

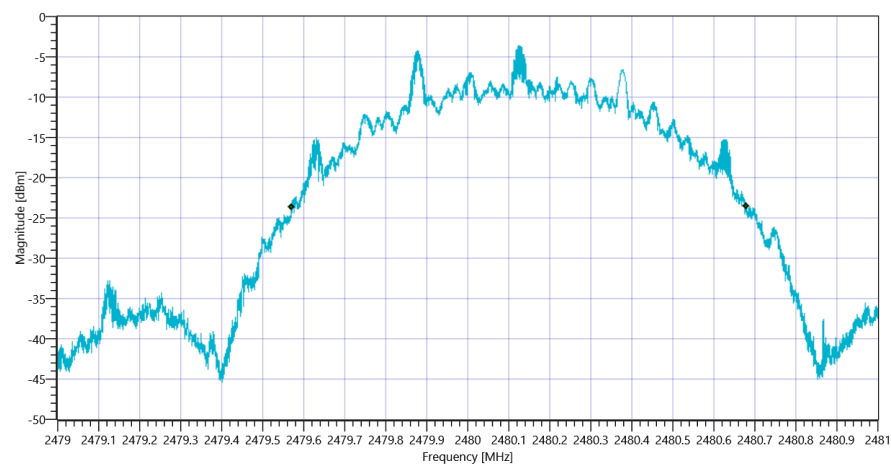
T2 20dB

2483.500000

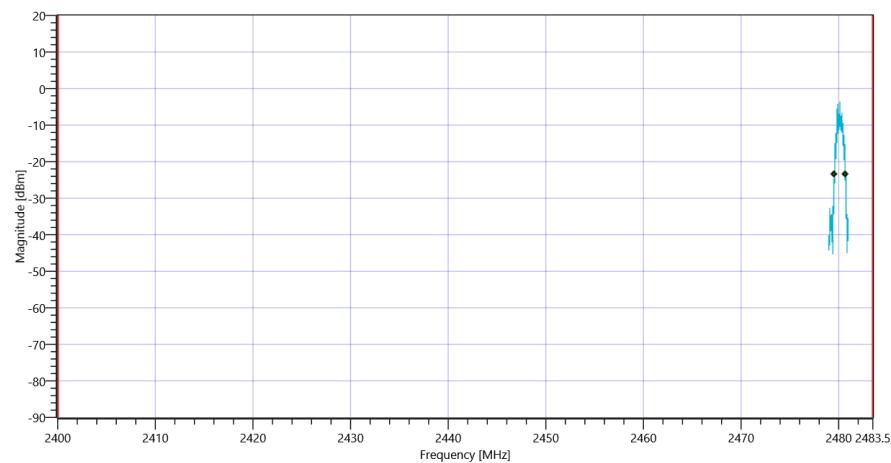
2480.6780

MHz

PASS



Plot_FCC Part 15.247 Bandwidth 99PCT-20dB ~ BT LE coded S2_06102020_174357.png



Plot_FCC Part 15.247 Bandwidth 99PCT-20dB ~ BT LE coded S2_06102020_174401.png

TEST FINISHED

General Verdict

06.10.2020 17:44:02 / RT: 125 s

PASS

17. FCC Part 15.247 TX Spurious Conducted ~ BT LE 1 Msp

Test References	
TC Start	06.10.2020 16:33:33
Ambit Temp [°C] Humidity [rel%]	25.0 41
System Version	1.0.0.51
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_VM_FCC15247_TX_Emissions_Conducted_V01 Version: 0.0.1
My Description	FCC 15.247 TX Emissions Conducted DTS - BT LE 1 Msp
Add. Information	

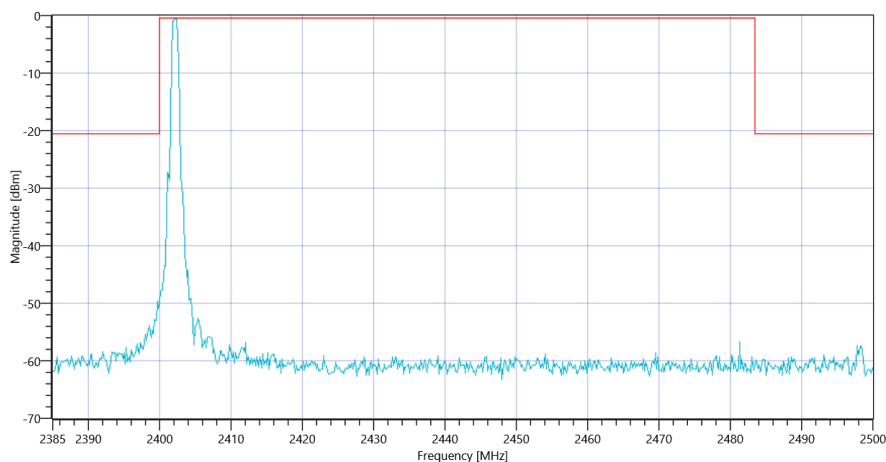
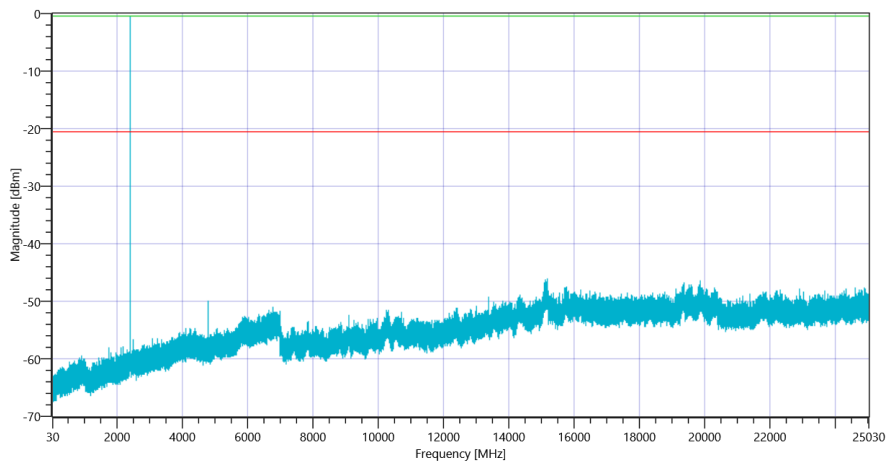
Test Parameter	
Technology to test	BT LE 1 Msp
Antenna Port used	1
Temperature	mid
Voltage	mid
Frequency low to test	True Freq [MHz] 2402
Frequency mid to test	True Freq [MHz] 2440
Frequency high to test	True Freq [MHz] 2480
Switched Path	IUT - SignalingUnit - SpectrumAnalyzer
Devices in use	SigBT: Rohde&Schwarz,CMW,1201.0002k75/100683,3.7.170 SA: Rohde&Schwarz,FSV-30,1321.3008K30/103809,3.60

Test at TX 2402 MHz

DTM Connection check					
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Connection result	---	---	---	---	PASS

READ SA SETTINGS:					
RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	1.73 0 20				
Start [MHz] Stop [MHz]	24530.000 25030.000				
RBW [MHz] VBW [MHz]	0.100000 0.300000				
Detector TraceMode	POS MAXH				
Sweep: Time [ms] Count Points per Section Type	500 8 3001 SWE				

RESULT					
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Reference @ 2402.17 MHz	---	---	-0.49	dBm	INFO
No peaks detected	---	---			PASS
Lowest margin to limit 15176.167 MHz	0	---	25.7	dB	INFO

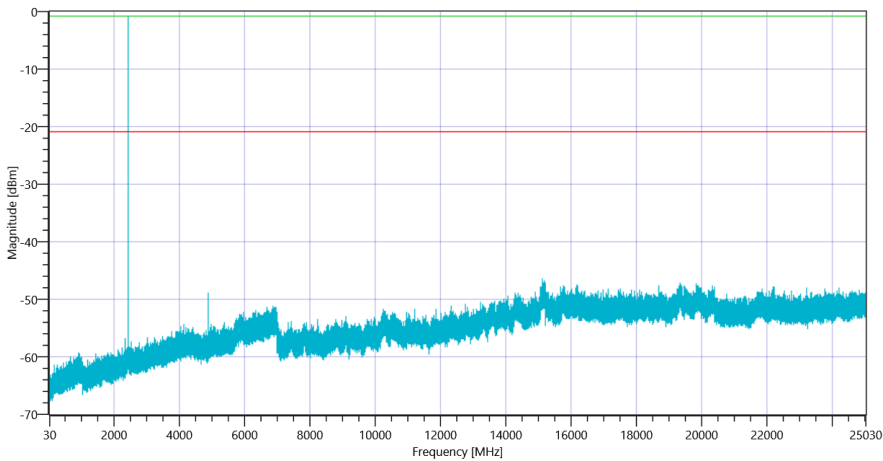


Test at TX 2440 MHz

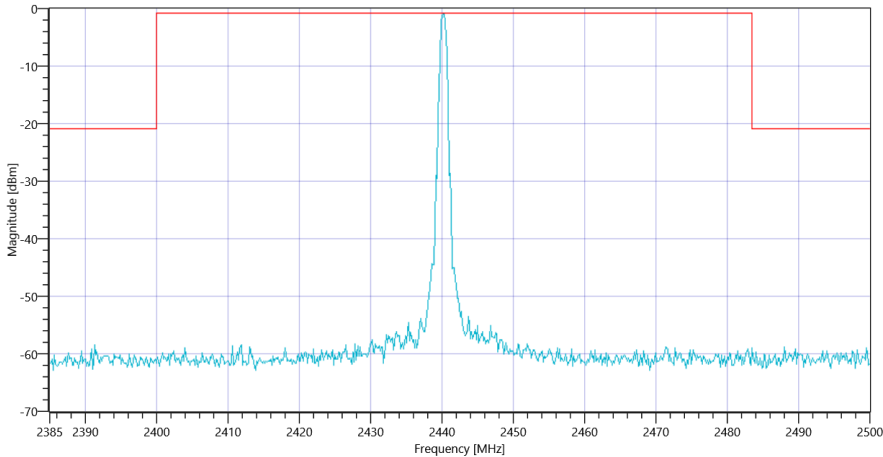
DTM Connection check					
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Connection result	---	---	---	---	PASS

READ SA SETTINGS:		
RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	0.79 0 20	
Start [MHz] Stop [MHz]	24530.000 25030.000	
RBW [MHz] VBW [MHz]	0.100000 0.300000	
Detector TraceMode	POS MAXH	
Sweep: Time [ms] Count Points per Section Type	500 8 3001 SWE	

RESULT					
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Reference @ 2440.33 MHz	---	---	-0.86	dBm	INFO
No peaks detected	---	---			PASS
Lowest margin to limit 15123.667 MHz	0	---	25.58	dB	INFO



Plot_FCC Part 15.247 TX Spurious Conducted ~ BT LE 1 Msps 2440_06102020_164310.png



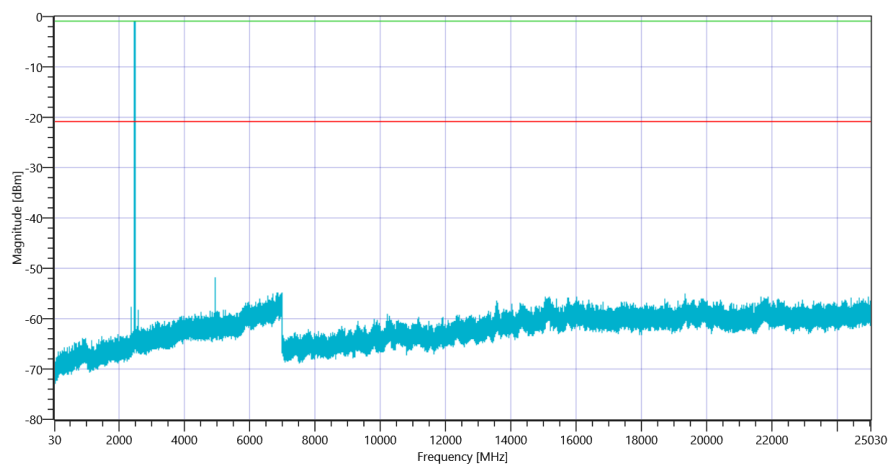
Plot_FCC Part 15.247 TX Spurious Conducted ~ BT LE 1 Msps 2440_06102020_164313.png

Test at TX 2480 MHz

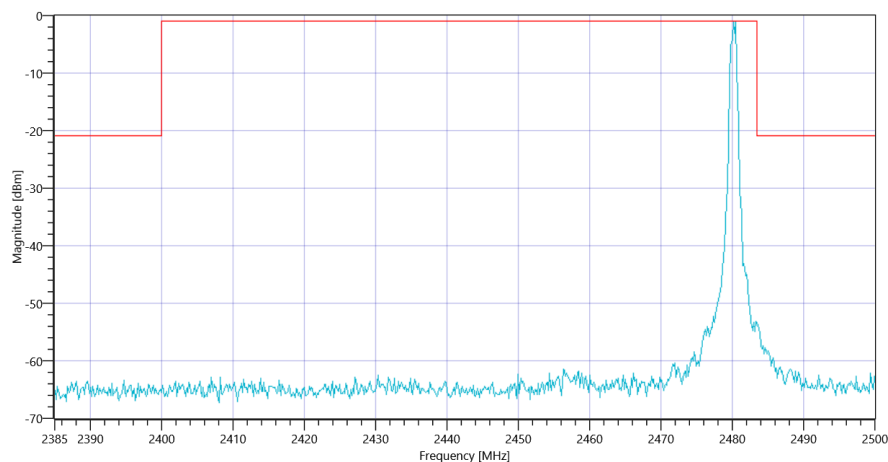
DTM Connection check					
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Connection result	---	---	---	---	PASS

READ SA SETTINGS:					
RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	-0.44 0 15				
Start [MHz] Stop [MHz]	24530.000 25030.000				
RBW [MHz] VBW [MHz]	0.100000 0.300000				
Detector TraceMode	POS MAXH				
Sweep: Time [ms] Count Points per Section Type	500 8 3001 SWE				

RESULT					
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Reference @ 2480.50 MHz	---	---	-0.90	dBm	INFO
No peaks detected	---	---			PASS
Lowest margin to limit 4960.833 MHz	0	---	30.97	dB	INFO



Plot_FCC Part 15.247 TX Spurious Conducted ~ BT LE 1 Msps 2480_06102020_164800.png



Plot_FCC Part 15.247 TX Spurious Conducted ~ BT LE 1 Msps 2480_06102020_164803.png

TEST FINISHED		
General Verdict	06.10.2020 16:48:04 / RT: 871 s	PASS

18. FCC Part 15.247 TX Spurious Conducted ~ BT LE 2 Msps

Test References	
TC Start	06.10.2020 16:56:35
Ambit Temp [°C] Humidity [rel%]	24.8 42
System Version	1.0.0.51
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_VM_FCC15247_TX_Emissions_Conducted_V01 Version: 0.0.1
My Description	FCC 15.247 TX Emissions Conducted DTS - BT LE 2 Msps
Add. Information	

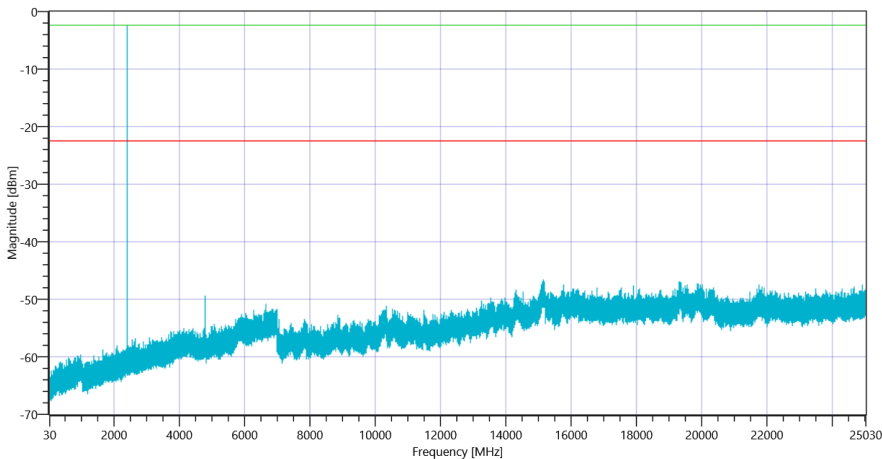
Test Parameter	
Technology to test	BT LE 2 Msps
Antenna Port used	1
Temperature	mid
Voltage	mid
Frequency low to test	True Freq [MHz] 2402
Frequency mid to test	True Freq [MHz] 2440
Frequency high to test	True Freq [MHz] 2480
Switched Path	IUT - SignalingUnit - SpectrumAnalyzer
Devices in use	SigBT: Rohde&Schwarz,CMW,1201.0002k75/100683,3.7.170 SA: Rohde&Schwarz,FSV-30,1321.3008K30/103809,3.60

Test at TX 2402 MHz

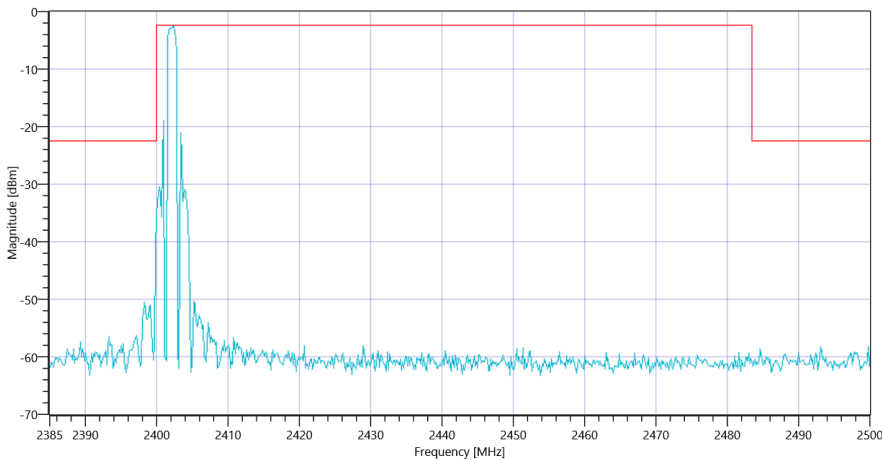
DTM Connection check					
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Connection result	---	---	---	---	PASS

READ SA SETTINGS:	
RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	1.81 0 20
Start [MHz] Stop [MHz]	24530.000 25030.000
RBW [MHz] VBW [MHz]	0.100000 0.300000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	500 8 3001 SWE

RESULT					
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Reference @ 2402.33 MHz	---	---	-2.46	dBm	INFO
No peaks detected	---	---			PASS
Lowest margin to limit 30 MHz	0	---	-134.83	dB	INFO



Plot_FCC Part 15.247 TX Spurious Conducted ~ BT LE 2 Msps 2402_06102020_170122.png



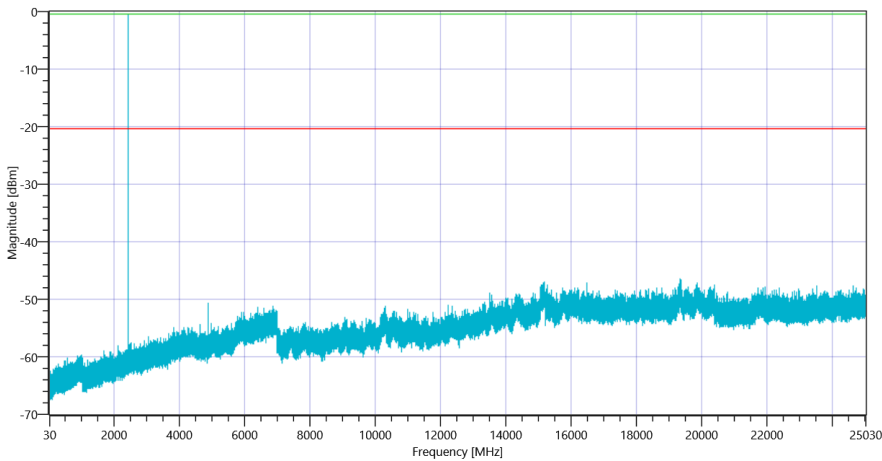
Plot_FCC Part 15.247 TX Spurious Conducted ~ BT LE 2 Msps 2402_06102020_170125.png

Test at TX 2440 MHz

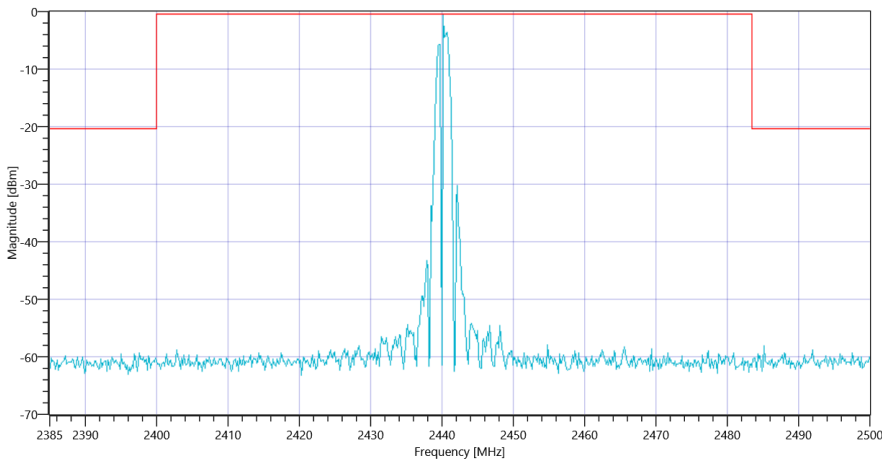
DTM Connection check					
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Connection result	---	---	---	---	PASS

READ SA SETTINGS:	
RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	0.99 0 20
Start [MHz] Stop [MHz]	24530.000 25030.000
RBW [MHz] VBW [MHz]	0.100000 0.300000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	500 8 3001 SWE

RESULT					
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Reference @ 2440.17 MHz	---	---	-0.41	dBm	INFO
No peaks detected	---	---			PASS
Lowest margin to limit 19346.833 MHz	0	---	26.1	dB	INFO



Plot_FCC Part 15.247 TX Spurious Conducted ~ BT LE 2 Msps 2440_06102020_170612.png



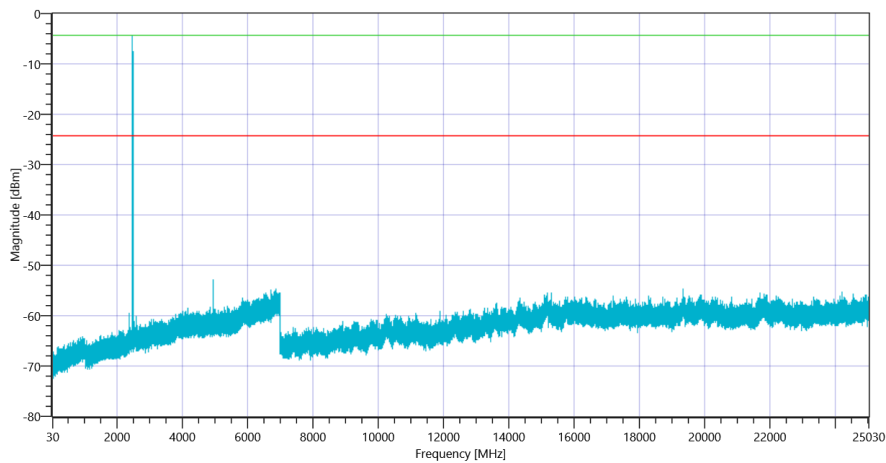
Plot_FCC Part 15.247 TX Spurious Conducted ~ BT LE 2 Msps 2440_06102020_170615.png

Test at TX 2480 MHz

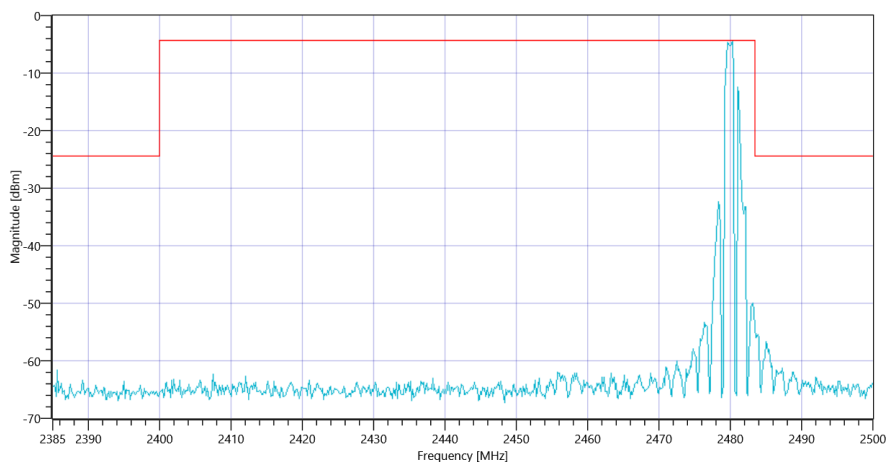
DTM Connection check					
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Connection result	---	---	---	---	PASS

READ SA SETTINGS:					
RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]			-0.31 0 15		
Start [MHz] Stop [MHz]			24530.000 25030.000		
RBW [MHz] VBW [MHz]			0.100000 0.300000		
Detector TraceMode			POS MAXH		
Sweep: Time [ms] Count Points per Section Type			500 8 3001 SWE		

RESULT					
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Reference @ 2480.33 MHz	---	---	-4.37	dBm	INFO
No peaks detected	---	---			PASS
Lowest margin to limit 4961.333 MHz	0	---	28.59	dB	INFO



Plot_FCC Part 15.247 TX Spurious Conducted ~ BT LE 2 Msps 2480_06102020_171102.png



Plot_FCC Part 15.247 TX Spurious Conducted ~ BT LE 2 Msps 2480_06102020_171105.png

TEST FINISHED		
General Verdict	06.10.2020 17:11:07 / RT: 872 s	PASS

19. FCC Part 15.247 TX Spurious Conducted ~ BT LE coded S8

Test References	
TC Start	06.10.2020 17:19:47
Ambit Temp [°C] Humidity [rel%]	24.6 42
System Version	1.0.0.51
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_VM_FCC15247_TX_Emissions_Conducted_V01 Version: 0.0.1
My Description	FCC 15.247 TX Emissions Conducted DTS - BT LE coded S8
Add. Information	

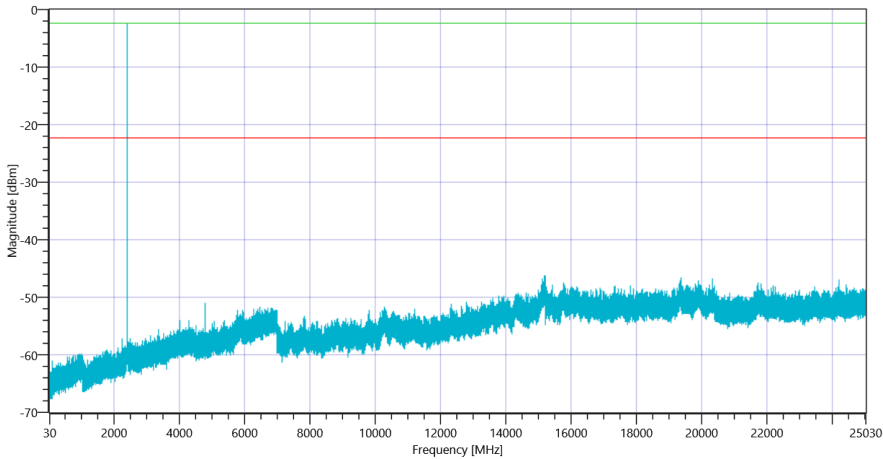
Test Parameter	
Technology to test	BT LE coded S8
Antenna Port used	1
Temperature	mid
Voltage	mid
Frequency low to test	True Freq [MHz] 2402
Frequency mid to test	True Freq [MHz] 2440
Frequency high to test	True Freq [MHz] 2480
Switched Path	IUT - SignalingUnit - SpectrumAnalyzer
Devices in use	SigBT: Rohde&Schwarz,CMW,1201.0002k75/100683,3.7.170 SA: Rohde&Schwarz,FSV-30,1321.3008K30/103809,3.60

Test at TX 2402 MHz

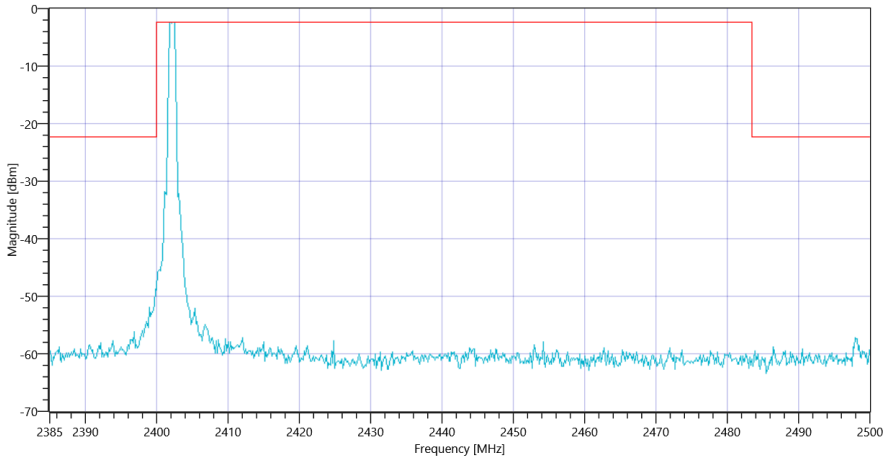
DTM Connection check					
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Connection result	---	---	---	---	PASS

READ SA SETTINGS:	
RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	1.75 0 20
Start [MHz] Stop [MHz]	24530.000 25030.000
RBW [MHz] VBW [MHz]	0.100000 0.300000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	500 8 3001 SWE

RESULT					
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Reference @ 2402.00 MHz	---	---	-2.33	dBm	INFO
No peaks detected	---	---			PASS
Lowest margin to limit 15199 MHz	0	---	23.9	dB	INFO



Plot_FCC Part 15.247 TX Spurious Conducted ~ BT LE coded S8 2402_06102020_172435.png



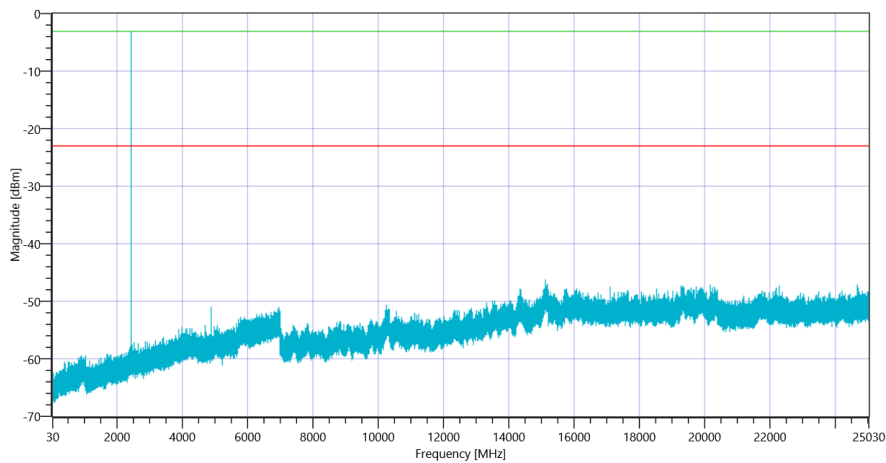
Plot_FCC Part 15.247 TX Spurious Conducted ~ BT LE coded S8 2402_06102020_172438.png

Test at TX 2440 MHz

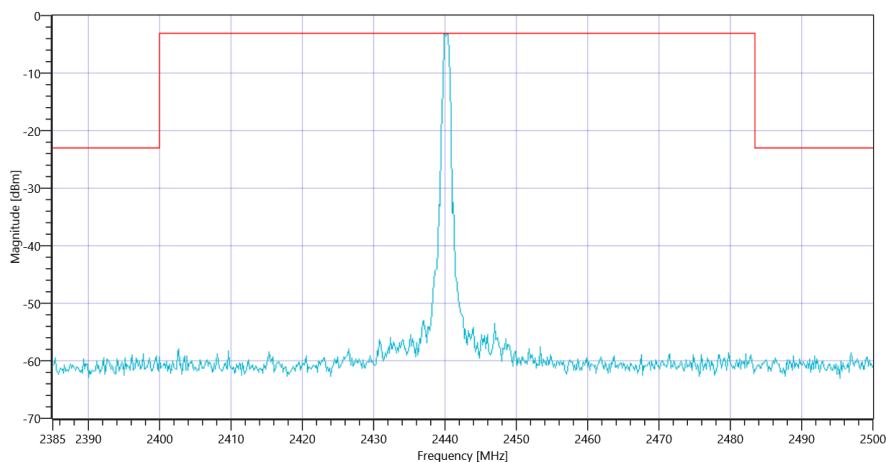
DTM Connection check					
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Connection result	---	---	---	---	PASS

READ SA SETTINGS:					
RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]			0.90 0 20		
Start [MHz] Stop [MHz]			24530.000 25030.000		
RBW [MHz] VBW [MHz]			0.100000 0.300000		
Detector TraceMode			POS MAXH		
Sweep: Time [ms] Count Points per Section Type			500 8 3001 SWE		

RESULT					
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Reference @ 2440.50 MHz	---	---	-3.05	dBm	INFO
No peaks detected	---	---			PASS
Lowest margin to limit 15123.667 MHz	0	---	23.16	dB	INFO



Plot_FCC Part 15.247 TX Spurious Conducted ~ BT LE coded S8 2440_06102020_172926.png



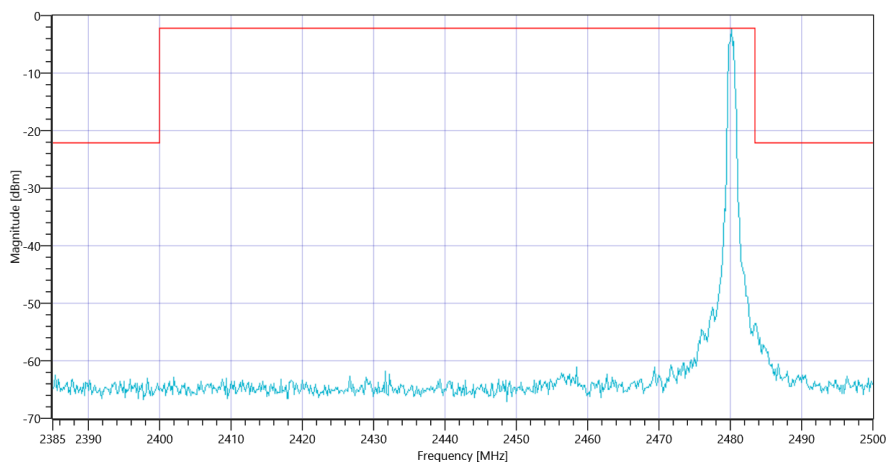
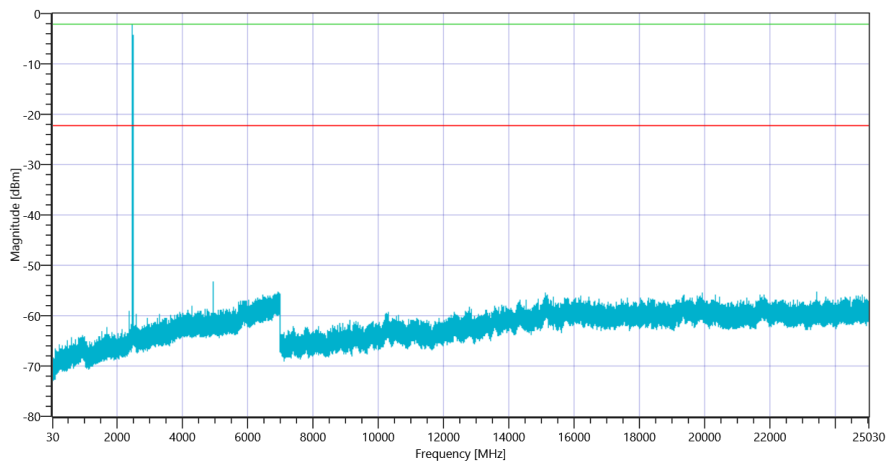
Plot_FCC Part 15.247 TX Spurious Conducted ~ BT LE coded S8 2440_06102020_172929.png

Test at TX 2480 MHz

DTM Connection check					
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Connection result	---	---	---	---	PASS

READ SA SETTINGS:					
RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]			-0.38 0 15		
Start [MHz] Stop [MHz]			24530.000 25030.000		
RBW [MHz] VBW [MHz]			0.100000 0.300000		
Detector TraceMode			POS MAXH		
Sweep: Time [ms] Count Points per Section Type			500 8 3001 SWE		

RESULT					
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Reference @ 2480.17 MHz	---	---	-2.19	dBm	INFO
No peaks detected	---	---			PASS
Lowest margin to limit 4960.833 MHz	0	---	31.19	dB	INFO



TEST FINISHED		
General Verdict	06.10.2020 17:34:22 / RT: 874 s	PASS

20. FCC Part 15.247 TX Spurious Conducted ~ BT LE coded S2

Test References	
TC Start	06.10.2020 17:44:07
Ambit Temp [°C] Humidity [rel%]	24.7 41
System Version	1.0.0.51
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_VM_FCC15247_TX_Emissions_Conducted_V01 Version: 0.0.1
My Description	FCC 15.247 TX Emissions Conducted DTS - BT LE coded S2
Add. Information	

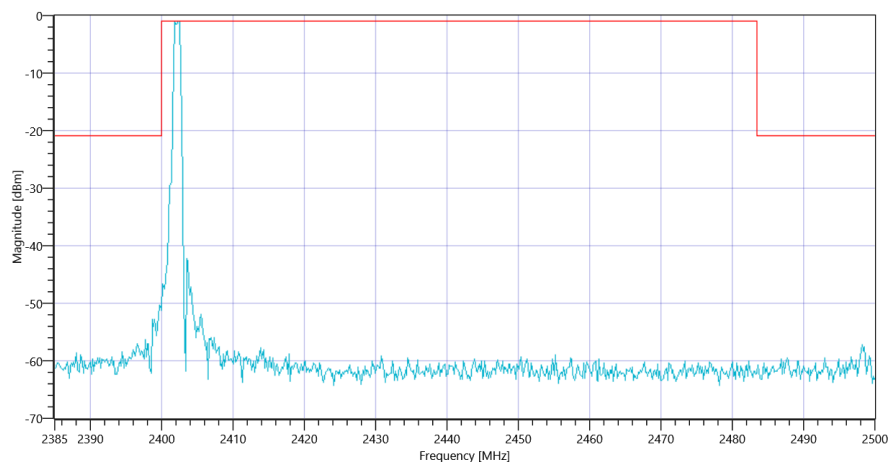
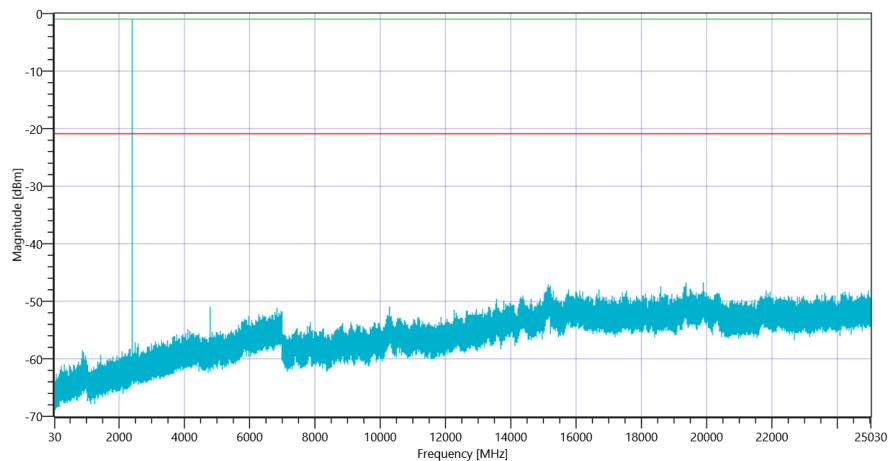
Test Parameter	
Technology to test	BT LE coded S2
Antenna Port used	1
Temperature	mid
Voltage	mid
Frequency low to test	True Freq [MHz] 2402
Frequency mid to test	True Freq [MHz] 2440
Frequency high to test	True Freq [MHz] 2480
Switched Path	IUT - SignalingUnit - SpectrumAnalyzer
Devices in use	SigBT: Rohde&Schwarz,CMW,1201.0002k75/100683,3.7.170 SA: Rohde&Schwarz,FSV-30,1321.3008K30/103809,3.60

Test at TX 2402 MHz

DTM Connection check					
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Connection result	---	---	---	---	PASS

READ SA SETTINGS:					
RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]			1.60 0 20		
Start [MHz] Stop [MHz]			24530.000 25030.000		
RBW [MHz] VBW [MHz]			0.100000 0.300000		
Detector TraceMode			POS MAXH		
Sweep: Time [ms] Count Points per Section Type			500 3 3001 SWE		

RESULT					
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Reference @ 2401.83 MHz	---	---	-0.90	dBm	INFO
No peaks detected	---	---			PASS
Lowest margin to limit 19886 MHz	0	---	25.91	dB	INFO

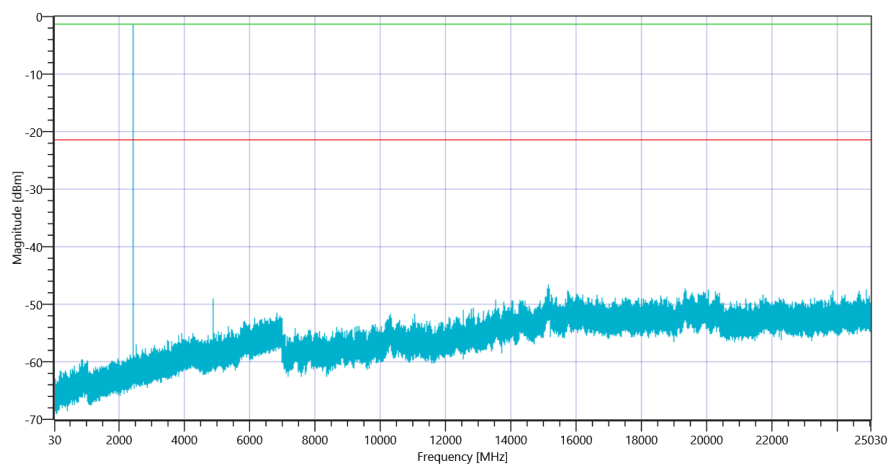


Test at TX 2440 MHz

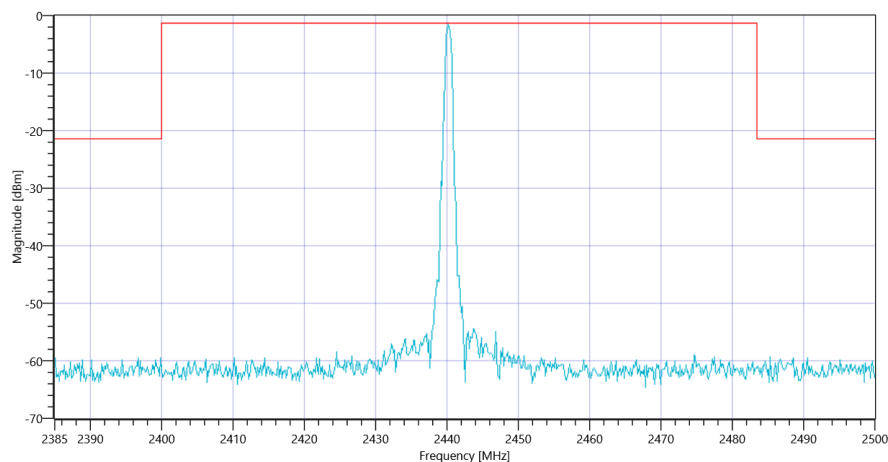
DTM Connection check					
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Connection result	---	---	---	---	PASS

READ SA SETTINGS:					
RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]			0.87 0 20		
Start [MHz] Stop [MHz]			24530.000 25030.000		
RBW [MHz] VBW [MHz]			0.100000 0.300000		
Detector TraceMode			POS MAXH		
Sweep: Time [ms] Count Points per Section Type			500 3 3001 SWE		

RESULT					
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Reference @ 2440.17 MHz	---	---	-1.36	dBm	INFO
No peaks detected	---	---			PASS
Lowest margin to limit 15161.167 MHz	0	---	25.33	dB	INFO



Plot_FCC Part 15.247 TX Spurious Conducted ~ BT LE coded S2 2440_06102020_174906.png



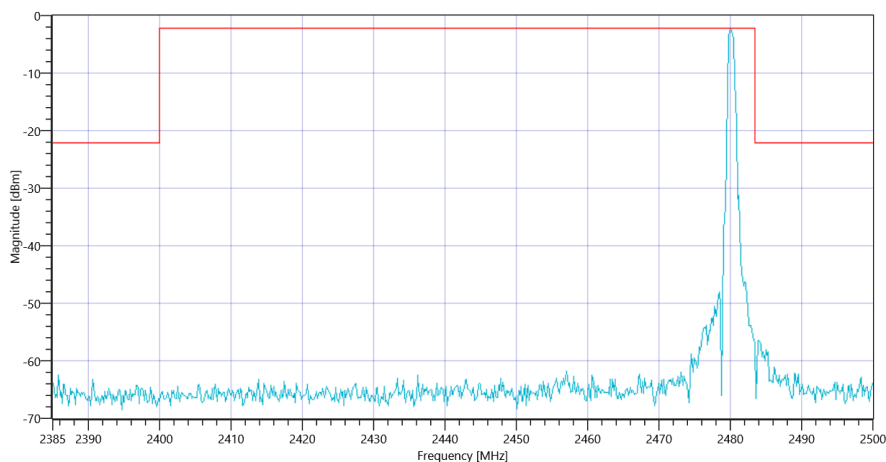
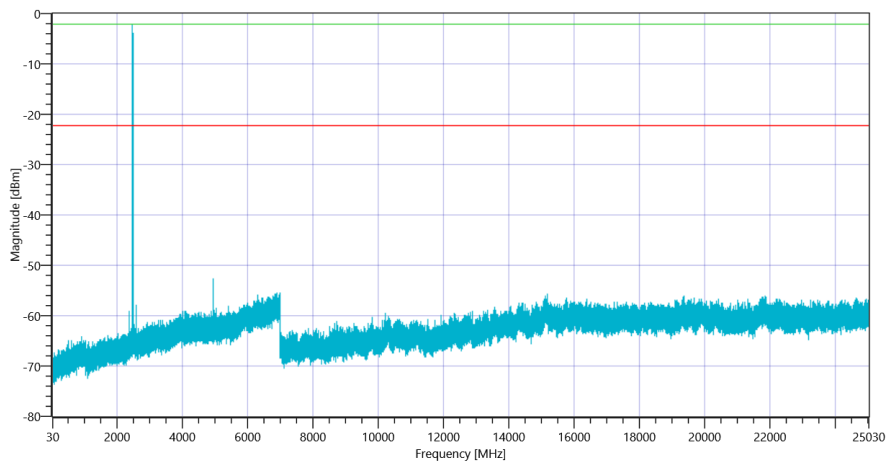
Plot_FCC Part 15.247 TX Spurious Conducted ~ BT LE coded S2 2440_06102020_174909.png

Test at TX 2480 MHz

DTM Connection check					
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Connection result	---	---	---	---	PASS

READ SA SETTINGS:					
RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	-0.38 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 3 3001 SWE				

RESULT					
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Reference @ 2480.00 MHz	---	---	-2.19	dBm	INFO
No peaks detected	---	---			PASS
Lowest margin to limit 30 MHz	0	---	-129.24	dB	INFO



TEST FINISHED		
General Verdict	06.10.2020 17:51:42 / RT: 455 s	PASS

21. Common2G4 Peak OP 3MHz/3MHz ~ BT LE 1 Msps

Test References	
TC Start	06.10.2020 16:12:49
Ambit Temp [°C] Humidity [rel%]	25.1 41
System Version	1.0.0.51
Test Specification	None
Test Method	
Class / TC Version	TC_VM_Common2G4_Peak_Output_Power_Conducted_3MHz_3MHz_V01 Version: 0.0.1
My Description	Peak Output Power conducted 3MHz/3MHz - BT LE 1 Msps
Add. Information	

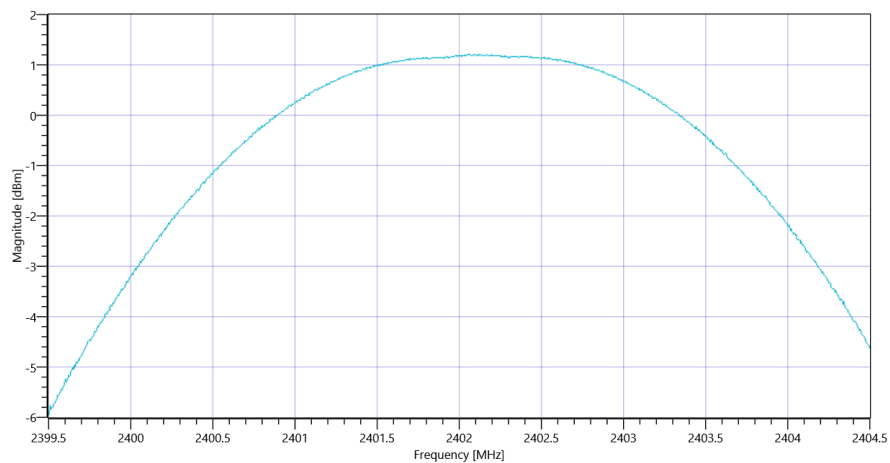
Test Parameter	
Technology to test	BT LE 1 Msps
Antenna Port used	1
Temperature	mid
Voltage	mid
Frequency low to test	True Freq [MHz] 2402
Frequency mid to test	True Freq [MHz] 2440
Frequency high to test	True Freq [MHz] 2480
Switched Path	IUT - SignalingUnit - SpectrumAnalyzer
Devices in use	SigBT: Rohde&Schwarz,CMW,1201.0002k75/100683,3.7.170 SA: Rohde&Schwarz,FSV-30,1321.3008K30/103809,3.60

Test at TX 2402 MHz

DTM Connection check					
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Connection result	---	---	---	---	PASS

READ SA SETTINGS:					
RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]			11.06 10.79 20		
Start [MHz] Stop [MHz]			2399.500 2404.500		
RBW [MHz] VBW [MHz]			3.000000 3.000000		
Detector TraceMode			POS MAXH		
Sweep: Time [ms] Count Points per Section Type			1000 10 1001 SWE		

RESULT					
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Peak Power	---	---	1.21	dBm	Info
Peak Power	---	---	1.321296	mW	Info
Frequency at Peak	---	---	2402.085	MHz	Info



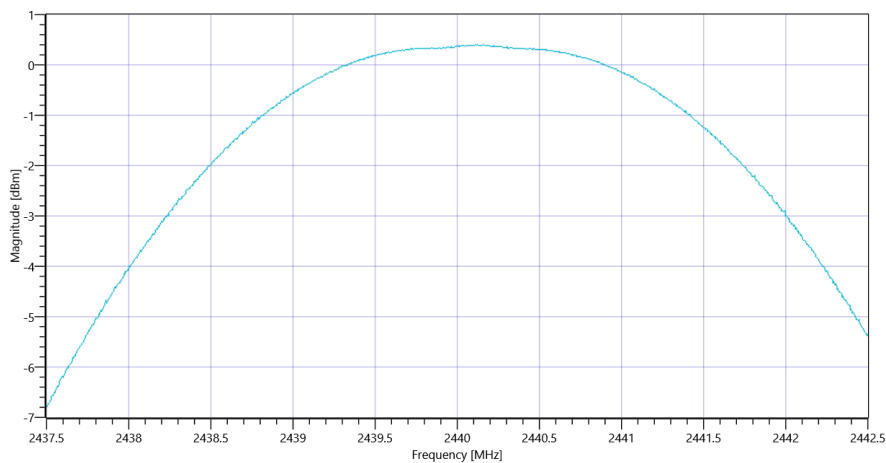
Plot_Common2G4 Peak OP 3MHz-3MHz ~ BT LE 1 Msps_06102020_161317.png

Test at TX 2440 MHz

DTM Connection check					
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Connection result	---	---	---	---	PASS

READ SA SETTINGS:					
RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]			10.35 10.8 15		
Start [MHz] Stop [MHz]			2437.500 2442.500		
RBW [MHz] VBW [MHz]			3.000000 3.000000		
Detector TraceMode			POS MAXH		
Sweep: Time [ms] Count Points per Section Type			1000 10 1001 SWE		

RESULT					
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Peak Power	---	---	0.4	dBm	Info
Peak Power	---	---	1.096478	mW	Info
Frequency at Peak	---	---	2440.125	MHz	Info



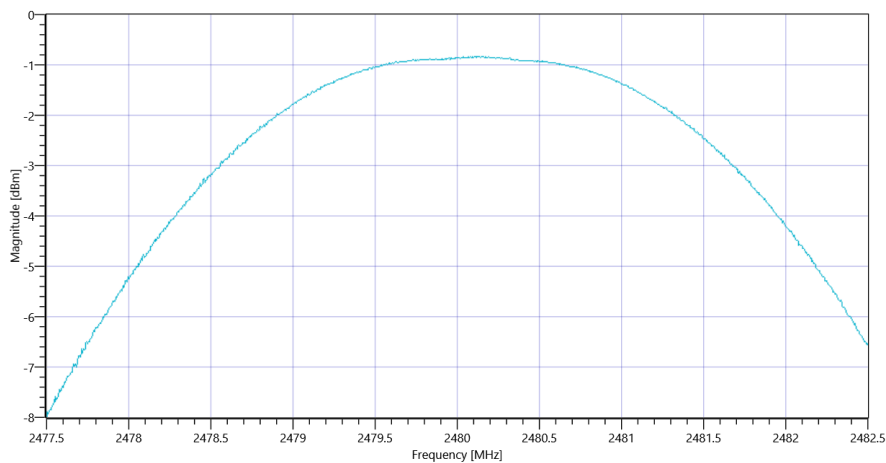
Plot_Common2G4 Peak OP 3MHz-3MHz ~ BT LE 1 Msps_06102020_161343.png

Test at TX 2480 MHz

DTM Connection check					
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Connection result	---	---	---	---	PASS

READ SA SETTINGS:					
RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]			9.03 10.85 15		
Start [MHz] Stop [MHz]			2477.500 2482.500		
RBW [MHz] VBW [MHz]			3.000000 3.000000		
Detector TraceMode			POS MAXH		
Sweep: Time [ms] Count Points per Section Type			1000 10 1001 SWE		

RESULT					
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Peak Power	---	---	-0.83	dBm	Info
Peak Power	---	---	0.826038	mW	Info
Frequency at Peak	---	---	2480.07	MHz	Info



TEST FINISHED		
General Verdict	06.10.2020 16:14:09 / RT: 80 s	PASS

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