | Target Value   |
|-----------------------|------------------|----------------|
| Start Frequency       | 5.72500 GHz      | 5.72500 GHz    |
| Stop Frequency        | 5.85000 GHz      | 5.85000 GHz    |
| Span                  | 125.000 MHz      | 125.000 MHz    |
| RBW                   | 100.000 kHz      | <= 100.000 kHz |
| VBW                   | 300.000 kHz      | >= 300.000 kHz |
| SweepPoints           | 2500             | ~ 2500         |
| SweepTime             | 284.766 $\mu$ s  | AUTO           |
| Reference Level       | 0.000 dBm        | 0.000 dBm      |
| Attenuation           | 20.000 dB        | AUTO           |
| Detector              | MaxPeak          | MaxPeak        |
| SweepCount            | 100              | 100            |
| Filter                | 3 dB             | 3 dB           |
| Trace Mode            | Max Hold         | Max Hold       |
| SweepType             | FFT              | AUTO           |
| Preamp                | off              | off            |
| Stablemode            | Trace            | Trace          |
| Stablevalue           | 0.50 dB          | 0.50 dB        |
| Run                   | 27 / max. 150    | max. 150       |
| Stable                | 1 / 1            | 1              |
| Max Stable Difference | 0.48 dB          | 0.50 dB        |

## Measurement 2

| Setting               | Instrument Value | Target Value   |
|-----------------------|------------------|----------------|
| Start Frequency       | 5.85000 GHz      | 5.85000 GHz    |
| Stop Frequency        | 6.40000 GHz      | 6.40000 GHz    |
| Span                  | 550.000 MHz      | 550.000 MHz    |
| RBW                   | 100.000 kHz      | <= 100.000 kHz |
| VBW                   | 300.000 kHz      | >= 300.000 kHz |
| SweepPoints           | 11000            | ~ 11000        |
| SweepTime             | 11.000 ms        | AUTO           |
| Reference Level       | -20.000 dBm      | -20.000 dBm    |
| Attenuation           | 0.000 dB         | AUTO           |
| Detector              | MaxPeak          | MaxPeak        |
| SweepCount            | 100              | 100            |
| Filter                | 3 dB             | 3 dB           |
| Trace Mode            | Max Hold         | Max Hold       |
| SweepType             | Sweep            | AUTO           |
| Preamp                | off              | off            |
| Stablemode            | Trace            | Trace          |
| Stablevalue           | 0.50 dB          | 0.50 dB        |
| Run                   | 2 / max. 150     | max. 150       |
| Stable                | 1 / 1            | 1              |
| Max Stable Difference | 0.00 dB          | 0.50 dB        |

# FCC 15.407 2015

## DUT Information

### Frequencies

|                        |                        |                        |
|------------------------|------------------------|------------------------|
| WLAN CH 38 (5190 MHz)  | WLAN CH 46 (5230 MHz)  | WLAN CH 151 (5755 MHz) |
| WLAN CH 159 (5795 MHz) | WLAN CH 54 (5270 MHz)  | WLAN CH 62 (5310 MHz)  |
| WLAN CH 102 (5510 MHz) | WLAN CH 110 (5550 MHz) | WLAN CH 118 (5590 MHz) |
| WLAN CH 134 (5670 MHz) |                        |                        |

### Bandwidths

40 MHz (40 MHz)

### Power

20.000 dBm (20 dBm)

### Beamforming Gain

|                        |                              |
|------------------------|------------------------------|
| Powerstep name (value) | Beamforming gain table names |
| 20.000 dBm (20 dBm)    | BFG_'20.000 dBm'_0.000dB;    |

### Gain Tables

|                        |                  |
|------------------------|------------------|
| Powerstep name (value) | Gain table names |
| 20.000 dBm (20 dBm)    | Port 1: 0dBi;    |

### DUT Settings

|                            |          |
|----------------------------|----------|
| No. of transmission chains | 1        |
| DFS capability             | Yes      |
| DFS Mode                   | Master   |
| Equipment Type             | Portable |
| TPC                        | No       |

## Hardware Setup: WMS Measurements\Hardware Setup

|                    |                                                                                                                             |
|--------------------|-----------------------------------------------------------------------------------------------------------------------------|
| Spectrum Analyzer: | SA FSV 40 (SA FSV 40) @ VISA (ADR<br>TCPIP::192.168.48.111::INST0::INSTR), SN 1321.3008K39/101229,<br>FW 3.40               |
| Vector Generator:  | VG SMBV100B (VG SMBV100B) @ VISA (ADR<br>TCPIP::192.168.48.29::INST0::INSTR), SN 101685, FW 4.70.006.33                     |
| Generator:         | SMB100Aa (SMB100A) @ VISA (ADR<br>TCPIP::192.168.48.30::INST0::INSTR), SN 177894, FW / Drv:Rev<br>2.21.0, 07/2016, CVI 2015 |
| OSP:               | OSP-B157W (OSP-B157W) @ VISA (ADR<br>TCPIP::192.168.48.157::INST0::INSTR), SN 1527.1144. /, FW<br>1.23.0.2                  |

## Summary

| Test                 | Frequency<br>(MHz) | Nominal<br>Power<br>(dBm) | Nominal<br>Bandwidth<br>(MHz) | Result |
|----------------------|--------------------|---------------------------|-------------------------------|--------|
| Tx Spurious Emission | 5755.000           | 20.0                      | 40.000000                     | PASS   |
| Tx Spurious Emission | 5795.000           | 20.0                      | 40.000000                     | PASS   |

## Tx Spurious Emission (5755 MHz; 20.000 dBm; 40 MHz)

Customized settings.

Test according to FCC title 47 part 15 §15.407(b), KDB 789033 D02 General U-NII Test Procedures New Rules v01r03 and ANSI C63.10-2013

### Result

| DUT Frequency (MHz) | Result |
|---------------------|--------|
| 5755.000000         | PASS   |

### Final measurements

| Frequency (MHz) | Level Pre Measurement (dBm) | level (dBm) | Limit (dBm) | Margin (dB) | Result |
|-----------------|-----------------------------|-------------|-------------|-------------|--------|
| ---             | ---                         | ---         | ---         | ---         | ---    |

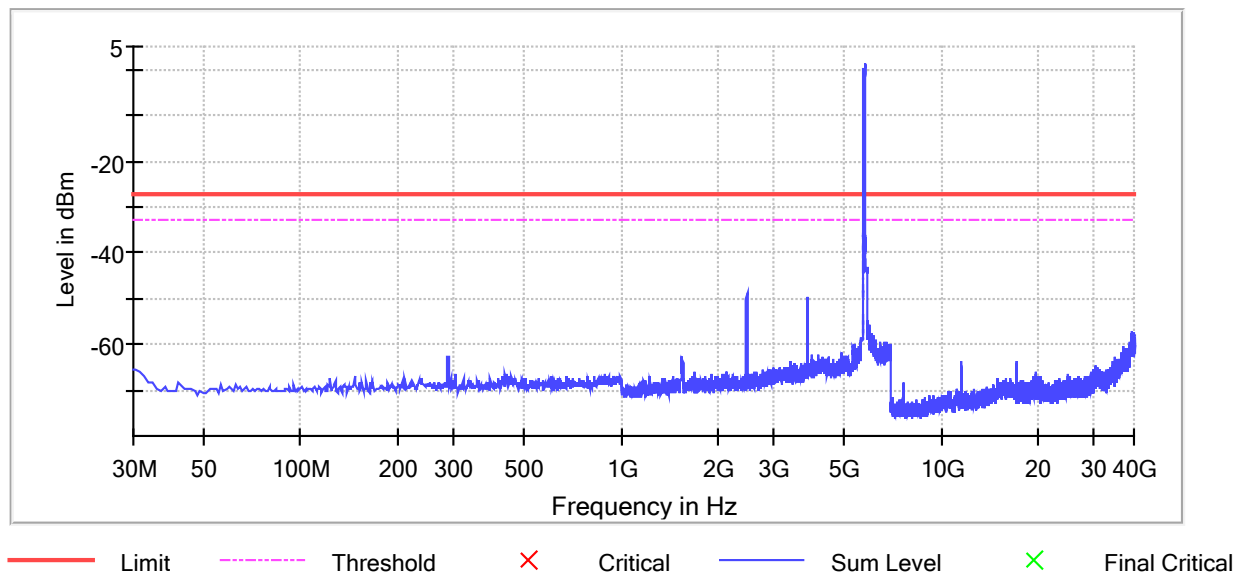
### Pre Measurements

| Frequency (MHz) | Level (dBm) | Margin (dB) | Limit (dBm) |
|-----------------|-------------|-------------|-------------|
| 5723.500000     | -38.1       | 11.1        | -27.0       |
| 5724.500000     | -38.2       | 11.2        | -27.0       |
| 5722.500000     | -38.8       | 11.8        | -27.0       |
| 5721.500000     | -38.9       | 11.9        | -27.0       |
| 5716.500000     | -38.9       | 11.9        | -27.0       |
| 5719.500000     | -38.4       | 11.4        | -27.0       |
| 5718.500000     | -38.7       | 11.7        | -27.0       |
| 5715.500000     | -38.9       | 11.9        | -27.0       |
| 5720.500000     | -39.4       | 12.4        | -27.0       |
| 5717.500000     | -39.4       | 12.4        | -27.0       |
| 5713.500000     | -39.6       | 12.6        | -27.0       |
| 5714.500000     | -39.8       | 12.8        | -27.0       |
| 5710.500000     | -40.4       | 13.4        | -27.0       |
| 5708.500000     | -40.6       | 13.6        | -27.0       |
| 5709.500000     | -40.9       | 13.9        | -27.0       |

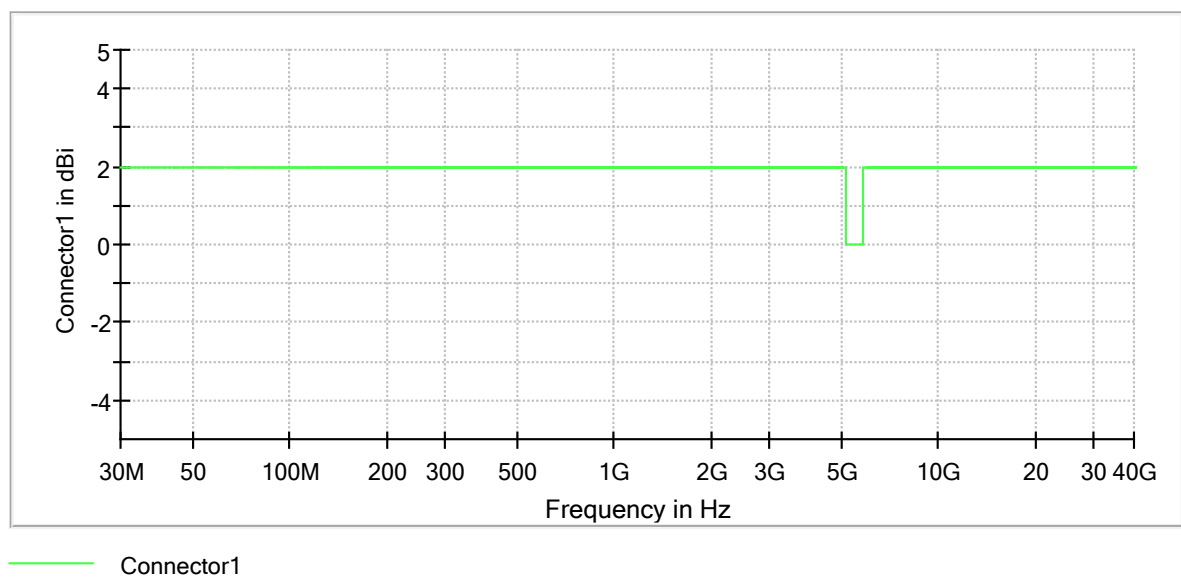
### Measurement Settings

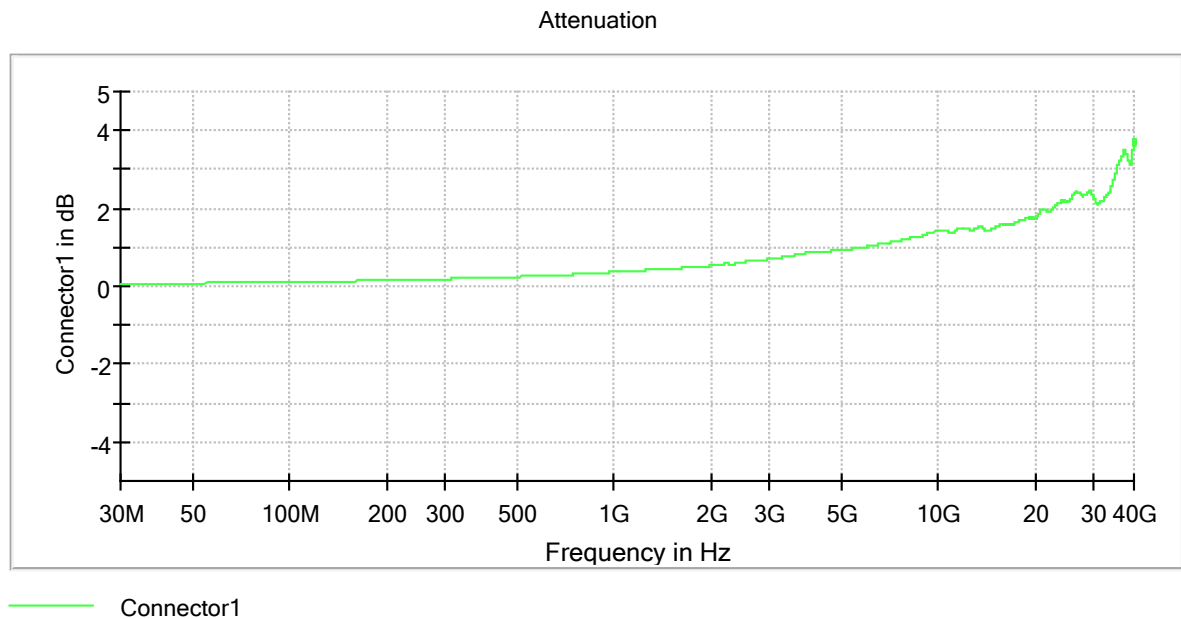
| Start Frequency (MHz) | Stop Frequency (MHz) | Pre Measurement | Final Measurement |
|-----------------------|----------------------|-----------------|-------------------|
| 30.000000             | 1000.000000          | 1               | 1                 |
| 1000.000000           | 5150.000000          | 2               | 2                 |
| 5150.000000           | 5250.000000          | 2               | 2                 |
| 5250.000000           | 5350.000000          | 2               | 2                 |
| 5350.000000           | 5470.000000          | 2               | 2                 |
| 5470.000000           | 5725.000000          | 2               | 2                 |
| 5725.000000           | 5850.000000          | 2               | 2                 |
| 5850.000000           | 7000.000000          | 2               | 2                 |
| 7000.000000           | 18000.000000         | 2               | 2                 |
| 18000.000000          | 26000.000000         | 2               | 2                 |
| 26000.000000          | 40000.000000         | 2               | 2                 |

Spurious



Gain





## Pre Measurement 1

| Setting               | Instrument Value | Target Value     |
|-----------------------|------------------|------------------|
| RBW                   | 1.000 MHz        | $\leq 1.000$ MHz |
| VBW                   | 3.000 MHz        | $\geq 3.000$ MHz |
| SweepPoints           | 970              | ~ 970            |
| SweepTime             | 194.000 ms       | AUTO             |
| Reference Level       | -20.000 dBm      | -30.000 dBm      |
| Attenuation           | 10.000 dB        | AUTO             |
| Detector              | MaxPeak          | QuasiPeak        |
| SweepCount            | 3                | 3                |
| Filter                | Channel          | Channel          |
| Trace Mode            | Max Hold         | Max Hold         |
| SweepType             | Sweep            | AUTO             |
| Preamp                | off              | off              |
| Stablemode            | Trace            | Trace            |
| Stablevalue           | 0.50 dB          | 0.50 dB          |
| Run                   | 4 / max. 150     | max. 150         |
| Stable                | 3 / 3            | 3                |
| Max Stable Difference | 0.00 dB          | 0.50 dB          |

## Pre Measurement 2

| Setting               | Instrument Value | Target Value     |
|-----------------------|------------------|------------------|
| RBW                   | 1.000 MHz        | $\leq 1.000$ MHz |
| VBW                   | 3.000 MHz        | $\geq 3.000$ MHz |
| SweepPoints           | 4150             | ~ 4150           |
| SweepTime             | 4.150 ms         | AUTO             |
| Reference Level       | -20.000 dBm      | -30.000 dBm      |
| Attenuation           | 10.000 dB        | AUTO             |
| Detector              | MaxPeak          | MaxPeak          |
| SweepCount            | 30               | 30               |
| Filter                | 3 dB             | 3 dB             |
| Trace Mode            | Max Hold         | Max Hold         |
| SweepType             | Sweep            | AUTO             |
| Preamp                | off              | off              |
| Stablemode            | Trace            | Trace            |
| Stablevalue           | 0.50 dB          | 0.50 dB          |
| Run                   | 6 / max. 150     | max. 150         |
| Stable                | 3 / 3            | 3                |
| Max Stable Difference | 0.00 dB          | 0.50 dB          |

## Tx Spurious Emission (5795 MHz; 20.000 dBm; 40 MHz)

Customized settings.

Test according to FCC title 47 part 15 §15.407(b), KDB 789033 D02 General U-NII Test Procedures New Rules v01r03 and ANSI C63.10-2013

### Result

| DUT Frequency (MHz) | Result |
|---------------------|--------|
| 5795.000000         | PASS   |

### Final measurements

| Frequency (MHz) | Level Pre Measurement (dBm) | level (dBm) | Limit (dBm) | Margin (dB) | Result |
|-----------------|-----------------------------|-------------|-------------|-------------|--------|
| ---             | ---                         | ---         | ---         | ---         | ---    |

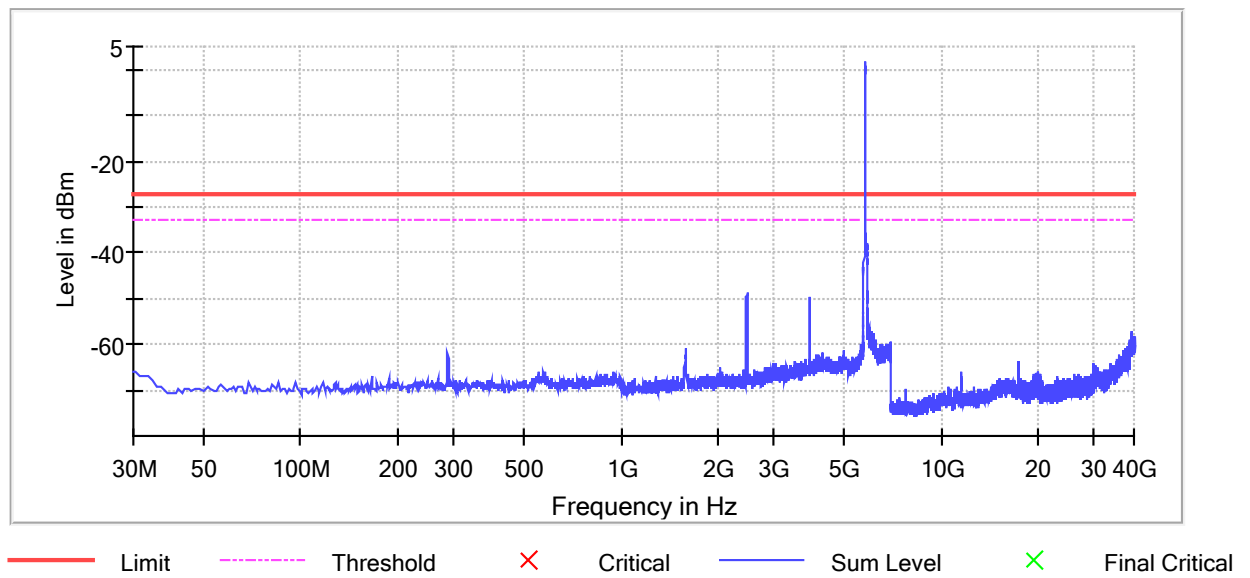
### Pre Measurements

| Frequency (MHz) | Level (dBm) | Margin (dB) | Limit (dBm) |
|-----------------|-------------|-------------|-------------|
| 5855.500000     | -48.1       | 21.1        | -27.0       |
| 5856.500000     | -48.7       | 21.7        | -27.0       |
| 2471.500000     | -48.7       | 21.7        | -27.0       |
| 2472.500000     | -48.8       | 21.8        | -27.0       |
| 5859.500000     | -49.0       | 22.0        | -27.0       |
| 2470.500000     | -49.0       | 22.0        | -27.0       |
| 5858.500000     | -49.2       | 22.2        | -27.0       |
| 5860.500000     | -49.3       | 22.3        | -27.0       |
| 5863.500000     | -49.4       | 22.4        | -27.0       |
| 5853.500000     | -49.6       | 22.6        | -27.0       |
| 2469.500000     | -49.6       | 22.6        | -27.0       |
| 2473.500000     | -49.7       | 22.7        | -27.0       |
| 5852.500000     | -49.7       | 22.7        | -27.0       |
| 3863.500000     | -49.7       | 22.7        | -27.0       |
| 5851.500000     | -49.9       | 22.9        | -27.0       |

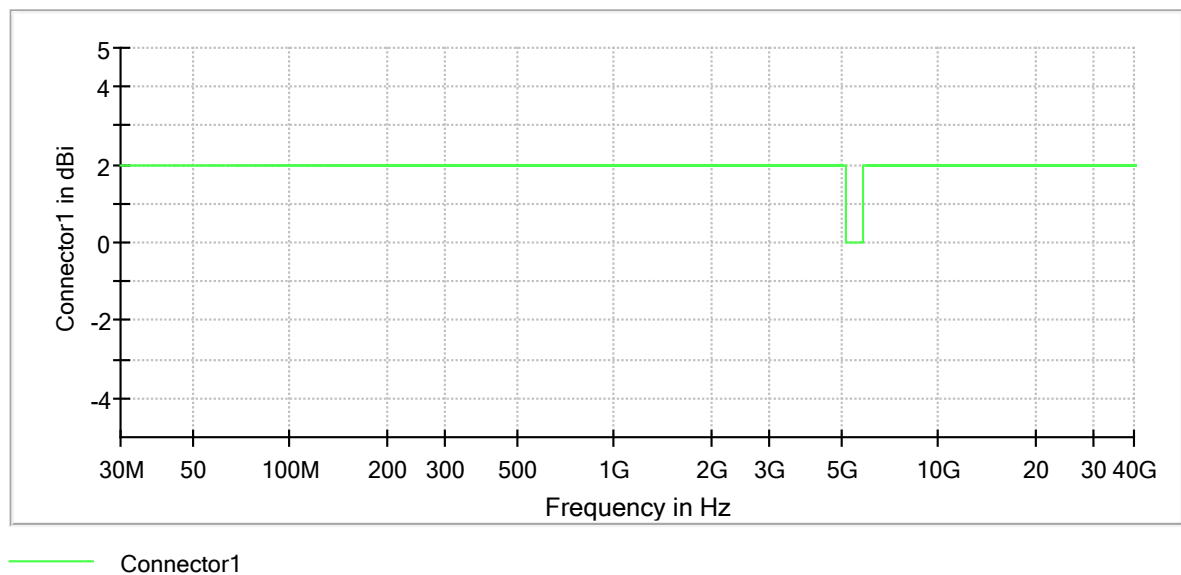
### Measurement Settings

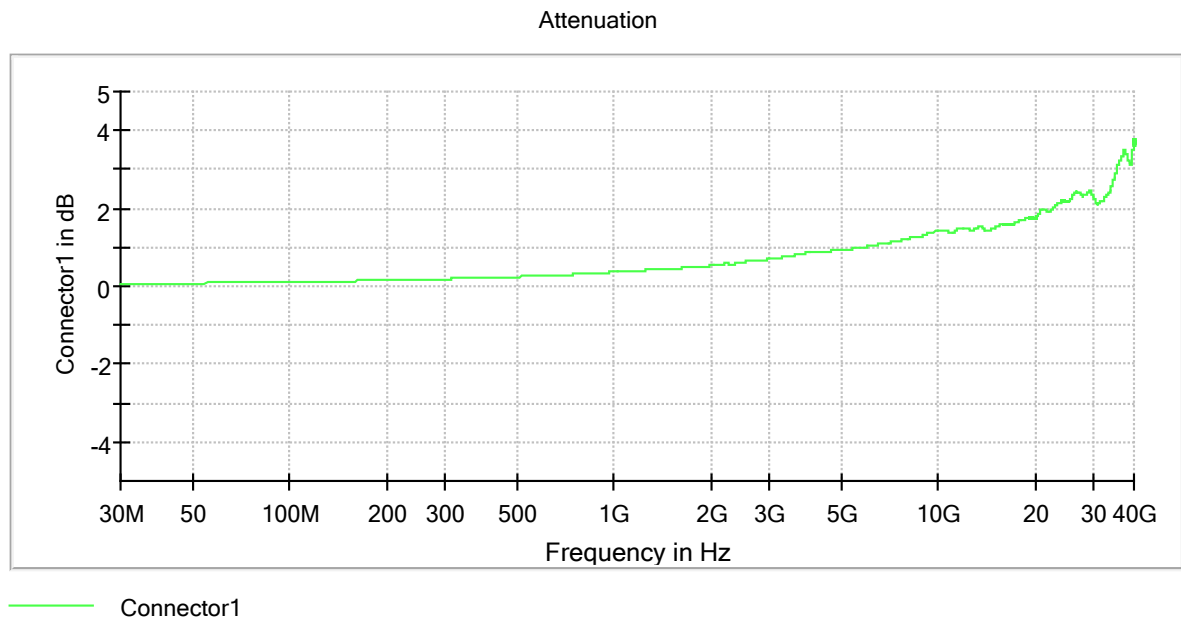
| Start Frequency (MHz) | Stop Frequency (MHz) | Pre Measurement | Final Measurement |
|-----------------------|----------------------|-----------------|-------------------|
| 30.000000             | 1000.000000          | 1               | 1                 |
| 1000.000000           | 5150.000000          | 2               | 2                 |
| 5150.000000           | 5250.000000          | 2               | 2                 |
| 5250.000000           | 5350.000000          | 2               | 2                 |
| 5350.000000           | 5470.000000          | 2               | 2                 |
| 5470.000000           | 5725.000000          | 2               | 2                 |
| 5725.000000           | 5850.000000          | 2               | 2                 |
| 5850.000000           | 7000.000000          | 2               | 2                 |
| 7000.000000           | 18000.000000         | 2               | 2                 |
| 18000.000000          | 26000.000000         | 2               | 2                 |
| 26000.000000          | 40000.000000         | 2               | 2                 |

Spurious



Gain





## Pre Measurement 1

| Setting               | Instrument Value | Target Value     |
|-----------------------|------------------|------------------|
| RBW                   | 1.000 MHz        | $\leq 1.000$ MHz |
| VBW                   | 3.000 MHz        | $\geq 3.000$ MHz |
| SweepPoints           | 970              | ~ 970            |
| SweepTime             | 194.000 ms       | AUTO             |
| Reference Level       | -20.000 dBm      | -30.000 dBm      |
| Attenuation           | 10.000 dB        | AUTO             |
| Detector              | MaxPeak          | QuasiPeak        |
| SweepCount            | 3                | 3                |
| Filter                | Channel          | Channel          |
| Trace Mode            | Max Hold         | Max Hold         |
| SweepType             | Sweep            | AUTO             |
| Preamp                | off              | off              |
| Stablemode            | Trace            | Trace            |
| Stablevalue           | 0.50 dB          | 0.50 dB          |
| Run                   | 4 / max. 150     | max. 150         |
| Stable                | 3 / 3            | 3                |
| Max Stable Difference | 0.00 dB          | 0.50 dB          |

## Pre Measurement 2

| Setting               | Instrument Value | Target Value     |
|-----------------------|------------------|------------------|
| RBW                   | 1.000 MHz        | $\leq 1.000$ MHz |
| VBW                   | 3.000 MHz        | $\geq 3.000$ MHz |
| SweepPoints           | 4150             | ~ 4150           |
| SweepTime             | 4.150 ms         | AUTO             |
| Reference Level       | -20.000 dBm      | -30.000 dBm      |
| Attenuation           | 10.000 dB        | AUTO             |
| Detector              | MaxPeak          | MaxPeak          |
| SweepCount            | 30               | 30               |
| Filter                | 3 dB             | 3 dB             |
| Trace Mode            | Max Hold         | Max Hold         |
| SweepType             | Sweep            | AUTO             |
| Preamp                | off              | off              |
| Stablemode            | Trace            | Trace            |
| Stablevalue           | 0.50 dB          | 0.50 dB          |
| Run                   | 11 / max. 150    | max. 150         |
| Stable                | 3 / 3            | 3                |
| Max Stable Difference | 0.00 dB          | 0.50 dB          |