

Measurement Results

No.1-3977/22-01-04_Annex_MR_A5

Test logging

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Test/s performed:

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Radio Communications

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EUT Information

EUT DEFINITION	
Manufacturer	SAGEMCOM BROADBAND SAS
Type	F5688W
Serial Number	NI
Setup Number	1.0
Version SW	NI
Version FW	NI
Version HW	V1.0
Comment 1	
Comment 2	
Temperature [°C] Min	0
Temperature [°C] Nom	20
Temperature [°C] Max	50
Voltage [V] Min	120
Voltage [V] Nom	120
Voltage [V] Max	120

FCC Part 15.247 Avg Power Spectral Density DTS ~ WLAN2G4 axHE20-mode

Test References	
TC Start	10.03.2022 12:55:07
Ambit Temp [°C] Humidity [rel%]	23.8 19
System Version	3.0.5.0
Test Specification	FCC Part 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 - WLAN 2G4 axHE20_mode
Add. Information	

EUT Common Settings WLAN2G4	
Number of Antenna Ports	4
User Interaction	No

Test Parameter	
Technology to test	WLAN2G4 axHE20-mode
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]	0.5
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer

Test Equipment	
Signal analyzer,Rohde&Schwarz,FSV-30,1321.3008K30/103809,3.70	
Signaling unit,Rohde&Schwarz,CMW,1201.0002k75/102550,4.0.61	
Switch matrix,CTCadvanced,RSM-1 NI DAQ,29655273,NI	

Test at TX 2412 MHz

RESULT: Reference Power cond.

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	21.31	dBm	INFO
Ref. Frequency	---	---	2411.200	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

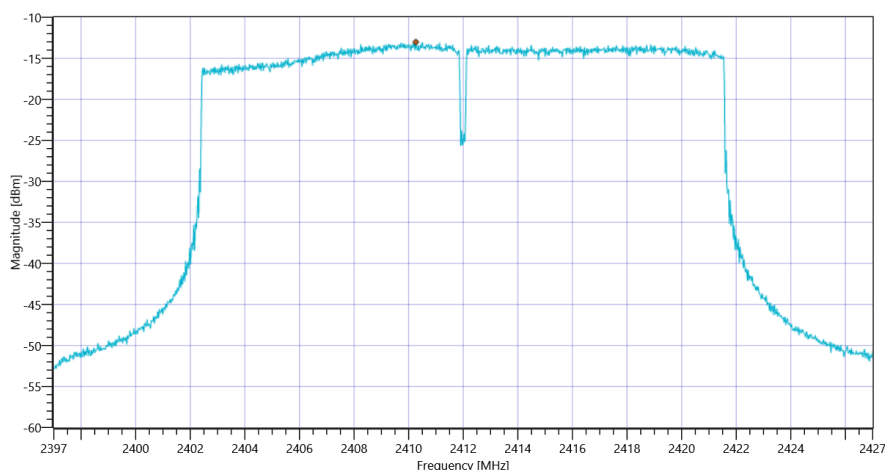
Avg. PSD

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	26.31 10.6 35
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
Avg PSD uncorrected	---	---	-13.02	dBm	INFO
Duty cycle correction	---	---	0	dB	INFO
Avg PSD DC corrected	---	8	-13.02	dBm/3KHz	PASS



FCC Part 15.247 Avg Power Spectral Density DTS ~ WLAN2G4 axHE20-mode

General verdict

PASS

FCC Part 15.247 Avg Power Spectral Density DTS ~ WLAN2G4 axHE20-mode

Test References	
TC Start	10.03.2022 13:07:01
Ambit Temp [°C] Humidity [rel%]	23.8 19
System Version	3.0.5.0
Test Specification	FCC Part 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 - WLAN 2G4 axHE20_mode
Add. Information	

EUT Common Settings WLAN2G4	
Number of Antenna Ports	4
User Interaction	No

Test Parameter	
Technology to test	WLAN2G4 axHE20-mode
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]	0.5
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer

Test Equipment	
Signal analyzer,Rohde&Schwarz,FSV-30,1321.3008K30/103809,3.70	
Signaling unit,Rohde&Schwarz,CMW,1201.0002k75/102550,4.0.61	
Switch matrix,CTCadvanced,RSM-1 NI DAQ,29655273,NI	

Test at TX 2437 MHz

RESULT: Reference Power cond.

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	22.02	dBm	INFO
Ref. Frequency	---	---	2435.600	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

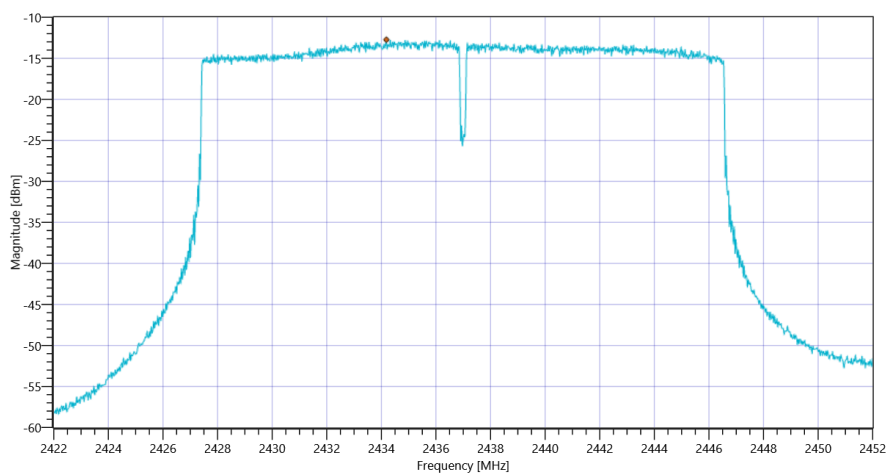
Avg. PSD

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	27.02 10.6 35
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
Avg PSD uncorrected	---	---	-12.73	dBm	INFO
Duty cycle correction	---	---	0	dB	INFO
Avg PSD DC corrected	---	8	-12.73	dBm/3KHz	PASS



FCC Part 15.247 Avg Power Spectral Density DTS ~ WLAN2G4 axHE20-mode

General verdict

PASS

FCC Part 15.247 Avg Power Spectral Density DTS ~ WLAN2G4 axHE20-mode

Test References	
TC Start	10.03.2022 13:19:03
Ambit Temp [°C] Humidity [rel%]	22.0 21
System Version	3.0.5.0
Test Specification	FCC Part 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 - WLAN 2G4 axHE20_mode
Add. Information	

EUT Common Settings WLAN2G4	
Number of Antenna Ports	4
User Interaction	No

Test Parameter	
Technology to test	WLAN2G4 axHE20-mode
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]	0.5
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer

Test Equipment	
Signal analyzer,Rohde&Schwarz,FSV-30,1321.3008K30/103809,3.70	
Signaling unit,Rohde&Schwarz,CMW,1201.0002k75/102550,4.0.61	
Switch matrix,CTCadvanced,RSM-1 NI DAQ,29655273,NI	

Test at TX 2462 MHz

RESULT: Reference Power cond.

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	22.13	dBm	INFO
Ref. Frequency	---	---	2466.500	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

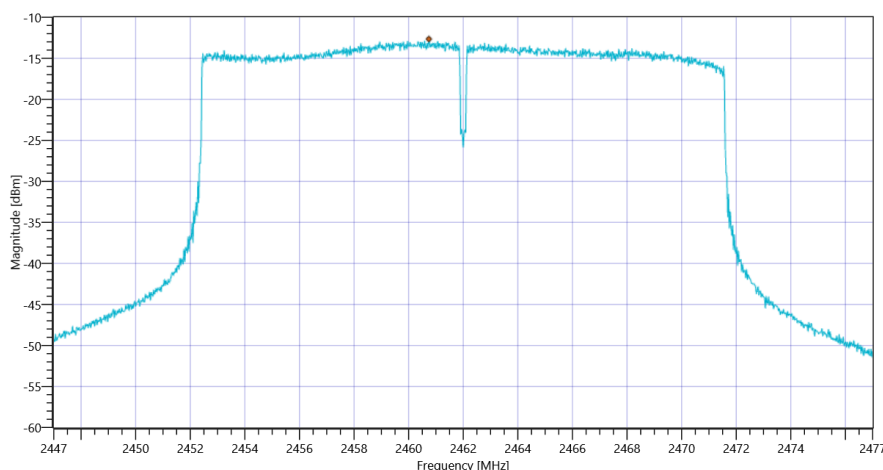
Avg. PSD

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	27.13 10.61 35
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
Avg PSD uncorrected	---	---	-12.65	dBm	INFO
Duty cycle correction	---	---	0	dB	INFO
Avg PSD DC corrected	---	8	-12.65	dBm/3KHz	PASS



FCC Part 15.247 Avg Power Spectral Density DTS ~ WLAN2G4 axHE20-mode

General verdict

PASS

FCC Part 15.247 Bandwidth 6dB DTS ~ WLAN2G4 axHE20-mode

Test References	
TC Start	10.03.2022 12:54:27
Ambit Temp [°C] Humidity [rel%]	23.7 19
System Version	3.0.5.0
Test Specification	FCC Part 15.247
Test Method	99
TC Version	0.0.1
My Description	FCC 15.247 Bandwidth 6dB DTS - WLAN 2G4 axHE20_mode
Add. Information	

EUT Common Settings WLAN2G4	
Number of Antenna Ports	4
User Interaction	No

Test Parameter	
Technology to test	WLAN2G4 axHE20-mode
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]	0.5
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer

Test Equipment	
Signal analyzer,Rohde&Schwarz,FSV-30,1321.3008K30/103809,3.70	
Signaling unit,Rohde&Schwarz,CMW,1201.0002k75/102550,4.0.61	
Switch matrix,CTCadvanced,RSM-1 NI DAQ,29655273,NI	

Test at TX 2412 MHz

RESULT: Reference Power cond.

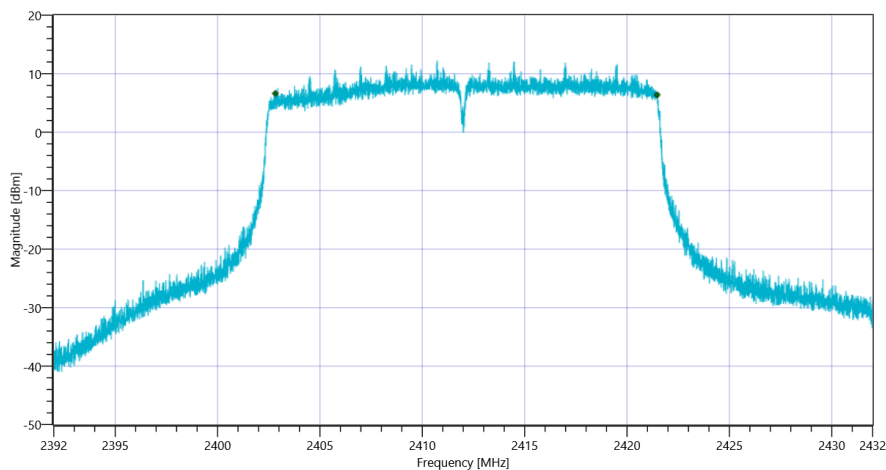
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	20.68	dBm	INFO
Ref. Frequency	---	---	2409.100	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	25.68 10.6 35
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	---	18644	kHz	PASS



FCC Part 15.247 Bandwidth 6dB DTS ~ WLAN2G4 axHE20-mode

General verdict

PASS

FCC Part 15.247 Bandwidth 6dB DTS ~ WLAN2G4 axHE20-mode

Test References	
TC Start	10.03.2022 13:06:23
Ambit Temp [°C] Humidity [rel%]	23.8 19
System Version	3.0.5.0
Test Specification	FCC Part 15.247
Test Method	99
TC Version	0.0.1
My Description	FCC 15.247 Bandwidth 6dB DTS - WLAN 2G4 axHE20_mode
Add. Information	

EUT Common Settings WLAN2G4	
Number of Antenna Ports	4
User Interaction	No

Test Parameter	
Technology to test	WLAN2G4 axHE20-mode
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]	0.5
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer

Test Equipment	
Signal analyzer,Rohde&Schwarz,FSV-30,1321.3008K30/103809,3.70	
Signaling unit,Rohde&Schwarz,CMW,1201.0002k75/102550,4.0.61	
Switch matrix,CTCadvanced,RSM-1 NI DAQ,29655273,NI	

Test at TX 2437 MHz

RESULT: Reference Power cond.

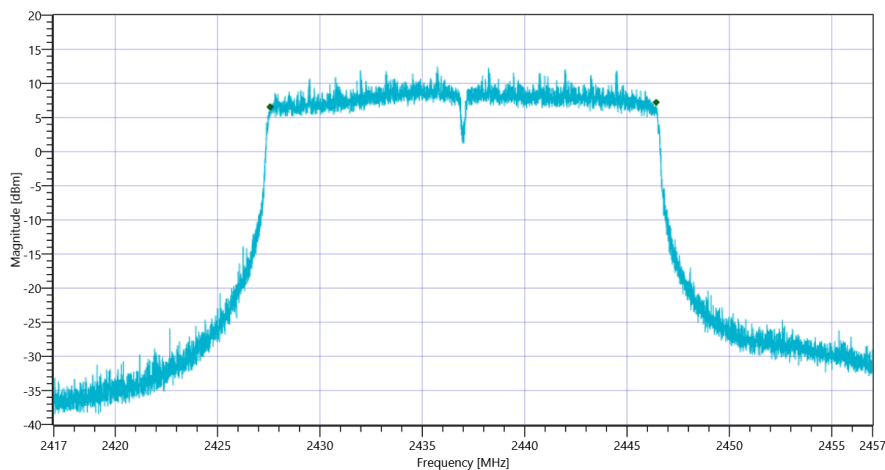
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	21.65	dBm	INFO
Ref. Frequency	---	---	2437.800	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	26.65 10.6 35
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	---	18860	kHz	PASS



FCC Part 15.247 Bandwidth 6dB DTS ~ WLAN2G4 axHE20-mode

General verdict

PASS

FCC Part 15.247 Bandwidth 6dB DTS ~ WLAN2G4 axHE20-mode

Test References	
TC Start	10.03.2022 13:18:25
Ambit Temp [°C] Humidity [rel%]	22.2 21
System Version	3.0.5.0
Test Specification	FCC Part 15.247
Test Method	99
TC Version	0.0.1
My Description	FCC 15.247 Bandwidth 6dB DTS - WLAN 2G4 axHE20_mode
Add. Information	

EUT Common Settings WLAN2G4	
Number of Antenna Ports	4
User Interaction	No

Test Parameter	
Technology to test	WLAN2G4 axHE20-mode
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]	0.5
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer

Test Equipment	
Signal analyzer,Rohde&Schwarz,FSV-30,1321.3008K30/103809,3.70	
Signaling unit,Rohde&Schwarz,CMW,1201.0002k75/102550,4.0.61	
Switch matrix,CTCadvanced,RSM-1 NI DAQ,29655273,NI	

Test at TX 2462 MHz

RESULT: Reference Power cond.

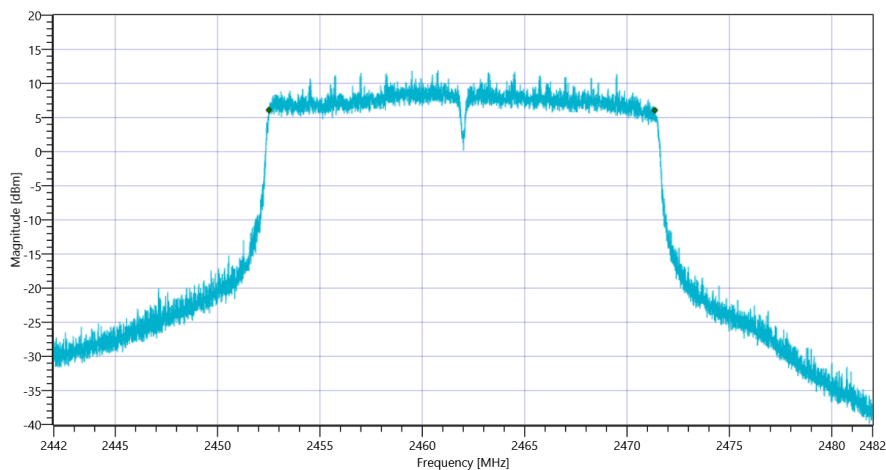
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	22.82	dBm	INFO
Ref. Frequency	---	---	2458.300	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	27.82 10.61 35
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	---	18852	kHz	PASS



FCC Part 15.247 Bandwidth 6dB DTS ~ WLAN2G4 axHE20-mode

General verdict

PASS

FCC Part 15.247 Bandwidth 99PCT-20dB ~ WLAN2G4 axHE20-mode

Test References	
TC Start	10.03.2022 12:56:14
Ambit Temp [°C] Humidity [rel%]	23.8 19
System Version	3.0.5.0
Test Specification	FCC Part 15.247
Test Method	
TC Version	0.0.2
My Description	FCC 15.247 Bandwidth 99PCT-20dB DTS - WLAN 2G4 axHE20_mode
Add. Information	

EUT Common Settings WLAN2G4	
Number of Antenna Ports	4
User Interaction	No

Test Parameter	
Technology to test	WLAN2G4 axHE20-mode
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]	0.5
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer

Test Equipment	
Signal analyzer,Rohde&Schwarz,FSV-30,1321.3008K30/103809,3.70	
Signaling unit,Rohde&Schwarz,CMW,1201.0002k75/102550,4.0.61	
Switch matrix,CTCadvanced,RSM-1 NI DAQ,29655273,NI	

Test at TX 2412 MHz

RESULT: Reference Power cond.

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	23.42	dBm	INFO
Ref. Frequency	---	---	2415.400	MHz	INFO

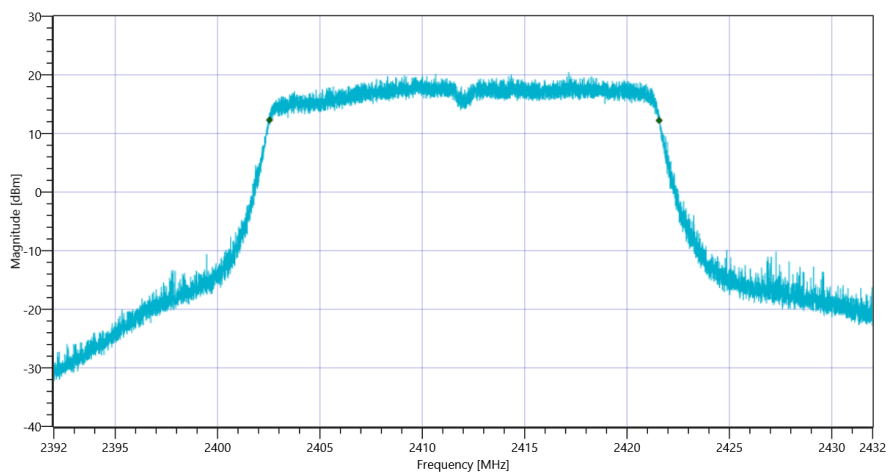
READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	28.42 10.6 35
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

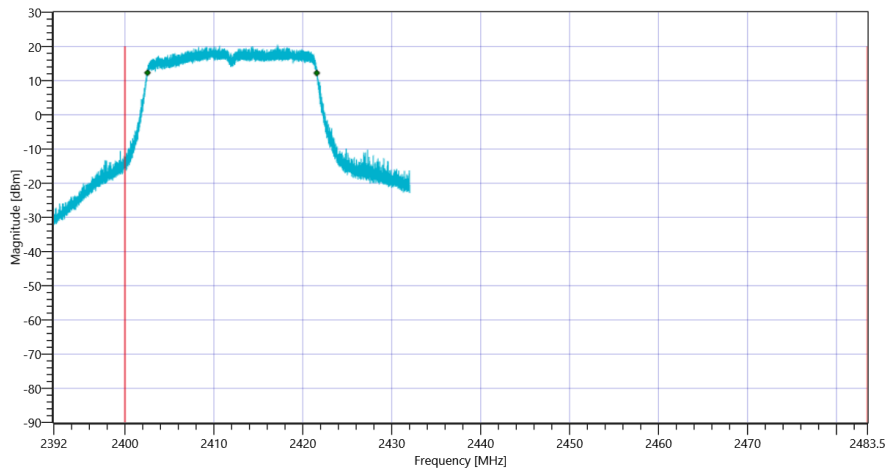
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 99%	---	---	19030.097	kHz	INFO
T1 99%	2400.000000	---	2402.5369	MHz	PASS
T2 99%	---	2483.500000	2421.5670	MHz	PASS

Plot: Bandwidth only



FCC Part 15.247 Bandwidth 99PCT-20dB ~ WLAN2G4 axHE20-mode 99PCT

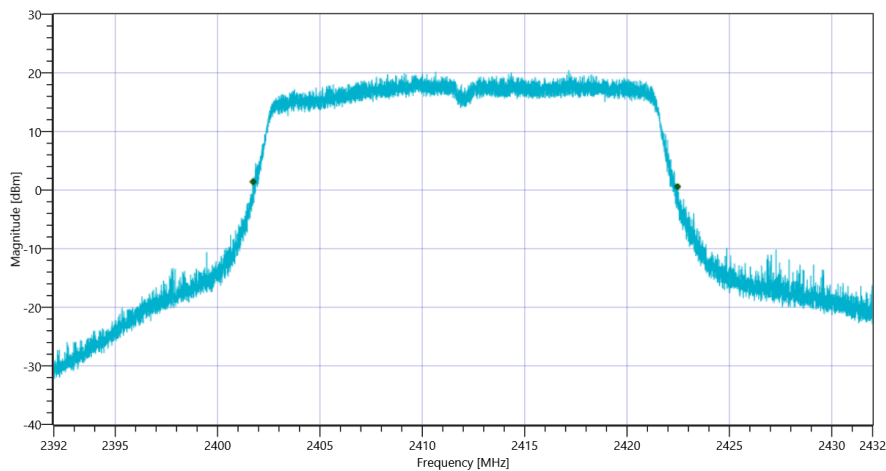
Plot: Bandwidth within Band



FCC Part 15.247 Bandwidth 99PCT-20dB ~ WLAN2G4 axHE20-mode

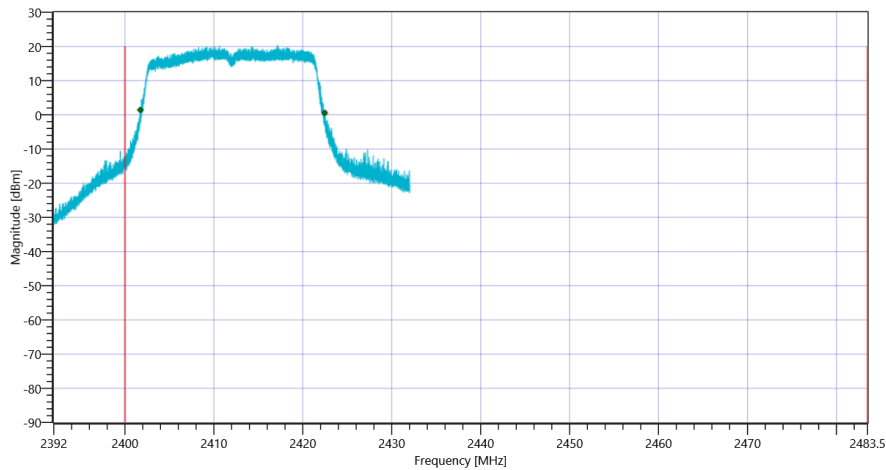
RESULT						
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict	
Bandwidth 20dB	---	---	20744	kHz	INFO	
T1 20dB	2400.000000	---	2401.7280	MHz	PASS	
T2 20dB	---	2483.500000	2422.4720	MHz	PASS	

Plot: Bandwidth only



FCC Part 15.247 Bandwidth 99PCT-20dB ~ WLAN2G4 axHE20-mode 20dB

Plot: Bandwidth within Band



FCC Part 15.247 Bandwidth 99PCT-20dB ~ WLAN2G4 axHE20-mode

General verdict

PASS

FCC Part 15.247 Bandwidth 99PCT-20dB ~ WLAN2G4 axHE20-mode

Test References	
TC Start	10.03.2022 13:08:08
Ambit Temp [°C] Humidity [rel%]	23.8 19
System Version	3.0.5.0
Test Specification	FCC Part 15.247
Test Method	
TC Version	0.0.2
My Description	FCC 15.247 Bandwidth 99PCT-20dB DTS - WLAN 2G4 axHE20_mode
Add. Information	

EUT Common Settings WLAN2G4	
Number of Antenna Ports	4
User Interaction	No

Test Parameter	
Technology to test	WLAN2G4 axHE20-mode
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]	0.5
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer

Test Equipment	
Signal analyzer,Rohde&Schwarz,FSV-30,1321.3008K30/103809,3.70	
Signaling unit,Rohde&Schwarz,CMW,1201.0002k75/102550,4.0.61	
Switch matrix,CTCadvanced,RSM-1 NI DAQ,29655273,NI	

Test at TX 2437 MHz

RESULT: Reference Power cond.

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	22.57	dBm	INFO
Ref. Frequency	---	---	2436.300	MHz	INFO

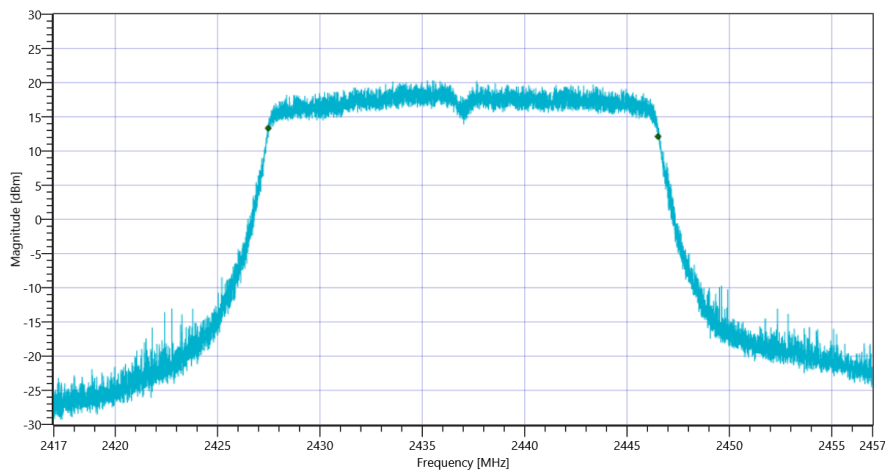
READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	27.57 10.6 35
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

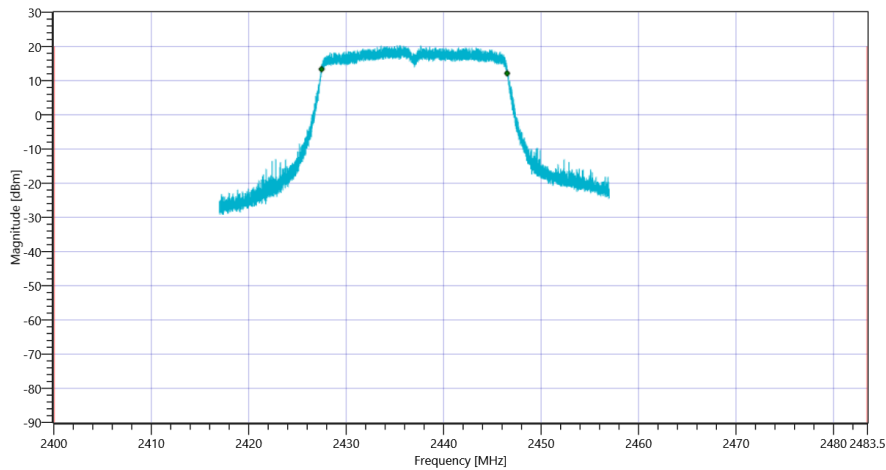
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 99%	---	---	19038.096	kHz	INFO
T1 99%	2400.000000	---	2427.4770	MHz	PASS
T2 99%	---	2483.500000	2446.5150	MHz	PASS

Plot: Bandwidth only



FCC Part 15.247 Bandwidth 99PCT-20dB ~ WLAN2G4 axHE20-mode 99PCT

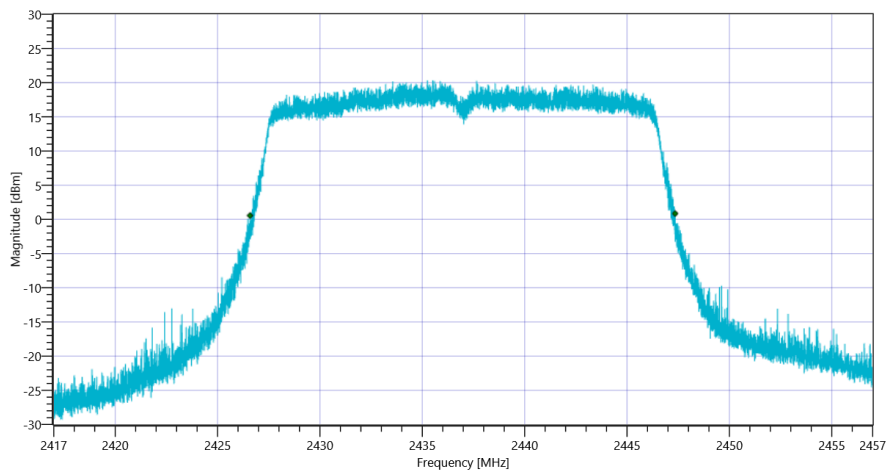
Plot: Bandwidth within Band



FCC Part 15.247 Bandwidth 99PCT-20dB ~ WLAN2G4 axHE20-mode

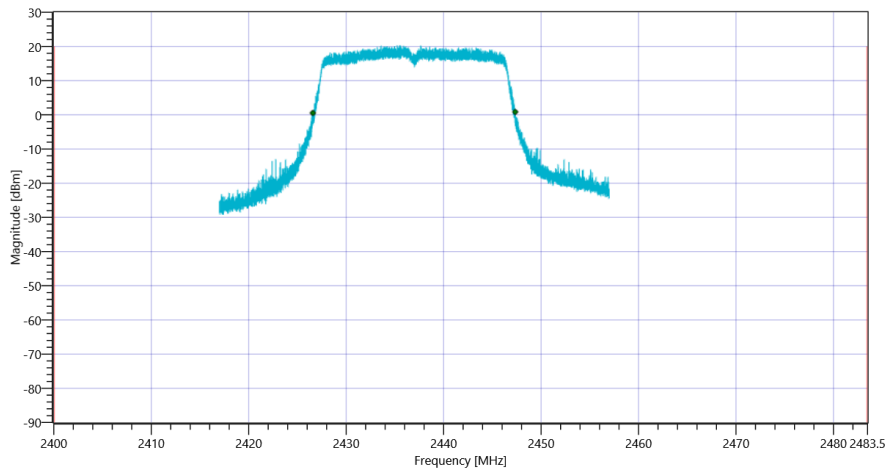
RESULT					
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 20dB	---	---	20764	kHz	INFO
T1 20dB	2400.000000	---	2426.5840	MHz	PASS
T2 20dB	---	2483.500000	2447.3480	MHz	PASS

Plot: Bandwidth only



FCC Part 15.247 Bandwidth 99PCT-20dB ~ WLAN2G4 axHE20-mode 20dB

Plot: Bandwidth within Band



FCC Part 15.247 Bandwidth 99PCT-20dB ~ WLAN2G4 axHE20-mode

General verdict

PASS

FCC Part 15.247 Bandwidth 99PCT-20dB ~ WLAN2G4 axHE20-mode

Test References	
TC Start	10.03.2022 13:20:10
Ambit Temp [°C] Humidity [rel%]	21.7 21
System Version	3.0.5.0
Test Specification	FCC Part 15.247
Test Method	
TC Version	0.0.2
My Description	FCC 15.247 Bandwidth 99PCT-20dB DTS - WLAN 2G4 axHE20_mode
Add. Information	

EUT Common Settings WLAN2G4	
Number of Antenna Ports	4
User Interaction	No

Test Parameter	
Technology to test	WLAN2G4 axHE20-mode
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]	0.5
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer

Test Equipment	
Signal analyzer,Rohde&Schwarz,FSV-30,1321.3008K30/103809,3.70	
Signaling unit,Rohde&Schwarz,CMW,1201.0002k75/102550,4.0.61	
Switch matrix,CTCadvanced,RSM-1 NI DAQ,29655273,NI	

Test at TX 2462 MHz

RESULT: Reference Power cond.

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	21.04	dBm	INFO
Ref. Frequency	---	---	2461.300	MHz	INFO

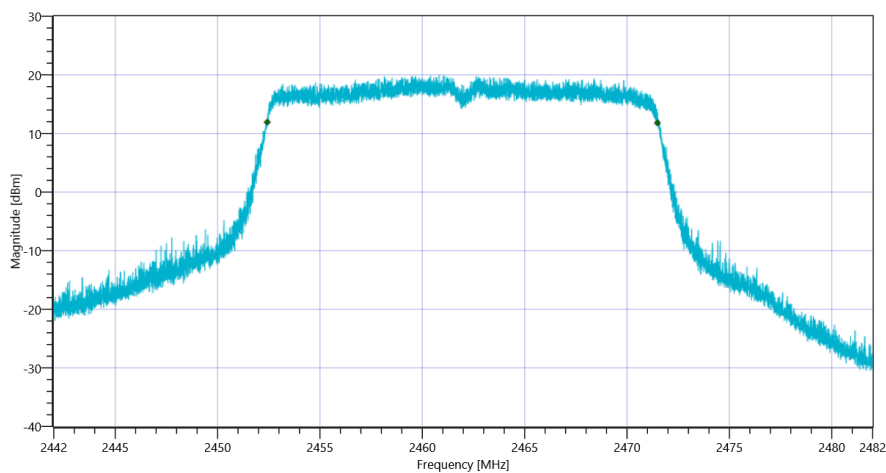
READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	26.04 10.61 35
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

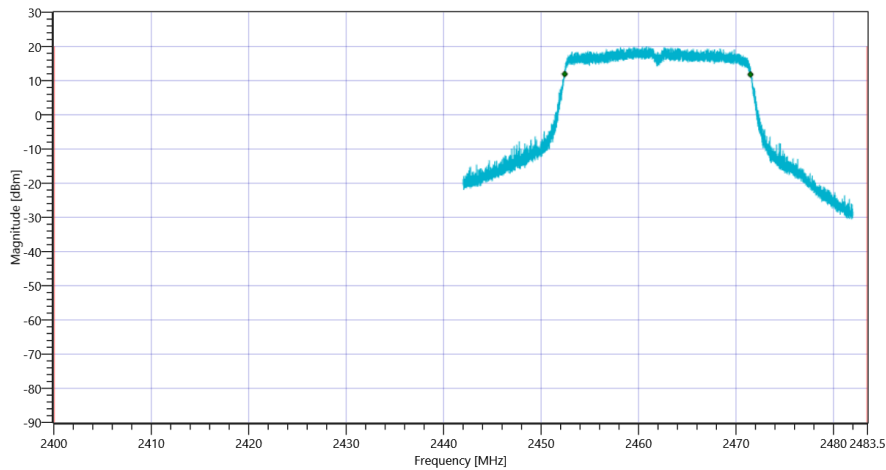
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 99%	---	---	19058.094	kHz	INFO
T1 99%	2400.000000	---	2452.4250	MHz	PASS
T2 99%	---	2483.500000	2471.4831	MHz	PASS

Plot: Bandwidth only



FCC Part 15.247 Bandwidth 99PCT-20dB ~ WLAN2G4 axHE20-mode 99PCT

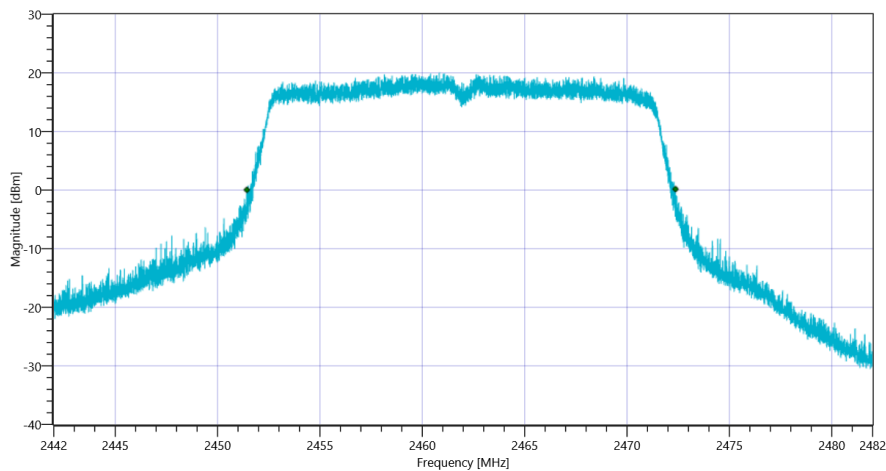
Plot: Bandwidth within Band



FCC Part 15.247 Bandwidth 99PCT-20dB ~ WLAN2G4 axHE20-mode

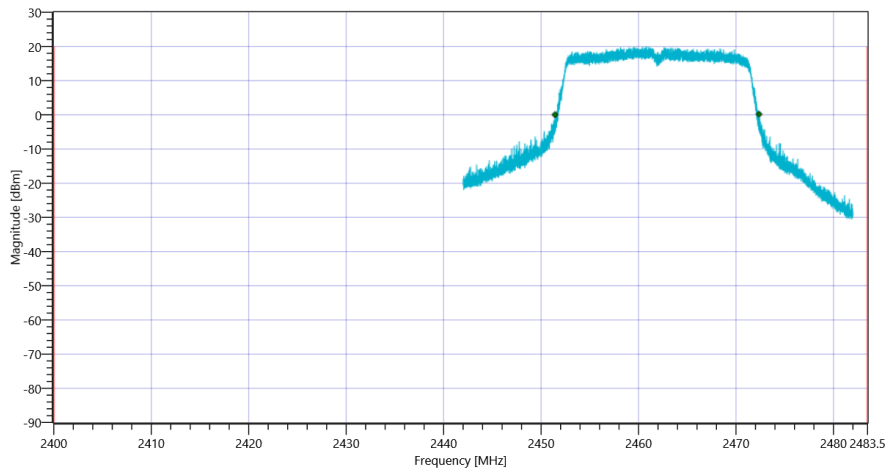
RESULT						
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict	
Bandwidth 20dB	---	---	20940	kHz	INFO	
T1 20dB	2400.000000	---	2451.4280	MHz	PASS	
T2 20dB	---	2483.500000	2472.3680	MHz	PASS	

Plot: Bandwidth only



FCC Part 15.247 Bandwidth 99PCT-20dB ~ WLAN2G4 axHE20-mode 20dB

Plot: Bandwidth within Band



FCC Part 15.247 Bandwidth 99PCT-20dB ~ WLAN2G4 axHE20-mode

General verdict

PASS

FCC Part 15.247 Maximum Avg Conducted Output Power SA DTS ~ WLAN2G4 axHE20-mode

Test References	
TC Start	10.03.2022 13:04:42
Ambit Temp [°C] Humidity [rel%]	23.8 19
System Version	3.0.5.0
Test Specification	FCC Part 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 - WLAN 2G4 axHE20-mode
Add. Information	

EUT Common Settings WLAN2G4	
Number of Antenna Ports	4
User Interaction	No

Test Parameter	
Technology to test	WLAN2G4 axHE20-mode
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]	0.5
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer

Test Equipment	
Signal analyzer,Rohde&Schwarz,FSV-30,1321.3008K30/103809,3.70	
Signaling unit,Rohde&Schwarz,CMW,1201.0002k75/102550,4.0.61	
Switch matrix,CTCadvanced,RSM-1 NI DAQ,29655273,NI	

Test at TX 2412 MHz

RESULT: Reference Power cond.

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	21.49	dBm	INFO
Ref. Frequency	---	---	2410.700	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

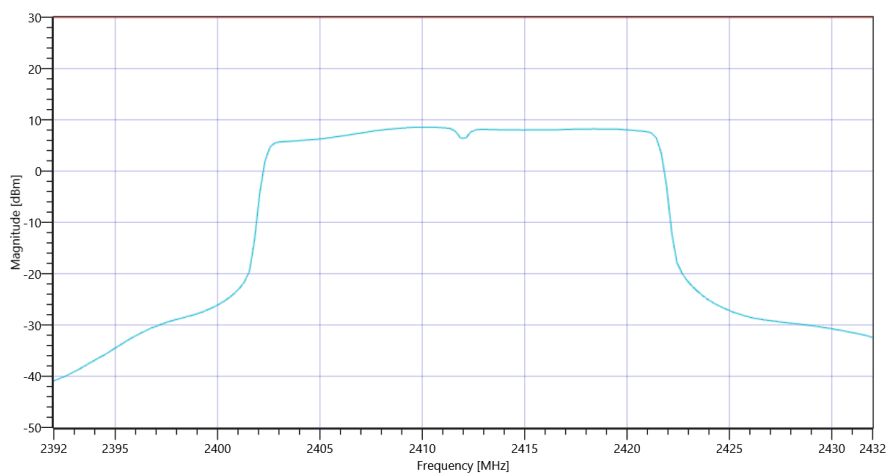
Maximum Avg. Output Power

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	31.49 10.6 35
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
Avg Output Power uncorrected	---	---	23.25	dBm	INFO
Duty Cycle Correction	---	---	0	dB	INFO
Avg Output Power DC corrected	---	30	23.25	dBm	PASS



FCC Part 15.247 Maximum Avg Conducted Output Power SA DTS ~ WLAN2G4 axHE20-mode

General verdict

PASS

FCC Part 15.247 Maximum Avg Conducted Output Power SA DTS ~ WLAN2G4 axHE20-mode

Test References	
TC Start	10.03.2022 13:16:39
Ambit Temp [°C] Humidity [rel%]	22.8 20
System Version	3.0.5.0
Test Specification	FCC Part 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 - WLAN 2G4 axHE20-mode
Add. Information	

EUT Common Settings WLAN2G4	
Number of Antenna Ports	4
User Interaction	No

Test Parameter	
Technology to test	WLAN2G4 axHE20-mode
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]	0.5
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer

Test Equipment	
Signal analyzer,Rohde&Schwarz,FSV-30,1321.3008K30/103809,3.70	
Signaling unit,Rohde&Schwarz,CMW,1201.0002k75/102550,4.0.61	
Switch matrix,CTCadvanced,RSM-1 NI DAQ,29655273,NI	

Test at TX 2437 MHz

RESULT: Reference Power cond.

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	21.77	dBm	INFO
Ref. Frequency	---	---	2435.400	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

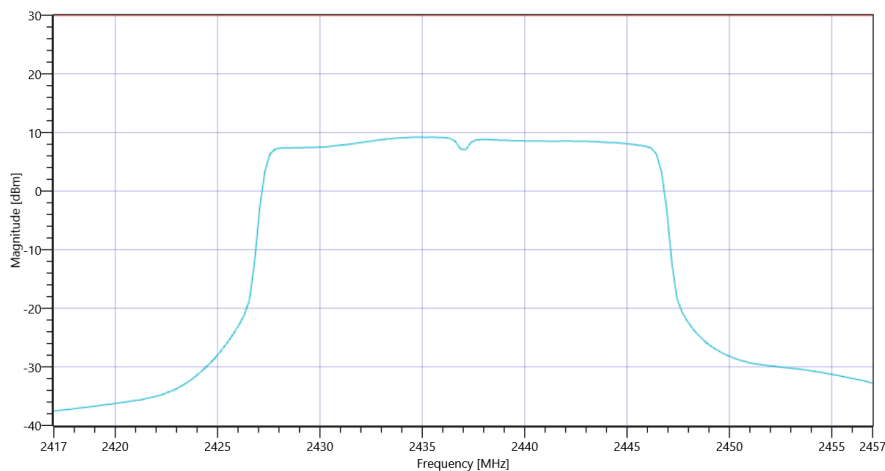
Maximum Avg. Output Power

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	31.77 10.6 40
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
Avg Output Power uncorrected	---	---	23.88	dBm	INFO
Duty Cycle Correction	---	---	0	dB	INFO
Avg Output Power DC corrected	---	30	23.88	dBm	PASS



FCC Part 15.247 Maximum Avg Conducted Output Power SA DTS ~ WLAN2G4 axHE20-mode

General verdict

PASS

FCC Part 15.247 Maximum Avg Conducted Output Power SA DTS ~ WLAN2G4 axHE20-mode

Test References	
TC Start	10.03.2022 13:28:41
Ambit Temp [°C] Humidity [rel%]	22.4 20
System Version	3.0.5.0
Test Specification	FCC Part 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 - WLAN 2G4 axHE20-mode
Add. Information	

EUT Common Settings WLAN2G4	
Number of Antenna Ports	4
User Interaction	No

Test Parameter	
Technology to test	WLAN2G4 axHE20-mode
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]	0.5
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer

Test Equipment	
Signal analyzer,Rohde&Schwarz,FSV-30,1321.3008K30/103809,3.70	
Signaling unit,Rohde&Schwarz,CMW,1201.0002k75/102550,4.0.61	
Switch matrix,CTCadvanced,RSM-1 NI DAQ,29655273,NI	

Test at TX 2462 MHz

RESULT: Reference Power cond.

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	21.30	dBm	INFO
Ref. Frequency	---	---	2458.500	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

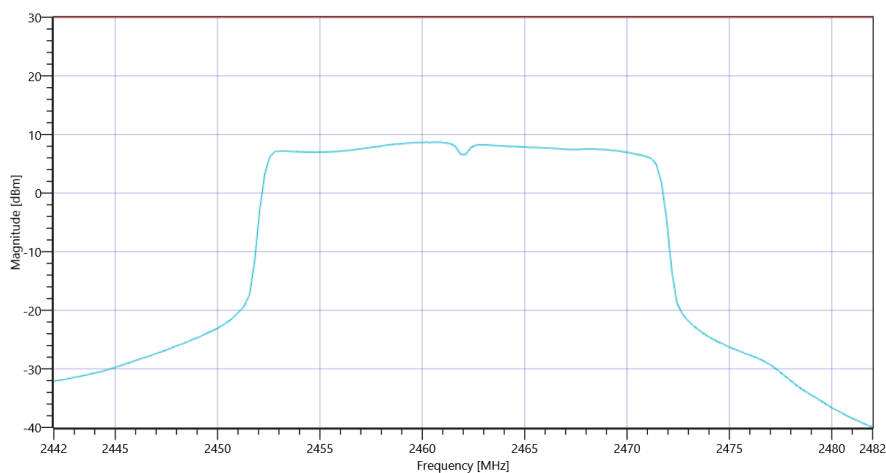
Maximum Avg. Output Power

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	31.30 10.61 35
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
Avg Output Power uncorrected	---	---	23.17	dBm	INFO
Duty Cycle Correction	---	---	0	dB	INFO
Avg Output Power DC corrected	---	30	23.17	dBm	PASS



FCC Part 15.247 Maximum Avg Conducted Output Power SA DTS ~ WLAN2G4 axHE20-mode

General verdict

PASS

FCC Part 15.247 TX Spurious Conducted 30dBc ~ WLAN2G4 axHE20-mode

Test References	
TC Start	10.03.2022 12:57:11
Ambit Temp [°C] Humidity [rel%]	23.8 19
System Version	3.0.5.0
Test Specification	FCC Part 15.247
Test Method	IF DTS then 8.5 DTS emissions in non-restricted frequency bands: Subclause 11.11 of ANSI C63.10 is applicable.
TC Version	0.0.1
My Description	FCC 15.247 TX Emissions Conducted 30dBc DTS DTS - WLAN 2G4 axHE20_mode
Add. Information	

EUT Common Settings WLAN2G4	
Number of Antenna Ports	4
User Interaction	No

Test Parameter	
Technology to test	WLAN2G4 axHE20-mode
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]	0.5
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer

Test Equipment	
Signal analyzer,Rohde&Schwarz,FSV-30,1321.3008K30/103809,3.70	
Signaling unit,Rohde&Schwarz,CMW,1201.0002k75/102550,4.0.61	
Switch matrix,CTCadvanced,RSM-1 NI DAQ,29655273,NI	

Test at TX 2412 MHz

RESULT: Reference Power cond.

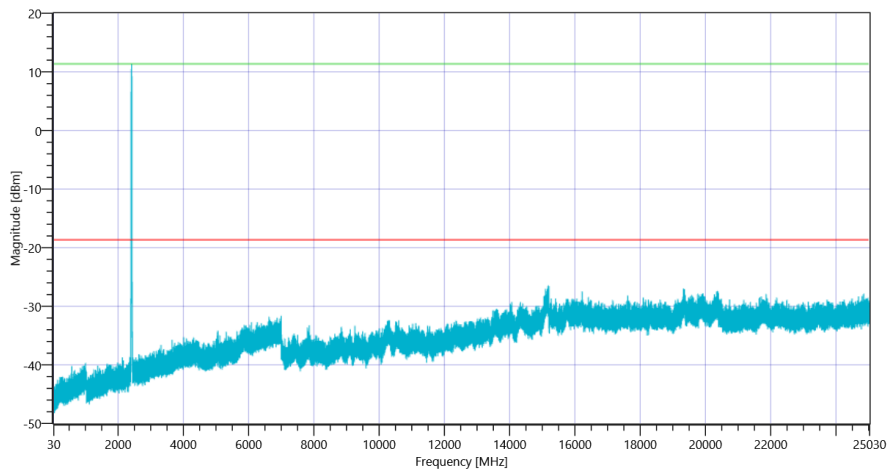
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	22.37	dBm	INFO
Ref. Frequency	---	---	2410.700	MHz	INFO

READ SA SETTINGS:

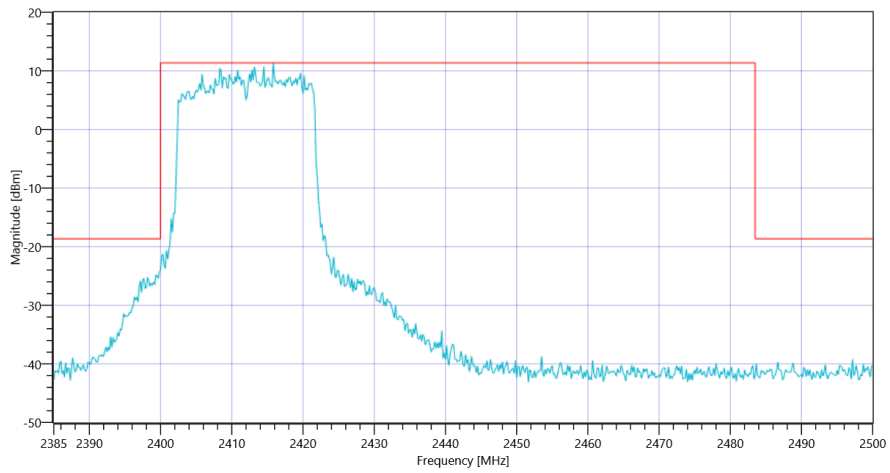
RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	22.37 0 40
Start [MHz] Stop [MHz]	24530.000 25030.000
RBW [MHz] VBW [MHz]	0.100000 0.300000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	200 25 3001 SWE

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Reference @ 2415.83 MHz	---	---	11.36	dBm	INFO
No peaks detected	---	---			PASS
Lowest margin to limit 2399.833 MHz	0	---	5.73	dB	INFO



FCC Part 15.247 TX Spurious Conducted 30dBc ~ WLAN2G4 axHE20-mode 2412



FCC Part 15.247 TX Spurious Conducted 30dBc ~ WLAN2G4 axHE20-mode 2412

General verdict

PASS

FCC Part 15.247 TX Spurious Conducted 30dBc ~ WLAN2G4 axHE20-mode

Test References	
TC Start	10.03.2022 13:09:07
Ambit Temp [°C] Humidity [rel%]	23.8 19
System Version	3.0.5.0
Test Specification	FCC Part 15.247
Test Method	IF DTS then 8.5 DTS emissions in non-restricted frequency bands: Subclause 11.11 of ANSI C63.10 is applicable.
TC Version	0.0.1
My Description	FCC 15.247 TX Emissions Conducted 30dBc DTS DTS - WLAN 2G4 axHE20_mode
Add. Information	

EUT Common Settings WLAN2G4	
Number of Antenna Ports	4
User Interaction	No

Test Parameter	
Technology to test	WLAN2G4 axHE20-mode
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]	0.5
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer

Test Equipment	
Signal analyzer,Rohde&Schwarz,FSV-30,1321.3008K30/103809,3.70	
Signaling unit,Rohde&Schwarz,CMW,1201.0002k75/102550,4.0.61	
Switch matrix,CTCadvanced,RSM-1 NI DAQ,29655273,NI	

Test at TX 2437 MHz

RESULT: Reference Power cond.

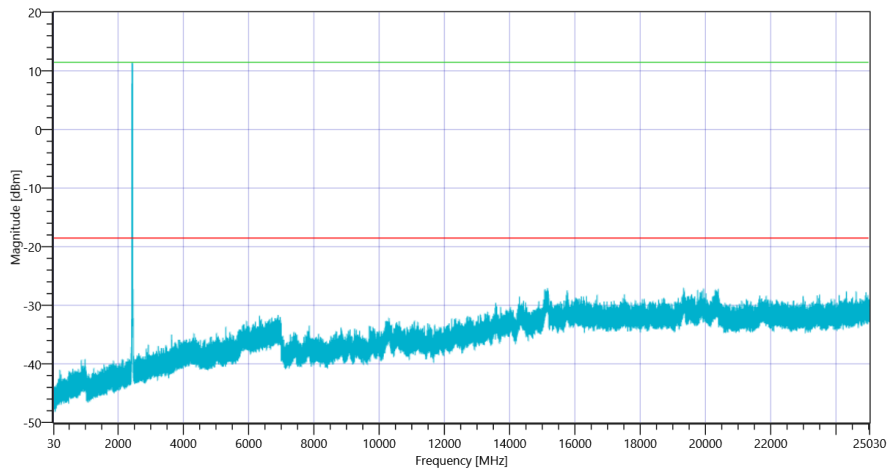
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	21.76	dBm	INFO
Ref. Frequency	---	---	2433.800	MHz	INFO

READ SA SETTINGS:

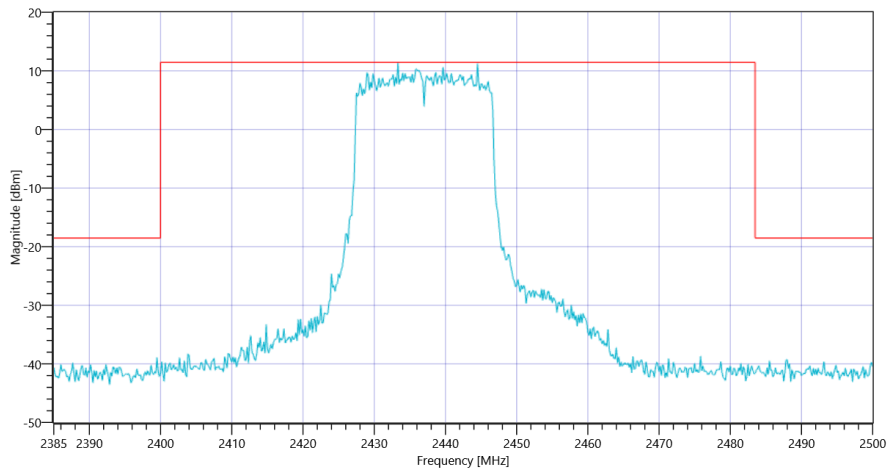
RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	21.76 0 40
Start [MHz] Stop [MHz]	24530.000 25030.000
RBW [MHz] VBW [MHz]	0.100000 0.300000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	200 25 3001 SWE

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Reference @ 2433.33 MHz	---	---	11.45	dBm	INFO
No peaks detected	---	---			PASS
Lowest margin to limit 19329.333 MHz	0	---	8.49	dB	INFO



FCC Part 15.247 TX Spurious Conducted 30dBc ~ WLAN2G4 axHE20-mode 2437



FCC Part 15.247 TX Spurious Conducted 30dBc ~ WLAN2G4 axHE20-mode 2437

General verdict

PASS

FCC Part 15.247 TX Spurious Conducted 30dBc ~ WLAN2G4 axHE20-mode

Test References	
TC Start	10.03.2022 13:21:08
Ambit Temp [°C] Humidity [rel%]	21.5 22
System Version	3.0.5.0
Test Specification	FCC Part 15.247
Test Method	IF DTS then 8.5 DTS emissions in non-restricted frequency bands: Subclause 11.11 of ANSI C63.10 is applicable.
TC Version	0.0.1
My Description	FCC 15.247 TX Emissions Conducted 30dBc DTS DTS - WLAN 2G4 axHE20_mode
Add. Information	

EUT Common Settings WLAN2G4	
Number of Antenna Ports	4
User Interaction	No

Test Parameter	
Technology to test	WLAN2G4 axHE20-mode
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]	0.5
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer

Test Equipment	
Signal analyzer,Rohde&Schwarz,FSV-30,1321.3008K30/103809,3.70	
Signaling unit,Rohde&Schwarz,CMW,1201.0002k75/102550,4.0.61	
Switch matrix,CTCadvanced,RSM-1 NI DAQ,29655273,NI	

Test at TX 2462 MHz

RESULT: Reference Power cond.

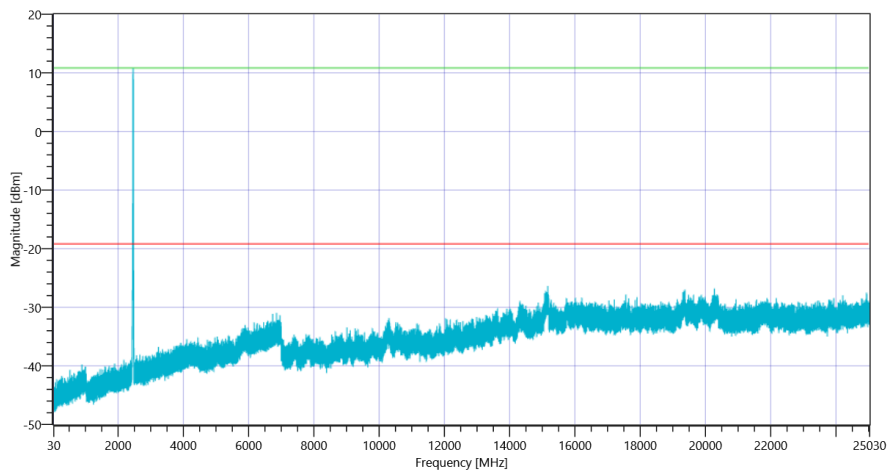
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	22.14	dBm	INFO
Ref. Frequency	---	---	2467.590	MHz	INFO

READ SA SETTINGS:

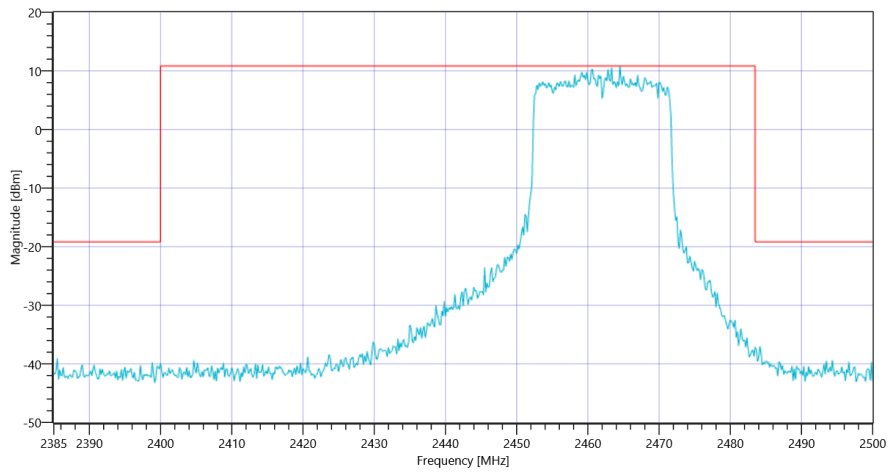
RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	22.14 0 40
Start [MHz] Stop [MHz]	24530.000 25030.000
RBW [MHz] VBW [MHz]	0.100000 0.300000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	200 25 3001 SWE

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Reference @ 2464.50 MHz	---	---	10.83	dBm	INFO
No peaks detected	---	---			PASS
Lowest margin to limit 15166.333 MHz	0	---	7.21	dB	INFO



FCC Part 15.247 TX Spurious Conducted 30dBc ~ WLAN2G4 axHE20-mode 2462



FCC Part 15.247 TX Spurious Conducted 30dBc ~ WLAN2G4 axHE20-mode 2462

General verdict

PASS

FCC Part 15.247 Avg Power Spectral Density DTS ~ WLAN2G4 axHE20-mode

Test References	
TC Start	10.03.2022 11:52:47
Ambit Temp [°C] Humidity [rel%]	23.8 19
System Version	3.0.5.0
Test Specification	FCC Part 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 - WLAN 2G4 axHE20_mode
Add. Information	

EUT Common Settings WLAN2G4	
Number of Antenna Ports	4
User Interaction	No

Test Parameter	
Technology to test	WLAN2G4 axHE20-mode
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]	0.5
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer

Test Equipment	
Signal analyzer,Rohde&Schwarz,FSV-30,1321.3008K30/103809,3.70	
Signaling unit,Rohde&Schwarz,CMW,1201.0002k75/102550,4.0.61	
Switch matrix,CTCadvanced,RSM-1 NI DAQ,29655273,NI	

Test at TX 2412 MHz

RESULT: Reference Power cond.

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	21.28	dBm	INFO
Ref. Frequency	---	---	2410.400	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

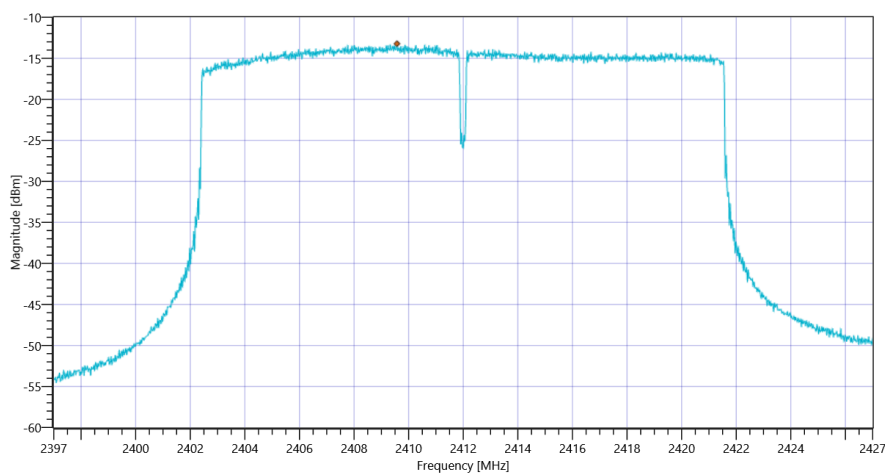
Avg. PSD

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	26.28 10.6 35
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
Avg PSD uncorrected	---	---	-13.22	dBm	INFO
Duty cycle correction	---	---	0	dB	INFO
Avg PSD DC corrected	---	8	-13.22	dBm/3KHz	PASS



FCC Part 15.247 Avg Power Spectral Density DTS ~ WLAN2G4 axHE20-mode

General verdict

PASS

FCC Part 15.247 Avg Power Spectral Density DTS ~ WLAN2G4 axHE20-mode

Test References	
TC Start	10.03.2022 12:07:13
Ambit Temp [°C] Humidity [rel%]	23.6 19
System Version	3.0.5.0
Test Specification	FCC Part 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 - WLAN 2G4 axHE20_mode
Add. Information	

EUT Common Settings WLAN2G4	
Number of Antenna Ports	4
User Interaction	No

Test Parameter	
Technology to test	WLAN2G4 axHE20-mode
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]	0.5
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer

Test Equipment	
Signal analyzer,Rohde&Schwarz,FSV-30,1321.3008K30/103809,3.70	
Signaling unit,Rohde&Schwarz,CMW,1201.0002k75/102550,4.0.61	
Switch matrix,CTCadvanced,RSM-1 NI DAQ,29655273,NI	

Test at TX 2437 MHz

RESULT: Reference Power cond.

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	21.02	dBm	INFO
Ref. Frequency	---	---	2433.400	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

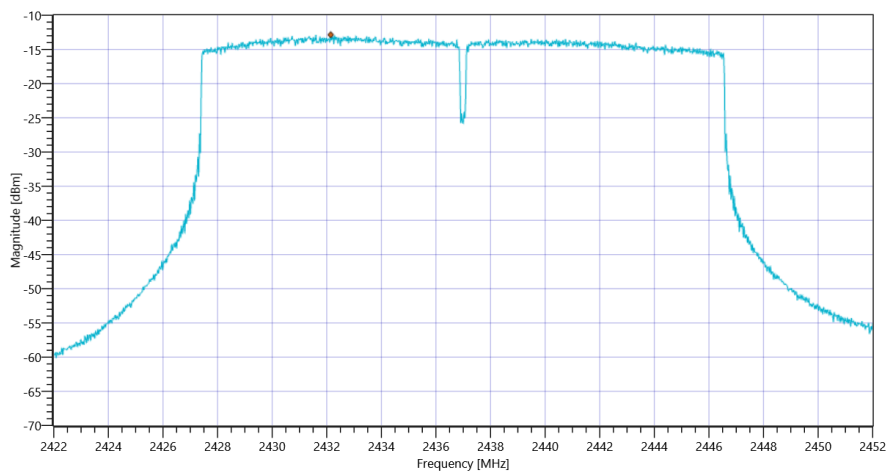
Avg. PSD

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	26.02 10.6 35
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
Avg PSD uncorrected	---	---	-12.85	dBm	INFO
Duty cycle correction	---	---	0	dB	INFO
Avg PSD DC corrected	---	8	-12.85	dBm/3KHz	PASS



FCC Part 15.247 Avg Power Spectral Density DTS ~ WLAN2G4 axHE20-mode

General verdict

PASS

FCC Part 15.247 Avg Power Spectral Density DTS ~ WLAN2G4 axHE20-mode

Test References

TC Start	10.03.2022 12:19:17
Ambit Temp [°C] Humidity [rel%]	23.7 19
System Version	3.0.5.0
Test Specification	FCC Part 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 - WLAN 2G4 axHE20_mode

Add. Information

EUT Common Settings WLAN2G4

Number of Antenna Ports	4
User Interaction	No

Test Parameter

Technology to test	WLAN2G4 axHE20-mode
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]	0.5
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer

Test Equipment

Signal analyzer,Rohde&Schwarz,FSV-30,1321.3008K30/103809,3.70
 Signaling unit,Rohde&Schwarz,CMW,1201.0002k75/102550,4.0.61
 Switch matrix,CTCadvanced,RSM-1 NI DAQ,29655273,NI

Test at TX 2462 MHz

RESULT: Reference Power cond.

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	20.74	dBm	INFO
Ref. Frequency	---	---	2459.800	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

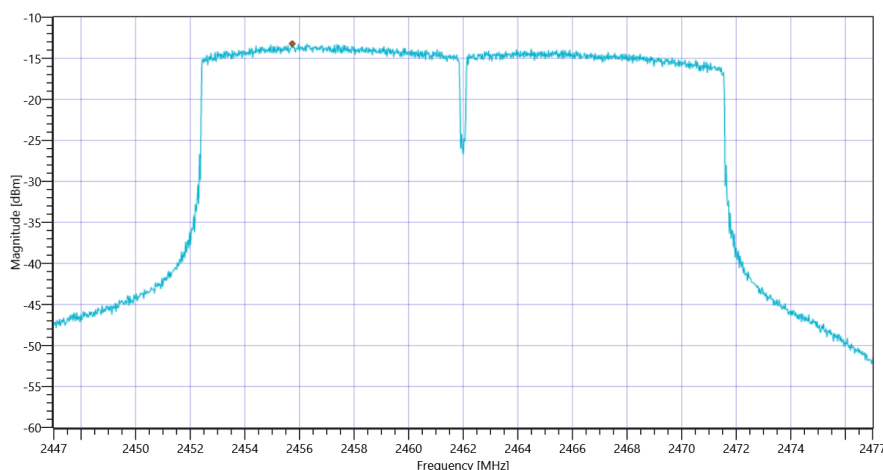
Avg. PSD

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	25.74 10.61 35
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
Avg PSD uncorrected	---	---	-13.21	dBm	INFO
Duty cycle correction	---	---	0	dB	INFO
Avg PSD DC corrected	---	8	-13.21	dBm/3KHz	PASS



FCC Part 15.247 Avg Power Spectral Density DTS ~ WLAN2G4 axHE20-mode

General verdict

PASS

FCC Part 15.247 Bandwidth 6dB DTS ~ WLAN2G4 axHE20-mode

Test References	
TC Start	10.03.2022 11:52:08
Ambit Temp [°C] Humidity [rel%]	23.8 19
System Version	3.0.5.0
Test Specification	FCC Part 15.247
Test Method	99
TC Version	0.0.1
My Description	FCC 15.247 Bandwidth 6dB DTS - WLAN 2G4 axHE20_mode
Add. Information	

EUT Common Settings WLAN2G4	
Number of Antenna Ports	4
User Interaction	No

Test Parameter	
Technology to test	WLAN2G4 axHE20-mode
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]	0.5
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer

Test Equipment	
Signal analyzer,Rohde&Schwarz,FSV-30,1321.3008K30/103809,3.70	
Signaling unit,Rohde&Schwarz,CMW,1201.0002k75/102550,4.0.61	
Switch matrix,CTCadvanced,RSM-1 NI DAQ,29655273,NI	

Test at TX 2412 MHz

RESULT: Reference Power cond.

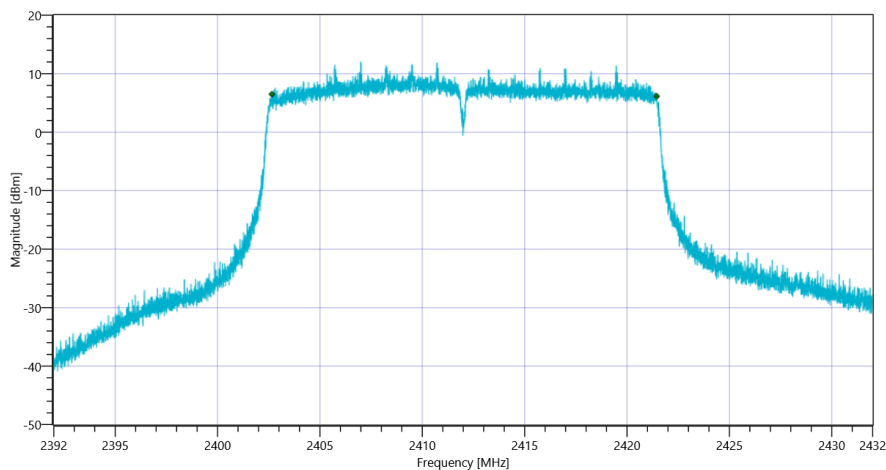
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	20.94	dBm	INFO
Ref. Frequency	---	---	2420.890	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	25.94 10.6 35
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	---	18796	kHz	PASS



FCC Part 15.247 Bandwidth 6dB DTS ~ WLAN2G4 axHE20-mode

General verdict

PASS

FCC Part 15.247 Bandwidth 6dB DTS ~ WLAN2G4 axHE20-mode

Test References	
TC Start	10.03.2022 12:06:35
Ambit Temp [°C] Humidity [rel%]	23.6 19
System Version	3.0.5.0
Test Specification	FCC Part 15.247
Test Method	99
TC Version	0.0.1
My Description	FCC 15.247 Bandwidth 6dB DTS - WLAN 2G4 axHE20_mode
Add. Information	

EUT Common Settings WLAN2G4	
Number of Antenna Ports	4
User Interaction	No

Test Parameter	
Technology to test	WLAN2G4 axHE20-mode
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]	0.5
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer

Test Equipment	
Signal analyzer,Rohde&Schwarz,FSV-30,1321.3008K30/103809,3.70	
Signaling unit,Rohde&Schwarz,CMW,1201.0002k75/102550,4.0.61	
Switch matrix,CTCadvanced,RSM-1 NI DAQ,29655273,NI	

Test at TX 2437 MHz

RESULT: Reference Power cond.

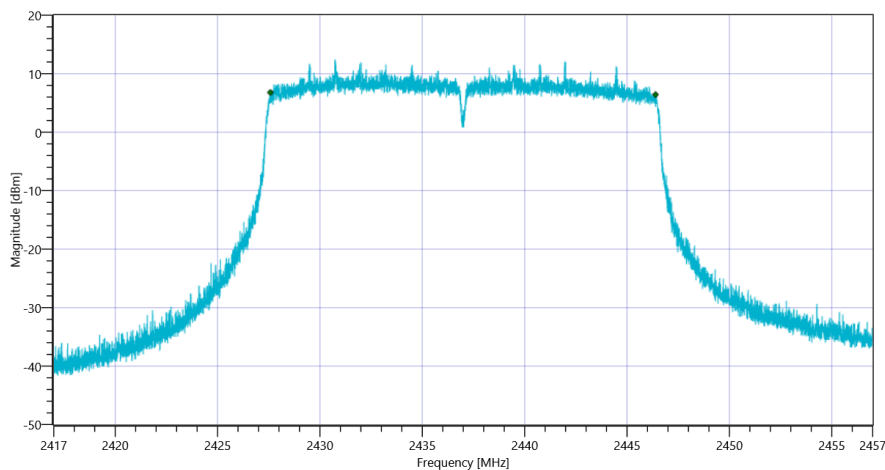
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	21.44	dBm	INFO
Ref. Frequency	---	---	2438.500	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	26.44 10.6 35
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	---	18812	kHz	PASS



FCC Part 15.247 Bandwidth 6dB DTS ~ WLAN2G4 axHE20-mode

General verdict

PASS

FCC Part 15.247 Bandwidth 6dB DTS ~ WLAN2G4 axHE20-mode

Test References	
TC Start	10.03.2022 12:18:39
Ambit Temp [°C] Humidity [rel%]	23.7 19
System Version	3.0.5.0
Test Specification	FCC Part 15.247
Test Method	99
TC Version	0.0.1
My Description	FCC 15.247 Bandwidth 6dB DTS - WLAN 2G4 axHE20_mode
Add. Information	

EUT Common Settings WLAN2G4	
Number of Antenna Ports	4
User Interaction	No

Test Parameter	
Technology to test	WLAN2G4 axHE20-mode
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]	0.5
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer

Test Equipment	
Signal analyzer,Rohde&Schwarz,FSV-30,1321.3008K30/103809,3.70	
Signaling unit,Rohde&Schwarz,CMW,1201.0002k75/102550,4.0.61	
Switch matrix,CTCadvanced,RSM-1 NI DAQ,29655273,NI	

Test at TX 2462 MHz

RESULT: Reference Power cond.

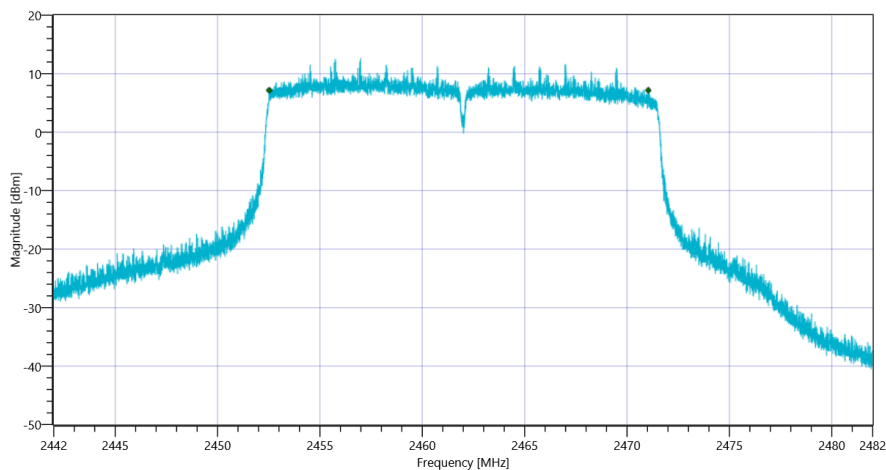
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	21.08	dBm	INFO
Ref. Frequency	---	---	2457.500	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	26.08 10.61 35
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	---	18512	kHz	PASS



FCC Part 15.247 Bandwidth 6dB DTS ~ WLAN2G4 axHE20-mode

General verdict

PASS

FCC Part 15.247 Bandwidth 99PCT-20dB ~ WLAN2G4 axHE20-mode

Test References	
TC Start	10.03.2022 11:53:54
Ambit Temp [°C] Humidity [rel%]	23.8 19
System Version	3.0.5.0
Test Specification	FCC Part 15.247
Test Method	
TC Version	0.0.2
My Description	FCC 15.247 Bandwidth 99PCT-20dB DTS - WLAN 2G4 axHE20_mode
Add. Information	

EUT Common Settings WLAN2G4	
Number of Antenna Ports	4
User Interaction	No

Test Parameter	
Technology to test	WLAN2G4 axHE20-mode
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]	0.5
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer

Test Equipment	
Signal analyzer,Rohde&Schwarz,FSV-30,1321.3008K30/103809,3.70	
Signaling unit,Rohde&Schwarz,CMW,1201.0002k75/102550,4.0.61	
Switch matrix,CTCadvanced,RSM-1 NI DAQ,29655273,NI	

Test at TX 2412 MHz

RESULT: Reference Power cond.

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	20.88	dBm	INFO
Ref. Frequency	---	---	2409.200	MHz	INFO

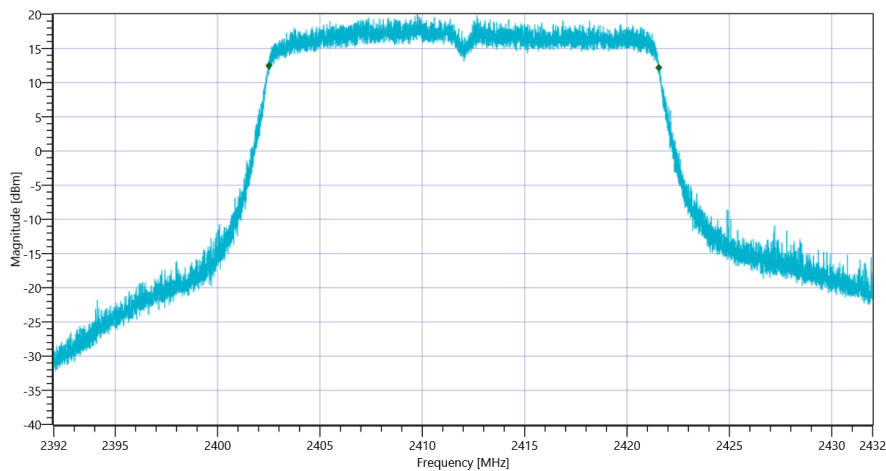
READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	25.88 10.6 35
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

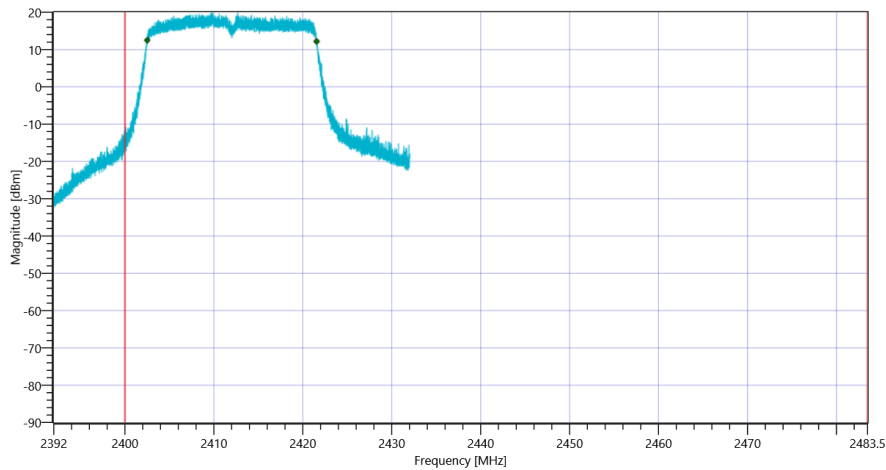
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 99%	---	---	19046.095	kHz	INFO
T1 99%	2400.000000	---	2402.5049	MHz	PASS
T2 99%	---	2483.500000	2421.5510	MHz	PASS

Plot: Bandwidth only



FCC Part 15.247 Bandwidth 99PCT-20dB ~ WLAN2G4 axHE20-mode 99PCT

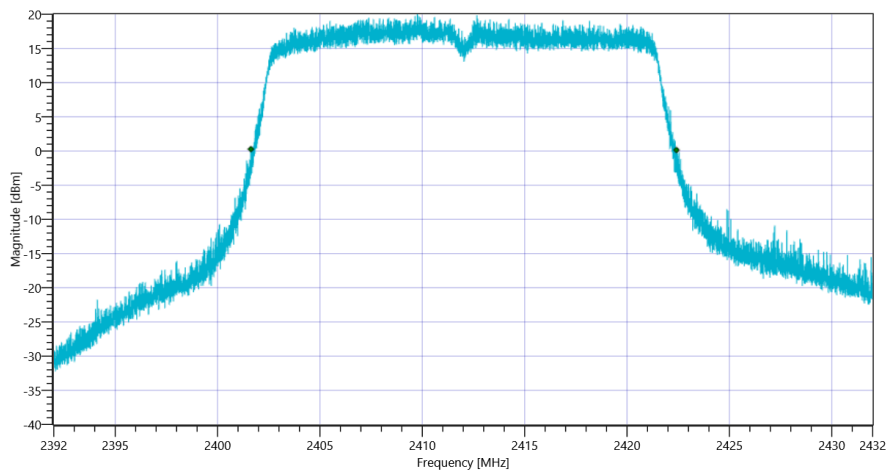
Plot: Bandwidth within Band



FCC Part 15.247 Bandwidth 99PCT-20dB ~ WLAN2G4 axHE20-mode

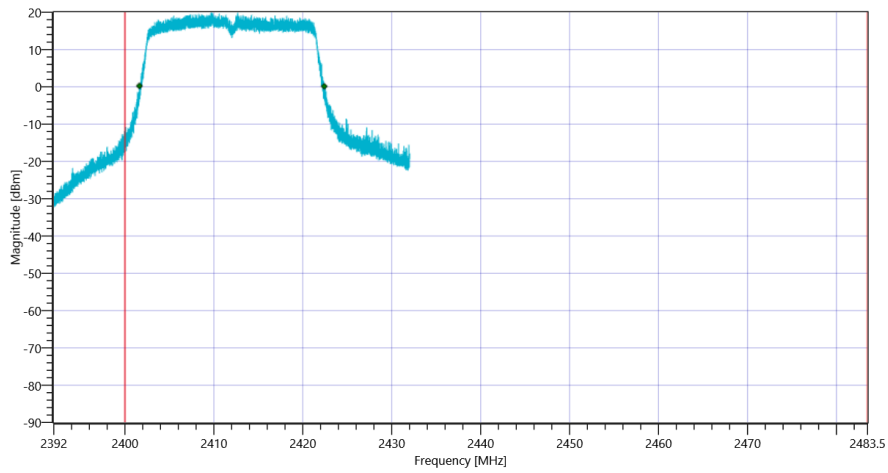
RESULT					
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 20dB	---	---	20784	kHz	INFO
T1 20dB	2400.000000	---	2401.6280	MHz	PASS
T2 20dB	---	2483.500000	2422.4120	MHz	PASS

Plot: Bandwidth only



FCC Part 15.247 Bandwidth 99PCT-20dB ~ WLAN2G4 axHE20-mode 20dB

Plot: Bandwidth within Band



FCC Part 15.247 Bandwidth 99PCT-20dB ~ WLAN2G4 axHE20-mode

General verdict

PASS

FCC Part 15.247 Bandwidth 99PCT-20dB ~ WLAN2G4 axHE20-mode

Test References	
TC Start	10.03.2022 12:08:20
Ambit Temp [°C] Humidity [rel%]	23.6 19
System Version	3.0.5.0
Test Specification	FCC Part 15.247
Test Method	
TC Version	0.0.2
My Description	FCC 15.247 Bandwidth 99PCT-20dB DTS - WLAN 2G4 axHE20_mode
Add. Information	

EUT Common Settings WLAN2G4	
Number of Antenna Ports	4
User Interaction	No

Test Parameter	
Technology to test	WLAN2G4 axHE20-mode
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]	0.5
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer

Test Equipment	
Signal analyzer,Rohde&Schwarz,FSV-30,1321.3008K30/103809,3.70	
Signaling unit,Rohde&Schwarz,CMW,1201.0002k75/102550,4.0.61	
Switch matrix,CTCadvanced,RSM-1 NI DAQ,29655273,NI	

Test at TX 2437 MHz

RESULT: Reference Power cond.

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	21.52	dBm	INFO
Ref. Frequency	---	---	2433.000	MHz	INFO

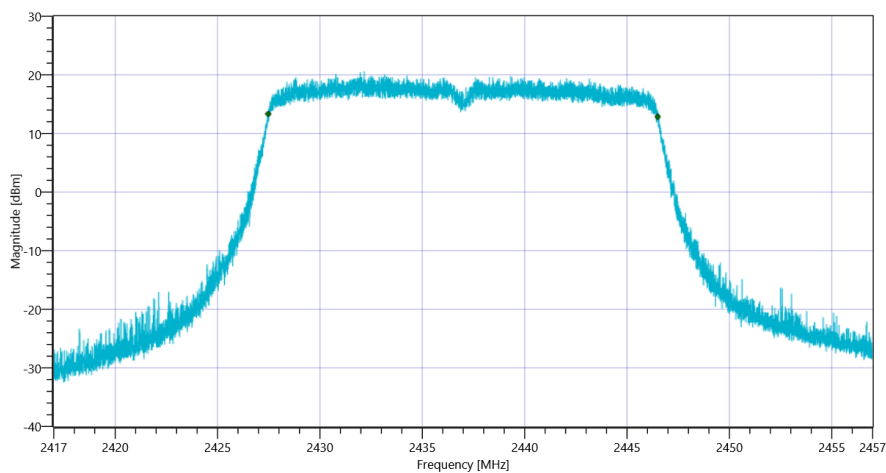
READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	26.52 10.6 35
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

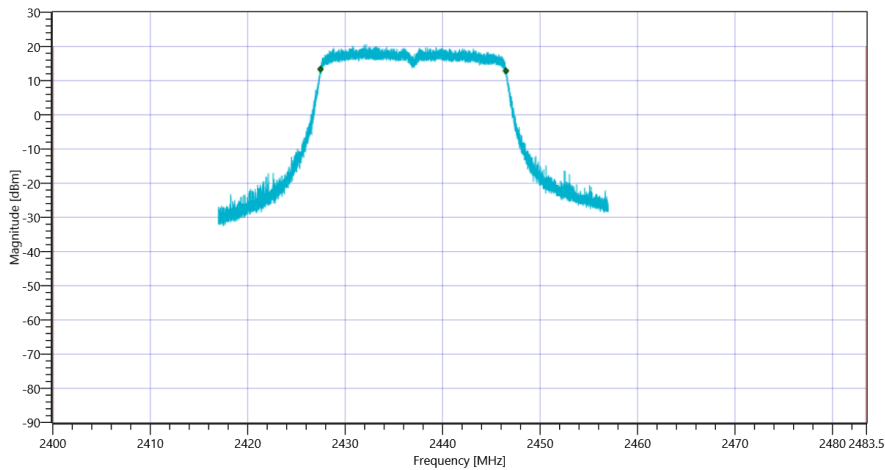
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 99%	---	---	19026.097	kHz	INFO
T1 99%	2400.000000	---	2427.4690	MHz	PASS
T2 99%	---	2483.500000	2446.4951	MHz	PASS

Plot: Bandwidth only



FCC Part 15.247 Bandwidth 99PCT-20dB ~ WLAN2G4 axHE20-mode 99PCT

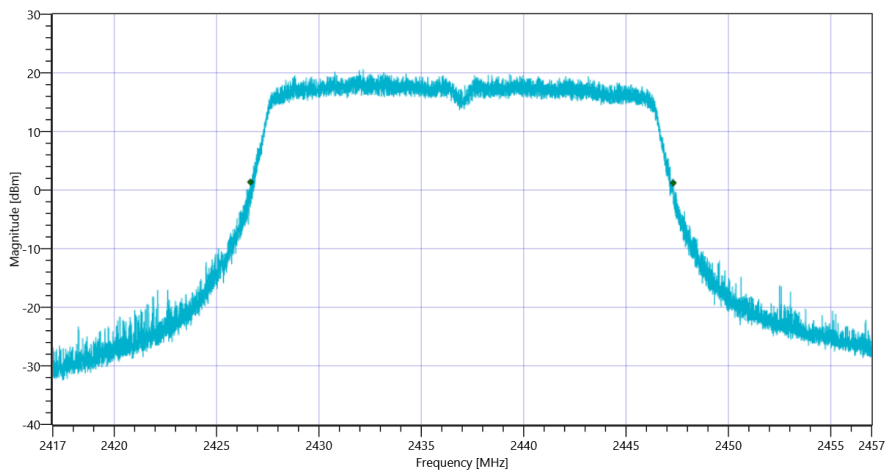
Plot: Bandwidth within Band



FCC Part 15.247 Bandwidth 99PCT-20dB ~ WLAN2G4 axHE20-mode

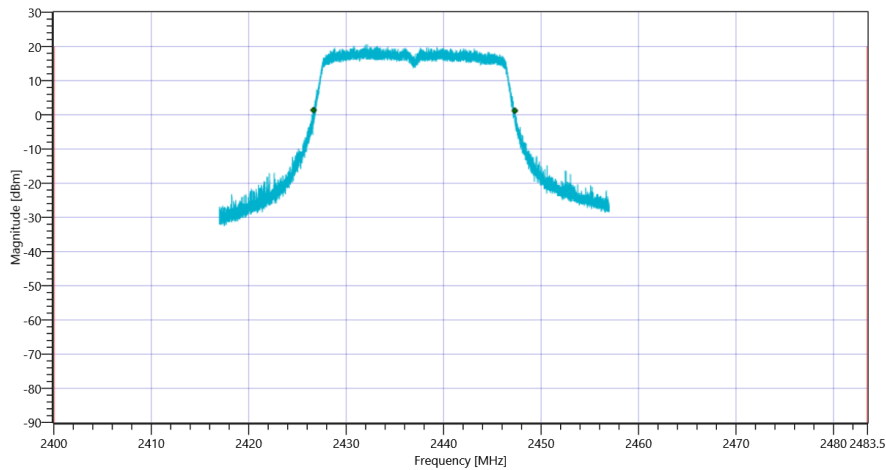
RESULT					
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 20dB	---	---	20656	kHz	INFO
T1 20dB	2400.000000	---	2426.6520	MHz	PASS
T2 20dB	---	2483.500000	2447.3080	MHz	PASS

Plot: Bandwidth only



FCC Part 15.247 Bandwidth 99PCT-20dB ~ WLAN2G4 axHE20-mode 20dB

Plot: Bandwidth within Band



FCC Part 15.247 Bandwidth 99PCT-20dB ~ WLAN2G4 axHE20-mode

General verdict

PASS

FCC Part 15.247 Bandwidth 99PCT-20dB ~ WLAN2G4 axHE20-mode

Test References	
TC Start	10.03.2022 12:20:24
Ambit Temp [°C] Humidity [rel%]	23.7 19
System Version	3.0.5.0
Test Specification	FCC Part 15.247
Test Method	
TC Version	0.0.2
My Description	FCC 15.247 Bandwidth 99PCT-20dB DTS - WLAN 2G4 axHE20_mode
Add. Information	

EUT Common Settings WLAN2G4	
Number of Antenna Ports	4
User Interaction	No

Test Parameter	
Technology to test	WLAN2G4 axHE20-mode
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]	0.5
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer

Test Equipment	
Signal analyzer,Rohde&Schwarz,FSV-30,1321.3008K30/103809,3.70	
Signaling unit,Rohde&Schwarz,CMW,1201.0002k75/102550,4.0.61	
Switch matrix,CTCadvanced,RSM-1 NI DAQ,29655273,NI	

Test at TX 2462 MHz

RESULT: Reference Power cond.

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	20.78	dBm	INFO
Ref. Frequency	---	---	2454.210	MHz	INFO

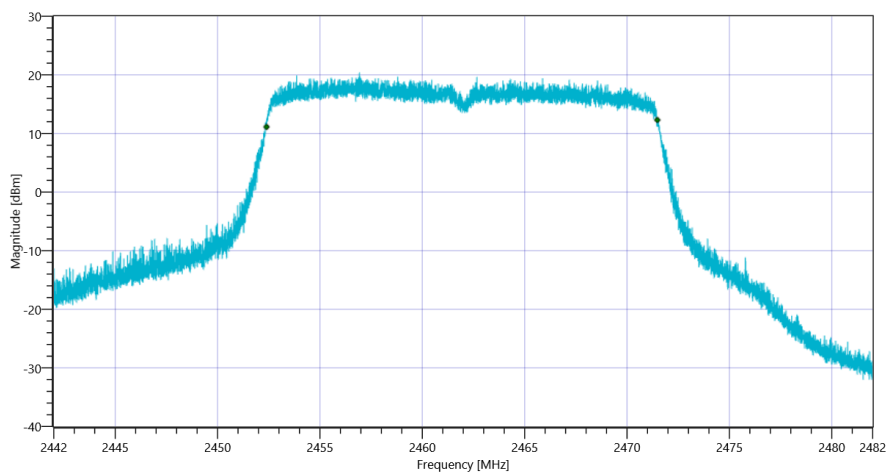
READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	25.78 10.61 35
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

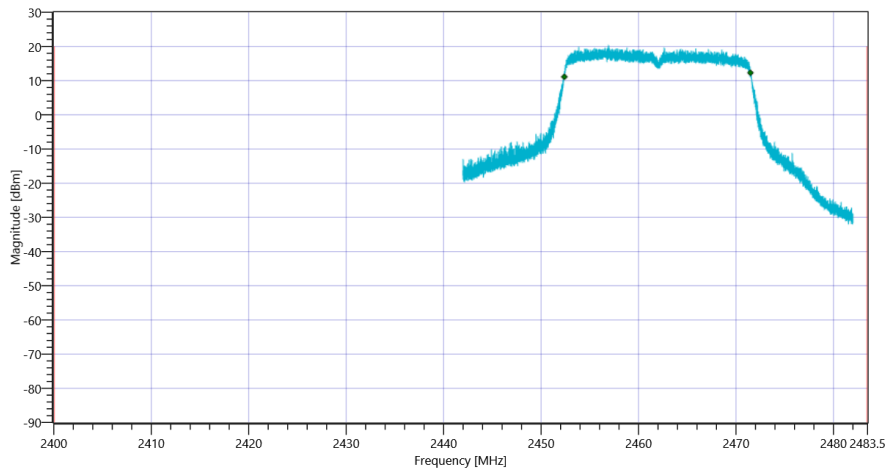
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 99%	---	---	19090.091	kHz	INFO
T1 99%	2400.000000	---	2452.3890	MHz	PASS
T2 99%	---	2483.500000	2471.4791	MHz	PASS

Plot: Bandwidth only



FCC Part 15.247 Bandwidth 99PCT-20dB ~ WLAN2G4 axHE20-mode 99PCT

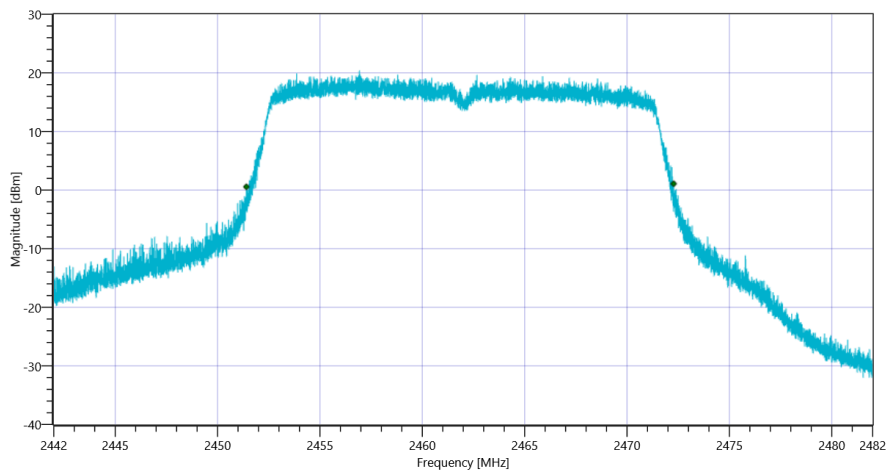
Plot: Bandwidth within Band



FCC Part 15.247 Bandwidth 99PCT-20dB ~ WLAN2G4 axHE20-mode

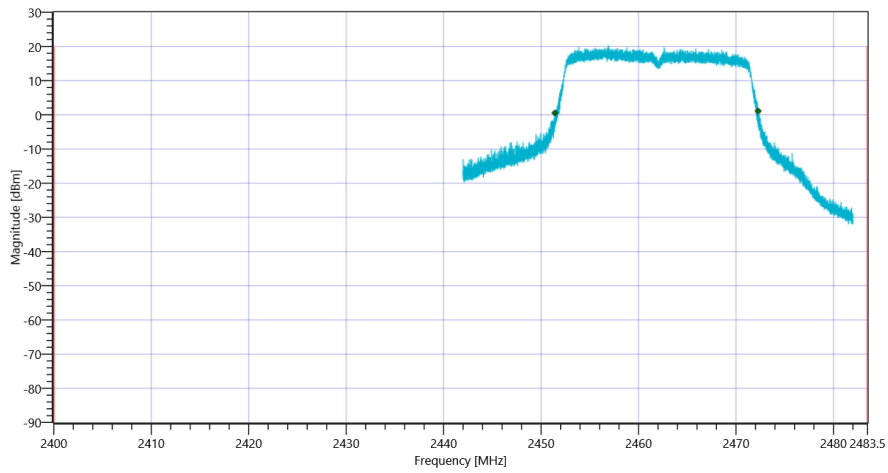
RESULT						
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict	
Bandwidth 20dB	---	---	20868	kHz	INFO	
T1 20dB	2400.000000	---	2451.4080	MHz	PASS	
T2 20dB	---	2483.500000	2472.2760	MHz	PASS	

Plot: Bandwidth only



FCC Part 15.247 Bandwidth 99PCT-20dB ~ WLAN2G4 axHE20-mode 20dB

Plot: Bandwidth within Band



FCC Part 15.247 Bandwidth 99PCT-20dB ~ WLAN2G4 axHE20-mode

General verdict

PASS

FCC Part 15.247 Maximum Avg Conducted Output Power SA DTS ~ WLAN2G4 axHE20-mode

Test References	
TC Start	10.03.2022 12:02:25
Ambit Temp [°C] Humidity [rel%]	23.6 19
System Version	3.0.5.0
Test Specification	FCC Part 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 - WLAN 2G4 axHE20-mode
Add. Information	

EUT Common Settings WLAN2G4	
Number of Antenna Ports	4
User Interaction	No

Test Parameter	
Technology to test	WLAN2G4 axHE20-mode
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]	0.5
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer

Test Equipment	
Signal analyzer,Rohde&Schwarz,FSV-30,1321.3008K30/103809,3.70	
Signaling unit,Rohde&Schwarz,CMW,1201.0002k75/102550,4.0.61	
Switch matrix,CTCadvanced,RSM-1 NI DAQ,29655273,NI	

Test at TX 2412 MHz

RESULT: Reference Power cond.

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	20.53	dBm	INFO
Ref. Frequency	---	---	2409.900	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

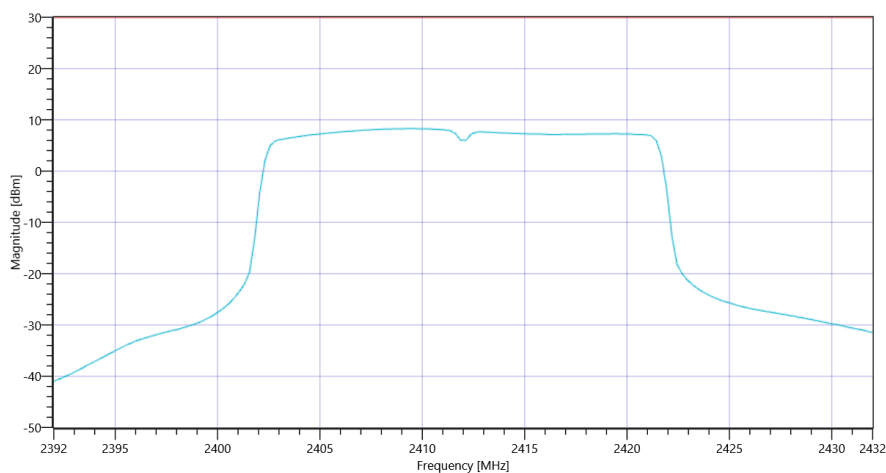
Maximum Avg. Output Power

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	30.53 10.6 35
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
Avg Output Power uncorrected	---	---	22.96	dBm	INFO
Duty Cycle Correction	---	---	0	dB	INFO
Avg Output Power DC corrected	---	30	22.96	dBm	PASS



FCC Part 15.247 Maximum Avg Conducted Output Power SA DTS ~ WLAN2G4 axHE20-mode

General verdict

PASS

FCC Part 15.247 Maximum Avg Conducted Output Power SA DTS ~ WLAN2G4 axHE20-mode

Test References	
TC Start	10.03.2022 12:16:48
Ambit Temp [°C] Humidity [rel%]	23.7 19
System Version	3.0.5.0
Test Specification	FCC Part 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 - WLAN 2G4 axHE20-mode
Add. Information	

EUT Common Settings WLAN2G4	
Number of Antenna Ports	4
User Interaction	No

Test Parameter	
Technology to test	WLAN2G4 axHE20-mode
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]	0.5
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer

Test Equipment	
Signal analyzer,Rohde&Schwarz,FSV-30,1321.3008K30/103809,3.70	
Signaling unit,Rohde&Schwarz,CMW,1201.0002k75/102550,4.0.61	
Switch matrix,CTCadvanced,RSM-1 NI DAQ,29655273,NI	

Test at TX 2437 MHz

RESULT: Reference Power cond.

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	22.45	dBm	INFO
Ref. Frequency	---	---	2431.610	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

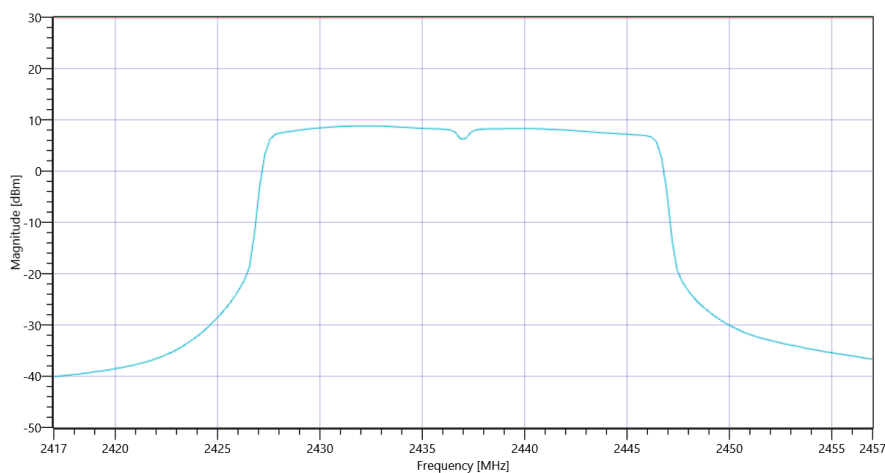
Maximum Avg. Output Power

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	32.45 10.6 40
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
Avg Output Power uncorrected	---	---	23.58	dBm	INFO
Duty Cycle Correction	---	---	0	dB	INFO
Avg Output Power DC corrected	---	30	23.58	dBm	PASS



FCC Part 15.247 Maximum Avg Conducted Output Power SA DTS ~ WLAN2G4 axHE20-mode

General verdict

PASS

FCC Part 15.247 Maximum Avg Conducted Output Power SA DTS ~ WLAN2G4 axHE20-mode

Test References	
TC Start	10.03.2022 12:28:53
Ambit Temp [°C] Humidity [rel%]	23.7 19
System Version	3.0.5.0
Test Specification	FCC Part 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 - WLAN 2G4 axHE20-mode
Add. Information	

EUT Common Settings WLAN2G4	
Number of Antenna Ports	4
User Interaction	No

Test Parameter	
Technology to test	WLAN2G4 axHE20-mode
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]	0.5
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer

Test Equipment	
Signal analyzer,Rohde&Schwarz,FSV-30,1321.3008K30/103809,3.70	
Signaling unit,Rohde&Schwarz,CMW,1201.0002k75/102550,4.0.61	
Switch matrix,CTCadvanced,RSM-1 NI DAQ,29655273,NI	

Test at TX 2462 MHz

RESULT: Reference Power cond.

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	20.91	dBm	INFO
Ref. Frequency	---	---	2455.110	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

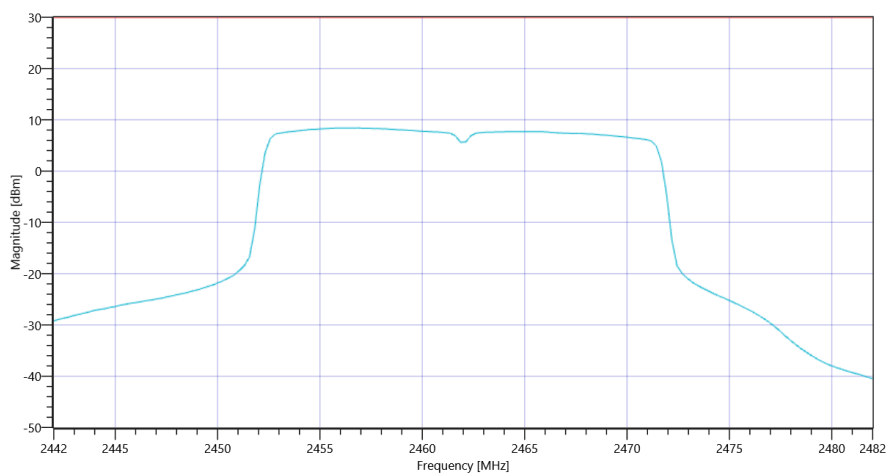
Maximum Avg. Output Power

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	30.91 10.61 35
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
Avg Output Power uncorrected	---	---	23.11	dBm	INFO
Duty Cycle Correction	---	---	0	dB	INFO
Avg Output Power DC corrected	---	30	23.11	dBm	PASS



FCC Part 15.247 Maximum Avg Conducted Output Power SA DTS ~ WLAN2G4 axHE20-mode

General verdict

PASS

FCC Part 15.247 TX Spurious Conducted 30dBc ~ WLAN2G4 axHE20-mode

Test References	
TC Start	10.03.2022 11:54:54
Ambit Temp [°C] Humidity [rel%]	23.8 19
System Version	3.0.5.0
Test Specification	FCC Part 15.247
Test Method	IF DTS then 8.5 DTS emissions in non-restricted frequency bands: Subclause 11.11 of ANSI C63.10 is applicable.
TC Version	0.0.1
My Description	FCC 15.247 TX Emissions Conducted 30dBc DTS DTS - WLAN 2G4 axHE20_mode
Add. Information	

EUT Common Settings WLAN2G4	
Number of Antenna Ports	4
User Interaction	No

Test Parameter	
Technology to test	WLAN2G4 axHE20-mode
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]	0.5
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer

Test Equipment	
Signal analyzer,Rohde&Schwarz,FSV-30,1321.3008K30/103809,3.70	
Signaling unit,Rohde&Schwarz,CMW,1201.0002k75/102550,4.0.61	
Switch matrix,CTCadvanced,RSM-1 NI DAQ,29655273,NI	

Test at TX 2412 MHz

RESULT: Reference Power cond.

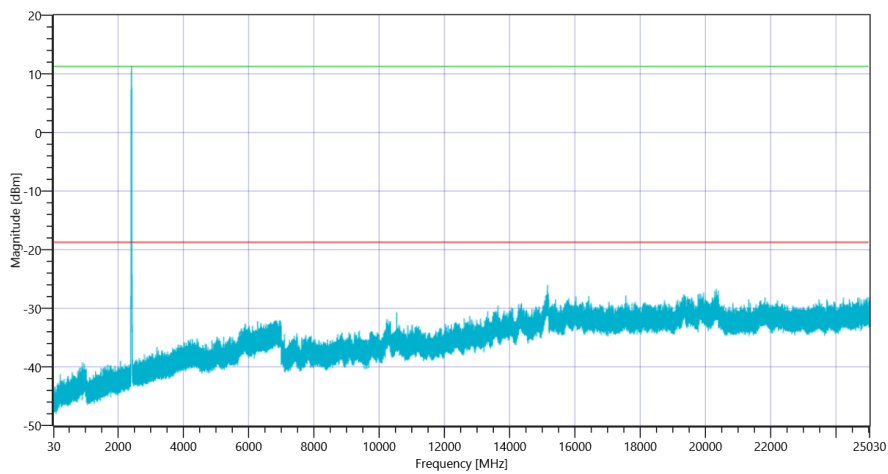
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	22.11	dBm	INFO
Ref. Frequency	---	---	2409.600	MHz	INFO

READ SA SETTINGS:

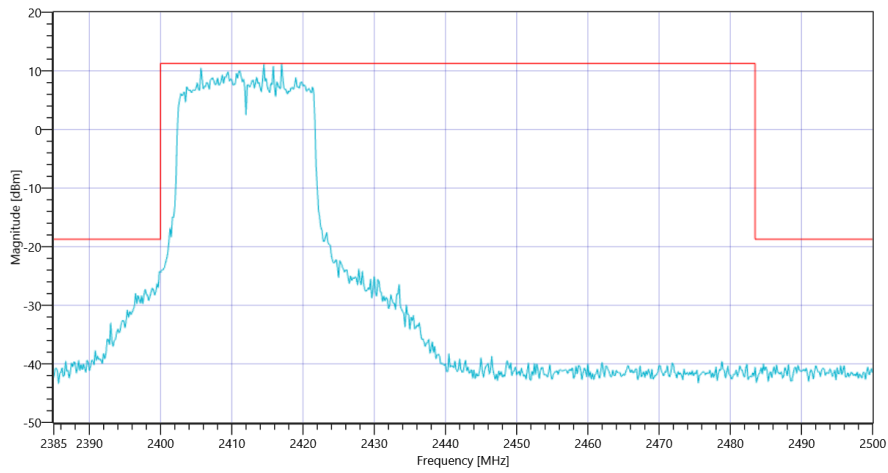
RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	22.11 0 40
Start [MHz] Stop [MHz]	24530.000 25030.000
RBW [MHz] VBW [MHz]	0.100000 0.300000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	200 25 3001 SWE

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Reference @ 2417.00 MHz	---	---	11.27	dBm	INFO
No peaks detected	---	---			PASS
Lowest margin to limit 2399.833 MHz	0	---	5.48	dB	INFO



FCC Part 15.247 TX Spurious Conducted 30dBc ~ WLAN2G4 axHE20-mode 2412



FCC Part 15.247 TX Spurious Conducted 30dBc ~ WLAN2G4 axHE20-mode 2412

General verdict

PASS

FCC Part 15.247 TX Spurious Conducted 30dBc ~ WLAN2G4 axHE20-mode

Test References	
TC Start	10.03.2022 12:09:18
Ambit Temp [°C] Humidity [rel%]	23.6 19
System Version	3.0.5.0
Test Specification	FCC Part 15.247
Test Method	IF DTS then 8.5 DTS emissions in non-restricted frequency bands: Subclause 11.11 of ANSI C63.10 is applicable.
TC Version	0.0.1
My Description	FCC 15.247 TX Emissions Conducted 30dBc DTS DTS - WLAN 2G4 axHE20_mode
Add. Information	

EUT Common Settings WLAN2G4	
Number of Antenna Ports	4
User Interaction	No

Test Parameter	
Technology to test	WLAN2G4 axHE20-mode
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]	0.5
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer

Test Equipment	
Signal analyzer,Rohde&Schwarz,FSV-30,1321.3008K30/103809,3.70	
Signaling unit,Rohde&Schwarz,CMW,1201.0002k75/102550,4.0.61	
Switch matrix,CTCadvanced,RSM-1 NI DAQ,29655273,NI	

Test at TX 2437 MHz

RESULT: Reference Power cond.

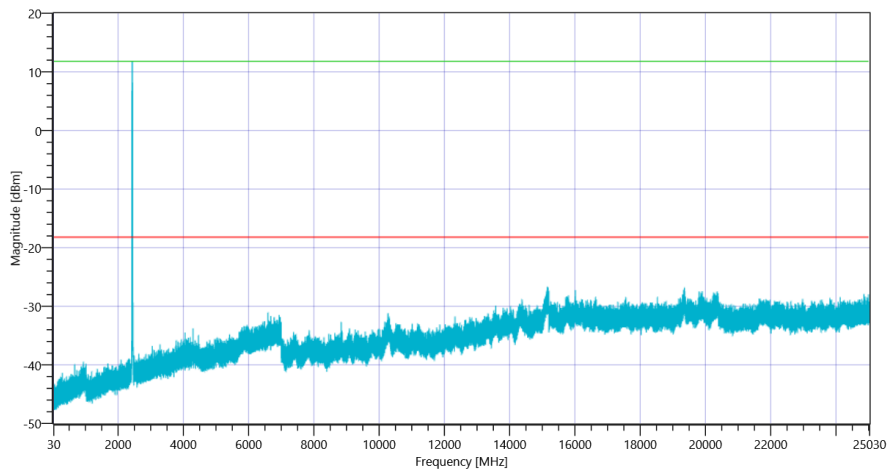
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	21.38	dBm	INFO
Ref. Frequency	---	---	2444.690	MHz	INFO

READ SA SETTINGS:

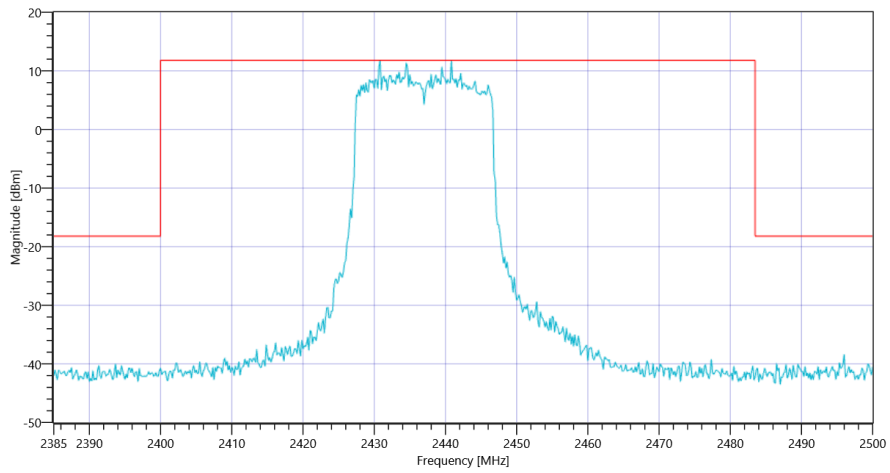
RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	21.38 0 40
Start [MHz] Stop [MHz]	24530.000 25030.000
RBW [MHz] VBW [MHz]	0.100000 0.300000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	200 25 3001 SWE

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Reference @ 2440.83 MHz	---	---	11.80	dBm	INFO
No peaks detected	---	---			PASS
Lowest margin to limit 30 MHz	0	---	-155	dB	INFO



FCC Part 15.247 TX Spurious Conducted 30dBc ~ WLAN2G4 axHE20-mode 2437



FCC Part 15.247 TX Spurious Conducted 30dBc ~ WLAN2G4 axHE20-mode 2437

General verdict

PASS

FCC Part 15.247 TX Spurious Conducted 30dBc ~ WLAN2G4 axHE20-mode

Test References	
TC Start	10.03.2022 12:21:22
Ambit Temp [°C] Humidity [rel%]	23.8 19
System Version	3.0.5.0
Test Specification	FCC Part 15.247
Test Method	IF DTS then 8.5 DTS emissions in non-restricted frequency bands: Subclause 11.11 of ANSI C63.10 is applicable.
TC Version	0.0.1
My Description	FCC 15.247 TX Emissions Conducted 30dBc DTS DTS - WLAN 2G4 axHE20_mode
Add. Information	

EUT Common Settings WLAN2G4	
Number of Antenna Ports	4
User Interaction	No

Test Parameter	
Technology to test	WLAN2G4 axHE20-mode
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]	0.5
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer

Test Equipment	
Signal analyzer,Rohde&Schwarz,FSV-30,1321.3008K30/103809,3.70	
Signaling unit,Rohde&Schwarz,CMW,1201.0002k75/102550,4.0.61	
Switch matrix,CTCadvanced,RSM-1 NI DAQ,29655273,NI	

Test at TX 2462 MHz

RESULT: Reference Power cond.

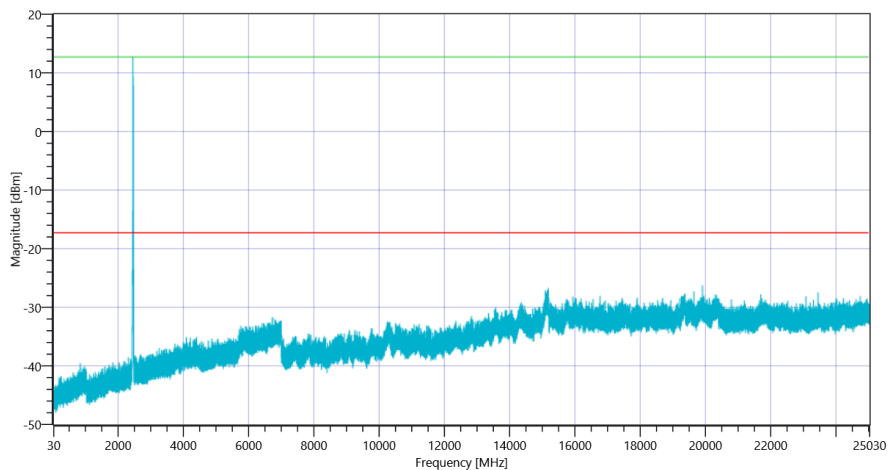
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	20.92	dBm	INFO
Ref. Frequency	---	---	2463.600	MHz	INFO

READ SA SETTINGS:

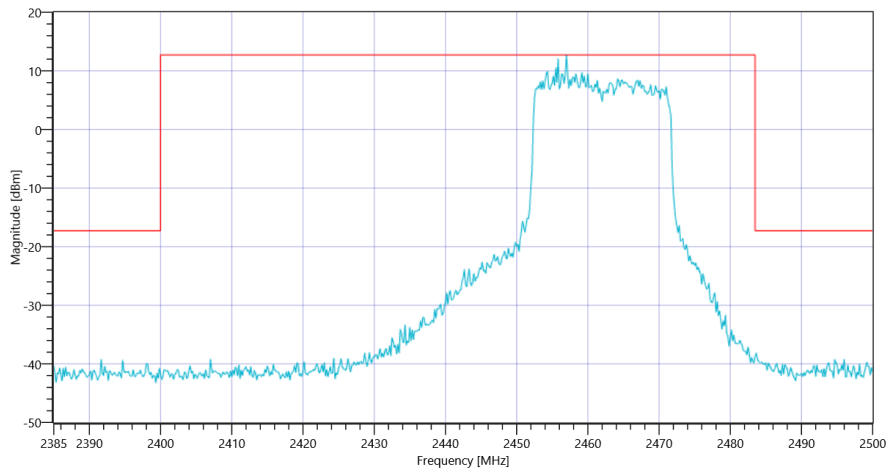
RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	20.92 0 40
Start [MHz] Stop [MHz]	24530.000 25030.000
RBW [MHz] VBW [MHz]	0.100000 0.300000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	200 25 3001 SWE

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Reference @ 2457.00 MHz	---	---	12.73	dBm	INFO
No peaks detected	---	---			PASS
Lowest margin to limit 19907.167 MHz	0	---	9.01	dB	INFO



FCC Part 15.247 TX Spurious Conducted 30dBc ~ WLAN2G4 axHE20-mode 2462



FCC Part 15.247 TX Spurious Conducted 30dBc ~ WLAN2G4 axHE20-mode 2462

General verdict

PASS

FCC Part 15.247 Avg Power Spectral Density DTS ~ WLAN2G4 axHE20-mode

Test References	
TC Start	10.03.2022 11:01:17
Ambit Temp [°C] Humidity [rel%]	23.4 19
System Version	3.0.5.0
Test Specification	FCC Part 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 - WLAN 2G4 axHE20_mode
Add. Information	

EUT Common Settings WLAN2G4	
Number of Antenna Ports	4
User Interaction	No

Test Parameter	
Technology to test	WLAN2G4 axHE20-mode
Antenna Port used	3
Temperature	nom
Voltage	nom
Frequency low to test	True Freq [MHz] 2412
Frequency mid to test	False Freq [MHz] 2437
Frequency high to test	False Freq [MHz] 2462
Auto Control enabled Power Supply Climatic Box	No No
Additional Path Loss [dB]	0.5
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer

Test Equipment	
Signal analyzer,Rohde&Schwarz,FSV-30,1321.3008K30/103809,3.70	
Signaling unit,Rohde&Schwarz,CMW,1201.0002k75/102550,4.0.61	
Switch matrix,CTCadvanced,RSM-1 NI DAQ,29655273,NI	

Test at TX 2412 MHz

RESULT: Reference Power cond.

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	20.51	dBm	INFO
Ref. Frequency	---	---	2405.910	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

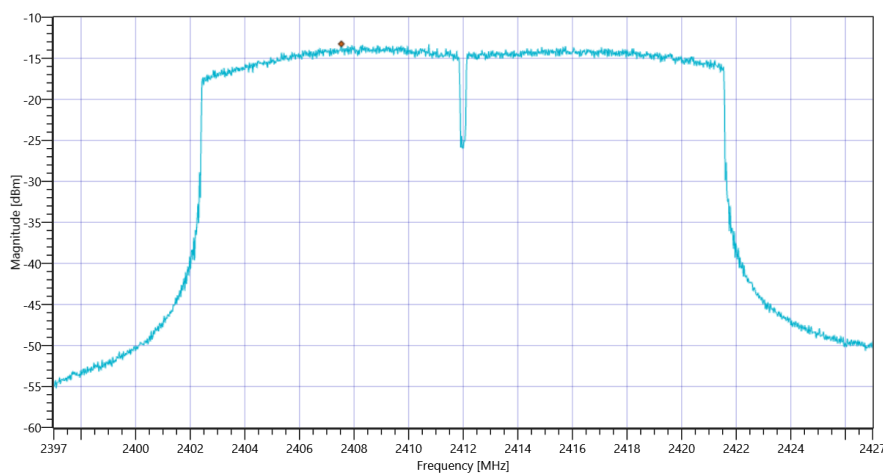
Avg. PSD

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	25.51 10.6 30
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
Avg PSD uncorrected	---	---	-13.25	dBm	INFO
Duty cycle correction	---	---	0	dB	INFO
Avg PSD DC corrected	---	8	-13.25	dBm/3KHz	PASS



FCC Part 15.247 Avg Power Spectral Density DTS ~ WLAN2G4 axHE20-mode

General verdict

PASS

FCC Part 15.247 Avg Power Spectral Density DTS ~ WLAN2G4 axHE20-mode

Test References	
TC Start	10.03.2022 11:17:18
Ambit Temp [°C] Humidity [rel%]	23.5 19
System Version	3.0.5.0
Test Specification	FCC Part 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 - WLAN 2G4 axHE20_mode
Add. Information	

EUT Common Settings WLAN2G4	
Number of Antenna Ports	4
User Interaction	No

Test Parameter	
Technology to test	WLAN2G4 axHE20-mode
Antenna Port used	3
Temperature	nom
Voltage	nom
Frequency low to test	False Freq [MHz] 2412
Frequency mid to test	True Freq [MHz] 2437
Frequency high to test	False Freq [MHz] 2462
Auto Control enabled Power Supply Climatic Box	No No
Additional Path Loss [dB]	0.5
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer

Test Equipment	
Signal analyzer,Rohde&Schwarz,FSV-30,1321.3008K30/103809,3.70	
Signaling unit,Rohde&Schwarz,CMW,1201.0002k75/102550,4.0.61	
Switch matrix,CTCadvanced,RSM-1 NI DAQ,29655273,NI	

Test at TX 2437 MHz

RESULT: Reference Power cond.

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	21.68	dBm	INFO
Ref. Frequency	---	---	2441.900	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

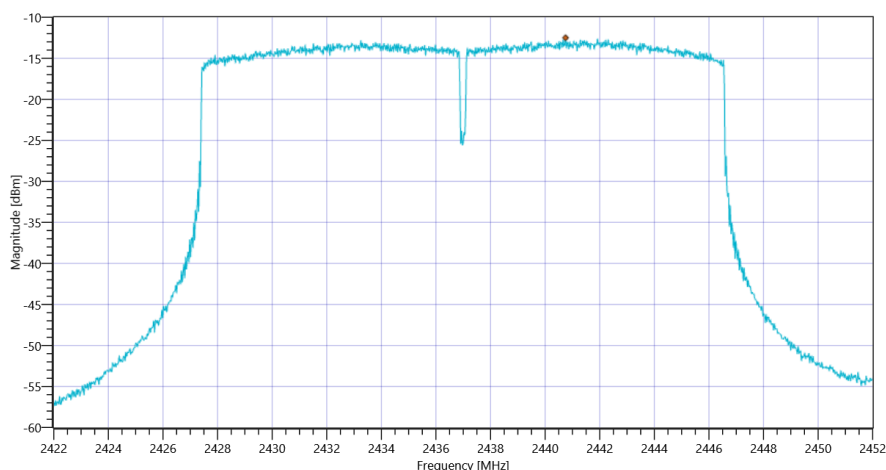
Avg. PSD

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	26.68 10.6 35
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
Avg PSD uncorrected	---	---	-12.5	dBm	INFO
Duty cycle correction	---	---	0	dB	INFO
Avg PSD DC corrected	---	8	-12.5	dBm/3KHz	PASS



FCC Part 15.247 Avg Power Spectral Density DTS ~ WLAN2G4 axHE20-mode

General verdict

PASS

FCC Part 15.247 Avg Power Spectral Density DTS ~ WLAN2G4 axHE20-mode

Test References	
TC Start	10.03.2022 11:29:52
Ambit Temp [°C] Humidity [rel%]	23.5 19
System Version	3.0.5.0
Test Specification	FCC Part 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 - WLAN 2G4 axHE20_mode
Add. Information	

EUT Common Settings WLAN2G4	
Number of Antenna Ports	4
User Interaction	No

Test Parameter	
Technology to test	WLAN2G4 axHE20-mode
Antenna Port used	3
Temperature	nom
Voltage	nom
Frequency low to test	False Freq [MHz] 2412
Frequency mid to test	False Freq [MHz] 2437
Frequency high to test	True Freq [MHz] 2462
Auto Control enabled Power Supply Climatic Box	No No
Additional Path Loss [dB]	0.5
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer

Test Equipment	
Signal analyzer,Rohde&Schwarz,FSV-30,1321.3008K30/103809,3.70	
Signaling unit,Rohde&Schwarz,CMW,1201.0002k75/102550,4.0.61	
Switch matrix,CTCadvanced,RSM-1 NI DAQ,29655273,NI	

Test at TX 2462 MHz

RESULT: Reference Power cond.

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	21.84	dBm	INFO
Ref. Frequency	---	---	2459.900	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

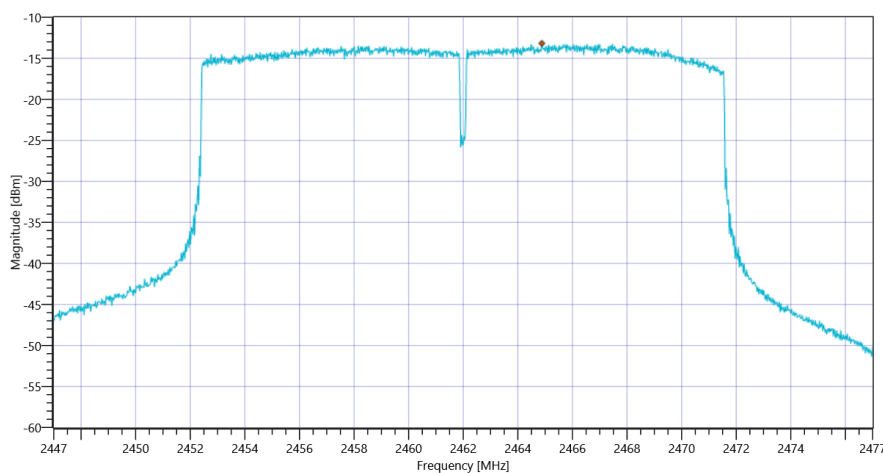
Avg. PSD

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	26.84 10.61 35
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
Avg PSD uncorrected	---	---	-13.18	dBm	INFO
Duty cycle correction	---	---	0	dB	INFO
Avg PSD DC corrected	---	8	-13.18	dBm/3KHz	PASS



FCC Part 15.247 Avg Power Spectral Density DTS ~ WLAN2G4 axHE20-mode

General verdict

PASS

FCC Part 15.247 Bandwidth 6dB DTS ~ WLAN2G4 axHE20-mode

Test References	
TC Start	10.03.2022 11:00:38
Ambit Temp [°C] Humidity [rel%]	23.4 19
System Version	3.0.5.0
Test Specification	FCC Part 15.247
Test Method	99
TC Version	0.0.1
My Description	FCC 15.247 Bandwidth 6dB DTS - WLAN 2G4 axHE20_mode
Add. Information	

EUT Common Settings WLAN2G4	
Number of Antenna Ports	4
User Interaction	No

Test Parameter	
Technology to test	WLAN2G4 axHE20-mode
Antenna Port used	3
Temperature	nom
Voltage	nom
Frequency low to test	True Freq [MHz] 2412
Frequency mid to test	False Freq [MHz] 2437
Frequency high to test	False Freq [MHz] 2462
Auto Control enabled Power Supply Climatic Box	No No
Additional Path Loss [dB]	0.5
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer

Test Equipment	
Signal analyzer,Rohde&Schwarz,FSV-30,1321.3008K30/103809,3.70	
Signaling unit,Rohde&Schwarz,CMW,1201.0002k75/102550,4.0.61	
Switch matrix,CTCadvanced,RSM-1 NI DAQ,29655273,NI	

Test at TX 2412 MHz

RESULT: Reference Power cond.

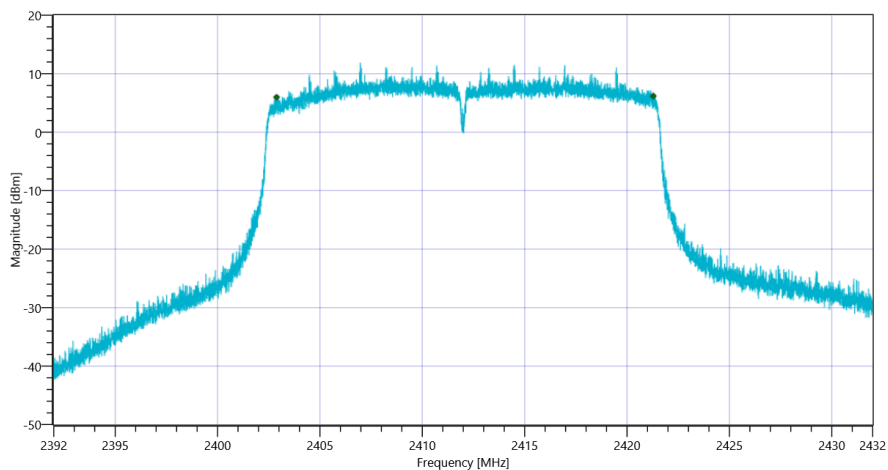
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	22.41	dBm	INFO
Ref. Frequency	---	---	2413.800	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	27.41 10.6 35
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	---	18400	kHz	PASS



FCC Part 15.247 Bandwidth 6dB DTS ~ WLAN2G4 axHE20-mode

General verdict

PASS

FCC Part 15.247 Bandwidth 6dB DTS ~ WLAN2G4 axHE20-mode

Test References	
TC Start	10.03.2022 11:16:40
Ambit Temp [°C] Humidity [rel%]	23.5 19
System Version	3.0.5.0
Test Specification	FCC Part 15.247
Test Method	99
TC Version	0.0.1
My Description	FCC 15.247 Bandwidth 6dB DTS - WLAN 2G4 axHE20_mode
Add. Information	

EUT Common Settings WLAN2G4	
Number of Antenna Ports	4
User Interaction	No

Test Parameter	
Technology to test	WLAN2G4 axHE20-mode
Antenna Port used	3
Temperature	nom
Voltage	nom
Frequency low to test	False Freq [MHz] 2412
Frequency mid to test	True Freq [MHz] 2437
Frequency high to test	False Freq [MHz] 2462
Auto Control enabled Power Supply Climatic Box	No No
Additional Path Loss [dB]	0.5
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer

Test Equipment	
Signal analyzer,Rohde&Schwarz,FSV-30,1321.3008K30/103809,3.70	
Signaling unit,Rohde&Schwarz,CMW,1201.0002k75/102550,4.0.61	
Switch matrix,CTCadvanced,RSM-1 NI DAQ,29655273,NI	

Test at TX 2437 MHz

RESULT: Reference Power cond.

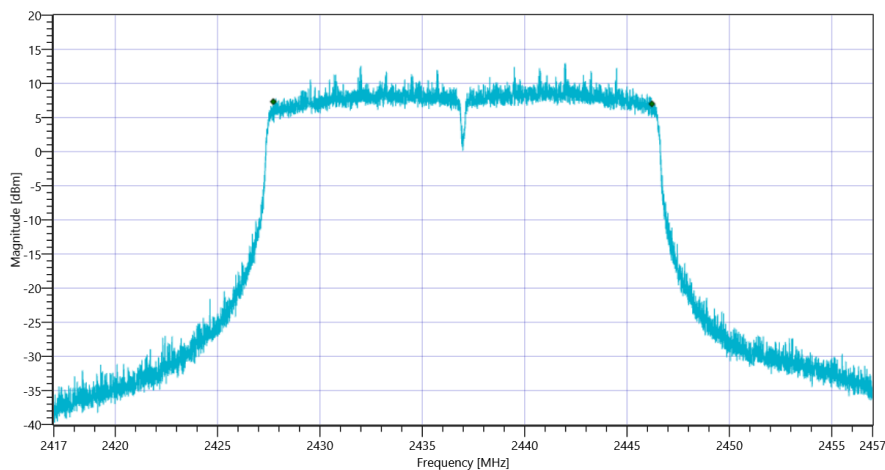
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	21.41	dBm	INFO
Ref. Frequency	---	---	2442.090	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	26.41 10.6 35
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	---	18492	kHz	PASS



FCC Part 15.247 Bandwidth 6dB DTS ~ WLAN2G4 axHE20-mode

General verdict

PASS

FCC Part 15.247 Bandwidth 6dB DTS ~ WLAN2G4 axHE20-mode

Test References	
TC Start	10.03.2022 11:29:14
Ambit Temp [°C] Humidity [rel%]	23.6 19
System Version	3.0.5.0
Test Specification	FCC Part 15.247
Test Method	99
TC Version	0.0.1
My Description	FCC 15.247 Bandwidth 6dB DTS - WLAN 2G4 axHE20_mode
Add. Information	

EUT Common Settings WLAN2G4	
Number of Antenna Ports	4
User Interaction	No

Test Parameter	
Technology to test	WLAN2G4 axHE20-mode
Antenna Port used	3
Temperature	nom
Voltage	nom
Frequency low to test	False Freq [MHz] 2412
Frequency mid to test	False Freq [MHz] 2437
Frequency high to test	True Freq [MHz] 2462
Auto Control enabled Power Supply Climatic Box	No No
Additional Path Loss [dB]	0.5
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer

Test Equipment	
Signal analyzer,Rohde&Schwarz,FSV-30,1321.3008K30/103809,3.70	
Signaling unit,Rohde&Schwarz,CMW,1201.0002k75/102550,4.0.61	
Switch matrix,CTCadvanced,RSM-1 NI DAQ,29655273,NI	

Test at TX 2462 MHz

RESULT: Reference Power cond.

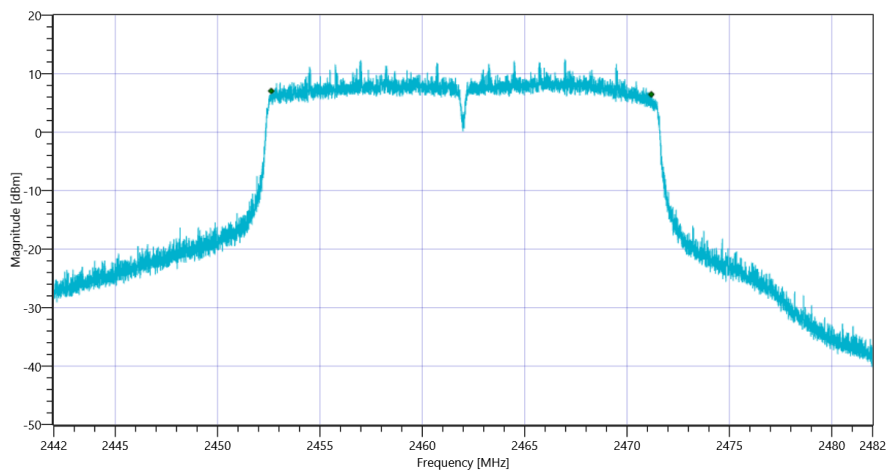
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	20.87	dBm	INFO
Ref. Frequency	---	---	2459.800	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	25.87 10.61 35
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	---	18564	kHz	PASS



FCC Part 15.247 Bandwidth 6dB DTS ~ WLAN2G4 axHE20-mode

General verdict

PASS

FCC Part 15.247 Bandwidth 99PCT-20dB ~ WLAN2G4 axHE20-mode

Test References	
TC Start	10.03.2022 11:02:24
Ambit Temp [°C] Humidity [rel%]	23.4 19
System Version	3.0.5.0
Test Specification	FCC Part 15.247
Test Method	
TC Version	0.0.2
My Description	FCC 15.247 Bandwidth 99PCT-20dB DTS - WLAN 2G4 axHE20_mode
Add. Information	

EUT Common Settings WLAN2G4	
Number of Antenna Ports	4
User Interaction	No

Test Parameter	
Technology to test	WLAN2G4 axHE20-mode
Antenna Port used	3
Temperature	nom
Voltage	nom
Frequency low to test	True Freq [MHz] 2412
Frequency mid to test	False Freq [MHz] 2437
Frequency high to test	False Freq [MHz] 2462
Auto Control enabled Power Supply Climatic Box	No No
Additional Path Loss [dB]	0.5
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer

Test Equipment	
Signal analyzer,Rohde&Schwarz,FSV-30,1321.3008K30/103809,3.70	
Signaling unit,Rohde&Schwarz,CMW,1201.0002k75/102550,4.0.61	
Switch matrix,CTCadvanced,RSM-1 NI DAQ,29655273,NI	

Test at TX 2412 MHz

RESULT: Reference Power cond.

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	21.32	dBm	INFO
Ref. Frequency	---	---	2416.200	MHz	INFO

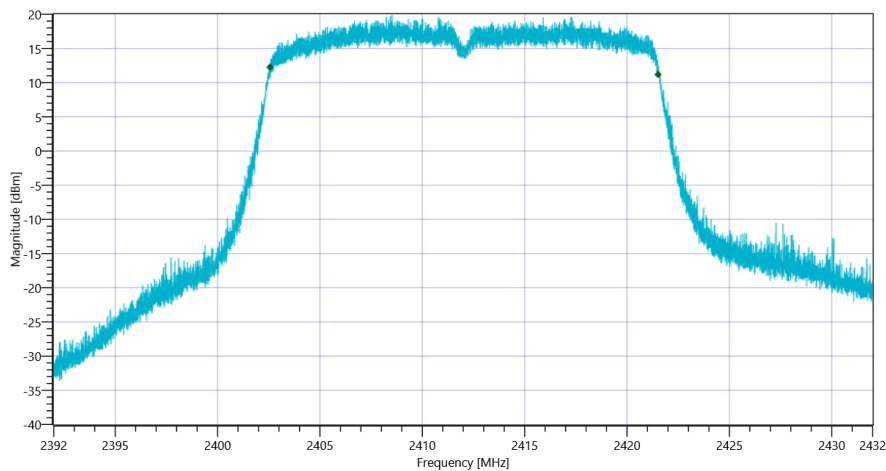
READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	26.32 10.6 35
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

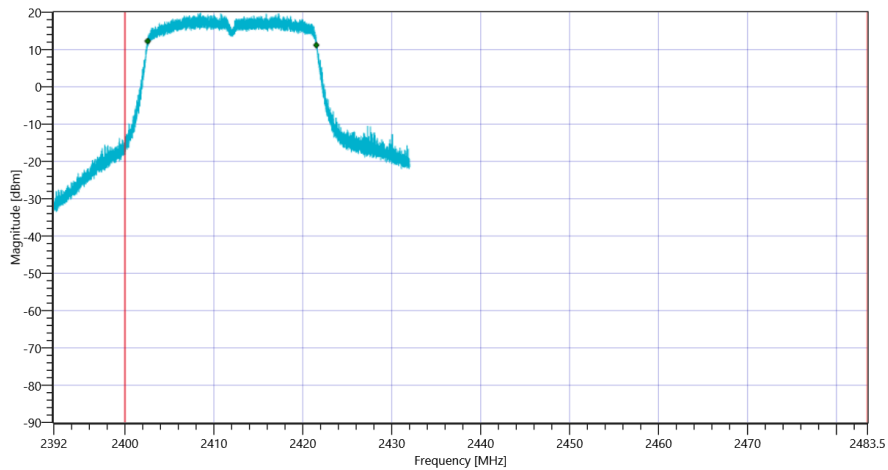
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 99%	---	---	18958.104	kHz	INFO
T1 99%	2400.000000	---	2402.5569	MHz	PASS
T2 99%	---	2483.500000	2421.5150	MHz	PASS

Plot: Bandwidth only



FCC Part 15.247 Bandwidth 99PCT-20dB ~ WLAN2G4 axHE20-mode 99PCT

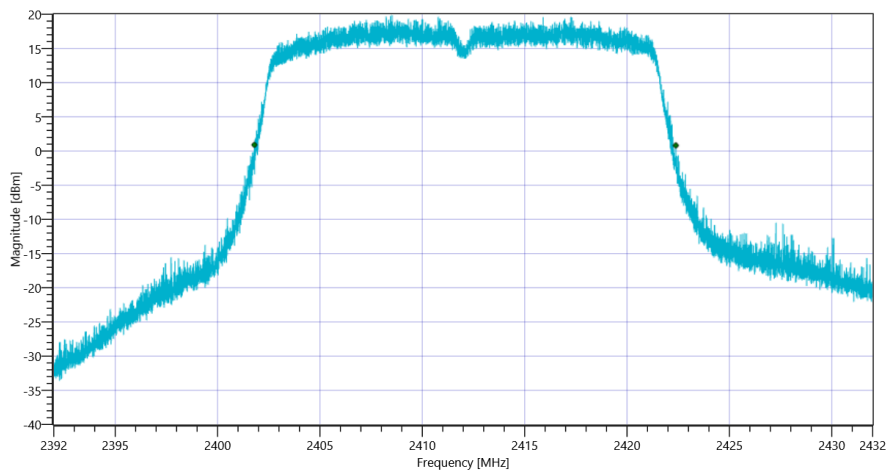
Plot: Bandwidth within Band



FCC Part 15.247 Bandwidth 99PCT-20dB ~ WLAN2G4 axHE20-mode

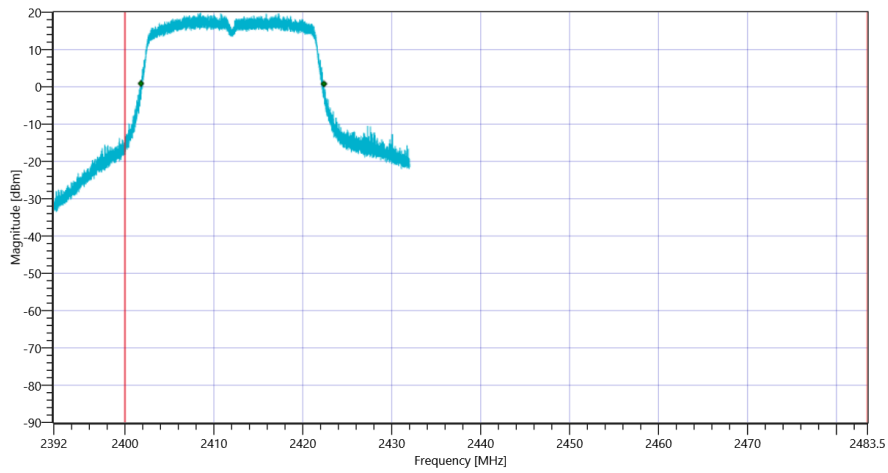
RESULT					
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 20dB	---	---	20584	kHz	INFO
T1 20dB	2400.000000	---	2401.7960	MHz	PASS
T2 20dB	---	2483.500000	2422.3800	MHz	PASS

Plot: Bandwidth only



FCC Part 15.247 Bandwidth 99PCT-20dB ~ WLAN2G4 axHE20-mode 20dB

Plot: Bandwidth within Band



FCC Part 15.247 Bandwidth 99PCT-20dB ~ WLAN2G4 axHE20-mode

General verdict

PASS

FCC Part 15.247 Bandwidth 99PCT-20dB ~ WLAN2G4 axHE20-mode

Test References	
TC Start	10.03.2022 11:18:24
Ambit Temp [°C] Humidity [rel%]	23.6 19
System Version	3.0.5.0
Test Specification	FCC Part 15.247
Test Method	
TC Version	0.0.2
My Description	FCC 15.247 Bandwidth 99PCT-20dB DTS - WLAN 2G4 axHE20_mode
Add. Information	

EUT Common Settings WLAN2G4	
Number of Antenna Ports	4
User Interaction	No

Test Parameter	
Technology to test	WLAN2G4 axHE20-mode
Antenna Port used	3
Temperature	nom
Voltage	nom
Frequency low to test	False Freq [MHz] 2412
Frequency mid to test	True Freq [MHz] 2437
Frequency high to test	False Freq [MHz] 2462
Auto Control enabled Power Supply Climatic Box	No No
Additional Path Loss [dB]	0.5
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer

Test Equipment	
Signal analyzer,Rohde&Schwarz,FSV-30,1321.3008K30/103809,3.70	
Signaling unit,Rohde&Schwarz,CMW,1201.0002k75/102550,4.0.61	
Switch matrix,CTCadvanced,RSM-1 NI DAQ,29655273,NI	

Test at TX 2437 MHz

RESULT: Reference Power cond.

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	23.38	dBm	INFO
Ref. Frequency	---	---	2438.300	MHz	INFO

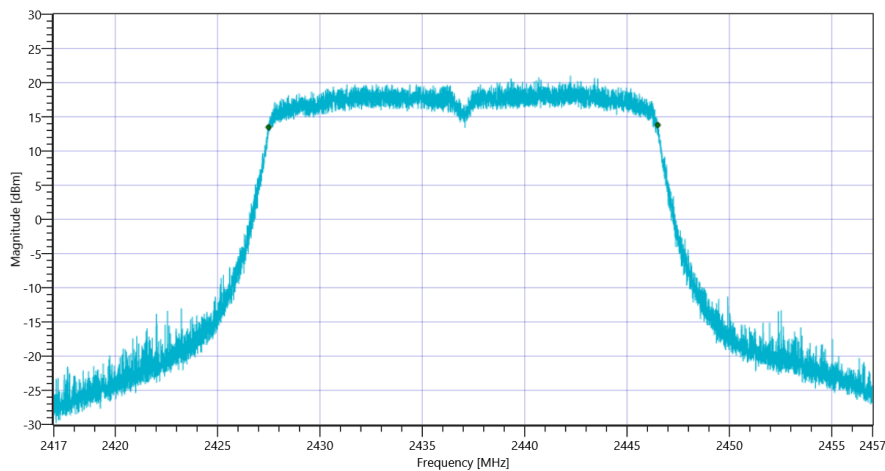
READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	28.38 10.6 35
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

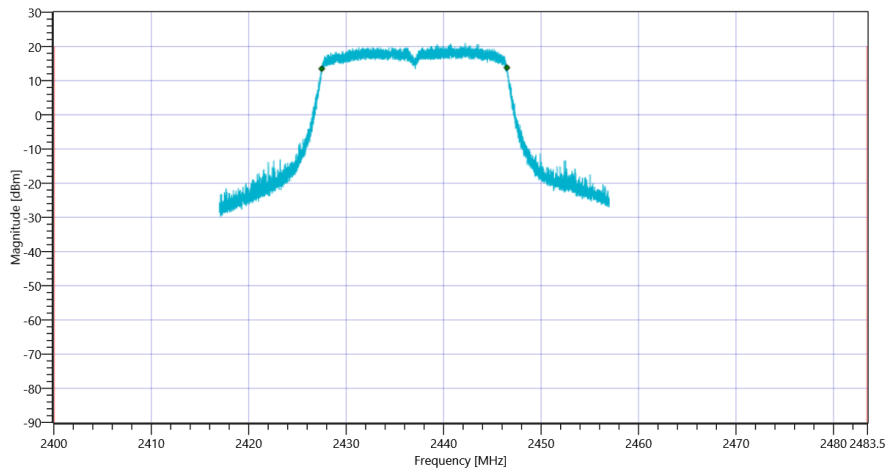
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 99%	---	---	19006.099	kHz	INFO
T1 99%	2400.000000	---	2427.4930	MHz	PASS
T2 99%	---	2483.500000	2446.4991	MHz	PASS

Plot: Bandwidth only



FCC Part 15.247 Bandwidth 99PCT-20dB ~ WLAN2G4 axHE20-mode 99PCT

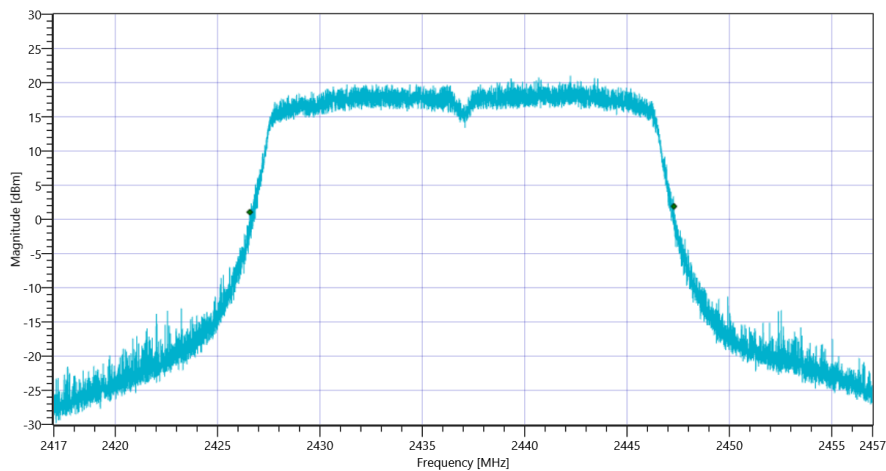
Plot: Bandwidth within Band



FCC Part 15.247 Bandwidth 99PCT-20dB ~ WLAN2G4 axHE20-mode

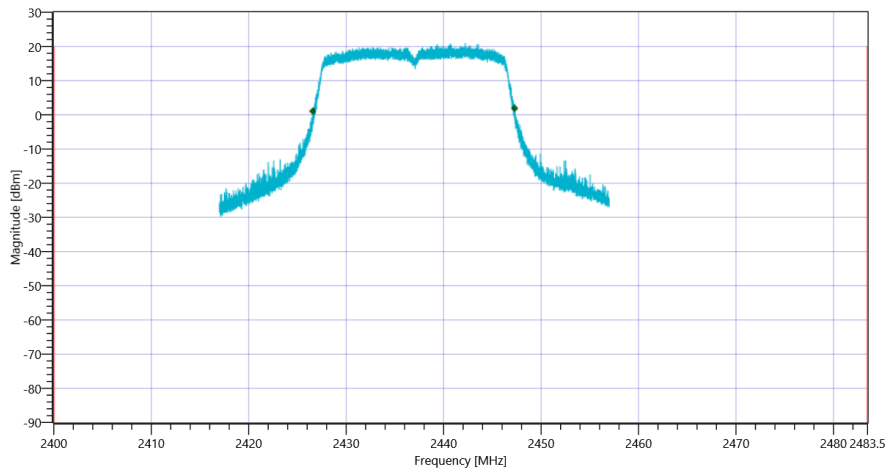
RESULT					
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 20dB	---	---	20716	kHz	INFO
T1 20dB	2400.000000	---	2426.5720	MHz	PASS
T2 20dB	---	2483.500000	2447.2880	MHz	PASS

Plot: Bandwidth only



FCC Part 15.247 Bandwidth 99PCT-20dB ~ WLAN2G4 axHE20-mode 20dB

Plot: Bandwidth within Band



FCC Part 15.247 Bandwidth 99PCT-20dB ~ WLAN2G4 axHE20-mode

General verdict

PASS