

## Measurement Results

1-1053/20-05-05\_log1\_conducted

[Test logging](#)

---

This addendum is electronically signed and valid without handwritten signature.  
For verification of the electronic signatures, the public keys can be requested at the testing laboratory.

Document authorized:

---

---

Michael Dorongovski  
Lab Manager  
Radio Communications

## Table of Content

|                                                                            |    |
|----------------------------------------------------------------------------|----|
| EUT Summary                                                                | 3  |
| 1. FCC Part 15.247 Maximum Peak Conducted Output Power DTS ~ BT LE 1 Msps  | 4  |
| 2. FCC Part 15.247 Bandwidth 6dB DTS ~ BT LE 1 Msps                        | 7  |
| 3. FCC Part 15.247 Peak Power Spectral Density DTS ~ BT LE 1 Msps          | 9  |
| 4. FCC Part 15.247 Bandwidth 99PCT-20dB ~ BT LE 1 Msps                     | 11 |
| 5. FCC Part 15.247 TX Spurious Conducted ~ BT LE 1 Msps                    | 14 |
| 6. FCC Part 15.247 Maximum Peak Conducted Output Power DTS ~ BT LE 1 Msps  | 16 |
| 7. FCC Part 15.247 Bandwidth 6dB DTS ~ BT LE 1 Msps                        | 19 |
| 8. FCC Part 15.247 Peak Power Spectral Density DTS ~ BT LE 1 Msps          | 21 |
| 9. FCC Part 15.247 Bandwidth 99PCT-20dB ~ BT LE 1 Msps                     | 23 |
| 10. FCC Part 15.247 TX Spurious Conducted ~ BT LE 1 Msps                   | 26 |
| 11. FCC Part 15.247 Maximum Peak Conducted Output Power DTS ~ BT LE 1 Msps | 28 |
| 12. FCC Part 15.247 Bandwidth 6dB DTS ~ BT LE 1 Msps                       | 31 |
| 13. FCC Part 15.247 Peak Power Spectral Density DTS ~ BT LE 1 Msps         | 33 |
| 14. FCC Part 15.247 Bandwidth 99PCT-20dB ~ BT LE 1 Msps                    | 35 |
| 15. FCC Part 15.247 TX Spurious Conducted ~ BT LE 1 Msps                   | 38 |
| 16. FCC Part 15.247 Maximum Peak Conducted Output Power DTS ~ BT LE 2 Msps | 40 |
| 17. FCC Part 15.247 Bandwidth 6dB DTS ~ BT LE 2 Msps                       | 43 |
| 18. FCC Part 15.247 Peak Power Spectral Density DTS ~ BT LE 2 Msps         | 45 |
| 19. FCC Part 15.247 Bandwidth 99PCT-20dB ~ BT LE 2 Msps                    | 47 |
| 20. FCC Part 15.247 TX Spurious Conducted ~ BT LE 2 Msps                   | 50 |
| 21. FCC Part 15.247 Maximum Peak Conducted Output Power DTS ~ BT LE 2 Msps | 52 |
| 22. FCC Part 15.247 Bandwidth 6dB DTS ~ BT LE 2 Msps                       | 55 |
| 23. FCC Part 15.247 Peak Power Spectral Density DTS ~ BT LE 2 Msps         | 57 |
| 24. FCC Part 15.247 Bandwidth 99PCT-20dB ~ BT LE 2 Msps                    | 59 |
| 25. FCC Part 15.247 TX Spurious Conducted ~ BT LE 2 Msps                   | 62 |
| 26. FCC Part 15.247 Maximum Peak Conducted Output Power DTS ~ BT LE 2 Msps | 64 |
| 27. FCC Part 15.247 Bandwidth 6dB DTS ~ BT LE 2 Msps                       | 67 |
| 28. FCC Part 15.247 Peak Power Spectral Density DTS ~ BT LE 2 Msps         | 69 |
| 29. FCC Part 15.247 Bandwidth 99PCT-20dB ~ BT LE 2 Msps                    | 71 |
| 30. FCC Part 15.247 TX Spurious Conducted ~ BT LE 2 Msps                   | 74 |

## EUT Summary

| EUT DEFINITION                   |                                                                                                                                                                                                                                                                     |
|----------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Manufacturer                     | SBO Hearing A/S                                                                                                                                                                                                                                                     |
| Type                             | Cosmic_12_MNB_T_R and Hubble_9_MNB_T_R                                                                                                                                                                                                                              |
| Kind                             | Hearing aid                                                                                                                                                                                                                                                         |
| Serial Number   Setup Number     | RC3: 68589372 (Lowest channel, TX 1 Msps) RC4: 68589344 (Middle channel, TX 1 Msps) RC5: 68589524 (Highest channel, TX 1 Msps) RC6: 96858558 (Lowest channel, TX 2 Msps) RC7: 68589885 (Middle channel, TX 2 Msps) RC8: 68589374 (Highest channel, TX 2 Msps)   1.0 |
| Version SW   FW   HW             | SR1512_rel_5.3_12.0_b1   NI   Final LAB                                                                                                                                                                                                                             |
| Comment 1   2                    |                                                                                                                                                                                                                                                                     |
| Temperature [°C] Min   Nom   Max | 0   20   40                                                                                                                                                                                                                                                         |
| Voltage [V] Min   Nom   Max      | 3.4   3.8   4.2                                                                                                                                                                                                                                                     |

## 1. FCC Part 15.247 Maximum Peak Conducted Output Power DTS ~ BT LE 1 Msps

| Test References                   |                                                                   |
|-----------------------------------|-------------------------------------------------------------------|
| TC Start                          | 27.09.2021 15:21:06                                               |
| Ambit Temp [°C]   Humidity [rel%] | 24.9   51                                                         |
| System Version                    | 3.0.1.8                                                           |
| Test Specification                | FCC Part 15.247                                                   |
| Test Method                       | DTS: KDB 558074 D01 V05 - Chapter 8.3.1.1 RBW ≥ DTS Bandwidth     |
| TC Version                        | 0.0.1                                                             |
| My Description                    | FCC 15.247 Maximum Peak Output Power Conducted DTS - BT LE 1 Msps |
| Add. Information                  |                                                                   |

| Test Parameter                                   |                                        |
|--------------------------------------------------|----------------------------------------|
| Technology to test                               | BT LE 1 Msps                           |
| Antenna Port used                                | 1                                      |
| Temperature                                      | nom                                    |
| Voltage                                          | nom                                    |
| Frequency low to test                            | True   Freq [MHz] 2402                 |
| Frequency mid to test                            | False   Freq [MHz] 2440                |
| Frequency high to test                           | False   Freq [MHz] 2480                |
| Auto Control enabled Power Supply   Climatic Box | No   No                                |
| Additional Path Loss [dB]                        | 0.8                                    |
| Switched Path                                    | EUT - SignalingUnit - SpectrumAnalyzer |

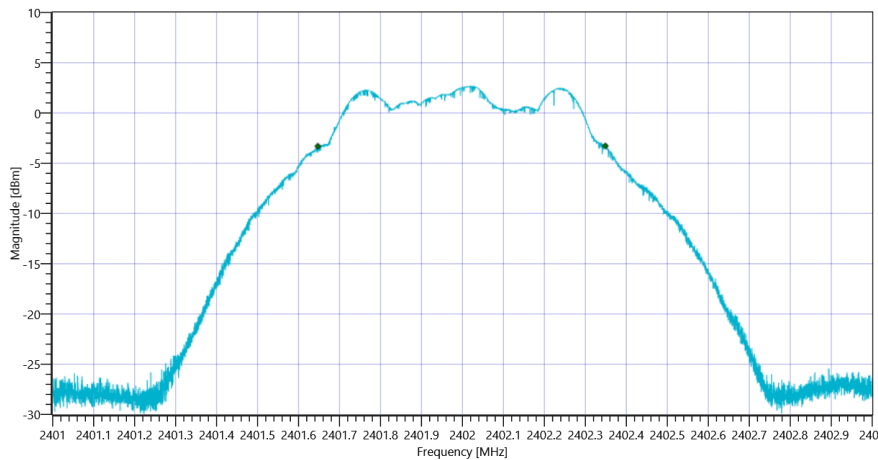
## Test at TX 2402 MHz

### READ SA SETTINGS:

|                                                      |                        |
|------------------------------------------------------|------------------------|
| RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]   | 8.42   10.89   15      |
| Start [MHz]   Stop [MHz]                             | 2401.000   2403.000    |
| RBW [MHz]   VBW [MHz]                                | 0.100000   0.300000    |
| Detector   TraceMode                                 | POS   MAXH             |
| Sweep: Time [ms]   Count   Points per Section   Type | 50   200   10001   SWE |

### DTS Bandwidth

| Test Description    | Lower Limit | Upper Limit | Measured | Unit | Verdict |
|---------------------|-------------|-------------|----------|------|---------|
| DTS Bandwidth (6dB) | ---         | ---         | 702      | kHz  | INFO    |



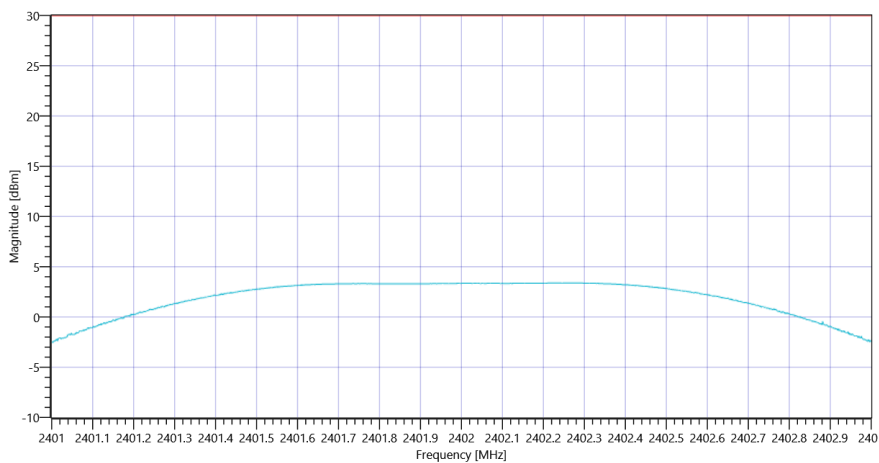
Plot\_FCC Part 15.247 Maximum Peak Conducted Output Power DTS ~ BT LE 1 Msps DTS BW\_27092021\_152134.png

### READ SA SETTINGS:

|                                                      |                       |
|------------------------------------------------------|-----------------------|
| RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]   | 13.42   10.89   20    |
| Start [MHz]   Stop [MHz]                             | 2401.000   2403.000   |
| RBW [MHz]   VBW [MHz]                                | 1.000000   5.000000   |
| Detector   TraceMode                                 | POS   MAXH            |
| Sweep: Time [ms]   Count   Points per Section   Type | 50   200   1001   SWE |

### RESULT

| Test Description  | Lower Limit | Upper Limit | Measured | Unit | Verdict |
|-------------------|-------------|-------------|----------|------|---------|
| Peak Power        | ---         | 30.00       | 3.38     | dBm  | PASS    |
| Peak Power        | ---         | 1000        | 2.17771  | mW   | PASS    |
| Frequency at Peak | ---         | ---         | 2402.258 | MHz  | INFO    |



Plot\_FCC Part 15.247 Maximum Peak Conducted Output Power DTS ~ BT LE 1 Msps\_27092021\_152152.png

|                 |      |
|-----------------|------|
| TEST FINISHED   |      |
| General Verdict | PASS |

## 2. FCC Part 15.247 Bandwidth 6dB DTS ~ BT LE 1 Msps

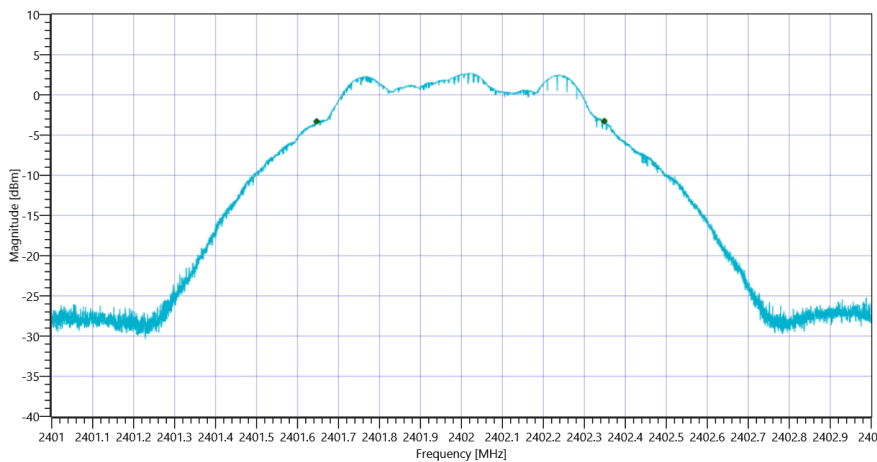
| Test References                   |                                             |
|-----------------------------------|---------------------------------------------|
| TC Start                          | 27.09.2021 15:21:57                         |
| Ambit Temp [°C]   Humidity [rel%] | 24.9   51                                   |
| System Version                    | 3.0.1.8                                     |
| Test Specification                | FCC Part 15.247                             |
| Test Method                       | 99                                          |
| TC Version                        | 0.0.1                                       |
| My Description                    | FCC 15.247 Bandwidth 6dB DTS - BT LE 1 Msps |
| Add. Information                  |                                             |

| Test Parameter                                   |                                        |
|--------------------------------------------------|----------------------------------------|
| Technology to test                               | BT LE 1 Msps                           |
| Antenna Port used                                | 1                                      |
| Temperature                                      | nom                                    |
| Voltage                                          | nom                                    |
| Frequency low to test                            | True   Freq [MHz] 2402                 |
| Frequency mid to test                            | False   Freq [MHz] 2440                |
| Frequency high to test                           | False   Freq [MHz] 2480                |
| Auto Control enabled Power Supply   Climatic Box | No   No                                |
| Additional Path Loss [dB]                        | 0.8                                    |
| Switched Path                                    | EUT - SignalingUnit - SpectrumAnalyzer |

Test at TX 2402 MHz

| READ SA SETTINGS:                                    |                        |
|------------------------------------------------------|------------------------|
| RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]   | 8.45   10.89   15      |
| Start [MHz]   Stop [MHz]                             | 2401.000   2403.000    |
| 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 (6dB) | 500         | ---         | 702      | kHz  | PASS    |



| TEST FINISHED   |      |
|-----------------|------|
| General Verdict | PASS |



### 3. FCC Part 15.247 Peak Power Spectral Density DTS ~ BT LE 1 Msps

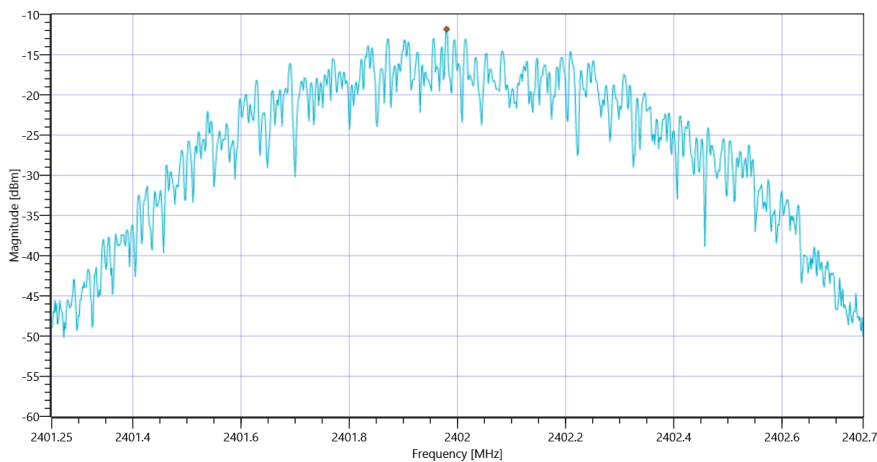
| Test References                   |                                                                                                            |
|-----------------------------------|------------------------------------------------------------------------------------------------------------|
| TC Start                          | 27.09.2021 15:22:31                                                                                        |
| Ambit Temp [°C]   Humidity [rel%] | 24.9   51                                                                                                  |
| System Version                    | 3.0.1.8                                                                                                    |
| Test Specification                | FCC Part 15.247                                                                                            |
| Test Method                       | DTS: KDB 558074 D01 V05 - Chapter 8.4 DTS maximum power spectral density level in the fundamental emission |
| TC Version                        | 0.0.1                                                                                                      |
| My Description                    | FCC 15.247 Peak Power Spectral Density DTS - BT LE 1 Msps                                                  |
| Add. Information                  |                                                                                                            |

| Test Parameter                                   |                                        |
|--------------------------------------------------|----------------------------------------|
| Technology to test                               | BT LE 1 Msps                           |
| Antenna Port used                                | 1                                      |
| Temperature                                      | nom                                    |
| Voltage                                          | nom                                    |
| Frequency low to test                            | True   Freq [MHz] 2402                 |
| Frequency mid to test                            | False   Freq [MHz] 2440                |
| Frequency high to test                           | False   Freq [MHz] 2480                |
| Auto Control enabled Power Supply   Climatic Box | No   No                                |
| Additional Path Loss [dB]                        | 0.8                                    |
| Switched Path                                    | EUT - SignalingUnit - SpectrumAnalyzer |

Test at TX 2402 MHz

| READ SA SETTINGS:                                    |                        |
|------------------------------------------------------|------------------------|
| RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]   | 8.44   10.89   15      |
| Start [MHz]   Stop [MHz]                             | 2401.250   2402.750    |
| RBW [MHz]   VBW [MHz]                                | 0.003000   0.010000    |
| Detector   TraceMode                                 | POS   MAXH             |
| Sweep: Time [ms]   Count   Points per Section   Type | 1000   20   1001   SWE |

| RESULT                 |             |             |          |          |         |
|------------------------|-------------|-------------|----------|----------|---------|
| Test Description       | Lower Limit | Upper Limit | Measured | Unit     | Verdict |
| Max Peak power Density | ---         | 8           | -11.82   | dBm/3KHz | PASS    |



Plot\_FCC Part 15.247 Peak Power Spectral Density DTS ~ BT LE 1 Msps\_27092021\_152309.png

| TEST FINISHED   |      |
|-----------------|------|
| General Verdict | PASS |

## 4. FCC Part 15.247 Bandwidth 99PCT-20dB ~ BT LE 1 Msps

| Test References                   |                                                    |
|-----------------------------------|----------------------------------------------------|
| TC Start                          | 27.09.2021 15:23:14                                |
| Ambit Temp [°C]   Humidity [rel%] | 24.9   51                                          |
| System Version                    | 3.0.1.8                                            |
| Test Specification                | FCC Part 15.247                                    |
| Test Method                       |                                                    |
| TC Version                        | 0.0.2                                              |
| My Description                    | FCC 15.247 Bandwidth 99PCT-20dB DTS - BT LE 1 Msps |
| Add. Information                  |                                                    |

| Test Parameter                                   |                                        |
|--------------------------------------------------|----------------------------------------|
| Technology to test                               | BT LE 1 Msps                           |
| Antenna Port used                                | 1                                      |
| Temperature                                      | nom                                    |
| Voltage                                          | nom                                    |
| Frequency low to test                            | True   Freq [MHz] 2402                 |
| Frequency mid to test                            | False   Freq [MHz] 2440                |
| Frequency high to test                           | False   Freq [MHz] 2480                |
| Auto Control enabled Power Supply   Climatic Box | No   No                                |
| Additional Path Loss [dB]                        | 0.8                                    |
| Switched Path                                    | EUT - SignalingUnit - SpectrumAnalyzer |

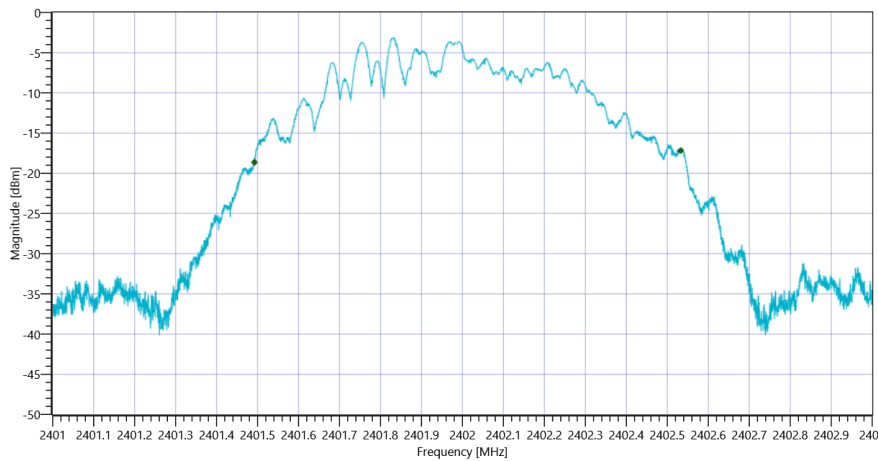
## Test at TX 2402 MHz

### READ SA SETTINGS:

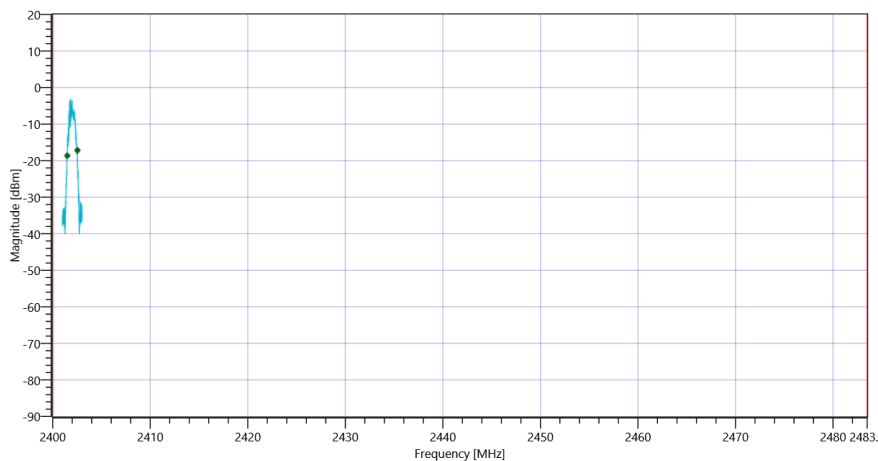
|                                                      |                        |
|------------------------------------------------------|------------------------|
| RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]   | 8.42   10.89   15      |
| Start [MHz]   Stop [MHz]                             | 2401.000   2403.000    |
| RBW [MHz]   VBW [MHz]                                | 0.020000   0.100000    |
| 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%    | ---         | ---         | 1040.096  | kHz  | INFO    |
| T1 99%           | 2400.000000 | ---         | 2401.4923 | MHz  | PASS    |
| T2 99%           | ---         | 2483.500000 | 2402.5323 | MHz  | PASS    |



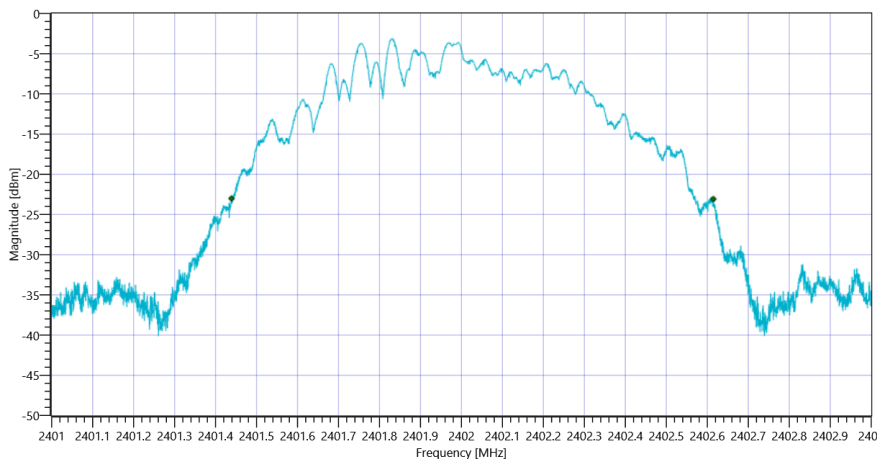
Plot\_FCC Part 15.247 Bandwidth 99PCT-20dB ~ BT LE 1 Msps 99PCT\_27092021\_152344.png



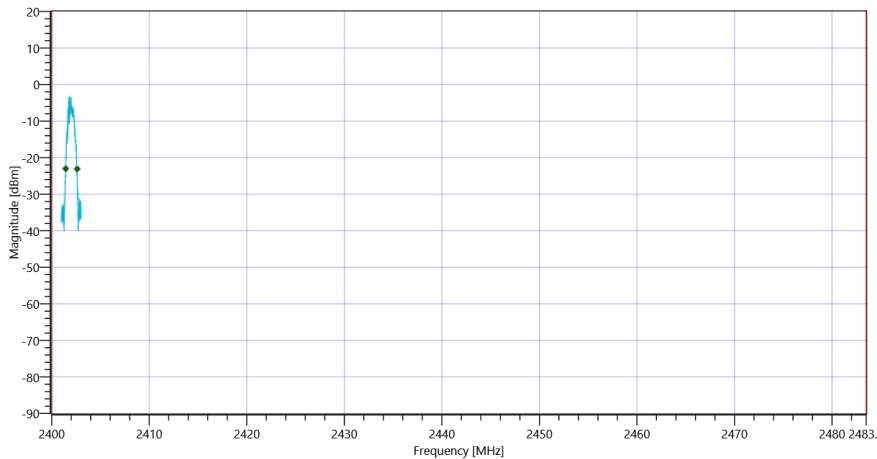
Plot\_FCC Part 15.247 Bandwidth 99PCT-20dB ~ BT LE 1 Msps 27092021\_152350.png

### RESULT

| Test Description | Lower Limit | Upper Limit | Measured  | Unit | Verdict |
|------------------|-------------|-------------|-----------|------|---------|
| Bandwidth 20dB   | ---         | ---         | 1176      | kHz  | INFO    |
| T1 20DB          | 2400.000000 | ---         | 2401.4386 | MHz  | PASS    |
| T2 20dB          | ---         | 2483.500000 | 2402.6146 | MHz  | PASS    |



Plot\_FCC Part 15.247 Bandwidth 99PCT-20dB ~ BT LE 1 Msps 20dB\_27092021\_152357.png



Plot\_FCC Part 15.247 Bandwidth 99PCT-20dB ~ BT LE 1 Msps\_27092021\_152403.png

|                 |      |
|-----------------|------|
| TEST FINISHED   |      |
| General Verdict | PASS |

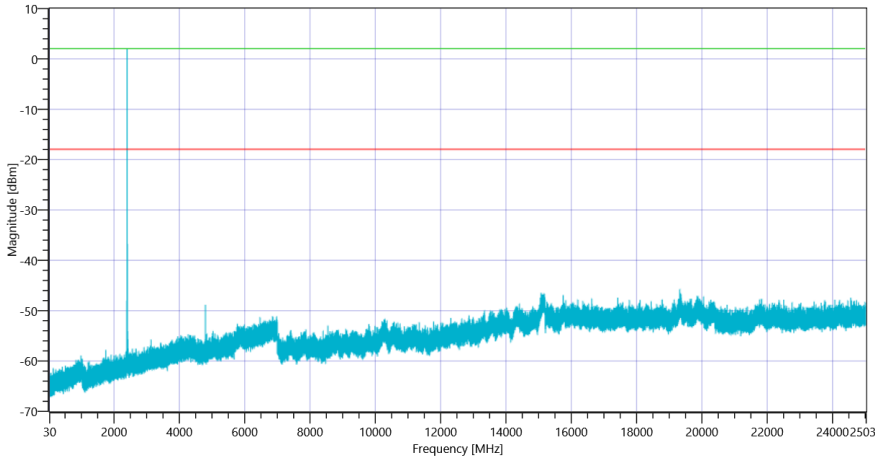
## 5. FCC Part 15.247 TX Spurious Conducted ~ BT LE 1 Msps

| Test References                   |                                                                                                                |
|-----------------------------------|----------------------------------------------------------------------------------------------------------------|
| TC Start                          | 27.09.2021 15:24:08                                                                                            |
| Ambit Temp [°C]   Humidity [rel%] | 24.8   51                                                                                                      |
| System Version                    | 3.0.1.8                                                                                                        |
| Test Specification                | FCC Part 15.247                                                                                                |
| Test Method                       | IF DTS then 8.5 DTS emissions in non-restricted frequency bands: Subclause 11.11 of ANSI C63.10 is applicable. |
| TC Version                        | 0.0.1                                                                                                          |
| My Description                    | FCC 15.247 TX Emissions Conducted DTS - BT LE 1 Msps                                                           |
| Add. Information                  |                                                                                                                |

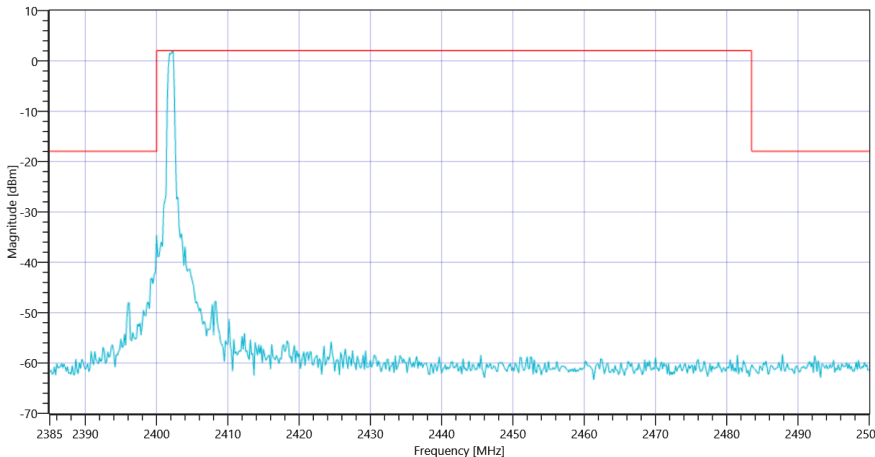
| Test Parameter                                   |                                        |
|--------------------------------------------------|----------------------------------------|
| Technology to test                               | BT LE 1 Msps                           |
| Antenna Port used                                | 1                                      |
| Temperature                                      | nom                                    |
| Voltage                                          | nom                                    |
| Frequency low to test                            | True   Freq [MHz] 2402                 |
| Frequency mid to test                            | False   Freq [MHz] 2440                |
| Frequency high to test                           | False   Freq [MHz] 2480                |
| Auto Control enabled Power Supply   Climatic Box | No   No                                |
| Additional Path Loss [dB]                        | 0.8                                    |
| Switched Path                                    | EUT - SignalingUnit - SpectrumAnalyzer |

Test at TX 2402 MHz

| READ SA SETTINGS:                                    |             |             |                       |      |         |
|------------------------------------------------------|-------------|-------------|-----------------------|------|---------|
| RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]   |             |             | 3.43   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 |             |             | 500   8   3001   SWE  |      |         |
|                                                      |             |             |                       |      |         |
| RESULT                                               |             |             |                       |      |         |
| Test Description                                     | Lower Limit | Upper Limit | Measured              | Unit | Verdict |
| Reference @ 2402.33 MHz                              | ---         | ---         | 2.02                  | dBm  | INFO    |
| No peaks detected                                    | ---         | ---         |                       |      | PASS    |
| Lowest margin to limit 30 MHz                        | 0           | ---         | -136.95               | dB   | INFO    |



Plot\_FCC Part 15.247 TX Spurious Conducted ~ BT LE 1 Msps 2402\_27092021\_152940.png



Plot\_FCC Part 15.247 TX Spurious Conducted ~ BT LE 1 Msps 2402\_27092021\_152945.png

| TEST FINISHED   |      |
|-----------------|------|
| General Verdict | PASS |

## 6. FCC Part 15.247 Maximum Peak Conducted Output Power DTS ~ BT LE 1 Msps

| Test References                   |                                                                   |
|-----------------------------------|-------------------------------------------------------------------|
| TC Start                          | 27.09.2021 16:23:43                                               |
| Ambit Temp [°C]   Humidity [rel%] | 25.2   50                                                         |
| System Version                    | 3.0.1.8                                                           |
| Test Specification                | FCC Part 15.247                                                   |
| Test Method                       | DTS: KDB 558074 D01 V05 - Chapter 8.3.1.1 RBW ≥ DTS Bandwidth     |
| TC Version                        | 0.0.1                                                             |
| My Description                    | FCC 15.247 Maximum Peak Output Power Conducted DTS - BT LE 1 Msps |
| Add. Information                  |                                                                   |

| Test Parameter                                   |                                        |
|--------------------------------------------------|----------------------------------------|
| Technology to test                               | BT LE 1 Msps                           |
| Antenna Port used                                | 1                                      |
| Temperature                                      | nom                                    |
| Voltage                                          | nom                                    |
| Frequency low to test                            | False   Freq [MHz] 2402                |
| Frequency mid to test                            | True   Freq [MHz] 2440                 |
| Frequency high to test                           | False   Freq [MHz] 2480                |
| Auto Control enabled Power Supply   Climatic Box | No   No                                |
| Additional Path Loss [dB]                        | 0.8                                    |
| Switched Path                                    | EUT - SignalingUnit - SpectrumAnalyzer |



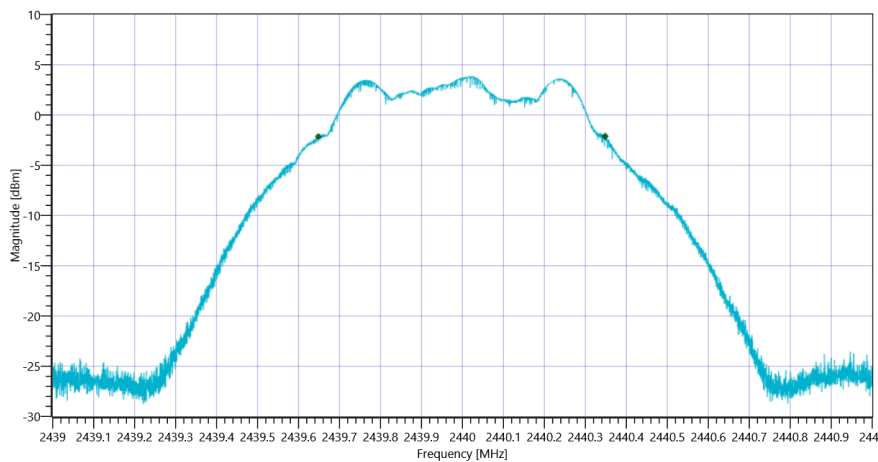
## Test at TX 2440 MHz

### READ SA SETTINGS:

|                                                      |                        |
|------------------------------------------------------|------------------------|
| RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]   | 9.48   10.9   15       |
| Start [MHz]   Stop [MHz]                             | 2439.000   2441.000    |
| RBW [MHz]   VBW [MHz]                                | 0.100000   0.300000    |
| Detector   TraceMode                                 | POS   MAXH             |
| Sweep: Time [ms]   Count   Points per Section   Type | 50   200   10001   SWE |

### DTS Bandwidth

| Test Description    | Lower Limit | Upper Limit | Measured | Unit | Verdict |
|---------------------|-------------|-------------|----------|------|---------|
| DTS Bandwidth (6dB) | ---         | ---         | 700      | kHz  | INFO    |



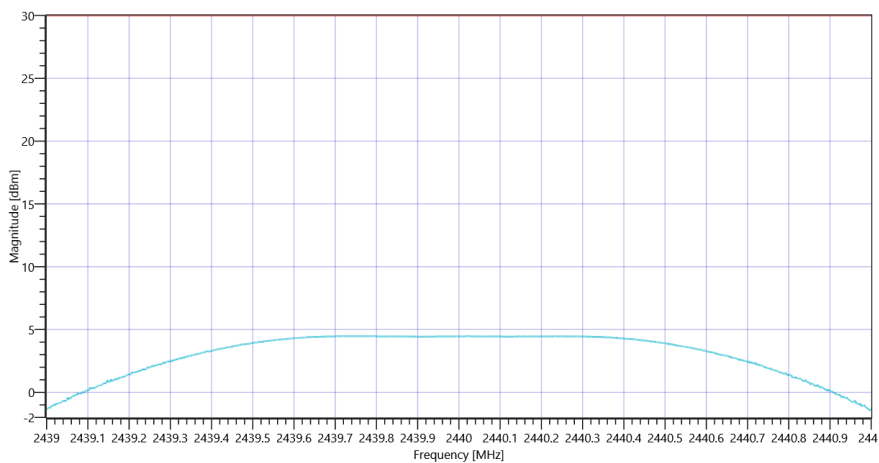
Plot\_FCC Part 15.247 Maximum Peak Conducted Output Power DTS ~ BT LE 1 Msps DTS BW\_27092021\_162412.png

### READ SA SETTINGS:

|                                                      |                       |
|------------------------------------------------------|-----------------------|
| RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]   | 14.48   10.9   20     |
| Start [MHz]   Stop [MHz]                             | 2439.000   2441.000   |
| RBW [MHz]   VBW [MHz]                                | 1.000000   5.000000   |
| Detector   TraceMode                                 | POS   MAXH            |
| Sweep: Time [ms]   Count   Points per Section   Type | 50   200   1001   SWE |

### RESULT

| Test Description  | Lower Limit | Upper Limit | Measured | Unit | Verdict |
|-------------------|-------------|-------------|----------|------|---------|
| Peak Power        | ---         | 30.00       | 4.47     | dBm  | PASS    |
| Peak Power        | ---         | 1000        | 2.798981 | mW   | PASS    |
| Frequency at Peak | ---         | ---         | 2439.75  | MHz  | INFO    |



Plot\_FCC Part 15.247 Maximum Peak Conducted Output Power DTS ~ BT LE 1 Msps\_27092021\_162430.png

|                 |      |
|-----------------|------|
| TEST FINISHED   |      |
| General Verdict | PASS |

## 7. FCC Part 15.247 Bandwidth 6dB DTS ~ BT LE 1 Msps

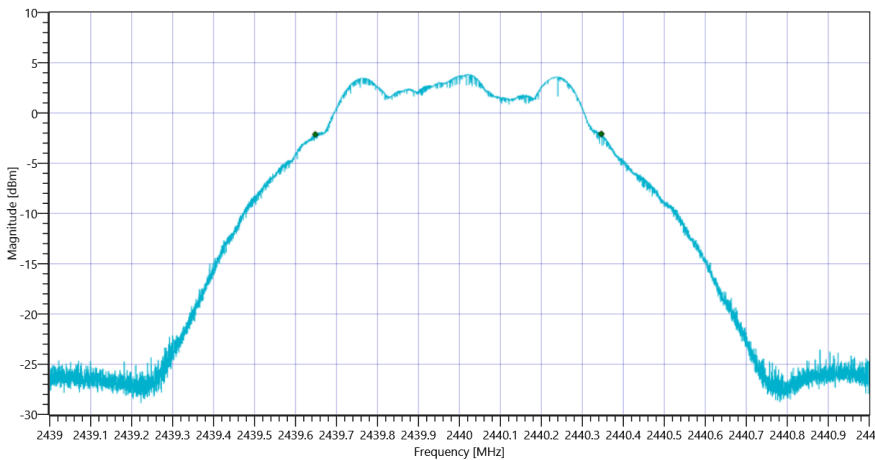
| Test References                   |                                             |
|-----------------------------------|---------------------------------------------|
| TC Start                          | 27.09.2021 16:24:35                         |
| Ambit Temp [°C]   Humidity [rel%] | 25.2   50                                   |
| System Version                    | 3.0.1.8                                     |
| Test Specification                | FCC Part 15.247                             |
| Test Method                       | 99                                          |
| TC Version                        | 0.0.1                                       |
| My Description                    | FCC 15.247 Bandwidth 6dB DTS - BT LE 1 Msps |
| Add. Information                  |                                             |

| Test Parameter                                   |                                        |
|--------------------------------------------------|----------------------------------------|
| Technology to test                               | BT LE 1 Msps                           |
| Antenna Port used                                | 1                                      |
| Temperature                                      | nom                                    |
| Voltage                                          | nom                                    |
| Frequency low to test                            | False   Freq [MHz] 2402                |
| Frequency mid to test                            | True   Freq [MHz] 2440                 |
| Frequency high to test                           | False   Freq [MHz] 2480                |
| Auto Control enabled Power Supply   Climatic Box | No   No                                |
| Additional Path Loss [dB]                        | 0.8                                    |
| Switched Path                                    | EUT - SignalingUnit - SpectrumAnalyzer |

Test at TX 2440 MHz

|                                                      |                        |  |
|------------------------------------------------------|------------------------|--|
| READ SA SETTINGS:                                    |                        |  |
| RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]   | 9.51   10.9   15       |  |
| Start [MHz]   Stop [MHz]                             | 2439.000   2441.000    |  |
| 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 (6dB) | 500         | ---         | 698      | kHz  | PASS    |



|                 |      |
|-----------------|------|
| TEST FINISHED   |      |
| General Verdict | PASS |

## 8. FCC Part 15.247 Peak Power Spectral Density DTS ~ BT LE 1 Msps

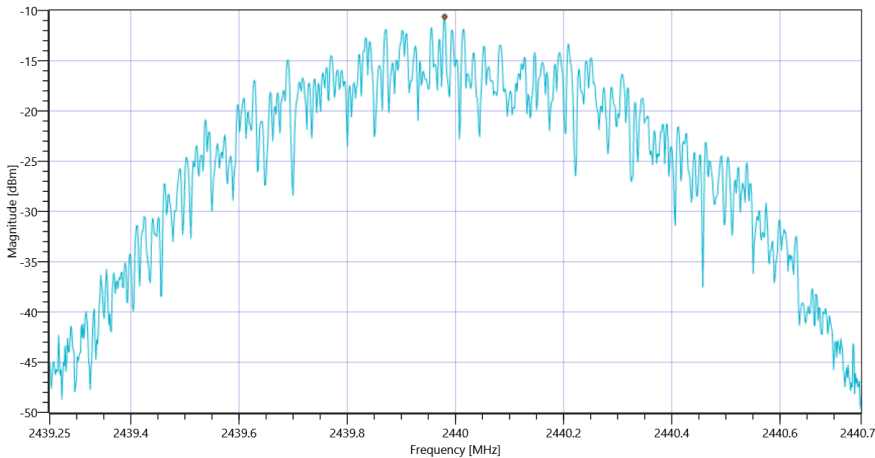
| Test References                   |                                                                                                            |
|-----------------------------------|------------------------------------------------------------------------------------------------------------|
| TC Start                          | 27.09.2021 16:25:10                                                                                        |
| Ambit Temp [°C]   Humidity [rel%] | 25.2   50                                                                                                  |
| System Version                    | 3.0.1.8                                                                                                    |
| Test Specification                | FCC Part 15.247                                                                                            |
| Test Method                       | DTS: KDB 558074 D01 V05 - Chapter 8.4 DTS maximum power spectral density level in the fundamental emission |
| TC Version                        | 0.0.1                                                                                                      |
| My Description                    | FCC 15.247 Peak Power Spectral Density DTS - BT LE 1 Msps                                                  |
| Add. Information                  |                                                                                                            |

| Test Parameter                                   |                                        |
|--------------------------------------------------|----------------------------------------|
| Technology to test                               | BT LE 1 Msps                           |
| Antenna Port used                                | 1                                      |
| Temperature                                      | nom                                    |
| Voltage                                          | nom                                    |
| Frequency low to test                            | False   Freq [MHz] 2402                |
| Frequency mid to test                            | True   Freq [MHz] 2440                 |
| Frequency high to test                           | False   Freq [MHz] 2480                |
| Auto Control enabled Power Supply   Climatic Box | No   No                                |
| Additional Path Loss [dB]                        | 0.8                                    |
| Switched Path                                    | EUT - SignalingUnit - SpectrumAnalyzer |

Test at TX 2440 MHz

|                                                      |                        |
|------------------------------------------------------|------------------------|
| READ SA SETTINGS:                                    |                        |
| RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]   | 9.54   10.9   15       |
| Start [MHz]   Stop [MHz]                             | 2439.250   2440.750    |
| RBW [MHz]   VBW [MHz]                                | 0.003000   0.010000    |
| Detector   TraceMode                                 | POS   MAXH             |
| Sweep: Time [ms]   Count   Points per Section   Type | 1000   20   1001   SWE |

| RESULT                 |             |             |          |          |         |
|------------------------|-------------|-------------|----------|----------|---------|
| Test Description       | Lower Limit | Upper Limit | Measured | Unit     | Verdict |
| Max Peak power Density | ---         | 8           | -10.62   | dBm/3KHz | PASS    |



|                 |      |
|-----------------|------|
| TEST FINISHED   |      |
| General Verdict | PASS |

## 9. FCC Part 15.247 Bandwidth 99PCT-20dB ~ BT LE 1 Msps

| Test References                   |                                                    |
|-----------------------------------|----------------------------------------------------|
| TC Start                          | 27.09.2021 16:25:54                                |
| Ambit Temp [°C]   Humidity [rel%] | 25.2   50                                          |
| System Version                    | 3.0.1.8                                            |
| Test Specification                | FCC Part 15.247                                    |
| Test Method                       |                                                    |
| TC Version                        | 0.0.2                                              |
| My Description                    | FCC 15.247 Bandwidth 99PCT-20dB DTS - BT LE 1 Msps |
| Add. Information                  |                                                    |

| Test Parameter                                   |                                        |
|--------------------------------------------------|----------------------------------------|
| Technology to test                               | BT LE 1 Msps                           |
| Antenna Port used                                | 1                                      |
| Temperature                                      | nom                                    |
| Voltage                                          | nom                                    |
| Frequency low to test                            | False   Freq [MHz] 2402                |
| Frequency mid to test                            | True   Freq [MHz] 2440                 |
| Frequency high to test                           | False   Freq [MHz] 2480                |
| Auto Control enabled Power Supply   Climatic Box | No   No                                |
| Additional Path Loss [dB]                        | 0.8                                    |
| Switched Path                                    | EUT - SignalingUnit - SpectrumAnalyzer |

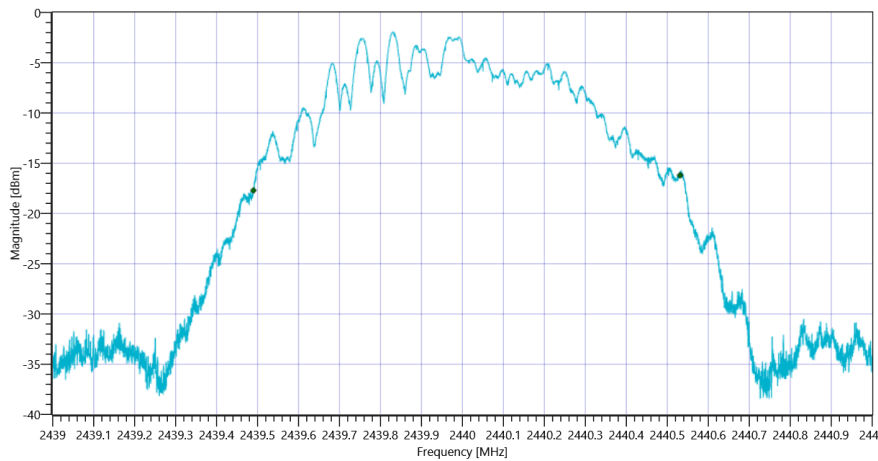
## Test at TX 2440 MHz

### READ SA SETTINGS:

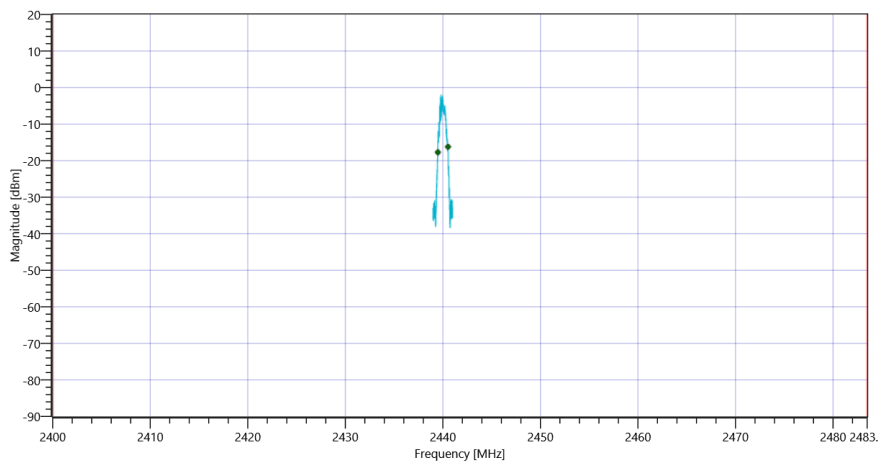
|                                                      |                        |
|------------------------------------------------------|------------------------|
| RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]   | 9.52   10.9   15       |
| Start [MHz]   Stop [MHz]                             | 2439.000   2441.000    |
| RBW [MHz]   VBW [MHz]                                | 0.020000   0.100000    |
| 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%    | ---         | ---         | 1041.296  | kHz  | INFO    |
| T1 99%           | 2400.000000 | ---         | 2439.4899 | MHz  | PASS    |
| T2 99%           | ---         | 2483.500000 | 2440.5311 | MHz  | PASS    |



Plot\_FCC Part 15.247 Bandwidth 99PCT-20dB ~ BT LE 1 Msps 99PCT\_27092021\_162624.png

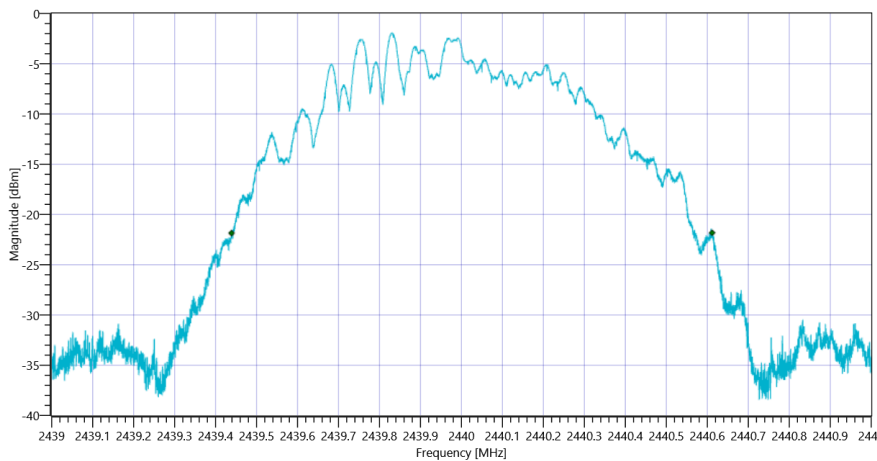


Plot\_FCC Part 15.247 Bandwidth 99PCT-20dB ~ BT LE 1 Msps 27092021\_162630.png

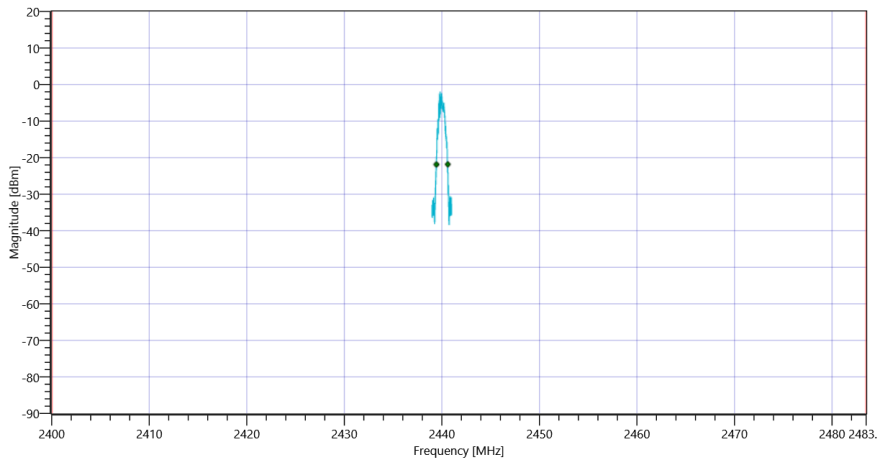
### RESULT

| Test Description | Lower Limit | Upper Limit | Measured  | Unit | Verdict |
|------------------|-------------|-------------|-----------|------|---------|
| Bandwidth 20dB   | ---         | ---         | 1173      | kHz  | INFO    |
| T1 20dB          | 2400.000000 | ---         | 2439.4390 | MHz  | PASS    |
| T2 20dB          | ---         | 2483.500000 | 2440.6118 | MHz  | PASS    |





Plot\_FCC Part 15.247 Bandwidth 99PCT-20dB ~ BT LE 1 Msps 20dB\_27092021\_162637.png



Plot\_FCC Part 15.247 Bandwidth 99PCT-20dB ~ BT LE 1 Msps\_27092021\_162643.png

|                 |      |
|-----------------|------|
| TEST FINISHED   |      |
| General Verdict | PASS |

## 10. FCC Part 15.247 TX Spurious Conducted ~ BT LE 1 Msps

| Test References                   |                                                                                                                |
|-----------------------------------|----------------------------------------------------------------------------------------------------------------|
| TC Start                          | 27.09.2021 16:26:48                                                                                            |
| Ambit Temp [°C]   Humidity [rel%] | 25.2   50                                                                                                      |
| System Version                    | 3.0.1.8                                                                                                        |
| Test Specification                | FCC Part 15.247                                                                                                |
| Test Method                       | IF DTS then 8.5 DTS emissions in non-restricted frequency bands: Subclause 11.11 of ANSI C63.10 is applicable. |
| TC Version                        | 0.0.1                                                                                                          |
| My Description                    | FCC 15.247 TX Emissions Conducted DTS - BT LE 1 Msps                                                           |
| Add. Information                  |                                                                                                                |

| Test Parameter                                   |                                        |
|--------------------------------------------------|----------------------------------------|
| Technology to test                               | BT LE 1 Msps                           |
| Antenna Port used                                | 1                                      |
| Temperature                                      | nom                                    |
| Voltage                                          | nom                                    |
| Frequency low to test                            | False   Freq [MHz] 2402                |
| Frequency mid to test                            | True   Freq [MHz] 2440                 |
| Frequency high to test                           | False   Freq [MHz] 2480                |
| Auto Control enabled Power Supply   Climatic Box | No   No                                |
| Additional Path Loss [dB]                        | 0.8                                    |
| Switched Path                                    | EUT - SignalingUnit - SpectrumAnalyzer |

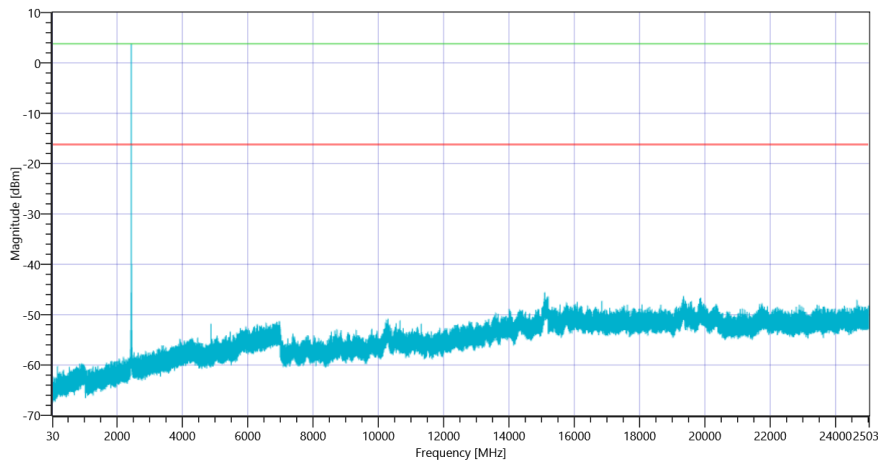
## Test at TX 2440 MHz

### READ SA SETTINGS:

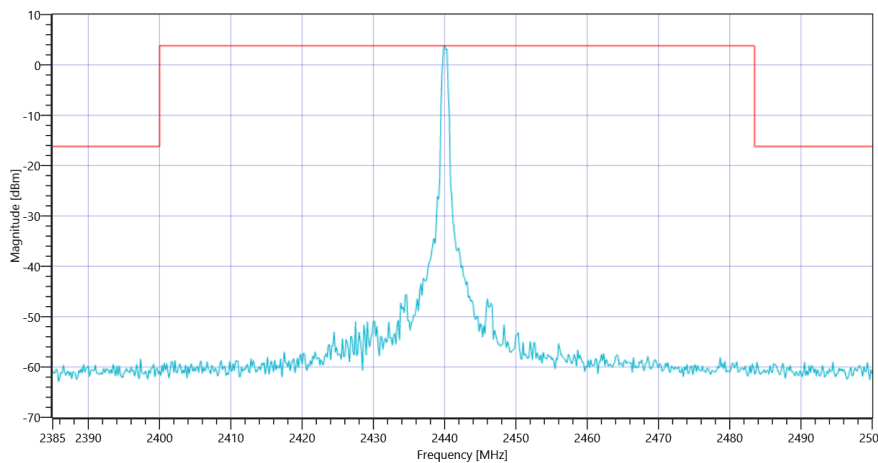
|                                                      |                       |
|------------------------------------------------------|-----------------------|
| RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]   | 4.48   0   20         |
| Start [MHz]   Stop [MHz]                             | 24530.000   25030.000 |
| RBW [MHz]   VBW [MHz]                                | 0.100000   0.300000   |
| Detector   TraceMode                                 | POS   MAXH            |
| Sweep: Time [ms]   Count   Points per Section   Type | 500   8   3001   SWE  |

### RESULT

| Test Description                     | Lower Limit | Upper Limit | Measured | Unit | Verdict |
|--------------------------------------|-------------|-------------|----------|------|---------|
| Reference @ 2440.00 MHz              | ---         | ---         | 3.79     | dBm  | INFO    |
| No peaks detected                    | ---         | ---         |          |      | PASS    |
| Lowest margin to limit 15097.333 MHz | 0           | ---         | 29.38    | dB   | INFO    |



Plot\_FCC Part 15.247 TX Spurious Conducted ~ BT LE 1 Msps 2440\_27092021\_163220.png



Plot\_FCC Part 15.247 TX Spurious Conducted ~ BT LE 1 Msps 2440\_27092021\_163225.png

### TEST FINISHED

General Verdict

PASS

## 11. FCC Part 15.247 Maximum Peak Conducted Output Power DTS ~ BT LE 1 Msps

| Test References                   |                                                                   |
|-----------------------------------|-------------------------------------------------------------------|
| TC Start                          | 27.09.2021 17:35:09                                               |
| Ambit Temp [°C]   Humidity [rel%] | 25.0   50                                                         |
| System Version                    | 3.0.1.8                                                           |
| Test Specification                | FCC Part 15.247                                                   |
| Test Method                       | DTS: KDB 558074 D01 V05 - Chapter 8.3.1.1 RBW ≥ DTS Bandwidth     |
| TC Version                        | 0.0.1                                                             |
| My Description                    | FCC 15.247 Maximum Peak Output Power Conducted DTS - BT LE 1 Msps |
| Add. Information                  |                                                                   |

| Test Parameter                                   |                                        |
|--------------------------------------------------|----------------------------------------|
| Technology to test                               | BT LE 1 Msps                           |
| Antenna Port used                                | 1                                      |
| Temperature                                      | nom                                    |
| Voltage                                          | nom                                    |
| Frequency low to test                            | False   Freq [MHz] 2402                |
| Frequency mid to test                            | False   Freq [MHz] 2440                |
| Frequency high to test                           | True   Freq [MHz] 2480                 |
| Auto Control enabled Power Supply   Climatic Box | No   No                                |
| Additional Path Loss [dB]                        | 0.8                                    |
| Switched Path                                    | EUT - SignalingUnit - SpectrumAnalyzer |

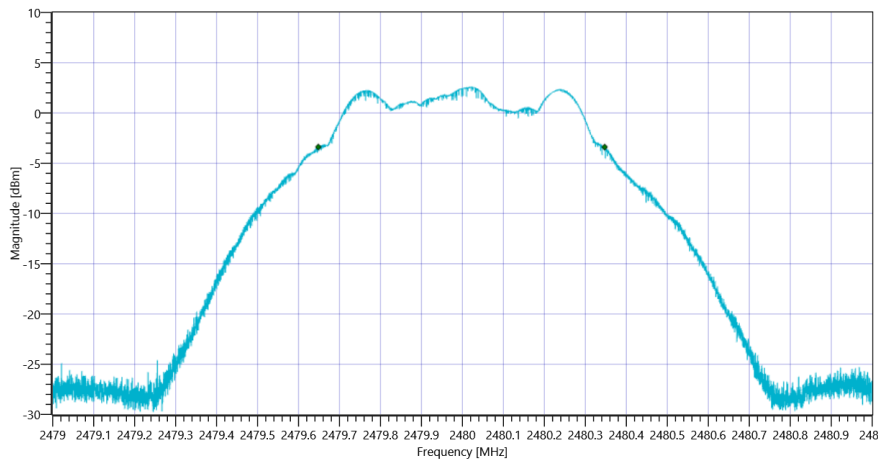
## Test at TX 2480 MHz

### READ SA SETTINGS:

|                                                      |                        |
|------------------------------------------------------|------------------------|
| RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]   | 8.25   10.95   15      |
| Start [MHz]   Stop [MHz]                             | 2479.000   2481.000    |
| RBW [MHz]   VBW [MHz]                                | 0.100000   0.300000    |
| Detector   TraceMode                                 | POS   MAXH             |
| Sweep: Time [ms]   Count   Points per Section   Type | 50   200   10001   SWE |

### DTS Bandwidth

| Test Description    | Lower Limit | Upper Limit | Measured | Unit | Verdict |
|---------------------|-------------|-------------|----------|------|---------|
| DTS Bandwidth (6dB) | ---         | ---         | 699      | kHz  | INFO    |



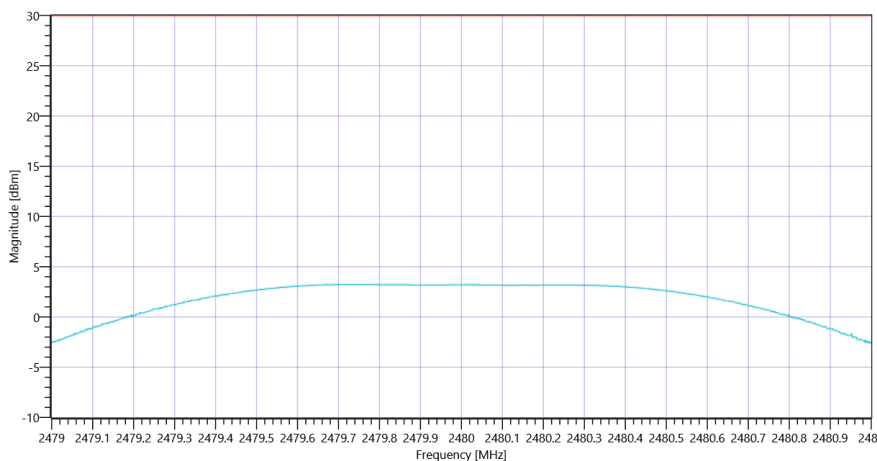
Plot\_FCC Part 15.247 Maximum Peak Conducted Output Power DTS ~ BT LE 1 Msps DTS BW\_27092021\_173538.png

### READ SA SETTINGS:

|                                                      |                       |
|------------------------------------------------------|-----------------------|
| RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]   | 13.25   10.95   20    |
| Start [MHz]   Stop [MHz]                             | 2479.000   2481.000   |
| RBW [MHz]   VBW [MHz]                                | 1.000000   5.000000   |
| Detector   TraceMode                                 | POS   MAXH            |
| Sweep: Time [ms]   Count   Points per Section   Type | 50   200   1001   SWE |

### RESULT

| Test Description  | Lower Limit | Upper Limit | Measured | Unit | Verdict |
|-------------------|-------------|-------------|----------|------|---------|
| Peak Power        | ---         | 30.00       | 3.23     | dBm  | PASS    |
| Peak Power        | ---         | 1000        | 2.103778 | mW   | PASS    |
| Frequency at Peak | ---         | ---         | 2479.738 | MHz  | INFO    |



Plot\_FCC Part 15.247 Maximum Peak Conducted Output Power DTS ~ BT LE 1 Msps\_27092021\_173556.png

|                 |      |
|-----------------|------|
| TEST FINISHED   |      |
| General Verdict | PASS |

## 12. FCC Part 15.247 Bandwidth 6dB DTS ~ BT LE 1 Msps

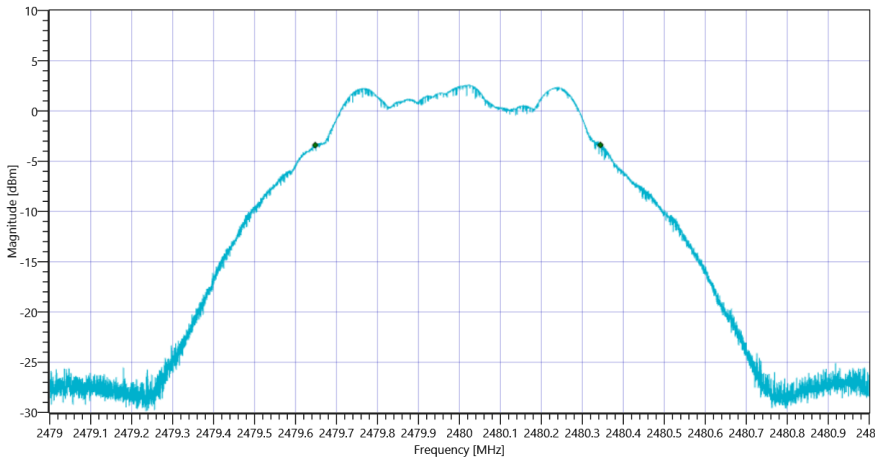
| Test References                   |                                             |
|-----------------------------------|---------------------------------------------|
| TC Start                          | 27.09.2021 17:36:01                         |
| Ambit Temp [°C]   Humidity [rel%] | 25.1   50                                   |
| System Version                    | 3.0.1.8                                     |
| Test Specification                | FCC Part 15.247                             |
| Test Method                       | 99                                          |
| TC Version                        | 0.0.1                                       |
| My Description                    | FCC 15.247 Bandwidth 6dB DTS - BT LE 1 Msps |
| Add. Information                  |                                             |

| Test Parameter                                   |                                        |
|--------------------------------------------------|----------------------------------------|
| Technology to test                               | BT LE 1 Msps                           |
| Antenna Port used                                | 1                                      |
| Temperature                                      | nom                                    |
| Voltage                                          | nom                                    |
| Frequency low to test                            | False   Freq [MHz] 2402                |
| Frequency mid to test                            | False   Freq [MHz] 2440                |
| Frequency high to test                           | True   Freq [MHz] 2480                 |
| Auto Control enabled Power Supply   Climatic Box | No   No                                |
| Additional Path Loss [dB]                        | 0.8                                    |
| Switched Path                                    | EUT - SignalingUnit - SpectrumAnalyzer |

Test at TX 2480 MHz

| READ SA SETTINGS:                                    |                        |
|------------------------------------------------------|------------------------|
| RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]   | 8.28   10.95   15      |
| Start [MHz]   Stop [MHz]                             | 2479.000   2481.000    |
| 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 (6dB) | 500         | ---         | 696      | kHz  | PASS    |



| TEST FINISHED   |      |
|-----------------|------|
| General Verdict | PASS |



## 13. FCC Part 15.247 Peak Power Spectral Density DTS ~ BT LE 1 Msps

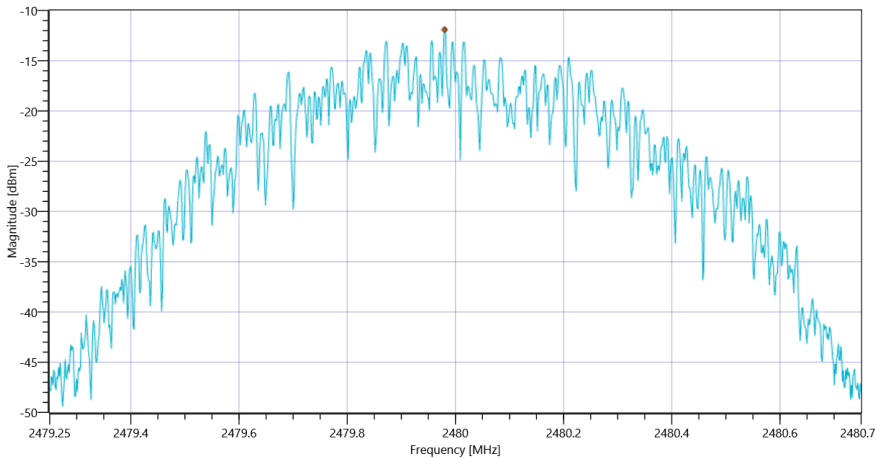
| Test References                   |                                                                                                            |
|-----------------------------------|------------------------------------------------------------------------------------------------------------|
| TC Start                          | 27.09.2021 17:36:36                                                                                        |
| Ambit Temp [°C]   Humidity [rel%] | 25.2   50                                                                                                  |
| System Version                    | 3.0.1.8                                                                                                    |
| Test Specification                | FCC Part 15.247                                                                                            |
| Test Method                       | DTS: KDB 558074 D01 V05 - Chapter 8.4 DTS maximum power spectral density level in the fundamental emission |
| TC Version                        | 0.0.1                                                                                                      |
| My Description                    | FCC 15.247 Peak Power Spectral Density DTS - BT LE 1 Msps                                                  |
| Add. Information                  |                                                                                                            |

| Test Parameter                                   |                                        |
|--------------------------------------------------|----------------------------------------|
| Technology to test                               | BT LE 1 Msps                           |
| Antenna Port used                                | 1                                      |
| Temperature                                      | nom                                    |
| Voltage                                          | nom                                    |
| Frequency low to test                            | False   Freq [MHz] 2402                |
| Frequency mid to test                            | False   Freq [MHz] 2440                |
| Frequency high to test                           | True   Freq [MHz] 2480                 |
| Auto Control enabled Power Supply   Climatic Box | No   No                                |
| Additional Path Loss [dB]                        | 0.8                                    |
| Switched Path                                    | EUT - SignalingUnit - SpectrumAnalyzer |

Test at TX 2480 MHz

|                                                      |                        |
|------------------------------------------------------|------------------------|
| READ SA SETTINGS:                                    |                        |
| RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]   | 8.27   10.95   15      |
| Start [MHz]   Stop [MHz]                             | 2479.250   2480.750    |
| RBW [MHz]   VBW [MHz]                                | 0.003000   0.010000    |
| Detector   TraceMode                                 | POS   MAXH             |
| Sweep: Time [ms]   Count   Points per Section   Type | 1000   20   1001   SWE |

| RESULT                 |             |             |          |          |         |
|------------------------|-------------|-------------|----------|----------|---------|
| Test Description       | Lower Limit | Upper Limit | Measured | Unit     | Verdict |
| Max Peak power Density | ---         | 8           | -11.9    | dBm/3KHz | PASS    |



Plot\_FCC Part 15.247 Peak Power Spectral Density DTS ~ BT LE 1 Msps\_27092021\_173715.png

|                 |      |
|-----------------|------|
| TEST FINISHED   |      |
| General Verdict | PASS |

## 14. FCC Part 15.247 Bandwidth 99PCT-20dB ~ BT LE 1 Msps

| Test References                   |                                                    |
|-----------------------------------|----------------------------------------------------|
| TC Start                          | 27.09.2021 17:37:20                                |
| Ambit Temp [°C]   Humidity [rel%] | 25.2   50                                          |
| System Version                    | 3.0.1.8                                            |
| Test Specification                | FCC Part 15.247                                    |
| Test Method                       |                                                    |
| TC Version                        | 0.0.2                                              |
| My Description                    | FCC 15.247 Bandwidth 99PCT-20dB DTS - BT LE 1 Msps |
| Add. Information                  |                                                    |

| Test Parameter                                   |                                        |
|--------------------------------------------------|----------------------------------------|
| Technology to test                               | BT LE 1 Msps                           |
| Antenna Port used                                | 1                                      |
| Temperature                                      | nom                                    |
| Voltage                                          | nom                                    |
| Frequency low to test                            | False   Freq [MHz] 2402                |
| Frequency mid to test                            | False   Freq [MHz] 2440                |
| Frequency high to test                           | True   Freq [MHz] 2480                 |
| Auto Control enabled Power Supply   Climatic Box | No   No                                |
| Additional Path Loss [dB]                        | 0.8                                    |
| Switched Path                                    | EUT - SignalingUnit - SpectrumAnalyzer |

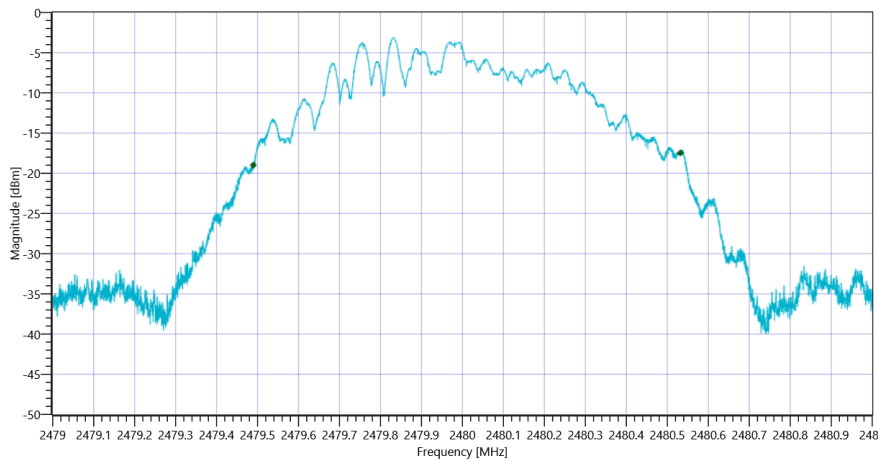
## Test at TX 2480 MHz

### READ SA SETTINGS:

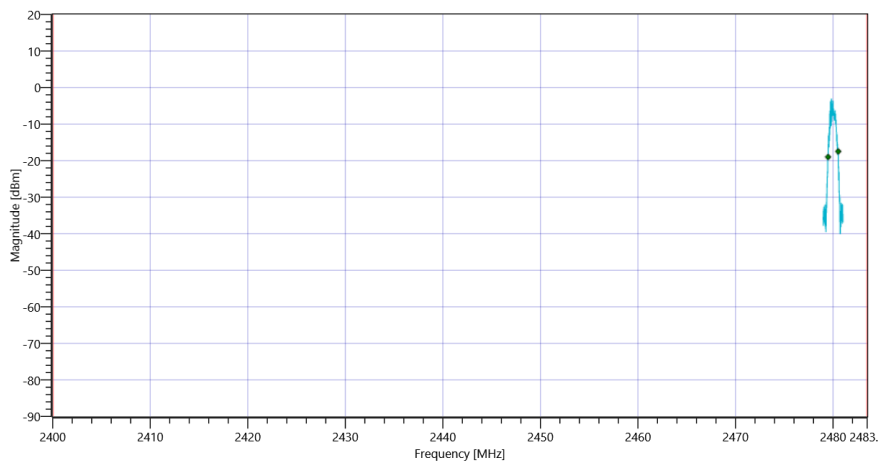
|                                                      |                        |
|------------------------------------------------------|------------------------|
| RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]   | 8.26   10.95   15      |
| Start [MHz]   Stop [MHz]                             | 2479.000   2481.000    |
| RBW [MHz]   VBW [MHz]                                | 0.020000   0.100000    |
| 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%    | ---         | ---         | 1042.296  | kHz  | INFO    |
| T1 99%           | 2400.000000 | ---         | 2479.4895 | MHz  | PASS    |
| T2 99%           | ---         | 2483.500000 | 2480.5317 | MHz  | PASS    |



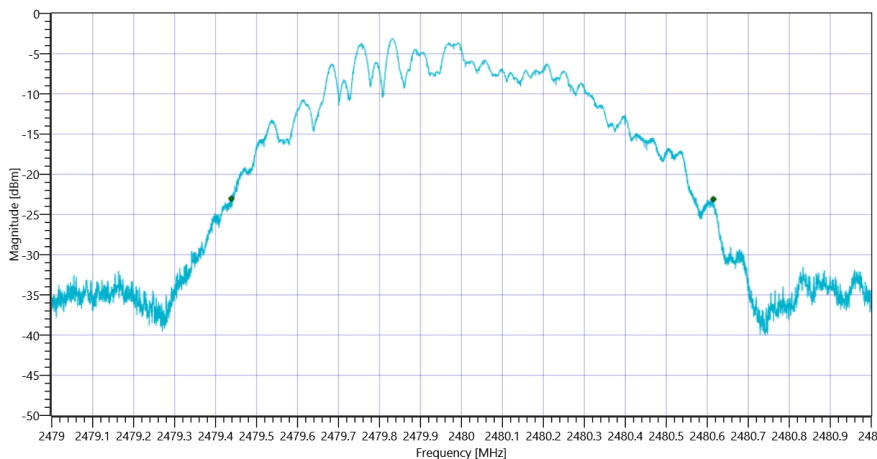
Plot\_FCC Part 15.247 Bandwidth 99PCT-20dB ~ BT LE 1 Msps 99PCT\_27092021\_173750.png



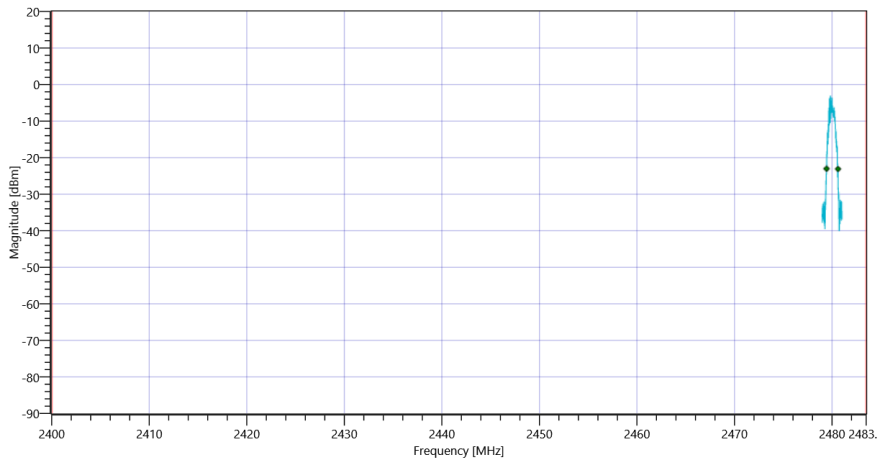
Plot\_FCC Part 15.247 Bandwidth 99PCT-20dB ~ BT LE 1 Msps\_27092021\_173757.png

### RESULT

| Test Description | Lower Limit | Upper Limit | Measured  | Unit | Verdict |
|------------------|-------------|-------------|-----------|------|---------|
| Bandwidth 20dB   | ---         | ---         | 1176      | kHz  | INFO    |
| T1 20dB          | 2400.000000 | ---         | 2479.4384 | MHz  | PASS    |
| T2 20dB          | ---         | 2483.500000 | 2480.6148 | MHz  | PASS    |



Plot\_FCC Part 15.247 Bandwidth 99PCT-20dB ~ BT LE 1 Msps 20dB\_27092021\_173804.png



Plot\_FCC Part 15.247 Bandwidth 99PCT-20dB ~ BT LE 1 Msps\_27092021\_173810.png

|                 |      |
|-----------------|------|
| TEST FINISHED   |      |
| General Verdict | PASS |

## 15. FCC Part 15.247 TX Spurious Conducted ~ BT LE 1 Msps

| Test References                   |                                                                                                                |
|-----------------------------------|----------------------------------------------------------------------------------------------------------------|
| TC Start                          | 27.09.2021 17:38:15                                                                                            |
| Ambit Temp [°C]   Humidity [rel%] | 25.1   50                                                                                                      |
| System Version                    | 3.0.1.8                                                                                                        |
| Test Specification                | FCC Part 15.247                                                                                                |
| Test Method                       | IF DTS then 8.5 DTS emissions in non-restricted frequency bands: Subclause 11.11 of ANSI C63.10 is applicable. |
| TC Version                        | 0.0.1                                                                                                          |
| My Description                    | FCC 15.247 TX Emissions Conducted DTS - BT LE 1 Msps                                                           |
| Add. Information                  |                                                                                                                |

| Test Parameter                                   |                                        |
|--------------------------------------------------|----------------------------------------|
| Technology to test                               | BT LE 1 Msps                           |
| Antenna Port used                                | 1                                      |
| Temperature                                      | nom                                    |
| Voltage                                          | nom                                    |
| Frequency low to test                            | False   Freq [MHz] 2402                |
| Frequency mid to test                            | False   Freq [MHz] 2440                |
| Frequency high to test                           | True   Freq [MHz] 2480                 |
| Auto Control enabled Power Supply   Climatic Box | No   No                                |
| Additional Path Loss [dB]                        | 0.8                                    |
| Switched Path                                    | EUT - SignalingUnit - SpectrumAnalyzer |

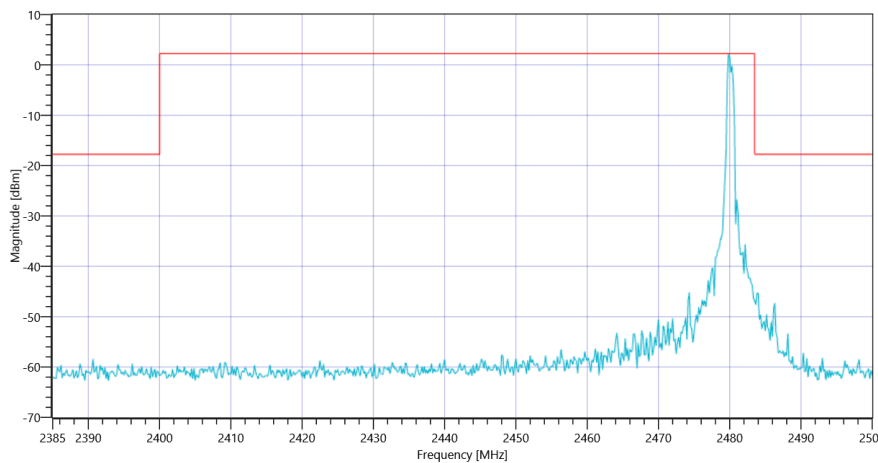
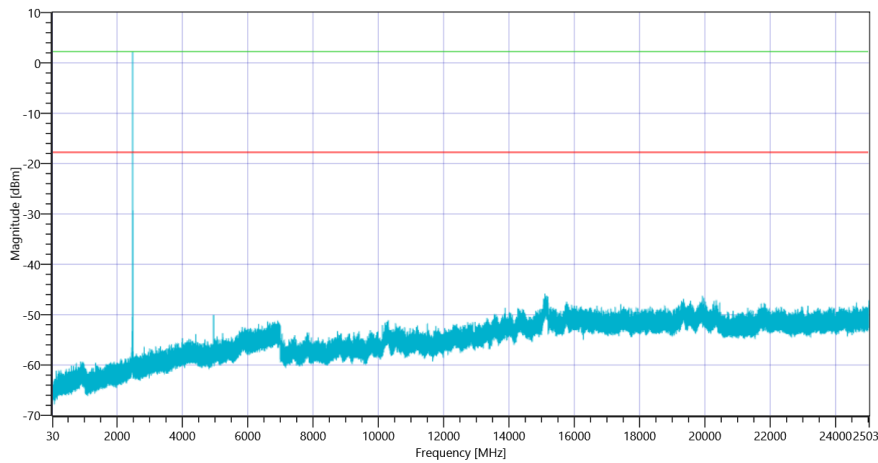
## Test at TX 2480 MHz

### READ SA SETTINGS:

|                                                      |                       |
|------------------------------------------------------|-----------------------|
| RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]   | 3.29   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 | 500   8   3001   SWE  |

### RESULT

| Test Description                    | Lower Limit | Upper Limit | Measured | Unit | Verdict |
|-------------------------------------|-------------|-------------|----------|------|---------|
| Reference @ 2479.83 MHz             | ---         | ---         | 2.24     | dBm  | INFO    |
| No peaks detected                   | ---         | ---         |          |      | PASS    |
| Lowest margin to limit 2483.833 MHz | 0           | ---         | 27.55    | dB   | INFO    |



### TEST FINISHED

General Verdict

PASS

## 16. FCC Part 15.247 Maximum Peak Conducted Output Power DTS ~ BT LE 2 Msps

| Test References                   |                                                                   |
|-----------------------------------|-------------------------------------------------------------------|
| TC Start                          | 28.09.2021 09:40:38                                               |
| Ambit Temp [°C]   Humidity [rel%] | 22.9   48                                                         |
| System Version                    | 3.0.1.8                                                           |
| Test Specification                | FCC Part 15.247                                                   |
| Test Method                       | DTS: KDB 558074 D01 V05 - Chapter 8.3.1.1 RBW ≥ DTS Bandwidth     |
| TC Version                        | 0.0.1                                                             |
| My Description                    | FCC 15.247 Maximum Peak Output Power Conducted DTS - BT LE 2 Msps |
| Add. Information                  |                                                                   |

| Test Parameter                                   |                                        |
|--------------------------------------------------|----------------------------------------|
| Technology to test                               | BT LE 2 Msps                           |
| Antenna Port used                                | 1                                      |
| Temperature                                      | nom                                    |
| Voltage                                          | nom                                    |
| Frequency low to test                            | True   Freq [MHz] 2404                 |
| Frequency mid to test                            | False   Freq [MHz] 2440                |
| Frequency high to test                           | False   Freq [MHz] 2480                |
| Auto Control enabled Power Supply   Climatic Box | No   No                                |
| Additional Path Loss [dB]                        | 0.8                                    |
| Switched Path                                    | EUT - SignalingUnit - SpectrumAnalyzer |



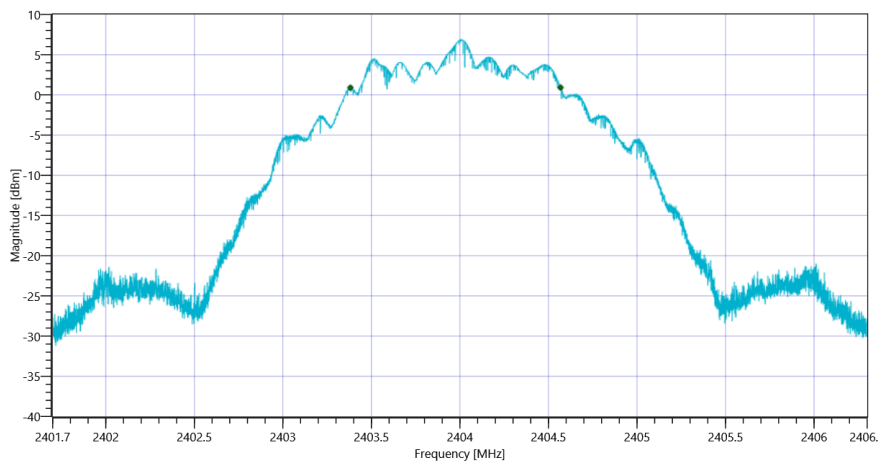
## Test at TX 2404 MHz

### READ SA SETTINGS:

|                                                      |                        |
|------------------------------------------------------|------------------------|
| RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]   | 12.89   10.9   20      |
| Start [MHz]   Stop [MHz]                             | 2401.700   2406.300    |
| RBW [MHz]   VBW [MHz]                                | 0.100000   0.300000    |
| Detector   TraceMode                                 | POS   MAXH             |
| Sweep: Time [ms]   Count   Points per Section   Type | 50   200   10001   SWE |

### DTS Bandwidth

| Test Description    | Lower Limit | Upper Limit | Measured | Unit | Verdict |
|---------------------|-------------|-------------|----------|------|---------|
| DTS Bandwidth (6dB) | ---         | ---         | 1187     | kHz  | INFO    |



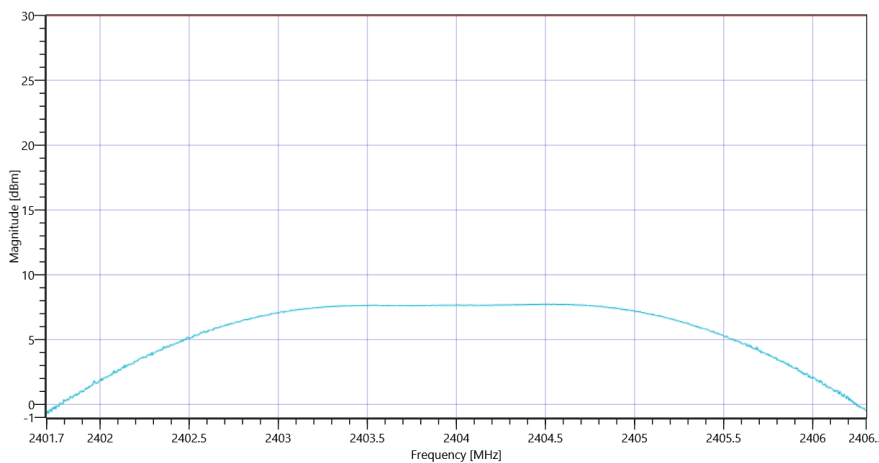
Plot\_FCC Part 15.247 Maximum Peak Conducted Output Power DTS ~ BT LE 2 Msps DTS BW\_28092021\_094107.png

### READ SA SETTINGS:

|                                                      |                       |
|------------------------------------------------------|-----------------------|
| RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]   | 17.89   10.9   25     |
| Start [MHz]   Stop [MHz]                             | 2401.700   2406.300   |
| RBW [MHz]   VBW [MHz]                                | 2.000000   5.000000   |
| Detector   TraceMode                                 | POS   MAXH            |
| Sweep: Time [ms]   Count   Points per Section   Type | 50   200   1001   SWE |

### RESULT

| Test Description  | Lower Limit | Upper Limit | Measured | Unit | Verdict |
|-------------------|-------------|-------------|----------|------|---------|
| Peak Power        | ---         | 30.00       | 7.72     | dBm  | PASS    |
| Peak Power        | ---         | 1000        | 5.915616 | mW   | PASS    |
| Frequency at Peak | ---         | ---         | 2404.519 | MHz  | INFO    |



Plot\_FCC Part 15.247 Maximum Peak Conducted Output Power DTS ~ BT LE 2 Msp.28092021\_094124.png

|                 |      |
|-----------------|------|
| TEST FINISHED   |      |
| General Verdict | PASS |

## 17. FCC Part 15.247 Bandwidth 6dB DTS ~ BT LE 2 Msps

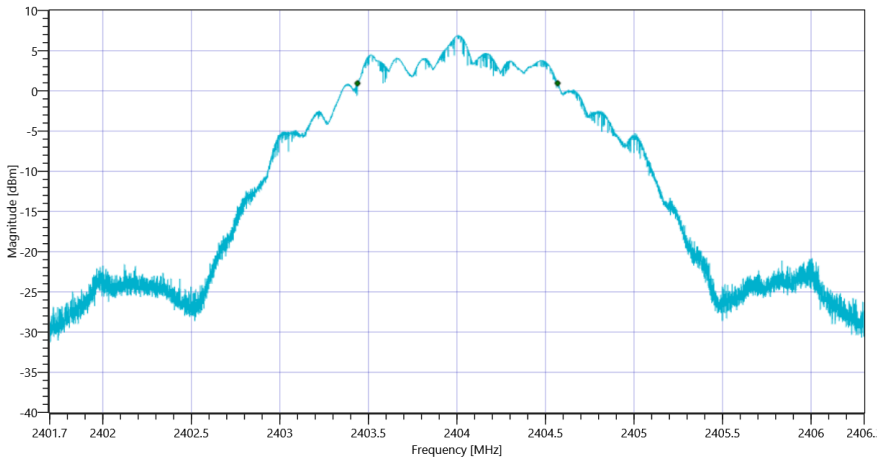
| Test References                   |                                             |
|-----------------------------------|---------------------------------------------|
| TC Start                          | 28.09.2021 09:41:30                         |
| Ambit Temp [°C]   Humidity [rel%] | 23.0   48                                   |
| System Version                    | 3.0.1.8                                     |
| Test Specification                | FCC Part 15.247                             |
| Test Method                       | 99                                          |
| TC Version                        | 0.0.1                                       |
| My Description                    | FCC 15.247 Bandwidth 6dB DTS - BT LE 2 Msps |
| Add. Information                  |                                             |

| Test Parameter                                   |                                        |
|--------------------------------------------------|----------------------------------------|
| Technology to test                               | BT LE 2 Msps                           |
| Antenna Port used                                | 1                                      |
| Temperature                                      | nom                                    |
| Voltage                                          | nom                                    |
| Frequency low to test                            | True   Freq [MHz] 2404                 |
| Frequency mid to test                            | False   Freq [MHz] 2440                |
| Frequency high to test                           | False   Freq [MHz] 2480                |
| Auto Control enabled Power Supply   Climatic Box | No   No                                |
| Additional Path Loss [dB]                        | 0.8                                    |
| Switched Path                                    | EUT - SignalingUnit - SpectrumAnalyzer |

Test at TX 2404 MHz

| READ SA SETTINGS:                                    |                        |
|------------------------------------------------------|------------------------|
| RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]   | 12.89   10.9   20      |
| Start [MHz]   Stop [MHz]                             | 2401.700   2406.300    |
| 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 (6dB) | 500         | ---         | 1131     | kHz  | PASS    |



| TEST FINISHED   |      |
|-----------------|------|
| General Verdict | PASS |

## 18. FCC Part 15.247 Peak Power Spectral Density DTS ~ BT LE 2 Msps

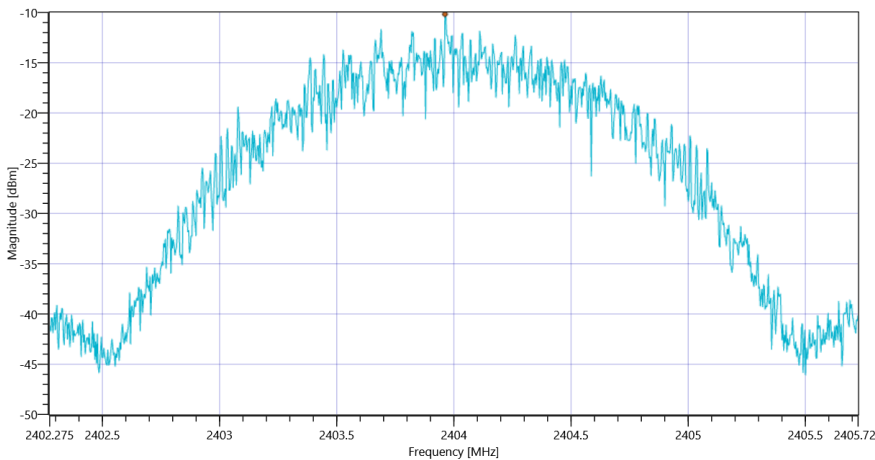
| Test References                   |                                                                                                            |
|-----------------------------------|------------------------------------------------------------------------------------------------------------|
| TC Start                          | 28.09.2021 09:42:03                                                                                        |
| Ambit Temp [°C]   Humidity [rel%] | 23.0   48                                                                                                  |
| System Version                    | 3.0.1.8                                                                                                    |
| Test Specification                | FCC Part 15.247                                                                                            |
| Test Method                       | DTS: KDB 558074 D01 V05 - Chapter 8.4 DTS maximum power spectral density level in the fundamental emission |
| TC Version                        | 0.0.1                                                                                                      |
| My Description                    | FCC 15.247 Peak Power Spectral Density DTS - BT LE 2 Msps                                                  |
| Add. Information                  |                                                                                                            |

| Test Parameter                                   |                                        |
|--------------------------------------------------|----------------------------------------|
| Technology to test                               | BT LE 2 Msps                           |
| Antenna Port used                                | 1                                      |
| Temperature                                      | nom                                    |
| Voltage                                          | nom                                    |
| Frequency low to test                            | True   Freq [MHz] 2404                 |
| Frequency mid to test                            | False   Freq [MHz] 2440                |
| Frequency high to test                           | False   Freq [MHz] 2480                |
| Auto Control enabled Power Supply   Climatic Box | No   No                                |
| Additional Path Loss [dB]                        | 0.8                                    |
| Switched Path                                    | EUT - SignalingUnit - SpectrumAnalyzer |

Test at TX 2404 MHz

| READ SA SETTINGS:                                    |                        |
|------------------------------------------------------|------------------------|
| RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]   | 12.92   10.9   20      |
| Start [MHz]   Stop [MHz]                             | 2402.275   2405.725    |
| RBW [MHz]   VBW [MHz]                                | 0.003000   0.010000    |
| Detector   TraceMode                                 | POS   MAXH             |
| Sweep: Time [ms]   Count   Points per Section   Type | 1000   20   1001   SWE |

| RESULT                 |             |             |          |          |         |
|------------------------|-------------|-------------|----------|----------|---------|
| Test Description       | Lower Limit | Upper Limit | Measured | Unit     | Verdict |
| Max Peak power Density | ---         | 8           | -10.17   | dBm/3KHz | PASS    |



| TEST FINISHED   |      |
|-----------------|------|
| General Verdict | PASS |

## 19. FCC Part 15.247 Bandwidth 99PCT-20dB ~ BT LE 2 Msps

| Test References                   |                                                    |
|-----------------------------------|----------------------------------------------------|
| TC Start                          | 28.09.2021 09:42:48                                |
| Ambit Temp [°C]   Humidity [rel%] | 23.0   48                                          |
| System Version                    | 3.0.1.8                                            |
| Test Specification                | FCC Part 15.247                                    |
| Test Method                       |                                                    |
| TC Version                        | 0.0.2                                              |
| My Description                    | FCC 15.247 Bandwidth 99PCT-20dB DTS - BT LE 2 Msps |
| Add. Information                  |                                                    |

| Test Parameter                                   |                                        |
|--------------------------------------------------|----------------------------------------|
| Technology to test                               | BT LE 2 Msps                           |
| Antenna Port used                                | 1                                      |
| Temperature                                      | nom                                    |
| Voltage                                          | nom                                    |
| Frequency low to test                            | True   Freq [MHz] 2404                 |
| Frequency mid to test                            | False   Freq [MHz] 2440                |
| Frequency high to test                           | False   Freq [MHz] 2480                |
| Auto Control enabled Power Supply   Climatic Box | No   No                                |
| Additional Path Loss [dB]                        | 0.8                                    |
| Switched Path                                    | EUT - SignalingUnit - SpectrumAnalyzer |

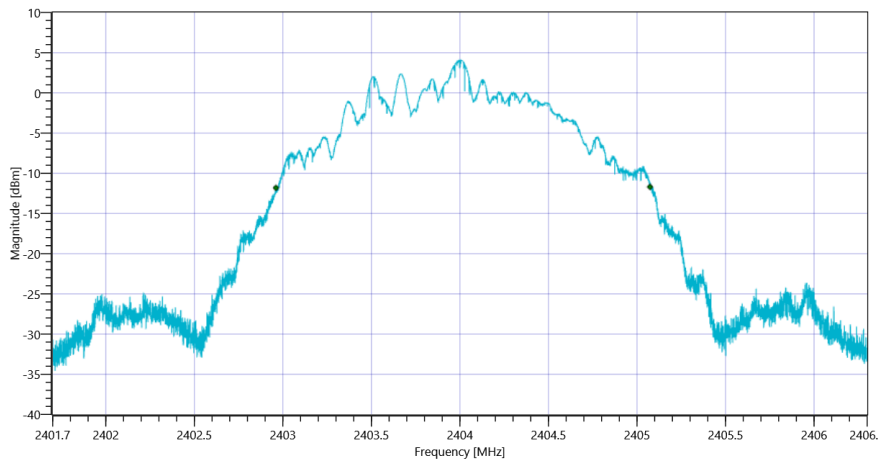
## Test at TX 2404 MHz

### READ SA SETTINGS:

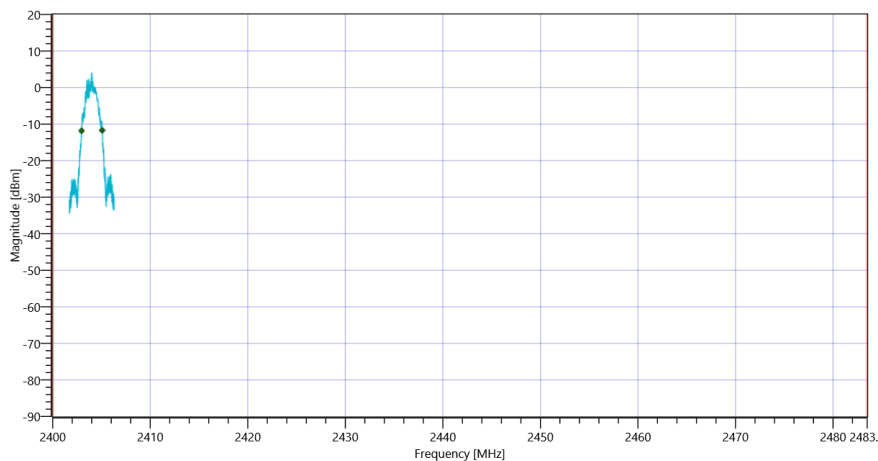
|                                                      |                        |
|------------------------------------------------------|------------------------|
| RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]   | 12.91   10.9   20      |
| Start [MHz]   Stop [MHz]                             | 2401.700   2406.300    |
| RBW [MHz]   VBW [MHz]                                | 0.050000   0.200000    |
| 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%    | ---         | ---         | 2112.569  | kHz  | INFO    |
| T1 99%           | 2400.000000 | ---         | 2402.9610 | MHz  | PASS    |
| T2 99%           | ---         | 2483.500000 | 2405.0735 | MHz  | PASS    |



Plot\_FCC Part 15.247 Bandwidth 99PCT-20dB ~ BT LE 2 Msps 99PCT\_28092021\_094317.png

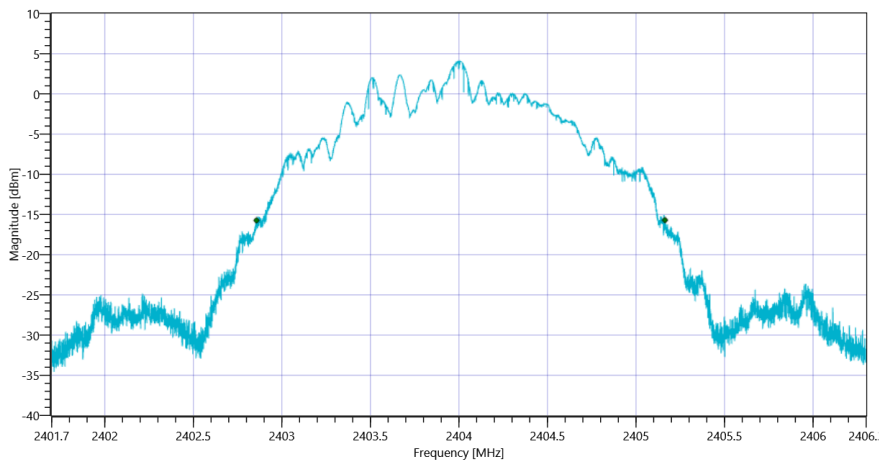


Plot\_FCC Part 15.247 Bandwidth 99PCT-20dB ~ BT LE 2 Msps\_28092021\_094323.png

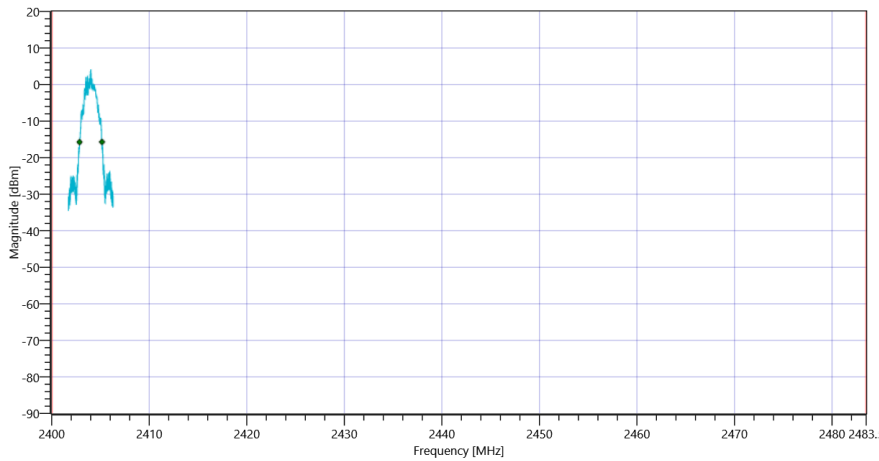
### RESULT

| Test Description | Lower Limit | Upper Limit | Measured  | Unit | Verdict |
|------------------|-------------|-------------|-----------|------|---------|
| Bandwidth 20dB   | ---         | ---         | 2307      | kHz  | INFO    |
| T1 20dB          | 2400.000000 | ---         | 2402.8564 | MHz  | PASS    |
| T2 20dB          | ---         | 2483.500000 | 2405.1633 | MHz  | PASS    |





Plot\_FCC Part 15.247 Bandwidth 99PCT-20dB ~ BT LE 2 Msps 20dB\_28092021\_094330.png



Plot\_FCC Part 15.247 Bandwidth 99PCT-20dB ~ BT LE 2 Msps\_28092021\_094336.png

|                 |      |
|-----------------|------|
| TEST FINISHED   |      |
| General Verdict | PASS |

## 20. FCC Part 15.247 TX Spurious Conducted ~ BT LE 2 Msps

| Test References                   |                                                                                                                |
|-----------------------------------|----------------------------------------------------------------------------------------------------------------|
| TC Start                          | 28.09.2021 09:43:42                                                                                            |
| Ambit Temp [°C]   Humidity [rel%] | 23.0   48                                                                                                      |
| System Version                    | 3.0.1.8                                                                                                        |
| Test Specification                | FCC Part 15.247                                                                                                |
| Test Method                       | IF DTS then 8.5 DTS emissions in non-restricted frequency bands: Subclause 11.11 of ANSI C63.10 is applicable. |
| TC Version                        | 0.0.1                                                                                                          |
| My Description                    | FCC 15.247 TX Emissions Conducted DTS - BT LE 2 Msps                                                           |
| Add. Information                  |                                                                                                                |

| Test Parameter                                   |                                        |
|--------------------------------------------------|----------------------------------------|
| Technology to test                               | BT LE 2 Msps                           |
| Antenna Port used                                | 1                                      |
| Temperature                                      | nom                                    |
| Voltage                                          | nom                                    |
| Frequency low to test                            | True   Freq [MHz] 2404                 |
| Frequency mid to test                            | False   Freq [MHz] 2440                |
| Frequency high to test                           | False   Freq [MHz] 2480                |
| Auto Control enabled Power Supply   Climatic Box | No   No                                |
| Additional Path Loss [dB]                        | 0.8                                    |
| Switched Path                                    | EUT - SignalingUnit - SpectrumAnalyzer |

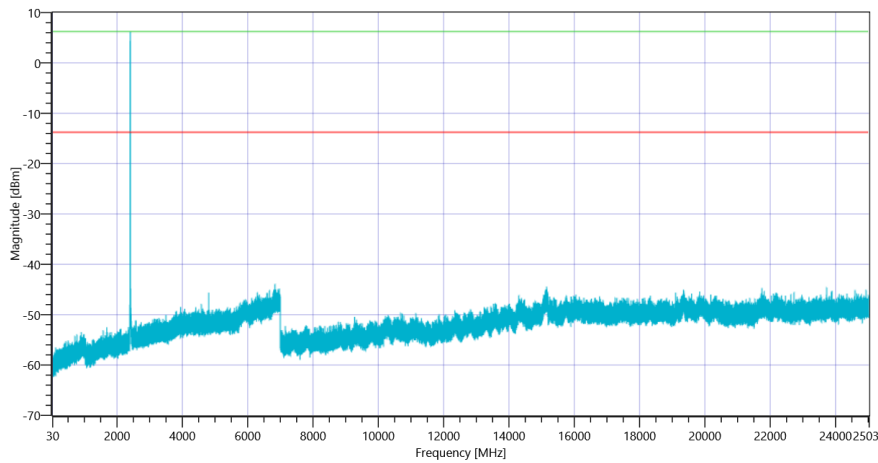
## Test at TX 2404 MHz

### READ SA SETTINGS:

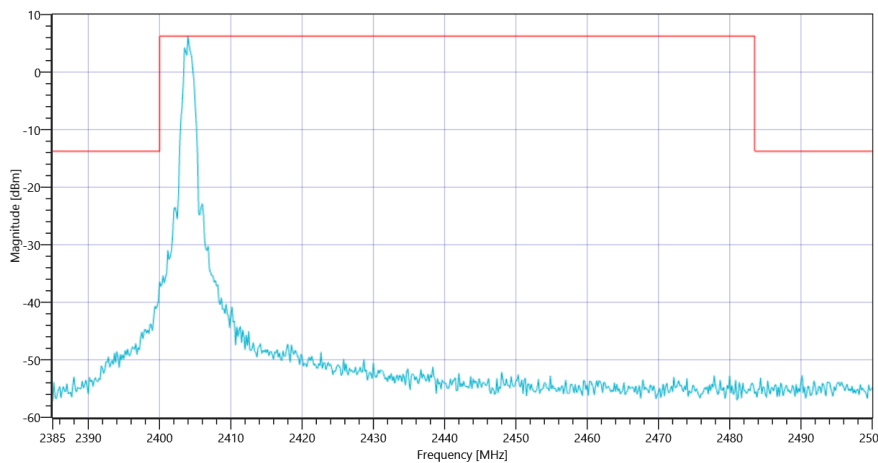
|                                                      |                       |
|------------------------------------------------------|-----------------------|
| RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]   | 7.89   0   25         |
| Start [MHz]   Stop [MHz]                             | 24530.000   25030.000 |
| RBW [MHz]   VBW [MHz]                                | 0.100000   0.300000   |
| Detector   TraceMode                                 | POS   MAXH            |
| Sweep: Time [ms]   Count   Points per Section   Type | 500   8   3001   SWE  |

### RESULT

| Test Description                       | Lower Limit | Upper Limit | Measured | Unit | Verdict |
|----------------------------------------|-------------|-------------|----------|------|---------|
| Reference @ 2404.00 MHz                | ---         | ---         | 6.25     | dBm  | INFO    |
| No peaks detected                      | ---         | ---         |          |      | PASS    |
| Lowest margin to limit<br>2399.833 MHz | 0           | ---         | 26.04    | dB   | INFO    |



Plot\_FCC Part 15.247 TX Spurious Conducted ~ BT LE 2 Msps 2404\_28092021\_094914.png



Plot\_FCC Part 15.247 TX Spurious Conducted ~ BT LE 2 Msps 2404\_28092021\_094919.png

### TEST FINISHED

General Verdict

PASS

## 21. FCC Part 15.247 Maximum Peak Conducted Output Power DTS ~ BT LE 2 Msps

| Test References                   |                                                                   |
|-----------------------------------|-------------------------------------------------------------------|
| TC Start                          | 28.09.2021 10:33:58                                               |
| Ambit Temp [°C]   Humidity [rel%] | 23.5   46                                                         |
| System Version                    | 3.0.1.8                                                           |
| Test Specification                | FCC Part 15.247                                                   |
| Test Method                       | DTS: KDB 558074 D01 V05 - Chapter 8.3.1.1 RBW ≥ DTS Bandwidth     |
| TC Version                        | 0.0.1                                                             |
| My Description                    | FCC 15.247 Maximum Peak Output Power Conducted DTS - BT LE 2 Msps |
| Add. Information                  |                                                                   |

| Test Parameter                                   |                                        |
|--------------------------------------------------|----------------------------------------|
| Technology to test                               | BT LE 2 Msps                           |
| Antenna Port used                                | 1                                      |
| Temperature                                      | nom                                    |
| Voltage                                          | nom                                    |
| Frequency low to test                            | False   Freq [MHz] 2402                |
| Frequency mid to test                            | True   Freq [MHz] 2440                 |
| Frequency high to test                           | False   Freq [MHz] 2480                |
| Auto Control enabled Power Supply   Climatic Box | No   No                                |
| Additional Path Loss [dB]                        | 0.8                                    |
| Switched Path                                    | EUT - SignalingUnit - SpectrumAnalyzer |

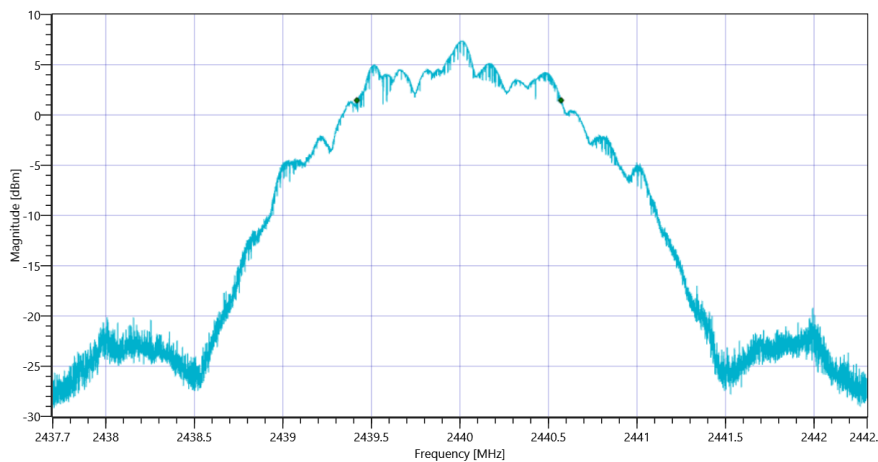
## Test at TX 2440 MHz

### READ SA SETTINGS:

|                                                      |                        |
|------------------------------------------------------|------------------------|
| RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]   | 13.31   10.9   20      |
| Start [MHz]   Stop [MHz]                             | 2437.700   2442.300    |
| RBW [MHz]   VBW [MHz]                                | 0.100000   0.300000    |
| Detector   TraceMode                                 | POS   MAXH             |
| Sweep: Time [ms]   Count   Points per Section   Type | 50   200   10001   SWE |

### DTS Bandwidth

| Test Description    | Lower Limit | Upper Limit | Measured | Unit | Verdict |
|---------------------|-------------|-------------|----------|------|---------|
| DTS Bandwidth (6dB) | ---         | ---         | 1153     | kHz  | INFO    |

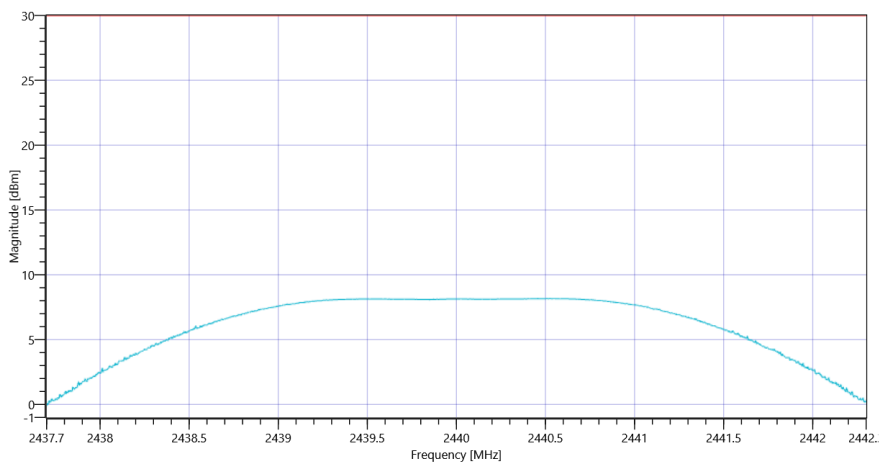


### READ SA SETTINGS:

|                                                      |                       |
|------------------------------------------------------|-----------------------|
| RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]   | 18.31   10.9   25     |
| Start [MHz]   Stop [MHz]                             | 2437.700   2442.300   |
| RBW [MHz]   VBW [MHz]                                | 2.000000   5.000000   |
| Detector   TraceMode                                 | POS   MAXH            |
| Sweep: Time [ms]   Count   Points per Section   Type | 50   200   1001   SWE |

### RESULT

| Test Description  | Lower Limit | Upper Limit | Measured | Unit | Verdict |
|-------------------|-------------|-------------|----------|------|---------|
| Peak Power        | ---         | 30.00       | 8.17     | dBm  | PASS    |
| Peak Power        | ---         | 1000        | 6.561453 | mW   | PASS    |
| Frequency at Peak | ---         | ---         | 2440.506 | MHz  | INFO    |



Plot\_FCC Part 15.247 Maximum Peak Conducted Output Power DTS ~ BT LE 2 Msps\_28092021\_103445.png

|                 |      |
|-----------------|------|
| TEST FINISHED   |      |
| General Verdict | PASS |

## 22. FCC Part 15.247 Bandwidth 6dB DTS ~ BT LE 2 Msps

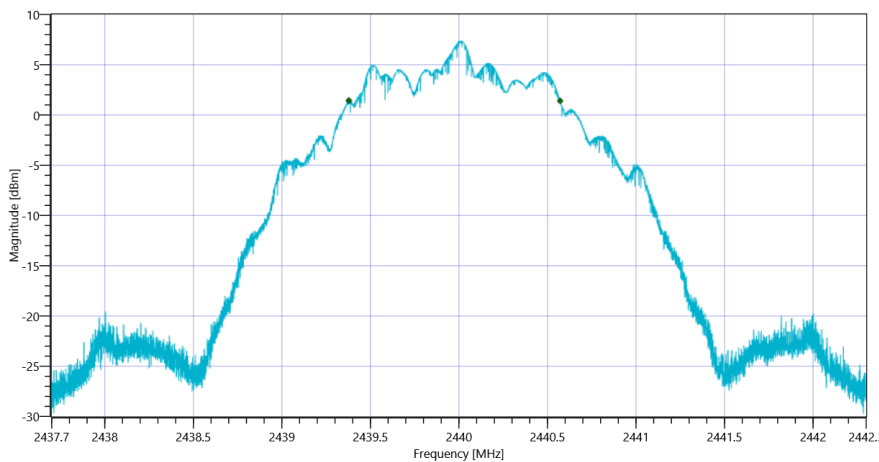
| Test References                   |                                             |
|-----------------------------------|---------------------------------------------|
| TC Start                          | 28.09.2021 10:34:50                         |
| Ambit Temp [°C]   Humidity [rel%] | 23.5   46                                   |
| System Version                    | 3.0.1.8                                     |
| Test Specification                | FCC Part 15.247                             |
| Test Method                       | 99                                          |
| TC Version                        | 0.0.1                                       |
| My Description                    | FCC 15.247 Bandwidth 6dB DTS - BT LE 2 Msps |
| Add. Information                  |                                             |

| Test Parameter                                   |                                        |
|--------------------------------------------------|----------------------------------------|
| Technology to test                               | BT LE 2 Msps                           |
| Antenna Port used                                | 1                                      |
| Temperature                                      | nom                                    |
| Voltage                                          | nom                                    |
| Frequency low to test                            | False   Freq [MHz] 2402                |
| Frequency mid to test                            | True   Freq [MHz] 2440                 |
| Frequency high to test                           | False   Freq [MHz] 2480                |
| Auto Control enabled Power Supply   Climatic Box | No   No                                |
| Additional Path Loss [dB]                        | 0.8                                    |
| Switched Path                                    | EUT - SignalingUnit - SpectrumAnalyzer |

Test at TX 2440 MHz

| READ SA SETTINGS:                                    |                        |
|------------------------------------------------------|------------------------|
| RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]   | 13.33   10.9   20      |
| Start [MHz]   Stop [MHz]                             | 2437.700   2442.300    |
| 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 (6dB) | 500         | ---         | 1193     | kHz  | PASS    |



| TEST FINISHED   |      |
|-----------------|------|
| General Verdict | PASS |



## 23. FCC Part 15.247 Peak Power Spectral Density DTS ~ BT LE 2 Msps

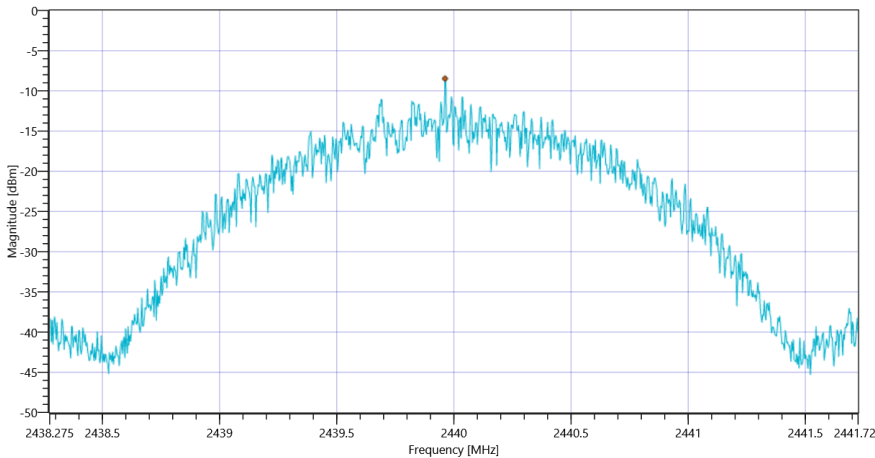
| Test References                   |                                                                                                            |
|-----------------------------------|------------------------------------------------------------------------------------------------------------|
| TC Start                          | 28.09.2021 10:35:25                                                                                        |
| Ambit Temp [°C]   Humidity [rel%] | 23.5   46                                                                                                  |
| System Version                    | 3.0.1.8                                                                                                    |
| Test Specification                | FCC Part 15.247                                                                                            |
| Test Method                       | DTS: KDB 558074 D01 V05 - Chapter 8.4 DTS maximum power spectral density level in the fundamental emission |
| TC Version                        | 0.0.1                                                                                                      |
| My Description                    | FCC 15.247 Peak Power Spectral Density DTS - BT LE 2 Msps                                                  |
| Add. Information                  |                                                                                                            |

| Test Parameter                                   |                                        |
|--------------------------------------------------|----------------------------------------|
| Technology to test                               | BT LE 2 Msps                           |
| Antenna Port used                                | 1                                      |
| Temperature                                      | nom                                    |
| Voltage                                          | nom                                    |
| Frequency low to test                            | False   Freq [MHz] 2402                |
| Frequency mid to test                            | True   Freq [MHz] 2440                 |
| Frequency high to test                           | False   Freq [MHz] 2480                |
| Auto Control enabled Power Supply   Climatic Box | No   No                                |
| Additional Path Loss [dB]                        | 0.8                                    |
| Switched Path                                    | EUT - SignalingUnit - SpectrumAnalyzer |

Test at TX 2440 MHz

| READ SA SETTINGS:                                    |                        |
|------------------------------------------------------|------------------------|
| RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]   | 13.31   10.9   20      |
| Start [MHz]   Stop [MHz]                             | 2438.275   2441.725    |
| RBW [MHz]   VBW [MHz]                                | 0.003000   0.010000    |
| Detector   TraceMode                                 | POS   MAXH             |
| Sweep: Time [ms]   Count   Points per Section   Type | 1000   20   1001   SWE |

| RESULT                 |             |             |          |          |         |
|------------------------|-------------|-------------|----------|----------|---------|
| Test Description       | Lower Limit | Upper Limit | Measured | Unit     | Verdict |
| Max Peak power Density | ---         | 8           | -8.47    | dBm/3KHz | PASS    |



| TEST FINISHED   |      |
|-----------------|------|
| General Verdict | PASS |

## 24. FCC Part 15.247 Bandwidth 99PCT-20dB ~ BT LE 2 Msps

| Test References                   |                                                    |
|-----------------------------------|----------------------------------------------------|
| TC Start                          | 28.09.2021 10:36:09                                |
| Ambit Temp [°C]   Humidity [rel%] | 23.5   46                                          |
| System Version                    | 3.0.1.8                                            |
| Test Specification                | FCC Part 15.247                                    |
| Test Method                       |                                                    |
| TC Version                        | 0.0.2                                              |
| My Description                    | FCC 15.247 Bandwidth 99PCT-20dB DTS - BT LE 2 Msps |
| Add. Information                  |                                                    |

| Test Parameter                                   |                                        |
|--------------------------------------------------|----------------------------------------|
| Technology to test                               | BT LE 2 Msps                           |
| Antenna Port used                                | 1                                      |
| Temperature                                      | nom                                    |
| Voltage                                          | nom                                    |
| Frequency low to test                            | False   Freq [MHz] 2402                |
| Frequency mid to test                            | True   Freq [MHz] 2440                 |
| Frequency high to test                           | False   Freq [MHz] 2480                |
| Auto Control enabled Power Supply   Climatic Box | No   No                                |
| Additional Path Loss [dB]                        | 0.8                                    |
| Switched Path                                    | EUT - SignalingUnit - SpectrumAnalyzer |

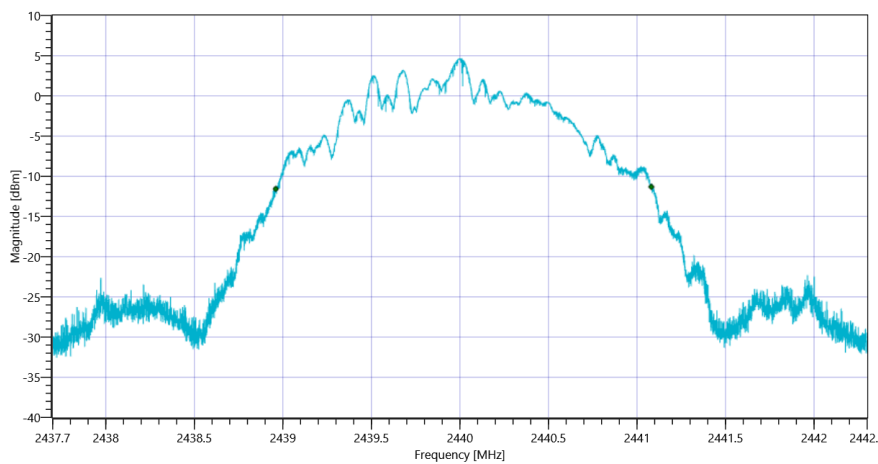
## Test at TX 2440 MHz

### READ SA SETTINGS:

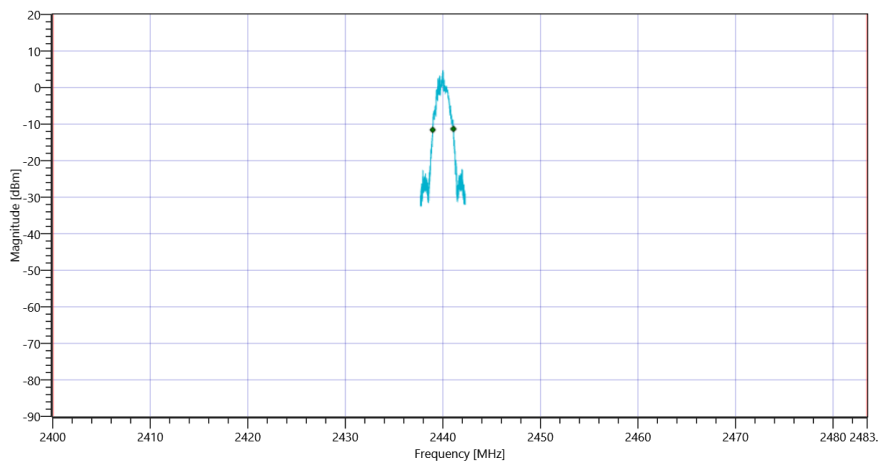
|                                                      |                        |
|------------------------------------------------------|------------------------|
| RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]   | 13.32   10.9   20      |
| Start [MHz]   Stop [MHz]                             | 2437.700   2442.300    |
| RBW [MHz]   VBW [MHz]                                | 0.050000   0.200000    |
| 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%    | ---         | ---         | 2121.308  | kHz  | INFO    |
| T1 99%           | 2400.000000 | ---         | 2438.9596 | MHz  | PASS    |
| T2 99%           | ---         | 2483.500000 | 2441.0809 | MHz  | PASS    |



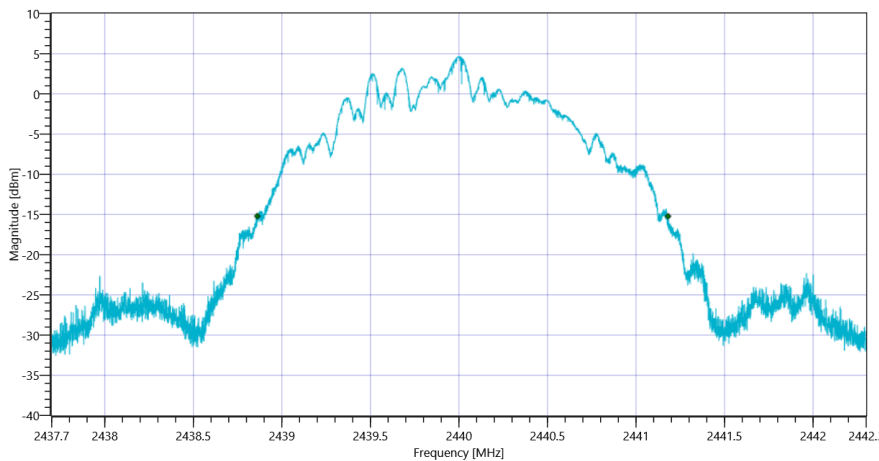
Plot\_FCC Part 15.247 Bandwidth 99PCT-20dB ~ BT LE 2 Msps 99PCT\_28092021\_103639.png



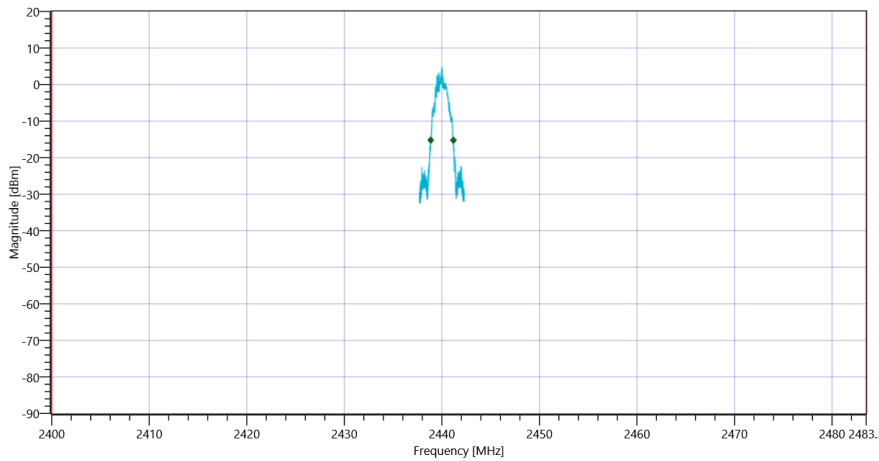
Plot\_FCC Part 15.247 Bandwidth 99PCT-20dB ~ BT LE 2 Msps\_28092021\_103646.png

### RESULT

| Test Description | Lower Limit | Upper Limit | Measured  | Unit | Verdict |
|------------------|-------------|-------------|-----------|------|---------|
| Bandwidth 20dB   | ---         | ---         | 2320      | kHz  | INFO    |
| T1 20dB          | 2400.000000 | ---         | 2438.8610 | MHz  | PASS    |
| T2 20dB          | ---         | 2483.500000 | 2441.1808 | MHz  | PASS    |



Plot\_FCC Part 15.247 Bandwidth 99PCT-20dB ~ BT LE 2 Msps 20dB\_28092021\_103653.png



Plot\_FCC Part 15.247 Bandwidth 99PCT-20dB ~ BT LE 2 Msps\_28092021\_103659.png

|                 |      |
|-----------------|------|
| TEST FINISHED   |      |
| General Verdict | PASS |

## 25. FCC Part 15.247 TX Spurious Conducted ~ BT LE 2 Msps

| Test References                   |                                                                                                                |
|-----------------------------------|----------------------------------------------------------------------------------------------------------------|
| TC Start                          | 28.09.2021 10:37:04                                                                                            |
| Ambit Temp [°C]   Humidity [rel%] | 23.5   46                                                                                                      |
| System Version                    | 3.0.1.8                                                                                                        |
| Test Specification                | FCC Part 15.247                                                                                                |
| Test Method                       | IF DTS then 8.5 DTS emissions in non-restricted frequency bands: Subclause 11.11 of ANSI C63.10 is applicable. |
| TC Version                        | 0.0.1                                                                                                          |
| My Description                    | FCC 15.247 TX Emissions Conducted DTS - BT LE 2 Msps                                                           |
| Add. Information                  |                                                                                                                |

| Test Parameter                                   |                                        |
|--------------------------------------------------|----------------------------------------|
| Technology to test                               | BT LE 2 Msps                           |
| Antenna Port used                                | 1                                      |
| Temperature                                      | nom                                    |
| Voltage                                          | nom                                    |
| Frequency low to test                            | False   Freq [MHz] 2402                |
| Frequency mid to test                            | True   Freq [MHz] 2440                 |
| Frequency high to test                           | False   Freq [MHz] 2480                |
| Auto Control enabled Power Supply   Climatic Box | No   No                                |
| Additional Path Loss [dB]                        | 0.8                                    |
| Switched Path                                    | EUT - SignalingUnit - SpectrumAnalyzer |

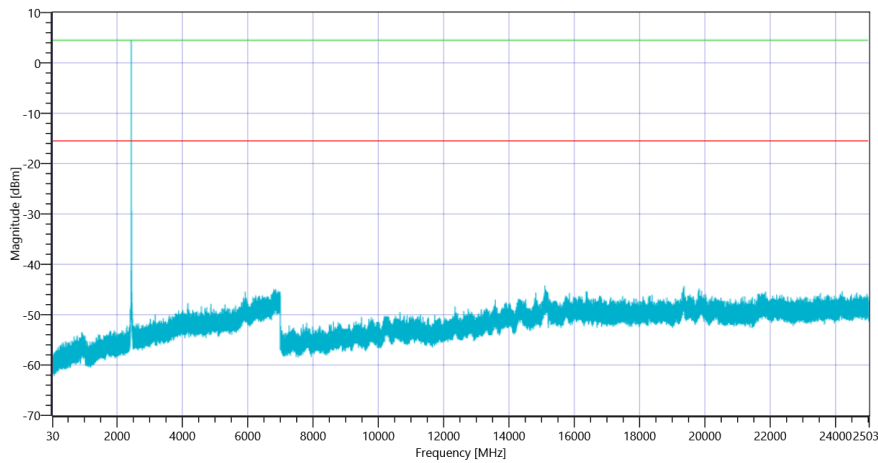
## Test at TX 2440 MHz

### READ SA SETTINGS:

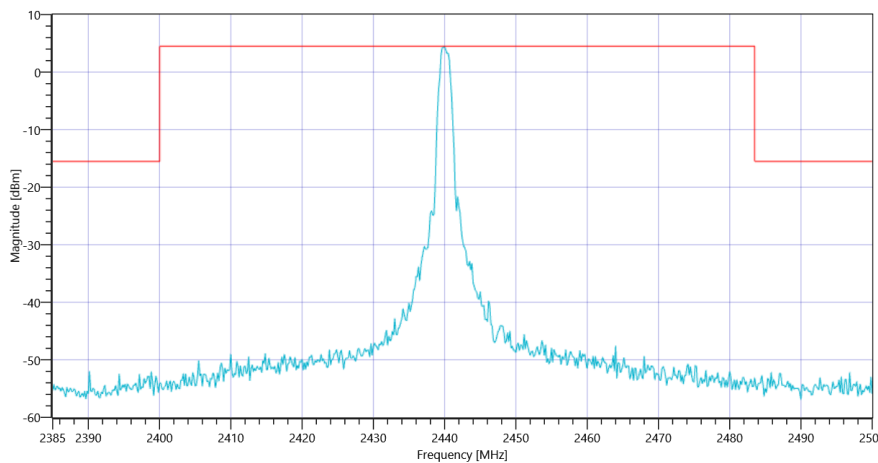
|                                                      |                       |
|------------------------------------------------------|-----------------------|
| RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]   | 8.31   0   25         |
| Start [MHz]   Stop [MHz]                             | 24530.000   25030.000 |
| RBW [MHz]   VBW [MHz]                                | 0.100000   0.300000   |
| Detector   TraceMode                                 | POS   MAXH            |
| Sweep: Time [ms]   Count   Points per Section   Type | 500   8   3001   SWE  |

### RESULT

| Test Description                     | Lower Limit | Upper Limit | Measured | Unit | Verdict |
|--------------------------------------|-------------|-------------|----------|------|---------|
| Reference @ 2440.00 MHz              | ---         | ---         | 4.49     | dBm  | INFO    |
| No peaks detected                    | ---         | ---         |          |      | PASS    |
| Lowest margin to limit 15099.167 MHz | 0           | ---         | 28.71    | dB   | INFO    |



Plot\_FCC Part 15.247 TX Spurious Conducted ~ BT LE 2 Msps 2440\_28092021\_104237.png



Plot\_FCC Part 15.247 TX Spurious Conducted ~ BT LE 2 Msps 2440\_28092021\_104242.png

### TEST FINISHED

General Verdict

PASS

## 26. FCC Part 15.247 Maximum Peak Conducted Output Power DTS ~ BT LE 2 Msps

| Test References                   |                                                                   |
|-----------------------------------|-------------------------------------------------------------------|
| TC Start                          | 28.09.2021 11:17:30                                               |
| Ambit Temp [°C]   Humidity [rel%] | 23.9   46                                                         |
| System Version                    | 3.0.1.8                                                           |
| Test Specification                | FCC Part 15.247                                                   |
| Test Method                       | DTS: KDB 558074 D01 V05 - Chapter 8.3.1.1 RBW ≥ DTS Bandwidth     |
| TC Version                        | 0.0.1                                                             |
| My Description                    | FCC 15.247 Maximum Peak Output Power Conducted DTS - BT LE 2 Msps |
| Add. Information                  |                                                                   |

| Test Parameter                                   |                                        |
|--------------------------------------------------|----------------------------------------|
| Technology to test                               | BT LE 2 Msps                           |
| Antenna Port used                                | 1                                      |
| Temperature                                      | nom                                    |
| Voltage                                          | nom                                    |
| Frequency low to test                            | False   Freq [MHz] 2402                |
| Frequency mid to test                            | False   Freq [MHz] 2440                |
| Frequency high to test                           | True   Freq [MHz] 2478                 |
| Auto Control enabled Power Supply   Climatic Box | No   No                                |
| Additional Path Loss [dB]                        | 0.8                                    |
| Switched Path                                    | EUT - SignalingUnit - SpectrumAnalyzer |



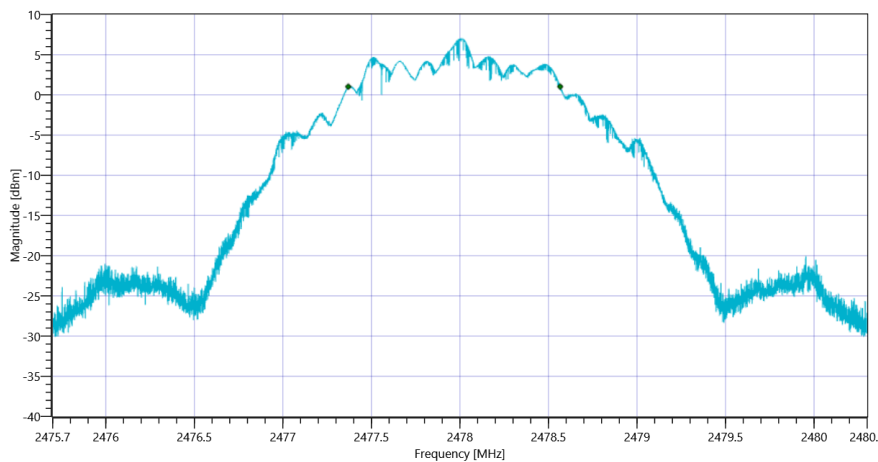
## Test at TX 2478 MHz

### READ SA SETTINGS:

|                                                      |                        |
|------------------------------------------------------|------------------------|
| RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]   | 12.98   10.95   20     |
| Start [MHz]   Stop [MHz]                             | 2475.700   2480.300    |
| RBW [MHz]   VBW [MHz]                                | 0.100000   0.300000    |
| Detector   TraceMode                                 | POS   MAXH             |
| Sweep: Time [ms]   Count   Points per Section   Type | 50   200   10001   SWE |

### DTS Bandwidth

| Test Description    | Lower Limit | Upper Limit | Measured | Unit | Verdict |
|---------------------|-------------|-------------|----------|------|---------|
| DTS Bandwidth (6dB) | ---         | ---         | 1197     | kHz  | INFO    |

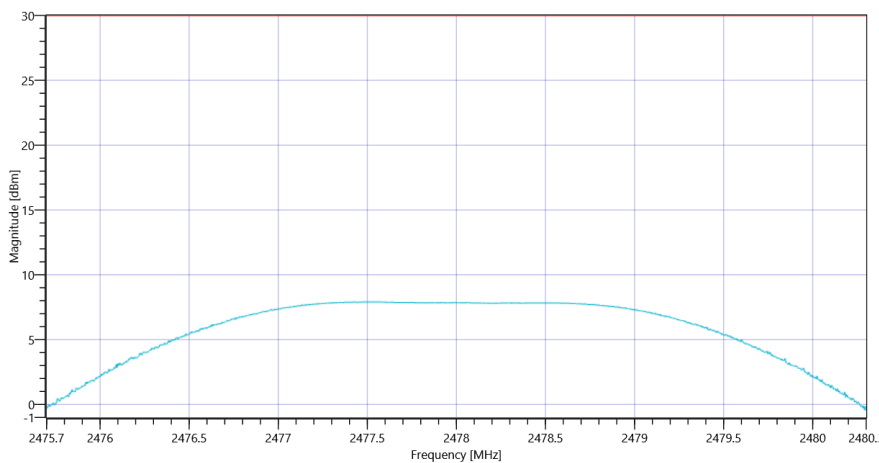


### READ SA SETTINGS:

|                                                      |                       |
|------------------------------------------------------|-----------------------|
| RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]   | 17.98   10.95   25    |
| Start [MHz]   Stop [MHz]                             | 2475.700   2480.300   |
| RBW [MHz]   VBW [MHz]                                | 2.000000   5.000000   |
| Detector   TraceMode                                 | POS   MAXH            |
| Sweep: Time [ms]   Count   Points per Section   Type | 50   200   1001   SWE |

### RESULT

| Test Description  | Lower Limit | Upper Limit | Measured | Unit | Verdict |
|-------------------|-------------|-------------|----------|------|---------|
| Peak Power        | ---         | 30.00       | 7.9      | dBm  | PASS    |
| Peak Power        | ---         | 1000        | 6.16595  | mW   | PASS    |
| Frequency at Peak | ---         | ---         | 2477.504 | MHz  | INFO    |



Plot\_FCC Part 15.247 Maximum Peak Conducted Output Power DTS ~ BT LE 2 Msp\_28092021\_111817.png

|                 |      |
|-----------------|------|
| TEST FINISHED   |      |
| General Verdict | PASS |

## 27. FCC Part 15.247 Bandwidth 6dB DTS ~ BT LE 2 Msps

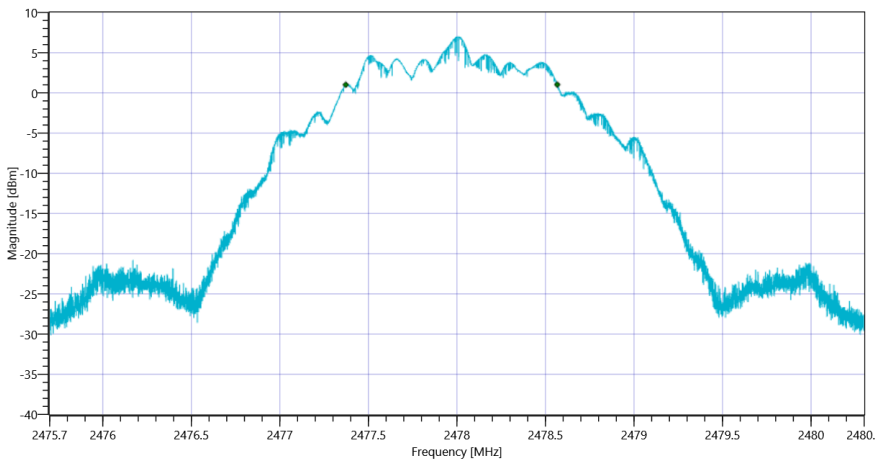
| Test References                   |                                             |
|-----------------------------------|---------------------------------------------|
| TC Start                          | 28.09.2021 11:18:23                         |
| Ambit Temp [°C]   Humidity [rel%] | 23.9   45                                   |
| System Version                    | 3.0.1.8                                     |
| Test Specification                | FCC Part 15.247                             |
| Test Method                       | 99                                          |
| TC Version                        | 0.0.1                                       |
| My Description                    | FCC 15.247 Bandwidth 6dB DTS - BT LE 2 Msps |
| Add. Information                  |                                             |

| Test Parameter                                   |                                        |
|--------------------------------------------------|----------------------------------------|
| Technology to test                               | BT LE 2 Msps                           |
| Antenna Port used                                | 1                                      |
| Temperature                                      | nom                                    |
| Voltage                                          | nom                                    |
| Frequency low to test                            | False   Freq [MHz] 2402                |
| Frequency mid to test                            | False   Freq [MHz] 2440                |
| Frequency high to test                           | True   Freq [MHz] 2478                 |
| Auto Control enabled Power Supply   Climatic Box | No   No                                |
| Additional Path Loss [dB]                        | 0.8                                    |
| Switched Path                                    | EUT - SignalingUnit - SpectrumAnalyzer |

Test at TX 2478 MHz

|                                                      |                        |  |
|------------------------------------------------------|------------------------|--|
| READ SA SETTINGS:                                    |                        |  |
| RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]   | 12.97   10.95   20     |  |
| Start [MHz]   Stop [MHz]                             | 2475.700   2480.300    |  |
| 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 (6dB) | 500         | ---         | 1195     | kHz  | PASS    |



Plot\_FCC Part 15.247 Bandwidth 6dB DTS ~ BT LE 2 Msps\_28092021\_111852.png

|                 |      |
|-----------------|------|
| TEST FINISHED   |      |
| General Verdict | PASS |

## 28. FCC Part 15.247 Peak Power Spectral Density DTS ~ BT LE 2 Msps

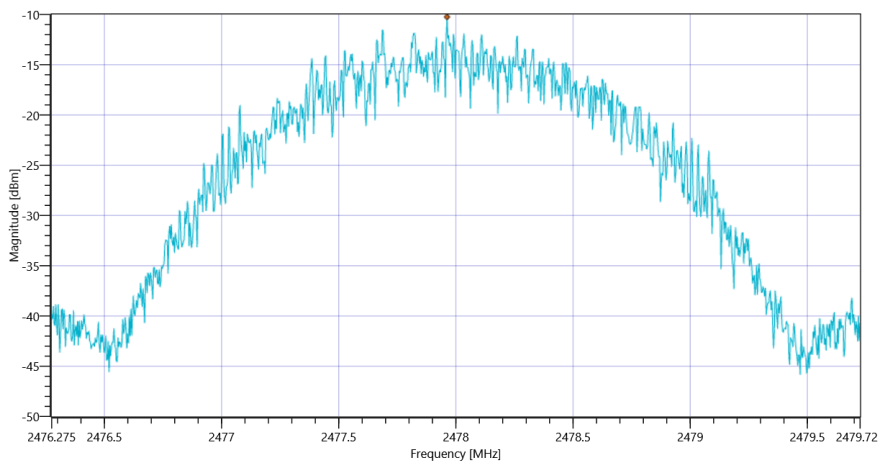
| Test References                   |                                                                                                            |
|-----------------------------------|------------------------------------------------------------------------------------------------------------|
| TC Start                          | 28.09.2021 11:18:57                                                                                        |
| Ambit Temp [°C]   Humidity [rel%] | 23.9   45                                                                                                  |
| System Version                    | 3.0.1.8                                                                                                    |
| Test Specification                | FCC Part 15.247                                                                                            |
| Test Method                       | DTS: KDB 558074 D01 V05 - Chapter 8.4 DTS maximum power spectral density level in the fundamental emission |
| TC Version                        | 0.0.1                                                                                                      |
| My Description                    | FCC 15.247 Peak Power Spectral Density DTS - BT LE 2 Msps                                                  |
| Add. Information                  |                                                                                                            |

| Test Parameter                                   |                                        |
|--------------------------------------------------|----------------------------------------|
| Technology to test                               | BT LE 2 Msps                           |
| Antenna Port used                                | 1                                      |
| Temperature                                      | nom                                    |
| Voltage                                          | nom                                    |
| Frequency low to test                            | False   Freq [MHz] 2402                |
| Frequency mid to test                            | False   Freq [MHz] 2440                |
| Frequency high to test                           | True   Freq [MHz] 2478                 |
| Auto Control enabled Power Supply   Climatic Box | No   No                                |
| Additional Path Loss [dB]                        | 0.8                                    |
| Switched Path                                    | EUT - SignalingUnit - SpectrumAnalyzer |

Test at TX 2478 MHz

| READ SA SETTINGS:                                    |                        |
|------------------------------------------------------|------------------------|
| RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]   | 12.99   10.95   20     |
| Start [MHz]   Stop [MHz]                             | 2476.275   2479.725    |
| RBW [MHz]   VBW [MHz]                                | 0.003000   0.010000    |
| Detector   TraceMode                                 | POS   MAXH             |
| Sweep: Time [ms]   Count   Points per Section   Type | 1000   20   1001   SWE |

| RESULT                 |             |             |          |          |         |
|------------------------|-------------|-------------|----------|----------|---------|
| Test Description       | Lower Limit | Upper Limit | Measured | Unit     | Verdict |
| Max Peak power Density | ---         | 8           | -10.24   | dBm/3KHz | PASS    |



Plot\_FCC Part 15.247 Peak Power Spectral Density DTS ~ BT LE 2 Msps\_28092021\_111937.png

| TEST FINISHED   |      |
|-----------------|------|
| General Verdict | PASS |

## 29. FCC Part 15.247 Bandwidth 99PCT-20dB ~ BT LE 2 Msps

| Test References                   |                                                    |
|-----------------------------------|----------------------------------------------------|
| TC Start                          | 28.09.2021 11:19:42                                |
| Ambit Temp [°C]   Humidity [rel%] | 23.9   45                                          |
| System Version                    | 3.0.1.8                                            |
| Test Specification                | FCC Part 15.247                                    |
| Test Method                       |                                                    |
| TC Version                        | 0.0.2                                              |
| My Description                    | FCC 15.247 Bandwidth 99PCT-20dB DTS - BT LE 2 Msps |
| Add. Information                  |                                                    |

| Test Parameter                                   |                                        |
|--------------------------------------------------|----------------------------------------|
| Technology to test                               | BT LE 2 Msps                           |
| Antenna Port used                                | 1                                      |
| Temperature                                      | nom                                    |
| Voltage                                          | nom                                    |
| Frequency low to test                            | False   Freq [MHz] 2402                |
| Frequency mid to test                            | False   Freq [MHz] 2440                |
| Frequency high to test                           | True   Freq [MHz] 2478                 |
| Auto Control enabled Power Supply   Climatic Box | No   No                                |
| Additional Path Loss [dB]                        | 0.8                                    |
| Switched Path                                    | EUT - SignalingUnit - SpectrumAnalyzer |

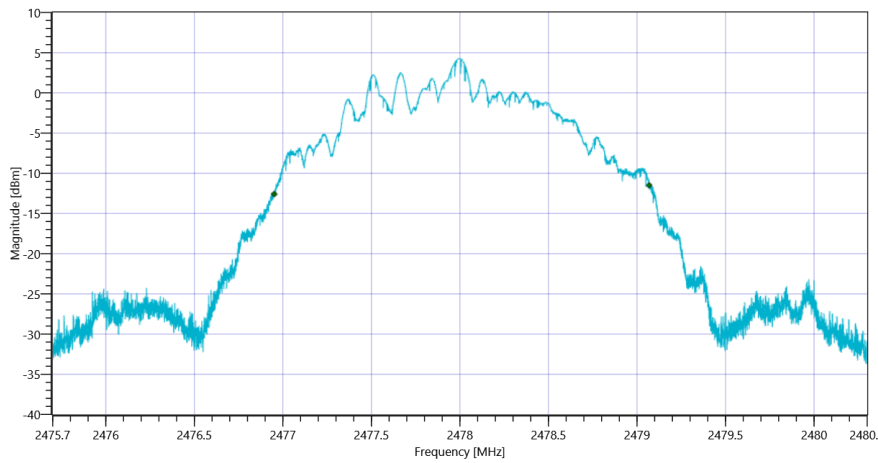
## Test at TX 2478 MHz

### READ SA SETTINGS:

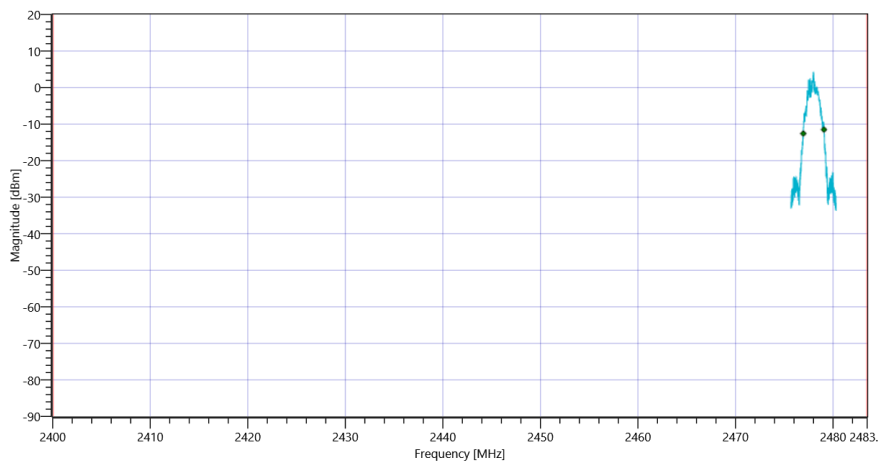
|                                                      |                        |
|------------------------------------------------------|------------------------|
| RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]   | 13.01   10.95   20     |
| Start [MHz]   Stop [MHz]                             | 2475.700   2480.300    |
| RBW [MHz]   VBW [MHz]                                | 0.050000   0.200000    |
| 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%    | ---         | ---         | 2118.088  | kHz  | INFO    |
| T1 99%           | 2400.000000 | ---         | 2476.9508 | MHz  | PASS    |
| T2 99%           | ---         | 2483.500000 | 2479.0689 | MHz  | PASS    |



Plot\_FCC Part 15.247 Bandwidth 99PCT-20dB ~ BT LE 2 Msps 99PCT\_28092021\_112012.png

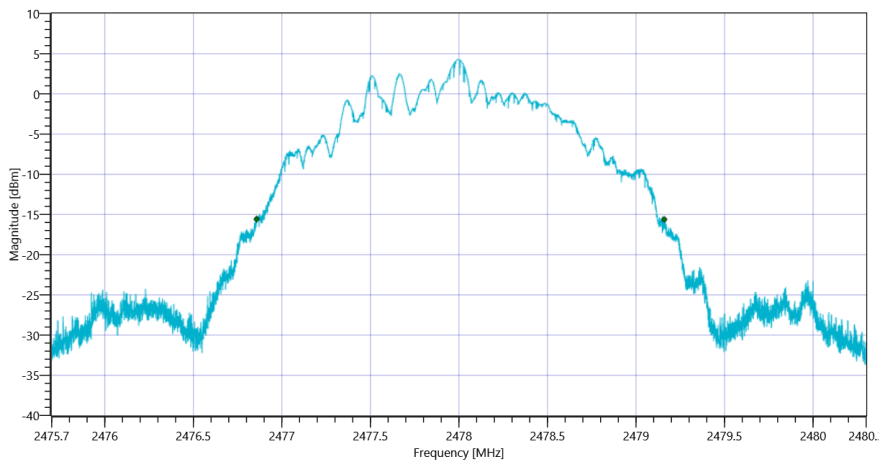


Plot\_FCC Part 15.247 Bandwidth 99PCT-20dB ~ BT LE 2 Msps\_28092021\_112019.png

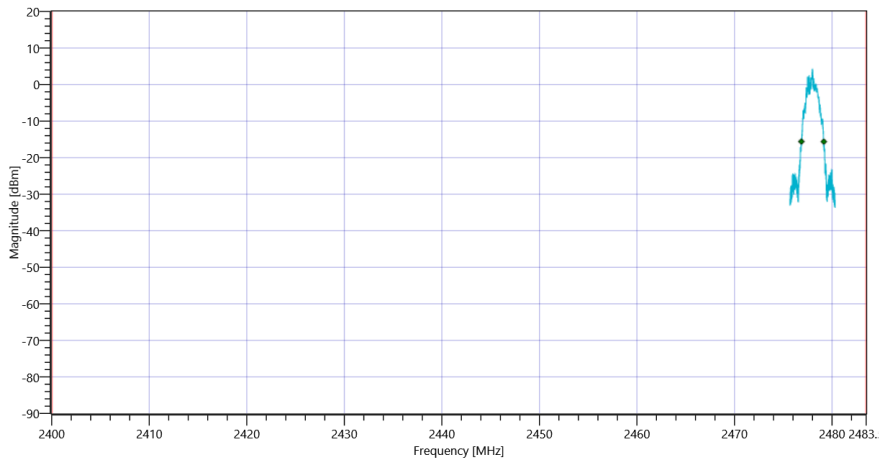
### RESULT

| Test Description | Lower Limit | Upper Limit | Measured  | Unit | Verdict |
|------------------|-------------|-------------|-----------|------|---------|
| Bandwidth 20dB   | ---         | ---         | 2303      | kHz  | INFO    |
| T1 20dB          | 2400.000000 | ---         | 2476.8569 | MHz  | PASS    |
| T2 20dB          | ---         | 2483.500000 | 2479.1597 | MHz  | PASS    |





Plot\_FCC Part 15.247 Bandwidth 99PCT-20dB ~ BT LE 2 Msps 20dB\_28092021\_112026.png



Plot\_FCC Part 15.247 Bandwidth 99PCT-20dB ~ BT LE 2 Msps\_28092021\_112032.png

|                 |      |
|-----------------|------|
| TEST FINISHED   |      |
| General Verdict | PASS |

## 30. FCC Part 15.247 TX Spurious Conducted ~ BT LE 2 Msps

| Test References                   |                                                                                                                |
|-----------------------------------|----------------------------------------------------------------------------------------------------------------|
| TC Start                          | 28.09.2021 11:20:38                                                                                            |
| Ambit Temp [°C]   Humidity [rel%] | 23.8   45                                                                                                      |
| System Version                    | 3.0.1.8                                                                                                        |
| Test Specification                | FCC Part 15.247                                                                                                |
| Test Method                       | IF DTS then 8.5 DTS emissions in non-restricted frequency bands: Subclause 11.11 of ANSI C63.10 is applicable. |
| TC Version                        | 0.0.1                                                                                                          |
| My Description                    | FCC 15.247 TX Emissions Conducted DTS - BT LE 2 Msps                                                           |
| Add. Information                  |                                                                                                                |

| Test Parameter                                   |                                        |
|--------------------------------------------------|----------------------------------------|
| Technology to test                               | BT LE 2 Msps                           |
| Antenna Port used                                | 1                                      |
| Temperature                                      | nom                                    |
| Voltage                                          | nom                                    |
| Frequency low to test                            | False   Freq [MHz] 2402                |
| Frequency mid to test                            | False   Freq [MHz] 2440                |
| Frequency high to test                           | True   Freq [MHz] 2478                 |
| Auto Control enabled Power Supply   Climatic Box | No   No                                |
| Additional Path Loss [dB]                        | 0.8                                    |
| Switched Path                                    | EUT - SignalingUnit - SpectrumAnalyzer |

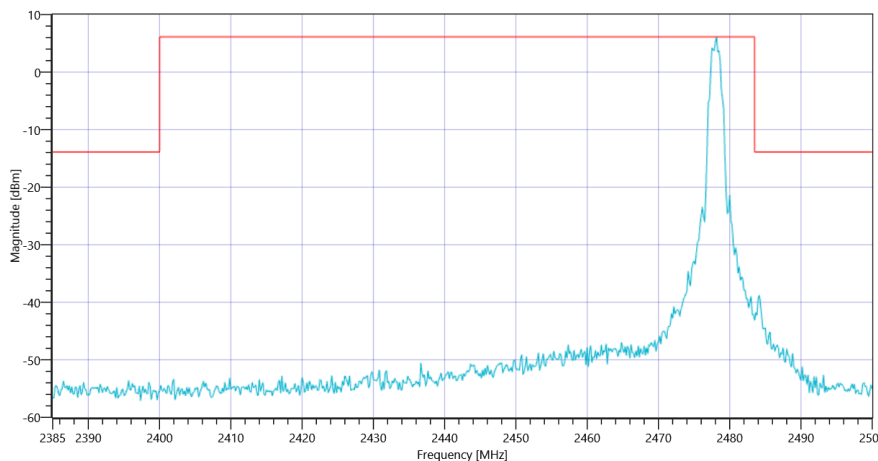
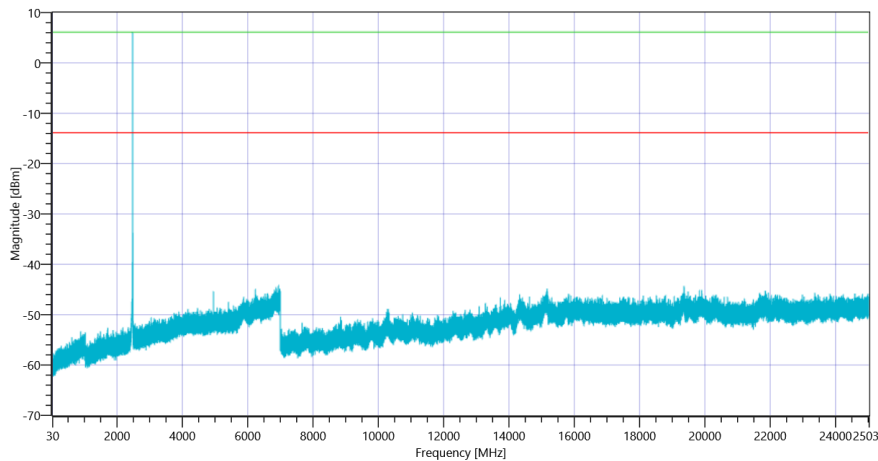
## Test at TX 2478 MHz

### READ SA SETTINGS:

|                                                      |                       |
|------------------------------------------------------|-----------------------|
| RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]   | 7.94   0   25         |
| 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 | 500   8   3001   SWE  |

### RESULT

| Test Description                       | Lower Limit | Upper Limit | Measured | Unit | Verdict |
|----------------------------------------|-------------|-------------|----------|------|---------|
| Reference @ 2478.17 MHz                | ---         | ---         | 6.12     | dBm  | INFO    |
| No peaks detected                      | ---         | ---         |          |      | PASS    |
| Lowest margin to limit<br>2484.167 MHz | 0           | ---         | 24.88    | dB   | INFO    |



### TEST FINISHED

General Verdict

PASS

- END OF DOCUMENT -