

Measurement Results

1-1606/20-01-05_log1_conducted

[Test logging](#)

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Document authorized:

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EUT Summary

IUT DEFINITION & Common settings	
Manufacturer	WSAUD A/S
Type	Active; Active Pro; Active Pro DEMO
Serial No. Setup No.	NI 1.0
SW Version HW Version	NI NI
Comment 1 2	
Tlow Tmid Thigh [°C]	0 20 50
Vlow Vmid Vhigh [V] @Imax [A]	3.85 3.85 3.85 @1
Auto Control enabled Power Supply Climatic Box	No No
Additional Path Loss [dB]	0.7
IUT Common Settings BT Low Energy	
Intermodulation Value N	3
Image Freq. Low Mid High [MHz]	0 0 0
Power Class	2
1 Mbps supported	True TXpayload 255 RXpayload 37
2 Mbps supported	False TXpayload 255 RXpayload 255
Longrange S8 supported	False TXpayload 255 RXpayload 255
Longrange S2 supported	False TXpayload 255 RXpayload 255
Signaling Settings	USB_RS232 TWO 13 2400 None S1 None Off
Signaling RF Settings	RF1com 0 0 On
User Interaction	No
Switch Matrix & Pathcompensation enabled	Yes

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

Test References	
TC Start	21.12.2020 15:41:06
Ambit Temp [°C] Humidity [rel%]	23.4 35
System Version	1.0.1.2
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	

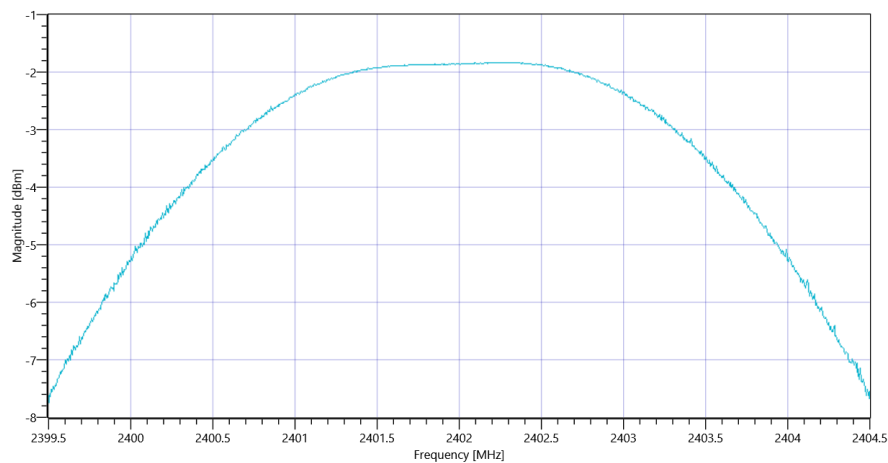
Test Parameter	
Technology to test	BT LE 1 Msps
Antenna Port used	1
Temperature	mid
Voltage	mid
Frequency low to test	True Freq [MHz] 2402
Frequency mid to test	True Freq [MHz] 2440
Frequency high to test	True Freq [MHz] 2480
Switched Path	IUT - SignalingUnit - SpectrumAnalyzer
Devices in use	SigBT: Rohde&Schwarz,CMW,1201.0002k75/100683,3.7.170 SA: Rohde&Schwarz,FSV-30,1321.3008K30/103809,3.70

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]			8.28 10.79 15		
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	---	---	-1.83	dBm	Info
Peak Power	---	---	0.656145	mW	Info
Frequency at Peak	---	---	2402.255	MHz	Info



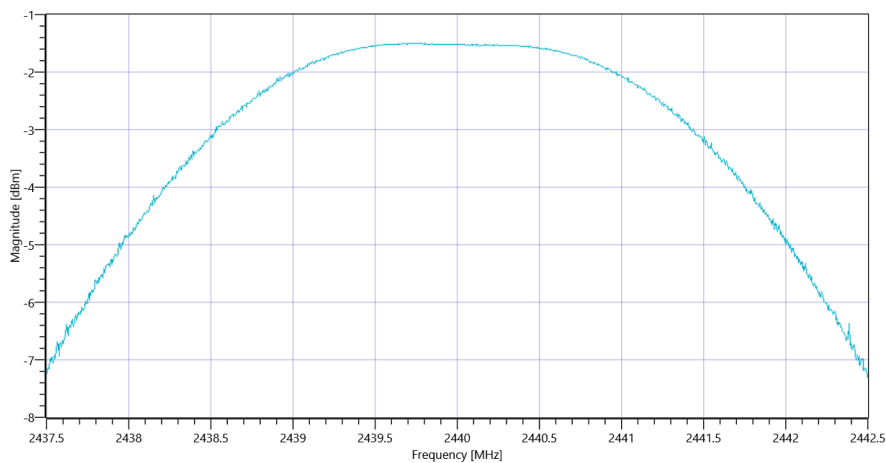
Plot_Common2G4 Peak OP 3MHz-3MHz ~ BT LE 1 Msps_21122020_154134.png

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]			8.59 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	---	---	-1.5	dBm	Info
Peak Power	---	---	0.707946	mW	Info
Frequency at Peak	---	---	2439.79	MHz	Info



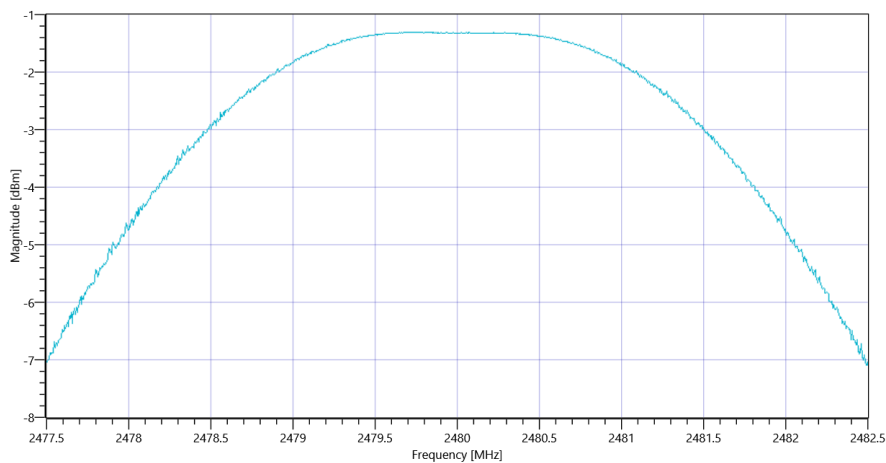
Plot_Common2G4 Peak OP 3MHz-3MHz ~ BT LE 1 Msps_21122020_154205.png

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]	8.77 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	---	---	-1.31	dBm	Info
Peak Power	---	---	0.739605	mW	Info
Frequency at Peak	---	---	2479.7	MHz	Info



TEST FINISHED		
General Verdict	21.12.2020 15:42:36 / RT: 89 s	PASS

2. FCC Part 15.247 Maximum Peak Conducted Output Power DTS ~ BT LE 1 Msps

Test References	
TC Start	21.12.2020 15:42:40
Ambit Temp [°C] Humidity [rel%]	23.4 35
System Version	1.0.1.2
Test Specification	FCC Part 15.247
Test Method	DTS: KDB 558074 D01 V05 - Chapter 8.3.1.1 RBW ≥ DTS Bandwidth
Class / TC Version	TC_VM_FCC15247_Maximum_Peak_Conducted_Output_Power_DTS_V01 Version: 0.0.1
My Description	FCC 15.247 Maximum Peak Output Power Conducted DTS - BT LE 1 Msps
Add. Information	

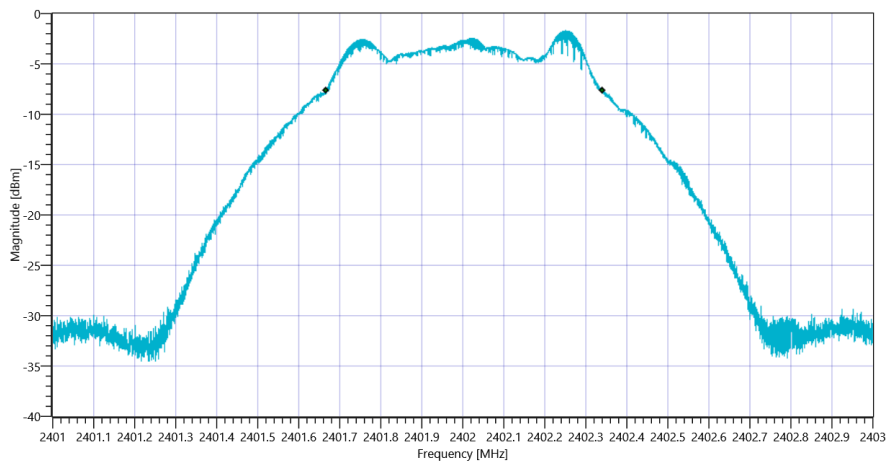
Test Parameter	
Technology to test	BT LE 1 Msps
Antenna Port used	1
Temperature	mid
Voltage	mid
Frequency low to test	True Freq [MHz] 2402
Frequency mid to test	True Freq [MHz] 2440
Frequency high to test	True Freq [MHz] 2480
Switched Path	IUT - SignalingUnit - SpectrumAnalyzer
Devices in use	SigBT: Rohde&Schwarz,CMW,1201.0002k75/100683,3.7.170 SA: Rohde&Schwarz,FSV-30,1321.3008K30/103809,3.70

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]	3.35 10.79 10				
Start [MHz] Stop [MHz]	2401.000 2403.000				
RBW [MHz] VBW [MHz]	0.100000 0.300000				
Detector TraceMode	POS MAXH				
Sweep: Time [ms] Count Points per Section Type	50 200 10001 SWE				

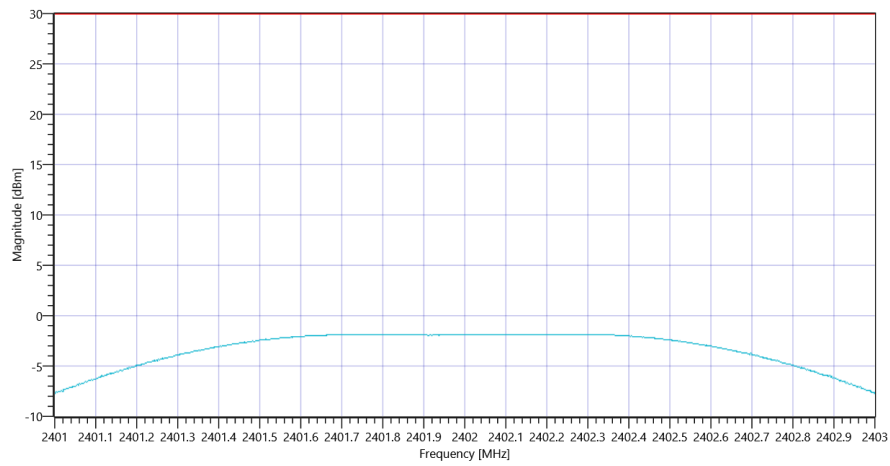
DTS Bandwidth					
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
DTS Bandwidth (6dB)	---	---	672	kHz	INFO



Plot_FCC Part 15.247 Maximum Peak Conducted Output Power DTS ~ BT LE 1 Msps DTS BW_21122020_154307.png

READ SA SETTINGS:					
RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	8.35 10.79 15				
Start [MHz] Stop [MHz]	2401.000 2403.000				
RBW [MHz] VBW [MHz]	1.000000 5.000000				
Detector TraceMode	POS MAXH				
Sweep: Time [ms] Count Points per Section Type	50 200 1001 SWE				

RESULT					
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Peak Power	---	30.00	-1.84	dBm	PASS
Peak Power	---	1000	0.654636	mW	PASS
Frequency at Peak	---	---	2402.254	MHz	INFO



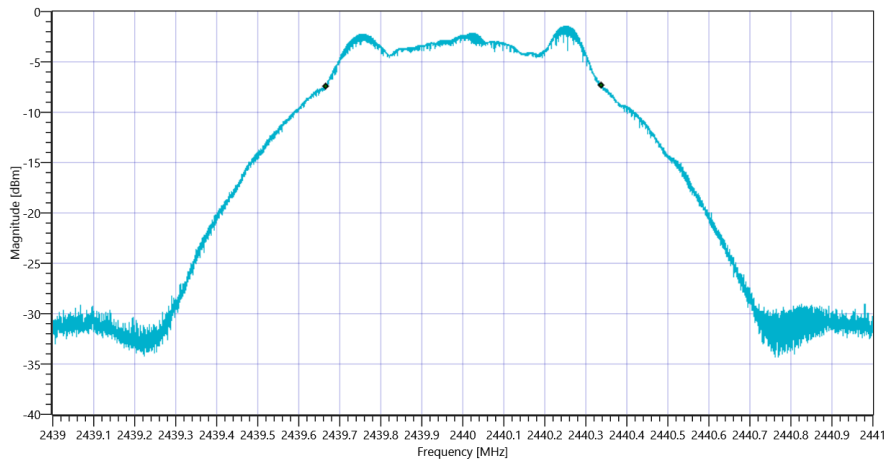
Plot_FCC Part 15.247 Maximum Peak Conducted Output Power DTS ~ BT LE 1 Msps_21122020_154323.png

Test at TX 2440 MHz

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

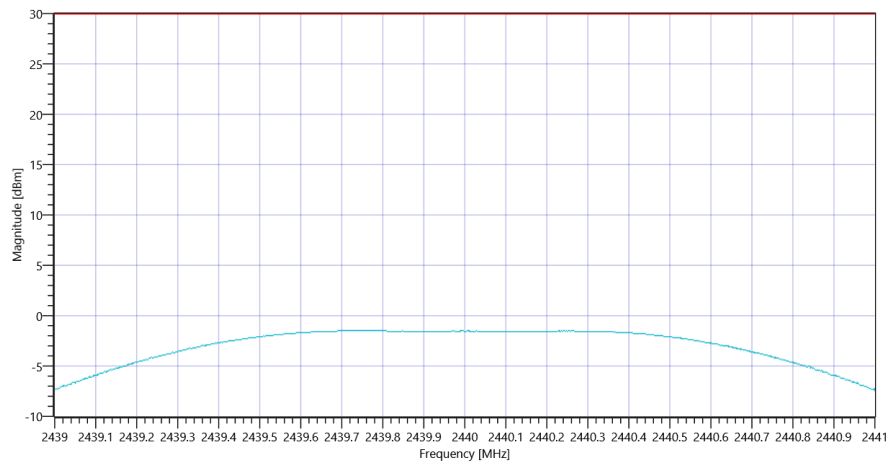
READ SA SETTINGS:					
RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]			3.65 10.8 10		
Start [MHz] Stop [MHz]			2439.000 2441.000		
RBW [MHz] VBW [MHz]			0.100000 0.300000		
Detector TraceMode			POS MAXH		
Sweep: Time [ms] Count Points per Section Type			50 200 10001 SWE		

DTS Bandwidth					
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
DTS Bandwidth (6dB)	---	---	670	kHz	INFO



READ SA SETTINGS:					
RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]			8.65 10.8 15		
Start [MHz] Stop [MHz]			2439.000 2441.000		
RBW [MHz] VBW [MHz]			1.000000 5.000000		
Detector TraceMode			POS MAXH		
Sweep: Time [ms] Count Points per Section Type			50 200 1001 SWE		

RESULT					
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Peak Power	---	30.00	-1.51	dBm	PASS
Peak Power	---	1000	0.706318	mW	PASS
Frequency at Peak	---	---	2439.748	MHz	INFO



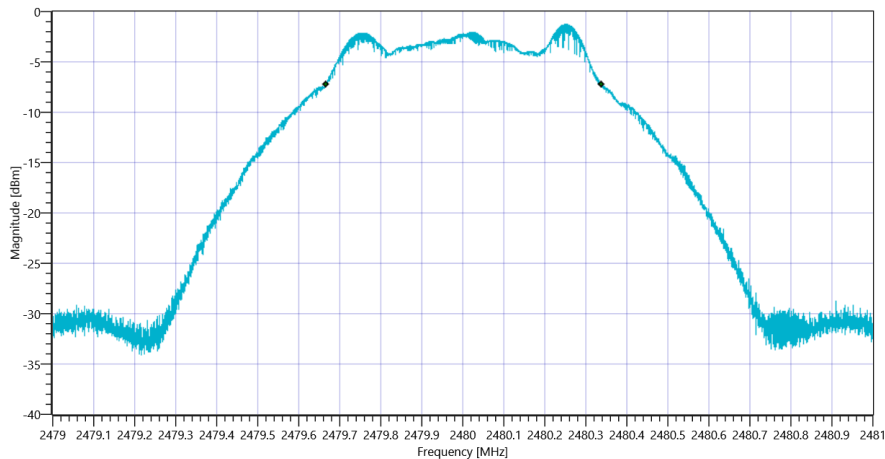
Plot_FCC Part 15.247 Maximum Peak Conducted Output Power DTS ~ BT LE 1 Msps_21122020_154409.png

Test at TX 2480 MHz

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

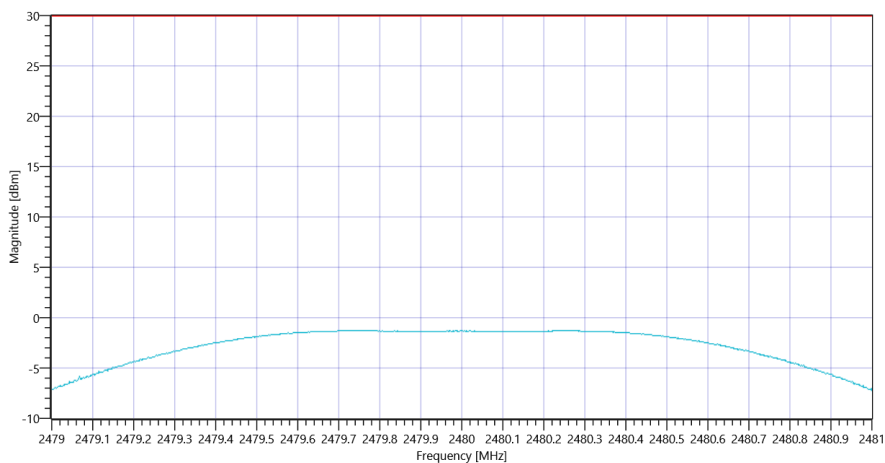
READ SA SETTINGS:					
RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	3.77 10.85 10				
Start [MHz] Stop [MHz]	2479.000 2481.000				
RBW [MHz] VBW [MHz]	0.100000 0.300000				
Detector TraceMode	POS MAXH				
Sweep: Time [ms] Count Points per Section Type	50 200 10001 SWE				

DTS Bandwidth					
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
DTS Bandwidth (6dB)	---	---	672	kHz	INFO



READ SA SETTINGS:					
RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	8.77 10.85 15				
Start [MHz] Stop [MHz]	2479.000 2481.000				
RBW [MHz] VBW [MHz]	1.000000 5.000000				
Detector TraceMode	POS MAXH				
Sweep: Time [ms] Count Points per Section Type	50 200 1001 SWE				

RESULT					
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Peak Power	---	30.00	-1.31	dBm	PASS
Peak Power	---	1000	0.739605	mW	PASS
Frequency at Peak	---	---	2479.748	MHz	INFO



Plot_FCC Part 15.247 Maximum Peak Conducted Output Power DTS ~ BT LE 1 Msps_21122020_154456.png

TEST FINISHED		
General Verdict	21.12.2020 15:44:57 / RT: 136 s	PASS

3. FCC Part 15.247 Bandwidth 6dB DTS ~ BT LE 1 Msp/s

Test References	
TC Start	21.12.2020 15:45:01
Ambit Temp [°C] Humidity [rel%]	23.4 34
System Version	1.0.1.2
Test Specification	FCC Part 15.247
Test Method	99
Class / TC Version	TC_VM_FCC15247_Bandwidth_6dB_DTS_V01 Version: 0.0.1
My Description	FCC 15.247 Bandwidth 6dB DTS - BT LE 1 Msp/s
Add. Information	

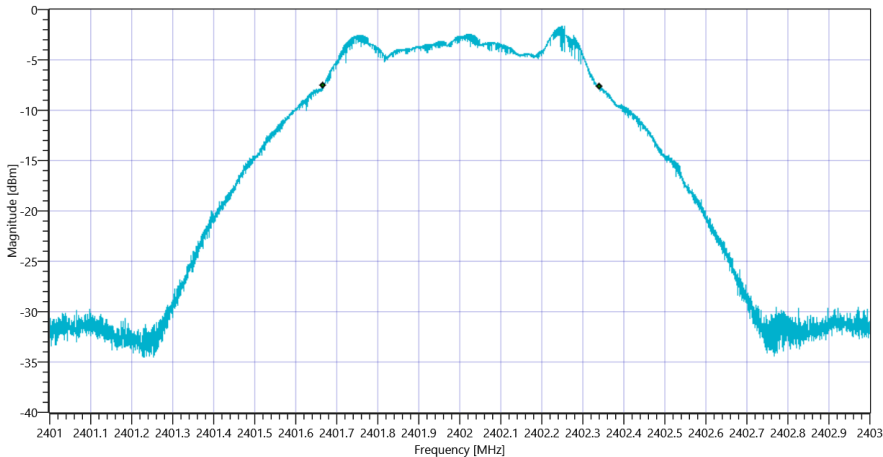
Test Parameter	
Technology to test	BT LE 1 Msp/s
Antenna Port used	1
Temperature	mid
Voltage	mid
Frequency low to test	True Freq [MHz] 2402
Frequency mid to test	True Freq [MHz] 2440
Frequency high to test	True Freq [MHz] 2480
Switched Path	IUT - SignalingUnit - SpectrumAnalyzer
Devices in use	SigBT: Rohde&Schwarz,CMW,1201.0002k75/100683,3.7.170 SA: Rohde&Schwarz,FSV-30,1321.3008K30/103809,3.70

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]	3.30 10.79 10	
Start [MHz] Stop [MHz]	2401.000 2403.000	
RBW [MHz] VBW [MHz]	0.100000 0.300000	
Detector TraceMode	POS MAXH	
Sweep: Time [ms] Count Points per Section Type	50 200 10001 SWE	

RESULT					
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
DTS Bandwidth (6dB)	500	---	674	kHz	PASS



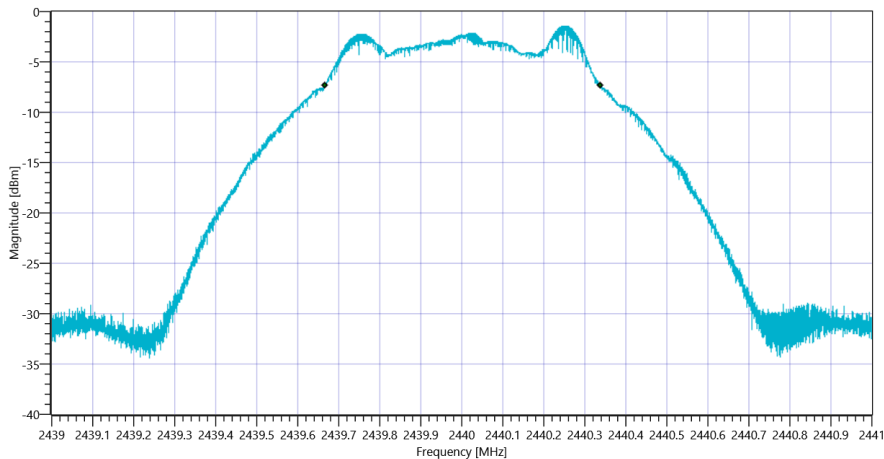
Plot_FCC Part 15.247 Bandwidth 6dB DTS ~ BT LE 1 Msps_21122020_154529.png

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]	3.63 10.8 10	
Start [MHz] Stop [MHz]	2439.000 2441.000	
RBW [MHz] VBW [MHz]	0.100000 0.300000	
Detector TraceMode	POS MAXH	
Sweep: Time [ms] Count Points per Section Type	50 200 10001 SWE	

RESULT					
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
DTS Bandwidth (6dB)	500	---	671	kHz	PASS



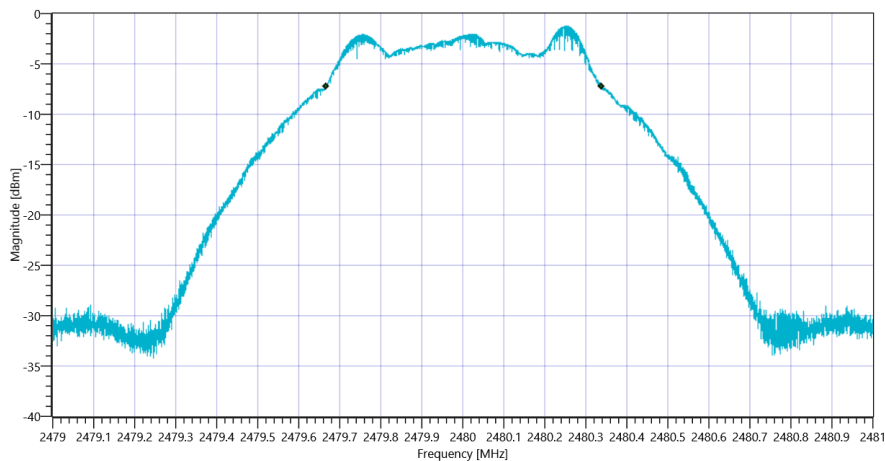
Plot_FCC Part 15.247 Bandwidth 6dB DTS ~ BT LE 1 Msps_21122020_154600.png

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]	3.77 10.85 10				
Start [MHz] Stop [MHz]	2479.000 2481.000				
RBW [MHz] VBW [MHz]	0.100000 0.300000				
Detector TraceMode	POS MAXH				
Sweep: Time [ms] Count Points per Section Type	50 200 10001 SWE				

RESULT					
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
DTS Bandwidth (6dB)	500	---	672	kHz	PASS



Plot_FCC Part 15.247 Bandwidth 6dB DTS ~ BT LE 1 Msps_21122020_154631.png

TEST FINISHED		
General Verdict	21.12.2020 15:46:31 / RT: 89 s	PASS

4. FCC Part 15.247 Peak Power Spectral Density DTS ~ BT LE 1 Msps

Test References	
TC Start	21.12.2020 15:46:35
Ambit Temp [°C] Humidity [rel%]	23.5 34
System Version	1.0.1.2
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_VM_FCC15247_Peak_Power_Spectral_Density_DTS_V01 Version: 0.0.1
My Description	FCC 15.247 Peak Power Spectral Density DTS - BT LE 1 Msps
Add. Information	

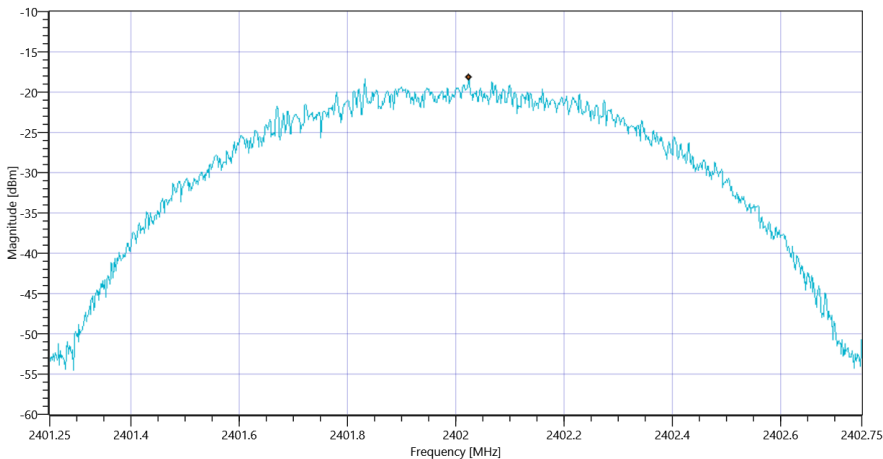
Test Parameter	
Technology to test	BT LE 1 Msps
Antenna Port used	1
Temperature	mid
Voltage	mid
Frequency low to test	True Freq [MHz] 2402
Frequency mid to test	True Freq [MHz] 2440
Frequency high to test	True Freq [MHz] 2480
Switched Path	IUT - SignalingUnit - SpectrumAnalyzer
Devices in use	SigBT: Rohde&Schwarz,CMW,1201.0002k75/100683,3.7.170 SA: Rohde&Schwarz,FSV-30,1321.3008K30/103809,3.70

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]	3.36 10.79 10	
Start [MHz] Stop [MHz]	2401.250 2402.750	
RBW [MHz] VBW [MHz]	0.003000 0.010000	
Detector TraceMode	POS MAXH	
Sweep: Time [ms] Count Points per Section Type	1000 20 1001 SWE	

RESULT					
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Max Peak power Density	---	8	-18.17	dBm/3KHz	PASS



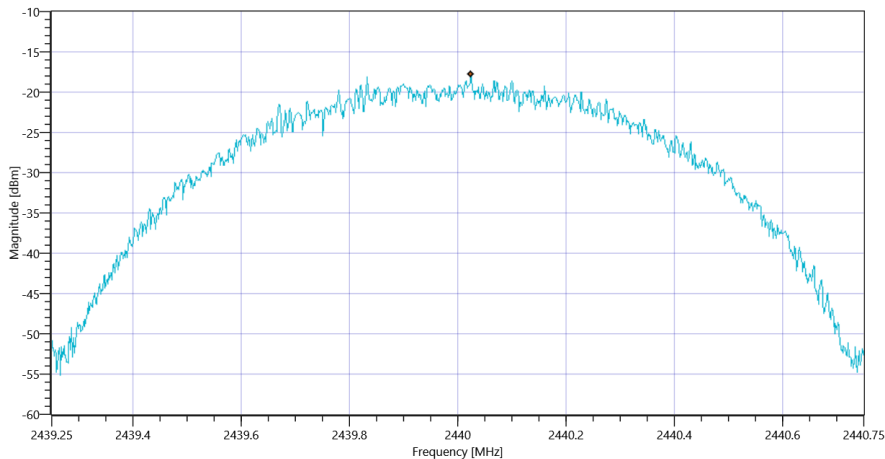
Plot_FCC Part 15.247 Peak Power Spectral Density DTS ~ BT LE 1 Msps_21122020_154713.png

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]	3.67 10.8 10	
Start [MHz] Stop [MHz]	2439.250 2440.750	
RBW [MHz] VBW [MHz]	0.003000 0.010000	
Detector TraceMode	POS MAXH	
Sweep: Time [ms] Count Points per Section Type	1000 20 1001 SWE	

RESULT					
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Max Peak power Density	---	8	-17.77	dBm/3KHz	PASS



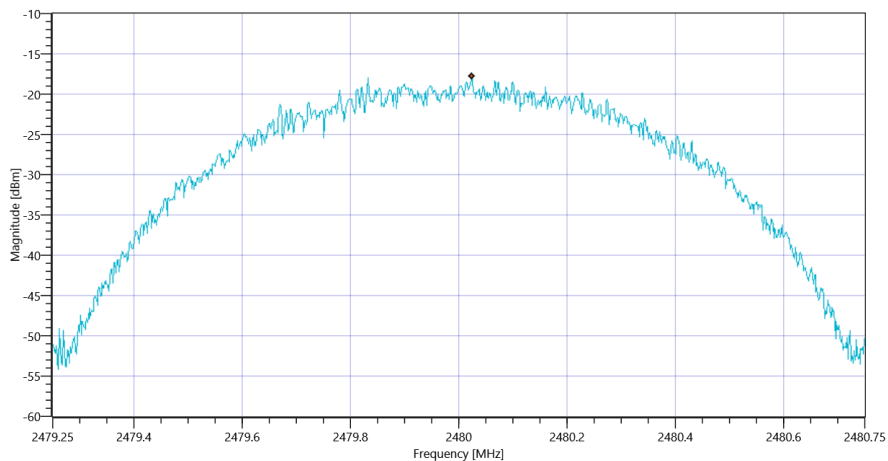
Plot_FCC Part 15.247 Peak Power Spectral Density DTS ~ BT LE 1 Msps_21122020_154753.png

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]			3.80 10.85 10		
Start [MHz] Stop [MHz]			2479.250 2480.750		
RBW [MHz] VBW [MHz]			0.003000 0.010000		
Detector TraceMode			POS MAXH		
Sweep: Time [ms] Count Points per Section Type			1000 20 1001 SWE		

RESULT					
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Max Peak power Density	---	8	-17.78	dBm/3KHz	PASS



Plot_FCC Part 15.247 Peak Power Spectral Density DTS ~ BT LE 1 Msps_21122020_154833.png

TEST FINISHED		
General Verdict	21.12.2020 15:48:34 / RT: 118 s	PASS

5. FCC Part 15.247 Bandwidth 99PCT-20dB ~ BT LE 1 Msps

Test References	
TC Start	21.12.2020 15:48:38
Ambit Temp [°C] Humidity [rel%]	23.5 34
System Version	1.0.1.2
Test Specification	FCC Part 15.247
Test Method	
Class / TC Version	TC_VM_FCC15247_Bandwidth_99PCT_20dB_DTS_FHSS_V01 Version: 0.0.2
My Description	FCC 15.247 Bandwidth 99PCT-20dB DTS - BT LE 1 Msps
Add. Information	

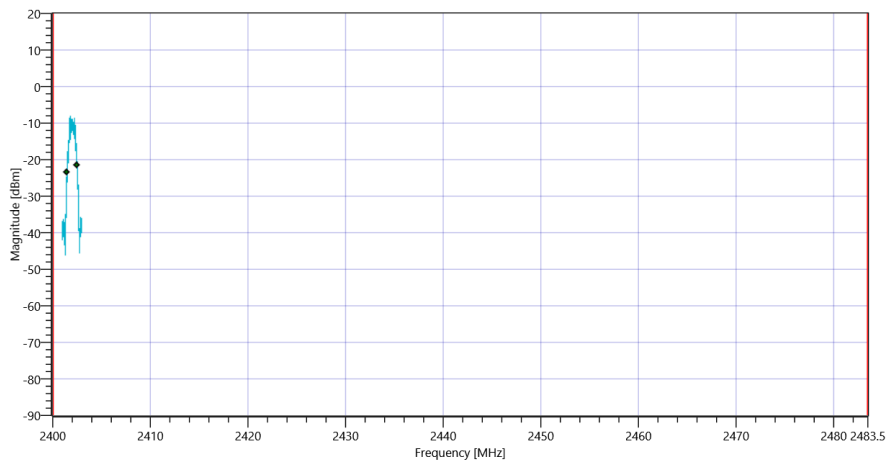
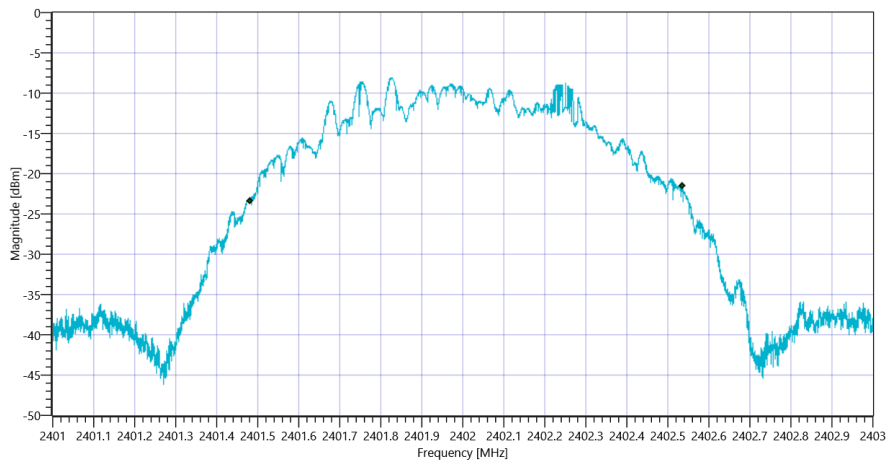
Test Parameter	
Technology to test	BT LE 1 Msps
Antenna Port used	1
Temperature	mid
Voltage	mid
Frequency low to test	True Freq [MHz] 2402
Frequency mid to test	True Freq [MHz] 2440
Frequency high to test	True Freq [MHz] 2480
Switched Path	IUT - SignalingUnit - SpectrumAnalyzer
Devices in use	SigBT: Rohde&Schwarz,CMW,1201.0002k75/100683,3.7.170 SA: Rohde&Schwarz,FSV-30,1321.3008K30/103809,3.70

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]			3.32 10.79 10		
Start [MHz] Stop [MHz]			2401.000 2403.000		
RBW [MHz] VBW [MHz]			0.020000 0.100000		
Detector TraceMode			POS MAXH		
Sweep: Time [ms] Count Points per Section Type			50 200 10001 SWE		

RESULT					
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 99%	---	---	1052	kHz	INFO
T1 99%	2400.000000	---	2401.4827	MHz	PASS
T2 99%	---	2483.500000	2402.5351	MHz	PASS



RESULT					
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 20dB	---	---	1205	kHz	INFO
T1 20DB	2400.000000	---	2401.4060	MHz	PASS

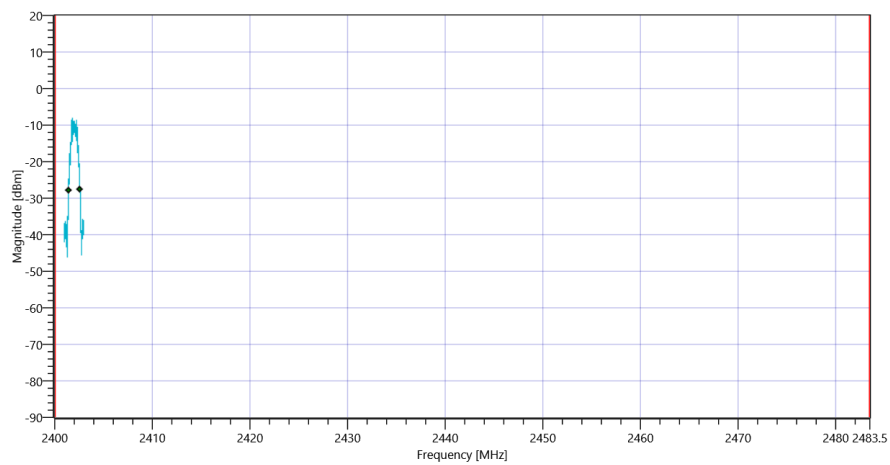
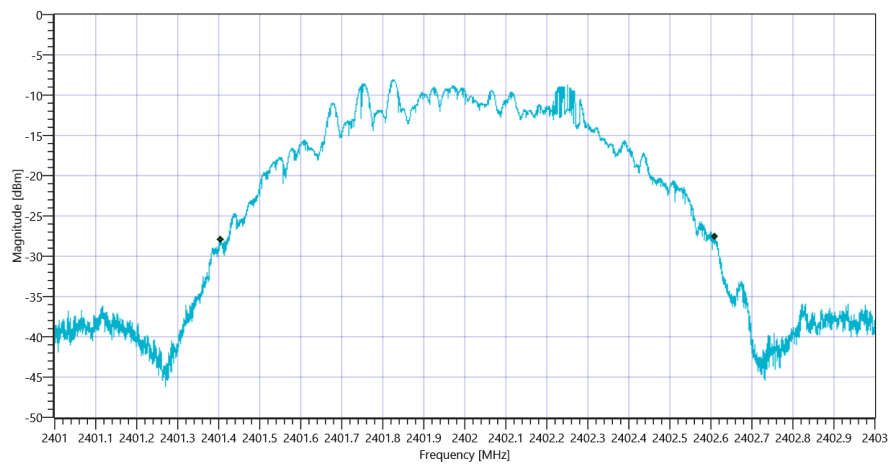
T2 20dB

2483.500000

2402.6108

MHz

PASS

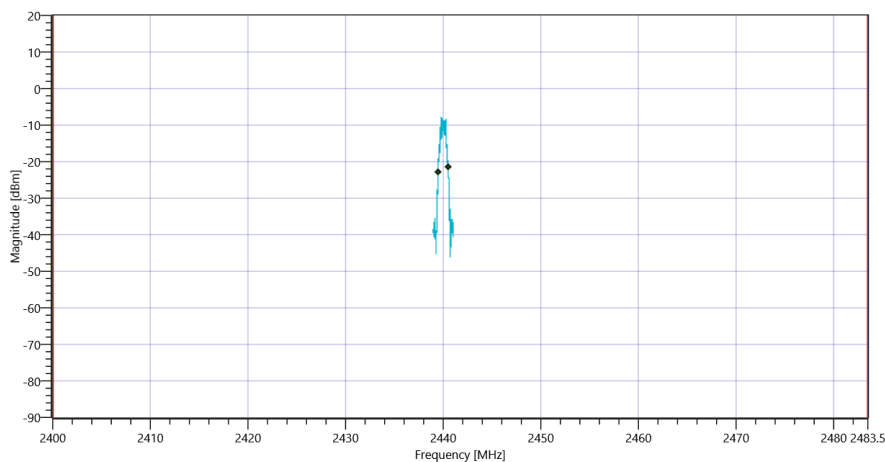
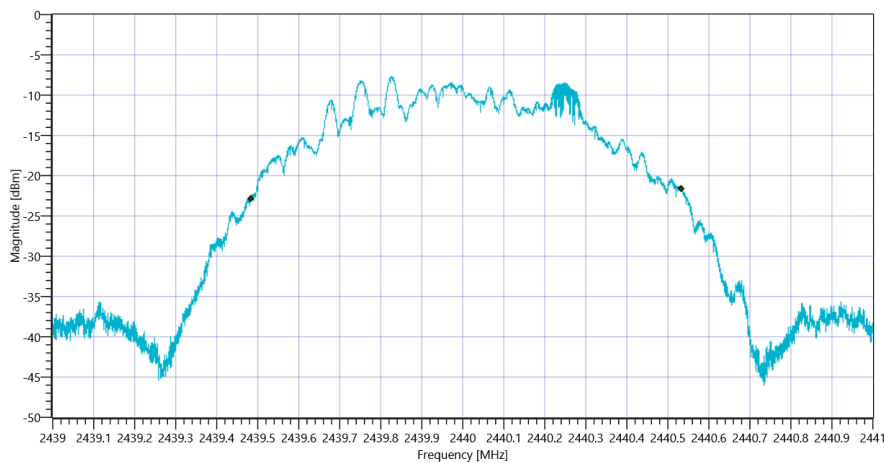


Test at TX 2440 MHz

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

READ SA SETTINGS:					
RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]			3.63 10.8 10		
Start [MHz] Stop [MHz]			2439.000 2441.000		
RBW [MHz] VBW [MHz]			0.020000 0.100000		
Detector TraceMode			POS MAXH		
Sweep: Time [ms] Count Points per Section Type			50 200 10001 SWE		

RESULT					
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 99%	---	---	1049	kHz	INFO
T1 99%	2400.000000	---	2439.4841	MHz	PASS
T2 99%	---	2483.500000	2440.5327	MHz	PASS



RESULT					
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 20dB	---	---	1194	kHz	INFO
T1 20DB	2400.000000	---	2439.4166	MHz	PASS

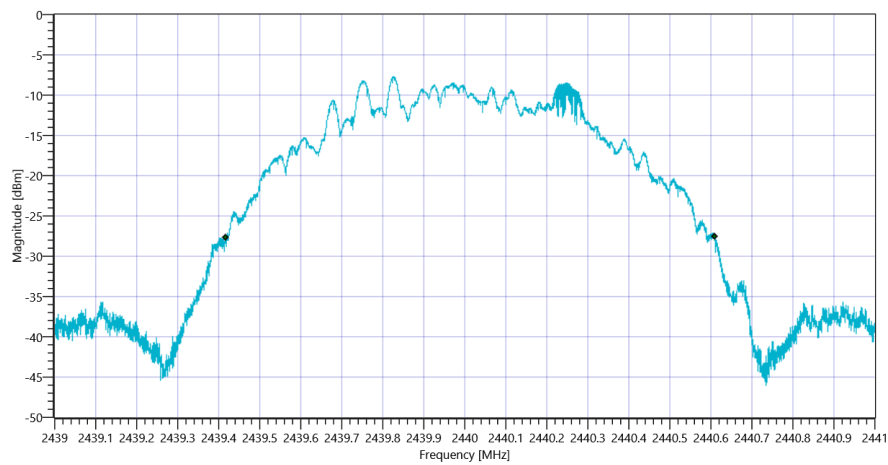
T2 20dB

2483.500000

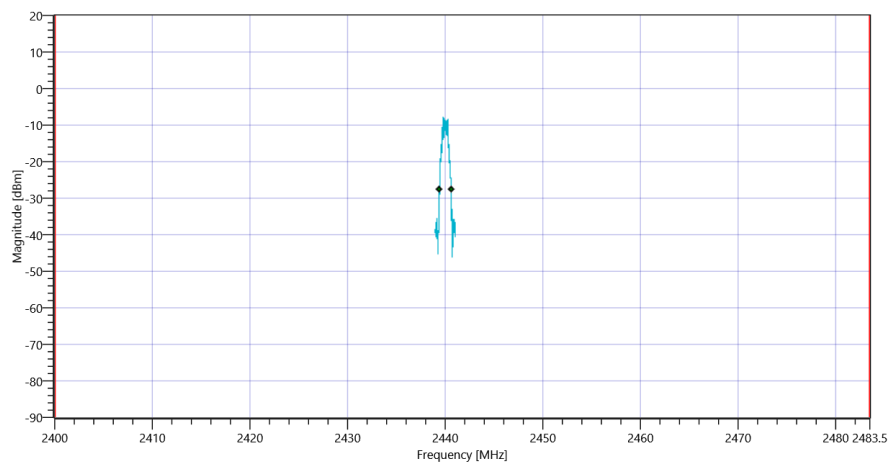
2440.6102

MHz

PASS



Plot_FCC Part 15.247 Bandwidth 99PCT-20dB ~ BT LE 1 Msps 20dB_21122020_154958.png



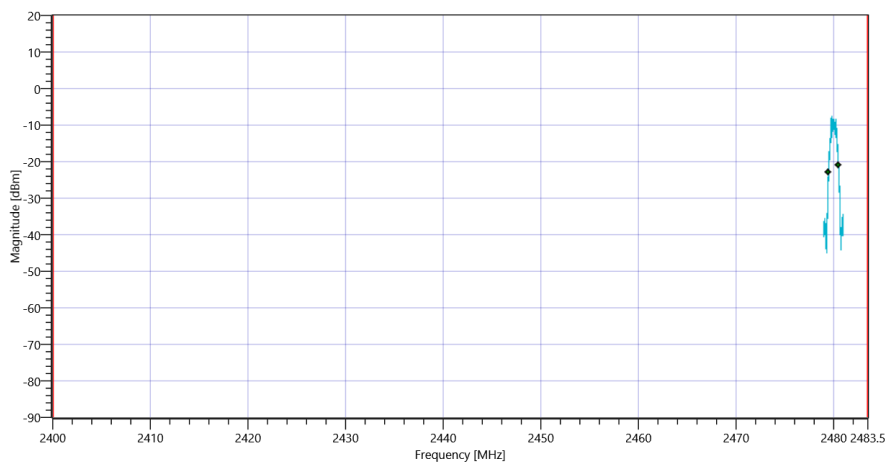
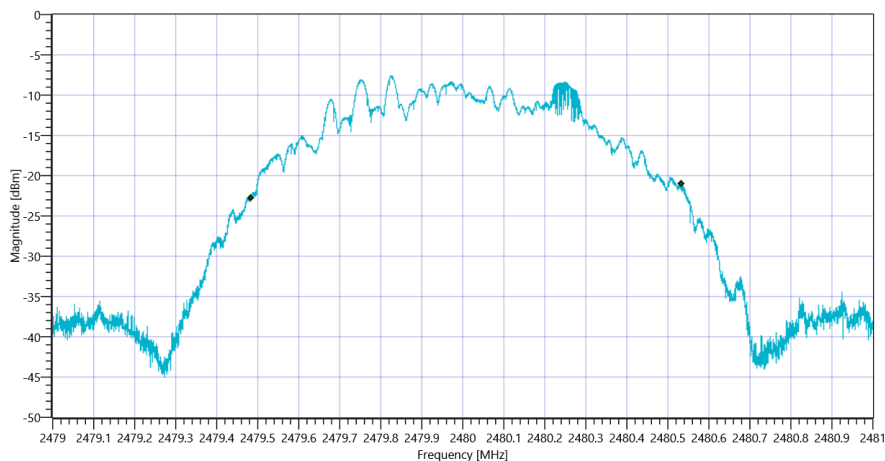
Plot_FCC Part 15.247 Bandwidth 99PCT-20dB ~ BT LE 1 Msps_21122020_155002.png

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]			3.85 10.85 10		
Start [MHz] Stop [MHz]			2479.000 2481.000		
RBW [MHz] VBW [MHz]			0.020000 0.100000		
Detector TraceMode			POS MAXH		
Sweep: Time [ms] Count Points per Section Type			50 200 10001 SWE		

RESULT					
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 99%	---	---	1051	kHz	INFO
T1 99%	2400.000000	---	2479.4833	MHz	PASS
T2 99%	---	2483.500000	2480.5339	MHz	PASS



RESULT					
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 20dB	---	---	1193	kHz	INFO
T1 20DB	2400.000000	---	2479.4182	MHz	PASS

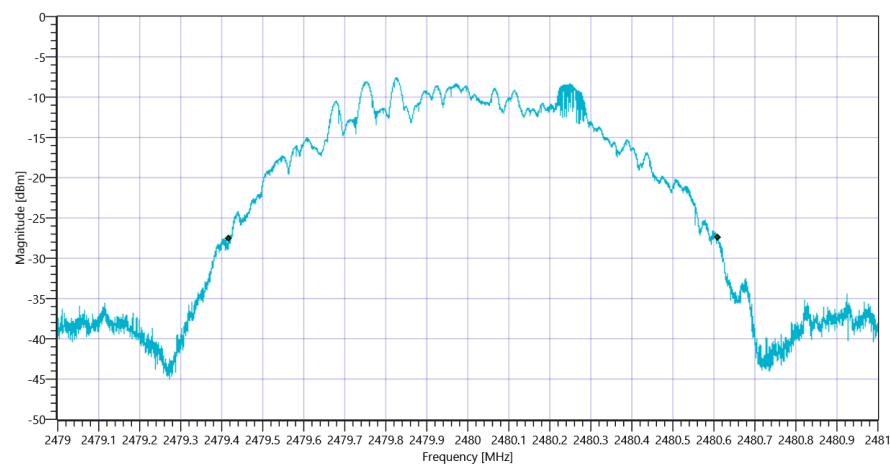
T2 20dB

2483.500000

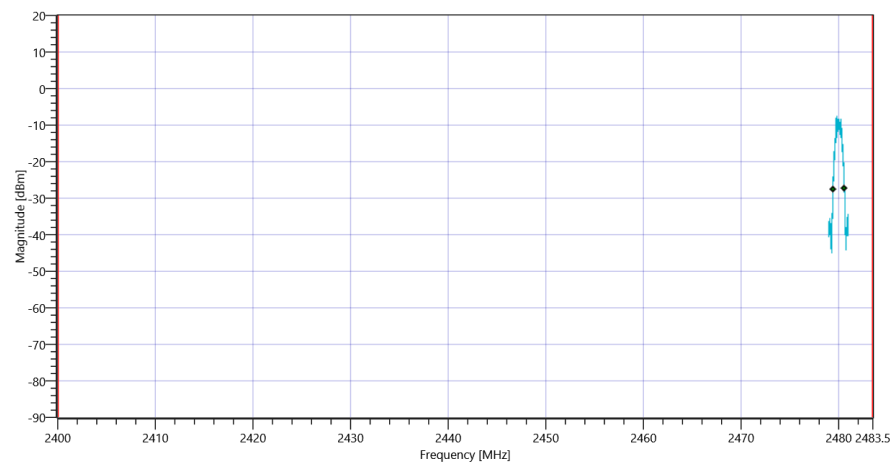
2480.6110

MHz

PASS



Plot_FCC Part 15.247 Bandwidth 99PCT-20dB ~ BT LE 1 Msps 20dB_21122020_155043.png



Plot_FCC Part 15.247 Bandwidth 99PCT-20dB ~ BT LE 1 Msps_21122020_155046.png

TEST FINISHED

General Verdict

21.12.2020 15:50:47 / RT: 128 s

PASS

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

Test References	
TC Start	21.12.2020 15:50:51
Ambit Temp [°C] Humidity [rel%]	23.5 34
System Version	1.0.1.2
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	

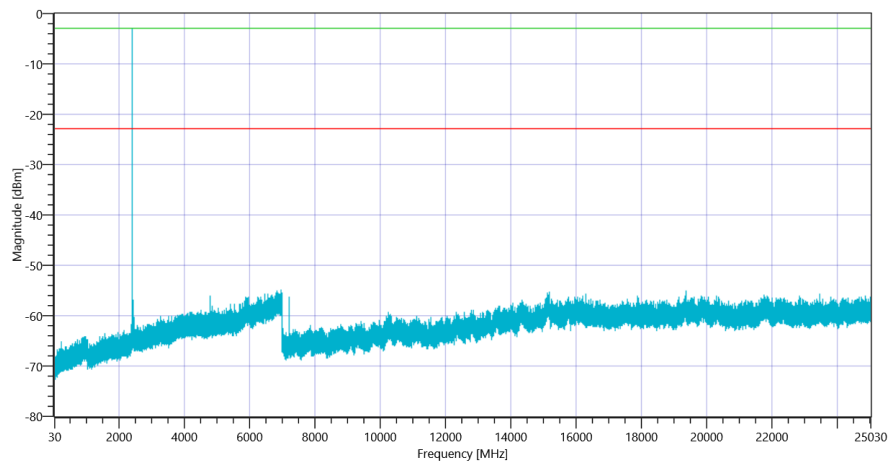
Test Parameter	
Technology to test	BT LE 1 Msp
Antenna Port used	1
Temperature	mid
Voltage	mid
Frequency low to test	True Freq [MHz] 2402
Frequency mid to test	True Freq [MHz] 2440
Frequency high to test	True Freq [MHz] 2480
Switched Path	IUT - SignalingUnit - SpectrumAnalyzer
Devices in use	SigBT: Rohde&Schwarz,CMW,1201.0002k75/100683,3.7.170 SA: Rohde&Schwarz,FSV-30,1321.3008K30/103809,3.70

Test at TX 2402 MHz

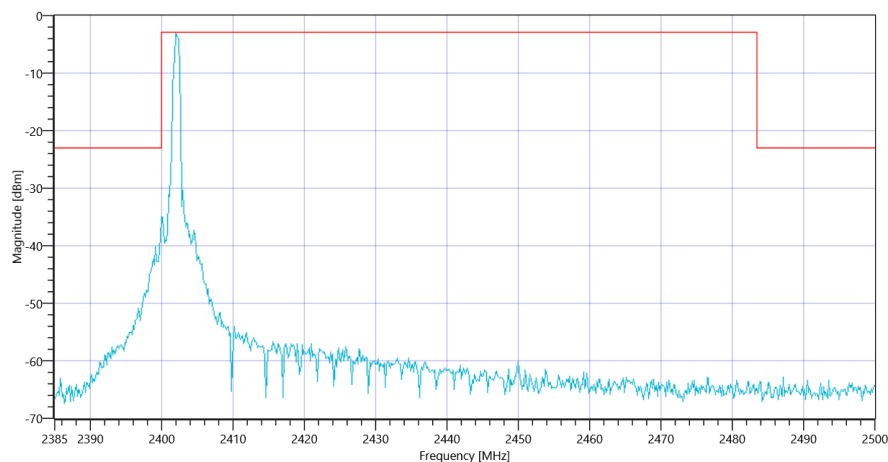
DTM Connection check					
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Connection result	---	---	---	---	PASS

READ SA SETTINGS:					
RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]			-1.64 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 @ 2402.00 MHz	---	---	-2.95	dBm	INFO
No peaks detected	---	---			PASS
Lowest margin to limit 2399.833 MHz	0	---	15.71	dB	INFO



Plot_FCC Part 15.247 TX Spurious Conducted ~ BT LE 1 Msps 2402_21122020_155539.png



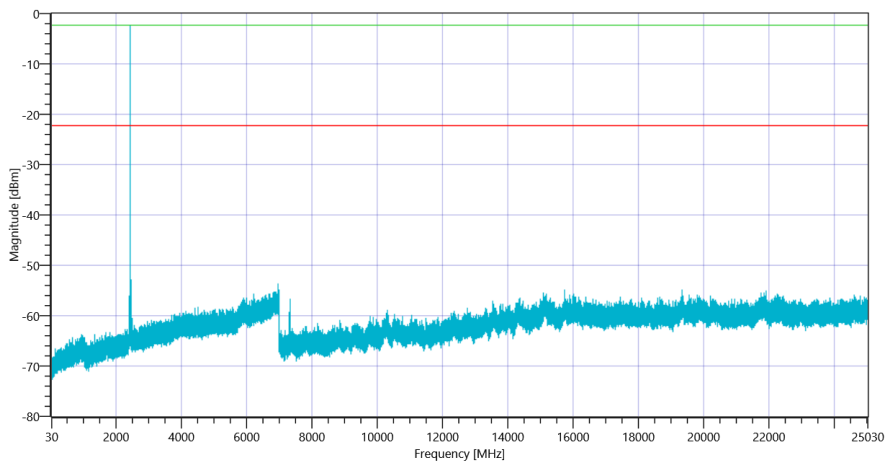
Plot_FCC Part 15.247 TX Spurious Conducted ~ BT LE 1 Msps 2402_21122020_155541.png

Test at TX 2440 MHz

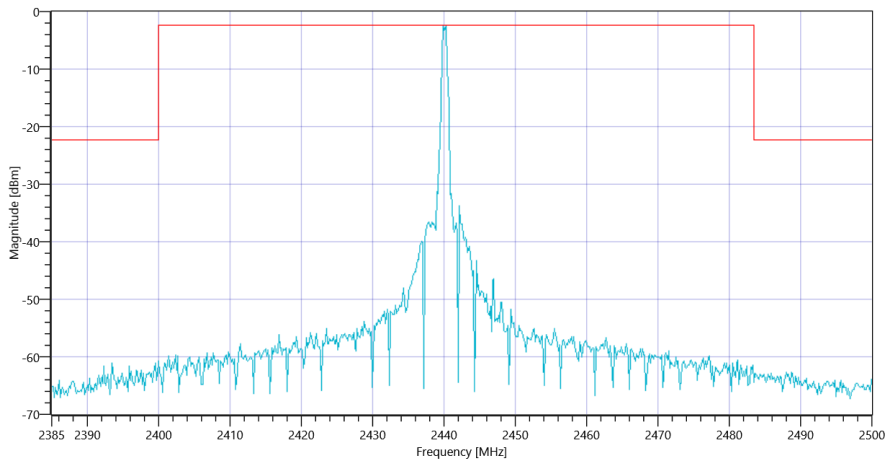
DTM Connection check					
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Connection result	---	---	---	---	PASS

READ SA SETTINGS:	
RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	-1.27 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 @ 2440.33 MHz	---	---	-2.31	dBm	INFO
No peaks detected	---	---			PASS
Lowest margin to limit 6960.833 MHz	0	---	31.46	dB	INFO



Plot_FCC Part 15.247 TX Spurious Conducted ~ BT LE 1 Msps 2440_21122020_160033.png



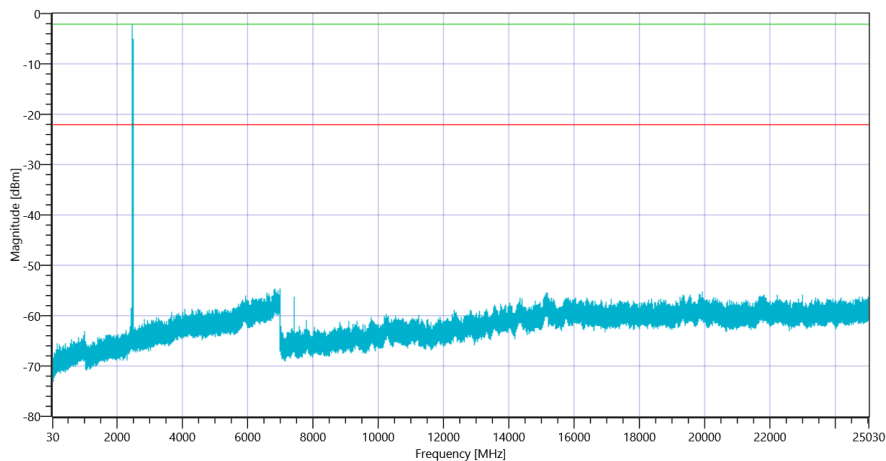
Plot_FCC Part 15.247 TX Spurious Conducted ~ BT LE 1 Msps 2440_21122020_160036.png

Test at TX 2480 MHz

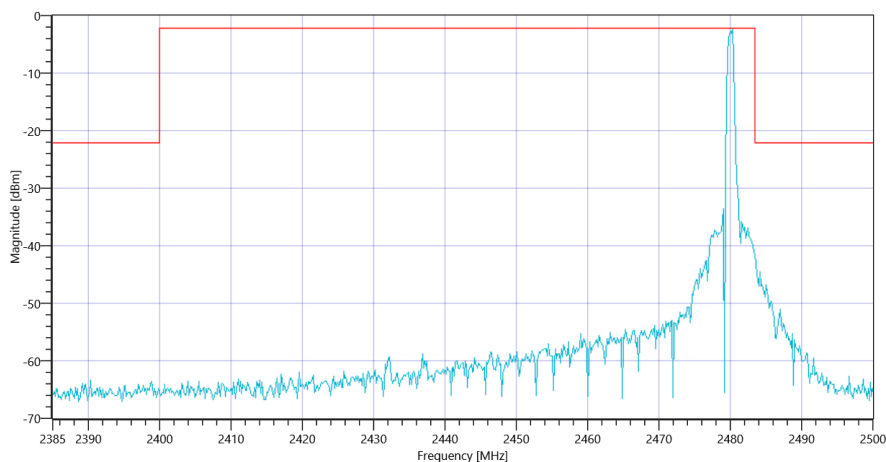
DTM Connection check					
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Connection result	---	---	---	---	PASS

READ SA SETTINGS:					
RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]			-1.18 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	---	---	-2.14	dBm	INFO
No peaks detected	---	---			PASS
Lowest margin to limit 30 MHz	0	---	-130.28	dB	INFO



Plot_FCC Part 15.247 TX Spurious Conducted ~ BT LE 1 Msps 2480_21122020_160528.png



Plot_FCC Part 15.247 TX Spurious Conducted ~ BT LE 1 Msps 2480_21122020_160530.png

TEST FINISHED		
General Verdict	21.12.2020 16:05:32 / RT: 880 s	PASS

7. FCC Part 15.247 Restricted Band Edge Conducted Peak DTS Video Avg (cond) ~ BT LE 1 Msps

Test References	
TC Start	21.12.2020 16:05:36
Ambit Temp [°C] Humidity [rel%]	23.6 34
System Version	1.0.1.2
Test Specification	FCC Part 15.247
Test Method	DTS: KDB 558074 D01 V05 - 8.7.3 Integration Method; ANSI C63.10-2013 11.13.3.2 Peak Detection
Class / TC Version	TC_VM_FCC15247_Restricted_Band_Edge_Conducted_Peak_V01 Version: 0.0.1
My Description	FCC 15.247 Restricted Band Edge Conducted Peak DTS - 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	False 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-30,1321.3008K30/103809,3.70

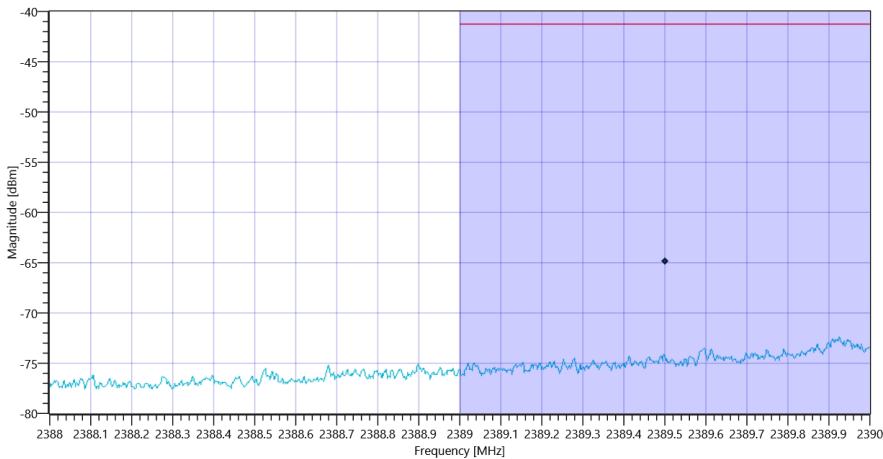
Test at TX 2402 MHz

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

READ SA SETTINGS:		
RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	3.39 10.79 10	
Start [MHz] Stop [MHz]	2388.000 2390.000	
RBW [MHz] VBW [MHz]	0.100000 0.002000	
Detector TraceMode	POS MAXH	
Sweep: Time [ms] Count Points per Section Type	8 300 1001 SWE	

Antenna Gain	
Considered Antenna Gain: [dBi]:	0

RESULT					
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Band Power	---	-41.23	-64.89	dBm	INCON



Plot_FCC Part 15.247 Restricted Band Edge Conducted Peak DTS Video Avg (cond) ~ BT LE 1 Msps_21122020_160556.png

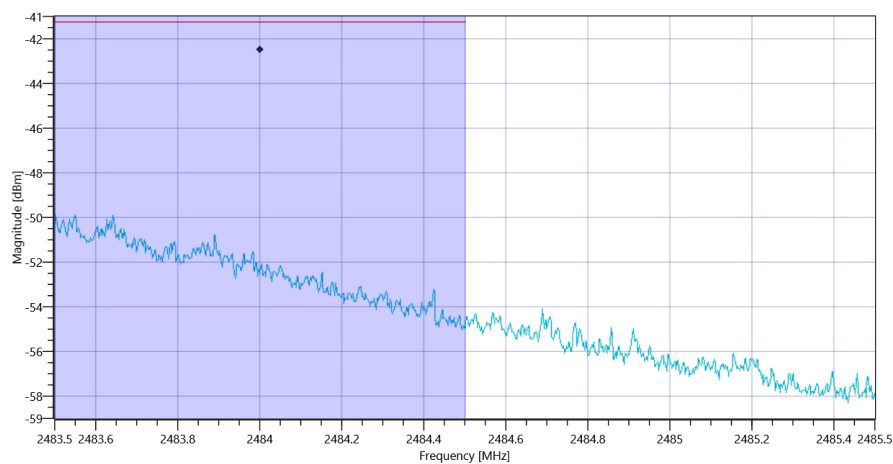
Test at TX 2480 MHz

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

READ SA SETTINGS:					
RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	3.83 10.85 10				
Start [MHz] Stop [MHz]	2483.500 2485.500				
RBW [MHz] VBW [MHz]	0.100000 0.002000				
Detector TraceMode	POS MAXH				
Sweep: Time [ms] Count Points per Section Type	8 300 1001 SWE				

Antenna Gain					
Considered Antenna Gain: [dBi]:	0				

RESULT					
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Band Power	---	-41.23	-42.5	dBm	INCON



Plot_FCC Part 15.247 Restricted Band Edge Conducted Peak DTS Video Avg (cond) ~ BT LE 1 Msps_21122020_160619.png

TEST FINISHED					
General Verdict	21.12.2020 16:06:20 / RT: 43 s			INCON	

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