

# Conducted test results

No.1-6579/23-01-17\_TR1-A201-R1

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February 09, 2024

Test Standard(s)                      FCC 15.247 - NI  
  FCC 15.247, ISED RSS247 - NI

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Authorized

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# FCC 15.247 # Maximum peak conducted output power DTS ~ BT LE 1 Msps

## References

|                                   |   |
|-----------------------------------|---|
| TC start                          | 23.01.2024 10:46:42   |
| Ambit temp [°C]   humidity [rel%] | 0.0   0   |
| System version                    | 5.0.0.1   |
| Standard   Version                | FCC 15.247   NI   |
| Method                            | DTS: KDB 558074 D01 V05 - Chapter 8.3.1.1 RBW ≥ DTS Bandwidth     |
| Description                       | FCC 15.247 Maximum Peak Output Power Conducted DTS - BT LE 1 Msps |
| Information                       |   |

## EUT Common Settings BT Low Energy

|                                    |   |
|------------------------------------|---|
| Intermodulation Value N            | 3   |
| Image Freq. Low   Mid   High [MHz] | 0   0   0                                     |
| Power Class                        | 2   |
| 1 Mbps supported                   | True   TXpayload 255   RXpayload 37           |
| 2 Mbps supported                   | False   TXpayload 255   RXpayload 255         |
| Longrange S8 supported             | False   TXpayload 255   RXpayload 255         |
| Longrange S2 supported             | False   TXpayload 255   RXpayload 255         |
| Signaling Settings                 | None   HCI   1   2400   None   S1   None   On |
| Signaling RF Settings              | RF1com   0   0   On                           |
| User Interaction                   | No  |

## Equipment

|   |
|---|
| Signal analyzer,Rohde&Schwarz,FSV-30,1321.3008K30/103170,3.60 |
| Signaling unit,Rohde&Schwarz,CMW,1201.0002k75/102550,4.0.190  |
| Switch matrix,cetecom advanced GmbH,USM,A001,1.0.0            |

## Test Parameter

|  |                         |
|--|-------------------------|
| Technology to test                               | BT LE 1 Msps            |
| EUT port   | EUT1                    |
| 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                 |

## Test Parameter

|                           |  |
|---------------------------|--|
| Additional path loss [dB] | 0.5                                    |
| Full path type            | EUT_SA_GEN_SIG                         |
| Full path name            | EUT1.SIG1/EUT1.SA/EUT1.GEN1/EUT1.GEN2/ |
| Switch bits               | 00010001:00010001:00000000:00000001    |

## Test at TX 2402 MHz

RESULT: Reference power cond.

| DESCRIPTION                   | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|-------------------------------|-------------|-------------|----------|------|---------|
| Ref. power<br>1MHz/1MHz cond. | --          | --          | -3.54    | dBm  | INFO    |
| Ref. frequency                | --          | --          | 2402.300 | MHz  | INFO    |

### READ SA SETTINGS:

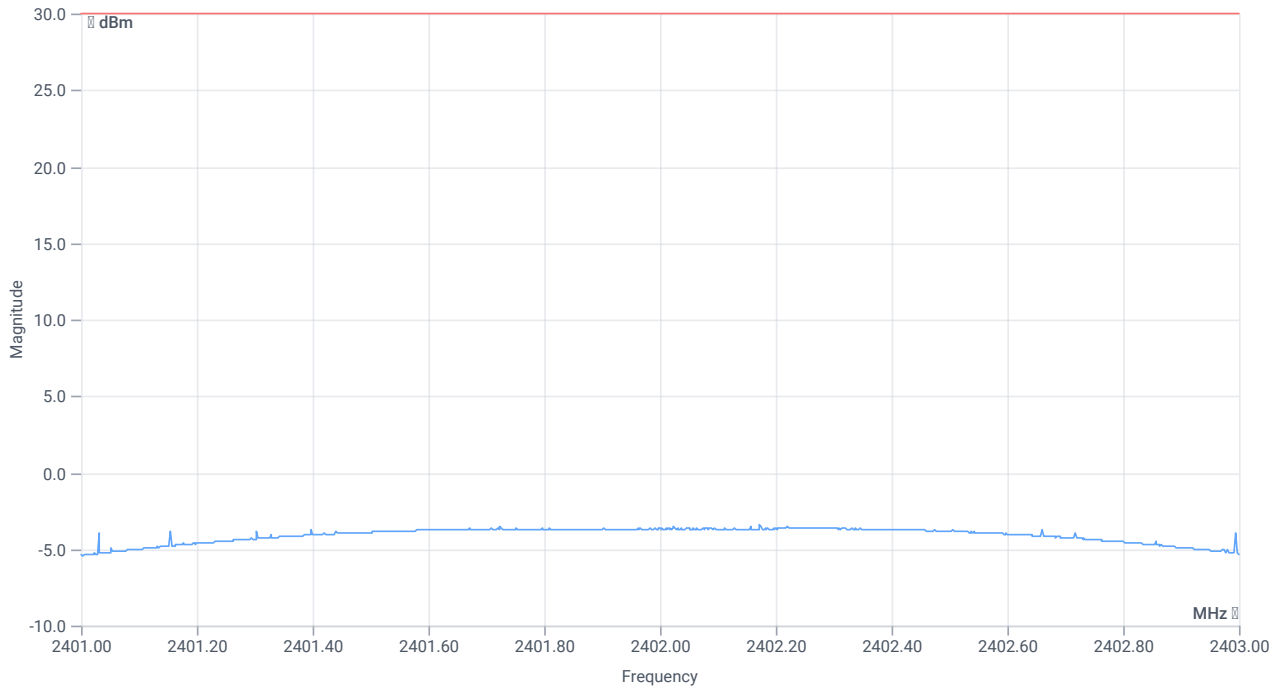
|  |                        |
|--|------------------------|
| RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]   | 1.46   8.76   10       |
| Start [MHz]   Stop [MHz]                             | 2401.000   2403.000    |
| RBW [MHz]   VBW [MHz]                                | 0.100000   0.300000    |
| Detector   TraceMode                                 | POS   MAXH             |
| Sweep: time [ms]   count   points per Section   type | 50   200   10001   SWE |

### DTS bandwidth

| DESCRIPTION         | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---------------------|-------------|-------------|----------|------|---------|
| DTS bandwidth (6dB) | --          | --          | 764      | kHz  | INFO    |

### READ SA SETTINGS:

|  |                       |
|--|-----------------------|
| RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]   | 6.46   8.76   15      |
| Start [MHz]   Stop [MHz]                             | 2401.000   2403.000   |
| RBW [MHz]   VBW [MHz]                                | 2.000000   5.000000   |
| Detector   TraceMode                                 | POS   MAXH            |
| Sweep: time [ms]   count   points per Section   type | 50   200   1001   SWE |



Peak output power

## RESULT

| DESCRIPTION       | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|-------------------|-------------|-------------|----------|------|---------|
| Peak power        | --          | 30.00       | -3.44    | dBm  | PASS    |
| Peak power        | --          | 1000        | 0.452898 | mW   | PASS    |
| Frequency at peak | --          | --          | 2402.172 | MHz  | INFO    |

Verdict

PASS

# FCC 15.247 # Maximum peak conducted output power DTS ~ BT LE 1 Msps

## References

|                                   |   |
|-----------------------------------|---|
| TC start                          | 23.01.2024 10:01:06   |
| Ambit temp [°C]   humidity [rel%] | 0.0   0   |
| System version                    | 5.0.0.1   |
| Standard   Version                | FCC 15.247   NI   |
| Method                            | DTS: KDB 558074 D01 V05 - Chapter 8.3.1.1 RBW ≥ DTS Bandwidth     |
| Description                       | FCC 15.247 Maximum Peak Output Power Conducted DTS - BT LE 1 Msps |
| Information                       |   |

## EUT Common Settings BT Low Energy

|                                    |   |
|------------------------------------|---|
| Intermodulation Value N            | 3   |
| Image Freq. Low   Mid   High [MHz] | 0   0   0                                     |
| Power Class                        | 2   |
| 1 Mbps supported                   | True   TXpayload 255   RXpayload 37           |
| 2 Mbps supported                   | False   TXpayload 255   RXpayload 255         |
| Longrange S8 supported             | False   TXpayload 255   RXpayload 255         |
| Longrange S2 supported             | False   TXpayload 255   RXpayload 255         |
| Signaling Settings                 | None   HCI   1   2400   None   S1   None   On |
| Signaling RF Settings              | RF1com   0   0   On                           |
| User Interaction                   | No  |

## Equipment

|   |
|---|
| Signal analyzer,Rohde&Schwarz,FSV-30,1321.3008K30/103170,3.60 |
| Signaling unit,Rohde&Schwarz,CMW,1201.0002k75/102550,4.0.190  |
| Switch matrix,cetecom advanced GmbH,USM,A001,1.0.0            |

## Test Parameter

|  |                         |
|--|-------------------------|
| Technology to test                               | BT LE 1 Msps            |
| EUT port   | EUT1                    |
| 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                 |

## Test Parameter

|                           |  |
|---------------------------|--|
| Additional path loss [dB] | 0.5                                    |
| Full path type            | EUT_SA_GEN_SIG                         |
| Full path name            | EUT1.SIG1/EUT1.SA/EUT1.GEN1/EUT1.GEN2/ |
| Switch bits               | 00010001:00010001:00000000:00000001    |



## Test at TX 2440 MHz

RESULT: Reference power cond.

| DESCRIPTION                   | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|-------------------------------|-------------|-------------|----------|------|---------|
| Ref. power<br>1MHz/1MHz cond. | --          | --          | -3.80    | dBm  | INFO    |
| Ref. frequency                | --          | --          | 2440.200 | MHz  | INFO    |

### READ SA SETTINGS:

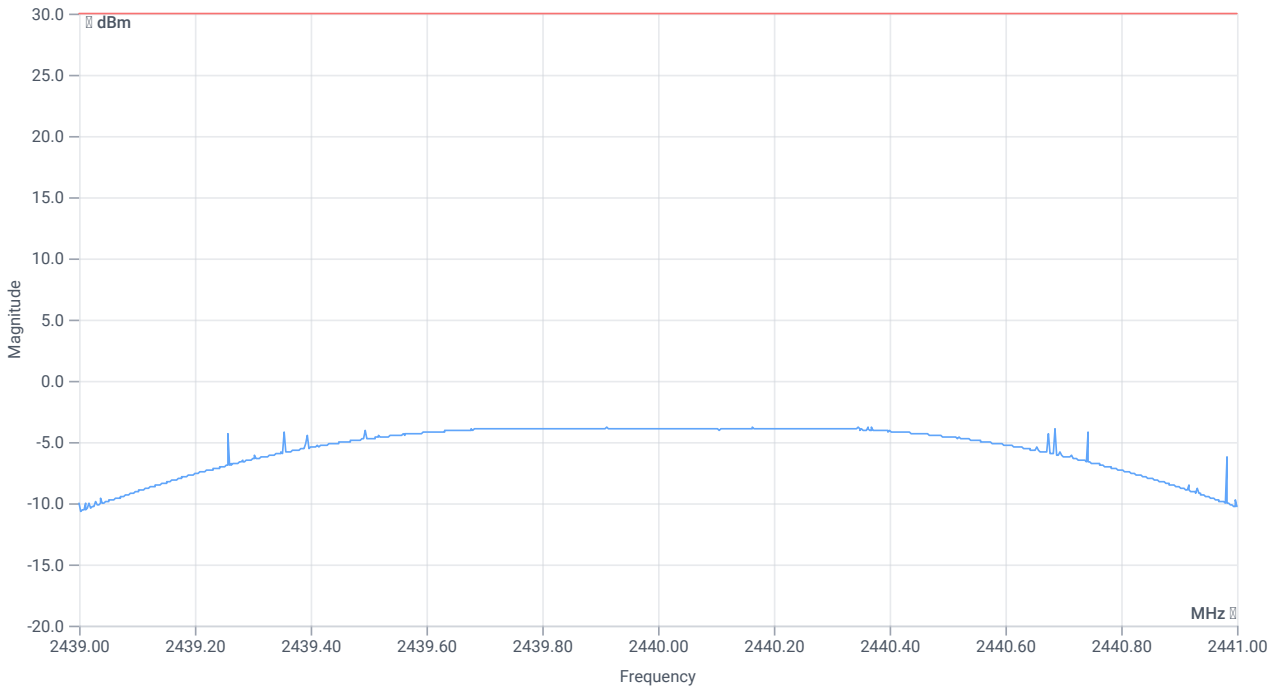
|  |                        |
|--|------------------------|
| RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]   | 1.20   8.8   10        |
| Start [MHz]   Stop [MHz]                             | 2439.000   2441.000    |
| RBW [MHz]   VBW [MHz]                                | 0.100000   0.300000    |
| Detector   TraceMode                                 | POS   MAXH             |
| Sweep: time [ms]   count   points per Section   type | 50   200   10001   SWE |

### DTS bandwidth

| DESCRIPTION         | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---------------------|-------------|-------------|----------|------|---------|
| DTS bandwidth (6dB) | --          | --          | 678      | kHz  | INFO    |

### READ SA SETTINGS:

|  |                       |
|--|-----------------------|
| RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]   | 6.20   8.8   15       |
| 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 |



Peak output power

## RESULT

| DESCRIPTION       | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|-------------------|-------------|-------------|----------|------|---------|
| Peak power        | --          | 30.00       | -3.75    | dBm  | PASS    |
| Peak power        | --          | 1000        | 0.421697 | mW   | PASS    |
| Frequency at peak | --          | --          | 2440.346 | MHz  | INFO    |

Verdict

PASS

# FCC 15.247 # Maximum peak conducted output power DTS ~ BT LE 1 Msps

## References

|                                   |   |
|-----------------------------------|---|
| TC start                          | 23.01.2024 10:27:15   |
| Ambit temp [°C]   humidity [rel%] | 0.0   0   |
| System version                    | 5.0.0.1   |
| Standard   Version                | FCC 15.247   NI   |
| Method                            | DTS: KDB 558074 D01 V05 - Chapter 8.3.1.1 RBW ≥ DTS Bandwidth     |
| Description                       | FCC 15.247 Maximum Peak Output Power Conducted DTS - BT LE 1 Msps |
| Information                       |   |

## EUT Common Settings BT Low Energy

|                                    |   |
|------------------------------------|---|
| Intermodulation Value N            | 3   |
| Image Freq. Low   Mid   High [MHz] | 0   0   0                                     |
| Power Class                        | 2   |
| 1 Mbps supported                   | True   TXpayload 255   RXpayload 37           |
| 2 Mbps supported                   | False   TXpayload 255   RXpayload 255         |
| Longrange S8 supported             | False   TXpayload 255   RXpayload 255         |
| Longrange S2 supported             | False   TXpayload 255   RXpayload 255         |
| Signaling Settings                 | None   HCI   1   2400   None   S1   None   On |
| Signaling RF Settings              | RF1com   0   0   On                           |
| User Interaction                   | No  |

## Equipment

|   |
|---|
| Signal analyzer,Rohde&Schwarz,FSV-30,1321.3008K30/103170,3.60 |
| Signaling unit,Rohde&Schwarz,CMW,1201.0002k75/102550,4.0.190  |
| Switch matrix,cetecom advanced GmbH,USM,A001,1.0.0            |

## Test Parameter

|  |                         |
|--|-------------------------|
| Technology to test                               | BT LE 1 Msps            |
| EUT port   | EUT1                    |
| 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                 |

## Test Parameter

|                           |  |
|---------------------------|--|
| Additional path loss [dB] | 0.5                                    |
| Full path type            | EUT_SA_GEN_SIG                         |
| Full path name            | EUT1.SIG1/EUT1.SA/EUT1.GEN1/EUT1.GEN2/ |
| Switch bits               | 00010001:00010001:00000000:00000001    |

## Test at TX 2480 MHz

RESULT: Reference power cond.

| DESCRIPTION                   | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|-------------------------------|-------------|-------------|----------|------|---------|
| Ref. power<br>1MHz/1MHz cond. | --          | --          | -3.34    | dBm  | INFO    |
| Ref. frequency                | --          | --          | 2480.300 | MHz  | INFO    |

### READ SA SETTINGS:

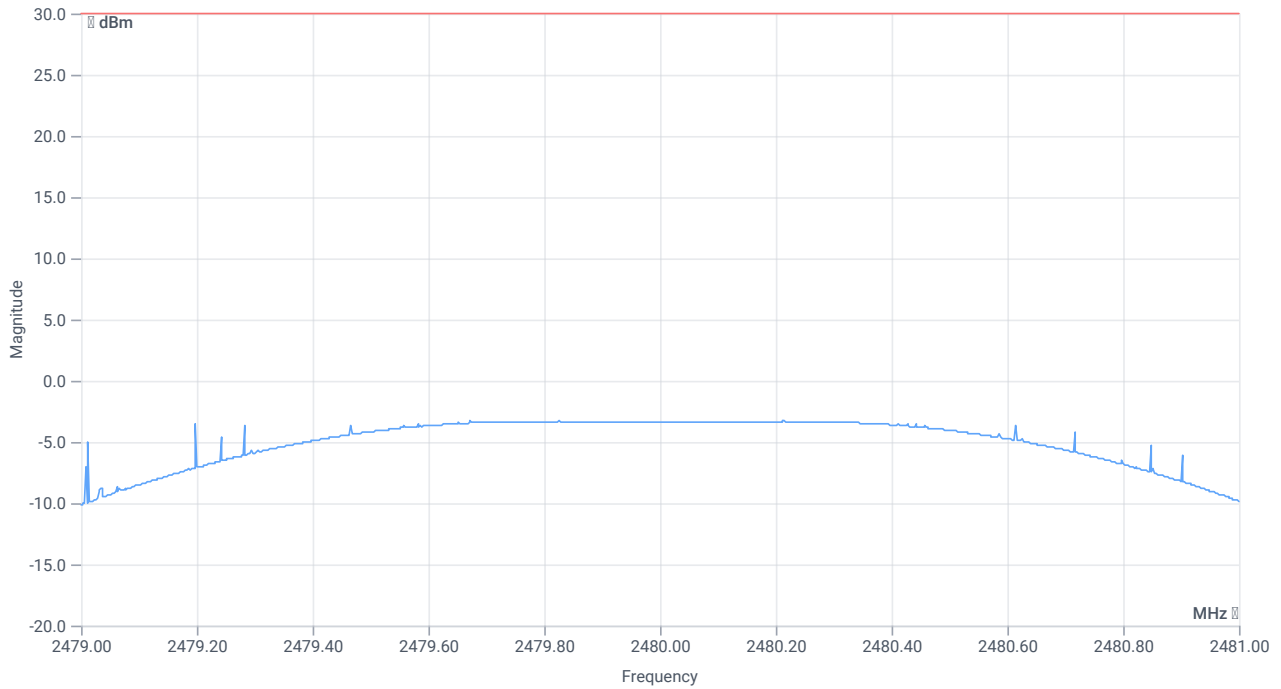
|  |                        |
|--|------------------------|
| RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]   | 1.66   8.9   10        |
| Start [MHz]   Stop [MHz]                             | 2479.000   2481.000    |
| RBW [MHz]   VBW [MHz]                                | 0.100000   0.300000    |
| Detector   TraceMode                                 | POS   MAXH             |
| Sweep: time [ms]   count   points per Section   type | 50   200   10001   SWE |

### DTS bandwidth

| DESCRIPTION         | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---------------------|-------------|-------------|----------|------|---------|
| DTS bandwidth (6dB) | --          | --          | 675      | kHz  | INFO    |

### READ SA SETTINGS:

|  |                       |
|--|-----------------------|
| RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]   | 6.66   8.9   15       |
| 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 |



Peak output power

## RESULT

| DESCRIPTION       | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|-------------------|-------------|-------------|----------|------|---------|
| Peak power        | --          | 30.00       | -3.21    | dBm  | PASS    |
| Peak power        | --          | 1000        | 0.477529 | mW   | PASS    |
| Frequency at peak | --          | --          | 2480.212 | MHz  | INFO    |

Verdict

PASS

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

### References

|                                   |   |
|-----------------------------------|---|
| TC start                          | 23.01.2024 10:47:26                         |
| Ambit temp [°C]   humidity [rel%] | 0.0   0                                     |
| System version                    | 5.0.0.1                                     |
| Standard   Version                | FCC 15.247   NI                             |
| Method                            |   |
| Description                       | FCC 15.247 Bandwidth 6dB DTS - BT LE 1 Msps |
| Information                       |   |

### EUT Common Settings BT Low Energy

|                                    |   |
|------------------------------------|---|
| Intermodulation Value N            | 3   |
| Image Freq. Low   Mid   High [MHz] | 0   0   0                                     |
| Power Class                        | 2   |
| 1 Mbps supported                   | True   TXpayload 255   RXpayload 37           |
| 2 Mbps supported                   | False   TXpayload 255   RXpayload 255         |
| Longrange S8 supported             | False   TXpayload 255   RXpayload 255         |
| Longrange S2 supported             | False   TXpayload 255   RXpayload 255         |
| Signaling Settings                 | None   HCI   1   2400   None   S1   None   On |
| Signaling RF Settings              | RF1com   0   0   On                           |
| User Interaction                   | No  |

### Equipment

|   |
|---|
| Signal analyzer,Rohde&Schwarz,FSV-30,1321.3008K30/103170,3.60 |
| Signaling unit,Rohde&Schwarz,CMW,1201.0002k75/102550,4.0.190  |
| Switch matrix,cetecom advanced GmbH,USM,A001,1.0.0            |

### Test Parameter

|  |                         |
|--|-------------------------|
| Technology to test                               | BT LE 1 Msps            |
| EUT port   | EUT1                    |
| 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]                        | 0.5                     |
| Full path type                                   | EUT_SA_GEN_SIG          |

## Test Parameter

---

|                |  |
|----------------|--|
| Full path name | EUT1.SIG1/EUT1.SA/EUT1.GEN1/EUT1.GEN2/ |
| Switch bits    | 00010001:00010001:00000000:00000001    |

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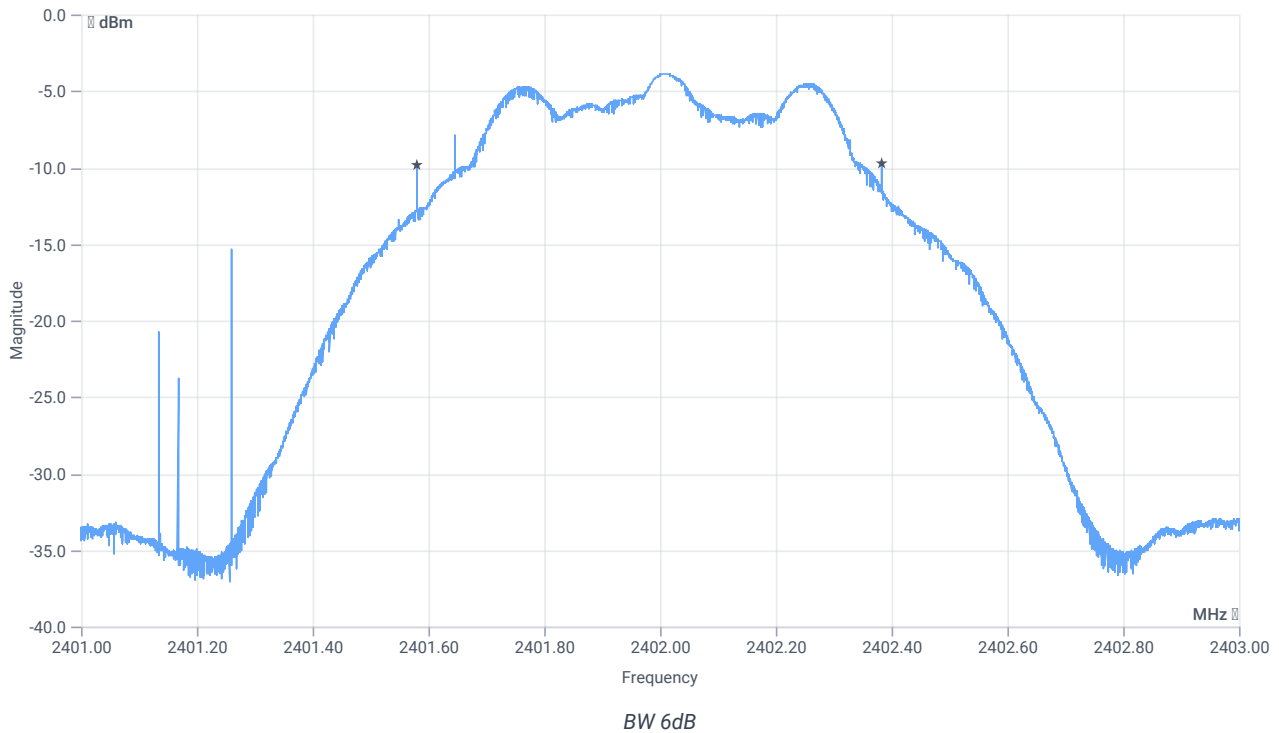
## Test at TX 2402 MHz

RESULT: Reference power cond.

| DESCRIPTION                   | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|-------------------------------|-------------|-------------|----------|------|---------|
| Ref. power<br>1MHz/1MHz cond. | --          | --          | -3.67    | dBm  | INFO    |
| Ref. frequency                | --          | --          | 2402.300 | MHz  | INFO    |

### READ SA SETTINGS:

|  |                        |
|--|------------------------|
| RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]   | 1.33   8.76   10       |
| 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

| DESCRIPTION         | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---------------------|-------------|-------------|----------|------|---------|
| DTS bandwidth (6dB) | 500         | --          | 803      | kHz  | PASS    |

Verdict

PASS

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

### References

|                                   |   |
|-----------------------------------|---|
| TC start                          | 23.01.2024 10:01:51                         |
| Ambit temp [°C]   humidity [rel%] | 0.0   0                                     |
| System version                    | 5.0.0.1                                     |
| Standard   Version                | FCC 15.247   NI                             |
| Method                            |   |
| Description                       | FCC 15.247 Bandwidth 6dB DTS - BT LE 1 Msps |
| Information                       |   |

### EUT Common Settings BT Low Energy

|                                    |   |
|------------------------------------|---|
| Intermodulation Value N            | 3   |
| Image Freq. Low   Mid   High [MHz] | 0   0   0                                     |
| Power Class                        | 2   |
| 1 Mbps supported                   | True   TXpayload 255   RXpayload 37           |
| 2 Mbps supported                   | False   TXpayload 255   RXpayload 255         |
| Longrange S8 supported             | False   TXpayload 255   RXpayload 255         |
| Longrange S2 supported             | False   TXpayload 255   RXpayload 255         |
| Signaling Settings                 | None   HCI   1   2400   None   S1   None   On |
| Signaling RF Settings              | RF1com   0   0   On                           |
| User Interaction                   | No  |

### Equipment

|   |
|---|
| Signal analyzer,Rohde&Schwarz,FSV-30,1321.3008K30/103170,3.60 |
| Signaling unit,Rohde&Schwarz,CMW,1201.0002k75/102550,4.0.190  |
| Switch matrix,cetecom advanced GmbH,USM,A001,1.0.0            |

### Test Parameter

|  |                         |
|--|-------------------------|
| Technology to test                               | BT LE 1 Msps            |
| EUT port   | EUT1                    |
| 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]                        | 0.5                     |
| Full path type                                   | EUT_SA_GEN_SIG          |

## Test Parameter

---

|                |  |
|----------------|--|
| Full path name | EUT1.SIG1/EUT1.SA/EUT1.GEN1/EUT1.GEN2/ |
| Switch bits    | 00010001:00010001:00000000:00000001    |

---

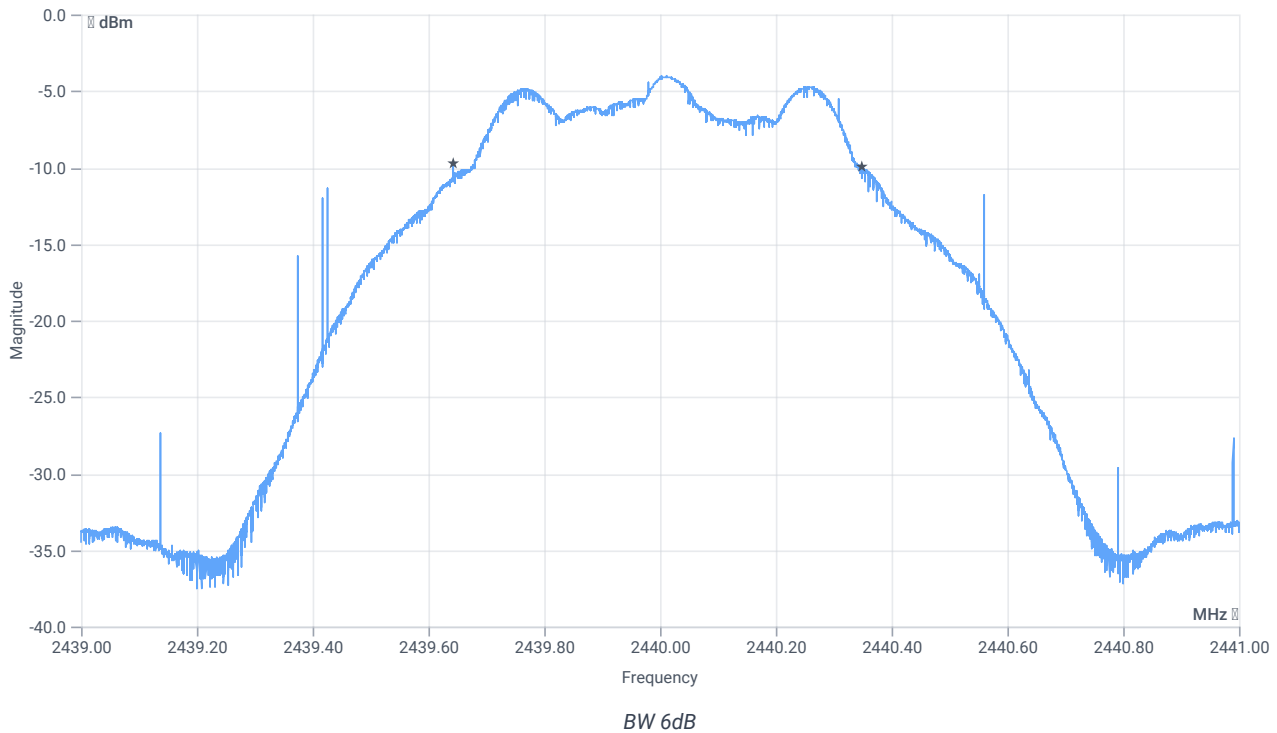
## Test at TX 2440 MHz

RESULT: Reference power cond.

| DESCRIPTION                   | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|-------------------------------|-------------|-------------|----------|------|---------|
| Ref. power<br>1MHz/1MHz cond. | --          | --          | -3.80    | dBm  | INFO    |
| Ref. frequency                | --          | --          | 2440.300 | MHz  | INFO    |

### READ SA SETTINGS:

|  |                        |
|--|------------------------|
| RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]   | 1.20   8.8   10        |
| 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

| DESCRIPTION         | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---------------------|-------------|-------------|----------|------|---------|
| DTS bandwidth (6dB) | 500         | --          | 706      | kHz  | PASS    |

Verdict

PASS

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

### References

|                                   |   |
|-----------------------------------|---|
| TC start                          | 23.01.2024 10:27:59                         |
| Ambit temp [°C]   humidity [rel%] | 0.0   0                                     |
| System version                    | 5.0.0.1                                     |
| Standard   Version                | FCC 15.247   NI                             |
| Method                            |   |
| Description                       | FCC 15.247 Bandwidth 6dB DTS - BT LE 1 Msps |
| Information                       |   |

### EUT Common Settings BT Low Energy

|                                    |   |
|------------------------------------|---|
| Intermodulation Value N            | 3   |
| Image Freq. Low   Mid   High [MHz] | 0   0   0                                     |
| Power Class                        | 2   |
| 1 Mbps supported                   | True   TXpayload 255   RXpayload 37           |
| 2 Mbps supported                   | False   TXpayload 255   RXpayload 255         |
| Longrange S8 supported             | False   TXpayload 255   RXpayload 255         |
| Longrange S2 supported             | False   TXpayload 255   RXpayload 255         |
| Signaling Settings                 | None   HCI   1   2400   None   S1   None   On |
| Signaling RF Settings              | RF1com   0   0   On                           |
| User Interaction                   | No  |

### Equipment

|   |
|---|
| Signal analyzer,Rohde&Schwarz,FSV-30,1321.3008K30/103170,3.60 |
| Signaling unit,Rohde&Schwarz,CMW,1201.0002k75/102550,4.0.190  |
| Switch matrix,cetecom advanced GmbH,USM,A001,1.0.0            |

### Test Parameter

|  |                         |
|--|-------------------------|
| Technology to test                               | BT LE 1 Msps            |
| EUT port   | EUT1                    |
| 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]                        | 0.5                     |
| Full path type                                   | EUT_SA_GEN_SIG          |

## Test Parameter

---

|                |  |
|----------------|--|
| Full path name | EUT1.SIG1/EUT1.SA/EUT1.GEN1/EUT1.GEN2/ |
| Switch bits    | 00010001:00010001:00000000:00000001    |

---

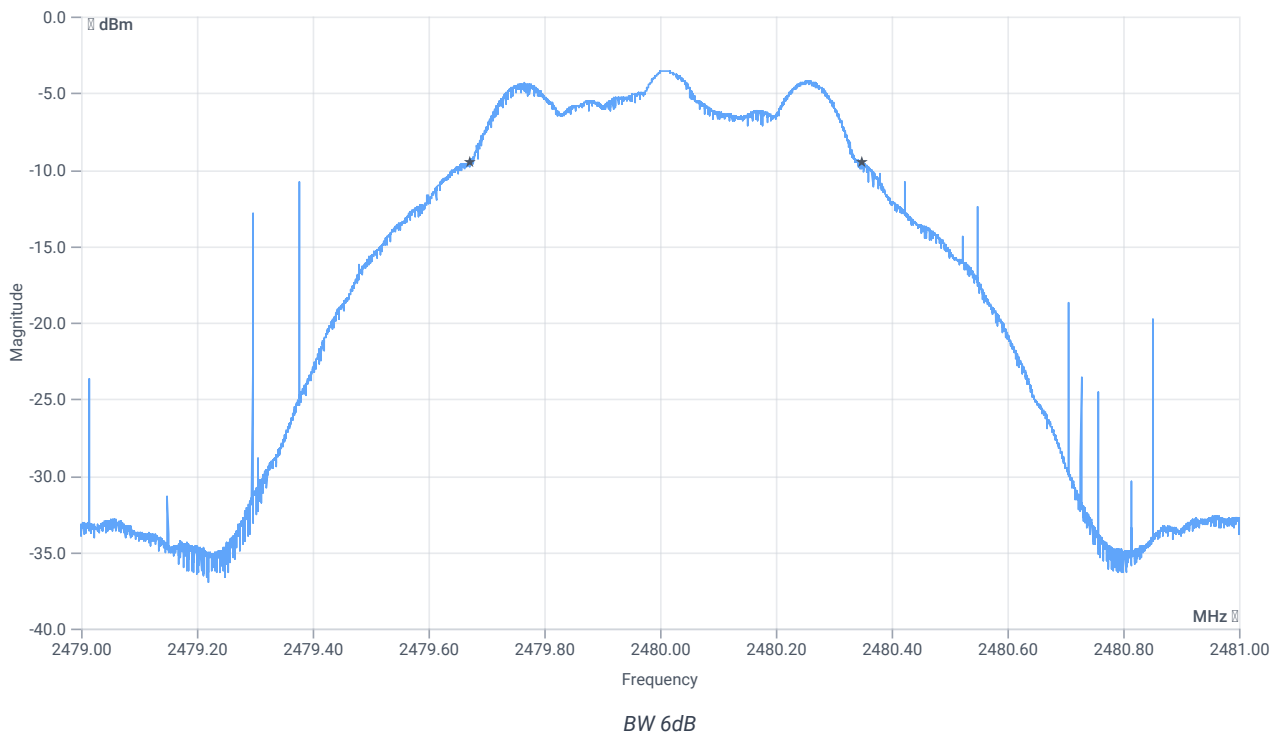
## Test at TX 2480 MHz

RESULT: Reference power cond.

| DESCRIPTION                   | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|-------------------------------|-------------|-------------|----------|------|---------|
| Ref. power<br>1MHz/1MHz cond. | --          | --          | -3.24    | dBm  | INFO    |
| Ref. frequency                | --          | --          | 2480.300 | MHz  | INFO    |

### READ SA SETTINGS:

|  |                        |
|--|------------------------|
| RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]   | 1.76   8.9   10        |
| 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

| DESCRIPTION         | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---------------------|-------------|-------------|----------|------|---------|
| DTS bandwidth (6dB) | 500         | --          | 675      | kHz  | PASS    |

Verdict

PASS

## FCC 15.247 # Peak psd DTS ~ BT LE 1 Msps

### References

|                                   |  |
|-----------------------------------|--|
| TC start                          | 23.01.2024 10:47:58  |
| Ambit temp [°C]   humidity [rel%] | 0.0   0  |
| System version                    | 5.0.0.1  |
| Standard   Version                | FCC 15.247   NI  |
| Method                            | DTS: KDB 558074 D01 V05 - Chapter 8.4 DTS maximum power spectral density level in the fundamental emission |
| Description                       | FCC 15.247 Peak psd DTS - BT LE 1 Msps   |
| Information                       |  |

### EUT Common Settings BT Low Energy

|                                    |   |
|------------------------------------|---|
| Intermodulation Value N            | 3   |
| Image Freq. Low   Mid   High [MHz] | 0   0   0                                     |
| Power Class                        | 2   |
| 1 Mbps supported                   | True   TXpayload 255   RXpayload 37           |
| 2 Mbps supported                   | False   TXpayload 255   RXpayload 255         |
| Longrange S8 supported             | False   TXpayload 255   RXpayload 255         |
| Longrange S2 supported             | False   TXpayload 255   RXpayload 255         |
| Signaling Settings                 | None   HCI   1   2400   None   S1   None   On |
| Signaling RF Settings              | RF1com   0   0   On                           |
| User Interaction                   | No  |

### Equipment

|   |
|---|
| Signal analyzer,Rohde&Schwarz,FSV-30,1321.3008K30/103170,3.60 |
| Signaling unit,Rohde&Schwarz,CMW,1201.0002k75/102550,4.0.190  |
| Switch matrix,cetecom advanced GmbH,USM,A001,1.0.0            |

### Test Parameter

|  |                         |
|--|-------------------------|
| Technology to test                               | BT LE 1 Msps            |
| EUT port   | EUT1                    |
| 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]                        | 0.5                     |



## Test Parameter

|                |  |
|----------------|--|
| Full path type | EUT_SA_GEN_SIG                         |
| Full path name | EUT1.SIG1/EUT1.SA/EUT1.GEN1/EUT1.GEN2/ |
| Switch bits    | 00010001:00010001:00000000:00000001    |

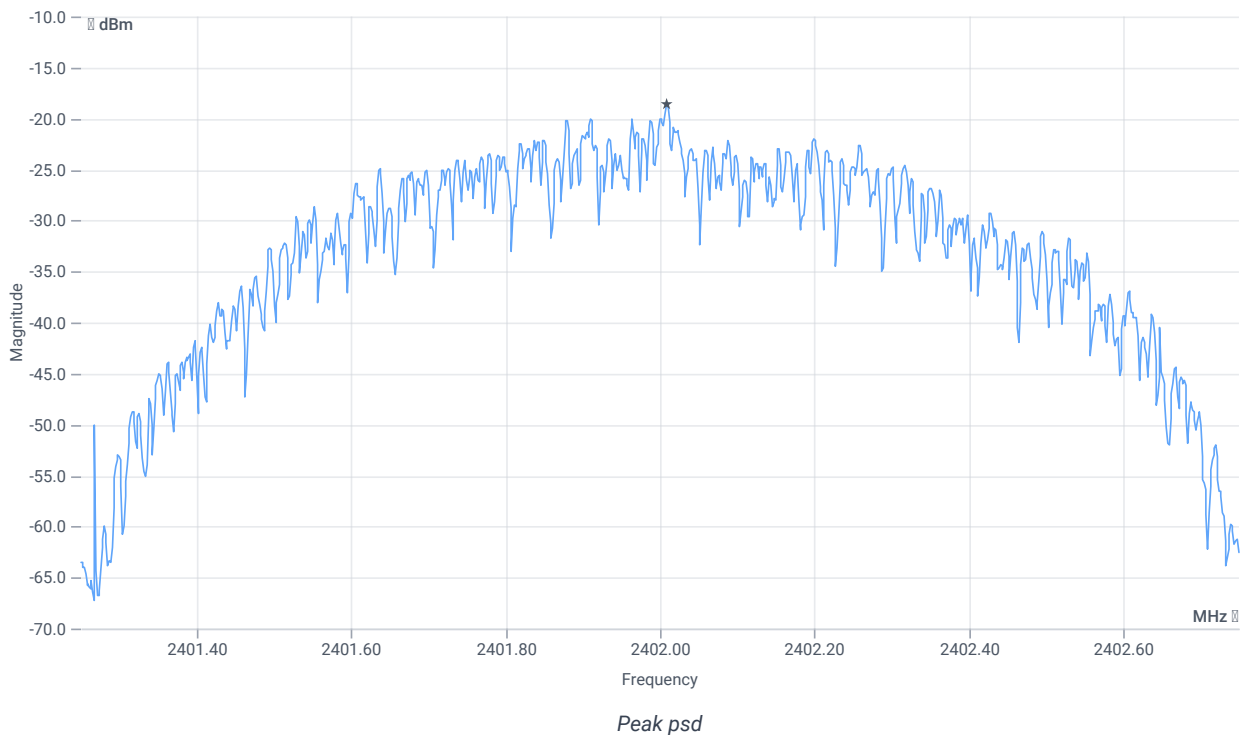
## Test at TX 2402 MHz

RESULT: Reference power cond.

| DESCRIPTION                   | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|-------------------------------|-------------|-------------|----------|------|---------|
| Ref. power<br>1MHz/1MHz cond. | --          | --          | -3.65    | dBm  | INFO    |
| Ref. frequency                | --          | --          | 2402.200 | MHz  | INFO    |

### READ SA SETTINGS:

|  |                        |
|--|------------------------|
| RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]   | 1.35   8.76   10       |
| 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

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT     | VERDICT |
|-------------|-------------|-------------|----------|----------|---------|
| Peak psd    | --          | 8           | -18.53   | dBm/3KHz | PASS    |

Verdict

PASS

## FCC 15.247 # Peak psd DTS ~ BT LE 1 Msps

### References

|                                   |  |
|-----------------------------------|--|
| TC start                          | 23.01.2024 10:02:22  |
| Ambit temp [°C]   humidity [rel%] | 0.0   0  |
| System version                    | 5.0.0.1  |
| Standard   Version                | FCC 15.247   NI  |
| Method                            | DTS: KDB 558074 D01 V05 - Chapter 8.4 DTS maximum power spectral density level in the fundamental emission |
| Description                       | FCC 15.247 Peak psd DTS - BT LE 1 Msps   |
| Information                       |  |

### EUT Common Settings BT Low Energy

|                                    |   |
|------------------------------------|---|
| Intermodulation Value N            | 3   |
| Image Freq. Low   Mid   High [MHz] | 0   0   0                                     |
| Power Class                        | 2   |
| 1 Mbps supported                   | True   TXpayload 255   RXpayload 37           |
| 2 Mbps supported                   | False   TXpayload 255   RXpayload 255         |
| Longrange S8 supported             | False   TXpayload 255   RXpayload 255         |
| Longrange S2 supported             | False   TXpayload 255   RXpayload 255         |
| Signaling Settings                 | None   HCI   1   2400   None   S1   None   On |
| Signaling RF Settings              | RF1com   0   0   On                           |
| User Interaction                   | No  |

### Equipment

|   |
|---|
| Signal analyzer,Rohde&Schwarz,FSV-30,1321.3008K30/103170,3.60 |
| Signaling unit,Rohde&Schwarz,CMW,1201.0002k75/102550,4.0.190  |
| Switch matrix,cetecom advanced GmbH,USM,A001,1.0.0            |

### Test Parameter

|  |                         |
|--|-------------------------|
| Technology to test                               | BT LE 1 Msps            |
| EUT port   | EUT1                    |
| 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]                        | 0.5                     |

## Test Parameter

---

|                |  |
|----------------|--|
| Full path type | EUT_SA_GEN_SIG                         |
| Full path name | EUT1.SIG1/EUT1.SA/EUT1.GEN1/EUT1.GEN2/ |
| Switch bits    | 00010001:00010001:00000000:00000001    |

---

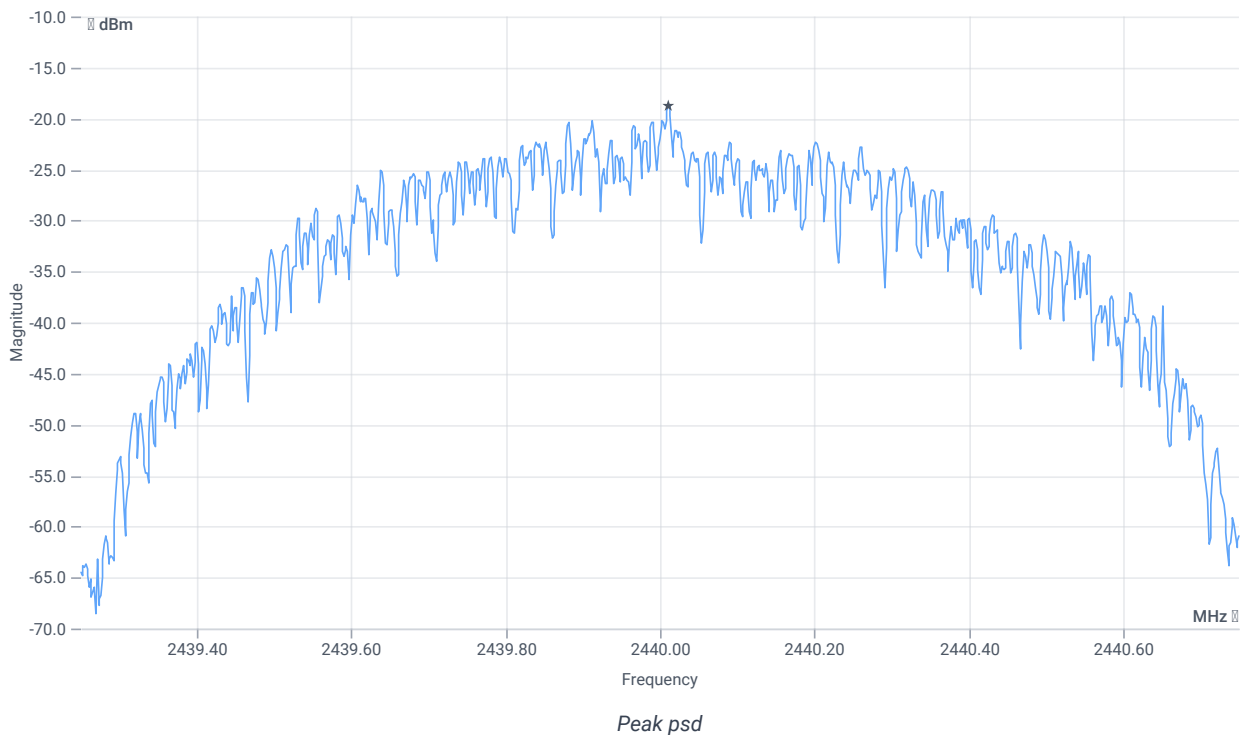
## Test at TX 2440 MHz

RESULT: Reference power cond.

| DESCRIPTION                   | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|-------------------------------|-------------|-------------|----------|------|---------|
| Ref. power<br>1MHz/1MHz cond. | --          | --          | -3.83    | dBm  | INFO    |
| Ref. frequency                | --          | --          | 2440.300 | MHz  | INFO    |

### READ SA SETTINGS:

|  |                        |
|--|------------------------|
| RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]   | 1.17   8.8   10        |
| 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

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT     | VERDICT |
|-------------|-------------|-------------|----------|----------|---------|
| Peak psd    | --          | 8           | -18.73   | dBm/3KHz | PASS    |

Verdict

PASS

## FCC 15.247 # Peak psd DTS ~ BT LE 1 Msps

### References

|                                   |  |
|-----------------------------------|--|
| TC start                          | 23.01.2024 10:28:31  |
| Ambit temp [°C]   humidity [rel%] | 0.0   0  |
| System version                    | 5.0.0.1  |
| Standard   Version                | FCC 15.247   NI  |
| Method                            | DTS: KDB 558074 D01 V05 - Chapter 8.4 DTS maximum power spectral density level in the fundamental emission |
| Description                       | FCC 15.247 Peak psd DTS - BT LE 1 Msps   |
| Information                       |  |

### EUT Common Settings BT Low Energy

|                                    |   |
|------------------------------------|---|
| Intermodulation Value N            | 3   |
| Image Freq. Low   Mid   High [MHz] | 0   0   0                                     |
| Power Class                        | 2   |
| 1 Mbps supported                   | True   TXpayload 255   RXpayload 37           |
| 2 Mbps supported                   | False   TXpayload 255   RXpayload 255         |
| Longrange S8 supported             | False   TXpayload 255   RXpayload 255         |
| Longrange S2 supported             | False   TXpayload 255   RXpayload 255         |
| Signaling Settings                 | None   HCI   1   2400   None   S1   None   On |
| Signaling RF Settings              | RF1com   0   0   On                           |
| User Interaction                   | No  |

### Equipment

|   |
|---|
| Signal analyzer,Rohde&Schwarz,FSV-30,1321.3008K30/103170,3.60 |
| Signaling unit,Rohde&Schwarz,CMW,1201.0002k75/102550,4.0.190  |
| Switch matrix,cetecom advanced GmbH,USM,A001,1.0.0            |

### Test Parameter

|  |                         |
|--|-------------------------|
| Technology to test                               | BT LE 1 Msps            |
| EUT port   | EUT1                    |
| 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]                        | 0.5                     |

## Test Parameter

|                |  |
|----------------|--|
| Full path type | EUT_SA_GEN_SIG                         |
| Full path name | EUT1.SIG1/EUT1.SA/EUT1.GEN1/EUT1.GEN2/ |
| Switch bits    | 00010001:00010001:00000000:00000001    |

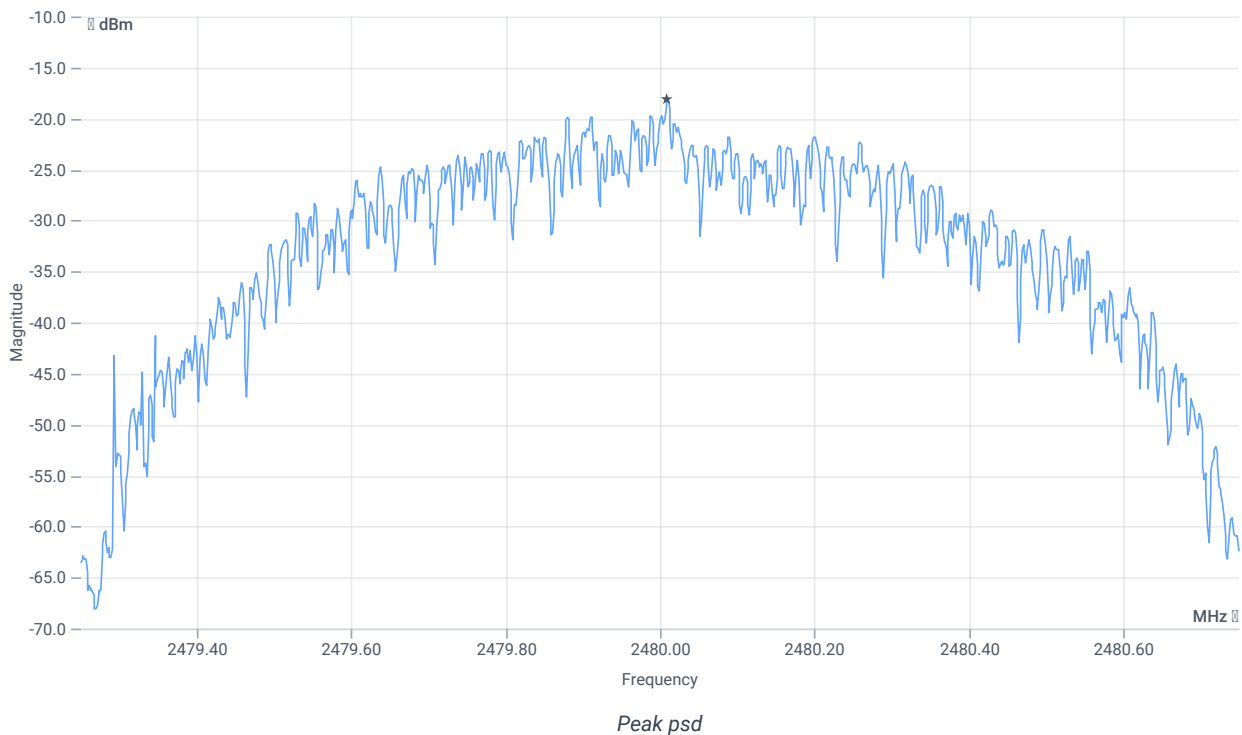
## Test at TX 2480 MHz

RESULT: Reference power cond.

| DESCRIPTION                   | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|-------------------------------|-------------|-------------|----------|------|---------|
| Ref. power<br>1MHz/1MHz cond. | --          | --          | -3.35    | dBm  | INFO    |
| Ref. frequency                | --          | --          | 2480.300 | MHz  | INFO    |

### READ SA SETTINGS:

|  |                        |
|--|------------------------|
| RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]   | 1.65   8.9   10        |
| 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

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT     | VERDICT |
|-------------|-------------|-------------|----------|----------|---------|
| Peak psd    | --          | 8           | -18.15   | dBm/3KHz | PASS    |

Verdict

PASS



# FCC 15.247, ISED RSS247 # Bandwidth 99PCT and 20dB ~ BT LE 1 Msps

## References

|                                   |  |
|-----------------------------------|--|
| TC start                          | 23.01.2024 10:48:40                                |
| Ambit temp [°C]   humidity [rel%] | 0.0   0  |
| System version                    | 5.0.0.1  |
| Standard   Version                | FCC 15.247, ISED RSS247   NI                       |
| Method                            |  |
| Description                       | FCC 15.247 Bandwidth 99PCT-20dB DTS - BT LE 1 Msps |
| Information                       |  |

## EUT Common Settings BT Low Energy

|                                    |   |
|------------------------------------|---|
| Intermodulation Value N            | 3   |
| Image Freq. Low   Mid   High [MHz] | 0   0   0                                     |
| Power Class                        | 2   |
| 1 Mbps supported                   | True   TXpayload 255   RXpayload 37           |
| 2 Mbps supported                   | False   TXpayload 255   RXpayload 255         |
| Longrange S8 supported             | False   TXpayload 255   RXpayload 255         |
| Longrange S2 supported             | False   TXpayload 255   RXpayload 255         |
| Signaling Settings                 | None   HCI   1   2400   None   S1   None   On |
| Signaling RF Settings              | RF1com   0   0   On                           |
| User Interaction                   | No  |

## Equipment

|   |
|---|
| Signal analyzer,Rohde&Schwarz,FSV-30,1321.3008K30/103170,3.60 |
| Signaling unit,Rohde&Schwarz,CMW,1201.0002k75/102550,4.0.190  |
| Switch matrix,cetecom advanced GmbH,USM,A001,1.0.0            |

## Test Parameter

|  |                         |
|--|-------------------------|
| Technology to test                               | BT LE 1 Msps            |
| EUT port   | EUT1                    |
| 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]                        | 0.5                     |

## Test Parameter

|                |  |
|----------------|--|
| Full path type | EUT_SA_GEN_SIG                         |
| Full path name | EUT1.SIG1/EUT1.SA/EUT1.GEN1/EUT1.GEN2/ |
| Switch bits    | 00010001:00010001:00000000:00000001    |

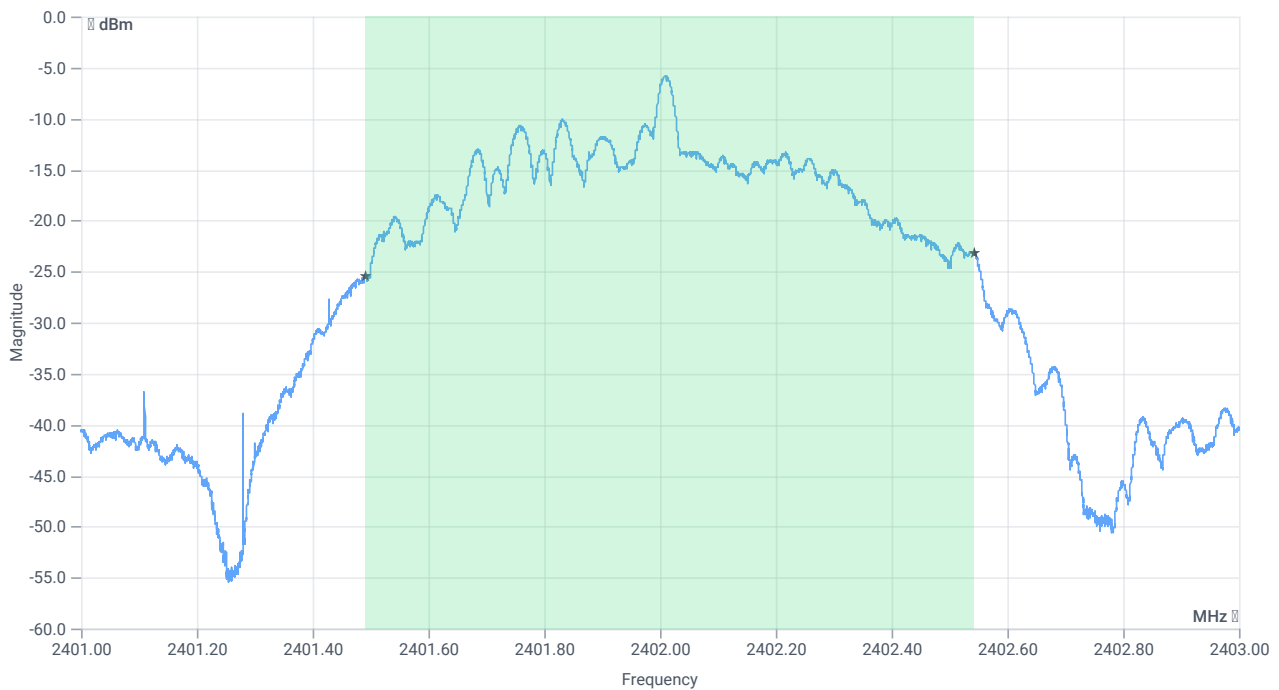
## Test at TX 2402 MHz

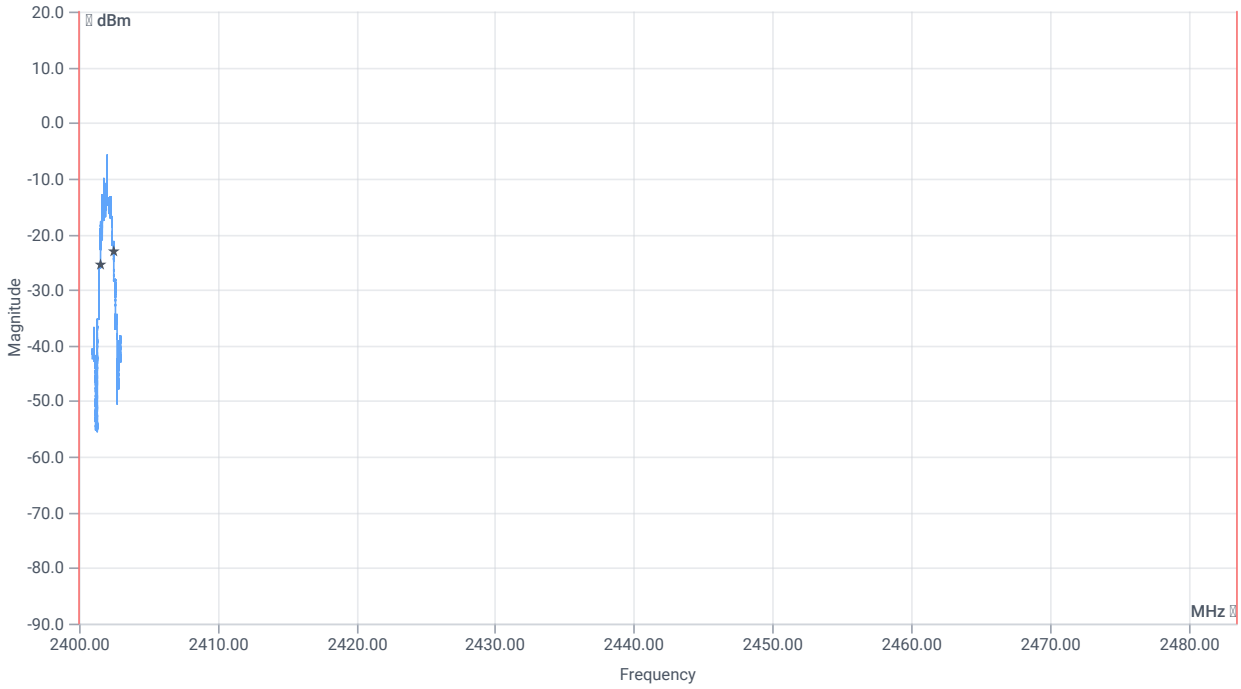
RESULT: Reference power cond.

| DESCRIPTION                   | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|-------------------------------|-------------|-------------|----------|------|---------|
| Ref. power<br>1MHz/1MHz cond. | --          | --          | -3.68    | dBm  | INFO    |
| Ref. frequency                | --          | --          | 2402.200 | MHz  | INFO    |

### READ SA SETTINGS:

|  |                        |
|--|------------------------|
| RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]   | 1.32   8.76   10       |
| 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 |

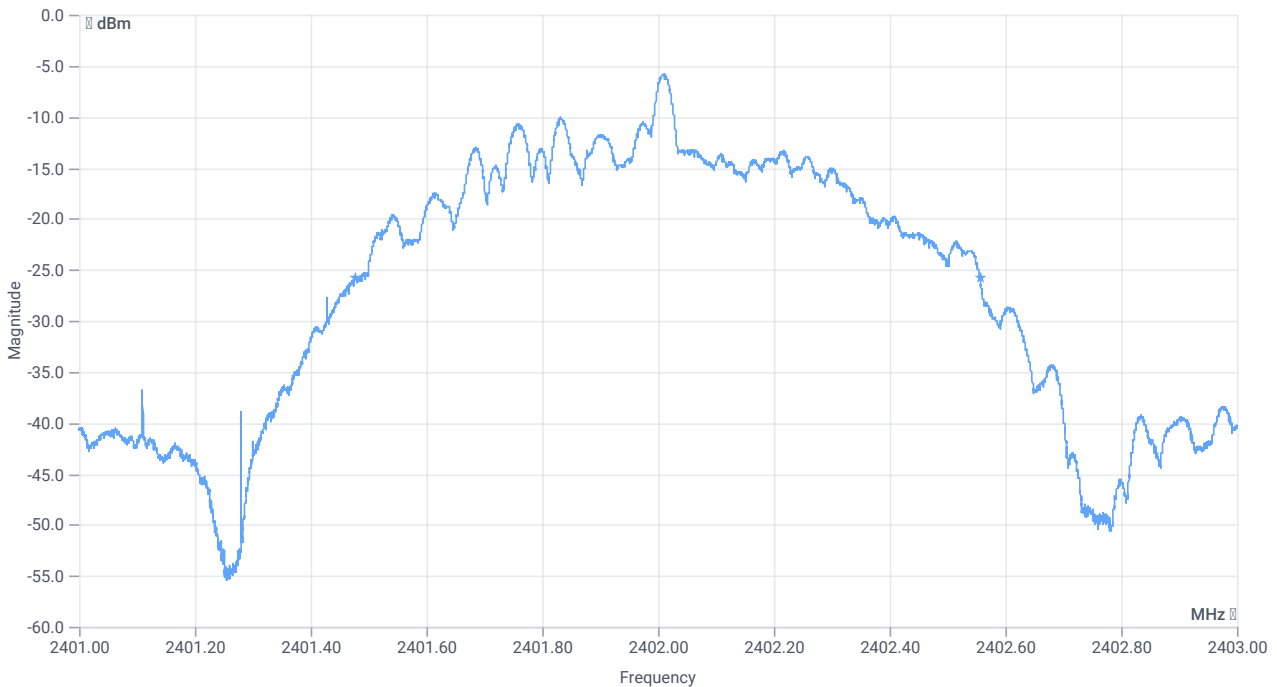




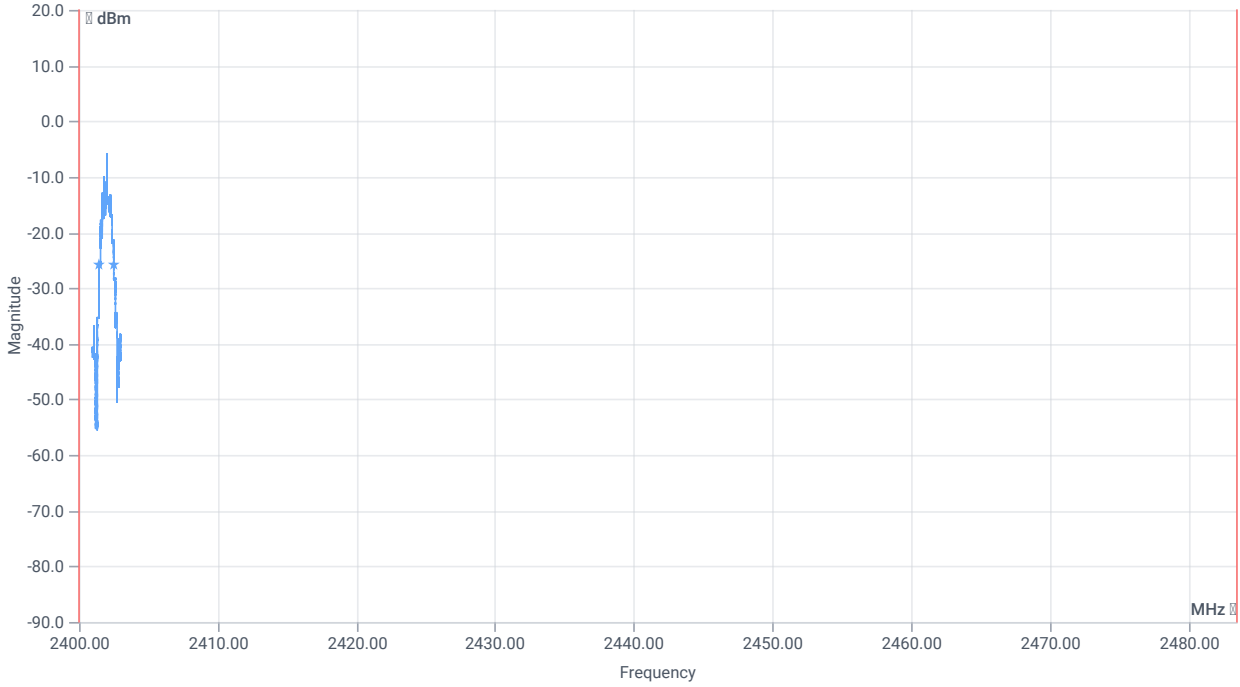
*BW within Band 99PCT*

## RESULT

| DESCRIPTION   | LOWER LIMIT | UPPER LIMIT | MEASURED  | UNIT | VERDICT |
|---------------|-------------|-------------|-----------|------|---------|
| Bandwidth 99% | --          | --          | 1049.000  | kHz  | INFO    |
| T1 99%        | 2400.000000 | --          | 2401.4925 | MHz  | PASS    |
| T2 99%        | --          | 2483.500000 | 2402.5415 | MHz  | PASS    |



BW 20dB



BW within band 20dB

## RESULT

| DESCRIPTION    | LOWER LIMIT | UPPER LIMIT | MEASURED  | UNIT | VERDICT |
|----------------|-------------|-------------|-----------|------|---------|
| Bandwidth 20dB | --          | --          | 1079      | kHz  | INFO    |
| T1 20dB        | 2400.000000 | --          | 2401.4768 | MHz  | PASS    |
| T2 20dB        | --          | 2483.500000 | 2402.5558 | MHz  | PASS    |

Verdict

PASS

# FCC 15.247, ISED RSS247 # Bandwidth 99PCT and 20dB ~ BT LE 1 Msps

## References

|                                   |  |
|-----------------------------------|--|
| TC start                          | 23.01.2024 10:03:05                                |
| Ambit temp [°C]   humidity [rel%] | 0.0   0  |
| System version                    | 5.0.0.1  |
| Standard   Version                | FCC 15.247, ISED RSS247   NI                       |
| Method                            |  |
| Description                       | FCC 15.247 Bandwidth 99PCT-20dB DTS - BT LE 1 Msps |
| Information                       |  |

## EUT Common Settings BT Low Energy

|                                    |   |
|------------------------------------|---|
| Intermodulation Value N            | 3   |
| Image Freq. Low   Mid   High [MHz] | 0   0   0                                     |
| Power Class                        | 2   |
| 1 Mbps supported                   | True   TXpayload 255   RXpayload 37           |
| 2 Mbps supported                   | False   TXpayload 255   RXpayload 255         |
| Longrange S8 supported             | False   TXpayload 255   RXpayload 255         |
| Longrange S2 supported             | False   TXpayload 255   RXpayload 255         |
| Signaling Settings                 | None   HCI   1   2400   None   S1   None   On |
| Signaling RF Settings              | RF1com   0   0   On                           |
| User Interaction                   | No  |

## Equipment

|   |
|---|
| Signal analyzer,Rohde&Schwarz,FSV-30,1321.3008K30/103170,3.60 |
| Signaling unit,Rohde&Schwarz,CMW,1201.0002k75/102550,4.0.190  |
| Switch matrix,cetecom advanced GmbH,USM,A001,1.0.0            |

## Test Parameter

|  |                         |
|--|-------------------------|
| Technology to test                               | BT LE 1 Msps            |
| EUT port   | EUT1                    |
| 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]                        | 0.5                     |

## Test Parameter

|                |  |
|----------------|--|
| Full path type | EUT_SA_GEN_SIG                         |
| Full path name | EUT1.SIG1/EUT1.SA/EUT1.GEN1/EUT1.GEN2/ |
| Switch bits    | 00010001:00010001:00000000:00000001    |

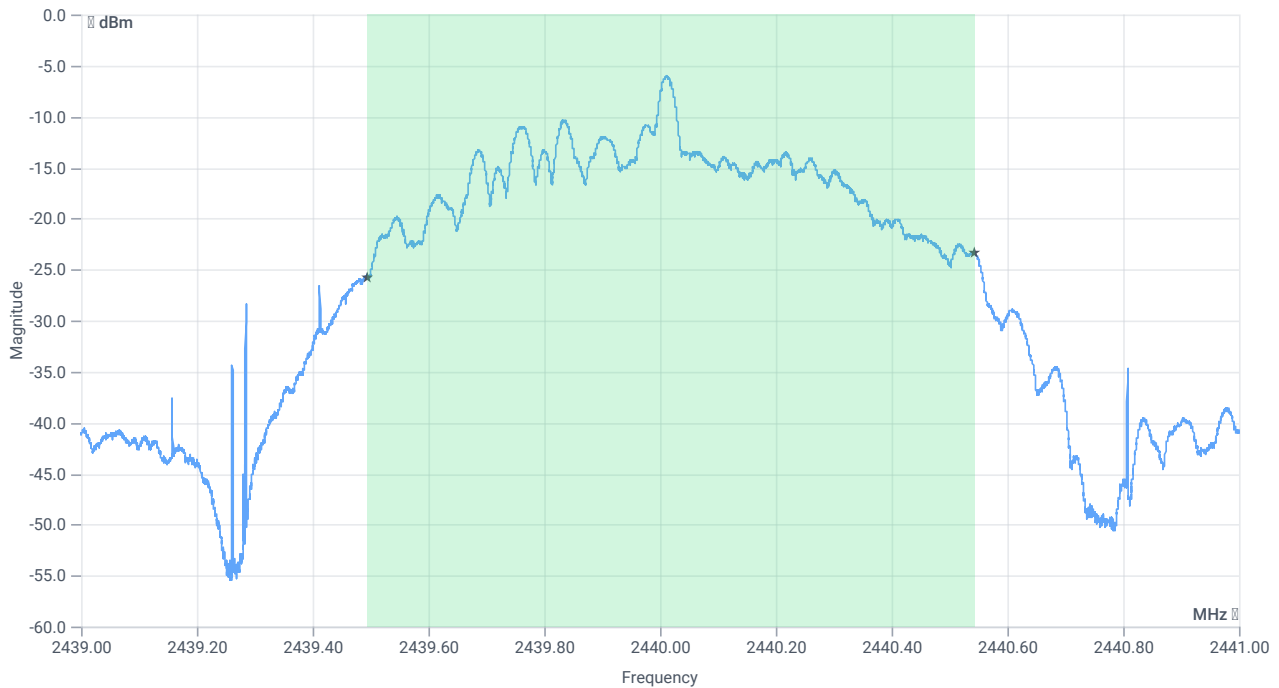
## Test at TX 2440 MHz

RESULT: Reference power cond.

| DESCRIPTION                   | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|-------------------------------|-------------|-------------|----------|------|---------|
| Ref. power<br>1MHz/1MHz cond. | --          | --          | -3.80    | dBm  | INFO    |
| Ref. frequency                | --          | --          | 2440.300 | MHz  | INFO    |

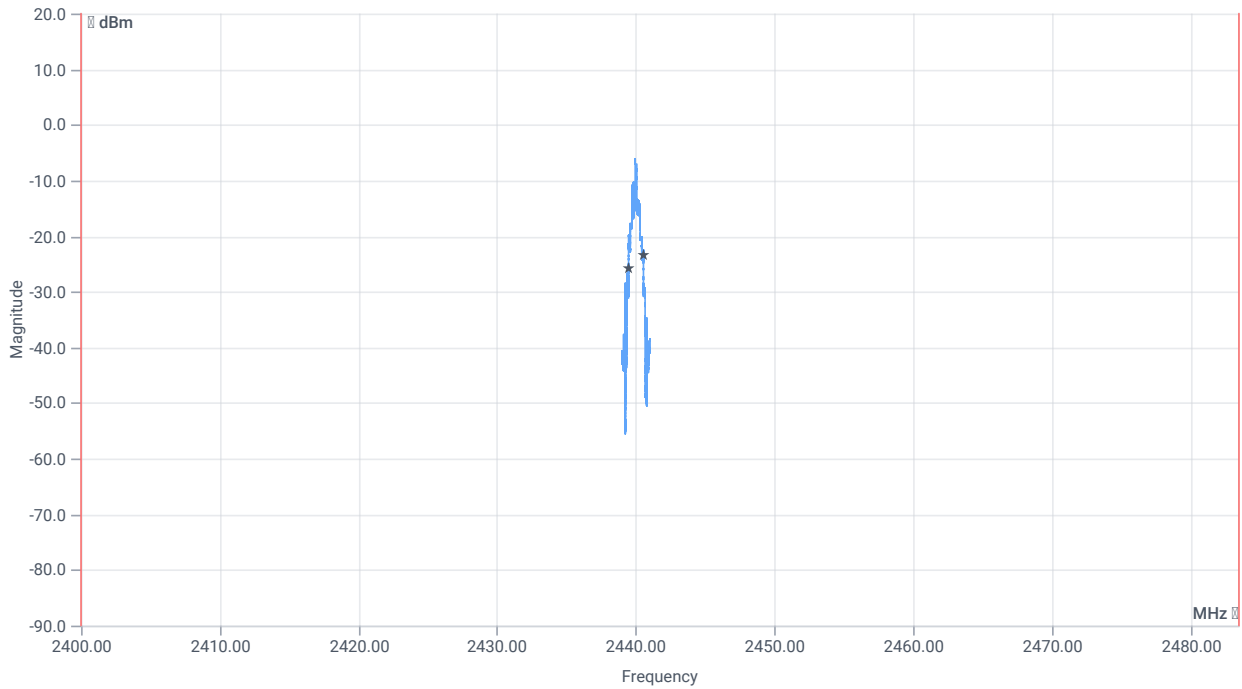
### READ SA SETTINGS:

|  |                        |
|--|------------------------|
| RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]   | 1.20   8.8   10        |
| 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 |



BW 99PCT

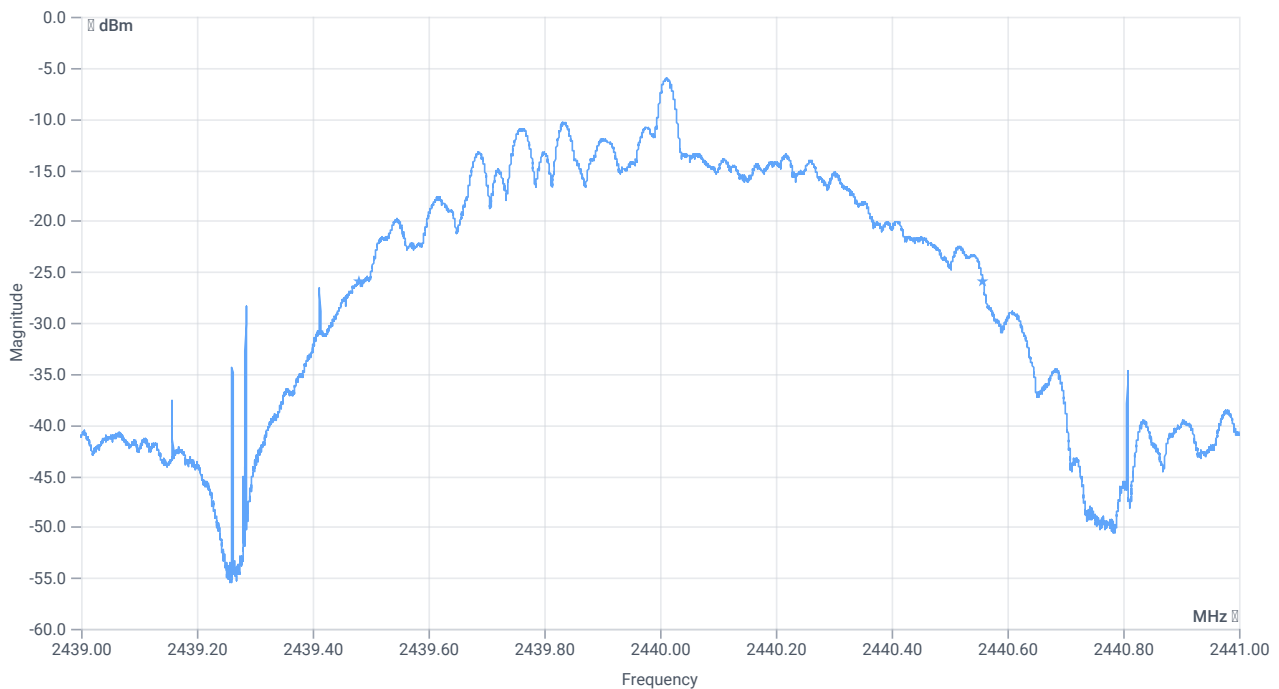




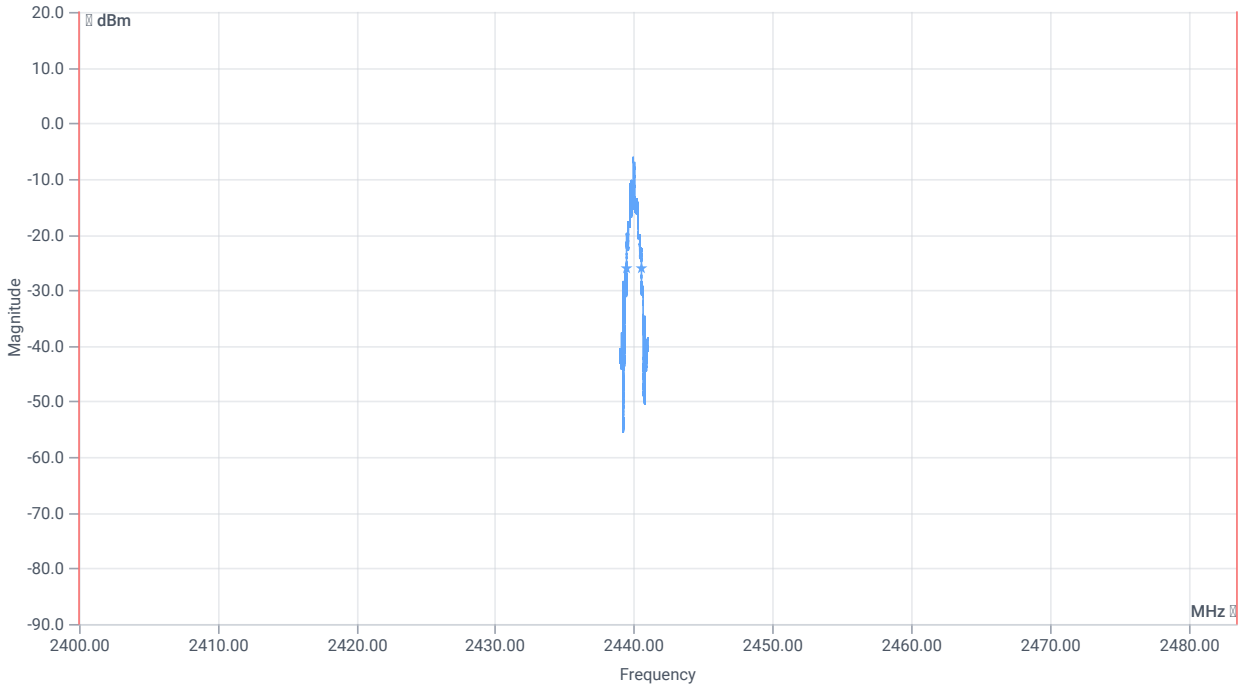
BW within Band 99PCT

## RESULT

| DESCRIPTION   | LOWER LIMIT | UPPER LIMIT | MEASURED  | UNIT | VERDICT |
|---------------|-------------|-------------|-----------|------|---------|
| Bandwidth 99% | --          | --          | 1050.000  | kHz  | INFO    |
| T1 99%        | 2400.000000 | --          | 2439.4933 | MHz  | PASS    |
| T2 99%        | --          | 2483.500000 | 2440.5437 | MHz  | PASS    |



BW 20dB



BW within band 20dB

RESULT

| DESCRIPTION    | LOWER LIMIT | UPPER LIMIT | MEASURED  | UNIT | VERDICT |
|----------------|-------------|-------------|-----------|------|---------|
| Bandwidth 20dB | --          | --          | 1079      | kHz  | INFO    |
| T1 20dB        | 2400.000000 | --          | 2439.4792 | MHz  | PASS    |
| T2 20dB        | --          | 2483.500000 | 2440.5578 | MHz  | PASS    |

Verdict

PASS

# FCC 15.247, ISED RSS247 # Bandwidth 99PCT and 20dB ~ BT LE 1 Msps

## References

|                                   |  |
|-----------------------------------|--|
| TC start                          | 23.01.2024 10:29:14                                |
| Ambit temp [°C]   humidity [rel%] | 0.0   0  |
| System version                    | 5.0.0.1  |
| Standard   Version                | FCC 15.247, ISED RSS247   NI                       |
| Method                            |  |
| Description                       | FCC 15.247 Bandwidth 99PCT-20dB DTS - BT LE 1 Msps |
| Information                       |  |

## EUT Common Settings BT Low Energy

|                                    |   |
|------------------------------------|---|
| Intermodulation Value N            | 3   |
| Image Freq. Low   Mid   High [MHz] | 0   0   0                                     |
| Power Class                        | 2   |
| 1 Mbps supported                   | True   TXpayload 255   RXpayload 37           |
| 2 Mbps supported                   | False   TXpayload 255   RXpayload 255         |
| Longrange S8 supported             | False   TXpayload 255   RXpayload 255         |
| Longrange S2 supported             | False   TXpayload 255   RXpayload 255         |
| Signaling Settings                 | None   HCI   1   2400   None   S1   None   On |
| Signaling RF Settings              | RF1com   0   0   On                           |
| User Interaction                   | No  |

## Equipment

|   |
|---|
| Signal analyzer,Rohde&Schwarz,FSV-30,1321.3008K30/103170,3.60 |
| Signaling unit,Rohde&Schwarz,CMW,1201.0002k75/102550,4.0.190  |
| Switch matrix,cetecom advanced GmbH,USM,A001,1.0.0            |

## Test Parameter

|  |                         |
|--|-------------------------|
| Technology to test                               | BT LE 1 Msps            |
| EUT port   | EUT1                    |
| 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]                        | 0.5                     |

## Test Parameter

|                |  |
|----------------|--|
| Full path type | EUT_SA_GEN_SIG                         |
| Full path name | EUT1.SIG1/EUT1.SA/EUT1.GEN1/EUT1.GEN2/ |
| Switch bits    | 00010001:00010001:00000000:00000001    |

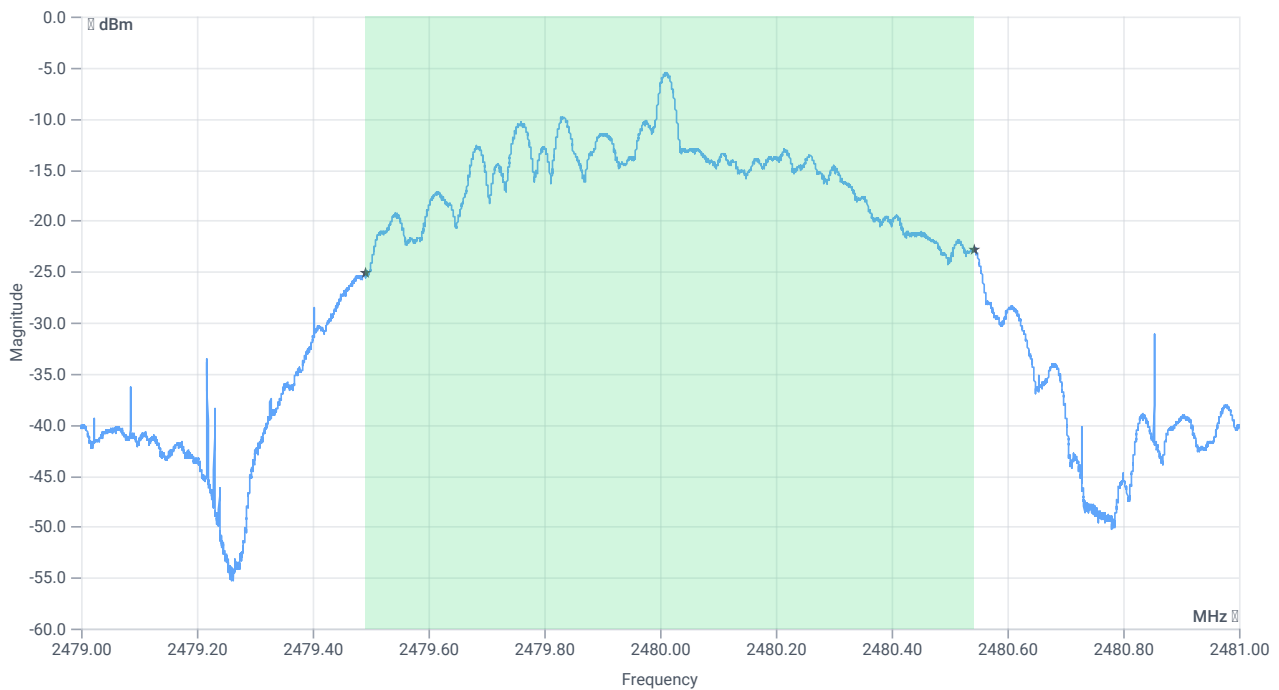
## Test at TX 2480 MHz

RESULT: Reference power cond.

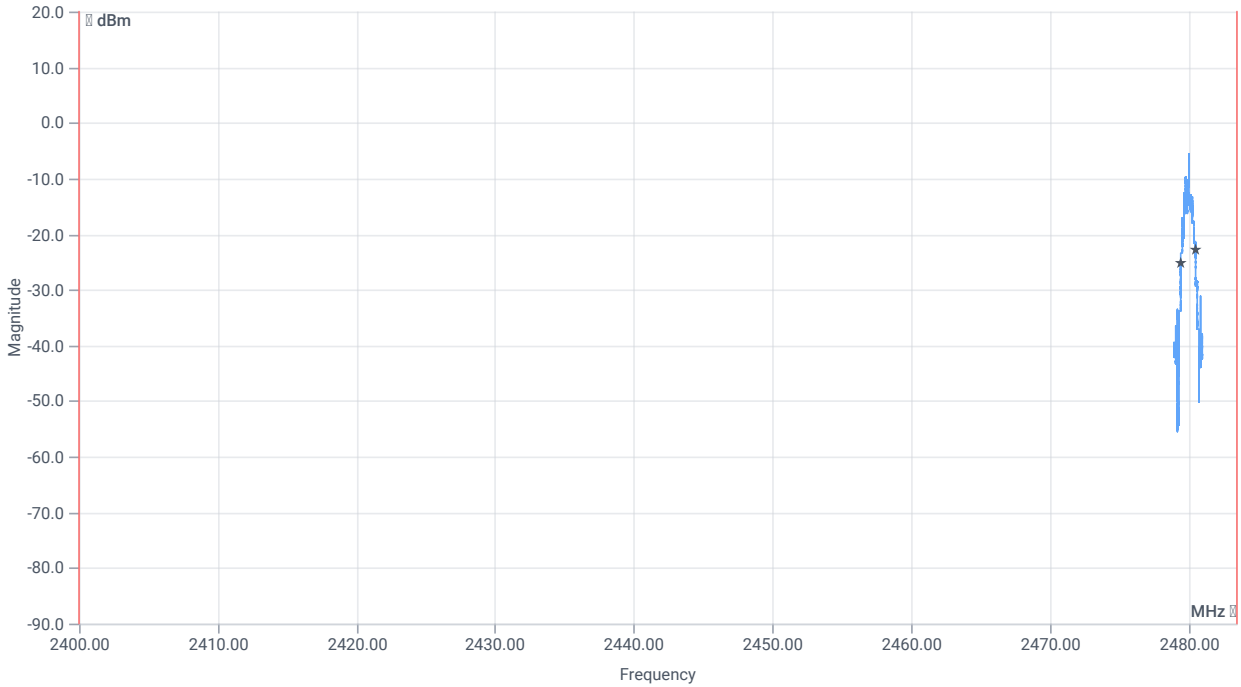
| DESCRIPTION                   | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|-------------------------------|-------------|-------------|----------|------|---------|
| Ref. power<br>1MHz/1MHz cond. | --          | --          | -3.32    | dBm  | INFO    |
| Ref. frequency                | --          | --          | 2480.200 | MHz  | INFO    |

### READ SA SETTINGS:

|  |                        |
|--|------------------------|
| RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]   | 1.68   8.9   10        |
| 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 |



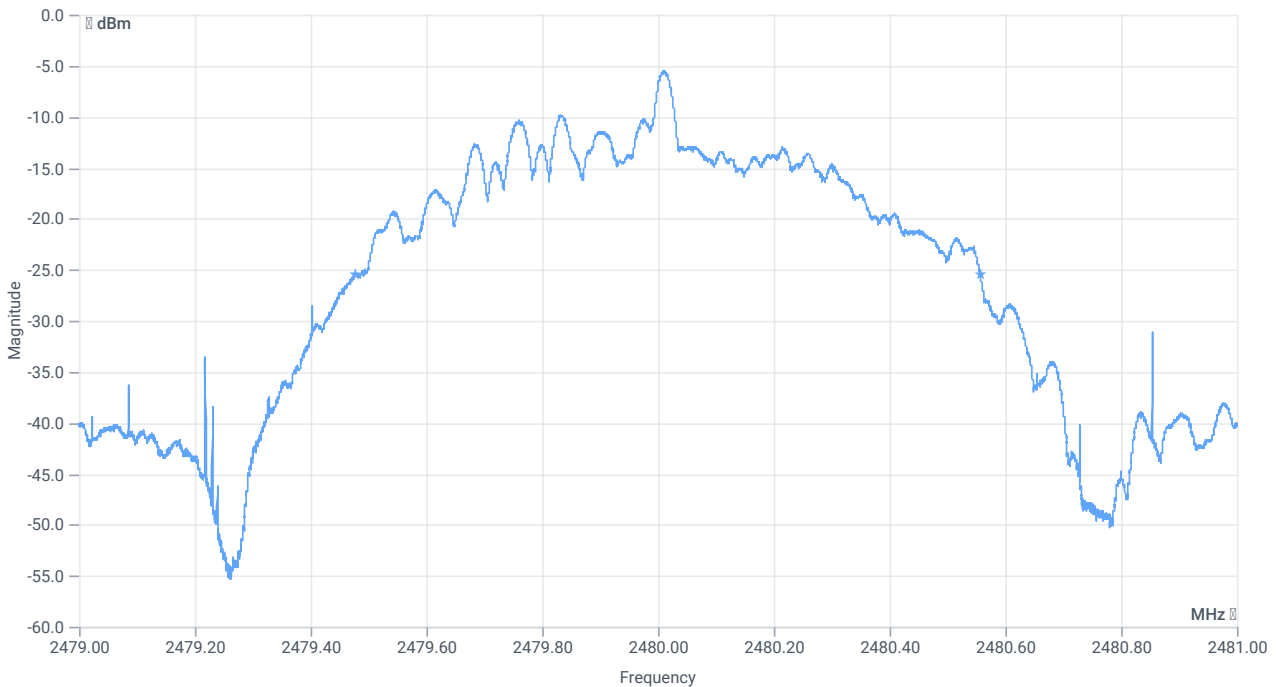
BW 99PCT



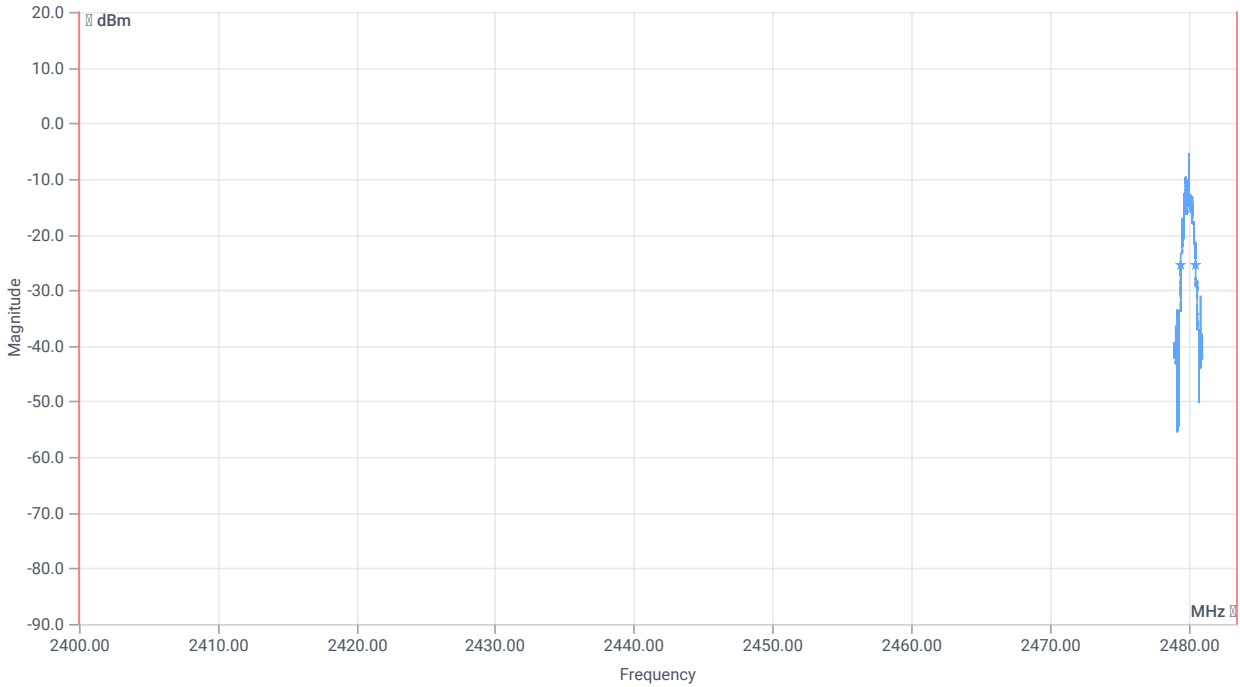
BW within Band 99PCT

## RESULT

| DESCRIPTION   | LOWER LIMIT | UPPER LIMIT | MEASURED  | UNIT | VERDICT |
|---------------|-------------|-------------|-----------|------|---------|
| Bandwidth 99% | --          | --          | 1050.000  | kHz  | INFO    |
| T1 99%        | 2400.000000 | --          | 2479.4923 | MHz  | PASS    |
| T2 99%        | --          | 2483.500000 | 2480.5421 | MHz  | PASS    |



BW 20dB



BW within band 20dB

RESULT

| DESCRIPTION    | LOWER LIMIT | UPPER LIMIT | MEASURED  | UNIT | VERDICT |
|----------------|-------------|-------------|-----------|------|---------|
| Bandwidth 20dB | --          | --          | 1080      | kHz  | INFO    |
| T1 20dB        | 2400.000000 | --          | 2479.4762 | MHz  | PASS    |
| T2 20dB        | --          | 2483.500000 | 2480.5564 | MHz  | PASS    |

Verdict

PASS

## FCC 15.247 # TX spurious conducted 20dBc ~ BT LE 1 Msps

### References

|                                   |  |
|-----------------------------------|--|
| TC start                          | 23.01.2024 10:49:19  |
| Ambit temp [°C]   humidity [rel%] | 0.0   0  |
| System version                    | 5.0.0.1  |
| Standard   Version                | FCC 15.247   NI  |
| Method                            | IF DTS then 8.5 DTS emissions in non-restricted frequency bands:<br>Subclause 11.11 of ANSI C63.10 is applicable |
| Description                       | FCC 15.247 TX Emissions Conducted DTS - BT LE 1 Msps   |
| Information                       |  |

### EUT Common Settings BT Low Energy

|                                    |   |
|------------------------------------|---|
| Intermodulation Value N            | 3   |
| Image Freq. Low   Mid   High [MHz] | 0   0   0                                     |
| Power Class                        | 2   |
| 1 Mbps supported                   | True   TXpayload 255   RXpayload 37           |
| 2 Mbps supported                   | False   TXpayload 255   RXpayload 255         |
| Longrange S8 supported             | False   TXpayload 255   RXpayload 255         |
| Longrange S2 supported             | False   TXpayload 255   RXpayload 255         |
| Signaling Settings                 | None   HCI   1   2400   None   S1   None   On |
| Signaling RF Settings              | RF1com   0   0   On                           |
| User Interaction                   | No  |

### Equipment

|   |
|---|
| Signal analyzer,Rohde&Schwarz,FSV-30,1321.3008K30/103170,3.60 |
| Signaling unit,Rohde&Schwarz,CMW,1201.0002k75/102550,4.0.190  |
| Switch matrix,cetecom advanced GmbH,USM,A001,1.0.0            |

### Test Parameter

|  |                         |
|--|-------------------------|
| Technology to test                               | BT LE 1 Msps            |
| EUT port   | EUT1                    |
| 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]                        | 0.5                     |



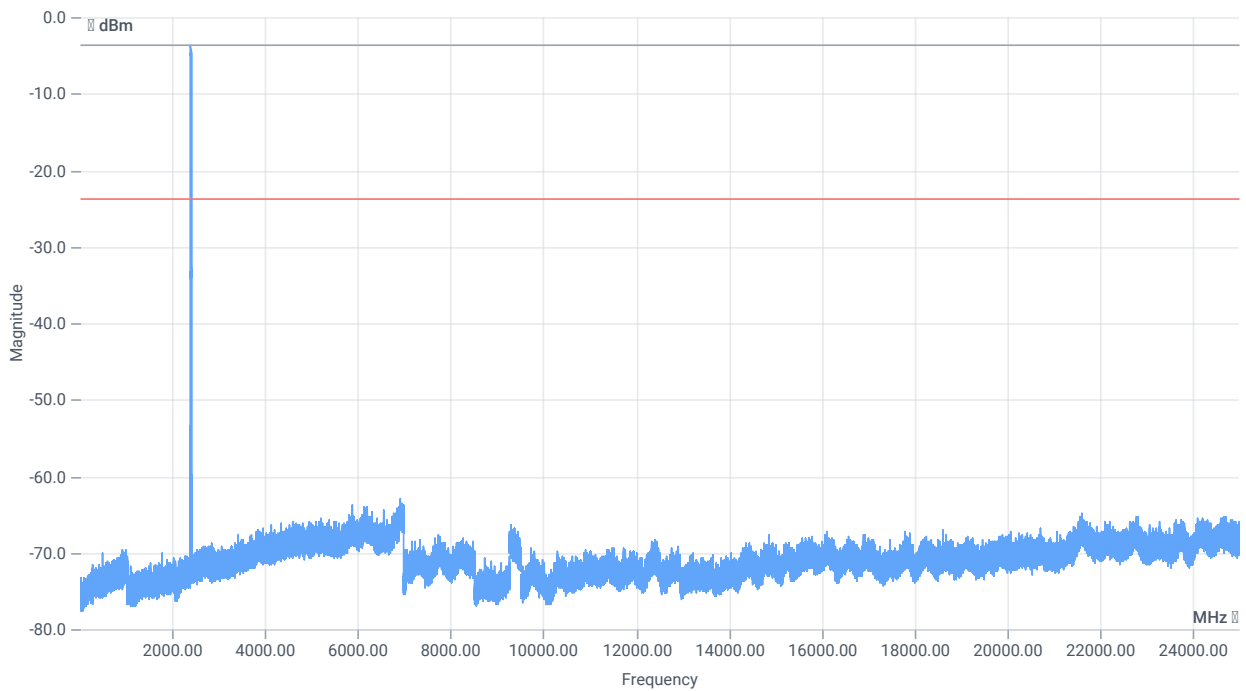
## Test Parameter

|                |  |
|----------------|--|
| Full path type | EUT_SA_GEN_SIG                         |
| Full path name | EUT1.SIG1/EUT1.SA/EUT1.GEN1/EUT1.GEN2/ |
| Switch bits    | 00010001:00010001:00000000:00000001    |

## Test at TX 2402 MHz

RESULT: Reference power cond.

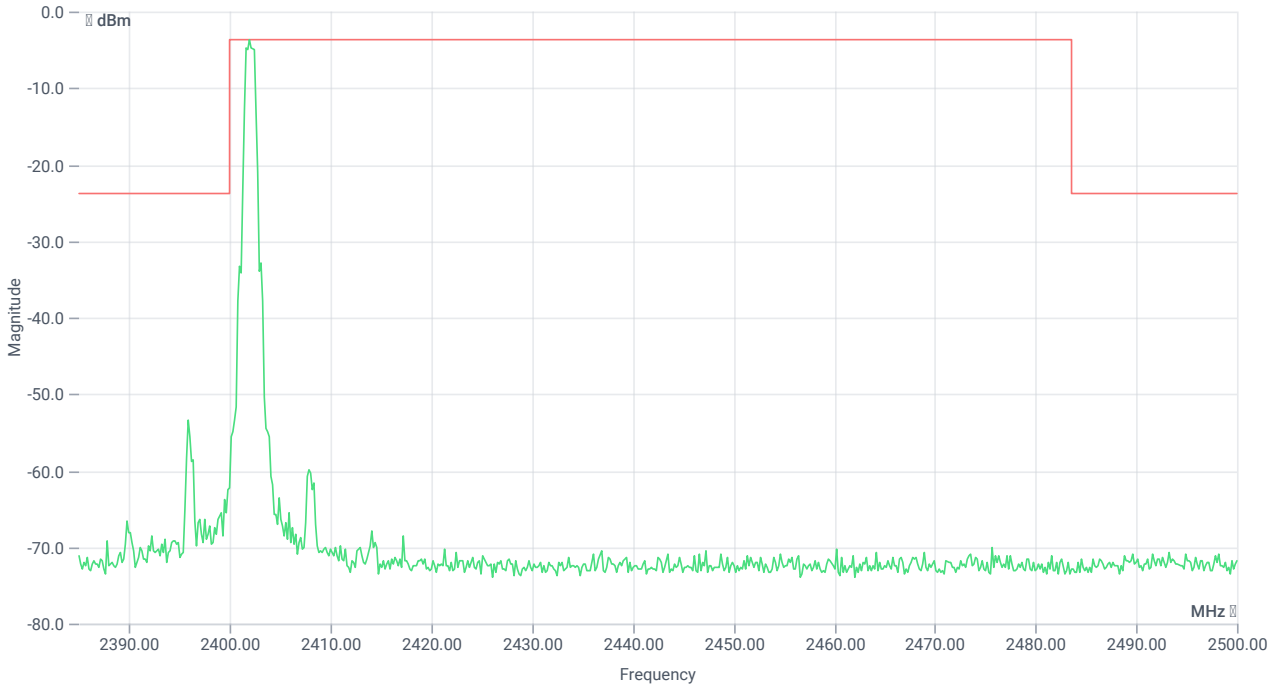
| DESCRIPTION                   | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|-------------------------------|-------------|-------------|----------|------|---------|
| Ref. power<br>1MHz/1MHz cond. | --          | --          | -3.56    | dBm  | INFO    |
| Ref. frequency                | --          | --          | 2402.300 | MHz  | INFO    |



TX emissions

### READ SA SETTINGS:

|  |                       |
|--|-----------------------|
| RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]   | -3.56   15.72   0     |
| Start [MHz]   Stop [MHz]                             | 24780.000   25000.000 |
| RBW [MHz]   VBW [MHz]                                | 0.100000   0.300000   |
| Detector   TraceMode                                 | POS   MAXH            |
| Sweep: time [ms]   count   points per Section   type | 200   25   1501   SWE |



TX emissions band zoomed

## RESULT

| DESCRIPTION                         | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|-------------------------------------|-------------|-------------|----------|------|---------|
| Reference @ 2402.00 MHz             | --          | --          | -3.74    | dBm  | INFO    |
| No peaks detected                   | --          | --          |          |      | PASS    |
| Lowest margin to limit 2395.833 MHz | 0           | --          | 29.7     | dB   | INFO    |

Verdict

PASS

## FCC 15.247 # TX spurious conducted 20dBc ~ BT LE 1 Msps

### References

|                                   |  |
|-----------------------------------|--|
| TC start                          | 23.01.2024 10:03:43  |
| Ambit temp [°C]   humidity [rel%] | 0.0   0  |
| System version                    | 5.0.0.1  |
| Standard   Version                | FCC 15.247   NI  |
| Method                            | IF DTS then 8.5 DTS emissions in non-restricted frequency bands:<br>Subclause 11.11 of ANSI C63.10 is applicable |
| Description                       | FCC 15.247 TX Emissions Conducted DTS - BT LE 1 Msps   |
| Information                       |  |

### EUT Common Settings BT Low Energy

|                                    |   |
|------------------------------------|---|
| Intermodulation Value N            | 3   |
| Image Freq. Low   Mid   High [MHz] | 0   0   0                                     |
| Power Class                        | 2   |
| 1 Mbps supported                   | True   TXpayload 255   RXpayload 37           |
| 2 Mbps supported                   | False   TXpayload 255   RXpayload 255         |
| Longrange S8 supported             | False   TXpayload 255   RXpayload 255         |
| Longrange S2 supported             | False   TXpayload 255   RXpayload 255         |
| Signaling Settings                 | None   HCI   1   2400   None   S1   None   On |
| Signaling RF Settings              | RF1com   0   0   On                           |
| User Interaction                   | No  |

### Equipment

|   |
|---|
| Signal analyzer,Rohde&Schwarz,FSV-30,1321.3008K30/103170,3.60 |
| Signaling unit,Rohde&Schwarz,CMW,1201.0002k75/102550,4.0.190  |
| Switch matrix,cetecom advanced GmbH,USM,A001,1.0.0            |

### Test Parameter

|  |                         |
|--|-------------------------|
| Technology to test                               | BT LE 1 Msps            |
| EUT port   | EUT1                    |
| 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]                        | 0.5                     |

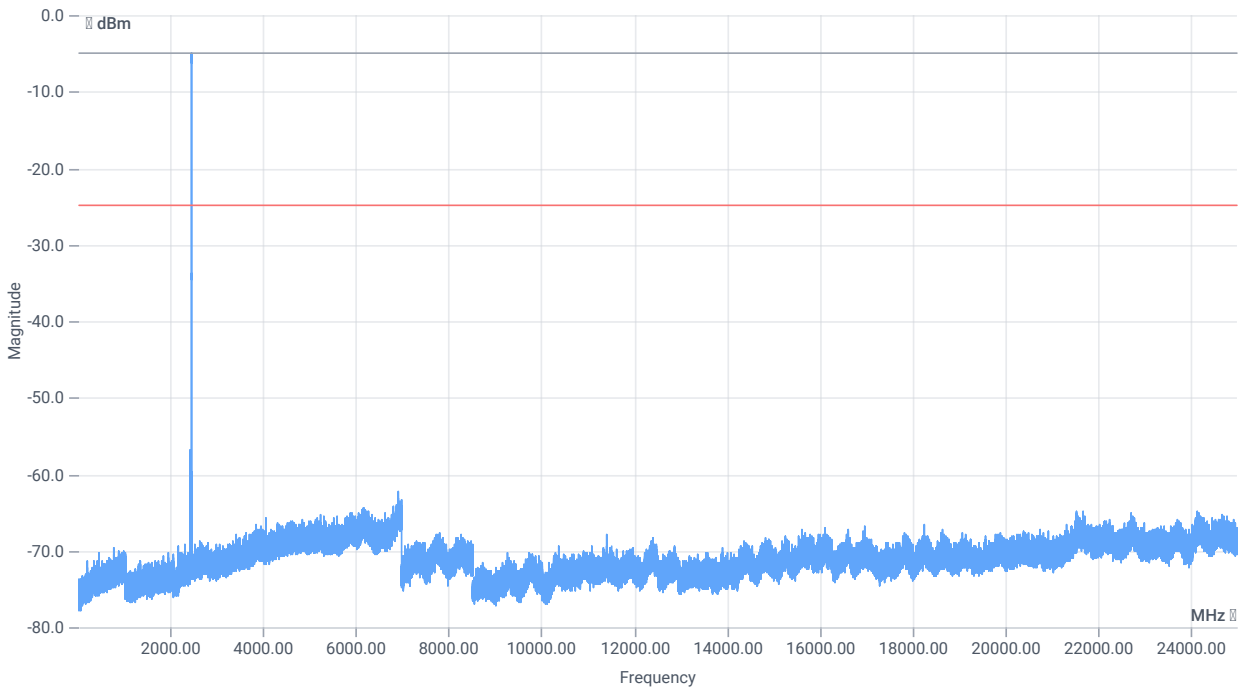
## Test Parameter

|                |  |
|----------------|--|
| Full path type | EUT_SA_GEN_SIG                         |
| Full path name | EUT1.SIG1/EUT1.SA/EUT1.GEN1/EUT1.GEN2/ |
| Switch bits    | 00010001:00010001:00000000:00000001    |

### Test at TX 2440 MHz

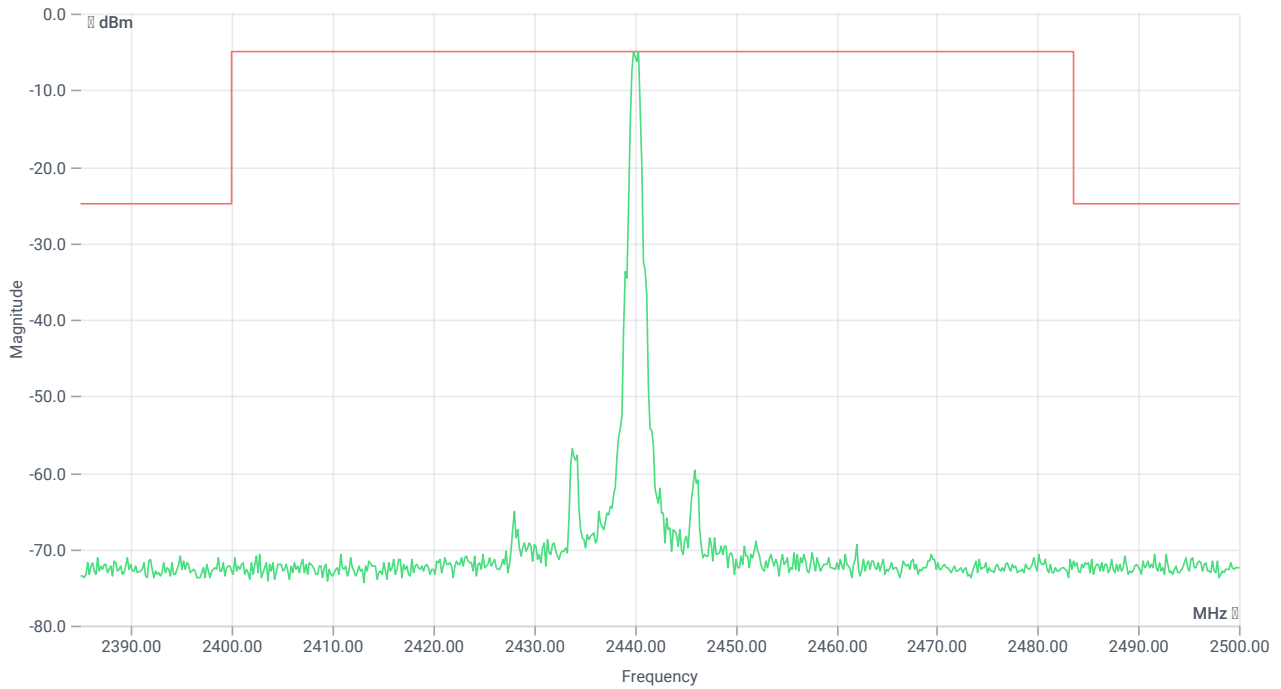
RESULT: Reference power cond.

| DESCRIPTION                   | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|-------------------------------|-------------|-------------|----------|------|---------|
| Ref. power<br>1MHz/1MHz cond. | --          | --          | -3.74    | dBm  | INFO    |
| Ref. frequency                | --          | --          | 2440.200 | MHz  | INFO    |



### READ SA SETTINGS:

|  |                       |
|--|-----------------------|
| RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]   | -3.74   15.72   0     |
| Start [MHz]   Stop [MHz]                             | 24780.000   25000.000 |
| RBW [MHz]   VBW [MHz]                                | 0.100000   0.300000   |
| Detector   TraceMode                                 | POS   MAXH            |
| Sweep: time [ms]   count   points per Section   type | 200   25   1501   SWE |



TX emissions band zoomed

## RESULT

| DESCRIPTION                   | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|-------------------------------|-------------|-------------|----------|------|---------|
| Reference @ 2440.33 MHz       | --          | --          | -4.95    | dBm  | INFO    |
| No peaks detected             | --          | --          |          |      | PASS    |
| Lowest margin to limit 30 MHz | 0           | --          | -125.33  | dB   | INFO    |

Verdict

PASS

## FCC 15.247 # TX spurious conducted 20dBc ~ BT LE 1 Msps

### References

|                                   |  |
|-----------------------------------|--|
| TC start                          | 23.01.2024 10:29:52  |
| Ambit temp [°C]   humidity [rel%] | 0.0   0  |
| System version                    | 5.0.0.1  |
| Standard   Version                | FCC 15.247   NI  |
| Method                            | IF DTS then 8.5 DTS emissions in non-restricted frequency bands:<br>Subclause 11.11 of ANSI C63.10 is applicable |
| Description                       | FCC 15.247 TX Emissions Conducted DTS - BT LE 1 Msps   |
| Information                       |  |

### EUT Common Settings BT Low Energy

|                                    |   |
|------------------------------------|---|
| Intermodulation Value N            | 3   |
| Image Freq. Low   Mid   High [MHz] | 0   0   0                                     |
| Power Class                        | 2   |
| 1 Mbps supported                   | True   TXpayload 255   RXpayload 37           |
| 2 Mbps supported                   | False   TXpayload 255   RXpayload 255         |
| Longrange S8 supported             | False   TXpayload 255   RXpayload 255         |
| Longrange S2 supported             | False   TXpayload 255   RXpayload 255         |
| Signaling Settings                 | None   HCI   1   2400   None   S1   None   On |
| Signaling RF Settings              | RF1com   0   0   On                           |
| User Interaction                   | No  |

### Equipment

|   |
|---|
| Signal analyzer,Rohde&Schwarz,FSV-30,1321.3008K30/103170,3.60 |
| Signaling unit,Rohde&Schwarz,CMW,1201.0002k75/102550,4.0.190  |
| Switch matrix,cetecom advanced GmbH,USM,A001,1.0.0            |

### Test Parameter

|  |                         |
|--|-------------------------|
| Technology to test                               | BT LE 1 Msps            |
| EUT port   | EUT1                    |
| 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]                        | 0.5                     |



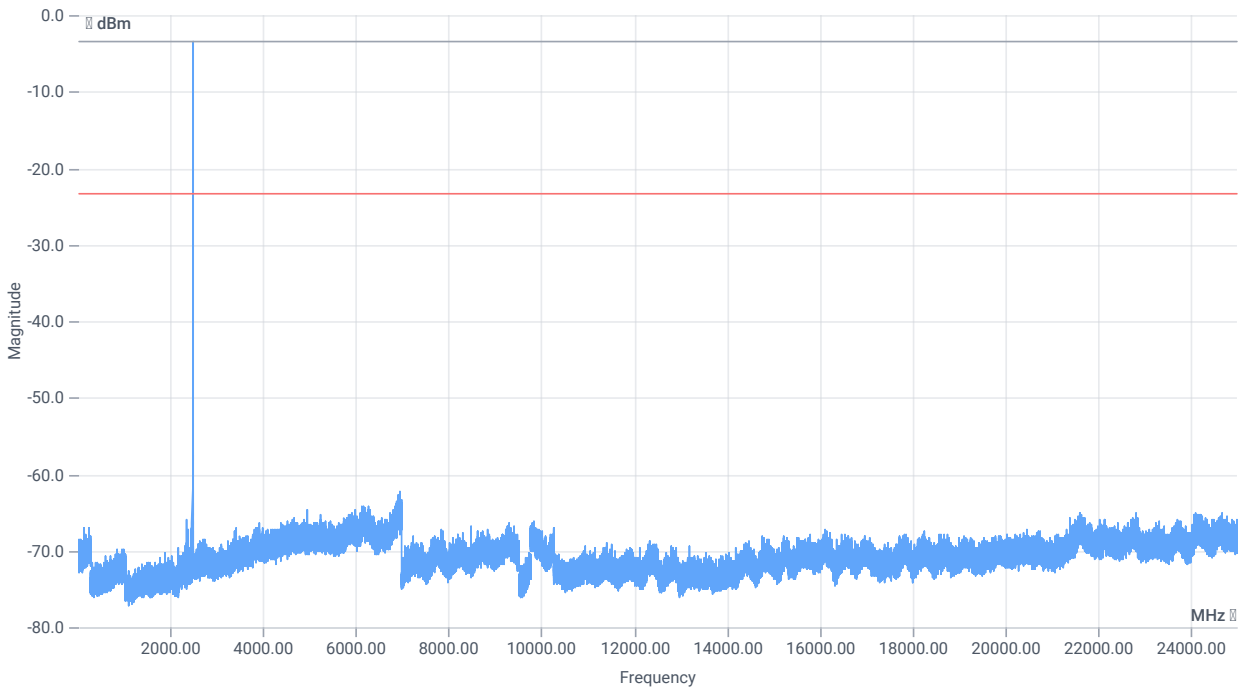
## Test Parameter

|                |  |
|----------------|--|
| Full path type | EUT_SA_GEN_SIG                         |
| Full path name | EUT1.SIG1/EUT1.SA/EUT1.GEN1/EUT1.GEN2/ |
| Switch bits    | 00010001:00010001:00000000:00000001    |

## Test at TX 2480 MHz

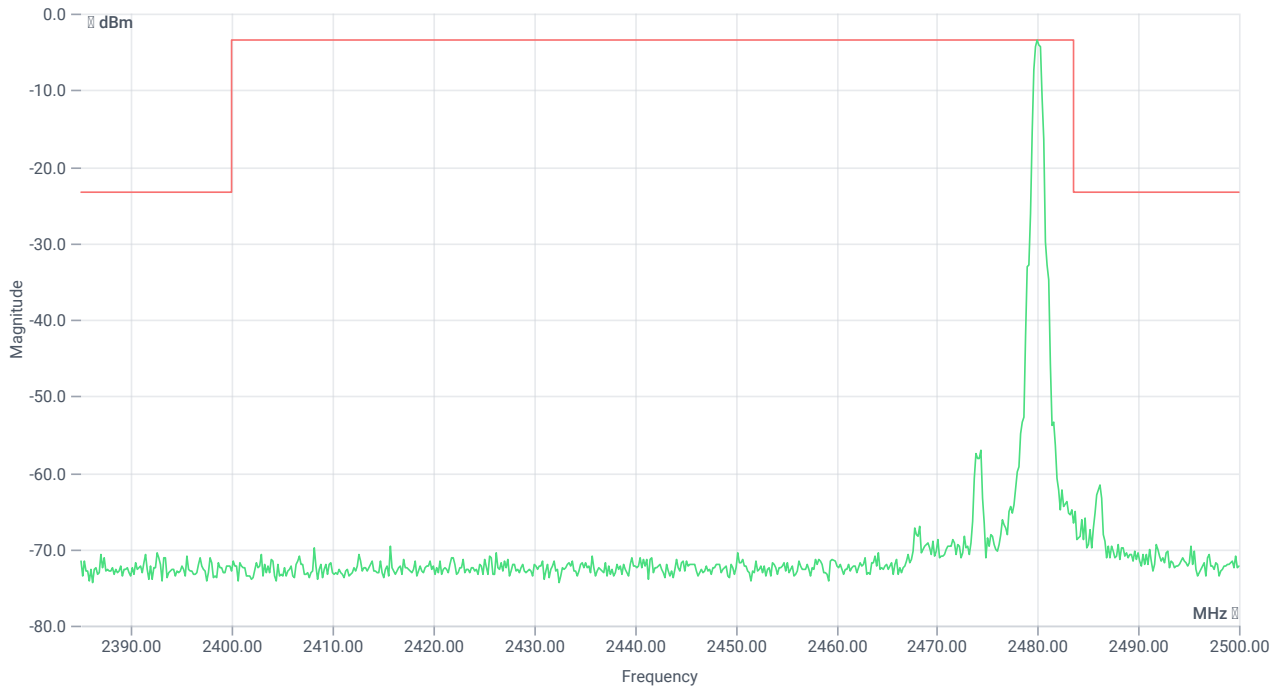
RESULT: Reference power cond.

| DESCRIPTION                   | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|-------------------------------|-------------|-------------|----------|------|---------|
| Ref. power<br>1MHz/1MHz cond. | --          | --          | -3.27    | dBm  | INFO    |
| Ref. frequency                | --          | --          | 2480.300 | MHz  | INFO    |



### READ SA SETTINGS:

|  |                       |
|--|-----------------------|
| RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]   | -3.27   15.72   0     |
| Start [MHz]   Stop [MHz]                             | 24780.000   25000.000 |
| RBW [MHz]   VBW [MHz]                                | 0.100000   0.300000   |
| Detector   TraceMode                                 | POS   MAXH            |
| Sweep: time [ms]   count   points per Section   type | 200   25   1501   SWE |



TX emissions band zoomed

## RESULT

| DESCRIPTION                         | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|-------------------------------------|-------------|-------------|----------|------|---------|
| Reference @ 2480.00 MHz             | --          | --          | -3.36    | dBm  | INFO    |
| No peaks detected                   | --          | --          |          |      | PASS    |
| Lowest margin to limit 2486.167 MHz | 0           | --          | 38.34    | dB   | INFO    |

Verdict

PASS

- END OF DOCUMENT -