# Conducted test results

No.1-5389-22-02-03_TR1-A201-R1

July 12, 2024

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

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NA # Peak output power 3MHz/3MHz ~ WLAN2G4 n-HT20 mode 97
FCC 15.247 # Peak output power PM DTS ~ WLAN2G4 g mode 100
FCC 15.247 # TX spurious conducted 20dBc ~ WLAN2G4 g mode 102
FCC 15.247, ISED RSS247 # Bandwidth 99PCT and 20dB ~ WLAN2G4 g mode 105
FCC 15.247 # Peak psd DTS ~ WLAN2G4 g mode 109
FCC 15.247 # Bandwidth 6dB DTS ~ WLAN2G4 g mode 111

NA # Peak output power 3MHz/3MHz ~ WLAN2G4 g mode 113
FCC 15.247 # Peak output power PM DTS ~ WLAN2G4 g mode 116
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NA # Peak output power 3MHz/3MHz ~ WLAN2G4 g mode 129
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FCC 15.247 # Peak psd DTS ~ WLAN2G4 g mode 141
FCC 15.247 # Bandwidth 6dB DTS ~ WLAN2G4 g mode 143
NA # Peak output power 3MHz/3MHz ~ WLAN2G4 g mode 145
FCC 15.247 # Peak output power PM DTS ~ WLAN2G4 b mode 148
FCC 15.247 # TX spurious conducted 20dBc ~ WLAN2G4 b mode 150
FCC 15.247, ISED RSS247 # Bandwidth 99PCT and 20dB ~ WLAN2G4 b mode 153
FCC 15.247 # Peak psd DTS ~ WLAN2G4 b mode 157
FCC 15.247 # Bandwidth 6dB DTS ~ WLAN2G4 b mode 159
NA # Peak output power 3MHz/3MHz ~ WLAN2G4 b mode 161
FCC 15.247 # Peak output power PM DTS ~ WLAN2G4 b mode 164
FCC 15.247 # TX spurious conducted 20dBc ~ WLAN2G4 b mode 166
FCC 15.247, ISED RSS247 # Bandwidth 99PCT and 20dB ~ WLAN2G4 b mode 169
FCC 15.247 # Peak psd DTS ~ WLAN2G4 b mode 173
FCC 15.247 # Bandwidth 6dB DTS ~ WLAN2G4 b mode 175
NA # Peak output power 3MHz/3MHz ~ WLAN2G4 b mode 177
FCC 15.247 # Peak output power PM DTS ~ WLAN2G4 b mode 180
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FCC 15.247, ISED RSS247 # Bandwidth 99PCT and 20dB ~ WLAN2G4 b mode 185
FCC 15.247 # Peak psd DTS ~ WLAN2G4 b mode 189
FCC 15.247 # Bandwidth 6dB DTS ~ WLAN2G4 b mode 191
NA # Peak output power 3MHz/3MHz ~ WLAN2G4 b mode 193

# FCC 15.247 # Peak output power PM DTS ~ WLAN2G4 n-HT40 mode

## References

| | |
|---|---|
| TC start | 10.07.2024 17:53:45 |
| Ambit temp [°C] \| humidity [rel%] | 27.0 \| 50 |
| System version | 5.0.7.0 |
| Standard \| Version | FCC 15.247 \| NI |
| Method | DTS: KDB 558074 D01 V05 - Chapter 8.3.1.3 PKPM1 Peak-reading Power Meter Method |
| Description | FCC 15.247 Peak output power PM DTS - WLAN2G4 n-HT40 mode |
| Information | |

## EUT Common Settings WLAN2G4

| | |
|---|---|
| Number of antenna ports | 1 |
| User interaction | No |

## Equipment

| |
|---|
| Switch matrix,cetecom advanced GmbH,USM,B002,1.0.0 |
| Power sensor,Keysight Technologies,U2021XA,MY59190010,A.04.06 |

## Test Parameter

| | |
|---|---|
| Technology to test | WLAN2G4 n-HT40 mode |
| EUT port | EUT1 |
| Temperature | nom |
| Voltage | nom |
| Frequency low to test | False \| Freq [MHz] 2422 |
| Frequency mid to test | False \| Freq [MHz] 2437 |
| Frequency high to test | True \| Freq [MHz] 2452 |
| Auto control enabled power supply \| Climatic Box | No \| No |
| Additional path loss [dB] | 0.5 |
| Full path type | EUT_PM_GEN_SIG |
| Full path name | EUT1.MP.SIG1/EUT1.PM/EUT1.GEN1/EUT1.GEN2/ |
| Switch bits | 00010001:00010001:00010000:00000001 |

## Test at TX 2452 MHz

RESULT

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Peak power | --- | 30 | 19.87 | dBm | PASS |

| Verdict |
|---|
| PASS |

# FCC 15.247 # TX spurious conducted 20dBc ~ WLAN2G4 n-HT40 mode

## References

| | |
|---|---|
| TC start | 10.07.2024 17:40:06 |
| Ambit temp [°C] \| humidity [rel%] | 27.0 \| 50 |
| System version | 5.0.7.0 |
| Standard \| Version | FCC 15.247 \| NI |
| Method | IF DTS then 8.5 DTS emissions in non-restricted frequency bands: Subclause 11.11 of ANSI C63.10 is applicable |
| Description | FCC 15.247 TX Emissions cond. DTS DTS - WLAN2G4 n-HT40 mode |
| Information | |

## EUT Common Settings WLAN2G4

| | |
|---|---|
| Number of antenna ports | 1 |
| User interaction | No |

## Equipment

| |
|---|
| Signal analyzer,Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.70 |
| Switch matrix,cetecom advanced GmbH,USM,B002,1.0.0 |

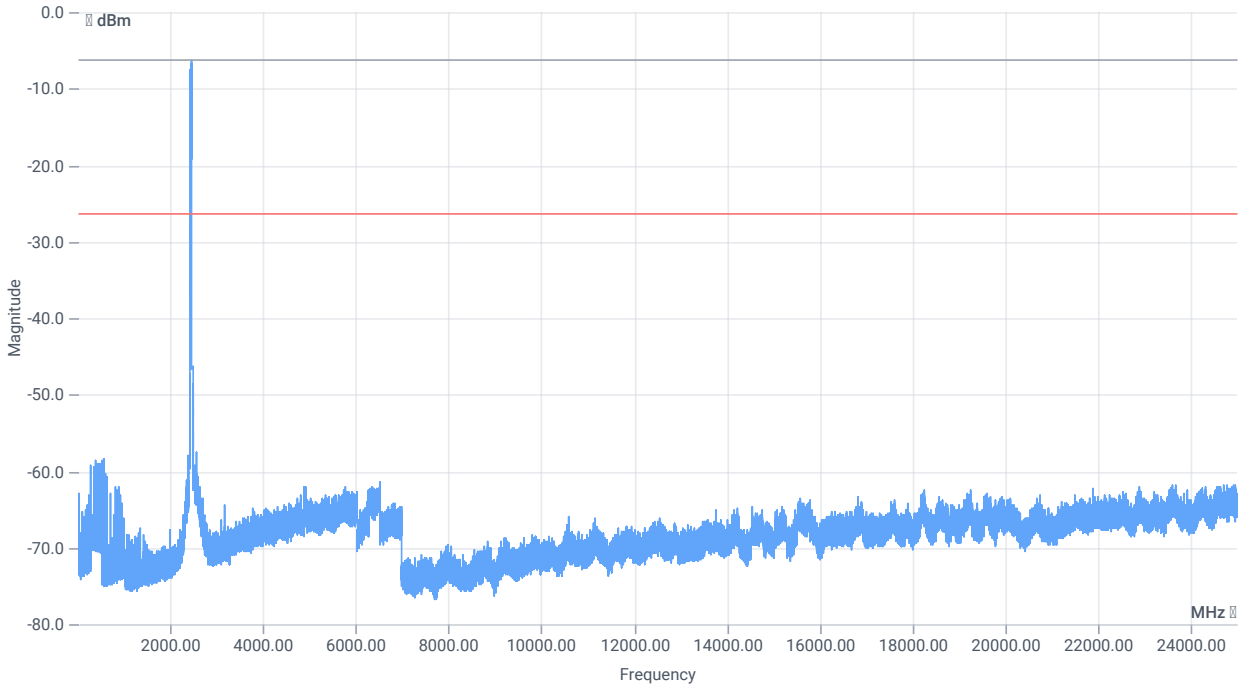
## Test Parameter

| | |
|---|---|
| Technology to test | WLAN2G4 n-HT40 mode |
| EUT port | EUT1 |
| Temperature | nom |
| Voltage | nom |
| Frequency low to test | False \| Freq [MHz] 2422 |
| Frequency mid to test | False \| Freq [MHz] 2437 |
| Frequency high to test | True \| Freq [MHz] 2452 |
| Auto control enabled power supply \| Climatic Box | No \| No |
| Additional path loss [dB] | 0.5 |
| Full path type | EUT_SA_GEN_SIG |
| Full path name | EUT1.MP.SIG1/EUT1.SA/EUT1.GEN1/EUT1.GEN2/ |
| Switch bits | 00010001:00010001:00000000:00000001 |

## Test at TX 2452 MHz

RESULT: Reference power cond.

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Ref. power 1MHz/1MHz cond. | --- | --- | 3.63 | dBm | INFO |
| Ref. frequency | --- | --- | 2435.820 | MHz | INFO |




*TX emissions*

READ SA SETTINGS:

| | |
|---|---|
| RefLevel [dBm] \| RefLevelOffset [dB] \| InpAtt [dB] | 3.63 \| 23.17 \| 0 |
| Start [MHz] \| Stop [MHz] | 24780.000 \| 25000.000 |
| RBW [MHz] \| VBW [MHz] | 0.100000 \| 0.300000 |
| Detector \| TraceMode | POS \| MAXH |
| Sweep: time [ms] \| count \| points per Section \| type | 200 \| 25 \| 1501 \| SWE |

*TX emissions band zoomed*

## RESULT

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Reference @ 2456.00 MHz | --- | --- | -6.37 | dBm | INFO |
| No peaks detected | --- | --- | | | PASS |
| Lowest margin to limit 2484.167 MHz | 0 | --- | 24.63 | dB | INFO |

| Verdict |
|---|
| PASS |

# FCC 15.247, ISED RSS247 # Bandwidth 99PCT and 20dB ~ WLAN2G4 n-HT40 mode

## References

| | |
|---|---|
| TC start | 10.07.2024 17:39:28 |
| Ambit temp [°C] \| humidity [rel%] | 27.0 \| 50 |
| System version | 5.0.7.0 |
| Standard \| Version | FCC 15.247, ISED RSS247 \| NI |
| Method | |
| Description | FCC 15.247 Bandwidth 99PCT-20dB DTS - WLAN2G4 n-HT40 mode |
| Information | |

## EUT Common Settings WLAN2G4

| | |
|---|---|
| Number of antenna ports | 1 |
| User interaction | No |

## Equipment

| |
|---|
| Signal analyzer,Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.70 |
| Switch matrix,cetecom advanced GmbH,USM,B002,1.0.0 |

## Test Parameter

| | |
|---|---|
| Technology to test | WLAN2G4 n-HT40 mode |
| EUT port | EUT1 |
| Temperature | nom |
| Voltage | nom |
| Frequency low to test | False \| Freq [MHz] 2422 |
| Frequency mid to test | False \| Freq [MHz] 2437 |
| Frequency high to test | True \| Freq [MHz] 2452 |
| Auto control enabled power supply \| Climatic Box | No \| No |
| Additional path loss [dB] | 0.5 |
| Full path type | EUT_SA_GEN_SIG |
| Full path name | EUT1.MP.SIG1/EUT1.SA/EUT1.GEN1/EUT1.GEN2/ |
| Switch bits | 00010001:00010001:00000000:00000001 |

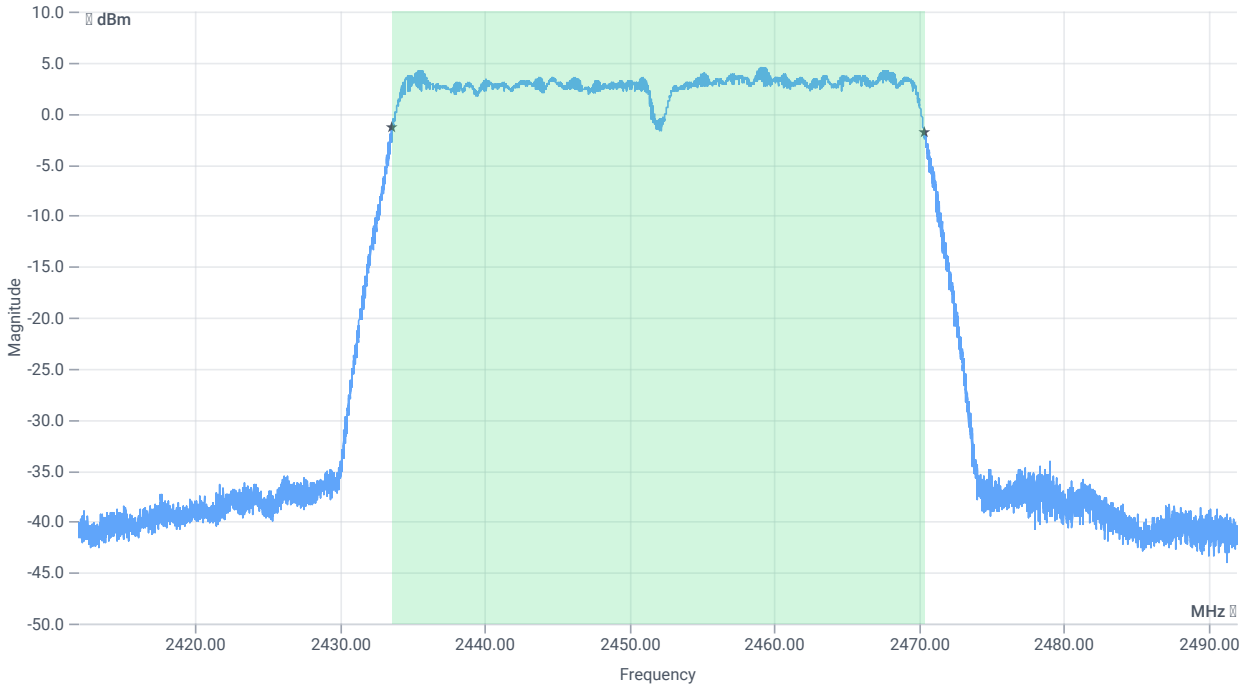
## Test at TX 2452 MHz

RESULT: Reference power cond.

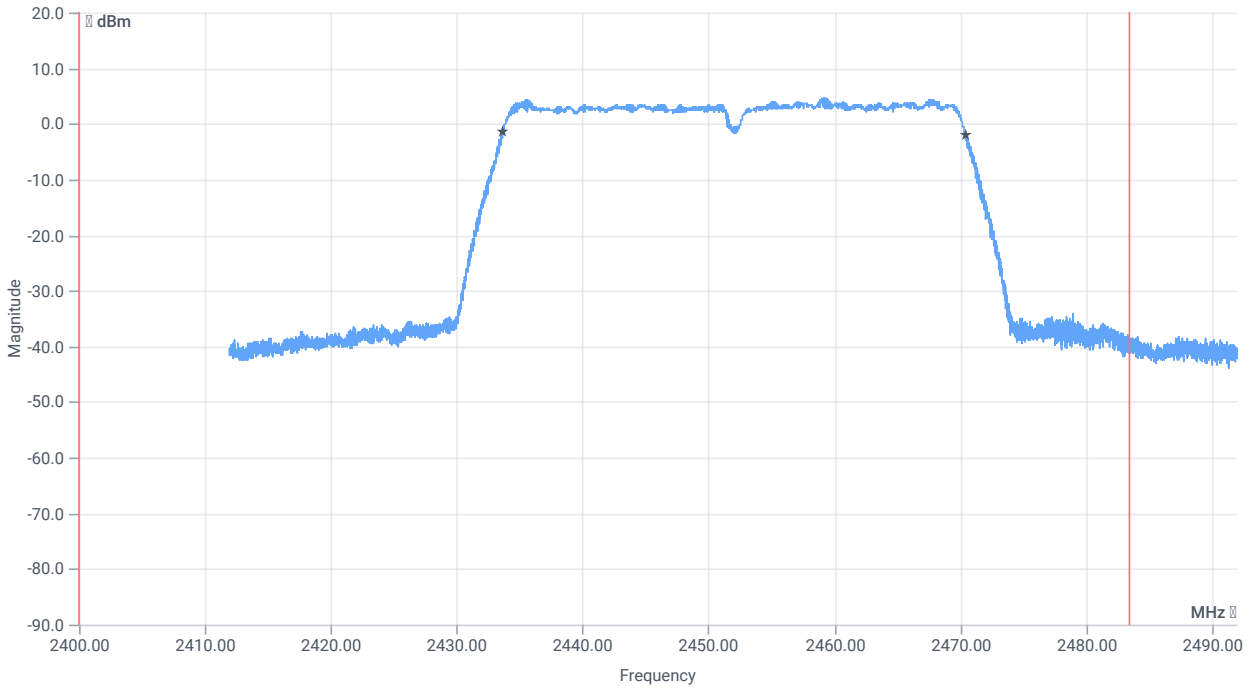
| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Ref. power 1MHz/1MHz cond. | --- | --- | 4.16 | dBm | INFO |
| Ref. frequency | --- | --- | 2435.620 | MHz | INFO |

READ SA SETTINGS:

| | |
|---|---|
| RefLevel [dBm] \| RefLevelOffset [dB] \| InpAtt [dB] | 9.16 \| 11.08 \| 15 |
| Start [MHz] \| Stop [MHz] | 2412.000 \| 2492.000 |
| RBW [MHz] \| VBW [MHz] | 1.000000 \| 3.000000 |
| Detector \| TraceMode | POS \| MAXH |
| Sweep: time [ms] \| count \| points per Section \| type | 50 \| 200 \| 10001 \| SWE |



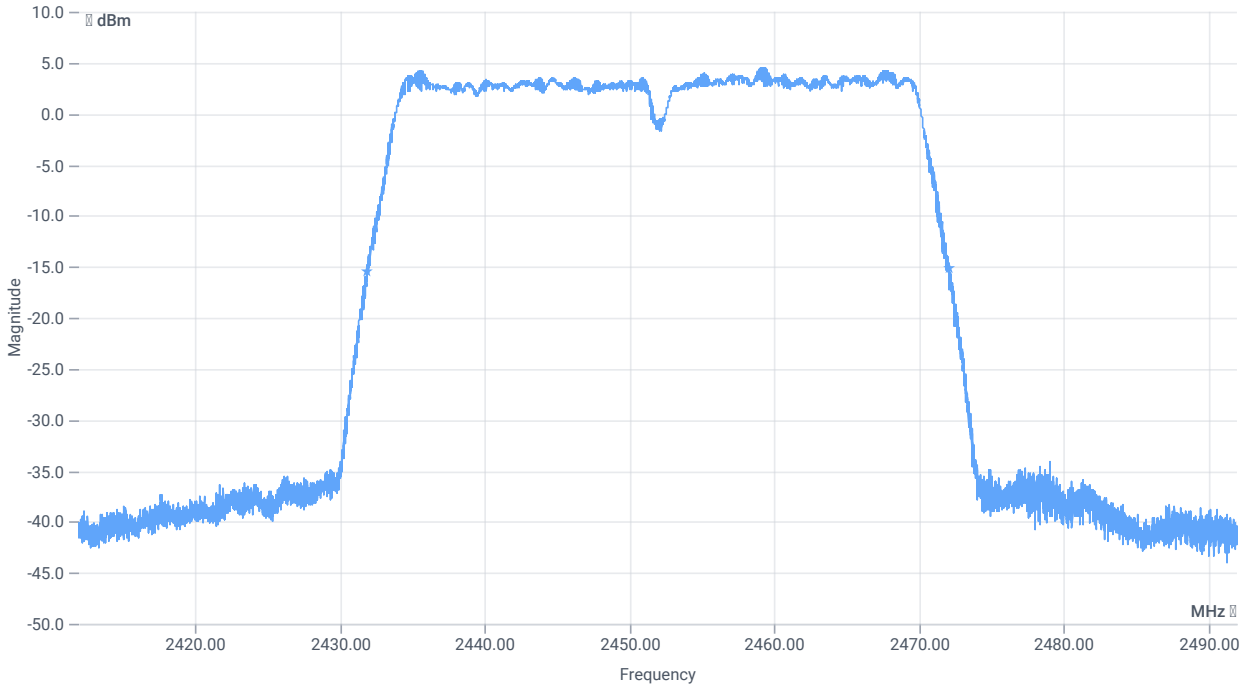

*BW 99PCT*



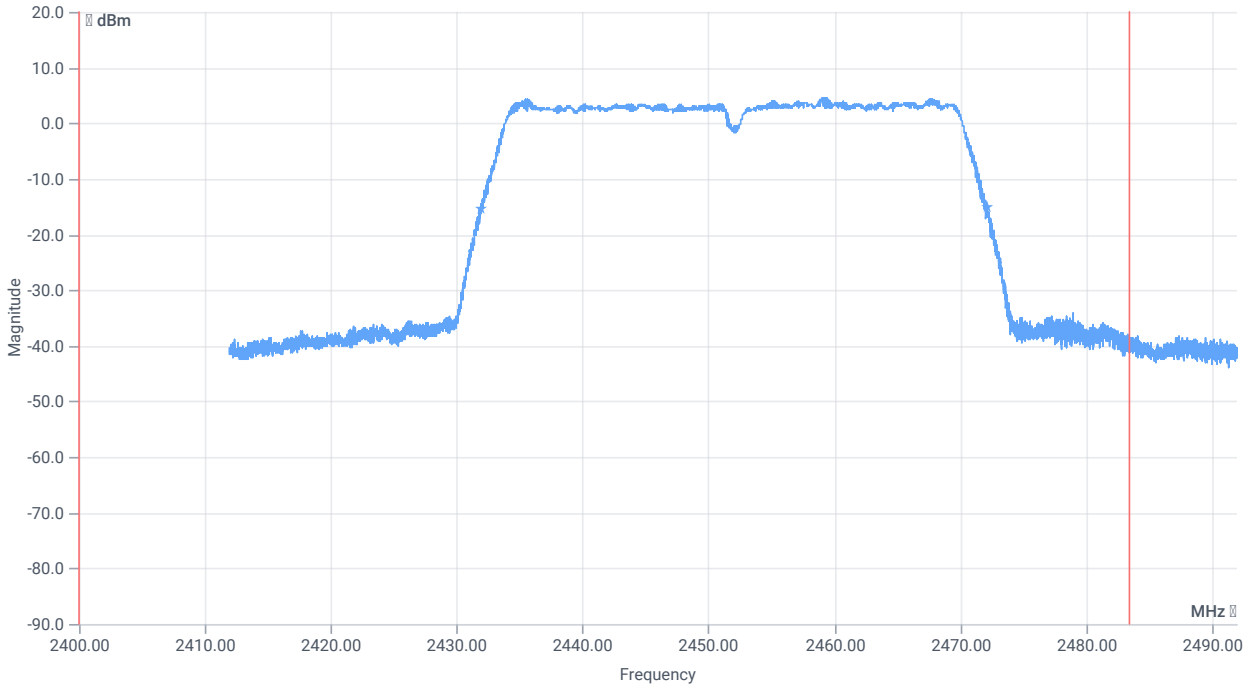

*BW within Band 99PCT*

## RESULT

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Bandwidth 99% | --- | --- | 36788.000 | kHz | INFO |
| T1 99% | 2400.000000 | --- | 2433.6418 | MHz | PASS |
| T2 99% | --- | 2483.500000 | 2470.4302 | MHz | PASS |



*BW 20dB*




*BW within band 20dB*

## RESULT

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Bandwidth 20dB | --- | --- | 40248 | kHz | INFO |
| T1 20dB | 2400.000000 | --- | 2431.8800 | MHz | PASS |
| T2 20dB | --- | 2483.500000 | 2472.1280 | MHz | PASS |

| Verdict |
|---|
| PASS |

# FCC 15.247 # Peak psd DTS ~ WLAN2G4 n-HT40 mode

## References

| | |
|---|---|
| TC start | 10.07.2024 17:38:45 |
| Ambit temp [°C] \| humidity [rel%] | 27.0 \| 50 |
| System version | 5.0.7.0 |
| Standard \| Version | FCC 15.247 \| NI |
| Method | DTS: KDB 558074 D01 V05 - Chapter 8.4 DTS maximum power spectral density level in the fundamental emission |
| Description | FCC 15.247 Peak psd DTS - WLAN2G4 n-HT40 mode |
| Information | |

## EUT Common Settings WLAN2G4

| | |
|---|---|
| Number of antenna ports | 1 |
| User interaction | No |

## Equipment

| |
|---|
| Signal analyzer,Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.70 |
| Switch matrix,cetecom advanced GmbH,USM,B002,1.0.0 |

## Test Parameter

| | |
|---|---|
| Technology to test | WLAN2G4 n-HT40 mode |
| EUT port | EUT1 |
| Temperature | nom |
| Voltage | nom |
| Frequency low to test | False \| Freq [MHz] 2422 |
| Frequency mid to test | False \| Freq [MHz] 2437 |
| Frequency high to test | True \| Freq [MHz] 2452 |
| Auto control enabled power supply \| Climatic Box | No \| No |
| Additional path loss [dB] | 0.5 |
| Full path type | EUT_SA_GEN_SIG |
| Full path name | EUT1.MP.SIG1/EUT1.SA/EUT1.GEN1/EUT1.GEN2/ |
| Switch bits | 00010001:00010001:00000000:00000001 |

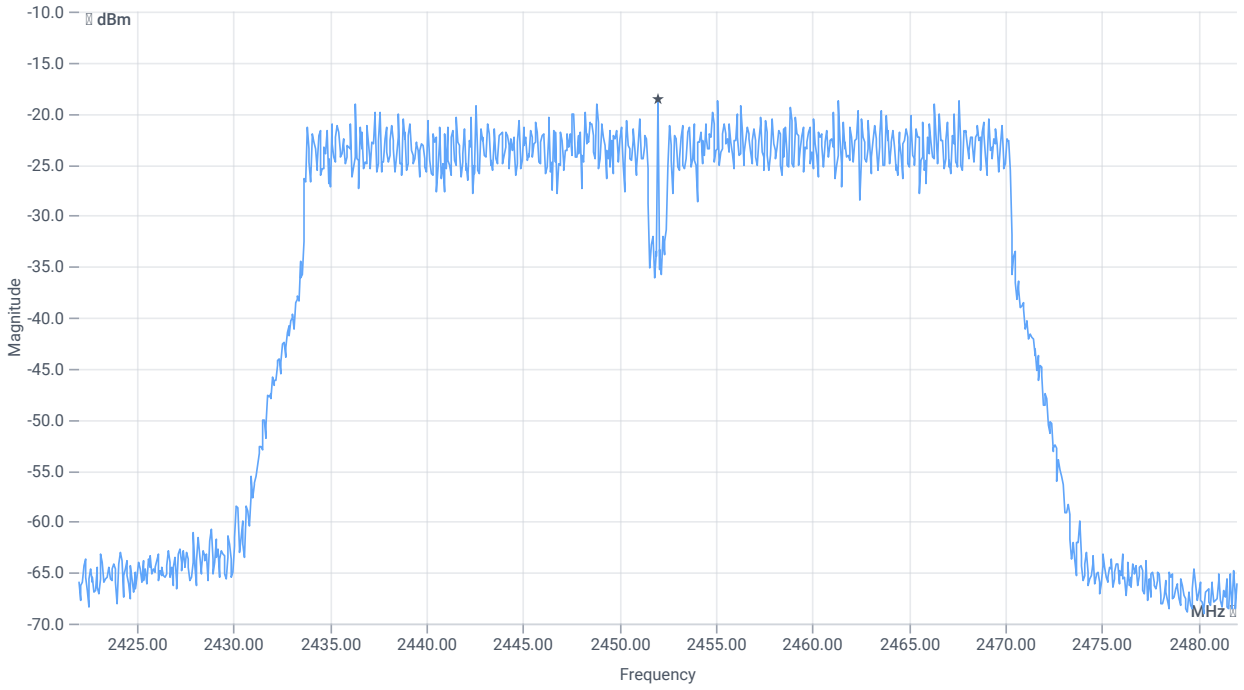
## Test at TX 2452 MHz

### RESULT: Reference power cond.

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Ref. power 1MHz/1MHz cond. | --- | --- | 4.21 | dBm | INFO |
| Ref. frequency | --- | --- | 2459.290 | MHz | INFO |

### READ SA SETTINGS:

| | |
|---|---|
| RefLevel [dBm] \| RefLevelOffset [dB] \| InpAtt [dB] | 9.21 \| 11.08 \| 15 |
| Start [MHz] \| Stop [MHz] | 2422.000 \| 2482.000 |
| RBW [MHz] \| VBW [MHz] | 0.003000 \| 0.010000 |
| Detector \| TraceMode | POS \| MAXH |
| Sweep: time [ms] \| count \| points per Section \| type | 1000 \| 20 \| 1001 \| SWE |




*Peak psd*

### RESULT

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

| Verdict |
|---|
| PASS |

# FCC 15.247 # Bandwidth 6dB DTS ~ WLAN2G4 n-HT40 mode

## References

| | |
|---|---|
| TC start | 10.07.2024 17:38:14 |
| Ambit temp [°C] \| humidity [rel%] | 27.0 \| 50 |
| System version | 5.0.7.0 |
| Standard \| Version | FCC 15.247 \| NI |
| Method | |
| Description | FCC 15.247 Bandwidth 6dB DTS - WLAN2G4 n-HT40 mode |
| Information | |

## EUT Common Settings WLAN2G4

| | |
|---|---|
| Number of antenna ports | 1 |
| User interaction | No |

## Equipment

| |
|---|
| Signal analyzer,Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.70 |
| Switch matrix,cetecom advanced GmbH,USM,B002,1.0.0 |

## Test Parameter

| | |
|---|---|
| Technology to test | WLAN2G4 n-HT40 mode |
| EUT port | EUT1 |
| Temperature | nom |
| Voltage | nom |
| Frequency low to test | False \| Freq [MHz] 2422 |
| Frequency mid to test | False \| Freq [MHz] 2437 |
| Frequency high to test | True \| Freq [MHz] 2452 |
| Auto control enabled power supply \| Climatic Box | No \| No |
| Additional path loss [dB] | 0.5 |
| Full path type | EUT_SA_GEN_SIG |
| Full path name | EUT1.MP.SIG1/EUT1.SA/EUT1.GEN1/EUT1.GEN2/ |
| Switch bits | 00010001:00010001:00000000:00000001 |

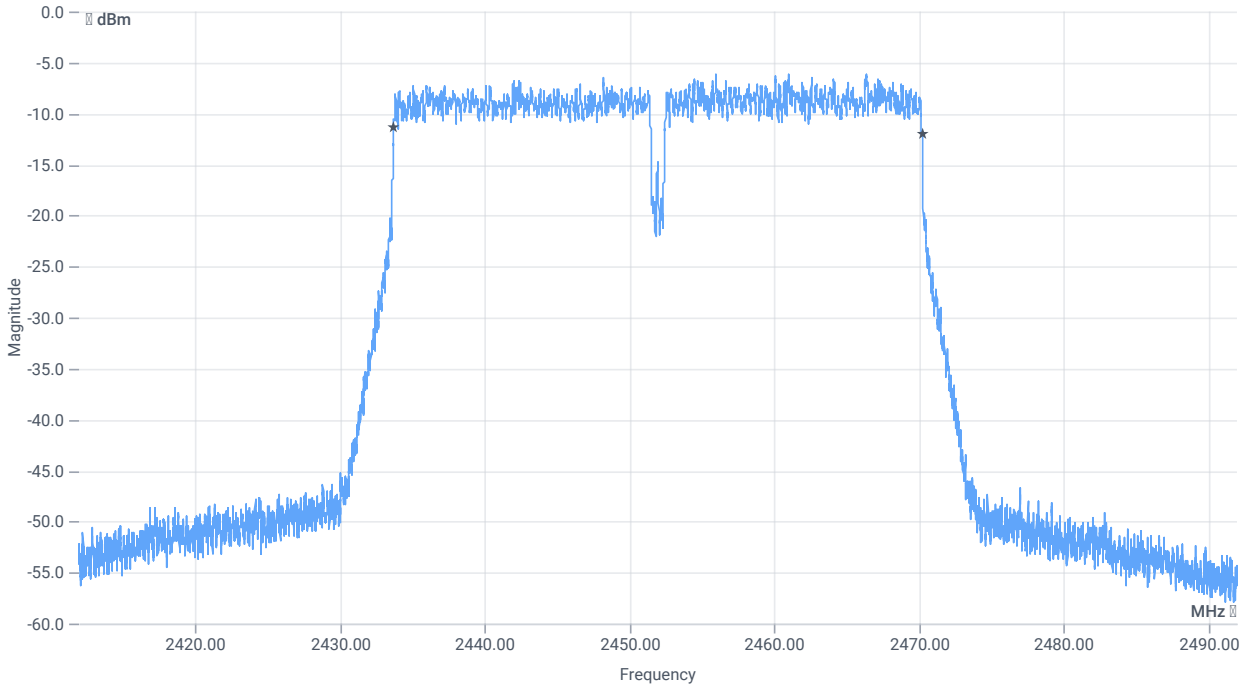
## Test at TX 2452 MHz

### RESULT: Reference power cond.

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Ref. power 1MHz/1MHz cond. | --- | --- | 3.78 | dBm | INFO |
| Ref. frequency | --- | --- | 2466.190 | MHz | INFO |

### READ SA SETTINGS:

| | |
|---|---|
| RefLevel [dBm] \| RefLevelOffset [dB] \| InpAtt [dB] | 8.78 \| 11.08 \| 15 |
| Start [MHz] \| Stop [MHz] | 2412.000 \| 2492.000 |
| RBW [MHz] \| VBW [MHz] | 0.100000 \| 0.300000 |
| Detector \| TraceMode | POS \| MAXH |
| Sweep: time [ms] \| count \| points per Section \| type | 50 \| 200 \| 10001 \| SWE |




*BW 6dB*

### RESULT

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| DTS bandwidth (6dB) | 500 | --- | 36480 | kHz | PASS |

| Verdict |
|---|
| PASS |

# NA # Peak output power 3MHz/3MHz ~ WLAN2G4 n-HT40 mode

## References

| | |
|---|---|
| TC start | 10.07.2024 17:37:42 |
| Ambit temp [°C] \| humidity [rel%] | 27.0 \| 50 |
| System version | 5.0.7.0 |
| Standard \| Version | NA \| NI |
| Method | |
| Description | Peak OP 3MHz/3MHz WLAN2G4 n-HT40 mode |
| Information | |

## EUT Common Settings WLAN2G4

| | |
|---|---|
| Number of antenna ports | 1 |
| User interaction | No |

## Equipment

| |
|---|
| Signal analyzer,Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.70 |
| Switch matrix,cetecom advanced GmbH,USM,B002,1.0.0 |

## Test Parameter

| | |
|---|---|
| Technology to test | WLAN2G4 n-HT40 mode |
| EUT port | EUT1 |
| Temperature | nom |
| Voltage | nom |
| Frequency low to test | False \| Freq [MHz] 2422 |
| Frequency mid to test | False \| Freq [MHz] 2437 |
| Frequency high to test | True \| Freq [MHz] 2452 |
| Auto control enabled power supply \| Climatic Box | No \| No |
| Additional path loss [dB] | 0.5 |
| Full path type | EUT_SA_GEN_SIG |
| Full path name | EUT1.MP.SIG1/EUT1.SA/EUT1.GEN1/EUT1.GEN2/ |
| Switch bits | 00010001:00010001:00000000:00000001 |

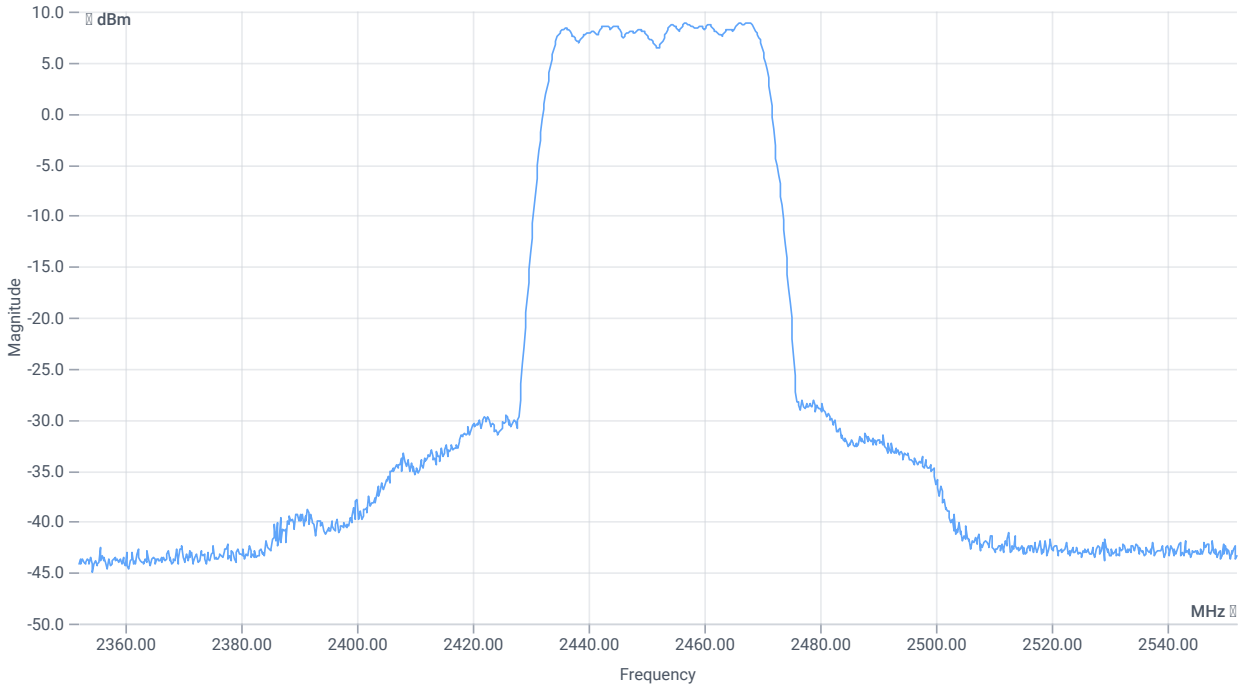
## Test at TX 2452 MHz

### RESULT: Reference power cond.

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Ref. power 1MHz/1MHz cond. | --- | --- | 3.61 | dBm | INFO |
| Ref. frequency | --- | --- | 2466.290 | MHz | INFO |

### READ SA SETTINGS:

| | |
|---|---|
| RefLevel [dBm] \| RefLevelOffset [dB] \| InpAtt [dB] | 13.61 \| 11.08 \| 20 |
| Start [MHz] \| Stop [MHz] | 2352.000 \| 2552.000 |
| RBW [MHz] \| VBW [MHz] | 3.000000 \| 3.000000 |
| Detector \| TraceMode | POS \| MAXH |
| Sweep: time [ms] \| count \| points per Section \| type | 1000 \| 10 \| 1001 \| SWE |




*Peak output power*

### RESULT

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Peak power | --- | --- | 8.94 | dBm | INFO |
| Peak power | --- | --- | 7.834296 | mW | INFO |
| Frequency at peak | --- | --- | 2467.78 | MHz | INFO |

| Verdict |
| --- |
| PASS |

# FCC 15.247 # Peak output power PM DTS ~ WLAN2G4 n-HT40 mode

## References

| | |
|---|---|
| TC start | 10.07.2024 17:36:56 |
| Ambit temp [°C] \| humidity [rel%] | 27.0 \| 50 |
| System version | 5.0.7.0 |
| Standard \| Version | FCC 15.247 \| NI |
| Method | DTS: KDB 558074 D01 V05 - Chapter 8.3.1.3 PKPM1 Peak-reading Power Meter Method |
| Description | FCC 15.247 Peak output power PM DTS - WLAN2G4 n-HT40 mode |
| Information | |

## EUT Common Settings WLAN2G4

| | |
|---|---|
| Number of antenna ports | 1 |
| User interaction | No |

## Equipment

| |
|---|
| Switch matrix,cetecom advanced GmbH,USM,B002,1.0.0 |
| Power sensor,Keysight Technologies,U2021XA,MY59190010,A.04.06 |

## Test Parameter

| | |
|---|---|
| Technology to test | WLAN2G4 n-HT40 mode |
| EUT port | EUT1 |
| Temperature | nom |
| Voltage | nom |
| Frequency low to test | False \| Freq [MHz] 2422 |
| Frequency mid to test | True \| Freq [MHz] 2437 |
| Frequency high to test | False \| Freq [MHz] 2452 |
| Auto control enabled power supply \| Climatic Box | No \| No |
| Additional path loss [dB] | 0.5 |
| Full path type | EUT_PM_GEN_SIG |
| Full path name | EUT1.MP.SIG1/EUT1.PM/EUT1.GEN1/EUT1.GEN2/ |
| Switch bits | 00010001:00010001:00010000:00000001 |

## Test at TX 2437 MHz

RESULT

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Peak power | --- | 30 | 19.7 | dBm | PASS |

| Verdict |
|---|
| PASS |

# FCC 15.247 # TX spurious conducted 20dBc ~ WLAN2G4 n-HT40 mode

## References

| | |
|---|---|
| TC start | 10.07.2024 17:23:19 |
| Ambit temp [°C] \| humidity [rel%] | 26.9 \| 50 |
| System version | 5.0.7.0 |
| Standard \| Version | FCC 15.247 \| NI |
| Method | IF DTS then 8.5 DTS emissions in non-restricted frequency bands: Subclause 11.11 of ANSI C63.10 is applicable |
| Description | FCC 15.247 TX Emissions cond. DTS DTS - WLAN2G4 n-HT40 mode |
| Information | |

## EUT Common Settings WLAN2G4

| | |
|---|---|
| Number of antenna ports | 1 |
| User interaction | No |

## Equipment

| |
|---|
| Signal analyzer,Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.70 |
| Switch matrix,cetecom advanced GmbH,USM,B002,1.0.0 |

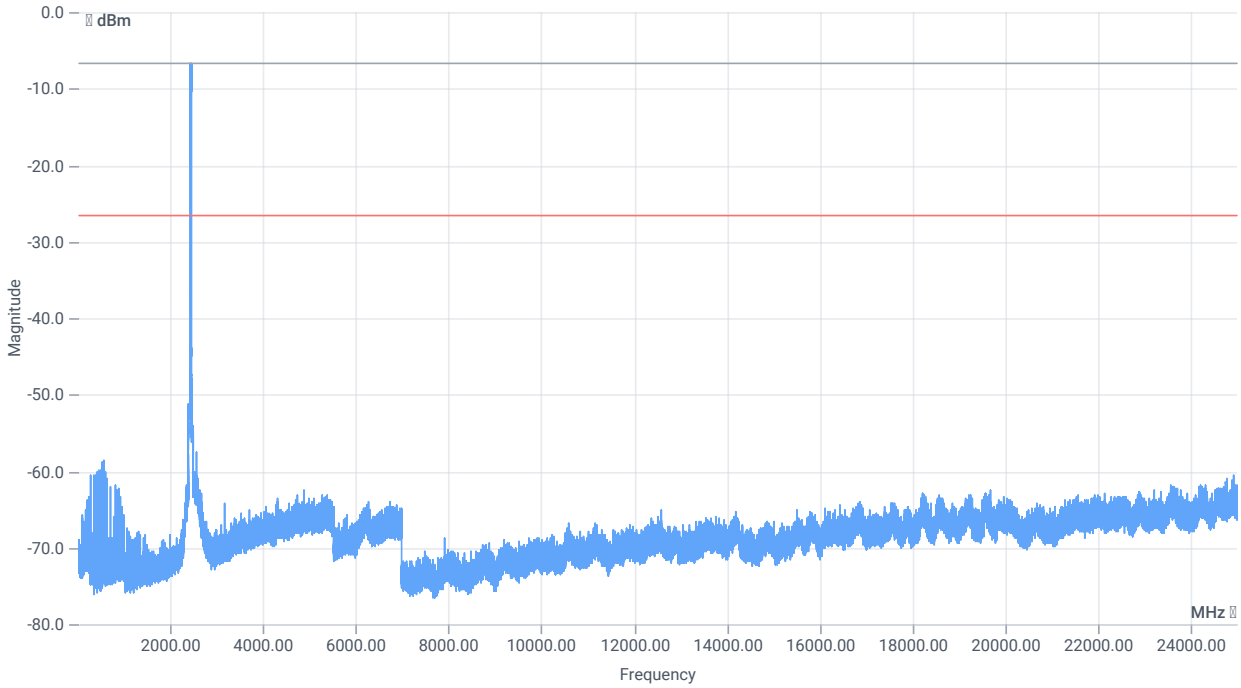
## Test Parameter

| | |
|---|---|
| Technology to test | WLAN2G4 n-HT40 mode |
| EUT port | EUT1 |
| Temperature | nom |
| Voltage | nom |
| Frequency low to test | False \| Freq [MHz] 2422 |
| Frequency mid to test | True \| Freq [MHz] 2437 |
| Frequency high to test | False \| Freq [MHz] 2452 |
| Auto control enabled power supply \| Climatic Box | No \| No |
| Additional path loss [dB] | 0.5 |
| Full path type | EUT_SA_GEN_SIG |
| Full path name | EUT1.MP.SIG1/EUT1.SA/EUT1.GEN1/EUT1.GEN2/ |
| Switch bits | 00010001:00010001:00000000:00000001 |

## Test at TX 2437 MHz

RESULT: Reference power cond.

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Ref. power 1MHz/1MHz cond. | --- | --- | 3.15 | dBm | INFO |
| Ref. frequency | --- | --- | 2454.280 | MHz | INFO |




*TX emissions*

READ SA SETTINGS:

| | |
|---|---|
| RefLevel [dBm] \| RefLevelOffset [dB] \| InpAtt [dB] | 3.15 \| 23.17 \| 0 |
| Start [MHz] \| Stop [MHz] | 24780.000 \| 25000.000 |
| RBW [MHz] \| VBW [MHz] | 0.100000 \| 0.300000 |
| Detector \| TraceMode | POS \| MAXH |
| Sweep: time [ms] \| count \| points per Section \| type | 200 \| 25 \| 1501 \| SWE |

*TX emissions band zoomed*

## RESULT

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Reference @ 2433.17 MHz | --- | --- | -6.68 | dBm | INFO |
| No peaks detected | --- | --- | | | PASS |
| Lowest margin to limit 2398 MHz | 0 | --- | 24.88 | dB | INFO |

| Verdict |
|---|
| PASS |

# FCC 15.247, ISED RSS247 # Bandwidth 99PCT and 20dB ~ WLAN2G4 n-HT40 mode

## References

| | |
|---|---|
| TC start | 10.07.2024 17:22:39 |
| Ambit temp [°C] \| humidity [rel%] | 26.9 \| 50 |
| System version | 5.0.7.0 |
| Standard \| Version | FCC 15.247, ISED RSS247 \| NI |
| Method | |
| Description | FCC 15.247 Bandwidth 99PCT-20dB DTS - WLAN2G4 n-HT40 mode |
| Information | |

## EUT Common Settings WLAN2G4

| | |
|---|---|
| Number of antenna ports | 1 |
| User interaction | No |

## Equipment

| |
|---|
| Signal analyzer,Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.70 |
| Switch matrix,cetecom advanced GmbH,USM,B002,1.0.0 |

## Test Parameter

| | |
|---|---|
| Technology to test | WLAN2G4 n-HT40 mode |
| EUT port | EUT1 |
| Temperature | nom |
| Voltage | nom |
| Frequency low to test | False \| Freq [MHz] 2422 |
| Frequency mid to test | True \| Freq [MHz] 2437 |
| Frequency high to test | False \| Freq [MHz] 2452 |
| Auto control enabled power supply \| Climatic Box | No \| No |
| Additional path loss [dB] | 0.5 |
| Full path type | EUT_SA_GEN_SIG |
| Full path name | EUT1.MP.SIG1/EUT1.SA/EUT1.GEN1/EUT1.GEN2/ |
| Switch bits | 00010001:00010001:00000000:00000001 |

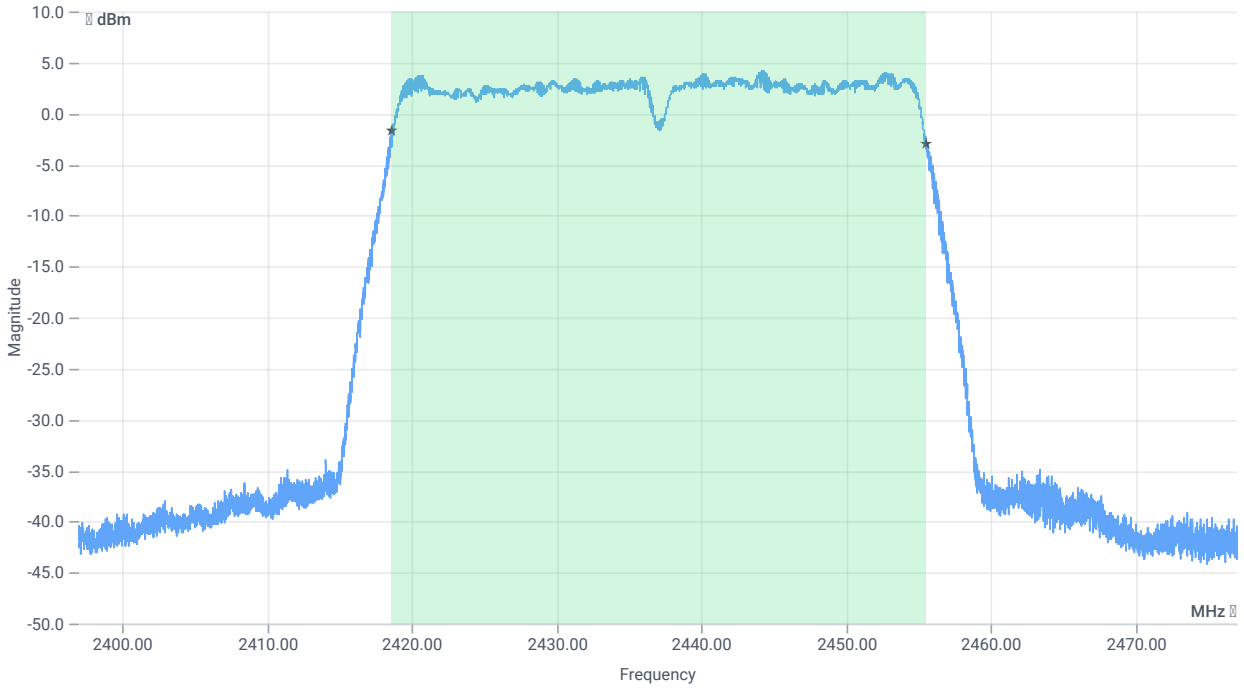
## Test at TX 2437 MHz

RESULT: Reference power cond.

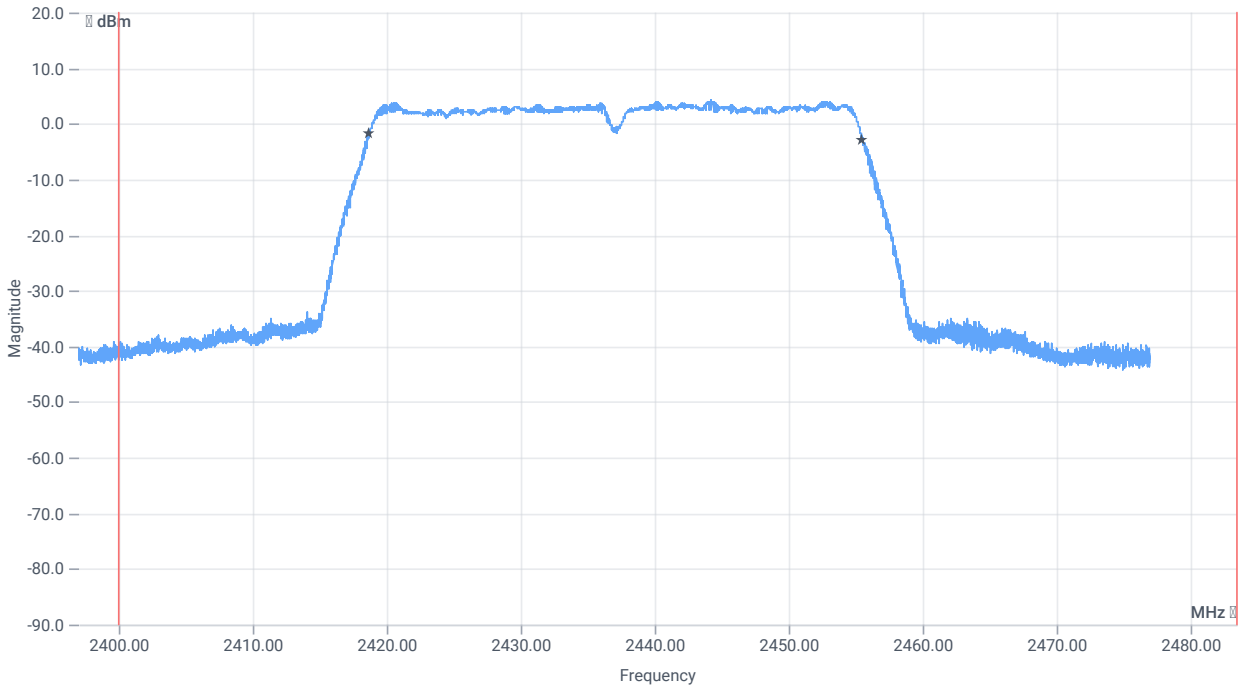
| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Ref. power 1MHz/1MHz cond. | --- | --- | 3.44 | dBm | INFO |
| Ref. frequency | --- | --- | 2452.580 | MHz | INFO |

READ SA SETTINGS:

| | |
|---|---|
| RefLevel [dBm] \| RefLevelOffset [dB] \| InpAtt [dB] | 8.44 \| 11.06 \| 15 |
| Start [MHz] \| Stop [MHz] | 2397.000 \| 2477.000 |
| RBW [MHz] \| VBW [MHz] | 1.000000 \| 3.000000 |
| Detector \| TraceMode | POS \| MAXH |
| Sweep: time [ms] \| count \| points per Section \| type | 50 \| 200 \| 10001 \| SWE |



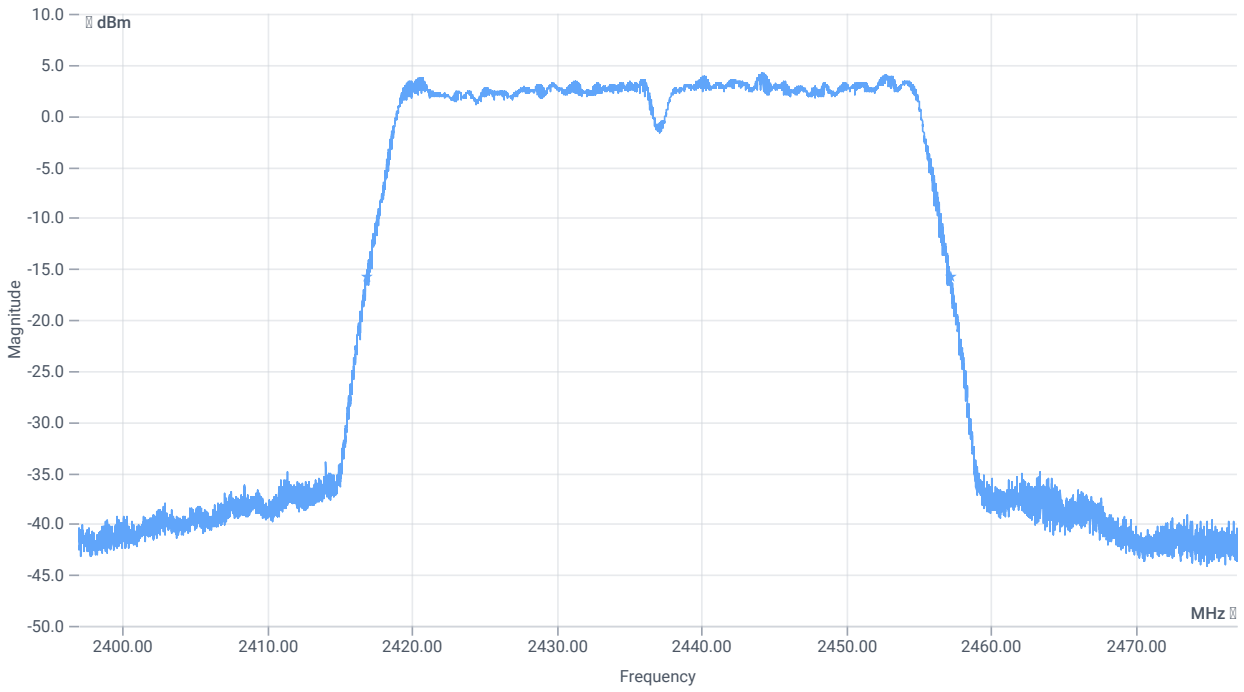

*BW 99PCT*



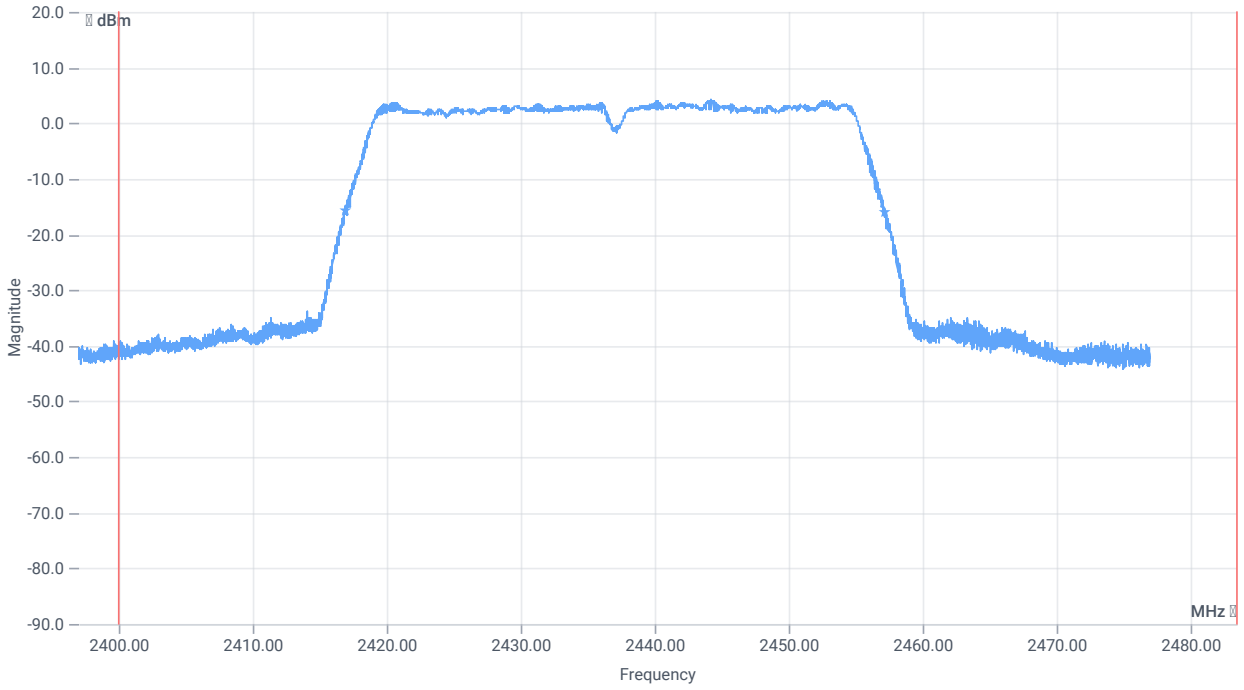

*BW within Band 99PCT*

## RESULT

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Bandwidth 99% | --- | --- | 36836.000 | kHz | INFO |
| T1 99% | 2400.000000 | --- | 2418.6338 | MHz | PASS |
| T2 99% | --- | 2483.500000 | 2455.4702 | MHz | PASS |



*BW 20dB*




*BW within band 20dB*

## RESULT

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Bandwidth 20dB | --- | --- | 40384 | kHz | INFO |
| T1 20dB | 2400.000000 | --- | 2416.8400 | MHz | PASS |
| T2 20dB | --- | 2483.500000 | 2457.2240 | MHz | PASS |

| Verdict |
|---|
| PASS |

# FCC 15.247 # Peak psd DTS ~ WLAN2G4 n-HT40 mode

## References

| | |
|---|---|
| TC start | 10.07.2024 17:21:56 |
| Ambit temp [°C] \| humidity [rel%] | 26.9 \| 50 |
| System version | 5.0.7.0 |
| Standard \| Version | FCC 15.247 \| NI |
| Method | DTS: KDB 558074 D01 V05 - Chapter 8.4 DTS maximum power spectral density level in the fundamental emission |
| Description | FCC 15.247 Peak psd DTS - WLAN2G4 n-HT40 mode |
| Information | |

## EUT Common Settings WLAN2G4

| | |
|---|---|
| Number of antenna ports | 1 |
| User interaction | No |

## Equipment

| |
|---|
| Signal analyzer,Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.70 |
| Switch matrix,cetecom advanced GmbH,USM,B002,1.0.0 |

## Test Parameter

| | |
|---|---|
| Technology to test | WLAN2G4 n-HT40 mode |
| EUT port | EUT1 |
| Temperature | nom |
| Voltage | nom |
| Frequency low to test | False \| Freq [MHz] 2422 |
| Frequency mid to test | True \| Freq [MHz] 2437 |
| Frequency high to test | False \| Freq [MHz] 2452 |
| Auto control enabled power supply \| Climatic Box | No \| No |
| Additional path loss [dB] | 0.5 |
| Full path type | EUT_SA_GEN_SIG |
| Full path name | EUT1.MP.SIG1/EUT1.SA/EUT1.GEN1/EUT1.GEN2/ |
| Switch bits | 00010001:00010001:00000000:00000001 |

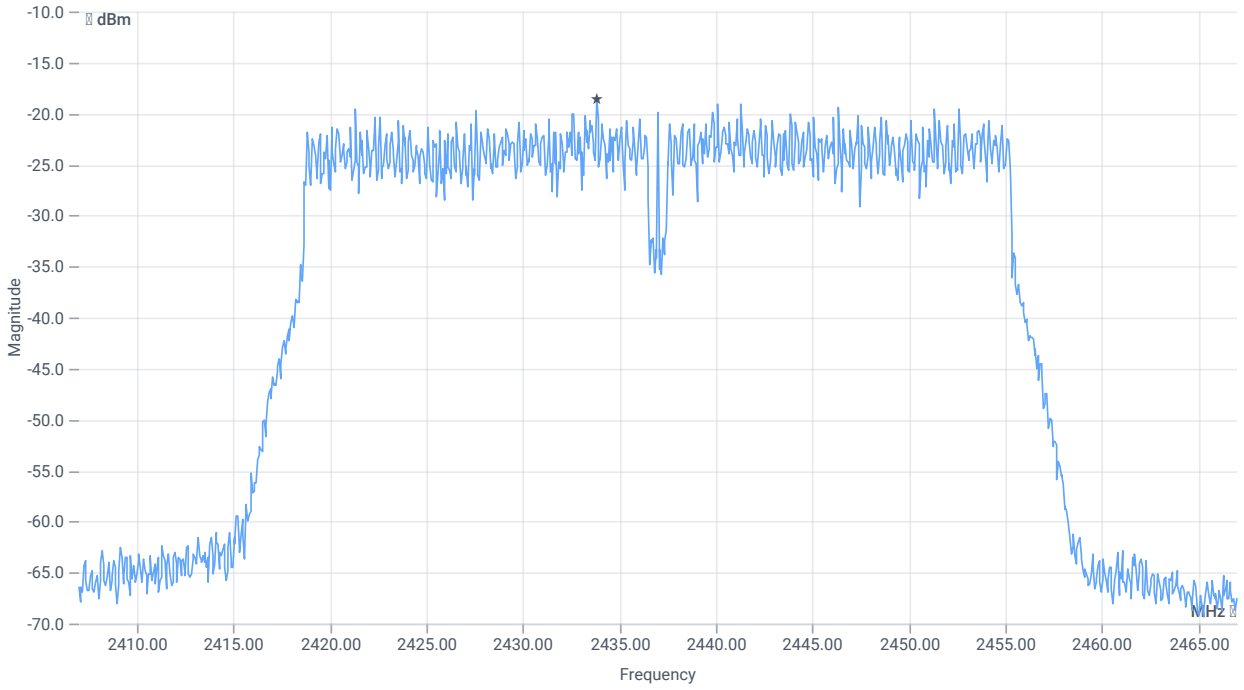
## Test at TX 2437 MHz

### RESULT: Reference power cond.

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Ref. power 1MHz/1MHz cond. | --- | --- | 3.83 | dBm | INFO |
| Ref. frequency | --- | --- | 2420.620 | MHz | INFO |

### READ SA SETTINGS:

| | |
|---|---|
| RefLevel [dBm] \| RefLevelOffset [dB] \| InpAtt [dB] | 8.83 \| 11.06 \| 15 |
| Start [MHz] \| Stop [MHz] | 2407.000 \| 2467.000 |
| RBW [MHz] \| VBW [MHz] | 0.003000 \| 0.010000 |
| Detector \| TraceMode | POS \| MAXH |
| Sweep: time [ms] \| count \| points per Section \| type | 1000 \| 20 \| 1001 \| SWE |




*Peak psd*

### RESULT

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Peak psd | --- | 8 | -18.64 | dBm/3KHz | PASS |

| Verdict |
|---|
| PASS |

# FCC 15.247 # Bandwidth 6dB DTS ~ WLAN2G4 n-HT40 mode

## References

| | |
|---|---|
| TC start | 10.07.2024 17:21:25 |
| Ambit temp [°C] \| humidity [rel%] | 26.9 \| 50 |
| System version | 5.0.7.0 |
| Standard \| Version | FCC 15.247 \| NI |
| Method | |
| Description | FCC 15.247 Bandwidth 6dB DTS - WLAN2G4 n-HT40 mode |
| Information | |

## EUT Common Settings WLAN2G4

| | |
|---|---|
| Number of antenna ports | 1 |
| User interaction | No |

## Equipment

| |
|---|
| Signal analyzer,Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.70 |
| Switch matrix,cetecom advanced GmbH,USM,B002,1.0.0 |

## Test Parameter

| | |
|---|---|
| Technology to test | WLAN2G4 n-HT40 mode |
| EUT port | EUT1 |
| Temperature | nom |
| Voltage | nom |
| Frequency low to test | False \| Freq [MHz] 2422 |
| Frequency mid to test | True \| Freq [MHz] 2437 |
| Frequency high to test | False \| Freq [MHz] 2452 |
| Auto control enabled power supply \| Climatic Box | No \| No |
| Additional path loss [dB] | 0.5 |
| Full path type | EUT_SA_GEN_SIG |
| Full path name | EUT1.MP.SIG1/EUT1.SA/EUT1.GEN1/EUT1.GEN2/ |
| Switch bits | 00010001:00010001:00000000:00000001 |

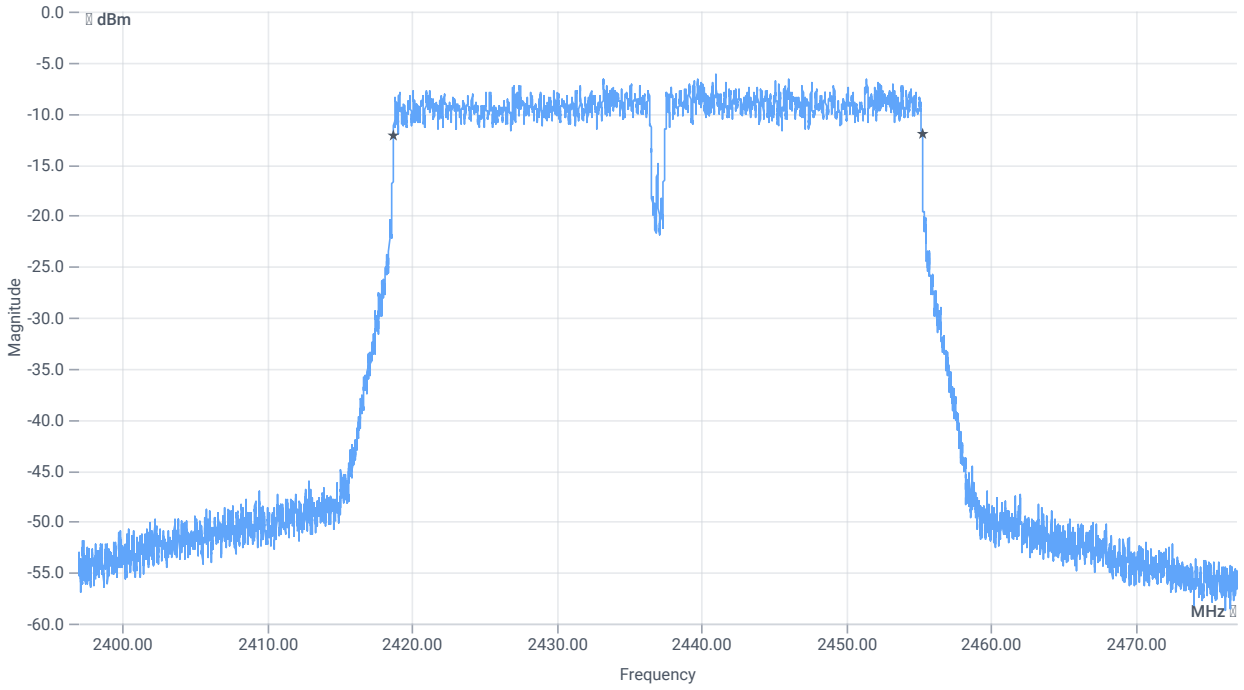
## Test at TX 2437 MHz

### RESULT: Reference power cond.

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Ref. power 1MHz/1MHz cond. | --- | --- | 3.12 | dBm | INFO |
| Ref. frequency | --- | --- | 2435.100 | MHz | INFO |

### READ SA SETTINGS:

| | |
|---|---|
| RefLevel [dBm] \| RefLevelOffset [dB] \| InpAtt [dB] | 8.12 \| 11.06 \| 15 |
| Start [MHz] \| Stop [MHz] | 2397.000 \| 2477.000 |
| RBW [MHz] \| VBW [MHz] | 0.100000 \| 0.300000 |
| Detector \| TraceMode | POS \| MAXH |
| Sweep: time [ms] \| count \| points per Section \| type | 50 \| 200 \| 10001 \| SWE |




*BW 6dB*

### RESULT

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| DTS bandwidth (6dB) | 500 | --- | 36488 | kHz | PASS |

| Verdict |
|---|
| PASS |

# NA # Peak output power 3MHz/3MHz ~ WLAN2G4 n-HT40 mode

## References

| | |
|---|---|
| TC start | 10.07.2024 17:20:54 |
| Ambit temp [°C] \| humidity [rel%] | 26.9 \| 50 |
| System version | 5.0.7.0 |
| Standard \| Version | NA \| NI |
| Method | |
| Description | Peak OP 3MHz/3MHz WLAN2G4 n-HT40 mode |
| Information | |

## EUT Common Settings WLAN2G4

| | |
|---|---|
| Number of antenna ports | 1 |
| User interaction | No |

## Equipment

| |
|---|
| Signal analyzer,Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.70 |
| Switch matrix,cetecom advanced GmbH,USM,B002,1.0.0 |

## Test Parameter

| | |
|---|---|
| Technology to test | WLAN2G4 n-HT40 mode |
| EUT port | EUT1 |
| Temperature | nom |
| Voltage | nom |
| Frequency low to test | False \| Freq [MHz] 2422 |
| Frequency mid to test | True \| Freq [MHz] 2437 |
| Frequency high to test | False \| Freq [MHz] 2452 |
| Auto control enabled power supply \| Climatic Box | No \| No |
| Additional path loss [dB] | 0.5 |
| Full path type | EUT_SA_GEN_SIG |
| Full path name | EUT1.MP.SIG1/EUT1.SA/EUT1.GEN1/EUT1.GEN2/ |
| Switch bits | 00010001:00010001:00000000:00000001 |

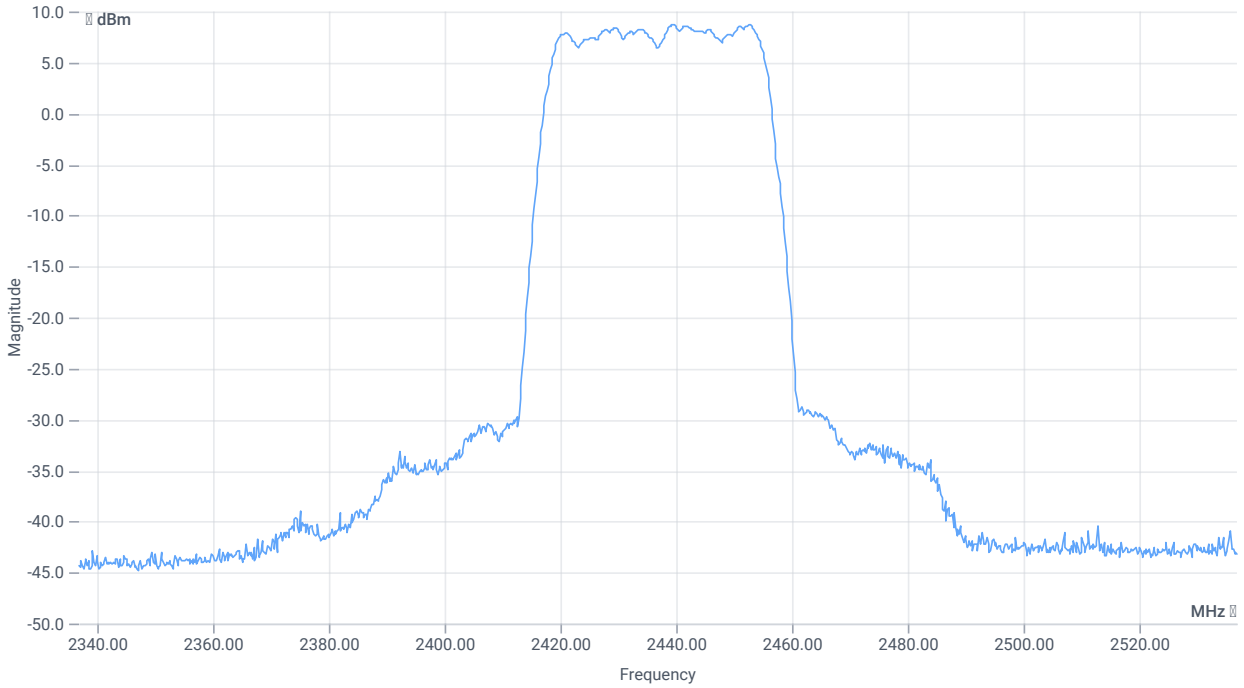
## Test at TX 2437 MHz

### RESULT: Reference power cond.

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Ref. power 1MHz/1MHz cond. | --- | --- | 3.79 | dBm | INFO |
| Ref. frequency | --- | --- | 2444.190 | MHz | INFO |

### READ SA SETTINGS:

| | |
|---|---|
| RefLevel [dBm] \| RefLevelOffset [dB] \| InpAtt [dB] | 13.79 \| 11.06 \| 20 |
| Start [MHz] \| Stop [MHz] | 2337.000 \| 2537.000 |
| RBW [MHz] \| VBW [MHz] | 3.000000 \| 3.000000 |
| Detector \| TraceMode | POS \| MAXH |
| Sweep: time [ms] \| count \| points per Section \| type | 1000 \| 10 \| 1001 \| SWE |




*Peak output power*

### RESULT

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Peak power | --- | --- | 8.7 | dBm | INFO |
| Peak power | --- | --- | 7.413102 | mW | INFO |
| Frequency at peak | --- | --- | 2452.78 | MHz | INFO |

| Verdict |
| --- |
| PASS |

# FCC 15.247 # Peak output power PM DTS ~ WLAN2G4 n-HT40 mode

## References

| | |
|---|---|
| TC start | 10.07.2024 17:18:34 |
| Ambit temp [°C] \| humidity [rel%] | 26.9 \| 50 |
| System version | 5.0.7.0 |
| Standard \| Version | FCC 15.247 \| NI |
| Method | DTS: KDB 558074 D01 V05 - Chapter 8.3.1.3 PKPM1 Peak-reading Power Meter Method |
| Description | FCC 15.247 Peak output power PM DTS - WLAN2G4 n-HT40 mode |
| Information | |

## EUT Common Settings WLAN2G4

| | |
|---|---|
| Number of antenna ports | 1 |
| User interaction | No |

## Equipment

| |
|---|
| Switch matrix,cetecom advanced GmbH,USM,B002,1.0.0 |
| Power sensor,Keysight Technologies,U2021XA,MY59190010,A.04.06 |

## Test Parameter

| | |
|---|---|
| Technology to test | WLAN2G4 n-HT40 mode |
| EUT port | EUT1 |
| Temperature | nom |
| Voltage | nom |
| Frequency low to test | True \| Freq [MHz] 2422 |
| Frequency mid to test | False \| Freq [MHz] 2437 |
| Frequency high to test | False \| Freq [MHz] 2452 |
| Auto control enabled power supply \| Climatic Box | No \| No |
| Additional path loss [dB] | 0.5 |
| Full path type | EUT_PM_GEN_SIG |
| Full path name | EUT1.MP.SIG1/EUT1.PM/EUT1.GEN1/EUT1.GEN2/ |
| Switch bits | 00010001:00010001:00010000:00000001 |

## Test at TX 2422 MHz

RESULT

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Peak power | --- | 30 | 19.92 | dBm | PASS |

| Verdict |
|---|
| PASS |

# FCC 15.247 # TX spurious conducted 20dBc ~ WLAN2G4 n-HT40 mode

## References

| | |
|---|---|
| TC start | 10.07.2024 17:04:58 |
| Ambit temp [°C] \| humidity [rel%] | 26.8 \| 50 |
| System version | 5.0.7.0 |
| Standard \| Version | FCC 15.247 \| NI |
| Method | IF DTS then 8.5 DTS emissions in non-restricted frequency bands: Subclause 11.11 of ANSI C63.10 is applicable |
| Description | FCC 15.247 TX Emissions cond. DTS DTS - WLAN2G4 n-HT40 mode |
| Information | |

## EUT Common Settings WLAN2G4

| | |
|---|---|
| Number of antenna ports | 1 |
| User interaction | No |

## Equipment

| |
|---|
| Signal analyzer,Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.70 |
| Switch matrix,cetecom advanced GmbH,USM,B002,1.0.0 |

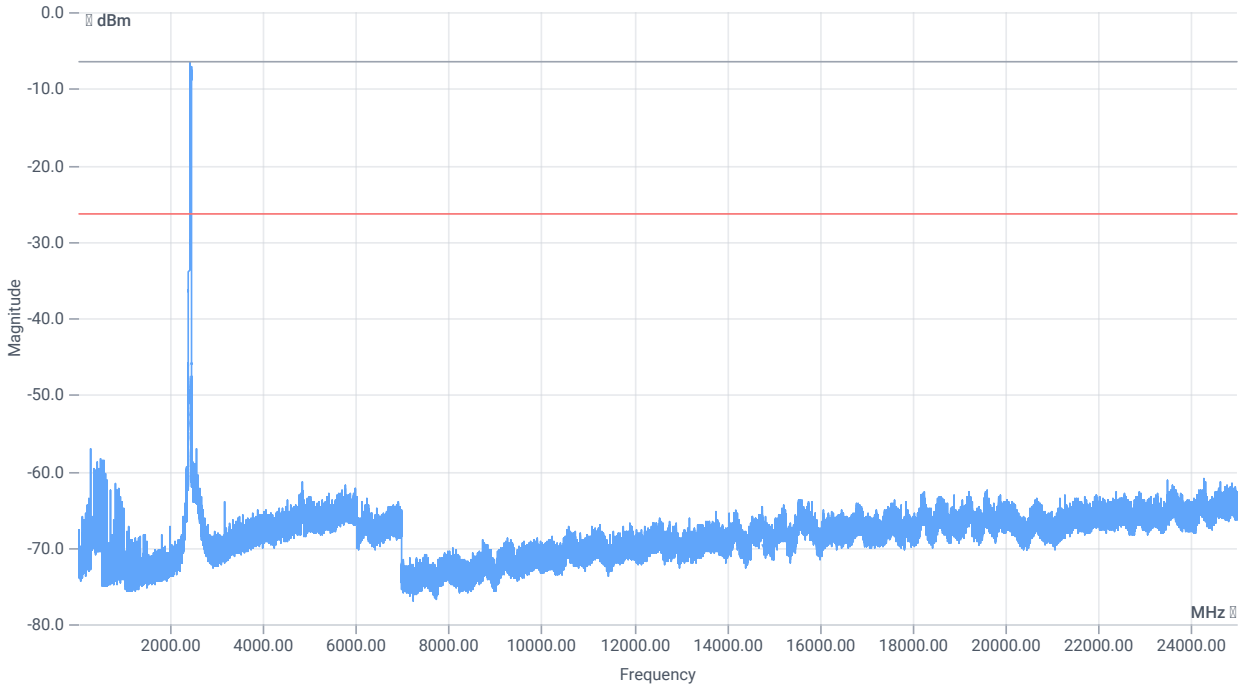
## Test Parameter

| | |
|---|---|
| Technology to test | WLAN2G4 n-HT40 mode |
| EUT port | EUT1 |
| Temperature | nom |
| Voltage | nom |
| Frequency low to test | True \| Freq [MHz] 2422 |
| Frequency mid to test | False \| Freq [MHz] 2437 |
| Frequency high to test | False \| Freq [MHz] 2452 |
| Auto control enabled power supply \| Climatic Box | No \| No |
| Additional path loss [dB] | 0.5 |
| Full path type | EUT_SA_GEN_SIG |
| Full path name | EUT1.MP.SIG1/EUT1.SA/EUT1.GEN1/EUT1.GEN2/ |
| Switch bits | 00010001:00010001:00000000:00000001 |

## Test at TX 2422 MHz

RESULT: Reference power cond.

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Ref. power 1MHz/1MHz cond. | --- | --- | 3.52 | dBm | INFO |
| Ref. frequency | --- | --- | 2439.280 | MHz | INFO |




*TX emissions*

READ SA SETTINGS:

| | |
|---|---|
| RefLevel [dBm] \| RefLevelOffset [dB] \| InpAtt [dB] | 3.52 \| 23.17 \| 0 |
| Start [MHz] \| Stop [MHz] | 24780.000 \| 25000.000 |
| RBW [MHz] \| VBW [MHz] | 0.100000 \| 0.300000 |
| Detector \| TraceMode | POS \| MAXH |
| Sweep: time [ms] \| count \| points per Section \| type | 200 \| 25 \| 1501 \| SWE |

*TX emissions band zoomed*

## RESULT

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Reference @ 2436.50 MHz | --- | --- | -6.44 | dBm | INFO |
| No peaks detected | --- | --- | | | PASS |
| Lowest margin to limit 2398.833 MHz | 0 | --- | 19.44 | dB | INFO |

| Verdict |
|---|
| PASS |

# FCC 15.247, ISED RSS247 # Bandwidth 99PCT and 20dB ~ WLAN2G4 n-HT40 mode

## References

| | |
|---|---|
| TC start | 10.07.2024 17:04:18 |
| Ambit temp [°C] \| humidity [rel%] | 26.8 \| 51 |
| System version | 5.0.7.0 |
| Standard \| Version | FCC 15.247, ISED RSS247 \| NI |
| Method | |
| Description | FCC 15.247 Bandwidth 99PCT-20dB DTS - WLAN2G4 n-HT40 mode |
| Information | |

## EUT Common Settings WLAN2G4

| | |
|---|---|
| Number of antenna ports | 1 |
| User interaction | No |

## Equipment

| |
|---|
| Signal analyzer,Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.70 |
| Switch matrix,cetecom advanced GmbH,USM,B002,1.0.0 |

## Test Parameter

| | |
|---|---|
| Technology to test | WLAN2G4 n-HT40 mode |
| EUT port | EUT1 |
| Temperature | nom |
| Voltage | nom |
| Frequency low to test | True \| Freq [MHz] 2422 |
| Frequency mid to test | False \| Freq [MHz] 2437 |
| Frequency high to test | False \| Freq [MHz] 2452 |
| Auto control enabled power supply \| Climatic Box | No \| No |
| Additional path loss [dB] | 0.5 |
| Full path type | EUT_SA_GEN_SIG |
| Full path name | EUT1.MP.SIG1/EUT1.SA/EUT1.GEN1/EUT1.GEN2/ |
| Switch bits | 00010001:00010001:00000000:00000001 |

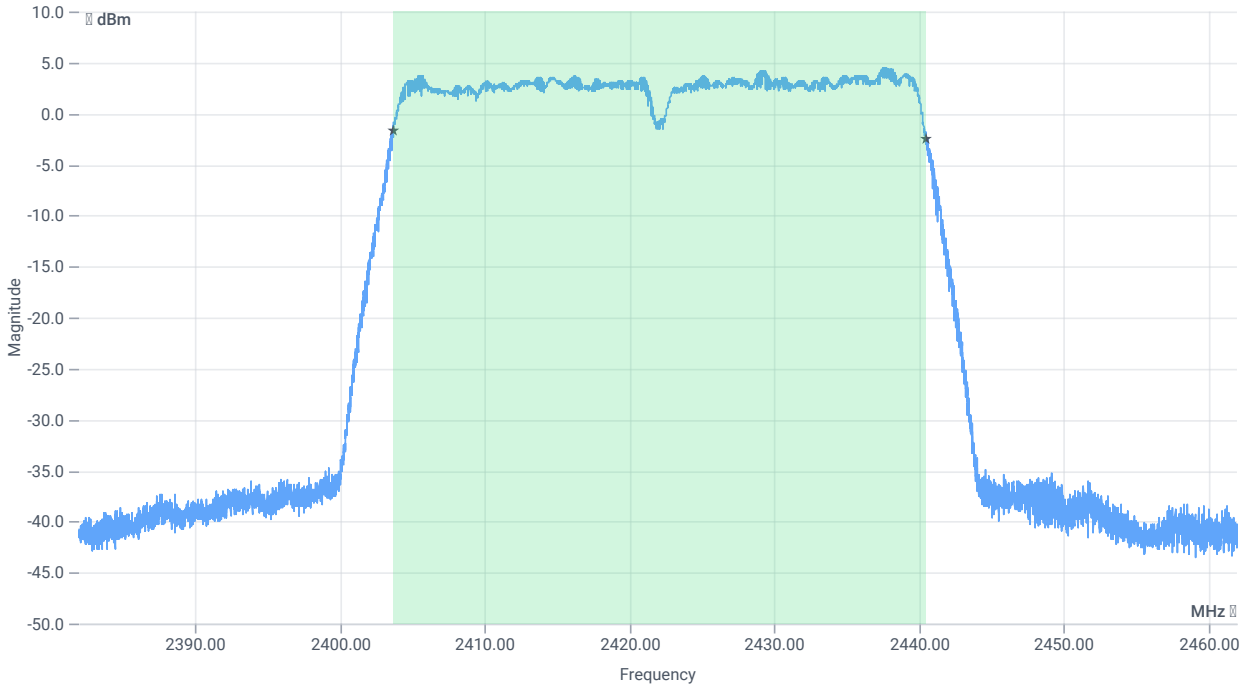
## Test at TX 2422 MHz

RESULT: Reference power cond.

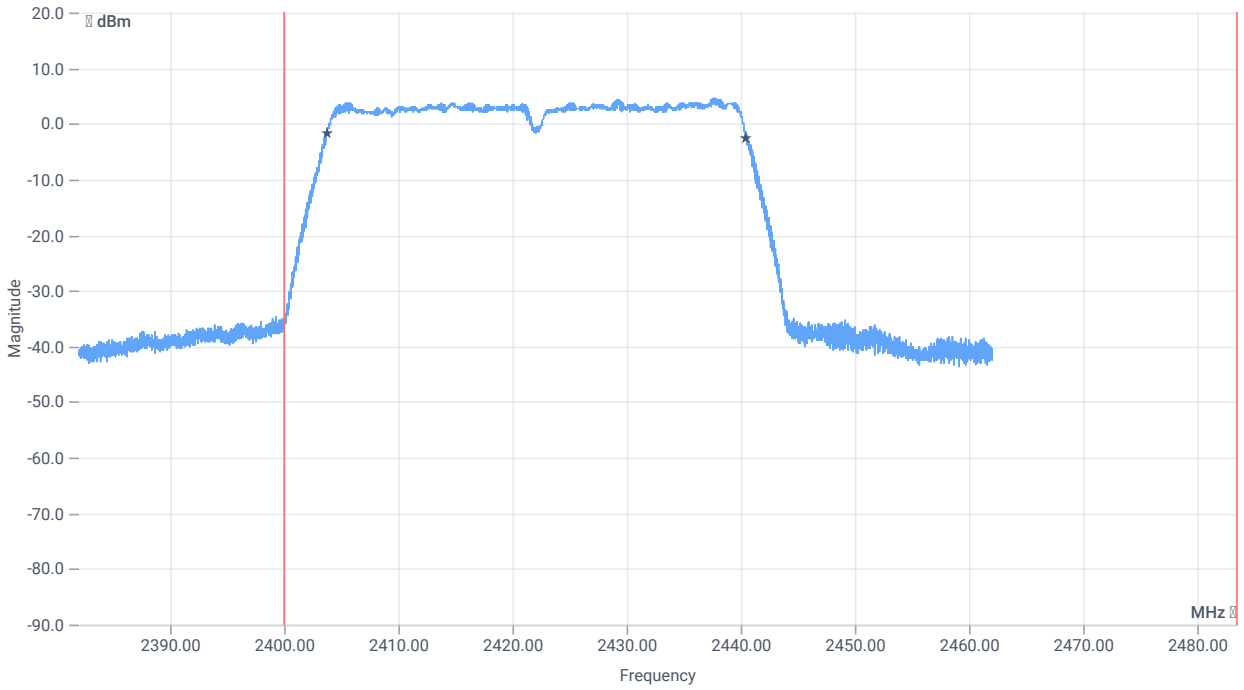
| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Ref. power 1MHz/1MHz cond. | --- | --- | 3.50 | dBm | INFO |
| Ref. frequency | --- | --- | 2439.080 | MHz | INFO |

READ SA SETTINGS:

| | |
|---|---|
| RefLevel [dBm] \| RefLevelOffset [dB] \| InpAtt [dB] | 8.50 \| 11.01 \| 15 |
| Start [MHz] \| Stop [MHz] | 2382.000 \| 2462.000 |
| RBW [MHz] \| VBW [MHz] | 1.000000 \| 3.000000 |
| Detector \| TraceMode | POS \| MAXH |
| Sweep: time [ms] \| count \| points per Section \| type | 50 \| 200 \| 10001 \| SWE |



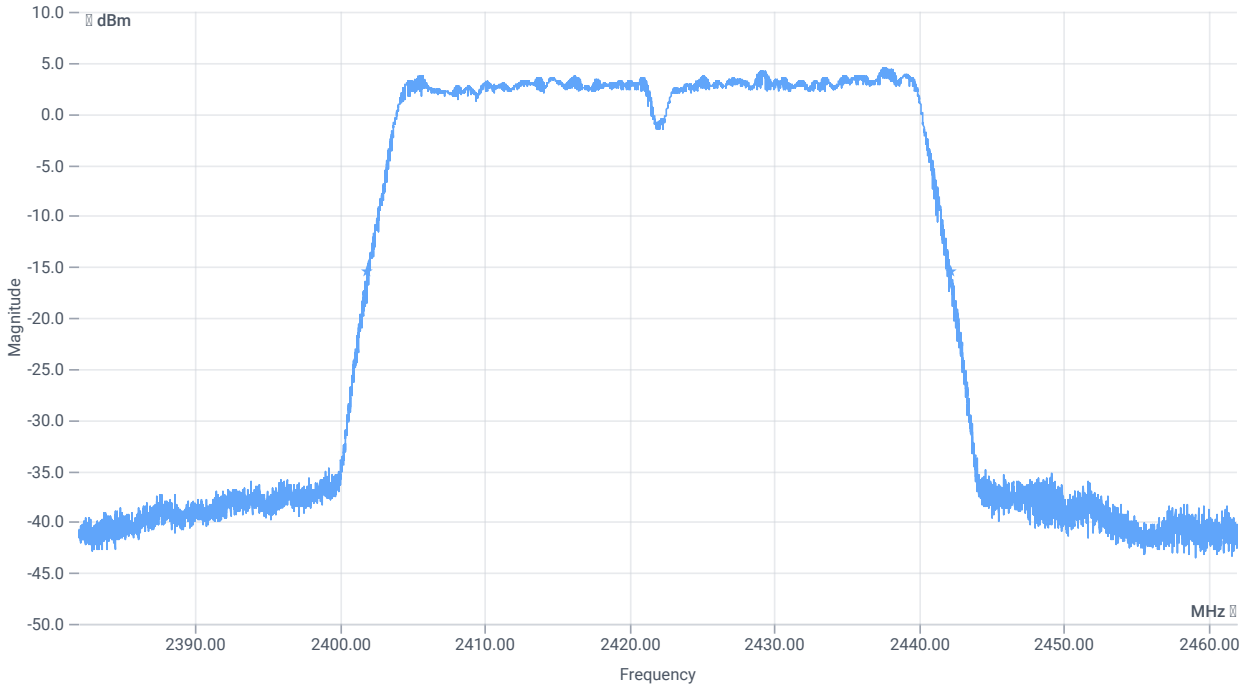

*BW 99PCT*



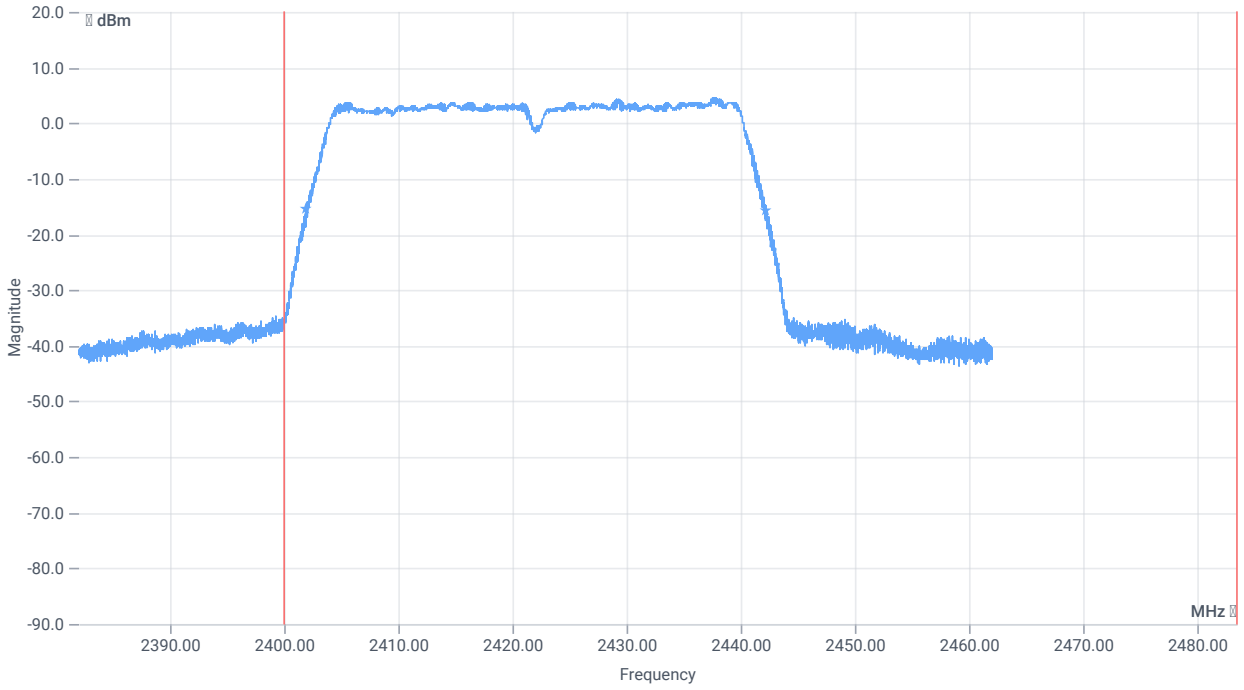

*BW within Band 99PCT*

## RESULT

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Bandwidth 99% | --- | --- | 36796.000 | kHz | INFO |
| T1 99% | 2400.000000 | --- | 2403.6898 | MHz | PASS |
| T2 99% | --- | 2483.500000 | 2440.4862 | MHz | PASS |



*BW 20dB*




*BW within band 20dB*

## RESULT

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Bandwidth 20dB | --- | --- | 40288 | kHz | INFO |
| T1 20dB | 2400.000000 | --- | 2401.9360 | MHz | PASS |
| T2 20dB | --- | 2483.500000 | 2442.2240 | MHz | PASS |

| Verdict |
|---|
| PASS |

# FCC 15.247 # Peak psd DTS ~ WLAN2G4 n-HT40 mode

## References

| | |
|---|---|
| TC start | 10.07.2024 17:03:36 |
| Ambit temp [°C] \| humidity [rel%] | 26.7 \| 51 |
| System version | 5.0.7.0 |
| Standard \| Version | FCC 15.247 \| NI |
| Method | DTS: KDB 558074 D01 V05 - Chapter 8.4 DTS maximum power spectral density level in the fundamental emission |
| Description | FCC 15.247 Peak psd DTS - WLAN2G4 n-HT40 mode |
| Information | |

## EUT Common Settings WLAN2G4

| | |
|---|---|
| Number of antenna ports | 1 |
| User interaction | No |

## Equipment

| |
|---|
| Signal analyzer,Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.70 |
| Switch matrix,cetecom advanced GmbH,USM,B002,1.0.0 |

## Test Parameter

| | |
|---|---|
| Technology to test | WLAN2G4 n-HT40 mode |
| EUT port | EUT1 |
| Temperature | nom |
| Voltage | nom |
| Frequency low to test | True \| Freq [MHz] 2422 |
| Frequency mid to test | False \| Freq [MHz] 2437 |
| Frequency high to test | False \| Freq [MHz] 2452 |
| Auto control enabled power supply \| Climatic Box | No \| No |
| Additional path loss [dB] | 0.5 |
| Full path type | EUT_SA_GEN_SIG |
| Full path name | EUT1.MP.SIG1/EUT1.SA/EUT1.GEN1/EUT1.GEN2/ |
| Switch bits | 00010001:00010001:00000000:00000001 |

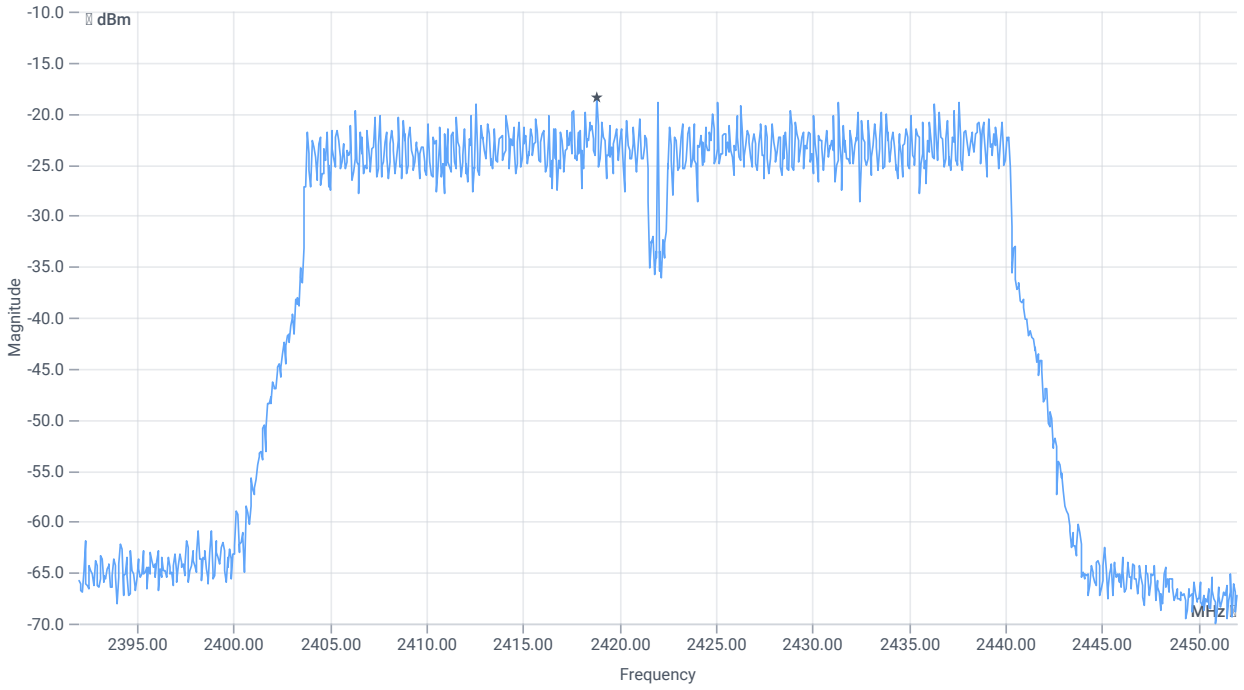
## Test at TX 2422 MHz

### RESULT: Reference power cond.

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Ref. power 1MHz/1MHz cond. | --- | --- | 3.69 | dBm | INFO |
| Ref. frequency | --- | --- | 2439.280 | MHz | INFO |

### READ SA SETTINGS:

| | |
|---|---|
| RefLevel [dBm] \| RefLevelOffset [dB] \| InpAtt [dB] | 8.69 \| 11.01 \| 15 |
| Start [MHz] \| Stop [MHz] | 2392.000 \| 2452.000 |
| RBW [MHz] \| VBW [MHz] | 0.003000 \| 0.010000 |
| Detector \| TraceMode | POS \| MAXH |
| Sweep: time [ms] \| count \| points per Section \| type | 1000 \| 20 \| 1001 \| SWE |




*Peak psd*

### RESULT

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Peak psd | --- | 8 | -18.51 | dBm/3KHz | PASS |

| Verdict |
|---|
| PASS |

# FCC 15.247 # Bandwidth 6dB DTS ~ WLAN2G4 n-HT40 mode

## References

| | |
|---|---|
| TC start | 10.07.2024 17:03:05 |
| Ambit temp [°C] \| humidity [rel%] | 26.7 \| 51 |
| System version | 5.0.7.0 |
| Standard \| Version | FCC 15.247 \| NI |
| Method | |
| Description | FCC 15.247 Bandwidth 6dB DTS - WLAN2G4 n-HT40 mode |
| Information | |

## EUT Common Settings WLAN2G4

| | |
|---|---|
| Number of antenna ports | 1 |
| User interaction | No |

## Equipment

| |
|---|
| Signal analyzer,Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.70 |
| Switch matrix,cetecom advanced GmbH,USM,B002,1.0.0 |

## Test Parameter

| | |
|---|---|
| Technology to test | WLAN2G4 n-HT40 mode |
| EUT port | EUT1 |
| Temperature | nom |
| Voltage | nom |
| Frequency low to test | True \| Freq [MHz] 2422 |
| Frequency mid to test | False \| Freq [MHz] 2437 |
| Frequency high to test | False \| Freq [MHz] 2452 |
| Auto control enabled power supply \| Climatic Box | No \| No |
| Additional path loss [dB] | 0.5 |
| Full path type | EUT_SA_GEN_SIG |
| Full path name | EUT1.MP.SIG1/EUT1.SA/EUT1.GEN1/EUT1.GEN2/ |
| Switch bits | 00010001:00010001:00000000:00000001 |

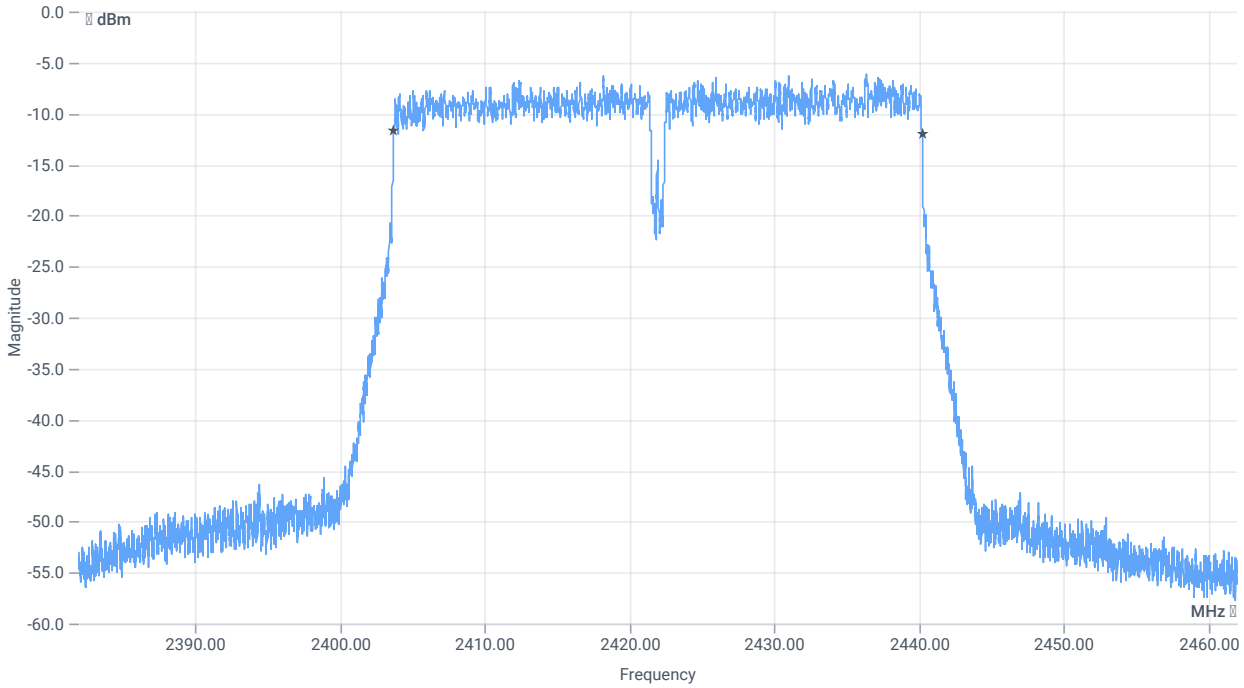
## Test at TX 2422 MHz

### RESULT: Reference power cond.

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Ref. power 1MHz/1MHz cond. | --- | --- | 3.61 | dBm | INFO |
| Ref. frequency | --- | --- | 2439.280 | MHz | INFO |

### READ SA SETTINGS:

| | |
|---|---|
| RefLevel [dBm] \| RefLevelOffset [dB] \| InpAtt [dB] | 8.61 \| 11.01 \| 15 |
| Start [MHz] \| Stop [MHz] | 2382.000 \| 2462.000 |
| RBW [MHz] \| VBW [MHz] | 0.100000 \| 0.300000 |
| Detector \| TraceMode | POS \| MAXH |
| Sweep: time [ms] \| count \| points per Section \| type | 50 \| 200 \| 10001 \| SWE |




*BW 6dB*

### RESULT

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| DTS bandwidth (6dB) | 500 | --- | 36480 | kHz | PASS |

| Verdict |
|---|
| PASS |

# NA # Peak output power 3MHz/3MHz ~ WLAN2G4 n-HT40 mode

## References

| | |
|---|---|
| TC start | 10.07.2024 17:02:33 |
| Ambit temp [°C] \| humidity [rel%] | 26.7 \| 51 |
| System version | 5.0.7.0 |
| Standard \| Version | NA \| NI |
| Method | |
| Description | Peak OP 3MHz/3MHz WLAN2G4 n-HT40 mode |
| Information | |

## EUT Common Settings WLAN2G4

| | |
|---|---|
| Number of antenna ports | 1 |
| User interaction | No |

## Equipment

| |
|---|
| Signal analyzer,Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.70 |
| Switch matrix,cetecom advanced GmbH,USM,B002,1.0.0 |

## Test Parameter

| | |
|---|---|
| Technology to test | WLAN2G4 n-HT40 mode |
| EUT port | EUT1 |
| Temperature | nom |
| Voltage | nom |
| Frequency low to test | True \| Freq [MHz] 2422 |
| Frequency mid to test | False \| Freq [MHz] 2437 |
| Frequency high to test | False \| Freq [MHz] 2452 |
| Auto control enabled power supply \| Climatic Box | No \| No |
| Additional path loss [dB] | 0.5 |
| Full path type | EUT_SA_GEN_SIG |
| Full path name | EUT1.MP.SIG1/EUT1.SA/EUT1.GEN1/EUT1.GEN2/ |
| Switch bits | 00010001:00010001:00000000:00000001 |

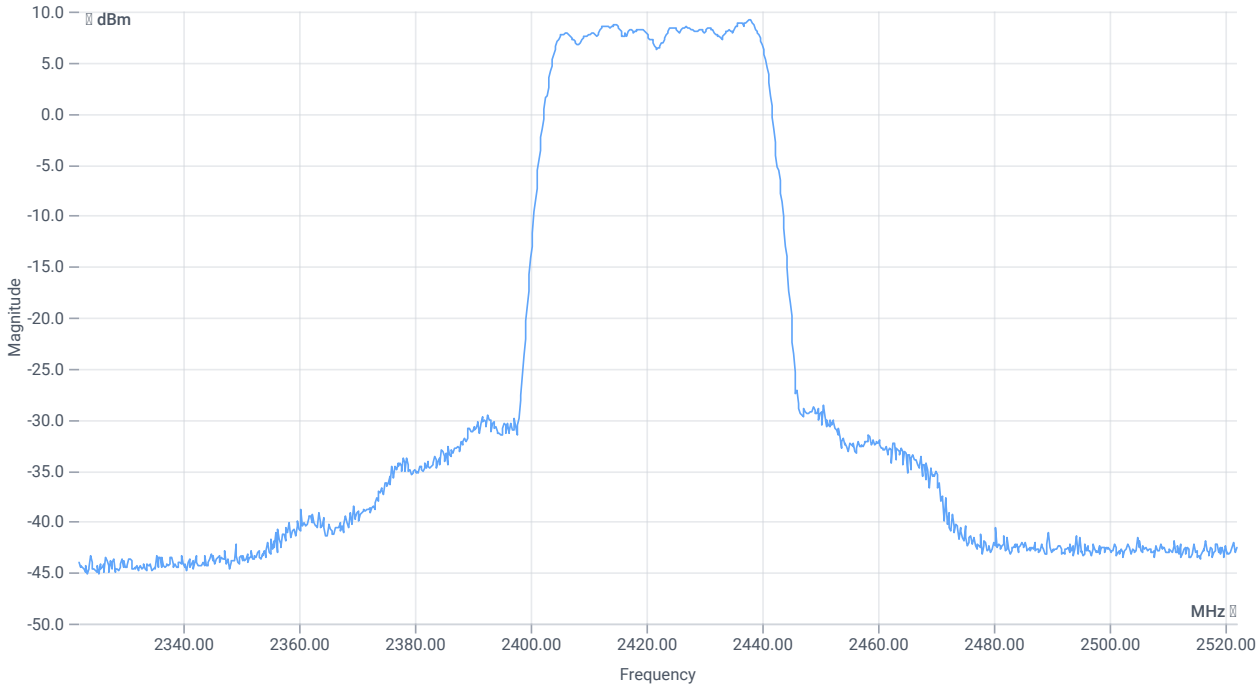
## Test at TX 2422 MHz

### RESULT: Reference power cond.

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Ref. power 1MHz/1MHz cond. | --- | --- | 3.50 | dBm | INFO |
| Ref. frequency | --- | --- | 2405.720 | MHz | INFO |

### READ SA SETTINGS:

| | |
|---|---|
| RefLevel [dBm] \| RefLevelOffset [dB] \| InpAtt [dB] | 13.50 \| 11.01 \| 20 |
| Start [MHz] \| Stop [MHz] | 2322.000 \| 2522.000 |
| RBW [MHz] \| VBW [MHz] | 3.000000 \| 3.000000 |
| Detector \| TraceMode | POS \| MAXH |
| Sweep: time [ms] \| count \| points per Section \| type | 1000 \| 10 \| 1001 \| SWE |




*Peak output power*

### RESULT

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Peak power | --- | --- | 9.16 | dBm | INFO |
| Peak power | --- | --- | 8.241381 | mW | INFO |
| Frequency at peak | --- | --- | 2437.78 | MHz | INFO |

| Verdict |
| --- |
| PASS |

# FCC 15.247 # Peak output power PM DTS ~ WLAN2G4 n-HT20 mode

## References

| | |
|---|---|
| TC start | 10.07.2024 17:01:31 |
| Ambit temp [°C] \| humidity [rel%] | 26.7 \| 51 |
| System version | 5.0.7.0 |
| Standard \| Version | FCC 15.247 \| NI |
| Method | DTS: KDB 558074 D01 V05 - Chapter 8.3.1.3 PKPM1 Peak-reading Power Meter Method |
| Description | FCC 15.247 Peak output power PM DTS - WLAN2G4 n-HT20 mode |
| Information | |

## EUT Common Settings WLAN2G4

| | |
|---|---|
| Number of antenna ports | 1 |
| User interaction | No |

## Equipment

| |
|---|
| Switch matrix,cetecom advanced GmbH,USM,B002,1.0.0 |
| Power sensor,Keysight Technologies,U2021XA,MY59190010,A.04.06 |

## Test Parameter

| | |
|---|---|
| Technology to test | WLAN2G4 n-HT20 mode |
| EUT port | EUT1 |
| Temperature | nom |
| Voltage | nom |
| Frequency low to test | False \| Freq [MHz] 2412 |
| Frequency mid to test | False \| Freq [MHz] 2437 |
| Frequency high to test | True \| Freq [MHz] 2462 |
| Auto control enabled power supply \| Climatic Box | No \| No |
| Additional path loss [dB] | 0.5 |
| Full path type | EUT_PM_GEN_SIG |
| Full path name | EUT1.MP.SIG1/EUT1.PM/EUT1.GEN1/EUT1.GEN2/ |
| Switch bits | 00010001:00010001:00010000:00000001 |

## Test at TX 2462 MHz

RESULT

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Peak power | --- | 30 | 21.27 | dBm | PASS |

| Verdict |
|---|
| PASS |

# FCC 15.247 # TX spurious conducted 20dBc ~ WLAN2G4 n-HT20 mode

## References

| | |
|---|---|
| TC start | 10.07.2024 16:47:55 |
| Ambit temp [°C] \| humidity [rel%] | 26.5 \| 51 |
| System version | 5.0.7.0 |
| Standard \| Version | FCC 15.247 \| NI |
| Method | IF DTS then 8.5 DTS emissions in non-restricted frequency bands: Subclause 11.11 of ANSI C63.10 is applicable |
| Description | FCC 15.247 TX Emissions cond. DTS DTS - WLAN2G4 nHT20_mode |
| Information | |

## EUT Common Settings WLAN2G4

| | |
|---|---|
| Number of antenna ports | 1 |
| User interaction | No |

## Equipment

| |
|---|
| Signal analyzer,Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.70 |
| Switch matrix,cetecom advanced GmbH,USM,B002,1.0.0 |

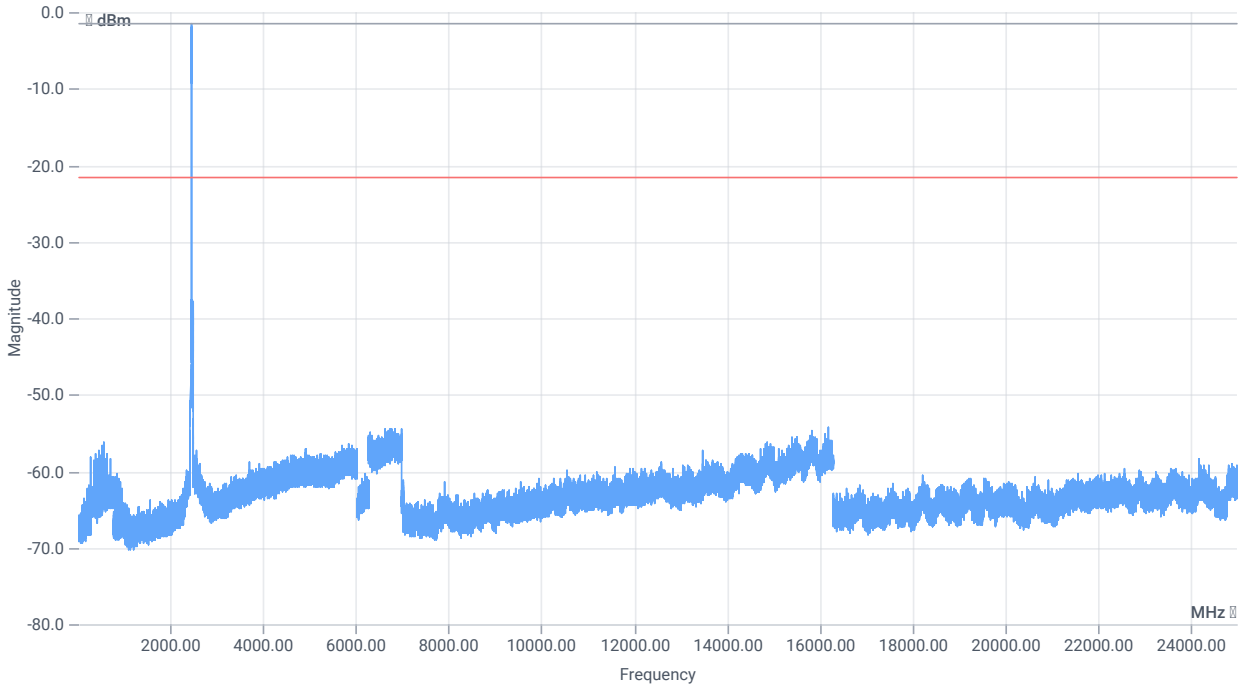
## Test Parameter

| | |
|---|---|
| Technology to test | WLAN2G4 n-HT20 mode |
| EUT port | EUT1 |
| Temperature | nom |
| Voltage | nom |
| Frequency low to test | False \| Freq [MHz] 2412 |
| Frequency mid to test | False \| Freq [MHz] 2437 |
| Frequency high to test | True \| Freq [MHz] 2462 |
| Auto control enabled power supply \| Climatic Box | No \| No |
| Additional path loss [dB] | 0.5 |
| Full path type | EUT_SA_GEN_SIG |
| Full path name | EUT1.MP.SIG1/EUT1.SA/EUT1.GEN1/EUT1.GEN2/ |
| Switch bits | 00010001:00010001:00000000:00000001 |

## Test at TX 2462 MHz

RESULT: Reference power cond.

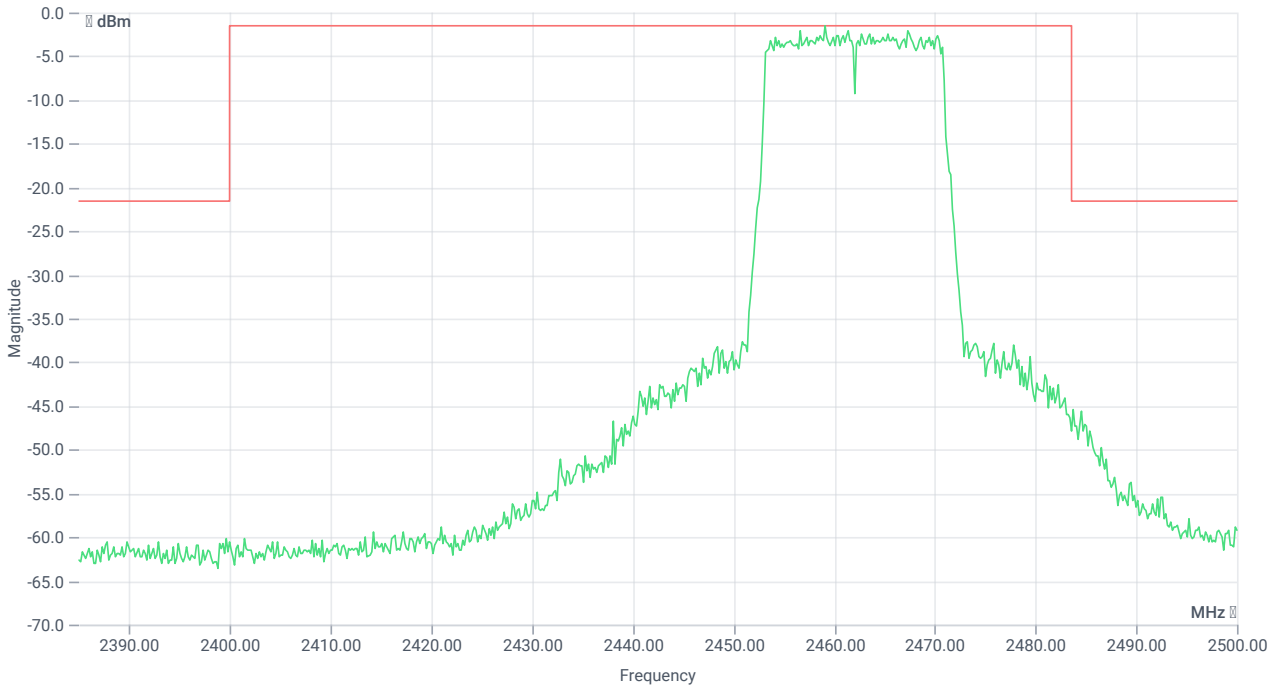
| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Ref. power 1MHz/1MHz cond. | --- | --- | 8.90 | dBm | INFO |
| Ref. frequency | --- | --- | 2463.500 | MHz | INFO |




*TX emissions*

READ SA SETTINGS:

| | |
|---|---|
| RefLevel [dBm] \| RefLevelOffset [dB] \| InpAtt [dB] | 8.90 \| 23.17 \| 5 |
| Start [MHz] \| Stop [MHz] | 24780.000 \| 25000.000 |
| RBW [MHz] \| VBW [MHz] | 0.100000 \| 0.300000 |
| Detector \| TraceMode | POS \| MAXH |
| Sweep: time [ms] \| count \| points per Section \| type | 200 \| 25 \| 1501 \| SWE |




*TX emissions band zoomed*

## RESULT

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Reference @ 2459.17 MHz | --- | --- | -1.60 | dBm | INFO |
| No peaks detected | --- | --- | | | PASS |
| Lowest margin to limit 2483.667 MHz | 0 | --- | 23.72 | dB | INFO |

| Verdict |
|---|
| PASS |

# FCC 15.247, ISED RSS247 # Bandwidth 99PCT and 20dB ~ WLAN2G4 n-HT20 mode

## References

| | |
|---|---|
| TC start | 10.07.2024 16:47:16 |
| Ambit temp [°C] \| humidity [rel%] | 26.5 \| 51 |
| System version | 5.0.7.0 |
| Standard \| Version | FCC 15.247, ISED RSS247 \| NI |
| Method | |
| Description | FCC 15.247 Bandwidth 99PCT-20dB DTS - WLAN2G4 n-HT20 mode |
| Information | |

## EUT Common Settings WLAN2G4

| | |
|---|---|
| Number of antenna ports | 1 |
| User interaction | No |

## Equipment

| |
|---|
| Signal analyzer,Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.70 |
| Switch matrix,cetecom advanced GmbH,USM,B002,1.0.0 |

## Test Parameter

| | |
|---|---|
| Technology to test | WLAN2G4 n-HT20 mode |
| EUT port | EUT1 |
| Temperature | nom |
| Voltage | nom |
| Frequency low to test | False \| Freq [MHz] 2412 |
| Frequency mid to test | False \| Freq [MHz] 2437 |
| Frequency high to test | True \| Freq [MHz] 2462 |
| Auto control enabled power supply \| Climatic Box | No \| No |
| Additional path loss [dB] | 0.5 |
| Full path type | EUT_SA_GEN_SIG |
| Full path name | EUT1.MP.SIG1/EUT1.SA/EUT1.GEN1/EUT1.GEN2/ |
| Switch bits | 00010001:00010001:00000000:00000001 |

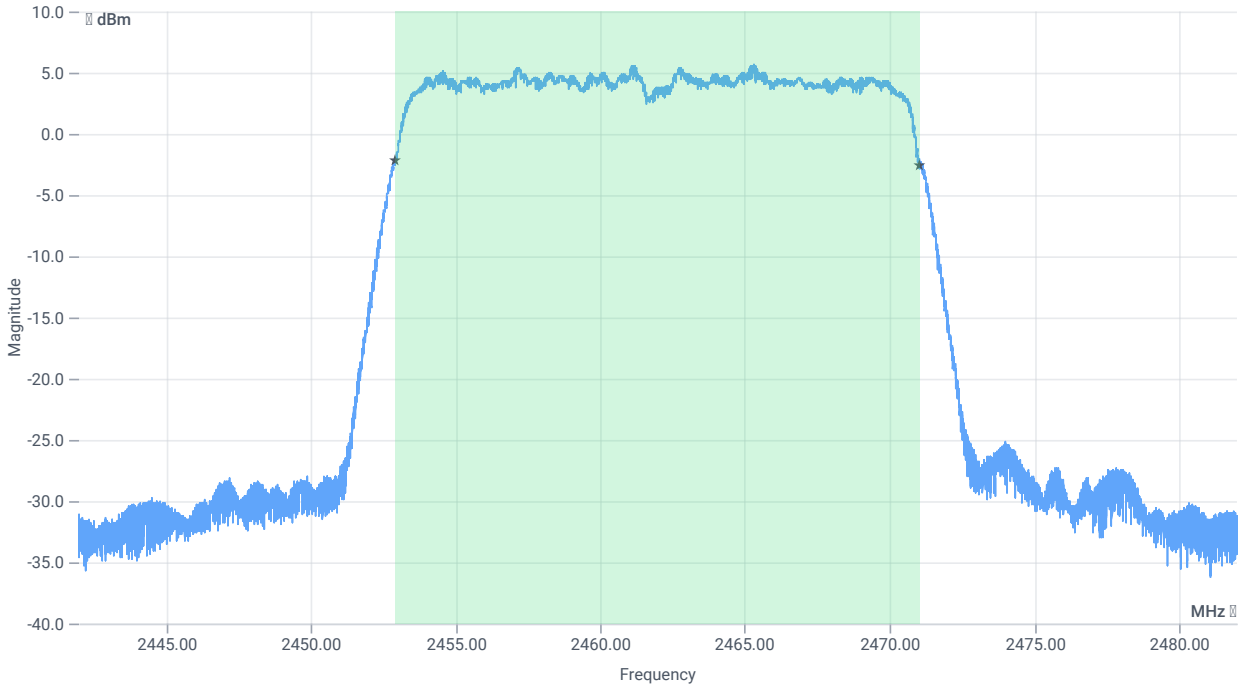
## Test at TX 2462 MHz

RESULT: Reference power cond.

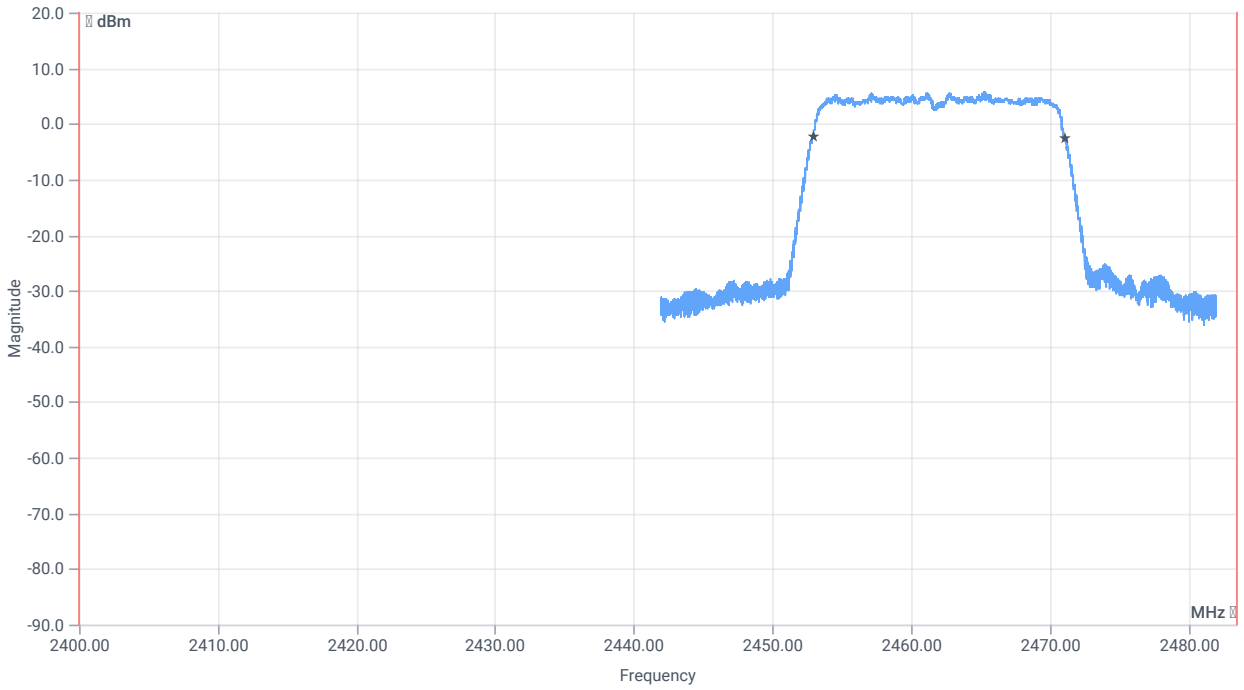
| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Ref. power 1MHz/1MHz cond. | --- | --- | 8.80 | dBm | INFO |
| Ref. frequency | --- | --- | 2460.600 | MHz | INFO |

READ SA SETTINGS:

| | |
|---|---|
| RefLevel [dBm] \| RefLevelOffset [dB] \| InpAtt [dB] | 13.80 \| 11.1 \| 20 |
| Start [MHz] \| Stop [MHz] | 2442.000 \| 2482.000 |
| RBW [MHz] \| VBW [MHz] | 0.500000 \| 2.000000 |
| Detector \| TraceMode | POS \| MAXH |
| Sweep: time [ms] \| count \| points per Section \| type | 50 \| 200 \| 10001 \| SWE |



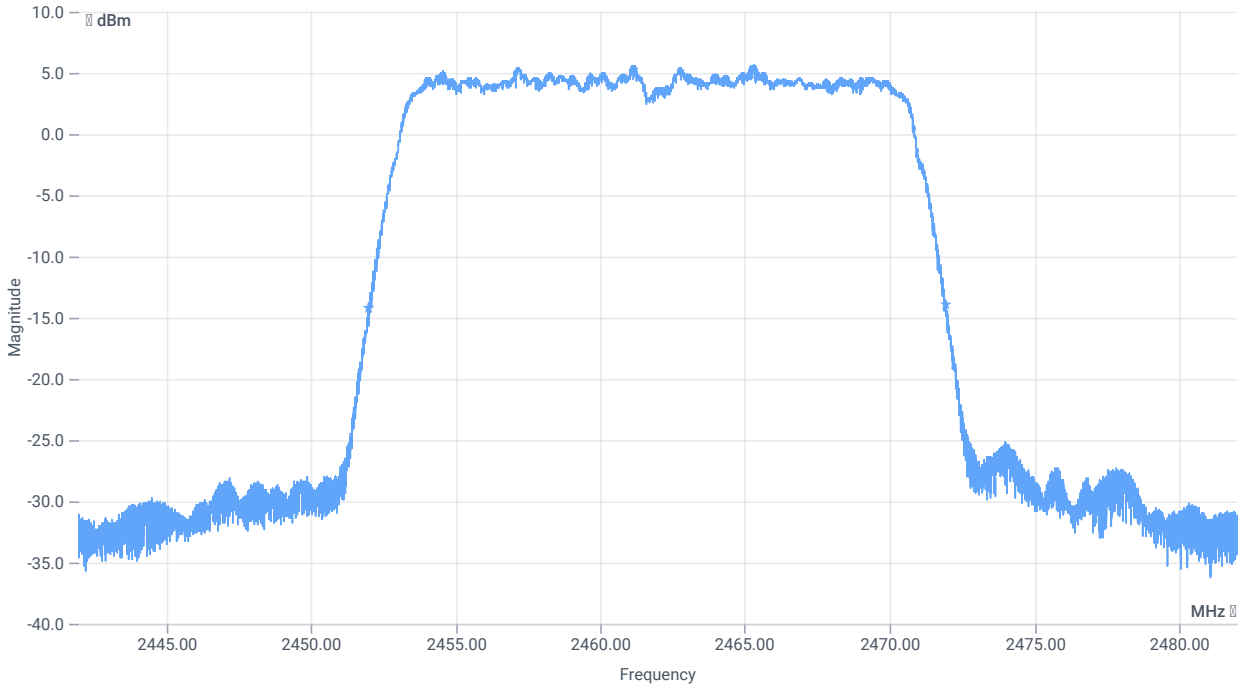

*BW 99PCT*



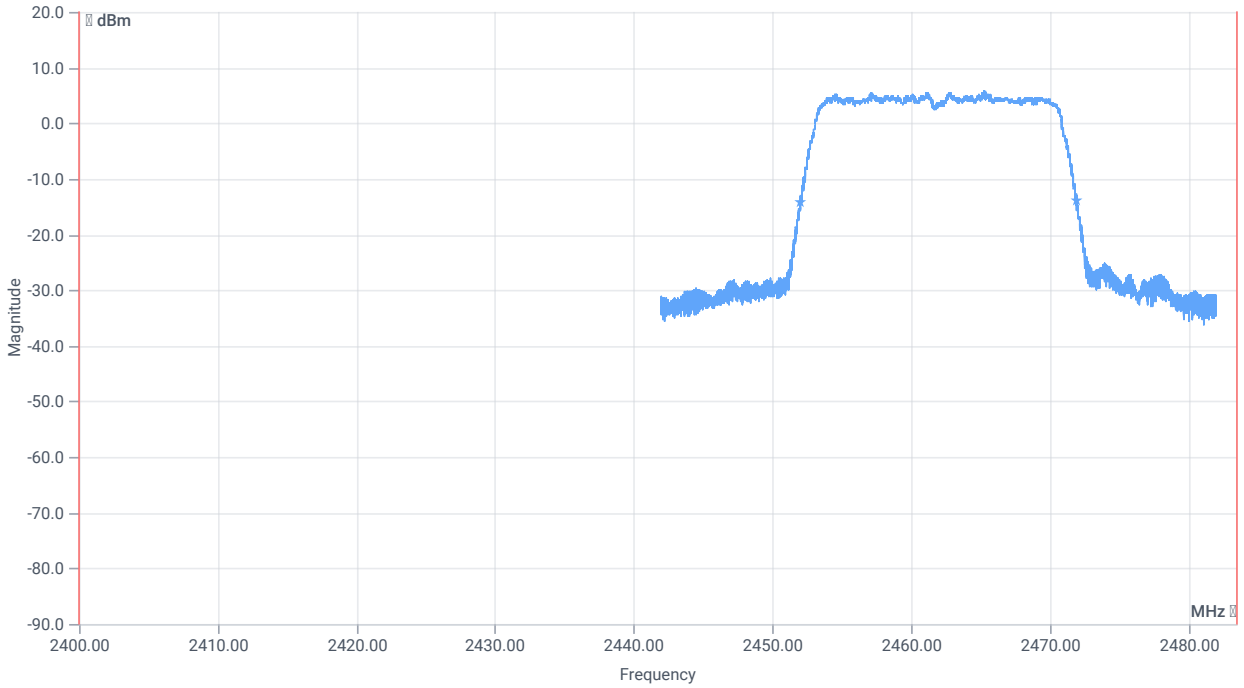

*BW within Band 99PCT*

## RESULT

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Bandwidth 99% | --- | --- | 18110.000 | kHz | INFO |
| T1 99% | 2400.000000 | --- | 2452.9369 | MHz | PASS |
| T2 99% | --- | 2483.500000 | 2471.0471 | MHz | PASS |



*BW 20dB*




*BW within band 20dB*

## RESULT

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Bandwidth 20dB | --- | --- | 19936 | kHz | INFO |
| T1 20dB | 2400.000000 | --- | 2452.0120 | MHz | PASS |
| T2 20dB | --- | 2483.500000 | 2471.9480 | MHz | PASS |

| Verdict |
|---|
| PASS |

# FCC 15.247 # Peak psd DTS ~ WLAN2G4 n-HT20 mode

## References

| | |
|---|---|
| TC start | 10.07.2024 16:46:34 |
| Ambit temp [°C] \| humidity [rel%] | 26.5 \| 51 |
| System version | 5.0.7.0 |
| Standard \| Version | FCC 15.247 \| NI |
| Method | DTS: KDB 558074 D01 V05 - Chapter 8.4 DTS maximum power spectral density level in the fundamental emission |
| Description | FCC 15.247 Peak psd DTS - WLAN2G4 nHT20_mode |
| Information | |

## EUT Common Settings WLAN2G4

| | |
|---|---|
| Number of antenna ports | 1 |
| User interaction | No |

## Equipment

| |
|---|
| Signal analyzer,Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.70 |
| Switch matrix,cetecom advanced GmbH,USM,B002,1.0.0 |

## Test Parameter

| | |
|---|---|
| Technology to test | WLAN2G4 n-HT20 mode |
| EUT port | EUT1 |
| Temperature | nom |
| Voltage | nom |
| Frequency low to test | False \| Freq [MHz] 2412 |
| Frequency mid to test | False \| Freq [MHz] 2437 |
| Frequency high to test | True \| Freq [MHz] 2462 |
| Auto control enabled power supply \| Climatic Box | No \| No |
| Additional path loss [dB] | 0.5 |
| Full path type | EUT_SA_GEN_SIG |
| Full path name | EUT1.MP.SIG1/EUT1.SA/EUT1.GEN1/EUT1.GEN2/ |
| Switch bits | 00010001:00010001:00000000:00000001 |

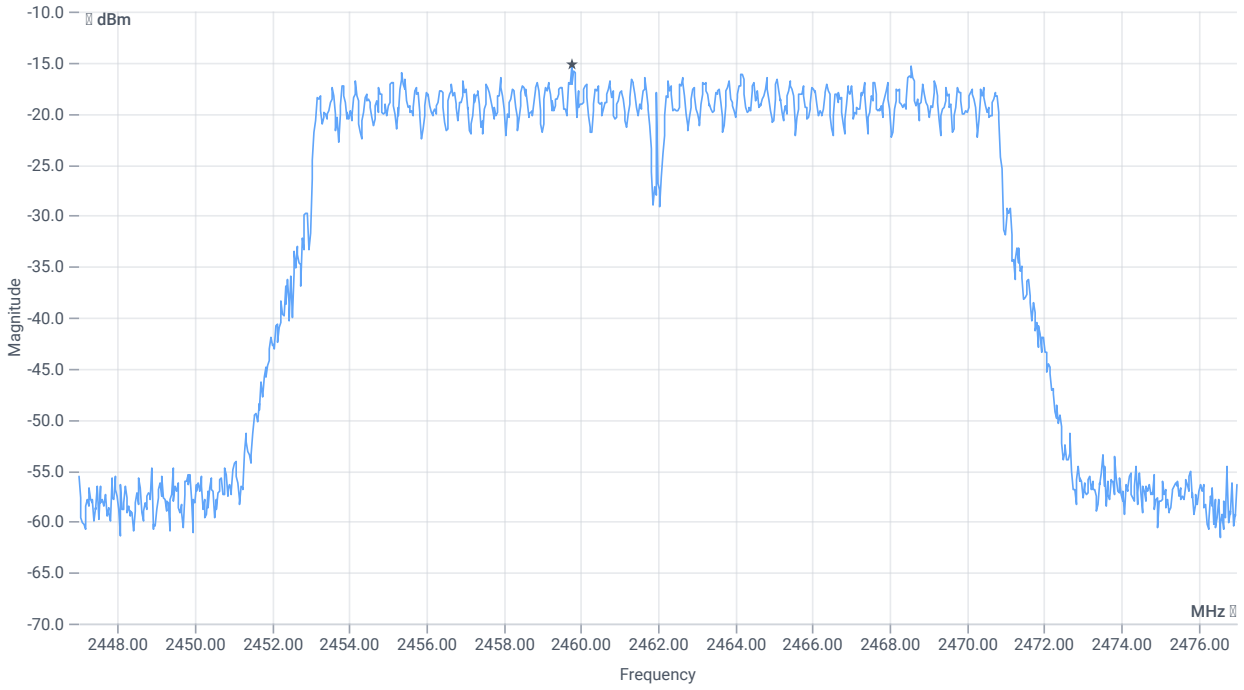
## Test at TX 2462 MHz

### RESULT: Reference power cond.

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Ref. power 1MHz/1MHz cond. | --- | --- | 9.12 | dBm | INFO |
| Ref. frequency | --- | --- | 2464.600 | MHz | INFO |

### READ SA SETTINGS:

| | |
|---|---|
| RefLevel [dBm] \| RefLevelOffset [dB] \| InpAtt [dB] | 14.12 \| 11.1 \| 20 |
| Start [MHz] \| Stop [MHz] | 2447.000 \| 2477.000 |
| RBW [MHz] \| VBW [MHz] | 0.003000 \| 0.010000 |
| Detector \| TraceMode | POS \| MAXH |
| Sweep: time [ms] \| count \| points per Section \| type | 1000 \| 20 \| 1001 \| SWE |




*Peak psd*

### RESULT

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Peak psd | --- | 8 | -15.11 | dBm/3KHz | PASS |

| Verdict |
|---|
| PASS |

# FCC 15.247 # Bandwidth 6dB DTS ~ WLAN2G4 n-HT20 mode

## References

| | |
|---|---|
| TC start | 10.07.2024 16:46:00 |
| Ambit temp [°C] \| humidity [rel%] | 26.5 \| 51 |
| System version | 5.0.7.0 |
| Standard \| Version | FCC 15.247 \| NI |
| Method | |
| Description | FCC 15.247 Bandwidth 6dB DTS - WLAN2G4 n-HT20 mode |
| Information | |

## EUT Common Settings WLAN2G4

| | |
|---|---|
| Number of antenna ports | 1 |
| User interaction | No |

## Equipment

| |
|---|
| Signal analyzer,Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.70 |
| Switch matrix,cetecom advanced GmbH,USM,B002,1.0.0 |

## Test Parameter

| | |
|---|---|
| Technology to test | WLAN2G4 n-HT20 mode |
| EUT port | EUT1 |
| Temperature | nom |
| Voltage | nom |
| Frequency low to test | False \| Freq [MHz] 2412 |
| Frequency mid to test | False \| Freq [MHz] 2437 |
| Frequency high to test | True \| Freq [MHz] 2462 |
| Auto control enabled power supply \| Climatic Box | No \| No |
| Additional path loss [dB] | 0.5 |
| Full path type | EUT_SA_GEN_SIG |
| Full path name | EUT1.MP.SIG1/EUT1.SA/EUT1.GEN1/EUT1.GEN2/ |
| Switch bits | 00010001:00010001:00000000:00000001 |

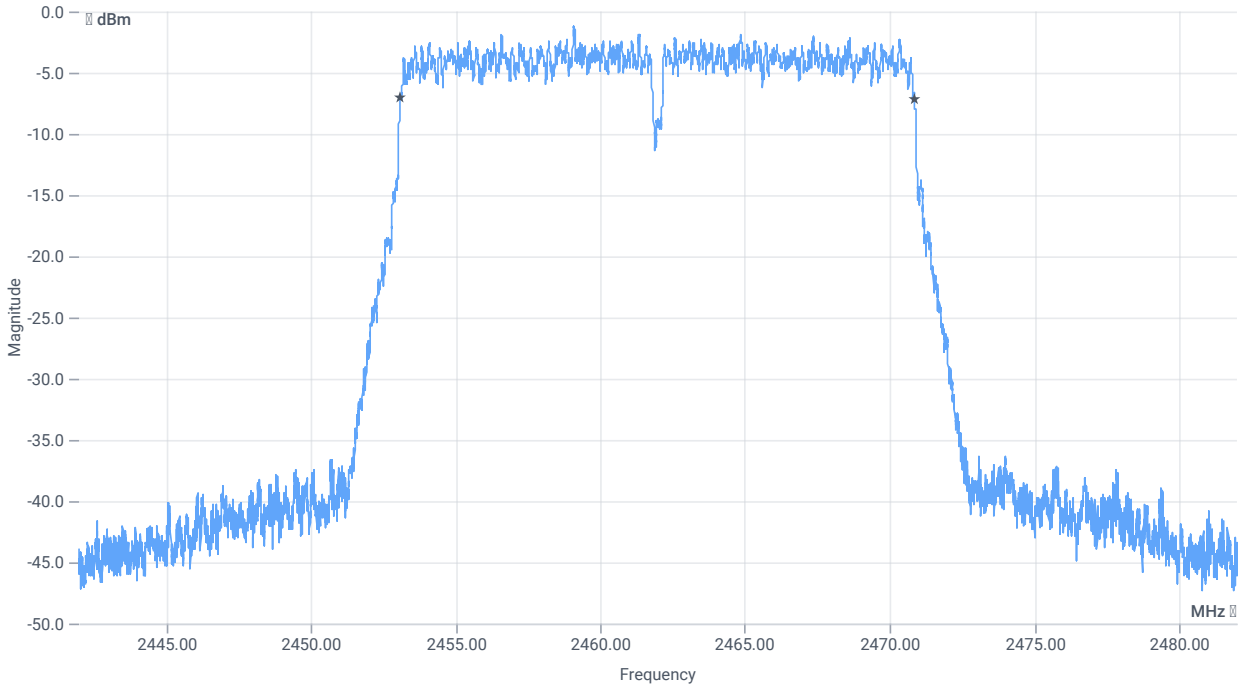
## Test at TX 2462 MHz

### RESULT: Reference power cond.

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Ref. power 1MHz/1MHz cond. | --- | --- | 9.26 | dBm | INFO |
| Ref. frequency | --- | --- | 2463.500 | MHz | INFO |

### READ SA SETTINGS:

| | |
|---|---|
| RefLevel [dBm] \| RefLevelOffset [dB] \| InpAtt [dB] | 14.26 \| 11.1 \| 20 |
| Start [MHz] \| Stop [MHz] | 2442.000 \| 2482.000 |
| RBW [MHz] \| VBW [MHz] | 0.100000 \| 0.300000 |
| Detector \| TraceMode | POS \| MAXH |
| Sweep: time [ms] \| count \| points per Section \| type | 50 \| 200 \| 10001 \| SWE |




*BW 6dB*

### RESULT

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| DTS bandwidth (6dB) | 500 | --- | 17776 | kHz | PASS |

| Verdict |
|---|
| PASS |

# NA # Peak output power 3MHz/3MHz ~ WLAN2G4 n-HT20 mode

## References

| | |
|---|---|
| TC start | 10.07.2024 16:45:28 |
| Ambit temp [°C] \| humidity [rel%] | 26.5 \| 51 |
| System version | 5.0.7.0 |
| Standard \| Version | NA \| NI |
| Method | |
| Description | Peak OP 3MHz/3MHz WLAN2G4 n-HT20 mode |
| Information | |

## EUT Common Settings WLAN2G4

| | |
|---|---|
| Number of antenna ports | 1 |
| User interaction | No |

## Equipment

| |
|---|
| Signal analyzer,Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.70 |
| Switch matrix,cetecom advanced GmbH,USM,B002,1.0.0 |

## Test Parameter

| | |
|---|---|
| Technology to test | WLAN2G4 n-HT20 mode |
| EUT port | EUT1 |
| Temperature | nom |
| Voltage | nom |
| Frequency low to test | False \| Freq [MHz] 2412 |
| Frequency mid to test | False \| Freq [MHz] 2437 |
| Frequency high to test | True \| Freq [MHz] 2462 |
| Auto control enabled power supply \| Climatic Box | No \| No |
| Additional path loss [dB] | 0.5 |
| Full path type | EUT_SA_GEN_SIG |
| Full path name | EUT1.MP.SIG1/EUT1.SA/EUT1.GEN1/EUT1.GEN2/ |
| Switch bits | 00010001:00010001:00000000:00000001 |

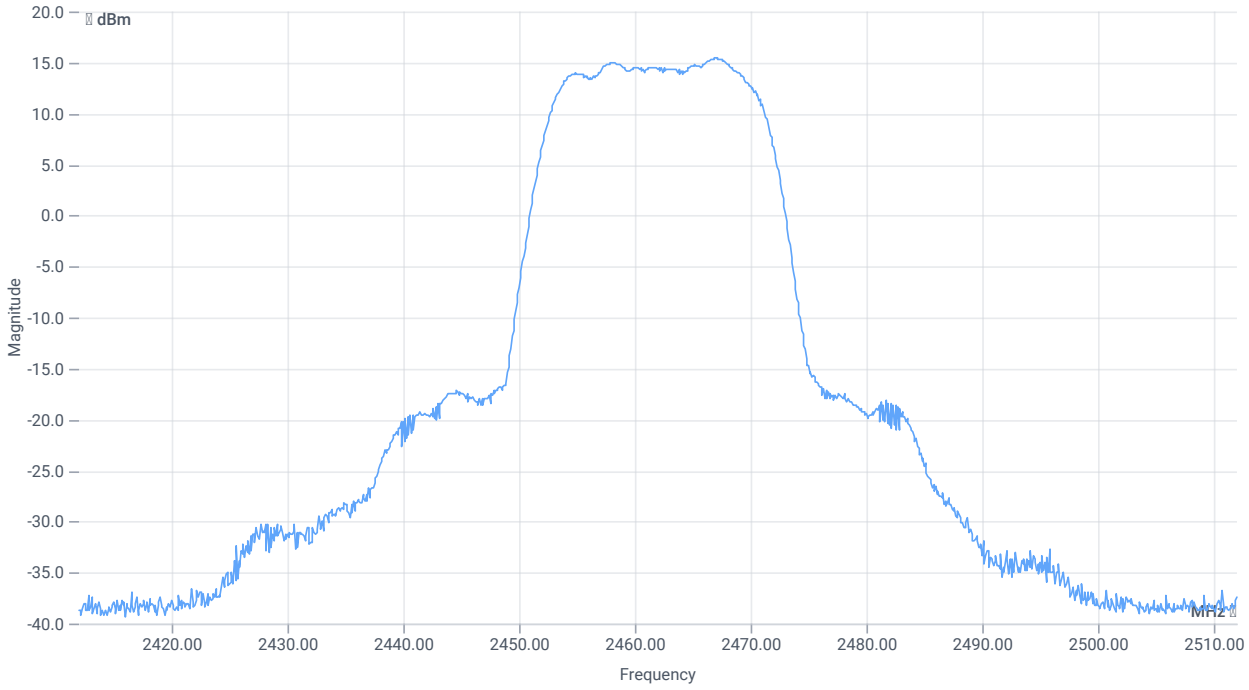
## Test at TX 2462 MHz

### RESULT: Reference power cond.

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Ref. power 1MHz/1MHz cond. | --- | --- | 9.19 | dBm | INFO |
| Ref. frequency | --- | --- | 2460.700 | MHz | INFO |

### READ SA SETTINGS:

| | |
|---|---|
| RefLevel [dBm] \| RefLevelOffset [dB] \| InpAtt [dB] | 19.19 \| 11.1 \| 25 |
| Start [MHz] \| Stop [MHz] | 2412.000 \| 2512.000 |
| RBW [MHz] \| VBW [MHz] | 3.000000 \| 3.000000 |
| Detector \| TraceMode | POS \| MAXH |
| Sweep: time [ms] \| count \| points per Section \| type | 1000 \| 10 \| 1001 \| SWE |




*Peak output power*

### RESULT

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Peak power | --- | --- | 15.39 | dBm | INFO |
| Peak power | --- | --- | 34.593938 | mW | INFO |
| Frequency at peak | --- | --- | 2467.09 | MHz | INFO |

| Verdict |
| --- |
| PASS |

# FCC 15.247 # Peak output power PM DTS ~ WLAN2G4 n-HT20 mode

## References

| | |
|---|---|
| TC start | 10.07.2024 16:44:39 |
| Ambit temp [°C] \| humidity [rel%] | 26.5 \| 51 |
| System version | 5.0.7.0 |
| Standard \| Version | FCC 15.247 \| NI |
| Method | DTS: KDB 558074 D01 V05 - Chapter 8.3.1.3 PKPM1 Peak-reading Power Meter Method |
| Description | FCC 15.247 Peak output power PM DTS - WLAN2G4 n-HT20 mode |
| Information | |

## EUT Common Settings WLAN2G4

| | |
|---|---|
| Number of antenna ports | 1 |
| User interaction | No |

## Equipment

| |
|---|
| Switch matrix,cetecom advanced GmbH,USM,B002,1.0.0 |
| Power sensor,Keysight Technologies,U2021XA,MY59190010,A.04.06 |

## Test Parameter

| | |
|---|---|
| Technology to test | WLAN2G4 n-HT20 mode |
| EUT port | EUT1 |
| Temperature | nom |
| Voltage | nom |
| Frequency low to test | False \| Freq [MHz] 2412 |
| Frequency mid to test | True \| Freq [MHz] 2437 |
| Frequency high to test | False \| Freq [MHz] 2462 |
| Auto control enabled power supply \| Climatic Box | No \| No |
| Additional path loss [dB] | 0.5 |
| Full path type | EUT_PM_GEN_SIG |
| Full path name | EUT1.MP.SIG1/EUT1.PM/EUT1.GEN1/EUT1.GEN2/ |
| Switch bits | 00010001:00010001:00010000:00000001 |

## Test at TX 2437 MHz

RESULT

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Peak power | --- | 30 | 21.31 | dBm | PASS |

| Verdict |
|---|
| PASS |

# FCC 15.247 # TX spurious conducted 20dBc ~ WLAN2G4 n-HT20 mode

## References

| | |
|---|---|
| TC start | 10.07.2024 16:31:02 |
| Ambit temp [°C] \| humidity [rel%] | 26.3 \| 52 |
| System version | 5.0.7.0 |
| Standard \| Version | FCC 15.247 \| NI |
| Method | IF DTS then 8.5 DTS emissions in non-restricted frequency bands: Subclause 11.11 of ANSI C63.10 is applicable |
| Description | FCC 15.247 TX Emissions cond. DTS DTS - WLAN2G4 nHT20_mode |
| Information | |

## EUT Common Settings WLAN2G4

| | |
|---|---|
| Number of antenna ports | 1 |
| User interaction | No |

## Equipment

| |
|---|
| Signal analyzer,Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.70 |
| Switch matrix,cetecom advanced GmbH,USM,B002,1.0.0 |

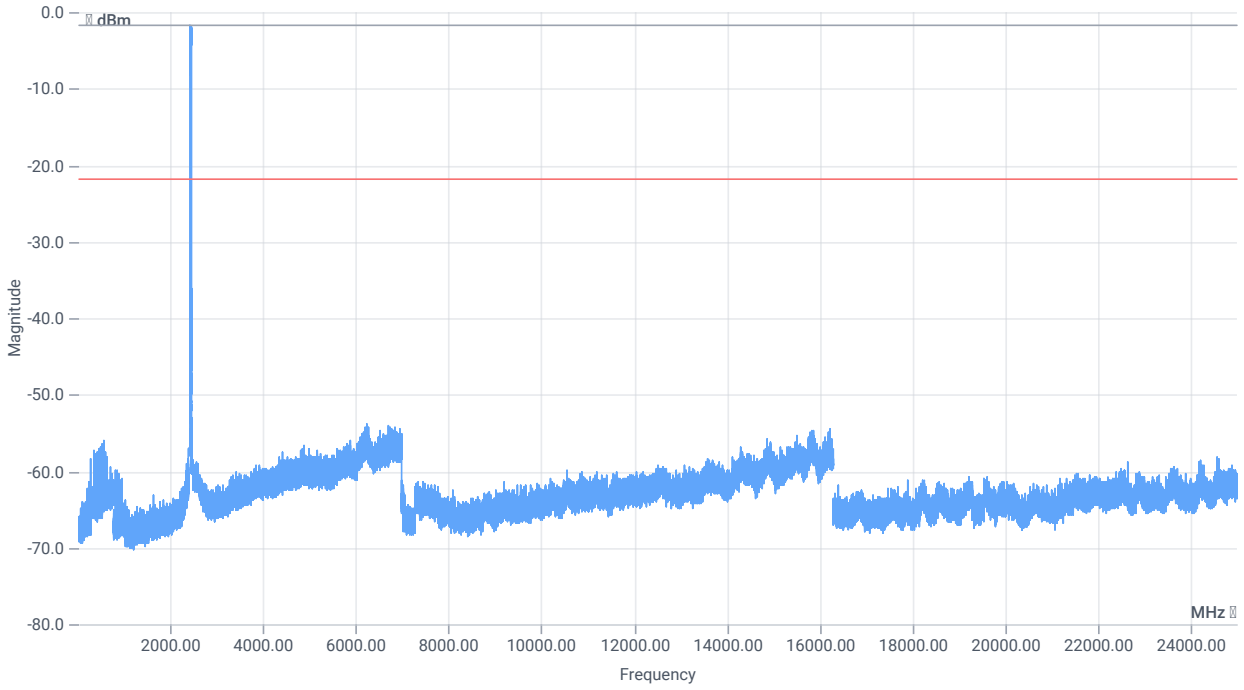
## Test Parameter

| | |
|---|---|
| Technology to test | WLAN2G4 n-HT20 mode |
| EUT port | EUT1 |
| Temperature | nom |
| Voltage | nom |
| Frequency low to test | False \| Freq [MHz] 2412 |
| Frequency mid to test | True \| Freq [MHz] 2437 |
| Frequency high to test | False \| Freq [MHz] 2462 |
| Auto control enabled power supply \| Climatic Box | No \| No |
| Additional path loss [dB] | 0.5 |
| Full path type | EUT_SA_GEN_SIG |
| Full path name | EUT1.MP.SIG1/EUT1.SA/EUT1.GEN1/EUT1.GEN2/ |
| Switch bits | 00010001:00010001:00000000:00000001 |

## Test at TX 2437 MHz

RESULT: Reference power cond.

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Ref. power 1MHz/1MHz cond. | --- | --- | 9.16 | dBm | INFO |
| Ref. frequency | --- | --- | 2439.000 | MHz | INFO |




*TX emissions*

READ SA SETTINGS:

| | |
|---|---|
| RefLevel [dBm] \| RefLevelOffset [dB] \| InpAtt [dB] | 9.16 \| 23.17 \| 5 |
| Start [MHz] \| Stop [MHz] | 24780.000 \| 25000.000 |
| RBW [MHz] \| VBW [MHz] | 0.100000 \| 0.300000 |
| Detector \| TraceMode | POS \| MAXH |
| Sweep: time [ms] \| count \| points per Section \| type | 200 \| 25 \| 1501 \| SWE |

*TX emissions band zoomed*

## RESULT

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Reference @ 2434.17 MHz | --- | --- | -1.79 | dBm | INFO |
| No peaks detected | --- | --- | | | PASS |
| Lowest margin to limit 6225.5 MHz | 0 | --- | 32.13 | dB | INFO |

| Verdict |
|---|
| PASS |

# FCC 15.247, ISED RSS247 # Bandwidth 99PCT and 20dB ~ WLAN2G4 n-HT20 mode

## References

| | |
|---|---|
| TC start | 10.07.2024 16:30:23 |
| Ambit temp [°C] \| humidity [rel%] | 26.3 \| 52 |
| System version | 5.0.7.0 |
| Standard \| Version | FCC 15.247, ISED RSS247 \| NI |
| Method | |
| Description | FCC 15.247 Bandwidth 99PCT-20dB DTS - WLAN2G4 n-HT20 mode |
| Information | |

## EUT Common Settings WLAN2G4

| | |
|---|---|
| Number of antenna ports | 1 |
| User interaction | No |

## Equipment

| |
|---|
| Signal analyzer,Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.70 |
| Switch matrix,cetecom advanced GmbH,USM,B002,1.0.0 |

## Test Parameter

| | |
|---|---|
| Technology to test | WLAN2G4 n-HT20 mode |
| EUT port | EUT1 |
| Temperature | nom |
| Voltage | nom |
| Frequency low to test | False \| Freq [MHz] 2412 |
| Frequency mid to test | True \| Freq [MHz] 2437 |
| Frequency high to test | False \| Freq [MHz] 2462 |
| Auto control enabled power supply \| Climatic Box | No \| No |
| Additional path loss [dB] | 0.5 |
| Full path type | EUT_SA_GEN_SIG |
| Full path name | EUT1.MP.SIG1/EUT1.SA/EUT1.GEN1/EUT1.GEN2/ |
| Switch bits | 00010001:00010001:00000000:00000001 |

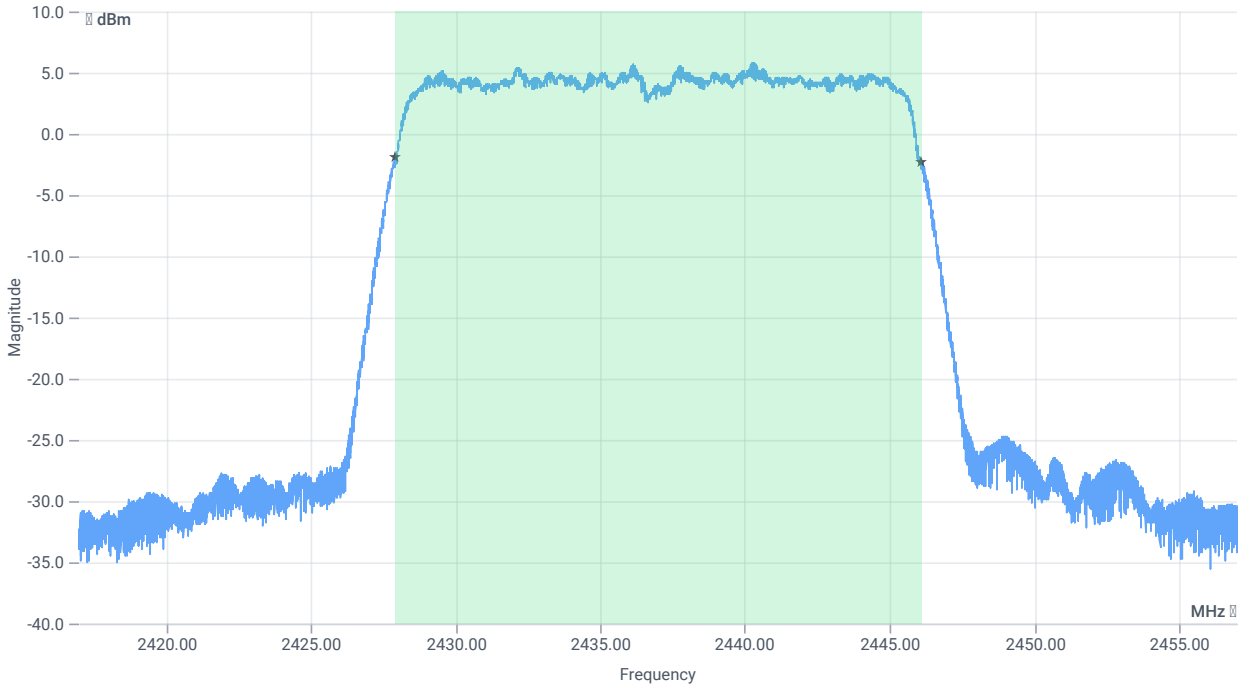
## Test at TX 2437 MHz

RESULT: Reference power cond.

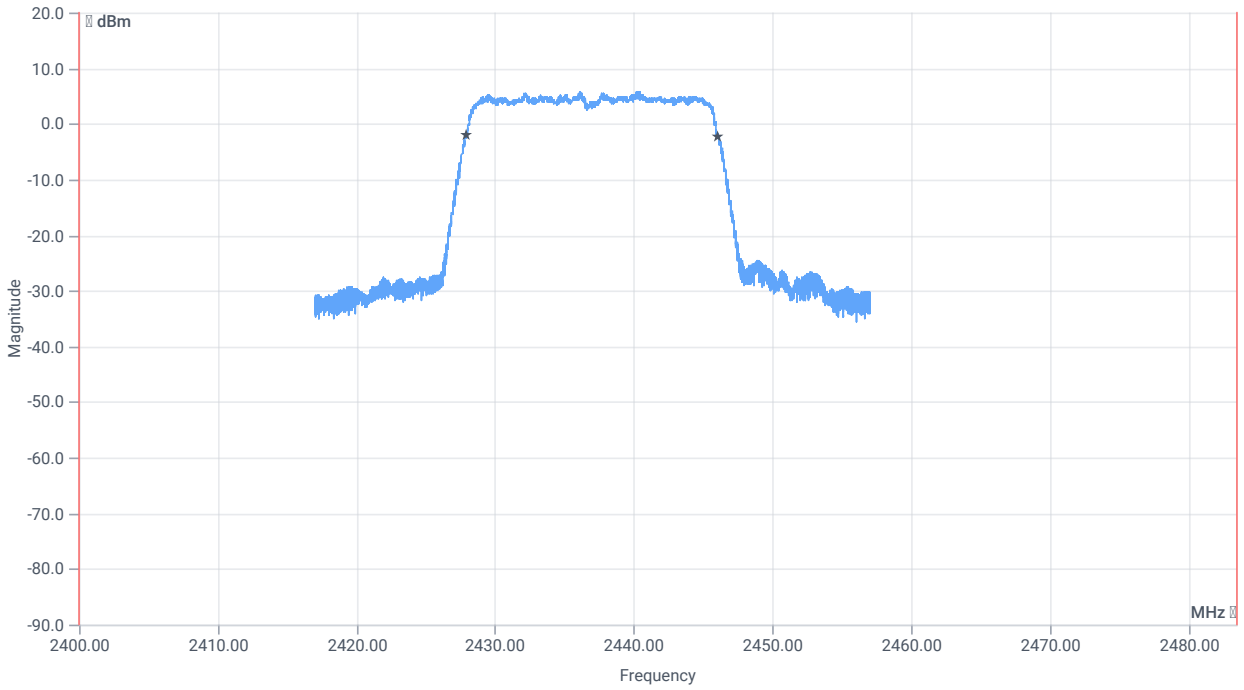
| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Ref. power 1MHz/1MHz cond. | --- | --- | 9.18 | dBm | INFO |
| Ref. frequency | --- | --- | 2435.000 | MHz | INFO |

READ SA SETTINGS:

| | |
|---|---|
| RefLevel [dBm] \| RefLevelOffset [dB] \| InpAtt [dB] | 14.18 \| 11.06 \| 20 |
| Start [MHz] \| Stop [MHz] | 2417.000 \| 2457.000 |
| RBW [MHz] \| VBW [MHz] | 0.500000 \| 2.000000 |
| Detector \| TraceMode | POS \| MAXH |
| Sweep: time [ms] \| count \| points per Section \| type | 50 \| 200 \| 10001 \| SWE |



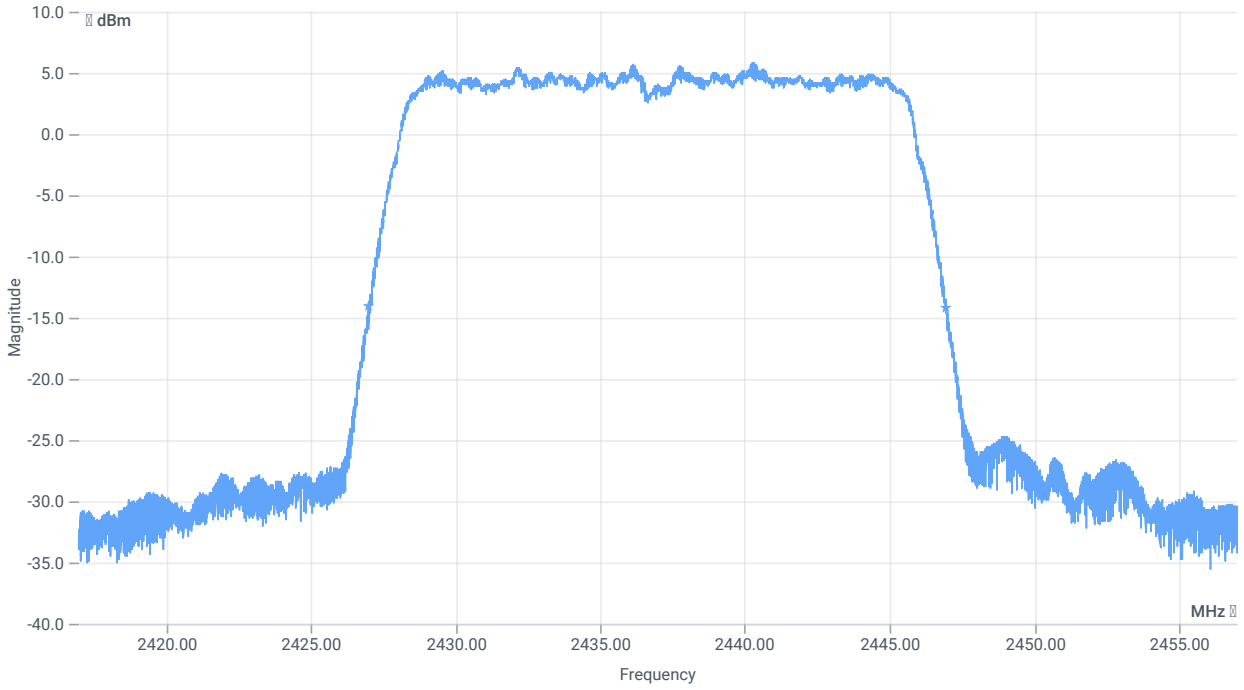

*BW 99PCT*



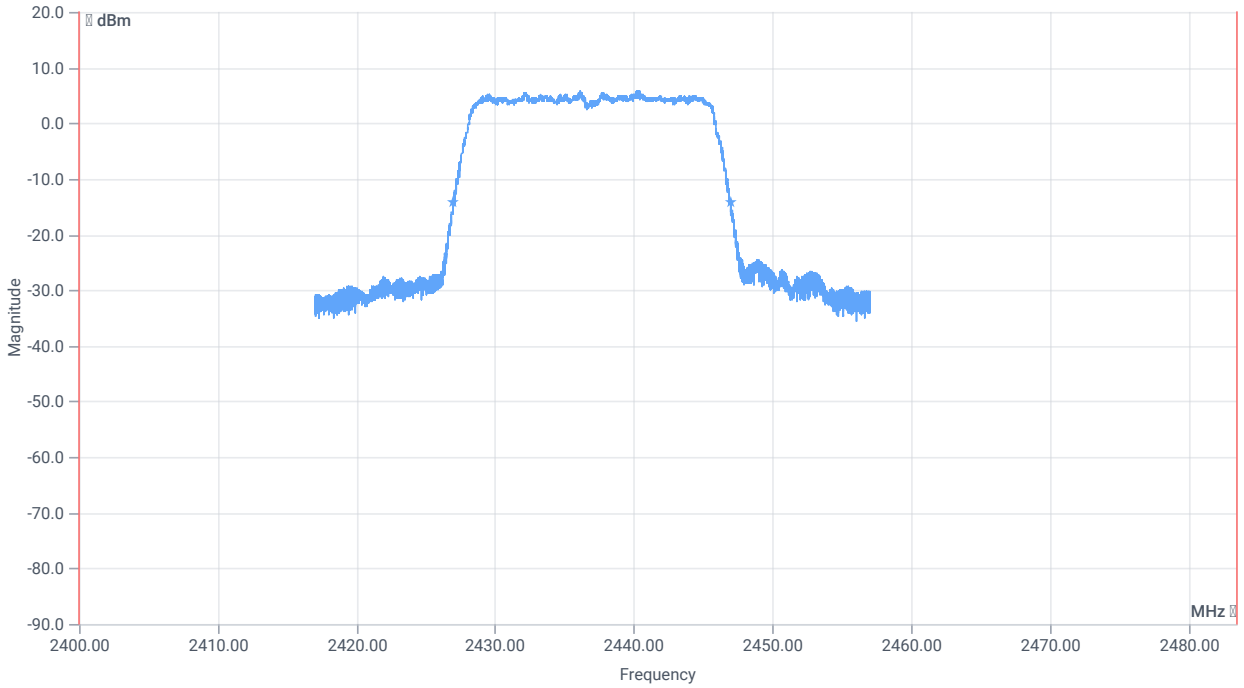

*BW within Band 99PCT*

## RESULT

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Bandwidth 99% | --- | --- | 18126.000 | kHz | INFO |
| T1 99% | 2400.000000 | --- | 2427.9369 | MHz | PASS |
| T2 99% | --- | 2483.500000 | 2446.0631 | MHz | PASS |



*BW 20dB*




*BW within band 20dB*

## RESULT

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Bandwidth 20dB | --- | --- | 19952 | kHz | INFO |
| T1 20dB | 2400.000000 | --- | 2427.0080 | MHz | PASS |
| T2 20dB | --- | 2483.500000 | 2446.9600 | MHz | PASS |

| Verdict |
|---|
| PASS |

# FCC 15.247 # Peak psd DTS ~ WLAN2G4 n-HT20 mode

## References

| | |
|---|---|
| TC start | 10.07.2024 16:29:41 |
| Ambit temp [°C] \| humidity [rel%] | 26.3 \| 52 |
| System version | 5.0.7.0 |
| Standard \| Version | FCC 15.247 \| NI |
| Method | DTS: KDB 558074 D01 V05 - Chapter 8.4 DTS maximum power spectral density level in the fundamental emission |
| Description | FCC 15.247 Peak psd DTS - WLAN2G4 nHT20_mode |
| Information | |

## EUT Common Settings WLAN2G4

| | |
|---|---|
| Number of antenna ports | 1 |
| User interaction | No |

## Equipment

| |
|---|
| Signal analyzer,Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.70 |
| Switch matrix,cetecom advanced GmbH,USM,B002,1.0.0 |

## Test Parameter

| | |
|---|---|
| Technology to test | WLAN2G4 n-HT20 mode |
| EUT port | EUT1 |
| Temperature | nom |
| Voltage | nom |
| Frequency low to test | False \| Freq [MHz] 2412 |
| Frequency mid to test | True \| Freq [MHz] 2437 |
| Frequency high to test | False \| Freq [MHz] 2462 |
| Auto control enabled power supply \| Climatic Box | No \| No |
| Additional path loss [dB] | 0.5 |
| Full path type | EUT_SA_GEN_SIG |
| Full path name | EUT1.MP.SIG1/EUT1.SA/EUT1.GEN1/EUT1.GEN2/ |
| Switch bits | 00010001:00010001:00000000:00000001 |

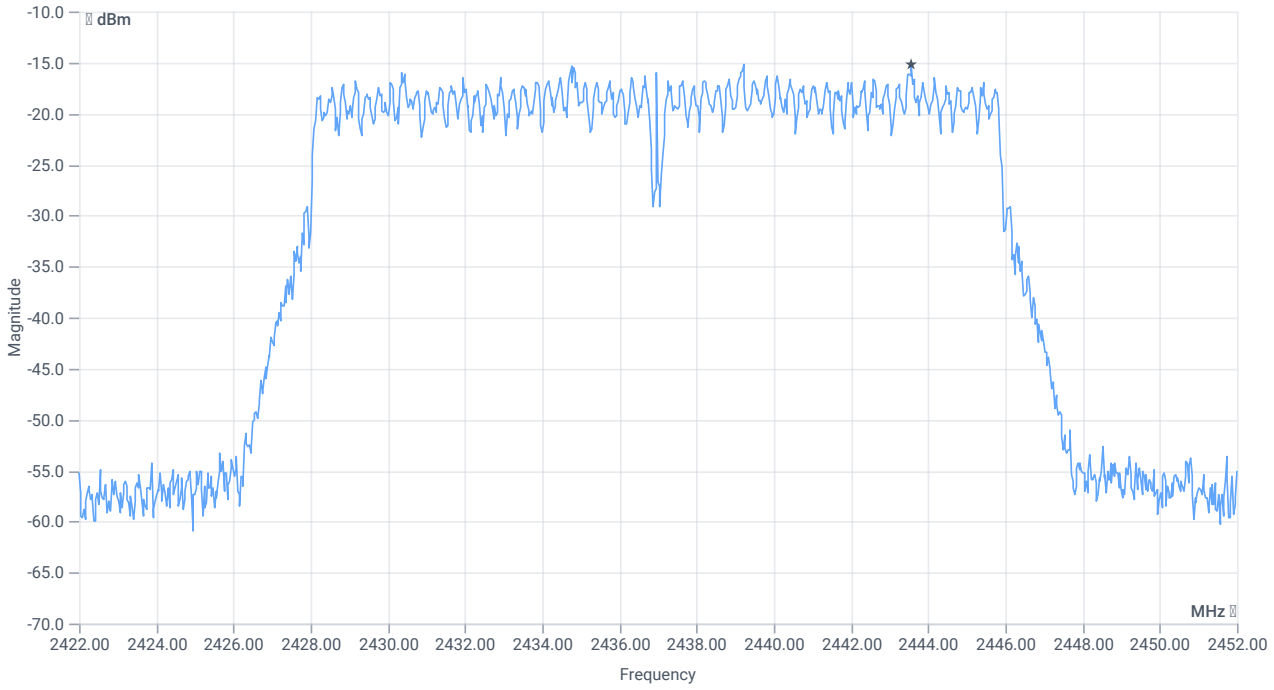
## Test at TX 2437 MHz

### RESULT: Reference power cond.

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Ref. power 1MHz/1MHz cond. | --- | --- | 9.26 | dBm | INFO |
| Ref. frequency | --- | --- | 2440.500 | MHz | INFO |

### READ SA SETTINGS:

| | |
|---|---|
| RefLevel [dBm] \| RefLevelOffset [dB] \| InpAtt [dB] | 14.26 \| 11.06 \| 20 |
| Start [MHz] \| Stop [MHz] | 2422.000 \| 2452.000 |
| RBW [MHz] \| VBW [MHz] | 0.003000 \| 0.010000 |
| Detector \| TraceMode | POS \| MAXH |
| Sweep: time [ms] \| count \| points per Section \| type | 1000 \| 20 \| 1001 \| SWE |




*Peak psd*

### RESULT

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Peak psd | --- | 8 | -15.18 | dBm/3KHz | PASS |

| Verdict |
|---|
| PASS |

# FCC 15.247 # Bandwidth 6dB DTS ~ WLAN2G4 n-HT20 mode

## References

| | |
|---|---|
| TC start | 10.07.2024 16:29:08 |
| Ambit temp [°C] \| humidity [rel%] | 26.3 \| 52 |
| System version | 5.0.7.0 |
| Standard \| Version | FCC 15.247 \| NI |
| Method | |
| Description | FCC 15.247 Bandwidth 6dB DTS - WLAN2G4 n-HT20 mode |
| Information | |

## EUT Common Settings WLAN2G4

| | |
|---|---|
| Number of antenna ports | 1 |
| User interaction | No |

## Equipment

| |
|---|
| Signal analyzer,Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.70 |
| Switch matrix,cetecom advanced GmbH,USM,B002,1.0.0 |

## Test Parameter

| | |
|---|---|
| Technology to test | WLAN2G4 n-HT20 mode |
| EUT port | EUT1 |
| Temperature | nom |
| Voltage | nom |
| Frequency low to test | False \| Freq [MHz] 2412 |
| Frequency mid to test | True \| Freq [MHz] 2437 |
| Frequency high to test | False \| Freq [MHz] 2462 |
| Auto control enabled power supply \| Climatic Box | No \| No |
| Additional path loss [dB] | 0.5 |
| Full path type | EUT_SA_GEN_SIG |
| Full path name | EUT1.MP.SIG1/EUT1.SA/EUT1.GEN1/EUT1.GEN2/ |
| Switch bits | 00010001:00010001:00000000:00000001 |

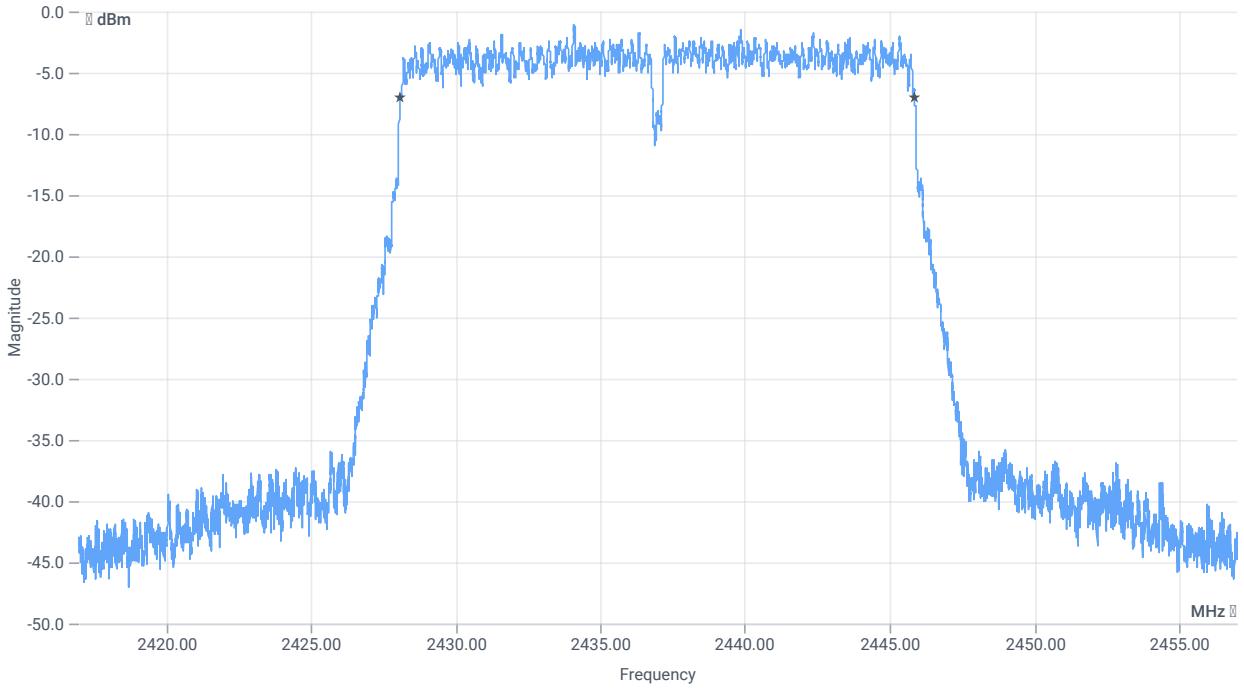
## Test at TX 2437 MHz

### RESULT: Reference power cond.

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Ref. power 1MHz/1MHz cond. | --- | --- | 9.00 | dBm | INFO |
| Ref. frequency | --- | --- | 2435.700 | MHz | INFO |

### READ SA SETTINGS:

| | |
|---|---|
| RefLevel [dBm] \| RefLevelOffset [dB] \| InpAtt [dB] | 14.00 \| 11.06 \| 20 |
| Start [MHz] \| Stop [MHz] | 2417.000 \| 2457.000 |
| RBW [MHz] \| VBW [MHz] | 0.100000 \| 0.300000 |
| Detector \| TraceMode | POS \| MAXH |
| Sweep: time [ms] \| count \| points per Section \| type | 50 \| 200 \| 10001 \| SWE |




*BW 6dB*

### RESULT

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| DTS bandwidth (6dB) | 500 | --- | 17784 | kHz | PASS |

| Verdict |
|---|
| PASS |

# NA # Peak output power 3MHz/3MHz ~ WLAN2G4 n-HT20 mode

## References

| | |
|---|---|
| TC start | 10.07.2024 16:28:38 |
| Ambit temp [°C] \| humidity [rel%] | 26.3 \| 52 |
| System version | 5.0.7.0 |
| Standard \| Version | NA \| NI |
| Method | |
| Description | Peak OP 3MHz/3MHz WLAN2G4 n-HT20 mode |
| Information | |

## EUT Common Settings WLAN2G4

| | |
|---|---|
| Number of antenna ports | 1 |
| User interaction | No |

## Equipment

| |
|---|
| Signal analyzer,Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.70 |
| Switch matrix,cetecom advanced GmbH,USM,B002,1.0.0 |

## Test Parameter

| | |
|---|---|
| Technology to test | WLAN2G4 n-HT20 mode |
| EUT port | EUT1 |
| Temperature | nom |
| Voltage | nom |
| Frequency low to test | False \| Freq [MHz] 2412 |
| Frequency mid to test | True \| Freq [MHz] 2437 |
| Frequency high to test | False \| Freq [MHz] 2462 |
| Auto control enabled power supply \| Climatic Box | No \| No |
| Additional path loss [dB] | 0.5 |
| Full path type | EUT_SA_GEN_SIG |
| Full path name | EUT1.MP.SIG1/EUT1.SA/EUT1.GEN1/EUT1.GEN2/ |
| Switch bits | 00010001:00010001:00000000:00000001 |

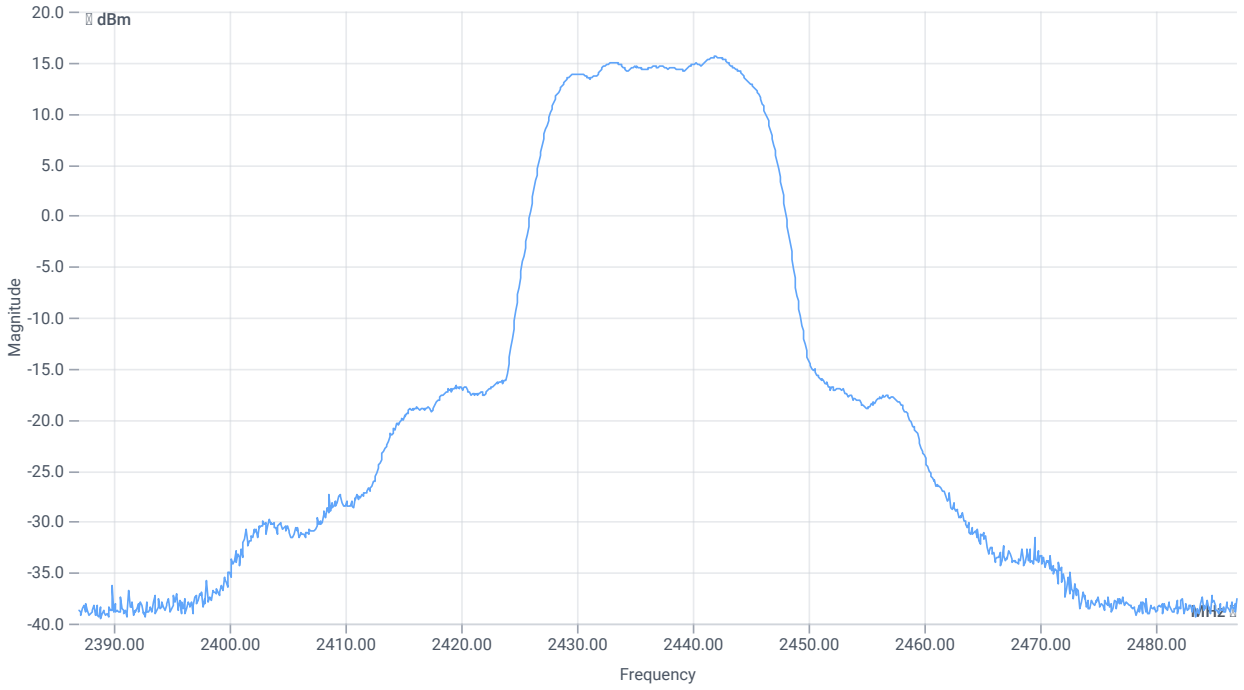
## Test at TX 2437 MHz

RESULT: Reference power cond.

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Ref. power 1MHz/1MHz cond. | --- | --- | 9.03 | dBm | INFO |
| Ref. frequency | --- | --- | 2444.690 | MHz | INFO |

READ SA SETTINGS:

| | |
|---|---|
| RefLevel [dBm] \| RefLevelOffset [dB] \| InpAtt [dB] | 19.03 \| 11.06 \| 25 |
| Start [MHz] \| Stop [MHz] | 2387.000 \| 2487.000 |
| RBW [MHz] \| VBW [MHz] | 3.000000 \| 3.000000 |
| Detector \| TraceMode | POS \| MAXH |
| Sweep: time [ms] \| count \| points per Section \| type | 1000 \| 10 \| 1001 \| SWE |




*Peak output power*

RESULT

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Peak power | --- | --- | 15.54 | dBm | INFO |
| Peak power | --- | --- | 35.809644 | mW | INFO |
| Frequency at peak | --- | --- | 2441.9 | MHz | INFO |

| Verdict |
| --- |
| PASS |

# FCC 15.247 # Peak output power PM DTS ~ WLAN2G4 n-HT20 mode

## References

| | |
|---|---|
| TC start | 10.07.2024 16:15:38 |
| Ambit temp [°C] \| humidity [rel%] | 26.0 \| 53 |
| System version | 5.0.7.0 |
| Standard \| Version | FCC 15.247 \| NI |
| Method | DTS: KDB 558074 D01 V05 - Chapter 8.3.1.3 PKPM1 Peak-reading Power Meter Method |
| Description | FCC 15.247 Peak output power PM DTS - WLAN2G4 n-HT20 mode |
| Information | |

## EUT Common Settings WLAN2G4

| | |
|---|---|
| Number of antenna ports | 1 |
| User interaction | No |

## Equipment

| |
|---|
| Switch matrix,cetecom advanced GmbH,USM,B002,1.0.0 |
| Power sensor,Keysight Technologies,U2021XA,MY59190010,A.04.06 |

## Test Parameter

| | |
|---|---|
| Technology to test | WLAN2G4 n-HT20 mode |
| EUT port | EUT1 |
| Temperature | nom |
| Voltage | nom |
| Frequency low to test | True \| Freq [MHz] 2412 |
| Frequency mid to test | False \| Freq [MHz] 2437 |
| Frequency high to test | False \| Freq [MHz] 2462 |
| Auto control enabled power supply \| Climatic Box | No \| No |
| Additional path loss [dB] | 0.5 |
| Full path type | EUT_PM_GEN_SIG |
| Full path name | EUT1.MP.SIG1/EUT1.PM/EUT1.GEN1/EUT1.GEN2/ |
| Switch bits | 00010001:00010001:00010000:00000001 |

## Test at TX 2412 MHz

RESULT

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Peak power | --- | 30 | 21.37 | dBm | PASS |

| Verdict |
|---|
| PASS |

# FCC 15.247 # TX spurious conducted 20dBc ~ WLAN2G4 n-HT20 mode

## References

| | |
|---|---|
| TC start | 10.07.2024 16:02:02 |
| Ambit temp [°C] \| humidity [rel%] | 25.6 \| 54 |
| System version | 5.0.7.0 |
| Standard \| Version | FCC 15.247 \| NI |
| Method | IF DTS then 8.5 DTS emissions in non-restricted frequency bands: Subclause 11.11 of ANSI C63.10 is applicable |
| Description | FCC 15.247 TX Emissions cond. DTS DTS - WLAN2G4 nHT20_mode |
| Information | |

## EUT Common Settings WLAN2G4

| | |
|---|---|
| Number of antenna ports | 1 |
| User interaction | No |

## Equipment

| |
|---|
| Signal analyzer,Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.70 |
| Switch matrix,cetecom advanced GmbH,USM,B002,1.0.0 |

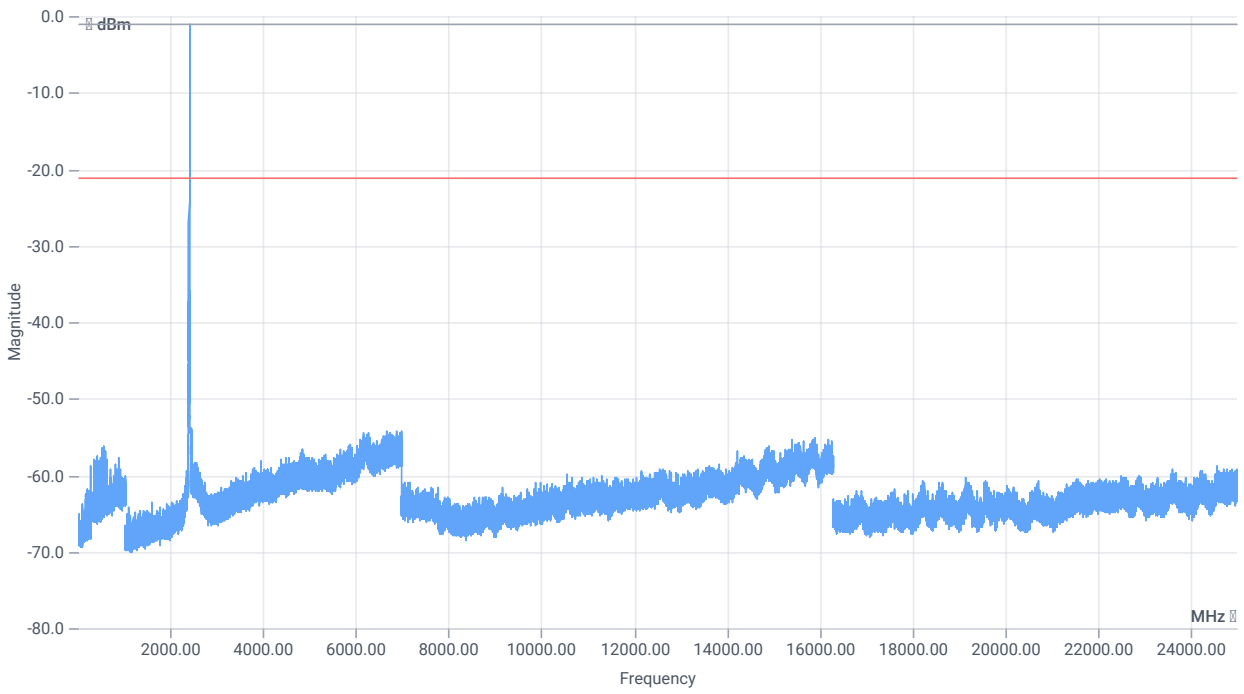
## Test Parameter

| | |
|---|---|
| Technology to test | WLAN2G4 n-HT20 mode |
| EUT port | EUT1 |
| Temperature | nom |
| Voltage | nom |
| Frequency low to test | True \| Freq [MHz] 2412 |
| Frequency mid to test | False \| Freq [MHz] 2437 |
| Frequency high to test | False \| Freq [MHz] 2462 |
| Auto control enabled power supply \| Climatic Box | No \| No |
| Additional path loss [dB] | 0.5 |
| Full path type | EUT_SA_GEN_SIG |
| Full path name | EUT1.MP.SIG1/EUT1.SA/EUT1.GEN1/EUT1.GEN2/ |
| Switch bits | 00010001:00010001:00000000:00000001 |

## Test at TX 2412 MHz

RESULT: Reference power cond.

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Ref. power 1MHz/1MHz cond. | --- | --- | 9.31 | dBm | INFO |
| Ref. frequency | --- | --- | 2415.500 | MHz | INFO |




*TX emissions*

READ SA SETTINGS:

| | |
|---|---|
| RefLevel [dBm] \| RefLevelOffset [dB] \| InpAtt [dB] | 9.31 \| 23.17 \| 5 |
| Start [MHz] \| Stop [MHz] | 24780.000 \| 25000.000 |
| RBW [MHz] \| VBW [MHz] | 0.100000 \| 0.300000 |
| Detector \| TraceMode | POS \| MAXH |
| Sweep: time [ms] \| count \| points per Section \| type | 200 \| 25 \| 1501 \| SWE |

*TX emissions band zoomed*

## RESULT

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Reference @ 2409.17 MHz | --- | --- | -1.18 | dBm | INFO |
| No peaks detected | --- | --- | | | PASS |
| Lowest margin to limit 2399.5 MHz | 0 | --- | 16.37 | dB | INFO |

| Verdict |
|---|
| PASS |

# FCC 15.247, ISED RSS247 # Bandwidth 99PCT and 20dB ~ WLAN2G4 n-HT20 mode

## References

| | |
|---|---|
| TC start | 10.07.2024 16:01:22 |
| Ambit temp [°C] \| humidity [rel%] | 25.5 \| 54 |
| System version | 5.0.7.0 |
| Standard \| Version | FCC 15.247, ISED RSS247 \| NI |
| Method | |
| Description | FCC 15.247 Bandwidth 99PCT-20dB DTS - WLAN2G4 n-HT20 mode |
| Information | |

## EUT Common Settings WLAN2G4

| | |
|---|---|
| Number of antenna ports | 1 |
| User interaction | No |

## Equipment

| |
|---|
| Signal analyzer,Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.70 |
| Switch matrix,cetecom advanced GmbH,USM,B002,1.0.0 |

## Test Parameter

| | |
|---|---|
| Technology to test | WLAN2G4 n-HT20 mode |
| EUT port | EUT1 |
| Temperature | nom |
| Voltage | nom |
| Frequency low to test | True \| Freq [MHz] 2412 |
| Frequency mid to test | False \| Freq [MHz] 2437 |
| Frequency high to test | False \| Freq [MHz] 2462 |
| Auto control enabled power supply \| Climatic Box | No \| No |
| Additional path loss [dB] | 0.5 |
| Full path type | EUT_SA_GEN_SIG |
| Full path name | EUT1.MP.SIG1/EUT1.SA/EUT1.GEN1/EUT1.GEN2/ |
| Switch bits | 00010001:00010001:00000000:00000001 |

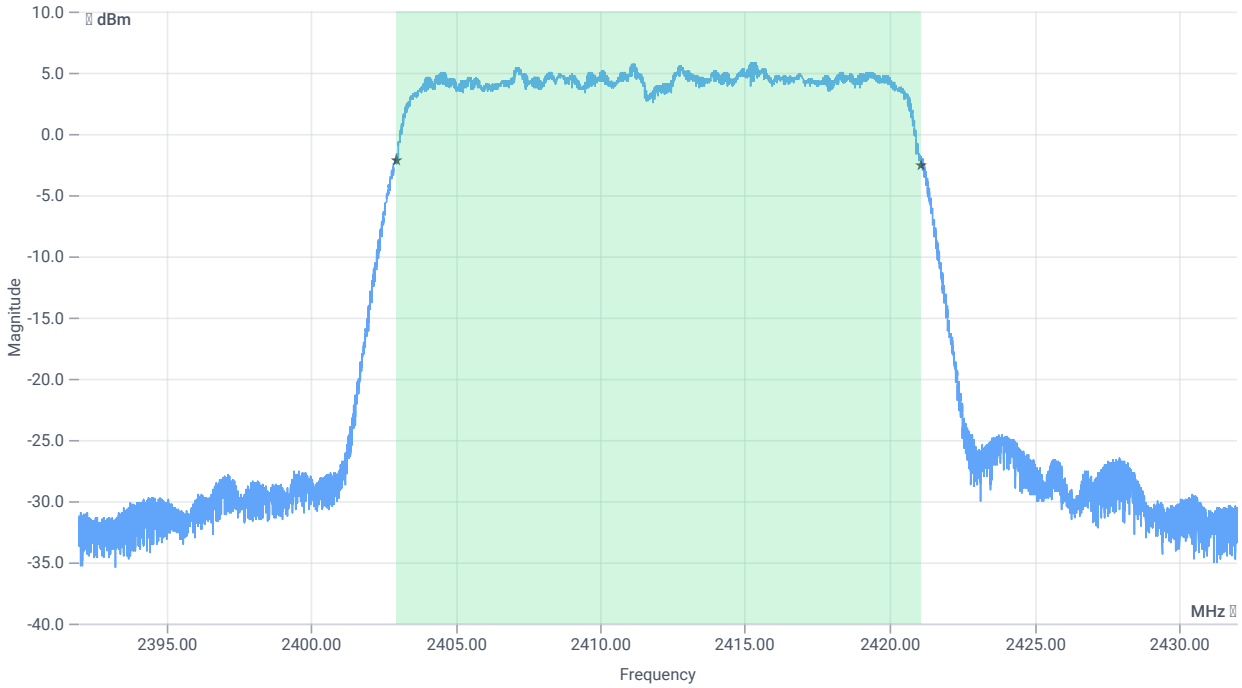
## Test at TX 2412 MHz

RESULT: Reference power cond.

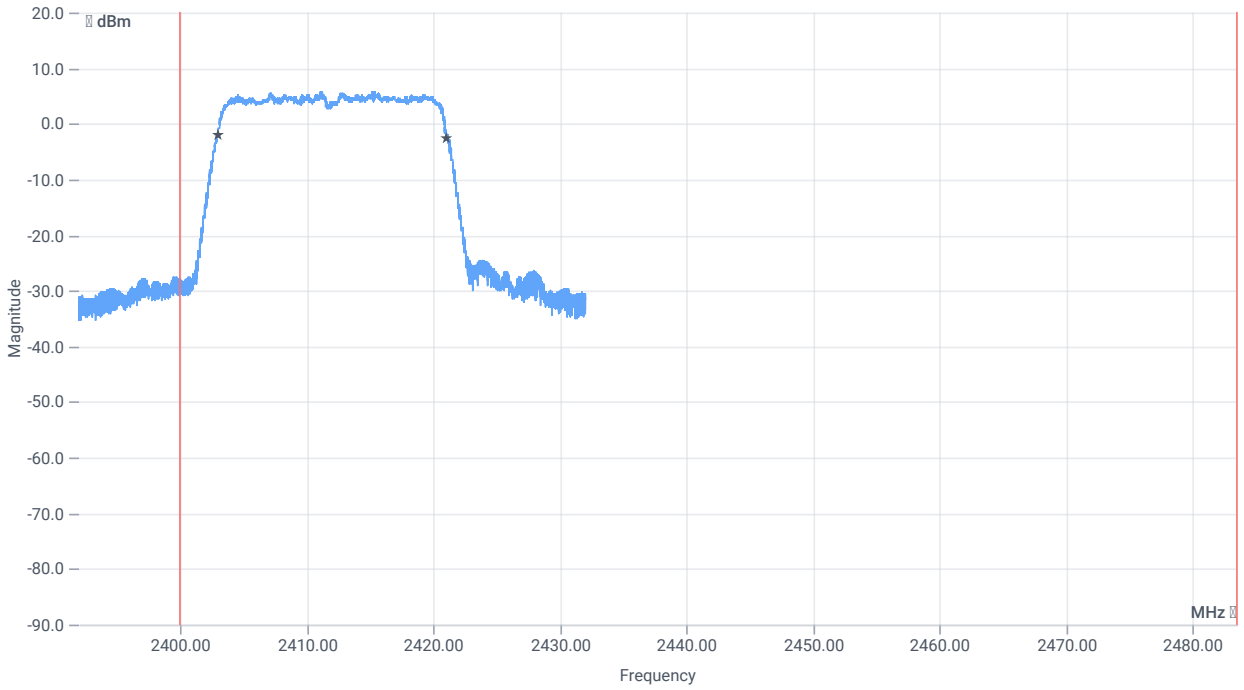
| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Ref. power 1MHz/1MHz cond. | --- | --- | 9.22 | dBm | INFO |
| Ref. frequency | --- | --- | 2413.700 | MHz | INFO |

READ SA SETTINGS:

| | |
|---|---|
| RefLevel [dBm] \| RefLevelOffset [dB] \| InpAtt [dB] | 14.22 \| 10.98 \| 20 |
| Start [MHz] \| Stop [MHz] | 2392.000 \| 2432.000 |
| RBW [MHz] \| VBW [MHz] | 0.500000 \| 2.000000 |
| Detector \| TraceMode | POS \| MAXH |
| Sweep: time [ms] \| count \| points per Section \| type | 50 \| 200 \| 10001 \| SWE |



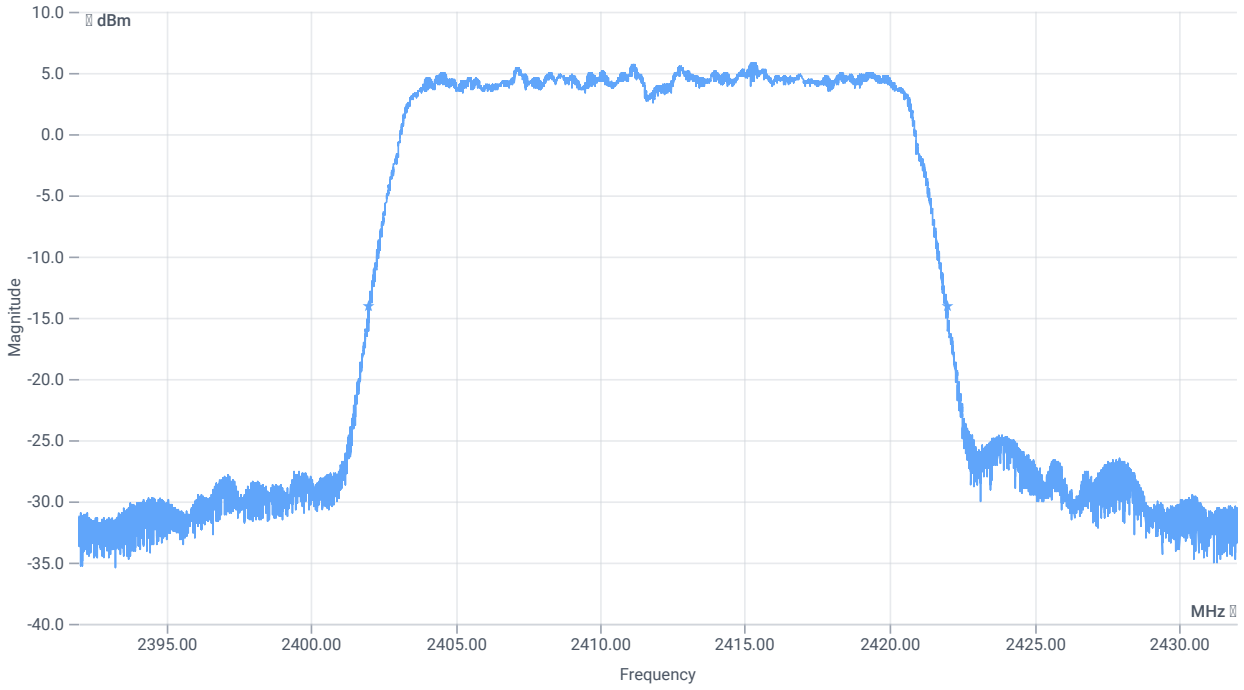

*BW 99PCT*



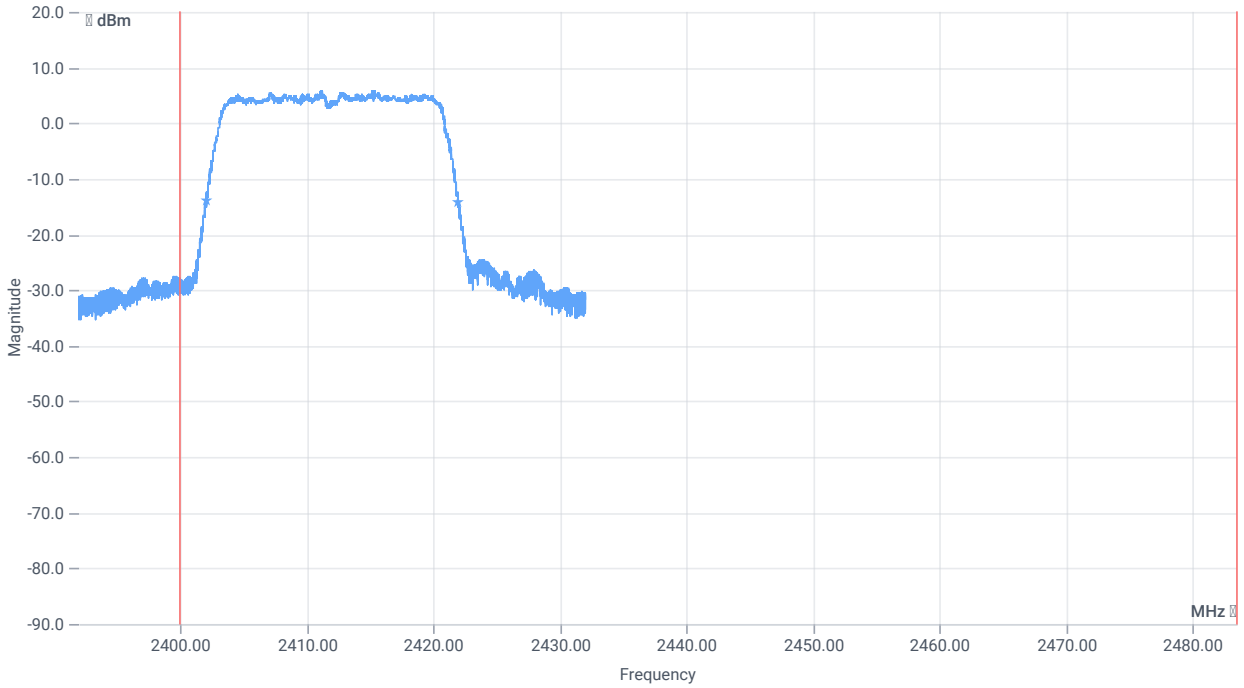

*BW within Band 99PCT*

## RESULT

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Bandwidth 99% | --- | --- | 18114.000 | kHz | INFO |
| T1 99% | 2400.000000 | --- | 2402.9569 | MHz | PASS |
| T2 99% | --- | 2483.500000 | 2421.0711 | MHz | PASS |



*BW 20dB*




*BW within band 20dB*

## RESULT

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Bandwidth 20dB | --- | --- | 19952 | kHz | INFO |
| T1 20dB | 2400.000000 | --- | 2402.0200 | MHz | PASS |
| T2 20dB | --- | 2483.500000 | 2421.9720 | MHz | PASS |

| Verdict |
|---|
| PASS |

# FCC 15.247 # Peak psd DTS ~ WLAN2G4 n-HT20 mode

## References

| | |
|---|---|
| TC start | 10.07.2024 16:00:41 |
| Ambit temp [°C] \| humidity [rel%] | 25.5 \| 54 |
| System version | 5.0.7.0 |
| Standard \| Version | FCC 15.247 \| NI |
| Method | DTS: KDB 558074 D01 V05 - Chapter 8.4 DTS maximum power spectral density level in the fundamental emission |
| Description | FCC 15.247 Peak psd DTS - WLAN2G4 nHT20_mode |
| Information | |

## EUT Common Settings WLAN2G4

| | |
|---|---|
| Number of antenna ports | 1 |
| User interaction | No |

## Equipment

| |
|---|
| Signal analyzer,Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.70 |
| Switch matrix,cetecom advanced GmbH,USM,B002,1.0.0 |

## Test Parameter

| | |
|---|---|
| Technology to test | WLAN2G4 n-HT20 mode |
| EUT port | EUT1 |
| Temperature | nom |
| Voltage | nom |
| Frequency low to test | True \| Freq [MHz] 2412 |
| Frequency mid to test | False \| Freq [MHz] 2437 |
| Frequency high to test | False \| Freq [MHz] 2462 |
| Auto control enabled power supply \| Climatic Box | No \| No |
| Additional path loss [dB] | 0.5 |
| Full path type | EUT_SA_GEN_SIG |
| Full path name | EUT1.MP.SIG1/EUT1.SA/EUT1.GEN1/EUT1.GEN2/ |
| Switch bits | 00010001:00010001:00000000:00000001 |

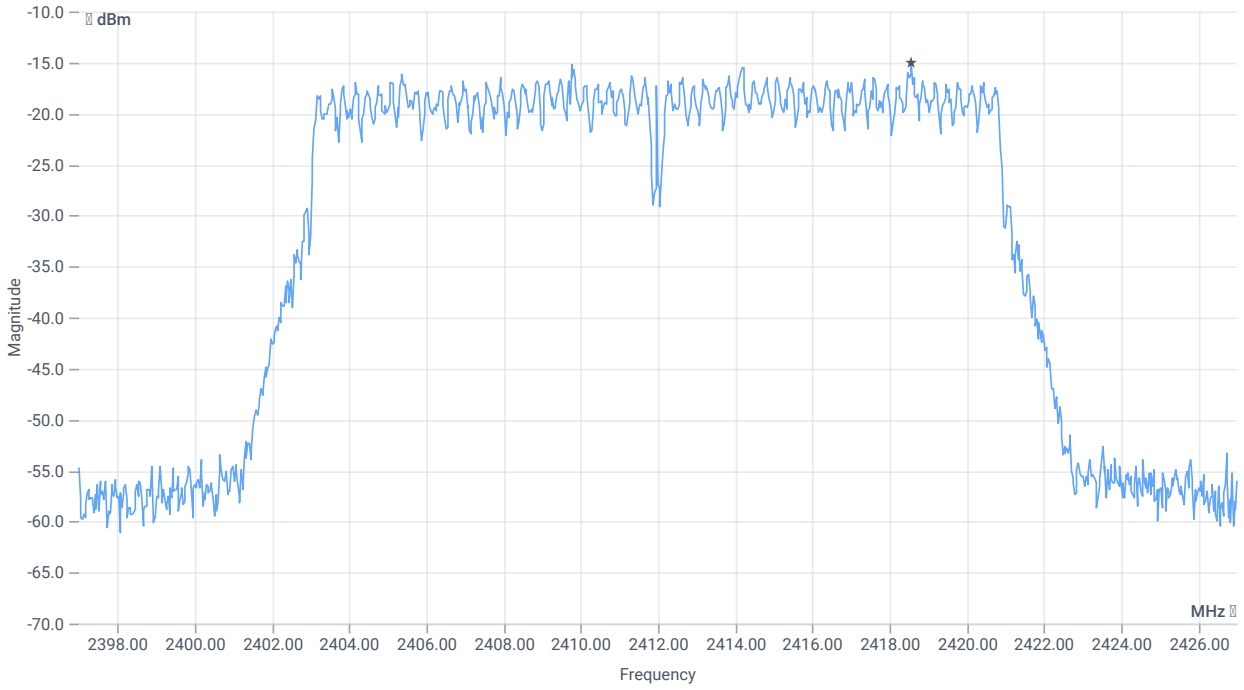
## Test at TX 2412 MHz

### RESULT: Reference power cond.

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Ref. power 1MHz/1MHz cond. | --- | --- | 9.14 | dBm | INFO |
| Ref. frequency | --- | --- | 2415.100 | MHz | INFO |

### READ SA SETTINGS:

| | |
|---|---|
| RefLevel [dBm] \| RefLevelOffset [dB] \| InpAtt [dB] | 14.14 \| 10.98 \| 20 |
| Start [MHz] \| Stop [MHz] | 2397.000 \| 2427.000 |
| RBW [MHz] \| VBW [MHz] | 0.003000 \| 0.010000 |
| Detector \| TraceMode | POS \| MAXH |
| Sweep: time [ms] \| count \| points per Section \| type | 1000 \| 20 \| 1001 \| SWE |




*Peak psd*

### RESULT

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Peak psd | --- | 8 | -15.06 | dBm/3KHz | PASS |

| Verdict |
|---|
| PASS |

# FCC 15.247 # Bandwidth 6dB DTS ~ WLAN2G4 n-HT20 mode

## References

| | |
|---|---|
| TC start | 10.07.2024 16:00:06 |
| Ambit temp [°C] \| humidity [rel%] | 25.5 \| 54 |
| System version | 5.0.7.0 |
| Standard \| Version | FCC 15.247 \| NI |
| Method | |
| Description | FCC 15.247 Bandwidth 6dB DTS - WLAN2G4 n-HT20 mode |
| Information | |

## EUT Common Settings WLAN2G4

| | |
|---|---|
| Number of antenna ports | 1 |
| User interaction | No |

## Equipment

| |
|---|
| Signal analyzer,Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.70 |
| Switch matrix,cetecom advanced GmbH,USM,B002,1.0.0 |

## Test Parameter

| | |
|---|---|
| Technology to test | WLAN2G4 n-HT20 mode |
| EUT port | EUT1 |
| Temperature | nom |
| Voltage | nom |
| Frequency low to test | True \| Freq [MHz] 2412 |
| Frequency mid to test | False \| Freq [MHz] 2437 |
| Frequency high to test | False \| Freq [MHz] 2462 |
| Auto control enabled power supply \| Climatic Box | No \| No |
| Additional path loss [dB] | 0.5 |
| Full path type | EUT_SA_GEN_SIG |
| Full path name | EUT1.MP.SIG1/EUT1.SA/EUT1.GEN1/EUT1.GEN2/ |
| Switch bits | 00010001:00010001:00000000:00000001 |

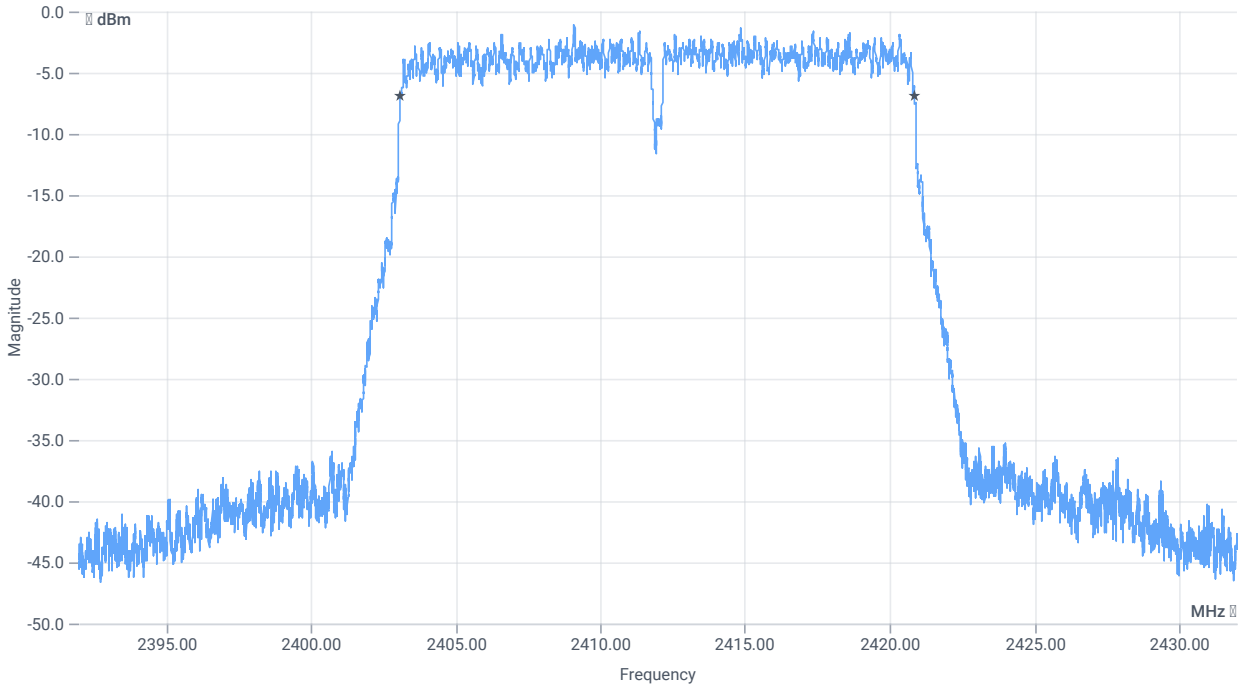
## Test at TX 2412 MHz

### RESULT: Reference power cond.

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Ref. power 1MHz/1MHz cond. | --- | --- | 9.32 | dBm | INFO |
| Ref. frequency | --- | --- | 2416.200 | MHz | INFO |

### READ SA SETTINGS:

| | |
|---|---|
| RefLevel [dBm] \| RefLevelOffset [dB] \| InpAtt [dB] | 14.32 \| 10.98 \| 20 |
| Start [MHz] \| Stop [MHz] | 2392.000 \| 2432.000 |
| RBW [MHz] \| VBW [MHz] | 0.100000 \| 0.300000 |
| Detector \| TraceMode | POS \| MAXH |
| Sweep: time [ms] \| count \| points per Section \| type | 50 \| 200 \| 10001 \| SWE |




*BW 6dB*

### RESULT

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| DTS bandwidth (6dB) | 500 | --- | 17780 | kHz | PASS |

| Verdict |
|---|
| PASS |

# NA # Peak output power 3MHz/3MHz ~ WLAN2G4 n-HT20 mode

## References

| | |
|---|---|
| TC start | 10.07.2024 15:59:36 |
| Ambit temp [°C] \| humidity [rel%] | 25.5 \| 54 |
| System version | 5.0.7.0 |
| Standard \| Version | NA \| NI |
| Method | |
| Description | Peak OP 3MHz/3MHz WLAN2G4 n-HT20 mode |
| Information | |

## EUT Common Settings WLAN2G4

| | |
|---|---|
| Number of antenna ports | 1 |
| User interaction | No |

## Equipment

| |
|---|
| Signal analyzer,Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.70 |
| Switch matrix,cetecom advanced GmbH,USM,B002,1.0.0 |

## Test Parameter

| | |
|---|---|
| Technology to test | WLAN2G4 n-HT20 mode |
| EUT port | EUT1 |
| Temperature | nom |
| Voltage | nom |
| Frequency low to test | True \| Freq [MHz] 2412 |
| Frequency mid to test | False \| Freq [MHz] 2437 |
| Frequency high to test | False \| Freq [MHz] 2462 |
| Auto control enabled power supply \| Climatic Box | No \| No |
| Additional path loss [dB] | 0.5 |
| Full path type | EUT_SA_GEN_SIG |
| Full path name | EUT1.MP.SIG1/EUT1.SA/EUT1.GEN1/EUT1.GEN2/ |
| Switch bits | 00010001:00010001:00000000:00000001 |

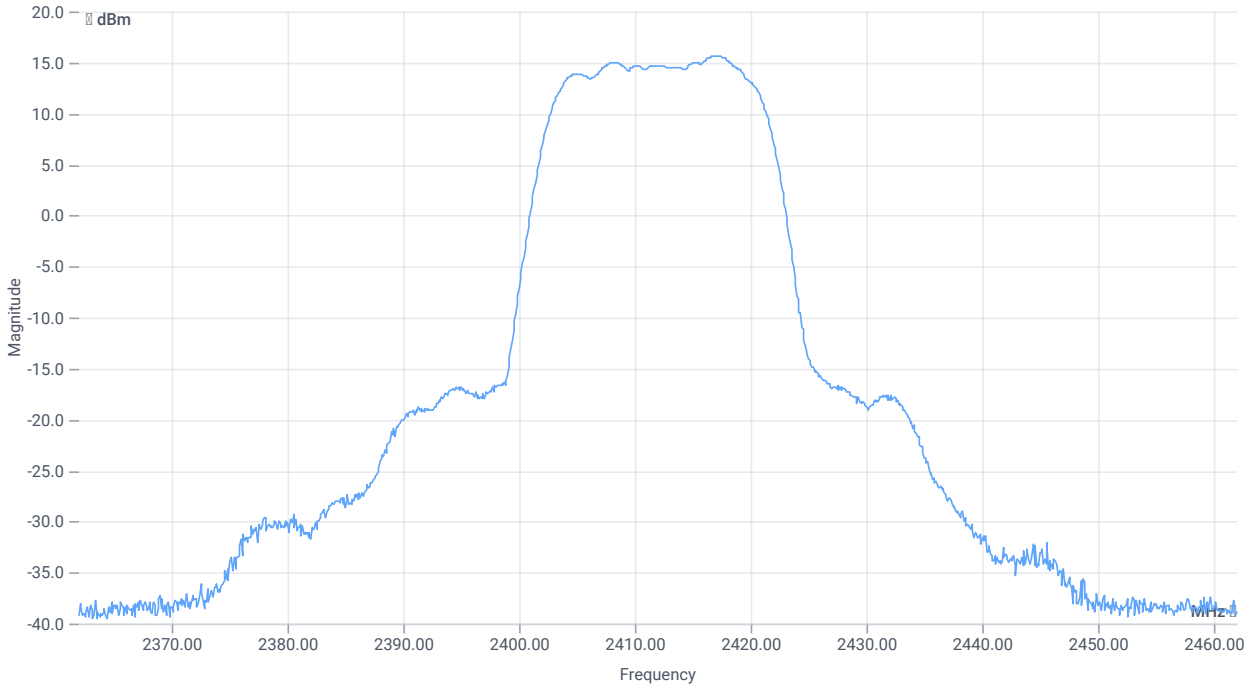
## Test at TX 2412 MHz

### RESULT: Reference power cond.

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Ref. power 1MHz/1MHz cond. | --- | --- | 9.43 | dBm | INFO |
| Ref. frequency | --- | --- | 2415.700 | MHz | INFO |

### READ SA SETTINGS:

| | |
|---|---|
| RefLevel [dBm] \| RefLevelOffset [dB] \| InpAtt [dB] | 19.43 \| 10.98 \| 25 |
| Start [MHz] \| Stop [MHz] | 2362.000 \| 2462.000 |
| RBW [MHz] \| VBW [MHz] | 3.000000 \| 3.000000 |
| Detector \| TraceMode | POS \| MAXH |
| Sweep: time [ms] \| count \| points per Section \| type | 1000 \| 10 \| 1001 \| SWE |




*Peak output power*

### RESULT

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Peak power | --- | --- | 15.69 | dBm | INFO |
| Peak power | --- | --- | 37.068072 | mW | INFO |
| Frequency at peak | --- | --- | 2417 | MHz | INFO |

| Verdict |
| --- |
| PASS |

# FCC 15.247 # Peak output power PM DTS ~ WLAN2G4 g mode

## References

| | |
|---|---|
| TC start | 10.07.2024 15:48:53 |
| Ambit temp [°C] \| humidity [rel%] | 25.0 \| 55 |
| System version | 5.0.7.0 |
| Standard \| Version | FCC 15.247 \| NI |
| Method | DTS: KDB 558074 D01 V05 - Chapter 8.3.1.3 PKPM1 Peak-reading Power Meter Method |
| Description | FCC 15.247 Peak output power PM DTS - WLAN2G4 g mode |
| Information | |

## EUT Common Settings WLAN2G4

| | |
|---|---|
| Number of antenna ports | 1 |
| User interaction | No |

## Equipment

| |
|---|
| Switch matrix,cetecom advanced GmbH,USM,B002,1.0.0 |
| Power sensor,Keysight Technologies,U2021XA,MY59190010,A.04.06 |

## Test Parameter

| | |
|---|---|
| Technology to test | WLAN2G4 g mode |
| EUT port | EUT1 |
| Temperature | nom |
| Voltage | nom |
| Frequency low to test | False \| Freq [MHz] 2412 |
| Frequency mid to test | False \| Freq [MHz] 2437 |
| Frequency high to test | True \| Freq [MHz] 2462 |
| Auto control enabled power supply \| Climatic Box | No \| No |
| Additional path loss [dB] | 0.5 |
| Full path type | EUT_PM_GEN_SIG |
| Full path name | EUT1.MP.SIG1/EUT1.PM/EUT1.GEN1/EUT1.GEN2/ |
| Switch bits | 00010001:00010001:00010000:00000001 |

## Test at TX 2462 MHz

RESULT

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Peak power | --- | 30 | 21.6 | dBm | PASS |

| Verdict |
|---|
| PASS |

# FCC 15.247 # TX spurious conducted 20dBc ~ WLAN2G4 g mode

## References

| | |
|---|---|
| TC start | 10.07.2024 15:35:17 |
| Ambit temp [°C] \| humidity [rel%] | 24.2 \| 57 |
| System version | 5.0.7.0 |
| Standard \| Version | FCC 15.247 \| NI |
| Method | IF DTS then 8.5 DTS emissions in non-restricted frequency bands: Subclause 11.11 of ANSI C63.10 is applicable |
| Description | FCC 15.247 TX Emissions cond. DTS - WLAN2G4 g mode |
| Information | |

## EUT Common Settings WLAN2G4

| | |
|---|---|
| Number of antenna ports | 1 |
| User interaction | No |

## Equipment

| |
|---|
| Signal analyzer,Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.70 |
| Switch matrix,cetecom advanced GmbH,USM,B002,1.0.0 |

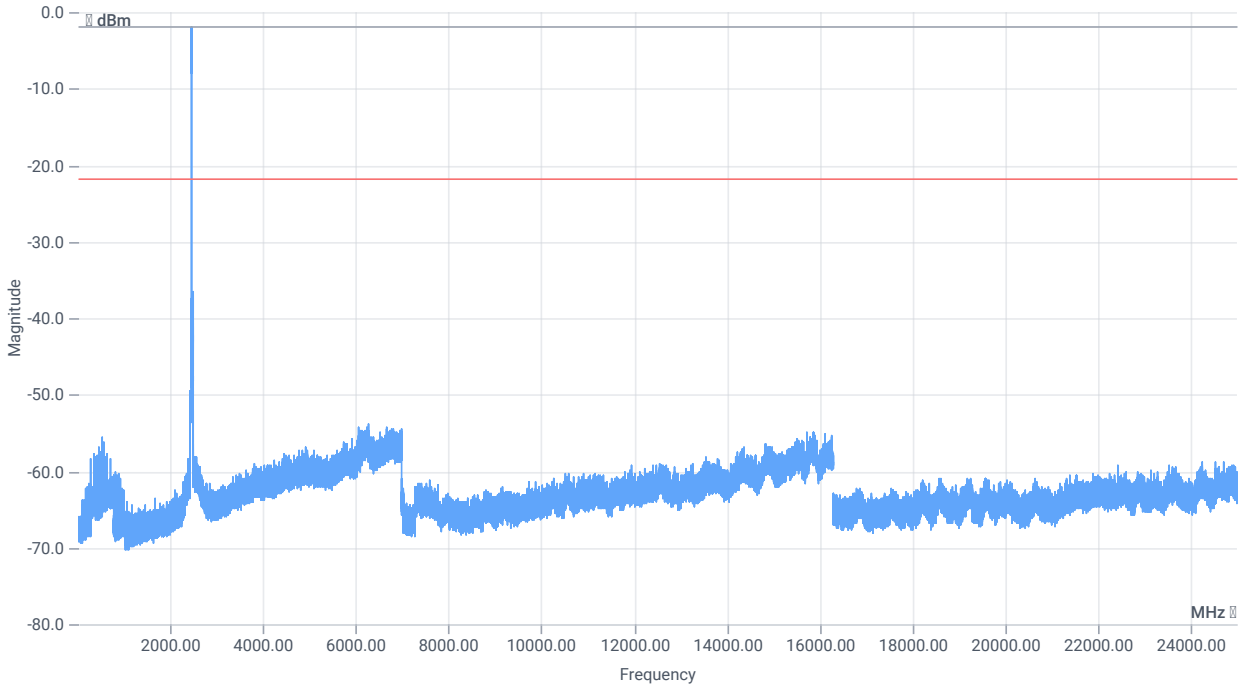
## Test Parameter

| | |
|---|---|
| Technology to test | WLAN2G4 g mode |
| EUT port | EUT1 |
| Temperature | nom |
| Voltage | nom |
| Frequency low to test | False \| Freq [MHz] 2412 |
| Frequency mid to test | False \| Freq [MHz] 2437 |
| Frequency high to test | True \| Freq [MHz] 2462 |
| Auto control enabled power supply \| Climatic Box | No \| No |
| Additional path loss [dB] | 0.5 |
| Full path type | EUT_SA_GEN_SIG |
| Full path name | EUT1.MP.SIG1/EUT1.SA/EUT1.GEN1/EUT1.GEN2/ |
| Switch bits | 00010001:00010001:00000000:00000001 |

## Test at TX 2462 MHz

RESULT: Reference power cond.

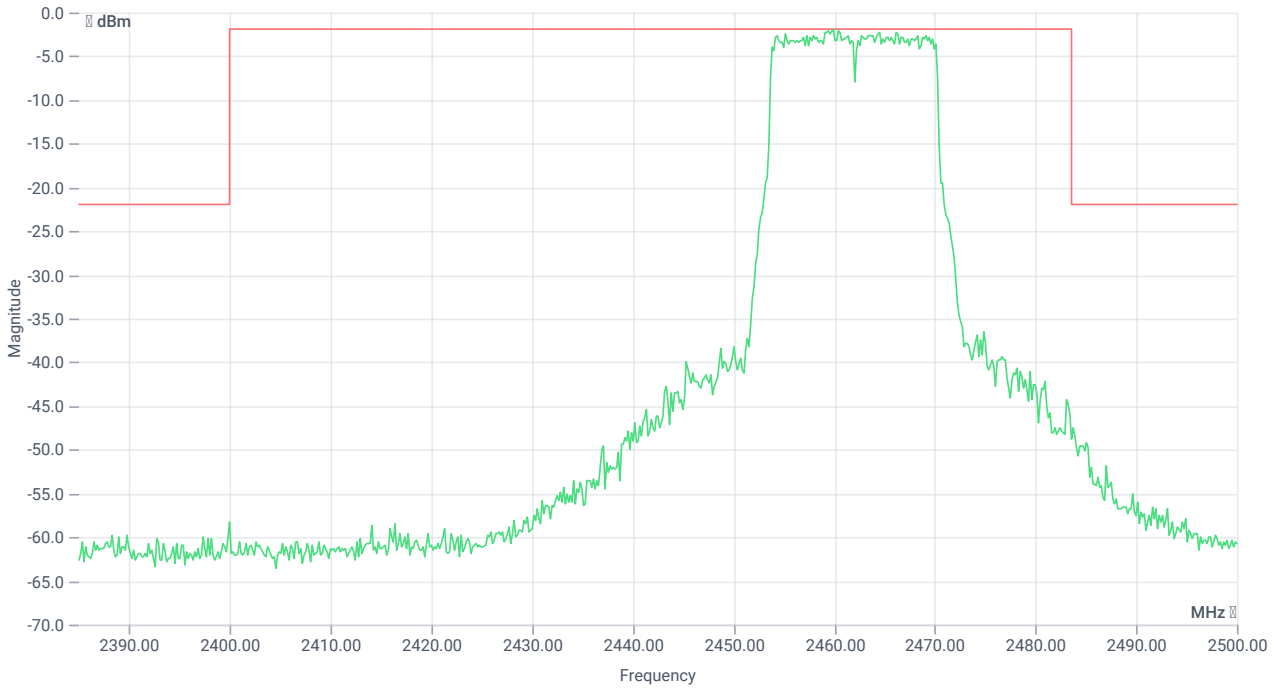
| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Ref. power 1MHz/1MHz cond. | --- | --- | 9.06 | dBm | INFO |
| Ref. frequency | --- | --- | 2458.900 | MHz | INFO |




*TX emissions*

READ SA SETTINGS:

| | |
|---|---|
| RefLevel [dBm] \| RefLevelOffset [dB] \| InpAtt [dB] | 9.06 \| 23.17 \| 5 |
| Start [MHz] \| Stop [MHz] | 24780.000 \| 25000.000 |
| RBW [MHz] \| VBW [MHz] | 0.100000 \| 0.300000 |
| Detector \| TraceMode | POS \| MAXH |
| Sweep: time [ms] \| count \| points per Section \| type | 200 \| 25 \| 1501 \| SWE |




*TX emissions band zoomed*

## RESULT

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Reference @ 2459.83 MHz | --- | --- | -1.92 | dBm | INFO |
| No peaks detected | --- | --- | | | PASS |
| Lowest margin to limit 2483.667 MHz | 0 | --- | 25.59 | dB | INFO |

| Verdict |
|---|
| PASS |

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

## References

| | |
|---|---|
| TC start | 10.07.2024 15:34:37 |
| Ambit temp [°C] \| humidity [rel%] | 24.2 \| 57 |
| System version | 5.0.7.0 |
| Standard \| Version | FCC 15.247, ISED RSS247 \| NI |
| Method | |
| Description | FCC 15.247 Bandwidth 99PCT-20dB DTS - WLAN2G4 g mode |
| Information | |

## EUT Common Settings WLAN2G4

| | |
|---|---|
| Number of antenna ports | 1 |
| User interaction | No |

## Equipment

| |
|---|
| Signal analyzer,Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.70 |
| Switch matrix,cetecom advanced GmbH,USM,B002,1.0.0 |

## Test Parameter

| | |
|---|---|
| Technology to test | WLAN2G4 g mode |
| EUT port | EUT1 |
| Temperature | nom |
| Voltage | nom |
| Frequency low to test | False \| Freq [MHz] 2412 |
| Frequency mid to test | False \| Freq [MHz] 2437 |
| Frequency high to test | True \| Freq [MHz] 2462 |
| Auto control enabled power supply \| Climatic Box | No \| No |
| Additional path loss [dB] | 0.5 |
| Full path type | EUT_SA_GEN_SIG |
| Full path name | EUT1.MP.SIG1/EUT1.SA/EUT1.GEN1/EUT1.GEN2/ |
| Switch bits | 00010001:00010001:00000000:00000001 |

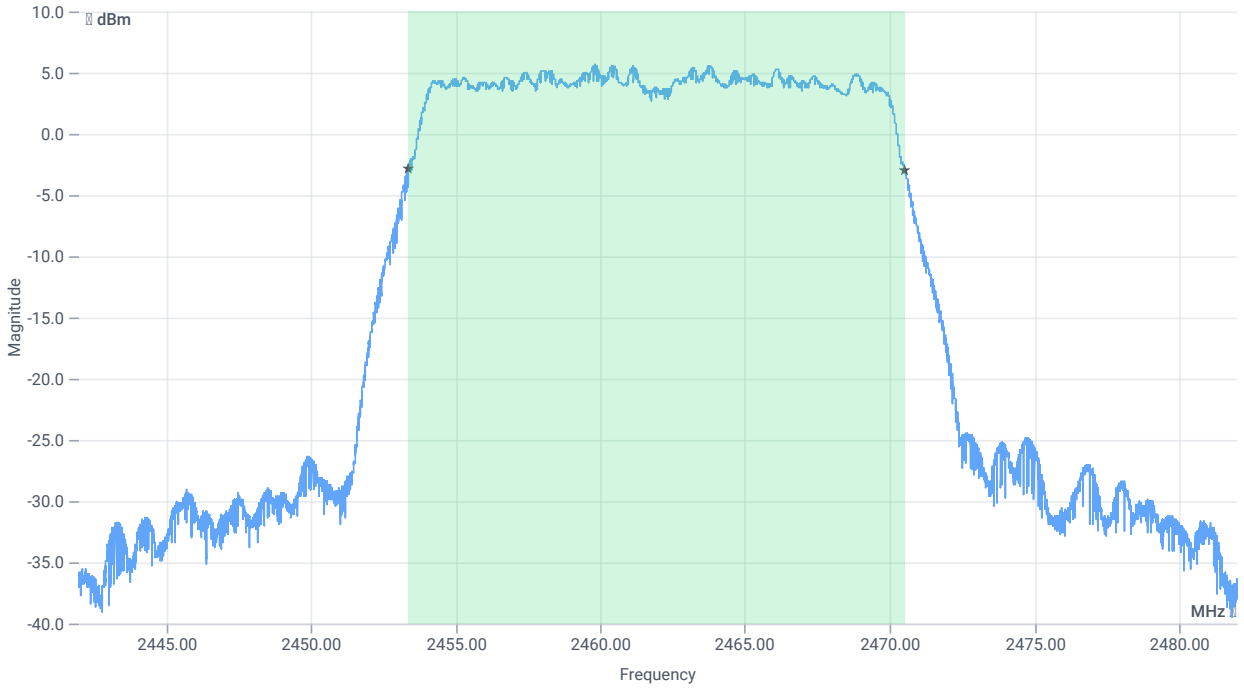
## Test at TX 2462 MHz

RESULT: Reference power cond.

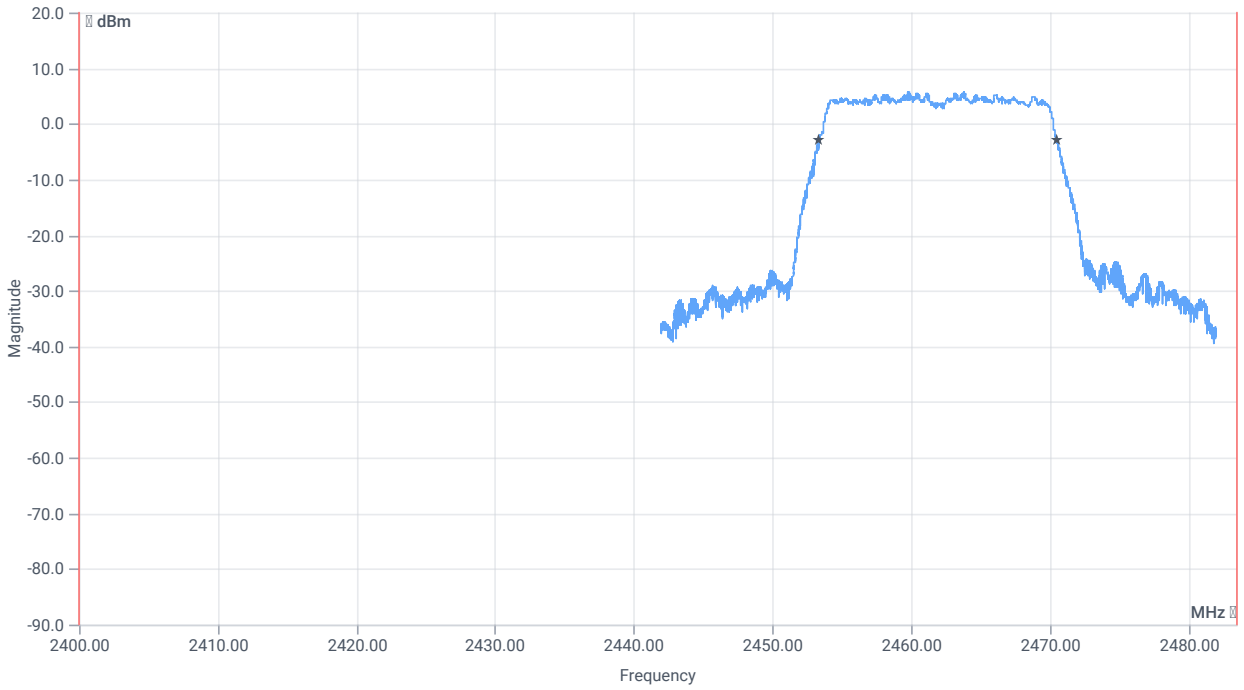
| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Ref. power 1MHz/1MHz cond. | --- | --- | 9.13 | dBm | INFO |
| Ref. frequency | --- | --- | 2463.300 | MHz | INFO |

READ SA SETTINGS:

| | |
|---|---|
| RefLevel [dBm] \| RefLevelOffset [dB] \| InpAtt [dB] | 14.13 \| 11.1 \| 20 |
| Start [MHz] \| Stop [MHz] | 2442.000 \| 2482.000 |
| RBW [MHz] \| VBW [MHz] | 0.500000 \| 2.000000 |
| Detector \| TraceMode | POS \| MAXH |
| Sweep: time [ms] \| count \| points per Section \| type | 50 \| 200 \| 10001 \| SWE |



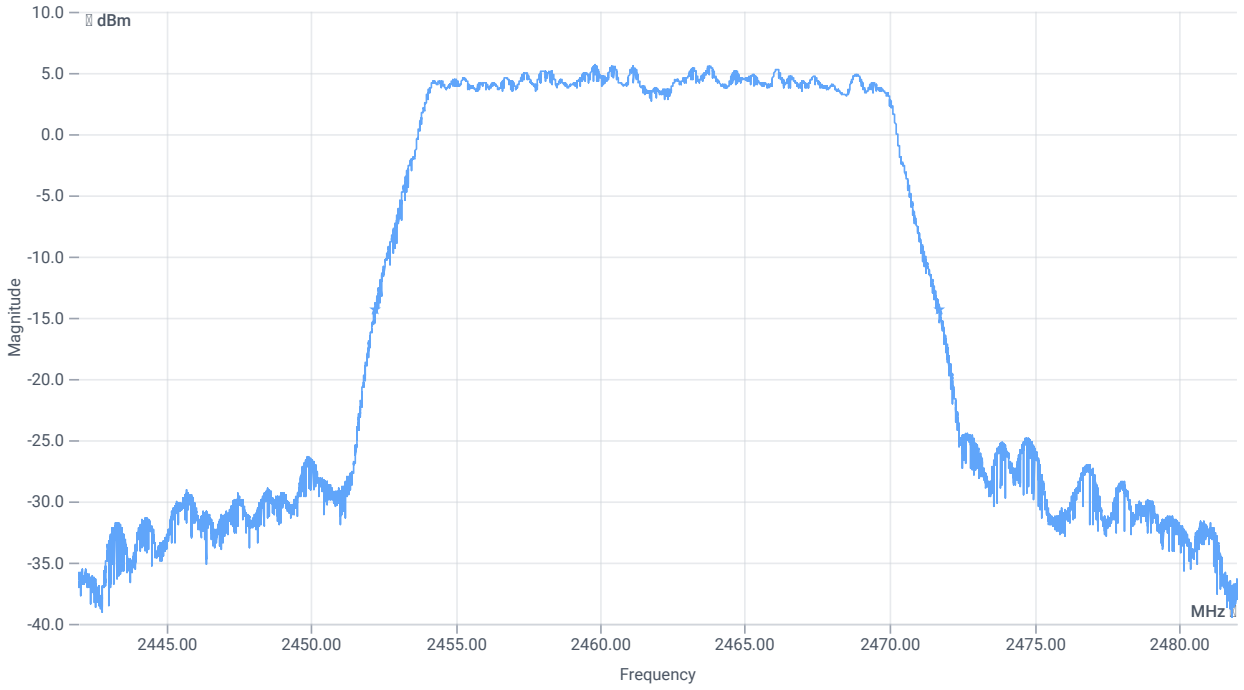

*BW 99PCT*



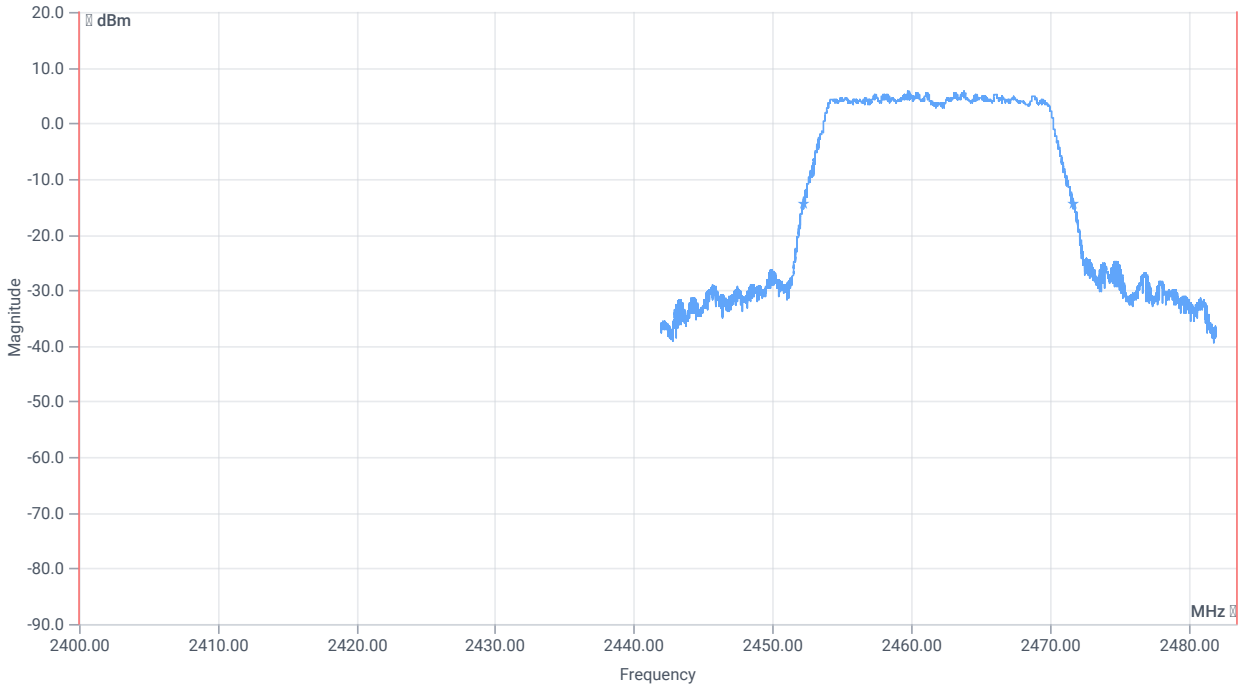

*BW within Band 99PCT*

## RESULT

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Bandwidth 99% | --- | --- | 17154.000 | kHz | INFO |
| T1 99% | 2400.000000 | --- | 2453.3689 | MHz | PASS |
| T2 99% | --- | 2483.500000 | 2470.5231 | MHz | PASS |



*BW 20dB*




*BW within band 20dB*

## RESULT

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Bandwidth 20dB | --- | --- | 19512 | kHz | INFO |
| T1 20dB | 2400.000000 | --- | 2452.2160 | MHz | PASS |
| T2 20dB | --- | 2483.500000 | 2471.7280 | MHz | PASS |

| Verdict |
|---|
| PASS |

# FCC 15.247 # Peak psd DTS ~ WLAN2G4 g mode

## References

| | |
|---|---|
| TC start | 10.07.2024 15:33:56 |
| Ambit temp [°C] \| humidity [rel%] | 24.2 \| 57 |
| System version | 5.0.7.0 |
| Standard \| Version | FCC 15.247 \| NI |
| Method | DTS: KDB 558074 D01 V05 - Chapter 8.4 DTS maximum power spectral density level in the fundamental emission |
| Description | FCC 15.247 Peak psd DTS - WLAN2G4 g mode |
| Information | |

## EUT Common Settings WLAN2G4

| | |
|---|---|
| Number of antenna ports | 1 |
| User interaction | No |

## Equipment

| |
|---|
| Signal analyzer,Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.70 |
| Switch matrix,cetecom advanced GmbH,USM,B002,1.0.0 |

## Test Parameter

| | |
|---|---|
| Technology to test | WLAN2G4 g mode |
| EUT port | EUT1 |
| Temperature | nom |
| Voltage | nom |
| Frequency low to test | False \| Freq [MHz] 2412 |
| Frequency mid to test | False \| Freq [MHz] 2437 |
| Frequency high to test | True \| Freq [MHz] 2462 |
| Auto control enabled power supply \| Climatic Box | No \| No |
| Additional path loss [dB] | 0.5 |
| Full path type | EUT_SA_GEN_SIG |
| Full path name | EUT1.MP.SIG1/EUT1.SA/EUT1.GEN1/EUT1.GEN2/ |
| Switch bits | 00010001:00010001:00000000:00000001 |

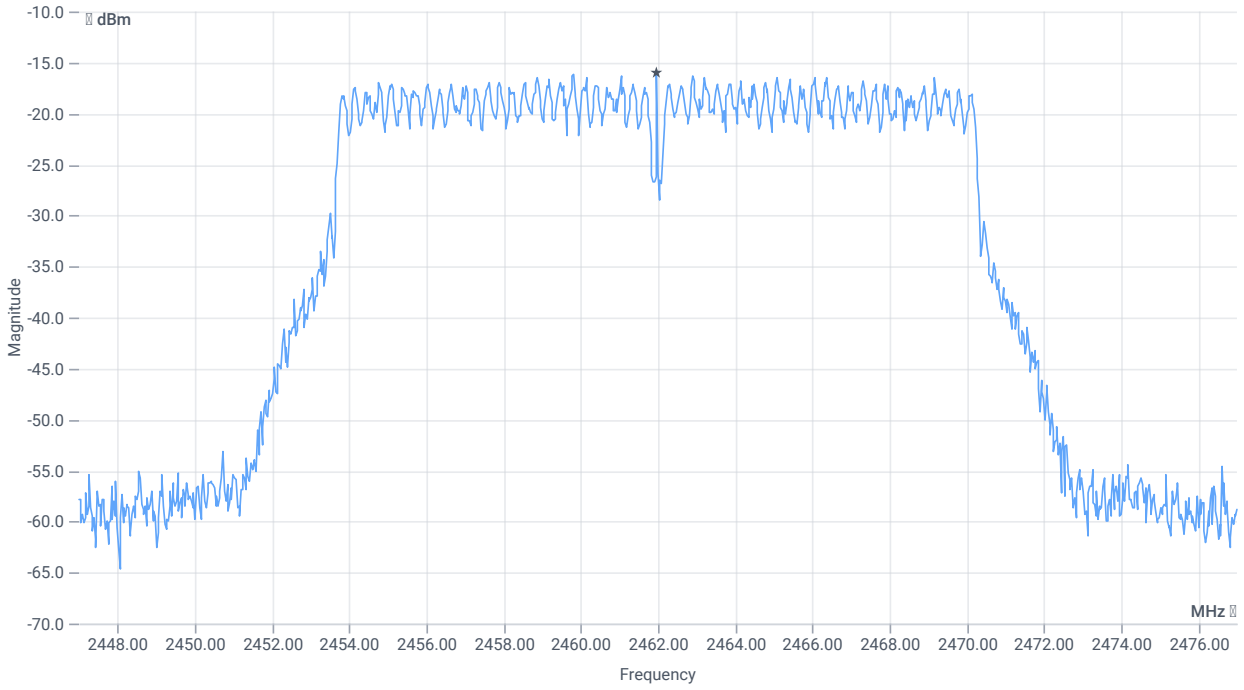
## Test at TX 2462 MHz

### RESULT: Reference power cond.

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Ref. power 1MHz/1MHz cond. | --- | --- | 9.18 | dBm | INFO |
| Ref. frequency | --- | --- | 2458.900 | MHz | INFO |

### READ SA SETTINGS:

| | |
|---|---|
| RefLevel [dBm] \| RefLevelOffset [dB] \| InpAtt [dB] | 14.18 \| 11.1 \| 20 |
| Start [MHz] \| Stop [MHz] | 2447.000 \| 2477.000 |
| RBW [MHz] \| VBW [MHz] | 0.003000 \| 0.010000 |
| Detector \| TraceMode | POS \| MAXH |
| Sweep: time [ms] \| count \| points per Section \| type | 1000 \| 20 \| 1001 \| SWE |




*Peak psd*

### RESULT

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Peak psd | --- | 8 | -15.93 | dBm/3KHz | PASS |

| Verdict |
|---|
| PASS |

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

## References

| | |
|---|---|
| TC start | 10.07.2024 15:33:22 |
| Ambit temp [°C] \| humidity [rel%] | 24.2 \| 57 |
| System version | 5.0.7.0 |
| Standard \| Version | FCC 15.247 \| NI |
| Method | |
| Description | FCC 15.247 Bandwidth 6dB DTS - WLAN2G4 g mode |
| Information | |

## EUT Common Settings WLAN2G4

| | |
|---|---|
| Number of antenna ports | 1 |
| User interaction | No |

## Equipment

| |
|---|
| Signal analyzer,Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.70 |
| Switch matrix,cetecom advanced GmbH,USM,B002,1.0.0 |

## Test Parameter

| | |
|---|---|
| Technology to test | WLAN2G4 g mode |
| EUT port | EUT1 |
| Temperature | nom |
| Voltage | nom |
| Frequency low to test | False \| Freq [MHz] 2412 |
| Frequency mid to test | False \| Freq [MHz] 2437 |
| Frequency high to test | True \| Freq [MHz] 2462 |
| Auto control enabled power supply \| Climatic Box | No \| No |
| Additional path loss [dB] | 0.5 |
| Full path type | EUT_SA_GEN_SIG |
| Full path name | EUT1.MP.SIG1/EUT1.SA/EUT1.GEN1/EUT1.GEN2/ |
| Switch bits | 00010001:00010001:00000000:00000001 |

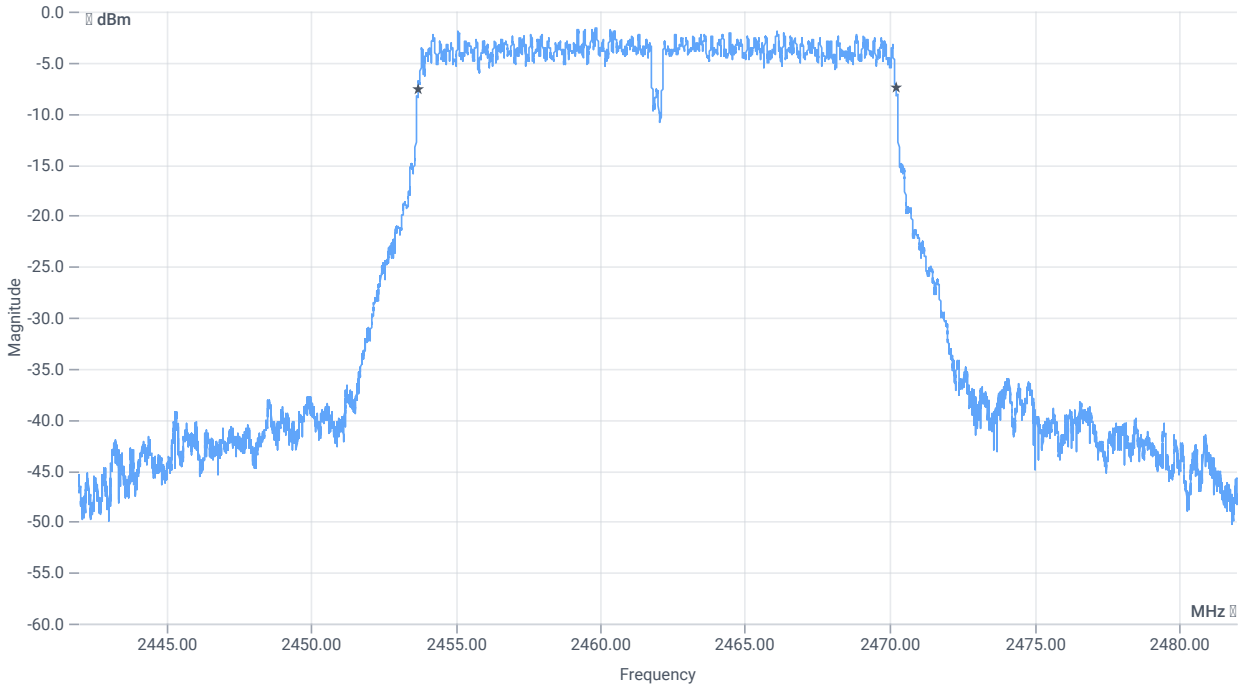
## Test at TX 2462 MHz

### RESULT: Reference power cond.

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Ref. power 1MHz/1MHz cond. | --- | --- | 8.79 | dBm | INFO |
| Ref. frequency | --- | --- | 2468.890 | MHz | INFO |

### READ SA SETTINGS:

| | |
|---|---|
| RefLevel [dBm] \| RefLevelOffset [dB] \| InpAtt [dB] | 13.79 \| 11.1 \| 20 |
| Start [MHz] \| Stop [MHz] | 2442.000 \| 2482.000 |
| RBW [MHz] \| VBW [MHz] | 0.100000 \| 0.300000 |
| Detector \| TraceMode | POS \| MAXH |
| Sweep: time [ms] \| count \| points per Section \| type | 50 \| 200 \| 10001 \| SWE |




*BW 6dB*

### RESULT

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| DTS bandwidth (6dB) | 500 | --- | 16548 | kHz | PASS |

| Verdict |
|---|
| PASS |

# NA # Peak output power 3MHz/3MHz ~ WLAN2G4 g mode

## References

| | |
|---|---|
| TC start | 10.07.2024 15:32:52 |
| Ambit temp [°C] \| humidity [rel%] | 24.2 \| 57 |
| System version | 5.0.7.0 |
| Standard \| Version | NA \| NI |
| Method | |
| Description | Peak OP 3MHz/3MHz WLAN2G4 g mode |
| Information | |

## EUT Common Settings WLAN2G4

| | |
|---|---|
| Number of antenna ports | 1 |
| User interaction | No |

## Equipment

| |
|---|
| Signal analyzer,Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.70 |
| Switch matrix,cetecom advanced GmbH,USM,B002,1.0.0 |

## Test Parameter

| | |
|---|---|
| Technology to test | WLAN2G4 g mode |
| EUT port | EUT1 |
| Temperature | nom |
| Voltage | nom |
| Frequency low to test | False \| Freq [MHz] 2412 |
| Frequency mid to test | False \| Freq [MHz] 2437 |
| Frequency high to test | True \| Freq [MHz] 2462 |
| Auto control enabled power supply \| Climatic Box | No \| No |
| Additional path loss [dB] | 0.5 |
| Full path type | EUT_SA_GEN_SIG |
| Full path name | EUT1.MP.SIG1/EUT1.SA/EUT1.GEN1/EUT1.GEN2/ |
| Switch bits | 00010001:00010001:00000000:00000001 |

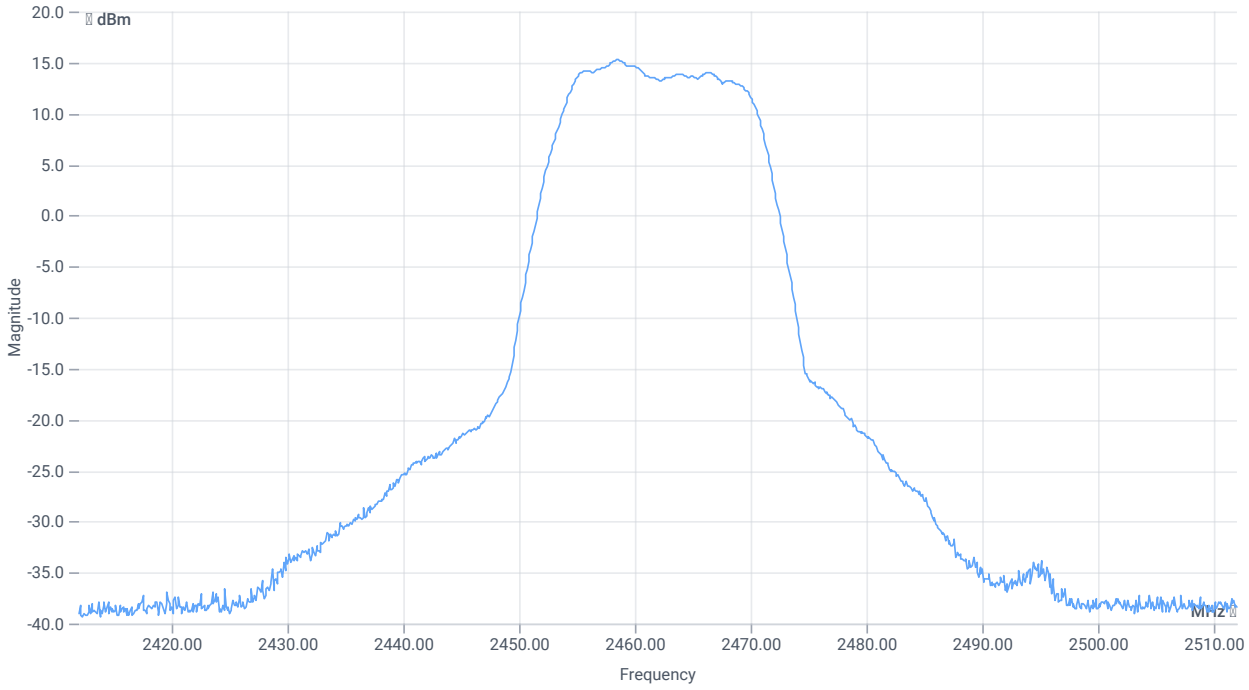
## Test at TX 2462 MHz

RESULT: Reference power cond.

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Ref. power 1MHz/1MHz cond. | --- | --- | 9.29 | dBm | INFO |
| Ref. frequency | --- | --- | 2463.300 | MHz | INFO |

READ SA SETTINGS:

| | |
|---|---|
| RefLevel [dBm] \| RefLevelOffset [dB] \| InpAtt [dB] | 19.29 \| 11.1 \| 25 |
| Start [MHz] \| Stop [MHz] | 2412.000 \| 2512.000 |
| RBW [MHz] \| VBW [MHz] | 3.000000 \| 3.000000 |
| Detector \| TraceMode | POS \| MAXH |
| Sweep: time [ms] \| count \| points per Section \| type | 1000 \| 10 \| 1001 \| SWE |




*Peak output power*

RESULT

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Peak power | --- | --- | 15.26 | dBm | INFO |
| Peak power | --- | --- | 33.573761 | mW | INFO |
| Frequency at peak | --- | --- | 2458.5 | MHz | INFO |

| Verdict |
| --- |
| PASS |

# FCC 15.247 # Peak output power PM DTS ~ WLAN2G4 g mode

## References

| | |
|---|---|
| TC start | 12.07.2024 10:16:03 |
| Ambit temp [°C] \| humidity [rel%] | 24.7 \| 60 |
| System version | 5.0.7.0 |
| Standard \| Version | FCC 15.247 \| NI |
| Method | DTS: KDB 558074 D01 V05 - Chapter 8.3.1.3 PKPM1 Peak-reading Power Meter Method |
| Description | FCC 15.247 Peak output power PM DTS - WLAN2G4 g mode |
| Information | |

## EUT Common Settings WLAN2G4

| | |
|---|---|
| Number of antenna ports | 1 |
| User interaction | No |

## Equipment

| |
|---|
| Switch matrix,cetecom advanced GmbH,USM,B002,1.0.0 |
| Power sensor,Keysight Technologies,U2021XA,MY59190010,A.04.06 |

## Test Parameter

| | |
|---|---|
| Technology to test | WLAN2G4 g mode |
| EUT port | EUT1 |
| Temperature | nom |
| Voltage | nom |
| Frequency low to test | False \| Freq [MHz] 2412 |
| Frequency mid to test | True \| Freq [MHz] 2437 |
| Frequency high to test | False \| Freq [MHz] 2462 |
| Auto control enabled power supply \| Climatic Box | No \| No |
| Additional path loss [dB] | 0.5 |
| Full path type | EUT_PM_GEN_SIG |
| Full path name | EUT1.MP.SIG1/EUT1.PM/EUT1.GEN1/EUT1.GEN2/ |
| Switch bits | 00010001:00010001:00010000:00000001 |

## Test at TX 2437 MHz

RESULT

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Peak power | --- | 30 | 20.71 | dBm | PASS |

| Verdict |
|---|
| PASS |

# FCC 15.247 # TX spurious conducted 20dBc ~ WLAN2G4 g mode

## References

| | |
|---|---|
| TC start | 12.07.2024 10:02:31 |
| Ambit temp [°C] \| humidity [rel%] | 24.5 \| 61 |
| System version | 5.0.7.0 |
| Standard \| Version | FCC 15.247 \| NI |
| Method | IF DTS then 8.5 DTS emissions in non-restricted frequency bands: Subclause 11.11 of ANSI C63.10 is applicable |
| Description | FCC 15.247 TX Emissions cond. DTS - WLAN2G4 g mode |
| Information | |

## EUT Common Settings WLAN2G4

| | |
|---|---|
| Number of antenna ports | 1 |
| User interaction | No |

## Equipment

| |
|---|
| Signal analyzer,Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.70 |
| Switch matrix,cetecom advanced GmbH,USM,B002,1.0.0 |

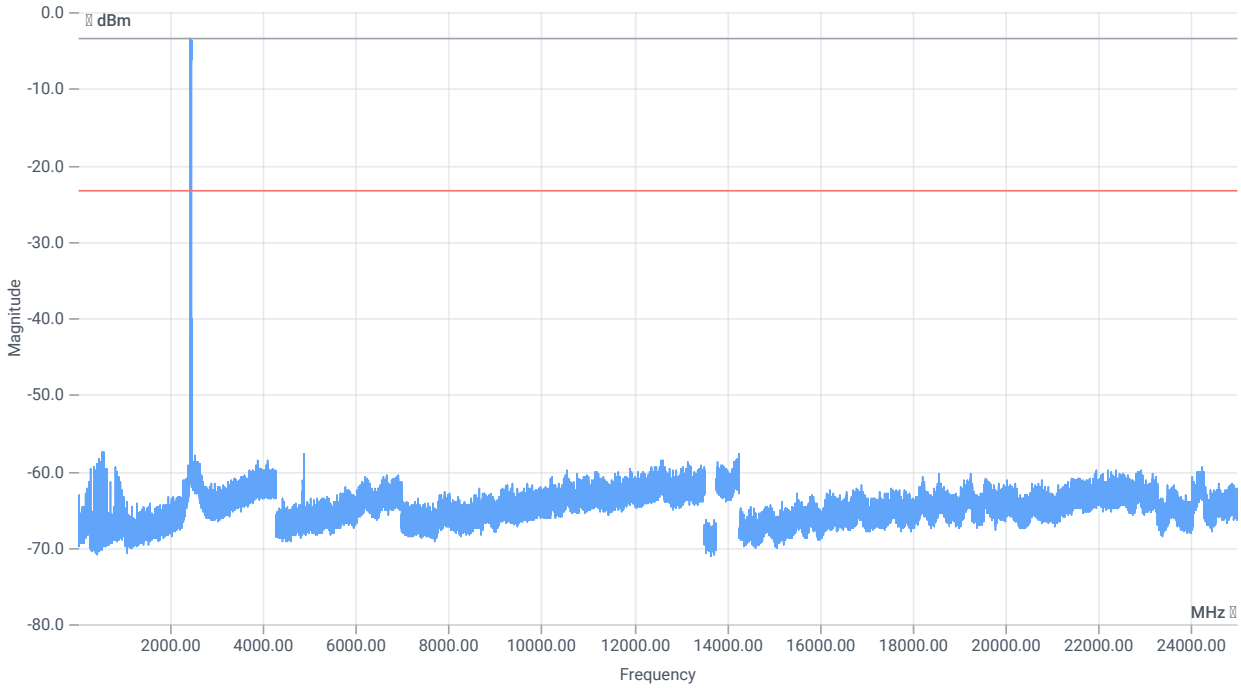
## Test Parameter

| | |
|---|---|
| Technology to test | WLAN2G4 g mode |
| EUT port | EUT1 |
| Temperature | nom |
| Voltage | nom |
| Frequency low to test | False \| Freq [MHz] 2412 |
| Frequency mid to test | True \| Freq [MHz] 2437 |
| Frequency high to test | False \| Freq [MHz] 2462 |
| Auto control enabled power supply \| Climatic Box | No \| No |
| Additional path loss [dB] | 0.5 |
| Full path type | EUT_SA_GEN_SIG |
| Full path name | EUT1.MP.SIG1/EUT1.SA/EUT1.GEN1/EUT1.GEN2/ |
| Switch bits | 00010001:00010001:00000000:00000001 |

## Test at TX 2437 MHz

RESULT: Reference power cond.

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Ref. power 1MHz/1MHz cond. | --- | --- | 7.80 | dBm | INFO |
| Ref. frequency | --- | --- | 2438.600 | MHz | INFO |




*TX emissions*

READ SA SETTINGS:

| | |
|---|---|
| RefLevel [dBm] \| RefLevelOffset [dB] \| InpAtt [dB] | 7.80 \| 23.17 \| 0 |
| Start [MHz] \| Stop [MHz] | 24780.000 \| 25000.000 |
| RBW [MHz] \| VBW [MHz] | 0.100000 \| 0.300000 |
| Detector \| TraceMode | POS \| MAXH |
| Sweep: time [ms] \| count \| points per Section \| type | 200 \| 25 \| 1501 \| SWE |

*TX emissions band zoomed*

## RESULT

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Reference @ 2434.83 MHz | --- | --- | -3.38 | dBm | INFO |
| No peaks detected | --- | --- | | | PASS |
| Lowest margin to limit 534.5 MHz | 0 | --- | 34.16 | dB | INFO |

| Verdict |
|---|
| PASS |

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

## References

| | |
|---|---|
| TC start | 12.07.2024 10:01:54 |
| Ambit temp [°C] \| humidity [rel%] | 24.5 \| 61 |
| System version | 5.0.7.0 |
| Standard \| Version | FCC 15.247, ISED RSS247 \| NI |
| Method | |
| Description | FCC 15.247 Bandwidth 99PCT-20dB DTS - WLAN2G4 g mode |
| Information | |

## EUT Common Settings WLAN2G4

| | |
|---|---|
| Number of antenna ports | 1 |
| User interaction | No |

## Equipment

| |
|---|
| Signal analyzer,Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.70 |
| Switch matrix,cetecom advanced GmbH,USM,B002,1.0.0 |

## Test Parameter

| | |
|---|---|
| Technology to test | WLAN2G4 g mode |
| EUT port | EUT1 |
| Temperature | nom |
| Voltage | nom |
| Frequency low to test | False \| Freq [MHz] 2412 |
| Frequency mid to test | True \| Freq [MHz] 2437 |
| Frequency high to test | False \| Freq [MHz] 2462 |
| Auto control enabled power supply \| Climatic Box | No \| No |
| Additional path loss [dB] | 0.5 |
| Full path type | EUT_SA_GEN_SIG |
| Full path name | EUT1.MP.SIG1/EUT1.SA/EUT1.GEN1/EUT1.GEN2/ |
| Switch bits | 00010001:00010001:00000000:00000001 |

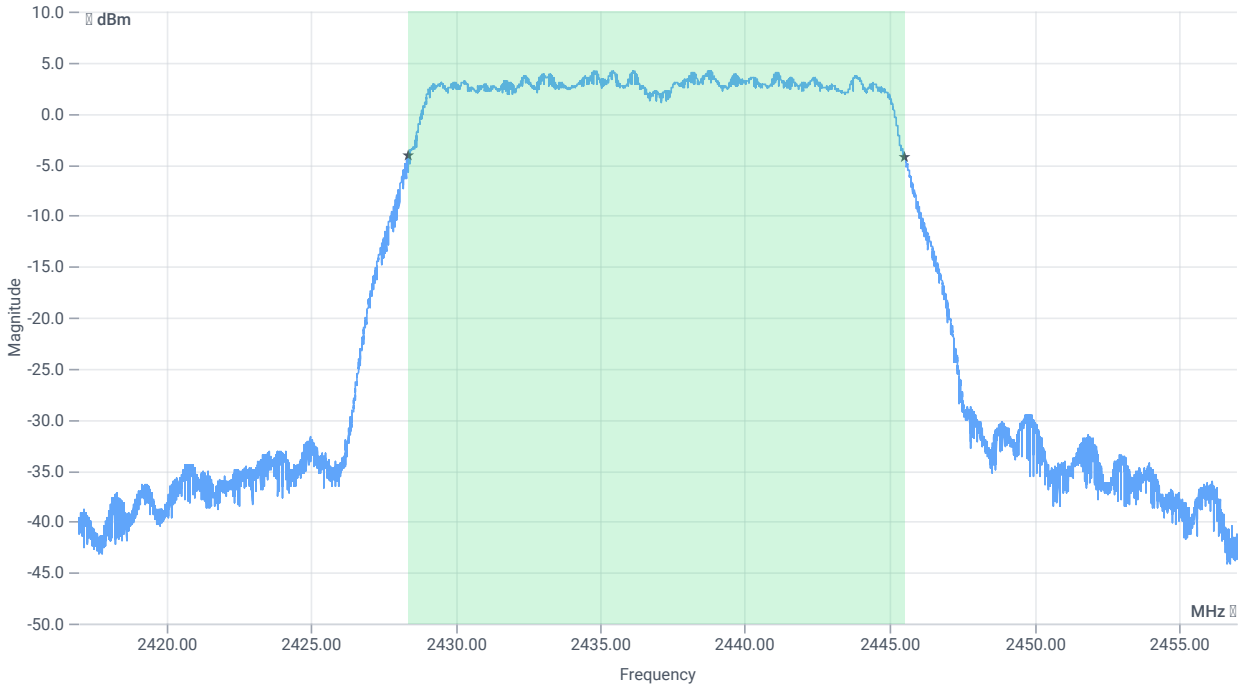
## Test at TX 2437 MHz

RESULT: Reference power cond.

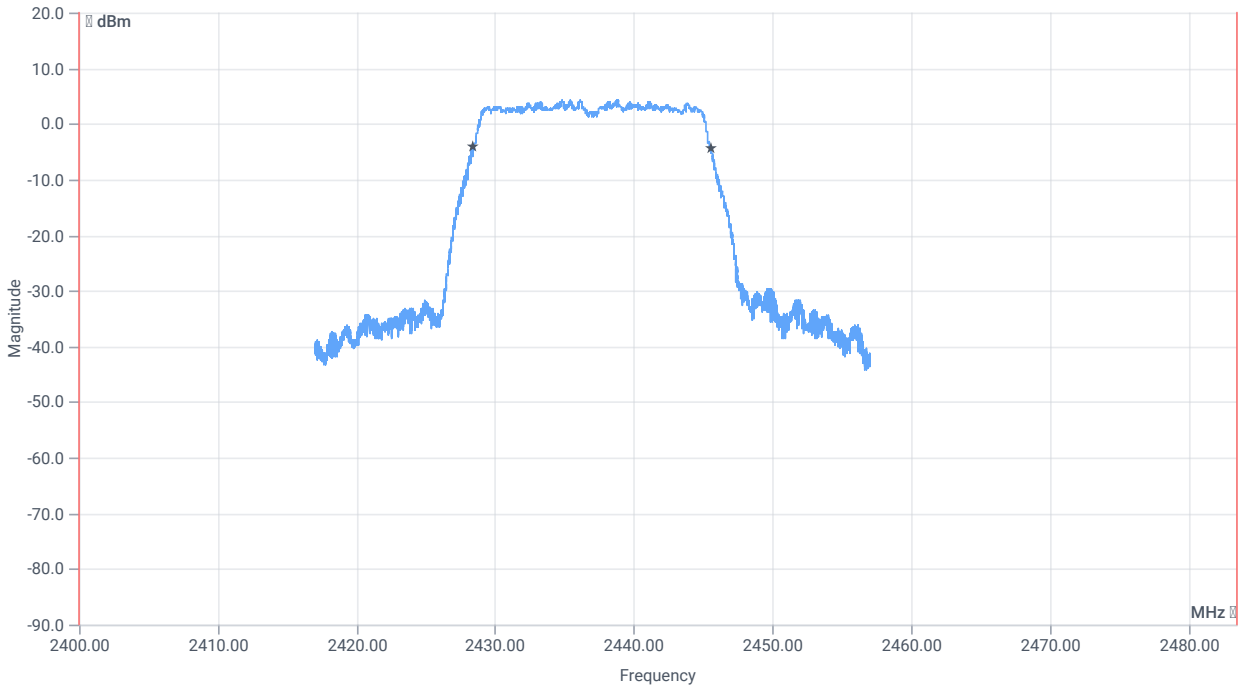
| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Ref. power 1MHz/1MHz cond. | --- | --- | 8.12 | dBm | INFO |
| Ref. frequency | --- | --- | 2438.600 | MHz | INFO |

READ SA SETTINGS:

| | |
|---|---|
| RefLevel [dBm] \| RefLevelOffset [dB] \| InpAtt [dB] | 13.12 \| 11.06 \| 20 |
| Start [MHz] \| Stop [MHz] | 2417.000 \| 2457.000 |
| RBW [MHz] \| VBW [MHz] | 0.500000 \| 2.000000 |
| Detector \| TraceMode | POS \| MAXH |
| Sweep: time [ms] \| count \| points per Section \| type | 50 \| 200 \| 10001 \| SWE |



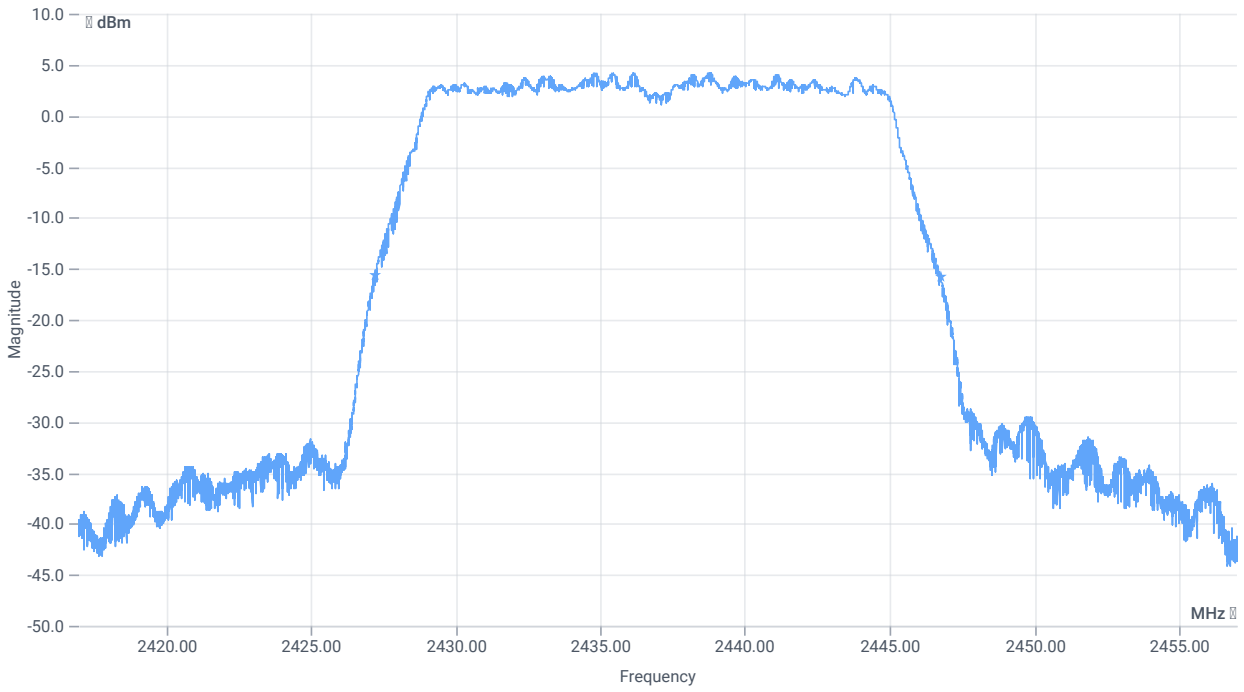

*BW 99PCT*



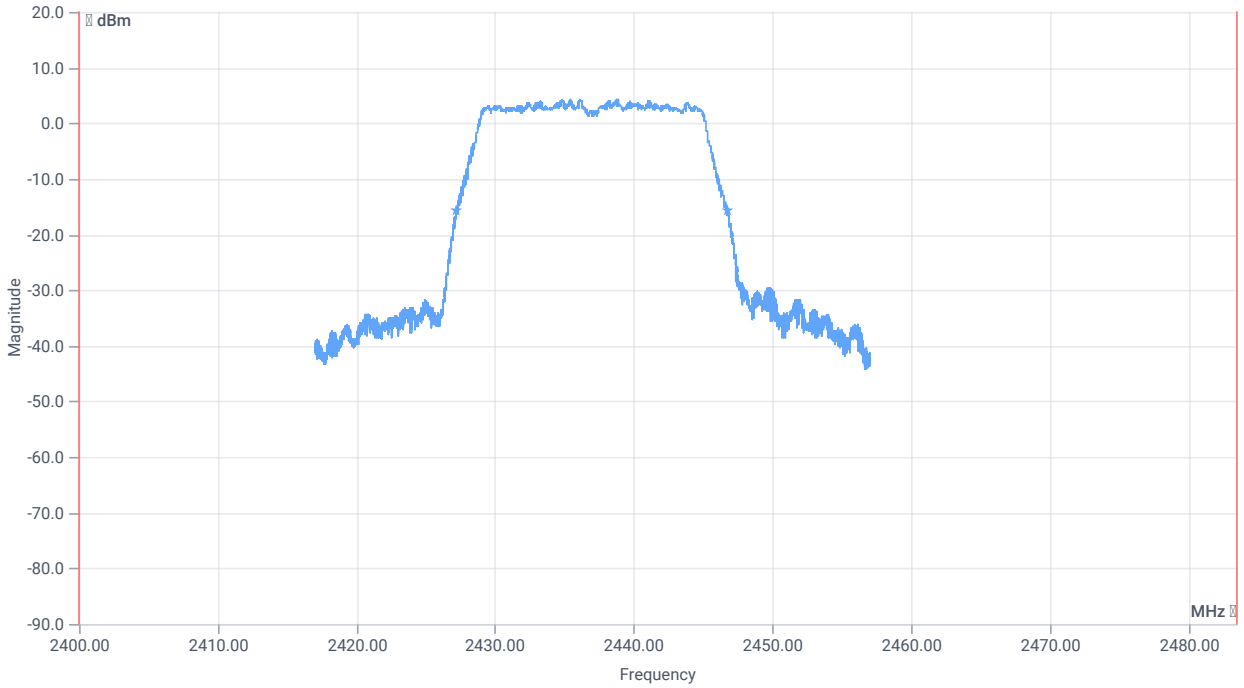

*BW within Band 99PCT*

## RESULT

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Bandwidth 99% | --- | --- | 17146.000 | kHz | INFO |
| T1 99% | 2400.000000 | --- | 2428.3769 | MHz | PASS |
| T2 99% | --- | 2483.500000 | 2445.5231 | MHz | PASS |



*BW 20dB*




*BW within band 20dB*

## RESULT

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Bandwidth 20dB | --- | --- | 19536 | kHz | INFO |
| T1 20dB | 2400.000000 | --- | 2427.2120 | MHz | PASS |
| T2 20dB | --- | 2483.500000 | 2446.7480 | MHz | PASS |

| Verdict |
|---|
| PASS |

# FCC 15.247 # Peak psd DTS ~ WLAN2G4 g mode

## References

| | |
|---|---|
| TC start | 12.07.2024 10:01:11 |
| Ambit temp [°C] \| humidity [rel%] | 24.5 \| 61 |
| System version | 5.0.7.0 |
| Standard \| Version | FCC 15.247 \| NI |
| Method | DTS: KDB 558074 D01 V05 - Chapter 8.4 DTS maximum power spectral density level in the fundamental emission |
| Description | FCC 15.247 Peak psd DTS - WLAN2G4 g mode |
| Information | |

## EUT Common Settings WLAN2G4

| | |
|---|---|
| Number of antenna ports | 1 |
| User interaction | No |

## Equipment

| |
|---|
| Signal analyzer,Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.70 |
| Switch matrix,cetecom advanced GmbH,USM,B002,1.0.0 |

## Test Parameter

| | |
|---|---|
| Technology to test | WLAN2G4 g mode |
| EUT port | EUT1 |
| Temperature | nom |
| Voltage | nom |
| Frequency low to test | False \| Freq [MHz] 2412 |
| Frequency mid to test | True \| Freq [MHz] 2437 |
| Frequency high to test | False \| Freq [MHz] 2462 |
| Auto control enabled power supply \| Climatic Box | No \| No |
| Additional path loss [dB] | 0.5 |
| Full path type | EUT_SA_GEN_SIG |
| Full path name | EUT1.MP.SIG1/EUT1.SA/EUT1.GEN1/EUT1.GEN2/ |
| Switch bits | 00010001:00010001:00000000:00000001 |

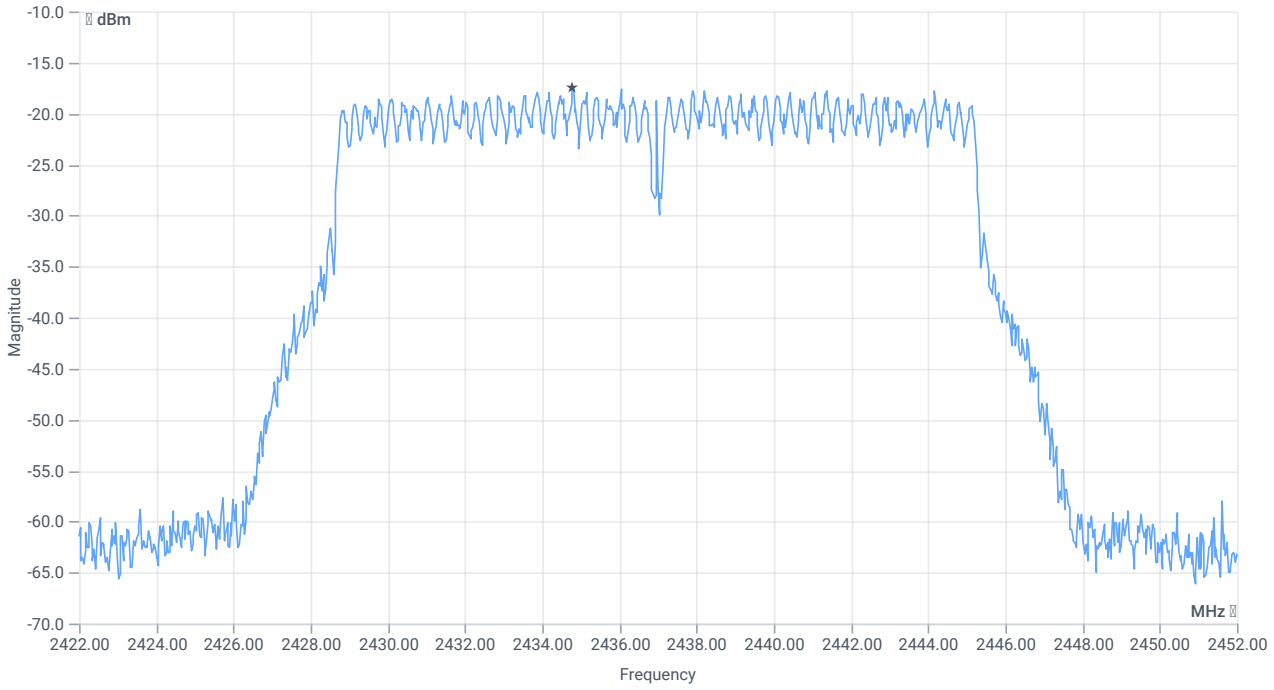
## Test at TX 2437 MHz

### RESULT: Reference power cond.

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Ref. power 1MHz/1MHz cond. | --- | --- | 7.89 | dBm | INFO |
| Ref. frequency | --- | --- | 2433.900 | MHz | INFO |

### READ SA SETTINGS:

| | |
|---|---|
| RefLevel [dBm] \| RefLevelOffset [dB] \| InpAtt [dB] | 12.89 \| 11.06 \| 20 |
| Start [MHz] \| Stop [MHz] | 2422.000 \| 2452.000 |
| RBW [MHz] \| VBW [MHz] | 0.003000 \| 0.010000 |
| Detector \| TraceMode | POS \| MAXH |
| Sweep: time [ms] \| count \| points per Section \| type | 1000 \| 20 \| 1001 \| SWE |




*Peak psd*

### RESULT

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Peak psd | --- | 8 | -17.5 | dBm/3KHz | PASS |

| Verdict |
|---|
| PASS |

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

## References

| | |
|---|---|
| TC start | 12.07.2024 10:00:38 |
| Ambit temp [°C] \| humidity [rel%] | 24.5 \| 61 |
| System version | 5.0.7.0 |
| Standard \| Version | FCC 15.247 \| NI |
| Method | |
| Description | FCC 15.247 Bandwidth 6dB DTS - WLAN2G4 g mode |
| Information | |

## EUT Common Settings WLAN2G4

| | |
|---|---|
| Number of antenna ports | 1 |
| User interaction | No |

## Equipment

| |
|---|
| Signal analyzer,Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.70 |
| Switch matrix,cetecom advanced GmbH,USM,B002,1.0.0 |

## Test Parameter

| | |
|---|---|
| Technology to test | WLAN2G4 g mode |
| EUT port | EUT1 |
| Temperature | nom |
| Voltage | nom |
| Frequency low to test | False \| Freq [MHz] 2412 |
| Frequency mid to test | True \| Freq [MHz] 2437 |
| Frequency high to test | False \| Freq [MHz] 2462 |
| Auto control enabled power supply \| Climatic Box | No \| No |
| Additional path loss [dB] | 0.5 |
| Full path type | EUT_SA_GEN_SIG |
| Full path name | EUT1.MP.SIG1/EUT1.SA/EUT1.GEN1/EUT1.GEN2/ |
| Switch bits | 00010001:00010001:00000000:00000001 |

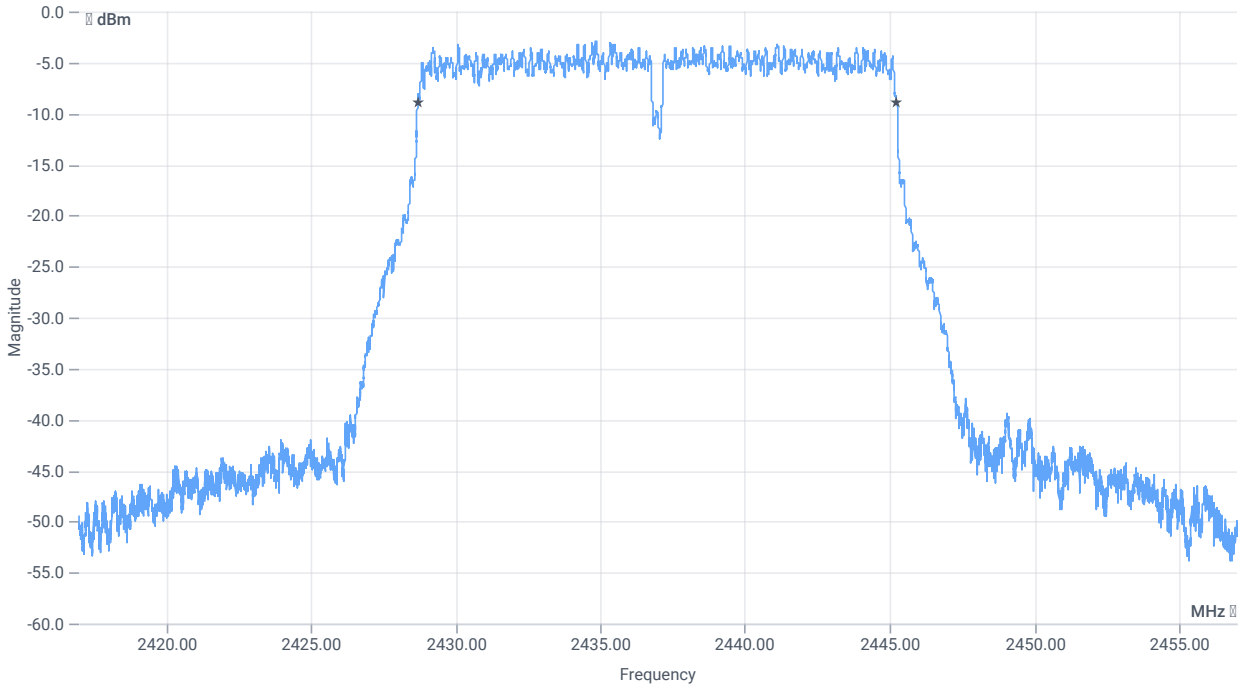
## Test at TX 2437 MHz

### RESULT: Reference power cond.

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Ref. power 1MHz/1MHz cond. | --- | --- | 7.76 | dBm | INFO |
| Ref. frequency | --- | --- | 2433.900 | MHz | INFO |

### READ SA SETTINGS:

| | |
|---|---|
| RefLevel [dBm] \| RefLevelOffset [dB] \| InpAtt [dB] | 12.76 \| 11.06 \| 20 |
| Start [MHz] \| Stop [MHz] | 2417.000 \| 2457.000 |
| RBW [MHz] \| VBW [MHz] | 0.100000 \| 0.300000 |
| Detector \| TraceMode | POS \| MAXH |
| Sweep: time [ms] \| count \| points per Section \| type | 50 \| 200 \| 10001 \| SWE |




*BW 6dB*

### RESULT

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| DTS bandwidth (6dB) | 500 | --- | 16560 | kHz | PASS |

| Verdict |
|---|
| PASS |

# NA # Peak output power 3MHz/3MHz ~ WLAN2G4 g mode

## References

| | |
|---|---|
| TC start | 12.07.2024 10:00:08 |
| Ambit temp [°C] \| humidity [rel%] | 24.5 \| 61 |
| System version | 5.0.7.0 |
| Standard \| Version | NA \| NI |
| Method | |
| Description | Peak OP 3MHz/3MHz WLAN2G4 g mode |
| Information | |

## EUT Common Settings WLAN2G4

| | |
|---|---|
| Number of antenna ports | 1 |
| User interaction | No |

## Equipment

| |
|---|
| Signal analyzer,Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.70 |
| Switch matrix,cetecom advanced GmbH,USM,B002,1.0.0 |

## Test Parameter

| | |
|---|---|
| Technology to test | WLAN2G4 g mode |
| EUT port | EUT1 |
| Temperature | nom |
| Voltage | nom |
| Frequency low to test | False \| Freq [MHz] 2412 |
| Frequency mid to test | True \| Freq [MHz] 2437 |
| Frequency high to test | False \| Freq [MHz] 2462 |
| Auto control enabled power supply \| Climatic Box | No \| No |
| Additional path loss [dB] | 0.5 |
| Full path type | EUT_SA_GEN_SIG |
| Full path name | EUT1.MP.SIG1/EUT1.SA/EUT1.GEN1/EUT1.GEN2/ |
| Switch bits | 00010001:00010001:00000000:00000001 |

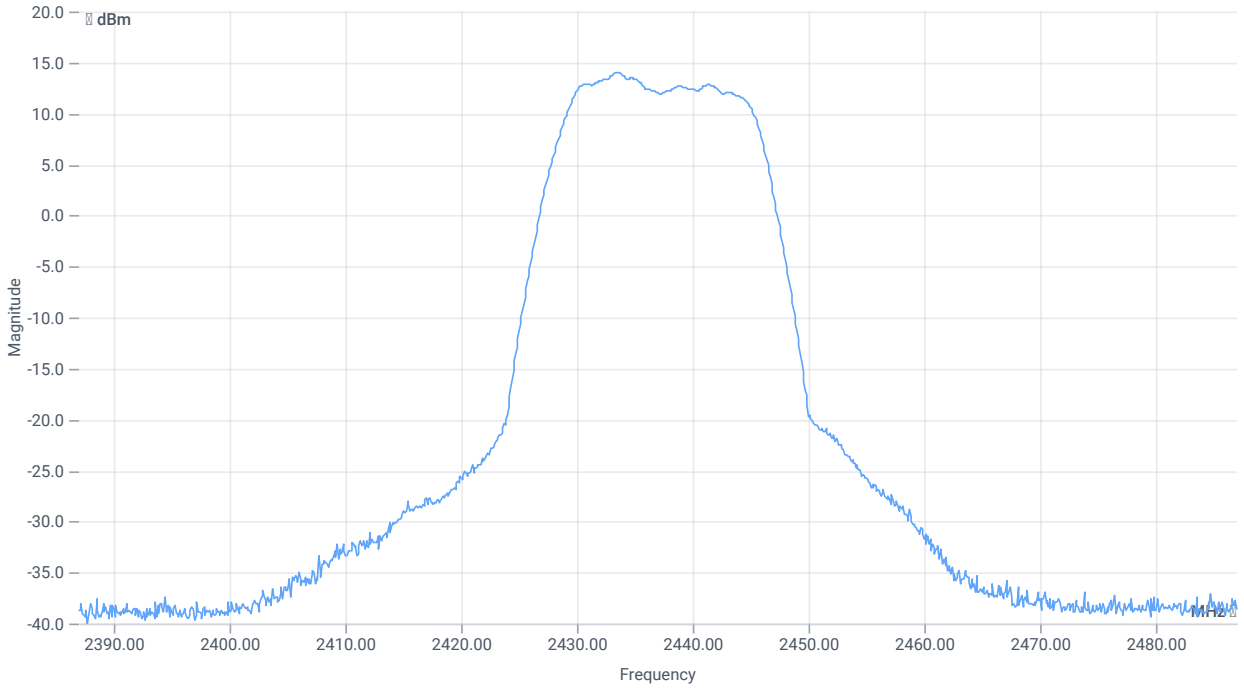
## Test at TX 2437 MHz

RESULT: Reference power cond.

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Ref. power 1MHz/1MHz cond. | --- | --- | 8.31 | dBm | INFO |
| Ref. frequency | --- | --- | 2438.500 | MHz | INFO |

READ SA SETTINGS:

| | |
|---|---|
| RefLevel [dBm] \| RefLevelOffset [dB] \| InpAtt [dB] | 18.31 \| 11.06 \| 25 |
| Start [MHz] \| Stop [MHz] | 2387.000 \| 2487.000 |
| RBW [MHz] \| VBW [MHz] | 3.000000 \| 3.000000 |
| Detector \| TraceMode | POS \| MAXH |
| Sweep: time [ms] \| count \| points per Section \| type | 1000 \| 10 \| 1001 \| SWE |




*Peak output power*

RESULT

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Peak power | --- | --- | 13.97 | dBm | INFO |
| Peak power | --- | --- | 24.945947 | mW | INFO |
| Frequency at peak | --- | --- | 2433.5 | MHz | INFO |

| Verdict |
| --- |
| PASS |

# FCC 15.247 # Peak output power PM DTS ~ WLAN2G4 g mode

## References

| | |
|---|---|
| TC start | 10.07.2024 11:34:10 |
| Ambit temp [°C] \| humidity [rel%] | 25.4 \| 53 |
| System version | 5.0.7.0 |
| Standard \| Version | FCC 15.247 \| NI |
| Method | DTS: KDB 558074 D01 V05 - Chapter 8.3.1.3 PKPM1 Peak-reading Power Meter Method |
| Description | FCC 15.247 Peak output power PM DTS - WLAN2G4 g mode |
| Information | |

## EUT Common Settings WLAN2G4

| | |
|---|---|
| Number of antenna ports | 1 |
| User interaction | No |

## Equipment

| |
|---|
| Switch matrix,cetecom advanced GmbH,USM,B002,1.0.0 |
| Power sensor,Keysight Technologies,U2021XA,MY59190010,A.04.06 |

## Test Parameter

| | |
|---|---|
| Technology to test | WLAN2G4 g mode |
| EUT port | EUT1 |
| Temperature | nom |
| Voltage | nom |
| Frequency low to test | True \| Freq [MHz] 2412 |
| Frequency mid to test | False \| Freq [MHz] 2437 |
| Frequency high to test | False \| Freq [MHz] 2462 |
| Auto control enabled power supply \| Climatic Box | No \| No |
| Additional path loss [dB] | 0.5 |
| Full path type | EUT_PM_GEN_SIG |
| Full path name | EUT1.MP.SIG1/EUT1.PM/EUT1.GEN1/EUT1.GEN2/ |
| Switch bits | 00010001:00010001:00010000:00000001 |

## Test at TX 2412 MHz

RESULT

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Peak power | --- | 30 | 21.79 | dBm | PASS |

| Verdict |
|---|
| PASS |

# FCC 15.247 # TX spurious conducted 20dBc ~ WLAN2G4 g mode

## References

| | |
|---|---|
| TC start | 10.07.2024 11:20:33 |
| Ambit temp [°C] \| humidity [rel%] | 25.3 \| 54 |
| System version | 5.0.7.0 |
| Standard \| Version | FCC 15.247 \| NI |
| Method | IF DTS then 8.5 DTS emissions in non-restricted frequency bands: Subclause 11.11 of ANSI C63.10 is applicable |
| Description | FCC 15.247 TX Emissions cond. DTS - WLAN2G4 g mode |
| Information | |

## EUT Common Settings WLAN2G4

| | |
|---|---|
| Number of antenna ports | 1 |
| User interaction | No |

## Equipment

| |
|---|
| Signal analyzer,Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.70 |
| Switch matrix,cetecom advanced GmbH,USM,B002,1.0.0 |

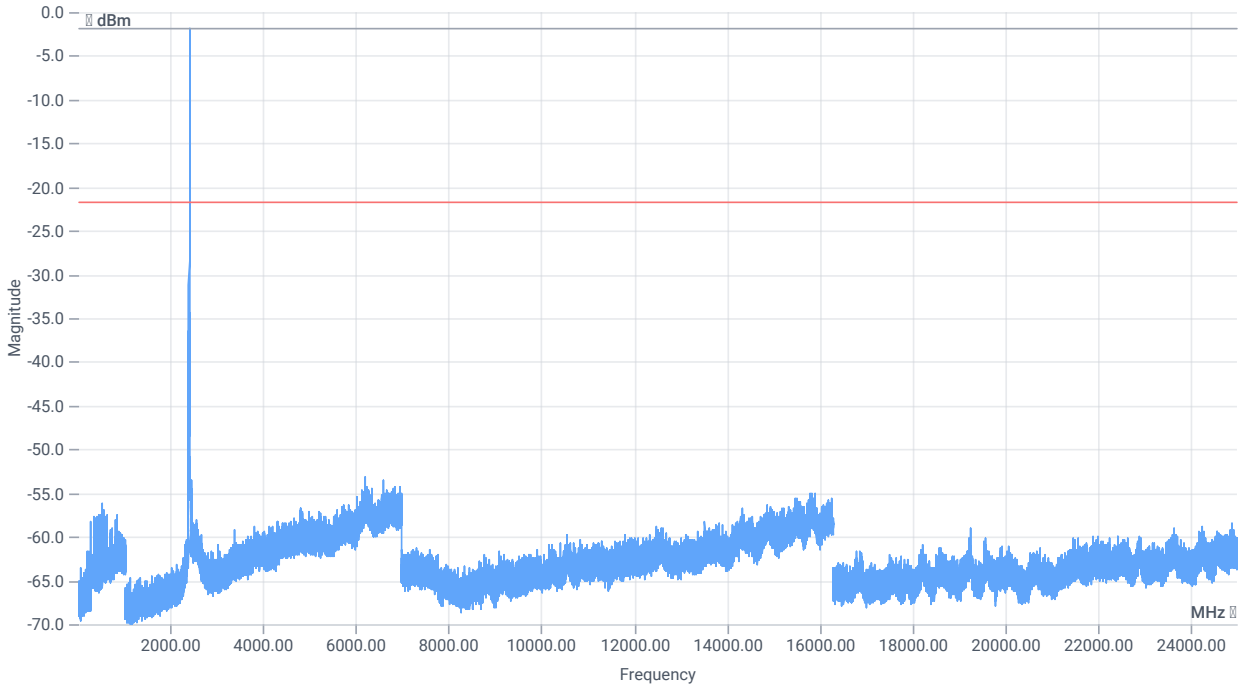
## Test Parameter

| | |
|---|---|
| Technology to test | WLAN2G4 g mode |
| EUT port | EUT1 |
| Temperature | nom |
| Voltage | nom |
| Frequency low to test | True \| Freq [MHz] 2412 |
| Frequency mid to test | False \| Freq [MHz] 2437 |
| Frequency high to test | False \| Freq [MHz] 2462 |
| Auto control enabled power supply \| Climatic Box | No \| No |
| Additional path loss [dB] | 0.5 |
| Full path type | EUT_SA_GEN_SIG |
| Full path name | EUT1.MP.SIG1/EUT1.SA/EUT1.GEN1/EUT1.GEN2/ |
| Switch bits | 00010001:00010001:00000000:00000001 |

## Test at TX 2412 MHz

RESULT: Reference power cond.

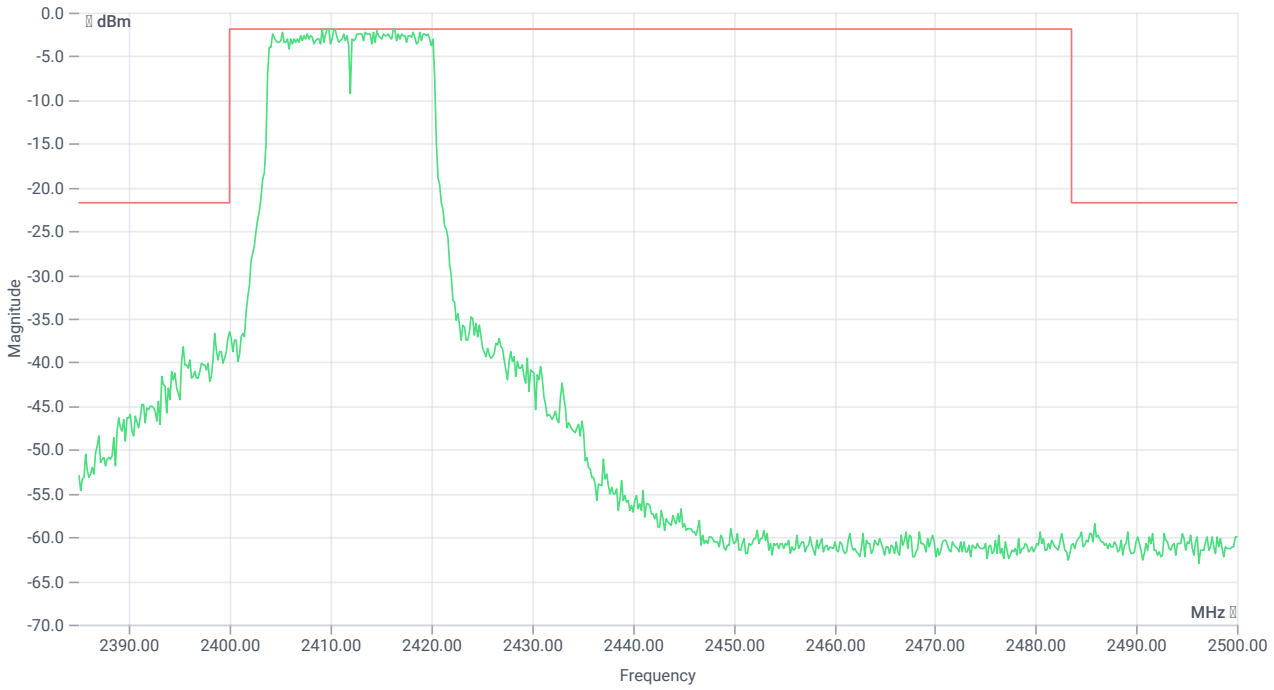
| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Ref. power 1MHz/1MHz cond. | --- | --- | 9.30 | dBm | INFO |
| Ref. frequency | --- | --- | 2414.500 | MHz | INFO |




*TX emissions*

READ SA SETTINGS:

| | |
|---|---|
| RefLevel [dBm] \| RefLevelOffset [dB] \| InpAtt [dB] | 9.30 \| 23.17 \| 5 |
| Start [MHz] \| Stop [MHz] | 24780.000 \| 25000.000 |
| RBW [MHz] \| VBW [MHz] | 0.100000 \| 0.300000 |
| Detector \| TraceMode | POS \| MAXH |
| Sweep: time [ms] \| count \| points per Section \| type | 200 \| 25 \| 1501 \| SWE |




*TX emissions band zoomed*

## RESULT

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Reference @ 2410.33 MHz | --- | --- | -1.84 | dBm | INFO |
| No peaks detected | --- | --- | | | PASS |
| Lowest margin to limit 30 MHz | 0 | --- | -133.59 | dB | INFO |

| Verdict |
|---|
| PASS |

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

## References

| | |
|---|---|
| TC start | 10.07.2024 11:19:53 |
| Ambit temp [°C] \| humidity [rel%] | 25.3 \| 54 |
| System version | 5.0.7.0 |
| Standard \| Version | FCC 15.247, ISED RSS247 \| NI |
| Method | |
| Description | FCC 15.247 Bandwidth 99PCT-20dB DTS - WLAN2G4 g mode |
| Information | |

## EUT Common Settings WLAN2G4

| | |
|---|---|
| Number of antenna ports | 1 |
| User interaction | No |

## Equipment

| |
|---|
| Signal analyzer,Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.70 |
| Switch matrix,cetecom advanced GmbH,USM,B002,1.0.0 |

## Test Parameter

| | |
|---|---|
| Technology to test | WLAN2G4 g mode |
| EUT port | EUT1 |
| Temperature | nom |
| Voltage | nom |
| Frequency low to test | True \| Freq [MHz] 2412 |
| Frequency mid to test | False \| Freq [MHz] 2437 |
| Frequency high to test | False \| Freq [MHz] 2462 |
| Auto control enabled power supply \| Climatic Box | No \| No |
| Additional path loss [dB] | 0.5 |
| Full path type | EUT_SA_GEN_SIG |
| Full path name | EUT1.MP.SIG1/EUT1.SA/EUT1.GEN1/EUT1.GEN2/ |
| Switch bits | 00010001:00010001:00000000:00000001 |

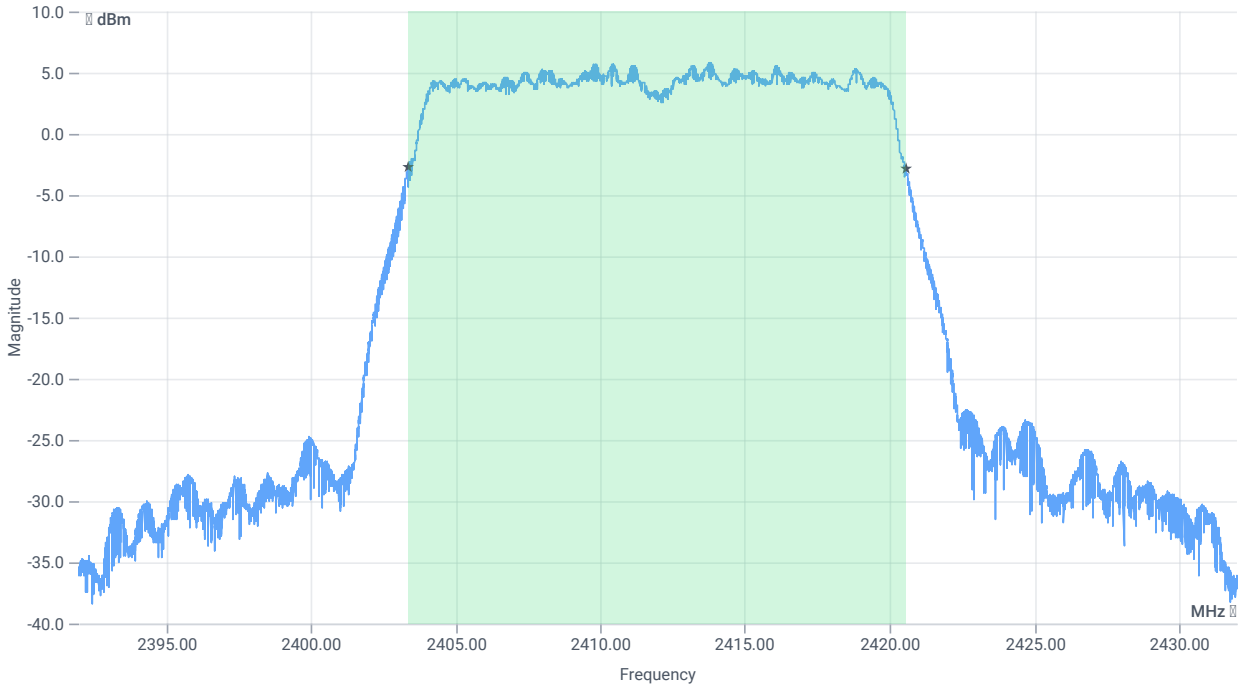
## Test at TX 2412 MHz

RESULT: Reference power cond.

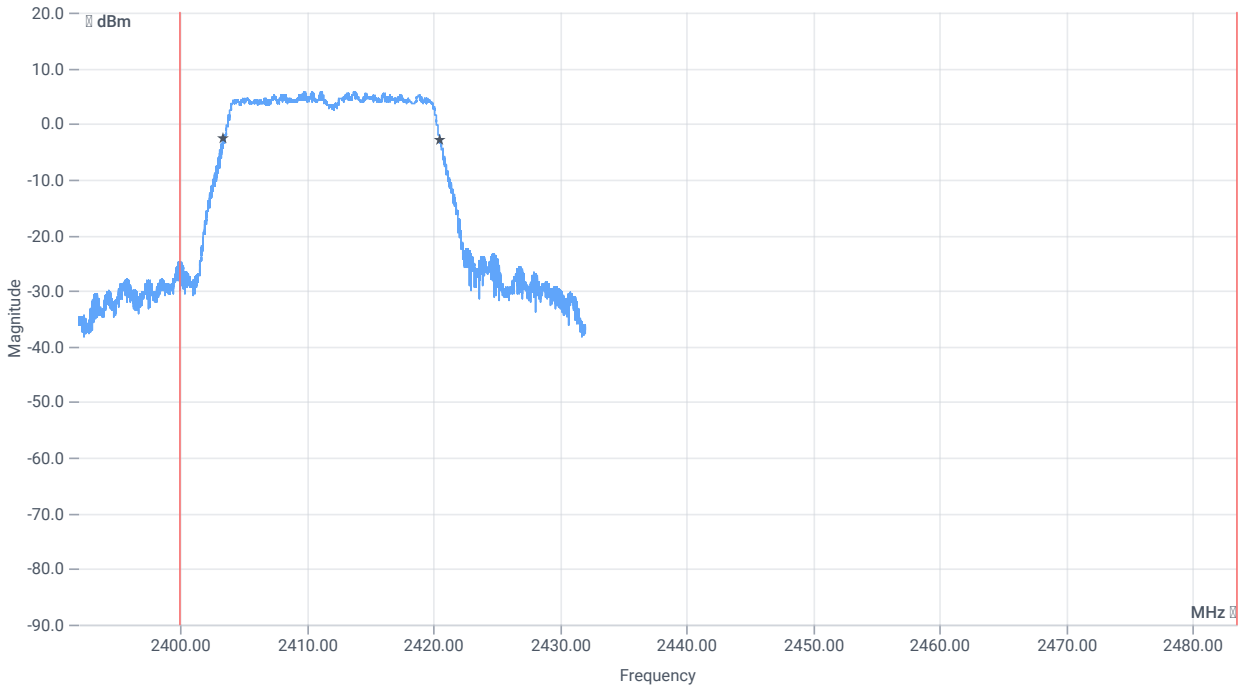
| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Ref. power 1MHz/1MHz cond. | --- | --- | 9.53 | dBm | INFO |
| Ref. frequency | --- | --- | 2413.300 | MHz | INFO |

READ SA SETTINGS:

| | |
|---|---|
| RefLevel [dBm] \| RefLevelOffset [dB] \| InpAtt [dB] | 14.53 \| 10.98 \| 20 |
| Start [MHz] \| Stop [MHz] | 2392.000 \| 2432.000 |
| RBW [MHz] \| VBW [MHz] | 0.500000 \| 2.000000 |
| Detector \| TraceMode | POS \| MAXH |
| Sweep: time [ms] \| count \| points per Section \| type | 50 \| 200 \| 10001 \| SWE |



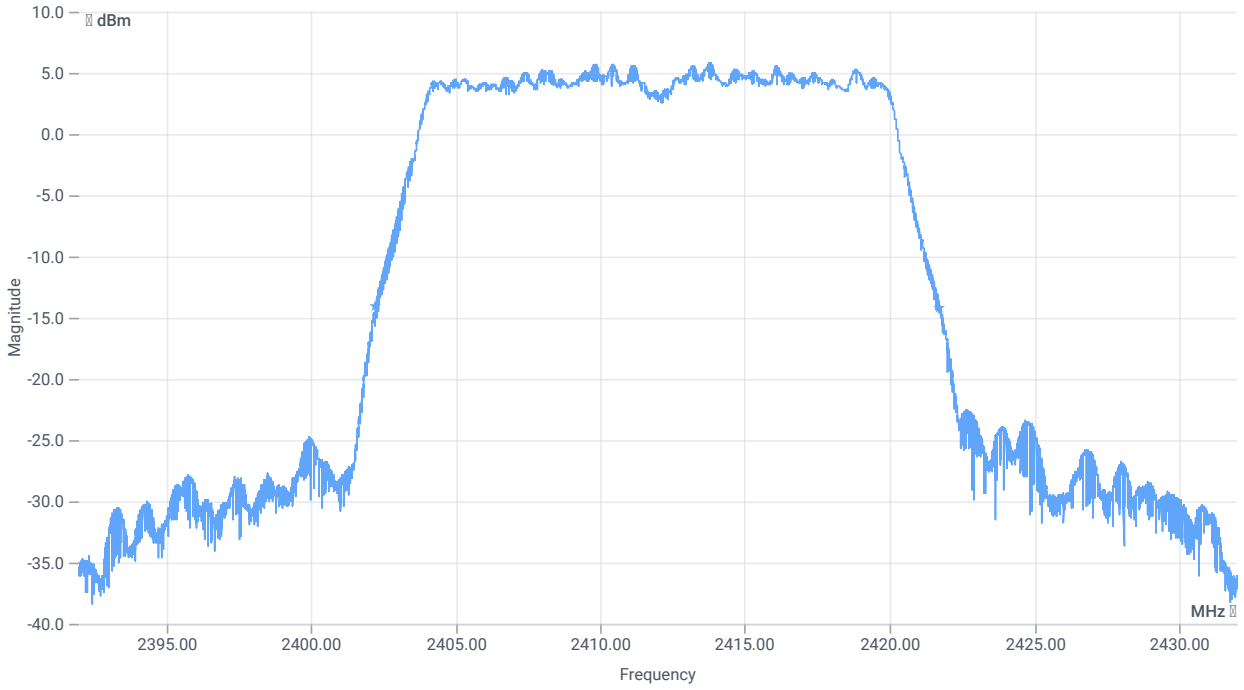

*BW 99PCT*



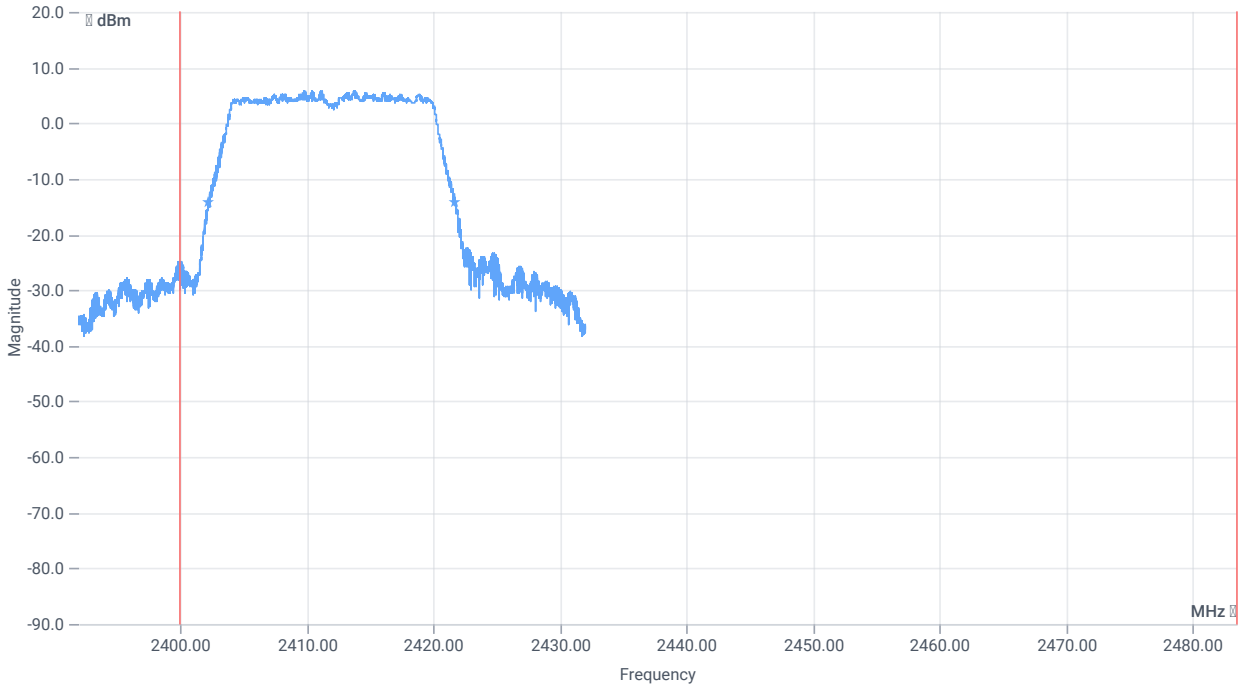

*BW within Band 99PCT*

## RESULT

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Bandwidth 99% | --- | --- | 17166.000 | kHz | INFO |
| T1 99% | 2400.000000 | --- | 2403.3889 | MHz | PASS |
| T2 99% | --- | 2483.500000 | 2420.5551 | MHz | PASS |



*BW 20dB*




*BW within band 20dB*

## RESULT

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Bandwidth 20dB | --- | --- | 19496 | kHz | INFO |
| T1 20dB | 2400.000000 | --- | 2402.2400 | MHz | PASS |
| T2 20dB | --- | 2483.500000 | 2421.7360 | MHz | PASS |

| Verdict |
|---|
| PASS |

# FCC 15.247 # Peak psd DTS ~ WLAN2G4 g mode

## References

| | |
|---|---|
| TC start | 10.07.2024 11:19:12 |
| Ambit temp [°C] \| humidity [rel%] | 25.3 \| 54 |
| System version | 5.0.7.0 |
| Standard \| Version | FCC 15.247 \| NI |
| Method | DTS: KDB 558074 D01 V05 - Chapter 8.4 DTS maximum power spectral density level in the fundamental emission |
| Description | FCC 15.247 Peak psd DTS - WLAN2G4 g mode |
| Information | |

## EUT Common Settings WLAN2G4

| | |
|---|---|
| Number of antenna ports | 1 |
| User interaction | No |

## Equipment

| |
|---|
| Signal analyzer,Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.70 |
| Switch matrix,cetecom advanced GmbH,USM,B002,1.0.0 |

## Test Parameter

| | |
|---|---|
| Technology to test | WLAN2G4 g mode |
| EUT port | EUT1 |
| Temperature | nom |
| Voltage | nom |
| Frequency low to test | True \| Freq [MHz] 2412 |
| Frequency mid to test | False \| Freq [MHz] 2437 |
| Frequency high to test | False \| Freq [MHz] 2462 |
| Auto control enabled power supply \| Climatic Box | No \| No |
| Additional path loss [dB] | 0.5 |
| Full path type | EUT_SA_GEN_SIG |
| Full path name | EUT1.MP.SIG1/EUT1.SA/EUT1.GEN1/EUT1.GEN2/ |
| Switch bits | 00010001:00010001:00000000:00000001 |

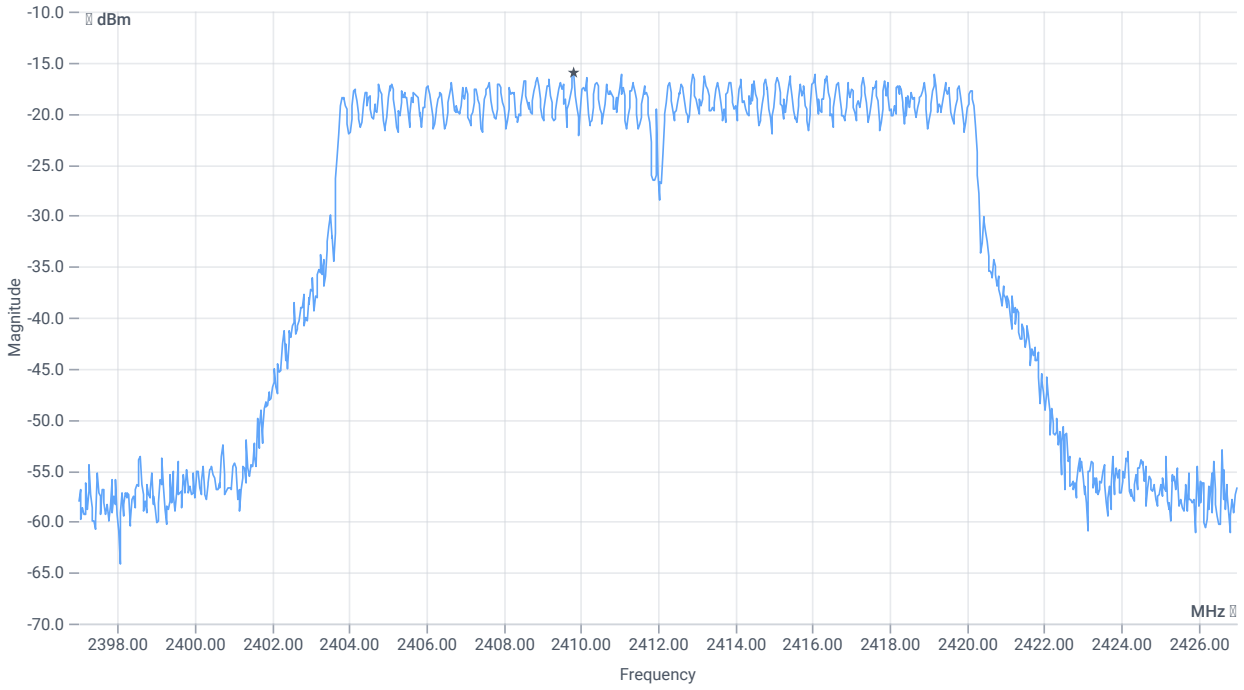
## Test at TX 2412 MHz

### RESULT: Reference power cond.

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Ref. power 1MHz/1MHz cond. | --- | --- | 9.38 | dBm | INFO |
| Ref. frequency | --- | --- | 2413.300 | MHz | INFO |

### READ SA SETTINGS:

| | |
|---|---|
| RefLevel [dBm] \| RefLevelOffset [dB] \| InpAtt [dB] | 14.38 \| 10.98 \| 20 |
| Start [MHz] \| Stop [MHz] | 2397.000 \| 2427.000 |
| RBW [MHz] \| VBW [MHz] | 0.003000 \| 0.010000 |
| Detector \| TraceMode | POS \| MAXH |
| Sweep: time [ms] \| count \| points per Section \| type | 1000 \| 20 \| 1001 \| SWE |




*Peak psd*

### RESULT

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Peak psd | --- | 8 | -16.05 | dBm/3KHz | PASS |

| Verdict |
|---|
| PASS |

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

## References

| | |
|---|---|
| TC start | 10.07.2024 11:18:37 |
| Ambit temp [°C] \| humidity [rel%] | 25.3 \| 54 |
| System version | 5.0.7.0 |
| Standard \| Version | FCC 15.247 \| NI |
| Method | |
| Description | FCC 15.247 Bandwidth 6dB DTS - WLAN2G4 g mode |
| Information | |

## EUT Common Settings WLAN2G4

| | |
|---|---|
| Number of antenna ports | 1 |
| User interaction | No |

## Equipment

| |
|---|
| Signal analyzer,Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.70 |
| Switch matrix,cetecom advanced GmbH,USM,B002,1.0.0 |

## Test Parameter

| | |
|---|---|
| Technology to test | WLAN2G4 g mode |
| EUT port | EUT1 |
| Temperature | nom |
| Voltage | nom |
| Frequency low to test | True \| Freq [MHz] 2412 |
| Frequency mid to test | False \| Freq [MHz] 2437 |
| Frequency high to test | False \| Freq [MHz] 2462 |
| Auto control enabled power supply \| Climatic Box | No \| No |
| Additional path loss [dB] | 0.5 |
| Full path type | EUT_SA_GEN_SIG |
| Full path name | EUT1.MP.SIG1/EUT1.SA/EUT1.GEN1/EUT1.GEN2/ |
| Switch bits | 00010001:00010001:00000000:00000001 |

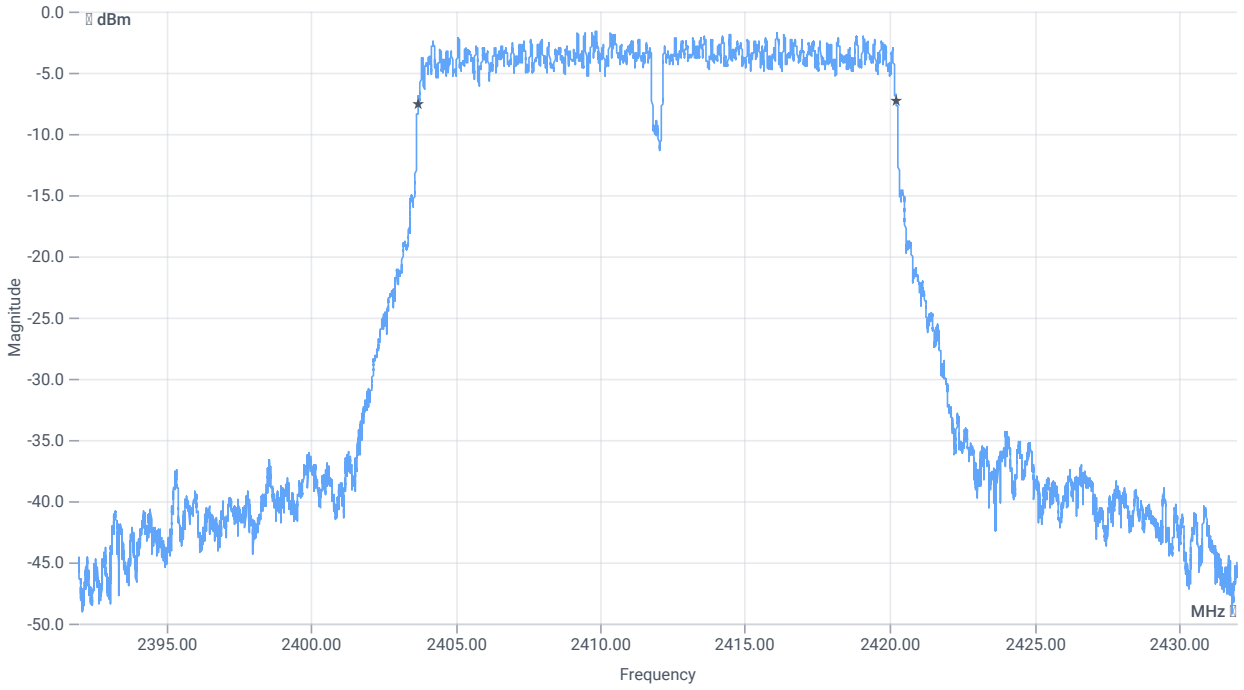
## Test at TX 2412 MHz

RESULT: Reference power cond.

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Ref. power 1MHz/1MHz cond. | --- | --- | 9.38 | dBm | INFO |
| Ref. frequency | --- | --- | 2413.600 | MHz | INFO |

READ SA SETTINGS:

| | |
|---|---|
| RefLevel [dBm] \| RefLevelOffset [dB] \| InpAtt [dB] | 14.38 \| 10.98 \| 20 |
| Start [MHz] \| Stop [MHz] | 2392.000 \| 2432.000 |
| RBW [MHz] \| VBW [MHz] | 0.100000 \| 0.300000 |
| Detector \| TraceMode | POS \| MAXH |
| Sweep: time [ms] \| count \| points per Section \| type | 50 \| 200 \| 10001 \| SWE |




*BW 6dB*

RESULT

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| DTS bandwidth (6dB) | 500 | --- | 16552 | kHz | PASS |

| Verdict |
|---|
| PASS |

# NA # Peak output power 3MHz/3MHz ~ WLAN2G4 g mode

## References

| | |
|---|---|
| TC start | 10.07.2024 11:18:07 |
| Ambit temp [°C] \| humidity [rel%] | 25.3 \| 54 |
| System version | 5.0.7.0 |
| Standard \| Version | NA \| NI |
| Method | |
| Description | Peak OP 3MHz/3MHz WLAN2G4 g mode |
| Information | |

## EUT Common Settings WLAN2G4

| | |
|---|---|
| Number of antenna ports | 1 |
| User interaction | No |

## Equipment

| |
|---|
| Signal analyzer,Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.70 |
| Switch matrix,cetecom advanced GmbH,USM,B002,1.0.0 |

## Test Parameter

| | |
|---|---|
| Technology to test | WLAN2G4 g mode |
| EUT port | EUT1 |
| Temperature | nom |
| Voltage | nom |
| Frequency low to test | True \| Freq [MHz] 2412 |
| Frequency mid to test | False \| Freq [MHz] 2437 |
| Frequency high to test | False \| Freq [MHz] 2462 |
| Auto control enabled power supply \| Climatic Box | No \| No |
| Additional path loss [dB] | 0.5 |
| Full path type | EUT_SA_GEN_SIG |
| Full path name | EUT1.MP.SIG1/EUT1.SA/EUT1.GEN1/EUT1.GEN2/ |
| Switch bits | 00010001:00010001:00000000:00000001 |

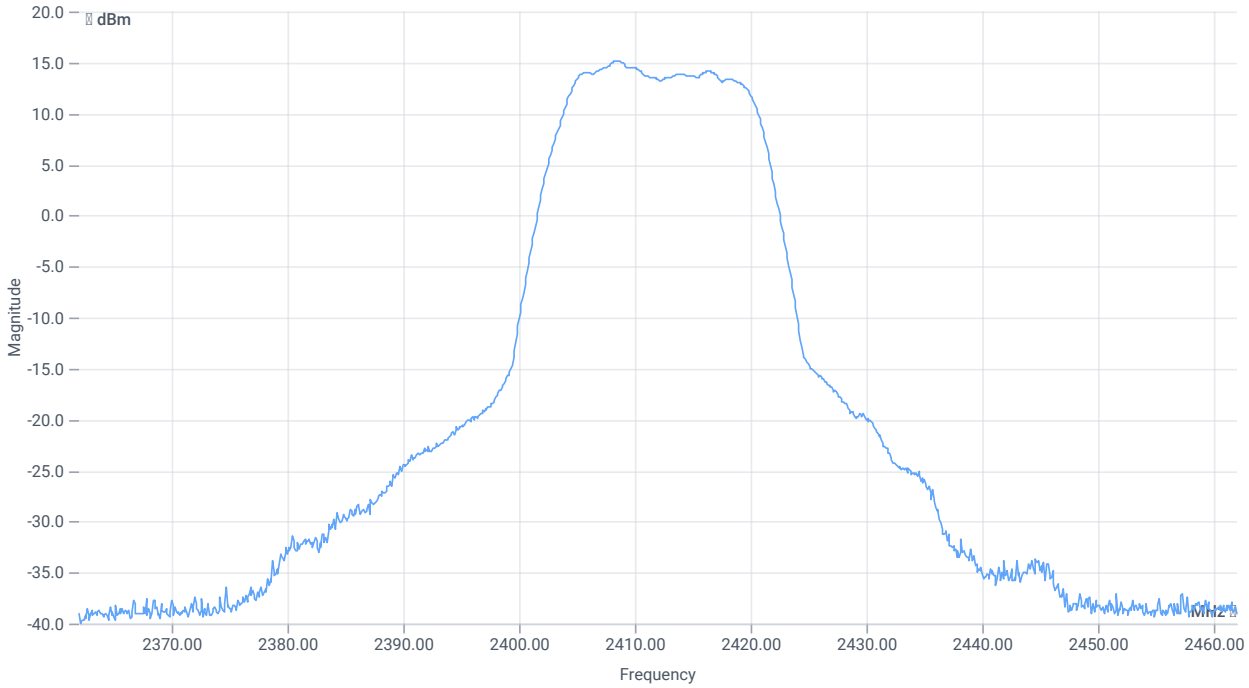
## Test at TX 2412 MHz

RESULT: Reference power cond.

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Ref. power 1MHz/1MHz cond. | --- | --- | 9.34 | dBm | INFO |
| Ref. frequency | --- | --- | 2414.500 | MHz | INFO |

READ SA SETTINGS:

| | |
|---|---|
| RefLevel [dBm] \| RefLevelOffset [dB] \| InpAtt [dB] | 19.34 \| 10.98 \| 25 |
| Start [MHz] \| Stop [MHz] | 2362.000 \| 2462.000 |
| RBW [MHz] \| VBW [MHz] | 3.000000 \| 3.000000 |
| Detector \| TraceMode | POS \| MAXH |
| Sweep: time [ms] \| count \| points per Section \| type | 1000 \| 10 \| 1001 \| SWE |




*Peak output power*

RESULT

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Peak power | --- | --- | 15.14 | dBm | INFO |
| Peak power | --- | --- | 32.658783 | mW | INFO |
| Frequency at peak | --- | --- | 2408.5 | MHz | INFO |

| Verdict |
| --- |
| PASS |

# FCC 15.247 # Peak output power PM DTS ~ WLAN2G4 b mode

## References

| | |
|---|---|
| TC start | 10.07.2024 11:11:39 |
| Ambit temp [°C] \| humidity [rel%] | 25.3 \| 54 |
| System version | 5.0.7.0 |
| Standard \| Version | FCC 15.247 \| NI |
| Method | DTS: KDB 558074 D01 V05 - Chapter 8.3.1.3 PKPM1 Peak-reading Power Meter Method |
| Description | FCC 15.247 Peak output power PM DTS - WLAN2G4 b mode |
| Information | |

## EUT Common Settings WLAN2G4

| | |
|---|---|
| Number of antenna ports | 1 |
| User interaction | No |

## Equipment

| |
|---|
| Switch matrix,cetecom advanced GmbH,USM,B002,1.0.0 |
| Power sensor,Keysight Technologies,U2021XA,MY59190010,A.04.06 |

## Test Parameter

| | |
|---|---|
| Technology to test | WLAN2G4 b mode |
| EUT port | EUT1 |
| Temperature | nom |
| Voltage | nom |
| Frequency low to test | False \| Freq [MHz] 2412 |
| Frequency mid to test | False \| Freq [MHz] 2437 |
| Frequency high to test | True \| Freq [MHz] 2462 |
| Auto control enabled power supply \| Climatic Box | No \| No |
| Additional path loss [dB] | 0.5 |
| Full path type | EUT_PM_GEN_SIG |
| Full path name | EUT1.MP.SIG1/EUT1.PM/EUT1.GEN1/EUT1.GEN2/ |
| Switch bits | 00010001:00010001:00010000:00000001 |

## Test at TX 2462 MHz

RESULT

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Peak power | --- | 30 | 17.21 | dBm | PASS |

| Verdict |
|---|
| PASS |

# FCC 15.247 # TX spurious conducted 20dBc ~ WLAN2G4 b mode

## References

| | |
|---|---|
| TC start | 10.07.2024 10:58:01 |
| Ambit temp [°C] \| humidity [rel%] | 25.2 \| 54 |
| System version | 5.0.7.0 |
| Standard \| Version | FCC 15.247 \| NI |
| Method | IF DTS then 8.5 DTS emissions in non-restricted frequency bands: Subclause 11.11 of ANSI C63.10 is applicable |
| Description | FCC 15.247 TX Emissions cond. DTS - WLAN2G4 b mode |
| Information | |

## EUT Common Settings WLAN2G4

| | |
|---|---|
| Number of antenna ports | 1 |
| User interaction | No |

## Equipment

| |
|---|
| Signal analyzer,Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.70 |
| Switch matrix,cetecom advanced GmbH,USM,B002,1.0.0 |

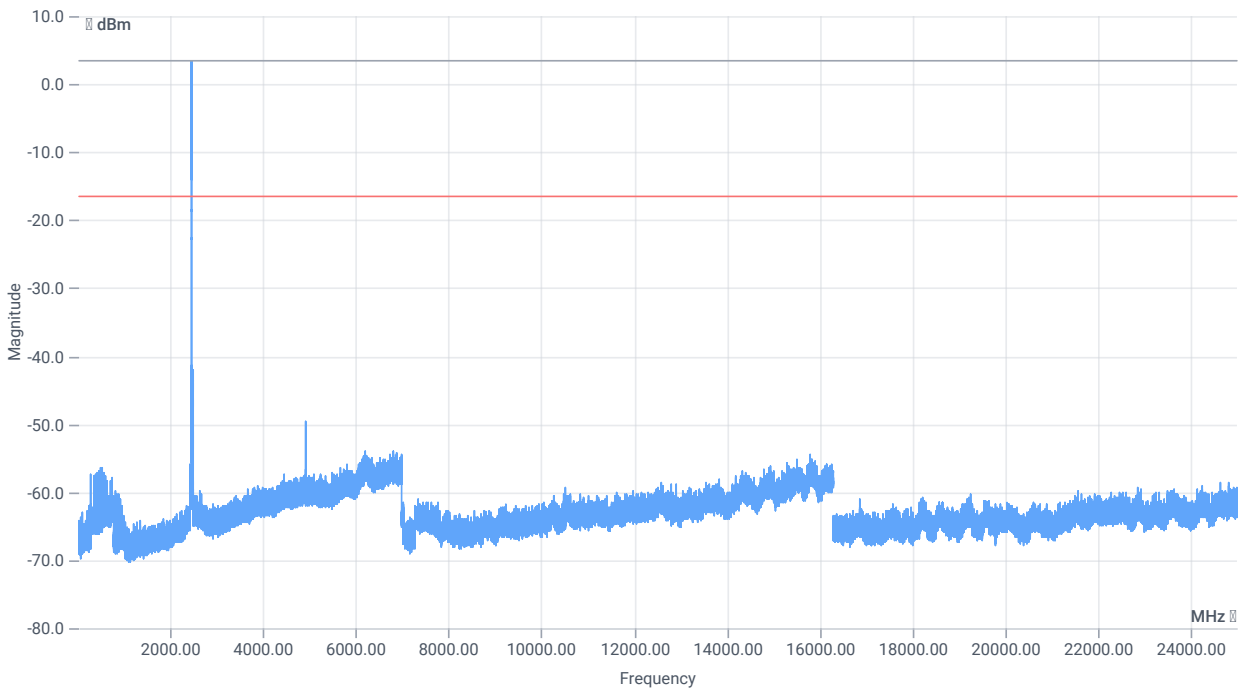
## Test Parameter

| | |
|---|---|
| Technology to test | WLAN2G4 b mode |
| EUT port | EUT1 |
| Temperature | nom |
| Voltage | nom |
| Frequency low to test | False \| Freq [MHz] 2412 |
| Frequency mid to test | False \| Freq [MHz] 2437 |
| Frequency high to test | True \| Freq [MHz] 2462 |
| Auto control enabled power supply \| Climatic Box | No \| No |
| Additional path loss [dB] | 0.5 |
| Full path type | EUT_SA_GEN_SIG |
| Full path name | EUT1.MP.SIG1/EUT1.SA/EUT1.GEN1/EUT1.GEN2/ |
| Switch bits | 00010001:00010001:00000000:00000001 |

## Test at TX 2462 MHz

RESULT: Reference power cond.

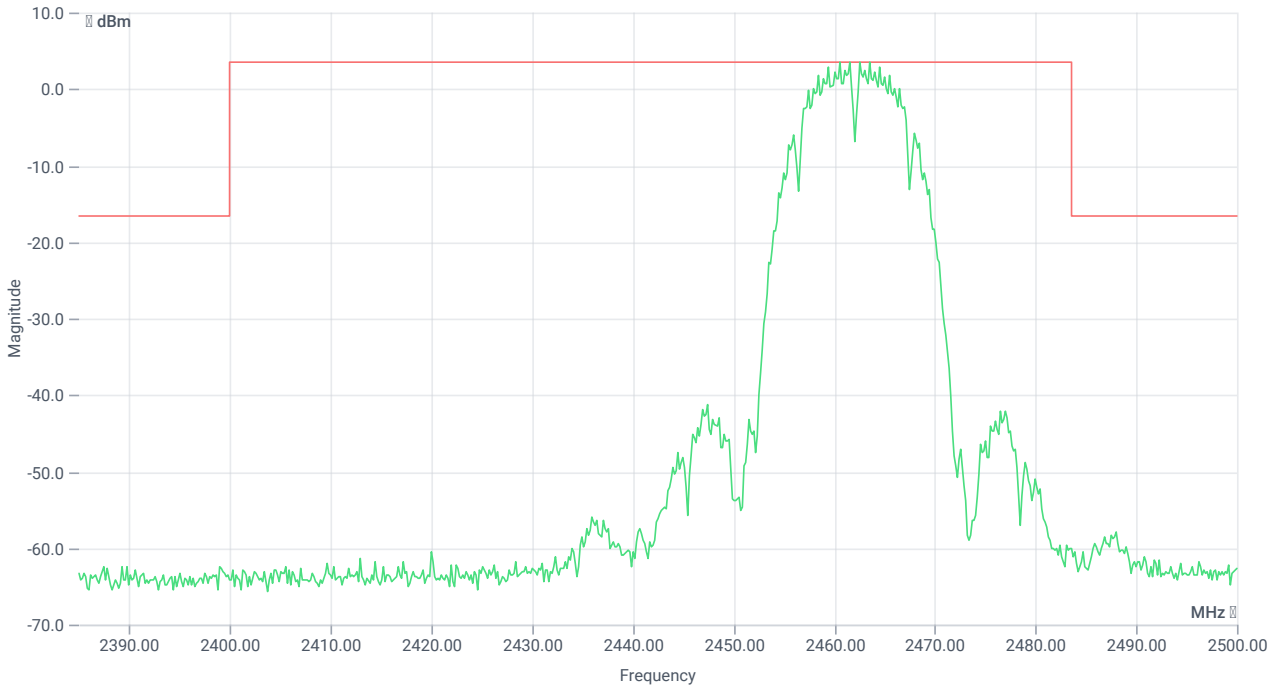
| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Ref. power 1MHz/1MHz cond. | --- | --- | 9.01 | dBm | INFO |
| Ref. frequency | --- | --- | 2460.700 | MHz | INFO |




*TX emissions*

READ SA SETTINGS:

| | |
|---|---|
| RefLevel [dBm] \| RefLevelOffset [dB] \| InpAtt [dB] | 9.01 \| 23.17 \| 5 |
| Start [MHz] \| Stop [MHz] | 24780.000 \| 25000.000 |
| RBW [MHz] \| VBW [MHz] | 0.100000 \| 0.300000 |
| Detector \| TraceMode | POS \| MAXH |
| Sweep: time [ms] \| count \| points per Section \| type | 200 \| 25 \| 1501 \| SWE |




*TX emissions band zoomed*

## RESULT

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Reference @ 2461.50 MHz | --- | --- | 3.51 | dBm | INFO |
| No peaks detected | --- | --- | | | PASS |
| Lowest margin to limit 4924 MHz | 0 | --- | 33.06 | dB | INFO |

| Verdict |
|---|
| PASS |

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

## References

| | |
|---|---|
| TC start | 10.07.2024 10:57:22 |
| Ambit temp [°C] \| humidity [rel%] | 25.2 \| 54 |
| System version | 5.0.7.0 |
| Standard \| Version | FCC 15.247, ISED RSS247 \| NI |
| Method | |
| Description | FCC 15.247 Bandwidth 99PCT-20dB DTS - WLAN2G4 b mode |
| Information | |

## EUT Common Settings WLAN2G4

| | |
|---|---|
| Number of antenna ports | 1 |
| User interaction | No |

## Equipment

| |
|---|
| Signal analyzer,Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.70 |
| Switch matrix,cetecom advanced GmbH,USM,B002,1.0.0 |

## Test Parameter

| | |
|---|---|
| Technology to test | WLAN2G4 b mode |
| EUT port | EUT1 |
| Temperature | nom |
| Voltage | nom |
| Frequency low to test | False \| Freq [MHz] 2412 |
| Frequency mid to test | False \| Freq [MHz] 2437 |
| Frequency high to test | True \| Freq [MHz] 2462 |
| Auto control enabled power supply \| Climatic Box | No \| No |
| Additional path loss [dB] | 0.5 |
| Full path type | EUT_SA_GEN_SIG |
| Full path name | EUT1.MP.SIG1/EUT1.SA/EUT1.GEN1/EUT1.GEN2/ |
| Switch bits | 00010001:00010001:00000000:00000001 |

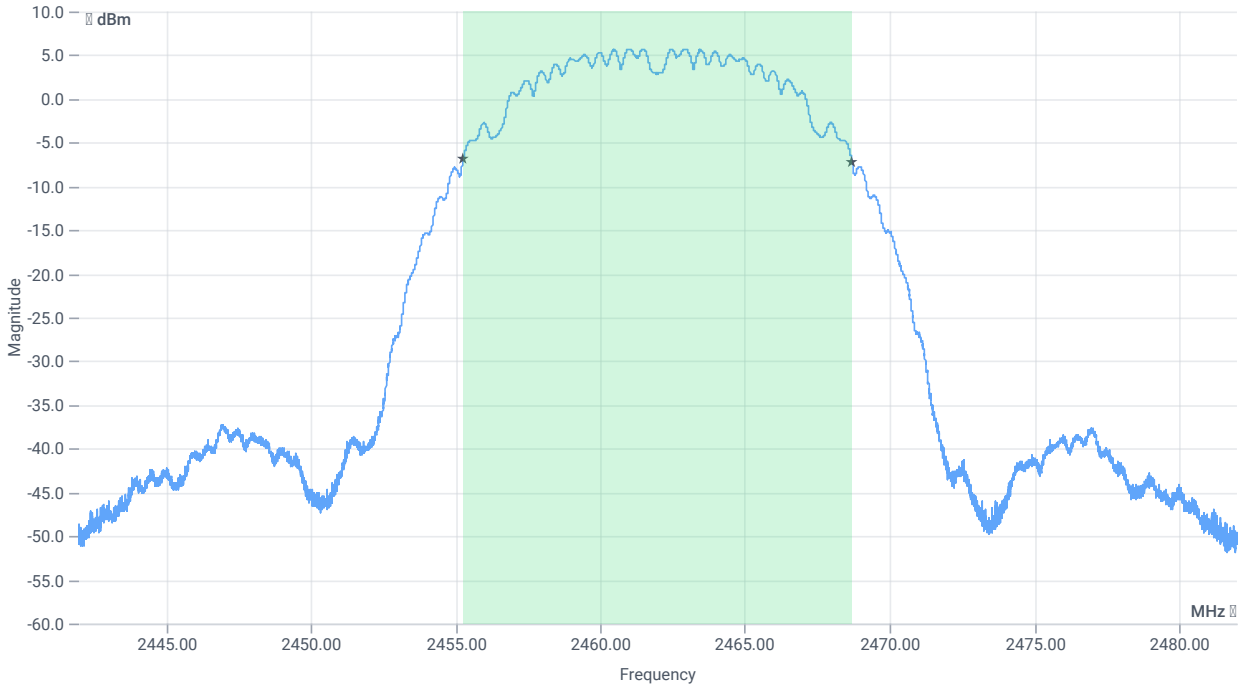
## Test at TX 2462 MHz

RESULT: Reference power cond.

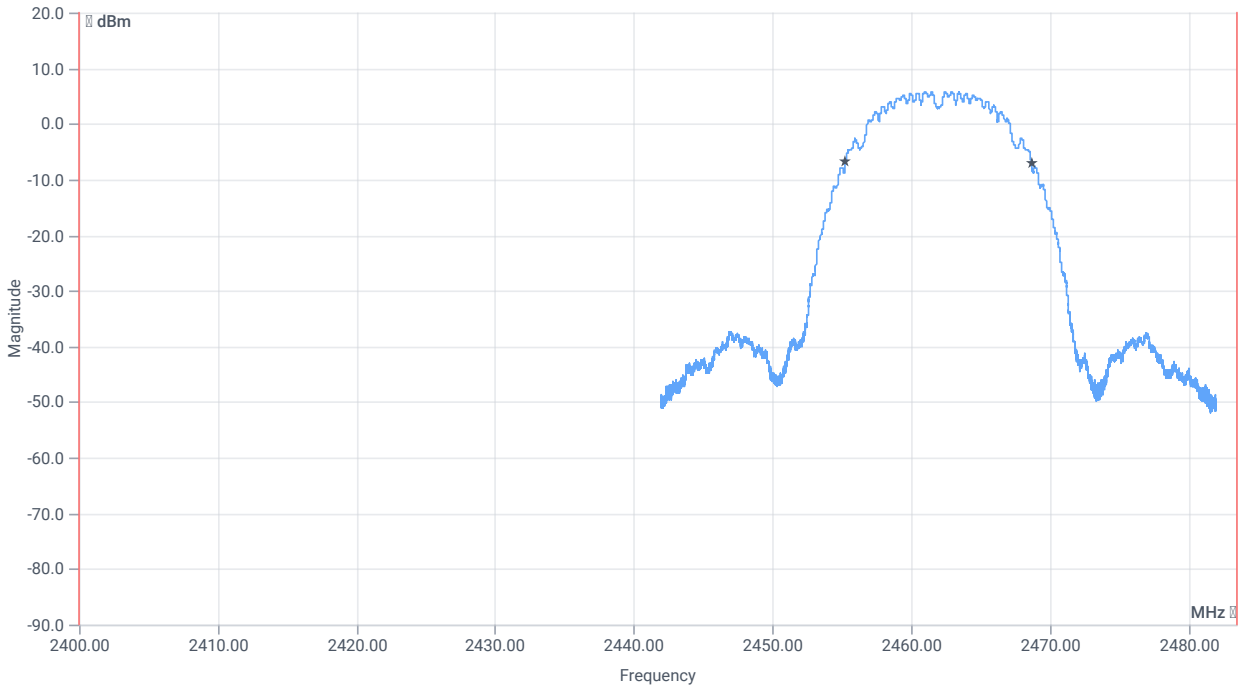
| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Ref. power 1MHz/1MHz cond. | --- | --- | 9.03 | dBm | INFO |
| Ref. frequency | --- | --- | 2463.300 | MHz | INFO |

READ SA SETTINGS:

| | |
|---|---|
| RefLevel [dBm] \| RefLevelOffset [dB] \| InpAtt [dB] | 14.03 \| 11.1 \| 20 |
| Start [MHz] \| Stop [MHz] | 2442.000 \| 2482.000 |
| RBW [MHz] \| VBW [MHz] | 0.500000 \| 2.000000 |
| Detector \| TraceMode | POS \| MAXH |
| Sweep: time [ms] \| count \| points per Section \| type | 50 \| 200 \| 10001 \| SWE |



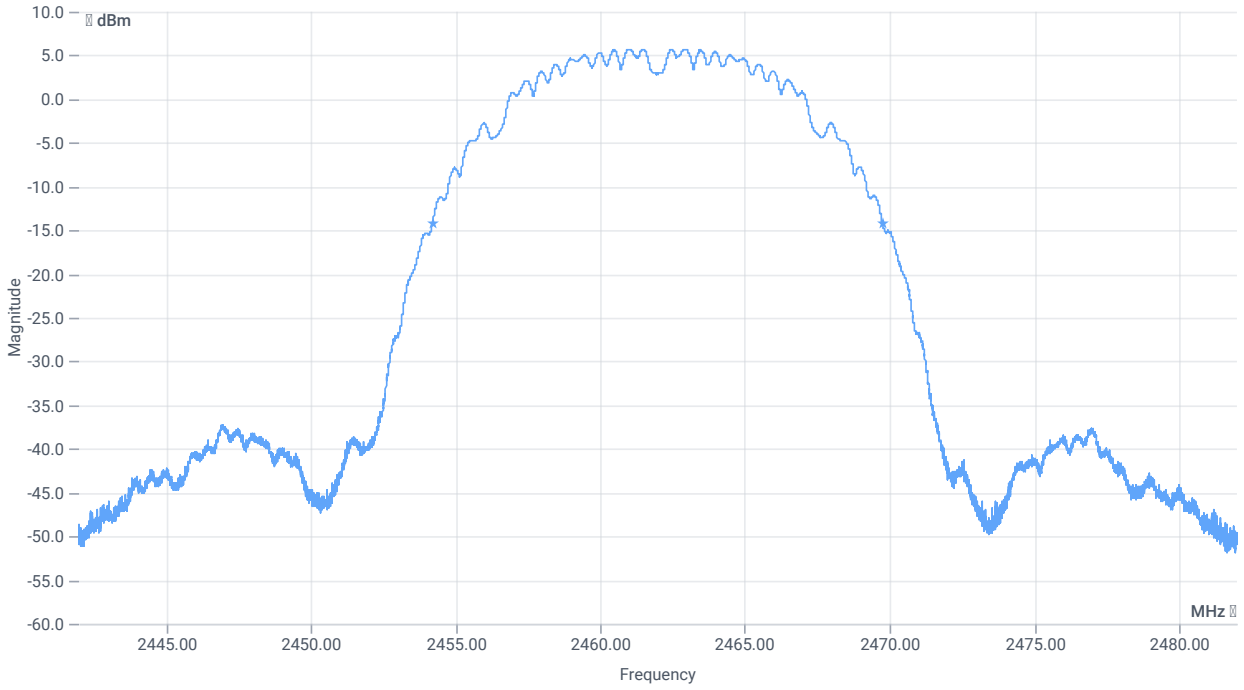

*BW 99PCT*



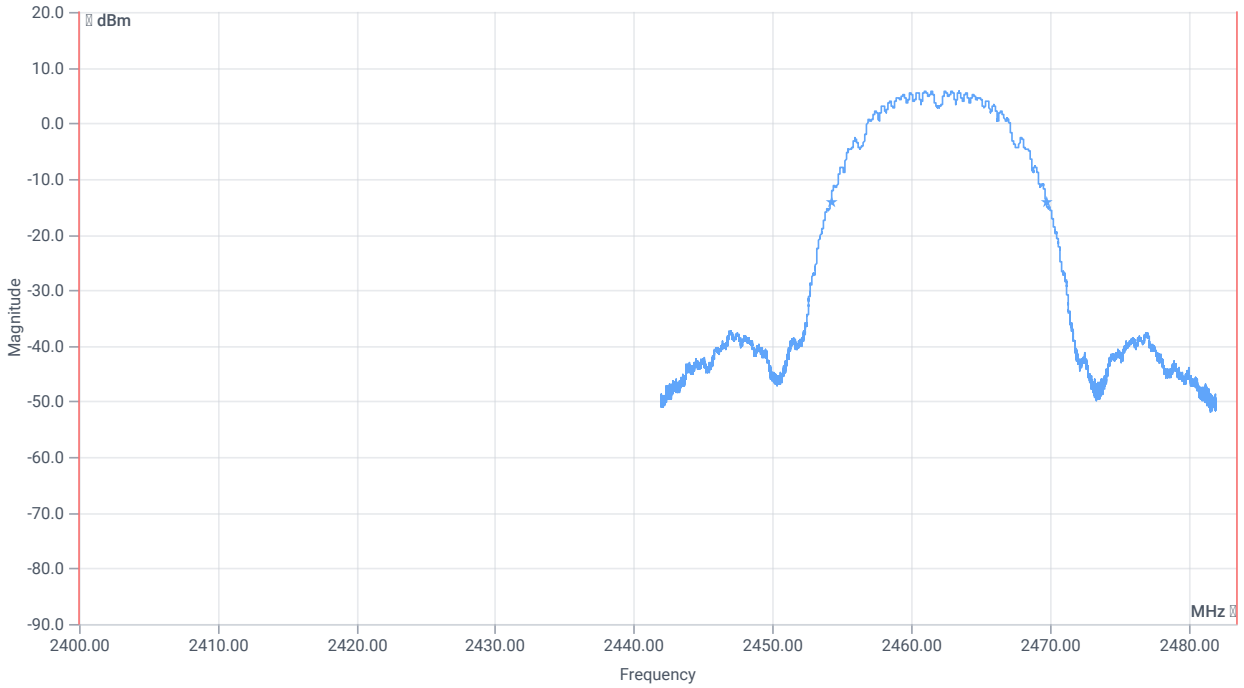

*BW within Band 99PCT*

## RESULT

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Bandwidth 99% | --- | --- | 13423.000 | kHz | INFO |
| T1 99% | 2400.000000 | --- | 2455.2767 | MHz | PASS |
| T2 99% | --- | 2483.500000 | 2468.6993 | MHz | PASS |



*BW 20dB*




*BW within band 20dB*

## RESULT

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Bandwidth 20dB | --- | --- | 15528 | kHz | INFO |
| T1 20dB | 2400.000000 | --- | 2454.2160 | MHz | PASS |
| T2 20dB | --- | 2483.500000 | 2469.7440 | MHz | PASS |

| Verdict |
|---|
| PASS |

# FCC 15.247 # Peak psd DTS ~ WLAN2G4 b mode

## References

| | |
|---|---|
| TC start | 10.07.2024 10:56:40 |
| Ambit temp [°C] \| humidity [rel%] | 25.2 \| 54 |
| System version | 5.0.7.0 |
| Standard \| Version | FCC 15.247 \| NI |
| Method | DTS: KDB 558074 D01 V05 - Chapter 8.4 DTS maximum power spectral density level in the fundamental emission |
| Description | FCC 15.247 Peak psd DTS - WLAN2G4 b mode |
| Information | |

## EUT Common Settings WLAN2G4

| | |
|---|---|
| Number of antenna ports | 1 |
| User interaction | No |

## Equipment

| |
|---|
| Signal analyzer,Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.70 |
| Switch matrix,cetecom advanced GmbH,USM,B002,1.0.0 |

## Test Parameter

| | |
|---|---|
| Technology to test | WLAN2G4 b mode |
| EUT port | EUT1 |
| Temperature | nom |
| Voltage | nom |
| Frequency low to test | False \| Freq [MHz] 2412 |
| Frequency mid to test | False \| Freq [MHz] 2437 |
| Frequency high to test | True \| Freq [MHz] 2462 |
| Auto control enabled power supply \| Climatic Box | No \| No |
| Additional path loss [dB] | 0.5 |
| Full path type | EUT_SA_GEN_SIG |
| Full path name | EUT1.MP.SIG1/EUT1.SA/EUT1.GEN1/EUT1.GEN2/ |
| Switch bits | 00010001:00010001:00000000:00000001 |

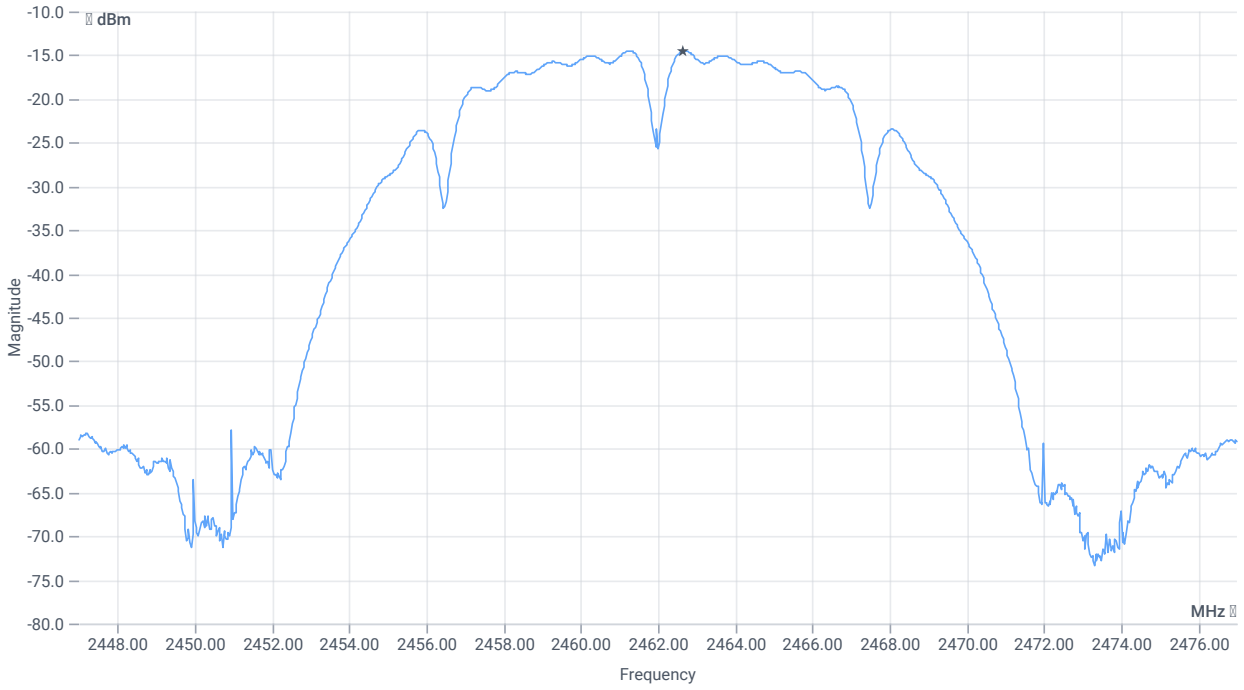
## Test at TX 2462 MHz

### RESULT: Reference power cond.

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Ref. power 1MHz/1MHz cond. | --- | --- | 9.02 | dBm | INFO |
| Ref. frequency | --- | --- | 2463.300 | MHz | INFO |

### READ SA SETTINGS:

| | |
|---|---|
| RefLevel [dBm] \| RefLevelOffset [dB] \| InpAtt [dB] | 14.02 \| 11.1 \| 20 |
| Start [MHz] \| Stop [MHz] | 2447.000 \| 2477.000 |
| RBW [MHz] \| VBW [MHz] | 0.003000 \| 0.010000 |
| Detector \| TraceMode | POS \| MAXH |
| Sweep: time [ms] \| count \| points per Section \| type | 1000 \| 20 \| 1001 \| SWE |




*Peak psd*

### RESULT

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Peak psd | --- | 8 | -14.5 | dBm/3KHz | PASS |

| Verdict |
|---|
| PASS |

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

## References

| | |
|---|---|
| TC start | 10.07.2024 10:56:06 |
| Ambit temp [°C] \| humidity [rel%] | 25.2 \| 54 |
| System version | 5.0.7.0 |
| Standard \| Version | FCC 15.247 \| NI |
| Method | |
| Description | FCC 15.247 Bandwidth 6dB DTS - WLAN2G4 b mode |
| Information | |

## EUT Common Settings WLAN2G4

| | |
|---|---|
| Number of antenna ports | 1 |
| User interaction | No |

## Equipment

| |
|---|
| Signal analyzer,Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.70 |
| Switch matrix,cetecom advanced GmbH,USM,B002,1.0.0 |

## Test Parameter

| | |
|---|---|
| Technology to test | WLAN2G4 b mode |
| EUT port | EUT1 |
| Temperature | nom |
| Voltage | nom |
| Frequency low to test | False \| Freq [MHz] 2412 |
| Frequency mid to test | False \| Freq [MHz] 2437 |
| Frequency high to test | True \| Freq [MHz] 2462 |
| Auto control enabled power supply \| Climatic Box | No \| No |
| Additional path loss [dB] | 0.5 |
| Full path type | EUT_SA_GEN_SIG |
| Full path name | EUT1.MP.SIG1/EUT1.SA/EUT1.GEN1/EUT1.GEN2/ |
| Switch bits | 00010001:00010001:00000000:00000001 |

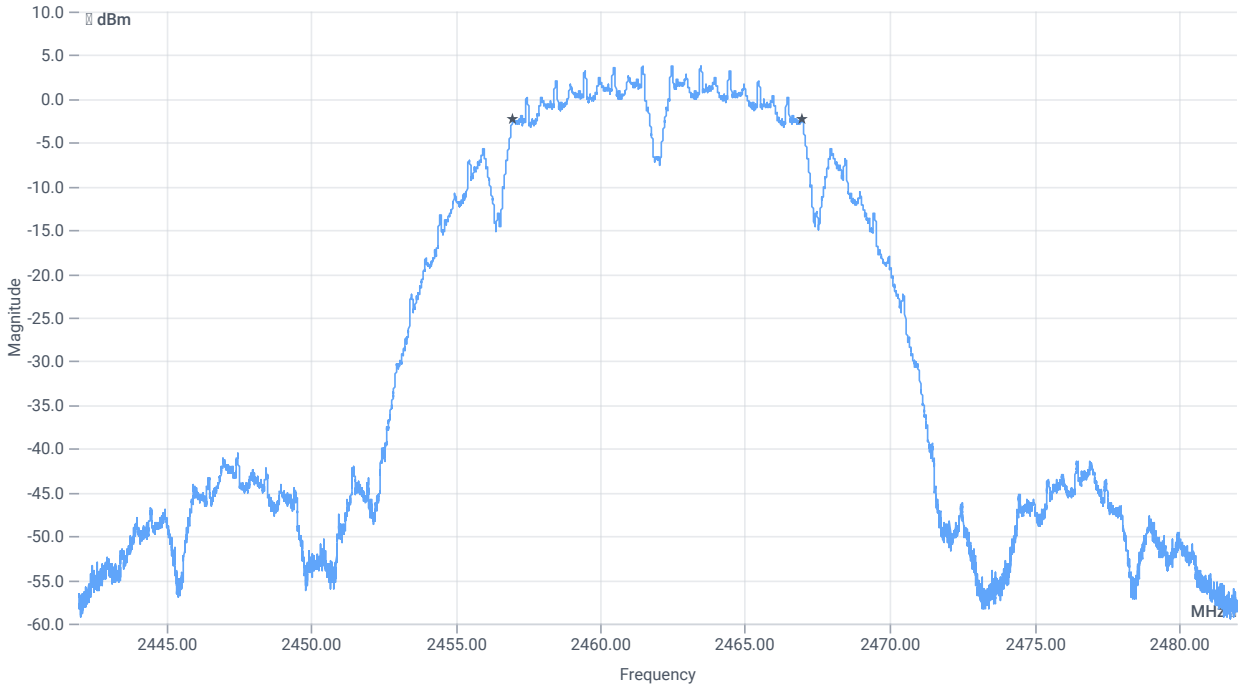
## Test at TX 2462 MHz

### RESULT: Reference power cond.

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Ref. power 1MHz/1MHz cond. | --- | --- | 9.06 | dBm | INFO |
| Ref. frequency | --- | --- | 2463.300 | MHz | INFO |

### READ SA SETTINGS:

| | |
|---|---|
| RefLevel [dBm] \| RefLevelOffset [dB] \| InpAtt [dB] | 14.06 \| 11.1 \| 20 |
| Start [MHz] \| Stop [MHz] | 2442.000 \| 2482.000 |
| RBW [MHz] \| VBW [MHz] | 0.100000 \| 0.300000 |
| Detector \| TraceMode | POS \| MAXH |
| Sweep: time [ms] \| count \| points per Section \| type | 50 \| 200 \| 10001 \| SWE |




*BW 6dB*

### RESULT

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| DTS bandwidth (6dB) | 500 | --- | 10020 | kHz | PASS |

| Verdict |
|---|
| PASS |

# NA # Peak output power 3MHz/3MHz ~ WLAN2G4 b mode

## References

| | |
|---|---|
| TC start | 10.07.2024 10:55:36 |
| Ambit temp [°C] \| humidity [rel%] | 25.2 \| 54 |
| System version | 5.0.7.0 |
| Standard \| Version | NA \| NI |
| Method | |
| Description | Peak OP 3MHz/3MHz WLAN2G4 b mode |
| Information | |

## EUT Common Settings WLAN2G4

| | |
|---|---|
| Number of antenna ports | 1 |
| User interaction | No |

## Equipment

| |
|---|
| Signal analyzer,Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.70 |
| Switch matrix,cetecom advanced GmbH,USM,B002,1.0.0 |

## Test Parameter

| | |
|---|---|
| Technology to test | WLAN2G4 b mode |
| EUT port | EUT1 |
| Temperature | nom |
| Voltage | nom |
| Frequency low to test | False \| Freq [MHz] 2412 |
| Frequency mid to test | False \| Freq [MHz] 2437 |
| Frequency high to test | True \| Freq [MHz] 2462 |
| Auto control enabled power supply \| Climatic Box | No \| No |
| Additional path loss [dB] | 0.5 |
| Full path type | EUT_SA_GEN_SIG |
| Full path name | EUT1.MP.SIG1/EUT1.SA/EUT1.GEN1/EUT1.GEN2/ |
| Switch bits | 00010001:00010001:00000000:00000001 |

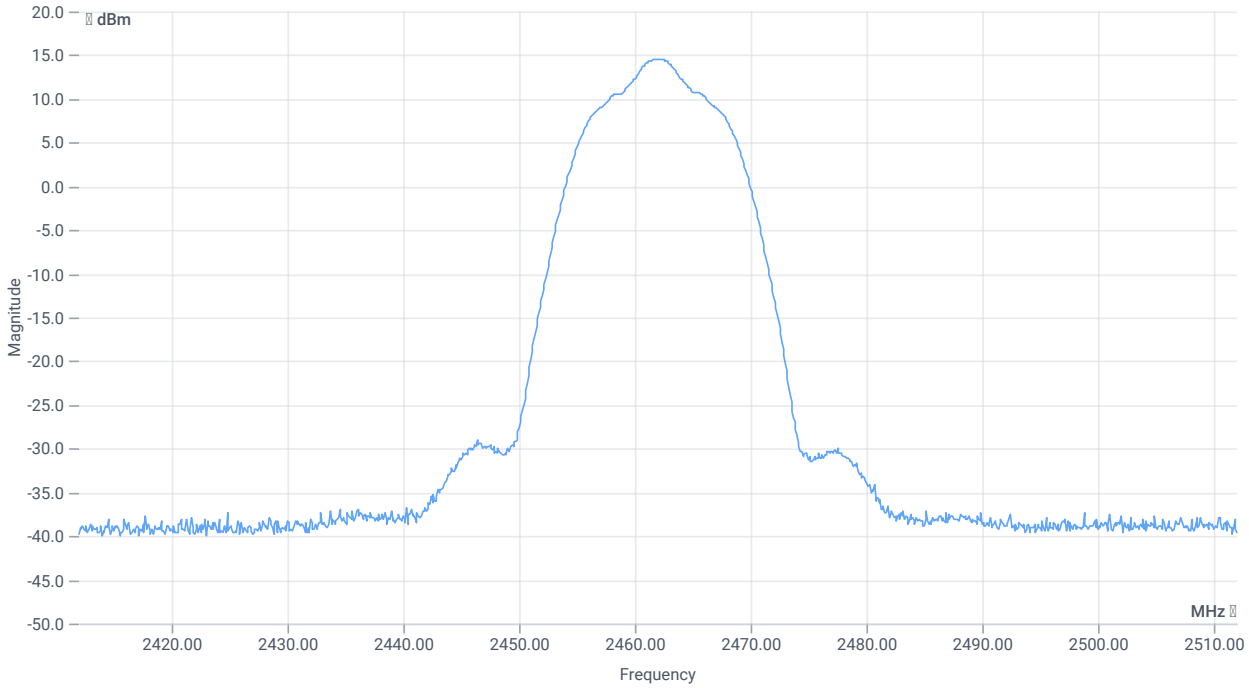
## Test at TX 2462 MHz

RESULT: Reference power cond.

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Ref. power 1MHz/1MHz cond. | --- | --- | 9.08 | dBm | INFO |
| Ref. frequency | --- | --- | 2460.700 | MHz | INFO |

READ SA SETTINGS:

| | |
|---|---|
| RefLevel [dBm] \| RefLevelOffset [dB] \| InpAtt [dB] | 19.08 \| 11.1 \| 25 |
| Start [MHz] \| Stop [MHz] | 2412.000 \| 2512.000 |
| RBW [MHz] \| VBW [MHz] | 3.000000 \| 3.000000 |
| Detector \| TraceMode | POS \| MAXH |
| Sweep: time [ms] \| count \| points per Section \| type | 1000 \| 10 \| 1001 \| SWE |




*Peak output power*

RESULT

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Peak power | --- | --- | 14.49 | dBm | INFO |
| Peak power | --- | --- | 28.119008 | mW | INFO |
| Frequency at peak | --- | --- | 2461.8 | MHz | INFO |

| Verdict |
| --- |
| PASS |

# FCC 15.247 # Peak output power PM DTS ~ WLAN2G4 b mode

## References

| | |
|---|---|
| TC start | 10.07.2024 10:42:03 |
| Ambit temp [°C] \| humidity [rel%] | 25.1 \| 54 |
| System version | 5.0.7.0 |
| Standard \| Version | FCC 15.247 \| NI |
| Method | DTS: KDB 558074 D01 V05 - Chapter 8.3.1.3 PKPM1 Peak-reading Power Meter Method |
| Description | FCC 15.247 Peak output power PM DTS - WLAN2G4 b mode |
| Information | |

## EUT Common Settings WLAN2G4

| | |
|---|---|
| Number of antenna ports | 1 |
| User interaction | No |

## Equipment

| |
|---|
| Switch matrix,cetecom advanced GmbH,USM,B002,1.0.0 |
| Power sensor,Keysight Technologies,U2021XA,MY59190010,A.04.06 |

## Test Parameter

| | |
|---|---|
| Technology to test | WLAN2G4 b mode |
| EUT port | EUT1 |
| Temperature | nom |
| Voltage | nom |
| Frequency low to test | False \| Freq [MHz] 2412 |
| Frequency mid to test | True \| Freq [MHz] 2437 |
| Frequency high to test | False \| Freq [MHz] 2462 |
| Auto control enabled power supply \| Climatic Box | No \| No |
| Additional path loss [dB] | 0.5 |
| Full path type | EUT_PM_GEN_SIG |
| Full path name | EUT1.MP.SIG1/EUT1.PM/EUT1.GEN1/EUT1.GEN2/ |
| Switch bits | 00010001:00010001:00010000:00000001 |

## Test at TX 2437 MHz

RESULT

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Peak power | --- | 30 | 17.09 | dBm | PASS |

| Verdict |
|---|
| PASS |

# FCC 15.247 # TX spurious conducted 20dBc ~ WLAN2G4 b mode

## References

| | |
|---|---|
| TC start | 10.07.2024 10:28:28 |
| Ambit temp [°C] \| humidity [rel%] | 25.0 \| 55 |
| System version | 5.0.7.0 |
| Standard \| Version | FCC 15.247 \| NI |
| Method | IF DTS then 8.5 DTS emissions in non-restricted frequency bands: Subclause 11.11 of ANSI C63.10 is applicable |
| Description | FCC 15.247 TX Emissions cond. DTS - WLAN2G4 b mode |
| Information | |

## EUT Common Settings WLAN2G4

| | |
|---|---|
| Number of antenna ports | 1 |
| User interaction | No |

## Equipment

| |
|---|
| Signal analyzer,Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.70 |
| Switch matrix,cetecom advanced GmbH,USM,B002,1.0.0 |

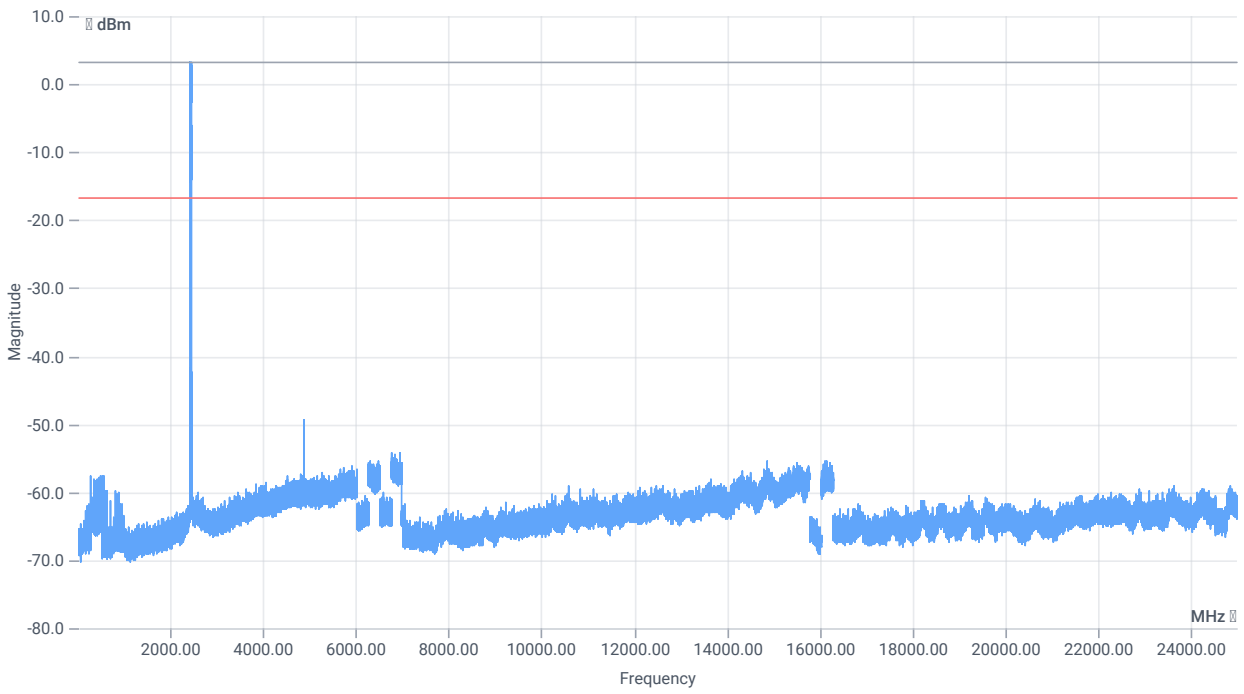
## Test Parameter

| | |
|---|---|
| Technology to test | WLAN2G4 b mode |
| EUT port | EUT1 |
| Temperature | nom |
| Voltage | nom |
| Frequency low to test | False \| Freq [MHz] 2412 |
| Frequency mid to test | True \| Freq [MHz] 2437 |
| Frequency high to test | False \| Freq [MHz] 2462 |
| Auto control enabled power supply \| Climatic Box | No \| No |
| Additional path loss [dB] | 0.5 |
| Full path type | EUT_SA_GEN_SIG |
| Full path name | EUT1.MP.SIG1/EUT1.SA/EUT1.GEN1/EUT1.GEN2/ |
| Switch bits | 00010001:00010001:00000000:00000001 |

## Test at TX 2437 MHz

RESULT: Reference power cond.

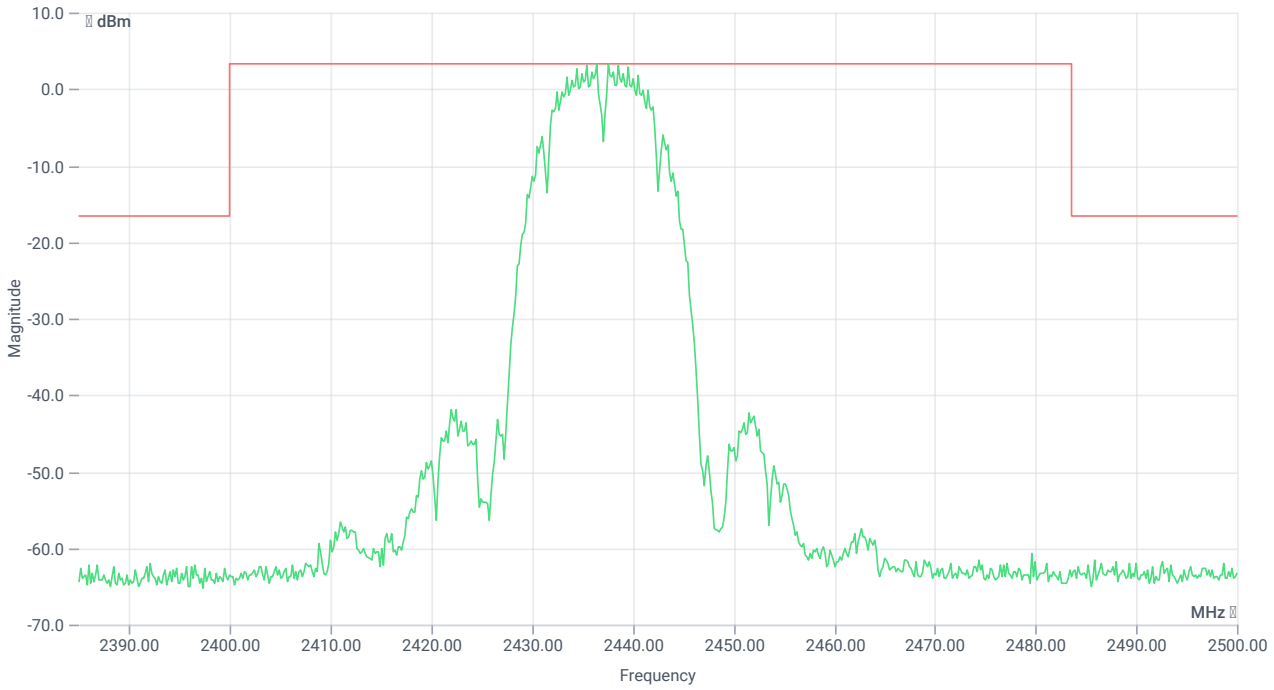
| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Ref. power 1MHz/1MHz cond. | --- | --- | 8.80 | dBm | INFO |
| Ref. frequency | --- | --- | 2438.300 | MHz | INFO |




*TX emissions*

READ SA SETTINGS:

| | |
|---|---|
| RefLevel [dBm] \| RefLevelOffset [dB] \| InpAtt [dB] | 8.80 \| 23.17 \| 5 |
| Start [MHz] \| Stop [MHz] | 24780.000 \| 25000.000 |
| RBW [MHz] \| VBW [MHz] | 0.100000 \| 0.300000 |
| Detector \| TraceMode | POS \| MAXH |
| Sweep: time [ms] \| count \| points per Section \| type | 200 \| 25 \| 1501 \| SWE |




*TX emissions band zoomed*

## RESULT

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Reference @ 2437.50 MHz | --- | --- | 3.30 | dBm | INFO |
| No peaks detected | --- | --- | | | PASS |
| Lowest margin to limit 4874 MHz | 0 | --- | 32.73 | dB | INFO |

| Verdict |
|---|
| PASS |

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

## References

| | |
|---|---|
| TC start | 10.07.2024 10:27:48 |
| Ambit temp [°C] \| humidity [rel%] | 24.9 \| 55 |
| System version | 5.0.7.0 |
| Standard \| Version | FCC 15.247, ISED RSS247 \| NI |
| Method | |
| Description | FCC 15.247 Bandwidth 99PCT-20dB DTS - WLAN2G4 b mode |
| Information | |

## EUT Common Settings WLAN2G4

| | |
|---|---|
| Number of antenna ports | 1 |
| User interaction | No |

## Equipment

| |
|---|
| Signal analyzer,Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.70 |
| Switch matrix,cetecom advanced GmbH,USM,B002,1.0.0 |

## Test Parameter

| | |
|---|---|
| Technology to test | WLAN2G4 b mode |
| EUT port | EUT1 |
| Temperature | nom |
| Voltage | nom |
| Frequency low to test | False \| Freq [MHz] 2412 |
| Frequency mid to test | True \| Freq [MHz] 2437 |
| Frequency high to test | False \| Freq [MHz] 2462 |
| Auto control enabled power supply \| Climatic Box | No \| No |
| Additional path loss [dB] | 0.5 |
| Full path type | EUT_SA_GEN_SIG |
| Full path name | EUT1.MP.SIG1/EUT1.SA/EUT1.GEN1/EUT1.GEN2/ |
| Switch bits | 00010001:00010001:00000000:00000001 |

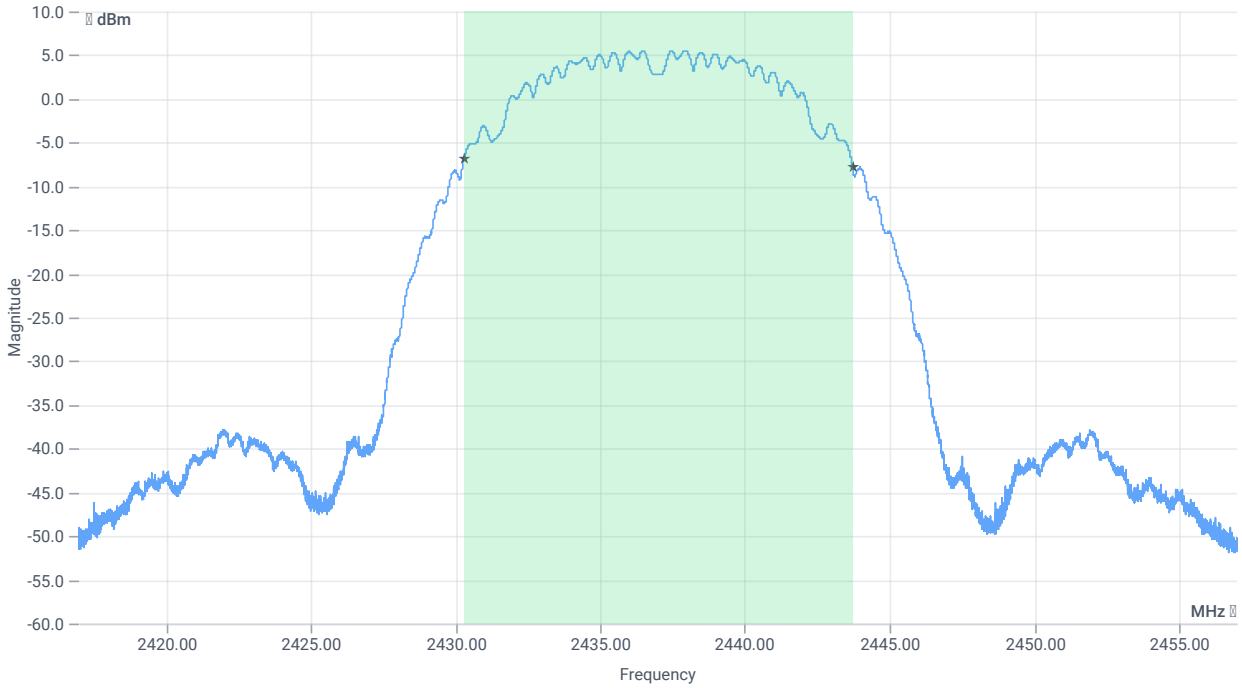
## Test at TX 2437 MHz

RESULT: Reference power cond.

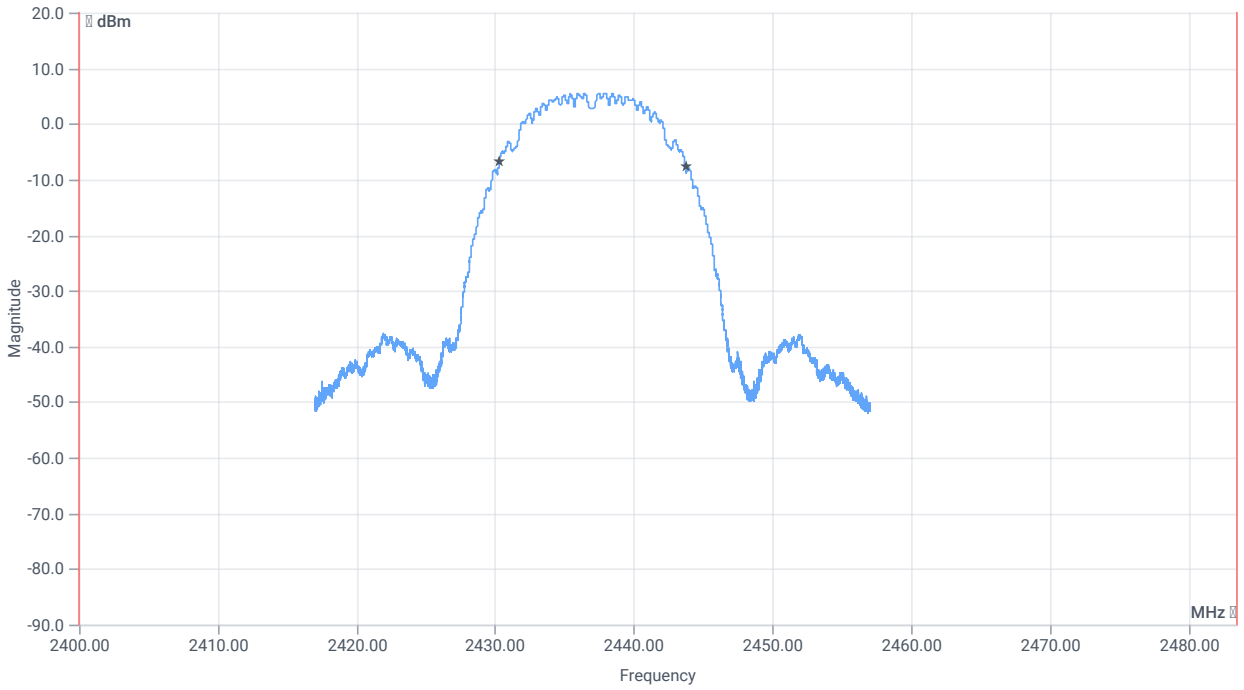
| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Ref. power 1MHz/1MHz cond. | --- | --- | 8.80 | dBm | INFO |
| Ref. frequency | --- | --- | 2438.300 | MHz | INFO |

READ SA SETTINGS:

| | |
|---|---|
| RefLevel [dBm] \| RefLevelOffset [dB] \| InpAtt [dB] | 13.80 \| 11.06 \| 20 |
| Start [MHz] \| Stop [MHz] | 2417.000 \| 2457.000 |
| RBW [MHz] \| VBW [MHz] | 0.500000 \| 2.000000 |
| Detector \| TraceMode | POS \| MAXH |
| Sweep: time [ms] \| count \| points per Section \| type | 50 \| 200 \| 10001 \| SWE |



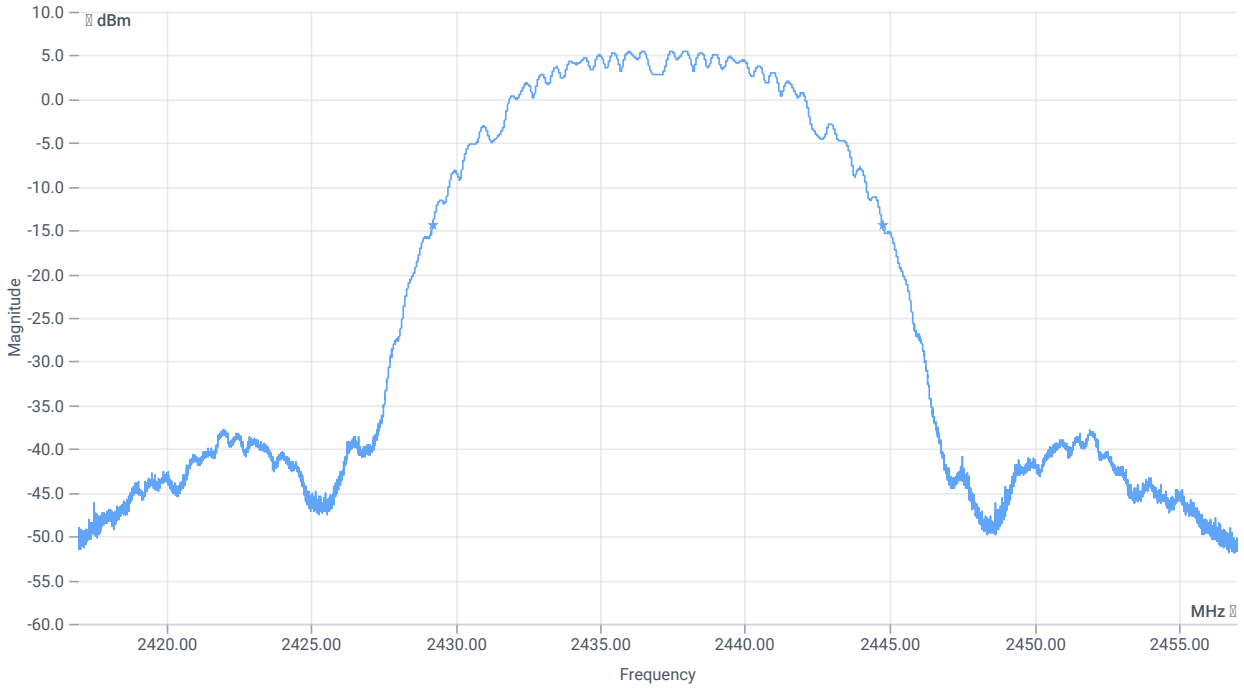

*BW 99PCT*



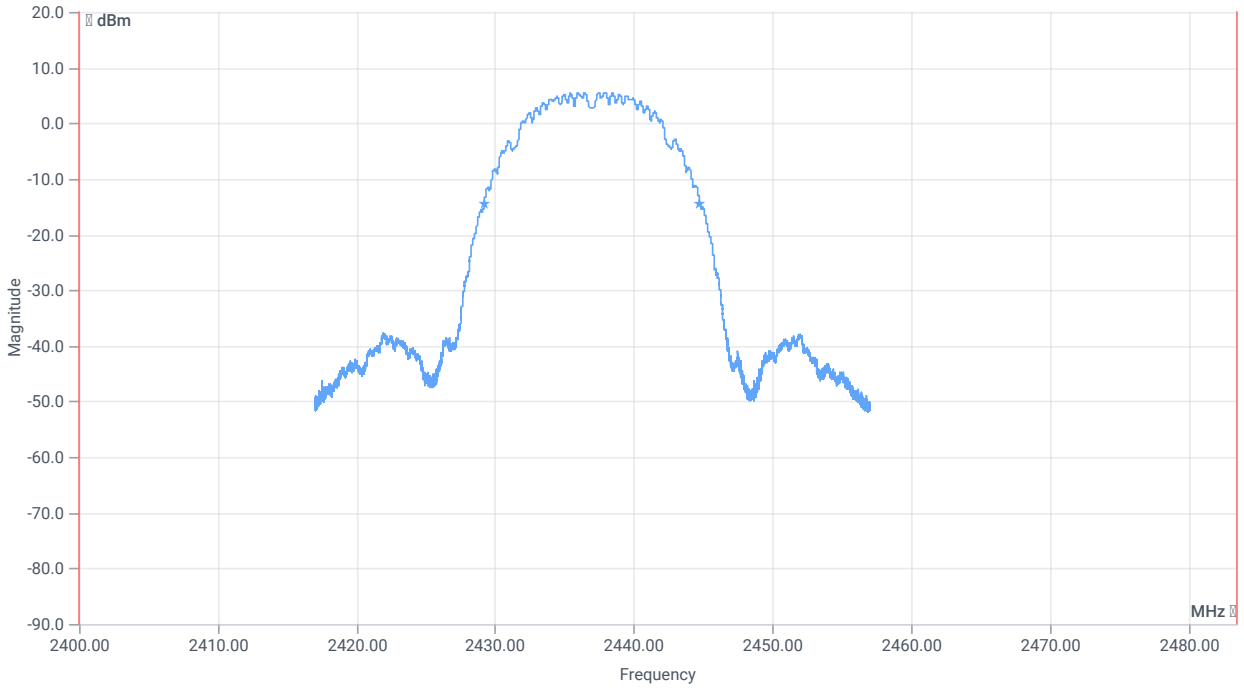

*BW within Band 99PCT*

## RESULT

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Bandwidth 99% | --- | --- | 13427.000 | kHz | INFO |
| T1 99% | 2400.000000 | --- | 2430.2927 | MHz | PASS |
| T2 99% | --- | 2483.500000 | 2443.7193 | MHz | PASS |



*BW 20dB*




*BW within band 20dB*

## RESULT

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Bandwidth 20dB | --- | --- | 15524 | kHz | INFO |
| T1 20dB | 2400.000000 | --- | 2429.2240 | MHz | PASS |
| T2 20dB | --- | 2483.500000 | 2444.7480 | MHz | PASS |

| Verdict |
|---|
| PASS |

# FCC 15.247 # Peak psd DTS ~ WLAN2G4 b mode

## References

| | |
|---|---|
| TC start | 10.07.2024 10:27:07 |
| Ambit temp [°C] \| humidity [rel%] | 25.0 \| 55 |
| System version | 5.0.7.0 |
| Standard \| Version | FCC 15.247 \| NI |
| Method | DTS: KDB 558074 D01 V05 - Chapter 8.4 DTS maximum power spectral density level in the fundamental emission |
| Description | FCC 15.247 Peak psd DTS - WLAN2G4 b mode |
| Information | |

## EUT Common Settings WLAN2G4

| | |
|---|---|
| Number of antenna ports | 1 |
| User interaction | No |

## Equipment

| |
|---|
| Signal analyzer,Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.70 |
| Switch matrix,cetecom advanced GmbH,USM,B002,1.0.0 |

## Test Parameter

| | |
|---|---|
| Technology to test | WLAN2G4 b mode |
| EUT port | EUT1 |
| Temperature | nom |
| Voltage | nom |
| Frequency low to test | False \| Freq [MHz] 2412 |
| Frequency mid to test | True \| Freq [MHz] 2437 |
| Frequency high to test | False \| Freq [MHz] 2462 |
| Auto control enabled power supply \| Climatic Box | No \| No |
| Additional path loss [dB] | 0.5 |
| Full path type | EUT_SA_GEN_SIG |
| Full path name | EUT1.MP.SIG1/EUT1.SA/EUT1.GEN1/EUT1.GEN2/ |
| Switch bits | 00010001:00010001:00000000:00000001 |

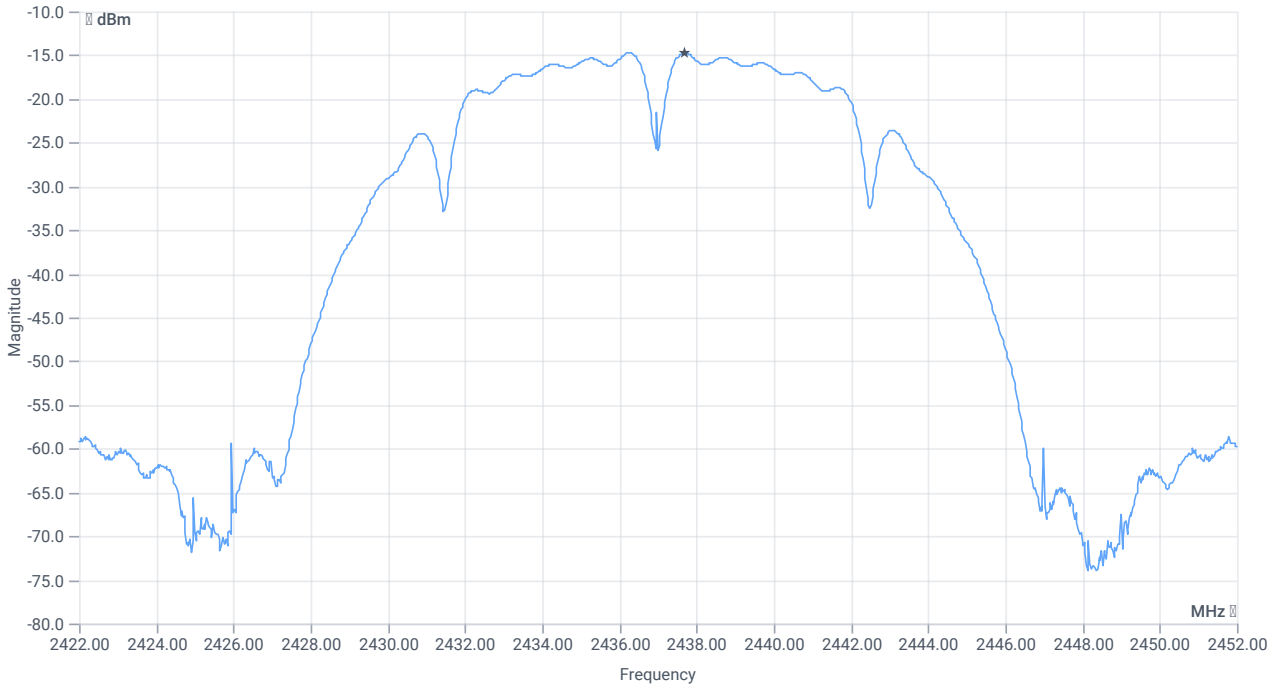
## Test at TX 2437 MHz

### RESULT: Reference power cond.

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Ref. power 1MHz/1MHz cond. | --- | --- | 8.83 | dBm | INFO |
| Ref. frequency | --- | --- | 2438.300 | MHz | INFO |

### READ SA SETTINGS:

| | |
|---|---|
| RefLevel [dBm] \| RefLevelOffset [dB] \| InpAtt [dB] | 13.83 \| 11.06 \| 20 |
| Start [MHz] \| Stop [MHz] | 2422.000 \| 2452.000 |
| RBW [MHz] \| VBW [MHz] | 0.003000 \| 0.010000 |
| Detector \| TraceMode | POS \| MAXH |
| Sweep: time [ms] \| count \| points per Section \| type | 1000 \| 20 \| 1001 \| SWE |




*Peak psd*

### RESULT

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Peak psd | --- | 8 | -14.72 | dBm/3KHz | PASS |

| Verdict |
|---|
| PASS |

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

## References

| | |
|---|---|
| TC start | 10.07.2024 10:26:33 |
| Ambit temp [°C] \| humidity [rel%] | 25.0 \| 55 |
| System version | 5.0.7.0 |
| Standard \| Version | FCC 15.247 \| NI |
| Method | |
| Description | FCC 15.247 Bandwidth 6dB DTS - WLAN2G4 b mode |
| Information | |

## EUT Common Settings WLAN2G4

| | |
|---|---|
| Number of antenna ports | 1 |
| User interaction | No |

## Equipment

| |
|---|
| Signal analyzer,Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.70 |
| Switch matrix,cetecom advanced GmbH,USM,B002,1.0.0 |

## Test Parameter

| | |
|---|---|
| Technology to test | WLAN2G4 b mode |
| EUT port | EUT1 |
| Temperature | nom |
| Voltage | nom |
| Frequency low to test | False \| Freq [MHz] 2412 |
| Frequency mid to test | True \| Freq [MHz] 2437 |
| Frequency high to test | False \| Freq [MHz] 2462 |
| Auto control enabled power supply \| Climatic Box | No \| No |
| Additional path loss [dB] | 0.5 |
| Full path type | EUT_SA_GEN_SIG |
| Full path name | EUT1.MP.SIG1/EUT1.SA/EUT1.GEN1/EUT1.GEN2/ |
| Switch bits | 00010001:00010001:00000000:00000001 |

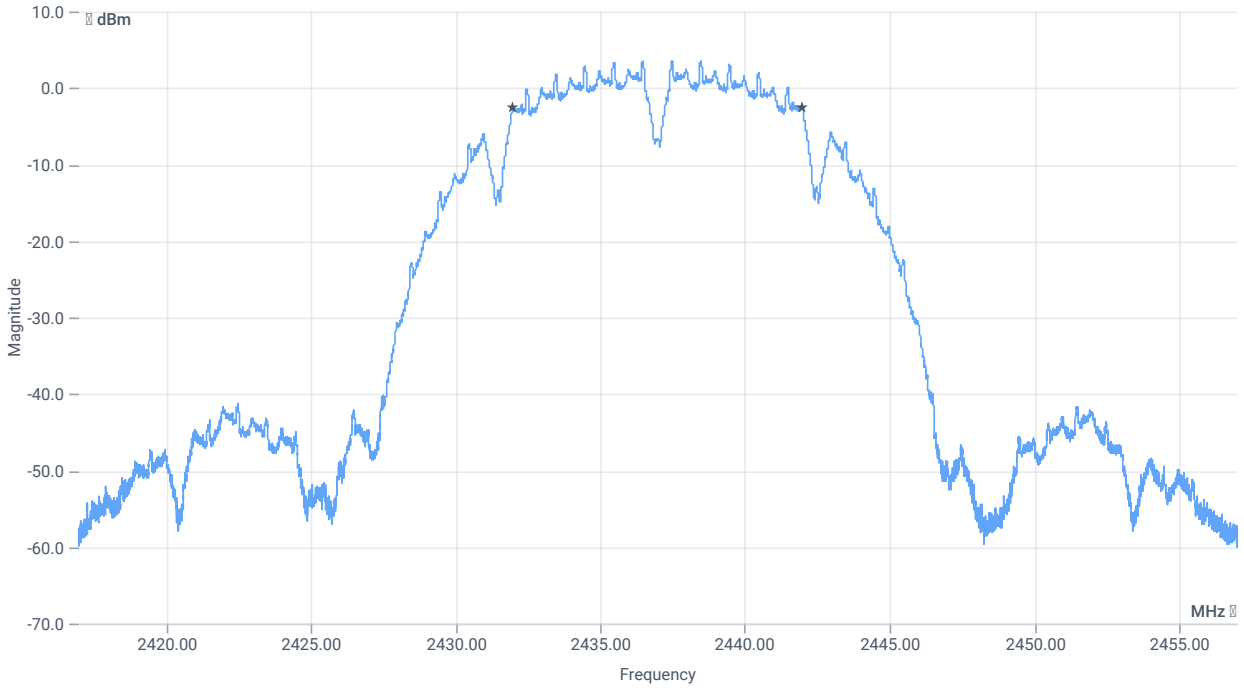
## Test at TX 2437 MHz

### RESULT: Reference power cond.

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Ref. power 1MHz/1MHz cond. | --- | --- | 8.84 | dBm | INFO |
| Ref. frequency | --- | --- | 2438.300 | MHz | INFO |

### READ SA SETTINGS:

| | |
|---|---|
| RefLevel [dBm] \| RefLevelOffset [dB] \| InpAtt [dB] | 13.84 \| 11.06 \| 20 |
| Start [MHz] \| Stop [MHz] | 2417.000 \| 2457.000 |
| RBW [MHz] \| VBW [MHz] | 0.100000 \| 0.300000 |
| Detector \| TraceMode | POS \| MAXH |
| Sweep: time [ms] \| count \| points per Section \| type | 50 \| 200 \| 10001 \| SWE |




*BW 6dB*

### RESULT

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| DTS bandwidth (6dB) | 500 | --- | 10008 | kHz | PASS |

| Verdict |
|---|
| PASS |

# NA # Peak output power 3MHz/3MHz ~ WLAN2G4 b mode

## References

| | |
|---|---|
| TC start | 10.07.2024 10:26:01 |
| Ambit temp [°C] \| humidity [rel%] | 25.0 \| 55 |
| System version | 5.0.7.0 |
| Standard \| Version | NA \| NI |
| Method | |
| Description | Peak OP 3MHz/3MHz WLAN2G4 b mode |
| Information | |

## EUT Common Settings WLAN2G4

| | |
|---|---|
| Number of antenna ports | 1 |
| User interaction | No |

## Equipment

| |
|---|
| Signal analyzer,Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.70 |
| Switch matrix,cetecom advanced GmbH,USM,B002,1.0.0 |

## Test Parameter

| | |
|---|---|
| Technology to test | WLAN2G4 b mode |
| EUT port | EUT1 |
| Temperature | nom |
| Voltage | nom |
| Frequency low to test | False \| Freq [MHz] 2412 |
| Frequency mid to test | True \| Freq [MHz] 2437 |
| Frequency high to test | False \| Freq [MHz] 2462 |
| Auto control enabled power supply \| Climatic Box | No \| No |
| Additional path loss [dB] | 0.5 |
| Full path type | EUT_SA_GEN_SIG |
| Full path name | EUT1.MP.SIG1/EUT1.SA/EUT1.GEN1/EUT1.GEN2/ |
| Switch bits | 00010001:00010001:00000000:00000001 |

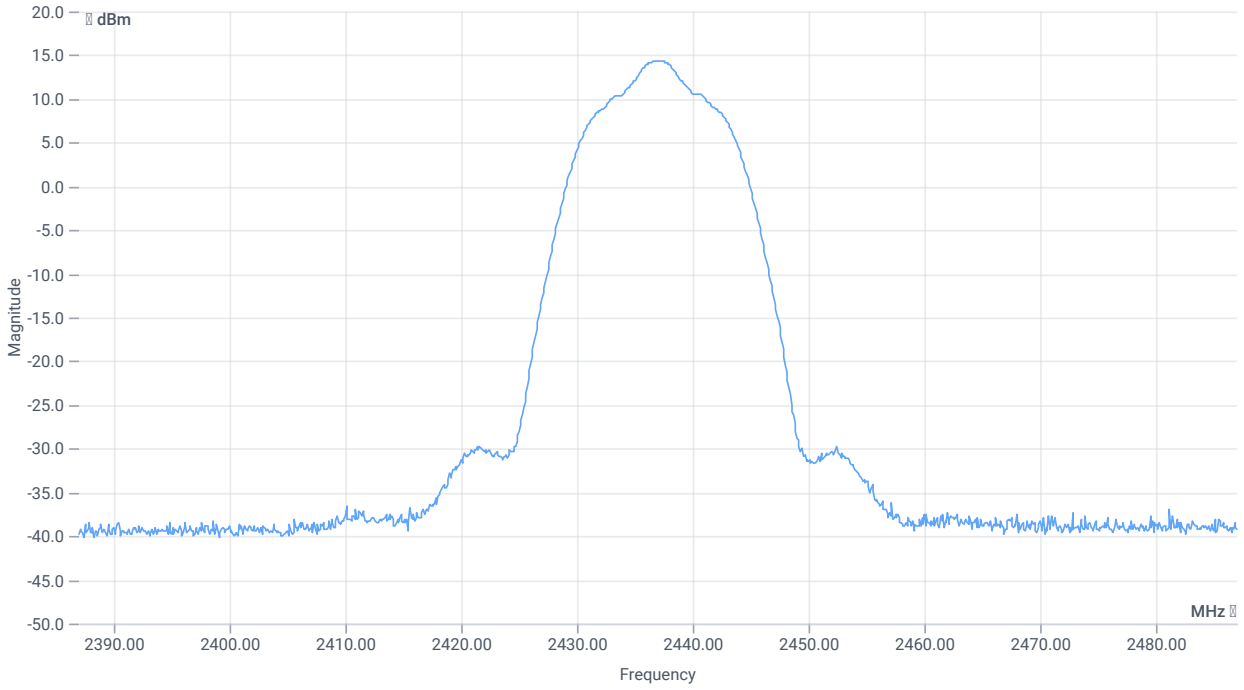
## Test at TX 2437 MHz

RESULT: Reference power cond.

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Ref. power 1MHz/1MHz cond. | --- | --- | 8.96 | dBm | INFO |
| Ref. frequency | --- | --- | 2438.300 | MHz | INFO |

READ SA SETTINGS:

| | |
|---|---|
| RefLevel [dBm] \| RefLevelOffset [dB] \| InpAtt [dB] | 18.96 \| 11.06 \| 25 |
| Start [MHz] \| Stop [MHz] | 2387.000 \| 2487.000 |
| RBW [MHz] \| VBW [MHz] | 3.000000 \| 3.000000 |
| Detector \| TraceMode | POS \| MAXH |
| Sweep: time [ms] \| count \| points per Section \| type | 1000 \| 10 \| 1001 \| SWE |




*Peak output power*

RESULT

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Peak power | --- | --- | 14.32 | dBm | INFO |
| Peak power | --- | --- | 27.039584 | mW | INFO |
| Frequency at peak | --- | --- | 2437.2 | MHz | INFO |

| Verdict |
| --- |
| PASS |

# FCC 15.247 # Peak output power PM DTS ~ WLAN2G4 b mode

## References

| | |
|---|---|
| TC start | 10.07.2024 10:25:10 |
| Ambit temp [°C] \| humidity [rel%] | 24.9 \| 55 |
| System version | 5.0.7.0 |
| Standard \| Version | FCC 15.247 \| NI |
| Method | DTS: KDB 558074 D01 V05 - Chapter 8.3.1.3 PKPM1 Peak-reading Power Meter Method |
| Description | FCC 15.247 Peak output power PM DTS - WLAN2G4 b mode |
| Information | |

## EUT Common Settings WLAN2G4

| | |
|---|---|
| Number of antenna ports | 1 |
| User interaction | No |

## Equipment

| |
|---|
| Switch matrix,cetecom advanced GmbH,USM,B002,1.0.0 |
| Power sensor,Keysight Technologies,U2021XA,MY59190010,A.04.06 |

## Test Parameter

| | |
|---|---|
| Technology to test | WLAN2G4 b mode |
| EUT port | EUT1 |
| Temperature | nom |
| Voltage | nom |
| Frequency low to test | True \| Freq [MHz] 2412 |
| Frequency mid to test | False \| Freq [MHz] 2437 |
| Frequency high to test | False \| Freq [MHz] 2462 |
| Auto control enabled power supply \| Climatic Box | No \| No |
| Additional path loss [dB] | 0.5 |
| Full path type | EUT_PM_GEN_SIG |
| Full path name | EUT1.MP.SIG1/EUT1.PM/EUT1.GEN1/EUT1.GEN2/ |
| Switch bits | 00010001:00010001:00010000:00000001 |

## Test at TX 2412 MHz

RESULT

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Peak power | --- | 30 | 13.94 | dBm | PASS |

| Verdict |
|---|
| PASS |

# FCC 15.247 # TX spurious conducted 20dBc ~ WLAN2G4 b mode

## References

| | |
|---|---|
| TC start | 10.07.2024 10:11:39 |
| Ambit temp [°C] \| humidity [rel%] | 24.9 \| 55 |
| System version | 5.0.7.0 |
| Standard \| Version | FCC 15.247 \| NI |
| Method | IF DTS then 8.5 DTS emissions in non-restricted frequency bands: Subclause 11.11 of ANSI C63.10 is applicable |
| Description | FCC 15.247 TX Emissions cond. DTS - WLAN2G4 b mode |
| Information | |

## EUT Common Settings WLAN2G4

| | |
|---|---|
| Number of antenna ports | 1 |
| User interaction | No |

## Equipment

| |
|---|
| Signal analyzer,Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.70 |
| Switch matrix,cetecom advanced GmbH,USM,B002,1.0.0 |

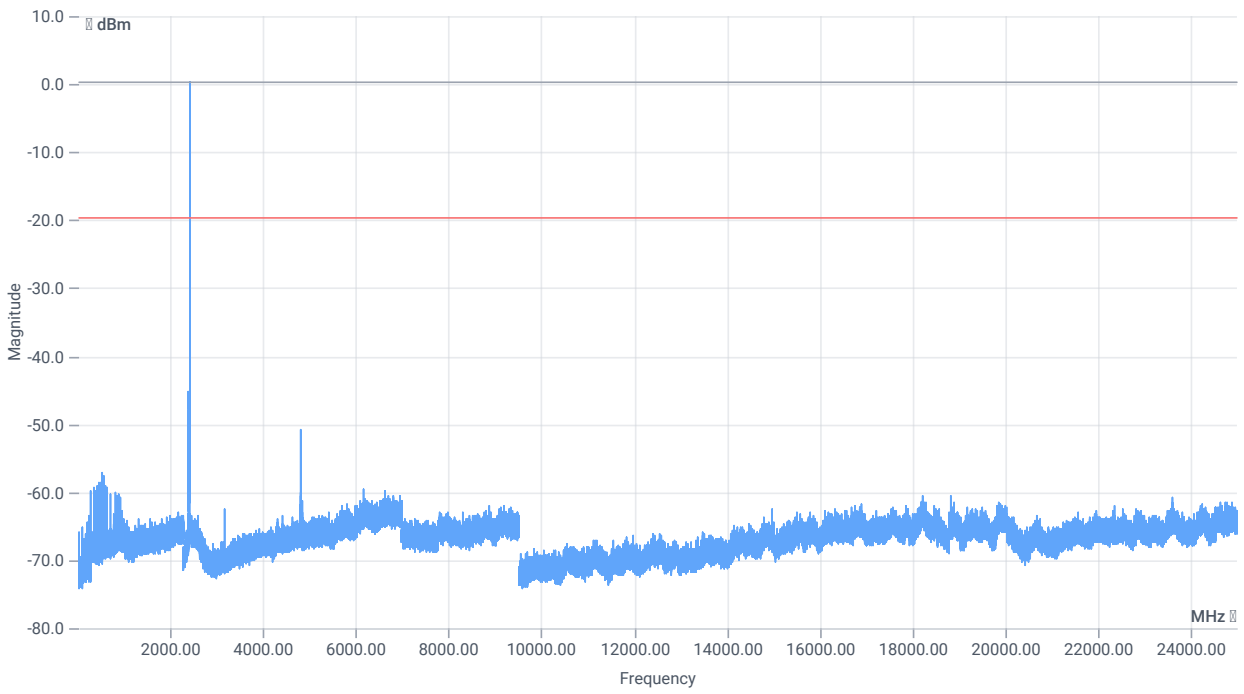
## Test Parameter

| | |
|---|---|
| Technology to test | WLAN2G4 b mode |
| EUT port | EUT1 |
| Temperature | nom |
| Voltage | nom |
| Frequency low to test | True \| Freq [MHz] 2412 |
| Frequency mid to test | False \| Freq [MHz] 2437 |
| Frequency high to test | False \| Freq [MHz] 2462 |
| Auto control enabled power supply \| Climatic Box | No \| No |
| Additional path loss [dB] | 0.5 |
| Full path type | EUT_SA_GEN_SIG |
| Full path name | EUT1.MP.SIG1/EUT1.SA/EUT1.GEN1/EUT1.GEN2/ |
| Switch bits | 00010001:00010001:00000000:00000001 |

## Test at TX 2412 MHz

RESULT: Reference power cond.

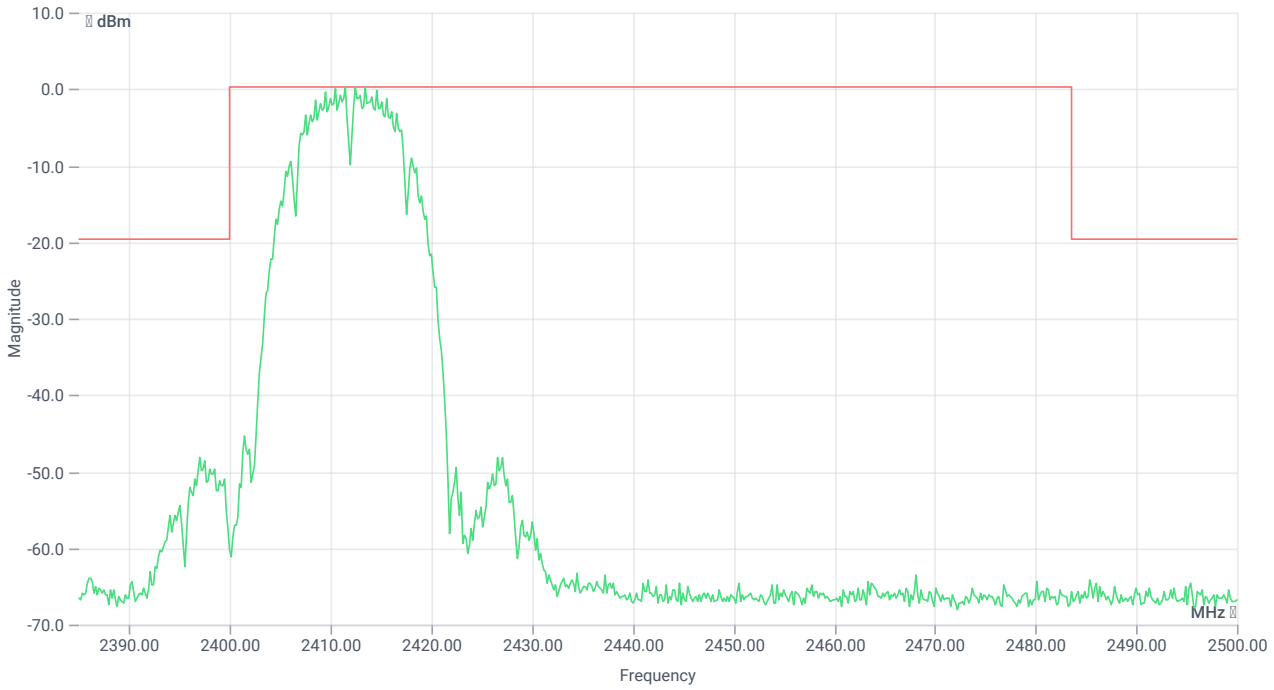
| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Ref. power 1MHz/1MHz cond. | --- | --- | 5.70 | dBm | INFO |
| Ref. frequency | --- | --- | 2413.300 | MHz | INFO |




*TX emissions*

READ SA SETTINGS:

| | |
|---|---|
| RefLevel [dBm] \| RefLevelOffset [dB] \| InpAtt [dB] | 5.70 \| 23.17 \| 0 |
| Start [MHz] \| Stop [MHz] | 24780.000 \| 25000.000 |
| RBW [MHz] \| VBW [MHz] | 0.100000 \| 0.300000 |
| Detector \| TraceMode | POS \| MAXH |
| Sweep: time [ms] \| count \| points per Section \| type | 200 \| 25 \| 1501 \| SWE |




*TX emissions band zoomed*

## RESULT

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Reference @ 2412.50 MHz | --- | --- | 0.29 | dBm | INFO |
| No peaks detected | --- | --- | | | PASS |
| Lowest margin to limit 2397 MHz | 0 | --- | 28.55 | dB | INFO |

| Verdict |
|---|
| PASS |

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

## References

| | |
|---|---|
| TC start | 10.07.2024 10:10:59 |
| Ambit temp [°C] \| humidity [rel%] | 24.9 \| 55 |
| System version | 5.0.7.0 |
| Standard \| Version | FCC 15.247, ISED RSS247 \| NI |
| Method | |
| Description | FCC 15.247 Bandwidth 99PCT-20dB DTS - WLAN2G4 b mode |
| Information | |

## EUT Common Settings WLAN2G4

| | |
|---|---|
| Number of antenna ports | 1 |
| User interaction | No |

## Equipment

| |
|---|
| Signal analyzer,Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.70 |
| Switch matrix,cetecom advanced GmbH,USM,B002,1.0.0 |

## Test Parameter

| | |
|---|---|
| Technology to test | WLAN2G4 b mode |
| EUT port | EUT1 |
| Temperature | nom |
| Voltage | nom |
| Frequency low to test | True \| Freq [MHz] 2412 |
| Frequency mid to test | False \| Freq [MHz] 2437 |
| Frequency high to test | False \| Freq [MHz] 2462 |
| Auto control enabled power supply \| Climatic Box | No \| No |
| Additional path loss [dB] | 0.5 |
| Full path type | EUT_SA_GEN_SIG |
| Full path name | EUT1.MP.SIG1/EUT1.SA/EUT1.GEN1/EUT1.GEN2/ |
| Switch bits | 00010001:00010001:00000000:00000001 |

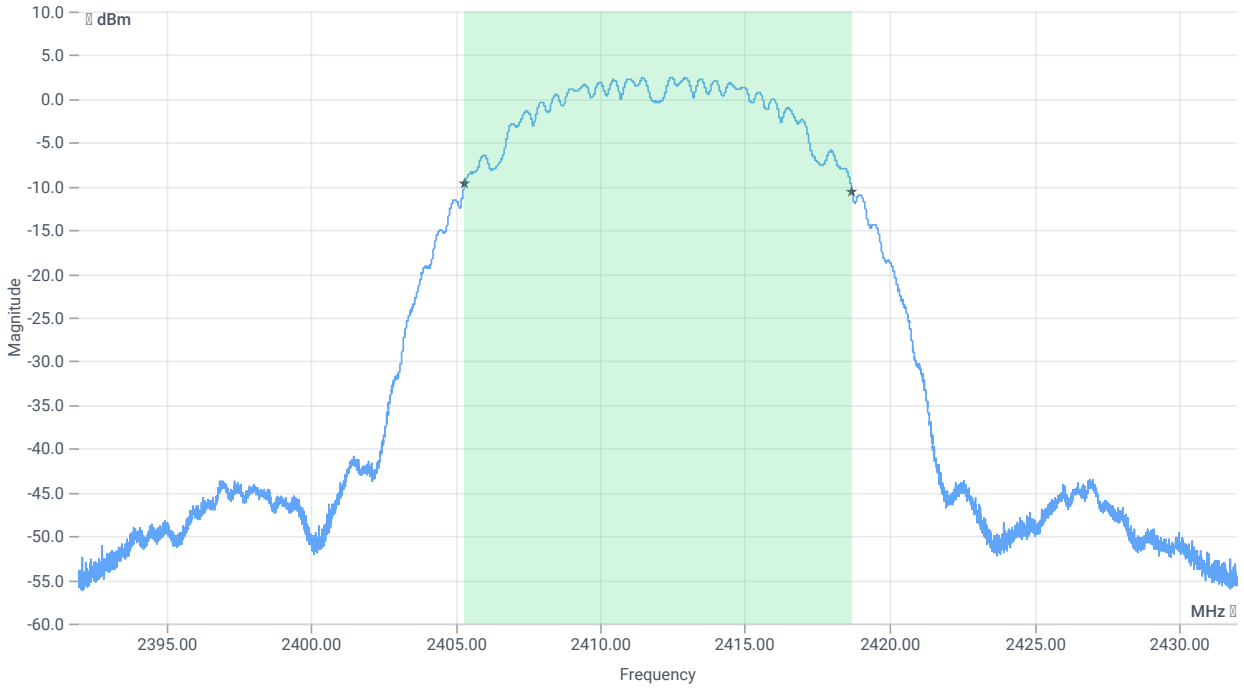
## Test at TX 2412 MHz

RESULT: Reference power cond.

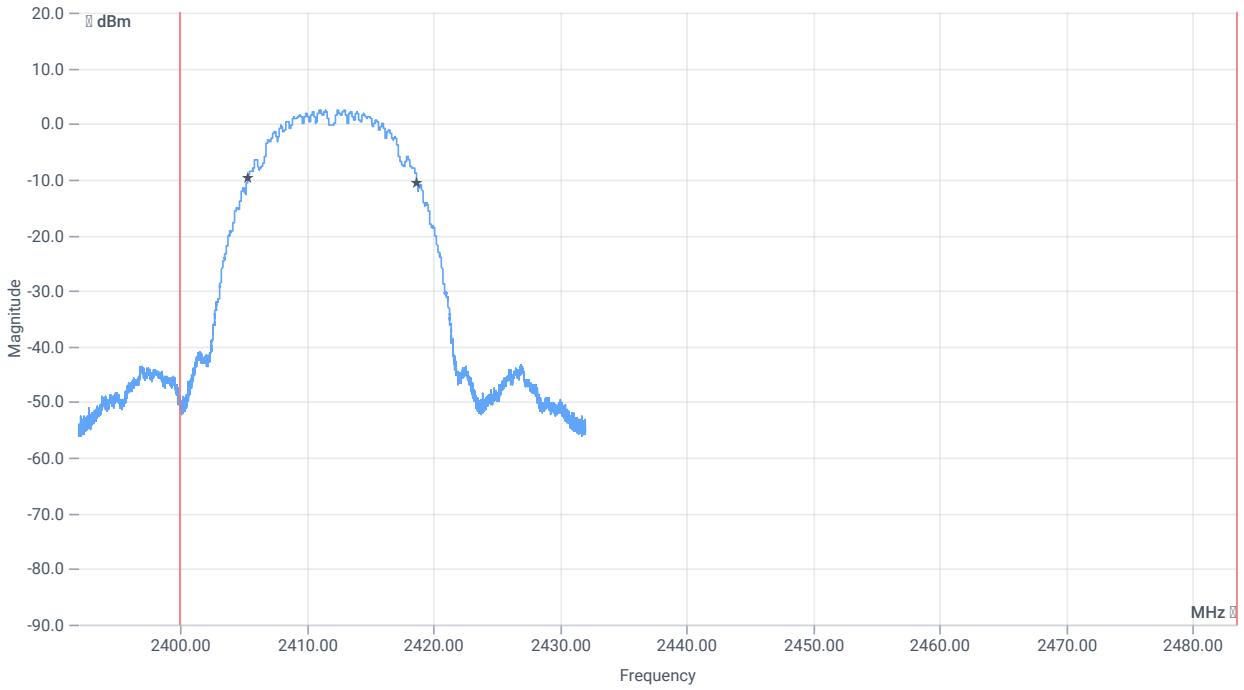
| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Ref. power 1MHz/1MHz cond. | --- | --- | 5.74 | dBm | INFO |
| Ref. frequency | --- | --- | 2413.300 | MHz | INFO |

READ SA SETTINGS:

| | |
|---|---|
| RefLevel [dBm] \| RefLevelOffset [dB] \| InpAtt [dB] | 10.74 \| 10.98 \| 15 |
| Start [MHz] \| Stop [MHz] | 2392.000 \| 2432.000 |
| RBW [MHz] \| VBW [MHz] | 0.500000 \| 2.000000 |
| Detector \| TraceMode | POS \| MAXH |
| Sweep: time [ms] \| count \| points per Section \| type | 50 \| 200 \| 10001 \| SWE |



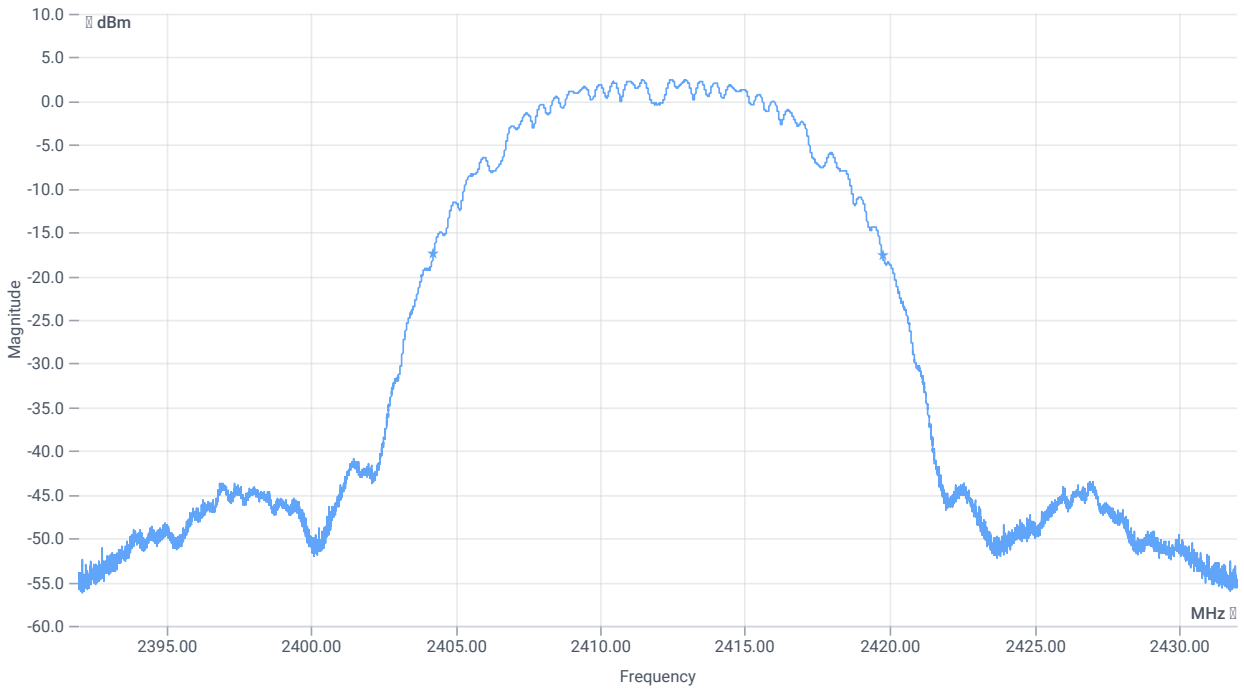

*BW 99PCT*



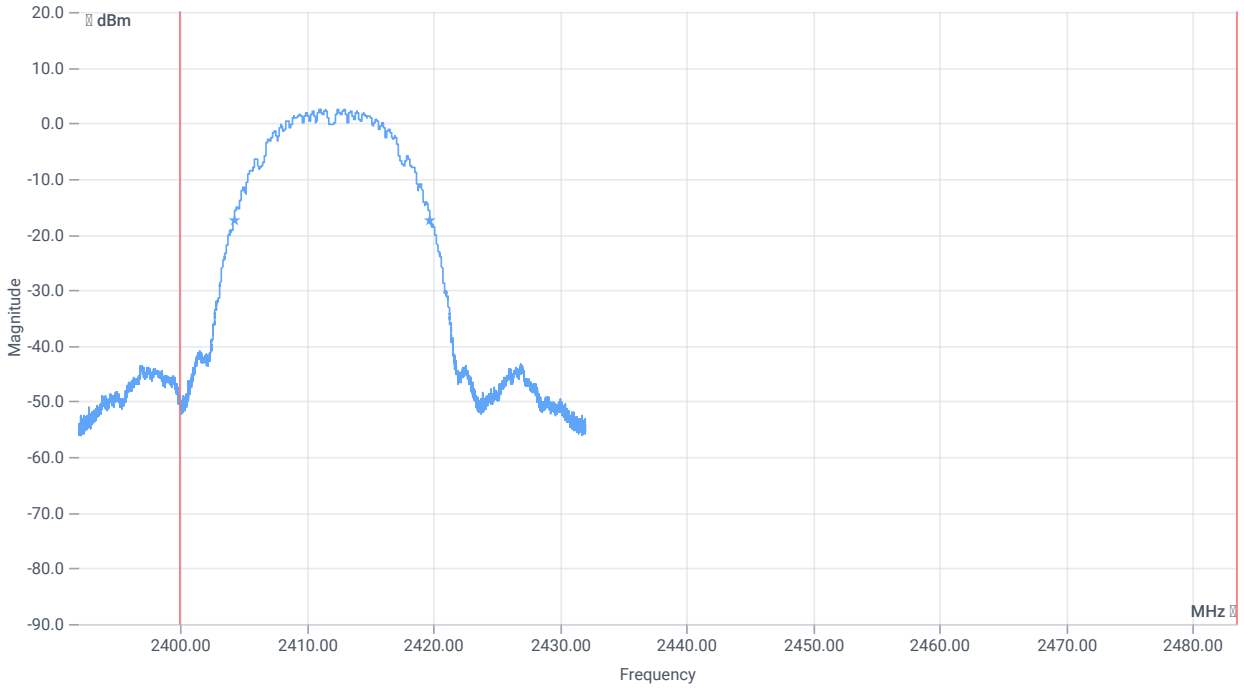

*BW within Band 99PCT*

## RESULT

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Bandwidth 99% | --- | --- | 13383.000 | kHz | INFO |
| T1 99% | 2400.000000 | --- | 2405.3287 | MHz | PASS |
| T2 99% | --- | 2483.500000 | 2418.7113 | MHz | PASS |



*BW 20dB*




*BW within band 20dB*

## RESULT

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Bandwidth 20dB | --- | --- | 15504 | kHz | INFO |
| T1 20dB | 2400.000000 | --- | 2404.2400 | MHz | PASS |
| T2 20dB | --- | 2483.500000 | 2419.7440 | MHz | PASS |

| Verdict |
|---|
| PASS |

# FCC 15.247 # Peak psd DTS ~ WLAN2G4 b mode

## References

| | |
|---|---|
| TC start | 10.07.2024 10:10:17 |
| Ambit temp [°C] \| humidity [rel%] | 24.9 \| 55 |
| System version | 5.0.7.0 |
| Standard \| Version | FCC 15.247 \| NI |
| Method | DTS: KDB 558074 D01 V05 - Chapter 8.4 DTS maximum power spectral density level in the fundamental emission |
| Description | FCC 15.247 Peak psd DTS - WLAN2G4 b mode |
| Information | |

## EUT Common Settings WLAN2G4

| | |
|---|---|
| Number of antenna ports | 1 |
| User interaction | No |

## Equipment

| |
|---|
| Signal analyzer,Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.70 |
| Switch matrix,cetecom advanced GmbH,USM,B002,1.0.0 |

## Test Parameter

| | |
|---|---|
| Technology to test | WLAN2G4 b mode |
| EUT port | EUT1 |
| Temperature | nom |
| Voltage | nom |
| Frequency low to test | True \| Freq [MHz] 2412 |
| Frequency mid to test | False \| Freq [MHz] 2437 |
| Frequency high to test | False \| Freq [MHz] 2462 |
| Auto control enabled power supply \| Climatic Box | No \| No |
| Additional path loss [dB] | 0.5 |
| Full path type | EUT_SA_GEN_SIG |
| Full path name | EUT1.MP.SIG1/EUT1.SA/EUT1.GEN1/EUT1.GEN2/ |
| Switch bits | 00010001:00010001:00000000:00000001 |

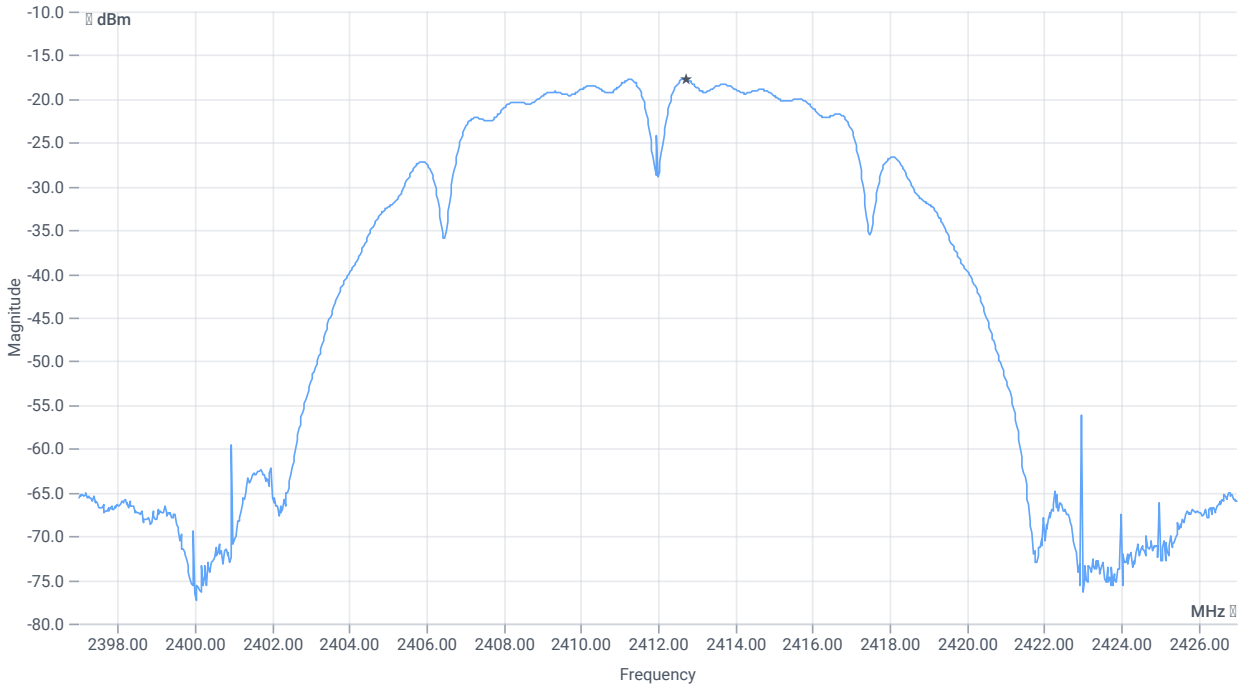
## Test at TX 2412 MHz

### RESULT: Reference power cond.

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Ref. power 1MHz/1MHz cond. | --- | --- | 5.74 | dBm | INFO |
| Ref. frequency | --- | --- | 2413.300 | MHz | INFO |

### READ SA SETTINGS:

| | |
|---|---|
| RefLevel [dBm] \| RefLevelOffset [dB] \| InpAtt [dB] | 10.74 \| 10.98 \| 15 |
| Start [MHz] \| Stop [MHz] | 2397.000 \| 2427.000 |
| RBW [MHz] \| VBW [MHz] | 0.003000 \| 0.010000 |
| Detector \| TraceMode | POS \| MAXH |
| Sweep: time [ms] \| count \| points per Section \| type | 1000 \| 20 \| 1001 \| SWE |




*Peak psd*

### RESULT

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Peak psd | --- | 8 | -17.77 | dBm/3KHz | PASS |

| Verdict |
|---|
| PASS |

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

## References

| | |
|---|---|
| TC start | 10.07.2024 10:09:43 |
| Ambit temp [°C] \| humidity [rel%] | 24.9 \| 56 |
| System version | 5.0.7.0 |
| Standard \| Version | FCC 15.247 \| NI |
| Method | |
| Description | FCC 15.247 Bandwidth 6dB DTS - WLAN2G4 b mode |
| Information | |

## EUT Common Settings WLAN2G4

| | |
|---|---|
| Number of antenna ports | 1 |
| User interaction | No |

## Equipment

| |
|---|
| Signal analyzer,Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.70 |
| Switch matrix,cetecom advanced GmbH,USM,B002,1.0.0 |

## Test Parameter

| | |
|---|---|
| Technology to test | WLAN2G4 b mode |
| EUT port | EUT1 |
| Temperature | nom |
| Voltage | nom |
| Frequency low to test | True \| Freq [MHz] 2412 |
| Frequency mid to test | False \| Freq [MHz] 2437 |
| Frequency high to test | False \| Freq [MHz] 2462 |
| Auto control enabled power supply \| Climatic Box | No \| No |
| Additional path loss [dB] | 0.5 |
| Full path type | EUT_SA_GEN_SIG |
| Full path name | EUT1.MP.SIG1/EUT1.SA/EUT1.GEN1/EUT1.GEN2/ |
| Switch bits | 00010001:00010001:00000000:00000001 |

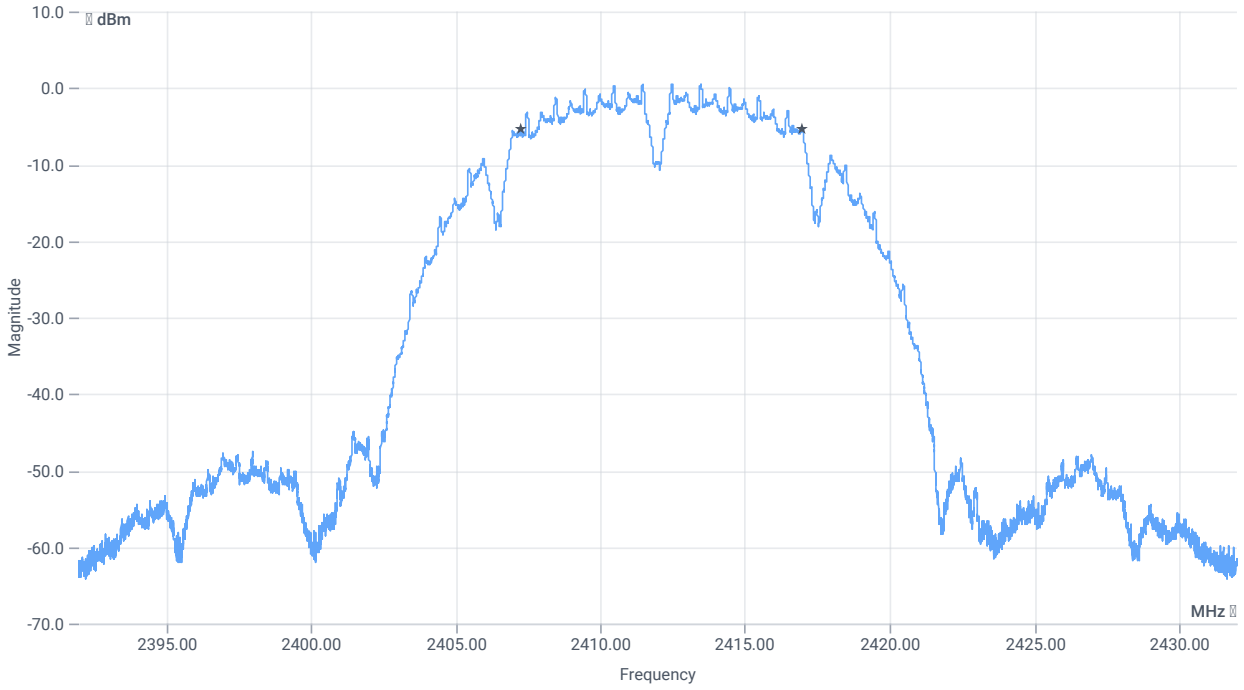
## Test at TX 2412 MHz

### RESULT: Reference power cond.

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Ref. power 1MHz/1MHz cond. | --- | --- | 5.84 | dBm | INFO |
| Ref. frequency | --- | --- | 2413.300 | MHz | INFO |

### READ SA SETTINGS:

| | |
|---|---|
| RefLevel [dBm] \| RefLevelOffset [dB] \| InpAtt [dB] | 10.84 \| 10.98 \| 15 |
| Start [MHz] \| Stop [MHz] | 2392.000 \| 2432.000 |
| RBW [MHz] \| VBW [MHz] | 0.100000 \| 0.300000 |
| Detector \| TraceMode | POS \| MAXH |
| Sweep: time [ms] \| count \| points per Section \| type | 50 \| 200 \| 10001 \| SWE |




*BW 6dB*

### RESULT

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| DTS bandwidth (6dB) | 500 | --- | 9712 | kHz | PASS |

| Verdict |
|---|
| PASS |

# NA # Peak output power 3MHz/3MHz ~ WLAN2G4 b mode

## References

| | |
|---|---|
| TC start | 10.07.2024 10:09:12 |
| Ambit temp [°C] \| humidity [rel%] | 24.9 \| 55 |
| System version | 5.0.7.0 |
| Standard \| Version | NA \| NI |
| Method | |
| Description | Peak OP 3MHz/3MHz WLAN2G4 b mode |
| Information | |

## EUT Common Settings WLAN2G4

| | |
|---|---|
| Number of antenna ports | 1 |
| User interaction | No |

## Equipment

| |
|---|
| Signal analyzer,Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.70 |
| Switch matrix,cetecom advanced GmbH,USM,B002,1.0.0 |

## Test Parameter

| | |
|---|---|
| Technology to test | WLAN2G4 b mode |
| EUT port | EUT1 |
| Temperature | nom |
| Voltage | nom |
| Frequency low to test | True \| Freq [MHz] 2412 |
| Frequency mid to test | False \| Freq [MHz] 2437 |
| Frequency high to test | False \| Freq [MHz] 2462 |
| Auto control enabled power supply \| Climatic Box | No \| No |
| Additional path loss [dB] | 0.5 |
| Full path type | EUT_SA_GEN_SIG |
| Full path name | EUT1.MP.SIG1/EUT1.SA/EUT1.GEN1/EUT1.GEN2/ |
| Switch bits | 00010001:00010001:00000000:00000001 |

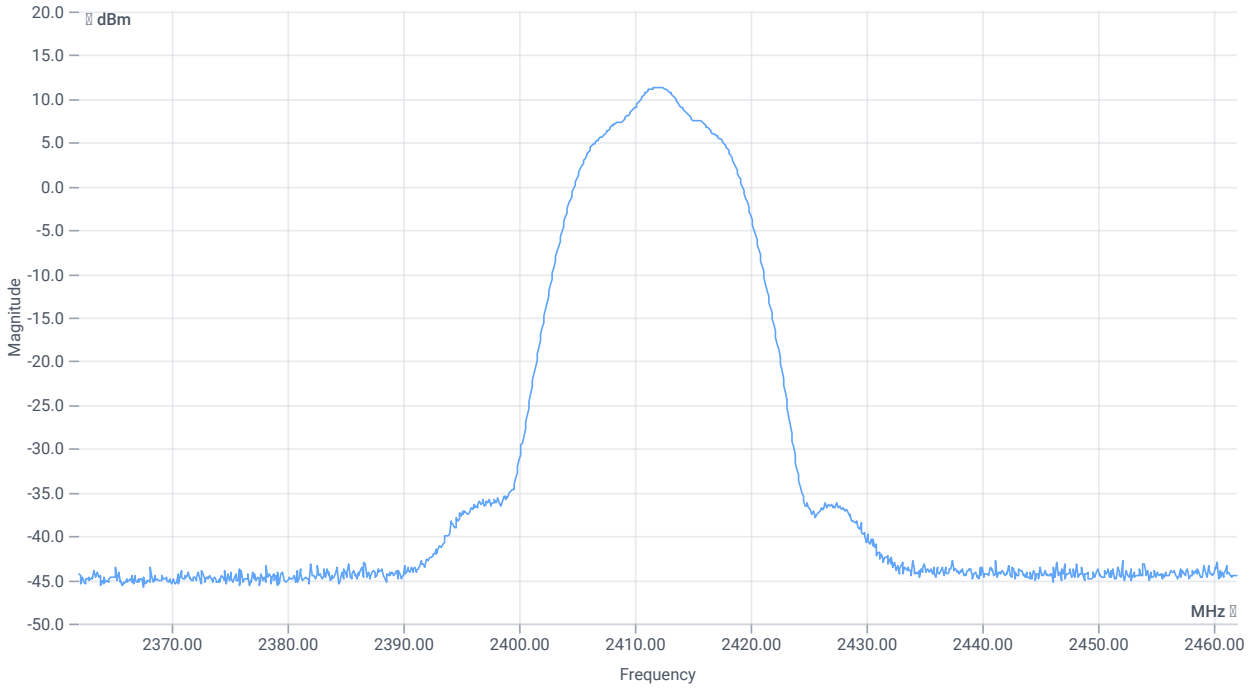
## Test at TX 2412 MHz

RESULT: Reference power cond.

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Ref. power 1MHz/1MHz cond. | --- | --- | 5.95 | dBm | INFO |
| Ref. frequency | --- | --- | 2413.300 | MHz | INFO |

READ SA SETTINGS:

| | |
|---|---|
| RefLevel [dBm] \| RefLevelOffset [dB] \| InpAtt [dB] | 15.95 \| 10.98 \| 20 |
| Start [MHz] \| Stop [MHz] | 2362.000 \| 2462.000 |
| RBW [MHz] \| VBW [MHz] | 3.000000 \| 3.000000 |
| Detector \| TraceMode | POS \| MAXH |
| Sweep: time [ms] \| count \| points per Section \| type | 1000 \| 10 \| 1001 \| SWE |




*Peak output power*

RESULT

| DESCRIPTION | LOWER LIMIT | UPPER LIMIT | MEASURED | UNIT | VERDICT |
|---|---|---|---|---|---|
| Peak power | --- | --- | 11.25 | dBm | INFO |
| Peak power | --- | --- | 13.335214 | mW | INFO |
| Frequency at peak | --- | --- | 2412.2 | MHz | INFO |

| Verdict |
| --- |
| PASS |

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