

Test at TX 2437 MHz

RESULT: Reference Power cond.

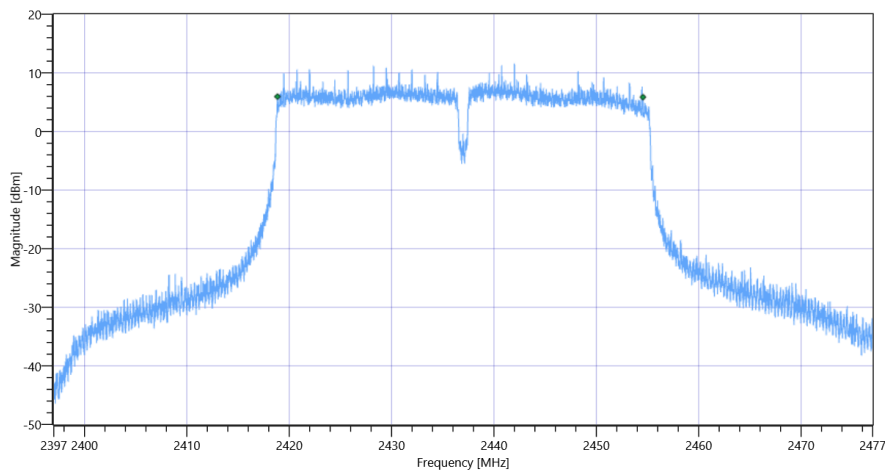
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	18.88	dBm	INFO
Ref. Frequency	---	---	2441.000	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	23.88 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	---	35704	kHz	PASS



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

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

Test References

TC Start	06.12.2022 12:55:21
Ambit Temp [°C] Humidity [rel%]	23.4 31
System Version	3.3.3.0
Test Specification	FCC 15.247 -
Test Method	IF DTS then 8.5 DTS emissions in non-restricted frequency bands: Subclause 11.11 of ANSI C63.10 is applicable
TC Version	0.0.1
My Description	FCC 15.247 TX Emissions Conducted 30dBc DTS DTS - WLAN2G4 n-HT40 mode

Add. Information

EUT Common Settings WLAN2G4

Number of Antenna Ports	4
User Interaction	No

Test Parameter

Technology to test	WLAN2G4 n-HT40 mode
Antenna Port used	4
Temperature	nom
Voltage	nom
Frequency low to test	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.

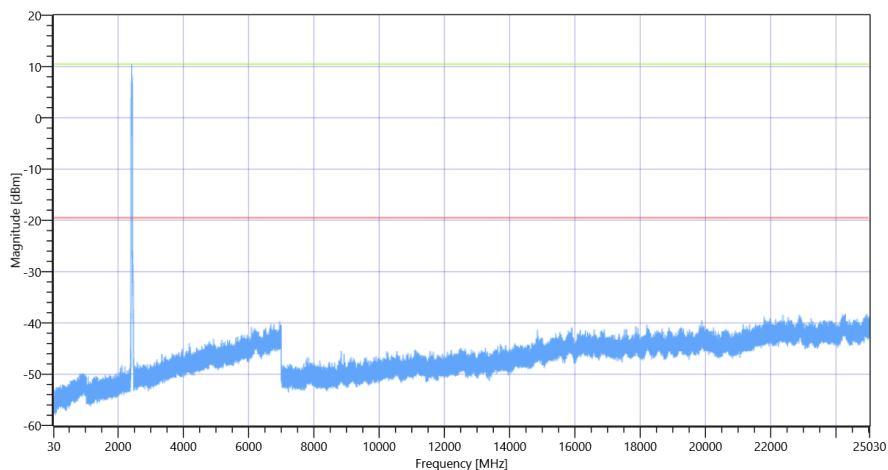
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	18.49	dBm	INFO
Ref. Frequency	---	---	2417.000	MHz	INFO

READ SA SETTINGS:

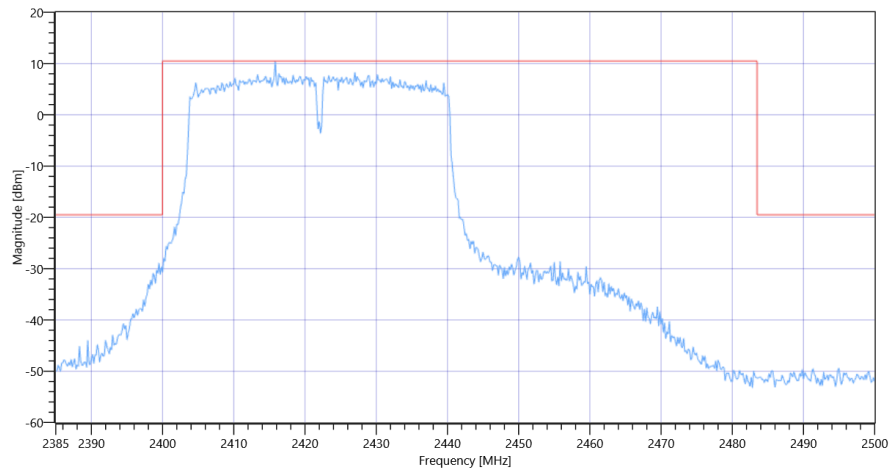
RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	18.49 0 35
Start [MHz] Stop [MHz]	24530.000 25030.000
RBW [MHz] VBW [MHz]	0.100000 0.300000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	200 25 3001 SWE

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Reference @ 2415.83 MHz	---	---	10.48	dBm	INFO
No peaks detected	---	---			PASS
Lowest margin to limit 2399.5 MHz	0	---	9.42	dB	INFO



FCC 15.247 # TX spurious conducted 30dBc ~ WLAN2G4 n-HT40 mode 2422



FCC 15.247 # TX spurious conducted 30dBc ~ WLAN2G4 n-HT40 mode 2422

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

Test References

TC Start	06.12.2022 12:54:22
Ambit Temp [°C] Humidity [rel%]	23.4 31
System Version	3.3.3.0
Test Specification	FCC 15.247, ISED RSS247 -
Test Method	
TC Version	0.0.2
My Description	FCC 15.247 Bandwidth 99PCT-20dB DTS - WLAN2G4 n-HT40 mode
Add. Information	

EUT Common Settings WLAN2G4

Number of Antenna Ports	4
User Interaction	No

Test Parameter

Technology to test	WLAN2G4 n-HT40 mode
Antenna Port used	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.	---	---	18.70	dBm	INFO
Ref. Frequency	---	---	2420.100	MHz	INFO

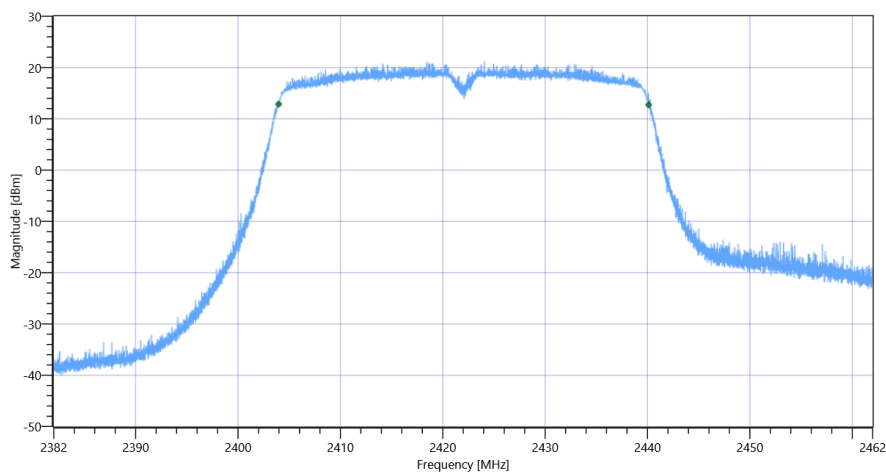
READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	23.70 5.13 35
Start [MHz] Stop [MHz]	2382.000 2462.000
RBW [MHz] VBW [MHz]	1.000000 3.000000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	50 200 10001 SWE

RESULT

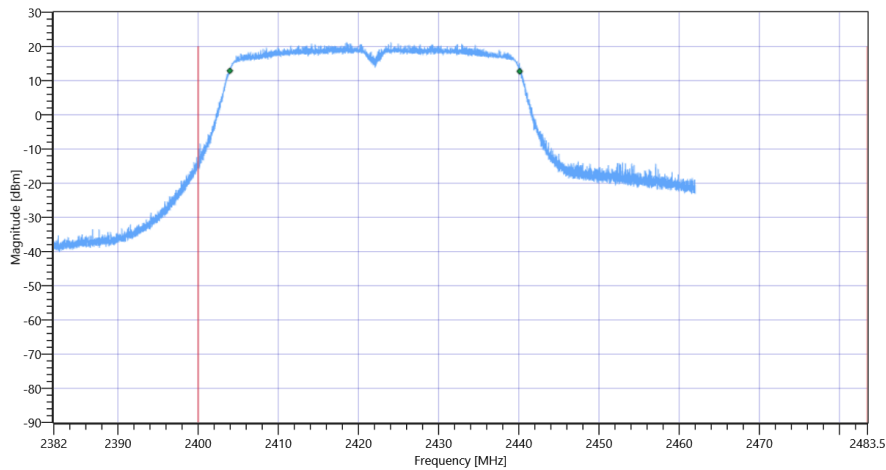
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 99%	---	---	36148.000	kHz	INFO
T1 99%	2400.000000	---	2403.9618	MHz	PASS
T2 99%	---	2483.500000	2440.1102	MHz	PASS

Plot: Bandwidth only



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

Plot: Bandwidth within Band

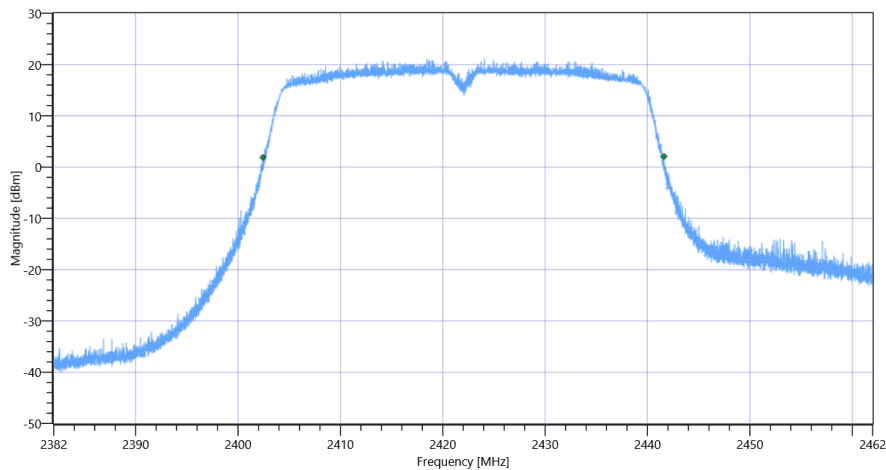


FCC 15.247, ISED RSS247 # Bandwidth 99PCT and 20dB ~ WLAN2G4 n-HT40 mode

RESULT

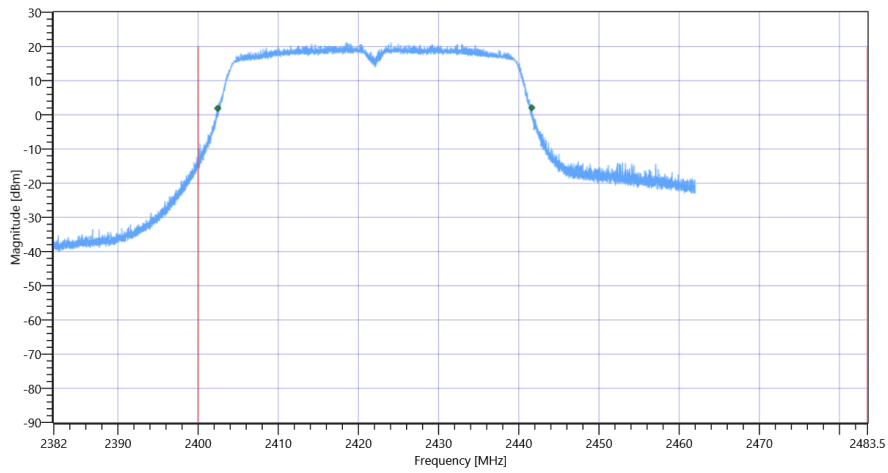
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 20dB	---	---	39176	kHz	INFO
T1 20dB	2400.000000	---	2402.4400	MHz	PASS
T2 20dB	---	2483.500000	2441.6160	MHz	PASS

Plot: Bandwidth only



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

Plot: Bandwidth within Band



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

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

Test References

TC Start	06.12.2022 12:52:34
Ambit Temp [°C] Humidity [rel%]	23.4 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 n-HT40 mode
Add. Information	

EUT Common Settings WLAN2G4

Number of Antenna Ports	4
User Interaction	No

Test Parameter

Technology to test	WLAN2G4 n-HT40 mode
Antenna Port used	4
Temperature	nom
Voltage	nom
Frequency low to test	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.	--	--	19.35	dBm	INFO
Ref. Frequency	--	--	2419.200	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

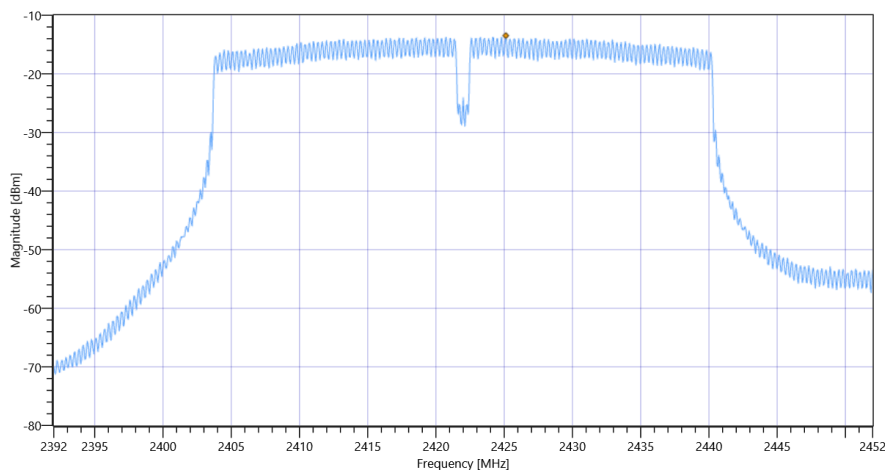
Avg. PSD

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	24.35 5.13 35
Start [MHz] Stop [MHz]	2392.000 2452.000
RBW [MHz] VBW [MHz]	0.003000 0.010000
Detector TraceMode	RMS AVER
Sweep: Time [ms] Count Points per Section Type	667 100 1001 SWE

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Avg PSD uncorrected	--	--	-13.47	dBm	INFO
Duty cycle correction	--	--	0	dB	INFO
Avg PSD DC corrected	--	8	-13.47	dBm/3kHz	PASS



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

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

Test References

TC Start	06.12.2022 12:51:58
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 nHT40_mode
Add. Information	

EUT Common Settings WLAN2G4

Number of Antenna Ports	4
User Interaction	No

Test Parameter

Technology to test	WLAN2G4 n-HT40 mode
Antenna Port used	4
Temperature	nom
Voltage	nom
Frequency low to test	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.

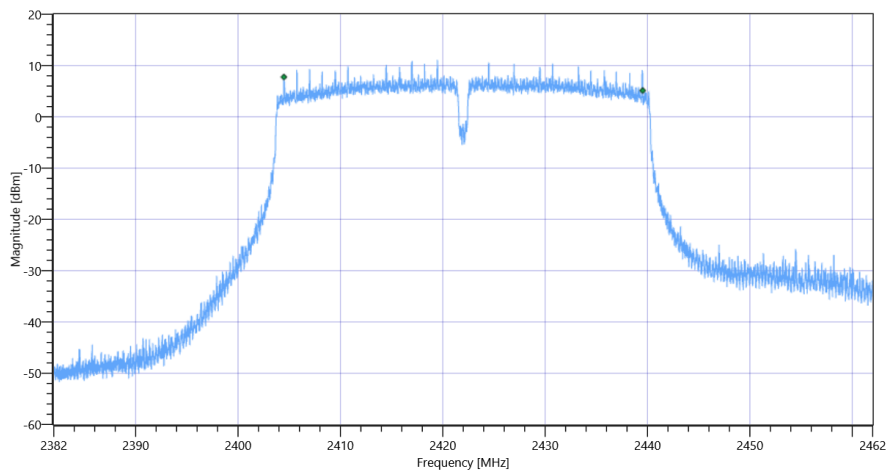
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	19.24	dBm	INFO
Ref. Frequency	---	---	2413.610	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	24.24 5.13 35
Start [MHz] Stop [MHz]	2382.000 2462.000
RBW [MHz] VBW [MHz]	0.100000 0.300000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	50 200 10001 SWE

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
DTS Bandwidth (6dB)	500	---	35048	kHz	PASS



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

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

Test References

TC Start	06.12.2022 12:41:45
Ambit Temp [°C] Humidity [rel%]	23.4 29
System Version	3.3.3.0
Test Specification	FCC 15.247 -
Test Method	IF DTS then 8.5 DTS emissions in non-restricted frequency bands: Subclause 11.11 of ANSI C63.10 is applicable
TC Version	0.0.1
My Description	FCC 15.247 TX Emissions Conducted 30dBc DTS DTS - WLAN2G4 n-HT40 mode

Add. Information

EUT Common Settings WLAN2G4

Number of Antenna Ports	4
User Interaction	No

Test Parameter

Technology to test	WLAN2G4 n-HT40 mode
Antenna Port used	3
Temperature	nom
Voltage	nom
Frequency low to test	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.

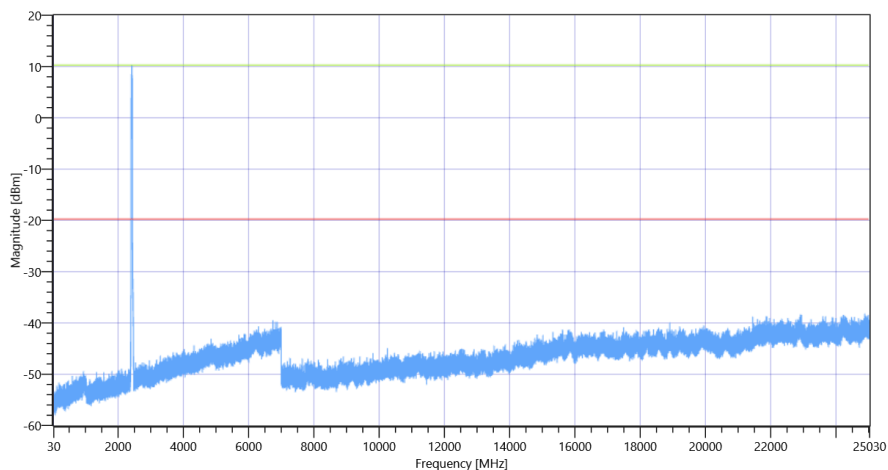
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	18.75	dBm	INFO
Ref. Frequency	---	---	2426.600	MHz	INFO

READ SA SETTINGS:

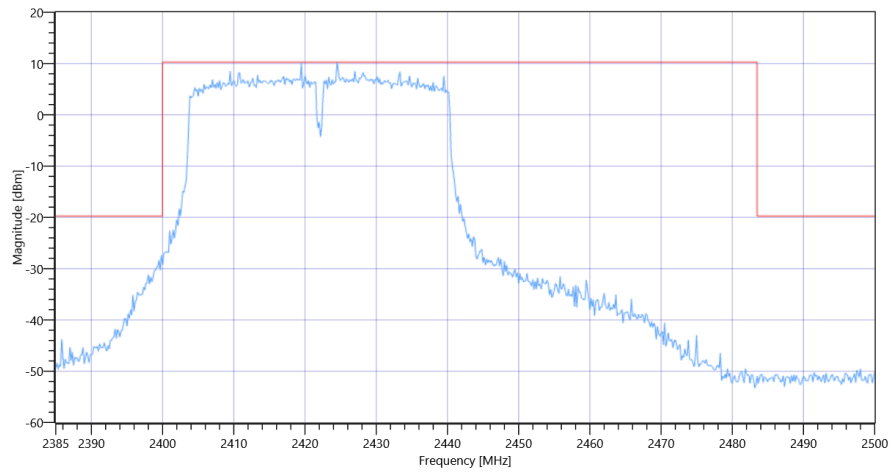
RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	18.75 0 35
Start [MHz] Stop [MHz]	24530.000 25030.000
RBW [MHz] VBW [MHz]	0.100000 0.300000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	200 25 3001 SWE

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Reference @ 2424.50 MHz	---	---	10.27	dBm	INFO
No peaks detected	---	---			PASS
Lowest margin to limit 30 MHz	0	---	-145.74	dB	INFO



FCC 15.247 # TX spurious conducted 30dBc ~ WLAN2G4 n-HT40 mode 2422



FCC 15.247 # TX spurious conducted 30dBc ~ WLAN2G4 n-HT40 mode 2422

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

Test References

TC Start	06.12.2022 12:40:45
Ambit Temp [°C] Humidity [rel%]	23.4 29
System Version	3.3.3.0
Test Specification	FCC 15.247, ISED RSS247 -
Test Method	
TC Version	0.0.2
My Description	FCC 15.247 Bandwidth 99PCT-20dB DTS - WLAN2G4 n-HT40 mode
Add. Information	

EUT Common Settings WLAN2G4

Number of Antenna Ports	4
User Interaction	No

Test Parameter

Technology to test	WLAN2G4 n-HT40 mode
Antenna Port used	3
Temperature	nom
Voltage	nom
Frequency low to test	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.	---	---	18.63	dBm	INFO
Ref. Frequency	---	---	2418.700	MHz	INFO

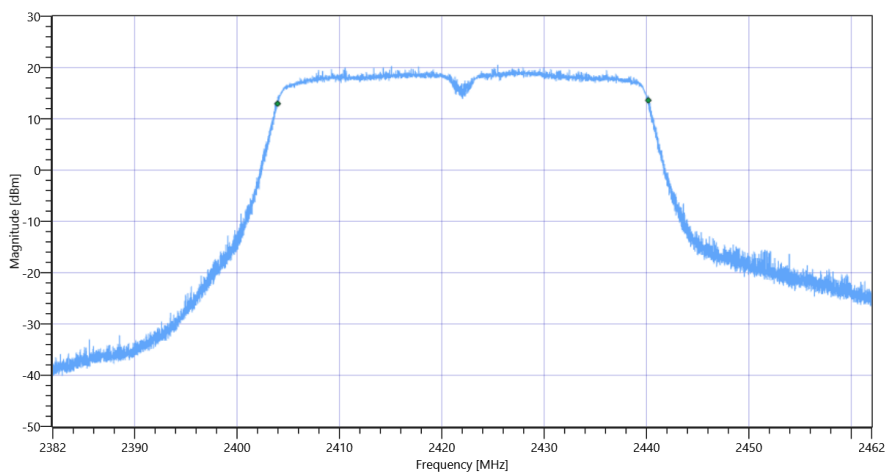
READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	23.63 5.13 35
Start [MHz] Stop [MHz]	2382.000 2462.000
RBW [MHz] VBW [MHz]	1.000000 3.000000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	50 200 10001 SWE

RESULT

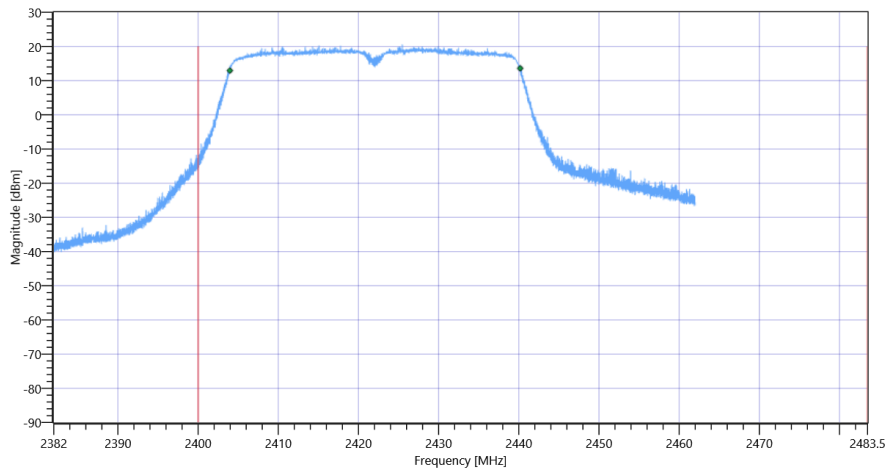
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 99%	---	---	36212.000	kHz	INFO
T1 99%	2400.000000	---	2403.9618	MHz	PASS
T2 99%	---	2483.500000	2440.1742	MHz	PASS

Plot: Bandwidth only



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

Plot: Bandwidth within Band

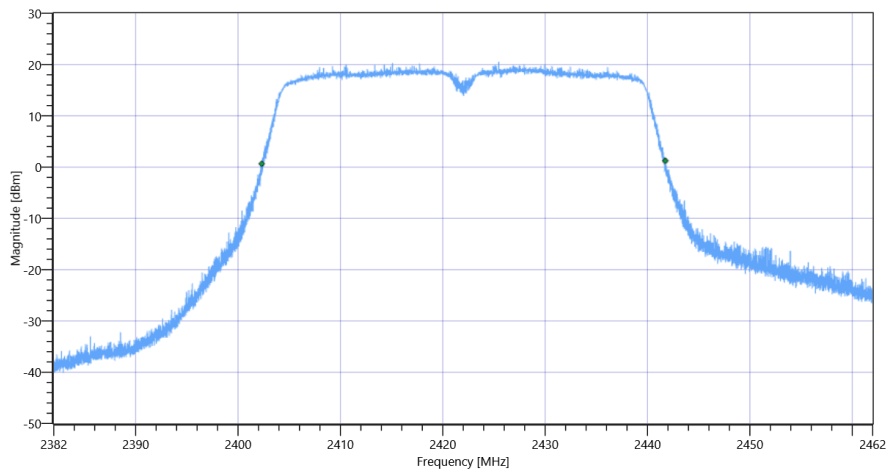


FCC 15.247, ISED RSS247 # Bandwidth 99PCT and 20dB ~ WLAN2G4 n-HT40 mode

RESULT

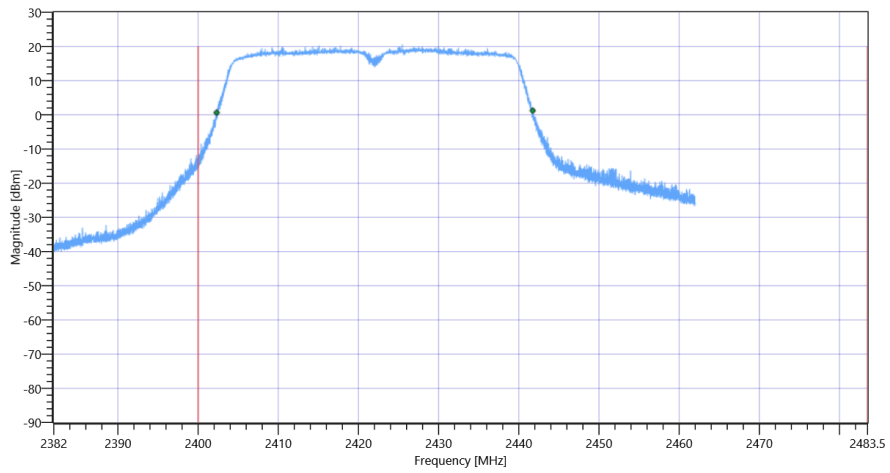
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 20dB	---	---	39424	kHz	INFO
T1 20dB	2400.000000	---	2402.3120	MHz	PASS
T2 20dB	---	2483.500000	2441.7360	MHz	PASS

Plot: Bandwidth only



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

Plot: Bandwidth within Band



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

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

Test References

TC Start	06.12.2022 12:38:58
Ambit Temp [°C] Humidity [rel%]	23.4 28
System Version	3.3.3.0
Test Specification	FCC 15.247 -
Test Method	ANSI C63.10-2013 Chapter 11.10.5 or.3
TC Version	0.0.1
My Description	FCC 15.247 Avg Power Spectral Density DTS - WLAN2G4 n-HT40 mode
Add. Information	

EUT Common Settings WLAN2G4

Number of Antenna Ports	4
User Interaction	No

Test Parameter

Technology to test	WLAN2G4 n-HT40 mode
Antenna Port used	3
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.	--	--	18.59	dBm	INFO
Ref. Frequency	--	--	2427.790	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

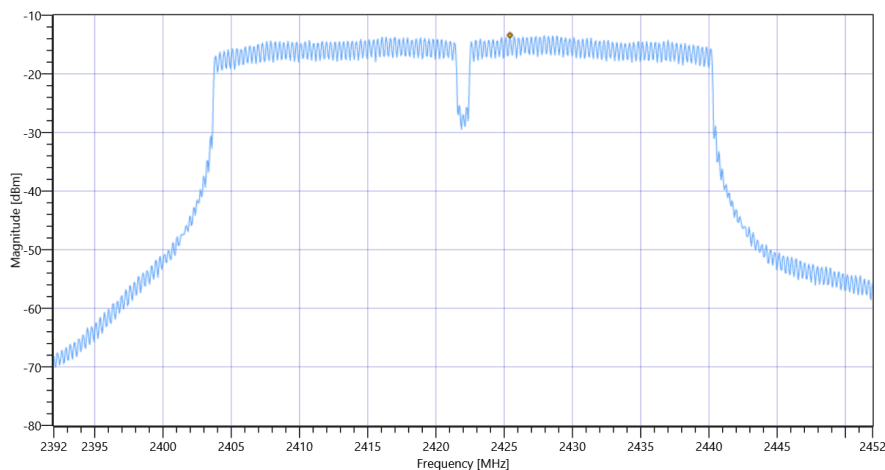
Avg. PSD

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	23.59 5.13 35
Start [MHz] Stop [MHz]	2392.000 2452.000
RBW [MHz] VBW [MHz]	0.003000 0.010000
Detector TraceMode	RMS AVER
Sweep: Time [ms] Count Points per Section Type	667 100 1001 SWE

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Avg PSD uncorrected	--	--	-13.4	dBm	INFO
Duty cycle correction	--	--	0	dB	INFO
Avg PSD DC corrected	--	8	-13.4	dBm/3kHz	PASS



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

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

Test References

TC Start	06.12.2022 12:38:22
Ambit Temp [°C] Humidity [rel%]	23.4 28
System Version	3.3.3.0
Test Specification	FCC 15.247 -
Test Method	
TC Version	0.0.1
My Description	FCC 15.247 Bandwidth 6dB DTS - WLAN2G4 nHT40_mode
Add. Information	

EUT Common Settings WLAN2G4

Number of Antenna Ports	4
User Interaction	No

Test Parameter

Technology to test	WLAN2G4 n-HT40 mode
Antenna Port used	3
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.

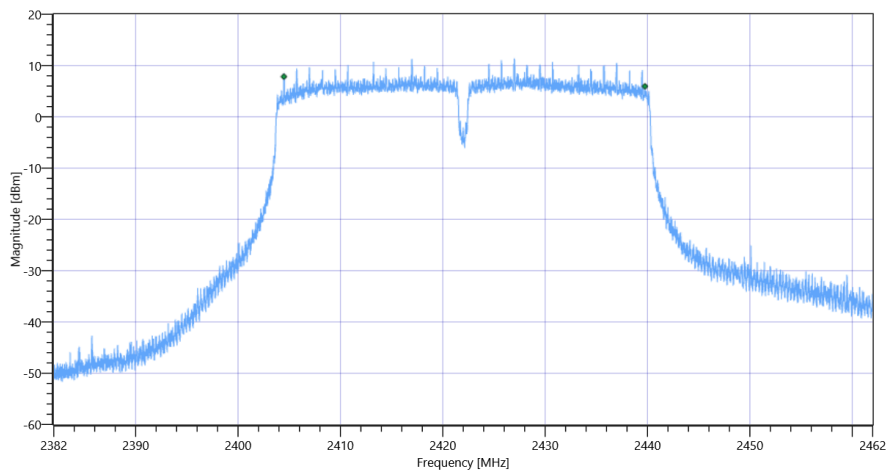
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	19.49	dBm	INFO
Ref. Frequency	---	---	2416.910	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	24.49 5.13 35
Start [MHz] Stop [MHz]	2382.000 2462.000
RBW [MHz] VBW [MHz]	0.100000 0.300000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	50 200 10001 SWE

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
DTS Bandwidth (6dB)	500	---	35264	kHz	PASS



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

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

Test References

TC Start	06.12.2022 12:28:08
Ambit Temp [°C] Humidity [rel%]	23.7 28
System Version	3.3.3.0
Test Specification	FCC 15.247 -
Test Method	IF DTS then 8.5 DTS emissions in non-restricted frequency bands: Subclause 11.11 of ANSI C63.10 is applicable
TC Version	0.0.1
My Description	FCC 15.247 TX Emissions Conducted 30dBc DTS DTS - WLAN2G4 n-HT40 mode

Add. Information

EUT Common Settings WLAN2G4

Number of Antenna Ports	4
User Interaction	No

Test Parameter

Technology to test	WLAN2G4 n-HT40 mode
Antenna Port used	2
Temperature	nom
Voltage	nom
Frequency low to test	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.

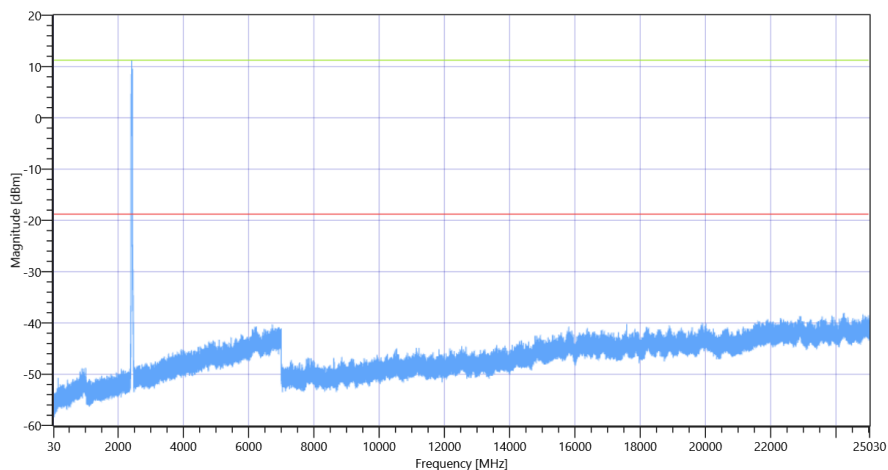
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	19.33	dBm	INFO
Ref. Frequency	---	---	2426.800	MHz	INFO

READ SA SETTINGS:

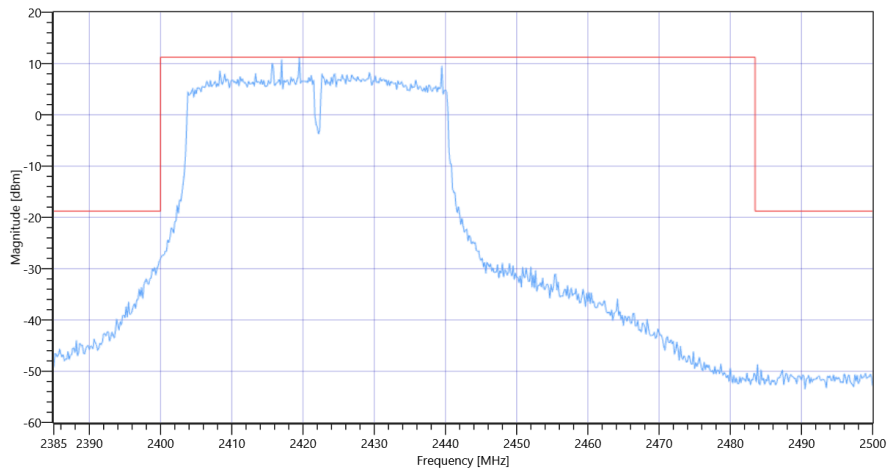
RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	19.33 0 35
Start [MHz] Stop [MHz]	24530.000 25030.000
RBW [MHz] VBW [MHz]	0.100000 0.300000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	200 25 3001 SWE

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Reference @ 2419.50 MHz	---	---	11.21	dBm	INFO
No peaks detected	---	---			PASS
Lowest margin to limit 30 MHz	0	---	-146.3	dB	INFO



FCC 15.247 # TX spurious conducted 30dBc ~ WLAN2G4 n-HT40 mode 2422



FCC 15.247 # TX spurious conducted 30dBc ~ WLAN2G4 n-HT40 mode 2422

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

Test References

TC Start	06.12.2022 12:27:10
Ambit Temp [°C] Humidity [rel%]	23.7 28
System Version	3.3.3.0
Test Specification	FCC 15.247, ISED RSS247 -
Test Method	
TC Version	0.0.2
My Description	FCC 15.247 Bandwidth 99PCT-20dB DTS - WLAN2G4 n-HT40 mode
Add. Information	

EUT Common Settings WLAN2G4

Number of Antenna Ports	4
User Interaction	No

Test Parameter

Technology to test	WLAN2G4 n-HT40 mode
Antenna Port used	2
Temperature	nom
Voltage	nom
Frequency low to test	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.	---	---	19.07	dBm	INFO
Ref. Frequency	---	---	2431.090	MHz	INFO

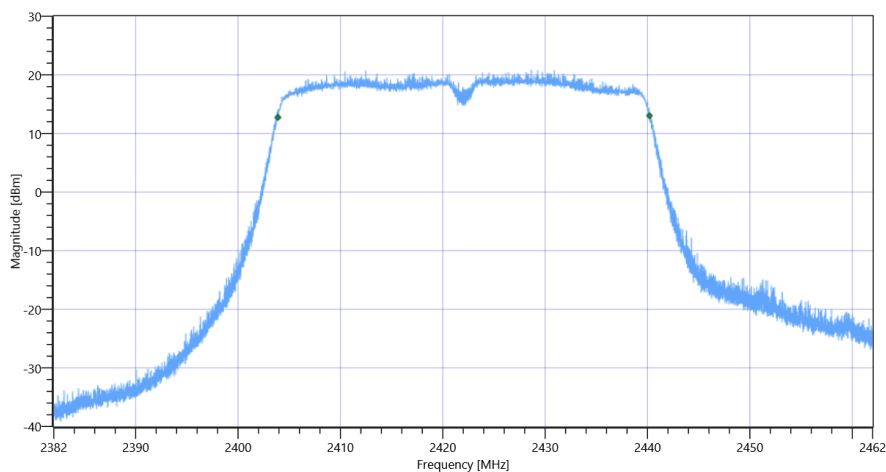
READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	24.07 5.13 35
Start [MHz] Stop [MHz]	2382.000 2462.000
RBW [MHz] VBW [MHz]	1.000000 3.000000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	50 200 10001 SWE

RESULT

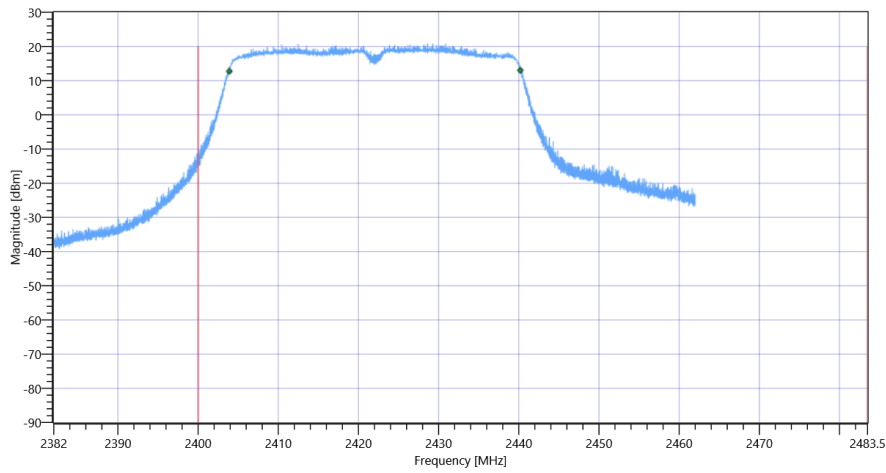
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 99%	---	---	36300.000	kHz	INFO
T1 99%	2400.000000	---	2403.8898	MHz	PASS
T2 99%	---	2483.500000	2440.1902	MHz	PASS

Plot: Bandwidth only



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

Plot: Bandwidth within Band

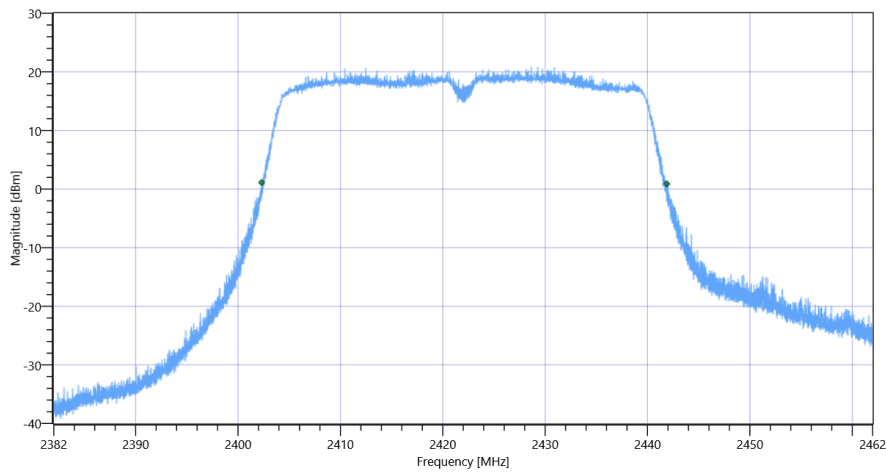


FCC 15.247, ISED RSS247 # Bandwidth 99PCT and 20dB ~ WLAN2G4 n-HT40 mode

RESULT

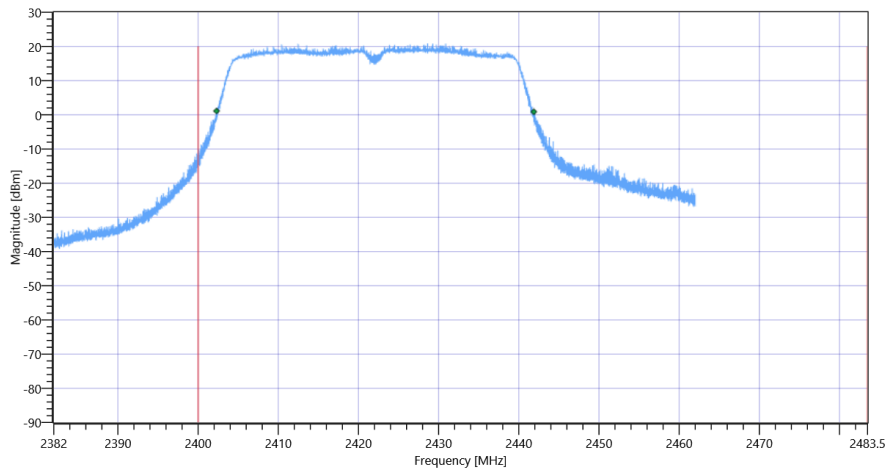
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 20dB	---	---	39576	kHz	INFO
T1 20dB	2400.000000	---	2402.2960	MHz	PASS
T2 20dB	---	2483.500000	2441.8720	MHz	PASS

Plot: Bandwidth only



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

Plot: Bandwidth within Band



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

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

Test References

TC Start	06.12.2022 12:25:22
Ambit Temp [°C] Humidity [rel%]	23.7 28
System Version	3.3.3.0
Test Specification	FCC 15.247 -
Test Method	ANSI C63.10-2013 Chapter 11.10.5 or.3
TC Version	0.0.1
My Description	FCC 15.247 Avg Power Spectral Density DTS - WLAN2G4 n-HT40 mode
Add. Information	

EUT Common Settings WLAN2G4

Number of Antenna Ports	4
User Interaction	No

Test Parameter

Technology to test	WLAN2G4 n-HT40 mode
Antenna Port used	2
Temperature	nom
Voltage	nom
Frequency low to test	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.	--	--	19.57	dBm	INFO
Ref. Frequency	--	--	2429.390	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

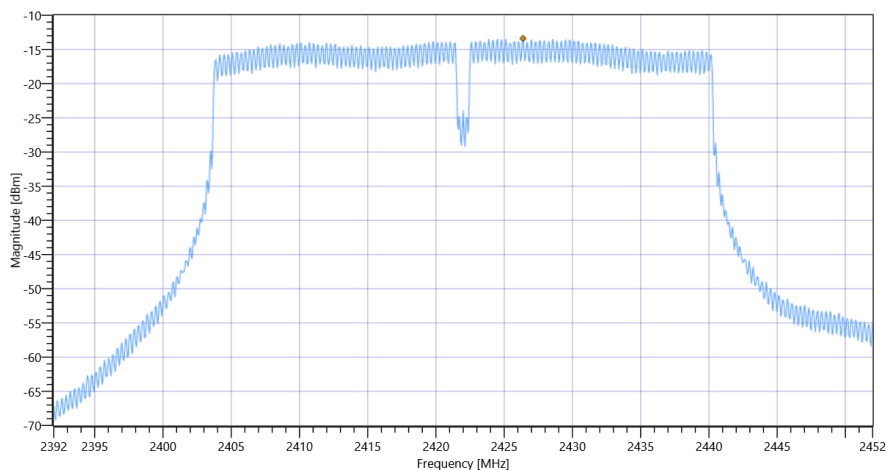
Avg. PSD

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	24.57 5.13 35
Start [MHz] Stop [MHz]	2392.000 2452.000
RBW [MHz] VBW [MHz]	0.003000 0.010000
Detector TraceMode	RMS AVER
Sweep: Time [ms] Count Points per Section Type	667 100 1001 SWE

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Avg PSD uncorrected	--	--	-13.38	dBm	INFO
Duty cycle correction	--	--	0	dB	INFO
Avg PSD DC corrected	--	8	-13.38	dBm/3kHz	PASS



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

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

Test References

TC Start	06.12.2022 12:24:47
Ambit Temp [°C] Humidity [rel%]	23.7 28
System Version	3.3.3.0
Test Specification	FCC 15.247 -
Test Method	
TC Version	0.0.1
My Description	FCC 15.247 Bandwidth 6dB DTS - WLAN2G4 nHT40_mode
Add. Information	

EUT Common Settings WLAN2G4

Number of Antenna Ports	4
User Interaction	No

Test Parameter

Technology to test	WLAN2G4 n-HT40 mode
Antenna Port used	2
Temperature	nom
Voltage	nom
Frequency low to test	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.

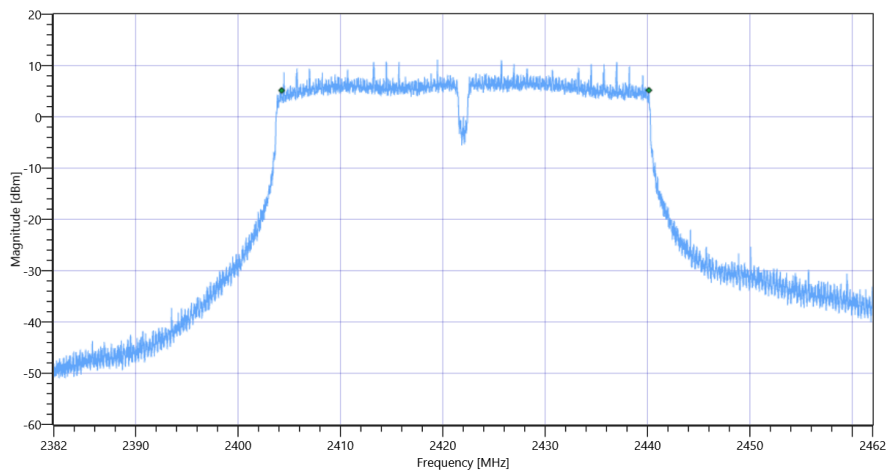
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	18.60	dBm	INFO
Ref. Frequency	---	---	2427.990	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	23.60 5.13 35
Start [MHz] Stop [MHz]	2382.000 2462.000
RBW [MHz] VBW [MHz]	0.100000 0.300000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	50 200 10001 SWE

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
DTS Bandwidth (6dB)	500	---	35880	kHz	PASS



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

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

Test References

TC Start	06.12.2022 12:14:35
Ambit Temp [°C] Humidity [rel%]	23.8 29
System Version	3.3.3.0
Test Specification	FCC 15.247 -
Test Method	IF DTS then 8.5 DTS emissions in non-restricted frequency bands: Subclause 11.11 of ANSI C63.10 is applicable
TC Version	0.0.1
My Description	FCC 15.247 TX Emissions Conducted 30dBc DTS DTS - WLAN2G4 n-HT40 mode

Add. Information

EUT Common Settings WLAN2G4

Number of Antenna Ports	4
User Interaction	No

Test Parameter

Technology to test	WLAN2G4 n-HT40 mode
Antenna Port used	1
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.

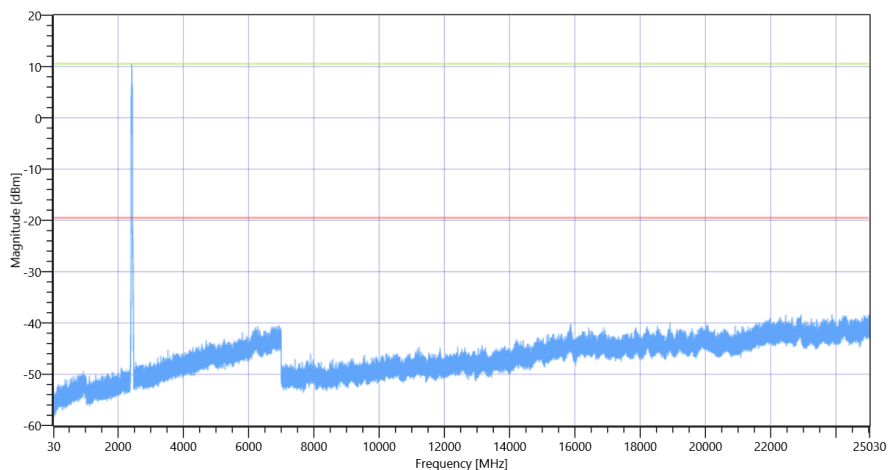
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	18.69	dBm	INFO
Ref. Frequency	---	---	2426.000	MHz	INFO

READ SA SETTINGS:

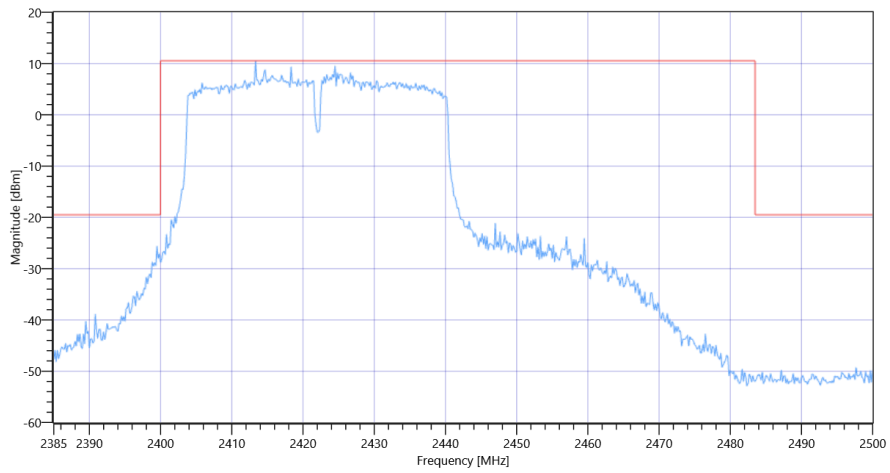
RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	18.69 0 35
Start [MHz] Stop [MHz]	24530.000 25030.000
RBW [MHz] VBW [MHz]	0.100000 0.300000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	200 25 3001 SWE

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Reference @ 2413.33 MHz	---	---	10.50	dBm	INFO
No peaks detected	---	---			PASS
Lowest margin to limit 2399.5 MHz	0	---	6.16	dB	INFO



FCC 15.247 # TX spurious conducted 30dBc ~ WLAN2G4 n-HT40 mode 2422



FCC 15.247 # TX spurious conducted 30dBc ~ WLAN2G4 n-HT40 mode 2422

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

Test References

TC Start	06.12.2022 12:13:36
Ambit Temp [°C] Humidity [rel%]	23.8 29
System Version	3.3.3.0
Test Specification	FCC 15.247, ISED RSS247 -
Test Method	
TC Version	0.0.2
My Description	FCC 15.247 Bandwidth 99PCT-20dB DTS - WLAN2G4 n-HT40 mode
Add. Information	

EUT Common Settings WLAN2G4

Number of Antenna Ports	4
User Interaction	No

Test Parameter

Technology to test	WLAN2G4 n-HT40 mode
Antenna Port used	1
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.	---	---	18.68	dBm	INFO
Ref. Frequency	---	---	2425.600	MHz	INFO

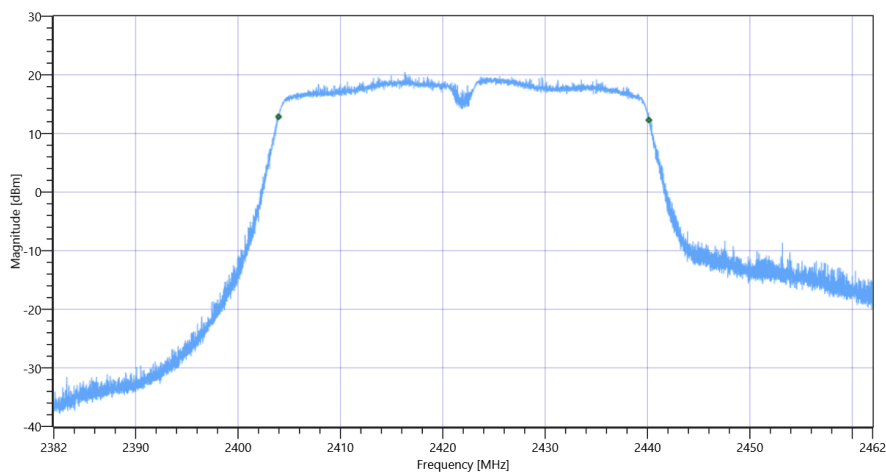
READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	23.68 5.13 35
Start [MHz] Stop [MHz]	2382.000 2462.000
RBW [MHz] VBW [MHz]	1.000000 3.000000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	50 200 10001 SWE

RESULT

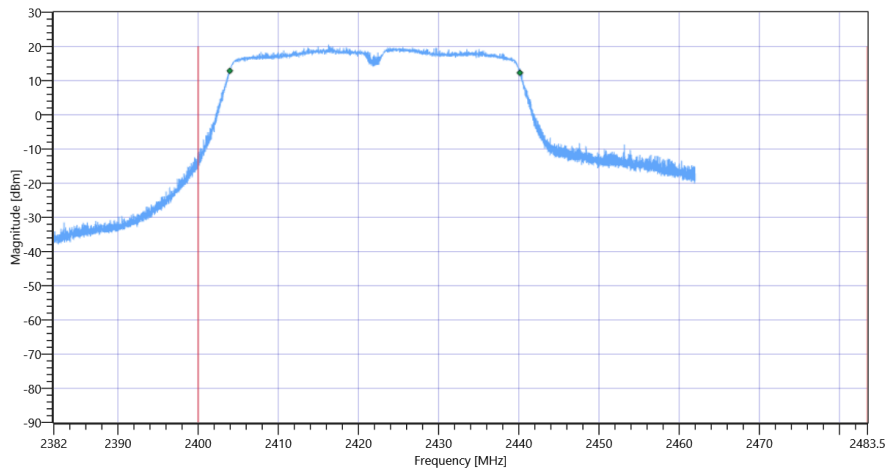
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 99%	---	---	36180.000	kHz	INFO
T1 99%	2400.000000	---	2403.9538	MHz	PASS
T2 99%	---	2483.500000	2440.1342	MHz	PASS

Plot: Bandwidth only



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

Plot: Bandwidth within Band

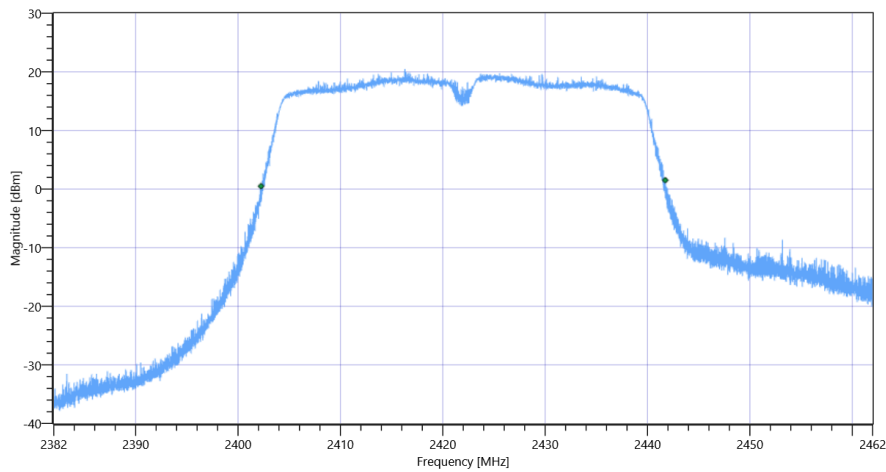


FCC 15.247, ISED RSS247 # Bandwidth 99PCT and 20dB ~ WLAN2G4 n-HT40 mode

RESULT

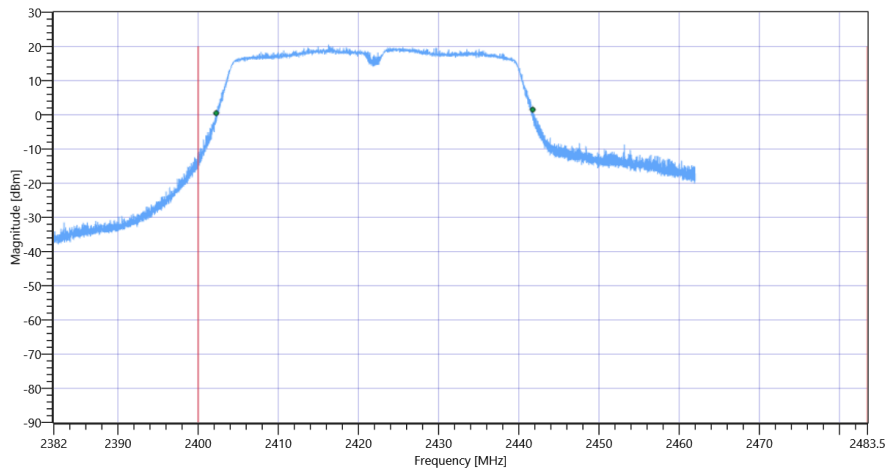
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 20dB	---	---	39488	kHz	INFO
T1 20dB	2400.000000	---	2402.2480	MHz	PASS
T2 20dB	---	2483.500000	2441.7360	MHz	PASS

Plot: Bandwidth only



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

Plot: Bandwidth within Band



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

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

Test References

TC Start	06.12.2022 12:11:49
Ambit Temp [°C] Humidity [rel%]	23.8 30
System Version	3.3.3.0
Test Specification	FCC 15.247 -
Test Method	ANSI C63.10-2013 Chapter 11.10.5 or.3
TC Version	0.0.1
My Description	FCC 15.247 Avg Power Spectral Density DTS - WLAN2G4 n-HT40 mode
Add. Information	

EUT Common Settings WLAN2G4

Number of Antenna Ports	4
User Interaction	No

Test Parameter

Technology to test	WLAN2G4 n-HT40 mode
Antenna Port used	1
Temperature	nom
Voltage	nom
Frequency low to test	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.	--	--	18.86	dBm	INFO
Ref. Frequency	--	--	2423.800	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

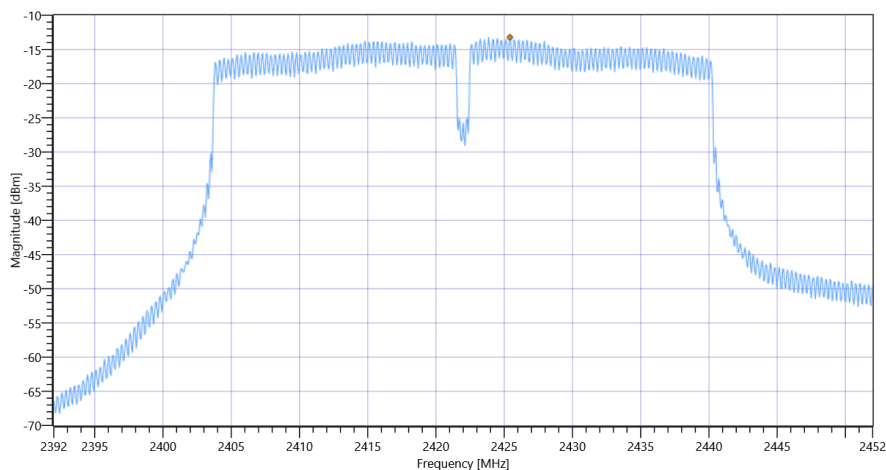
Avg. PSD

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	23.86 5.13 35
Start [MHz] Stop [MHz]	2392.000 2452.000
RBW [MHz] VBW [MHz]	0.003000 0.010000
Detector TraceMode	RMS AVER
Sweep: Time [ms] Count Points per Section Type	667 100 1001 SWE

RESULT

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



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

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

Test References

TC Start	06.12.2022 12:11:13
Ambit Temp [°C] Humidity [rel%]	23.8 30
System Version	3.3.3.0
Test Specification	FCC 15.247 -
Test Method	
TC Version	0.0.1
My Description	FCC 15.247 Bandwidth 6dB DTS - WLAN2G4 nHT40_mode
Add. Information	

EUT Common Settings WLAN2G4

Number of Antenna Ports	4
User Interaction	No

Test Parameter

Technology to test	WLAN2G4 n-HT40 mode
Antenna Port used	1
Temperature	nom
Voltage	nom
Frequency low to test	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.

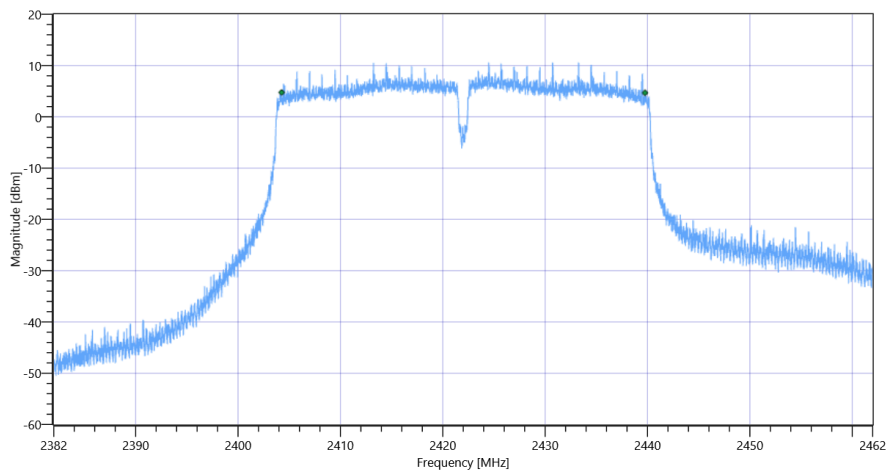
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	18.68	dBm	INFO
Ref. Frequency	---	---	2416.910	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	23.68 5.13 35
Start [MHz] Stop [MHz]	2382.000 2462.000
RBW [MHz] VBW [MHz]	0.100000 0.300000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	50 200 10001 SWE

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
DTS Bandwidth (6dB)	500	---	35496	kHz	PASS



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

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

Test References

TC Start	06.12.2022 16:56:25
Ambit Temp [°C] Humidity [rel%]	22.8 31
System Version	3.3.3.0
Test Specification	FCC 15.247 -
Test Method	IF DTS then 8.5 DTS emissions in non-restricted frequency bands: Subclause 11.11 of ANSI C63.10 is applicable
TC Version	0.0.1
My Description	FCC 15.247 TX Emissions Conducted 30dBc DTS DTS - WLAN2G4 n-HT40 mode

Add. Information

EUT Common Settings WLAN2G4

Number of Antenna Ports	4
User Interaction	No

Test Parameter

Technology to test	WLAN2G4 n-HT40 mode
Antenna Port used	4
Temperature	nom
Voltage	nom
Frequency low to test	False Freq [MHz] 2427
Frequency mid to test	False Freq [MHz] 2437
Frequency high to test	True Freq [MHz] 2447
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 2447 MHz

RESULT: Reference Power cond.

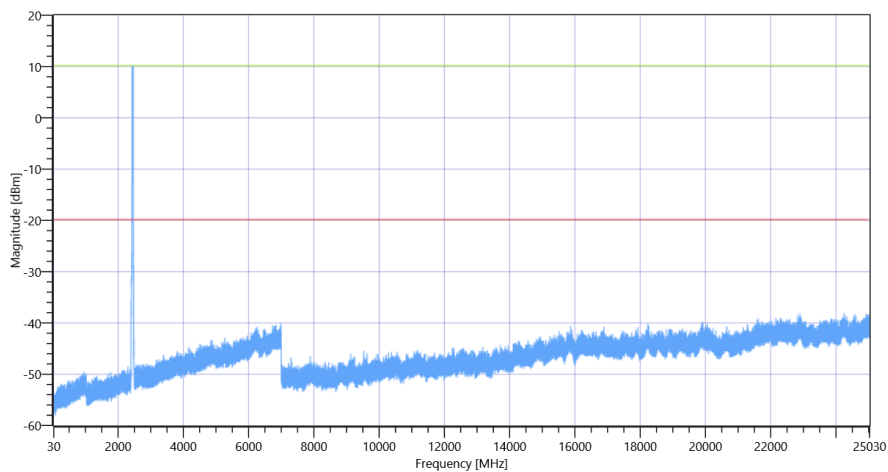
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	19.09	dBm	INFO
Ref. Frequency	---	---	2450.100	MHz	INFO

READ SA SETTINGS:

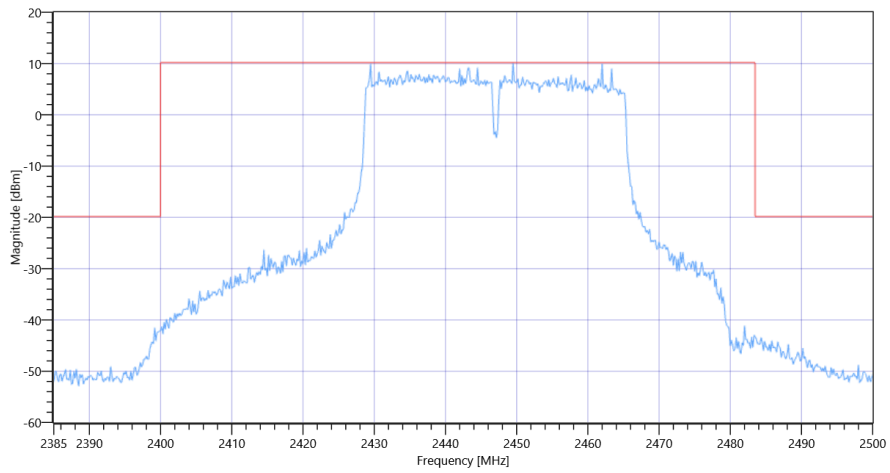
RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	19.09 0 35
Start [MHz] Stop [MHz]	24530.000 25030.000
RBW [MHz] VBW [MHz]	0.100000 0.300000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	200 25 3001 SWE

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Reference @ 2449.50 MHz	---	---	10.17	dBm	INFO
No peaks detected	---	---			PASS
Lowest margin to limit 24257.833 MHz	0	---	18.23	dB	INFO



FCC 15.247 # TX spurious conducted 30dBc ~ WLAN2G4 n-HT40 mode 2447



FCC 15.247 # TX spurious conducted 30dBc ~ WLAN2G4 n-HT40 mode 2447

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

Test References

TC Start	06.12.2022 16:55:25
Ambit Temp [°C] Humidity [rel%]	22.8 31
System Version	3.3.3.0
Test Specification	FCC 15.247, ISED RSS247 -
Test Method	
TC Version	0.0.2
My Description	FCC 15.247 Bandwidth 99PCT-20dB DTS - WLAN2G4 n-HT40 mode
Add. Information	

EUT Common Settings WLAN2G4

Number of Antenna Ports	4
User Interaction	No

Test Parameter

Technology to test	WLAN2G4 n-HT40 mode
Antenna Port used	4
Temperature	nom
Voltage	nom
Frequency low to test	False Freq [MHz] 2427
Frequency mid to test	False Freq [MHz] 2437
Frequency high to test	True Freq [MHz] 2447
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 2447 MHz

RESULT: Reference Power cond.

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	19.55	dBm	INFO
Ref. Frequency	---	---	2435.110	MHz	INFO

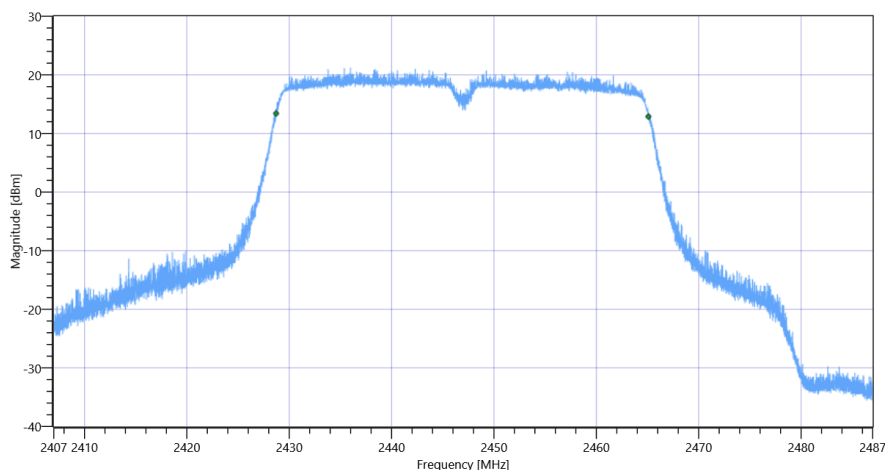
READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	24.55 4.9 35
Start [MHz] Stop [MHz]	2407.000 2487.000
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

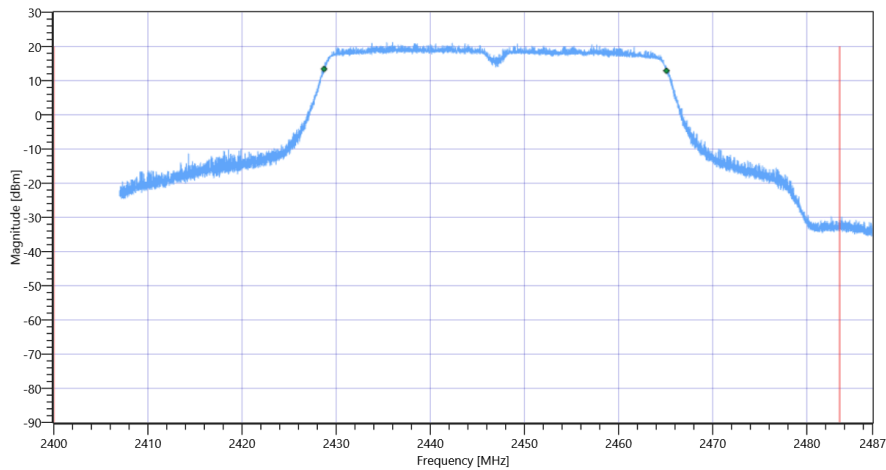
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 99%	---	---	36372.000	kHz	INFO
T1 99%	2400.000000	---	2428.7138	MHz	PASS
T2 99%	---	2483.500000	2465.0862	MHz	PASS

Plot: Bandwidth only



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

Plot: Bandwidth within Band

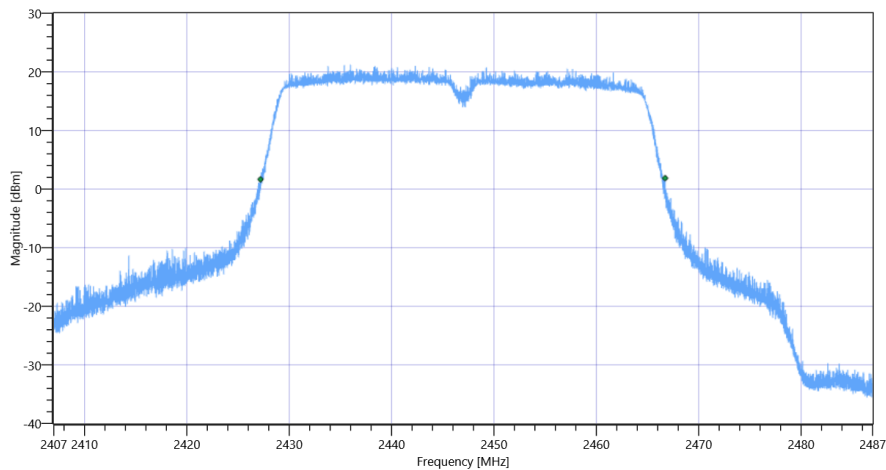


FCC 15.247, ISED RSS247 # Bandwidth 99PCT and 20dB ~ WLAN2G4 n-HT40 mode

RESULT

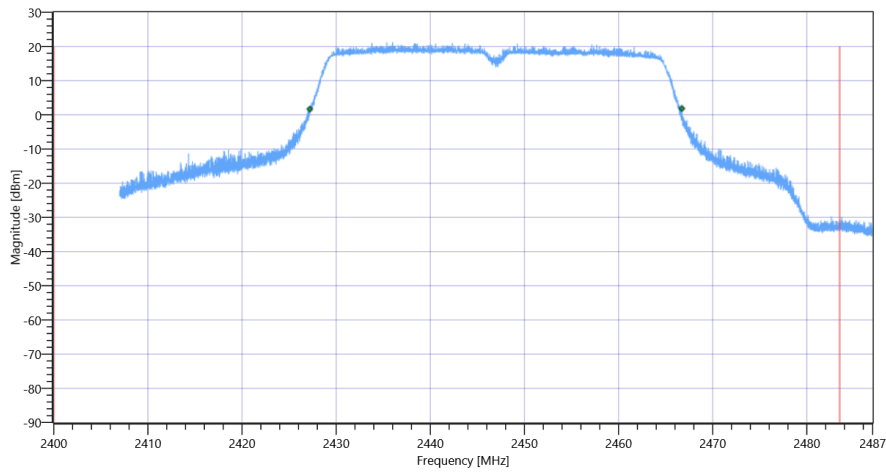
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 20dB	---	---	39528	kHz	INFO
T1 20dB	2400.000000	---	2427.1920	MHz	PASS
T2 20dB	---	2483.500000	2466.7200	MHz	PASS

Plot: Bandwidth only



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

Plot: Bandwidth within Band



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

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

Test References

TC Start	06.12.2022 16:53:37
Ambit Temp [°C] Humidity [rel%]	22.8 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 n-HT40 mode
Add. Information	

EUT Common Settings WLAN2G4

Number of Antenna Ports	4
User Interaction	No

Test Parameter

Technology to test	WLAN2G4 n-HT40 mode
Antenna Port used	4
Temperature	nom
Voltage	nom
Frequency low to test	False Freq [MHz] 2427
Frequency mid to test	False Freq [MHz] 2437
Frequency high to test	True Freq [MHz] 2447
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 2447 MHz

RESULT: Reference Power cond.

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	--	--	18.95	dBm	INFO
Ref. Frequency	--	--	2449.400	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

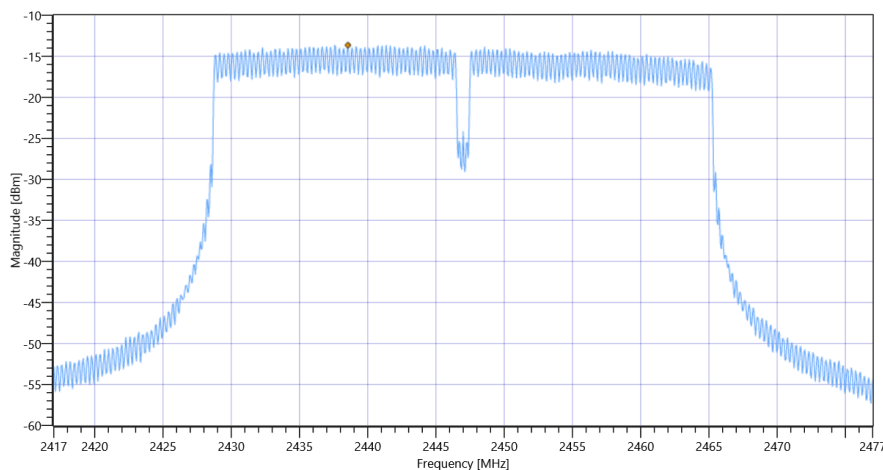
Avg. PSD

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	23.95 4.9 35
Start [MHz] Stop [MHz]	2417.000 2477.000
RBW [MHz] VBW [MHz]	0.003000 0.010000
Detector TraceMode	RMS AVER
Sweep: Time [ms] Count Points per Section Type	667 100 1001 SWE

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Avg PSD uncorrected	--	--	-13.64	dBm	INFO
Duty cycle correction	--	--	0	dB	INFO
Avg PSD DC corrected	--	8	-13.64	dBm/3kHz	PASS



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

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

Test References

TC Start	06.12.2022 16:53:01
Ambit Temp [°C] Humidity [rel%]	22.8 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 nHT40_mode
Add. Information	

EUT Common Settings WLAN2G4

Number of Antenna Ports	4
User Interaction	No

Test Parameter

Technology to test	WLAN2G4 n-HT40 mode
Antenna Port used	4
Temperature	nom
Voltage	nom
Frequency low to test	False Freq [MHz] 2427
Frequency mid to test	False Freq [MHz] 2437
Frequency high to test	True Freq [MHz] 2447
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 2447 MHz

RESULT: Reference Power cond.

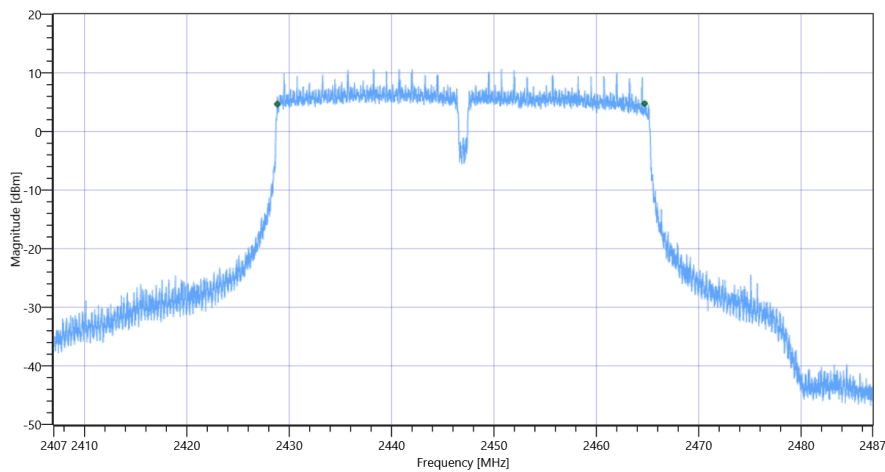
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	20.29	dBm	INFO
Ref. Frequency	---	---	2437.510	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	25.29 4.9 40
Start [MHz] Stop [MHz]	2407.000 2487.000
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	---	35896	kHz	PASS



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

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

Test References

TC Start	06.12.2022 16:42:47
Ambit Temp [°C] Humidity [rel%]	22.7 31
System Version	3.3.3.0
Test Specification	FCC 15.247 -
Test Method	IF DTS then 8.5 DTS emissions in non-restricted frequency bands: Subclause 11.11 of ANSI C63.10 is applicable
TC Version	0.0.1
My Description	FCC 15.247 TX Emissions Conducted 30dBc DTS DTS - WLAN2G4 n-HT40 mode

Add. Information

EUT Common Settings WLAN2G4

Number of Antenna Ports	4
User Interaction	No

Test Parameter

Technology to test	WLAN2G4 n-HT40 mode
Antenna Port used	3
Temperature	nom
Voltage	nom
Frequency low to test	False Freq [MHz] 2427
Frequency mid to test	False Freq [MHz] 2437
Frequency high to test	True Freq [MHz] 2447
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 2447 MHz

RESULT: Reference Power cond.

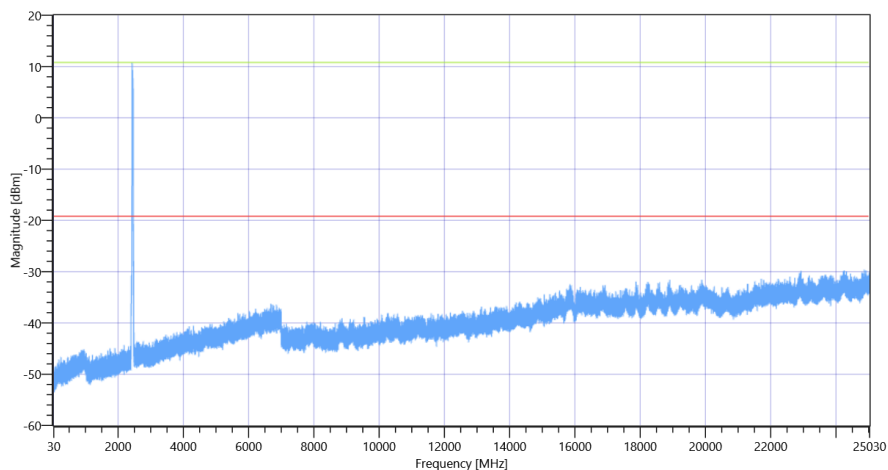
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	20.26	dBm	INFO
Ref. Frequency	---	---	2435.510	MHz	INFO

READ SA SETTINGS:

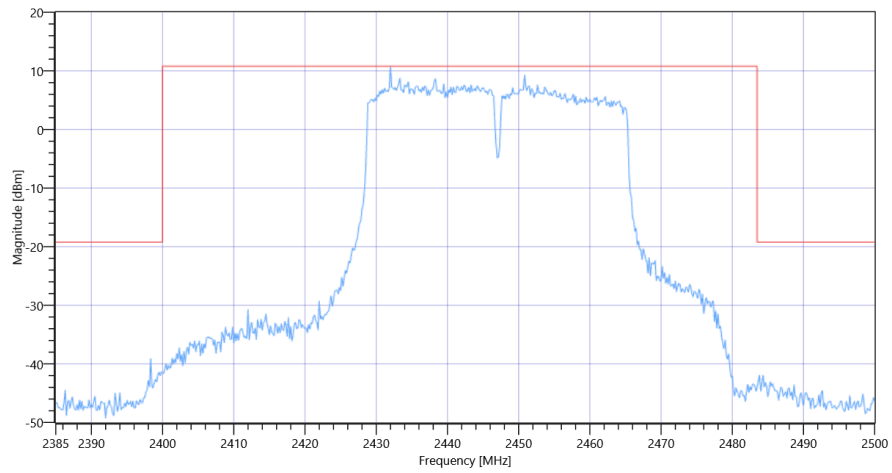
RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	20.26 0 40
Start [MHz] Stop [MHz]	24530.000 25030.000
RBW [MHz] VBW [MHz]	0.100000 0.300000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	200 25 3001 SWE

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Reference @ 2432.00 MHz	---	---	10.79	dBm	INFO
No peaks detected	---	---			PASS
Lowest margin to limit 24869.5 MHz	0	---	10.41	dB	INFO



FCC 15.247 # TX spurious conducted 30dBc ~ WLAN2G4 n-HT40 mode 2447



FCC 15.247 # TX spurious conducted 30dBc ~ WLAN2G4 n-HT40 mode 2447

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

Test References

TC Start	06.12.2022 16:41:48
Ambit Temp [°C] Humidity [rel%]	22.7 31
System Version	3.3.3.0
Test Specification	FCC 15.247, ISED RSS247 -
Test Method	
TC Version	0.0.2
My Description	FCC 15.247 Bandwidth 99PCT-20dB DTS - WLAN2G4 n-HT40 mode
Add. Information	

EUT Common Settings WLAN2G4

Number of Antenna Ports	4
User Interaction	No

Test Parameter

Technology to test	WLAN2G4 n-HT40 mode
Antenna Port used	3
Temperature	nom
Voltage	nom
Frequency low to test	False Freq [MHz] 2427
Frequency mid to test	False Freq [MHz] 2437
Frequency high to test	True Freq [MHz] 2447
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 2447 MHz

RESULT: Reference Power cond.

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	--	--	18.96	dBm	INFO
Ref. Frequency	--	--	2441.310	MHz	INFO

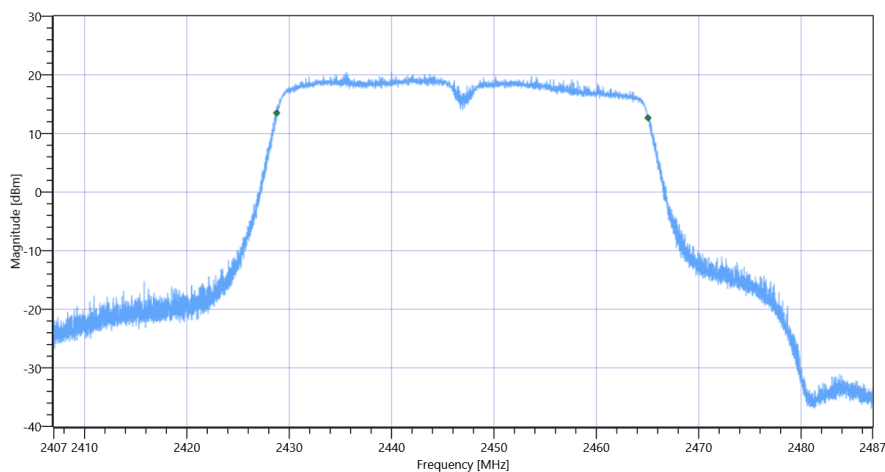
READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	23.96 4.9 35
Start [MHz] Stop [MHz]	2407.000 2487.000
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

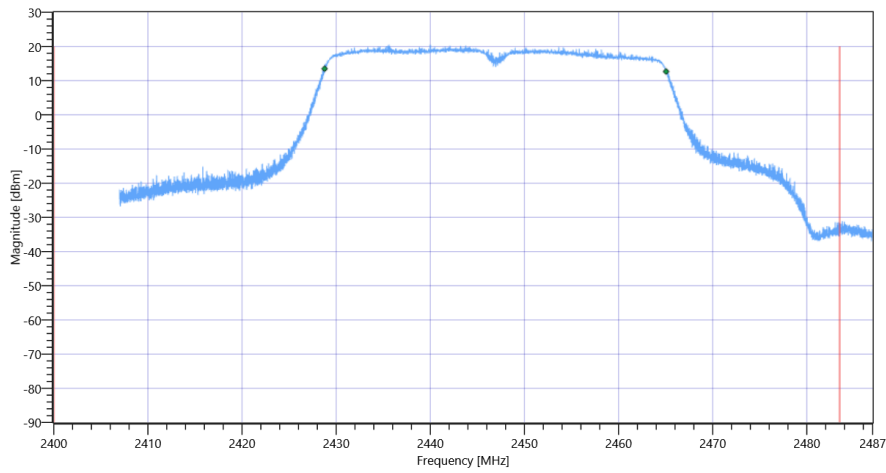
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 99%	--	--	36276.000	kHz	INFO
T1 99%	2400.000000	--	2428.7698	MHz	PASS
T2 99%	--	2483.500000	2465.0462	MHz	PASS

Plot: Bandwidth only



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

Plot: Bandwidth within Band

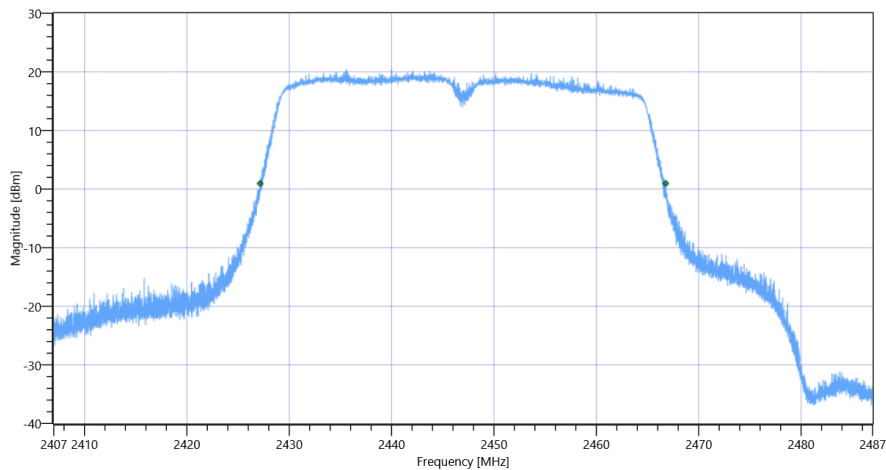


FCC 15.247, ISED RSS247 # Bandwidth 99PCT and 20dB ~ WLAN2G4 n-HT40 mode

RESULT

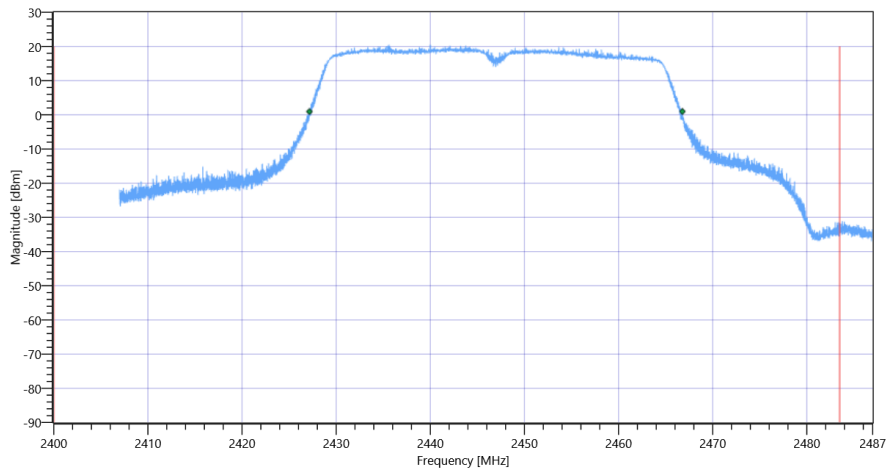
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 20dB	---	---	39624	kHz	INFO
T1 20dB	2400.000000	---	2427.1600	MHz	PASS
T2 20dB	---	2483.500000	2466.7840	MHz	PASS

Plot: Bandwidth only



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

Plot: Bandwidth within Band



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

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

Test References

TC Start	06.12.2022 16:40:00
Ambit Temp [°C] Humidity [rel%]	22.7 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 n-HT40 mode
Add. Information	

EUT Common Settings WLAN2G4

Number of Antenna Ports	4
User Interaction	No

Test Parameter

Technology to test	WLAN2G4 n-HT40 mode
Antenna Port used	3
Temperature	nom
Voltage	nom
Frequency low to test	False Freq [MHz] 2427
Frequency mid to test	False Freq [MHz] 2437
Frequency high to test	True Freq [MHz] 2447
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 2447 MHz

RESULT: Reference Power cond.

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	--	--	18.62	dBm	INFO
Ref. Frequency	--	--	2440.710	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

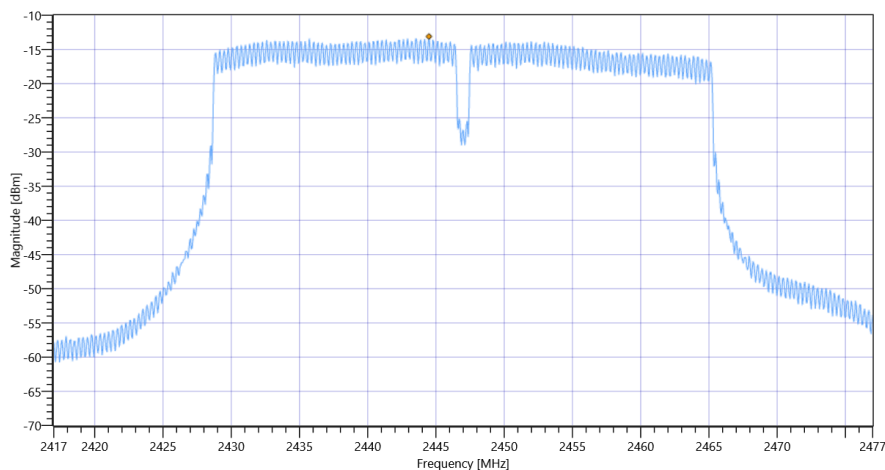
Avg. PSD

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	23.62 4.9 35
Start [MHz] Stop [MHz]	2417.000 2477.000
RBW [MHz] VBW [MHz]	0.003000 0.010000
Detector TraceMode	RMS AVER
Sweep: Time [ms] Count Points per Section Type	667 100 1001 SWE

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Avg PSD uncorrected	--	--	-13.1	dBm	INFO
Duty cycle correction	--	--	0	dB	INFO
Avg PSD DC corrected	--	8	-13.1	dBm/3kHz	PASS



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

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

Test References

TC Start	06.12.2022 16:39:24
Ambit Temp [°C] Humidity [rel%]	22.7 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 nHT40_mode
Add. Information	

EUT Common Settings WLAN2G4

Number of Antenna Ports	4
User Interaction	No

Test Parameter

Technology to test	WLAN2G4 n-HT40 mode
Antenna Port used	3
Temperature	nom
Voltage	nom
Frequency low to test	False Freq [MHz] 2427
Frequency mid to test	False Freq [MHz] 2437
Frequency high to test	True Freq [MHz] 2447
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 2447 MHz

RESULT: Reference Power cond.

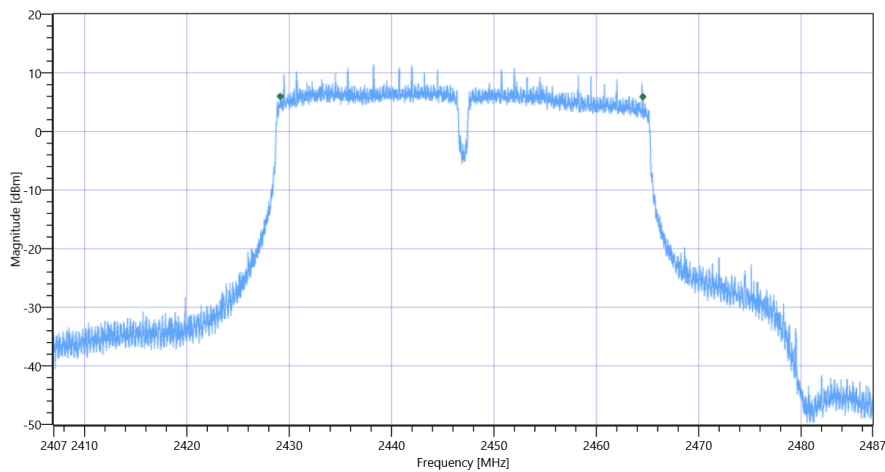
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	19.17	dBm	INFO
Ref. Frequency	---	---	2444.700	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	24.17 4.9 35
Start [MHz] Stop [MHz]	2407.000 2487.000
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	---	35440	kHz	PASS



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

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

Test References

TC Start	06.12.2022 16:29:11
Ambit Temp [°C] Humidity [rel%]	22.6 31
System Version	3.3.3.0
Test Specification	FCC 15.247 -
Test Method	IF DTS then 8.5 DTS emissions in non-restricted frequency bands: Subclause 11.11 of ANSI C63.10 is applicable
TC Version	0.0.1
My Description	FCC 15.247 TX Emissions Conducted 30dBc DTS DTS - WLAN2G4 n-HT40 mode

Add. Information

EUT Common Settings WLAN2G4

Number of Antenna Ports	4
User Interaction	No

Test Parameter

Technology to test	WLAN2G4 n-HT40 mode
Antenna Port used	2
Temperature	nom
Voltage	nom
Frequency low to test	False Freq [MHz] 2427
Frequency mid to test	False Freq [MHz] 2437
Frequency high to test	True Freq [MHz] 2447
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 2447 MHz

RESULT: Reference Power cond.

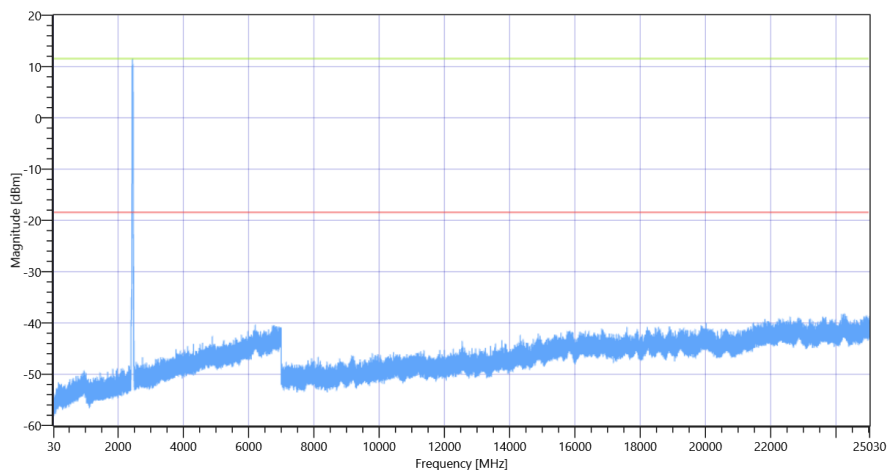
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	18.66	dBm	INFO
Ref. Frequency	---	---	2441.610	MHz	INFO

READ SA SETTINGS:

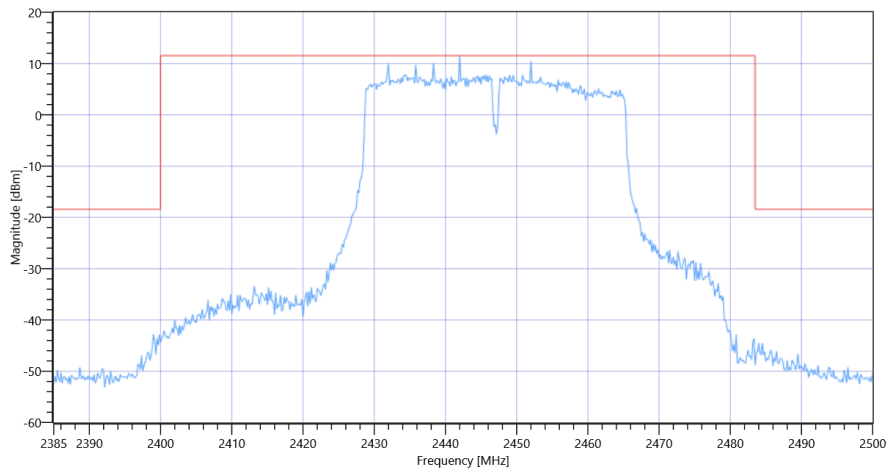
RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	18.66 0 35
Start [MHz] Stop [MHz]	24530.000 25030.000
RBW [MHz] VBW [MHz]	0.100000 0.300000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	200 25 3001 SWE

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Reference @ 2442.00 MHz	---	---	11.56	dBm	INFO
No peaks detected	---	---			PASS
Lowest margin to limit 24269.333 MHz	0	---	19.77	dB	INFO



FCC 15.247 # TX spurious conducted 30dBc ~ WLAN2G4 n-HT40 mode 2447



FCC 15.247 # TX spurious conducted 30dBc ~ WLAN2G4 n-HT40 mode 2447

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

Test References

TC Start	06.12.2022 16:28:12
Ambit Temp [°C] Humidity [rel%]	22.6 31
System Version	3.3.3.0
Test Specification	FCC 15.247, ISED RSS247 -
Test Method	
TC Version	0.0.2
My Description	FCC 15.247 Bandwidth 99PCT-20dB DTS - WLAN2G4 n-HT40 mode
Add. Information	

EUT Common Settings WLAN2G4

Number of Antenna Ports	4
User Interaction	No

Test Parameter

Technology to test	WLAN2G4 n-HT40 mode
Antenna Port used	2
Temperature	nom
Voltage	nom
Frequency low to test	False Freq [MHz] 2427
Frequency mid to test	False Freq [MHz] 2437
Frequency high to test	True Freq [MHz] 2447
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 2447 MHz

RESULT: Reference Power cond.

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	18.72	dBm	INFO
Ref. Frequency	---	---	2437.210	MHz	INFO

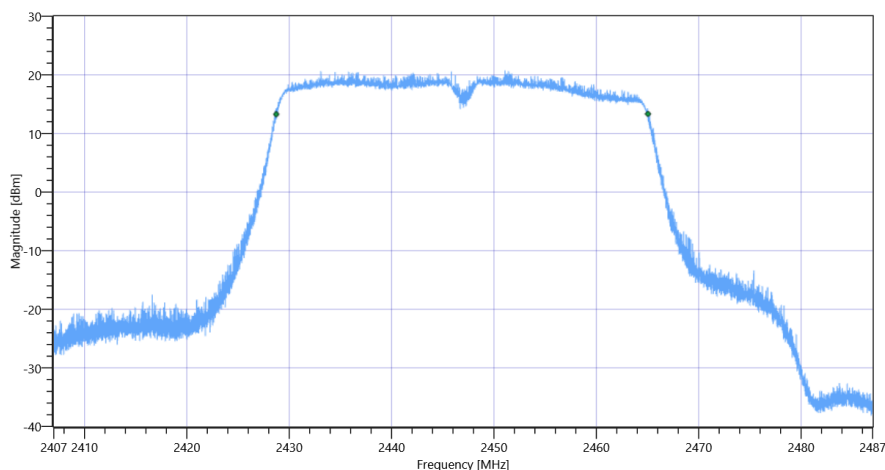
READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	23.72 4.9 35
Start [MHz] Stop [MHz]	2407.000 2487.000
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

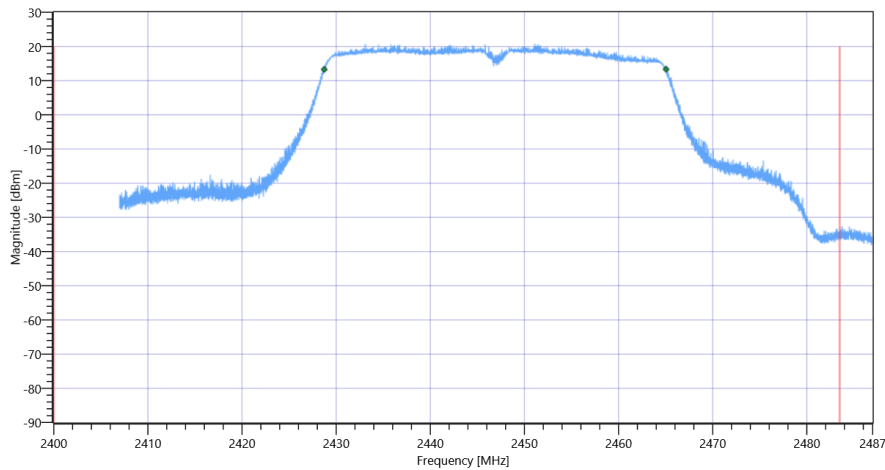
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 99%	---	---	36316.000	kHz	INFO
T1 99%	2400.000000	---	2428.7298	MHz	PASS
T2 99%	---	2483.500000	2465.0462	MHz	PASS

Plot: Bandwidth only



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

Plot: Bandwidth within Band

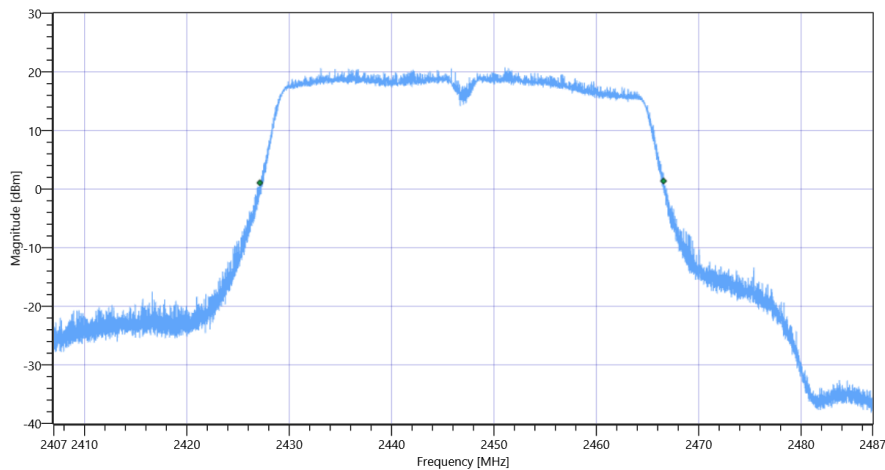


FCC 15.247, ISED RSS247 # Bandwidth 99PCT and 20dB ~ WLAN2G4 n-HT40 mode

RESULT

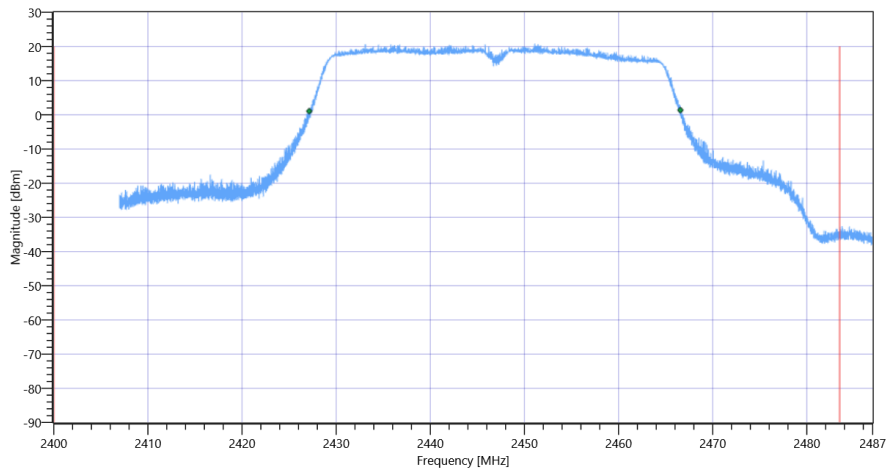
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 20dB	---	---	39432	kHz	INFO
T1 20dB	2400.000000	---	2427.1360	MHz	PASS
T2 20dB	---	2483.500000	2466.5680	MHz	PASS

Plot: Bandwidth only



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

Plot: Bandwidth within Band



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

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

Test References

TC Start	06.12.2022 16:26:25
Ambit Temp [°C] Humidity [rel%]	22.5 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 n-HT40 mode
Add. Information	

EUT Common Settings WLAN2G4

Number of Antenna Ports	4
User Interaction	No

Test Parameter

Technology to test	WLAN2G4 n-HT40 mode
Antenna Port used	2
Temperature	nom
Voltage	nom
Frequency low to test	False Freq [MHz] 2427
Frequency mid to test	False Freq [MHz] 2437
Frequency high to test	True Freq [MHz] 2447
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 2447 MHz

RESULT: Reference Power cond.

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	--	--	18.91	dBm	INFO
Ref. Frequency	--	--	2439.810	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

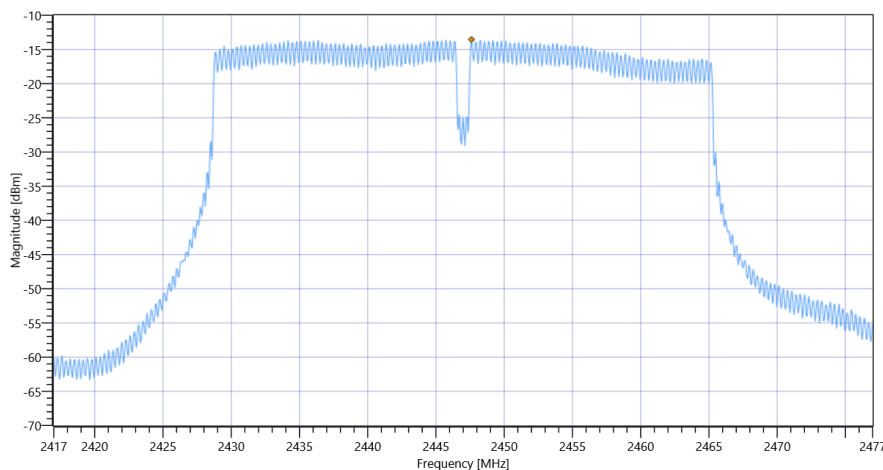
Avg. PSD

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	23.91 4.9 35
Start [MHz] Stop [MHz]	2417.000 2477.000
RBW [MHz] VBW [MHz]	0.003000 0.010000
Detector TraceMode	RMS AVER
Sweep: Time [ms] Count Points per Section Type	667 100 1001 SWE

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Avg PSD uncorrected	--	--	-13.54	dBm	INFO
Duty cycle correction	--	--	0	dB	INFO
Avg PSD DC corrected	--	8	-13.54	dBm/3kHz	PASS



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

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

Test References

TC Start	06.12.2022 16:25:50
Ambit Temp [°C] Humidity [rel%]	22.5 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 nHT40_mode
Add. Information	

EUT Common Settings WLAN2G4

Number of Antenna Ports	4
User Interaction	No

Test Parameter

Technology to test	WLAN2G4 n-HT40 mode
Antenna Port used	2
Temperature	nom
Voltage	nom
Frequency low to test	False Freq [MHz] 2427
Frequency mid to test	False Freq [MHz] 2437
Frequency high to test	True Freq [MHz] 2447
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 2447 MHz

RESULT: Reference Power cond.

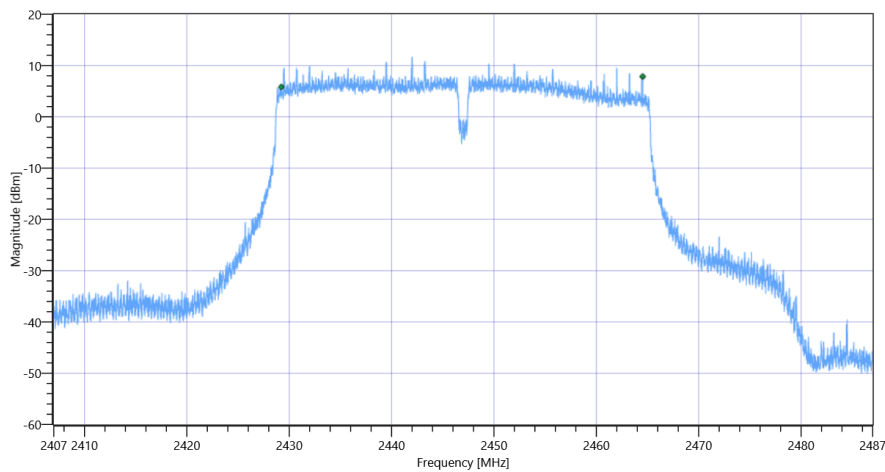
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	18.42	dBm	INFO
Ref. Frequency	---	---	2448.800	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	23.42 4.9 35
Start [MHz] Stop [MHz]	2407.000 2487.000
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	---	35304	kHz	PASS



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

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

Test References

TC Start	06.12.2022 16:15:37
Ambit Temp [°C] Humidity [rel%]	22.5 32
System Version	3.3.3.0
Test Specification	FCC 15.247 -
Test Method	IF DTS then 8.5 DTS emissions in non-restricted frequency bands: Subclause 11.11 of ANSI C63.10 is applicable
TC Version	0.0.1
My Description	FCC 15.247 TX Emissions Conducted 30dBc DTS DTS - WLAN2G4 n-HT40 mode

Add. Information

EUT Common Settings WLAN2G4

Number of Antenna Ports	4
User Interaction	No

Test Parameter

Technology to test	WLAN2G4 n-HT40 mode
Antenna Port used	1
Temperature	nom
Voltage	nom
Frequency low to test	False Freq [MHz] 2427
Frequency mid to test	False Freq [MHz] 2437
Frequency high to test	True Freq [MHz] 2447
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 2447 MHz

RESULT: Reference Power cond.

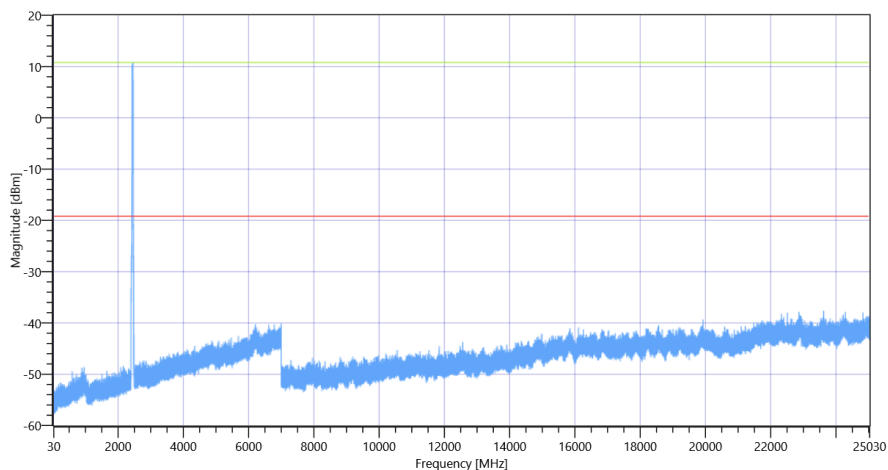
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	18.79	dBm	INFO
Ref. Frequency	---	---	2449.500	MHz	INFO

READ SA SETTINGS:

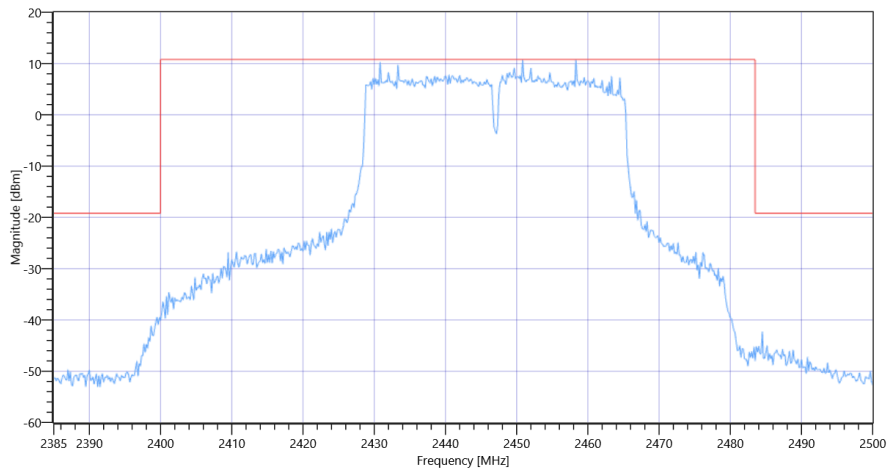
RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	18.79 0 35
Start [MHz] Stop [MHz]	24530.000 25030.000
RBW [MHz] VBW [MHz]	0.100000 0.300000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	200 25 3001 SWE

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Reference @ 2458.33 MHz	---	---	10.80	dBm	INFO
No peaks detected	---	---			PASS
Lowest margin to limit 23622 MHz	0	---	18.45	dB	INFO



FCC 15.247 # TX spurious conducted 30dBc ~ WLAN2G4 n-HT40 mode 2447



FCC 15.247 # TX spurious conducted 30dBc ~ WLAN2G4 n-HT40 mode 2447

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

Test References

TC Start	06.12.2022 16:14:38
Ambit Temp [°C] Humidity [rel%]	22.6 32
System Version	3.3.3.0
Test Specification	FCC 15.247, ISED RSS247 -
Test Method	
TC Version	0.0.2
My Description	FCC 15.247 Bandwidth 99PCT-20dB DTS - WLAN2G4 n-HT40 mode
Add. Information	

EUT Common Settings WLAN2G4

Number of Antenna Ports	4
User Interaction	No

Test Parameter

Technology to test	WLAN2G4 n-HT40 mode
Antenna Port used	1
Temperature	nom
Voltage	nom
Frequency low to test	False Freq [MHz] 2427
Frequency mid to test	False Freq [MHz] 2437
Frequency high to test	True Freq [MHz] 2447
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 2447 MHz

RESULT: Reference Power cond.

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	19.18	dBm	INFO
Ref. Frequency	---	---	2450.100	MHz	INFO

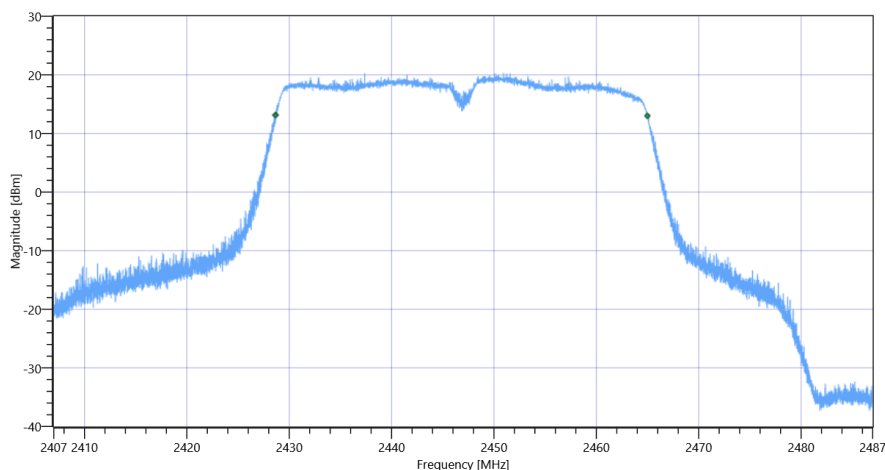
READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	24.18 4.9 35
Start [MHz] Stop [MHz]	2407.000 2487.000
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

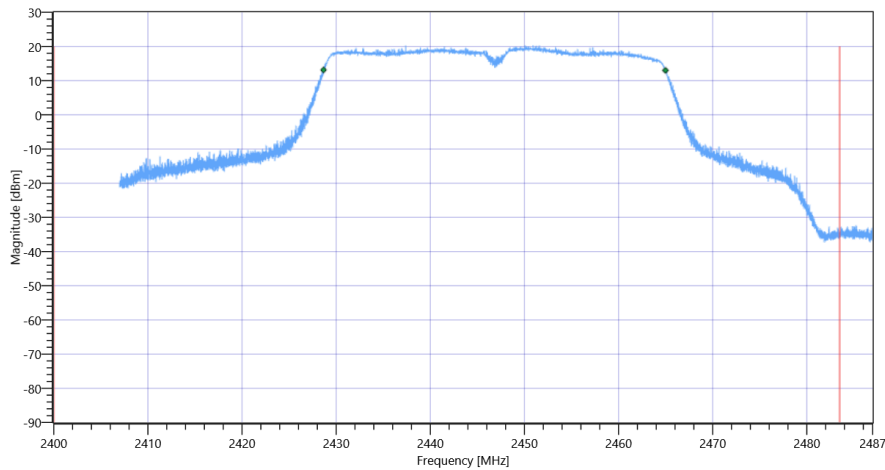
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 99%	---	---	36324.000	kHz	INFO
T1 99%	2400.000000	---	2428.6578	MHz	PASS
T2 99%	---	2483.500000	2464.9822	MHz	PASS

Plot: Bandwidth only



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

Plot: Bandwidth within Band

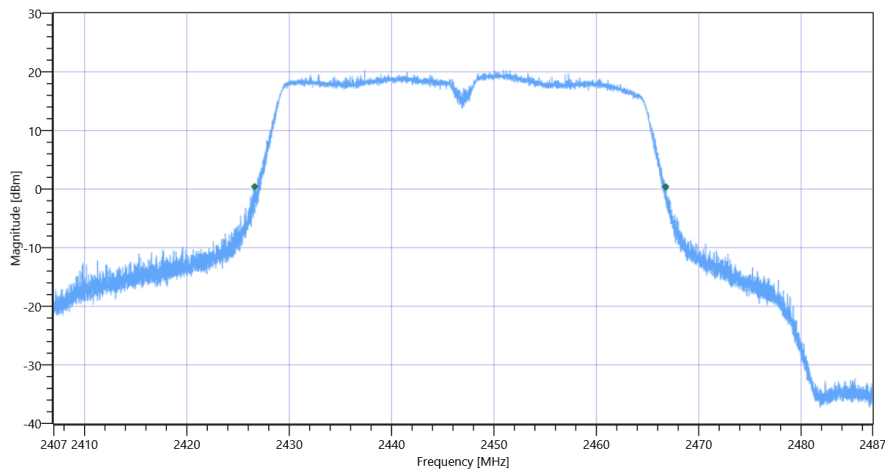


FCC 15.247, ISED RSS247 # Bandwidth 99PCT and 20dB ~ WLAN2G4 n-HT40 mode

RESULT

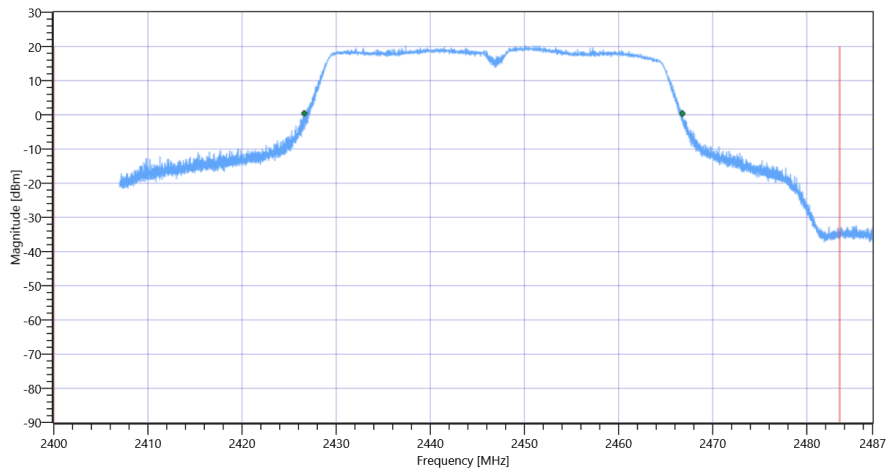
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 20dB	---	---	40168	kHz	INFO
T1 20dB	2400.000000	---	2426.6160	MHz	PASS
T2 20dB	---	2483.500000	2466.7840	MHz	PASS

Plot: Bandwidth only



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

Plot: Bandwidth within Band



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

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

Test References

TC Start	06.12.2022 16:12:51
Ambit Temp [°C] Humidity [rel%]	22.5 32
System Version	3.3.3.0
Test Specification	FCC 15.247 -
Test Method	ANSI C63.10-2013 Chapter 11.10.5 or.3
TC Version	0.0.1
My Description	FCC 15.247 Avg Power Spectral Density DTS - WLAN2G4 n-HT40 mode
Add. Information	

EUT Common Settings WLAN2G4

Number of Antenna Ports	4
User Interaction	No

Test Parameter

Technology to test	WLAN2G4 n-HT40 mode
Antenna Port used	1
Temperature	nom
Voltage	nom
Frequency low to test	False Freq [MHz] 2427
Frequency mid to test	False Freq [MHz] 2437
Frequency high to test	True Freq [MHz] 2447
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