

# Measurement Results

No.1-4095/22-01-04\_Annex\_MR\_A1

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## Test logging

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Test/s performed:

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## EUT Information

| EUT DEFINITION       |                   |
|----------------------|-------------------|
| Manufacturer         | Sagemcom          |
| Type                 | DIW377 UHD ALT US |
| Serial Number        | NI                |
| Setup Number         | 1.0               |
| Version SW           | NI                |
| Version FW           | NI                |
| Version HW           | NI                |
| Comment 1            |                   |
| Comment 2            |                   |
| Temperature [°C] Min | -20               |
| Temperature [°C] Nom | 20                |
| Temperature [°C] Max | 55                |
| Voltage [V] Min      | 3.3               |
| Voltage [V] Nom      | 3.8               |
| Voltage [V] Max      | 4.2               |

## FCC 15.247 # Avg power spectral density DTS ~ WLAN2G4 b mode

| Test References                   |  |
|-----------------------------------|--|
| TC Start                          | 06.07.2022 08:09:33  |
| Ambit Temp [°C]   Humidity [rel%] | 19.5   48  |
| System Version                    | 3.2.0.2  |
| Test Specification                | FCC 15.247 -   |
| Test Method                       | ANSI C63.10-2013 Chapter 11.10.5 or.3                      |
| TC Version                        | 0.0.1  |
| My Description                    | FCC 15.247 Avg Power Spectral Density DTS - WLAN2G4 b mode |
| Add. Information                  |  |

| EUT Common Settings WLAN2G4 |    |
|-----------------------------|----|
| Number of Antenna Ports     | 2  |
| User Interaction            | No |

| Test Parameter                                   |  |
|--|--|
| Technology to test                               | WLAN2G4 b mode                         |
| Antenna Port used                                | 1                                      |
| Temperature                                      | nom                                    |
| Voltage  | nom                                    |
| Frequency low to test                            | True   Freq [MHz] 2412                 |
| Frequency mid to test                            | False   Freq [MHz] 2437                |
| Frequency high to test                           | False   Freq [MHz] 2462                |
| Auto Control enabled Power Supply   Climatic Box | No   No                                |
| Additional Path Loss [dB]                        | 0.7                                    |
| Switched Path                                    | EUT - SignalingUnit - SpectrumAnalyzer |

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

## Test at TX 2412 MHz

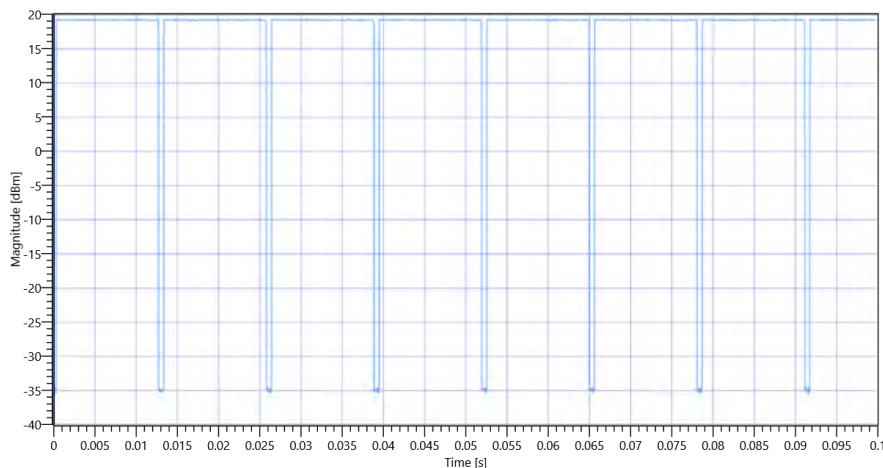
RESULT: Reference Power cond.

| Test Description              | Lower Limit | Upper Limit | Measured | Unit | Verdict |
|-------------------------------|-------------|-------------|----------|------|---------|
| Ref. Power<br>1MHz/1MHz cond. | ---         | ---         | 15.27    | dBm  | INFO    |
| Ref. Frequency                | ---         | ---         | 2413.200 | MHz  | INFO    |

## Evaluation max. Duty Cycle

Duty Cycle evaluation

| Test Description             | Lower Limit | Upper Limit | Measured | Unit | Verdict |
|------------------------------|-------------|-------------|----------|------|---------|
| Result Summary               |             |             |          |      |         |
| Number of detected Bursts:6  |             |             |          |      |         |
| Duty Cycle (Burst Ratio) max | ---         | ---         | 0.948    | ---  | INFO    |
| Duty Cycle max               | ---         | ---         | 0.232    | dB   | INFO    |
| Duty Cycle (Burst Ratio) min | ---         | ---         | 0.948    | ---  | INFO    |
| Duty Cycle min               | ---         | ---         | 0.232    | dB   | INFO    |
| Max TX Burst Length          | ---         | ---         | 12.4     | ms   | INFO    |
| Min Gap Length               | ---         | ---         | 0.675    | ms   | INFO    |
| Max Gap Length               | ---         | ---         | 0.675    | ms   | INFO    |



FCC 15.247 # Avg power spectral density DTS ~ WLAN2G4 b mode 2412 MHz - DutyCycle

## Avg. PSD

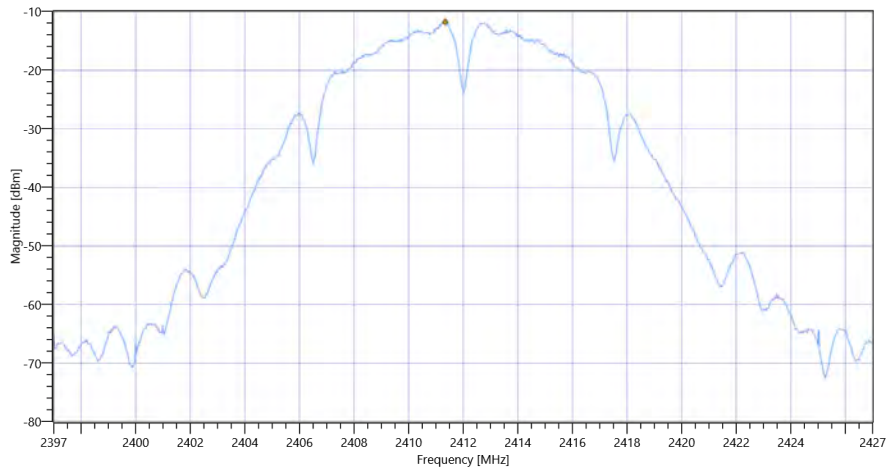
READ SA SETTINGS:

|  |                        |
|--|------------------------|
| RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]   | 20.27   15.93   20     |
| Start [MHz]   Stop [MHz]                             | 2397.000   2427.000    |
| RBW [MHz]   VBW [MHz]                                | 0.003000   0.010000    |
| Detector   TraceMode                                 | RMS   AVER             |
| Sweep: Time [ms]   Count   Points per Section   Type | 334   100   1001   SWE |

RESULT

| Test Description | Lower Limit | Upper Limit | Measured | Unit | Verdict |
|------------------|-------------|-------------|----------|------|---------|
|------------------|-------------|-------------|----------|------|---------|

| RESULT                |             |             |          |          |         |
|-----------------------|-------------|-------------|----------|----------|---------|
| Test Description      | Lower Limit | Upper Limit | Measured | Unit     | Verdict |
| Avg PSD uncorrected   | ---         | ---         | -11.78   | dBm      | INFO    |
| Duty cycle correction | ---         | ---         | 0.23     | dB       | INFO    |
| Avg PSD DC corrected  | ---         | 8           | -11.55   | dBm/3KHz | PASS    |



FCC 15.247 # Avg power spectral density DTS ~ WLAN2G4 b mode

|                 |      |
|-----------------|------|
| General verdict | PASS |
|-----------------|------|

## FCC 15.247 # Avg power spectral density DTS ~ WLAN2G4 b mode

| Test References                   |  |
|-----------------------------------|--|
| TC Start                          | 06.07.2022 08:25:18  |
| Ambit Temp [°C]   Humidity [rel%] | 20.3   46  |
| System Version                    | 3.2.0.2  |
| Test Specification                | FCC 15.247 -   |
| Test Method                       | ANSI C63.10-2013 Chapter 11.10.5 or.3                      |
| TC Version                        | 0.0.1  |
| My Description                    | FCC 15.247 Avg Power Spectral Density DTS - WLAN2G4 b mode |
| Add. Information                  |  |

| EUT Common Settings WLAN2G4 |    |
|-----------------------------|----|
| Number of Antenna Ports     | 2  |
| User Interaction            | No |

| Test Parameter                                   |  |
|--|--|
| Technology to test                               | WLAN2G4 b mode                         |
| Antenna Port used                                | 1                                      |
| Temperature                                      | nom                                    |
| Voltage  | nom                                    |
| Frequency low to test                            | False   Freq [MHz] 2412                |
| Frequency mid to test                            | True   Freq [MHz] 2437                 |
| Frequency high to test                           | False   Freq [MHz] 2462                |
| Auto Control enabled Power Supply   Climatic Box | No   No                                |
| Additional Path Loss [dB]                        | 0.7                                    |
| Switched Path                                    | EUT - SignalingUnit - SpectrumAnalyzer |

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

## Test at TX 2437 MHz

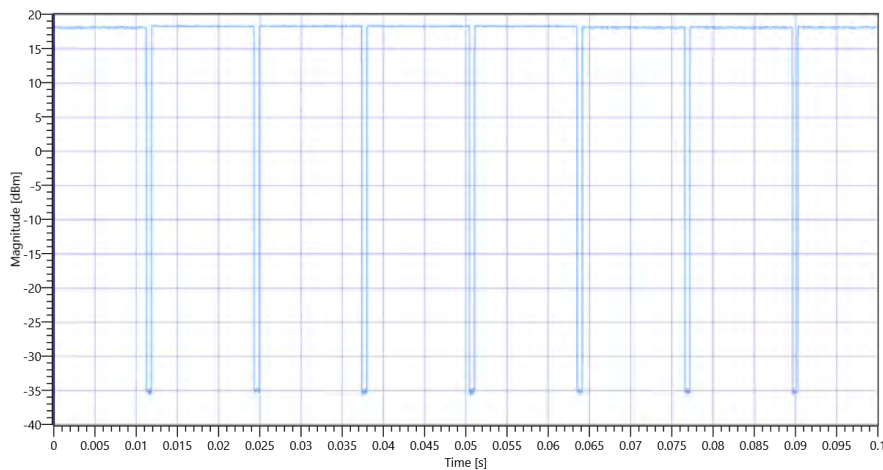
### RESULT: Reference Power cond.

| Test Description              | Lower Limit | Upper Limit | Measured | Unit | Verdict |
|-------------------------------|-------------|-------------|----------|------|---------|
| Ref. Power<br>1MHz/1MHz cond. | ---         | ---         | 14.29    | dBm  | INFO    |
| Ref. Frequency                | ---         | ---         | 2438.200 | MHz  | INFO    |

## Evaluation max. Duty Cycle

### Duty Cycle evaluation

| Test Description             | Lower Limit | Upper Limit | Measured | Unit | Verdict |
|------------------------------|-------------|-------------|----------|------|---------|
| <b>Result Summary</b>        |             |             |          |      |         |
| Number of detected Bursts:6  |             |             |          |      |         |
| Duty Cycle (Burst Ratio) max | ---         | ---         | 0.948    | ---  | INFO    |
| Duty Cycle max               | ---         | ---         | 0.232    | dB   | INFO    |
| Duty Cycle (Burst Ratio) min | ---         | ---         | 0.948    | ---  | INFO    |
| Duty Cycle min               | ---         | ---         | 0.232    | dB   | INFO    |
| Max TX Burst Length          | ---         | ---         | 12.4     | ms   | INFO    |
| Min Gap Length               | ---         | ---         | 0.675    | ms   | INFO    |
| Max Gap Length               | ---         | ---         | 0.675    | ms   | INFO    |



FCC 15.247 # Avg power spectral density DTS ~ WLAN2G4 b mode 2437 MHz - DutyCycle

## Avg. PSD

### READ SA SETTINGS:

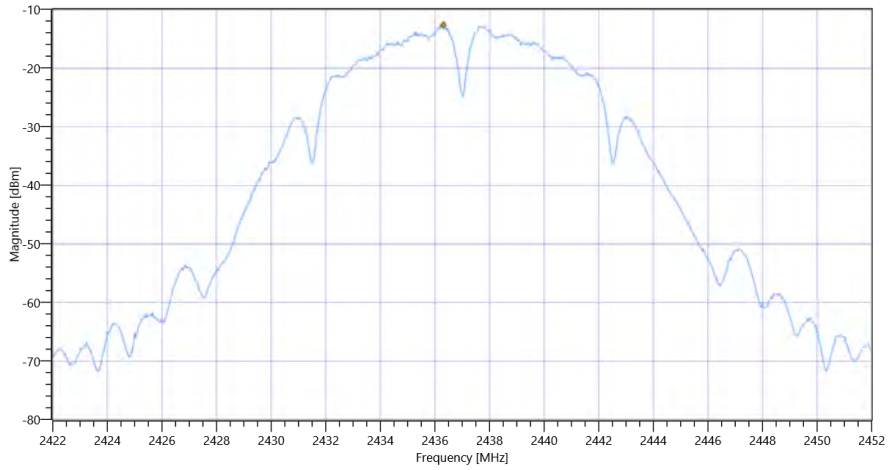
|  |                        |
|--|------------------------|
| RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]   | 19.29   15.7   20      |
| Start [MHz]   Stop [MHz]                             | 2422.000   2452.000    |
| RBW [MHz]   VBW [MHz]                                | 0.003000   0.010000    |
| Detector   TraceMode                                 | RMS   AVER             |
| Sweep: Time [ms]   Count   Points per Section   Type | 334   100   1001   SWE |

### RESULT

| Test Description | Lower Limit | Upper Limit | Measured | Unit | Verdict |
|------------------|-------------|-------------|----------|------|---------|
|------------------|-------------|-------------|----------|------|---------|



| RESULT                |             |             |          |          |         |
|-----------------------|-------------|-------------|----------|----------|---------|
| Test Description      | Lower Limit | Upper Limit | Measured | Unit     | Verdict |
| Avg PSD uncorrected   | ---         | ---         | -12.66   | dBm      | INFO    |
| Duty cycle correction | ---         | ---         | 0.23     | dB       | INFO    |
| Avg PSD DC corrected  | ---         | 8           | -12.43   | dBm/3KHz | PASS    |



FCC 15.247 # Avg power spectral density DTS ~ WLAN2G4 b mode

|                 |      |
|-----------------|------|
| General verdict | PASS |
|-----------------|------|

## FCC 15.247 # Avg power spectral density DTS ~ WLAN2G4 b mode

| Test References                   |  |
|-----------------------------------|--|
| TC Start                          | 06.07.2022 08:41:17  |
| Ambit Temp [°C]   Humidity [rel%] | 20.9   45  |
| System Version                    | 3.2.0.2  |
| Test Specification                | FCC 15.247 -   |
| Test Method                       | ANSI C63.10-2013 Chapter 11.10.5 or.3                      |
| TC Version                        | 0.0.1  |
| My Description                    | FCC 15.247 Avg Power Spectral Density DTS - WLAN2G4 b mode |
| Add. Information                  |  |

| EUT Common Settings WLAN2G4 |    |
|-----------------------------|----|
| Number of Antenna Ports     | 2  |
| User Interaction            | No |

| Test Parameter                                   |  |
|--|--|
| Technology to test                               | WLAN2G4 b mode                         |
| Antenna Port used                                | 1                                      |
| Temperature                                      | nom                                    |
| Voltage  | nom                                    |
| Frequency low to test                            | False   Freq [MHz] 2412                |
| Frequency mid to test                            | False   Freq [MHz] 2437                |
| Frequency high to test                           | True   Freq [MHz] 2462                 |
| Auto Control enabled Power Supply   Climatic Box | No   No                                |
| Additional Path Loss [dB]                        | 0.7                                    |
| Switched Path                                    | EUT - SignalingUnit - SpectrumAnalyzer |

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

## Test at TX 2462 MHz

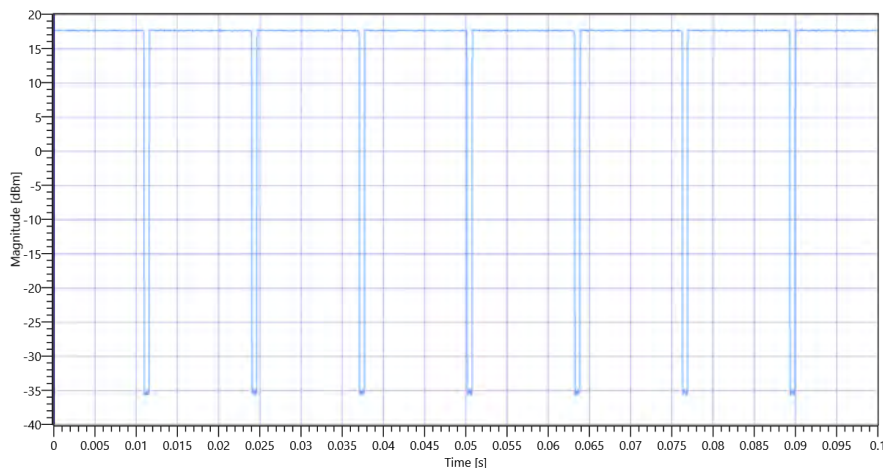
RESULT: Reference Power cond.

| Test Description              | Lower Limit | Upper Limit | Measured | Unit | Verdict |
|-------------------------------|-------------|-------------|----------|------|---------|
| Ref. Power<br>1MHz/1MHz cond. | ---         | ---         | 13.77    | dBm  | INFO    |
| Ref. Frequency                | ---         | ---         | 2460.800 | MHz  | INFO    |

## Evaluation max. Duty Cycle

Duty Cycle evaluation

| Test Description             | Lower Limit | Upper Limit | Measured | Unit | Verdict |
|------------------------------|-------------|-------------|----------|------|---------|
| Result Summary               |             |             |          |      |         |
| Number of detected Bursts:6  |             |             |          |      |         |
| Duty Cycle (Burst Ratio) max | ---         | ---         | 0.948    | ---  | INFO    |
| Duty Cycle max               | ---         | ---         | 0.232    | dB   | INFO    |
| Duty Cycle (Burst Ratio) min | ---         | ---         | 0.948    | ---  | INFO    |
| Duty Cycle min               | ---         | ---         | 0.232    | dB   | INFO    |
| Max TX Burst Length          | ---         | ---         | 12.4     | ms   | INFO    |
| Min Gap Length               | ---         | ---         | 0.675    | ms   | INFO    |
| Max Gap Length               | ---         | ---         | 0.675    | ms   | INFO    |



FCC 15.247 # Avg power spectral density DTS ~ WLAN2G4 b mode 2462 MHz - DutyCycle

## Avg. PSD

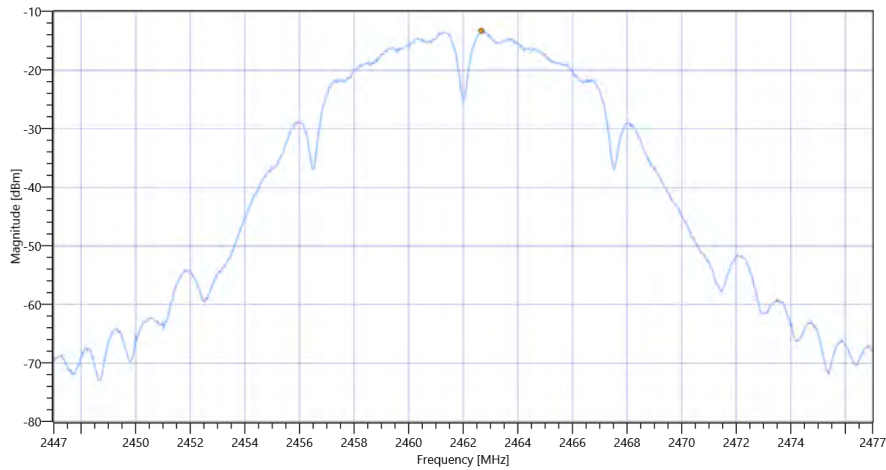
READ SA SETTINGS:

|  |                        |
|--|------------------------|
| RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]   | 18.77   15.54   20     |
| Start [MHz]   Stop [MHz]                             | 2447.000   2477.000    |
| RBW [MHz]   VBW [MHz]                                | 0.003000   0.010000    |
| Detector   TraceMode                                 | RMS   AVER             |
| Sweep: Time [ms]   Count   Points per Section   Type | 334   100   1001   SWE |

RESULT

| Test Description | Lower Limit | Upper Limit | Measured | Unit | Verdict |
|------------------|-------------|-------------|----------|------|---------|
|------------------|-------------|-------------|----------|------|---------|

| RESULT                |             |             |          |          |         |
|-----------------------|-------------|-------------|----------|----------|---------|
| Test Description      | Lower Limit | Upper Limit | Measured | Unit     | Verdict |
| Avg PSD uncorrected   | ---         | ---         | -13.25   | dBm      | INFO    |
| Duty cycle correction | ---         | ---         | 0.23     | dB       | INFO    |
| Avg PSD DC corrected  | ---         | 8           | -13.02   | dBm/3KHz | PASS    |



FCC 15.247 # Avg power spectral density DTS ~ WLAN2G4 b mode

|                 |      |
|-----------------|------|
| General verdict | PASS |
|-----------------|------|

## FCC 15.247 # Avg power spectral density DTS ~ WLAN2G4 b mode

| Test References                   |  |
|-----------------------------------|--|
| TC Start                          | 06.07.2022 09:05:21  |
| Ambit Temp [°C]   Humidity [rel%] | 21.8   42  |
| System Version                    | 3.2.0.2  |
| Test Specification                | FCC 15.247 -   |
| Test Method                       | ANSI C63.10-2013 Chapter 11.10.5 or.3                      |
| TC Version                        | 0.0.1  |
| My Description                    | FCC 15.247 Avg Power Spectral Density DTS - WLAN2G4 b mode |
| Add. Information                  |  |

| EUT Common Settings WLAN2G4 |    |
|-----------------------------|----|
| Number of Antenna Ports     | 2  |
| User Interaction            | No |

| Test Parameter                                   |  |
|--|--|
| Technology to test                               | WLAN2G4 b mode                         |
| Antenna Port used                                | 2                                      |
| Temperature                                      | nom                                    |
| Voltage  | nom                                    |
| Frequency low to test                            | True   Freq [MHz] 2412                 |
| Frequency mid to test                            | False   Freq [MHz] 2437                |
| Frequency high to test                           | False   Freq [MHz] 2462                |
| Auto Control enabled Power Supply   Climatic Box | No   No                                |
| Additional Path Loss [dB]                        | 0.7                                    |
| Switched Path                                    | EUT - SignalingUnit - SpectrumAnalyzer |

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

## Test at TX 2412 MHz

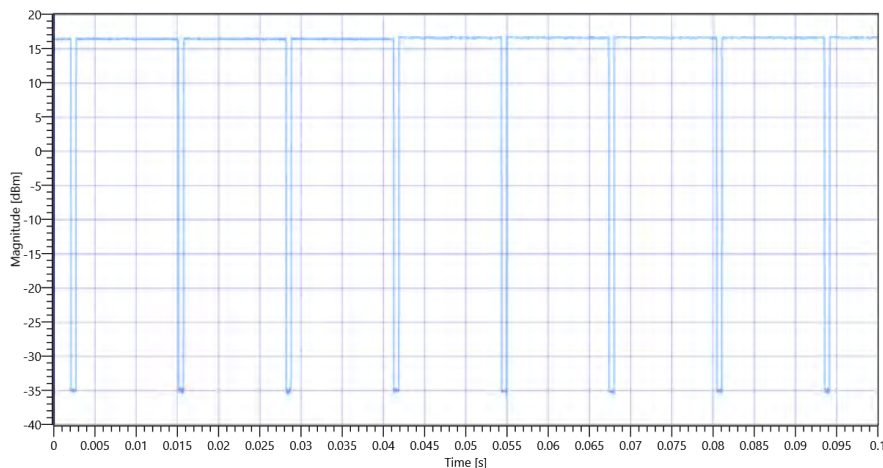
RESULT: Reference Power cond.

| Test Description              | Lower Limit | Upper Limit | Measured | Unit | Verdict |
|-------------------------------|-------------|-------------|----------|------|---------|
| Ref. Power<br>1MHz/1MHz cond. | ---         | ---         | 12.65    | dBm  | INFO    |
| Ref. Frequency                | ---         | ---         | 2413.200 | MHz  | INFO    |

## Evaluation max. Duty Cycle

Duty Cycle evaluation

| Test Description             | Lower Limit | Upper Limit | Measured | Unit | Verdict |
|------------------------------|-------------|-------------|----------|------|---------|
| Result Summary               |             |             |          |      |         |
| Number of detected Bursts:7  |             |             |          |      |         |
| Duty Cycle (Burst Ratio) max | ---         | ---         | 0.948    | ---  | INFO    |
| Duty Cycle max               | ---         | ---         | 0.232    | dB   | INFO    |
| Duty Cycle (Burst Ratio) min | ---         | ---         | 0.948    | ---  | INFO    |
| Duty Cycle min               | ---         | ---         | 0.232    | dB   | INFO    |
| Max TX Burst Length          | ---         | ---         | 12.4     | ms   | INFO    |
| Min Gap Length               | ---         | ---         | 0.675    | ms   | INFO    |
| Max Gap Length               | ---         | ---         | 0.675    | ms   | INFO    |



FCC 15.247 # Avg power spectral density DTS ~ WLAN2G4 b mode 2412 MHz - DutyCycle

## Avg. PSD

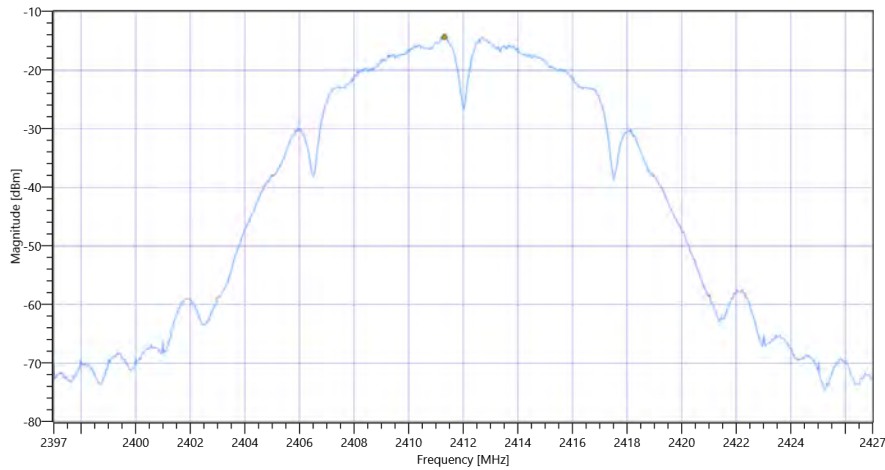
READ SA SETTINGS:

|  |                        |
|--|------------------------|
| RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]   | 17.65   15.93   20     |
| Start [MHz]   Stop [MHz]                             | 2397.000   2427.000    |
| RBW [MHz]   VBW [MHz]                                | 0.003000   0.010000    |
| Detector   TraceMode                                 | RMS   AVER             |
| Sweep: Time [ms]   Count   Points per Section   Type | 334   100   1001   SWE |

RESULT

| Test Description | Lower Limit | Upper Limit | Measured | Unit | Verdict |
|------------------|-------------|-------------|----------|------|---------|
|------------------|-------------|-------------|----------|------|---------|

| RESULT                |             |             |          |          |         |
|-----------------------|-------------|-------------|----------|----------|---------|
| Test Description      | Lower Limit | Upper Limit | Measured | Unit     | Verdict |
| Avg PSD uncorrected   | ---         | ---         | -14.36   | dBm      | INFO    |
| Duty cycle correction | ---         | ---         | 0.23     | dB       | INFO    |
| Avg PSD DC corrected  | ---         | 8           | -14.13   | dBm/3KHz | PASS    |



FCC 15.247 # Avg power spectral density DTS ~ WLAN2G4 b mode

|                 |      |
|-----------------|------|
| General verdict | PASS |
|-----------------|------|

## FCC 15.247 # Avg power spectral density DTS ~ WLAN2G4 b mode

| Test References                   |  |
|-----------------------------------|--|
| TC Start                          | 06.07.2022 09:19:58  |
| Ambit Temp [°C]   Humidity [rel%] | 22.3   41  |
| System Version                    | 3.2.0.2  |
| Test Specification                | FCC 15.247 -   |
| Test Method                       | ANSI C63.10-2013 Chapter 11.10.5 or.3                      |
| TC Version                        | 0.0.1  |
| My Description                    | FCC 15.247 Avg Power Spectral Density DTS - WLAN2G4 b mode |
| Add. Information                  |  |

| EUT Common Settings WLAN2G4 |    |
|-----------------------------|----|
| Number of Antenna Ports     | 2  |
| User Interaction            | No |

| Test Parameter                                   |  |
|--|--|
| Technology to test                               | WLAN2G4 b mode                         |
| Antenna Port used                                | 2                                      |
| Temperature                                      | nom                                    |
| Voltage  | nom                                    |
| Frequency low to test                            | False   Freq [MHz] 2412                |
| Frequency mid to test                            | True   Freq [MHz] 2437                 |
| Frequency high to test                           | False   Freq [MHz] 2462                |
| Auto Control enabled Power Supply   Climatic Box | No   No                                |
| Additional Path Loss [dB]                        | 0.7                                    |
| Switched Path                                    | EUT - SignalingUnit - SpectrumAnalyzer |

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



## Test at TX 2437 MHz

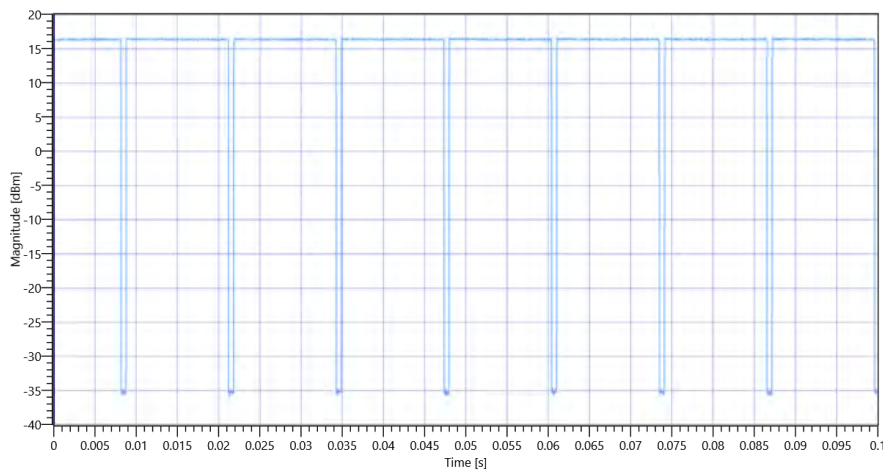
RESULT: Reference Power cond.

| Test Description              | Lower Limit | Upper Limit | Measured | Unit | Verdict |
|-------------------------------|-------------|-------------|----------|------|---------|
| Ref. Power<br>1MHz/1MHz cond. | ---         | ---         | 12.57    | dBm  | INFO    |
| Ref. Frequency                | ---         | ---         | 2438.200 | MHz  | INFO    |

## Evaluation max. Duty Cycle

Duty Cycle evaluation

| Test Description             | Lower Limit | Upper Limit | Measured | Unit | Verdict |
|------------------------------|-------------|-------------|----------|------|---------|
| Result Summary               |             |             |          |      |         |
| Number of detected Bursts:6  |             |             |          |      |         |
| Duty Cycle (Burst Ratio) max | ---         | ---         | 0.948    | ---  | INFO    |
| Duty Cycle max               | ---         | ---         | 0.232    | dB   | INFO    |
| Duty Cycle (Burst Ratio) min | ---         | ---         | 0.948    | ---  | INFO    |
| Duty Cycle min               | ---         | ---         | 0.232    | dB   | INFO    |
| Max TX Burst Length          | ---         | ---         | 12.4     | ms   | INFO    |
| Min Gap Length               | ---         | ---         | 0.675    | ms   | INFO    |
| Max Gap Length               | ---         | ---         | 0.675    | ms   | INFO    |



FCC 15.247 # Avg power spectral density DTS ~ WLAN2G4 b mode 2437 MHz - DutyCycle

## Avg. PSD

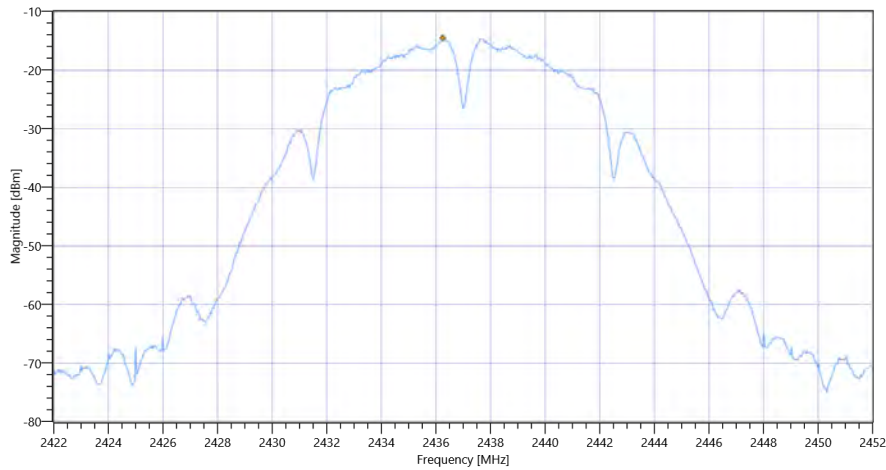
READ SA SETTINGS:

|  |                        |
|--|------------------------|
| RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]   | 17.57   15.7   20      |
| Start [MHz]   Stop [MHz]                             | 2422.000   2452.000    |
| RBW [MHz]   VBW [MHz]                                | 0.003000   0.010000    |
| Detector   TraceMode                                 | RMS   AVER             |
| Sweep: Time [ms]   Count   Points per Section   Type | 334   100   1001   SWE |

RESULT

| Test Description | Lower Limit | Upper Limit | Measured | Unit | Verdict |
|------------------|-------------|-------------|----------|------|---------|
|------------------|-------------|-------------|----------|------|---------|

| RESULT                |             |             |          |          |         |
|-----------------------|-------------|-------------|----------|----------|---------|
| Test Description      | Lower Limit | Upper Limit | Measured | Unit     | Verdict |
| Avg PSD uncorrected   | ---         | ---         | -14.5    | dBm      | INFO    |
| Duty cycle correction | ---         | ---         | 0.23     | dB       | INFO    |
| Avg PSD DC corrected  | ---         | 8           | -14.27   | dBm/3KHz | PASS    |



FCC 15.247 # Avg power spectral density DTS ~ WLAN2G4 b mode

|                 |      |
|-----------------|------|
| General verdict | PASS |
|-----------------|------|

## FCC 15.247 # Avg power spectral density DTS ~ WLAN2G4 b mode

| Test References                   |  |
|-----------------------------------|--|
| TC Start                          | 06.07.2022 09:34:52  |
| Ambit Temp [°C]   Humidity [rel%] | 22.6   40  |
| System Version                    | 3.2.0.2  |
| Test Specification                | FCC 15.247 -   |
| Test Method                       | ANSI C63.10-2013 Chapter 11.10.5 or.3                      |
| TC Version                        | 0.0.1  |
| My Description                    | FCC 15.247 Avg Power Spectral Density DTS - WLAN2G4 b mode |
| Add. Information                  |  |

| EUT Common Settings WLAN2G4 |    |
|-----------------------------|----|
| Number of Antenna Ports     | 2  |
| User Interaction            | No |

| Test Parameter                                   |  |
|--|--|
| Technology to test                               | WLAN2G4 b mode                         |
| Antenna Port used                                | 2                                      |
| Temperature                                      | nom                                    |
| Voltage  | nom                                    |
| Frequency low to test                            | False   Freq [MHz] 2412                |
| Frequency mid to test                            | False   Freq [MHz] 2437                |
| Frequency high to test                           | True   Freq [MHz] 2462                 |
| Auto Control enabled Power Supply   Climatic Box | No   No                                |
| Additional Path Loss [dB]                        | 0.7                                    |
| Switched Path                                    | EUT - SignalingUnit - SpectrumAnalyzer |

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

## Test at TX 2462 MHz

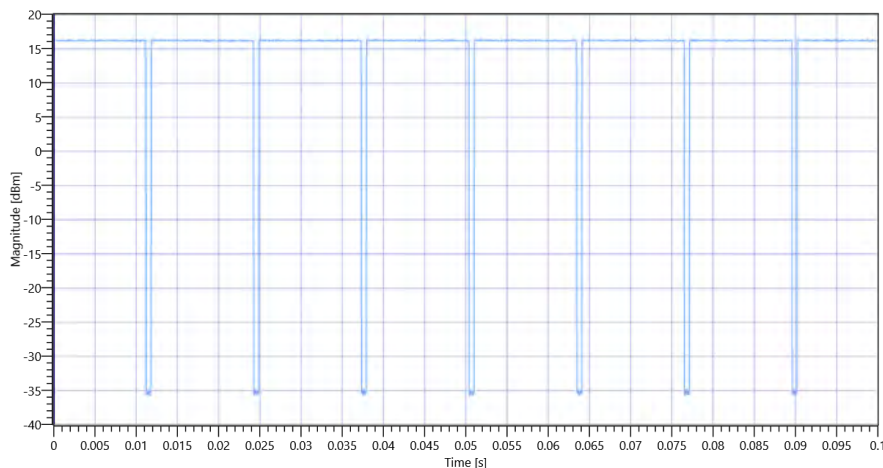
RESULT: Reference Power cond.

| Test Description              | Lower Limit | Upper Limit | Measured | Unit | Verdict |
|-------------------------------|-------------|-------------|----------|------|---------|
| Ref. Power<br>1MHz/1MHz cond. | ---         | ---         | 12.33    | dBm  | INFO    |
| Ref. Frequency                | ---         | ---         | 2460.800 | MHz  | INFO    |

## Evaluation max. Duty Cycle

Duty Cycle evaluation

| Test Description             | Lower Limit | Upper Limit | Measured | Unit | Verdict |
|------------------------------|-------------|-------------|----------|------|---------|
| Result Summary               |             |             |          |      |         |
| Number of detected Bursts:6  |             |             |          |      |         |
| Duty Cycle (Burst Ratio) max | ---         | ---         | 0.948    | ---  | INFO    |
| Duty Cycle max               | ---         | ---         | 0.232    | dB   | INFO    |
| Duty Cycle (Burst Ratio) min | ---         | ---         | 0.948    | ---  | INFO    |
| Duty Cycle min               | ---         | ---         | 0.232    | dB   | INFO    |
| Max TX Burst Length          | ---         | ---         | 12.4     | ms   | INFO    |
| Min Gap Length               | ---         | ---         | 0.675    | ms   | INFO    |
| Max Gap Length               | ---         | ---         | 0.675    | ms   | INFO    |



FCC 15.247 # Avg power spectral density DTS ~ WLAN2G4 b mode 2462 MHz - DutyCycle

## Avg. PSD

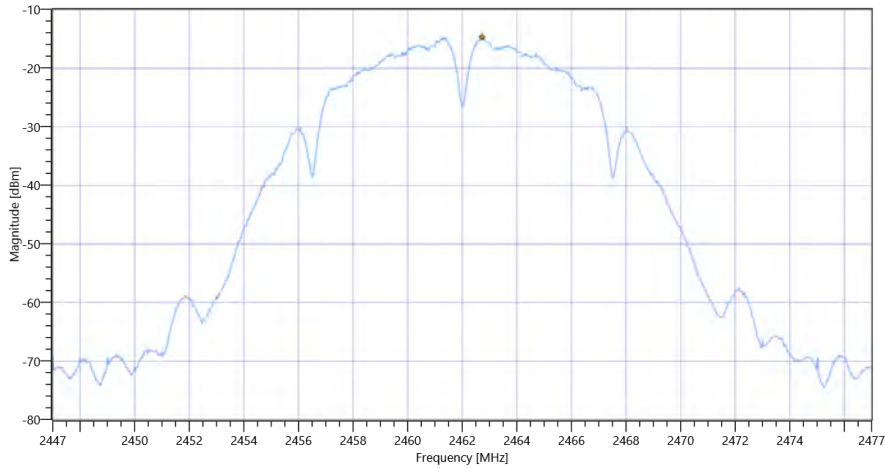
READ SA SETTINGS:

|  |                        |
|--|------------------------|
| RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]   | 17.33   15.54   20     |
| Start [MHz]   Stop [MHz]                             | 2447.000   2477.000    |
| RBW [MHz]   VBW [MHz]                                | 0.003000   0.010000    |
| Detector   TraceMode                                 | RMS   AVER             |
| Sweep: Time [ms]   Count   Points per Section   Type | 334   100   1001   SWE |

RESULT

| Test Description | Lower Limit | Upper Limit | Measured | Unit | Verdict |
|------------------|-------------|-------------|----------|------|---------|
|------------------|-------------|-------------|----------|------|---------|

| RESULT                |             |             |          |          |         |
|-----------------------|-------------|-------------|----------|----------|---------|
| Test Description      | Lower Limit | Upper Limit | Measured | Unit     | Verdict |
| Avg PSD uncorrected   | ---         | ---         | -14.65   | dBm      | INFO    |
| Duty cycle correction | ---         | ---         | 0.23     | dB       | INFO    |
| Avg PSD DC corrected  | ---         | 8           | -14.42   | dBm/3KHz | PASS    |



FCC 15.247 # Avg power spectral density DTS ~ WLAN2G4 b mode

|                 |      |
|-----------------|------|
| General verdict | PASS |
|-----------------|------|

## FCC 15.247 # Bandwidth 6dB DTS ~ WLAN2G4 b mode

| Test References                   |   |
|-----------------------------------|---|
| TC Start                          | 06.07.2022 08:08:53                           |
| Ambit Temp [°C]   Humidity [rel%] | 19.5   48                                     |
| System Version                    | 3.2.0.2                                       |
| Test Specification                | FCC 15.247 -                                  |
| Test Method                       |   |
| TC Version                        | 0.0.1   |
| My Description                    | FCC 15.247 Bandwidth 6dB DTS - WLAN2G4 b mode |
| Add. Information                  |   |

| EUT Common Settings WLAN2G4 |    |
|-----------------------------|----|
| Number of Antenna Ports     | 2  |
| User Interaction            | No |

| Test Parameter                                   |  |
|--|--|
| Technology to test                               | WLAN2G4 b mode                         |
| Antenna Port used                                | 1                                      |
| Temperature                                      | nom                                    |
| Voltage  | nom                                    |
| Frequency low to test                            | True   Freq [MHz] 2412                 |
| Frequency mid to test                            | False   Freq [MHz] 2437                |
| Frequency high to test                           | False   Freq [MHz] 2462                |
| Auto Control enabled Power Supply   Climatic Box | No   No                                |
| Additional Path Loss [dB]                        | 0.7                                    |
| Switched Path                                    | EUT - SignalingUnit - SpectrumAnalyzer |

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

## Test at TX 2412 MHz

### RESULT: Reference Power cond.

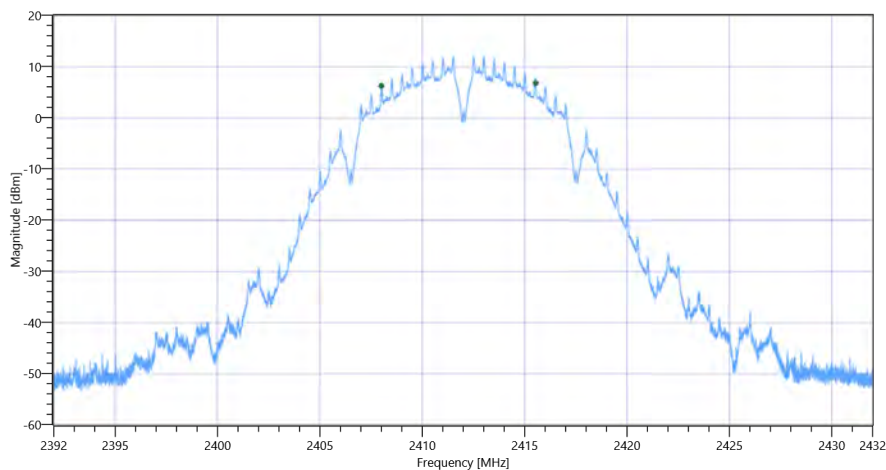
| Test Description              | Lower Limit | Upper Limit | Measured | Unit | Verdict |
|-------------------------------|-------------|-------------|----------|------|---------|
| Ref. Power<br>1MHz/1MHz cond. | ---         | ---         | 15.43    | dBm  | INFO    |
| Ref. Frequency                | ---         | ---         | 2413.200 | MHz  | INFO    |

### READ SA SETTINGS:

|  |                        |
|--|------------------------|
| RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]   | 20.43   15.93   20     |
| Start [MHz]   Stop [MHz]                             | 2392.000   2432.000    |
| RBW [MHz]   VBW [MHz]                                | 0.100000   0.300000    |
| Detector   TraceMode                                 | POS   MAXH             |
| Sweep: Time [ms]   Count   Points per Section   Type | 50   200   10001   SWE |

### RESULT

| Test Description       | Lower Limit | Upper Limit | Measured | Unit | Verdict |
|------------------------|-------------|-------------|----------|------|---------|
| DTS Bandwidth<br>(6dB) | 500         | ---         | 7540     | kHz  | PASS    |



FCC 15.247 # Bandwidth 6dB DTS ~ WLAN2G4 b mode

General verdict

PASS

## FCC 15.247 # Bandwidth 6dB DTS ~ WLAN2G4 b mode

| Test References                   |   |
|-----------------------------------|---|
| TC Start                          | 06.07.2022 08:24:38                           |
| Ambit Temp [°C]   Humidity [rel%] | 20.3   46                                     |
| System Version                    | 3.2.0.2                                       |
| Test Specification                | FCC 15.247 -                                  |
| Test Method                       |   |
| TC Version                        | 0.0.1   |
| My Description                    | FCC 15.247 Bandwidth 6dB DTS - WLAN2G4 b mode |
| Add. Information                  |   |

| EUT Common Settings WLAN2G4 |    |
|-----------------------------|----|
| Number of Antenna Ports     | 2  |
| User Interaction            | No |

| Test Parameter                                   |  |
|--|--|
| Technology to test                               | WLAN2G4 b mode                         |
| Antenna Port used                                | 1                                      |
| Temperature                                      | nom                                    |
| Voltage  | nom                                    |
| Frequency low to test                            | False   Freq [MHz] 2412                |
| Frequency mid to test                            | True   Freq [MHz] 2437                 |
| Frequency high to test                           | False   Freq [MHz] 2462                |
| Auto Control enabled Power Supply   Climatic Box | No   No                                |
| Additional Path Loss [dB]                        | 0.7                                    |
| Switched Path                                    | EUT - SignalingUnit - SpectrumAnalyzer |

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



## Test at TX 2437 MHz

### RESULT: Reference Power cond.

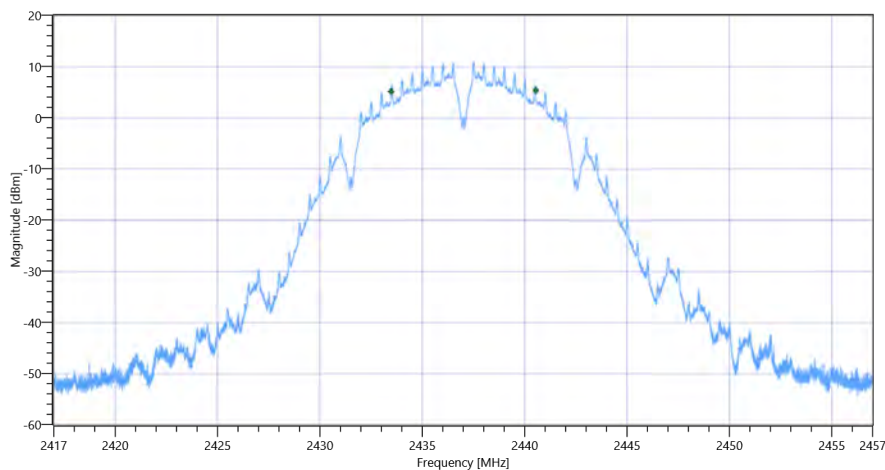
| Test Description              | Lower Limit | Upper Limit | Measured | Unit | Verdict |
|-------------------------------|-------------|-------------|----------|------|---------|
| Ref. Power<br>1MHz/1MHz cond. | ---         | ---         | 14.26    | dBm  | INFO    |
| Ref. Frequency                | ---         | ---         | 2435.800 | MHz  | INFO    |

### READ SA SETTINGS:

|  |                        |
|--|------------------------|
| RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]   | 19.26   15.7   20      |
| Start [MHz]   Stop [MHz]                             | 2417.000   2457.000    |
| RBW [MHz]   VBW [MHz]                                | 0.100000   0.300000    |
| Detector   TraceMode                                 | POS   MAXH             |
| Sweep: Time [ms]   Count   Points per Section   Type | 50   200   10001   SWE |

### RESULT

| Test Description       | Lower Limit | Upper Limit | Measured | Unit | Verdict |
|------------------------|-------------|-------------|----------|------|---------|
| DTS Bandwidth<br>(6dB) | 500         | ---         | 7068     | kHz  | PASS    |



FCC 15.247 # Bandwidth 6dB DTS ~ WLAN2G4 b mode

General verdict

PASS

## FCC 15.247 # Bandwidth 6dB DTS ~ WLAN2G4 b mode

| Test References                   |   |
|-----------------------------------|---|
| TC Start                          | 06.07.2022 08:40:38                           |
| Ambit Temp [°C]   Humidity [rel%] | 20.9   45                                     |
| System Version                    | 3.2.0.2                                       |
| Test Specification                | FCC 15.247 -                                  |
| Test Method                       |   |
| TC Version                        | 0.0.1   |
| My Description                    | FCC 15.247 Bandwidth 6dB DTS - WLAN2G4 b mode |
| Add. Information                  |   |

| EUT Common Settings WLAN2G4 |    |
|-----------------------------|----|
| Number of Antenna Ports     | 2  |
| User Interaction            | No |

| Test Parameter                                   |  |
|--|--|
| Technology to test                               | WLAN2G4 b mode                         |
| Antenna Port used                                | 1                                      |
| Temperature                                      | nom                                    |
| Voltage  | nom                                    |
| Frequency low to test                            | False   Freq [MHz] 2412                |
| Frequency mid to test                            | False   Freq [MHz] 2437                |
| Frequency high to test                           | True   Freq [MHz] 2462                 |
| Auto Control enabled Power Supply   Climatic Box | No   No                                |
| Additional Path Loss [dB]                        | 0.7                                    |
| Switched Path                                    | EUT - SignalingUnit - SpectrumAnalyzer |

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

## Test at TX 2462 MHz

### RESULT: Reference Power cond.

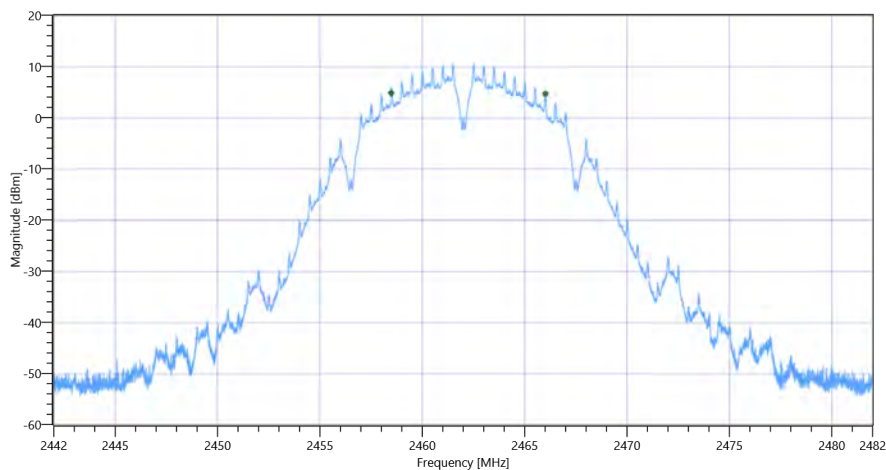
| Test Description              | Lower Limit | Upper Limit | Measured | Unit | Verdict |
|-------------------------------|-------------|-------------|----------|------|---------|
| Ref. Power<br>1MHz/1MHz cond. | ---         | ---         | 13.86    | dBm  | INFO    |
| Ref. Frequency                | ---         | ---         | 2460.800 | MHz  | INFO    |

### READ SA SETTINGS:

|  |                        |
|--|------------------------|
| RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]   | 18.86   15.54   20     |
| Start [MHz]   Stop [MHz]                             | 2442.000   2482.000    |
| RBW [MHz]   VBW [MHz]                                | 0.100000   0.300000    |
| Detector   TraceMode                                 | POS   MAXH             |
| Sweep: Time [ms]   Count   Points per Section   Type | 50   200   10001   SWE |

### RESULT

| Test Description       | Lower Limit | Upper Limit | Measured | Unit | Verdict |
|------------------------|-------------|-------------|----------|------|---------|
| DTS Bandwidth<br>(6dB) | 500         | ---         | 7544     | kHz  | PASS    |



FCC 15.247 # Bandwidth 6dB DTS ~ WLAN2G4 b mode

General verdict

PASS

## FCC 15.247 # Bandwidth 6dB DTS ~ WLAN2G4 b mode

| Test References                   |   |
|-----------------------------------|---|
| TC Start                          | 06.07.2022 09:04:41                           |
| Ambit Temp [°C]   Humidity [rel%] | 21.8   42                                     |
| System Version                    | 3.2.0.2                                       |
| Test Specification                | FCC 15.247 -                                  |
| Test Method                       |   |
| TC Version                        | 0.0.1   |
| My Description                    | FCC 15.247 Bandwidth 6dB DTS - WLAN2G4 b mode |
| Add. Information                  |   |

| EUT Common Settings WLAN2G4 |    |
|-----------------------------|----|
| Number of Antenna Ports     | 2  |
| User Interaction            | No |

| Test Parameter                                   |  |
|--|--|
| Technology to test                               | WLAN2G4 b mode                         |
| Antenna Port used                                | 2                                      |
| Temperature                                      | nom                                    |
| Voltage  | nom                                    |
| Frequency low to test                            | True   Freq [MHz] 2412                 |
| Frequency mid to test                            | False   Freq [MHz] 2437                |
| Frequency high to test                           | False   Freq [MHz] 2462                |
| Auto Control enabled Power Supply   Climatic Box | No   No                                |
| Additional Path Loss [dB]                        | 0.7                                    |
| Switched Path                                    | EUT - SignalingUnit - SpectrumAnalyzer |

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

## Test at TX 2412 MHz

### RESULT: Reference Power cond.

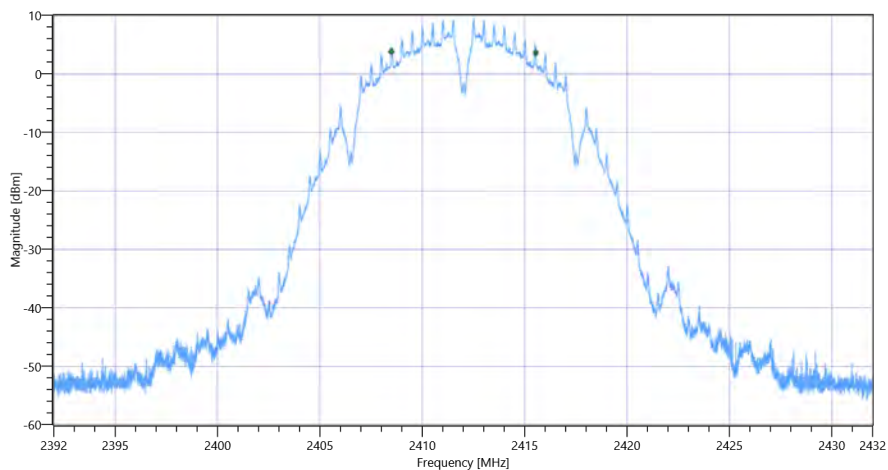
| Test Description              | Lower Limit | Upper Limit | Measured | Unit | Verdict |
|-------------------------------|-------------|-------------|----------|------|---------|
| Ref. Power<br>1MHz/1MHz cond. | ---         | ---         | 12.64    | dBm  | INFO    |
| Ref. Frequency                | ---         | ---         | 2413.200 | MHz  | INFO    |

### READ SA SETTINGS:

|  |                        |
|--|------------------------|
| RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]   | 17.64   15.93   20     |
| Start [MHz]   Stop [MHz]                             | 2392.000   2432.000    |
| RBW [MHz]   VBW [MHz]                                | 0.100000   0.300000    |
| Detector   TraceMode                                 | POS   MAXH             |
| Sweep: Time [ms]   Count   Points per Section   Type | 50   200   10001   SWE |

### RESULT

| Test Description       | Lower Limit | Upper Limit | Measured | Unit | Verdict |
|------------------------|-------------|-------------|----------|------|---------|
| DTS Bandwidth<br>(6dB) | 500         | ---         | 7056     | kHz  | PASS    |



FCC 15.247 # Bandwidth 6dB DTS ~ WLAN2G4 b mode

General verdict

PASS

## FCC 15.247 # Bandwidth 6dB DTS ~ WLAN2G4 b mode

| Test References                   |   |
|-----------------------------------|---|
| TC Start                          | 06.07.2022 09:19:20                           |
| Ambit Temp [°C]   Humidity [rel%] | 22.3   41                                     |
| System Version                    | 3.2.0.2                                       |
| Test Specification                | FCC 15.247 -                                  |
| Test Method                       |   |
| TC Version                        | 0.0.1   |
| My Description                    | FCC 15.247 Bandwidth 6dB DTS - WLAN2G4 b mode |
| Add. Information                  |   |

| EUT Common Settings WLAN2G4 |    |
|-----------------------------|----|
| Number of Antenna Ports     | 2  |
| User Interaction            | No |

| Test Parameter                                   |  |
|--|--|
| Technology to test                               | WLAN2G4 b mode                         |
| Antenna Port used                                | 2                                      |
| Temperature                                      | nom                                    |
| Voltage  | nom                                    |
| Frequency low to test                            | False   Freq [MHz] 2412                |
| Frequency mid to test                            | True   Freq [MHz] 2437                 |
| Frequency high to test                           | False   Freq [MHz] 2462                |
| Auto Control enabled Power Supply   Climatic Box | No   No                                |
| Additional Path Loss [dB]                        | 0.7                                    |
| Switched Path                                    | EUT - SignalingUnit - SpectrumAnalyzer |

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

## Test at TX 2437 MHz

### RESULT: Reference Power cond.

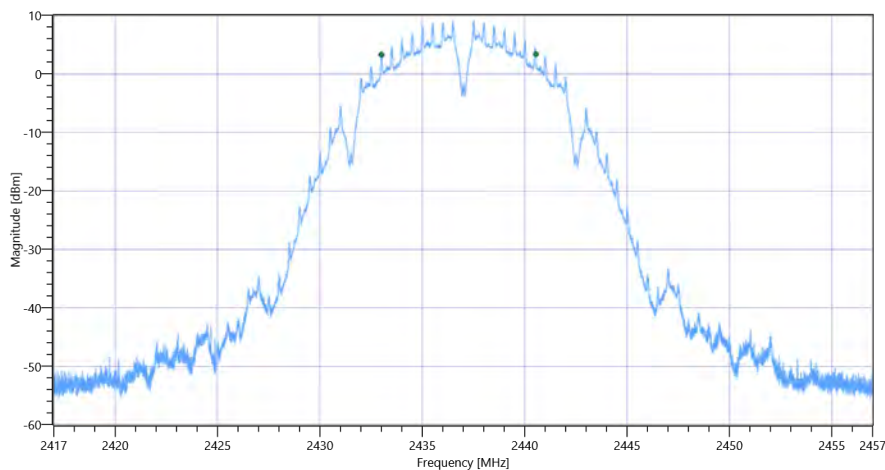
| Test Description              | Lower Limit | Upper Limit | Measured | Unit | Verdict |
|-------------------------------|-------------|-------------|----------|------|---------|
| Ref. Power<br>1MHz/1MHz cond. | ---         | ---         | 12.47    | dBm  | INFO    |
| Ref. Frequency                | ---         | ---         | 2438.200 | MHz  | INFO    |

### READ SA SETTINGS:

|  |                        |
|--|------------------------|
| RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]   | 17.47   15.7   20      |
| Start [MHz]   Stop [MHz]                             | 2417.000   2457.000    |
| RBW [MHz]   VBW [MHz]                                | 0.100000   0.300000    |
| Detector   TraceMode                                 | POS   MAXH             |
| Sweep: Time [ms]   Count   Points per Section   Type | 50   200   10001   SWE |

### RESULT

| Test Description       | Lower Limit | Upper Limit | Measured | Unit | Verdict |
|------------------------|-------------|-------------|----------|------|---------|
| DTS Bandwidth<br>(6dB) | 500         | ---         | 7544     | kHz  | PASS    |



FCC 15.247 # Bandwidth 6dB DTS ~ WLAN2G4 b mode

General verdict

PASS

## FCC 15.247 # Bandwidth 6dB DTS ~ WLAN2G4 b mode

| Test References                   |   |
|-----------------------------------|---|
| TC Start                          | 06.07.2022 09:34:13                           |
| Ambit Temp [°C]   Humidity [rel%] | 22.6   40                                     |
| System Version                    | 3.2.0.2                                       |
| Test Specification                | FCC 15.247 -                                  |
| Test Method                       |   |
| TC Version                        | 0.0.1   |
| My Description                    | FCC 15.247 Bandwidth 6dB DTS - WLAN2G4 b mode |
| Add. Information                  |   |

| EUT Common Settings WLAN2G4 |    |
|-----------------------------|----|
| Number of Antenna Ports     | 2  |
| User Interaction            | No |

| Test Parameter                                   |  |
|--|--|
| Technology to test                               | WLAN2G4 b mode                         |
| Antenna Port used                                | 2                                      |
| Temperature                                      | nom                                    |
| Voltage  | nom                                    |
| Frequency low to test                            | False   Freq [MHz] 2412                |
| Frequency mid to test                            | False   Freq [MHz] 2437                |
| Frequency high to test                           | True   Freq [MHz] 2462                 |
| Auto Control enabled Power Supply   Climatic Box | No   No                                |
| Additional Path Loss [dB]                        | 0.7                                    |
| Switched Path                                    | EUT - SignalingUnit - SpectrumAnalyzer |

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



## Test at TX 2462 MHz

### RESULT: Reference Power cond.

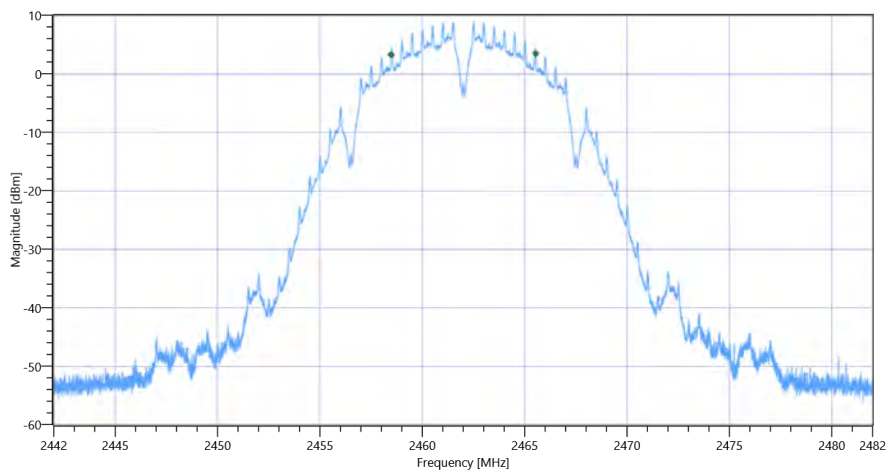
| Test Description              | Lower Limit | Upper Limit | Measured | Unit | Verdict |
|-------------------------------|-------------|-------------|----------|------|---------|
| Ref. Power<br>1MHz/1MHz cond. | ---         | ---         | 12.36    | dBm  | INFO    |
| Ref. Frequency                | ---         | ---         | 2463.200 | MHz  | INFO    |

### READ SA SETTINGS:

|  |                        |
|--|------------------------|
| RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]   | 17.36   15.54   20     |
| Start [MHz]   Stop [MHz]                             | 2442.000   2482.000    |
| RBW [MHz]   VBW [MHz]                                | 0.100000   0.300000    |
| Detector   TraceMode                                 | POS   MAXH             |
| Sweep: Time [ms]   Count   Points per Section   Type | 50   200   10001   SWE |

### RESULT

| Test Description       | Lower Limit | Upper Limit | Measured | Unit | Verdict |
|------------------------|-------------|-------------|----------|------|---------|
| DTS Bandwidth<br>(6dB) | 500         | ---         | 7068     | kHz  | PASS    |



FCC 15.247 # Bandwidth 6dB DTS ~ WLAN2G4 b mode

General verdict

PASS

## FCC 15.247, ISED RSS247 # Bandwidth 99PCT and 20dB ~ WLAN2G4 b mode

| Test References                   |  |
|-----------------------------------|--|
| TC Start                          | 06.07.2022 08:10:49                                  |
| Ambit Temp [°C]   Humidity [rel%] | 19.6   48  |
| System Version                    | 3.2.0.2  |
| Test Specification                | FCC 15.247, ISED RSS247 -                            |
| Test Method                       |  |
| TC Version                        | 0.0.2  |
| My Description                    | FCC 15.247 Bandwidth 99PCT-20dB DTS - WLAN2G4 b mode |
| Add. Information                  |  |

| EUT Common Settings WLAN2G4 |    |
|-----------------------------|----|
| Number of Antenna Ports     | 2  |
| User Interaction            | No |

| Test Parameter                                   |  |
|--|--|
| Technology to test                               | WLAN2G4 b mode                         |
| Antenna Port used                                | 1                                      |
| Temperature                                      | nom                                    |
| Voltage  | nom                                    |
| Frequency low to test                            | True   Freq [MHz] 2412                 |
| Frequency mid to test                            | False   Freq [MHz] 2437                |
| Frequency high to test                           | False   Freq [MHz] 2462                |
| Auto Control enabled Power Supply   Climatic Box | No   No                                |
| Additional Path Loss [dB]                        | 0.7                                    |
| Switched Path                                    | EUT - SignalingUnit - SpectrumAnalyzer |

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

## Test at TX 2412 MHz

### RESULT: Reference Power cond.

| Test Description              | Lower Limit | Upper Limit | Measured | Unit | Verdict |
|-------------------------------|-------------|-------------|----------|------|---------|
| Ref. Power<br>1MHz/1MHz cond. | ---         | ---         | 15.16    | dBm  | INFO    |
| Ref. Frequency                | ---         | ---         | 2410.800 | MHz  | INFO    |

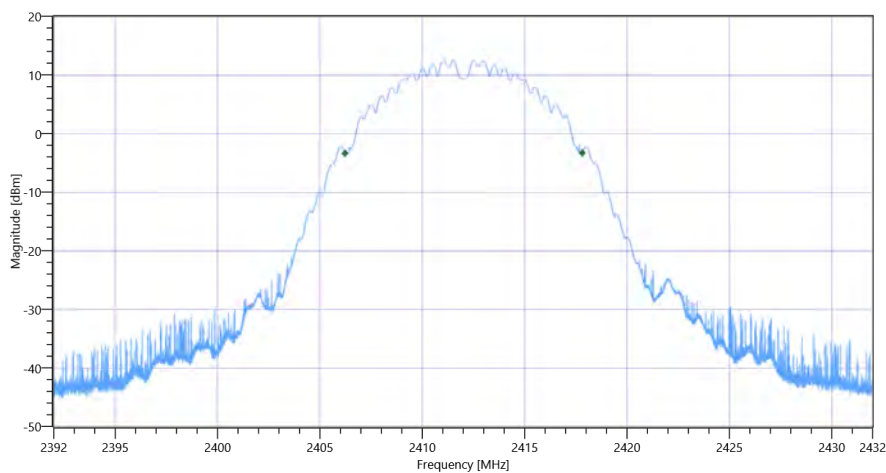
### READ SA SETTINGS:

|  |                        |
|--|------------------------|
| RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]   | 20.16   15.93   20     |
| Start [MHz]   Stop [MHz]                             | 2392.000   2432.000    |
| RBW [MHz]   VBW [MHz]                                | 0.500000   2.000000    |
| Detector   TraceMode                                 | POS   MAXH             |
| Sweep: Time [ms]   Count   Points per Section   Type | 50   200   10001   SWE |

### RESULT

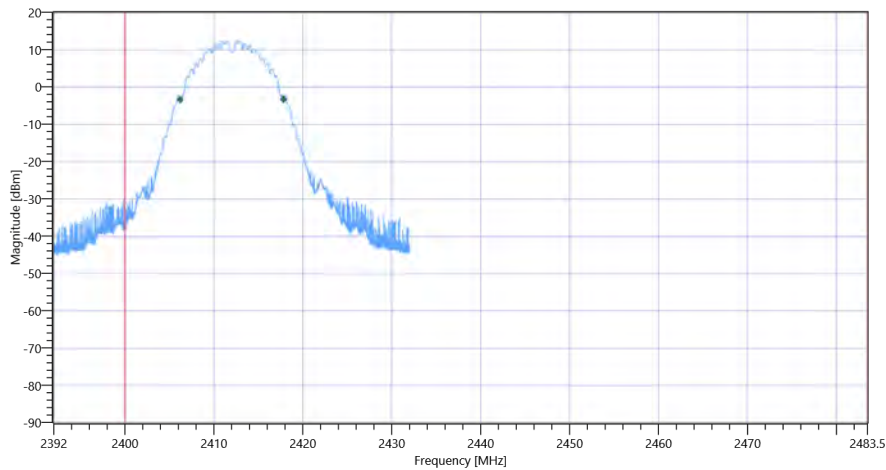
| Test Description | Lower Limit | Upper Limit | Measured  | Unit | Verdict |
|------------------|-------------|-------------|-----------|------|---------|
| Bandwidth 99%    | ---         | ---         | 11594.841 | kHz  | INFO    |
| T1 99%           | 2400.000000 | ---         | 2406.2166 | MHz  | PASS    |
| T2 99%           | ---         | 2483.500000 | 2417.8114 | MHz  | PASS    |

### Plot: Bandwidth only



FCC 15.247, ISED RSS247 # Bandwidth 99PCT and 20dB ~ WLAN2G4 b mode 99PCT

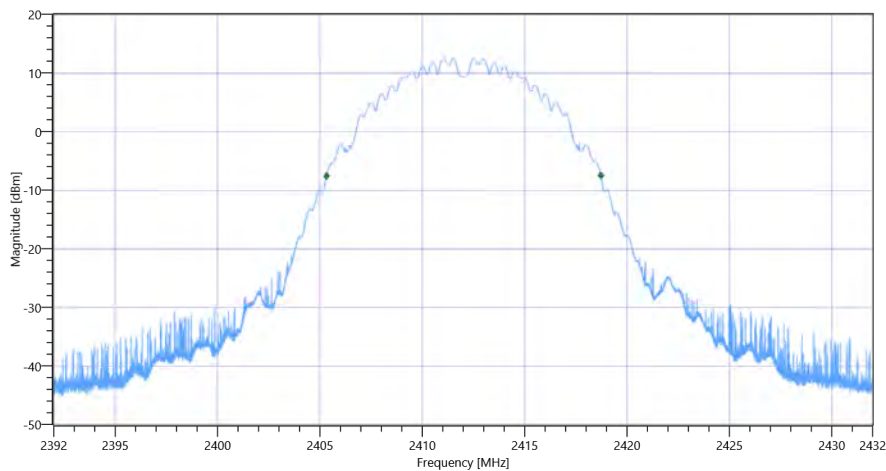
### Plot: Bandwidth within Band



FCC 15.247, ISED RSS247 # Bandwidth 99PCT and 20dB ~ WLAN2G4 b mode

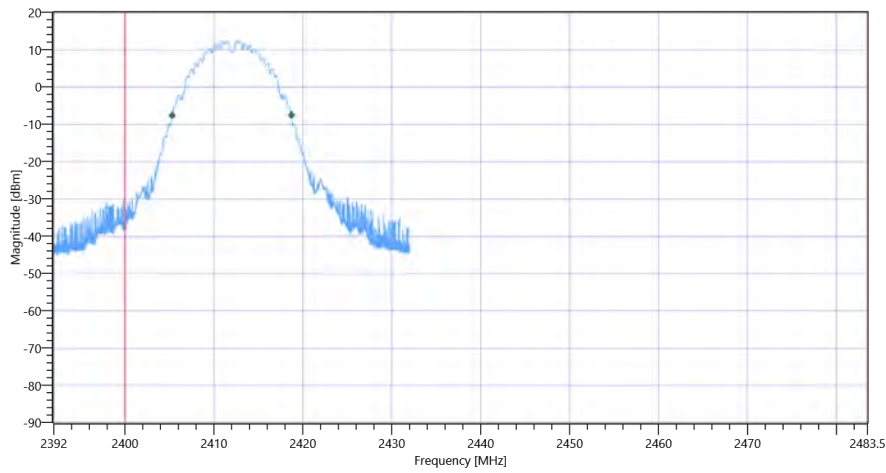
| RESULT           |             |             |           |      |         |  |
|------------------|-------------|-------------|-----------|------|---------|--|
| Test Description | Lower Limit | Upper Limit | Measured  | Unit | Verdict |  |
| Bandwidth 20dB   | ---         | ---         | 13404     | kHz  | INFO    |  |
| T1 20dB          | 2400.000000 | ---         | 2405.3160 | MHz  | PASS    |  |
| T2 20dB          | ---         | 2483.500000 | 2418.7200 | MHz  | PASS    |  |

Plot: Bandwidth only



FCC 15.247, ISED RSS247 # Bandwidth 99PCT and 20dB ~ WLAN2G4 b mode 20dB

Plot: Bandwidth within Band



FCC 15.247, ISED RSS247 # Bandwidth 99PCT and 20dB ~ WLAN2G4 b mode

General verdict

PASS

## FCC 15.247, ISED RSS247 # Bandwidth 99PCT and 20dB ~ WLAN2G4 b mode

| Test References                   |  |
|-----------------------------------|--|
| TC Start                          | 06.07.2022 08:26:32                                  |
| Ambit Temp [°C]   Humidity [rel%] | 20.4   46  |
| System Version                    | 3.2.0.2  |
| Test Specification                | FCC 15.247, ISED RSS247 -                            |
| Test Method                       |  |
| TC Version                        | 0.0.2  |
| My Description                    | FCC 15.247 Bandwidth 99PCT-20dB DTS - WLAN2G4 b mode |
| Add. Information                  |  |

| EUT Common Settings WLAN2G4 |    |
|-----------------------------|----|
| Number of Antenna Ports     | 2  |
| User Interaction            | No |

| Test Parameter                                   |  |
|--|--|
| Technology to test                               | WLAN2G4 b mode                         |
| Antenna Port used                                | 1                                      |
| Temperature                                      | nom                                    |
| Voltage  | nom                                    |
| Frequency low to test                            | False   Freq [MHz] 2412                |
| Frequency mid to test                            | True   Freq [MHz] 2437                 |
| Frequency high to test                           | False   Freq [MHz] 2462                |
| Auto Control enabled Power Supply   Climatic Box | No   No                                |
| Additional Path Loss [dB]                        | 0.7                                    |
| Switched Path                                    | EUT - SignalingUnit - SpectrumAnalyzer |

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

## Test at TX 2437 MHz

### RESULT: Reference Power cond.

| Test Description              | Lower Limit | Upper Limit | Measured | Unit | Verdict |
|-------------------------------|-------------|-------------|----------|------|---------|
| Ref. Power<br>1MHz/1MHz cond. | ---         | ---         | 14.26    | dBm  | INFO    |
| Ref. Frequency                | ---         | ---         | 2438.200 | MHz  | INFO    |

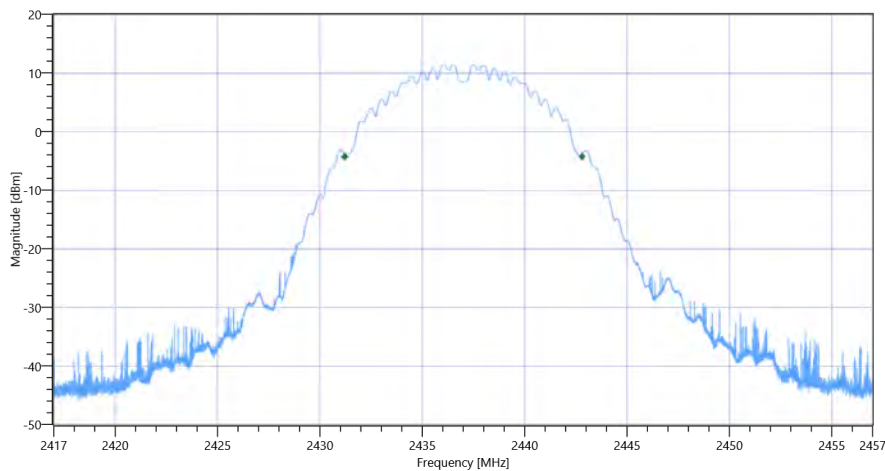
### READ SA SETTINGS:

|  |                        |
|--|------------------------|
| RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]   | 19.26   15.7   20      |
| Start [MHz]   Stop [MHz]                             | 2417.000   2457.000    |
| RBW [MHz]   VBW [MHz]                                | 0.500000   2.000000    |
| Detector   TraceMode                                 | POS   MAXH             |
| Sweep: Time [ms]   Count   Points per Section   Type | 50   200   10001   SWE |

### RESULT

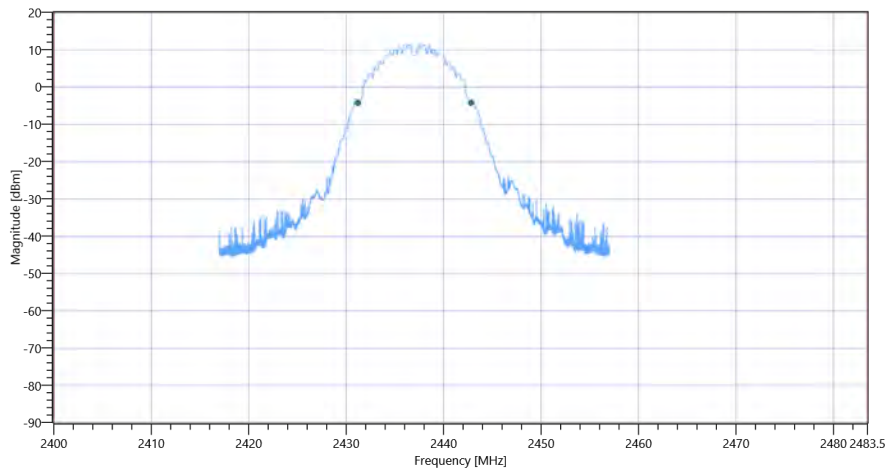
| Test Description | Lower Limit | Upper Limit | Measured  | Unit | Verdict |
|------------------|-------------|-------------|-----------|------|---------|
| Bandwidth 99%    | ---         | ---         | 11602.840 | kHz  | INFO    |
| T1 99%           | 2400.000000 | ---         | 2431.2046 | MHz  | PASS    |
| T2 99%           | ---         | 2483.500000 | 2442.8074 | MHz  | PASS    |

### Plot: Bandwidth only



FCC 15.247, ISED RSS247 # Bandwidth 99PCT and 20dB ~ WLAN2G4 b mode 99PCT

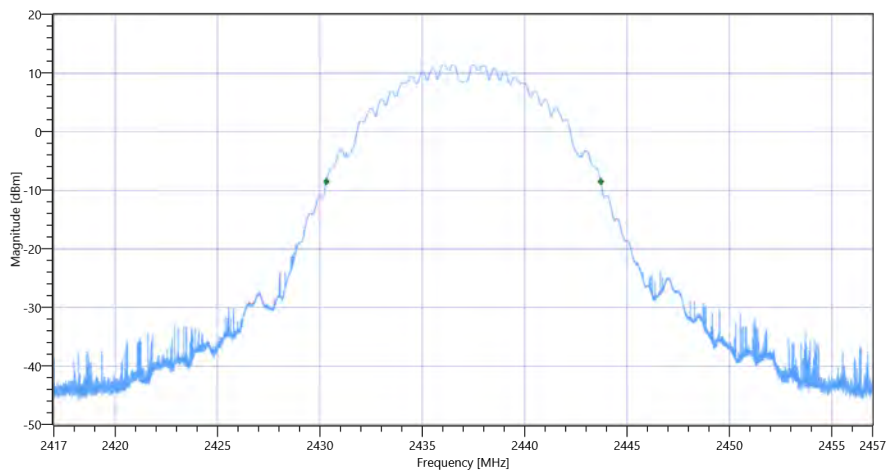
### Plot: Bandwidth within Band



FCC 15.247, ISED RSS247 # Bandwidth 99PCT and 20dB ~ WLAN2G4 b mode

| RESULT           |             |             |           |      |         |  |
|------------------|-------------|-------------|-----------|------|---------|--|
| Test Description | Lower Limit | Upper Limit | Measured  | Unit | Verdict |  |
| Bandwidth 20dB   | ---         | ---         | 13404     | kHz  | INFO    |  |
| T1 20dB          | 2400.000000 | ---         | 2430.3160 | MHz  | PASS    |  |
| T2 20dB          | ---         | 2483.500000 | 2443.7200 | MHz  | PASS    |  |

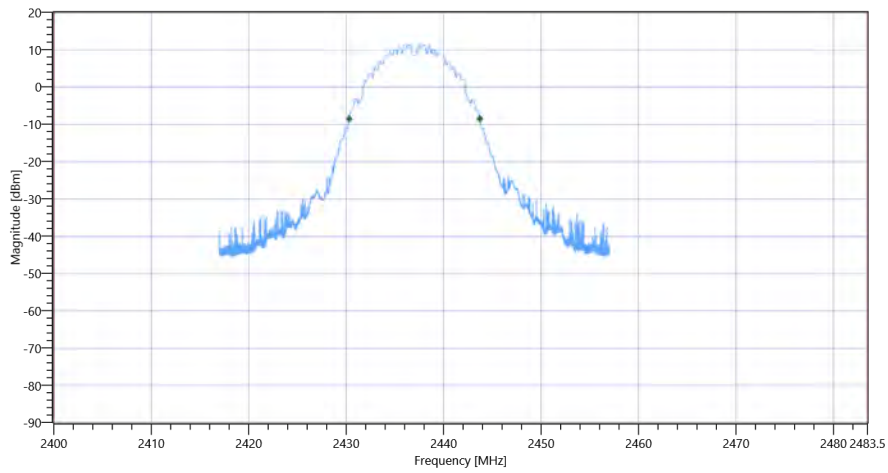
Plot: Bandwidth only



FCC 15.247, ISED RSS247 # Bandwidth 99PCT and 20dB ~ WLAN2G4 b mode 20dB

Plot: Bandwidth within Band





General verdict

PASS

## FCC 15.247, ISED RSS247 # Bandwidth 99PCT and 20dB ~ WLAN2G4 b mode

| Test References                   |  |
|-----------------------------------|--|
| TC Start                          | 06.07.2022 08:42:31                                  |
| Ambit Temp [°C]   Humidity [rel%] | 21.0   45  |
| System Version                    | 3.2.0.2  |
| Test Specification                | FCC 15.247, ISED RSS247 -                            |
| Test Method                       |  |
| TC Version                        | 0.0.2  |
| My Description                    | FCC 15.247 Bandwidth 99PCT-20dB DTS - WLAN2G4 b mode |
| Add. Information                  |  |

| EUT Common Settings WLAN2G4 |    |
|-----------------------------|----|
| Number of Antenna Ports     | 2  |
| User Interaction            | No |

| Test Parameter                                   |  |
|--|--|
| Technology to test                               | WLAN2G4 b mode                         |
| Antenna Port used                                | 1                                      |
| Temperature                                      | nom                                    |
| Voltage  | nom                                    |
| Frequency low to test                            | False   Freq [MHz] 2412                |
| Frequency mid to test                            | False   Freq [MHz] 2437                |
| Frequency high to test                           | True   Freq [MHz] 2462                 |
| Auto Control enabled Power Supply   Climatic Box | No   No                                |
| Additional Path Loss [dB]                        | 0.7                                    |
| Switched Path                                    | EUT - SignalingUnit - SpectrumAnalyzer |

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

## Test at TX 2462 MHz

### RESULT: Reference Power cond.

| Test Description              | Lower Limit | Upper Limit | Measured | Unit | Verdict |
|-------------------------------|-------------|-------------|----------|------|---------|
| Ref. Power<br>1MHz/1MHz cond. | ---         | ---         | 13.84    | dBm  | INFO    |
| Ref. Frequency                | ---         | ---         | 2460.800 | MHz  | INFO    |

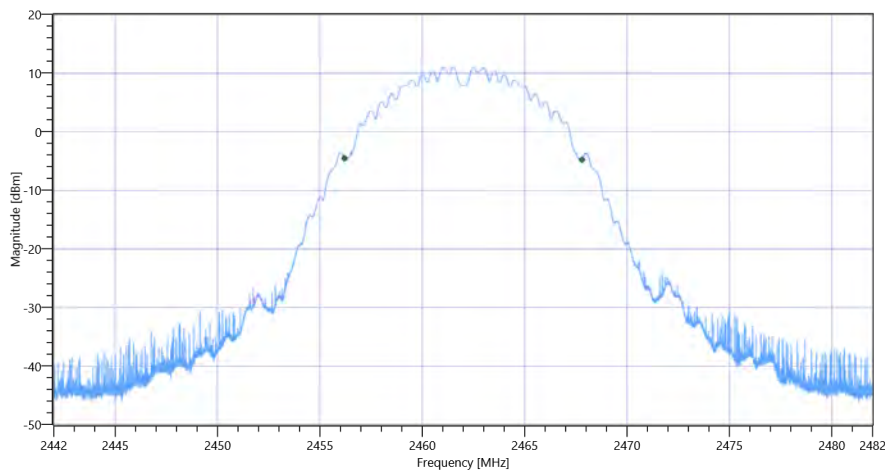
### READ SA SETTINGS:

|  |                        |
|--|------------------------|
| RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]   | 18.84   15.54   20     |
| Start [MHz]   Stop [MHz]                             | 2442.000   2482.000    |
| RBW [MHz]   VBW [MHz]                                | 0.500000   2.000000    |
| Detector   TraceMode                                 | POS   MAXH             |
| Sweep: Time [ms]   Count   Points per Section   Type | 50   200   10001   SWE |

### RESULT

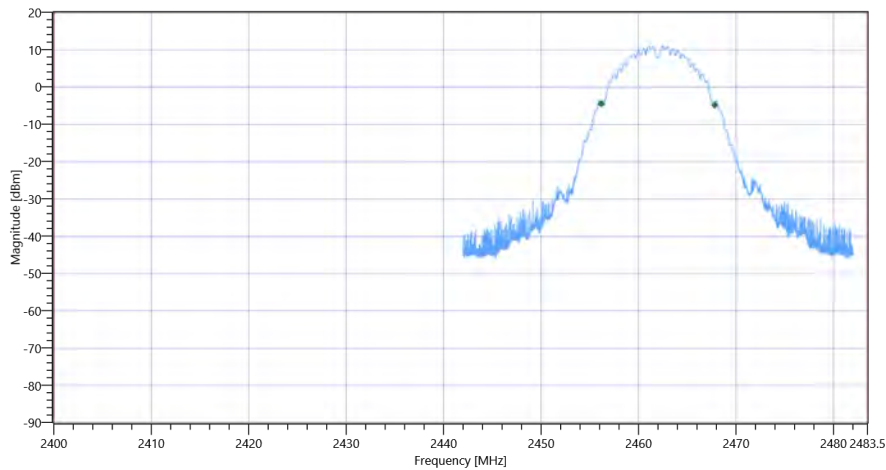
| Test Description | Lower Limit | Upper Limit | Measured  | Unit | Verdict |
|------------------|-------------|-------------|-----------|------|---------|
| Bandwidth 99%    | ---         | ---         | 11610.839 | kHz  | INFO    |
| T1 99%           | 2400.000000 | ---         | 2456.1926 | MHz  | PASS    |
| T2 99%           | ---         | 2483.500000 | 2467.8034 | MHz  | PASS    |

### Plot: Bandwidth only



FCC 15.247, ISED RSS247 # Bandwidth 99PCT and 20dB ~ WLAN2G4 b mode 99PCT

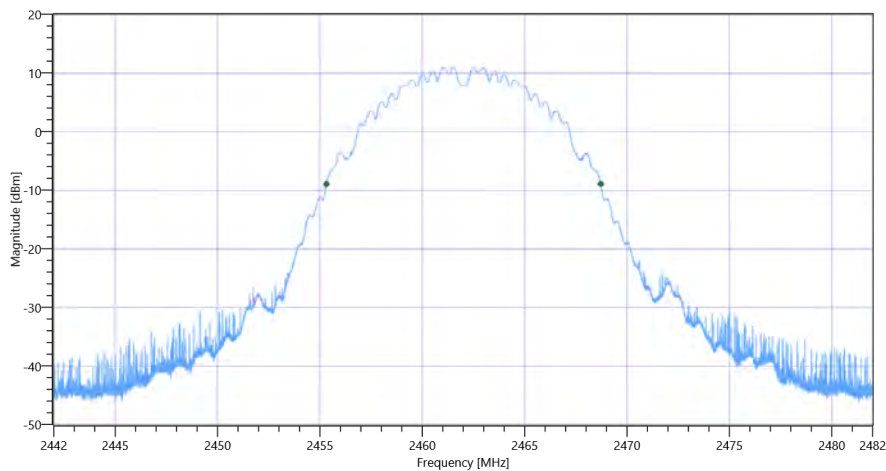
### Plot: Bandwidth within Band



FCC 15.247, ISED RSS247 # Bandwidth 99PCT and 20dB ~ WLAN2G4 b mode

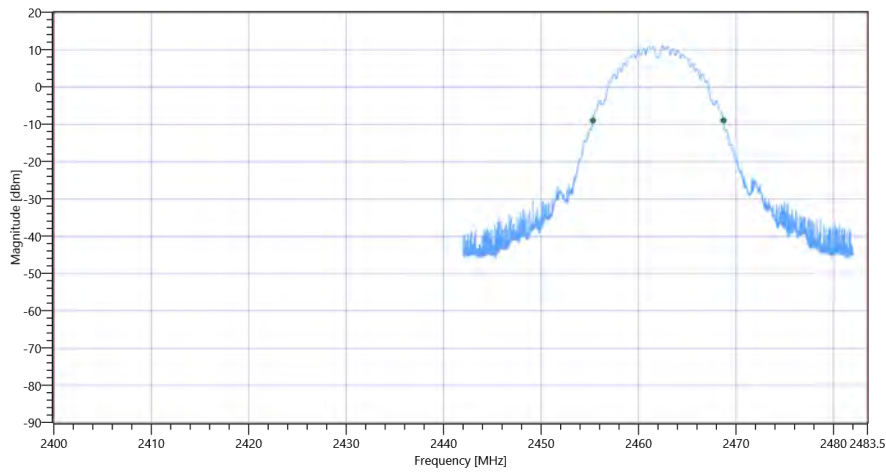
| RESULT           |             |             |           |      |         |
|------------------|-------------|-------------|-----------|------|---------|
| Test Description | Lower Limit | Upper Limit | Measured  | Unit | Verdict |
| Bandwidth 20dB   | ---         | ---         | 13400     | kHz  | INFO    |
| T1 20dB          | 2400.000000 | ---         | 2455.3120 | MHz  | PASS    |
| T2 20dB          | ---         | 2483.500000 | 2468.7120 | MHz  | PASS    |

Plot: Bandwidth only



FCC 15.247, ISED RSS247 # Bandwidth 99PCT and 20dB ~ WLAN2G4 b mode 20dB

Plot: Bandwidth within Band



FCC 15.247, ISED RSS247 # Bandwidth 99PCT and 20dB ~ WLAN2G4 b mode

General verdict

PASS

## FCC 15.247, ISED RSS247 # Bandwidth 99PCT and 20dB ~ WLAN2G4 b mode

| Test References                   |  |
|-----------------------------------|--|
| TC Start                          | 06.07.2022 09:06:36                                  |
| Ambit Temp [°C]   Humidity [rel%] | 21.9   42  |
| System Version                    | 3.2.0.2  |
| Test Specification                | FCC 15.247, ISED RSS247 -                            |
| Test Method                       |  |
| TC Version                        | 0.0.2  |
| My Description                    | FCC 15.247 Bandwidth 99PCT-20dB DTS - WLAN2G4 b mode |
| Add. Information                  |  |

| EUT Common Settings WLAN2G4 |    |
|-----------------------------|----|
| Number of Antenna Ports     | 2  |
| User Interaction            | No |

| Test Parameter                                   |  |
|--|--|
| Technology to test                               | WLAN2G4 b mode                         |
| Antenna Port used                                | 2                                      |
| Temperature                                      | nom                                    |
| Voltage  | nom                                    |
| Frequency low to test                            | True   Freq [MHz] 2412                 |
| Frequency mid to test                            | False   Freq [MHz] 2437                |
| Frequency high to test                           | False   Freq [MHz] 2462                |
| Auto Control enabled Power Supply   Climatic Box | No   No                                |
| Additional Path Loss [dB]                        | 0.7                                    |
| Switched Path                                    | EUT - SignalingUnit - SpectrumAnalyzer |

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

## Test at TX 2412 MHz

### RESULT: Reference Power cond.

| Test Description              | Lower Limit | Upper Limit | Measured | Unit | Verdict |
|-------------------------------|-------------|-------------|----------|------|---------|
| Ref. Power<br>1MHz/1MHz cond. | ---         | ---         | 12.65    | dBm  | INFO    |
| Ref. Frequency                | ---         | ---         | 2413.200 | MHz  | INFO    |

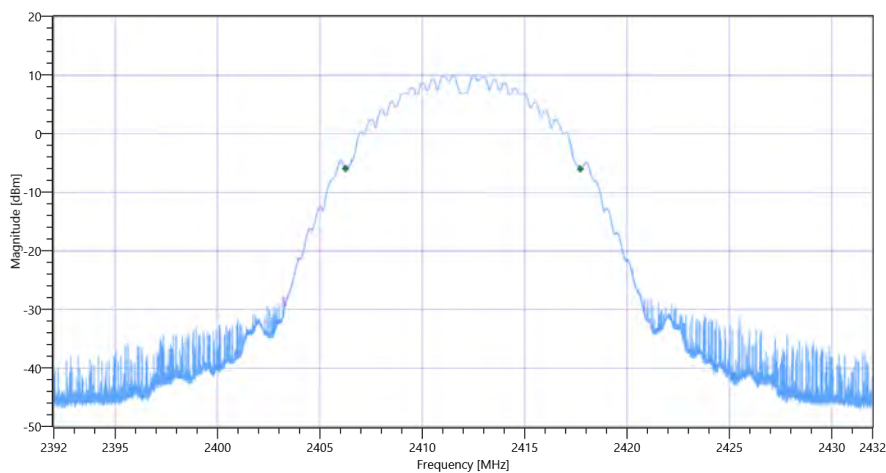
### READ SA SETTINGS:

|  |                        |
|--|------------------------|
| RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]   | 17.65   15.93   20     |
| Start [MHz]   Stop [MHz]                             | 2392.000   2432.000    |
| RBW [MHz]   VBW [MHz]                                | 0.500000   2.000000    |
| Detector   TraceMode                                 | POS   MAXH             |
| Sweep: Time [ms]   Count   Points per Section   Type | 50   200   10001   SWE |

### RESULT

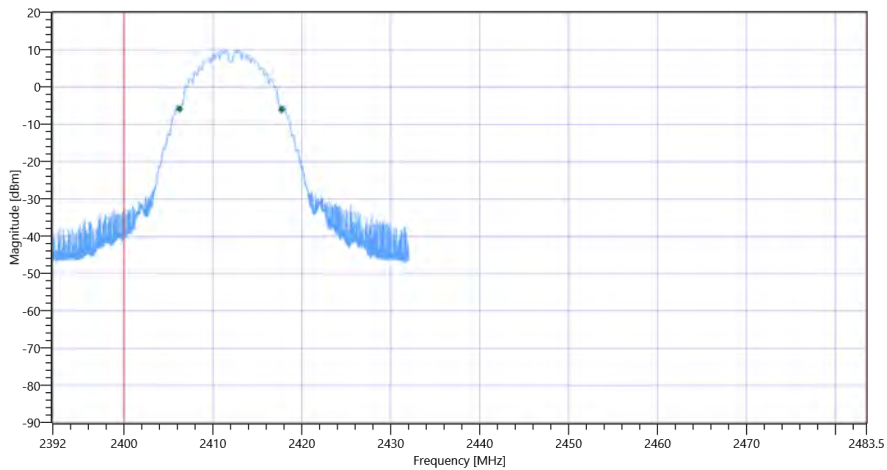
| Test Description | Lower Limit | Upper Limit | Measured  | Unit | Verdict |
|------------------|-------------|-------------|-----------|------|---------|
| Bandwidth 99%    | ---         | ---         | 11470.853 | kHz  | INFO    |
| T1 99%           | 2400.000000 | ---         | 2406.2486 | MHz  | PASS    |
| T2 99%           | ---         | 2483.500000 | 2417.7194 | MHz  | PASS    |

### Plot: Bandwidth only



FCC 15.247, ISED RSS247 # Bandwidth 99PCT and 20dB ~ WLAN2G4 b mode 99PCT

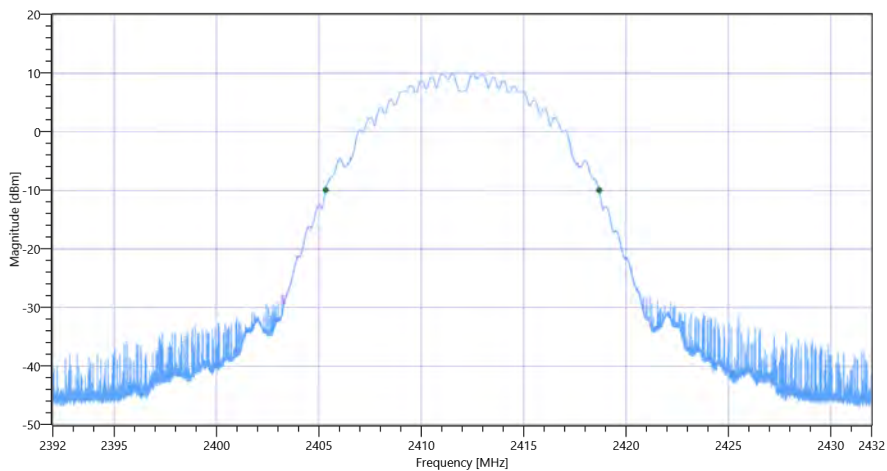
### Plot: Bandwidth within Band



FCC 15.247, ISED RSS247 # Bandwidth 99PCT and 20dB ~ WLAN2G4 b mode

| RESULT           |             |             |           |      |         |
|------------------|-------------|-------------|-----------|------|---------|
| Test Description | Lower Limit | Upper Limit | Measured  | Unit | Verdict |
| Bandwidth 20dB   | ---         | ---         | 13360     | kHz  | INFO    |
| T1 20dB          | 2400.000000 | ---         | 2405.3280 | MHz  | PASS    |
| T2 20dB          | ---         | 2483.500000 | 2418.6880 | MHz  | PASS    |

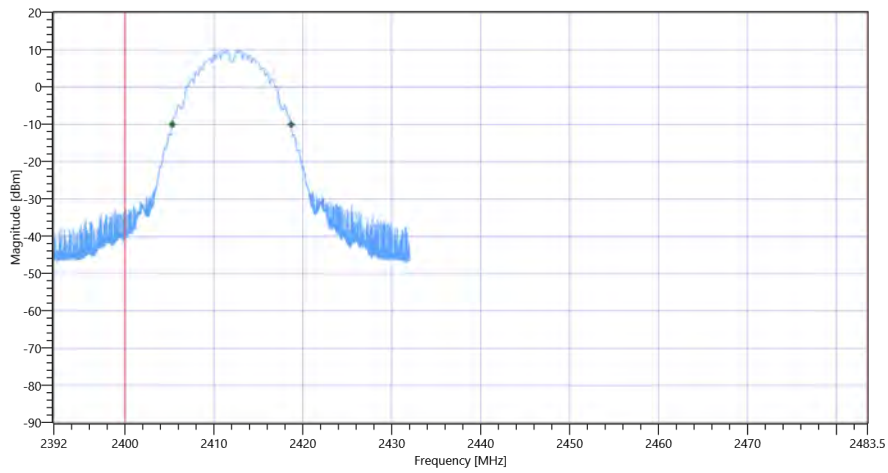
Plot: Bandwidth only



FCC 15.247, ISED RSS247 # Bandwidth 99PCT and 20dB ~ WLAN2G4 b mode 20dB

Plot: Bandwidth within Band





FCC 15.247, ISED RSS247 # Bandwidth 99PCT and 20dB ~ WLAN2G4 b mode

General verdict

PASS

## FCC 15.247, ISED RSS247 # Bandwidth 99PCT and 20dB ~ WLAN2G4 b mode

| Test References                   |  |
|-----------------------------------|--|
| TC Start                          | 06.07.2022 09:21:12                                  |
| Ambit Temp [°C]   Humidity [rel%] | 22.3   40  |
| System Version                    | 3.2.0.2  |
| Test Specification                | FCC 15.247, ISED RSS247 -                            |
| Test Method                       |  |
| TC Version                        | 0.0.2  |
| My Description                    | FCC 15.247 Bandwidth 99PCT-20dB DTS - WLAN2G4 b mode |
| Add. Information                  |  |

| EUT Common Settings WLAN2G4 |    |
|-----------------------------|----|
| Number of Antenna Ports     | 2  |
| User Interaction            | No |

| Test Parameter                                   |  |
|--|--|
| Technology to test                               | WLAN2G4 b mode                         |
| Antenna Port used                                | 2                                      |
| Temperature                                      | nom                                    |
| Voltage  | nom                                    |
| Frequency low to test                            | False   Freq [MHz] 2412                |
| Frequency mid to test                            | True   Freq [MHz] 2437                 |
| Frequency high to test                           | False   Freq [MHz] 2462                |
| Auto Control enabled Power Supply   Climatic Box | No   No                                |
| Additional Path Loss [dB]                        | 0.7                                    |
| Switched Path                                    | EUT - SignalingUnit - SpectrumAnalyzer |

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

## Test at TX 2437 MHz

### RESULT: Reference Power cond.

| Test Description              | Lower Limit | Upper Limit | Measured | Unit | Verdict |
|-------------------------------|-------------|-------------|----------|------|---------|
| Ref. Power<br>1MHz/1MHz cond. | ---         | ---         | 12.55    | dBm  | INFO    |
| Ref. Frequency                | ---         | ---         | 2438.200 | MHz  | INFO    |

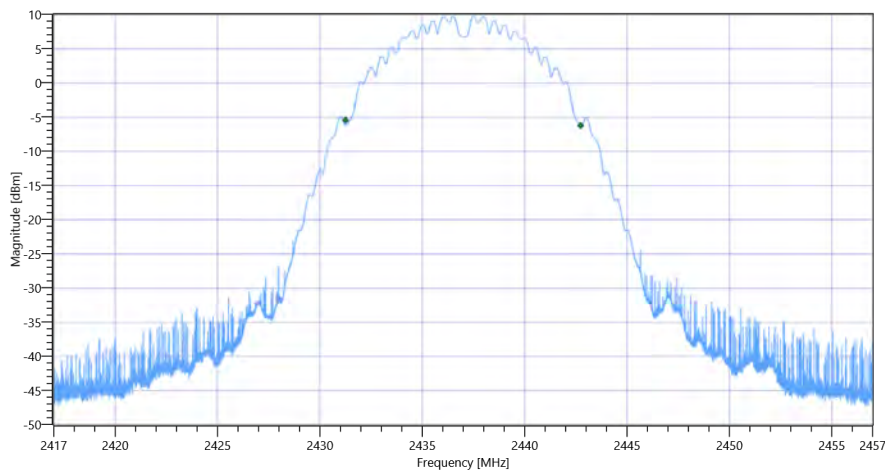
### READ SA SETTINGS:

|  |                        |
|--|------------------------|
| RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]   | 17.55   15.7   20      |
| Start [MHz]   Stop [MHz]                             | 2417.000   2457.000    |
| RBW [MHz]   VBW [MHz]                                | 0.500000   2.000000    |
| Detector   TraceMode                                 | POS   MAXH             |
| Sweep: Time [ms]   Count   Points per Section   Type | 50   200   10001   SWE |

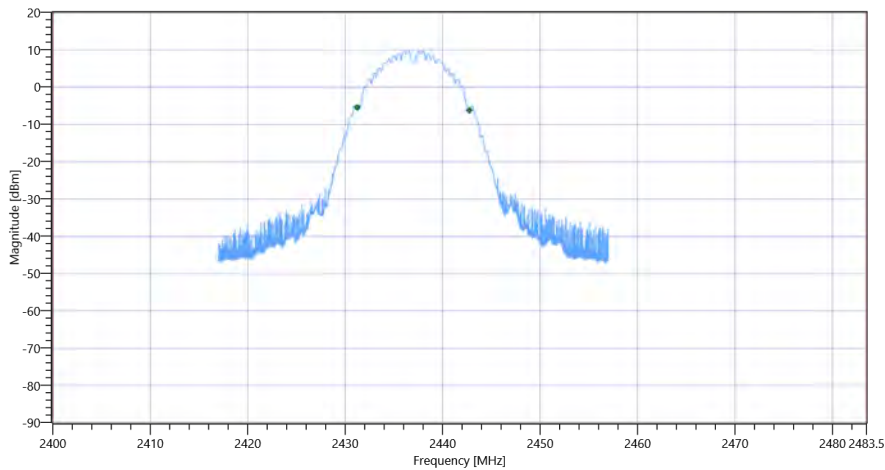
### RESULT

| Test Description | Lower Limit | Upper Limit | Measured  | Unit | Verdict |
|------------------|-------------|-------------|-----------|------|---------|
| Bandwidth 99%    | ---         | ---         | 11478.852 | kHz  | INFO    |
| T1 99%           | 2400.000000 | ---         | 2431.2526 | MHz  | PASS    |
| T2 99%           | ---         | 2483.500000 | 2442.7314 | MHz  | PASS    |

### Plot: Bandwidth only



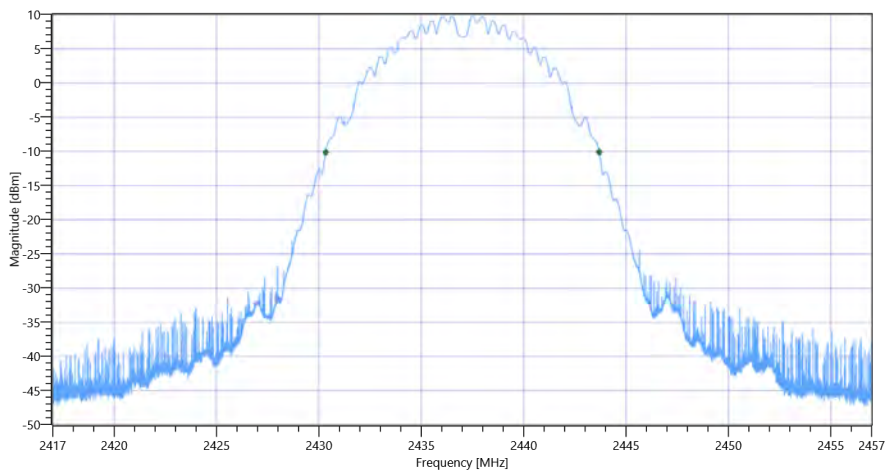
### Plot: Bandwidth within Band



FCC 15.247, ISED RSS247 # Bandwidth 99PCT and 20dB ~ WLAN2G4 b mode

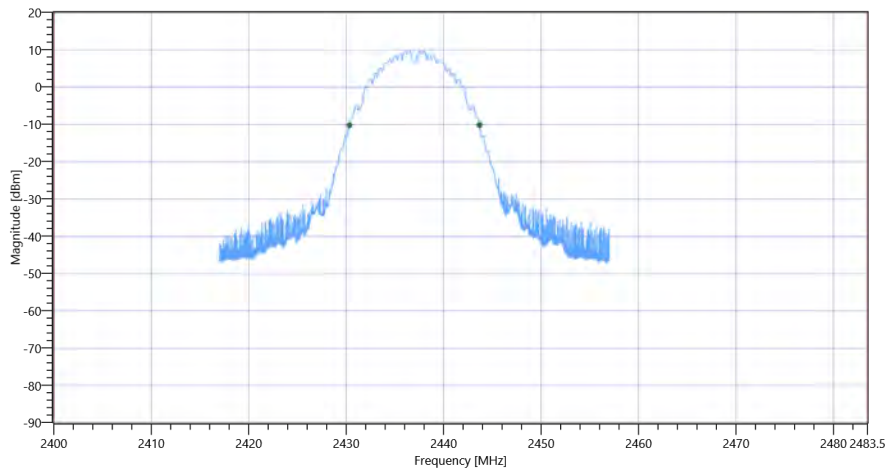
| RESULT           |             |             |           |      |         |
|------------------|-------------|-------------|-----------|------|---------|
| Test Description | Lower Limit | Upper Limit | Measured  | Unit | Verdict |
| Bandwidth 20dB   | ---         | ---         | 13360     | kHz  | INFO    |
| T1 20dB          | 2400.000000 | ---         | 2430.3280 | MHz  | PASS    |
| T2 20dB          | ---         | 2483.500000 | 2443.6880 | MHz  | PASS    |

Plot: Bandwidth only



FCC 15.247, ISED RSS247 # Bandwidth 99PCT and 20dB ~ WLAN2G4 b mode 20dB

Plot: Bandwidth within Band



FCC 15.247, ISED RSS247 # Bandwidth 99PCT and 20dB ~ WLAN2G4 b mode

General verdict

PASS

## FCC 15.247, ISED RSS247 # Bandwidth 99PCT and 20dB ~ WLAN2G4 b mode

| Test References                   |  |
|-----------------------------------|--|
| TC Start                          | 06.07.2022 09:36:05                                  |
| Ambit Temp [°C]   Humidity [rel%] | 22.6   39  |
| System Version                    | 3.2.0.2  |
| Test Specification                | FCC 15.247, ISED RSS247 -                            |
| Test Method                       |  |
| TC Version                        | 0.0.2  |
| My Description                    | FCC 15.247 Bandwidth 99PCT-20dB DTS - WLAN2G4 b mode |
| Add. Information                  |  |

| EUT Common Settings WLAN2G4 |    |
|-----------------------------|----|
| Number of Antenna Ports     | 2  |
| User Interaction            | No |

| Test Parameter                                   |  |
|--|--|
| Technology to test                               | WLAN2G4 b mode                         |
| Antenna Port used                                | 2                                      |
| Temperature                                      | nom                                    |
| Voltage  | nom                                    |
| Frequency low to test                            | False   Freq [MHz] 2412                |
| Frequency mid to test                            | False   Freq [MHz] 2437                |
| Frequency high to test                           | True   Freq [MHz] 2462                 |
| Auto Control enabled Power Supply   Climatic Box | No   No                                |
| Additional Path Loss [dB]                        | 0.7                                    |
| Switched Path                                    | EUT - SignalingUnit - SpectrumAnalyzer |

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

## Test at TX 2462 MHz

### RESULT: Reference Power cond.

| Test Description              | Lower Limit | Upper Limit | Measured | Unit | Verdict |
|-------------------------------|-------------|-------------|----------|------|---------|
| Ref. Power<br>1MHz/1MHz cond. | ---         | ---         | 12.40    | dBm  | INFO    |
| Ref. Frequency                | ---         | ---         | 2460.800 | MHz  | INFO    |

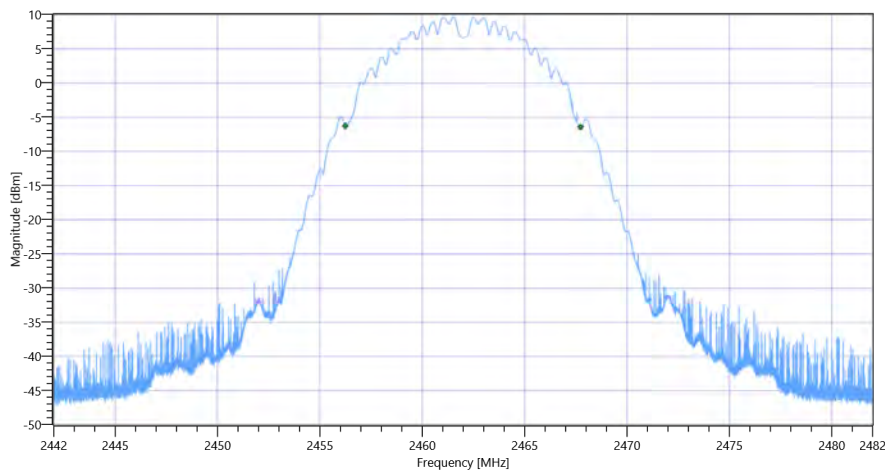
### READ SA SETTINGS:

|  |                        |
|--|------------------------|
| RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]   | 17.40   15.54   20     |
| Start [MHz]   Stop [MHz]                             | 2442.000   2482.000    |
| RBW [MHz]   VBW [MHz]                                | 0.500000   2.000000    |
| Detector   TraceMode                                 | POS   MAXH             |
| Sweep: Time [ms]   Count   Points per Section   Type | 50   200   10001   SWE |

### RESULT

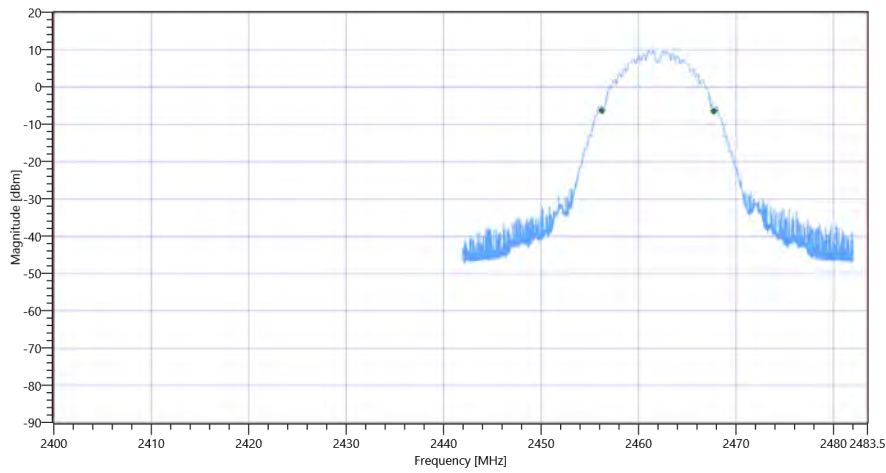
| Test Description | Lower Limit | Upper Limit | Measured  | Unit | Verdict |
|------------------|-------------|-------------|-----------|------|---------|
| Bandwidth 99%    | ---         | ---         | 11490.851 | kHz  | INFO    |
| T1 99%           | 2400.000000 | ---         | 2456.2366 | MHz  | PASS    |
| T2 99%           | ---         | 2483.500000 | 2467.7274 | MHz  | PASS    |

### Plot: Bandwidth only



FCC 15.247, ISSED RSS247 # Bandwidth 99PCT and 20dB ~ WLAN2G4 b mode 99PCT

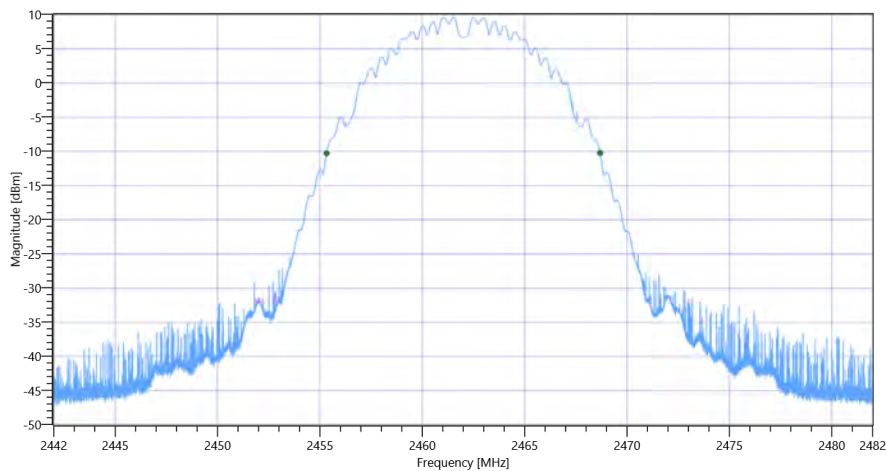
### Plot: Bandwidth within Band



FCC 15.247, ISED RSS247 # Bandwidth 99PCT and 20dB ~ WLAN2G4 b mode

| RESULT           |             |             |           |      |         |
|------------------|-------------|-------------|-----------|------|---------|
| Test Description | Lower Limit | Upper Limit | Measured  | Unit | Verdict |
| Bandwidth 20dB   | ---         | ---         | 13368     | kHz  | INFO    |
| T1 20dB          | 2400.000000 | ---         | 2455.3200 | MHz  | PASS    |
| T2 20dB          | ---         | 2483.500000 | 2468.6880 | MHz  | PASS    |

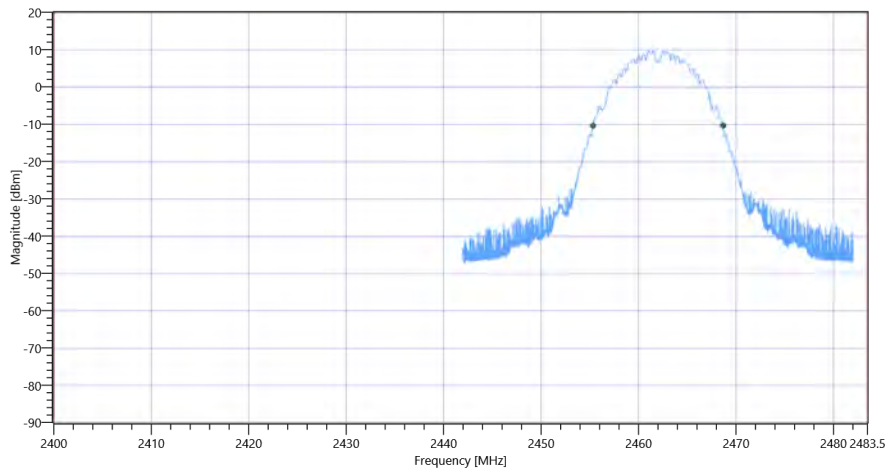
Plot: Bandwidth only



FCC 15.247, ISED RSS247 # Bandwidth 99PCT and 20dB ~ WLAN2G4 b mode 20dB

Plot: Bandwidth within Band





FCC 15.247, ISED RSS247 # Bandwidth 99PCT and 20dB ~ WLAN2G4 b mode

General verdict

PASS

## FCC 15.247 # Maximum avg conducted output power SA DTS ~ WLAN2G4 b mode

| Test References                   |   |
|-----------------------------------|---|
| TC Start                          | 06.07.2022 08:21:41   |
| Ambit Temp [°C]   Humidity [rel%] | 20.2   46   |
| System Version                    | 3.2.0.2   |
| Test Specification                | FCC 15.247 -  |
| Test Method                       | ANSI C63.10-2013 Chapter 11.9.2.2.2 or .4                         |
| TC Version                        | 0.0.1   |
| My Description                    | FCC 15.247 Max Avg Output Power Conducted SA DTS - WLAN2G4 b mode |
| Add. Information                  |   |

| EUT Common Settings WLAN2G4 |    |
|-----------------------------|----|
| Number of Antenna Ports     | 2  |
| User Interaction            | No |

| Test Parameter                                   |  |
|--|--|
| Technology to test                               | WLAN2G4 b mode                         |
| Antenna Port used                                | 1                                      |
| Temperature                                      | nom                                    |
| Voltage  | nom                                    |
| Frequency low to test                            | True   Freq [MHz] 2412                 |
| Frequency mid to test                            | False   Freq [MHz] 2437                |
| Frequency high to test                           | False   Freq [MHz] 2462                |
| Auto Control enabled Power Supply   Climatic Box | No   No                                |
| Additional Path Loss [dB]                        | 0.7                                    |
| Switched Path                                    | EUT - SignalingUnit - SpectrumAnalyzer |

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

## Test at TX 2412 MHz

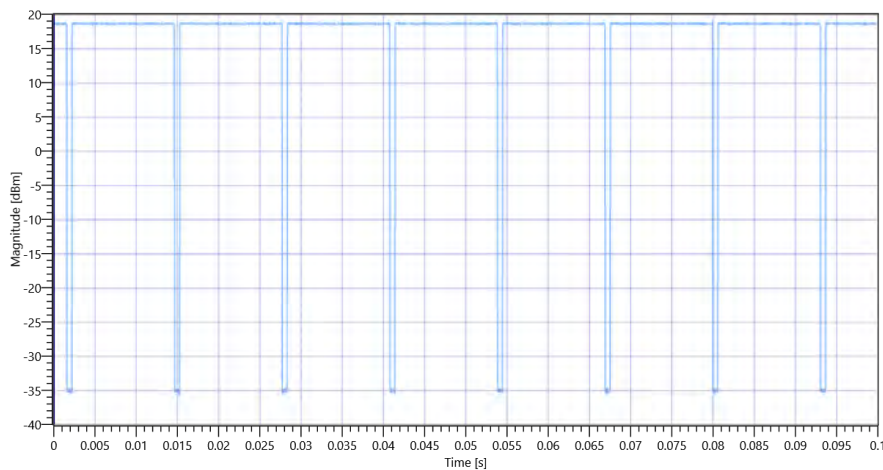
### RESULT: Reference Power cond.

| Test Description              | Lower Limit | Upper Limit | Measured | Unit | Verdict |
|-------------------------------|-------------|-------------|----------|------|---------|
| Ref. Power<br>1MHz/1MHz cond. | ---         | ---         | 14.68    | dBm  | INFO    |
| Ref. Frequency                | ---         | ---         | 2413.200 | MHz  | INFO    |

## Evaluation max. Duty Cycle

### Duty Cycle evaluation

| Test Description             | Lower Limit | Upper Limit | Measured | Unit | Verdict |
|------------------------------|-------------|-------------|----------|------|---------|
| <b>Result Summary</b>        |             |             |          |      |         |
| Number of detected Bursts:7  |             |             |          |      |         |
| Duty Cycle (Burst Ratio) max | ---         | ---         | 0.948    | ---  | INFO    |
| Duty Cycle max               | ---         | ---         | 0.232    | dB   | INFO    |
| Duty Cycle (Burst Ratio) min | ---         | ---         | 0.948    | ---  | INFO    |
| Duty Cycle min               | ---         | ---         | 0.232    | dB   | INFO    |
| Max TX Burst Length          | ---         | ---         | 12.4     | ms   | INFO    |
| Min Gap Length               | ---         | ---         | 0.675    | ms   | INFO    |
| Max Gap Length               | ---         | ---         | 0.675    | ms   | INFO    |



FCC 15.247 # Maximum avg conducted output power SA DTS ~ WLAN2G4 b mode 2412 MHz - DutyCycle

## Maximum Avg. Output Power

### READ SA SETTINGS:

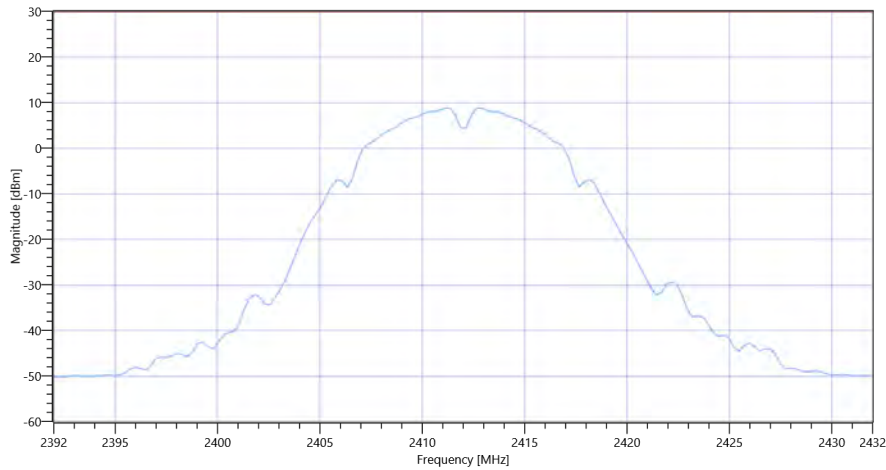
|  |                       |
|--|-----------------------|
| RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]   | 24.68   15.93   25    |
| Start [MHz]   Stop [MHz]                             | 2392.000   2432.000   |
| RBW [MHz]   VBW [MHz]                                | 0.500000   2.000000   |
| Detector   TraceMode                                 | RMS   AVER            |
| Sweep: Time [ms]   Count   Points per Section   Type | 500   100   160   SWE |

### RESULT (Channel Power method)

| Test Description | Lower Limit | Upper Limit | Measured | Unit | Verdict |
|------------------|-------------|-------------|----------|------|---------|
|------------------|-------------|-------------|----------|------|---------|

**RESULT (Channel Power method)**

| Test Description              | Lower Limit | Upper Limit | Measured | Unit | Verdict |
|-------------------------------|-------------|-------------|----------|------|---------|
| Avg Output Power uncorrected  | ---         | ---         | 19.01    | dBm  | INFO    |
| Duty Cycle Correction         | ---         | ---         | 0.23     | dB   | INFO    |
| Avg Output Power DC corrected | ---         | 30          | 19.24    | dBm  | PASS    |



FCC 15.247 # Maximum avg conducted output power SA DTS ~ WLAN2G4 b mode

General verdict

PASS

## FCC 15.247 # Maximum avg conducted output power SA DTS ~ WLAN2G4 b mode

| Test References                   |   |
|-----------------------------------|---|
| TC Start                          | 06.07.2022 08:37:41   |
| Ambit Temp [°C]   Humidity [rel%] | 20.8   45   |
| System Version                    | 3.2.0.2   |
| Test Specification                | FCC 15.247 -  |
| Test Method                       | ANSI C63.10-2013 Chapter 11.9.2.2.2 or .4                         |
| TC Version                        | 0.0.1   |
| My Description                    | FCC 15.247 Max Avg Output Power Conducted SA DTS - WLAN2G4 b mode |
| Add. Information                  |   |

| EUT Common Settings WLAN2G4 |    |
|-----------------------------|----|
| Number of Antenna Ports     | 2  |
| User Interaction            | No |

| Test Parameter                                   |  |
|--|--|
| Technology to test                               | WLAN2G4 b mode                         |
| Antenna Port used                                | 1                                      |
| Temperature                                      | nom                                    |
| Voltage  | nom                                    |
| Frequency low to test                            | False   Freq [MHz] 2412                |
| Frequency mid to test                            | True   Freq [MHz] 2437                 |
| Frequency high to test                           | False   Freq [MHz] 2462                |
| Auto Control enabled Power Supply   Climatic Box | No   No                                |
| Additional Path Loss [dB]                        | 0.7                                    |
| Switched Path                                    | EUT - SignalingUnit - SpectrumAnalyzer |

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

## Test at TX 2437 MHz

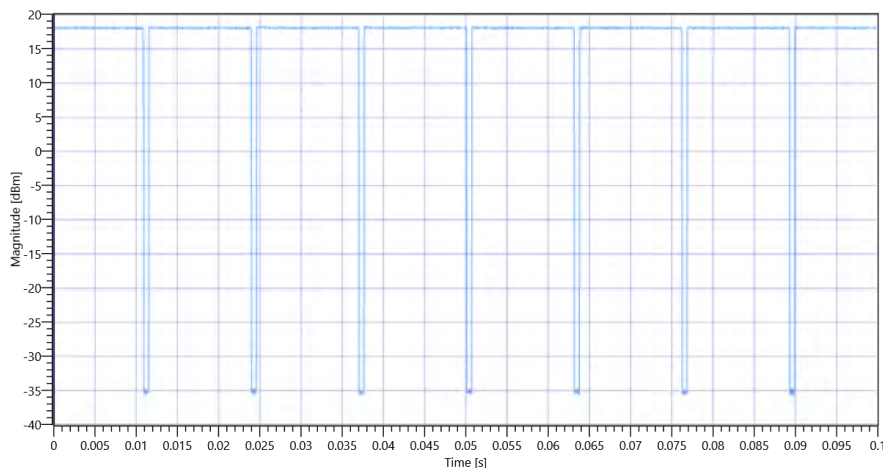
### RESULT: Reference Power cond.

| Test Description              | Lower Limit | Upper Limit | Measured | Unit | Verdict |
|-------------------------------|-------------|-------------|----------|------|---------|
| Ref. Power<br>1MHz/1MHz cond. | ---         | ---         | 14.09    | dBm  | INFO    |
| Ref. Frequency                | ---         | ---         | 2438.200 | MHz  | INFO    |

## Evaluation max. Duty Cycle

### Duty Cycle evaluation

| Test Description             | Lower Limit | Upper Limit | Measured | Unit | Verdict |
|------------------------------|-------------|-------------|----------|------|---------|
| Result Summary               |             |             |          |      |         |
| Number of detected Bursts:6  |             |             |          |      |         |
| Duty Cycle (Burst Ratio) max | ---         | ---         | 0.948    | ---  | INFO    |
| Duty Cycle max               | ---         | ---         | 0.232    | dB   | INFO    |
| Duty Cycle (Burst Ratio) min | ---         | ---         | 0.946    | ---  | INFO    |
| Duty Cycle min               | ---         | ---         | 0.241    | dB   | INFO    |
| Max TX Burst Length          | ---         | ---         | 12.4     | ms   | INFO    |
| Min Gap Length               | ---         | ---         | 0.675    | ms   | INFO    |
| Max Gap Length               | ---         | ---         | 0.7      | ms   | INFO    |



FCC 15.247 # Maximum avg conducted output power SA DTS ~ WLAN2G4 b mode 2437 MHz - DutyCycle

## Maximum Avg. Output Power

### READ SA SETTINGS:

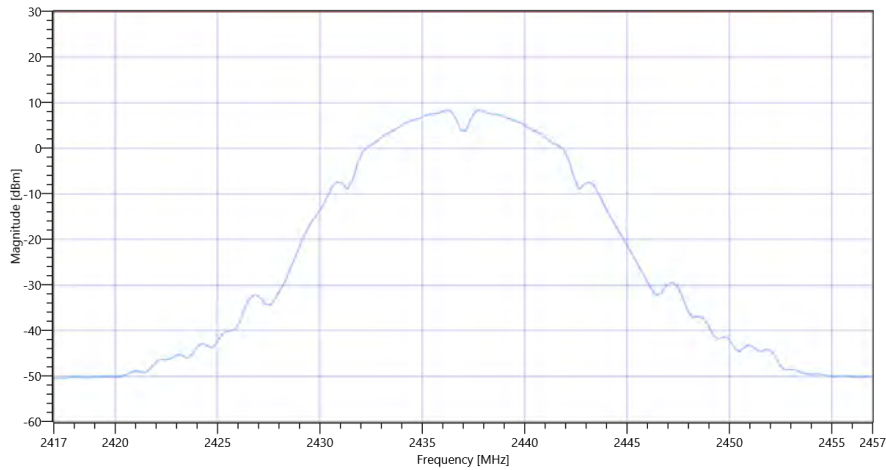
|  |                       |
|--|-----------------------|
| RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]   | 24.09   15.7   25     |
| Start [MHz]   Stop [MHz]                             | 2417.000   2457.000   |
| RBW [MHz]   VBW [MHz]                                | 0.500000   2.000000   |
| Detector   TraceMode                                 | RMS   AVER            |
| Sweep: Time [ms]   Count   Points per Section   Type | 500   100   160   SWE |

### RESULT (Channel Power method)

| Test Description | Lower Limit | Upper Limit | Measured | Unit | Verdict |
|------------------|-------------|-------------|----------|------|---------|
|------------------|-------------|-------------|----------|------|---------|

**RESULT (Channel Power method)**

| Test Description              | Lower Limit | Upper Limit | Measured | Unit | Verdict |
|-------------------------------|-------------|-------------|----------|------|---------|
| Avg Output Power uncorrected  | ---         | ---         | 18.49    | dBm  | INFO    |
| Duty Cycle Correction         | ---         | ---         | 0.24     | dB   | INFO    |
| Avg Output Power DC corrected | ---         | 30          | 18.73    | dBm  | PASS    |



FCC 15.247 # Maximum avg conducted output power SA DTS ~ WLAN2G4 b mode

General verdict

PASS

## FCC 15.247 # Maximum avg conducted output power SA DTS ~ WLAN2G4 b mode

| Test References                   |   |
|-----------------------------------|---|
| TC Start                          | 06.07.2022 08:59:37   |
| Ambit Temp [°C]   Humidity [rel%] | 21.6   43   |
| System Version                    | 3.2.0.2   |
| Test Specification                | FCC 15.247 -  |
| Test Method                       | ANSI C63.10-2013 Chapter 11.9.2.2.2 or .4                         |
| TC Version                        | 0.0.1   |
| My Description                    | FCC 15.247 Max Avg Output Power Conducted SA DTS - WLAN2G4 b mode |
| Add. Information                  |   |

| EUT Common Settings WLAN2G4 |    |
|-----------------------------|----|
| Number of Antenna Ports     | 2  |
| User Interaction            | No |

| Test Parameter                                   |  |
|--|--|
| Technology to test                               | WLAN2G4 b mode                         |
| Antenna Port used                                | 1                                      |
| Temperature                                      | nom                                    |
| Voltage  | nom                                    |
| Frequency low to test                            | False   Freq [MHz] 2412                |
| Frequency mid to test                            | False   Freq [MHz] 2437                |
| Frequency high to test                           | True   Freq [MHz] 2462                 |
| Auto Control enabled Power Supply   Climatic Box | No   No                                |
| Additional Path Loss [dB]                        | 0.7                                    |
| Switched Path                                    | EUT - SignalingUnit - SpectrumAnalyzer |

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



## Test at TX 2462 MHz

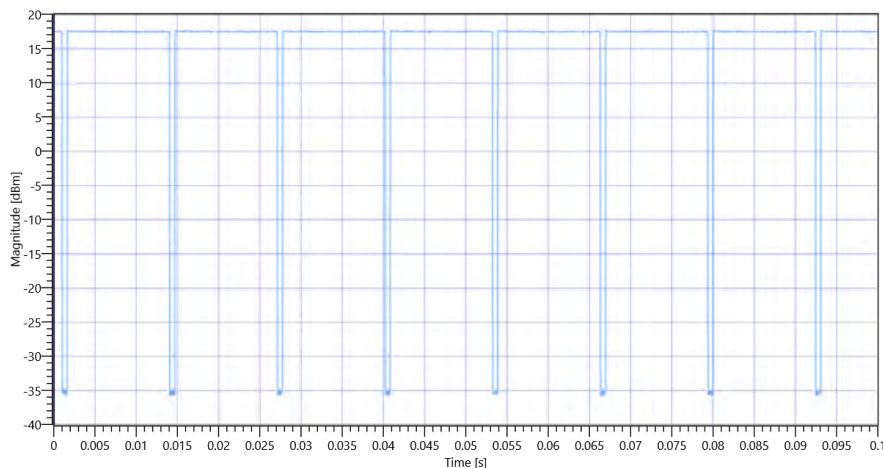
### RESULT: Reference Power cond.

| Test Description              | Lower Limit | Upper Limit | Measured | Unit | Verdict |
|-------------------------------|-------------|-------------|----------|------|---------|
| Ref. Power<br>1MHz/1MHz cond. | ---         | ---         | 13.64    | dBm  | INFO    |
| Ref. Frequency                | ---         | ---         | 2460.900 | MHz  | INFO    |

## Evaluation max. Duty Cycle

### Duty Cycle evaluation

| Test Description             | Lower Limit | Upper Limit | Measured | Unit | Verdict |
|------------------------------|-------------|-------------|----------|------|---------|
| <b>Result Summary</b>        |             |             |          |      |         |
| Number of detected Bursts:7  |             |             |          |      |         |
| Duty Cycle (Burst Ratio) max | ---         | ---         | 0.948    | ---  | INFO    |
| Duty Cycle max               | ---         | ---         | 0.232    | dB   | INFO    |
| Duty Cycle (Burst Ratio) min | ---         | ---         | 0.946    | ---  | INFO    |
| Duty Cycle min               | ---         | ---         | 0.241    | dB   | INFO    |
| Max TX Burst Length          | ---         | ---         | 12.4     | ms   | INFO    |
| Min Gap Length               | ---         | ---         | 0.675    | ms   | INFO    |
| Max Gap Length               | ---         | ---         | 0.7      | ms   | INFO    |



FCC 15.247 # Maximum avg conducted output power SA DTS ~ WLAN2G4 b mode 2462 MHz - DutyCycle

## Maximum Avg. Output Power

### READ SA SETTINGS:

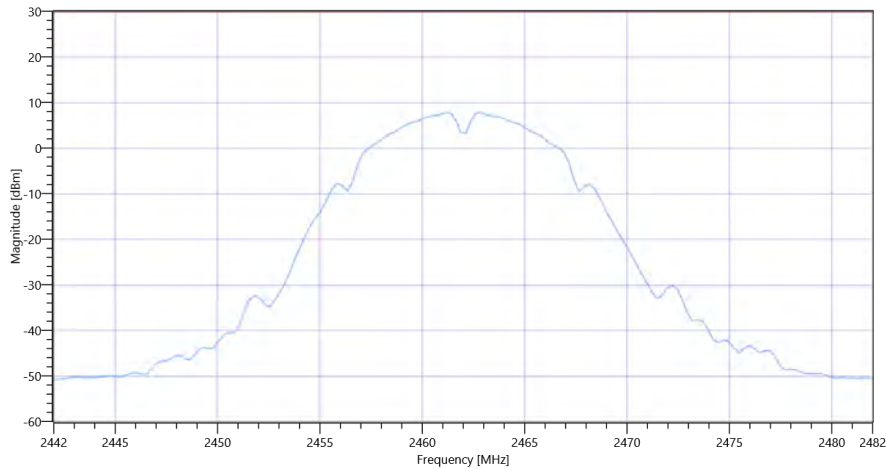
|  |                       |
|--|-----------------------|
| RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]   | 23.64   15.54   25    |
| Start [MHz]   Stop [MHz]                             | 2442.000   2482.000   |
| RBW [MHz]   VBW [MHz]                                | 0.500000   2.000000   |
| Detector   TraceMode                                 | RMS   AVER            |
| Sweep: Time [ms]   Count   Points per Section   Type | 500   100   160   SWE |

### RESULT (Channel Power method)

| Test Description | Lower Limit | Upper Limit | Measured | Unit | Verdict |
|------------------|-------------|-------------|----------|------|---------|
|------------------|-------------|-------------|----------|------|---------|

**RESULT (Channel Power method)**

| Test Description              | Lower Limit | Upper Limit | Measured | Unit | Verdict |
|-------------------------------|-------------|-------------|----------|------|---------|
| Avg Output Power uncorrected  | ---         | ---         | 18.04    | dBm  | INFO    |
| Duty Cycle Correction         | ---         | ---         | 0.24     | dB   | INFO    |
| Avg Output Power DC corrected | ---         | 30          | 18.28    | dBm  | PASS    |



FCC 15.247 # Maximum avg conducted output power SA DTS ~ WLAN2G4 b mode

General verdict

**PASS**

## FCC 15.247 # Maximum avg conducted output power SA DTS ~ WLAN2G4 b mode

| Test References                   |   |
|-----------------------------------|---|
| TC Start                          | 06.07.2022 09:16:25   |
| Ambit Temp [°C]   Humidity [rel%] | 22.2   41   |
| System Version                    | 3.2.0.2   |
| Test Specification                | FCC 15.247 -  |
| Test Method                       | ANSI C63.10-2013 Chapter 11.9.2.2.2 or .4                         |
| TC Version                        | 0.0.1   |
| My Description                    | FCC 15.247 Max Avg Output Power Conducted SA DTS - WLAN2G4 b mode |
| Add. Information                  |   |

| EUT Common Settings WLAN2G4 |    |
|-----------------------------|----|
| Number of Antenna Ports     | 2  |
| User Interaction            | No |

| Test Parameter                                   |  |
|--|--|
| Technology to test                               | WLAN2G4 b mode                         |
| Antenna Port used                                | 2                                      |
| Temperature                                      | nom                                    |
| Voltage  | nom                                    |
| Frequency low to test                            | True   Freq [MHz] 2412                 |
| Frequency mid to test                            | False   Freq [MHz] 2437                |
| Frequency high to test                           | False   Freq [MHz] 2462                |
| Auto Control enabled Power Supply   Climatic Box | No   No                                |
| Additional Path Loss [dB]                        | 0.7                                    |
| Switched Path                                    | EUT - SignalingUnit - SpectrumAnalyzer |

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

## Test at TX 2412 MHz

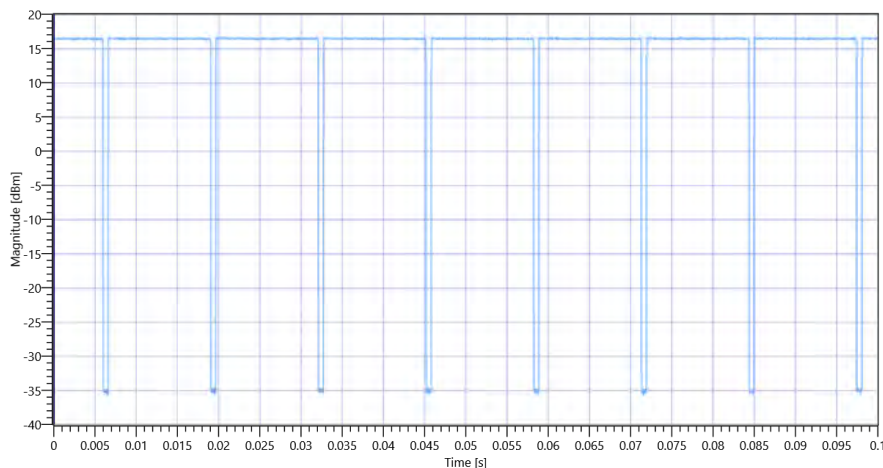
### RESULT: Reference Power cond.

| Test Description              | Lower Limit | Upper Limit | Measured | Unit | Verdict |
|-------------------------------|-------------|-------------|----------|------|---------|
| Ref. Power<br>1MHz/1MHz cond. | ---         | ---         | 12.69    | dBm  | INFO    |
| Ref. Frequency                | ---         | ---         | 2413.200 | MHz  | INFO    |

## Evaluation max. Duty Cycle

### Duty Cycle evaluation

| Test Description             | Lower Limit | Upper Limit | Measured | Unit | Verdict |
|------------------------------|-------------|-------------|----------|------|---------|
| <b>Result Summary</b>        |             |             |          |      |         |
| Number of detected Bursts:7  |             |             |          |      |         |
| Duty Cycle (Burst Ratio) max | ---         | ---         | 0.948    | ---  | INFO    |
| Duty Cycle max               | ---         | ---         | 0.232    | dB   | INFO    |
| Duty Cycle (Burst Ratio) min | ---         | ---         | 0.948    | ---  | INFO    |
| Duty Cycle min               | ---         | ---         | 0.232    | dB   | INFO    |
| Max TX Burst Length          | ---         | ---         | 12.4     | ms   | INFO    |
| Min Gap Length               | ---         | ---         | 0.675    | ms   | INFO    |
| Max Gap Length               | ---         | ---         | 0.675    | ms   | INFO    |



FCC 15.247 # Maximum avg conducted output power SA DTS ~ WLAN2G4 b mode 2412 MHz - DutyCycle

## Maximum Avg. Output Power

### READ SA SETTINGS:

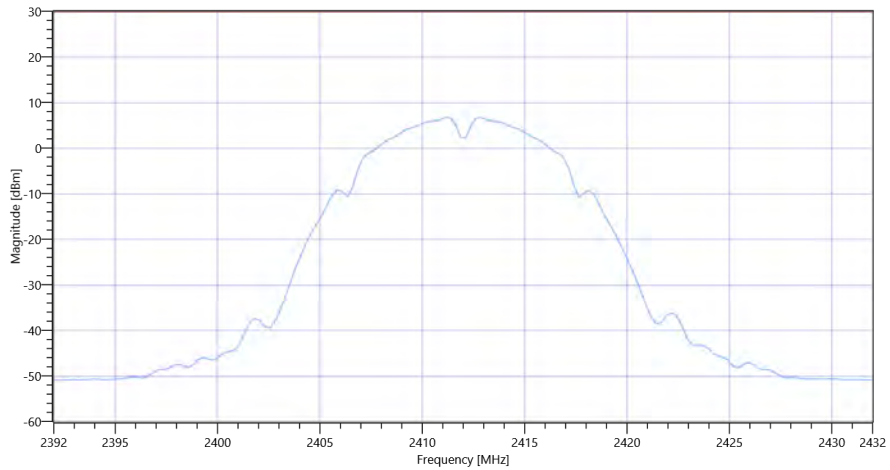
|  |                       |
|--|-----------------------|
| RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]   | 22.69   15.93   25    |
| Start [MHz]   Stop [MHz]                             | 2392.000   2432.000   |
| RBW [MHz]   VBW [MHz]                                | 0.500000   2.000000   |
| Detector   TraceMode                                 | RMS   AVER            |
| Sweep: Time [ms]   Count   Points per Section   Type | 500   100   160   SWE |

### RESULT (Channel Power method)

| Test Description | Lower Limit | Upper Limit | Measured | Unit | Verdict |
|------------------|-------------|-------------|----------|------|---------|
|------------------|-------------|-------------|----------|------|---------|

**RESULT (Channel Power method)**

| Test Description              | Lower Limit | Upper Limit | Measured | Unit | Verdict |
|-------------------------------|-------------|-------------|----------|------|---------|
| Avg Output Power uncorrected  | ---         | ---         | 16.94    | dBm  | INFO    |
| Duty Cycle Correction         | ---         | ---         | 0.23     | dB   | INFO    |
| Avg Output Power DC corrected | ---         | 30          | 17.17    | dBm  | PASS    |



FCC 15.247 # Maximum avg conducted output power SA DTS ~ WLAN2G4 b mode

General verdict

**PASS**

## FCC 15.247 # Maximum avg conducted output power SA DTS ~ WLAN2G4 b mode

| Test References                   |   |
|-----------------------------------|---|
| TC Start                          | 06.07.2022 09:30:56   |
| Ambit Temp [°C]   Humidity [rel%] | 22.5   40   |
| System Version                    | 3.2.0.2   |
| Test Specification                | FCC 15.247 -  |
| Test Method                       | ANSI C63.10-2013 Chapter 11.9.2.2.2 or .4                         |
| TC Version                        | 0.0.1   |
| My Description                    | FCC 15.247 Max Avg Output Power Conducted SA DTS - WLAN2G4 b mode |
| Add. Information                  |   |

| EUT Common Settings WLAN2G4 |    |
|-----------------------------|----|
| Number of Antenna Ports     | 2  |
| User Interaction            | No |

| Test Parameter                                   |  |
|--|--|
| Technology to test                               | WLAN2G4 b mode                         |
| Antenna Port used                                | 2                                      |
| Temperature                                      | nom                                    |
| Voltage  | nom                                    |
| Frequency low to test                            | False   Freq [MHz] 2412                |
| Frequency mid to test                            | True   Freq [MHz] 2437                 |
| Frequency high to test                           | False   Freq [MHz] 2462                |
| Auto Control enabled Power Supply   Climatic Box | No   No                                |
| Additional Path Loss [dB]                        | 0.7                                    |
| Switched Path                                    | EUT - SignalingUnit - SpectrumAnalyzer |

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

## Test at TX 2437 MHz

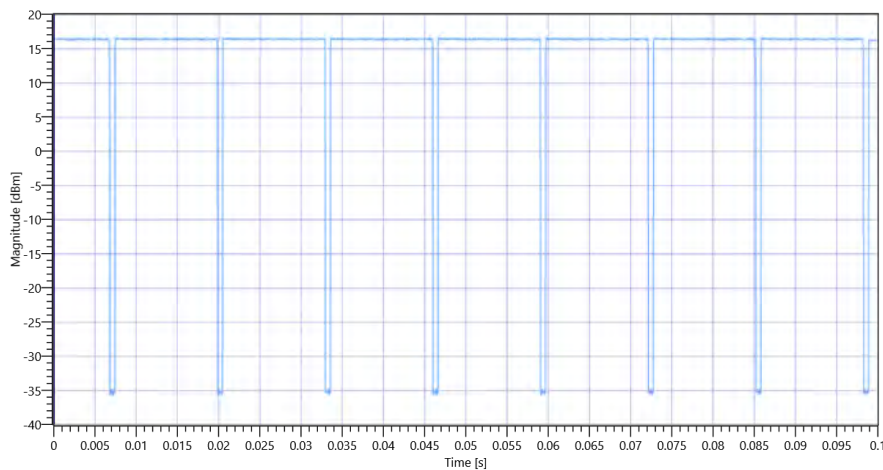
### RESULT: Reference Power cond.

| Test Description              | Lower Limit | Upper Limit | Measured | Unit | Verdict |
|-------------------------------|-------------|-------------|----------|------|---------|
| Ref. Power<br>1MHz/1MHz cond. | ---         | ---         | 12.48    | dBm  | INFO    |
| Ref. Frequency                | ---         | ---         | 2438.200 | MHz  | INFO    |

## Evaluation max. Duty Cycle

### Duty Cycle evaluation

| Test Description             | Lower Limit | Upper Limit | Measured | Unit | Verdict |
|------------------------------|-------------|-------------|----------|------|---------|
| <b>Result Summary</b>        |             |             |          |      |         |
| Number of detected Bursts:7  |             |             |          |      |         |
| Duty Cycle (Burst Ratio) max | ---         | ---         | 0.948    | ---  | INFO    |
| Duty Cycle max               | ---         | ---         | 0.232    | dB   | INFO    |
| Duty Cycle (Burst Ratio) min | ---         | ---         | 0.948    | ---  | INFO    |
| Duty Cycle min               | ---         | ---         | 0.232    | dB   | INFO    |
| Max TX Burst Length          | ---         | ---         | 12.4     | ms   | INFO    |
| Min Gap Length               | ---         | ---         | 0.675    | ms   | INFO    |
| Max Gap Length               | ---         | ---         | 0.675    | ms   | INFO    |



FCC 15.247 # Maximum avg conducted output power SA DTS ~ WLAN2G4 b mode 2437 MHz - DutyCycle

## Maximum Avg. Output Power

### READ SA SETTINGS:

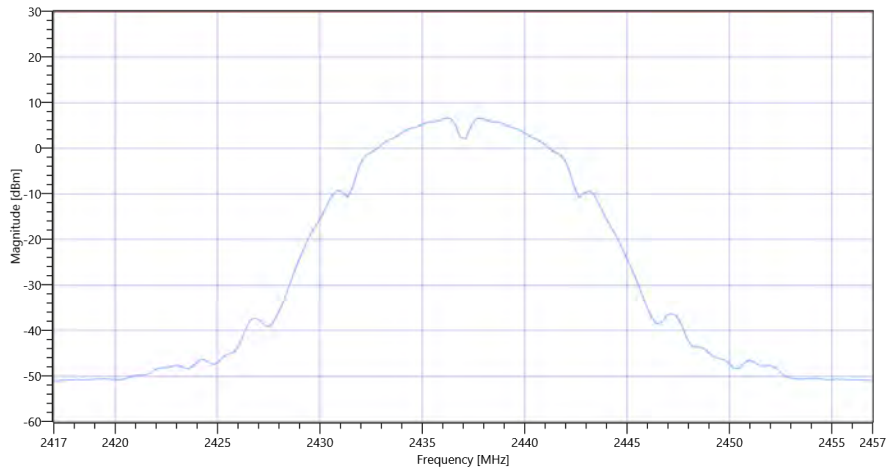
|  |                       |
|--|-----------------------|
| RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]   | 22.48   15.7   25     |
| Start [MHz]   Stop [MHz]                             | 2417.000   2457.000   |
| RBW [MHz]   VBW [MHz]                                | 0.500000   2.000000   |
| Detector   TraceMode                                 | RMS   AVER            |
| Sweep: Time [ms]   Count   Points per Section   Type | 500   100   160   SWE |

### RESULT (Channel Power method)

| Test Description | Lower Limit | Upper Limit | Measured | Unit | Verdict |
|------------------|-------------|-------------|----------|------|---------|
|------------------|-------------|-------------|----------|------|---------|

**RESULT (Channel Power method)**

| Test Description              | Lower Limit | Upper Limit | Measured | Unit | Verdict |
|-------------------------------|-------------|-------------|----------|------|---------|
| Avg Output Power uncorrected  | ---         | ---         | 16.82    | dBm  | INFO    |
| Duty Cycle Correction         | ---         | ---         | 0.23     | dB   | INFO    |
| Avg Output Power DC corrected | ---         | 30          | 17.05    | dBm  | PASS    |



FCC 15.247 # Maximum avg conducted output power SA DTS ~ WLAN2G4 b mode

General verdict

PASS



## FCC 15.247 # Maximum avg conducted output power SA DTS ~ WLAN2G4 b mode

| Test References                   |   |
|-----------------------------------|---|
| TC Start                          | 06.07.2022 09:45:47   |
| Ambit Temp [°C]   Humidity [rel%] | 22.9   39   |
| System Version                    | 3.2.0.2   |
| Test Specification                | FCC 15.247 -  |
| Test Method                       | ANSI C63.10-2013 Chapter 11.9.2.2.2 or .4                         |
| TC Version                        | 0.0.1   |
| My Description                    | FCC 15.247 Max Avg Output Power Conducted SA DTS - WLAN2G4 b mode |
| Add. Information                  |   |

| EUT Common Settings WLAN2G4 |    |
|-----------------------------|----|
| Number of Antenna Ports     | 2  |
| User Interaction            | No |

| Test Parameter                                   |  |
|--|--|
| Technology to test                               | WLAN2G4 b mode                         |
| Antenna Port used                                | 2                                      |
| Temperature                                      | nom                                    |
| Voltage  | nom                                    |
| Frequency low to test                            | False   Freq [MHz] 2412                |
| Frequency mid to test                            | False   Freq [MHz] 2437                |
| Frequency high to test                           | True   Freq [MHz] 2462                 |
| Auto Control enabled Power Supply   Climatic Box | No   No                                |
| Additional Path Loss [dB]                        | 0.7                                    |
| Switched Path                                    | EUT - SignalingUnit - SpectrumAnalyzer |

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

## Test at TX 2462 MHz

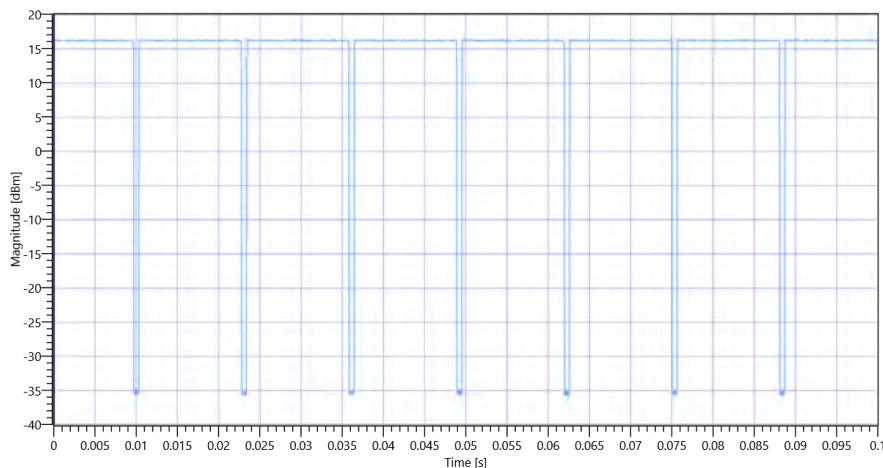
### RESULT: Reference Power cond.

| Test Description              | Lower Limit | Upper Limit | Measured | Unit | Verdict |
|-------------------------------|-------------|-------------|----------|------|---------|
| Ref. Power<br>1MHz/1MHz cond. | ---         | ---         | 12.28    | dBm  | INFO    |
| Ref. Frequency                | ---         | ---         | 2460.900 | MHz  | INFO    |

## Evaluation max. Duty Cycle

### Duty Cycle evaluation

| Test Description             | Lower Limit | Upper Limit | Measured | Unit | Verdict |
|------------------------------|-------------|-------------|----------|------|---------|
| Result Summary               |             |             |          |      |         |
| Number of detected Bursts:6  |             |             |          |      |         |
| Duty Cycle (Burst Ratio) max | ---         | ---         | 0.948    | ---  | INFO    |
| Duty Cycle max               | ---         | ---         | 0.232    | dB   | INFO    |
| Duty Cycle (Burst Ratio) min | ---         | ---         | 0.948    | ---  | INFO    |
| Duty Cycle min               | ---         | ---         | 0.232    | dB   | INFO    |
| Max TX Burst Length          | ---         | ---         | 12.4     | ms   | INFO    |
| Min Gap Length               | ---         | ---         | 0.675    | ms   | INFO    |
| Max Gap Length               | ---         | ---         | 0.675    | ms   | INFO    |



FCC 15.247 # Maximum avg conducted output power SA DTS ~ WLAN2G4 b mode 2462 MHz - DutyCycle

## Maximum Avg. Output Power

### READ SA SETTINGS:

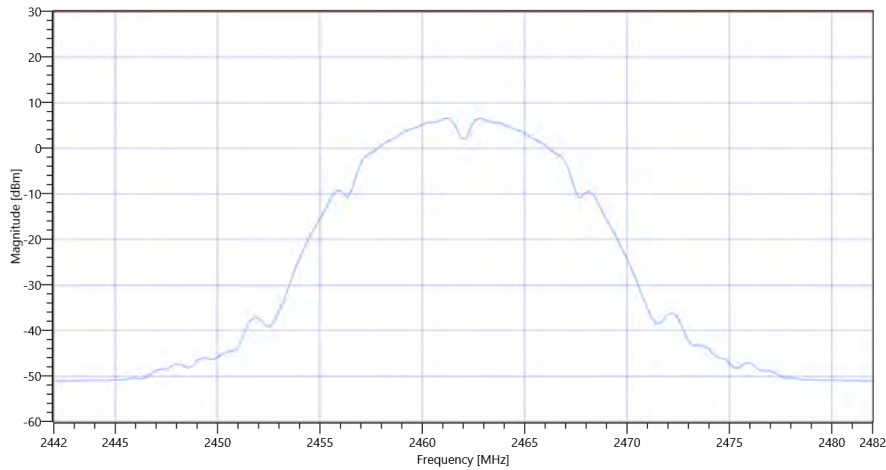
|  |                       |
|--|-----------------------|
| RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]   | 22.28   15.54   25    |
| Start [MHz]   Stop [MHz]                             | 2442.000   2482.000   |
| RBW [MHz]   VBW [MHz]                                | 0.500000   2.000000   |
| Detector   TraceMode                                 | RMS   AVER            |
| Sweep: Time [ms]   Count   Points per Section   Type | 500   100   160   SWE |

### RESULT (Channel Power method)

| Test Description | Lower Limit | Upper Limit | Measured | Unit | Verdict |
|------------------|-------------|-------------|----------|------|---------|
|------------------|-------------|-------------|----------|------|---------|

**RESULT (Channel Power method)**

| Test Description              | Lower Limit | Upper Limit | Measured | Unit | Verdict |
|-------------------------------|-------------|-------------|----------|------|---------|
| Avg Output Power uncorrected  | ---         | ---         | 16.7     | dBm  | INFO    |
| Duty Cycle Correction         | ---         | ---         | 0.23     | dB   | INFO    |
| Avg Output Power DC corrected | ---         | 30          | 16.93    | dBm  | PASS    |



FCC 15.247 # Maximum avg conducted output power SA DTS ~ WLAN2G4 b mode

General verdict

**PASS**

## FCC 15.247 # TX spurious conducted 30dBc ~ WLAN2G4 b mode

| Test References                   |  |
|-----------------------------------|--|
| TC Start                          | 06.07.2022 08:11:48  |
| Ambit Temp [°C]   Humidity [rel%] | 19.7   48  |
| System Version                    | 3.2.0.2  |
| Test Specification                | FCC 15.247 -   |
| Test Method                       | IF DTS then 8.5 DTS emissions in non-restricted frequency bands:<br>Subclause 11.11 of ANSI C63.10 is applicable |
| TC Version                        | 0.0.1  |
| My Description                    | FCC 15.247 TX Emissions Conducted 30dBc DTS - WLAN2G4 b mode   |
| Add. Information                  |  |

| EUT Common Settings WLAN2G4 |    |
|-----------------------------|----|
| Number of Antenna Ports     | 2  |
| User Interaction            | No |

| Test Parameter                                   |  |
|--|--|
| Technology to test                               | WLAN2G4 b mode                         |
| Antenna Port used                                | 1                                      |
| Temperature                                      | nom                                    |
| Voltage  | nom                                    |
| Frequency low to test                            | True   Freq [MHz] 2412                 |
| Frequency mid to test                            | False   Freq [MHz] 2437                |
| Frequency high to test                           | False   Freq [MHz] 2462                |
| Auto Control enabled Power Supply   Climatic Box | No   No                                |
| Additional Path Loss [dB]                        | 0.7                                    |
| Switched Path                                    | EUT - SignalingUnit - SpectrumAnalyzer |

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

## Test at TX 2412 MHz

### RESULT: Reference Power cond.

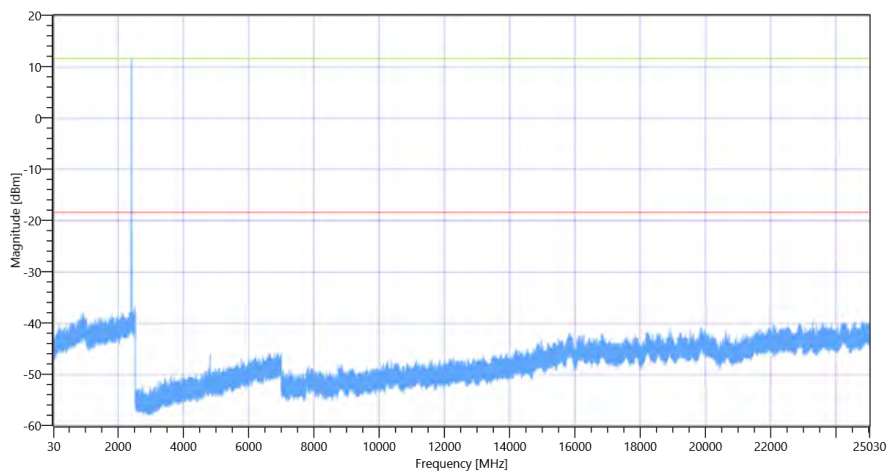
| Test Description              | Lower Limit | Upper Limit | Measured | Unit | Verdict |
|-------------------------------|-------------|-------------|----------|------|---------|
| Ref. Power<br>1MHz/1MHz cond. | ---         | ---         | 15.09    | dBm  | INFO    |
| Ref. Frequency                | ---         | ---         | 2413.200 | MHz  | INFO    |

### READ SA SETTINGS:

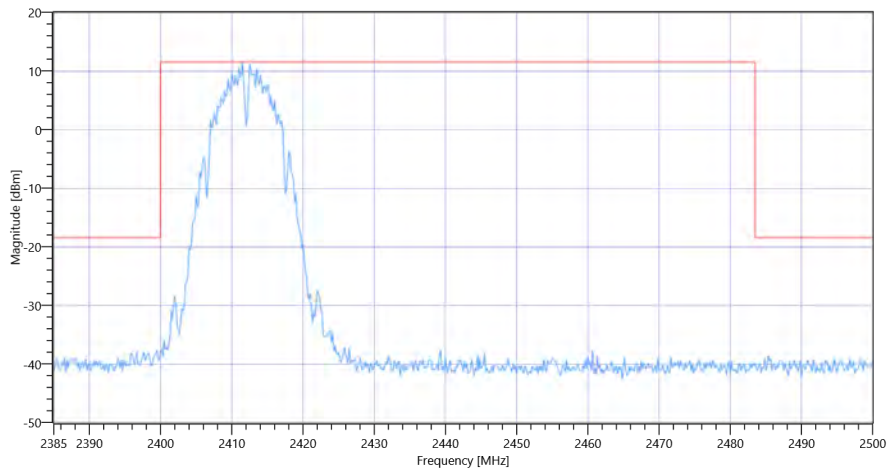
|  |                       |
|--|-----------------------|
| RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]   | 10.00   0   20        |
| Start [MHz]   Stop [MHz]                             | 24530.000   25030.000 |
| RBW [MHz]   VBW [MHz]                                | 0.100000   0.300000   |
| Detector   TraceMode                                 | POS   MAXH            |
| Sweep: Time [ms]   Count   Points per Section   Type | 200   25   3001   SWE |

### RESULT

| Test Description                       | Lower Limit | Upper Limit | Measured | Unit | Verdict |
|--|-------------|-------------|----------|------|---------|
| Reference @<br>2411.50 MHz             | ---         | ---         | 11.59    | dBm  | INFO    |
| No peaks detected                      | ---         | ---         |          |      | PASS    |
| Lowest margin to<br>limit 2514.333 MHz | 0           | ---         | 18.32    | dB   | INFO    |



FCC 15.247 # TX spurious conducted 30dBc ~ WLAN2G4 b mode 2412



FCC 15.247 # TX spurious conducted 30dBc ~ WLAN2G4 b mode 2412

General verdict

PASS

## FCC 15.247 # TX spurious conducted 30dBc ~ WLAN2G4 b mode

| Test References                   |  |
|-----------------------------------|--|
| TC Start                          | 06.07.2022 08:27:31  |
| Ambit Temp [°C]   Humidity [rel%] | 20.4   46  |
| System Version                    | 3.2.0.2  |
| Test Specification                | FCC 15.247 -   |
| Test Method                       | IF DTS then 8.5 DTS emissions in non-restricted frequency bands:<br>Subclause 11.11 of ANSI C63.10 is applicable |
| TC Version                        | 0.0.1  |
| My Description                    | FCC 15.247 TX Emissions Conducted 30dBc DTS - WLAN2G4 b mode   |
| Add. Information                  |  |

| EUT Common Settings WLAN2G4 |    |
|-----------------------------|----|
| Number of Antenna Ports     | 2  |
| User Interaction            | No |

| Test Parameter                                   |  |
|--|--|
| Technology to test                               | WLAN2G4 b mode                         |
| Antenna Port used                                | 1                                      |
| Temperature                                      | nom                                    |
| Voltage  | nom                                    |
| Frequency low to test                            | False   Freq [MHz] 2412                |
| Frequency mid to test                            | True   Freq [MHz] 2437                 |
| Frequency high to test                           | False   Freq [MHz] 2462                |
| Auto Control enabled Power Supply   Climatic Box | No   No                                |
| Additional Path Loss [dB]                        | 0.7                                    |
| Switched Path                                    | EUT - SignalingUnit - SpectrumAnalyzer |

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

## Test at TX 2437 MHz

### RESULT: Reference Power cond.

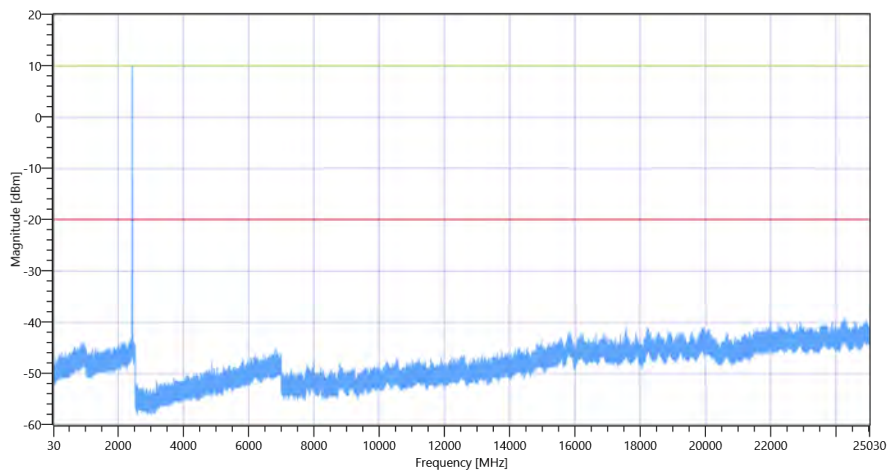
| Test Description              | Lower Limit | Upper Limit | Measured | Unit | Verdict |
|-------------------------------|-------------|-------------|----------|------|---------|
| Ref. Power<br>1MHz/1MHz cond. | ---         | ---         | 14.13    | dBm  | INFO    |
| Ref. Frequency                | ---         | ---         | 2438.200 | MHz  | INFO    |

### READ SA SETTINGS:

|  |                       |
|--|-----------------------|
| RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]   | 10.00   0   20        |
| Start [MHz]   Stop [MHz]                             | 24530.000   25030.000 |
| RBW [MHz]   VBW [MHz]                                | 0.100000   0.300000   |
| Detector   TraceMode                                 | POS   MAXH            |
| Sweep: Time [ms]   Count   Points per Section   Type | 200   25   3001   SWE |

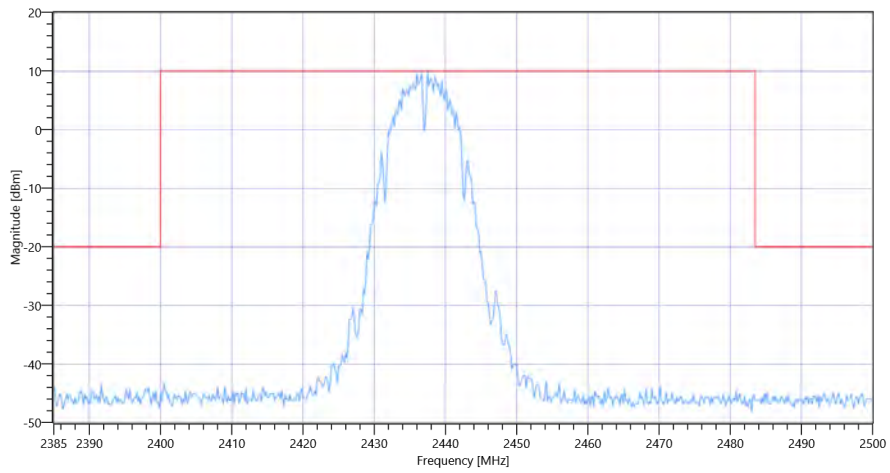
### RESULT

| Test Description                           | Lower Limit | Upper Limit | Measured | Unit | Verdict |
|--|-------------|-------------|----------|------|---------|
| Reference @<br>2437.50 MHz                 | ---         | ---         | 10.06    | dBm  | INFO    |
| No peaks detected                          | ---         | ---         |          |      | PASS    |
| Lowest margin to<br>limit 24242.833<br>MHz | 0           | ---         | 19.24    | dB   | INFO    |



FCC 15.247 # TX spurious conducted 30dBc ~ WLAN2G4 b mode 2437





FCC 15.247 # TX spurious conducted 30dBc ~ WLAN2G4 b mode 2437

General verdict

PASS

## FCC 15.247 # TX spurious conducted 30dBc ~ WLAN2G4 b mode

| Test References                   |  |
|-----------------------------------|--|
| TC Start                          | 06.07.2022 08:47:44  |
| Ambit Temp [°C]   Humidity [rel%] | 21.1   44  |
| System Version                    | 3.2.0.2  |
| Test Specification                | FCC 15.247 -   |
| Test Method                       | IF DTS then 8.5 DTS emissions in non-restricted frequency bands:<br>Subclause 11.11 of ANSI C63.10 is applicable |
| TC Version                        | 0.0.1  |
| My Description                    | FCC 15.247 TX Emissions Conducted 30dBc DTS - WLAN2G4 b mode   |
| Add. Information                  |  |

| EUT Common Settings WLAN2G4 |    |
|-----------------------------|----|
| Number of Antenna Ports     | 2  |
| User Interaction            | No |

| Test Parameter                                   |  |
|--|--|
| Technology to test                               | WLAN2G4 b mode                         |
| Antenna Port used                                | 1                                      |
| Temperature                                      | nom                                    |
| Voltage  | nom                                    |
| Frequency low to test                            | False   Freq [MHz] 2412                |
| Frequency mid to test                            | False   Freq [MHz] 2437                |
| Frequency high to test                           | True   Freq [MHz] 2462                 |
| Auto Control enabled Power Supply   Climatic Box | No   No                                |
| Additional Path Loss [dB]                        | 0.7                                    |
| Switched Path                                    | EUT - SignalingUnit - SpectrumAnalyzer |

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

## Test at TX 2462 MHz

### RESULT: Reference Power cond.

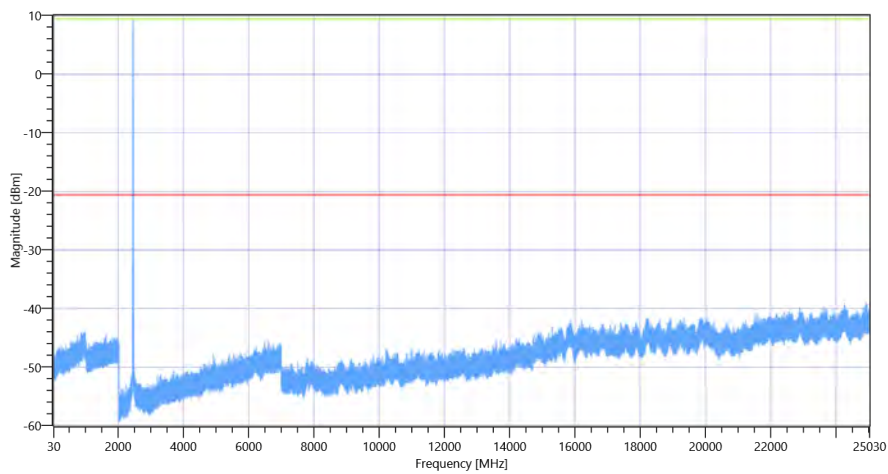
| Test Description              | Lower Limit | Upper Limit | Measured | Unit | Verdict |
|-------------------------------|-------------|-------------|----------|------|---------|
| Ref. Power<br>1MHz/1MHz cond. | ---         | ---         | 13.71    | dBm  | INFO    |
| Ref. Frequency                | ---         | ---         | 2460.800 | MHz  | INFO    |

### READ SA SETTINGS:

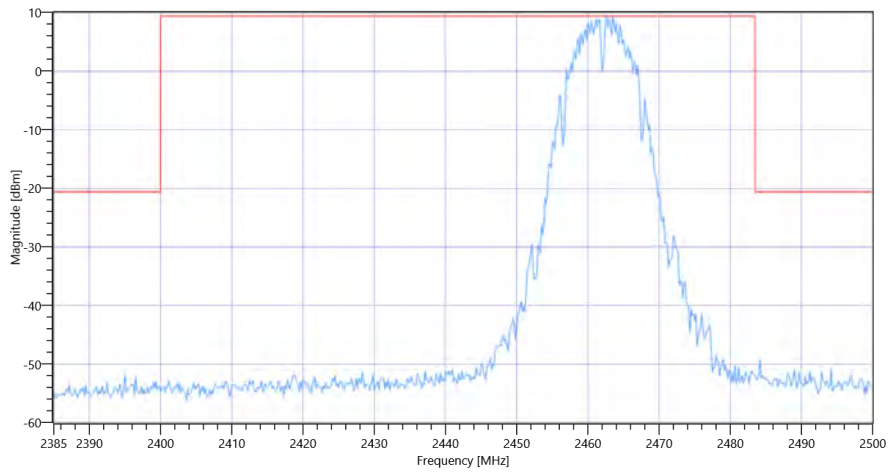
|  |                       |
|--|-----------------------|
| RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]   | 10.00   0   20        |
| Start [MHz]   Stop [MHz]                             | 24530.000   25030.000 |
| RBW [MHz]   VBW [MHz]                                | 0.100000   0.300000   |
| Detector   TraceMode                                 | POS   MAXH            |
| Sweep: Time [ms]   Count   Points per Section   Type | 200   25   3001   SWE |

### RESULT

| Test Description                 | Lower Limit | Upper Limit | Measured | Unit | Verdict |
|----------------------------------|-------------|-------------|----------|------|---------|
| Reference @<br>2463.50 MHz       | ---         | ---         | 9.41     | dBm  | INFO    |
| No peaks detected                | ---         | ---         |          |      | PASS    |
| Lowest margin to<br>limit 30 MHz | 0           | ---         | -151.24  | dB   | INFO    |



FCC 15.247 # TX spurious conducted 30dBc ~ WLAN2G4 b mode 2462



FCC 15.247 # TX spurious conducted 30dBc ~ WLAN2G4 b mode 2462

General verdict

PASS

## FCC 15.247 # TX spurious conducted 30dBc ~ WLAN2G4 b mode

| Test References                   |  |
|-----------------------------------|--|
| TC Start                          | 06.07.2022 09:07:34  |
| Ambit Temp [°C]   Humidity [rel%] | 21.9   42  |
| System Version                    | 3.2.0.2  |
| Test Specification                | FCC 15.247 -   |
| Test Method                       | IF DTS then 8.5 DTS emissions in non-restricted frequency bands:<br>Subclause 11.11 of ANSI C63.10 is applicable |
| TC Version                        | 0.0.1  |
| My Description                    | FCC 15.247 TX Emissions Conducted 30dBc DTS - WLAN2G4 b mode   |
| Add. Information                  |  |

| EUT Common Settings WLAN2G4 |    |
|-----------------------------|----|
| Number of Antenna Ports     | 2  |
| User Interaction            | No |

| Test Parameter                                   |  |
|--|--|
| Technology to test                               | WLAN2G4 b mode                         |
| Antenna Port used                                | 2                                      |
| Temperature                                      | nom                                    |
| Voltage  | nom                                    |
| Frequency low to test                            | True   Freq [MHz] 2412                 |
| Frequency mid to test                            | False   Freq [MHz] 2437                |
| Frequency high to test                           | False   Freq [MHz] 2462                |
| Auto Control enabled Power Supply   Climatic Box | No   No                                |
| Additional Path Loss [dB]                        | 0.7                                    |
| Switched Path                                    | EUT - SignalingUnit - SpectrumAnalyzer |

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

## Test at TX 2412 MHz

### RESULT: Reference Power cond.

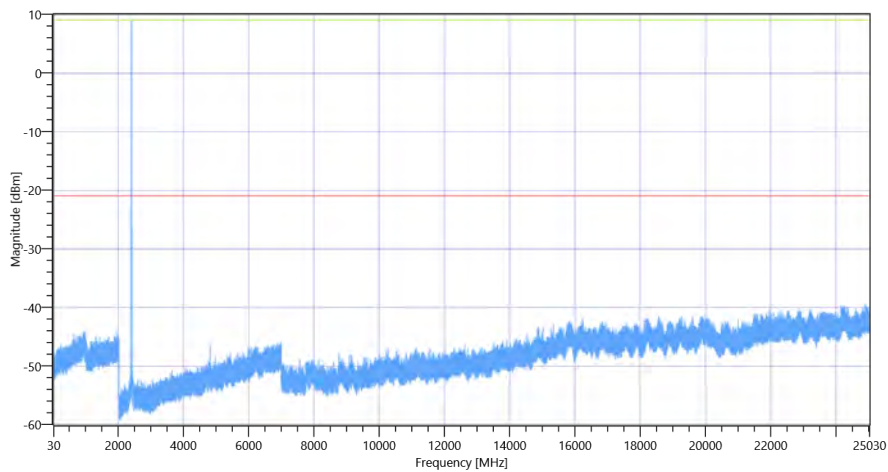
| Test Description              | Lower Limit | Upper Limit | Measured | Unit | Verdict |
|-------------------------------|-------------|-------------|----------|------|---------|
| Ref. Power<br>1MHz/1MHz cond. | ---         | ---         | 12.65    | dBm  | INFO    |
| Ref. Frequency                | ---         | ---         | 2413.200 | MHz  | INFO    |

### READ SA SETTINGS:

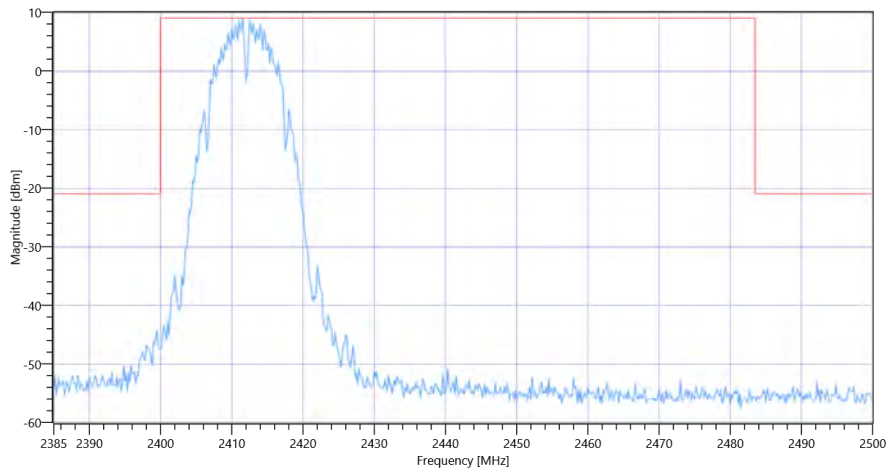
|  |                       |
|--|-----------------------|
| RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]   | 10.00   0   20        |
| Start [MHz]   Stop [MHz]                             | 24530.000   25030.000 |
| RBW [MHz]   VBW [MHz]                                | 0.100000   0.300000   |
| Detector   TraceMode                                 | POS   MAXH            |
| Sweep: Time [ms]   Count   Points per Section   Type | 200   25   3001   SWE |

### RESULT

| Test Description                           | Lower Limit | Upper Limit | Measured | Unit | Verdict |
|--|-------------|-------------|----------|------|---------|
| Reference @<br>2411.50 MHz                 | ---         | ---         | 9.09     | dBm  | INFO    |
| No peaks detected                          | ---         | ---         |          |      | PASS    |
| Lowest margin to<br>limit 24895.667<br>MHz | 0           | ---         | 18.46    | dB   | INFO    |



FCC 15.247 # TX spurious conducted 30dBc ~ WLAN2G4 b mode 2412



FCC 15.247 # TX spurious conducted 30dBc ~ WLAN2G4 b mode 2412

General verdict

PASS

## FCC 15.247 # TX spurious conducted 30dBc ~ WLAN2G4 b mode

| Test References                   |  |
|-----------------------------------|--|
| TC Start                          | 06.07.2022 09:22:10  |
| Ambit Temp [°C]   Humidity [rel%] | 22.3   40  |
| System Version                    | 3.2.0.2  |
| Test Specification                | FCC 15.247 -   |
| Test Method                       | IF DTS then 8.5 DTS emissions in non-restricted frequency bands:<br>Subclause 11.11 of ANSI C63.10 is applicable |
| TC Version                        | 0.0.1  |
| My Description                    | FCC 15.247 TX Emissions Conducted 30dBc DTS - WLAN2G4 b mode   |
| Add. Information                  |  |

| EUT Common Settings WLAN2G4 |    |
|-----------------------------|----|
| Number of Antenna Ports     | 2  |
| User Interaction            | No |

| Test Parameter                                   |  |
|--|--|
| Technology to test                               | WLAN2G4 b mode                         |
| Antenna Port used                                | 2                                      |
| Temperature                                      | nom                                    |
| Voltage  | nom                                    |
| Frequency low to test                            | False   Freq [MHz] 2412                |
| Frequency mid to test                            | True   Freq [MHz] 2437                 |
| Frequency high to test                           | False   Freq [MHz] 2462                |
| Auto Control enabled Power Supply   Climatic Box | No   No                                |
| Additional Path Loss [dB]                        | 0.7                                    |
| Switched Path                                    | EUT - SignalingUnit - SpectrumAnalyzer |

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



## Test at TX 2437 MHz

### RESULT: Reference Power cond.

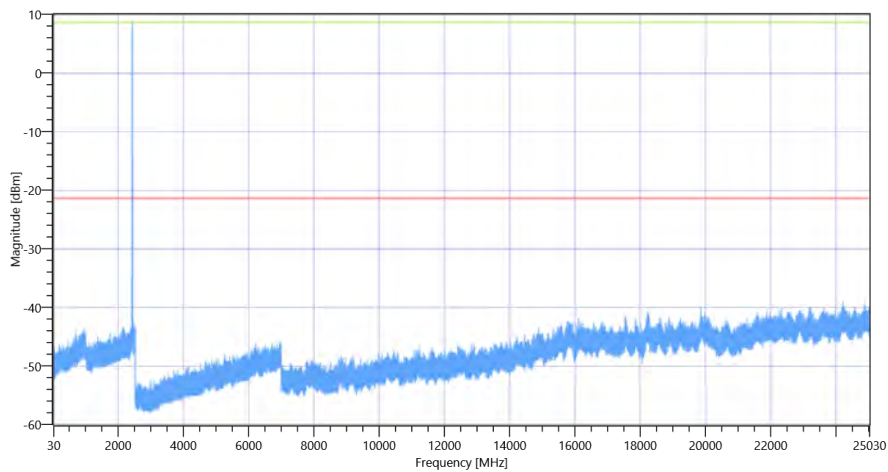
| Test Description              | Lower Limit | Upper Limit | Measured | Unit | Verdict |
|-------------------------------|-------------|-------------|----------|------|---------|
| Ref. Power<br>1MHz/1MHz cond. | ---         | ---         | 12.49    | dBm  | INFO    |
| Ref. Frequency                | ---         | ---         | 2435.800 | MHz  | INFO    |

### READ SA SETTINGS:

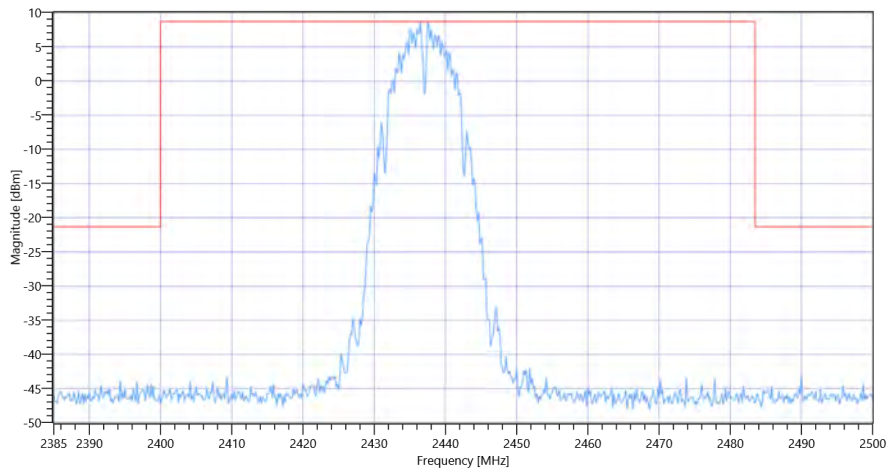
|  |                       |
|--|-----------------------|
| RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]   | 10.00   0   20        |
| Start [MHz]   Stop [MHz]                             | 24530.000   25030.000 |
| RBW [MHz]   VBW [MHz]                                | 0.100000   0.300000   |
| Detector   TraceMode                                 | POS   MAXH            |
| Sweep: Time [ms]   Count   Points per Section   Type | 200   25   3001   SWE |

### RESULT

| Test Description                           | Lower Limit | Upper Limit | Measured | Unit | Verdict |
|--|-------------|-------------|----------|------|---------|
| Reference @<br>2436.50 MHz                 | ---         | ---         | 8.67     | dBm  | INFO    |
| No peaks detected                          | ---         | ---         |          |      | PASS    |
| Lowest margin to<br>limit 24219.333<br>MHz | 0           | ---         | 17.42    | dB   | INFO    |



FCC 15.247 # TX spurious conducted 30dBc ~ WLAN2G4 b mode 2437



FCC 15.247 # TX spurious conducted 30dBc ~ WLAN2G4 b mode 2437

General verdict

PASS

## FCC 15.247 # TX spurious conducted 30dBc ~ WLAN2G4 b mode

| Test References                   |  |
|-----------------------------------|--|
| TC Start                          | 06.07.2022 09:37:04  |
| Ambit Temp [°C]   Humidity [rel%] | 22.6   39  |
| System Version                    | 3.2.0.2  |
| Test Specification                | FCC 15.247 -   |
| Test Method                       | IF DTS then 8.5 DTS emissions in non-restricted frequency bands:<br>Subclause 11.11 of ANSI C63.10 is applicable |
| TC Version                        | 0.0.1  |
| My Description                    | FCC 15.247 TX Emissions Conducted 30dBc DTS - WLAN2G4 b mode   |
| Add. Information                  |  |

| EUT Common Settings WLAN2G4 |    |
|-----------------------------|----|
| Number of Antenna Ports     | 2  |
| User Interaction            | No |

| Test Parameter                                   |  |
|--|--|
| Technology to test                               | WLAN2G4 b mode                         |
| Antenna Port used                                | 2                                      |
| Temperature                                      | nom                                    |
| Voltage  | nom                                    |
| Frequency low to test                            | False   Freq [MHz] 2412                |
| Frequency mid to test                            | False   Freq [MHz] 2437                |
| Frequency high to test                           | True   Freq [MHz] 2462                 |
| Auto Control enabled Power Supply   Climatic Box | No   No                                |
| Additional Path Loss [dB]                        | 0.7                                    |
| Switched Path                                    | EUT - SignalingUnit - SpectrumAnalyzer |

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

## Test at TX 2462 MHz

### RESULT: Reference Power cond.

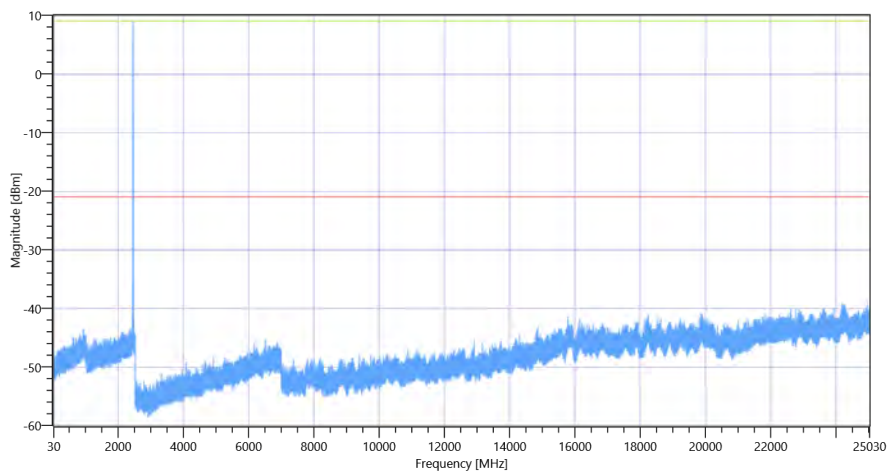
| Test Description              | Lower Limit | Upper Limit | Measured | Unit | Verdict |
|-------------------------------|-------------|-------------|----------|------|---------|
| Ref. Power<br>1MHz/1MHz cond. | ---         | ---         | 12.38    | dBm  | INFO    |
| Ref. Frequency                | ---         | ---         | 2460.800 | MHz  | INFO    |

### READ SA SETTINGS:

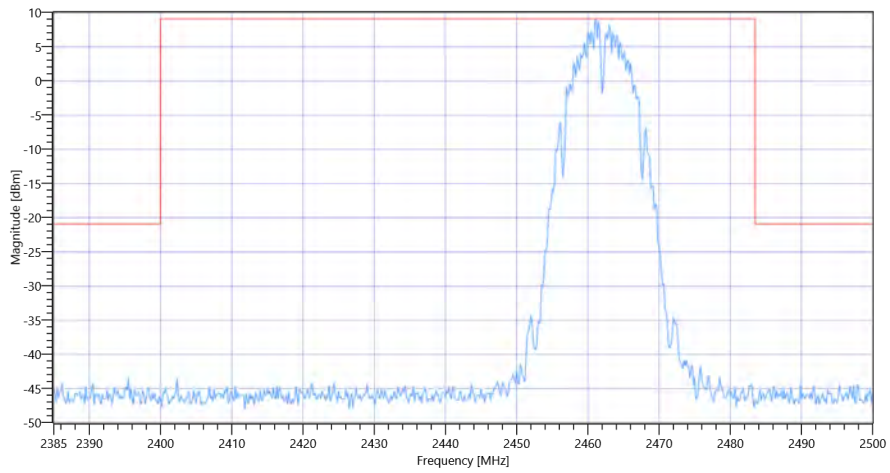
|  |                       |
|--|-----------------------|
| RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]   | 10.00   0   20        |
| Start [MHz]   Stop [MHz]                             | 24530.000   25030.000 |
| RBW [MHz]   VBW [MHz]                                | 0.100000   0.300000   |
| Detector   TraceMode                                 | POS   MAXH            |
| Sweep: Time [ms]   Count   Points per Section   Type | 200   25   3001   SWE |

### RESULT

| Test Description                      | Lower Limit | Upper Limit | Measured | Unit | Verdict |
|---------------------------------------|-------------|-------------|----------|------|---------|
| Reference @<br>2461.00 MHz            | ---         | ---         | 9.09     | dBm  | INFO    |
| No peaks detected                     | ---         | ---         |          |      | PASS    |
| Lowest margin to<br>limit 24965.5 MHz | 0           | ---         | 17.71    | dB   | INFO    |



FCC 15.247 # TX spurious conducted 30dBc ~ WLAN2G4 b mode 2462



FCC 15.247 # TX spurious conducted 30dBc ~ WLAN2G4 b mode 2462

General verdict

PASS

- END OF DOCUMENT -