

Measurement Results

1-1928/21-02-02_log1_conducted

[Test logging](#)

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EUT Summary

EUT DEFINITION	
Manufacturer	Blum NOVOTEST
Type	KOMflex
Kind	NI
Serial Number Setup Number	0010 1.0
Version SW FW HW	NI NI NI
Comment 1 2	
Temperature [°C] Min Nom Max	5 23 50
Voltage [V] Min Nom Max @Current Max [A]	6 7.2 7.2 @1

1. Message with SA Scan ~

Test References	
TC Start	07.04.2021 13:45:10
Ambit Temp [°C] Humidity [rel%]	21.0 21
System Version	2.0.0.4
Test Specification	None
Test Method	
TC Version	0.0.1
My Description	Message with SA Scan g-mode
Add. Information	

Test Parameter	
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer
Devices in use	SA: Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.60
Message start	07.04.2021 13:45:11
Message	set WLAN2G4 to g-mode, Frequency [MHz] 2412 ,

TEST FINISHED	
General Verdict	INFO

2. Common2G4 Peak OP 3MHz/3MHz ~ WLAN2G4 g-mode

Test References	
TC Start	07.04.2021 13:45:27
Ambit Temp [°C] Humidity [rel%]	21.1 21
System Version	2.0.0.4
Test Specification	None
Test Method	
TC Version	0.0.1
My Description	Peak Output Power conducted 3MHz/3MHz WLAN 2G4 g-mode
Add. Information	

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
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer
Devices in use	SA: Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.60

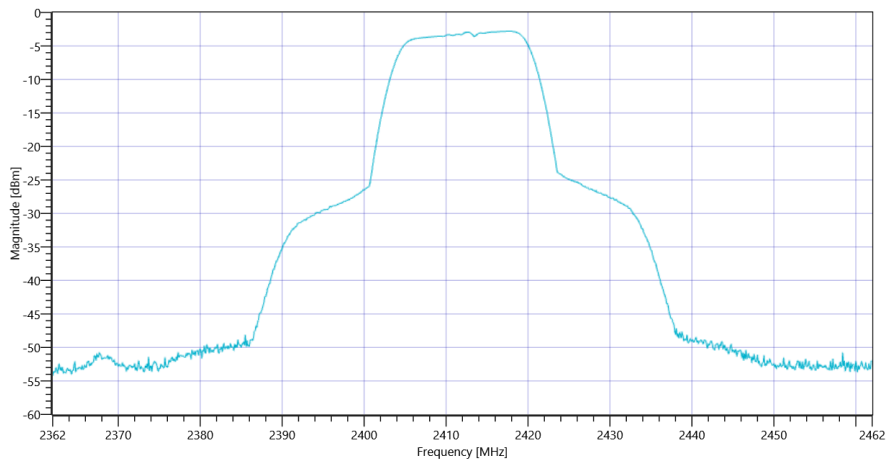
Test at TX 2412 MHz

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	5.38 15.65 5
Start [MHz] Stop [MHz]	2362.000 2462.000
RBW [MHz] VBW [MHz]	3.000000 3.000000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	1000 10 1001 SWE

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Peak Power	---	---	-2.79	dBm	Info
Peak Power	---	---	0.526017	mW	Info
Frequency at Peak	---	---	2417.69	MHz	Info



Plot_Common2G4 Peak OP 3MHz-3MHz ~ WLAN2G4 g-mode_07042021_134603.png

TEST FINISHED

General Verdict

PASS

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

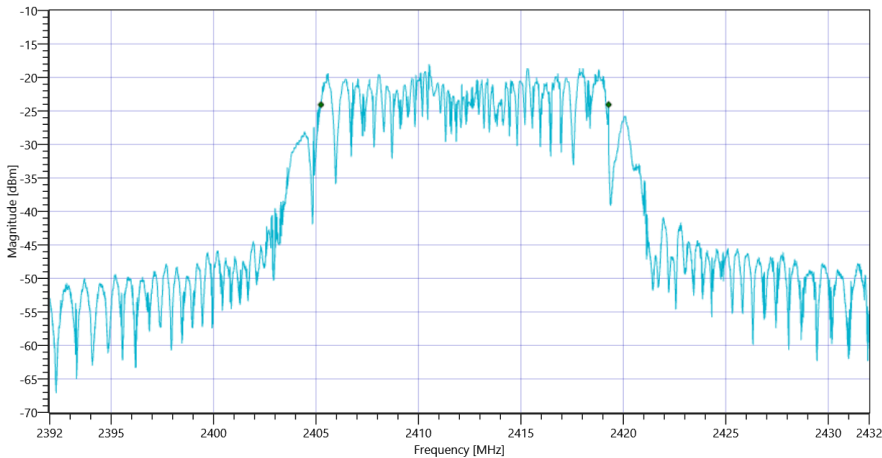
Test References	
TC Start	07.04.2021 13:46:08
Ambit Temp [°C] Humidity [rel%]	21.0 21
System Version	2.0.0.4
Test Specification	FCC Part 15.247
Test Method	99
TC Version	0.0.1
My Description	FCC 15.247 Bandwidth 6dB DTS - WLAN 2G4 g-mode
Add. Information	

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
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer
Devices in use	SA: Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.60

Test at TX 2412 MHz

READ SA SETTINGS:		
RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	0.22 15.65 0	
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	---	14040	kHz	PASS



TEST FINISHED	
General Verdict	PASS

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

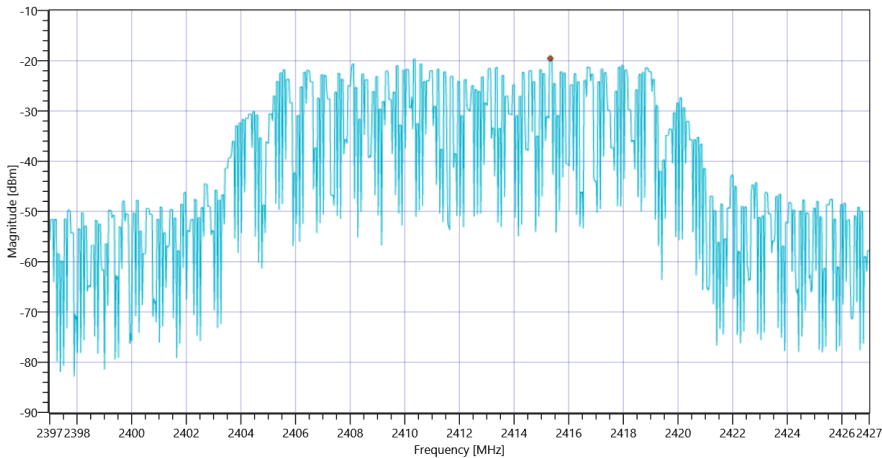
Test References	
TC Start	07.04.2021 13:46:53
Ambit Temp [°C] Humidity [rel%]	21.0 21
System Version	2.0.0.4
Test Specification	FCC Part 15.247
Test Method	DTS: KDB 558074 D01 V05 - Chapter 8.4 DTS maximum power spectral density level in the fundamental emission
TC Version	0.0.1
My Description	FCC 15.247 Peak Power Spectral Density DTS - WLAN 2G4 g-mode
Add. Information	

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
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer
Devices in use	SA: Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.60

Test at TX 2412 MHz

READ SA SETTINGS:		
RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	0.28 15.65 0	
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	-19.53	dBm/3KHz	PASS



Plot_FCC Part 15.247 Peak Power Spectral Density DTS ~ WLAN2G4 g-mode_07042021_134747.png

TEST FINISHED	
General Verdict	PASS

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

Test References	
TC Start	07.04.2021 13:47:53
Ambit Temp [°C] Humidity [rel%]	21.0 21
System Version	2.0.0.4
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	

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
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer
Devices in use	SA: Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.60

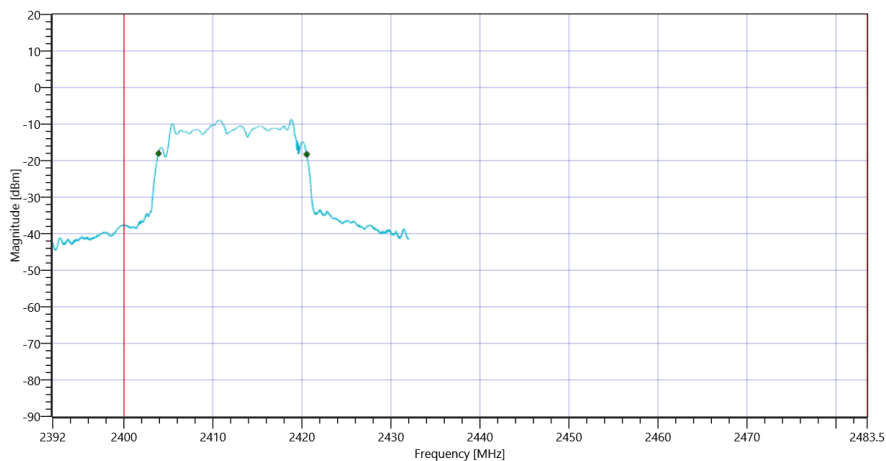
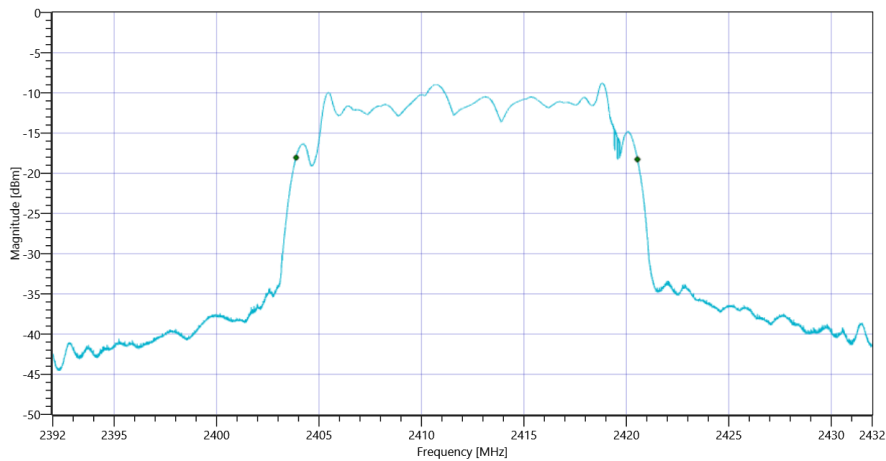
Test at TX 2412 MHz

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	0.21 15.65 0
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

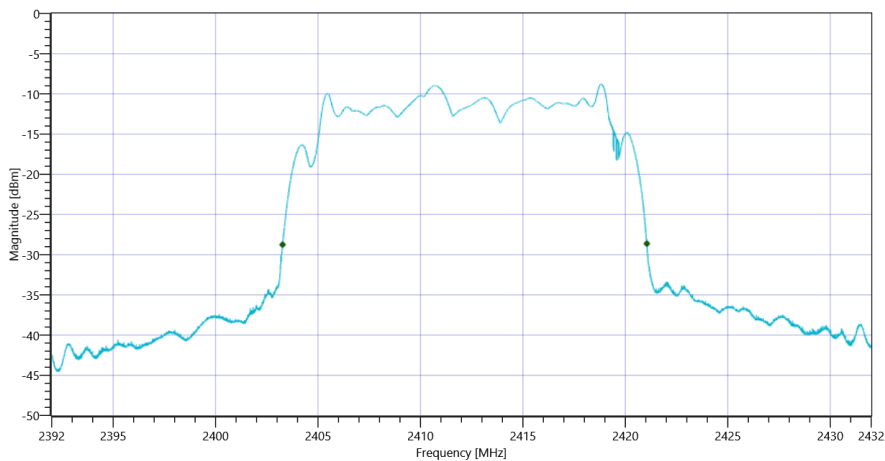
RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 99%	---	---	16658.334	kHz	INFO
T1 99%	2400.000000	---	2403.8808	MHz	PASS
T2 99%	---	2483.500000	2420.5391	MHz	PASS

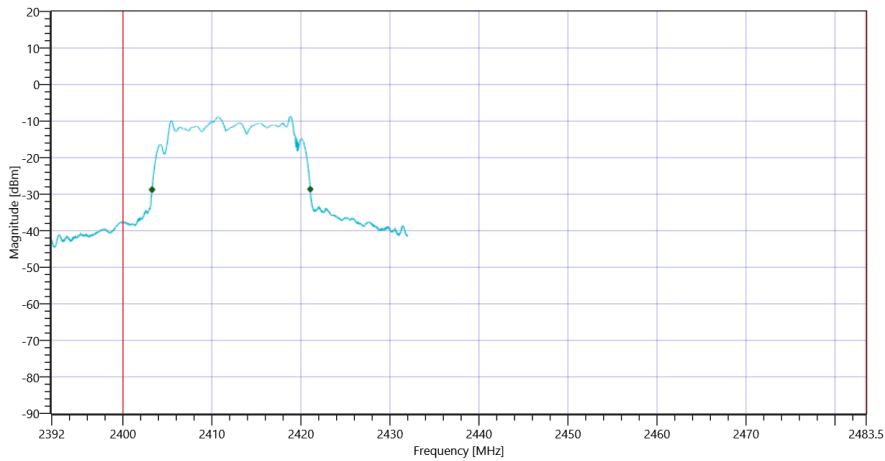


RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 20dB	---	---	17780	kHz	INFO
T1 20dB	2400.000000	---	2403.2680	MHz	PASS
T2 20dB	---	2483.500000	2421.0480	MHz	PASS



Plot_FCC Part 15.247 Bandwidth 99PCT-20dB ~ WLAN2G4 g-mode 20dB_07042021_134852.png



Plot_FCC Part 15.247 Bandwidth 99PCT-20dB ~ WLAN2G4 g-mode_07042021_134859.png

TEST FINISHED	
General Verdict	PASS

6. FCC Part 15.247 TX Spurious Conducted ~ WLAN2G4 g-mode

Test References	
TC Start	07.04.2021 13:49:05
Ambit Temp [°C] Humidity [rel%]	21.0 21
System Version	2.0.0.4
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	

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
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer
Devices in use	SA: Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.60

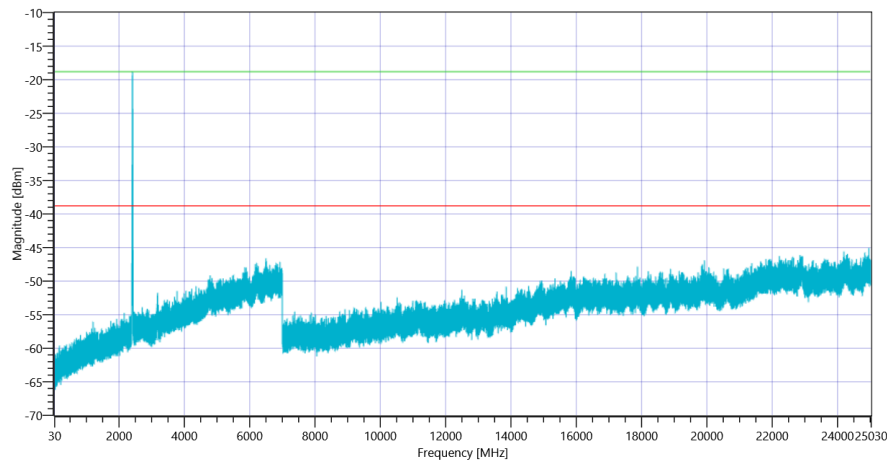
Test at TX 2412 MHz

READ SA SETTINGS:

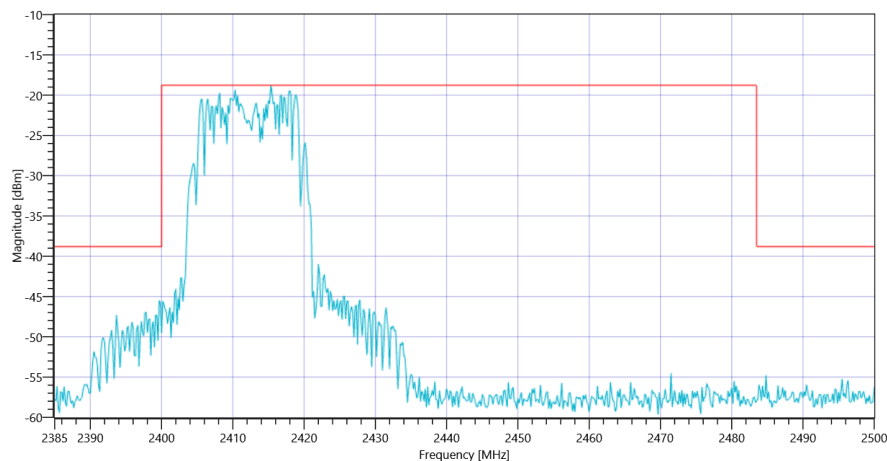
RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	-4.71 0 15
Start [MHz] Stop [MHz]	24530.000 25030.000
RBW [MHz] VBW [MHz]	0.100000 0.300000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	500 8 3001 SWE

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Reference @ 2415.33 MHz	---	---	-18.80	dBm	INFO
No peaks detected	---	---			PASS
Lowest margin to limit 24964 MHz	0	---	6.27	dB	INFO



Plot_FCC Part 15.247 TX Spurious Conducted ~ WLAN2G4 g-mode 2412_07042021_135515.png



Plot_FCC Part 15.247 TX Spurious Conducted ~ WLAN2G4 g-mode 2412_07042021_135521.png

TEST FINISHED

General Verdict

PASS

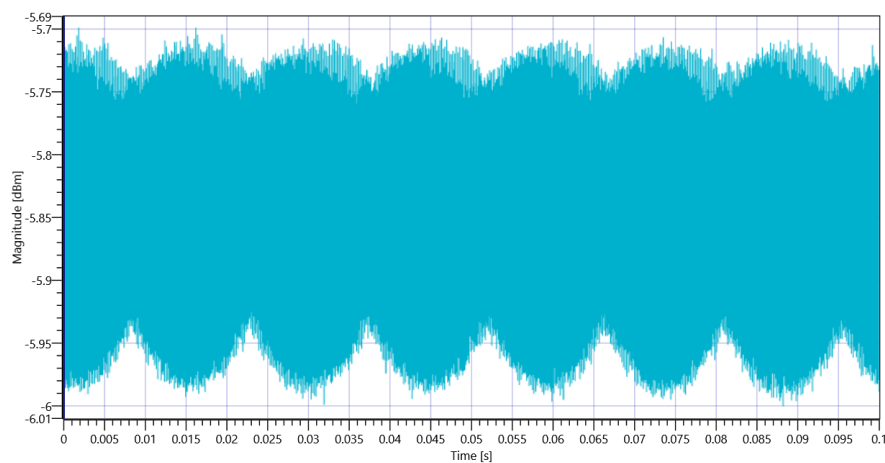
7. FCC Part 15.247 Restricted Band Edge Conducted Avg DC corrected DTS (cond) ~ WLAN2G4 g-mode

Test References	
TC Start	07.04.2021 13:55:27
Ambit Temp [°C] Humidity [rel%]	21.6 20
System Version	2.0.0.4
Test Specification	FCC Part 15.247
Test Method	DTS: KDB 558074 D01 V05 - 8.7.3 Integration Method; ANSI C63.10-2013 11.13.3.4 Trace averaging across on- and off-times of the EUT transmissions followed by duty cycle correction
TC Version	0.0.1
My Description	FCC 15.247 Restricted Band Edge Cond. Avg DC corrected DTS - WLAN 2G4 g-mode
Add. Information	

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
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer
Devices in use	SA: Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.60

Test at TX 2412 MHz

Duty Cycle evaluation					
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
No enough Bursts detected, Duty Cycle Burst Ratio set to 1					
Duty Cycle (Burst Ratio) max	---	---	1	---	INFO
Duty Cycle max	---	---	0	dB	INFO
Duty Cycle (Burst Ratio) min	---	---	1	---	INFO
Duty Cycle min	---	---	0	dB	INFO



Plot_FCC Part 15.247 Restricted Band Edge Conducted Avg DC corrected DTS (cond) ~ WLAN2G4 g-mode 2412 MHz - DutyCycle_07042021_140023.png

READ SA SETTINGS:

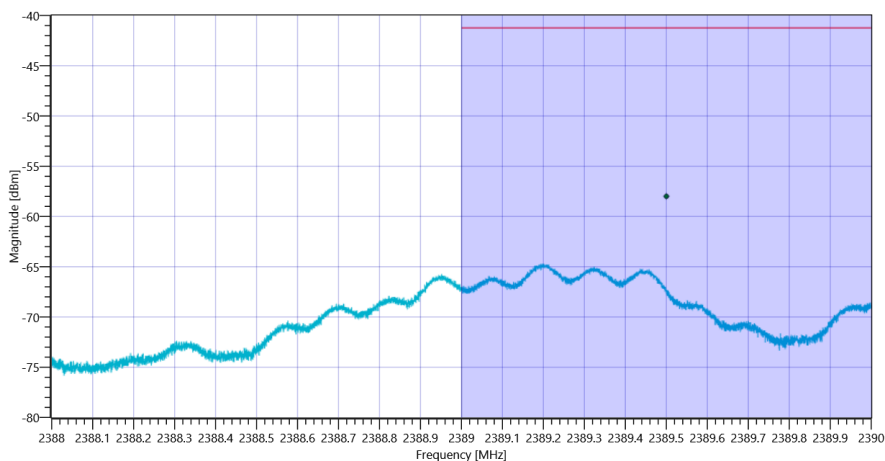
RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	5.39 15.65 5
Start [MHz] Stop [MHz]	2388.000 2390.000
RBW [MHz] VBW [MHz]	0.100000 0.500000
Detector TraceMode	RMS AVER
Sweep: Time [ms] Count Points per Section Type	32 300 32000 SWE

Antenna Gain

Considered Antenna Gain: [dBi]:	0
---------------------------------	---

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Duty Cycle worst case	---	---	0	dB	INFO
Band Power Avg	---	---	-57.99	dBm	INFO
Band Power Avg DC corrected	---	---	-57.99	dBm	INCON



Plot_FCC Part 15.247 Restricted Band Edge Conducted Avg DC corrected DTS (cond) ~ WLAN2G4 g-mode_07042021_140050.png

TEST FINISHED	
General Verdict	INCON

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

Test References	
TC Start	07.04.2021 14:00:56
Ambit Temp [°C] Humidity [rel%]	22.2 20
System Version	2.0.0.4
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	

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
Switched Path	EUT - SignalingUnit - PowerMeter
Devices in use	PM: 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.	---	---	-2.08	dBm	PASS

TEST FINISHED	
General Verdict	PASS

9. Message with SA Scan ~

Test References	
TC Start	07.04.2021 14:02:48
Ambit Temp [°C] Humidity [rel%]	22.3 20
System Version	2.0.0.4
Test Specification	None
Test Method	
TC Version	0.0.1
My Description	Message with SA Scan g-mode
Add. Information	

Test Parameter	
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer
Devices in use	SA: Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.60
Message start	07.04.2021 14:02:49
Message	set WLAN2G4 to g-mode, Frequency [MHz] 2437 ,

TEST FINISHED	
General Verdict	INFO

10. Common2G4 Peak OP 3MHz/3MHz ~ WLAN2G4 g-mode

Test References	
TC Start	07.04.2021 14:03:08
Ambit Temp [°C] Humidity [rel%]	22.3 20
System Version	2.0.0.4
Test Specification	None
Test Method	
TC Version	0.0.1
My Description	Peak Output Power conducted 3MHz/3MHz WLAN 2G4 g-mode
Add. Information	

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
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer
Devices in use	SA: Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.60

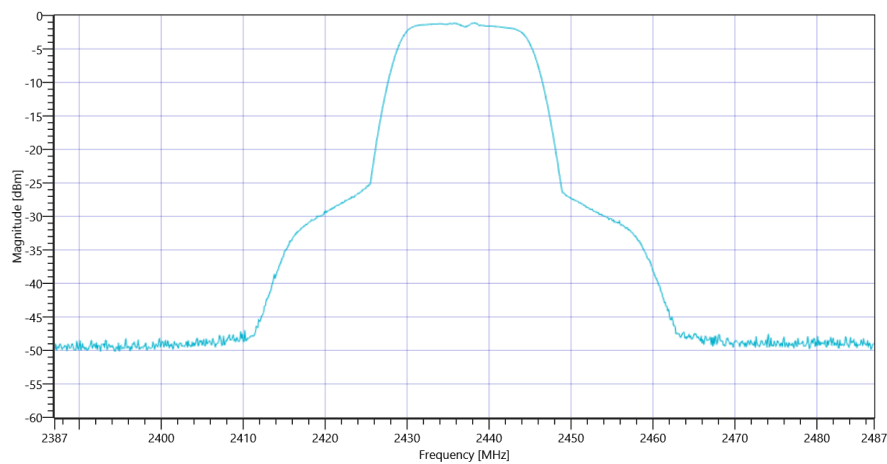
Test at TX 2437 MHz

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	7.52 15.52 10
Start [MHz] Stop [MHz]	2387.000 2487.000
RBW [MHz] VBW [MHz]	3.000000 3.000000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	1000 10 1001 SWE

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Peak Power	---	---	-1.13	dBm	Info
Peak Power	---	---	0.770903	mW	Info
Frequency at Peak	---	---	2438.2	MHz	Info



TEST FINISHED

General Verdict

PASS

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

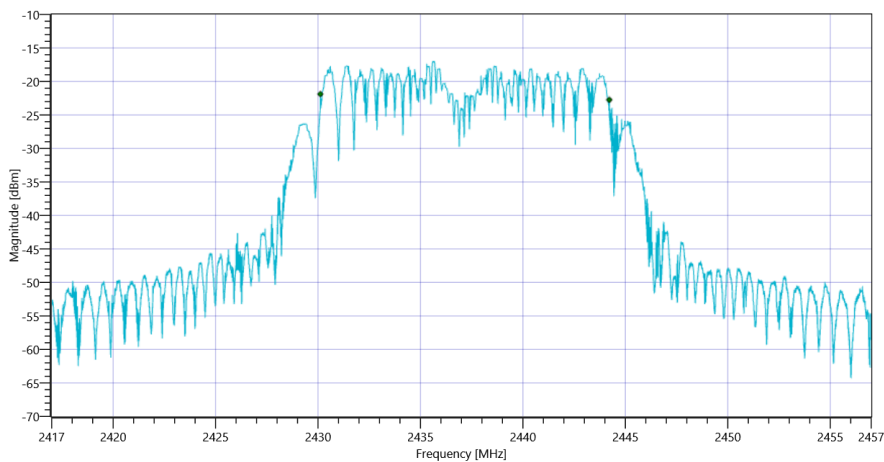
Test References	
TC Start	07.04.2021 14:03:49
Ambit Temp [°C] Humidity [rel%]	22.3 20
System Version	2.0.0.4
Test Specification	FCC Part 15.247
Test Method	99
TC Version	0.0.1
My Description	FCC 15.247 Bandwidth 6dB DTS - WLAN 2G4 g-mode
Add. Information	

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
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer
Devices in use	SA: Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.60

Test at TX 2437 MHz

READ SA SETTINGS:	
RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	2.32 15.52 5
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	---	14104	kHz	PASS



Plot_FCC Part 15.247 Bandwidth 6dB DTS ~ WLAN2G4 g-mode_07042021_140425.png

TEST FINISHED	
General Verdict	PASS

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

Test References	
TC Start	07.04.2021 14:04:31
Ambit Temp [°C] Humidity [rel%]	22.3 20
System Version	2.0.0.4
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	

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
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer
Devices in use	SA: Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.60

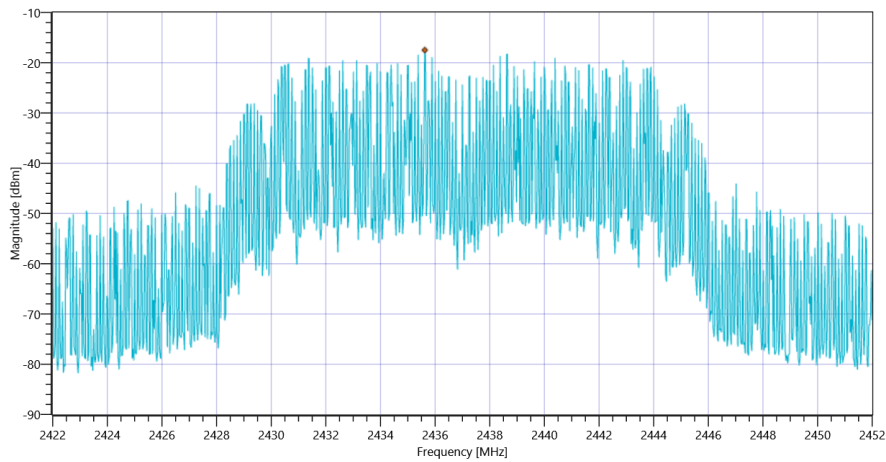
Test at TX 2437 MHz

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	2.26 15.52 5
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	-17.48	dBm/3KHz	PASS



Plot_FCC Part 15.247 Peak Power Spectral Density DTS ~ WLAN2G4 g-mode_07042021_140515.png

TEST FINISHED

General Verdict

PASS

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

Test References	
TC Start	07.04.2021 14:05:21
Ambit Temp [°C] Humidity [rel%]	22.3 20
System Version	2.0.0.4
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	

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
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer
Devices in use	SA: Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.60

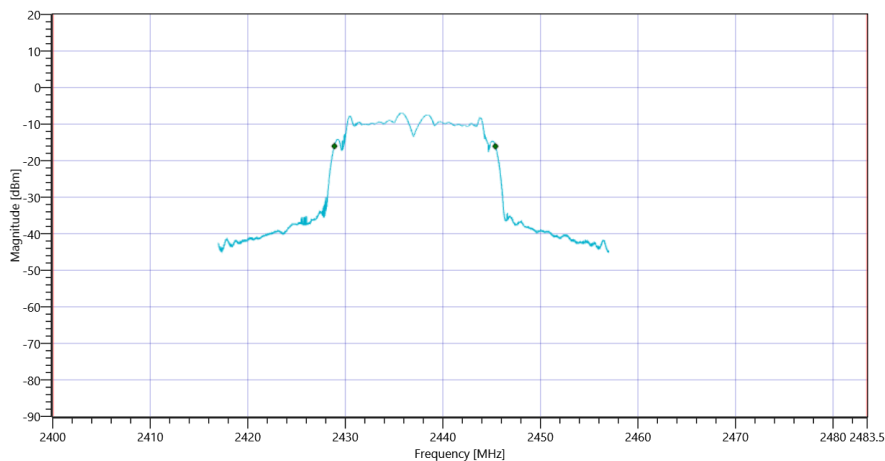
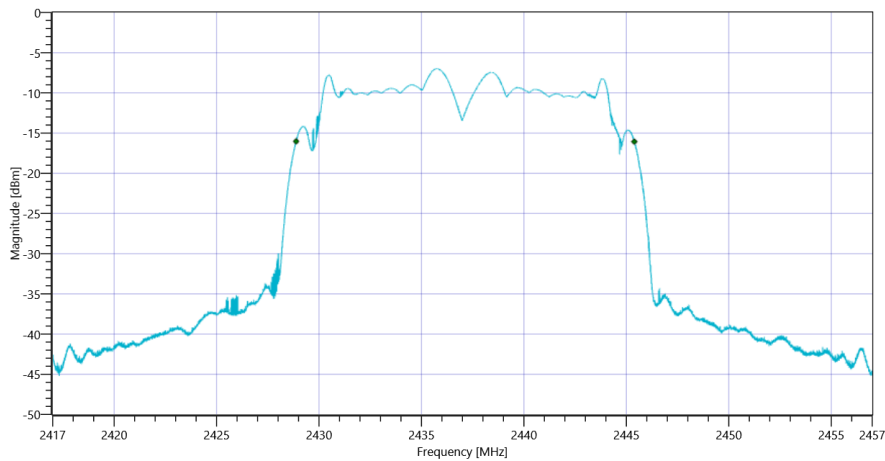
Test at TX 2437 MHz

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	2.43 15.52 5
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

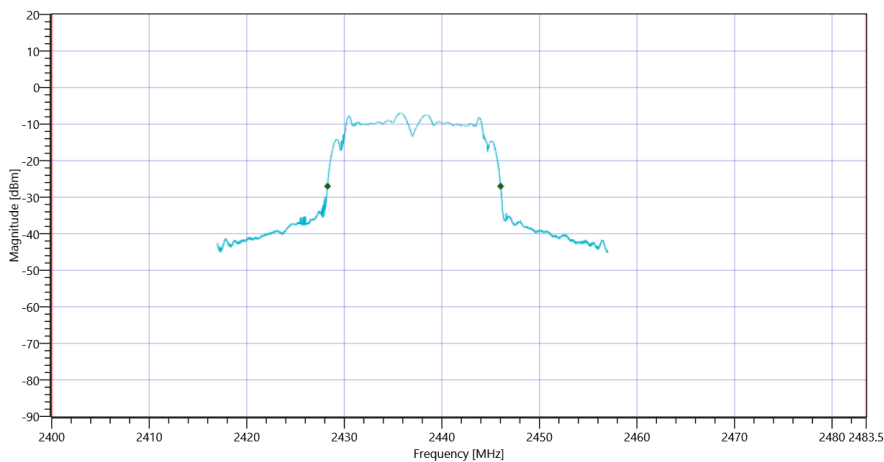
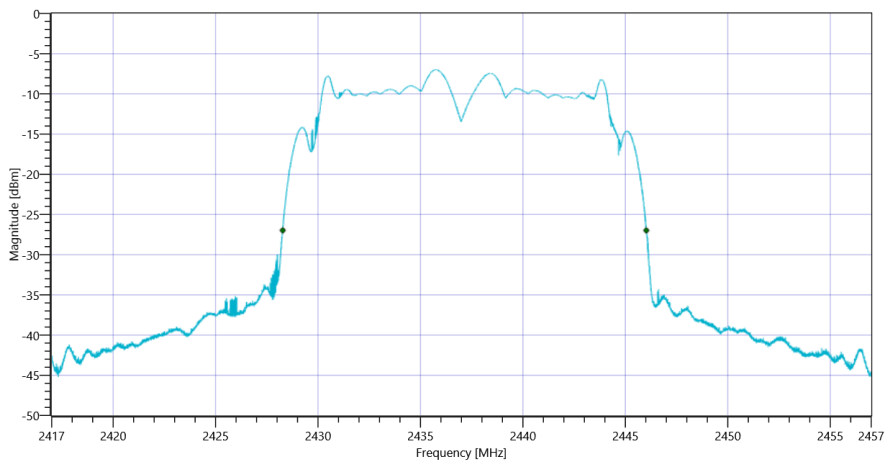
RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 99%	---	---	16506.349	kHz	INFO
T1 99%	2400.000000	---	2428.8808	MHz	PASS
T2 99%	---	2483.500000	2445.3872	MHz	PASS



RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 20dB	---	---	17744	kHz	INFO
T1 20dB	2400.000000	---	2428.2760	MHz	PASS
T2 20dB	---	2483.500000	2446.0200	MHz	PASS



TEST FINISHED

General Verdict

PASS

14. FCC Part 15.247 TX Spurious Conducted ~ WLAN2G4 g-mode

Test References	
TC Start	07.04.2021 14:06:28
Ambit Temp [°C] Humidity [rel%]	22.4 20
System Version	2.0.0.4
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	

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
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer
Devices in use	SA: Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.60

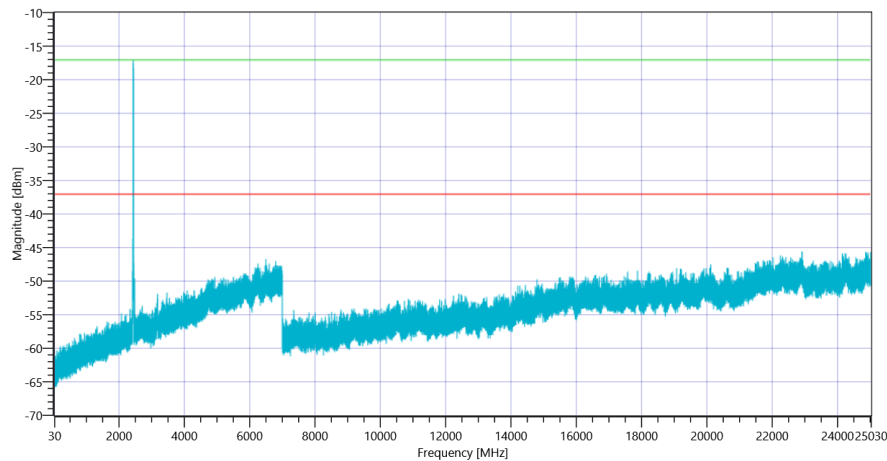
Test at TX 2437 MHz

READ SA SETTINGS:

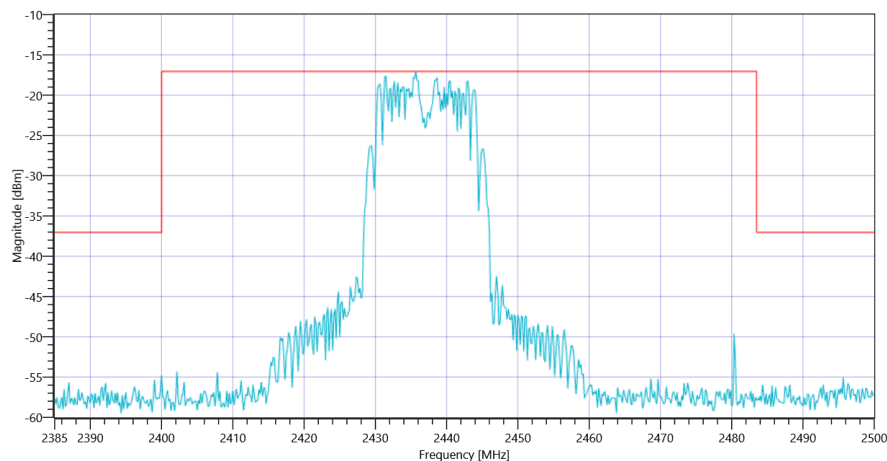
RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	-2.58 0 15
Start [MHz] Stop [MHz]	24530.000 25030.000
RBW [MHz] VBW [MHz]	0.100000 0.300000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	500 8 3001 SWE

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Reference @ 2435.67 MHz	---	---	-17.06	dBm	INFO
No peaks detected	---	---			PASS
Lowest margin to limit 22908.667 MHz	0	---	8.53	dB	INFO



Plot_FCC Part 15.247 TX Spurious Conducted ~ WLAN2G4 g-mode 2437_07042021_141231.png



Plot_FCC Part 15.247 TX Spurious Conducted ~ WLAN2G4 g-mode 2437_07042021_141237.png

TEST FINISHED

General Verdict

PASS

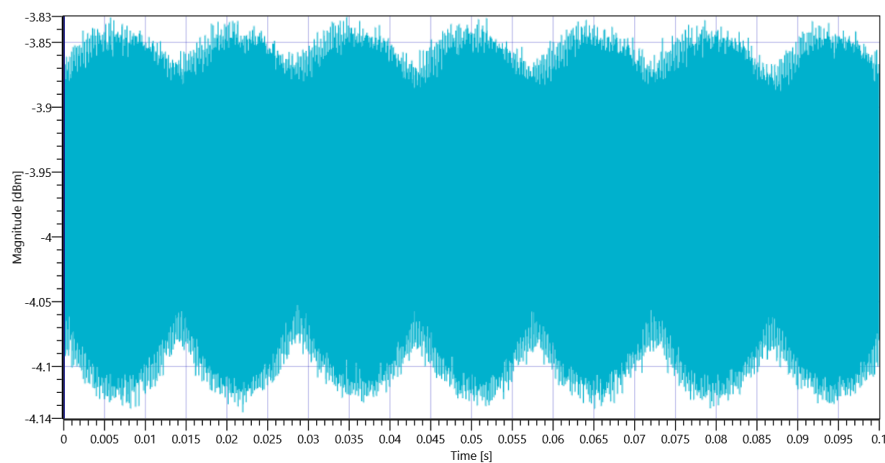
15. FCC Part 15.247 Restricted Band Edge Conducted Avg DC corrected DTS (cond) ~ WLAN2G4 g-mode

Test References	
TC Start	07.04.2021 14:12:43
Ambit Temp [°C] Humidity [rel%]	22.6 19
System Version	2.0.0.4
Test Specification	FCC Part 15.247
Test Method	DTS: KDB 558074 D01 V05 - 8.7.3 Integration Method; ANSI C63.10-2013 11.13.3.4 Trace averaging across on- and off-times of the EUT transmissions followed by duty cycle correction
TC Version	0.0.1
My Description	FCC 15.247 Restricted Band Edge Cond. Avg DC corrected DTS - WLAN 2G4 g-mode
Add. Information	

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
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer
Devices in use	SA: Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.60

Test at TX 2437 MHz

Duty Cycle evaluation					
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
No enough Bursts detected, Duty Cycle Burst Ratio set to 1					
Duty Cycle (Burst Ratio) max	---	---	1	---	INFO
Duty Cycle max	---	---	0	dB	INFO
Duty Cycle (Burst Ratio) min	---	---	1	---	INFO
Duty Cycle min	---	---	0	dB	INFO

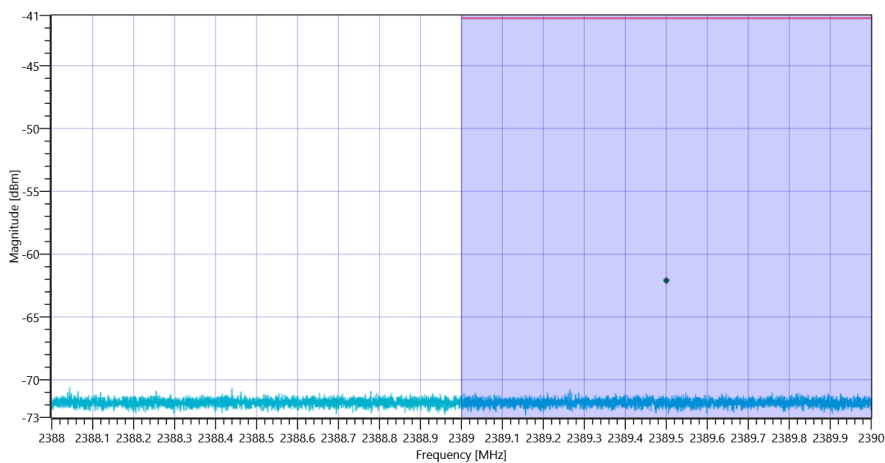


Plot_FCC Part 15.247 Restricted Band Edge Conducted Avg DC corrected DTS (cond) ~ WLAN2G4 g-mode 2437 MHz - DutyCycle_07042021_141303.png

READ SA SETTINGS:	
RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	7.24 15.52 10
Start [MHz] Stop [MHz]	2388.000 2390.000
RBW [MHz] VBW [MHz]	0.100000 0.500000
Detector TraceMode	RMS AVER
Sweep: Time [ms] Count Points per Section Type	32 300 32000 SWE

Antenna Gain	
Considered Antenna Gain: [dBi]:	0

RESULT					
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Duty Cycle worst case	---	---	0	dB	INFO
Band Power Avg	---	---	-62.09	dBm	INFO
Band Power Avg DC corrected	---	---	-62.09	dBm	INCON



Plot_FCC Part 15.247 Restricted Band Edge Conducted Avg DC corrected DTS (cond) ~ WLAN2G4 g-mode_07042021_141330.png

TEST FINISHED	
General Verdict	INCON

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

Test References	
TC Start	07.04.2021 14:13:35
Ambit Temp [°C] Humidity [rel%]	22.7 19
System Version	2.0.0.4
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	

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
Switched Path	EUT - SignalingUnit - PowerMeter
Devices in use	PM: 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.	---	---	-0.82	dBm	PASS

TEST FINISHED	
General Verdict	PASS

17. Message with SA Scan ~

Test References	
TC Start	07.04.2021 14:15:06
Ambit Temp [°C] Humidity [rel%]	22.7 19
System Version	2.0.0.4
Test Specification	None
Test Method	
TC Version	0.0.1
My Description	Message with SA Scan g-mode
Add. Information	

Test Parameter	
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer
Devices in use	SA: Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.60
Message start	07.04.2021 14:15:07
Message	set WLAN2G4 to g-mode, Frequency [MHz] 2462

TEST FINISHED	
General Verdict	INFO

18. Common2G4 Peak OP 3MHz/3MHz ~ WLAN2G4 g-mode

Test References	
TC Start	07.04.2021 14:15:21
Ambit Temp [°C] Humidity [rel%]	22.7 19
System Version	2.0.0.4
Test Specification	None
Test Method	
TC Version	0.0.1
My Description	Peak Output Power conducted 3MHz/3MHz WLAN 2G4 g-mode
Add. Information	

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
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer
Devices in use	SA: Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.60

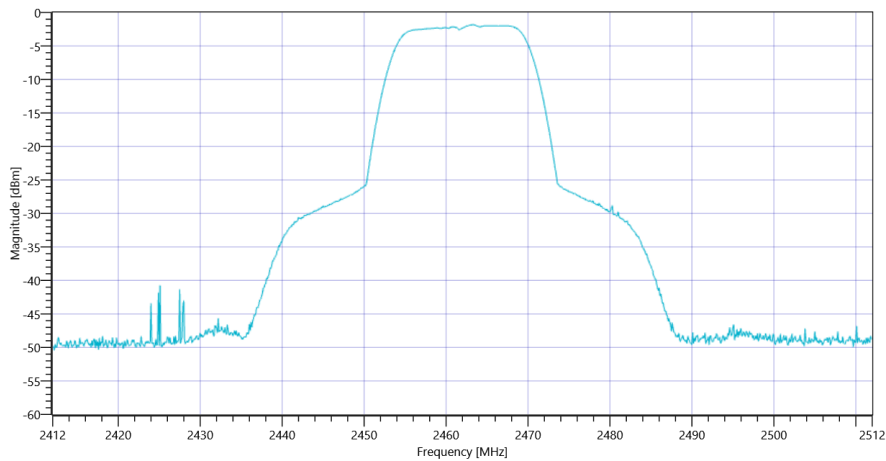
Test at TX 2462 MHz

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	7.21 15.42 10
Start [MHz] Stop [MHz]	2412.000 2512.000
RBW [MHz] VBW [MHz]	3.000000 3.000000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	1000 10 1001 SWE

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Peak Power	---	---	-1.82	dBm	Info
Peak Power	---	---	0.657658	mW	Info
Frequency at Peak	---	---	2463.3	MHz	Info



Plot_Common2G4 Peak OP 3MHz-3MHz ~ WLAN2G4 g-mode_07042021_141558.png

TEST FINISHED

General Verdict

PASS

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

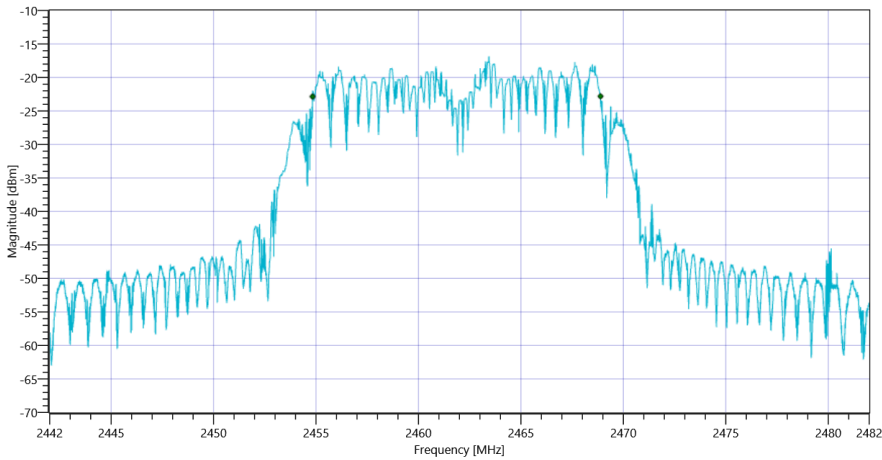
Test References	
TC Start	07.04.2021 14:16:03
Ambit Temp [°C] Humidity [rel%]	22.8 19
System Version	2.0.0.4
Test Specification	FCC Part 15.247
Test Method	99
TC Version	0.0.1
My Description	FCC 15.247 Bandwidth 6dB DTS - WLAN 2G4 g-mode
Add. Information	

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
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer
Devices in use	SA: Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.60

Test at TX 2462 MHz

READ SA SETTINGS:		
RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	2.03 15.42 5	
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	---	14052	kHz	PASS



TEST FINISHED	
General Verdict	PASS

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

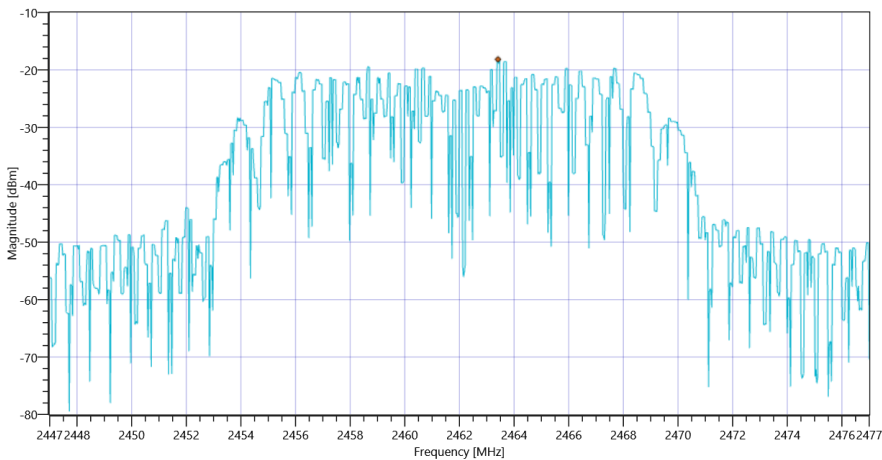
Test References	
TC Start	07.04.2021 14:17:47
Ambit Temp [°C] Humidity [rel%]	22.8 19
System Version	2.0.0.4
Test Specification	FCC Part 15.247
Test Method	DTS: KDB 558074 D01 V05 - Chapter 8.4 DTS maximum power spectral density level in the fundamental emission
TC Version	0.0.1
My Description	FCC 15.247 Peak Power Spectral Density DTS - WLAN 2G4 g-mode
Add. Information	

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
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer
Devices in use	SA: Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.60

Test at TX 2462 MHz

READ SA SETTINGS:					
RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]			1.98 15.42 5		
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	-18.15	dBm/3KHz	PASS



Plot_FCC Part 15.247 Peak Power Spectral Density DTS ~ WLAN2G4 g-mode_07042021_141844.png

TEST FINISHED	
General Verdict	PASS

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

Test References	
TC Start	07.04.2021 14:18:49
Ambit Temp [°C] Humidity [rel%]	22.8 19
System Version	2.0.0.4
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	

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
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer
Devices in use	SA: Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.60

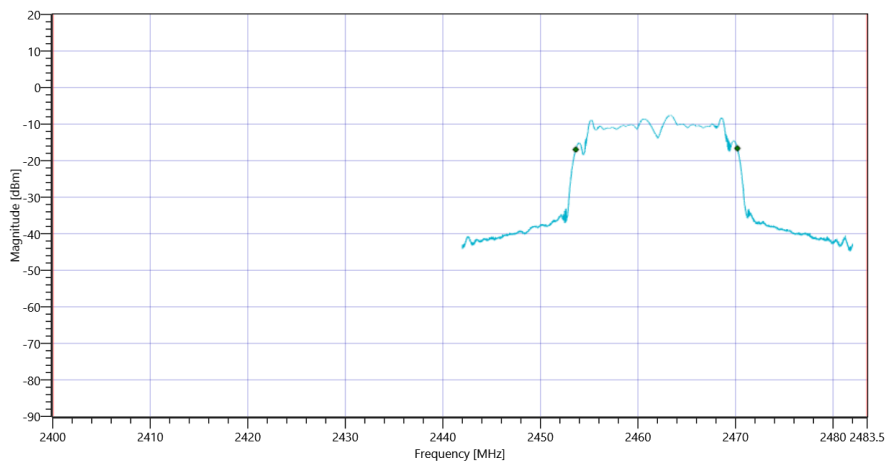
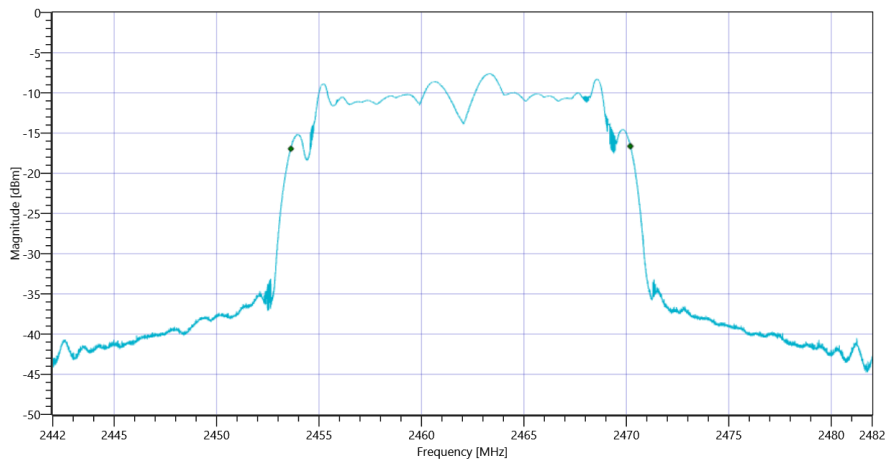
Test at TX 2462 MHz

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	2.02 15.42 5
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

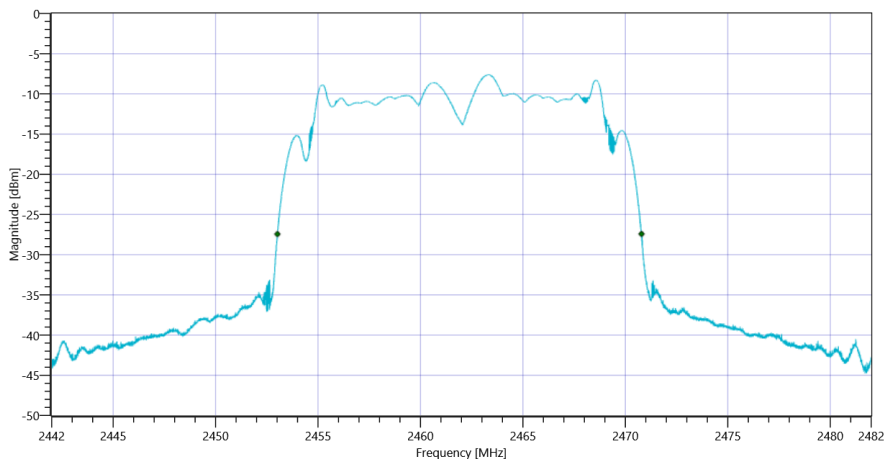
RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 99%	---	---	16570.343	kHz	INFO
T1 99%	2400.000000	---	2453.6248	MHz	PASS
T2 99%	---	2483.500000	2470.1952	MHz	PASS

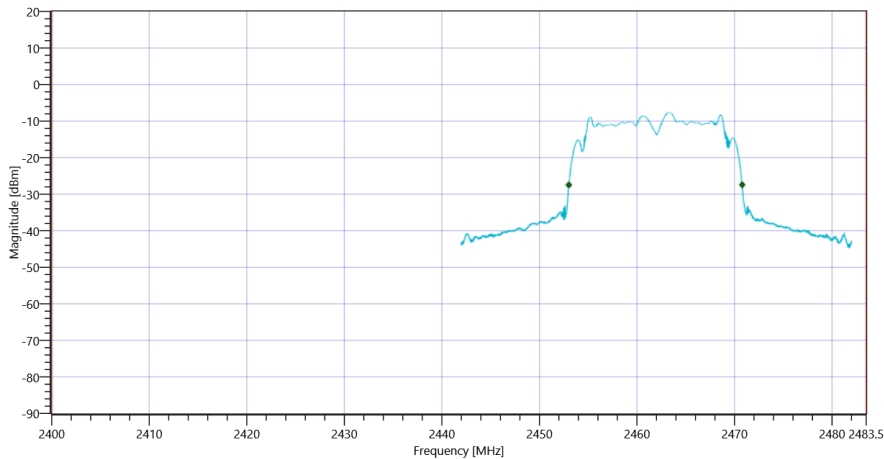


RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 20dB	---	---	17772	kHz	INFO
T1 20dB	2400.000000	---	2453.0160	MHz	PASS
T2 20dB	---	2483.500000	2470.7880	MHz	PASS



Plot_FCC Part 15.247 Bandwidth 99PCT-20dB ~ WLAN2G4 g-mode 20dB_07042021_142016.png



Plot_FCC Part 15.247 Bandwidth 99PCT-20dB ~ WLAN2G4 g-mode_07042021_142023.png

TEST FINISHED	
General Verdict	PASS

22. FCC Part 15.247 TX Spurious Conducted ~ WLAN2G4 g-mode

Test References	
TC Start	07.04.2021 14:20:28
Ambit Temp [°C] Humidity [rel%]	22.9 19
System Version	2.0.0.4
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	

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
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer
Devices in use	SA: Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.60

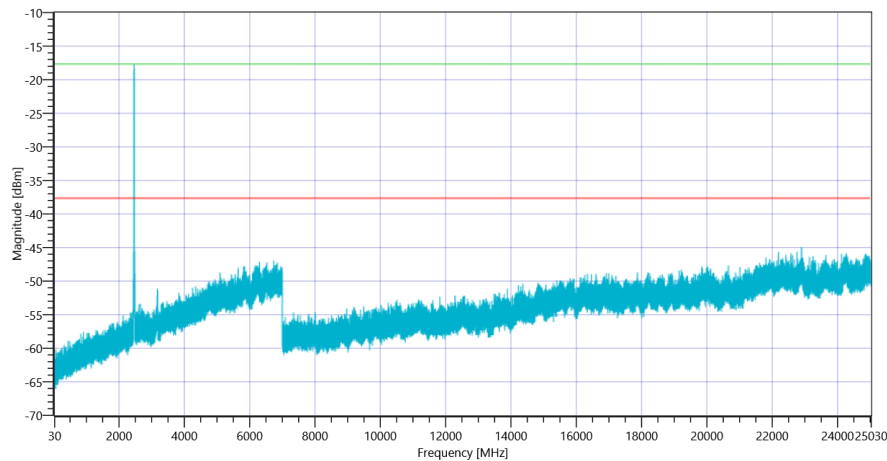
Test at TX 2462 MHz

READ SA SETTINGS:

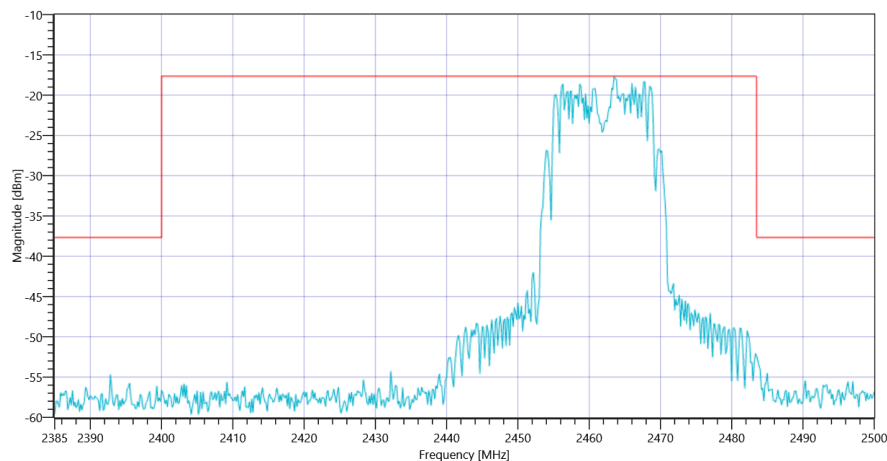
RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	-3.02 0 15
Start [MHz] Stop [MHz]	24530.000 25030.000
RBW [MHz] VBW [MHz]	0.100000 0.300000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	500 8 3001 SWE

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Reference @ 2463.50 MHz	---	---	-17.66	dBm	INFO
No peaks detected	---	---			PASS
Lowest margin to limit 22891.5 MHz	0	---	7.3	dB	INFO



Plot_FCC Part 15.247 TX Spurious Conducted ~ WLAN2G4 g-mode 2462_07042021_142752.png



Plot_FCC Part 15.247 TX Spurious Conducted ~ WLAN2G4 g-mode 2462_07042021_142758.png

TEST FINISHED

General Verdict

PASS

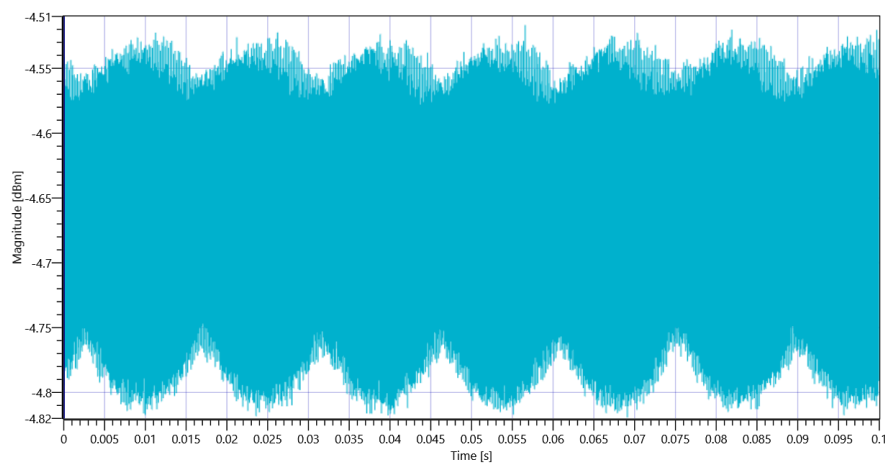
23. FCC Part 15.247 Restricted Band Edge Conducted Avg DC corrected DTS (cond) ~ WLAN2G4 g-mode

Test References	
TC Start	07.04.2021 14:28:04
Ambit Temp [°C] Humidity [rel%]	23.1 19
System Version	2.0.0.4
Test Specification	FCC Part 15.247
Test Method	DTS: KDB 558074 D01 V05 - 8.7.3 Integration Method; ANSI C63.10-2013 11.13.3.4 Trace averaging across on- and off-times of the EUT transmissions followed by duty cycle correction
TC Version	0.0.1
My Description	FCC 15.247 Restricted Band Edge Cond. Avg DC corrected DTS - WLAN 2G4 g-mode
Add. Information	

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
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer
Devices in use	SA: Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.60

Test at TX 2462 MHz

Duty Cycle evaluation					
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
No enough Bursts detected, Duty Cycle Burst Ratio set to 1					
Duty Cycle (Burst Ratio) max	---	---	1	---	INFO
Duty Cycle max	---	---	0	dB	INFO
Duty Cycle (Burst Ratio) min	---	---	1	---	INFO
Duty Cycle min	---	---	0	dB	INFO

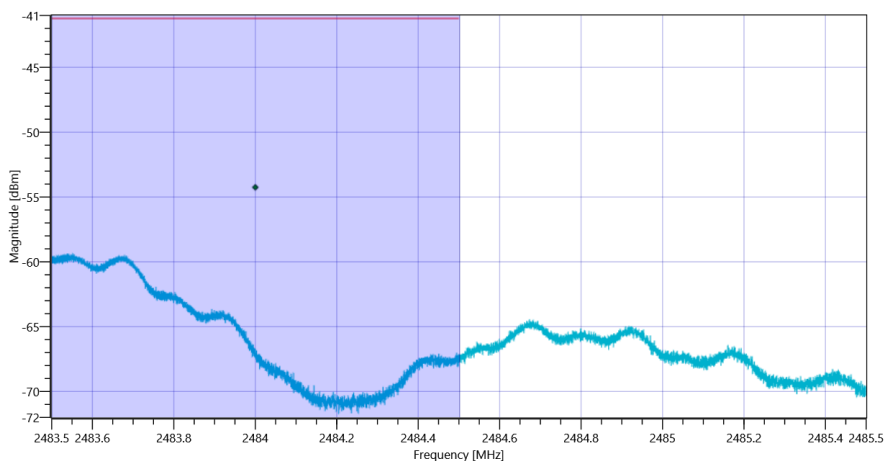


Plot_FCC Part 15.247 Restricted Band Edge Conducted Avg DC corrected DTS (cond) ~ WLAN2G4 g-mode 2462 MHz - DutyCycle_07042021_142844.png

READ SA SETTINGS:	
RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	6.87 15.42 10
Start [MHz] Stop [MHz]	2483.500 2485.500
RBW [MHz] VBW [MHz]	0.100000 0.500000
Detector TraceMode	RMS AVER
Sweep: Time [ms] Count Points per Section Type	32 300 32000 SWE

Antenna Gain	
Considered Antenna Gain: [dBi]:	0

RESULT					
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Duty Cycle worst case	---	---	0	dB	INFO
Band Power Avg	---	---	-54.25	dBm	INFO
Band Power Avg DC corrected	---	---	-54.25	dBm	INCON



Plot_FCC Part 15.247 Restricted Band Edge Conducted Avg DC corrected DTS (cond) ~ WLAN2G4 g-mode_07042021_142912.png

TEST FINISHED	
General Verdict	INCON

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

Test References	
TC Start	07.04.2021 14:29:17
Ambit Temp [°C] Humidity [rel%]	23.1 19
System Version	2.0.0.4
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	

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
Switched Path	EUT - SignalingUnit - PowerMeter
Devices in use	PM: 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.	---	---	-1.34	dBm	PASS

TEST FINISHED	
General Verdict	PASS

- END OF DOCUMENT -
