# Conducted test results

No.1-7077/23-01-05_TR1-A207-R1

January 22, 2024

Test Standard(s) FCC 15.407

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FCC 15.407, ISED RSS247 # Bandwidths 99PCT and 20dB ~ WLAN5Gx ax-HE40 U-NII-2C 113
FCC 15.407 # MIMO ∑ Max output power and psd ~ WLAN5Gx ax-HE40 U-NII-2C 118
FCC 15.407 # Max output power and psd ~ WLAN5Gx ax-HE40 U-NII-2C 120
FCC 15.407, ISED RSS247 # Bandwidths 99PCT and 20dB ~ WLAN5Gx ax-HE40 U-NII-2C 124
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FCC 15.407, ISED RSS247 # Bandwidths 99PCT and 20dB ~ WLAN5Gx ax-HE40 U-NII-3 156
FCC 15.407, ISED RSS247 # Minimum emission bandwidth ~ WLAN5Gx ax-HE40 U-NII-3 160

FCC 15.407 # MIMO ∑ Max output power and psd ~ WLAN5Gx ax-HE40 U-NII-3 **162**
FCC 15.407, ISED RSS247 # Emission mask (eirp) ~ WLAN5Gx ax-HE40 U-NII-3 **164**
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FCC 15.407, ISED RSS247 # Bandwidths 99PCT and 20dB ~ WLAN5Gx ax-HE40 U-NII-3 **175**
FCC 15.407, ISED RSS247 # Minimum emission bandwidth ~ WLAN5Gx ax-HE40 U-NII-3 **179**
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FCC 15.407, ISED RSS247 # Minimum emission bandwidth ~ WLAN5Gx ax-HE40 U-NII-3 **190**
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# FCC 15.407 # Max output power and psd ~ WLAN5Gx ax-HE40 U-NII-1

## References

| | |
|---|---|
| TC start | 19.01.2024 10:12:55 |
| Ambit temp [°C] \| humidity [rel%] | 21.6 \| 29 |
| System version | 4.7.1.5 |
| Standard \| Version | FCC 15.407 \| NI |
| Method | KDB789033 D02, F., E.2.e. |
| Description | FCC 15.407 Max Output Power & PSD - WLAN5Gx ax-HE40 U-NII-1 |
| Information | |

## EUT Common Settings WLAN5Gx

| | |
|---|---|
| Number of Antenna Ports | 2 |
| User Interaction | No |
| Device Class UNII_1 | Client |
| Limit W52 Japan | Standard |

## Test Parameter

| | |
|---|---|
| Technology to test | WLAN5Gx ax-HE40 |
| Antenna port used | 1 |
| Temperature | nom |
| Voltage | nom |
| Frequency low to test | True \| Freq [MHz] 5190 |
| Frequency mid to test | False \| Freq [MHz] 0 |
| Frequency high to test | False \| Freq [MHz] 5230 |
| Auto control enabled power supply \| Climatic Box | No \| No |
| Additional path loss [dB] | 1.4 |
| Full path name \| type | EUT - SignalingUnit - SpectrumAnalyzer |

## Equipment

| |
|---|
| Signal analyzer,Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.70 |
| Switch matrix,CTCadvanced,SPM-4 NI DAQ,28016133,NI |

## Test at TX 5190 MHz

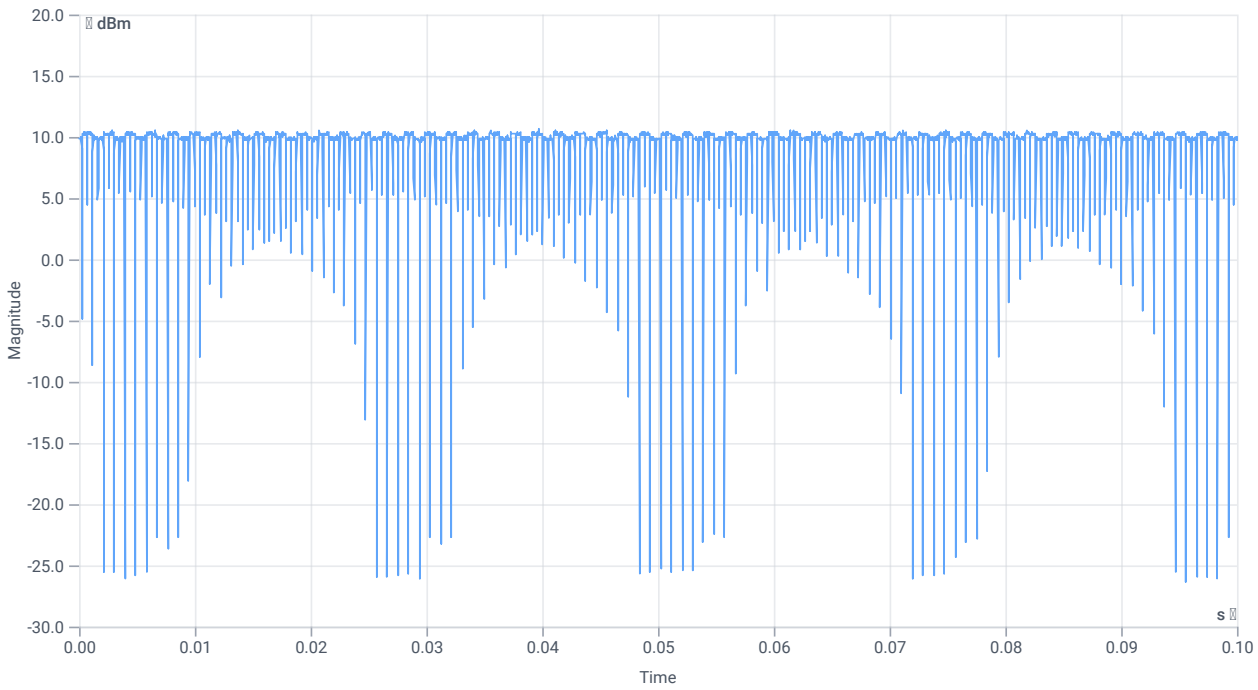
RESULT: Reference Power cond.

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Ref. Power 1MHz/1MHz cond. | --- | --- | 10.25 | dBm | INFO |
| Ref. Frequency | --- | --- | 5172.620 | MHz | INFO |

### Evaluation max. Duty Cycle

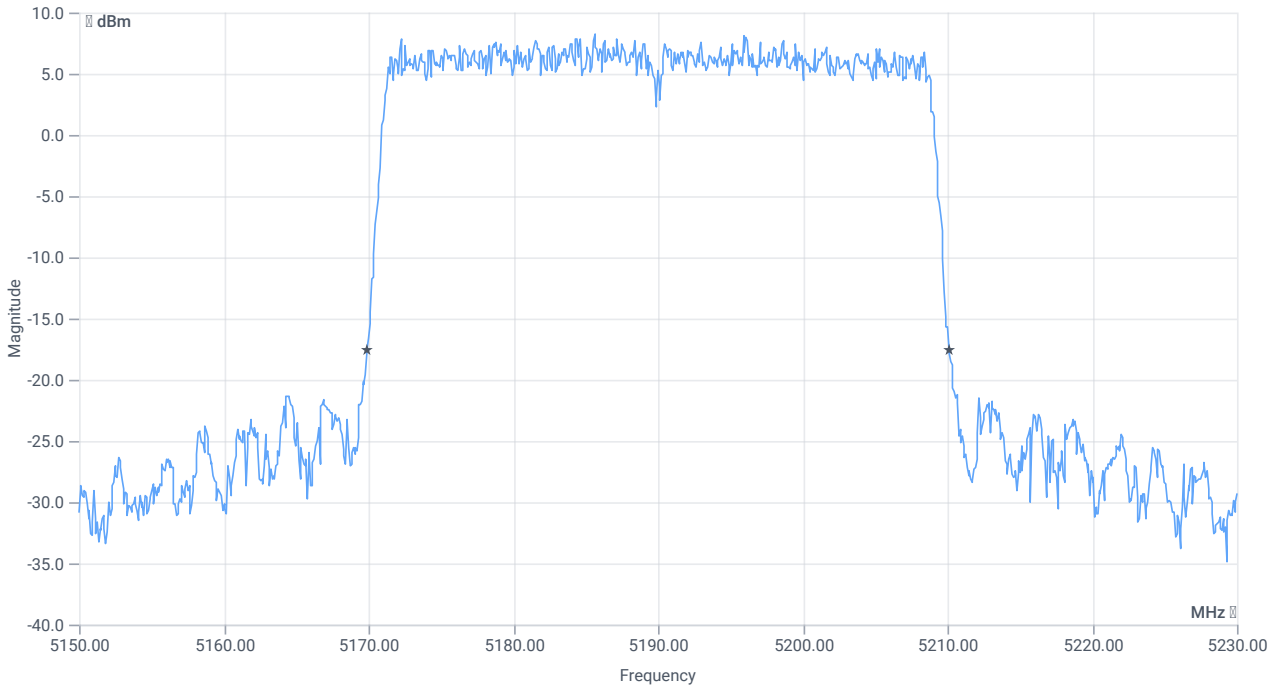
Duty Cycle evaluation

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Result Summary | | | | | |
| Number of detected Bursts:92 | | | | | |
| Duty Cycle (Burst Ratio) max | --- | --- | 0.985 | --- | INFO |
| Duty Cycle max | --- | --- | 0.066 | dB | INFO |
| Duty Cycle (Burst Ratio) min | --- | --- | 0.919 | --- | INFO |
| Duty Cycle min | --- | --- | 0.367 | dB | INFO |
| Max TX Burst Length | --- | --- | 5.025 | ms | INFO |
| Min Gap Length | --- | --- | 0.075 | ms | INFO |
| Max Gap Length | --- | --- | 0.075 | ms | INFO |




*Duty cycle*

### Evaluation Bandwidth




*BW 26dB*

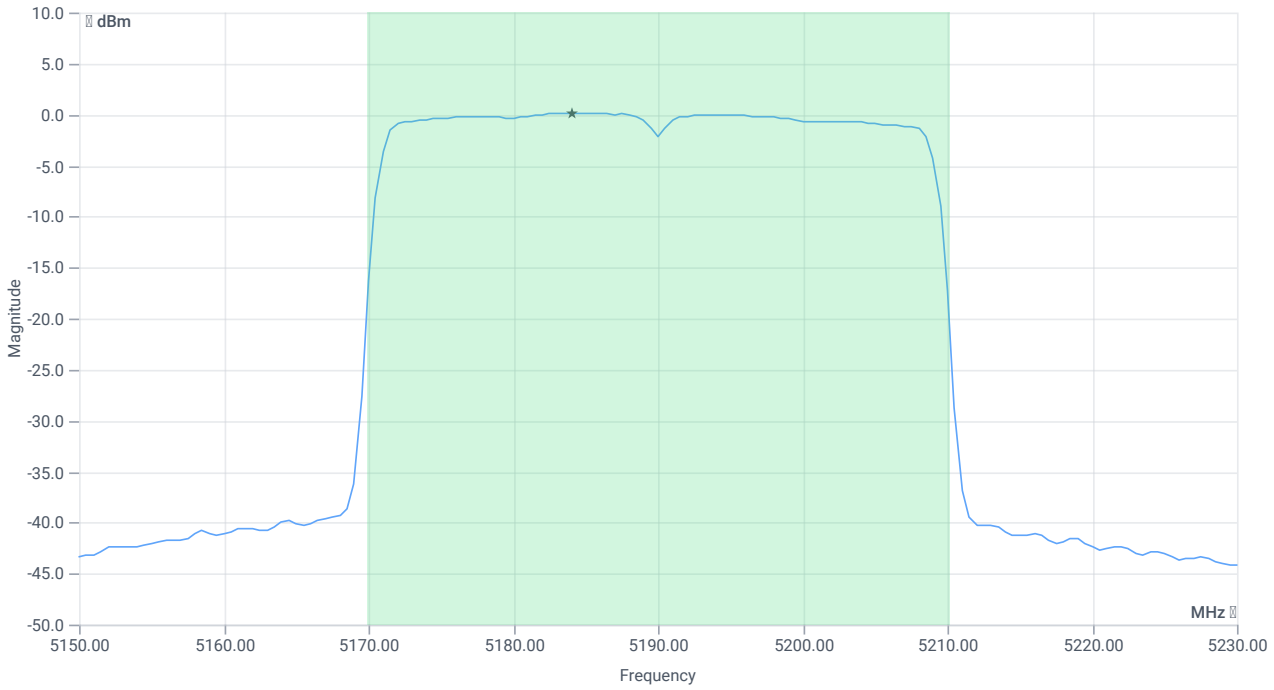
## RESULT

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Bandwidth 26dB | --- | --- | 40.16 | MHz | INFO |
| T1 26dB | --- | --- | 5169.9200 | MHz | INFO |
| T2 26dB | --- | --- | 5210.0800 | MHz | INFO |

## Maximum Output Power

## READ SA SETTINGS:

| | |
|---|---|
| RefLevel [dBm] \| RefLevelOffset [dB] \| InpAtt [dB] | 22.25 \| 16.45 \| 20 |
| Start [MHz] \| Stop [MHz] | 5150.000 \| 5230.000 |
| RBW [MHz] \| VBW [MHz] | 1.000000 \| 3.000000 |
| Detector \| TraceMode | RMS \| MAXH |
| Sweep: time [ms] \| count \| points per Section \| type | 53700 \| 1 \| 161 \| SWE |




*Max OP and PSD*

## RESULT

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Max Output Power | --- | --- | 15.09 | dBm | INFO |
| Duty Cycle Correction | --- | --- | 0.37 | dB | INFO |
| Limit absolute | | | | | |
| Max Output Power DC corrected | --- | 24 | 15.46 | dBm | PASS |
| Limit: 11 dBm + 10 log 40.16 | | | | | |
| Max Output Power DC corrected | --- | 27.04 | 15.46 | dBm | na |

## Power Spectral Density

## RESULT

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Power Spectral Density | --- | --- | 0.14 | dBm/1MHz | INFO |
| Duty Cycle Correction | --- | --- | 0.37 | dB | INFO |
| Power Spectral Density DC corrected | --- | 11 | 0.51 | dBm/1MHz | PASS |

| Verdict |
|---|
| PASS |

# FCC 15.407, ISED RSS247 # Bandwidths 99PCT and 20dB ~ WLAN5Gx ax-HE40 U-NII-1

## References

| | |
|---|---|
| TC start | 19.01.2024 10:14:25 |
| Ambit temp [°C] \| humidity [rel%] | 21.6 \| 29 |
| System version | 4.7.1.5 |
| Standard \| Version | FCC 15.407, ISED RSS247 \| NI |
| Method | 26dB Bandwidth KDB789033 D02, C.1 / ISED RSS-GEN |
| Description | FCC 15.407 Bandwidths - WLAN5Gx ax-HE40 U-NII-1 |
| Information | |

## EUT Common Settings WLAN5Gx

| | |
|---|---|
| Number of Antenna Ports | 2 |
| User Interaction | No |
| Device Class UNII_1 | Client |
| Limit W52 Japan | Standard |

## Test Parameter

| | |
|---|---|
| Technology to test | WLAN5Gx ax-HE40 |
| Antenna port used | 1 |
| Temperature | nom |
| Voltage | nom |
| Frequency low to test | True \| Freq [MHz] 5190 |
| Frequency mid to test | False \| Freq [MHz] 0 |
| Frequency high to test | False \| Freq [MHz] 5230 |
| Auto control enabled power supply \| Climatic Box | No \| No |
| Additional path loss [dB] | 1.4 |
| Full path name \| type | EUT - SignalingUnit - SpectrumAnalyzer |

## Equipment

| |
|---|
| Signal analyzer,Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.70 |
| Switch matrix,CTCadvanced,SPM-4 NI DAQ,28016133,NI |

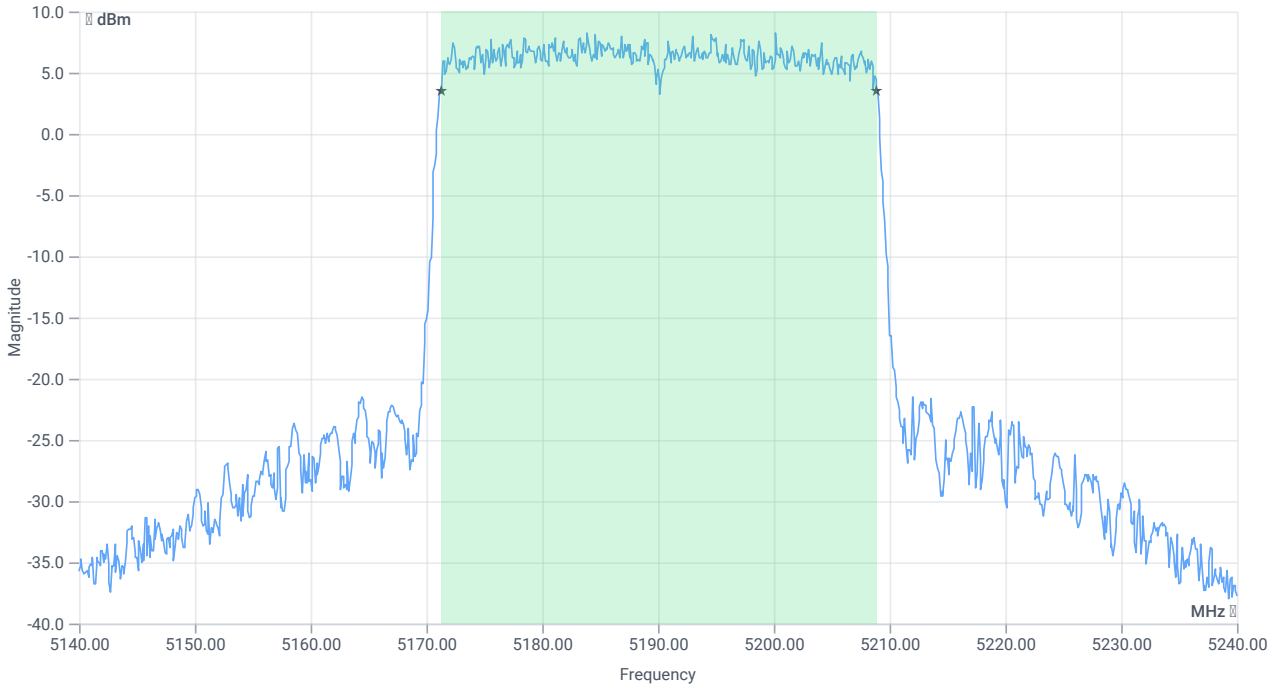
## Test at TX 5190 MHz

RESULT: Reference Power cond.

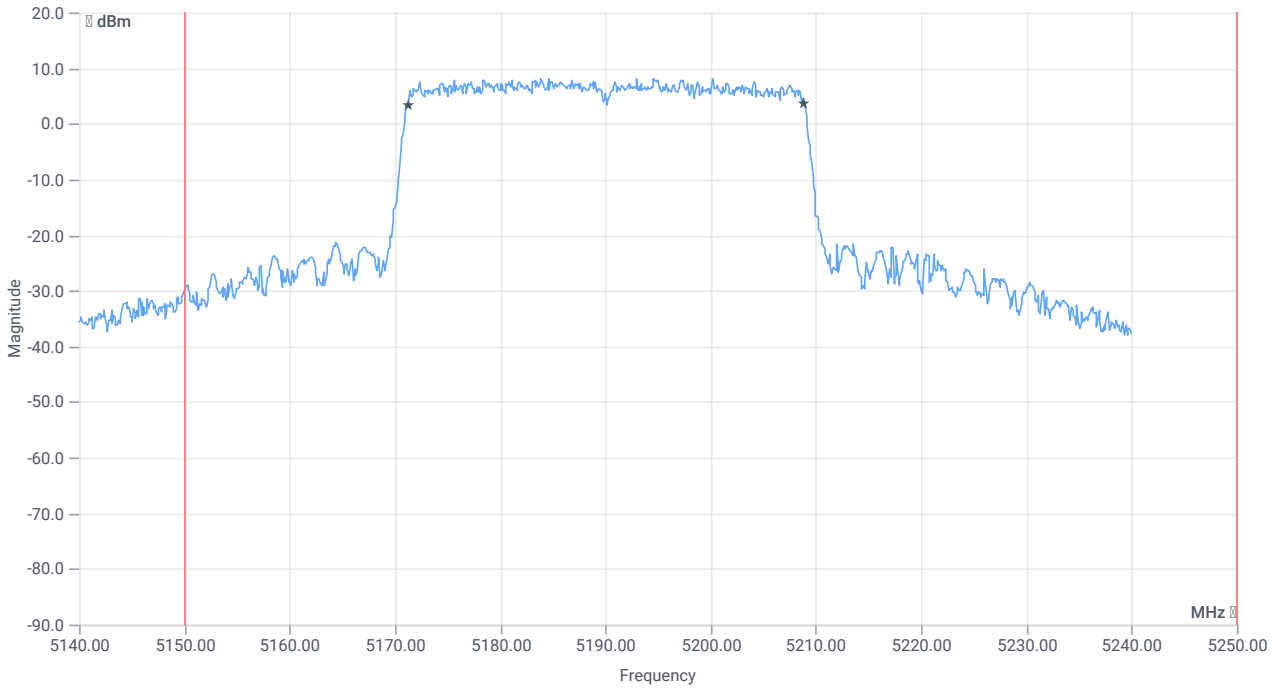
| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Ref. Power 1MHz/1MHz cond. | --- | --- | 8.84 | dBm | INFO |
| Ref. Frequency | --- | --- | 5185.800 | MHz | INFO |

READ SA SETTINGS:

| | |
|---|---|
| RefLevel [dBm] \| RefLevelOffset [dB] \| InpAtt [dB] | 16.84 \| 16.45 \| 20 |
| Start [MHz] \| Stop [MHz] | 5140.000 \| 5240.000 |
| RBW [MHz] \| VBW [MHz] | 0.500000 \| 3.000000 |
| Detector \| TraceMode | POS \| MAXH |
| Sweep: time [ms] \| count \| points per Section \| type | 1 \| 2500 \| 1001 \| SWE |



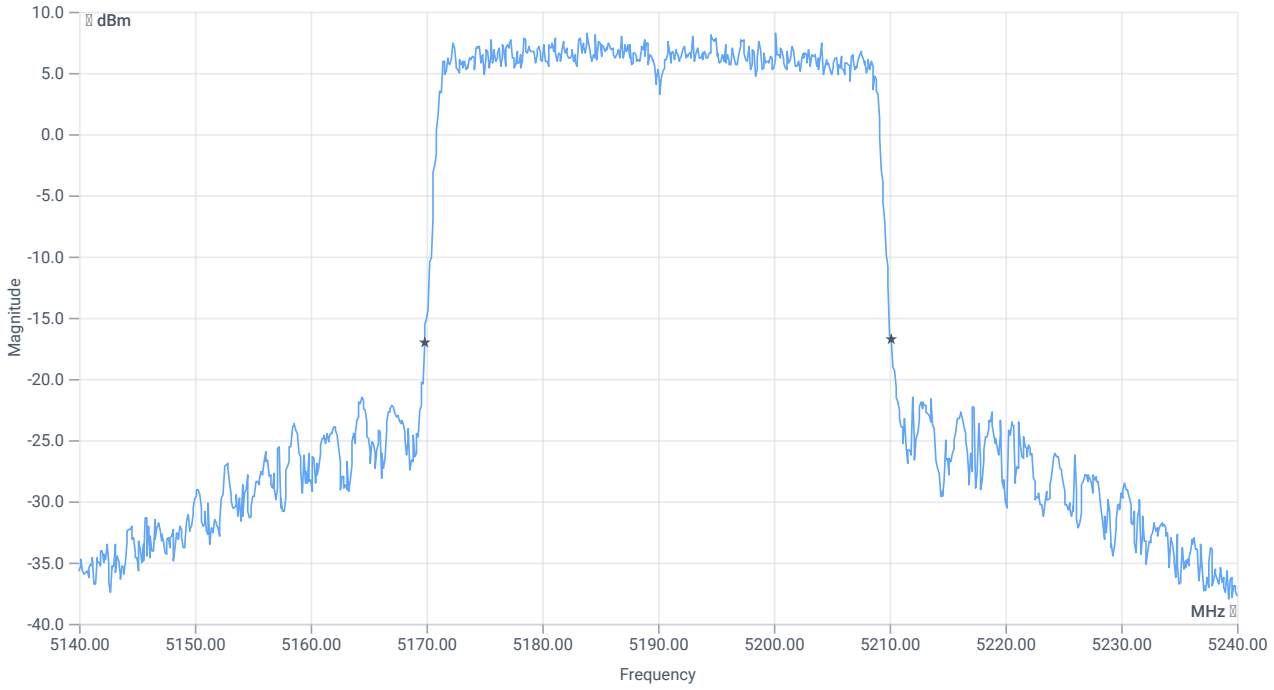

*BW 99PCT*



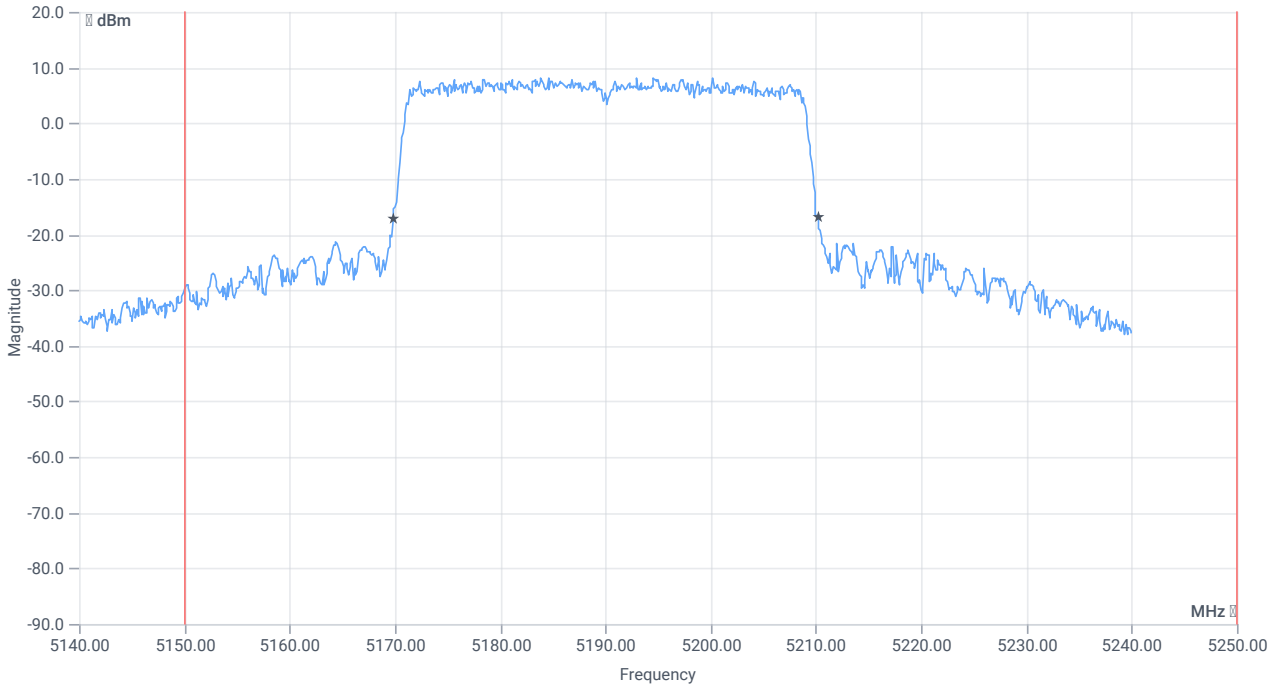

*BW within Band 99PCT*

## RESULT

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Bandwidth 99% | --- | --- | 37.662 | MHz | INFO |
| T1 99% | 5150.000000 | --- | 5171.2188 | MHz | PASS |
| T2 99% | --- | 5250.000000 | 5208.8811 | MHz | PASS |



*BW 26dB*




*BW within Band 26dB*

## RESULT

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Bandwidth 26dB | --- | --- | 40.4 | MHz | INFO |
| T1 26dB | 5150.000000 | --- | 5169.8000 | MHz | PASS |
| T2 26dB | --- | 5250.000000 | 5210.2000 | MHz | PASS |

| Verdict |
|---|
| PASS |

# FCC 15.407 # Max output power and psd ~ WLAN5Gx ax-HE40 U-NII-1

## References

| | |
|---|---|
| TC start | 19.01.2024 10:15:04 |
| Ambit temp [°C] \| humidity [rel%] | 21.6 \| 29 |
| System version | 4.7.1.5 |
| Standard \| Version | FCC 15.407 \| NI |
| Method | KDB789033 D02, F., E.2.e. |
| Description | FCC 15.407 Max Output Power & PSD - WLAN5Gx ax-HE40 U-NII-1 |
| Information | |

## EUT Common Settings WLAN5Gx

| | |
|---|---|
| Number of Antenna Ports | 2 |
| User Interaction | No |
| Device Class UNII_1 | Client |
| Limit W52 Japan | Standard |

## Test Parameter

| | |
|---|---|
| Technology to test | WLAN5Gx ax-HE40 |
| Antenna port used | 2 |
| Temperature | nom |
| Voltage | nom |
| Frequency low to test | True \| Freq [MHz] 5190 |
| Frequency mid to test | False \| Freq [MHz] 0 |
| Frequency high to test | False \| Freq [MHz] 5230 |
| Auto control enabled power supply \| Climatic Box | No \| No |
| Additional path loss [dB] | 1.4 |
| Full path name \| type | EUT - SignalingUnit - SpectrumAnalyzer |

## Equipment

| |
|---|
| Signal analyzer,Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.70 |
| Switch matrix,CTCadvanced,SPM-4 NI DAQ,28016133,NI |

## Test at TX 5190 MHz

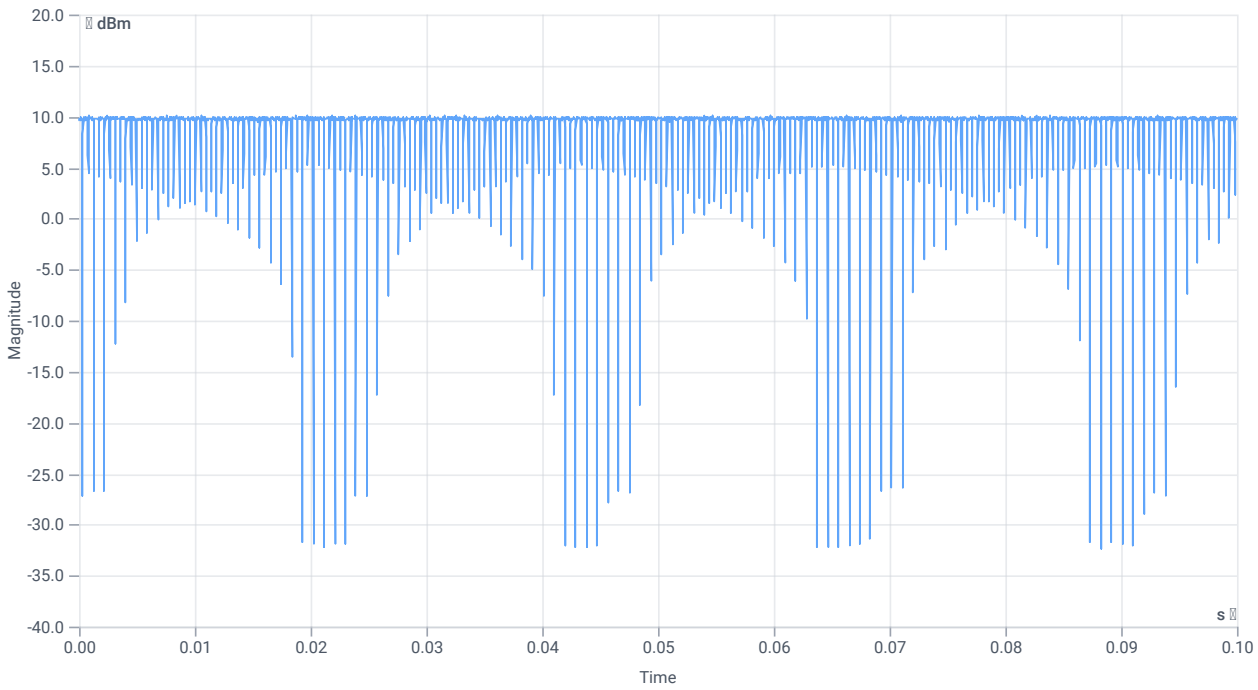
RESULT: Reference Power cond.

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Ref. Power 1MHz/1MHz cond. | --- | --- | 8.95 | dBm | INFO |
| Ref. Frequency | --- | --- | 5188.200 | MHz | INFO |

### Evaluation max. Duty Cycle

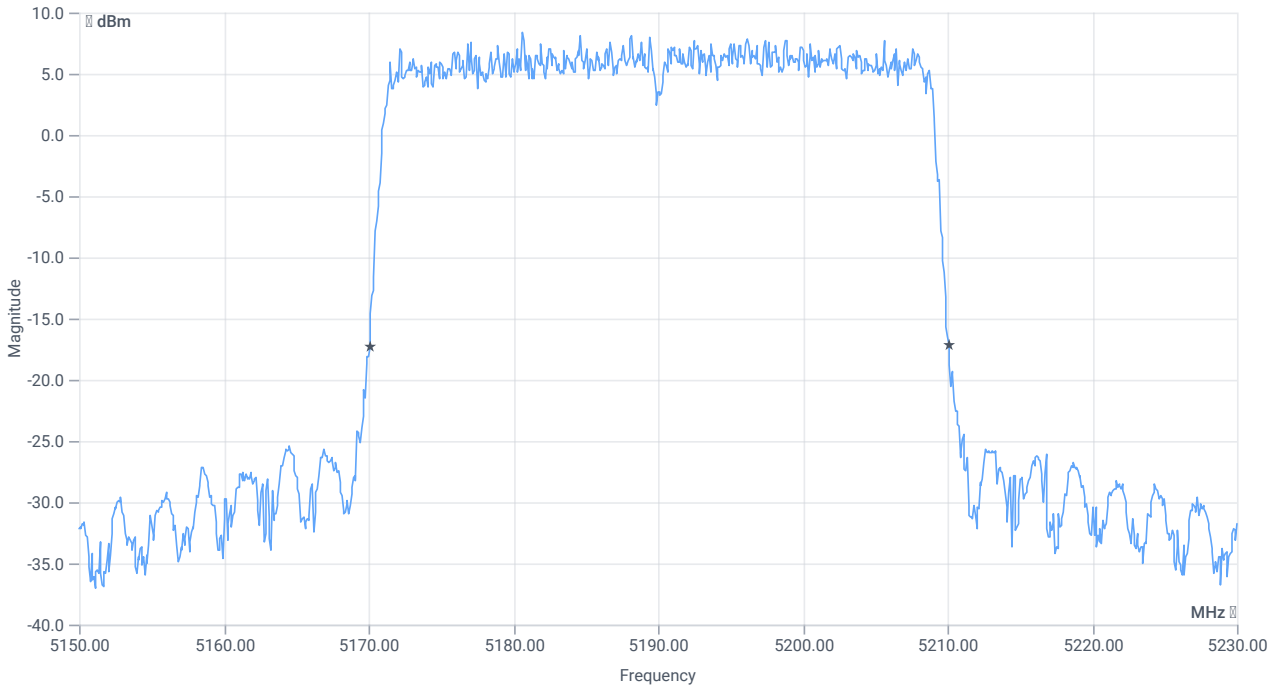
Duty Cycle evaluation

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Result Summary | | | | | |
| Number of detected Bursts:88 | | | | | |
| Duty Cycle (Burst Ratio) max | --- | --- | 0.988 | --- | INFO |
| Duty Cycle max | --- | --- | 0.052 | dB | INFO |
| Duty Cycle (Burst Ratio) min | --- | --- | 0.919 | --- | INFO |
| Duty Cycle min | --- | --- | 0.367 | dB | INFO |
| Max TX Burst Length | --- | --- | 5.95 | ms | INFO |
| Min Gap Length | --- | --- | 0.075 | ms | INFO |
| Max Gap Length | --- | --- | 0.075 | ms | INFO |




*Duty cycle*

### Evaluation Bandwidth




*BW 26dB*

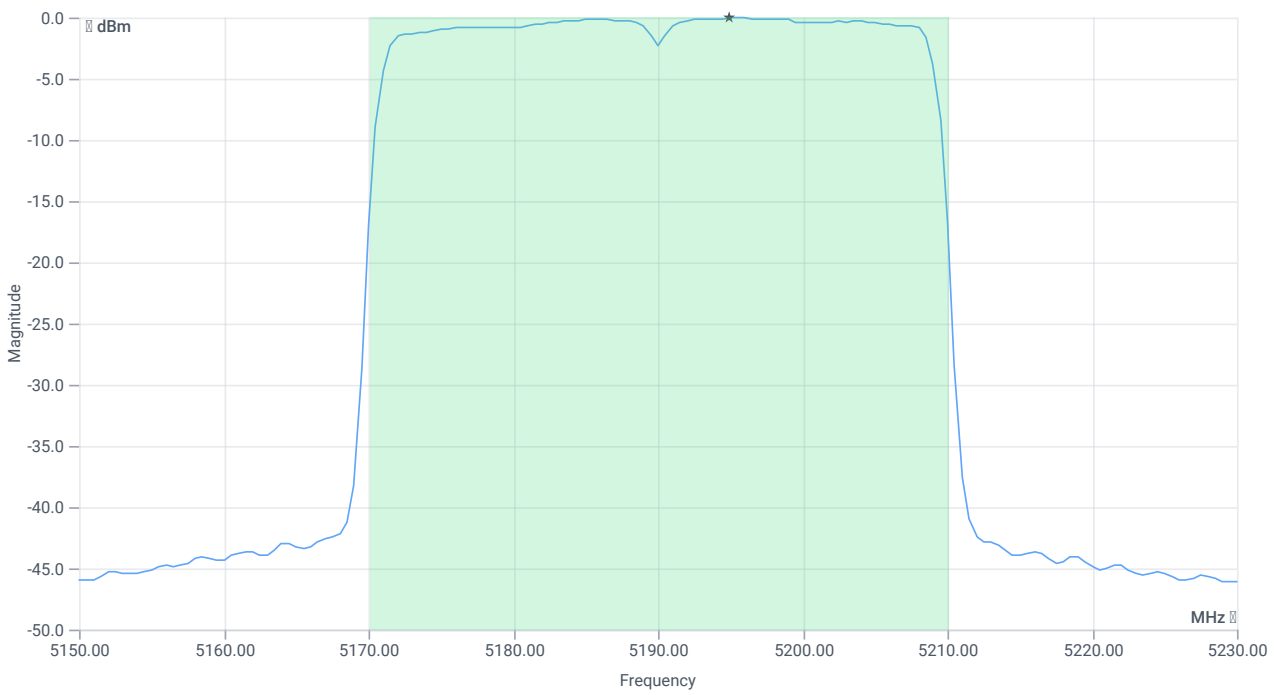
## RESULT

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Bandwidth 26dB | --- | --- | 40 | MHz | INFO |
| T1 26dB | --- | --- | 5170.0800 | MHz | INFO |
| T2 26dB | --- | --- | 5210.0800 | MHz | INFO |

## Maximum Output Power

## READ SA SETTINGS:

| | |
|---|---|
| RefLevel [dBm] \| RefLevelOffset [dB] \| InpAtt [dB] | 20.95 \| 16.45 \| 20 |
| Start [MHz] \| Stop [MHz] | 5150.000 \| 5230.000 |
| RBW [MHz] \| VBW [MHz] | 1.000000 \| 3.000000 |
| Detector \| TraceMode | RMS \| MAXH |
| Sweep: time [ms] \| count \| points per Section \| type | 53700 \| 1 \| 161 \| SWE |




*Max OP and PSD*

## RESULT

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Max Output Power | --- | --- | 14.95 | dBm | INFO |
| Duty Cycle Correction | --- | --- | 0.37 | dB | INFO |
| Limit absolute | | | | | |
| Max Output Power DC corrected | --- | 24 | 15.32 | dBm | PASS |
| Limit: 11 dBm + 10 log 40 | | | | | |
| Max Output Power DC corrected | --- | 27.02 | 15.32 | dBm | na |

## Power Spectral Density

## RESULT

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Power Spectral Density | --- | --- | -0.03 | dBm/1MHz | INFO |
| Duty Cycle Correction | --- | --- | 0.37 | dB | INFO |
| Power Spectral Density DC corrected | --- | 11 | 0.34 | dBm/1MHz | PASS |

| Verdict |
|---|
| PASS |

# FCC 15.407, ISED RSS247 # Bandwidths 99PCT and 20dB ~ WLAN5Gx ax-HE40 U-NII-1

## References

| | |
|---|---|
| TC start | 19.01.2024 10:16:34 |
| Ambit temp [°C] \| humidity [rel%] | 21.6 \| 28 |
| System version | 4.7.1.5 |
| Standard \| Version | FCC 15.407, ISED RSS247 \| NI |
| Method | 26dB Bandwidth KDB789033 D02, C.1 / ISED RSS-GEN |
| Description | FCC 15.407 Bandwidths - WLAN5Gx ax-HE40 U-NII-1 |
| Information | |

## EUT Common Settings WLAN5Gx

| | |
|---|---|
| Number of Antenna Ports | 2 |
| User Interaction | No |
| Device Class UNII_1 | Client |
| Limit W52 Japan | Standard |

## Test Parameter

| | |
|---|---|
| Technology to test | WLAN5Gx ax-HE40 |
| Antenna port used | 2 |
| Temperature | nom |
| Voltage | nom |
| Frequency low to test | True \| Freq [MHz] 5190 |
| Frequency mid to test | False \| Freq [MHz] 0 |
| Frequency high to test | False \| Freq [MHz] 5230 |
| Auto control enabled power supply \| Climatic Box | No \| No |
| Additional path loss [dB] | 1.4 |
| Full path name \| type | EUT - SignalingUnit - SpectrumAnalyzer |

## Equipment

| |
|---|
| Signal analyzer,Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.70 |
| Switch matrix,CTCadvanced,SPM-4 NI DAQ,28016133,NI |

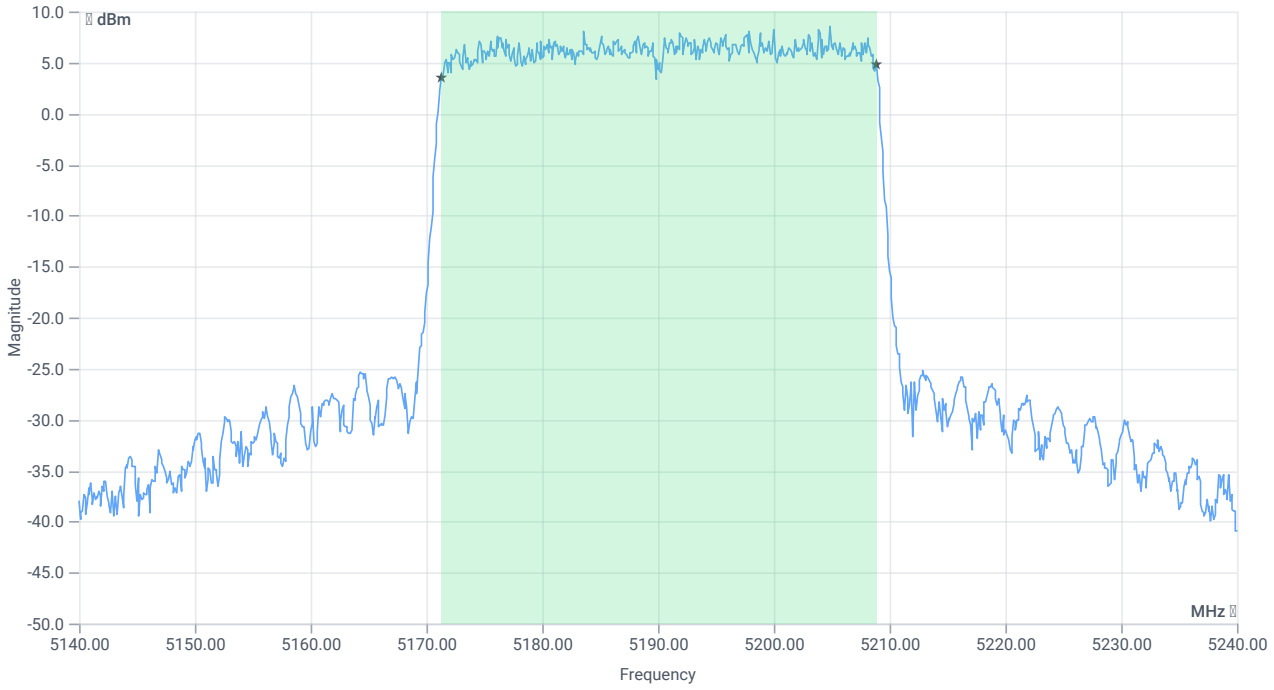
## Test at TX 5190 MHz

RESULT: Reference Power cond.

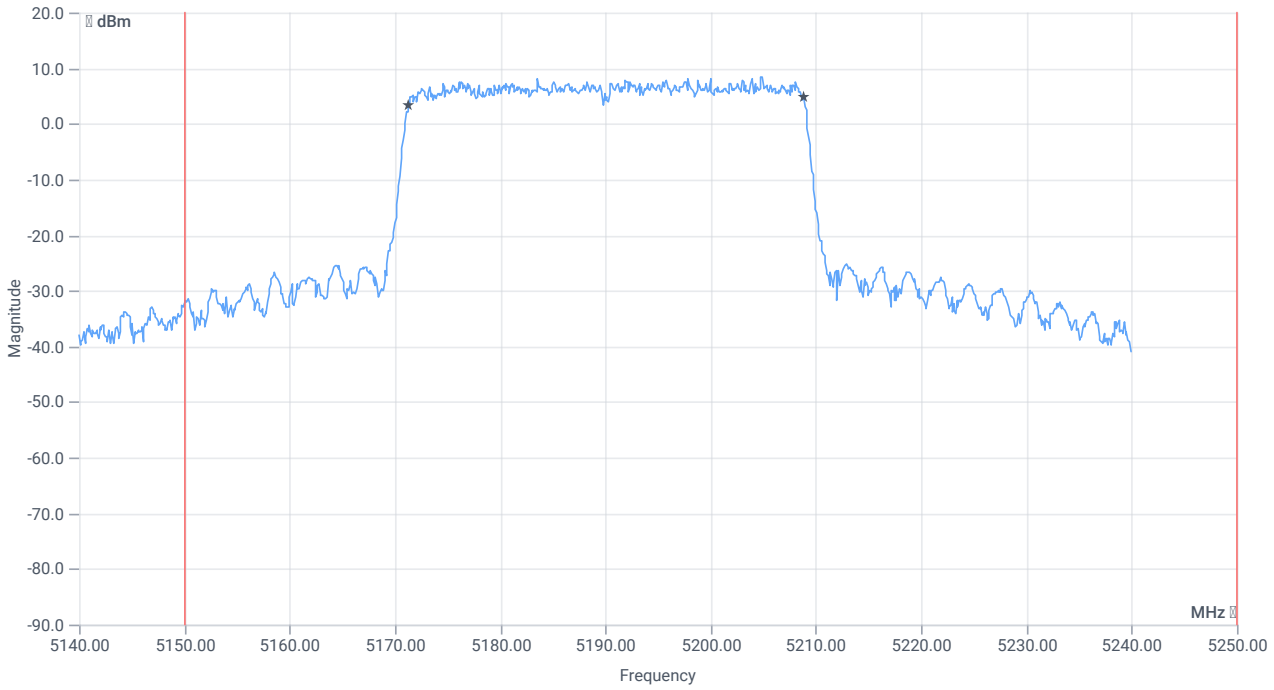
| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Ref. Power 1MHz/1MHz cond. | --- | --- | 9.64 | dBm | INFO |
| Ref. Frequency | --- | --- | 5184.410 | MHz | INFO |

READ SA SETTINGS:

| | |
|---|---|
| RefLevel [dBm] \| RefLevelOffset [dB] \| InpAtt [dB] | 17.64 \| 16.45 \| 20 |
| Start [MHz] \| Stop [MHz] | 5140.000 \| 5240.000 |
| RBW [MHz] \| VBW [MHz] | 0.500000 \| 3.000000 |
| Detector \| TraceMode | POS \| MAXH |
| Sweep: time [ms] \| count \| points per Section \| type | 1 \| 2500 \| 1001 \| SWE |



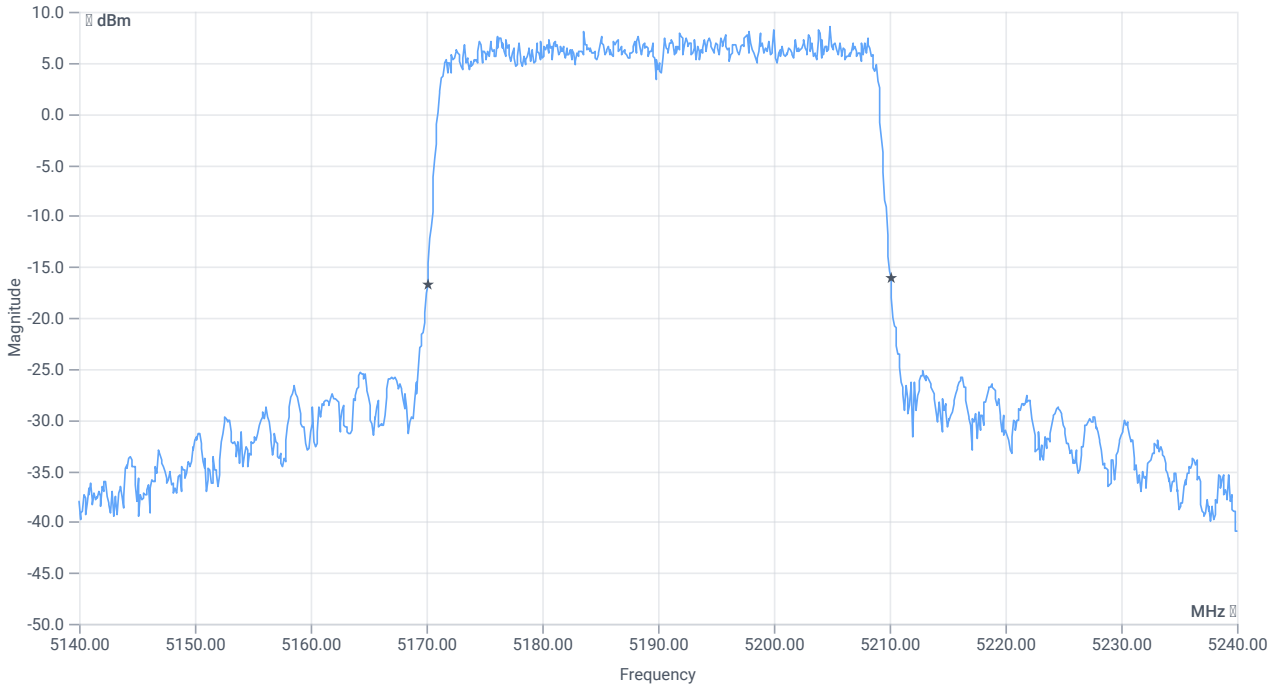

*BW 99PCT*



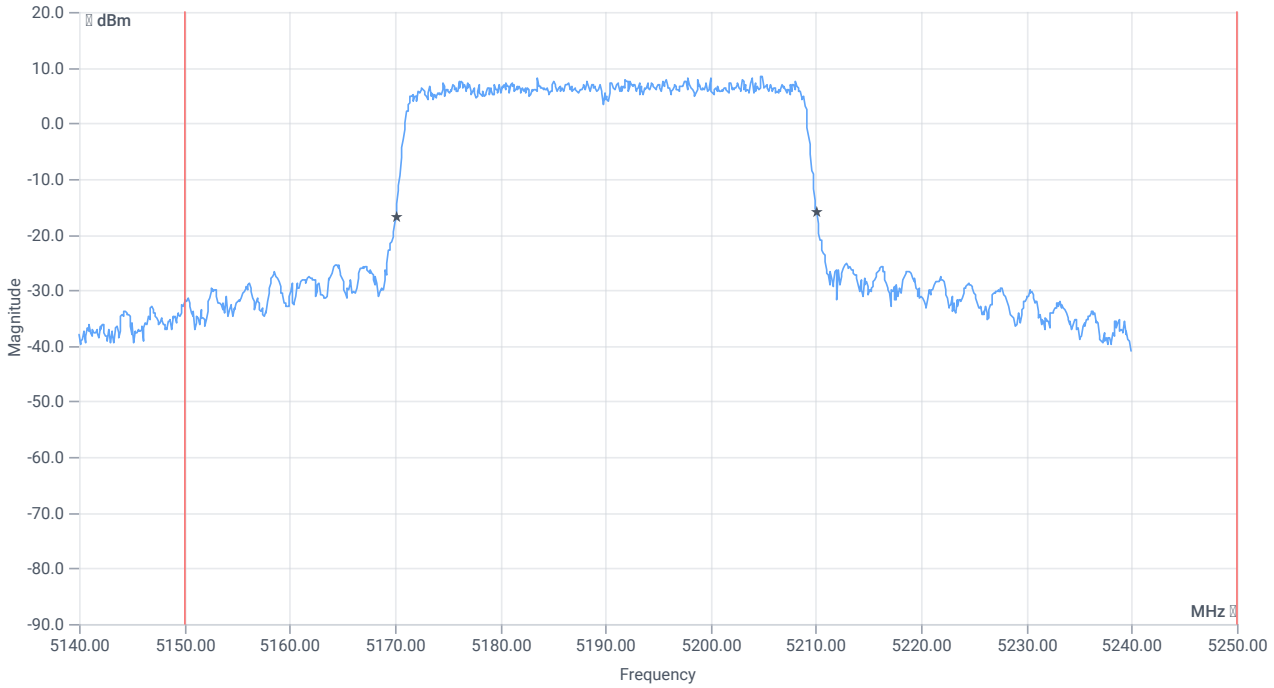

*BW within Band 99PCT*

## RESULT

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Bandwidth 99% | --- | --- | 37.562 | MHz | INFO |
| T1 99% | 5150.000000 | --- | 5171.3187 | MHz | PASS |
| T2 99% | --- | 5250.000000 | 5208.8811 | MHz | PASS |



*BW 26dB*




*BW within Band 26dB*

## RESULT

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Bandwidth 26dB | --- | --- | 40 | MHz | INFO |
| T1 26dB | 5150.000000 | --- | 5170.1000 | MHz | PASS |
| T2 26dB | --- | 5250.000000 | 5210.1000 | MHz | PASS |

| Verdict |
|---|
| PASS |

# FCC 15.407 # MIMO ∑ Max output power and psd ~ WLAN5Gx ax-HE40 U-NII-1

## References

| | |
|---|---|
| TC start | 19.01.2024 10:17:13 |
| Ambit temp [°C] \| humidity [rel%] | 21.6 \| 28 |
| System version | 4.7.1.5 |
| Standard \| Version | FCC 15.407 \| NI |
| Method | |
| Description | MIMO ∑ FCC Power & psd - WLAN5Gx ax-HE40 U-NII-1 |
| Information | |

## EUT Common Settings WLAN5Gx

| | |
|---|---|
| Number of Antenna Ports | 2 |
| User Interaction | No |
| Device Class UNII_1 | Client |
| Limit W52 Japan | Standard |

## Test Parameter

| | |
|---|---|
| Technology to test | WLAN5Gx ax-HE40 |
| Antenna port used | several |
| Temperature | nom |
| Voltage | nom |
| Frequency low to test | True \| Freq [MHz] 5190 |
| Frequency mid to test | False \| Freq [MHz] 0 |
| Frequency high to test | False \| Freq [MHz] 5230 |
| Auto control enabled power supply \| Climatic Box | No \| No |
| Additional path loss [dB] | 1.4 |
| Full path name \| type | None |

## Equipment

## Test at TX 5190 MHz

### RESULT Power

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Ant:1 Max Output Power DC corrected | --- | --- | 15.46 | dBm | INFO |
| Ant:1 BW 26dB | --- | --- | 40.160 | MHz | INFO |
| Ant:2 Max Output Power DC corrected | --- | --- | 15.32 | dBm | INFO |
| Ant:2 BW 26dB | --- | --- | 40.000 | MHz | INFO |
| ∑ Limit absolute | --- | 24 | 18.4 | dBm | PASS |
| ∑ Limit: 11 dBm + 10 log 40 | --- | 27.02 | 18.4 | dBm | na |

### RESULT PSD

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Ant:1 PSD | --- | --- | 0.51 | dBm/1MHz | INFO |
| Ant:2 PSD | --- | --- | 0.34 | dBm/1MHz | INFO |
| ∑ | --- | 11 | 3.44 | dBm/1MHz | PASS |

| Verdict |
|---|
| PASS |

# FCC 15.407 # Max output power and psd ~ WLAN5Gx ax-HE40 U-NII-1

## References

| | |
|---|---|
| TC start | 19.01.2024 10:18:30 |
| Ambit temp [°C] \| humidity [rel%] | 21.7 \| 28 |
| System version | 4.7.1.5 |
| Standard \| Version | FCC 15.407 \| NI |
| Method | KDB789033 D02, F., E.2.e. |
| Description | FCC 15.407 Max Output Power & PSD - WLAN5Gx ax-HE40 U-NII-1 |
| Information | |

## EUT Common Settings WLAN5Gx

| | |
|---|---|
| Number of Antenna Ports | 2 |
| User Interaction | No |
| Device Class UNII_1 | Client |
| Limit W52 Japan | Standard |

## Test Parameter

| | |
|---|---|
| Technology to test | WLAN5Gx ax-HE40 |
| Antenna port used | 1 |
| Temperature | nom |
| Voltage | nom |
| Frequency low to test | False \| Freq [MHz] 5190 |
| Frequency mid to test | False \| Freq [MHz] 0 |
| Frequency high to test | True \| Freq [MHz] 5230 |
| Auto control enabled power supply \| Climatic Box | No \| No |
| Additional path loss [dB] | 1.4 |
| Full path name \| type | EUT - SignalingUnit - SpectrumAnalyzer |

## Equipment

| |
|---|
| Signal analyzer,Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.70 |
| Switch matrix,CTCadvanced,SPM-4 NI DAQ,28016133,NI |

## Test at TX 5230 MHz

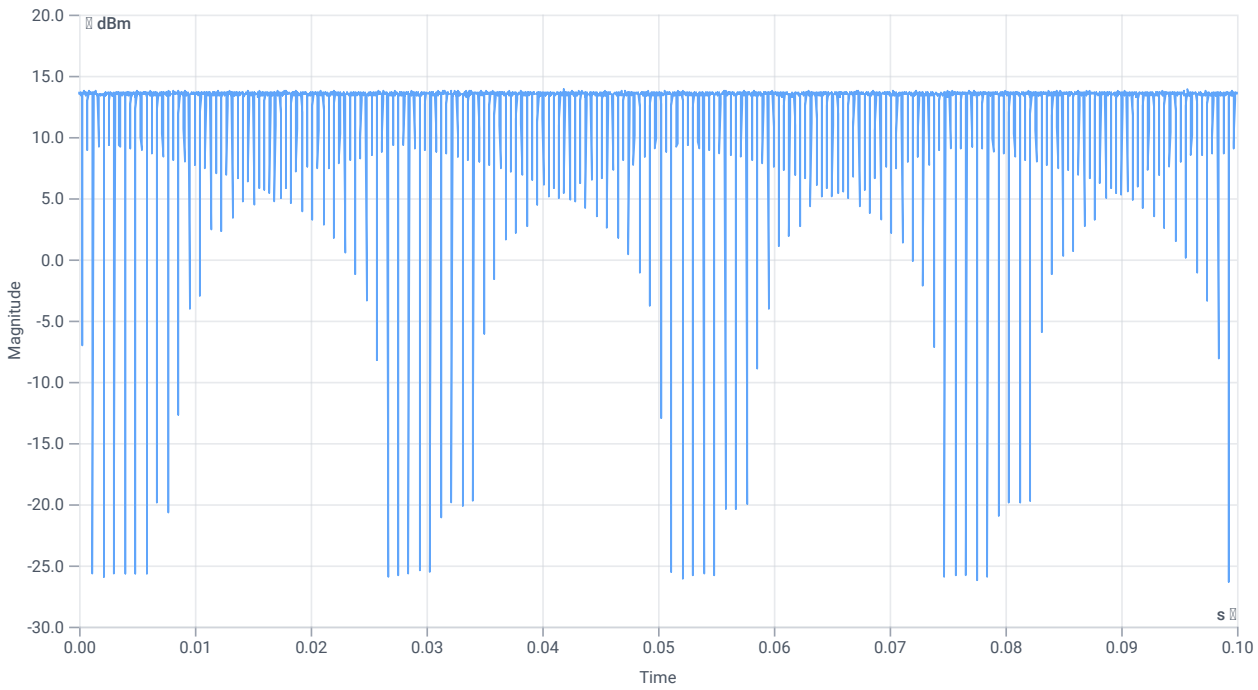
RESULT: Reference Power cond.

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Ref. Power 1MHz/1MHz cond. | --- | --- | 13.60 | dBm | INFO |
| Ref. Frequency | --- | --- | 5212.820 | MHz | INFO |

### Evaluation max. Duty Cycle

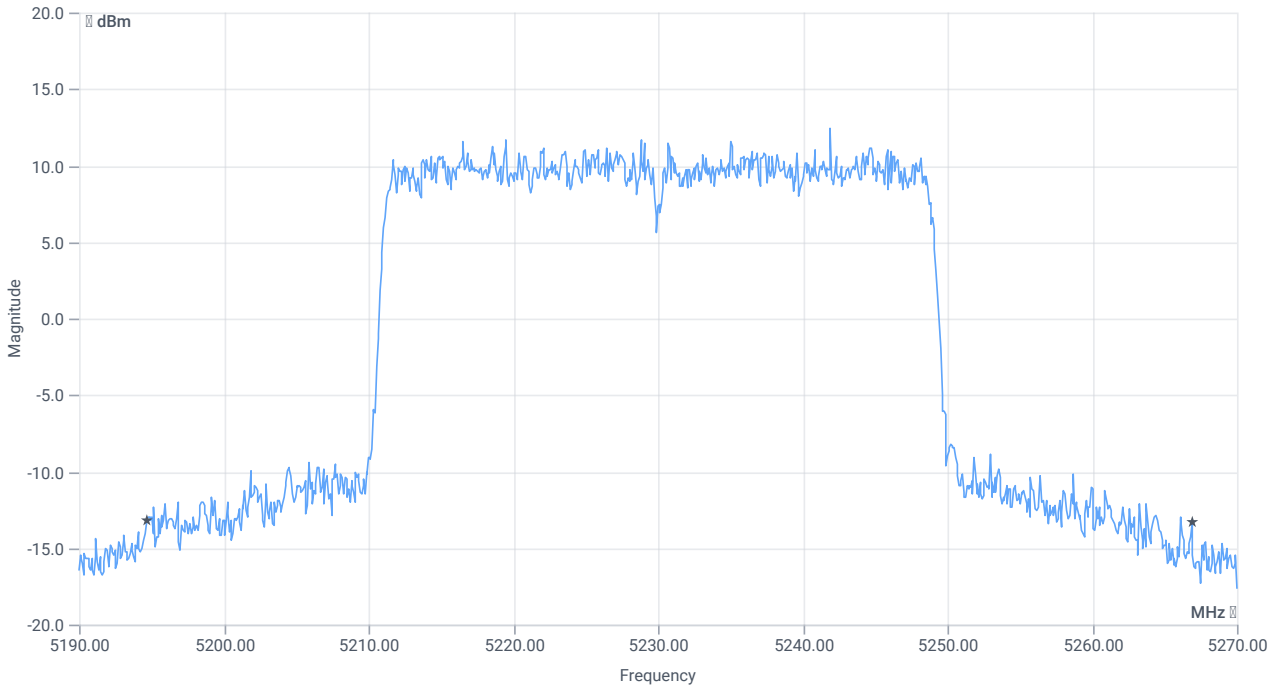
Duty Cycle evaluation

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Result Summary | | | | | |
| Number of detected Bursts:85 | | | | | |
| Duty Cycle (Burst Ratio) max | --- | --- | 0.989 | --- | INFO |
| Duty Cycle max | --- | --- | 0.048 | dB | INFO |
| Duty Cycle (Burst Ratio) min | --- | --- | 0.919 | --- | INFO |
| Duty Cycle min | --- | --- | 0.367 | dB | INFO |
| Max TX Burst Length | --- | --- | 6.875 | ms | INFO |
| Min Gap Length | --- | --- | 0.075 | ms | INFO |
| Max Gap Length | --- | --- | 0.075 | ms | INFO |




*Duty cycle*

### Evaluation Bandwidth




*BW 26dB*

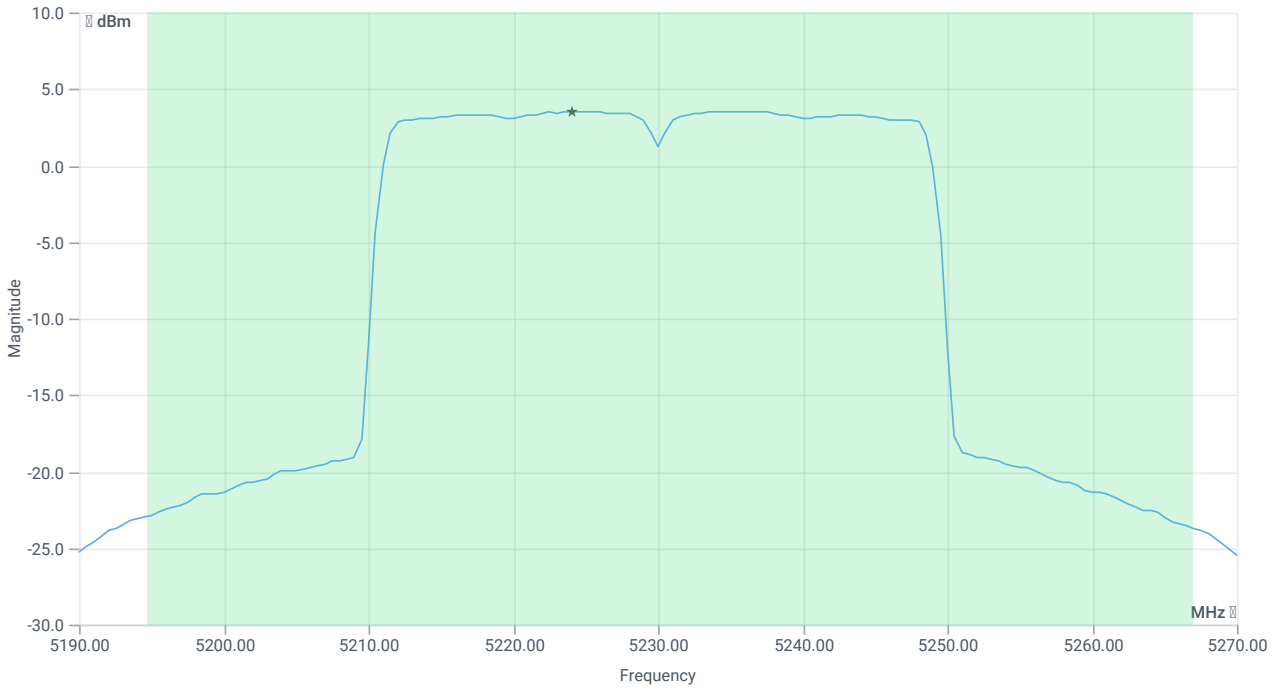
## RESULT

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Bandwidth 26dB | --- | --- | 72.24 | MHz | INFO |
| T1 26dB | --- | --- | 5194.6400 | MHz | INFO |
| T2 26dB | --- | --- | 5266.8800 | MHz | INFO |

## Maximum Output Power

## READ SA SETTINGS:

| | |
|---|---|
| RefLevel [dBm] \| RefLevelOffset [dB] \| InpAtt [dB] | 25.60 \| 16.45 \| 25 |
| Start [MHz] \| Stop [MHz] | 5190.000 \| 5270.000 |
| RBW [MHz] \| VBW [MHz] | 1.000000 \| 3.000000 |
| Detector \| TraceMode | RMS \| MAXH |
| Sweep: time [ms] \| count \| points per Section \| type | 53700 \| 1 \| 161 \| SWE |




*Max OP and PSD*

## RESULT

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Max Output Power | --- | --- | 18.73 | dBm | INFO |
| Duty Cycle Correction | --- | --- | 0.37 | dB | INFO |
| Limit absolute | | | | | |
| Max Output Power DC corrected | --- | 24 | 19.1 | dBm | PASS |
| Limit: 11 dBm + 10 log 72.24 | | | | | |
| Max Output Power DC corrected | --- | 29.59 | 19.1 | dBm | na |

## Power Spectral Density

## RESULT

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Power Spectral Density | --- | --- | 3.53 | dBm/1MHz | INFO |
| Duty Cycle Correction | --- | --- | 0.37 | dB | INFO |
| Power Spectral Density DC corrected | --- | 11 | 3.9 | dBm/1MHz | PASS |

| Verdict |
|---|
| PASS |

# FCC 15.407, ISED RSS247 # Bandwidths 99PCT and 20dB ~ WLAN5Gx ax-HE40 U-NII-1

## References

| | |
|---|---|
| TC start | 19.01.2024 10:20:03 |
| Ambit temp [°C] \| humidity [rel%] | 21.7 \| 28 |
| System version | 4.7.1.5 |
| Standard \| Version | FCC 15.407, ISED RSS247 \| NI |
| Method | 26dB Bandwidth KDB789033 D02, C.1 / ISED RSS-GEN |
| Description | FCC 15.407 Bandwidths - WLAN5Gx ax-HE40 U-NII-1 |
| Information | |

## EUT Common Settings WLAN5Gx

| | |
|---|---|
| Number of Antenna Ports | 2 |
| User Interaction | No |
| Device Class UNII_1 | Client |
| Limit W52 Japan | Standard |

## Test Parameter

| | |
|---|---|
| Technology to test | WLAN5Gx ax-HE40 |
| Antenna port used | 1 |
| Temperature | nom |
| Voltage | nom |
| Frequency low to test | False \| Freq [MHz] 5190 |
| Frequency mid to test | False \| Freq [MHz] 0 |
| Frequency high to test | True \| Freq [MHz] 5230 |
| Auto control enabled power supply \| Climatic Box | No \| No |
| Additional path loss [dB] | 1.4 |
| Full path name \| type | EUT - SignalingUnit - SpectrumAnalyzer |

## Equipment

| |
|---|
| Signal analyzer,Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.70 |
| Switch matrix,CTCadvanced,SPM-4 NI DAQ,28016133,NI |

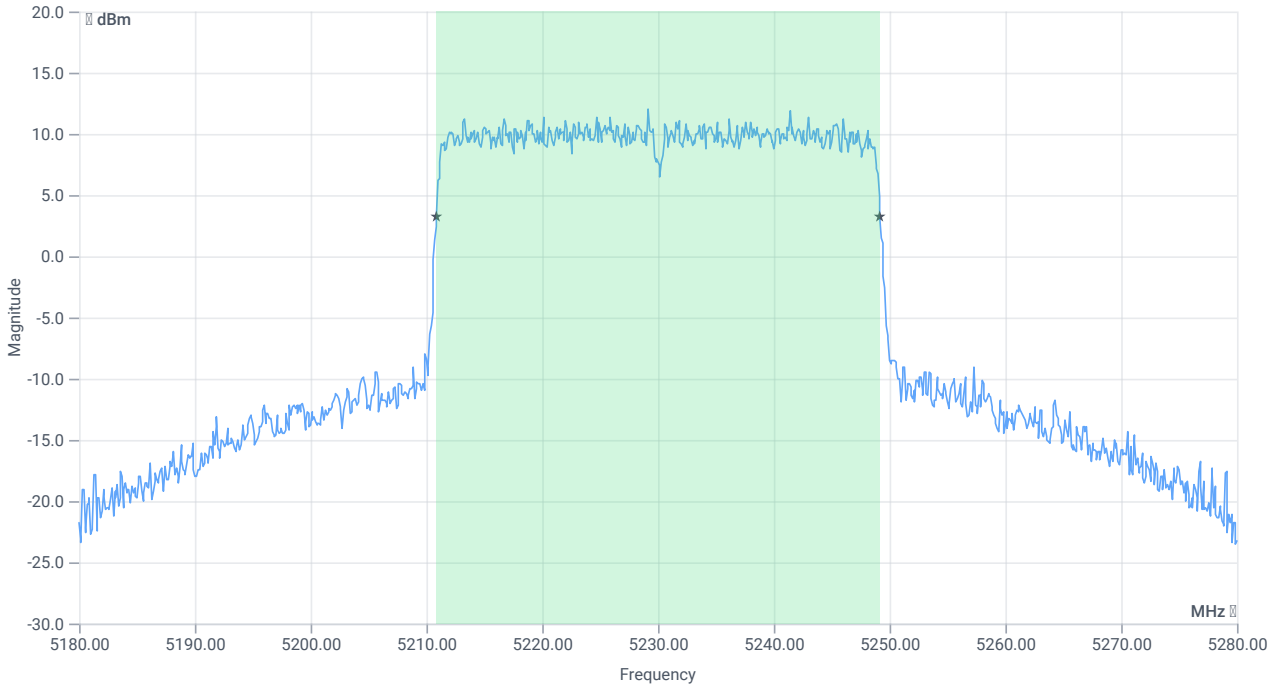
## Test at TX 5230 MHz

RESULT: Reference Power cond.

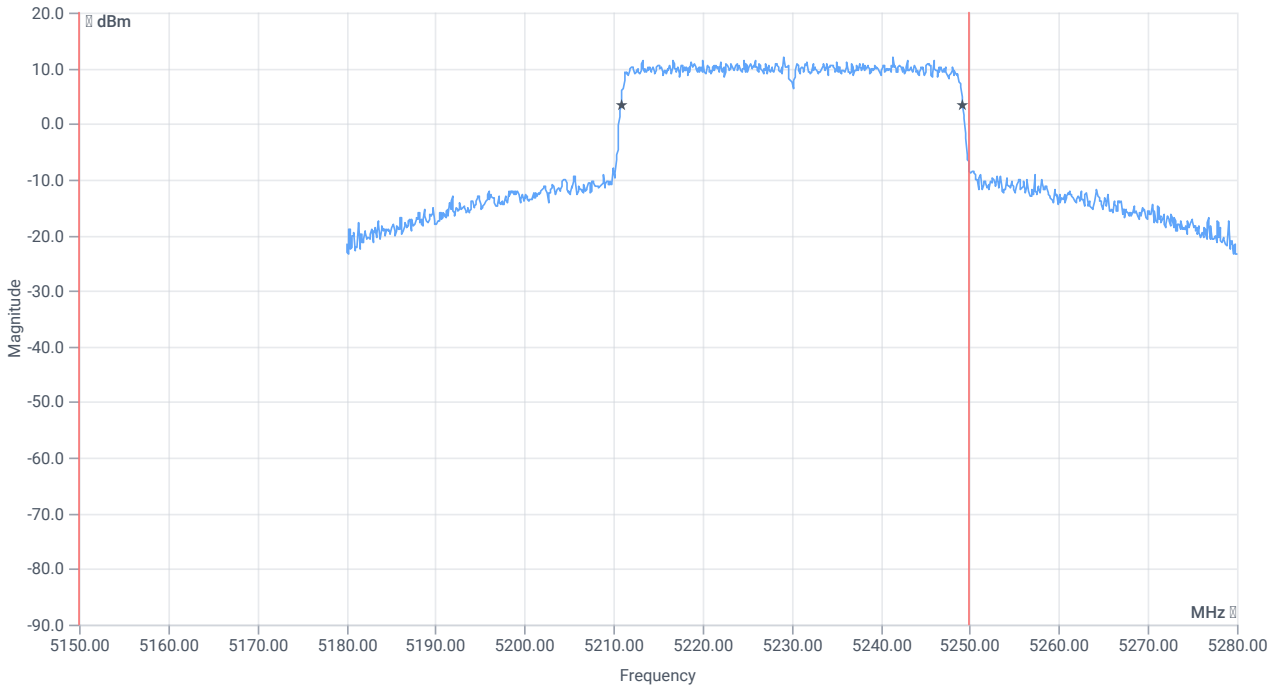
| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Ref. Power 1MHz/1MHz cond. | --- | --- | 13.60 | dBm | INFO |
| Ref. Frequency | --- | --- | 5235.390 | MHz | INFO |

READ SA SETTINGS:

| | |
|---|---|
| RefLevel [dBm] \| RefLevelOffset [dB] \| InpAtt [dB] | 21.60 \| 16.45 \| 25 |
| Start [MHz] \| Stop [MHz] | 5180.000 \| 5280.000 |
| RBW [MHz] \| VBW [MHz] | 0.500000 \| 3.000000 |
| Detector \| TraceMode | POS \| MAXH |
| Sweep: time [ms] \| count \| points per Section \| type | 1 \| 2500 \| 1001 \| SWE |



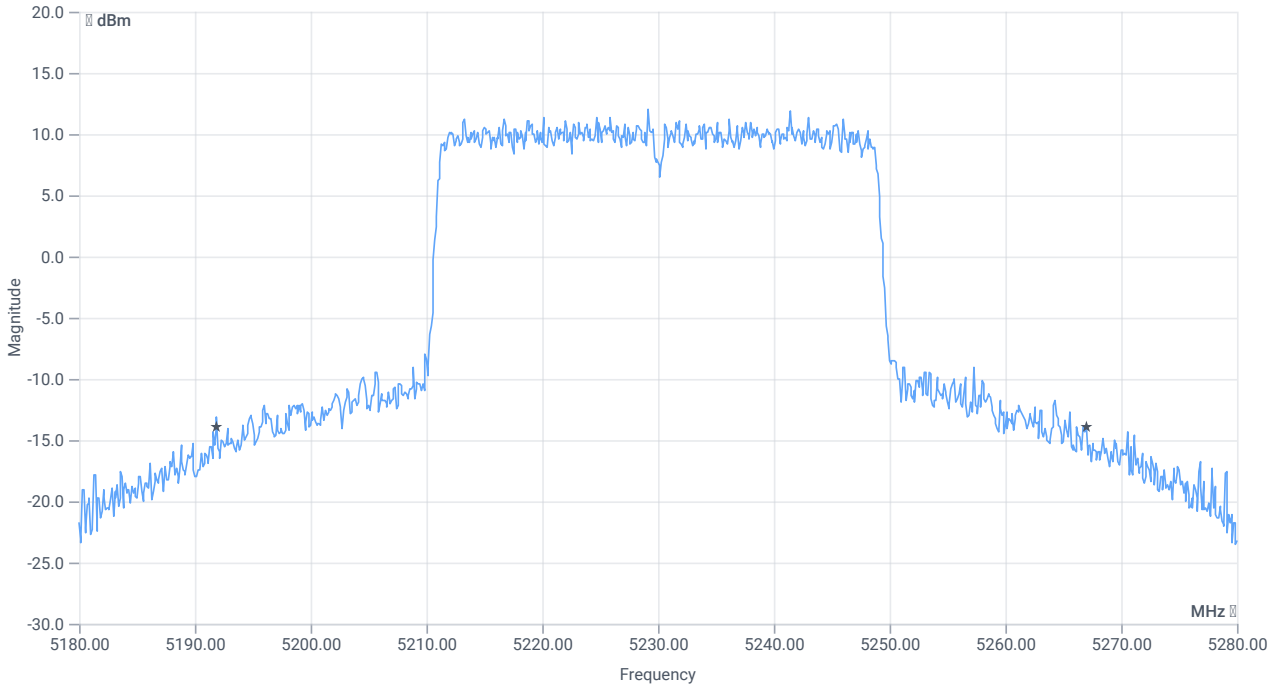

*BW 99PCT*



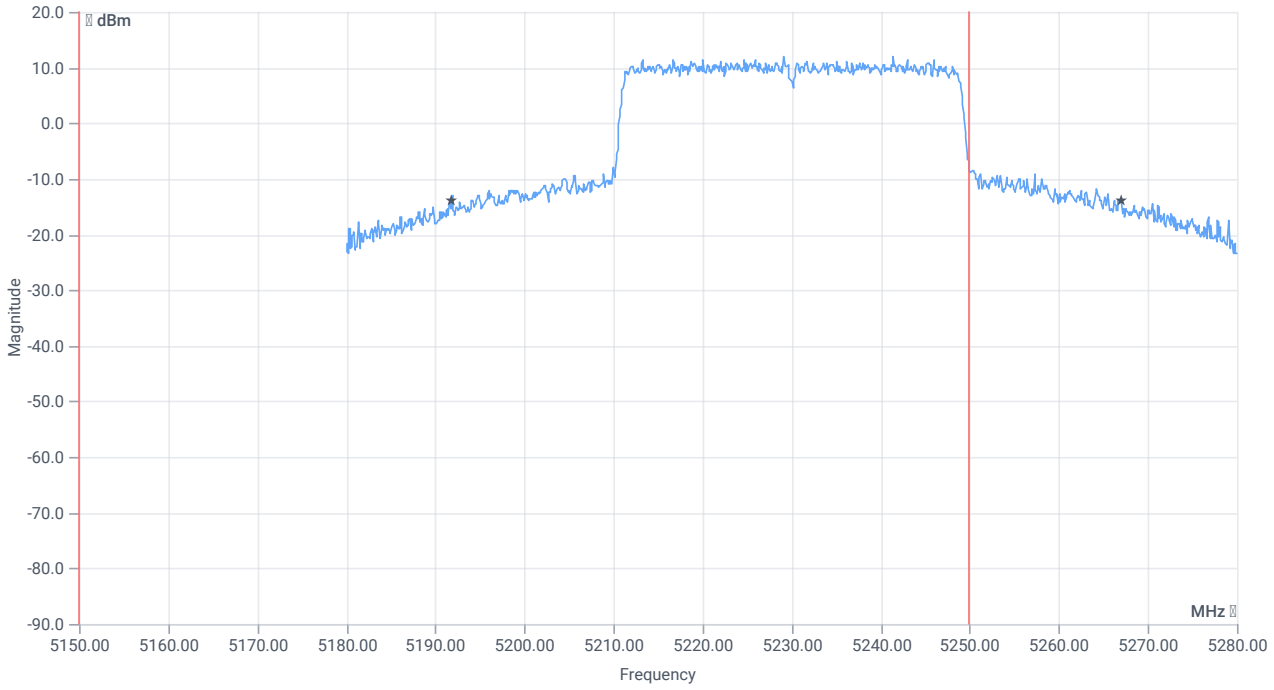

*BW within Band 99PCT*

## RESULT

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Bandwidth 99% | --- | --- | 38.262 | MHz | INFO |
| T1 99% | 5150.000000 | --- | 5210.9191 | MHz | PASS |
| T2 99% | --- | 5250.000000 | 5249.1808 | MHz | PASS |



*BW 26dB*




*BW within Band 26dB*

## RESULT

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Bandwidth 26dB | --- | --- | 75.2 | MHz | INFO |
| T1 26dB | 5150.000000 | --- | 5191.8000 | MHz | PASS |
| T2 26dB | --- | 5250.000000 | 5267.0000 | MHz | DFS required |

| Verdict |
|---|
| PASS |

# FCC 15.407 # Max output power and psd ~ WLAN5Gx ax-HE40 U-NII-1

## References

| | |
|---|---|
| TC start | 19.01.2024 10:20:40 |
| Ambit temp [°C] \| humidity [rel%] | 21.7 \| 28 |
| System version | 4.7.1.5 |
| Standard \| Version | FCC 15.407 \| NI |
| Method | KDB789033 D02, F., E.2.e. |
| Description | FCC 15.407 Max Output Power & PSD - WLAN5Gx ax-HE40 U-NII-1 |
| Information | |

## EUT Common Settings WLAN5Gx

| | |
|---|---|
| Number of Antenna Ports | 2 |
| User Interaction | No |
| Device Class UNII_1 | Client |
| Limit W52 Japan | Standard |

## Test Parameter

| | |
|---|---|
| Technology to test | WLAN5Gx ax-HE40 |
| Antenna port used | 2 |
| Temperature | nom |
| Voltage | nom |
| Frequency low to test | False \| Freq [MHz] 5190 |
| Frequency mid to test | False \| Freq [MHz] 0 |
| Frequency high to test | True \| Freq [MHz] 5230 |
| Auto control enabled power supply \| Climatic Box | No \| No |
| Additional path loss [dB] | 1.4 |
| Full path name \| type | EUT - SignalingUnit - SpectrumAnalyzer |

## Equipment

| |
|---|
| Signal analyzer,Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.70 |
| Switch matrix,CTCadvanced,SPM-4 NI DAQ,28016133,NI |

## Test at TX 5230 MHz

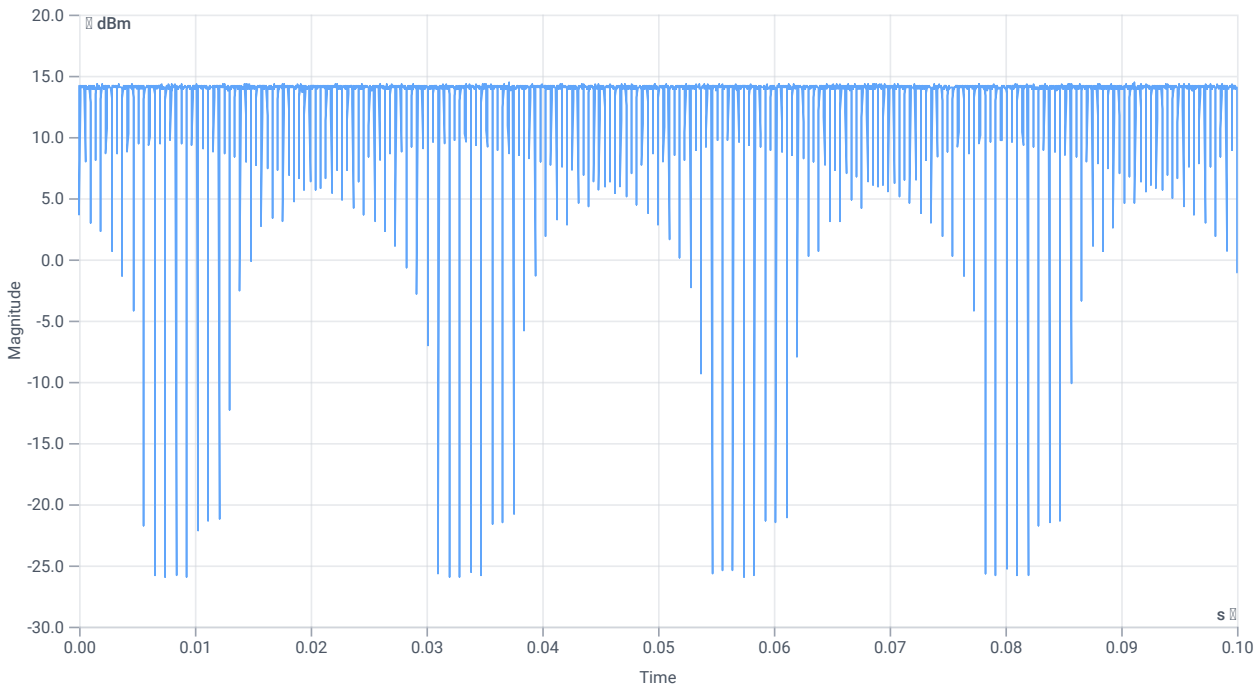
RESULT: Reference Power cond.

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Ref. Power 1MHz/1MHz cond. | --- | --- | 14.35 | dBm | INFO |
| Ref. Frequency | --- | --- | 5242.990 | MHz | INFO |

### Evaluation max. Duty Cycle

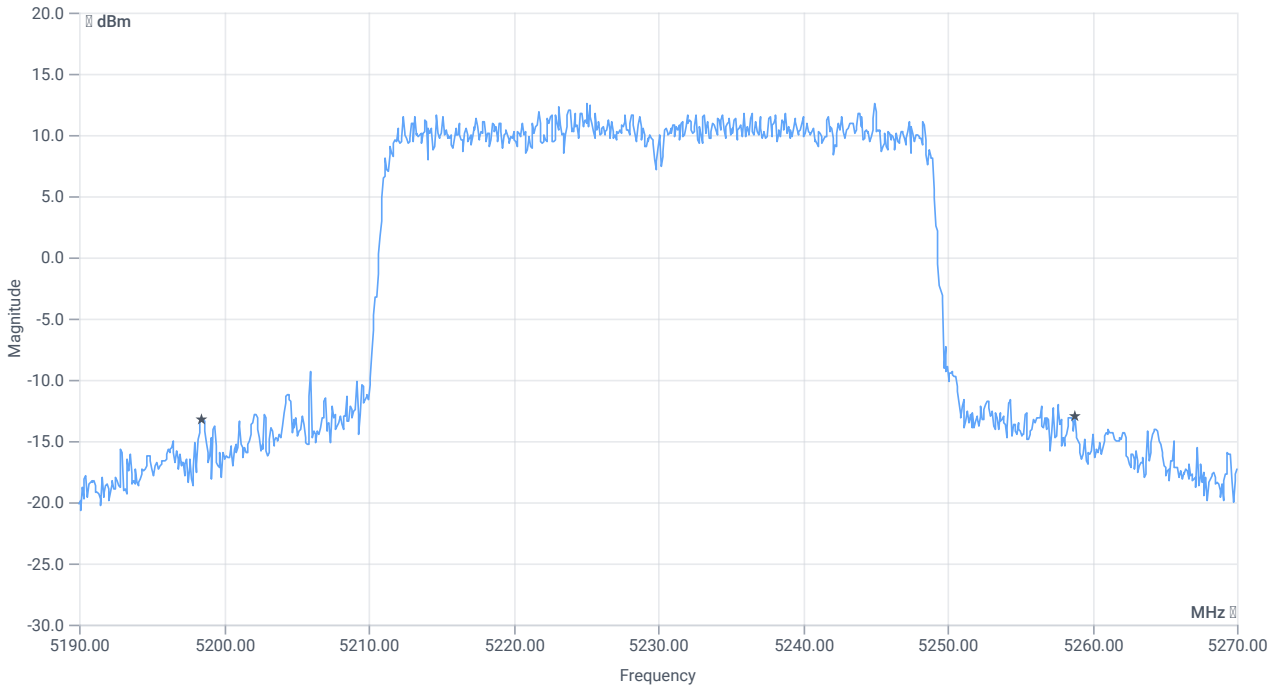
Duty Cycle evaluation

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Result Summary | | | | | |
| Number of detected Bursts:86 | | | | | |
| Duty Cycle (Burst Ratio) max | --- | --- | 0.988 | --- | INFO |
| Duty Cycle max | --- | --- | 0.052 | dB | INFO |
| Duty Cycle (Burst Ratio) min | --- | --- | 0.919 | --- | INFO |
| Duty Cycle min | --- | --- | 0.367 | dB | INFO |
| Max TX Burst Length | --- | --- | 5.95 | ms | INFO |
| Min Gap Length | --- | --- | 0.075 | ms | INFO |
| Max Gap Length | --- | --- | 0.075 | ms | INFO |




*Duty cycle*

### Evaluation Bandwidth




*BW 26dB*

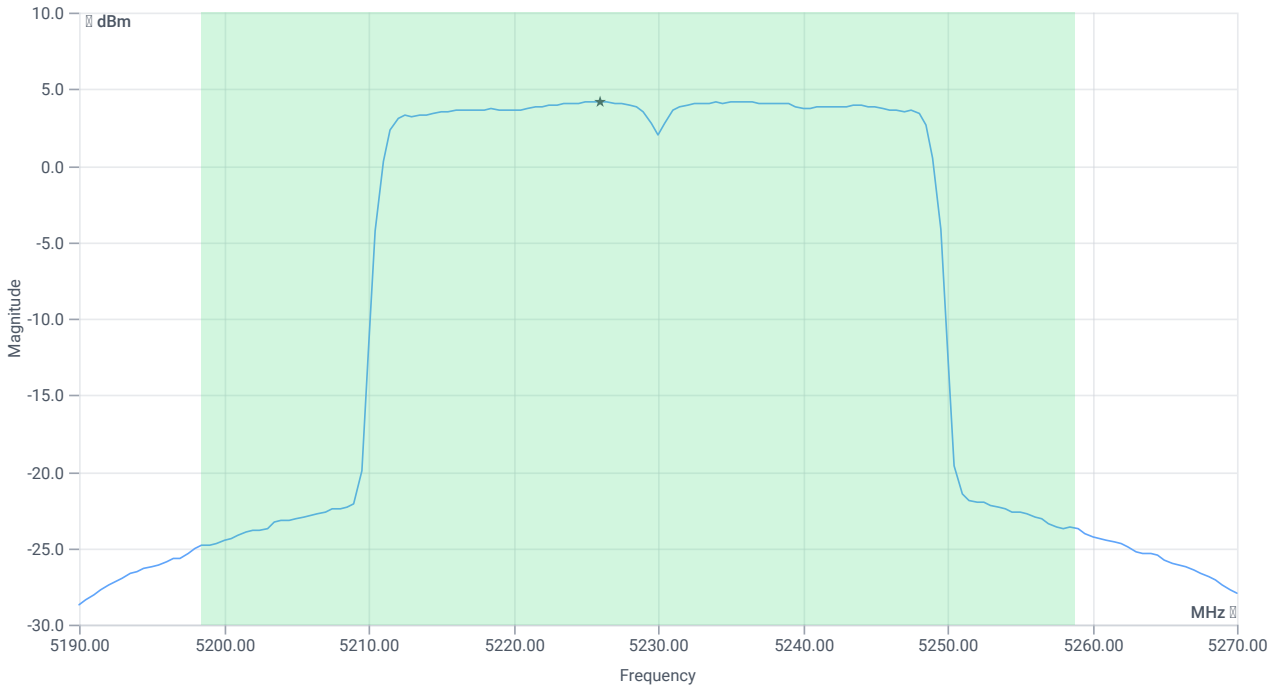
## RESULT

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Bandwidth 26dB | --- | --- | 60.32 | MHz | INFO |
| T1 26dB | --- | --- | 5198.4800 | MHz | INFO |
| T2 26dB | --- | --- | 5258.8000 | MHz | INFO |

## Maximum Output Power

## READ SA SETTINGS:

| | |
|---|---|
| RefLevel [dBm] \| RefLevelOffset [dB] \| InpAtt [dB] | 26.35 \| 16.45 \| 25 |
| Start [MHz] \| Stop [MHz] | 5190.000 \| 5270.000 |
| RBW [MHz] \| VBW [MHz] | 1.000000 \| 3.000000 |
| Detector \| TraceMode | RMS \| MAXH |
| Sweep: time [ms] \| count \| points per Section \| type | 53700 \| 1 \| 161 \| SWE |




*Max OP and PSD*

## RESULT

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Max Output Power | --- | --- | 19.26 | dBm | INFO |
| Duty Cycle Correction | --- | --- | 0.37 | dB | INFO |
| Limit absolute | | | | | |
| Max Output Power DC corrected | --- | 24 | 19.63 | dBm | PASS |
| Limit: 11 dBm + 10 log 60.32 | | | | | |
| Max Output Power DC corrected | --- | 28.8 | 19.63 | dBm | na |

## Power Spectral Density

## RESULT

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Power Spectral Density | --- | --- | 4.17 | dBm/1MHz | INFO |
| Duty Cycle Correction | --- | --- | 0.37 | dB | INFO |
| Power Spectral Density DC corrected | --- | 11 | 4.54 | dBm/1MHz | PASS |

| Verdict |
|---|
| PASS |

# FCC 15.407, ISED RSS247 # Bandwidths 99PCT and 20dB ~ WLAN5Gx ax-HE40 U-NII-1

## References

| | |
|---|---|
| TC start | 19.01.2024 10:22:13 |
| Ambit temp [°C] \| humidity [rel%] | 21.7 \| 28 |
| System version | 4.7.1.5 |
| Standard \| Version | FCC 15.407, ISED RSS247 \| NI |
| Method | 26dB Bandwidth KDB789033 D02, C.1 / ISED RSS-GEN |
| Description | FCC 15.407 Bandwidths - WLAN5Gx ax-HE40 U-NII-1 |
| Information | |

## EUT Common Settings WLAN5Gx

| | |
|---|---|
| Number of Antenna Ports | 2 |
| User Interaction | No |
| Device Class UNII_1 | Client |
| Limit W52 Japan | Standard |

## Test Parameter

| | |
|---|---|
| Technology to test | WLAN5Gx ax-HE40 |
| Antenna port used | 2 |
| Temperature | nom |
| Voltage | nom |
| Frequency low to test | False \| Freq [MHz] 5190 |
| Frequency mid to test | False \| Freq [MHz] 0 |
| Frequency high to test | True \| Freq [MHz] 5230 |
| Auto control enabled power supply \| Climatic Box | No \| No |
| Additional path loss [dB] | 1.4 |
| Full path name \| type | EUT - SignalingUnit - SpectrumAnalyzer |

## Equipment

| |
|---|
| Signal analyzer,Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.70 |
| Switch matrix,CTCadvanced,SPM-4 NI DAQ,28016133,NI |

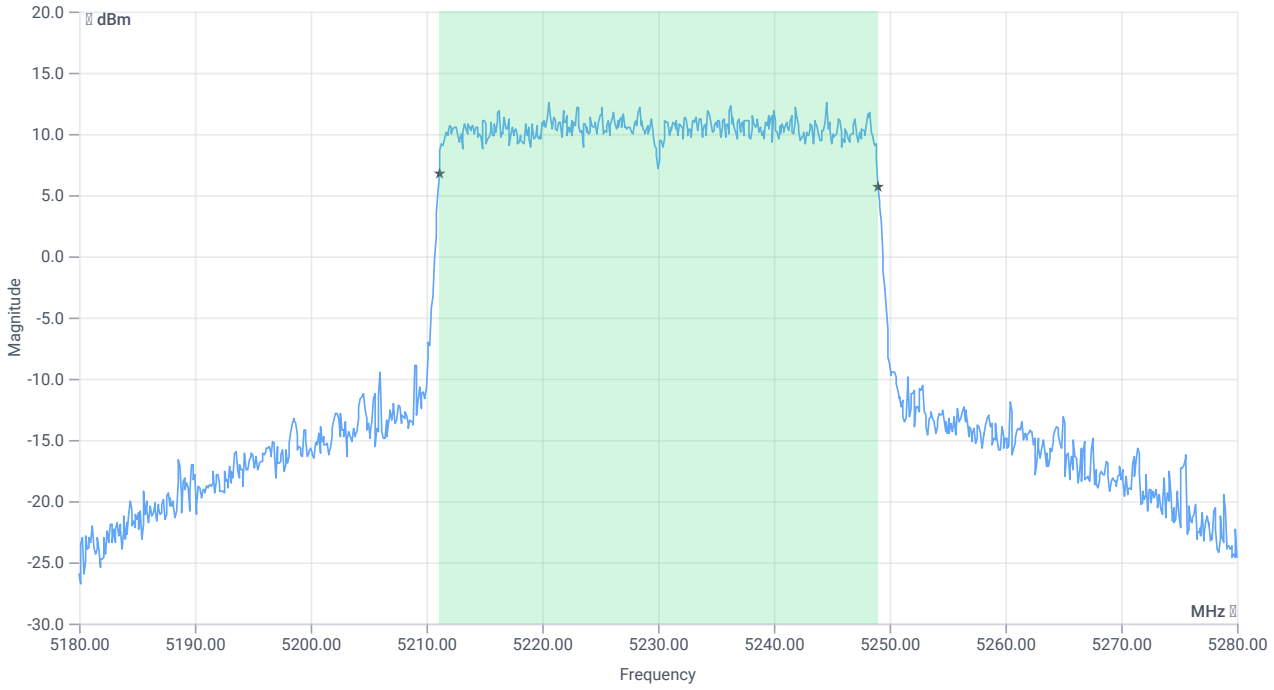
## Test at TX 5230 MHz

RESULT: Reference Power cond.

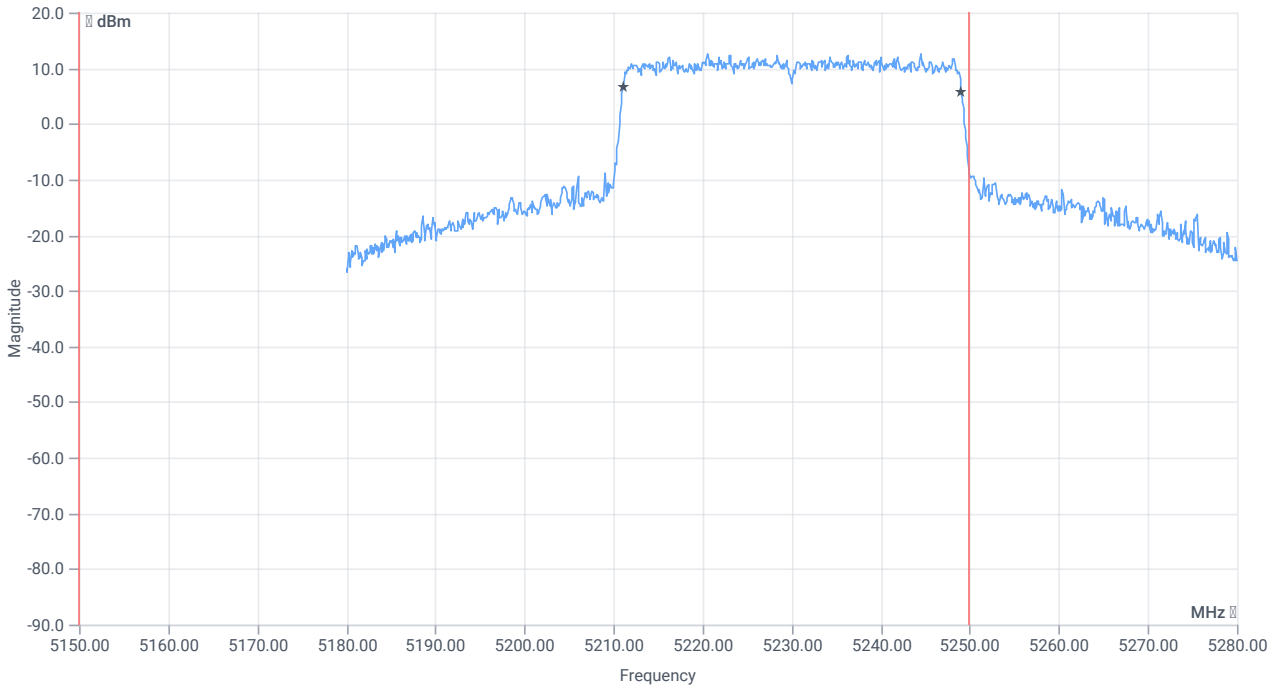
| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Ref. Power 1MHz/1MHz cond. | --- | --- | 13.90 | dBm | INFO |
| Ref. Frequency | --- | --- | 5220.410 | MHz | INFO |

READ SA SETTINGS:

| | |
|---|---|
| RefLevel [dBm] \| RefLevelOffset [dB] \| InpAtt [dB] | 21.90 \| 16.45 \| 25 |
| Start [MHz] \| Stop [MHz] | 5180.000 \| 5280.000 |
| RBW [MHz] \| VBW [MHz] | 0.500000 \| 3.000000 |
| Detector \| TraceMode | POS \| MAXH |
| Sweep: time [ms] \| count \| points per Section \| type | 1 \| 2500 \| 1001 \| SWE |



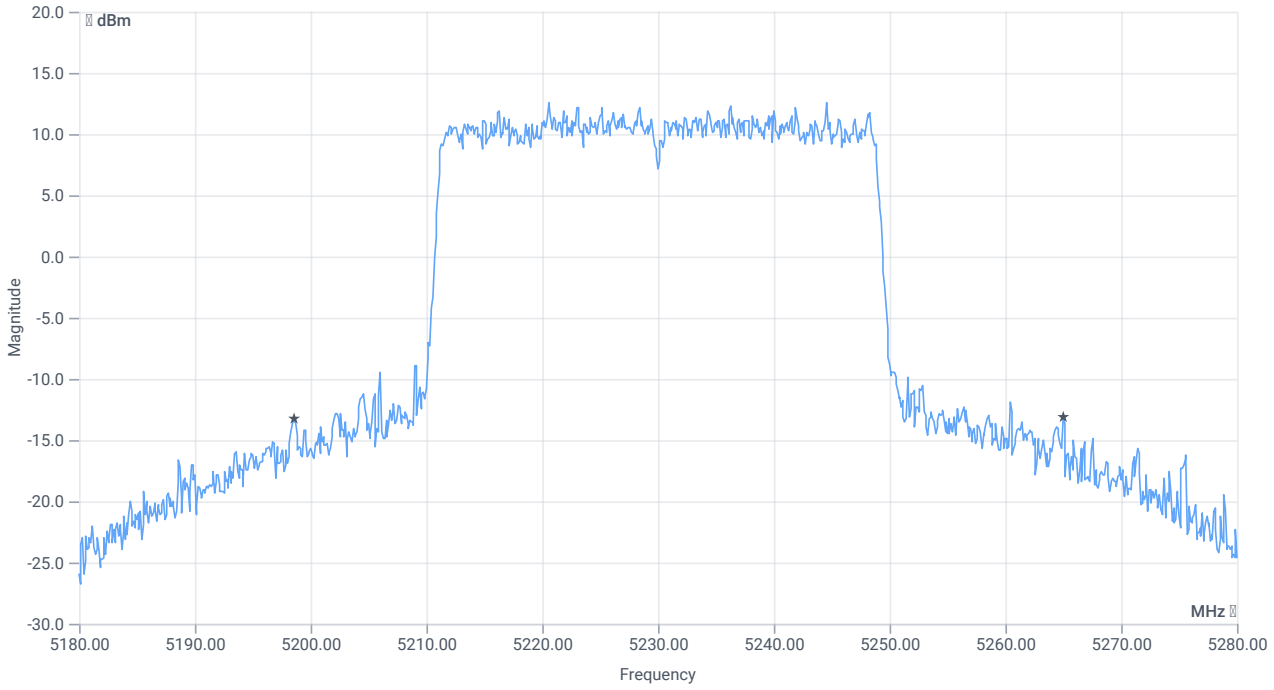

*BW 99PCT*



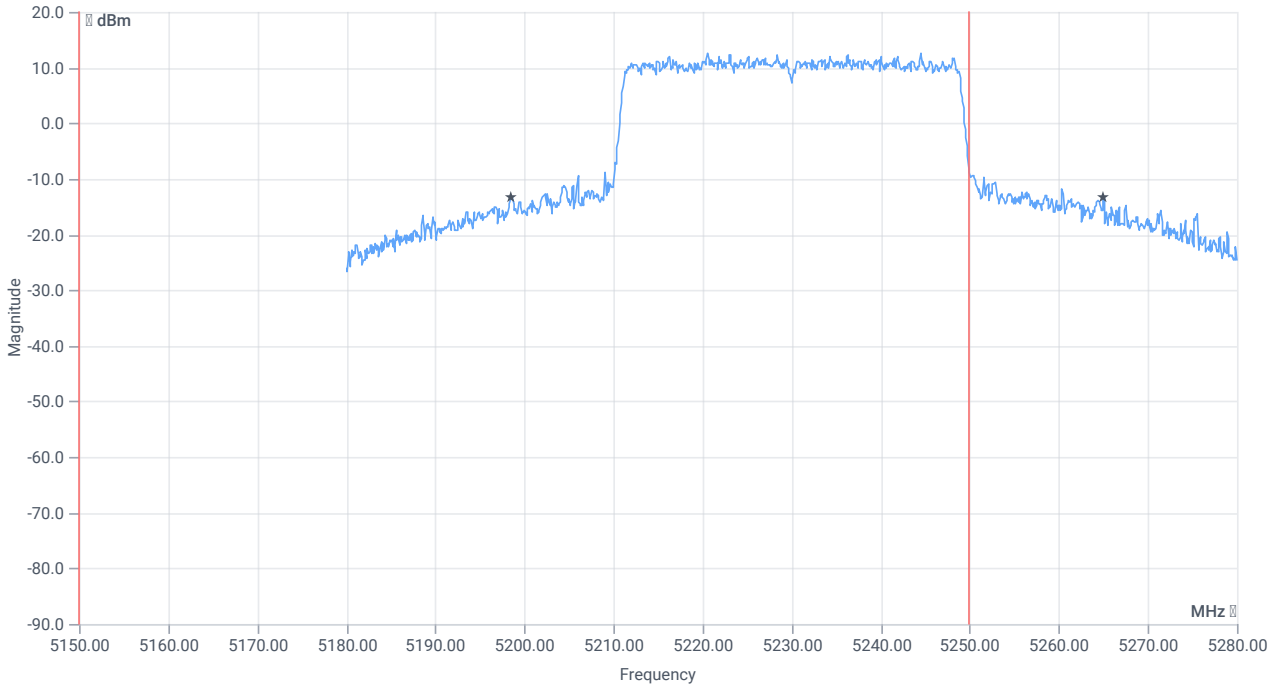

*BW within Band 99PCT*

## RESULT

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Bandwidth 99% | --- | --- | 37.862 | MHz | INFO |
| T1 99% | 5150.000000 | --- | 5211.1189 | MHz | PASS |
| T2 99% | --- | 5250.000000 | 5248.9810 | MHz | PASS |



*BW 26dB*




*BW within Band 26dB*

## RESULT

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Bandwidth 26dB | --- | --- | 66.5 | MHz | INFO |
| T1 26dB | 5150.000000 | --- | 5198.5000 | MHz | PASS |
| T2 26dB | --- | 5250.000000 | 5265.0000 | MHz | DFS required |

| Verdict |
|---|
| PASS |

# FCC 15.407 # MIMO ∑ Max output power and psd ~ WLAN5Gx ax-HE40 U-NII-1

## References

| | |
|---|---|
| TC start | 19.01.2024 10:22:49 |
| Ambit temp [°C] \| humidity [rel%] | 21.7 \| 28 |
| System version | 4.7.1.5 |
| Standard \| Version | FCC 15.407 \| NI |
| Method | |
| Description | MIMO ∑ FCC Power & psd - WLAN5Gx ax-HE40 U-NII-1 |
| Information | |

## EUT Common Settings WLAN5Gx

| | |
|---|---|
| Number of Antenna Ports | 2 |
| User Interaction | No |
| Device Class UNII_1 | Client |
| Limit W52 Japan | Standard |

## Test Parameter

| | |
|---|---|
| Technology to test | WLAN5Gx ax-HE40 |
| Antenna port used | several |
| Temperature | nom |
| Voltage | nom |
| Frequency low to test | False \| Freq [MHz] 5190 |
| Frequency mid to test | False \| Freq [MHz] 0 |
| Frequency high to test | True \| Freq [MHz] 5230 |
| Auto control enabled power supply \| Climatic Box | No \| No |
| Additional path loss [dB] | 1.4 |
| Full path name \| type | None |

## Equipment

## Test at TX 5230 MHz

### RESULT Power

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Ant:1 Max Output Power DC corrected | --- | --- | 19.1 | dBm | INFO |
| Ant:1 BW 26dB | --- | --- | 72.240 | MHz | INFO |
| Ant:2 Max Output Power DC corrected | --- | --- | 19.63 | dBm | INFO |
| Ant:2 BW 26dB | --- | --- | 60.320 | MHz | INFO |
| ∑ Limit absolute | --- | 24 | 22.38 | dBm | PASS |
| ∑ Limit: 11 dBm + 10 log 60.32 | --- | 28.8 | 22.38 | dBm | na |

### RESULT PSD

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Ant:1 PSD | --- | --- | 3.9 | dBm/1MHz | INFO |
| Ant:2 PSD | --- | --- | 4.54 | dBm/1MHz | INFO |
| ∑ | --- | 11 | 7.24 | dBm/1MHz | PASS |

| Verdict |
|---|
| PASS |

# FCC 15.407 # Max output power and psd ~ WLAN5Gx ax-HE40 U-NII-2A

## References

| | |
|---|---|
| TC start | 19.01.2024 10:24:07 |
| Ambit temp [°C] \| humidity [rel%] | 21.7 \| 29 |
| System version | 4.7.1.5 |
| Standard \| Version | FCC 15.407 \| NI |
| Method | KDB789033 D02, F., E.2.e. |
| Description | FCC 15.407 Max Output Power & PSD - WLAN5Gx ax-HE40 U-NII-2A |
| Information | |

## EUT Common Settings WLAN5Gx

| | |
|---|---|
| Number of Antenna Ports | 2 |
| User Interaction | No |
| Device Class UNII_1 | Client |
| Limit W52 Japan | Standard |

## Test Parameter

| | |
|---|---|
| Technology to test | WLAN5Gx ax-HE40 |
| Antenna port used | 1 |
| Temperature | nom |
| Voltage | nom |
| Frequency low to test | True \| Freq [MHz] 5270 |
| Frequency mid to test | False \| Freq [MHz] 0 |
| Frequency high to test | False \| Freq [MHz] 5310 |
| Auto control enabled power supply \| Climatic Box | No \| No |
| Additional path loss [dB] | 1.4 |
| Full path name \| type | EUT - SignalingUnit - SpectrumAnalyzer |

## Equipment

| |
|---|
| Signal analyzer,Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.70 |
| Switch matrix,CTCadvanced,SPM-4 NI DAQ,28016133,NI |

## Test at TX 5270 MHz

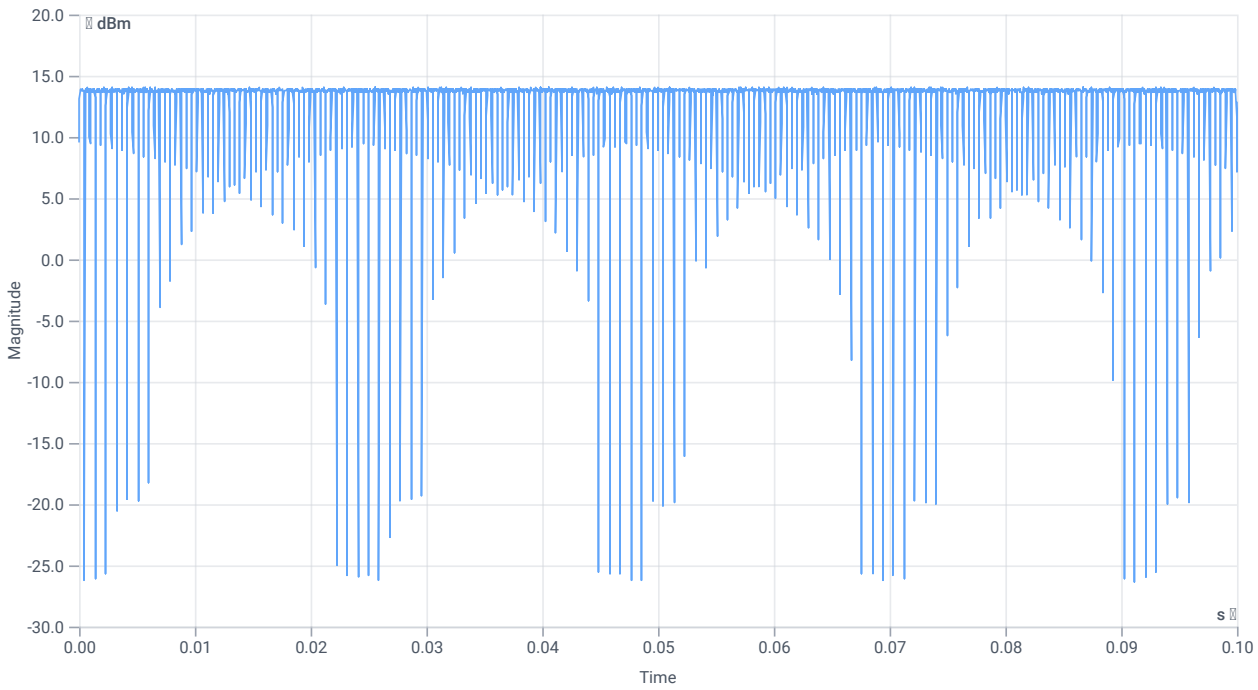
RESULT: Reference Power cond.

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Ref. Power 1MHz/1MHz cond. | --- | --- | 13.76 | dBm | INFO |
| Ref. Frequency | --- | --- | 5273.600 | MHz | INFO |

### Evaluation max. Duty Cycle

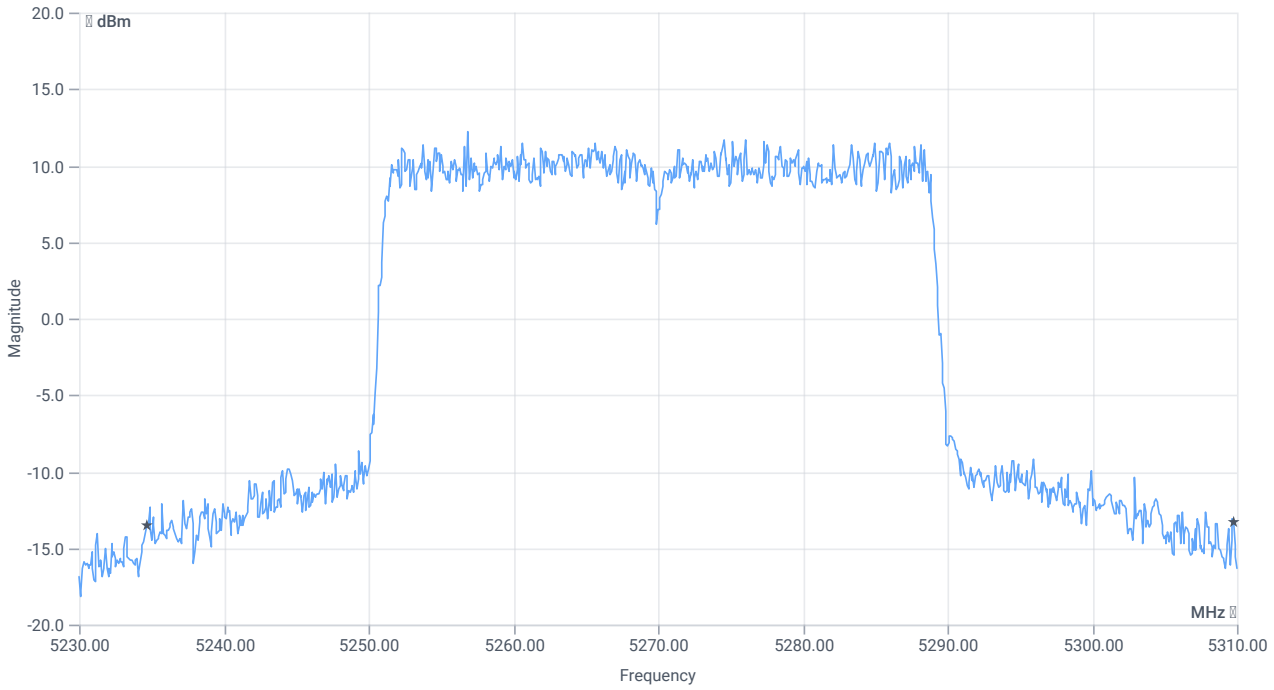
Duty Cycle evaluation

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Result Summary | | | | | |
| Number of detected Bursts:86 | | | | | |
| Duty Cycle (Burst Ratio) max | --- | --- | 0.988 | --- | INFO |
| Duty Cycle max | --- | --- | 0.052 | dB | INFO |
| Duty Cycle (Burst Ratio) min | --- | --- | 0.919 | --- | INFO |
| Duty Cycle min | --- | --- | 0.367 | dB | INFO |
| Max TX Burst Length | --- | --- | 5.95 | ms | INFO |
| Min Gap Length | --- | --- | 0.075 | ms | INFO |
| Max Gap Length | --- | --- | 0.075 | ms | INFO |




*Duty cycle*

### Evaluation Bandwidth




*BW 26dB*

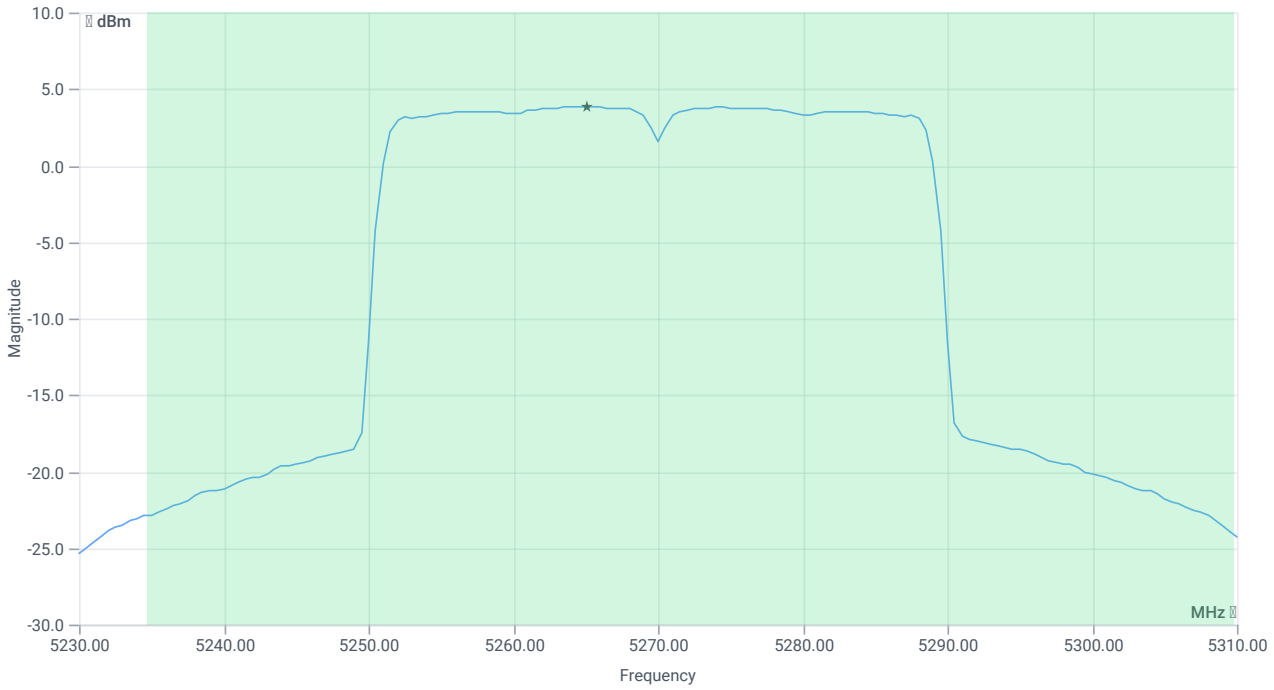
## RESULT

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Bandwidth 26dB | --- | --- | 75.12 | MHz | INFO |
| T1 26dB | --- | --- | 5234.6400 | MHz | INFO |
| T2 26dB | --- | --- | 5309.7600 | MHz | INFO |

## Maximum Output Power

## READ SA SETTINGS:

| | |
|---|---|
| RefLevel [dBm] \| RefLevelOffset [dB] \| InpAtt [dB] | 25.76 \| 16.32 \| 25 |
| Start [MHz] \| Stop [MHz] | 5230.000 \| 5310.000 |
| RBW [MHz] \| VBW [MHz] | 1.000000 \| 3.000000 |
| Detector \| TraceMode | RMS \| MAXH |
| Sweep: time [ms] \| count \| points per Section \| type | 53700 \| 1 \| 161 \| SWE |




*Max OP and PSD*

## RESULT

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Max Output Power | --- | --- | 18.99 | dBm | INFO |
| Duty Cycle Correction | --- | --- | 0.37 | dB | INFO |
| Limit absolute | | | | | |
| Max Output Power DC corrected | --- | 24 | 19.36 | dBm | PASS |
| Limit: 11 dBm + 10 log 75.12 | | | | | |
| Max Output Power DC corrected | --- | 29.76 | 19.36 | dBm | PASS |

## Power Spectral Density

## RESULT

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Power Spectral Density | --- | --- | 3.82 | dBm/1MHz | INFO |
| Duty Cycle Correction | --- | --- | 0.37 | dB | INFO |
| Power Spectral Density DC corrected | --- | 11 | 4.19 | dBm/1MHz | PASS |

| Verdict |
|---|
| PASS |

# FCC 15.407, ISED RSS247 # Bandwidths 99PCT and 20dB ~ WLAN5Gx ax-HE40 U-NII-2A

## References

| | |
|---|---|
| TC start | 19.01.2024 10:25:37 |
| Ambit temp [°C] \| humidity [rel%] | 21.7 \| 28 |
| System version | 4.7.1.5 |
| Standard \| Version | FCC 15.407, ISED RSS247 \| NI |
| Method | 26dB Bandwidth KDB789033 D02, C.1 / ISED RSS-GEN |
| Description | FCC 15.407 Bandwidths - WLAN5Gx ax-HE40 U-NII-2A |
| Information | |

## EUT Common Settings WLAN5Gx

| | |
|---|---|
| Number of Antenna Ports | 2 |
| User Interaction | No |
| Device Class UNII_1 | Client |
| Limit W52 Japan | Standard |

## Test Parameter

| | |
|---|---|
| Technology to test | WLAN5Gx ax-HE40 |
| Antenna port used | 1 |
| Temperature | nom |
| Voltage | nom |
| Frequency low to test | True \| Freq [MHz] 5270 |
| Frequency mid to test | False \| Freq [MHz] 0 |
| Frequency high to test | False \| Freq [MHz] 5310 |
| Auto control enabled power supply \| Climatic Box | No \| No |
| Additional path loss [dB] | 1.4 |
| Full path name \| type | EUT - SignalingUnit - SpectrumAnalyzer |

## Equipment

| |
|---|
| Signal analyzer,Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.70 |
| Switch matrix,CTCadvanced,SPM-4 NI DAQ,28016133,NI |

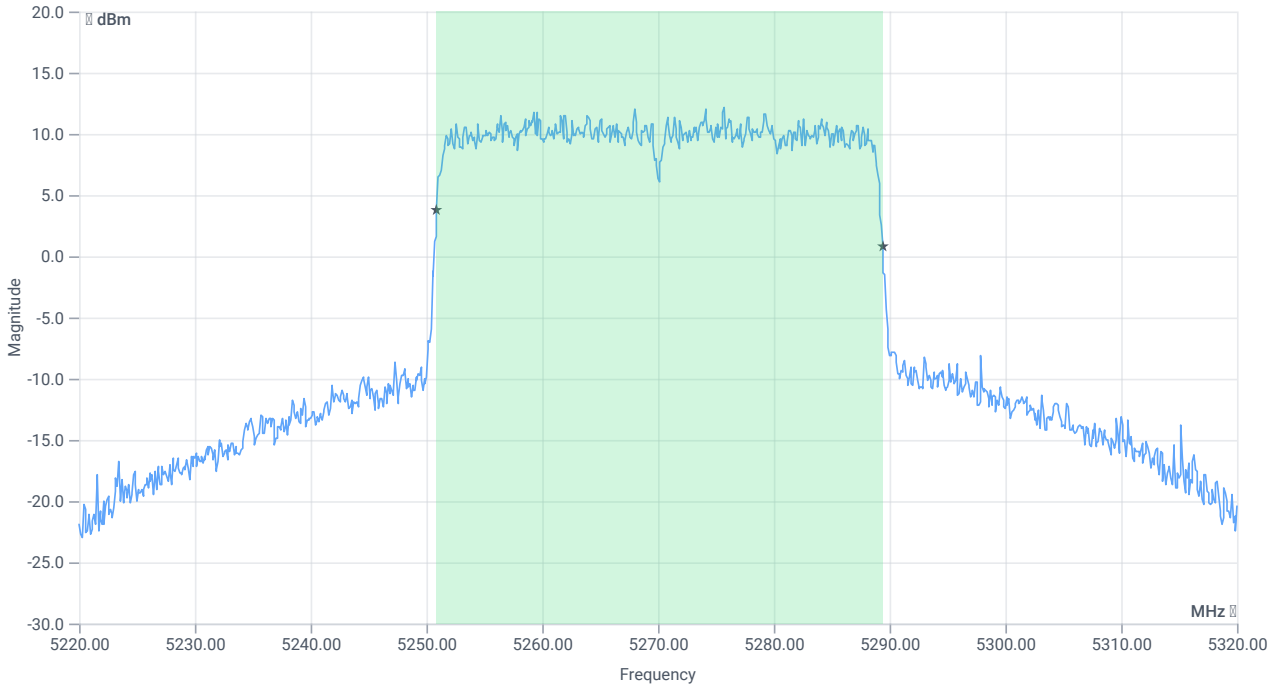
## Test at TX 5270 MHz

RESULT: Reference Power cond.

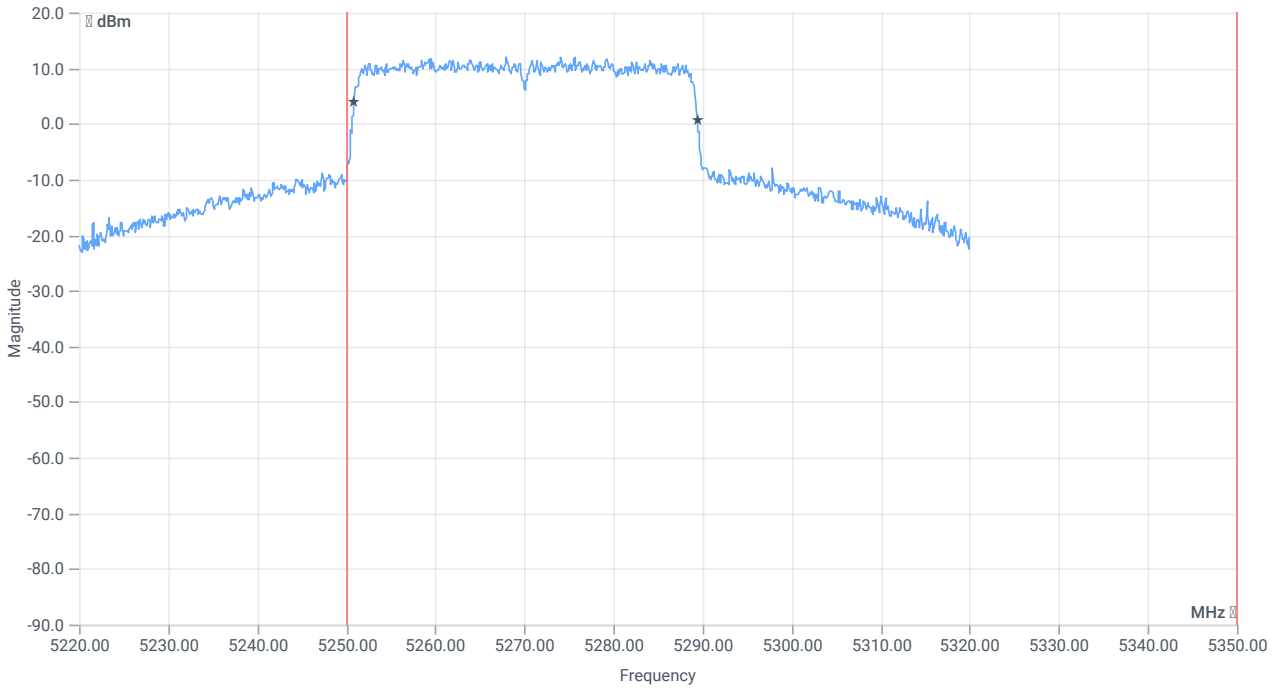
| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Ref. Power 1MHz/1MHz cond. | --- | --- | 13.48 | dBm | INFO |
| Ref. Frequency | --- | --- | 5266.400 | MHz | INFO |

READ SA SETTINGS:

| | |
|---|---|
| RefLevel [dBm] \| RefLevelOffset [dB] \| InpAtt [dB] | 21.48 \| 16.32 \| 25 |
| Start [MHz] \| Stop [MHz] | 5220.000 \| 5320.000 |
| RBW [MHz] \| VBW [MHz] | 0.500000 \| 3.000000 |
| Detector \| TraceMode | POS \| MAXH |
| Sweep: time [ms] \| count \| points per Section \| type | 1 \| 2500 \| 1001 \| SWE |



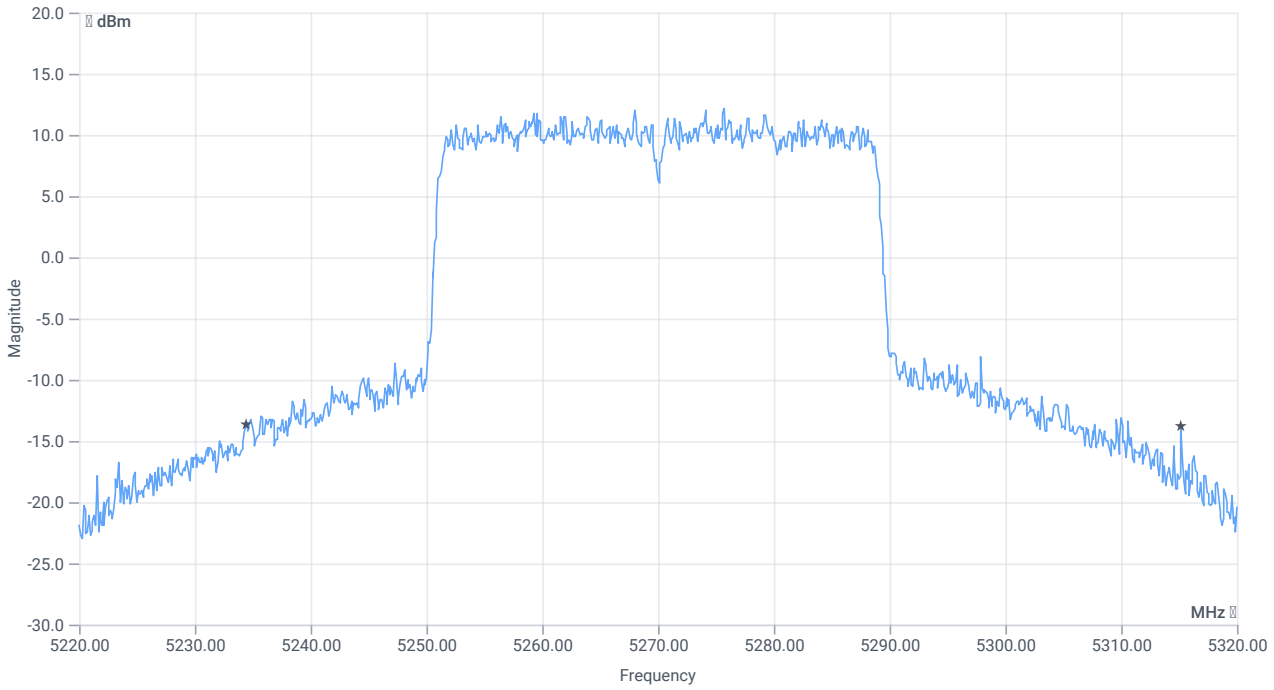

*BW 99PCT*



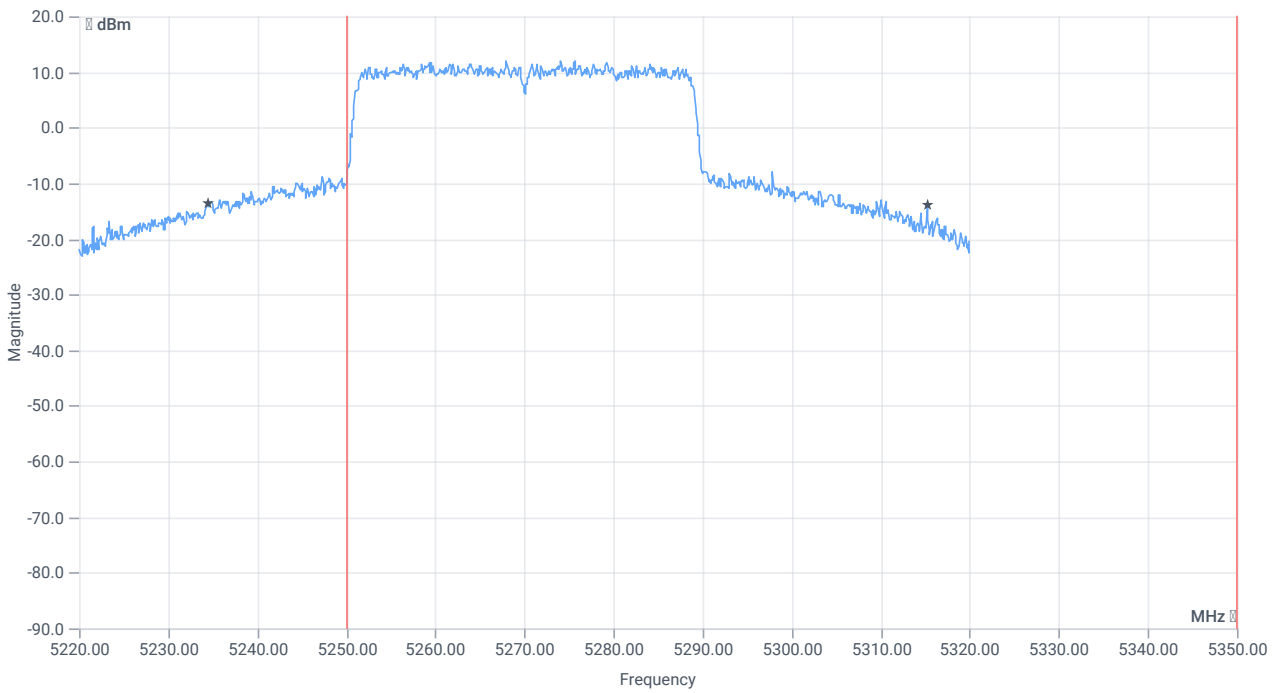

*BW within Band 99PCT*

## RESULT

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Bandwidth 99% | --- | --- | 38.462 | MHz | INFO |
| T1 99% | 5250.000000 | --- | 5250.9191 | MHz | PASS since U-NII-1 is supported |
| T2 99% | --- | 5350.000000 | 5289.3806 | MHz | PASS |




*BW 26dB*




*BW within Band 26dB*

## RESULT

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Bandwidth 26dB | --- | --- | 80.8 | MHz | INFO |

## RESULT

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| T1 26dB | 5250.000000 | --- | 5234.4000 | MHz | PASS since U-NII-1 is supported |
| T2 26dB | --- | 5350.000000 | 5315.2000 | MHz | PASS |

| Verdict |
|---|
| PASS |

# FCC 15.407 # Max output power and psd ~ WLAN5Gx ax-HE40 U-NII-2A

## References

| | |
|---|---|
| TC start | 19.01.2024 10:26:16 |
| Ambit temp [°C] \| humidity [rel%] | 21.7 \| 28 |
| System version | 4.7.1.5 |
| Standard \| Version | FCC 15.407 \| NI |
| Method | KDB789033 D02, F., E.2.e. |
| Description | FCC 15.407 Max Output Power & PSD - WLAN5Gx ax-HE40 U-NII-2A |
| Information | |

## EUT Common Settings WLAN5Gx

| | |
|---|---|
| Number of Antenna Ports | 2 |
| User Interaction | No |
| Device Class UNII_1 | Client |
| Limit W52 Japan | Standard |

## Test Parameter

| | |
|---|---|
| Technology to test | WLAN5Gx ax-HE40 |
| Antenna port used | 2 |
| Temperature | nom |
| Voltage | nom |
| Frequency low to test | True \| Freq [MHz] 5270 |
| Frequency mid to test | False \| Freq [MHz] 0 |
| Frequency high to test | False \| Freq [MHz] 5310 |
| Auto control enabled power supply \| Climatic Box | No \| No |
| Additional path loss [dB] | 1.4 |
| Full path name \| type | EUT - SignalingUnit - SpectrumAnalyzer |

## Equipment

| |
|---|
| Signal analyzer,Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.70 |
| Switch matrix,CTCadvanced,SPM-4 NI DAQ,28016133,NI |

## Test at TX 5270 MHz

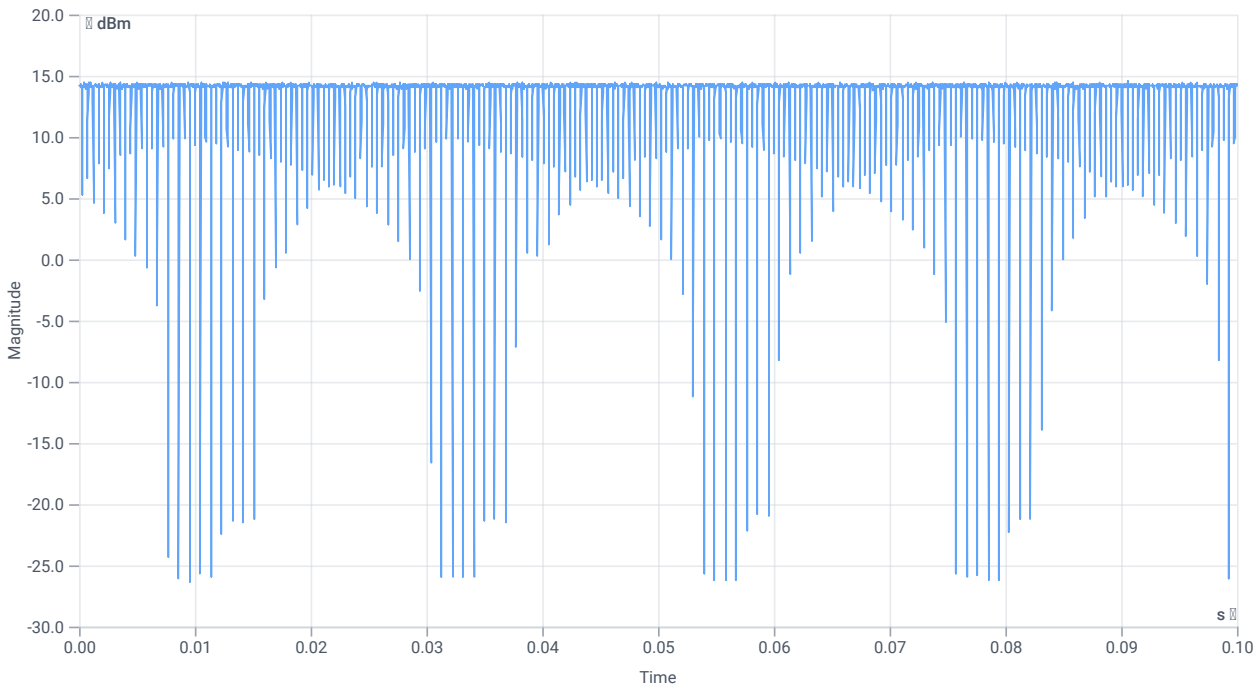
RESULT: Reference Power cond.

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Ref. Power 1MHz/1MHz cond. | --- | --- | 13.84 | dBm | INFO |
| Ref. Frequency | --- | --- | 5271.600 | MHz | INFO |

### Evaluation max. Duty Cycle

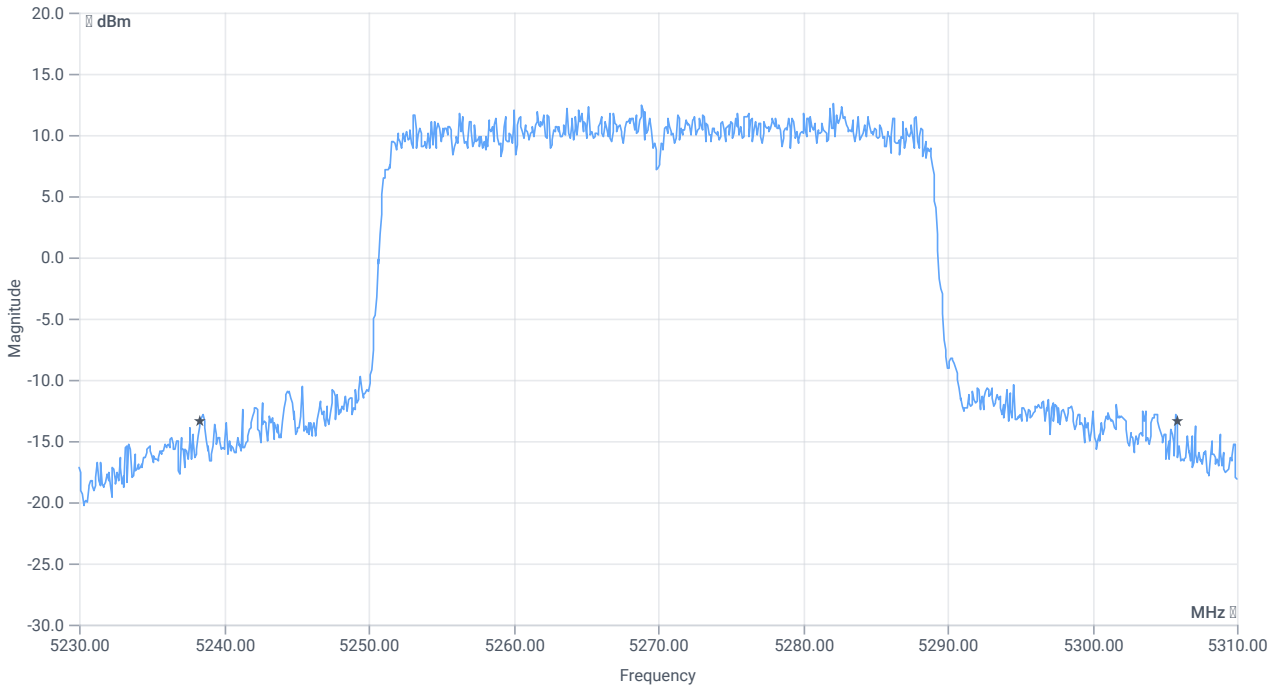
Duty Cycle evaluation

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Result Summary | | | | | |
| Number of detected Bursts:86 | | | | | |
| Duty Cycle (Burst Ratio) max | --- | --- | 0.988 | --- | INFO |
| Duty Cycle max | --- | --- | 0.052 | dB | INFO |
| Duty Cycle (Burst Ratio) min | --- | --- | 0.919 | --- | INFO |
| Duty Cycle min | --- | --- | 0.367 | dB | INFO |
| Max TX Burst Length | --- | --- | 5.95 | ms | INFO |
| Min Gap Length | --- | --- | 0.075 | ms | INFO |
| Max Gap Length | --- | --- | 0.075 | ms | INFO |




*Duty cycle*

### Evaluation Bandwidth




*BW 26dB*

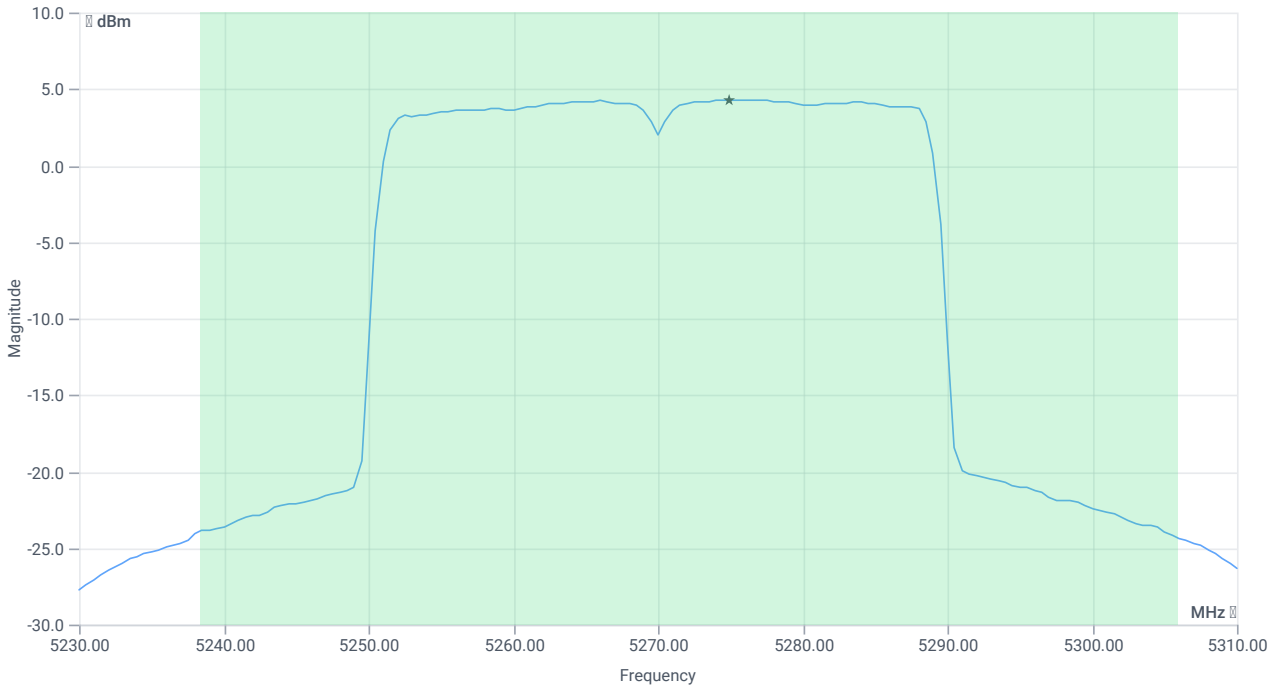
## RESULT

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Bandwidth 26dB | --- | --- | 67.44 | MHz | INFO |
| T1 26dB | --- | --- | 5238.4000 | MHz | INFO |
| T2 26dB | --- | --- | 5305.8400 | MHz | INFO |

## Maximum Output Power

## READ SA SETTINGS:

| | |
|---|---|
| RefLevel [dBm] \| RefLevelOffset [dB] \| InpAtt [dB] | 25.84 \| 16.32 \| 25 |
| Start [MHz] \| Stop [MHz] | 5230.000 \| 5310.000 |
| RBW [MHz] \| VBW [MHz] | 1.000000 \| 3.000000 |
| Detector \| TraceMode | RMS \| MAXH |
| Sweep: time [ms] \| count \| points per Section \| type | 53700 \| 1 \| 161 \| SWE |




*Max OP and PSD*

## RESULT

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Max Output Power | --- | --- | 19.37 | dBm | INFO |
| Duty Cycle Correction | --- | --- | 0.37 | dB | INFO |
| Limit absolute | | | | | |
| Max Output Power DC corrected | --- | 24 | 19.74 | dBm | PASS |
| Limit: 11 dBm + 10 log 67.44 | | | | | |
| Max Output Power DC corrected | --- | 29.29 | 19.74 | dBm | PASS |

## Power Spectral Density

## RESULT

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Power Spectral Density | --- | --- | 4.3 | dBm/1MHz | INFO |
| Duty Cycle Correction | --- | --- | 0.37 | dB | INFO |
| Power Spectral Density DC corrected | --- | 11 | 4.67 | dBm/1MHz | PASS |

| Verdict |
|---|
| PASS |

# FCC 15.407, ISED RSS247 # Bandwidths 99PCT and 20dB ~ WLAN5Gx ax-HE40 U-NII-2A

## References

| | |
|---|---|
| TC start | 19.01.2024 10:27:46 |
| Ambit temp [°C] \| humidity [rel%] | 21.7 \| 27 |
| System version | 4.7.1.5 |
| Standard \| Version | FCC 15.407, ISED RSS247 \| NI |
| Method | 26dB Bandwidth KDB789033 D02, C.1 / ISED RSS-GEN |
| Description | FCC 15.407 Bandwidths - WLAN5Gx ax-HE40 U-NII-2A |
| Information | |

## EUT Common Settings WLAN5Gx

| | |
|---|---|
| Number of Antenna Ports | 2 |
| User Interaction | No |
| Device Class UNII_1 | Client |
| Limit W52 Japan | Standard |

## Test Parameter

| | |
|---|---|
| Technology to test | WLAN5Gx ax-HE40 |
| Antenna port used | 2 |
| Temperature | nom |
| Voltage | nom |
| Frequency low to test | True \| Freq [MHz] 5270 |
| Frequency mid to test | False \| Freq [MHz] 0 |
| Frequency high to test | False \| Freq [MHz] 5310 |
| Auto control enabled power supply \| Climatic Box | No \| No |
| Additional path loss [dB] | 1.4 |
| Full path name \| type | EUT - SignalingUnit - SpectrumAnalyzer |

## Equipment

| |
|---|
| Signal analyzer,Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.70 |
| Switch matrix,CTCadvanced,SPM-4 NI DAQ,28016133,NI |

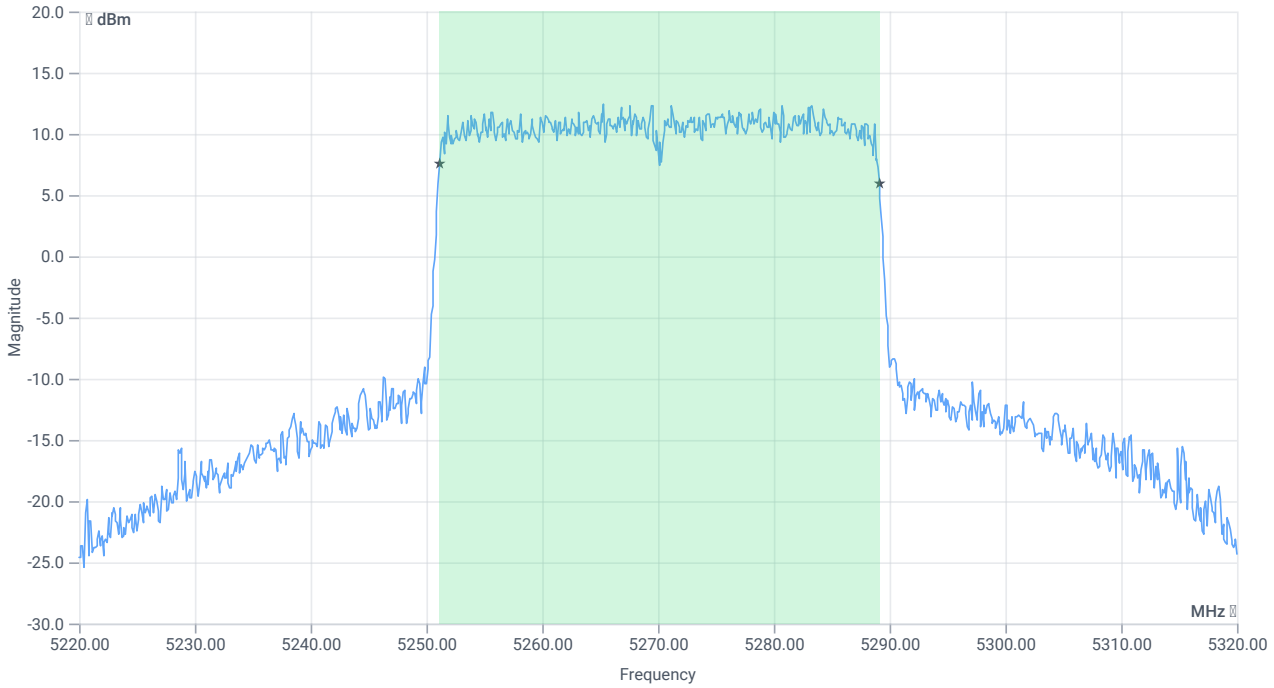
## Test at TX 5270 MHz

RESULT: Reference Power cond.

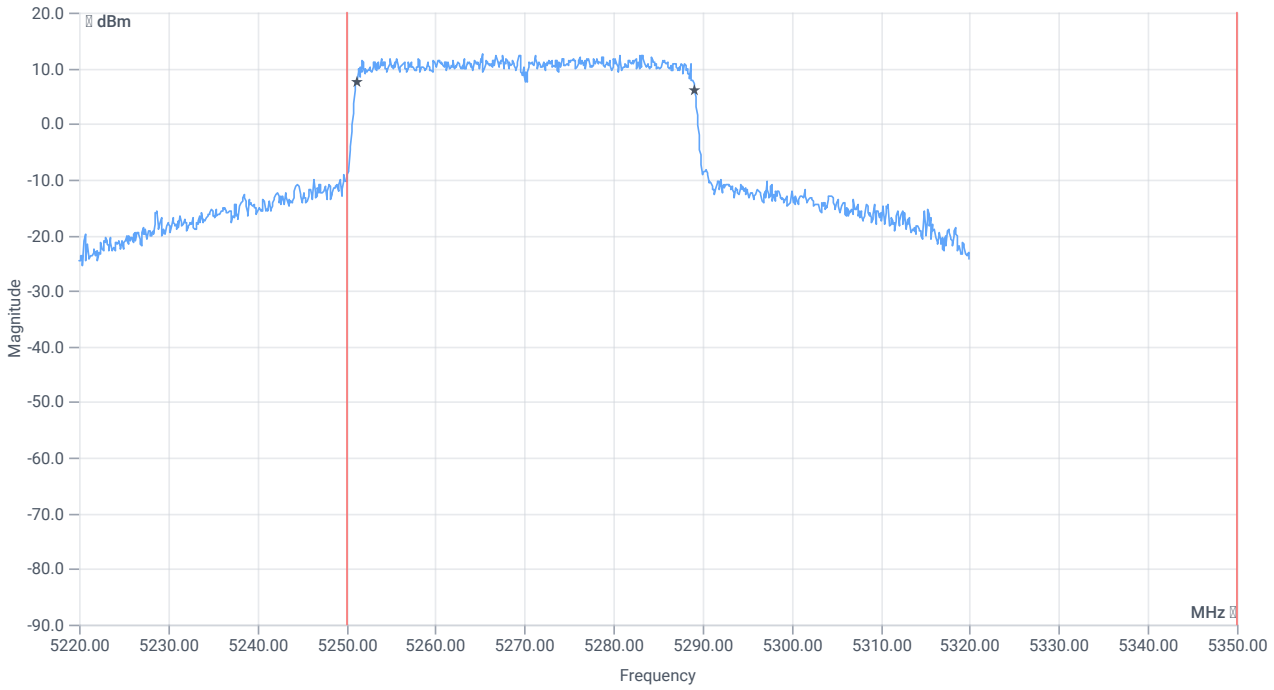
| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Ref. Power 1MHz/1MHz cond. | --- | --- | 13.65 | dBm | INFO |
| Ref. Frequency | --- | --- | 5255.210 | MHz | INFO |

READ SA SETTINGS:

| | |
|---|---|
| RefLevel [dBm] \| RefLevelOffset [dB] \| InpAtt [dB] | 21.65 \| 16.32 \| 25 |
| Start [MHz] \| Stop [MHz] | 5220.000 \| 5320.000 |
| RBW [MHz] \| VBW [MHz] | 0.500000 \| 3.000000 |
| Detector \| TraceMode | POS \| MAXH |
| Sweep: time [ms] \| count \| points per Section \| type | 1 \| 2500 \| 1001 \| SWE |



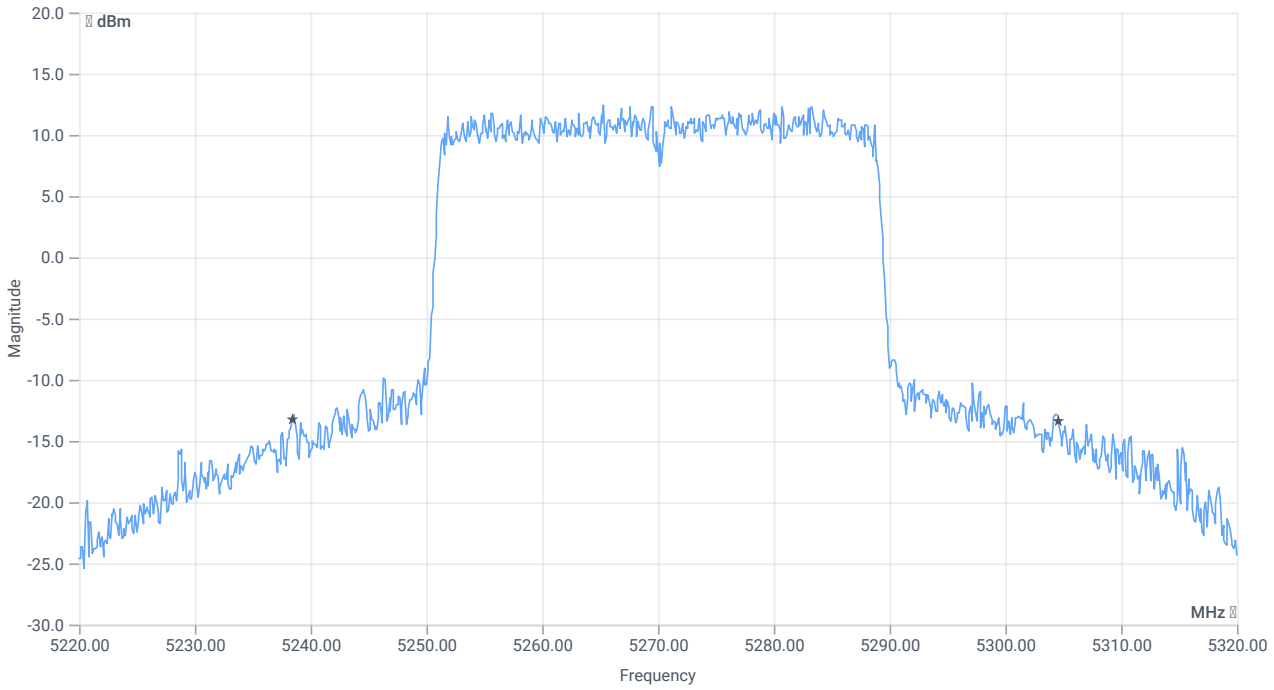

*BW 99PCT*



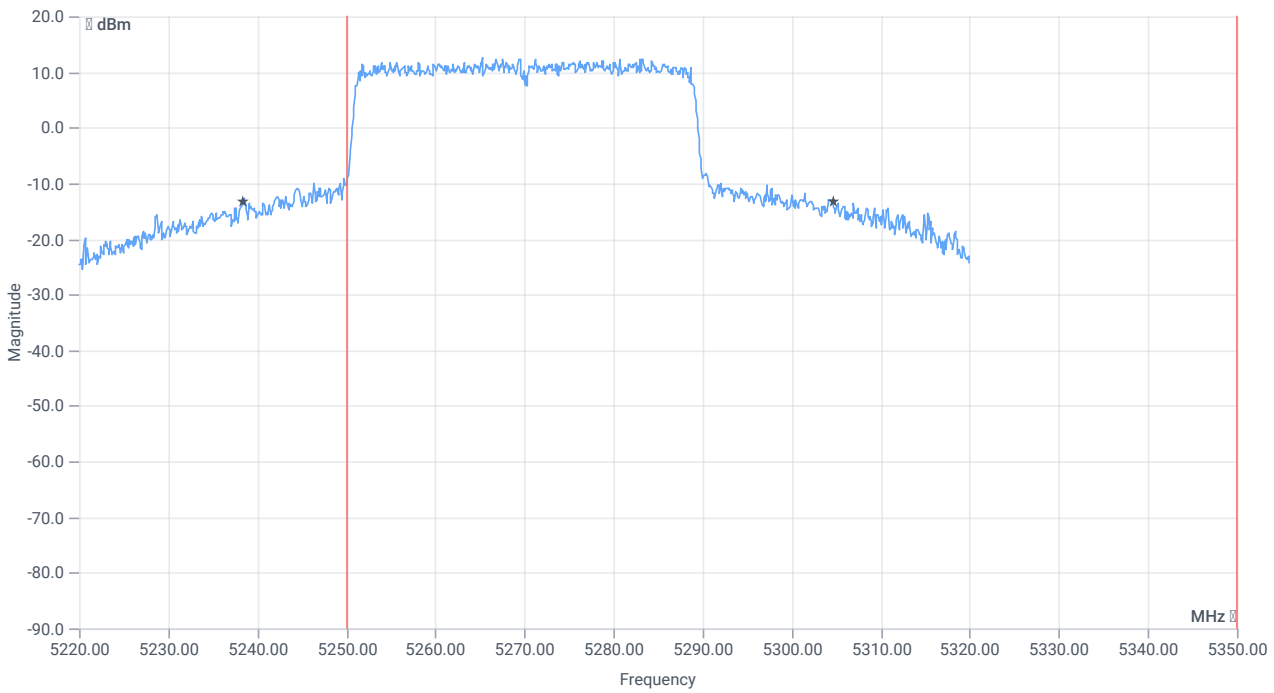

*BW within Band 99PCT*

## RESULT

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Bandwidth 99% | --- | --- | 37.962 | MHz | INFO |
| T1 99% | 5250.000000 | --- | 5251.1189 | MHz | PASS since U-NII-1 is supported |
| T2 99% | --- | 5350.000000 | 5289.0809 | MHz | PASS |




*BW 26dB*




*BW within Band 26dB*

## RESULT

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Bandwidth 26dB | --- | --- | 66.2 | MHz | INFO |

RESULT

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| T1 26dB | 5250.000000 | --- | 5238.4000 | MHz | PASS since U-NII-1 is supported |
| T2 26dB | --- | 5350.000000 | 5304.6000 | MHz | PASS |

| Verdict |
|---|
| PASS |

# FCC 15.407 # MIMO ∑ Max output power and psd ~ WLAN5Gx ax-HE40 U-NII-2A

## References

| | |
|---|---|
| TC start | 19.01.2024 10:28:24 |
| Ambit temp [°C] \| humidity [rel%] | 21.8 \| 27 |
| System version | 4.7.1.5 |
| Standard \| Version | FCC 15.407 \| NI |
| Method | |
| Description | MIMO ∑ FCC Power & psd - WLAN5Gx ax-HE40 U-NII-2A |
| Information | |

## EUT Common Settings WLAN5Gx

| | |
|---|---|
| Number of Antenna Ports | 2 |
| User Interaction | No |
| Device Class UNII_1 | Client |
| Limit W52 Japan | Standard |

## Test Parameter

| | |
|---|---|
| Technology to test | WLAN5Gx ax-HE40 |
| Antenna port used | several |
| Temperature | nom |
| Voltage | nom |
| Frequency low to test | True \| Freq [MHz] 5270 |
| Frequency mid to test | False \| Freq [MHz] 0 |
| Frequency high to test | False \| Freq [MHz] 5310 |
| Auto control enabled power supply \| Climatic Box | No \| No |
| Additional path loss [dB] | 1.4 |
| Full path name \| type | None |

## Equipment

## Test at TX 5270 MHz

### RESULT Power

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Ant:2 Max Output Power DC corrected | --- | --- | 19.74 | dBm | INFO |
| Ant:2 BW 26dB | --- | --- | 67.440 | MHz | INFO |
| Ant:1 Max Output Power DC corrected | --- | --- | 19.36 | dBm | INFO |
| Ant:1 BW 26dB | --- | --- | 75.120 | MHz | INFO |
| ∑ Limit absolute | --- | 24 | 22.56 | dBm | PASS |
| ∑ Limit: 11 dBm + 10 log 67.44 | --- | 29.29 | 22.56 | dBm | PASS |

### RESULT PSD

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Ant:2 PSD | --- | --- | 4.67 | dBm/1MHz | INFO |
| Ant:1 PSD | --- | --- | 4.19 | dBm/1MHz | INFO |
| ∑ | --- | 11 | 7.45 | dBm/1MHz | PASS |

| Verdict |
|---|
| PASS |

# FCC 15.407 # Max output power and psd ~ WLAN5Gx ax-HE40 U-NII-2A

## References

| | |
|---|---|
| TC start | 19.01.2024 10:29:44 |
| Ambit temp [°C] \| humidity [rel%] | 21.8 \| 28 |
| System version | 4.7.1.5 |
| Standard \| Version | FCC 15.407 \| NI |
| Method | KDB789033 D02, F., E.2.e. |
| Description | FCC 15.407 Max Output Power & PSD - WLAN5Gx ax-HE40 U-NII-2A |
| Information | |

## EUT Common Settings WLAN5Gx

| | |
|---|---|
| Number of Antenna Ports | 2 |
| User Interaction | No |
| Device Class UNII_1 | Client |
| Limit W52 Japan | Standard |

## Test Parameter

| | |
|---|---|
| Technology to test | WLAN5Gx ax-HE40 |
| Antenna port used | 1 |
| Temperature | nom |
| Voltage | nom |
| Frequency low to test | False \| Freq [MHz] 5270 |
| Frequency mid to test | False \| Freq [MHz] 0 |
| Frequency high to test | True \| Freq [MHz] 5310 |
| Auto control enabled power supply \| Climatic Box | No \| No |
| Additional path loss [dB] | 1.4 |
| Full path name \| type | EUT - SignalingUnit - SpectrumAnalyzer |

## Equipment

| |
|---|
| Signal analyzer,Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.70 |
| Switch matrix,CTCadvanced,SPM-4 NI DAQ,28016133,NI |

## Test at TX 5310 MHz

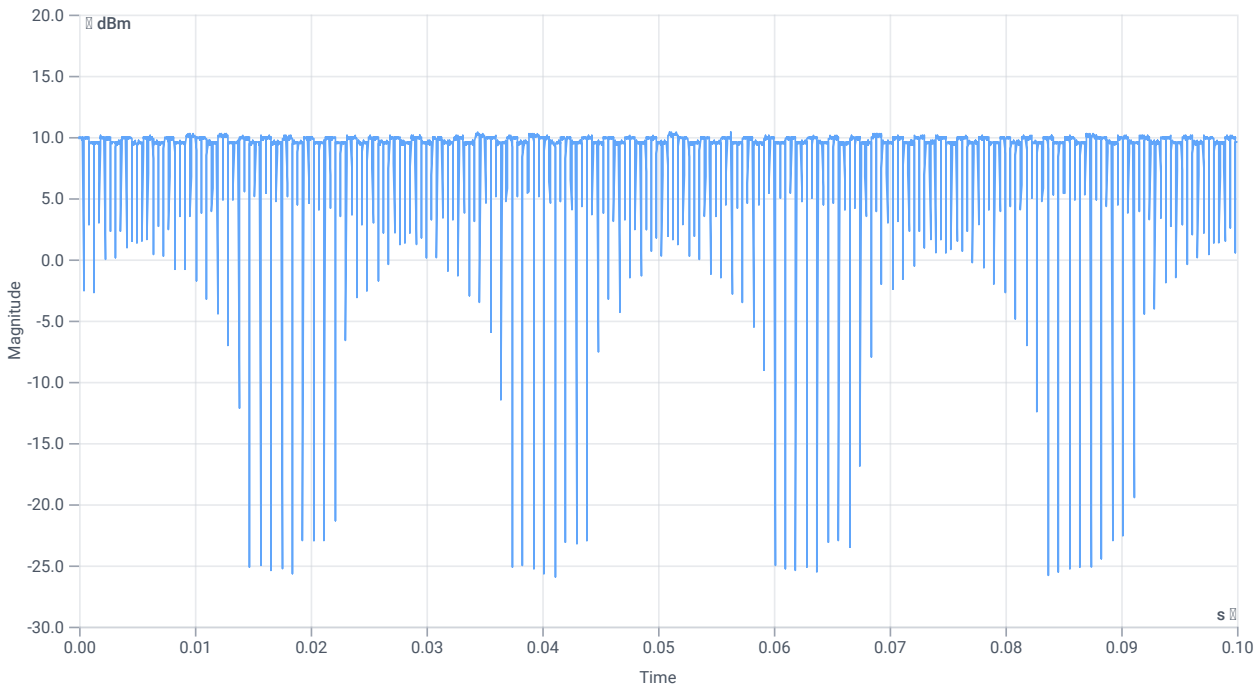
RESULT: Reference Power cond.

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Ref. Power 1MHz/1MHz cond. | --- | --- | 9.87 | dBm | INFO |
| Ref. Frequency | --- | --- | 5299.810 | MHz | INFO |

### Evaluation max. Duty Cycle

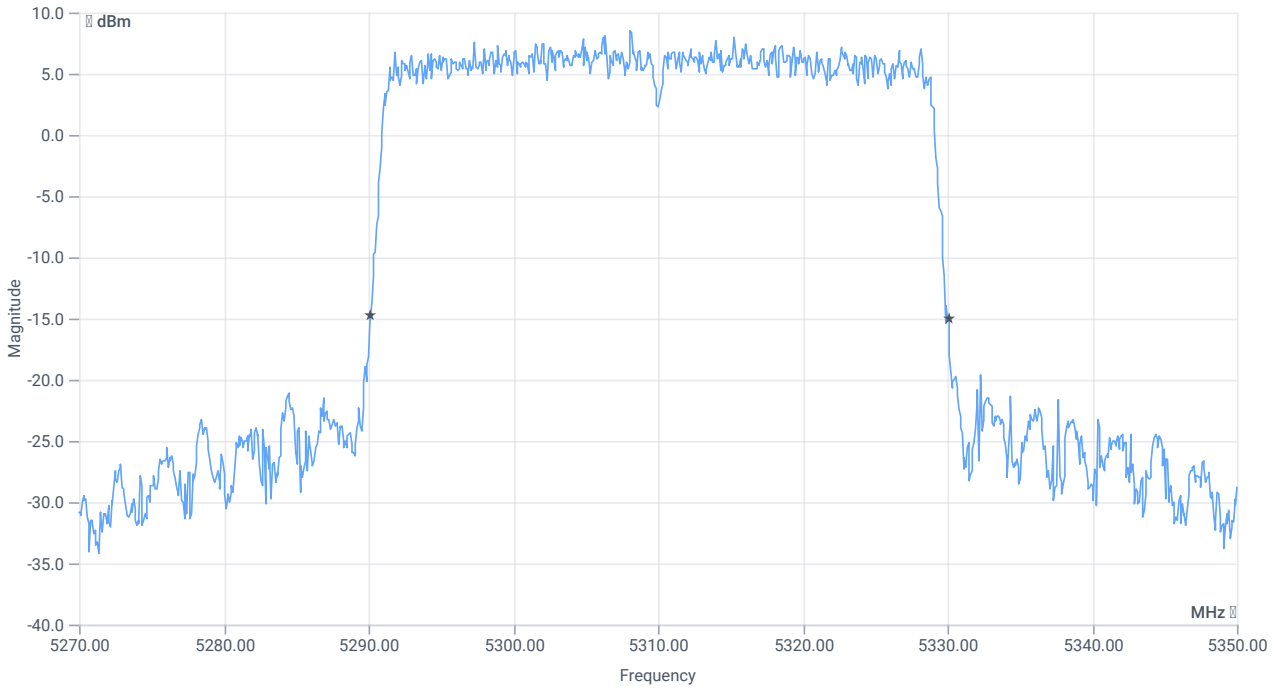
Duty Cycle evaluation

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Result Summary | | | | | |
| Number of detected Bursts:92 | | | | | |
| Duty Cycle (Burst Ratio) max | --- | --- | 0.985 | --- | INFO |
| Duty Cycle max | --- | --- | 0.066 | dB | INFO |
| Duty Cycle (Burst Ratio) min | --- | --- | 0.919 | --- | INFO |
| Duty Cycle min | --- | --- | 0.367 | dB | INFO |
| Max TX Burst Length | --- | --- | 5.025 | ms | INFO |
| Min Gap Length | --- | --- | 0.075 | ms | INFO |
| Max Gap Length | --- | --- | 0.075 | ms | INFO |




*Duty cycle*

### Evaluation Bandwidth




*BW 26dB*

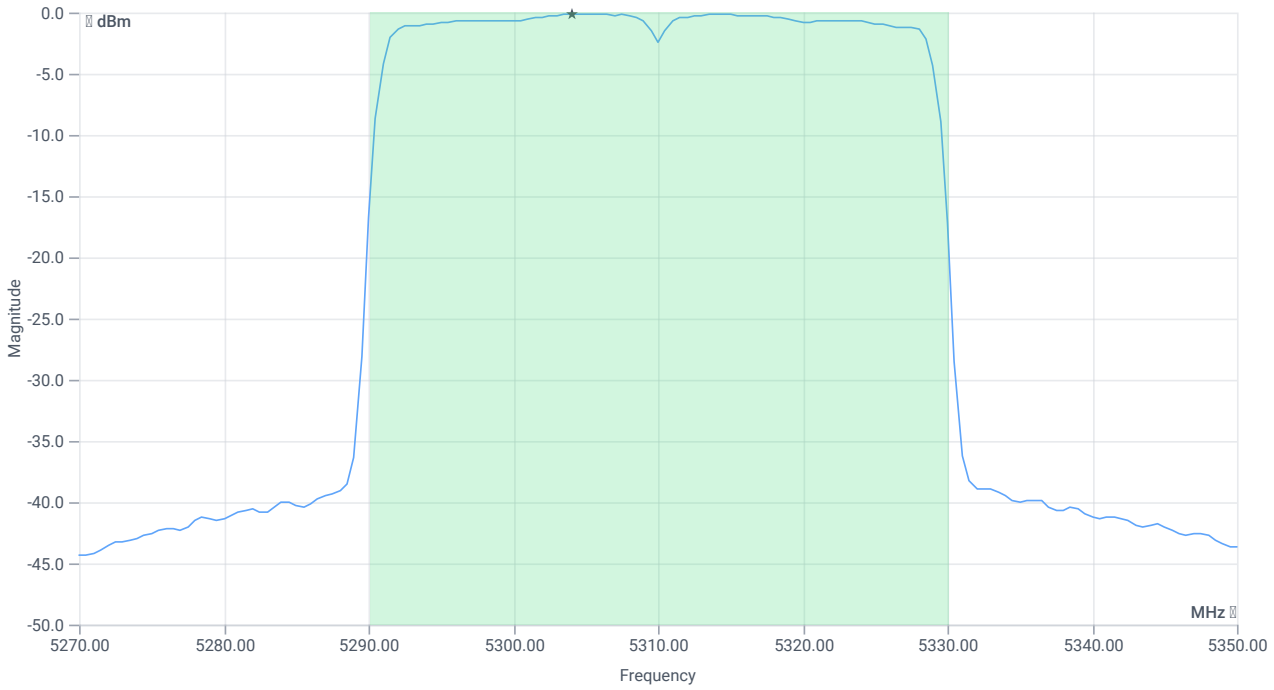
## RESULT

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Bandwidth 26dB | --- | --- | 40 | MHz | INFO |
| T1 26dB | --- | --- | 5290.0800 | MHz | INFO |
| T2 26dB | --- | --- | 5330.0800 | MHz | INFO |

## Maximum Output Power

## READ SA SETTINGS:

| | |
|---|---|
| RefLevel [dBm] \| RefLevelOffset [dB] \| InpAtt [dB] | 21.87 \| 16.22 \| 20 |
| Start [MHz] \| Stop [MHz] | 5270.000 \| 5350.000 |
| RBW [MHz] \| VBW [MHz] | 1.000000 \| 3.000000 |
| Detector \| TraceMode | RMS \| MAXH |
| Sweep: time [ms] \| count \| points per Section \| type | 53700 \| 1 \| 161 \| SWE |




*Max OP and PSD*

## RESULT

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Max Output Power | --- | --- | 14.86 | dBm | INFO |
| Duty Cycle Correction | --- | --- | 0.37 | dB | INFO |
| Limit absolute | | | | | |
| Max Output Power DC corrected | --- | 24 | 15.23 | dBm | PASS |
| Limit: 11 dBm + 10 log 40 | | | | | |
| Max Output Power DC corrected | --- | 27.02 | 15.23 | dBm | PASS |

## Power Spectral Density

## RESULT

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Power Spectral Density | --- | --- | -0.15 | dBm/1MHz | INFO |
| Duty Cycle Correction | --- | --- | 0.37 | dB | INFO |
| Power Spectral Density DC corrected | --- | 11 | 0.22 | dBm/1MHz | PASS |

| Verdict |
|---|
| PASS |

# FCC 15.407, ISED RSS247 # Bandwidths 99PCT and 20dB ~ WLAN5Gx ax-HE40 U-NII-2A

## References

| | |
|---|---|
| TC start | 19.01.2024 10:31:17 |
| Ambit temp [°C] \| humidity [rel%] | 21.7 \| 28 |
| System version | 4.7.1.5 |
| Standard \| Version | FCC 15.407, ISED RSS247 \| NI |
| Method | 26dB Bandwidth KDB789033 D02, C.1 / ISED RSS-GEN |
| Description | FCC 15.407 Bandwidths - WLAN5Gx ax-HE40 U-NII-2A |
| Information | |

## EUT Common Settings WLAN5Gx

| | |
|---|---|
| Number of Antenna Ports | 2 |
| User Interaction | No |
| Device Class UNII_1 | Client |
| Limit W52 Japan | Standard |

## Test Parameter

| | |
|---|---|
| Technology to test | WLAN5Gx ax-HE40 |
| Antenna port used | 1 |
| Temperature | nom |
| Voltage | nom |
| Frequency low to test | False \| Freq [MHz] 5270 |
| Frequency mid to test | False \| Freq [MHz] 0 |
| Frequency high to test | True \| Freq [MHz] 5310 |
| Auto control enabled power supply \| Climatic Box | No \| No |
| Additional path loss [dB] | 1.4 |
| Full path name \| type | EUT - SignalingUnit - SpectrumAnalyzer |

## Equipment

| |
|---|
| Signal analyzer,Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.70 |
| Switch matrix,CTCadvanced,SPM-4 NI DAQ,28016133,NI |

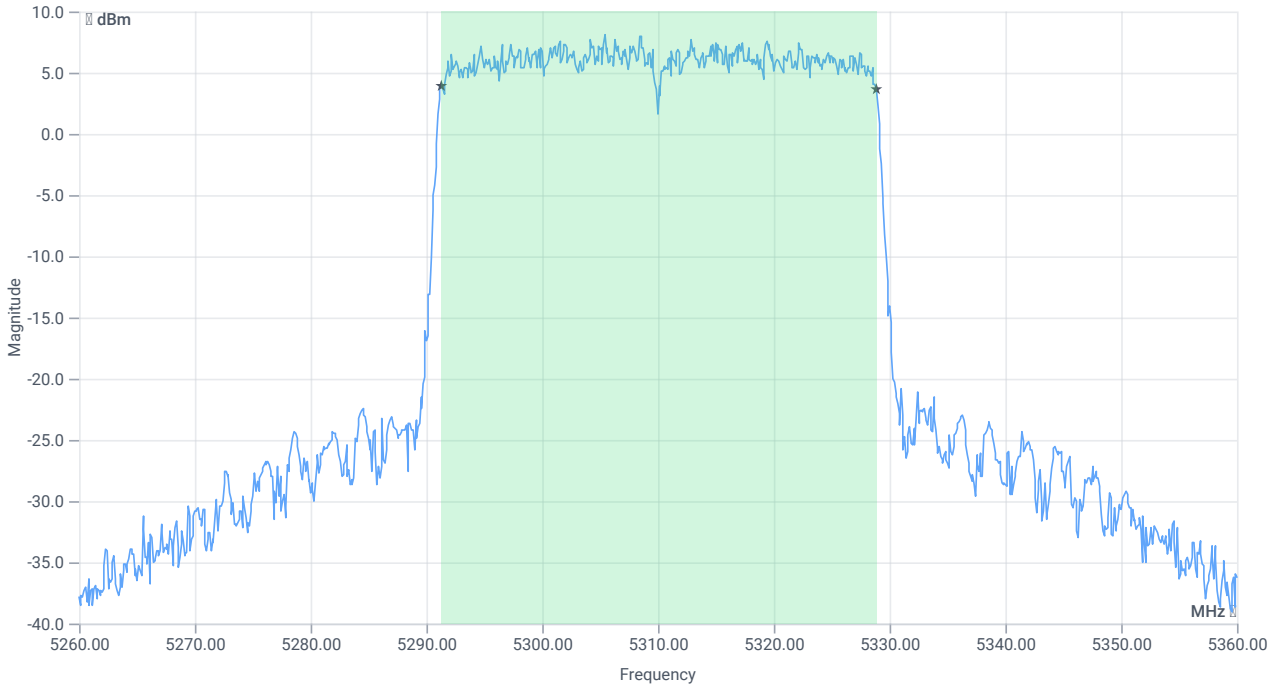
## Test at TX 5310 MHz

RESULT: Reference Power cond.

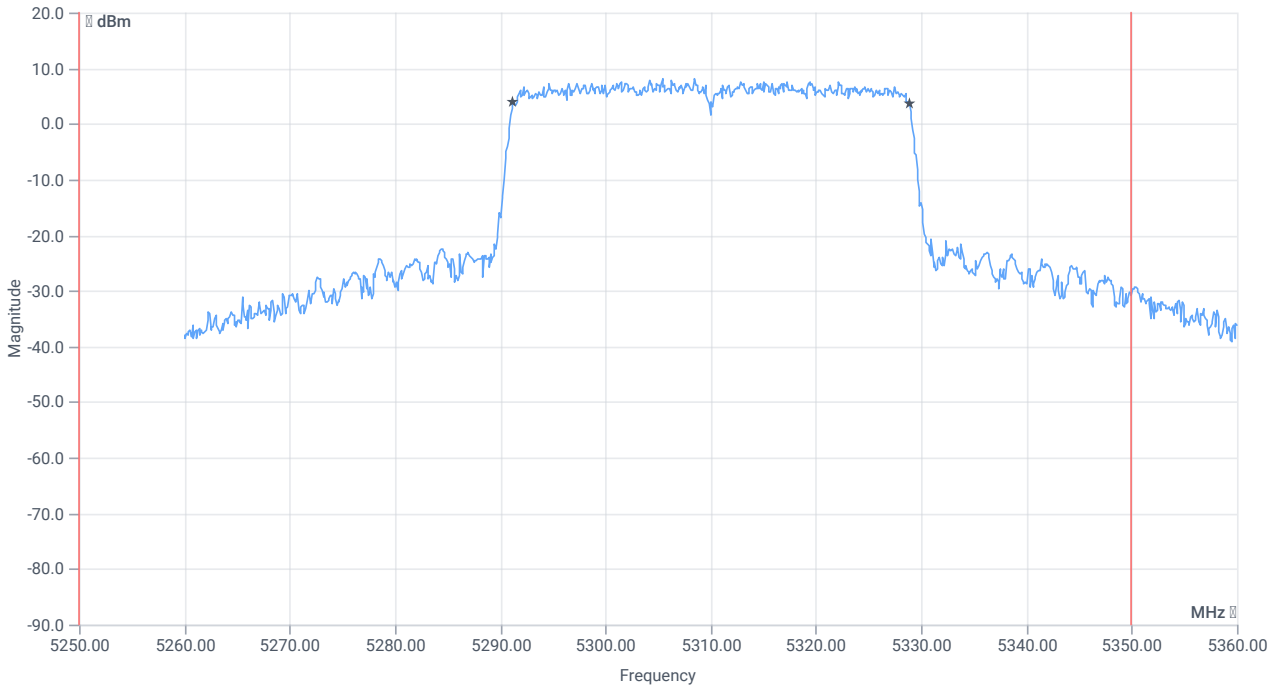
| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Ref. Power 1MHz/1MHz cond. | --- | --- | 11.71 | dBm | INFO |
| Ref. Frequency | --- | --- | 5308.600 | MHz | INFO |

READ SA SETTINGS:

| | |
|---|---|
| RefLevel [dBm] \| RefLevelOffset [dB] \| InpAtt [dB] | 19.71 \| 16.22 \| 20 |
| Start [MHz] \| Stop [MHz] | 5260.000 \| 5360.000 |
| RBW [MHz] \| VBW [MHz] | 0.500000 \| 3.000000 |
| Detector \| TraceMode | POS \| MAXH |
| Sweep: time [ms] \| count \| points per Section \| type | 1 \| 2500 \| 1001 \| SWE |



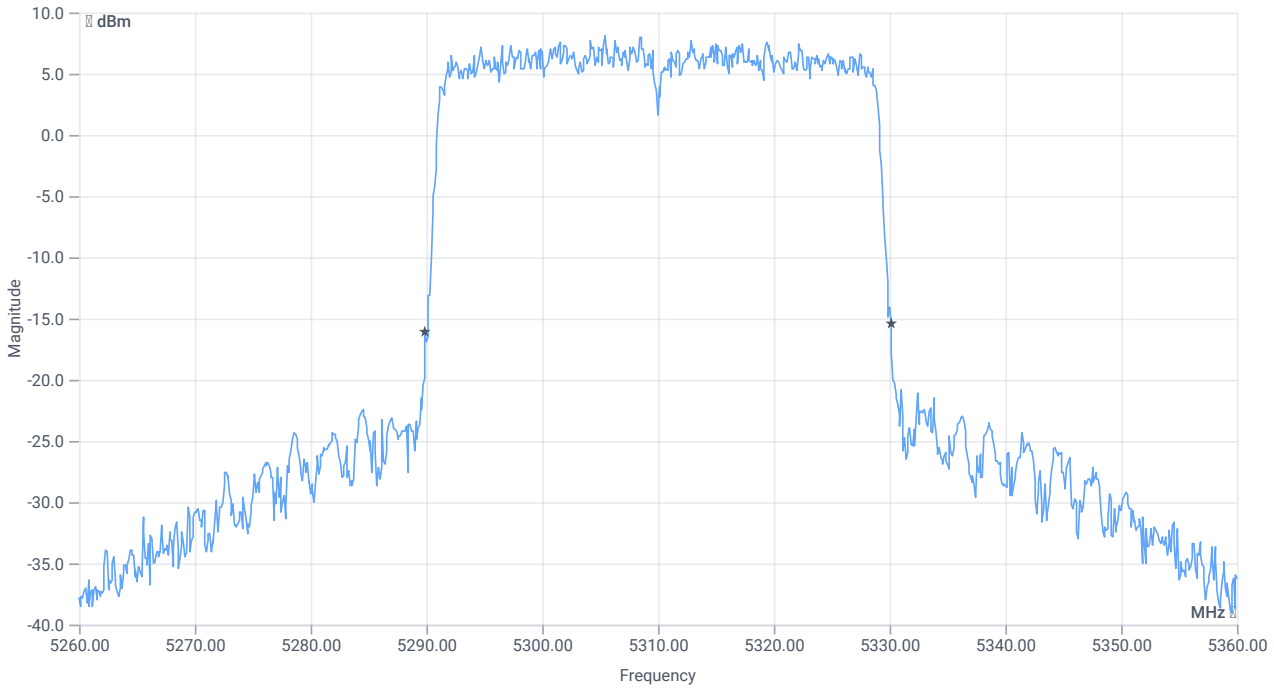

*BW 99PCT*



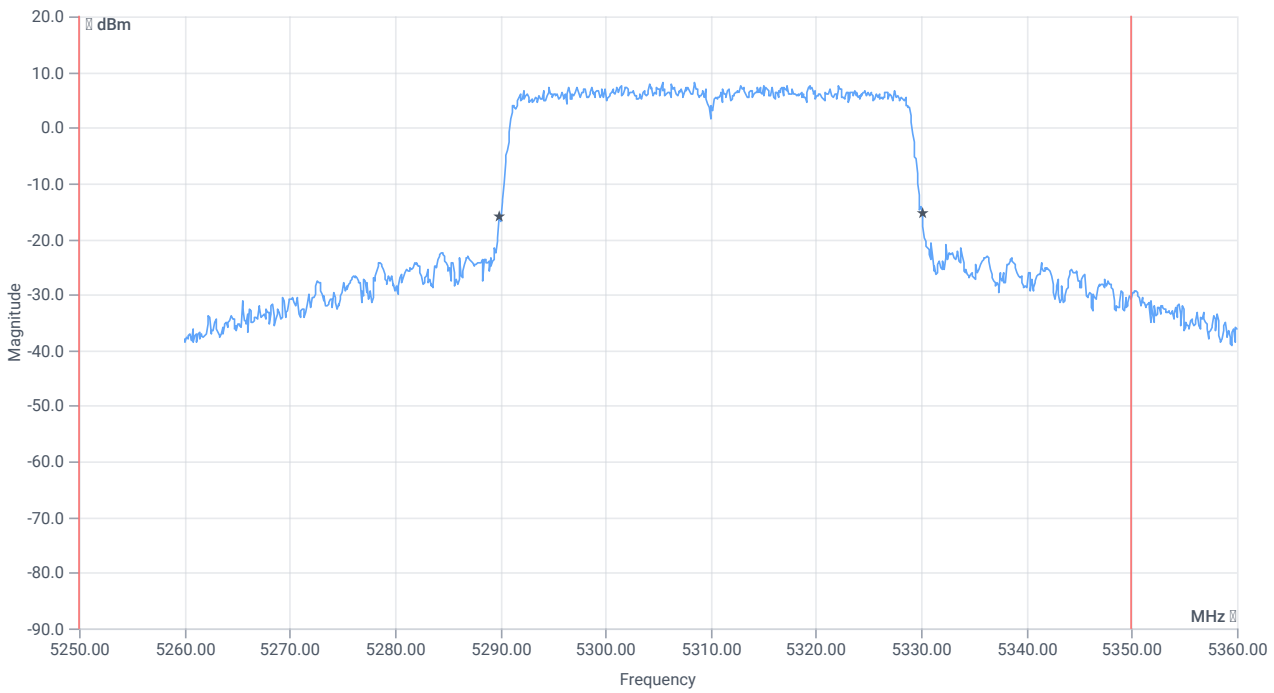

*BW within Band 99PCT*

## RESULT

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Bandwidth 99% | --- | --- | 37.662 | MHz | INFO |
| T1 99% | 5250.000000 | --- | 5291.2188 | MHz | PASS since U-NII-1 is supported |
| T2 99% | --- | 5350.000000 | 5328.8811 | MHz | PASS |




*BW 26dB*




*BW within Band 26dB*

## RESULT

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Bandwidth 26dB | --- | --- | 40.2 | MHz | INFO |

## RESULT

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| T1 26dB | 5250.000000 | --- | 5289.9000 | MHz | PASS since U-NII-1 is supported |
| T2 26dB | --- | 5350.000000 | 5330.1000 | MHz | PASS |

| Verdict |
|---|
| PASS |

# FCC 15.407 # Max output power and psd ~ WLAN5Gx ax-HE40 U-NII-2A

## References

| | |
|---|---|
| TC start | 19.01.2024 10:31:53 |
| Ambit temp [°C] \| humidity [rel%] | 21.7 \| 28 |
| System version | 4.7.1.5 |
| Standard \| Version | FCC 15.407 \| NI |
| Method | KDB789033 D02, F., E.2.e. |
| Description | FCC 15.407 Max Output Power & PSD - WLAN5Gx ax-HE40 U-NII-2A |
| Information | |

## EUT Common Settings WLAN5Gx

| | |
|---|---|
| Number of Antenna Ports | 2 |
| User Interaction | No |
| Device Class UNII_1 | Client |
| Limit W52 Japan | Standard |

## Test Parameter

| | |
|---|---|
| Technology to test | WLAN5Gx ax-HE40 |
| Antenna port used | 2 |
| Temperature | nom |
| Voltage | nom |
| Frequency low to test | False \| Freq [MHz] 5270 |
| Frequency mid to test | False \| Freq [MHz] 0 |
| Frequency high to test | True \| Freq [MHz] 5310 |
| Auto control enabled power supply \| Climatic Box | No \| No |
| Additional path loss [dB] | 1.4 |
| Full path name \| type | EUT - SignalingUnit - SpectrumAnalyzer |

## Equipment

| |
|---|
| Signal analyzer,Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.70 |
| Switch matrix,CTCadvanced,SPM-4 NI DAQ,28016133,NI |

## Test at TX 5310 MHz

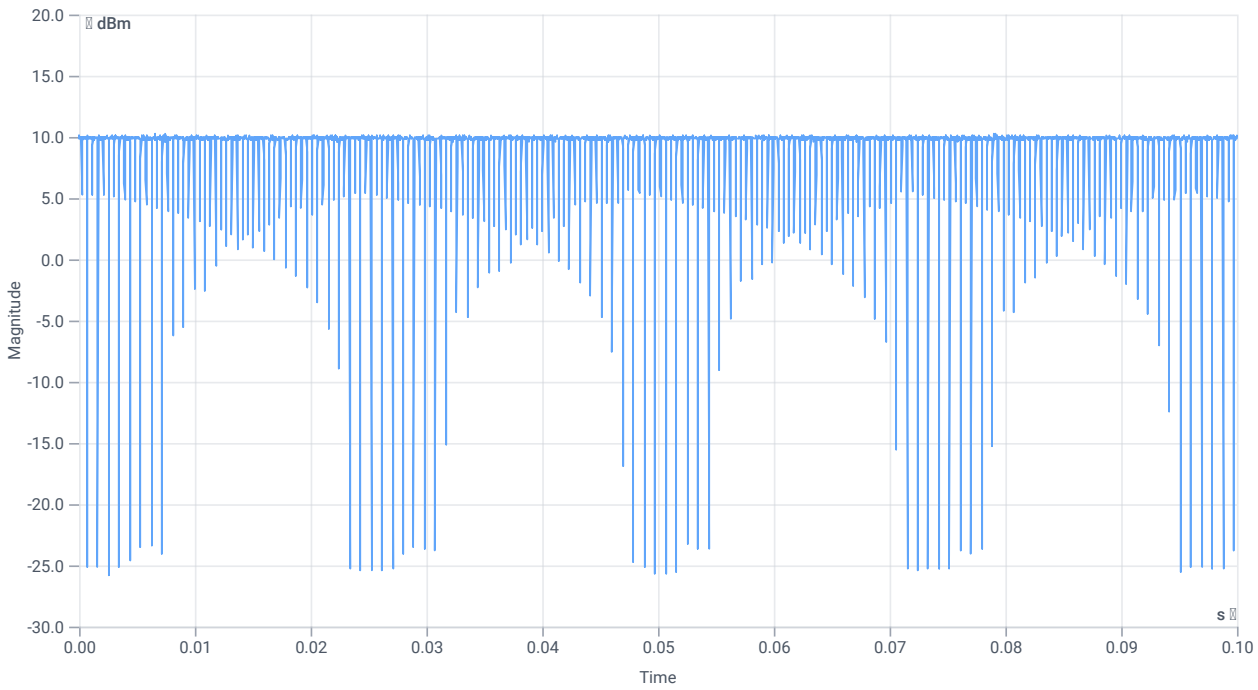
RESULT: Reference Power cond.

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Ref. Power 1MHz/1MHz cond. | --- | --- | 9.43 | dBm | INFO |
| Ref. Frequency | --- | --- | 5292.820 | MHz | INFO |

### Evaluation max. Duty Cycle

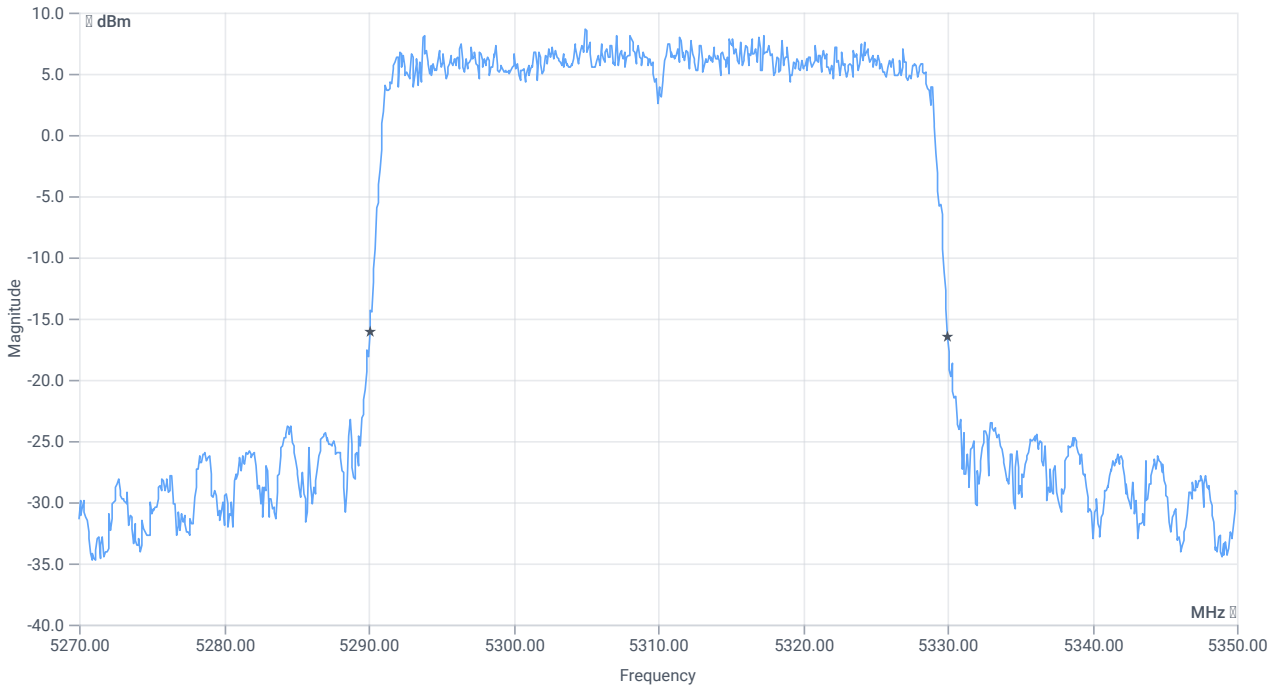
Duty Cycle evaluation

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Result Summary | | | | | |
| Number of detected Bursts:90 | | | | | |
| Duty Cycle (Burst Ratio) max | --- | --- | 0.985 | --- | INFO |
| Duty Cycle max | --- | --- | 0.066 | dB | INFO |
| Duty Cycle (Burst Ratio) min | --- | --- | 0.919 | --- | INFO |
| Duty Cycle min | --- | --- | 0.367 | dB | INFO |
| Max TX Burst Length | --- | --- | 5.025 | ms | INFO |
| Min Gap Length | --- | --- | 0.075 | ms | INFO |
| Max Gap Length | --- | --- | 0.075 | ms | INFO |




*Duty cycle*

### Evaluation Bandwidth




*BW 26dB*

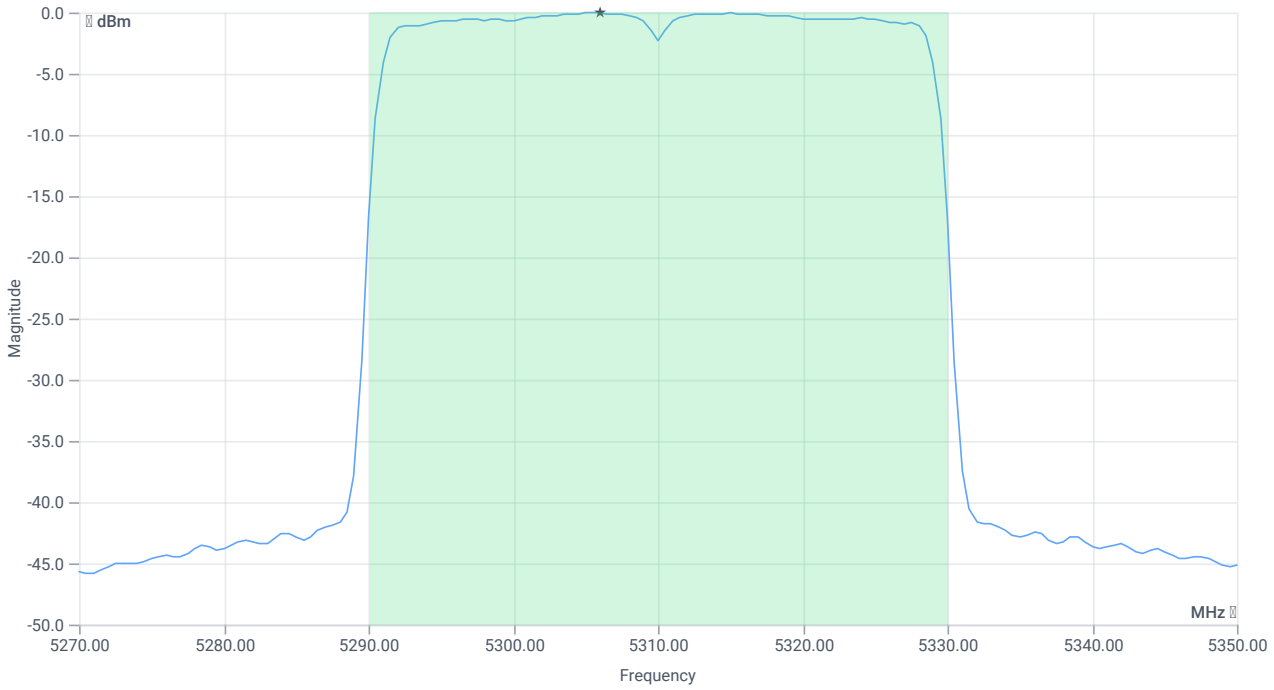
## RESULT

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Bandwidth 26dB | --- | --- | 39.92 | MHz | INFO |
| T1 26dB | --- | --- | 5290.0800 | MHz | INFO |
| T2 26dB | --- | --- | 5330.0000 | MHz | INFO |

## Maximum Output Power

## READ SA SETTINGS:

| | |
|---|---|
| RefLevel [dBm] \| RefLevelOffset [dB] \| InpAtt [dB] | 21.43 \| 16.22 \| 20 |
| Start [MHz] \| Stop [MHz] | 5270.000 \| 5350.000 |
| RBW [MHz] \| VBW [MHz] | 1.000000 \| 3.000000 |
| Detector \| TraceMode | RMS \| MAXH |
| Sweep: time [ms] \| count \| points per Section \| type | 53700 \| 1 \| 161 \| SWE |




*Max OP and PSD*

## RESULT

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Max Output Power | --- | --- | 14.98 | dBm | INFO |
| Duty Cycle Correction | --- | --- | 0.37 | dB | INFO |
| Limit absolute | | | | | |
| Max Output Power DC corrected | --- | 24 | 15.35 | dBm | PASS |
| Limit: 11 dBm + 10 log 39.92 | | | | | |
| Max Output Power DC corrected | --- | 27.01 | 15.35 | dBm | PASS |

## Power Spectral Density

## RESULT

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Power Spectral Density | --- | --- | -0.03 | dBm/1MHz | INFO |
| Duty Cycle Correction | --- | --- | 0.37 | dB | INFO |
| Power Spectral Density DC corrected | --- | 11 | 0.34 | dBm/1MHz | PASS |

| Verdict |
|---|
| PASS |

# FCC 15.407, ISED RSS247 # Bandwidths 99PCT and 20dB ~ WLAN5Gx ax-HE40 U-NII-2A

## References

| | |
|---|---|
| TC start | 19.01.2024 10:33:25 |
| Ambit temp [°C] \| humidity [rel%] | 21.7 \| 28 |
| System version | 4.7.1.5 |
| Standard \| Version | FCC 15.407, ISED RSS247 \| NI |
| Method | 26dB Bandwidth KDB789033 D02, C.1 / ISED RSS-GEN |
| Description | FCC 15.407 Bandwidths - WLAN5Gx ax-HE40 U-NII-2A |
| Information | |

## EUT Common Settings WLAN5Gx

| | |
|---|---|
| Number of Antenna Ports | 2 |
| User Interaction | No |
| Device Class UNII_1 | Client |
| Limit W52 Japan | Standard |

## Test Parameter

| | |
|---|---|
| Technology to test | WLAN5Gx ax-HE40 |
| Antenna port used | 2 |
| Temperature | nom |
| Voltage | nom |
| Frequency low to test | False \| Freq [MHz] 5270 |
| Frequency mid to test | False \| Freq [MHz] 0 |
| Frequency high to test | True \| Freq [MHz] 5310 |
| Auto control enabled power supply \| Climatic Box | No \| No |
| Additional path loss [dB] | 1.4 |
| Full path name \| type | EUT - SignalingUnit - SpectrumAnalyzer |

## Equipment

| |
|---|
| Signal analyzer,Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.70 |
| Switch matrix,CTCadvanced,SPM-4 NI DAQ,28016133,NI |

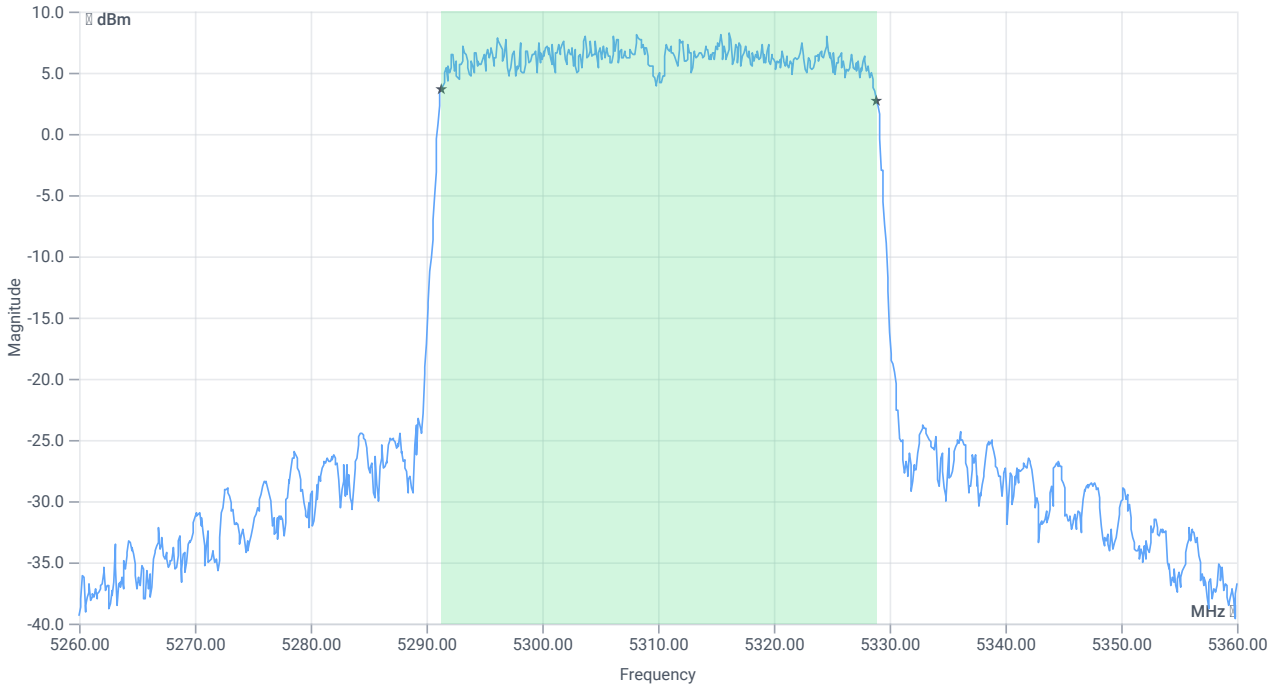
## Test at TX 5310 MHz

RESULT: Reference Power cond.

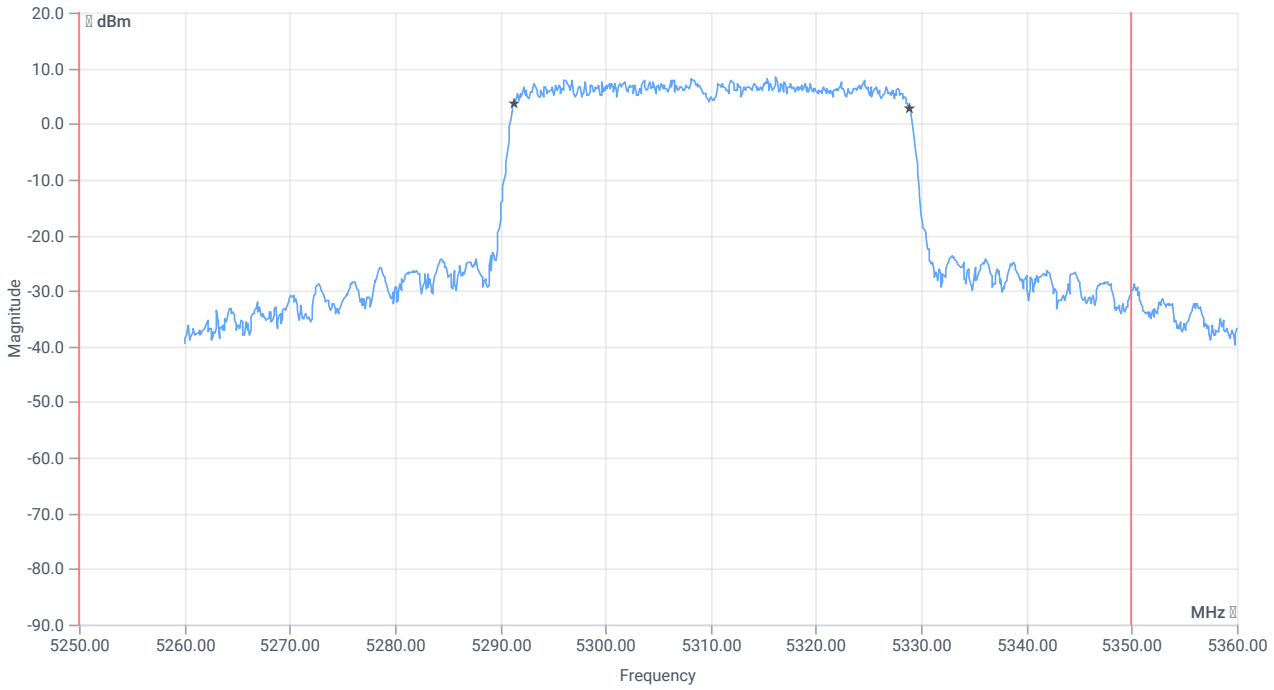
| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Ref. Power 1MHz/1MHz cond. | --- | --- | 9.54 | dBm | INFO |
| Ref. Frequency | --- | --- | 5299.210 | MHz | INFO |

READ SA SETTINGS:

| | |
|---|---|
| RefLevel [dBm] \| RefLevelOffset [dB] \| InpAtt [dB] | 17.54 \| 16.22 \| 20 |
| Start [MHz] \| Stop [MHz] | 5260.000 \| 5360.000 |
| RBW [MHz] \| VBW [MHz] | 0.500000 \| 3.000000 |
| Detector \| TraceMode | POS \| MAXH |
| Sweep: time [ms] \| count \| points per Section \| type | 1 \| 2500 \| 1001 \| SWE |



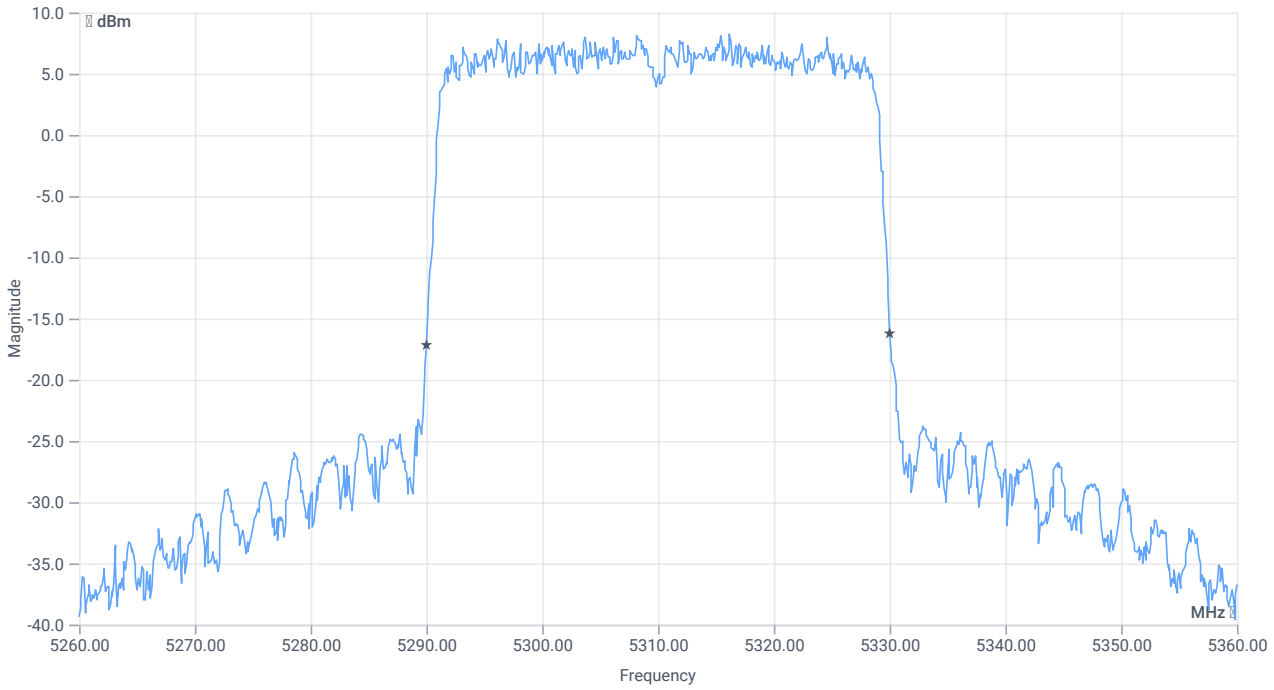

*BW 99PCT*



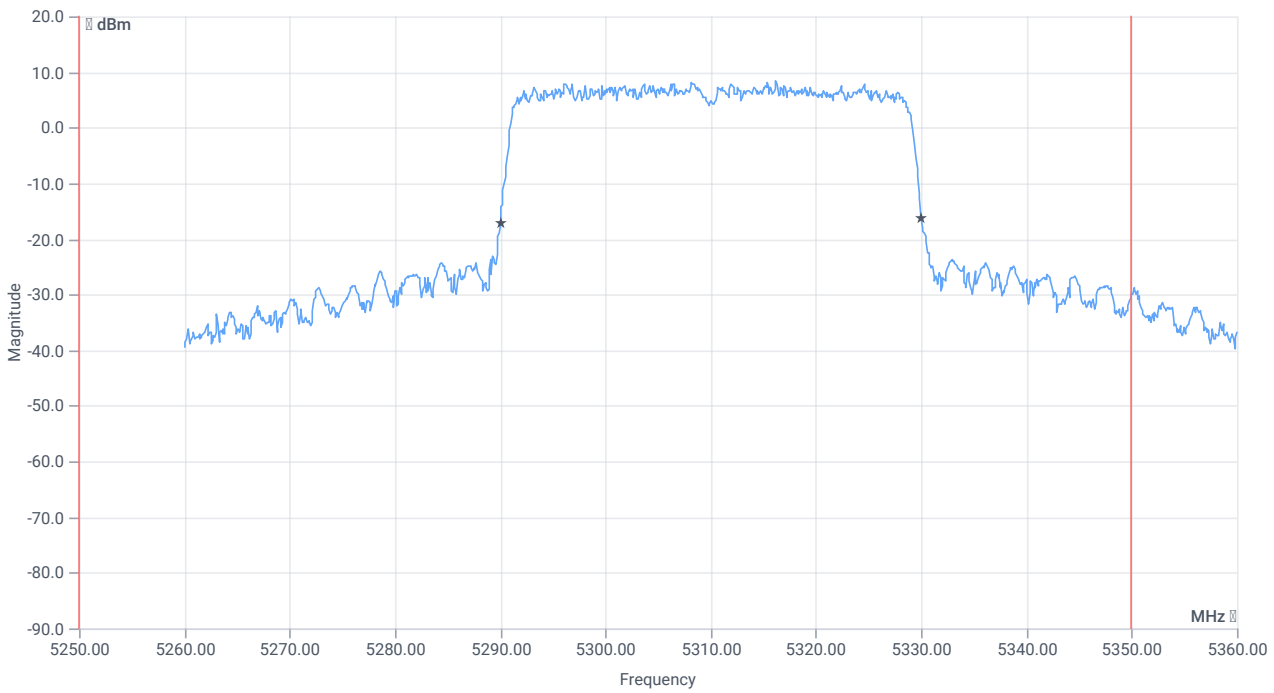

*BW within Band 99PCT*

## RESULT

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Bandwidth 99% | --- | --- | 37.562 | MHz | INFO |
| T1 99% | 5250.000000 | --- | 5291.3187 | MHz | PASS since U-NII-1 is supported |
| T2 99% | --- | 5350.000000 | 5328.8811 | MHz | PASS |




*BW 26dB*




*BW within Band 26dB*

## RESULT

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Bandwidth 26dB | --- | --- | 40 | MHz | INFO |

RESULT

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| T1 26dB | 5250.000000 | --- | 5290.0000 | MHz | PASS since U-NII-1 is supported |
| T2 26dB | --- | 5350.000000 | 5330.0000 | MHz | PASS |

| Verdict |
|---|
| PASS |

# FCC 15.407 # MIMO ∑ Max output power and psd ~ WLAN5Gx ax-HE40 U-NII-2A

## References

| | |
|---|---|
| TC start | 19.01.2024 10:34:02 |
| Ambit temp [°C] \| humidity [rel%] | 21.7 \| 28 |
| System version | 4.7.1.5 |
| Standard \| Version | FCC 15.407 \| NI |
| Method | |
| Description | MIMO ∑ FCC Power & psd - WLAN5Gx ax-HE40 U-NII-2A |
| Information | |

## EUT Common Settings WLAN5Gx

| | |
|---|---|
| Number of Antenna Ports | 2 |
| User Interaction | No |
| Device Class UNII_1 | Client |
| Limit W52 Japan | Standard |

## Test Parameter

| | |
|---|---|
| Technology to test | WLAN5Gx ax-HE40 |
| Antenna port used | several |
| Temperature | nom |
| Voltage | nom |
| Frequency low to test | False \| Freq [MHz] 5270 |
| Frequency mid to test | False \| Freq [MHz] 0 |
| Frequency high to test | True \| Freq [MHz] 5310 |
| Auto control enabled power supply \| Climatic Box | No \| No |
| Additional path loss [dB] | 1.4 |
| Full path name \| type | None |

## Equipment

## Test at TX 5310 MHz

### RESULT Power

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Ant:1 Max Output Power DC corrected | --- | --- | 15.23 | dBm | INFO |
| Ant:1 BW 26dB | --- | --- | 40.000 | MHz | INFO |
| Ant:2 Max Output Power DC corrected | --- | --- | 15.35 | dBm | INFO |
| Ant:2 BW 26dB | --- | --- | 39.920 | MHz | INFO |
| ∑ Limit absolute | --- | 24 | 18.3 | dBm | PASS |
| ∑ Limit: 11 dBm + 10 log 39.92 | --- | 27.01 | 18.3 | dBm | PASS |

### RESULT PSD

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Ant:1 PSD | --- | --- | 0.22 | dBm/1MHz | INFO |
| Ant:2 PSD | --- | --- | 0.34 | dBm/1MHz | INFO |
| ∑ | --- | 11 | 3.29 | dBm/1MHz | PASS |

| Verdict |
|---|
| PASS |

# FCC 15.407 # Max output power and psd ~ WLAN5Gx ax-HE40 U-NII-2C

## References

| | |
|---|---|
| TC start | 19.01.2024 10:39:41 |
| Ambit temp [°C] \| humidity [rel%] | 21.8 \| 29 |
| System version | 4.7.1.5 |
| Standard \| Version | FCC 15.407 \| NI |
| Method | KDB789033 D02, F., E.2.e. |
| Description | FCC 15.407 Max Output Power & PSD - WLAN5Gx ax-HE40 U-NII-2C |
| Information | |

## EUT Common Settings WLAN5Gx

| | |
|---|---|
| Number of Antenna Ports | 2 |
| User Interaction | No |
| Device Class UNII_1 | Client |
| Limit W52 Japan | Standard |

## Test Parameter

| | |
|---|---|
| Technology to test | WLAN5Gx ax-HE40 |
| Antenna port used | 1 |
| Temperature | nom |
| Voltage | nom |
| Frequency low to test | True \| Freq [MHz] 5510 |
| Frequency mid to test | False \| Freq [MHz] 5590 |
| Frequency high to test | False \| Freq [MHz] 5670 |
| Auto control enabled power supply \| Climatic Box | No \| No |
| Additional path loss [dB] | 1.4 |
| Full path name \| type | EUT - SignalingUnit - SpectrumAnalyzer |

## Equipment

| |
|---|
| Signal analyzer,Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.70 |
| Switch matrix,CTCadvanced,SPM-4 NI DAQ,28016133,NI |

## Test at TX 5510 MHz

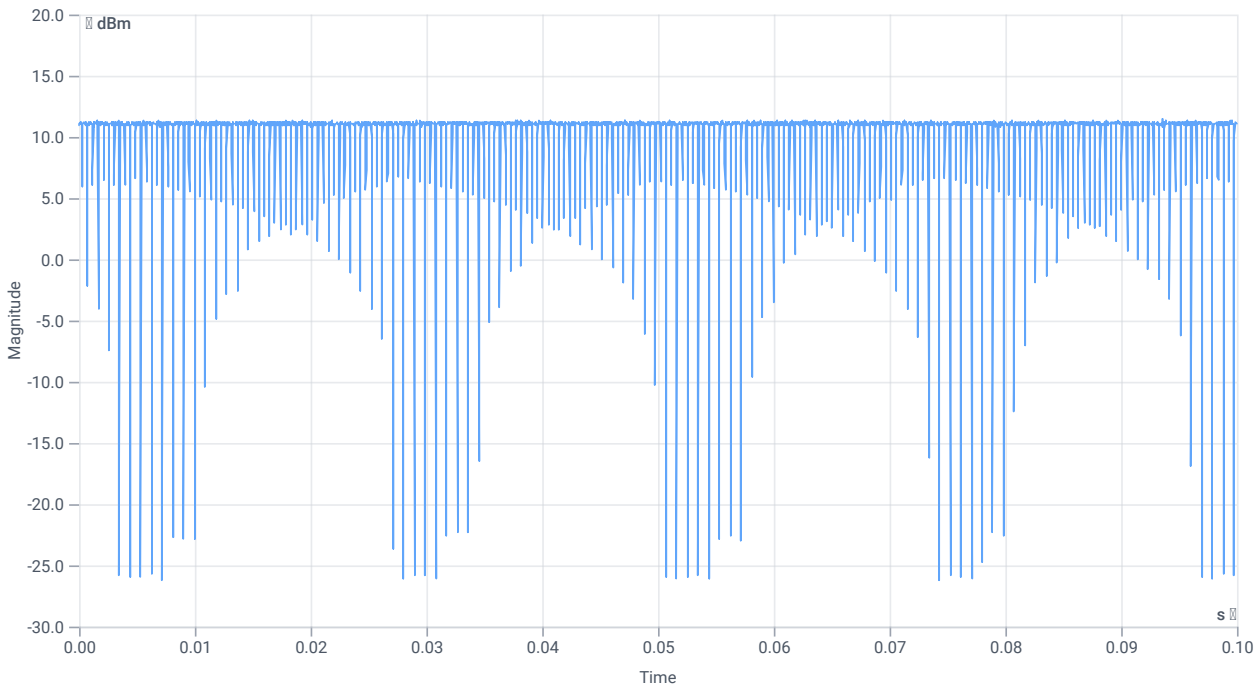
RESULT: Reference Power cond.

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Ref. Power 1MHz/1MHz cond. | --- | --- | 12.66 | dBm | INFO |
| Ref. Frequency | --- | --- | 5514.600 | MHz | INFO |

### Evaluation max. Duty Cycle

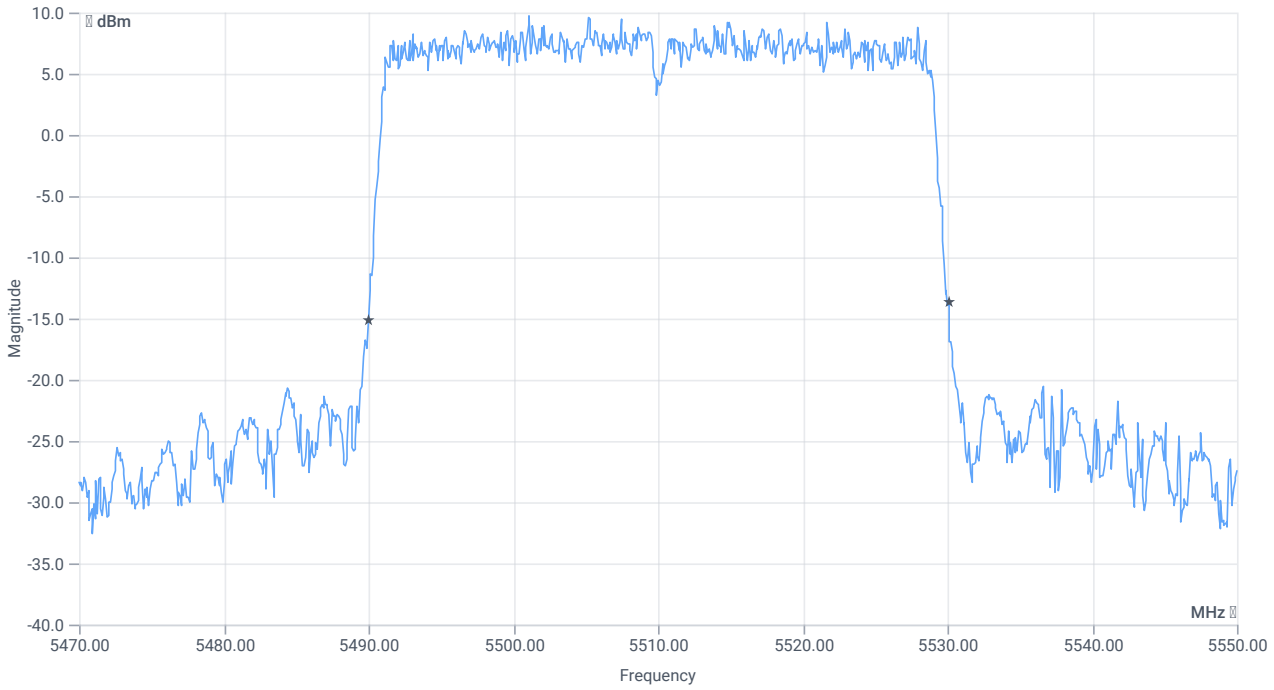
Duty Cycle evaluation

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Result Summary | | | | | |
| Number of detected Bursts:88 | | | | | |
| Duty Cycle (Burst Ratio) max | --- | --- | 0.988 | --- | INFO |
| Duty Cycle max | --- | --- | 0.052 | dB | INFO |
| Duty Cycle (Burst Ratio) min | --- | --- | 0.919 | --- | INFO |
| Duty Cycle min | --- | --- | 0.367 | dB | INFO |
| Max TX Burst Length | --- | --- | 5.95 | ms | INFO |
| Min Gap Length | --- | --- | 0.075 | ms | INFO |
| Max Gap Length | --- | --- | 0.075 | ms | INFO |




*Duty cycle*

### Evaluation Bandwidth




*BW 26dB*

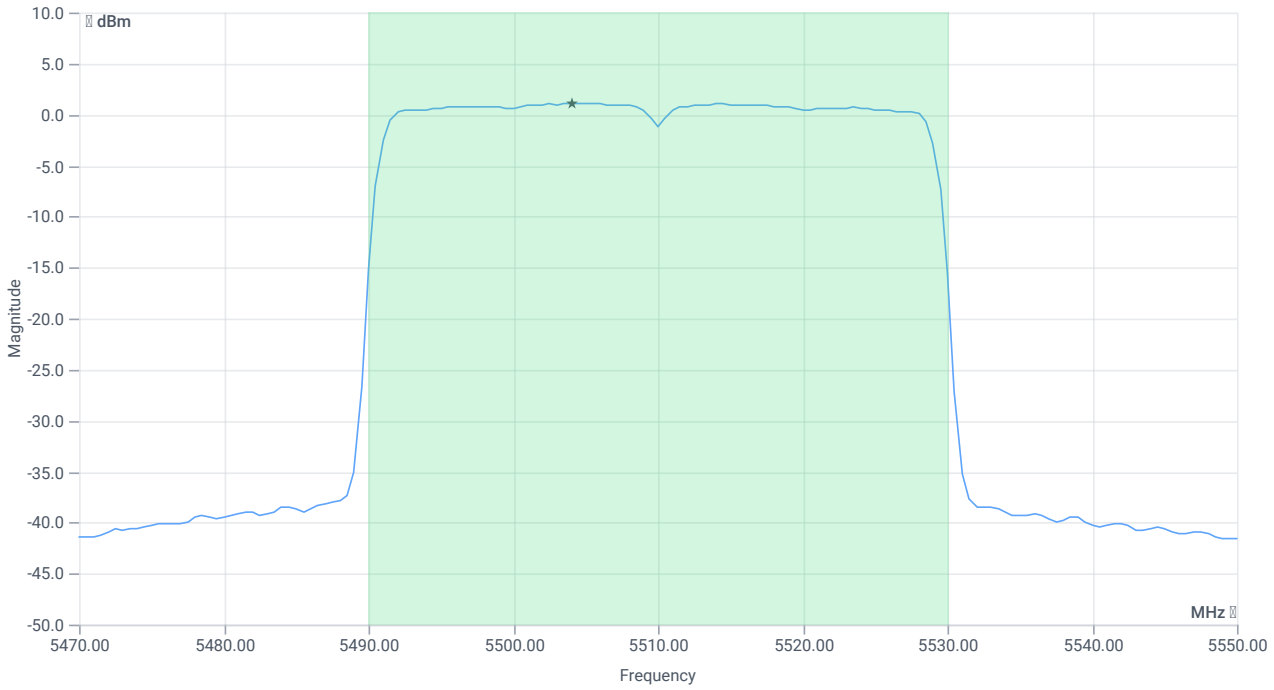
## RESULT

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Bandwidth 26dB | --- | --- | 40.08 | MHz | INFO |
| T1 26dB | --- | --- | 5490.0000 | MHz | INFO |
| T2 26dB | --- | --- | 5530.0800 | MHz | INFO |

## Maximum Output Power

## READ SA SETTINGS:

| | |
|---|---|
| RefLevel [dBm] \| RefLevelOffset [dB] \| InpAtt [dB] | 24.66 \| 16.69 \| 25 |
| Start [MHz] \| Stop [MHz] | 5470.000 \| 5550.000 |
| RBW [MHz] \| VBW [MHz] | 1.000000 \| 3.000000 |
| Detector \| TraceMode | RMS \| MAXH |
| Sweep: time [ms] \| count \| points per Section \| type | 53700 \| 1 \| 161 \| SWE |




*Max OP and PSD*

## RESULT

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Max Output Power | --- | --- | 16.17 | dBm | INFO |
| Duty Cycle Correction | --- | --- | 0.37 | dB | INFO |
| Limit absolute | | | | | |
| Max Output Power DC corrected | --- | 24 | 16.54 | dBm | PASS |
| Limit: 11 dBm + 10 log 40.08 | | | | | |
| Max Output Power DC corrected | --- | 27.03 | 16.54 | dBm | PASS |

## Power Spectral Density

## RESULT

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Power Spectral Density | --- | --- | 1.08 | dBm/1MHz | INFO |
| Duty Cycle Correction | --- | --- | 0.37 | dB | INFO |
| Power Spectral Density DC corrected | --- | 11 | 1.45 | dBm/1MHz | PASS |

| Verdict |
|---|
| PASS |

# FCC 15.407, ISED RSS247 # Bandwidths 99PCT and 20dB ~ WLAN5Gx ax-HE40 U-NII-2C

## References

| | |
|---|---|
| TC start | 19.01.2024 10:41:09 |
| Ambit temp [°C] \| humidity [rel%] | 21.8 \| 29 |
| System version | 4.7.1.5 |
| Standard \| Version | FCC 15.407, ISED RSS247 \| NI |
| Method | 26dB Bandwidth KDB789033 D02, C.1 / ISED RSS-GEN |
| Description | FCC 15.407 Bandwidths - WLAN5Gx ax-HE40 U-NII-2C |
| Information | |

## EUT Common Settings WLAN5Gx

| | |
|---|---|
| Number of Antenna Ports | 2 |
| User Interaction | No |
| Device Class UNII_1 | Client |
| Limit W52 Japan | Standard |

## Test Parameter

| | |
|---|---|
| Technology to test | WLAN5Gx ax-HE40 |
| Antenna port used | 1 |
| Temperature | nom |
| Voltage | nom |
| Frequency low to test | True \| Freq [MHz] 5510 |
| Frequency mid to test | False \| Freq [MHz] 5590 |
| Frequency high to test | False \| Freq [MHz] 5670 |
| Auto control enabled power supply \| Climatic Box | No \| No |
| Additional path loss [dB] | 1.4 |
| Full path name \| type | EUT - SignalingUnit - SpectrumAnalyzer |

## Equipment

| |
|---|
| Signal analyzer,Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.70 |
| Switch matrix,CTCadvanced,SPM-4 NI DAQ,28016133,NI |

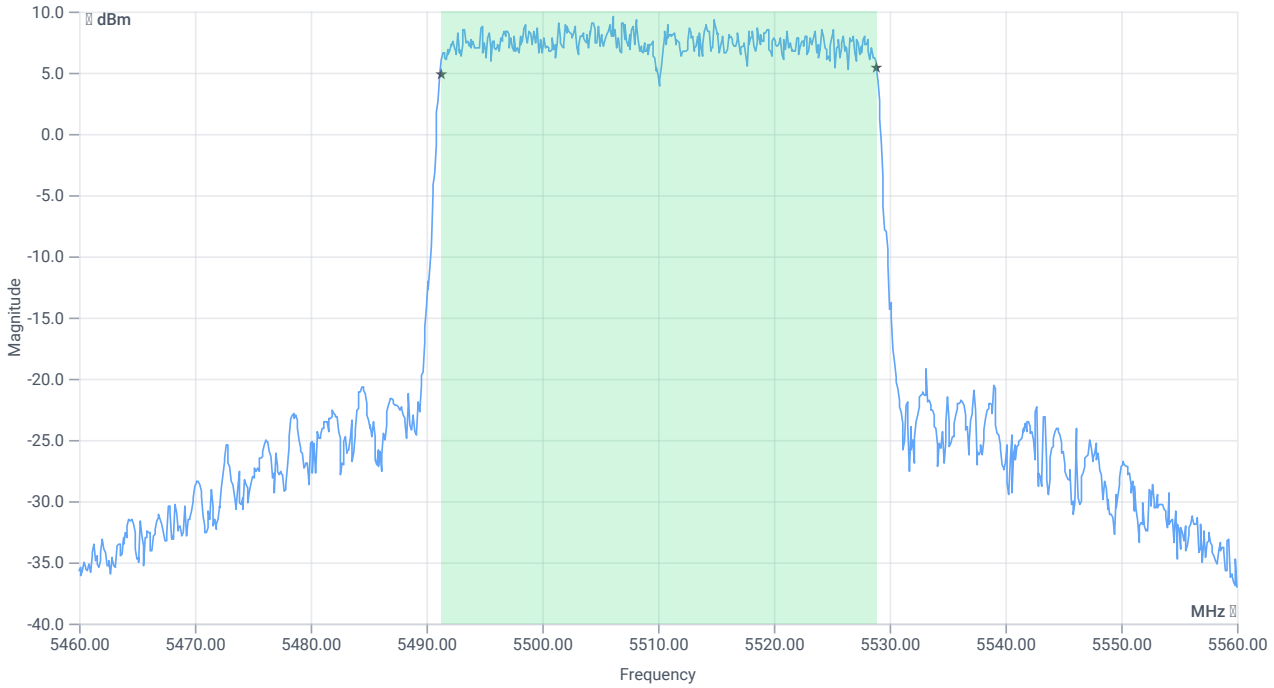
## Test at TX 5510 MHz

RESULT: Reference Power cond.

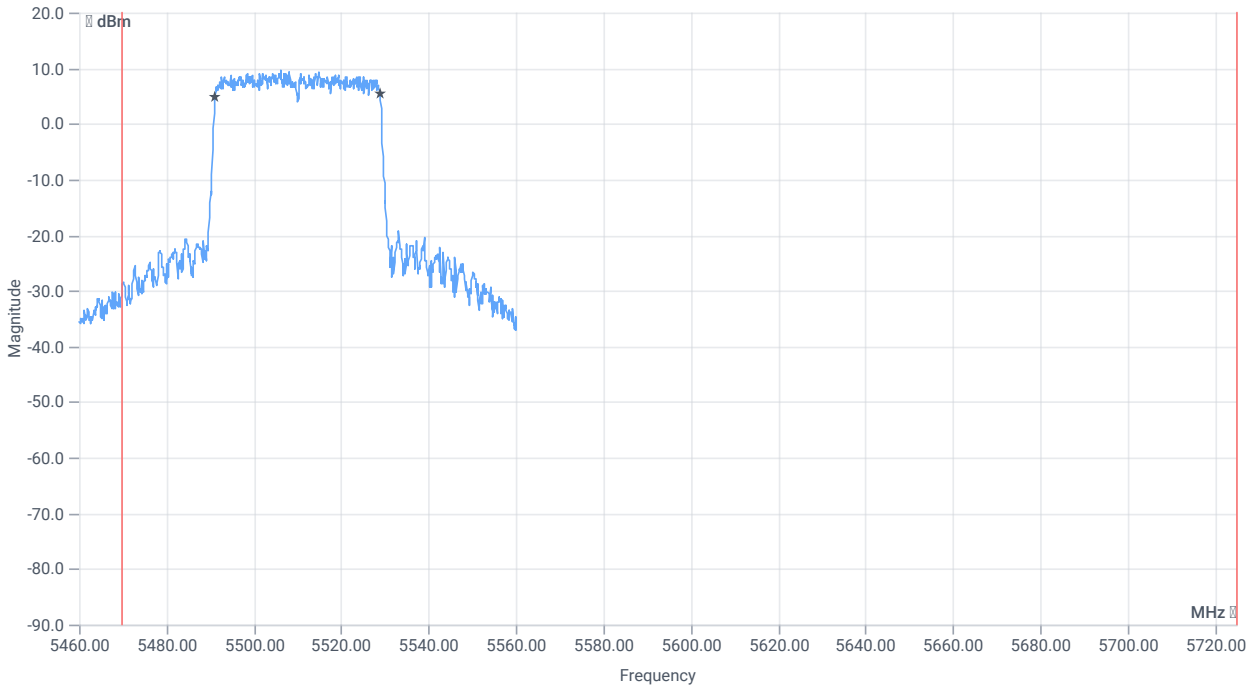
| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Ref. Power 1MHz/1MHz cond. | --- | --- | 11.68 | dBm | INFO |
| Ref. Frequency | --- | --- | 5508.800 | MHz | INFO |

READ SA SETTINGS:

| | |
|---|---|
| RefLevel [dBm] \| RefLevelOffset [dB] \| InpAtt [dB] | 19.68 \| 16.69 \| 20 |
| Start [MHz] \| Stop [MHz] | 5460.000 \| 5560.000 |
| RBW [MHz] \| VBW [MHz] | 0.500000 \| 3.000000 |
| Detector \| TraceMode | POS \| MAXH |
| Sweep: time [ms] \| count \| points per Section \| type | 1 \| 2500 \| 1001 \| SWE |



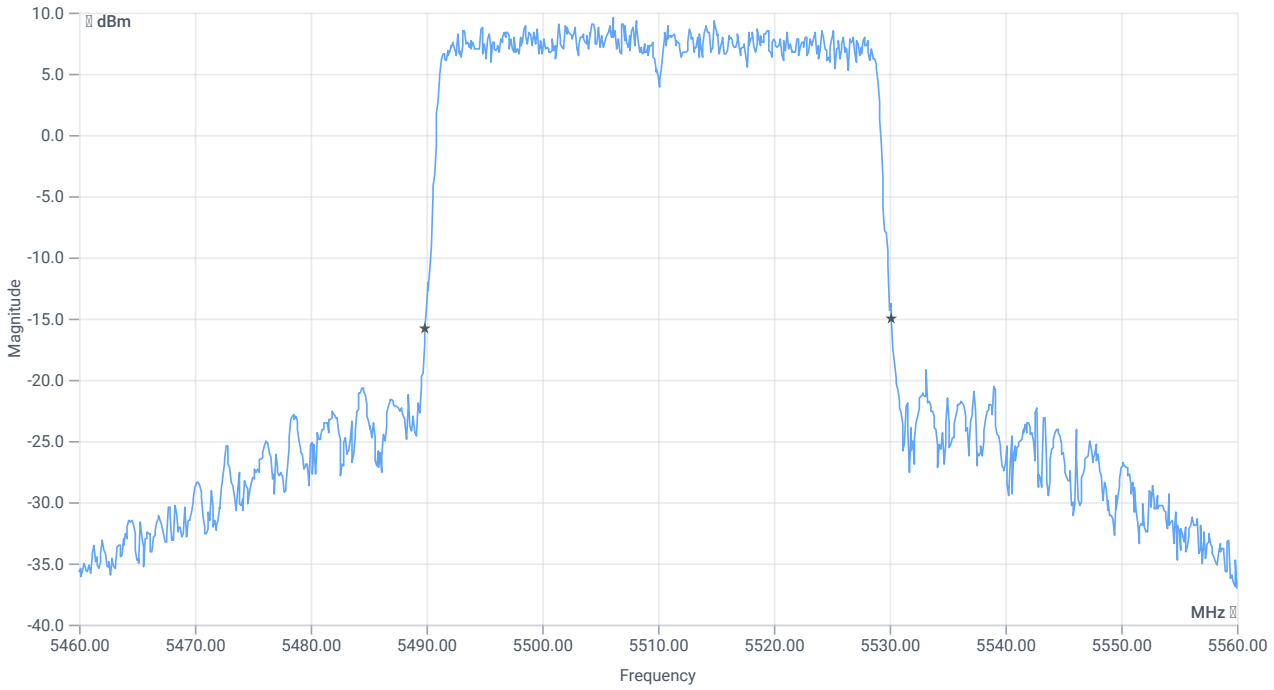

*BW 99PCT*



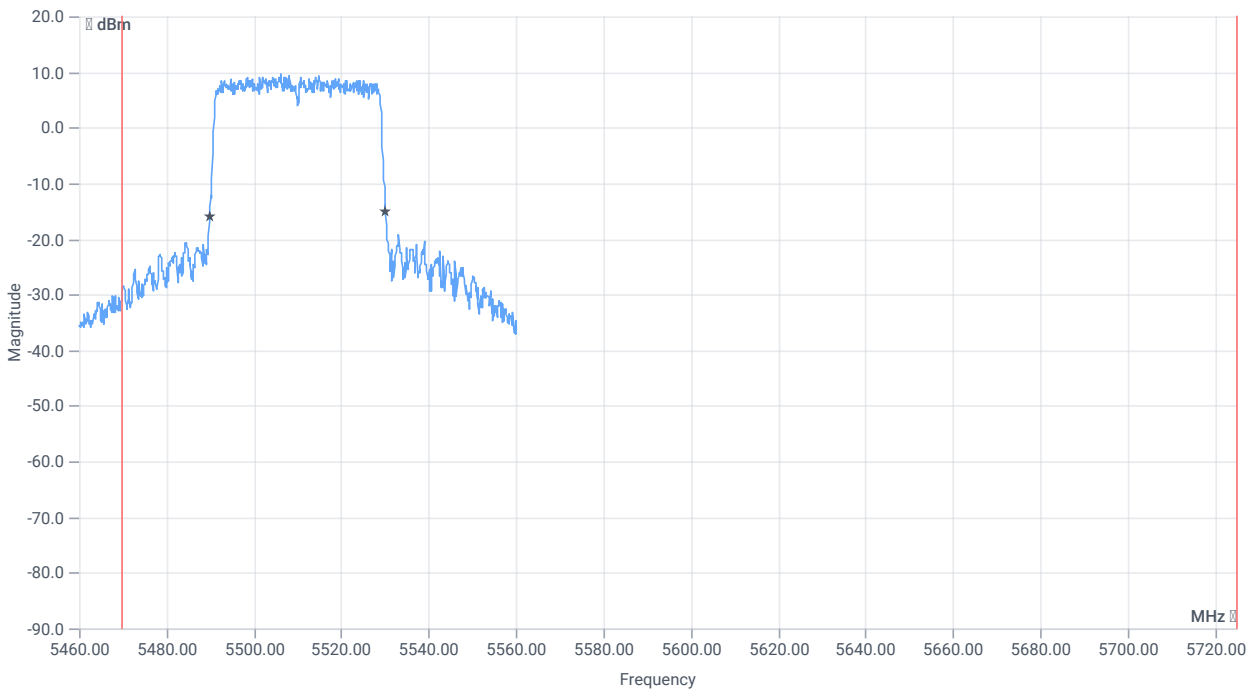

*BW within Band 99PCT*

## RESULT

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Bandwidth 99% | --- | --- | 37.662 | MHz | INFO |
| T1 99% | 5470.000000 | --- | 5491.2188 | MHz | PASS since U-NII-3 is supported |
| T2 99% | --- | 5725.000000 | 5528.8811 | MHz | |




*BW 26dB*




*BW within Band 26dB*

## RESULT

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Bandwidth 26dB | --- | --- | 40.3 | MHz | INFO |

## RESULT

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| T1 26dB | 5470.000000 | --- | 5489.9000 | MHz | PASS since U-NII-3 is supported |
| T2 26dB | --- | 5725.000000 | 5530.2000 | MHz | |

| Verdict |
|---|
| PASS |

# FCC 15.407 # Max output power and psd ~ WLAN5Gx ax-HE40 U-NII-2C

## References

| | |
|---|---|
| TC start | 19.01.2024 10:41:39 |
| Ambit temp [°C] \| humidity [rel%] | 21.8 \| 29 |
| System version | 4.7.1.5 |
| Standard \| Version | FCC 15.407 \| NI |
| Method | KDB789033 D02, F., E.2.e. |
| Description | FCC 15.407 Max Output Power & PSD - WLAN5Gx ax-HE40 U-NII-2C |
| Information | |

## EUT Common Settings WLAN5Gx

| | |
|---|---|
| Number of Antenna Ports | 2 |
| User Interaction | No |
| Device Class UNII_1 | Client |
| Limit W52 Japan | Standard |

## Test Parameter

| | |
|---|---|
| Technology to test | WLAN5Gx ax-HE40 |
| Antenna port used | 2 |
| Temperature | nom |
| Voltage | nom |
| Frequency low to test | True \| Freq [MHz] 5510 |
| Frequency mid to test | False \| Freq [MHz] 5590 |
| Frequency high to test | False \| Freq [MHz] 5670 |
| Auto control enabled power supply \| Climatic Box | No \| No |
| Additional path loss [dB] | 1.4 |
| Full path name \| type | EUT - SignalingUnit - SpectrumAnalyzer |

## Equipment

| |
|---|
| Signal analyzer,Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.70 |
| Switch matrix,CTCadvanced,SPM-4 NI DAQ,28016133,NI |

## Test at TX 5510 MHz

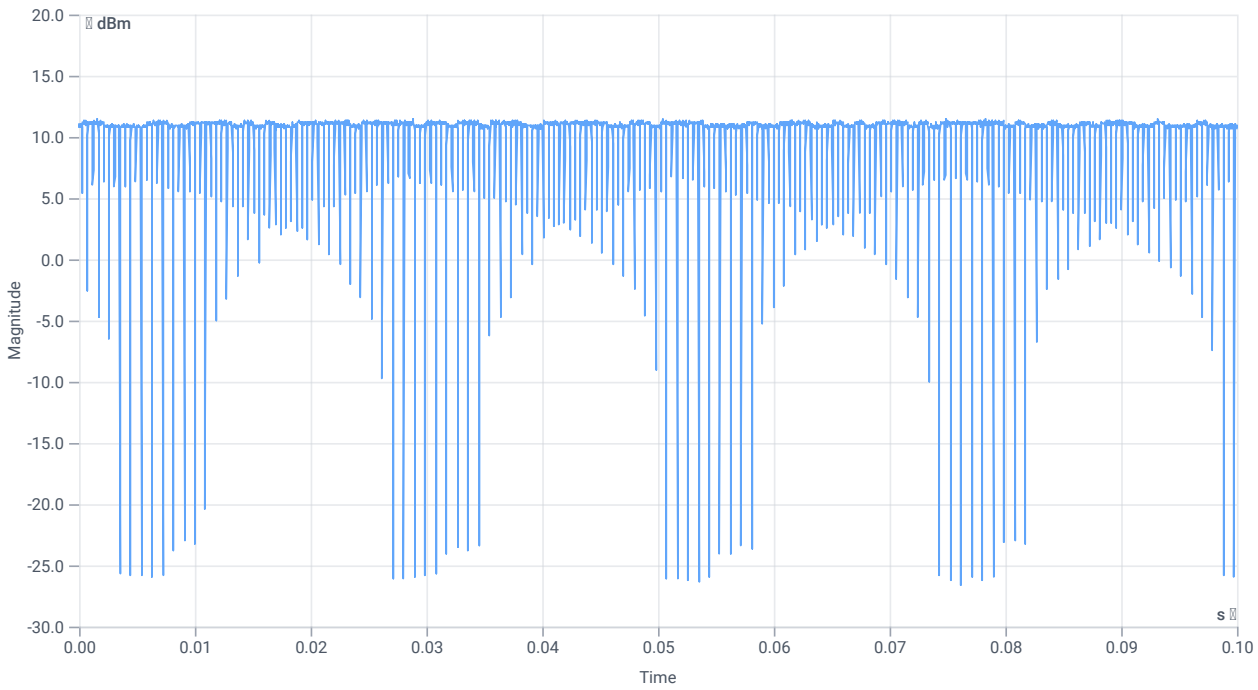
RESULT: Reference Power cond.

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Ref. Power 1MHz/1MHz cond. | --- | --- | 10.66 | dBm | INFO |
| Ref. Frequency | --- | --- | 5507.200 | MHz | INFO |

### Evaluation max. Duty Cycle

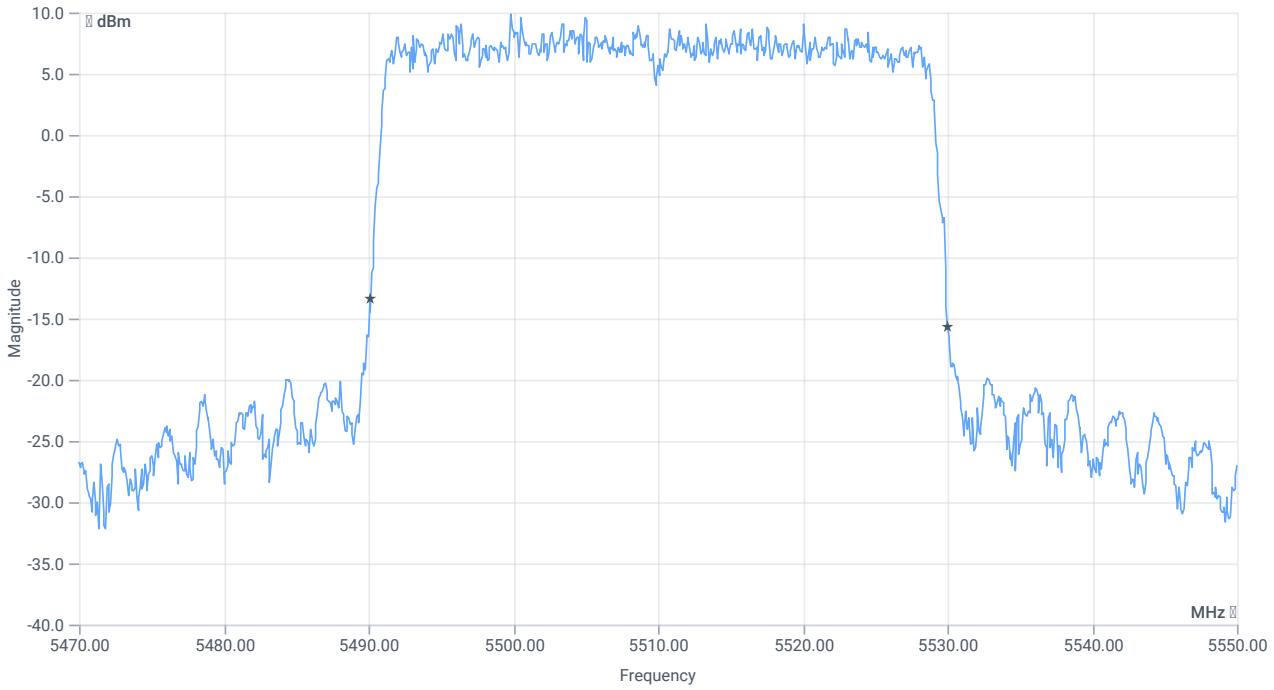
Duty Cycle evaluation

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Result Summary | | | | | |
| Number of detected Bursts:90 | | | | | |
| Duty Cycle (Burst Ratio) max | --- | --- | 0.985 | --- | INFO |
| Duty Cycle max | --- | --- | 0.066 | dB | INFO |
| Duty Cycle (Burst Ratio) min | --- | --- | 0.919 | --- | INFO |
| Duty Cycle min | --- | --- | 0.367 | dB | INFO |
| Max TX Burst Length | --- | --- | 5.025 | ms | INFO |
| Min Gap Length | --- | --- | 0.075 | ms | INFO |
| Max Gap Length | --- | --- | 0.075 | ms | INFO |




*Duty cycle*

### Evaluation Bandwidth




*BW 26dB*

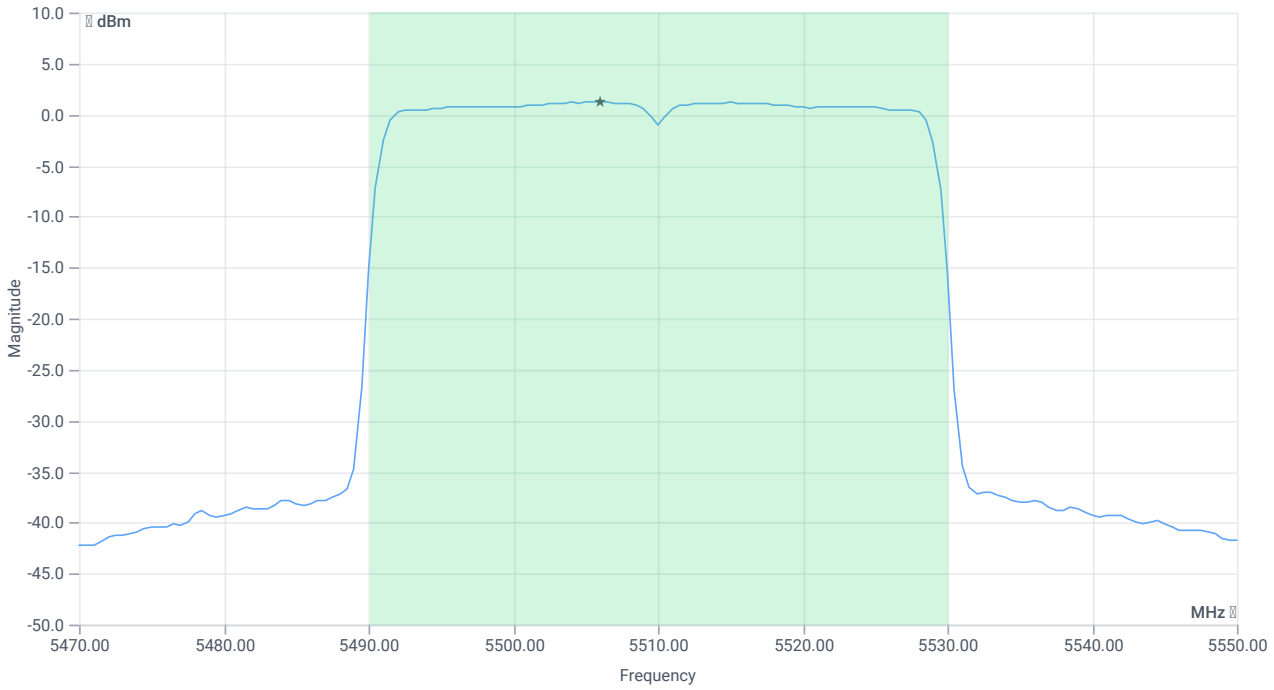
## RESULT

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Bandwidth 26dB | --- | --- | 39.92 | MHz | INFO |
| T1 26dB | --- | --- | 5490.0800 | MHz | INFO |
| T2 26dB | --- | --- | 5530.0000 | MHz | INFO |

## Maximum Output Power

## READ SA SETTINGS:

| | |
|---|---|
| RefLevel [dBm] \| RefLevelOffset [dB] \| InpAtt [dB] | 22.66 \| 16.69 \| 20 |
| Start [MHz] \| Stop [MHz] | 5470.000 \| 5550.000 |
| RBW [MHz] \| VBW [MHz] | 1.000000 \| 3.000000 |
| Detector \| TraceMode | RMS \| MAXH |
| Sweep: time [ms] \| count \| points per Section \| type | 53700 \| 1 \| 161 \| SWE |




*Max OP and PSD*

## RESULT

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Max Output Power | --- | --- | 16.27 | dBm | INFO |
| Duty Cycle Correction | --- | --- | 0.37 | dB | INFO |
| Limit absolute | | | | | |
| Max Output Power DC corrected | --- | 24 | 16.64 | dBm | PASS |
| Limit: 11 dBm + 10 log 39.92 | | | | | |
| Max Output Power DC corrected | --- | 27.01 | 16.64 | dBm | PASS |

## Power Spectral Density

## RESULT

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Power Spectral Density | --- | --- | 1.24 | dBm/1MHz | INFO |
| Duty Cycle Correction | --- | --- | 0.37 | dB | INFO |
| Power Spectral Density DC corrected | --- | 11 | 1.61 | dBm/1MHz | PASS |

| Verdict |
|---|
| PASS |

# FCC 15.407, ISED RSS247 # Bandwidths 99PCT and 20dB ~ WLAN5Gx ax-HE40 U-NII-2C

## References

| | |
|---|---|
| TC start | 19.01.2024 10:43:07 |
| Ambit temp [°C] \| humidity [rel%] | 21.8 \| 29 |
| System version | 4.7.1.5 |
| Standard \| Version | FCC 15.407, ISED RSS247 \| NI |
| Method | 26dB Bandwidth KDB789033 D02, C.1 / ISED RSS-GEN |
| Description | FCC 15.407 Bandwidths - WLAN5Gx ax-HE40 U-NII-2C |
| Information | |

## EUT Common Settings WLAN5Gx

| | |
|---|---|
| Number of Antenna Ports | 2 |
| User Interaction | No |
| Device Class UNII_1 | Client |
| Limit W52 Japan | Standard |

## Test Parameter

| | |
|---|---|
| Technology to test | WLAN5Gx ax-HE40 |
| Antenna port used | 2 |
| Temperature | nom |
| Voltage | nom |
| Frequency low to test | True \| Freq [MHz] 5510 |
| Frequency mid to test | False \| Freq [MHz] 5590 |
| Frequency high to test | False \| Freq [MHz] 5670 |
| Auto control enabled power supply \| Climatic Box | No \| No |
| Additional path loss [dB] | 1.4 |
| Full path name \| type | EUT - SignalingUnit - SpectrumAnalyzer |

## Equipment

| |
|---|
| Signal analyzer,Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.70 |
| Switch matrix,CTCadvanced,SPM-4 NI DAQ,28016133,NI |

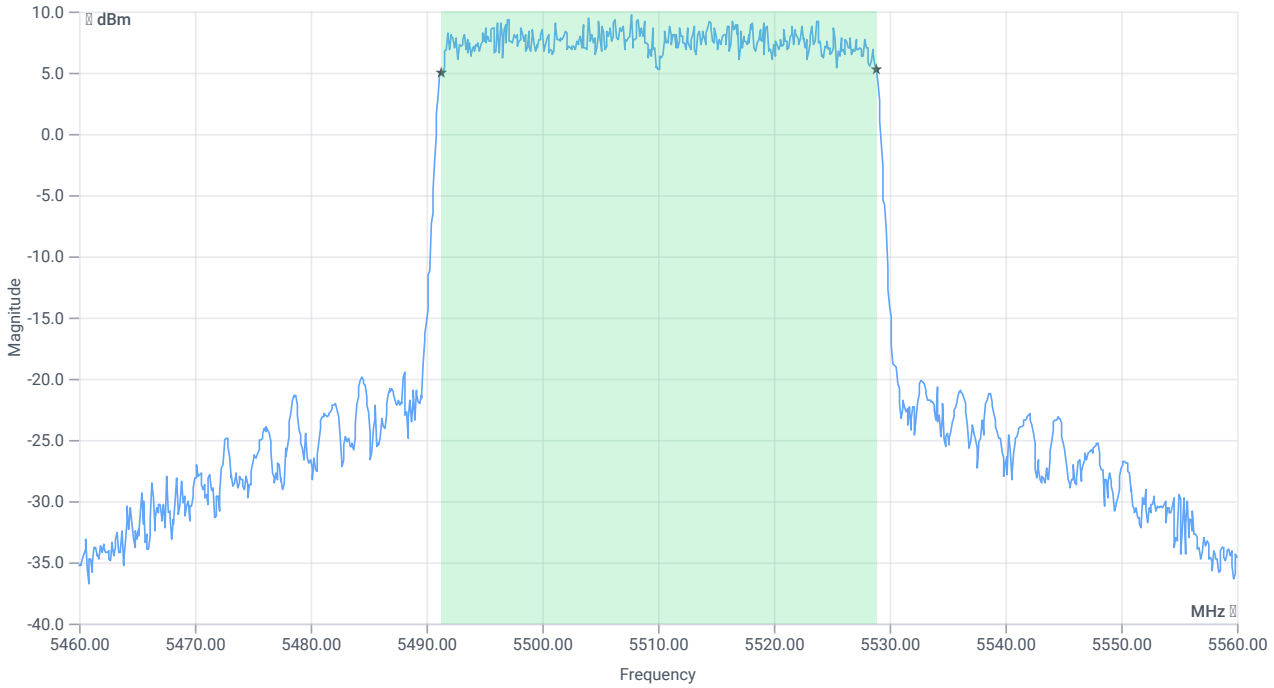
## Test at TX 5510 MHz

RESULT: Reference Power cond.

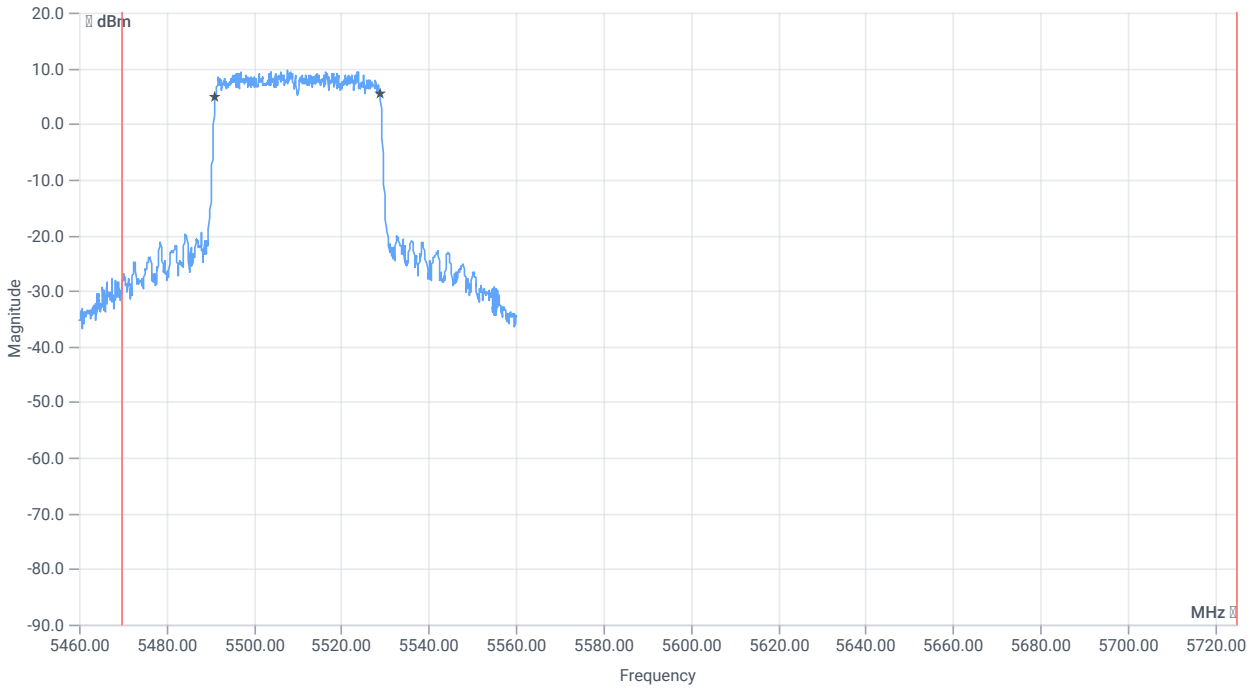
| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Ref. Power 1MHz/1MHz cond. | --- | --- | 11.24 | dBm | INFO |
| Ref. Frequency | --- | --- | 5521.390 | MHz | INFO |

READ SA SETTINGS:

| | |
|---|---|
| RefLevel [dBm] \| RefLevelOffset [dB] \| InpAtt [dB] | 19.24 \| 16.69 \| 20 |
| Start [MHz] \| Stop [MHz] | 5460.000 \| 5560.000 |
| RBW [MHz] \| VBW [MHz] | 0.500000 \| 3.000000 |
| Detector \| TraceMode | POS \| MAXH |
| Sweep: time [ms] \| count \| points per Section \| type | 1 \| 2500 \| 1001 \| SWE |



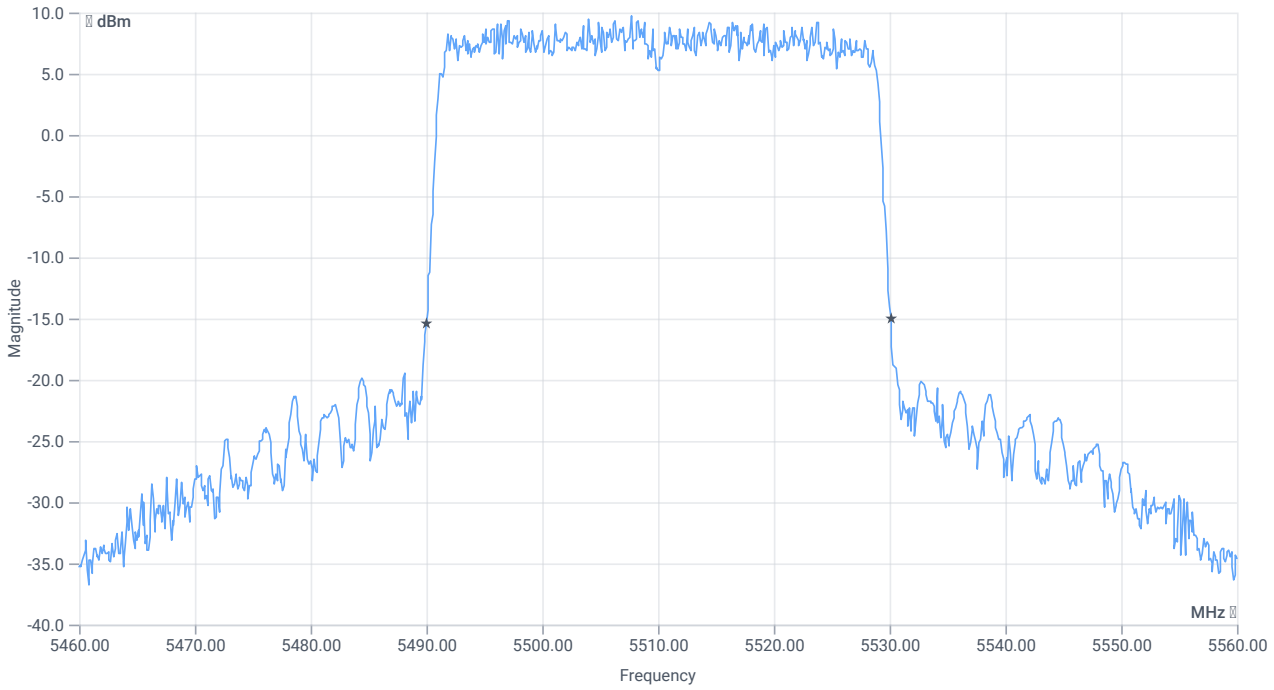

*BW 99PCT*



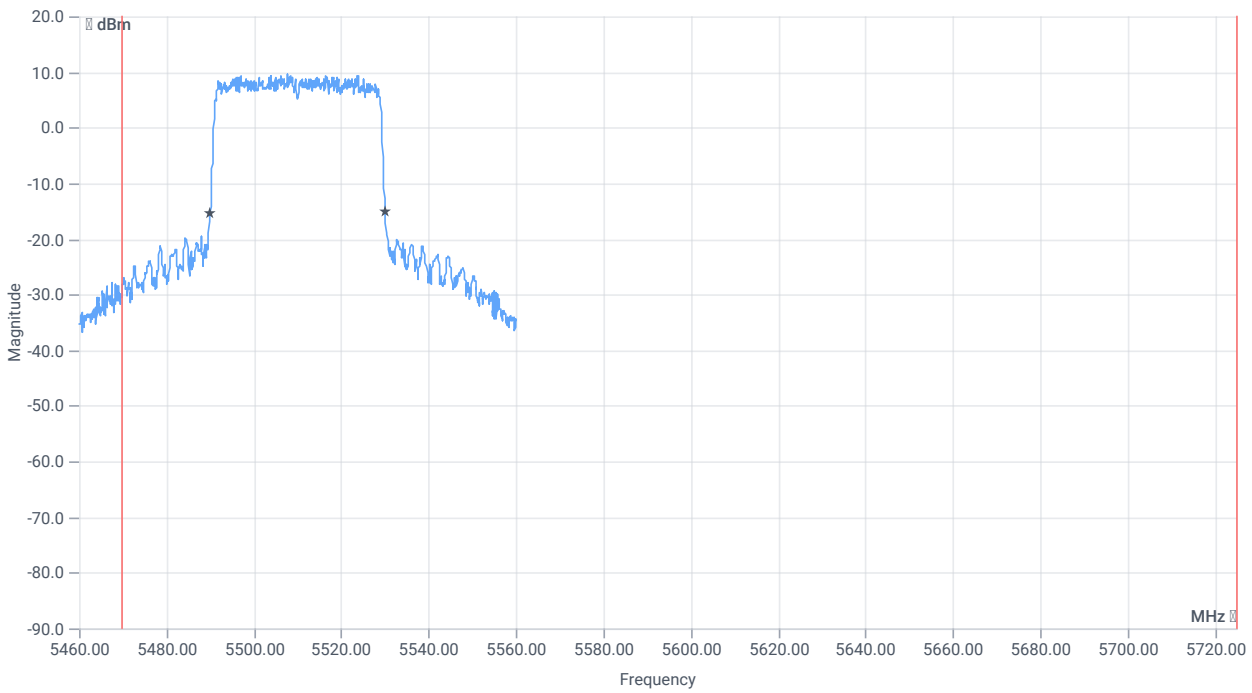

*BW within Band 99PCT*

## RESULT

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Bandwidth 99% | --- | --- | 37.662 | MHz | INFO |
| T1 99% | 5470.000000 | --- | 5491.2188 | MHz | PASS since U-NII-3 is supported |
| T2 99% | --- | 5725.000000 | 5528.8811 | MHz | |




*BW 26dB*




*BW within Band 26dB*

## RESULT

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Bandwidth 26dB | --- | --- | 40.1 | MHz | INFO |

## RESULT

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| T1 26dB | 5470.000000 | --- | 5490.0000 | MHz | PASS since U-NII-3 is supported |
| T2 26dB | --- | 5725.000000 | 5530.1000 | MHz | |

| Verdict |
|---|
| PASS |

# FCC 15.407 # MIMO ∑ Max output power and psd ~ WLAN5Gx ax-HE40 U-NII-2C

## References

| | |
|---|---|
| TC start | 19.01.2024 10:43:37 |
| Ambit temp [°C] \| humidity [rel%] | 21.8 \| 29 |
| System version | 4.7.1.5 |
| Standard \| Version | FCC 15.407 \| NI |
| Method | |
| Description | MIMO ∑ FCC Power & psd - WLAN5Gx ax-HE40 U-NII-2C |
| Information | |

## EUT Common Settings WLAN5Gx

| | |
|---|---|
| Number of Antenna Ports | 2 |
| User Interaction | No |
| Device Class UNII_1 | Client |
| Limit W52 Japan | Standard |

## Test Parameter

| | |
|---|---|
| Technology to test | WLAN5Gx ax-HE40 |
| Antenna port used | several |
| Temperature | nom |
| Voltage | nom |
| Frequency low to test | True \| Freq [MHz] 5510 |
| Frequency mid to test | False \| Freq [MHz] 5590 |
| Frequency high to test | False \| Freq [MHz] 5670 |
| Auto control enabled power supply \| Climatic Box | No \| No |
| Additional path loss [dB] | 1.4 |
| Full path name \| type | None |

## Equipment

## Test at TX 5510 MHz

### RESULT Power

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Ant:1 Max Output Power DC corrected | --- | --- | 16.54 | dBm | INFO |
| Ant:1 BW 26dB | --- | --- | 40.080 | MHz | INFO |
| Ant:2 Max Output Power DC corrected | --- | --- | 16.64 | dBm | INFO |
| Ant:2 BW 26dB | --- | --- | 39.920 | MHz | INFO |
| ∑ Limit absolute | --- | 24 | 19.6 | dBm | PASS |
| ∑ Limit: 11 dBm + 10 log 39.92 | --- | 27.01 | 19.6 | dBm | PASS |

### RESULT PSD

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Ant:1 PSD | --- | --- | 1.45 | dBm/1MHz | INFO |
| Ant:2 PSD | --- | --- | 1.61 | dBm/1MHz | INFO |
| ∑ | --- | 11 | 4.54 | dBm/1MHz | PASS |

| Verdict |
|---|
| PASS |

# FCC 15.407 # Max output power and psd ~ WLAN5Gx ax-HE40 U-NII-2C

## References

| | |
|---|---|
| TC start | 19.01.2024 10:48:43 |
| Ambit temp [°C] \| humidity [rel%] | 21.8 \| 29 |
| System version | 4.7.1.5 |
| Standard \| Version | FCC 15.407 \| NI |
| Method | KDB789033 D02, F., E.2.e. |
| Description | FCC 15.407 Max Output Power & PSD - WLAN5Gx ax-HE40 U-NII-2C |
| Information | |

## EUT Common Settings WLAN5Gx

| | |
|---|---|
| Number of Antenna Ports | 2 |
| User Interaction | No |
| Device Class UNII_1 | Client |
| Limit W52 Japan | Standard |

## Test Parameter

| | |
|---|---|
| Technology to test | WLAN5Gx ax-HE40 |
| Antenna port used | 1 |
| Temperature | nom |
| Voltage | nom |
| Frequency low to test | False \| Freq [MHz] 5510 |
| Frequency mid to test | True \| Freq [MHz] 5590 |
| Frequency high to test | False \| Freq [MHz] 5670 |
| Auto control enabled power supply \| Climatic Box | No \| No |
| Additional path loss [dB] | 1.4 |
| Full path name \| type | EUT - SignalingUnit - SpectrumAnalyzer |

## Equipment

| |
|---|
| Signal analyzer,Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.70 |
| Switch matrix,CTCadvanced,SPM-4 NI DAQ,28016133,NI |

## Test at TX 5590 MHz

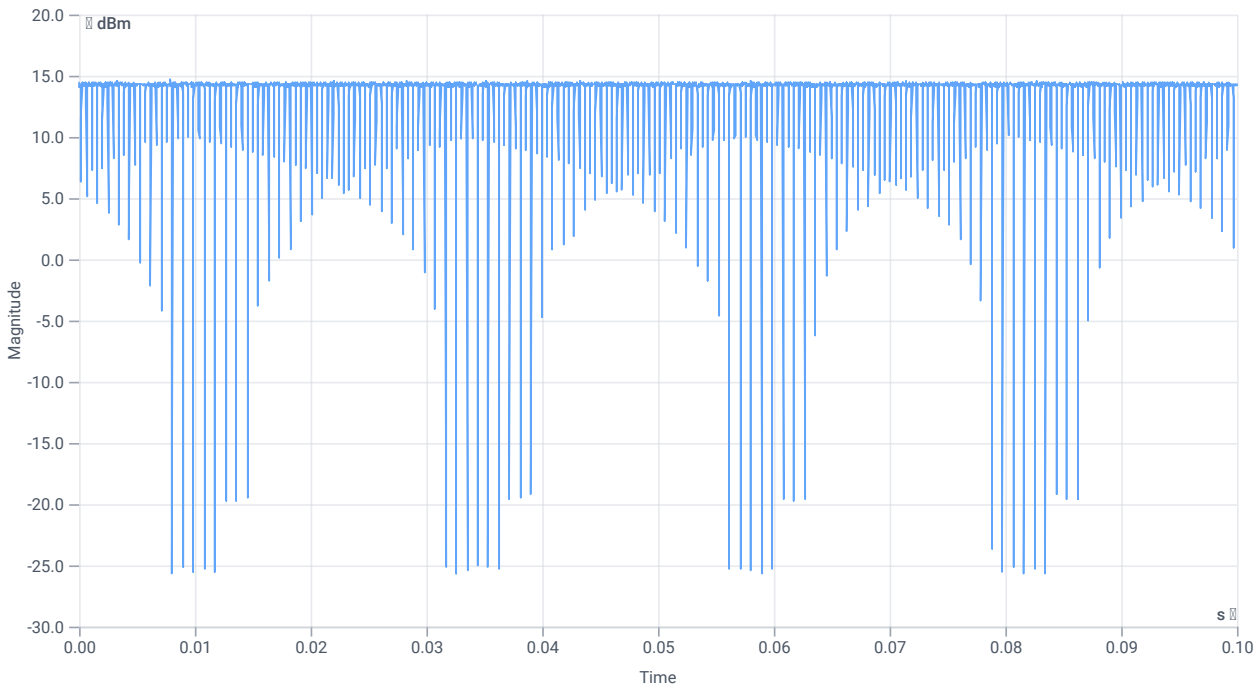
RESULT: Reference Power cond.

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Ref. Power 1MHz/1MHz cond. | --- | --- | 13.68 | dBm | INFO |
| Ref. Frequency | --- | --- | 5598.390 | MHz | INFO |

### Evaluation max. Duty Cycle

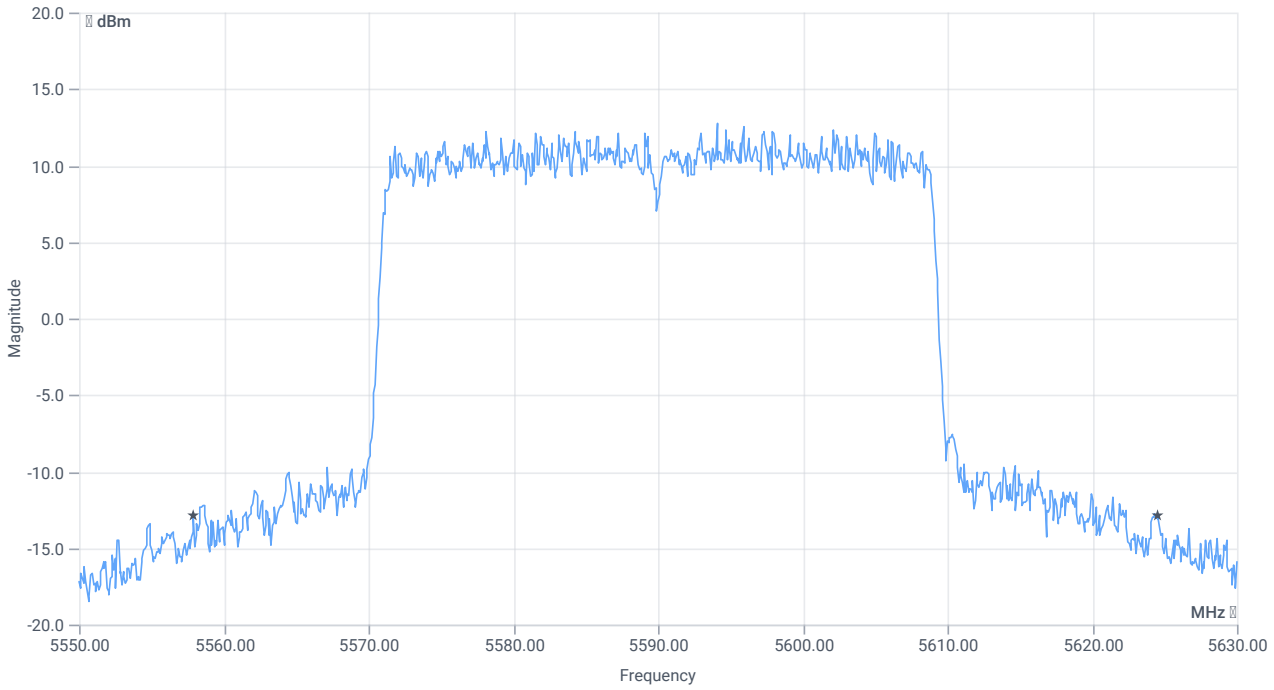
Duty Cycle evaluation

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Result Summary | | | | | |
| Number of detected Bursts:87 | | | | | |
| Duty Cycle (Burst Ratio) max | --- | --- | 0.988 | --- | INFO |
| Duty Cycle max | --- | --- | 0.052 | dB | INFO |
| Duty Cycle (Burst Ratio) min | --- | --- | 0.919 | --- | INFO |
| Duty Cycle min | --- | --- | 0.367 | dB | INFO |
| Max TX Burst Length | --- | --- | 5.95 | ms | INFO |
| Min Gap Length | --- | --- | 0.075 | ms | INFO |
| Max Gap Length | --- | --- | 0.075 | ms | INFO |




*Duty cycle*

### Evaluation Bandwidth




*BW 26dB*

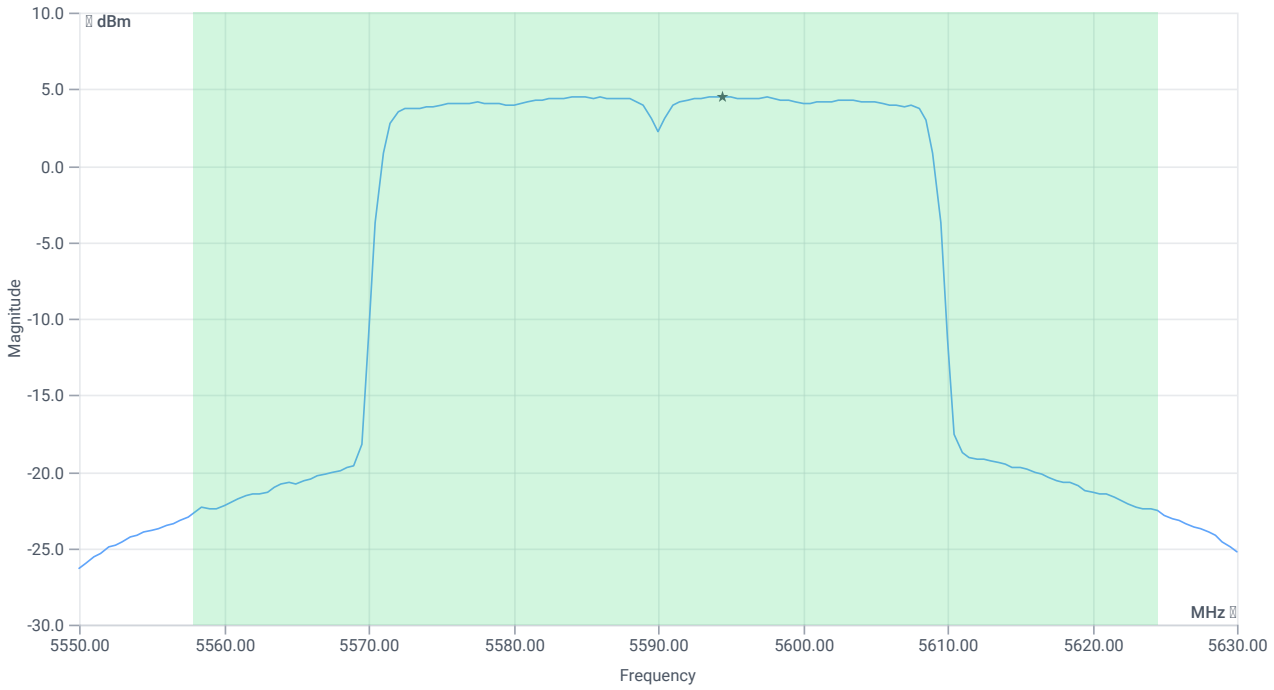
## RESULT

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Bandwidth 26dB | --- | --- | 66.64 | MHz | INFO |
| T1 26dB | --- | --- | 5557.9200 | MHz | INFO |
| T2 26dB | --- | --- | 5624.5600 | MHz | INFO |

## Maximum Output Power

## READ SA SETTINGS:

| | |
|---|---|
| RefLevel [dBm] \| RefLevelOffset [dB] \| InpAtt [dB] | 25.68 \| 16.82 \| 25 |
| Start [MHz] \| Stop [MHz] | 5550.000 \| 5630.000 |
| RBW [MHz] \| VBW [MHz] | 1.000000 \| 3.000000 |
| Detector \| TraceMode | RMS \| MAXH |
| Sweep: time [ms] \| count \| points per Section \| type | 53700 \| 1 \| 161 \| SWE |




*Max OP and PSD*

## RESULT

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Max Output Power | --- | --- | 19.63 | dBm | INFO |
| Duty Cycle Correction | --- | --- | 0.37 | dB | INFO |
| Limit absolute | | | | | |
| Max Output Power DC corrected | --- | 24 | 20 | dBm | PASS |
| Limit: 11 dBm + 10 log 66.64 | | | | | |
| Max Output Power DC corrected | --- | 29.24 | 20 | dBm | PASS |

## Power Spectral Density

## RESULT

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Power Spectral Density | --- | --- | 4.47 | dBm/1MHz | INFO |
| Duty Cycle Correction | --- | --- | 0.37 | dB | INFO |
| Power Spectral Density DC corrected | --- | 11 | 4.84 | dBm/1MHz | PASS |

| Verdict |
|---|
| PASS |

# FCC 15.407, ISED RSS247 # Bandwidths 99PCT and 20dB ~ WLAN5Gx ax-HE40 U-NII-2C

## References

| | |
|---|---|
| TC start | 19.01.2024 10:50:09 |
| Ambit temp [°C] \| humidity [rel%] | 21.8 \| 29 |
| System version | 4.7.1.5 |
| Standard \| Version | FCC 15.407, ISED RSS247 \| NI |
| Method | 26dB Bandwidth KDB789033 D02, C.1 / ISED RSS-GEN |
| Description | FCC 15.407 Bandwidths - WLAN5Gx ax-HE40 U-NII-2C |
| Information | |

## EUT Common Settings WLAN5Gx

| | |
|---|---|
| Number of Antenna Ports | 2 |
| User Interaction | No |
| Device Class UNII_1 | Client |
| Limit W52 Japan | Standard |

## Test Parameter

| | |
|---|---|
| Technology to test | WLAN5Gx ax-HE40 |
| Antenna port used | 1 |
| Temperature | nom |
| Voltage | nom |
| Frequency low to test | False \| Freq [MHz] 5510 |
| Frequency mid to test | True \| Freq [MHz] 5590 |
| Frequency high to test | False \| Freq [MHz] 5670 |
| Auto control enabled power supply \| Climatic Box | No \| No |
| Additional path loss [dB] | 1.4 |
| Full path name \| type | EUT - SignalingUnit - SpectrumAnalyzer |

## Equipment

| |
|---|
| Signal analyzer,Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.70 |
| Switch matrix,CTCadvanced,SPM-4 NI DAQ,28016133,NI |

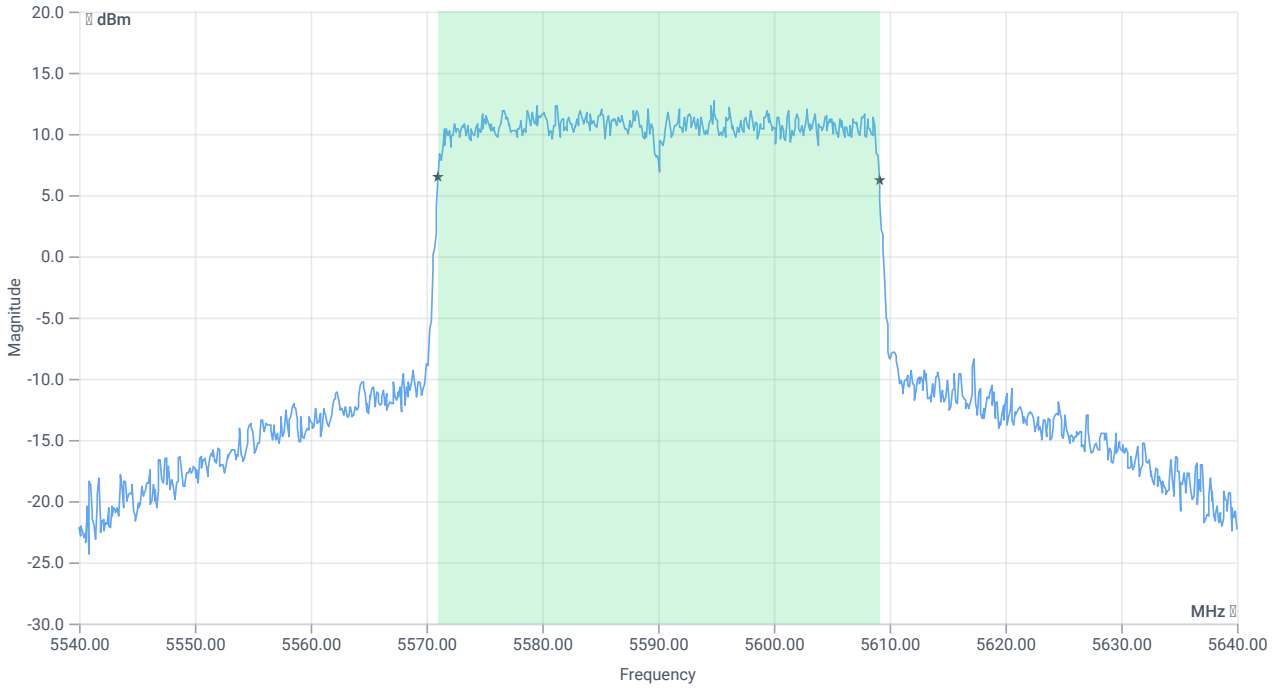
## Test at TX 5590 MHz

RESULT: Reference Power cond.

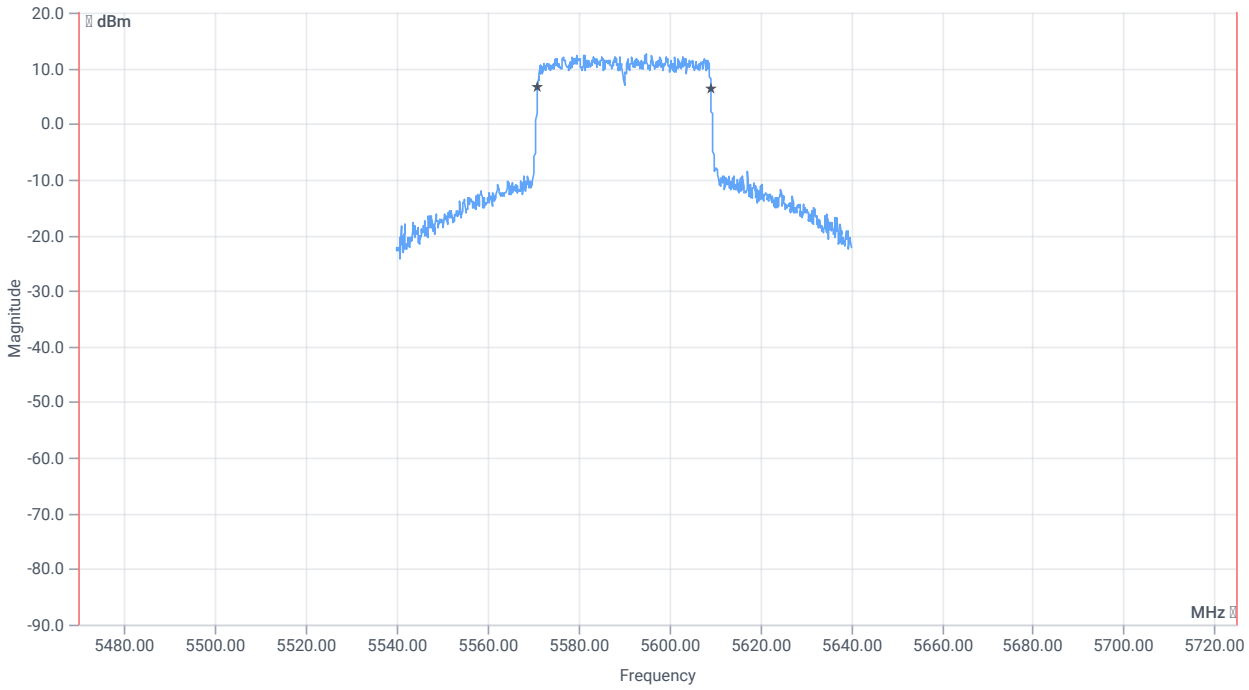
| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Ref. Power 1MHz/1MHz cond. | --- | --- | 15.05 | dBm | INFO |
| Ref. Frequency | --- | --- | 5592.600 | MHz | INFO |

READ SA SETTINGS:

| | |
|---|---|
| RefLevel [dBm] \| RefLevelOffset [dB] \| InpAtt [dB] | 23.05 \| 16.82 \| 25 |
| Start [MHz] \| Stop [MHz] | 5540.000 \| 5640.000 |
| RBW [MHz] \| VBW [MHz] | 0.500000 \| 3.000000 |
| Detector \| TraceMode | POS \| MAXH |
| Sweep: time [ms] \| count \| points per Section \| type | 1 \| 2500 \| 1001 \| SWE |



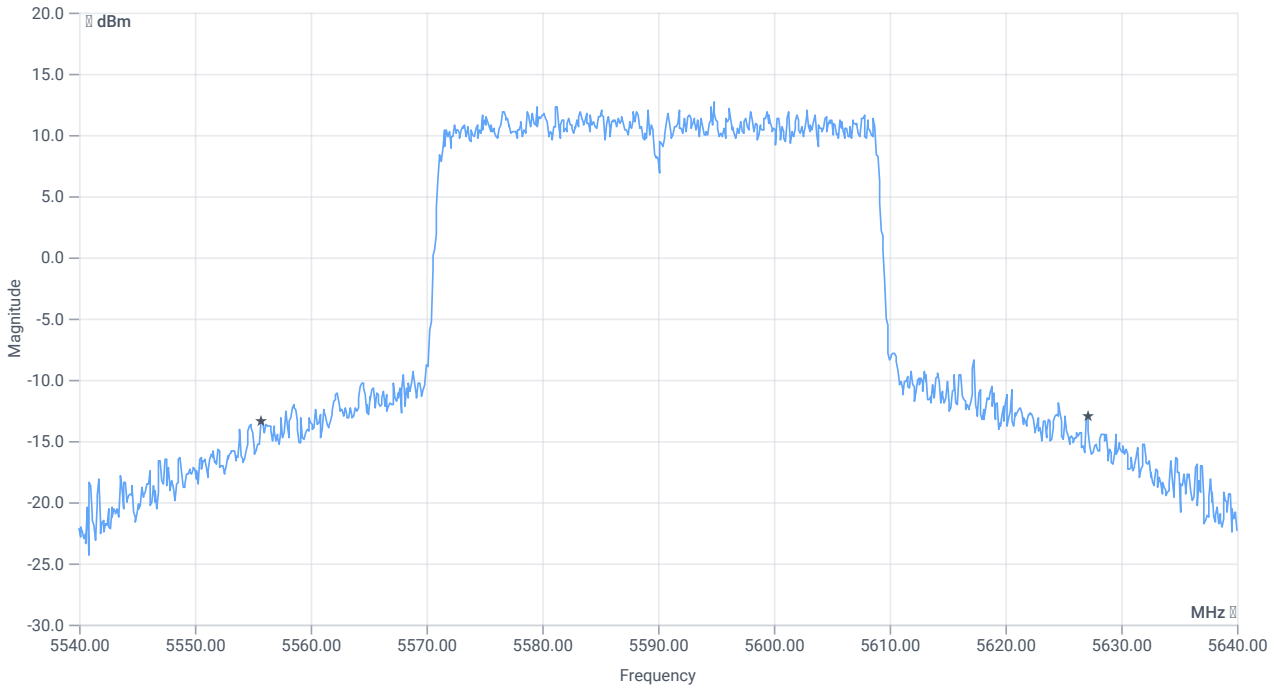

*BW 99PCT*



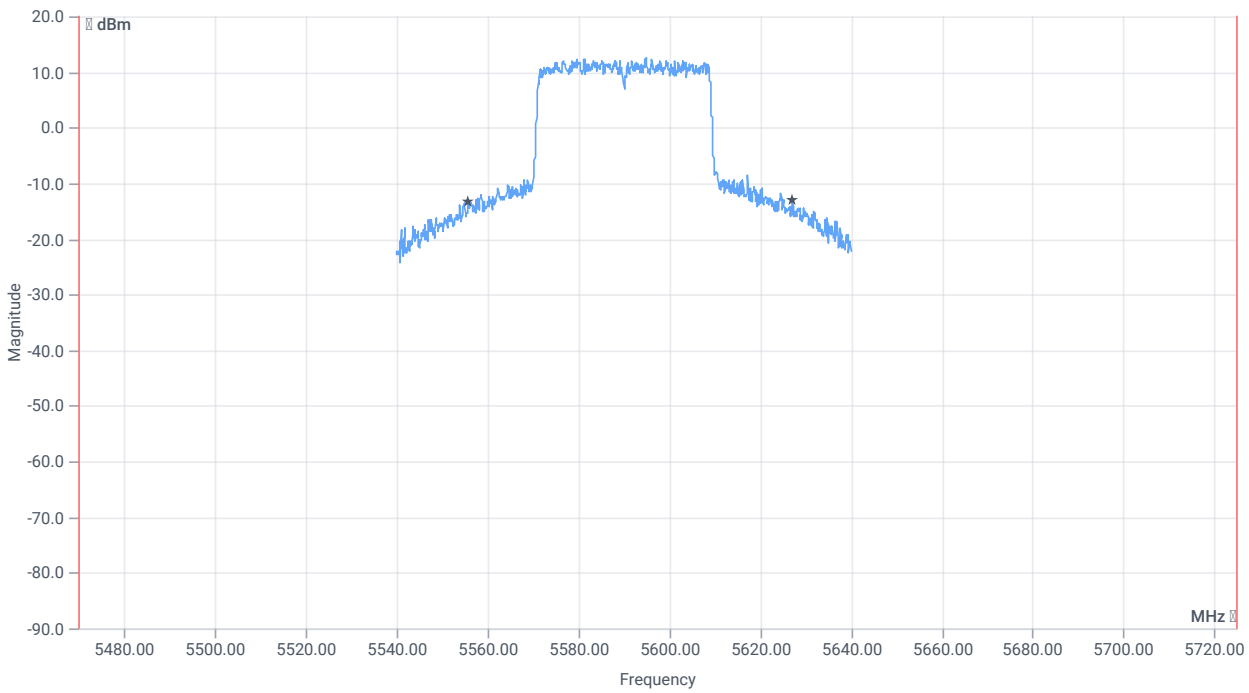

*BW within Band 99PCT*

## RESULT

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Bandwidth 99% | --- | --- | 38.062 | MHz | INFO |
| T1 99% | 5470.000000 | --- | 5571.0190 | MHz | PASS since U-NII-3 is supported |
| T2 99% | --- | 5725.000000 | 5609.0809 | MHz | |




*BW 26dB*




*BW within Band 26dB*

## RESULT

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Bandwidth 26dB | --- | --- | 71.4 | MHz | INFO |

## RESULT

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| T1 26dB | 5470.000000 | --- | 5555.7000 | MHz | PASS since U-NII-3 is supported |
| T2 26dB | --- | 5725.000000 | 5627.1000 | MHz | |

| Verdict |
|---|
| PASS |

# FCC 15.407 # Max output power and psd ~ WLAN5Gx ax-HE40 U-NII-2C

## References

| | |
|---|---|
| TC start | 19.01.2024 10:50:40 |
| Ambit temp [°C] \| humidity [rel%] | 21.8 \| 29 |
| System version | 4.7.1.5 |
| Standard \| Version | FCC 15.407 \| NI |
| Method | KDB789033 D02, F., E.2.e. |
| Description | FCC 15.407 Max Output Power & PSD - WLAN5Gx ax-HE40 U-NII-2C |
| Information | |

## EUT Common Settings WLAN5Gx

| | |
|---|---|
| Number of Antenna Ports | 2 |
| User Interaction | No |
| Device Class UNII_1 | Client |
| Limit W52 Japan | Standard |

## Test Parameter

| | |
|---|---|
| Technology to test | WLAN5Gx ax-HE40 |
| Antenna port used | 2 |
| Temperature | nom |
| Voltage | nom |
| Frequency low to test | False \| Freq [MHz] 5510 |
| Frequency mid to test | True \| Freq [MHz] 5590 |
| Frequency high to test | False \| Freq [MHz] 5670 |
| Auto control enabled power supply \| Climatic Box | No \| No |
| Additional path loss [dB] | 1.4 |
| Full path name \| type | EUT - SignalingUnit - SpectrumAnalyzer |

## Equipment

| |
|---|
| Signal analyzer,Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.70 |
| Switch matrix,CTCadvanced,SPM-4 NI DAQ,28016133,NI |

## Test at TX 5590 MHz

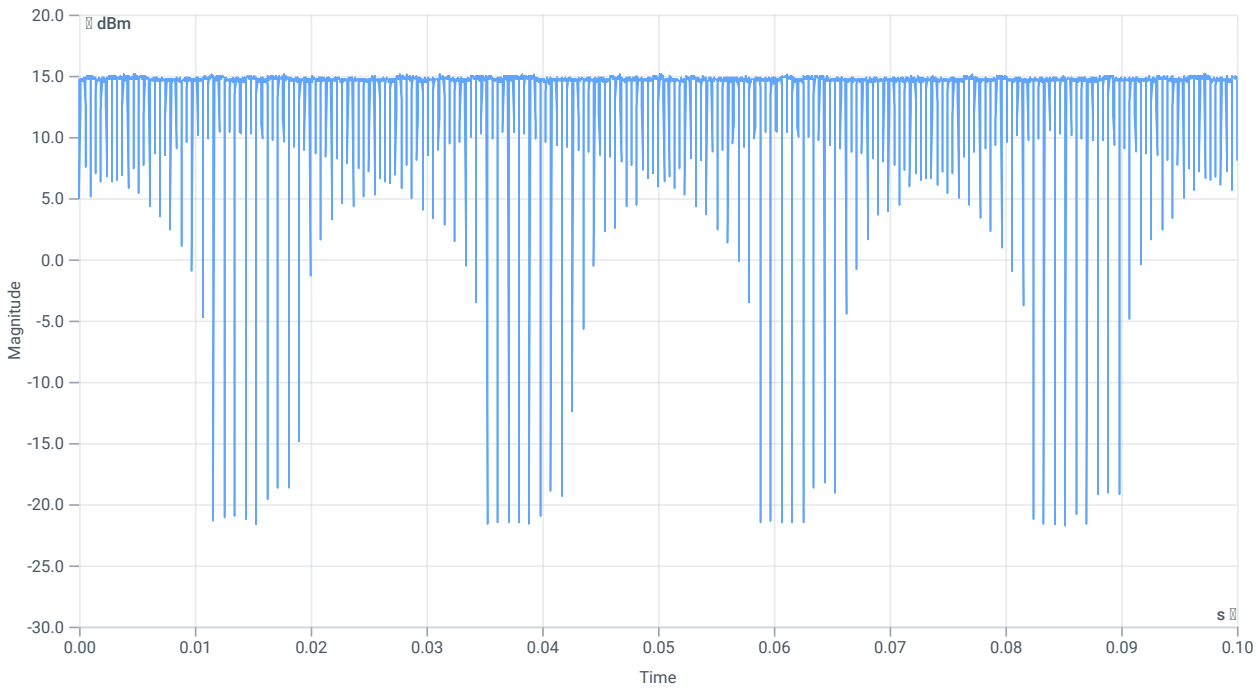
RESULT: Reference Power cond.

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Ref. Power 1MHz/1MHz cond. | --- | --- | 15.82 | dBm | INFO |
| Ref. Frequency | --- | --- | 5595.590 | MHz | INFO |

### Evaluation max. Duty Cycle

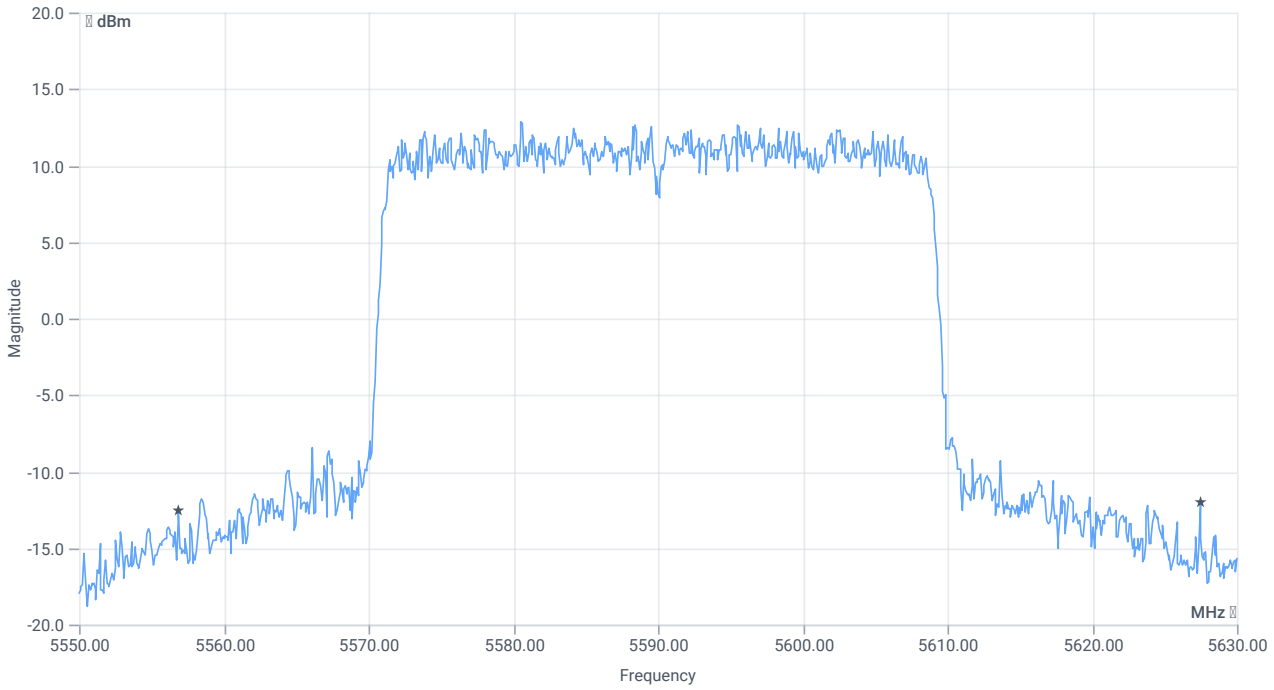
Duty Cycle evaluation

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Result Summary | | | | | |
| Number of detected Bursts:86 | | | | | |
| Duty Cycle (Burst Ratio) max | --- | --- | 0.985 | --- | INFO |
| Duty Cycle max | --- | --- | 0.066 | dB | INFO |
| Duty Cycle (Burst Ratio) min | --- | --- | 0.919 | --- | INFO |
| Duty Cycle min | --- | --- | 0.367 | dB | INFO |
| Max TX Burst Length | --- | --- | 5.025 | ms | INFO |
| Min Gap Length | --- | --- | 0.075 | ms | INFO |
| Max Gap Length | --- | --- | 0.075 | ms | INFO |




*Duty cycle*

### Evaluation Bandwidth




*BW 26dB*

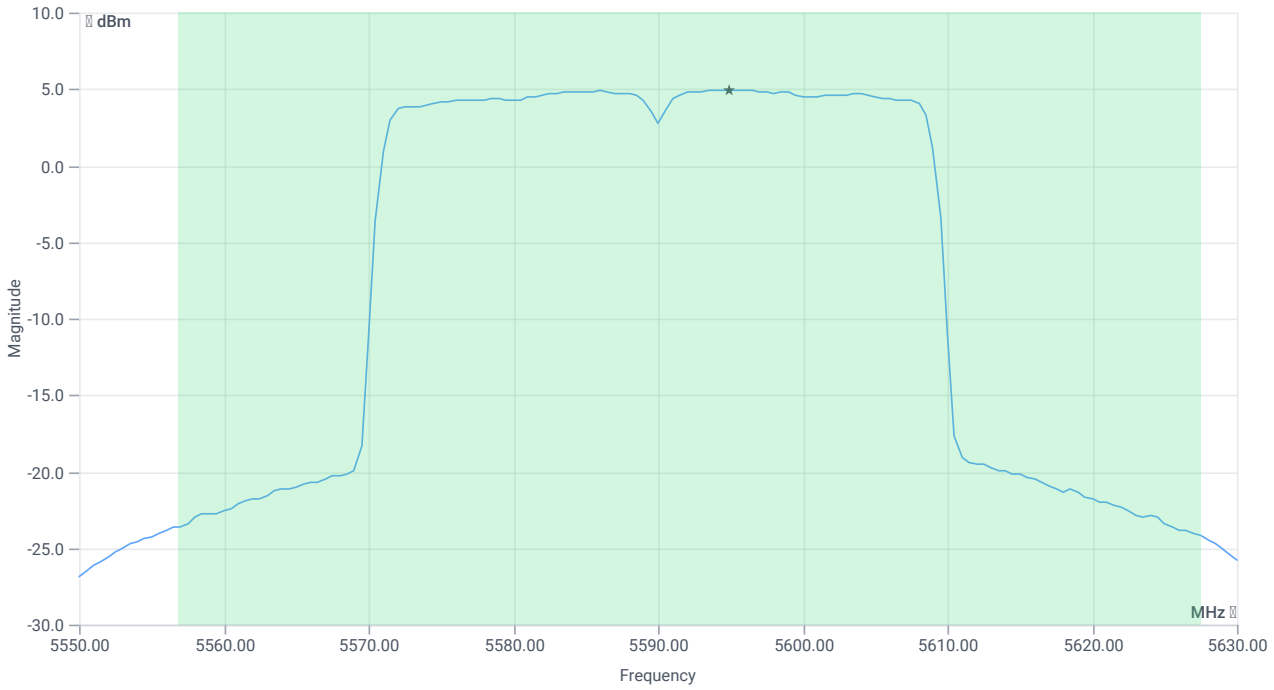
## RESULT

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Bandwidth 26dB | --- | --- | 70.56 | MHz | INFO |
| T1 26dB | --- | --- | 5556.8800 | MHz | INFO |
| T2 26dB | --- | --- | 5627.4400 | MHz | INFO |

## Maximum Output Power

## READ SA SETTINGS:

| | |
|---|---|
| RefLevel [dBm] \| RefLevelOffset [dB] \| InpAtt [dB] | 27.82 \| 16.82 \| 25 |
| Start [MHz] \| Stop [MHz] | 5550.000 \| 5630.000 |
| RBW [MHz] \| VBW [MHz] | 1.000000 \| 3.000000 |
| Detector \| TraceMode | RMS \| MAXH |
| Sweep: time [ms] \| count \| points per Section \| type | 53700 \| 1 \| 161 \| SWE |




*Max OP and PSD*

## RESULT

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Max Output Power | --- | --- | 19.98 | dBm | INFO |
| Duty Cycle Correction | --- | --- | 0.37 | dB | INFO |
| Limit absolute | | | | | |
| Max Output Power DC corrected | --- | 24 | 20.35 | dBm | PASS |
| Limit: 11 dBm + 10 log 70.56 | | | | | |
| Max Output Power DC corrected | --- | 29.49 | 20.35 | dBm | PASS |

## Power Spectral Density

## RESULT

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Power Spectral Density | --- | --- | 4.94 | dBm/1MHz | INFO |
| Duty Cycle Correction | --- | --- | 0.37 | dB | INFO |
| Power Spectral Density DC corrected | --- | 11 | 5.31 | dBm/1MHz | PASS |

| Verdict |
|---|
| PASS |

# FCC 15.407, ISED RSS247 # Bandwidths 99PCT and 20dB ~ WLAN5Gx ax-HE40 U-NII-2C

## References

| | |
|---|---|
| TC start | 19.01.2024 10:52:06 |
| Ambit temp [°C] \| humidity [rel%] | 21.8 \| 29 |
| System version | 4.7.1.5 |
| Standard \| Version | FCC 15.407, ISED RSS247 \| NI |
| Method | 26dB Bandwidth KDB789033 D02, C.1 / ISED RSS-GEN |
| Description | FCC 15.407 Bandwidths - WLAN5Gx ax-HE40 U-NII-2C |
| Information | |

## EUT Common Settings WLAN5Gx

| | |
|---|---|
| Number of Antenna Ports | 2 |
| User Interaction | No |
| Device Class UNII_1 | Client |
| Limit W52 Japan | Standard |

## Test Parameter

| | |
|---|---|
| Technology to test | WLAN5Gx ax-HE40 |
| Antenna port used | 2 |
| Temperature | nom |
| Voltage | nom |
| Frequency low to test | False \| Freq [MHz] 5510 |
| Frequency mid to test | True \| Freq [MHz] 5590 |
| Frequency high to test | False \| Freq [MHz] 5670 |
| Auto control enabled power supply \| Climatic Box | No \| No |
| Additional path loss [dB] | 1.4 |
| Full path name \| type | EUT - SignalingUnit - SpectrumAnalyzer |

## Equipment

| |
|---|
| Signal analyzer,Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.70 |
| Switch matrix,CTCadvanced,SPM-4 NI DAQ,28016133,NI |

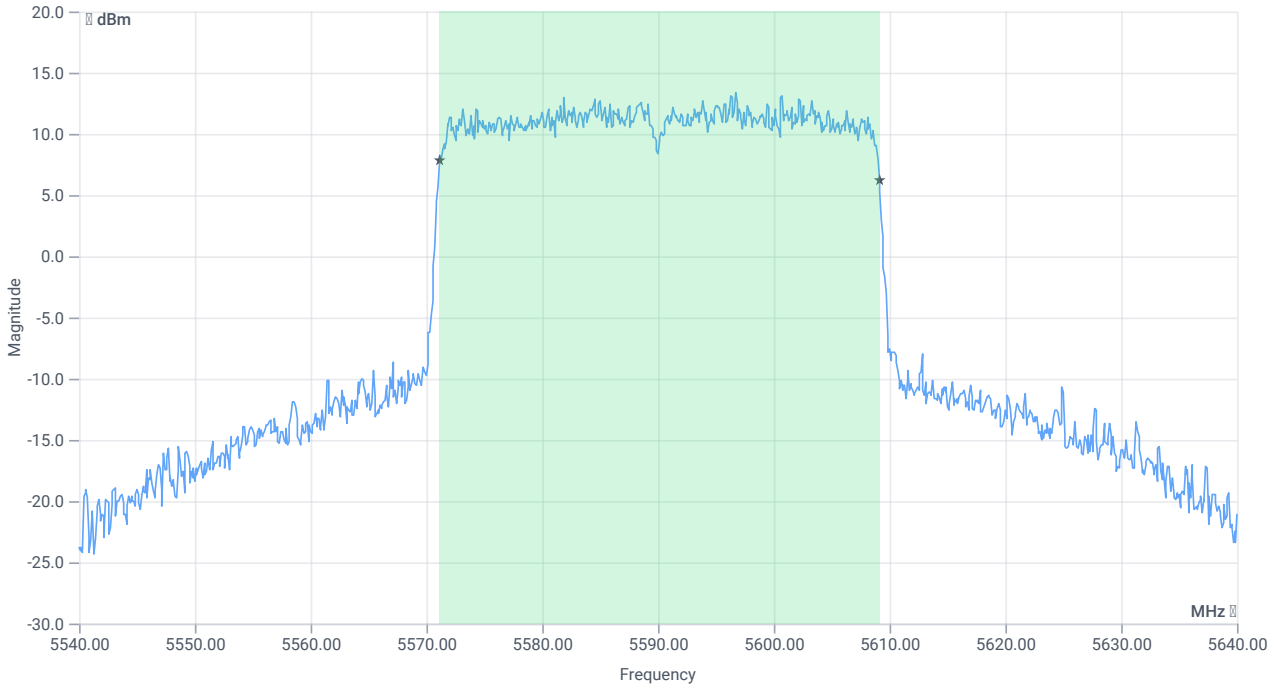
## Test at TX 5590 MHz

RESULT: Reference Power cond.

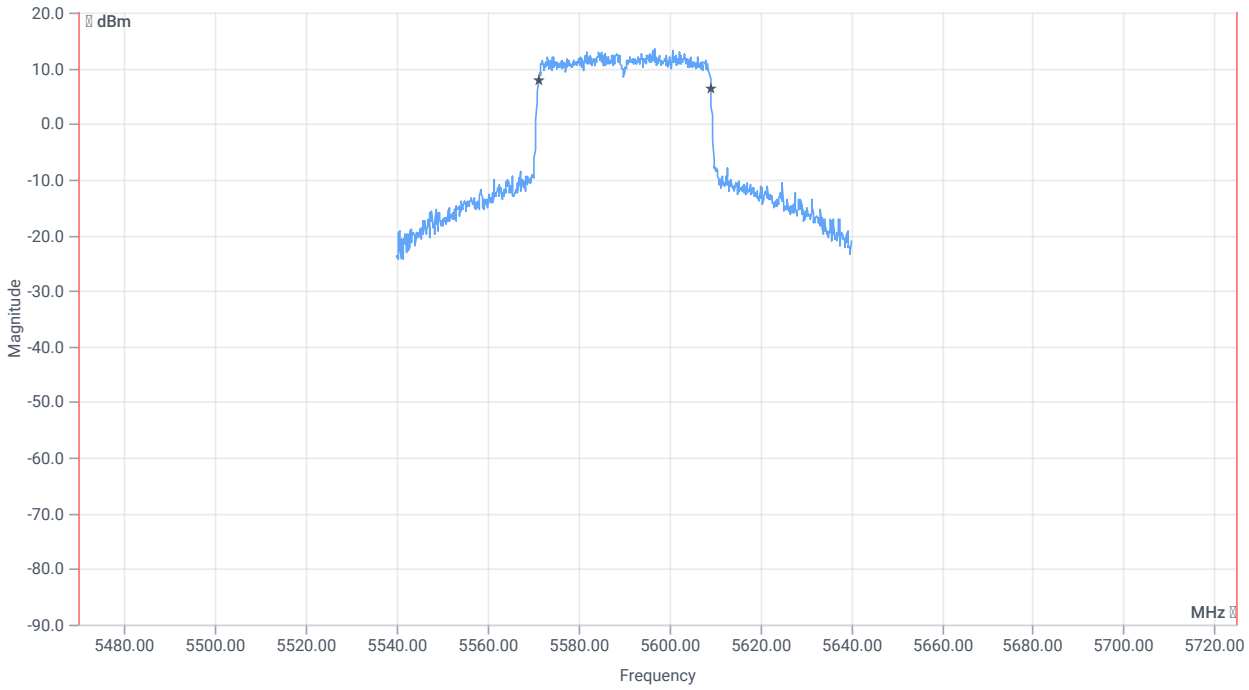
| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Ref. Power 1MHz/1MHz cond. | --- | --- | 15.00 | dBm | INFO |
| Ref. Frequency | --- | --- | 5587.600 | MHz | INFO |

READ SA SETTINGS:

| | |
|---|---|
| RefLevel [dBm] \| RefLevelOffset [dB] \| InpAtt [dB] | 23.00 \| 16.82 \| 25 |
| Start [MHz] \| Stop [MHz] | 5540.000 \| 5640.000 |
| RBW [MHz] \| VBW [MHz] | 0.500000 \| 3.000000 |
| Detector \| TraceMode | POS \| MAXH |
| Sweep: time [ms] \| count \| points per Section \| type | 1 \| 2500 \| 1001 \| SWE |



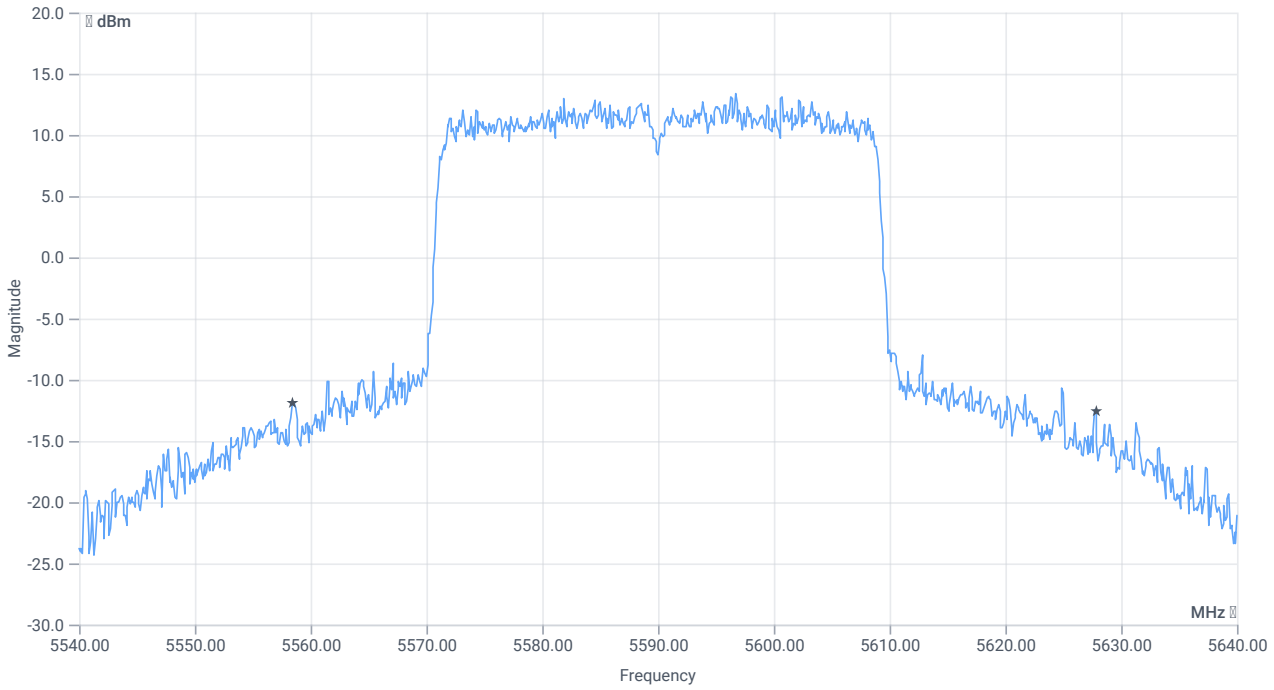

*BW 99PCT*



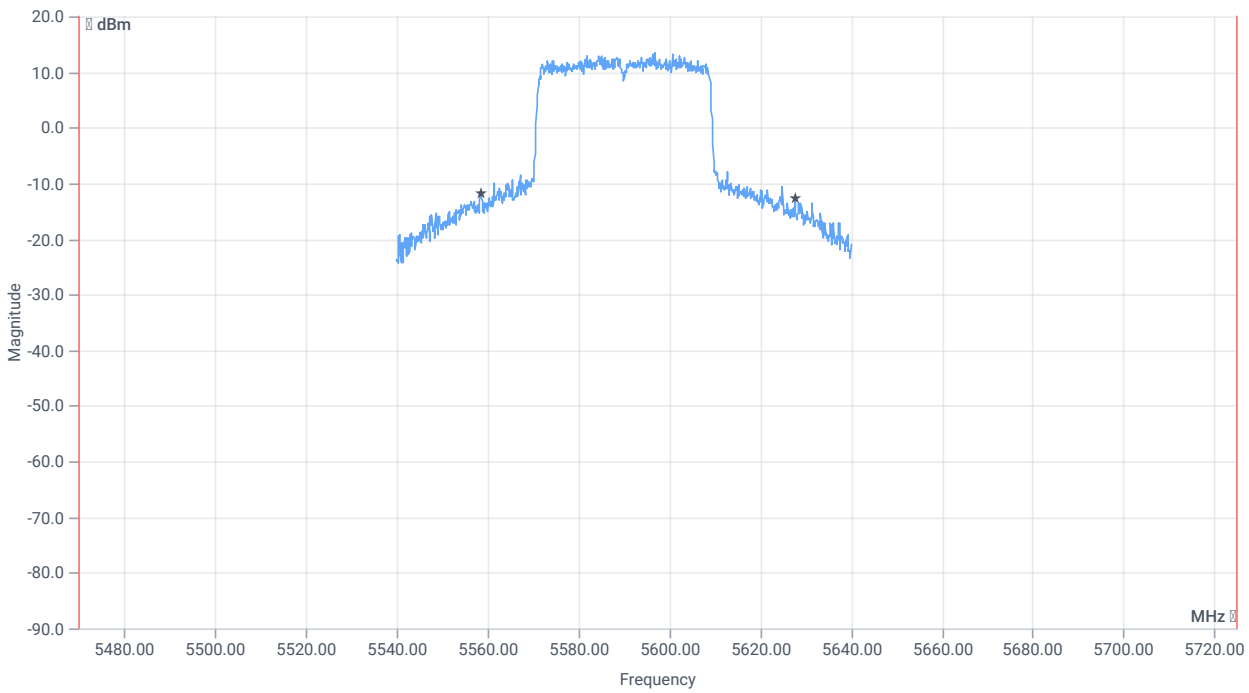

*BW within Band 99PCT*

## RESULT

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Bandwidth 99% | --- | --- | 37.962 | MHz | INFO |
| T1 99% | 5470.000000 | --- | 5571.1189 | MHz | PASS since U-NII-3 is supported |
| T2 99% | --- | 5725.000000 | 5609.0809 | MHz | |




*BW 26dB*




*BW within Band 26dB*

## RESULT

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Bandwidth 26dB | --- | --- | 69.4 | MHz | INFO |

## RESULT

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| T1 26dB | 5470.000000 | --- | 5558.4000 | MHz | PASS since U-NII-3 is supported |
| T2 26dB | --- | 5725.000000 | 5627.8000 | MHz | |

| Verdict |
|---|
| PASS |

# FCC 15.407 # MIMO ∑ Max output power and psd ~ WLAN5Gx ax-HE40 U-NII-2C

## References

| | |
|---|---|
| TC start | 19.01.2024 10:52:38 |
| Ambit temp [°C] \| humidity [rel%] | 21.8 \| 28 |
| System version | 4.7.1.5 |
| Standard \| Version | FCC 15.407 \| NI |
| Method | |
| Description | MIMO ∑ FCC Power & psd - WLAN5Gx ax-HE40 U-NII-2C |
| Information | |

## EUT Common Settings WLAN5Gx

| | |
|---|---|
| Number of Antenna Ports | 2 |
| User Interaction | No |
| Device Class UNII_1 | Client |
| Limit W52 Japan | Standard |

## Test Parameter

| | |
|---|---|
| Technology to test | WLAN5Gx ax-HE40 |
| Antenna port used | several |
| Temperature | nom |
| Voltage | nom |
| Frequency low to test | False \| Freq [MHz] 5510 |
| Frequency mid to test | True \| Freq [MHz] 5590 |
| Frequency high to test | False \| Freq [MHz] 5670 |
| Auto control enabled power supply \| Climatic Box | No \| No |
| Additional path loss [dB] | 1.4 |
| Full path name \| type | None |

## Equipment

## Test at TX 5590 MHz

### RESULT Power

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Ant:1 Max Output Power DC corrected | --- | --- | 20 | dBm | INFO |
| Ant:1 BW 26dB | --- | --- | 66.640 | MHz | INFO |
| Ant:2 Max Output Power DC corrected | --- | --- | 20.35 | dBm | INFO |
| Ant:2 BW 26dB | --- | --- | 70.560 | MHz | INFO |
| ∑ Limit absolute | --- | 24 | 23.19 | dBm | PASS |
| ∑ Limit: 11 dBm + 10 log 66.64 | --- | 29.24 | 23.19 | dBm | PASS |

### RESULT PSD

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Ant:1 PSD | --- | --- | 4.84 | dBm/1MHz | INFO |
| Ant:2 PSD | --- | --- | 5.31 | dBm/1MHz | INFO |
| ∑ | --- | 11 | 8.09 | dBm/1MHz | PASS |

| Verdict |
|---|
| PASS |

# FCC 15.407 # Max output power and psd ~ WLAN5Gx ax-HE40 U-NII-2C

## References

| | |
|---|---|
| TC start | 19.01.2024 10:55:15 |
| Ambit temp [°C] \| humidity [rel%] | 21.9 \| 28 |
| System version | 4.7.1.5 |
| Standard \| Version | FCC 15.407 \| NI |
| Method | KDB789033 D02, F., E.2.e. |
| Description | FCC 15.407 Max Output Power & PSD - WLAN5Gx ax-HE40 U-NII-2C |
| Information | |

## EUT Common Settings WLAN5Gx

| | |
|---|---|
| Number of Antenna Ports | 2 |
| User Interaction | No |
| Device Class UNII_1 | Client |
| Limit W52 Japan | Standard |

## Test Parameter

| | |
|---|---|
| Technology to test | WLAN5Gx ax-HE40 |
| Antenna port used | 1 |
| Temperature | nom |
| Voltage | nom |
| Frequency low to test | False \| Freq [MHz] 5510 |
| Frequency mid to test | False \| Freq [MHz] 5590 |
| Frequency high to test | True \| Freq [MHz] 5670 |
| Auto control enabled power supply \| Climatic Box | No \| No |
| Additional path loss [dB] | 1.4 |
| Full path name \| type | EUT - SignalingUnit - SpectrumAnalyzer |

## Equipment

| |
|---|
| Signal analyzer,Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.70 |
| Switch matrix,CTCadvanced,SPM-4 NI DAQ,28016133,NI |

## Test at TX 5670 MHz

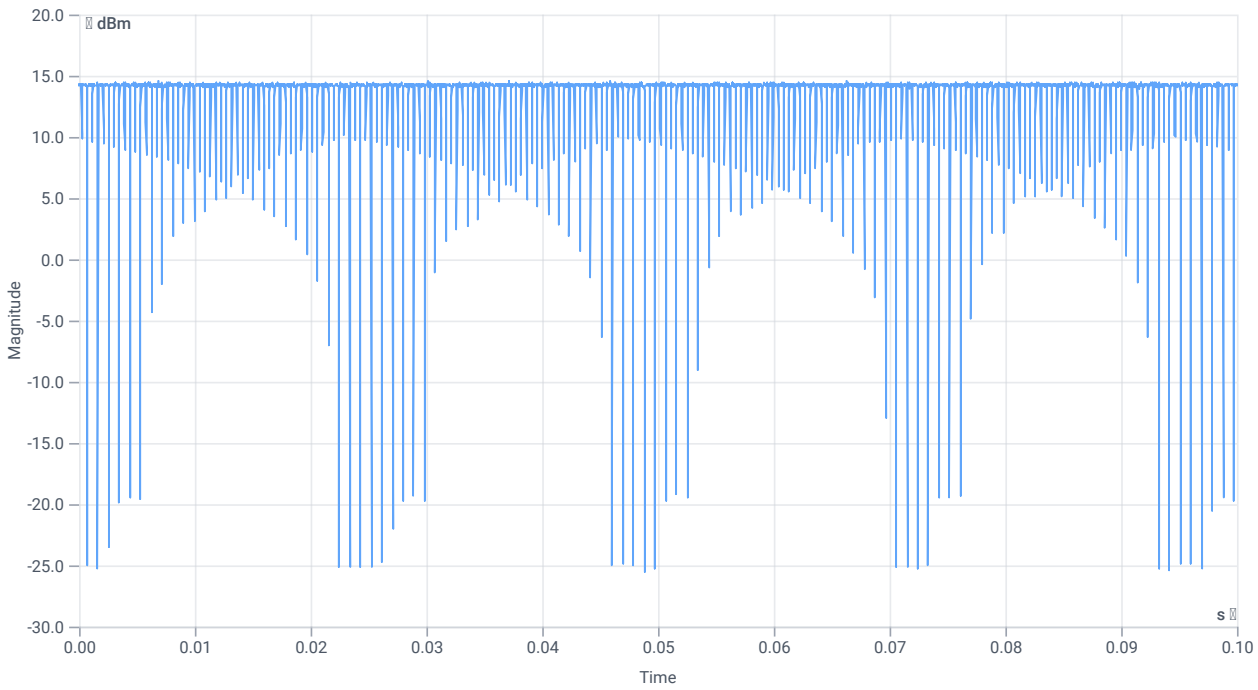
RESULT: Reference Power cond.

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Ref. Power 1MHz/1MHz cond. | --- | --- | 13.97 | dBm | INFO |
| Ref. Frequency | --- | --- | 5677.990 | MHz | INFO |

### Evaluation max. Duty Cycle

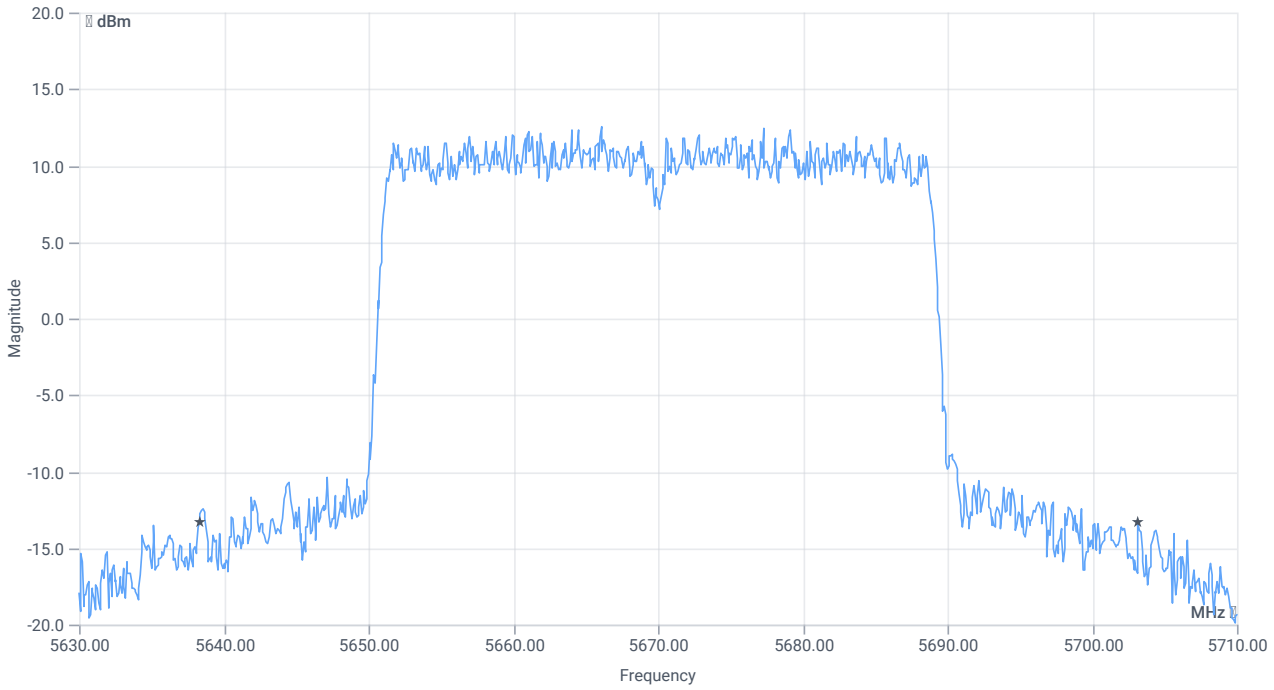
Duty Cycle evaluation

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Result Summary | | | | | |
| Number of detected Bursts:86 | | | | | |
| Duty Cycle (Burst Ratio) max | --- | --- | 0.989 | --- | INFO |
| Duty Cycle max | --- | --- | 0.048 | dB | INFO |
| Duty Cycle (Burst Ratio) min | --- | --- | 0.919 | --- | INFO |
| Duty Cycle min | --- | --- | 0.367 | dB | INFO |
| Max TX Burst Length | --- | --- | 6.875 | ms | INFO |
| Min Gap Length | --- | --- | 0.075 | ms | INFO |
| Max Gap Length | --- | --- | 0.075 | ms | INFO |




*Duty cycle*

### Evaluation Bandwidth




*BW 26dB*

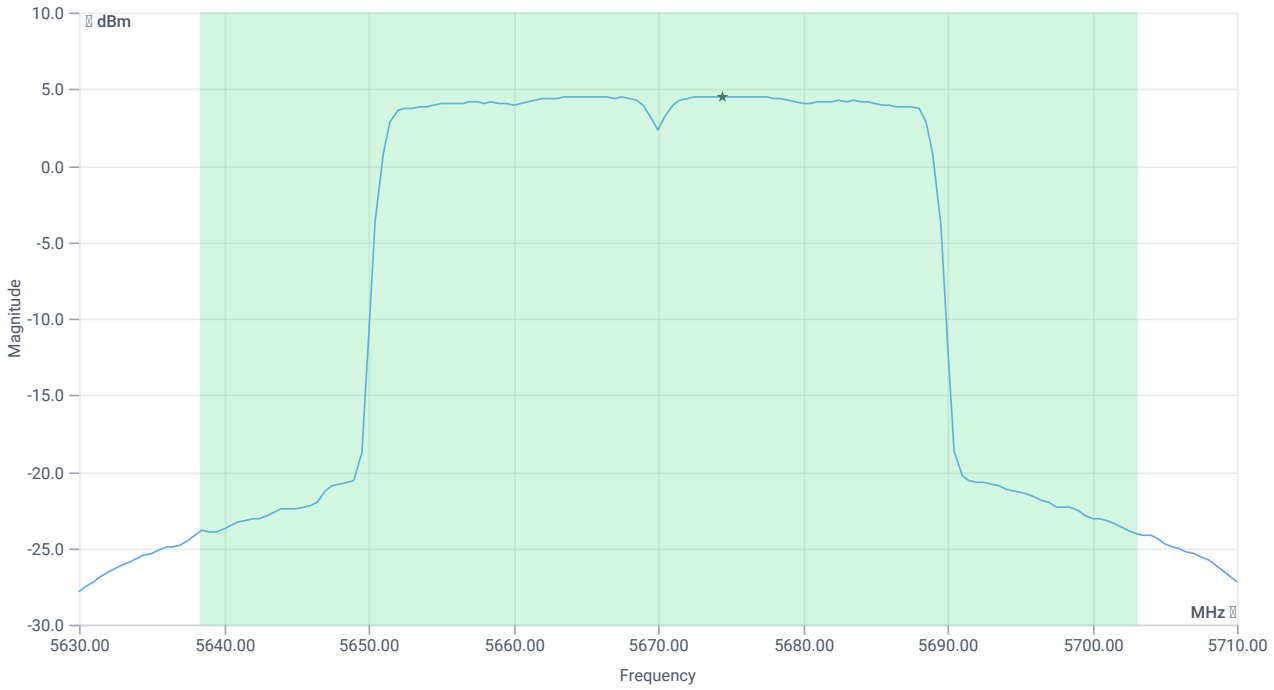
## RESULT

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Bandwidth 26dB | --- | --- | 64.88 | MHz | INFO |
| T1 26dB | --- | --- | 5638.3200 | MHz | INFO |
| T2 26dB | --- | --- | 5703.2000 | MHz | INFO |

## Maximum Output Power

## READ SA SETTINGS:

| | |
|---|---|
| RefLevel [dBm] \| RefLevelOffset [dB] \| InpAtt [dB] | 25.97 \| 16.78 \| 25 |
| Start [MHz] \| Stop [MHz] | 5630.000 \| 5710.000 |
| RBW [MHz] \| VBW [MHz] | 1.000000 \| 3.000000 |
| Detector \| TraceMode | RMS \| MAXH |
| Sweep: time [ms] \| count \| points per Section \| type | 53700 \| 1 \| 161 \| SWE |




*Max OP and PSD*

## RESULT

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Max Output Power | --- | --- | 19.65 | dBm | INFO |
| Duty Cycle Correction | --- | --- | 0.37 | dB | INFO |
| Limit absolute | | | | | |
| Max Output Power DC corrected | --- | 24 | 20.02 | dBm | PASS |
| Limit: 11 dBm + 10 log 64.88 | | | | | |
| Max Output Power DC corrected | --- | 29.12 | 20.02 | dBm | PASS |

## Power Spectral Density

## RESULT

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Power Spectral Density | --- | --- | 4.53 | dBm/1MHz | INFO |
| Duty Cycle Correction | --- | --- | 0.37 | dB | INFO |
| Power Spectral Density DC corrected | --- | 11 | 4.9 | dBm/1MHz | PASS |

| Verdict |
|---|
| PASS |

# FCC 15.407, ISED RSS247 # Bandwidths 99PCT and 20dB ~ WLAN5Gx ax-HE40 U-NII-2C

## References

| | |
|---|---|
| TC start | 19.01.2024 10:56:42 |
| Ambit temp [°C] \| humidity [rel%] | 21.9 \| 28 |
| System version | 4.7.1.5 |
| Standard \| Version | FCC 15.407, ISED RSS247 \| NI |
| Method | 26dB Bandwidth KDB789033 D02, C.1 / ISED RSS-GEN |
| Description | FCC 15.407 Bandwidths - WLAN5Gx ax-HE40 U-NII-2C |
| Information | |

## EUT Common Settings WLAN5Gx

| | |
|---|---|
| Number of Antenna Ports | 2 |
| User Interaction | No |
| Device Class UNII_1 | Client |
| Limit W52 Japan | Standard |

## Test Parameter

| | |
|---|---|
| Technology to test | WLAN5Gx ax-HE40 |
| Antenna port used | 1 |
| Temperature | nom |
| Voltage | nom |
| Frequency low to test | False \| Freq [MHz] 5510 |
| Frequency mid to test | False \| Freq [MHz] 5590 |
| Frequency high to test | True \| Freq [MHz] 5670 |
| Auto control enabled power supply \| Climatic Box | No \| No |
| Additional path loss [dB] | 1.4 |
| Full path name \| type | EUT - SignalingUnit - SpectrumAnalyzer |

## Equipment

| |
|---|
| Signal analyzer,Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.70 |
| Switch matrix,CTCadvanced,SPM-4 NI DAQ,28016133,NI |

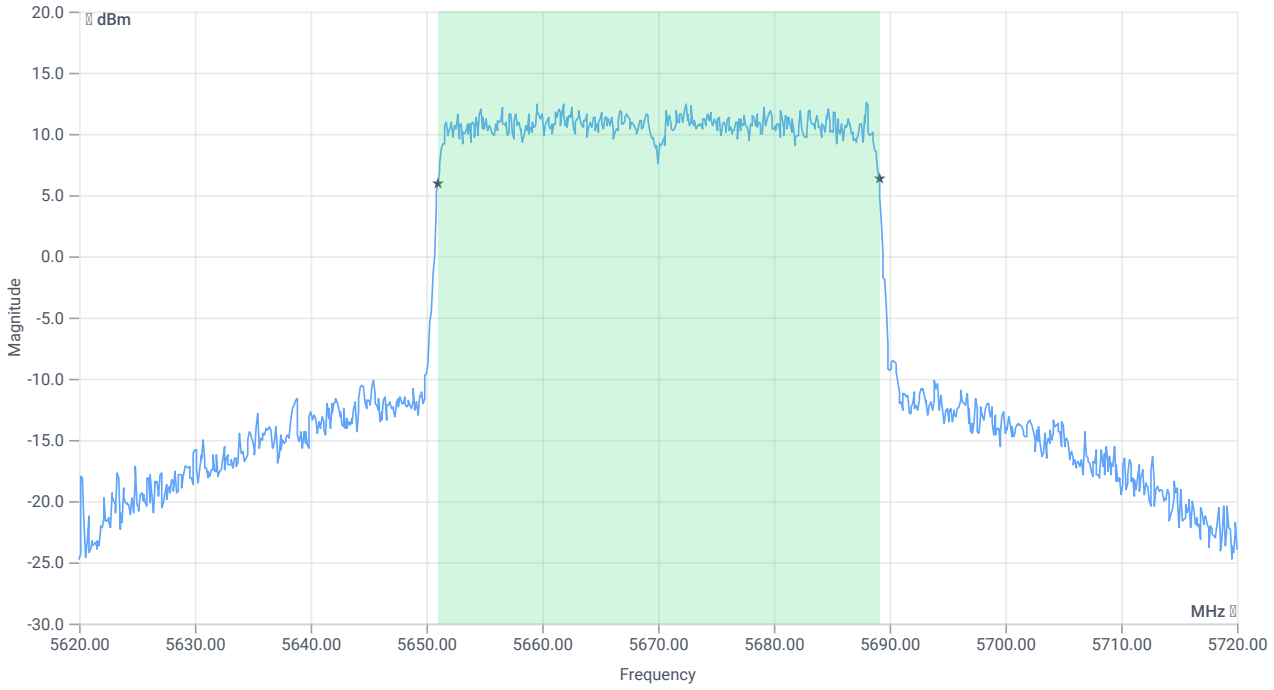
## Test at TX 5670 MHz

RESULT: Reference Power cond.

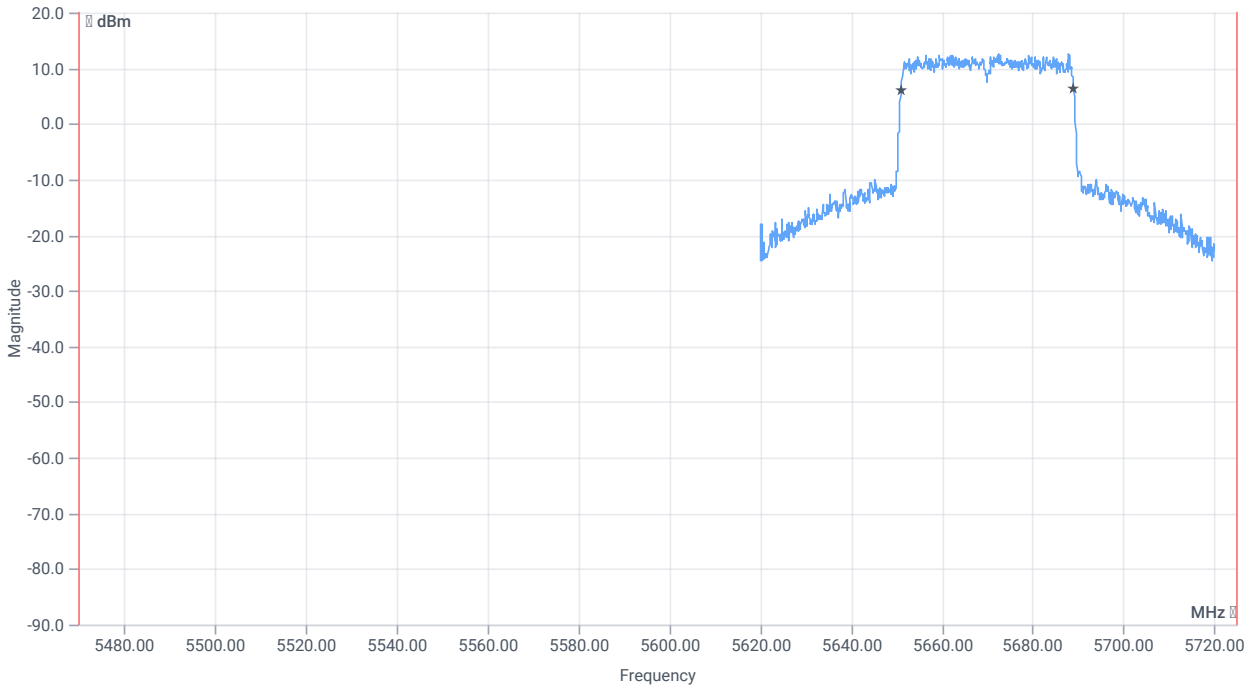
| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Ref. Power 1MHz/1MHz cond. | --- | --- | 14.31 | dBm | INFO |
| Ref. Frequency | --- | --- | 5675.590 | MHz | INFO |

READ SA SETTINGS:

| | |
|---|---|
| RefLevel [dBm] \| RefLevelOffset [dB] \| InpAtt [dB] | 22.31 \| 16.78 \| 25 |
| Start [MHz] \| Stop [MHz] | 5620.000 \| 5720.000 |
| RBW [MHz] \| VBW [MHz] | 0.500000 \| 3.000000 |
| Detector \| TraceMode | POS \| MAXH |
| Sweep: time [ms] \| count \| points per Section \| type | 1 \| 2500 \| 1001 \| SWE |



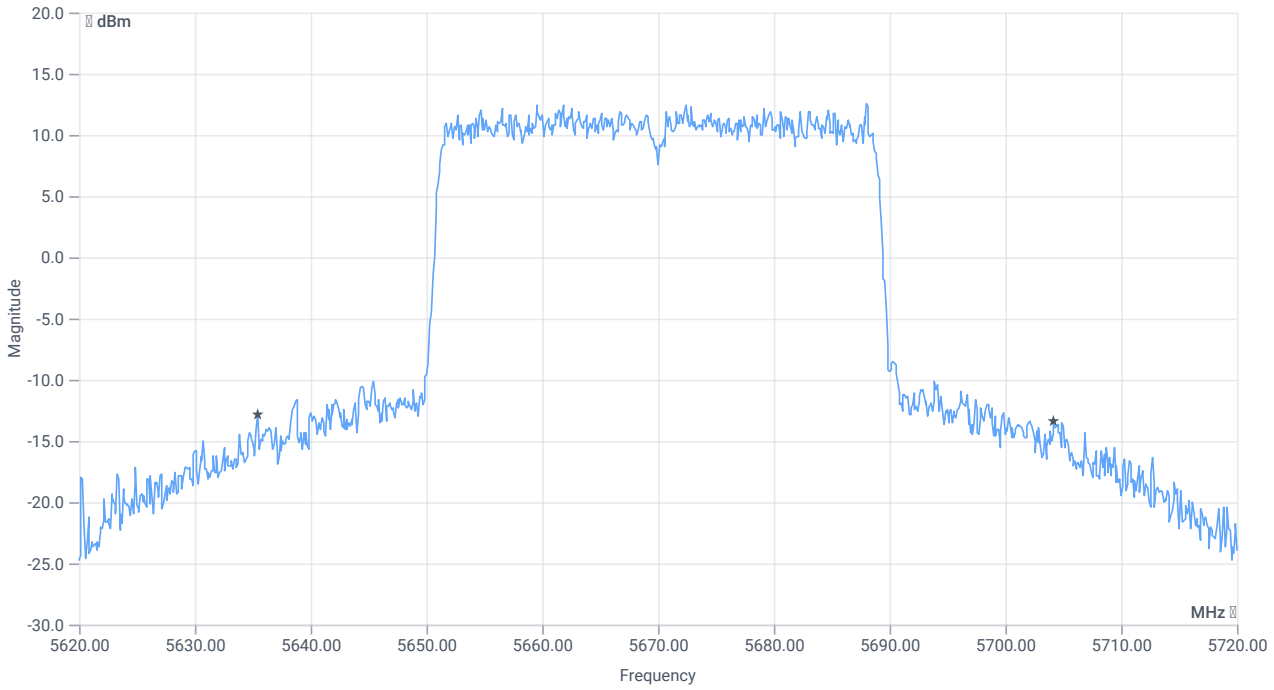

*BW 99PCT*



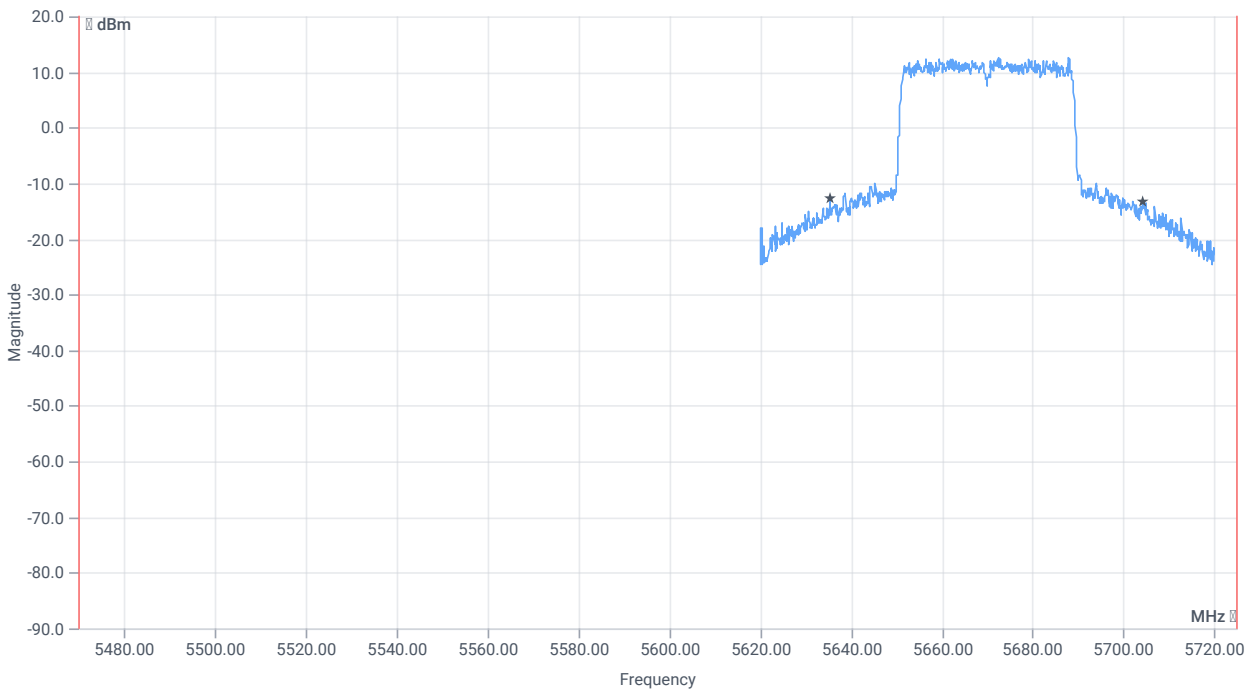

*BW within Band 99PCT*

## RESULT

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Bandwidth 99% | --- | --- | 38.062 | MHz | INFO |
| T1 99% | 5470.000000 | --- | 5651.0190 | MHz | PASS since U-NII-3 is supported |
| T2 99% | --- | 5725.000000 | 5689.0809 | MHz | |




*BW 26dB*




*BW within Band 26dB*

## RESULT

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Bandwidth 26dB | --- | --- | 68.8 | MHz | INFO |

## RESULT

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| T1 26dB | 5470.000000 | --- | 5635.4000 | MHz | PASS since U-NII-3 is supported |
| T2 26dB | --- | 5725.000000 | 5704.2000 | MHz | |

| Verdict |
|---|
| PASS |

# FCC 15.407 # Max output power and psd ~ WLAN5Gx ax-HE40 U-NII-2C

## References

| | |
|---|---|
| TC start | 19.01.2024 10:57:12 |
| Ambit temp [°C] \| humidity [rel%] | 21.9 \| 28 |
| System version | 4.7.1.5 |
| Standard \| Version | FCC 15.407 \| NI |
| Method | KDB789033 D02, F., E.2.e. |
| Description | FCC 15.407 Max Output Power & PSD - WLAN5Gx ax-HE40 U-NII-2C |
| Information | |

## EUT Common Settings WLAN5Gx

| | |
|---|---|
| Number of Antenna Ports | 2 |
| User Interaction | No |
| Device Class UNII_1 | Client |
| Limit W52 Japan | Standard |

## Test Parameter

| | |
|---|---|
| Technology to test | WLAN5Gx ax-HE40 |
| Antenna port used | 2 |
| Temperature | nom |
| Voltage | nom |
| Frequency low to test | False \| Freq [MHz] 5510 |
| Frequency mid to test | False \| Freq [MHz] 5590 |
| Frequency high to test | True \| Freq [MHz] 5670 |
| Auto control enabled power supply \| Climatic Box | No \| No |
| Additional path loss [dB] | 1.4 |
| Full path name \| type | EUT - SignalingUnit - SpectrumAnalyzer |

## Equipment

| |
|---|
| Signal analyzer,Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.70 |
| Switch matrix,CTCadvanced,SPM-4 NI DAQ,28016133,NI |

## Test at TX 5670 MHz

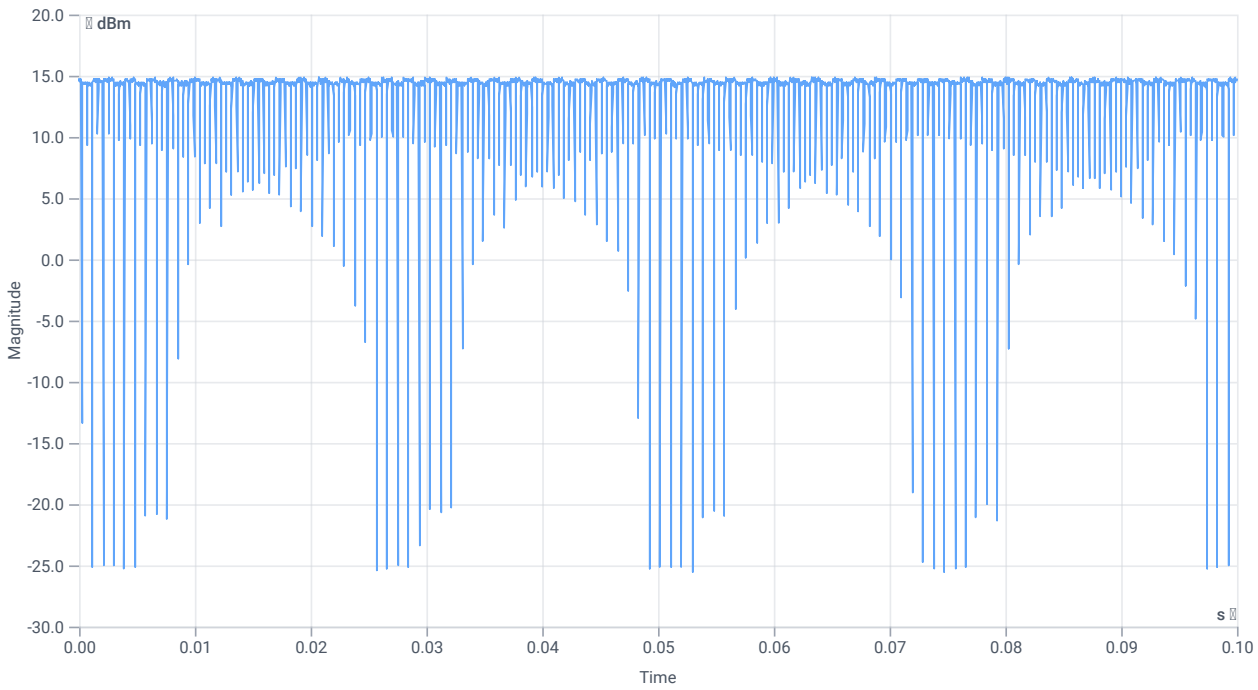
RESULT: Reference Power cond.

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Ref. Power 1MHz/1MHz cond. | --- | --- | 14.16 | dBm | INFO |
| Ref. Frequency | --- | --- | 5686.380 | MHz | INFO |

### Evaluation max. Duty Cycle

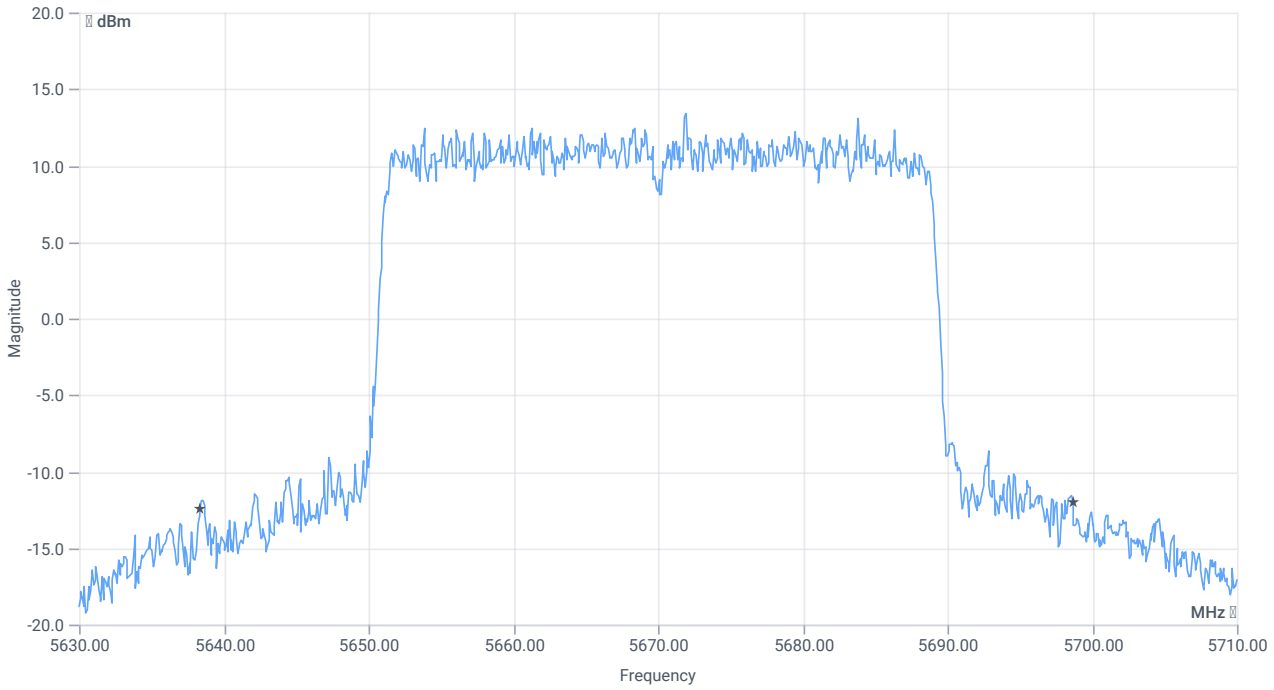
Duty Cycle evaluation

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Result Summary | | | | | |
| Number of detected Bursts:87 | | | | | |
| Duty Cycle (Burst Ratio) max | --- | --- | 0.988 | --- | INFO |
| Duty Cycle max | --- | --- | 0.052 | dB | INFO |
| Duty Cycle (Burst Ratio) min | --- | --- | 0.919 | --- | INFO |
| Duty Cycle min | --- | --- | 0.367 | dB | INFO |
| Max TX Burst Length | --- | --- | 5.95 | ms | INFO |
| Min Gap Length | --- | --- | 0.075 | ms | INFO |
| Max Gap Length | --- | --- | 0.075 | ms | INFO |




*Duty cycle*

### Evaluation Bandwidth




*BW 26dB*

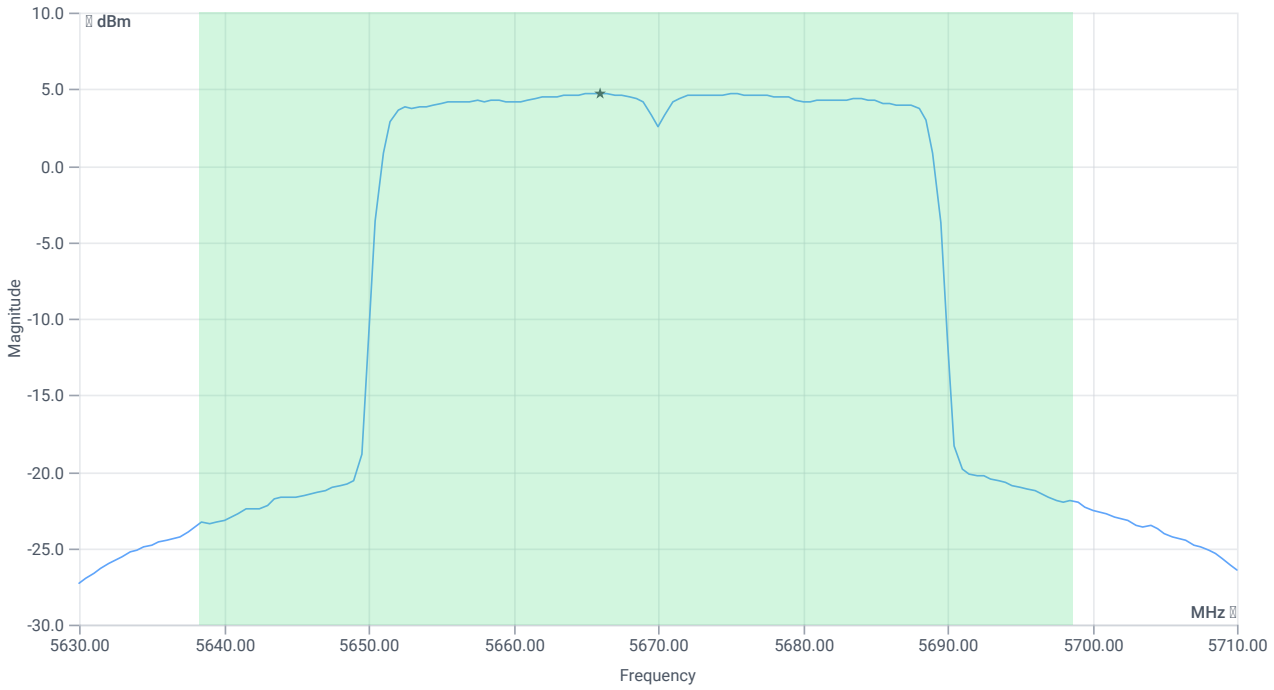
## RESULT

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Bandwidth 26dB | --- | --- | 60.24 | MHz | INFO |
| T1 26dB | --- | --- | 5638.4000 | MHz | INFO |
| T2 26dB | --- | --- | 5698.6400 | MHz | INFO |

## Maximum Output Power

## READ SA SETTINGS:

| | |
|---|---|
| RefLevel [dBm] \| RefLevelOffset [dB] \| InpAtt [dB] | 26.16 \| 16.78 \| 25 |
| Start [MHz] \| Stop [MHz] | 5630.000 \| 5710.000 |
| RBW [MHz] \| VBW [MHz] | 1.000000 \| 3.000000 |
| Detector \| TraceMode | RMS \| MAXH |
| Sweep: time [ms] \| count \| points per Section \| type | 53700 \| 1 \| 161 \| SWE |




*Max OP and PSD*

## RESULT

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Max Output Power | --- | --- | 19.77 | dBm | INFO |
| Duty Cycle Correction | --- | --- | 0.37 | dB | INFO |
| Limit absolute | | | | | |
| Max Output Power DC corrected | --- | 24 | 20.14 | dBm | PASS |
| Limit: 11 dBm + 10 log 60.24 | | | | | |
| Max Output Power DC corrected | --- | 28.8 | 20.14 | dBm | PASS |

## Power Spectral Density

## RESULT

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Power Spectral Density | --- | --- | 4.72 | dBm/1MHz | INFO |
| Duty Cycle Correction | --- | --- | 0.37 | dB | INFO |
| Power Spectral Density DC corrected | --- | 11 | 5.09 | dBm/1MHz | PASS |

| Verdict |
|---|
| PASS |

# FCC 15.407, ISED RSS247 # Bandwidths 99PCT and 20dB ~ WLAN5Gx ax-HE40 U-NII-2C

## References

| | |
|---|---|
| TC start | 19.01.2024 10:58:40 |
| Ambit temp [°C] \| humidity [rel%] | 21.9 \| 28 |
| System version | 4.7.1.5 |
| Standard \| Version | FCC 15.407, ISED RSS247 \| NI |
| Method | 26dB Bandwidth KDB789033 D02, C.1 / ISED RSS-GEN |
| Description | FCC 15.407 Bandwidths - WLAN5Gx ax-HE40 U-NII-2C |
| Information | |

## EUT Common Settings WLAN5Gx

| | |
|---|---|
| Number of Antenna Ports | 2 |
| User Interaction | No |
| Device Class UNII_1 | Client |
| Limit W52 Japan | Standard |

## Test Parameter

| | |
|---|---|
| Technology to test | WLAN5Gx ax-HE40 |
| Antenna port used | 2 |
| Temperature | nom |
| Voltage | nom |
| Frequency low to test | False \| Freq [MHz] 5510 |
| Frequency mid to test | False \| Freq [MHz] 5590 |
| Frequency high to test | True \| Freq [MHz] 5670 |
| Auto control enabled power supply \| Climatic Box | No \| No |
| Additional path loss [dB] | 1.4 |
| Full path name \| type | EUT - SignalingUnit - SpectrumAnalyzer |

## Equipment

| |
|---|
| Signal analyzer,Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.70 |
| Switch matrix,CTCadvanced,SPM-4 NI DAQ,28016133,NI |

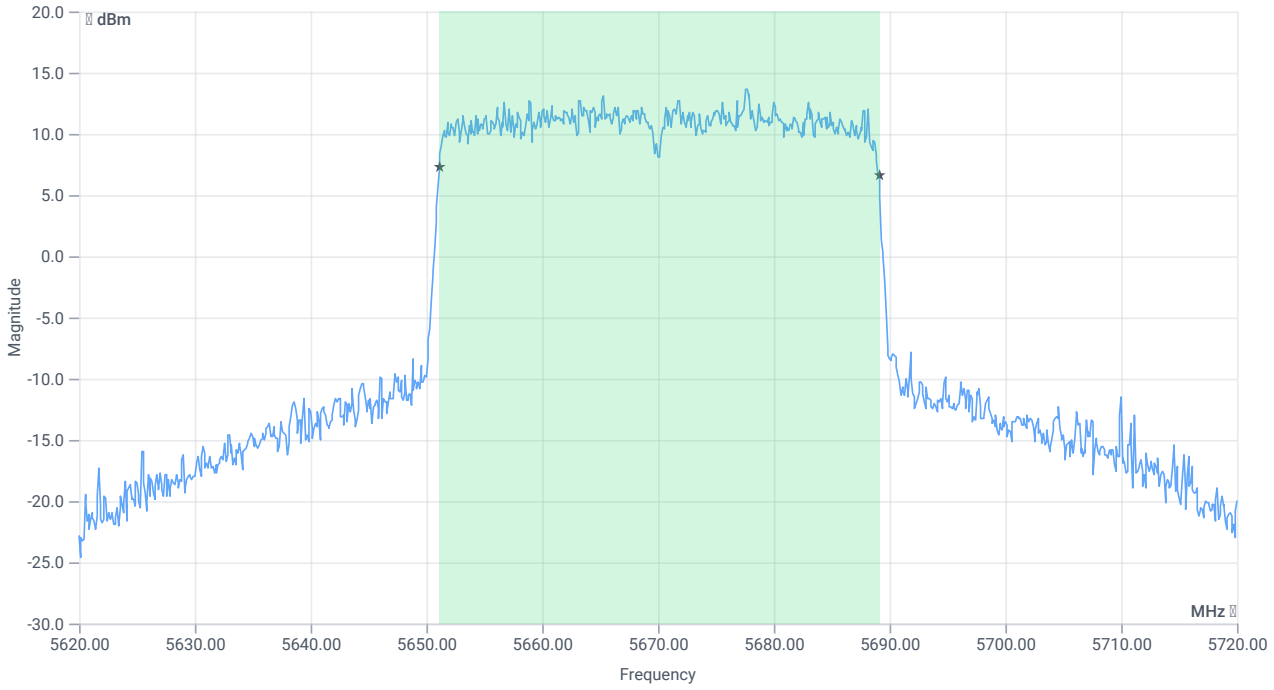
## Test at TX 5670 MHz

RESULT: Reference Power cond.

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Ref. Power 1MHz/1MHz cond. | --- | --- | 14.59 | dBm | INFO |
| Ref. Frequency | --- | --- | 5679.190 | MHz | INFO |

READ SA SETTINGS:

| | |
|---|---|
| RefLevel [dBm] \| RefLevelOffset [dB] \| InpAtt [dB] | 22.59 \| 16.78 \| 25 |
| Start [MHz] \| Stop [MHz] | 5620.000 \| 5720.000 |
| RBW [MHz] \| VBW [MHz] | 0.500000 \| 3.000000 |
| Detector \| TraceMode | POS \| MAXH |
| Sweep: time [ms] \| count \| points per Section \| type | 1 \| 2500 \| 1001 \| SWE |

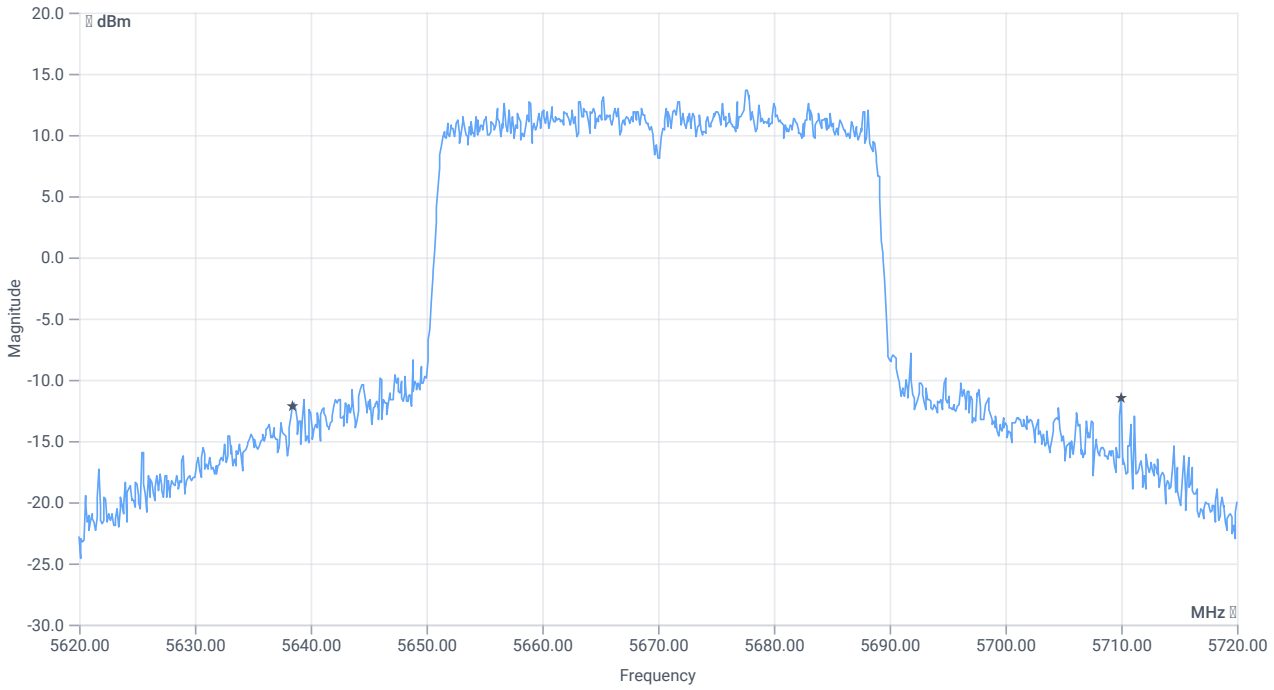



*BW 99PCT*

*BW within Band 99PCT*

## RESULT

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Bandwidth 99% | --- | --- | 37.962 | MHz | INFO |
| T1 99% | 5470.000000 | --- | 5651.1189 | MHz | PASS since U-NII-3 is supported |
| T2 99% | --- | 5725.000000 | 5689.0809 | MHz | |




*BW 26dB*

*BW within Band 26dB*

## RESULT

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Bandwidth 26dB | --- | --- | 71.6 | MHz | INFO |

## RESULT

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| T1 26dB | 5470.000000 | --- | 5638.4000 | MHz | PASS since U-NII-3 is supported |
| T2 26dB | --- | 5725.000000 | 5710.0000 | MHz | |

| Verdict |
|---|
| PASS |

# FCC 15.407 # MIMO ∑ Max output power and psd ~ WLAN5Gx ax-HE40 U-NII-2C

## References

| | |
|---|---|
| TC start | 19.01.2024 10:59:10 |
| Ambit temp [°C] \| humidity [rel%] | 22.0 \| 28 |
| System version | 4.7.1.5 |
| Standard \| Version | FCC 15.407 \| NI |
| Method | |
| Description | MIMO ∑ FCC Power & psd - WLAN5Gx ax-HE40 U-NII-2C |
| Information | |

## EUT Common Settings WLAN5Gx

| | |
|---|---|
| Number of Antenna Ports | 2 |
| User Interaction | No |
| Device Class UNII_1 | Client |
| Limit W52 Japan | Standard |

## Test Parameter

| | |
|---|---|
| Technology to test | WLAN5Gx ax-HE40 |
| Antenna port used | several |
| Temperature | nom |
| Voltage | nom |
| Frequency low to test | False \| Freq [MHz] 5510 |
| Frequency mid to test | False \| Freq [MHz] 5590 |
| Frequency high to test | True \| Freq [MHz] 5670 |
| Auto control enabled power supply \| Climatic Box | No \| No |
| Additional path loss [dB] | 1.4 |
| Full path name \| type | None |

## Equipment

## Test at TX 5670 MHz

### RESULT Power

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Ant:2 Max Output Power DC corrected | --- | --- | 20.14 | dBm | INFO |
| Ant:2 BW 26dB | --- | --- | 60.240 | MHz | INFO |
| Ant:1 Max Output Power DC corrected | --- | --- | 20.02 | dBm | INFO |
| Ant:1 BW 26dB | --- | --- | 64.880 | MHz | INFO |
| ∑ Limit absolute | --- | 24 | 23.09 | dBm | PASS |
| ∑ Limit: 11 dBm + 10 log 60.24 | --- | 28.8 | 23.09 | dBm | PASS |

### RESULT PSD

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Ant:2 PSD | --- | --- | 5.09 | dBm/1MHz | INFO |
| Ant:1 PSD | --- | --- | 4.9 | dBm/1MHz | INFO |
| ∑ | --- | 11 | 8.01 | dBm/1MHz | PASS |

| Verdict |
|---|
| PASS |

# FCC 15.407 # Max output power and psd ~ WLAN5Gx ax-HE40 U-NII-3

## References

| | |
|---|---|
| TC start | 19.01.2024 11:03:35 |
| Ambit temp [°C] \| humidity [rel%] | 22.0 \| 29 |
| System version | 4.7.1.5 |
| Standard \| Version | FCC 15.407 \| NI |
| Method | KDB789033 D02, F., E.2.e. |
| Description | FCC 15.407 Max Output Power & PSD - WLAN5Gx ax-HE40 U-NII-3 |
| Information | |

## EUT Common Settings WLAN5Gx

| | |
|---|---|
| Number of Antenna Ports | 2 |
| User Interaction | No |
| Device Class UNII_1 | Client |
| Limit W52 Japan | Standard |

## Test Parameter

| | |
|---|---|
| Technology to test | WLAN5Gx ax-HE40 |
| Antenna port used | 1 |
| Temperature | nom |
| Voltage | nom |
| Frequency low to test | True \| Freq [MHz] 5755 |
| Frequency mid to test | False \| Freq [MHz] 0 |
| Frequency high to test | False \| Freq [MHz] 5795 |
| Auto control enabled power supply \| Climatic Box | No \| No |
| Additional path loss [dB] | 1.4 |
| Full path name \| type | EUT - SignalingUnit - SpectrumAnalyzer |

## Equipment

| |
|---|
| Signal analyzer,Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.70 |
| Switch matrix,CTCadvanced,SPM-4 NI DAQ,28016133,NI |

## Test at TX 5755 MHz

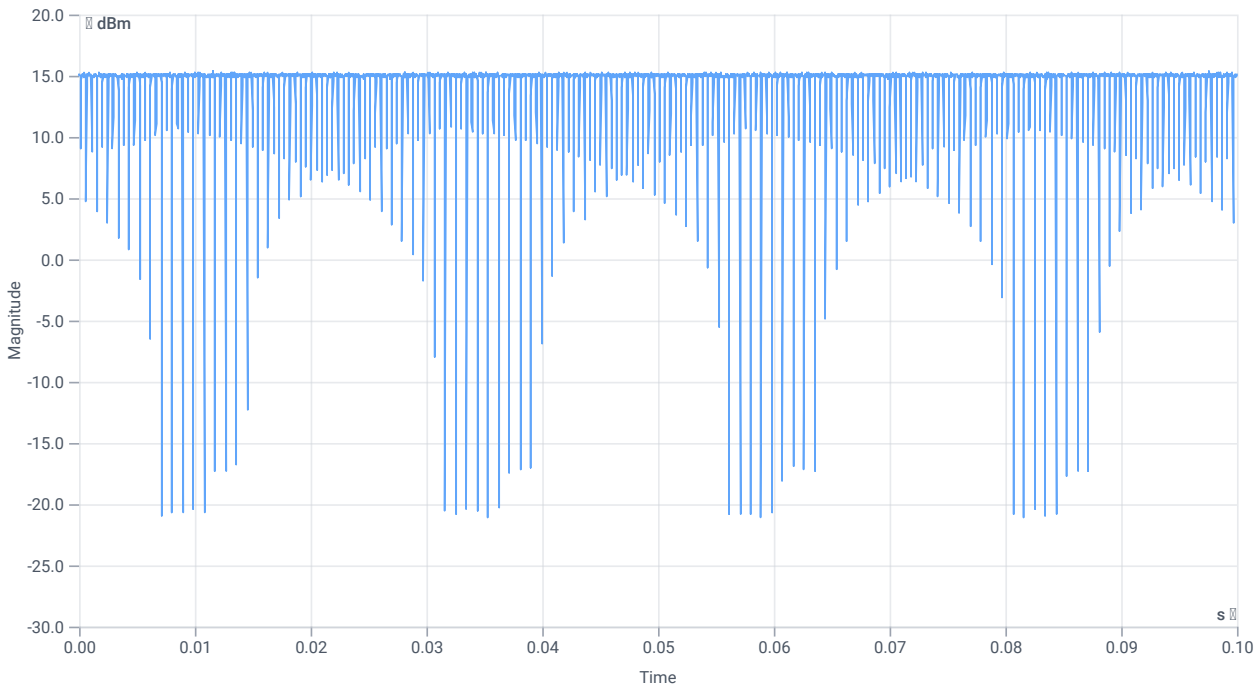
RESULT: Reference Power cond.

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Ref. Power 1MHz/1MHz cond. | --- | --- | 15.05 | dBm | INFO |
| Ref. Frequency | --- | --- | 5746.010 | MHz | INFO |

### Evaluation max. Duty Cycle

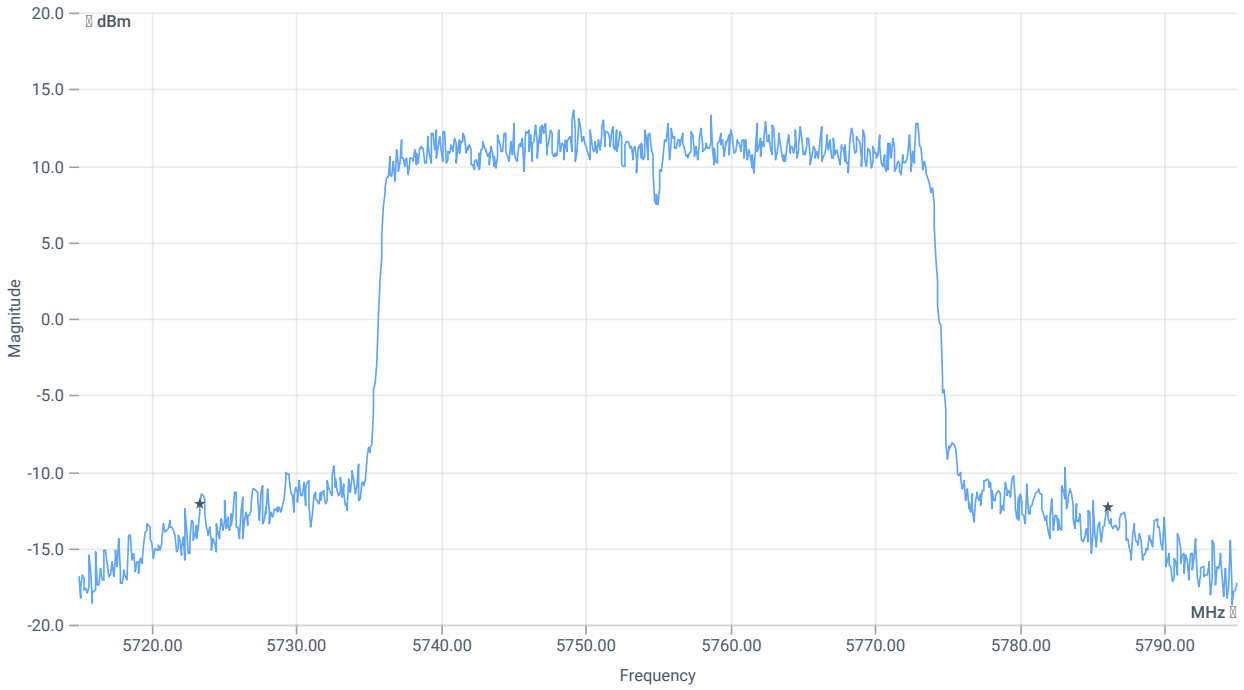
Duty Cycle evaluation

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Result Summary | | | | | |
| Number of detected Bursts:87 | | | | | |
| Duty Cycle (Burst Ratio) max | --- | --- | 0.988 | --- | INFO |
| Duty Cycle max | --- | --- | 0.052 | dB | INFO |
| Duty Cycle (Burst Ratio) min | --- | --- | 0.919 | --- | INFO |
| Duty Cycle min | --- | --- | 0.367 | dB | INFO |
| Max TX Burst Length | --- | --- | 5.95 | ms | INFO |
| Min Gap Length | --- | --- | 0.075 | ms | INFO |
| Max Gap Length | --- | --- | 0.075 | ms | INFO |




*Duty cycle*

### Evaluation Bandwidth




*BW 26dB*

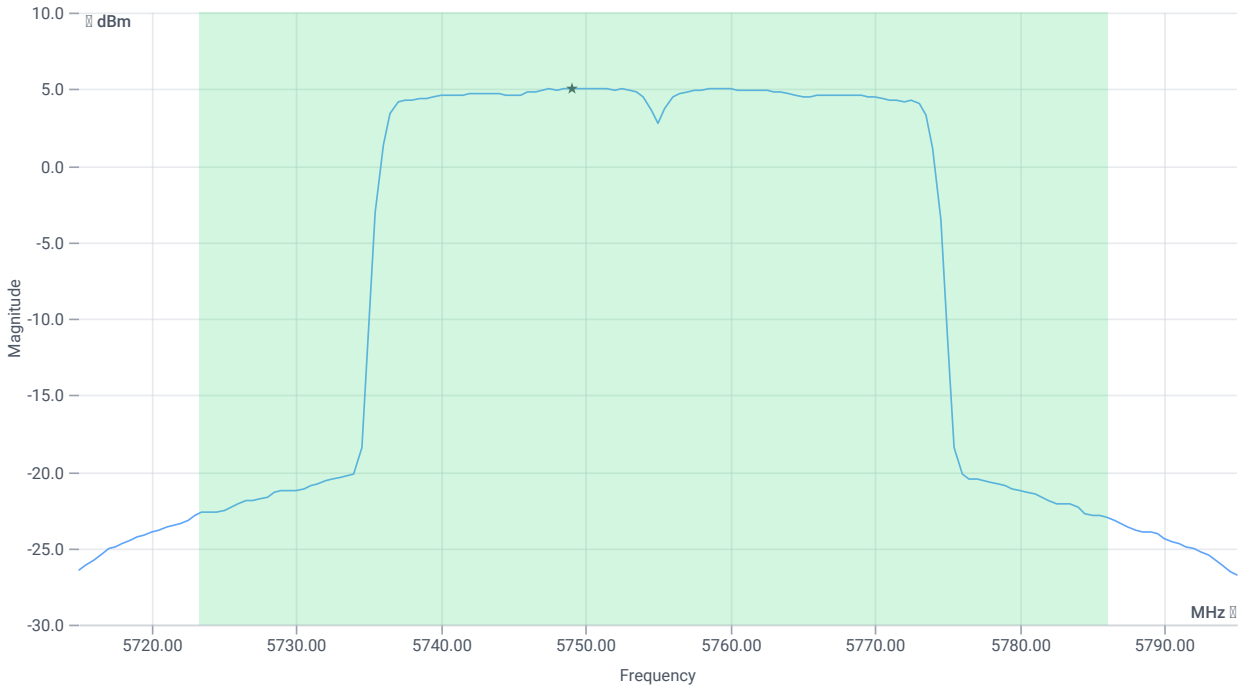
## RESULT

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Bandwidth 26dB | --- | --- | 62.64 | MHz | INFO |
| T1 26dB | --- | --- | 5723.4000 | MHz | INFO |
| T2 26dB | --- | --- | 5786.0400 | MHz | INFO |

## Maximum Output Power

## READ SA SETTINGS:

| | |
|---|---|
| RefLevel [dBm] \| RefLevelOffset [dB] \| InpAtt [dB] | 27.05 \| 16.87 \| 25 |
| Start [MHz] \| Stop [MHz] | 5715.000 \| 5795.000 |
| RBW [MHz] \| VBW [MHz] | 1.000000 \| 3.000000 |
| Detector \| TraceMode | RMS \| MAXH |
| Sweep: time [ms] \| count \| points per Section \| type | 53700 \| 1 \| 161 \| SWE |




*Max OP and PSD*

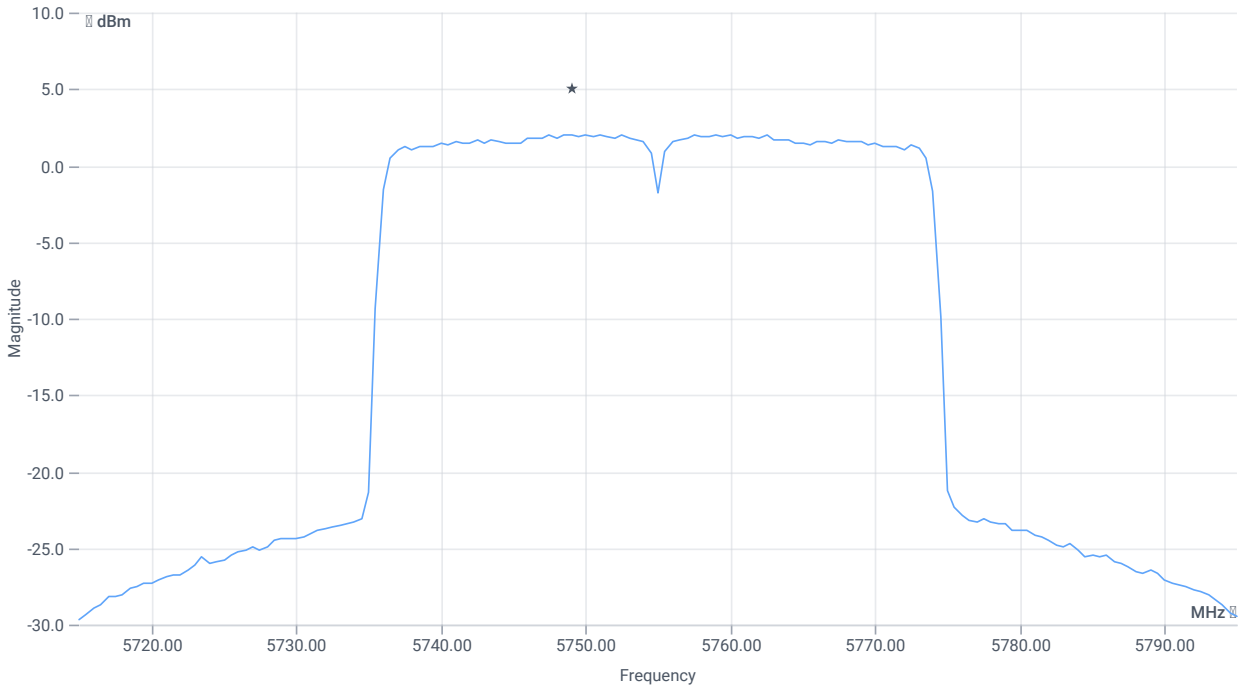
## RESULT

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Max Output Power | --- | --- | 20.14 | dBm | INFO |
| Duty Cycle Correction | --- | --- | 0.37 | dB | INFO |
| Limit absolute | | | | | |
| Max Output Power DC corrected | --- | 30 | 20.51 | dBm | PASS |
| Limit: 11 dBm + 10 log 62.64 | | | | | |
| Max Output Power DC corrected | --- | 28.97 | 20.51 | dBm | na |

## Power Spectral Density U-NII-3

## READ SA SETTINGS:

| | |
|---|---|
| RefLevel [dBm] \| RefLevelOffset [dB] \| InpAtt [dB] | 27.05 \| 16.87 \| 30 |
| Start [MHz] \| Stop [MHz] | 5715.000 \| 5795.000 |
| RBW [MHz] \| VBW [MHz] | 0.500000 \| 3.000000 |
| Detector \| TraceMode | RMS \| MAXH |
| Sweep: time [ms] \| count \| points per Section \| type | 53700 \| 1 \| 161 \| SWE |




*PSD UNII-3*

## RESULT

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Power Spectral Density | --- | --- | 2.02 | dBm/0.5MHz | INFO |
| Duty Cycle Correction | --- | --- | 0.37 | dB | INFO |
| Power Spectral Density DC corrected | --- | 30 | 2.39 | dBm/0.5MHz | PASS |

| Verdict |
|---|
| PASS |

# FCC 15.407, ISED RSS247 # Bandwidths 99PCT and 20dB ~ WLAN5Gx ax-HE40 U-NII-3

## References

| | |
|---|---|
| TC start | 19.01.2024 11:06:01 |
| Ambit temp [°C] \| humidity [rel%] | 21.9 \| 29 |
| System version | 4.7.1.5 |
| Standard \| Version | FCC 15.407, ISED RSS247 \| NI |
| Method | 26dB Bandwidth KDB789033 D02, C.1 / ISED RSS-GEN |
| Description | FCC 15.407 Bandwidths - WLAN5Gx ax-HE40 U-NII-3 |
| Information | |

## EUT Common Settings WLAN5Gx

| | |
|---|---|
| Number of Antenna Ports | 2 |
| User Interaction | No |
| Device Class UNII_1 | Client |
| Limit W52 Japan | Standard |

## Test Parameter

| | |
|---|---|
| Technology to test | WLAN5Gx ax-HE40 |
| Antenna port used | 1 |
| Temperature | nom |
| Voltage | nom |
| Frequency low to test | True \| Freq [MHz] 5755 |
| Frequency mid to test | False \| Freq [MHz] 0 |
| Frequency high to test | False \| Freq [MHz] 5795 |
| Auto control enabled power supply \| Climatic Box | No \| No |
| Additional path loss [dB] | 1.4 |
| Full path name \| type | EUT - SignalingUnit - SpectrumAnalyzer |

## Equipment

| |
|---|
| Signal analyzer,Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.70 |
| Switch matrix,CTCadvanced,SPM-4 NI DAQ,28016133,NI |

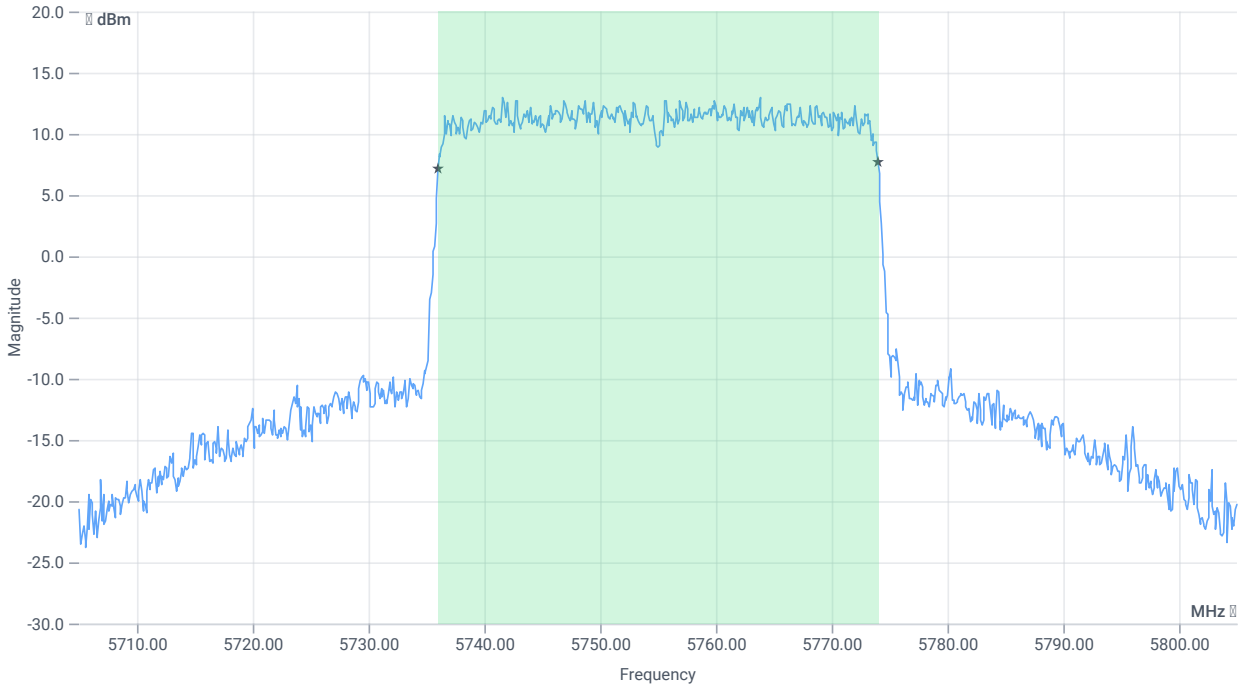
## Test at TX 5755 MHz

RESULT: Reference Power cond.

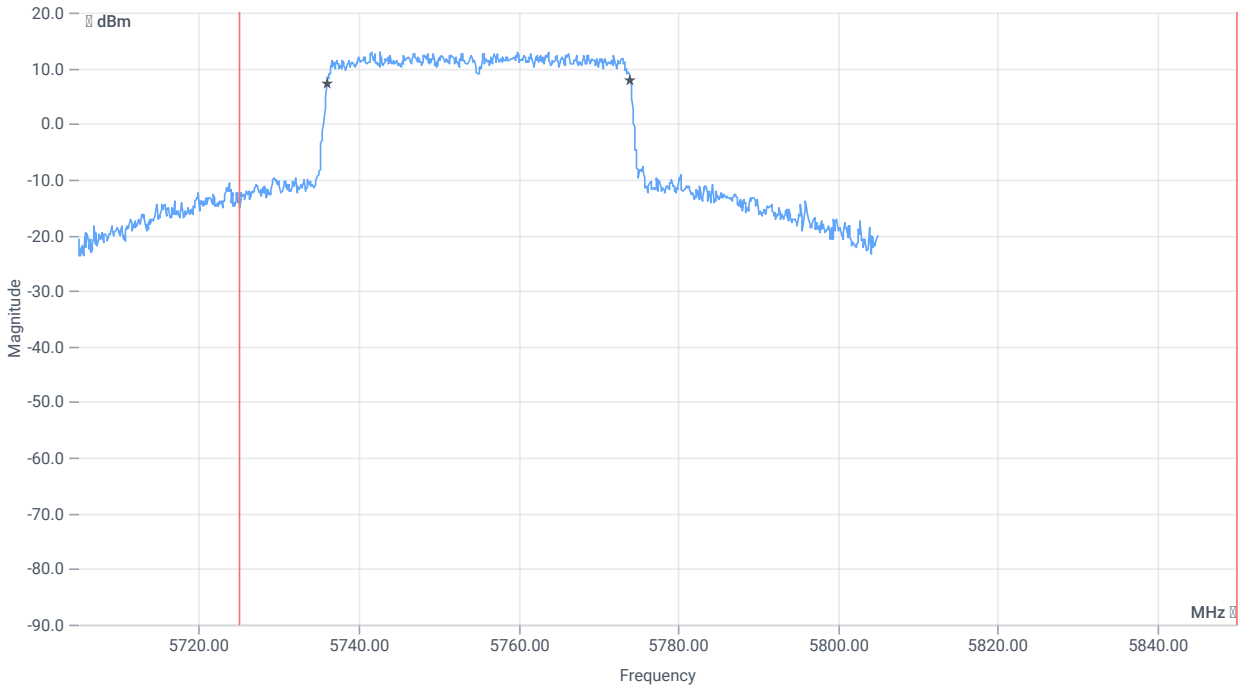
| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Ref. Power 1MHz/1MHz cond. | --- | --- | 14.05 | dBm | INFO |
| Ref. Frequency | --- | --- | 5764.990 | MHz | INFO |

READ SA SETTINGS:

| | |
|---|---|
| RefLevel [dBm] \| RefLevelOffset [dB] \| InpAtt [dB] | 22.05 \| 16.87 \| 25 |
| Start [MHz] \| Stop [MHz] | 5705.000 \| 5805.000 |
| RBW [MHz] \| VBW [MHz] | 0.500000 \| 3.000000 |
| Detector \| TraceMode | POS \| MAXH |
| Sweep: time [ms] \| count \| points per Section \| type | 1 \| 2500 \| 1001 \| SWE |



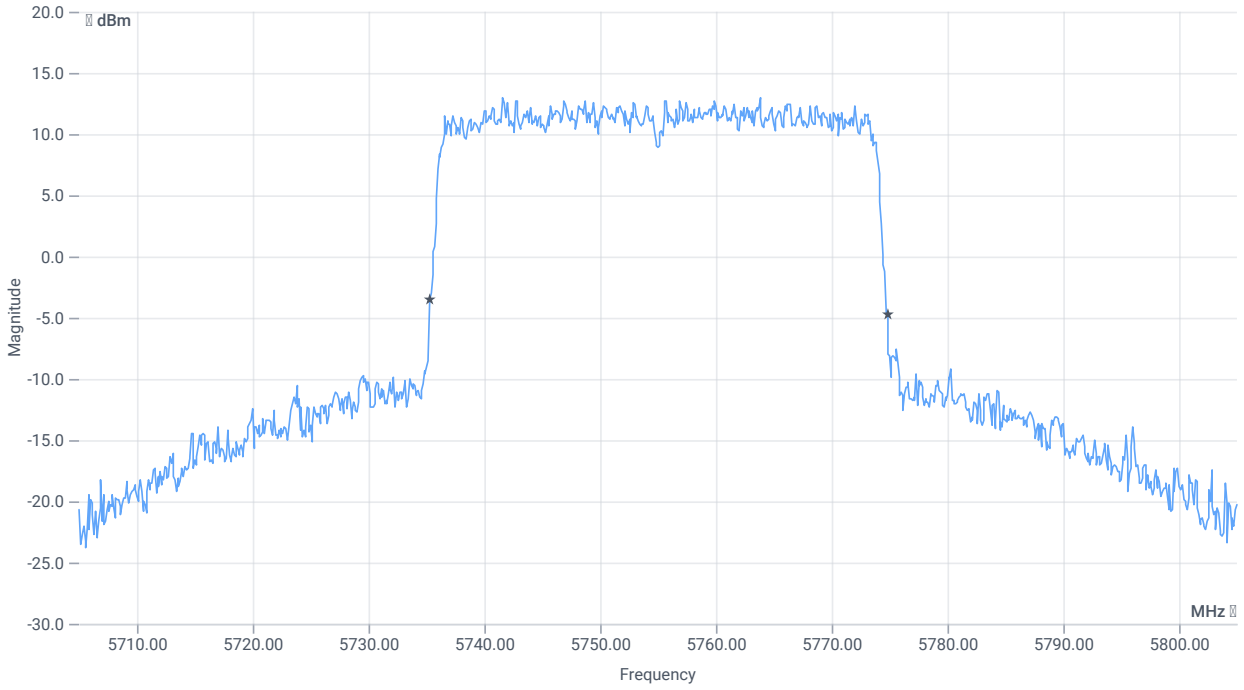

*BW 99PCT*



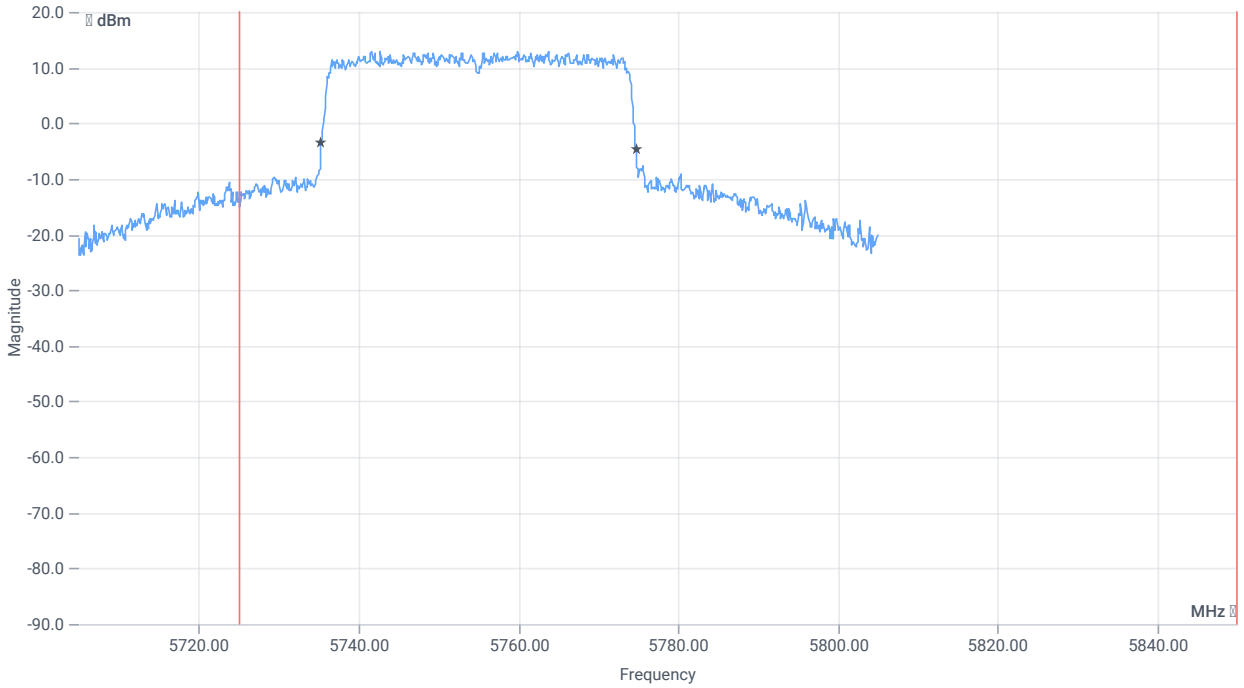

*BW within Band 99PCT*

## RESULT

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Bandwidth 99% | --- | --- | 37.962 | MHz | INFO |
| T1 99% | 5725.000000 | --- | 5736.0190 | MHz | PASS |
| T2 99% | --- | 5850.000000 | 5773.9810 | MHz | PASS |



*BW 20dB*




*BW within Band 20dB*

## RESULT

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Bandwidth 20dB | --- | --- | 39.5 | MHz | INFO |
| T1 20dB | 5725.000000 | --- | 5735.3000 | MHz | PASS |
| T2 20dB | --- | 5850.000000 | 5774.8000 | MHz | PASS |

| Verdict |
|---|
| PASS |

# FCC 15.407, ISED RSS247 # Minimum emission bandwidth ~ WLAN5Gx ax-HE40 U-NII-3

## References

| | |
|---|---|
| TC start | 19.01.2024 11:06:31 |
| Ambit temp [°C] \| humidity [rel%] | 21.9 \| 29 |
| System version | 4.7.1.5 |
| Standard \| Version | FCC 15.407, ISED RSS247 \| NI |
| Method | KDB789033 D02, C.2. |
| Description | FCC 15.407 Min Emission Bandwidth - WLAN5Gx ax-HE40 U-NII-3 |
| Information | |

## EUT Common Settings WLAN5Gx

| | |
|---|---|
| Number of Antenna Ports | 2 |
| User Interaction | No |
| Device Class UNII_1 | Client |
| Limit W52 Japan | Standard |

## Test Parameter

| | |
|---|---|
| Technology to test | WLAN5Gx ax-HE40 |
| Antenna port used | 1 |
| Temperature | nom |
| Voltage | nom |
| Frequency low to test | True \| Freq [MHz] 5755 |
| Frequency mid to test | False \| Freq [MHz] 0 |
| Frequency high to test | False \| Freq [MHz] 5795 |
| Auto control enabled power supply \| Climatic Box | No \| No |
| Additional path loss [dB] | 1.4 |
| Full path name \| type | EUT - SignalingUnit - SpectrumAnalyzer |

## Equipment

| |
|---|
| Signal analyzer,Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.70 |
| Switch matrix,CTCadvanced,SPM-4 NI DAQ,28016133,NI |

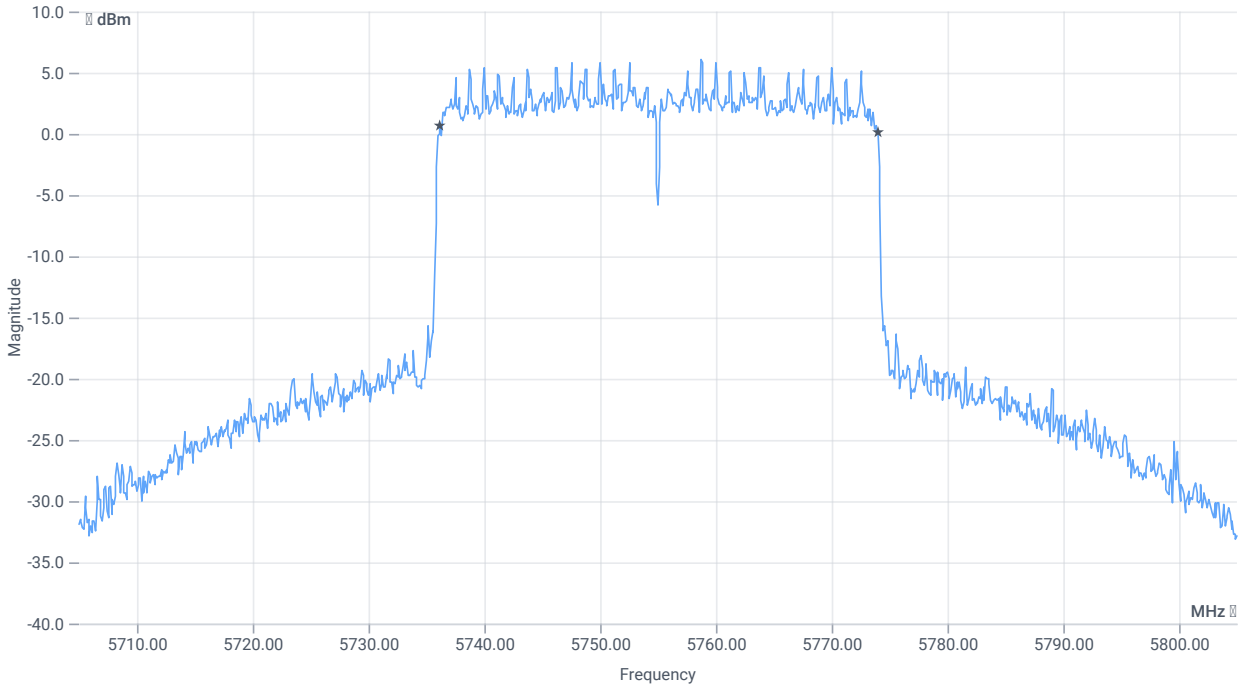
## Test at TX 5755 MHz

### RESULT: Reference Power cond.

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Ref. Power 1MHz/1MHz cond. | --- | --- | 15.06 | dBm | INFO |
| Ref. Frequency | --- | --- | 5760.190 | MHz | INFO |

### READ SA SETTINGS:

| | |
|---|---|
| RefLevel [dBm] \| RefLevelOffset [dB] \| InpAtt [dB] | 27.06 \| 16.87 \| 30 |
| Start [MHz] \| Stop [MHz] | 5705.000 \| 5805.000 |
| RBW [MHz] \| VBW [MHz] | 0.100000 \| 0.300000 |
| Detector \| TraceMode | POS \| MAXH |
| Sweep: time [ms] \| count \| points per Section \| type | 2 \| 1500 \| 1001 \| SWE |




*BW 6dB*

### RESULT

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Bandwidth (6dB) | 0.500 | --- | 37.8 | MHz | PASS |

| Verdict |
|---|
| PASS |

# FCC 15.407 # Max output power and psd ~ WLAN5Gx ax-HE40 U-NII-3

## References

| | |
|---|---|
| TC start | 19.01.2024 11:06:55 |
| Ambit temp [°C] \| humidity [rel%] | 21.9 \| 29 |
| System version | 4.7.1.5 |
| Standard \| Version | FCC 15.407 \| NI |
| Method | KDB789033 D02, F., E.2.e. |
| Description | FCC 15.407 Max Output Power & PSD - WLAN5Gx ax-HE40 U-NII-3 |
| Information | |

## EUT Common Settings WLAN5Gx

| | |
|---|---|
| Number of Antenna Ports | 2 |
| User Interaction | No |
| Device Class UNII_1 | Client |
| Limit W52 Japan | Standard |

## Test Parameter

| | |
|---|---|
| Technology to test | WLAN5Gx ax-HE40 |
| Antenna port used | 2 |
| Temperature | nom |
| Voltage | nom |
| Frequency low to test | True \| Freq [MHz] 5755 |
| Frequency mid to test | False \| Freq [MHz] 0 |
| Frequency high to test | False \| Freq [MHz] 5795 |
| Auto control enabled power supply \| Climatic Box | No \| No |
| Additional path loss [dB] | 1.4 |
| Full path name \| type | EUT - SignalingUnit - SpectrumAnalyzer |

## Equipment

| |
|---|
| Signal analyzer,Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.70 |
| Switch matrix,CTCadvanced,SPM-4 NI DAQ,28016133,NI |

## Test at TX 5755 MHz

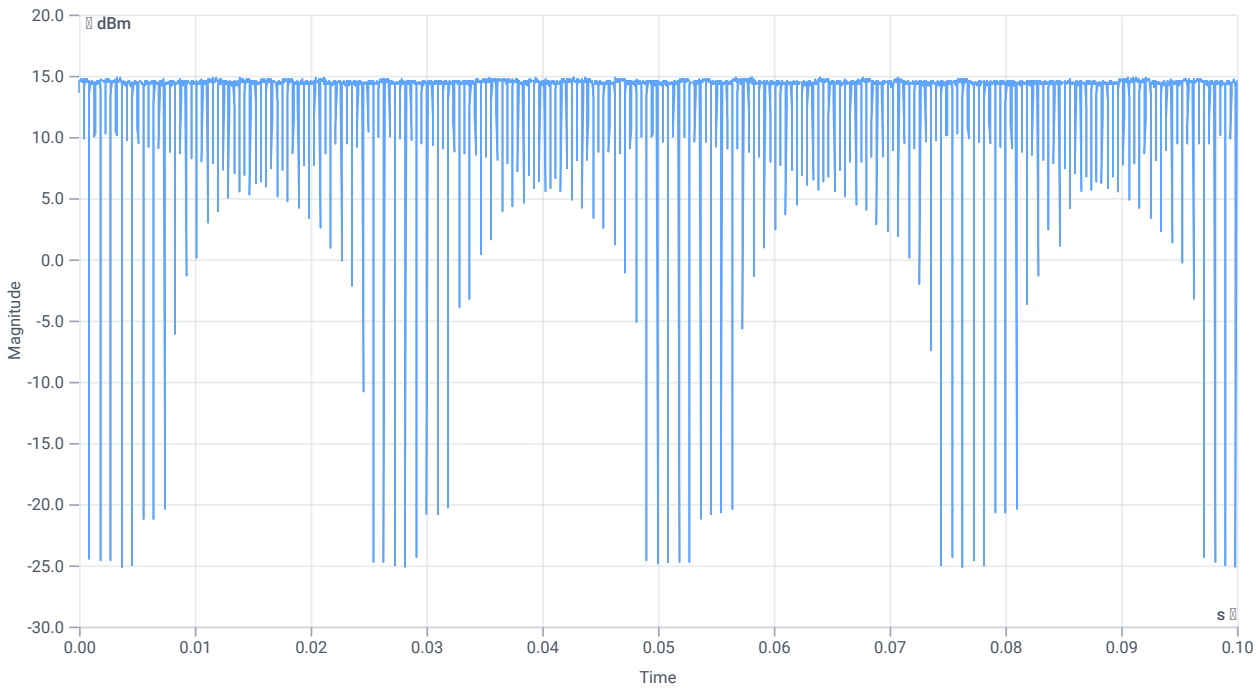
RESULT: Reference Power cond.

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Ref. Power 1MHz/1MHz cond. | --- | --- | 14.70 | dBm | INFO |
| Ref. Frequency | --- | --- | 5741.810 | MHz | INFO |

### Evaluation max. Duty Cycle

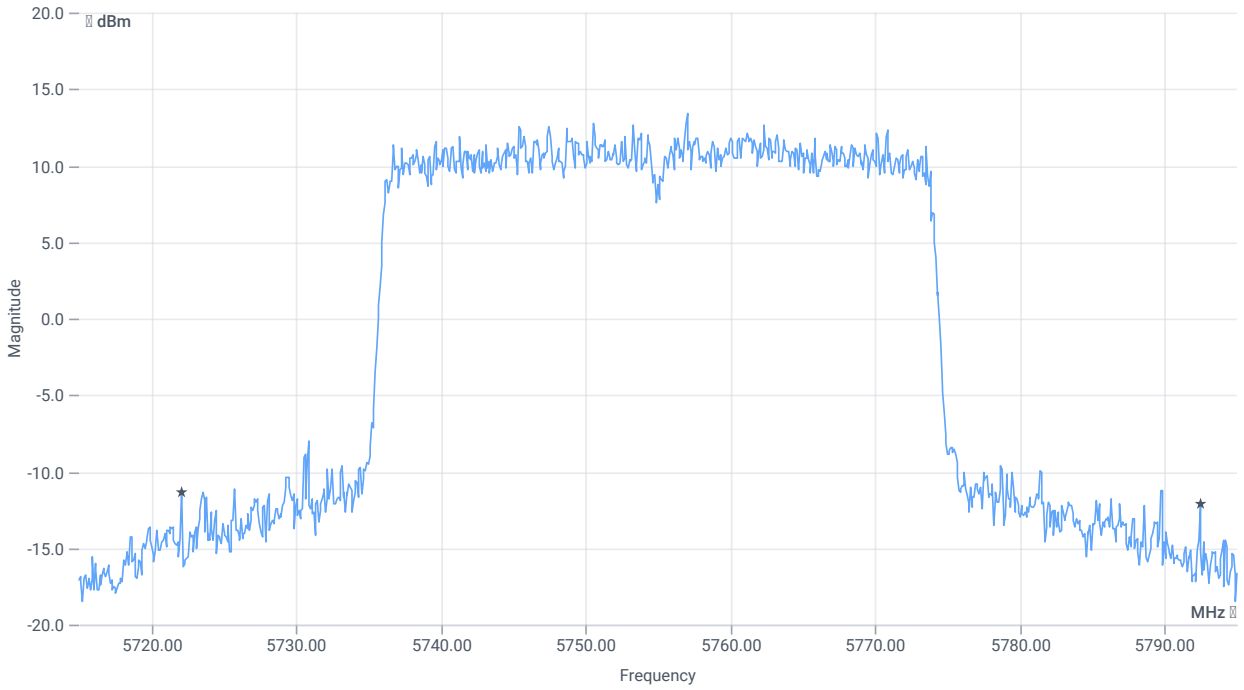
Duty Cycle evaluation

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Result Summary | | | | | |
| Number of detected Bursts:89 | | | | | |
| Duty Cycle (Burst Ratio) max | --- | --- | 0.988 | --- | INFO |
| Duty Cycle max | --- | --- | 0.052 | dB | INFO |
| Duty Cycle (Burst Ratio) min | --- | --- | 0.919 | --- | INFO |
| Duty Cycle min | --- | --- | 0.367 | dB | INFO |
| Max TX Burst Length | --- | --- | 5.95 | ms | INFO |
| Min Gap Length | --- | --- | 0.075 | ms | INFO |
| Max Gap Length | --- | --- | 0.075 | ms | INFO |




*Duty cycle*

### Evaluation Bandwidth




*BW 26dB*

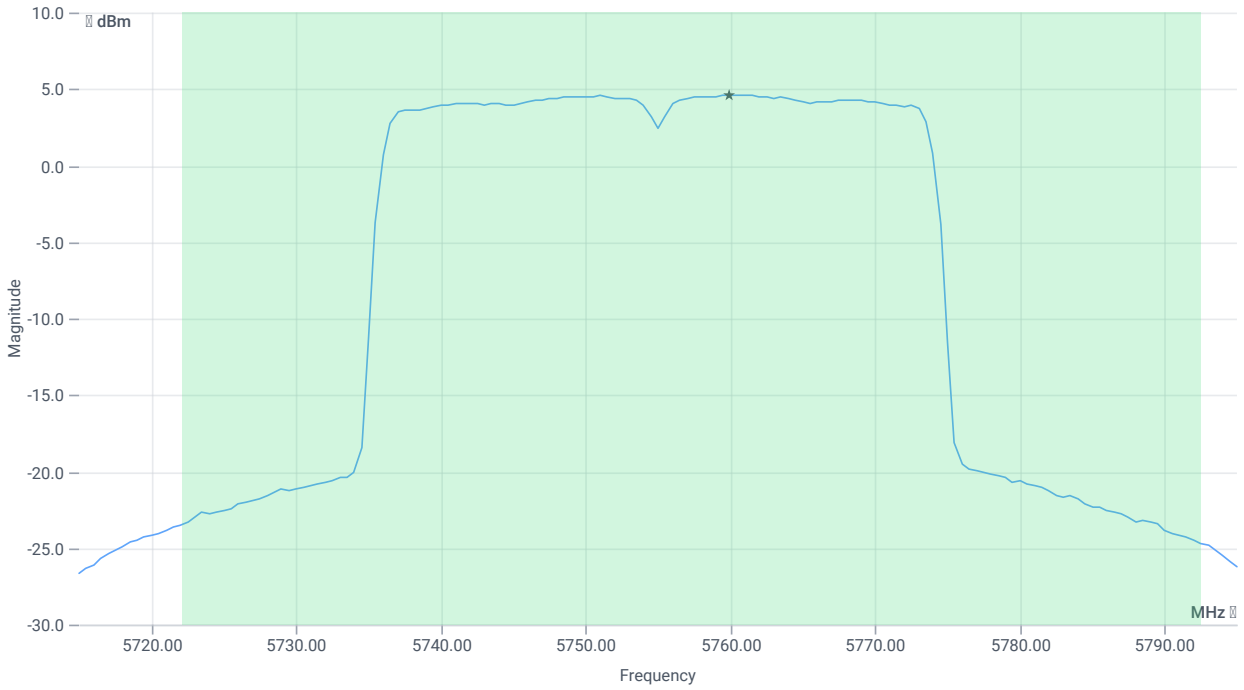
## RESULT

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Bandwidth 26dB | --- | --- | 70.4 | MHz | INFO |
| T1 26dB | --- | --- | 5722.0400 | MHz | INFO |
| T2 26dB | --- | --- | 5792.4400 | MHz | INFO |

## Maximum Output Power

## READ SA SETTINGS:

| | |
|---|---|
| RefLevel [dBm] \| RefLevelOffset [dB] \| InpAtt [dB] | 26.70 \| 16.87 \| 25 |
| Start [MHz] \| Stop [MHz] | 5715.000 \| 5795.000 |
| RBW [MHz] \| VBW [MHz] | 1.000000 \| 3.000000 |
| Detector \| TraceMode | RMS \| MAXH |
| Sweep: time [ms] \| count \| points per Section \| type | 53700 \| 1 \| 161 \| SWE |




*Max OP and PSD*

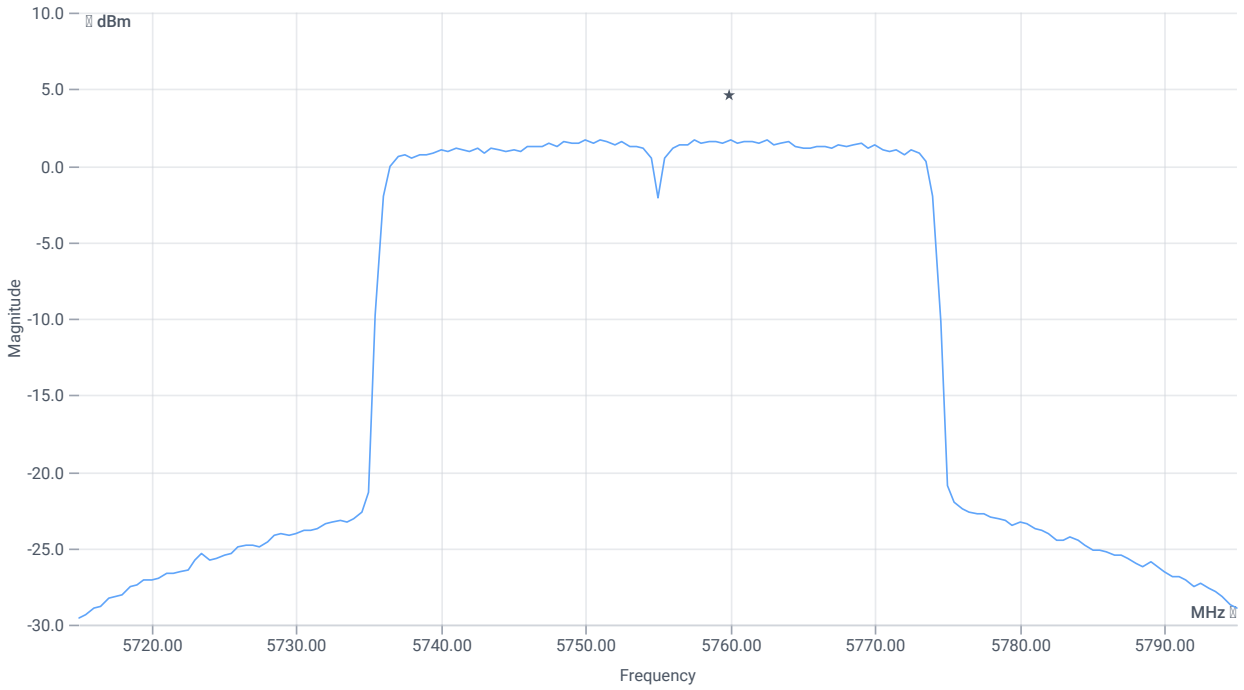
## RESULT

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Max Output Power | --- | --- | 19.65 | dBm | INFO |
| Duty Cycle Correction | --- | --- | 0.37 | dB | INFO |
| Limit absolute | | | | | |
| Max Output Power DC corrected | --- | 30 | 20.02 | dBm | PASS |
| Limit: 11 dBm + 10 log 70.4 | | | | | |
| Max Output Power DC corrected | --- | 29.48 | 20.02 | dBm | na |

## Power Spectral Density U-NII-3

## READ SA SETTINGS:

| | |
|---|---|
| RefLevel [dBm] \| RefLevelOffset [dB] \| InpAtt [dB] | 26.70 \| 16.87 \| 25 |
| Start [MHz] \| Stop [MHz] | 5715.000 \| 5795.000 |
| RBW [MHz] \| VBW [MHz] | 0.500000 \| 3.000000 |
| Detector \| TraceMode | RMS \| MAXH |
| Sweep: time [ms] \| count \| points per Section \| type | 53700 \| 1 \| 161 \| SWE |




*PSD UNII-3*

## RESULT

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Power Spectral Density | --- | --- | 1.71 | dBm/0.5MHz | INFO |
| Duty Cycle Correction | --- | --- | 0.37 | dB | INFO |
| Power Spectral Density DC corrected | --- | 30 | 2.08 | dBm/0.5MHz | PASS |

| Verdict |
|---|
| PASS |

# FCC 15.407, ISED RSS247 # Bandwidths 99PCT and 20dB ~ WLAN5Gx ax-HE40 U-NII-3

## References

| | |
|---|---|
| TC start | 19.01.2024 11:09:20 |
| Ambit temp [°C] \| humidity [rel%] | 22.0 \| 29 |
| System version | 4.7.1.5 |
| Standard \| Version | FCC 15.407, ISED RSS247 \| NI |
| Method | 26dB Bandwidth KDB789033 D02, C.1 / ISED RSS-GEN |
| Description | FCC 15.407 Bandwidths - WLAN5Gx ax-HE40 U-NII-3 |
| Information | |

## EUT Common Settings WLAN5Gx

| | |
|---|---|
| Number of Antenna Ports | 2 |
| User Interaction | No |
| Device Class UNII_1 | Client |
| Limit W52 Japan | Standard |

## Test Parameter

| | |
|---|---|
| Technology to test | WLAN5Gx ax-HE40 |
| Antenna port used | 2 |
| Temperature | nom |
| Voltage | nom |
| Frequency low to test | True \| Freq [MHz] 5755 |
| Frequency mid to test | False \| Freq [MHz] 0 |
| Frequency high to test | False \| Freq [MHz] 5795 |
| Auto control enabled power supply \| Climatic Box | No \| No |
| Additional path loss [dB] | 1.4 |
| Full path name \| type | EUT - SignalingUnit - SpectrumAnalyzer |

## Equipment

| |
|---|
| Signal analyzer,Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.70 |
| Switch matrix,CTCadvanced,SPM-4 NI DAQ,28016133,NI |

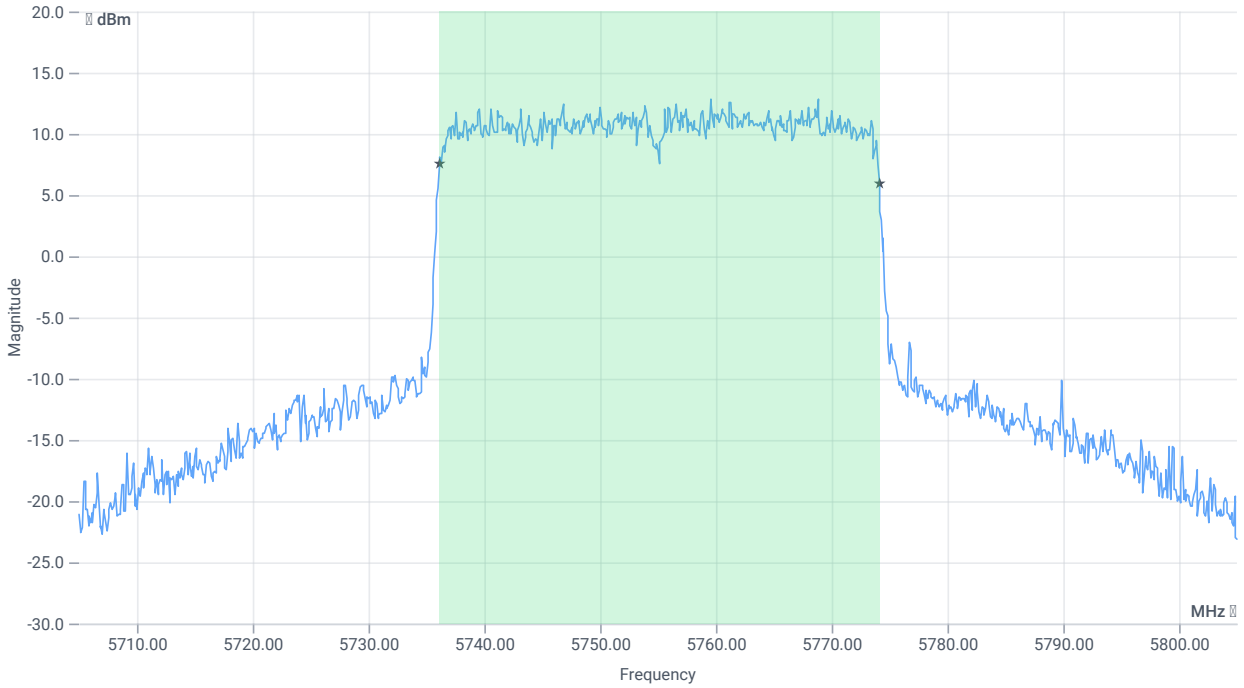
## Test at TX 5755 MHz

RESULT: Reference Power cond.

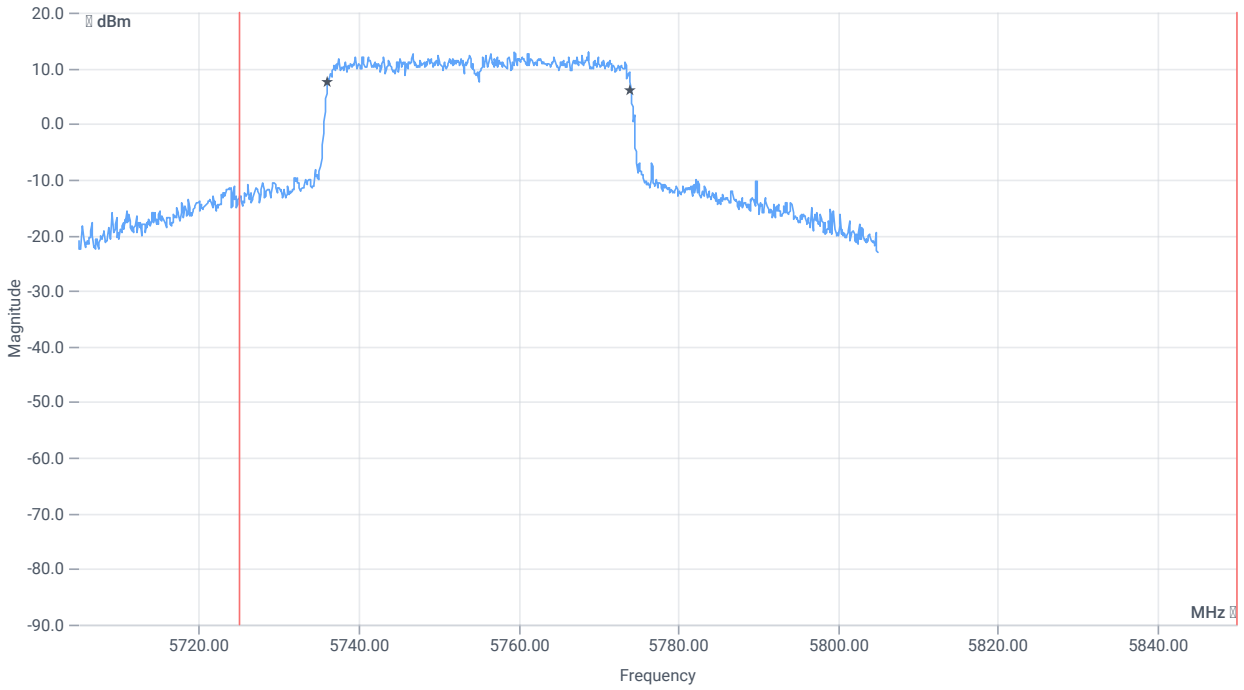
| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Ref. Power 1MHz/1MHz cond. | --- | --- | 13.68 | dBm | INFO |
| Ref. Frequency | --- | --- | 5749.410 | MHz | INFO |

READ SA SETTINGS:

| | |
|---|---|
| RefLevel [dBm] \| RefLevelOffset [dB] \| InpAtt [dB] | 21.68 \| 16.87 \| 20 |
| Start [MHz] \| Stop [MHz] | 5705.000 \| 5805.000 |
| RBW [MHz] \| VBW [MHz] | 0.500000 \| 3.000000 |
| Detector \| TraceMode | POS \| MAXH |
| Sweep: time [ms] \| count \| points per Section \| type | 1 \| 2500 \| 1001 \| SWE |



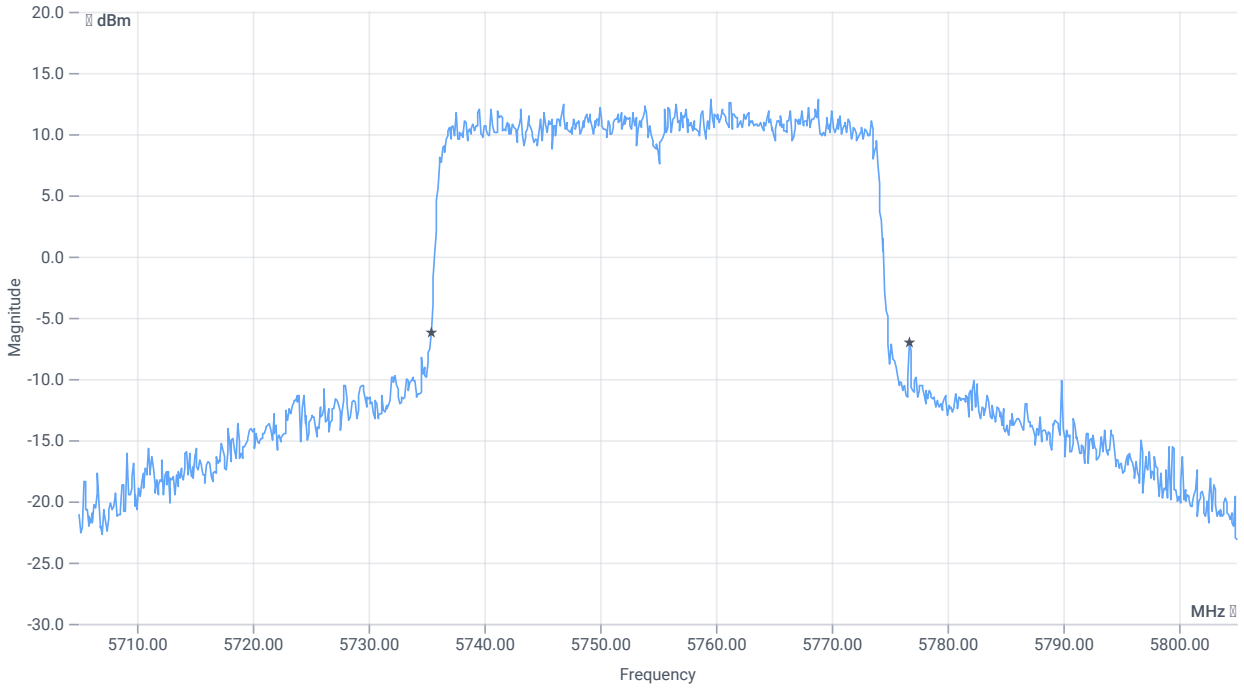

*BW 99PCT*



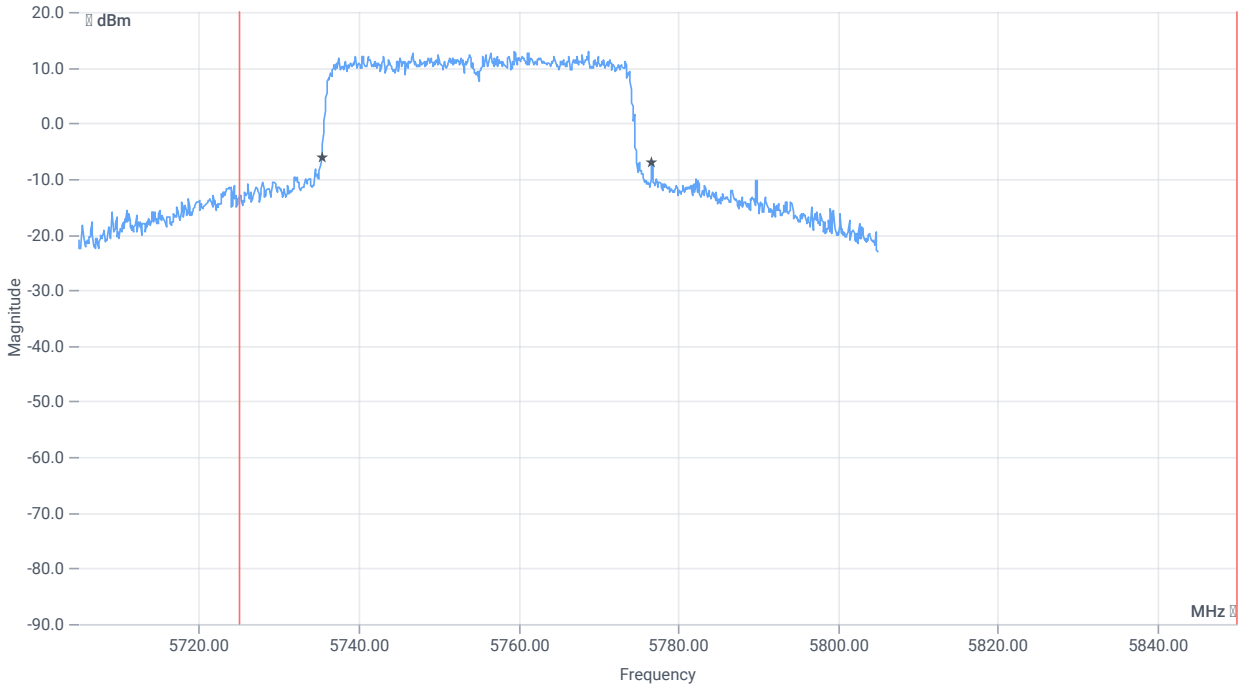

*BW within Band 99PCT*

## RESULT

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Bandwidth 99% | --- | --- | 37.962 | MHz | INFO |
| T1 99% | 5725.000000 | --- | 5736.1189 | MHz | PASS |
| T2 99% | --- | 5850.000000 | 5774.0809 | MHz | PASS |



*BW 20dB*




*BW within Band 20dB*

## RESULT

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Bandwidth 20dB | --- | --- | 41.3 | MHz | INFO |
| T1 20dB | 5725.000000 | --- | 5735.4000 | MHz | PASS |
| T2 20dB | --- | 5850.000000 | 5776.7000 | MHz | PASS |

| Verdict |
|---|
| PASS |

# FCC 15.407, ISED RSS247 # Minimum emission bandwidth ~ WLAN5Gx ax-HE40 U-NII-3

## References

| | |
|---|---|
| TC start | 19.01.2024 11:09:51 |
| Ambit temp [°C] \| humidity [rel%] | 22.0 \| 29 |
| System version | 4.7.1.5 |
| Standard \| Version | FCC 15.407, ISED RSS247 \| NI |
| Method | KDB789033 D02, C.2. |
| Description | FCC 15.407 Min Emission Bandwidth - WLAN5Gx ax-HE40 U-NII-3 |
| Information | |

## EUT Common Settings WLAN5Gx

| | |
|---|---|
| Number of Antenna Ports | 2 |
| User Interaction | No |
| Device Class UNII_1 | Client |
| Limit W52 Japan | Standard |

## Test Parameter

| | |
|---|---|
| Technology to test | WLAN5Gx ax-HE40 |
| Antenna port used | 2 |
| Temperature | nom |
| Voltage | nom |
| Frequency low to test | True \| Freq [MHz] 5755 |
| Frequency mid to test | False \| Freq [MHz] 0 |
| Frequency high to test | False \| Freq [MHz] 5795 |
| Auto control enabled power supply \| Climatic Box | No \| No |
| Additional path loss [dB] | 1.4 |
| Full path name \| type | EUT - SignalingUnit - SpectrumAnalyzer |

## Equipment

| |
|---|
| Signal analyzer,Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.70 |
| Switch matrix,CTCadvanced,SPM-4 NI DAQ,28016133,NI |

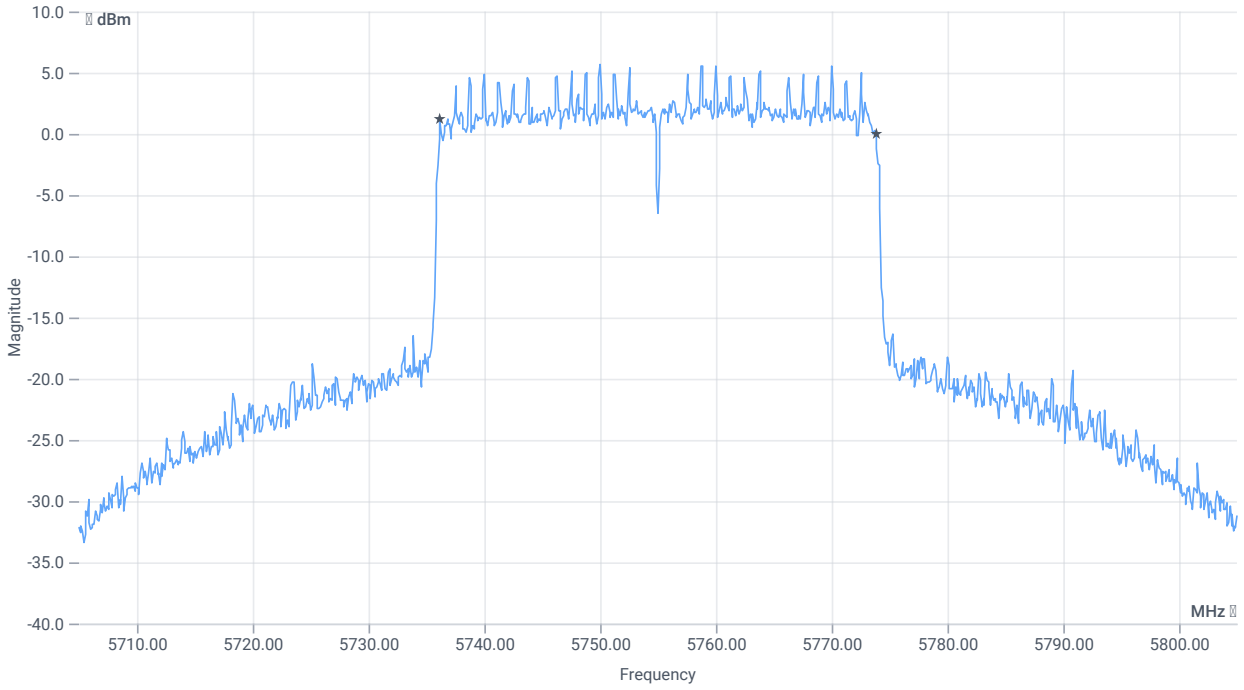
## Test at TX 5755 MHz

### RESULT: Reference Power cond.

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Ref. Power 1MHz/1MHz cond. | --- | --- | 15.74 | dBm | INFO |
| Ref. Frequency | --- | --- | 5760.990 | MHz | INFO |

### READ SA SETTINGS:

| | |
|---|---|
| RefLevel [dBm] \| RefLevelOffset [dB] \| InpAtt [dB] | 27.74 \| 16.87 \| 30 |
| Start [MHz] \| Stop [MHz] | 5705.000 \| 5805.000 |
| RBW [MHz] \| VBW [MHz] | 0.100000 \| 0.300000 |
| Detector \| TraceMode | POS \| MAXH |
| Sweep: time [ms] \| count \| points per Section \| type | 2 \| 1500 \| 1001 \| SWE |




*BW 6dB*

### RESULT

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Bandwidth (6dB) | 0.500 | --- | 37.6 | MHz | PASS |

| Verdict |
|---|
| PASS |

# FCC 15.407 # MIMO ∑ Max output power and psd ~ WLAN5Gx ax-HE40 U-NII-3

## References

| | |
|---|---|
| TC start | 19.01.2024 11:10:16 |
| Ambit temp [°C] \| humidity [rel%] | 22.0 \| 29 |
| System version | 4.7.1.5 |
| Standard \| Version | FCC 15.407 \| NI |
| Method | |
| Description | MIMO ∑ FCC Power & psd - WLAN5Gx ax-HE40 U-NII-3 |
| Information | |

## EUT Common Settings WLAN5Gx

| | |
|---|---|
| Number of Antenna Ports | 2 |
| User Interaction | No |
| Device Class UNII_1 | Client |
| Limit W52 Japan | Standard |

## Test Parameter

| | |
|---|---|
| Technology to test | WLAN5Gx ax-HE40 |
| Antenna port used | several |
| Temperature | nom |
| Voltage | nom |
| Frequency low to test | True \| Freq [MHz] 5755 |
| Frequency mid to test | False \| Freq [MHz] 0 |
| Frequency high to test | False \| Freq [MHz] 5795 |
| Auto control enabled power supply \| Climatic Box | No \| No |
| Additional path loss [dB] | 1.4 |
| Full path name \| type | None |

## Equipment

## Test at TX 5755 MHz

### RESULT Power

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Ant:1 Max Output Power DC corrected | --- | --- | 20.51 | dBm | INFO |
| Ant:1 BW 26dB | --- | --- | 62.640 | MHz | INFO |
| Ant:2 Max Output Power DC corrected | --- | --- | 20.02 | dBm | INFO |
| Ant:2 BW 26dB | --- | --- | 70.400 | MHz | INFO |
| ∑ Limit absolute | --- | 30 | 23.28 | dBm | PASS |
| ∑ Limit: 11 dBm + 10 log 62.64 | --- | 28.97 | 23.28 | dBm | na |

### RESULT PSD

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Ant:1 PSD | --- | --- | 2.39 | dBm/0.5MHz | INFO |
| Ant:2 PSD | --- | --- | 2.08 | dBm/0.5MHz | INFO |
| ∑ | --- | 30 | 5.25 | dBm/0.5MHz | PASS |

| Verdict |
|---|
| PASS |

# FCC 15.407, ISED RSS247 # Emission mask (eirp) ~ WLAN5Gx ax-HE40 U-NII-3

## References

| | |
|---|---|
| TC start | 19.01.2024 14:14:24 |
| Ambit temp [°C] \| humidity [rel%] | 22.7 \| 24 |
| System version | 4.7.1.5 |
| Standard \| Version | FCC 15.407, ISED RSS247 \| NI |
| Method | NI |
| Description | FCC 15.407 Emission mask - WLAN5Gx ax-HE40 U-NII-3 |
| Information | |

## EUT Common Settings WLAN5Gx

| | |
|---|---|
| Number of Antenna Ports | 2 |
| User Interaction | No |
| Device Class UNII_1 | Client |
| Limit W52 Japan | Standard |

## Test Parameter

| | |
|---|---|
| Technology to test | WLAN5Gx ax-HE40 |
| Antenna port used | 1 |
| Temperature | nom |
| Voltage | nom |
| Frequency low to test | True \| Freq [MHz] 5755 |
| Frequency mid to test | False \| Freq [MHz] 0 |
| Frequency high to test | False \| Freq [MHz] 5795 |
| Auto control enabled power supply \| Climatic Box | No \| No |
| Additional path loss [dB] | 3.4 |
| Full path name \| type | EUT - SignalingUnit - SpectrumAnalyzer |

## Equipment

| |
|---|
| Signal analyzer,Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.70 |
| Switch matrix,CTCadvanced,SPM-4 NI DAQ,28016133,NI |

## Test at TX 5755 MHz

### RESULT: Reference Power cond.

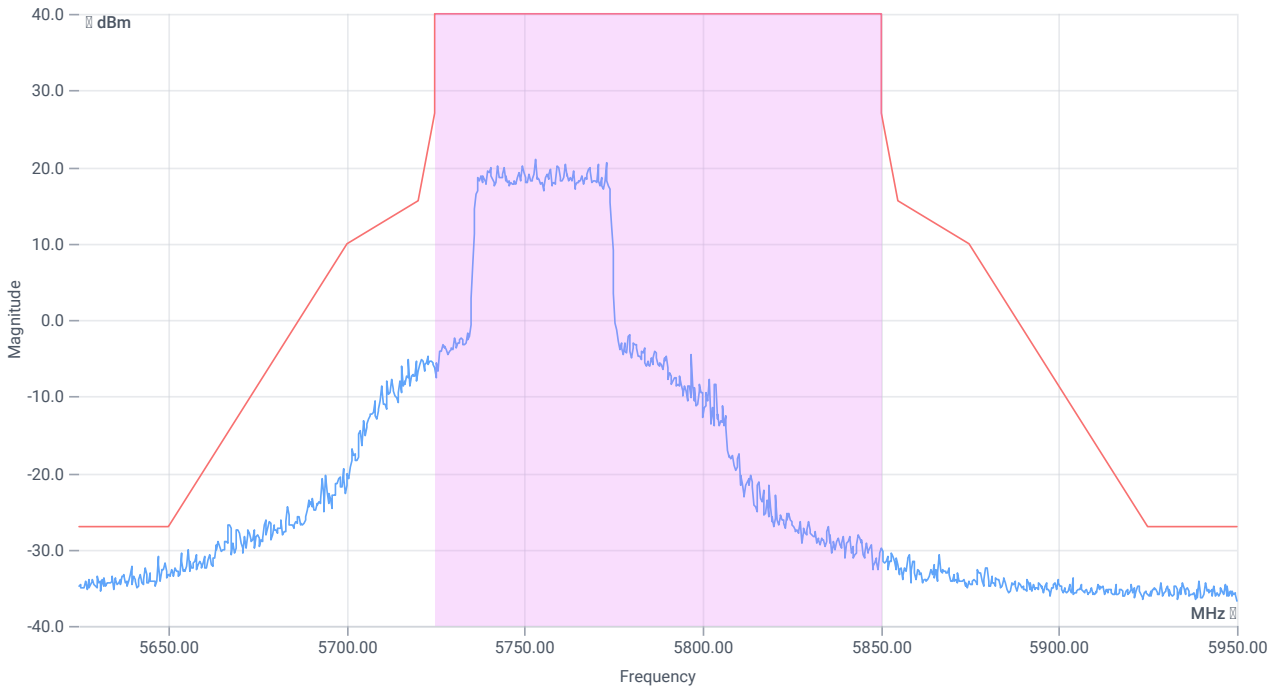
| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Ref. Power 1MHz/1MHz cond. | --- | --- | 16.85 | dBm | INFO |
| Ref. Frequency | --- | --- | 5740.410 | MHz | INFO |

### Antenna gain

| | |
|---|---|
| Considered antenna gain [dBi]: | 2 / max found in range 5625 to 5950 MHz |

### READ SA SETTINGS:

| | |
|---|---|
| RefLevel [dBm] \| RefLevelOffset [dB] \| InpAtt [dB] | 19.85 \| 18.87 \| 20 |
| Start [MHz] \| Stop [MHz] | 5625.000 \| 5950.000 |
| RBW [MHz] \| VBW [MHz] | 1.000000 \| 3.000000 |
| Detector \| TraceMode | POS \| MAXH |
| Sweep: time [ms] \| count \| points per Section \| type | 1 \| 2500 \| 1001 \| SWE |




*Emission Mask (e.i.r.p)*

### RESULT

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|

| Verdict |
| --- |
| PASS |

# FCC 15.407, ISED RSS247 # Emission mask (eirp) ~ WLAN5Gx ax-HE40 U-NII-3

## References

| | |
|---|---|
| TC start | 19.01.2024 14:15:02 |
| Ambit temp [°C] \| humidity [rel%] | 22.6 \| 25 |
| System version | 4.7.1.5 |
| Standard \| Version | FCC 15.407, ISED RSS247 \| NI |
| Method | NI |
| Description | FCC 15.407 Emission mask - WLAN5Gx ax-HE40 U-NII-3 |
| Information | |

## EUT Common Settings WLAN5Gx

| | |
|---|---|
| Number of Antenna Ports | 2 |
| User Interaction | No |
| Device Class UNII_1 | Client |
| Limit W52 Japan | Standard |

## Test Parameter

| | |
|---|---|
| Technology to test | WLAN5Gx ax-HE40 |
| Antenna port used | 2 |
| Temperature | nom |
| Voltage | nom |
| Frequency low to test | True \| Freq [MHz] 5755 |
| Frequency mid to test | False \| Freq [MHz] 0 |
| Frequency high to test | False \| Freq [MHz] 5795 |
| Auto control enabled power supply \| Climatic Box | No \| No |
| Additional path loss [dB] | 3.4 |
| Full path name \| type | EUT - SignalingUnit - SpectrumAnalyzer |

## Equipment

| |
|---|
| Signal analyzer,Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.70 |
| Switch matrix,CTCadvanced,SPM-4 NI DAQ,28016133,NI |

## Test at TX 5755 MHz

### RESULT: Reference Power cond.

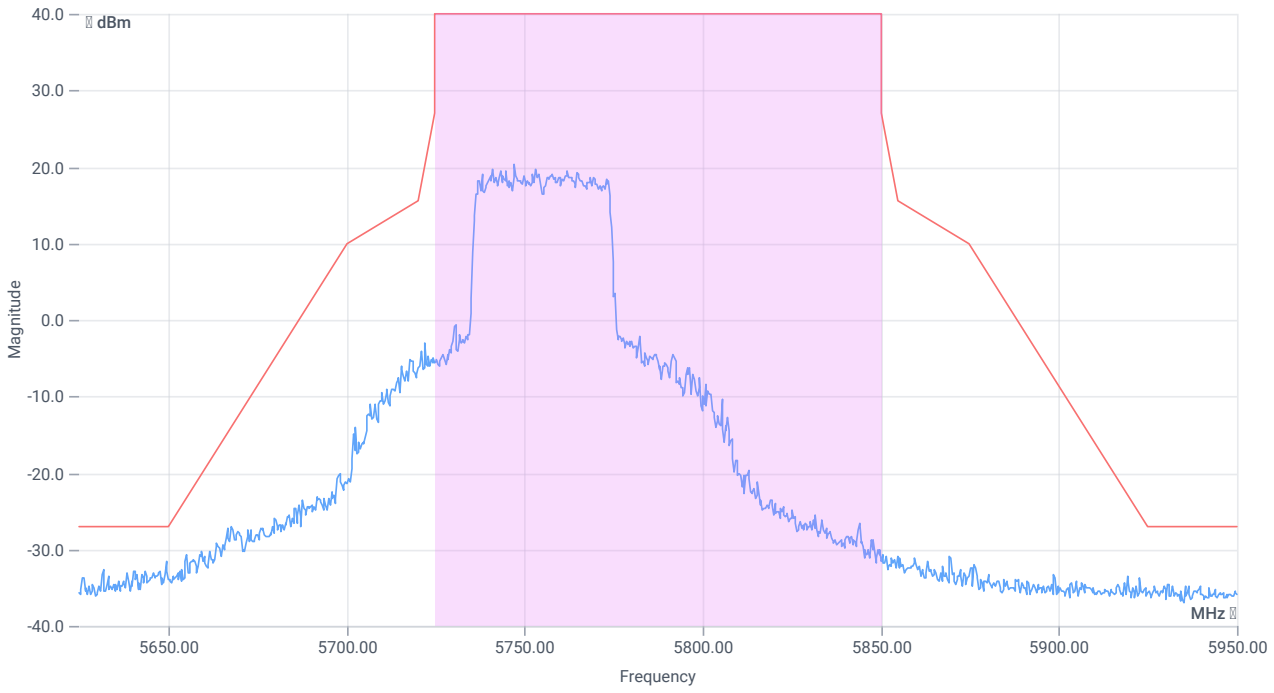
| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Ref. Power 1MHz/1MHz cond. | --- | --- | 16.21 | dBm | INFO |
| Ref. Frequency | --- | --- | 5757.000 | MHz | INFO |

### Antenna gain

| | |
|---|---|
| Considered antenna gain [dBi]: | 2 / max found in range 5625 to 5950 MHz |

### READ SA SETTINGS:

| | |
|---|---|
| RefLevel [dBm] \| RefLevelOffset [dB] \| InpAtt [dB] | 19.21 \| 18.87 \| 20 |
| Start [MHz] \| Stop [MHz] | 5625.000 \| 5950.000 |
| RBW [MHz] \| VBW [MHz] | 1.000000 \| 3.000000 |
| Detector \| TraceMode | POS \| MAXH |
| Sweep: time [ms] \| count \| points per Section \| type | 1 \| 2500 \| 1001 \| SWE |




*Emission Mask (e.i.r.p)*

### RESULT

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|

| Verdict |
| --- |
| PASS |

# FCC 15.407 # Max output power and psd ~ WLAN5Gx ax-HE40 U-NII-3

## References

| | |
|---|---|
| TC start | 19.01.2024 11:12:19 |
| Ambit temp [°C] \| humidity [rel%] | 22.0 \| 29 |
| System version | 4.7.1.5 |
| Standard \| Version | FCC 15.407 \| NI |
| Method | KDB789033 D02, F., E.2.e. |
| Description | FCC 15.407 Max Output Power & PSD - WLAN5Gx ax-HE40 U-NII-3 |
| Information | |

## EUT Common Settings WLAN5Gx

| | |
|---|---|
| Number of Antenna Ports | 2 |
| User Interaction | No |
| Device Class UNII_1 | Client |
| Limit W52 Japan | Standard |

## Test Parameter

| | |
|---|---|
| Technology to test | WLAN5Gx ax-HE40 |
| Antenna port used | 1 |
| Temperature | nom |
| Voltage | nom |
| Frequency low to test | False \| Freq [MHz] 5755 |
| Frequency mid to test | False \| Freq [MHz] 0 |
| Frequency high to test | True \| Freq [MHz] 5795 |
| Auto control enabled power supply \| Climatic Box | No \| No |
| Additional path loss [dB] | 1.4 |
| Full path name \| type | EUT - SignalingUnit - SpectrumAnalyzer |

## Equipment

| |
|---|
| Signal analyzer,Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.70 |
| Switch matrix,CTCadvanced,SPM-4 NI DAQ,28016133,NI |

## Test at TX 5795 MHz

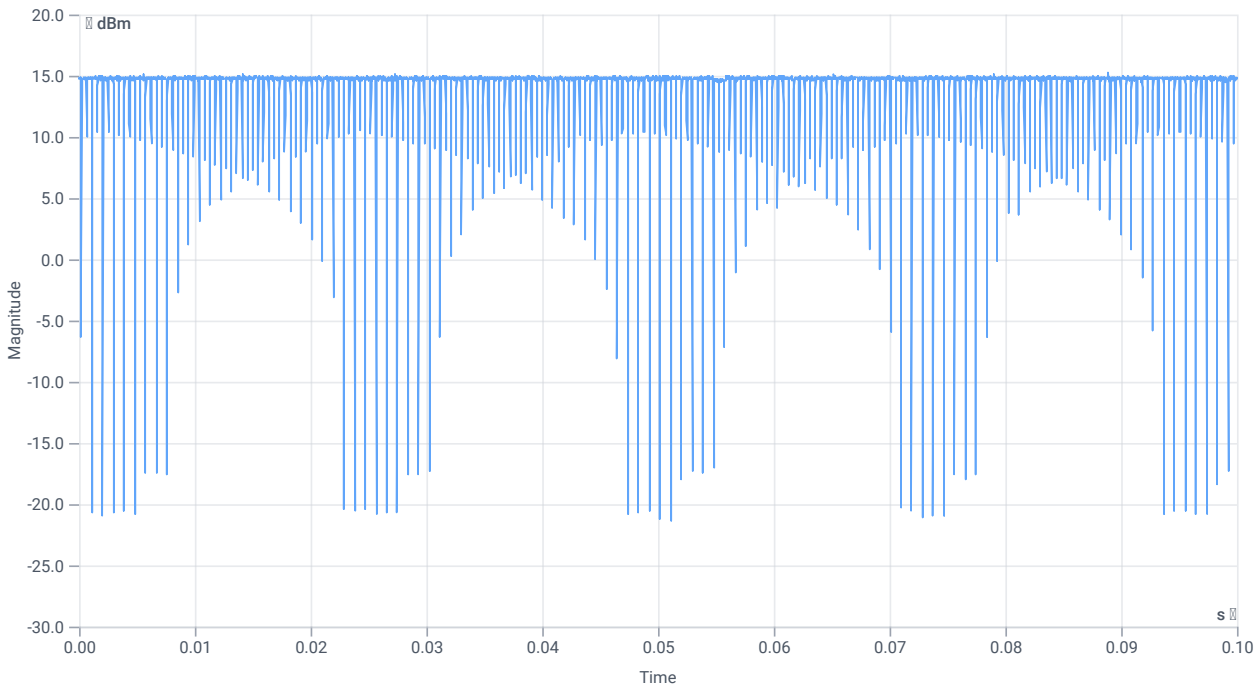
RESULT: Reference Power cond.

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Ref. Power 1MHz/1MHz cond. | --- | --- | 14.79 | dBm | INFO |
| Ref. Frequency | --- | --- | 5785.410 | MHz | INFO |

### Evaluation max. Duty Cycle

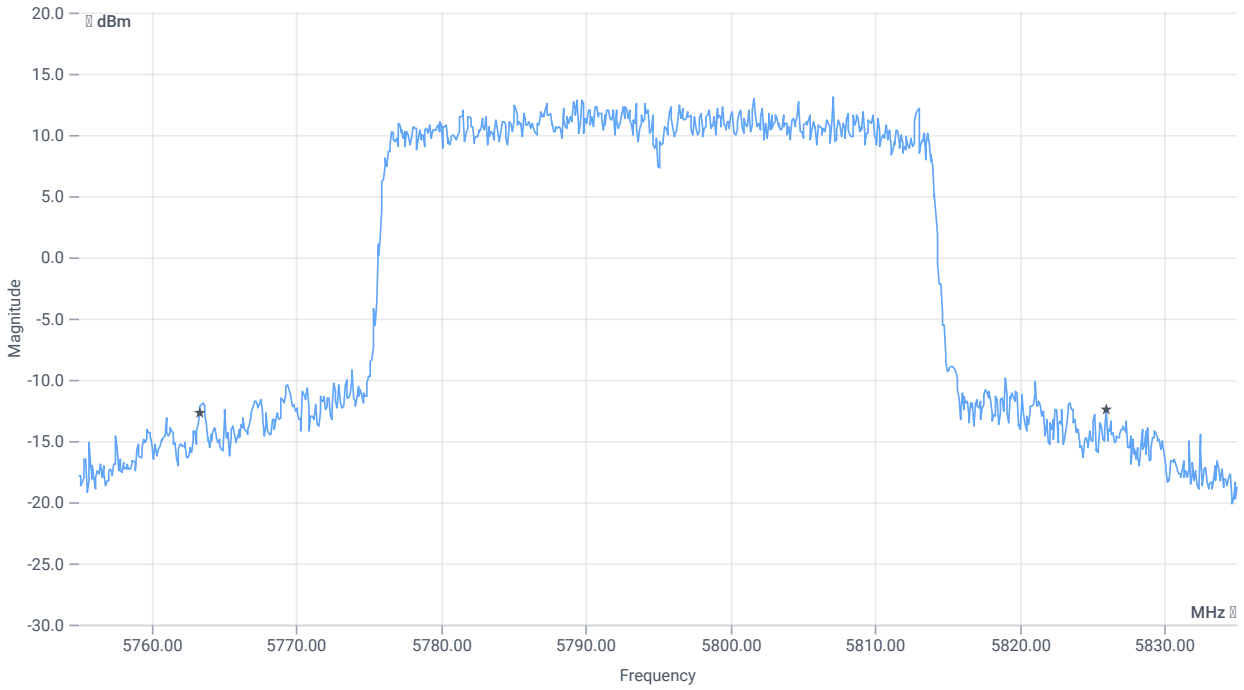
Duty Cycle evaluation

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Result Summary | | | | | |
| Number of detected Bursts:89 | | | | | |
| Duty Cycle (Burst Ratio) max | --- | --- | 0.988 | --- | INFO |
| Duty Cycle max | --- | --- | 0.052 | dB | INFO |
| Duty Cycle (Burst Ratio) min | --- | --- | 0.919 | --- | INFO |
| Duty Cycle min | --- | --- | 0.367 | dB | INFO |
| Max TX Burst Length | --- | --- | 5.95 | ms | INFO |
| Min Gap Length | --- | --- | 0.075 | ms | INFO |
| Max Gap Length | --- | --- | 0.075 | ms | INFO |




*Duty cycle*

### Evaluation Bandwidth




*BW 26dB*

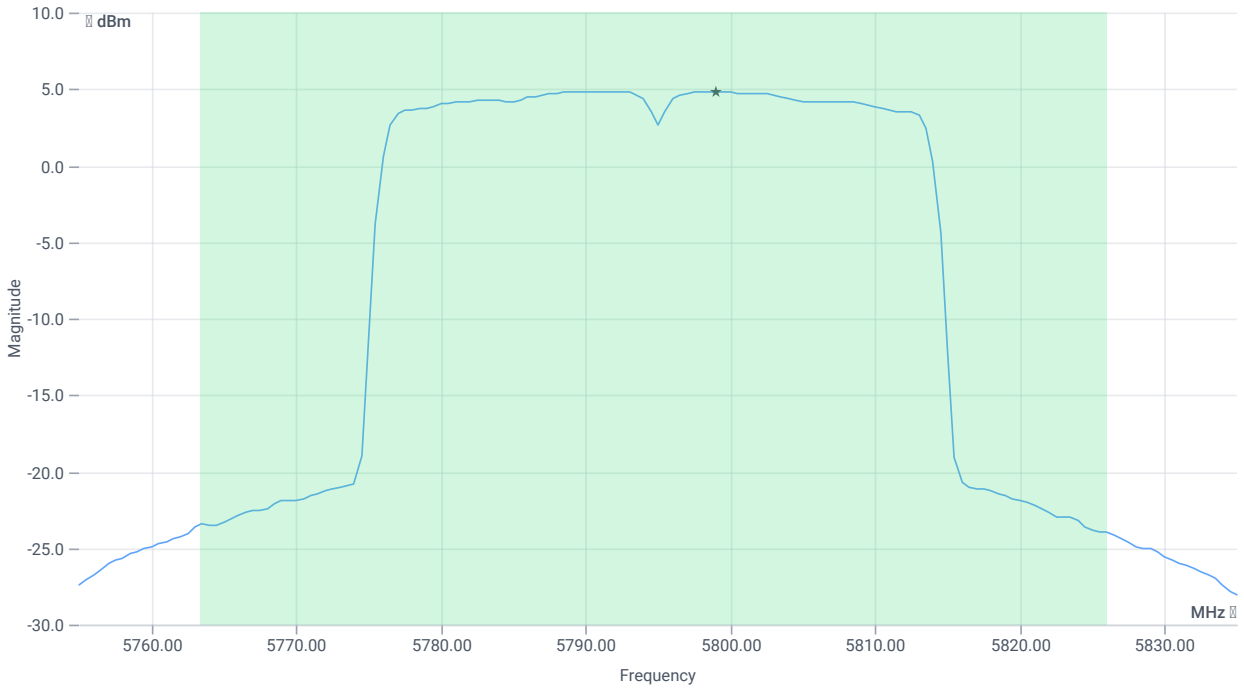
## RESULT

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Bandwidth 26dB | --- | --- | 62.64 | MHz | INFO |
| T1 26dB | --- | --- | 5763.3200 | MHz | INFO |
| T2 26dB | --- | --- | 5825.9600 | MHz | INFO |

## Maximum Output Power

## READ SA SETTINGS:

| | |
|---|---|
| RefLevel [dBm] \| RefLevelOffset [dB] \| InpAtt [dB] | 26.79 \| 16.77 \| 25 |
| Start [MHz] \| Stop [MHz] | 5755.000 \| 5835.000 |
| RBW [MHz] \| VBW [MHz] | 1.000000 \| 3.000000 |
| Detector \| TraceMode | RMS \| MAXH |
| Sweep: time [ms] \| count \| points per Section \| type | 53700 \| 1 \| 161 \| SWE |




*Max OP and PSD*

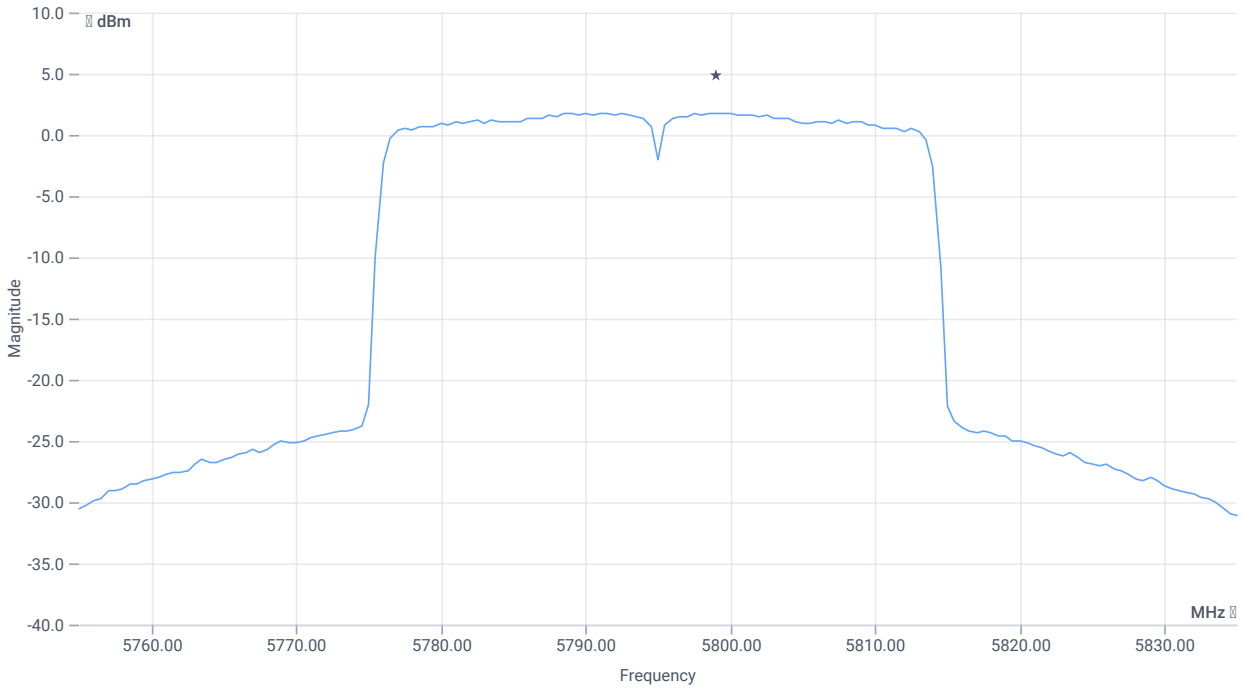
## RESULT

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Max Output Power | --- | --- | 19.78 | dBm | INFO |
| Duty Cycle Correction | --- | --- | 0.37 | dB | INFO |
| Limit absolute | | | | | |
| Max Output Power DC corrected | --- | 30 | 20.15 | dBm | PASS |
| Limit: 11 dBm + 10 log 62.64 | | | | | |
| Max Output Power DC corrected | --- | 28.97 | 20.15 | dBm | na |

## Power Spectral Density U-NII-3

## READ SA SETTINGS:

| | |
|---|---|
| RefLevel [dBm] \| RefLevelOffset [dB] \| InpAtt [dB] | 26.79 \| 16.77 \| 30 |
| Start [MHz] \| Stop [MHz] | 5755.000 \| 5835.000 |
| RBW [MHz] \| VBW [MHz] | 0.500000 \| 3.000000 |
| Detector \| TraceMode | RMS \| MAXH |
| Sweep: time [ms] \| count \| points per Section \| type | 53700 \| 1 \| 161 \| SWE |




*PSD UNII-3*

## RESULT

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Power Spectral Density | --- | --- | 1.81 | dBm/0.5MHz | INFO |
| Duty Cycle Correction | --- | --- | 0.37 | dB | INFO |
| Power Spectral Density DC corrected | --- | 30 | 2.18 | dBm/0.5MHz | PASS |

| Verdict |
|---|
| PASS |

# FCC 15.407, ISED RSS247 # Bandwidths 99PCT and 20dB ~ WLAN5Gx ax-HE40 U-NII-3

## References

| | |
|---|---|
| TC start | 19.01.2024 11:14:45 |
| Ambit temp [°C] \| humidity [rel%] | 21.9 \| 29 |
| System version | 4.7.1.5 |
| Standard \| Version | FCC 15.407, ISED RSS247 \| NI |
| Method | 26dB Bandwidth KDB789033 D02, C.1 / ISED RSS-GEN |
| Description | FCC 15.407 Bandwidths - WLAN5Gx ax-HE40 U-NII-3 |
| Information | |

## EUT Common Settings WLAN5Gx

| | |
|---|---|
| Number of Antenna Ports | 2 |
| User Interaction | No |
| Device Class UNII_1 | Client |
| Limit W52 Japan | Standard |

## Test Parameter

| | |
|---|---|
| Technology to test | WLAN5Gx ax-HE40 |
| Antenna port used | 1 |
| Temperature | nom |
| Voltage | nom |
| Frequency low to test | False \| Freq [MHz] 5755 |
| Frequency mid to test | False \| Freq [MHz] 0 |
| Frequency high to test | True \| Freq [MHz] 5795 |
| Auto control enabled power supply \| Climatic Box | No \| No |
| Additional path loss [dB] | 1.4 |
| Full path name \| type | EUT - SignalingUnit - SpectrumAnalyzer |

## Equipment

| |
|---|
| Signal analyzer,Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.70 |
| Switch matrix,CTCadvanced,SPM-4 NI DAQ,28016133,NI |

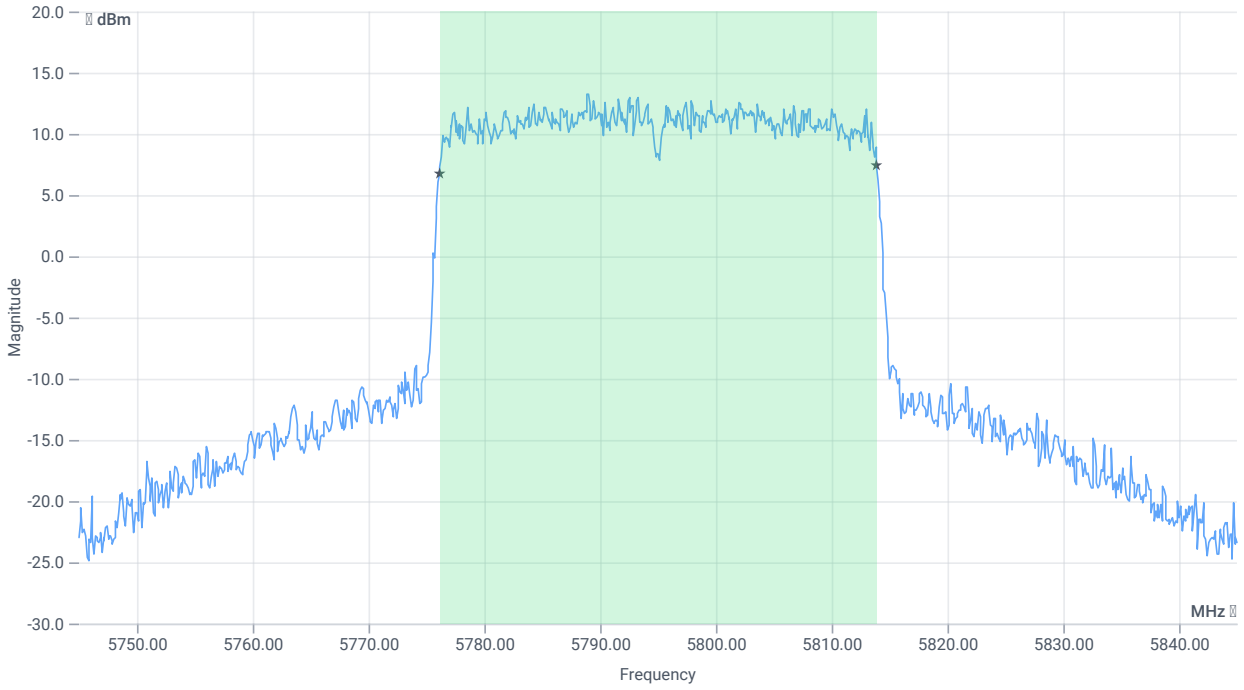
## Test at TX 5795 MHz

RESULT: Reference Power cond.

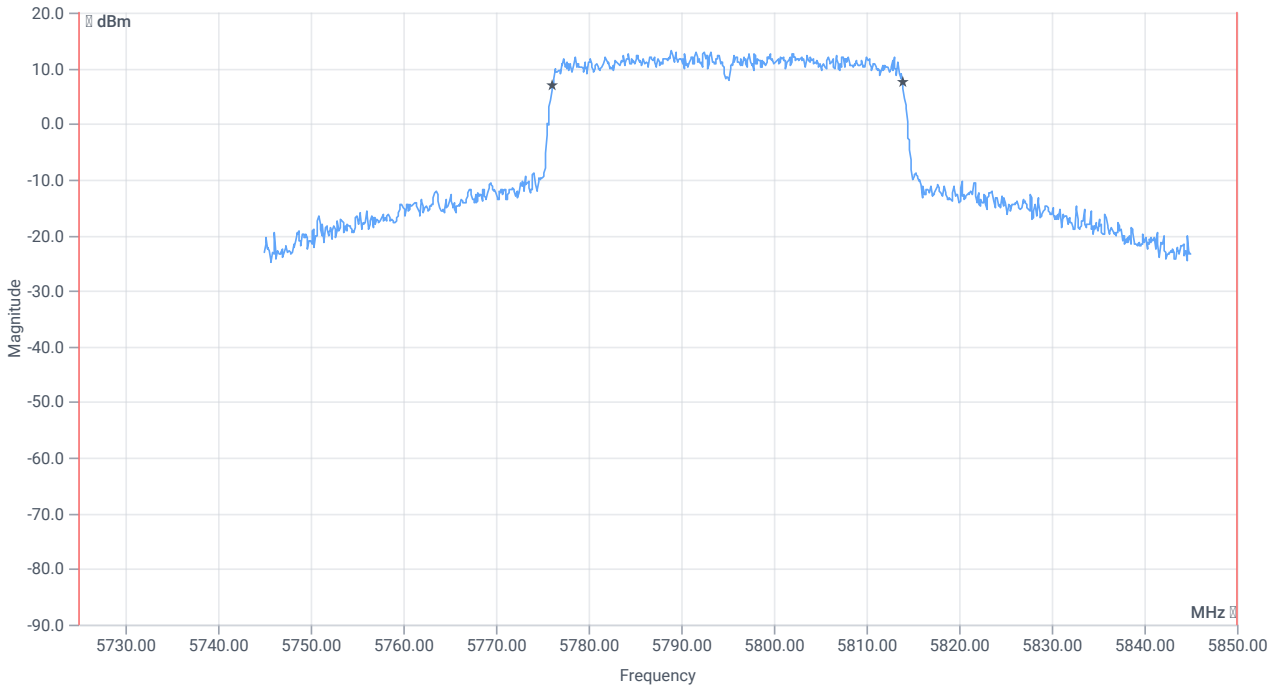
| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Ref. Power 1MHz/1MHz cond. | --- | --- | 14.57 | dBm | INFO |
| Ref. Frequency | --- | --- | 5800.590 | MHz | INFO |

READ SA SETTINGS:

| | |
|---|---|
| RefLevel [dBm] \| RefLevelOffset [dB] \| InpAtt [dB] | 22.57 \| 16.77 \| 25 |
| Start [MHz] \| Stop [MHz] | 5745.000 \| 5845.000 |
| RBW [MHz] \| VBW [MHz] | 0.500000 \| 3.000000 |
| Detector \| TraceMode | POS \| MAXH |
| Sweep: time [ms] \| count \| points per Section \| type | 1 \| 2500 \| 1001 \| SWE |



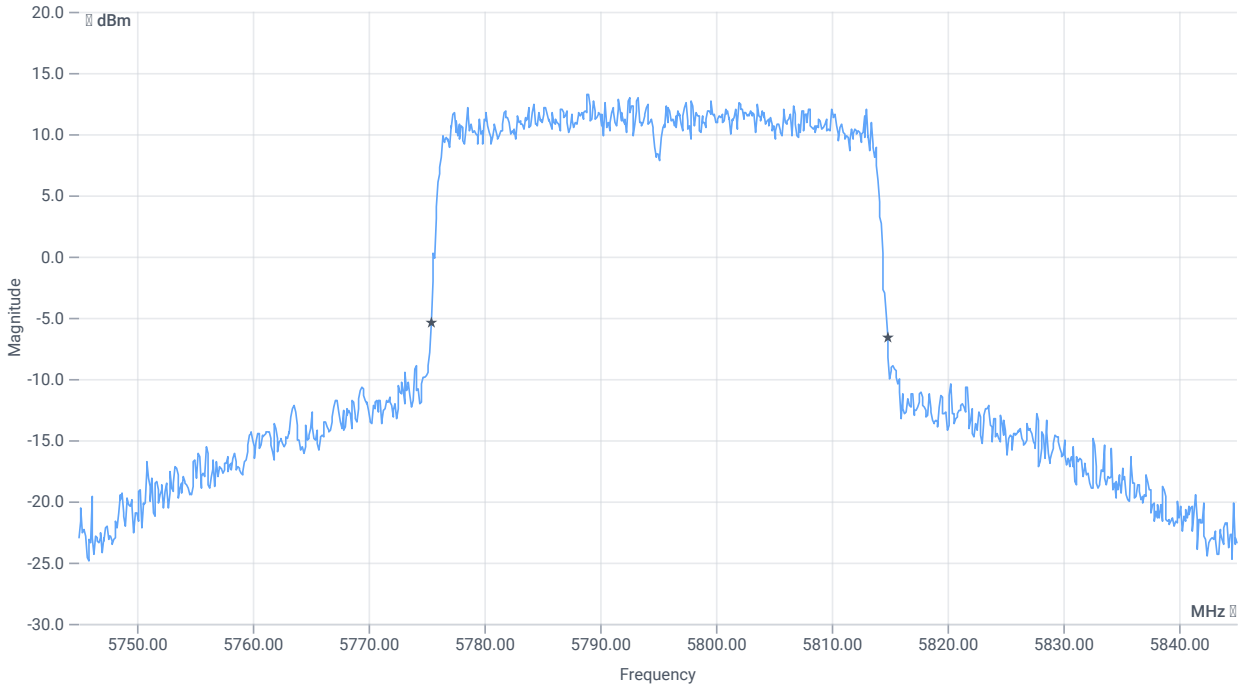

*BW 99PCT*



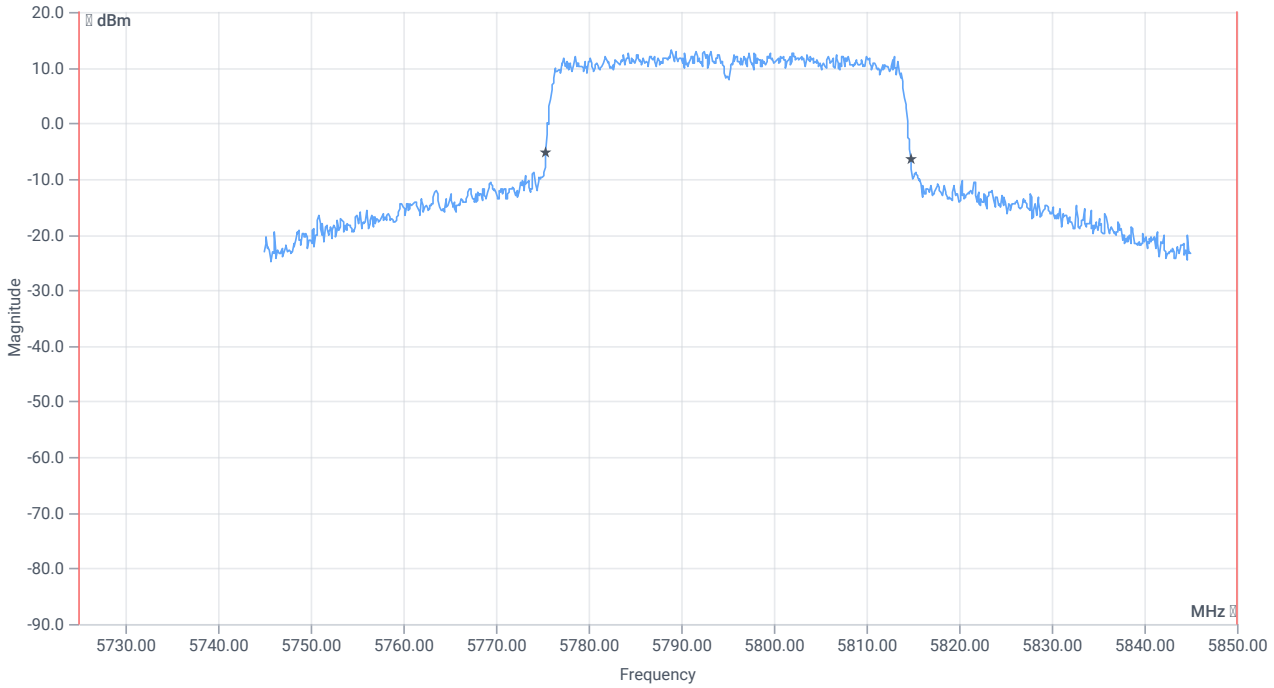

*BW within Band 99PCT*

## RESULT

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Bandwidth 99% | --- | --- | 37.762 | MHz | INFO |
| T1 99% | 5725.000000 | --- | 5776.1189 | MHz | PASS |
| T2 99% | --- | 5850.000000 | 5813.8811 | MHz | PASS |



*BW 20dB*




*BW within Band 20dB*

## RESULT

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Bandwidth 20dB | --- | --- | 39.4 | MHz | INFO |
| T1 20dB | 5725.000000 | --- | 5775.4000 | MHz | PASS |
| T2 20dB | --- | 5850.000000 | 5814.8000 | MHz | PASS |

| Verdict |
|---|
| PASS |

# FCC 15.407, ISED RSS247 # Minimum emission bandwidth ~ WLAN5Gx ax-HE40 U-NII-3

## References

| | |
|---|---|
| TC start | 19.01.2024 11:15:15 |
| Ambit temp [°C] \| humidity [rel%] | 21.9 \| 29 |
| System version | 4.7.1.5 |
| Standard \| Version | FCC 15.407, ISED RSS247 \| NI |
| Method | KDB789033 D02, C.2. |
| Description | FCC 15.407 Min Emission Bandwidth - WLAN5Gx ax-HE40 U-NII-3 |
| Information | |

## EUT Common Settings WLAN5Gx

| | |
|---|---|
| Number of Antenna Ports | 2 |
| User Interaction | No |
| Device Class UNII_1 | Client |
| Limit W52 Japan | Standard |

## Test Parameter

| | |
|---|---|
| Technology to test | WLAN5Gx ax-HE40 |
| Antenna port used | 1 |
| Temperature | nom |
| Voltage | nom |
| Frequency low to test | False \| Freq [MHz] 5755 |
| Frequency mid to test | False \| Freq [MHz] 0 |
| Frequency high to test | True \| Freq [MHz] 5795 |
| Auto control enabled power supply \| Climatic Box | No \| No |
| Additional path loss [dB] | 1.4 |
| Full path name \| type | EUT - SignalingUnit - SpectrumAnalyzer |

## Equipment

| |
|---|
| Signal analyzer,Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.70 |
| Switch matrix,CTCadvanced,SPM-4 NI DAQ,28016133,NI |

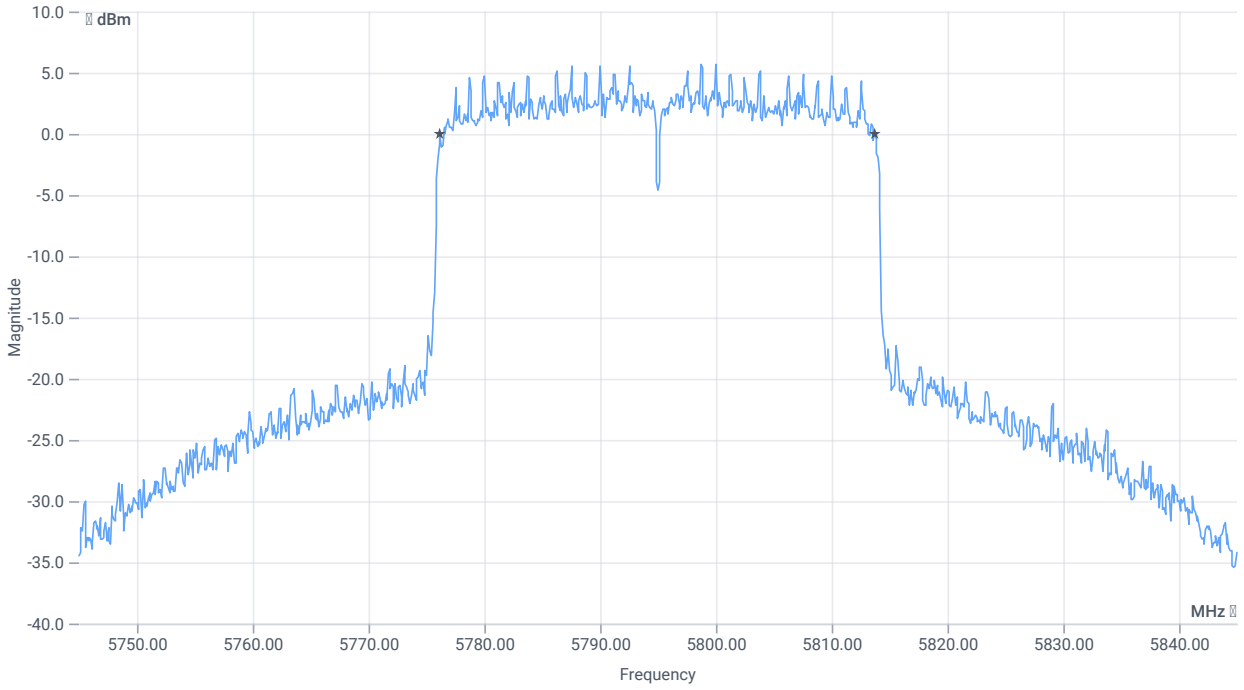
## Test at TX 5795 MHz

### RESULT: Reference Power cond.

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Ref. Power 1MHz/1MHz cond. | --- | --- | 14.74 | dBm | INFO |
| Ref. Frequency | --- | --- | 5785.210 | MHz | INFO |

### READ SA SETTINGS:

| | |
|---|---|
| RefLevel [dBm] \| RefLevelOffset [dB] \| InpAtt [dB] | 26.74 \| 16.77 \| 25 |
| Start [MHz] \| Stop [MHz] | 5745.000 \| 5845.000 |
| RBW [MHz] \| VBW [MHz] | 0.100000 \| 0.300000 |
| Detector \| TraceMode | POS \| MAXH |
| Sweep: time [ms] \| count \| points per Section \| type | 2 \| 1500 \| 1001 \| SWE |




*BW 6dB*

### RESULT

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Bandwidth (6dB) | 0.500 | --- | 37.5 | MHz | PASS |

| Verdict |
|---|
| PASS |

# FCC 15.407 # Max output power and psd ~ WLAN5Gx ax-HE40 U-NII-3

## References

| | |
|---|---|
| TC start | 19.01.2024 11:15:39 |
| Ambit temp [°C] \| humidity [rel%] | 21.9 \| 29 |
| System version | 4.7.1.5 |
| Standard \| Version | FCC 15.407 \| NI |
| Method | KDB789033 D02, F., E.2.e. |
| Description | FCC 15.407 Max Output Power & PSD - WLAN5Gx ax-HE40 U-NII-3 |
| Information | |

## EUT Common Settings WLAN5Gx

| | |
|---|---|
| Number of Antenna Ports | 2 |
| User Interaction | No |
| Device Class UNII_1 | Client |
| Limit W52 Japan | Standard |

## Test Parameter

| | |
|---|---|
| Technology to test | WLAN5Gx ax-HE40 |
| Antenna port used | 2 |
| Temperature | nom |
| Voltage | nom |
| Frequency low to test | False \| Freq [MHz] 5755 |
| Frequency mid to test | False \| Freq [MHz] 0 |
| Frequency high to test | True \| Freq [MHz] 5795 |
| Auto control enabled power supply \| Climatic Box | No \| No |
| Additional path loss [dB] | 1.4 |
| Full path name \| type | EUT - SignalingUnit - SpectrumAnalyzer |

## Equipment

| |
|---|
| Signal analyzer,Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.70 |
| Switch matrix,CTCadvanced,SPM-4 NI DAQ,28016133,NI |

## Test at TX 5795 MHz

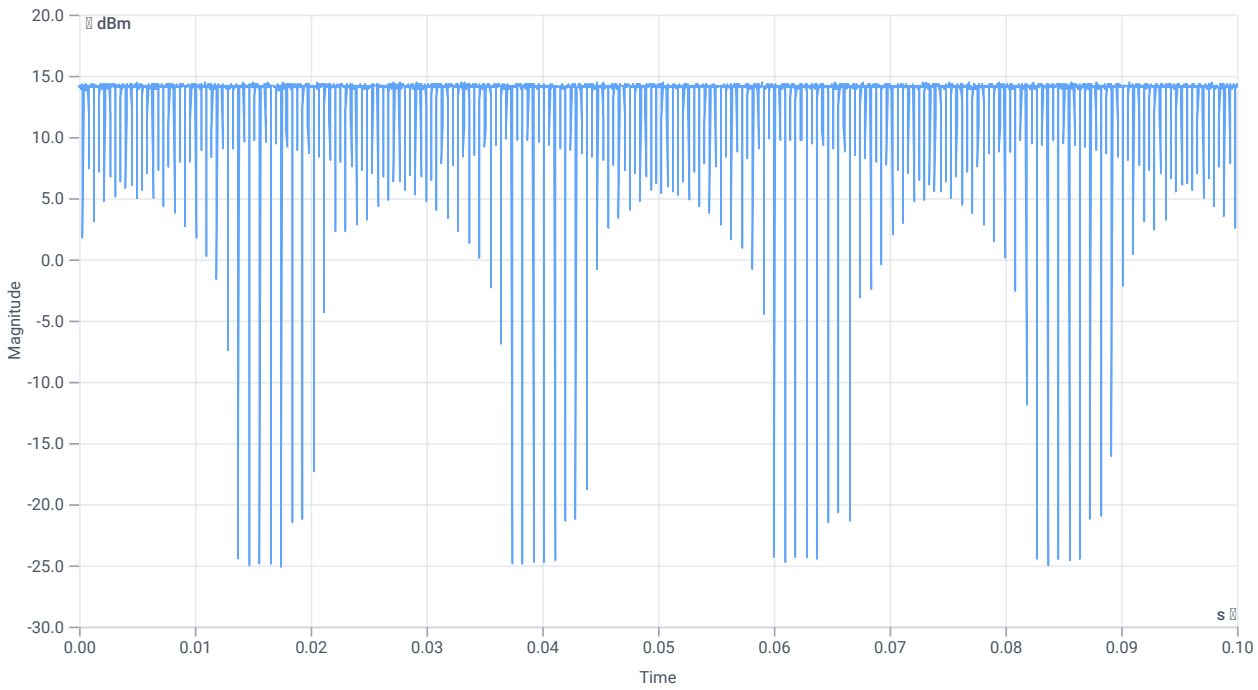
RESULT: Reference Power cond.

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Ref. Power 1MHz/1MHz cond. | --- | --- | 14.42 | dBm | INFO |
| Ref. Frequency | --- | --- | 5797.000 | MHz | INFO |

### Evaluation max. Duty Cycle

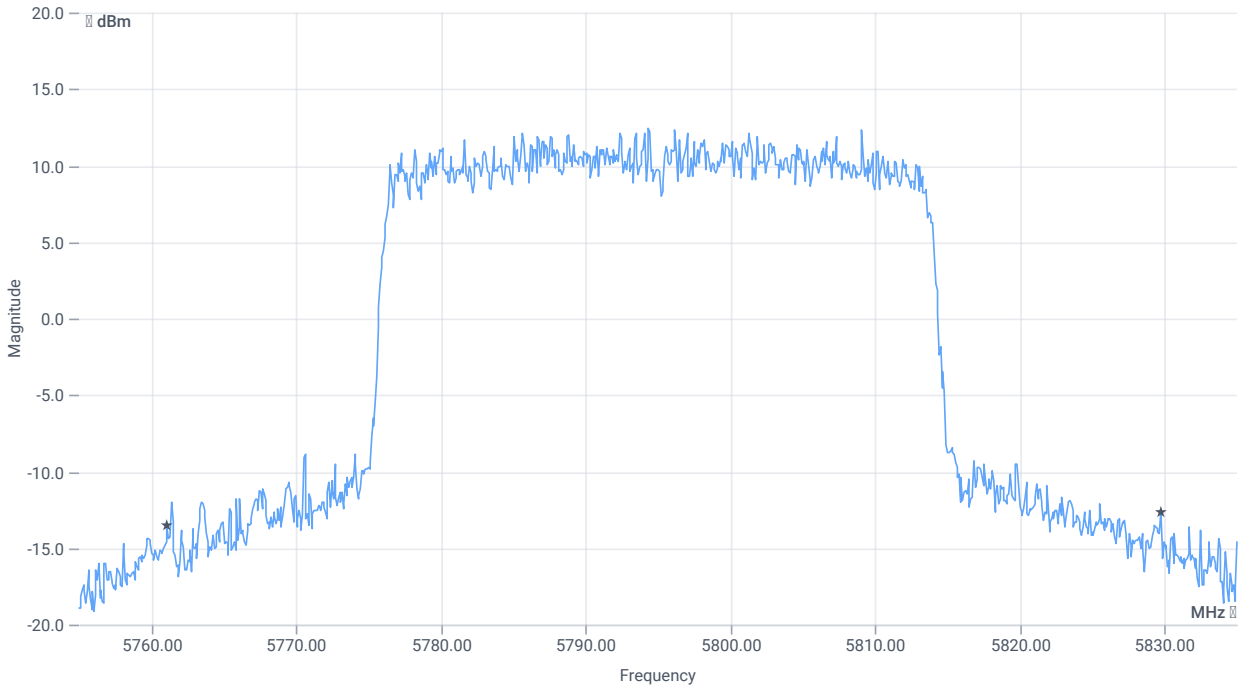
Duty Cycle evaluation

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Result Summary | | | | | |
| Number of detected Bursts:84 | | | | | |
| Duty Cycle (Burst Ratio) max | --- | --- | 0.988 | --- | INFO |
| Duty Cycle max | --- | --- | 0.052 | dB | INFO |
| Duty Cycle (Burst Ratio) min | --- | --- | 0.919 | --- | INFO |
| Duty Cycle min | --- | --- | 0.367 | dB | INFO |
| Max TX Burst Length | --- | --- | 5.95 | ms | INFO |
| Min Gap Length | --- | --- | 0.075 | ms | INFO |
| Max Gap Length | --- | --- | 0.075 | ms | INFO |




*Duty cycle*

### Evaluation Bandwidth




*BW 26dB*

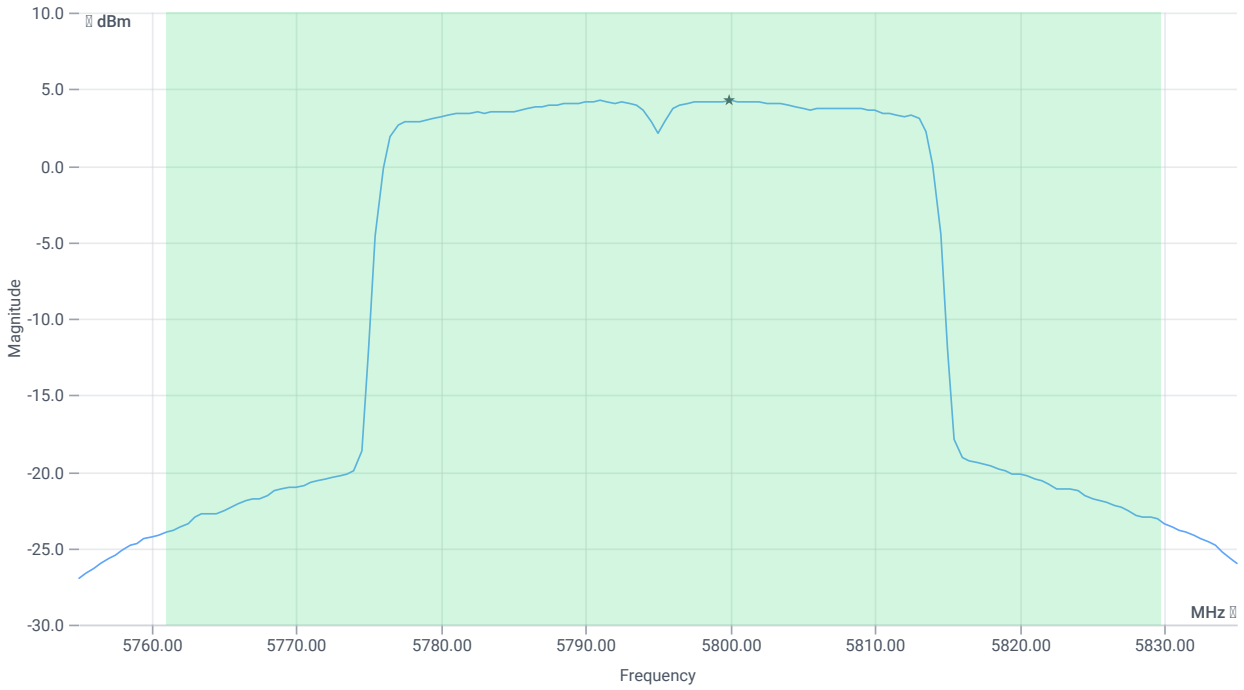
## RESULT

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Bandwidth 26dB | --- | --- | 68.64 | MHz | INFO |
| T1 26dB | --- | --- | 5761.0800 | MHz | INFO |
| T2 26dB | --- | --- | 5829.7200 | MHz | INFO |

## Maximum Output Power

## READ SA SETTINGS:

| | |
|---|---|
| RefLevel [dBm] \| RefLevelOffset [dB] \| InpAtt [dB] | 26.42 \| 16.77 \| 25 |
| Start [MHz] \| Stop [MHz] | 5755.000 \| 5835.000 |
| RBW [MHz] \| VBW [MHz] | 1.000000 \| 3.000000 |
| Detector \| TraceMode | RMS \| MAXH |
| Sweep: time [ms] \| count \| points per Section \| type | 53700 \| 1 \| 161 \| SWE |




*Max OP and PSD*

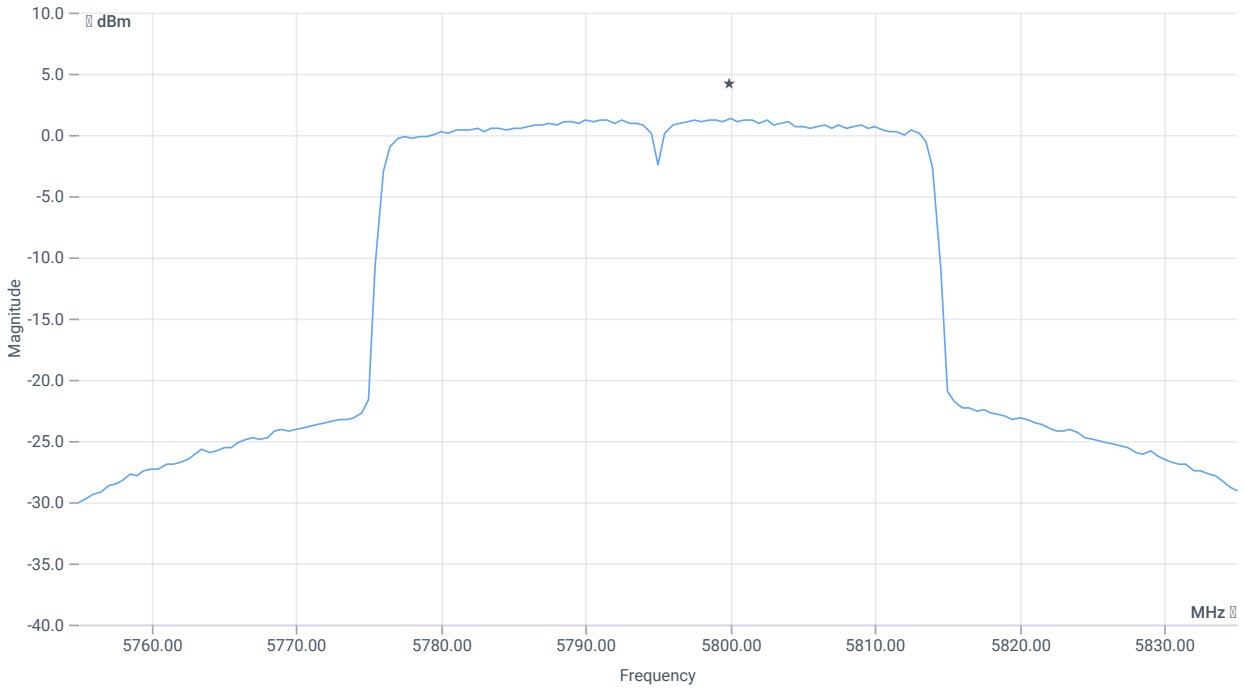
## RESULT

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Max Output Power | --- | --- | 19.19 | dBm | INFO |
| Duty Cycle Correction | --- | --- | 0.37 | dB | INFO |
| Limit absolute | | | | | |
| Max Output Power DC corrected | --- | 30 | 19.56 | dBm | PASS |
| Limit: 11 dBm + 10 log 68.64 | | | | | |
| Max Output Power DC corrected | --- | 29.37 | 19.56 | dBm | na |

## Power Spectral Density U-NII-3

## READ SA SETTINGS:

| | |
|---|---|
| RefLevel [dBm] \| RefLevelOffset [dB] \| InpAtt [dB] | 26.42 \| 16.77 \| 25 |
| Start [MHz] \| Stop [MHz] | 5755.000 \| 5835.000 |
| RBW [MHz] \| VBW [MHz] | 0.500000 \| 3.000000 |
| Detector \| TraceMode | RMS \| MAXH |
| Sweep: time [ms] \| count \| points per Section \| type | 53700 \| 1 \| 161 \| SWE |




*PSD UNII-3*

## RESULT

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Power Spectral Density | --- | --- | 1.32 | dBm/0.5MHz | INFO |
| Duty Cycle Correction | --- | --- | 0.37 | dB | INFO |
| Power Spectral Density DC corrected | --- | 30 | 1.69 | dBm/0.5MHz | PASS |

| Verdict |
|---|
| PASS |

# FCC 15.407, ISED RSS247 # Bandwidths 99PCT and 20dB ~ WLAN5Gx ax-HE40 U-NII-3

## References

| | |
|---|---|
| TC start | 19.01.2024 11:18:04 |
| Ambit temp [°C] \| humidity [rel%] | 22.0 \| 29 |
| System version | 4.7.1.5 |
| Standard \| Version | FCC 15.407, ISED RSS247 \| NI |
| Method | 26dB Bandwidth KDB789033 D02, C.1 / ISED RSS-GEN |
| Description | FCC 15.407 Bandwidths - WLAN5Gx ax-HE40 U-NII-3 |
| Information | |

## EUT Common Settings WLAN5Gx

| | |
|---|---|
| Number of Antenna Ports | 2 |
| User Interaction | No |
| Device Class UNII_1 | Client |
| Limit W52 Japan | Standard |

## Test Parameter

| | |
|---|---|
| Technology to test | WLAN5Gx ax-HE40 |
| Antenna port used | 2 |
| Temperature | nom |
| Voltage | nom |
| Frequency low to test | False \| Freq [MHz] 5755 |
| Frequency mid to test | False \| Freq [MHz] 0 |
| Frequency high to test | True \| Freq [MHz] 5795 |
| Auto control enabled power supply \| Climatic Box | No \| No |
| Additional path loss [dB] | 1.4 |
| Full path name \| type | EUT - SignalingUnit - SpectrumAnalyzer |

## Equipment

| |
|---|
| Signal analyzer,Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.70 |
| Switch matrix,CTCadvanced,SPM-4 NI DAQ,28016133,NI |

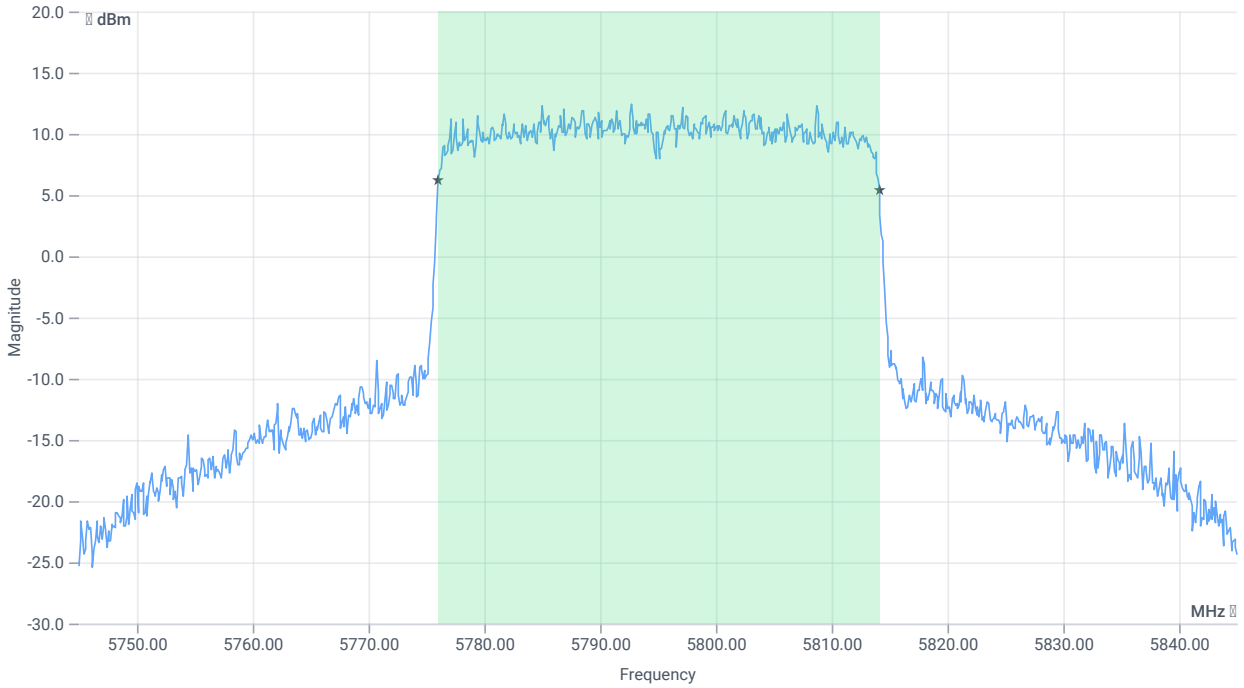
## Test at TX 5795 MHz

RESULT: Reference Power cond.

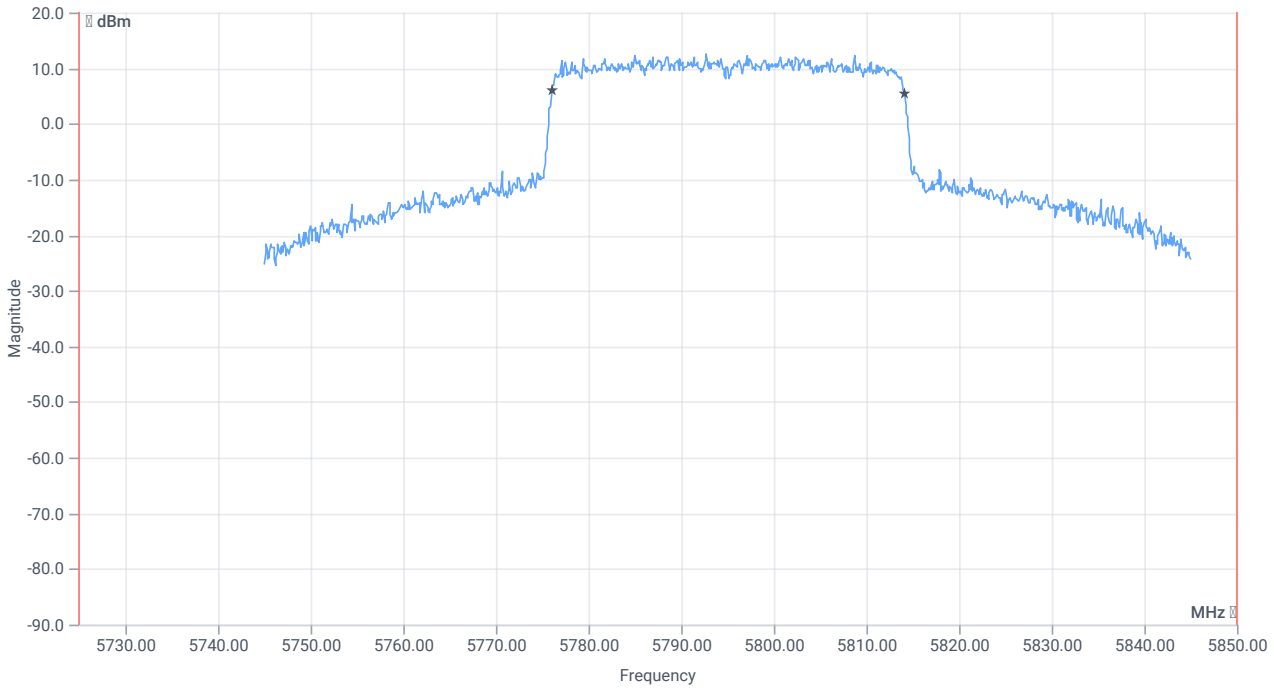
| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Ref. Power 1MHz/1MHz cond. | --- | --- | 13.76 | dBm | INFO |
| Ref. Frequency | --- | --- | 5778.420 | MHz | INFO |

READ SA SETTINGS:

| | |
|---|---|
| RefLevel [dBm] \| RefLevelOffset [dB] \| InpAtt [dB] | 21.76 \| 16.77 \| 20 |
| Start [MHz] \| Stop [MHz] | 5745.000 \| 5845.000 |
| RBW [MHz] \| VBW [MHz] | 0.500000 \| 3.000000 |
| Detector \| TraceMode | POS \| MAXH |
| Sweep: time [ms] \| count \| points per Section \| type | 1 \| 2500 \| 1001 \| SWE |



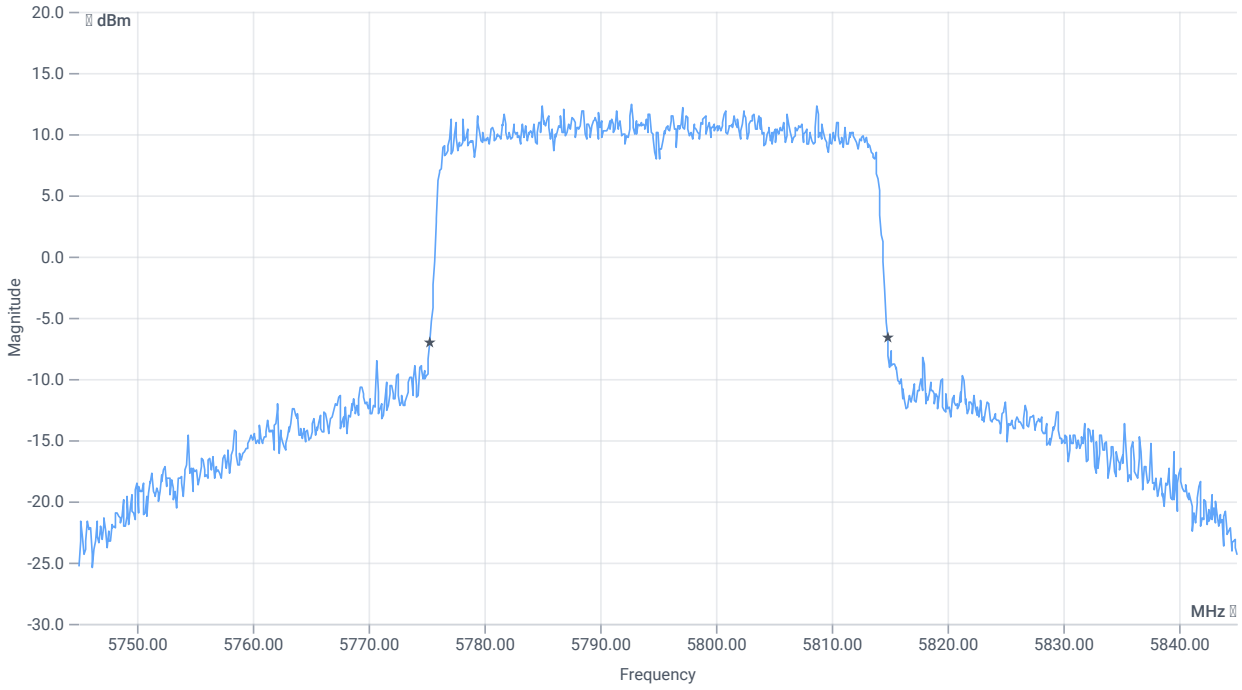

*BW 99PCT*



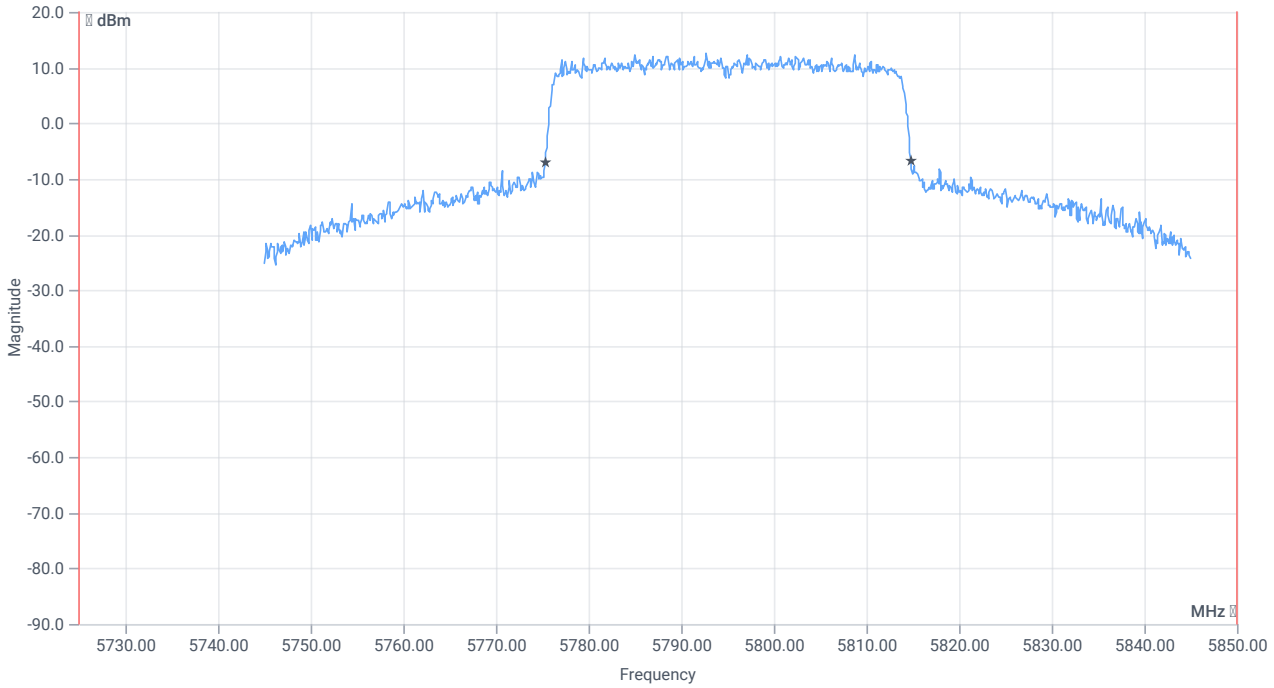

*BW within Band 99PCT*

## RESULT

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Bandwidth 99% | --- | --- | 38.062 | MHz | INFO |
| T1 99% | 5725.000000 | --- | 5776.0190 | MHz | PASS |
| T2 99% | --- | 5850.000000 | 5814.0809 | MHz | PASS |



*BW 20dB*




*BW within Band 20dB*

## RESULT

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Bandwidth 20dB | --- | --- | 39.5 | MHz | INFO |
| T1 20dB | 5725.000000 | --- | 5775.3000 | MHz | PASS |
| T2 20dB | --- | 5850.000000 | 5814.8000 | MHz | PASS |

| Verdict |
|---|
| PASS |

# FCC 15.407, ISED RSS247 # Minimum emission bandwidth ~ WLAN5Gx ax-HE40 U-NII-3

## References

| | |
|---|---|
| TC start | 19.01.2024 11:18:35 |
| Ambit temp [°C] \| humidity [rel%] | 22.0 \| 29 |
| System version | 4.7.1.5 |
| Standard \| Version | FCC 15.407, ISED RSS247 \| NI |
| Method | KDB789033 D02, C.2. |
| Description | FCC 15.407 Min Emission Bandwidth - WLAN5Gx ax-HE40 U-NII-3 |
| Information | |

## EUT Common Settings WLAN5Gx

| | |
|---|---|
| Number of Antenna Ports | 2 |
| User Interaction | No |
| Device Class UNII_1 | Client |
| Limit W52 Japan | Standard |

## Test Parameter

| | |
|---|---|
| Technology to test | WLAN5Gx ax-HE40 |
| Antenna port used | 2 |
| Temperature | nom |
| Voltage | nom |
| Frequency low to test | False \| Freq [MHz] 5755 |
| Frequency mid to test | False \| Freq [MHz] 0 |
| Frequency high to test | True \| Freq [MHz] 5795 |
| Auto control enabled power supply \| Climatic Box | No \| No |
| Additional path loss [dB] | 1.4 |
| Full path name \| type | EUT - SignalingUnit - SpectrumAnalyzer |

## Equipment

| |
|---|
| Signal analyzer,Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.70 |
| Switch matrix,CTCadvanced,SPM-4 NI DAQ,28016133,NI |

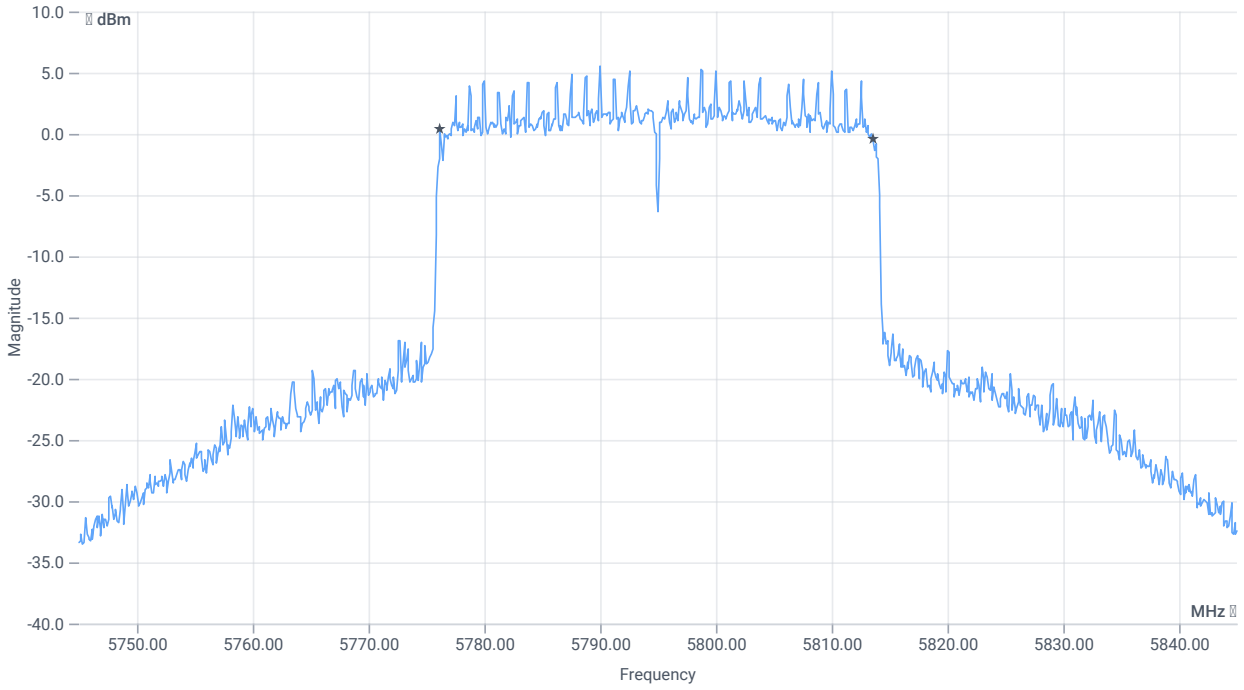
## Test at TX 5795 MHz

### RESULT: Reference Power cond.

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Ref. Power 1MHz/1MHz cond. | --- | --- | 16.01 | dBm | INFO |
| Ref. Frequency | --- | --- | 5785.410 | MHz | INFO |

### READ SA SETTINGS:

| | |
|---|---|
| RefLevel [dBm] \| RefLevelOffset [dB] \| InpAtt [dB] | 28.01 \| 16.77 \| 30 |
| Start [MHz] \| Stop [MHz] | 5745.000 \| 5845.000 |
| RBW [MHz] \| VBW [MHz] | 0.100000 \| 0.300000 |
| Detector \| TraceMode | POS \| MAXH |
| Sweep: time [ms] \| count \| points per Section \| type | 2 \| 1500 \| 1001 \| SWE |




*BW 6dB*

### RESULT

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Bandwidth (6dB) | 0.500 | --- | 37.3 | MHz | PASS |

| Verdict |
|---|
| PASS |

# FCC 15.407 # MIMO ∑ Max output power and psd ~ WLAN5Gx ax-HE40 U-NII-3

## References

| | |
|---|---|
| TC start | 19.01.2024 11:19:00 |
| Ambit temp [°C] \| humidity [rel%] | 22.0 \| 29 |
| System version | 4.7.1.5 |
| Standard \| Version | FCC 15.407 \| NI |
| Method | |
| Description | MIMO ∑ FCC Power & psd - WLAN5Gx ax-HE40 U-NII-3 |
| Information | |

## EUT Common Settings WLAN5Gx

| | |
|---|---|
| Number of Antenna Ports | 2 |
| User Interaction | No |
| Device Class UNII_1 | Client |
| Limit W52 Japan | Standard |

## Test Parameter

| | |
|---|---|
| Technology to test | WLAN5Gx ax-HE40 |
| Antenna port used | several |
| Temperature | nom |
| Voltage | nom |
| Frequency low to test | False \| Freq [MHz] 5755 |
| Frequency mid to test | False \| Freq [MHz] 0 |
| Frequency high to test | True \| Freq [MHz] 5795 |
| Auto control enabled power supply \| Climatic Box | No \| No |
| Additional path loss [dB] | 1.4 |
| Full path name \| type | None |

## Equipment

## Test at TX 5795 MHz

### RESULT Power

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Ant:1 Max Output Power DC corrected | --- | --- | 20.15 | dBm | INFO |
| Ant:1 BW 26dB | --- | --- | 62.640 | MHz | INFO |
| Ant:2 Max Output Power DC corrected | --- | --- | 19.56 | dBm | INFO |
| Ant:2 BW 26dB | --- | --- | 68.640 | MHz | INFO |
| ∑ Limit absolute | --- | 30 | 22.88 | dBm | PASS |
| ∑ Limit: 11 dBm + 10 log 62.64 | --- | 28.97 | 22.88 | dBm | na |

### RESULT PSD

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Ant:1 PSD | --- | --- | 2.18 | dBm/0.5MHz | INFO |
| Ant:2 PSD | --- | --- | 1.69 | dBm/0.5MHz | INFO |
| ∑ | --- | 30 | 4.95 | dBm/0.5MHz | PASS |

| Verdict |
|---|
| PASS |

# FCC 15.407, ISED RSS247 # Emission mask (eirp) ~ WLAN5Gx ax-HE40 U-NII-3

## References

| | |
|---|---|
| TC start | 19.01.2024 14:16:20 |
| Ambit temp [°C] \| humidity [rel%] | 22.7 \| 25 |
| System version | 4.7.1.5 |
| Standard \| Version | FCC 15.407, ISED RSS247 \| NI |
| Method | NI |
| Description | FCC 15.407 Emission mask - WLAN5Gx ax-HE40 U-NII-3 |
| Information | |

## EUT Common Settings WLAN5Gx

| | |
|---|---|
| Number of Antenna Ports | 2 |
| User Interaction | No |
| Device Class UNII_1 | Client |
| Limit W52 Japan | Standard |

## Test Parameter

| | |
|---|---|
| Technology to test | WLAN5Gx ax-HE40 |
| Antenna port used | 1 |
| Temperature | nom |
| Voltage | nom |
| Frequency low to test | False \| Freq [MHz] 5755 |
| Frequency mid to test | False \| Freq [MHz] 0 |
| Frequency high to test | True \| Freq [MHz] 5795 |
| Auto control enabled power supply \| Climatic Box | No \| No |
| Additional path loss [dB] | 3.4 |
| Full path name \| type | EUT - SignalingUnit - SpectrumAnalyzer |

## Equipment

| |
|---|
| Signal analyzer,Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.70 |
| Switch matrix,CTCadvanced,SPM-4 NI DAQ,28016133,NI |

## Test at TX 5795 MHz

### RESULT: Reference Power cond.

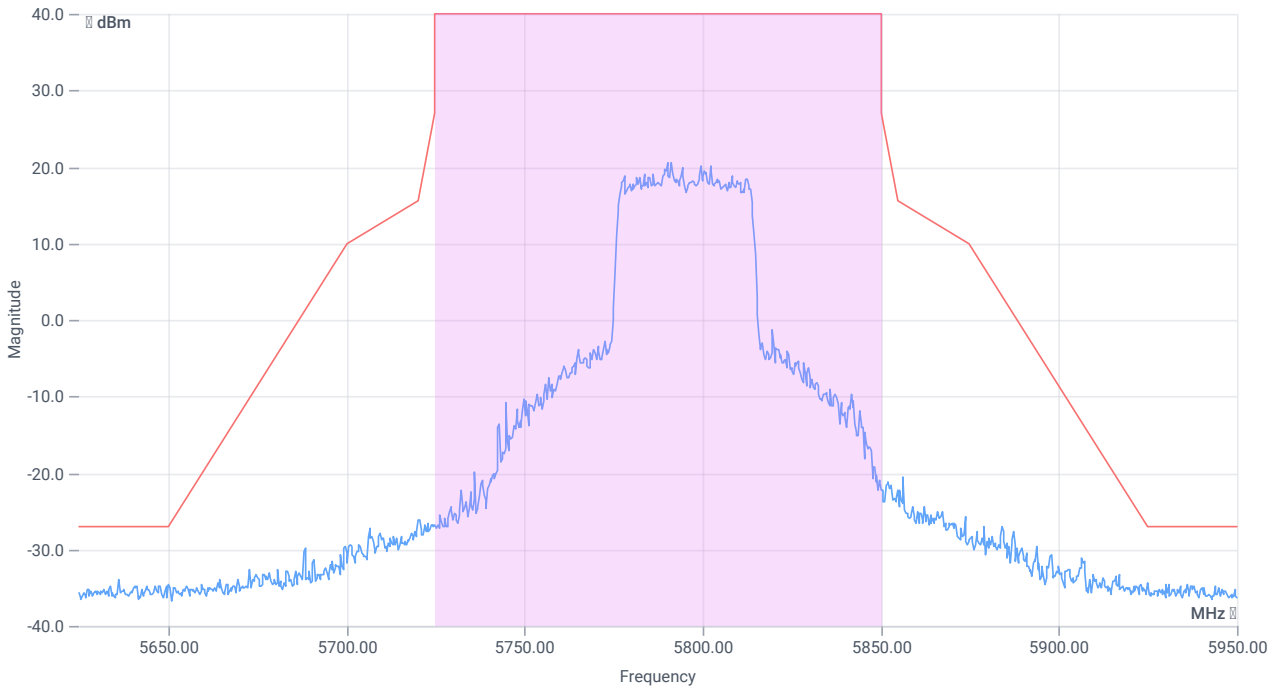
| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Ref. Power 1MHz/1MHz cond. | --- | --- | 16.91 | dBm | INFO |
| Ref. Frequency | --- | --- | 5792.200 | MHz | INFO |

### Antenna gain

| | |
|---|---|
| Considered antenna gain [dBi]: | 2 / max found in range 5625 to 5950 MHz |

### READ SA SETTINGS:

| | |
|---|---|
| RefLevel [dBm] \| RefLevelOffset [dB] \| InpAtt [dB] | 19.91 \| 18.77 \| 20 |
| Start [MHz] \| Stop [MHz] | 5625.000 \| 5950.000 |
| RBW [MHz] \| VBW [MHz] | 1.000000 \| 3.000000 |
| Detector \| TraceMode | POS \| MAXH |
| Sweep: time [ms] \| count \| points per Section \| type | 1 \| 2500 \| 1001 \| SWE |




*Emission Mask (e.i.r.p)*

### RESULT

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|

| Verdict |
| --- |
| PASS |

# FCC 15.407, ISED RSS247 # Emission mask (eirp) ~ WLAN5Gx ax-HE40 U-NII-3

## References

| | |
|---|---|
| TC start | 19.01.2024 14:16:57 |
| Ambit temp [°C] \| humidity [rel%] | 22.7 \| 26 |
| System version | 4.7.1.5 |
| Standard \| Version | FCC 15.407, ISED RSS247 \| NI |
| Method | NI |
| Description | FCC 15.407 Emission mask - WLAN5Gx ax-HE40 U-NII-3 |
| Information | |

## EUT Common Settings WLAN5Gx

| | |
|---|---|
| Number of Antenna Ports | 2 |
| User Interaction | No |
| Device Class UNII_1 | Client |
| Limit W52 Japan | Standard |

## Test Parameter

| | |
|---|---|
| Technology to test | WLAN5Gx ax-HE40 |
| Antenna port used | 2 |
| Temperature | nom |
| Voltage | nom |
| Frequency low to test | False \| Freq [MHz] 5755 |
| Frequency mid to test | False \| Freq [MHz] 0 |
| Frequency high to test | True \| Freq [MHz] 5795 |
| Auto control enabled power supply \| Climatic Box | No \| No |
| Additional path loss [dB] | 3.4 |
| Full path name \| type | EUT - SignalingUnit - SpectrumAnalyzer |

## Equipment

| |
|---|
| Signal analyzer,Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.70 |
| Switch matrix,CTCadvanced,SPM-4 NI DAQ,28016133,NI |

## Test at TX 5795 MHz

### RESULT: Reference Power cond.

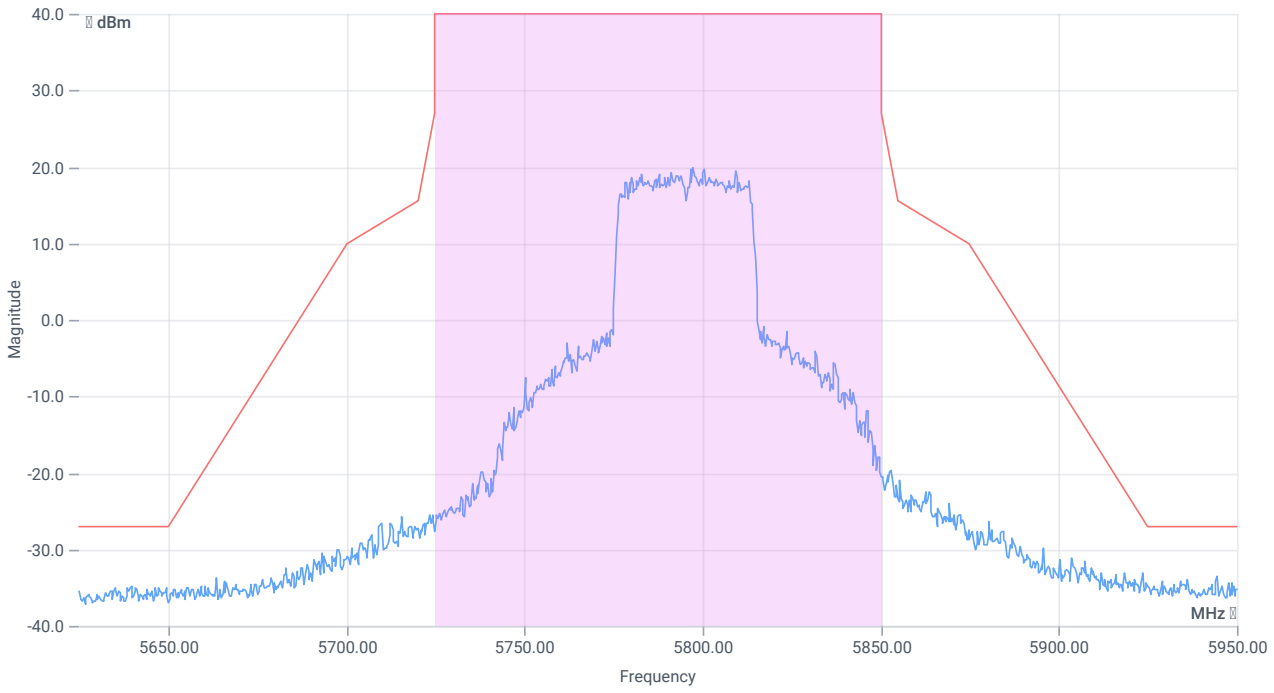
| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Ref. Power 1MHz/1MHz cond. | --- | --- | 16.52 | dBm | INFO |
| Ref. Frequency | --- | --- | 5809.990 | MHz | INFO |

### Antenna gain

| | |
|---|---|
| Considered antenna gain [dBi]: | 2 / max found in range 5625 to 5950 MHz |

### READ SA SETTINGS:

| | |
|---|---|
| RefLevel [dBm] \| RefLevelOffset [dB] \| InpAtt [dB] | 19.52 \| 18.77 \| 20 |
| Start [MHz] \| Stop [MHz] | 5625.000 \| 5950.000 |
| RBW [MHz] \| VBW [MHz] | 1.000000 \| 3.000000 |
| Detector \| TraceMode | POS \| MAXH |
| Sweep: time [ms] \| count \| points per Section \| type | 1 \| 2500 \| 1001 \| SWE |




*Emission Mask (e.i.r.p)*

### RESULT

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|

| Verdict |
| --- |
| PASS |

- END OF DOCUMENT -