

Measurement Results

1-8662/19-02-02_log1_conducted

[Test logging](#)

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Document authorized:

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IUT Summary

IUT DEFINITION	
Manufacturer	Ingenico Group
Type	Lane/5000 CL/Eth/WiFi/BT
Serial No.	182017303261086002912316
Setup No.	NI
SW Version	OS_045400 HTB_0104
HW Version	02
Comment 1	NI
Comment 2	NI

IUT Common Settings	
Tlow [°C]	0
Tmid [°C]	20
Thigh [°C]	45
Vlow [V]	5
Vmid [V]	5
Vhigh [V]	5
Imax [A]	1
Auto Control enabled Power Supply Climatic Box	No No
Antenna Gain [dBi]	0
Additional Path Loss [dB]	0

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

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

Test References	
TC Start	04.07.2019 11:19:51
System Version	1.0.0.16
Test Specification	FCC Part 15.247
Test Method	99
Class / TC Version / TC ID	TC_VM_FCC15247_Bandwidth_6dB_DTS_V01 Version: 0.0.1 TCID_FCC15247_1
My Description	FCC 15.247 Bandwidth 6dB DTS - WLAN 2G4 b-mode
Add. Information	

Test Parameter	
Technology to test	WLAN2G4 b-mode
Antenna Port used	1
Temperature	mid
Voltage	mid
Frequency low to test	True Freq [MHz] 2412
Frequency mid to test	False Freq [MHz] 2437
Frequency high to test	False Freq [MHz] 2462
Pattern	PRBS9
Switched Path	IUT - SignalingUnit - SpectrumAnalyzer
Devices in use	SigBT: Rohde&Schwarz,CBT-1153.9000.35,100185,CBT 6X02.P02 SA: Rohde&Schwarz,FSV-30,1321.3008K30/103170,3.40

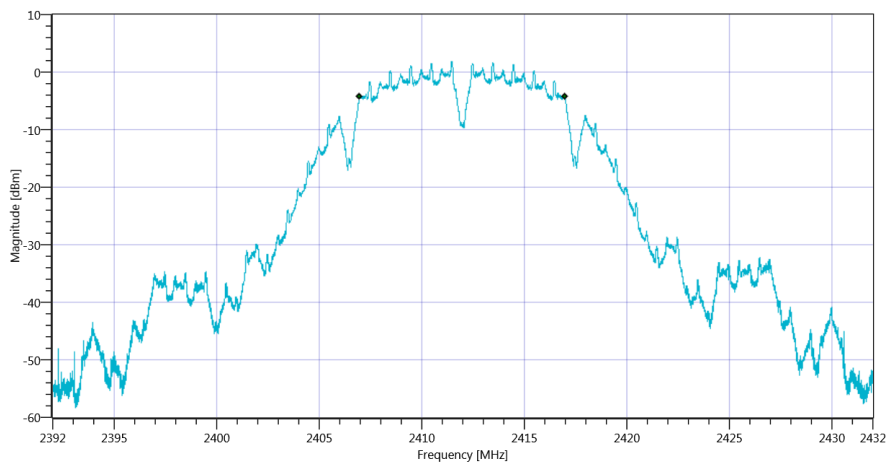
Test at TX 2412 MHz

READ SA SETTINGS:

Ref. Level [dBm]	12.01
Ref. Lev. offs [dB]	9.83
Input Attenuation [dB]	20
Freq. Start [MHz]	2392.000
Freq. Stop [MHz]	2432.000
Resolution BW. [MHz]	0.100000
Video BW. [MHz]	0.300000
Detector	POS
Sweep Time [ms]	50
Sweep Points/Section	10001
Sweep Count	200
Sweep Mode	MAXH
Used Sweep Type	SWE

RESULT: TC_VM_FCC15247_Bandwidth_6dB_DTS_V01

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
DTS Bandwidth (6dB)	500	---	10040	kHz	PASS



Plot_FCC Part 15.247 Bandwidth 6dB DTS ~ WLAN2G4 b-mode_04072019_112019.png

TEST FINISHED

General Verdict

04.07.2019 11:20:19 / RT: 27 s

PASS

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

Test References	
TC Start	04.07.2019 11:20:22
System Version	1.0.0.16
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
Class / TC Version / TC ID	TC_VM_FCC15247_Peak_Power_Spectral_Density_DTS_V01 Version: 0.0.1 TCID_FCC15247_6
My Description	FCC 15.247 Peak Power Spectral Density DTS - WLAN 2G4 b-mode
Add. Information	

Test Parameter	
Technology to test	WLAN2G4 b-mode
Antenna Port used	1
Temperature	mid
Voltage	mid
Frequency low to test	True Freq [MHz] 2412
Frequency mid to test	False Freq [MHz] 2437
Frequency high to test	False Freq [MHz] 2462
Pattern	PRBS9
Switched Path	IUT - SignalingUnit - SpectrumAnalyzer
Devices in use	SigBT: Rohde&Schwarz,CBT-1153.9000.35,100185,CBT 6X02.P02 SA: Rohde&Schwarz,FSV-30,1321.3008K30/103170,3.40

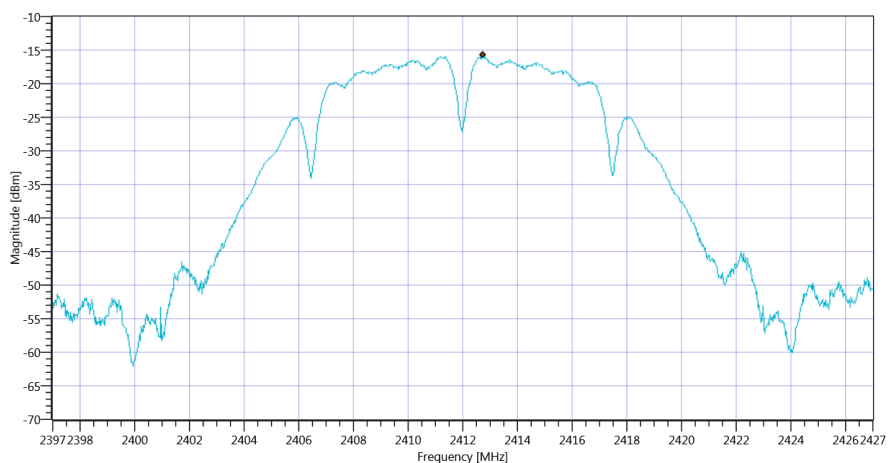
Test at TX 2412 MHz

READ SA SETTINGS:

Ref. Level [dBm]	12.02
Ref. Lev. offs [dB]	9.83
Input Attenuation [dB]	20
Freq. Start [MHz]	2397.000
Freq. Stop [MHz]	2427.000
Resolution BW. [MHz]	0.003000
Video BW. [MHz]	0.010000
Detector	POS
Sweep Time [ms]	1000
Sweep Points/Section	1001
Sweep Count	20
Sweep Mode	MAXH
Used Sweep Type	SWE

RESULT: TC_VM_FCC15247_Peak_Power_Spectral_Density_DTS_V01

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Max Peak power Density	---	8	-15.79	dBm/3KHz	PASS



Plot_FCC Part 15.247 Peak Power Spectral Density DTS ~ WLAN2G4 b-mode_04072019_112057.png

TEST FINISHED

General Verdict

04.07.2019 11:20:57 / RT: 34 s

PASS

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

Test References	
TC Start	04.07.2019 11:21:00
System Version	1.0.0.16
Test Specification	FCC Part 15.247
Test Method	
Class / TC Version / TC ID	TC_VM_FCC15247_Bandwidth_99PCT_20dB_DTS_FHSS_V01 Version: 0.0.2 TCID_FCC15247_2
My Description	FCC 15.247 Bandwidth 99PCT-20dB DTS - WLAN 2G4 b-mode
Add. Information	

Test Parameter	
Technology to test	WLAN2G4 b-mode
Antenna Port used	1
Temperature	mid
Voltage	mid
Frequency low to test	True Freq [MHz] 2412
Frequency mid to test	False Freq [MHz] 2437
Frequency high to test	False Freq [MHz] 2462
Pattern	PRBS9
Switched Path	IUT - SignalingUnit - SpectrumAnalyzer
Devices in use	SigBT: Rohde&Schwarz,CBT-1153.9000.35,100185,CBT 6X02.P02 SA: Rohde&Schwarz,FSV-30,1321.3008K30/103170,3.40

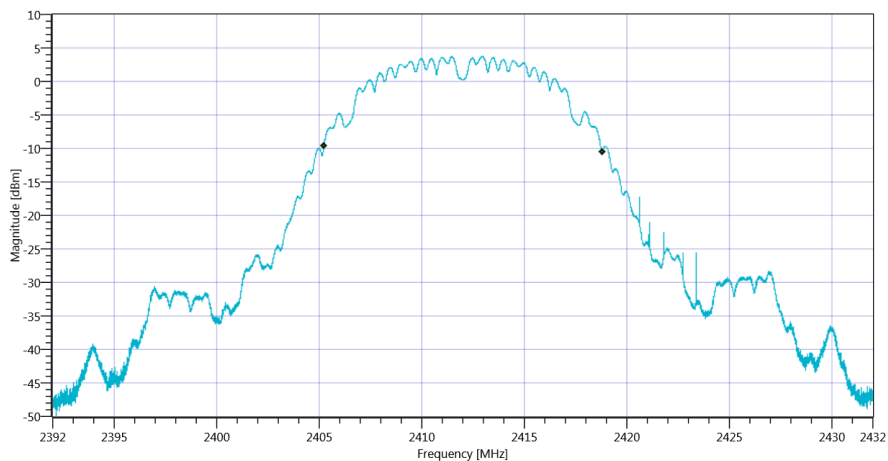
Test at TX 2412 MHz

READ SA SETTINGS:

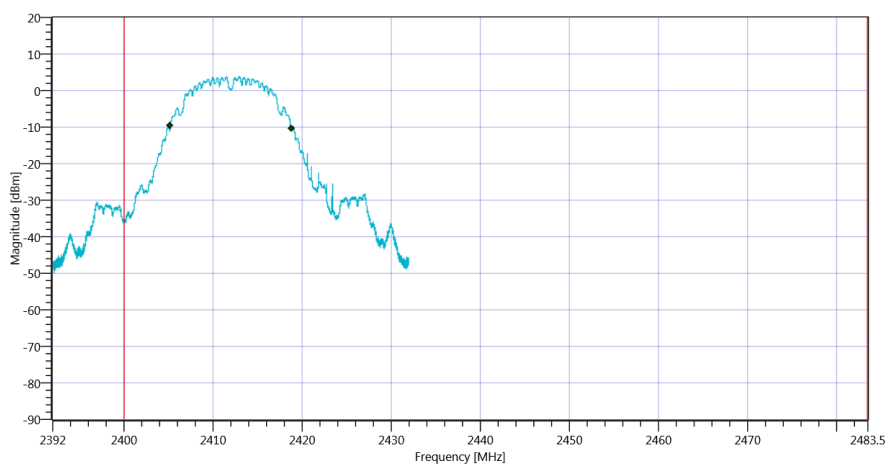
Ref. Level [dBm]	12.03
Ref. Lev. offs [dB]	9.83
Input Attenuation [dB]	20
Freq. Start [MHz]	2392.000
Freq. Stop [MHz]	2432.000
Resolution BW. [MHz]	0.500000
Video BW. [MHz]	1.000000
Detector	POS
Sweep Time [ms]	50
Sweep Points/Section	10001
Sweep Count	200
Sweep Mode	MAXH
Used Sweep Type	SWE

RESULT: TC_VM_FCC15247_Bandwidth_99PCT_20dB_DTS_FHSS_V01

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 99%	---	---	13583	kHz	Information
T1 99%	2400.000000	---	2405.2287	MHz	PASS
T2 99%	---	2483.500000	2418.8113	MHz	PASS

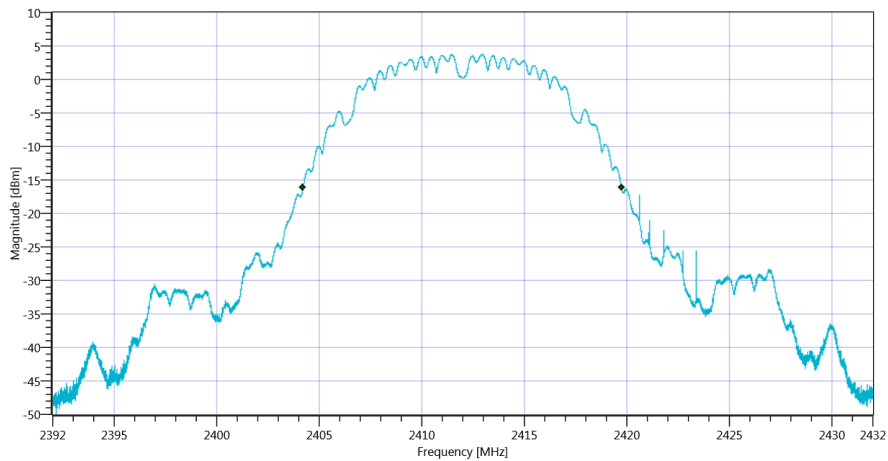


Plot_FCC Part 15.247 Bandwidth 99PCT-20dB ~ WLAN2G4 b-mode 99PCT_04072019_112125.png

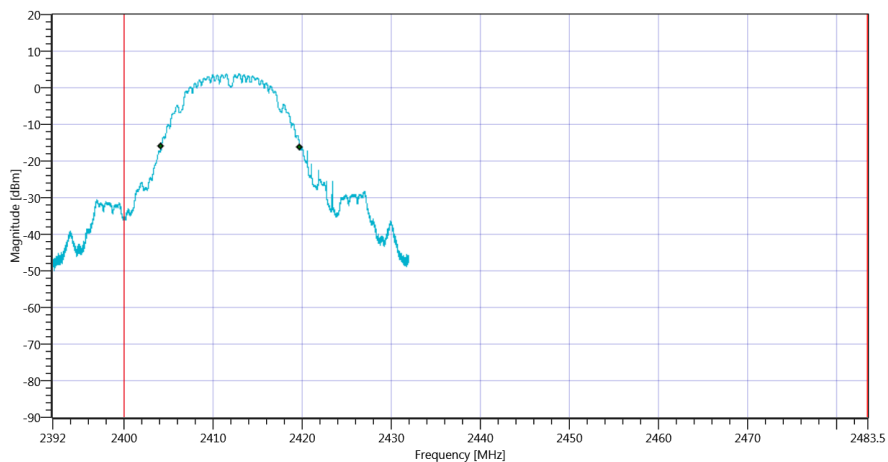


Plot_FCC Part 15.247 Bandwidth 99PCT-20dB ~ WLAN2G4 b-mode_04072019_112128.png

RESULT: TC_VM_FCC15247_Bandwidth_99PCT_20dB_DTS_FHSS_V01					
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 20dB	---	---	15516	kHz	Information
T1 20dB	2400.000000	---	2404.2160	MHz	PASS
T2 20dB	---	2483.500000	2419.7320	MHz	PASS



Plot_FCC Part 15.247 Bandwidth 99PCT-20dB ~ WLAN2G4 b-mode_04072019_112132.png



Plot_FCC Part 15.247 Bandwidth 99PCT-20dB ~ WLAN2G4 b-mode_04072019_112135.png

TEST FINISHED		
General Verdict	04.07.2019 11:21:35 / RT: 34 s	PASS

4. FCC Part 15.247 TX Spurious Conducted ~ WLAN2G4 b-mode

Test References	
TC Start	04.07.2019 11:21:39
System Version	1.0.0.16
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.
Class / TC Version / TC ID	TC_VM_FCC15247_TX_Emissions_Conducted_V01 Version: 0.0.1 TCID_FCC15247_8
My Description	FCC 15.247 TX Emissions Conducted DTS - WLAN 2G4 b-mode
Add. Information	

Test Parameter	
Technology to test	WLAN2G4 b-mode
Antenna Port used	1
Temperature	mid
Voltage	mid
Frequency low to test	True Freq [MHz] 2412
Frequency mid to test	False Freq [MHz] 2437
Frequency high to test	False Freq [MHz] 2462
Pattern	PRBS9
Switched Path	IUT - SignalingUnit - SpectrumAnalyzer
Devices in use	SigBT: Rohde&Schwarz,CBT-1153.9000.35,100185,CBT 6X02.P02 SA: Rohde&Schwarz,FSV-30,1321.3008K30/103170,3.40

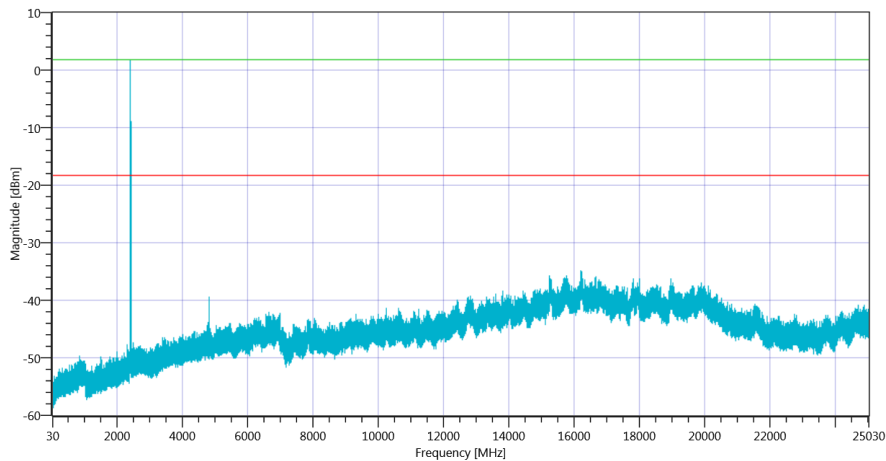
Test at TX 2412 MHz

READ SA SETTINGS:

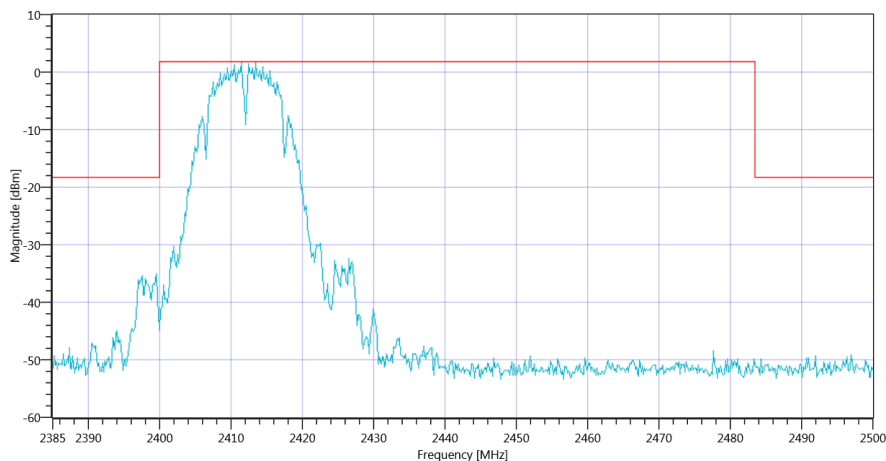
Ref. Level [dBm]	12.06
Resolution BW. [MHz]	0.100000
Video BW. [MHz]	0.300000
Detector	POS
Sweep Time [ms]	500
Sweep Points/Section	3001
Sweep Count	8
Sweep Mode	MAXH
Used Sweep Type	SWE

RESULT: TC_VM_FCC15247_TX_Emissions_Conducted_V01

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Reference @ 2411.50 MHz	---	---	1.72	dBm	Information
No peaks detected	---	---			PASS



Plot_FCC Part 15.247 TX Spurious Conducted ~ WLAN2G4 b-mode 2412_04072019_112624.png



Plot_FCC Part 15.247 TX Spurious Conducted ~ WLAN2G4 b-mode 2412_04072019_112626.png

TEST FINISHED

General Verdict

04.07.2019 11:26:27 / RT: 288 s

PASS

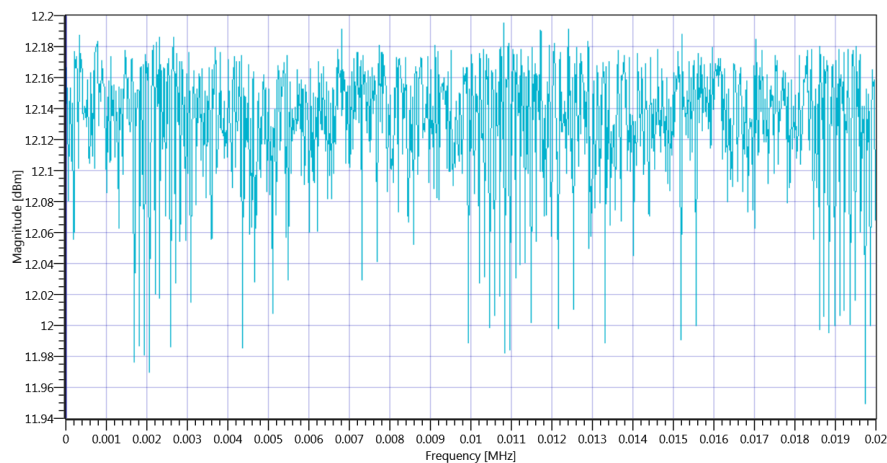
5. FCC Part 15.247 Restricted Band Edge Conducted Avg DC corrected DTS ~ WLAN2G4 b-mode

Test References	
TC Start	04.07.2019 11:26:31
System Version	1.0.0.16
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
Class / TC Version / TC ID	TC_VM_FCC15247_Restricted_Band_Edge_Conducted_Avg_DC_corrected_V01 Version: 0.0.1 TCID_FCC15247_7
My Description	FCC 15.247 Restricted Band Edge Cond. Avg DC corrected DTS - WLAN 2G4 b-mode
Add. Information	

Test Parameter	
Technology to test	WLAN2G4 b-mode
Antenna Port used	1
Temperature	mid
Voltage	mid
Frequency low to test	True Freq [MHz] 2412
Frequency mid to test	False Freq [MHz] 2437
Frequency high to test	False Freq [MHz] 2462
Pattern	PRBS9
Switched Path	IUT - SignalingUnit - SpectrumAnalyzer
Devices in use	SigBT: Rohde&Schwarz,CBT-1153.9000.35,100185,CBT 6X02.P02 SA: Rohde&Schwarz,FSV-30,1321.3008K30/103170,3.40

Test at TX 2412 MHz

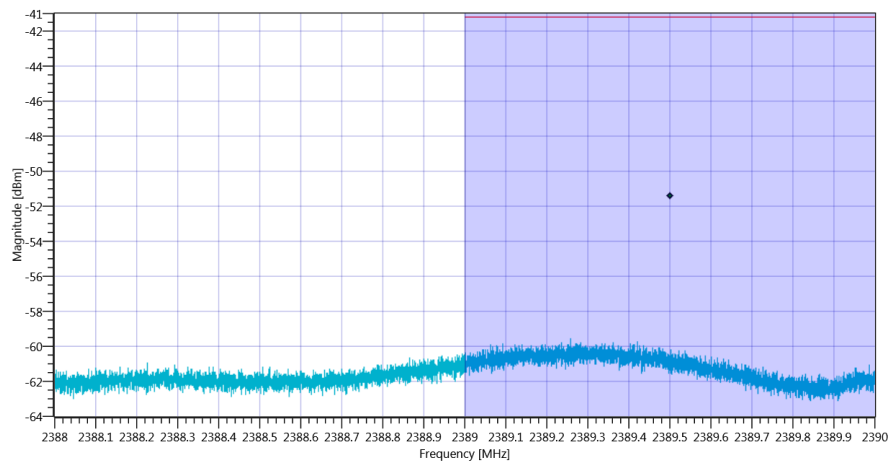
RESULT: Duty Cycle evaluation					
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
No enough Bursts detected, Duty Cycle Burst Ratio set to 1					
Duty Cycle (Burst Ratio) max	---	---	1	---	Information
Duty Cycle max	---	---	0	dB	Information
Duty Cycle (Burst Ratio) min	---	---	1	---	Information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



Plot_FCC Part 15.247 Restricted Band Edge Conducted Avg DC corrected DTS ~ WLAN2G4 b-mode 2412 MHz - Duty Cycle_04072019_112643.png

READ SA SETTINGS:	
Ref. Level [dBm]	16.96
Ref. Lev. offs [dB]	9.83
Input Attenuation [dB]	25
Freq. Start [MHz]	2388.000
Freq. Stop [MHz]	2390.000
Resolution BW. [MHz]	0.100000
Video BW. [MHz]	0.500000
Detector	RMS
Sweep Time [ms]	32
Sweep Points/Section	32000
Sweep Count	300
Sweep Mode	AVER
Used Sweep Type	SWE
Marker Method	Band Power

RESULT: TC_VM_FCC15247_Restricted_Band_Edge_Conducted_Avg_DC_corrected_V01					
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Duty Cycle worst case	---	---	0	dB	Information
Band Power without Antenna Gain Avg	---	---	-51.43	dBm	Information
Band Power without Antenna Gain Avg DC corrected	---	---	-51.43	dBm	Information
Band Power incl. Antenna Gain Avg DC corrected	---	-41.23	-51.43	dBm	PASS



Plot_FCC Part 15.247 Restricted Band Edge Conducted Avg DC corrected DTS ~ WLAN2G4 b-mode_04072019_112705.png

TEST FINISHED

General Verdict

04.07.2019 11:27:05 / RT: 34 s

PASS

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

Test References	
TC Start	04.07.2019 11:27:09
System Version	1.0.0.16
Test Specification	FCC Part 15.247
Test Method	DTS: KDB 558074 D01 V05 - Chapter 8.3.1.3 PKPM1 Peak-reading Power Meter Method
Class / TC Version / TC ID	TC_VM_FCC15247_Maximum_Peak_Conducted_Output_Power_Powermeter_DTS_V01 Version: 0.0.1 TCID_FCC15247_3
My Description	FCC 15.247 Maximum Peak Output Power Powermeter Conducted DTS - WLAN 2G4 b-mode
Add. Information	

Test Parameter	
Technology to test	WLAN2G4 b-mode
Antenna Port used	1
Temperature	mid
Voltage	mid
Frequency low to test	True Freq [MHz] 2412
Frequency mid to test	False Freq [MHz] 2437
Frequency high to test	False Freq [MHz] 2462
Pattern	PRBS9
Switched Path	IUT - SignalingUnit - PowerMeter
Devices in use	SigBT: Rohde&Schwarz,CBT-1153.9000.35,100185,CBT 6X02.P02 NRP-Z81,102585

Test at TX 2412 MHz

RESULT: TC_VM_FCC15247_Maximum_Peak_Conducted_Output_Power_Powermeter_DTS_V01

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Found Peak cond.	---	---	15.45	dBm	PASS

TEST FINISHED

General Verdict 04.07.2019 11:27:13 / RT: 3 s

PASS

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

Test References	
TC Start	04.07.2019 11:28:06
System Version	1.0.0.16
Test Specification	FCC Part 15.247
Test Method	99
Class / TC Version / TC ID	TC_VM_FCC15247_Bandwidth_6dB_DTS_V01 Version: 0.0.1 TCID_FCC15247_1
My Description	FCC 15.247 Bandwidth 6dB DTS - WLAN 2G4 b-mode
Add. Information	

Test Parameter	
Technology to test	WLAN2G4 b-mode
Antenna Port used	1
Temperature	mid
Voltage	mid
Frequency low to test	False Freq [MHz] 2412
Frequency mid to test	True Freq [MHz] 2437
Frequency high to test	False Freq [MHz] 2462
Pattern	PRBS9
Switched Path	IUT - SignalingUnit - SpectrumAnalyzer
Devices in use	SigBT: Rohde&Schwarz,CBT-1153.9000.35,100185,CBT 6X02.P02 SA: Rohde&Schwarz,FSV-30,1321.3008K30/103170,3.40

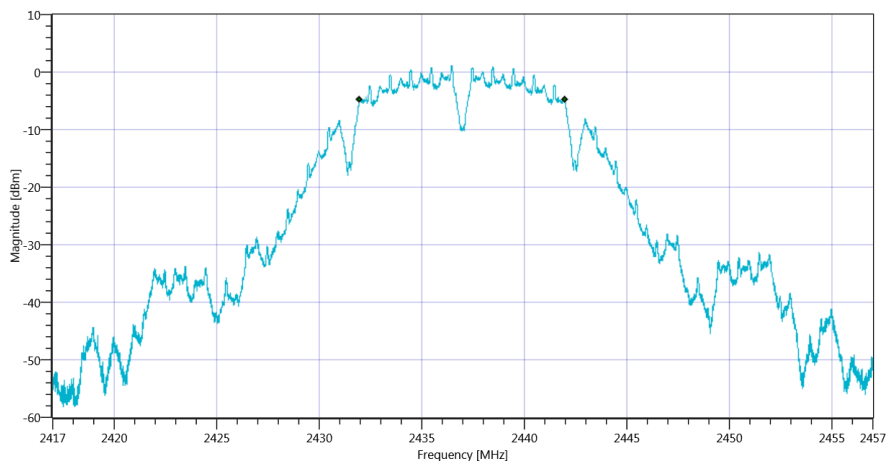
Test at TX 2437 MHz

READ SA SETTINGS:

Ref. Level [dBm]	11.31
Ref. Lev. offs [dB]	9.89
Input Attenuation [dB]	20
Freq. Start [MHz]	2417.000
Freq. Stop [MHz]	2457.000
Resolution BW. [MHz]	0.100000
Video BW. [MHz]	0.300000
Detector	POS
Sweep Time [ms]	50
Sweep Points/Section	10001
Sweep Count	200
Sweep Mode	MAXH
Used Sweep Type	SWE

RESULT: TC_VM_FCC15247_Bandwidth_6dB_DTS_V01

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
DTS Bandwidth (6dB)	500	---	10032	kHz	PASS



Plot_FCC Part 15.247 Bandwidth 6dB DTS ~ WLAN2G4 b-mode_04072019_112832.png

TEST FINISHED

General Verdict

04.07.2019 11:28:33 / RT: 26 s

PASS

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

Test References	
TC Start	04.07.2019 11:28:36
System Version	1.0.0.16
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
Class / TC Version / TC ID	TC_VM_FCC15247_Peak_Power_Spectral_Density_DTS_V01 Version: 0.0.1 TCID_FCC15247_6
My Description	FCC 15.247 Peak Power Spectral Density DTS - WLAN 2G4 b-mode
Add. Information	

Test Parameter	
Technology to test	WLAN2G4 b-mode
Antenna Port used	1
Temperature	mid
Voltage	mid
Frequency low to test	False Freq [MHz] 2412
Frequency mid to test	True Freq [MHz] 2437
Frequency high to test	False Freq [MHz] 2462
Pattern	PRBS9
Switched Path	IUT - SignalingUnit - SpectrumAnalyzer
Devices in use	SigBT: Rohde&Schwarz,CBT-1153.9000.35,100185,CBT 6X02.P02 SA: Rohde&Schwarz,FSV-30,1321.3008K30/103170,3.40

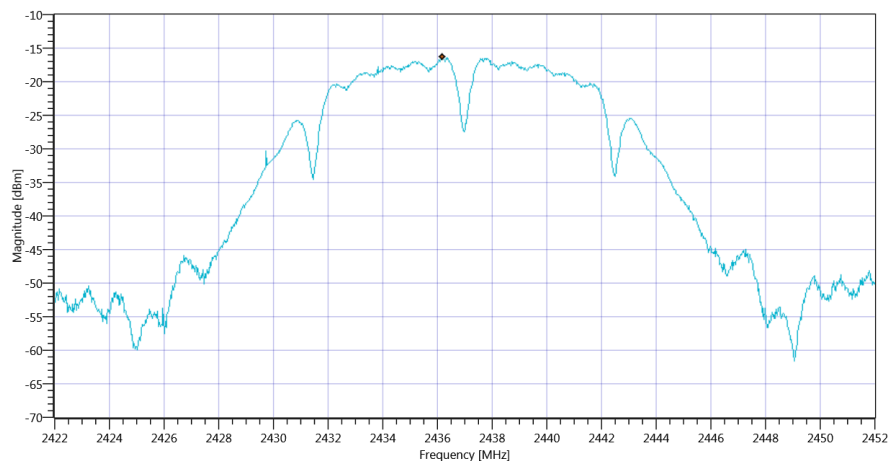
Test at TX 2437 MHz

READ SA SETTINGS:

Ref. Level [dBm]	11.33
Ref. Lev. offs [dB]	9.89
Input Attenuation [dB]	20
Freq. Start [MHz]	2422.000
Freq. Stop [MHz]	2452.000
Resolution BW. [MHz]	0.003000
Video BW. [MHz]	0.010000
Detector	POS
Sweep Time [ms]	1000
Sweep Points/Section	1001
Sweep Count	20
Sweep Mode	MAXH
Used Sweep Type	SWE

RESULT: TC_VM_FCC15247_Peak_Power_Spectral_Density_DTS_V01

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Max Peak power Density	---	8	-16.39	dBm/3KHz	PASS



Plot_FCC Part 15.247 Peak Power Spectral Density DTS ~ WLAN2G4 b-mode_04072019_112911.png

TEST FINISHED

General Verdict

04.07.2019 11:29:11 / RT: 34 s

PASS

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

Test References	
TC Start	04.07.2019 11:29:14
System Version	1.0.0.16
Test Specification	FCC Part 15.247
Test Method	
Class / TC Version / TC ID	TC_VM_FCC15247_Bandwidth_99PCT_20dB_DTS_FHSS_V01 Version: 0.0.2 TCID_FCC15247_2
My Description	FCC 15.247 Bandwidth 99PCT-20dB DTS - WLAN 2G4 b-mode
Add. Information	

Test Parameter	
Technology to test	WLAN2G4 b-mode
Antenna Port used	1
Temperature	mid
Voltage	mid
Frequency low to test	False Freq [MHz] 2412
Frequency mid to test	True Freq [MHz] 2437
Frequency high to test	False Freq [MHz] 2462
Pattern	PRBS9
Switched Path	IUT - SignalingUnit - SpectrumAnalyzer
Devices in use	SigBT: Rohde&Schwarz,CBT-1153.9000.35,100185,CBT 6X02.P02 SA: Rohde&Schwarz,FSV-30,1321.3008K30/103170,3.40

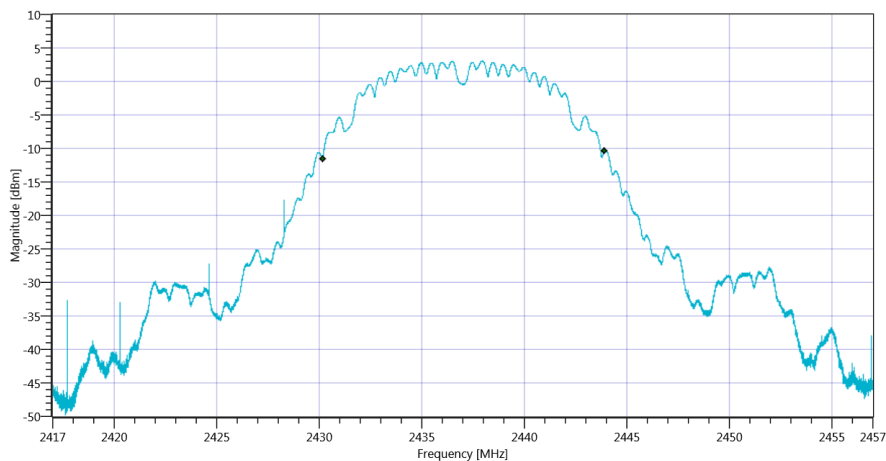
Test at TX 2437 MHz

READ SA SETTINGS:

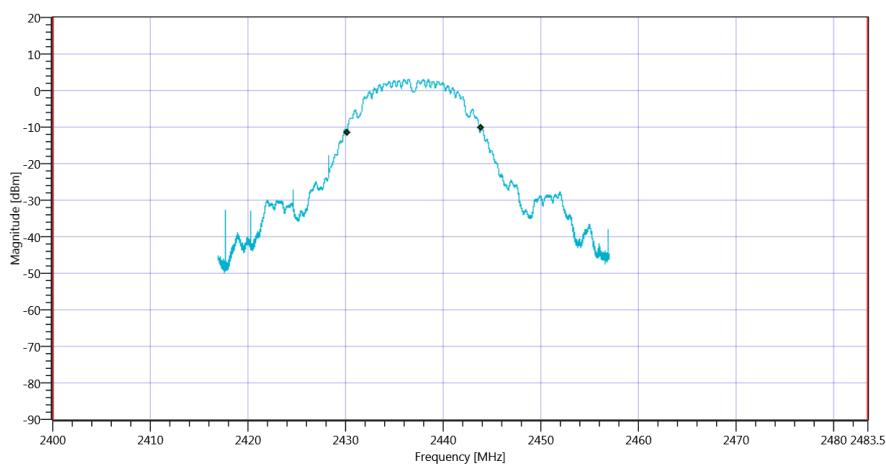
Ref. Level [dBm]	11.29
Ref. Lev. offs [dB]	9.89
Input Attenuation [dB]	20
Freq. Start [MHz]	2417.000
Freq. Stop [MHz]	2457.000
Resolution BW. [MHz]	0.500000
Video BW. [MHz]	1.000000
Detector	POS
Sweep Time [ms]	50
Sweep Points/Section	10001
Sweep Count	200
Sweep Mode	MAXH
Used Sweep Type	SWE

RESULT: TC_VM_FCC15247_Bandwidth_99PCT_20dB_DTS_FHSS_V01

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 99%	---	---	13743	kHz	Information
T1 99%	2400.000000	---	2430.1607	MHz	PASS
T2 99%	---	2483.500000	2443.9033	MHz	PASS

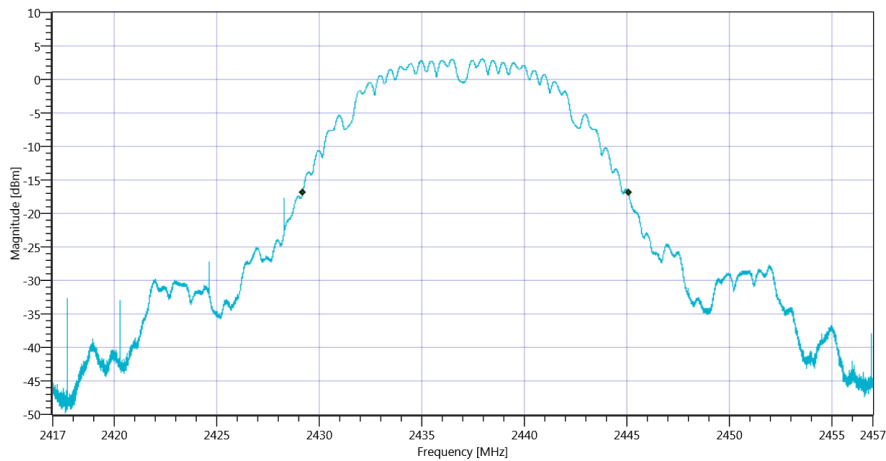


Plot_FCC Part 15.247 Bandwidth 99PCT-20dB ~ WLAN2G4 b-mode 99PCT_04072019_112939.png

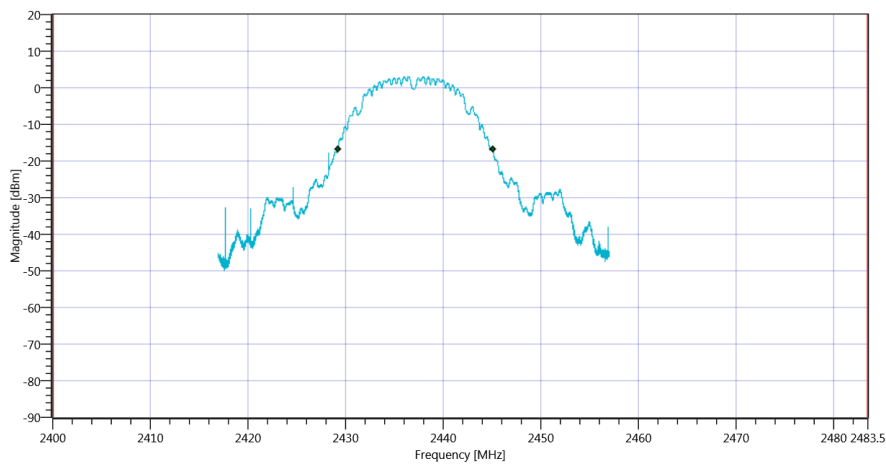


Plot_FCC Part 15.247 Bandwidth 99PCT-20dB ~ WLAN2G4 b-mode_04072019_112942.png

RESULT: TC_VM_FCC15247_Bandwidth_99PCT_20dB_DTS_FHSS_V01					
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 20dB	---	---	15872	kHz	Information
T1 20dB	2400.000000	---	2429.2040	MHz	PASS
T2 20dB	---	2483.500000	2445.0760	MHz	PASS



Plot_FCC Part 15.247 Bandwidth 99PCT-20dB ~ WLAN2G4 b-mode_04072019_112946.png



Plot_FCC Part 15.247 Bandwidth 99PCT-20dB ~ WLAN2G4 b-mode_04072019_112949.png

TEST FINISHED		
General Verdict	04.07.2019 11:29:49 / RT: 34 s	PASS

10. FCC Part 15.247 TX Spurious Conducted ~ WLAN2G4 b-mode

Test References	
TC Start	04.07.2019 11:29:53
System Version	1.0.0.16
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.
Class / TC Version / TC ID	TC_VM_FCC15247_TX_Emissions_Conducted_V01 Version: 0.0.1 TCID_FCC15247_8
My Description	FCC 15.247 TX Emissions Conducted DTS - WLAN 2G4 b-mode
Add. Information	

Test Parameter	
Technology to test	WLAN2G4 b-mode
Antenna Port used	1
Temperature	mid
Voltage	mid
Frequency low to test	False Freq [MHz] 2412
Frequency mid to test	True Freq [MHz] 2437
Frequency high to test	False Freq [MHz] 2462
Pattern	PRBS9
Switched Path	IUT - SignalingUnit - SpectrumAnalyzer
Devices in use	SigBT: Rohde&Schwarz,CBT-1153.9000.35,100185,CBT 6X02.P02 SA: Rohde&Schwarz,FSV-30,1321.3008K30/103170,3.40

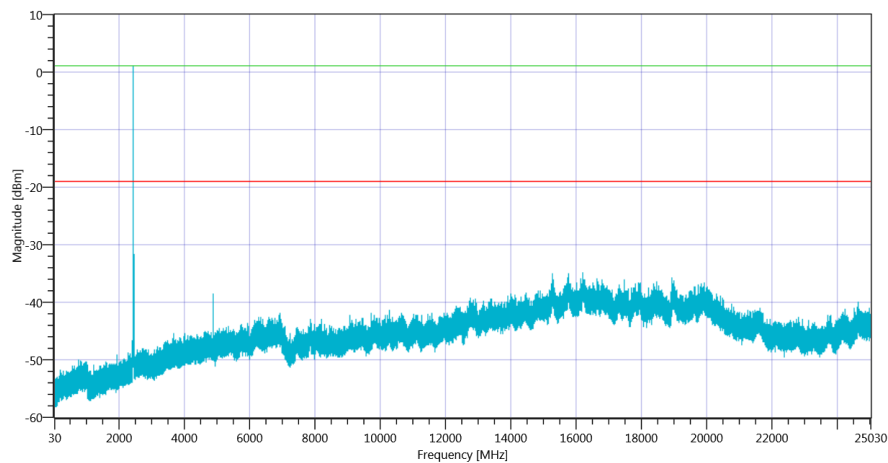
Test at TX 2437 MHz

READ SA SETTINGS:

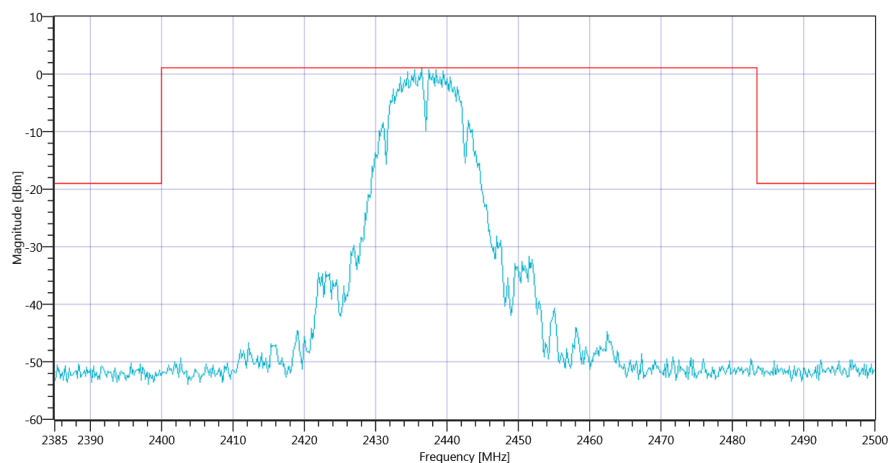
Ref. Level [dBm]	11.78
Resolution BW. [MHz]	0.100000
Video BW. [MHz]	0.300000
Detector	POS
Sweep Time [ms]	500
Sweep Points/Section	3001
Sweep Count	8
Sweep Mode	MAXH
Used Sweep Type	SWE

RESULT: TC_VM_FCC15247_TX_Emissions_Conducted_V01

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Reference @ 2436.50 MHz	---	---	1.05	dBm	Information
No peaks detected	---	---			PASS



Plot_FCC Part 15.247 TX Spurious Conducted ~ WLAN2G4 b-mode 2437_04072019_113437.png



Plot_FCC Part 15.247 TX Spurious Conducted ~ WLAN2G4 b-mode 2437_04072019_113440.png

TEST FINISHED

General Verdict	04.07.2019 11:34:41 / RT: 288 s	PASS
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11. FCC Part 15.247 Maximum Peak Conducted Output Power Powermeter DTS ~ WLAN2G4 b-mode

Test References	
TC Start	04.07.2019 11:35:23
System Version	1.0.0.16
Test Specification	FCC Part 15.247
Test Method	DTS: KDB 558074 D01 V05 - Chapter 8.3.1.3 PKPM1 Peak-reading Power Meter Method
Class / TC Version / TC ID	TC_VM_FCC15247_Maximum_Peak_Conducted_Output_Power_Powermeter_DTS_V01 Version: 0.0.1 TCID_FCC15247_3
My Description	FCC 15.247 Maximum Peak Output Power Powermeter Conducted DTS - WLAN 2G4 b-mode
Add. Information	

Test Parameter	
Technology to test	WLAN2G4 b-mode
Antenna Port used	1
Temperature	mid
Voltage	mid
Frequency low to test	False Freq [MHz] 2412
Frequency mid to test	True Freq [MHz] 2437
Frequency high to test	False Freq [MHz] 2462
Pattern	PRBS9
Switched Path	IUT - SignalingUnit - PowerMeter
Devices in use	SigBT: Rohde&Schwarz,CBT-1153.9000.35,100185,CBT 6X02.P02 NRP-Z81,102585

Test at TX 2437 MHz

RESULT: TC_VM_FCC15247_Maximum_Peak_Conducted_Output_Power_Powermeter_DTS_V01

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Found Peak cond.	---	---	14.73	dBm	PASS

TEST FINISHED

General Verdict 04.07.2019 11:35:27 / RT: 3 s

PASS

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

Test References	
TC Start	04.07.2019 11:36:18
System Version	1.0.0.16
Test Specification	FCC Part 15.247
Test Method	99
Class / TC Version / TC ID	TC_VM_FCC15247_Bandwidth_6dB_DTS_V01 Version: 0.0.1 TCID_FCC15247_1
My Description	FCC 15.247 Bandwidth 6dB DTS - WLAN 2G4 b-mode
Add. Information	

Test Parameter	
Technology to test	WLAN2G4 b-mode
Antenna Port used	1
Temperature	mid
Voltage	mid
Frequency low to test	False Freq [MHz] 2412
Frequency mid to test	False Freq [MHz] 2437
Frequency high to test	True Freq [MHz] 2462
Pattern	PRBS9
Switched Path	IUT - SignalingUnit - SpectrumAnalyzer
Devices in use	SigBT: Rohde&Schwarz,CBT-1153.9000.35,100185,CBT 6X02.P02 SA: Rohde&Schwarz,FSV-30,1321.3008K30/103170,3.40

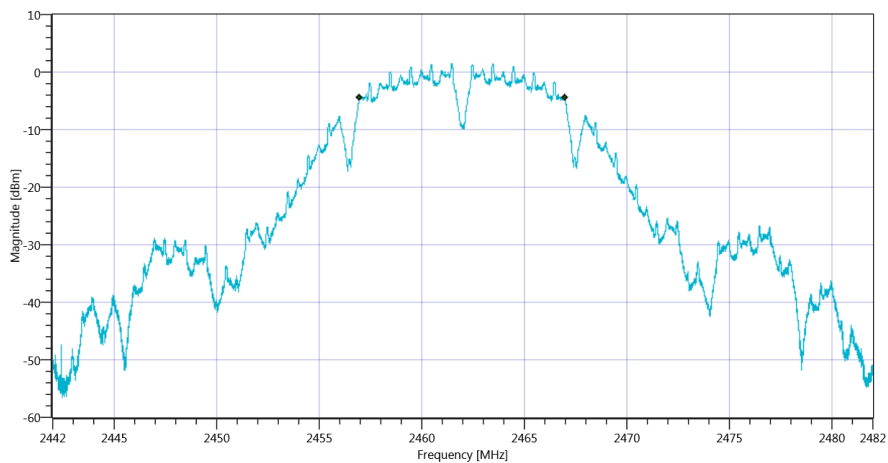
Test at TX 2462 MHz

READ SA SETTINGS:

Ref. Level [dBm]	11.83
Ref. Lev. offs [dB]	9.94
Input Attenuation [dB]	20
Freq. Start [MHz]	2442.000
Freq. Stop [MHz]	2482.000
Resolution BW. [MHz]	0.100000
Video BW. [MHz]	0.300000
Detector	POS
Sweep Time [ms]	50
Sweep Points/Section	10001
Sweep Count	200
Sweep Mode	MAXH
Used Sweep Type	SWE

RESULT: TC_VM_FCC15247_Bandwidth_6dB_DTS_V01

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
DTS Bandwidth (6dB)	500	---	10040	kHz	PASS



Plot_FCC Part 15.247 Bandwidth 6dB DTS ~ WLAN2G4 b-mode_04072019_113645.png

TEST FINISHED

General Verdict

04.07.2019 11:36:45 / RT: 26 s

PASS

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

Test References	
TC Start	04.07.2019 11:36:49
System Version	1.0.0.16
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
Class / TC Version / TC ID	TC_VM_FCC15247_Peak_Power_Spectral_Density_DTS_V01 Version: 0.0.1 TCID_FCC15247_6
My Description	FCC 15.247 Peak Power Spectral Density DTS - WLAN 2G4 b-mode
Add. Information	

Test Parameter	
Technology to test	WLAN2G4 b-mode
Antenna Port used	1
Temperature	mid
Voltage	mid
Frequency low to test	False Freq [MHz] 2412
Frequency mid to test	False Freq [MHz] 2437
Frequency high to test	True Freq [MHz] 2462
Pattern	PRBS9
Switched Path	IUT - SignalingUnit - SpectrumAnalyzer
Devices in use	SigBT: Rohde&Schwarz,CBT-1153.9000.35,100185,CBT 6X02.P02 SA: Rohde&Schwarz,FSV-30,1321.3008K30/103170,3.40

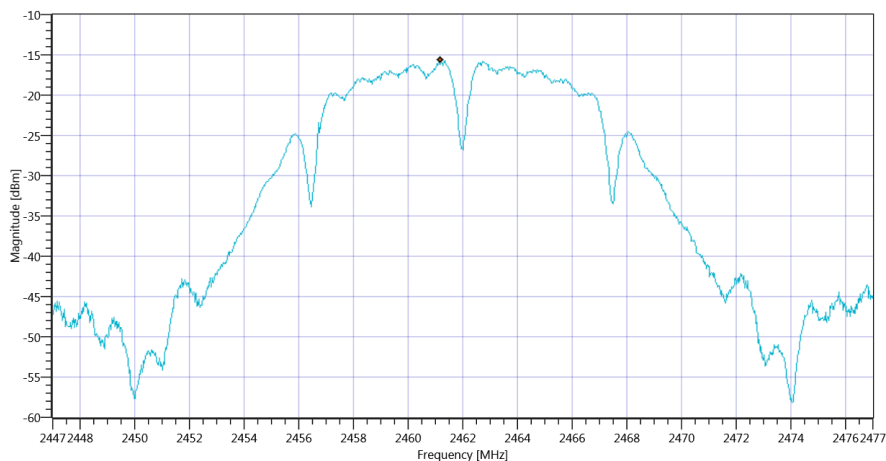
Test at TX 2462 MHz

READ SA SETTINGS:

Ref. Level [dBm]	11.80
Ref. Lev. offs [dB]	9.94
Input Attenuation [dB]	20
Freq. Start [MHz]	2447.000
Freq. Stop [MHz]	2477.000
Resolution BW. [MHz]	0.003000
Video BW. [MHz]	0.010000
Detector	POS
Sweep Time [ms]	1000
Sweep Points/Section	1001
Sweep Count	20
Sweep Mode	MAXH
Used Sweep Type	SWE

RESULT: TC_VM_FCC15247_Peak_Power_Spectral_Density_DTS_V01

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



Plot_FCC Part 15.247 Peak Power Spectral Density DTS ~ WLAN2G4 b-mode_04072019_113723.png

TEST FINISHED

General Verdict

04.07.2019 11:37:23 / RT: 34 s

PASS

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

Test References	
TC Start	04.07.2019 11:37:27
System Version	1.0.0.16
Test Specification	FCC Part 15.247
Test Method	
Class / TC Version / TC ID	TC_VM_FCC15247_Bandwidth_99PCT_20dB_DTS_FHSS_V01 Version: 0.0.2 TCID_FCC15247_2
My Description	FCC 15.247 Bandwidth 99PCT-20dB DTS - WLAN 2G4 b-mode
Add. Information	

Test Parameter	
Technology to test	WLAN2G4 b-mode
Antenna Port used	1
Temperature	mid
Voltage	mid
Frequency low to test	False Freq [MHz] 2412
Frequency mid to test	False Freq [MHz] 2437
Frequency high to test	True Freq [MHz] 2462
Pattern	PRBS9
Switched Path	IUT - SignalingUnit - SpectrumAnalyzer
Devices in use	SigBT: Rohde&Schwarz,CBT-1153.9000.35,100185,CBT 6X02.P02 SA: Rohde&Schwarz,FSV-30,1321.3008K30/103170,3.40

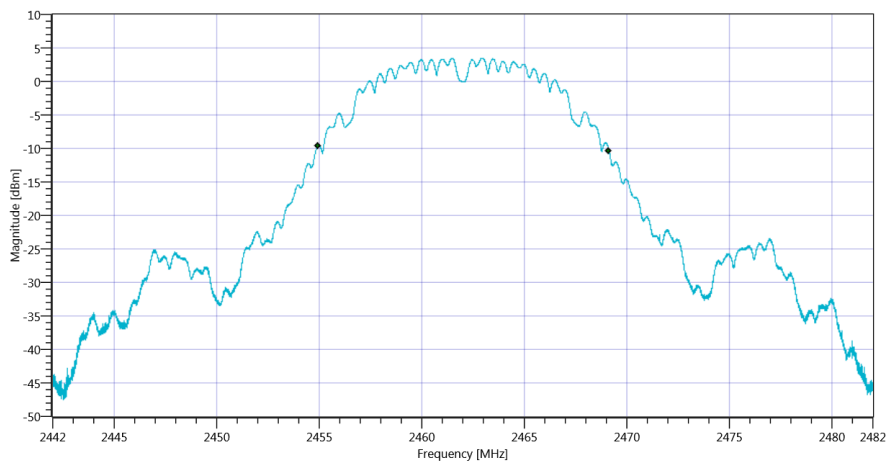
Test at TX 2462 MHz

READ SA SETTINGS:

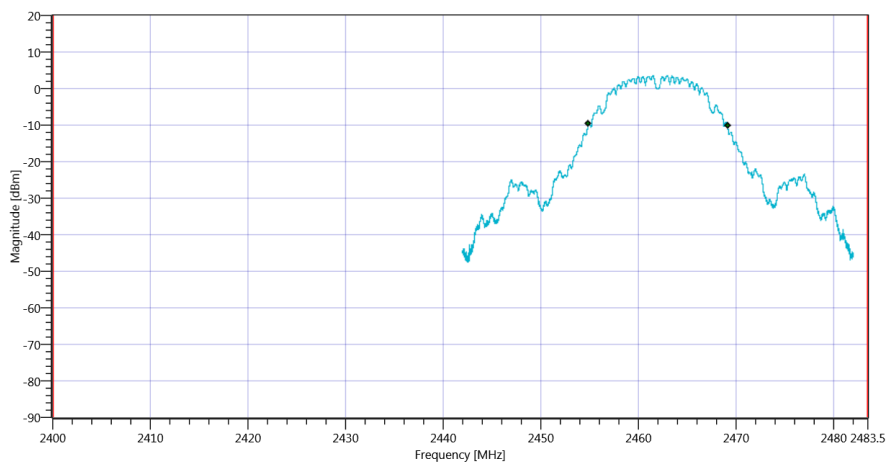
Ref. Level [dBm]	11.82
Ref. Lev. offs [dB]	9.94
Input Attenuation [dB]	20
Freq. Start [MHz]	2442.000
Freq. Stop [MHz]	2482.000
Resolution BW. [MHz]	0.500000
Video BW. [MHz]	1.000000
Detector	POS
Sweep Time [ms]	50
Sweep Points/Section	10001
Sweep Count	200
Sweep Mode	MAXH
Used Sweep Type	SWE

RESULT: TC_VM_FCC15247_Bandwidth_99PCT_20dB_DTS_FHSS_V01

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 99%	---	---	14215	kHz	Information
T1 99%	2400.000000	---	2454.9207	MHz	PASS
T2 99%	---	2483.500000	2469.1353	MHz	PASS

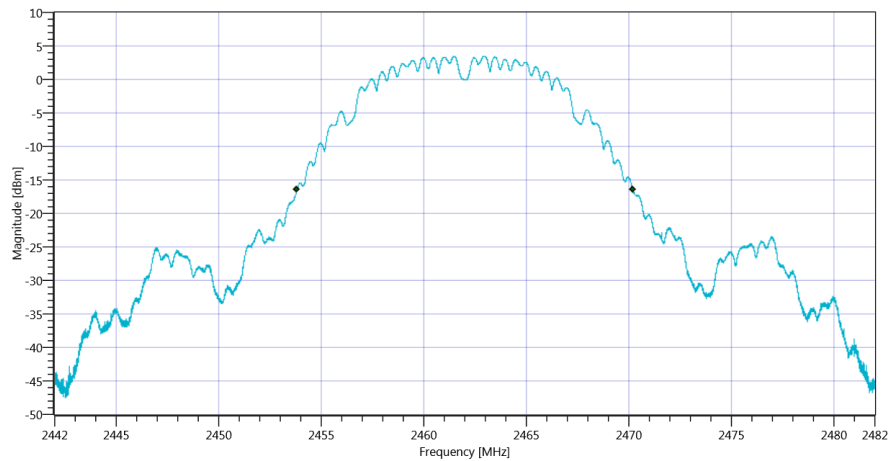


Plot_FCC Part 15.247 Bandwidth 99PCT-20dB ~ WLAN2G4 b-mode 99PCT_04072019_113751.png

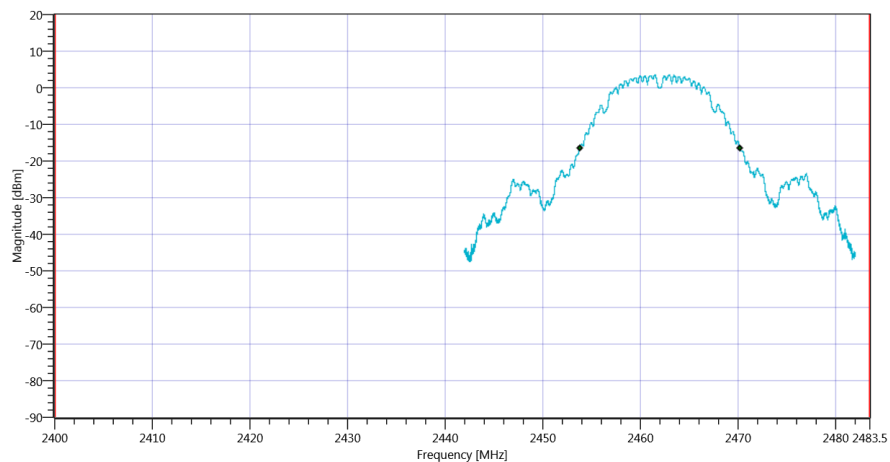


Plot_FCC Part 15.247 Bandwidth 99PCT-20dB ~ WLAN2G4 b-mode_04072019_113754.png

RESULT: TC_VM_FCC15247_Bandwidth_99PCT_20dB_DTS_FHSS_V01					
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 20dB	---	---	16380	kHz	Information
T1 20dB	2400.000000	---	2453.8120	MHz	PASS
T2 20dB	---	2483.500000	2470.1920	MHz	PASS



Plot_FCC Part 15.247 Bandwidth 99PCT-20dB ~ WLAN2G4 b-mode_04072019_113759.png



Plot_FCC Part 15.247 Bandwidth 99PCT-20dB ~ WLAN2G4 b-mode_04072019_113802.png

TEST FINISHED		
General Verdict	04.07.2019 11:38:02 / RT: 34 s	PASS

15. FCC Part 15.247 TX Spurious Conducted ~ WLAN2G4 b-mode

Test References	
TC Start	04.07.2019 11:38:06
System Version	1.0.0.16
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.
Class / TC Version / TC ID	TC_VM_FCC15247_TX_Emissions_Conducted_V01 Version: 0.0.1 TCID_FCC15247_8
My Description	FCC 15.247 TX Emissions Conducted DTS - WLAN 2G4 b-mode
Add. Information	

Test Parameter	
Technology to test	WLAN2G4 b-mode
Antenna Port used	1
Temperature	mid
Voltage	mid
Frequency low to test	False Freq [MHz] 2412
Frequency mid to test	False Freq [MHz] 2437
Frequency high to test	True Freq [MHz] 2462
Pattern	PRBS9
Switched Path	IUT - SignalingUnit - SpectrumAnalyzer
Devices in use	SigBT: Rohde&Schwarz,CBT-1153.9000.35,100185,CBT 6X02.P02 SA: Rohde&Schwarz,FSV-30,1321.3008K30/103170,3.40

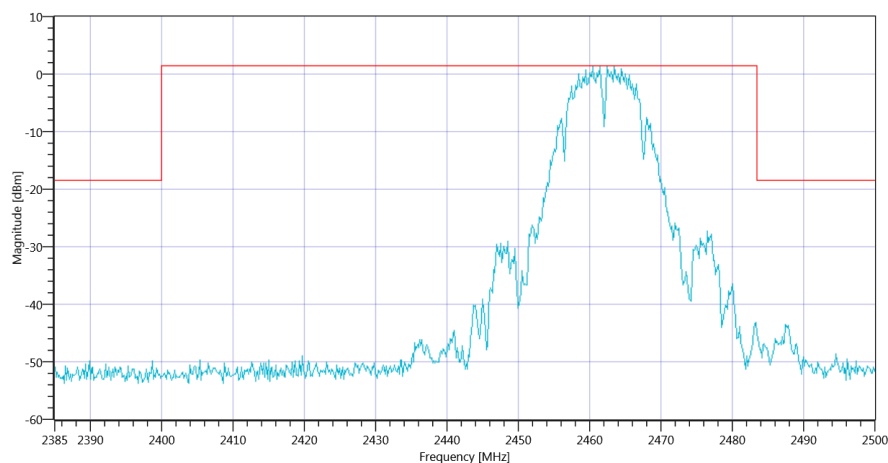
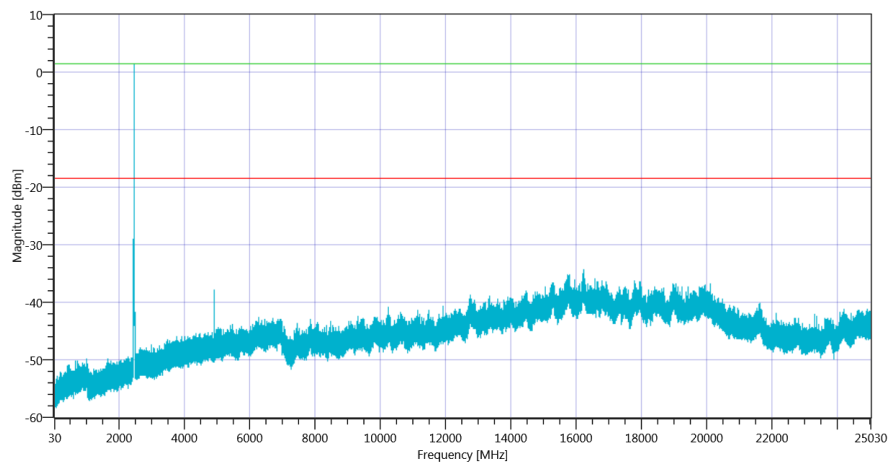
Test at TX 2462 MHz

READ SA SETTINGS:

Ref. Level [dBm]	11.92
Resolution BW. [MHz]	0.100000
Video BW. [MHz]	0.300000
Detector	POS
Sweep Time [ms]	500
Sweep Points/Section	3001
Sweep Count	8
Sweep Mode	MAXH
Used Sweep Type	SWE

RESULT: TC_VM_FCC15247_TX_Emissions_Conducted_V01

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Reference @ 2461.50 MHz	---	---	1.46	dBm	Information
No peaks detected	---	---			PASS



TEST FINISHED

General Verdict

04.07.2019 11:42:54 / RT: 288 s

PASS

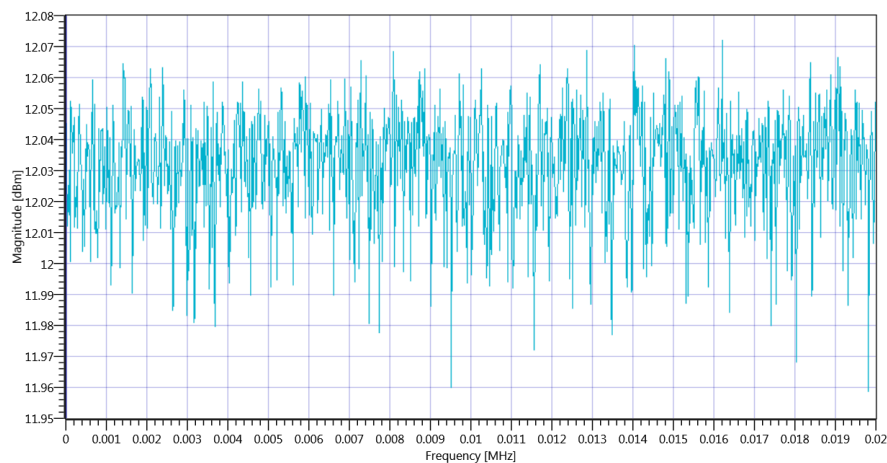
16. FCC Part 15.247 Restricted Band Edge Conducted Avg DC corrected DTS ~ WLAN2G4 b-mode

Test References	
TC Start	04.07.2019 11:42:58
System Version	1.0.0.16
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
Class / TC Version / TC ID	TC_VM_FCC15247_Restricted_Band_Edge_Conducted_Avg_DC_corrected_V01 Version: 0.0.1 TCID_FCC15247_7
My Description	FCC 15.247 Restricted Band Edge Cond. Avg DC corrected DTS - WLAN 2G4 b-mode
Add. Information	

Test Parameter	
Technology to test	WLAN2G4 b-mode
Antenna Port used	1
Temperature	mid
Voltage	mid
Frequency low to test	False Freq [MHz] 2412
Frequency mid to test	False Freq [MHz] 2437
Frequency high to test	True Freq [MHz] 2462
Pattern	PRBS9
Switched Path	IUT - SignalingUnit - SpectrumAnalyzer
Devices in use	SigBT: Rohde&Schwarz,CBT-1153.9000.35,100185,CBT 6X02.P02 SA: Rohde&Schwarz,FSV-30,1321.3008K30/103170,3.40

Test at TX 2462 MHz

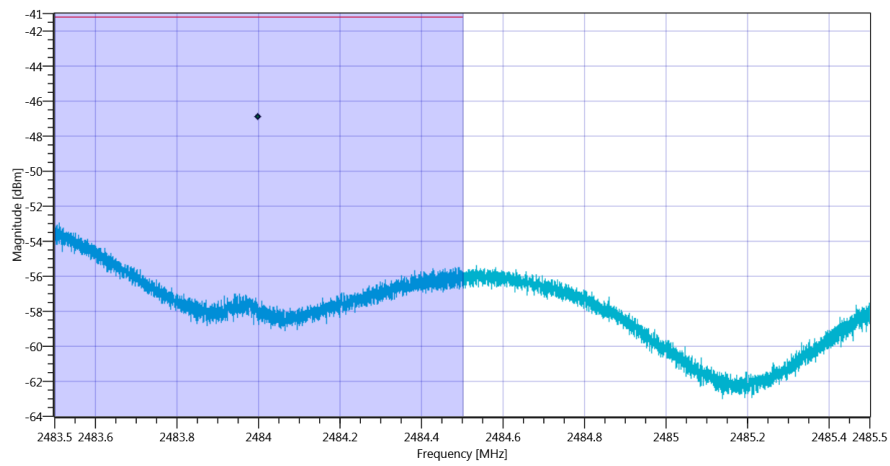
RESULT: Duty Cycle evaluation					
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
No enough Bursts detected, Duty Cycle Burst Ratio set to 1					
Duty Cycle (Burst Ratio) max	---	---	1	---	Information
Duty Cycle max	---	---	0	dB	Information
Duty Cycle (Burst Ratio) min	---	---	1	---	Information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



Plot_FCC Part 15.247 Restricted Band Edge Conducted Avg DC corrected DTS ~ WLAN2G4 b-mode 2462 MHz - Duty Cycle_04072019_114310.png

READ SA SETTINGS:	
Ref. Level [dBm]	16.80
Ref. Lev. offs [dB]	9.94
Input Attenuation [dB]	25
Freq. Start [MHz]	2483.500
Freq. Stop [MHz]	2485.500
Resolution BW. [MHz]	0.100000
Video BW. [MHz]	0.500000
Detector	RMS
Sweep Time [ms]	32
Sweep Points/Section	32000
Sweep Count	300
Sweep Mode	AVER
Used Sweep Type	SWE
Marker Method	Band Power

RESULT: TC_VM_FCC15247_Restricted_Band_Edge_Conducted_Avg_DC_corrected_V01					
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Duty Cycle worst case	---	---	0	dB	Information
Band Power without Antenna Gain Avg	---	---	-46.91	dBm	Information
Band Power without Antenna Gain Avg DC corrected	---	---	-46.91	dBm	Information
Band Power incl. Antenna Gain Avg DC corrected	---	-41.23	-46.91	dBm	PASS



Plot_FCC Part 15.247 Restricted Band Edge Conducted Avg DC corrected DTS ~ WLAN2G4 b-mode_04072019_114332.png

TEST FINISHED

General Verdict

04.07.2019 11:43:32 / RT: 34 s

PASS

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

Test References	
TC Start	04.07.2019 11:43:36
System Version	1.0.0.16
Test Specification	FCC Part 15.247
Test Method	DTS: KDB 558074 D01 V05 - Chapter 8.3.1.3 PKPM1 Peak-reading Power Meter Method
Class / TC Version / TC ID	TC_VM_FCC15247_Maximum_Peak_Conducted_Output_Power_Powermeter_DTS_V01 Version: 0.0.1 TCID_FCC15247_3
My Description	FCC 15.247 Maximum Peak Output Power Powermeter Conducted DTS - WLAN 2G4 b-mode
Add. Information	

Test Parameter	
Technology to test	WLAN2G4 b-mode
Antenna Port used	1
Temperature	mid
Voltage	mid
Frequency low to test	False Freq [MHz] 2412
Frequency mid to test	False Freq [MHz] 2437
Frequency high to test	True Freq [MHz] 2462
Pattern	PRBS9
Switched Path	IUT - SignalingUnit - PowerMeter
Devices in use	SigBT: Rohde&Schwarz,CBT-1153.9000.35,100185,CBT 6X02.P02 NRP-Z81,102585

Test at TX 2462 MHz

RESULT: TC_VM_FCC15247_Maximum_Peak_Conducted_Output_Power_Powermeter_DTS_V01

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Found Peak cond.	---	---	15.12	dBm	PASS

TEST FINISHED

General Verdict 04.07.2019 11:43:40 / RT: 4 s

PASS

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

Test References	
TC Start	04.07.2019 11:48:29
System Version	1.0.0.16
Test Specification	FCC Part 15.247
Test Method	99
Class / TC Version / TC ID	TC_VM_FCC15247_Bandwidth_6dB_DTS_V01 Version: 0.0.1 TCID_FCC15247_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	mid
Voltage	mid
Frequency low to test	True Freq [MHz] 2412
Frequency mid to test	False Freq [MHz] 2437
Frequency high to test	False Freq [MHz] 2462
Pattern	PRBS9
Switched Path	IUT - SignalingUnit - SpectrumAnalyzer
Devices in use	SigBT: Rohde&Schwarz,CBT-1153.9000.35,100185,CBT 6X02.P02 SA: Rohde&Schwarz,FSV-30,1321.3008K30/103170,3.40

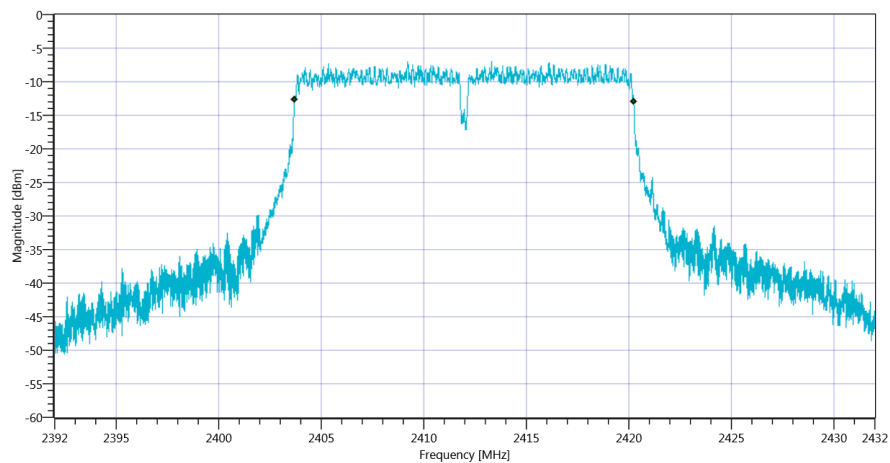
Test at TX 2412 MHz

READ SA SETTINGS:

Ref. Level [dBm]	8.47
Ref. Lev. offs [dB]	9.83
Input Attenuation [dB]	15
Freq. Start [MHz]	2392.000
Freq. Stop [MHz]	2432.000
Resolution BW. [MHz]	0.100000
Video BW. [MHz]	0.300000
Detector	POS
Sweep Time [ms]	50
Sweep Points/Section	10001
Sweep Count	200
Sweep Mode	MAXH
Used Sweep Type	SWE

RESULT: TC_VM_FCC15247_Bandwidth_6dB_DTS_V01

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
DTS Bandwidth (6dB)	500	---	16544	kHz	PASS



Plot_FCC Part 15.247 Bandwidth 6dB DTS ~ WLAN2G4 g-mode_04072019_114856.png

TEST FINISHED

General Verdict

04.07.2019 11:48:57 / RT: 27 s

PASS

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

Test References	
TC Start	04.07.2019 11:49:00
System Version	1.0.0.16
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
Class / TC Version / TC ID	TC_VM_FCC15247_Peak_Power_Spectral_Density_DTS_V01 Version: 0.0.1 TCID_FCC15247_6
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	mid
Voltage	mid
Frequency low to test	True Freq [MHz] 2412
Frequency mid to test	False Freq [MHz] 2437
Frequency high to test	False Freq [MHz] 2462
Pattern	PRBS9
Switched Path	IUT - SignalingUnit - SpectrumAnalyzer
Devices in use	SigBT: Rohde&Schwarz,CBT-1153.9000.35,100185,CBT 6X02.P02 SA: Rohde&Schwarz,FSV-30,1321.3008K30/103170,3.40

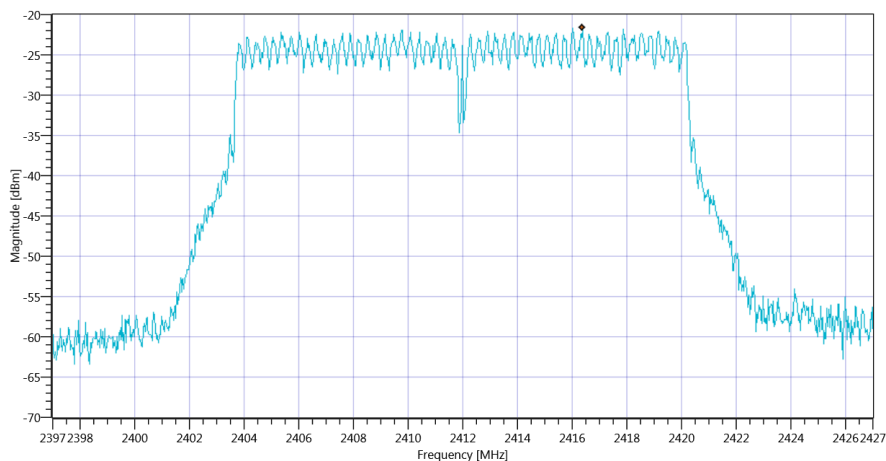
Test at TX 2412 MHz

READ SA SETTINGS:

Ref. Level [dBm]	8.39
Ref. Lev. offs [dB]	9.83
Input Attenuation [dB]	15
Freq. Start [MHz]	2397.000
Freq. Stop [MHz]	2427.000
Resolution BW. [MHz]	0.003000
Video BW. [MHz]	0.010000
Detector	POS
Sweep Time [ms]	1000
Sweep Points/Section	1001
Sweep Count	20
Sweep Mode	MAXH
Used Sweep Type	SWE

RESULT: TC_VM_FCC15247_Peak_Power_Spectral_Density_DTS_V01

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Max Peak power Density	---	8	-21.7	dBm/3KHz	PASS



Plot_FCC Part 15.247 Peak Power Spectral Density DTS ~ WLAN2G4 g-mode_04072019_114934.png

TEST FINISHED

General Verdict

04.07.2019 11:49:34 / RT: 34 s

PASS

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

Test References	
TC Start	04.07.2019 11:49:38
System Version	1.0.0.16
Test Specification	FCC Part 15.247
Test Method	
Class / TC Version / TC ID	TC_VM_FCC15247_Bandwidth_99PCT_20dB_DTS_FHSS_V01 Version: 0.0.2 TCID_FCC15247_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	mid
Voltage	mid
Frequency low to test	True Freq [MHz] 2412
Frequency mid to test	False Freq [MHz] 2437
Frequency high to test	False Freq [MHz] 2462
Pattern	PRBS9
Switched Path	IUT - SignalingUnit - SpectrumAnalyzer
Devices in use	SigBT: Rohde&Schwarz,CBT-1153.9000.35,100185,CBT 6X02.P02 SA: Rohde&Schwarz,FSV-30,1321.3008K30/103170,3.40

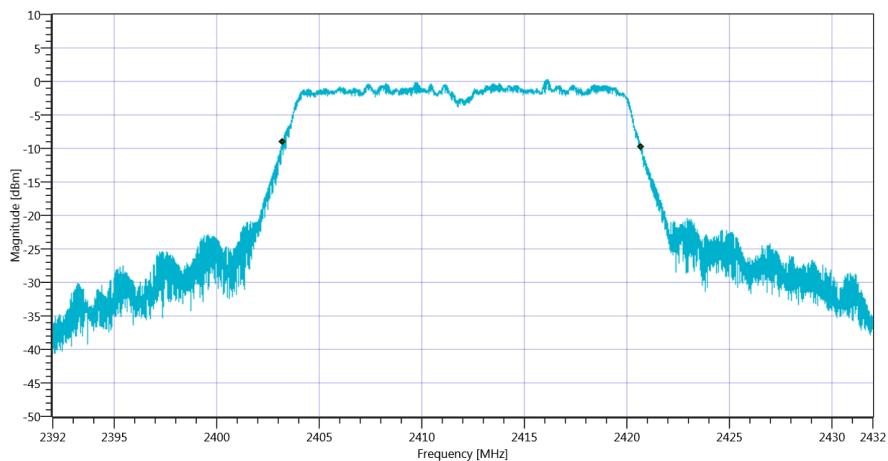
Test at TX 2412 MHz

READ SA SETTINGS:

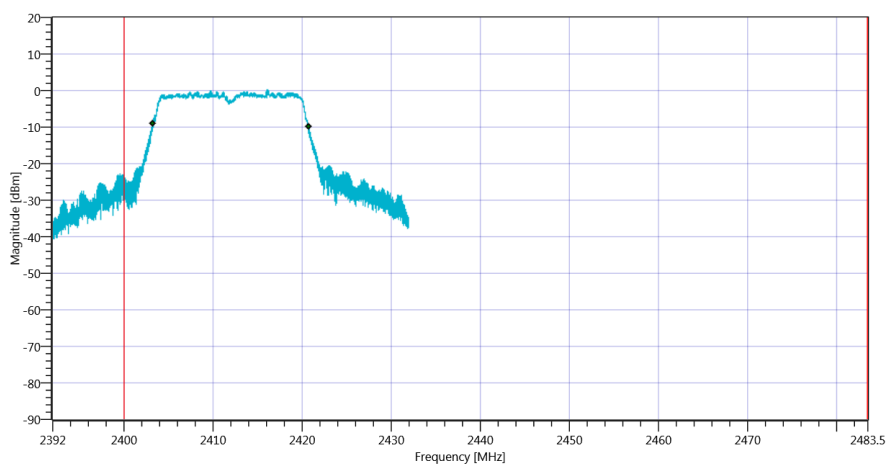
Ref. Level [dBm]	8.32
Ref. Lev. offs [dB]	9.83
Input Attenuation [dB]	15
Freq. Start [MHz]	2392.000
Freq. Stop [MHz]	2432.000
Resolution BW. [MHz]	0.500000
Video BW. [MHz]	1.000000
Detector	POS
Sweep Time [ms]	50
Sweep Points/Section	10001
Sweep Count	200
Sweep Mode	MAXH
Used Sweep Type	SWE

RESULT: TC_VM_FCC15247_Bandwidth_99PCT_20dB_DTS_FHSS_V01

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 99%	---	---	17474	kHz	Information
T1 99%	2400.000000	---	2403.2289	MHz	PASS
T2 99%	---	2483.500000	2420.7031	MHz	PASS

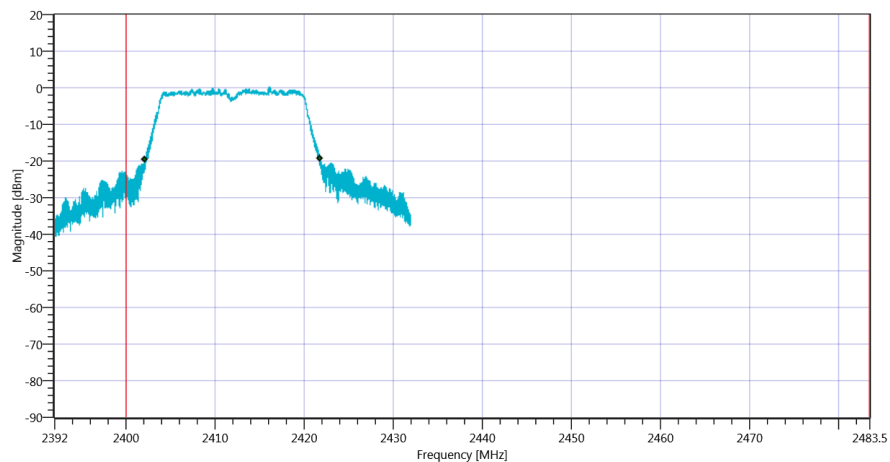
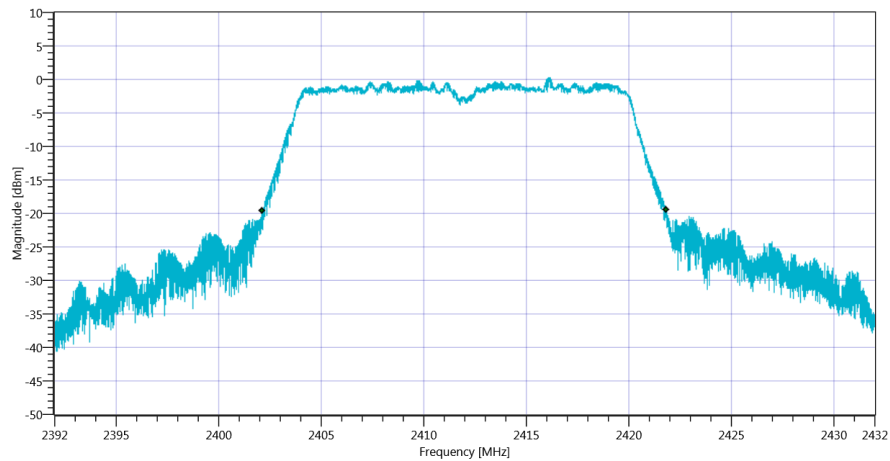


Plot_FCC Part 15.247 Bandwidth 99PCT-20dB ~ WLAN2G4 g-mode 99PCT_04072019_115002.png



Plot_FCC Part 15.247 Bandwidth 99PCT-20dB ~ WLAN2G4 g-mode_04072019_115005.png

RESULT: TC_VM_FCC15247_Bandwidth_99PCT-20dB_DTS_FHSS_V01					
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 20dB	---	---	19704	kHz	Information
T1 20dB	2400.000000	---	2402.1240	MHz	PASS
T2 20dB	---	2483.500000	2421.8280	MHz	PASS



TEST FINISHED		
General Verdict	04.07.2019 11:50:13 / RT: 34 s	PASS

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

Test References	
TC Start	04.07.2019 11:50:16
System Version	1.0.0.16
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.
Class / TC Version / TC ID	TC_VM_FCC15247_TX_Emissions_Conducted_V01 Version: 0.0.1 TCID_FCC15247_8
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	mid
Voltage	mid
Frequency low to test	True Freq [MHz] 2412
Frequency mid to test	False Freq [MHz] 2437
Frequency high to test	False Freq [MHz] 2462
Pattern	PRBS9
Switched Path	IUT - SignalingUnit - SpectrumAnalyzer
Devices in use	SigBT: Rohde&Schwarz,CBT-1153.9000.35,100185,CBT 6X02.P02 SA: Rohde&Schwarz,FSV-30,1321.3008K30/103170,3.40

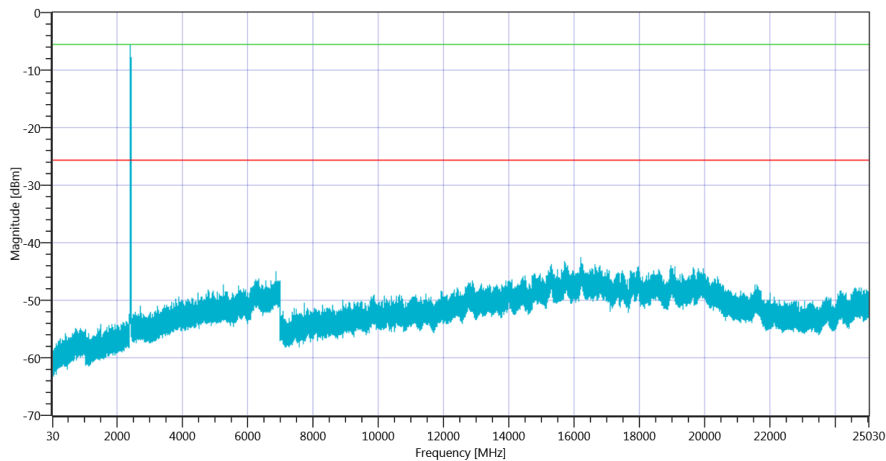
Test at TX 2412 MHz

READ SA SETTINGS:

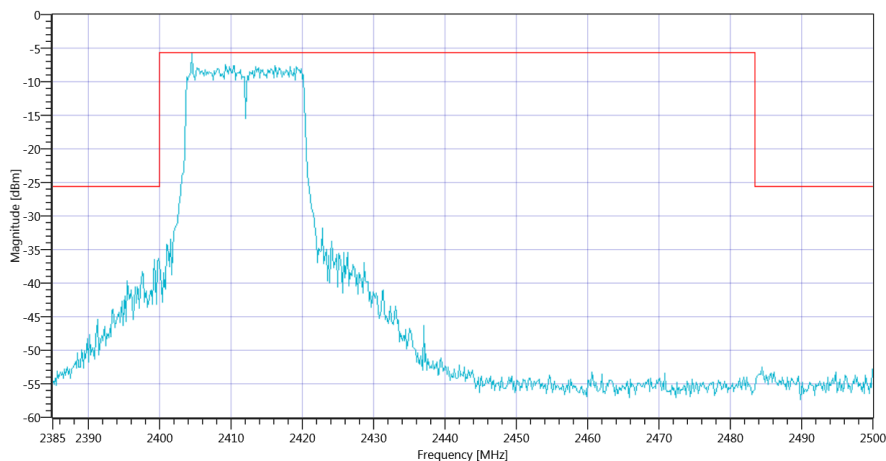
Ref. Level [dBm]	8.75
Resolution BW. [MHz]	0.100000
Video BW. [MHz]	0.300000
Detector	POS
Sweep Time [ms]	500
Sweep Points/Section	3001
Sweep Count	8
Sweep Mode	MAXH
Used Sweep Type	SWE

RESULT: TC_VM_FCC15247_TX_Emissions_Conducted_V01

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Reference @ 2404.50 MHz	---	---	-5.62	dBm	Information
No peaks detected	---	---			PASS



Plot_FCC Part 15.247 TX Spurious Conducted ~ WLAN2G4 g-mode 2412_04072019_115501.png



Plot_FCC Part 15.247 TX Spurious Conducted ~ WLAN2G4 g-mode 2412_04072019_115503.png

TEST FINISHED

General Verdict

04.07.2019 11:55:05 / RT: 288 s

PASS

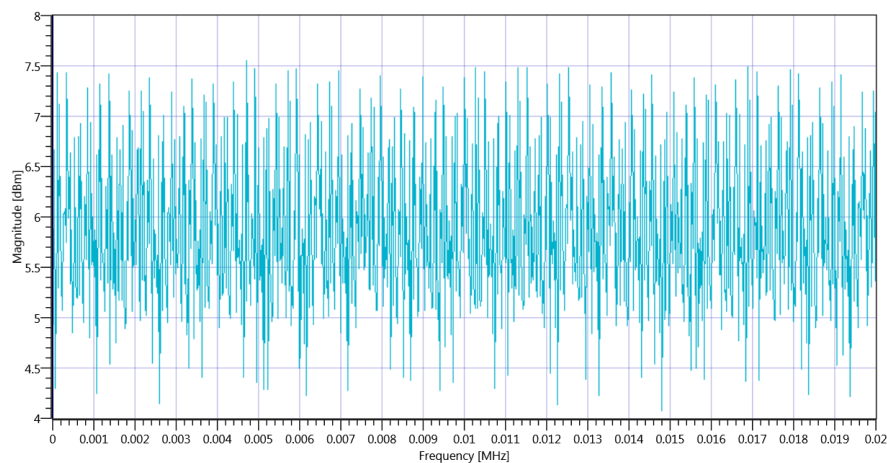
22. FCC Part 15.247 Restricted Band Edge Conducted Avg DC corrected DTS ~ WLAN2G4 g-mode

Test References	
TC Start	04.07.2019 11:55:08
System Version	1.0.0.16
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
Class / TC Version / TC ID	TC_VM_FCC15247_Restricted_Band_Edge_Conducted_Avg_DC_corrected_V01 Version: 0.0.1 TCID_FCC15247_7
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	mid
Voltage	mid
Frequency low to test	True Freq [MHz] 2412
Frequency mid to test	False Freq [MHz] 2437
Frequency high to test	False Freq [MHz] 2462
Pattern	PRBS9
Switched Path	IUT - SignalingUnit - SpectrumAnalyzer
Devices in use	SigBT: Rohde&Schwarz,CBT-1153.9000.35,100185,CBT 6X02.P02 SA: Rohde&Schwarz,FSV-30,1321.3008K30/103170,3.40

Test at TX 2412 MHz

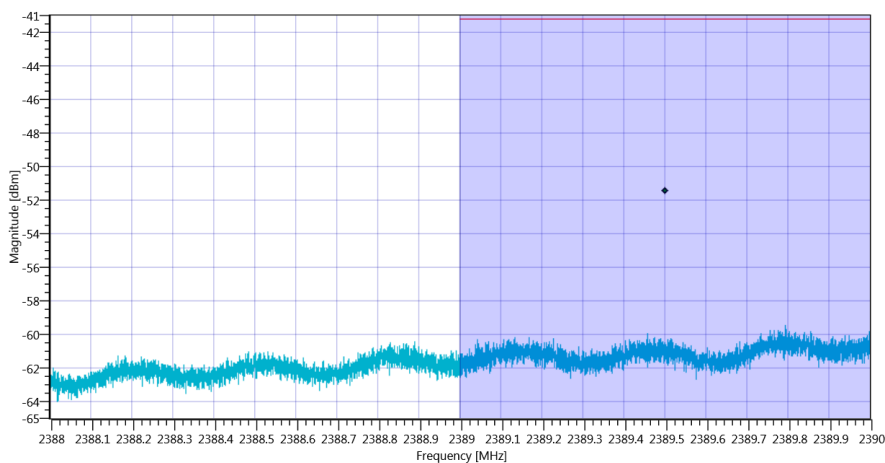
RESULT: Duty Cycle evaluation					
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
No enough Bursts detected, Duty Cycle Burst Ratio set to 1					
Duty Cycle (Burst Ratio) max	---	---	1	---	Information
Duty Cycle max	---	---	0	dB	Information
Duty Cycle (Burst Ratio) min	---	---	1	---	Information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



Plot_FCC Part 15.247 Restricted Band Edge Conducted Avg DC corrected DTS ~ WLAN2G4 g-mode 2412 MHz - Duty Cycle_04072019_115521.png

READ SA SETTINGS:	
Ref. Level [dBm]	13.63
Ref. Lev. offs [dB]	9.83
Input Attenuation [dB]	20
Freq. Start [MHz]	2388.000
Freq. Stop [MHz]	2390.000
Resolution BW. [MHz]	0.100000
Video BW. [MHz]	0.500000
Detector	RMS
Sweep Time [ms]	32
Sweep Points/Section	32000
Sweep Count	300
Sweep Mode	AVER
Used Sweep Type	SWE
Marker Method	Band Power

RESULT: TC_VM_FCC15247_Restricted_Band_Edge_Conducted_Avg_DC_corrected_V01					
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Duty Cycle worst case	---	---	0	dB	Information
Band Power without Antenna Gain Avg	---	---	-51.43	dBm	Information
Band Power without Antenna Gain Avg DC corrected	---	---	-51.43	dBm	Information
Band Power incl. Antenna Gain Avg DC corrected	---	-41.23	-51.43	dBm	PASS



Plot_FCC Part 15.247 Restricted Band Edge Conducted Avg DC corrected DTS ~ WLAN2G4 g-mode_04072019_115542.png

TEST FINISHED		
General Verdict	04.07.2019 11:55:42 / RT: 34 s	PASS

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

Test References	
TC Start	04.07.2019 11:55:46
System Version	1.0.0.16
Test Specification	FCC Part 15.247
Test Method	DTS: KDB 558074 D01 V05 - Chapter 8.3.1.3 PKPM1 Peak-reading Power Meter Method
Class / TC Version / TC ID	TC_VM_FCC15247_Maximum_Peak_Conducted_Output_Power_Powermeter_DTS_V01 Version: 0.0.1 TCID_FCC15247_3
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	mid
Voltage	mid
Frequency low to test	True Freq [MHz] 2412
Frequency mid to test	False Freq [MHz] 2437
Frequency high to test	False Freq [MHz] 2462
Pattern	PRBS9
Switched Path	IUT - SignalingUnit - PowerMeter
Devices in use	SigBT: Rohde&Schwarz,CBT-1153.9000.35,100185,CBT 6X02.P02 NRP-Z81,102585

Test at TX 2412 MHz

RESULT: TC_VM_FCC15247_Maximum_Peak_Conducted_Output_Power_Powermeter_DTS_V01

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Found Peak cond.	---	---	18.2	dBm	PASS

TEST FINISHED

General Verdict 04.07.2019 11:55:50 / RT: 3 s

PASS

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

Test References	
TC Start	04.07.2019 11:56:46
System Version	1.0.0.16
Test Specification	FCC Part 15.247
Test Method	99
Class / TC Version / TC ID	TC_VM_FCC15247_Bandwidth_6dB_DTS_V01 Version: 0.0.1 TCID_FCC15247_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	mid
Voltage	mid
Frequency low to test	False Freq [MHz] 2412
Frequency mid to test	True Freq [MHz] 2437
Frequency high to test	False Freq [MHz] 2462
Pattern	PRBS9
Switched Path	IUT - SignalingUnit - SpectrumAnalyzer
Devices in use	SigBT: Rohde&Schwarz,CBT-1153.9000.35,100185,CBT 6X02.P02 SA: Rohde&Schwarz,FSV-30,1321.3008K30/103170,3.40

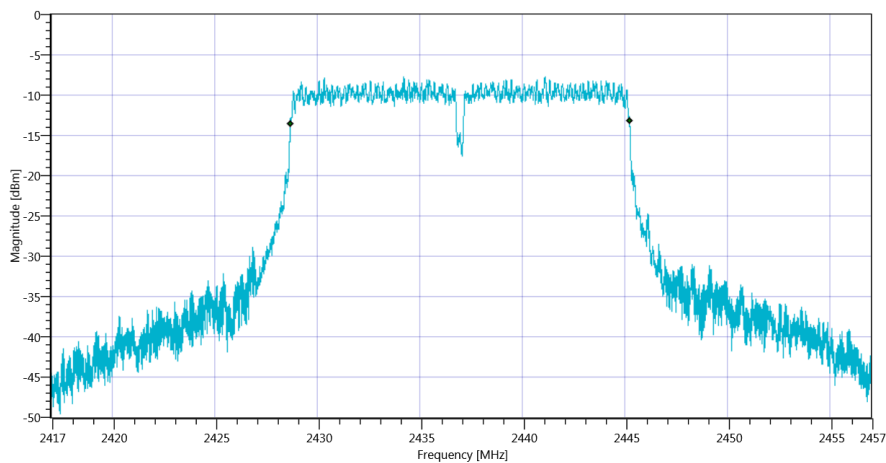
Test at TX 2437 MHz

READ SA SETTINGS:

Ref. Level [dBm]	8.08
Ref. Lev. offs [dB]	9.89
Input Attenuation [dB]	15
Freq. Start [MHz]	2417.000
Freq. Stop [MHz]	2457.000
Resolution BW. [MHz]	0.100000
Video BW. [MHz]	0.300000
Detector	POS
Sweep Time [ms]	50
Sweep Points/Section	10001
Sweep Count	200
Sweep Mode	MAXH
Used Sweep Type	SWE

RESULT: TC_VM_FCC15247_Bandwidth_6dB_DTS_V01

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
DTS Bandwidth (6dB)	500	---	16548	kHz	PASS



Plot_FCC Part 15.247 Bandwidth 6dB DTS ~ WLAN2G4 g-mode_04072019_115712.png

TEST FINISHED

General Verdict

04.07.2019 11:57:12 / RT: 26 s

PASS

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

Test References	
TC Start	04.07.2019 11:57:16
System Version	1.0.0.16
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
Class / TC Version / TC ID	TC_VM_FCC15247_Peak_Power_Spectral_Density_DTS_V01 Version: 0.0.1 TCID_FCC15247_6
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	mid
Voltage	mid
Frequency low to test	False Freq [MHz] 2412
Frequency mid to test	True Freq [MHz] 2437
Frequency high to test	False Freq [MHz] 2462
Pattern	PRBS9
Switched Path	IUT - SignalingUnit - SpectrumAnalyzer
Devices in use	SigBT: Rohde&Schwarz,CBT-1153.9000.35,100185,CBT 6X02.P02 SA: Rohde&Schwarz,FSV-30,1321.3008K30/103170,3.40

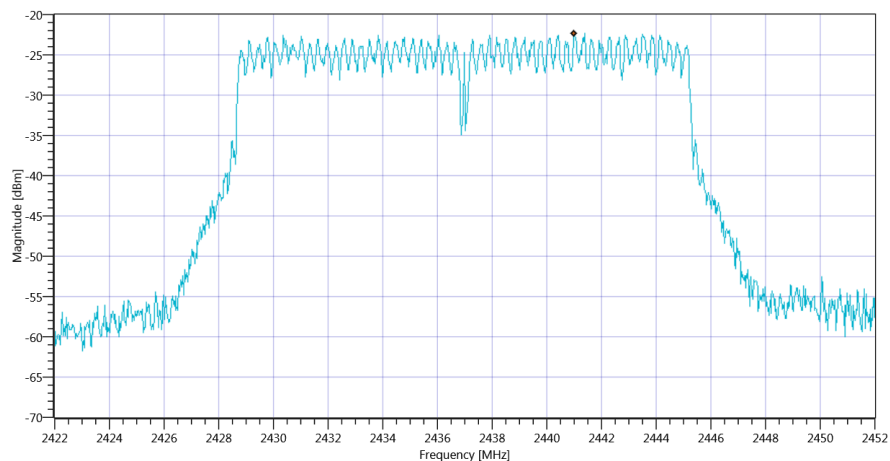
Test at TX 2437 MHz

READ SA SETTINGS:

Ref. Level [dBm]	8.00
Ref. Lev. offs [dB]	9.89
Input Attenuation [dB]	15
Freq. Start [MHz]	2422.000
Freq. Stop [MHz]	2452.000
Resolution BW. [MHz]	0.003000
Video BW. [MHz]	0.010000
Detector	POS
Sweep Time [ms]	1000
Sweep Points/Section	1001
Sweep Count	20
Sweep Mode	MAXH
Used Sweep Type	SWE

RESULT: TC_VM_FCC15247_Peak_Power_Spectral_Density_DTS_V01

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Max Peak power Density	---	8	-22.34	dBm/3KHz	PASS



Plot_FCC Part 15.247 Peak Power Spectral Density DTS ~ WLAN2G4 g-mode_04072019_115750.png

TEST FINISHED

General Verdict

04.07.2019 11:57:50 / RT: 34 s

PASS

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

Test References	
TC Start	04.07.2019 11:57:54
System Version	1.0.0.16
Test Specification	FCC Part 15.247
Test Method	
Class / TC Version / TC ID	TC_VM_FCC15247_Bandwidth_99PCT_20dB_DTS_FHSS_V01 Version: 0.0.2 TCID_FCC15247_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	mid
Voltage	mid
Frequency low to test	False Freq [MHz] 2412
Frequency mid to test	True Freq [MHz] 2437
Frequency high to test	False Freq [MHz] 2462
Pattern	PRBS9
Switched Path	IUT - SignalingUnit - SpectrumAnalyzer
Devices in use	SigBT: Rohde&Schwarz,CBT-1153.9000.35,100185,CBT 6X02.P02 SA: Rohde&Schwarz,FSV-30,1321.3008K30/103170,3.40

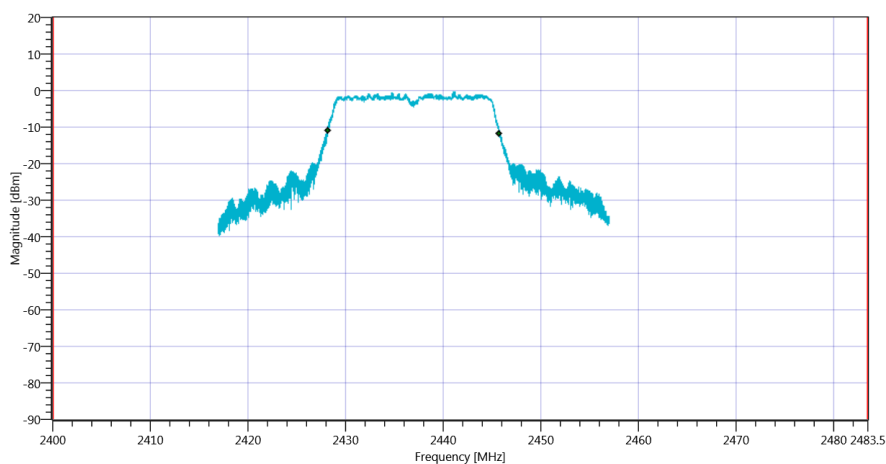
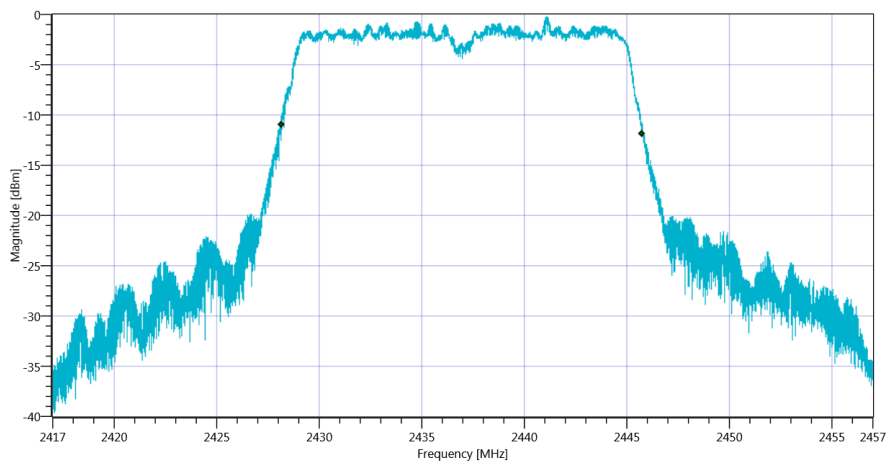
Test at TX 2437 MHz

READ SA SETTINGS:

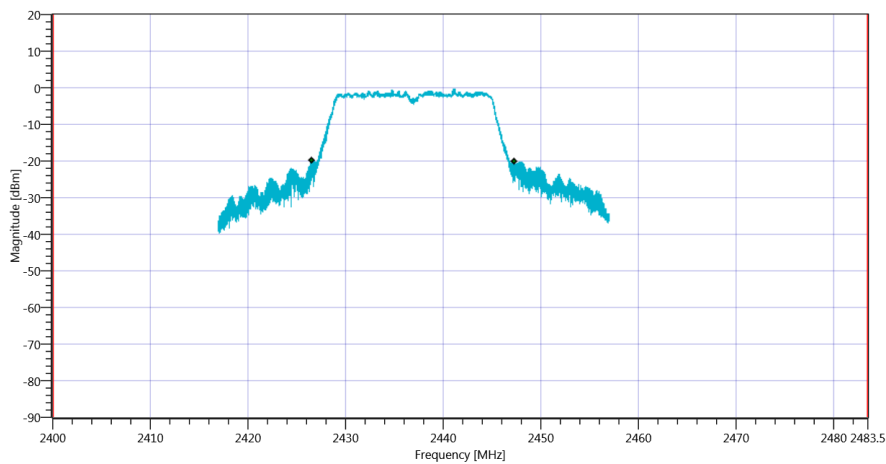
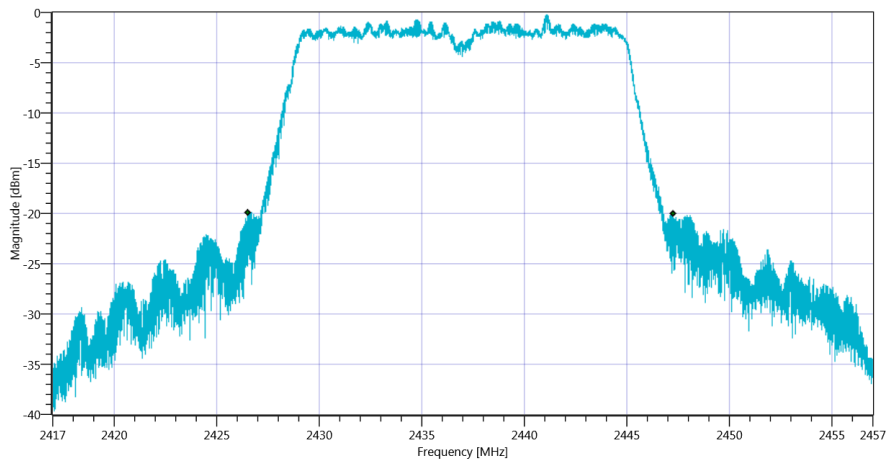
Ref. Level [dBm]	7.80
Ref. Lev. offs [dB]	9.89
Input Attenuation [dB]	15
Freq. Start [MHz]	2417.000
Freq. Stop [MHz]	2457.000
Resolution BW. [MHz]	0.500000
Video BW. [MHz]	1.000000
Detector	POS
Sweep Time [ms]	50
Sweep Points/Section	10001
Sweep Count	200
Sweep Mode	MAXH
Used Sweep Type	SWE

RESULT: TC_VM_FCC15247_Bandwidth_99PCT_20dB_DTS_FHSS_V01

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 99%	---	---	17590	kHz	Information
T1 99%	2400.000000	---	2428.1689	MHz	PASS
T2 99%	---	2483.500000	2445.7591	MHz	PASS



RESULT: TC_VM_FCC15247_Bandwidth_99PCT_20dB_DTS_FHSS_V01					
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 20dB	---	---	20756	kHz	Information
T1 20dB	2400.000000	---	2426.5120	MHz	PASS
T2 20dB	---	2483.500000	2447.2680	MHz	PASS



TEST FINISHED		
General Verdict	04.07.2019 11:58:29 / RT: 34 s	PASS

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

Test References	
TC Start	04.07.2019 11:58:32
System Version	1.0.0.16
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.
Class / TC Version / TC ID	TC_VM_FCC15247_TX_Emissions_Conducted_V01 Version: 0.0.1 TCID_FCC15247_8
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	mid
Voltage	mid
Frequency low to test	False Freq [MHz] 2412
Frequency mid to test	True Freq [MHz] 2437
Frequency high to test	False Freq [MHz] 2462
Pattern	PRBS9
Switched Path	IUT - SignalingUnit - SpectrumAnalyzer
Devices in use	SigBT: Rohde&Schwarz,CBT-1153.9000.35,100185,CBT 6X02.P02 SA: Rohde&Schwarz,FSV-30,1321.3008K30/103170,3.40

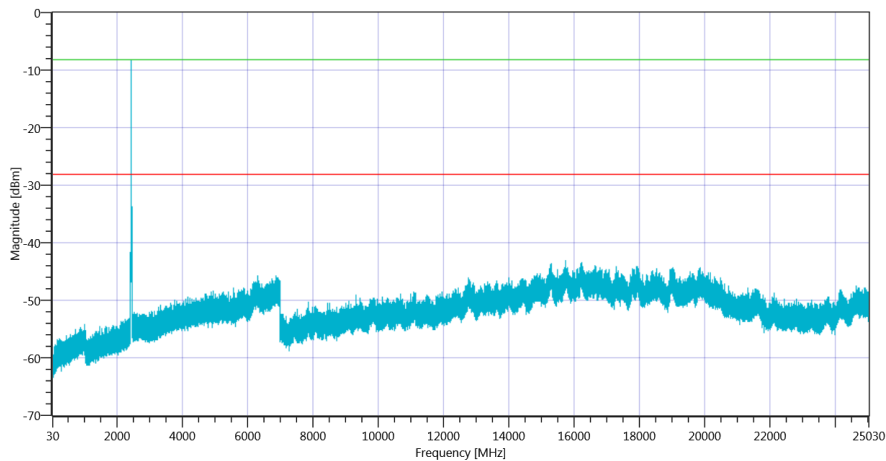
Test at TX 2437 MHz

READ SA SETTINGS:

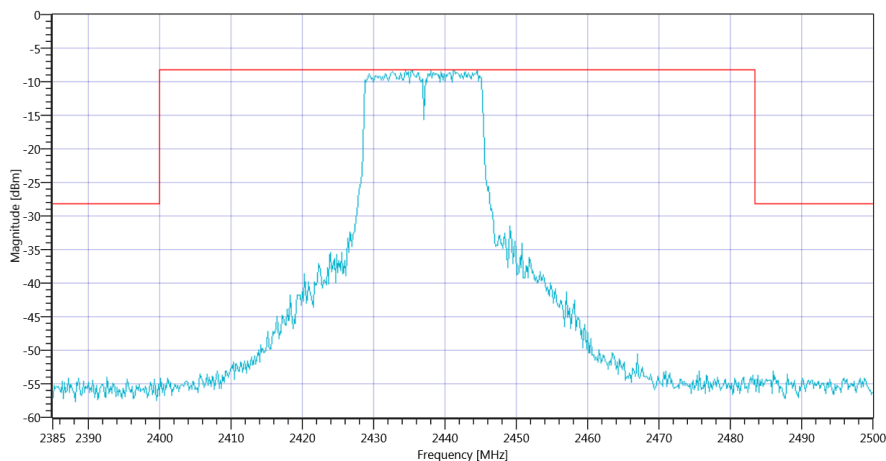
Ref. Level [dBm]	8.07
Resolution BW. [MHz]	0.100000
Video BW. [MHz]	0.300000
Detector	POS
Sweep Time [ms]	500
Sweep Points/Section	3001
Sweep Count	8
Sweep Mode	MAXH
Used Sweep Type	SWE

RESULT: TC_VM_FCC15247_TX_Emissions_Conducted_V01

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Reference @ 2441.33 MHz	---	---	-8.21	dBm	Information
No peaks detected	---	---			PASS



Plot_FCC Part 15.247 TX Spurious Conducted ~ WLAN2G4 g-mode 2437_04072019_120317.png



Plot_FCC Part 15.247 TX Spurious Conducted ~ WLAN2G4 g-mode 2437_04072019_120320.png

TEST FINISHED

General Verdict

04.07.2019 12:03:21 / RT: 288 s

PASS

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

Test References	
TC Start	04.07.2019 12:04:03
System Version	1.0.0.16
Test Specification	FCC Part 15.247
Test Method	DTS: KDB 558074 D01 V05 - Chapter 8.3.1.3 PKPM1 Peak-reading Power Meter Method
Class / TC Version / TC ID	TC_VM_FCC15247_Maximum_Peak_Conducted_Output_Power_Powermeter_DTS_V01 Version: 0.0.1 TCID_FCC15247_3
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	mid
Voltage	mid
Frequency low to test	False Freq [MHz] 2412
Frequency mid to test	True Freq [MHz] 2437
Frequency high to test	False Freq [MHz] 2462
Pattern	PRBS9
Switched Path	IUT - SignalingUnit - PowerMeter
Devices in use	SigBT: Rohde&Schwarz,CBT-1153.9000.35,100185,CBT 6X02.P02 NRP-Z81,102585

Test at TX 2437 MHz

RESULT: TC_VM_FCC15247_Maximum_Peak_Conducted_Output_Power_Powermeter_DTS_V01

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Found Peak cond.	---	---	17.59	dBm	PASS

TEST FINISHED

General Verdict 04.07.2019 12:04:07 / RT: 3 s

PASS

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

Test References	
TC Start	04.07.2019 12:09:43
System Version	1.0.0.16
Test Specification	FCC Part 15.247
Test Method	99
Class / TC Version / TC ID	TC_VM_FCC15247_Bandwidth_6dB_DTS_V01 Version: 0.0.1 TCID_FCC15247_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	mid
Voltage	mid
Frequency low to test	False Freq [MHz] 2412
Frequency mid to test	False Freq [MHz] 2437
Frequency high to test	True Freq [MHz] 2462
Pattern	PRBS9
Switched Path	IUT - SignalingUnit - SpectrumAnalyzer
Devices in use	SigBT: Rohde&Schwarz,CBT-1153.9000.35,100185,CBT 6X02.P02 SA: Rohde&Schwarz,FSV-30,1321.3008K30/103170,3.40

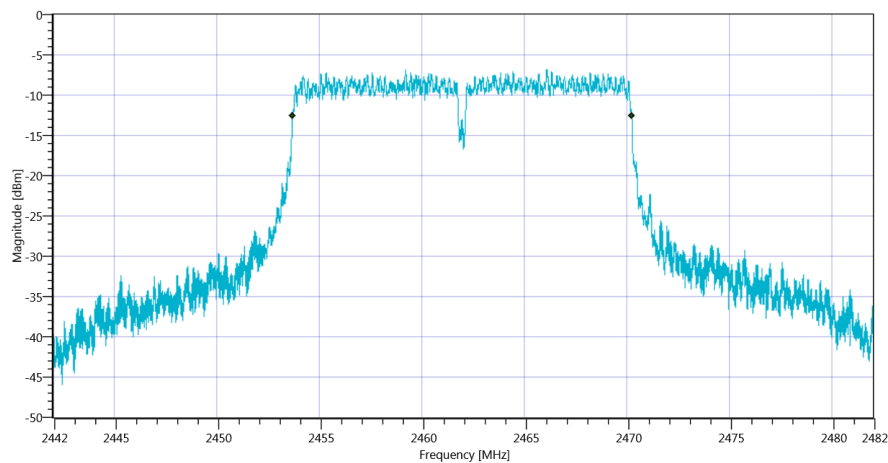
Test at TX 2462 MHz

READ SA SETTINGS:

Ref. Level [dBm]	8.74
Ref. Lev. offs [dB]	9.94
Input Attenuation [dB]	15
Freq. Start [MHz]	2442.000
Freq. Stop [MHz]	2482.000
Resolution BW. [MHz]	0.100000
Video BW. [MHz]	0.300000
Detector	POS
Sweep Time [ms]	50
Sweep Points/Section	10001
Sweep Count	200
Sweep Mode	MAXH
Used Sweep Type	SWE

RESULT: TC_VM_FCC15247_Bandwidth_6dB_DTS_V01

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
DTS Bandwidth (6dB)	500	---	16548	kHz	PASS



Plot_FCC Part 15.247 Bandwidth 6dB DTS ~ WLAN2G4 g-mode_04072019_121010.png

TEST FINISHED

General Verdict

04.07.2019 12:10:10 / RT: 26 s

PASS

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

Test References	
TC Start	04.07.2019 12:10:14
System Version	1.0.0.16
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
Class / TC Version / TC ID	TC_VM_FCC15247_Peak_Power_Spectral_Density_DTS_V01 Version: 0.0.1 TCID_FCC15247_6
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	mid
Voltage	mid
Frequency low to test	False Freq [MHz] 2412
Frequency mid to test	False Freq [MHz] 2437
Frequency high to test	True Freq [MHz] 2462
Pattern	PRBS9
Switched Path	IUT - SignalingUnit - SpectrumAnalyzer
Devices in use	SigBT: Rohde&Schwarz,CBT-1153.9000.35,100185,CBT 6X02.P02 SA: Rohde&Schwarz,FSV-30,1321.3008K30/103170,3.40

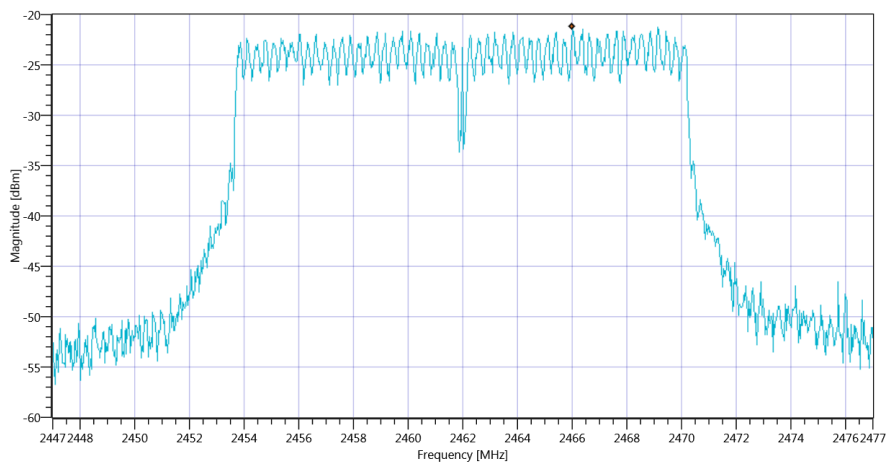
Test at TX 2462 MHz

READ SA SETTINGS:

Ref. Level [dBm]	8.89
Ref. Lev. offs [dB]	9.94
Input Attenuation [dB]	15
Freq. Start [MHz]	2447.000
Freq. Stop [MHz]	2477.000
Resolution BW. [MHz]	0.003000
Video BW. [MHz]	0.010000
Detector	POS
Sweep Time [ms]	1000
Sweep Points/Section	1001
Sweep Count	20
Sweep Mode	MAXH
Used Sweep Type	SWE

RESULT: TC_VM_FCC15247_Peak_Power_Spectral_Density_DTS_V01

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Max Peak power Density	---	8	-21.21	dBm/3KHz	PASS



Plot_FCC Part 15.247 Peak Power Spectral Density DTS ~ WLAN2G4 g-mode_04072019_121048.png

TEST FINISHED

General Verdict

04.07.2019 12:10:49 / RT: 34 s

PASS

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

Test References	
TC Start	04.07.2019 12:10:52
System Version	1.0.0.16
Test Specification	FCC Part 15.247
Test Method	
Class / TC Version / TC ID	TC_VM_FCC15247_Bandwidth_99PCT_20dB_DTS_FHSS_V01 Version: 0.0.2 TCID_FCC15247_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	mid
Voltage	mid
Frequency low to test	False Freq [MHz] 2412
Frequency mid to test	False Freq [MHz] 2437
Frequency high to test	True Freq [MHz] 2462
Pattern	PRBS9
Switched Path	IUT - SignalingUnit - SpectrumAnalyzer
Devices in use	SigBT: Rohde&Schwarz,CBT-1153.9000.35,100185,CBT 6X02.P02 SA: Rohde&Schwarz,FSV-30,1321.3008K30/103170,3.40

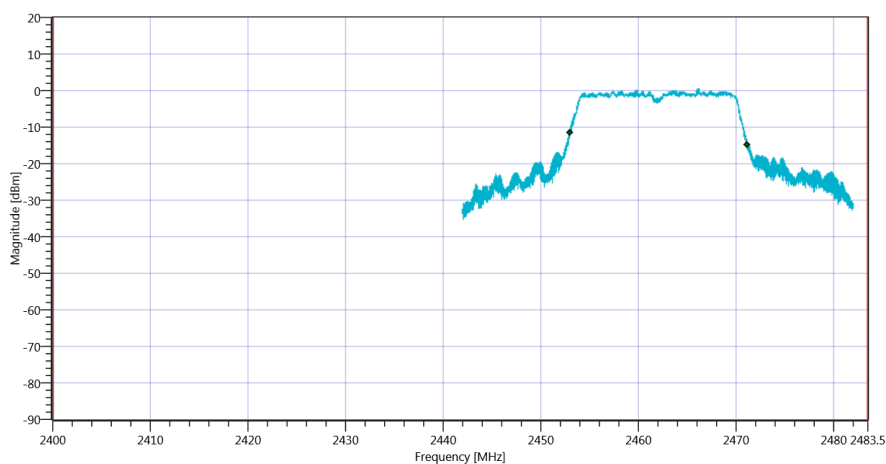
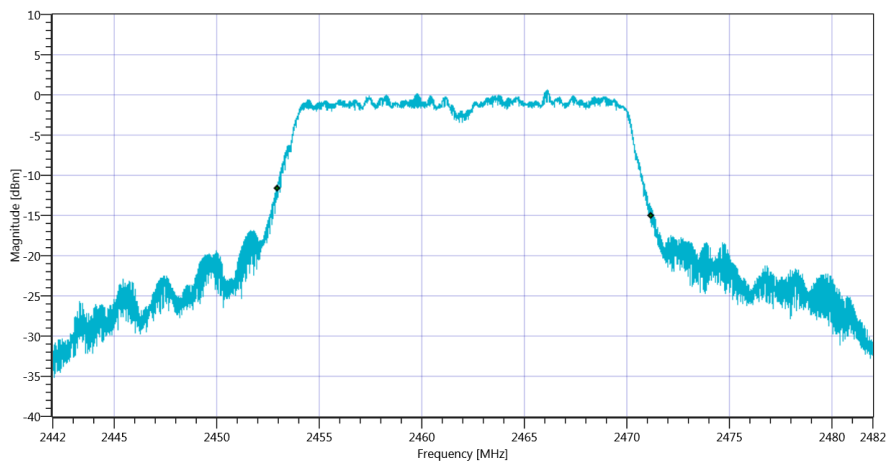
Test at TX 2462 MHz

READ SA SETTINGS:

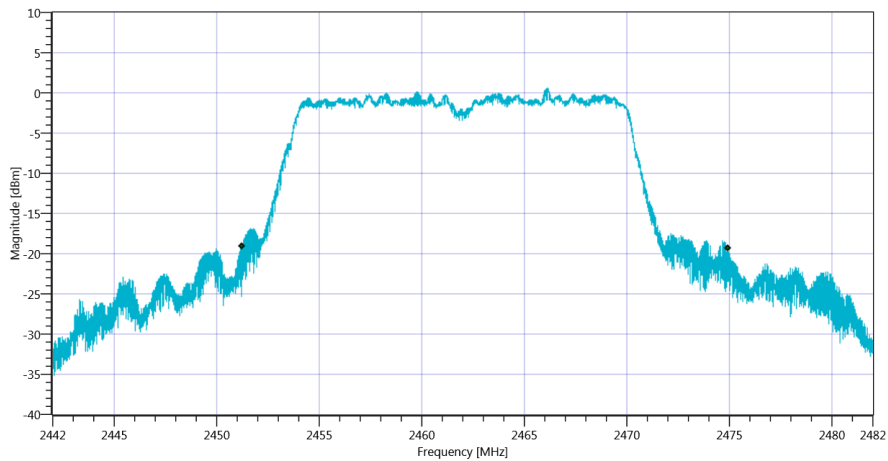
Ref. Level [dBm]	9.12
Ref. Lev. offs [dB]	9.94
Input Attenuation [dB]	15
Freq. Start [MHz]	2442.000
Freq. Stop [MHz]	2482.000
Resolution BW. [MHz]	0.500000
Video BW. [MHz]	1.000000
Detector	POS
Sweep Time [ms]	50
Sweep Points/Section	10001
Sweep Count	200
Sweep Mode	MAXH
Used Sweep Type	SWE

RESULT: TC_VM_FCC15247_Bandwidth_99PCT_20dB_DTS_FHSS_V01

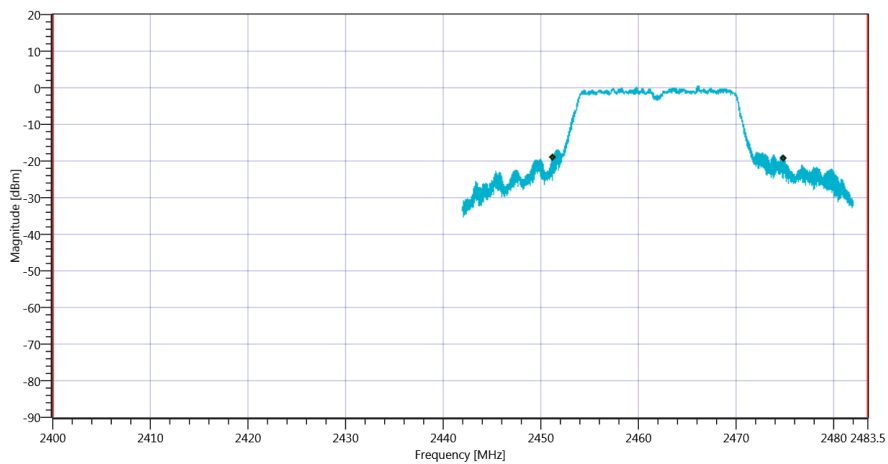
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 99%	---	---	18218	kHz	Information
T1 99%	2400.000000	---	2452.9529	MHz	PASS
T2 99%	---	2483.500000	2471.1711	MHz	PASS



RESULT: TC_VM_FCC15247_Bandwidth_99PCT_20dB_DTS_FHSS_V01					
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 20dB	---	---	23704	kHz	Information
T1 20dB	2400.000000	---	2451.2120	MHz	PASS
T2 20dB	---	2483.500000	2474.9160	MHz	PASS



Plot_FCC Part 15.247 Bandwidth 99PCT-20dB ~ WLAN2G4 g-mode 20dB_04072019_121124.png



Plot_FCC Part 15.247 Bandwidth 99PCT-20dB ~ WLAN2G4 g-mode 04072019_121127.png

TEST FINISHED		
General Verdict	04.07.2019 12:11:27 / RT: 34 s	PASS

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

Test References	
TC Start	04.07.2019 12:11:31
System Version	1.0.0.16
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.
Class / TC Version / TC ID	TC_VM_FCC15247_TX_Emissions_Conducted_V01 Version: 0.0.1 TCID_FCC15247_8
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	mid
Voltage	mid
Frequency low to test	False Freq [MHz] 2412
Frequency mid to test	False Freq [MHz] 2437
Frequency high to test	True Freq [MHz] 2462
Pattern	PRBS9
Switched Path	IUT - SignalingUnit - SpectrumAnalyzer
Devices in use	SigBT: Rohde&Schwarz,CBT-1153.9000.35,100185,CBT 6X02.P02 SA: Rohde&Schwarz,FSV-30,1321.3008K30/103170,3.40

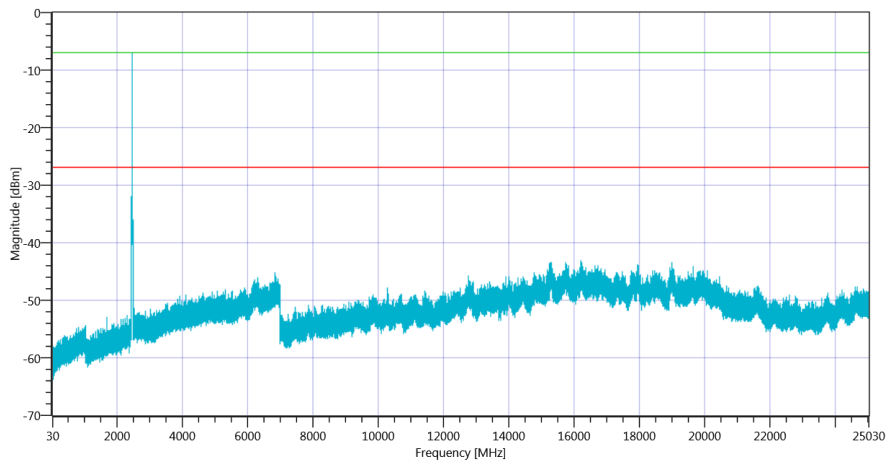
Test at TX 2462 MHz

READ SA SETTINGS:

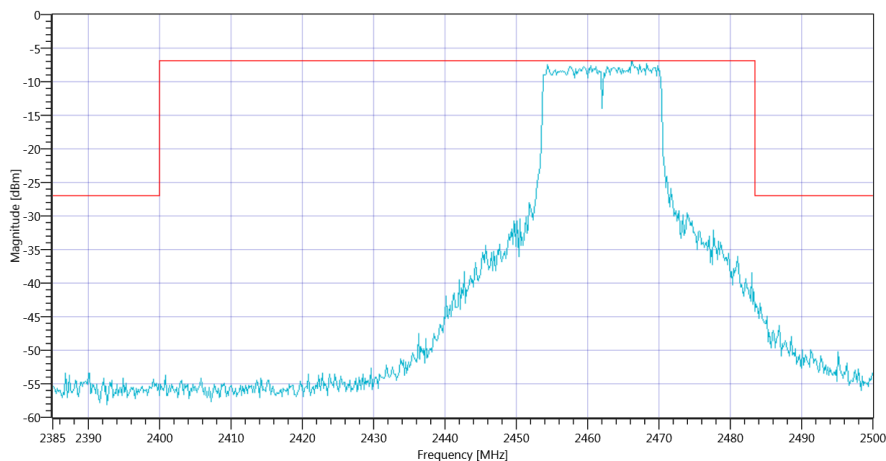
Ref. Level [dBm]	8.90
Resolution BW. [MHz]	0.100000
Video BW. [MHz]	0.300000
Detector	POS
Sweep Time [ms]	500
Sweep Points/Section	3001
Sweep Count	8
Sweep Mode	MAXH
Used Sweep Type	SWE

RESULT: TC_VM_FCC15247_TX_Emissions_Conducted_V01

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Reference @ 2466.17 MHz	---	---	-6.91	dBm	Information
No peaks detected	---	---			PASS



Plot_FCC Part 15.247 TX Spurious Conducted ~ WLAN2G4 g-mode 2462_04072019_121616.png



Plot_FCC Part 15.247 TX Spurious Conducted ~ WLAN2G4 g-mode 2462_04072019_121618.png

TEST FINISHED

General Verdict

04.07.2019 12:16:20 / RT: 288 s

PASS

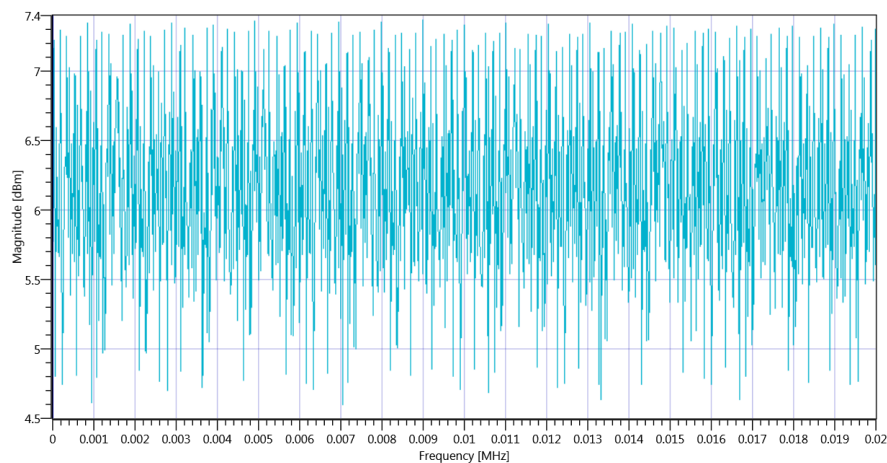
33. FCC Part 15.247 Restricted Band Edge Conducted Avg DC corrected DTS ~ WLAN2G4 g-mode

Test References	
TC Start	04.07.2019 12:16:23
System Version	1.0.0.16
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
Class / TC Version / TC ID	TC_VM_FCC15247_Restricted_Band_Edge_Conducted_Avg_DC_corrected_V01 Version: 0.0.1 TCID_FCC15247_7
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	mid
Voltage	mid
Frequency low to test	False Freq [MHz] 2412
Frequency mid to test	False Freq [MHz] 2437
Frequency high to test	True Freq [MHz] 2462
Pattern	PRBS9
Switched Path	IUT - SignalingUnit - SpectrumAnalyzer
Devices in use	SigBT: Rohde&Schwarz,CBT-1153.9000.35,100185,CBT 6X02.P02 SA: Rohde&Schwarz,FSV-30,1321.3008K30/103170,3.40

Test at TX 2462 MHz

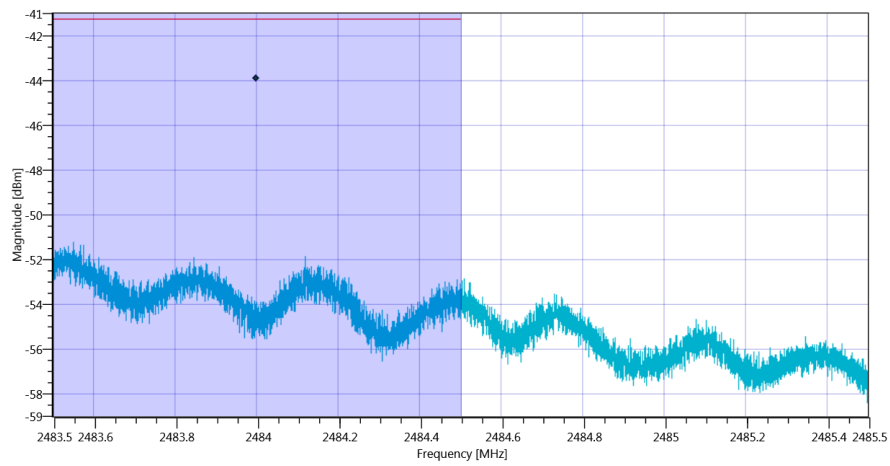
RESULT: Duty Cycle evaluation					
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
No enough Bursts detected, Duty Cycle Burst Ratio set to 1					
Duty Cycle (Burst Ratio) max	---	---	1	---	Information
Duty Cycle max	---	---	0	dB	Information
Duty Cycle (Burst Ratio) min	---	---	1	---	Information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



Plot_FCC Part 15.247 Restricted Band Edge Conducted Avg DC corrected DTS ~ WLAN2G4 g-mode 2462 MHz - Duty Cycle_04072019_121636.png

READ SA SETTINGS:	
Ref. Level [dBm]	13.85
Ref. Lev. offs [dB]	9.94
Input Attenuation [dB]	20
Freq. Start [MHz]	2483.500
Freq. Stop [MHz]	2485.500
Resolution BW. [MHz]	0.100000
Video BW. [MHz]	0.500000
Detector	RMS
Sweep Time [ms]	32
Sweep Points/Section	32000
Sweep Count	300
Sweep Mode	AVER
Used Sweep Type	SWE
Marker Method	Band Power

RESULT: TC_VM_FCC15247_Restricted_Band_Edge_Conducted_Avg_DC_corrected_V01					
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Duty Cycle worst case	---	---	0	dB	Information
Band Power without Antenna Gain Avg	---	---	-43.9	dBm	Information
Band Power without Antenna Gain Avg DC corrected	---	---	-43.9	dBm	Information
Band Power incl. Antenna Gain Avg DC corrected	---	-41.23	-43.9	dBm	PASS



Plot_FCC Part 15.247 Restricted Band Edge Conducted Avg DC corrected DTS ~ WLAN2G4 g-mode_04072019_121658.png

TEST FINISHED

General Verdict

04.07.2019 12:16:58 / RT: 34 s

PASS