

Measurement Results

No.1-3977/22-03-03_Annex_MR_A6

Test logging

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Document authorized:

Michael Dorongovski
Lab Manager
Radio Communications

FCC 15.247 # TX spurious conducted 30dBc ~ WLAN2G4 ax-HE40

Test References

TC Start	06.12.2022 11:29:32
Ambit Temp [°C] Humidity [rel%]	23.4 30
System Version	3.3.3.0
Test Specification	FCC 15.247 -
Test Method	IF DTS then 8.5 DTS emissions in non-restricted frequency bands: Subclause 11.11 of ANSI C63.10 is applicable
TC Version	0.0.1
My Description	FCC 15.247 TX Emissions Conducted 30dBc DTS DTS - WLAN2G4 ax-HE40
Add. Information	

EUT Common Settings WLAN2G4

Number of Antenna Ports	4
User Interaction	No

Test Parameter

Technology to test	WLAN2G4 ax-HE40
Antenna Port used	4
Temperature	nom
Voltage	nom
Frequency low to test	False Freq [MHz] 2422
Frequency mid to test	False Freq [MHz] 2437
Frequency high to test	True Freq [MHz] 2452
Auto Control enabled Power Supply Climatic Box	No No
Additional Path Loss [dB]	-10
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer

Test Equipment

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

Test at TX 2452 MHz

RESULT: Reference Power cond.

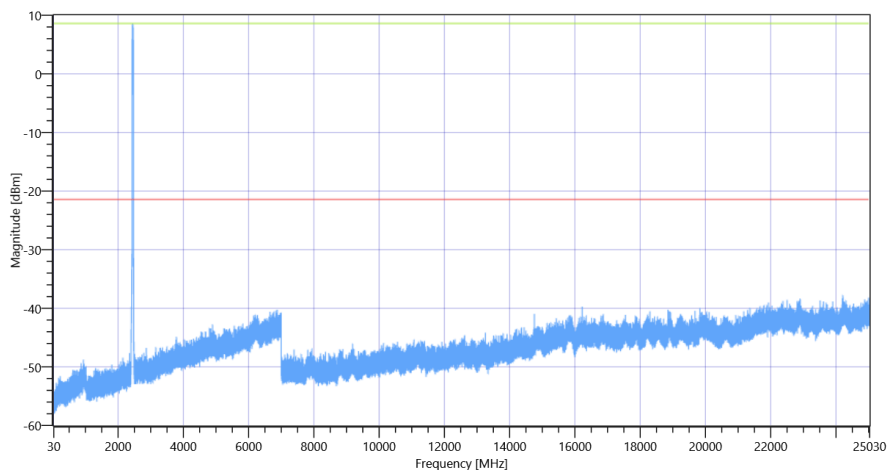
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	18.07	dBm	INFO
Ref. Frequency	---	---	2453.800	MHz	INFO

READ SA SETTINGS:

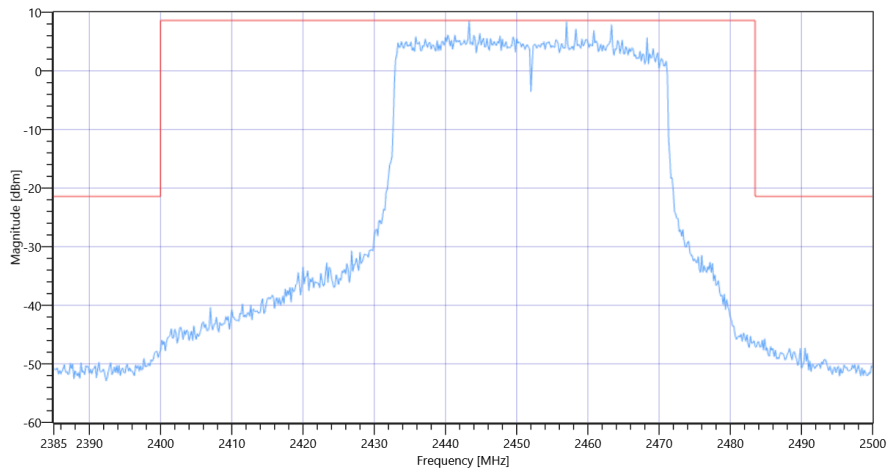
RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	18.07 0 35
Start [MHz] Stop [MHz]	24530.000 25030.000
RBW [MHz] VBW [MHz]	0.100000 0.300000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	200 25 3001 SWE

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Reference @ 2443.33 MHz	---	---	8.57	dBm	INFO
No peaks detected	---	---			PASS
Lowest margin to limit 24209.833 MHz	0	---	16.29	dB	INFO



FCC 15.247 # TX spurious conducted 30dBc ~ WLAN2G4 ax-HE40 2452



FCC 15.247 # TX spurious conducted 30dBc ~ WLAN2G4 ax-HE40 2452

FCC 15.247, ISED RSS247 # Bandwidth 99PCT and 20dB ~ WLAN2G4 ax-HE40

Test References

TC Start	06.12.2022 11:28:30
Ambit Temp [°C] Humidity [rel%]	23.4 30
System Version	3.3.3.0
Test Specification	FCC 15.247, ISED RSS247 -
Test Method	
TC Version	0.0.2
My Description	FCC 15.247 Bandwidth 99PCT-20dB DTS - WLAN2G4 ax-HE40
Add. Information	

EUT Common Settings WLAN2G4

Number of Antenna Ports	4
User Interaction	No

Test Parameter

Technology to test	WLAN2G4 ax-HE40
Antenna Port used	4
Temperature	nom
Voltage	nom
Frequency low to test	False Freq [MHz] 2422
Frequency mid to test	False Freq [MHz] 2437
Frequency high to test	True Freq [MHz] 2452
Auto Control enabled Power Supply Climatic Box	No No
Additional Path Loss [dB]	-10
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer

Test Equipment

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

Test at TX 2452 MHz

RESULT: Reference Power cond.

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	18.54	dBm	INFO
Ref. Frequency	---	---	2440.310	MHz	INFO

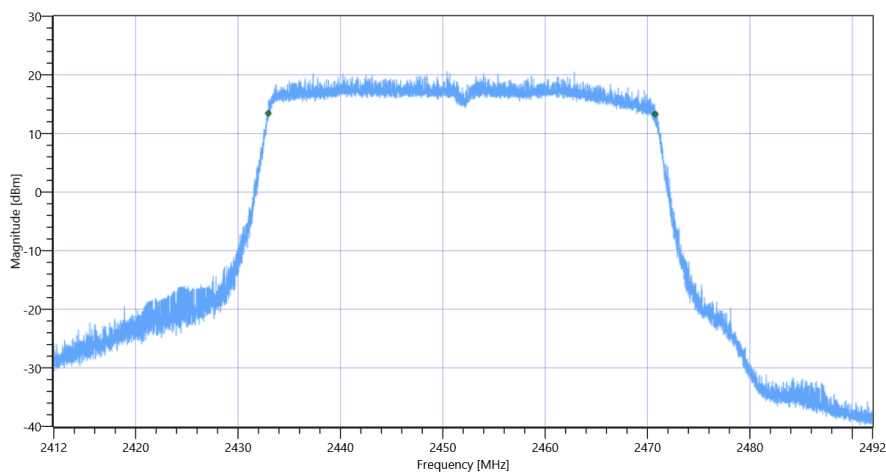
READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	23.54 4.86 35
Start [MHz] Stop [MHz]	2412.000 2492.000
RBW [MHz] VBW [MHz]	1.000000 3.000000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	50 200 10001 SWE

RESULT

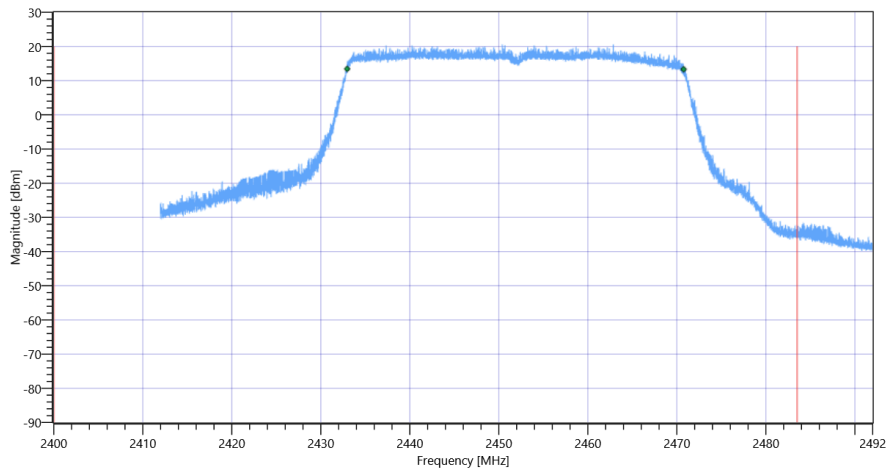
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 99%	---	---	37804.000	kHz	INFO
T1 99%	2400.000000	---	2432.9539	MHz	PASS
T2 99%	---	2483.500000	2470.7581	MHz	PASS

Plot: Bandwidth only



FCC 15.247, ISED RSS247 # Bandwidth 99PCT and 20dB ~ WLAN2G4 ax-HE40 99PCT

Plot: Bandwidth within Band

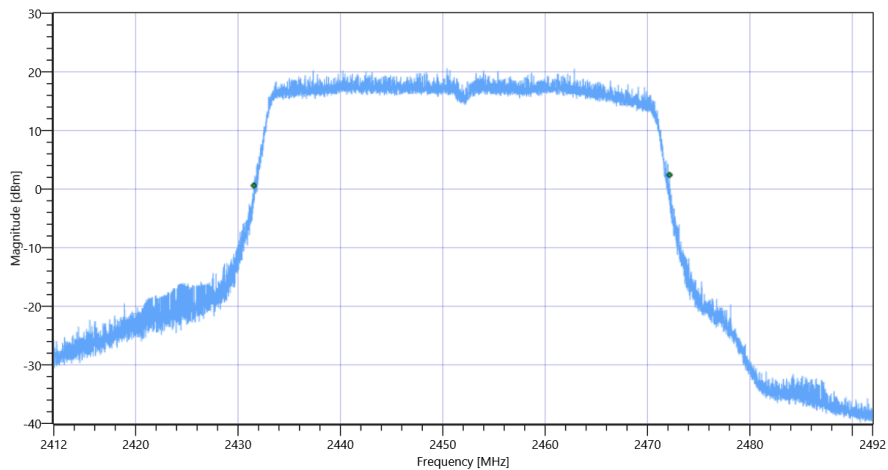


FCC 15.247, ISED RSS247 # Bandwidth 99PCT and 20dB ~ WLAN2G4 ax-HE40

RESULT

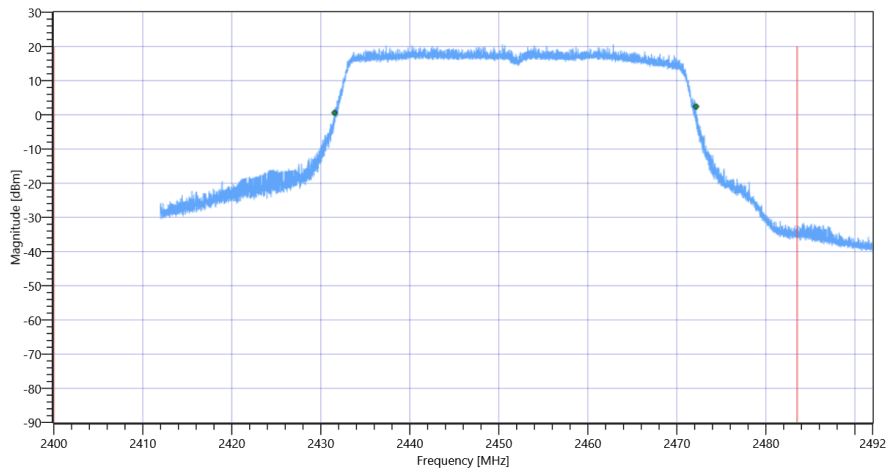
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 20dB	---	---	40608	kHz	INFO
T1 20dB	2400.000000	---	2431.5440	MHz	PASS
T2 20dB	---	2483.500000	2472.1520	MHz	PASS

Plot: Bandwidth only



FCC 15.247, ISED RSS247 # Bandwidth 99PCT and 20dB ~ WLAN2G4 ax-HE40 20dB

Plot: Bandwidth within Band



FCC 15.247, ISED RSS247 # Bandwidth 99PCT and 20dB ~ WLAN2G4 ax-HE40

FCC 15.247 # Avg power spectral density DTS ~ WLAN2G4 ax-HE40

Test References

TC Start	06.12.2022 11:26:41
Ambit Temp [°C] Humidity [rel%]	23.5 30
System Version	3.3.3.0
Test Specification	FCC 15.247 -
Test Method	ANSI C63.10-2013 Chapter 11.10.5 or.3
TC Version	0.0.1
My Description	FCC 15.247 Avg Power Spectral Density DTS - WLAN2G4 ax-HE40
Add. Information	

EUT Common Settings WLAN2G4

Number of Antenna Ports	4
User Interaction	No

Test Parameter

Technology to test	WLAN2G4 ax-HE40
Antenna Port used	4
Temperature	nom
Voltage	nom
Frequency low to test	False Freq [MHz] 2422
Frequency mid to test	False Freq [MHz] 2437
Frequency high to test	True Freq [MHz] 2452
Auto Control enabled Power Supply Climatic Box	No No
Additional Path Loss [dB]	-10
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer

Test Equipment

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

Test at TX 2452 MHz

RESULT: Reference Power cond.

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	--	--	18.58	dBm	INFO
Ref. Frequency	--	--	2447.000	MHz	INFO

Evaluation max. Duty Cycle

Duty Cycle evaluation

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

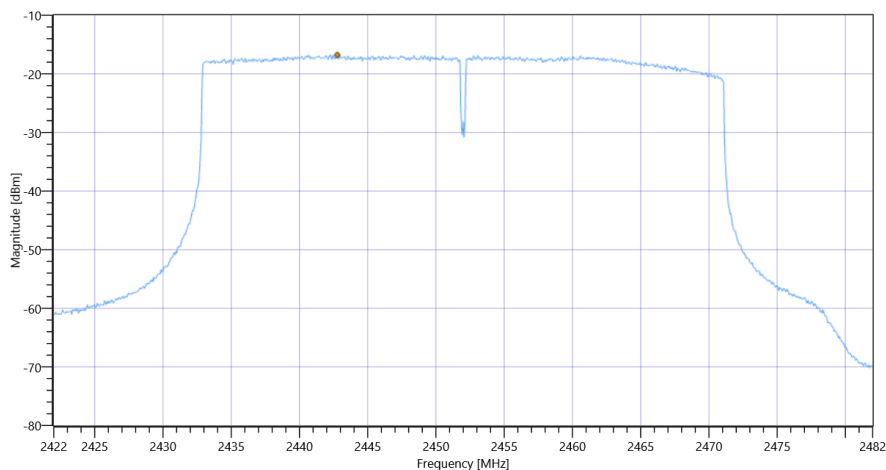
Avg. PSD

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	23.58 4.86 35
Start [MHz] Stop [MHz]	2422.000 2482.000
RBW [MHz] VBW [MHz]	0.003000 0.010000
Detector TraceMode	RMS AVER
Sweep: Time [ms] Count Points per Section Type	667 100 1001 SWE

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Avg PSD uncorrected	--	--	-16.76	dBm	INFO
Duty cycle correction	--	--	0	dB	INFO
Avg PSD DC corrected	--	8	-16.76	dBm/3kHz	PASS



FCC 15.247 # Avg power spectral density DTS ~ WLAN2G4 ax-HE40

FCC 15.247 # Bandwidth 6dB DTS ~ WLAN2G4 ax-HE40

Test References

TC Start	06.12.2022 11:26:04
Ambit Temp [°C] Humidity [rel%]	23.5 30
System Version	3.3.3.0
Test Specification	FCC 15.247 -
Test Method	
TC Version	0.0.1
My Description	FCC 15.247 Bandwidth 6dB DTS - WLAN2G4 ax-HE40
Add. Information	

EUT Common Settings WLAN2G4

Number of Antenna Ports	4
User Interaction	No

Test Parameter

Technology to test	WLAN2G4 ax-HE40
Antenna Port used	4
Temperature	nom
Voltage	nom
Frequency low to test	False Freq [MHz] 2422
Frequency mid to test	False Freq [MHz] 2437
Frequency high to test	True Freq [MHz] 2452
Auto Control enabled Power Supply Climatic Box	No No
Additional Path Loss [dB]	-10
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer

Test Equipment

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

Test at TX 2452 MHz

RESULT: Reference Power cond.

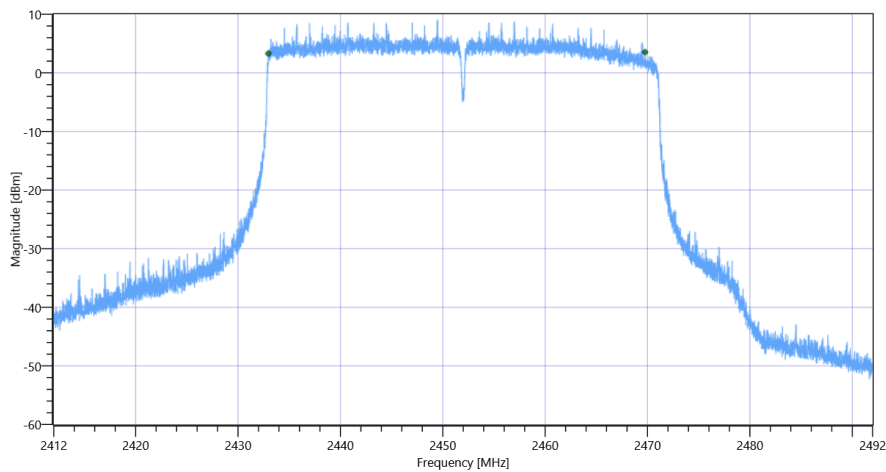
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	17.41	dBm	INFO
Ref. Frequency	---	---	2442.610	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	22.41 4.86 35
Start [MHz] Stop [MHz]	2412.000 2492.000
RBW [MHz] VBW [MHz]	0.100000 0.300000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	50 200 10001 SWE

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
DTS Bandwidth (6dB)	500	---	36784	kHz	PASS



FCC 15.247 # Bandwidth 6dB DTS ~ WLAN2G4 ax-HE40

FCC 15.247 # TX spurious conducted 30dBc ~ WLAN2G4 ax-HE40

Test References

TC Start	06.12.2022 11:15:37
Ambit Temp [°C] Humidity [rel%]	23.4 30
System Version	3.3.3.0
Test Specification	FCC 15.247 -
Test Method	IF DTS then 8.5 DTS emissions in non-restricted frequency bands: Subclause 11.11 of ANSI C63.10 is applicable
TC Version	0.0.1
My Description	FCC 15.247 TX Emissions Conducted 30dBc DTS DTS - WLAN2G4 ax-HE40
Add. Information	

EUT Common Settings WLAN2G4

Number of Antenna Ports	4
User Interaction	No

Test Parameter

Technology to test	WLAN2G4 ax-HE40
Antenna Port used	4
Temperature	nom
Voltage	nom
Frequency low to test	False Freq [MHz] 2422
Frequency mid to test	False Freq [MHz] 2437
Frequency high to test	True Freq [MHz] 2452
Auto Control enabled Power Supply Climatic Box	No No
Additional Path Loss [dB]	-10
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer

Test Equipment

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

Test at TX 2452 MHz

RESULT: Reference Power cond.

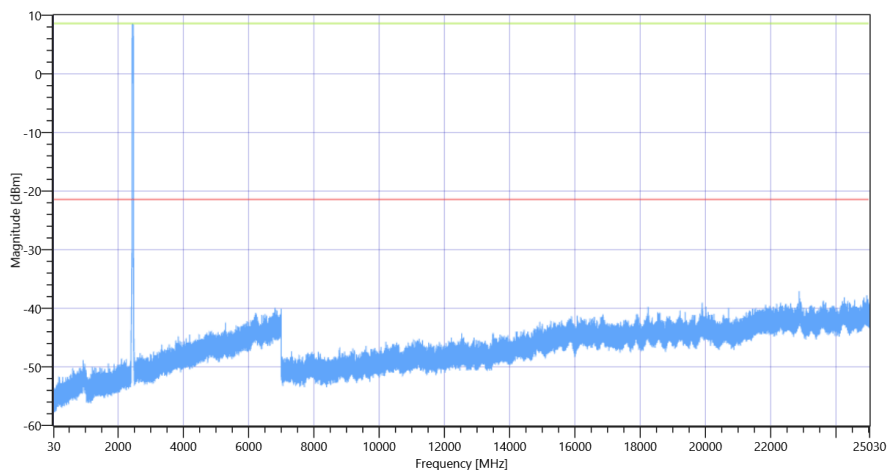
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	17.68	dBm	INFO
Ref. Frequency	---	---	2445.210	MHz	INFO

READ SA SETTINGS:

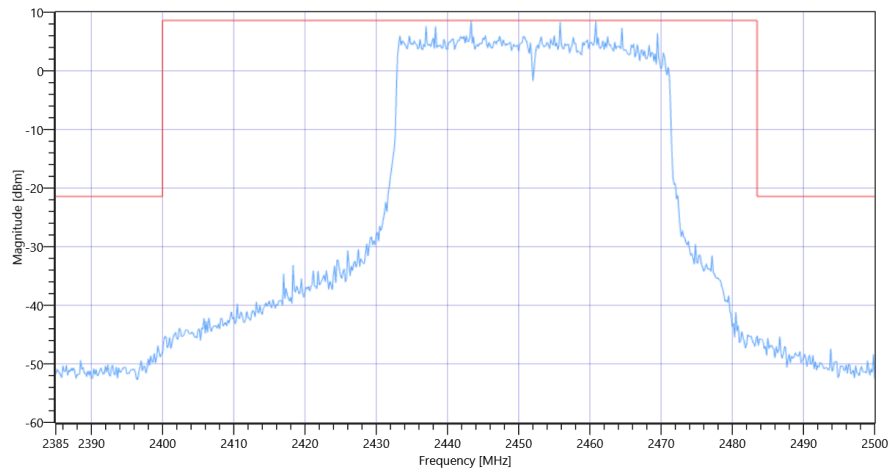
RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	17.68 0 35
Start [MHz] Stop [MHz]	24530.000 25030.000
RBW [MHz] VBW [MHz]	0.100000 0.300000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	200 25 3001 SWE

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Reference @ 2443.33 MHz	---	---	8.58	dBm	INFO
No peaks detected	---	---			PASS
Lowest margin to limit 30 MHz	0	---	-145.16	dB	INFO



FCC 15.247 # TX spurious conducted 30dBc ~ WLAN2G4 ax-HE40 2452



FCC 15.247 # TX spurious conducted 30dBc ~ WLAN2G4 ax-HE40 2452

FCC 15.247, ISED RSS247 # Bandwidth 99PCT and 20dB ~ WLAN2G4 ax-HE40

Test References

TC Start	06.12.2022 11:14:35
Ambit Temp [°C] Humidity [rel%]	23.3 30
System Version	3.3.3.0
Test Specification	FCC 15.247, ISED RSS247 -
Test Method	
TC Version	0.0.2
My Description	FCC 15.247 Bandwidth 99PCT-20dB DTS - WLAN2G4 ax-HE40
Add. Information	

EUT Common Settings WLAN2G4

Number of Antenna Ports	4
User Interaction	No

Test Parameter

Technology to test	WLAN2G4 ax-HE40
Antenna Port used	3
Temperature	nom
Voltage	nom
Frequency low to test	False Freq [MHz] 2422
Frequency mid to test	False Freq [MHz] 2437
Frequency high to test	True Freq [MHz] 2452
Auto Control enabled Power Supply Climatic Box	No No
Additional Path Loss [dB]	-10
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer

Test Equipment

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

Test at TX 2452 MHz

RESULT: Reference Power cond.

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	18.32	dBm	INFO
Ref. Frequency	---	---	2458.190	MHz	INFO

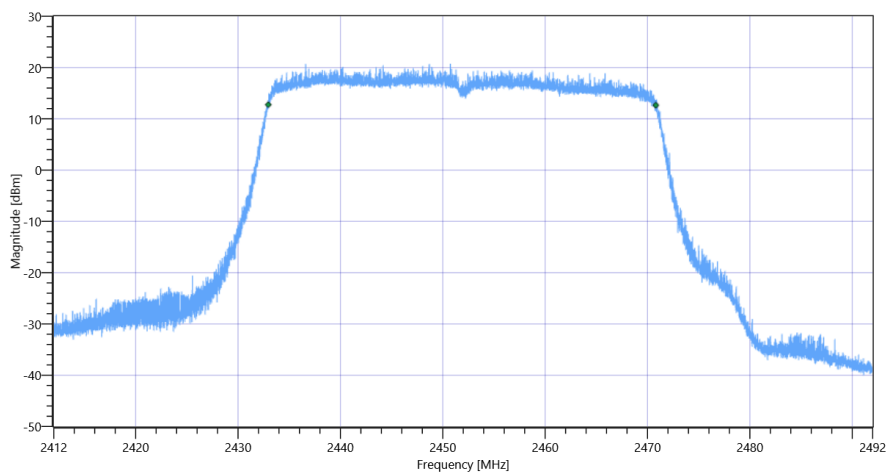
READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	23.32 4.86 35
Start [MHz] Stop [MHz]	2412.000 2492.000
RBW [MHz] VBW [MHz]	1.000000 3.000000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	50 200 10001 SWE

RESULT

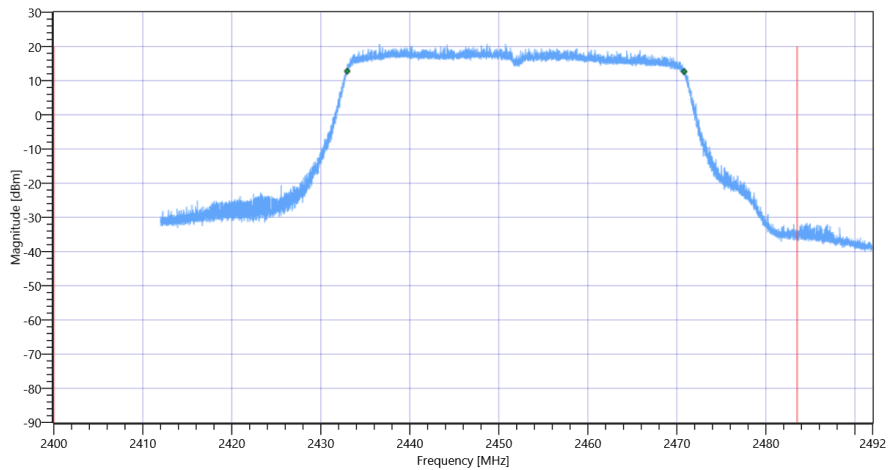
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 99%	---	---	37860.000	kHz	INFO
T1 99%	2400.000000	---	2432.9539	MHz	PASS
T2 99%	---	2483.500000	2470.8141	MHz	PASS

Plot: Bandwidth only



FCC 15.247, ISED RSS247 # Bandwidth 99PCT and 20dB ~ WLAN2G4 ax-HE40 99PCT

Plot: Bandwidth within Band

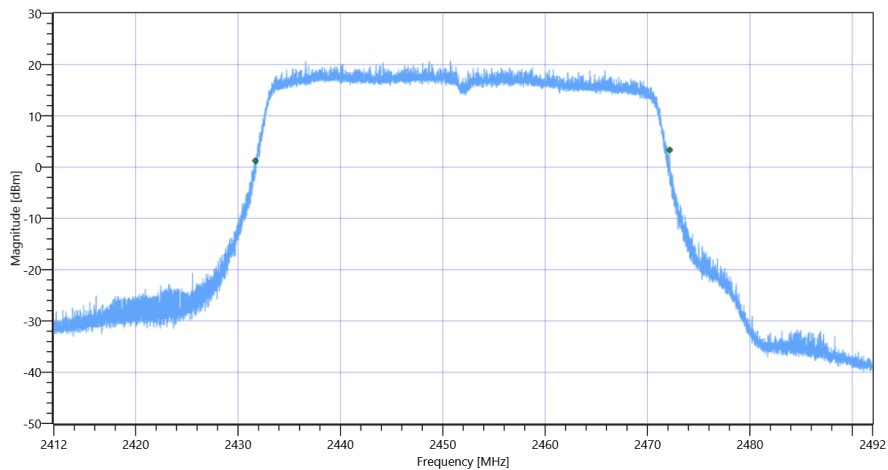


FCC 15.247, ISED RSS247 # Bandwidth 99PCT and 20dB ~ WLAN2G4 ax-HE40

RESULT

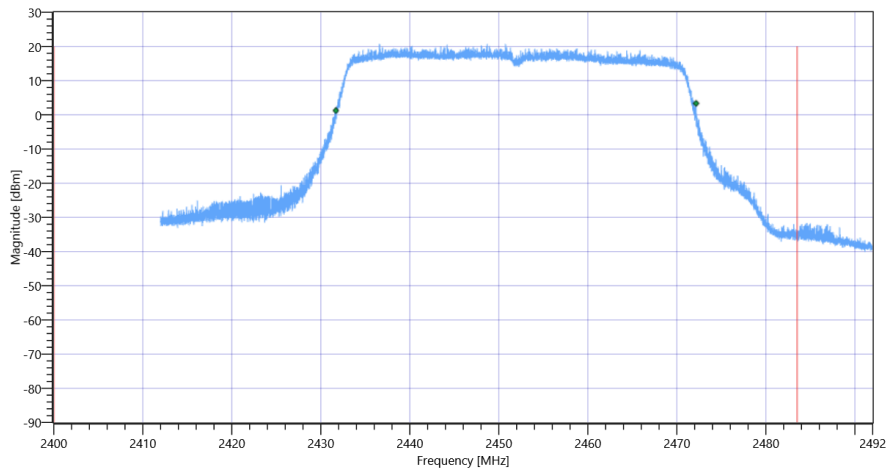
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 20dB	---	---	40472	kHz	INFO
T1 20dB	2400.000000	---	2431.6880	MHz	PASS
T2 20dB	---	2483.500000	2472.1600	MHz	PASS

Plot: Bandwidth only



FCC 15.247, ISED RSS247 # Bandwidth 99PCT and 20dB ~ WLAN2G4 ax-HE40 20dB

Plot: Bandwidth within Band



FCC 15.247, ISED RSS247 # Bandwidth 99PCT and 20dB ~ WLAN2G4 ax-HE40

FCC 15.247 # Avg power spectral density DTS ~ WLAN2G4 ax-HE40

Test References

TC Start	06.12.2022 11:12:47
Ambit Temp [°C] Humidity [rel%]	23.3 30
System Version	3.3.3.0
Test Specification	FCC 15.247 -
Test Method	ANSI C63.10-2013 Chapter 11.10.5 or.3
TC Version	0.0.1
My Description	FCC 15.247 Avg Power Spectral Density DTS - WLAN2G4 ax-HE40
Add. Information	

EUT Common Settings WLAN2G4

Number of Antenna Ports	4
User Interaction	No

Test Parameter

Technology to test	WLAN2G4 ax-HE40
Antenna Port used	3
Temperature	nom
Voltage	nom
Frequency low to test	False Freq [MHz] 2422
Frequency mid to test	False Freq [MHz] 2437
Frequency high to test	True Freq [MHz] 2452
Auto Control enabled Power Supply Climatic Box	No No
Additional Path Loss [dB]	-10
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer

Test Equipment

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

Test at TX 2452 MHz

RESULT: Reference Power cond.

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	--	--	17.94	dBm	INFO
Ref. Frequency	--	--	2438.210	MHz	INFO

Evaluation max. Duty Cycle

Duty Cycle evaluation

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

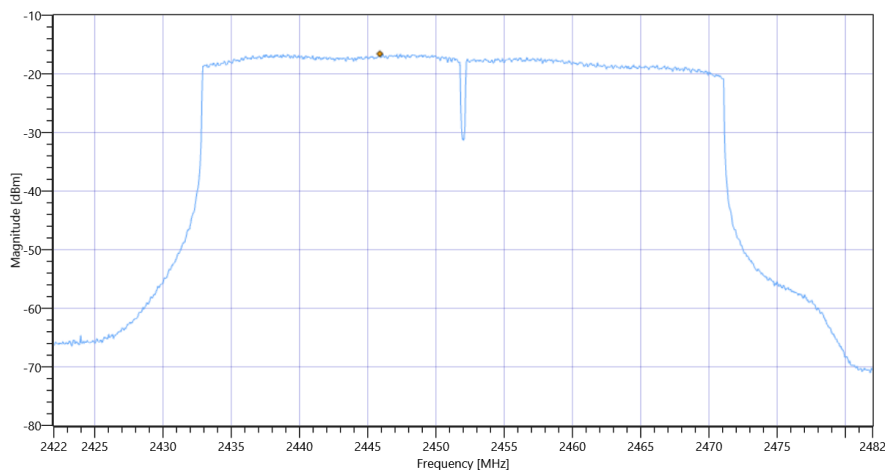
Avg. PSD

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	22.94 4.86 35
Start [MHz] Stop [MHz]	2422.000 2482.000
RBW [MHz] VBW [MHz]	0.003000 0.010000
Detector TraceMode	RMS AVER
Sweep: Time [ms] Count Points per Section Type	667 100 1001 SWE

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Avg PSD uncorrected	--	--	-16.57	dBm	INFO
Duty cycle correction	--	--	0	dB	INFO
Avg PSD DC corrected	--	8	-16.57	dBm/3kHz	PASS



FCC 15.247 # Avg power spectral density DTS ~ WLAN2G4 ax-HE40

FCC 15.247 # Bandwidth 6dB DTS ~ WLAN2G4 ax-HE40

Test References

TC Start	06.12.2022 11:12:09
Ambit Temp [°C] Humidity [rel%]	23.3 31
System Version	3.3.3.0
Test Specification	FCC 15.247 -
Test Method	
TC Version	0.0.1
My Description	FCC 15.247 Bandwidth 6dB DTS - WLAN2G4 ax-HE40
Add. Information	

EUT Common Settings WLAN2G4

Number of Antenna Ports	4
User Interaction	No

Test Parameter

Technology to test	WLAN2G4 ax-HE40
Antenna Port used	3
Temperature	nom
Voltage	nom
Frequency low to test	False Freq [MHz] 2422
Frequency mid to test	False Freq [MHz] 2437
Frequency high to test	True Freq [MHz] 2452
Auto Control enabled Power Supply Climatic Box	No No
Additional Path Loss [dB]	-10
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer

Test Equipment

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

Test at TX 2452 MHz

RESULT: Reference Power cond.

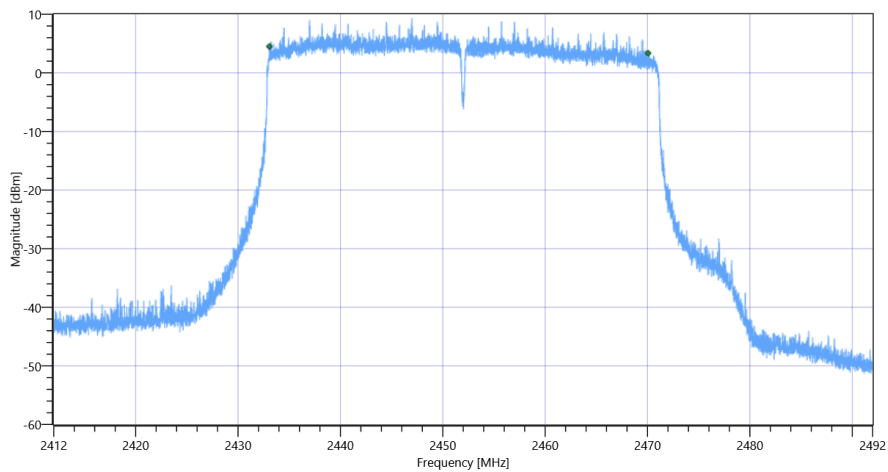
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	18.14	dBm	INFO
Ref. Frequency	---	---	2446.910	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	23.14 4.86 35
Start [MHz] Stop [MHz]	2412.000 2492.000
RBW [MHz] VBW [MHz]	0.100000 0.300000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	50 200 10001 SWE

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
DTS Bandwidth (6dB)	500	---	36992	kHz	PASS



FCC 15.247 # Bandwidth 6dB DTS ~ WLAN2G4 ax-HE40

FCC 15.247 # TX spurious conducted 30dBc ~ WLAN2G4 ax-HE40

Test References

TC Start	06.12.2022 11:01:44
Ambit Temp [°C] Humidity [rel%]	23.2 31
System Version	3.3.3.0
Test Specification	FCC 15.247 -
Test Method	IF DTS then 8.5 DTS emissions in non-restricted frequency bands: Subclause 11.11 of ANSI C63.10 is applicable
TC Version	0.0.1
My Description	FCC 15.247 TX Emissions Conducted 30dBc DTS DTS - WLAN2G4 ax-HE40
Add. Information	

EUT Common Settings WLAN2G4

Number of Antenna Ports	4
User Interaction	No

Test Parameter

Technology to test	WLAN2G4 ax-HE40
Antenna Port used	2
Temperature	nom
Voltage	nom
Frequency low to test	False Freq [MHz] 2422
Frequency mid to test	False Freq [MHz] 2437
Frequency high to test	True Freq [MHz] 2452
Auto Control enabled Power Supply Climatic Box	No No
Additional Path Loss [dB]	-10
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer

Test Equipment

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

Test at TX 2452 MHz

RESULT: Reference Power cond.

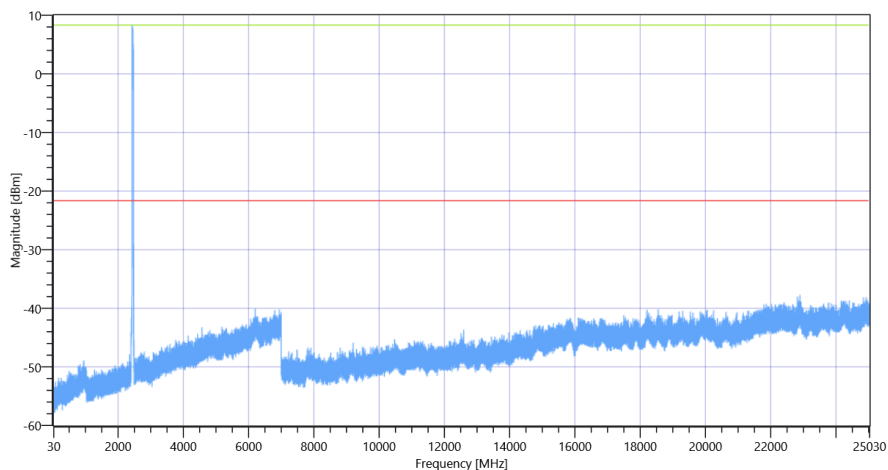
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	18.93	dBm	INFO
Ref. Frequency	---	---	2441.910	MHz	INFO

READ SA SETTINGS:

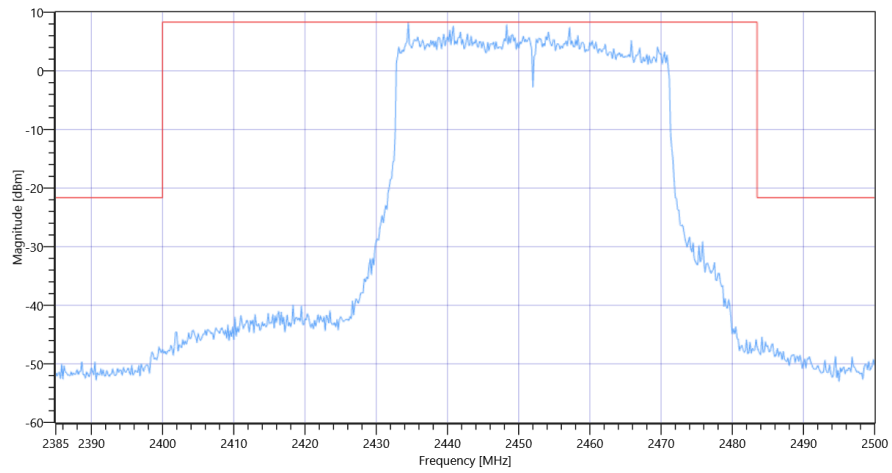
RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	18.93 0 35
Start [MHz] Stop [MHz]	24530.000 25030.000
RBW [MHz] VBW [MHz]	0.100000 0.300000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	200 25 3001 SWE

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Reference @ 2434.50 MHz	---	---	8.34	dBm	INFO
No peaks detected	---	---			PASS
Lowest margin to limit 22896.333 MHz	0	---	16.07	dB	INFO



FCC 15.247 # TX spurious conducted 30dBc ~ WLAN2G4 ax-HE40 2452



FCC 15.247 # TX spurious conducted 30dBc ~ WLAN2G4 ax-HE40 2452

FCC 15.247, ISED RSS247 # Bandwidth 99PCT and 20dB ~ WLAN2G4 ax-HE40

Test References

TC Start	06.12.2022 11:00:42
Ambit Temp [°C] Humidity [rel%]	23.1 31
System Version	3.3.3.0
Test Specification	FCC 15.247, ISED RSS247 -
Test Method	
TC Version	0.0.2
My Description	FCC 15.247 Bandwidth 99PCT-20dB DTS - WLAN2G4 ax-HE40
Add. Information	

EUT Common Settings WLAN2G4

Number of Antenna Ports	4
User Interaction	No

Test Parameter

Technology to test	WLAN2G4 ax-HE40
Antenna Port used	2
Temperature	nom
Voltage	nom
Frequency low to test	False Freq [MHz] 2422
Frequency mid to test	False Freq [MHz] 2437
Frequency high to test	True Freq [MHz] 2452
Auto Control enabled Power Supply Climatic Box	No No
Additional Path Loss [dB]	-10
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer

Test Equipment

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

Test at TX 2452 MHz

RESULT: Reference Power cond.

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	18.05	dBm	INFO
Ref. Frequency	---	---	2435.920	MHz	INFO

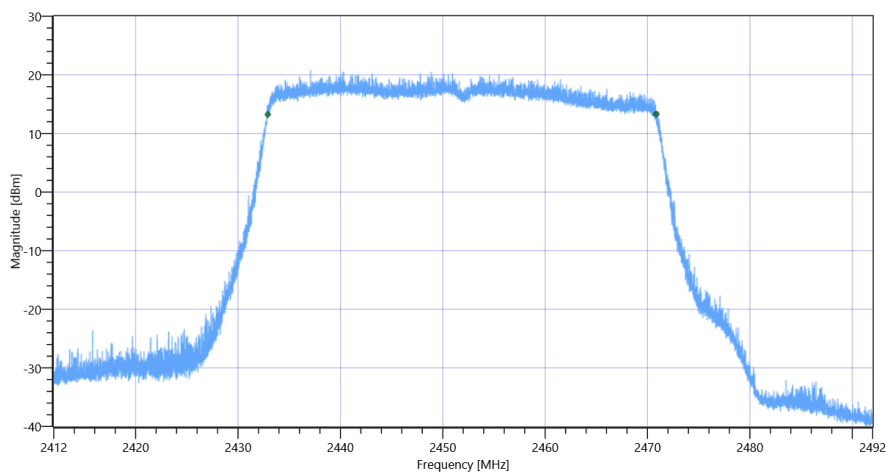
READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	23.05 4.86 35
Start [MHz] Stop [MHz]	2412.000 2492.000
RBW [MHz] VBW [MHz]	1.000000 3.000000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	50 200 10001 SWE

RESULT

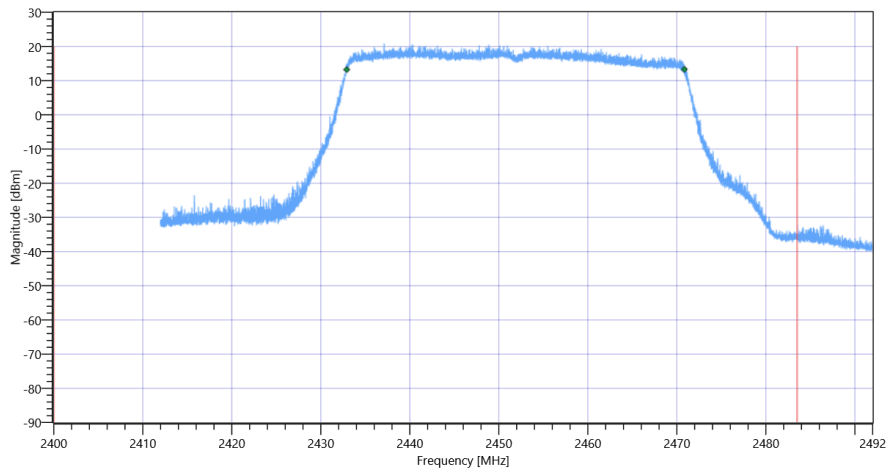
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 99%	---	---	37940.000	kHz	INFO
T1 99%	2400.000000	---	2432.9059	MHz	PASS
T2 99%	---	2483.500000	2470.8461	MHz	PASS

Plot: Bandwidth only



FCC 15.247, ISED RSS247 # Bandwidth 99PCT and 20dB ~ WLAN2G4 ax-HE40 99PCT

Plot: Bandwidth within Band

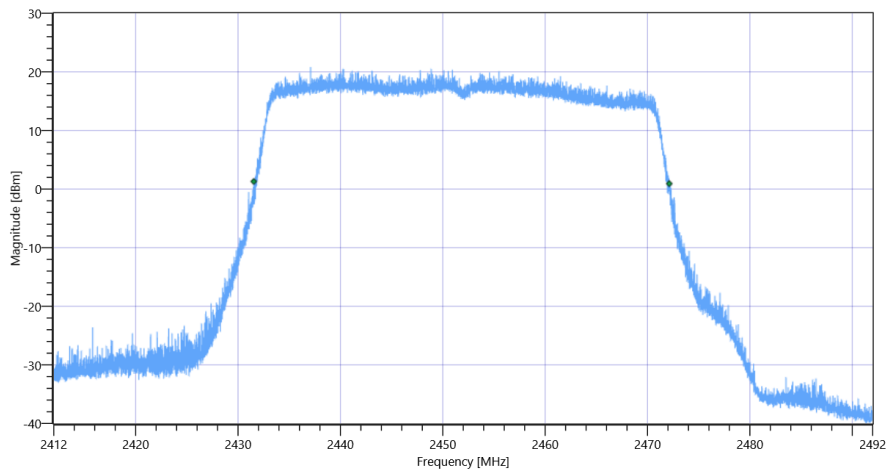


FCC 15.247, ISED RSS247 # Bandwidth 99PCT and 20dB ~ WLAN2G4 ax-HE40

RESULT

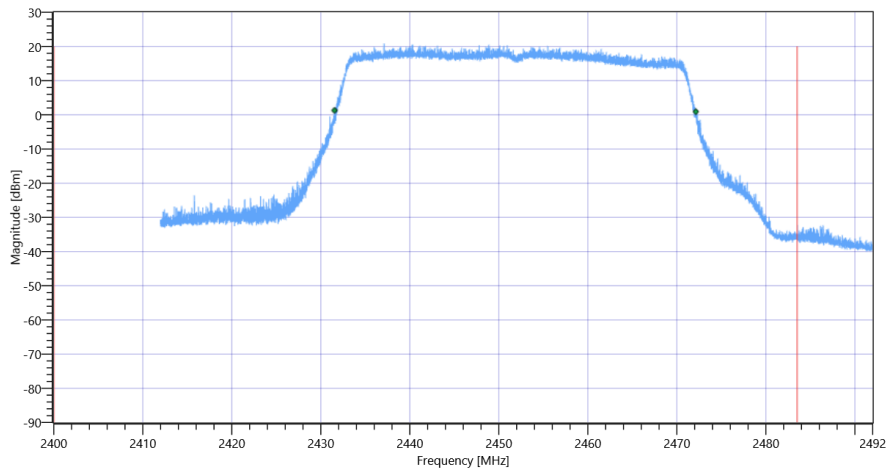
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 20dB	---	---	40592	kHz	INFO
T1 20dB	2400.000000	---	2431.5360	MHz	PASS
T2 20dB	---	2483.500000	2472.1280	MHz	PASS

Plot: Bandwidth only



FCC 15.247, ISED RSS247 # Bandwidth 99PCT and 20dB ~ WLAN2G4 ax-HE40 20dB

Plot: Bandwidth within Band



FCC 15.247, ISED RSS247 # Bandwidth 99PCT and 20dB ~ WLAN2G4 ax-HE40

FCC 15.247 # Avg power spectral density DTS ~ WLAN2G4 ax-HE40

Test References

TC Start	06.12.2022 10:58:53
Ambit Temp [°C] Humidity [rel%]	23.1 31
System Version	3.3.3.0
Test Specification	FCC 15.247 -
Test Method	ANSI C63.10-2013 Chapter 11.10.5 or.3
TC Version	0.0.1
My Description	FCC 15.247 Avg Power Spectral Density DTS - WLAN2G4 ax-HE40
Add. Information	

EUT Common Settings WLAN2G4

Number of Antenna Ports	4
User Interaction	No

Test Parameter

Technology to test	WLAN2G4 ax-HE40
Antenna Port used	2
Temperature	nom
Voltage	nom
Frequency low to test	False Freq [MHz] 2422
Frequency mid to test	False Freq [MHz] 2437
Frequency high to test	True Freq [MHz] 2452
Auto Control enabled Power Supply Climatic Box	No No
Additional Path Loss [dB]	-10
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer

Test Equipment

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

Test at TX 2452 MHz

RESULT: Reference Power cond.

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	--	--	17.61	dBm	INFO
Ref. Frequency	--	--	2458.290	MHz	INFO

Evaluation max. Duty Cycle

Duty Cycle evaluation

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

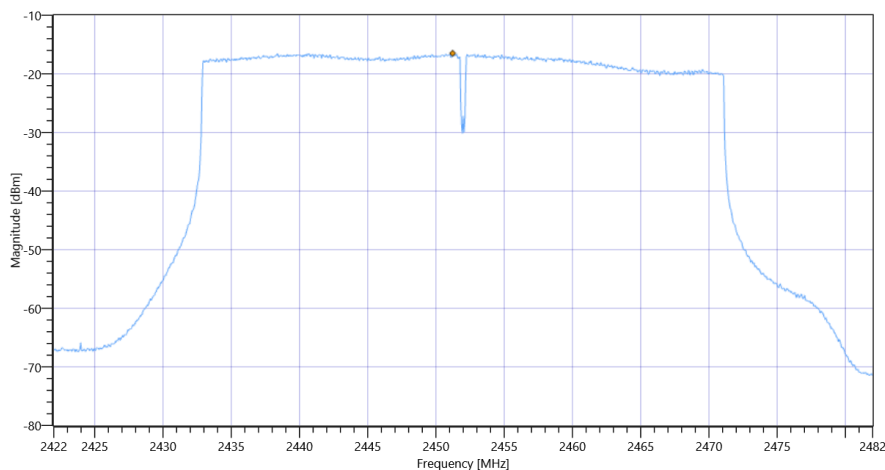
Avg. PSD

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	22.61 4.86 35
Start [MHz] Stop [MHz]	2422.000 2482.000
RBW [MHz] VBW [MHz]	0.003000 0.010000
Detector TraceMode	RMS AVER
Sweep: Time [ms] Count Points per Section Type	667 100 1001 SWE

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Avg PSD uncorrected	--	--	-16.49	dBm	INFO
Duty cycle correction	--	--	0	dB	INFO
Avg PSD DC corrected	--	8	-16.49	dBm/3kHz	PASS



FCC 15.247 # Avg power spectral density DTS ~ WLAN2G4 ax-HE40

FCC 15.247 # Bandwidth 6dB DTS ~ WLAN2G4 ax-HE40

Test References

TC Start	06.12.2022 10:58:17
Ambit Temp [°C] Humidity [rel%]	23.1 31
System Version	3.3.3.0
Test Specification	FCC 15.247 -
Test Method	
TC Version	0.0.1
My Description	FCC 15.247 Bandwidth 6dB DTS - WLAN2G4 ax-HE40
Add. Information	

EUT Common Settings WLAN2G4

Number of Antenna Ports	4
User Interaction	No

Test Parameter

Technology to test	WLAN2G4 ax-HE40
Antenna Port used	2
Temperature	nom
Voltage	nom
Frequency low to test	False Freq [MHz] 2422
Frequency mid to test	False Freq [MHz] 2437
Frequency high to test	True Freq [MHz] 2452
Auto Control enabled Power Supply Climatic Box	No No
Additional Path Loss [dB]	-10
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer

Test Equipment

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

Test at TX 2452 MHz

RESULT: Reference Power cond.

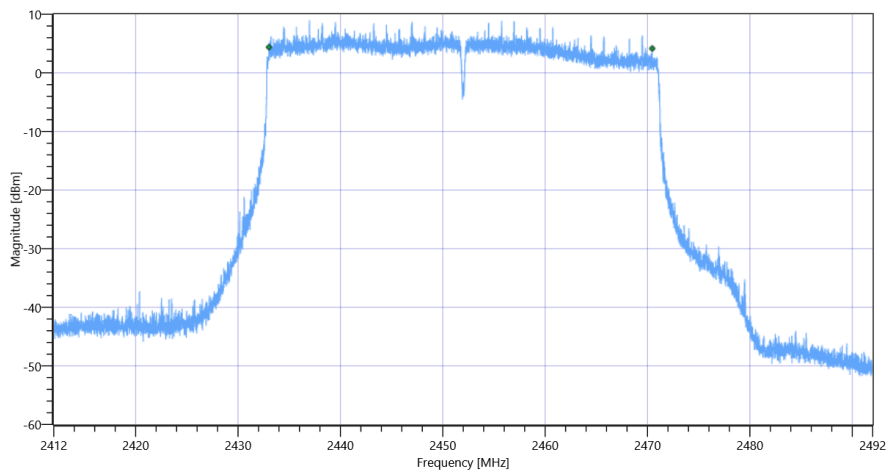
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	--	--	18.08	dBm	INFO
Ref. Frequency	--	--	2452.800	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	23.08 4.86 35
Start [MHz] Stop [MHz]	2412.000 2492.000
RBW [MHz] VBW [MHz]	0.100000 0.300000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	50 200 10001 SWE

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
DTS Bandwidth (6dB)	500	--	37440	kHz	PASS



FCC 15.247 # Bandwidth 6dB DTS ~ WLAN2G4 ax-HE40

FCC 15.247 # TX spurious conducted 30dBc ~ WLAN2G4 ax-HE40

Test References

TC Start	06.12.2022 10:47:52
Ambit Temp [°C] Humidity [rel%]	23.1 30
System Version	3.3.3.0
Test Specification	FCC 15.247 -
Test Method	IF DTS then 8.5 DTS emissions in non-restricted frequency bands: Subclause 11.11 of ANSI C63.10 is applicable
TC Version	0.0.1
My Description	FCC 15.247 TX Emissions Conducted 30dBc DTS DTS - WLAN2G4 ax-HE40
Add. Information	

EUT Common Settings WLAN2G4

Number of Antenna Ports	4
User Interaction	No

Test Parameter

Technology to test	WLAN2G4 ax-HE40
Antenna Port used	1
Temperature	nom
Voltage	nom
Frequency low to test	False Freq [MHz] 2422
Frequency mid to test	False Freq [MHz] 2437
Frequency high to test	True Freq [MHz] 2452
Auto Control enabled Power Supply Climatic Box	No No
Additional Path Loss [dB]	-10
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer

Test Equipment

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

Test at TX 2452 MHz

RESULT: Reference Power cond.

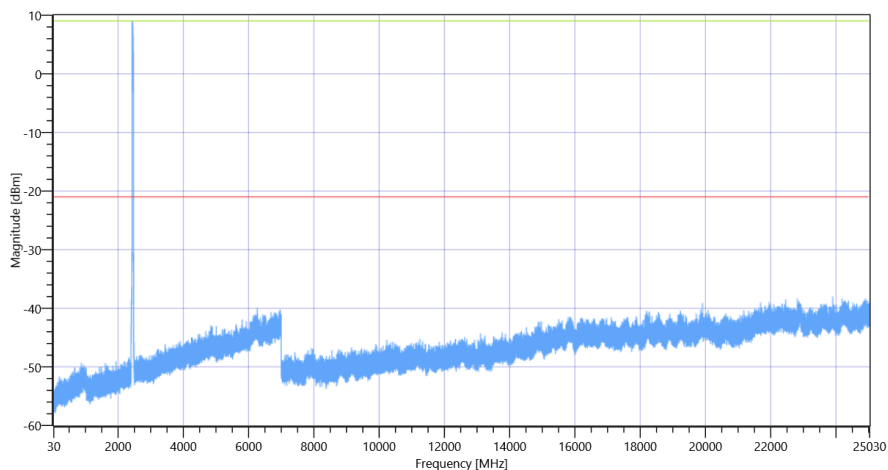
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	--	--	19.33	dBm	INFO
Ref. Frequency	--	--	2438.710	MHz	INFO

READ SA SETTINGS:

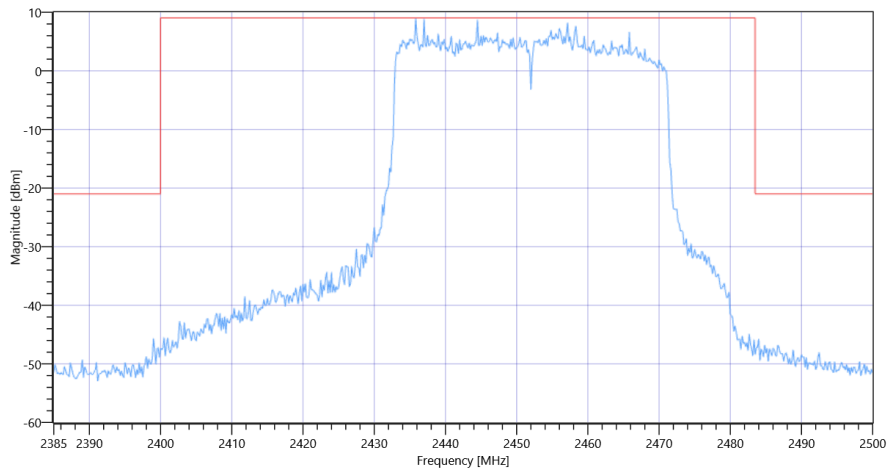
RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	19.33 0 35
Start [MHz] Stop [MHz]	24530.000 25030.000
RBW [MHz] VBW [MHz]	0.100000 0.300000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	200 25 3001 SWE

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Reference @ 2435.83 MHz	--	--	9.03	dBm	INFO
No peaks detected	--	--			PASS
Lowest margin to limit 23898.167 MHz	0	--	17.01	dB	INFO



FCC 15.247 # TX spurious conducted 30dBc ~ WLAN2G4 ax-HE40 2452



FCC 15.247 # TX spurious conducted 30dBc ~ WLAN2G4 ax-HE40 2452

FCC 15.247, ISED RSS247 # Bandwidth 99PCT and 20dB ~ WLAN2G4 ax-HE40

Test References

TC Start	06.12.2022 10:46:51
Ambit Temp [°C] Humidity [rel%]	23.1 30
System Version	3.3.3.0
Test Specification	FCC 15.247, ISED RSS247 -
Test Method	
TC Version	0.0.2
My Description	FCC 15.247 Bandwidth 99PCT-20dB DTS - WLAN2G4 ax-HE40
Add. Information	

EUT Common Settings WLAN2G4

Number of Antenna Ports	4
User Interaction	No

Test Parameter

Technology to test	WLAN2G4 ax-HE40
Antenna Port used	1
Temperature	nom
Voltage	nom
Frequency low to test	False Freq [MHz] 2422
Frequency mid to test	False Freq [MHz] 2437
Frequency high to test	True Freq [MHz] 2452
Auto Control enabled Power Supply Climatic Box	No No
Additional Path Loss [dB]	-10
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer

Test Equipment

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

Test at TX 2452 MHz

RESULT: Reference Power cond.

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	17.26	dBm	INFO
Ref. Frequency	---	---	2445.910	MHz	INFO

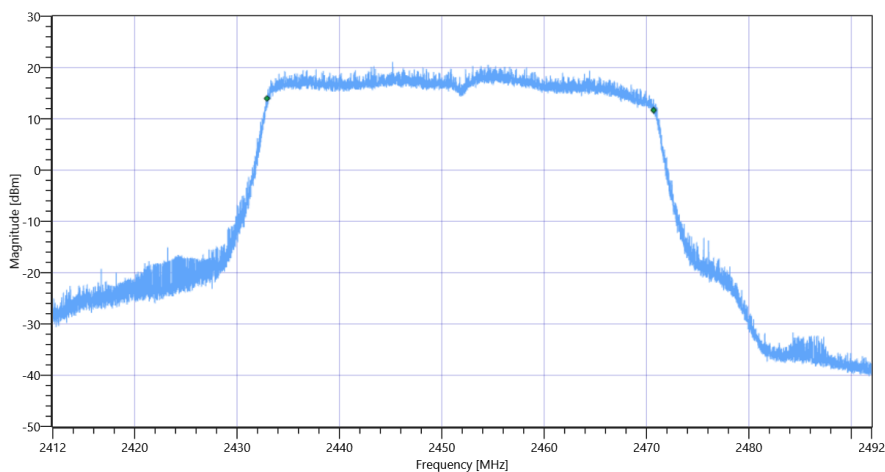
READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	22.26 4.86 35
Start [MHz] Stop [MHz]	2412.000 2492.000
RBW [MHz] VBW [MHz]	1.000000 3.000000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	50 200 10001 SWE

RESULT

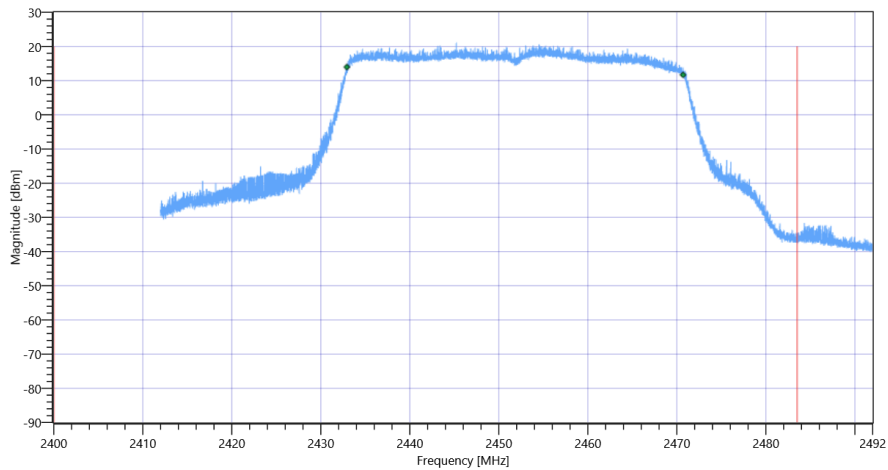
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 99%	---	---	37772.000	kHz	INFO
T1 99%	2400.000000	---	2432.9219	MHz	PASS
T2 99%	---	2483.500000	2470.6941	MHz	PASS

Plot: Bandwidth only



FCC 15.247, ISED RSS247 # Bandwidth 99PCT and 20dB ~ WLAN2G4 ax-HE40 99PCT

Plot: Bandwidth within Band

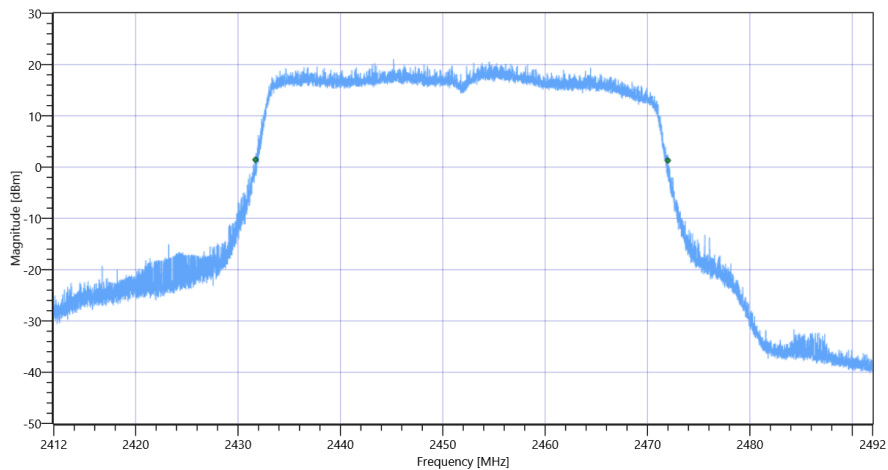


FCC 15.247, ISED RSS247 # Bandwidth 99PCT and 20dB ~ WLAN2G4 ax-HE40

RESULT

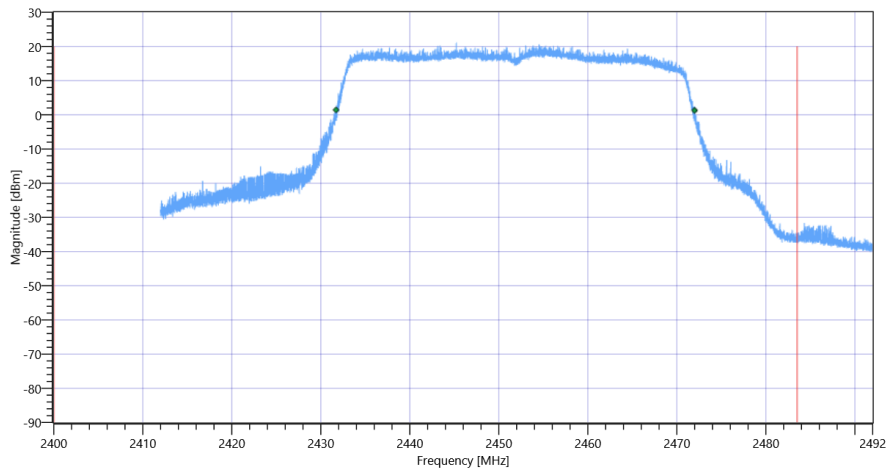
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 20dB	---	---	40280	kHz	INFO
T1 20dB	2400.000000	---	2431.7040	MHz	PASS
T2 20dB	---	2483.500000	2471.9840	MHz	PASS

Plot: Bandwidth only



FCC 15.247, ISED RSS247 # Bandwidth 99PCT and 20dB ~ WLAN2G4 ax-HE40 20dB

Plot: Bandwidth within Band



FCC 15.247, ISED RSS247 # Bandwidth 99PCT and 20dB ~ WLAN2G4 ax-HE40

FCC 15.247 # Avg power spectral density DTS ~ WLAN2G4 ax-HE40

Test References

TC Start	06.12.2022 10:45:03
Ambit Temp [°C] Humidity [rel%]	23.1 29
System Version	3.3.3.0
Test Specification	FCC 15.247 -
Test Method	ANSI C63.10-2013 Chapter 11.10.5 or.3
TC Version	0.0.1
My Description	FCC 15.247 Avg Power Spectral Density DTS - WLAN2G4 ax-HE40
Add. Information	

EUT Common Settings WLAN2G4

Number of Antenna Ports	4
User Interaction	No

Test Parameter

Technology to test	WLAN2G4 ax-HE40
Antenna Port used	1
Temperature	nom
Voltage	nom
Frequency low to test	False Freq [MHz] 2422
Frequency mid to test	False Freq [MHz] 2437
Frequency high to test	True Freq [MHz] 2452
Auto Control enabled Power Supply Climatic Box	No No
Additional Path Loss [dB]	-10
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer

Test Equipment

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

Test at TX 2452 MHz

RESULT: Reference Power cond.

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	--	--	17.55	dBm	INFO
Ref. Frequency	--	--	2455.700	MHz	INFO

Evaluation max. Duty Cycle

Duty Cycle evaluation

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

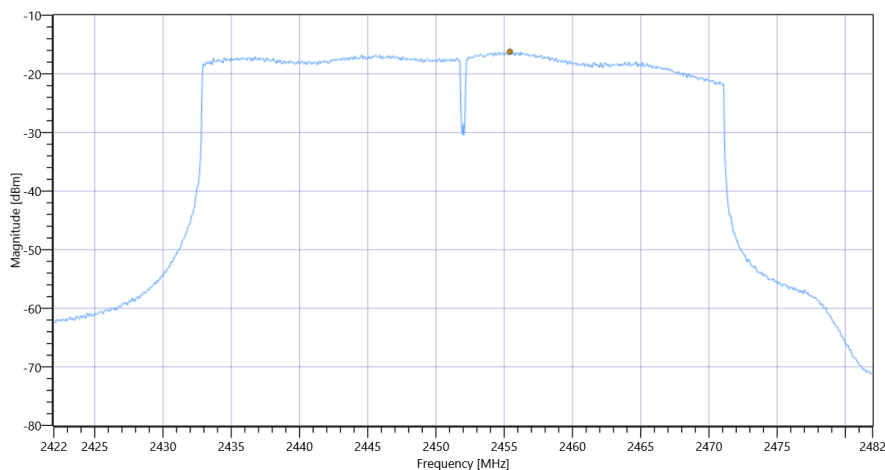
Avg. PSD

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	22.55 4.86 35
Start [MHz] Stop [MHz]	2422.000 2482.000
RBW [MHz] VBW [MHz]	0.003000 0.010000
Detector TraceMode	RMS AVER
Sweep: Time [ms] Count Points per Section Type	667 100 1001 SWE

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Avg PSD uncorrected	--	--	-16.2	dBm	INFO
Duty cycle correction	--	--	0	dB	INFO
Avg PSD DC corrected	--	8	-16.2	dBm/3kHz	PASS



FCC 15.247 # Avg power spectral density DTS ~ WLAN2G4 ax-HE40

FCC 15.247 # Bandwidth 6dB DTS ~ WLAN2G4 ax-HE40

Test References

TC Start	06.12.2022 10:44:26
Ambit Temp [°C] Humidity [rel%]	23.1 29
System Version	3.3.3.0
Test Specification	FCC 15.247 -
Test Method	
TC Version	0.0.1
My Description	FCC 15.247 Bandwidth 6dB DTS - WLAN2G4 ax-HE40
Add. Information	

EUT Common Settings WLAN2G4

Number of Antenna Ports	4
User Interaction	No

Test Parameter

Technology to test	WLAN2G4 ax-HE40
Antenna Port used	1
Temperature	nom
Voltage	nom
Frequency low to test	False Freq [MHz] 2422
Frequency mid to test	False Freq [MHz] 2437
Frequency high to test	True Freq [MHz] 2452
Auto Control enabled Power Supply Climatic Box	No No
Additional Path Loss [dB]	-10
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer

Test Equipment

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

Test at TX 2452 MHz

RESULT: Reference Power cond.

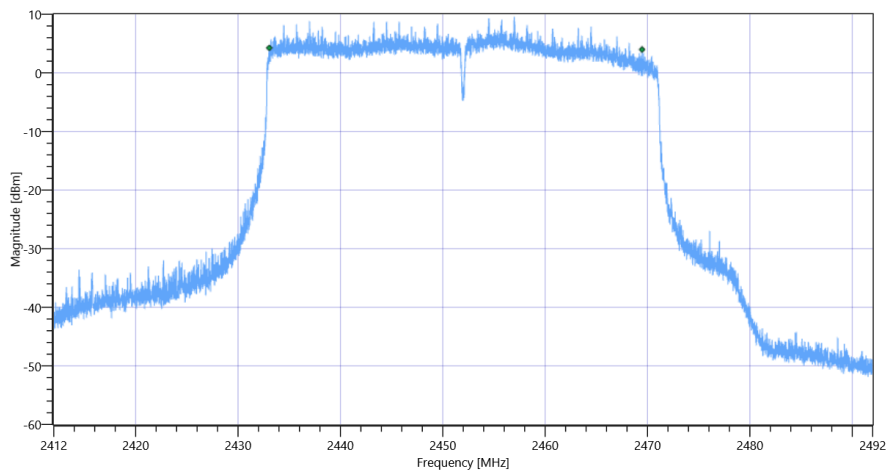
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	--	--	18.78	dBm	INFO
Ref. Frequency	--	--	2436.620	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	23.78 4.86 35
Start [MHz] Stop [MHz]	2412.000 2492.000
RBW [MHz] VBW [MHz]	0.100000 0.300000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	50 200 10001 SWE

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
DTS Bandwidth (6dB)	500	--	36416	kHz	PASS



FCC 15.247 # Bandwidth 6dB DTS ~ WLAN2G4 ax-HE40

FCC 15.247 # TX spurious conducted 30dBc ~ WLAN2G4 ax-HE40

Test References

TC Start	06.12.2022 10:03:43
Ambit Temp [°C] Humidity [rel%]	23.5 30
System Version	3.3.3.0
Test Specification	FCC 15.247 -
Test Method	IF DTS then 8.5 DTS emissions in non-restricted frequency bands: Subclause 11.11 of ANSI C63.10 is applicable
TC Version	0.0.1
My Description	FCC 15.247 TX Emissions Conducted 30dBc DTS DTS - WLAN2G4 ax-HE40
Add. Information	

EUT Common Settings WLAN2G4

Number of Antenna Ports	4
User Interaction	No

Test Parameter

Technology to test	WLAN2G4 ax-HE40
Antenna Port used	4
Temperature	nom
Voltage	nom
Frequency low to test	False Freq [MHz] 2422
Frequency mid to test	True Freq [MHz] 2437
Frequency high to test	False Freq [MHz] 2452
Auto Control enabled Power Supply Climatic Box	No No
Additional Path Loss [dB]	-10
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer

Test Equipment

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

Test at TX 2437 MHz

RESULT: Reference Power cond.

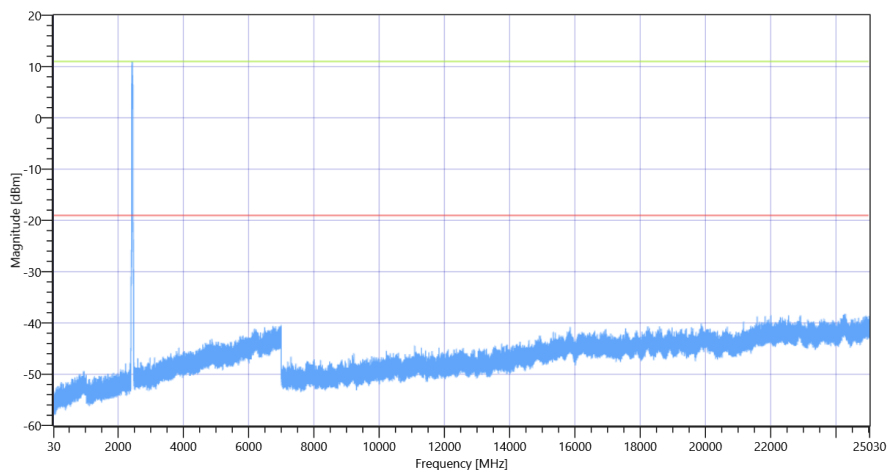
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	19.73	dBm	INFO
Ref. Frequency	---	---	2426.610	MHz	INFO

READ SA SETTINGS:

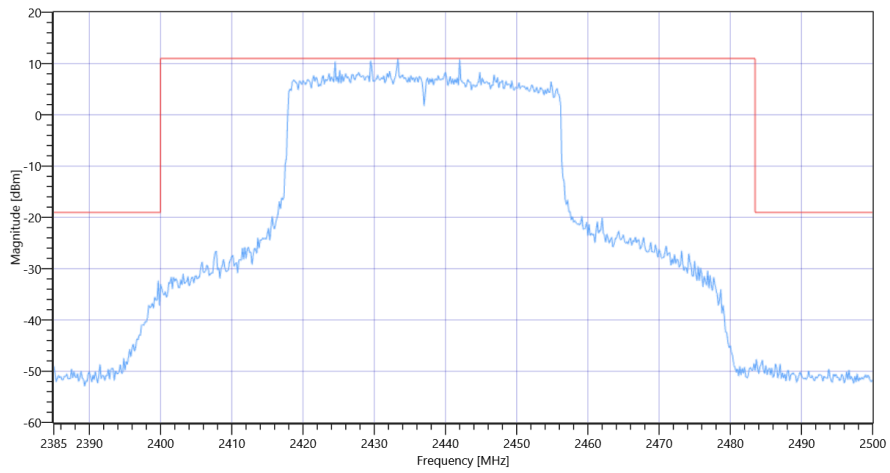
RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	19.73 0 35
Start [MHz] Stop [MHz]	24530.000 25030.000
RBW [MHz] VBW [MHz]	0.100000 0.300000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	200 25 3001 SWE

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Reference @ 2433.33 MHz	---	---	10.96	dBm	INFO
No peaks detected	---	---			PASS
Lowest margin to limit 30 MHz	0	---	-145.86	dB	INFO



FCC 15.247 # TX spurious conducted 30dBc ~ WLAN2G4 ax-HE40 2437



FCC 15.247 # TX spurious conducted 30dBc ~ WLAN2G4 ax-HE40 2437

FCC 15.247, ISED RSS247 # Bandwidth 99PCT and 20dB ~ WLAN2G4 ax-HE40

Test References

TC Start	06.12.2022 10:02:42
Ambit Temp [°C] Humidity [rel%]	23.4 30
System Version	3.3.3.0
Test Specification	FCC 15.247, ISED RSS247 -
Test Method	
TC Version	0.0.2
My Description	FCC 15.247 Bandwidth 99PCT-20dB DTS - WLAN2G4 ax-HE40
Add. Information	

EUT Common Settings WLAN2G4

Number of Antenna Ports	4
User Interaction	No

Test Parameter

Technology to test	WLAN2G4 ax-HE40
Antenna Port used	4
Temperature	nom
Voltage	nom
Frequency low to test	False Freq [MHz] 2422
Frequency mid to test	True Freq [MHz] 2437
Frequency high to test	False Freq [MHz] 2452
Auto Control enabled Power Supply Climatic Box	No No
Additional Path Loss [dB]	-10
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer

Test Equipment

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

Test at TX 2437 MHz

RESULT: Reference Power cond.

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	20.38	dBm	INFO
Ref. Frequency	---	---	2421.820	MHz	INFO

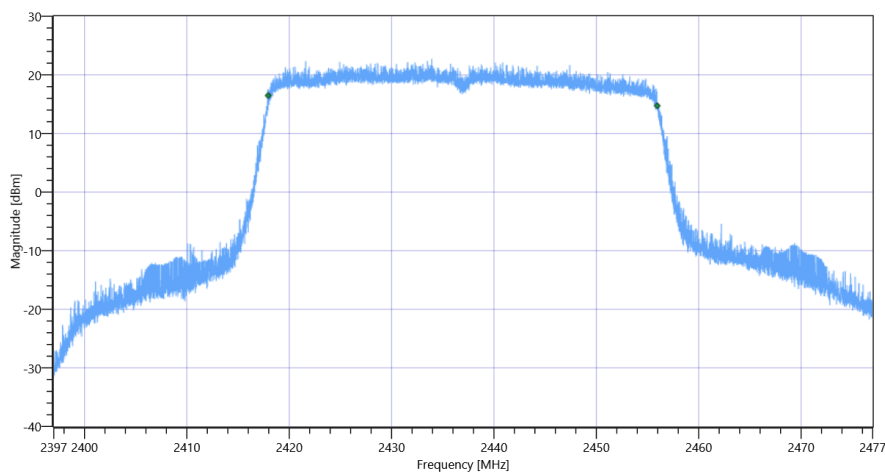
READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	25.38 5 40
Start [MHz] Stop [MHz]	2397.000 2477.000
RBW [MHz] VBW [MHz]	1.000000 3.000000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	50 200 10001 SWE

RESULT

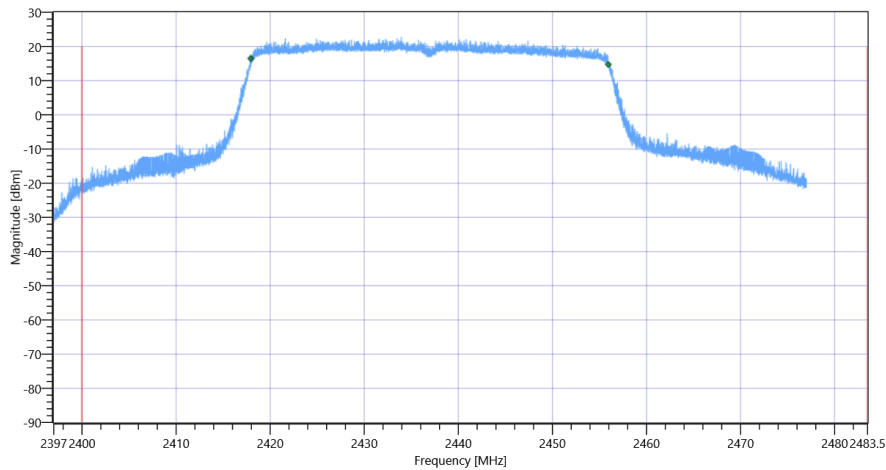
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 99%	---	---	37996.000	kHz	INFO
T1 99%	2400.000000	---	2417.9459	MHz	PASS
T2 99%	---	2483.500000	2455.9421	MHz	PASS

Plot: Bandwidth only



FCC 15.247, ISED RSS247 # Bandwidth 99PCT and 20dB ~ WLAN2G4 ax-HE40 99PCT

Plot: Bandwidth within Band

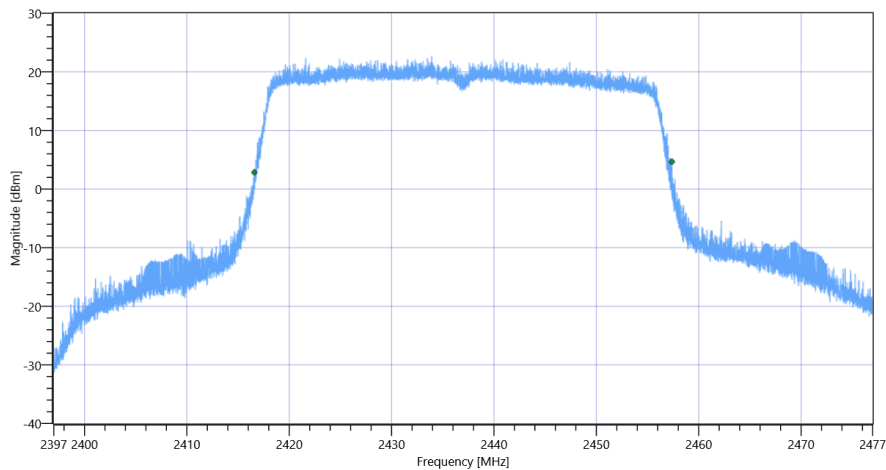


FCC 15.247, ISED RSS247 # Bandwidth 99PCT and 20dB ~ WLAN2G4 ax-HE40

RESULT

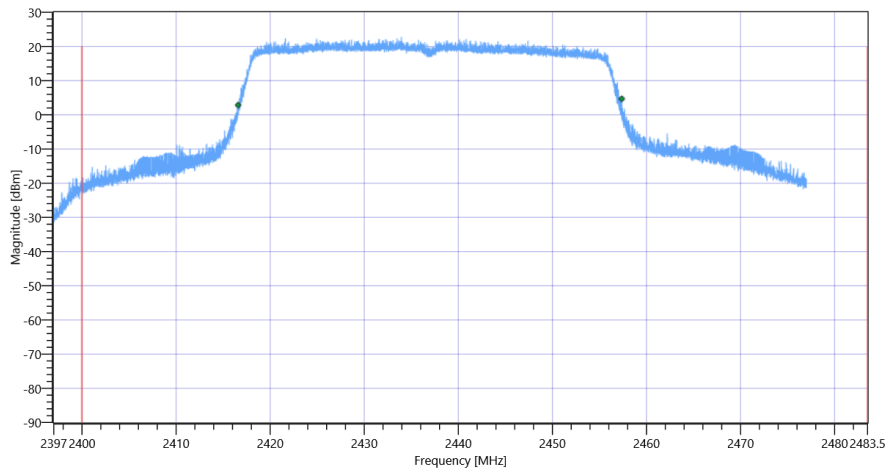
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 20dB	---	---	40784	kHz	INFO
T1 20dB	2400.000000	---	2416.5920	MHz	PASS
T2 20dB	---	2483.500000	2457.3760	MHz	PASS

Plot: Bandwidth only



FCC 15.247, ISED RSS247 # Bandwidth 99PCT and 20dB ~ WLAN2G4 ax-HE40 20dB

Plot: Bandwidth within Band



FCC 15.247, ISED RSS247 # Bandwidth 99PCT and 20dB ~ WLAN2G4 ax-HE40

FCC 15.247 # Avg power spectral density DTS ~ WLAN2G4 ax-HE40

Test References

TC Start	06.12.2022 10:00:54
Ambit Temp [°C] Humidity [rel%]	23.5 30
System Version	3.3.3.0
Test Specification	FCC 15.247 -
Test Method	ANSI C63.10-2013 Chapter 11.10.5 or.3
TC Version	0.0.1
My Description	FCC 15.247 Avg Power Spectral Density DTS - WLAN2G4 ax-HE40
Add. Information	

EUT Common Settings WLAN2G4

Number of Antenna Ports	4
User Interaction	No

Test Parameter

Technology to test	WLAN2G4 ax-HE40
Antenna Port used	4
Temperature	nom
Voltage	nom
Frequency low to test	False Freq [MHz] 2422
Frequency mid to test	True Freq [MHz] 2437
Frequency high to test	False Freq [MHz] 2452
Auto Control enabled Power Supply Climatic Box	No No
Additional Path Loss [dB]	-10
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer

Test Equipment

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

Test at TX 2437 MHz

RESULT: Reference Power cond.

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	--	--	21.15	dBm	INFO
Ref. Frequency	--	--	2426.710	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

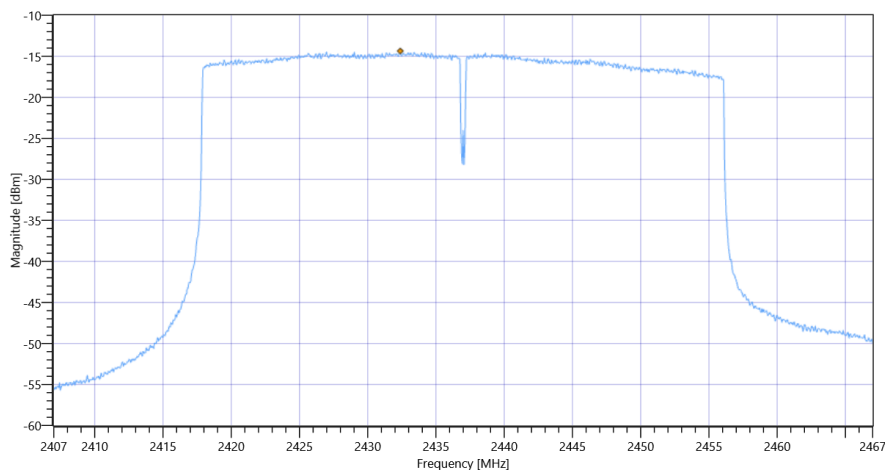
Avg. PSD

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	26.15 5 40
Start [MHz] Stop [MHz]	2407.000 2467.000
RBW [MHz] VBW [MHz]	0.003000 0.010000
Detector TraceMode	RMS AVER
Sweep: Time [ms] Count Points per Section Type	667 100 1001 SWE

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Avg PSD uncorrected	--	--	-14.36	dBm	INFO
Duty cycle correction	--	--	0	dB	INFO
Avg PSD DC corrected	--	8	-14.36	dBm/3kHz	PASS



FCC 15.247 # Avg power spectral density DTS ~ WLAN2G4 ax-HE40

FCC 15.247 # Bandwidth 6dB DTS ~ WLAN2G4 ax-HE40

Test References

TC Start	06.12.2022 10:00:18
Ambit Temp [°C] Humidity [rel%]	23.5 30
System Version	3.3.3.0
Test Specification	FCC 15.247 -
Test Method	
TC Version	0.0.1
My Description	FCC 15.247 Bandwidth 6dB DTS - WLAN2G4 ax-HE40
Add. Information	

EUT Common Settings WLAN2G4

Number of Antenna Ports	4
User Interaction	No

Test Parameter

Technology to test	WLAN2G4 ax-HE40
Antenna Port used	4
Temperature	nom
Voltage	nom
Frequency low to test	False Freq [MHz] 2422
Frequency mid to test	True Freq [MHz] 2437
Frequency high to test	False Freq [MHz] 2452
Auto Control enabled Power Supply Climatic Box	No No
Additional Path Loss [dB]	-10
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer

Test Equipment

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

Test at TX 2437 MHz

RESULT: Reference Power cond.

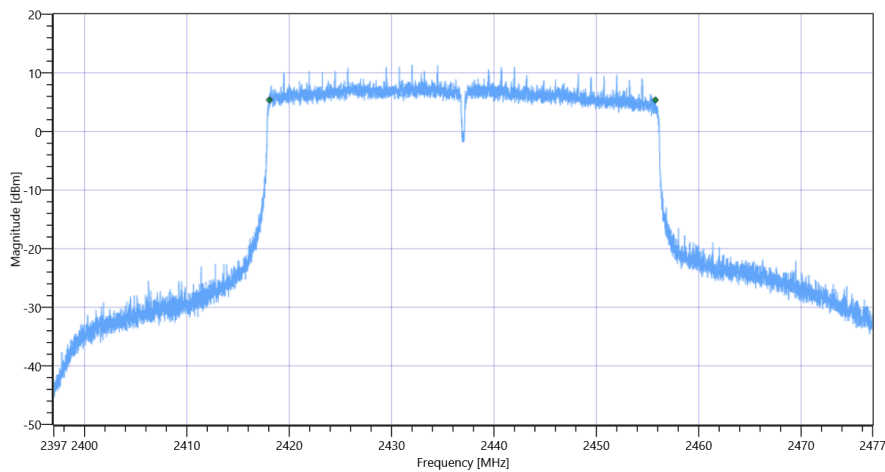
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	--	--	19.88	dBm	INFO
Ref. Frequency	--	--	2429.510	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	24.88 5 35
Start [MHz] Stop [MHz]	2397.000 2477.000
RBW [MHz] VBW [MHz]	0.100000 0.300000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	50 200 10001 SWE

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
DTS Bandwidth (6dB)	500	--	37712	kHz	PASS



FCC 15.247 # Bandwidth 6dB DTS ~ WLAN2G4 ax-HE40

FCC 15.247 # TX spurious conducted 30dBc ~ WLAN2G4 ax-HE40

Test References

TC Start	06.12.2022 09:49:56
Ambit Temp [°C] Humidity [rel%]	23.6 30
System Version	3.3.3.0
Test Specification	FCC 15.247 -
Test Method	IF DTS then 8.5 DTS emissions in non-restricted frequency bands: Subclause 11.11 of ANSI C63.10 is applicable
TC Version	0.0.1
My Description	FCC 15.247 TX Emissions Conducted 30dBc DTS DTS - WLAN2G4 ax-HE40
Add. Information	

EUT Common Settings WLAN2G4

Number of Antenna Ports	4
User Interaction	No

Test Parameter

Technology to test	WLAN2G4 ax-HE40
Antenna Port used	3
Temperature	nom
Voltage	nom
Frequency low to test	False Freq [MHz] 2422
Frequency mid to test	True Freq [MHz] 2437
Frequency high to test	False Freq [MHz] 2452
Auto Control enabled Power Supply Climatic Box	No No
Additional Path Loss [dB]	-10
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer

Test Equipment

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

Test at TX 2437 MHz

RESULT: Reference Power cond.

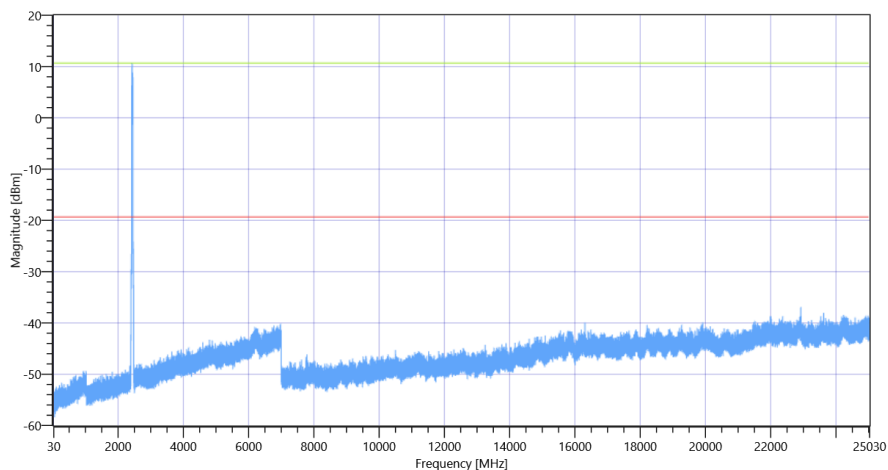
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	19.94	dBm	INFO
Ref. Frequency	---	---	2442.190	MHz	INFO

READ SA SETTINGS:

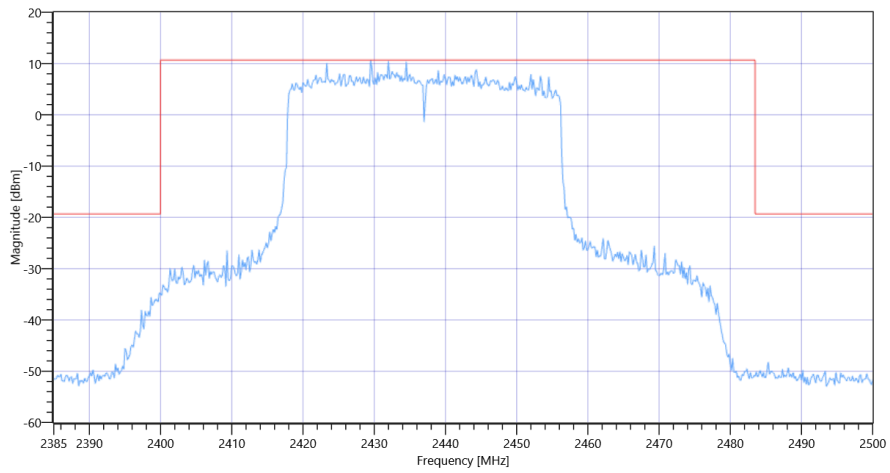
RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	19.94 0 35
Start [MHz] Stop [MHz]	24530.000 25030.000
RBW [MHz] VBW [MHz]	0.100000 0.300000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	200 25 3001 SWE

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Reference @ 2429.50 MHz	---	---	10.66	dBm	INFO
No peaks detected	---	---			PASS
Lowest margin to limit 2399.833 MHz	0	---	15.3	dB	INFO



FCC 15.247 # TX spurious conducted 30dBc ~ WLAN2G4 ax-HE40 2437



FCC 15.247 # TX spurious conducted 30dBc ~ WLAN2G4 ax-HE40 2437

FCC 15.247, ISED RSS247 # Bandwidth 99PCT and 20dB ~ WLAN2G4 ax-HE40

Test References

TC Start	06.12.2022 09:48:55
Ambit Temp [°C] Humidity [rel%]	23.6 30
System Version	3.3.3.0
Test Specification	FCC 15.247, ISED RSS247 -
Test Method	
TC Version	0.0.2
My Description	FCC 15.247 Bandwidth 99PCT-20dB DTS - WLAN2G4 ax-HE40
Add. Information	

EUT Common Settings WLAN2G4

Number of Antenna Ports	4
User Interaction	No

Test Parameter

Technology to test	WLAN2G4 ax-HE40
Antenna Port used	3
Temperature	nom
Voltage	nom
Frequency low to test	False Freq [MHz] 2422
Frequency mid to test	True Freq [MHz] 2437
Frequency high to test	False Freq [MHz] 2452
Auto Control enabled Power Supply Climatic Box	No No
Additional Path Loss [dB]	-10
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer

Test Equipment

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

Test at TX 2437 MHz

RESULT: Reference Power cond.

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	19.61	dBm	INFO
Ref. Frequency	---	---	2432.400	MHz	INFO

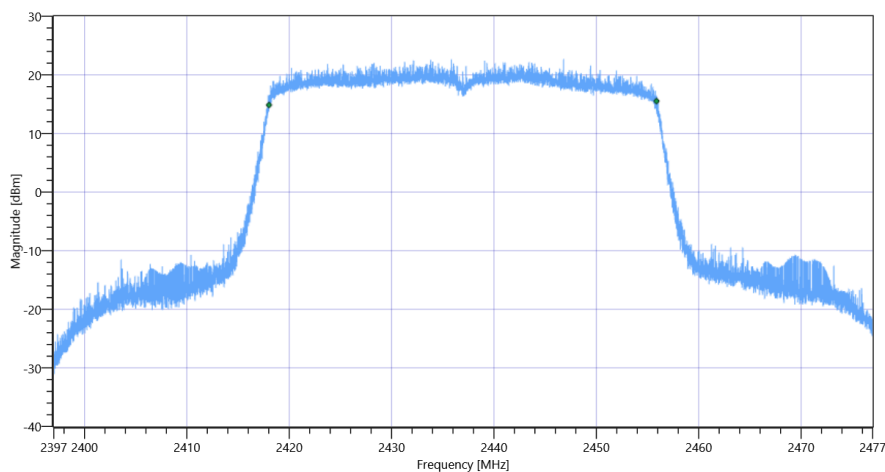
READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	24.61 5 35
Start [MHz] Stop [MHz]	2397.000 2477.000
RBW [MHz] VBW [MHz]	1.000000 3.000000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	50 200 10001 SWE

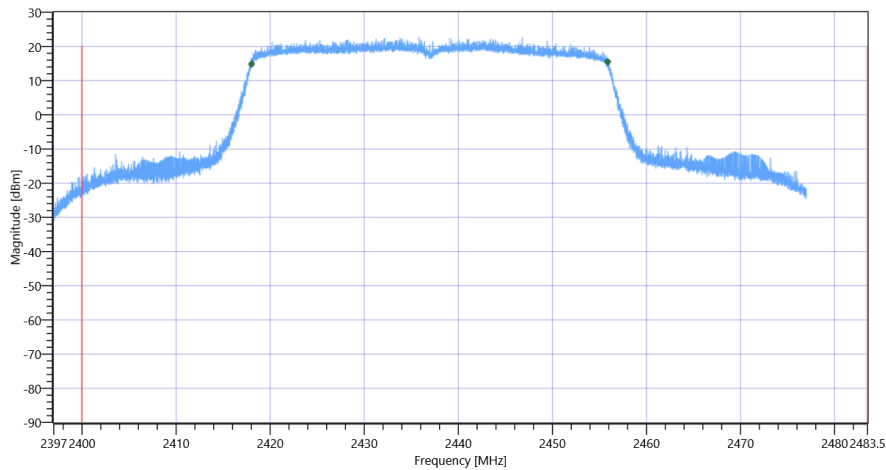
RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 99%	---	---	37852.000	kHz	INFO
T1 99%	2400.000000	---	2418.0259	MHz	PASS
T2 99%	---	2483.500000	2455.8781	MHz	PASS

Plot: Bandwidth only



Plot: Bandwidth within Band

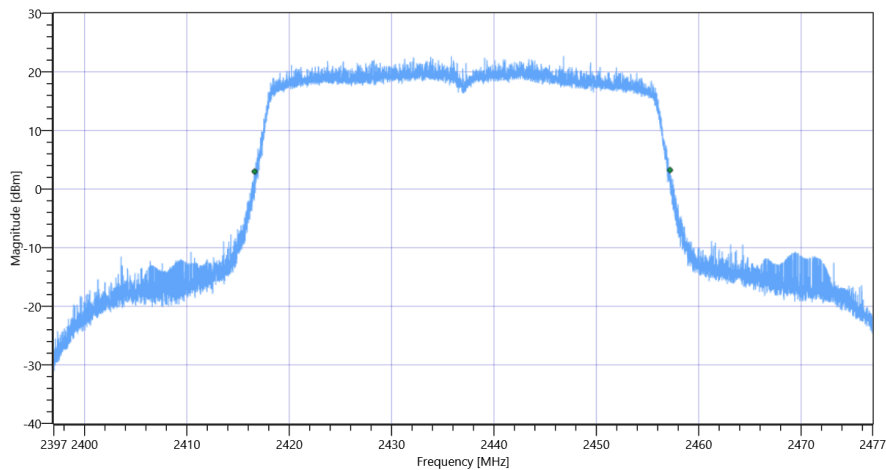


FCC 15.247, ISED RSS247 # Bandwidth 99PCT and 20dB ~ WLAN2G4 ax-HE40

RESULT

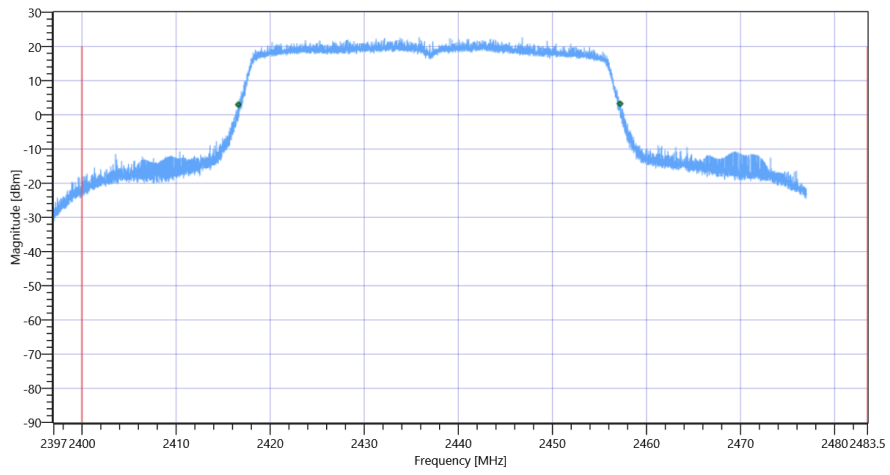
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 20dB	---	---	40576	kHz	INFO
T1 20dB	2400.000000	---	2416.6240	MHz	PASS
T2 20dB	---	2483.500000	2457.2000	MHz	PASS

Plot: Bandwidth only



FCC 15.247, ISED RSS247 # Bandwidth 99PCT and 20dB ~ WLAN2G4 ax-HE40 20dB

Plot: Bandwidth within Band



FCC 15.247, ISED RSS247 # Bandwidth 99PCT and 20dB ~ WLAN2G4 ax-HE40

FCC 15.247 # Avg power spectral density DTS ~ WLAN2G4 ax-HE40

Test References

TC Start	06.12.2022 09:47:08
Ambit Temp [°C] Humidity [rel%]	23.5 29
System Version	3.3.3.0
Test Specification	FCC 15.247 -
Test Method	ANSI C63.10-2013 Chapter 11.10.5 or.3
TC Version	0.0.1
My Description	FCC 15.247 Avg Power Spectral Density DTS - WLAN2G4 ax-HE40
Add. Information	

EUT Common Settings WLAN2G4

Number of Antenna Ports	4
User Interaction	No

Test Parameter

Technology to test	WLAN2G4 ax-HE40
Antenna Port used	3
Temperature	nom
Voltage	nom
Frequency low to test	False Freq [MHz] 2422
Frequency mid to test	True Freq [MHz] 2437
Frequency high to test	False Freq [MHz] 2452
Auto Control enabled Power Supply Climatic Box	No No
Additional Path Loss [dB]	-10
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer

Test Equipment

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

Test at TX 2437 MHz

RESULT: Reference Power cond.

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	--	--	19.72	dBm	INFO
Ref. Frequency	--	--	2426.110	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

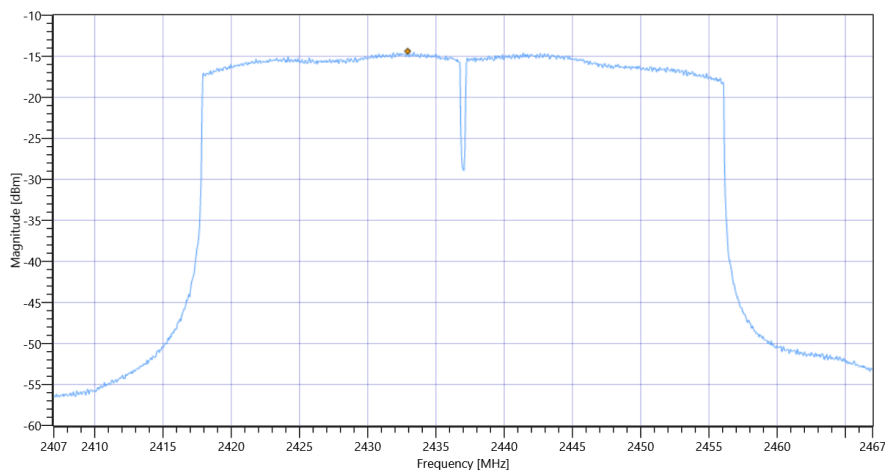
Avg. PSD

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	24.72 5 35
Start [MHz] Stop [MHz]	2407.000 2467.000
RBW [MHz] VBW [MHz]	0.003000 0.010000
Detector TraceMode	RMS AVER
Sweep: Time [ms] Count Points per Section Type	667 100 1001 SWE

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Avg PSD uncorrected	--	--	-14.39	dBm	INFO
Duty cycle correction	--	--	0	dB	INFO
Avg PSD DC corrected	--	8	-14.39	dBm/3kHz	PASS



FCC 15.247 # Avg power spectral density DTS ~ WLAN2G4 ax-HE40

FCC 15.247 # Bandwidth 6dB DTS ~ WLAN2G4 ax-HE40

Test References

TC Start	06.12.2022 09:46:31
Ambit Temp [°C] Humidity [rel%]	23.6 29
System Version	3.3.3.0
Test Specification	FCC 15.247 -
Test Method	
TC Version	0.0.1
My Description	FCC 15.247 Bandwidth 6dB DTS - WLAN2G4 ax-HE40
Add. Information	

EUT Common Settings WLAN2G4

Number of Antenna Ports	4
User Interaction	No

Test Parameter

Technology to test	WLAN2G4 ax-HE40
Antenna Port used	3
Temperature	nom
Voltage	nom
Frequency low to test	False Freq [MHz] 2422
Frequency mid to test	True Freq [MHz] 2437
Frequency high to test	False Freq [MHz] 2452
Auto Control enabled Power Supply Climatic Box	No No
Additional Path Loss [dB]	-10
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer

Test Equipment

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

Test at TX 2437 MHz

RESULT: Reference Power cond.

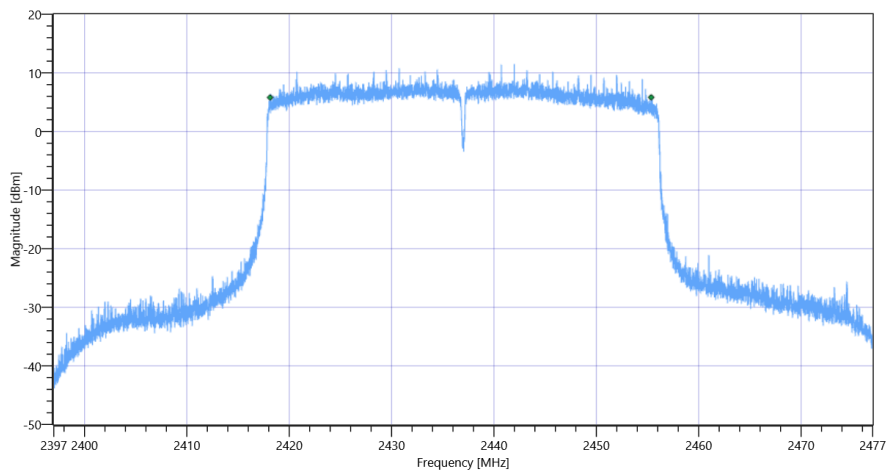
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	--	--	19.60	dBm	INFO
Ref. Frequency	--	--	2444.390	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	24.60 5 35
Start [MHz] Stop [MHz]	2397.000 2477.000
RBW [MHz] VBW [MHz]	0.100000 0.300000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	50 200 10001 SWE

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
DTS Bandwidth (6dB)	500	--	37232	kHz	PASS



FCC 15.247 # Bandwidth 6dB DTS ~ WLAN2G4 ax-HE40

FCC 15.247 # TX spurious conducted 30dBc ~ WLAN2G4 ax-HE40

Test References

TC Start	06.12.2022 09:36:08
Ambit Temp [°C] Humidity [rel%]	23.7 30
System Version	3.3.3.0
Test Specification	FCC 15.247 -
Test Method	IF DTS then 8.5 DTS emissions in non-restricted frequency bands: Subclause 11.11 of ANSI C63.10 is applicable
TC Version	0.0.1
My Description	FCC 15.247 TX Emissions Conducted 30dBc DTS DTS - WLAN2G4 ax-HE40
Add. Information	

EUT Common Settings WLAN2G4

Number of Antenna Ports	4
User Interaction	No

Test Parameter

Technology to test	WLAN2G4 ax-HE40
Antenna Port used	2
Temperature	nom
Voltage	nom
Frequency low to test	False Freq [MHz] 2422
Frequency mid to test	True Freq [MHz] 2437
Frequency high to test	False Freq [MHz] 2452
Auto Control enabled Power Supply Climatic Box	No No
Additional Path Loss [dB]	-10
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer

Test Equipment

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

Test at TX 2437 MHz

RESULT: Reference Power cond.

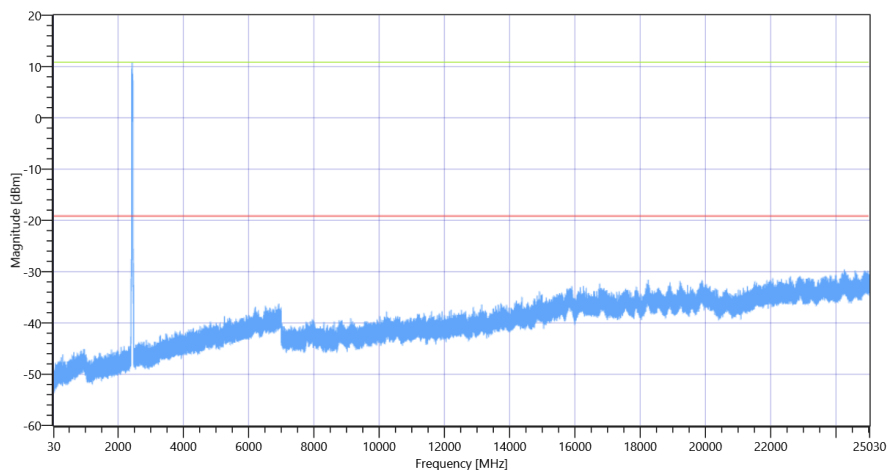
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	20.54	dBm	INFO
Ref. Frequency	---	---	2433.300	MHz	INFO

READ SA SETTINGS:

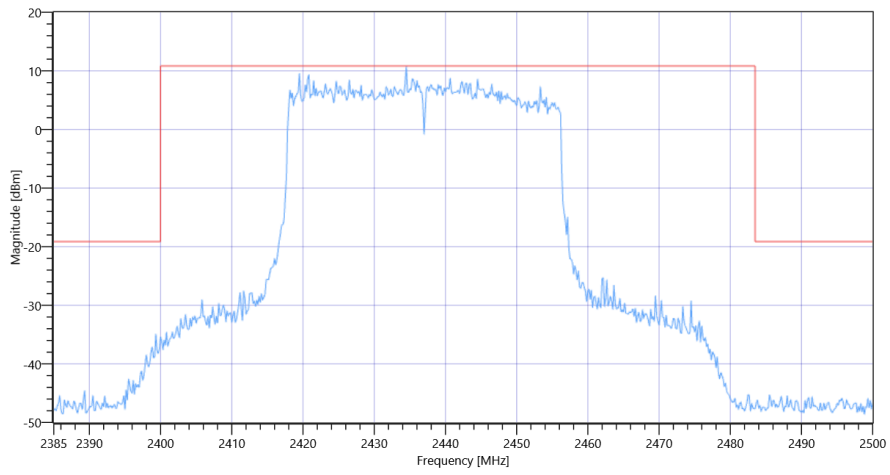
RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	20.54 0 40
Start [MHz] Stop [MHz]	24530.000 25030.000
RBW [MHz] VBW [MHz]	0.100000 0.300000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	200 25 3001 SWE

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Reference @ 2434.50 MHz	---	---	10.85	dBm	INFO
No peaks detected	---	---			PASS
Lowest margin to limit 24254.5 MHz	0	---	10.42	dB	INFO



FCC 15.247 # TX spurious conducted 30dBc ~ WLAN2G4 ax-HE40 2437



FCC 15.247 # TX spurious conducted 30dBc ~ WLAN2G4 ax-HE40 2437

FCC 15.247, ISED RSS247 # Bandwidth 99PCT and 20dB ~ WLAN2G4 ax-HE40

Test References

TC Start	06.12.2022 09:35:07
Ambit Temp [°C] Humidity [rel%]	23.7 30
System Version	3.3.3.0
Test Specification	FCC 15.247, ISED RSS247 -
Test Method	
TC Version	0.0.2
My Description	FCC 15.247 Bandwidth 99PCT-20dB DTS - WLAN2G4 ax-HE40
Add. Information	

EUT Common Settings WLAN2G4

Number of Antenna Ports	4
User Interaction	No

Test Parameter

Technology to test	WLAN2G4 ax-HE40
Antenna Port used	2
Temperature	nom
Voltage	nom
Frequency low to test	False Freq [MHz] 2422
Frequency mid to test	True Freq [MHz] 2437
Frequency high to test	False Freq [MHz] 2452
Auto Control enabled Power Supply Climatic Box	No No
Additional Path Loss [dB]	-10
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer

Test Equipment

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

Test at TX 2437 MHz

RESULT: Reference Power cond.

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	19.74	dBm	INFO
Ref. Frequency	---	---	2444.290	MHz	INFO

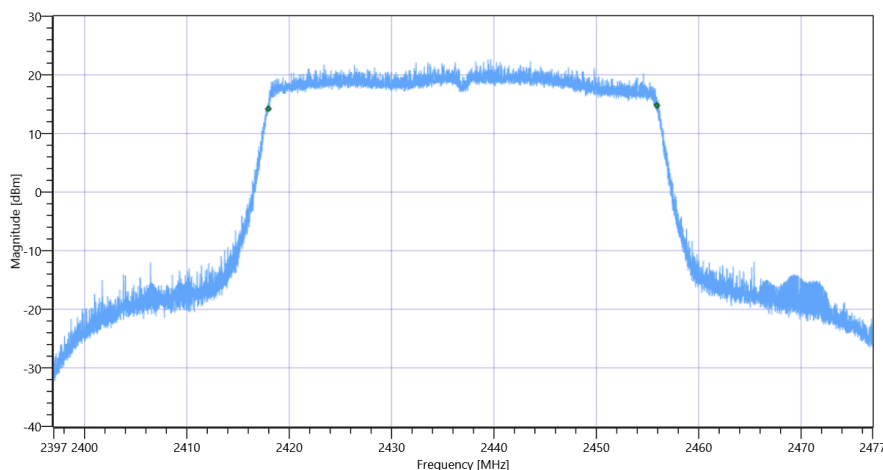
READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	24.74 5 35
Start [MHz] Stop [MHz]	2397.000 2477.000
RBW [MHz] VBW [MHz]	1.000000 3.000000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	50 200 10001 SWE

RESULT

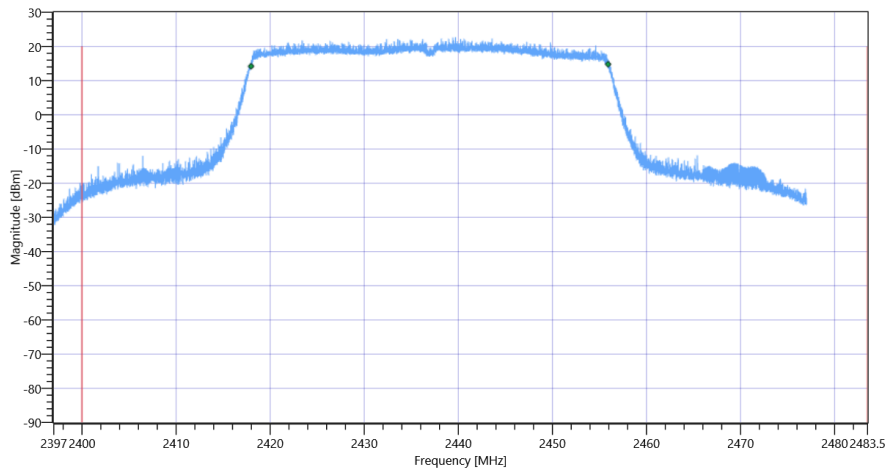
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 99%	---	---	37948.000	kHz	INFO
T1 99%	2400.000000	---	2417.9699	MHz	PASS
T2 99%	---	2483.500000	2455.9181	MHz	PASS

Plot: Bandwidth only



FCC 15.247, ISED RSS247 # Bandwidth 99PCT and 20dB ~ WLAN2G4 ax-HE40 99PCT

Plot: Bandwidth within Band

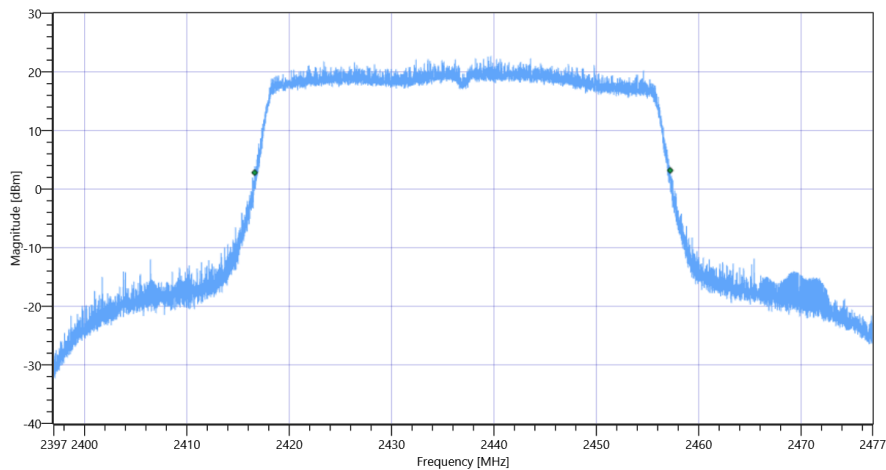


FCC 15.247, ISED RSS247 # Bandwidth 99PCT and 20dB ~ WLAN2G4 ax-HE40

RESULT

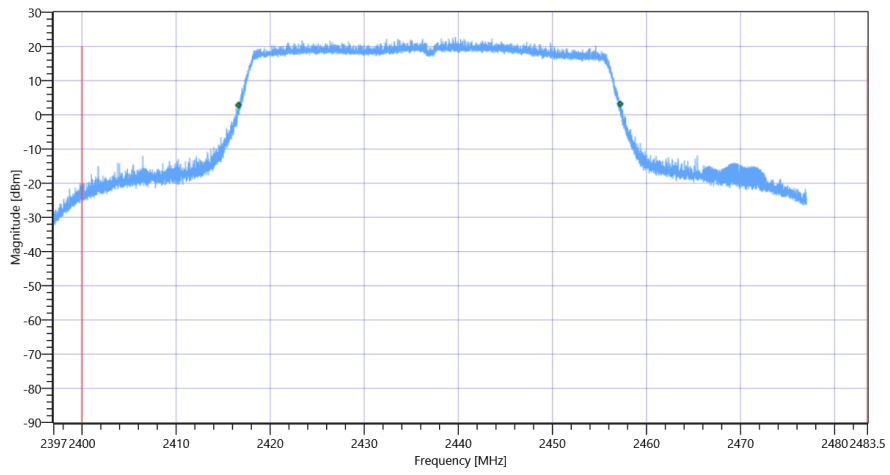
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 20dB	---	---	40592	kHz	INFO
T1 20dB	2400.000000	---	2416.6240	MHz	PASS
T2 20dB	---	2483.500000	2457.2160	MHz	PASS

Plot: Bandwidth only



FCC 15.247, ISED RSS247 # Bandwidth 99PCT and 20dB ~ WLAN2G4 ax-HE40 20dB

Plot: Bandwidth within Band



FCC 15.247, ISED RSS247 # Bandwidth 99PCT and 20dB ~ WLAN2G4 ax-HE40

FCC 15.247 # Avg power spectral density DTS ~ WLAN2G4 ax-HE40

Test References

TC Start	06.12.2022 09:33:19
Ambit Temp [°C] Humidity [rel%]	23.6 30
System Version	3.3.3.0
Test Specification	FCC 15.247 -
Test Method	ANSI C63.10-2013 Chapter 11.10.5 or.3
TC Version	0.0.1
My Description	FCC 15.247 Avg Power Spectral Density DTS - WLAN2G4 ax-HE40
Add. Information	

EUT Common Settings WLAN2G4

Number of Antenna Ports	4
User Interaction	No

Test Parameter

Technology to test	WLAN2G4 ax-HE40
Antenna Port used	2
Temperature	nom
Voltage	nom
Frequency low to test	False Freq [MHz] 2422
Frequency mid to test	True Freq [MHz] 2437
Frequency high to test	False Freq [MHz] 2452
Auto Control enabled Power Supply Climatic Box	No No
Additional Path Loss [dB]	-10
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer

Test Equipment

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

Test at TX 2437 MHz

RESULT: Reference Power cond.

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	--	--	19.54	dBm	INFO
Ref. Frequency	--	--	2444.990	MHz	INFO

Evaluation max. Duty Cycle

Duty Cycle evaluation

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

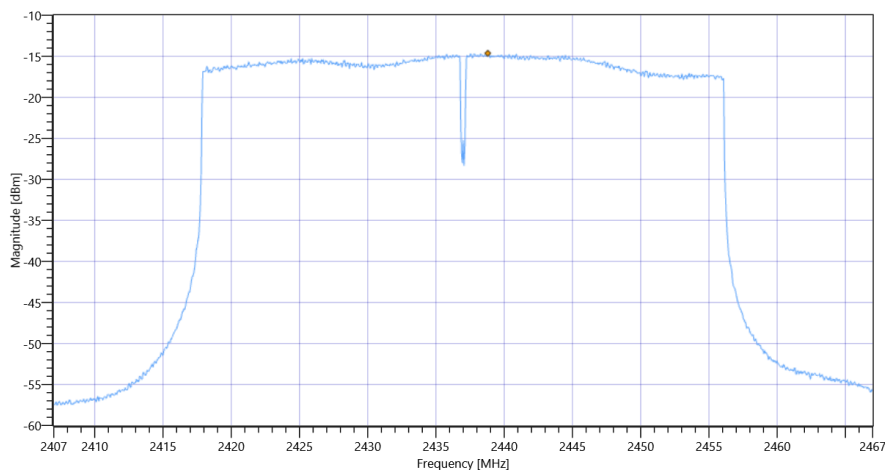
Avg. PSD

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	24.54 5 35
Start [MHz] Stop [MHz]	2407.000 2467.000
RBW [MHz] VBW [MHz]	0.003000 0.010000
Detector TraceMode	RMS AVER
Sweep: Time [ms] Count Points per Section Type	667 100 1001 SWE

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Avg PSD uncorrected	--	--	-14.63	dBm	INFO
Duty cycle correction	--	--	0	dB	INFO
Avg PSD DC corrected	--	8	-14.63	dBm/3kHz	PASS



FCC 15.247 # Avg power spectral density DTS ~ WLAN2G4 ax-HE40

FCC 15.247 # Bandwidth 6dB DTS ~ WLAN2G4 ax-HE40

Test References

TC Start	06.12.2022 09:32:43
Ambit Temp [°C] Humidity [rel%]	23.6 30
System Version	3.3.3.0
Test Specification	FCC 15.247 -
Test Method	
TC Version	0.0.1
My Description	FCC 15.247 Bandwidth 6dB DTS - WLAN2G4 ax-HE40
Add. Information	

EUT Common Settings WLAN2G4

Number of Antenna Ports	4
User Interaction	No

Test Parameter

Technology to test	WLAN2G4 ax-HE40
Antenna Port used	2
Temperature	nom
Voltage	nom
Frequency low to test	False Freq [MHz] 2422
Frequency mid to test	True Freq [MHz] 2437
Frequency high to test	False Freq [MHz] 2452
Auto Control enabled Power Supply Climatic Box	No No
Additional Path Loss [dB]	-10
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer

Test Equipment

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

Test at TX 2437 MHz

RESULT: Reference Power cond.

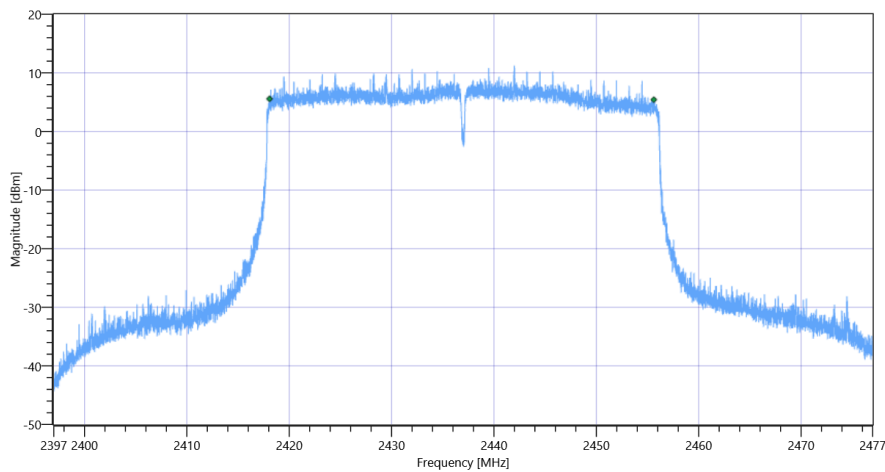
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	--	--	20.17	dBm	INFO
Ref. Frequency	--	--	2433.000	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	25.17 5 40
Start [MHz] Stop [MHz]	2397.000 2477.000
RBW [MHz] VBW [MHz]	0.100000 0.300000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	50 200 10001 SWE

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
DTS Bandwidth (6dB)	500	--	37544	kHz	PASS



FCC 15.247 # Bandwidth 6dB DTS ~ WLAN2G4 ax-HE40

FCC 15.247 # TX spurious conducted 30dBc ~ WLAN2G4 ax-HE40

Test References

TC Start	06.12.2022 09:22:20
Ambit Temp [°C] Humidity [rel%]	23.6 30
System Version	3.3.3.0
Test Specification	FCC 15.247 -
Test Method	IF DTS then 8.5 DTS emissions in non-restricted frequency bands: Subclause 11.11 of ANSI C63.10 is applicable
TC Version	0.0.1
My Description	FCC 15.247 TX Emissions Conducted 30dBc DTS DTS - WLAN2G4 ax-HE40
Add. Information	

EUT Common Settings WLAN2G4

Number of Antenna Ports	4
User Interaction	No

Test Parameter

Technology to test	WLAN2G4 ax-HE40
Antenna Port used	1
Temperature	nom
Voltage	nom
Frequency low to test	False Freq [MHz] 2422
Frequency mid to test	True Freq [MHz] 2437
Frequency high to test	False Freq [MHz] 2452
Auto Control enabled Power Supply Climatic Box	No No
Additional Path Loss [dB]	-10
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer

Test Equipment

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

Test at TX 2437 MHz

RESULT: Reference Power cond.

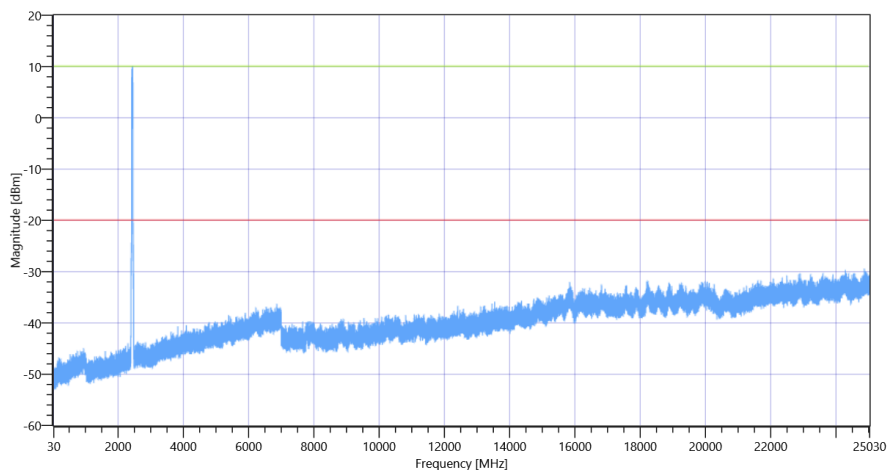
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	20.07	dBm	INFO
Ref. Frequency	---	---	2440.800	MHz	INFO

READ SA SETTINGS:

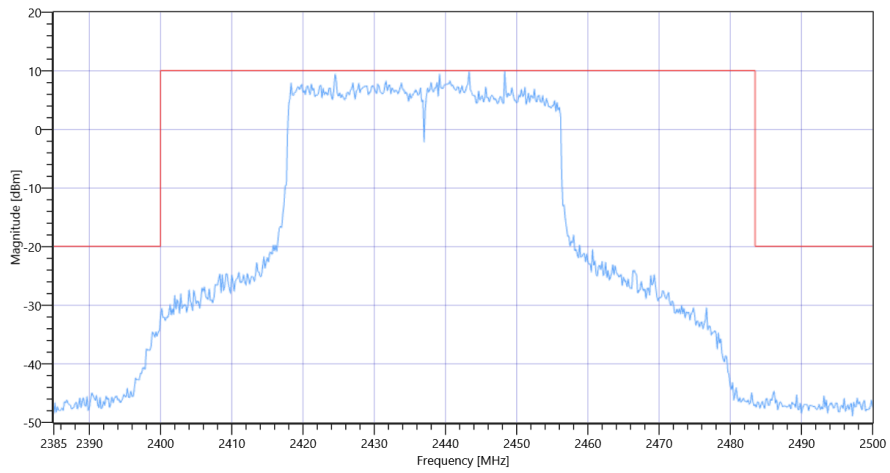
RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	20.07 0 40
Start [MHz] Stop [MHz]	24530.000 25030.000
RBW [MHz] VBW [MHz]	0.100000 0.300000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	200 25 3001 SWE

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Reference @ 2448.33 MHz	---	---	10.05	dBm	INFO
No peaks detected	---	---			PASS
Lowest margin to limit 24873.667 MHz	0	---	9.48	dB	INFO



FCC 15.247 # TX spurious conducted 30dBc ~ WLAN2G4 ax-HE40 2437



FCC 15.247 # TX spurious conducted 30dBc ~ WLAN2G4 ax-HE40 2437

FCC 15.247, ISED RSS247 # Bandwidth 99PCT and 20dB ~ WLAN2G4 ax-HE40

Test References

TC Start	06.12.2022 09:21:19
Ambit Temp [°C] Humidity [rel%]	23.6 30
System Version	3.3.3.0
Test Specification	FCC 15.247, ISED RSS247 -
Test Method	
TC Version	0.0.2
My Description	FCC 15.247 Bandwidth 99PCT-20dB DTS - WLAN2G4 ax-HE40
Add. Information	

EUT Common Settings WLAN2G4

Number of Antenna Ports	4
User Interaction	No

Test Parameter

Technology to test	WLAN2G4 ax-HE40
Antenna Port used	1
Temperature	nom
Voltage	nom
Frequency low to test	False Freq [MHz] 2422
Frequency mid to test	True Freq [MHz] 2437
Frequency high to test	False Freq [MHz] 2452
Auto Control enabled Power Supply Climatic Box	No No
Additional Path Loss [dB]	-10
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer

Test Equipment

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

Test at TX 2437 MHz

RESULT: Reference Power cond.

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	19.41	dBm	INFO
Ref. Frequency	---	---	2435.000	MHz	INFO

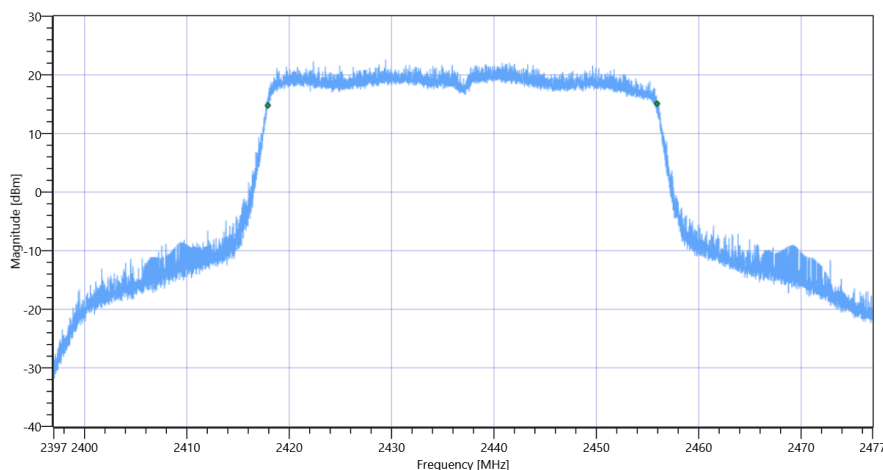
READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	24.41 5 35
Start [MHz] Stop [MHz]	2397.000 2477.000
RBW [MHz] VBW [MHz]	1.000000 3.000000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	50 200 10001 SWE

RESULT

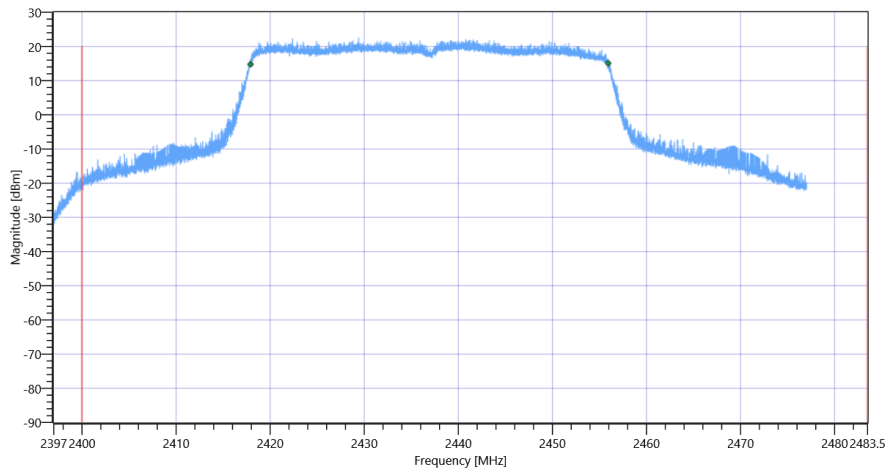
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 99%	---	---	38020.000	kHz	INFO
T1 99%	2400.000000	---	2417.9059	MHz	PASS
T2 99%	---	2483.500000	2455.9261	MHz	PASS

Plot: Bandwidth only



FCC 15.247, ISED RSS247 # Bandwidth 99PCT and 20dB ~ WLAN2G4 ax-HE40 99PCT

Plot: Bandwidth within Band

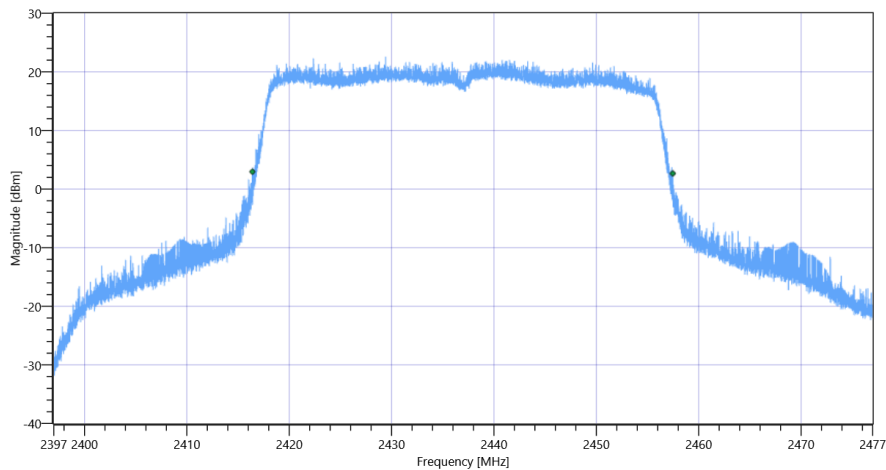


FCC 15.247, ISED RSS247 # Bandwidth 99PCT and 20dB ~ WLAN2G4 ax-HE40

RESULT

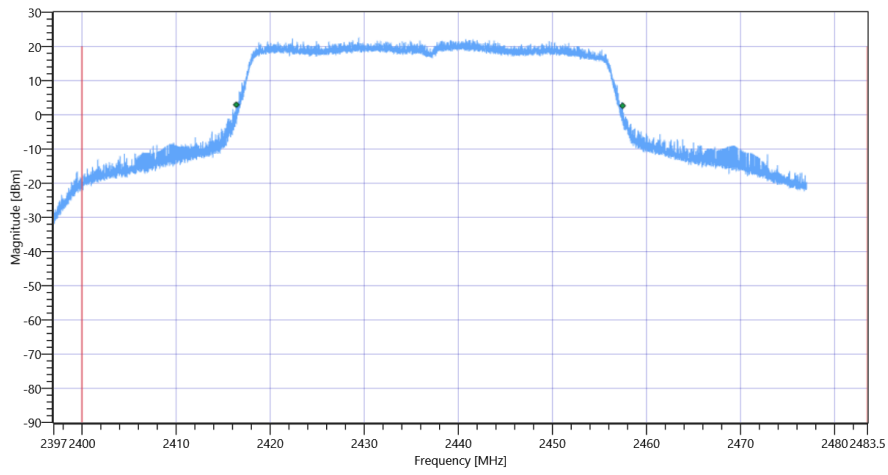
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 20dB	---	---	41064	kHz	INFO
T1 20dB	2400.000000	---	2416.4000	MHz	PASS
T2 20dB	---	2483.500000	2457.4640	MHz	PASS

Plot: Bandwidth only



FCC 15.247, ISED RSS247 # Bandwidth 99PCT and 20dB ~ WLAN2G4 ax-HE40 20dB

Plot: Bandwidth within Band



FCC 15.247, ISED RSS247 # Bandwidth 99PCT and 20dB ~ WLAN2G4 ax-HE40

FCC 15.247 # Avg power spectral density DTS ~ WLAN2G4 ax-HE40

Test References

TC Start	06.12.2022 09:19:32
Ambit Temp [°C] Humidity [rel%]	23.6 29
System Version	3.3.3.0
Test Specification	FCC 15.247 -
Test Method	ANSI C63.10-2013 Chapter 11.10.5 or.3
TC Version	0.0.1
My Description	FCC 15.247 Avg Power Spectral Density DTS - WLAN2G4 ax-HE40
Add. Information	

EUT Common Settings WLAN2G4

Number of Antenna Ports	4
User Interaction	No

Test Parameter

Technology to test	WLAN2G4 ax-HE40
Antenna Port used	1
Temperature	nom
Voltage	nom
Frequency low to test	False Freq [MHz] 2422
Frequency mid to test	True Freq [MHz] 2437
Frequency high to test	False Freq [MHz] 2452
Auto Control enabled Power Supply Climatic Box	No No
Additional Path Loss [dB]	-10
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer

Test Equipment

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

Test at TX 2437 MHz

RESULT: Reference Power cond.

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	--	--	19.12	dBm	INFO
Ref. Frequency	--	--	2426.910	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

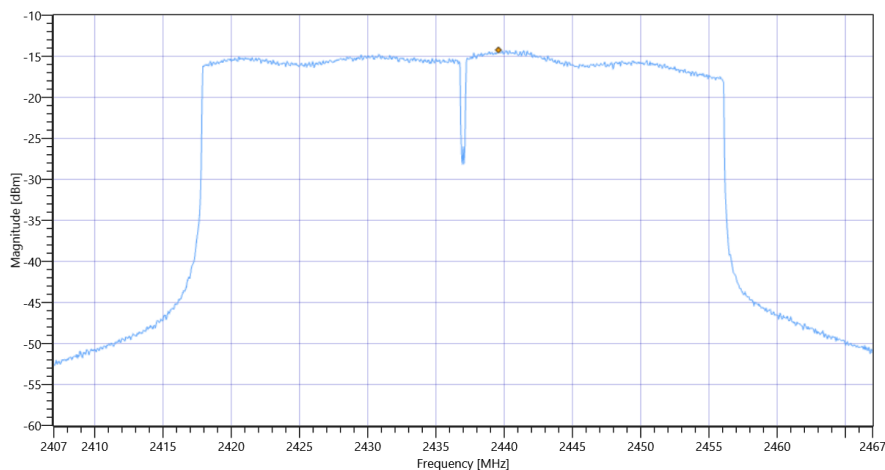
Avg. PSD

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	24.12 5 35
Start [MHz] Stop [MHz]	2407.000 2467.000
RBW [MHz] VBW [MHz]	0.003000 0.010000
Detector TraceMode	RMS AVER
Sweep: Time [ms] Count Points per Section Type	667 100 1001 SWE

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Avg PSD uncorrected	--	--	-14.23	dBm	INFO
Duty cycle correction	--	--	0	dB	INFO
Avg PSD DC corrected	--	8	-14.23	dBm/3kHz	PASS



FCC 15.247 # Avg power spectral density DTS ~ WLAN2G4 ax-HE40

FCC 15.247 # Bandwidth 6dB DTS ~ WLAN2G4 ax-HE40

Test References

TC Start	06.12.2022 09:18:55
Ambit Temp [°C] Humidity [rel%]	23.6 29
System Version	3.3.3.0
Test Specification	FCC 15.247 -
Test Method	
TC Version	0.0.1
My Description	FCC 15.247 Bandwidth 6dB DTS - WLAN2G4 ax-HE40
Add. Information	

EUT Common Settings WLAN2G4

Number of Antenna Ports	4
User Interaction	No

Test Parameter

Technology to test	WLAN2G4 ax-HE40
Antenna Port used	1
Temperature	nom
Voltage	nom
Frequency low to test	False Freq [MHz] 2422
Frequency mid to test	True Freq [MHz] 2437
Frequency high to test	False Freq [MHz] 2452
Auto Control enabled Power Supply Climatic Box	No No
Additional Path Loss [dB]	-10
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer

Test Equipment

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

Test at TX 2437 MHz

RESULT: Reference Power cond.

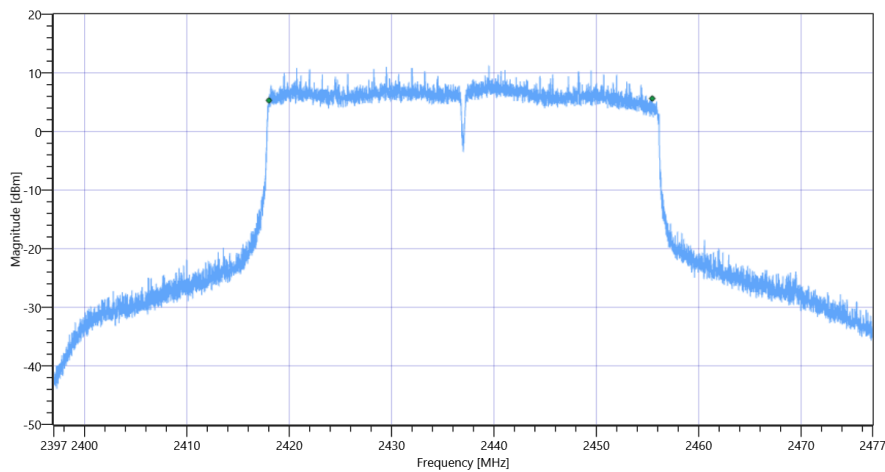
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	--	--	20.56	dBm	INFO
Ref. Frequency	--	--	2428.910	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	25.56 5 40
Start [MHz] Stop [MHz]	2397.000 2477.000
RBW [MHz] VBW [MHz]	0.100000 0.300000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	50 200 10001 SWE

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
DTS Bandwidth (6dB)	500	--	37448	kHz	PASS



FCC 15.247 # Bandwidth 6dB DTS ~ WLAN2G4 ax-HE40

FCC 15.247 # TX spurious conducted 30dBc ~ WLAN2G4 ax-HE40

Test References

TC Start	06.12.2022 08:54:58
Ambit Temp [°C] Humidity [rel%]	23.8 28
System Version	3.3.3.0
Test Specification	FCC 15.247 -
Test Method	IF DTS then 8.5 DTS emissions in non-restricted frequency bands: Subclause 11.11 of ANSI C63.10 is applicable
TC Version	0.0.1
My Description	FCC 15.247 TX Emissions Conducted 30dBc DTS DTS - WLAN2G4 ax-HE40
Add. Information	

EUT Common Settings WLAN2G4

Number of Antenna Ports	4
User Interaction	No

Test Parameter

Technology to test	WLAN2G4 ax-HE40
Antenna Port used	4
Temperature	nom
Voltage	nom
Frequency low to test	True Freq [MHz] 2422
Frequency mid to test	False Freq [MHz] 2437
Frequency high to test	False Freq [MHz] 2452
Auto Control enabled Power Supply Climatic Box	No No
Additional Path Loss [dB]	-10
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer

Test Equipment

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

Test at TX 2422 MHz

RESULT: Reference Power cond.

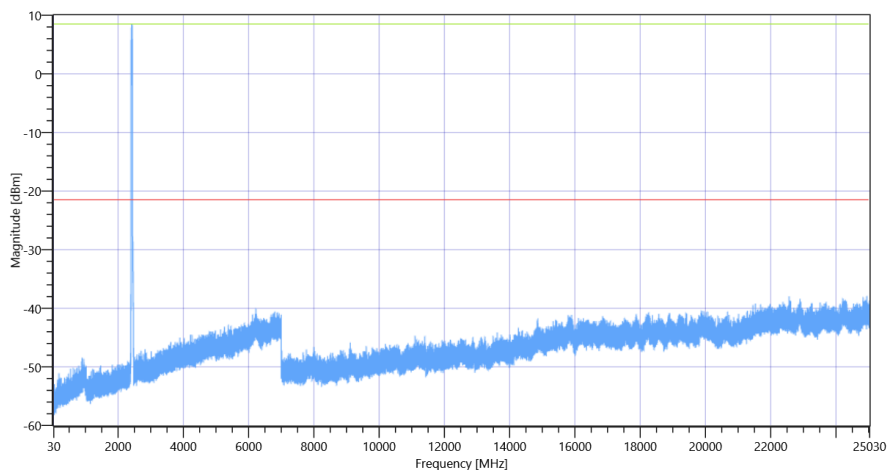
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	18.26	dBm	INFO
Ref. Frequency	---	---	2419.700	MHz	INFO

READ SA SETTINGS:

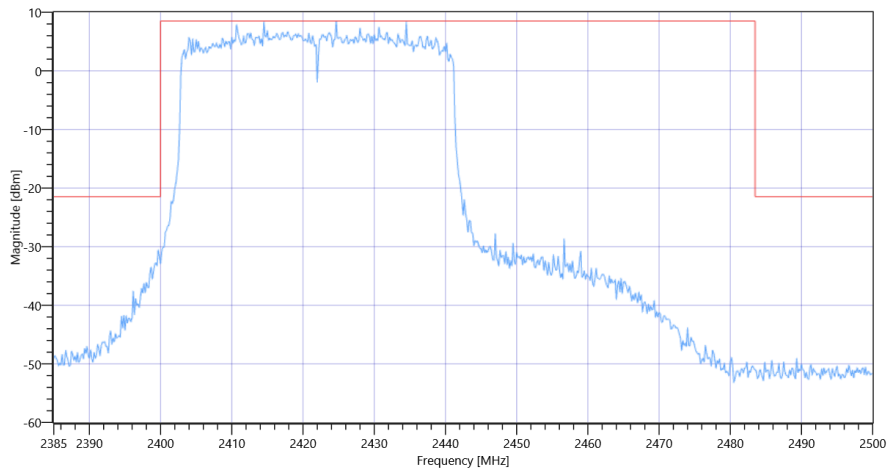
RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	18.26 0 35
Start [MHz] Stop [MHz]	24530.000 25030.000
RBW [MHz] VBW [MHz]	0.100000 0.300000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	200 25 3001 SWE

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Reference @ 2424.67 MHz	---	---	8.52	dBm	INFO
No peaks detected	---	---			PASS
Lowest margin to limit 2399.667 MHz	0	---	9.05	dB	INFO



FCC 15.247 # TX spurious conducted 30dBc ~ WLAN2G4 ax-HE40 2422



FCC 15.247 # TX spurious conducted 30dBc ~ WLAN2G4 ax-HE40 2422