

# Measurement Results

1-1566/20-01-16\_log1\_conducted

[Test logging](#)

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Document authorized:

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## EUT Summary

| EUT DEFINITION                               |                          |
|--|--------------------------|
| Manufacturer                                 | PHONAK Communications AG |
| Type   | Roger On                 |
| Kind   | NI                       |
| Serial Number   Setup Number                 | NI   1.0                 |
| Version SW   FW   HW                         | NI   NI   NI             |
| Comment 1   2                                | PS -9                    |
| Temperature [°C] Min   Nom   Max             | 0   20   40              |
| Voltage [V] Min   Nom   Max @Current Max [A] | 4.5   5   5.5 @1         |

| EUT Common Settings 2G4 |    |
|-------------------------|----|
| Hopping supported       | No |
| Burst length [ms]       | 10 |
| Nominal Bandwidth [MHz] | 2  |
| User Interaction        | No |

## 1. FCC Part 15.247 Maximum Peak Conducted Output Power DTS ~ Generic 2G4

| Test References                   |   |
|-----------------------------------|---|
| TC Start                          | 02.03.2021 13:43:09   |
| Ambit Temp [°C]   Humidity [rel%] | 0.0   0   |
| System Version                    | 2.0.0.2   |
| 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 DTS4 - Generic 2G4 |
| Add. Information                  |   |

| Test Parameter                                   |   |
|--|---|
| Technology to test                               | Generic 2G4                                       |
| Antenna Port used                                | 1   |
| Temperature                                      | nom   |
| Voltage  | nom   |
| Frequency low to test                            | True   Freq [MHz] 2402                            |
| Frequency mid to test                            | True   Freq [MHz] 2440                            |
| Frequency high to test                           | True   Freq [MHz] 2480                            |
| Auto Control enabled Power Supply   Climatic Box | No   No   |
| Additional Path Loss [dB]                        | 0.7   |
| Switched Path                                    | EUT - SignalingUnit - SpectrumAnalyzer            |
| Devices in use                                   | SA: Rohde&Schwarz,FSV-30,1321.3008K30/103170,3.60 |

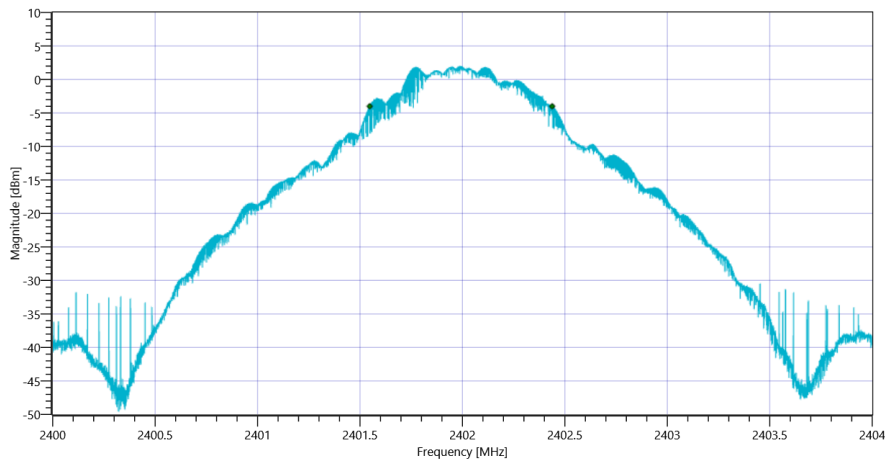
## Test at TX 2402 MHz

### READ SA SETTINGS:

|  |                        |
|--|------------------------|
| RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]   | 10.03   10.86   15     |
| Start [MHz]   Stop [MHz]                             | 2400.000   2404.000    |
| 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) | ---         | ---         | 891      | kHz  | INFO    |



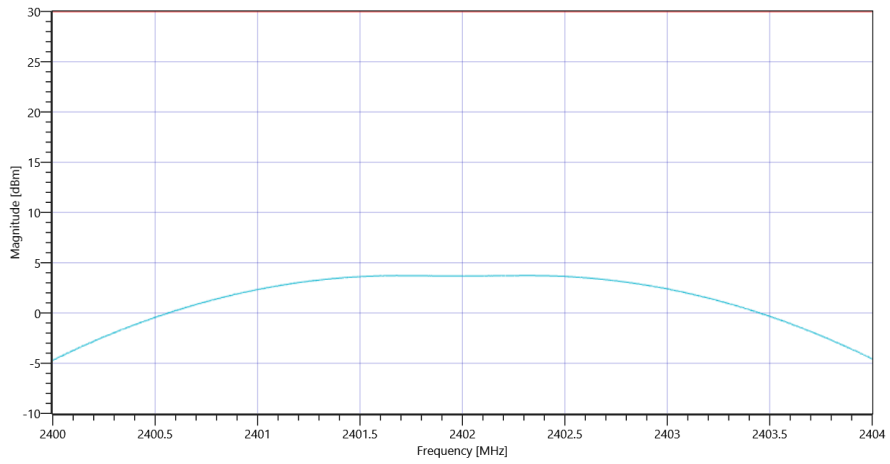
Plot\_FCC Part 15.247 Maximum Peak Conducted Output Power DTS ~ Generic 2G4 DTS BW\_02032021\_134338.png

### READ SA SETTINGS:

|  |                       |
|--|-----------------------|
| RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]   | 15.03   10.86   20    |
| Start [MHz]   Stop [MHz]                             | 2400.000   2404.000   |
| RBW [MHz]   VBW [MHz]                                | 2.000000   5.000000   |
| Detector   TraceMode                                 | POS   MAXH            |
| Sweep: Time [ms]   Count   Points per Section   Type | 50   200   1001   SWE |

### RESULT

| Test Description  | Lower Limit | Upper Limit | Measured | Unit | Verdict |
|-------------------|-------------|-------------|----------|------|---------|
| Peak Power        | ---         | 30.00       | 3.73     | dBm  | PASS    |
| Peak Power        | ---         | 1000        | 2.360478 | mW   | PASS    |
| Frequency at Peak | ---         | ---         | 2402.328 | MHz  | INFO    |



Plot\_FCC Part 15.247 Maximum Peak Conducted Output Power DTS ~ Generic 2G4\_02032021\_134357.png

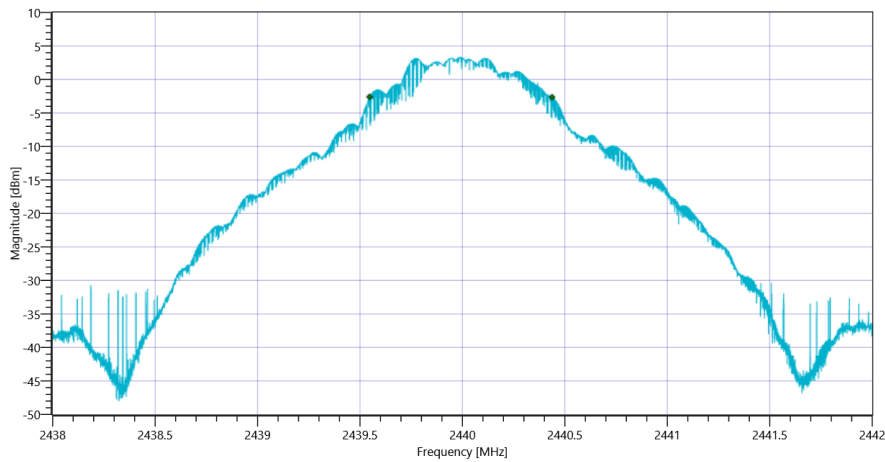
## Test at TX 2440 MHz

### READ SA SETTINGS:

|  |                        |
|--|------------------------|
| RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]   | 10.78   10.94   15     |
| Start [MHz]   Stop [MHz]                             | 2438.000   2442.000    |
| 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) | ---         | ---         | 891      | kHz  | INFO    |



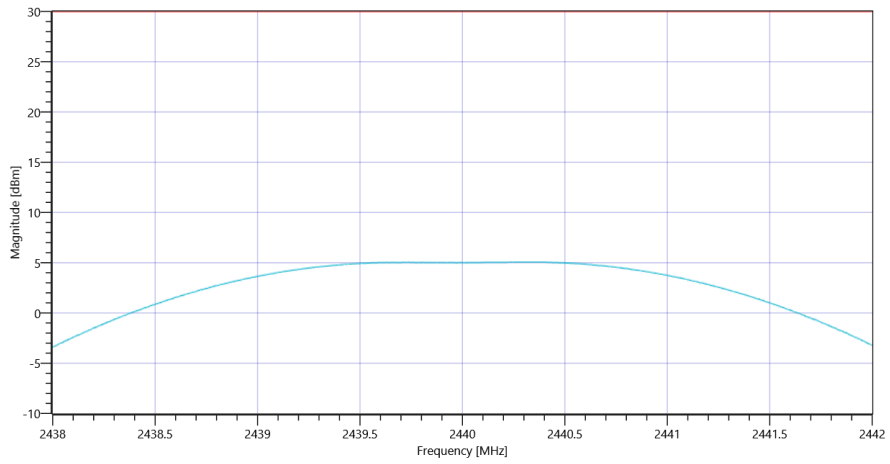
Plot\_FCC Part 15.247 Maximum Peak Conducted Output Power DTS ~ Generic 2G4 DTS BW\_02032021\_134426.png

### READ SA SETTINGS:

|  |                       |
|--|-----------------------|
| RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]   | 15.78   10.94   20    |
| Start [MHz]   Stop [MHz]                             | 2438.000   2442.000   |
| RBW [MHz]   VBW [MHz]                                | 2.000000   5.000000   |
| Detector   TraceMode                                 | POS   MAXH            |
| Sweep: Time [ms]   Count   Points per Section   Type | 50   200   1001   SWE |

### RESULT

| Test Description  | Lower Limit | Upper Limit | Measured | Unit | Verdict |
|-------------------|-------------|-------------|----------|------|---------|
| Peak Power        | ---         | 30.00       | 5.07     | dBm  | PASS    |
| Peak Power        | ---         | 1000        | 3.213661 | mW   | PASS    |
| Frequency at Peak | ---         | ---         | 2440.272 | MHz  | INFO    |



Plot\_FCC Part 15.247 Maximum Peak Conducted Output Power DTS ~ Generic 2G4\_02032021\_134444.png



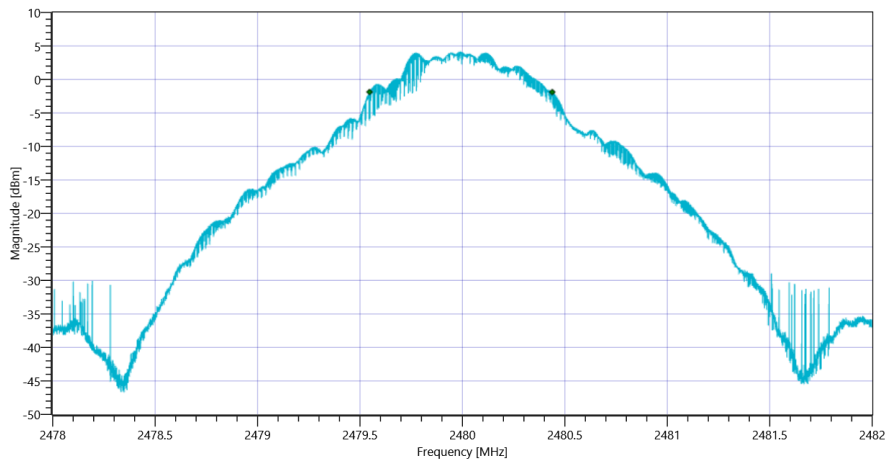
## Test at TX 2480 MHz

### READ SA SETTINGS:

|  |                        |
|--|------------------------|
| RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]   | 10.82   11   15        |
| Start [MHz]   Stop [MHz]                             | 2478.000   2482.000    |
| RBW [MHz]   VBW [MHz]                                | 0.100000   0.300000    |
| Detector   TraceMode                                 | POS   MAXH             |
| Sweep: Time [ms]   Count   Points per Section   Type | 50   200   10001   SWE |

### DTS Bandwidth

| Test Description    | Lower Limit | Upper Limit | Measured | Unit | Verdict |
|---------------------|-------------|-------------|----------|------|---------|
| DTS Bandwidth (6dB) | ---         | ---         | 892      | kHz  | INFO    |



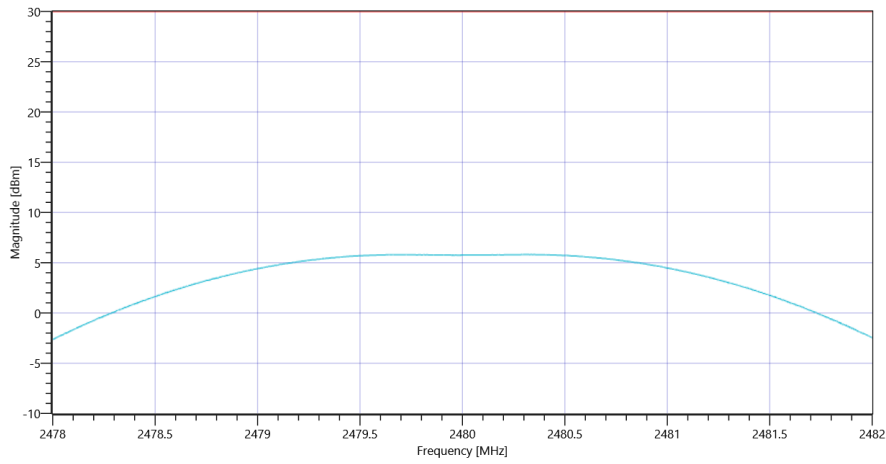
Plot\_FCC Part 15.247 Maximum Peak Conducted Output Power DTS ~ Generic 2G4 DTS BW\_02032021\_134513.png

### READ SA SETTINGS:

|  |                       |
|--|-----------------------|
| RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]   | 15.82   11   20       |
| Start [MHz]   Stop [MHz]                             | 2478.000   2482.000   |
| RBW [MHz]   VBW [MHz]                                | 2.000000   5.000000   |
| Detector   TraceMode                                 | POS   MAXH            |
| Sweep: Time [ms]   Count   Points per Section   Type | 50   200   1001   SWE |

### RESULT

| Test Description  | Lower Limit | Upper Limit | Measured | Unit | Verdict |
|-------------------|-------------|-------------|----------|------|---------|
| Peak Power        | ---         | 30.00       | 5.81     | dBm  | PASS    |
| Peak Power        | ---         | 1000        | 3.810658 | mW   | PASS    |
| Frequency at Peak | ---         | ---         | 2480.296 | MHz  | INFO    |



Plot\_FCC Part 15.247 Maximum Peak Conducted Output Power DTS ~ Generic 2G4\_02032021\_134532.png

TEST FINISHED

General Verdict

PASS

## 2. FCC Part 15.247 Bandwidth 6dB DTS ~ Generic 2G4

| Test References                   |  |
|-----------------------------------|--|
| TC Start                          | 02.03.2021 13:45:38                        |
| Ambit Temp [°C]   Humidity [rel%] | 0.0   0                                    |
| System Version                    | 2.0.0.2                                    |
| Test Specification                | FCC Part 15.247                            |
| Test Method                       | 99   |
| TC Version                        | 0.0.1                                      |
| My Description                    | FCC 15.247 Bandwidth 6DB DTS - Generic 2G4 |
| Add. Information                  |  |

| Test Parameter                                   |   |
|--|---|
| Technology to test                               | Generic 2G4                                       |
| Antenna Port used                                | 1   |
| Temperature                                      | nom   |
| Voltage  | nom   |
| Frequency low to test                            | True   Freq [MHz] 2402                            |
| Frequency mid to test                            | True   Freq [MHz] 2440                            |
| Frequency high to test                           | True   Freq [MHz] 2480                            |
| Auto Control enabled Power Supply   Climatic Box | No   No   |
| Additional Path Loss [dB]                        | 0.7   |
| Switched Path                                    | EUT - SignalingUnit - SpectrumAnalyzer            |
| Devices in use                                   | SA: Rohde&Schwarz,FSV-30,1321.3008K30/103170,3.60 |

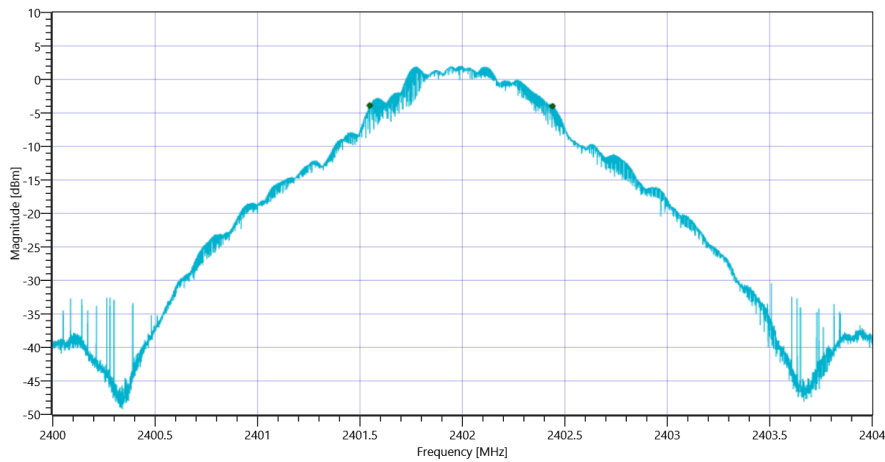
## Test at TX 2402 MHz

### READ SA SETTINGS:

|  |                        |
|--|------------------------|
| RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]   | 10.06   10.86   15     |
| Start [MHz]   Stop [MHz]                             | 2400.000   2404.000    |
| 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         | ---         | 893      | kHz  | PASS    |



Plot\_FCC Part 15.247 Bandwidth 6dB DTS ~ Generic 2G4\_02032021\_134607.png

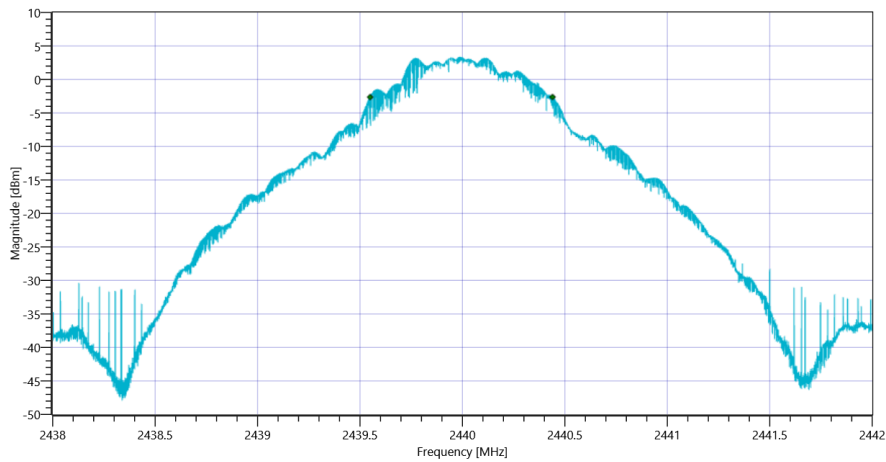
## Test at TX 2440 MHz

### READ SA SETTINGS:

|  |                        |
|--|------------------------|
| RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]   | 10.87   10.94   15     |
| Start [MHz]   Stop [MHz]                             | 2438.000   2442.000    |
| 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         | ---         | 890      | kHz  | PASS    |



Plot\_FCC Part 15.247 Bandwidth 6dB DTS ~ Generic 2G4\_02032021\_134636.png

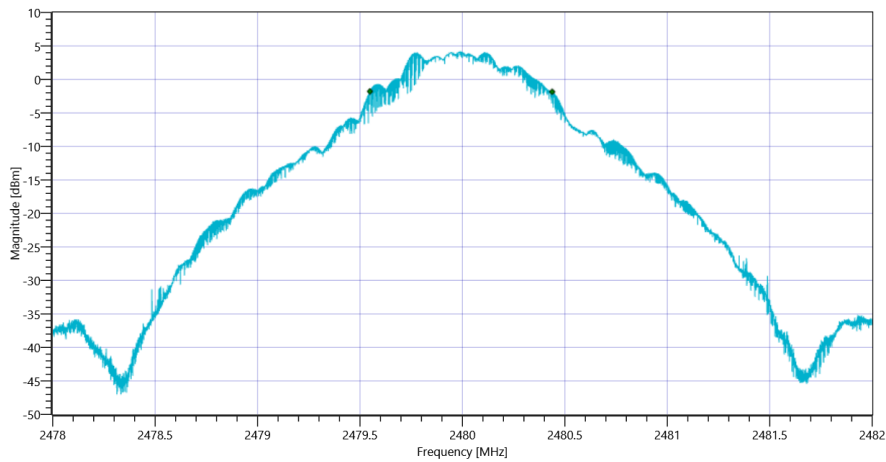
## Test at TX 2480 MHz

### READ SA SETTINGS:

|  |                        |
|--|------------------------|
| RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]   | 10.80   11   15        |
| Start [MHz]   Stop [MHz]                             | 2478.000   2482.000    |
| RBW [MHz]   VBW [MHz]                                | 0.100000   0.300000    |
| Detector   TraceMode                                 | POS   MAXH             |
| Sweep: Time [ms]   Count   Points per Section   Type | 50   200   10001   SWE |

### RESULT

| Test Description    | Lower Limit | Upper Limit | Measured | Unit | Verdict |
|---------------------|-------------|-------------|----------|------|---------|
| DTS Bandwidth (6dB) | 500         | ---         | 890      | kHz  | PASS    |



Plot\_FCC Part 15.247 Bandwidth 6dB DTS ~ Generic 2G4\_02032021\_134705.png

### TEST FINISHED

General Verdict

PASS

### 3. FCC Part 15.247 Peak Power Spectral Density DTS ~ Generic 2G4

| Test References                   |  |
|-----------------------------------|--|
| TC Start                          | 02.03.2021 13:47:11  |
| Ambit Temp [°C]   Humidity [rel%] | 0.0   0  |
| System Version                    | 2.0.0.2  |
| 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 - Generic 2G4   |
| Add. Information                  |  |

| Test Parameter                                   |   |
|--|---|
| Technology to test                               | Generic 2G4                                       |
| Antenna Port used                                | 1   |
| Temperature                                      | nom   |
| Voltage  | nom   |
| Frequency low to test                            | True   Freq [MHz] 2402                            |
| Frequency mid to test                            | True   Freq [MHz] 2440                            |
| Frequency high to test                           | True   Freq [MHz] 2480                            |
| Auto Control enabled Power Supply   Climatic Box | No   No   |
| Additional Path Loss [dB]                        | 0.7   |
| Switched Path                                    | EUT - SignalingUnit - SpectrumAnalyzer            |
| Devices in use                                   | SA: Rohde&Schwarz,FSV-30,1321.3008K30/103170,3.60 |

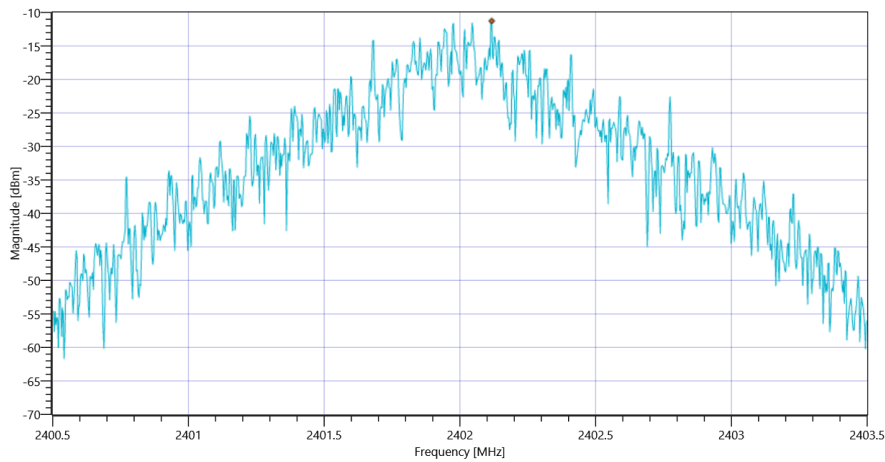
## Test at TX 2402 MHz

### READ SA SETTINGS:

|  |                        |
|--|------------------------|
| RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]   | 10.10   10.86   15     |
| Start [MHz]   Stop [MHz]                             | 2400.500   2403.500    |
| 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           | -11.26   | dBm/3KHz | PASS    |



Plot\_FCC Part 15.247 Peak Power Spectral Density DTS ~ Generic 2G4\_02032021\_134749.png



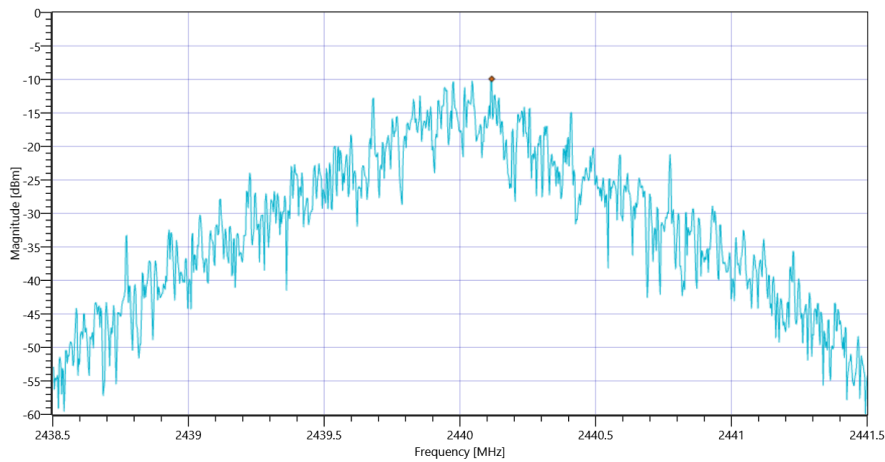
## Test at TX 2440 MHz

### READ SA SETTINGS:

|  |                        |
|--|------------------------|
| RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]   | 10.86   10.94   15     |
| Start [MHz]   Stop [MHz]                             | 2438.500   2441.500    |
| 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           | -9.91    | dBm/3KHz | PASS    |



Plot\_FCC Part 15.247 Peak Power Spectral Density DTS ~ Generic 2G4\_02032021\_134827.png

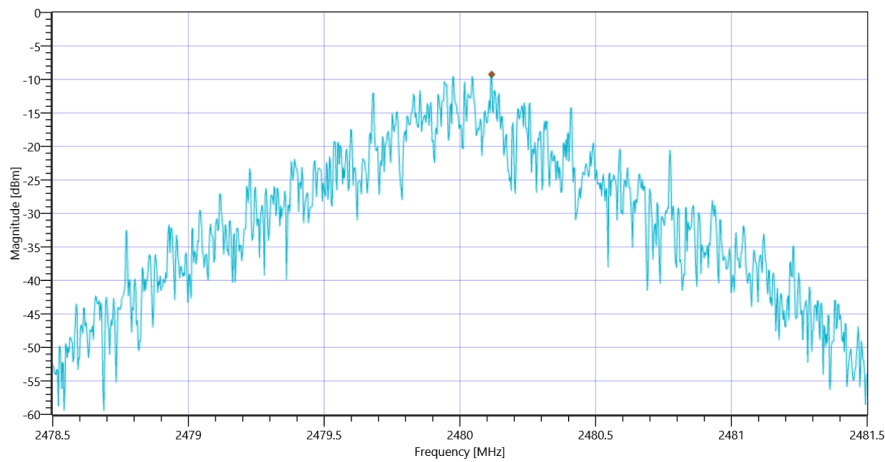
## Test at TX 2480 MHz

### READ SA SETTINGS:

|  |                        |
|--|------------------------|
| RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]   | 10.80   11   15        |
| Start [MHz]   Stop [MHz]                             | 2478.500   2481.500    |
| 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           | -9.23    | dBm/3KHz | PASS    |



Plot\_FCC Part 15.247 Peak Power Spectral Density DTS ~ Generic 2G4\_02032021\_134906.png

### TEST FINISHED

General Verdict

PASS

## 4. FCC Part 15.247 Bandwidth 99PCT-20dB ~ Generic 2G4

| Test References                   |   |
|-----------------------------------|---|
| TC Start                          | 02.03.2021 13:49:12                               |
| Ambit Temp [°C]   Humidity [rel%] | 0.0   0   |
| System Version                    | 2.0.0.2   |
| Test Specification                | FCC Part 15.247                                   |
| Test Method                       |   |
| TC Version                        | 0.0.2   |
| My Description                    | FCC 15.247 Bandwidth 99PCT-20DB DTS - Generic 2G4 |
| Add. Information                  |   |

| Test Parameter                                   |   |
|--|---|
| Technology to test                               | Generic 2G4                                       |
| Antenna Port used                                | 1   |
| Temperature                                      | nom   |
| Voltage  | nom   |
| Frequency low to test                            | True   Freq [MHz] 2402                            |
| Frequency mid to test                            | True   Freq [MHz] 2440                            |
| Frequency high to test                           | True   Freq [MHz] 2480                            |
| Auto Control enabled Power Supply   Climatic Box | No   No   |
| Additional Path Loss [dB]                        | 0.7   |
| Switched Path                                    | EUT - SignalingUnit - SpectrumAnalyzer            |
| Devices in use                                   | SA: Rohde&Schwarz,FSV-30,1321.3008K30/103170,3.60 |

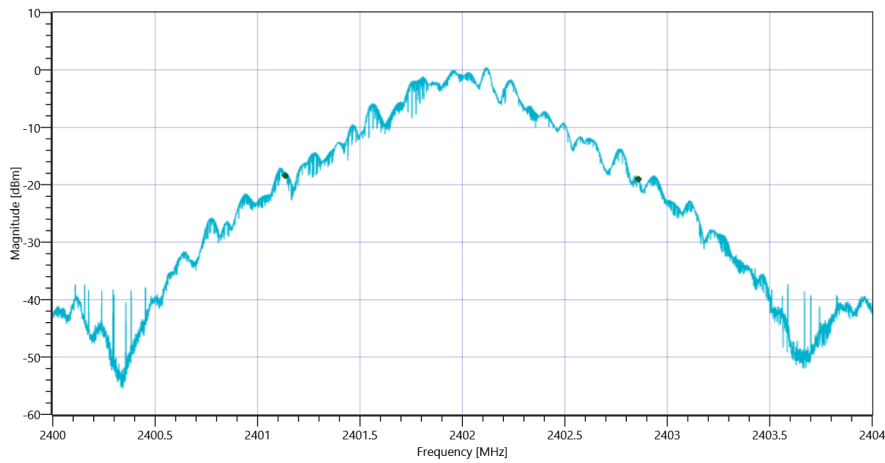
## Test at TX 2402 MHz

### READ SA SETTINGS:

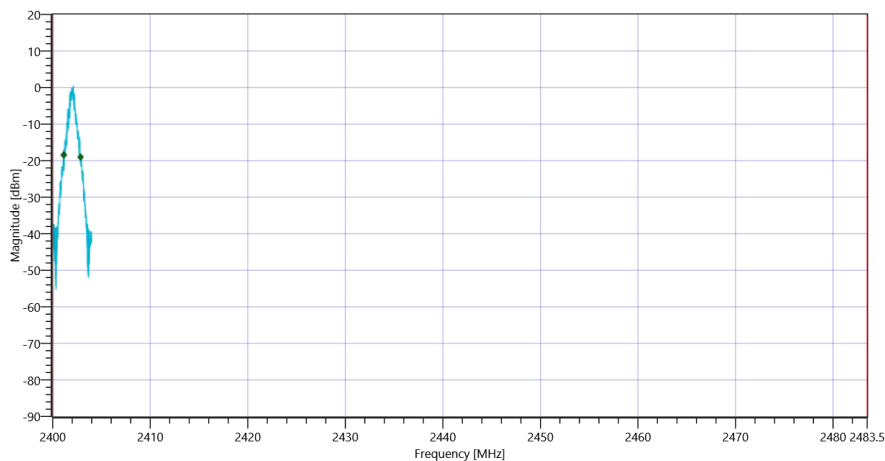
|  |                        |
|--|------------------------|
| RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]   | 10.08   10.86   15     |
| Start [MHz]   Stop [MHz]                             | 2400.000   2404.000    |
| RBW [MHz]   VBW [MHz]                                | 0.050000   0.200000    |
| 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%    | ---         | ---         | 1723.828  | kHz  | INFO    |
| T1 99%           | 2400.000000 | ---         | 2401.1357 | MHz  | PASS    |
| T2 99%           | ---         | 2483.500000 | 2402.8595 | MHz  | PASS    |



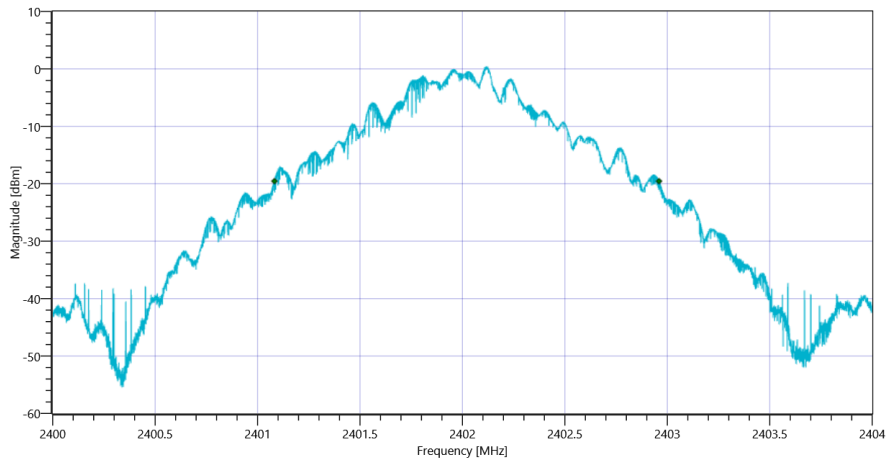
Plot\_FCC Part 15.247 Bandwidth 99PCT-20dB ~ Generic 2G4 99PCT\_02032021\_134942.png



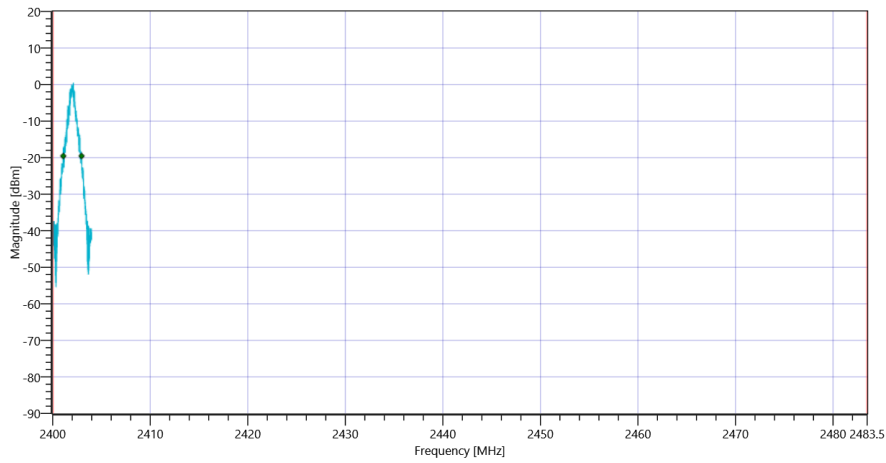
Plot\_FCC Part 15.247 Bandwidth 99PCT-20dB ~ Generic 2G4\_02032021\_134949.png

### RESULT

| Test Description | Lower Limit | Upper Limit | Measured  | Unit | Verdict |
|------------------|-------------|-------------|-----------|------|---------|
| Bandwidth 20dB   | ---         | ---         | 1877      | kHz  | INFO    |
| T1 20DB          | 2400.000000 | ---         | 2401.0824 | MHz  | PASS    |
| T2 20dB          | ---         | 2483.500000 | 2402.9592 | MHz  | PASS    |



Plot\_FCC Part 15.247 Bandwidth 99PCT-20dB ~ Generic 2G4 20dB\_02032021\_134957.png



Plot\_FCC Part 15.247 Bandwidth 99PCT-20dB ~ Generic 2G4\_02032021\_135005.png

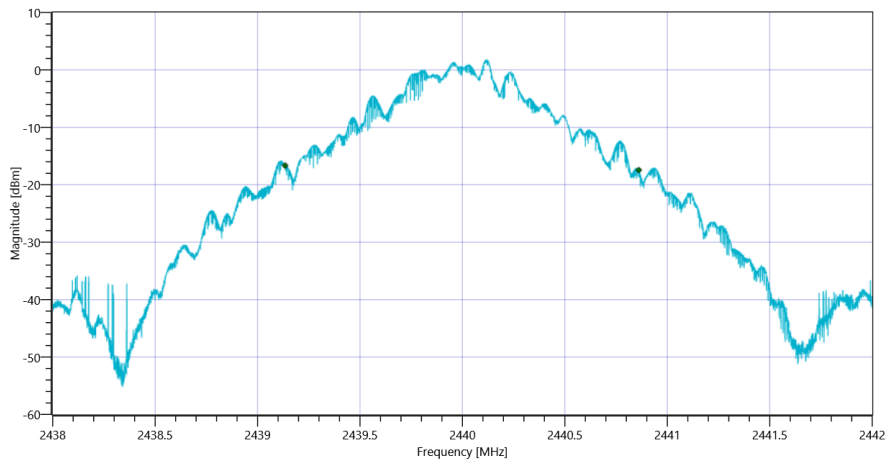
## Test at TX 2440 MHz

### READ SA SETTINGS:

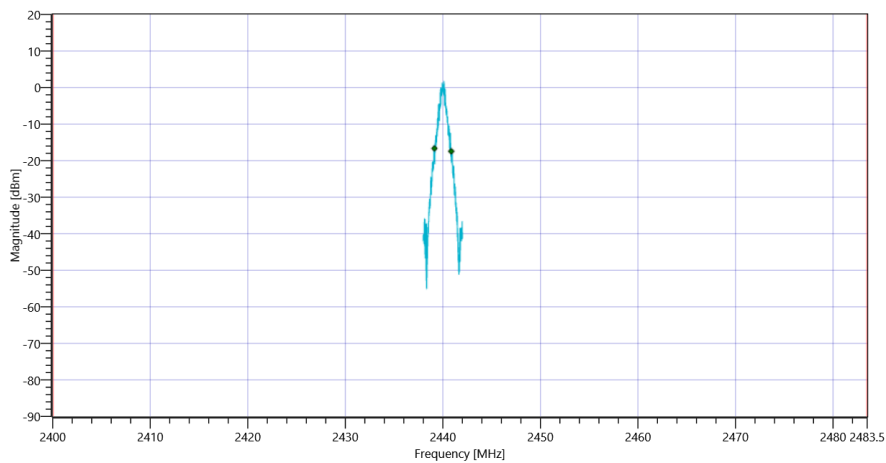
|  |                        |
|--|------------------------|
| RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]   | 10.85   10.94   15     |
| Start [MHz]   Stop [MHz]                             | 2438.000   2442.000    |
| RBW [MHz]   VBW [MHz]                                | 0.050000   0.200000    |
| 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%    | ---         | ---         | 1726.227  | kHz  | INFO    |
| T1 99%           | 2400.000000 | ---         | 2439.1345 | MHz  | PASS    |
| T2 99%           | ---         | 2483.500000 | 2440.8607 | MHz  | PASS    |



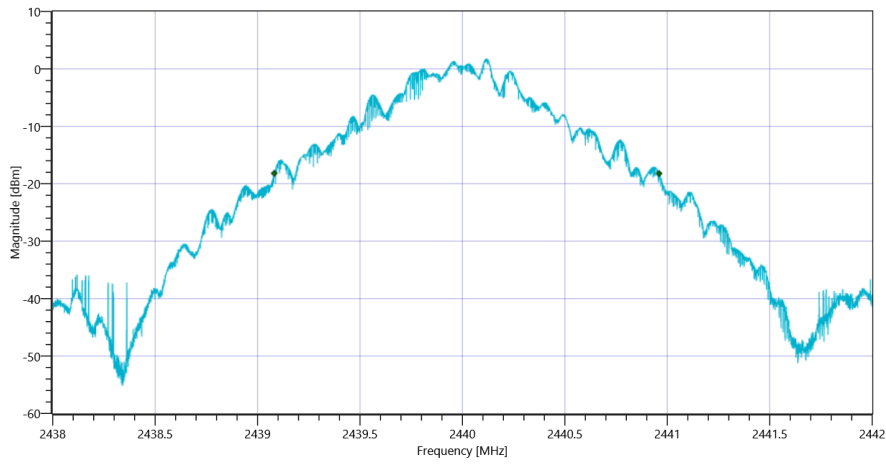
Plot\_FCC Part 15.247 Bandwidth 99PCT-20dB ~ Generic 2G4 99PCT\_02032021\_135035.png



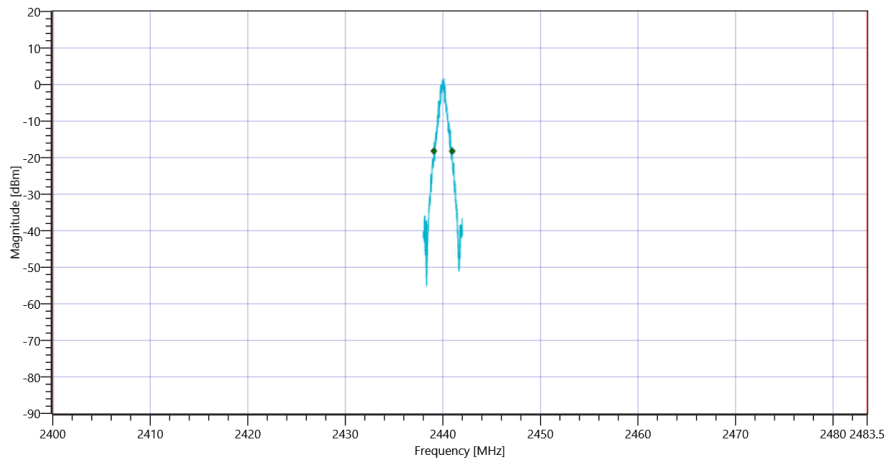
Plot\_FCC Part 15.247 Bandwidth 99PCT-20dB ~ Generic 2G4\_02032021\_135042.png

### RESULT

| Test Description | Lower Limit | Upper Limit | Measured  | Unit | Verdict |
|------------------|-------------|-------------|-----------|------|---------|
| Bandwidth 20dB   | ---         | ---         | 1878      | kHz  | INFO    |
| T1 20DB          | 2400.000000 | ---         | 2439.0812 | MHz  | PASS    |
| T2 20dB          | ---         | 2483.500000 | 2440.9596 | MHz  | PASS    |



Plot\_FCC Part 15.247 Bandwidth 99PCT-20dB ~ Generic 2G4 20dB\_02032021\_135051.png



Plot\_FCC Part 15.247 Bandwidth 99PCT-20dB ~ Generic 2G4\_02032021\_135058.png

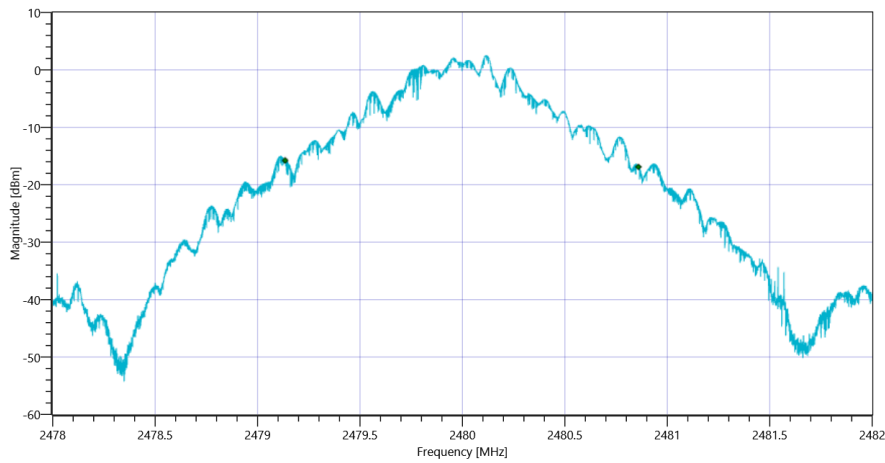
## Test at TX 2480 MHz

### READ SA SETTINGS:

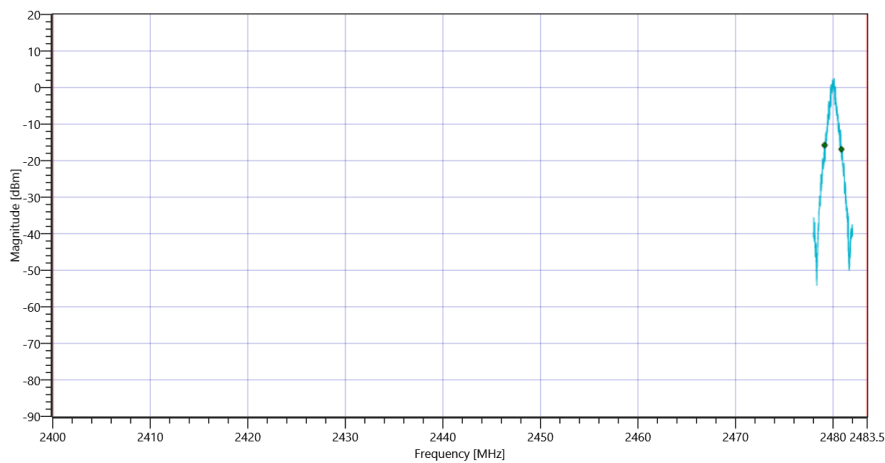
|  |                        |
|--|------------------------|
| RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]   | 10.90   11   15        |
| Start [MHz]   Stop [MHz]                             | 2478.000   2482.000    |
| RBW [MHz]   VBW [MHz]                                | 0.050000   0.200000    |
| 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%    | ---         | ---         | 1723.828  | kHz  | INFO    |
| T1 99%           | 2400.000000 | ---         | 2479.1349 | MHz  | PASS    |
| T2 99%           | ---         | 2483.500000 | 2480.8587 | MHz  | PASS    |



Plot\_FCC Part 15.247 Bandwidth 99PCT-20dB ~ Generic 2G4 99PCT\_02032021\_135128.png

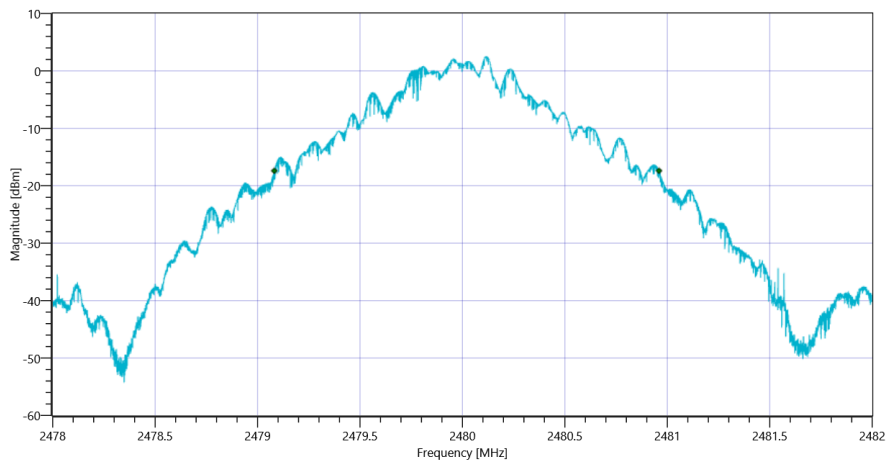


Plot\_FCC Part 15.247 Bandwidth 99PCT-20dB ~ Generic 2G4\_02032021\_135135.png

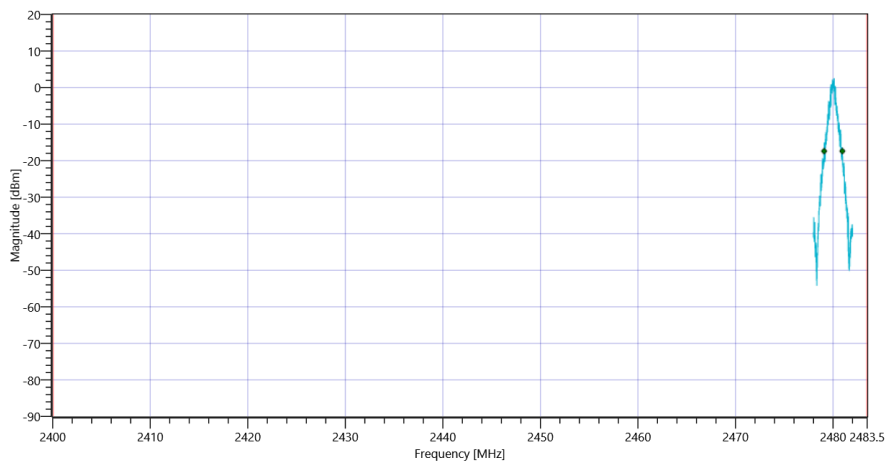
### RESULT

| Test Description | Lower Limit | Upper Limit | Measured  | Unit | Verdict |
|------------------|-------------|-------------|-----------|------|---------|
| Bandwidth 20dB   | ---         | ---         | 1878      | kHz  | INFO    |
| T1 20DB          | 2400.000000 | ---         | 2479.0816 | MHz  | PASS    |
| T2 20dB          | ---         | 2483.500000 | 2480.9592 | MHz  | PASS    |





Plot\_FCC Part 15.247 Bandwidth 99PCT-20dB ~ Generic 2G4 20dB\_02032021\_135144.png



Plot\_FCC Part 15.247 Bandwidth 99PCT-20dB ~ Generic 2G4\_02032021\_135151.png

TEST FINISHED

General Verdict

PASS

## 5. FCC Part 15.247 TX Spurious Conducted ~ Generic 2G4

| Test References                   |  |
|-----------------------------------|--|
| TC Start                          | 02.03.2021 13:51:57  |
| Ambit Temp [°C]   Humidity [rel%] | 0.0   0  |
| System Version                    | 2.0.0.2  |
| 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 - Generic 2G4  |
| Add. Information                  |  |

| Test Parameter                                   |   |
|--|---|
| Technology to test                               | Generic 2G4                                       |
| 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]                        | 0.7   |
| Switched Path                                    | EUT - SignalingUnit - SpectrumAnalyzer            |
| Devices in use                                   | SA: Rohde&Schwarz,FSV-30,1321.3008K30/103170,3.60 |

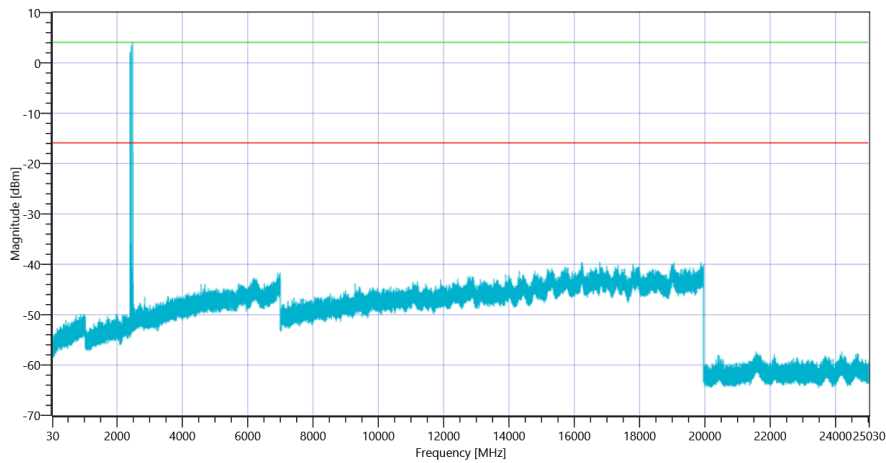
## Test at TX 2440 MHz

### READ SA SETTINGS:

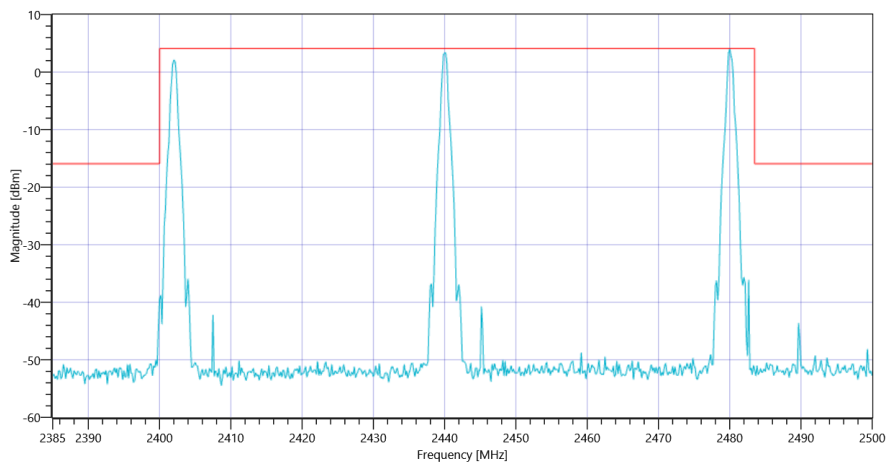
|  |                       |
|--|-----------------------|
| RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]   | 5.93   0   25         |
| Start [MHz]   Stop [MHz]                             | 24530.000   25030.000 |
| RBW [MHz]   VBW [MHz]                                | 0.100000   0.300000   |
| Detector   TraceMode                                 | POS   MAXH            |
| Sweep: Time [ms]   Count   Points per Section   Type | 250   24   3001   SWE |

### RESULT

| Test Description                        | Lower Limit | Upper Limit | Measured | Unit | Verdict |
|---|-------------|-------------|----------|------|---------|
| Reference @ 2480.00 MHz                 | ---         | ---         | 4.09     | dBm  | INFO    |
| No peaks detected                       | ---         | ---         |          |      | PASS    |
| Lowest margin to limit<br>16784.833 MHz | 0           | ---         | 23.6     | dB   | INFO    |



Plot\_FCC Part 15.247 TX Spurious Conducted ~ Generic 2G4 2440\_02032021\_140005.png



Plot\_FCC Part 15.247 TX Spurious Conducted ~ Generic 2G4 2440\_02032021\_140010.png

### TEST FINISHED

General Verdict

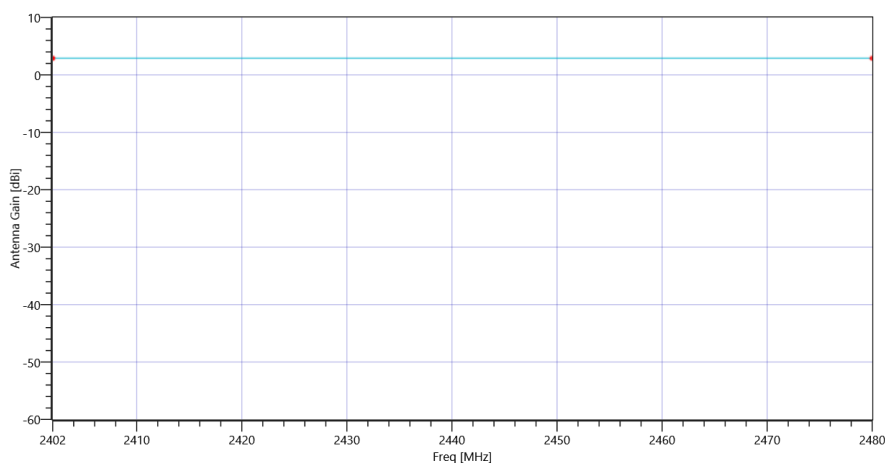
PASS

## 6. FCC Part 15.247 Restricted Band Edge Conducted Peak DTS Video Avg (eirp) ~ Generic 2G4

| Test References                   |   |
|-----------------------------------|---|
| TC Start                          | 02.03.2021 14:00:17   |
| Ambit Temp [°C]   Humidity [rel%] | 0.0   0   |
| System Version                    | 2.0.0.2   |
| Test Specification                | FCC Part 15.247   |
| Test Method                       | DTS: KDB 558074 D01 V05 - 8.7.3 Integration Method; ANSI C63.10-2013 11.13.3.2 Peak Detection |
| TC Version                        | 0.0.1   |
| My Description                    | FCC 15.247 Restricted Band Edge Conducted Peak DTS - Generic 2G4                              |
| Add. Information                  |   |

| Test Parameter                                   |   |
|--|---|
| Technology to test                               | Generic 2G4                                       |
| 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                           | True   Freq [MHz] 2480                            |
| Auto Control enabled Power Supply   Climatic Box | No   No   |
| Additional Path Loss [dB]                        | 0.7   |
| Switched Path                                    | EUT - SignalingUnit - SpectrumAnalyzer            |
| Devices in use                                   | SA: Rohde&Schwarz,FSV-30,1321.3008K30/103170,3.60 |

| Antenna Gain Table |            |
|--------------------|------------|
| Freq [MHz]         | Gain [dBi] |
| 2402               | 2.9        |
| 2480               | 2.9        |



Plot\_GainTable\_02032021\_140024.png

## Test at TX 2402 MHz

### READ SA SETTINGS:

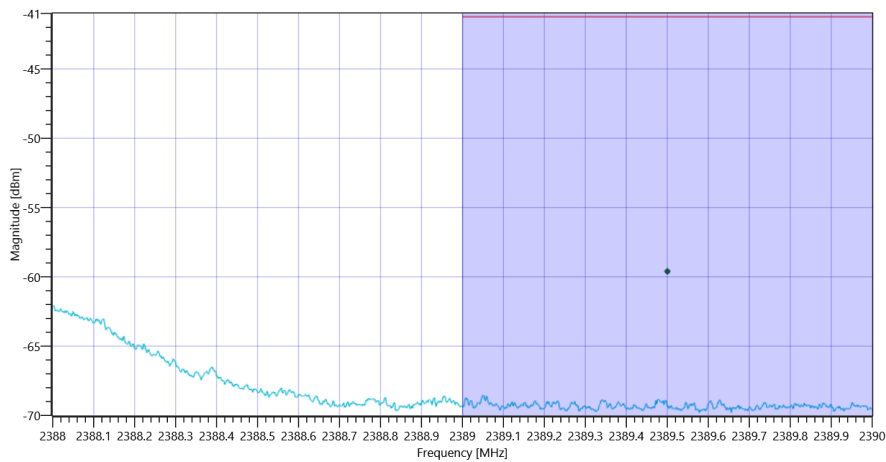
|  |                       |
|--|-----------------------|
| RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]   | 10.10   10.86   15    |
| Start [MHz]   Stop [MHz]                             | 2388.000   2390.000   |
| RBW [MHz]   VBW [MHz]                                | 0.100000   0.000500   |
| Detector   TraceMode                                 | POS   MAXH            |
| Sweep: Time [ms]   Count   Points per Section   Type | 31   300   1001   SWE |

### Antenna Gain

Considered Antenna Gain: [dBi]: 2.9 @ 2389.5MHz

### RESULT

| Test Description | Lower Limit | Upper Limit | Measured | Unit | Verdict |
|------------------|-------------|-------------|----------|------|---------|
| Band Power       | ---         | -41.23      | -59.6    | dBm  | PASS    |



Plot\_FCC Part 15.247 Restricted Band Edge Conducted Peak DTS Video Avg (eirp) ~ Generic 2G4\_02032021\_140054.png

## Test at TX 2480 MHz

### READ SA SETTINGS:

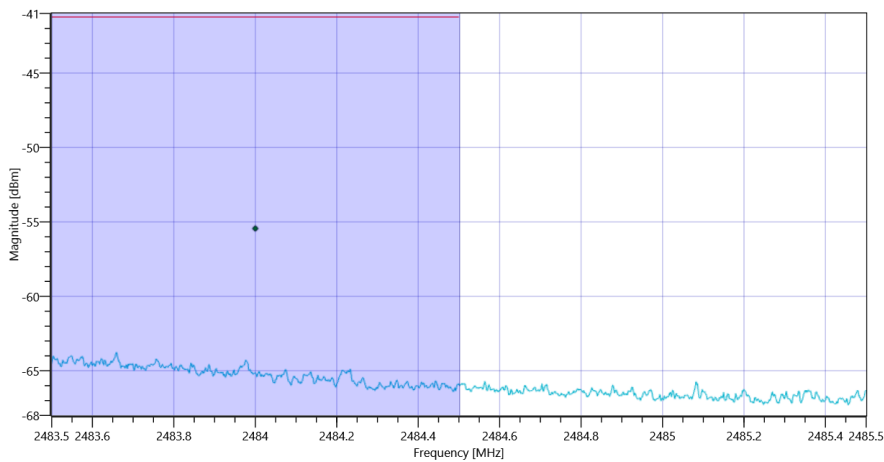
|  |                       |
|--|-----------------------|
| RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]   | 10.87   11   15       |
| Start [MHz]   Stop [MHz]                             | 2483.500   2485.500   |
| RBW [MHz]   VBW [MHz]                                | 0.100000   0.000500   |
| Detector   TraceMode                                 | POS   MAXH            |
| Sweep: Time [ms]   Count   Points per Section   Type | 31   300   1001   SWE |

### Antenna Gain

Considered Antenna Gain: [dBi]: 2.9 @ 2484MHz

### RESULT

| Test Description | Lower Limit | Upper Limit | Measured | Unit | Verdict |
|------------------|-------------|-------------|----------|------|---------|
| Band Power       | ---         | -41.23      | -55.44   | dBm  | PASS    |



### TEST FINISHED

General Verdict

PASS

- END OF DOCUMENT -