

# Measurement Results

1-8662/19-02-02\_log1\_conducted

[Test logging](#)

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Radio Communications & EMC

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## IUT Summary

| IUT DEFINITION                                   |                          |
|--|--------------------------|
| Manufacturer                                     | Ingenico Group           |
| Type   | Lane/5000 CL/Eth/WiFi/BT |
| Serial No.                                       | 182017303261086002912316 |
| Setup No.  | NI                       |
| SW Version                                       | OS_045400 HTB_0104       |
| HW Version                                       | 02                       |
| Comment 1  | NI                       |
| Comment 2  | NI                       |
| IUT Common Settings                              |                          |
| Tlow [°C]  | 0                        |
| Tmid [°C]  | 20                       |
| Thigh [°C]                                       | 45                       |
| Vlow [V]   | 5                        |
| Vmid [V]   | 5                        |
| Vhigh [V]  | 5                        |
| Imax [A]   | 1                        |
| Auto Control enabled Power Supply   Climatic Box | No   No                  |
| Antenna Gain [dBi]                               | 0                        |
| Additional Path Loss [dB]                        | 0                        |
| IUT Common Settings WLAN2G4                      |                          |
| Number of Antenna Ports                          | 1                        |
| User Interaction                                 | No                       |

## 1. FCC Part 15.247 Bandwidth 6dB DTS ~ WLAN2G4 b-mode

| Test References            |  |
|----------------------------|--|
| TC Start                   | 04.07.2019 11:19:51  |
| System Version             | 1.0.0.16   |
| Test Specification         | FCC Part 15.247  |
| Test Method                | 99   |
| Class / TC Version / TC ID | TC_VM_FCC15247_Bandwidth_6dB_DTS_V01 Version: 0.0.1   TCID_FCC15247_1  |
| My Description             | FCC 15.247 Bandwidth 6dB DTS - WLAN 2G4 b-mode   |
| Add. Information           |  |
| Test Parameter             |  |
| Technology to test         | WLAN2G4 b-mode   |
| Antenna Port used          | 1  |
| Temperature                | mid  |
| Voltage                    | mid  |
| Frequency low to test      | True   Freq [MHz] 2412   |
| Frequency mid to test      | False   Freq [MHz] 2437  |
| Frequency high to test     | False   Freq [MHz] 2462  |
| Pattern                    | PRBS9  |
| Switched Path              | IUT - SignalingUnit - SpectrumAnalyzer   |
| Devices in use             | SigBT: Rohde&Schwarz,CBT-1153.9000.35,100185,CBT 6X02.P02   SA:<br>Rohde&Schwarz,FSV-30,1321.3008K30/103170,3.40 |

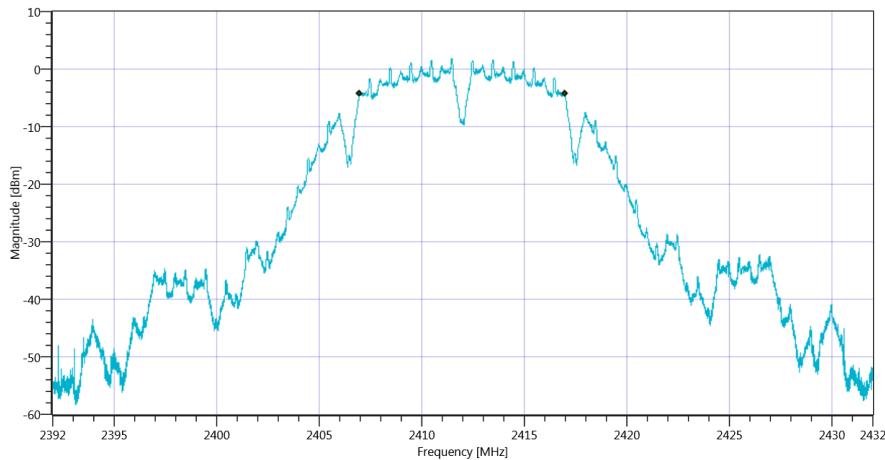
## Test at TX 2412 MHz

### READ SA SETTINGS:

|                        |          |
|------------------------|----------|
| Ref. Level [dBm]       | 12.01    |
| Ref. Lev. offs [dB]    | 9.83     |
| Input Attenuation [dB] | 20       |
| Freq. Start [MHz]      | 2392.000 |
| Freq. Stop [MHz]       | 2432.000 |
| Resolution BW. [MHz]   | 0.100000 |
| Video BW. [MHz]        | 0.300000 |
| Detector               | POS      |
| Sweep Time [ms]        | 50       |
| Sweep Points/Section   | 10001    |
| Sweep Count            | 200      |
| Sweep Mode             | MAXH     |
| Used Sweep Type        | SWE      |

RESULT: TC\_VM\_FCC15247\_Bandwidth\_6dB\_DTS\_V01

| Test Description    | Lower Limit | Upper Limit | Measured | Unit | Verdict |
|---------------------|-------------|-------------|----------|------|---------|
| DTS Bandwidth (6dB) | 500         | --          | 10040    | kHz  | PASS    |



Plot\_FCC Part 15.247 Bandwidth 6dB DTS ~ WLAN2G4 b-mode\_04072019\_112019.png

### TEST FINISHED

General Verdict

04.07.2019 11:20:19 / RT: 27 s

PASS

## 2. FCC Part 15.247 Peak Power Spectral Density DTS ~ WLAN2G4 b-mode

| Test References            |  |
|----------------------------|--|
| TC Start                   | 04.07.2019 11:20:22  |
| System Version             | 1.0.0.16   |
| 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       |
| Class / TC Version / TC ID | TC_VM_FCC15247_Peak_Power_Spectral_Density_DTS_V01 Version: 0.0.1   <br>TCID_FCC15247_6                          |
| My Description             | FCC 15.247 Peak Power Spectral Density DTS - WLAN 2G4 b-mode   |
| Add. Information           |  |
| Test Parameter             |  |
| Technology to test         | WLAN2G4 b-mode   |
| Antenna Port used          | 1  |
| Temperature                | mid  |
| Voltage                    | mid  |
| Frequency low to test      | True   Freq [MHz] 2412   |
| Frequency mid to test      | False   Freq [MHz] 2437  |
| Frequency high to test     | False   Freq [MHz] 2462  |
| Pattern                    | PRBS9  |
| Switched Path              | IUT - SignalingUnit - SpectrumAnalyzer   |
| Devices in use             | SigBT: Rohde&Schwarz,CBT-1153.9000.35,100185,CBT 6X02.P02   SA:<br>Rohde&Schwarz,FSV-30,1321.3008K30/103170,3.40 |

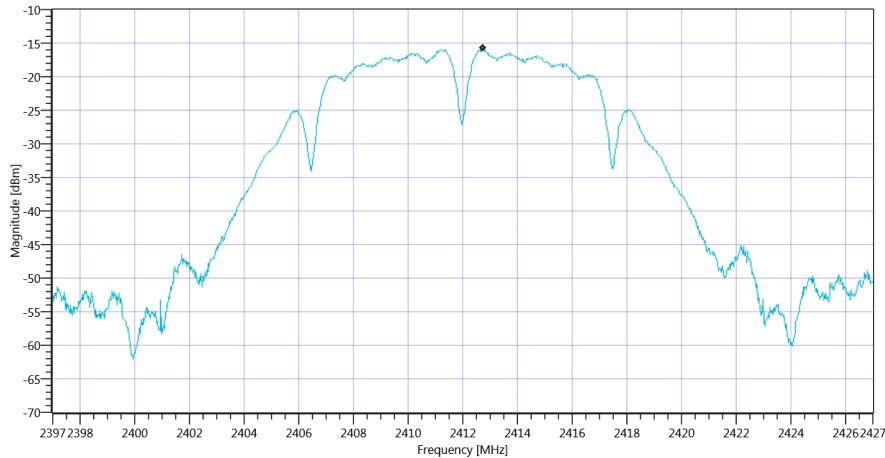
## Test at TX 2412 MHz

### READ SA SETTINGS:

|                        |          |
|------------------------|----------|
| Ref. Level [dBm]       | 12.02    |
| Ref. Lev. offs [dB]    | 9.83     |
| Input Attenuation [dB] | 20       |
| Freq. Start [MHz]      | 2397.000 |
| Freq. Stop [MHz]       | 2427.000 |
| Resolution BW. [MHz]   | 0.003000 |
| Video BW. [MHz]        | 0.010000 |
| Detector               | POS      |
| Sweep Time [ms]        | 1000     |
| Sweep Points/Section   | 1001     |
| Sweep Count            | 20       |
| Sweep Mode             | MAXH     |
| Used Sweep Type        | SWE      |

RESULT: TC\_VM\_FCC15247\_Peak\_Power\_Spectral\_Density\_DTS\_V01

| Test Description       | Lower Limit | Upper Limit | Measured | Unit     | Verdict |
|------------------------|-------------|-------------|----------|----------|---------|
| Max Peak power Density | --          | 8           | -15.79   | dBm/3KHz | PASS    |



Plot\_FCC Part 15.247 Peak Power Spectral Density DTS ~ WLAN2G4 b-mode\_04072019\_112057.png

### TEST FINISHED

General Verdict

04.07.2019 11:20:57 / RT: 34 s

PASS

### 3. FCC Part 15.247 Bandwidth 99PCT-20dB ~ WLAN2G4 b-mode

| Test References            |   |
|----------------------------|---|
| TC Start                   | 04.07.2019 11:21:00   |
| System Version             | 1.0.0.16  |
| Test Specification         | FCC Part 15.247   |
| Test Method                |   |
| Class / TC Version / TC ID | TC_VM_FCC15247_Bandwidth_99PCT_20dB_DTS_FHSS_V01 Version: 0.0.2   TCID_FCC15247_2                             |
| My Description             | FCC 15.247 Bandwidth 99PCT-20dB DTS - WLAN 2G4 b-mode   |
| Add. Information           |   |
| Test Parameter             |   |
| Technology to test         | WLAN2G4 b-mode  |
| Antenna Port used          | 1   |
| Temperature                | mid   |
| Voltage                    | mid   |
| Frequency low to test      | True   Freq [MHz] 2412  |
| Frequency mid to test      | False   Freq [MHz] 2437   |
| Frequency high to test     | False   Freq [MHz] 2462   |
| Pattern                    | PRBS9   |
| Switched Path              | IUT - SignalingUnit - SpectrumAnalyzer  |
| Devices in use             | SigBT: Rohde&Schwarz,CBT-1153.9000.35,100185,CBT 6X02,P02   SA: Rohde&Schwarz,FSV-30,1321.3008K30/103170,3.40 |

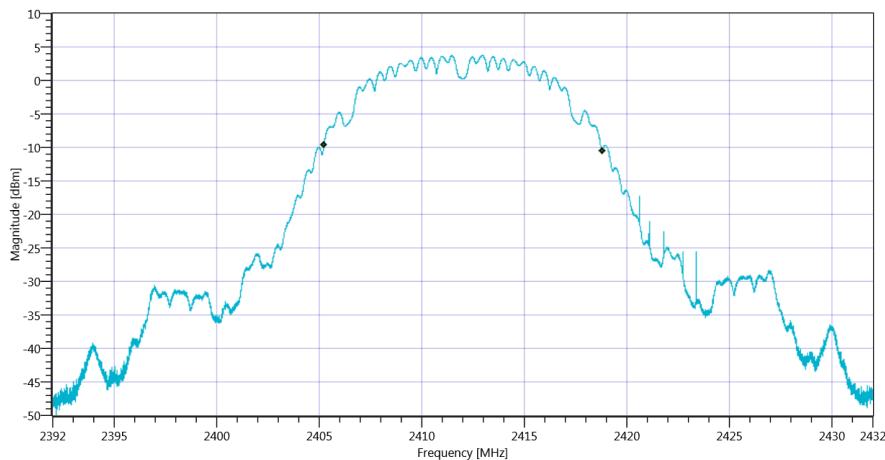
## Test at TX 2412 MHz

### READ SA SETTINGS:

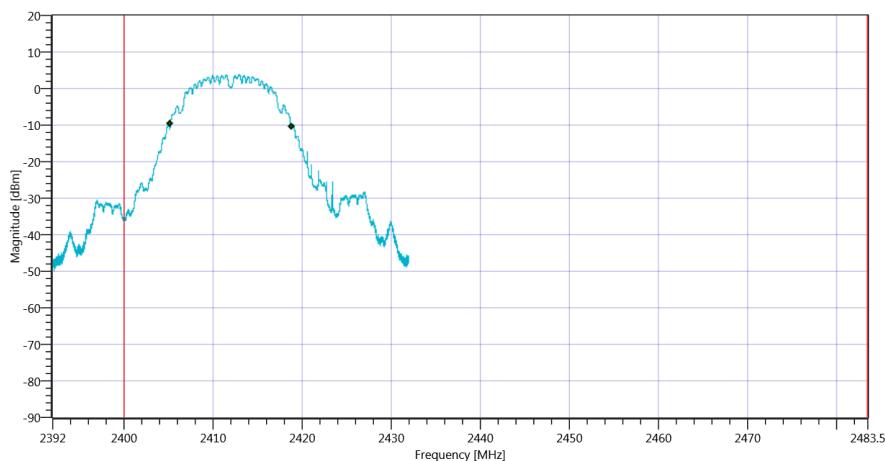
|                        |          |
|------------------------|----------|
| Ref. Level [dBm]       | 12.03    |
| Ref. Lev. offs [dB]    | 9.83     |
| Input Attenuation [dB] | 20       |
| Freq. Start [MHz]      | 2392.000 |
| Freq. Stop [MHz]       | 2432.000 |
| Resolution BW. [MHz]   | 0.500000 |
| Video BW. [MHz]        | 1.000000 |
| Detector               | POS      |
| Sweep Time [ms]        | 50       |
| Sweep Points/Section   | 10001    |
| Sweep Count            | 200      |
| Sweep Mode             | MAXH     |
| Used Sweep Type        | SWE      |

RESULT: TC\_VM\_FCC15247\_Bandwidth\_99PCT\_20dB\_DTS\_FHSS\_V01

| Test Description | Lower Limit | Upper Limit | Measured  | Unit | Verdict     |
|------------------|-------------|-------------|-----------|------|-------------|
| Bandwidth 99%    | --          | --          | 13583     | kHz  | Information |
| T1 99%           | 2400.000000 | --          | 2405.2287 | MHz  | PASS        |
| T2 99%           | --          | 2483.500000 | 2418.8113 | MHz  | PASS        |



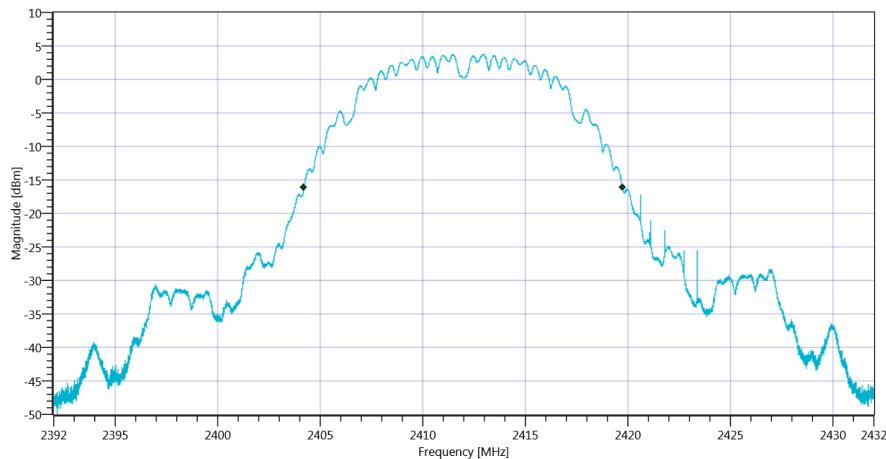
Plot\_FCC Part 15.247 Bandwidth 99PCT-20dB ~ WLAN2G4 b-mode 99PCT\_04072019\_112125.png



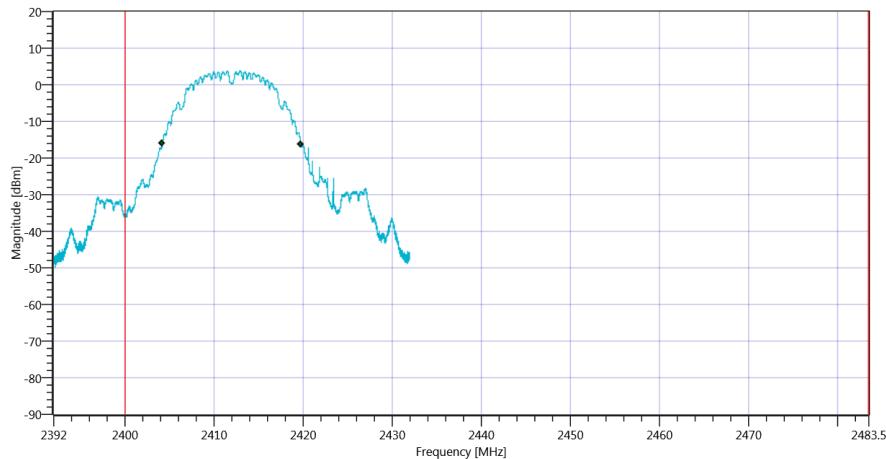
Plot\_FCC Part 15.247 Bandwidth 99PCT-20dB ~ WLAN2G4 b-mode\_04072019\_112128.png

**RESULT: TC\_VM\_FCC15247\_Bandwidth\_99PCT\_20dB\_DTS\_FHSS\_V01**

| Test Description | Lower Limit | Upper Limit | Measured  | Unit | Verdict     |
|------------------|-------------|-------------|-----------|------|-------------|
| Bandwidth 20dB   | --          | --          | 15516     | kHz  | Information |
| T1 20dB          | 2400.000000 | --          | 2404.2160 | MHz  | PASS        |
| T2 20dB          | --          | 2483.500000 | 2419.7320 | MHz  | PASS        |



Plot\_FCC Part 15.247 Bandwidth 99PCT-20dB ~ WLAN2G4 b-mode 20dB\_04072019\_112132.png



Plot\_FCC Part 15.247 Bandwidth 99PCT-20dB ~ WLAN2G4 b-mode\_04072019\_112135.png

**TEST FINISHED**

General Verdict

04.07.2019 11:21:35 / RT: 34 s

**PASS**

## 4. FCC Part 15.247 TX Spurious Conducted ~ WLAN2G4 b-mode

| Test References            |  |
|----------------------------|--|
| TC Start                   | 04.07.2019 11:21:39  |
| System Version             | 1.0.0.16   |
| 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. |
| Class / TC Version / TC ID | TC_VM_FCC15247_TX_Emissions_Conducted_V01 Version: 0.0.1   TCID_FCC15247_8                                     |
| My Description             | FCC 15.247 TX Emissions Conducted DTS - WLAN 2G4 b-mode  |
| Add. Information           |  |
| Test Parameter             |  |
| Technology to test         | WLAN2G4 b-mode   |
| Antenna Port used          | 1  |
| Temperature                | mid  |
| Voltage                    | mid  |
| Frequency low to test      | True   Freq [MHz] 2412   |
| Frequency mid to test      | False   Freq [MHz] 2437  |
| Frequency high to test     | False   Freq [MHz] 2462  |
| Pattern                    | PRBS9  |
| Switched Path              | IUT - SignalingUnit - SpectrumAnalyzer   |
| Devices in use             | SigBT: Rohde&Schwarz,CBT-1153.9000.35,100185,CBT 6X02,P02   SA: Rohde&Schwarz,FSV-30,1321.3008K30/103170,3.40  |

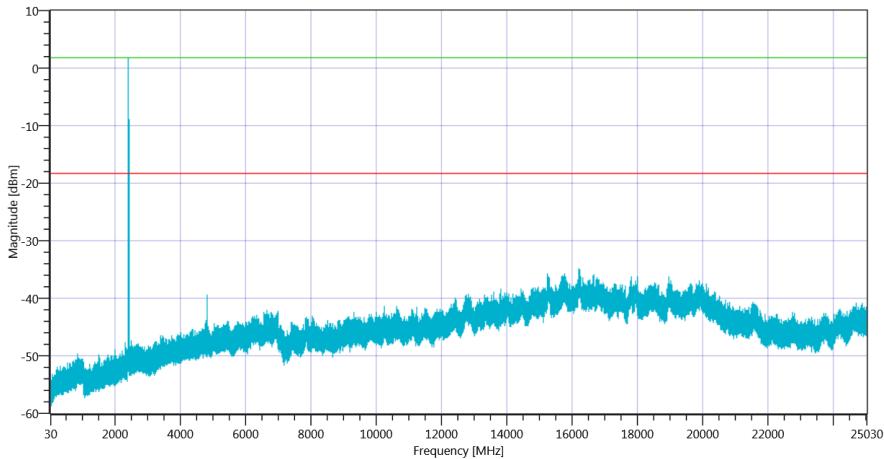
## Test at TX 2412 MHz

### READ SA SETTINGS:

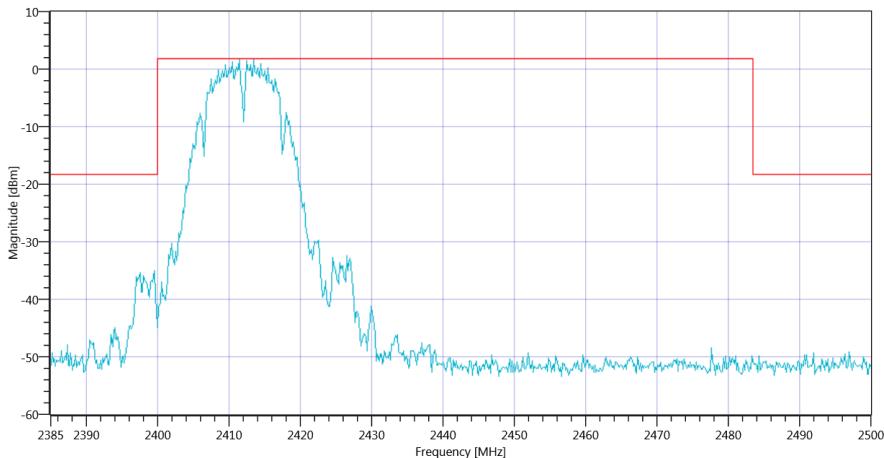
|                      |          |
|----------------------|----------|
| Ref. Level [dBm]     | 12.06    |
| Resolution BW. [MHz] | 0.100000 |
| Video BW. [MHz]      | 0.300000 |
| Detector             | POS      |
| Sweep Time [ms]      | 500      |
| Sweep Points/Section | 3001     |
| Sweep Count          | 8        |
| Sweep Mode           | MAXH     |
| Used Sweep Type      | SWE      |

RESULT: TC\_VM\_FCC15247\_TX\_Emissions\_Conducted\_V01

| Test Description        | Lower Limit | Upper Limit | Measured | Unit | Verdict     |
|-------------------------|-------------|-------------|----------|------|-------------|
| Reference @ 2411.50 MHz | --          | --          | 1.72     | dBm  | Information |
| No peaks detected       | --          | --          |          |      | PASS        |



Plot\_FCC Part 15.247 TX Spurious Conducted ~ WLAN2G4 b-mode 2412\_04072019\_112624.png



Plot\_FCC Part 15.247 TX Spurious Conducted ~ WLAN2G4 b-mode 2412\_04072019\_112626.png

### TEST FINISHED

General Verdict

04.07.2019 11:26:27 / RT: 288 s

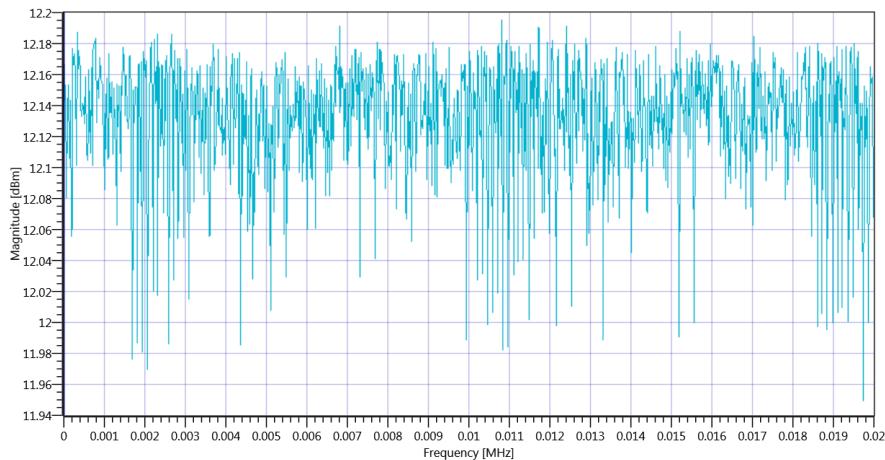
PASS

## 5. FCC Part 15.247 Restricted Band Edge Conducted Avg DC corrected DTS ~ WLAN2G4 b-mode

| Test References            |   |
|----------------------------|---|
| TC Start                   | 04.07.2019 11:26:31   |
| System Version             | 1.0.0.16  |
| Test Specification         | FCC Part 15.247   |
| Test Method                | DTS: KDB 558074 D01 V05 - 8.7.3 Integration Method; ANSI C63.10-2013 11.13.3.4<br>Trace averaging across on- and off-times of the EUT transmissions followed by duty cycle correction |
| Class / TC Version / TC ID | TC_VM_FCC15247_Restricted_Band_Edge_Conducted_Avg_DC_corrected_V01 Version:<br>0.0.1   TCID_FCC15247_7  |
| My Description             | FCC 15.247 Restricted Band Edge Cond. Avg DC corrected DTS - WLAN 2G4 b-mode  |
| Add. Information           |   |
| Test Parameter             |   |
| Technology to test         | WLAN2G4 b-mode  |
| Antenna Port used          | 1   |
| Temperature                | mid   |
| Voltage                    | mid   |
| Frequency low to test      | True   Freq [MHz] 2412  |
| Frequency mid to test      | False   Freq [MHz] 2437   |
| Frequency high to test     | False   Freq [MHz] 2462   |
| Pattern                    | PRBS9   |
| Switched Path              | IUT - SignalingUnit - SpectrumAnalyzer  |
| Devices in use             | SigBT: Rohde&Schwarz,CBT-1153.9000.35,100185,CBT 6X02,P02   SA:<br>Rohde&Schwarz,FSV-30,1321.3008K30/103170,3.40  |

## Test at TX 2412 MHz

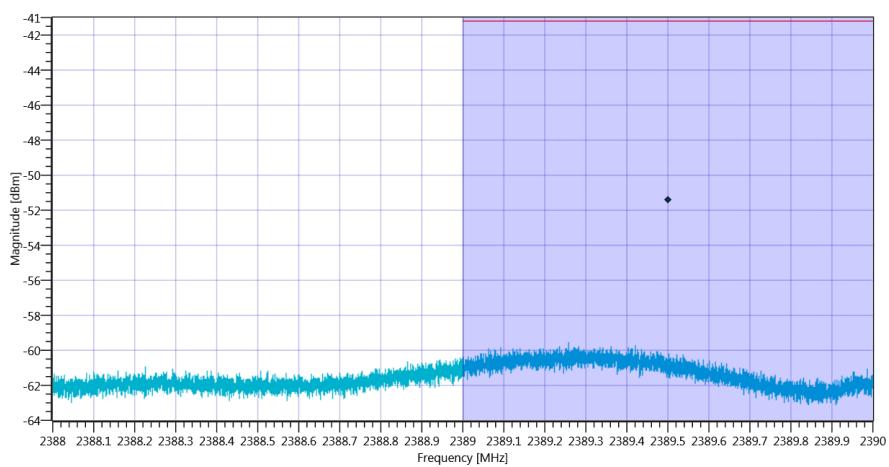
| RESULT: Duty Cycle evaluation                              |             |             |          |      |             |
|--|-------------|-------------|----------|------|-------------|
| Test Description   | Lower Limit | Upper Limit | Measured | Unit | Verdict     |
| No enough Bursts detected, Duty Cycle Burst Ratio set to 1 |             |             |          |      |             |
| Duty Cycle (Burst Ratio) max                               | --          | --          | 1        | --   | Information |
| Duty Cycle max   | --          | --          | 0        | dB   | Information |
| Duty Cycle (Burst Ratio) min                               | --          | --          | 1        | --   | Information |
| Duty Cycle min   | --          | --          | 0        | dB   | Information |



Plot\_FCC Part 15.247 Restricted Band Edge Conducted Avg DC corrected DTS ~ WLAN2G4 b-mode 2412 MHz - Duty Cycle\_04072019\_112643.png

| READ SA SETTINGS:      |            |
|------------------------|------------|
| Ref. Level [dBm]       | 16.96      |
| Ref. Lev. offs [dB]    | 9.83       |
| Input Attenuation [dB] | 25         |
| Freq. Start [MHz]      | 2388.000   |
| Freq. Stop [MHz]       | 2390.000   |
| Resolution BW. [MHz]   | 0.100000   |
| Video BW. [MHz]        | 0.500000   |
| Detector               | RMS        |
| Sweep Time [ms]        | 32         |
| Sweep Points/Section   | 32000      |
| Sweep Count            | 300        |
| Sweep Mode             | AVER       |
| Used Sweep Type        | SWE        |
| Marker Method          | Band Power |

| RESULT: TC_VM_FCC15247_Restricted_Band_Edge_Conducted_Avg_DC_corrected_V01 |             |             |          |      |             |
|--|-------------|-------------|----------|------|-------------|
| Test Description   | Lower Limit | Upper Limit | Measured | Unit | Verdict     |
| Duty Cylce worst case  | --          | --          | 0        | dB   | Information |
| Band Power without Antenna Gain Avg  | --          | --          | -51.43   | dBm  | Information |
| Band Power without Antenna Gain Avg DC corrected                           | --          | --          | -51.43   | dBm  | Information |
| Band Power incl. Antenna Gain Avg DC corrected                             | --          | -41.23      | -51.43   | dBm  | PASS        |



Plot\_FCC Part 15.247 Restricted Band Edge Conducted Avg DC corrected DTS ~ WLAN2G4 b-mode\_04072019\_112705.png

TEST FINISHED

General Verdict

04.07.2019 11:27:05 / RT: 34 s

PASS

## 6. FCC Part 15.247 Maximum Peak Conducted Output Power Powermeter DTS ~ WLAN2G4 b-mode

| Test References            |   |
|----------------------------|---|
| TC Start                   | 04.07.2019 11:27:09   |
| System Version             | 1.0.0.16  |
| Test Specification         | FCC Part 15.247   |
| Test Method                | DTS: KDB 558074 D01 V05 - Chapter 8.3.1.3 PKPM1 Peak-reading Power Meter Method                           |
| Class / TC Version / TC ID | TC_VM_FCC15247_Maximum_Peak_Conducted_Output_Power_Powermeter_DTS_V01<br>Version: 0.0.1   TCID_FCC15247_3 |
| My Description             | FCC 15.247 Maximum Peak Output Power Powermeter Conducted DTS - WLAN 2G4 b-mode                           |
| Add. Information           |   |
| Test Parameter             |   |
| Technology to test         | WLAN2G4 b-mode  |
| Antenna Port used          | 1   |
| Temperature                | mid   |
| Voltage                    | mid   |
| Frequency low to test      | True   Freq [MHz] 2412  |
| Frequency mid to test      | False   Freq [MHz] 2437   |
| Frequency high to test     | False   Freq [MHz] 2462   |
| Pattern                    | PRBS9   |
| Switched Path              | IUT - SignalingUnit - PowerMeter  |
| Devices in use             | SigBT: Rohde&Schwarz,CBT-1153.9000.35,100185,CBT 6X02.P02   NRP-Z81,102585                                |

## Test at TX 2412 MHz

| RESULT: TC_VM_FCC15247_Maximum_Peak_Conducted_Output_Power_Powermeter_DTS_V01 |             |             |          |      |         |
|---|-------------|-------------|----------|------|---------|
| Test Description  | Lower Limit | Upper Limit | Measured | Unit | Verdict |
| Found Peak cond.  | --          | --          | 15.45    | dBm  | PASS    |

| TEST FINISHED   |                               |      |
|-----------------|-------------------------------|------|
| General Verdict | 04.07.2019 11:27:13 / RT: 3 s | PASS |

## 7. FCC Part 15.247 Bandwidth 6dB DTS ~ WLAN2G4 b-mode

| Test References            |  |
|----------------------------|--|
| TC Start                   | 04.07.2019 11:28:06  |
| System Version             | 1.0.0.16   |
| Test Specification         | FCC Part 15.247  |
| Test Method                | 99   |
| Class / TC Version / TC ID | TC_VM_FCC15247_Bandwidth_6dB_DTS_V01 Version: 0.0.1   TCID_FCC15247_1  |
| My Description             | FCC 15.247 Bandwidth 6dB DTS - WLAN 2G4 b-mode   |
| Add. Information           |  |
| Test Parameter             |  |
| Technology to test         | WLAN2G4 b-mode   |
| Antenna Port used          | 1  |
| Temperature                | mid  |
| Voltage                    | mid  |
| Frequency low to test      | False   Freq [MHz] 2412  |
| Frequency mid to test      | True   Freq [MHz] 2437   |
| Frequency high to test     | False   Freq [MHz] 2462  |
| Pattern                    | PRBS9  |
| Switched Path              | IUT - SignalingUnit - SpectrumAnalyzer   |
| Devices in use             | SigBT: Rohde&Schwarz,CBT-1153.9000.35,100185,CBT 6X02.P02   SA:<br>Rohde&Schwarz,FSV-30,1321.3008K30/103170,3.40 |

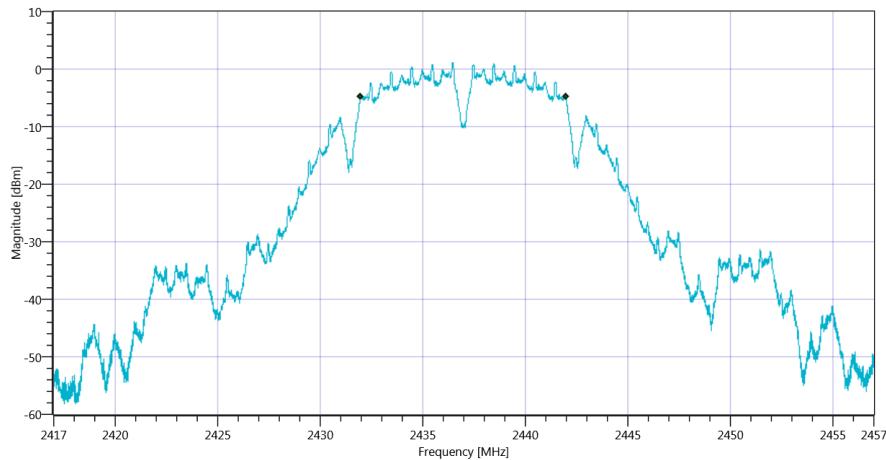
## Test at TX 2437 MHz

### READ SA SETTINGS:

|                        |          |
|------------------------|----------|
| Ref. Level [dBm]       | 11.31    |
| Ref. Lev. offs [dB]    | 9.89     |
| Input Attenuation [dB] | 20       |
| Freq. Start [MHz]      | 2417.000 |
| Freq. Stop [MHz]       | 2457.000 |
| Resolution BW. [MHz]   | 0.100000 |
| Video BW. [MHz]        | 0.300000 |
| Detector               | POS      |
| Sweep Time [ms]        | 50       |
| Sweep Points/Section   | 10001    |
| Sweep Count            | 200      |
| Sweep Mode             | MAXH     |
| Used Sweep Type        | SWE      |

### RESULT: TC\_VM\_FCC15247\_Bandwidth\_6dB\_DTS\_V01

| Test Description    | Lower Limit | Upper Limit | Measured | Unit | Verdict |
|---------------------|-------------|-------------|----------|------|---------|
| DTS Bandwidth (6dB) | 500         | --          | 10032    | kHz  | PASS    |



Plot\_FCC Part 15.247 Bandwidth 6dB DTS ~ WLAN2G4 b-mode\_04072019\_112832.png

### TEST FINISHED

General Verdict

04.07.2019 11:28:33 / RT: 26 s

PASS

## 8. FCC Part 15.247 Peak Power Spectral Density DTS ~ WLAN2G4 b-mode

| Test References            |   |
|----------------------------|---|
| TC Start                   | 04.07.2019 11:28:36   |
| System Version             | 1.0.0.16  |
| 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    |
| Class / TC Version / TC ID | TC_VM_FCC15247_Peak_Power_Spectral_Density_DTS_V01 Version: 0.0.1   TCID_FCC15247_6                           |
| My Description             | FCC 15.247 Peak Power Spectral Density DTS - WLAN 2G4 b-mode  |
| Add. Information           |   |
| Test Parameter             |   |
| Technology to test         | WLAN2G4 b-mode  |
| Antenna Port used          | 1   |
| Temperature                | mid   |
| Voltage                    | mid   |
| Frequency low to test      | False   Freq [MHz] 2412   |
| Frequency mid to test      | True   Freq [MHz] 2437  |
| Frequency high to test     | False   Freq [MHz] 2462   |
| Pattern                    | PRBS9   |
| Switched Path              | IUT - SignalingUnit - SpectrumAnalyzer  |
| Devices in use             | SigBT: Rohde&Schwarz,CBT-1153.9000.35,100185,CBT 6X02.P02   SA: Rohde&Schwarz,FSV-30,1321.3008K30/103170,3.40 |

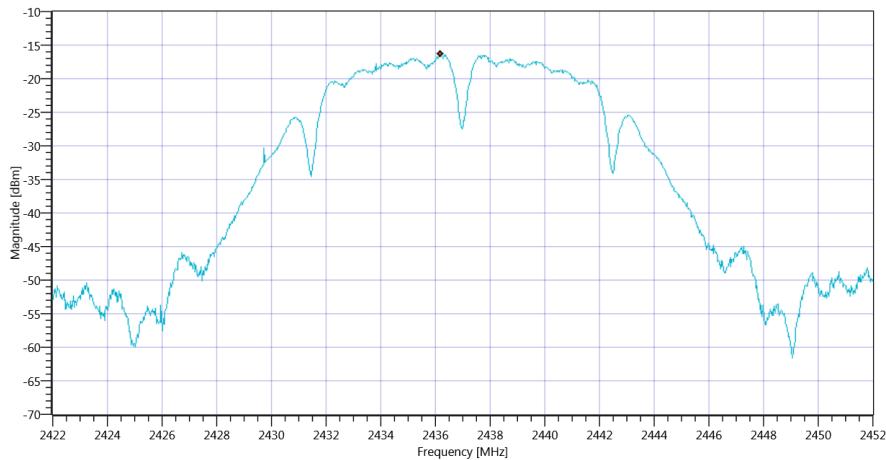
## Test at TX 2437 MHz

### READ SA SETTINGS:

|                        |          |
|------------------------|----------|
| Ref. Level [dBm]       | 11.33    |
| Ref. Lev. offs [dB]    | 9.89     |
| Input Attenuation [dB] | 20       |
| Freq. Start [MHz]      | 2422.000 |
| Freq. Stop [MHz]       | 2452.000 |
| Resolution BW. [MHz]   | 0.003000 |
| Video BW. [MHz]        | 0.010000 |
| Detector               | POS      |
| Sweep Time [ms]        | 1000     |
| Sweep Points/Section   | 1001     |
| Sweep Count            | 20       |
| Sweep Mode             | MAXH     |
| Used Sweep Type        | SWE      |

RESULT: TC\_VM\_FCC15247\_Peak\_Power\_Spectral\_Density\_DTS\_V01

| Test Description       | Lower Limit | Upper Limit | Measured | Unit     | Verdict |
|------------------------|-------------|-------------|----------|----------|---------|
| Max Peak power Density | --          | 8           | -16.39   | dBm/3KHz | PASS    |



Plot\_FCC Part 15.247 Peak Power Spectral Density DTS ~ WLAN2G4 b-mode\_04072019\_112911.png

### TEST FINISHED

General Verdict

04.07.2019 11:29:11 / RT: 34 s

PASS

## 9. FCC Part 15.247 Bandwidth 99PCT-20dB ~ WLAN2G4 b-mode

| Test References            |   |
|----------------------------|---|
| TC Start                   | 04.07.2019 11:29:14   |
| System Version             | 1.0.0.16  |
| Test Specification         | FCC Part 15.247   |
| Test Method                |   |
| Class / TC Version / TC ID | TC_VM_FCC15247_Bandwidth_99PCT_20dB_DTS_FHSS_V01 Version: 0.0.2   TCID_FCC15247_2                             |
| My Description             | FCC 15.247 Bandwidth 99PCT-20dB DTS - WLAN 2G4 b-mode   |
| Add. Information           |   |
| Test Parameter             |   |
| Technology to test         | WLAN2G4 b-mode  |
| Antenna Port used          | 1   |
| Temperature                | mid   |
| Voltage                    | mid   |
| Frequency low to test      | False   Freq [MHz] 2412   |
| Frequency mid to test      | True   Freq [MHz] 2437  |
| Frequency high to test     | False   Freq [MHz] 2462   |
| Pattern                    | PRBS9   |
| Switched Path              | IUT - SignalingUnit - SpectrumAnalyzer  |
| Devices in use             | SigBT: Rohde&Schwarz,CBT-1153.9000.35,100185,CBT 6X02.P02   SA: Rohde&Schwarz,FSV-30,1321.3008K30/103170,3.40 |

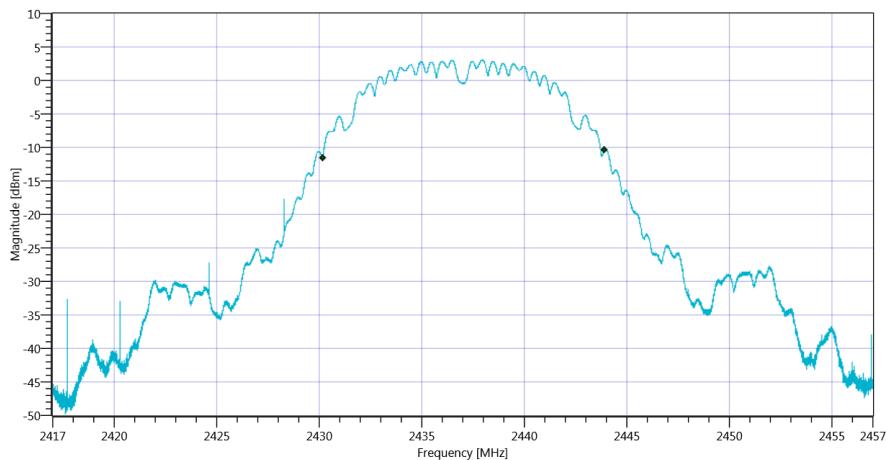
## Test at TX 2437 MHz

### READ SA SETTINGS:

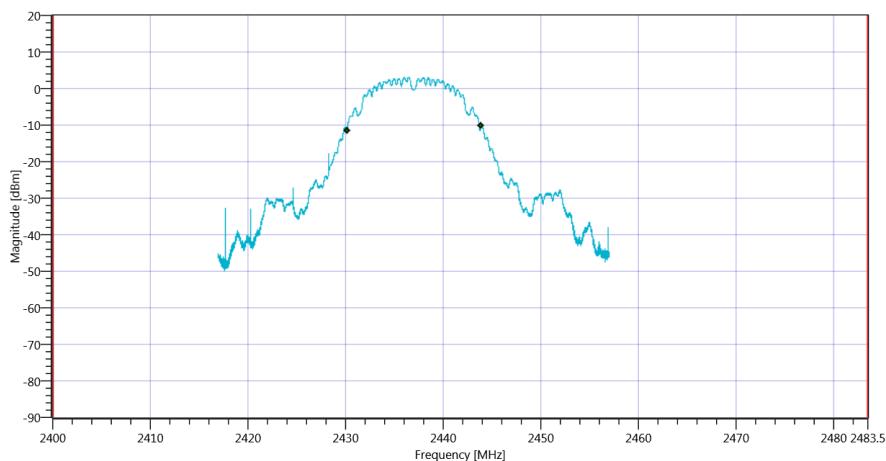
|                        |          |
|------------------------|----------|
| Ref. Level [dBm]       | 11.29    |
| Ref. Lev. offs [dB]    | 9.89     |
| Input Attenuation [dB] | 20       |
| Freq. Start [MHz]      | 2417.000 |
| Freq. Stop [MHz]       | 2457.000 |
| Resolution BW. [MHz]   | 0.500000 |
| Video BW. [MHz]        | 1.000000 |
| Detector               | POS      |
| Sweep Time [ms]        | 50       |
| Sweep Points/Section   | 10001    |
| Sweep Count            | 200      |
| Sweep Mode             | MAXH     |
| Used Sweep Type        | SWE      |

RESULT: TC\_VM\_FCC15247\_Bandwidth\_99PCT\_20dB\_DTS\_FHSS\_V01

| Test Description | Lower Limit | Upper Limit | Measured  | Unit | Verdict     |
|------------------|-------------|-------------|-----------|------|-------------|
| Bandwidth 99%    | --          | --          | 13743     | kHz  | Information |
| T1 99%           | 2400.000000 | --          | 2430.1607 | MHz  | PASS        |
| T2 99%           | --          | 2483.500000 | 2443.9033 | MHz  | PASS        |



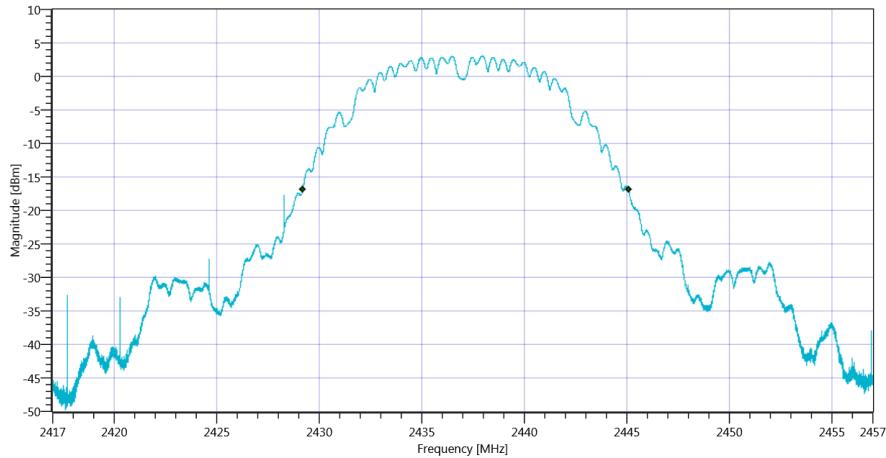
Plot\_FCC Part 15.247 Bandwidth 99PCT-20dB ~ WLAN2G4 b-mode 99PCT\_04072019\_112939.png



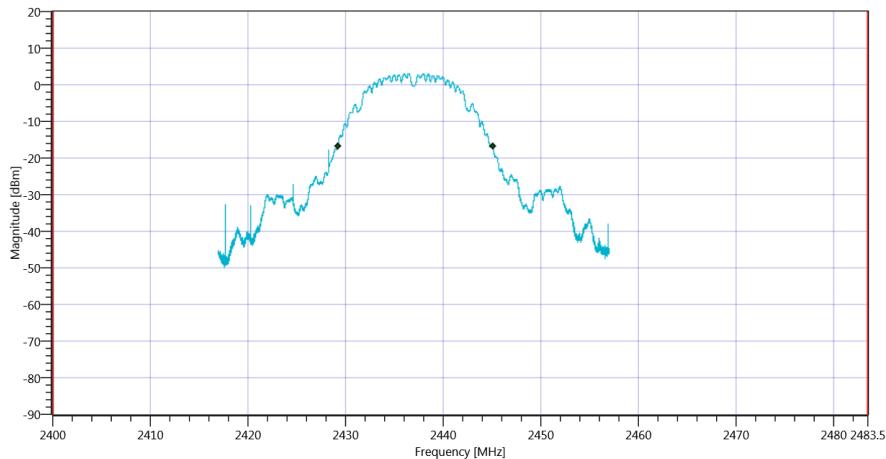
Plot\_FCC Part 15.247 Bandwidth 99PCT-20dB ~ WLAN2G4 b-mode\_04072019\_112942.png

**RESULT: TC\_VM\_FCC15247\_Bandwidth\_99PCT\_20dB\_DTS\_FHSS\_V01**

| Test Description | Lower Limit | Upper Limit | Measured  | Unit | Verdict     |
|------------------|-------------|-------------|-----------|------|-------------|
| Bandwidth 20dB   | --          | --          | 15872     | kHz  | Information |
| T1 20dB          | 2400.000000 | --          | 2429.2040 | MHz  | PASS        |
| T2 20dB          | --          | 2483.500000 | 2445.0760 | MHz  | PASS        |



Plot\_FCC Part 15.247 Bandwidth 99PCT-20dB ~ WLAN2G4 b-mode 20dB\_04072019\_112946.png



Plot\_FCC Part 15.247 Bandwidth 99PCT-20dB ~ WLAN2G4 b-mode\_04072019\_112949.png

**TEST FINISHED**

General Verdict

04.07.2019 11:29:49 / RT: 34 s

PASS

## 10. FCC Part 15.247 TX Spurious Conducted ~ WLAN2G4 b-mode

| Test References            |  |
|----------------------------|--|
| TC Start                   | 04.07.2019 11:29:53  |
| System Version             | 1.0.0.16   |
| 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. |
| Class / TC Version / TC ID | TC_VM_FCC15247_TX_Emissions_Conducted_V01 Version: 0.0.1   TCID_FCC15247_8                                     |
| My Description             | FCC 15.247 TX Emissions Conducted DTS - WLAN 2G4 b-mode  |
| Add. Information           |  |
| Test Parameter             |  |
| Technology to test         | WLAN2G4 b-mode   |
| Antenna Port used          | 1  |
| Temperature                | mid  |
| Voltage                    | mid  |
| Frequency low to test      | False   Freq [MHz] 2412  |
| Frequency mid to test      | True   Freq [MHz] 2437   |
| Frequency high to test     | False   Freq [MHz] 2462  |
| Pattern                    | PRBS9  |
| Switched Path              | IUT - SignalingUnit - SpectrumAnalyzer   |
| Devices in use             | SigBT: Rohde&Schwarz,CBT-1153.9000.35,100185,CBT 6X02,P02   SA: Rohde&Schwarz,FSV-30,1321.3008K30/103170,3.40  |

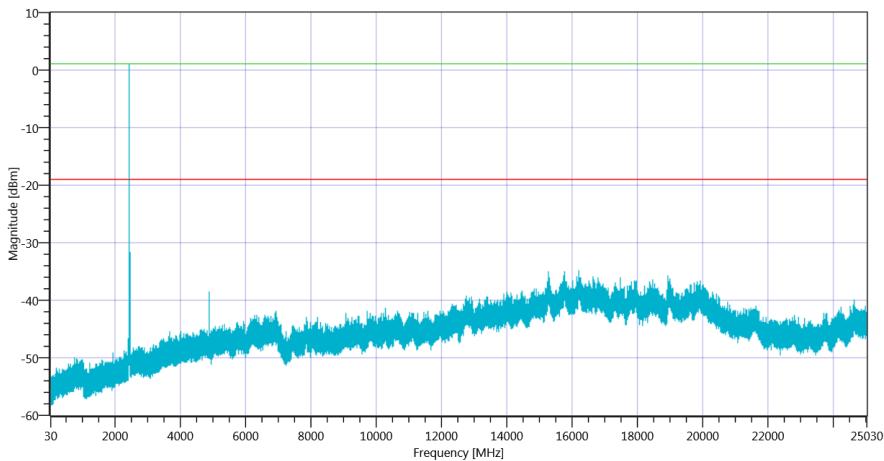
## Test at TX 2437 MHz

### READ SA SETTINGS:

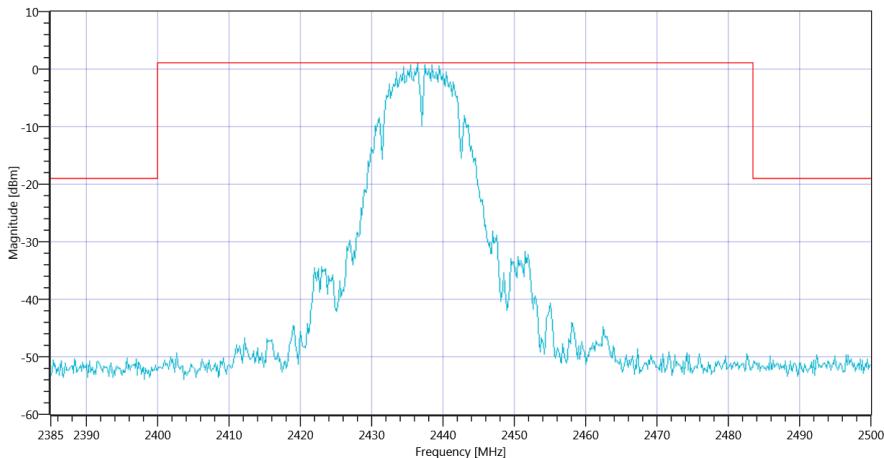
|                      |          |
|----------------------|----------|
| Ref. Level [dBm]     | 11.78    |
| Resolution BW. [MHz] | 0.100000 |
| Video BW. [MHz]      | 0.300000 |
| Detector             | POS      |
| Sweep Time [ms]      | 500      |
| Sweep Points/Section | 3001     |
| Sweep Count          | 8        |
| Sweep Mode           | MAXH     |
| Used Sweep Type      | SWE      |

RESULT: TC\_VM\_FCC15247\_TX\_Emissions\_Conducted\_V01

| Test Description        | Lower Limit | Upper Limit | Measured | Unit | Verdict     |
|-------------------------|-------------|-------------|----------|------|-------------|
| Reference @ 2436.50 MHz | --          | --          | 1.05     | dBm  | Information |
| No peaks detected       | --          | --          |          |      | PASS        |



Plot\_FCC Part 15.247 TX Spurious Conducted ~ WLAN2G4 b-mode 2437\_04072019\_113437.png



Plot\_FCC Part 15.247 TX Spurious Conducted ~ WLAN2G4 b-mode 2437\_04072019\_113440.png

### TEST FINISHED

General Verdict

04.07.2019 11:34:41 / RT: 288 s

PASS

## 11. FCC Part 15.247 Maximum Peak Conducted Output Power Powermeter DTS ~ WLAN2G4 b-mode

| Test References            |   |
|----------------------------|---|
| TC Start                   | 04.07.2019 11:35:23   |
| System Version             | 1.0.0.16  |
| Test Specification         | FCC Part 15.247   |
| Test Method                | DTS: KDB 558074 D01 V05 - Chapter 8.3.1.3 PKPM1 Peak-reading Power Meter Method                           |
| Class / TC Version / TC ID | TC_VM_FCC15247_Maximum_Peak_Conducted_Output_Power_Powermeter_DTS_V01<br>Version: 0.0.1   TCID_FCC15247_3 |
| My Description             | FCC 15.247 Maximum Peak Output Power Powermeter Conducted DTS - WLAN 2G4 b-mode                           |
| Add. Information           |   |
| Test Parameter             |   |
| Technology to test         | WLAN2G4 b-mode  |
| Antenna Port used          | 1   |
| Temperature                | mid   |
| Voltage                    | mid   |
| Frequency low to test      | False   Freq [MHz] 2412   |
| Frequency mid to test      | True   Freq [MHz] 2437  |
| Frequency high to test     | False   Freq [MHz] 2462   |
| Pattern                    | PRBS9   |
| Switched Path              | IUT - SignalingUnit - PowerMeter  |
| Devices in use             | SigBT: Rohde&Schwarz,CBT-1153.9000.35,100185,CBT 6X02.P02   NRP-Z81,102585                                |

## Test at TX 2437 MHz

| RESULT: TC_VM_FCC15247_Maximum_Peak_Conducted_Output_Power_Powermeter_DTS_V01 |             |             |          |      |         |
|---|-------------|-------------|----------|------|---------|
| Test Description  | Lower Limit | Upper Limit | Measured | Unit | Verdict |
| Found Peak cond.  | --          | --          | 14.73    | dBm  | PASS    |

| TEST FINISHED   |                               |      |
|-----------------|-------------------------------|------|
| General Verdict | 04.07.2019 11:35:27 / RT: 3 s | PASS |

## 12. FCC Part 15.247 Bandwidth 6dB DTS ~ WLAN2G4 b-mode

| Test References            |  |
|----------------------------|--|
| TC Start                   | 04.07.2019 11:36:18  |
| System Version             | 1.0.0.16   |
| Test Specification         | FCC Part 15.247  |
| Test Method                | 99   |
| Class / TC Version / TC ID | TC_VM_FCC15247_Bandwidth_6dB_DTS_V01 Version: 0.0.1   TCID_FCC15247_1  |
| My Description             | FCC 15.247 Bandwidth 6dB DTS - WLAN 2G4 b-mode   |
| Add. Information           |  |
| Test Parameter             |  |
| Technology to test         | WLAN2G4 b-mode   |
| Antenna Port used          | 1  |
| Temperature                | mid  |
| Voltage                    | mid  |
| Frequency low to test      | False   Freq [MHz] 2412  |
| Frequency mid to test      | False   Freq [MHz] 2437  |
| Frequency high to test     | True   Freq [MHz] 2462   |
| Pattern                    | PRBS9  |
| Switched Path              | IUT - SignalingUnit - SpectrumAnalyzer   |
| Devices in use             | SigBT: Rohde&Schwarz,CBT-1153.9000.35,100185,CBT 6X02.P02   SA:<br>Rohde&Schwarz,FSV-30,1321.3008K30/103170,3.40 |

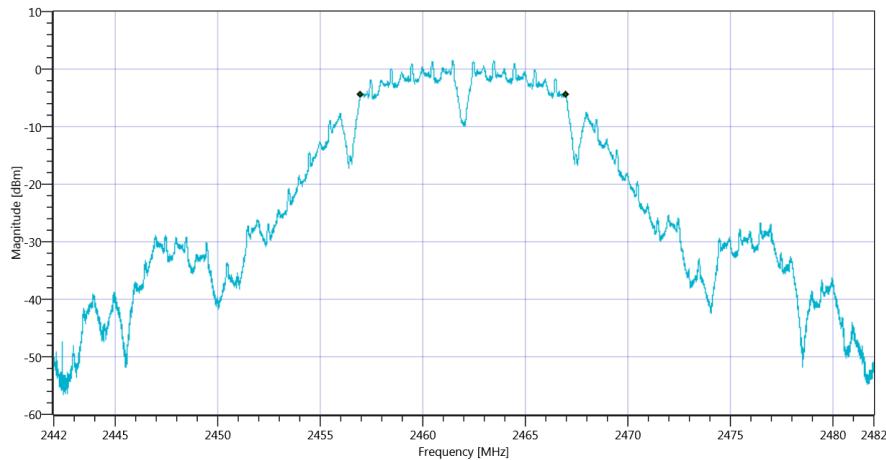
## Test at TX 2462 MHz

### READ SA SETTINGS:

|                        |          |
|------------------------|----------|
| Ref. Level [dBm]       | 11.83    |
| Ref. Lev. offs [dB]    | 9.94     |
| Input Attenuation [dB] | 20       |
| Freq. Start [MHz]      | 2442.000 |
| Freq. Stop [MHz]       | 2482.000 |
| Resolution BW. [MHz]   | 0.100000 |
| Video BW. [MHz]        | 0.300000 |
| Detector               | POS      |
| Sweep Time [ms]        | 50       |
| Sweep Points/Section   | 10001    |
| Sweep Count            | 200      |
| Sweep Mode             | MAXH     |
| Used Sweep Type        | SWE      |

RESULT: TC\_VM\_FCC15247\_Bandwidth\_6dB\_DTS\_V01

| Test Description    | Lower Limit | Upper Limit | Measured | Unit | Verdict |
|---------------------|-------------|-------------|----------|------|---------|
| DTS Bandwidth (6dB) | 500         | --          | 10040    | kHz  | PASS    |



Plot\_FCC Part 15.247 Bandwidth 6dB DTS ~ WLAN2G4 b-mode\_04072019\_113645.png

### TEST FINISHED

General Verdict

04.07.2019 11:36:45 / RT: 26 s

PASS

## 13. FCC Part 15.247 Peak Power Spectral Density DTS ~ WLAN2G4 b-mode

| Test References            |   |
|----------------------------|---|
| TC Start                   | 04.07.2019 11:36:49   |
| System Version             | 1.0.0.16  |
| 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    |
| Class / TC Version / TC ID | TC_VM_FCC15247_Peak_Power_Spectral_Density_DTS_V01 Version: 0.0.1   TCID_FCC15247_6                           |
| My Description             | FCC 15.247 Peak Power Spectral Density DTS - WLAN 2G4 b-mode  |
| Add. Information           |   |
| Test Parameter             |   |
| Technology to test         | WLAN2G4 b-mode  |
| Antenna Port used          | 1   |
| Temperature                | mid   |
| Voltage                    | mid   |
| Frequency low to test      | False   Freq [MHz] 2412   |
| Frequency mid to test      | False   Freq [MHz] 2437   |
| Frequency high to test     | True   Freq [MHz] 2462  |
| Pattern                    | PRBS9   |
| Switched Path              | IUT - SignalingUnit - SpectrumAnalyzer  |
| Devices in use             | SigBT: Rohde&Schwarz,CBT-1153.9000.35,100185,CBT 6X02.P02   SA: Rohde&Schwarz,FSV-30,1321.3008K30/103170,3.40 |

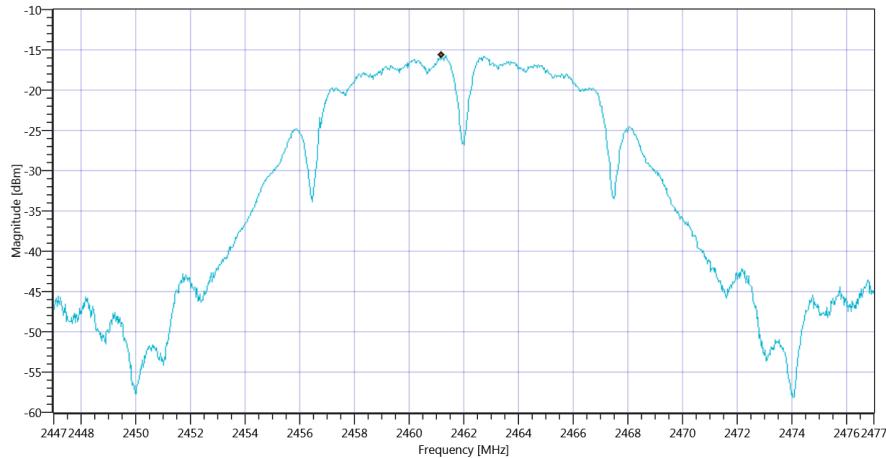
## Test at TX 2462 MHz

### READ SA SETTINGS:

|                        |          |
|------------------------|----------|
| Ref. Level [dBm]       | 11.80    |
| Ref. Lev. offs [dB]    | 9.94     |
| Input Attenuation [dB] | 20       |
| Freq. Start [MHz]      | 2447.000 |
| Freq. Stop [MHz]       | 2477.000 |
| Resolution BW. [MHz]   | 0.003000 |
| Video BW. [MHz]        | 0.010000 |
| Detector               | POS      |
| Sweep Time [ms]        | 1000     |
| Sweep Points/Section   | 1001     |
| Sweep Count            | 20       |
| Sweep Mode             | MAXH     |
| Used Sweep Type        | SWE      |

RESULT: TC\_VM\_FCC15247\_Peak\_Power\_Spectral\_Density\_DTS\_V01

| Test Description       | Lower Limit | Upper Limit | Measured | Unit     | Verdict |
|------------------------|-------------|-------------|----------|----------|---------|
| Max Peak power Density | --          | 8           | -15.73   | dBm/3KHz | PASS    |



Plot\_FCC Part 15.247 Peak Power Spectral Density DTS ~ WLAN2G4 b-mode\_04072019\_113723.png

### TEST FINISHED

General Verdict

04.07.2019 11:37:23 / RT: 34 s

PASS

## 14. FCC Part 15.247 Bandwidth 99PCT-20dB ~ WLAN2G4 b-mode

| Test References            |   |
|----------------------------|---|
| TC Start                   | 04.07.2019 11:37:27   |
| System Version             | 1.0.0.16  |
| Test Specification         | FCC Part 15.247   |
| Test Method                |   |
| Class / TC Version / TC ID | TC_VM_FCC15247_Bandwidth_99PCT_20dB_DTS_FHSS_V01 Version: 0.0.2   TCID_FCC15247_2                             |
| My Description             | FCC 15.247 Bandwidth 99PCT-20dB DTS - WLAN 2G4 b-mode   |
| Add. Information           |   |
| Test Parameter             |   |
| Technology to test         | WLAN2G4 b-mode  |
| Antenna Port used          | 1   |
| Temperature                | mid   |
| Voltage                    | mid   |
| Frequency low to test      | False   Freq [MHz] 2412   |
| Frequency mid to test      | False   Freq [MHz] 2437   |
| Frequency high to test     | True   Freq [MHz] 2462  |
| Pattern                    | PRBS9   |
| Switched Path              | IUT - SignalingUnit - SpectrumAnalyzer  |
| Devices in use             | SigBT: Rohde&Schwarz,CBT-1153.9000.35,100185,CBT 6X02,P02   SA: Rohde&Schwarz,FSV-30,1321.3008K30/103170,3.40 |

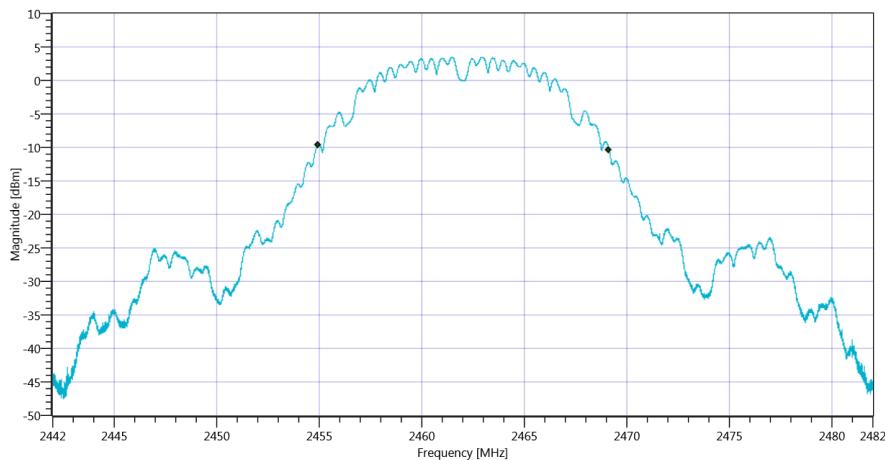
## Test at TX 2462 MHz

### READ SA SETTINGS:

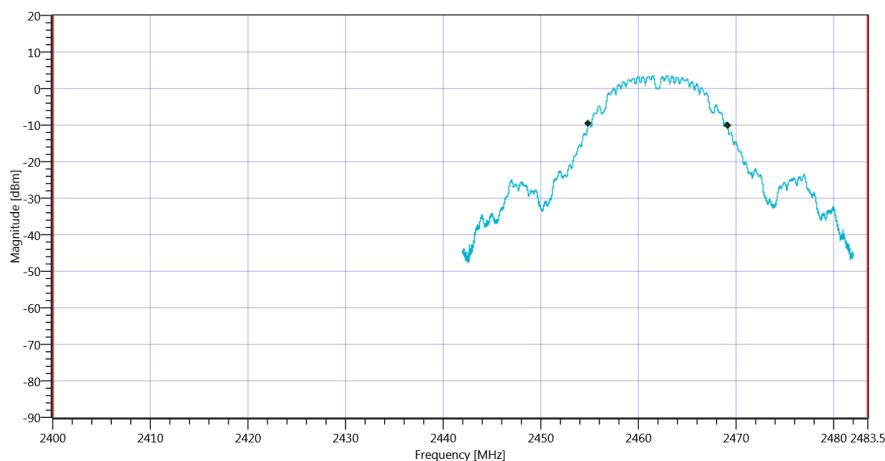
|                        |          |
|------------------------|----------|
| Ref. Level [dBm]       | 11.82    |
| Ref. Lev. offs [dB]    | 9.94     |
| Input Attenuation [dB] | 20       |
| Freq. Start [MHz]      | 2442.000 |
| Freq. Stop [MHz]       | 2482.000 |
| Resolution BW. [MHz]   | 0.500000 |
| Video BW. [MHz]        | 1.000000 |
| Detector               | POS      |
| Sweep Time [ms]        | 50       |
| Sweep Points/Section   | 10001    |
| Sweep Count            | 200      |
| Sweep Mode             | MAXH     |
| Used Sweep Type        | SWE      |

RESULT: TC\_VM\_FCC15247\_Bandwidth\_99PCT\_20dB\_DTS\_FHSS\_V01

| Test Description | Lower Limit | Upper Limit | Measured  | Unit | Verdict     |
|------------------|-------------|-------------|-----------|------|-------------|
| Bandwidth 99%    | --          | --          | 14215     | kHz  | Information |
| T1 99%           | 2400.000000 | --          | 2454.9207 | MHz  | PASS        |
| T2 99%           | --          | 2483.500000 | 2469.1353 | MHz  | PASS        |



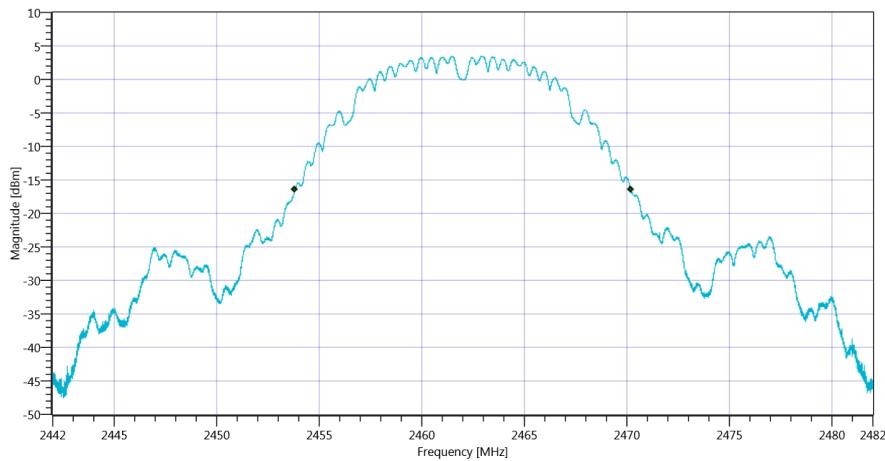
Plot\_FCC Part 15.247 Bandwidth 99PCT-20dB ~ WLAN2G4 b-mode 99PCT\_04072019\_113751.png



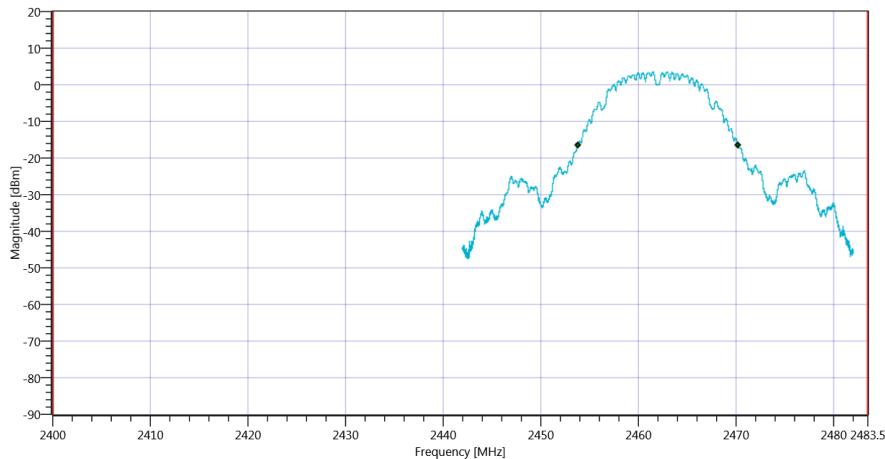
Plot\_FCC Part 15.247 Bandwidth 99PCT-20dB ~ WLAN2G4 b-mode\_04072019\_113754.png

**RESULT: TC\_VM\_FCC15247\_Bandwidth\_99PCT\_20dB\_DTS\_FHSS\_V01**

| Test Description | Lower Limit | Upper Limit | Measured  | Unit | Verdict     |
|------------------|-------------|-------------|-----------|------|-------------|
| Bandwidth 20dB   | --          | --          | 16380     | kHz  | Information |
| T1 20dB          | 2400.000000 | --          | 2453.8120 | MHz  | PASS        |
| T2 20dB          | --          | 2483.500000 | 2470.1920 | MHz  | PASS        |



Plot\_FCC Part 15.247 Bandwidth 99PCT-20dB ~ WLAN2G4 b-mode 20dB\_04072019\_113759.png



Plot\_FCC Part 15.247 Bandwidth 99PCT-20dB ~ WLAN2G4 b-mode\_04072019\_113802.png

**TEST FINISHED**

General Verdict

04.07.2019 11:38:02 / RT: 34 s

PASS

## 15. FCC Part 15.247 TX Spurious Conducted ~ WLAN2G4 b-mode

| Test References            |  |
|----------------------------|--|
| TC Start                   | 04.07.2019 11:38:06  |
| System Version             | 1.0.0.16   |
| 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. |
| Class / TC Version / TC ID | TC_VM_FCC15247_TX_Emissions_Conducted_V01 Version: 0.0.1   TCID_FCC15247_8                                     |
| My Description             | FCC 15.247 TX Emissions Conducted DTS - WLAN 2G4 b-mode  |
| Add. Information           |  |
| Test Parameter             |  |
| Technology to test         | WLAN2G4 b-mode   |
| Antenna Port used          | 1  |
| Temperature                | mid  |
| Voltage                    | mid  |
| Frequency low to test      | False   Freq [MHz] 2412  |
| Frequency mid to test      | False   Freq [MHz] 2437  |
| Frequency high to test     | True   Freq [MHz] 2462   |
| Pattern                    | PRBS9  |
| Switched Path              | IUT - SignalingUnit - SpectrumAnalyzer   |
| Devices in use             | SigBT: Rohde&Schwarz,CBT-1153.9000.35,100185,CBT 6X02,P02   SA: Rohde&Schwarz,FSV-30,1321.3008K30/103170,3.40  |

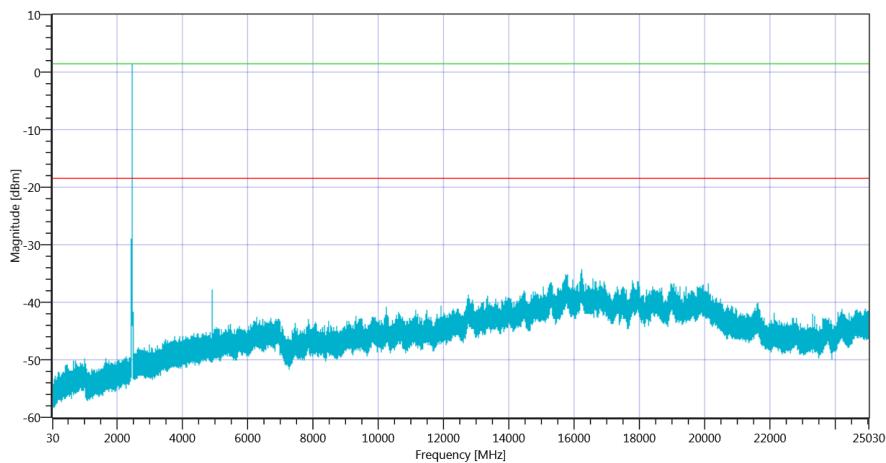
## Test at TX 2462 MHz

### READ SA SETTINGS:

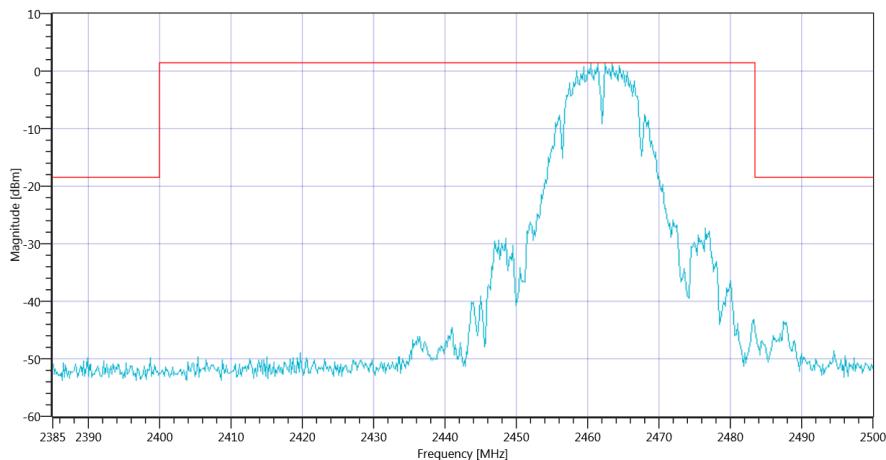
|                      |          |
|----------------------|----------|
| Ref. Level [dBm]     | 11.92    |
| Resolution BW. [MHz] | 0.100000 |
| Video BW. [MHz]      | 0.300000 |
| Detector             | POS      |
| Sweep Time [ms]      | 500      |
| Sweep Points/Section | 3001     |
| Sweep Count          | 8        |
| Sweep Mode           | MAXH     |
| Used Sweep Type      | SWE      |

RESULT: TC\_VM\_FCC15247\_TX\_Emissions\_Conducted\_V01

| Test Description        | Lower Limit | Upper Limit | Measured | Unit | Verdict     |
|-------------------------|-------------|-------------|----------|------|-------------|
| Reference @ 2461.50 MHz | --          | --          | 1.46     | dBm  | Information |
| No peaks detected       | --          | --          |          |      | PASS        |



Plot\_FCC Part 15.247 TX Spurious Conducted ~ WLAN2G4 b-mode 2462\_04072019\_114250.png



Plot\_FCC Part 15.247 TX Spurious Conducted ~ WLAN2G4 b-mode 2462\_04072019\_114253.png

### TEST FINISHED

General Verdict

04.07.2019 11:42:54 / RT: 288 s

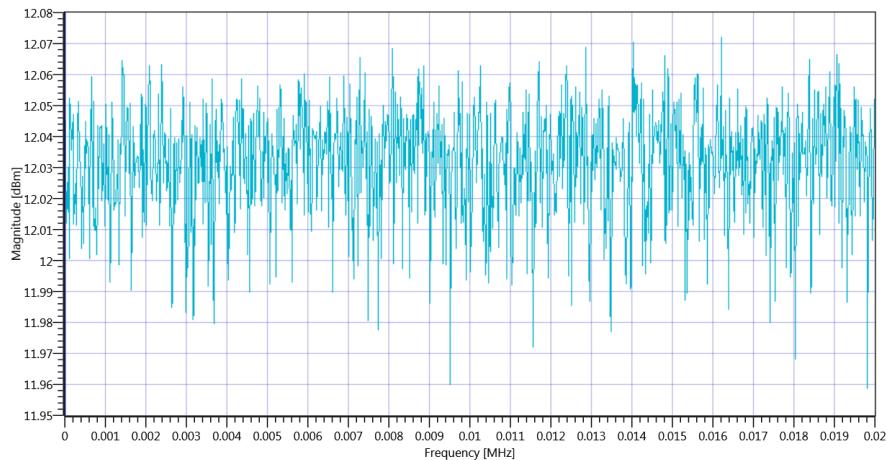
PASS

## 16. FCC Part 15.247 Restricted Band Edge Conducted Avg DC corrected DTS ~ WLAN2G4 b-mode

| Test References            |   |
|----------------------------|---|
| TC Start                   | 04.07.2019 11:42:58   |
| System Version             | 1.0.0.16  |
| Test Specification         | FCC Part 15.247   |
| Test Method                | DTS: KDB 558074 D01 V05 - 8.7.3 Integration Method; ANSI C63.10-2013 11.13.3.4<br>Trace averaging across on- and off-times of the EUT transmissions followed by duty cycle correction |
| Class / TC Version / TC ID | TC_VM_FCC15247_Restricted_Band_Edge_Conducted_Avg_DC_corrected_V01 Version:<br>0.0.1   TCID_FCC15247_7  |
| My Description             | FCC 15.247 Restricted Band Edge Cond. Avg DC corrected DTS - WLAN 2G4 b-mode  |
| Add. Information           |   |
| Test Parameter             |   |
| Technology to test         | WLAN2G4 b-mode  |
| Antenna Port used          | 1   |
| Temperature                | mid   |
| Voltage                    | mid   |
| Frequency low to test      | False   Freq [MHz] 2412   |
| Frequency mid to test      | False   Freq [MHz] 2437   |
| Frequency high to test     | True   Freq [MHz] 2462  |
| Pattern                    | PRBS9   |
| Switched Path              | IUT - SignalingUnit - SpectrumAnalyzer  |
| Devices in use             | SigBT: Rohde&Schwarz,CBT-1153.9000.35,100185,CBT 6X02,P02   SA:<br>Rohde&Schwarz,FSV-30,1321.3008K30/103170,3.40  |

## Test at TX 2462 MHz

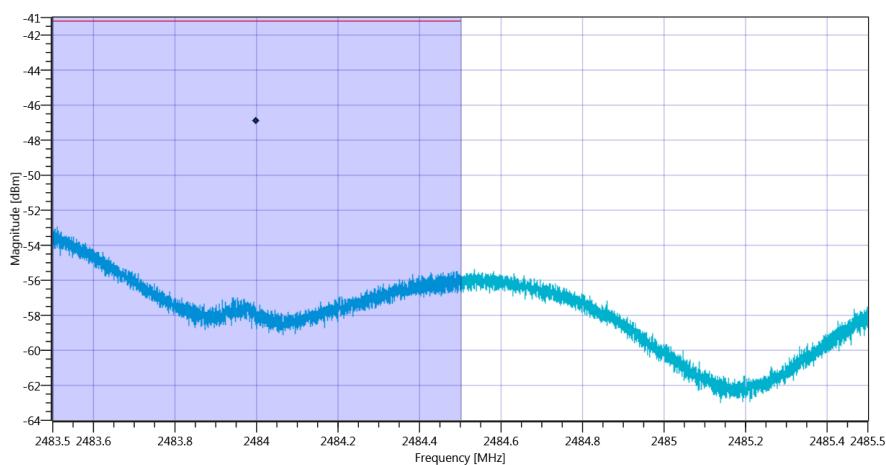
| RESULT: Duty Cycle evaluation                              |             |             |          |      |             |
|--|-------------|-------------|----------|------|-------------|
| Test Description   | Lower Limit | Upper Limit | Measured | Unit | Verdict     |
| No enough Bursts detected, Duty Cycle Burst Ratio set to 1 |             |             |          |      |             |
| Duty Cycle (Burst Ratio) max                               | --          | --          | 1        | --   | Information |
| Duty Cycle max   | --          | --          | 0        | dB   | Information |
| Duty Cycle (Burst Ratio) min                               | --          | --          | 1        | --   | Information |
| Duty Cycle min   | --          | --          | 0        | dB   | Information |



Plot\_FCC Part 15.247 Restricted Band Edge Conducted Avg DC corrected DTS ~ WLAN2G4 b-mode 2462 MHz - Duty Cycle\_04072019\_114310.png

| READ SA SETTINGS:      |            |
|------------------------|------------|
| Ref. Level [dBm]       | 16.80      |
| Ref. Lev. offs [dB]    | 9.94       |
| Input Attenuation [dB] | 25         |
| Freq. Start [MHz]      | 2483.500   |
| Freq. Stop [MHz]       | 2485.500   |
| Resolution BW. [MHz]   | 0.100000   |
| Video BW. [MHz]        | 0.500000   |
| Detector               | RMS        |
| Sweep Time [ms]        | 32         |
| Sweep Points/Section   | 32000      |
| Sweep Count            | 300        |
| Sweep Mode             | AVER       |
| Used Sweep Type        | SWE        |
| Marker Method          | Band Power |

| RESULT: TC_VM_FCC15247_Restricted_Band_Edge_Conducted_Avg_DC_corrected_V01 |             |             |          |      |             |
|--|-------------|-------------|----------|------|-------------|
| Test Description   | Lower Limit | Upper Limit | Measured | Unit | Verdict     |
| Duty Cylce worst case  | --          | --          | 0        | dB   | Information |
| Band Power without Antenna Gain Avg  | --          | --          | -46.91   | dBm  | Information |
| Band Power without Antenna Gain Avg DC corrected                           | --          | --          | -46.91   | dBm  | Information |
| Band Power incl. Antenna Gain Avg DC corrected                             | --          | -41.23      | -46.91   | dBm  | PASS        |



Plot\_FCC Part 15.247 Restricted Band Edge Conducted Avg DC corrected DTS ~ WLAN2G4 b-mode\_04072019\_114332.png

TEST FINISHED

General Verdict

04.07.2019 11:43:32 / RT: 34 s

PASS

## 17. FCC Part 15.247 Maximum Peak Conducted Output Power Powermeter DTS ~ WLAN2G4 b-mode

| Test References            |   |
|----------------------------|---|
| TC Start                   | 04.07.2019 11:43:36   |
| System Version             | 1.0.0.16  |
| Test Specification         | FCC Part 15.247   |
| Test Method                | DTS: KDB 558074 D01 V05 - Chapter 8.3.1.3 PKPM1 Peak-reading Power Meter Method                           |
| Class / TC Version / TC ID | TC_VM_FCC15247_Maximum_Peak_Conducted_Output_Power_Powermeter_DTS_V01<br>Version: 0.0.1   TCID_FCC15247_3 |
| My Description             | FCC 15.247 Maximum Peak Output Power Powermeter Conducted DTS - WLAN 2G4 b-mode                           |
| Add. Information           |   |
| Test Parameter             |   |
| Technology to test         | WLAN2G4 b-mode  |
| Antenna Port used          | 1   |
| Temperature                | mid   |
| Voltage                    | mid   |
| Frequency low to test      | False   Freq [MHz] 2412   |
| Frequency mid to test      | False   Freq [MHz] 2437   |
| Frequency high to test     | True   Freq [MHz] 2462  |
| Pattern                    | PRBS9   |
| Switched Path              | IUT - SignalingUnit - PowerMeter  |
| Devices in use             | SigBT: Rohde&Schwarz,CBT-1153.9000.35,100185,CBT 6X02.P02   NRP-Z81,102585                                |

## Test at TX 2462 MHz

| RESULT: TC_VM_FCC15247_Maximum_Peak_Conducted_Output_Power_Powermeter_DTS_V01 |             |             |          |      |         |
|---|-------------|-------------|----------|------|---------|
| Test Description  | Lower Limit | Upper Limit | Measured | Unit | Verdict |
| Found Peak cond.  | --          | --          | 15.12    | dBm  | PASS    |

| TEST FINISHED   |                               |      |
|-----------------|-------------------------------|------|
| General Verdict | 04.07.2019 11:43:40 / RT: 4 s | PASS |

## 18. FCC Part 15.247 Bandwidth 6dB DTS ~ WLAN2G4 g-mode

| Test References            |  |
|----------------------------|--|
| TC Start                   | 04.07.2019 11:48:29  |
| System Version             | 1.0.0.16   |
| Test Specification         | FCC Part 15.247  |
| Test Method                | 99   |
| Class / TC Version / TC ID | TC_VM_FCC15247_Bandwidth_6dB_DTS_V01 Version: 0.0.1   TCID_FCC15247_1  |
| My Description             | FCC 15.247 Bandwidth 6dB DTS - WLAN 2G4 g-mode   |
| Add. Information           |  |
| Test Parameter             |  |
| Technology to test         | WLAN2G4 g-mode   |
| Antenna Port used          | 1  |
| Temperature                | mid  |
| Voltage                    | mid  |
| Frequency low to test      | True   Freq [MHz] 2412   |
| Frequency mid to test      | False   Freq [MHz] 2437  |
| Frequency high to test     | False   Freq [MHz] 2462  |
| Pattern                    | PRBS9  |
| Switched Path              | IUT - SignalingUnit - SpectrumAnalyzer   |
| Devices in use             | SigBT: Rohde&Schwarz,CBT-1153.9000.35,100185,CBT 6X02.P02   SA:<br>Rohde&Schwarz,FSV-30,1321.3008K30/103170,3.40 |

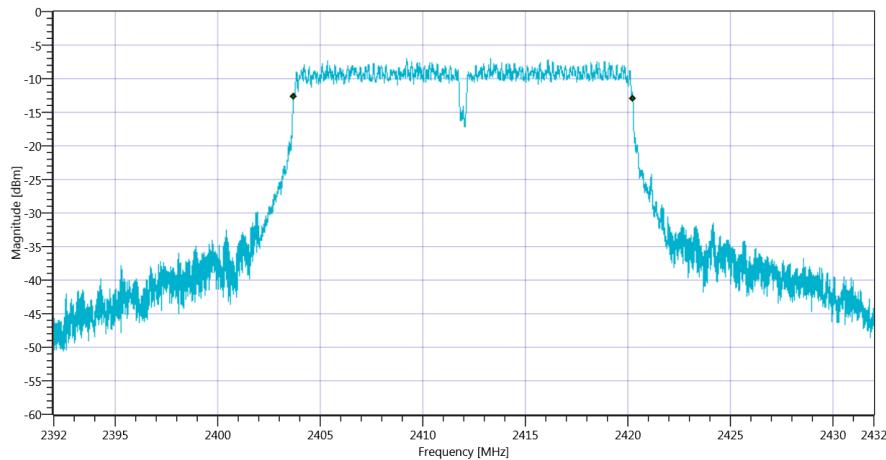
## Test at TX 2412 MHz

### READ SA SETTINGS:

|                        |          |
|------------------------|----------|
| Ref. Level [dBm]       | 8.47     |
| Ref. Lev. offs [dB]    | 9.83     |
| Input Attenuation [dB] | 15       |
| Freq. Start [MHz]      | 2392.000 |
| Freq. Stop [MHz]       | 2432.000 |
| Resolution BW. [MHz]   | 0.100000 |
| Video BW. [MHz]        | 0.300000 |
| Detector               | POS      |
| Sweep Time [ms]        | 50       |
| Sweep Points/Section   | 10001    |
| Sweep Count            | 200      |
| Sweep Mode             | MAXH     |
| Used Sweep Type        | SWE      |

RESULT: TC\_VM\_FCC15247\_Bandwidth\_6dB\_DTS\_V01

| Test Description    | Lower Limit | Upper Limit | Measured | Unit | Verdict |
|---------------------|-------------|-------------|----------|------|---------|
| DTS Bandwidth (6dB) | 500         | --          | 16544    | kHz  | PASS    |



Plot\_FCC Part 15.247 Bandwidth 6dB DTS ~ WLAN2G4 g-mode\_04072019\_114856.png

### TEST FINISHED

General Verdict

04.07.2019 11:48:57 / RT: 27 s

PASS

## 19. FCC Part 15.247 Peak Power Spectral Density DTS ~ WLAN2G4 g-mode

| Test References            |   |
|----------------------------|---|
| TC Start                   | 04.07.2019 11:49:00   |
| System Version             | 1.0.0.16  |
| 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    |
| Class / TC Version / TC ID | TC_VM_FCC15247_Peak_Power_Spectral_Density_DTS_V01 Version: 0.0.1   TCID_FCC15247_6                           |
| My Description             | FCC 15.247 Peak Power Spectral Density DTS - WLAN 2G4 g-mode  |
| Add. Information           |   |
| Test Parameter             |   |
| Technology to test         | WLAN2G4 g-mode  |
| Antenna Port used          | 1   |
| Temperature                | mid   |
| Voltage                    | mid   |
| Frequency low to test      | True   Freq [MHz] 2412  |
| Frequency mid to test      | False   Freq [MHz] 2437   |
| Frequency high to test     | False   Freq [MHz] 2462   |
| Pattern                    | PRBS9   |
| Switched Path              | IUT - SignalingUnit - SpectrumAnalyzer  |
| Devices in use             | SigBT: Rohde&Schwarz,CBT-1153.9000.35,100185,CBT 6X02.P02   SA: Rohde&Schwarz,FSV-30,1321.3008K30/103170,3.40 |

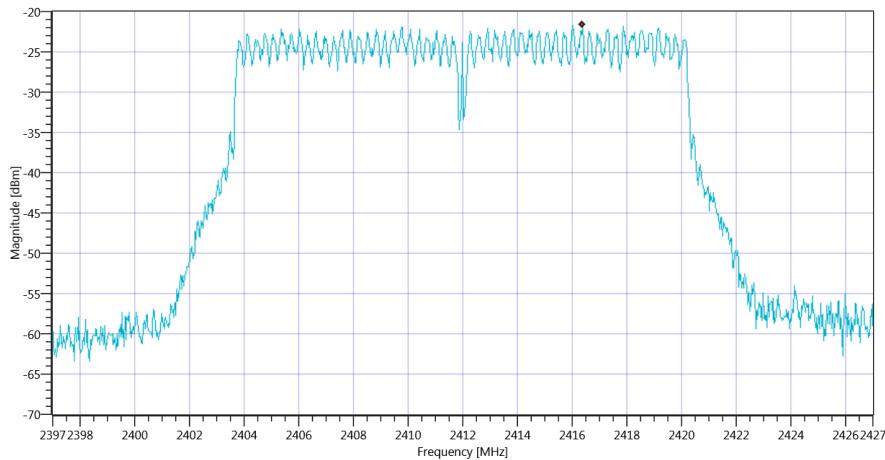
## Test at TX 2412 MHz

### READ SA SETTINGS:

|                        |          |
|------------------------|----------|
| Ref. Level [dBm]       | 8.39     |
| Ref. Lev. offs [dB]    | 9.83     |
| Input Attenuation [dB] | 15       |
| Freq. Start [MHz]      | 2397.000 |
| Freq. Stop [MHz]       | 2427.000 |
| Resolution BW. [MHz]   | 0.003000 |
| Video BW. [MHz]        | 0.010000 |
| Detector               | POS      |
| Sweep Time [ms]        | 1000     |
| Sweep Points/Section   | 1001     |
| Sweep Count            | 20       |
| Sweep Mode             | MAXH     |
| Used Sweep Type        | SWE      |

RESULT: TC\_VM\_FCC15247\_Peak\_Power\_Spectral\_Density\_DTS\_V01

| Test Description       | Lower Limit | Upper Limit | Measured | Unit     | Verdict |
|------------------------|-------------|-------------|----------|----------|---------|
| Max Peak power Density | --          | 8           | -21.7    | dBm/3KHz | PASS    |



Plot\_FCC Part 15.247 Peak Power Spectral Density DTS ~ WLAN2G4 g-mode\_04072019\_114934.png

### TEST FINISHED

General Verdict

04.07.2019 11:49:34 / RT: 34 s

PASS

## 20. FCC Part 15.247 Bandwidth 99PCT-20dB ~ WLAN2G4 g-mode

| Test References            |   |
|----------------------------|---|
| TC Start                   | 04.07.2019 11:49:38   |
| System Version             | 1.0.0.16  |
| Test Specification         | FCC Part 15.247   |
| Test Method                |   |
| Class / TC Version / TC ID | TC_VM_FCC15247_Bandwidth_99PCT_20dB_DTS_FHSS_V01 Version: 0.0.2   TCID_FCC15247_2                             |
| My Description             | FCC 15.247 Bandwidth 99PCT-20dB DTS - WLAN 2G4 g-mode   |
| Add. Information           |   |
| Test Parameter             |   |
| Technology to test         | WLAN2G4 g-mode  |
| Antenna Port used          | 1   |
| Temperature                | mid   |
| Voltage                    | mid   |
| Frequency low to test      | True   Freq [MHz] 2412  |
| Frequency mid to test      | False   Freq [MHz] 2437   |
| Frequency high to test     | False   Freq [MHz] 2462   |
| Pattern                    | PRBS9   |
| Switched Path              | IUT - SignalingUnit - SpectrumAnalyzer  |
| Devices in use             | SigBT: Rohde&Schwarz,CBT-1153.9000.35,100185,CBT 6X02,P02   SA: Rohde&Schwarz,FSV-30,1321.3008K30/103170,3.40 |

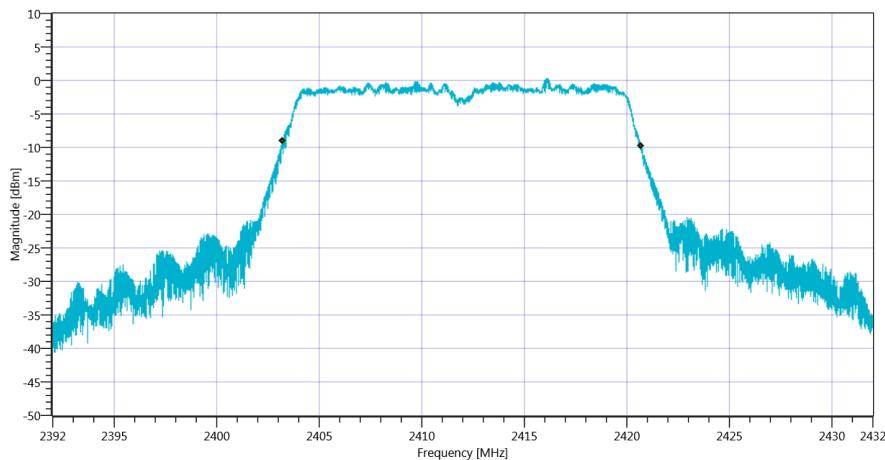
## Test at TX 2412 MHz

### READ SA SETTINGS:

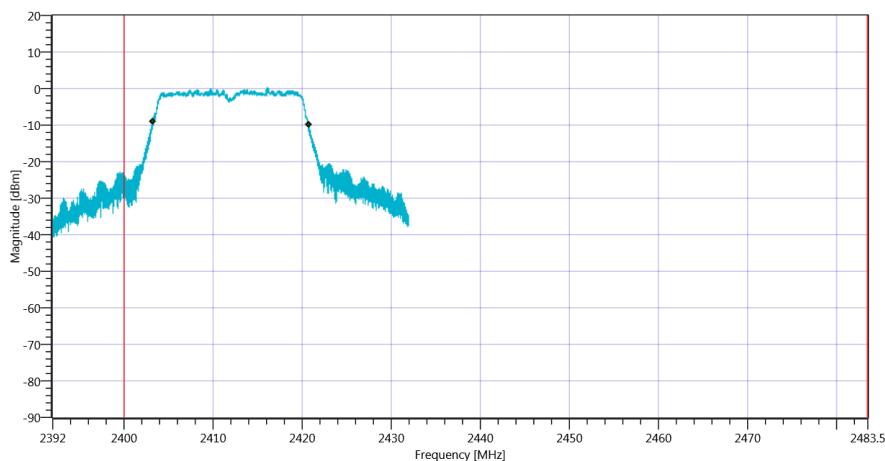
|                        |          |
|------------------------|----------|
| Ref. Level [dBm]       | 8.32     |
| Ref. Lev. offs [dB]    | 9.83     |
| Input Attenuation [dB] | 15       |
| Freq. Start [MHz]      | 2392.000 |
| Freq. Stop [MHz]       | 2432.000 |
| Resolution BW. [MHz]   | 0.500000 |
| Video BW. [MHz]        | 1.000000 |
| Detector               | POS      |
| Sweep Time [ms]        | 50       |
| Sweep Points/Section   | 10001    |
| Sweep Count            | 200      |
| Sweep Mode             | MAXH     |
| Used Sweep Type        | SWE      |

RESULT: TC\_VM\_FCC15247\_Bandwidth\_99PCT\_20dB\_DTS\_FHSS\_V01

| Test Description | Lower Limit | Upper Limit | Measured  | Unit | Verdict     |
|------------------|-------------|-------------|-----------|------|-------------|
| Bandwidth 99%    | --          | --          | 17474     | kHz  | Information |
| T1 99%           | 2400.000000 | --          | 2403.2289 | MHz  | PASS        |
| T2 99%           | --          | 2483.500000 | 2420.7031 | MHz  | PASS        |



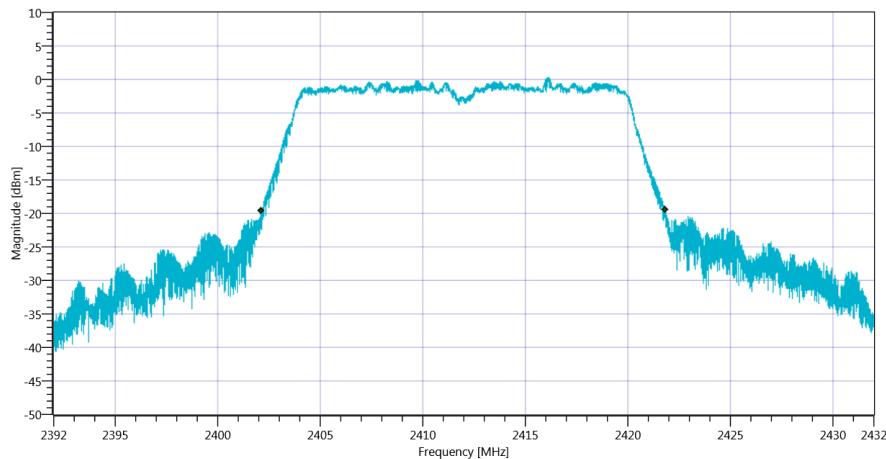
Plot\_FCC Part 15.247 Bandwidth 99PCT-20dB ~ WLAN2G4 g-mode 99PCT\_04072019\_115002.png



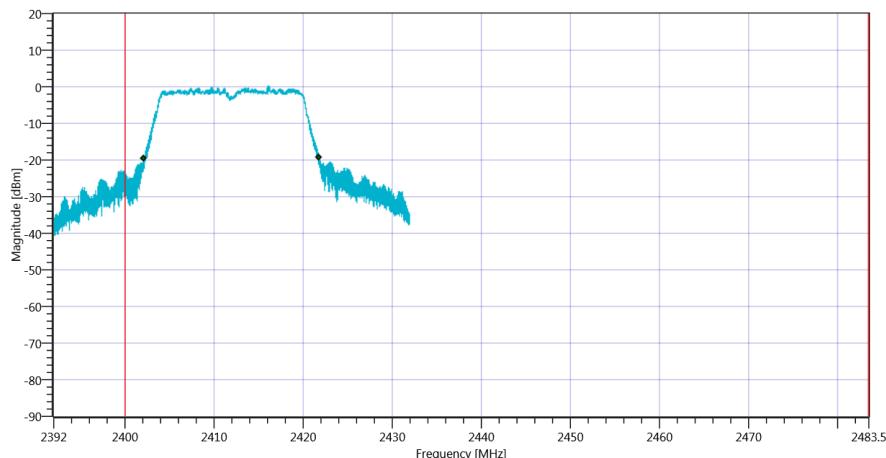
Plot\_FCC Part 15.247 Bandwidth 99PCT-20dB ~ WLAN2G4 g-mode\_04072019\_115005.png

**RESULT: TC\_VM\_FCC15247\_Bandwidth\_99PCT\_20dB\_DTS\_FHSS\_V01**

| Test Description | Lower Limit | Upper Limit | Measured  | Unit | Verdict     |
|------------------|-------------|-------------|-----------|------|-------------|
| Bandwidth 20dB   | --          | --          | 19704     | kHz  | Information |
| T1 20dB          | 2400.000000 | --          | 2402.1240 | MHz  | PASS        |
| T2 20dB          | --          | 2483.500000 | 2421.8280 | MHz  | PASS        |



Plot\_FCC Part 15.247 Bandwidth 99PCT-20dB ~ WLAN2G4 g-mode 20dB\_04072019\_115009.png



Plot\_FCC Part 15.247 Bandwidth 99PCT-20dB ~ WLAN2G4 g-mode\_04072019\_115012.png

**TEST FINISHED**

General Verdict

04.07.2019 11:50:13 / RT: 34 s

PASS

## 21. FCC Part 15.247 TX Spurious Conducted ~ WLAN2G4 g-mode

| Test References            |  |
|----------------------------|--|
| TC Start                   | 04.07.2019 11:50:16  |
| System Version             | 1.0.0.16   |
| 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. |
| Class / TC Version / TC ID | TC_VM_FCC15247_TX_Emissions_Conducted_V01 Version: 0.0.1   TCID_FCC15247_8                                     |
| My Description             | FCC 15.247 TX Emissions Conducted DTS - WLAN 2G4 g-mode  |
| Add. Information           |  |
| Test Parameter             |  |
| Technology to test         | WLAN2G4 g-mode   |
| Antenna Port used          | 1  |
| Temperature                | mid  |
| Voltage                    | mid  |
| Frequency low to test      | True   Freq [MHz] 2412   |
| Frequency mid to test      | False   Freq [MHz] 2437  |
| Frequency high to test     | False   Freq [MHz] 2462  |
| Pattern                    | PRBS9  |
| Switched Path              | IUT - SignalingUnit - SpectrumAnalyzer   |
| Devices in use             | SigBT: Rohde&Schwarz,CBT-1153.9000.35,100185,CBT 6X02,P02   SA: Rohde&Schwarz,FSV-30,1321.3008K30/103170,3.40  |

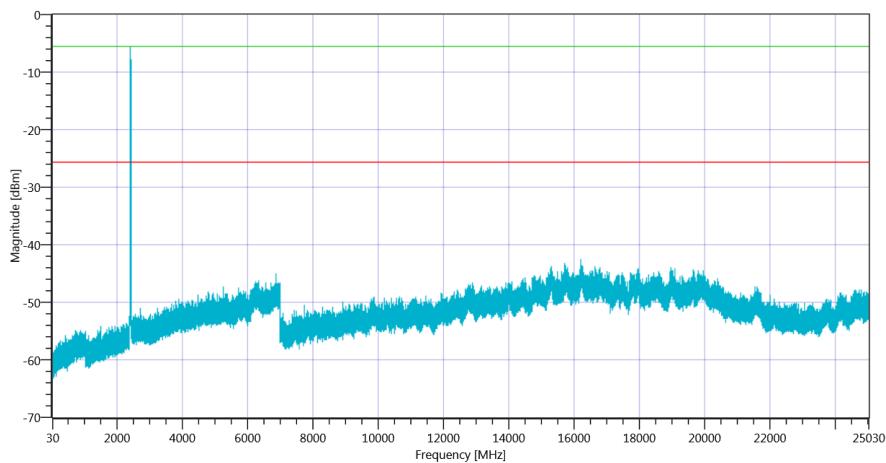
## Test at TX 2412 MHz

### READ SA SETTINGS:

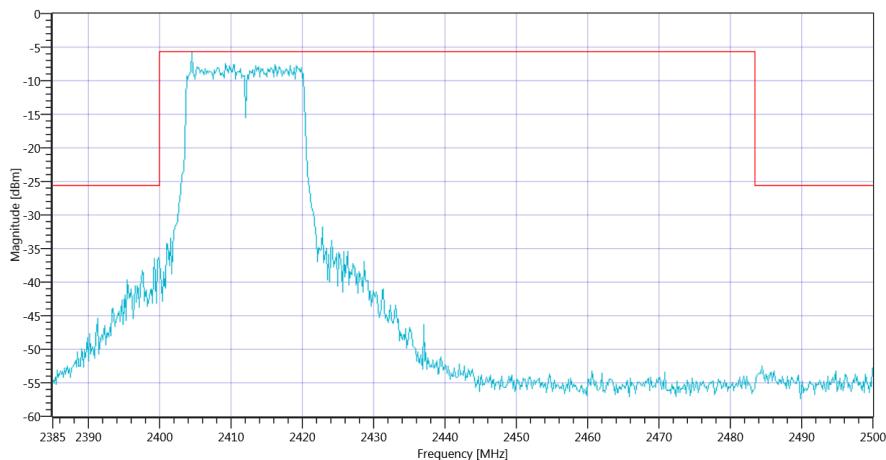
|                      |          |
|----------------------|----------|
| Ref. Level [dBm]     | 8.75     |
| Resolution BW. [MHz] | 0.100000 |
| Video BW. [MHz]      | 0.300000 |
| Detector             | POS      |
| Sweep Time [ms]      | 500      |
| Sweep Points/Section | 3001     |
| Sweep Count          | 8        |
| Sweep Mode           | MAXH     |
| Used Sweep Type      | SWE      |

### RESULT: TC\_VM\_FCC15247\_TX\_Emissions\_Conducted\_V01

| Test Description        | Lower Limit | Upper Limit | Measured | Unit | Verdict     |
|-------------------------|-------------|-------------|----------|------|-------------|
| Reference @ 2404.50 MHz | --          | --          | -5.62    | dBm  | Information |
| No peaks detected       | --          | --          |          |      | PASS        |



Plot\_FCC Part 15.247 TX Spurious Conducted ~ WLAN2G4 g-mode 2412\_04072019\_115501.png



Plot\_FCC Part 15.247 TX Spurious Conducted ~ WLAN2G4 g-mode 2412\_04072019\_115503.png

### TEST FINISHED

General Verdict

04.07.2019 11:55:05 / RT: 288 s

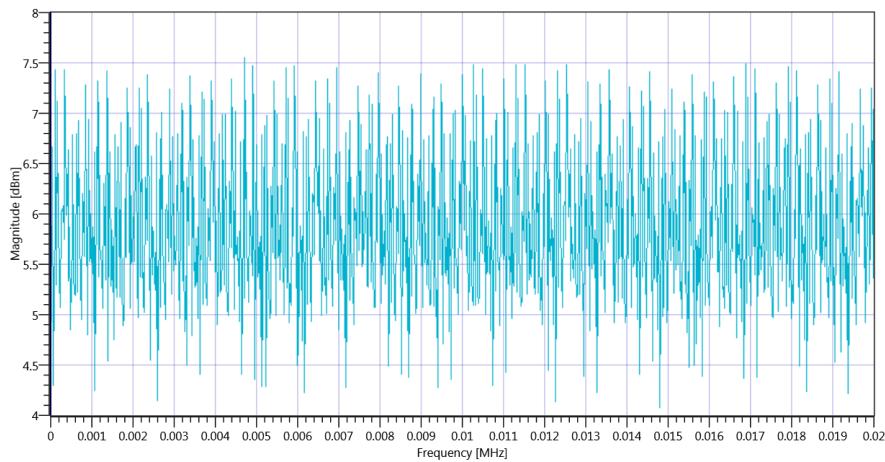
PASS

## 22. FCC Part 15.247 Restricted Band Edge Conducted Avg DC corrected DTS ~ WLAN2G4 g-mode

| Test References            |   |
|----------------------------|---|
| TC Start                   | 04.07.2019 11:55:08   |
| System Version             | 1.0.0.16  |
| Test Specification         | FCC Part 15.247   |
| Test Method                | DTS: KDB 558074 D01 V05 - 8.7.3 Integration Method; ANSI C63.10-2013 11.13.3.4<br>Trace averaging across on- and off-times of the EUT transmissions followed by duty cycle correction |
| Class / TC Version / TC ID | TC_VM_FCC15247_Restricted_Band_Edge_Conducted_Avg_DC_corrected_V01 Version:<br>0.0.1   TCID_FCC15247_7  |
| My Description             | FCC 15.247 Restricted Band Edge Cond. Avg DC corrected DTS - WLAN 2G4 g-mode  |
| Add. Information           |   |
| Test Parameter             |   |
| Technology to test         | WLAN2G4 g-mode  |
| Antenna Port used          | 1   |
| Temperature                | mid   |
| Voltage                    | mid   |
| Frequency low to test      | True   Freq [MHz] 2412  |
| Frequency mid to test      | False   Freq [MHz] 2437   |
| Frequency high to test     | False   Freq [MHz] 2462   |
| Pattern                    | PRBS9   |
| Switched Path              | IUT - SignalingUnit - SpectrumAnalyzer  |
| Devices in use             | SigBT: Rohde&Schwarz,CBT-1153.9000.35,100185,CBT 6X02,P02   SA:<br>Rohde&Schwarz,FSV-30,1321.3008K30/103170,3.40  |

## Test at TX 2412 MHz

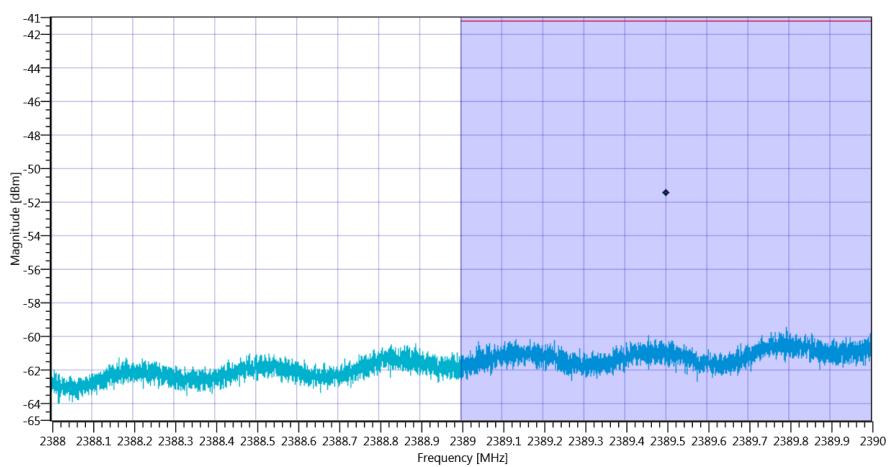
| RESULT: Duty Cycle evaluation                              |             |             |          |      |             |
|--|-------------|-------------|----------|------|-------------|
| Test Description   | Lower Limit | Upper Limit | Measured | Unit | Verdict     |
| No enough Bursts detected, Duty Cycle Burst Ratio set to 1 |             |             |          |      |             |
| Duty Cycle (Burst Ratio) max                               | --          | --          | 1        | --   | Information |
| Duty Cycle max   | --          | --          | 0        | dB   | Information |
| Duty Cycle (Burst Ratio) min                               | --          | --          | 1        | --   | Information |
| Duty Cycle min   | --          | --          | 0        | dB   | Information |



Plot\_FCC Part 15.247 Restricted Band Edge Conducted Avg DC corrected DTS ~ WLAN2G4 g-mode 2412 MHz - Duty Cycle\_04072019\_115521.png

| READ SA SETTINGS:      |            |
|------------------------|------------|
| Ref. Level [dBm]       | 13.63      |
| Ref. Lev. offs [dB]    | 9.83       |
| Input Attenuation [dB] | 20         |
| Freq. Start [MHz]      | 2388.000   |
| Freq. Stop [MHz]       | 2390.000   |
| Resolution BW. [MHz]   | 0.100000   |
| Video BW. [MHz]        | 0.500000   |
| Detector               | RMS        |
| Sweep Time [ms]        | 32         |
| Sweep Points/Section   | 32000      |
| Sweep Count            | 300        |
| Sweep Mode             | AVER       |
| Used Sweep Type        | SWE        |
| Marker Method          | Band Power |

| RESULT: TC_VM_FCC15247_Restricted_Band_Edge_Conducted_Avg_DC_corrected_V01 |             |             |          |      |             |
|--|-------------|-------------|----------|------|-------------|
| Test Description   | Lower Limit | Upper Limit | Measured | Unit | Verdict     |
| Duty Cylce worst case  | --          | --          | 0        | dB   | Information |
| Band Power without Antenna Gain Avg  | --          | --          | -51.43   | dBm  | Information |
| Band Power without Antenna Gain Avg DC corrected                           | --          | --          | -51.43   | dBm  | Information |
| Band Power incl. Antenna Gain Avg DC corrected                             | --          | -41.23      | -51.43   | dBm  | PASS        |



Plot\_FCC Part 15.247 Restricted Band Edge Conducted Avg DC corrected DTS ~ WLAN2G4 g-mode\_04072019\_115542.png

TEST FINISHED

General Verdict

04.07.2019 11:55:42 / RT: 34 s

PASS

## 23. FCC Part 15.247 Maximum Peak Conducted Output Power Powermeter DTS ~ WLAN2G4 g-mode

| Test References            |   |
|----------------------------|---|
| TC Start                   | 04.07.2019 11:55:46   |
| System Version             | 1.0.0.16  |
| Test Specification         | FCC Part 15.247   |
| Test Method                | DTS: KDB 558074 D01 V05 - Chapter 8.3.1.3 PKPM1 Peak-reading Power Meter Method                           |
| Class / TC Version / TC ID | TC_VM_FCC15247_Maximum_Peak_Conducted_Output_Power_Powermeter_DTS_V01<br>Version: 0.0.1   TCID_FCC15247_3 |
| My Description             | FCC 15.247 Maximum Peak Output Power Powermeter Conducted DTS - WLAN 2G4 g-mode                           |
| Add. Information           |   |
| Test Parameter             |   |
| Technology to test         | WLAN2G4 g-mode  |
| Antenna Port used          | 1   |
| Temperature                | mid   |
| Voltage                    | mid   |
| Frequency low to test      | True   Freq [MHz] 2412  |
| Frequency mid to test      | False   Freq [MHz] 2437   |
| Frequency high to test     | False   Freq [MHz] 2462   |
| Pattern                    | PRBS9   |
| Switched Path              | IUT - SignalingUnit - PowerMeter  |
| Devices in use             | SigBT: Rohde&Schwarz,CBT-1153.9000.35,100185,CBT 6X02.P02   NRP-Z81,102585                                |

## Test at TX 2412 MHz

| RESULT: TC_VM_FCC15247_Maximum_Peak_Conducted_Output_Power_Powermeter_DTS_V01 |             |             |          |      |         |
|---|-------------|-------------|----------|------|---------|
| Test Description  | Lower Limit | Upper Limit | Measured | Unit | Verdict |
| Found Peak cond.  | --          | --          | 18.2     | dBm  | PASS    |

| TEST FINISHED   |                               |      |
|-----------------|-------------------------------|------|
| General Verdict | 04.07.2019 11:55:50 / RT: 3 s | PASS |

## 24. FCC Part 15.247 Bandwidth 6dB DTS ~ WLAN2G4 g-mode

| Test References            |  |
|----------------------------|--|
| TC Start                   | 04.07.2019 11:56:46  |
| System Version             | 1.0.0.16   |
| Test Specification         | FCC Part 15.247  |
| Test Method                | 99   |
| Class / TC Version / TC ID | TC_VM_FCC15247_Bandwidth_6dB_DTS_V01 Version: 0.0.1   TCID_FCC15247_1  |
| My Description             | FCC 15.247 Bandwidth 6dB DTS - WLAN 2G4 g-mode   |
| Add. Information           |  |
| Test Parameter             |  |
| Technology to test         | WLAN2G4 g-mode   |
| Antenna Port used          | 1  |
| Temperature                | mid  |
| Voltage                    | mid  |
| Frequency low to test      | False   Freq [MHz] 2412  |
| Frequency mid to test      | True   Freq [MHz] 2437   |
| Frequency high to test     | False   Freq [MHz] 2462  |
| Pattern                    | PRBS9  |
| Switched Path              | IUT - SignalingUnit - SpectrumAnalyzer   |
| Devices in use             | SigBT: Rohde&Schwarz,CBT-1153.9000.35,100185,CBT 6X02.P02   SA:<br>Rohde&Schwarz,FSV-30,1321.3008K30/103170,3.40 |

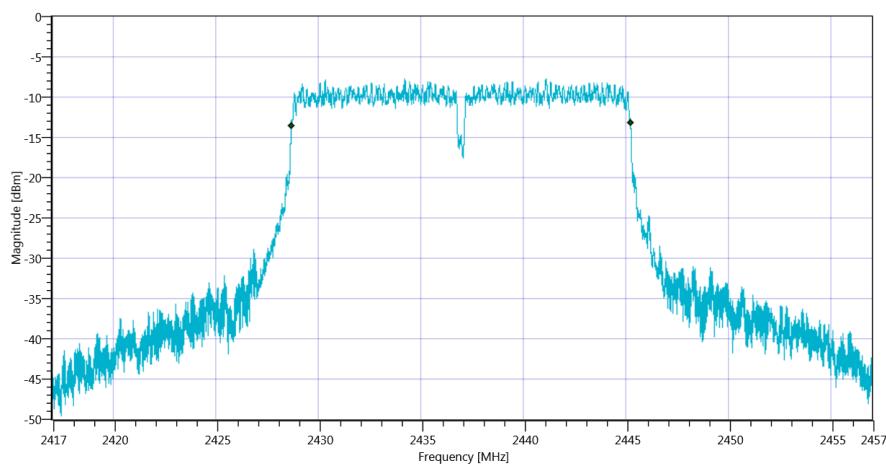
## Test at TX 2437 MHz

### READ SA SETTINGS:

|                        |          |
|------------------------|----------|
| Ref. Level [dBm]       | 8.08     |
| Ref. Lev. offs [dB]    | 9.89     |
| Input Attenuation [dB] | 15       |
| Freq. Start [MHz]      | 2417.000 |
| Freq. Stop [MHz]       | 2457.000 |
| Resolution BW. [MHz]   | 0.100000 |
| Video BW. [MHz]        | 0.300000 |
| Detector               | POS      |
| Sweep Time [ms]        | 50       |
| Sweep Points/Section   | 10001    |
| Sweep Count            | 200      |
| Sweep Mode             | MAXH     |
| Used Sweep Type        | SWE      |

RESULT: TC\_VM\_FCC15247\_Bandwidth\_6dB\_DTS\_V01

| Test Description    | Lower Limit | Upper Limit | Measured | Unit | Verdict |
|---------------------|-------------|-------------|----------|------|---------|
| DTS Bandwidth (6dB) | 500         | --          | 16548    | kHz  | PASS    |



Plot\_FCC Part 15.247 Bandwidth 6dB DTS ~ WLAN2G4 g-mode\_04072019\_115712.png

### TEST FINISHED

General Verdict

04.07.2019 11:57:12 / RT: 26 s

PASS

## 25. FCC Part 15.247 Peak Power Spectral Density DTS ~ WLAN2G4 g-mode

| Test References            |   |
|----------------------------|---|
| TC Start                   | 04.07.2019 11:57:16   |
| System Version             | 1.0.0.16  |
| 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    |
| Class / TC Version / TC ID | TC_VM_FCC15247_Peak_Power_Spectral_Density_DTS_V01 Version: 0.0.1   TCID_FCC15247_6                           |
| My Description             | FCC 15.247 Peak Power Spectral Density DTS - WLAN 2G4 g-mode  |
| Add. Information           |   |
| Test Parameter             |   |
| Technology to test         | WLAN2G4 g-mode  |
| Antenna Port used          | 1   |
| Temperature                | mid   |
| Voltage                    | mid   |
| Frequency low to test      | False   Freq [MHz] 2412   |
| Frequency mid to test      | True   Freq [MHz] 2437  |
| Frequency high to test     | False   Freq [MHz] 2462   |
| Pattern                    | PRBS9   |
| Switched Path              | IUT - SignalingUnit - SpectrumAnalyzer  |
| Devices in use             | SigBT: Rohde&Schwarz,CBT-1153.9000.35,100185,CBT 6X02.P02   SA: Rohde&Schwarz,FSV-30,1321.3008K30/103170,3.40 |

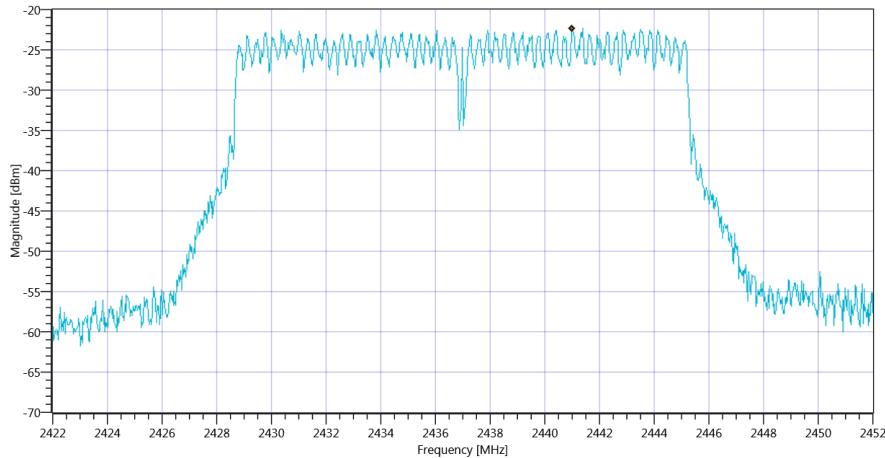
## Test at TX 2437 MHz

### READ SA SETTINGS:

|                        |          |
|------------------------|----------|
| Ref. Level [dBm]       | 8.00     |
| Ref. Lev. offs [dB]    | 9.89     |
| Input Attenuation [dB] | 15       |
| Freq. Start [MHz]      | 2422.000 |
| Freq. Stop [MHz]       | 2452.000 |
| Resolution BW. [MHz]   | 0.003000 |
| Video BW. [MHz]        | 0.010000 |
| Detector               | POS      |
| Sweep Time [ms]        | 1000     |
| Sweep Points/Section   | 1001     |
| Sweep Count            | 20       |
| Sweep Mode             | MAXH     |
| Used Sweep Type        | SWE      |

RESULT: TC\_VM\_FCC15247\_Peak\_Power\_Spectral\_Density\_DTS\_V01

| Test Description       | Lower Limit | Upper Limit | Measured | Unit     | Verdict |
|------------------------|-------------|-------------|----------|----------|---------|
| Max Peak power Density | --          | 8           | -22.34   | dBm/3KHz | PASS    |



Plot\_FCC Part 15.247 Peak Power Spectral Density DTS ~ WLAN2G4 g-mode\_04072019\_115750.png

### TEST FINISHED

General Verdict

04.07.2019 11:57:50 / RT: 34 s

PASS

## 26. FCC Part 15.247 Bandwidth 99PCT-20dB ~ WLAN2G4 g-mode

| Test References            |   |
|----------------------------|---|
| TC Start                   | 04.07.2019 11:57:54   |
| System Version             | 1.0.0.16  |
| Test Specification         | FCC Part 15.247   |
| Test Method                |   |
| Class / TC Version / TC ID | TC_VM_FCC15247_Bandwidth_99PCT_20dB_DTS_FHSS_V01 Version: 0.0.2   TCID_FCC15247_2                             |
| My Description             | FCC 15.247 Bandwidth 99PCT-20dB DTS - WLAN 2G4 g-mode   |
| Add. Information           |   |
| Test Parameter             |   |
| Technology to test         | WLAN2G4 g-mode  |
| Antenna Port used          | 1   |
| Temperature                | mid   |
| Voltage                    | mid   |
| Frequency low to test      | False   Freq [MHz] 2412   |
| Frequency mid to test      | True   Freq [MHz] 2437  |
| Frequency high to test     | False   Freq [MHz] 2462   |
| Pattern                    | PRBS9   |
| Switched Path              | IUT - SignalingUnit - SpectrumAnalyzer  |
| Devices in use             | SigBT: Rohde&Schwarz,CBT-1153.9000.35,100185,CBT 6X02,P02   SA: Rohde&Schwarz,FSV-30,1321.3008K30/103170,3.40 |

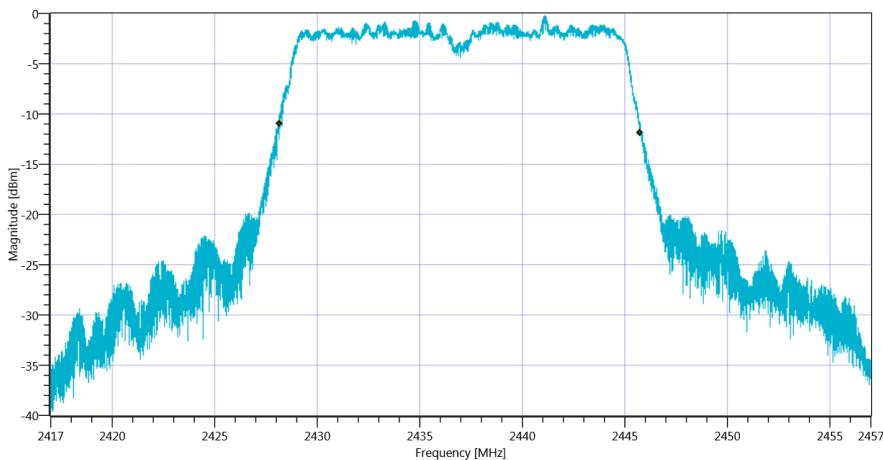
## Test at TX 2437 MHz

### READ SA SETTINGS:

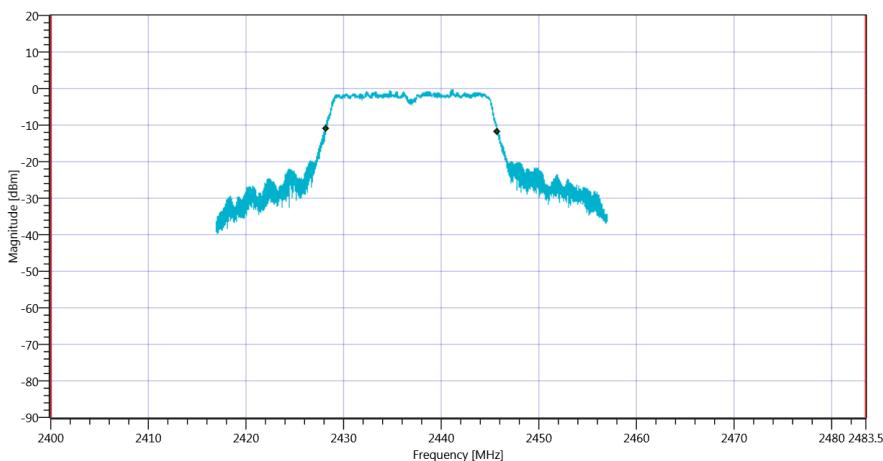
|                        |          |
|------------------------|----------|
| Ref. Level [dBm]       | 7.80     |
| Ref. Lev. offs [dB]    | 9.89     |
| Input Attenuation [dB] | 15       |
| Freq. Start [MHz]      | 2417.000 |
| Freq. Stop [MHz]       | 2457.000 |
| Resolution BW. [MHz]   | 0.500000 |
| Video BW. [MHz]        | 1.000000 |
| Detector               | POS      |
| Sweep Time [ms]        | 50       |
| Sweep Points/Section   | 10001    |
| Sweep Count            | 200      |
| Sweep Mode             | MAXH     |
| Used Sweep Type        | SWE      |

RESULT: TC\_VM\_FCC15247\_Bandwidth\_99PCT\_20dB\_DTS\_FHSS\_V01

| Test Description | Lower Limit | Upper Limit | Measured  | Unit | Verdict     |
|------------------|-------------|-------------|-----------|------|-------------|
| Bandwidth 99%    | --          | --          | 17590     | kHz  | Information |
| T1 99%           | 2400.000000 | --          | 2428.1689 | MHz  | PASS        |
| T2 99%           | --          | 2483.500000 | 2445.7591 | MHz  | PASS        |



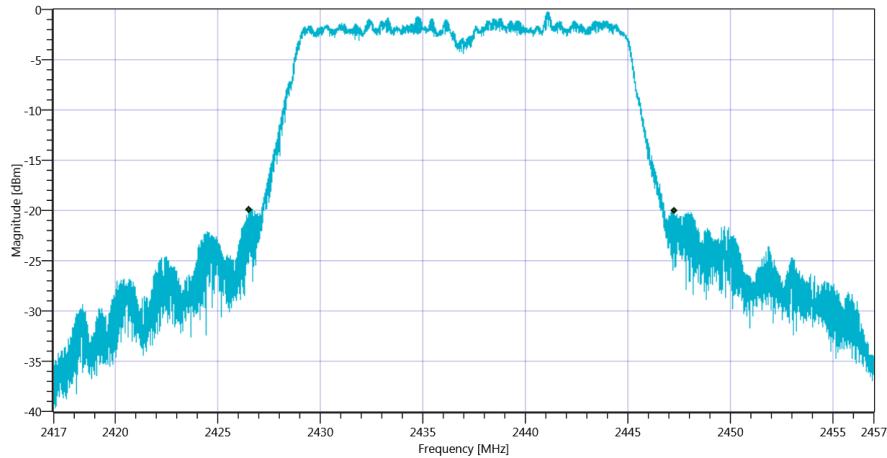
Plot\_FCC Part 15.247 Bandwidth 99PCT-20dB ~ WLAN2G4 g-mode 99PCT\_04072019\_115818.png



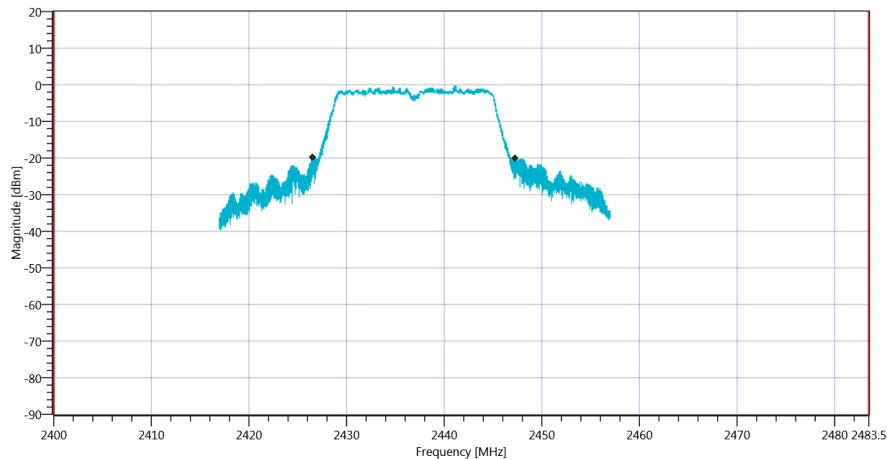
Plot\_FCC Part 15.247 Bandwidth 99PCT-20dB ~ WLAN2G4 g-mode\_04072019\_115821.png

**RESULT: TC\_VM\_FCC15247\_Bandwidth\_99PCT\_20dB\_DTS\_FHSS\_V01**

| Test Description | Lower Limit | Upper Limit | Measured  | Unit | Verdict     |
|------------------|-------------|-------------|-----------|------|-------------|
| Bandwidth 20dB   | --          | --          | 20756     | kHz  | Information |
| T1 20dB          | 2400.000000 | --          | 2426.5120 | MHz  | PASS        |
| T2 20dB          | --          | 2483.500000 | 2447.2680 | MHz  | PASS        |



Plot\_FCC Part 15.247 Bandwidth 99PCT-20dB ~ WLAN2G4 g-mode 20dB\_04072019\_115825.png



Plot\_FCC Part 15.247 Bandwidth 99PCT-20dB ~ WLAN2G4 g-mode\_04072019\_115828.png

**TEST FINISHED**

General Verdict

04.07.2019 11:58:29 / RT: 34 s

PASS

## 27. FCC Part 15.247 TX Spurious Conducted ~ WLAN2G4 g-mode

| Test References            |  |
|----------------------------|--|
| TC Start                   | 04.07.2019 11:58:32  |
| System Version             | 1.0.0.16   |
| 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. |
| Class / TC Version / TC ID | TC_VM_FCC15247_TX_Emissions_Conducted_V01 Version: 0.0.1   TCID_FCC15247_8                                     |
| My Description             | FCC 15.247 TX Emissions Conducted DTS - WLAN 2G4 g-mode  |
| Add. Information           |  |
| Test Parameter             |  |
| Technology to test         | WLAN2G4 g-mode   |
| Antenna Port used          | 1  |
| Temperature                | mid  |
| Voltage                    | mid  |
| Frequency low to test      | False   Freq [MHz] 2412  |
| Frequency mid to test      | True   Freq [MHz] 2437   |
| Frequency high to test     | False   Freq [MHz] 2462  |
| Pattern                    | PRBS9  |
| Switched Path              | IUT - SignalingUnit - SpectrumAnalyzer   |
| Devices in use             | SigBT: Rohde&Schwarz,CBT-1153.9000.35,100185,CBT 6X02,P02   SA: Rohde&Schwarz,FSV-30,1321.3008K30/103170,3.40  |

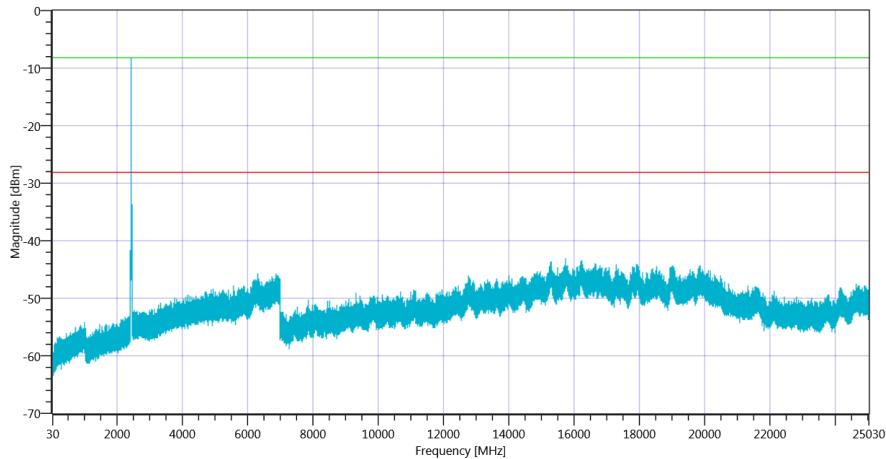
## Test at TX 2437 MHz

### READ SA SETTINGS:

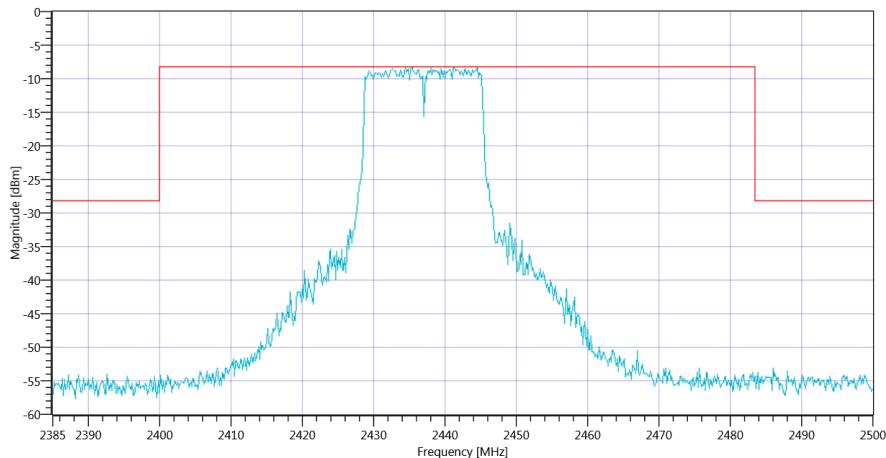
|                      |          |
|----------------------|----------|
| Ref. Level [dBm]     | 8.07     |
| Resolution BW. [MHz] | 0.100000 |
| Video BW. [MHz]      | 0.300000 |
| Detector             | POS      |
| Sweep Time [ms]      | 500      |
| Sweep Points/Section | 3001     |
| Sweep Count          | 8        |
| Sweep Mode           | MAXH     |
| Used Sweep Type      | SWE      |

### RESULT: TC\_VM\_FCC15247\_TX\_Emissions\_Conducted\_V01

| Test Description        | Lower Limit | Upper Limit | Measured | Unit | Verdict     |
|-------------------------|-------------|-------------|----------|------|-------------|
| Reference @ 2441.33 MHz | --          | --          | -8.21    | dBm  | Information |
| No peaks detected       | --          | --          |          |      | PASS        |



Plot\_FCC Part 15.247 TX Spurious Conducted ~ WLAN2G4 g-mode 2437\_04072019\_120317.png



Plot\_FCC Part 15.247 TX Spurious Conducted ~ WLAN2G4 g-mode 2437\_04072019\_120320.png

### TEST FINISHED

General Verdict

04.07.2019 12:03:21 / RT: 288 s

PASS

## 28. FCC Part 15.247 Maximum Peak Conducted Output Power Powermeter DTS ~ WLAN2G4 g-mode

| Test References            |   |
|----------------------------|---|
| TC Start                   | 04.07.2019 12:04:03   |
| System Version             | 1.0.0.16  |
| Test Specification         | FCC Part 15.247   |
| Test Method                | DTS: KDB 558074 D01 V05 - Chapter 8.3.1.3 PKPM1 Peak-reading Power Meter Method                           |
| Class / TC Version / TC ID | TC_VM_FCC15247_Maximum_Peak_Conducted_Output_Power_Powermeter_DTS_V01<br>Version: 0.0.1   TCID_FCC15247_3 |
| My Description             | FCC 15.247 Maximum Peak Output Power Powermeter Conducted DTS - WLAN 2G4 g-mode                           |
| Add. Information           |   |
| Test Parameter             |   |
| Technology to test         | WLAN2G4 g-mode  |
| Antenna Port used          | 1   |
| Temperature                | mid   |
| Voltage                    | mid   |
| Frequency low to test      | False   Freq [MHz] 2412   |
| Frequency mid to test      | True   Freq [MHz] 2437  |
| Frequency high to test     | False   Freq [MHz] 2462   |
| Pattern                    | PRBS9   |
| Switched Path              | IUT - SignalingUnit - PowerMeter  |
| Devices in use             | SigBT: Rohde&Schwarz,CBT-1153.9000.35,100185,CBT 6X02.P02   NRP-Z81,102585                                |

## Test at TX 2437 MHz

| RESULT: TC_VM_FCC15247_Maximum_Peak_Conducted_Output_Power_Powermeter_DTS_V01 |             |             |          |      |         |
|---|-------------|-------------|----------|------|---------|
| Test Description  | Lower Limit | Upper Limit | Measured | Unit | Verdict |
| Found Peak cond.  | --          | --          | 17.59    | dBm  | PASS    |

| TEST FINISHED   |                               |      |
|-----------------|-------------------------------|------|
| General Verdict | 04.07.2019 12:04:07 / RT: 3 s | PASS |

## 29. FCC Part 15.247 Bandwidth 6dB DTS ~ WLAN2G4 g-mode

| Test References            |  |
|----------------------------|--|
| TC Start                   | 04.07.2019 12:09:43  |
| System Version             | 1.0.0.16   |
| Test Specification         | FCC Part 15.247  |
| Test Method                | 99   |
| Class / TC Version / TC ID | TC_VM_FCC15247_Bandwidth_6dB_DTS_V01 Version: 0.0.1   TCID_FCC15247_1  |
| My Description             | FCC 15.247 Bandwidth 6dB DTS - WLAN 2G4 g-mode   |
| Add. Information           |  |
| Test Parameter             |  |
| Technology to test         | WLAN2G4 g-mode   |
| Antenna Port used          | 1  |
| Temperature                | mid  |
| Voltage                    | mid  |
| Frequency low to test      | False   Freq [MHz] 2412  |
| Frequency mid to test      | False   Freq [MHz] 2437  |
| Frequency high to test     | True   Freq [MHz] 2462   |
| Pattern                    | PRBS9  |
| Switched Path              | IUT - SignalingUnit - SpectrumAnalyzer   |
| Devices in use             | SigBT: Rohde&Schwarz,CBT-1153.9000.35,100185,CBT 6X02.P02   SA:<br>Rohde&Schwarz,FSV-30,1321.3008K30/103170,3.40 |

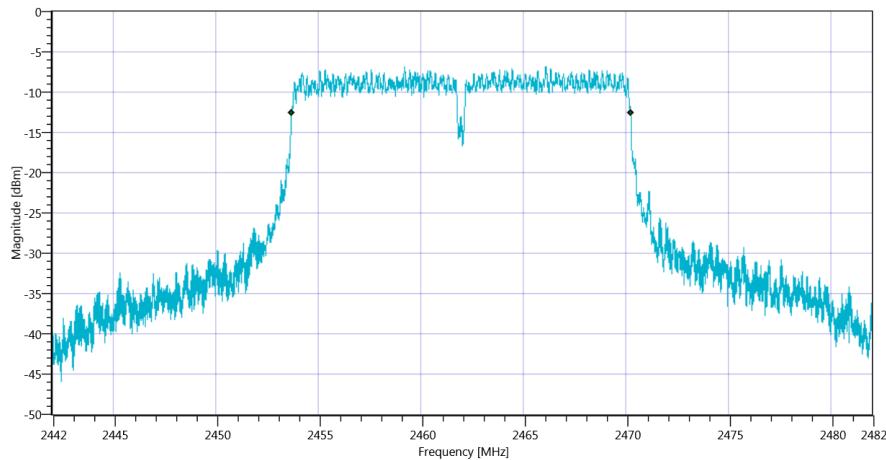
## Test at TX 2462 MHz

### READ SA SETTINGS:

|                        |          |
|------------------------|----------|
| Ref. Level [dBm]       | 8.74     |
| Ref. Lev. offs [dB]    | 9.94     |
| Input Attenuation [dB] | 15       |
| Freq. Start [MHz]      | 2442.000 |
| Freq. Stop [MHz]       | 2482.000 |
| Resolution BW. [MHz]   | 0.100000 |
| Video BW. [MHz]        | 0.300000 |
| Detector               | POS      |
| Sweep Time [ms]        | 50       |
| Sweep Points/Section   | 10001    |
| Sweep Count            | 200      |
| Sweep Mode             | MAXH     |
| Used Sweep Type        | SWE      |

RESULT: TC\_VM\_FCC15247\_Bandwidth\_6dB\_DTS\_V01

| Test Description    | Lower Limit | Upper Limit | Measured | Unit | Verdict |
|---------------------|-------------|-------------|----------|------|---------|
| DTS Bandwidth (6dB) | 500         | --          | 16548    | kHz  | PASS    |



Plot\_FCC Part 15.247 Bandwidth 6dB DTS ~ WLAN2G4 g-mode\_04072019\_121010.png

### TEST FINISHED

General Verdict

04.07.2019 12:10:10 / RT: 26 s

PASS

## 30. FCC Part 15.247 Peak Power Spectral Density DTS ~ WLAN2G4 g-mode

| Test References            |   |
|----------------------------|---|
| TC Start                   | 04.07.2019 12:10:14   |
| System Version             | 1.0.0.16  |
| 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    |
| Class / TC Version / TC ID | TC_VM_FCC15247_Peak_Power_Spectral_Density_DTS_V01 Version: 0.0.1   TCID_FCC15247_6                           |
| My Description             | FCC 15.247 Peak Power Spectral Density DTS - WLAN 2G4 g-mode  |
| Add. Information           |   |
| Test Parameter             |   |
| Technology to test         | WLAN2G4 g-mode  |
| Antenna Port used          | 1   |
| Temperature                | mid   |
| Voltage                    | mid   |
| Frequency low to test      | False   Freq [MHz] 2412   |
| Frequency mid to test      | False   Freq [MHz] 2437   |
| Frequency high to test     | True   Freq [MHz] 2462  |
| Pattern                    | PRBS9   |
| Switched Path              | IUT - SignalingUnit - SpectrumAnalyzer  |
| Devices in use             | SigBT: Rohde&Schwarz,CBT-1153.9000.35,100185,CBT 6X02.P02   SA: Rohde&Schwarz,FSV-30,1321.3008K30/103170,3.40 |

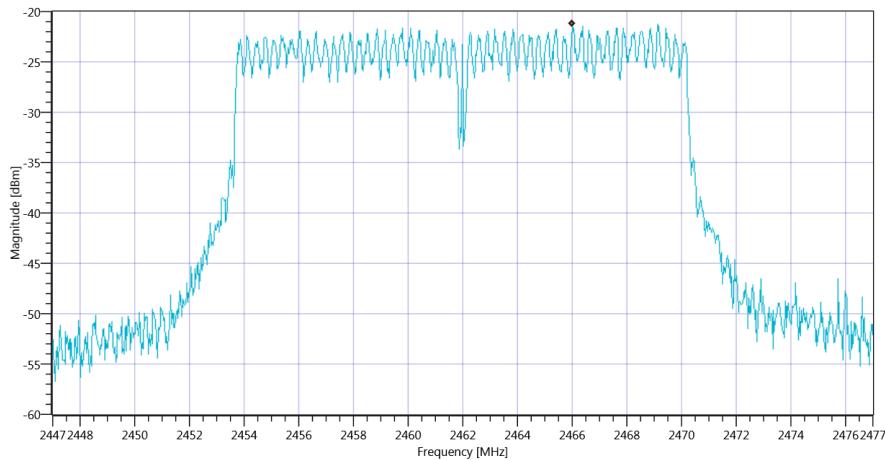
## Test at TX 2462 MHz

### READ SA SETTINGS:

|                        |          |
|------------------------|----------|
| Ref. Level [dBm]       | 8.89     |
| Ref. Lev. offs [dB]    | 9.94     |
| Input Attenuation [dB] | 15       |
| Freq. Start [MHz]      | 2447.000 |
| Freq. Stop [MHz]       | 2477.000 |
| Resolution BW. [MHz]   | 0.003000 |
| Video BW. [MHz]        | 0.010000 |
| Detector               | POS      |
| Sweep Time [ms]        | 1000     |
| Sweep Points/Section   | 1001     |
| Sweep Count            | 20       |
| Sweep Mode             | MAXH     |
| Used Sweep Type        | SWE      |

RESULT: TC\_VM\_FCC15247\_Peak\_Power\_Spectral\_Density\_DTS\_V01

| Test Description       | Lower Limit | Upper Limit | Measured | Unit     | Verdict |
|------------------------|-------------|-------------|----------|----------|---------|
| Max Peak power Density | --          | 8           | -21.21   | dBm/3KHz | PASS    |



Plot\_FCC Part 15.247 Peak Power Spectral Density DTS ~ WLAN2G4 g-mode\_04072019\_121048.png

### TEST FINISHED

General Verdict

04.07.2019 12:10:49 / RT: 34 s

PASS

## 31. FCC Part 15.247 Bandwidth 99PCT-20dB ~ WLAN2G4 g-mode

| Test References            |   |
|----------------------------|---|
| TC Start                   | 04.07.2019 12:10:52   |
| System Version             | 1.0.0.16  |
| Test Specification         | FCC Part 15.247   |
| Test Method                |   |
| Class / TC Version / TC ID | TC_VM_FCC15247_Bandwidth_99PCT_20dB_DTS_FHSS_V01 Version: 0.0.2   TCID_FCC15247_2                             |
| My Description             | FCC 15.247 Bandwidth 99PCT-20dB DTS - WLAN 2G4 g-mode   |
| Add. Information           |   |
| Test Parameter             |   |
| Technology to test         | WLAN2G4 g-mode  |
| Antenna Port used          | 1   |
| Temperature                | mid   |
| Voltage                    | mid   |
| Frequency low to test      | False   Freq [MHz] 2412   |
| Frequency mid to test      | False   Freq [MHz] 2437   |
| Frequency high to test     | True   Freq [MHz] 2462  |
| Pattern                    | PRBS9   |
| Switched Path              | IUT - SignalingUnit - SpectrumAnalyzer  |
| Devices in use             | SigBT: Rohde&Schwarz,CBT-1153.9000.35,100185,CBT 6X02,P02   SA: Rohde&Schwarz,FSV-30,1321.3008K30/103170,3.40 |

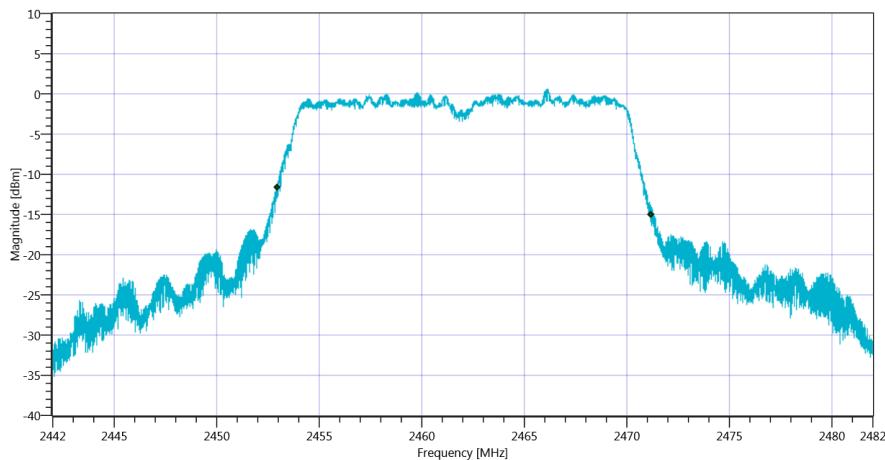
## Test at TX 2462 MHz

### READ SA SETTINGS:

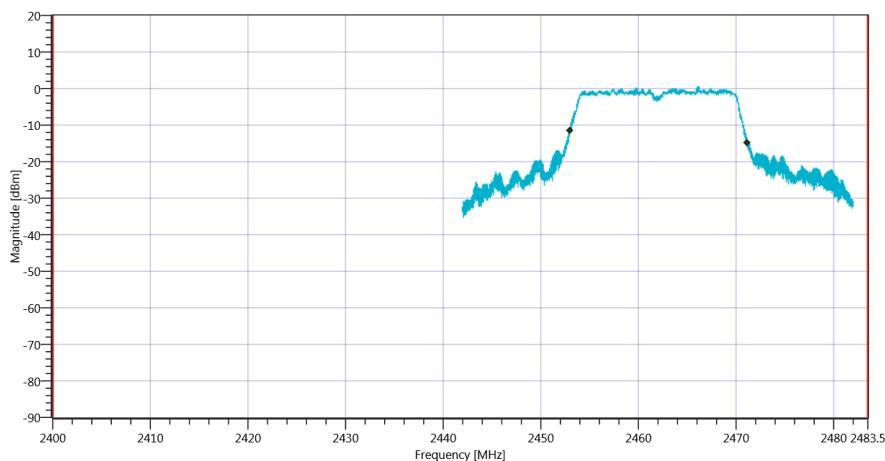
|                        |          |
|------------------------|----------|
| Ref. Level [dBm]       | 9.12     |
| Ref. Lev. offs [dB]    | 9.94     |
| Input Attenuation [dB] | 15       |
| Freq. Start [MHz]      | 2442.000 |
| Freq. Stop [MHz]       | 2482.000 |
| Resolution BW. [MHz]   | 0.500000 |
| Video BW. [MHz]        | 1.000000 |
| Detector               | POS      |
| Sweep Time [ms]        | 50       |
| Sweep Points/Section   | 10001    |
| Sweep Count            | 200      |
| Sweep Mode             | MAXH     |
| Used Sweep Type        | SWE      |

RESULT: TC\_VM\_FCC15247\_Bandwidth\_99PCT\_20dB\_DTS\_FHSS\_V01

| Test Description | Lower Limit | Upper Limit | Measured  | Unit | Verdict     |
|------------------|-------------|-------------|-----------|------|-------------|
| Bandwidth 99%    | --          | --          | 18218     | kHz  | Information |
| T1 99%           | 2400.000000 | --          | 2452.9529 | MHz  | PASS        |
| T2 99%           | --          | 2483.500000 | 2471.1711 | MHz  | PASS        |



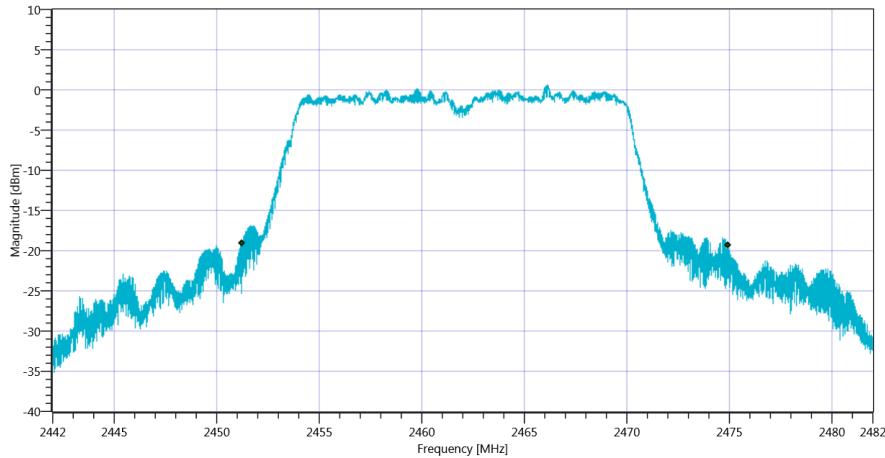
Plot\_FCC Part 15.247 Bandwidth 99PCT-20dB ~ WLAN2G4 g-mode 99PCT\_04072019\_121117.png



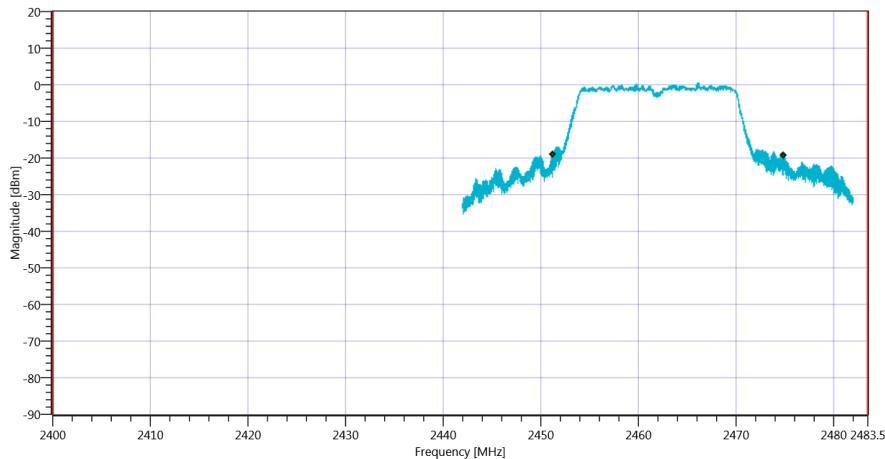
Plot\_FCC Part 15.247 Bandwidth 99PCT-20dB ~ WLAN2G4 g-mode\_04072019\_121120.png

**RESULT: TC\_VM\_FCC15247\_Bandwidth\_99PCT\_20dB\_DTS\_FHSS\_V01**

| Test Description | Lower Limit | Upper Limit | Measured  | Unit | Verdict     |
|------------------|-------------|-------------|-----------|------|-------------|
| Bandwidth 20dB   | --          | --          | 23704     | kHz  | Information |
| T1 20dB          | 2400.000000 | --          | 2451.2120 | MHz  | PASS        |
| T2 20dB          | --          | 2483.500000 | 2474.9160 | MHz  | PASS        |



Plot\_FCC Part 15.247 Bandwidth 99PCT-20dB ~ WLAN2G4 g-mode 20dB\_04072019\_121124.png



Plot\_FCC Part 15.247 Bandwidth 99PCT-20dB ~ WLAN2G4 g-mode\_04072019\_121127.png

**TEST FINISHED**

General Verdict

04.07.2019 12:11:27 / RT: 34 s

PASS

## 32. FCC Part 15.247 TX Spurious Conducted ~ WLAN2G4 g-mode

| Test References            |  |
|----------------------------|--|
| TC Start                   | 04.07.2019 12:11:31  |
| System Version             | 1.0.0.16   |
| 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. |
| Class / TC Version / TC ID | TC_VM_FCC15247_TX_Emissions_Conducted_V01 Version: 0.0.1   TCID_FCC15247_8                                     |
| My Description             | FCC 15.247 TX Emissions Conducted DTS - WLAN 2G4 g-mode  |
| Add. Information           |  |
| Test Parameter             |  |
| Technology to test         | WLAN2G4 g-mode   |
| Antenna Port used          | 1  |
| Temperature                | mid  |
| Voltage                    | mid  |
| Frequency low to test      | False   Freq [MHz] 2412  |
| Frequency mid to test      | False   Freq [MHz] 2437  |
| Frequency high to test     | True   Freq [MHz] 2462   |
| Pattern                    | PRBS9  |
| Switched Path              | IUT - SignalingUnit - SpectrumAnalyzer   |
| Devices in use             | SigBT: Rohde&Schwarz,CBT-1153.9000.35,100185,CBT 6X02,P02   SA: Rohde&Schwarz,FSV-30,1321.3008K30/103170,3.40  |

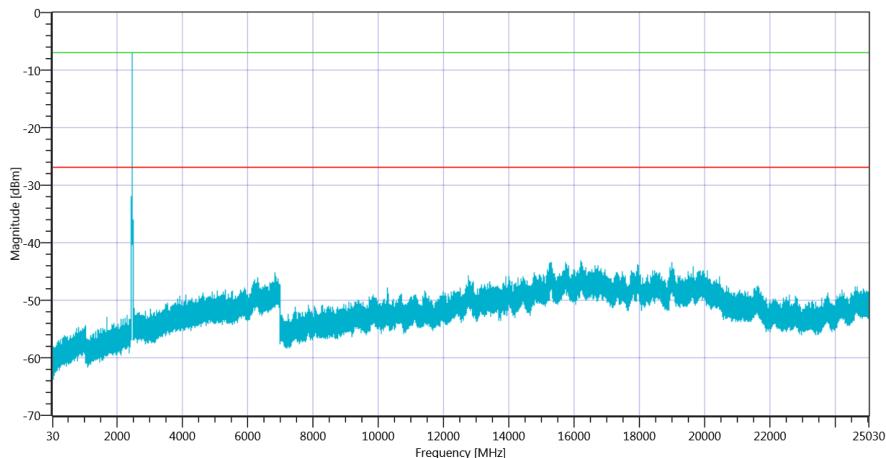
## Test at TX 2462 MHz

### READ SA SETTINGS:

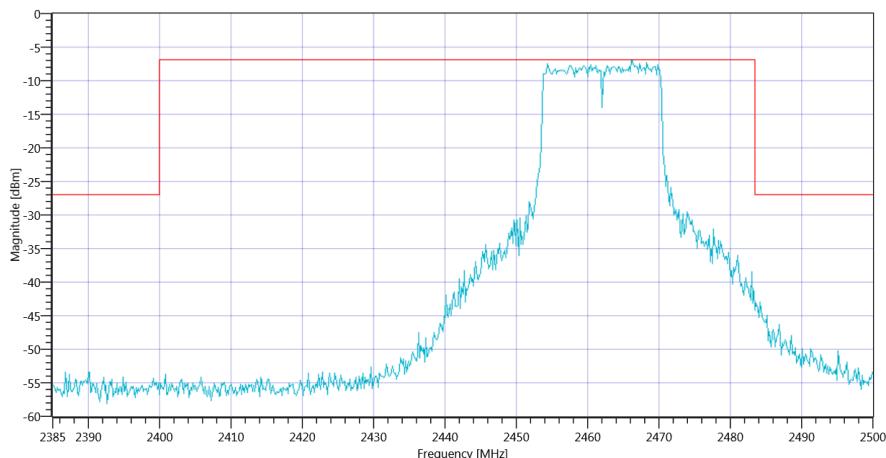
|                      |          |
|----------------------|----------|
| Ref. Level [dBm]     | 8.90     |
| Resolution BW. [MHz] | 0.100000 |
| Video BW. [MHz]      | 0.300000 |
| Detector             | POS      |
| Sweep Time [ms]      | 500      |
| Sweep Points/Section | 3001     |
| Sweep Count          | 8        |
| Sweep Mode           | MAXH     |
| Used Sweep Type      | SWE      |

RESULT: TC\_VM\_FCC15247\_TX\_Emissions\_Conducted\_V01

| Test Description        | Lower Limit | Upper Limit | Measured | Unit | Verdict     |
|-------------------------|-------------|-------------|----------|------|-------------|
| Reference @ 2466.17 MHz | --          | --          | -6.91    | dBm  | Information |
| No peaks detected       | --          | --          |          |      | PASS        |



Plot\_FCC Part 15.247 TX Spurious Conducted ~ WLAN2G4 g-mode 2462\_04072019\_121616.png



Plot\_FCC Part 15.247 TX Spurious Conducted ~ WLAN2G4 g-mode 2462\_04072019\_121618.png

### TEST FINISHED

General Verdict

04.07.2019 12:16:20 / RT: 288 s

PASS

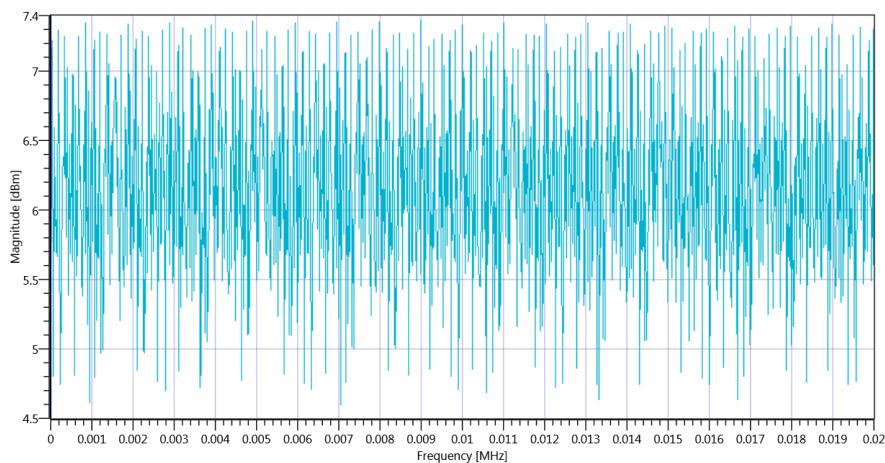
## 33. FCC Part 15.247 Restricted Band Edge Conducted Avg DC corrected DTS ~ WLAN2G4 g-mode

| Test References            |   |
|----------------------------|---|
| TC Start                   | 04.07.2019 12:16:23   |
| System Version             | 1.0.0.16  |
| Test Specification         | FCC Part 15.247   |
| Test Method                | DTS: KDB 558074 D01 V05 - 8.7.3 Integration Method; ANSI C63.10-2013 11.13.3.4<br>Trace averaging across on- and off-times of the EUT transmissions followed by duty cycle correction |
| Class / TC Version / TC ID | TC_VM_FCC15247_Restricted_Band_Edge_Conducted_Avg_DC_corrected_V01 Version:<br>0.0.1   TCID_FCC15247_7  |
| My Description             | FCC 15.247 Restricted Band Edge Cond. Avg DC corrected DTS - WLAN 2G4 g-mode  |
| Add. Information           |   |

| Test Parameter         |  |
|------------------------|--|
| Technology to test     | WLAN2G4 g-mode   |
| Antenna Port used      | 1  |
| Temperature            | mid  |
| Voltage                | mid  |
| Frequency low to test  | False   Freq [MHz] 2412  |
| Frequency mid to test  | False   Freq [MHz] 2437  |
| Frequency high to test | True   Freq [MHz] 2462   |
| Pattern                | PRBS9  |
| Switched Path          | IUT - SignalingUnit - SpectrumAnalyzer   |
| Devices in use         | SigBT: Rohde&Schwarz,CBT-1153.9000.35,100185,CBT 6X02,P02   SA:<br>Rohde&Schwarz,FSV-30,1321.3008K30/103170,3.40 |

## Test at TX 2462 MHz

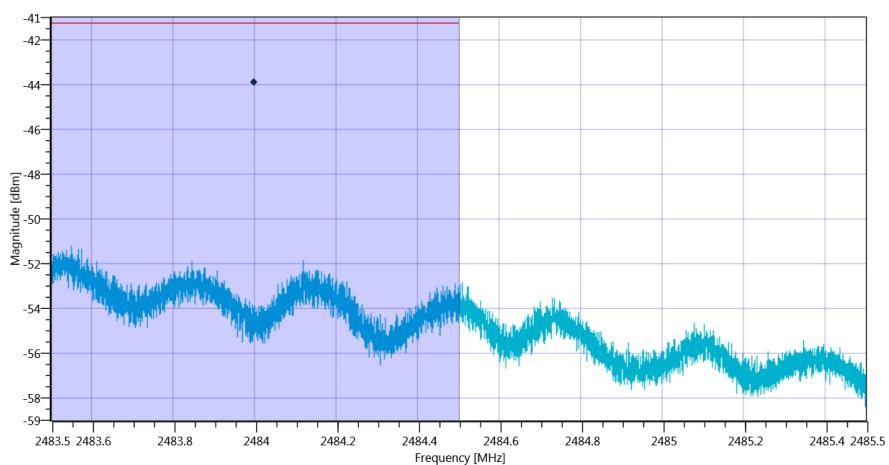
| RESULT: Duty Cycle evaluation                              |             |             |          |      |             |
|--|-------------|-------------|----------|------|-------------|
| Test Description   | Lower Limit | Upper Limit | Measured | Unit | Verdict     |
| No enough Bursts detected, Duty Cycle Burst Ratio set to 1 |             |             |          |      |             |
| Duty Cycle (Burst Ratio) max                               | --          | --          | 1        | --   | Information |
| Duty Cycle max   | --          | --          | 0        | dB   | Information |
| Duty Cycle (Burst Ratio) min                               | --          | --          | 1        | --   | Information |
| Duty Cycle min   | --          | --          | 0        | dB   | Information |



Plot\_FCC Part 15.247 Restricted Band Edge Conducted Avg DC corrected DTS ~ WLAN2G4 g-mode 2462 MHz - Duty Cycle\_04072019\_121636.png

| READ SA SETTINGS:      |            |
|------------------------|------------|
| Ref. Level [dBm]       | 13.85      |
| Ref. Lev. offs [dB]    | 9.94       |
| Input Attenuation [dB] | 20         |
| Freq. Start [MHz]      | 2483.500   |
| Freq. Stop [MHz]       | 2485.500   |
| Resolution BW. [MHz]   | 0.100000   |
| Video BW. [MHz]        | 0.500000   |
| Detector               | RMS        |
| Sweep Time [ms]        | 32         |
| Sweep Points/Section   | 32000      |
| Sweep Count            | 300        |
| Sweep Mode             | AVER       |
| Used Sweep Type        | SWE        |
| Marker Method          | Band Power |

| RESULT: TC_VM_FCC15247_Restricted_Band_Edge_Conducted_Avg_DC_corrected_V01 |             |             |          |      |             |
|--|-------------|-------------|----------|------|-------------|
| Test Description   | Lower Limit | Upper Limit | Measured | Unit | Verdict     |
| Duty Cylce worst case  | --          | --          | 0        | dB   | Information |
| Band Power without Antenna Gain Avg  | --          | --          | -43.9    | dBm  | Information |
| Band Power without Antenna Gain Avg DC corrected                           | --          | --          | -43.9    | dBm  | Information |
| Band Power incl. Antenna Gain Avg DC corrected                             | --          | -41.23      | -43.9    | dBm  | PASS        |



Plot\_FCC Part 15.247 Restricted Band Edge Conducted Avg DC corrected DTS ~ WLAN2G4 g-mode\_04072019\_121658.png

TEST FINISHED

General Verdict

04.07.2019 12:16:58 / RT: 34 s

PASS