

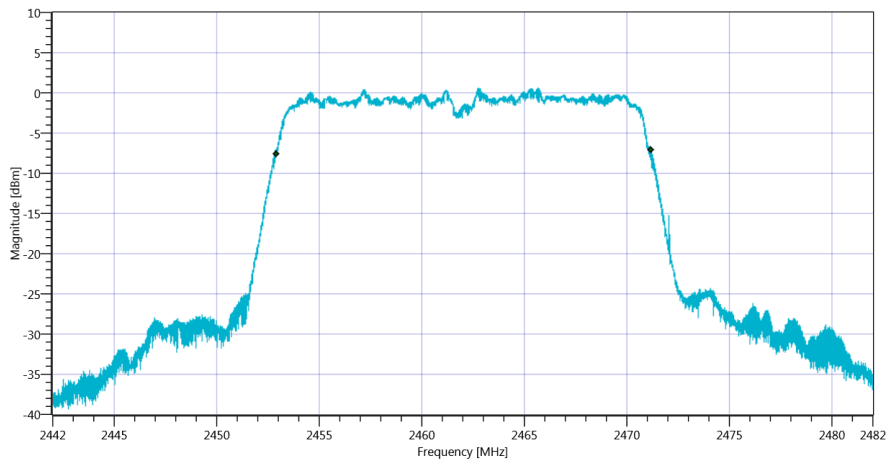
Test at TX 2462 MHz

READ SA SETTINGS:

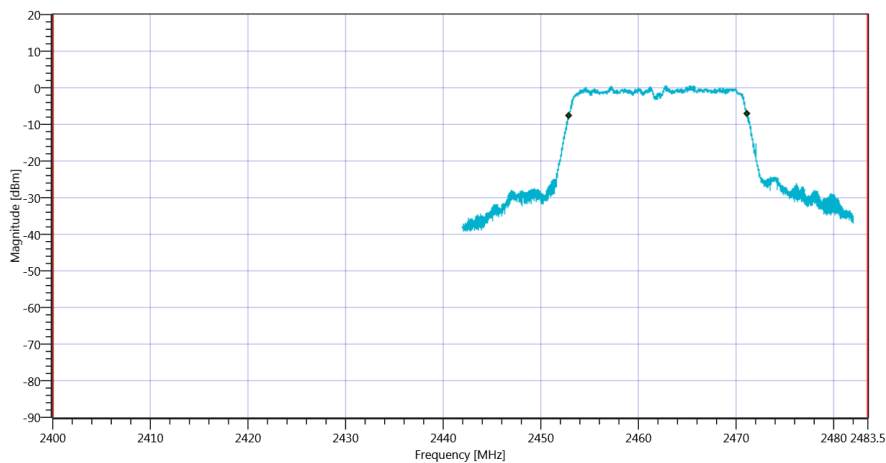
RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	9.13 9.94 15
Start [MHz] Stop [MHz]	2442.000 2482.000
RBW [MHz] VBW [MHz]	0.500000 1.000000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	50 200 10001 SWE

RESULT: TC_VM_FCC15247_Bandwidth_99PCT_20dB_DTS_FHSS_V01

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 99%	---	---	18274	kHz	Information
T1 99%	2400.000000	---	2452.8969	MHz	PASS
T2 99%	---	2483.500000	2471.1711	MHz	PASS



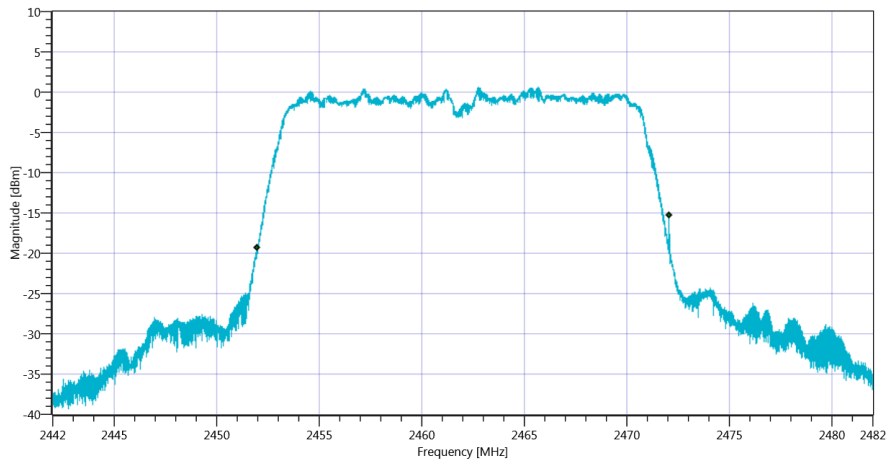
Plot_FCC Part 15.247 Bandwidth 99PCT-20dB ~ WLAN2G4 nHT20-mode 99PCT_02092019_152459.png



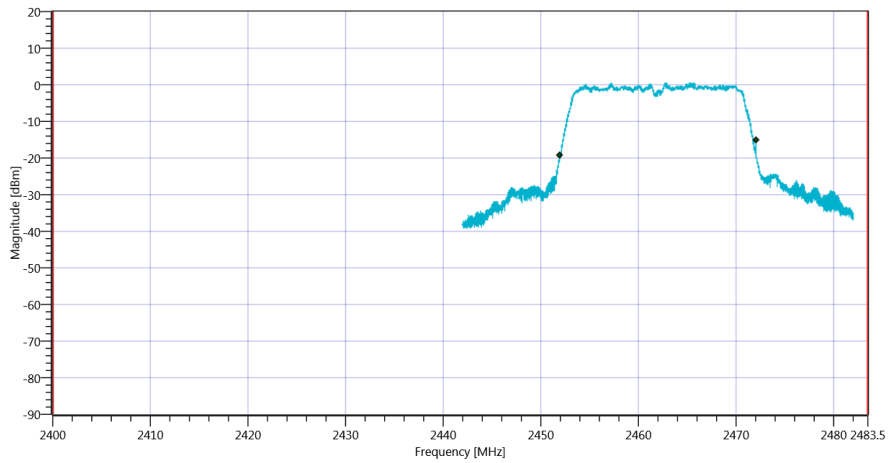
Plot_FCC Part 15.247 Bandwidth 99PCT-20dB ~ WLAN2G4 nHT20-mode_02092019_152502.png

RESULT: TC_VM_FCC15247_Bandwidth_99PCT_20dB_DTS_FHSS_V01

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 20dB	---	---	20100	kHz	Information
T1 20dB	2400.000000	---	2451.9720	MHz	PASS
T2 20dB	---	2483.500000	2472.0720	MHz	PASS



Plot_FCC Part 15.247 Bandwidth 99PCT-20dB ~ WLAN2G4 nHT20-mode 20dB_02092019_152506.png



Plot_FCC Part 15.247 Bandwidth 99PCT-20dB ~ WLAN2G4 nHT20-mode_02092019_152509.png

TEST FINISHED

General Verdict

02.09.2019 15:25:09 / RT: 34 s

PASS

54. FCC Part 15.247 TX Spurious Conducted ~ WLAN2G4 nHT20-mode

Test References	
TC Start	02.09.2019 15:25:13
System Version	1.0.0.20
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 nHT20_mode
Add. Information	

Test Parameter	
Technology to test	WLAN2G4 nHT20-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
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

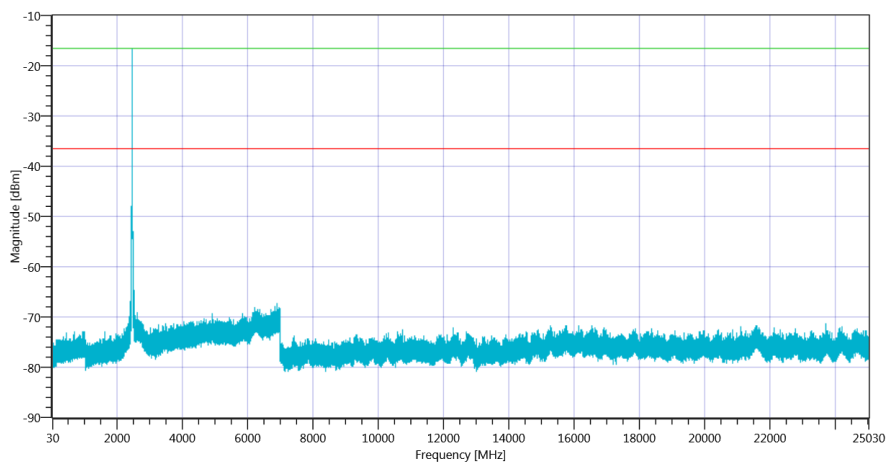
Test at TX 2462 MHz

READ SA SETTINGS:

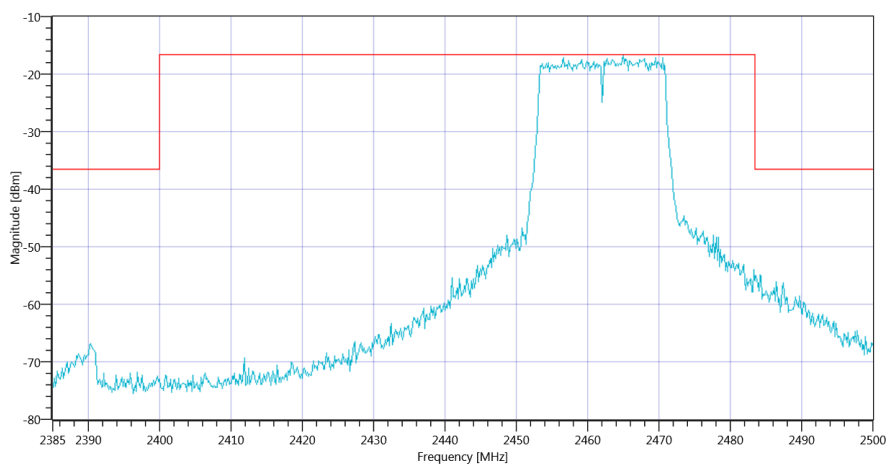
RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	-0.82 0 15
Start [MHz] Stop [MHz]	24530.000 25030.000
RBW [MHz] VBW [MHz]	0.100000 0.300000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	500 8 3001 SWE

RESULT: TC_VM_FCC15247_TX_Emissions_Conducted_V01

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Reference @ 2465.00 MHz	---	---	-16.53	dBm	Information
No peaks detected	---	---			PASS



Plot_FCC Part 15.247 TX Spurious Conducted ~ WLAN2G4 nHT20-mode 2462_02092019_152958.png



Plot_FCC Part 15.247 TX Spurious Conducted ~ WLAN2G4 nHT20-mode 2462_02092019_153000.png

TEST FINISHED

General Verdict	02.09.2019 15:30:01 / RT: 288 s	PASS
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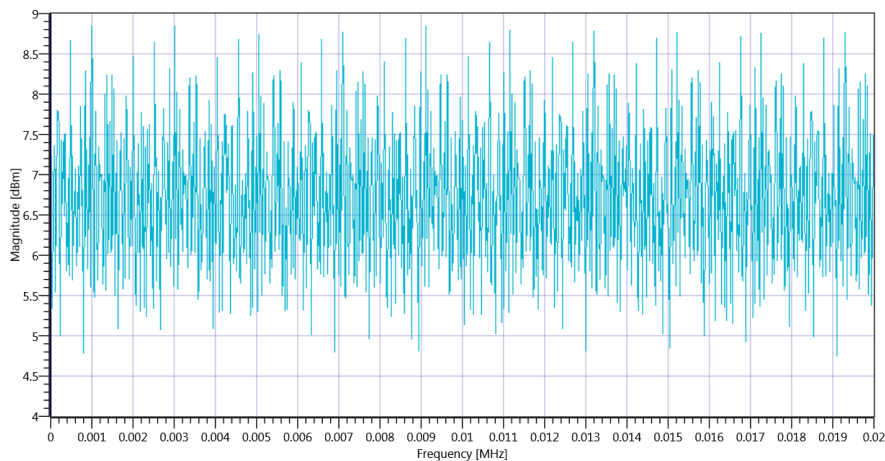
55. FCC Part 15.247 Restricted Band Edge Conducted Avg DC corrected DTS ~ WLAN2G4 nHT20-mode

Test References	
TC Start	02.09.2019 15:30:05
System Version	1.0.0.20
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 nHT20_mode
Add. Information	

Test Parameter	
Technology to test	WLAN2G4 nHT20-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
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

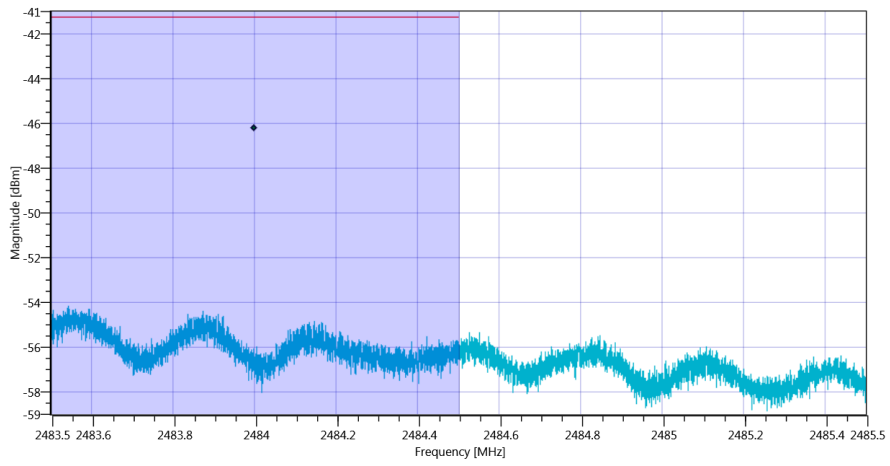
RESULT: Duty Cycle evaluation					
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
No enough Bursts detected, Duty Cycle Burst Ratio set to 1					
Duty Cycle (Burst Ratio) max	---	---	1	---	Information
Duty Cycle max	---	---	0	dB	Information
Duty Cycle (Burst Ratio) min	---	---	1	---	Information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



Plot_FCC Part 15.247 Restricted Band Edge Conducted Avg DC corrected DTS ~ WLAN2G4 nHT20-mode 2462 MHz - Duty Cycle_02092019_153018.png

READ SA SETTINGS:	
RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	14.08 9.94 20
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
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	---	---	-46.22	dBm	Information
Band Power without Antenna Gain Avg DC corrected	---	---	-46.22	dBm	Information
Band Power incl. Antenna Gain Avg DC corrected	---	-41.23	-46.22	dBm	PASS



Plot_FCC Part 15.247 Restricted Band Edge Conducted Avg DC corrected DTS ~ WLAN2G4 nHT20-mode_02092019_153040.png

TEST FINISHED

General Verdict

02.09.2019 15:30:40 / RT: 34 s

PASS

56. FCC Part 15.247 Maximum Peak Conducted Output Power Powermeter DTS ~ WLAN2G4 nHT20-mode

Test References	
TC Start	02.09.2019 15:30:44
System Version	1.0.0.20
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 nHT20-mode
Add. Information	

Test Parameter	
Technology to test	WLAN2G4 nHT20-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
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.	--	--	17.19	dBm	PASS

TEST FINISHED		
General Verdict	02.09.2019 15:30:48 / RT: 4 s	PASS

57. FCC Part 15.247 Bandwidth 6dB DTS ~ WLAN2G4 nHT40-mode

Test References	
TC Start	02.09.2019 15:32:40
System Version	1.0.0.20
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 nHT40_mode
Add. Information	

Test Parameter	
Technology to test	WLAN2G4 nHT40-mode
Antenna Port used	1
Temperature	mid
Voltage	mid
Frequency low to test	True Freq [MHz] 2422
Frequency mid to test	False Freq [MHz] 2437
Frequency high to test	False Freq [MHz] 2452
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

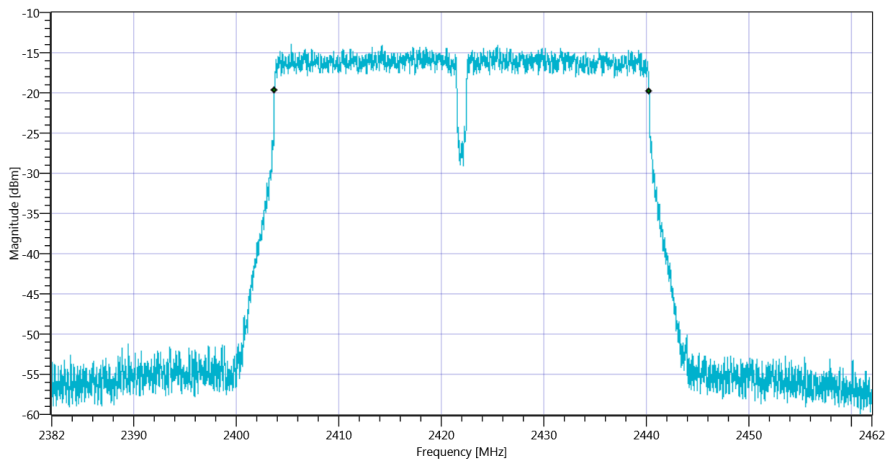
Test at TX 2422 MHz

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	1.70 9.85 10
Start [MHz] Stop [MHz]	2382.000 2462.000
RBW [MHz] VBW [MHz]	0.100000 0.300000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	50 200 10001 SWE

RESULT: TC_VM_FCC15247_Bandwidth_6dB_DTS_V01

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
DTS Bandwidth (6dB)	500	---	36552	kHz	PASS



Plot_FCC Part 15.247 Bandwidth 6dB DTS ~ WLAN2G4 nHT40-mode_02092019_153304.png

TEST FINISHED

General Verdict

02.09.2019 15:33:04 / RT: 24 s

PASS

58. FCC Part 15.247 Peak Power Spectral Density DTS ~ WLAN2G4 nHT40-mode

Test References	
TC Start	02.09.2019 15:33:07
System Version	1.0.0.20
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 nHT40_mode
Add. Information	

Test Parameter	
Technology to test	WLAN2G4 nHT40-mode
Antenna Port used	1
Temperature	mid
Voltage	mid
Frequency low to test	True Freq [MHz] 2422
Frequency mid to test	False Freq [MHz] 2437
Frequency high to test	False Freq [MHz] 2452
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

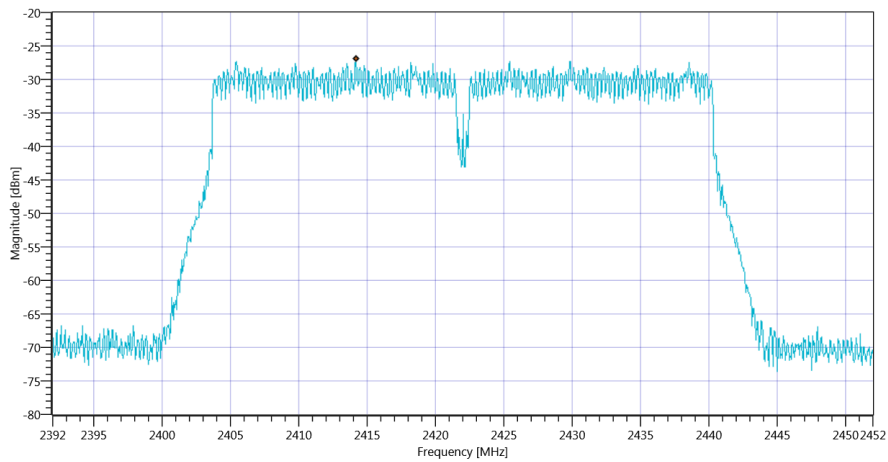
Test at TX 2422 MHz

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	1.76 9.85 10
Start [MHz] Stop [MHz]	2392.000 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: TC_VM_FCC15247_Peak_Power_Spectral_Density_DTS_V01

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Max Peak power Density	---	8	-26.89	dBm/3KHz	PASS



Plot_FCC Part 15.247 Peak Power Spectral Density DTS ~ WLAN2G4 nHT40-mode_02092019_153344.png

TEST FINISHED

General Verdict	02.09.2019 15:33:44 / RT: 36 s	PASS
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59. FCC Part 15.247 Bandwidth 99PCT-20dB ~ WLAN2G4 nHT40-mode

Test References	
TC Start	02.09.2019 15:33:47
System Version	1.0.0.20
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 nHT40_mode
Add. Information	

Test Parameter	
Technology to test	WLAN2G4 nHT40-mode
Antenna Port used	1
Temperature	mid
Voltage	mid
Frequency low to test	True Freq [MHz] 2422
Frequency mid to test	False Freq [MHz] 2437
Frequency high to test	False Freq [MHz] 2452
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

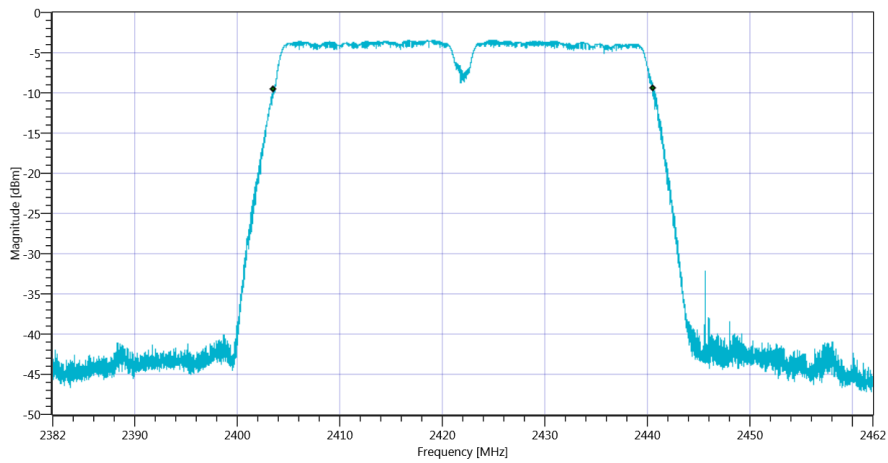
Test at TX 2422 MHz

READ SA SETTINGS:

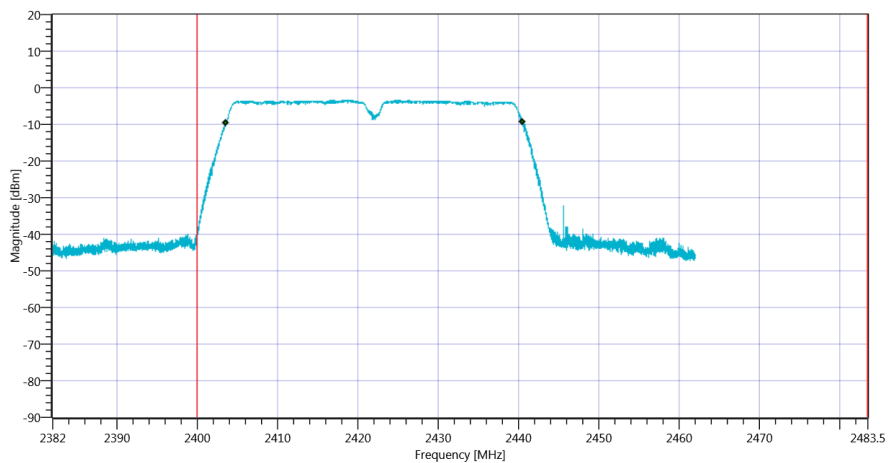
RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	1.80 9.85 10
Start [MHz] Stop [MHz]	2382.000 2462.000
RBW [MHz] VBW [MHz]	1.000000 2.000000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	50 200 10001 SWE

RESULT: TC_VM_FCC15247_Bandwidth_99PCT_20dB_DTS_FHSS_V01

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 99%	---	---	36980	kHz	Information
T1 99%	2400.000000	---	2403.5618	MHz	PASS
T2 99%	---	2483.500000	2440.5421	MHz	PASS



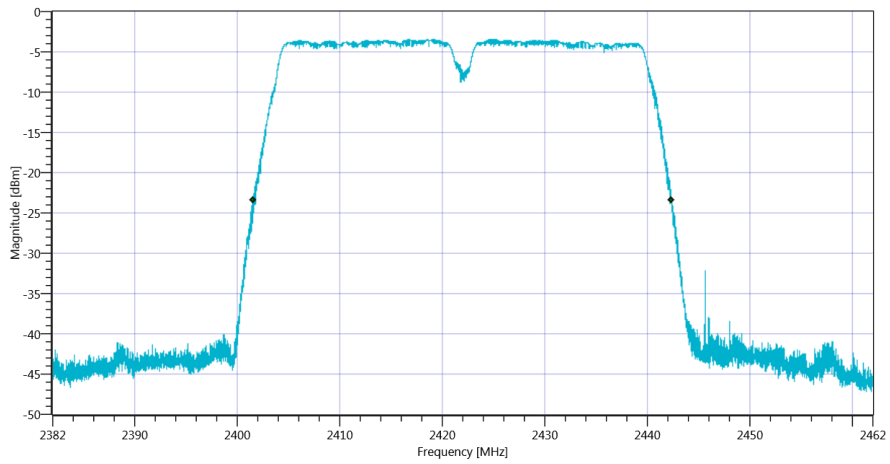
Plot_FCC Part 15.247 Bandwidth 99PCT-20dB ~ WLAN2G4 nHT40-mode 99PCT_02092019_153411.png



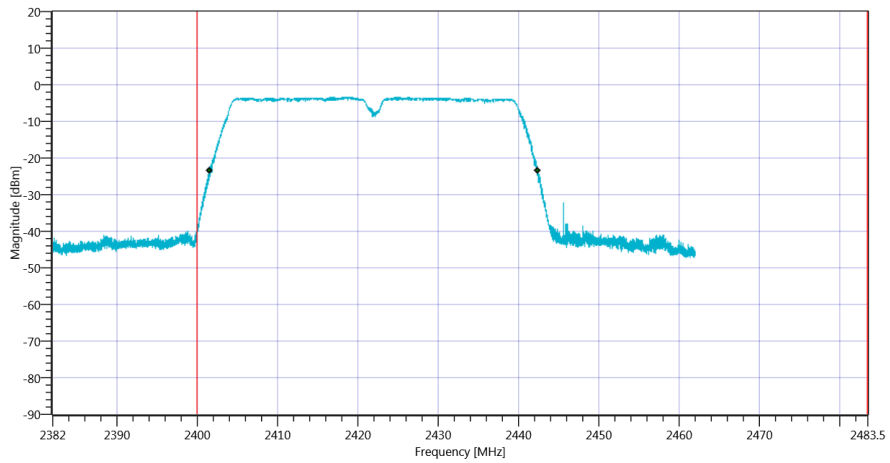
Plot_FCC Part 15.247 Bandwidth 99PCT-20dB ~ WLAN2G4 nHT40-mode_02092019_153414.png

RESULT: TC_VM_FCC15247_Bandwidth_99PCT_20dB_DTS_FHSS_V01

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 20dB	---	---	40856	kHz	Information
T1 20dB	2400.000000	---	2401.5280	MHz	PASS
T2 20dB	---	2483.500000	2442.3840	MHz	PASS



Plot_FCC Part 15.247 Bandwidth 99PCT-20dB ~ WLAN2G4 nHT40-mode 20dB_02092019_153418.png



Plot_FCC Part 15.247 Bandwidth 99PCT-20dB ~ WLAN2G4 nHT40-mode_02092019_153421.png

TEST FINISHED

General Verdict

02.09.2019 15:34:22 / RT: 34 s

PASS

60. FCC Part 15.247 TX Spurious Conducted ~ WLAN2G4 nHT40-mode

Test References	
TC Start	02.09.2019 15:34:25
System Version	1.0.0.20
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 nHT40_mode
Add. Information	

Test Parameter	
Technology to test	WLAN2G4 nHT40-mode
Antenna Port used	1
Temperature	mid
Voltage	mid
Frequency low to test	True Freq [MHz] 2422
Frequency mid to test	False Freq [MHz] 2437
Frequency high to test	False Freq [MHz] 2452
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

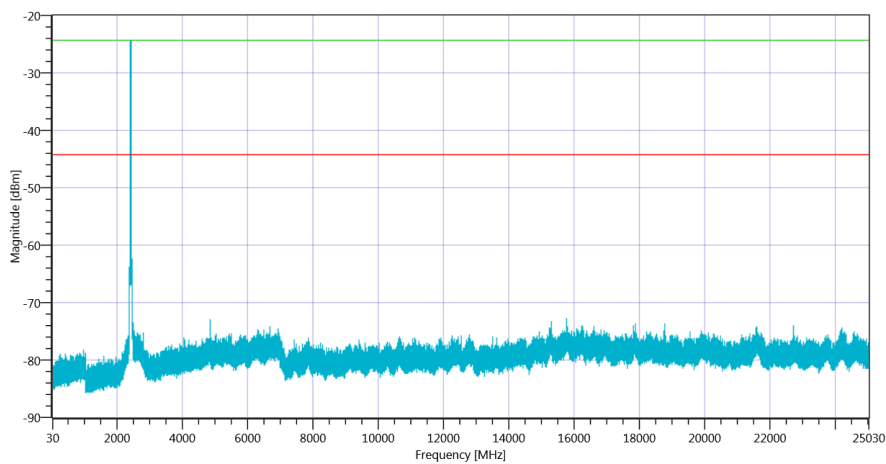
Test at TX 2422 MHz

READ SA SETTINGS:

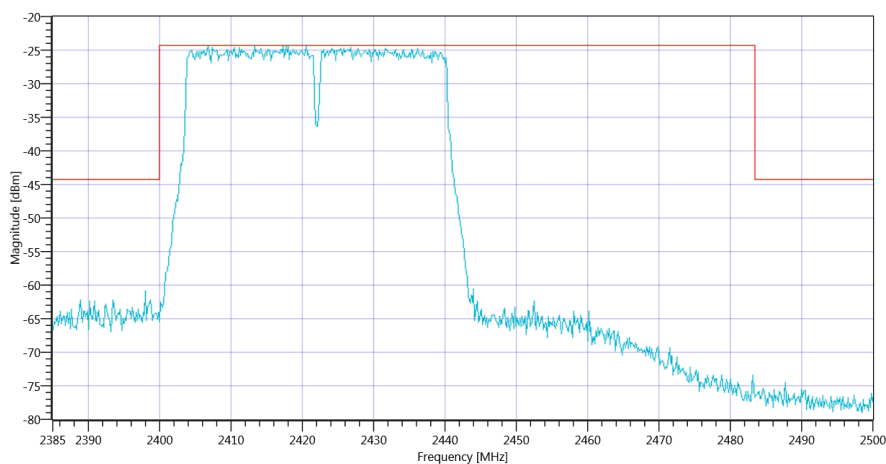
RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	-8.14 0 10
Start [MHz] Stop [MHz]	24530.000 25030.000
RBW [MHz] VBW [MHz]	0.100000 0.300000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	500 8 3001 SWE

RESULT: TC_VM_FCC15247_TX_Emissions_Conducted_V01

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Reference @ 2413.33 MHz	---	---	-24.31	dBm	Information
No peaks detected	---	---			PASS



Plot_FCC Part 15.247 TX Spurious Conducted ~ WLAN2G4 nHT40-mode 2422_02092019_153910.png



Plot_FCC Part 15.247 TX Spurious Conducted ~ WLAN2G4 nHT40-mode 2422_02092019_153912.png

TEST FINISHED

General Verdict	02.09.2019 15:39:14 / RT: 288 s	PASS
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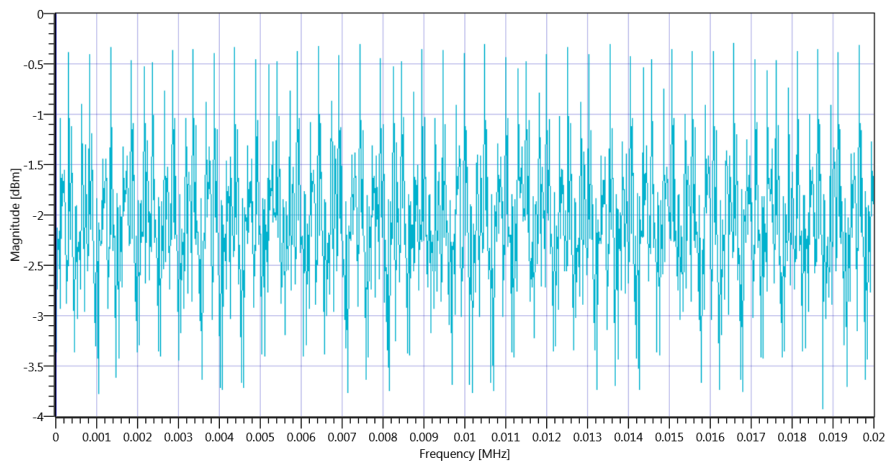
61. FCC Part 15.247 Restricted Band Edge Conducted Avg DC corrected DTS ~ WLAN2G4 nHT40-mode

Test References	
TC Start	02.09.2019 15:39:17
System Version	1.0.0.20
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 nHT40_mode
Add. Information	

Test Parameter	
Technology to test	WLAN2G4 nHT40-mode
Antenna Port used	1
Temperature	mid
Voltage	mid
Frequency low to test	True Freq [MHz] 2422
Frequency mid to test	False Freq [MHz] 2437
Frequency high to test	False Freq [MHz] 2452
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 2422 MHz

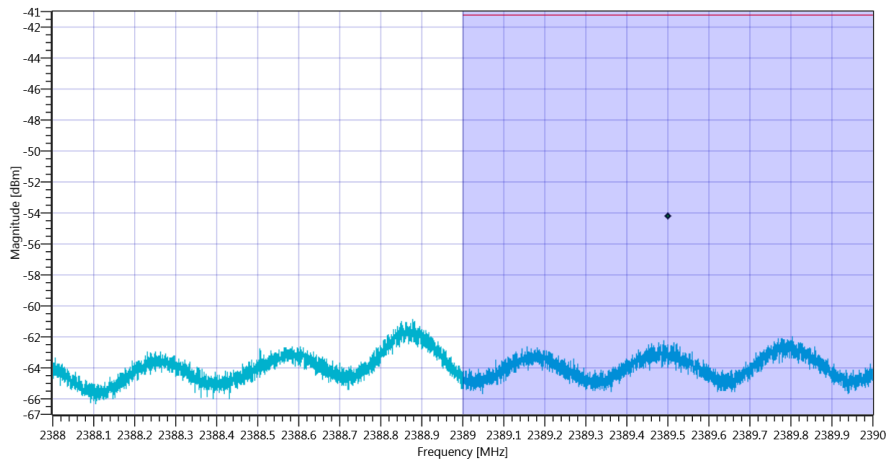
RESULT: Duty Cycle evaluation					
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
No enough Bursts detected, Duty Cycle Burst Ratio set to 1					
Duty Cycle (Burst Ratio) max	---	---	1	---	Information
Duty Cycle max	---	---	0	dB	Information
Duty Cycle (Burst Ratio) min	---	---	1	---	Information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



Plot_FCC Part 15.247 Restricted Band Edge Conducted Avg DC corrected DTS ~ WLAN2G4 nHT40-mode 2422 MHz - Duty Cycle_02092019_153930.png

READ SA SETTINGS:	
RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	6.59 9.85 15
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
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	---	---	-54.21	dBm	Information
Band Power without Antenna Gain Avg DC corrected	---	---	-54.21	dBm	Information
Band Power incl. Antenna Gain Avg DC corrected	---	-41.23	-54.21	dBm	PASS



Plot_FCC Part 15.247 Restricted Band Edge Conducted Avg DC corrected DTS ~ WLAN2G4 nHT40-mode_02092019_153952.png

TEST FINISHED

General Verdict

02.09.2019 15:39:52 / RT: 34 s

PASS

62. FCC Part 15.247 Maximum Peak Conducted Output Power Powermeter DTS ~ WLAN2G4 nHT40-mode

Test References	
TC Start	02.09.2019 15:39:56
System Version	1.0.0.20
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 nHT40-mode
Add. Information	

Test Parameter	
Technology to test	WLAN2G4 nHT40-mode
Antenna Port used	1
Temperature	mid
Voltage	mid
Frequency low to test	True Freq [MHz] 2422
Frequency mid to test	False Freq [MHz] 2437
Frequency high to test	False Freq [MHz] 2452
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 2422 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.	--	--	14.02	dBm	PASS

TEST FINISHED		
General Verdict	02.09.2019 15:40:00 / RT: 3 s	PASS

63. FCC Part 15.247 Bandwidth 6dB DTS ~ WLAN2G4 nHT40-mode

Test References	
TC Start	02.09.2019 15:40:52
System Version	1.0.0.20
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 nHT40_mode
Add. Information	

Test Parameter	
Technology to test	WLAN2G4 nHT40-mode
Antenna Port used	1
Temperature	mid
Voltage	mid
Frequency low to test	False Freq [MHz] 2422
Frequency mid to test	True Freq [MHz] 2437
Frequency high to test	False Freq [MHz] 2452
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

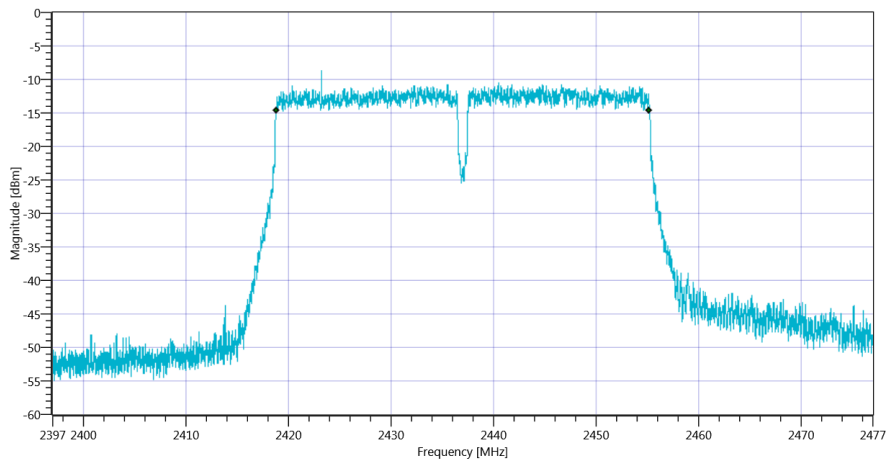
Test at TX 2437 MHz

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	5.20 9.89 15
Start [MHz] Stop [MHz]	2397.000 2477.000
RBW [MHz] VBW [MHz]	0.100000 0.300000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	50 200 10001 SWE

RESULT: TC_VM_FCC15247_Bandwidth_6dB_DTS_V01

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
DTS Bandwidth (6dB)	500	---	36360	kHz	PASS



Plot_FCC Part 15.247 Bandwidth 6dB DTS ~ WLAN2G4 nHT40-mode_02092019_154116.png

TEST FINISHED

General Verdict

02.09.2019 15:41:17 / RT: 24 s

PASS

64. FCC Part 15.247 Peak Power Spectral Density DTS ~ WLAN2G4 nHT40-mode

Test References	
TC Start	02.09.2019 15:41:20
System Version	1.0.0.20
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 nHT40_mode
Add. Information	

Test Parameter	
Technology to test	WLAN2G4 nHT40-mode
Antenna Port used	1
Temperature	mid
Voltage	mid
Frequency low to test	False Freq [MHz] 2422
Frequency mid to test	True Freq [MHz] 2437
Frequency high to test	False Freq [MHz] 2452
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

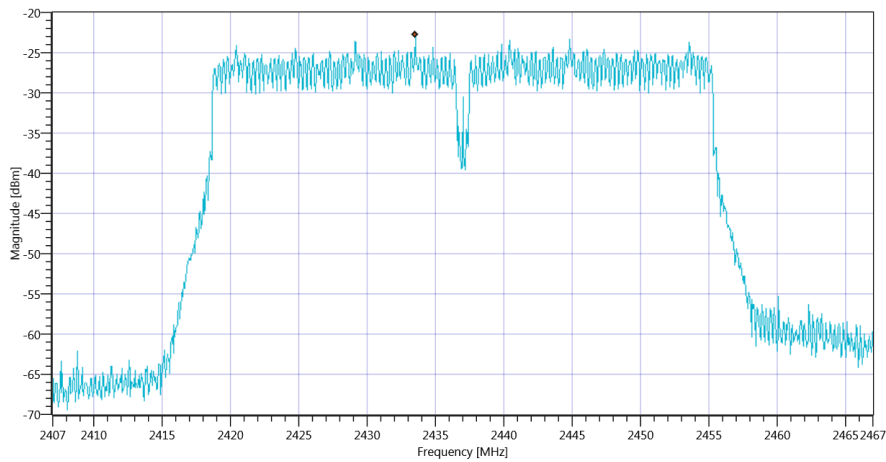
Test at TX 2437 MHz

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	5.18 9.89 15
Start [MHz] Stop [MHz]	2407.000 2467.000
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: TC_VM_FCC15247_Peak_Power_Spectral_Density_DTS_V01

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Max Peak power Density	---	8	-22.77	dBm/3KHz	PASS



Plot_FCC Part 15.247 Peak Power Spectral Density DTS ~ WLAN2G4 nHT40-mode_02092019_154156.png

TEST FINISHED

General Verdict	02.09.2019 15:41:56 / RT: 35 s	PASS
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65. FCC Part 15.247 Bandwidth 99PCT-20dB ~ WLAN2G4 nHT40-mode

Test References	
TC Start	02.09.2019 15:42:00
System Version	1.0.0.20
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 nHT40_mode
Add. Information	

Test Parameter	
Technology to test	WLAN2G4 nHT40-mode
Antenna Port used	1
Temperature	mid
Voltage	mid
Frequency low to test	False Freq [MHz] 2422
Frequency mid to test	True Freq [MHz] 2437
Frequency high to test	False Freq [MHz] 2452
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

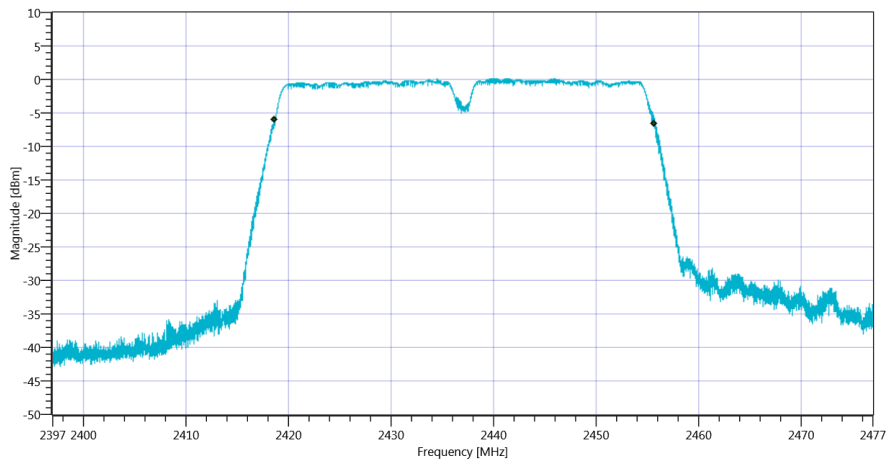
Test at TX 2437 MHz

READ SA SETTINGS:

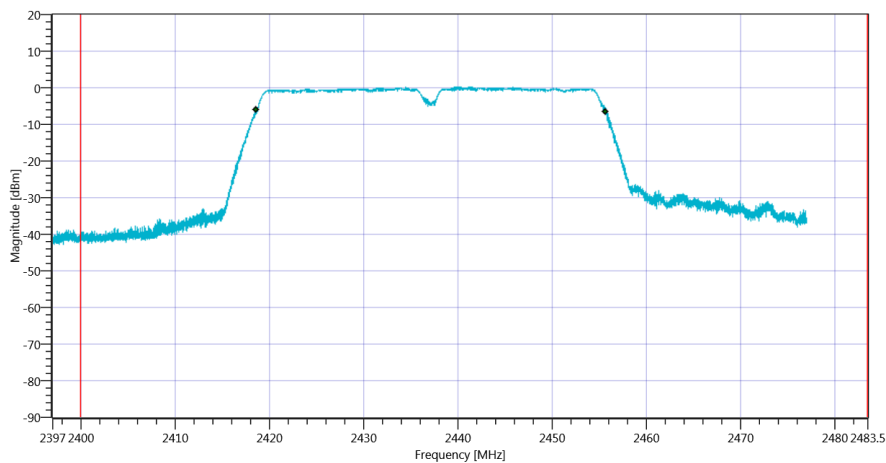
RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	5.13 9.89 15
Start [MHz] Stop [MHz]	2397.000 2477.000
RBW [MHz] VBW [MHz]	1.000000 2.000000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	50 200 10001 SWE

RESULT: TC_VM_FCC15247_Bandwidth_99PCT_20dB_DTS_FHSS_V01

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 99%	---	---	37012	kHz	Information
T1 99%	2400.000000	---	2418.6258	MHz	PASS
T2 99%	---	2483.500000	2455.6381	MHz	PASS



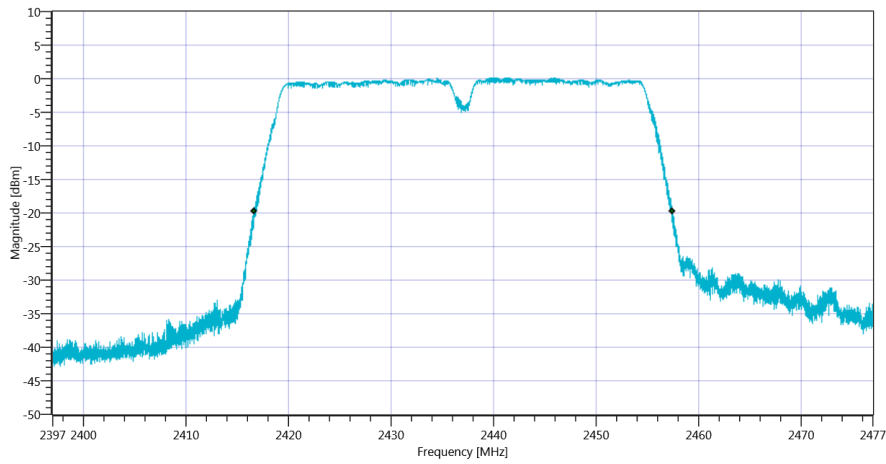
Plot_FCC Part 15.247 Bandwidth 99PCT-20dB ~ WLAN2G4 nHT40-mode 99PCT_02092019_154224.png



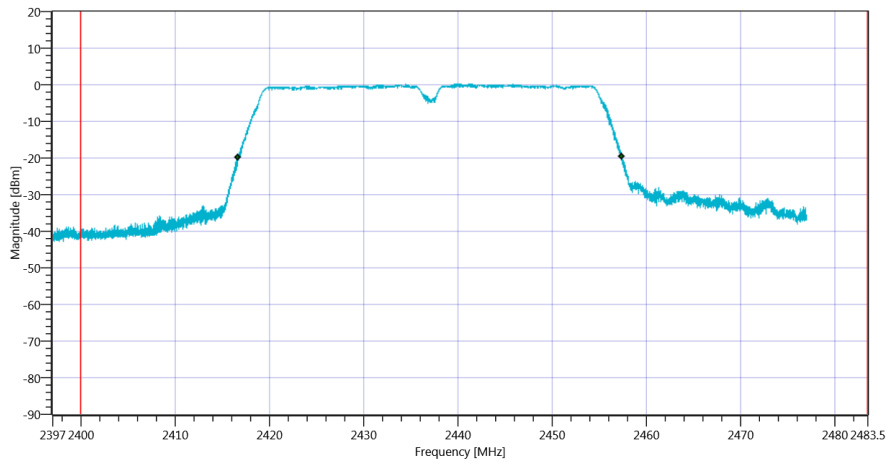
Plot_FCC Part 15.247 Bandwidth 99PCT-20dB ~ WLAN2G4 nHT40-mode_02092019_154227.png

RESULT: TC_VM_FCC15247_Bandwidth_99PCT_20dB_DTS_FHSS_V01

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 20dB	---	---	40736	kHz	Information
T1 20dB	2400.000000	---	2416.6800	MHz	PASS
T2 20dB	---	2483.500000	2457.4160	MHz	PASS



Plot_FCC Part 15.247 Bandwidth 99PCT-20dB ~ WLAN2G4 nHT40-mode 20dB_02092019_154231.png



Plot_FCC Part 15.247 Bandwidth 99PCT-20dB ~ WLAN2G4 nHT40-mode_02092019_154234.png

TEST FINISHED

General Verdict

02.09.2019 15:42:34 / RT: 34 s

PASS

66. FCC Part 15.247 TX Spurious Conducted ~ WLAN2G4 nHT40-mode

Test References	
TC Start	02.09.2019 15:42:38
System Version	1.0.0.20
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 nHT40_mode
Add. Information	

Test Parameter	
Technology to test	WLAN2G4 nHT40-mode
Antenna Port used	1
Temperature	mid
Voltage	mid
Frequency low to test	False Freq [MHz] 2422
Frequency mid to test	True Freq [MHz] 2437
Frequency high to test	False Freq [MHz] 2452
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

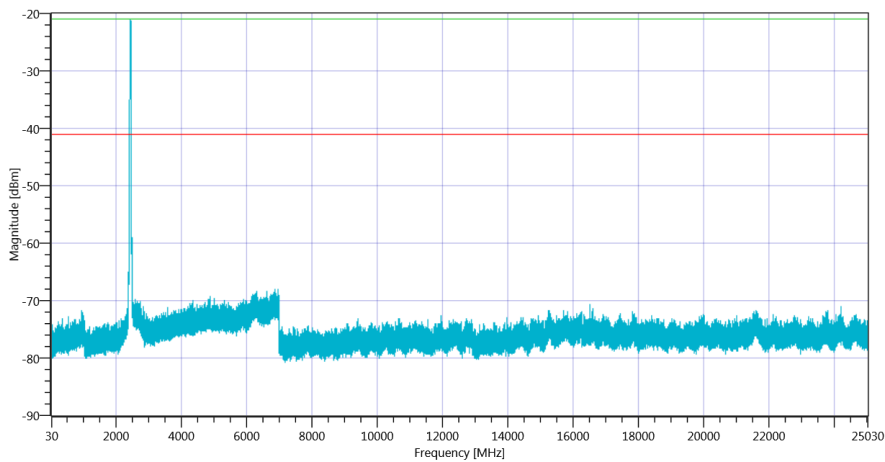
Test at TX 2437 MHz

READ SA SETTINGS:

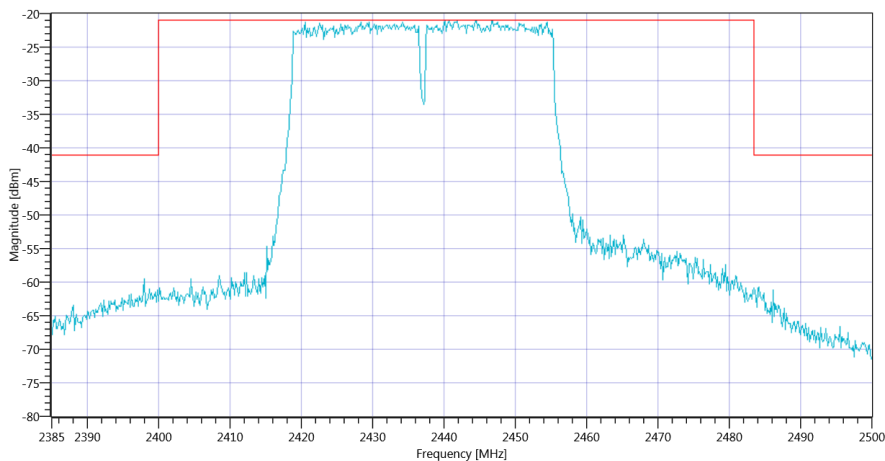
RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	-4.86 0 15
Start [MHz] Stop [MHz]	24530.000 25030.000
RBW [MHz] VBW [MHz]	0.100000 0.300000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	500 8 3001 SWE

RESULT: TC_VM_FCC15247_TX_Emissions_Conducted_V01

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Reference @ 2446.67 MHz	---	---	-21.02	dBm	Information
No peaks detected	---	---			PASS



Plot_FCC Part 15.247 TX Spurious Conducted ~ WLAN2G4 nHT40-mode 2437_02092019_154724.png



Plot_FCC Part 15.247 TX Spurious Conducted ~ WLAN2G4 nHT40-mode 2437_02092019_154726.png

TEST FINISHED

General Verdict

02.09.2019 15:47:27 / RT: 288 s

PASS

67. FCC Part 15.247 Maximum Peak Conducted Output Power Powermeter DTS ~ WLAN2G4 nHT40-mode

Test References	
TC Start	02.09.2019 15:48:09
System Version	1.0.0.20
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 nHT40-mode
Add. Information	

Test Parameter	
Technology to test	WLAN2G4 nHT40-mode
Antenna Port used	1
Temperature	mid
Voltage	mid
Frequency low to test	False Freq [MHz] 2422
Frequency mid to test	True Freq [MHz] 2437
Frequency high to test	False Freq [MHz] 2452
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.	--	--	17.24	dBm	PASS

TEST FINISHED		
General Verdict	02.09.2019 15:48:13 / RT: 3 s	PASS

68. FCC Part 15.247 Bandwidth 6dB DTS ~ WLAN2G4 nHT40-mode

Test References	
TC Start	02.09.2019 15:49:13
System Version	1.0.0.20
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 nHT40_mode
Add. Information	

Test Parameter	
Technology to test	WLAN2G4 nHT40-mode
Antenna Port used	1
Temperature	mid
Voltage	mid
Frequency low to test	False Freq [MHz] 2422
Frequency mid to test	False Freq [MHz] 2437
Frequency high to test	True Freq [MHz] 2452
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

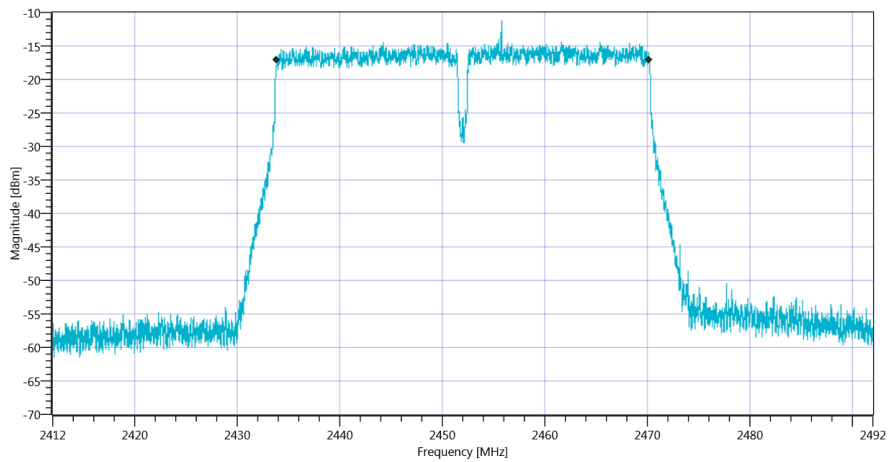
Test at TX 2452 MHz

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	1.27 9.93 10
Start [MHz] Stop [MHz]	2412.000 2492.000
RBW [MHz] VBW [MHz]	0.100000 0.300000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	50 200 10001 SWE

RESULT: TC_VM_FCC15247_Bandwidth_6dB_DTS_V01

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
DTS Bandwidth (6dB)	500	---	36376	kHz	PASS



Plot_FCC Part 15.247 Bandwidth 6dB DTS ~ WLAN2G4 nHT40-mode_02092019_154937.png

TEST FINISHED

General Verdict

02.09.2019 15:49:38 / RT: 24 s

PASS

69. FCC Part 15.247 Peak Power Spectral Density DTS ~ WLAN2G4 nHT40-mode

Test References	
TC Start	02.09.2019 15:49:41
System Version	1.0.0.20
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 nHT40_mode
Add. Information	

Test Parameter	
Technology to test	WLAN2G4 nHT40-mode
Antenna Port used	1
Temperature	mid
Voltage	mid
Frequency low to test	False Freq [MHz] 2422
Frequency mid to test	False Freq [MHz] 2437
Frequency high to test	True Freq [MHz] 2452
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

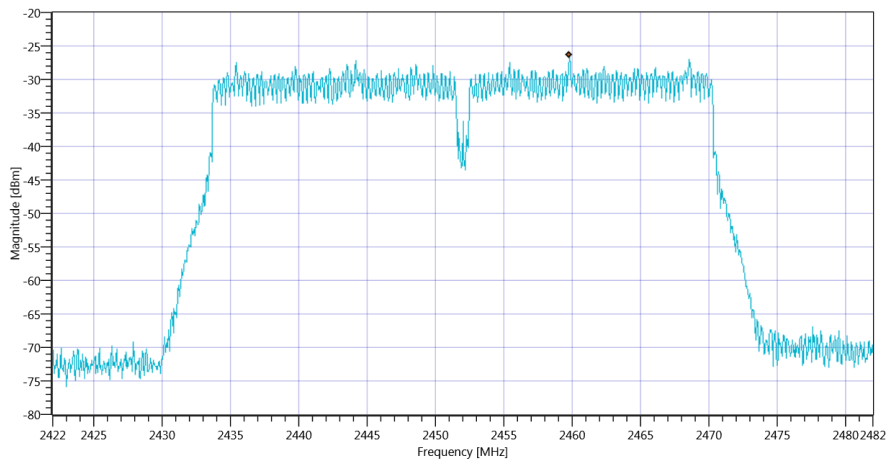
Test at TX 2452 MHz

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	1.42 9.93 10
Start [MHz] Stop [MHz]	2422.000 2482.000
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: TC_VM_FCC15247_Peak_Power_Spectral_Density_DTS_V01

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Max Peak power Density	---	8	-26.31	dBm/3KHz	PASS



Plot_FCC Part 15.247 Peak Power Spectral Density DTS ~ WLAN2G4 nHT40-mode_02092019_155017.png

TEST FINISHED

General Verdict	02.09.2019 15:50:17 / RT: 35 s	PASS
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70. FCC Part 15.247 Bandwidth 99PCT-20dB ~ WLAN2G4 nHT40-mode

Test References	
TC Start	02.09.2019 15:50:21
System Version	1.0.0.20
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 nHT40_mode
Add. Information	

Test Parameter	
Technology to test	WLAN2G4 nHT40-mode
Antenna Port used	1
Temperature	mid
Voltage	mid
Frequency low to test	False Freq [MHz] 2422
Frequency mid to test	False Freq [MHz] 2437
Frequency high to test	True Freq [MHz] 2452
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

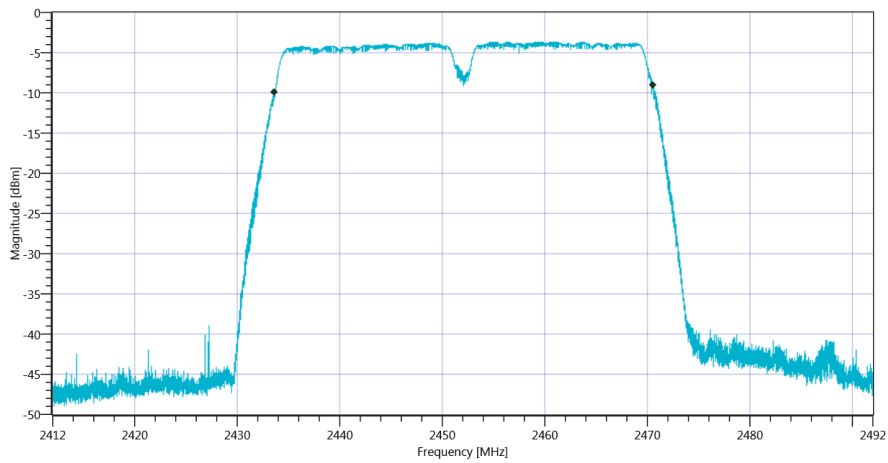
Test at TX 2452 MHz

READ SA SETTINGS:

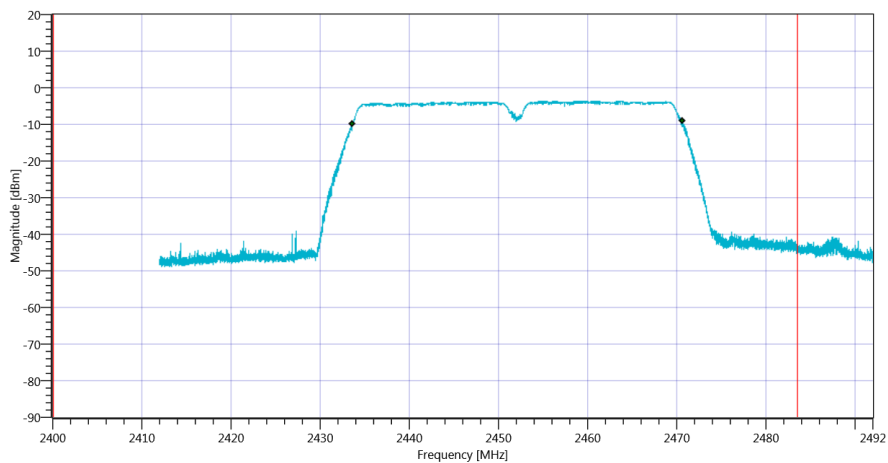
RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	1.33 9.93 10
Start [MHz] Stop [MHz]	2412.000 2492.000
RBW [MHz] VBW [MHz]	1.000000 2.000000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	50 200 10001 SWE

RESULT: TC_VM_FCC15247_Bandwidth_99PCT_20dB_DTS_FHSS_V01

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 99%	---	---	36972	kHz	Information
T1 99%	2400.000000	---	2433.6338	MHz	PASS
T2 99%	---	2483.500000	2470.6061	MHz	PASS



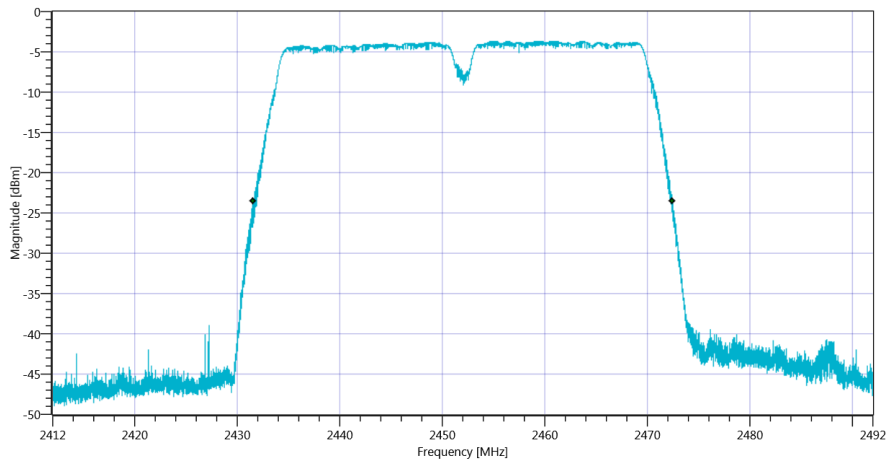
Plot_FCC Part 15.247 Bandwidth 99PCT-20dB ~ WLAN2G4 nHT40-mode 99PCT_02092019_155045.png



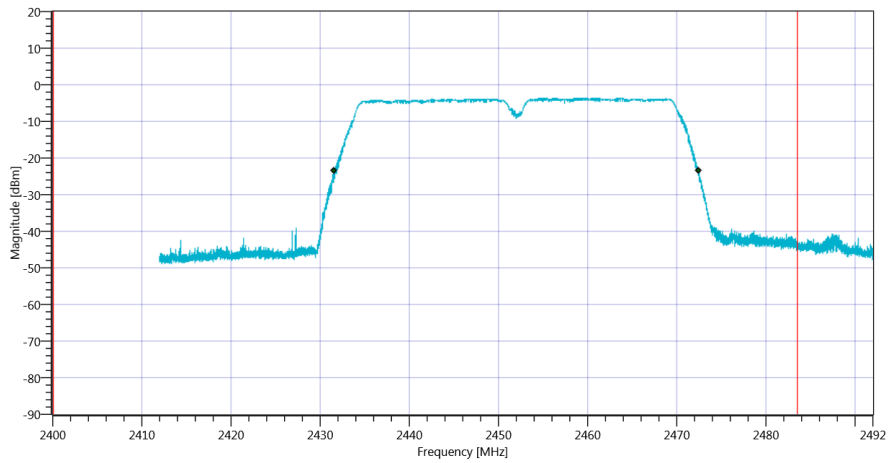
Plot_FCC Part 15.247 Bandwidth 99PCT-20dB ~ WLAN2G4 nHT40-mode_02092019_155048.png

RESULT: TC_VM_FCC15247_Bandwidth_99PCT_20dB_DTS_FHSS_V01

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 20dB	---	---	40904	kHz	Information
T1 20dB	2400.000000	---	2431.5440	MHz	PASS
T2 20dB	---	2483.500000	2472.4480	MHz	PASS



Plot_FCC Part 15.247 Bandwidth 99PCT-20dB ~ WLAN2G4 nHT40-mode 20dB_02092019_155052.png



Plot_FCC Part 15.247 Bandwidth 99PCT-20dB ~ WLAN2G4 nHT40-mode_02092019_155055.png

TEST FINISHED

General Verdict

02.09.2019 15:50:56 / RT: 34 s

PASS

71. FCC Part 15.247 TX Spurious Conducted ~ WLAN2G4 nHT40-mode

Test References	
TC Start	02.09.2019 15:50:59
System Version	1.0.0.20
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 nHT40_mode
Add. Information	

Test Parameter	
Technology to test	WLAN2G4 nHT40-mode
Antenna Port used	1
Temperature	mid
Voltage	mid
Frequency low to test	False Freq [MHz] 2422
Frequency mid to test	False Freq [MHz] 2437
Frequency high to test	True Freq [MHz] 2452
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

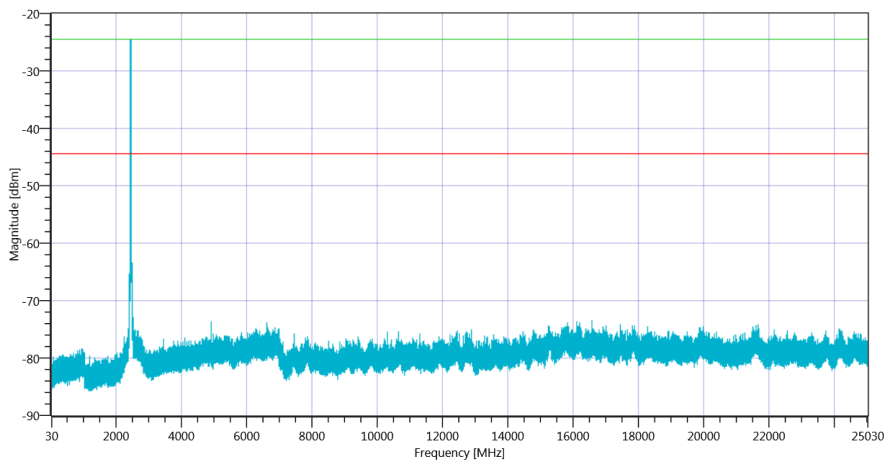
Test at TX 2452 MHz

READ SA SETTINGS:

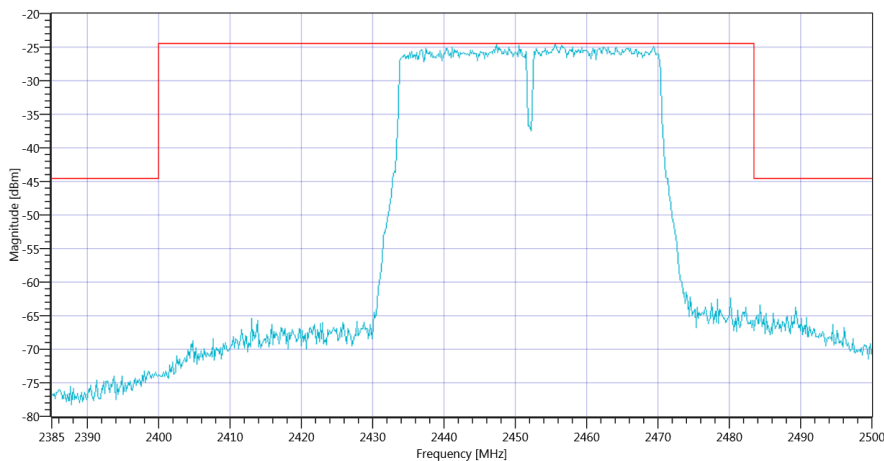
RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	-8.29 0 10
Start [MHz] Stop [MHz]	24530.000 25030.000
RBW [MHz] VBW [MHz]	0.100000 0.300000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	500 8 3001 SWE

RESULT: TC_VM_FCC15247_TX_Emissions_Conducted_V01

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Reference @ 2447.33 MHz	---	---	-24.51	dBm	Information
No peaks detected	---	---			PASS



Plot_FCC Part 15.247 TX Spurious Conducted ~ WLAN2G4 nHT40-mode 2452_02092019_155544.png



Plot_FCC Part 15.247 TX Spurious Conducted ~ WLAN2G4 nHT40-mode 2452_02092019_155547.png

TEST FINISHED

General Verdict

02.09.2019 15:55:48 / RT: 288 s

PASS

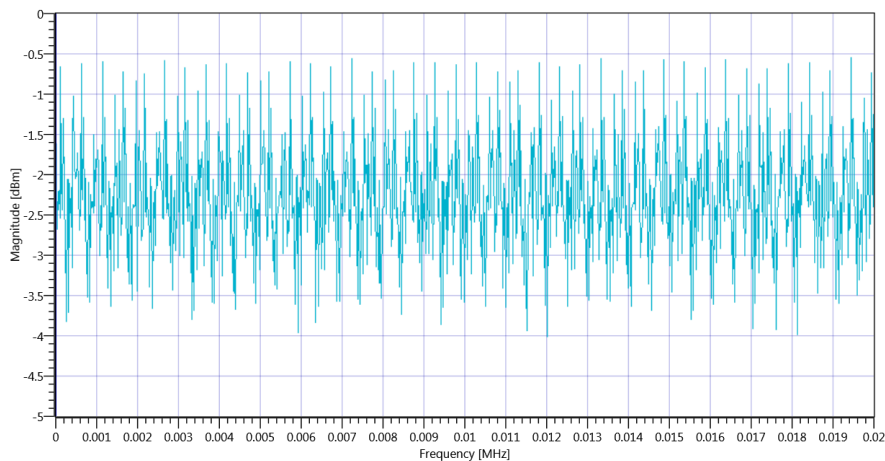
72. FCC Part 15.247 Restricted Band Edge Conducted Avg DC corrected DTS ~ WLAN2G4 nHT40-mode

Test References	
TC Start	02.09.2019 15:55:51
System Version	1.0.0.20
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 nHT40_mode
Add. Information	

Test Parameter	
Technology to test	WLAN2G4 nHT40-mode
Antenna Port used	1
Temperature	mid
Voltage	mid
Frequency low to test	False Freq [MHz] 2422
Frequency mid to test	False Freq [MHz] 2437
Frequency high to test	True Freq [MHz] 2452
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 2452 MHz

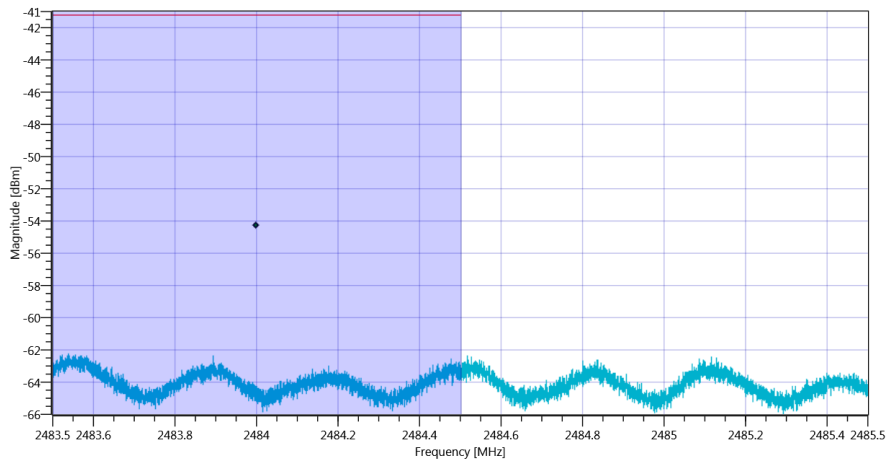
RESULT: Duty Cycle evaluation					
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
No enough Bursts detected, Duty Cycle Burst Ratio set to 1					
Duty Cycle (Burst Ratio) max	---	---	1	---	Information
Duty Cycle max	---	---	0	dB	Information
Duty Cycle (Burst Ratio) min	---	---	1	---	Information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



Plot_FCC Part 15.247 Restricted Band Edge Conducted Avg DC corrected DTS ~ WLAN2G4 nHT40-mode 2452 MHz - Duty Cycle_02092019_155604.png

READ SA SETTINGS:	
RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	6.28 9.93 15
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
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	---	---	-54.28	dBm	Information
Band Power without Antenna Gain Avg DC corrected	---	---	-54.28	dBm	Information
Band Power incl. Antenna Gain Avg DC corrected	---	-41.23	-54.28	dBm	PASS



Plot_FCC Part 15.247 Restricted Band Edge Conducted Avg DC corrected DTS ~ WLAN2G4 nHT40-mode_02092019_155626.png

TEST FINISHED

General Verdict

02.09.2019 15:56:26 / RT: 34 s

PASS

73. FCC Part 15.247 Maximum Peak Conducted Output Power Powermeter DTS ~ WLAN2G4 nHT40-mode

Test References	
TC Start	02.09.2019 15:56:30
System Version	1.0.0.20
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 nHT40-mode
Add. Information	

Test Parameter	
Technology to test	WLAN2G4 nHT40-mode
Antenna Port used	1
Temperature	mid
Voltage	mid
Frequency low to test	False Freq [MHz] 2422
Frequency mid to test	False Freq [MHz] 2437
Frequency high to test	True Freq [MHz] 2452
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 2452 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.	--	--	13.67	dBm	PASS

TEST FINISHED		
General Verdict	02.09.2019 15:56:34 / RT: 4 s	PASS

- END OF DOCUMENT -
