

Measurement Results

No.1-2063/21-01-09_log1_conducted

Test logging

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EUT Information

EUT DEFINITION	
Manufacturer	Roche
Type	CC Pro2
Serial Number	21072707
Setup Number	1.0
Version SW	04.07.00-Dev1
Version FW	NI
Version HW	HBM4.50
Comment 1	
Comment 2	
Temperature [°C] Min	-20
Temperature [°C] Nom	20
Temperature [°C] Max	55
Voltage [V] Min	4.2
Voltage [V] Nom	7.8
Voltage [V] Max	12.0

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

Test References

TC Start	17.08.2021 13:47:38
Ambit Temp [°C] Humidity [rel%]	25.3 40
System Version	3.0.1.5
Test Specification	FCC Part 15.247
Test Method	99
TC Version	0.0.1
My Description	FCC 15.247 Bandwidth 6dB DTS - WLAN 2G4 b-mode
Add. Information	

EUT Common Settings WLAN2G4

Number of Antenna Ports	1
User Interaction	No

Test Parameter

Technology to test	WLAN2G4 b-mode
Antenna Port used	1
Temperature	nom
Voltage	nom
Frequency low to test	True Freq [MHz] 2412
Frequency mid to test	False Freq [MHz] 2437
Frequency high to test	False Freq [MHz] 2462
Auto Control enabled Power Supply Climatic Box	No No
Additional Path Loss [dB]	0.5
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer

Test Equipment

Signal analyzer,Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.60
Switch matrix,CTCadvanced,SPM-4 NI DAQ,28016133,NI

Test at TX 2412 MHz

RESULT: Reference Power cond.

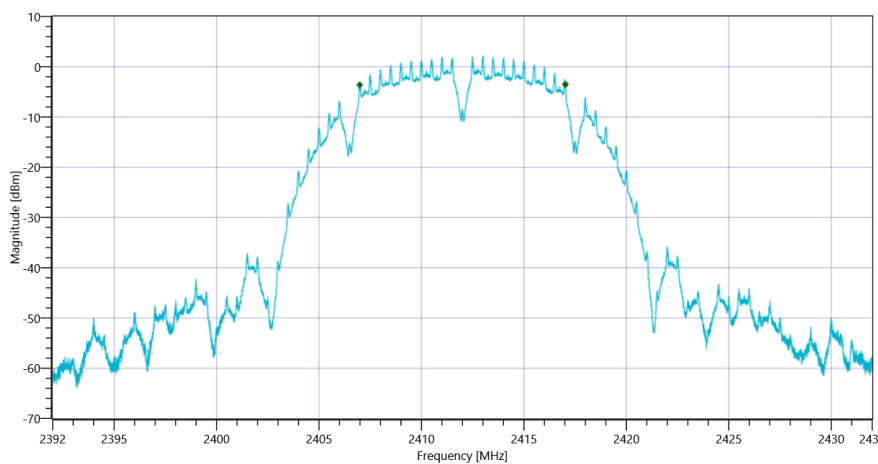
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	5.60	dBm	INFO
Ref. Frequency	---	---	2413.400	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	10.60 16.15 10
Start [MHz] Stop [MHz]	2392.000 2432.000
RBW [MHz] VBW [MHz]	0.100000 0.300000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	50 200 10001 SWE

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
DTS Bandwidth (6dB)	500	---	10044	kHz	PASS



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

General verdict

PASS

FCC Part 15.247 Peak Power Spectral Density DTS ~ WLAN2G4 b-mode

Test References	
TC Start	17.08.2021 13:48:17
Ambit Temp [°C] Humidity [rel%]	25.3 40
System Version	3.0.1.5
Test Specification	FCC Part 15.247
Test Method	DTS: KDB 558074 D01 V05 - Chapter 8.4 DTS maximum power spectral density level in the fundamental emission
TC Version	0.0.1
My Description	FCC 15.247 Peak Power Spectral Density DTS - WLAN 2G4 b-mode
Add. Information	

EUT Common Settings WLAN2G4	
Number of Antenna Ports	1
User Interaction	No

Test Parameter	
Technology to test	WLAN2G4 b-mode
Antenna Port used	1
Temperature	nom
Voltage	nom
Frequency low to test	True Freq [MHz] 2412
Frequency mid to test	False Freq [MHz] 2437
Frequency high to test	False Freq [MHz] 2462
Auto Control enabled Power Supply Climatic Box	No No
Additional Path Loss [dB]	0.5
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer

Test Equipment	
Signal analyzer,Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.60	
Switch matrix,CTCadvanced,SPM-4 NI DAQ,28016133,NI	

Test at TX 2412 MHz

RESULT: Reference Power cond.

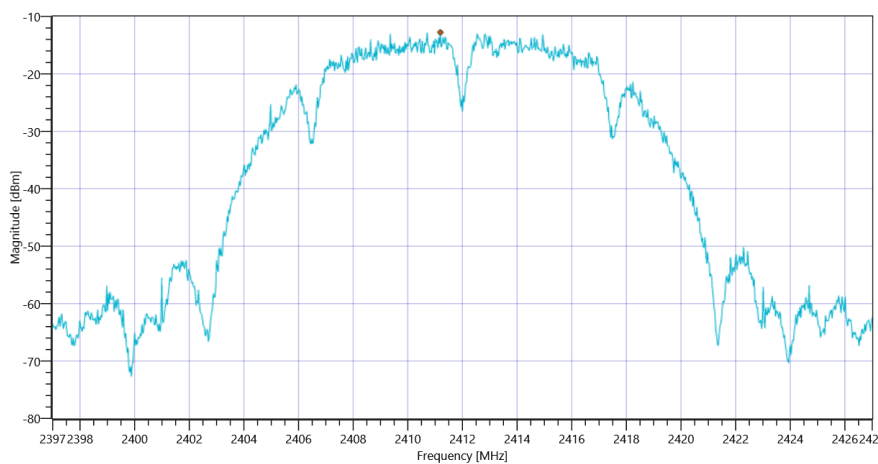
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	5.58	dBm	INFO
Ref. Frequency	---	---	2413.400	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	10.58 16.15 10
Start [MHz] Stop [MHz]	2397.000 2427.000
RBW [MHz] VBW [MHz]	0.003000 0.010000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	1000 20 1001 SWE

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Max Peak power Density	---	8	-12.76	dBm/3KHz	PASS



FCC Part 15.247 Peak Power Spectral Density DTS ~ WLAN2G4 b-mode

General verdict

PASS

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

Test References

TC Start	17.08.2021 13:49:03
Ambit Temp [°C] Humidity [rel%]	25.3 40
System Version	3.0.1.5
Test Specification	FCC Part 15.247
Test Method	
TC Version	0.0.2
My Description	FCC 15.247 Bandwidth 99PCT-20dB DTS - WLAN 2G4 b-mode
Add. Information	

EUT Common Settings WLAN2G4

Number of Antenna Ports	1
User Interaction	No

Test Parameter

Technology to test	WLAN2G4 b-mode
Antenna Port used	1
Temperature	nom
Voltage	nom
Frequency low to test	True Freq [MHz] 2412
Frequency mid to test	False Freq [MHz] 2437
Frequency high to test	False Freq [MHz] 2462
Auto Control enabled Power Supply Climatic Box	No No
Additional Path Loss [dB]	0.5
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer

Test Equipment

Signal analyzer,Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.60
Switch matrix,CTCadvanced,SPM-4 NI DAQ,28016133,NI

Test at TX 2412 MHz

RESULT: Reference Power cond.

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	5.49	dBm	INFO
Ref. Frequency	---	---	2413.300	MHz	INFO

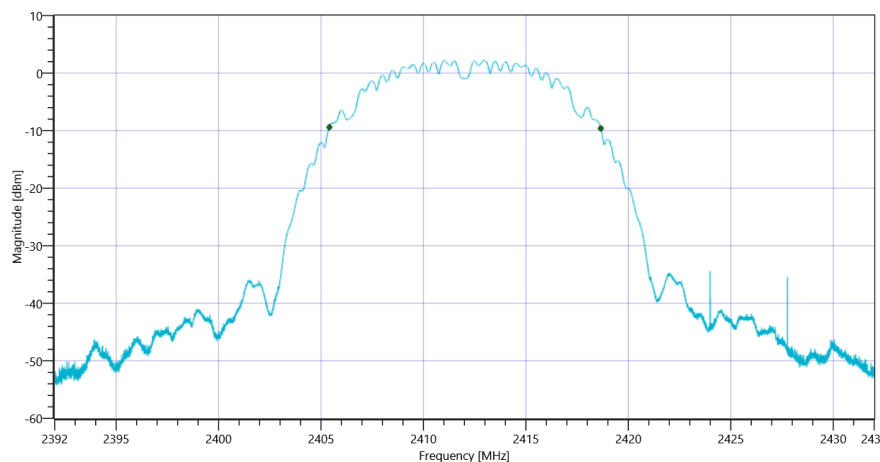
READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	10.49 16.15 10
Start [MHz] Stop [MHz]	2392.000 2432.000
RBW [MHz] VBW [MHz]	0.500000 2.000000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	50 200 10001 SWE

RESULT

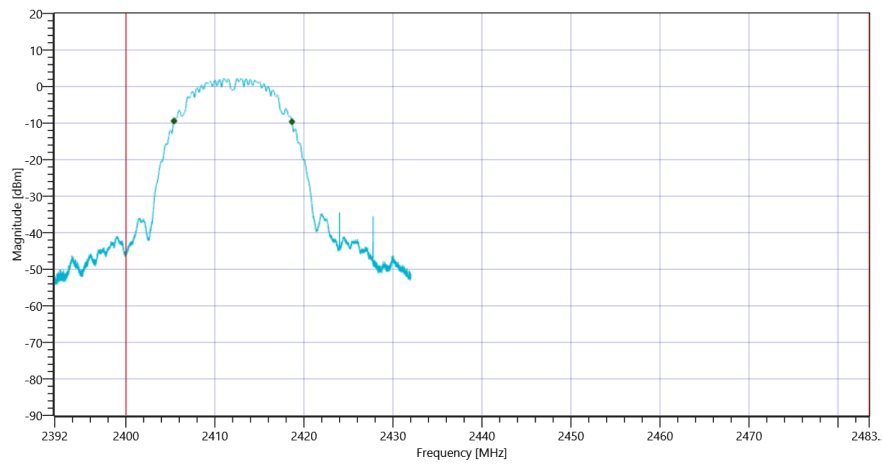
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 99%	---	---	13250.675	kHz	INFO
T1 99%	2400.000000	---	2405.4047	MHz	PASS
T2 99%	---	2483.500000	2418.6553	MHz	PASS

Plot: Bandwidth only



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

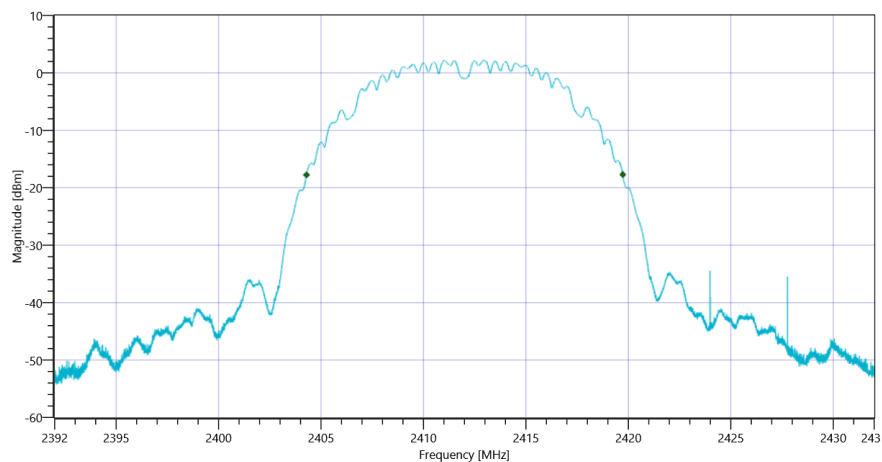
Plot: Bandwidth within Band



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

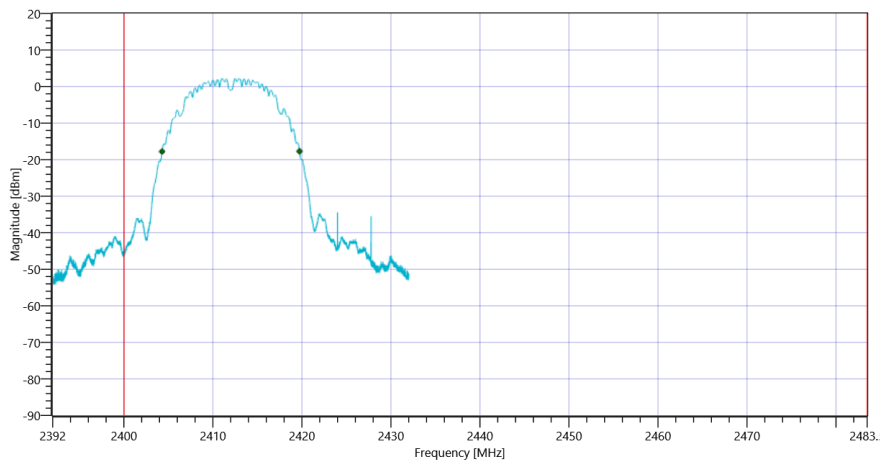
RESULT					
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 20dB	---	---	15440	kHz	INFO
T1 20dB	2400.000000	---	2404.2880	MHz	PASS
T2 20dB	---	2483.500000	2419.7280	MHz	PASS

Plot: Bandwidth only



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

Plot: Bandwidth within Band



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

General verdict

PASS

FCC Part 15.247 TX Spurious Conducted ~ WLAN2G4 b-mode

Test References	
TC Start	17.08.2021 13:50:02
Ambit Temp [°C] Humidity [rel%]	25.3 40
System Version	3.0.1.5
Test Specification	FCC Part 15.247
Test Method	IF DTS then 8.5 DTS emissions in non-restricted frequency bands: Subclause 11.11 of ANSI C63.10 is applicable.
TC Version	0.0.1
My Description	FCC 15.247 TX Emissions Conducted DTS - WLAN 2G4 b-mode
Add. Information	

EUT Common Settings WLAN2G4	
Number of Antenna Ports	1
User Interaction	No

Test Parameter	
Technology to test	WLAN2G4 b-mode
Antenna Port used	1
Temperature	nom
Voltage	nom
Frequency low to test	True Freq [MHz] 2412
Frequency mid to test	False Freq [MHz] 2437
Frequency high to test	False Freq [MHz] 2462
Auto Control enabled Power Supply Climatic Box	No No
Additional Path Loss [dB]	0.5
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer

Test Equipment	
Signal analyzer,Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.60	
Switch matrix,CTCadvanced,SPM-4 NI DAQ,28016133,NI	

Test at TX 2412 MHz

RESULT: Reference Power cond.

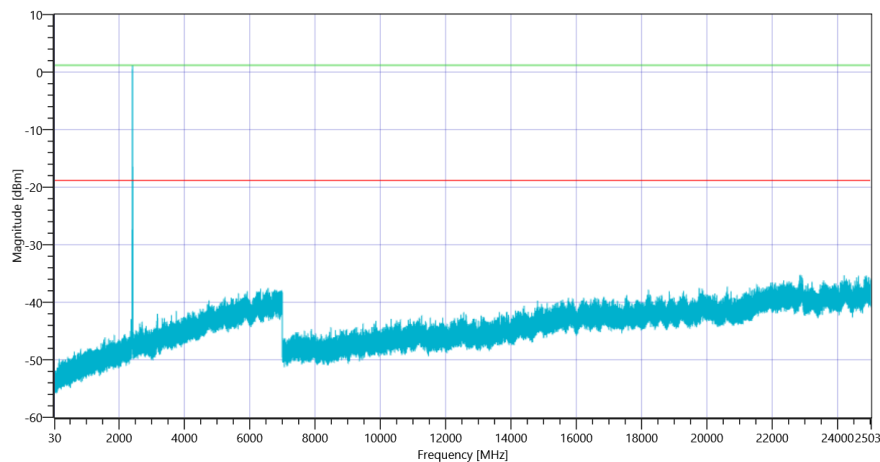
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	5.45	dBm	INFO
Ref. Frequency	---	---	2413.300	MHz	INFO

READ SA SETTINGS:

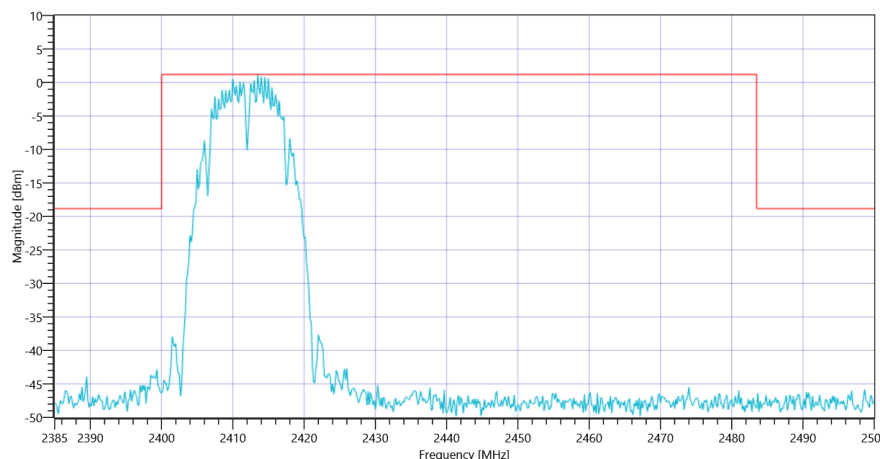
RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	5.45 0 25
Start [MHz] Stop [MHz]	24530.000 25030.000
RBW [MHz] VBW [MHz]	0.100000 0.300000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	500 8 3001 SWE

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Reference @ 2413.50 MHz	---	---	1.18	dBm	INFO
No peaks detected	---	---			PASS
Lowest margin to limit 22844 MHz	0	---	16.46	dB	INFO



FCC Part 15.247 TX Spurious Conducted ~ WLAN2G4 b-mode 2412



FCC Part 15.247 TX Spurious Conducted ~ WLAN2G4 b-mode 2412

General verdict

PASS

FCC Part 15.247 Maximum Peak Conducted Output Power Powermeter DTS ~ WLAN2G4 b-mode

Test References	
TC Start	17.08.2021 13:56:58
Ambit Temp [°C] Humidity [rel%]	25.4 39
System Version	3.0.1.5
Test Specification	FCC Part 15.247
Test Method	DTS: KDB 558074 D01 V05 - Chapter 8.3.1.3 PKPM1 Peak-reading Power Meter Method
TC Version	0.0.1
My Description	FCC 15.247 Maximum Peak Output Power Powermeter Conducted DTS - WLAN 2G4 b-mode
Add. Information	

EUT Common Settings WLAN2G4	
Number of Antenna Ports	1
User Interaction	No

Test Parameter	
Technology to test	WLAN2G4 b-mode
Antenna Port used	1
Temperature	nom
Voltage	nom
Frequency low to test	True Freq [MHz] 2412
Frequency mid to test	False Freq [MHz] 2437
Frequency high to test	False Freq [MHz] 2462
Auto Control enabled Power Supply Climatic Box	No No
Additional Path Loss [dB]	0.5
Switched Path	EUT - SignalingUnit - PowerMeter

Test Equipment	
Switch matrix,CTCadvanced,SPM-4 NI DAQ,28016133,NI	
Power sensor,Keysight Technologies,U2021XA,MY59190010,A.04.06	

Test at TX 2412 MHz

RESULT					
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Found Peak cond.	---	---	14.15	dBm	PASS
General verdict			PASS		

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

Test References

TC Start	17.08.2021 13:58:59
Ambit Temp [°C] Humidity [rel%]	25.4 40
System Version	3.0.1.5
Test Specification	FCC Part 15.247
Test Method	99
TC Version	0.0.1
My Description	FCC 15.247 Bandwidth 6dB DTS - WLAN 2G4 b-mode
Add. Information	

EUT Common Settings WLAN2G4

Number of Antenna Ports	1
User Interaction	No

Test Parameter

Technology to test	WLAN2G4 b-mode
Antenna Port used	1
Temperature	nom
Voltage	nom
Frequency low to test	False Freq [MHz] 2412
Frequency mid to test	True Freq [MHz] 2437
Frequency high to test	False Freq [MHz] 2462
Auto Control enabled Power Supply Climatic Box	No No
Additional Path Loss [dB]	0.5
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer

Test Equipment

Signal analyzer,Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.60
Switch matrix,CTCadvanced,SPM-4 NI DAQ,28016133,NI

Test at TX 2437 MHz

RESULT: Reference Power cond.

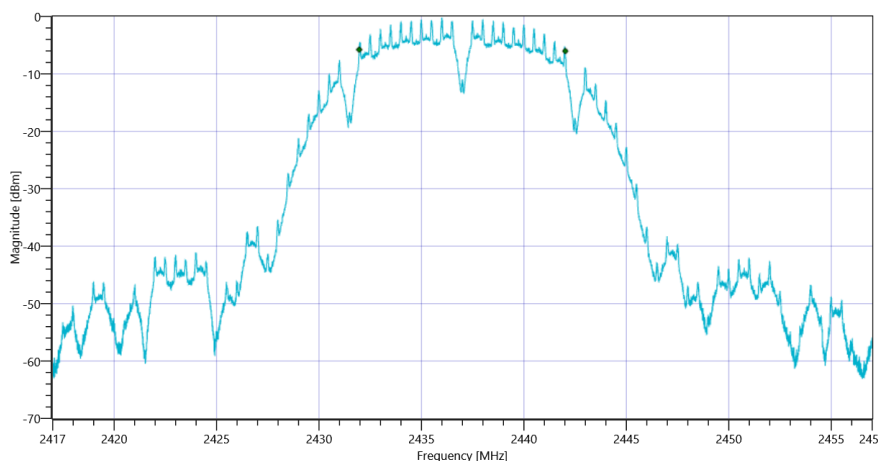
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	3.24	dBm	INFO
Ref. Frequency	---	---	2435.500	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	8.24 16.02 10
Start [MHz] Stop [MHz]	2417.000 2457.000
RBW [MHz] VBW [MHz]	0.100000 0.300000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	50 200 10001 SWE

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
DTS Bandwidth (6dB)	500	---	10060	kHz	PASS



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

General verdict

PASS

FCC Part 15.247 Peak Power Spectral Density DTS ~ WLAN2G4 b-mode

Test References

TC Start	17.08.2021 13:59:37
Ambit Temp [°C] Humidity [rel%]	25.4 39
System Version	3.0.1.5
Test Specification	FCC Part 15.247
Test Method	DTS: KDB 558074 D01 V05 - Chapter 8.4 DTS maximum power spectral density level in the fundamental emission
TC Version	0.0.1
My Description	FCC 15.247 Peak Power Spectral Density DTS - WLAN 2G4 b-mode
Add. Information	

EUT Common Settings WLAN2G4

Number of Antenna Ports	1
User Interaction	No

Test Parameter

Technology to test	WLAN2G4 b-mode
Antenna Port used	1
Temperature	nom
Voltage	nom
Frequency low to test	False Freq [MHz] 2412
Frequency mid to test	True Freq [MHz] 2437
Frequency high to test	False Freq [MHz] 2462
Auto Control enabled Power Supply Climatic Box	No No
Additional Path Loss [dB]	0.5
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer

Test Equipment

Signal analyzer,Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.60
Switch matrix,CTCadvanced,SPM-4 NI DAQ,28016133,NI

Test at TX 2437 MHz

RESULT: Reference Power cond.

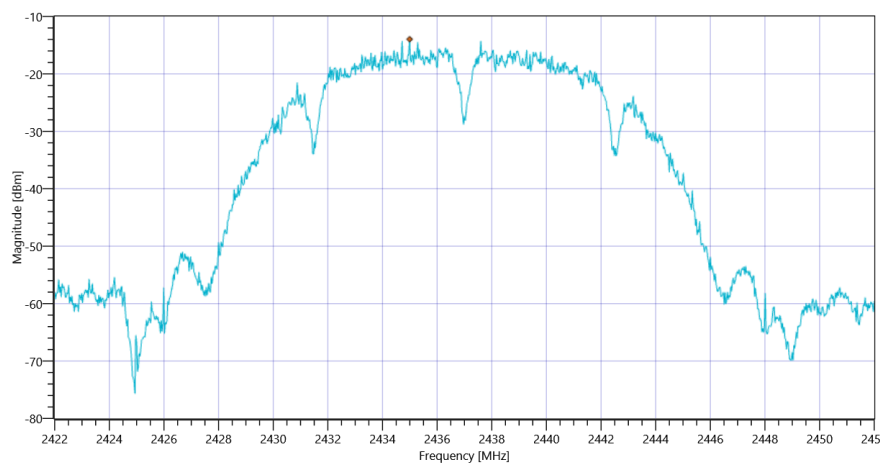
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	3.19	dBm	INFO
Ref. Frequency	---	---	2435.500	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	8.19 16.02 10
Start [MHz] Stop [MHz]	2422.000 2452.000
RBW [MHz] VBW [MHz]	0.003000 0.010000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	1000 20 1001 SWE

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Max Peak power Density	---	8	-13.95	dBm/3KHz	PASS



FCC Part 15.247 Peak Power Spectral Density DTS ~ WLAN2G4 b-mode

General verdict

PASS

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

Test References

TC Start	17.08.2021 14:00:23
Ambit Temp [°C] Humidity [rel%]	25.5 39
System Version	3.0.1.5
Test Specification	FCC Part 15.247
Test Method	
TC Version	0.0.2
My Description	FCC 15.247 Bandwidth 99PCT-20dB DTS - WLAN 2G4 b-mode
Add. Information	

EUT Common Settings WLAN2G4

Number of Antenna Ports	1
User Interaction	No

Test Parameter

Technology to test	WLAN2G4 b-mode
Antenna Port used	1
Temperature	nom
Voltage	nom
Frequency low to test	False Freq [MHz] 2412
Frequency mid to test	True Freq [MHz] 2437
Frequency high to test	False Freq [MHz] 2462
Auto Control enabled Power Supply Climatic Box	No No
Additional Path Loss [dB]	0.5
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer

Test Equipment

Signal analyzer,Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.60
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.	---	---	3.15	dBm	INFO
Ref. Frequency	---	---	2435.500	MHz	INFO

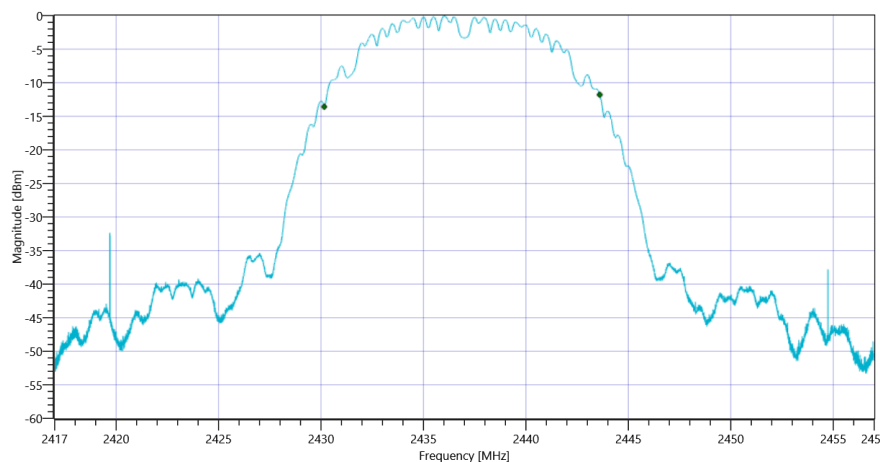
READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	8.15 16.02 10
Start [MHz] Stop [MHz]	2417.000 2457.000
RBW [MHz] VBW [MHz]	0.500000 2.000000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	50 200 10001 SWE

RESULT

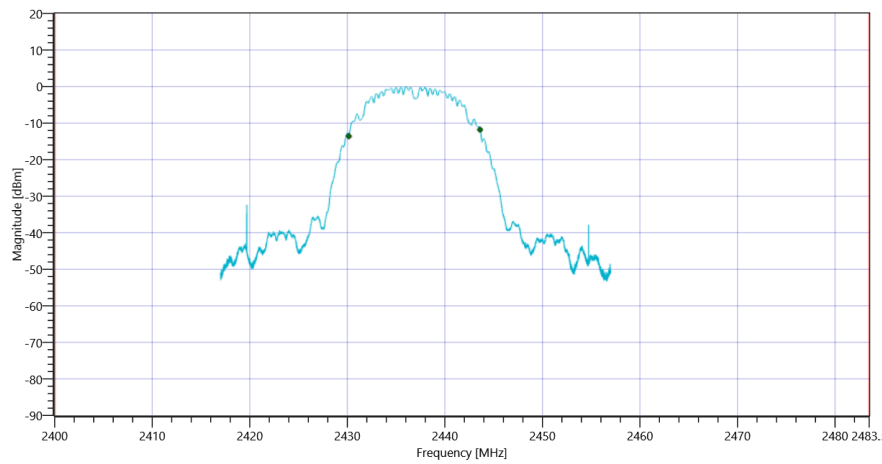
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 99%	---	---	13450.655	kHz	INFO
T1 99%	2400.000000	---	2430.1527	MHz	PASS
T2 99%	---	2483.500000	2443.6033	MHz	PASS

Plot: Bandwidth only



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

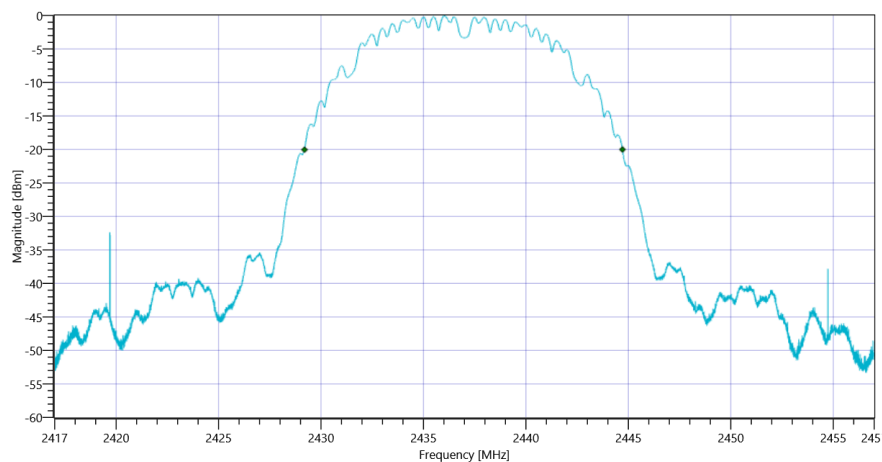
Plot: Bandwidth within Band



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

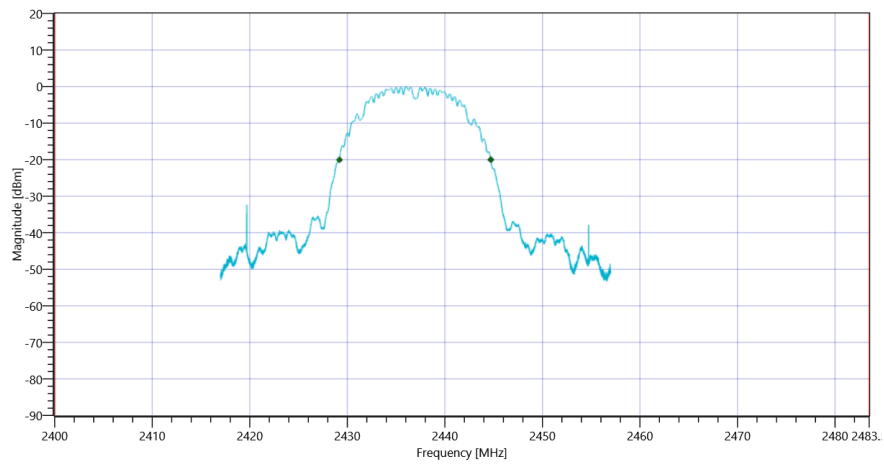
RESULT					
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 20dB	---	---	15520	kHz	INFO
T1 20dB	2400.000000	---	2429.1920	MHz	PASS
T2 20dB	---	2483.500000	2444.7120	MHz	PASS

Plot: Bandwidth only



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

Plot: Bandwidth within Band



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

General verdict

PASS

FCC Part 15.247 TX Spurious Conducted ~ WLAN2G4 b-mode

Test References	
TC Start	17.08.2021 14:01:21
Ambit Temp [°C] Humidity [rel%]	25.4 39
System Version	3.0.1.5
Test Specification	FCC Part 15.247
Test Method	IF DTS then 8.5 DTS emissions in non-restricted frequency bands: Subclause 11.11 of ANSI C63.10 is applicable.
TC Version	0.0.1
My Description	FCC 15.247 TX Emissions Conducted DTS - WLAN 2G4 b-mode
Add. Information	

EUT Common Settings WLAN2G4	
Number of Antenna Ports	1
User Interaction	No

Test Parameter	
Technology to test	WLAN2G4 b-mode
Antenna Port used	1
Temperature	nom
Voltage	nom
Frequency low to test	False Freq [MHz] 2412
Frequency mid to test	True Freq [MHz] 2437
Frequency high to test	False Freq [MHz] 2462
Auto Control enabled Power Supply Climatic Box	No No
Additional Path Loss [dB]	0.5
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer

Test Equipment	
Signal analyzer,Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.60	
Switch matrix,CTCadvanced,SPM-4 NI DAQ,28016133,NI	

Test at TX 2437 MHz

RESULT: Reference Power cond.

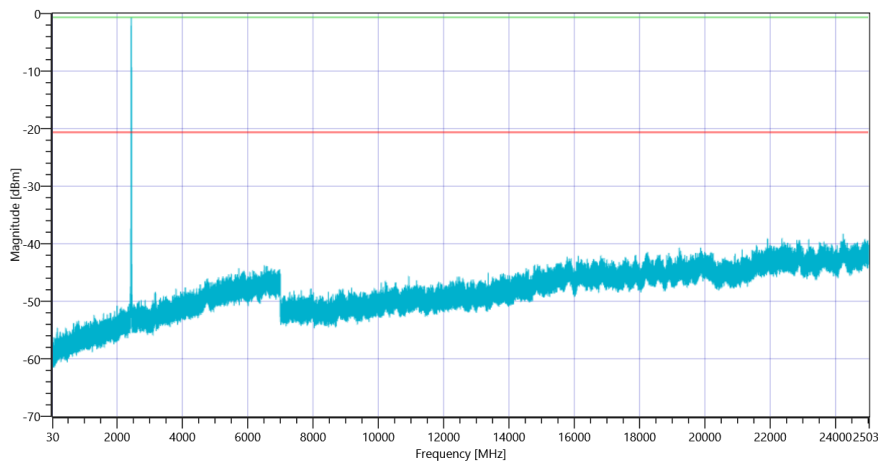
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	3.13	dBm	INFO
Ref. Frequency	---	---	2435.600	MHz	INFO

READ SA SETTINGS:

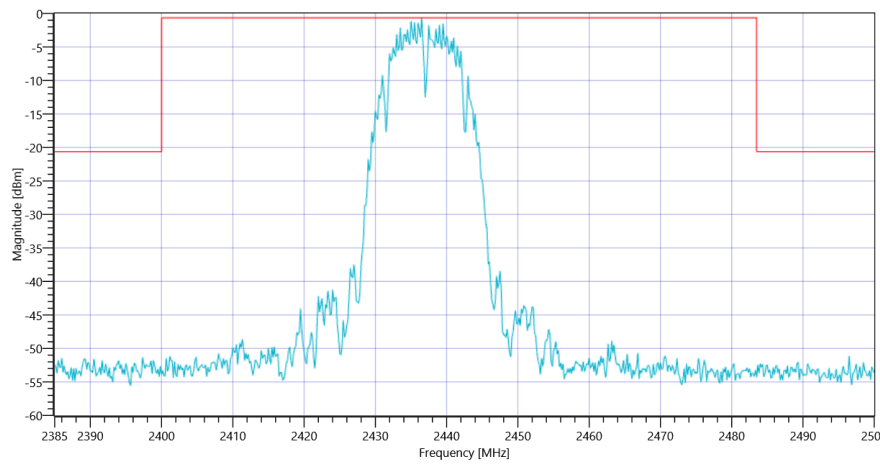
RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	3.13 0 20
Start [MHz] Stop [MHz]	24530.000 25030.000
RBW [MHz] VBW [MHz]	0.100000 0.300000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	500 8 3001 SWE

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Reference @ 2436.50 MHz	---	---	-0.64	dBm	INFO
No peaks detected	---	---			PASS
Lowest margin to limit 24233.833 MHz	0	---	17.63	dB	INFO



FCC Part 15.247 TX Spurious Conducted ~ WLAN2G4 b-mode 2437



FCC Part 15.247 TX Spurious Conducted ~ WLAN2G4 b-mode 2437

General verdict

PASS

FCC Part 15.247 Maximum Peak Conducted Output Power Powermeter DTS ~ WLAN2G4 b-mode

Test References

TC Start	17.08.2021 14:08:16
Ambit Temp [°C] Humidity [rel%]	25.5 39
System Version	3.0.1.5
Test Specification	FCC Part 15.247
Test Method	DTS: KDB 558074 D01 V05 - Chapter 8.3.1.3 PKPM1 Peak-reading Power Meter Method
TC Version	0.0.1
My Description	FCC 15.247 Maximum Peak Output Power Powermeter Conducted DTS - WLAN 2G4 b-mode
Add. Information	

EUT Common Settings WLAN2G4

Number of Antenna Ports	1
User Interaction	No

Test Parameter

Technology to test	WLAN2G4 b-mode
Antenna Port used	1
Temperature	nom
Voltage	nom
Frequency low to test	False Freq [MHz] 2412
Frequency mid to test	True Freq [MHz] 2437
Frequency high to test	False Freq [MHz] 2462
Auto Control enabled Power Supply Climatic Box	No No
Additional Path Loss [dB]	0.5
Switched Path	EUT - SignalingUnit - PowerMeter

Test Equipment

Switch matrix,CTCadvanced,SPM-4 NI DAQ,28016133,NI
Power sensor,Keysight Technologies,U2021XA,MY59190010,A.04.06

Test at TX 2437 MHz

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Found Peak cond.	---	---	12.28	dBm	PASS

General verdict

PASS

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

Test References

TC Start	17.08.2021 14:09:22
Ambit Temp [°C] Humidity [rel%]	25.5 39
System Version	3.0.1.5
Test Specification	FCC Part 15.247
Test Method	99
TC Version	0.0.1
My Description	FCC 15.247 Bandwidth 6dB DTS - WLAN 2G4 b-mode
Add. Information	

EUT Common Settings WLAN2G4

Number of Antenna Ports	1
User Interaction	No

Test Parameter

Technology to test	WLAN2G4 b-mode
Antenna Port used	1
Temperature	nom
Voltage	nom
Frequency low to test	False Freq [MHz] 2412
Frequency mid to test	False Freq [MHz] 2437
Frequency high to test	True Freq [MHz] 2462
Auto Control enabled Power Supply Climatic Box	No No
Additional Path Loss [dB]	0.5
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer

Test Equipment

Signal analyzer,Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.60
Switch matrix,CTCadvanced,SPM-4 NI DAQ,28016133,NI

Test at TX 2462 MHz

RESULT: Reference Power cond.

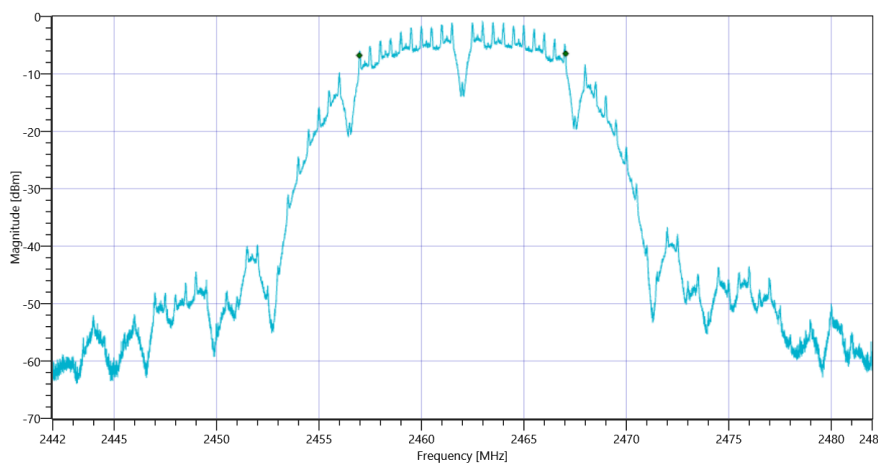
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	2.83	dBm	INFO
Ref. Frequency	---	---	2463.400	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	7.83 15.92 10
Start [MHz] Stop [MHz]	2442.000 2482.000
RBW [MHz] VBW [MHz]	0.100000 0.300000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	50 200 10001 SWE

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
DTS Bandwidth (6dB)	500	---	10068	kHz	PASS



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

General verdict

PASS

FCC Part 15.247 Peak Power Spectral Density DTS ~ WLAN2G4 b-mode

Test References

TC Start	17.08.2021 14:10:01
Ambit Temp [°C] Humidity [rel%]	25.5 39
System Version	3.0.1.5
Test Specification	FCC Part 15.247
Test Method	DTS: KDB 558074 D01 V05 - Chapter 8.4 DTS maximum power spectral density level in the fundamental emission
TC Version	0.0.1
My Description	FCC 15.247 Peak Power Spectral Density DTS - WLAN 2G4 b-mode
Add. Information	

EUT Common Settings WLAN2G4

Number of Antenna Ports	1
User Interaction	No

Test Parameter

Technology to test	WLAN2G4 b-mode
Antenna Port used	1
Temperature	nom
Voltage	nom
Frequency low to test	False Freq [MHz] 2412
Frequency mid to test	False Freq [MHz] 2437
Frequency high to test	True Freq [MHz] 2462
Auto Control enabled Power Supply Climatic Box	No No
Additional Path Loss [dB]	0.5
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer

Test Equipment

Signal analyzer,Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.60
Switch matrix,CTCadvanced,SPM-4 NI DAQ,28016133,NI

Test at TX 2462 MHz

RESULT: Reference Power cond.

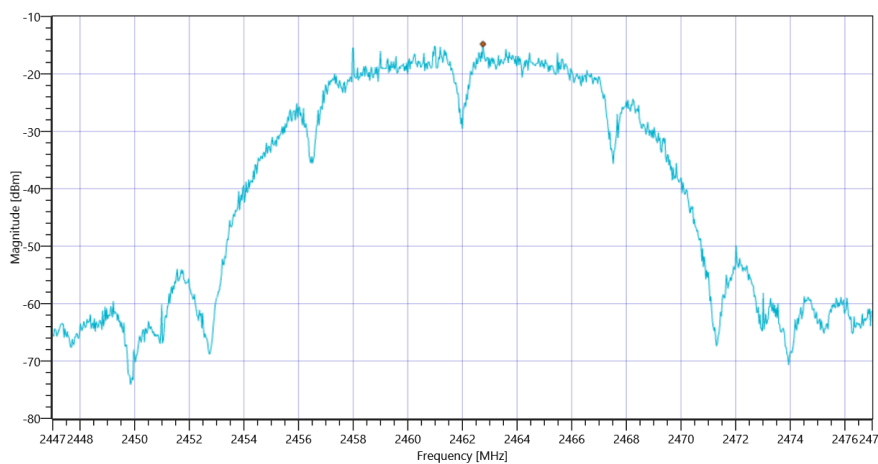
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	2.85	dBm	INFO
Ref. Frequency	---	---	2463.400	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	7.85 15.92 10
Start [MHz] Stop [MHz]	2447.000 2477.000
RBW [MHz] VBW [MHz]	0.003000 0.010000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	1000 20 1001 SWE

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Max Peak power Density	---	8	-14.8	dBm/3KHz	PASS



FCC Part 15.247 Peak Power Spectral Density DTS ~ WLAN2G4 b-mode

General verdict

PASS

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

Test References

TC Start	17.08.2021 14:10:47
Ambit Temp [°C] Humidity [rel%]	25.5 39
System Version	3.0.1.5
Test Specification	FCC Part 15.247
Test Method	
TC Version	0.0.2
My Description	FCC 15.247 Bandwidth 99PCT-20dB DTS - WLAN 2G4 b-mode
Add. Information	

EUT Common Settings WLAN2G4

Number of Antenna Ports	1
User Interaction	No

Test Parameter

Technology to test	WLAN2G4 b-mode
Antenna Port used	1
Temperature	nom
Voltage	nom
Frequency low to test	False Freq [MHz] 2412
Frequency mid to test	False Freq [MHz] 2437
Frequency high to test	True Freq [MHz] 2462
Auto Control enabled Power Supply Climatic Box	No No
Additional Path Loss [dB]	0.5
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer

Test Equipment

Signal analyzer,Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.60
Switch matrix,CTCadvanced,SPM-4 NI DAQ,28016133,NI

Test at TX 2462 MHz

RESULT: Reference Power cond.

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	2.94	dBm	INFO
Ref. Frequency	---	---	2463.400	MHz	INFO

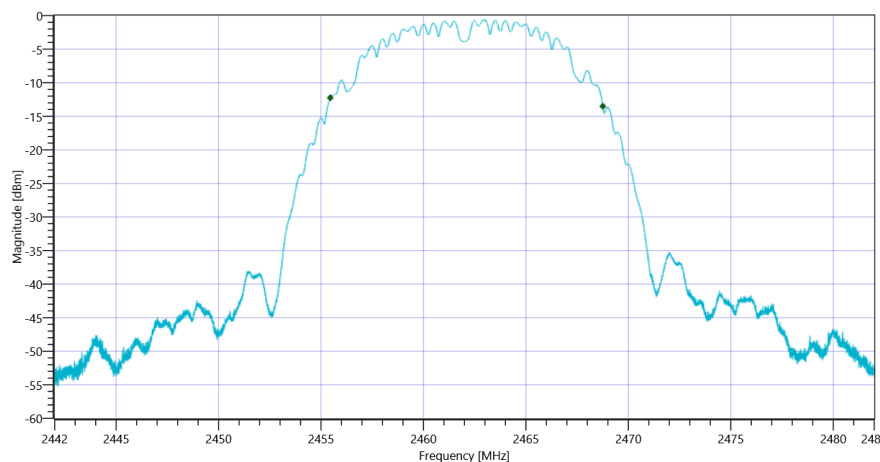
READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	7.94 15.92 10
Start [MHz] Stop [MHz]	2442.000 2482.000
RBW [MHz] VBW [MHz]	0.500000 2.000000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	50 200 10001 SWE

RESULT

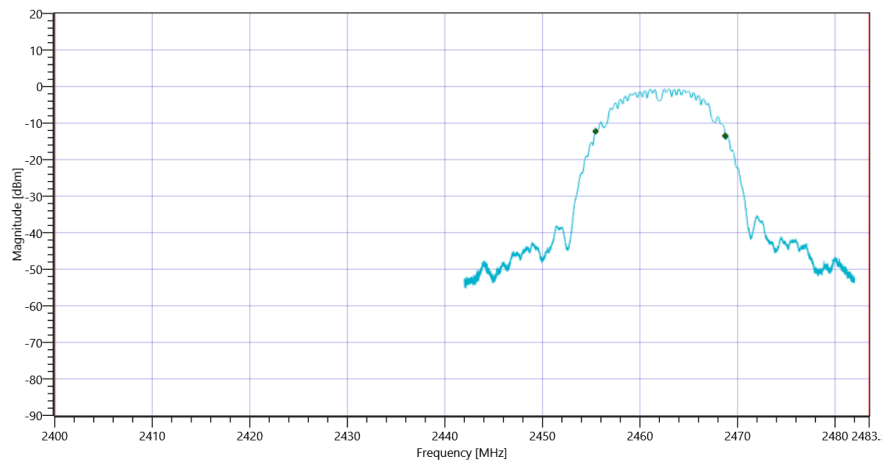
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 99%	---	---	13302.670	kHz	INFO
T1 99%	2400.000000	---	2455.4487	MHz	PASS
T2 99%	---	2483.500000	2468.7513	MHz	PASS

Plot: Bandwidth only



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

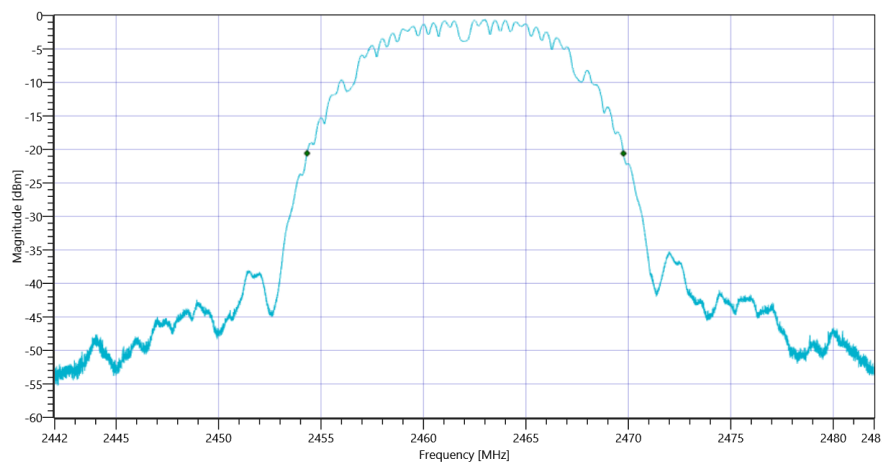
Plot: Bandwidth within Band



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

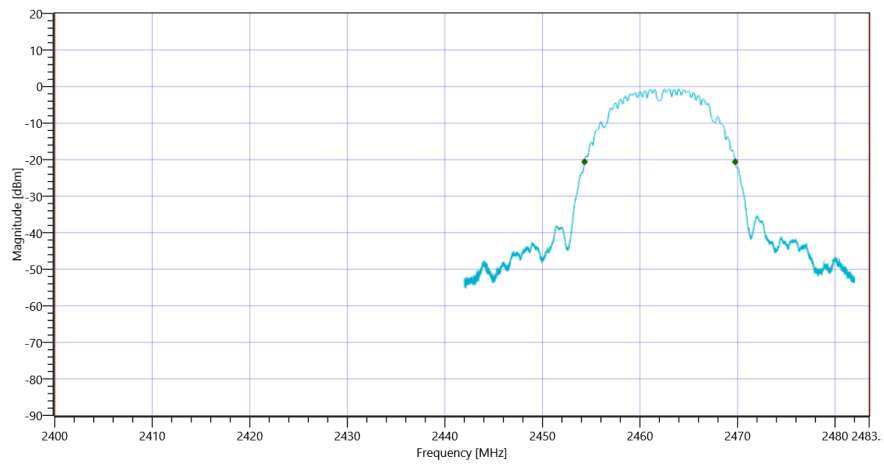
RESULT					
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 20dB	---	---	15444	kHz	INFO
T1 20dB	2400.000000	---	2454.3160	MHz	PASS
T2 20dB	---	2483.500000	2469.7600	MHz	PASS

Plot: Bandwidth only



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

Plot: Bandwidth within Band



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

General verdict

PASS

FCC Part 15.247 TX Spurious Conducted ~ WLAN2G4 b-mode

Test References	
TC Start	17.08.2021 14:11:45
Ambit Temp [°C] Humidity [rel%]	25.5 39
System Version	3.0.1.5
Test Specification	FCC Part 15.247
Test Method	IF DTS then 8.5 DTS emissions in non-restricted frequency bands: Subclause 11.11 of ANSI C63.10 is applicable.
TC Version	0.0.1
My Description	FCC 15.247 TX Emissions Conducted DTS - WLAN 2G4 b-mode
Add. Information	

EUT Common Settings WLAN2G4	
Number of Antenna Ports	1
User Interaction	No

Test Parameter	
Technology to test	WLAN2G4 b-mode
Antenna Port used	1
Temperature	nom
Voltage	nom
Frequency low to test	False Freq [MHz] 2412
Frequency mid to test	False Freq [MHz] 2437
Frequency high to test	True Freq [MHz] 2462
Auto Control enabled Power Supply Climatic Box	No No
Additional Path Loss [dB]	0.5
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer

Test Equipment	
Signal analyzer,Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.60	
Switch matrix,CTCadvanced,SPM-4 NI DAQ,28016133,NI	

Test at TX 2462 MHz

RESULT: Reference Power cond.

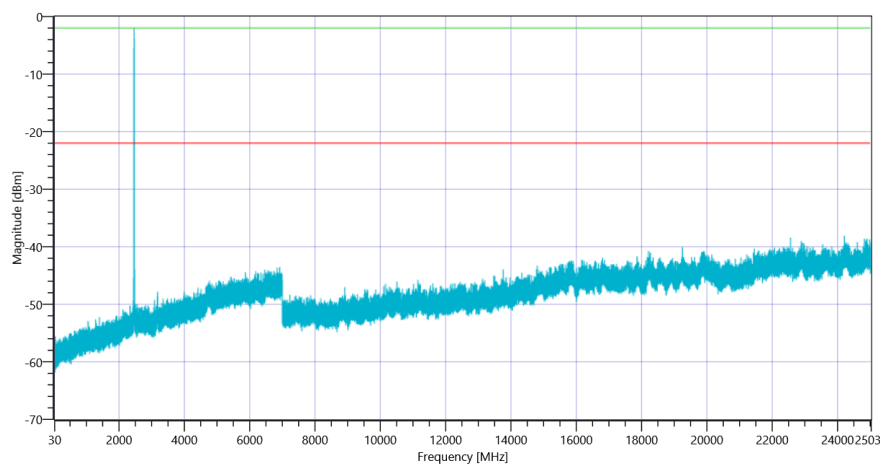
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	2.81	dBm	INFO
Ref. Frequency	---	---	2463.400	MHz	INFO

READ SA SETTINGS:

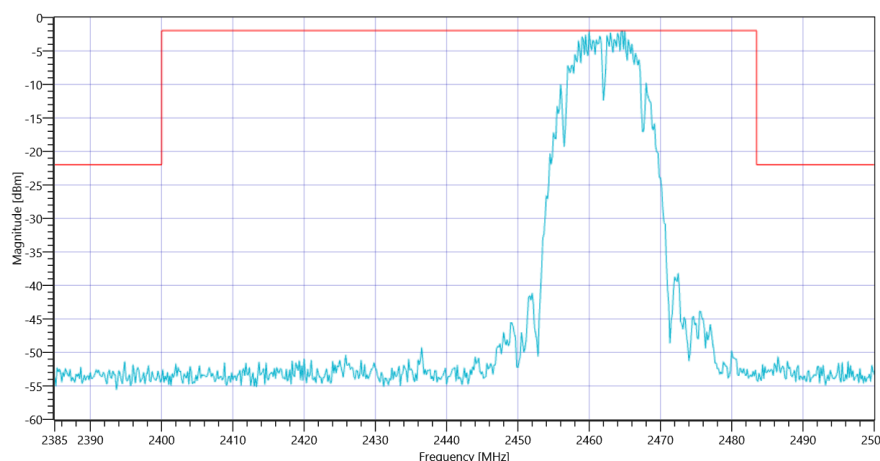
RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	2.81 0 20
Start [MHz] Stop [MHz]	24530.000 25030.000
RBW [MHz] VBW [MHz]	0.100000 0.300000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	500 8 3001 SWE

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Reference @ 2465.00 MHz	---	---	-1.98	dBm	INFO
No peaks detected	---	---			PASS
Lowest margin to limit 30 MHz	0	---	-142.16	dB	INFO



FCC Part 15.247 TX Spurious Conducted ~ WLAN2G4 b-mode 2462



FCC Part 15.247 TX Spurious Conducted ~ WLAN2G4 b-mode 2462

General verdict

PASS

FCC Part 15.247 Maximum Peak Conducted Output Power Powermeter DTS ~ WLAN2G4 b-mode

Test References	
TC Start	17.08.2021 14:18:40
Ambit Temp [°C] Humidity [rel%]	25.5 39
System Version	3.0.1.5
Test Specification	FCC Part 15.247
Test Method	DTS: KDB 558074 D01 V05 - Chapter 8.3.1.3 PKPM1 Peak-reading Power Meter Method
TC Version	0.0.1
My Description	FCC 15.247 Maximum Peak Output Power Powermeter Conducted DTS - WLAN 2G4 b-mode
Add. Information	

EUT Common Settings WLAN2G4	
Number of Antenna Ports	1
User Interaction	No

Test Parameter	
Technology to test	WLAN2G4 b-mode
Antenna Port used	1
Temperature	nom
Voltage	nom
Frequency low to test	False Freq [MHz] 2412
Frequency mid to test	False Freq [MHz] 2437
Frequency high to test	True Freq [MHz] 2462
Auto Control enabled Power Supply Climatic Box	No No
Additional Path Loss [dB]	0.5
Switched Path	EUT - SignalingUnit - PowerMeter

Test Equipment	
Switch matrix,CTCadvanced,SPM-4 NI DAQ,28016133,NI	
Power sensor,Keysight Technologies,U2021XA,MY59190010,A.04.06	

Test at TX 2462 MHz

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Found Peak cond.	---	---	12.07	dBm	PASS

General verdict

PASS

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

Test References

TC Start	17.08.2021 15:10:38
Ambit Temp [°C] Humidity [rel%]	25.8 38
System Version	3.0.1.5
Test Specification	FCC Part 15.247
Test Method	99
TC Version	0.0.1
My Description	FCC 15.247 Bandwidth 6dB DTS - WLAN 2G4 g-mode
Add. Information	

EUT Common Settings WLAN2G4

Number of Antenna Ports	1
User Interaction	No

Test Parameter

Technology to test	WLAN2G4 g-mode
Antenna Port used	1
Temperature	nom
Voltage	nom
Frequency low to test	True Freq [MHz] 2412
Frequency mid to test	False Freq [MHz] 2437
Frequency high to test	False Freq [MHz] 2462
Auto Control enabled Power Supply Climatic Box	No No
Additional Path Loss [dB]	0.5
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer

Test Equipment

Signal analyzer,Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.60
Switch matrix,CTCadvanced,SPM-4 NI DAQ,28016133,NI

Test at TX 2412 MHz

RESULT: Reference Power cond.

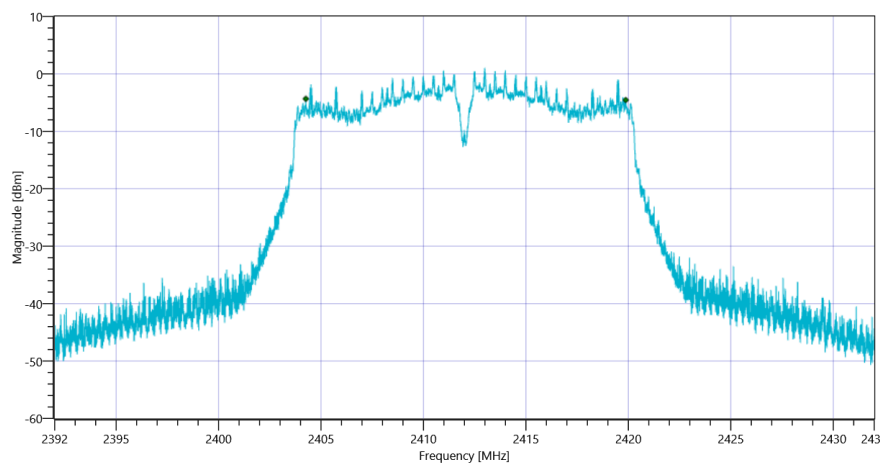
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	7.26	dBm	INFO
Ref. Frequency	---	---	2414.400	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	12.26 16.15 15
Start [MHz] Stop [MHz]	2392.000 2432.000
RBW [MHz] VBW [MHz]	0.100000 0.300000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	50 200 10001 SWE

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
DTS Bandwidth (6dB)	500	---	15616	kHz	PASS



General verdict

PASS

FCC Part 15.247 Peak Power Spectral Density DTS ~ WLAN2G4 g-mode

Test References

TC Start	17.08.2021 15:11:17
Ambit Temp [°C] Humidity [rel%]	25.8 38
System Version	3.0.1.5
Test Specification	FCC Part 15.247
Test Method	DTS: KDB 558074 D01 V05 - Chapter 8.4 DTS maximum power spectral density level in the fundamental emission
TC Version	0.0.1
My Description	FCC 15.247 Peak Power Spectral Density DTS - WLAN 2G4 g-mode
Add. Information	

EUT Common Settings WLAN2G4

Number of Antenna Ports	1
User Interaction	No

Test Parameter

Technology to test	WLAN2G4 g-mode
Antenna Port used	1
Temperature	nom
Voltage	nom
Frequency low to test	True Freq [MHz] 2412
Frequency mid to test	False Freq [MHz] 2437
Frequency high to test	False Freq [MHz] 2462
Auto Control enabled Power Supply Climatic Box	No No
Additional Path Loss [dB]	0.5
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer

Test Equipment

Signal analyzer,Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.60
Switch matrix,CTCadvanced,SPM-4 NI DAQ,28016133,NI

Test at TX 2412 MHz

RESULT: Reference Power cond.

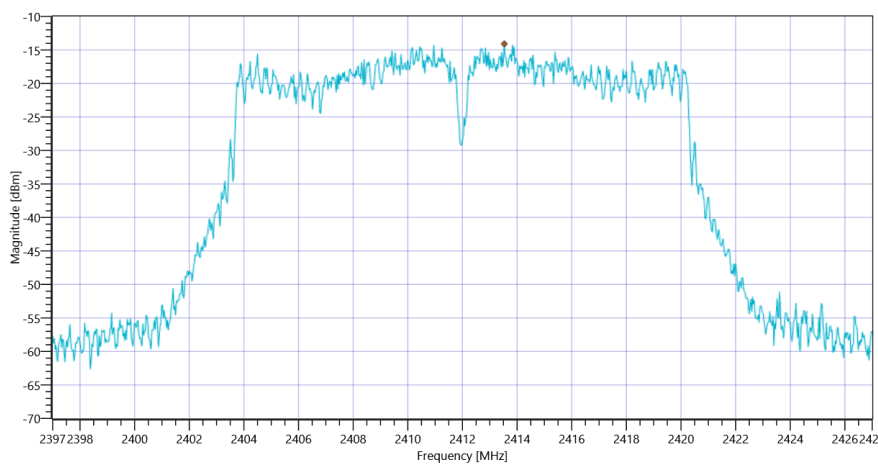
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	6.97	dBm	INFO
Ref. Frequency	---	---	2414.900	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	11.97 16.15 15
Start [MHz] Stop [MHz]	2397.000 2427.000
RBW [MHz] VBW [MHz]	0.003000 0.010000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	1000 20 1001 SWE

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Max Peak power Density	---	8	-14.08	dBm/3KHz	PASS



FCC Part 15.247 Peak Power Spectral Density DTS ~ WLAN2G4 g-mode

General verdict

PASS

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

Test References

TC Start	17.08.2021 15:12:03
Ambit Temp [°C] Humidity [rel%]	25.8 38
System Version	3.0.1.5
Test Specification	FCC Part 15.247
Test Method	
TC Version	0.0.2
My Description	FCC 15.247 Bandwidth 99PCT-20dB DTS - WLAN 2G4 g-mode
Add. Information	

EUT Common Settings WLAN2G4

Number of Antenna Ports	1
User Interaction	No

Test Parameter

Technology to test	WLAN2G4 g-mode
Antenna Port used	1
Temperature	nom
Voltage	nom
Frequency low to test	True Freq [MHz] 2412
Frequency mid to test	False Freq [MHz] 2437
Frequency high to test	False Freq [MHz] 2462
Auto Control enabled Power Supply Climatic Box	No No
Additional Path Loss [dB]	0.5
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer

Test Equipment

Signal analyzer,Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.60
Switch matrix,CTCadvanced,SPM-4 NI DAQ,28016133,NI

Test at TX 2412 MHz

RESULT: Reference Power cond.

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	6.91	dBm	INFO
Ref. Frequency	---	---	2418.990	MHz	INFO

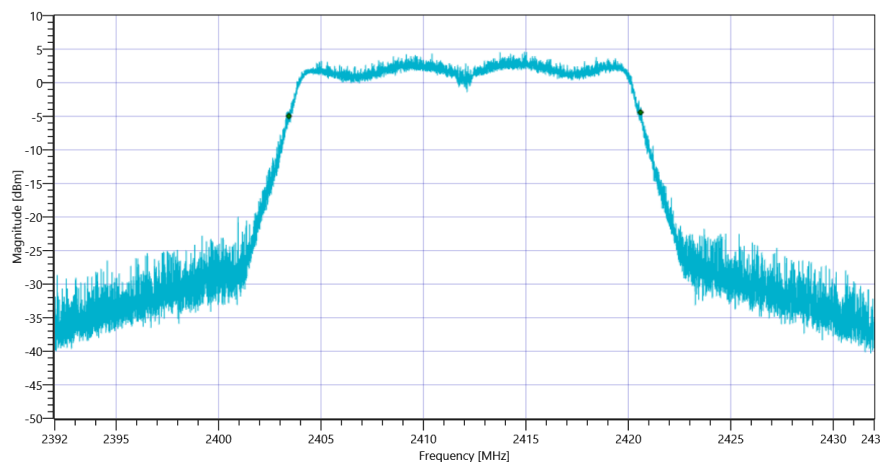
READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	11.91 16.15 15
Start [MHz] Stop [MHz]	2392.000 2432.000
RBW [MHz] VBW [MHz]	0.500000 2.000000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	50 200 10001 SWE

RESULT

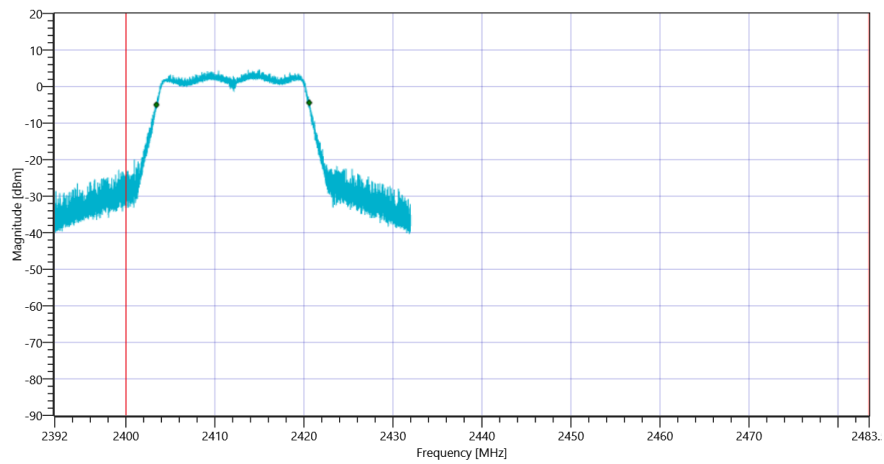
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 99%	---	---	17166.283	kHz	INFO
T1 99%	2400.000000	---	2403.4289	MHz	PASS
T2 99%	---	2483.500000	2420.5951	MHz	PASS

Plot: Bandwidth only



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

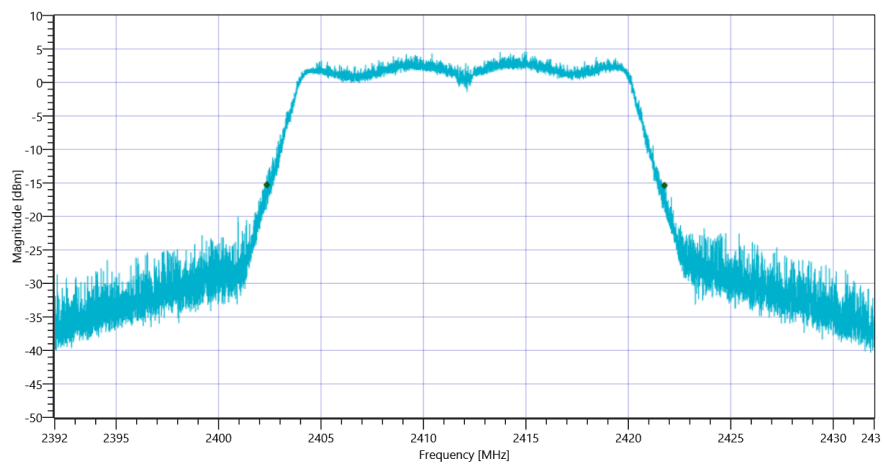
Plot: Bandwidth within Band



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

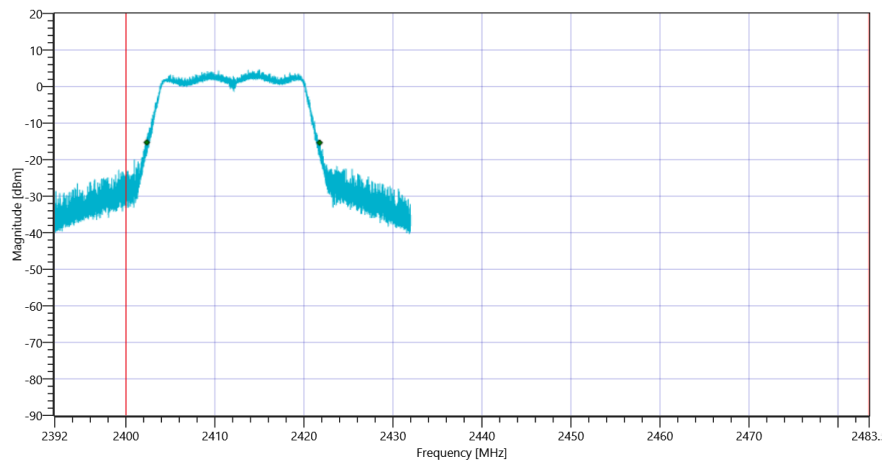
RESULT					
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 20dB	---	---	19416	kHz	INFO
T1 20dB	2400.000000	---	2402.3480	MHz	PASS
T2 20dB	---	2483.500000	2421.7640	MHz	PASS

Plot: Bandwidth only



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

Plot: Bandwidth within Band



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

General verdict

PASS

FCC Part 15.247 TX Spurious Conducted ~ WLAN2G4 g-mode

Test References	
TC Start	17.08.2021 15:13:02
Ambit Temp [°C] Humidity [rel%]	25.8 38
System Version	3.0.1.5
Test Specification	FCC Part 15.247
Test Method	IF DTS then 8.5 DTS emissions in non-restricted frequency bands: Subclause 11.11 of ANSI C63.10 is applicable.
TC Version	0.0.1
My Description	FCC 15.247 TX Emissions Conducted DTS - WLAN 2G4 g-mode
Add. Information	

EUT Common Settings WLAN2G4	
Number of Antenna Ports	1
User Interaction	No

Test Parameter	
Technology to test	WLAN2G4 g-mode
Antenna Port used	1
Temperature	nom
Voltage	nom
Frequency low to test	True Freq [MHz] 2412
Frequency mid to test	False Freq [MHz] 2437
Frequency high to test	False Freq [MHz] 2462
Auto Control enabled Power Supply Climatic Box	No No
Additional Path Loss [dB]	0.5
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer

Test Equipment	
Signal analyzer,Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.60	
Switch matrix,CTCadvanced,SPM-4 NI DAQ,28016133,NI	

Test at TX 2412 MHz

RESULT: Reference Power cond.

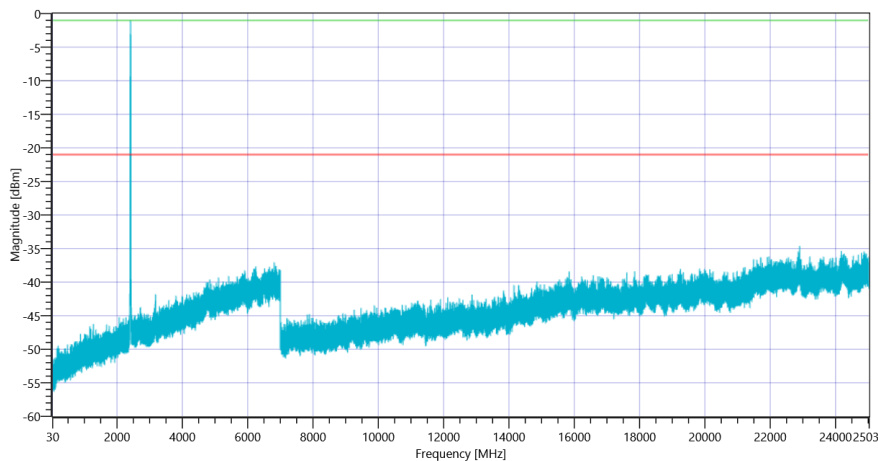
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	8.31	dBm	INFO
Ref. Frequency	---	---	2409.400	MHz	INFO

READ SA SETTINGS:

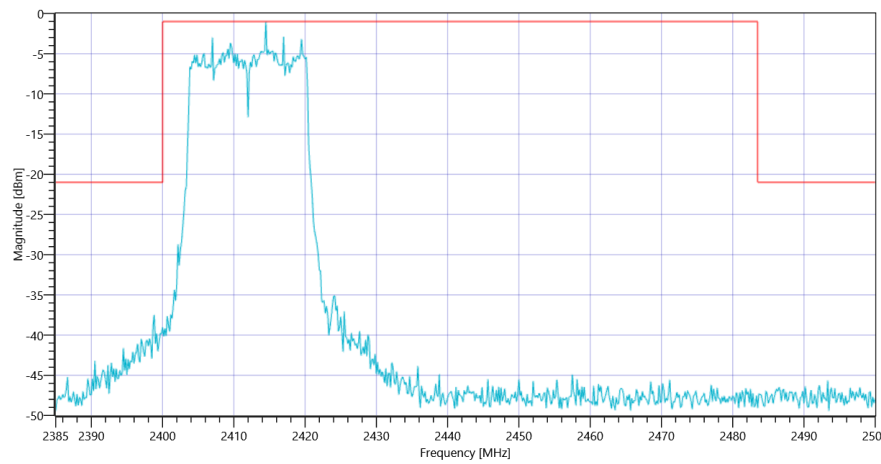
RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	8.31 0 25
Start [MHz] Stop [MHz]	24530.000 25030.000
RBW [MHz] VBW [MHz]	0.100000 0.300000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	500 8 3001 SWE

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Reference @ 2414.50 MHz	---	---	-1.00	dBm	INFO
No peaks detected	---	---			PASS
Lowest margin to limit 22898.667 MHz	0	---	13.63	dB	INFO



FCC Part 15.247 TX Spurious Conducted ~ WLAN2G4 g-mode 2412



FCC Part 15.247 TX Spurious Conducted ~ WLAN2G4 g-mode 2412

General verdict

PASS

FCC Part 15.247 Maximum Peak Conducted Output Power Powermeter DTS ~ WLAN2G4 g-mode

Test References

TC Start	17.08.2021 15:19:56
Ambit Temp [°C] Humidity [rel%]	25.8 38
System Version	3.0.1.5
Test Specification	FCC Part 15.247
Test Method	DTS: KDB 558074 D01 V05 - Chapter 8.3.1.3 PKPM1 Peak-reading Power Meter Method
TC Version	0.0.1
My Description	FCC 15.247 Maximum Peak Output Power Powermeter Conducted DTS - WLAN 2G4 g-mode
Add. Information	

EUT Common Settings WLAN2G4

Number of Antenna Ports	1
User Interaction	No

Test Parameter

Technology to test	WLAN2G4 g-mode
Antenna Port used	1
Temperature	nom
Voltage	nom
Frequency low to test	True Freq [MHz] 2412
Frequency mid to test	False Freq [MHz] 2437
Frequency high to test	False Freq [MHz] 2462
Auto Control enabled Power Supply Climatic Box	No No
Additional Path Loss [dB]	0.5
Switched Path	EUT - SignalingUnit - PowerMeter

Test Equipment

Switch matrix,CTCadvanced,SPM-4 NI DAQ,28016133,NI
Power sensor,Keysight Technologies,U2021XA,MY59190010,A.04.06

Test at TX 2412 MHz

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Found Peak cond.	---	---	22.8	dBm	PASS

General verdict

PASS

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

Test References

TC Start	17.08.2021 15:21:40
Ambit Temp [°C] Humidity [rel%]	25.9 38
System Version	3.0.1.5
Test Specification	FCC Part 15.247
Test Method	99
TC Version	0.0.1
My Description	FCC 15.247 Bandwidth 6dB DTS - WLAN 2G4 g-mode
Add. Information	

EUT Common Settings WLAN2G4

Number of Antenna Ports	1
User Interaction	No

Test Parameter

Technology to test	WLAN2G4 g-mode
Antenna Port used	1
Temperature	nom
Voltage	nom
Frequency low to test	False Freq [MHz] 2412
Frequency mid to test	True Freq [MHz] 2437
Frequency high to test	False Freq [MHz] 2462
Auto Control enabled Power Supply Climatic Box	No No
Additional Path Loss [dB]	0.5
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer

Test Equipment

Signal analyzer,Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.60
Switch matrix,CTCadvanced,SPM-4 NI DAQ,28016133,NI

Test at TX 2437 MHz

RESULT: Reference Power cond.

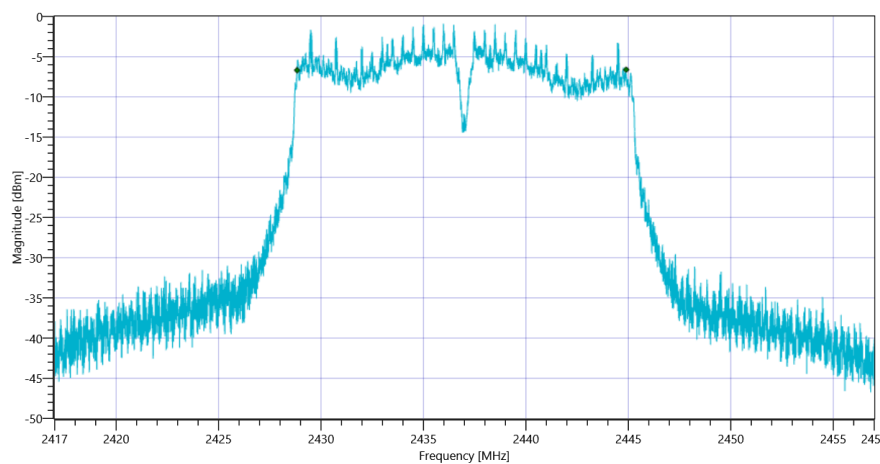
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	5.71	dBm	INFO
Ref. Frequency	---	---	2429.710	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	10.71 16.02 10
Start [MHz] Stop [MHz]	2417.000 2457.000
RBW [MHz] VBW [MHz]	0.100000 0.300000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	50 200 10001 SWE

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
DTS Bandwidth (6dB)	500	---	16060	kHz	PASS



General verdict

PASS

FCC Part 15.247 Peak Power Spectral Density DTS ~ WLAN2G4 g-mode

Test References

TC Start	17.08.2021 15:22:18
Ambit Temp [°C] Humidity [rel%]	25.9 38
System Version	3.0.1.5
Test Specification	FCC Part 15.247
Test Method	DTS: KDB 558074 D01 V05 - Chapter 8.4 DTS maximum power spectral density level in the fundamental emission
TC Version	0.0.1
My Description	FCC 15.247 Peak Power Spectral Density DTS - WLAN 2G4 g-mode
Add. Information	

EUT Common Settings WLAN2G4

Number of Antenna Ports	1
User Interaction	No

Test Parameter

Technology to test	WLAN2G4 g-mode
Antenna Port used	1
Temperature	nom
Voltage	nom
Frequency low to test	False Freq [MHz] 2412
Frequency mid to test	True Freq [MHz] 2437
Frequency high to test	False Freq [MHz] 2462
Auto Control enabled Power Supply Climatic Box	No No
Additional Path Loss [dB]	0.5
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer

Test Equipment

Signal analyzer,Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.60
Switch matrix,CTCadvanced,SPM-4 NI DAQ,28016133,NI

Test at TX 2437 MHz

RESULT: Reference Power cond.

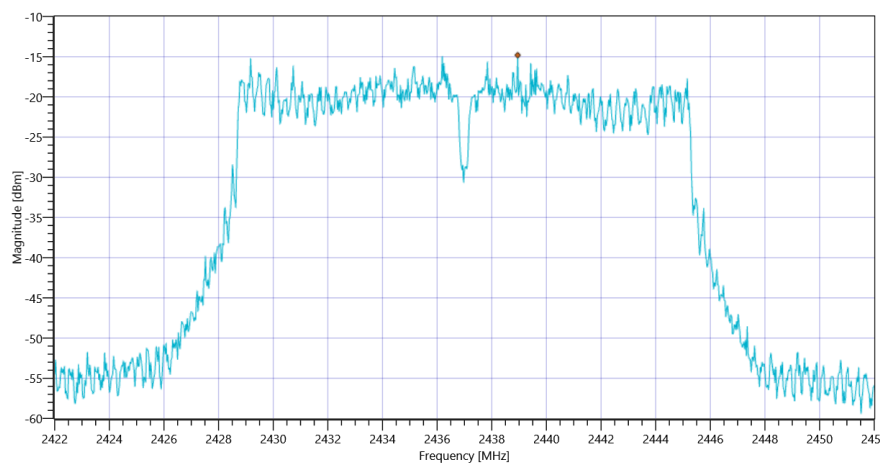
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	5.93	dBm	INFO
Ref. Frequency	---	---	2430.310	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	10.93 16.02 10
Start [MHz] Stop [MHz]	2422.000 2452.000
RBW [MHz] VBW [MHz]	0.003000 0.010000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	1000 20 1001 SWE

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Max Peak power Density	---	8	-14.81	dBm/3KHz	PASS



FCC Part 15.247 Peak Power Spectral Density DTS ~ WLAN2G4 g-mode

General verdict

PASS

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

Test References

TC Start	17.08.2021 15:23:04
Ambit Temp [°C] Humidity [rel%]	25.8 38
System Version	3.0.1.5
Test Specification	FCC Part 15.247
Test Method	
TC Version	0.0.2
My Description	FCC 15.247 Bandwidth 99PCT-20dB DTS - WLAN 2G4 g-mode
Add. Information	

EUT Common Settings WLAN2G4

Number of Antenna Ports	1
User Interaction	No

Test Parameter

Technology to test	WLAN2G4 g-mode
Antenna Port used	1
Temperature	nom
Voltage	nom
Frequency low to test	False Freq [MHz] 2412
Frequency mid to test	True Freq [MHz] 2437
Frequency high to test	False Freq [MHz] 2462
Auto Control enabled Power Supply Climatic Box	No No
Additional Path Loss [dB]	0.5
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer

Test Equipment

Signal analyzer,Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.60
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.	---	---	5.60	dBm	INFO
Ref. Frequency	---	---	2429.710	MHz	INFO

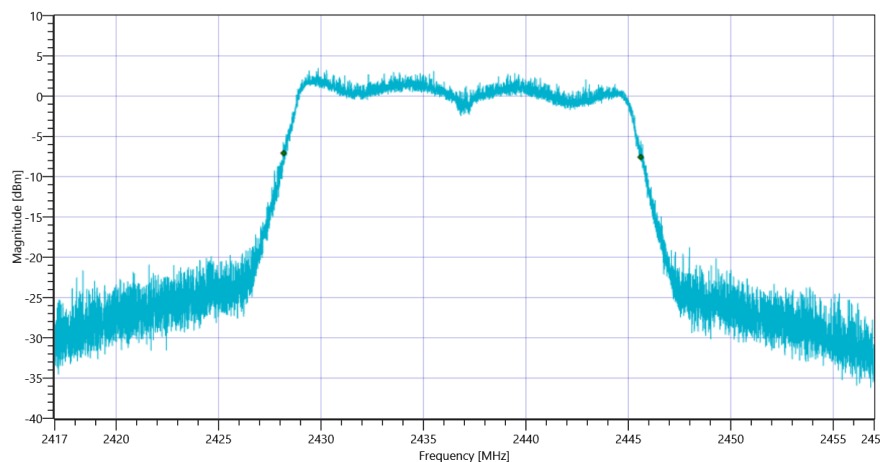
READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	10.60 16.02 10
Start [MHz] Stop [MHz]	2417.000 2457.000
RBW [MHz] VBW [MHz]	0.500000 2.000000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	50 200 10001 SWE

RESULT

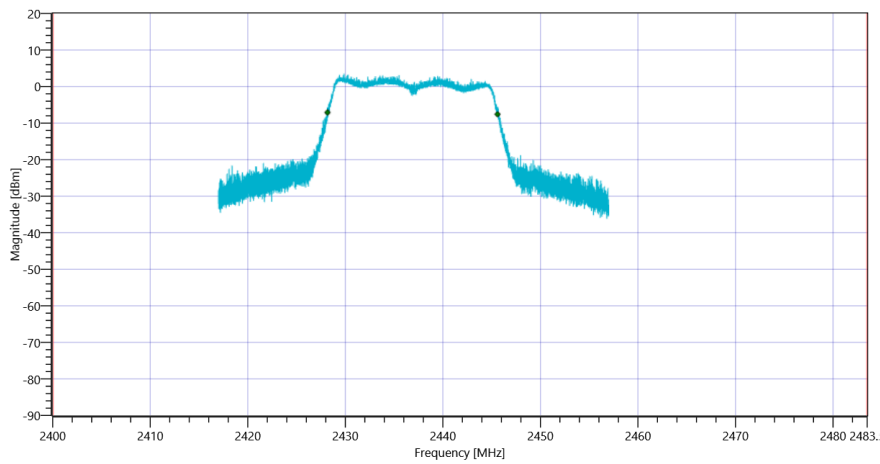
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 99%	---	---	17426.257	kHz	INFO
T1 99%	2400.000000	---	2428.1729	MHz	PASS
T2 99%	---	2483.500000	2445.5991	MHz	PASS

Plot: Bandwidth only



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

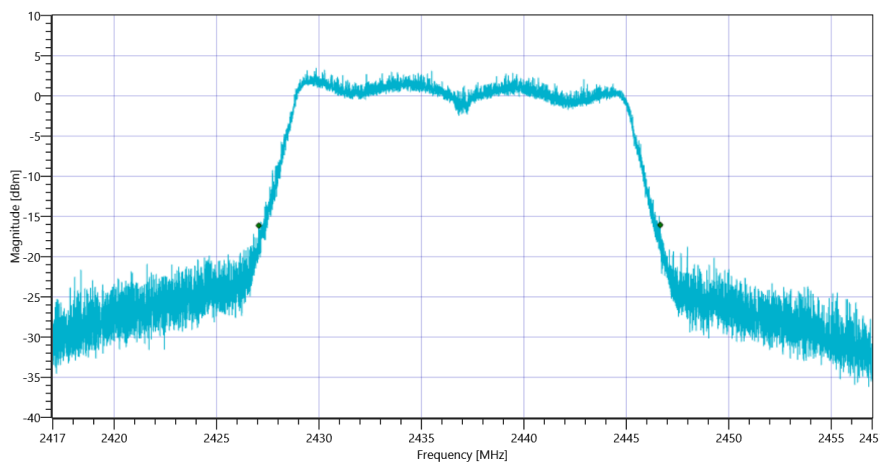
Plot: Bandwidth within Band



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

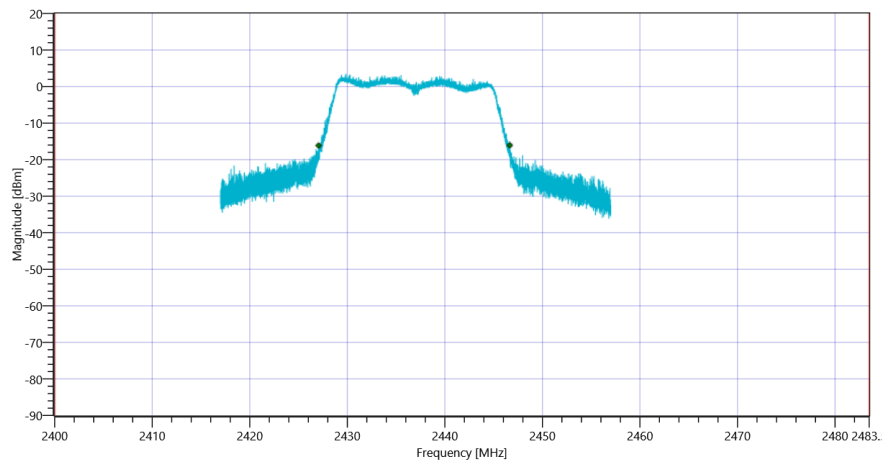
RESULT					
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 20dB	---	---	19600	kHz	INFO
T1 20dB	2400.000000	---	2427.0560	MHz	PASS
T2 20dB	---	2483.500000	2446.6560	MHz	PASS

Plot: Bandwidth only



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

Plot: Bandwidth within Band



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

General verdict

PASS

FCC Part 15.247 TX Spurious Conducted ~ WLAN2G4 g-mode

Test References	
TC Start	17.08.2021 15:24:03
Ambit Temp [°C] Humidity [rel%]	25.8 38
System Version	3.0.1.5
Test Specification	FCC Part 15.247
Test Method	IF DTS then 8.5 DTS emissions in non-restricted frequency bands: Subclause 11.11 of ANSI C63.10 is applicable.
TC Version	0.0.1
My Description	FCC 15.247 TX Emissions Conducted DTS - WLAN 2G4 g-mode
Add. Information	

EUT Common Settings WLAN2G4	
Number of Antenna Ports	1
User Interaction	No

Test Parameter	
Technology to test	WLAN2G4 g-mode
Antenna Port used	1
Temperature	nom
Voltage	nom
Frequency low to test	False Freq [MHz] 2412
Frequency mid to test	True Freq [MHz] 2437
Frequency high to test	False Freq [MHz] 2462
Auto Control enabled Power Supply Climatic Box	No No
Additional Path Loss [dB]	0.5
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer

Test Equipment	
Signal analyzer,Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.60	
Switch matrix,CTCadvanced,SPM-4 NI DAQ,28016133,NI	

Test at TX 2437 MHz

RESULT: Reference Power cond.

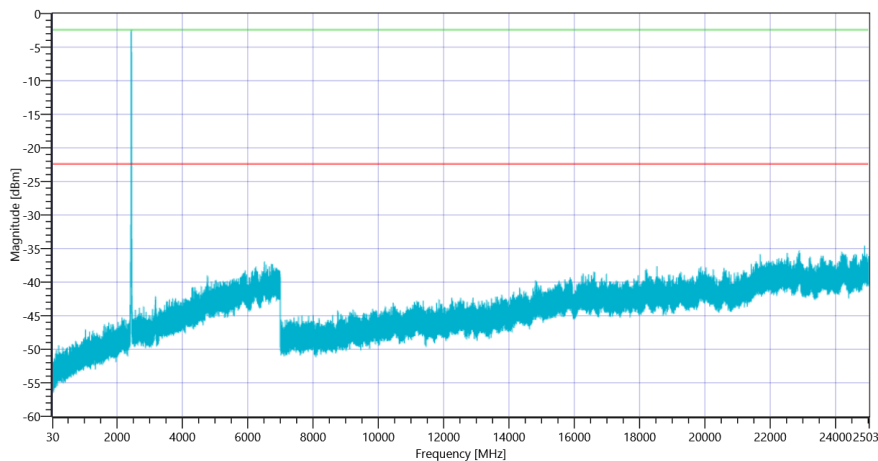
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	5.70	dBm	INFO
Ref. Frequency	---	---	2429.710	MHz	INFO

READ SA SETTINGS:

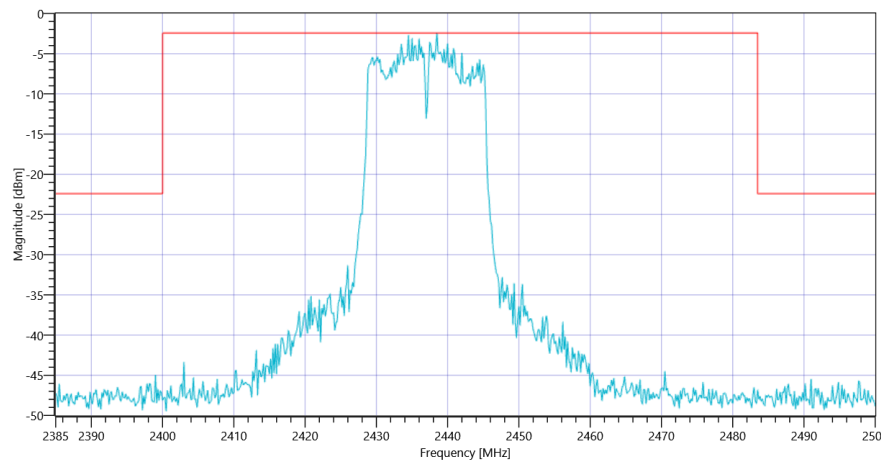
RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	5.70 0 25
Start [MHz] Stop [MHz]	24530.000 25030.000
RBW [MHz] VBW [MHz]	0.100000 0.300000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	500 8 3001 SWE

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Reference @ 2438.50 MHz	---	---	-2.42	dBm	INFO
No peaks detected	---	---			PASS
Lowest margin to limit 24892.167 MHz	0	---	12.17	dB	INFO



FCC Part 15.247 TX Spurious Conducted ~ WLAN2G4 g-mode 2437



FCC Part 15.247 TX Spurious Conducted ~ WLAN2G4 g-mode 2437

General verdict

PASS

FCC Part 15.247 Maximum Peak Conducted Output Power Powermeter DTS ~ WLAN2G4 g-mode

Test References

TC Start	17.08.2021 15:30:58
Ambit Temp [°C] Humidity [rel%]	25.9 38
System Version	3.0.1.5
Test Specification	FCC Part 15.247
Test Method	DTS: KDB 558074 D01 V05 - Chapter 8.3.1.3 PKPM1 Peak-reading Power Meter Method
TC Version	0.0.1
My Description	FCC 15.247 Maximum Peak Output Power Powermeter Conducted DTS - WLAN 2G4 g-mode
Add. Information	

EUT Common Settings WLAN2G4

Number of Antenna Ports	1
User Interaction	No

Test Parameter

Technology to test	WLAN2G4 g-mode
Antenna Port used	1
Temperature	nom
Voltage	nom
Frequency low to test	False Freq [MHz] 2412
Frequency mid to test	True Freq [MHz] 2437
Frequency high to test	False Freq [MHz] 2462
Auto Control enabled Power Supply Climatic Box	No No
Additional Path Loss [dB]	0.5
Switched Path	EUT - SignalingUnit - PowerMeter

Test Equipment

Switch matrix,CTCadvanced,SPM-4 NI DAQ,28016133,NI
Power sensor,Keysight Technologies,U2021XA,MY59190010,A.04.06

Test at TX 2437 MHz

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Found Peak cond.	---	---	22.13	dBm	PASS

General verdict

PASS

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

Test References

TC Start	17.08.2021 15:33:56
Ambit Temp [°C] Humidity [rel%]	25.9 38
System Version	3.0.1.5
Test Specification	FCC Part 15.247
Test Method	99
TC Version	0.0.1
My Description	FCC 15.247 Bandwidth 6dB DTS - WLAN 2G4 g-mode
Add. Information	

EUT Common Settings WLAN2G4

Number of Antenna Ports	1
User Interaction	No

Test Parameter

Technology to test	WLAN2G4 g-mode
Antenna Port used	1
Temperature	nom
Voltage	nom
Frequency low to test	False Freq [MHz] 2412
Frequency mid to test	False Freq [MHz] 2437
Frequency high to test	True Freq [MHz] 2462
Auto Control enabled Power Supply Climatic Box	No No
Additional Path Loss [dB]	0.5
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer

Test Equipment

Signal analyzer,Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.60
Switch matrix,CTCadvanced,SPM-4 NI DAQ,28016133,NI

Test at TX 2462 MHz

RESULT: Reference Power cond.

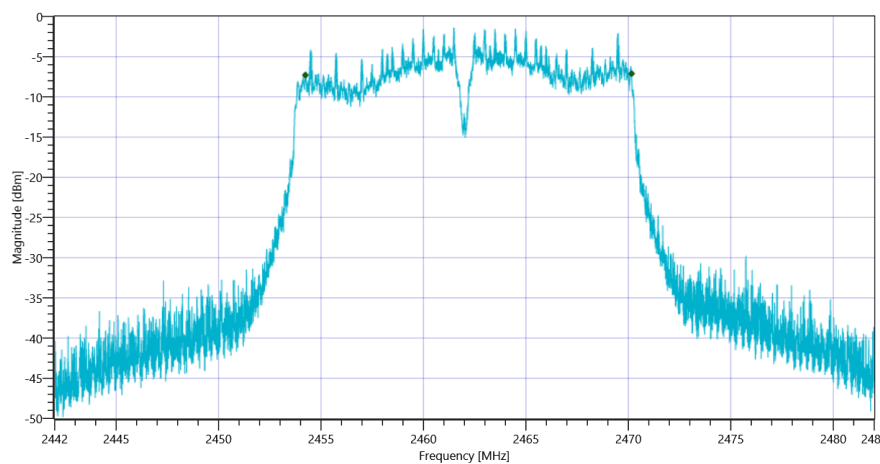
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	5.49	dBm	INFO
Ref. Frequency	---	---	2469.290	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	10.49 15.92 10
Start [MHz] Stop [MHz]	2442.000 2482.000
RBW [MHz] VBW [MHz]	0.100000 0.300000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	50 200 10001 SWE

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
DTS Bandwidth (6dB)	500	---	15924	kHz	PASS



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

General verdict

PASS

FCC Part 15.247 Peak Power Spectral Density DTS ~ WLAN2G4 g-mode

Test References

TC Start	17.08.2021 15:34:34
Ambit Temp [°C] Humidity [rel%]	25.9 38
System Version	3.0.1.5
Test Specification	FCC Part 15.247
Test Method	DTS: KDB 558074 D01 V05 - Chapter 8.4 DTS maximum power spectral density level in the fundamental emission
TC Version	0.0.1
My Description	FCC 15.247 Peak Power Spectral Density DTS - WLAN 2G4 g-mode
Add. Information	

EUT Common Settings WLAN2G4

Number of Antenna Ports	1
User Interaction	No

Test Parameter

Technology to test	WLAN2G4 g-mode
Antenna Port used	1
Temperature	nom
Voltage	nom
Frequency low to test	False Freq [MHz] 2412
Frequency mid to test	False Freq [MHz] 2437
Frequency high to test	True Freq [MHz] 2462
Auto Control enabled Power Supply Climatic Box	No No
Additional Path Loss [dB]	0.5
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer

Test Equipment

Signal analyzer,Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.60
Switch matrix,CTCadvanced,SPM-4 NI DAQ,28016133,NI

Test at TX 2462 MHz

RESULT: Reference Power cond.

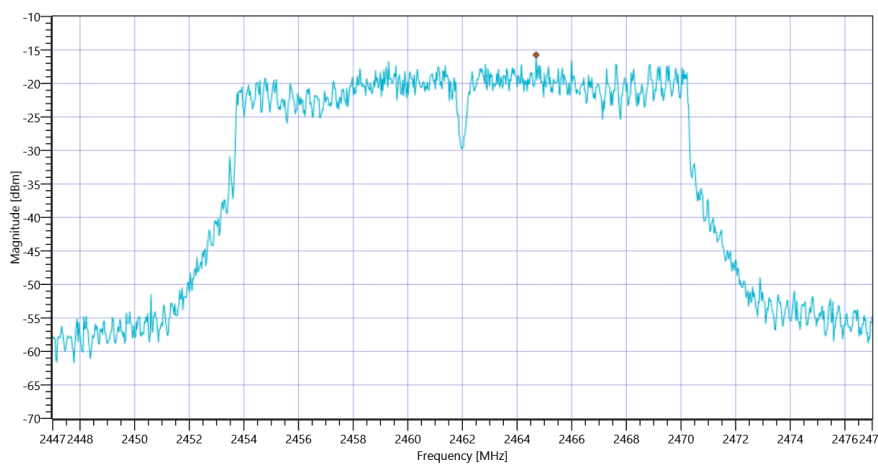
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	4.96	dBm	INFO
Ref. Frequency	---	---	2469.290	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	9.96 15.92 10
Start [MHz] Stop [MHz]	2447.000 2477.000
RBW [MHz] VBW [MHz]	0.003000 0.010000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	1000 20 1001 SWE

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Max Peak power Density	---	8	-15.73	dBm/3KHz	PASS



FCC Part 15.247 Peak Power Spectral Density DTS ~ WLAN2G4 g-mode

General verdict

PASS

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

Test References

TC Start	17.08.2021 15:35:20
Ambit Temp [°C] Humidity [rel%]	25.9 38
System Version	3.0.1.5
Test Specification	FCC Part 15.247
Test Method	
TC Version	0.0.2
My Description	FCC 15.247 Bandwidth 99PCT-20dB DTS - WLAN 2G4 g-mode
Add. Information	

EUT Common Settings WLAN2G4

Number of Antenna Ports	1
User Interaction	No

Test Parameter

Technology to test	WLAN2G4 g-mode
Antenna Port used	1
Temperature	nom
Voltage	nom
Frequency low to test	False Freq [MHz] 2412
Frequency mid to test	False Freq [MHz] 2437
Frequency high to test	True Freq [MHz] 2462
Auto Control enabled Power Supply Climatic Box	No No
Additional Path Loss [dB]	0.5
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer

Test Equipment

Signal analyzer,Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.60
Switch matrix,CTCadvanced,SPM-4 NI DAQ,28016133,NI

Test at TX 2462 MHz

RESULT: Reference Power cond.

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	5.31	dBm	INFO
Ref. Frequency	---	---	2469.090	MHz	INFO

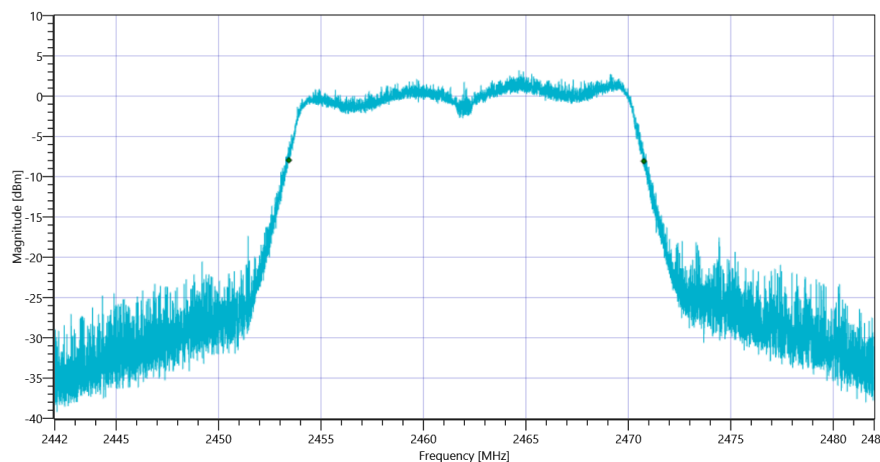
READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	10.31 15.92 10
Start [MHz] Stop [MHz]	2442.000 2482.000
RBW [MHz] VBW [MHz]	0.500000 2.000000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	50 200 10001 SWE

RESULT

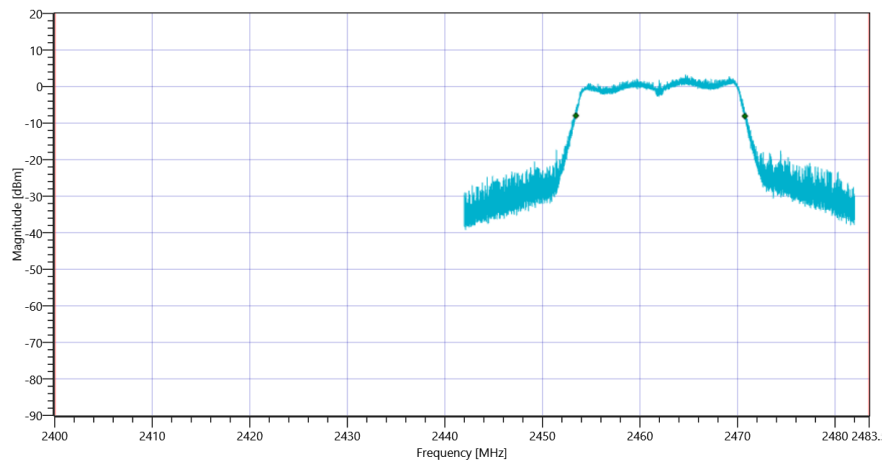
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 99%	---	---	17326.267	kHz	INFO
T1 99%	2400.000000	---	2453.4289	MHz	PASS
T2 99%	---	2483.500000	2470.7551	MHz	PASS

Plot: Bandwidth only



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

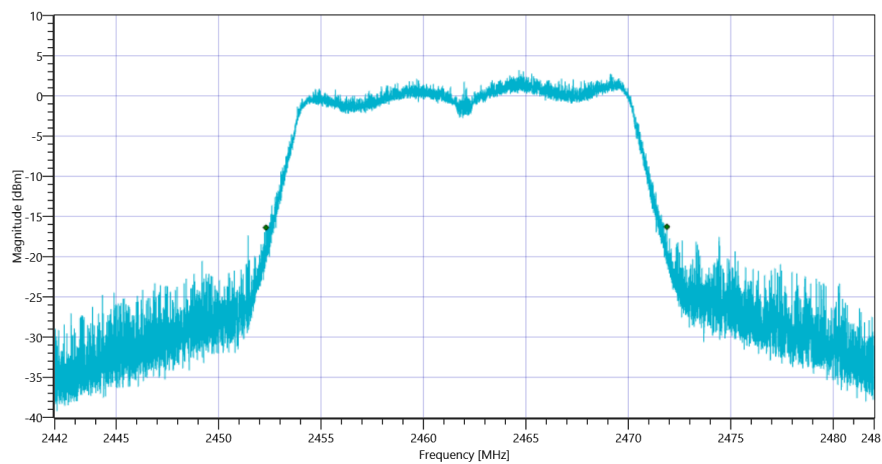
Plot: Bandwidth within Band



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

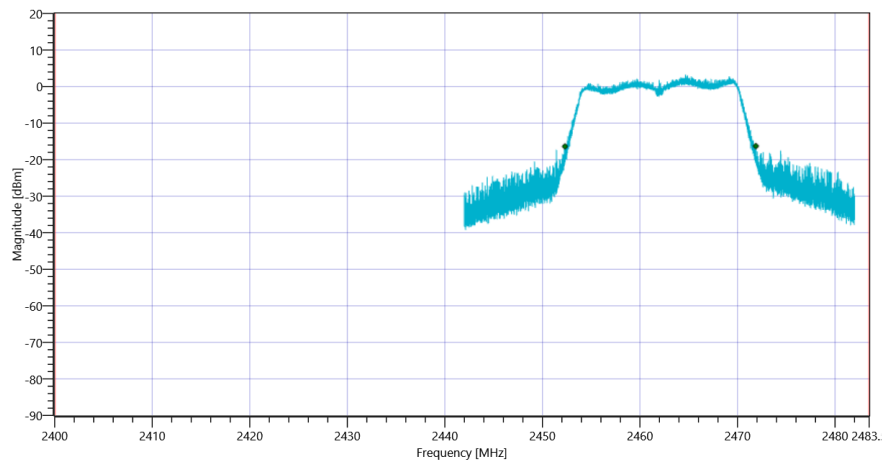
RESULT					
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 20dB	---	---	19568	kHz	INFO
T1 20dB	2400.000000	---	2452.3120	MHz	PASS
T2 20dB	---	2483.500000	2471.8800	MHz	PASS

Plot: Bandwidth only



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

Plot: Bandwidth within Band



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

General verdict

PASS

FCC Part 15.247 TX Spurious Conducted ~ WLAN2G4 g-mode

Test References

TC Start	17.08.2021 15:36:19
Ambit Temp [°C] Humidity [rel%]	25.9 38
System Version	3.0.1.5
Test Specification	FCC Part 15.247
Test Method	IF DTS then 8.5 DTS emissions in non-restricted frequency bands: Subclause 11.11 of ANSI C63.10 is applicable.
TC Version	0.0.1
My Description	FCC 15.247 TX Emissions Conducted DTS - WLAN 2G4 g-mode
Add. Information	

EUT Common Settings WLAN2G4

Number of Antenna Ports	1
User Interaction	No

Test Parameter

Technology to test	WLAN2G4 g-mode
Antenna Port used	1
Temperature	nom
Voltage	nom
Frequency low to test	False Freq [MHz] 2412
Frequency mid to test	False Freq [MHz] 2437
Frequency high to test	True Freq [MHz] 2462
Auto Control enabled Power Supply Climatic Box	No No
Additional Path Loss [dB]	0.5
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer

Test Equipment

Signal analyzer,Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.60
Switch matrix,CTCadvanced,SPM-4 NI DAQ,28016133,NI

Test at TX 2462 MHz

RESULT: Reference Power cond.

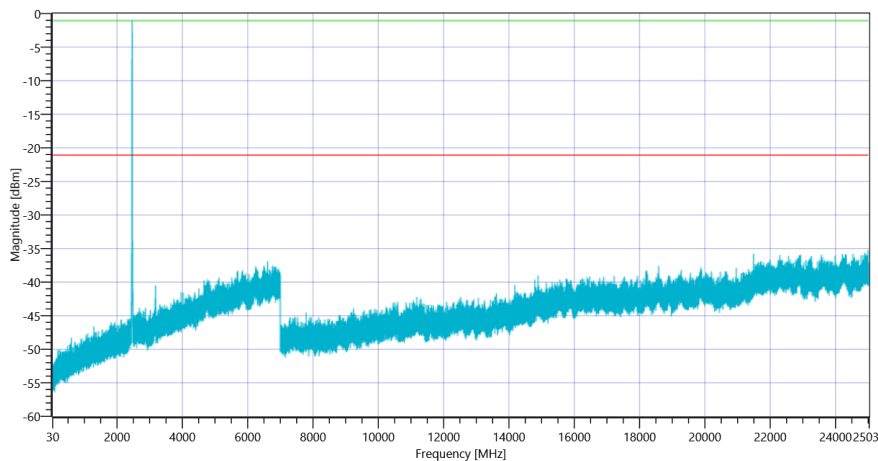
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	5.32	dBm	INFO
Ref. Frequency	---	---	2469.190	MHz	INFO

READ SA SETTINGS:

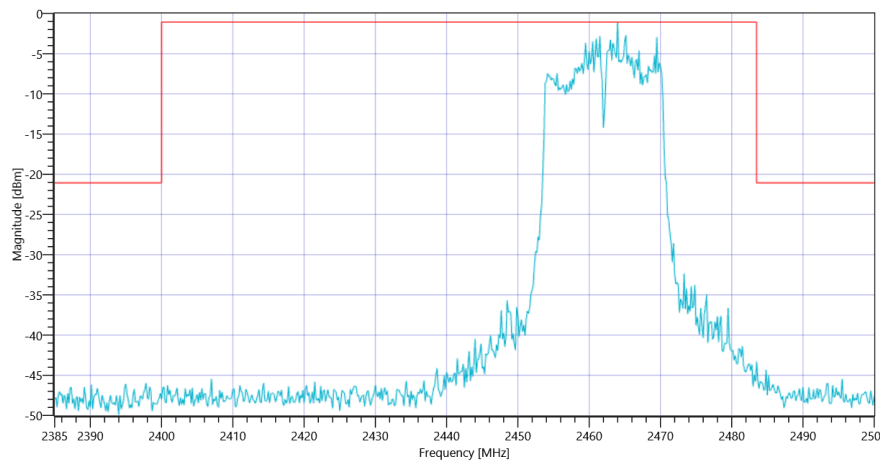
RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	5.32 0 25
Start [MHz] Stop [MHz]	24530.000 25030.000
RBW [MHz] VBW [MHz]	0.100000 0.300000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	500 8 3001 SWE

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Reference @ 2464.00 MHz	---	---	-1.07	dBm	INFO
No peaks detected	---	---			PASS
Lowest margin to limit 24900.333 MHz	0	---	14.55	dB	INFO



FCC Part 15.247 TX Spurious Conducted ~ WLAN2G4 g-mode 2462



FCC Part 15.247 TX Spurious Conducted ~ WLAN2G4 g-mode 2462

General verdict

PASS

FCC Part 15.247 Maximum Peak Conducted Output Power Powermeter DTS ~ WLAN2G4 g-mode

Test References

TC Start	17.08.2021 15:43:15
Ambit Temp [°C] Humidity [rel%]	25.9 38
System Version	3.0.1.5
Test Specification	FCC Part 15.247
Test Method	DTS: KDB 558074 D01 V05 - Chapter 8.3.1.3 PKPM1 Peak-reading Power Meter Method
TC Version	0.0.1
My Description	FCC 15.247 Maximum Peak Output Power Powermeter Conducted DTS - WLAN 2G4 g-mode
Add. Information	

EUT Common Settings WLAN2G4

Number of Antenna Ports	1
User Interaction	No

Test Parameter

Technology to test	WLAN2G4 g-mode
Antenna Port used	1
Temperature	nom
Voltage	nom
Frequency low to test	False Freq [MHz] 2412
Frequency mid to test	False Freq [MHz] 2437
Frequency high to test	True Freq [MHz] 2462
Auto Control enabled Power Supply Climatic Box	No No
Additional Path Loss [dB]	0.5
Switched Path	EUT - SignalingUnit - PowerMeter

Test Equipment

Switch matrix,CTCadvanced,SPM-4 NI DAQ,28016133,NI
Power sensor,Keysight Technologies,U2021XA,MY59190010,A.04.06

Test at TX 2462 MHz

RESULT					
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Found Peak cond.	---	---	22.24	dBm	PASS
General verdict			PASS		

FCC Part 15.247 Bandwidth 6dB DTS ~ WLAN2G4 nHT20-mode

Test References

TC Start	17.08.2021 15:45:15
Ambit Temp [°C] Humidity [rel%]	25.9 38
System Version	3.0.1.5
Test Specification	FCC Part 15.247
Test Method	99
TC Version	0.0.1
My Description	FCC 15.247 Bandwidth 6dB DTS - WLAN 2G4 nHT20_mode
Add. Information	

EUT Common Settings WLAN2G4

Number of Antenna Ports	1
User Interaction	No

Test Parameter

Technology to test	WLAN2G4 nHT20-mode
Antenna Port used	1
Temperature	nom
Voltage	nom
Frequency low to test	True Freq [MHz] 2412
Frequency mid to test	False Freq [MHz] 2437
Frequency high to test	False Freq [MHz] 2462
Auto Control enabled Power Supply Climatic Box	No No
Additional Path Loss [dB]	0.5
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer

Test Equipment

Signal analyzer,Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.60
Switch matrix,CTCadvanced,SPM-4 NI DAQ,28016133,NI

Test at TX 2412 MHz

RESULT: Reference Power cond.

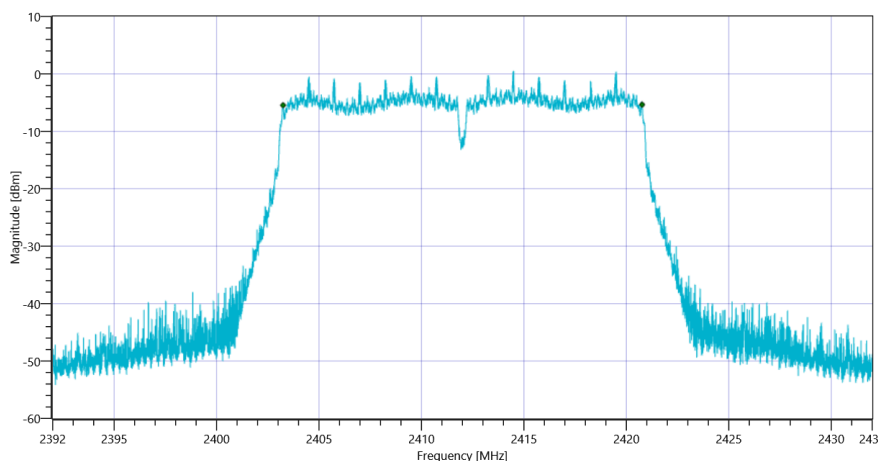
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	9.09	dBm	INFO
Ref. Frequency	---	---	2409.600	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	14.09 16.15 15
Start [MHz] Stop [MHz]	2392.000 2432.000
RBW [MHz] VBW [MHz]	0.100000 0.300000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	50 200 10001 SWE

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
DTS Bandwidth (6dB)	500	---	17524	kHz	PASS



General verdict

PASS

FCC Part 15.247 Peak Power Spectral Density DTS ~ WLAN2G4 nHT20-mode

Test References

TC Start	17.08.2021 15:45:55
Ambit Temp [°C] Humidity [rel%]	25.9 38
System Version	3.0.1.5
Test Specification	FCC Part 15.247
Test Method	DTS: KDB 558074 D01 V05 - Chapter 8.4 DTS maximum power spectral density level in the fundamental emission
TC Version	0.0.1
My Description	FCC 15.247 Peak Power Spectral Density DTS - WLAN 2G4 nHT20_mode
Add. Information	

EUT Common Settings WLAN2G4

Number of Antenna Ports	1
User Interaction	No

Test Parameter

Technology to test	WLAN2G4 nHT20-mode
Antenna Port used	1
Temperature	nom
Voltage	nom
Frequency low to test	True Freq [MHz] 2412
Frequency mid to test	False Freq [MHz] 2437
Frequency high to test	False Freq [MHz] 2462
Auto Control enabled Power Supply Climatic Box	No No
Additional Path Loss [dB]	0.5
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer

Test Equipment

Signal analyzer,Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.60
Switch matrix,CTCadvanced,SPM-4 NI DAQ,28016133,NI

Test at TX 2412 MHz

RESULT: Reference Power cond.

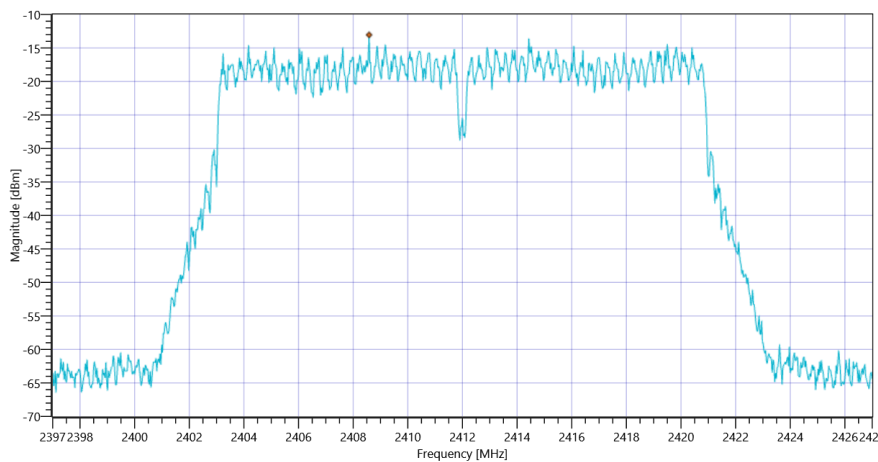
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	7.79	dBm	INFO
Ref. Frequency	---	---	2414.600	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	12.79 16.15 15
Start [MHz] Stop [MHz]	2397.000 2427.000
RBW [MHz] VBW [MHz]	0.003000 0.010000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	1000 20 1001 SWE

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Max Peak power Density	---	8	-13.04	dBm/3KHz	PASS



FCC Part 15.247 Peak Power Spectral Density DTS ~ WLAN2G4 nHT20-mode

General verdict

PASS

FCC Part 15.247 Bandwidth 99PCT-20dB ~ WLAN2G4 nHT20-mode

Test References

TC Start	17.08.2021 15:46:41
Ambit Temp [°C] Humidity [rel%]	25.9 38
System Version	3.0.1.5
Test Specification	FCC Part 15.247
Test Method	
TC Version	0.0.2
My Description	FCC 15.247 Bandwidth 99PCT-20dB DTS - WLAN 2G4 nHT20_mode
Add. Information	

EUT Common Settings WLAN2G4

Number of Antenna Ports	1
User Interaction	No

Test Parameter

Technology to test	WLAN2G4 nHT20-mode
Antenna Port used	1
Temperature	nom
Voltage	nom
Frequency low to test	True Freq [MHz] 2412
Frequency mid to test	False Freq [MHz] 2437
Frequency high to test	False Freq [MHz] 2462
Auto Control enabled Power Supply Climatic Box	No No
Additional Path Loss [dB]	0.5
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer

Test Equipment

Signal analyzer,Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.60
Switch matrix,CTCadvanced,SPM-4 NI DAQ,28016133,NI

Test at TX 2412 MHz

RESULT: Reference Power cond.

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	7.81	dBm	INFO
Ref. Frequency	---	---	2414.200	MHz	INFO

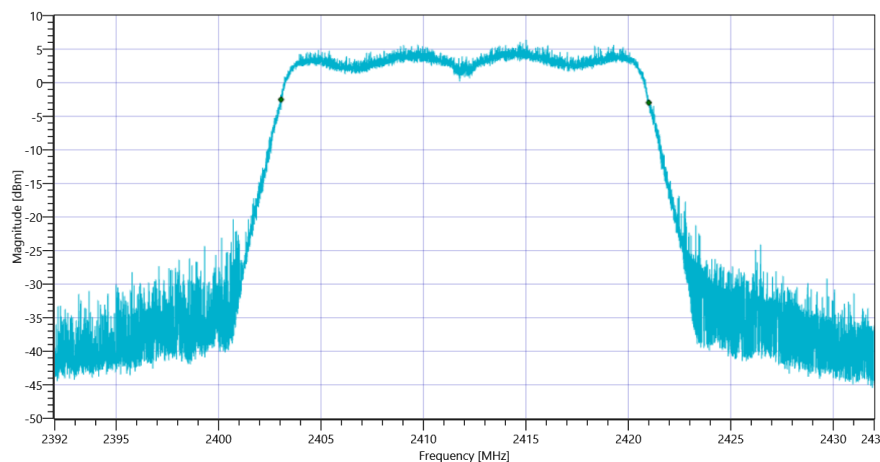
READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	12.81 16.15 15
Start [MHz] Stop [MHz]	2392.000 2432.000
RBW [MHz] VBW [MHz]	0.500000 2.000000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	50 200 10001 SWE

RESULT

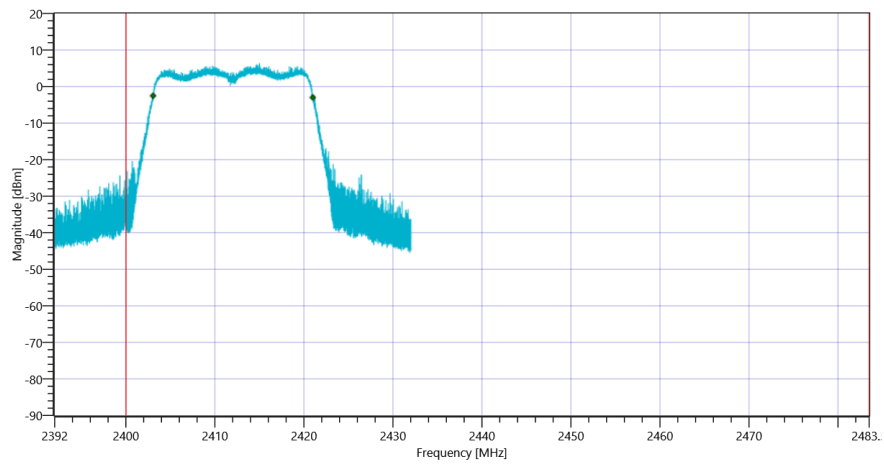
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 99%	---	---	17946.205	kHz	INFO
T1 99%	2400.000000	---	2403.0489	MHz	PASS
T2 99%	---	2483.500000	2420.9951	MHz	PASS

Plot: Bandwidth only



FCC Part 15.247 Bandwidth 99PCT-20dB ~ WLAN2G4 nHT20-mode 99PCT

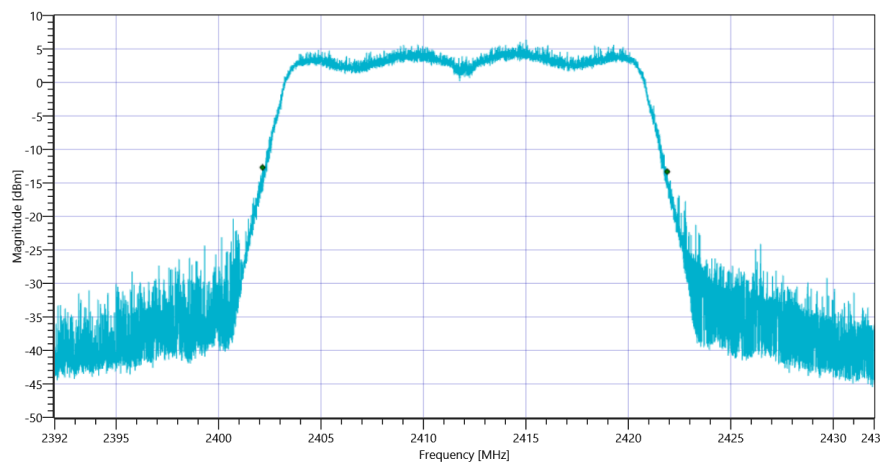
Plot: Bandwidth within Band



FCC Part 15.247 Bandwidth 99PCT-20dB ~ WLAN2G4 nHT20-mode

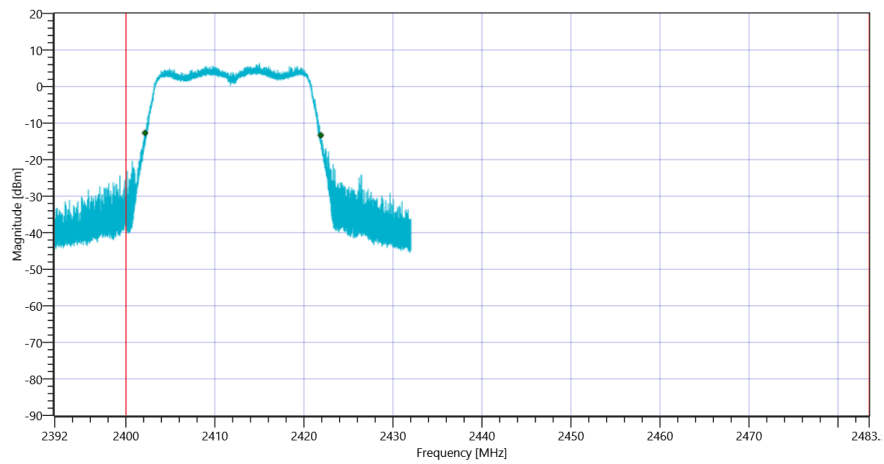
RESULT					
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 20dB	---	---	19752	kHz	INFO
T1 20dB	2400.000000	---	2402.1440	MHz	PASS
T2 20dB	---	2483.500000	2421.8960	MHz	PASS

Plot: Bandwidth only



FCC Part 15.247 Bandwidth 99PCT-20dB ~ WLAN2G4 nHT20-mode 20dB

Plot: Bandwidth within Band



FCC Part 15.247 Bandwidth 99PCT-20dB ~ WLAN2G4 nHT20-mode

General verdict

PASS

FCC Part 15.247 TX Spurious Conducted ~ WLAN2G4 nHT20-mode

Test References	
TC Start	17.08.2021 15:47:41
Ambit Temp [°C] Humidity [rel%]	25.9 38
System Version	3.0.1.5
Test Specification	FCC Part 15.247
Test Method	IF DTS then 8.5 DTS emissions in non-restricted frequency bands: Subclause 11.11 of ANSI C63.10 is applicable.
TC Version	0.0.1
My Description	FCC 15.247 TX Emissions Conducted DTS - WLAN 2G4 nHT20_mode
Add. Information	

EUT Common Settings WLAN2G4	
Number of Antenna Ports	1
User Interaction	No

Test Parameter	
Technology to test	WLAN2G4 nHT20-mode
Antenna Port used	1
Temperature	nom
Voltage	nom
Frequency low to test	True Freq [MHz] 2412
Frequency mid to test	False Freq [MHz] 2437
Frequency high to test	False Freq [MHz] 2462
Auto Control enabled Power Supply Climatic Box	No No
Additional Path Loss [dB]	0.5
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer

Test Equipment	
Signal analyzer,Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.60	
Switch matrix,CTCadvanced,SPM-4 NI DAQ,28016133,NI	

Test at TX 2412 MHz

RESULT: Reference Power cond.

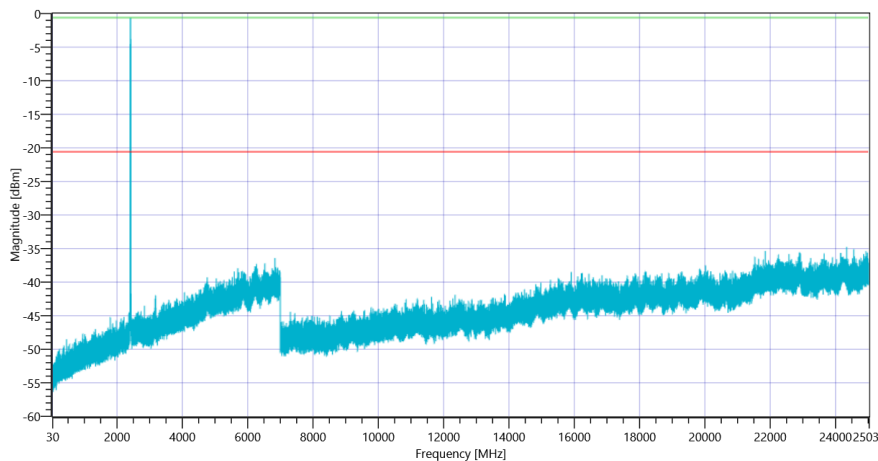
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	7.80	dBm	INFO
Ref. Frequency	---	---	2409.300	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	7.80 0 25
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	500 8 3001 SWE

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Reference @ 2410.83 MHz	---	---	-0.60	dBm	INFO
No peaks detected	---	---			PASS
Lowest margin to limit 24340.833 MHz	0	---	14.15	dB	INFO



FCC Part 15.247 TX Spurious Conducted ~ WLAN2G4 nHT20-mode 2412