

Measurement Results

No.1-3977/22-03-03_Annex_MR_A4

Test logging

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Document authorized:

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FCC 15.247 # TX spurious conducted 30dBc ~ WLAN2G4 n-HT40 mode

Test References

| | |
|-----------------------------------|--|
| TC Start | 06.12.2022 15:30:45 |
| Ambit Temp [°C] Humidity [rel%] | 21.8 31 |
| System Version | 3.3.3.0 |
| Test Specification | FCC 15.247 - |
| Test Method | IF DTS then 8.5 DTS emissions in non-restricted frequency bands: Subclause 11.11 of ANSI C63.10 is applicable |
| TC Version | 0.0.1 |
| My Description | FCC 15.247 TX Emissions Conducted 30dBc DTS DTS - WLAN2G4 n-HT40 mode |

Add. Information

EUT Common Settings WLAN2G4

| | |
|-------------------------|----|
| Number of Antenna Ports | 4 |
| User Interaction | No |

Test Parameter

| | |
|--|--|
| Technology to test | WLAN2G4 n-HT40 mode |
| Antenna Port used | 4 |
| 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] | -10 |
| Switched Path | EUT - SignalingUnit - SpectrumAnalyzer |

Test Equipment

Signal analyzer,Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.70
Switch matrix,CTCadvanced,SPM-4 NI DAQ,28016133,NI

Test at TX 2452 MHz

RESULT: Reference Power cond.

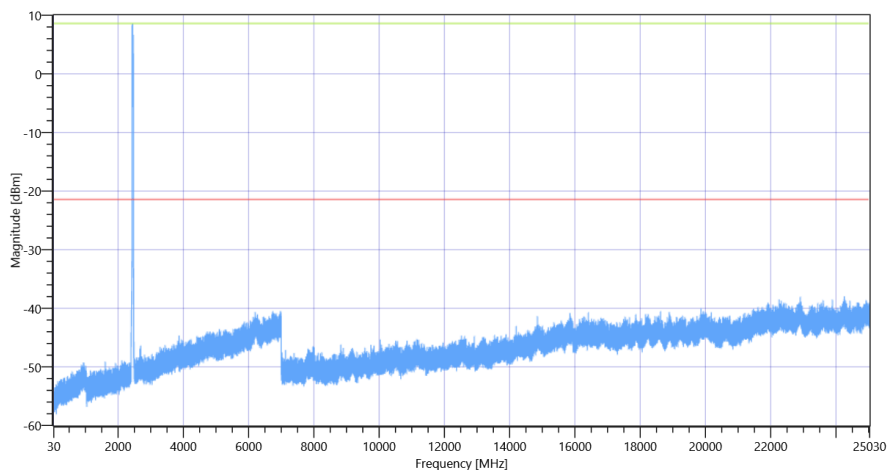
| Test Description | Lower Limit | Upper Limit | Measured | Unit | Verdict |
|-------------------------------|-------------|-------------|----------|------|---------|
| Ref. Power 1MHz/1MHz cond. | --- | --- | 17.30 | dBm | INFO |
| Ref. Frequency | --- | --- | 2448.500 | MHz | INFO |

READ SA SETTINGS:

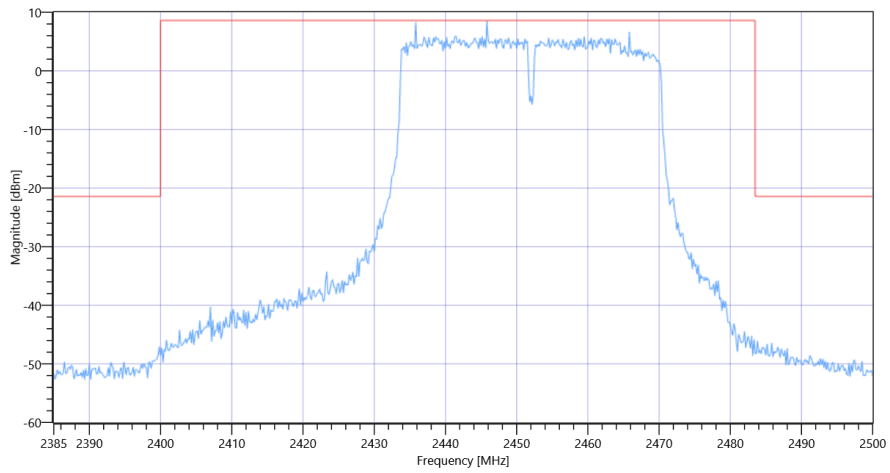
| | |
|--|-----------------------|
| RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB] | 17.30 0 35 |
| Start [MHz] Stop [MHz] | 24530.000 25030.000 |
| RBW [MHz] VBW [MHz] | 0.100000 0.300000 |
| Detector TraceMode | POS MAXH |
| Sweep: Time [ms] Count Points per Section Type | 200 25 3001 SWE |

RESULT

| Test Description | Lower Limit | Upper Limit | Measured | Unit | Verdict |
|----------------------------------|-------------|-------------|----------|------|---------|
| Reference @ 2445.83 MHz | --- | --- | 8.58 | dBm | INFO |
| No peaks detected | --- | --- | | | PASS |
| Lowest margin to limit 24258 MHz | 0 | --- | 16.52 | dB | INFO |



FCC 15.247 # TX spurious conducted 30dBc ~ WLAN2G4 n-HT40 mode 2452



FCC 15.247 # TX spurious conducted 30dBc ~ WLAN2G4 n-HT40 mode 2452

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

Test References

| | |
|-----------------------------------|---|
| TC Start | 06.12.2022 15:29:44 |
| Ambit Temp [°C] Humidity [rel%] | 21.8 32 |
| System Version | 3.3.3.0 |
| Test Specification | FCC 15.247, ISED RSS247 - |
| Test Method | |
| TC Version | 0.0.2 |
| My Description | FCC 15.247 Bandwidth 99PCT-20dB DTS - WLAN2G4 n-HT40 mode |
| Add. Information | |

EUT Common Settings WLAN2G4

| | |
|-------------------------|----|
| Number of Antenna Ports | 4 |
| User Interaction | No |

Test Parameter

| | |
|--|--|
| Technology to test | WLAN2G4 n-HT40 mode |
| Antenna Port used | 4 |
| 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] | -10 |
| Switched Path | EUT - SignalingUnit - SpectrumAnalyzer |

Test Equipment

| |
|---|
| Signal analyzer,Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.70 |
| Switch matrix,CTCadvanced,SPM-4 NI DAQ,28016133,NI |

Test at TX 2452 MHz

RESULT: Reference Power cond.

| Test Description | Lower Limit | Upper Limit | Measured | Unit | Verdict |
|-------------------------------|-------------|-------------|----------|------|---------|
| Ref. Power 1MHz/1MHz cond. | --- | --- | 17.69 | dBm | INFO |
| Ref. Frequency | --- | --- | 2459.090 | MHz | INFO |

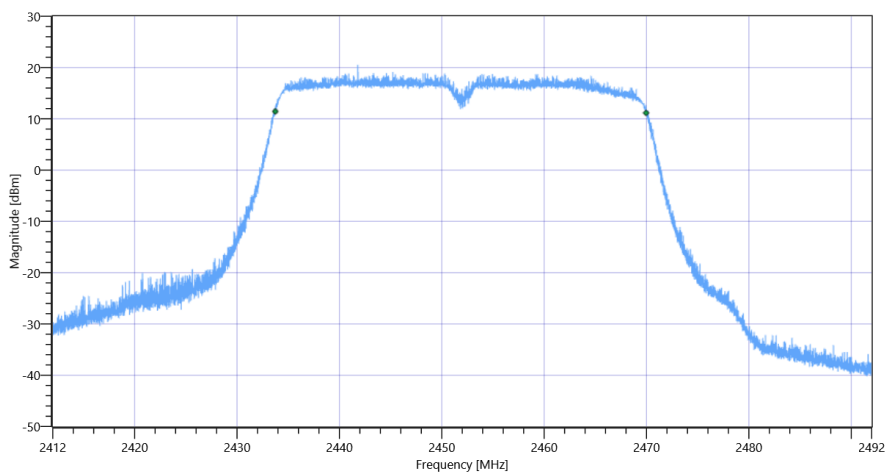
READ SA SETTINGS:

| | |
|--|------------------------|
| RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB] | 22.69 4.86 35 |
| 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 |

RESULT

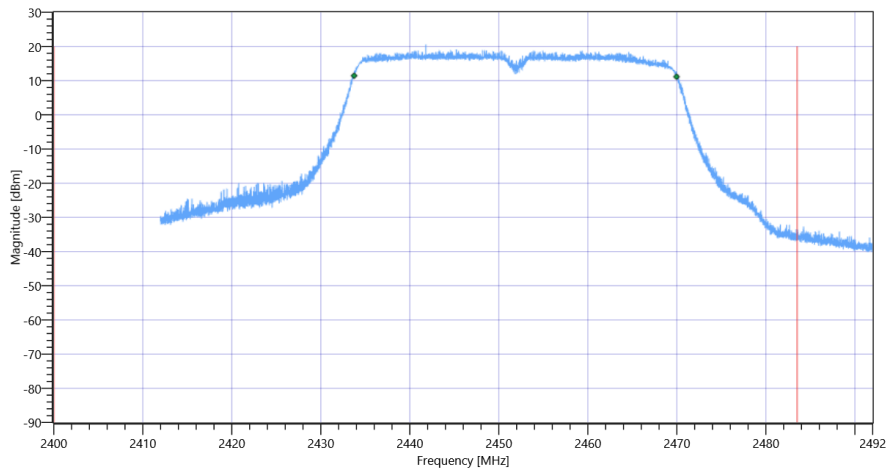
| Test Description | Lower Limit | Upper Limit | Measured | Unit | Verdict |
|------------------|-------------|-------------|-----------|------|---------|
| Bandwidth 99% | --- | --- | 36220.000 | kHz | INFO |
| T1 99% | 2400.000000 | --- | 2433.7378 | MHz | PASS |
| T2 99% | --- | 2483.500000 | 2469.9582 | MHz | PASS |

Plot: Bandwidth only



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

Plot: Bandwidth within Band

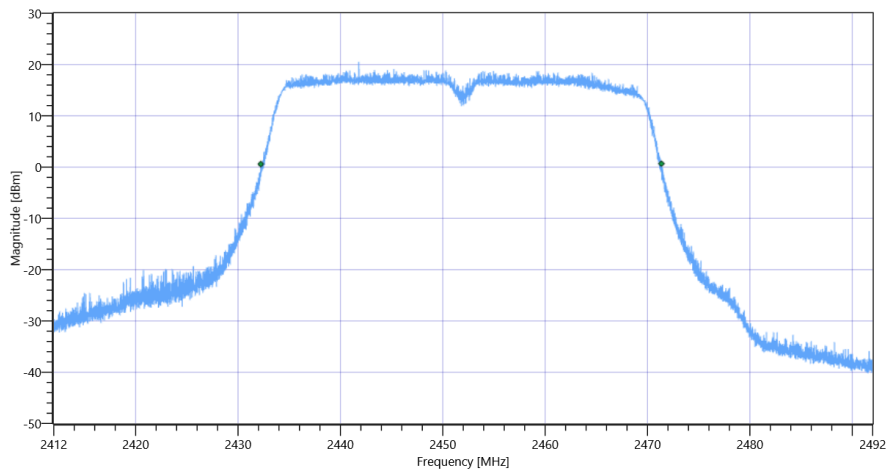


FCC 15.247, ISED RSS247 # Bandwidth 99PCT and 20dB ~ WLAN2G4 n-HT40 mode

RESULT

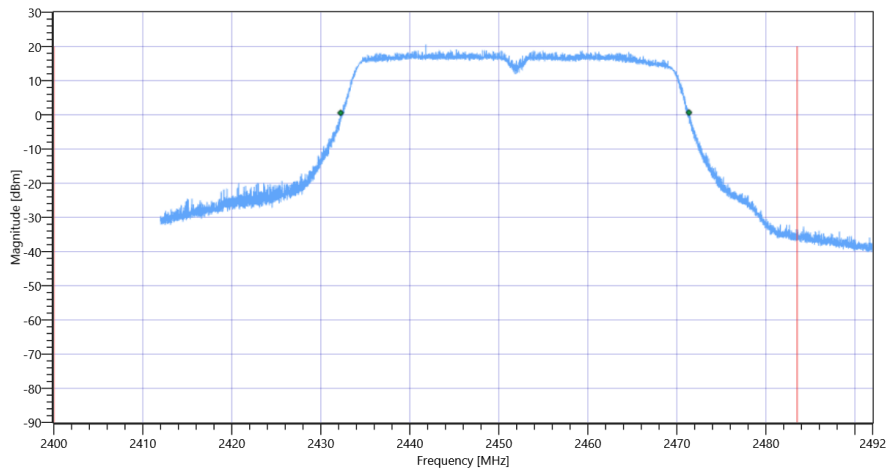
| Test Description | Lower Limit | Upper Limit | Measured | Unit | Verdict |
|------------------|-------------|-------------|-----------|------|---------|
| Bandwidth 20dB | --- | --- | 39136 | kHz | INFO |
| T1 20dB | 2400.000000 | --- | 2432.2240 | MHz | PASS |
| T2 20dB | --- | 2483.500000 | 2471.3600 | MHz | PASS |

Plot: Bandwidth only



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

Plot: Bandwidth within Band



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

FCC 15.247 # Avg power spectral density DTS ~ WLAN2G4 n-HT40 mode

Test References

| | |
|-----------------------------------|---|
| TC Start | 06.12.2022 15:27:55 |
| Ambit Temp [°C] Humidity [rel%] | 21.7 32 |
| System Version | 3.3.3.0 |
| Test Specification | FCC 15.247 - |
| Test Method | ANSI C63.10-2013 Chapter 11.10.5 or.3 |
| TC Version | 0.0.1 |
| My Description | FCC 15.247 Avg Power Spectral Density DTS - WLAN2G4 n-HT40 mode |
| Add. Information | |

EUT Common Settings WLAN2G4

| | |
|-------------------------|----|
| Number of Antenna Ports | 4 |
| User Interaction | No |

Test Parameter

| | |
|--|--|
| Technology to test | WLAN2G4 n-HT40 mode |
| Antenna Port used | 4 |
| 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] | -10 |
| Switched Path | EUT - SignalingUnit - SpectrumAnalyzer |

Test Equipment

| |
|---|
| Signal analyzer,Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.70 |
| Switch matrix,CTCadvanced,SPM-4 NI DAQ,28016133,NI |

Test at TX 2452 MHz

RESULT: Reference Power cond.

| Test Description | Lower Limit | Upper Limit | Measured | Unit | Verdict |
|-------------------------------|-------------|-------------|----------|------|---------|
| Ref. Power 1MHz/1MHz cond. | -- | -- | 17.31 | dBm | INFO |
| Ref. Frequency | -- | -- | 2462.690 | MHz | INFO |

Evaluation max. Duty Cycle

Duty Cycle evaluation

| Test Description | Lower Limit | Upper Limit | Measured | Unit | Verdict |
|------------------|-------------|-------------|----------|------|------------------|
| Duty Cycle min | -- | -- | 0 | dB | DC > 98% defined |

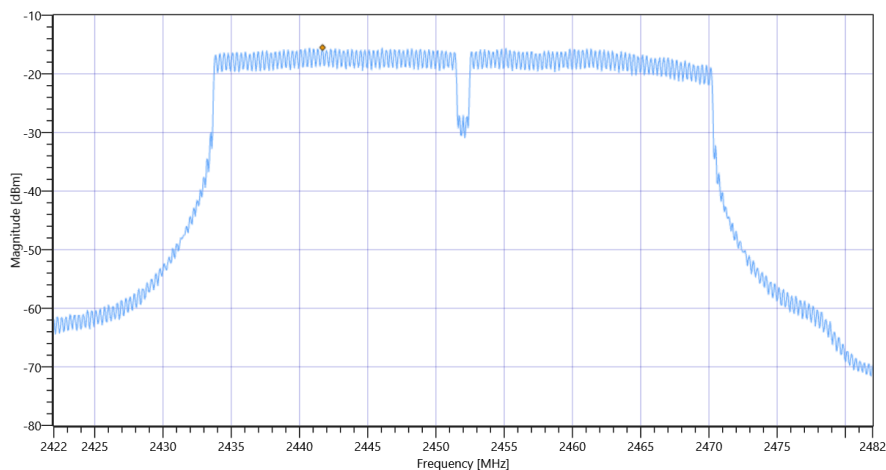
Avg. PSD

READ SA SETTINGS:

| | |
|--|------------------------|
| RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB] | 22.31 4.86 35 |
| Start [MHz] Stop [MHz] | 2422.000 2482.000 |
| RBW [MHz] VBW [MHz] | 0.003000 0.010000 |
| Detector TraceMode | RMS AVER |
| Sweep: Time [ms] Count Points per Section Type | 667 100 1001 SWE |

RESULT

| Test Description | Lower Limit | Upper Limit | Measured | Unit | Verdict |
|-----------------------|-------------|-------------|----------|----------|---------|
| Avg PSD uncorrected | -- | -- | -15.51 | dBm | INFO |
| Duty cycle correction | -- | -- | 0 | dB | INFO |
| Avg PSD DC corrected | -- | 8 | -15.51 | dBm/3kHz | PASS |



FCC 15.247 # Avg power spectral density DTS ~ WLAN2G4 n-HT40 mode

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

Test References

| | |
|-----------------------------------|---|
| TC Start | 06.12.2022 15:27:17 |
| Ambit Temp [°C] Humidity [rel%] | 21.7 32 |
| System Version | 3.3.3.0 |
| Test Specification | FCC 15.247 - |
| Test Method | |
| TC Version | 0.0.1 |
| My Description | FCC 15.247 Bandwidth 6dB DTS - WLAN2G4 nHT40_mode |
| Add. Information | |

EUT Common Settings WLAN2G4

| | |
|-------------------------|----|
| Number of Antenna Ports | 4 |
| User Interaction | No |

Test Parameter

| | |
|--|--|
| Technology to test | WLAN2G4 n-HT40 mode |
| Antenna Port used | 4 |
| 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] | -10 |
| Switched Path | EUT - SignalingUnit - SpectrumAnalyzer |

Test Equipment

| |
|---|
| Signal analyzer,Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.70 |
| Switch matrix,CTCadvanced,SPM-4 NI DAQ,28016133,NI |

Test at TX 2452 MHz

RESULT: Reference Power cond.

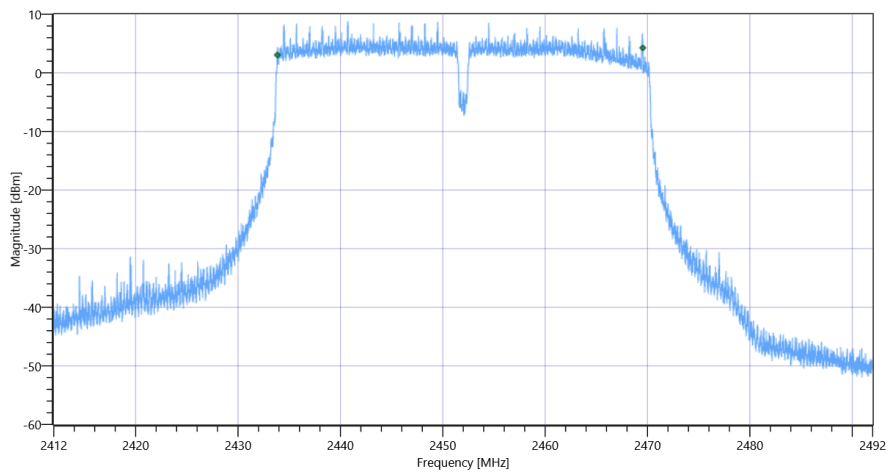
| Test Description | Lower Limit | Upper Limit | Measured | Unit | Verdict |
|-------------------------------|-------------|-------------|----------|------|---------|
| Ref. Power 1MHz/1MHz cond. | --- | --- | 16.81 | dBm | INFO |
| Ref. Frequency | --- | --- | 2445.210 | MHz | INFO |

READ SA SETTINGS:

| | |
|--|------------------------|
| RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB] | 21.81 4.86 35 |
| 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 |

RESULT

| Test Description | Lower Limit | Upper Limit | Measured | Unit | Verdict |
|---------------------|-------------|-------------|----------|------|---------|
| DTS Bandwidth (6dB) | 500 | --- | 35712 | kHz | PASS |



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

FCC 15.247 # TX spurious conducted 30dBc ~ WLAN2G4 n-HT40 mode

Test References

| | |
|-----------------------------------|--|
| TC Start | 06.12.2022 15:17:00 |
| Ambit Temp [°C] Humidity [rel%] | 21.3 32 |
| System Version | 3.3.3.0 |
| Test Specification | FCC 15.247 - |
| Test Method | IF DTS then 8.5 DTS emissions in non-restricted frequency bands: Subclause 11.11 of ANSI C63.10 is applicable |
| TC Version | 0.0.1 |
| My Description | FCC 15.247 TX Emissions Conducted 30dBc DTS DTS - WLAN2G4 n-HT40 mode |

Add. Information

EUT Common Settings WLAN2G4

| | |
|-------------------------|----|
| Number of Antenna Ports | 4 |
| User Interaction | No |

Test Parameter

| | |
|--|--|
| Technology to test | WLAN2G4 n-HT40 mode |
| Antenna Port used | 3 |
| 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] | -10 |
| Switched Path | EUT - SignalingUnit - SpectrumAnalyzer |

Test Equipment

Signal analyzer,Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.70
Switch matrix,CTCadvanced,SPM-4 NI DAQ,28016133,NI

Test at TX 2452 MHz

RESULT: Reference Power cond.

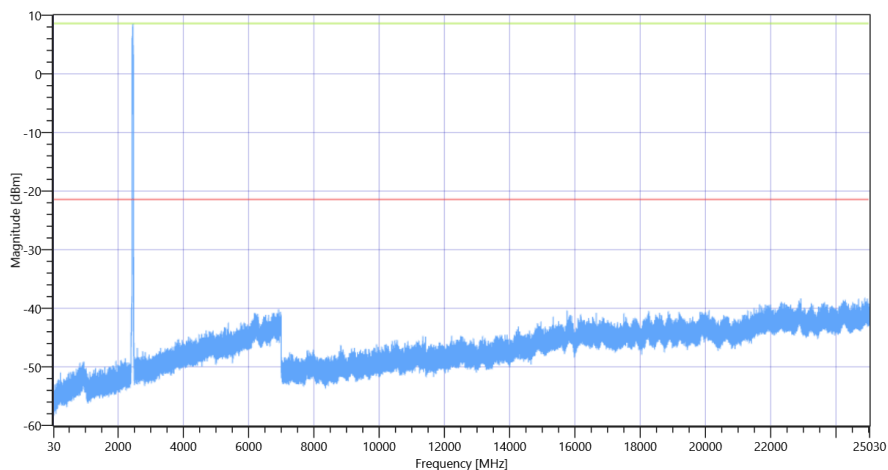
| Test Description | Lower Limit | Upper Limit | Measured | Unit | Verdict |
|-------------------------------|-------------|-------------|----------|------|---------|
| Ref. Power 1MHz/1MHz cond. | --- | --- | 16.58 | dBm | INFO |
| Ref. Frequency | --- | --- | 2444.910 | MHz | INFO |

READ SA SETTINGS:

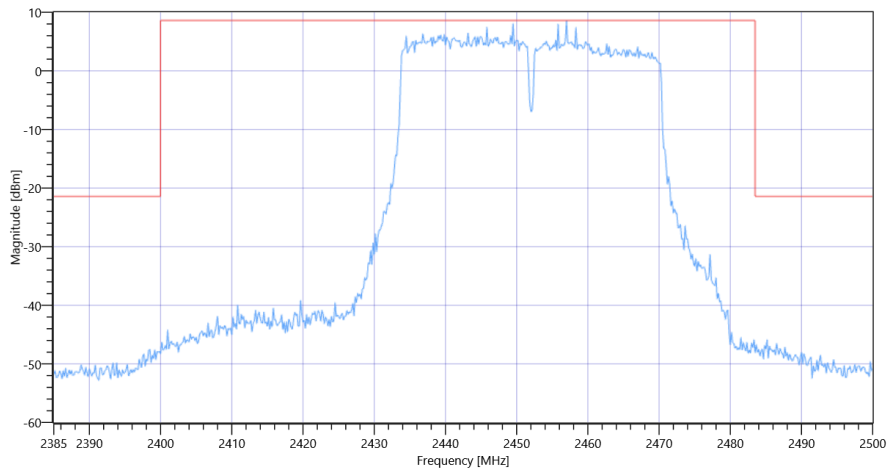
| | |
|--|-----------------------|
| RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB] | 16.58 0 35 |
| Start [MHz] Stop [MHz] | 24530.000 25030.000 |
| RBW [MHz] VBW [MHz] | 0.100000 0.300000 |
| Detector TraceMode | POS MAXH |
| Sweep: Time [ms] Count Points per Section Type | 200 25 3001 SWE |

RESULT

| Test Description | Lower Limit | Upper Limit | Measured | Unit | Verdict |
|-------------------------------|-------------|-------------|----------|------|---------|
| Reference @ 2457.00 MHz | --- | --- | 8.57 | dBm | INFO |
| No peaks detected | --- | --- | | | PASS |
| Lowest margin to limit 30 MHz | 0 | --- | -144.2 | dB | INFO |



FCC 15.247 # TX spurious conducted 30dBc ~ WLAN2G4 n-HT40 mode 2452



FCC 15.247 # TX spurious conducted 30dBc ~ WLAN2G4 n-HT40 mode 2452

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

Test References

| | |
|-----------------------------------|---|
| TC Start | 06.12.2022 15:15:58 |
| Ambit Temp [°C] Humidity [rel%] | 21.3 32 |
| System Version | 3.3.3.0 |
| Test Specification | FCC 15.247, ISED RSS247 - |
| Test Method | |
| TC Version | 0.0.2 |
| My Description | FCC 15.247 Bandwidth 99PCT-20dB DTS - WLAN2G4 n-HT40 mode |
| Add. Information | |

EUT Common Settings WLAN2G4

| | |
|-------------------------|----|
| Number of Antenna Ports | 4 |
| User Interaction | No |

Test Parameter

| | |
|--|--|
| Technology to test | WLAN2G4 n-HT40 mode |
| Antenna Port used | 3 |
| 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] | -10 |
| Switched Path | EUT - SignalingUnit - SpectrumAnalyzer |

Test Equipment

| |
|---|
| Signal analyzer,Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.70 |
| Switch matrix,CTCadvanced,SPM-4 NI DAQ,28016133,NI |

Test at TX 2452 MHz

RESULT: Reference Power cond.

| Test Description | Lower Limit | Upper Limit | Measured | Unit | Verdict |
|-------------------------------|-------------|-------------|----------|------|---------|
| Ref. Power 1MHz/1MHz cond. | --- | --- | 16.91 | dBm | INFO |
| Ref. Frequency | --- | --- | 2446.810 | MHz | INFO |

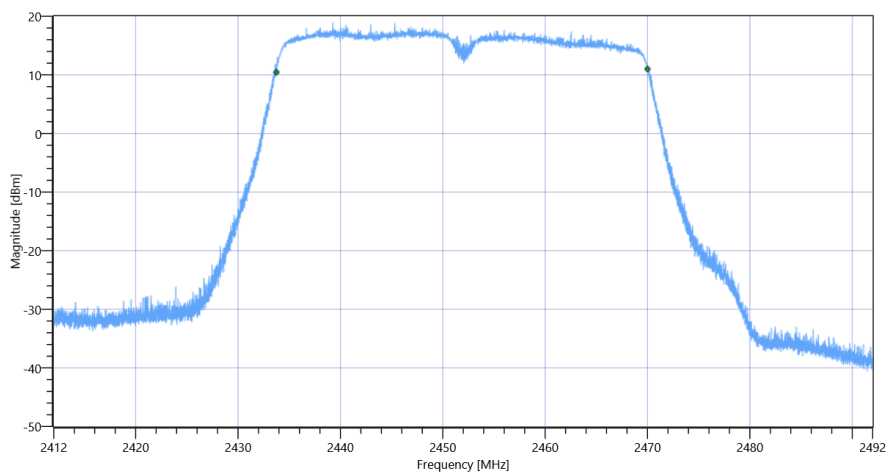
READ SA SETTINGS:

| | |
|--|------------------------|
| RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB] | 21.91 4.86 35 |
| 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 |

RESULT

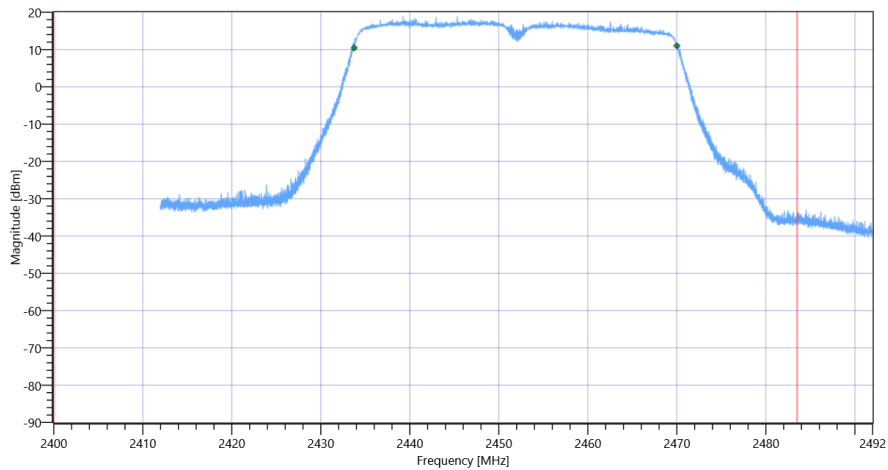
| Test Description | Lower Limit | Upper Limit | Measured | Unit | Verdict |
|------------------|-------------|-------------|-----------|------|---------|
| Bandwidth 99% | --- | --- | 36252.000 | kHz | INFO |
| T1 99% | 2400.000000 | --- | 2433.7458 | MHz | PASS |
| T2 99% | --- | 2483.500000 | 2469.9982 | MHz | PASS |

Plot: Bandwidth only



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

Plot: Bandwidth within Band

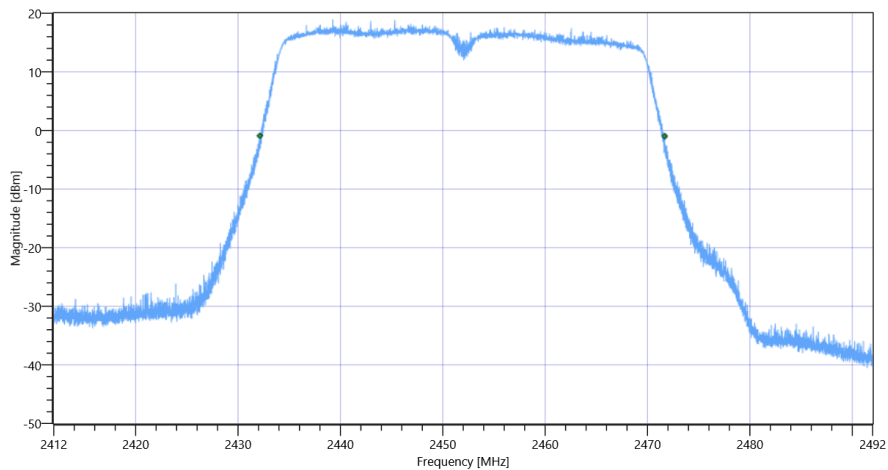


FCC 15.247, ISED RSS247 # Bandwidth 99PCT and 20dB ~ WLAN2G4 n-HT40 mode

RESULT

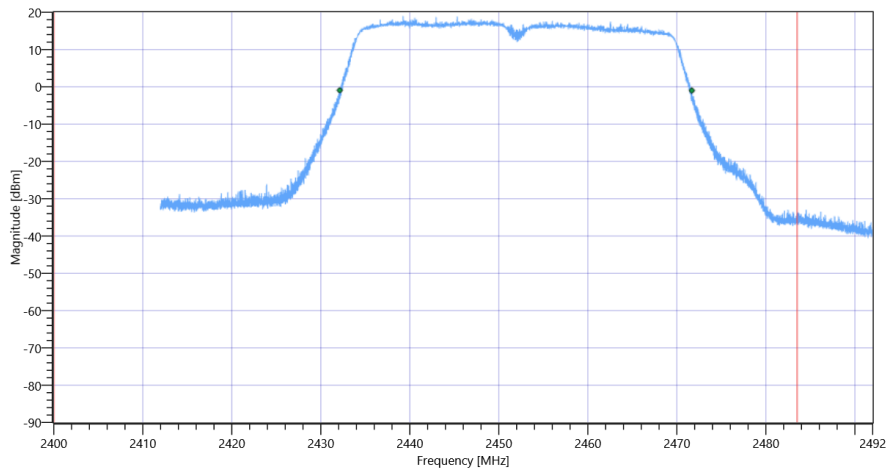
| Test Description | Lower Limit | Upper Limit | Measured | Unit | Verdict |
|------------------|-------------|-------------|-----------|------|---------|
| Bandwidth 20dB | --- | --- | 39552 | kHz | INFO |
| T1 20dB | 2400.000000 | --- | 2432.1280 | MHz | PASS |
| T2 20dB | --- | 2483.500000 | 2471.6800 | MHz | PASS |

Plot: Bandwidth only



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

Plot: Bandwidth within Band



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

FCC 15.247 # Avg power spectral density DTS ~ WLAN2G4 n-HT40 mode

Test References

| | |
|-----------------------------------|---|
| TC Start | 06.12.2022 15:14:09 |
| Ambit Temp [°C] Humidity [rel%] | 21.3 32 |
| System Version | 3.3.3.0 |
| Test Specification | FCC 15.247 - |
| Test Method | ANSI C63.10-2013 Chapter 11.10.5 or.3 |
| TC Version | 0.0.1 |
| My Description | FCC 15.247 Avg Power Spectral Density DTS - WLAN2G4 n-HT40 mode |
| Add. Information | |

EUT Common Settings WLAN2G4

| | |
|-------------------------|----|
| Number of Antenna Ports | 4 |
| User Interaction | No |

Test Parameter

| | |
|--|--|
| Technology to test | WLAN2G4 n-HT40 mode |
| Antenna Port used | 3 |
| 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] | -10 |
| Switched Path | EUT - SignalingUnit - SpectrumAnalyzer |

Test Equipment

| |
|---|
| Signal analyzer,Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.70 |
| Switch matrix,CTCadvanced,SPM-4 NI DAQ,28016133,NI |

Test at TX 2452 MHz

RESULT: Reference Power cond.

| Test Description | Lower Limit | Upper Limit | Measured | Unit | Verdict |
|-------------------------------|-------------|-------------|----------|------|---------|
| Ref. Power 1MHz/1MHz cond. | -- | -- | 16.76 | dBm | INFO |
| Ref. Frequency | -- | -- | 2447.100 | MHz | INFO |

Evaluation max. Duty Cycle

Duty Cycle evaluation

| Test Description | Lower Limit | Upper Limit | Measured | Unit | Verdict |
|------------------|-------------|-------------|----------|------|------------------|
| Duty Cycle min | -- | -- | 0 | dB | DC > 98% defined |

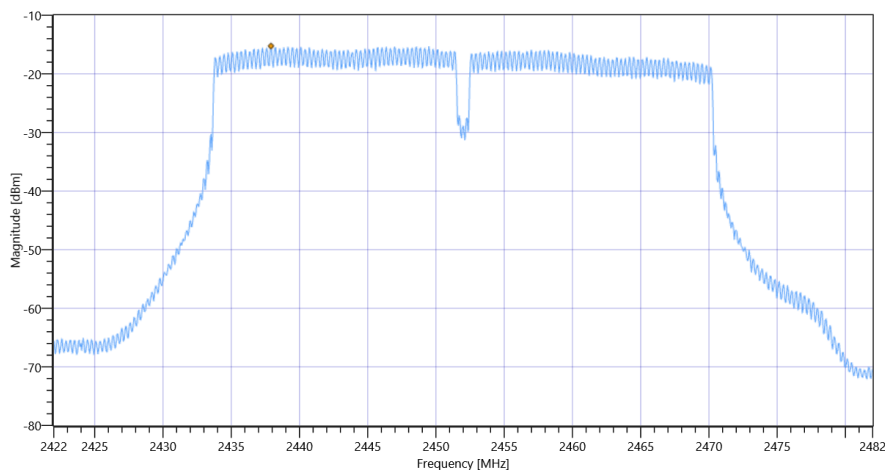
Avg. PSD

READ SA SETTINGS:

| | |
|--|------------------------|
| RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB] | 21.76 4.86 35 |
| Start [MHz] Stop [MHz] | 2422.000 2482.000 |
| RBW [MHz] VBW [MHz] | 0.003000 0.010000 |
| Detector TraceMode | RMS AVER |
| Sweep: Time [ms] Count Points per Section Type | 667 100 1001 SWE |

RESULT

| Test Description | Lower Limit | Upper Limit | Measured | Unit | Verdict |
|-----------------------|-------------|-------------|----------|----------|---------|
| Avg PSD uncorrected | -- | -- | -15.25 | dBm | INFO |
| Duty cycle correction | -- | -- | 0 | dB | INFO |
| Avg PSD DC corrected | -- | 8 | -15.25 | dBm/3kHz | PASS |



FCC 15.247 # Avg power spectral density DTS ~ WLAN2G4 n-HT40 mode

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

Test References

| | |
|-----------------------------------|---|
| TC Start | 06.12.2022 15:13:31 |
| Ambit Temp [°C] Humidity [rel%] | 21.3 32 |
| System Version | 3.3.3.0 |
| Test Specification | FCC 15.247 - |
| Test Method | |
| TC Version | 0.0.1 |
| My Description | FCC 15.247 Bandwidth 6dB DTS - WLAN2G4 nHT40_mode |
| Add. Information | |

EUT Common Settings WLAN2G4

| | |
|-------------------------|----|
| Number of Antenna Ports | 4 |
| User Interaction | No |

Test Parameter

| | |
|--|--|
| Technology to test | WLAN2G4 n-HT40 mode |
| Antenna Port used | 3 |
| 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] | -10 |
| Switched Path | EUT - SignalingUnit - SpectrumAnalyzer |

Test Equipment

| |
|---|
| Signal analyzer,Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.70 |
| Switch matrix,CTCadvanced,SPM-4 NI DAQ,28016133,NI |

Test at TX 2452 MHz

RESULT: Reference Power cond.

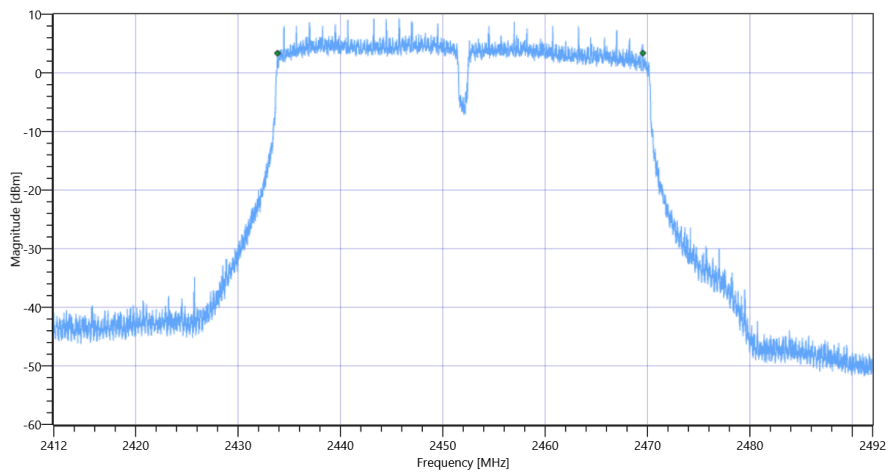
| Test Description | Lower Limit | Upper Limit | Measured | Unit | Verdict |
|-------------------------------|-------------|-------------|----------|------|---------|
| Ref. Power 1MHz/1MHz cond. | --- | --- | 17.73 | dBm | INFO |
| Ref. Frequency | --- | --- | 2459.190 | MHz | INFO |

READ SA SETTINGS:

| | |
|--|------------------------|
| RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB] | 22.73 4.86 35 |
| 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 |

RESULT

| Test Description | Lower Limit | Upper Limit | Measured | Unit | Verdict |
|---------------------|-------------|-------------|----------|------|---------|
| DTS Bandwidth (6dB) | 500 | --- | 35696 | kHz | PASS |



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

FCC 15.247 # TX spurious conducted 30dBc ~ WLAN2G4 n-HT40 mode

Test References

| | |
|-----------------------------------|--|
| TC Start | 06.12.2022 15:03:08 |
| Ambit Temp [°C] Humidity [rel%] | 21.2 31 |
| System Version | 3.3.3.0 |
| Test Specification | FCC 15.247 - |
| Test Method | IF DTS then 8.5 DTS emissions in non-restricted frequency bands: Subclause 11.11 of ANSI C63.10 is applicable |
| TC Version | 0.0.1 |
| My Description | FCC 15.247 TX Emissions Conducted 30dBc DTS DTS - WLAN2G4 n-HT40 mode |

Add. Information

EUT Common Settings WLAN2G4

| | |
|-------------------------|----|
| Number of Antenna Ports | 4 |
| User Interaction | No |

Test Parameter

| | |
|--|--|
| Technology to test | WLAN2G4 n-HT40 mode |
| Antenna Port used | 2 |
| 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] | -10 |
| Switched Path | EUT - SignalingUnit - SpectrumAnalyzer |

Test Equipment

Signal analyzer,Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.70
Switch matrix,CTCadvanced,SPM-4 NI DAQ,28016133,NI

Test at TX 2452 MHz

RESULT: Reference Power cond.

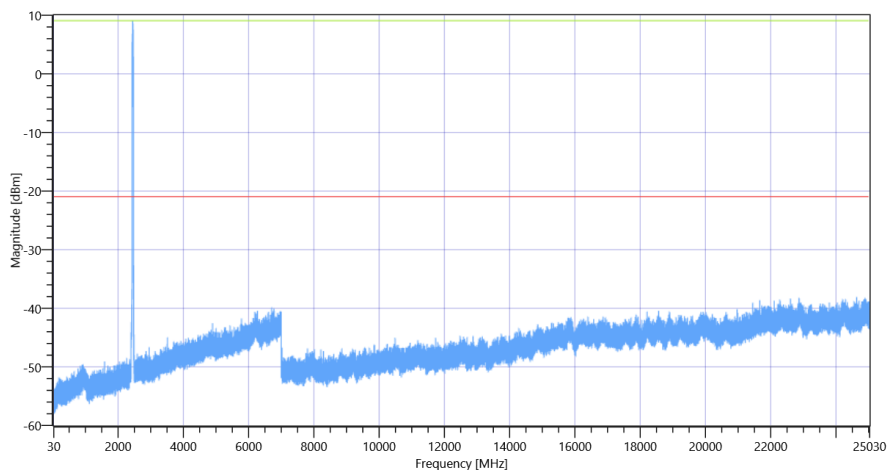
| Test Description | Lower Limit | Upper Limit | Measured | Unit | Verdict |
|-------------------------------|-------------|-------------|----------|------|---------|
| Ref. Power 1MHz/1MHz cond. | --- | --- | 18.75 | dBm | INFO |
| Ref. Frequency | --- | --- | 2440.210 | MHz | INFO |

READ SA SETTINGS:

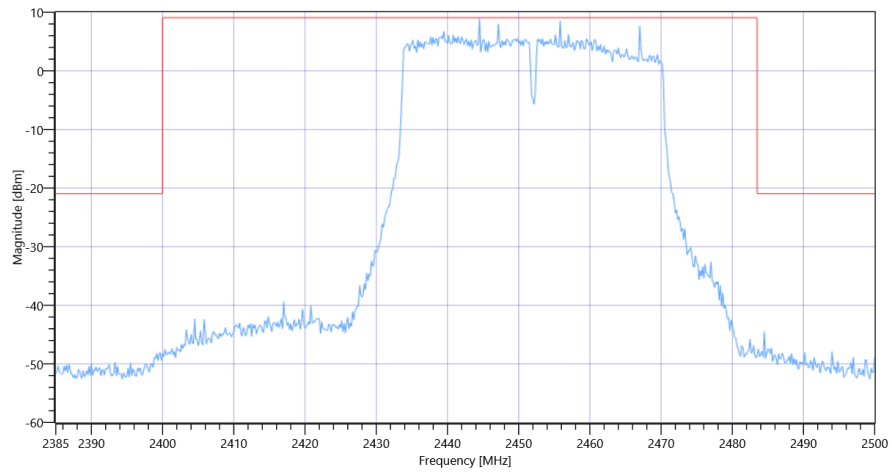
| | |
|--|-----------------------|
| RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB] | 18.75 0 35 |
| Start [MHz] Stop [MHz] | 24530.000 25030.000 |
| RBW [MHz] VBW [MHz] | 0.100000 0.300000 |
| Detector TraceMode | POS MAXH |
| Sweep: Time [ms] Count Points per Section Type | 200 25 3001 SWE |

RESULT

| Test Description | Lower Limit | Upper Limit | Measured | Unit | Verdict |
|------------------------------------|-------------|-------------|----------|------|---------|
| Reference @ 2444.50 MHz | --- | --- | 9.06 | dBm | INFO |
| No peaks detected | --- | --- | | | PASS |
| Lowest margin to limit 24635.5 MHz | 0 | --- | 17.17 | dB | INFO |



FCC 15.247 # TX spurious conducted 30dBc ~ WLAN2G4 n-HT40 mode 2452



FCC 15.247 # TX spurious conducted 30dBc ~ WLAN2G4 n-HT40 mode 2452

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

Test References

| | |
|-----------------------------------|---|
| TC Start | 06.12.2022 15:02:07 |
| Ambit Temp [°C] Humidity [rel%] | 21.2 31 |
| System Version | 3.3.3.0 |
| Test Specification | FCC 15.247, ISED RSS247 - |
| Test Method | |
| TC Version | 0.0.2 |
| My Description | FCC 15.247 Bandwidth 99PCT-20dB DTS - WLAN2G4 n-HT40 mode |
| Add. Information | |

EUT Common Settings WLAN2G4

| | |
|-------------------------|----|
| Number of Antenna Ports | 4 |
| User Interaction | No |

Test Parameter

| | |
|--|--|
| Technology to test | WLAN2G4 n-HT40 mode |
| Antenna Port used | 2 |
| 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] | -10 |
| Switched Path | EUT - SignalingUnit - SpectrumAnalyzer |

Test Equipment

| |
|---|
| Signal analyzer,Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.70 |
| Switch matrix,CTCadvanced,SPM-4 NI DAQ,28016133,NI |

Test at TX 2452 MHz

RESULT: Reference Power cond.

| Test Description | Lower Limit | Upper Limit | Measured | Unit | Verdict |
|-------------------------------|-------------|-------------|----------|------|---------|
| Ref. Power 1MHz/1MHz cond. | --- | --- | 17.21 | dBm | INFO |
| Ref. Frequency | --- | --- | 2437.510 | MHz | INFO |

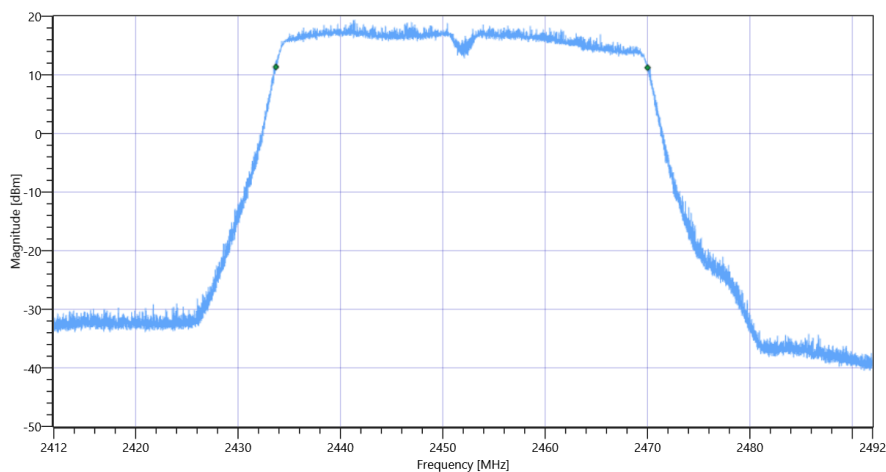
READ SA SETTINGS:

| | |
|--|------------------------|
| RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB] | 22.21 4.86 35 |
| 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 |

RESULT

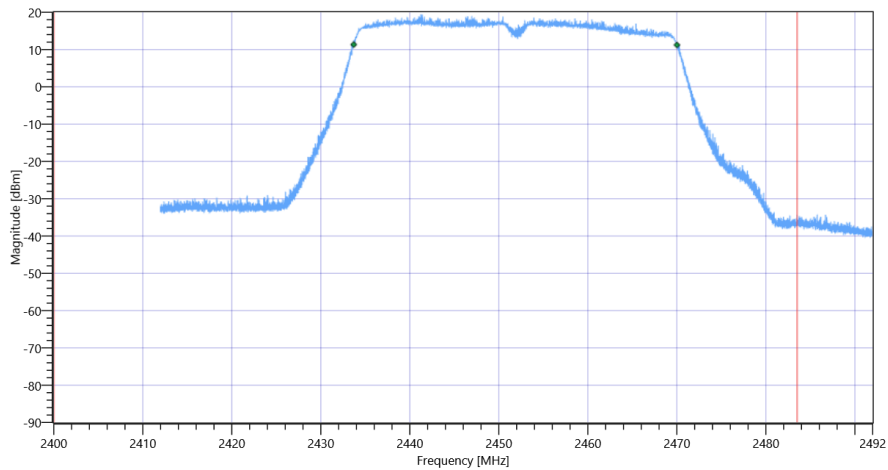
| Test Description | Lower Limit | Upper Limit | Measured | Unit | Verdict |
|------------------|-------------|-------------|-----------|------|---------|
| Bandwidth 99% | --- | --- | 36308.000 | kHz | INFO |
| T1 99% | 2400.000000 | --- | 2433.6978 | MHz | PASS |
| T2 99% | --- | 2483.500000 | 2470.0062 | MHz | PASS |

Plot: Bandwidth only



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

Plot: Bandwidth within Band

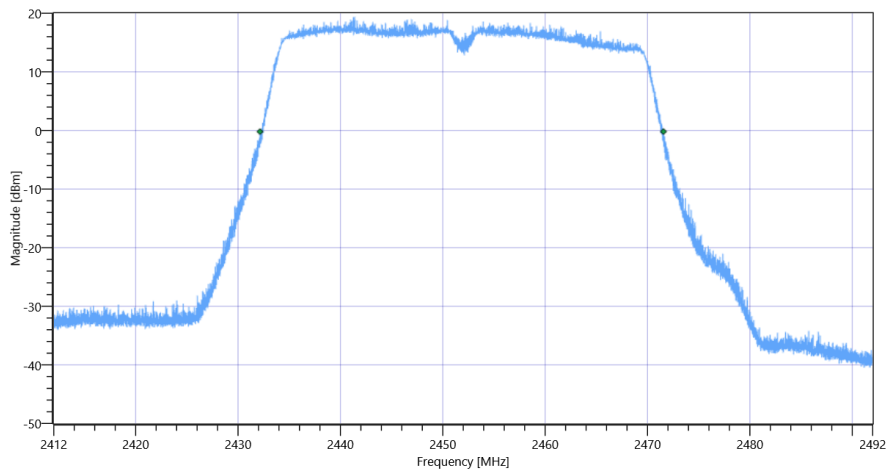


FCC 15.247, ISED RSS247 # Bandwidth 99PCT and 20dB ~ WLAN2G4 n-HT40 mode

RESULT

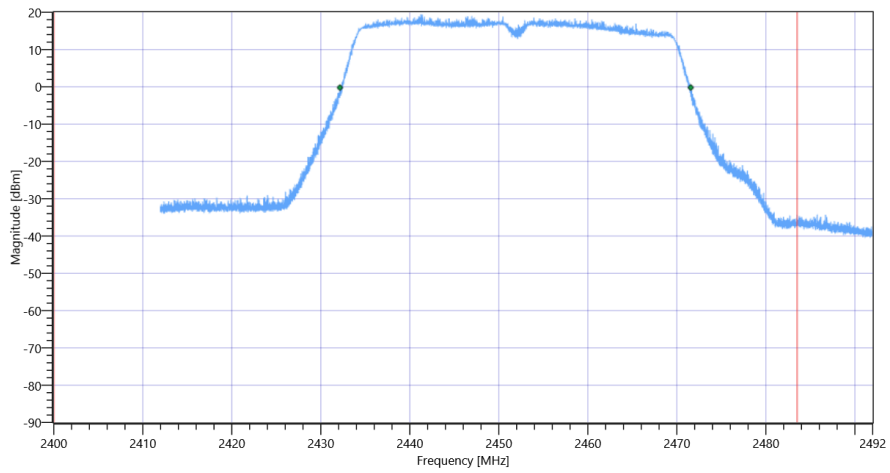
| Test Description | Lower Limit | Upper Limit | Measured | Unit | Verdict |
|------------------|-------------|-------------|-----------|------|---------|
| Bandwidth 20dB | --- | --- | 39416 | kHz | INFO |
| T1 20dB | 2400.000000 | --- | 2432.1440 | MHz | PASS |
| T2 20dB | --- | 2483.500000 | 2471.5600 | MHz | PASS |

Plot: Bandwidth only



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

Plot: Bandwidth within Band



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

FCC 15.247 # Avg power spectral density DTS ~ WLAN2G4 n-HT40 mode

Test References

| | |
|-----------------------------------|---|
| TC Start | 06.12.2022 15:00:19 |
| Ambit Temp [°C] Humidity [rel%] | 21.2 30 |
| System Version | 3.3.3.0 |
| Test Specification | FCC 15.247 - |
| Test Method | ANSI C63.10-2013 Chapter 11.10.5 or.3 |
| TC Version | 0.0.1 |
| My Description | FCC 15.247 Avg Power Spectral Density DTS - WLAN2G4 n-HT40 mode |
| Add. Information | |

EUT Common Settings WLAN2G4

| | |
|-------------------------|----|
| Number of Antenna Ports | 4 |
| User Interaction | No |

Test Parameter

| | |
|--|--|
| Technology to test | WLAN2G4 n-HT40 mode |
| Antenna Port used | 2 |
| 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] | -10 |
| Switched Path | EUT - SignalingUnit - SpectrumAnalyzer |

Test Equipment

| |
|---|
| Signal analyzer,Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.70 |
| Switch matrix,CTCadvanced,SPM-4 NI DAQ,28016133,NI |

Test at TX 2452 MHz

RESULT: Reference Power cond.

| Test Description | Lower Limit | Upper Limit | Measured | Unit | Verdict |
|-------------------------------|-------------|-------------|----------|------|---------|
| Ref. Power 1MHz/1MHz cond. | -- | -- | 17.69 | dBm | INFO |
| Ref. Frequency | -- | -- | 2453.600 | MHz | INFO |

Evaluation max. Duty Cycle

Duty Cycle evaluation

| Test Description | Lower Limit | Upper Limit | Measured | Unit | Verdict |
|------------------|-------------|-------------|----------|------|------------------|
| Duty Cycle min | -- | -- | 0 | dB | DC > 98% defined |

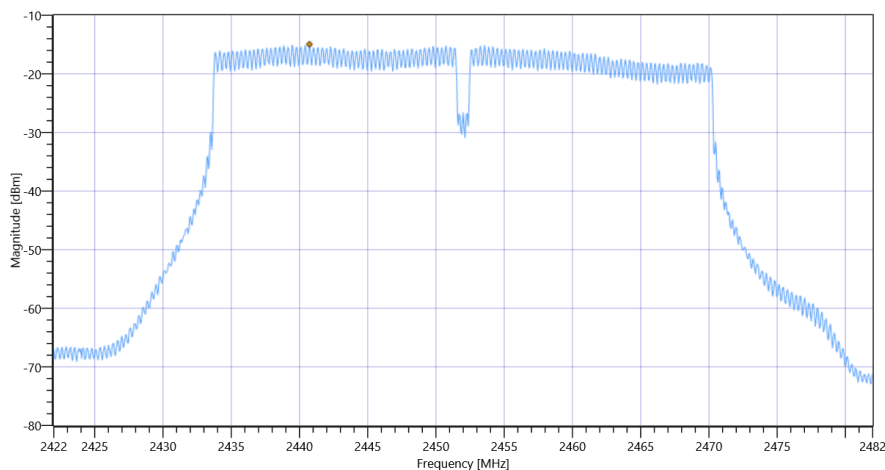
Avg. PSD

READ SA SETTINGS:

| | |
|--|------------------------|
| RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB] | 22.69 4.86 35 |
| Start [MHz] Stop [MHz] | 2422.000 2482.000 |
| RBW [MHz] VBW [MHz] | 0.003000 0.010000 |
| Detector TraceMode | RMS AVER |
| Sweep: Time [ms] Count Points per Section Type | 667 100 1001 SWE |

RESULT

| Test Description | Lower Limit | Upper Limit | Measured | Unit | Verdict |
|-----------------------|-------------|-------------|----------|----------|---------|
| Avg PSD uncorrected | -- | -- | -14.95 | dBm | INFO |
| Duty cycle correction | -- | -- | 0 | dB | INFO |
| Avg PSD DC corrected | -- | 8 | -14.95 | dBm/3kHz | PASS |



FCC 15.247 # Avg power spectral density DTS ~ WLAN2G4 n-HT40 mode

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

Test References

| | |
|-----------------------------------|---|
| TC Start | 06.12.2022 14:59:42 |
| Ambit Temp [°C] Humidity [rel%] | 21.2 30 |
| System Version | 3.3.3.0 |
| Test Specification | FCC 15.247 - |
| Test Method | |
| TC Version | 0.0.1 |
| My Description | FCC 15.247 Bandwidth 6dB DTS - WLAN2G4 nHT40_mode |
| Add. Information | |

EUT Common Settings WLAN2G4

| | |
|-------------------------|----|
| Number of Antenna Ports | 4 |
| User Interaction | No |

Test Parameter

| | |
|--|--|
| Technology to test | WLAN2G4 n-HT40 mode |
| Antenna Port used | 2 |
| 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] | -10 |
| Switched Path | EUT - SignalingUnit - SpectrumAnalyzer |

Test Equipment

| |
|---|
| Signal analyzer,Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.70 |
| Switch matrix,CTCadvanced,SPM-4 NI DAQ,28016133,NI |

Test at TX 2452 MHz

RESULT: Reference Power cond.

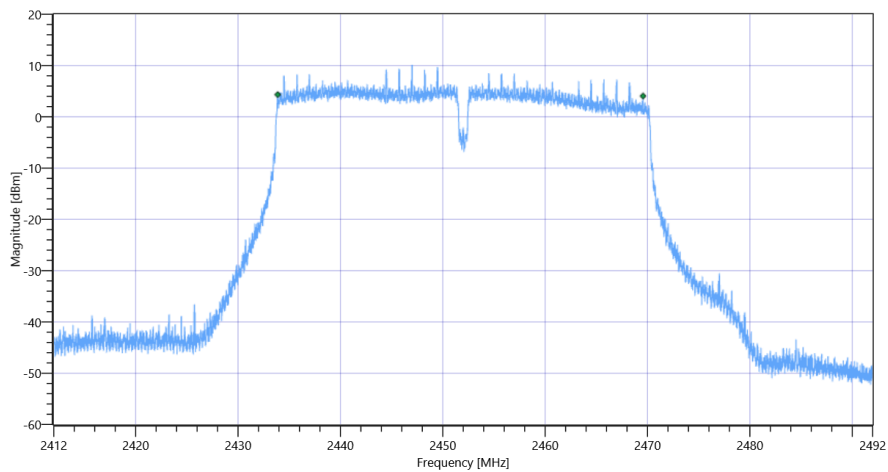
| Test Description | Lower Limit | Upper Limit | Measured | Unit | Verdict |
|-------------------------------|-------------|-------------|----------|------|---------|
| Ref. Power 1MHz/1MHz cond. | -- | -- | 17.31 | dBm | INFO |
| Ref. Frequency | -- | -- | 2442.210 | MHz | INFO |

READ SA SETTINGS:

| | |
|--|------------------------|
| RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB] | 22.31 4.86 35 |
| 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 |

RESULT

| Test Description | Lower Limit | Upper Limit | Measured | Unit | Verdict |
|---------------------|-------------|-------------|----------|------|---------|
| DTS Bandwidth (6dB) | 500 | -- | 35688 | kHz | PASS |



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

FCC 15.247 # TX spurious conducted 30dBc ~ WLAN2G4 n-HT40 mode

Test References

| | |
|-----------------------------------|--|
| TC Start | 06.12.2022 14:49:25 |
| Ambit Temp [°C] Humidity [rel%] | 21.2 30 |
| System Version | 3.3.3.0 |
| Test Specification | FCC 15.247 - |
| Test Method | IF DTS then 8.5 DTS emissions in non-restricted frequency bands: Subclause 11.11 of ANSI C63.10 is applicable |
| TC Version | 0.0.1 |
| My Description | FCC 15.247 TX Emissions Conducted 30dBc DTS DTS - WLAN2G4 n-HT40 mode |

Add. Information

EUT Common Settings WLAN2G4

| | |
|-------------------------|----|
| Number of Antenna Ports | 4 |
| User Interaction | No |

Test Parameter

| | |
|--|--|
| Technology to test | WLAN2G4 n-HT40 mode |
| Antenna Port used | 1 |
| 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] | -10 |
| Switched Path | EUT - SignalingUnit - SpectrumAnalyzer |

Test Equipment

Signal analyzer,Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.70
Switch matrix,CTCadvanced,SPM-4 NI DAQ,28016133,NI

Test at TX 2452 MHz

RESULT: Reference Power cond.

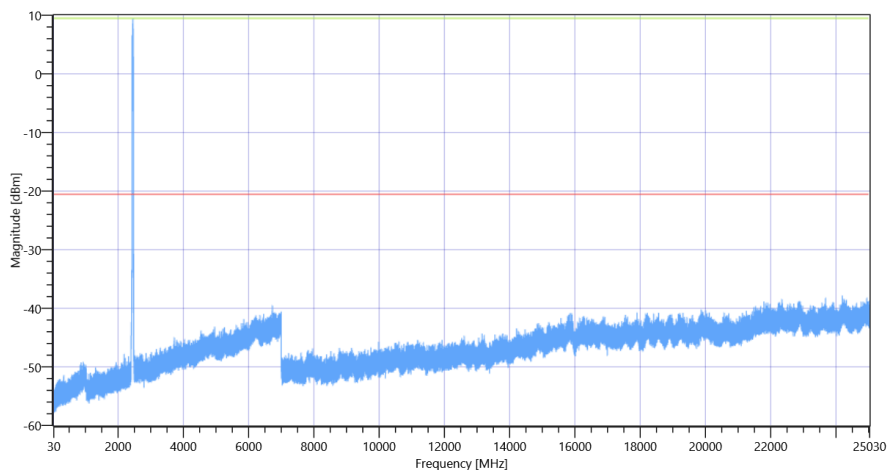
| Test Description | Lower Limit | Upper Limit | Measured | Unit | Verdict |
|-------------------------------|-------------|-------------|----------|------|---------|
| Ref. Power 1MHz/1MHz cond. | --- | --- | 17.16 | dBm | INFO |
| Ref. Frequency | --- | --- | 2455.600 | MHz | INFO |

READ SA SETTINGS:

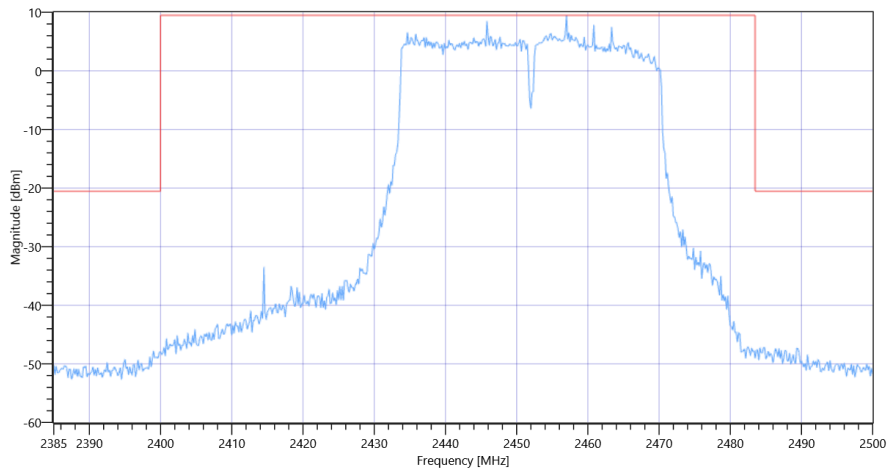
| | |
|--|-----------------------|
| RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB] | 17.16 0 35 |
| Start [MHz] Stop [MHz] | 24530.000 25030.000 |
| RBW [MHz] VBW [MHz] | 0.100000 0.300000 |
| Detector TraceMode | POS MAXH |
| Sweep: Time [ms] Count Points per Section Type | 200 25 3001 SWE |

RESULT

| Test Description | Lower Limit | Upper Limit | Measured | Unit | Verdict |
|---|-------------|-------------|----------|------|---------|
| Reference @ 2457.00 MHz | --- | --- | 9.45 | dBm | INFO |
| No peaks detected | --- | --- | | | PASS |
| Lowest margin to limit 24190.833 MHz | 0 | --- | 17.28 | dB | INFO |



FCC 15.247 # TX spurious conducted 30dBc ~ WLAN2G4 n-HT40 mode 2452



FCC 15.247 # TX spurious conducted 30dBc ~ WLAN2G4 n-HT40 mode 2452

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

Test References

| | |
|-----------------------------------|---|
| TC Start | 06.12.2022 14:48:25 |
| Ambit Temp [°C] Humidity [rel%] | 21.2 30 |
| System Version | 3.3.3.0 |
| Test Specification | FCC 15.247, ISED RSS247 - |
| Test Method | |
| TC Version | 0.0.2 |
| My Description | FCC 15.247 Bandwidth 99PCT-20dB DTS - WLAN2G4 n-HT40 mode |
| Add. Information | |

EUT Common Settings WLAN2G4

| | |
|-------------------------|----|
| Number of Antenna Ports | 4 |
| User Interaction | No |

Test Parameter

| | |
|--|--|
| Technology to test | WLAN2G4 n-HT40 mode |
| Antenna Port used | 1 |
| 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] | -10 |
| Switched Path | EUT - SignalingUnit - SpectrumAnalyzer |

Test Equipment

| |
|---|
| Signal analyzer,Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.70 |
| Switch matrix,CTCadvanced,SPM-4 NI DAQ,28016133,NI |

Test at TX 2452 MHz

RESULT: Reference Power cond.

| Test Description | Lower Limit | Upper Limit | Measured | Unit | Verdict |
|-------------------------------|-------------|-------------|----------|------|---------|
| Ref. Power 1MHz/1MHz cond. | --- | --- | 17.97 | dBm | INFO |
| Ref. Frequency | --- | --- | 2457.490 | MHz | INFO |

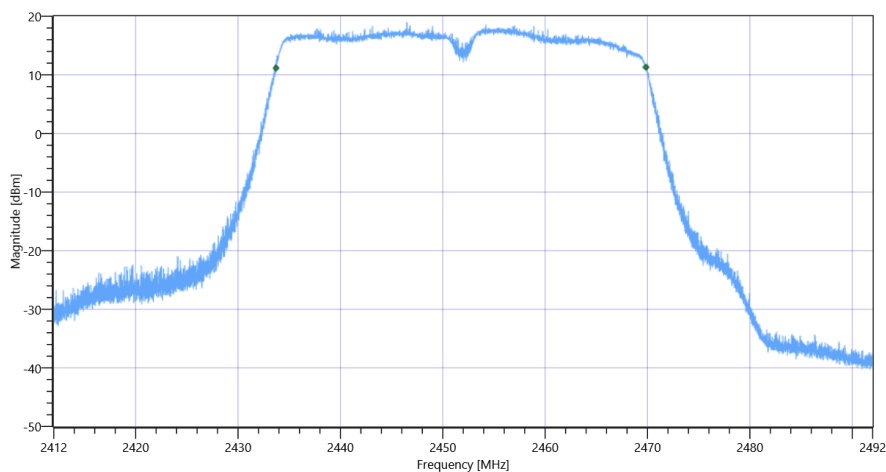
READ SA SETTINGS:

| | |
|--|------------------------|
| RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB] | 22.97 4.86 35 |
| 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 |

RESULT

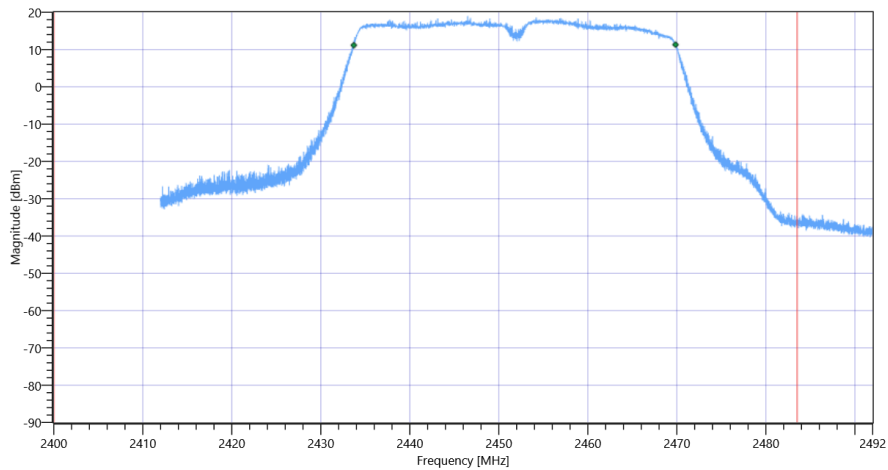
| Test Description | Lower Limit | Upper Limit | Measured | Unit | Verdict |
|------------------|-------------|-------------|-----------|------|---------|
| Bandwidth 99% | --- | --- | 36140.000 | kHz | INFO |
| T1 99% | 2400.000000 | --- | 2433.7058 | MHz | PASS |
| T2 99% | --- | 2483.500000 | 2469.8462 | MHz | PASS |

Plot: Bandwidth only



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

Plot: Bandwidth within Band

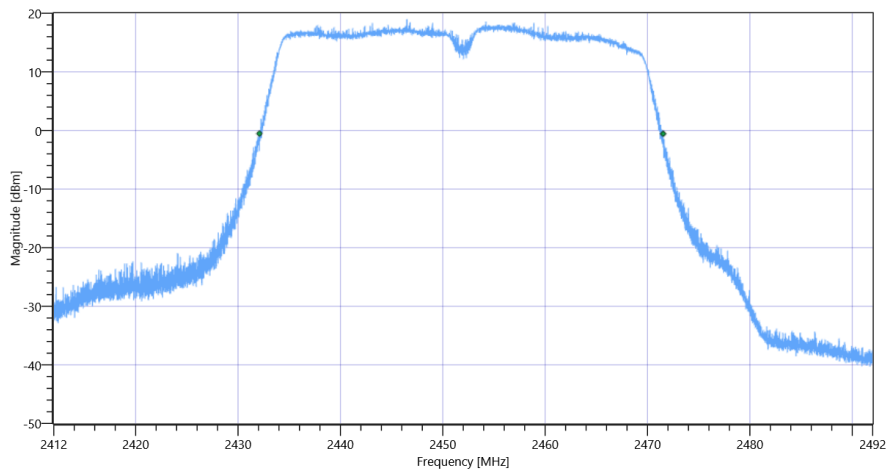


FCC 15.247, ISED RSS247 # Bandwidth 99PCT and 20dB ~ WLAN2G4 n-HT40 mode

RESULT

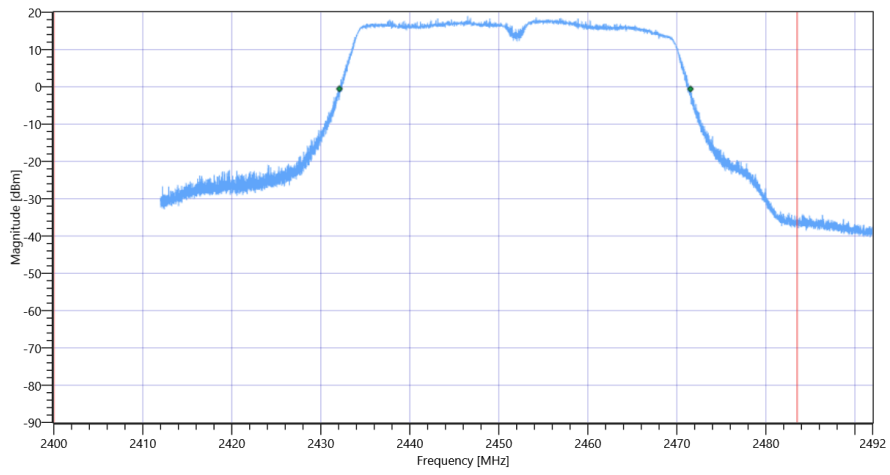
| Test Description | Lower Limit | Upper Limit | Measured | Unit | Verdict |
|------------------|-------------|-------------|-----------|------|---------|
| Bandwidth 20dB | --- | --- | 39440 | kHz | INFO |
| T1 20dB | 2400.000000 | --- | 2432.0880 | MHz | PASS |
| T2 20dB | --- | 2483.500000 | 2471.5280 | MHz | PASS |

Plot: Bandwidth only



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

Plot: Bandwidth within Band



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

FCC 15.247 # Avg power spectral density DTS ~ WLAN2G4 n-HT40 mode

Test References

| | |
|-----------------------------------|---|
| TC Start | 06.12.2022 14:46:37 |
| Ambit Temp [°C] Humidity [rel%] | 21.2 30 |
| System Version | 3.3.3.0 |
| Test Specification | FCC 15.247 - |
| Test Method | ANSI C63.10-2013 Chapter 11.10.5 or.3 |
| TC Version | 0.0.1 |
| My Description | FCC 15.247 Avg Power Spectral Density DTS - WLAN2G4 n-HT40 mode |
| Add. Information | |

EUT Common Settings WLAN2G4

| | |
|-------------------------|----|
| Number of Antenna Ports | 4 |
| User Interaction | No |

Test Parameter

| | |
|--|--|
| Technology to test | WLAN2G4 n-HT40 mode |
| Antenna Port used | 1 |
| 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] | -10 |
| Switched Path | EUT - SignalingUnit - SpectrumAnalyzer |

Test Equipment

| |
|---|
| Signal analyzer,Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.70 |
| Switch matrix,CTCadvanced,SPM-4 NI DAQ,28016133,NI |

Test at TX 2452 MHz

RESULT: Reference Power cond.

| Test Description | Lower Limit | Upper Limit | Measured | Unit | Verdict |
|-------------------------------|-------------|-------------|----------|------|---------|
| Ref. Power 1MHz/1MHz cond. | -- | -- | 17.63 | dBm | INFO |
| Ref. Frequency | -- | -- | 2455.000 | MHz | INFO |

Evaluation max. Duty Cycle

Duty Cycle evaluation

| Test Description | Lower Limit | Upper Limit | Measured | Unit | Verdict |
|------------------|-------------|-------------|----------|------|------------------|
| Duty Cycle min | -- | -- | 0 | dB | DC > 98% defined |

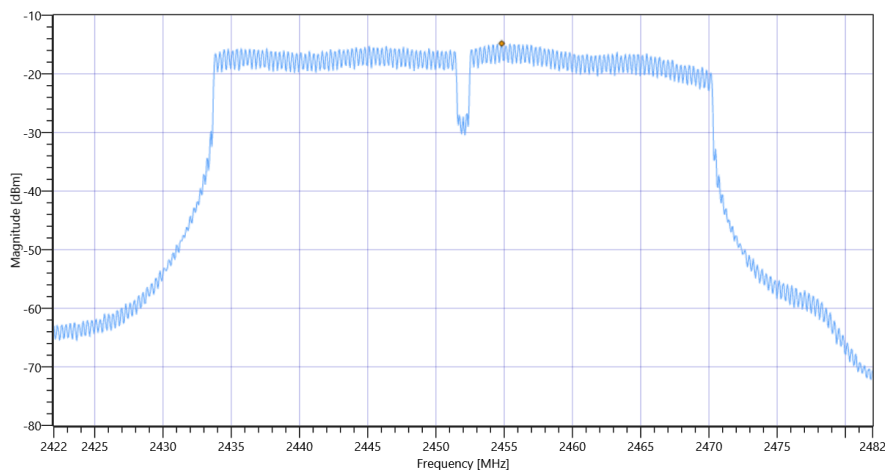
Avg. PSD

READ SA SETTINGS:

| | |
|--|------------------------|
| RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB] | 22.63 4.86 35 |
| Start [MHz] Stop [MHz] | 2422.000 2482.000 |
| RBW [MHz] VBW [MHz] | 0.003000 0.010000 |
| Detector TraceMode | RMS AVER |
| Sweep: Time [ms] Count Points per Section Type | 667 100 1001 SWE |

RESULT

| Test Description | Lower Limit | Upper Limit | Measured | Unit | Verdict |
|-----------------------|-------------|-------------|----------|----------|---------|
| Avg PSD uncorrected | -- | -- | -14.81 | dBm | INFO |
| Duty cycle correction | -- | -- | 0 | dB | INFO |
| Avg PSD DC corrected | -- | 8 | -14.81 | dBm/3kHz | PASS |



FCC 15.247 # Avg power spectral density DTS ~ WLAN2G4 n-HT40 mode

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

Test References

| | |
|-----------------------------------|---|
| TC Start | 06.12.2022 14:46:00 |
| Ambit Temp [°C] Humidity [rel%] | 21.2 30 |
| System Version | 3.3.3.0 |
| Test Specification | FCC 15.247 - |
| Test Method | |
| TC Version | 0.0.1 |
| My Description | FCC 15.247 Bandwidth 6dB DTS - WLAN2G4 nHT40_mode |
| Add. Information | |

EUT Common Settings WLAN2G4

| | |
|-------------------------|----|
| Number of Antenna Ports | 4 |
| User Interaction | No |

Test Parameter

| | |
|--|--|
| Technology to test | WLAN2G4 n-HT40 mode |
| Antenna Port used | 1 |
| 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] | -10 |
| Switched Path | EUT - SignalingUnit - SpectrumAnalyzer |

Test Equipment

| |
|---|
| Signal analyzer,Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.70 |
| Switch matrix,CTCadvanced,SPM-4 NI DAQ,28016133,NI |

Test at TX 2452 MHz

RESULT: Reference Power cond.

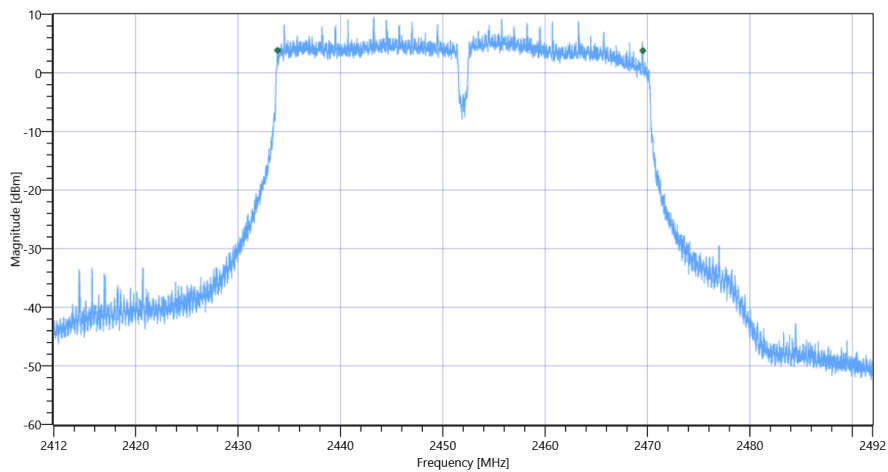
| Test Description | Lower Limit | Upper Limit | Measured | Unit | Verdict |
|-------------------------------|-------------|-------------|----------|------|---------|
| Ref. Power 1MHz/1MHz cond. | --- | --- | 17.37 | dBm | INFO |
| Ref. Frequency | --- | --- | 2456.300 | MHz | INFO |

READ SA SETTINGS:

| | |
|--|------------------------|
| RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB] | 22.37 4.86 35 |
| 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 |

RESULT

| Test Description | Lower Limit | Upper Limit | Measured | Unit | Verdict |
|---------------------|-------------|-------------|----------|------|---------|
| DTS Bandwidth (6dB) | 500 | --- | 35688 | kHz | PASS |



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

FCC 15.247 # TX spurious conducted 30dBc ~ WLAN2G4 n-HT40 mode

Test References

| | |
|-----------------------------------|--|
| TC Start | 06.12.2022 14:12:33 |
| Ambit Temp [°C] Humidity [rel%] | 22.8 29 |
| System Version | 3.3.3.0 |
| Test Specification | FCC 15.247 - |
| Test Method | IF DTS then 8.5 DTS emissions in non-restricted frequency bands: Subclause 11.11 of ANSI C63.10 is applicable |
| TC Version | 0.0.1 |
| My Description | FCC 15.247 TX Emissions Conducted 30dBc DTS DTS - WLAN2G4 n-HT40 mode |

Add. Information

EUT Common Settings WLAN2G4

| | |
|-------------------------|----|
| Number of Antenna Ports | 4 |
| User Interaction | No |

Test Parameter

| | |
|--|--|
| Technology to test | WLAN2G4 n-HT40 mode |
| Antenna Port used | 4 |
| 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] | -10 |
| Switched Path | EUT - SignalingUnit - SpectrumAnalyzer |

Test Equipment

Signal analyzer,Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.70
Switch matrix,CTCadvanced,SPM-4 NI DAQ,28016133,NI

Test at TX 2437 MHz

RESULT: Reference Power cond.

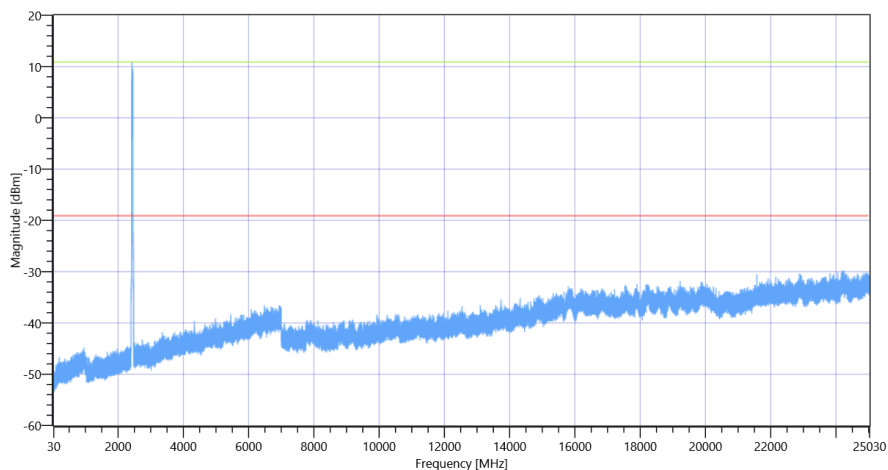
| Test Description | Lower Limit | Upper Limit | Measured | Unit | Verdict |
|-------------------------------|-------------|-------------|----------|------|---------|
| Ref. Power 1MHz/1MHz cond. | --- | --- | 20.05 | dBm | INFO |
| Ref. Frequency | --- | --- | 2439.600 | MHz | INFO |

READ SA SETTINGS:

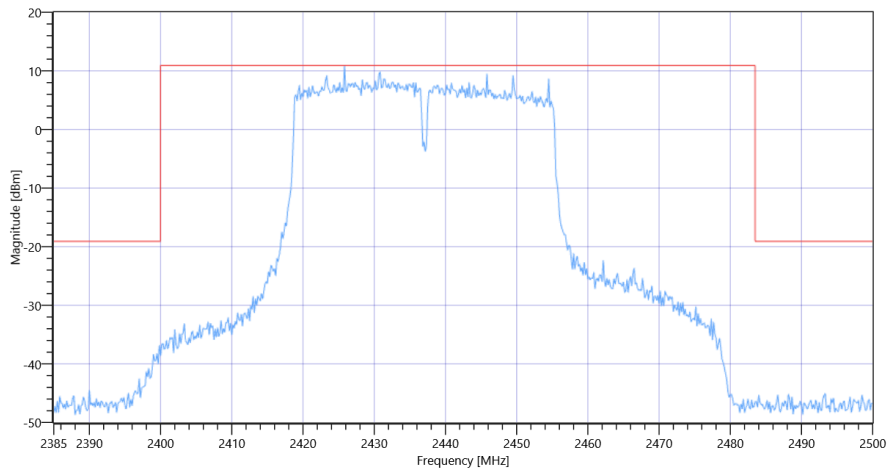
| | |
|--|-----------------------|
| RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB] | 20.05 0 40 |
| Start [MHz] Stop [MHz] | 24530.000 25030.000 |
| RBW [MHz] VBW [MHz] | 0.100000 0.300000 |
| Detector TraceMode | POS MAXH |
| Sweep: Time [ms] Count Points per Section Type | 200 25 3001 SWE |

RESULT

| Test Description | Lower Limit | Upper Limit | Measured | Unit | Verdict |
|--------------------------------------|-------------|-------------|----------|------|---------|
| Reference @ 2425.83 MHz | --- | --- | 10.90 | dBm | INFO |
| No peaks detected | --- | --- | | | PASS |
| Lowest margin to limit 24204.167 MHz | 0 | --- | 10.64 | dB | INFO |



FCC 15.247 # TX spurious conducted 30dBc ~ WLAN2G4 n-HT40 mode 2437



FCC 15.247 # TX spurious conducted 30dBc ~ WLAN2G4 n-HT40 mode 2437

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

Test References

| | |
|-----------------------------------|---|
| TC Start | 06.12.2022 14:11:33 |
| Ambit Temp [°C] Humidity [rel%] | 22.8 29 |
| System Version | 3.3.3.0 |
| Test Specification | FCC 15.247, ISED RSS247 - |
| Test Method | |
| TC Version | 0.0.2 |
| My Description | FCC 15.247 Bandwidth 99PCT-20dB DTS - WLAN2G4 n-HT40 mode |
| Add. Information | |

EUT Common Settings WLAN2G4

| | |
|-------------------------|----|
| Number of Antenna Ports | 4 |
| User Interaction | No |

Test Parameter

| | |
|--|--|
| Technology to test | WLAN2G4 n-HT40 mode |
| Antenna Port used | 4 |
| 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] | -10 |
| Switched Path | EUT - SignalingUnit - SpectrumAnalyzer |

Test Equipment

| |
|---|
| Signal analyzer,Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.70 |
| Switch matrix,CTCadvanced,SPM-4 NI DAQ,28016133,NI |

Test at TX 2437 MHz

RESULT: Reference Power cond.

| Test Description | Lower Limit | Upper Limit | Measured | Unit | Verdict |
|-------------------------------|-------------|-------------|----------|------|---------|
| Ref. Power 1MHz/1MHz cond. | --- | --- | 19.13 | dBm | INFO |
| Ref. Frequency | --- | --- | 2425.210 | MHz | INFO |

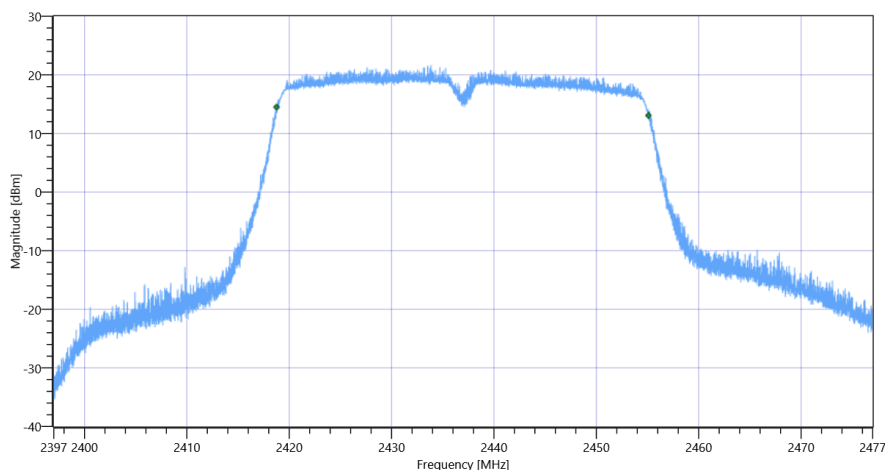
READ SA SETTINGS:

| | |
|--|------------------------|
| RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB] | 24.13 5 35 |
| 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 |

RESULT

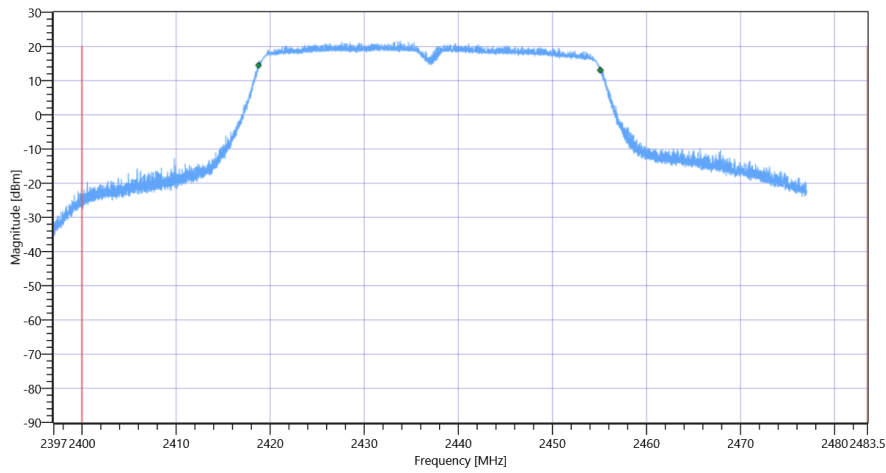
| Test Description | Lower Limit | Upper Limit | Measured | Unit | Verdict |
|------------------|-------------|-------------|-----------|------|---------|
| Bandwidth 99% | --- | --- | 36332.000 | kHz | INFO |
| T1 99% | 2400.000000 | --- | 2418.7618 | MHz | PASS |
| T2 99% | --- | 2483.500000 | 2455.0942 | MHz | PASS |

Plot: Bandwidth only



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

Plot: Bandwidth within Band

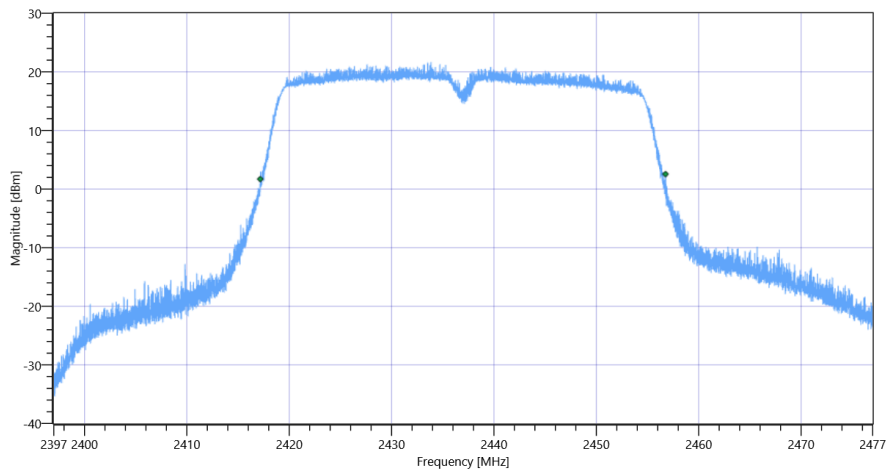


FCC 15.247, ISED RSS247 # Bandwidth 99PCT and 20dB ~ WLAN2G4 n-HT40 mode

RESULT

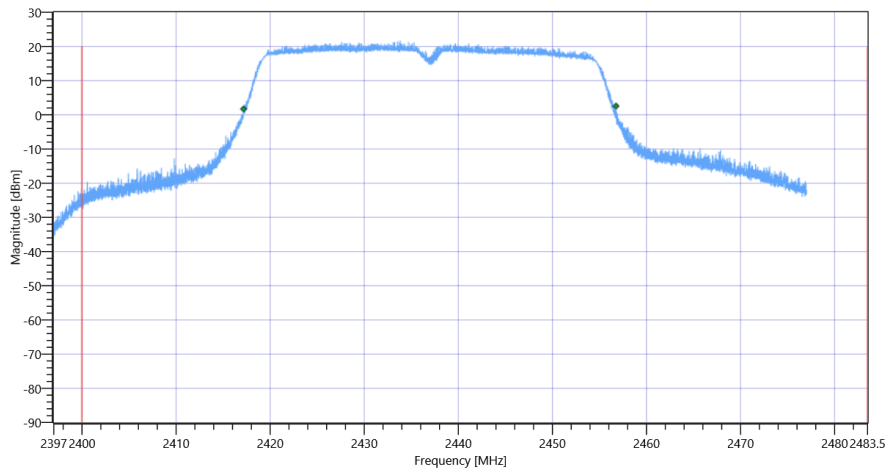
| Test Description | Lower Limit | Upper Limit | Measured | Unit | Verdict |
|------------------|-------------|-------------|-----------|------|---------|
| Bandwidth 20dB | --- | --- | 39592 | kHz | INFO |
| T1 20dB | 2400.000000 | --- | 2417.1680 | MHz | PASS |
| T2 20dB | --- | 2483.500000 | 2456.7600 | MHz | PASS |

Plot: Bandwidth only



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

Plot: Bandwidth within Band



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

FCC 15.247 # Avg power spectral density DTS ~ WLAN2G4 n-HT40 mode

Test References

| | |
|-----------------------------------|---|
| TC Start | 06.12.2022 14:09:44 |
| Ambit Temp [°C] Humidity [rel%] | 22.8 29 |
| System Version | 3.3.3.0 |
| Test Specification | FCC 15.247 - |
| Test Method | ANSI C63.10-2013 Chapter 11.10.5 or.3 |
| TC Version | 0.0.1 |
| My Description | FCC 15.247 Avg Power Spectral Density DTS - WLAN2G4 n-HT40 mode |
| Add. Information | |

EUT Common Settings WLAN2G4

| | |
|-------------------------|----|
| Number of Antenna Ports | 4 |
| User Interaction | No |

Test Parameter

| | |
|--|--|
| Technology to test | WLAN2G4 n-HT40 mode |
| Antenna Port used | 4 |
| 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] | -10 |
| Switched Path | EUT - SignalingUnit - SpectrumAnalyzer |

Test Equipment

| |
|---|
| Signal analyzer,Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.70 |
| Switch matrix,CTCadvanced,SPM-4 NI DAQ,28016133,NI |

Test at TX 2437 MHz

RESULT: Reference Power cond.

| Test Description | Lower Limit | Upper Limit | Measured | Unit | Verdict |
|-------------------------------|-------------|-------------|----------|------|---------|
| Ref. Power 1MHz/1MHz cond. | -- | -- | 20.49 | dBm | INFO |
| Ref. Frequency | -- | -- | 2428.410 | MHz | INFO |

Evaluation max. Duty Cycle

Duty Cycle evaluation

| Test Description | Lower Limit | Upper Limit | Measured | Unit | Verdict |
|------------------|-------------|-------------|----------|------|------------------|
| Duty Cycle min | -- | -- | 0 | dB | DC > 98% defined |

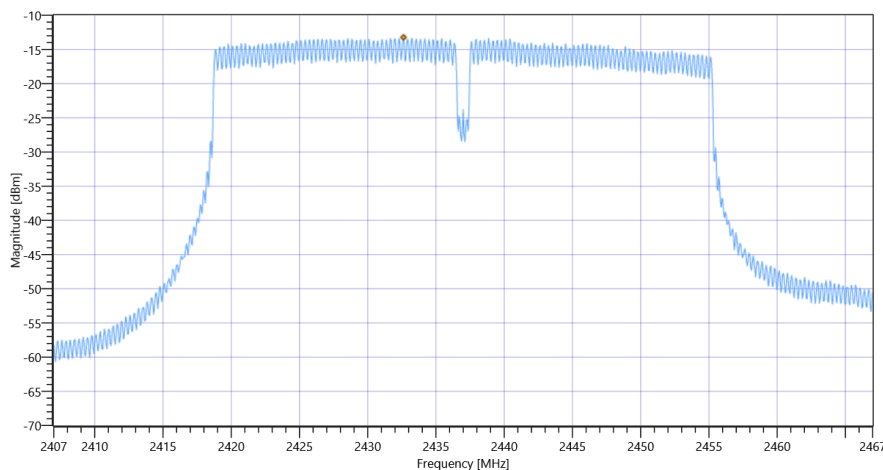
Avg. PSD

READ SA SETTINGS:

| | |
|--|------------------------|
| RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB] | 25.49 5 40 |
| Start [MHz] Stop [MHz] | 2407.000 2467.000 |
| RBW [MHz] VBW [MHz] | 0.003000 0.010000 |
| Detector TraceMode | RMS AVER |
| Sweep: Time [ms] Count Points per Section Type | 667 100 1001 SWE |

RESULT

| Test Description | Lower Limit | Upper Limit | Measured | Unit | Verdict |
|-----------------------|-------------|-------------|----------|----------|---------|
| Avg PSD uncorrected | -- | -- | -13.22 | dBm | INFO |
| Duty cycle correction | -- | -- | 0 | dB | INFO |
| Avg PSD DC corrected | -- | 8 | -13.22 | dBm/3kHz | PASS |



FCC 15.247 # Avg power spectral density DTS ~ WLAN2G4 n-HT40 mode

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

Test References

| | |
|-----------------------------------|---|
| TC Start | 06.12.2022 14:09:08 |
| Ambit Temp [°C] Humidity [rel%] | 22.8 29 |
| System Version | 3.3.3.0 |
| Test Specification | FCC 15.247 - |
| Test Method | |
| TC Version | 0.0.1 |
| My Description | FCC 15.247 Bandwidth 6dB DTS - WLAN2G4 nHT40_mode |
| Add. Information | |

EUT Common Settings WLAN2G4

| | |
|-------------------------|----|
| Number of Antenna Ports | 4 |
| User Interaction | No |

Test Parameter

| | |
|--|--|
| Technology to test | WLAN2G4 n-HT40 mode |
| Antenna Port used | 4 |
| 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] | -10 |
| Switched Path | EUT - SignalingUnit - SpectrumAnalyzer |

Test Equipment

| |
|---|
| Signal analyzer,Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.70 |
| Switch matrix,CTCadvanced,SPM-4 NI DAQ,28016133,NI |

Test at TX 2437 MHz

RESULT: Reference Power cond.

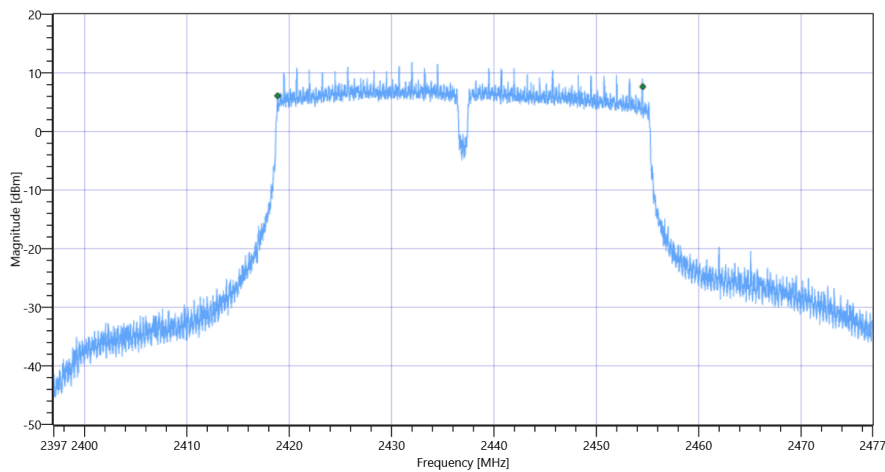
| Test Description | Lower Limit | Upper Limit | Measured | Unit | Verdict |
|-------------------------------|-------------|-------------|----------|------|---------|
| Ref. Power 1MHz/1MHz cond. | --- | --- | 20.15 | dBm | INFO |
| Ref. Frequency | --- | --- | 2427.810 | MHz | INFO |

READ SA SETTINGS:

| | |
|--|------------------------|
| RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB] | 25.15 5 40 |
| 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 |

RESULT

| Test Description | Lower Limit | Upper Limit | Measured | Unit | Verdict |
|---------------------|-------------|-------------|----------|------|---------|
| DTS Bandwidth (6dB) | 500 | --- | 35680 | kHz | PASS |



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

FCC 15.247 # TX spurious conducted 30dBc ~ WLAN2G4 n-HT40 mode

Test References

| | |
|-----------------------------------|--|
| TC Start | 06.12.2022 13:58:50 |
| Ambit Temp [°C] Humidity [rel%] | 22.8 29 |
| System Version | 3.3.3.0 |
| Test Specification | FCC 15.247 - |
| Test Method | IF DTS then 8.5 DTS emissions in non-restricted frequency bands: Subclause 11.11 of ANSI C63.10 is applicable |
| TC Version | 0.0.1 |
| My Description | FCC 15.247 TX Emissions Conducted 30dBc DTS DTS - WLAN2G4 n-HT40 mode |

Add. Information

EUT Common Settings WLAN2G4

| | |
|-------------------------|----|
| Number of Antenna Ports | 4 |
| User Interaction | No |

Test Parameter

| | |
|--|--|
| Technology to test | WLAN2G4 n-HT40 mode |
| Antenna Port used | 3 |
| 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] | -10 |
| Switched Path | EUT - SignalingUnit - SpectrumAnalyzer |

Test Equipment

Signal analyzer,Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.70

Switch matrix,CTCadvanced,SPM-4 NI DAQ,28016133,NI

Test at TX 2437 MHz

RESULT: Reference Power cond.

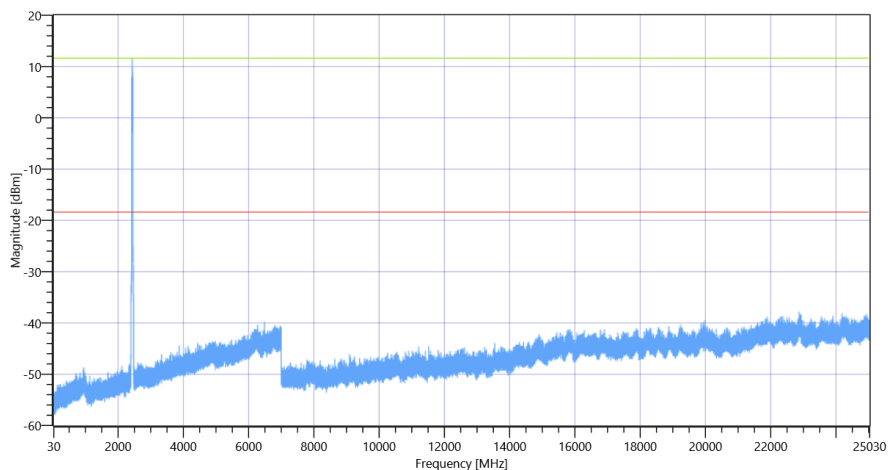
| Test Description | Lower Limit | Upper Limit | Measured | Unit | Verdict |
|-------------------------------|-------------|-------------|----------|------|---------|
| Ref. Power 1MHz/1MHz cond. | --- | --- | 19.23 | dBm | INFO |
| Ref. Frequency | --- | --- | 2432.300 | MHz | INFO |

READ SA SETTINGS:

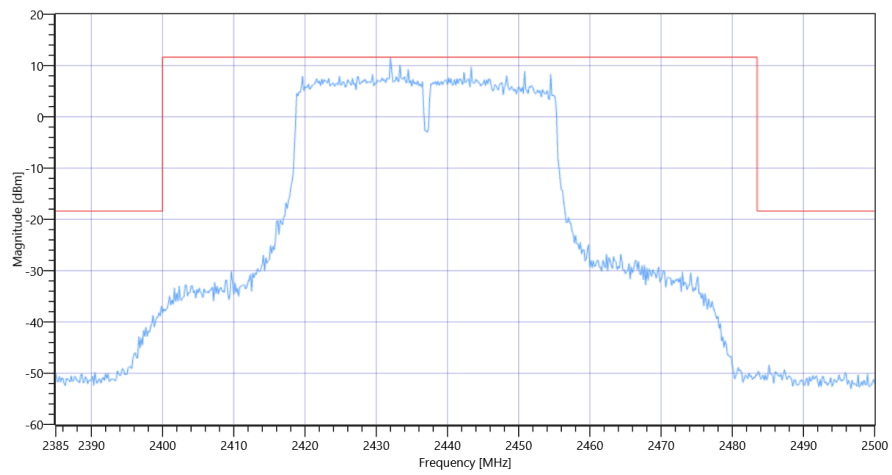
| | |
|--|-----------------------|
| RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB] | 19.23 0 35 |
| Start [MHz] Stop [MHz] | 24530.000 25030.000 |
| RBW [MHz] VBW [MHz] | 0.100000 0.300000 |
| Detector TraceMode | POS MAXH |
| Sweep: Time [ms] Count Points per Section Type | 200 25 3001 SWE |

RESULT

| Test Description | Lower Limit | Upper Limit | Measured | Unit | Verdict |
|-------------------------------------|-------------|-------------|----------|------|---------|
| Reference @ 2432.00 MHz | --- | --- | 11.62 | dBm | INFO |
| No peaks detected | --- | --- | | | PASS |
| Lowest margin to limit 2399.833 MHz | 0 | --- | 18.52 | dB | INFO |



FCC 15.247 # TX spurious conducted 30dBc ~ WLAN2G4 n-HT40 mode 2437



FCC 15.247 # TX spurious conducted 30dBc ~ WLAN2G4 n-HT40 mode 2437

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

Test References

| | |
|-----------------------------------|---|
| TC Start | 06.12.2022 13:57:49 |
| Ambit Temp [°C] Humidity [rel%] | 22.9 29 |
| System Version | 3.3.3.0 |
| Test Specification | FCC 15.247, ISED RSS247 - |
| Test Method | |
| TC Version | 0.0.2 |
| My Description | FCC 15.247 Bandwidth 99PCT-20dB DTS - WLAN2G4 n-HT40 mode |
| Add. Information | |

EUT Common Settings WLAN2G4

| | |
|-------------------------|----|
| Number of Antenna Ports | 4 |
| User Interaction | No |

Test Parameter

| | |
|--|--|
| Technology to test | WLAN2G4 n-HT40 mode |
| Antenna Port used | 3 |
| 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] | -10 |
| Switched Path | EUT - SignalingUnit - SpectrumAnalyzer |

Test Equipment

| |
|---|
| Signal analyzer,Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.70 |
| Switch matrix,CTCadvanced,SPM-4 NI DAQ,28016133,NI |

Test at TX 2437 MHz

RESULT: Reference Power cond.

| Test Description | Lower Limit | Upper Limit | Measured | Unit | Verdict |
|-------------------------------|-------------|-------------|----------|------|---------|
| Ref. Power 1MHz/1MHz cond. | --- | --- | 19.14 | dBm | INFO |
| Ref. Frequency | --- | --- | 2431.410 | MHz | INFO |

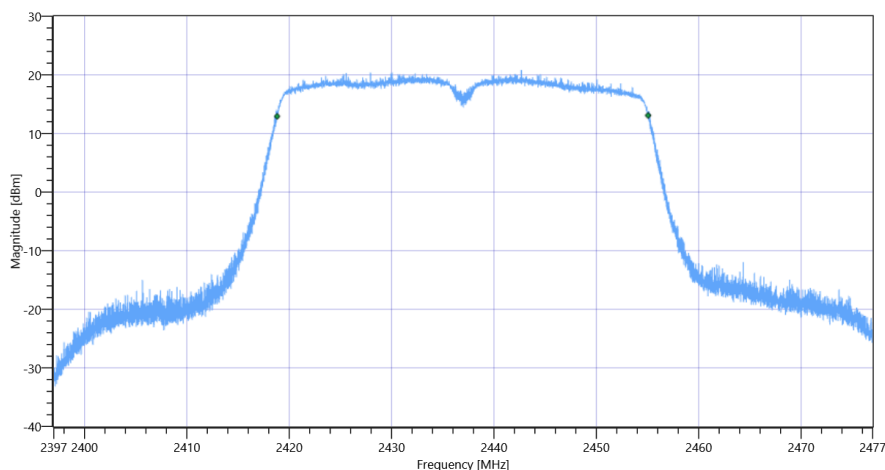
READ SA SETTINGS:

| | |
|--|------------------------|
| RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB] | 24.14 5 35 |
| 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 |

RESULT

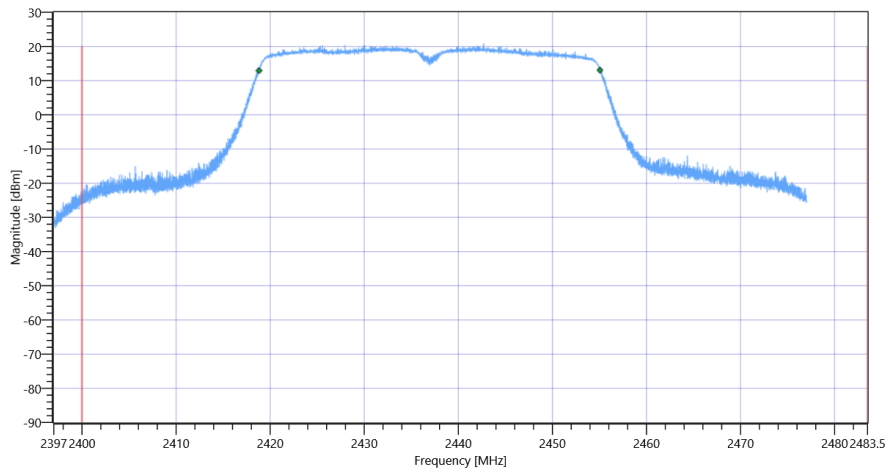
| Test Description | Lower Limit | Upper Limit | Measured | Unit | Verdict |
|------------------|-------------|-------------|-----------|------|---------|
| Bandwidth 99% | --- | --- | 36236.000 | kHz | INFO |
| T1 99% | 2400.000000 | --- | 2418.8178 | MHz | PASS |
| T2 99% | --- | 2483.500000 | 2455.0542 | MHz | PASS |

Plot: Bandwidth only



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

Plot: Bandwidth within Band

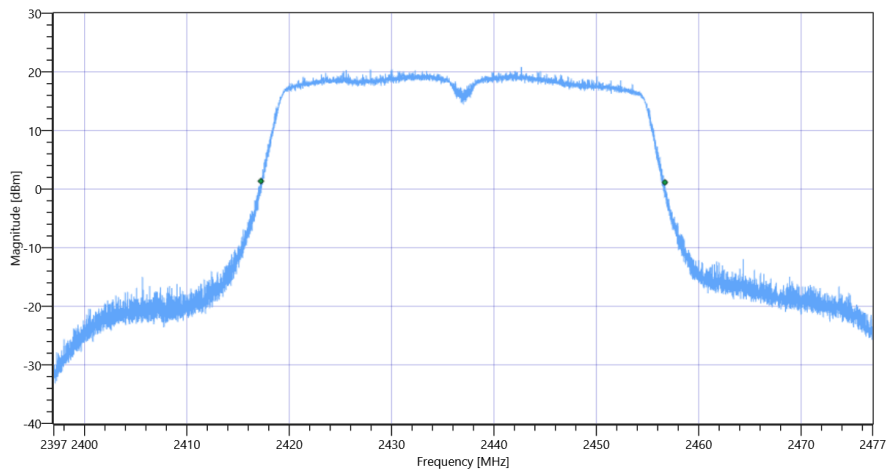


FCC 15.247, ISED RSS247 # Bandwidth 99PCT and 20dB ~ WLAN2G4 n-HT40 mode

RESULT

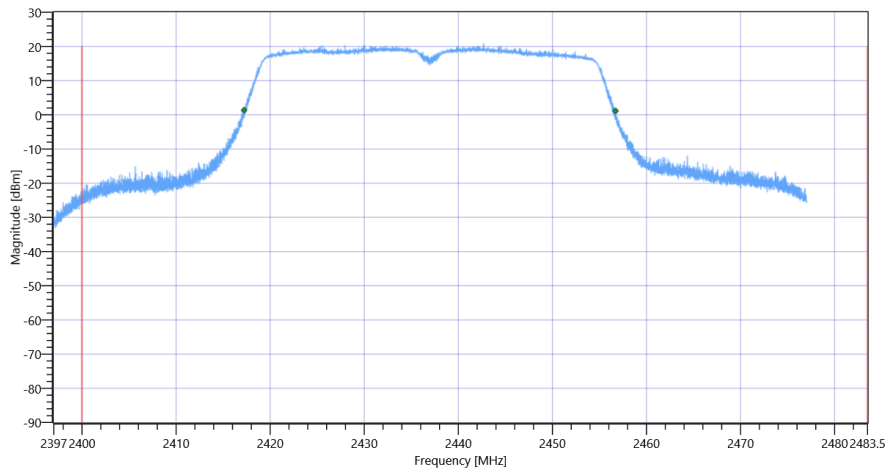
| Test Description | Lower Limit | Upper Limit | Measured | Unit | Verdict |
|------------------|-------------|-------------|-----------|------|---------|
| Bandwidth 20dB | --- | --- | 39472 | kHz | INFO |
| T1 20dB | 2400.000000 | --- | 2417.2320 | MHz | PASS |
| T2 20dB | --- | 2483.500000 | 2456.7040 | MHz | PASS |

Plot: Bandwidth only



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

Plot: Bandwidth within Band



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

FCC 15.247 # Avg power spectral density DTS ~ WLAN2G4 n-HT40 mode

Test References

| | |
|-----------------------------------|---|
| TC Start | 06.12.2022 13:56:01 |
| Ambit Temp [°C] Humidity [rel%] | 22.9 29 |
| System Version | 3.3.3.0 |
| Test Specification | FCC 15.247 - |
| Test Method | ANSI C63.10-2013 Chapter 11.10.5 or.3 |
| TC Version | 0.0.1 |
| My Description | FCC 15.247 Avg Power Spectral Density DTS - WLAN2G4 n-HT40 mode |
| Add. Information | |

EUT Common Settings WLAN2G4

| | |
|-------------------------|----|
| Number of Antenna Ports | 4 |
| User Interaction | No |

Test Parameter

| | |
|--|--|
| Technology to test | WLAN2G4 n-HT40 mode |
| Antenna Port used | 3 |
| 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] | -10 |
| Switched Path | EUT - SignalingUnit - SpectrumAnalyzer |

Test Equipment

| |
|---|
| Signal analyzer,Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.70 |
| Switch matrix,CTCadvanced,SPM-4 NI DAQ,28016133,NI |

Test at TX 2437 MHz

RESULT: Reference Power cond.

| Test Description | Lower Limit | Upper Limit | Measured | Unit | Verdict |
|-------------------------------|-------------|-------------|----------|------|---------|
| Ref. Power 1MHz/1MHz cond. | -- | -- | 18.86 | dBm | INFO |
| Ref. Frequency | -- | -- | 2433.500 | MHz | INFO |

Evaluation max. Duty Cycle

Duty Cycle evaluation

| Test Description | Lower Limit | Upper Limit | Measured | Unit | Verdict |
|------------------|-------------|-------------|----------|------|------------------|
| Duty Cycle min | -- | -- | 0 | dB | DC > 98% defined |

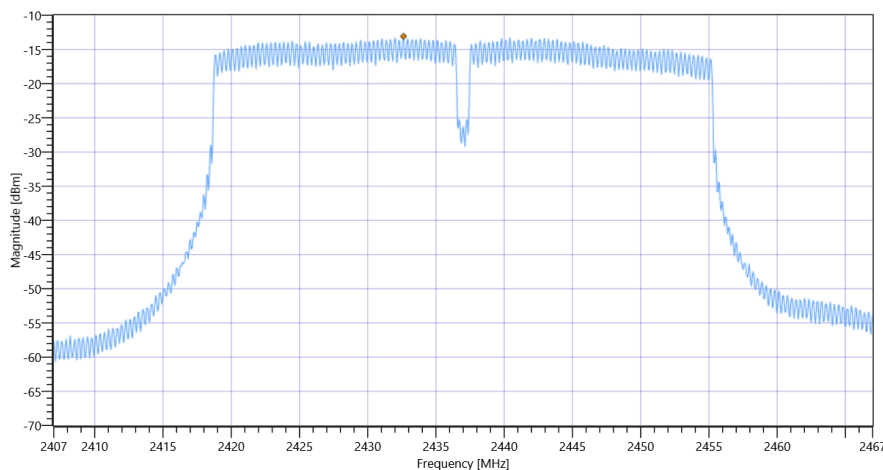
Avg. PSD

READ SA SETTINGS:

| | |
|--|------------------------|
| RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB] | 23.86 5 35 |
| Start [MHz] Stop [MHz] | 2407.000 2467.000 |
| RBW [MHz] VBW [MHz] | 0.003000 0.010000 |
| Detector TraceMode | RMS AVER |
| Sweep: Time [ms] Count Points per Section Type | 667 100 1001 SWE |

RESULT

| Test Description | Lower Limit | Upper Limit | Measured | Unit | Verdict |
|-----------------------|-------------|-------------|----------|----------|---------|
| Avg PSD uncorrected | -- | -- | -13.07 | dBm | INFO |
| Duty cycle correction | -- | -- | 0 | dB | INFO |
| Avg PSD DC corrected | -- | 8 | -13.07 | dBm/3kHz | PASS |



FCC 15.247 # Avg power spectral density DTS ~ WLAN2G4 n-HT40 mode

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

Test References

| | |
|-----------------------------------|---|
| TC Start | 06.12.2022 13:55:25 |
| Ambit Temp [°C] Humidity [rel%] | 22.9 29 |
| System Version | 3.3.3.0 |
| Test Specification | FCC 15.247 - |
| Test Method | |
| TC Version | 0.0.1 |
| My Description | FCC 15.247 Bandwidth 6dB DTS - WLAN2G4 nHT40_mode |
| Add. Information | |

EUT Common Settings WLAN2G4

| | |
|-------------------------|----|
| Number of Antenna Ports | 4 |
| User Interaction | No |

Test Parameter

| | |
|--|--|
| Technology to test | WLAN2G4 n-HT40 mode |
| Antenna Port used | 3 |
| 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] | -10 |
| Switched Path | EUT - SignalingUnit - SpectrumAnalyzer |

Test Equipment

| |
|---|
| Signal analyzer,Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.70 |
| Switch matrix,CTCadvanced,SPM-4 NI DAQ,28016133,NI |

Test at TX 2437 MHz

RESULT: Reference Power cond.

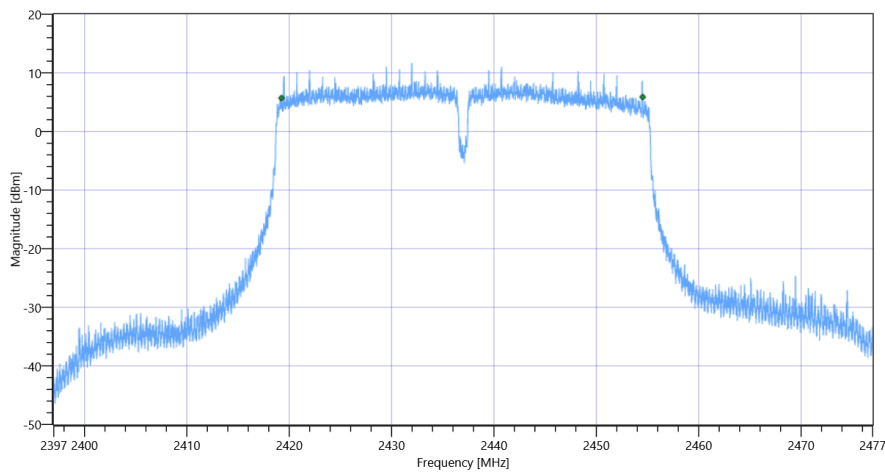
| Test Description | Lower Limit | Upper Limit | Measured | Unit | Verdict |
|-------------------------------|-------------|-------------|----------|------|---------|
| Ref. Power 1MHz/1MHz cond. | --- | --- | 18.52 | dBm | INFO |
| Ref. Frequency | --- | --- | 2435.100 | MHz | INFO |

READ SA SETTINGS:

| | |
|--|------------------------|
| RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB] | 23.52 5 35 |
| 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 |

RESULT

| Test Description | Lower Limit | Upper Limit | Measured | Unit | Verdict |
|---------------------|-------------|-------------|----------|------|---------|
| DTS Bandwidth (6dB) | 500 | --- | 35280 | kHz | PASS |



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

FCC 15.247 # TX spurious conducted 30dBc ~ WLAN2G4 n-HT40 mode

Test References

| | |
|-----------------------------------|--|
| TC Start | 06.12.2022 13:45:09 |
| Ambit Temp [°C] Humidity [rel%] | 23.1 28 |
| System Version | 3.3.3.0 |
| Test Specification | FCC 15.247 - |
| Test Method | IF DTS then 8.5 DTS emissions in non-restricted frequency bands: Subclause 11.11 of ANSI C63.10 is applicable |
| TC Version | 0.0.1 |
| My Description | FCC 15.247 TX Emissions Conducted 30dBc DTS DTS - WLAN2G4 n-HT40 mode |

Add. Information

EUT Common Settings WLAN2G4

| | |
|-------------------------|----|
| Number of Antenna Ports | 4 |
| User Interaction | No |

Test Parameter

| | |
|--|--|
| Technology to test | WLAN2G4 n-HT40 mode |
| Antenna Port used | 2 |
| 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] | -10 |
| Switched Path | EUT - SignalingUnit - SpectrumAnalyzer |

Test Equipment

Signal analyzer,Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.70
Switch matrix,CTCadvanced,SPM-4 NI DAQ,28016133,NI

Test at TX 2437 MHz

RESULT: Reference Power cond.

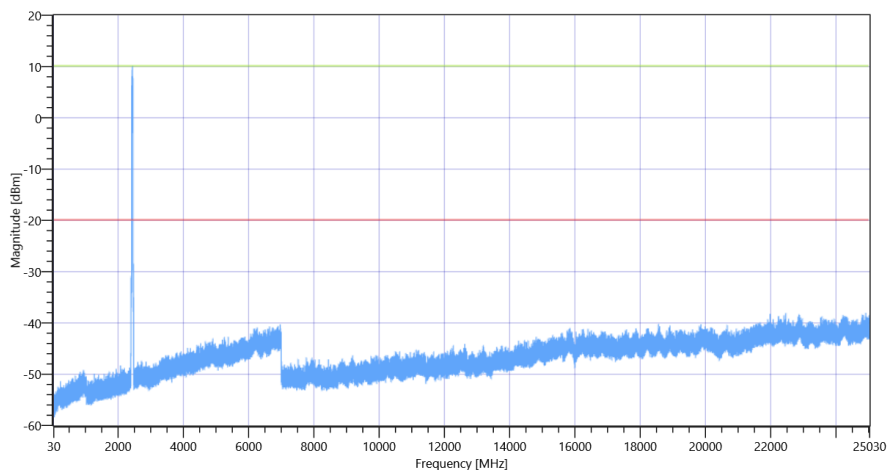
| Test Description | Lower Limit | Upper Limit | Measured | Unit | Verdict |
|-------------------------------|-------------|-------------|----------|------|---------|
| Ref. Power 1MHz/1MHz cond. | --- | --- | 18.59 | dBm | INFO |
| Ref. Frequency | --- | --- | 2434.800 | MHz | INFO |

READ SA SETTINGS:

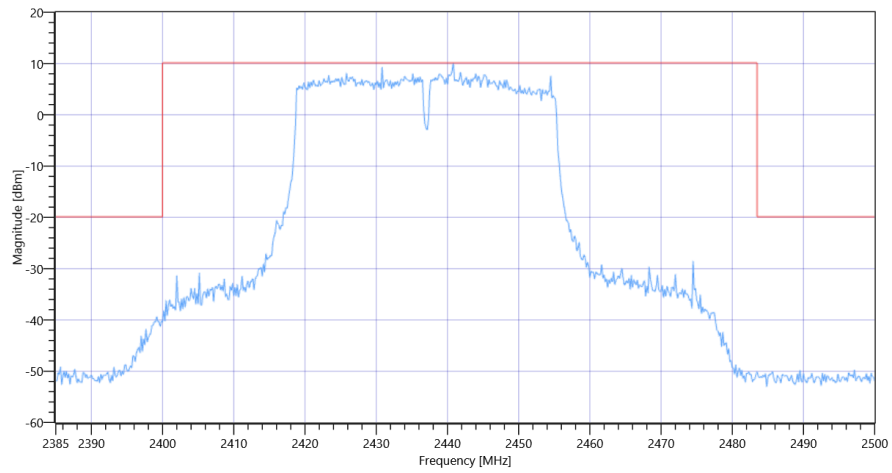
| | |
|--|-----------------------|
| RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB] | 18.59 0 35 |
| Start [MHz] Stop [MHz] | 24530.000 25030.000 |
| RBW [MHz] VBW [MHz] | 0.100000 0.300000 |
| Detector TraceMode | POS MAXH |
| Sweep: Time [ms] Count Points per Section Type | 200 25 3001 SWE |

RESULT

| Test Description | Lower Limit | Upper Limit | Measured | Unit | Verdict |
|--------------------------------------|-------------|-------------|----------|------|---------|
| Reference @ 2440.83 MHz | --- | --- | 10.12 | dBm | INFO |
| No peaks detected | --- | --- | | | PASS |
| Lowest margin to limit 24908.167 MHz | 0 | --- | 18.16 | dB | INFO |



FCC 15.247 # TX spurious conducted 30dBc ~ WLAN2G4 n-HT40 mode 2437



FCC 15.247 # TX spurious conducted 30dBc ~ WLAN2G4 n-HT40 mode 2437

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

Test References

| | |
|-----------------------------------|---|
| TC Start | 06.12.2022 13:44:09 |
| Ambit Temp [°C] Humidity [rel%] | 23.1 28 |
| System Version | 3.3.3.0 |
| Test Specification | FCC 15.247, ISED RSS247 - |
| Test Method | |
| TC Version | 0.0.2 |
| My Description | FCC 15.247 Bandwidth 99PCT-20dB DTS - WLAN2G4 n-HT40 mode |
| Add. Information | |

EUT Common Settings WLAN2G4

| | |
|-------------------------|----|
| Number of Antenna Ports | 4 |
| User Interaction | No |

Test Parameter

| | |
|--|--|
| Technology to test | WLAN2G4 n-HT40 mode |
| Antenna Port used | 2 |
| 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] | -10 |
| Switched Path | EUT - SignalingUnit - SpectrumAnalyzer |

Test Equipment

| |
|---|
| Signal analyzer,Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.70 |
| Switch matrix,CTCadvanced,SPM-4 NI DAQ,28016133,NI |

Test at TX 2437 MHz

RESULT: Reference Power cond.

| Test Description | Lower Limit | Upper Limit | Measured | Unit | Verdict |
|-------------------------------|-------------|-------------|----------|------|---------|
| Ref. Power 1MHz/1MHz cond. | --- | --- | 18.95 | dBm | INFO |
| Ref. Frequency | --- | --- | 2440.900 | MHz | INFO |

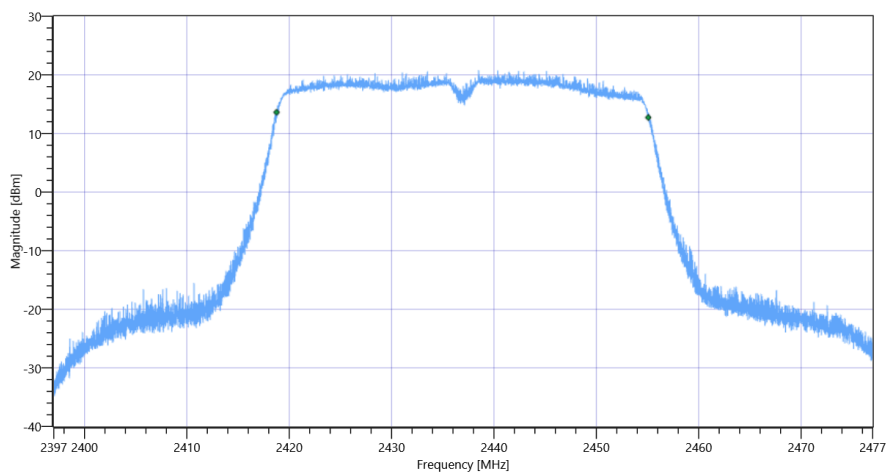
READ SA SETTINGS:

| | |
|--|------------------------|
| RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB] | 23.95 5 35 |
| 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 |

RESULT

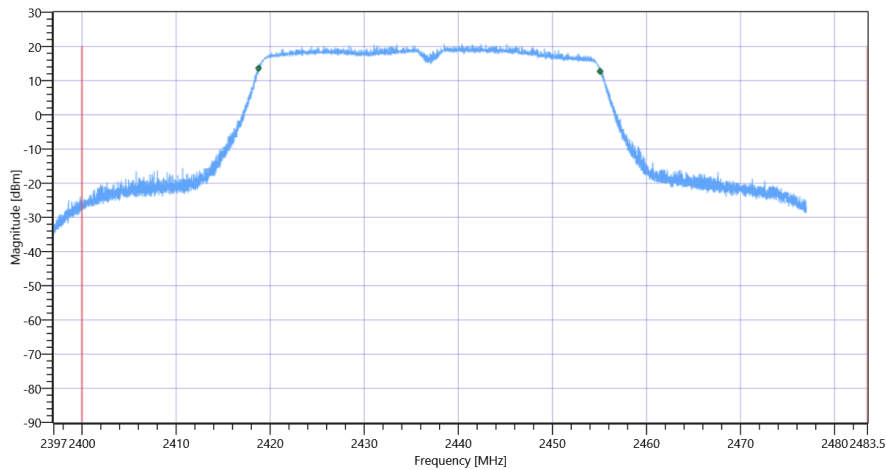
| Test Description | Lower Limit | Upper Limit | Measured | Unit | Verdict |
|------------------|-------------|-------------|-----------|------|---------|
| Bandwidth 99% | --- | --- | 36308.000 | kHz | INFO |
| T1 99% | 2400.000000 | --- | 2418.7618 | MHz | PASS |
| T2 99% | --- | 2483.500000 | 2455.0702 | MHz | PASS |

Plot: Bandwidth only



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

Plot: Bandwidth within Band

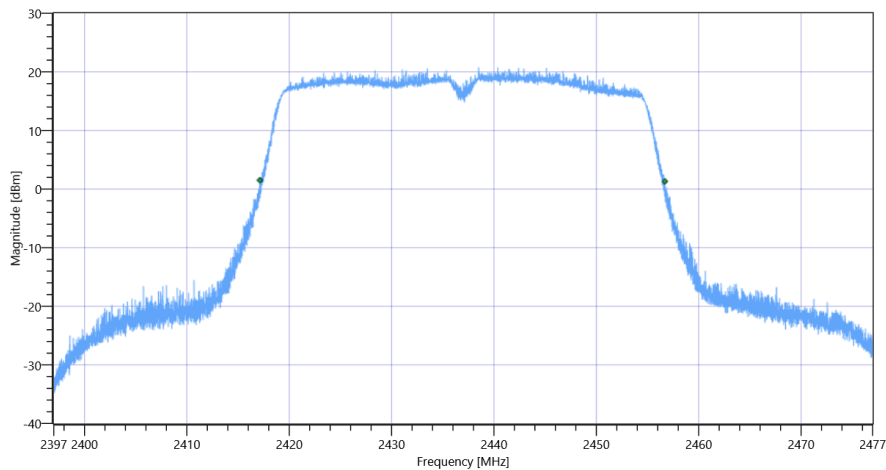


FCC 15.247, ISED RSS247 # Bandwidth 99PCT and 20dB ~ WLAN2G4 n-HT40 mode

RESULT

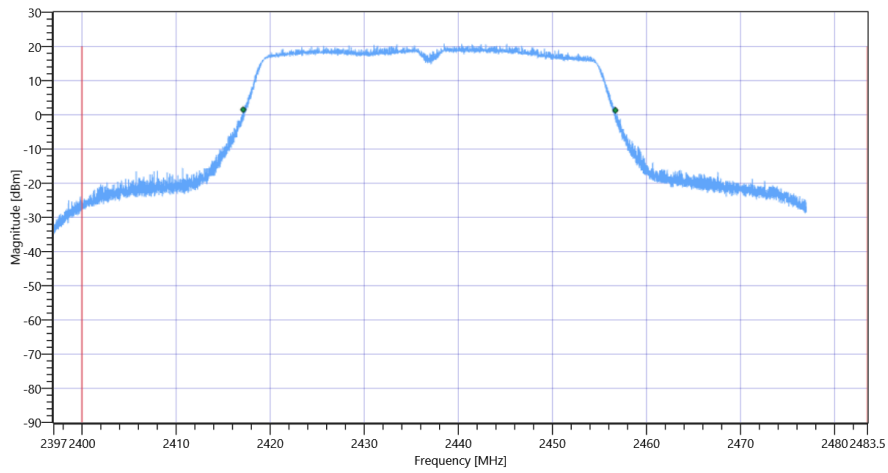
| Test Description | Lower Limit | Upper Limit | Measured | Unit | Verdict |
|------------------|-------------|-------------|-----------|------|---------|
| Bandwidth 20dB | --- | --- | 39560 | kHz | INFO |
| T1 20dB | 2400.000000 | --- | 2417.1360 | MHz | PASS |
| T2 20dB | --- | 2483.500000 | 2456.6960 | MHz | PASS |

Plot: Bandwidth only



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

Plot: Bandwidth within Band



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

FCC 15.247 # Avg power spectral density DTS ~ WLAN2G4 n-HT40 mode

Test References

| | |
|-----------------------------------|---|
| TC Start | 06.12.2022 13:42:21 |
| Ambit Temp [°C] Humidity [rel%] | 23.1 28 |
| System Version | 3.3.3.0 |
| Test Specification | FCC 15.247 - |
| Test Method | ANSI C63.10-2013 Chapter 11.10.5 or.3 |
| TC Version | 0.0.1 |
| My Description | FCC 15.247 Avg Power Spectral Density DTS - WLAN2G4 n-HT40 mode |
| Add. Information | |

EUT Common Settings WLAN2G4

| | |
|-------------------------|----|
| Number of Antenna Ports | 4 |
| User Interaction | No |

Test Parameter

| | |
|--|--|
| Technology to test | WLAN2G4 n-HT40 mode |
| Antenna Port used | 2 |
| 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] | -10 |
| Switched Path | EUT - SignalingUnit - SpectrumAnalyzer |

Test Equipment

| |
|---|
| Signal analyzer,Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.70 |
| Switch matrix,CTCadvanced,SPM-4 NI DAQ,28016133,NI |

Test at TX 2437 MHz

RESULT: Reference Power cond.

| Test Description | Lower Limit | Upper Limit | Measured | Unit | Verdict |
|-------------------------------|-------------|-------------|----------|------|---------|
| Ref. Power 1MHz/1MHz cond. | -- | -- | 18.89 | dBm | INFO |
| Ref. Frequency | -- | -- | 2438.700 | MHz | INFO |

Evaluation max. Duty Cycle

Duty Cycle evaluation

| Test Description | Lower Limit | Upper Limit | Measured | Unit | Verdict |
|------------------|-------------|-------------|----------|------|------------------|
| Duty Cycle min | -- | -- | 0 | dB | DC > 98% defined |

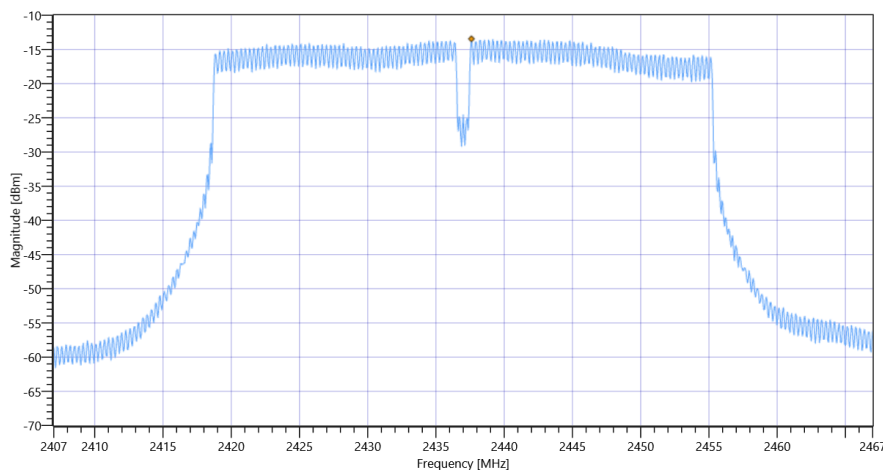
Avg. PSD

READ SA SETTINGS:

| | |
|--|------------------------|
| RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB] | 23.89 5 35 |
| Start [MHz] Stop [MHz] | 2407.000 2467.000 |
| RBW [MHz] VBW [MHz] | 0.003000 0.010000 |
| Detector TraceMode | RMS AVER |
| Sweep: Time [ms] Count Points per Section Type | 667 100 1001 SWE |

RESULT

| Test Description | Lower Limit | Upper Limit | Measured | Unit | Verdict |
|-----------------------|-------------|-------------|----------|----------|---------|
| Avg PSD uncorrected | -- | -- | -13.45 | dBm | INFO |
| Duty cycle correction | -- | -- | 0 | dB | INFO |
| Avg PSD DC corrected | -- | 8 | -13.45 | dBm/3kHz | PASS |



FCC 15.247 # Avg power spectral density DTS ~ WLAN2G4 n-HT40 mode

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

Test References

| | |
|-----------------------------------|---|
| TC Start | 06.12.2022 13:41:45 |
| Ambit Temp [°C] Humidity [rel%] | 23.1 28 |
| System Version | 3.3.3.0 |
| Test Specification | FCC 15.247 - |
| Test Method | |
| TC Version | 0.0.1 |
| My Description | FCC 15.247 Bandwidth 6dB DTS - WLAN2G4 nHT40_mode |
| Add. Information | |

EUT Common Settings WLAN2G4

| | |
|-------------------------|----|
| Number of Antenna Ports | 4 |
| User Interaction | No |

Test Parameter

| | |
|--|--|
| Technology to test | WLAN2G4 n-HT40 mode |
| Antenna Port used | 2 |
| 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] | -10 |
| Switched Path | EUT - SignalingUnit - SpectrumAnalyzer |

Test Equipment

| |
|---|
| Signal analyzer,Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.70 |
| Switch matrix,CTCadvanced,SPM-4 NI DAQ,28016133,NI |

Test at TX 2437 MHz

RESULT: Reference Power cond.

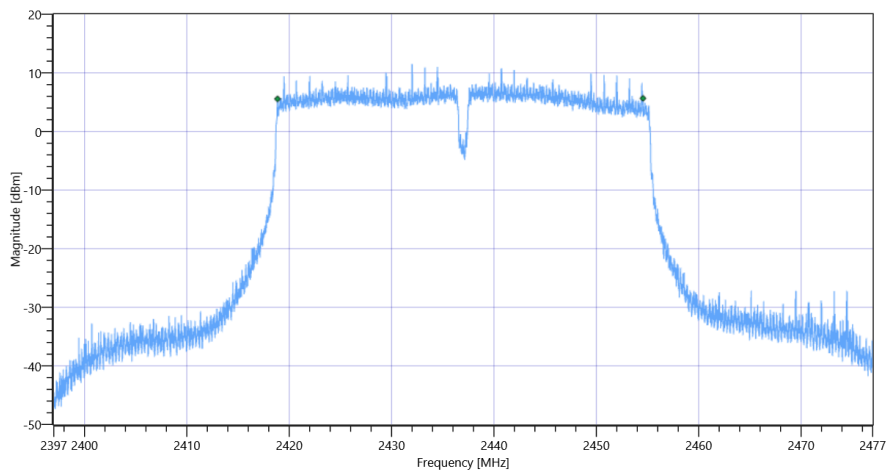
| Test Description | Lower Limit | Upper Limit | Measured | Unit | Verdict |
|-------------------------------|-------------|-------------|----------|------|---------|
| Ref. Power 1MHz/1MHz cond. | -- | -- | 18.62 | dBm | INFO |
| Ref. Frequency | -- | -- | 2423.910 | MHz | INFO |

READ SA SETTINGS:

| | |
|--|------------------------|
| RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB] | 23.62 5 35 |
| 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 |

RESULT

| Test Description | Lower Limit | Upper Limit | Measured | Unit | Verdict |
|---------------------|-------------|-------------|----------|------|---------|
| DTS Bandwidth (6dB) | 500 | -- | 35704 | kHz | PASS |



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

FCC 15.247 # TX spurious conducted 30dBc ~ WLAN2G4 n-HT40 mode

Test References

| | |
|-----------------------------------|--|
| TC Start | 06.12.2022 13:31:29 |
| Ambit Temp [°C] Humidity [rel%] | 23.3 28 |
| System Version | 3.3.3.0 |
| Test Specification | FCC 15.247 - |
| Test Method | IF DTS then 8.5 DTS emissions in non-restricted frequency bands: Subclause 11.11 of ANSI C63.10 is applicable |
| TC Version | 0.0.1 |
| My Description | FCC 15.247 TX Emissions Conducted 30dBc DTS DTS - WLAN2G4 n-HT40 mode |

Add. Information

EUT Common Settings WLAN2G4

| | |
|-------------------------|----|
| Number of Antenna Ports | 4 |
| User Interaction | No |

Test Parameter

| | |
|--|--|
| Technology to test | WLAN2G4 n-HT40 mode |
| Antenna Port used | 1 |
| 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] | -10 |
| Switched Path | EUT - SignalingUnit - SpectrumAnalyzer |

Test Equipment

Signal analyzer,Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.70

Switch matrix,CTCadvanced,SPM-4 NI DAQ,28016133,NI

Test at TX 2437 MHz

RESULT: Reference Power cond.

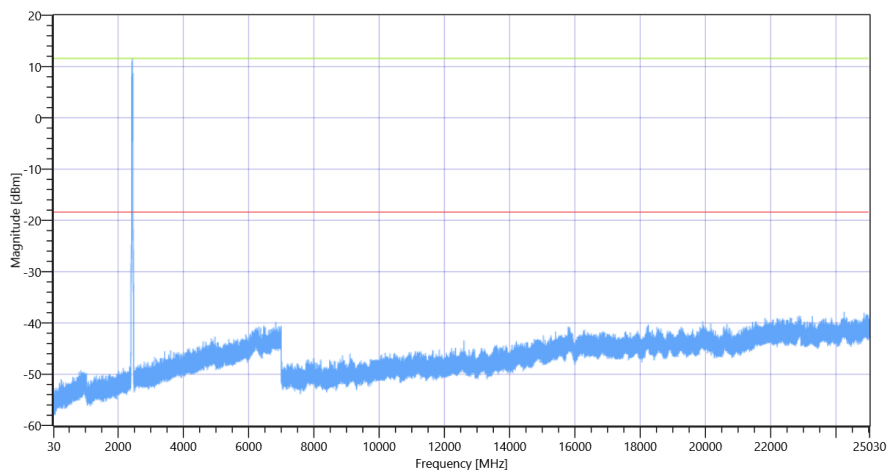
| Test Description | Lower Limit | Upper Limit | Measured | Unit | Verdict |
|-------------------------------|-------------|-------------|----------|------|---------|
| Ref. Power 1MHz/1MHz cond. | --- | --- | 18.85 | dBm | INFO |
| Ref. Frequency | --- | --- | 2431.110 | MHz | INFO |

READ SA SETTINGS:

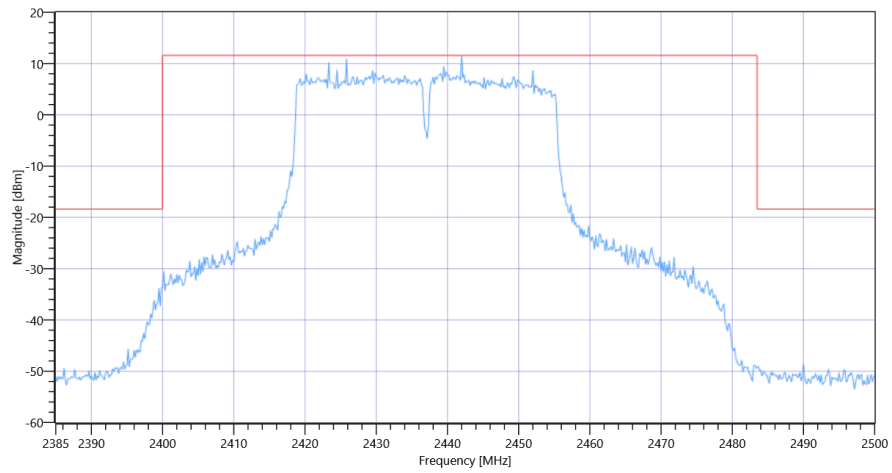
| | |
|--|-----------------------|
| RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB] | 18.85 0 35 |
| Start [MHz] Stop [MHz] | 24530.000 25030.000 |
| RBW [MHz] VBW [MHz] | 0.100000 0.300000 |
| Detector TraceMode | POS MAXH |
| Sweep: Time [ms] Count Points per Section Type | 200 25 3001 SWE |

RESULT

| Test Description | Lower Limit | Upper Limit | Measured | Unit | Verdict |
|-------------------------------------|-------------|-------------|----------|------|---------|
| Reference @ 2442.00 MHz | --- | --- | 11.61 | dBm | INFO |
| No peaks detected | --- | --- | | | PASS |
| Lowest margin to limit 2399.833 MHz | 0 | --- | 15.25 | dB | INFO |



FCC 15.247 # TX spurious conducted 30dBc ~ WLAN2G4 n-HT40 mode 2437



FCC 15.247 # TX spurious conducted 30dBc ~ WLAN2G4 n-HT40 mode 2437

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

Test References

| | |
|-----------------------------------|---|
| TC Start | 06.12.2022 13:30:29 |
| Ambit Temp [°C] Humidity [rel%] | 23.3 28 |
| System Version | 3.3.3.0 |
| Test Specification | FCC 15.247, ISED RSS247 - |
| Test Method | |
| TC Version | 0.0.2 |
| My Description | FCC 15.247 Bandwidth 99PCT-20dB DTS - WLAN2G4 n-HT40 mode |
| Add. Information | |

EUT Common Settings WLAN2G4

| | |
|-------------------------|----|
| Number of Antenna Ports | 4 |
| User Interaction | No |

Test Parameter

| | |
|--|--|
| Technology to test | WLAN2G4 n-HT40 mode |
| Antenna Port used | 1 |
| 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] | -10 |
| Switched Path | EUT - SignalingUnit - SpectrumAnalyzer |

Test Equipment

| |
|---|
| Signal analyzer,Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.70 |
| Switch matrix,CTCadvanced,SPM-4 NI DAQ,28016133,NI |

Test at TX 2437 MHz

RESULT: Reference Power cond.

| Test Description | Lower Limit | Upper Limit | Measured | Unit | Verdict |
|-------------------------------|-------------|-------------|----------|------|---------|
| Ref. Power 1MHz/1MHz cond. | --- | --- | 19.70 | dBm | INFO |
| Ref. Frequency | --- | --- | 2439.100 | MHz | INFO |

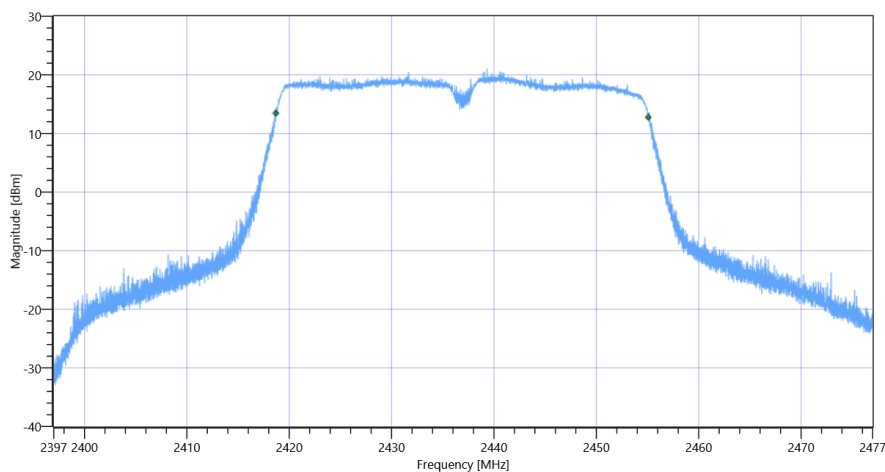
READ SA SETTINGS:

| | |
|--|------------------------|
| RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB] | 24.70 5 35 |
| 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 |

RESULT

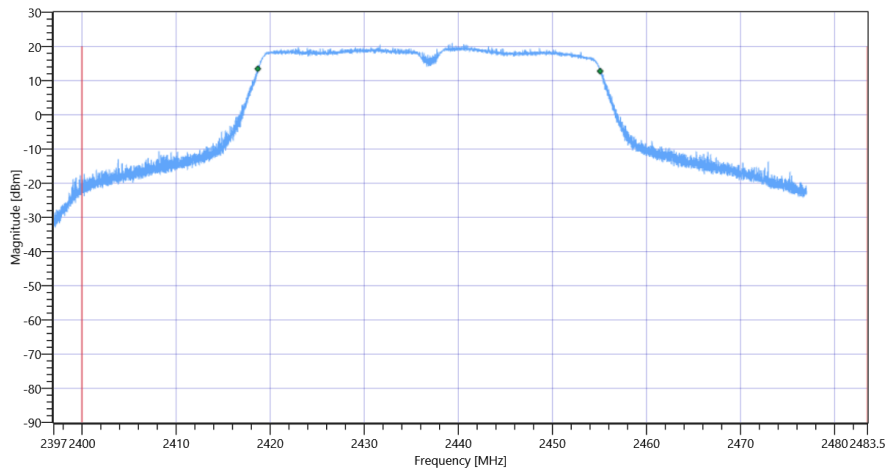
| Test Description | Lower Limit | Upper Limit | Measured | Unit | Verdict |
|------------------|-------------|-------------|-----------|------|---------|
| Bandwidth 99% | --- | --- | 36388.000 | kHz | INFO |
| T1 99% | 2400.000000 | --- | 2418.6898 | MHz | PASS |
| T2 99% | --- | 2483.500000 | 2455.0782 | MHz | PASS |

Plot: Bandwidth only



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

Plot: Bandwidth within Band

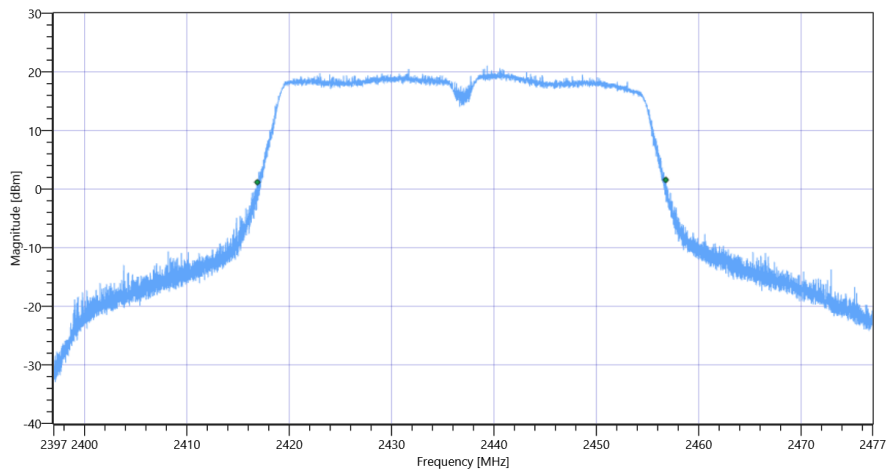


FCC 15.247, ISED RSS247 # Bandwidth 99PCT and 20dB ~ WLAN2G4 n-HT40 mode

RESULT

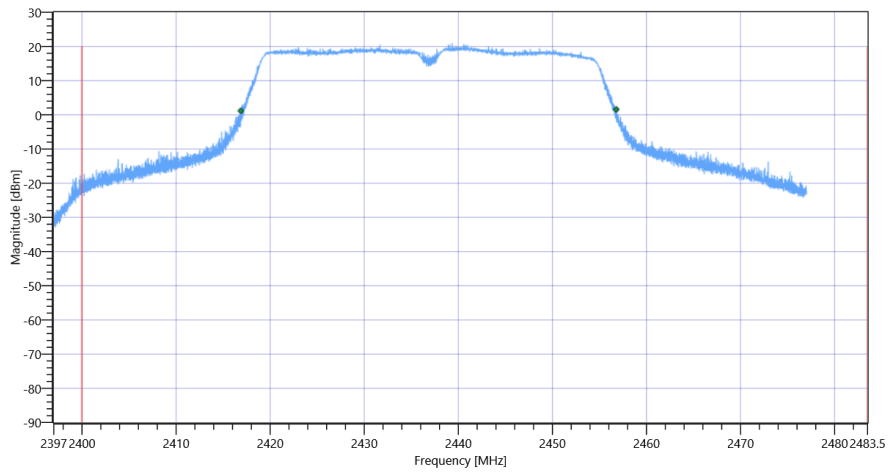
| Test Description | Lower Limit | Upper Limit | Measured | Unit | Verdict |
|------------------|-------------|-------------|-----------|------|---------|
| Bandwidth 20dB | --- | --- | 39904 | kHz | INFO |
| T1 20dB | 2400.000000 | --- | 2416.8800 | MHz | PASS |
| T2 20dB | --- | 2483.500000 | 2456.7840 | MHz | PASS |

Plot: Bandwidth only



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

Plot: Bandwidth within Band



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

FCC 15.247 # Avg power spectral density DTS ~ WLAN2G4 n-HT40 mode

Test References

| | |
|-----------------------------------|---|
| TC Start | 06.12.2022 13:28:41 |
| Ambit Temp [°C] Humidity [rel%] | 23.3 28 |
| System Version | 3.3.3.0 |
| Test Specification | FCC 15.247 - |
| Test Method | ANSI C63.10-2013 Chapter 11.10.5 or.3 |
| TC Version | 0.0.1 |
| My Description | FCC 15.247 Avg Power Spectral Density DTS - WLAN2G4 n-HT40 mode |
| Add. Information | |

EUT Common Settings WLAN2G4

| | |
|-------------------------|----|
| Number of Antenna Ports | 4 |
| User Interaction | No |

Test Parameter

| | |
|--|--|
| Technology to test | WLAN2G4 n-HT40 mode |
| Antenna Port used | 1 |
| 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] | -10 |
| Switched Path | EUT - SignalingUnit - SpectrumAnalyzer |

Test Equipment

| |
|---|
| Signal analyzer,Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.70 |
| Switch matrix,CTCadvanced,SPM-4 NI DAQ,28016133,NI |

Test at TX 2437 MHz

RESULT: Reference Power cond.

| Test Description | Lower Limit | Upper Limit | Measured | Unit | Verdict |
|-------------------------------|-------------|-------------|----------|------|---------|
| Ref. Power 1MHz/1MHz cond. | -- | -- | 19.09 | dBm | INFO |
| Ref. Frequency | -- | -- | 2440.300 | MHz | INFO |

Evaluation max. Duty Cycle

Duty Cycle evaluation

| Test Description | Lower Limit | Upper Limit | Measured | Unit | Verdict |
|------------------|-------------|-------------|----------|------|------------------|
| Duty Cycle min | -- | -- | 0 | dB | DC > 98% defined |

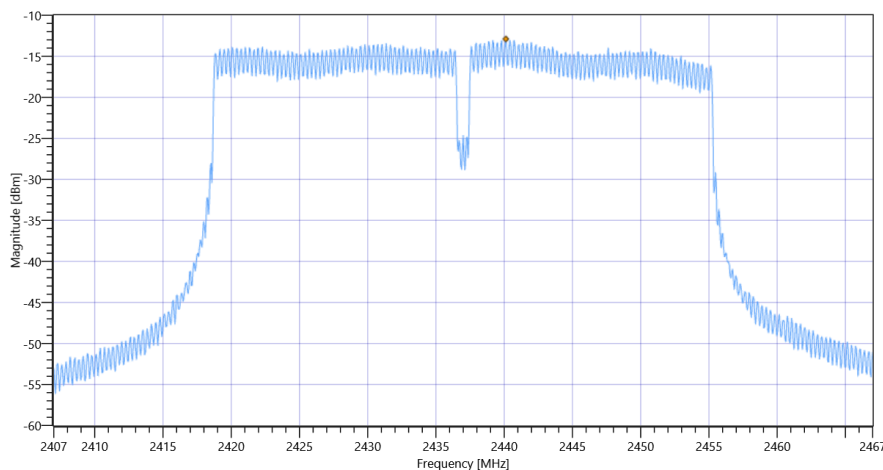
Avg. PSD

READ SA SETTINGS:

| | |
|--|------------------------|
| RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB] | 24.09 5 35 |
| Start [MHz] Stop [MHz] | 2407.000 2467.000 |
| RBW [MHz] VBW [MHz] | 0.003000 0.010000 |
| Detector TraceMode | RMS AVER |
| Sweep: Time [ms] Count Points per Section Type | 667 100 1001 SWE |

RESULT

| Test Description | Lower Limit | Upper Limit | Measured | Unit | Verdict |
|-----------------------|-------------|-------------|----------|----------|---------|
| Avg PSD uncorrected | -- | -- | -12.89 | dBm | INFO |
| Duty cycle correction | -- | -- | 0 | dB | INFO |
| Avg PSD DC corrected | -- | 8 | -12.89 | dBm/3kHz | PASS |



FCC 15.247 # Avg power spectral density DTS ~ WLAN2G4 n-HT40 mode

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

Test References

| | |
|-----------------------------------|---|
| TC Start | 06.12.2022 13:28:06 |
| Ambit Temp [°C] Humidity [rel%] | 23.3 29 |
| System Version | 3.3.3.0 |
| Test Specification | FCC 15.247 - |
| Test Method | |
| TC Version | 0.0.1 |
| My Description | FCC 15.247 Bandwidth 6dB DTS - WLAN2G4 nHT40_mode |
| Add. Information | |

EUT Common Settings WLAN2G4

| | |
|-------------------------|----|
| Number of Antenna Ports | 4 |
| User Interaction | No |

Test Parameter

| | |
|--|--|
| Technology to test | WLAN2G4 n-HT40 mode |
| Antenna Port used | 1 |
| 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] | -10 |
| Switched Path | EUT - SignalingUnit - SpectrumAnalyzer |

Test Equipment

| |
|---|
| Signal analyzer,Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.70 |
| Switch matrix,CTCadvanced,SPM-4 NI DAQ,28016133,NI |