

Measurement Results

1-0254/20-03-02_log1_conducted

[Test logging](#)

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EUT Summary

EUT DEFINITION	
Manufacturer	Acconeer AB
Type	XM122 Connectivity Module
Kind	IoT battery driven connectivity module
Serial Number Setup Number	XM122R2DFW21072603130 1.0
Version SW FW HW	2.8.2 NI XM122-01
Comment 1 2	
Temperature [°C] Min Nom Max	-40 20 85
Voltage [V] Min Nom Max	2 3 5.5

EUT 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 255
2 Mbps supported	True TXpayload 255 RXpayload 255
Longrange S8 supported	True TXpayload 255 RXpayload 255
Longrange S2 supported	True TXpayload 255 RXpayload 255
Signaling Settings	WS_USB_RS232 TWO 29 19200 None S1 None On
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	08.11.2021 13:20:58
Ambit Temp [°C] Humidity [rel%]	23.8 32
System Version	3.0.2.7
Test Specification	None
Test Method	
TC Version	0.0.1
My Description	Peak Output Power conducted 3MHz/3MHz - BT LE 1 Msps
Add. Information	

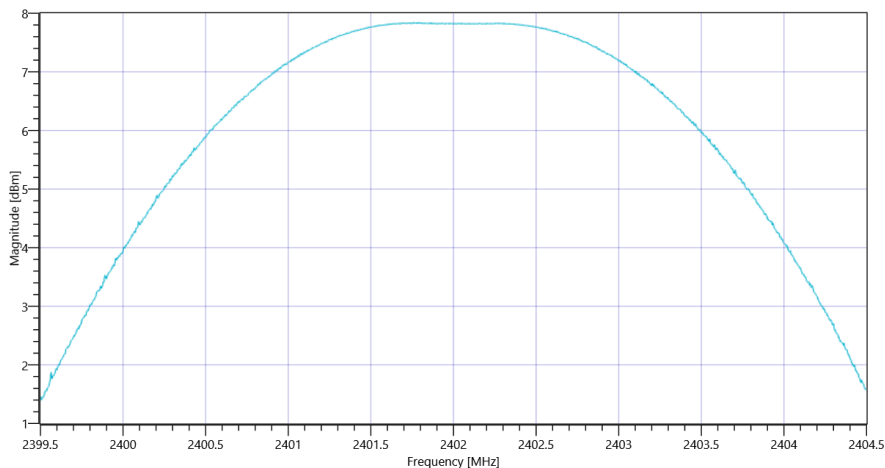
Test Parameter	
Technology to test	BT LE 1 Msps
Antenna Port used	1
Temperature	nom
Voltage	nom
Frequency low to test	True Freq [MHz] 2402
Frequency mid to test	True Freq [MHz] 2440
Frequency high to test	True Freq [MHz] 2480
Auto Control enabled Power Supply Climatic Box	No No
Additional Path Loss [dB]	0.7
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer

Test at TX 2402 MHz

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

READ SA SETTINGS:		
RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	18.07 10.79 25	
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	---	---	7.84	dBm	Info
Peak Power	---	---	6.08135	mW	Info
Frequency at Peak	---	---	2401.76	MHz	Info



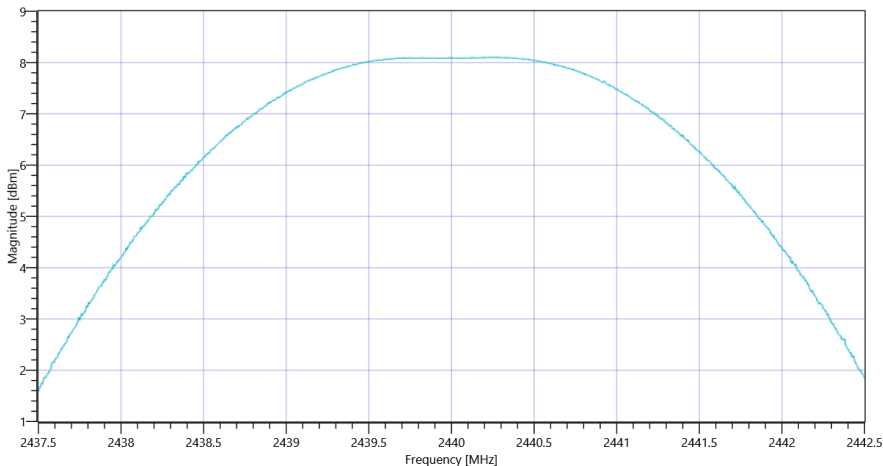
Plot_Common2G4 Peak OP 3MHz-3MHz ~ BT LE 1 Msps_08112021_132128.png

Test at TX 2440 MHz

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

READ SA SETTINGS:		
RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	18.29 10.8 25	
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	---	---	8.1	dBm	Info
Peak Power	---	---	6.456542	mW	Info
Frequency at Peak	---	---	2440.29	MHz	Info



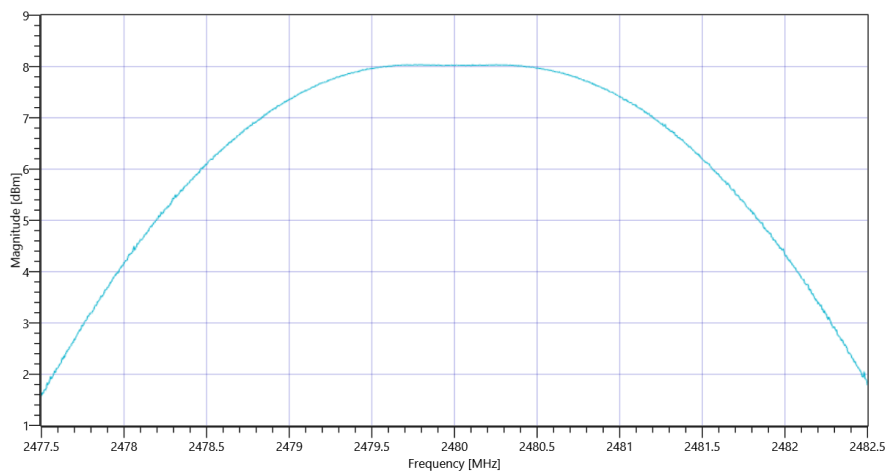
Plot_Common2G4 Peak OP 3MHz-3MHz ~ BT LE 1 Msps_08112021_132155.png

Test at TX 2480 MHz

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

READ SA SETTINGS:					
RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]			18.15 10.85 25		
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	---	---	8.04	dBm	Info
Peak Power	---	---	6.367955	mW	Info
Frequency at Peak	---	---	2480.21	MHz	Info



Plot_Common2G4 Peak OP 3MHz-3MHz ~ BT LE 1 Msps_08112021_132223.png

TEST FINISHED	
General Verdict	PASS

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

Test References	
TC Start	08.11.2021 13:32:06
Ambit Temp [°C] Humidity [rel%]	23.6 33
System Version	3.0.2.7
Test Specification	FCC Part 15.247
Test Method	DTS: KDB 558074 D01 V05 - Chapter 8.3.1.1 RBW ≥ DTS Bandwidth
TC Version	0.0.1
My Description	FCC 15.247 Maximum Peak Output Power Conducted DTS - BT LE 1 Msps
Add. Information	

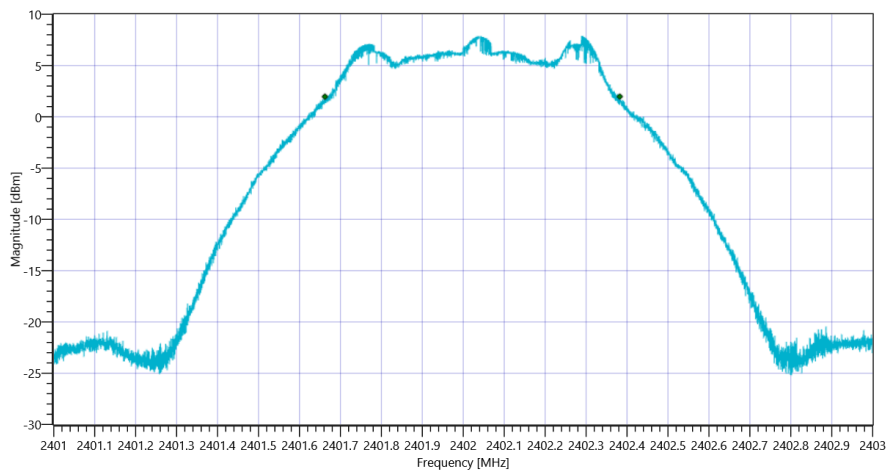
Test Parameter	
Technology to test	BT LE 1 Msps
Antenna Port used	1
Temperature	nom
Voltage	nom
Frequency low to test	True Freq [MHz] 2402
Frequency mid to test	True Freq [MHz] 2440
Frequency high to test	True Freq [MHz] 2480
Auto Control enabled Power Supply Climatic Box	No No
Additional Path Loss [dB]	0.7
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer

Test at TX 2402 MHz

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

READ SA SETTINGS:					
RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	13.09 10.79 20				
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				

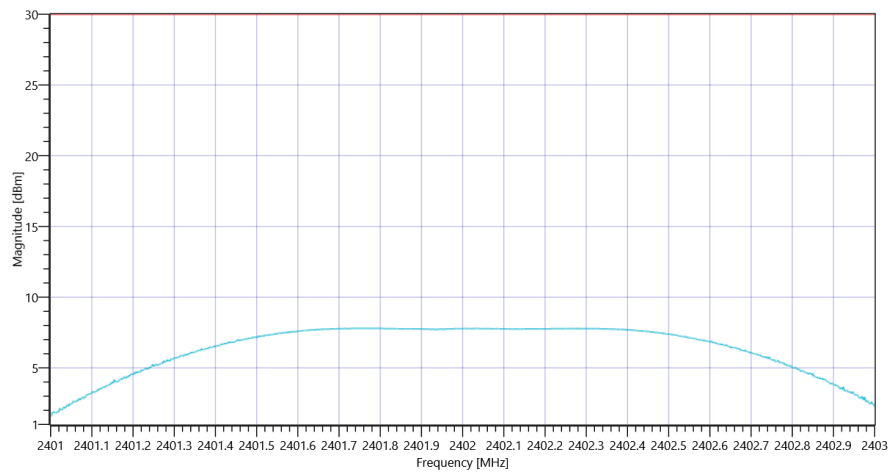
DTS Bandwidth					
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
DTS Bandwidth (6dB)	---	---	720	kHz	INFO



Plot_FCC Part 15.247 Maximum Peak Conducted Output Power DTS ~ BT LE 1 Msps DTS BW_08112021_133236.png

READ SA SETTINGS:					
RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	18.09 10.79 25				
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	7.8	dBm	PASS
Peak Power	---	1000	6.025596	mW	PASS
Frequency at Peak	---	---	2401.78	MHz	INFO



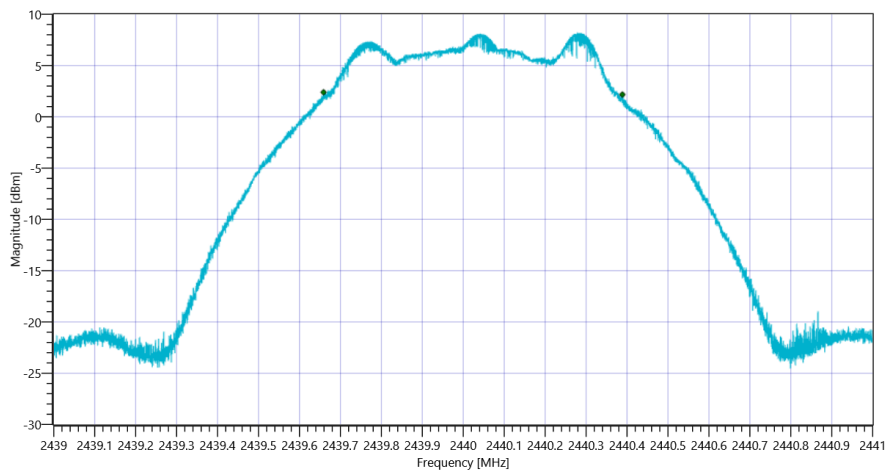
Plot_FCC Part 15.247 Maximum Peak Conducted Output Power DTS ~ BT LE 1 Msps_08112021_133254.png

Test at TX 2440 MHz

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

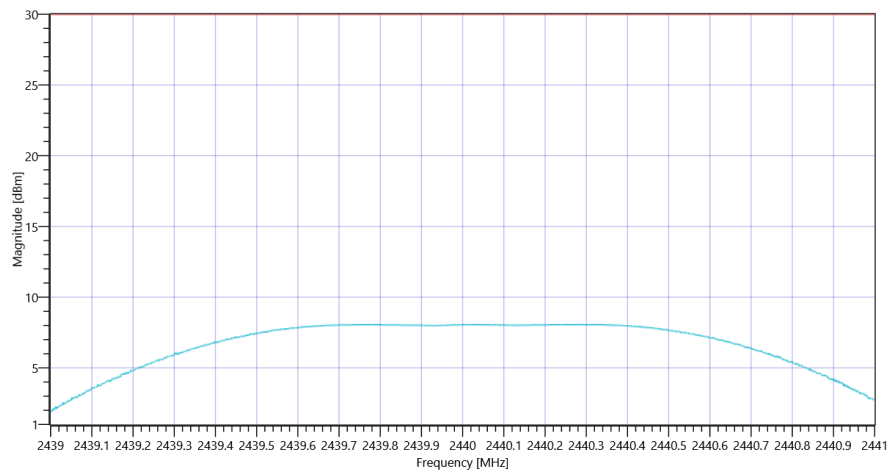
READ SA SETTINGS:					
RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	13.28 10.8 20				
Start [MHz] Stop [MHz]	2439.000 2441.000				
RBW [MHz] VBW [MHz]	0.100000 0.300000				
Detector TraceMode	POS MAXH				
Sweep: Time [ms] Count Points per Section Type	50 200 10001 SWE				

DTS Bandwidth					
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
DTS Bandwidth (6dB)	---	---	730	kHz	INFO



READ SA SETTINGS:					
RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	18.28 10.8 25				
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	8.06	dBm	PASS
Peak Power	---	1000	6.397348	mW	PASS
Frequency at Peak	---	---	2440.008	MHz	INFO



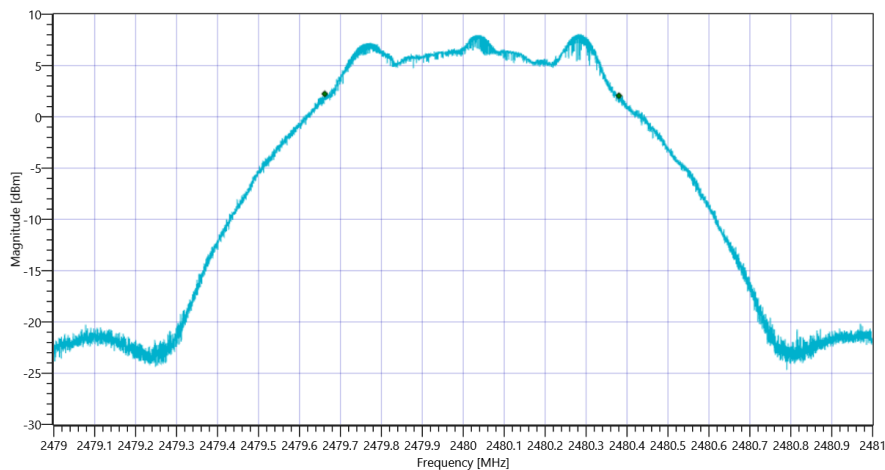
Plot_FCC Part 15.247 Maximum Peak Conducted Output Power DTS ~ BT LE 1 Msps_08112021_133340.png

Test at TX 2480 MHz

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

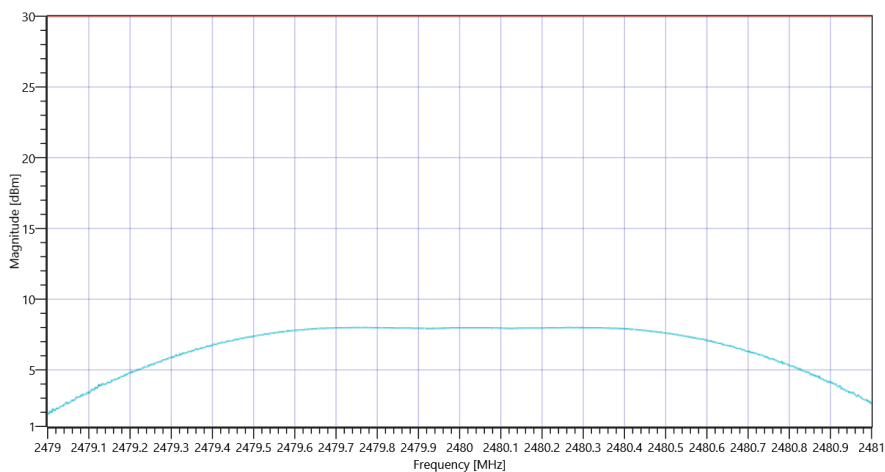
READ SA SETTINGS:					
RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	13.16 10.85 20				
Start [MHz] Stop [MHz]	2479.000 2481.000				
RBW [MHz] VBW [MHz]	0.100000 0.300000				
Detector TraceMode	POS MAXH				
Sweep: Time [ms] Count Points per Section Type	50 200 10001 SWE				

DTS Bandwidth					
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
DTS Bandwidth (6dB)	---	---	718	kHz	INFO



READ SA SETTINGS:					
RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	18.16 10.85 25				
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	7.99	dBm	PASS
Peak Power	---	1000	6.295062	mW	PASS
Frequency at Peak	---	---	2480.276	MHz	INFO



Plot_FCC Part 15.247 Maximum Peak Conducted Output Power DTS ~ BT LE 1 Msps_08112021_133427.png

TEST FINISHED	
General Verdict	PASS

3. FCC Part 15.247 Bandwidth 6dB DTS ~ BT LE 1 Msps

Test References	
TC Start	08.11.2021 13:34:33
Ambit Temp [°C] Humidity [rel%]	23.7 32
System Version	3.0.2.7
Test Specification	FCC Part 15.247
Test Method	99
TC Version	0.0.1
My Description	FCC 15.247 Bandwidth 6dB DTS - BT LE 1 Msps
Add. Information	

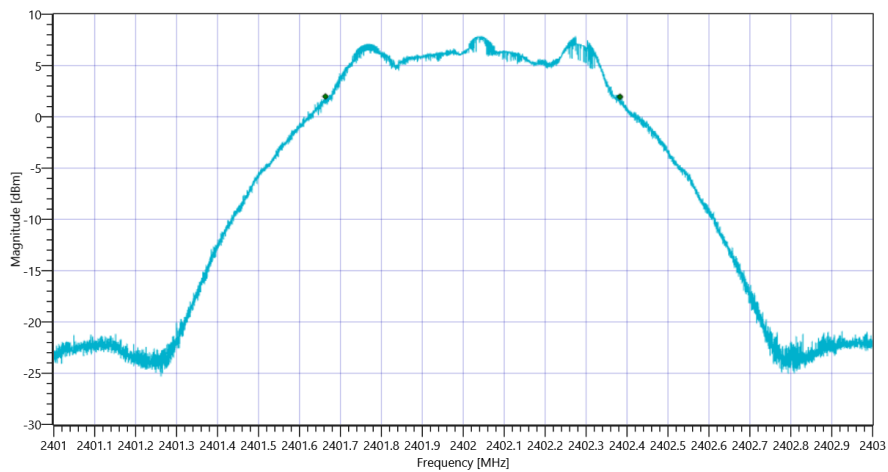
Test Parameter	
Technology to test	BT LE 1 Msps
Antenna Port used	1
Temperature	nom
Voltage	nom
Frequency low to test	True Freq [MHz] 2402
Frequency mid to test	True Freq [MHz] 2440
Frequency high to test	True Freq [MHz] 2480
Auto Control enabled Power Supply Climatic Box	No No
Additional Path Loss [dB]	0.7
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer

Test at TX 2402 MHz

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

READ SA SETTINGS:					
RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]			13.11 10.79 20		
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	---	719	kHz	PASS



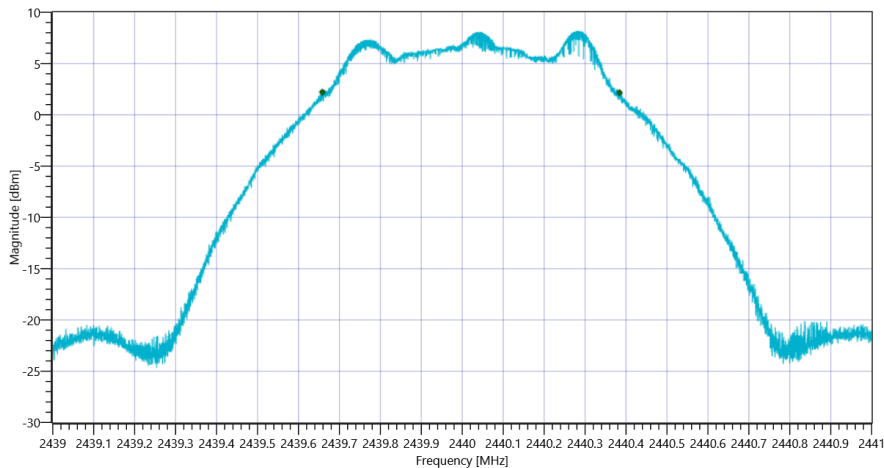
Plot_FCC Part 15.247 Bandwidth 6dB DTS ~ BT LE 1 Msps_08112021_133503.png

Test at TX 2440 MHz

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

READ SA SETTINGS:		
RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	13.27 10.8 20	
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	---	726	kHz	PASS



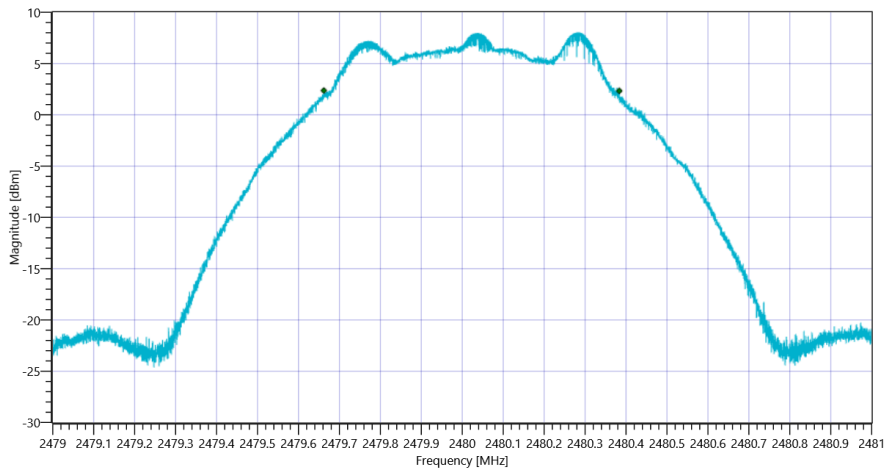
Plot_FCC Part 15.247 Bandwidth 6dB DTS ~ BT LE 1 Msps_08112021_133531.png

Test at TX 2480 MHz

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

READ SA SETTINGS:		
RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	13.19 10.85 20	
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	---	721	kHz	PASS



Plot_FCC Part 15.247 Bandwidth 6dB DTS ~ BT LE 1 Msps_08112021_133600.png

TEST FINISHED	
General Verdict	PASS

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

Test References	
TC Start	08.11.2021 13:36:06
Ambit Temp [°C] Humidity [rel%]	24.0 32
System Version	3.0.2.7
Test Specification	FCC Part 15.247
Test Method	DTS: KDB 558074 D01 V05 - Chapter 8.4 DTS maximum power spectral density level in the fundamental emission
TC Version	0.0.1
My Description	FCC 15.247 Peak Power Spectral Density DTS - BT LE 1 Msps
Add. Information	

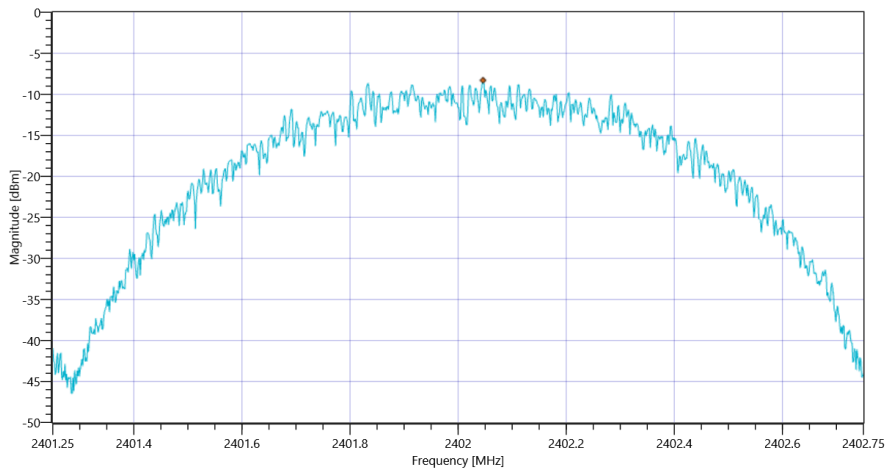
Test Parameter	
Technology to test	BT LE 1 Msps
Antenna Port used	1
Temperature	nom
Voltage	nom
Frequency low to test	True Freq [MHz] 2402
Frequency mid to test	True Freq [MHz] 2440
Frequency high to test	True Freq [MHz] 2480
Auto Control enabled Power Supply Climatic Box	No No
Additional Path Loss [dB]	0.7
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer

Test at TX 2402 MHz

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

READ SA SETTINGS:					
RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]			13.07 10.79 20		
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	-8.29	dBm/3KHz	PASS



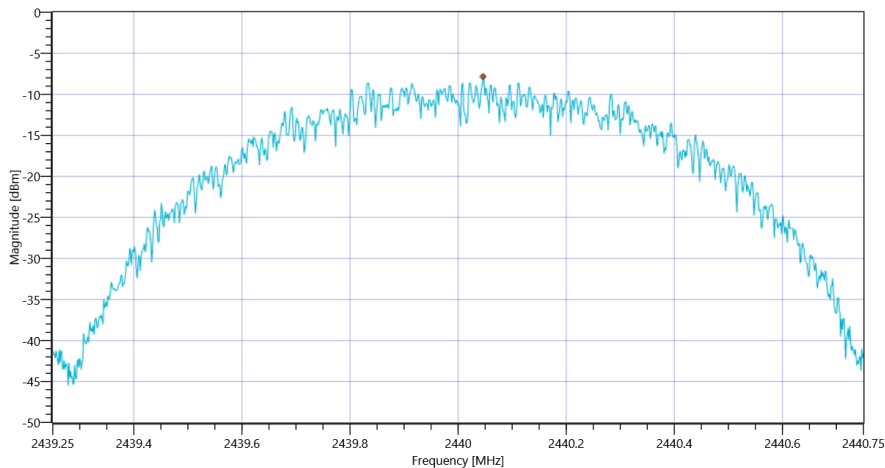
Plot_FCC Part 15.247 Peak Power Spectral Density DTS ~ BT LE 1 Msps_08112021_133645.png

Test at TX 2440 MHz

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

READ SA SETTINGS:		
RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	13.28 10.8 20	
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	-7.83	dBm/3KHz	PASS



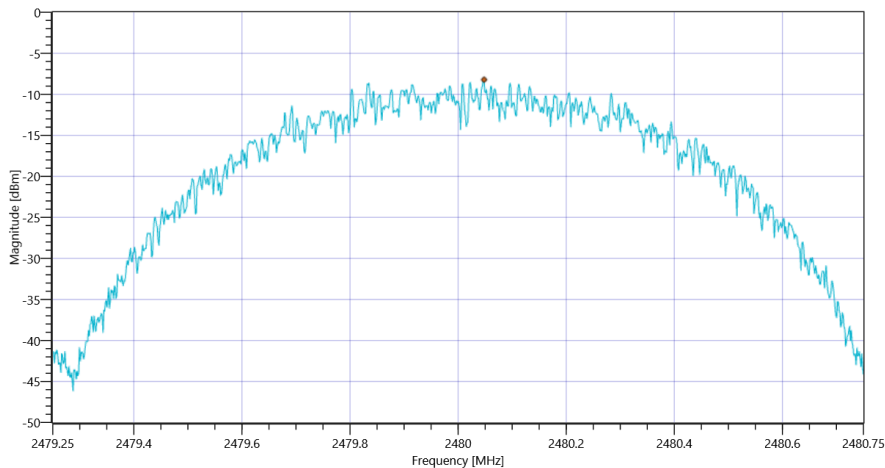
Plot_FCC Part 15.247 Peak Power Spectral Density DTS ~ BT LE 1 Msps_08112021_133723.png

Test at TX 2480 MHz

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

READ SA SETTINGS:		
RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	13.16 10.85 20	
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	-8.21	dBm/3KHz	PASS



Plot_FCC Part 15.247 Peak Power Spectral Density DTS ~ BT LE 1 Msps_08112021_133801.png

TEST FINISHED	
General Verdict	PASS

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

Test References	
TC Start	08.11.2021 13:38:07
Ambit Temp [°C] Humidity [rel%]	24.2 32
System Version	3.0.2.7
Test Specification	FCC Part 15.247
Test Method	
TC Version	0.0.2
My Description	FCC 15.247 Bandwidth 99PCT-20dB DTS - BT LE 1 Msps
Add. Information	

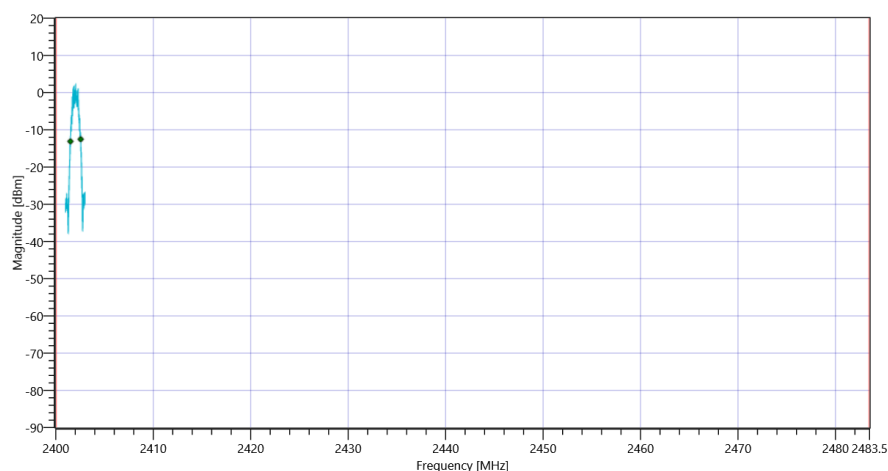
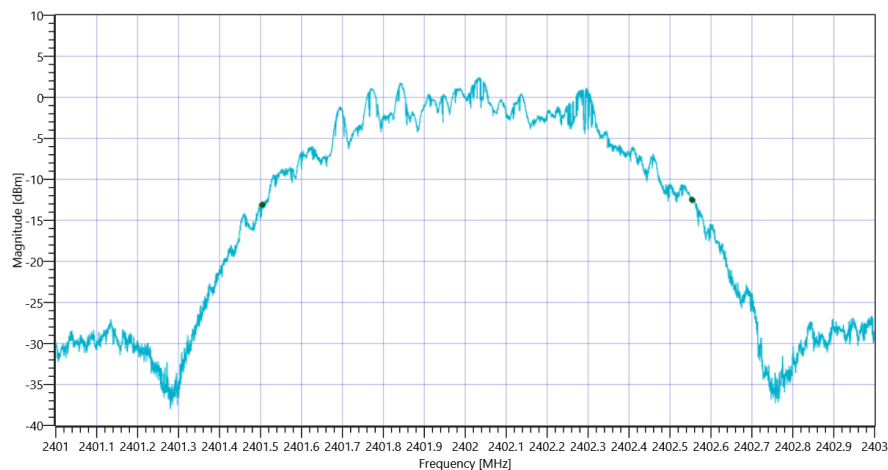
Test Parameter	
Technology to test	BT LE 1 Msps
Antenna Port used	1
Temperature	nom
Voltage	nom
Frequency low to test	True Freq [MHz] 2402
Frequency mid to test	True Freq [MHz] 2440
Frequency high to test	True Freq [MHz] 2480
Auto Control enabled Power Supply Climatic Box	No No
Additional Path Loss [dB]	0.7
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer

Test at TX 2402 MHz

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

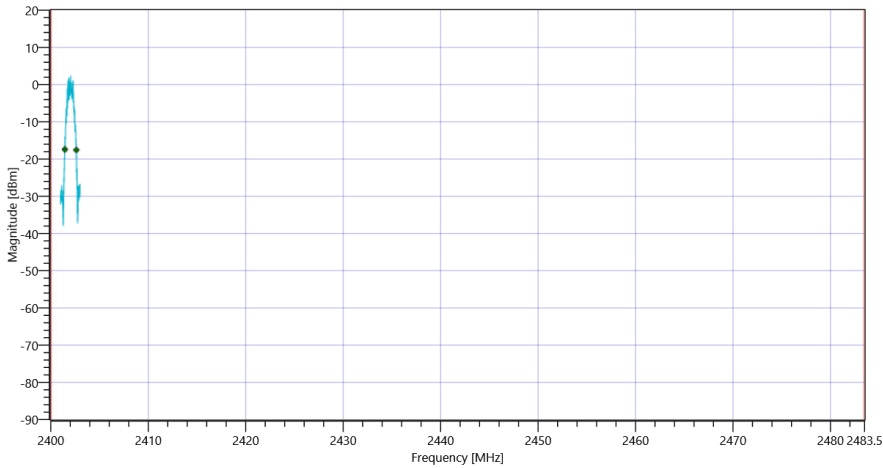
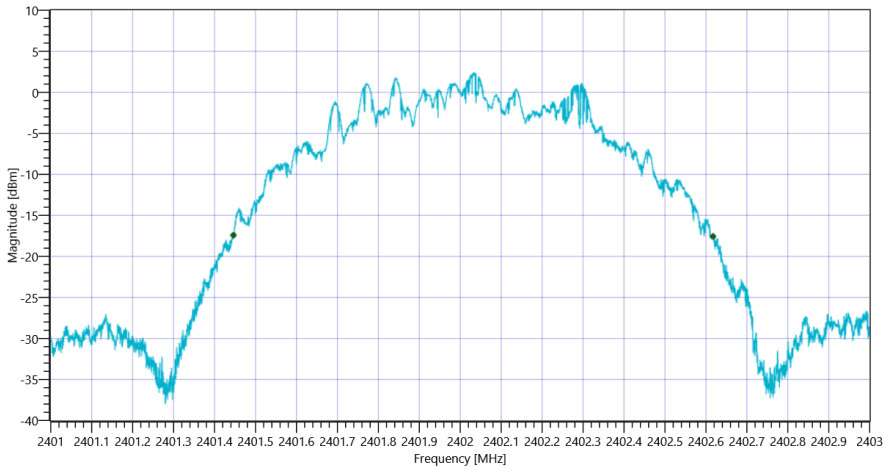
READ SA SETTINGS:					
RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]			13.07 10.79 20		
Start [MHz] Stop [MHz]			2401.000 2403.000		
RBW [MHz] VBW [MHz]			0.020000 0.100000		
Detector TraceMode			POS MAXH		
Sweep: Time [ms] Count Points per Section Type			50 200 10001 SWE		

RESULT					
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 99%	---	---	1050.295	kHz	INFO
T1 99%	2400.000000	---	2401.5040	MHz	PASS
T2 99%	---	2483.500000	2402.5543	MHz	PASS



RESULT					
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 20dB	---	---	1171	kHz	INFO

T1 20dB	2400.000000	---	2401.4460	MHz	PASS
T2 20dB	---	2483.500000	2402.6172	MHz	PASS

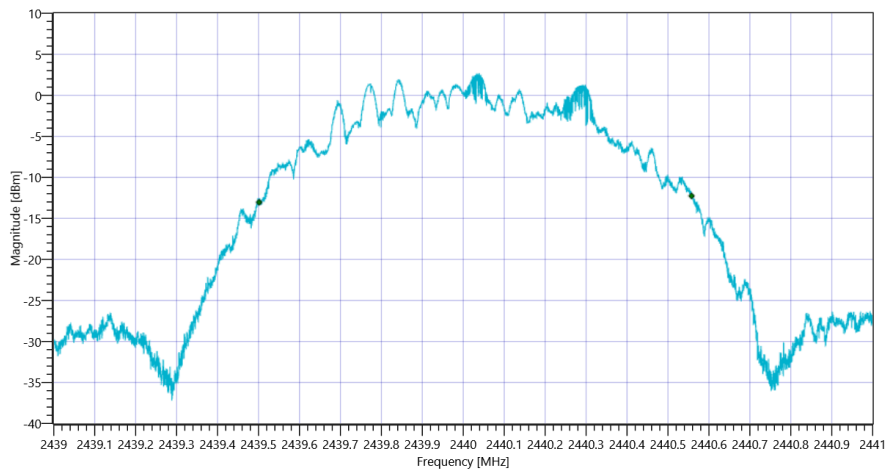


Test at TX 2440 MHz

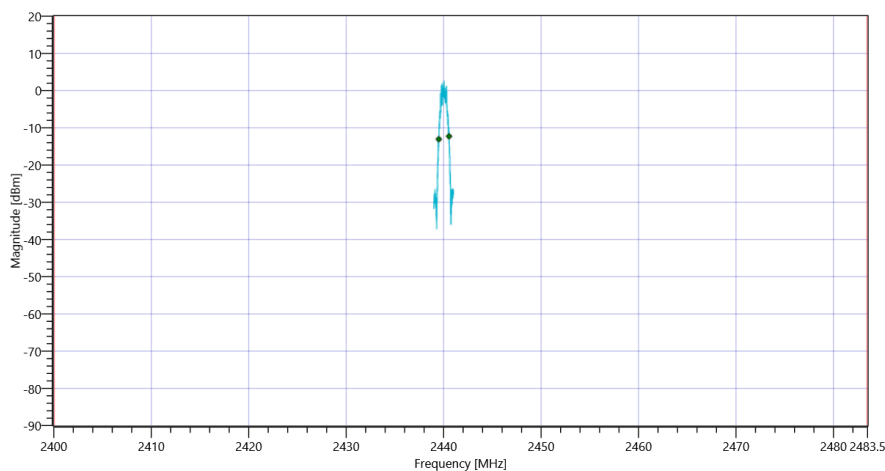
DTM Connection check					
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Connection result	---	---	---	---	RESET OK

READ SA SETTINGS:					
RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]			13.28 10.8 20		
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%	---	---	1056.094	kHz	INFO
T1 99%	2400.000000	---	2439.5014	MHz	PASS
T2 99%	---	2483.500000	2440.5575	MHz	PASS



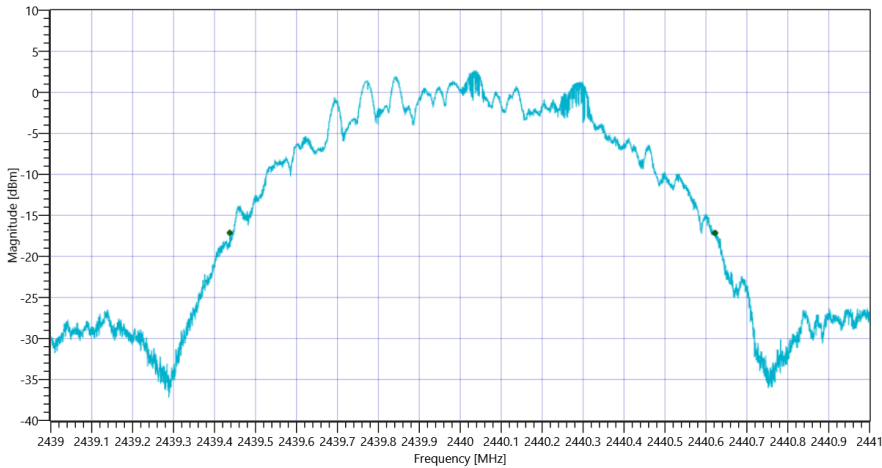
Plot_FCC Part 15.247 Bandwidth 99PCT:20dB ~ BT LE 1 Msps 99PCT_08112021_133927.png



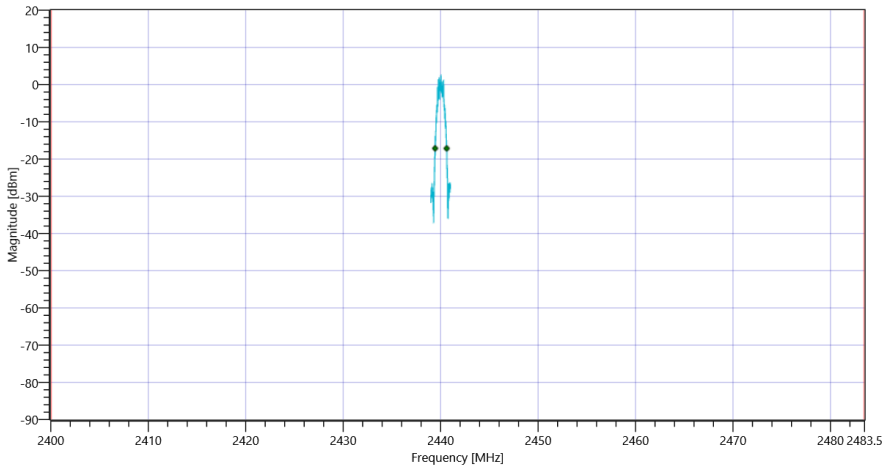
Plot_FCC Part 15.247 Bandwidth 99PCT:20dB ~ BT LE 1 Msps_08112021_133934.png

RESULT					
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 20dB	---	---	1185	kHz	INFO

T1 20dB	2400.000000	---	2439.4370	MHz	PASS
T2 20dB	---	2483.500000	2440.6224	MHz	PASS



Plot_FCC Part 15.247 Bandwidth 99PCT-20dB ~ BT LE 1 Msps 20dB_08112021_133941.png



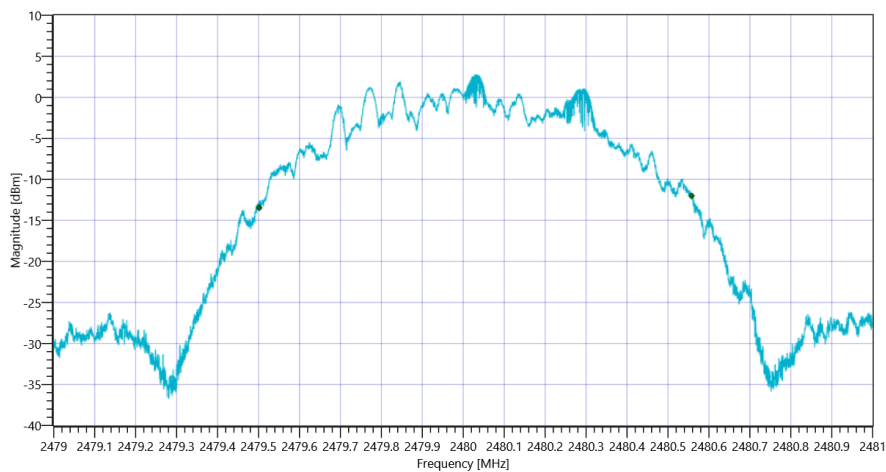
Plot_FCC Part 15.247 Bandwidth 99PCT-20dB ~ BT LE 1 Msps_08112021_133947.png

Test at TX 2480 MHz

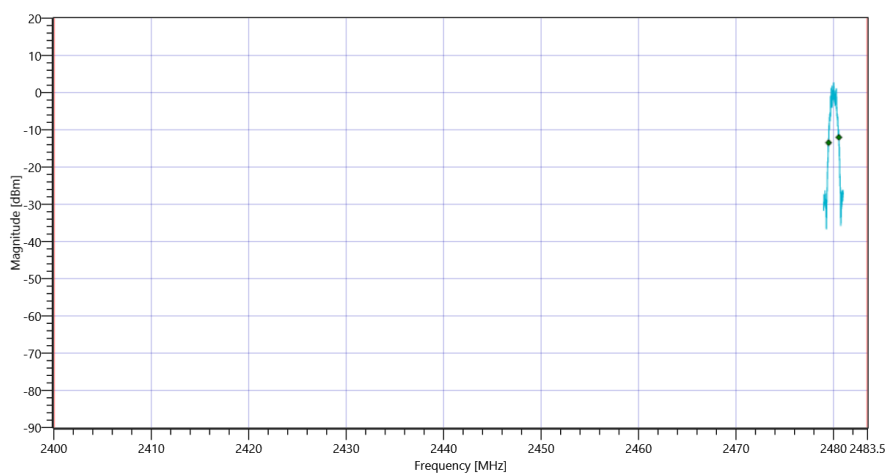
DTM Connection check					
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Connection result	---	---	---	---	RESET OK

READ SA SETTINGS:					
RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]			13.14 10.85 20		
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%	---	---	1056.094	kHz	INFO
T1 99%	2400.000000	---	2479.5014	MHz	PASS
T2 99%	---	2483.500000	2480.5575	MHz	PASS



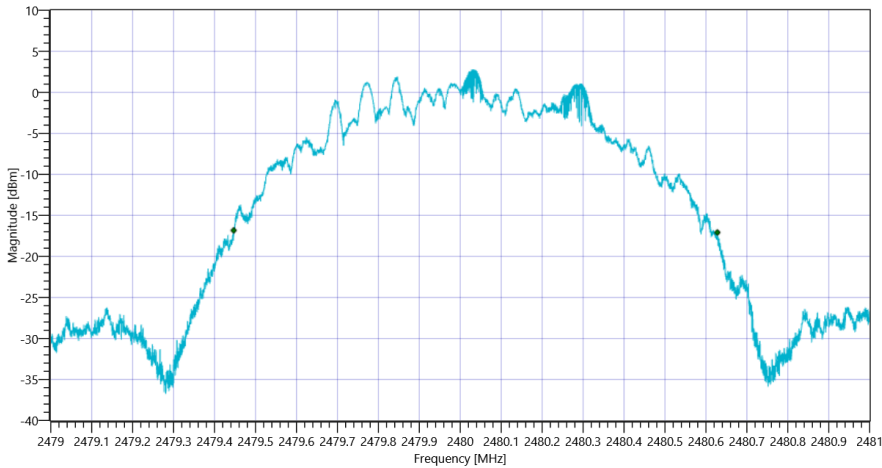
Plot_FCC Part 15.247 Bandwidth 99PCT-20dB ~ BT LE 1 Msps 99PCT_08112021_134018.png



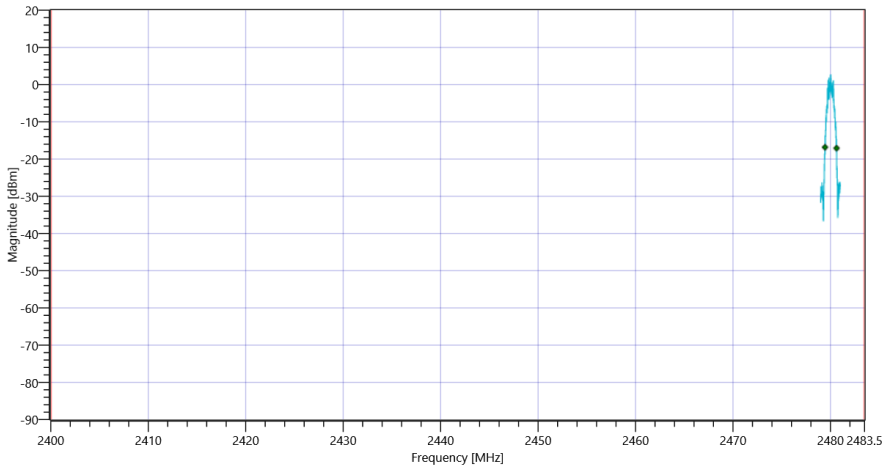
Plot_FCC Part 15.247 Bandwidth 99PCT-20dB ~ BT LE 1 Msps_08112021_134024.png

RESULT					
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 20dB	---	---	1181	kHz	INFO

T1 20dB	2400.000000	---	2479.4466	MHz	PASS
T2 20dB	---	2483.500000	2480.6278	MHz	PASS



Plot_FCC Part 15.247 Bandwidth 99PCT-20dB ~ BT LE 1 Msps 20dB_08112021_134032.png



Plot_FCC Part 15.247 Bandwidth 99PCT-20dB ~ BT LE 1 Msps_08112021_134038.png

TEST FINISHED	
General Verdict	PASS

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

Test References	
TC Start	08.11.2021 13:40:44
Ambit Temp [°C] Humidity [rel%]	24.3 32
System Version	3.0.2.7
Test Specification	FCC Part 15.247
Test Method	IF DTS then 8.5 DTS emissions in non-restricted frequency bands: Subclause 11.11 of ANSI C63.10 is applicable.
TC Version	0.0.1
My Description	FCC 15.247 TX Emissions Conducted DTS - BT LE 1 Msp
Add. Information	

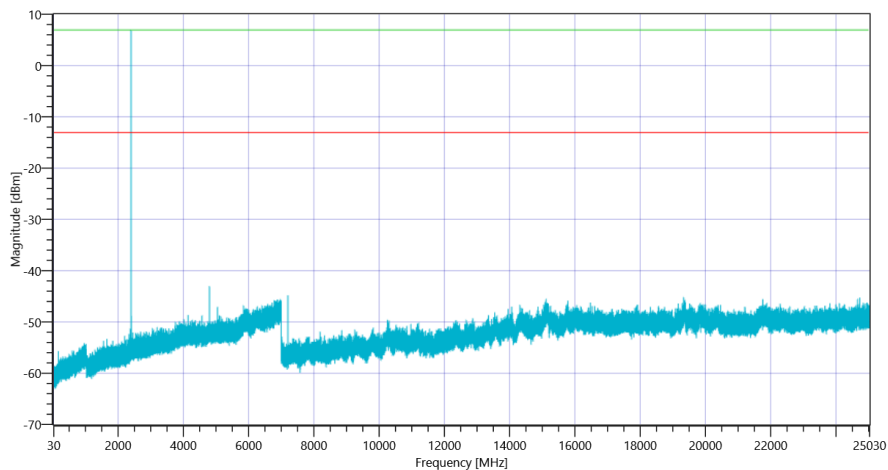
Test Parameter	
Technology to test	BT LE 1 Msp
Antenna Port used	1
Temperature	nom
Voltage	nom
Frequency low to test	True Freq [MHz] 2402
Frequency mid to test	True Freq [MHz] 2440
Frequency high to test	True Freq [MHz] 2480
Auto Control enabled Power Supply Climatic Box	No No
Additional Path Loss [dB]	0.7
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer

Test at TX 2402 MHz

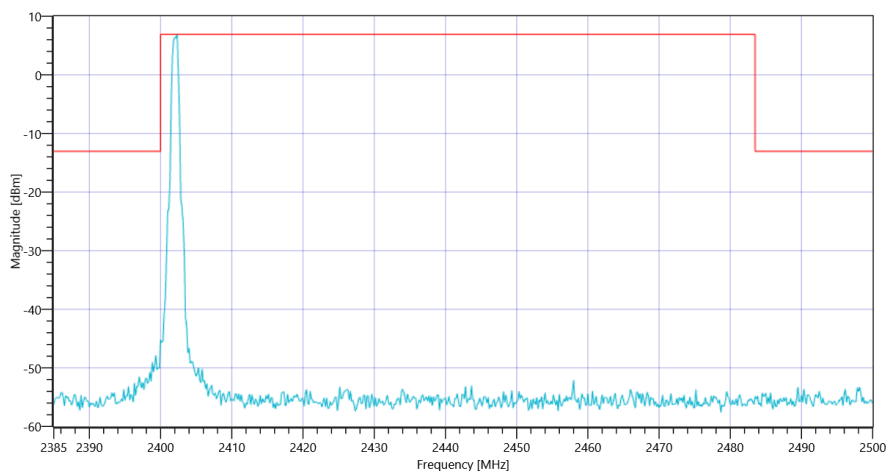
DTM Connection check					
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Connection result	---	---	---	---	RESET OK

READ SA SETTINGS:					
RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]			8.07 0 25		
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	---	---	6.93	dBm	INFO
No peaks detected	---	---			PASS
Lowest margin to limit 4804.667 MHz	0	---	29.99	dB	INFO



Plot_FCC Part 15.247 TX Spurious Conducted ~ BT LE 1 Msps 2402_08112021_134618.png



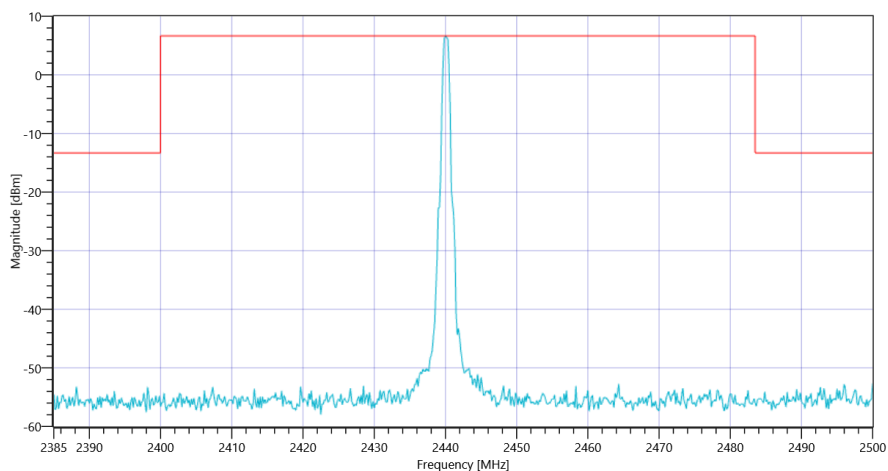
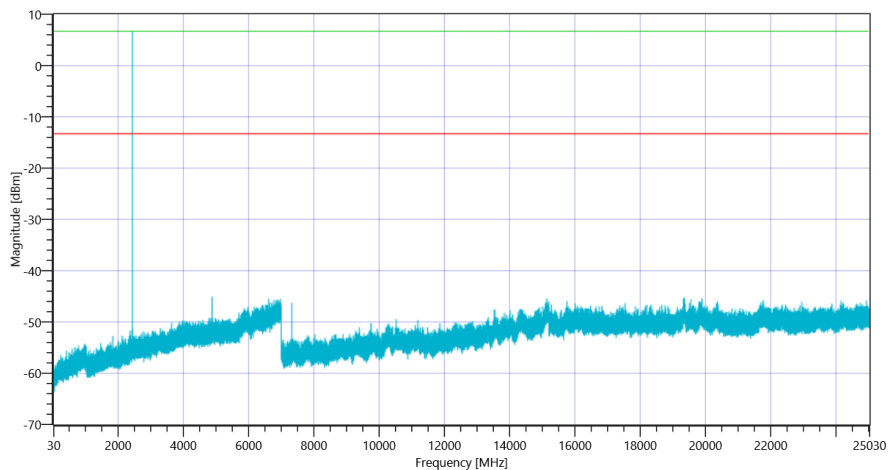
Plot_FCC Part 15.247 TX Spurious Conducted ~ BT LE 1 Msps 2402_08112021_134623.png

Test at TX 2440 MHz

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

READ SA SETTINGS:					
RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]			8.25 0 25		
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 @ 2440.00 MHz	---	---	6.66	dBm	INFO
No peaks detected	---	---			PASS
Lowest margin to limit 4879.5 MHz	0	---	31.8	dB	INFO

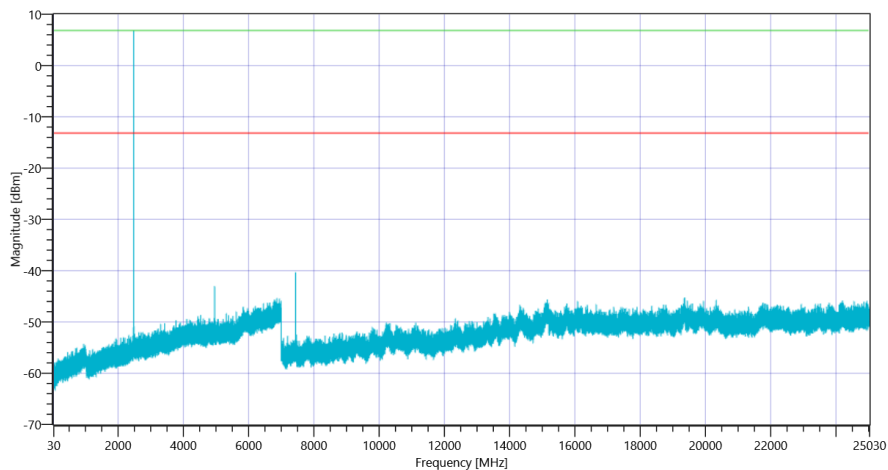


Test at TX 2480 MHz

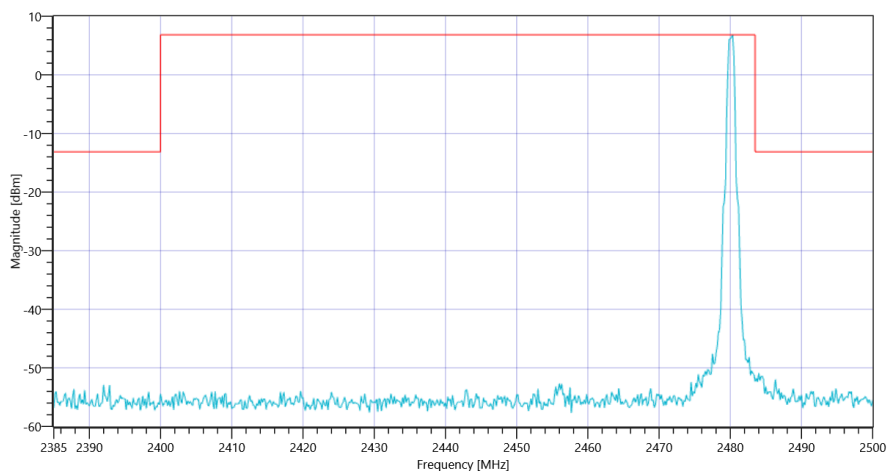
DTM Connection check					
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Connection result	---	---	---	---	RESET OK

READ SA SETTINGS:					
RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]			8.16 0 25		
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	---	---	6.85	dBm	INFO
No peaks detected	---	---			PASS
Lowest margin to limit 30 MHz	0	---	-140.41	dB	INFO



Plot_FCC Part 15.247 TX Spurious Conducted ~ BT LE 1 Msps 2480_08112021_135735.png



Plot_FCC Part 15.247 TX Spurious Conducted ~ BT LE 1 Msps 2480_08112021_135740.png

TEST FINISHED	
General Verdict	PASS

7. FCC Part 15.247 Maximum Peak Conducted Output Power DTS ~ BT LE coded S8

Test References	
TC Start	08.11.2021 14:27:08
Ambit Temp [°C] Humidity [rel%]	23.7 33
System Version	3.0.2.7
Test Specification	FCC Part 15.247
Test Method	DTS: KDB 558074 D01 V05 - Chapter 8.3.1.1 RBW ≥ DTS Bandwidth
TC Version	0.0.1
My Description	FCC 15.247 Maximum Peak Output Power Conducted DTS - BT LE coded S8
Add. Information	

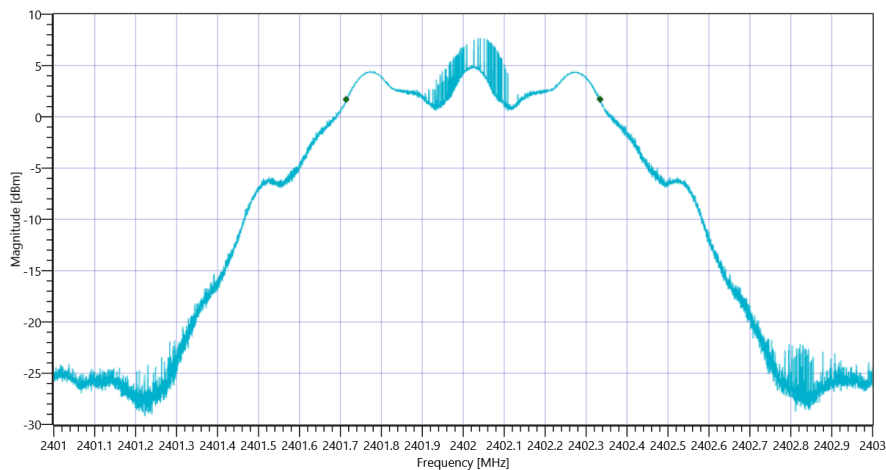
Test Parameter	
Technology to test	BT LE coded S8
Antenna Port used	1
Temperature	nom
Voltage	nom
Frequency low to test	True Freq [MHz] 2402
Frequency mid to test	True Freq [MHz] 2440
Frequency high to test	True Freq [MHz] 2480
Auto Control enabled Power Supply Climatic Box	No No
Additional Path Loss [dB]	0.7
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer

Test at TX 2402 MHz

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

READ SA SETTINGS:					
RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]			13.10 10.79 20		
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		

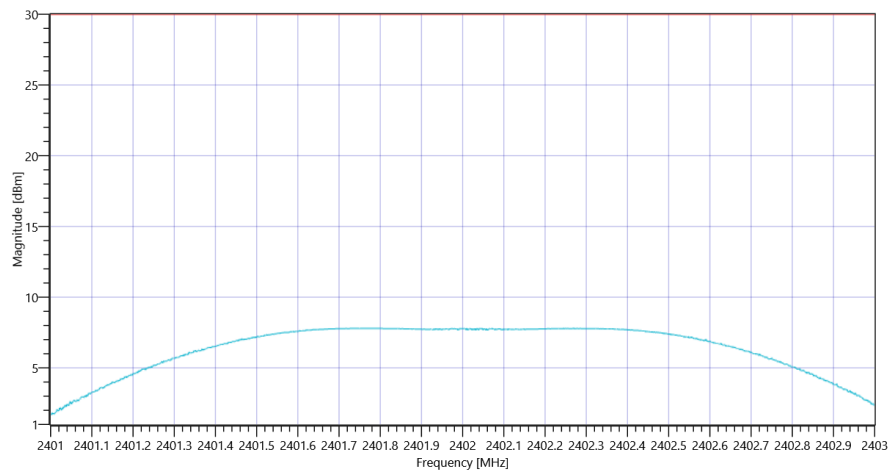
DTS Bandwidth					
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
DTS Bandwidth (6dB)	---	---	620	kHz	INFO



Plot_FCC Part 15.247 Maximum Peak Conducted Output Power DTS ~ BT LE coded S8 DTS BW_08112021_142738.png

READ SA SETTINGS:					
RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]			18.10 10.79 25		
Start [MHz] Stop [MHz]			2401.000 2403.000		
RBW [MHz] VBW [MHz]			1.000000 3.000000		
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	7.8	dBm	PASS
Peak Power	---	1000	6.025596	mW	PASS
Frequency at Peak	---	---	2401.766	MHz	INFO



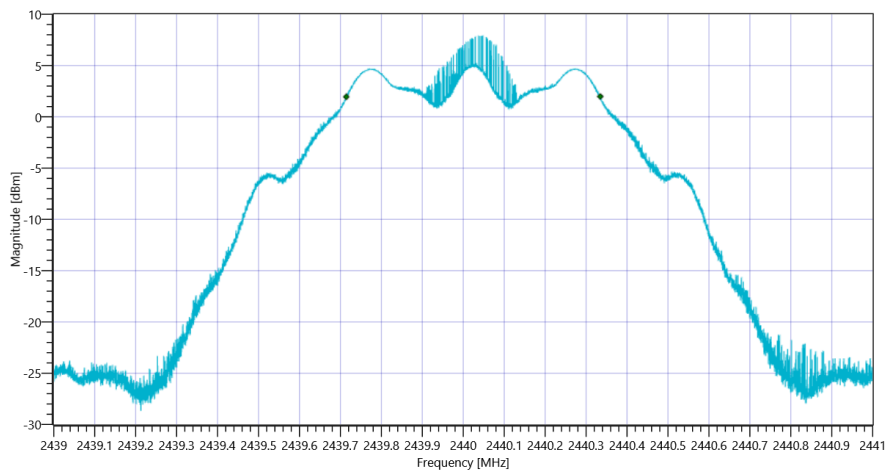
Plot_FCC Part 15.247 Maximum Peak Conducted Output Power DTS ~ BT LE coded S8_08112021_142756.png

Test at TX 2440 MHz

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

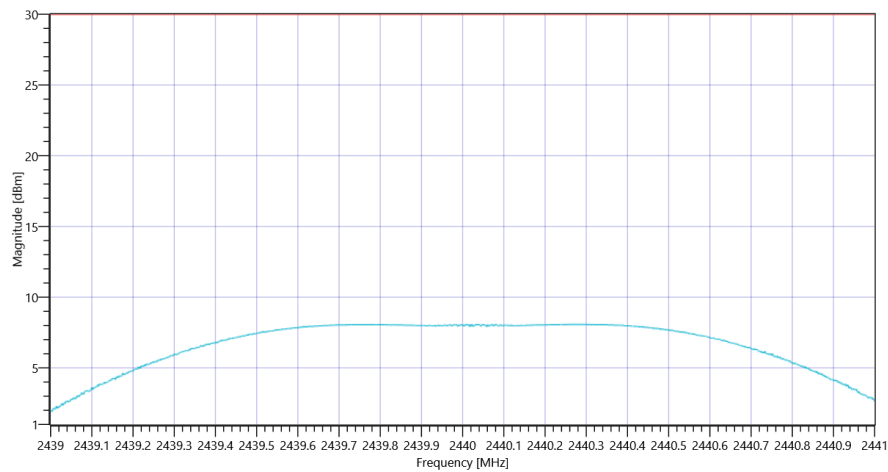
READ SA SETTINGS:					
RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	13.28 10.8 20				
Start [MHz] Stop [MHz]	2439.000 2441.000				
RBW [MHz] VBW [MHz]	0.100000 0.300000				
Detector TraceMode	POS MAXH				
Sweep: Time [ms] Count Points per Section Type	50 200 10001 SWE				

DTS Bandwidth					
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
DTS Bandwidth (6dB)	---	---	620	kHz	INFO



READ SA SETTINGS:					
RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	18.28 10.8 25				
Start [MHz] Stop [MHz]	2439.000 2441.000				
RBW [MHz] VBW [MHz]	1.000000 3.000000				
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	8.07	dBm	PASS
Peak Power	---	1000	6.412096	mW	PASS
Frequency at Peak	---	---	2440.292	MHz	INFO



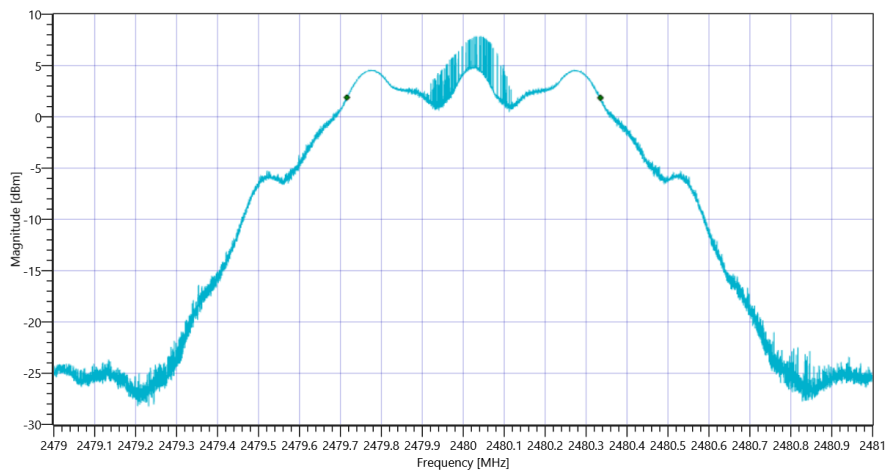
Plot_FCC Part 15.247 Maximum Peak Conducted Output Power DTS ~ BT LE coded S8_08112021_142843.png

Test at TX 2480 MHz

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

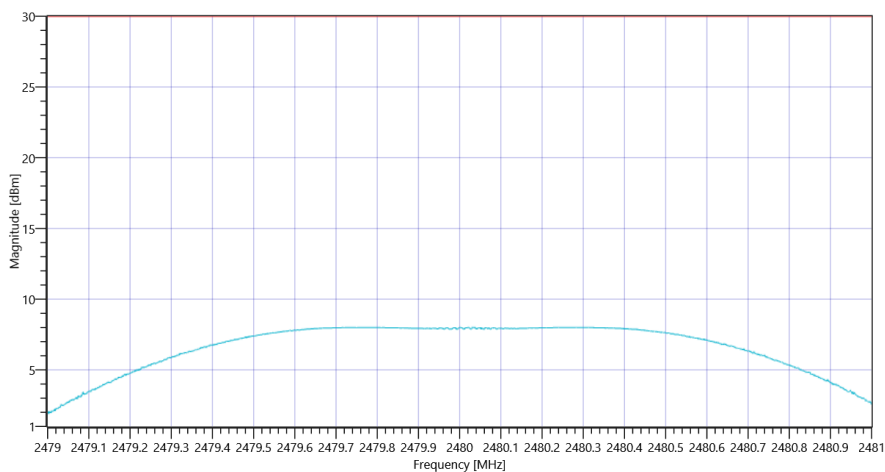
READ SA SETTINGS:					
RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	13.20 10.85 20				
Start [MHz] Stop [MHz]	2479.000 2481.000				
RBW [MHz] VBW [MHz]	0.100000 0.300000				
Detector TraceMode	POS MAXH				
Sweep: Time [ms] Count Points per Section Type	50 200 10001 SWE				

DTS Bandwidth					
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
DTS Bandwidth (6dB)	---	---	619	kHz	INFO



READ SA SETTINGS:					
RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	18.20 10.85 25				
Start [MHz] Stop [MHz]	2479.000 2481.000				
RBW [MHz] VBW [MHz]	1.000000 3.000000				
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	8	dBm	PASS
Peak Power	---	1000	6.309573	mW	PASS
Frequency at Peak	---	---	2479.754	MHz	INFO



Plot_FCC Part 15.247 Maximum Peak Conducted Output Power DTS ~ BT LE coded S8_08112021_142931.png

TEST FINISHED	
General Verdict	PASS

8. FCC Part 15.247 Peak Power Spectral Density DTS ~ BT LE coded S8

Test References	
TC Start	08.11.2021 14:29:37
Ambit Temp [°C] Humidity [rel%]	23.7 33
System Version	3.0.2.7
Test Specification	FCC Part 15.247
Test Method	DTS: KDB 558074 D01 V05 - Chapter 8.4 DTS maximum power spectral density level in the fundamental emission
TC Version	0.0.1
My Description	FCC 15.247 Peak Power Spectral Density DTS - BT LE coded S8
Add. Information	

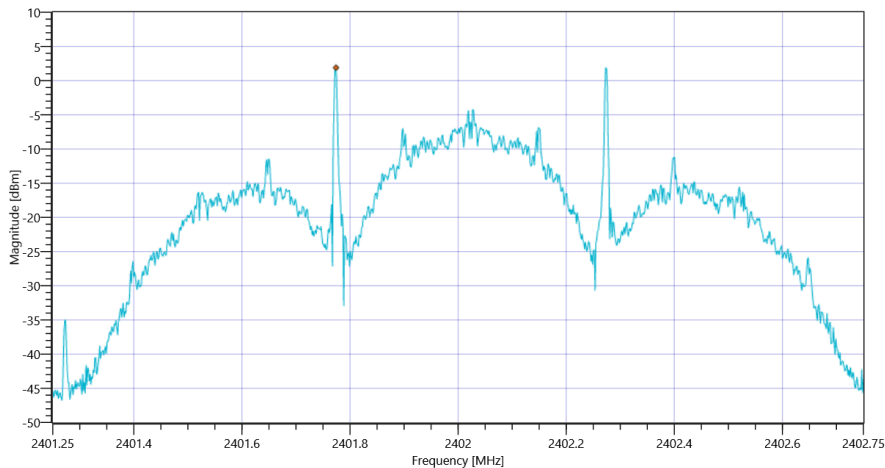
Test Parameter	
Technology to test	BT LE coded S8
Antenna Port used	1
Temperature	nom
Voltage	nom
Frequency low to test	True Freq [MHz] 2402
Frequency mid to test	True Freq [MHz] 2440
Frequency high to test	True Freq [MHz] 2480
Auto Control enabled Power Supply Climatic Box	No No
Additional Path Loss [dB]	0.7
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer

Test at TX 2402 MHz

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

READ SA SETTINGS:		
RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	13.11 10.79 20	
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	1.9	dBm/3KHz	PASS



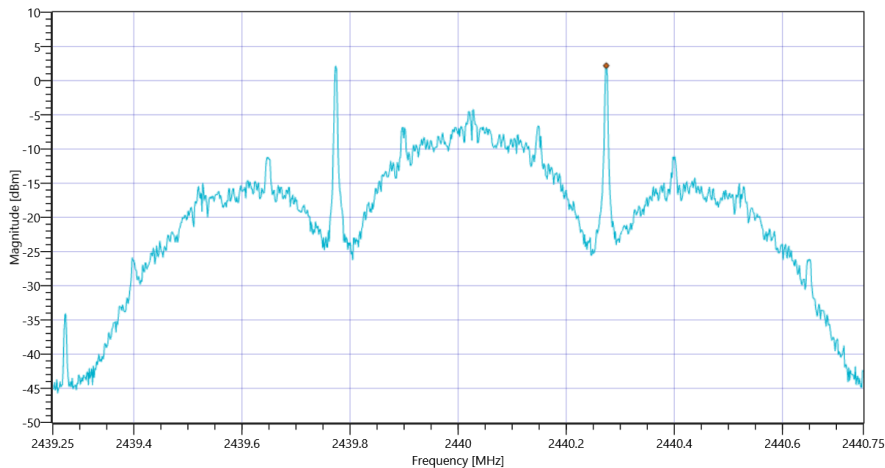
Plot_FCC Part 15.247 Peak Power Spectral Density DTS ~ BT LE coded S8_08112021_143017.png

Test at TX 2440 MHz

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

READ SA SETTINGS:		
RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	13.29 10.8 20	
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	2.19	dBm/3KHz	PASS



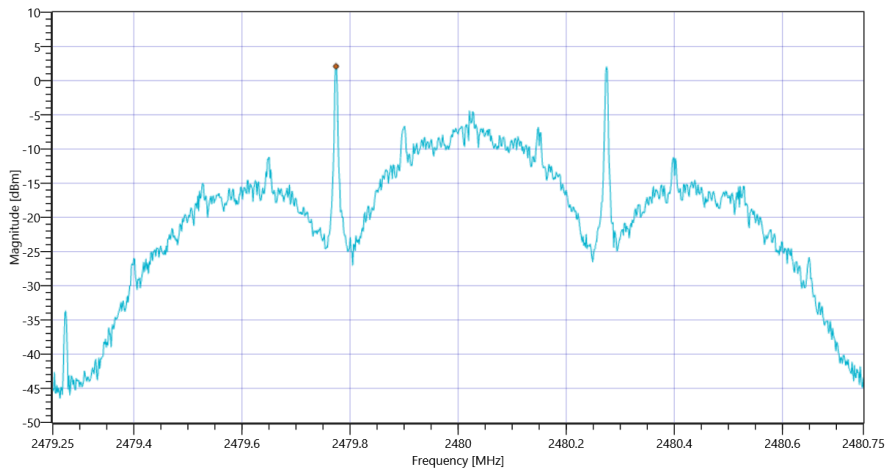
Plot_FCC Part 15.247 Peak Power Spectral Density DTS ~ BT LE coded S8_08112021_143055.png

Test at TX 2480 MHz

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

READ SA SETTINGS:		
RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	13.18 10.85 20	
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	2.09	dBm/3KHz	PASS



Plot_FCC Part 15.247 Peak Power Spectral Density DTS ~ BT LE coded S8_08112021_143134.png

TEST FINISHED	
General Verdict	PASS

9. FCC Part 15.247 Maximum Peak Conducted Output Power DTS ~ BT LE coded S2

Test References	
TC Start	08.11.2021 14:31:39
Ambit Temp [°C] Humidity [rel%]	23.7 33
System Version	3.0.2.7
Test Specification	FCC Part 15.247
Test Method	DTS: KDB 558074 D01 V05 - Chapter 8.3.1.1 RBW ≥ DTS Bandwidth
TC Version	0.0.1
My Description	FCC 15.247 Maximum Peak Output Power Conducted DTS - BT LE coded S2
Add. Information	

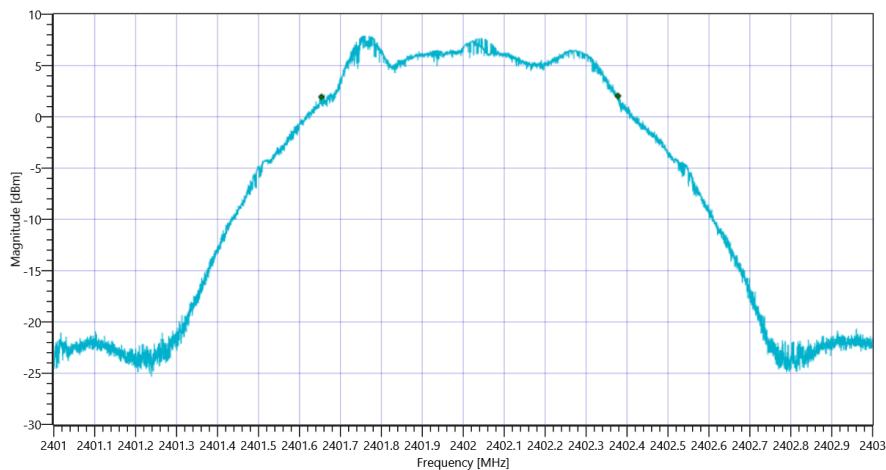
Test Parameter	
Technology to test	BT LE coded S2
Antenna Port used	1
Temperature	nom
Voltage	nom
Frequency low to test	True Freq [MHz] 2402
Frequency mid to test	True Freq [MHz] 2440
Frequency high to test	True Freq [MHz] 2480
Auto Control enabled Power Supply Climatic Box	No No
Additional Path Loss [dB]	0.7
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer

Test at TX 2402 MHz

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

READ SA SETTINGS:					
RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	13.10 10.79 20				
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				

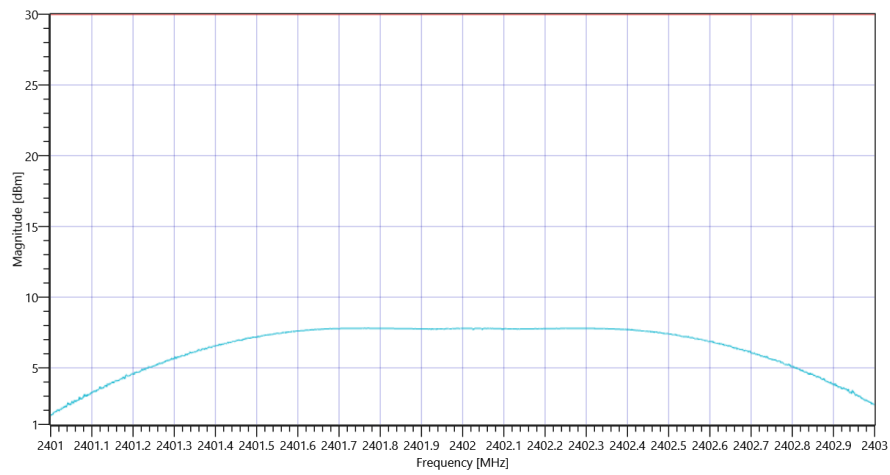
DTS Bandwidth					
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
DTS Bandwidth (6dB)	---	---	724	kHz	INFO



Plot_FCC Part 15.247 Maximum Peak Conducted Output Power DTS ~ BT LE coded S2 DTS BW_08112021_143210.png

READ SA SETTINGS:					
RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	18.10 10.79 25				
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	7.8	dBm	PASS
Peak Power	---	1000	6.025596	mW	PASS
Frequency at Peak	---	---	2401.764	MHz	INFO



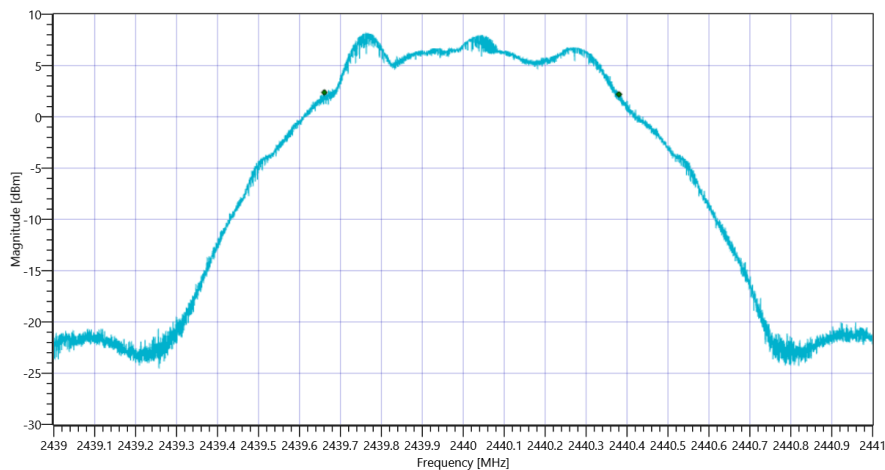
Plot_FCC Part 15.247 Maximum Peak Conducted Output Power DTS ~ BT LE coded S2_08112021_143228.png

Test at TX 2440 MHz

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

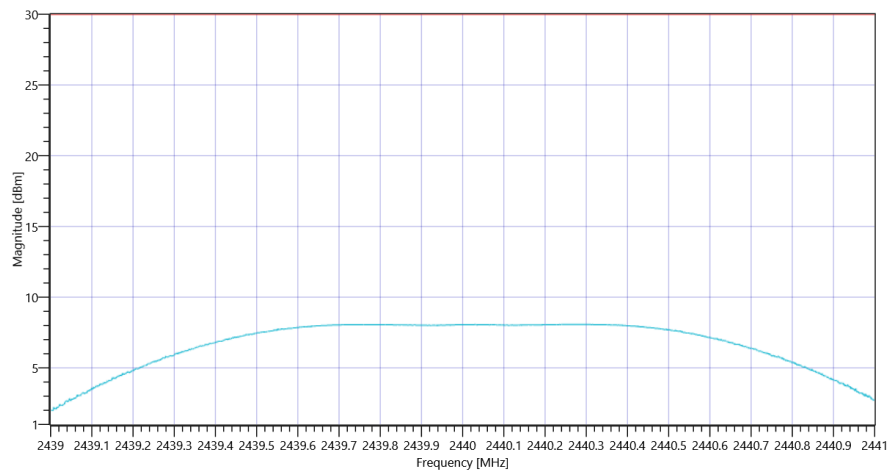
READ SA SETTINGS:					
RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	13.32 10.8 20				
Start [MHz] Stop [MHz]	2439.000 2441.000				
RBW [MHz] VBW [MHz]	0.100000 0.300000				
Detector TraceMode	POS MAXH				
Sweep: Time [ms] Count Points per Section Type	50 200 10001 SWE				

DTS Bandwidth					
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
DTS Bandwidth (6dB)	---	---	719	kHz	INFO



READ SA SETTINGS:					
RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	18.32 10.8 25				
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	8.07	dBm	PASS
Peak Power	---	1000	6.412096	mW	PASS
Frequency at Peak	---	---	2440.256	MHz	INFO



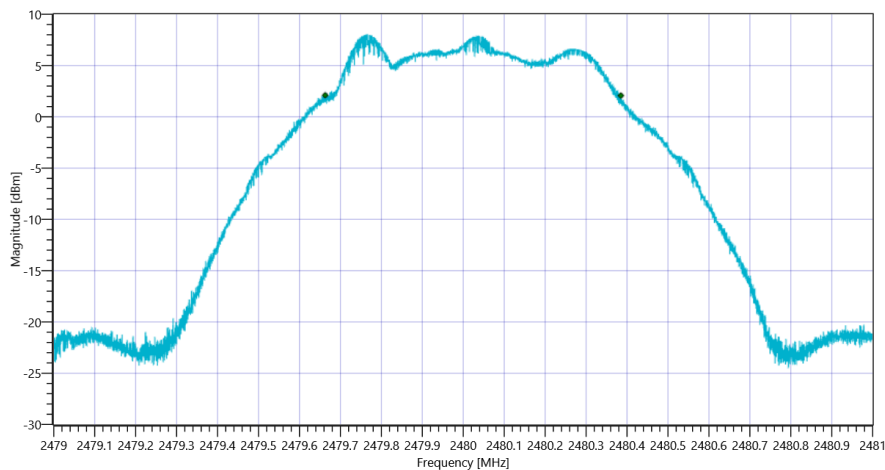
Plot_FCC Part 15.247 Maximum Peak Conducted Output Power DTS ~ BT LE coded S2_08112021_143315.png

Test at TX 2480 MHz

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

READ SA SETTINGS:					
RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]			13.17 10.85 20		
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		

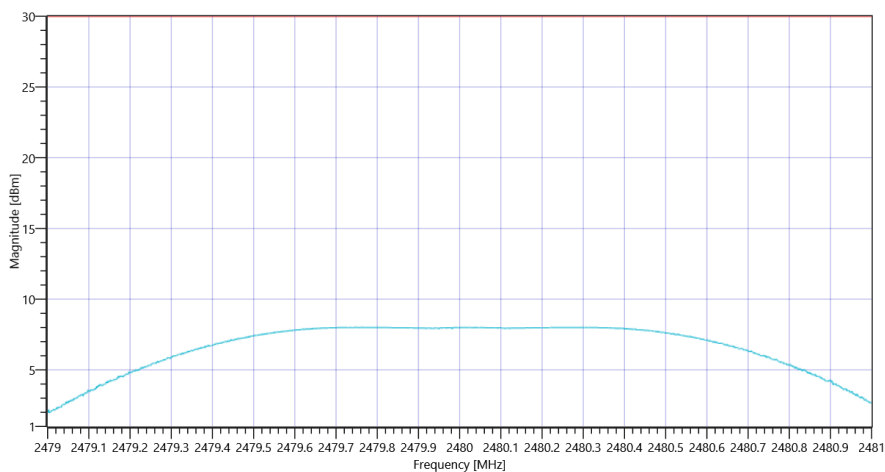
DTS Bandwidth					
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
DTS Bandwidth (6dB)	---	---	722	kHz	INFO



Plot_FCC Part 15.247 Maximum Peak Conducted Output Power DTS ~ BT LE coded S2 DTS BW_08112021_143345.png

READ SA SETTINGS:					
RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]			18.17 10.85 25		
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	8.01	dBm	PASS
Peak Power	---	1000	6.324119	mW	PASS
Frequency at Peak	---	---	2479.746	MHz	INFO



Plot_FCC Part 15.247 Maximum Peak Conducted Output Power DTS ~ BT LE coded S2_08112021_143403.png

TEST FINISHED	
General Verdict	PASS

10. FCC Part 15.247 Peak Power Spectral Density DTS ~ BT LE coded S2

Test References	
TC Start	08.11.2021 14:34:09
Ambit Temp [°C] Humidity [rel%]	23.6 33
System Version	3.0.2.7
Test Specification	FCC Part 15.247
Test Method	DTS: KDB 558074 D01 V05 - Chapter 8.4 DTS maximum power spectral density level in the fundamental emission
TC Version	0.0.1
My Description	FCC 15.247 Peak Power Spectral Density DTS - BT LE coded S2
Add. Information	

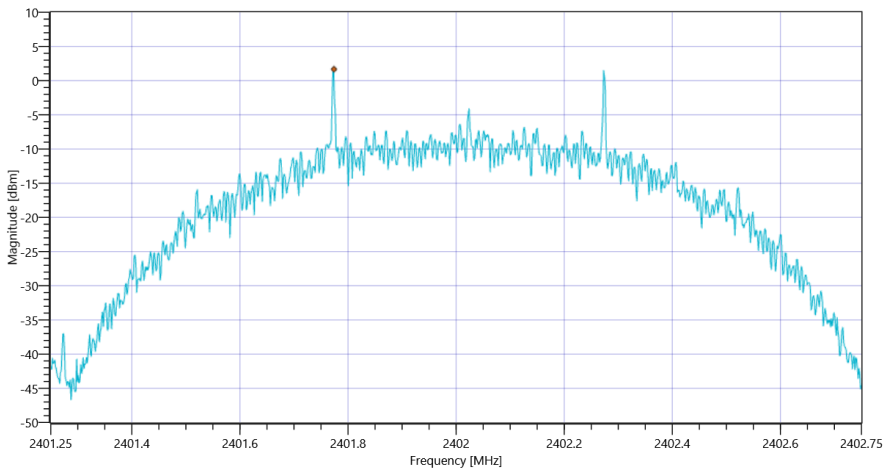
Test Parameter	
Technology to test	BT LE coded S2
Antenna Port used	1
Temperature	nom
Voltage	nom
Frequency low to test	True Freq [MHz] 2402
Frequency mid to test	True Freq [MHz] 2440
Frequency high to test	True Freq [MHz] 2480
Auto Control enabled Power Supply Climatic Box	No No
Additional Path Loss [dB]	0.7
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer

Test at TX 2402 MHz

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

READ SA SETTINGS:		
RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	13.11 10.79 20	
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	1.67	dBm/3KHz	PASS



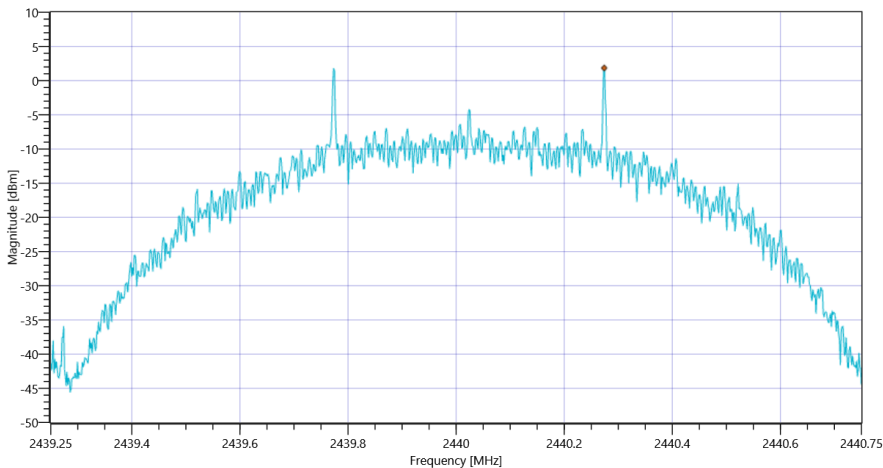
Plot_FCC Part 15.247 Peak Power Spectral Density DTS ~ BT LE coded S2_08112021_143449.png

Test at TX 2440 MHz

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

READ SA SETTINGS:		
RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	13.29 10.8 20	
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	1.85	dBm/3KHz	PASS



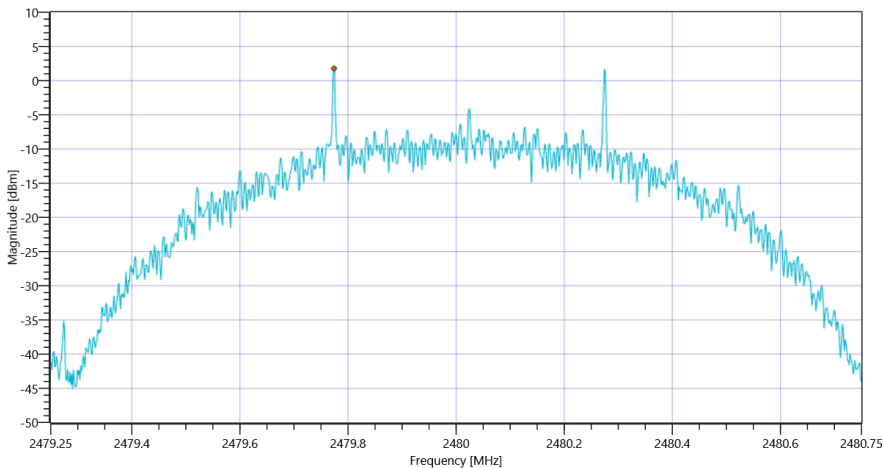
Plot_FCC Part 15.247 Peak Power Spectral Density DTS ~ BT LE coded S2_08112021_143528.png

Test at TX 2480 MHz

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

READ SA SETTINGS:		
RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	13.20 10.85 20	
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	1.78	dBm/3KHz	PASS



Plot_FCC Part 15.247 Peak Power Spectral Density DTS ~ BT LE coded S2_08112021_143606.png

TEST FINISHED	
General Verdict	PASS

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

Test References	
TC Start	16.11.2021 11:35:36
Ambit Temp [°C] Humidity [rel%]	23.2 34
System Version	3.0.3.0
Test Specification	FCC Part 15.247
Test Method	DTS: KDB 558074 D01 V05 - Chapter 8.3.1.1 RBW ≥ DTS Bandwidth
TC Version	0.0.1
My Description	FCC 15.247 Maximum Peak Output Power Conducted DTS - BT LE 2 Msps
Add. Information	

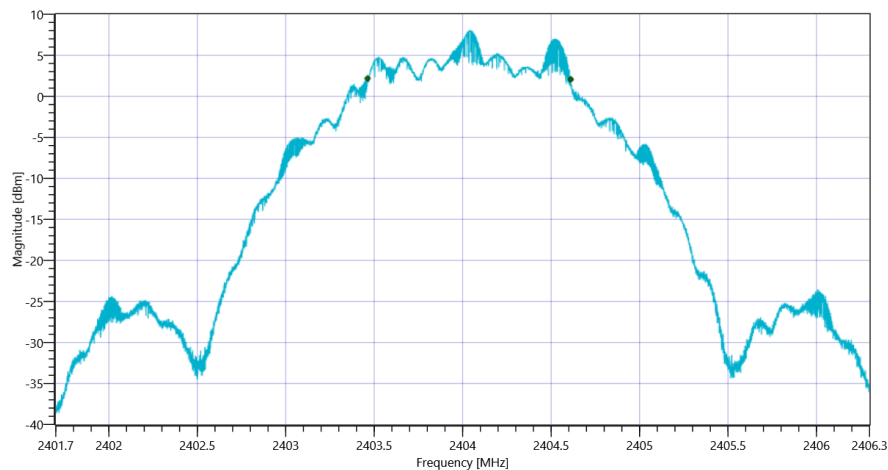
Test Parameter	
Technology to test	BT LE 2 Msps
Antenna Port used	1
Temperature	nom
Voltage	nom
Frequency low to test	True Freq [MHz] 2404
Frequency mid to test	True Freq [MHz] 2440
Frequency high to test	True Freq [MHz] 2478
Auto Control enabled Power Supply Climatic Box	No No
Additional Path Loss [dB]	0.7
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer

Test at TX 2404 MHz

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

READ SA SETTINGS:					
RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	13.26 10.8 20				
Start [MHz] Stop [MHz]	2401.700 2406.300				
RBW [MHz] VBW [MHz]	0.100000 0.300000				
Detector TraceMode	POS MAXH				
Sweep: Time [ms] Count Points per Section Type	50 200 10001 SWE				

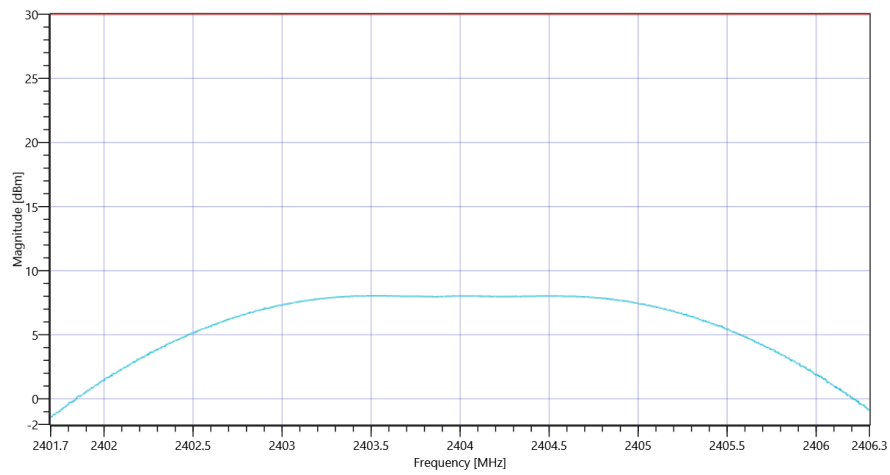
DTS Bandwidth					
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
DTS Bandwidth (6dB)	---	---	1148	kHz	INFO



Plot_FCC Part 15.247 Maximum Peak Conducted Output Power DTS ~ BT LE 2 Msps DTS BW_16112021_113606.png

READ SA SETTINGS:					
RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	18.26 10.8 25				
Start [MHz] Stop [MHz]	2401.700 2406.300				
RBW [MHz] VBW [MHz]	2.000000 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	8.03	dBm	PASS
Peak Power	---	1000	6.353309	mW	PASS
Frequency at Peak	---	---	2403.504	MHz	INFO

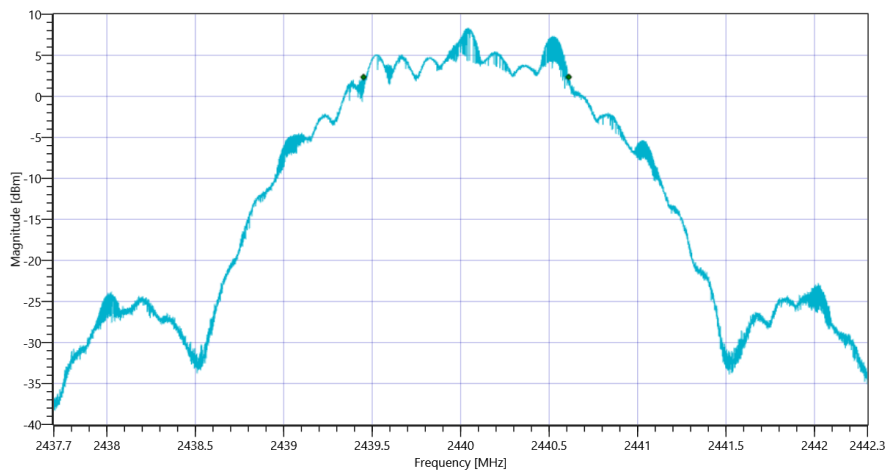


Test at TX 2440 MHz

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

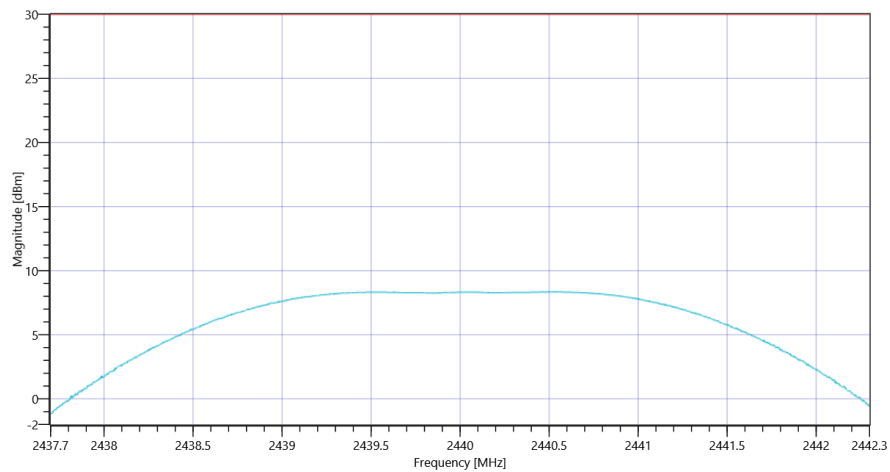
READ SA SETTINGS:					
RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]			13.47 10.8 20		
Start [MHz] Stop [MHz]			2437.700 2442.300		
RBW [MHz] VBW [MHz]			0.100000 0.300000		
Detector TraceMode			POS MAXH		
Sweep: Time [ms] Count Points per Section Type			50 200 10001 SWE		

DTS Bandwidth					
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
DTS Bandwidth (6dB)	---	---	1160	kHz	INFO



READ SA SETTINGS:					
RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]			18.47 10.8 25		
Start [MHz] Stop [MHz]			2437.700 2442.300		
RBW [MHz] VBW [MHz]			2.000000 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	8.34	dBm	PASS
Peak Power	---	1000	6.823387	mW	PASS
Frequency at Peak	---	---	2440.515	MHz	INFO



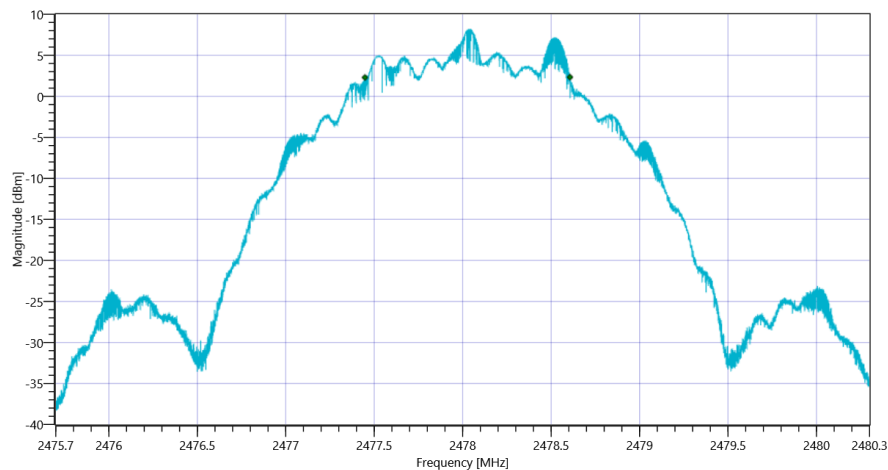
Plot_FCC Part 15.247 Maximum Peak Conducted Output Power DTS ~ BT LE 2 Msp_16112021_113709.png

Test at TX 2478 MHz

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

READ SA SETTINGS:					
RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	13.33 10.85 20				
Start [MHz] Stop [MHz]	2475.700 2480.300				
RBW [MHz] VBW [MHz]	0.100000 0.300000				
Detector TraceMode	POS MAXH				
Sweep: Time [ms] Count Points per Section Type	50 200 10001 SWE				

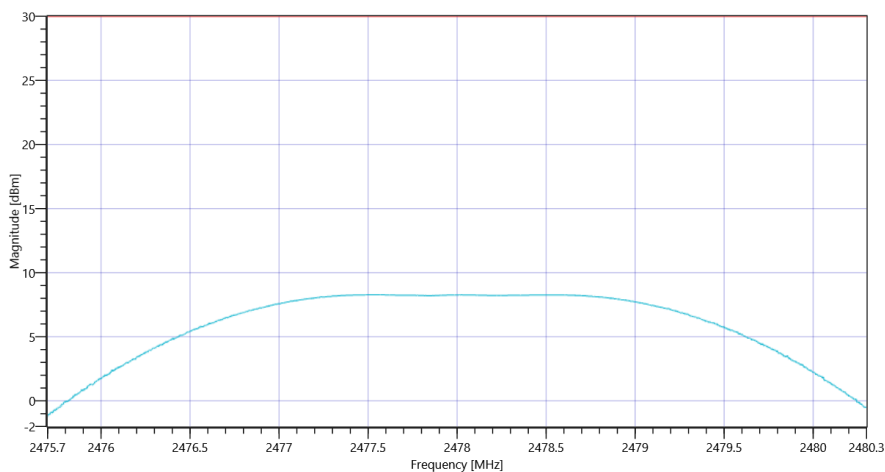
DTS Bandwidth					
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
DTS Bandwidth (6dB)	---	---	1159	kHz	INFO



Plot_FCC Part 15.247 Maximum Peak Conducted Output Power DTS ~ BT LE 2 Msps DTS BW_16112021_113738.png

READ SA SETTINGS:					
RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	18.33 10.85 25				
Start [MHz] Stop [MHz]	2475.700 2480.300				
RBW [MHz] VBW [MHz]	2.000000 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	8.28	dBm	PASS
Peak Power	---	1000	6.729767	mW	PASS
Frequency at Peak	---	---	2477.545	MHz	INFO



Plot_FCC Part 15.247 Maximum Peak Conducted Output Power DTS ~ BT LE 2 Msps_16112021_113756.png

TEST FINISHED	
General Verdict	PASS

12. FCC Part 15.247 Bandwidth 6dB DTS ~ BT LE 2 Msps

Test References	
TC Start	16.11.2021 11:38:01
Ambit Temp [°C] Humidity [rel%]	23.2 34
System Version	3.0.3.0
Test Specification	FCC Part 15.247
Test Method	99
TC Version	0.0.1
My Description	FCC 15.247 Bandwidth 6dB DTS - BT LE 2 Msps
Add. Information	

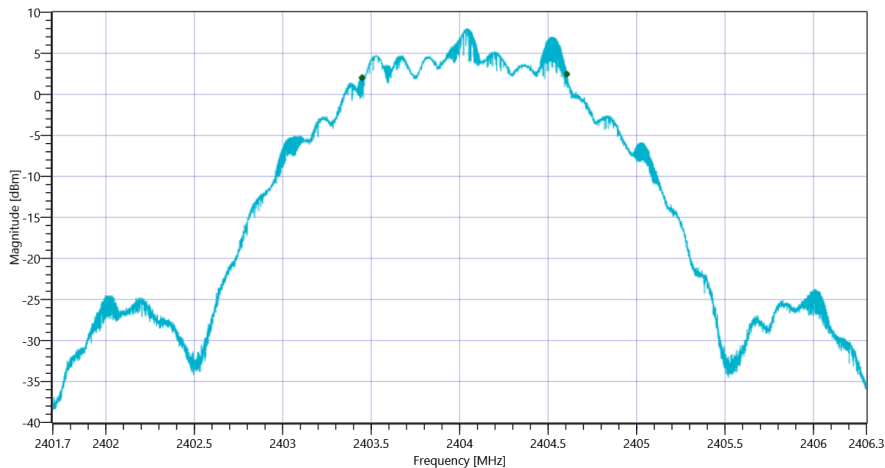
Test Parameter	
Technology to test	BT LE 2 Msps
Antenna Port used	1
Temperature	nom
Voltage	nom
Frequency low to test	True Freq [MHz] 2404
Frequency mid to test	True Freq [MHz] 2440
Frequency high to test	True Freq [MHz] 2478
Auto Control enabled Power Supply Climatic Box	No No
Additional Path Loss [dB]	0.7
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer

Test at TX 2404 MHz

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

READ SA SETTINGS:		
RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	13.25 10.8 20	
Start [MHz] Stop [MHz]	2401.700 2406.300	
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	---	1159	kHz	PASS



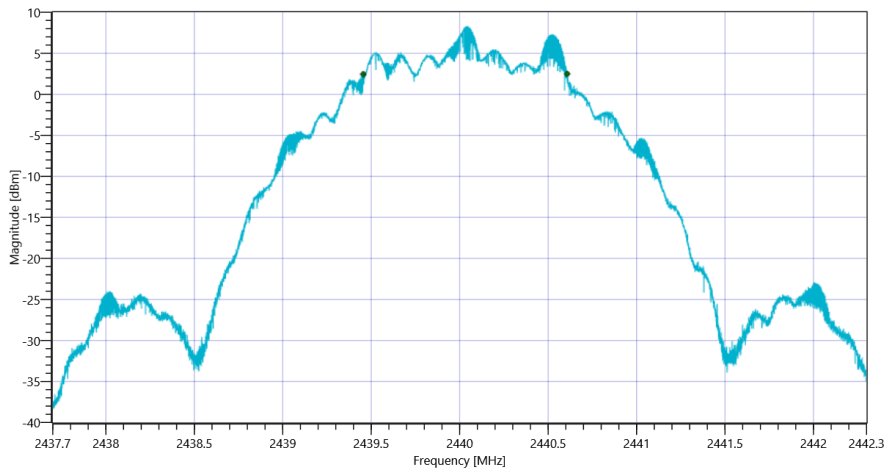
Plot_FCC Part 15.247 Bandwidth 6dB DTS ~ BT LE 2 Msps_16112021_113831.png

Test at TX 2440 MHz

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

READ SA SETTINGS:		
RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	13.46 10.8 20	
Start [MHz] Stop [MHz]	2437.700 2442.300	
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	---	1153	kHz	PASS



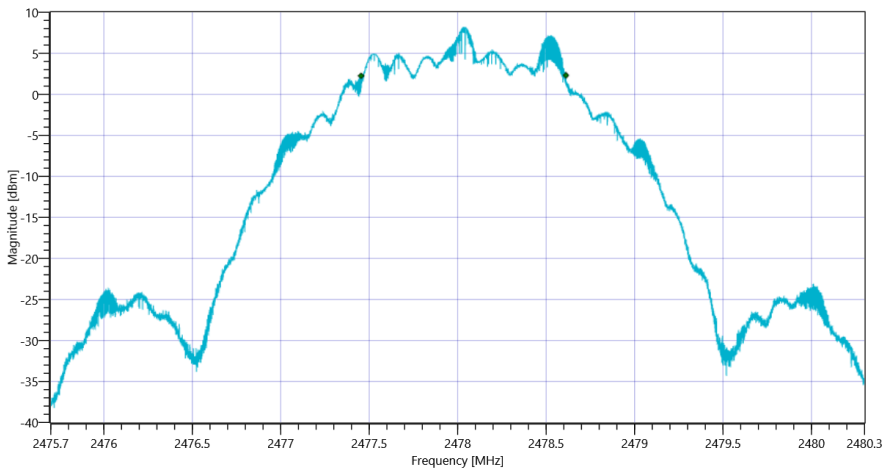
Plot_FCC Part 15.247 Bandwidth 6dB DTS ~ BT LE 2 Msps_16112021_113900.png

Test at TX 2478 MHz

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

READ SA SETTINGS:		
RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	13.30 10.85 20	
Start [MHz] Stop [MHz]	2475.700 2480.300	
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	---	1158	kHz	PASS



TEST FINISHED	
General Verdict	PASS

13. FCC Part 15.247 Peak Power Spectral Density DTS ~ BT LE 2 Msps

Test References	
TC Start	16.11.2021 11:39:34
Ambit Temp [°C] Humidity [rel%]	23.2 34
System Version	3.0.3.0
Test Specification	FCC Part 15.247
Test Method	DTS: KDB 558074 D01 V05 - Chapter 8.4 DTS maximum power spectral density level in the fundamental emission
TC Version	0.0.1
My Description	FCC 15.247 Peak Power Spectral Density DTS - BT LE 2 Msps
Add. Information	

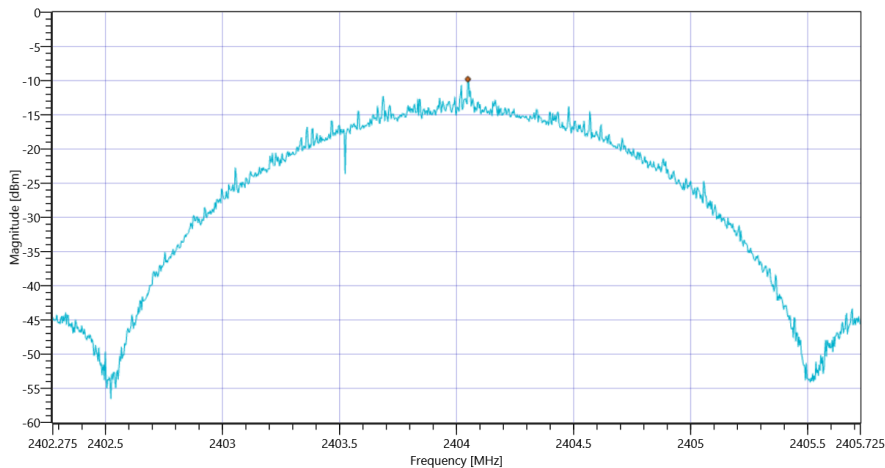
Test Parameter	
Technology to test	BT LE 2 Msps
Antenna Port used	1
Temperature	nom
Voltage	nom
Frequency low to test	True Freq [MHz] 2404
Frequency mid to test	True Freq [MHz] 2440
Frequency high to test	True Freq [MHz] 2478
Auto Control enabled Power Supply Climatic Box	No No
Additional Path Loss [dB]	0.7
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer

Test at TX 2404 MHz

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

READ SA SETTINGS:		
RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	13.25 10.8 20	
Start [MHz] Stop [MHz]	2402.275 2405.725	
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	-9.79	dBm/3KHz	PASS



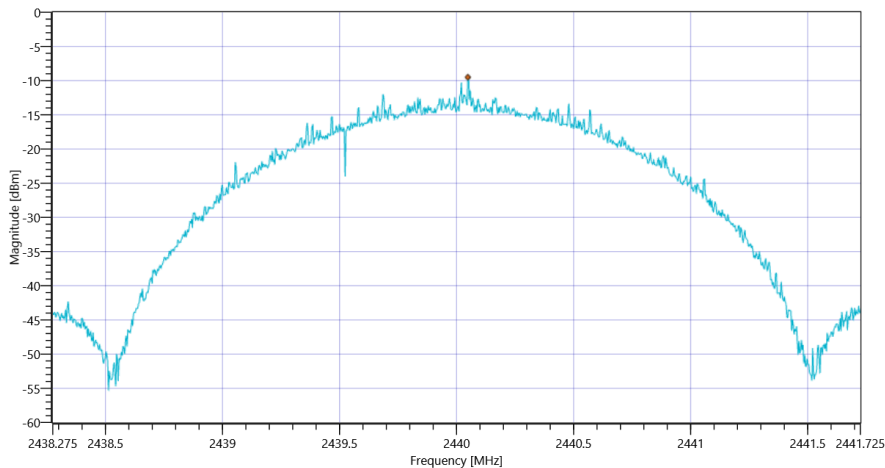
Plot_FCC Part 15.247 Peak Power Spectral Density DTS ~ BT LE 2 Msps_16112021_114014.png

Test at TX 2440 MHz

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

READ SA SETTINGS:					
RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]			13.45 10.8 20		
Start [MHz] Stop [MHz]			2438.275 2441.725		
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	-9.5	dBm/3KHz	PASS



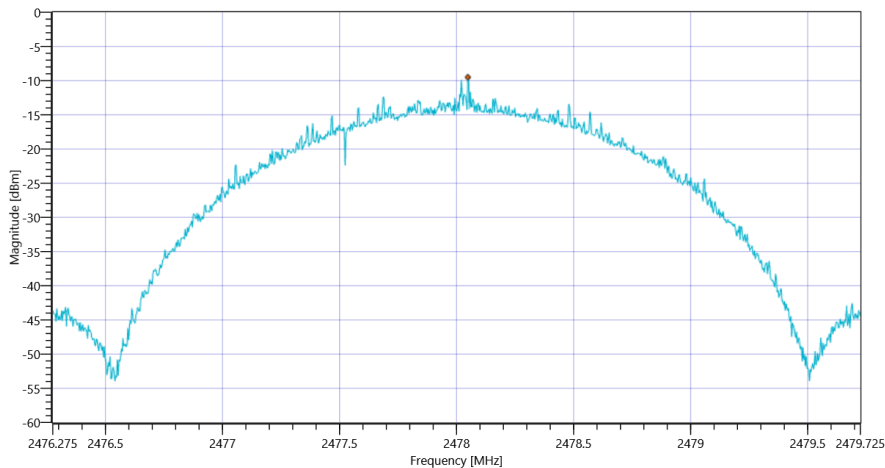
Plot_FCC Part 15.247 Peak Power Spectral Density DTS ~ BT LE 2 Msps_16112021_114052.png

Test at TX 2478 MHz

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

READ SA SETTINGS:		
RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	13.38 10.85 20	
Start [MHz] Stop [MHz]	2476.275 2479.725	
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	-9.5	dBm/3KHz	PASS



Plot_FCC Part 15.247 Peak Power Spectral Density DTS ~ BT LE 2 Msps_16112021_114130.png

TEST FINISHED	
General Verdict	PASS

14. FCC Part 15.247 Bandwidth 99PCT-20dB ~ BT LE 2 Msps

Test References	
TC Start	16.11.2021 11:41:35
Ambit Temp [°C] Humidity [rel%]	23.2 34
System Version	3.0.3.0
Test Specification	FCC Part 15.247
Test Method	
TC Version	0.0.2
My Description	FCC 15.247 Bandwidth 99PCT-20dB DTS - BT LE 2 Msps
Add. Information	

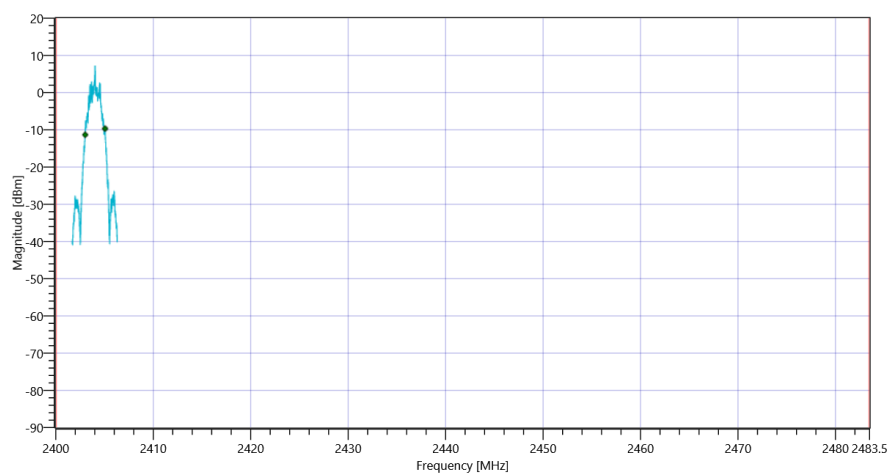
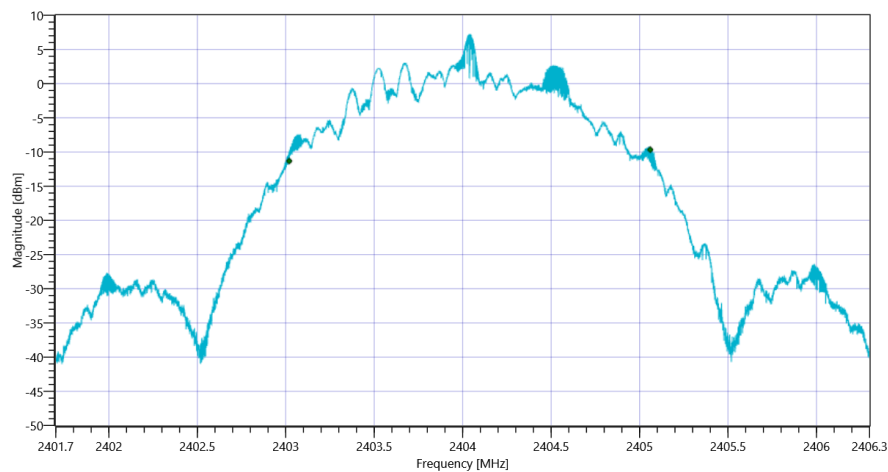
Test Parameter	
Technology to test	BT LE 2 Msps
Antenna Port used	1
Temperature	nom
Voltage	nom
Frequency low to test	True Freq [MHz] 2404
Frequency mid to test	True Freq [MHz] 2440
Frequency high to test	True Freq [MHz] 2478
Auto Control enabled Power Supply Climatic Box	No No
Additional Path Loss [dB]	0.7
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer

Test at TX 2404 MHz

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

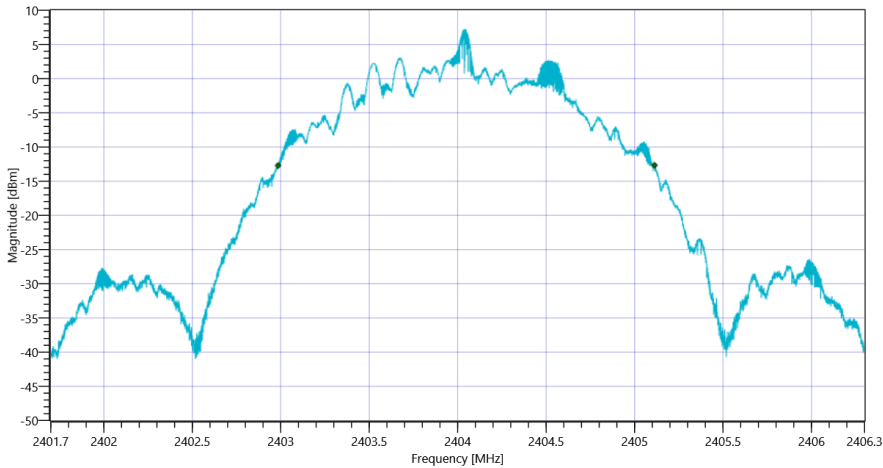
READ SA SETTINGS:					
RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]			13.26 10.8 20		
Start [MHz] Stop [MHz]			2401.700 2406.300		
RBW [MHz] VBW [MHz]			0.050000 0.200000		
Detector TraceMode			POS MAXH		
Sweep: Time [ms] Count Points per Section Type			50 200 10001 SWE		

RESULT					
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 99%	---	---	2040.816	kHz	INFO
T1 99%	2400.000000	---	2403.0194	MHz	PASS
T2 99%	---	2483.500000	2405.0602	MHz	PASS

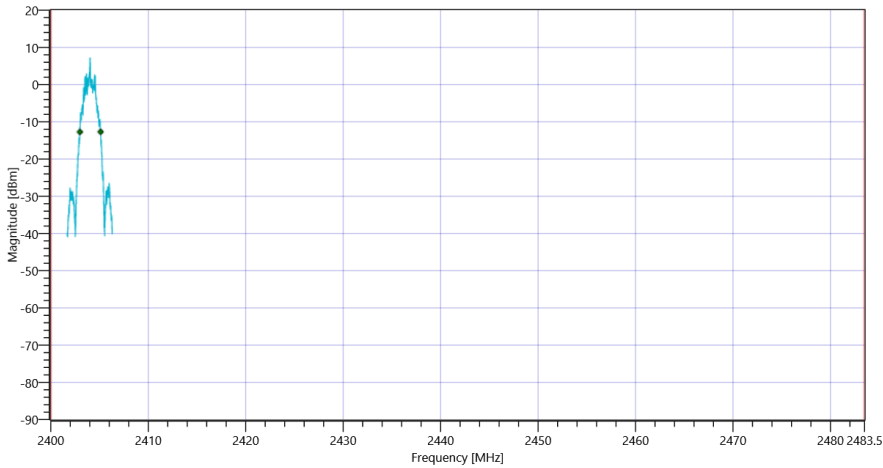


RESULT					
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 20dB	---	---	2127	kHz	INFO

T1 20dB	2400.000000	---	2402.9848	MHz	PASS
T2 20dB	---	2483.500000	2405.1118	MHz	PASS



Plot_FCC Part 15.247 Bandwidth 99PCT-20dB ~ BT LE 2 Msps 20dB_16112021_114219.png



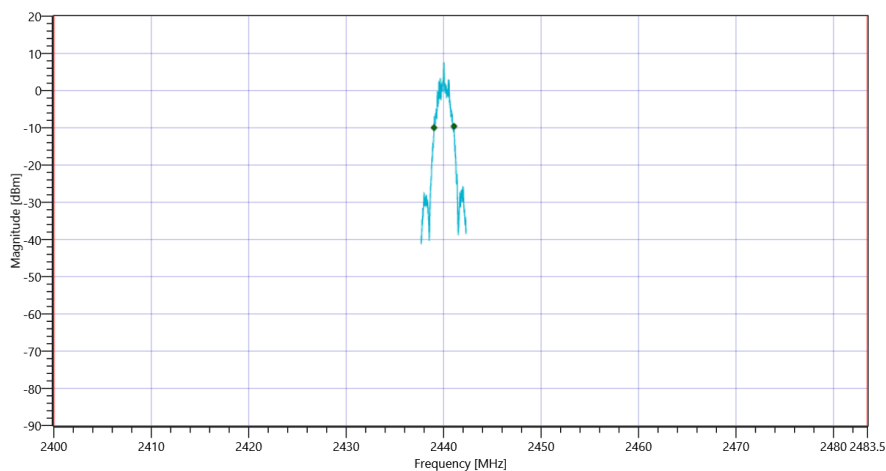
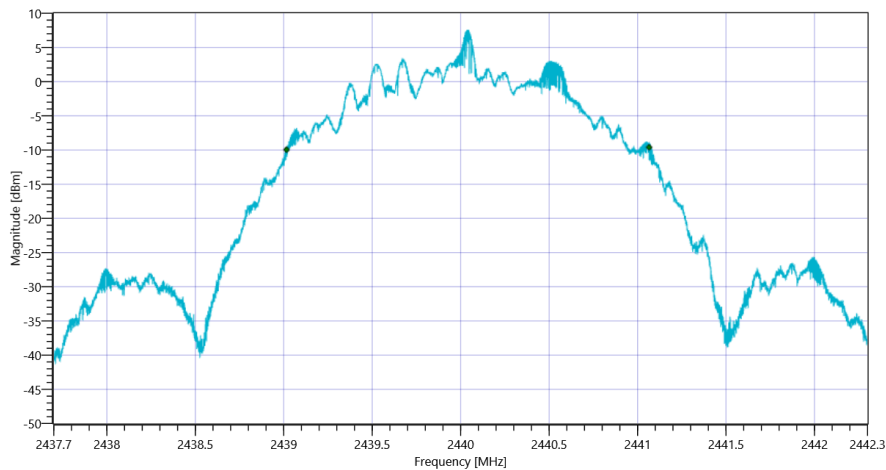
Plot_FCC Part 15.247 Bandwidth 99PCT-20dB ~ BT LE 2 Msps_16112021_114225.png

Test at TX 2440 MHz

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

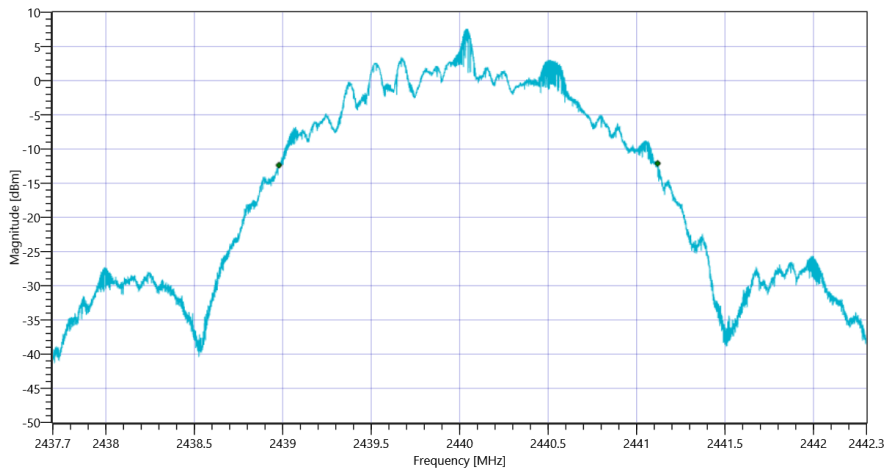
READ SA SETTINGS:					
RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]			13.43 10.8 20		
Start [MHz] Stop [MHz]			2437.700 2442.300		
RBW [MHz] VBW [MHz]			0.050000 0.200000		
Detector TraceMode			POS MAXH		
Sweep: Time [ms] Count Points per Section Type			50 200 10001 SWE		

RESULT					
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 99%	---	---	2049.555	kHz	INFO
T1 99%	2400.000000	---	2439.0157	MHz	PASS
T2 99%	---	2483.500000	2441.0653	MHz	PASS

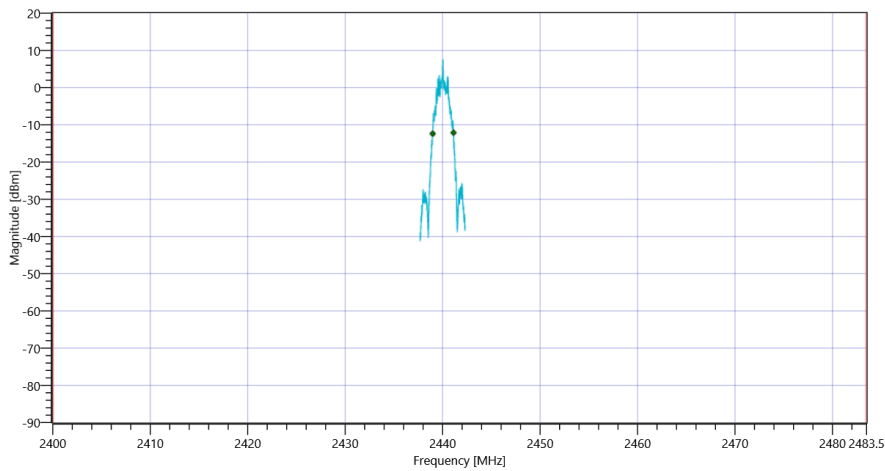


RESULT					
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 20dB	---	---	2141	kHz	INFO

T1 20dB	2400.000000	---	2438.9779	MHz	PASS
T2 20dB	---	2483.500000	2441.1192	MHz	PASS



Plot_FCC Part 15.247 Bandwidth 99PCT-20dB ~ BT LE 2 Msps 20dB_16112021_114308.png



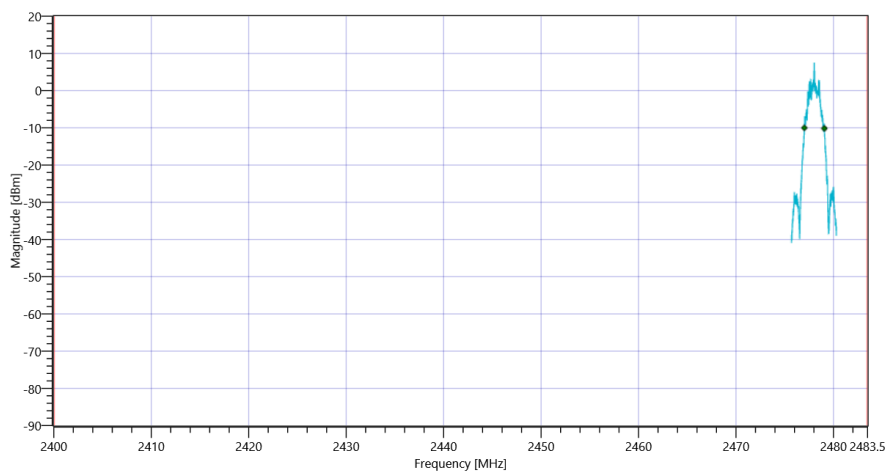
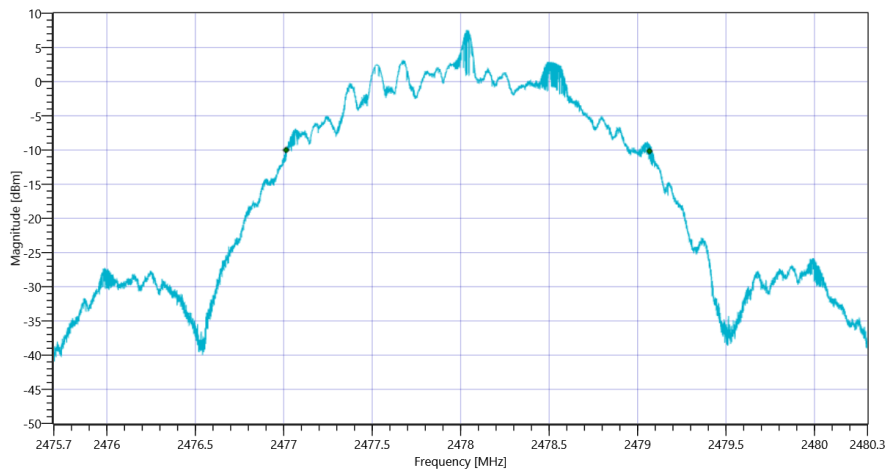
Plot_FCC Part 15.247 Bandwidth 99PCT-20dB ~ BT LE 2 Msps_16112021_114314.png

Test at TX 2478 MHz

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

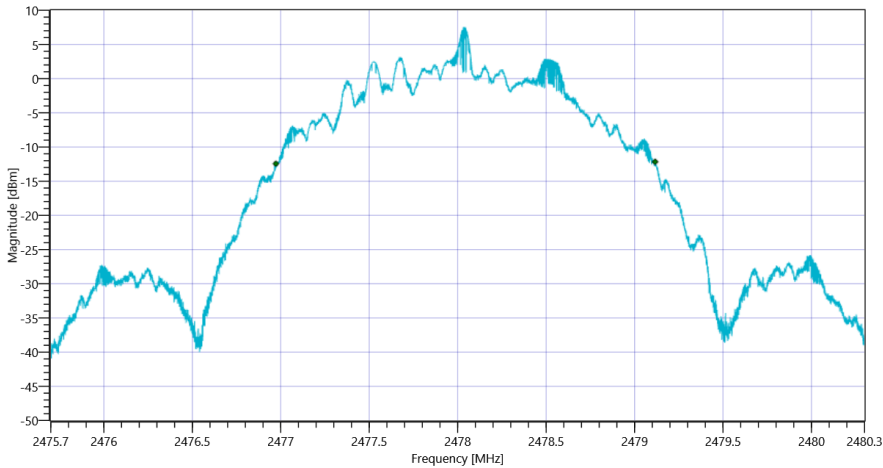
READ SA SETTINGS:					
RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]			13.32 10.85 20		
Start [MHz] Stop [MHz]			2475.700 2480.300		
RBW [MHz] VBW [MHz]			0.050000 0.200000		
Detector TraceMode			POS MAXH		
Sweep: Time [ms] Count Points per Section Type			50 200 10001 SWE		

RESULT					
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 99%	---	---	2054.155	kHz	INFO
T1 99%	2400.000000	---	2477.0129	MHz	PASS
T2 99%	---	2483.500000	2479.0671	MHz	PASS

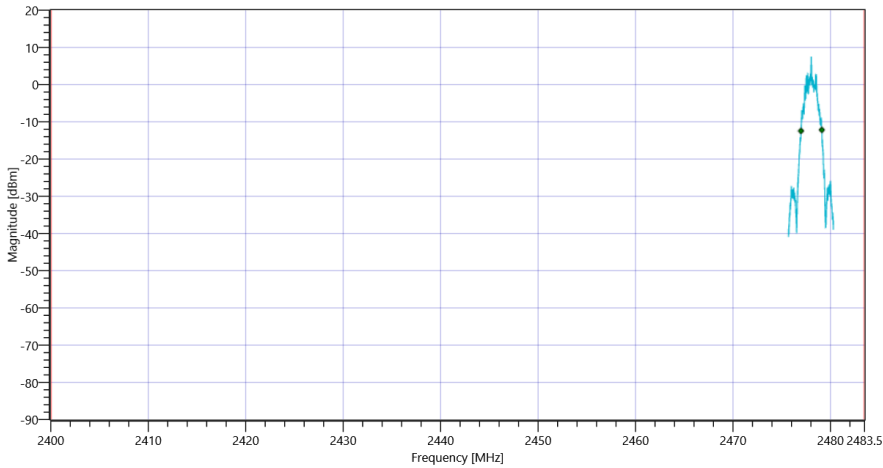


RESULT					
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 20dB	---	---	2144	kHz	INFO

T1 20dB	2400.000000	---	2476.9724	MHz	PASS
T2 20dB	---	2483.500000	2479.1160	MHz	PASS



Plot_FCC Part 15.247 Bandwidth 99PCT-20dB ~ BT LE 2 Msps 20dB_16112021_114358.png



Plot_FCC Part 15.247 Bandwidth 99PCT-20dB ~ BT LE 2 Msps_16112021_114405.png

TEST FINISHED					
General Verdict				PASS	

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

Test References	
TC Start	16.11.2021 11:44:10
Ambit Temp [°C] Humidity [rel%]	23.2 34
System Version	3.0.3.0
Test Specification	FCC Part 15.247
Test Method	IF DTS then 8.5 DTS emissions in non-restricted frequency bands: Subclause 11.11 of ANSI C63.10 is applicable.
TC Version	0.0.1
My Description	FCC 15.247 TX Emissions Conducted DTS - BT LE 2 Msps
Add. Information	

Test Parameter	
Technology to test	BT LE 2 Msps
Antenna Port used	1
Temperature	nom
Voltage	nom
Frequency low to test	True Freq [MHz] 2404
Frequency mid to test	True Freq [MHz] 2440
Frequency high to test	True Freq [MHz] 2478
Auto Control enabled Power Supply Climatic Box	No No
Additional Path Loss [dB]	0.7
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer