

# Measurement Results

No.1-4095/22-01-04\_Annex\_MR\_A4

---

## Test logging

This document is electronically signed and valid without handwritten signature.  
For verification of the electronic signatures, the public keys can be requested at the testing laboratory.

Document authorized:

Test/s performed:

---

**Michael Dorongovski**  
Lab Manager  
Radio Communications

---

**Andreas Kurzkurt**  
Testing Manager  
Radio Communications

## Table of Content

EUT Information	3
FCC 15.247 # Avg power spectral density DTS ~ WLAN2G4 ax-HE20	4
FCC 15.247 # Avg power spectral density DTS ~ WLAN2G4 ax-HE20	7
FCC 15.247 # Avg power spectral density DTS ~ WLAN2G4 ax-HE20	10
FCC 15.247 # Avg power spectral density DTS ~ WLAN2G4 ax-HE20	13
FCC 15.247 # Avg power spectral density DTS ~ WLAN2G4 ax-HE20	16
FCC 15.247 # Avg power spectral density DTS ~ WLAN2G4 ax-HE20	19
FCC 15.247 # Bandwidth 6dB DTS ~ WLAN2G4 ax-HE20	22
FCC 15.247 # Bandwidth 6dB DTS ~ WLAN2G4 ax-HE20	24
FCC 15.247 # Bandwidth 6dB DTS ~ WLAN2G4 ax-HE20	26
FCC 15.247 # Bandwidth 6dB DTS ~ WLAN2G4 ax-HE20	28
FCC 15.247 # Bandwidth 6dB DTS ~ WLAN2G4 ax-HE20	30
FCC 15.247 # Bandwidth 6dB DTS ~ WLAN2G4 ax-HE20	32
FCC 15.247, ISED RSS247 # Bandwidth 99PCT and 20dB ~ WLAN2G4 ax-HE20	34
FCC 15.247, ISED RSS247 # Bandwidth 99PCT and 20dB ~ WLAN2G4 ax-HE20	38
FCC 15.247, ISED RSS247 # Bandwidth 99PCT and 20dB ~ WLAN2G4 ax-HE20	42
FCC 15.247, ISED RSS247 # Bandwidth 99PCT and 20dB ~ WLAN2G4 ax-HE20	46
FCC 15.247, ISED RSS247 # Bandwidth 99PCT and 20dB ~ WLAN2G4 ax-HE20	50
FCC 15.247, ISED RSS247 # Bandwidth 99PCT and 20dB ~ WLAN2G4 ax-HE20	54
FCC 15.247 # Maximum avg conducted output power SA DTS ~ WLAN2G4 ax-HE20	58
FCC 15.247 # Maximum avg conducted output power SA DTS ~ WLAN2G4 ax-HE20	61
FCC 15.247 # Maximum avg conducted output power SA DTS ~ WLAN2G4 ax-HE20	64
FCC 15.247 # Maximum avg conducted output power SA DTS ~ WLAN2G4 ax-HE20	67
FCC 15.247 # Maximum avg conducted output power SA DTS ~ WLAN2G4 ax-HE20	70
FCC 15.247 # Maximum avg conducted output power SA DTS ~ WLAN2G4 ax-HE20	73
FCC 15.247 # TX spurious conducted 30dBc ~ WLAN2G4 ax-HE20	76
FCC 15.247 # TX spurious conducted 30dBc ~ WLAN2G4 ax-HE20	79
FCC 15.247 # TX spurious conducted 30dBc ~ WLAN2G4 ax-HE20	82
FCC 15.247 # TX spurious conducted 30dBc ~ WLAN2G4 ax-HE20	85
FCC 15.247 # TX spurious conducted 30dBc ~ WLAN2G4 ax-HE20	88
FCC 15.247 # TX spurious conducted 30dBc ~ WLAN2G4 ax-HE20	91

## EUT Information

EUT DEFINITION	
Manufacturer	Sagemcom
Type	DIW377 UHD ALT US
Serial Number	NI
Setup Number	1.0
Version SW	NI
Version FW	NI
Version HW	NI
Comment 1	
Comment 2	
Temperature [°C] Min	-20
Temperature [°C] Nom	20
Temperature [°C] Max	55
Voltage [V] Min	3.3
Voltage [V] Nom	3.8
Voltage [V] Max	4.2

## FCC 15.247 # Avg power spectral density DTS ~ WLAN2G4 ax-HE20

Test References	
TC Start	06.07.2022 11:52:50
Ambit Temp [°C]   Humidity [rel%]	25.0   34
System Version	3.2.0.2
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 ax-HE20
Add. Information	

EUT Common Settings WLAN2G4	
Number of Antenna Ports	2
User Interaction	No

Test Parameter	
Technology to test	WLAN2G4 ax-HE20
Antenna Port used	1
Temperature	nom
Voltage	nom
Frequency low to test	True   Freq [MHz] 2412
Frequency mid to test	False   Freq [MHz] 2437
Frequency high to test	False   Freq [MHz] 2462
Auto Control enabled Power Supply   Climatic Box	No   No
Additional Path Loss [dB]	0.7
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 2412 MHz

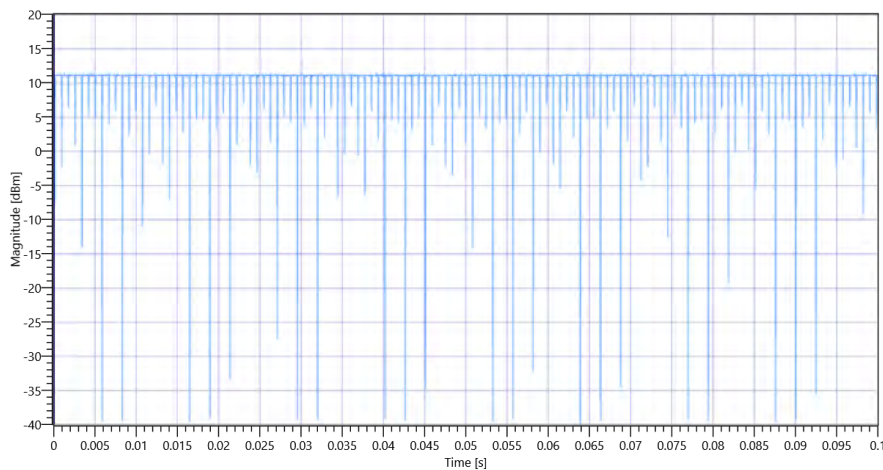
RESULT: Reference Power cond.

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	10.43	dBm	INFO
Ref. Frequency	---	---	2411.100	MHz	INFO

## Evaluation max. Duty Cycle

Duty Cycle evaluation

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Result Summary					
Number of detected Bursts:58					
Duty Cycle (Burst Ratio) max	---	---	0.969	---	INFO
Duty Cycle max	---	---	0.137	dB	INFO
Duty Cycle (Burst Ratio) min	---	---	0.909	---	INFO
Duty Cycle min	---	---	0.414	dB	INFO
Max TX Burst Length	---	---	2.375	ms	INFO
Min Gap Length	---	---	0.075	ms	INFO
Max Gap Length	---	---	0.075	ms	INFO



FCC 15.247 # Avg power spectral density DTS ~ WLAN2G4 ax-HE20 2412 MHz - DutyCycle

## Avg. PSD

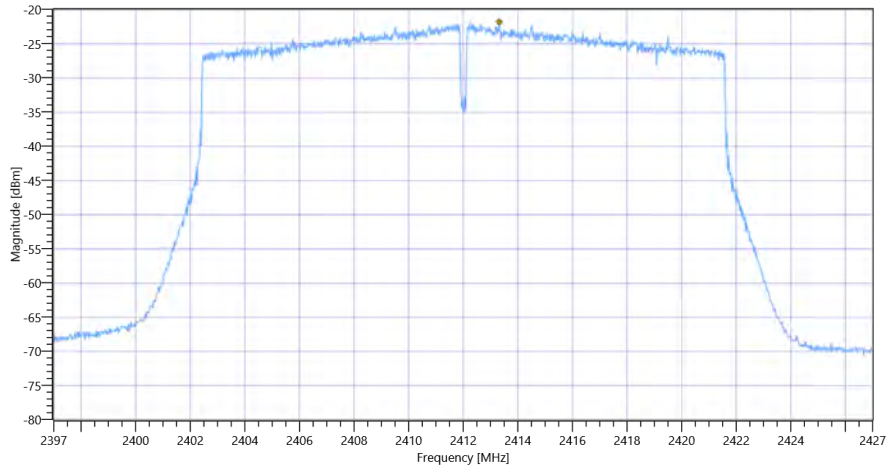
READ SA SETTINGS:

RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]	15.43   15.93   15
Start [MHz]   Stop [MHz]	2397.000   2427.000
RBW [MHz]   VBW [MHz]	0.003000   0.010000
Detector   TraceMode	RMS   AVER
Sweep: Time [ms]   Count   Points per Section   Type	334   100   1001   SWE

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
------------------	-------------	-------------	----------	------	---------

RESULT					
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Avg PSD uncorrected	---	---	-21.78	dBm	INFO
Duty cycle correction	---	---	0.41	dB	INFO
Avg PSD DC corrected	---	8	-21.37	dBm/3KHz	PASS



FCC 15.247 # Avg power spectral density DTS ~ WLAN2G4 ax-HE20

General verdict	PASS
-----------------	------

## FCC 15.247 # Avg power spectral density DTS ~ WLAN2G4 ax-HE20

Test References	
TC Start	06.07.2022 12:40:25
Ambit Temp [°C]   Humidity [rel%]	25.1   33
System Version	3.2.0.2
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 ax-HE20
Add. Information	

EUT Common Settings WLAN2G4	
Number of Antenna Ports	2
User Interaction	No

Test Parameter	
Technology to test	WLAN2G4 ax-HE20
Antenna Port used	1
Temperature	nom
Voltage	nom
Frequency low to test	False   Freq [MHz] 2412
Frequency mid to test	True   Freq [MHz] 2437
Frequency high to test	False   Freq [MHz] 2462
Auto Control enabled Power Supply   Climatic Box	No   No
Additional Path Loss [dB]	0.7
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

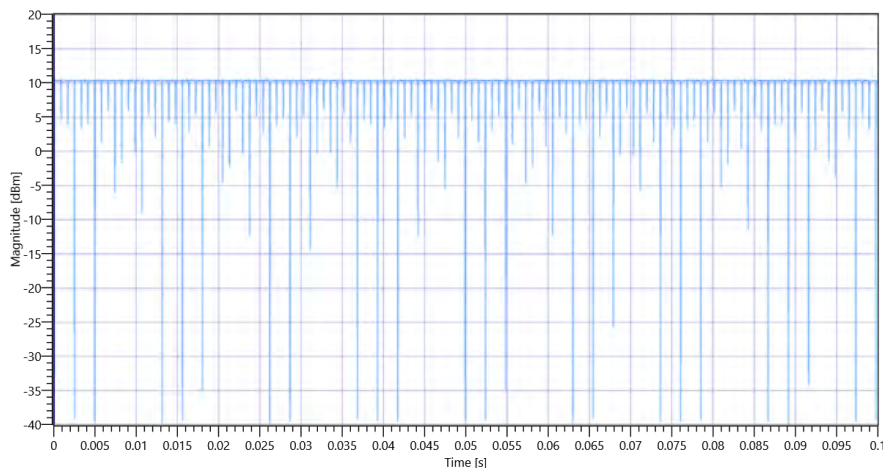
### RESULT: Reference Power cond.

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	10.39	dBm	INFO
Ref. Frequency	---	---	2432.400	MHz	INFO

## Evaluation max. Duty Cycle

### Duty Cycle evaluation

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Result Summary					
Number of detected Bursts:54					
Duty Cycle (Burst Ratio) max	---	---	0.969	---	INFO
Duty Cycle max	---	---	0.137	dB	INFO
Duty Cycle (Burst Ratio) min	---	---	0.909	---	INFO
Duty Cycle min	---	---	0.414	dB	INFO
Max TX Burst Length	---	---	2.375	ms	INFO
Min Gap Length	---	---	0.075	ms	INFO
Max Gap Length	---	---	0.075	ms	INFO



FCC 15.247 # Avg power spectral density DTS ~ WLAN2G4 ax-HE20 2437 MHz - DutyCycle

## Avg. PSD

### READ SA SETTINGS:

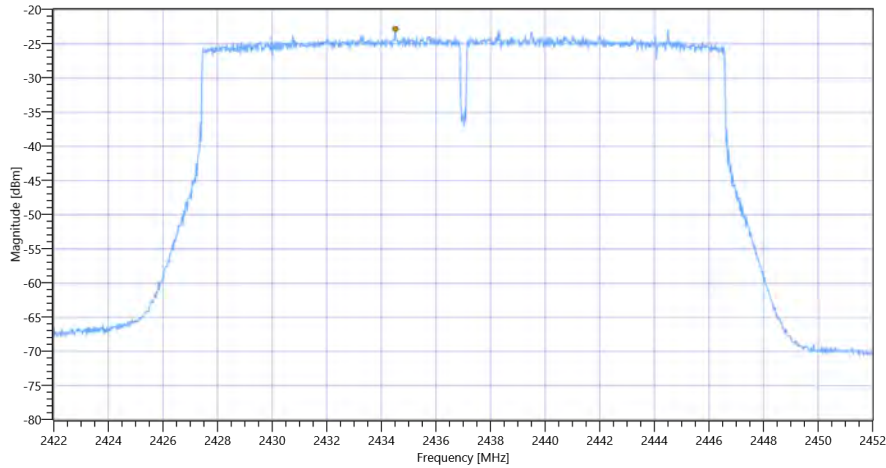
RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]	15.39   15.7   15
Start [MHz]   Stop [MHz]	2422.000   2452.000
RBW [MHz]   VBW [MHz]	0.003000   0.010000
Detector   TraceMode	RMS   AVER
Sweep: Time [ms]   Count   Points per Section   Type	334   100   1001   SWE

### RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
------------------	-------------	-------------	----------	------	---------



RESULT					
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Avg PSD uncorrected	---	---	-22.83	dBm	INFO
Duty cycle correction	---	---	0.41	dB	INFO
Avg PSD DC corrected	---	8	-22.42	dBm/3KHz	PASS



FCC 15.247 # Avg power spectral density DTS ~ WLAN2G4 ax-HE20

General verdict	PASS
-----------------	------

## FCC 15.247 # Avg power spectral density DTS ~ WLAN2G4 ax-HE20

Test References	
TC Start	06.07.2022 12:56:42
Ambit Temp [°C]   Humidity [rel%]	25.4   32
System Version	3.2.0.2
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 ax-HE20
Add. Information	

EUT Common Settings WLAN2G4	
Number of Antenna Ports	2
User Interaction	No

Test Parameter	
Technology to test	WLAN2G4 ax-HE20
Antenna Port used	1
Temperature	nom
Voltage	nom
Frequency low to test	False   Freq [MHz] 2412
Frequency mid to test	False   Freq [MHz] 2437
Frequency high to test	True   Freq [MHz] 2462
Auto Control enabled Power Supply   Climatic Box	No   No
Additional Path Loss [dB]	0.7
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 2462 MHz

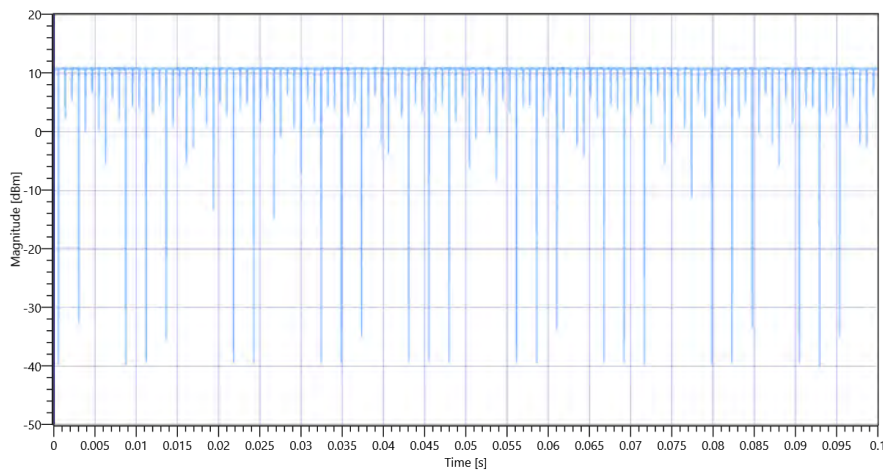
RESULT: Reference Power cond.

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	9.73	dBm	INFO
Ref. Frequency	---	---	2459.900	MHz	INFO

## Evaluation max. Duty Cycle

Duty Cycle evaluation

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Result Summary					
Number of detected Bursts:54					
Duty Cycle (Burst Ratio) max	---	---	0.969	---	INFO
Duty Cycle max	---	---	0.137	dB	INFO
Duty Cycle (Burst Ratio) min	---	---	0.909	---	INFO
Duty Cycle min	---	---	0.414	dB	INFO
Max TX Burst Length	---	---	2.375	ms	INFO
Min Gap Length	---	---	0.075	ms	INFO
Max Gap Length	---	---	0.075	ms	INFO



FCC 15.247 # Avg power spectral density DTS ~ WLAN2G4 ax-HE20 2462 MHz - DutyCycle

## Avg. PSD

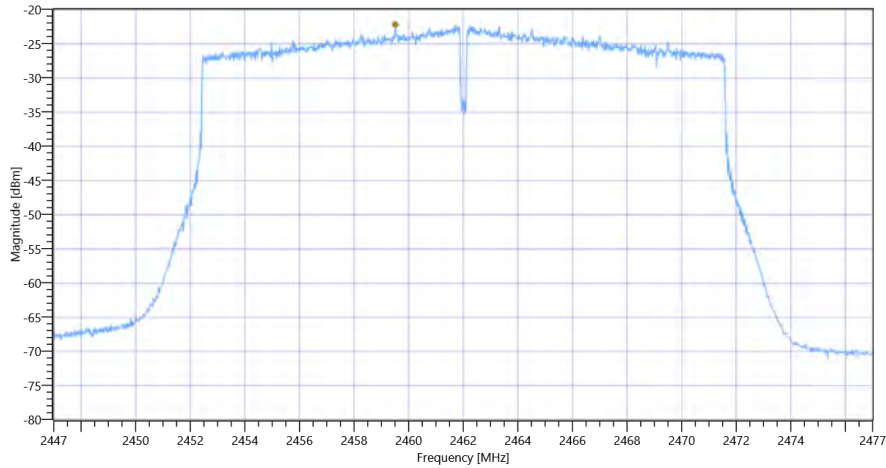
READ SA SETTINGS:

RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]	14.73   15.54   15
Start [MHz]   Stop [MHz]	2447.000   2477.000
RBW [MHz]   VBW [MHz]	0.003000   0.010000
Detector   TraceMode	RMS   AVER
Sweep: Time [ms]   Count   Points per Section   Type	334   100   1001   SWE

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
------------------	-------------	-------------	----------	------	---------

RESULT					
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Avg PSD uncorrected	---	---	-22.19	dBm	INFO
Duty cycle correction	---	---	0.41	dB	INFO
Avg PSD DC corrected	---	8	-21.78	dBm/3KHz	PASS



FCC 15.247 # Avg power spectral density DTS ~ WLAN2G4 ax-HE20

General verdict	PASS
-----------------	------

## FCC 15.247 # Avg power spectral density DTS ~ WLAN2G4 ax-HE20

Test References	
TC Start	06.07.2022 13:11:01
Ambit Temp [°C]   Humidity [rel%]	25.7   32
System Version	3.2.0.2
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 ax-HE20
Add. Information	

EUT Common Settings WLAN2G4	
Number of Antenna Ports	2
User Interaction	No

Test Parameter	
Technology to test	WLAN2G4 ax-HE20
Antenna Port used	2
Temperature	nom
Voltage	nom
Frequency low to test	True   Freq [MHz] 2412
Frequency mid to test	False   Freq [MHz] 2437
Frequency high to test	False   Freq [MHz] 2462
Auto Control enabled Power Supply   Climatic Box	No   No
Additional Path Loss [dB]	0.7
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 2412 MHz

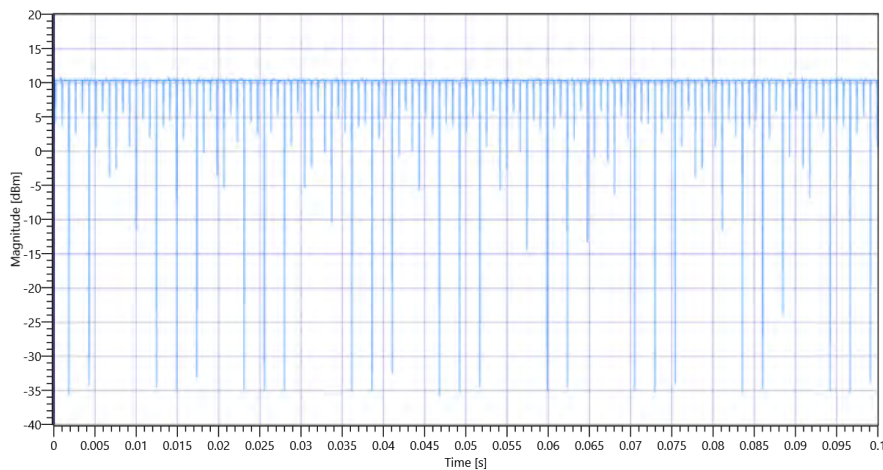
### RESULT: Reference Power cond.

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	11.06	dBm	INFO
Ref. Frequency	---	---	2412.600	MHz	INFO

## Evaluation max. Duty Cycle

### Duty Cycle evaluation

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
<b>Result Summary</b>					
Number of detected Bursts:58					
Duty Cycle (Burst Ratio) max	---	---	0.969	---	INFO
Duty Cycle max	---	---	0.137	dB	INFO
Duty Cycle (Burst Ratio) min	---	---	0.909	---	INFO
Duty Cycle min	---	---	0.414	dB	INFO
Max TX Burst Length	---	---	2.375	ms	INFO
Min Gap Length	---	---	0.075	ms	INFO
Max Gap Length	---	---	0.075	ms	INFO



FCC 15.247 # Avg power spectral density DTS ~ WLAN2G4 ax-HE20 2412 MHz - DutyCycle

## Avg. PSD

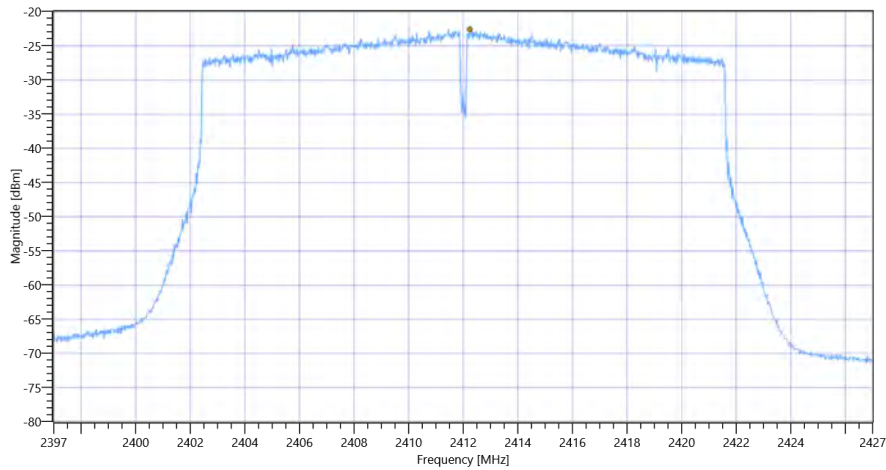
### READ SA SETTINGS:

RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]	16.06   15.93   20
Start [MHz]   Stop [MHz]	2397.000   2427.000
RBW [MHz]   VBW [MHz]	0.003000   0.010000
Detector   TraceMode	RMS   AVER
Sweep: Time [ms]   Count   Points per Section   Type	334   100   1001   SWE

### RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
------------------	-------------	-------------	----------	------	---------

RESULT					
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Avg PSD uncorrected	---	---	-22.56	dBm	INFO
Duty cycle correction	---	---	0.41	dB	INFO
Avg PSD DC corrected	---	8	-22.15	dBm/3KHz	PASS



FCC 15.247 # Avg power spectral density DTS ~ WLAN2G4 ax-HE20

General verdict	PASS
-----------------	------

## FCC 15.247 # Avg power spectral density DTS ~ WLAN2G4 ax-HE20

Test References	
TC Start	06.07.2022 13:26:48
Ambit Temp [°C]   Humidity [rel%]	25.8   31
System Version	3.2.0.2
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 ax-HE20
Add. Information	

EUT Common Settings WLAN2G4	
Number of Antenna Ports	2
User Interaction	No

Test Parameter	
Technology to test	WLAN2G4 ax-HE20
Antenna Port used	2
Temperature	nom
Voltage	nom
Frequency low to test	False   Freq [MHz] 2412
Frequency mid to test	True   Freq [MHz] 2437
Frequency high to test	False   Freq [MHz] 2462
Auto Control enabled Power Supply   Climatic Box	No   No
Additional Path Loss [dB]	0.7
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

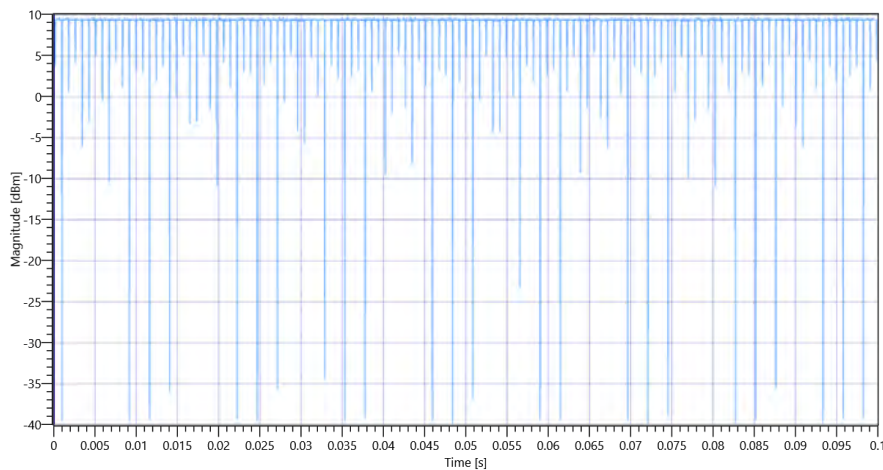
RESULT: Reference Power cond.

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	9.61	dBm	INFO
Ref. Frequency	---	---	2443.890	MHz	INFO

## Evaluation max. Duty Cycle

Duty Cycle evaluation

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Result Summary					
Number of detected Bursts:53					
Duty Cycle (Burst Ratio) max	---	---	0.969	---	INFO
Duty Cycle max	---	---	0.137	dB	INFO
Duty Cycle (Burst Ratio) min	---	---	0.909	---	INFO
Duty Cycle min	---	---	0.414	dB	INFO
Max TX Burst Length	---	---	2.375	ms	INFO
Min Gap Length	---	---	0.075	ms	INFO
Max Gap Length	---	---	0.075	ms	INFO



FCC 15.247 # Avg power spectral density DTS ~ WLAN2G4 ax-HE20 2437 MHz - DutyCycle

## Avg. PSD

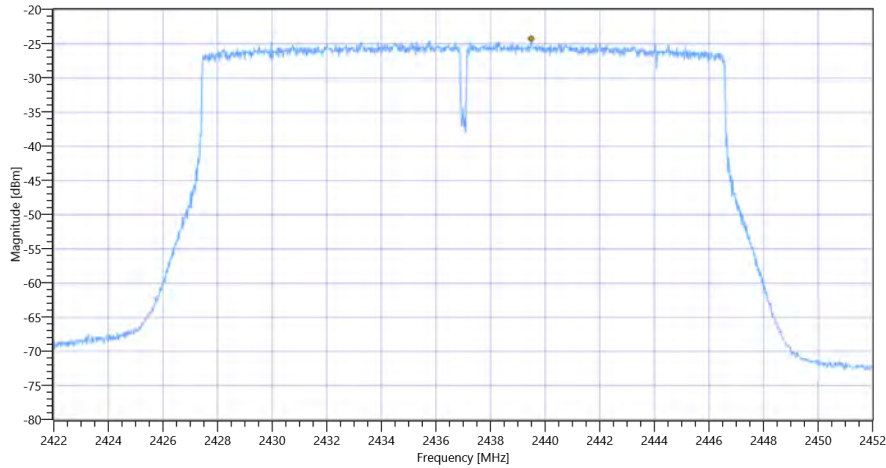
READ SA SETTINGS:

RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]	14.61   15.7   15
Start [MHz]   Stop [MHz]	2422.000   2452.000
RBW [MHz]   VBW [MHz]	0.003000   0.010000
Detector   TraceMode	RMS   AVER
Sweep: Time [ms]   Count   Points per Section   Type	334   100   1001   SWE

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
------------------	-------------	-------------	----------	------	---------

RESULT					
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Avg PSD uncorrected	---	---	-24.23	dBm	INFO
Duty cycle correction	---	---	0.41	dB	INFO
Avg PSD DC corrected	---	8	-23.82	dBm/3KHz	PASS



FCC 15.247 # Avg power spectral density DTS ~ WLAN2G4 ax-HE20

General verdict	PASS
-----------------	------

## FCC 15.247 # Avg power spectral density DTS ~ WLAN2G4 ax-HE20

Test References	
TC Start	06.07.2022 13:40:58
Ambit Temp [°C]   Humidity [rel%]	26.1   32
System Version	3.2.0.2
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 ax-HE20
Add. Information	

EUT Common Settings WLAN2G4	
Number of Antenna Ports	2
User Interaction	No

Test Parameter	
Technology to test	WLAN2G4 ax-HE20
Antenna Port used	2
Temperature	nom
Voltage	nom
Frequency low to test	False   Freq [MHz] 2412
Frequency mid to test	False   Freq [MHz] 2437
Frequency high to test	True   Freq [MHz] 2462
Auto Control enabled Power Supply   Climatic Box	No   No
Additional Path Loss [dB]	0.7
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 2462 MHz

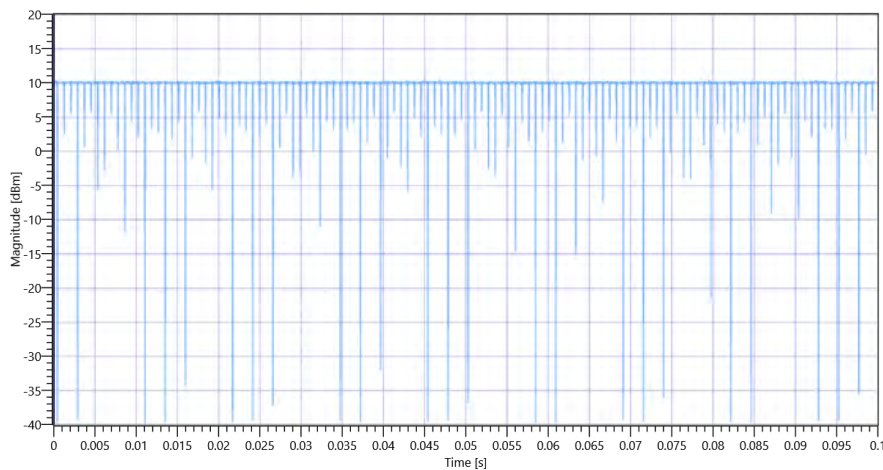
RESULT: Reference Power cond.

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	9.96	dBm	INFO
Ref. Frequency	---	---	2458.200	MHz	INFO

## Evaluation max. Duty Cycle

Duty Cycle evaluation

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Result Summary					
Number of detected Bursts:56					
Duty Cycle (Burst Ratio) max	---	---	0.969	---	INFO
Duty Cycle max	---	---	0.137	dB	INFO
Duty Cycle (Burst Ratio) min	---	---	0.909	---	INFO
Duty Cycle min	---	---	0.414	dB	INFO
Max TX Burst Length	---	---	2.375	ms	INFO
Min Gap Length	---	---	0.075	ms	INFO
Max Gap Length	---	---	0.075	ms	INFO



FCC 15.247 # Avg power spectral density DTS ~ WLAN2G4 ax-HE20 2462 MHz - DutyCycle

## Avg. PSD

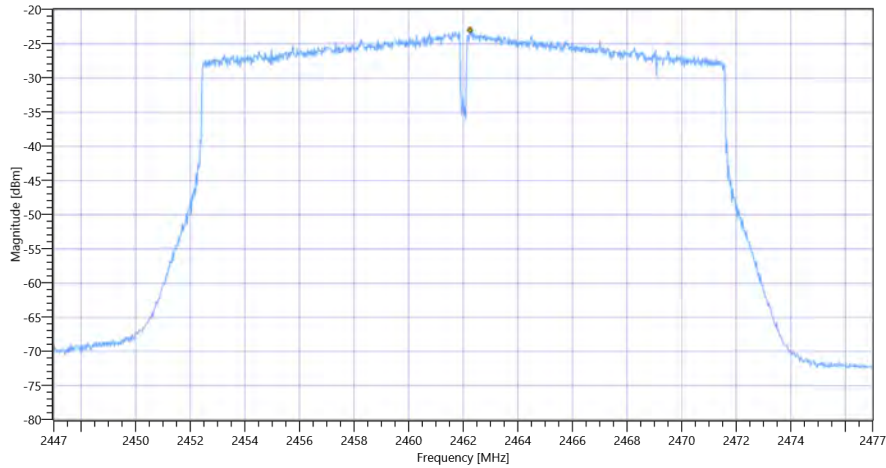
READ SA SETTINGS:

RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]	14.96   15.54   15
Start [MHz]   Stop [MHz]	2447.000   2477.000
RBW [MHz]   VBW [MHz]	0.003000   0.010000
Detector   TraceMode	RMS   AVER
Sweep: Time [ms]   Count   Points per Section   Type	334   100   1001   SWE

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
------------------	-------------	-------------	----------	------	---------

RESULT					
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Avg PSD uncorrected	---	---	-22.99	dBm	INFO
Duty cycle correction	---	---	0.41	dB	INFO
Avg PSD DC corrected	---	8	-22.58	dBm/3KHz	PASS



FCC 15.247 # Avg power spectral density DTS ~ WLAN2G4 ax-HE20

General verdict	PASS
-----------------	------

## FCC 15.247 # Bandwidth 6dB DTS ~ WLAN2G4 ax-HE20

Test References	
TC Start	06.07.2022 11:52:10
Ambit Temp [°C]   Humidity [rel%]	25.0   34
System Version	3.2.0.2
Test Specification	FCC 15.247 -
Test Method	
TC Version	0.0.1
My Description	FCC 15.247 Bandwidth 6dB DTS - WLAN2G4 ax-HE20
Add. Information	

EUT Common Settings WLAN2G4	
Number of Antenna Ports	2
User Interaction	No

Test Parameter	
Technology to test	WLAN2G4 ax-HE20
Antenna Port used	1
Temperature	nom
Voltage	nom
Frequency low to test	True   Freq [MHz] 2412
Frequency mid to test	False   Freq [MHz] 2437
Frequency high to test	False   Freq [MHz] 2462
Auto Control enabled Power Supply   Climatic Box	No   No
Additional Path Loss [dB]	0.7
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 2412 MHz

### RESULT: Reference Power cond.

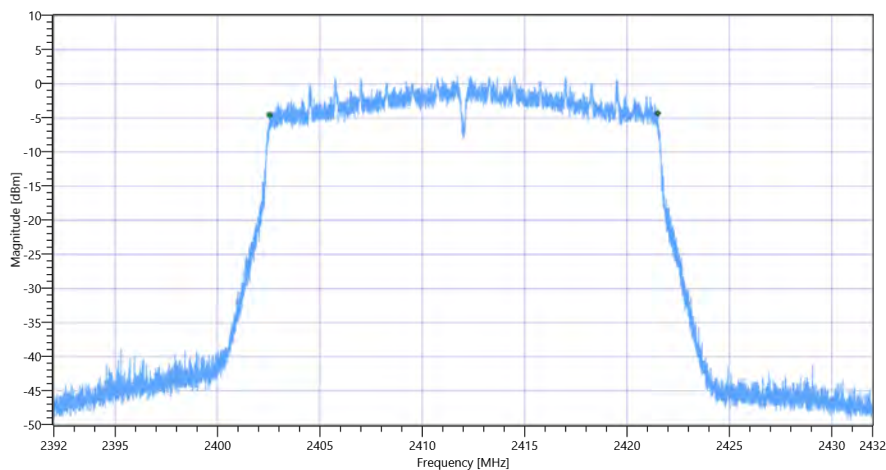
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	12.59	dBm	INFO
Ref. Frequency	---	---	2414.700	MHz	INFO

### READ SA SETTINGS:

RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]	17.59   15.93   20
Start [MHz]   Stop [MHz]	2392.000   2432.000
RBW [MHz]   VBW [MHz]	0.100000   0.300000
Detector   TraceMode	POS   MAXH
Sweep: Time [ms]   Count   Points per Section   Type	50   200   10001   SWE

### RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
DTS Bandwidth (6dB)	500	---	18960	kHz	PASS



FCC 15.247 # Bandwidth 6dB DTS ~ WLAN2G4 ax-HE20

General verdict

PASS

## FCC 15.247 # Bandwidth 6dB DTS ~ WLAN2G4 ax-HE20

Test References	
TC Start	06.07.2022 12:39:48
Ambit Temp [°C]   Humidity [rel%]	25.1   32
System Version	3.2.0.2
Test Specification	FCC 15.247 -
Test Method	
TC Version	0.0.1
My Description	FCC 15.247 Bandwidth 6dB DTS - WLAN2G4 ax-HE20
Add. Information	

EUT Common Settings WLAN2G4	
Number of Antenna Ports	2
User Interaction	No

Test Parameter	
Technology to test	WLAN2G4 ax-HE20
Antenna Port used	1
Temperature	nom
Voltage	nom
Frequency low to test	False   Freq [MHz] 2412
Frequency mid to test	True   Freq [MHz] 2437
Frequency high to test	False   Freq [MHz] 2462
Auto Control enabled Power Supply   Climatic Box	No   No
Additional Path Loss [dB]	0.7
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.

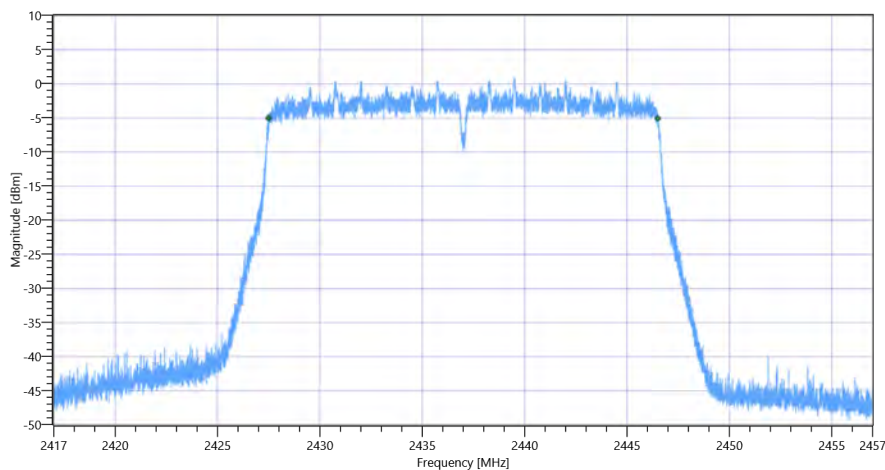
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	10.95	dBm	INFO
Ref. Frequency	---	---	2435.200	MHz	INFO

### READ SA SETTINGS:

RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]	15.95   15.7   20
Start [MHz]   Stop [MHz]	2417.000   2457.000
RBW [MHz]   VBW [MHz]	0.100000   0.300000
Detector   TraceMode	POS   MAXH
Sweep: Time [ms]   Count   Points per Section   Type	50   200   10001   SWE

### RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
DTS Bandwidth (6dB)	500	---	19016	kHz	PASS



FCC 15.247 # Bandwidth 6dB DTS ~ WLAN2G4 ax-HE20

General verdict

PASS

## FCC 15.247 # Bandwidth 6dB DTS ~ WLAN2G4 ax-HE20

Test References	
TC Start	06.07.2022 12:56:04
Ambit Temp [°C]   Humidity [rel%]	25.4   32
System Version	3.2.0.2
Test Specification	FCC 15.247 -
Test Method	
TC Version	0.0.1
My Description	FCC 15.247 Bandwidth 6dB DTS - WLAN2G4 ax-HE20
Add. Information	

EUT Common Settings WLAN2G4	
Number of Antenna Ports	2
User Interaction	No

Test Parameter	
Technology to test	WLAN2G4 ax-HE20
Antenna Port used	1
Temperature	nom
Voltage	nom
Frequency low to test	False   Freq [MHz] 2412
Frequency mid to test	False   Freq [MHz] 2437
Frequency high to test	True   Freq [MHz] 2462
Auto Control enabled Power Supply   Climatic Box	No   No
Additional Path Loss [dB]	0.7
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 2462 MHz

### RESULT: Reference Power cond.

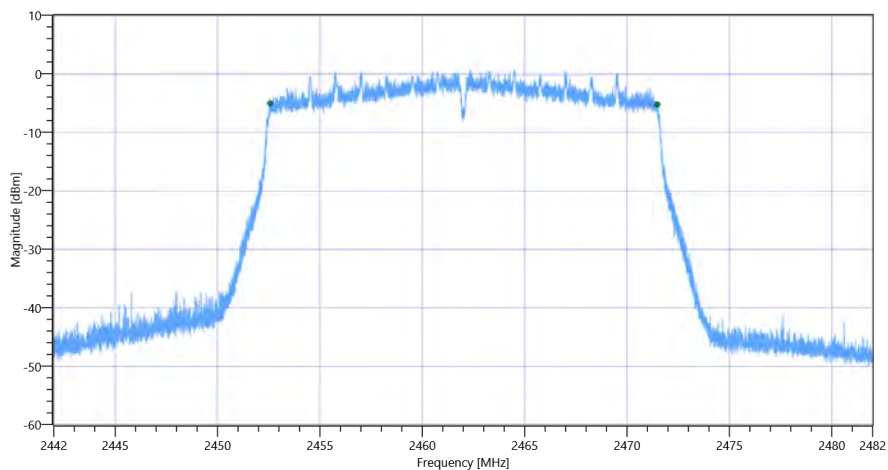
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	11.19	dBm	INFO
Ref. Frequency	---	---	2462.500	MHz	INFO

### READ SA SETTINGS:

RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]	16.19   15.54   20
Start [MHz]   Stop [MHz]	2442.000   2482.000
RBW [MHz]   VBW [MHz]	0.100000   0.300000
Detector   TraceMode	POS   MAXH
Sweep: Time [ms]   Count   Points per Section   Type	50   200   10001   SWE

### RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
DTS Bandwidth (6dB)	500	---	18908	kHz	PASS



FCC 15.247 # Bandwidth 6dB DTS ~ WLAN2G4 ax-HE20

General verdict

PASS

## FCC 15.247 # Bandwidth 6dB DTS ~ WLAN2G4 ax-HE20

Test References	
TC Start	06.07.2022 13:10:22
Ambit Temp [°C]   Humidity [rel%]	25.7   32
System Version	3.2.0.2
Test Specification	FCC 15.247 -
Test Method	
TC Version	0.0.1
My Description	FCC 15.247 Bandwidth 6dB DTS - WLAN2G4 ax-HE20
Add. Information	

EUT Common Settings WLAN2G4	
Number of Antenna Ports	2
User Interaction	No

Test Parameter	
Technology to test	WLAN2G4 ax-HE20
Antenna Port used	2
Temperature	nom
Voltage	nom
Frequency low to test	True   Freq [MHz] 2412
Frequency mid to test	False   Freq [MHz] 2437
Frequency high to test	False   Freq [MHz] 2462
Auto Control enabled Power Supply   Climatic Box	No   No
Additional Path Loss [dB]	0.7
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 2412 MHz

### RESULT: Reference Power cond.

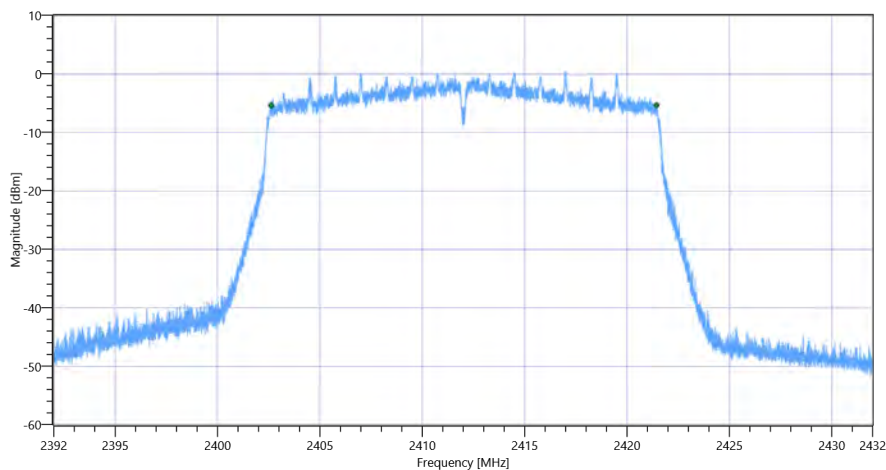
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	10.49	dBm	INFO
Ref. Frequency	---	---	2405.910	MHz	INFO

### READ SA SETTINGS:

RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]	15.49   15.93   15
Start [MHz]   Stop [MHz]	2392.000   2432.000
RBW [MHz]   VBW [MHz]	0.100000   0.300000
Detector   TraceMode	POS   MAXH
Sweep: Time [ms]   Count   Points per Section   Type	50   200   10001   SWE

### RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
DTS Bandwidth (6dB)	500	---	18816	kHz	PASS



FCC 15.247 # Bandwidth 6dB DTS ~ WLAN2G4 ax-HE20

General verdict

PASS

## FCC 15.247 # Bandwidth 6dB DTS ~ WLAN2G4 ax-HE20

Test References	
TC Start	06.07.2022 13:26:09
Ambit Temp [°C]   Humidity [rel%]	25.8   32
System Version	3.2.0.2
Test Specification	FCC 15.247 -
Test Method	
TC Version	0.0.1
My Description	FCC 15.247 Bandwidth 6dB DTS - WLAN2G4 ax-HE20
Add. Information	

EUT Common Settings WLAN2G4	
Number of Antenna Ports	2
User Interaction	No

Test Parameter	
Technology to test	WLAN2G4 ax-HE20
Antenna Port used	2
Temperature	nom
Voltage	nom
Frequency low to test	False   Freq [MHz] 2412
Frequency mid to test	True   Freq [MHz] 2437
Frequency high to test	False   Freq [MHz] 2462
Auto Control enabled Power Supply   Climatic Box	No   No
Additional Path Loss [dB]	0.7
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.

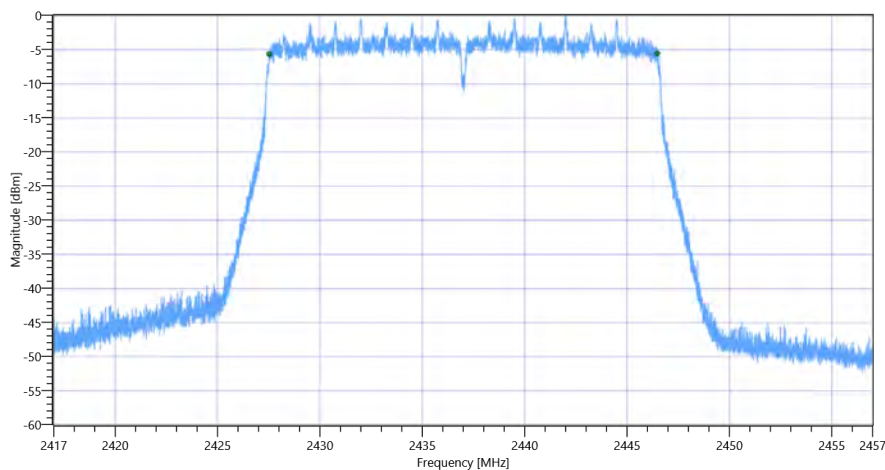
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	9.98	dBm	INFO
Ref. Frequency	---	---	2434.000	MHz	INFO

### READ SA SETTINGS:

RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]	14.98   15.7   15
Start [MHz]   Stop [MHz]	2417.000   2457.000
RBW [MHz]   VBW [MHz]	0.100000   0.300000
Detector   TraceMode	POS   MAXH
Sweep: Time [ms]   Count   Points per Section   Type	50   200   10001   SWE

### RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
DTS Bandwidth (6dB)	500	---	18952	kHz	PASS



FCC 15.247 # Bandwidth 6dB DTS ~ WLAN2G4 ax-HE20

General verdict

PASS

## FCC 15.247 # Bandwidth 6dB DTS ~ WLAN2G4 ax-HE20

Test References	
TC Start	06.07.2022 13:40:19
Ambit Temp [°C]   Humidity [rel%]	26.1   32
System Version	3.2.0.2
Test Specification	FCC 15.247 -
Test Method	
TC Version	0.0.1
My Description	FCC 15.247 Bandwidth 6dB DTS - WLAN2G4 ax-HE20
Add. Information	

EUT Common Settings WLAN2G4	
Number of Antenna Ports	2
User Interaction	No

Test Parameter	
Technology to test	WLAN2G4 ax-HE20
Antenna Port used	2
Temperature	nom
Voltage	nom
Frequency low to test	False   Freq [MHz] 2412
Frequency mid to test	False   Freq [MHz] 2437
Frequency high to test	True   Freq [MHz] 2462
Auto Control enabled Power Supply   Climatic Box	No   No
Additional Path Loss [dB]	0.7
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 2462 MHz

### RESULT: Reference Power cond.

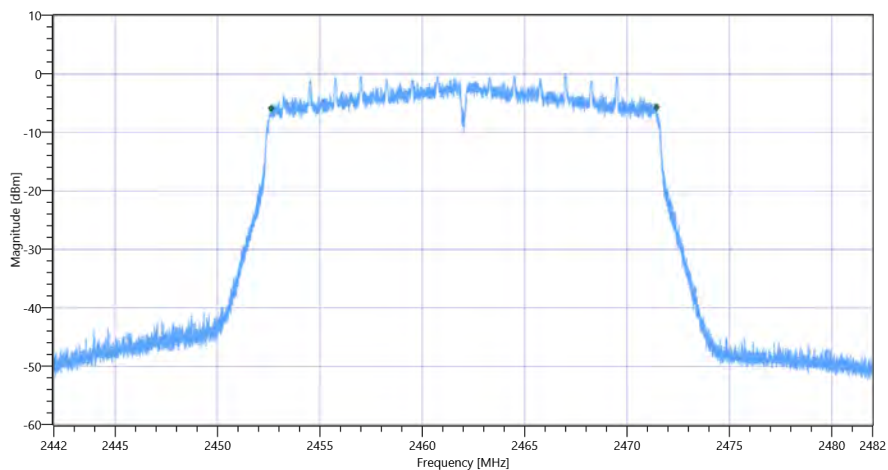
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	10.08	dBm	INFO
Ref. Frequency	---	---	2463.400	MHz	INFO

### READ SA SETTINGS:

RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]	15.08   15.54   15
Start [MHz]   Stop [MHz]	2442.000   2482.000
RBW [MHz]   VBW [MHz]	0.100000   0.300000
Detector   TraceMode	POS   MAXH
Sweep: Time [ms]   Count   Points per Section   Type	50   200   10001   SWE

### RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
DTS Bandwidth (6dB)	500	---	18832	kHz	PASS



General verdict

PASS

## FCC 15.247, ISED RSS247 # Bandwidth 99PCT and 20dB ~ WLAN2G4 ax-HE20

Test References	
TC Start	06.07.2022 11:54:01
Ambit Temp [°C]   Humidity [rel%]	25.0   34
System Version	3.2.0.2
Test Specification	FCC 15.247, ISED RSS247 -
Test Method	
TC Version	0.0.2
My Description	FCC 15.247 Bandwidth 99PCT-20dB DTS - WLAN2G4 ax-HE20
Add. Information	

EUT Common Settings WLAN2G4	
Number of Antenna Ports	2
User Interaction	No

Test Parameter	
Technology to test	WLAN2G4 ax-HE20
Antenna Port used	1
Temperature	nom
Voltage	nom
Frequency low to test	True   Freq [MHz] 2412
Frequency mid to test	False   Freq [MHz] 2437
Frequency high to test	False   Freq [MHz] 2462
Auto Control enabled Power Supply   Climatic Box	No   No
Additional Path Loss [dB]	0.7
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 2412 MHz

### RESULT: Reference Power cond.

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	11.45	dBm	INFO
Ref. Frequency	---	---	2411.200	MHz	INFO

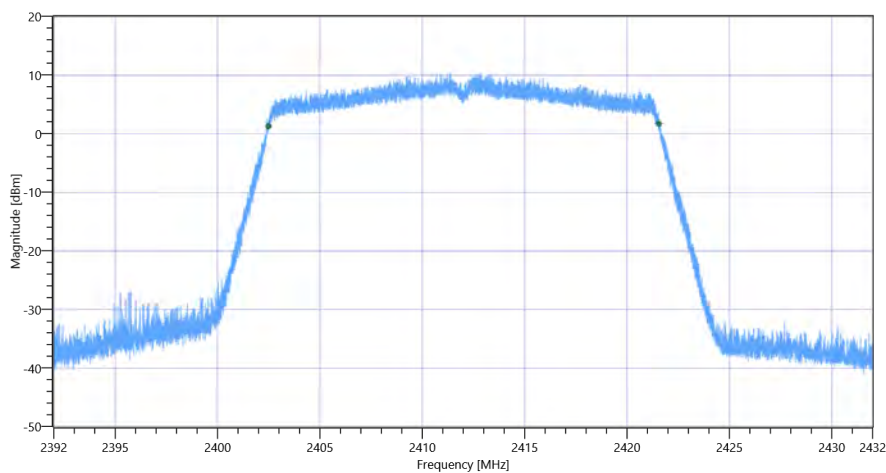
### READ SA SETTINGS:

RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]	16.45   15.93   20
Start [MHz]   Stop [MHz]	2392.000   2432.000
RBW [MHz]   VBW [MHz]	0.500000   2.000000
Detector   TraceMode	POS   MAXH
Sweep: Time [ms]   Count   Points per Section   Type	50   200   10001   SWE

### RESULT

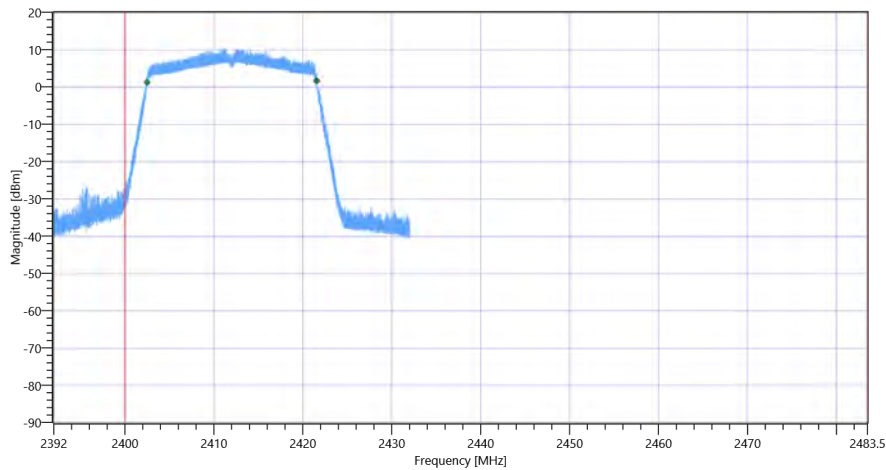
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 99%	---	---	19074.093	kHz	INFO
T1 99%	2400.000000	---	2402.4890	MHz	PASS
T2 99%	---	2483.500000	2421.5630	MHz	PASS

### Plot: Bandwidth only



FCC 15.247, ISED RSS247 # Bandwidth 99PCT and 20dB ~ WLAN2G4 ax-HE20 99PCT

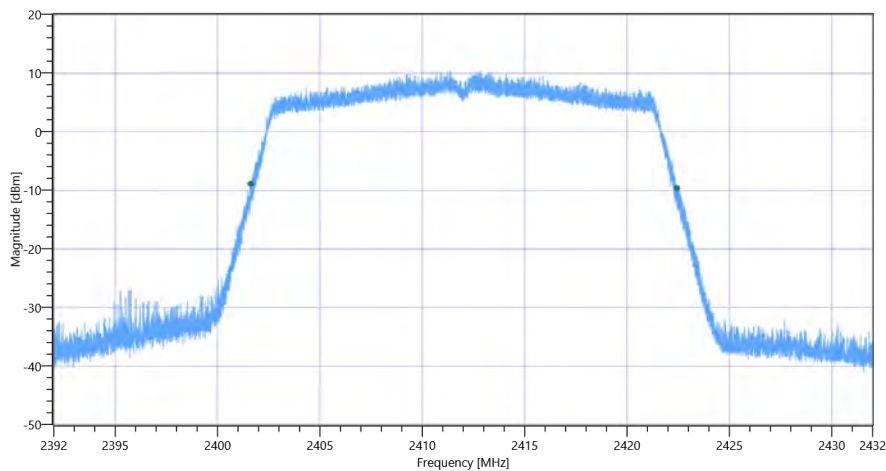
### Plot: Bandwidth within Band



FCC 15.247, ISED RSS247 # Bandwidth 99PCT and 20dB ~ WLAN2G4 ax-HE20

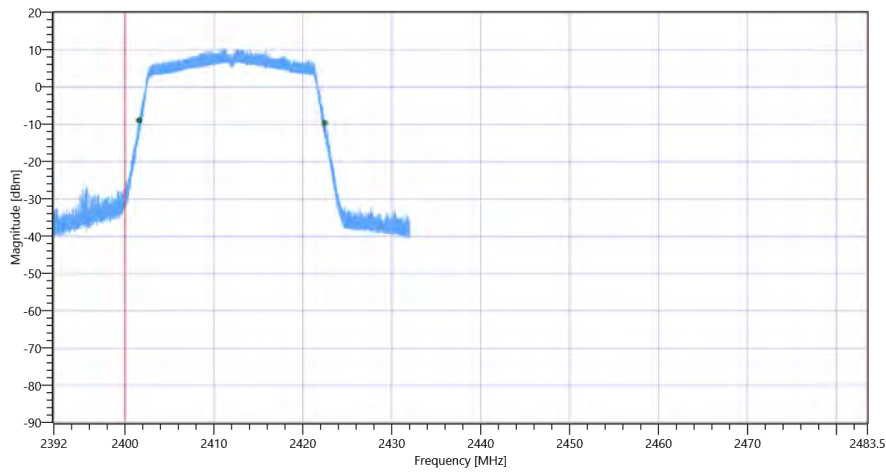
RESULT					
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 20dB	---	---	20844	kHz	INFO
T1 20dB	2400.000000	---	2401.6000	MHz	PASS
T2 20dB	---	2483.500000	2422.4440	MHz	PASS

Plot: Bandwidth only



FCC 15.247, ISED RSS247 # Bandwidth 99PCT and 20dB ~ WLAN2G4 ax-HE20 20dB

Plot: Bandwidth within Band



FCC 15.247, ISED RSS247 # Bandwidth 99PCT and 20dB ~ WLAN2G4 ax-HE20

General verdict

PASS

## FCC 15.247, ISED RSS247 # Bandwidth 99PCT and 20dB ~ WLAN2G4 ax-HE20

Test References	
TC Start	06.07.2022 12:41:38
Ambit Temp [°C]   Humidity [rel%]	25.1   33
System Version	3.2.0.2
Test Specification	FCC 15.247, ISED RSS247 -
Test Method	
TC Version	0.0.2
My Description	FCC 15.247 Bandwidth 99PCT-20dB DTS - WLAN2G4 ax-HE20
Add. Information	

EUT Common Settings WLAN2G4	
Number of Antenna Ports	2
User Interaction	No

Test Parameter	
Technology to test	WLAN2G4 ax-HE20
Antenna Port used	1
Temperature	nom
Voltage	nom
Frequency low to test	False   Freq [MHz] 2412
Frequency mid to test	True   Freq [MHz] 2437
Frequency high to test	False   Freq [MHz] 2462
Auto Control enabled Power Supply   Climatic Box	No   No
Additional Path Loss [dB]	0.7
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.	---	---	10.85	dBm	INFO
Ref. Frequency	---	---	2441.100	MHz	INFO

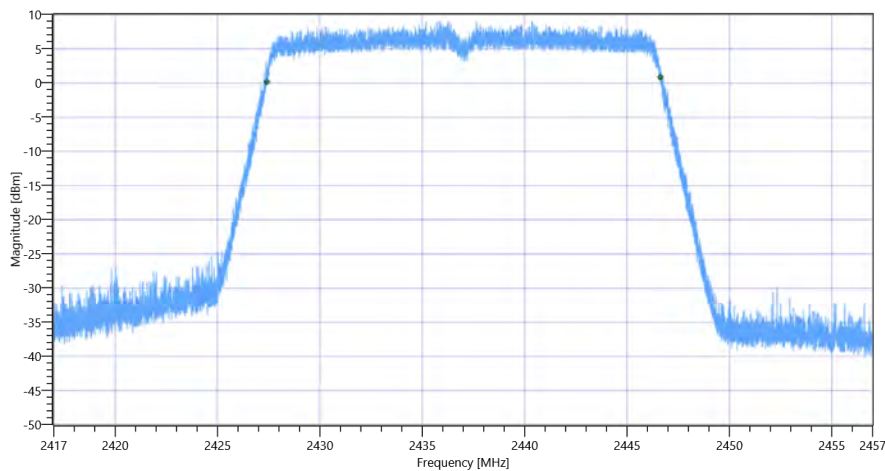
### READ SA SETTINGS:

RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]	15.85   15.7   20
Start [MHz]   Stop [MHz]	2417.000   2457.000
RBW [MHz]   VBW [MHz]	0.500000   2.000000
Detector   TraceMode	POS   MAXH
Sweep: Time [ms]   Count   Points per Section   Type	50   200   10001   SWE

### RESULT

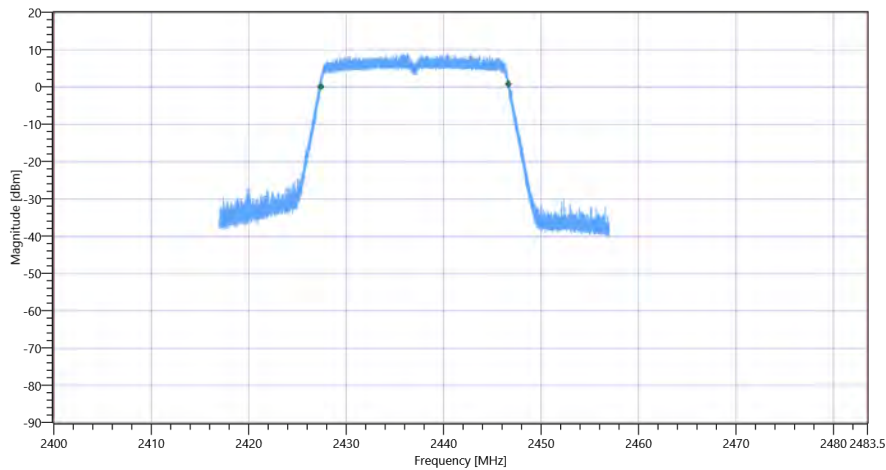
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 99%	---	---	19230.077	kHz	INFO
T1 99%	2400.000000	---	2427.4050	MHz	PASS
T2 99%	---	2483.500000	2446.6350	MHz	PASS

### Plot: Bandwidth only



FCC 15.247, ISED RSS247 # Bandwidth 99PCT and 20dB ~ WLAN2G4 ax-HE20 99PCT

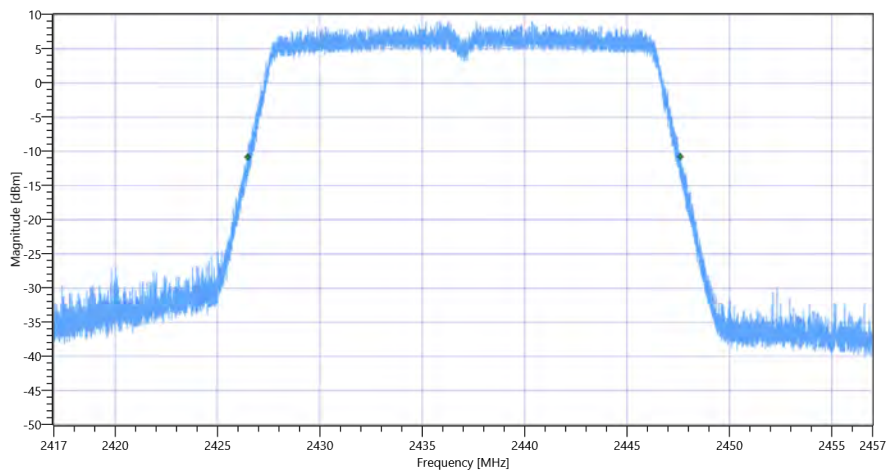
### Plot: Bandwidth within Band



FCC 15.247, ISED RSS247 # Bandwidth 99PCT and 20dB ~ WLAN2G4 ax-HE20

RESULT					
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 20dB	---	---	21136	kHz	INFO
T1 20dB	2400.000000	---	2426.4680	MHz	PASS
T2 20dB	---	2483.500000	2447.6040	MHz	PASS

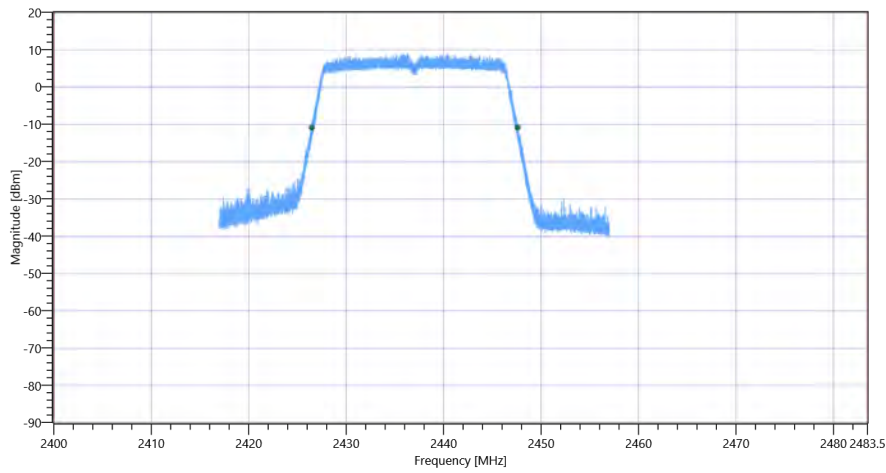
Plot: Bandwidth only



FCC 15.247, ISED RSS247 # Bandwidth 99PCT and 20dB ~ WLAN2G4 ax-HE20 20dB

Plot: Bandwidth within Band





FCC 15.247, ISED RSS247 # Bandwidth 99PCT and 20dB ~ WLAN2G4 ax-HE20

General verdict

PASS

## FCC 15.247, ISED RSS247 # Bandwidth 99PCT and 20dB ~ WLAN2G4 ax-HE20

Test References	
TC Start	06.07.2022 12:57:55
Ambit Temp [°C]   Humidity [rel%]	25.4   32
System Version	3.2.0.2
Test Specification	FCC 15.247, ISED RSS247 -
Test Method	
TC Version	0.0.2
My Description	FCC 15.247 Bandwidth 99PCT-20dB DTS - WLAN2G4 ax-HE20
Add. Information	

EUT Common Settings WLAN2G4	
Number of Antenna Ports	2
User Interaction	No

Test Parameter	
Technology to test	WLAN2G4 ax-HE20
Antenna Port used	1
Temperature	nom
Voltage	nom
Frequency low to test	False   Freq [MHz] 2412
Frequency mid to test	False   Freq [MHz] 2437
Frequency high to test	True   Freq [MHz] 2462
Auto Control enabled Power Supply   Climatic Box	No   No
Additional Path Loss [dB]	0.7
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 2462 MHz

### RESULT: Reference Power cond.

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	10.21	dBm	INFO
Ref. Frequency	---	---	2466.300	MHz	INFO

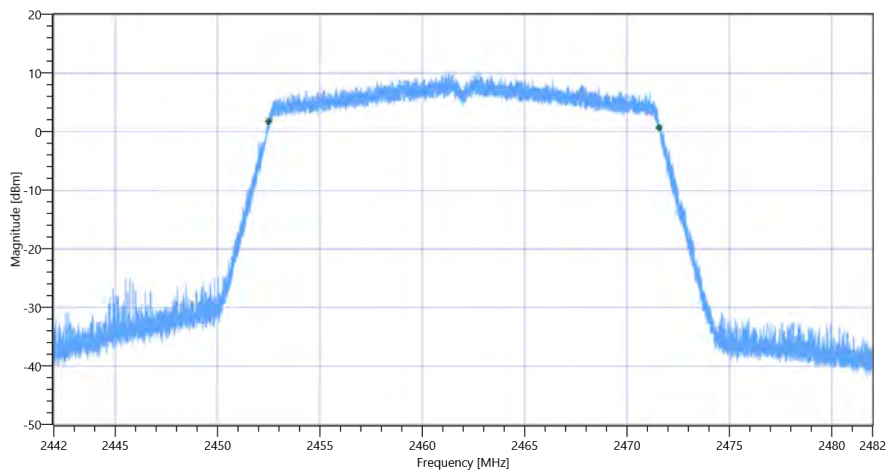
### READ SA SETTINGS:

RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]	15.21   15.54   15
Start [MHz]   Stop [MHz]	2442.000   2482.000
RBW [MHz]   VBW [MHz]	0.500000   2.000000
Detector   TraceMode	POS   MAXH
Sweep: Time [ms]   Count   Points per Section   Type	50   200   10001   SWE

### RESULT

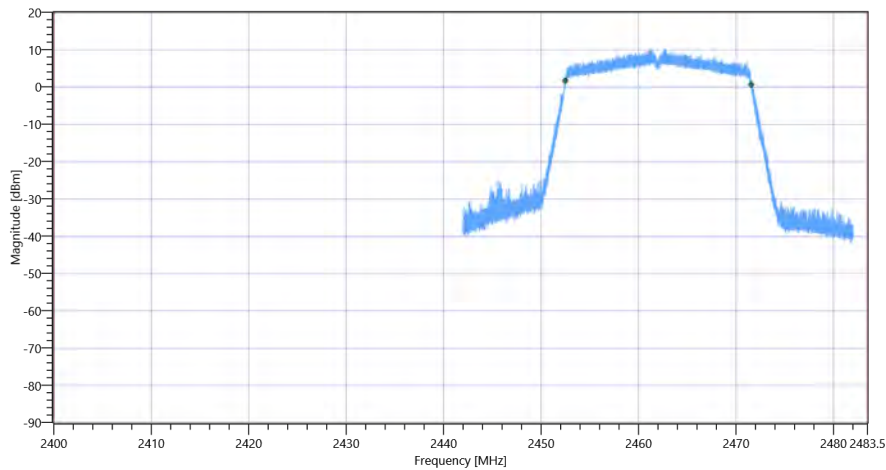
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 99%	---	---	19086.091	kHz	INFO
T1 99%	2400.000000	---	2452.4770	MHz	PASS
T2 99%	---	2483.500000	2471.5630	MHz	PASS

### Plot: Bandwidth only



FCC 15.247, ISED RSS247 # Bandwidth 99PCT and 20dB ~ WLAN2G4 ax-HE20 99PCT

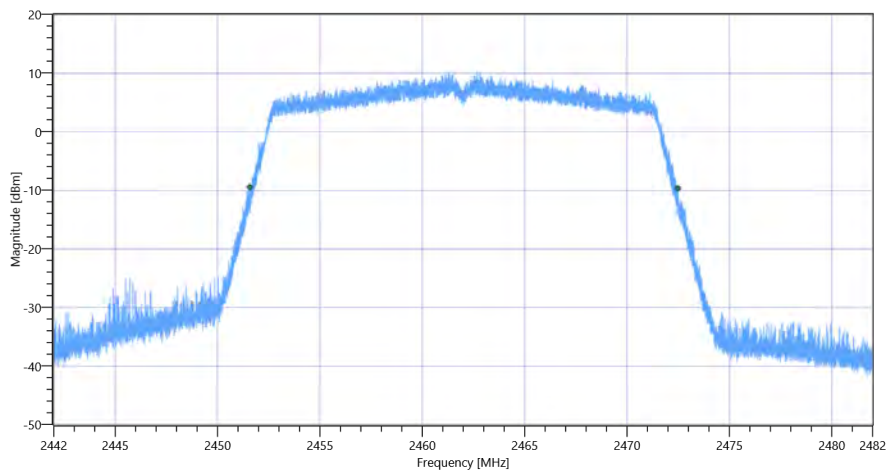
### Plot: Bandwidth within Band



FCC 15.247, ISED RSS247 # Bandwidth 99PCT and 20dB ~ WLAN2G4 ax-HE20

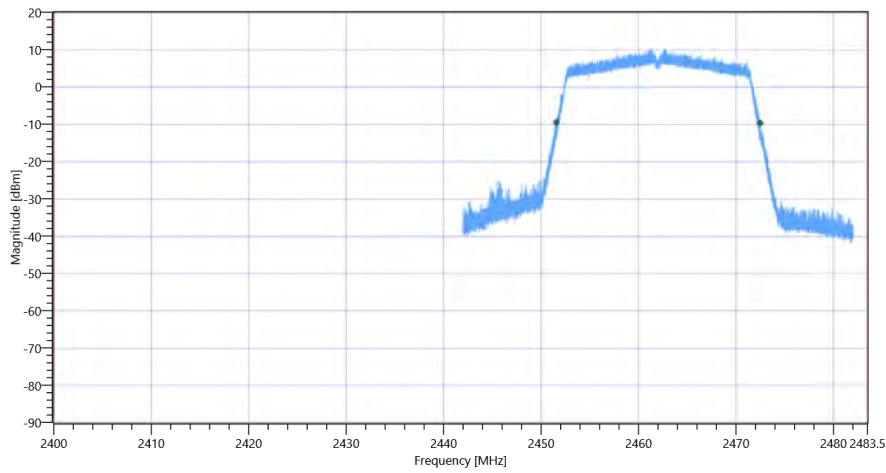
RESULT						
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict	
Bandwidth 20dB	---	---	20912	kHz	INFO	
T1 20dB	2400.000000	---	2451.5680	MHz	PASS	
T2 20dB	---	2483.500000	2472.4800	MHz	PASS	

Plot: Bandwidth only



FCC 15.247, ISED RSS247 # Bandwidth 99PCT and 20dB ~ WLAN2G4 ax-HE20 20dB

Plot: Bandwidth within Band



FCC 15.247, ISED RSS247 # Bandwidth 99PCT and 20dB ~ WLAN2G4 ax-HE20

General verdict

PASS

## FCC 15.247, ISED RSS247 # Bandwidth 99PCT and 20dB ~ WLAN2G4 ax-HE20

Test References	
TC Start	06.07.2022 13:12:14
Ambit Temp [°C]   Humidity [rel%]	25.7   32
System Version	3.2.0.2
Test Specification	FCC 15.247, ISED RSS247 -
Test Method	
TC Version	0.0.2
My Description	FCC 15.247 Bandwidth 99PCT-20dB DTS - WLAN2G4 ax-HE20
Add. Information	

EUT Common Settings WLAN2G4	
Number of Antenna Ports	2
User Interaction	No

Test Parameter	
Technology to test	WLAN2G4 ax-HE20
Antenna Port used	2
Temperature	nom
Voltage	nom
Frequency low to test	True   Freq [MHz] 2412
Frequency mid to test	False   Freq [MHz] 2437
Frequency high to test	False   Freq [MHz] 2462
Auto Control enabled Power Supply   Climatic Box	No   No
Additional Path Loss [dB]	0.7
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 2412 MHz

### RESULT: Reference Power cond.

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	10.42	dBm	INFO
Ref. Frequency	---	---	2412.600	MHz	INFO

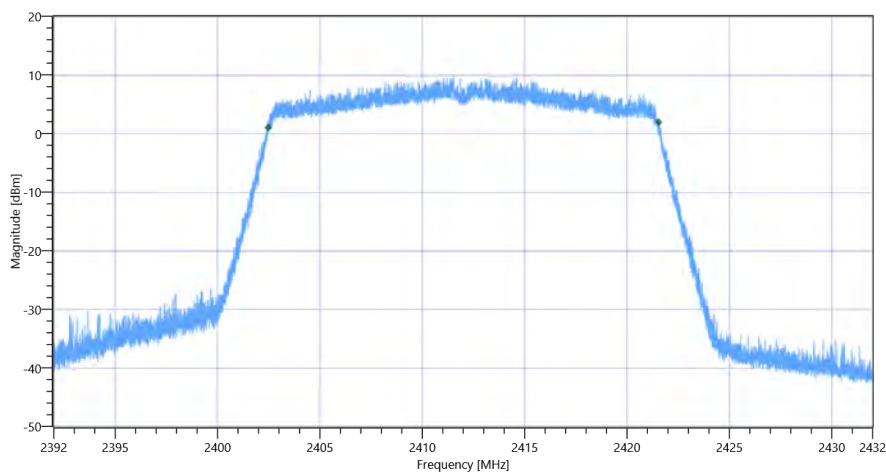
### READ SA SETTINGS:

RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]	15.42   15.93   15
Start [MHz]   Stop [MHz]	2392.000   2432.000
RBW [MHz]   VBW [MHz]	0.500000   2.000000
Detector   TraceMode	POS   MAXH
Sweep: Time [ms]   Count   Points per Section   Type	50   200   10001   SWE

### RESULT

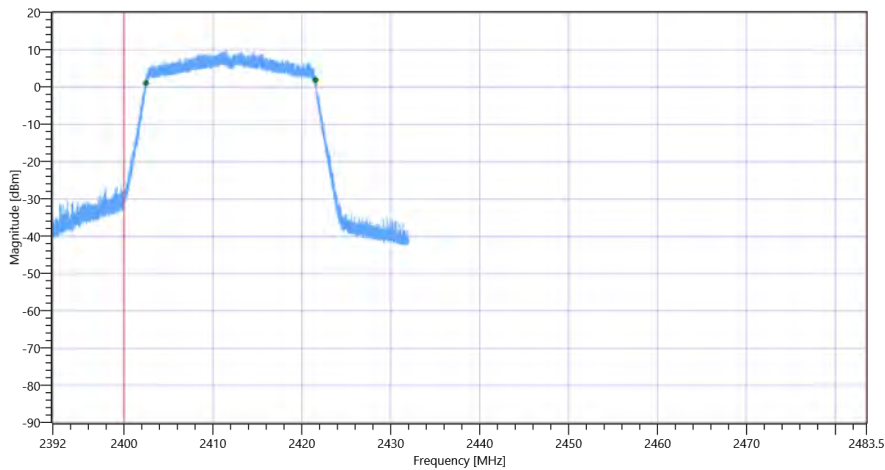
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 99%	---	---	19074.093	kHz	INFO
T1 99%	2400.000000	---	2402.4690	MHz	PASS
T2 99%	---	2483.500000	2421.5430	MHz	PASS

### Plot: Bandwidth only



FCC 15.247, ISED RSS247 # Bandwidth 99PCT and 20dB ~ WLAN2G4 ax-HE20 99PCT

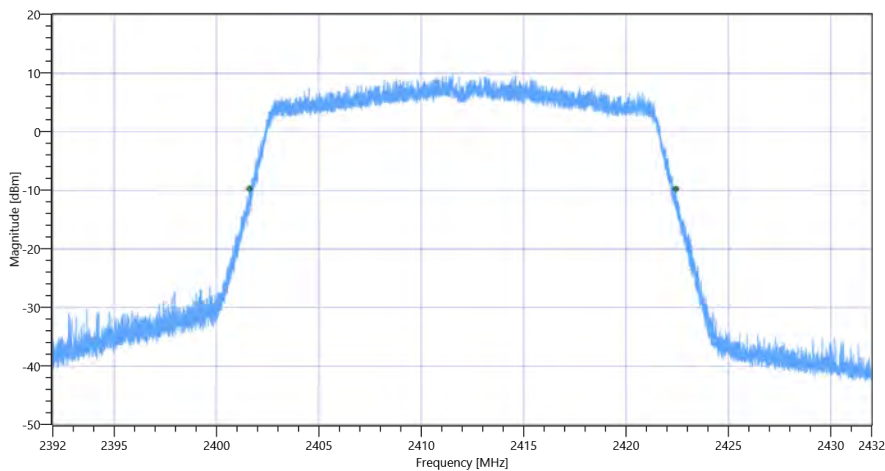
### Plot: Bandwidth within Band



FCC 15.247, ISED RSS247 # Bandwidth 99PCT and 20dB ~ WLAN2G4 ax-HE20

RESULT					
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 20dB	---	---	20836	kHz	INFO
T1 20dB	2400.000000	---	2401.6000	MHz	PASS
T2 20dB	---	2483.500000	2422.4360	MHz	PASS

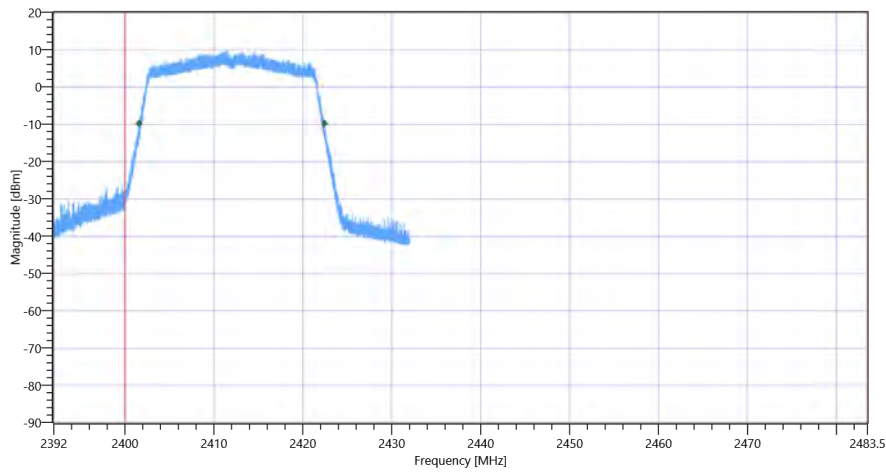
Plot: Bandwidth only



FCC 15.247, ISED RSS247 # Bandwidth 99PCT and 20dB ~ WLAN2G4 ax-HE20 20dB

Plot: Bandwidth within Band





FCC 15.247, ISED RSS247 # Bandwidth 99PCT and 20dB ~ WLAN2G4 ax-HE20

General verdict

PASS

## FCC 15.247, ISED RSS247 # Bandwidth 99PCT and 20dB ~ WLAN2G4 ax-HE20

Test References	
TC Start	06.07.2022 13:28:00
Ambit Temp [°C]   Humidity [rel%]	25.8   31
System Version	3.2.0.2
Test Specification	FCC 15.247, ISED RSS247 -
Test Method	
TC Version	0.0.2
My Description	FCC 15.247 Bandwidth 99PCT-20dB DTS - WLAN2G4 ax-HE20
Add. Information	

EUT Common Settings WLAN2G4	
Number of Antenna Ports	2
User Interaction	No

Test Parameter	
Technology to test	WLAN2G4 ax-HE20
Antenna Port used	2
Temperature	nom
Voltage	nom
Frequency low to test	False   Freq [MHz] 2412
Frequency mid to test	True   Freq [MHz] 2437
Frequency high to test	False   Freq [MHz] 2462
Auto Control enabled Power Supply   Climatic Box	No   No
Additional Path Loss [dB]	0.7
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.	---	---	9.05	dBm	INFO
Ref. Frequency	---	---	2435.800	MHz	INFO

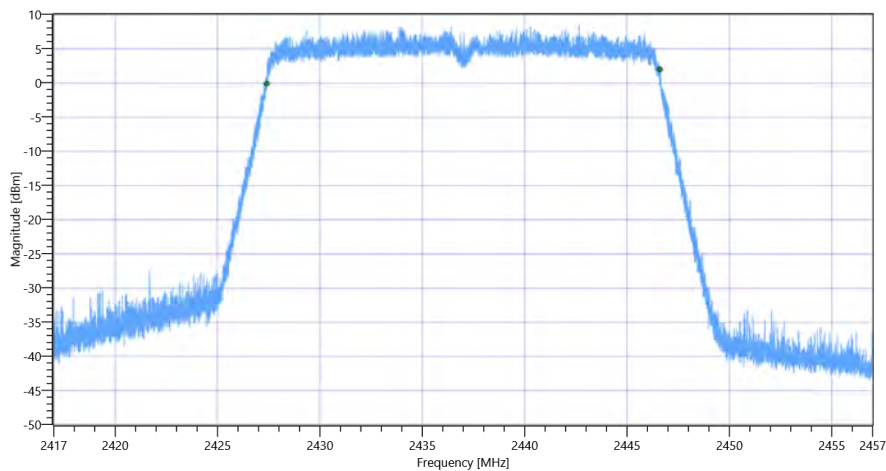
### READ SA SETTINGS:

RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]	14.05   15.7   15
Start [MHz]   Stop [MHz]	2417.000   2457.000
RBW [MHz]   VBW [MHz]	0.500000   2.000000
Detector   TraceMode	POS   MAXH
Sweep: Time [ms]   Count   Points per Section   Type	50   200   10001   SWE

### RESULT

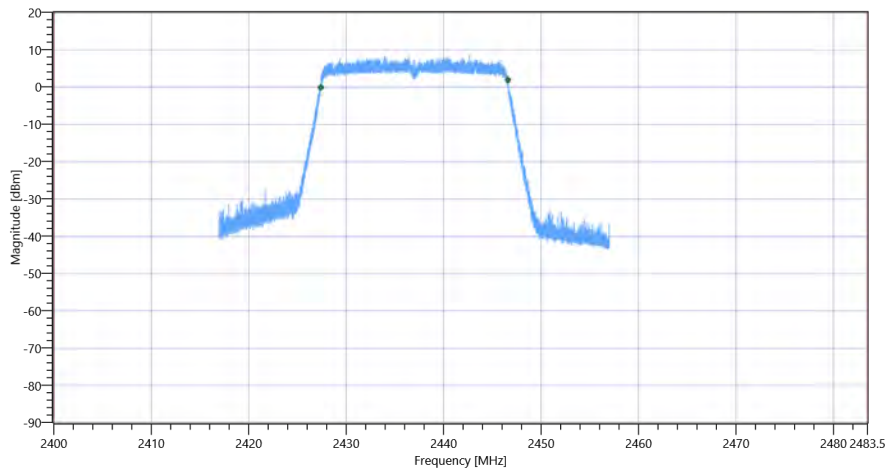
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 99%	---	---	19206.079	kHz	INFO
T1 99%	2400.000000	---	2427.4010	MHz	PASS
T2 99%	---	2483.500000	2446.6070	MHz	PASS

### Plot: Bandwidth only



FCC 15.247, ISED RSS247 # Bandwidth 99PCT and 20dB ~ WLAN2G4 ax-HE20 99PCT

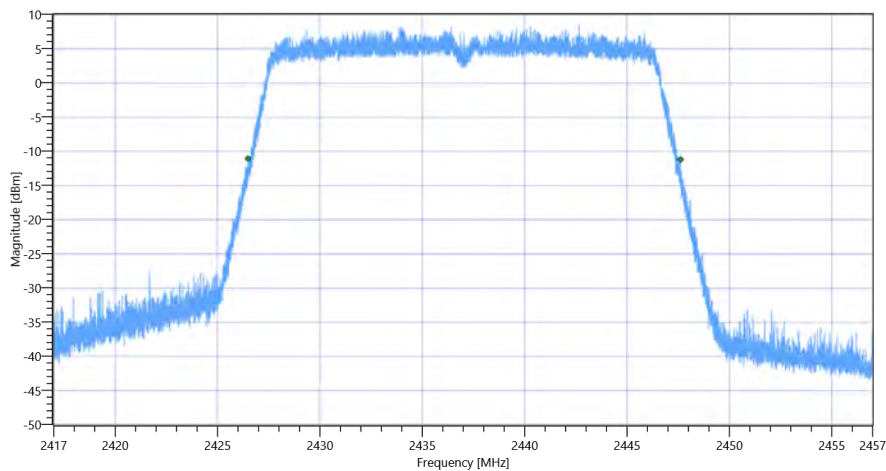
### Plot: Bandwidth within Band



FCC 15.247, ISED RSS247 # Bandwidth 99PCT and 20dB ~ WLAN2G4 ax-HE20

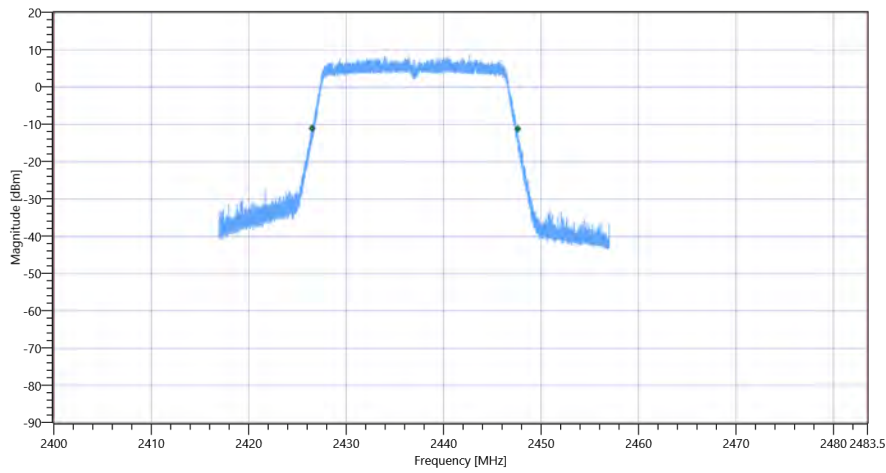
RESULT					
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 20dB	---	---	21120	kHz	INFO
T1 20dB	2400.000000	---	2426.4880	MHz	PASS
T2 20dB	---	2483.500000	2447.6080	MHz	PASS

Plot: Bandwidth only



FCC 15.247, ISED RSS247 # Bandwidth 99PCT and 20dB ~ WLAN2G4 ax-HE20 20dB

Plot: Bandwidth within Band



General verdict

PASS

## FCC 15.247, ISED RSS247 # Bandwidth 99PCT and 20dB ~ WLAN2G4 ax-HE20

Test References	
TC Start	06.07.2022 13:42:11
Ambit Temp [°C]   Humidity [rel%]	26.2   31
System Version	3.2.0.2
Test Specification	FCC 15.247, ISED RSS247 -
Test Method	
TC Version	0.0.2
My Description	FCC 15.247 Bandwidth 99PCT-20dB DTS - WLAN2G4 ax-HE20
Add. Information	

EUT Common Settings WLAN2G4	
Number of Antenna Ports	2
User Interaction	No

Test Parameter	
Technology to test	WLAN2G4 ax-HE20
Antenna Port used	2
Temperature	nom
Voltage	nom
Frequency low to test	False   Freq [MHz] 2412
Frequency mid to test	False   Freq [MHz] 2437
Frequency high to test	True   Freq [MHz] 2462
Auto Control enabled Power Supply   Climatic Box	No   No
Additional Path Loss [dB]	0.7
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 2462 MHz

### RESULT: Reference Power cond.

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	9.42	dBm	INFO
Ref. Frequency	---	---	2462.700	MHz	INFO

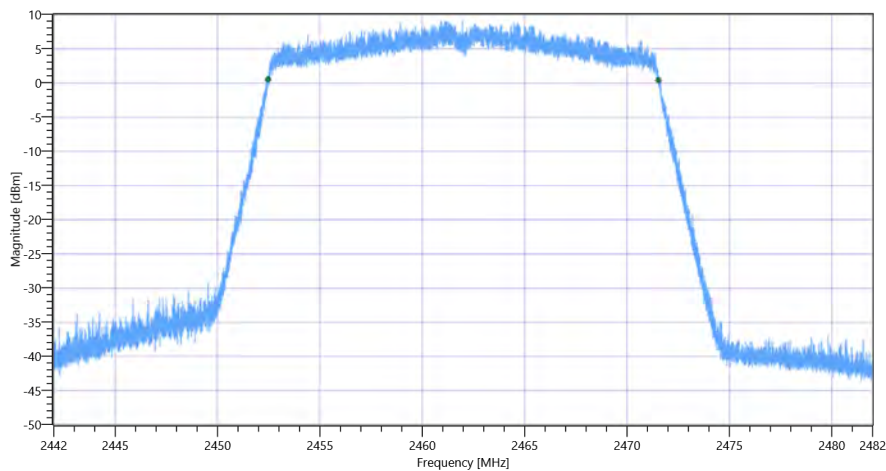
### READ SA SETTINGS:

RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]	14.42   15.54   15
Start [MHz]   Stop [MHz]	2442.000   2482.000
RBW [MHz]   VBW [MHz]	0.500000   2.000000
Detector   TraceMode	POS   MAXH
Sweep: Time [ms]   Count   Points per Section   Type	50   200   10001   SWE

### RESULT

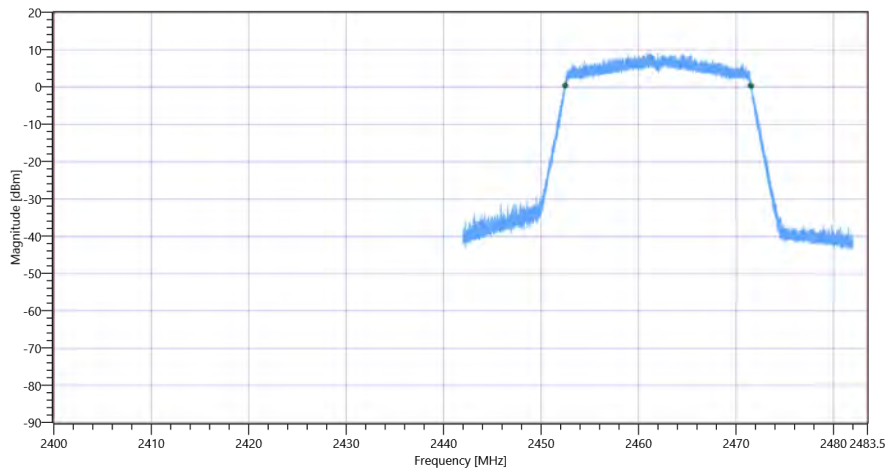
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 99%	---	---	19066.093	kHz	INFO
T1 99%	2400.000000	---	2452.4690	MHz	PASS
T2 99%	---	2483.500000	2471.5350	MHz	PASS

### Plot: Bandwidth only



FCC 15.247, ISED RSS247 # Bandwidth 99PCT and 20dB ~ WLAN2G4 ax-HE20 99PCT

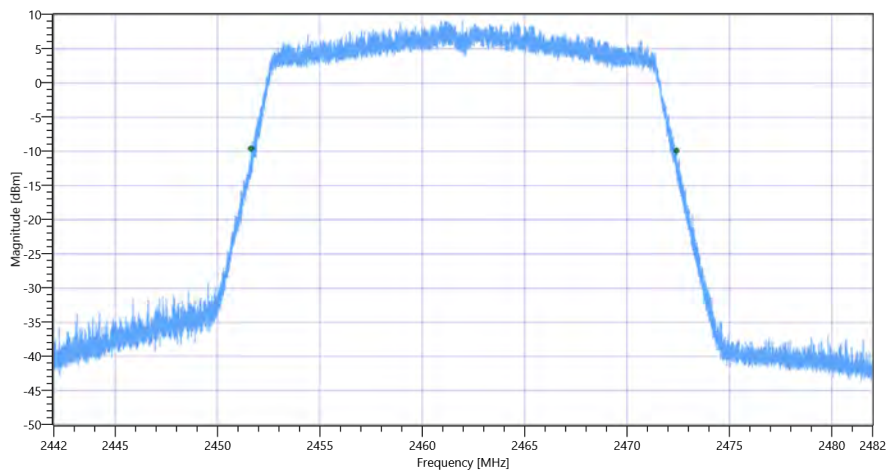
### Plot: Bandwidth within Band



FCC 15.247, ISED RSS247 # Bandwidth 99PCT and 20dB ~ WLAN2G4 ax-HE20

RESULT						
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict	
Bandwidth 20dB	---	---	20788	kHz	INFO	
T1 20dB	2400.000000	---	2451.6320	MHz	PASS	
T2 20dB	---	2483.500000	2472.4200	MHz	PASS	

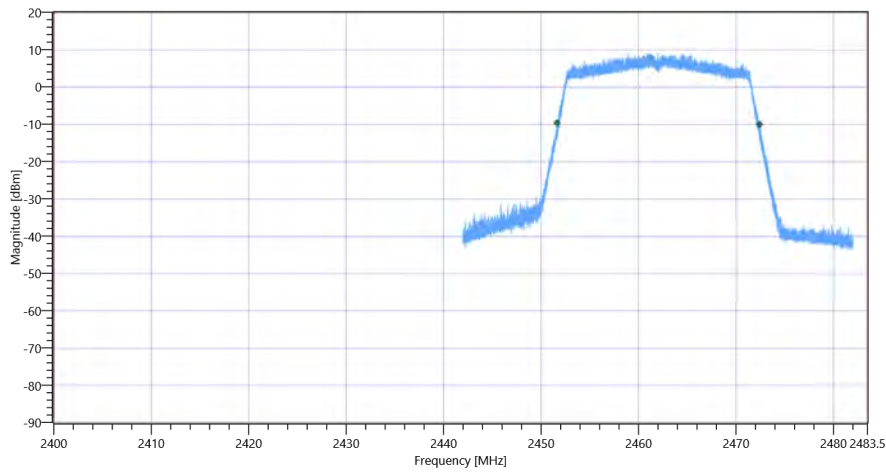
Plot: Bandwidth only



FCC 15.247, ISED RSS247 # Bandwidth 99PCT and 20dB ~ WLAN2G4 ax-HE20 20dB

Plot: Bandwidth within Band





FCC 15.247, ISED RSS247 # Bandwidth 99PCT and 20dB ~ WLAN2G4 ax-HE20

General verdict

PASS

## FCC 15.247 # Maximum avg conducted output power SA DTS ~ WLAN2G4 ax-HE20

Test References	
TC Start	06.07.2022 12:03:44
Ambit Temp [°C]   Humidity [rel%]	25.0   33
System Version	3.2.0.2
Test Specification	FCC 15.247 -
Test Method	ANSI C63.10-2013 Chapter 11.9.2.2.2 or .4
TC Version	0.0.1
My Description	FCC 15.247 Max Avg Output Power Conducted SA DTS - WLAN2G4 ax-HE20
Add. Information	

EUT Common Settings WLAN2G4	
Number of Antenna Ports	2
User Interaction	No

Test Parameter	
Technology to test	WLAN2G4 ax-HE20
Antenna Port used	1
Temperature	nom
Voltage	nom
Frequency low to test	True   Freq [MHz] 2412
Frequency mid to test	False   Freq [MHz] 2437
Frequency high to test	False   Freq [MHz] 2462
Auto Control enabled Power Supply   Climatic Box	No   No
Additional Path Loss [dB]	0.7
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 2412 MHz

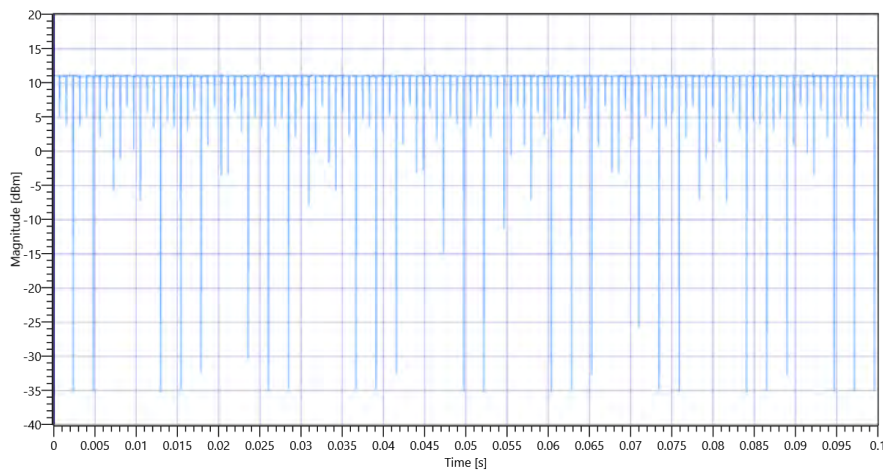
### RESULT: Reference Power cond.

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	12.32	dBm	INFO
Ref. Frequency	---	---	2413.000	MHz	INFO

## Evaluation max. Duty Cycle

### Duty Cycle evaluation

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Result Summary					
Number of detected Bursts:53					
Duty Cycle (Burst Ratio) max	---	---	0.969	---	INFO
Duty Cycle max	---	---	0.137	dB	INFO
Duty Cycle (Burst Ratio) min	---	---	0.909	---	INFO
Duty Cycle min	---	---	0.414	dB	INFO
Max TX Burst Length	---	---	2.375	ms	INFO
Min Gap Length	---	---	0.075	ms	INFO
Max Gap Length	---	---	0.075	ms	INFO



FCC 15.247 # Maximum avg conducted output power SA DTS ~ WLAN2G4 ax-HE20 2412 MHz - DutyCycle

## Maximum Avg. Output Power

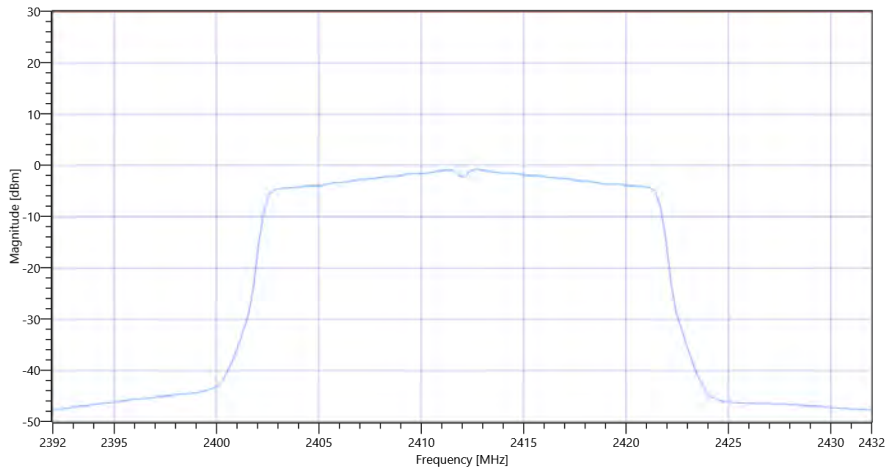
### READ SA SETTINGS:

RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]	22.32   15.93   25
Start [MHz]   Stop [MHz]	2392.000   2432.000
RBW [MHz]   VBW [MHz]	0.500000   2.000000
Detector   TraceMode	RMS   AVER
Sweep: Time [ms]   Count   Points per Section   Type	500   100   160   SWE

### RESULT (Channel Power method)

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
------------------	-------------	-------------	----------	------	---------

RESULT (Channel Power method)					
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Avg Output Power uncorrected	---	---	13.01	dBm	INFO
Duty Cycle Correction	---	---	0.41	dB	INFO
Avg Output Power DC corrected	---	30	13.42	dBm	PASS



FCC 15.247 # Maximum avg conducted output power SA DTS ~ WLAN2G4 ax-HE20

General verdict	PASS
-----------------	------

## FCC 15.247 # Maximum avg conducted output power SA DTS ~ WLAN2G4 ax-HE20

Test References	
TC Start	06.07.2022 12:51:12
Ambit Temp [°C]   Humidity [rel%]	25.3   32
System Version	3.2.0.2
Test Specification	FCC 15.247 -
Test Method	ANSI C63.10-2013 Chapter 11.9.2.2.2 or .4
TC Version	0.0.1
My Description	FCC 15.247 Max Avg Output Power Conducted SA DTS - WLAN2G4 ax-HE20
Add. Information	

EUT Common Settings WLAN2G4	
Number of Antenna Ports	2
User Interaction	No

Test Parameter	
Technology to test	WLAN2G4 ax-HE20
Antenna Port used	1
Temperature	nom
Voltage	nom
Frequency low to test	False   Freq [MHz] 2412
Frequency mid to test	True   Freq [MHz] 2437
Frequency high to test	False   Freq [MHz] 2462
Auto Control enabled Power Supply   Climatic Box	No   No
Additional Path Loss [dB]	0.7
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

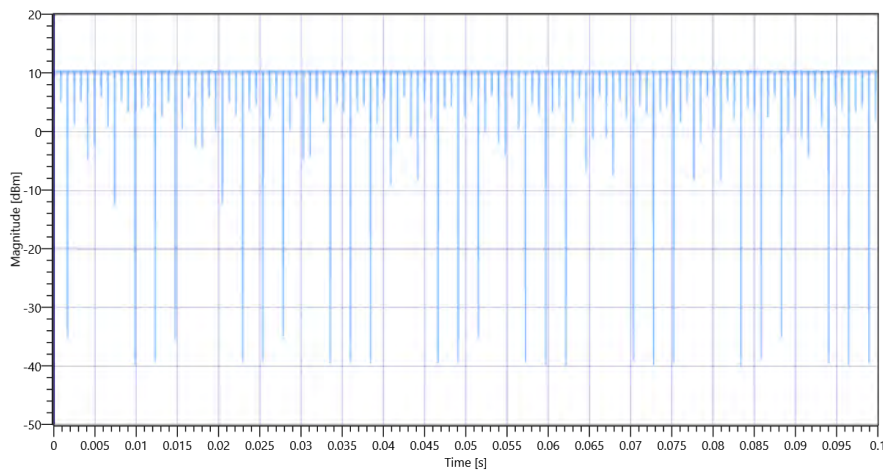
### RESULT: Reference Power cond.

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	9.17	dBm	INFO
Ref. Frequency	---	---	2428.810	MHz	INFO

## Evaluation max. Duty Cycle

### Duty Cycle evaluation

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
<b>Result Summary</b>					
Number of detected Bursts:54					
Duty Cycle (Burst Ratio) max	---	---	0.969	---	INFO
Duty Cycle max	---	---	0.137	dB	INFO
Duty Cycle (Burst Ratio) min	---	---	0.909	---	INFO
Duty Cycle min	---	---	0.414	dB	INFO
Max TX Burst Length	---	---	2.375	ms	INFO
Min Gap Length	---	---	0.075	ms	INFO
Max Gap Length	---	---	0.075	ms	INFO



FCC 15.247 # Maximum avg conducted output power SA DTS ~ WLAN2G4 ax-HE20 2437 MHz - DutyCycle

## Maximum Avg. Output Power

### READ SA SETTINGS:

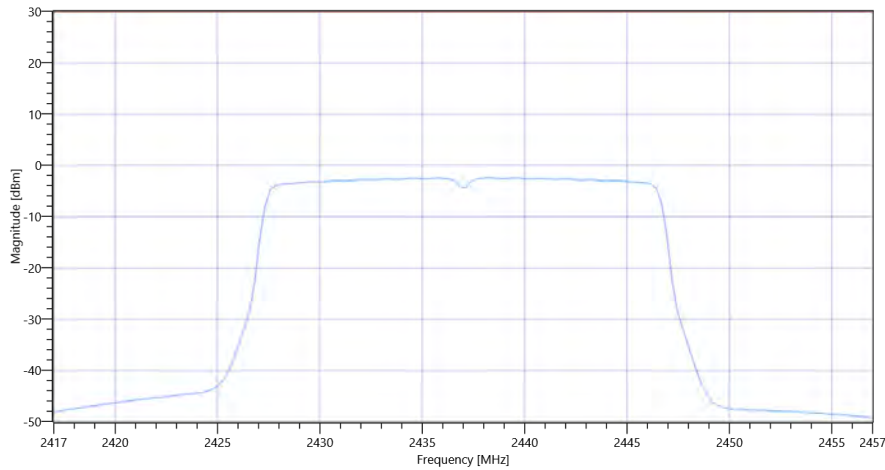
RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]	19.17   15.7   20
Start [MHz]   Stop [MHz]	2417.000   2457.000
RBW [MHz]   VBW [MHz]	0.500000   2.000000
Detector   TraceMode	RMS   AVER
Sweep: Time [ms]   Count   Points per Section   Type	500   100   160   SWE

### RESULT (Channel Power method)

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
------------------	-------------	-------------	----------	------	---------

**RESULT (Channel Power method)**

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Avg Output Power uncorrected	---	---	12.65	dBm	INFO
Duty Cycle Correction	---	---	0.41	dB	INFO
Avg Output Power DC corrected	---	30	13.06	dBm	PASS



FCC 15.247 # Maximum avg conducted output power SA DTS ~ WLAN2G4 ax-HE20

General verdict

PASS

## FCC 15.247 # Maximum avg conducted output power SA DTS ~ WLAN2G4 ax-HE20

Test References	
TC Start	06.07.2022 13:07:36
Ambit Temp [°C]   Humidity [rel%]	25.6   32
System Version	3.2.0.2
Test Specification	FCC 15.247 -
Test Method	ANSI C63.10-2013 Chapter 11.9.2.2.2 or .4
TC Version	0.0.1
My Description	FCC 15.247 Max Avg Output Power Conducted SA DTS - WLAN2G4 ax-HE20
Add. Information	

EUT Common Settings WLAN2G4	
Number of Antenna Ports	2
User Interaction	No

Test Parameter	
Technology to test	WLAN2G4 ax-HE20
Antenna Port used	1
Temperature	nom
Voltage	nom
Frequency low to test	False   Freq [MHz] 2412
Frequency mid to test	False   Freq [MHz] 2437
Frequency high to test	True   Freq [MHz] 2462
Auto Control enabled Power Supply   Climatic Box	No   No
Additional Path Loss [dB]	0.7
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 2462 MHz

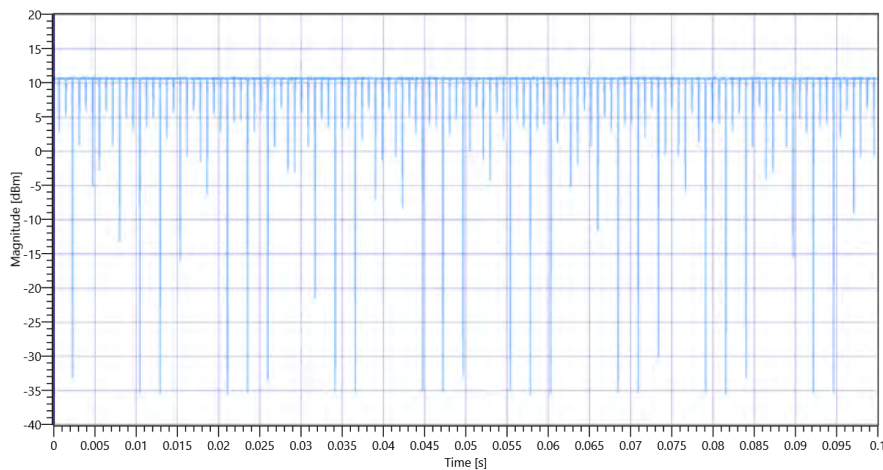
### RESULT: Reference Power cond.

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	10.73	dBm	INFO
Ref. Frequency	---	---	2465.000	MHz	INFO

## Evaluation max. Duty Cycle

### Duty Cycle evaluation

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Result Summary					
Number of detected Bursts:57					
Duty Cycle (Burst Ratio) max	---	---	0.969	---	INFO
Duty Cycle max	---	---	0.137	dB	INFO
Duty Cycle (Burst Ratio) min	---	---	0.909	---	INFO
Duty Cycle min	---	---	0.414	dB	INFO
Max TX Burst Length	---	---	2.375	ms	INFO
Min Gap Length	---	---	0.075	ms	INFO
Max Gap Length	---	---	0.075	ms	INFO



FCC 15.247 # Maximum avg conducted output power SA DTS ~ WLAN2G4 ax-HE20 2462 MHz - DutyCycle

## Maximum Avg. Output Power

### READ SA SETTINGS:

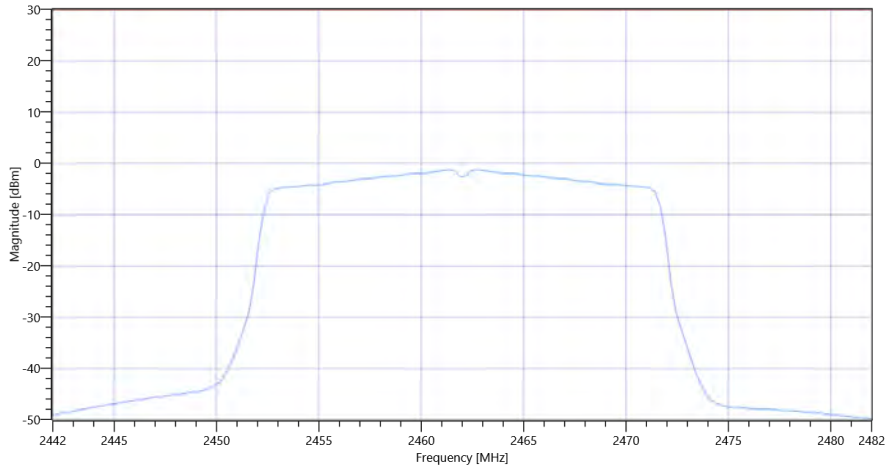
RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]	20.73   15.54   20
Start [MHz]   Stop [MHz]	2442.000   2482.000
RBW [MHz]   VBW [MHz]	0.500000   2.000000
Detector   TraceMode	RMS   AVER
Sweep: Time [ms]   Count   Points per Section   Type	500   100   160   SWE

### RESULT (Channel Power method)

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
------------------	-------------	-------------	----------	------	---------

**RESULT (Channel Power method)**

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Avg Output Power uncorrected	---	---	12.63	dBm	INFO
Duty Cycle Correction	---	---	0.41	dB	INFO
Avg Output Power DC corrected	---	30	13.04	dBm	PASS



FCC 15.247 # Maximum avg conducted output power SA DTS ~ WLAN2G4 ax-HE20

General verdict

PASS

## FCC 15.247 # Maximum avg conducted output power SA DTS ~ WLAN2G4 ax-HE20

Test References	
TC Start	06.07.2022 13:23:27
Ambit Temp [°C]   Humidity [rel%]	25.8   32
System Version	3.2.0.2
Test Specification	FCC 15.247 -
Test Method	ANSI C63.10-2013 Chapter 11.9.2.2.2 or .4
TC Version	0.0.1
My Description	FCC 15.247 Max Avg Output Power Conducted SA DTS - WLAN2G4 ax-HE20
Add. Information	

EUT Common Settings WLAN2G4	
Number of Antenna Ports	2
User Interaction	No

Test Parameter	
Technology to test	WLAN2G4 ax-HE20
Antenna Port used	2
Temperature	nom
Voltage	nom
Frequency low to test	True   Freq [MHz] 2412
Frequency mid to test	False   Freq [MHz] 2437
Frequency high to test	False   Freq [MHz] 2462
Auto Control enabled Power Supply   Climatic Box	No   No
Additional Path Loss [dB]	0.7
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 2412 MHz

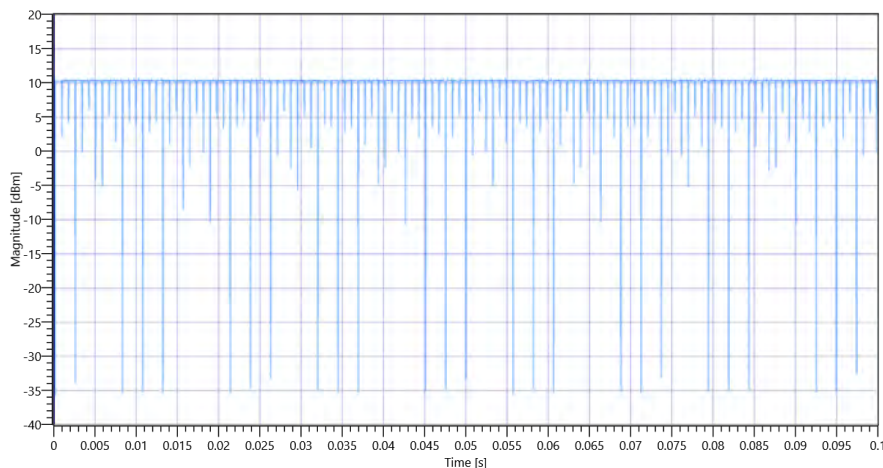
### RESULT: Reference Power cond.

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	11.58	dBm	INFO
Ref. Frequency	---	---	2414.700	MHz	INFO

## Evaluation max. Duty Cycle

### Duty Cycle evaluation

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
<b>Result Summary</b>					
Number of detected Bursts:57					
Duty Cycle (Burst Ratio) max	---	---	0.969	---	INFO
Duty Cycle max	---	---	0.137	dB	INFO
Duty Cycle (Burst Ratio) min	---	---	0.909	---	INFO
Duty Cycle min	---	---	0.414	dB	INFO
Max TX Burst Length	---	---	2.375	ms	INFO
Min Gap Length	---	---	0.075	ms	INFO
Max Gap Length	---	---	0.075	ms	INFO



FCC 15.247 # Maximum avg conducted output power SA DTS ~ WLAN2G4 ax-HE20 2412 MHz - DutyCycle

## Maximum Avg. Output Power

### READ SA SETTINGS:

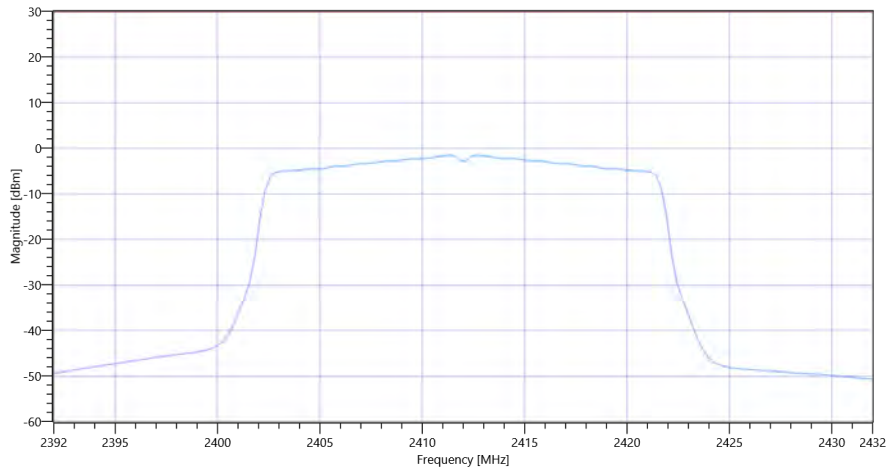
RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]	21.58   15.93   20
Start [MHz]   Stop [MHz]	2392.000   2432.000
RBW [MHz]   VBW [MHz]	0.500000   2.000000
Detector   TraceMode	RMS   AVER
Sweep: Time [ms]   Count   Points per Section   Type	500   100   160   SWE

### RESULT (Channel Power method)

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
------------------	-------------	-------------	----------	------	---------

**RESULT (Channel Power method)**

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Avg Output Power uncorrected	---	---	12.29	dBm	INFO
Duty Cycle Correction	---	---	0.41	dB	INFO
Avg Output Power DC corrected	---	30	12.7	dBm	PASS



FCC 15.247 # Maximum avg conducted output power SA DTS ~ WLAN2G4 ax-HE20

General verdict

**PASS**

## FCC 15.247 # Maximum avg conducted output power SA DTS ~ WLAN2G4 ax-HE20

Test References	
TC Start	06.07.2022 13:37:40
Ambit Temp [°C]   Humidity [rel%]	26.1   32
System Version	3.2.0.2
Test Specification	FCC 15.247 -
Test Method	ANSI C63.10-2013 Chapter 11.9.2.2.2 or .4
TC Version	0.0.1
My Description	FCC 15.247 Max Avg Output Power Conducted SA DTS - WLAN2G4 ax-HE20
Add. Information	

EUT Common Settings WLAN2G4	
Number of Antenna Ports	2
User Interaction	No

Test Parameter	
Technology to test	WLAN2G4 ax-HE20
Antenna Port used	2
Temperature	nom
Voltage	nom
Frequency low to test	False   Freq [MHz] 2412
Frequency mid to test	True   Freq [MHz] 2437
Frequency high to test	False   Freq [MHz] 2462
Auto Control enabled Power Supply   Climatic Box	No   No
Additional Path Loss [dB]	0.7
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

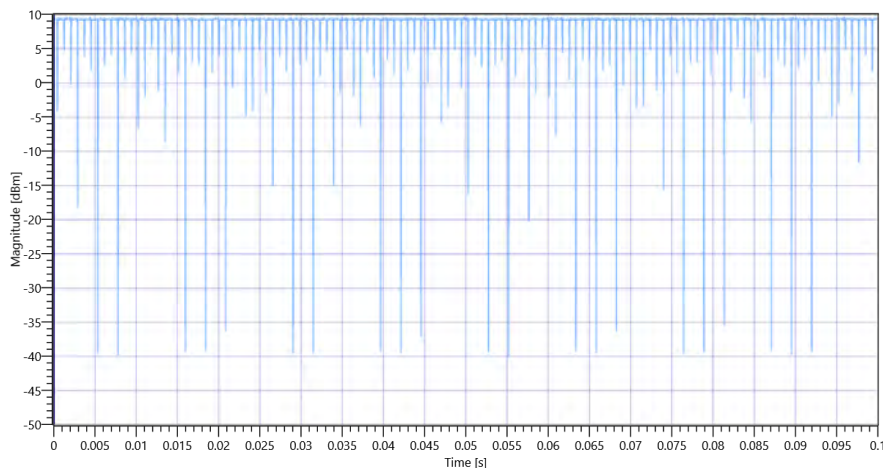
### RESULT: Reference Power cond.

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	9.05	dBm	INFO
Ref. Frequency	---	---	2434.100	MHz	INFO

## Evaluation max. Duty Cycle

### Duty Cycle evaluation

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
<b>Result Summary</b>					
Number of detected Bursts:55					
Duty Cycle (Burst Ratio) max	---	---	0.969	---	INFO
Duty Cycle max	---	---	0.137	dB	INFO
Duty Cycle (Burst Ratio) min	---	---	0.909	---	INFO
Duty Cycle min	---	---	0.414	dB	INFO
Max TX Burst Length	---	---	2.375	ms	INFO
Min Gap Length	---	---	0.075	ms	INFO
Max Gap Length	---	---	0.075	ms	INFO



FCC 15.247 # Maximum avg conducted output power SA DTS ~ WLAN2G4 ax-HE20 2437 MHz - DutyCycle

## Maximum Avg. Output Power

### READ SA SETTINGS:

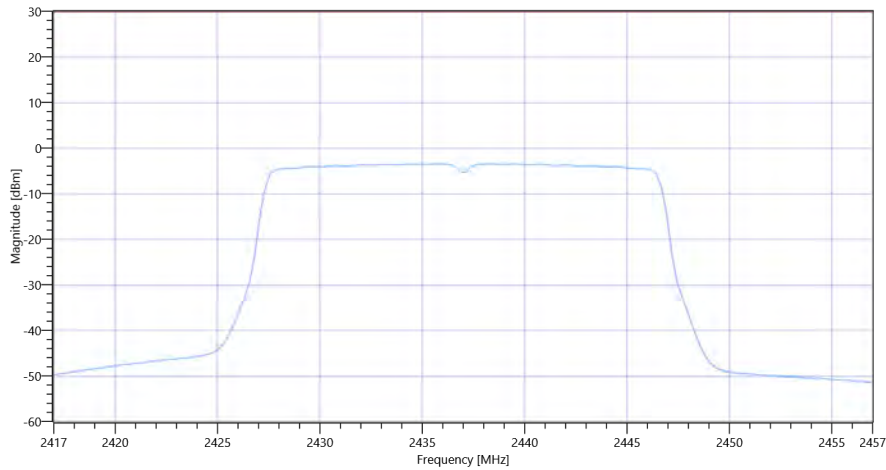
RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]	19.05   15.7   20
Start [MHz]   Stop [MHz]	2417.000   2457.000
RBW [MHz]   VBW [MHz]	0.500000   2.000000
Detector   TraceMode	RMS   AVER
Sweep: Time [ms]   Count   Points per Section   Type	500   100   160   SWE

### RESULT (Channel Power method)

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
------------------	-------------	-------------	----------	------	---------

**RESULT (Channel Power method)**

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Avg Output Power uncorrected	---	---	11.66	dBm	INFO
Duty Cycle Correction	---	---	0.41	dB	INFO
Avg Output Power DC corrected	---	30	12.07	dBm	PASS



FCC 15.247 # Maximum avg conducted output power SA DTS ~ WLAN2G4 ax-HE20

General verdict

PASS



## FCC 15.247 # Maximum avg conducted output power SA DTS ~ WLAN2G4 ax-HE20

Test References	
TC Start	06.07.2022 13:51:47
Ambit Temp [°C]   Humidity [rel%]	26.3   31
System Version	3.2.0.2
Test Specification	FCC 15.247 -
Test Method	ANSI C63.10-2013 Chapter 11.9.2.2.2 or .4
TC Version	0.0.1
My Description	FCC 15.247 Max Avg Output Power Conducted SA DTS - WLAN2G4 ax-HE20
Add. Information	

EUT Common Settings WLAN2G4	
Number of Antenna Ports	2
User Interaction	No

Test Parameter	
Technology to test	WLAN2G4 ax-HE20
Antenna Port used	2
Temperature	nom
Voltage	nom
Frequency low to test	False   Freq [MHz] 2412
Frequency mid to test	False   Freq [MHz] 2437
Frequency high to test	True   Freq [MHz] 2462
Auto Control enabled Power Supply   Climatic Box	No   No
Additional Path Loss [dB]	0.7
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 2462 MHz

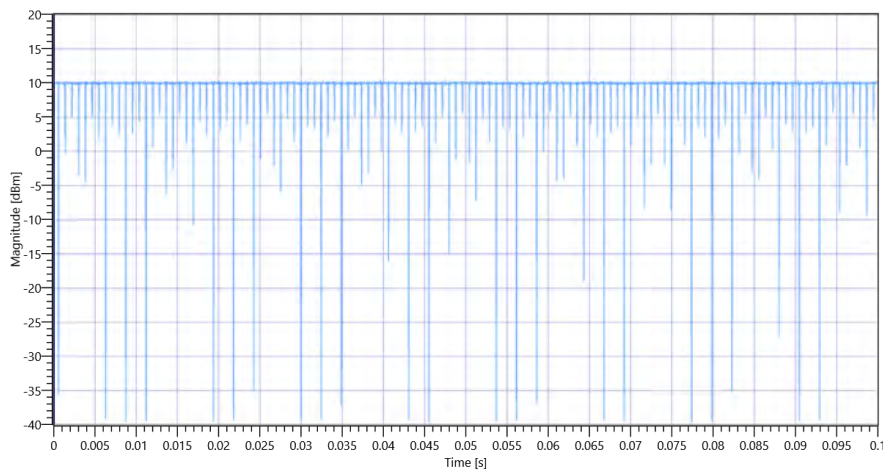
### RESULT: Reference Power cond.

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	9.93	dBm	INFO
Ref. Frequency	---	---	2460.000	MHz	INFO

## Evaluation max. Duty Cycle

### Duty Cycle evaluation

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
<b>Result Summary</b>					
Number of detected Bursts:55					
Duty Cycle (Burst Ratio) max	---	---	0.969	---	INFO
Duty Cycle max	---	---	0.137	dB	INFO
Duty Cycle (Burst Ratio) min	---	---	0.909	---	INFO
Duty Cycle min	---	---	0.414	dB	INFO
Max TX Burst Length	---	---	2.375	ms	INFO
Min Gap Length	---	---	0.075	ms	INFO
Max Gap Length	---	---	0.075	ms	INFO



FCC 15.247 # Maximum avg conducted output power SA DTS ~ WLAN2G4 ax-HE20 2462 MHz - DutyCycle

## Maximum Avg. Output Power

### READ SA SETTINGS:

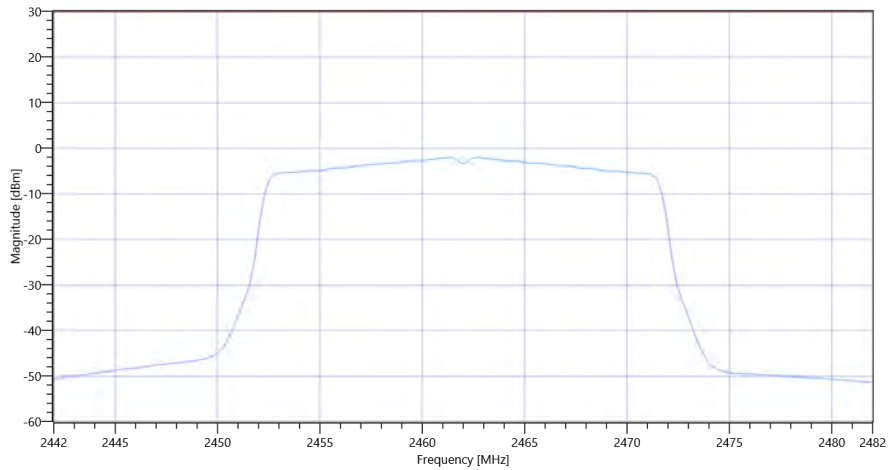
RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]	19.93   15.54   20
Start [MHz]   Stop [MHz]	2442.000   2482.000
RBW [MHz]   VBW [MHz]	0.500000   2.000000
Detector   TraceMode	RMS   AVER
Sweep: Time [ms]   Count   Points per Section   Type	500   100   160   SWE

### RESULT (Channel Power method)

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
------------------	-------------	-------------	----------	------	---------

**RESULT (Channel Power method)**

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Avg Output Power uncorrected	---	---	11.85	dBm	INFO
Duty Cycle Correction	---	---	0.41	dB	INFO
Avg Output Power DC corrected	---	30	12.26	dBm	PASS



FCC 15.247 # Maximum avg conducted output power SA DTS ~ WLAN2G4 ax-HE20

General verdict

**PASS**

## FCC 15.247 # TX spurious conducted 30dBc ~ WLAN2G4 ax-HE20

Test References	
TC Start	06.07.2022 11:54:58
Ambit Temp [°C]   Humidity [rel%]	25.1   34
System Version	3.2.0.2
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 ax-HE20
Add. Information	

EUT Common Settings WLAN2G4	
Number of Antenna Ports	2
User Interaction	No

Test Parameter	
Technology to test	WLAN2G4 ax-HE20
Antenna Port used	1
Temperature	nom
Voltage	nom
Frequency low to test	True   Freq [MHz] 2412
Frequency mid to test	False   Freq [MHz] 2437
Frequency high to test	False   Freq [MHz] 2462
Auto Control enabled Power Supply   Climatic Box	No   No
Additional Path Loss [dB]	0.7
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 2412 MHz

### RESULT: Reference Power cond.

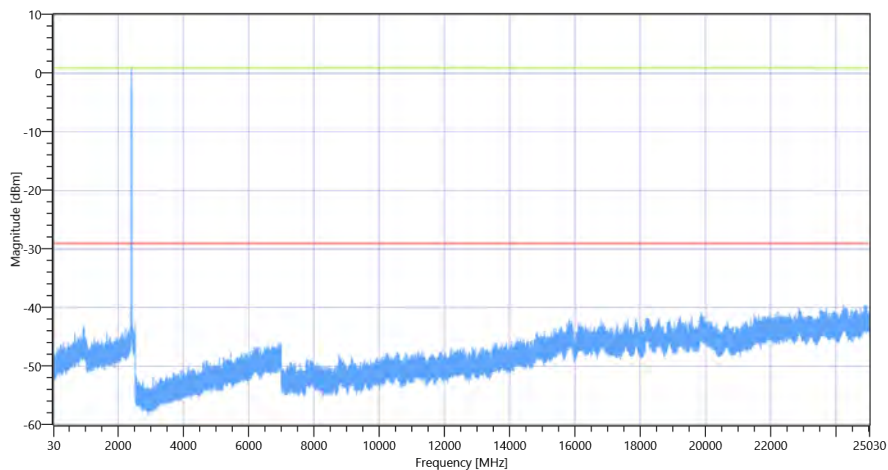
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	11.95	dBm	INFO
Ref. Frequency	---	---	2412.700	MHz	INFO

### READ SA SETTINGS:

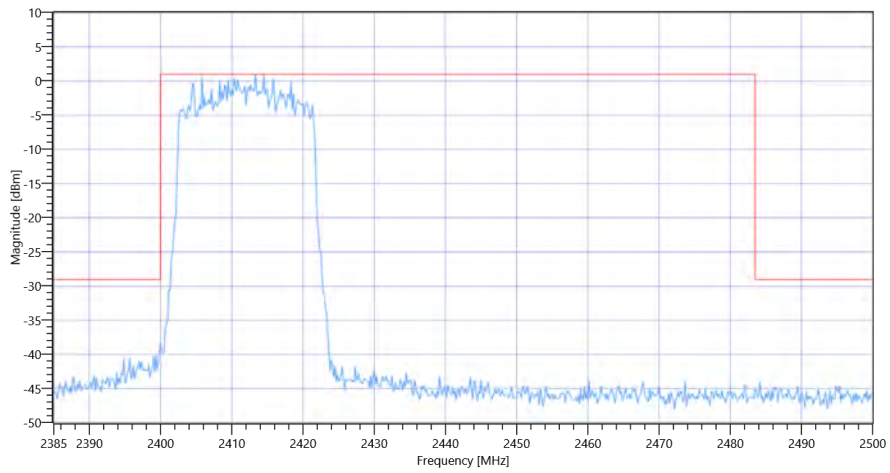
RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]	10.00   0   20
Start [MHz]   Stop [MHz]	24530.000   25030.000
RBW [MHz]   VBW [MHz]	0.100000   0.300000
Detector   TraceMode	POS   MAXH
Sweep: Time [ms]   Count   Points per Section   Type	200   25   3001   SWE

### RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Reference @ 2413.33 MHz	---	---	0.98	dBm	INFO
No peaks detected	---	---			PASS
Lowest margin to limit 24231.333 MHz	0	---	10.38	dB	INFO



FCC 15.247 # TX spurious conducted 30dBc ~ WLAN2G4 ax-HE20 2412



General verdict

PASS

## FCC 15.247 # TX spurious conducted 30dBc ~ WLAN2G4 ax-HE20

Test References	
TC Start	06.07.2022 12:42:34
Ambit Temp [°C]   Humidity [rel%]	25.2   32
System Version	3.2.0.2
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 ax-HE20
Add. Information	

EUT Common Settings WLAN2G4	
Number of Antenna Ports	2
User Interaction	No

Test Parameter	
Technology to test	WLAN2G4 ax-HE20
Antenna Port used	1
Temperature	nom
Voltage	nom
Frequency low to test	False   Freq [MHz] 2412
Frequency mid to test	True   Freq [MHz] 2437
Frequency high to test	False   Freq [MHz] 2462
Auto Control enabled Power Supply   Climatic Box	No   No
Additional Path Loss [dB]	0.7
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.

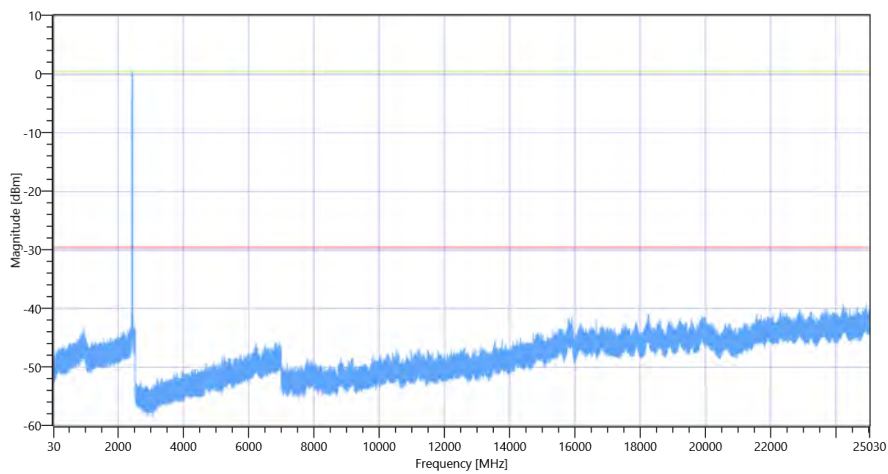
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	10.40	dBm	INFO
Ref. Frequency	---	---	2438.600	MHz	INFO

### READ SA SETTINGS:

RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]	10.00   0   20
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

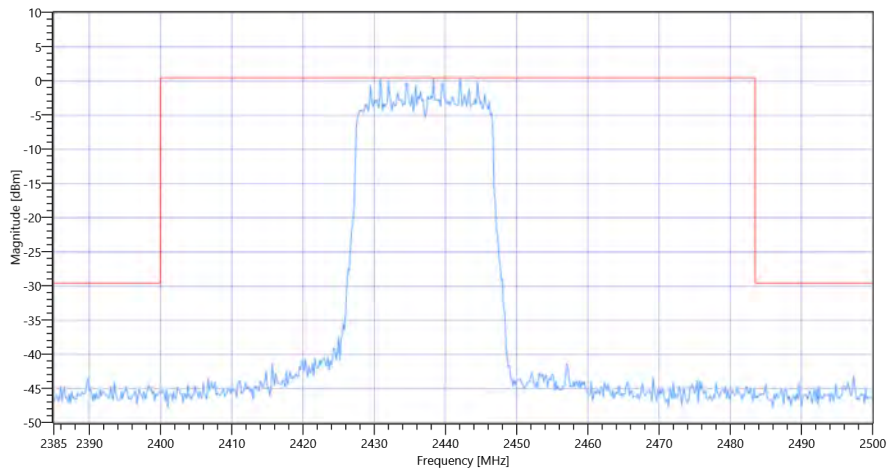
### RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Reference @ 2438.33 MHz	---	---	0.46	dBm	INFO
No peaks detected	---	---			PASS
Lowest margin to limit 30 MHz	0	---	-150.77	dB	INFO



FCC 15.247 # TX spurious conducted 30dBc ~ WLAN2G4 ax-HE20 2437





FCC 15.247 # TX spurious conducted 30dBc ~ WLAN2G4 ax-HE20 2437

General verdict

PASS

## FCC 15.247 # TX spurious conducted 30dBc ~ WLAN2G4 ax-HE20

Test References	
TC Start	06.07.2022 12:58:52
Ambit Temp [°C]   Humidity [rel%]	25.4   32
System Version	3.2.0.2
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 ax-HE20
Add. Information	

EUT Common Settings WLAN2G4	
Number of Antenna Ports	2
User Interaction	No

Test Parameter	
Technology to test	WLAN2G4 ax-HE20
Antenna Port used	1
Temperature	nom
Voltage	nom
Frequency low to test	False   Freq [MHz] 2412
Frequency mid to test	False   Freq [MHz] 2437
Frequency high to test	True   Freq [MHz] 2462
Auto Control enabled Power Supply   Climatic Box	No   No
Additional Path Loss [dB]	0.7
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 2462 MHz

### RESULT: Reference Power cond.

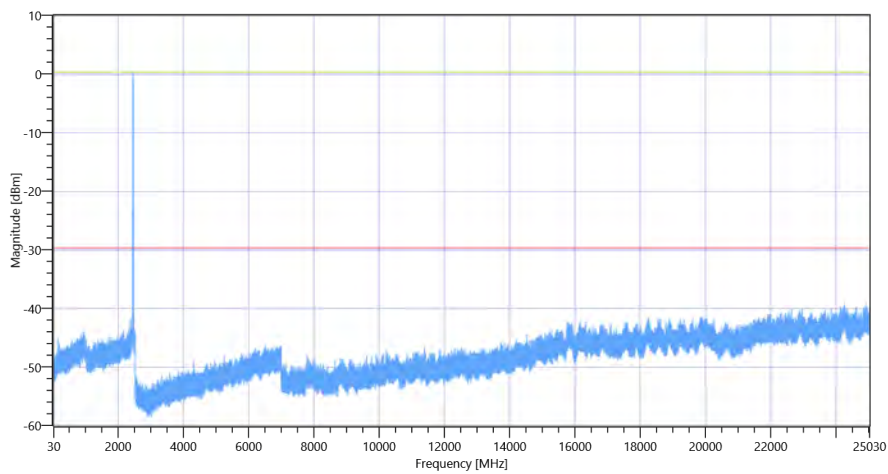
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	10.96	dBm	INFO
Ref. Frequency	---	---	2459.900	MHz	INFO

### READ SA SETTINGS:

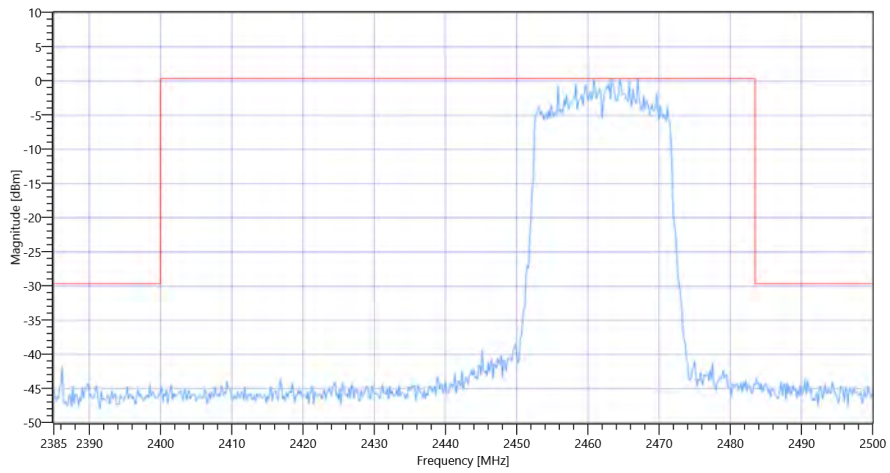
RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]	10.00   0   20
Start [MHz]   Stop [MHz]	24530.000   25030.000
RBW [MHz]   VBW [MHz]	0.100000   0.300000
Detector   TraceMode	POS   MAXH
Sweep: Time [ms]   Count   Points per Section   Type	200   25   3001   SWE

### RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Reference @ 2467.00 MHz	---	---	0.38	dBm	INFO
No peaks detected	---	---			PASS
Lowest margin to limit 24908.5 MHz	0	---	9.32	dB	INFO



FCC 15.247 # TX spurious conducted 30dBc ~ WLAN2G4 ax-HE20 2462



FCC 15.247 # TX spurious conducted 30dBc ~ WLAN2G4 ax-HE20 2462

General verdict

PASS

## FCC 15.247 # TX spurious conducted 30dBc ~ WLAN2G4 ax-HE20

Test References	
TC Start	06.07.2022 13:14:50
Ambit Temp [°C]   Humidity [rel%]	25.7   32
System Version	3.2.0.2
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 ax-HE20
Add. Information	

EUT Common Settings WLAN2G4	
Number of Antenna Ports	2
User Interaction	No

Test Parameter	
Technology to test	WLAN2G4 ax-HE20
Antenna Port used	2
Temperature	nom
Voltage	nom
Frequency low to test	True   Freq [MHz] 2412
Frequency mid to test	False   Freq [MHz] 2437
Frequency high to test	False   Freq [MHz] 2462
Auto Control enabled Power Supply   Climatic Box	No   No
Additional Path Loss [dB]	0.7
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 2412 MHz

### RESULT: Reference Power cond.

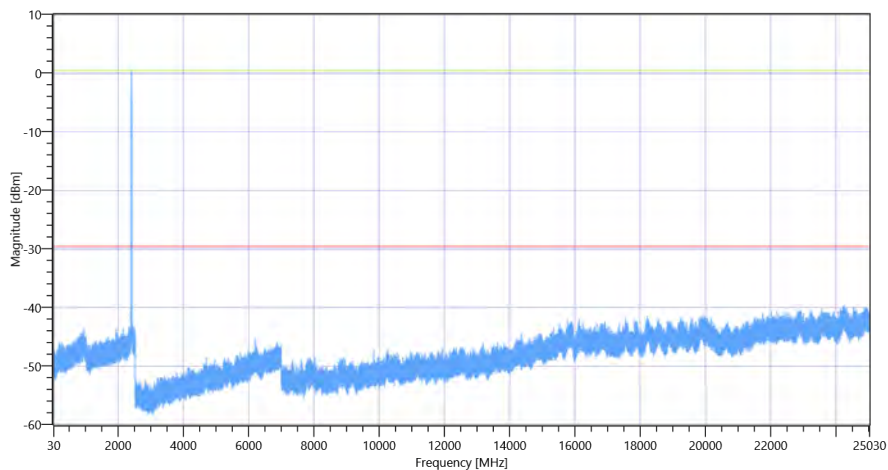
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	10.66	dBm	INFO
Ref. Frequency	---	---	2412.900	MHz	INFO

### READ SA SETTINGS:

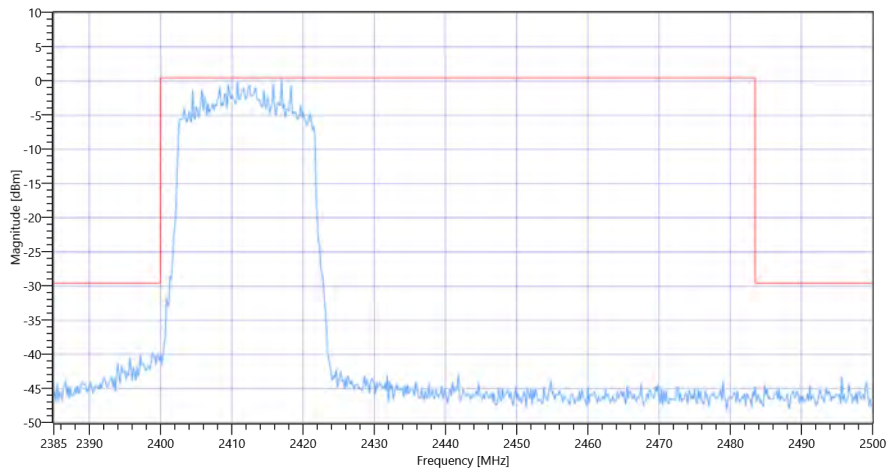
RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]	10.00   0   20
Start [MHz]   Stop [MHz]	24530.000   25030.000
RBW [MHz]   VBW [MHz]	0.100000   0.300000
Detector   TraceMode	POS   MAXH
Sweep: Time [ms]   Count   Points per Section   Type	200   25   3001   SWE

### RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Reference @ 2417.00 MHz	---	---	0.46	dBm	INFO
No peaks detected	---	---			PASS
Lowest margin to limit 24250.167 MHz	0	---	10.06	dB	INFO



FCC 15.247 # TX spurious conducted 30dBc ~ WLAN2G4 ax-HE20 2412



FCC 15.247 # TX spurious conducted 30dBc ~ WLAN2G4 ax-HE20 2412

General verdict

PASS

## FCC 15.247 # TX spurious conducted 30dBc ~ WLAN2G4 ax-HE20

Test References	
TC Start	06.07.2022 13:28:57
Ambit Temp [°C]   Humidity [rel%]	25.8   31
System Version	3.2.0.2
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 ax-HE20
Add. Information	

EUT Common Settings WLAN2G4	
Number of Antenna Ports	2
User Interaction	No

Test Parameter	
Technology to test	WLAN2G4 ax-HE20
Antenna Port used	2
Temperature	nom
Voltage	nom
Frequency low to test	False   Freq [MHz] 2412
Frequency mid to test	True   Freq [MHz] 2437
Frequency high to test	False   Freq [MHz] 2462
Auto Control enabled Power Supply   Climatic Box	No   No
Additional Path Loss [dB]	0.7
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.

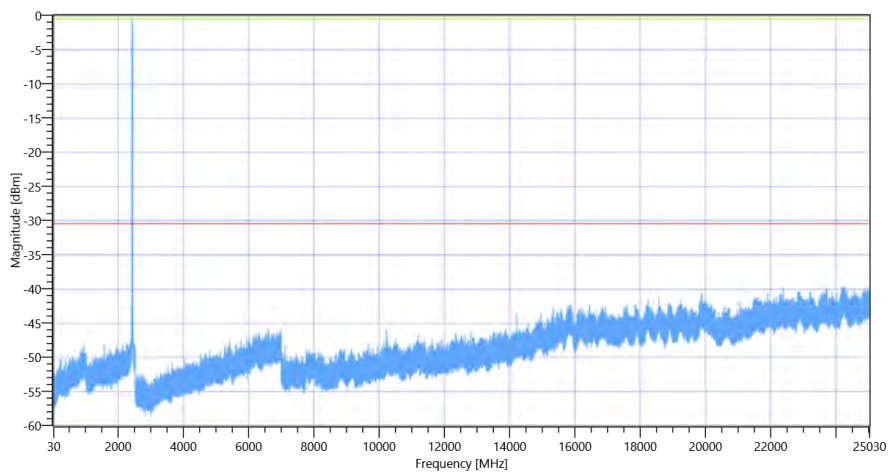
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	9.98	dBm	INFO
Ref. Frequency	---	---	2442.190	MHz	INFO

### READ SA SETTINGS:

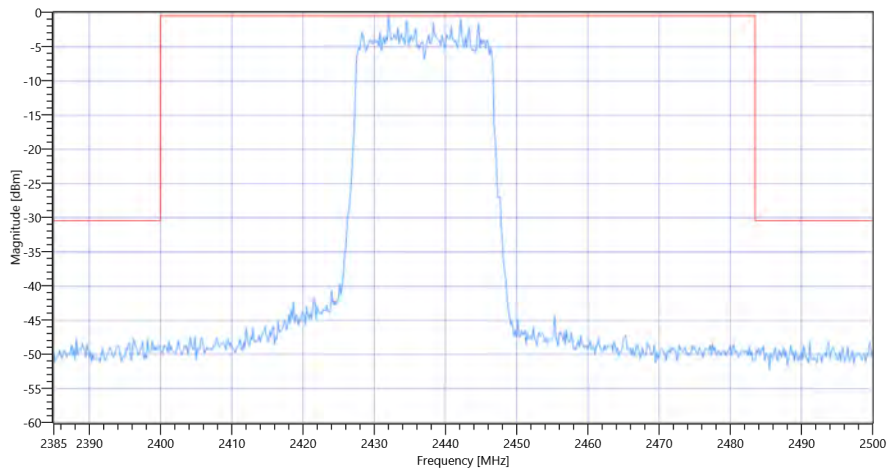
RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]	9.98   0   20
Start [MHz]   Stop [MHz]	24530.000   25030.000
RBW [MHz]   VBW [MHz]	0.100000   0.300000
Detector   TraceMode	POS   MAXH
Sweep: Time [ms]   Count   Points per Section   Type	200   25   3001   SWE

### RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Reference @ 2432.00 MHz	---	---	-0.47	dBm	INFO
No peaks detected	---	---			PASS
Lowest margin to limit 24215.5 MHz	0	---	9.11	dB	INFO



FCC 15.247 # TX spurious conducted 30dBc ~ WLAN2G4 ax-HE20 2437



FCC 15.247 # TX spurious conducted 30dBc ~ WLAN2G4 ax-HE20 2437

General verdict

PASS

## FCC 15.247 # TX spurious conducted 30dBc ~ WLAN2G4 ax-HE20

Test References	
TC Start	06.07.2022 13:43:08
Ambit Temp [°C]   Humidity [rel%]	26.2   31
System Version	3.2.0.2
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 ax-HE20
Add. Information	

EUT Common Settings WLAN2G4	
Number of Antenna Ports	2
User Interaction	No

Test Parameter	
Technology to test	WLAN2G4 ax-HE20
Antenna Port used	2
Temperature	nom
Voltage	nom
Frequency low to test	False   Freq [MHz] 2412
Frequency mid to test	False   Freq [MHz] 2437
Frequency high to test	True   Freq [MHz] 2462
Auto Control enabled Power Supply   Climatic Box	No   No
Additional Path Loss [dB]	0.7
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 2462 MHz

### RESULT: Reference Power cond.

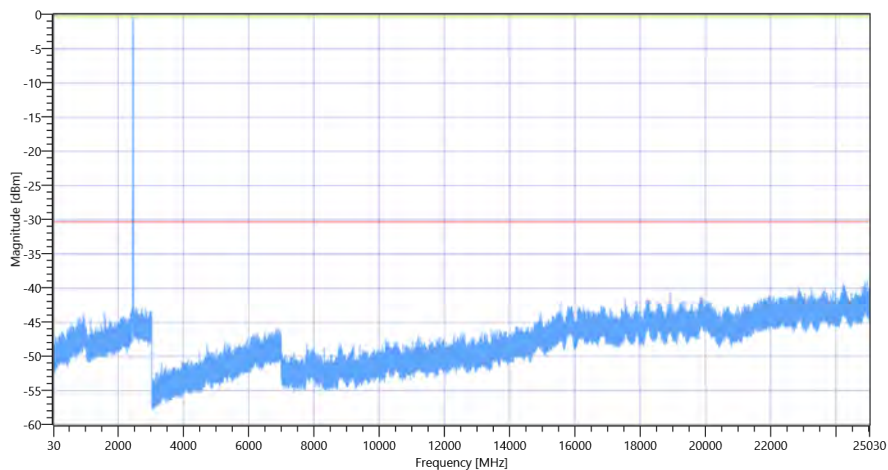
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	11.86	dBm	INFO
Ref. Frequency	---	---	2461.300	MHz	INFO

### READ SA SETTINGS:

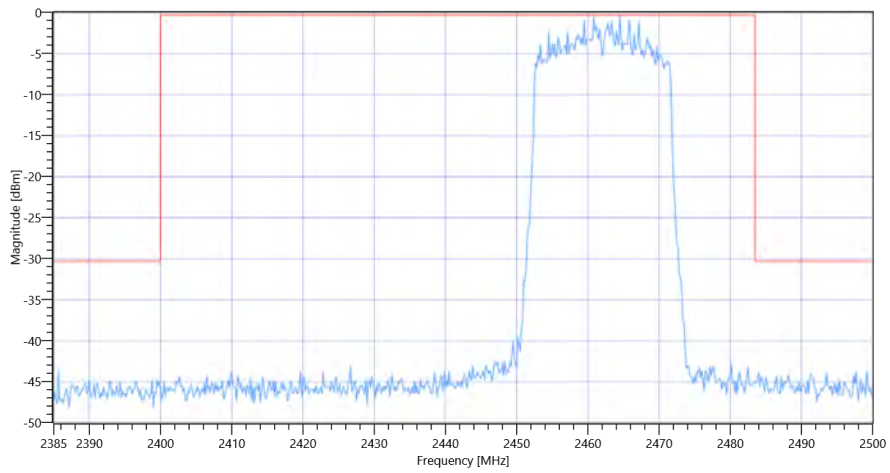
RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]	10.00   0   20
Start [MHz]   Stop [MHz]	24530.000   25030.000
RBW [MHz]   VBW [MHz]	0.100000   0.300000
Detector   TraceMode	POS   MAXH
Sweep: Time [ms]   Count   Points per Section   Type	200   25   3001   SWE

### RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Reference @ 2464.50 MHz	---	---	-0.33	dBm	INFO
No peaks detected	---	---			PASS
Lowest margin to limit 24957.333 MHz	0	---	8.56	dB	INFO



FCC 15.247 # TX spurious conducted 30dBc ~ WLAN2G4 ax-HE20 2462



FCC 15.247 # TX spurious conducted 30dBc ~ WLAN2G4 ax-HE20 2462

General verdict

PASS

- END OF DOCUMENT -