

# Measurement Results

1-9206/19-01-06\_Annex\_MR\_A\_1

[Test logging](#)

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## IUT Summary

IUT DEFINITION & Common settings	
Manufacturer	Panasonic Industrial Devices Europe GmbH
Type	PAN1780
Serial No.   Setup No.	1   1.0
SW Version   HW Version	V01.03   Nordic SD S140_nRF52
Comment 1   2	
Tlow   Tmid   Thigh [°C]	-40   20   85
Vlow   Vmid   Vhigh [V] @Imax [A]	1.7   3.3   5.5 @1
Auto Control enabled Power Supply   Climatic Box	No   No
Antenna Gain [dBi]	0
Additional Path Loss [dB]	0

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 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	USB_RS232   TWO   41   19200   None   S1   None   On
Signaling RF Settings	RF1com   0   0   On
User Interaction	No
Switch Matrix & Pathcompensation enabled	Yes

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

Test References	
TC Start	16.03.2020 13:45:40
System Version	1.0.0.40
Test Specification	FCC Part 15.247
Test Method	DTS: KDB 558074 D01 V05 - Chapter 8.3.1.1 RBW $\geq$ 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	

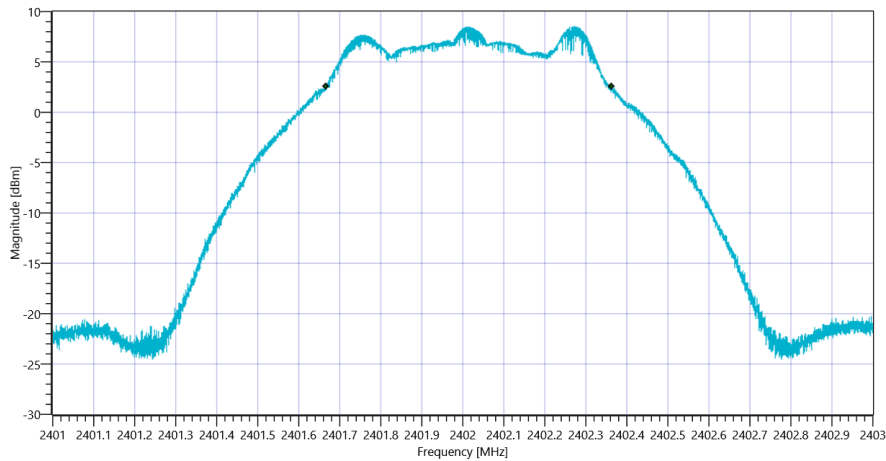
Test Parameter	
Technology to test	BT LE 1 Msps
Antenna Port used	1
Temperature	mid
Voltage	mid
Frequency low to test	True   Freq [MHz] 2402
Frequency mid to test	True   Freq [MHz] 2440
Frequency high to test	True   Freq [MHz] 2480
Switched Path	IUT - SignalingUnit - SpectrumAnalyzer
Devices in use	SigBT: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

## 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]	13.39   10.09   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

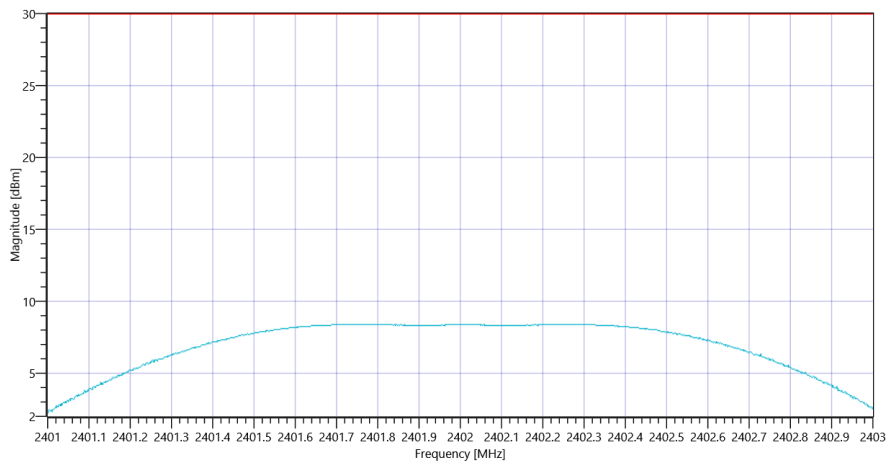
DTS Bandwidth					
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
DTS Bandwidth (6dB)	---	---	697	kHz	INFO



Plot\_FCC Part 15.247 Maximum Peak Conducted Output Power DTS ~ BT LE 1 Msps DTS BW\_16032020\_134608.png

READ SA SETTINGS:	
RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]	18.39   10.09   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	8.38	dBm	PASS
Peak Power	---	1000	6.886523	mW	PASS
Frequency at Peak	---	---	2401.734	MHz	INFO



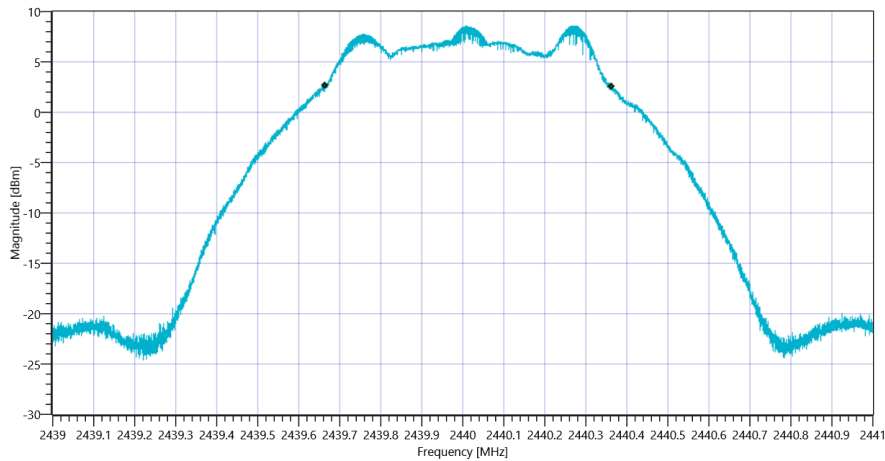
Plot\_FCC Part 15.247 Maximum Peak Conducted Output Power DTS ~ BT LE 1 Msps\_16032020\_134624.png

## Test at TX 2440 MHz

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

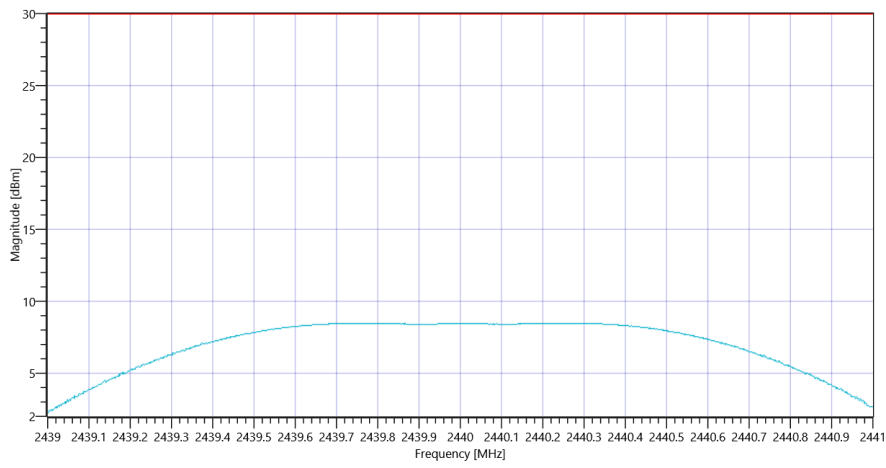
READ SA SETTINGS:	
RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]	13.46   10.1   20
Start [MHz]   Stop [MHz]	2439.000   2441.000
RBW [MHz]   VBW [MHz]	0.100000   0.300000
Detector   TraceMode	POS   MAXH
Sweep: Time [ms]   Count   Points per Section   Type	50   200   10001   SWE

DTS Bandwidth					
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
DTS Bandwidth (6dB)	---	---	699	kHz	INFO



READ SA SETTINGS:	
RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]	18.46   10.1   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	8.47	dBm	PASS
Peak Power	---	1000	7.030723	mW	PASS
Frequency at Peak	---	---	2440.24	MHz	INFO



Plot\_FCC Part 15.247 Maximum Peak Conducted Output Power DTS ~ BT LE 1 Msps\_16032020\_134711.png

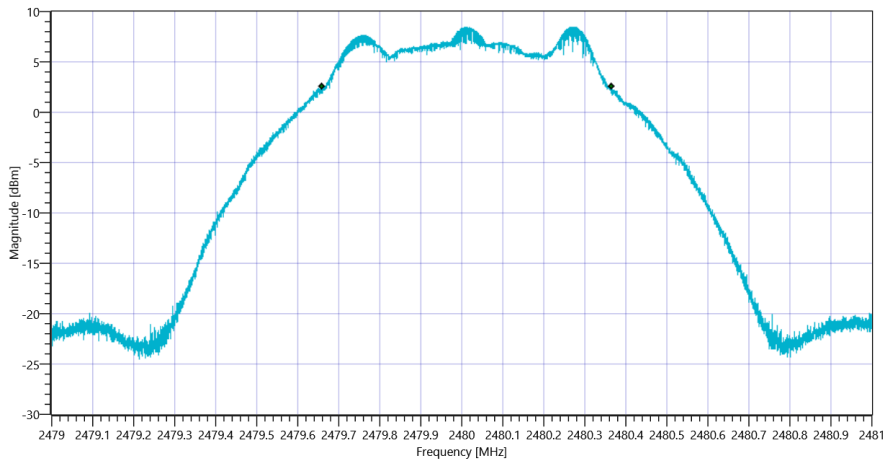


## Test at TX 2480 MHz

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

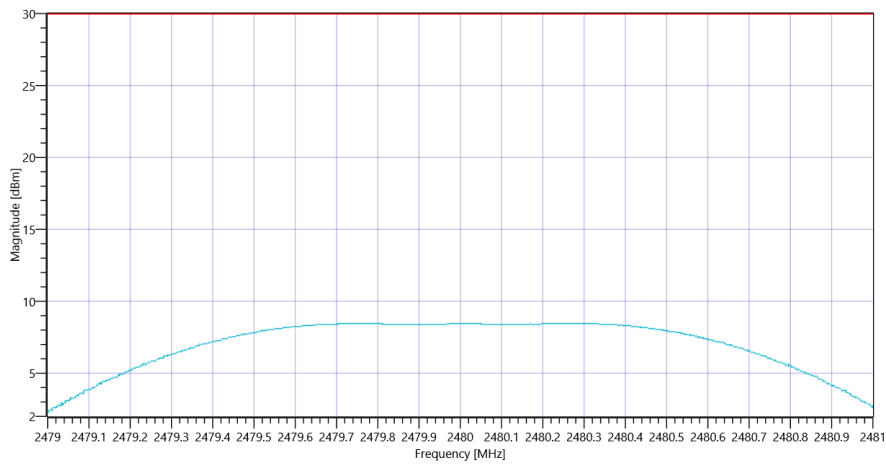
READ SA SETTINGS:	
RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]	13.40   10.15   20
Start [MHz]   Stop [MHz]	2479.000   2481.000
RBW [MHz]   VBW [MHz]	0.100000   0.300000
Detector   TraceMode	POS   MAXH
Sweep: Time [ms]   Count   Points per Section   Type	50   200   10001   SWE

DTS Bandwidth					
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
DTS Bandwidth (6dB)	---	---	705	kHz	INFO



READ SA SETTINGS:	
RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]	18.40   10.15   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	8.45	dBm	PASS
Peak Power	---	1000	6.99842	mW	PASS
Frequency at Peak	---	---	2480.26	MHz	INFO



Plot\_FCC Part 15.247 Maximum Peak Conducted Output Power DTS ~ BT LE 1 Msps\_16032020\_134759.png

TEST FINISHED

General Verdict

16.03.2020 13:47:59 / RT: 138 s

PASS

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

Test References	
TC Start	16.03.2020 14:09:29
System Version	1.0.0.40
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 2 Msps
Add. Information	

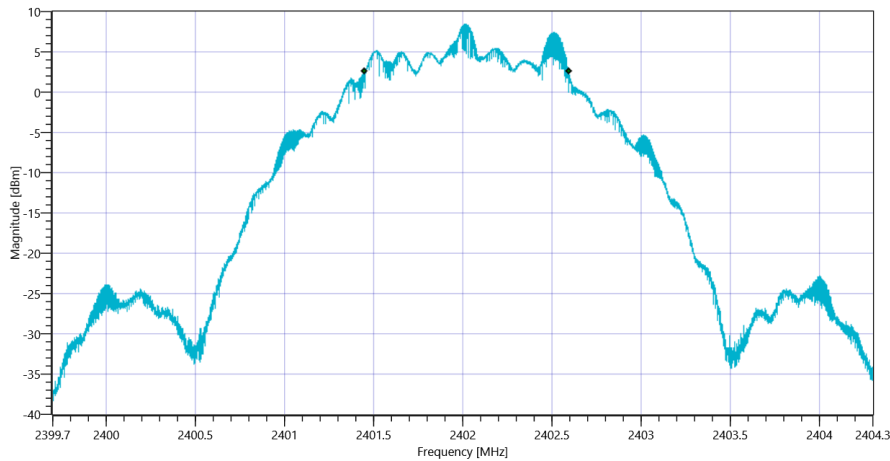
Test Parameter	
Technology to test	BT LE 2 Msps
Antenna Port used	1
Temperature	mid
Voltage	mid
Frequency low to test	True   Freq [MHz] 2402
Frequency mid to test	True   Freq [MHz] 2440
Frequency high to test	True   Freq [MHz] 2480
Switched Path	IUT - SignalingUnit - SpectrumAnalyzer
Devices in use	SigBT: 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

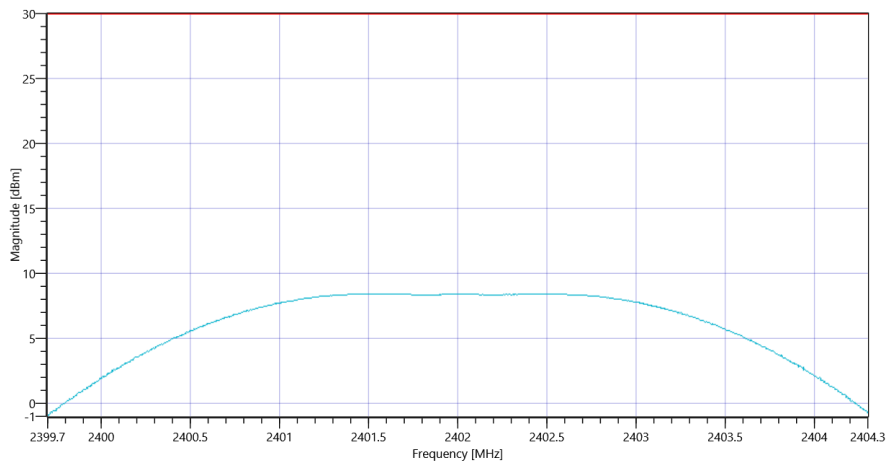
READ SA SETTINGS:	
RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]	13.41   10.09   20
Start [MHz]   Stop [MHz]	2399.700   2404.300
RBW [MHz]   VBW [MHz]	0.100000   0.300000
Detector   TraceMode	POS   MAXH
Sweep: Time [ms]   Count   Points per Section   Type	50   200   10001   SWE

DTS Bandwidth					
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
DTS Bandwidth (6dB)	---	---	1146	kHz	INFO



READ SA SETTINGS:	
RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]	18.41   10.09   25
Start [MHz]   Stop [MHz]	2399.700   2404.300
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	8.42	dBm	PASS
Peak Power	---	1000	6.950243	mW	PASS
Frequency at Peak	---	---	2401.499	MHz	INFO



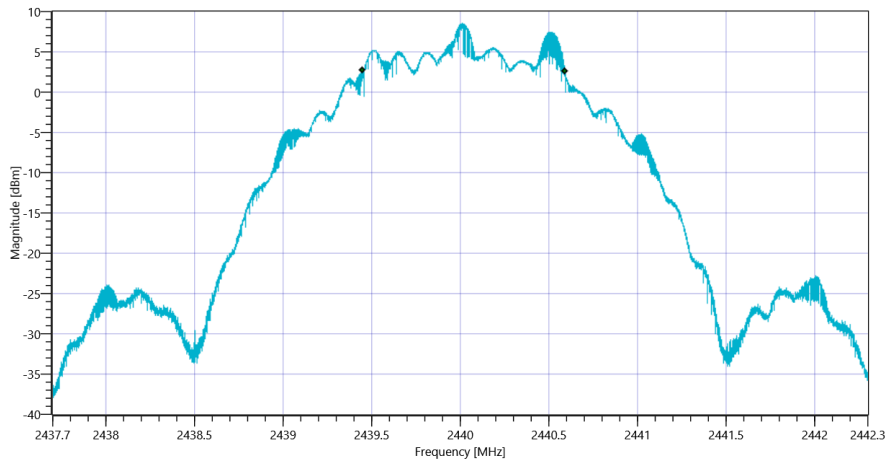
Plot\_FCC Part 15.247 Maximum Peak Conducted Output Power DTS ~ BT LE 2 Msps\_16032020\_141012.png

## Test at TX 2440 MHz

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

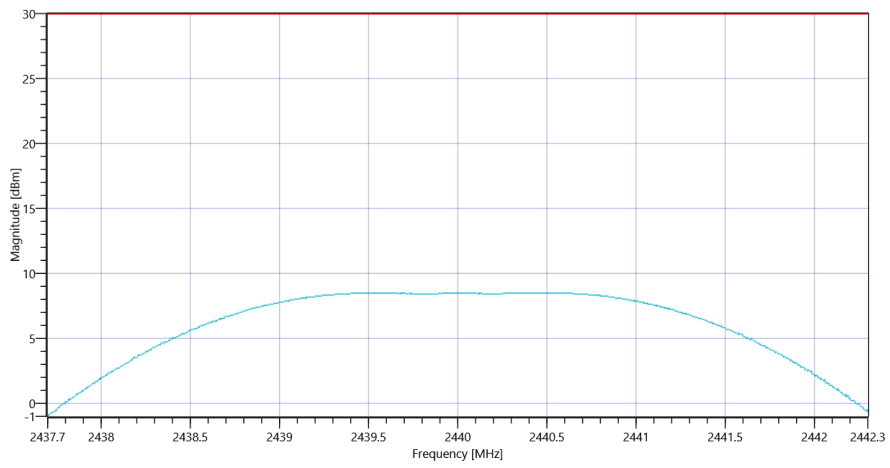
READ SA SETTINGS:	
RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]	13.47   10.1   20
Start [MHz]   Stop [MHz]	2437.700   2442.300
RBW [MHz]   VBW [MHz]	0.100000   0.300000
Detector   TraceMode	POS   MAXH
Sweep: Time [ms]   Count   Points per Section   Type	50   200   10001   SWE

DTS Bandwidth					
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
DTS Bandwidth (6dB)	---	---	1146	kHz	INFO



READ SA SETTINGS:	
RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]	18.47   10.1   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	8.5	dBm	PASS
Peak Power	---	1000	7.079458	mW	PASS
Frequency at Peak	---	---	2440.492	MHz	INFO



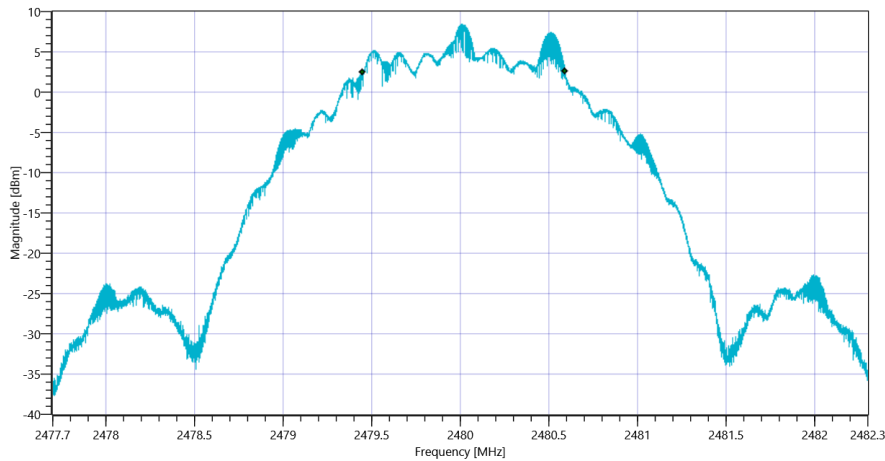
Plot\_FCC Part 15.247 Maximum Peak Conducted Output Power DTS ~ BT LE 2 Msps\_16032020\_141100.png

## 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]	13.41   10.15   20
Start [MHz]   Stop [MHz]	2477.700   2482.300
RBW [MHz]   VBW [MHz]	0.100000   0.300000
Detector   TraceMode	POS   MAXH
Sweep: Time [ms]   Count   Points per Section   Type	50   200   10001   SWE

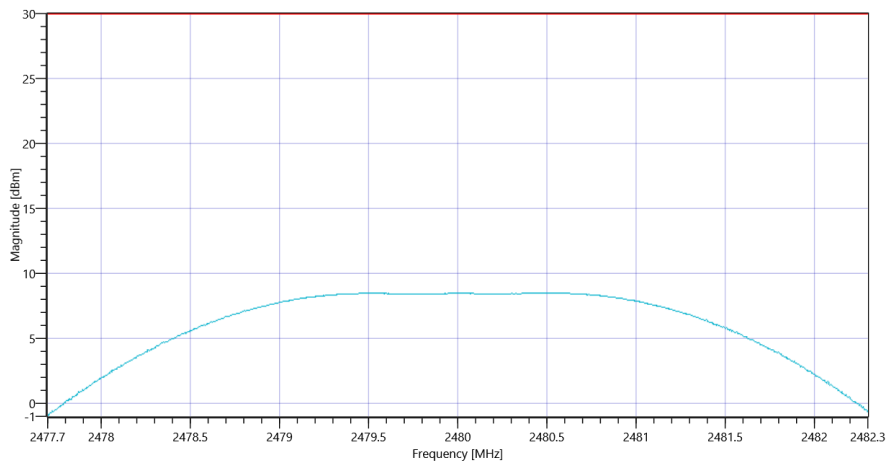
DTS Bandwidth					
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
DTS Bandwidth (6dB)	---	---	1142	kHz	INFO



READ SA SETTINGS:	
RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]	18.41   10.15   25
Start [MHz]   Stop [MHz]	2477.700   2482.300
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	8.49	dBm	PASS
Peak Power	---	1000	7.063176	mW	PASS
Frequency at Peak	---	---	2480.496	MHz	INFO





Plot\_FCC Part 15.247 Maximum Peak Conducted Output Power DTS ~ BT LE 2 Msps\_16032020\_141147.png

TEST FINISHED

General Verdict

16.03.2020 14:11:48 / RT: 139 s

PASS

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

Test References	
TC Start	16.03.2020 14:38:40
System Version	1.0.0.40
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 coded S8
Add. Information	

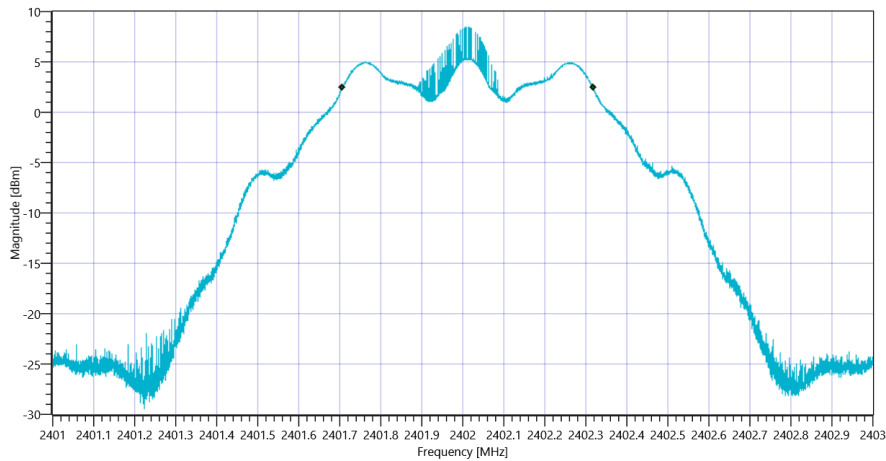
Test Parameter	
Technology to test	BT LE coded S8
Antenna Port used	1
Temperature	mid
Voltage	mid
Frequency low to test	True   Freq [MHz] 2402
Frequency mid to test	True   Freq [MHz] 2440
Frequency high to test	True   Freq [MHz] 2480
Switched Path	IUT - SignalingUnit - SpectrumAnalyzer
Devices in use	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

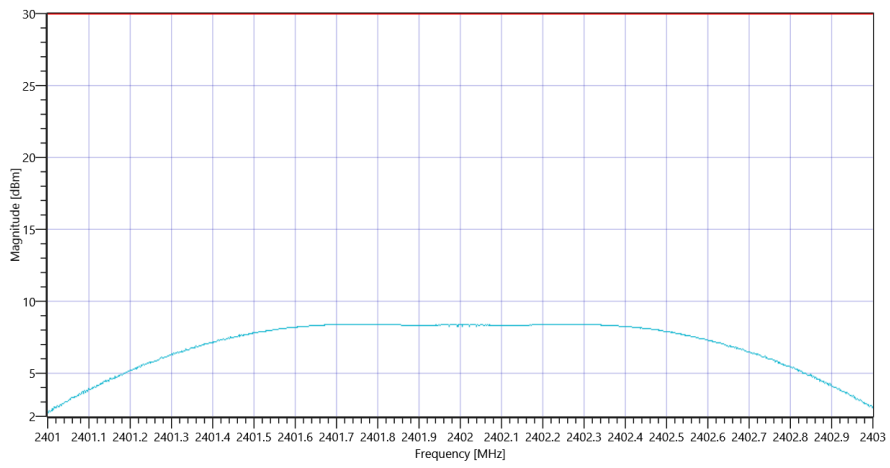
READ SA SETTINGS:					
RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]			13.42   10.09   20		
Start [MHz]   Stop [MHz]			2401.000   2403.000		
RBW [MHz]   VBW [MHz]			0.100000   0.300000		
Detector   TraceMode			POS   MAXH		
Sweep: Time [ms]   Count   Points per Section   Type			50   200   10001   SWE		

DTS Bandwidth					
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
DTS Bandwidth (6dB)	---	---	612	kHz	INFO



READ SA SETTINGS:					
RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]			18.42   10.09   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	8.4	dBm	PASS
Peak Power	---	1000	6.91831	mW	PASS
Frequency at Peak	---	---	2401.746	MHz	INFO



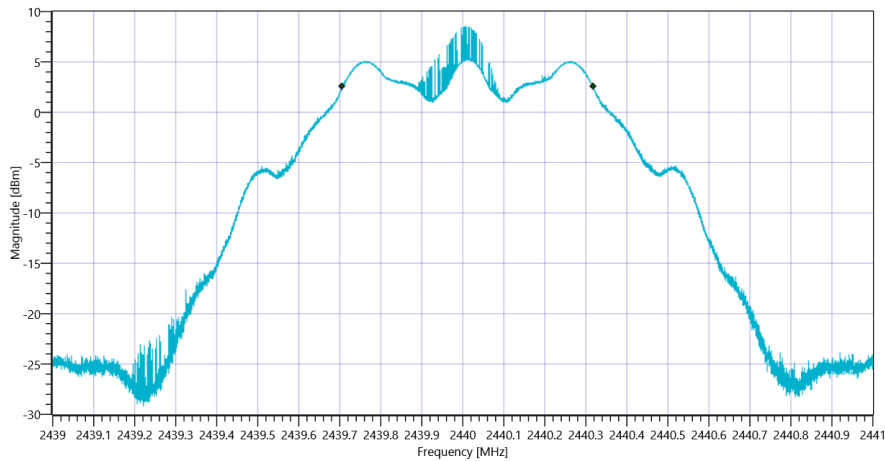
Plot\_FCC Part 15.247 Maximum Peak Conducted Output Power DTS ~ BT LE coded S8\_16032020\_143924.png

## Test at TX 2440 MHz

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

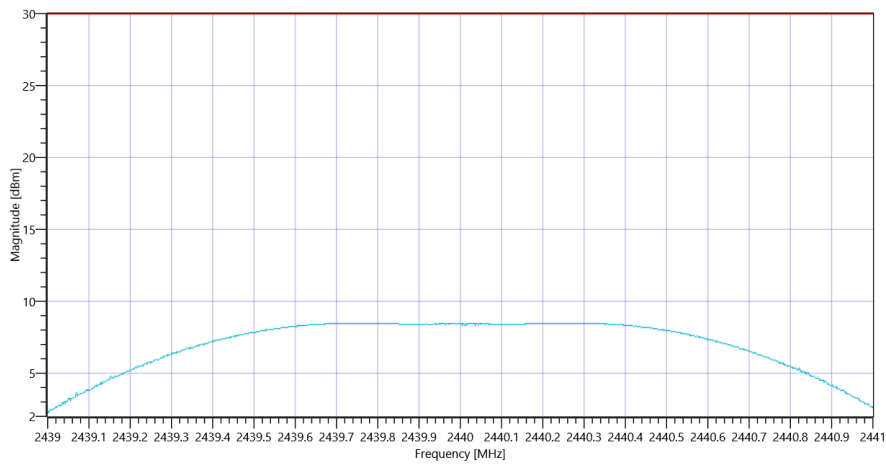
READ SA SETTINGS:	
RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]	13.47   10.1   20
Start [MHz]   Stop [MHz]	2439.000   2441.000
RBW [MHz]   VBW [MHz]	0.100000   0.300000
Detector   TraceMode	POS   MAXH
Sweep: Time [ms]   Count   Points per Section   Type	50   200   10001   SWE

DTS Bandwidth					
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
DTS Bandwidth (6dB)	---	---	611	kHz	INFO



READ SA SETTINGS:	
RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]	18.47   10.1   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	8.48	dBm	PASS
Peak Power	---	1000	7.046931	mW	PASS
Frequency at Peak	---	---	2440.278	MHz	INFO



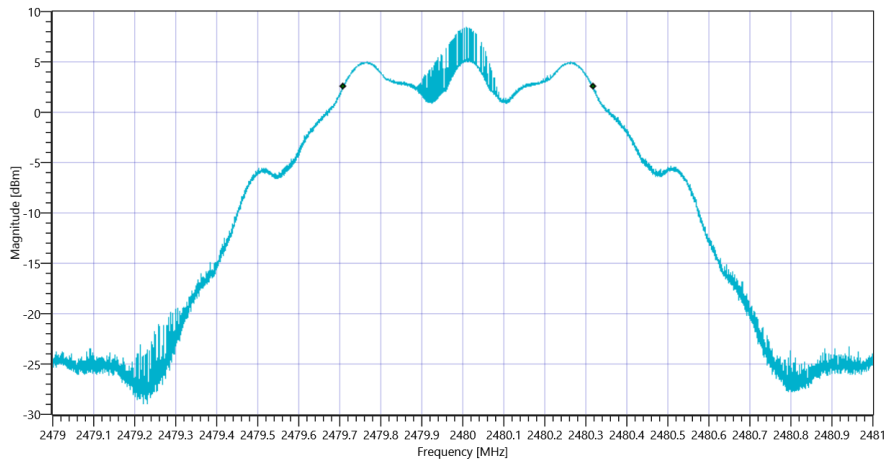
Plot\_FCC Part 15.247 Maximum Peak Conducted Output Power DTS ~ BT LE coded S8\_16032020\_144012.png

## Test at TX 2480 MHz

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

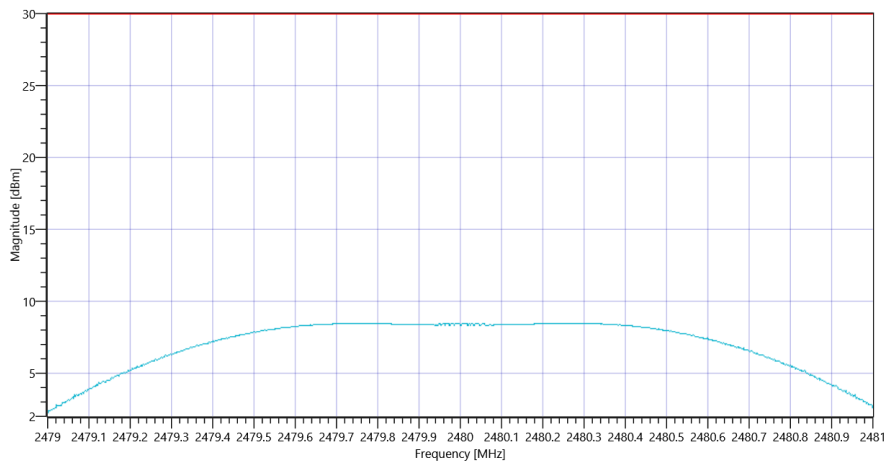
READ SA SETTINGS:	
RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]	13.42   10.15   20
Start [MHz]   Stop [MHz]	2479.000   2481.000
RBW [MHz]   VBW [MHz]	0.100000   0.300000
Detector   TraceMode	POS   MAXH
Sweep: Time [ms]   Count   Points per Section   Type	50   200   10001   SWE

DTS Bandwidth					
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
DTS Bandwidth (6dB)	---	---	610	kHz	INFO



READ SA SETTINGS:	
RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]	18.42   10.15   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	8.46	dBm	PASS
Peak Power	---	1000	7.014553	mW	PASS
Frequency at Peak	---	---	2480.242	MHz	INFO



Plot\_FCC Part 15.247 Maximum Peak Conducted Output Power DTS ~ BT LE coded S8\_16032020\_144059.png

TEST FINISHED

General Verdict

16.03.2020 14:41:00 / RT: 140 s

PASS



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

Test References	
TC Start	16.03.2020 15:03:25
System Version	1.0.0.40
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 coded S2
Add. Information	

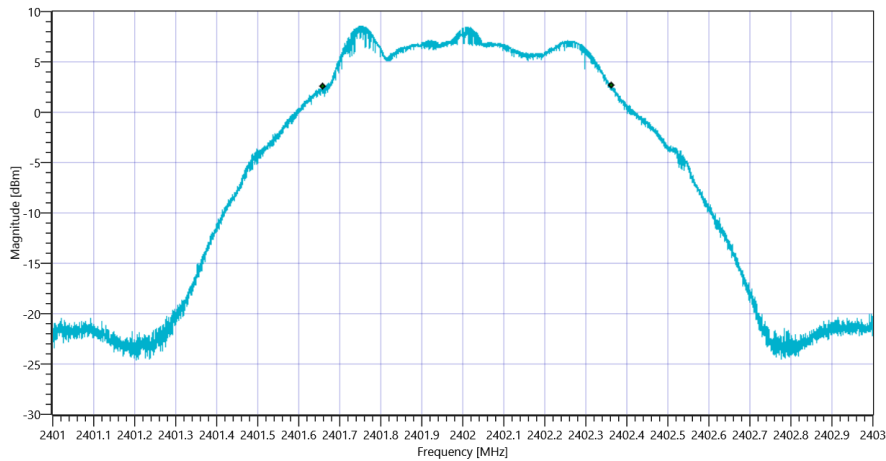
Test Parameter	
Technology to test	BT LE coded S2
Antenna Port used	1
Temperature	mid
Voltage	mid
Frequency low to test	True   Freq [MHz] 2402
Frequency mid to test	True   Freq [MHz] 2440
Frequency high to test	True   Freq [MHz] 2480
Switched Path	IUT - SignalingUnit - SpectrumAnalyzer
Devices in use	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

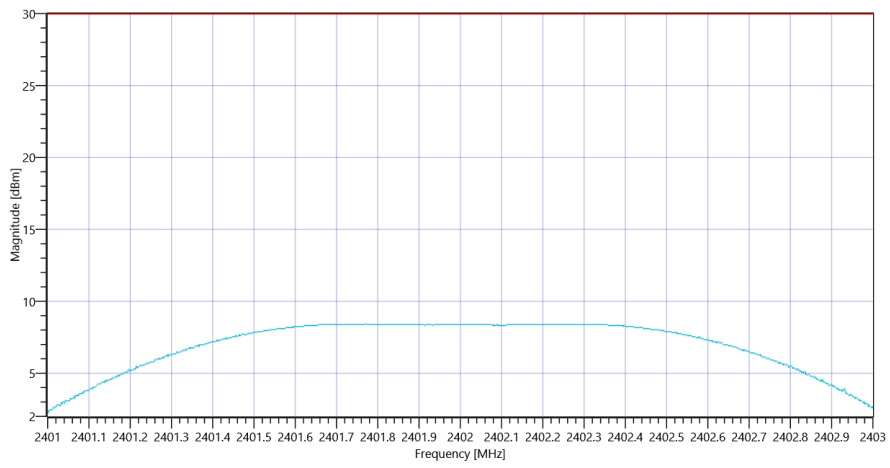
READ SA SETTINGS:					
RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]			13.42   10.09   20		
Start [MHz]   Stop [MHz]			2401.000   2403.000		
RBW [MHz]   VBW [MHz]			0.100000   0.300000		
Detector   TraceMode			POS   MAXH		
Sweep: Time [ms]   Count   Points per Section   Type			50   200   10001   SWE		

DTS Bandwidth					
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
DTS Bandwidth (6dB)	---	---	704	kHz	INFO



READ SA SETTINGS:					
RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]			18.42   10.09   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	8.42	dBm	PASS
Peak Power	---	1000	6.950243	mW	PASS
Frequency at Peak	---	---	2401.772	MHz	INFO



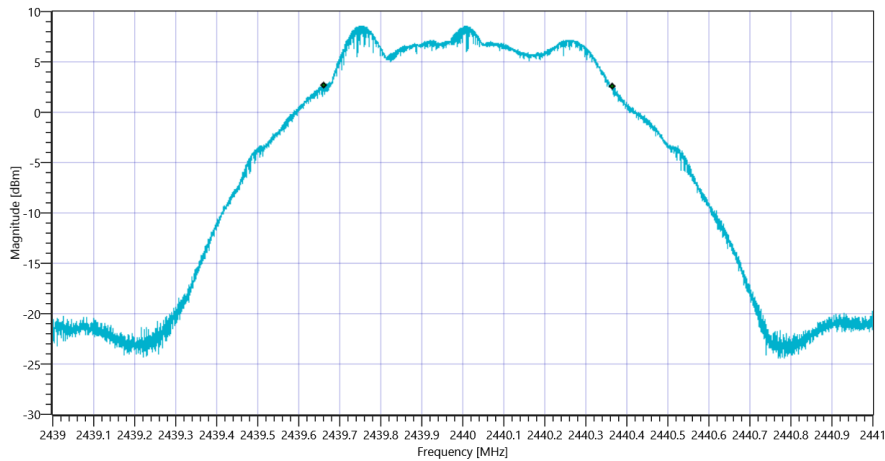
Plot\_FCC Part 15.247 Maximum Peak Conducted Output Power DTS ~ BT LE coded S2\_16032020\_150409.png

## 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]	13.49   10.1   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

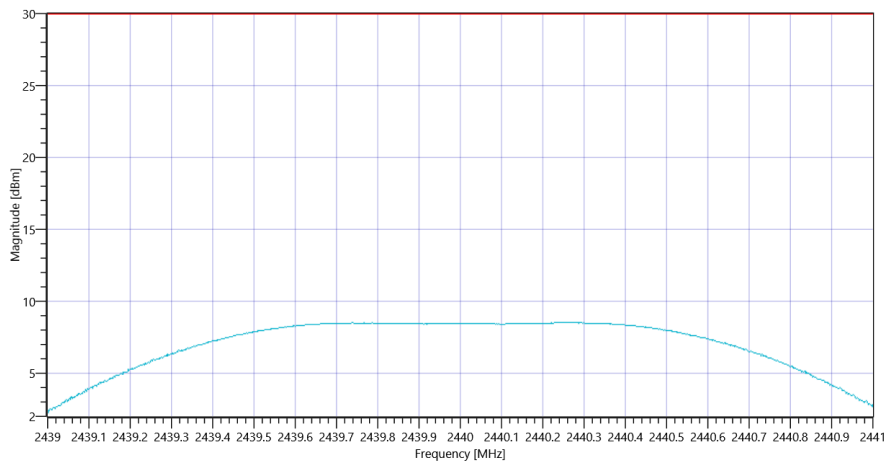
DTS Bandwidth					
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
DTS Bandwidth (6dB)	---	---	703	kHz	INFO



Plot\_FCC Part 15.247 Maximum Peak Conducted Output Power DTS ~ BT LE coded S2 DTS BW\_16032020\_150441.png

READ SA SETTINGS:	
RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]	18.49   10.1   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	8.5	dBm	PASS
Peak Power	---	1000	7.079458	mW	PASS
Frequency at Peak	---	---	2440.262	MHz	INFO



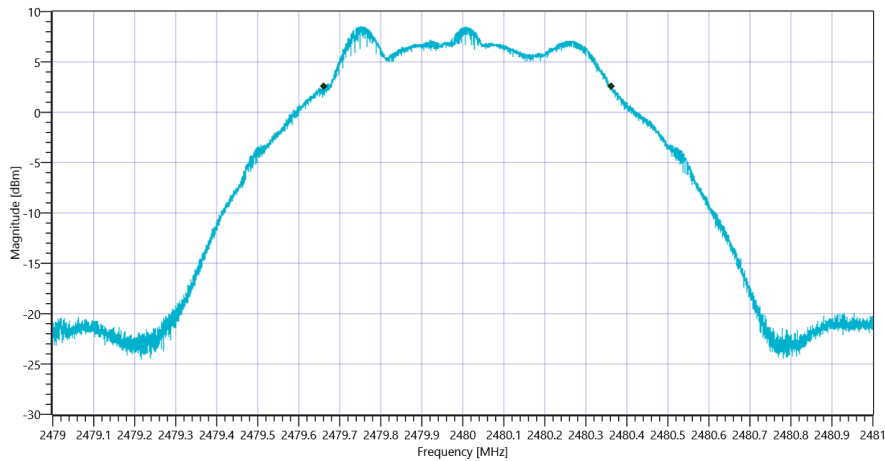
Plot\_FCC Part 15.247 Maximum Peak Conducted Output Power DTS ~ BT LE coded S2\_16032020\_150457.png

## Test at TX 2480 MHz

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

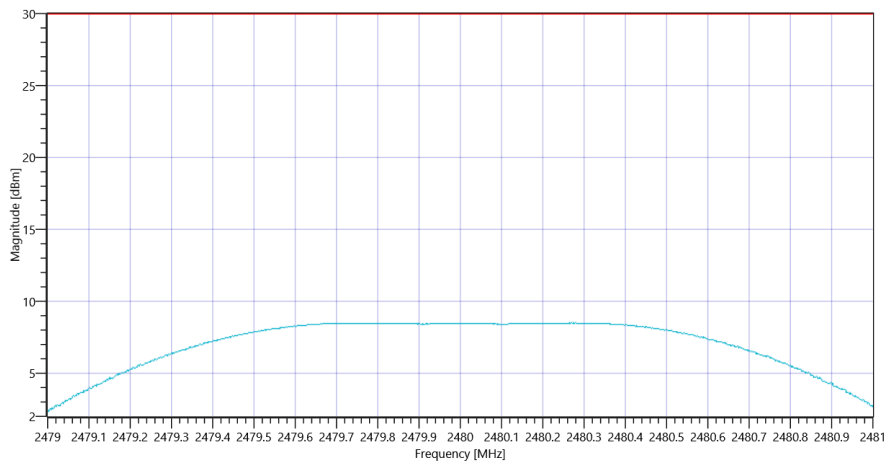
READ SA SETTINGS:					
RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]			13.43   10.15   20		
Start [MHz]   Stop [MHz]			2479.000   2481.000		
RBW [MHz]   VBW [MHz]			0.100000   0.300000		
Detector   TraceMode			POS   MAXH		
Sweep: Time [ms]   Count   Points per Section   Type			50   200   10001   SWE		

DTS Bandwidth					
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
DTS Bandwidth (6dB)	---	---	703	kHz	INFO



READ SA SETTINGS:					
RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]			18.43   10.15   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	8.49	dBm	PASS
Peak Power	---	1000	7.063176	mW	PASS
Frequency at Peak	---	---	2480.28	MHz	INFO



Plot\_FCC Part 15.247 Maximum Peak Conducted Output Power DTS ~ BT LE coded S2\_16032020\_150545.png

TEST FINISHED

General Verdict

16.03.2020 15:05:46 / RT: 141 s

PASS

## 5. FCC Part 15.247 Bandwidth 6dB DTS ~ BT LE 1 Msp

Test References	
TC Start	16.03.2020 13:48:04
System Version	1.0.0.40
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
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

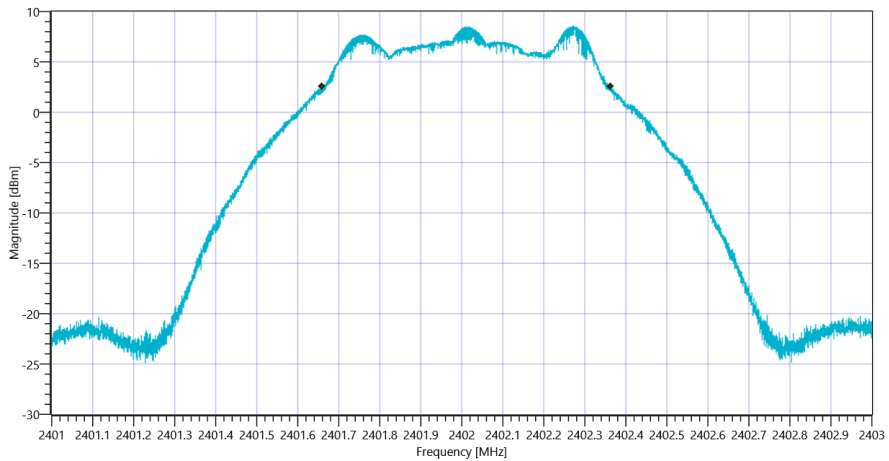


## Test at TX 2402 MHz

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

READ SA SETTINGS:	
RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]	13.39   10.09   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	---	703	kHz	PASS



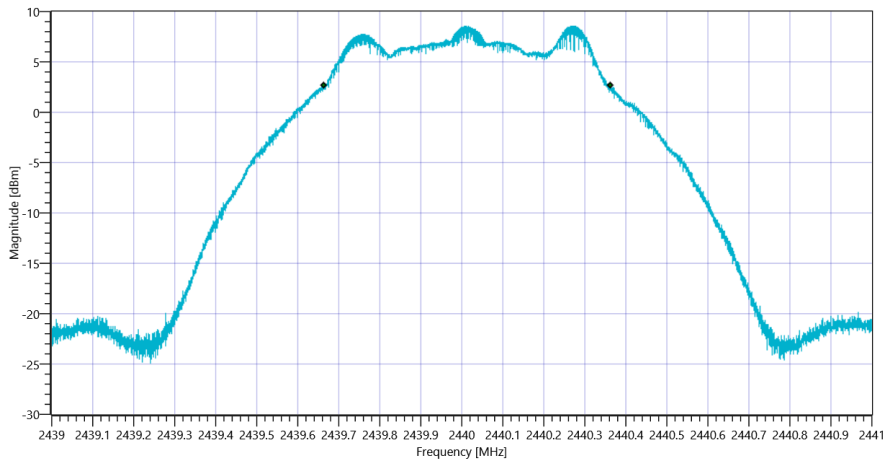
Plot\_FCC Part 15.247 Bandwidth 6dB DTS ~ BT LE 1 MspS\_16032020\_134831.png

## 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]	13.44   10.1   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	---	699	kHz	PASS

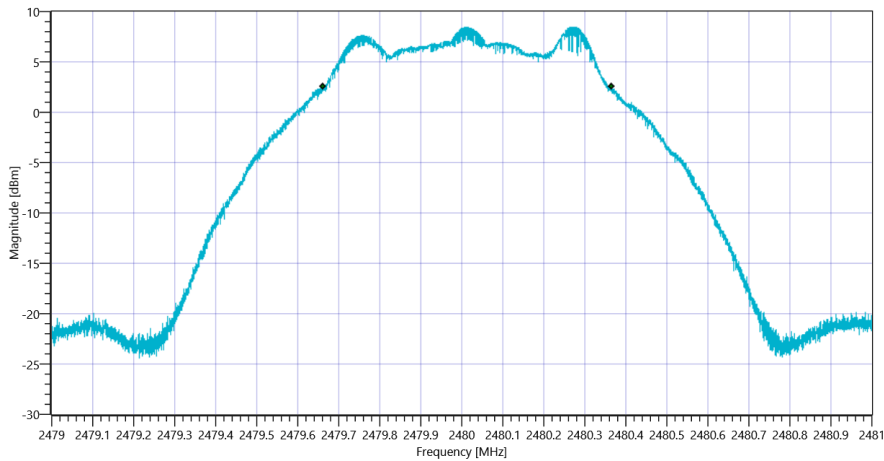


## Test at TX 2480 MHz

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

READ SA SETTINGS:	
RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]	13.38   10.15   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	---	704	kHz	PASS



Plot\_FCC Part 15.247 Bandwidth 6dB DTS ~ BT LE 1 Msps\_16032020\_134934.png

TEST FINISHED		
General Verdict	16.03.2020 13:49:34 / RT: 90 s	PASS

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

Test References	
TC Start	16.03.2020 14:11:53
System Version	1.0.0.40
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 2 Msps
Add. Information	

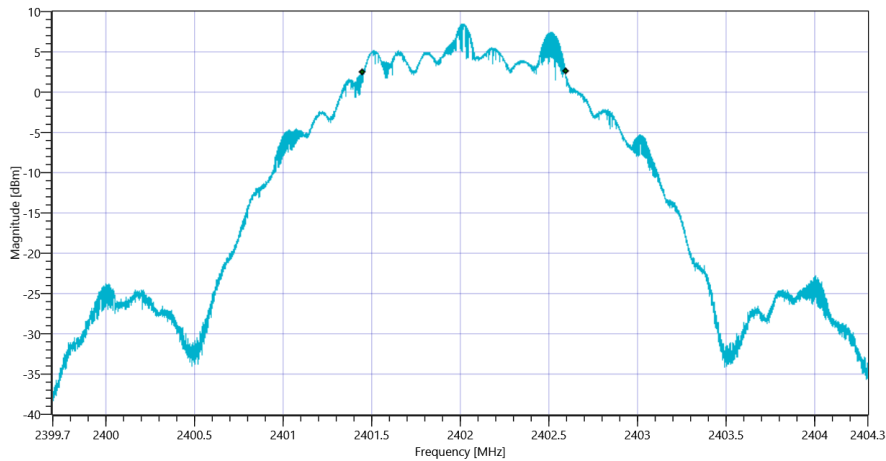
Test Parameter	
Technology to test	BT LE 2 Msps
Antenna Port used	1
Temperature	mid
Voltage	mid
Frequency low to test	True   Freq [MHz] 2402
Frequency mid to test	True   Freq [MHz] 2440
Frequency high to test	True   Freq [MHz] 2480
Switched Path	IUT - SignalingUnit - SpectrumAnalyzer
Devices in use	SigBT: 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]	13.40   10.09   20
Start [MHz]   Stop [MHz]	2399.700   2404.300
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	---	1145	kHz	PASS



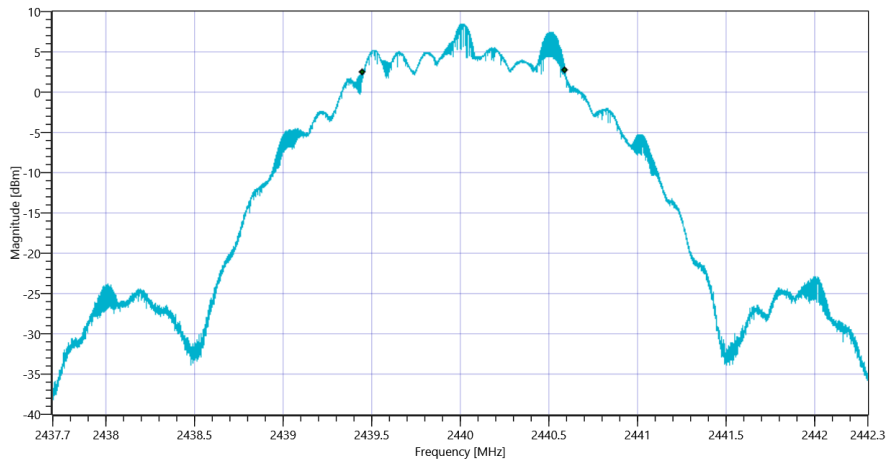
Plot\_FCC Part 15.247 Bandwidth 6dB DTS ~ BT LE 2 Msps\_16032020\_141221.png

## 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]	13.46   10.1   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	---	1146	kHz	PASS



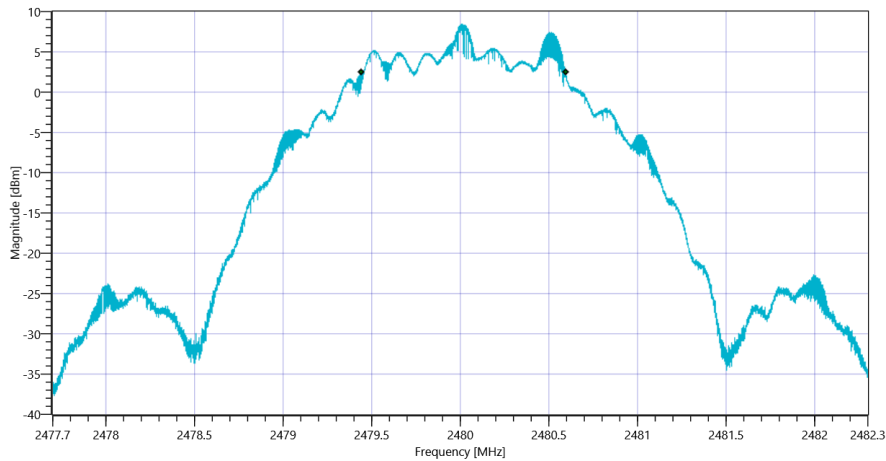
Plot\_FCC Part 15.247 Bandwidth 6dB DTS ~ BT LE 2 Msps\_16032020\_141252.png

## 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]	13.43   10.15   20
Start [MHz]   Stop [MHz]	2477.700   2482.300
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	---	1155	kHz	PASS



Plot\_FCC Part 15.247 Bandwidth 6dB DTS ~ BT LE 2 Msps\_16032020\_141323.png

TEST FINISHED		
General Verdict	16.03.2020 14:13:24 / RT: 91 s	PASS

## 7. FCC Part 15.247 Bandwidth 6dB DTS ~ BT LE coded S8

Test References	
TC Start	16.03.2020 14:41:05
System Version	1.0.0.40
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 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

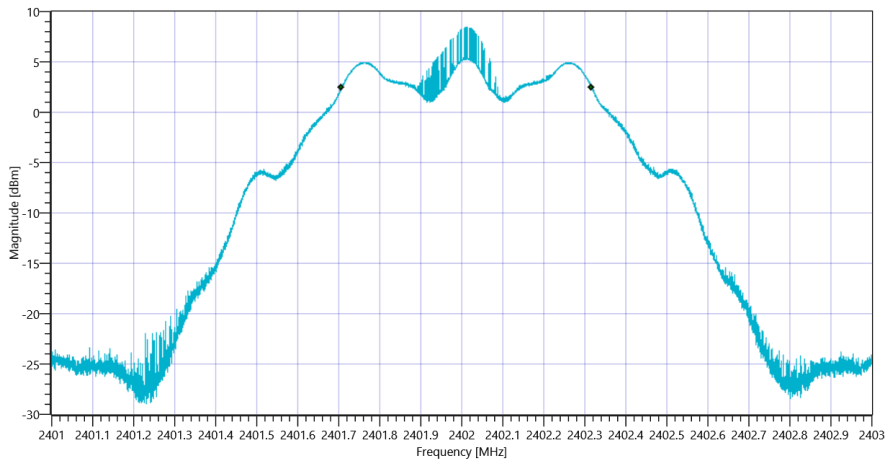


## Test at TX 2402 MHz

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

READ SA SETTINGS:	
RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]	13.40   10.09   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	---	610	kHz	PASS



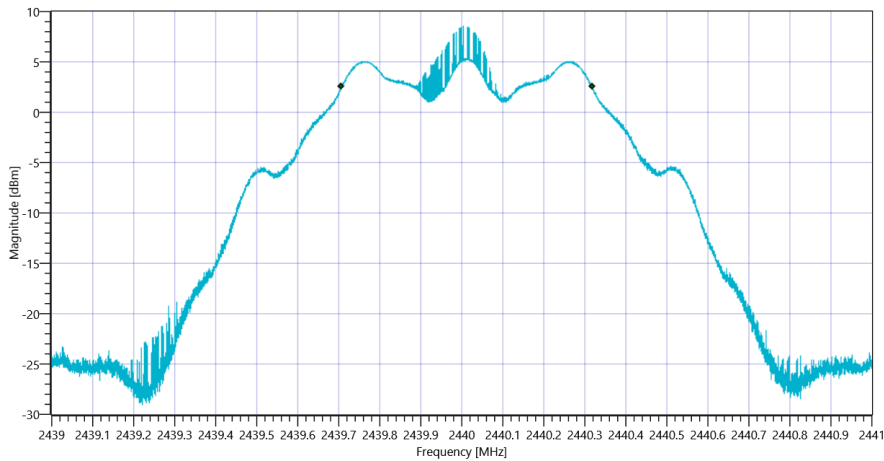
Plot\_FCC Part 15.247 Bandwidth 6dB DTS ~ BT LE coded S8\_16032020\_144133.png

## 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]	13.47   10.1   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	---	612	kHz	PASS



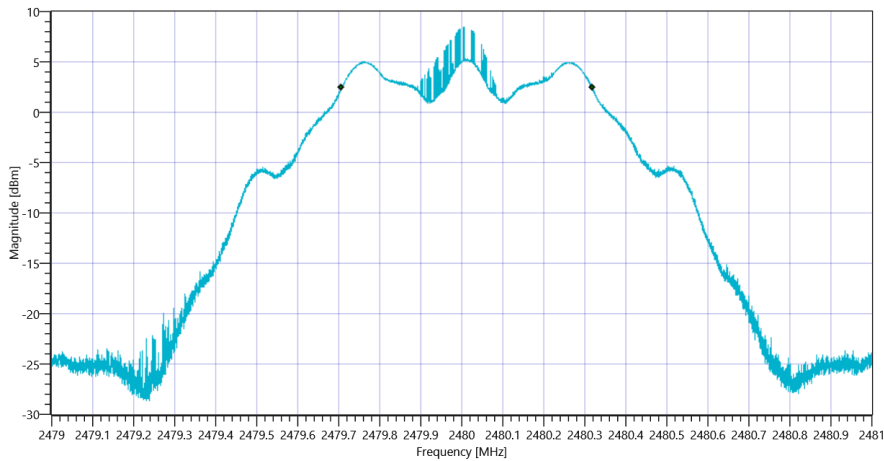
Plot\_FCC Part 15.247 Bandwidth 6dB DTS ~ BT LE coded S8\_16032020\_144204.png

## 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]	13.43   10.15   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	---	612	kHz	PASS



Plot\_FCC Part 15.247 Bandwidth 6dB DTS ~ BT LE coded S8\_16032020\_144236.png

TEST FINISHED		
General Verdict	16.03.2020 14:42:37 / RT: 91 s	PASS

## 8. FCC Part 15.247 Bandwidth 6dB DTS ~ BT LE coded S2

Test References	
TC Start	16.03.2020 15:05:51
System Version	1.0.0.40
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 coded S2
Add. Information	

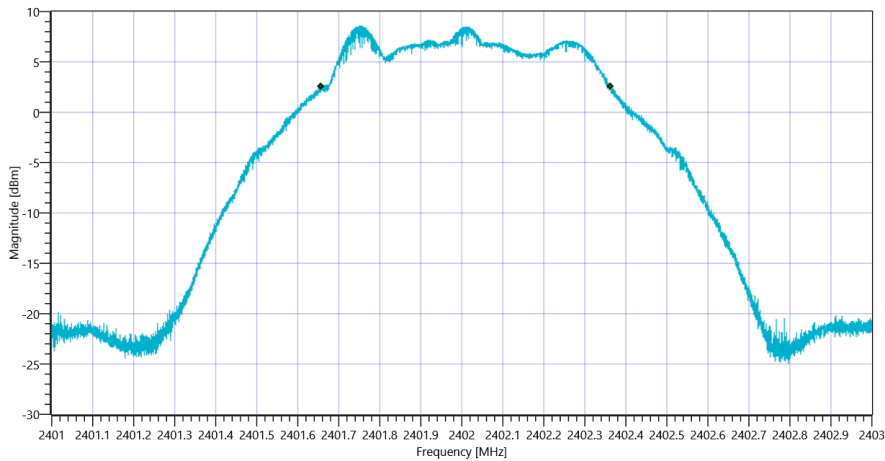
Test Parameter	
Technology to test	BT LE coded S2
Antenna Port used	1
Temperature	mid
Voltage	mid
Frequency low to test	True   Freq [MHz] 2402
Frequency mid to test	True   Freq [MHz] 2440
Frequency high to test	True   Freq [MHz] 2480
Switched Path	IUT - SignalingUnit - SpectrumAnalyzer
Devices in use	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]	13.43   10.09   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	---	706	kHz	PASS



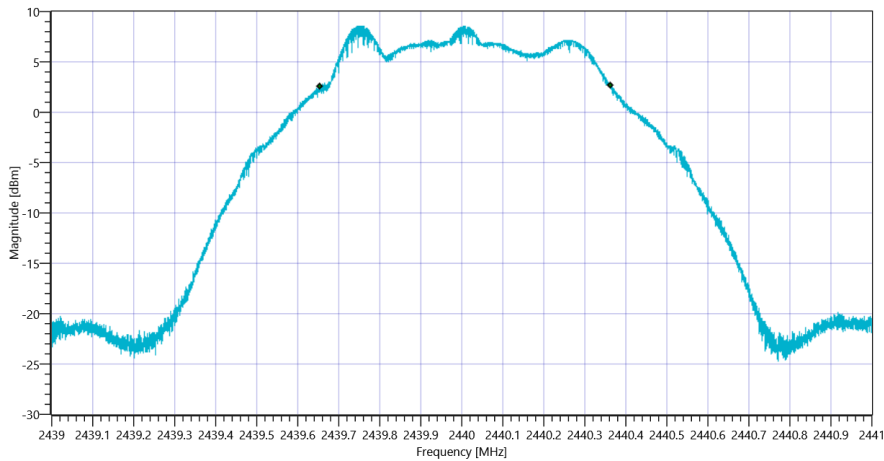
Plot\_FCC Part 15.247 Bandwidth 6dB DTS ~ BT LE coded S2\_16032020\_150619.png

## 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]	13.50   10.1   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	---	708	kHz	PASS



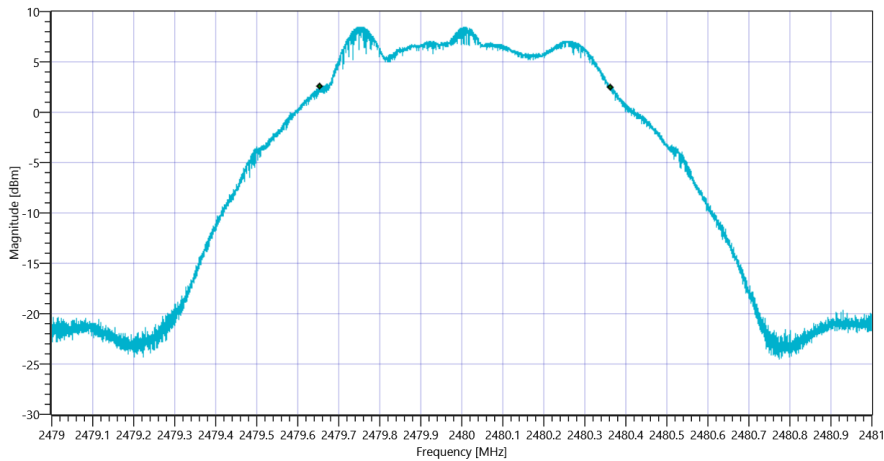
Plot\_FCC Part 15.247 Bandwidth 6dB DTS ~ BT LE coded S2\_16032020\_150651.png

## 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]	13.43   10.15   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	---	708	kHz	PASS



Plot\_FCC Part 15.247 Bandwidth 6dB DTS ~ BT LE coded S2\_16032020\_150723.png

TEST FINISHED		
General Verdict	16.03.2020 15:07:23 / RT: 92 s	PASS

## 9. FCC Part 15.247 Peak Power Spectral Density DTS ~ BT LE 1 Msp

Test References	
TC Start	16.03.2020 13:49:39
System Version	1.0.0.40
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 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

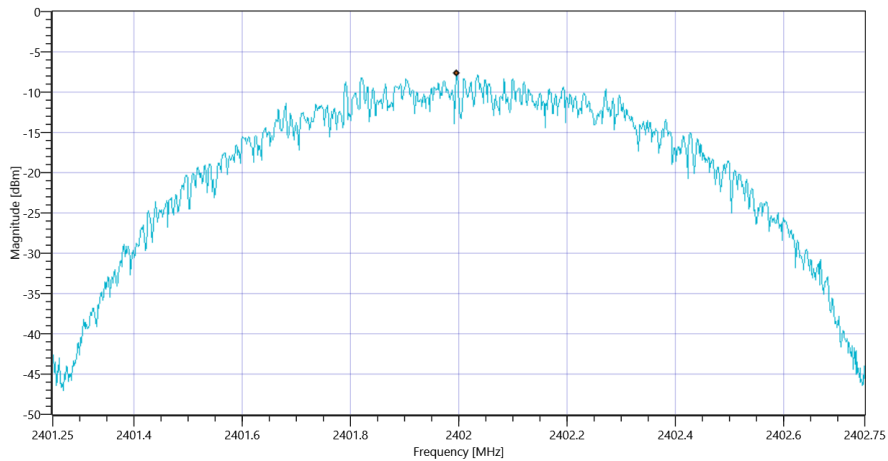


## Test at TX 2402 MHz

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

READ SA SETTINGS:	
RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]	13.39   10.09   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	-7.69	dBm/3KHz	PASS



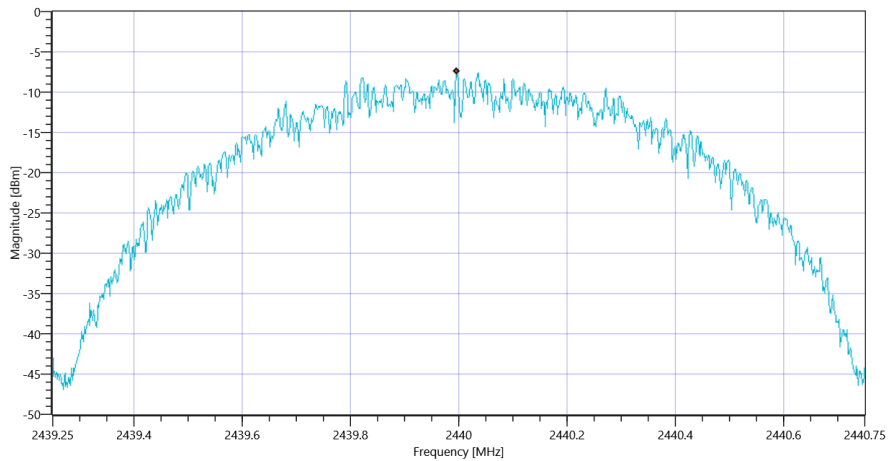
Plot\_FCC Part 15.247 Peak Power Spectral Density DTS ~ BT LE 1 Msps\_16032020\_135016.png

## 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]	13.44   10.1   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	-7.41	dBm/3KHz	PASS



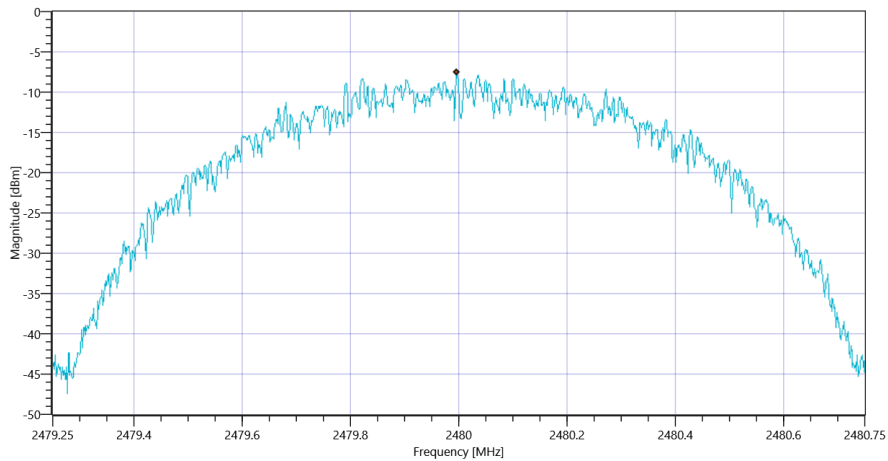
Plot\_FCC Part 15.247 Peak Power Spectral Density DTS ~ BT LE 1 MspS\_16032020\_135056.png

## 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]	13.40   10.15   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	-7.57	dBm/3KHz	PASS



Plot\_FCC Part 15.247 Peak Power Spectral Density DTS ~ BT LE 1 MspS\_16032020\_135137.png

TEST FINISHED		
General Verdict	16.03.2020 13:51:37 / RT: 118 s	PASS

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

Test References	
TC Start	16.03.2020 14:13:28
System Version	1.0.0.40
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 2 Msps
Add. Information	

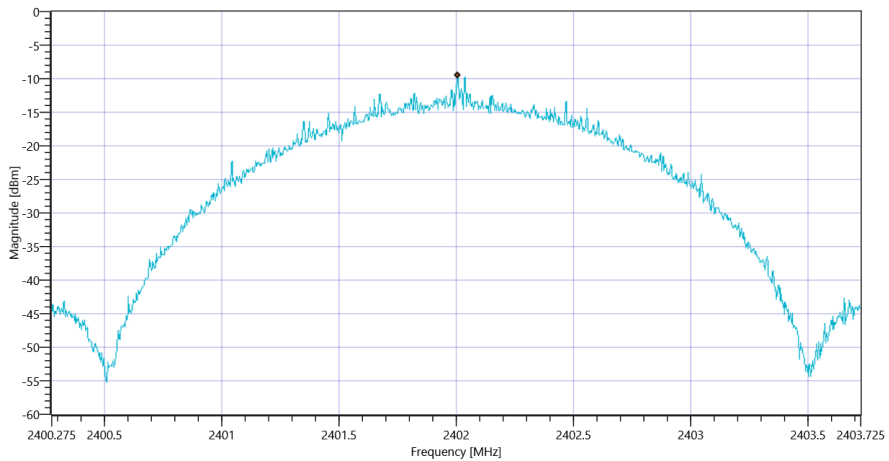
Test Parameter	
Technology to test	BT LE 2 Msps
Antenna Port used	1
Temperature	mid
Voltage	mid
Frequency low to test	True   Freq [MHz] 2402
Frequency mid to test	True   Freq [MHz] 2440
Frequency high to test	True   Freq [MHz] 2480
Switched Path	IUT - SignalingUnit - SpectrumAnalyzer
Devices in use	SigBT: 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]	13.40   10.09   20
Start [MHz]   Stop [MHz]	2400.275   2403.725
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	-9.48	dBm/3KHz	PASS



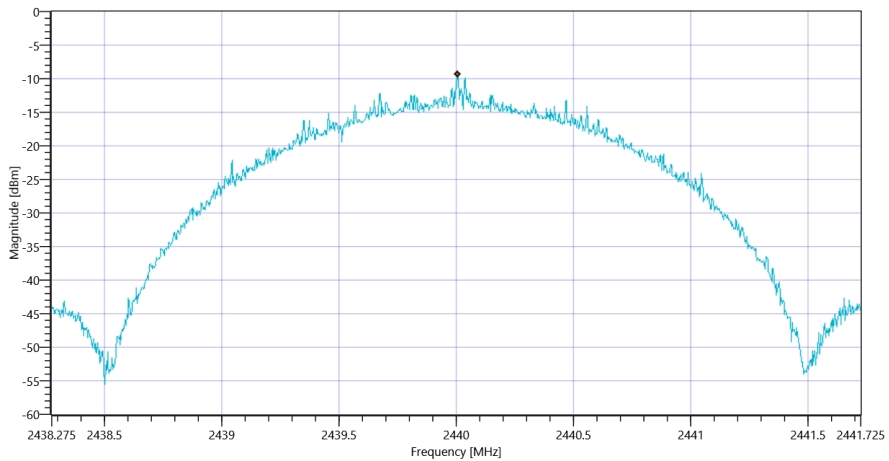
Plot\_FCC Part 15.247 Peak Power Spectral Density DTS ~ BT LE 2 Msps\_16032020\_141406.png

## 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]	13.49   10.1   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	-9.39	dBm/3KHz	PASS



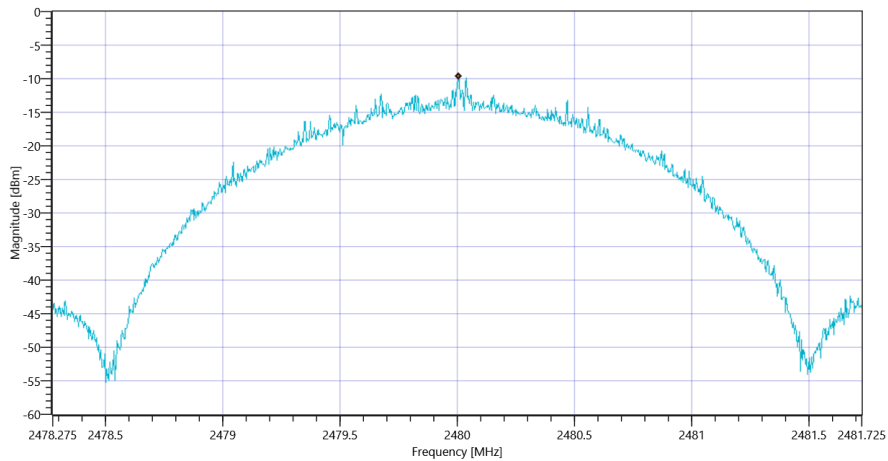
Plot\_FCC Part 15.247 Peak Power Spectral Density DTS ~ BT LE 2 Msps\_16032020\_141447.png

## 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]	13.43   10.15   20
Start [MHz]   Stop [MHz]	2478.275   2481.725
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	-9.6	dBm/3KHz	PASS



Plot\_FCC Part 15.247 Peak Power Spectral Density DTS ~ BT LE 2 Msps\_16032020\_141528.png

TEST FINISHED		
General Verdict	16.03.2020 14:15:29 / RT: 120 s	PASS

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

Test References	
TC Start	16.03.2020 14:42:41
System Version	1.0.0.40
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 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

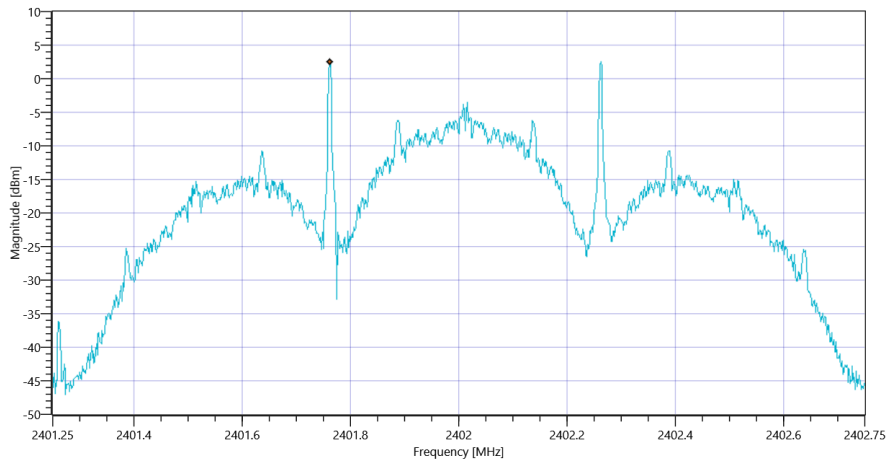


## Test at TX 2402 MHz

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

READ SA SETTINGS:	
RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]	13.42   10.09   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	2.49	dBm/3KHz	PASS



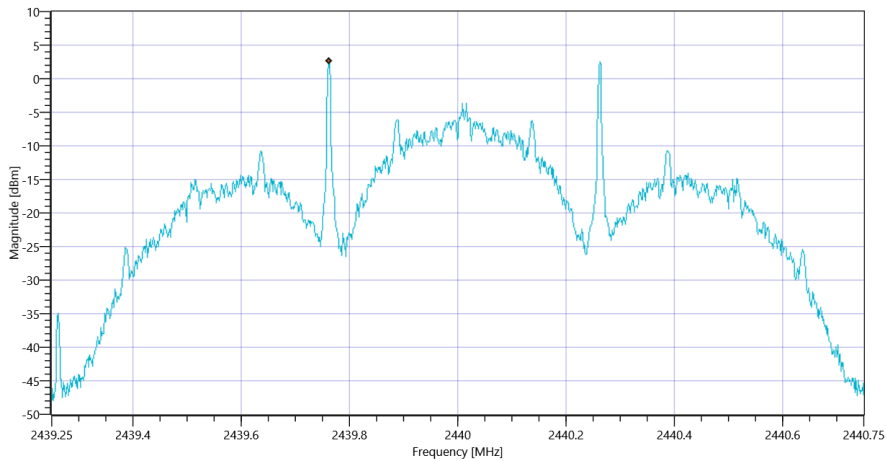
Plot\_FCC Part 15.247 Peak Power Spectral Density DTS ~ BT LE coded S8\_16032020\_144319.png

## 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]	13.48   10.1   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	2.59	dBm/3KHz	PASS



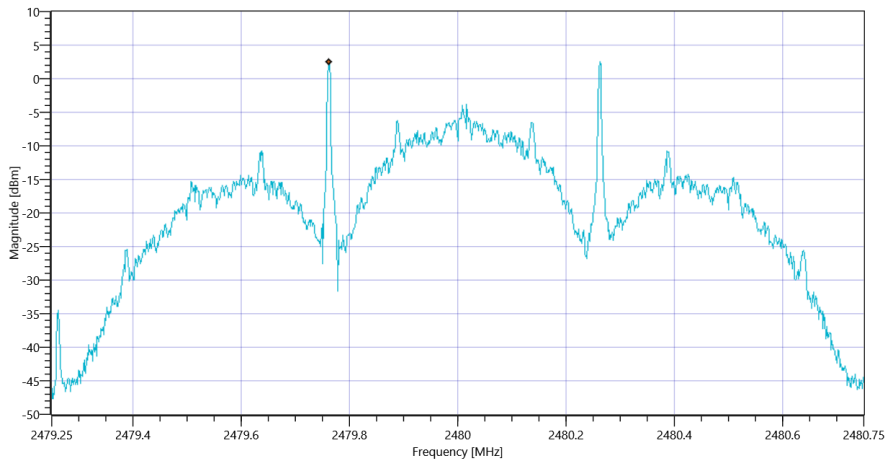
Plot\_FCC Part 15.247 Peak Power Spectral Density DTS ~ BT LE coded S8\_16032020\_144400.png

## 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]	13.42   10.15   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	2.51	dBm/3KHz	PASS



Plot\_FCC Part 15.247 Peak Power Spectral Density DTS ~ BT LE coded S8\_16032020\_144441.png

TEST FINISHED		
General Verdict	16.03.2020 14:44:41 / RT: 120 s	PASS

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

Test References	
TC Start	16.03.2020 15:07:28
System Version	1.0.0.40
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 coded S2
Add. Information	

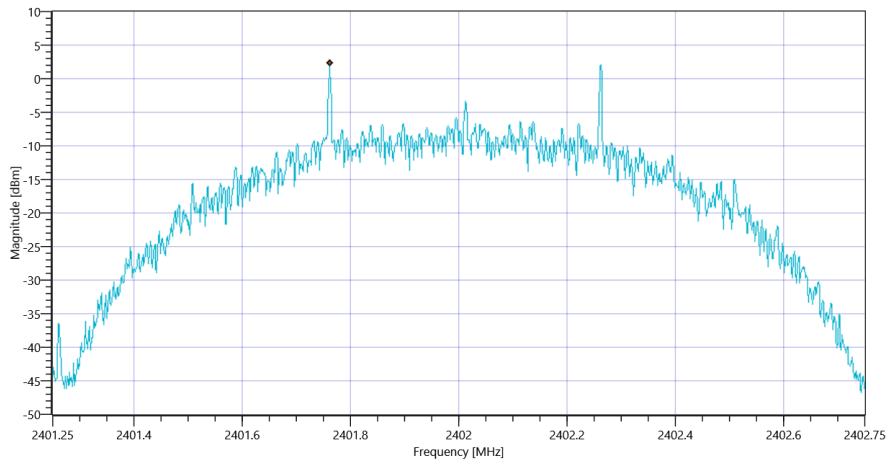
Test Parameter	
Technology to test	BT LE coded S2
Antenna Port used	1
Temperature	mid
Voltage	mid
Frequency low to test	True   Freq [MHz] 2402
Frequency mid to test	True   Freq [MHz] 2440
Frequency high to test	True   Freq [MHz] 2480
Switched Path	IUT - SignalingUnit - SpectrumAnalyzer
Devices in use	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]	13.43   10.09   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	2.27	dBm/3KHz	PASS



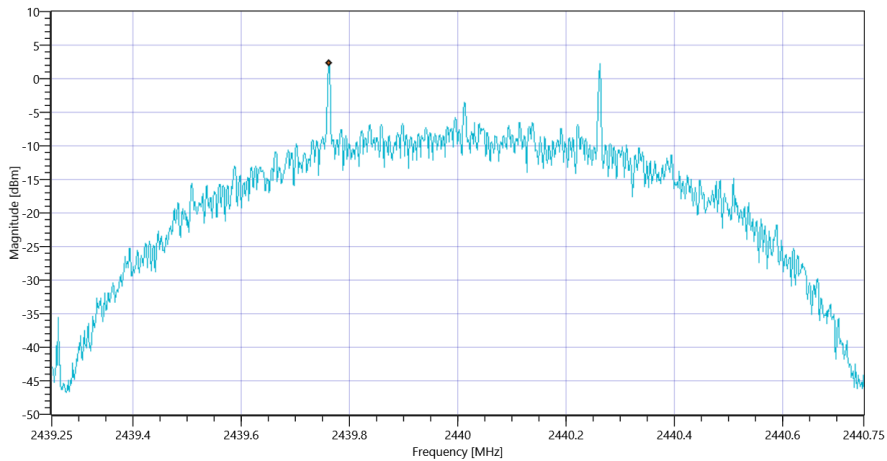
Plot\_FCC Part 15.247 Peak Power Spectral Density DTS ~ BT LE coded S2\_16032020\_150806.png

## 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]	13.49   10.1   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	2.29	dBm/3KHz	PASS



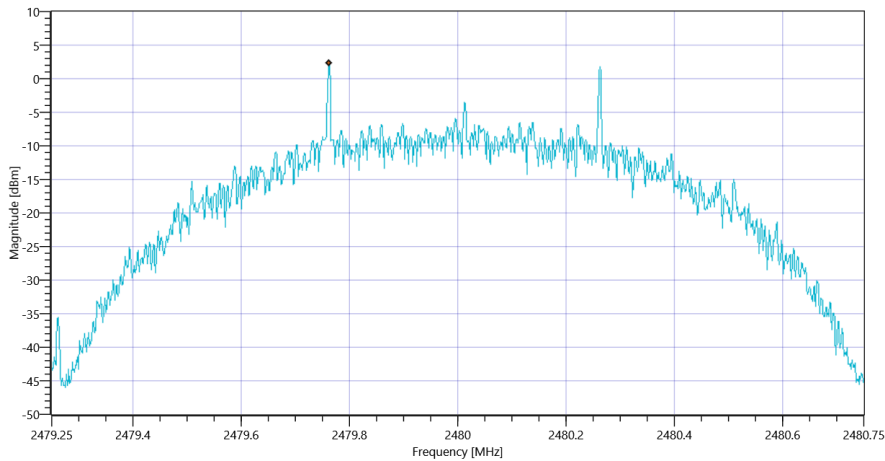
Plot\_FCC Part 15.247 Peak Power Spectral Density DTS ~ BT LE coded S2\_16032020\_150847.png

## 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]	13.44   10.15   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	2.29	dBm/3KHz	PASS



Plot\_FCC Part 15.247 Peak Power Spectral Density DTS ~ BT LE coded S2\_16032020\_150928.png

TEST FINISHED		
General Verdict	16.03.2020 15:09:28 / RT: 120 s	PASS

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

Test References	
TC Start	16.03.2020 13:51:42
System Version	1.0.0.40
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-30,1321.3008K30/103809,3.60

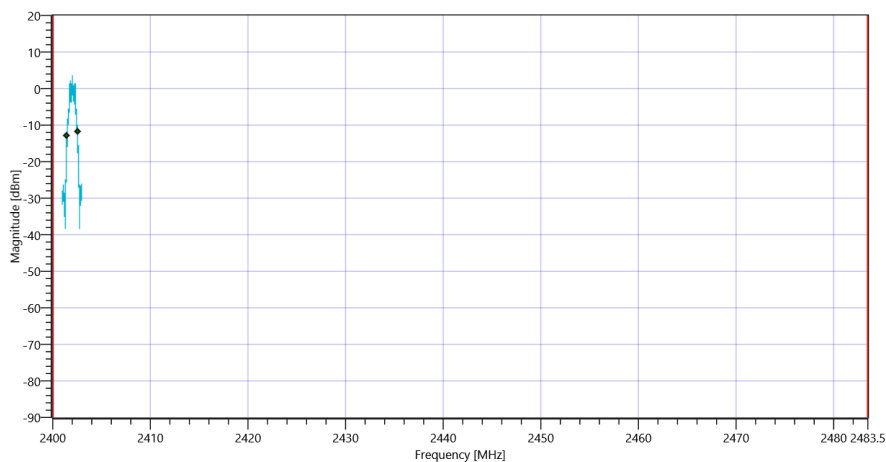
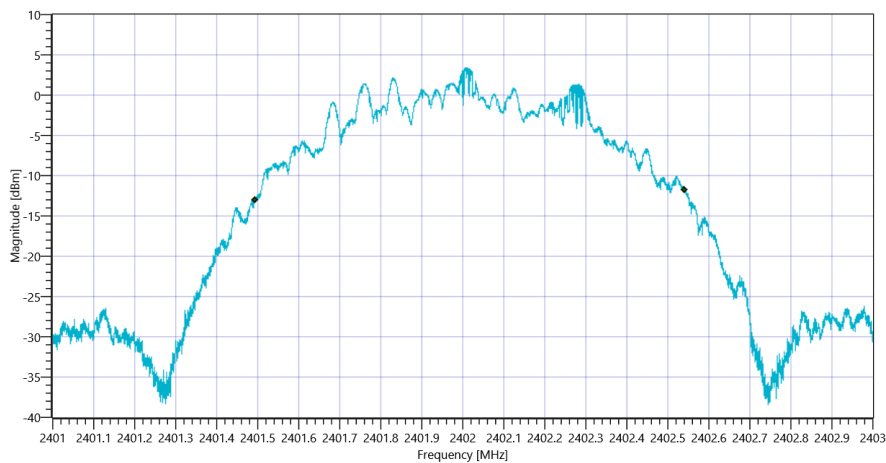


## Test at TX 2402 MHz

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

READ SA SETTINGS:					
RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]			13.38   10.09   20		
Start [MHz]   Stop [MHz]			2401.000   2403.000		
RBW [MHz]   VBW [MHz]			0.020000   0.050000		
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%	---	---	1047	kHz	INFO
T1 99%	2400.000000	---	2401.4949	MHz	PASS
T2 99%	---	2483.500000	2402.5417	MHz	PASS



RESULT					
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 20dB	---	---	1161	kHz	INFO
T1 20DB	2400.000000	---	2401.4372	MHz	PASS

T2 20dB

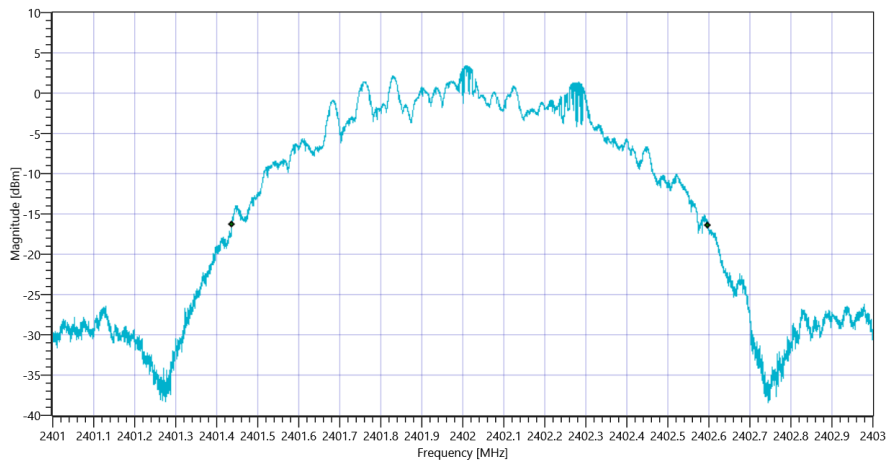
--

2483.50000

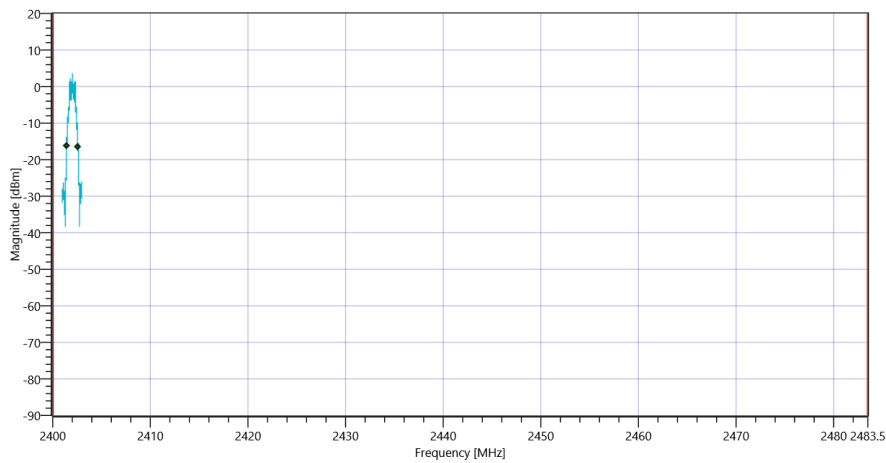
2402.5982

MHz

PASS



Plot\_FCC Part 15.247 Bandwidth 99PCT-20dB ~ BT LE 1 Msps 20dB\_16032020\_135219.png



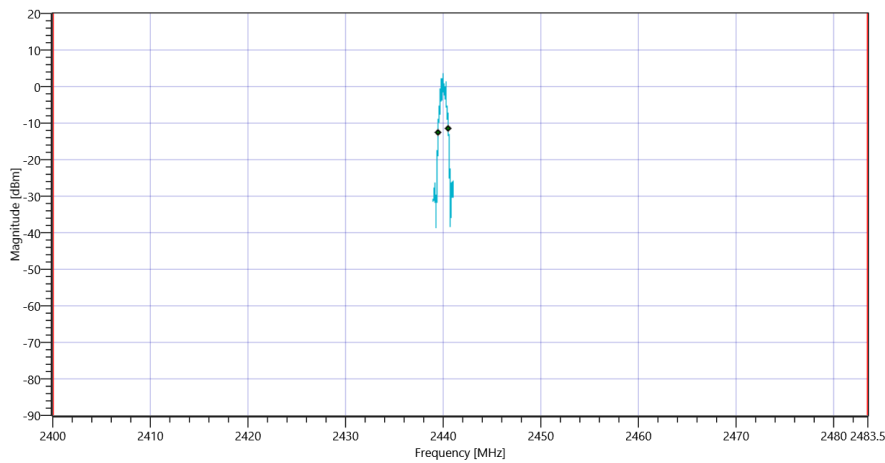
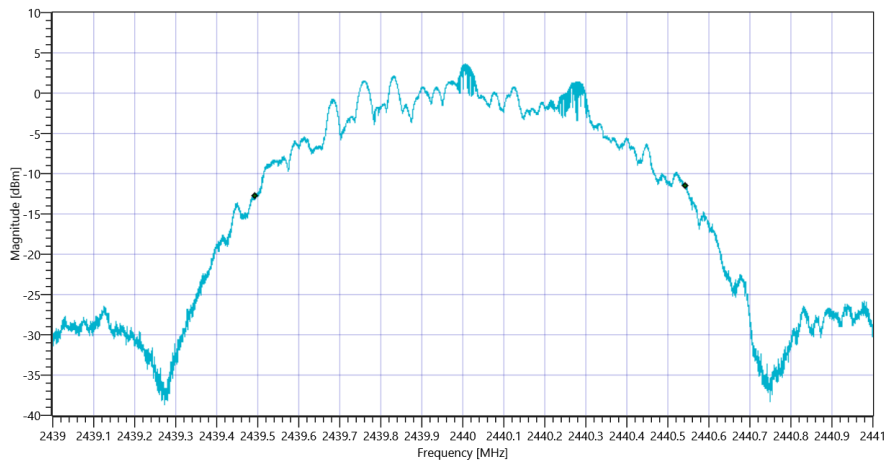
Plot\_FCC Part 15.247 Bandwidth 99PCT-20dB ~ BT LE 1 Msps\_16032020\_135222.png

## 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]	13.45   10.1   20				
Start [MHz]   Stop [MHz]	2439.000   2441.000				
RBW [MHz]   VBW [MHz]	0.020000   0.050000				
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%	---	---	1048	kHz	INFO
T1 99%	2400.000000	---	2439.4945	MHz	PASS
T2 99%	---	2483.500000	2440.5429	MHz	PASS



RESULT					
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 20dB	---	---	1172	kHz	INFO
T1 20DB	2400.000000	---	2439.4364	MHz	PASS

T2 20dB

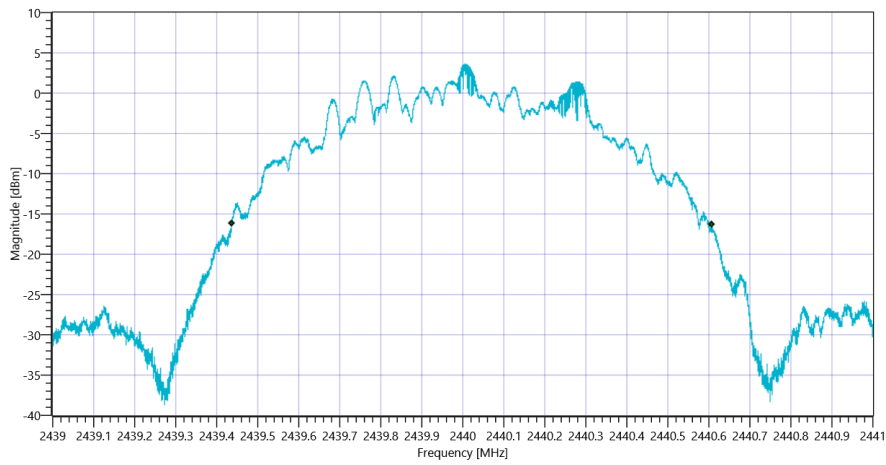
--

2483.50000

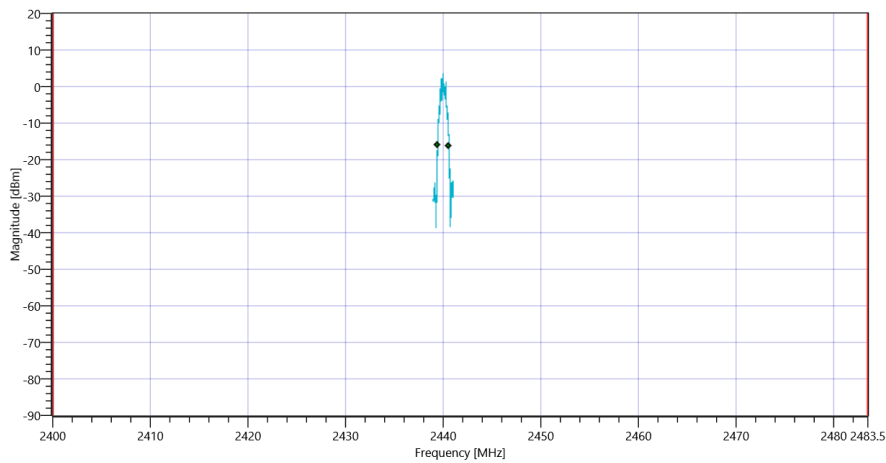
2440.6080

MHz

PASS



Plot\_FCC Part 15.247 Bandwidth 99PCT-20dB ~ BT LE 1 Msps 20dB\_16032020\_135303.png



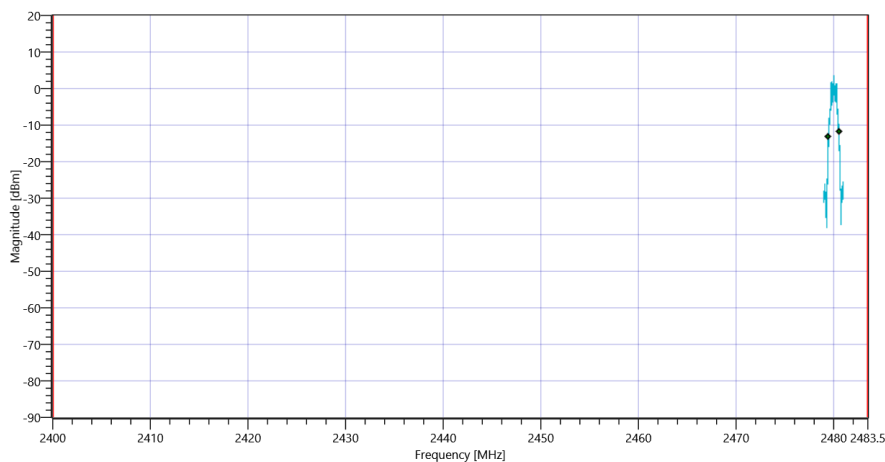
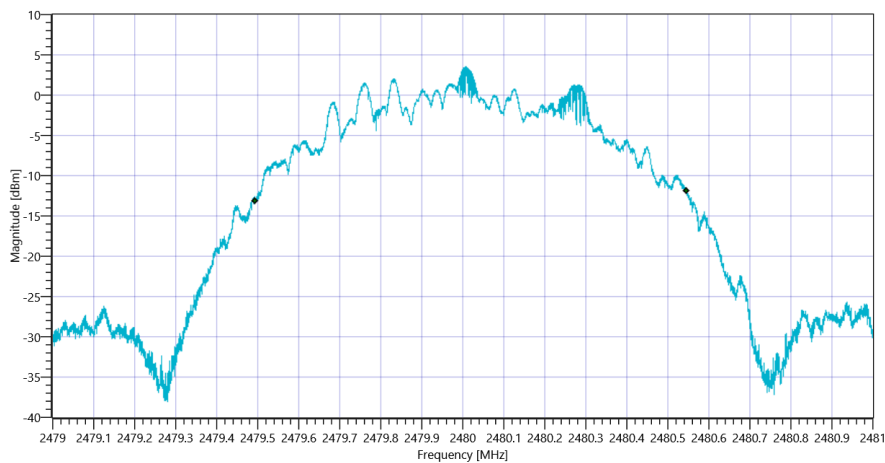
Plot\_FCC Part 15.247 Bandwidth 99PCT-20dB ~ BT LE 1 Msps\_16032020\_135307.png

## 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]	13.39   10.15   20				
Start [MHz]   Stop [MHz]	2479.000   2481.000				
RBW [MHz]   VBW [MHz]	0.020000   0.050000				
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	---	2479.4935	MHz	PASS
T2 99%	---	2483.500000	2480.5445	MHz	PASS



RESULT					
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 20dB	---	---	1168	kHz	INFO
T1 20DB	2400.000000	---	2479.4376	MHz	PASS

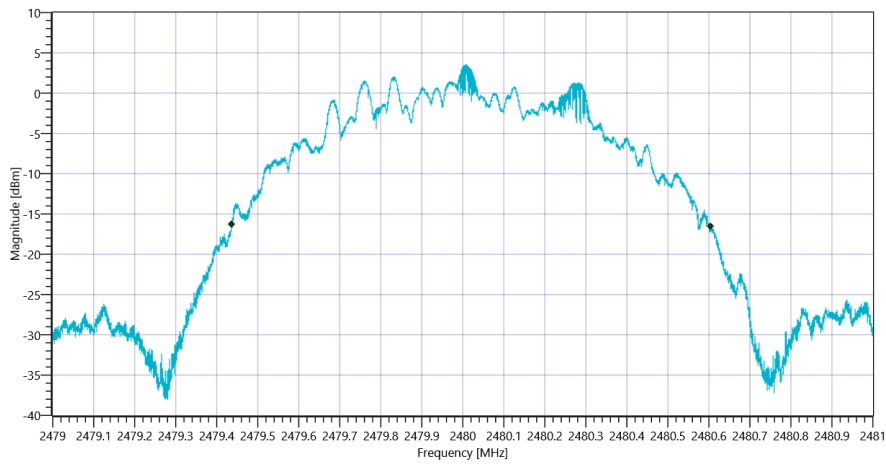
T2 20dB

2483.50000

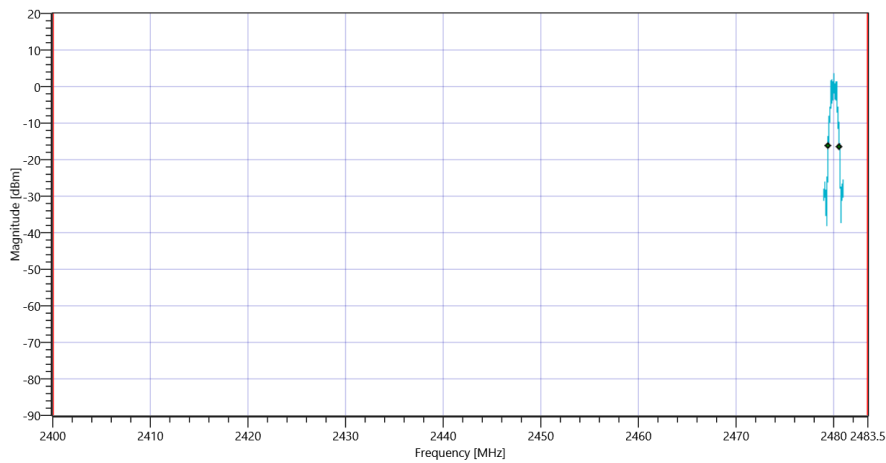
2480.6052

MHz

PASS



Plot\_FCC Part 15.247 Bandwidth 99PCT-20dB ~ BT LE 1 Msps 20dB\_16032020\_135349.png



Plot\_FCC Part 15.247 Bandwidth 99PCT-20dB ~ BT LE 1 Msps\_16032020\_135353.png

TEST FINISHED

General Verdict

16.03.2020 13:53:53 / RT: 131 s

PASS

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

Test References	
TC Start	16.03.2020 14:15:33
System Version	1.0.0.40
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 2 Msps
Add. Information	

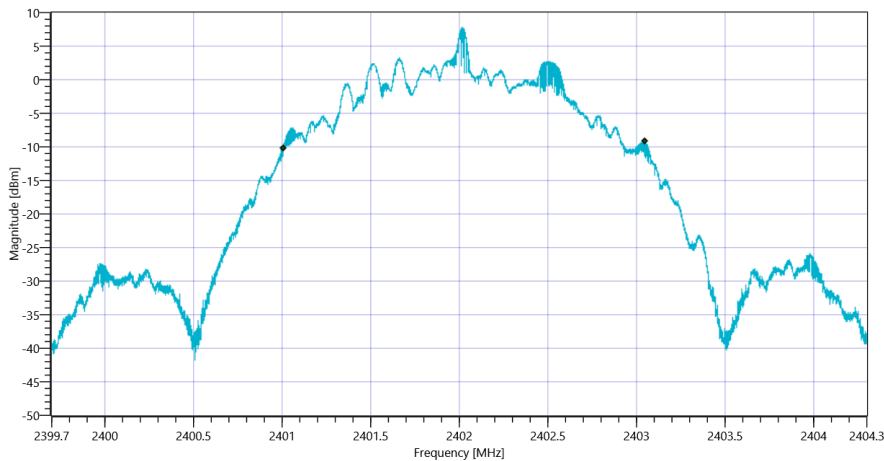
Test Parameter	
Technology to test	BT LE 2 Msps
Antenna Port used	1
Temperature	mid
Voltage	mid
Frequency low to test	True   Freq [MHz] 2402
Frequency mid to test	True   Freq [MHz] 2440
Frequency high to test	True   Freq [MHz] 2480
Switched Path	IUT - SignalingUnit - SpectrumAnalyzer
Devices in use	SigBT: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

## Test at TX 2402 MHz

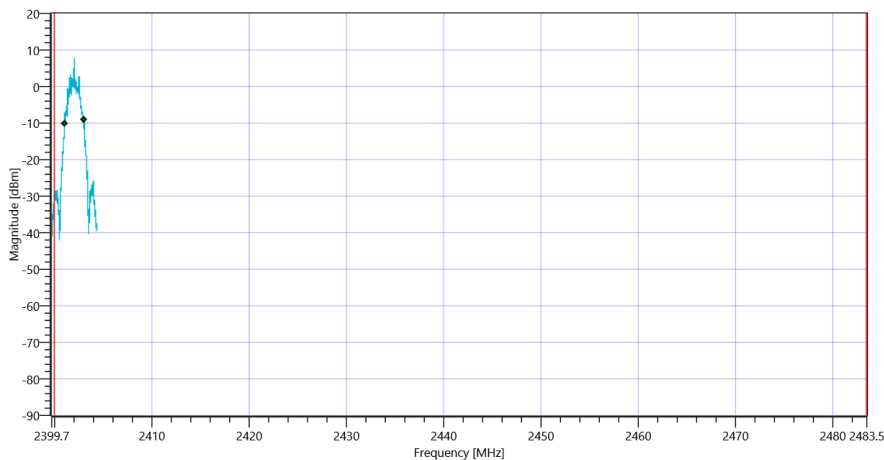
DTM Connection check					
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Connection result	---	---	---	---	PASS

READ SA SETTINGS:	
RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]	13.40   10.09   20
Start [MHz]   Stop [MHz]	2399.700   2404.300
RBW [MHz]   VBW [MHz]	0.050000   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%	---	---	2043	kHz	INFO
T1 99%	2400.000000	---	2401.0074	MHz	PASS
T2 99%	---	2483.500000	2403.0505	MHz	PASS



Plot\_FCC Part 15.247 Bandwidth 99PCT-20dB ~ BT LE 2 Msps 99PCT\_16032020\_141602.png



Plot\_FCC Part 15.247 Bandwidth 99PCT-20dB ~ BT LE 2 Msps\_16032020\_141605.png

RESULT					
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 20dB	---	---	2113	kHz	INFO
T1 20DB	2400.000000	---	2400.9760	MHz	PASS



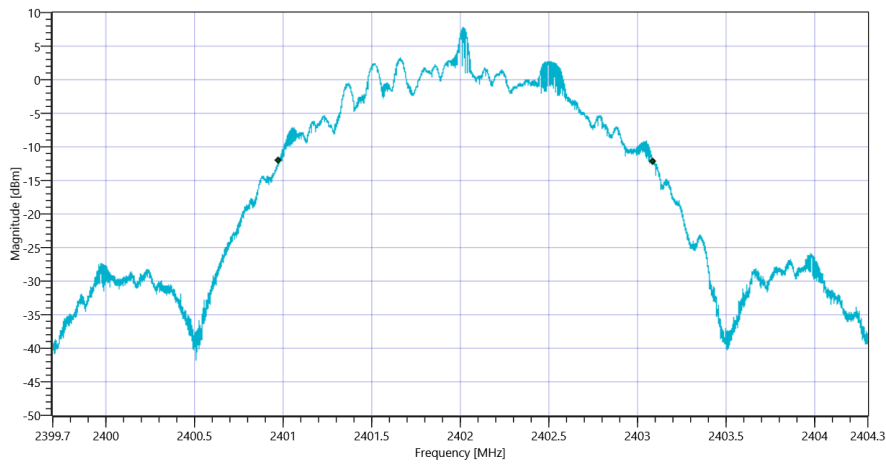
T2 20dB

2483.50000

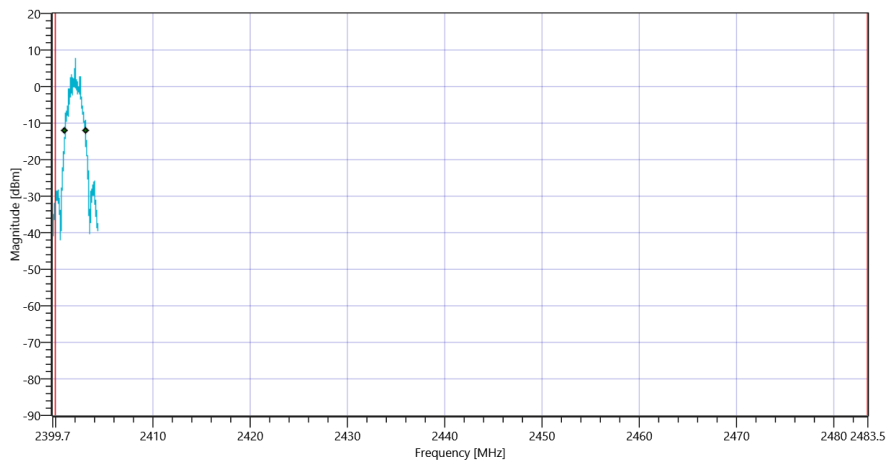
2403.0893

MHz

PASS



Plot\_FCC Part 15.247 Bandwidth 99PCT-20dB ~ BT LE 2 Msps 20dB\_16032020\_141610.png



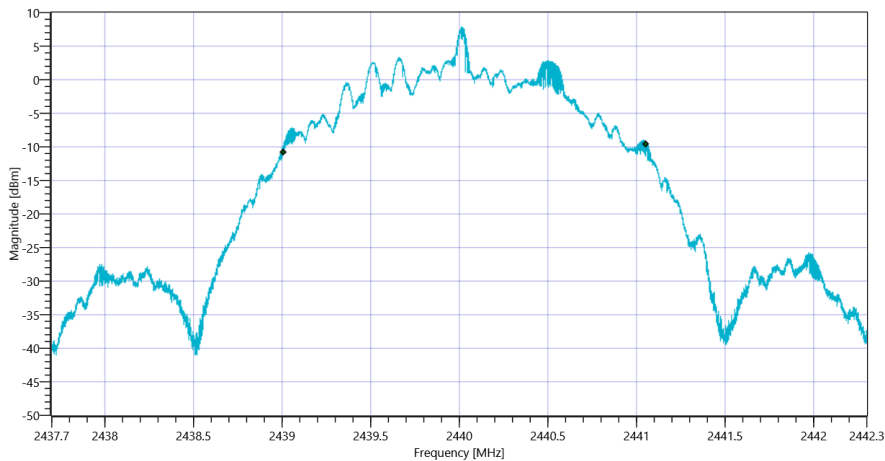
Plot\_FCC Part 15.247 Bandwidth 99PCT-20dB ~ BT LE 2 Msps\_16032020\_141614.png

## Test at TX 2440 MHz

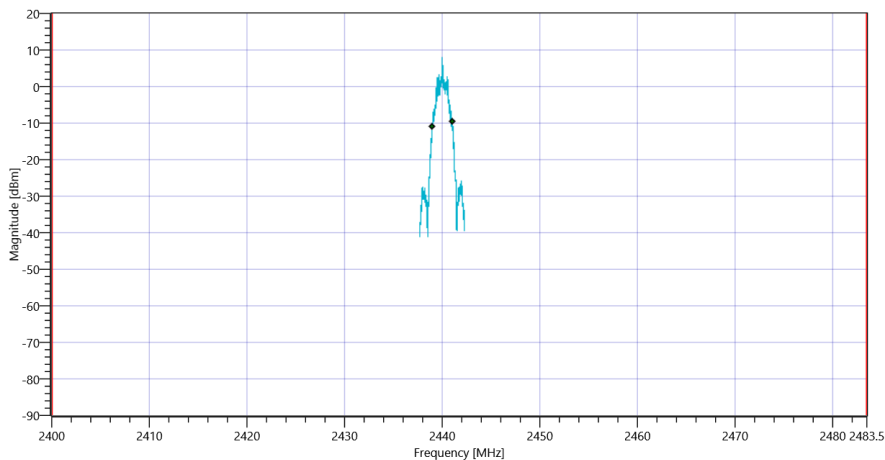
DTM Connection check					
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Connection result	---	---	---	---	PASS

READ SA SETTINGS:	
RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]	13.47   10.1   20
Start [MHz]   Stop [MHz]	2437.700   2442.300
RBW [MHz]   VBW [MHz]	0.050000   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%	---	---	2047	kHz	INFO
T1 99%	2400.000000	---	2439.0065	MHz	PASS
T2 99%	---	2483.500000	2441.0538	MHz	PASS



Plot\_FCC Part 15.247 Bandwidth 99PCT-20dB ~ BT LE 2 Msps 99PCT\_16032020\_141646.png



Plot\_FCC Part 15.247 Bandwidth 99PCT-20dB ~ BT LE 2 Msps\_16032020\_141650.png

RESULT					
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 20dB	---	---	2122	kHz	INFO
T1 20DB	2400.000000	---	2438.9774	MHz	PASS

T2 20dB

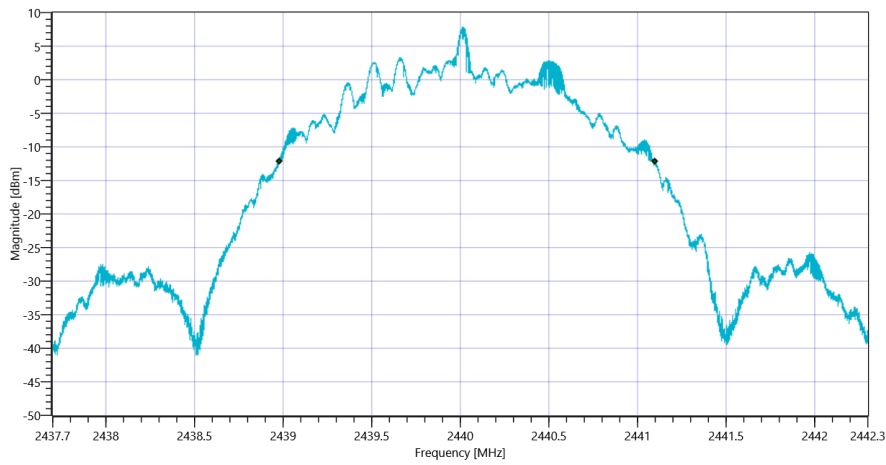
--

2483.50000

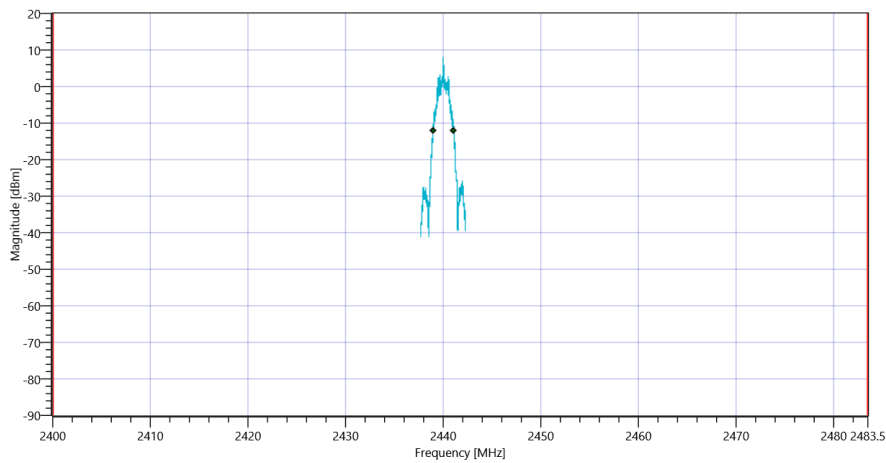
2441.0994

MHz

PASS



Plot\_FCC Part 15.247 Bandwidth 99PCT-20dB ~ BT LE 2 Msps 20dB\_16032020\_141655.png



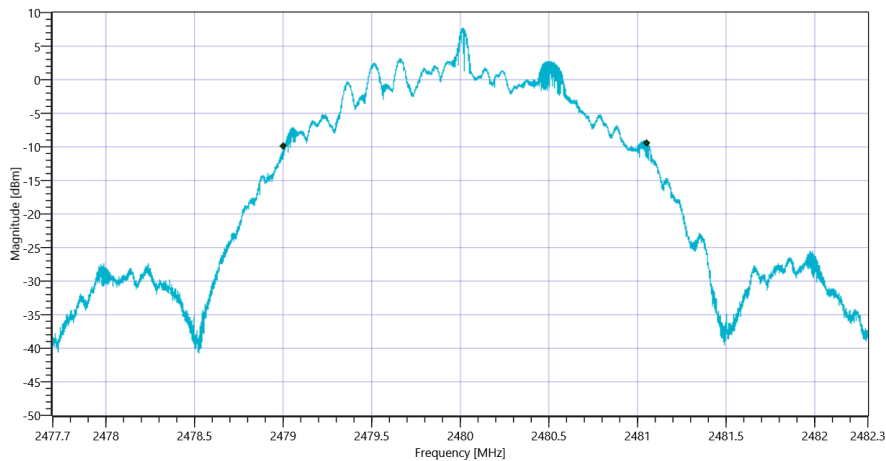
Plot\_FCC Part 15.247 Bandwidth 99PCT-20dB ~ BT LE 2 Msps\_16032020\_141659.png

## Test at TX 2480 MHz

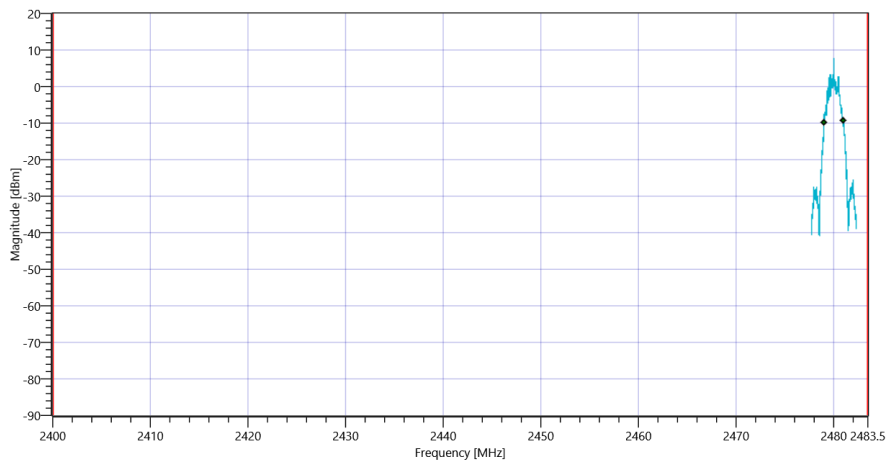
DTM Connection check					
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Connection result	---	---	---	---	PASS

READ SA SETTINGS:					
RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]			13.43   10.15   20		
Start [MHz]   Stop [MHz]			2477.700   2482.300		
RBW [MHz]   VBW [MHz]			0.050000   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%	---	---	2049	kHz	INFO
T1 99%	2400.000000	---	2479.0056	MHz	PASS
T2 99%	---	2483.500000	2481.0542	MHz	PASS



Plot\_FCC Part 15.247 Bandwidth 99PCT-20dB ~ BT LE 2 Msps 99PCT\_16032020\_141732.png



Plot\_FCC Part 15.247 Bandwidth 99PCT-20dB ~ BT LE 2 Msps\_16032020\_141736.png

RESULT					
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 20dB	---	---	2123	kHz	INFO
T1 20DB	2400.000000	---	2478.9779	MHz	PASS

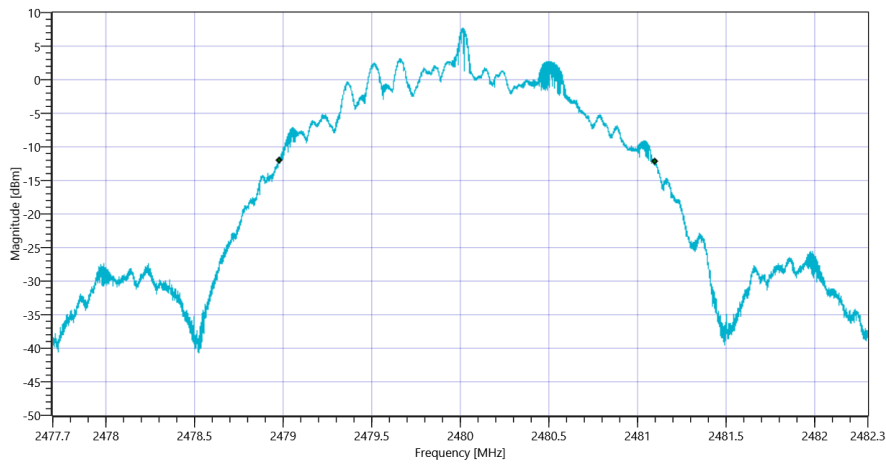
T2 20dB

2483.50000

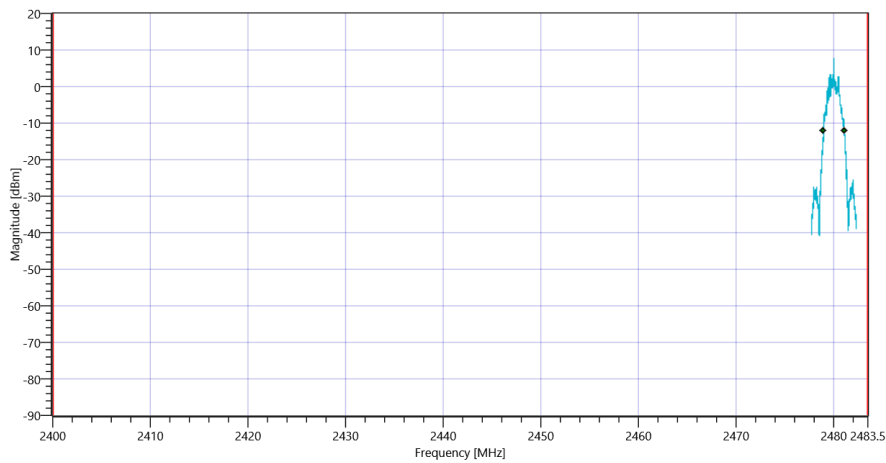
2481.1012

MHz

PASS



Plot\_FCC Part 15.247 Bandwidth 99PCT-20dB ~ BT LE 2 Msps 20dB\_16032020\_141741.png



Plot\_FCC Part 15.247 Bandwidth 99PCT-20dB ~ BT LE 2 Msps\_16032020\_141745.png

TEST FINISHED

General Verdict

16.03.2020 14:17:45 / RT: 132 s

PASS

## 15. FCC Part 15.247 Bandwidth 99PCT-20dB ~ BT LE coded S8

Test References	
TC Start	16.03.2020 14:44:46
System Version	1.0.0.40
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 coded S8
Add. Information	

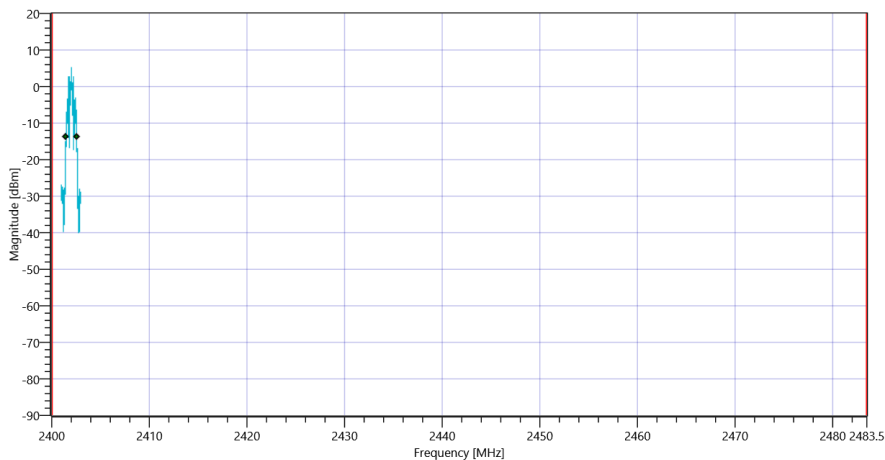
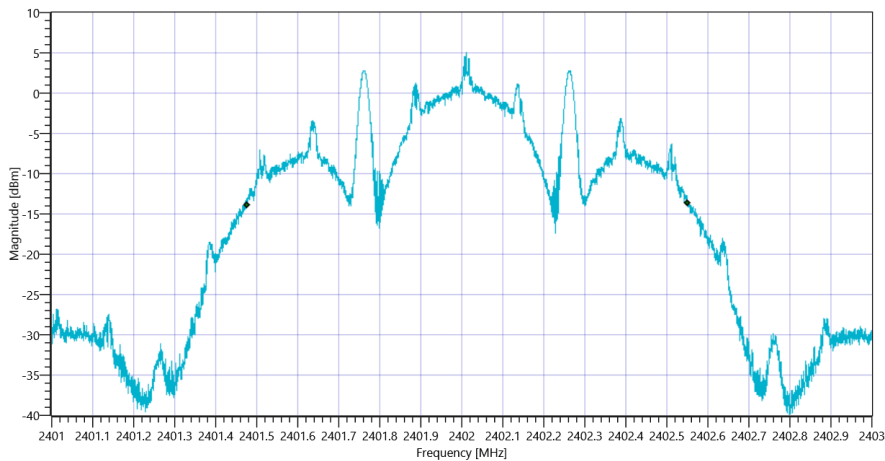
Test Parameter	
Technology to test	BT LE coded S8
Antenna Port used	1
Temperature	mid
Voltage	mid
Frequency low to test	True   Freq [MHz] 2402
Frequency mid to test	True   Freq [MHz] 2440
Frequency high to test	True   Freq [MHz] 2480
Switched Path	IUT - SignalingUnit - SpectrumAnalyzer
Devices in use	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]			13.41   10.09   20		
Start [MHz]   Stop [MHz]			2401.000   2403.000		
RBW [MHz]   VBW [MHz]			0.020000   0.050000		
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%	---	---	1073	kHz	INFO
T1 99%	2400.000000	---	2401.4761	MHz	PASS
T2 99%	---	2483.500000	2402.5495	MHz	PASS



RESULT					
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 20dB	---	---	1113	kHz	INFO
T1 20DB	2400.000000	---	2401.4564	MHz	PASS

T2 20dB

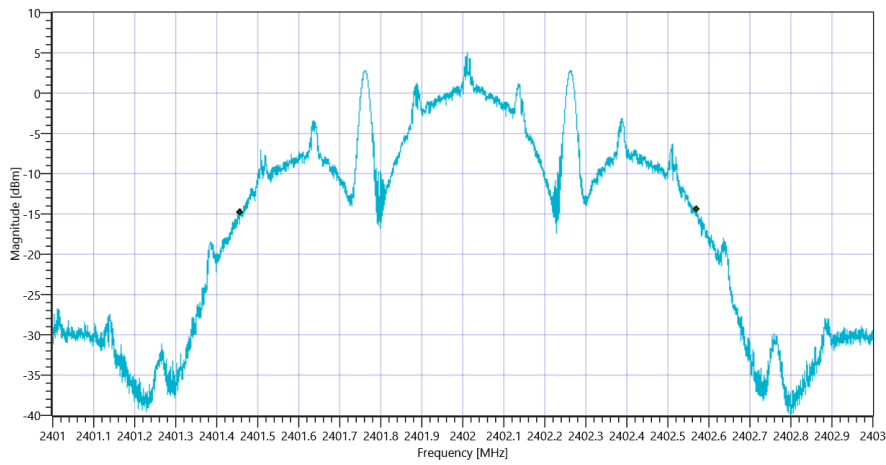
—

2483.50000

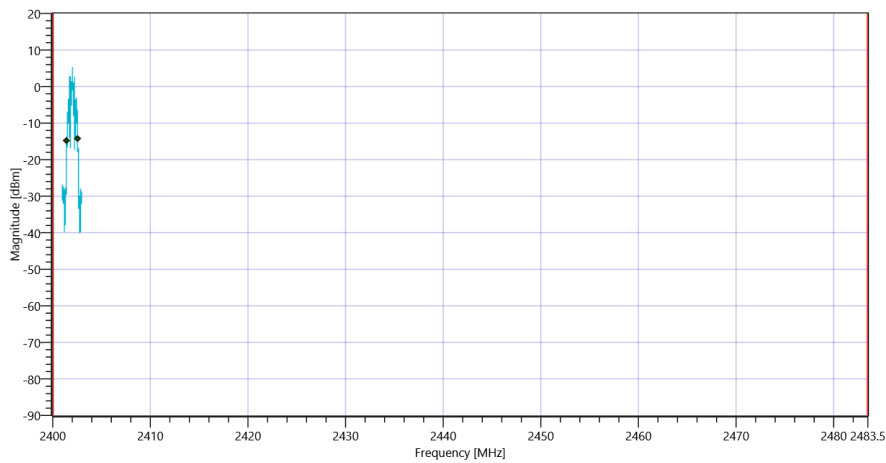
2402.5694

MHz

PASS



Plot\_FCC Part 15.247 Bandwidth 99PCT-20dB ~ BT LE coded S8 20dB\_16032020\_144524.png



Plot\_FCC Part 15.247 Bandwidth 99PCT-20dB ~ BT LE coded S8\_16032020\_144527.png

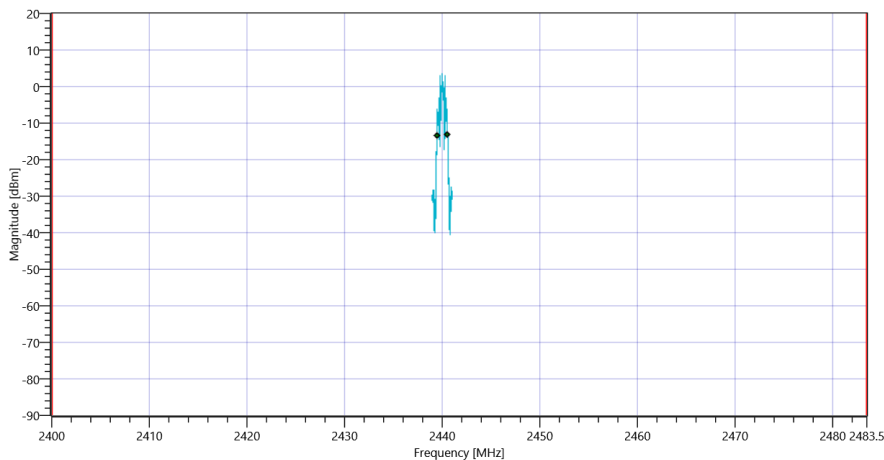
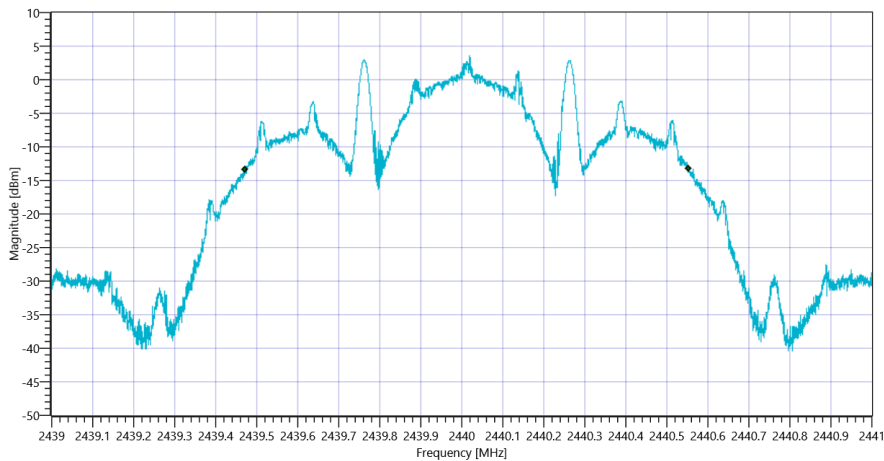


## Test at TX 2440 MHz

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

READ SA SETTINGS:					
RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]			13.47   10.1   20		
Start [MHz]   Stop [MHz]			2439.000   2441.000		
RBW [MHz]   VBW [MHz]			0.020000   0.050000		
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%	---	---	1082	kHz	INFO
T1 99%	2400.000000	---	2439.4719	MHz	PASS
T2 99%	---	2483.500000	2440.5535	MHz	PASS



RESULT					
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 20dB	---	---	1157	kHz	INFO
T1 20DB	2400.000000	---	2439.4356	MHz	PASS

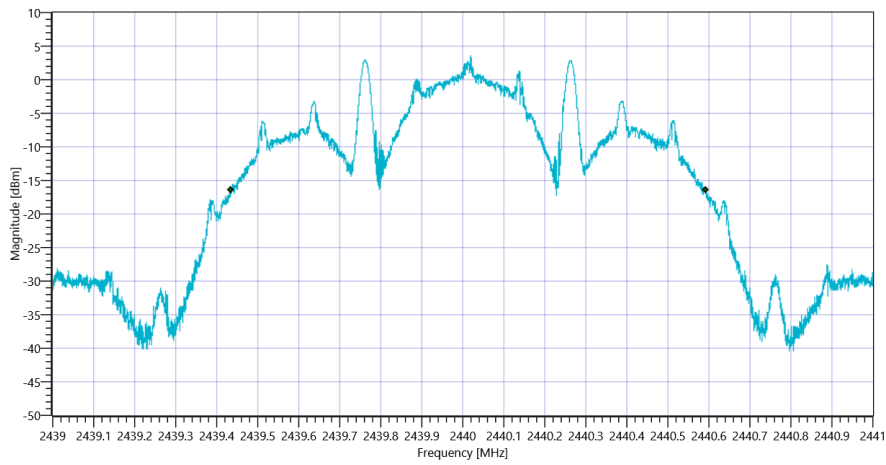
T2 20dB

2483.50000

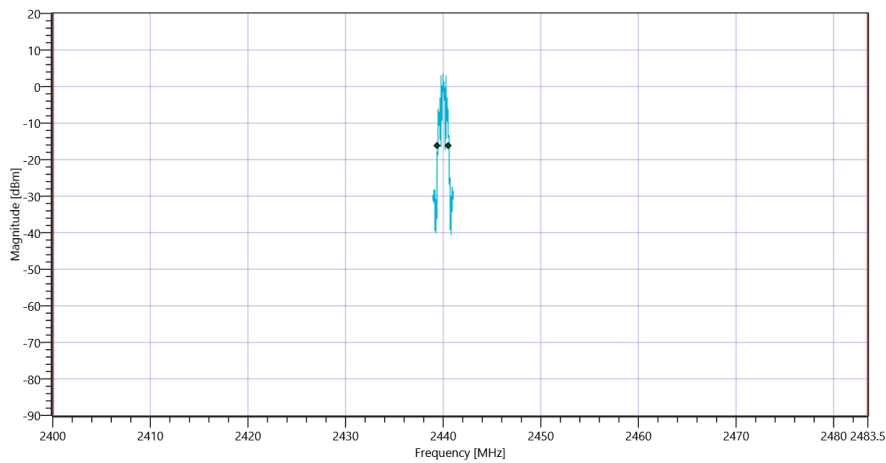
2440.5926

MHz

PASS



Plot\_FCC Part 15.247 Bandwidth 99PCT-20dB ~ BT LE coded S8 20dB\_16032020\_144609.png



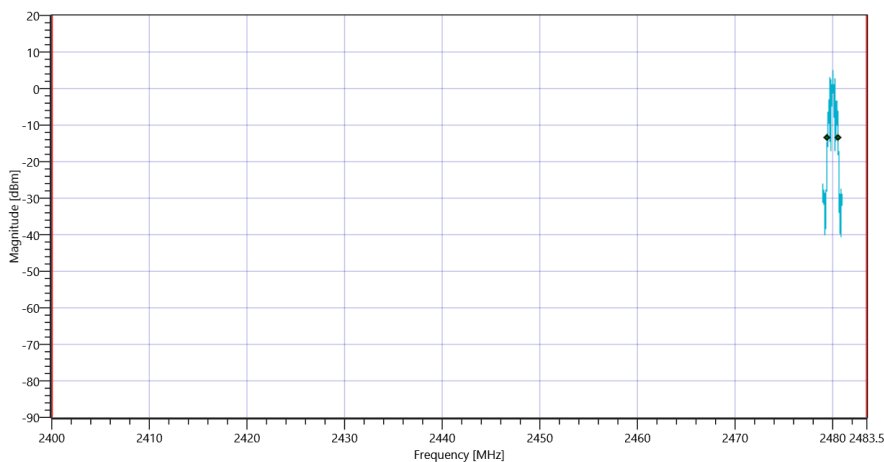
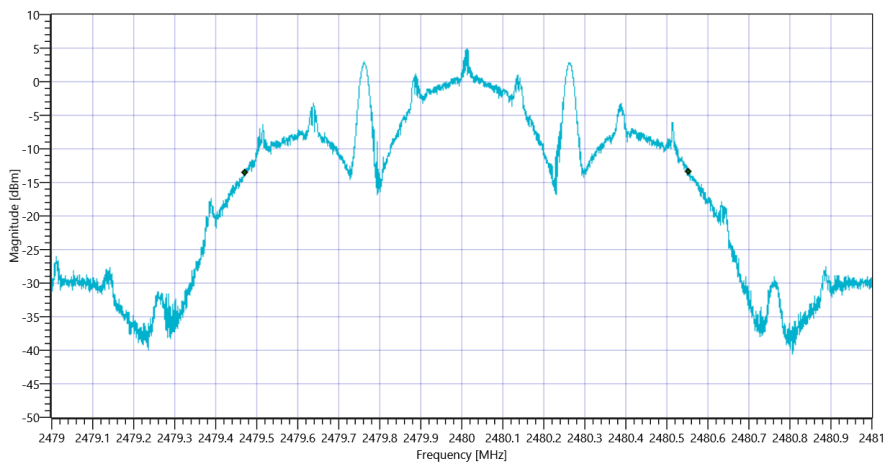
Plot\_FCC Part 15.247 Bandwidth 99PCT-20dB ~ BT LE coded S8\_16032020\_144613.png

## 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]			13.42   10.15   20		
Start [MHz]   Stop [MHz]			2479.000   2481.000		
RBW [MHz]   VBW [MHz]			0.020000   0.050000		
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%	---	---	1080	kHz	INFO
T1 99%	2400.000000	---	2479.4725	MHz	PASS
T2 99%	---	2483.500000	2480.5529	MHz	PASS



RESULT					
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 20dB	---	---	1124	kHz	INFO
T1 20DB	2400.000000	---	2479.4514	MHz	PASS

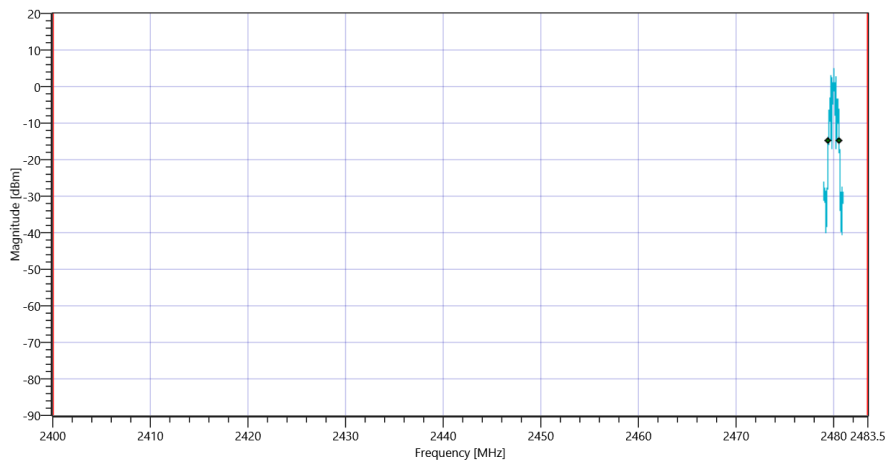
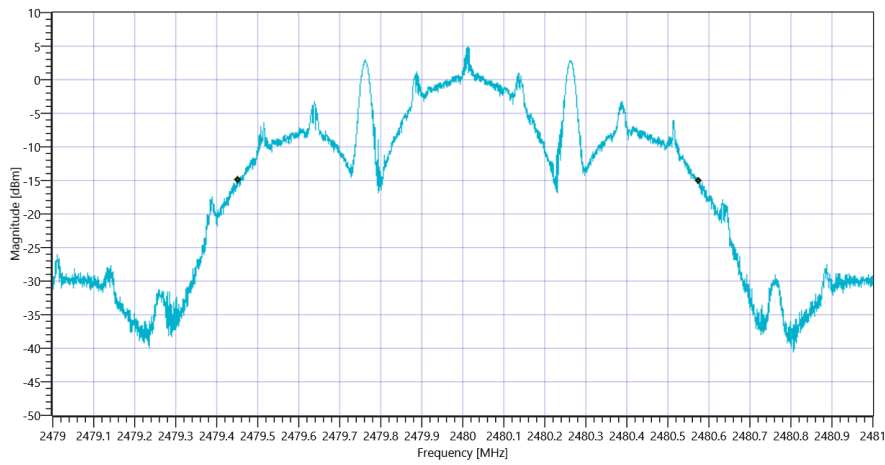
T2 20dB

2483.50000

2480.5756

MHz

PASS



TEST FINISHED

General Verdict

16.03.2020 14:47:00 / RT: 134 s

PASS

## 16. FCC Part 15.247 Bandwidth 99PCT-20dB ~ BT LE coded S2

Test References	
TC Start	16.03.2020 15:09:33
System Version	1.0.0.40
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 coded S2
Add. Information	

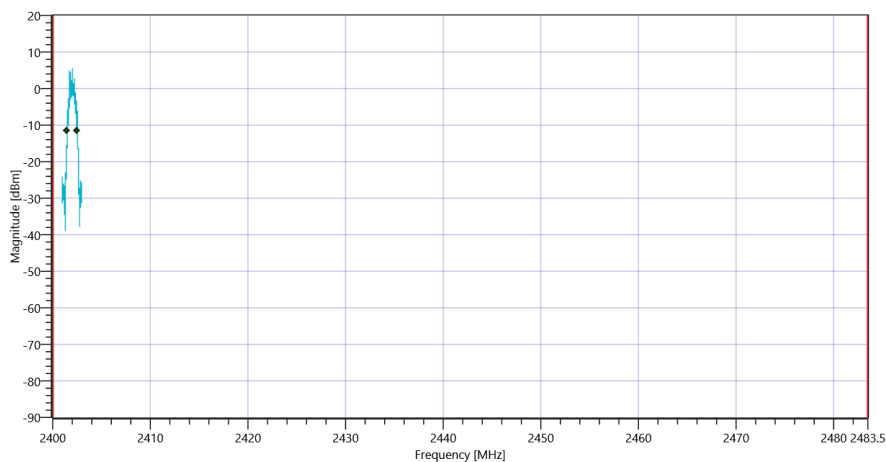
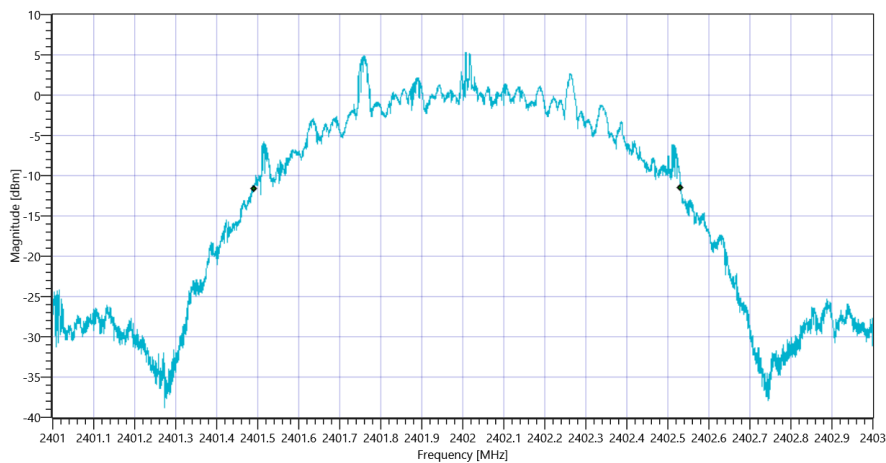
Test Parameter	
Technology to test	BT LE coded S2
Antenna Port used	1
Temperature	mid
Voltage	mid
Frequency low to test	True   Freq [MHz] 2402
Frequency mid to test	True   Freq [MHz] 2440
Frequency high to test	True   Freq [MHz] 2480
Switched Path	IUT - SignalingUnit - SpectrumAnalyzer
Devices in use	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]			13.43   10.09   20		
Start [MHz]   Stop [MHz]			2401.000   2403.000		
RBW [MHz]   VBW [MHz]			0.020000   0.050000		
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%	---	---	1041	kHz	INFO
T1 99%	2400.000000	---	2401.4909	MHz	PASS
T2 99%	---	2483.500000	2402.5315	MHz	PASS



RESULT					
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 20dB	---	---	1130	kHz	INFO
T1 20DB	2400.000000	---	2401.4580	MHz	PASS

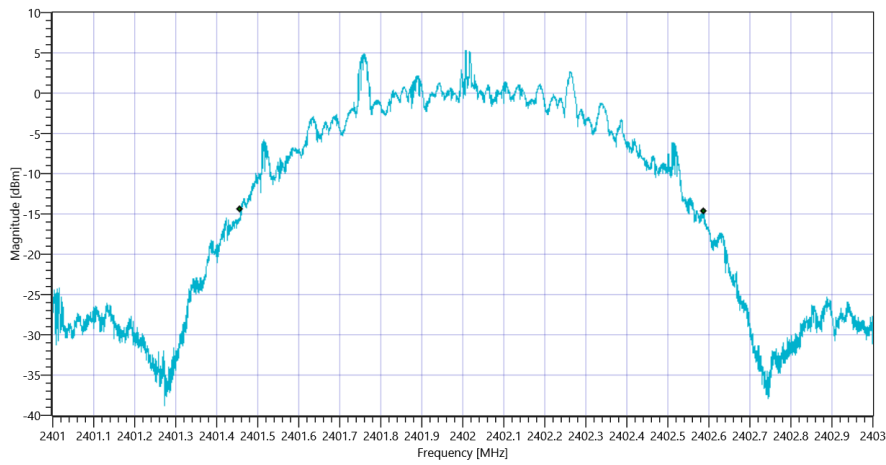
T2 20dB

2483.50000

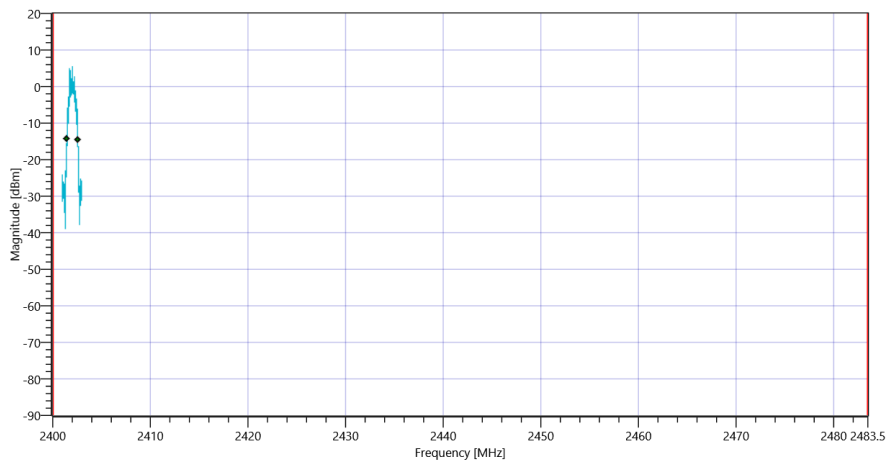
2402.5878

MHz

PASS



Plot\_FCC Part 15.247 Bandwidth 99PCT-20dB ~ BT LE coded S2\_16032020\_151011.png



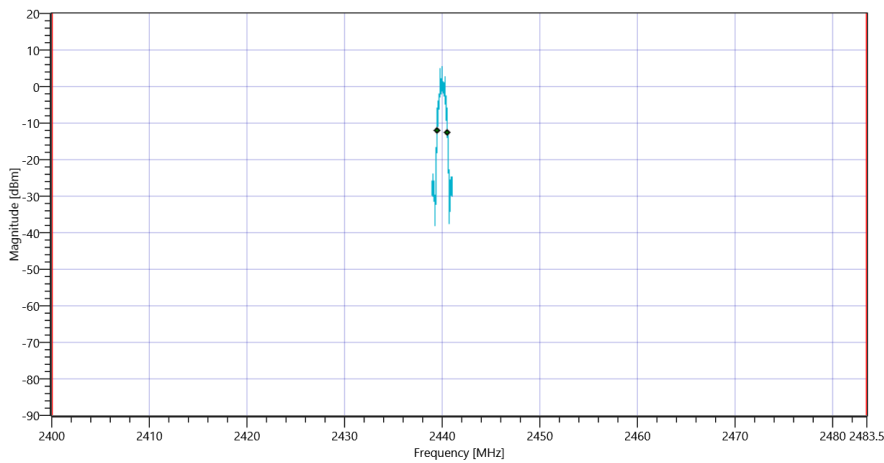
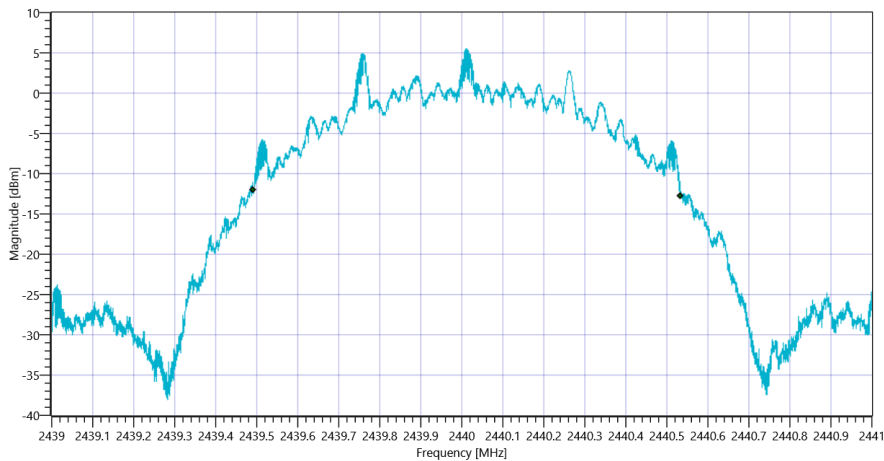
Plot\_FCC Part 15.247 Bandwidth 99PCT-20dB ~ BT LE coded S2\_16032020\_151015.png

## 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]	13.50   10.1   20				
Start [MHz]   Stop [MHz]	2439.000   2441.000				
RBW [MHz]   VBW [MHz]	0.020000   0.050000				
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%	---	---	1044	kHz	INFO
T1 99%	2400.000000	---	2439.4903	MHz	PASS
T2 99%	---	2483.500000	2440.5339	MHz	PASS



RESULT					
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 20dB	---	---	1116	kHz	INFO
T1 20DB	2400.000000	---	2439.4580	MHz	PASS



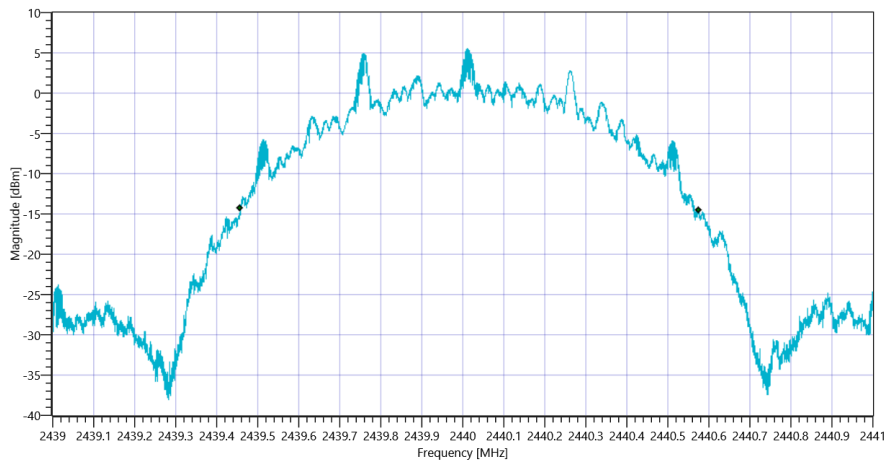
T2 20dB

2483.50000

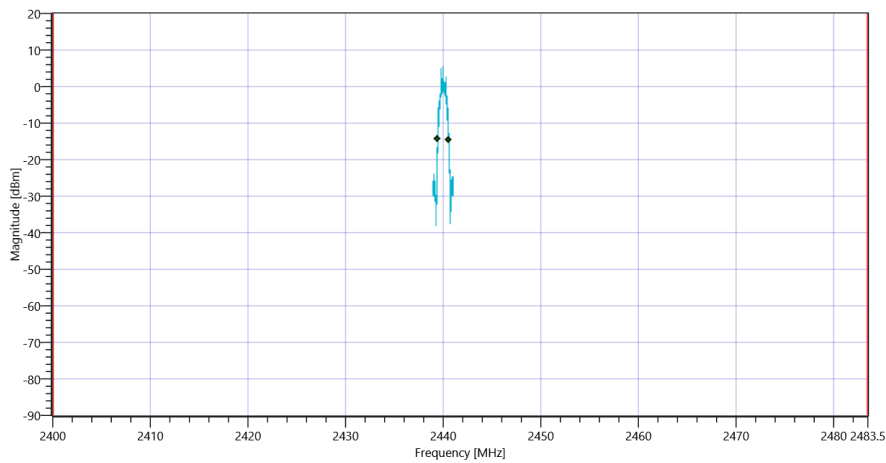
2440.5742

MHz

PASS



Plot\_FCC Part 15.247 Bandwidth 99PCT-20dB ~ BT LE coded S2\_16032020\_151057.png



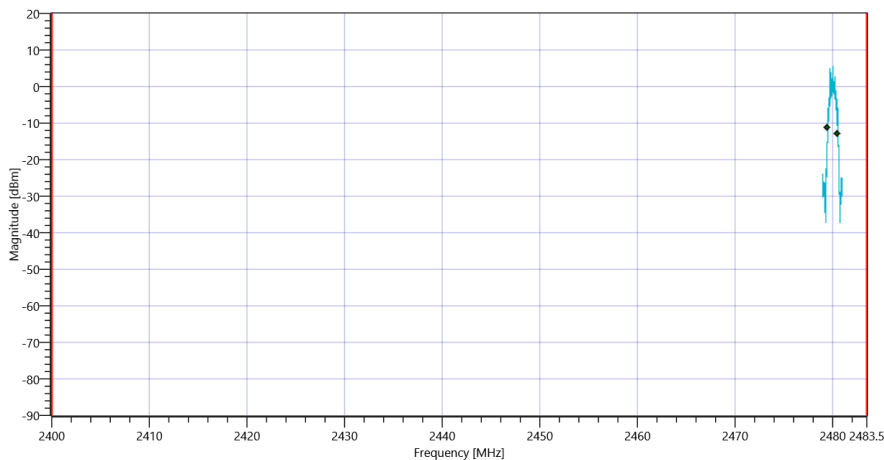
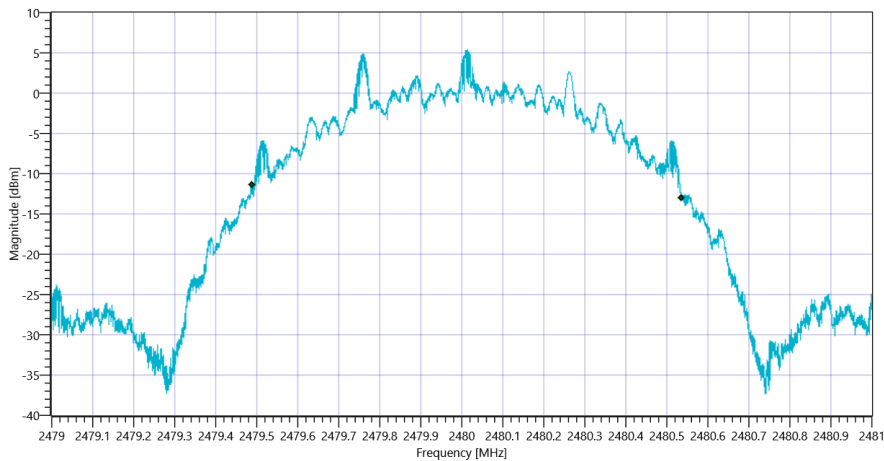
Plot\_FCC Part 15.247 Bandwidth 99PCT-20dB ~ BT LE coded S2\_16032020\_151101.png

## 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]	13.43   10.15   20				
Start [MHz]   Stop [MHz]	2479.000   2481.000				
RBW [MHz]   VBW [MHz]	0.020000   0.050000				
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%	---	---	1045	kHz	INFO
T1 99%	2400.000000	---	2479.4899	MHz	PASS
T2 99%	---	2483.500000	2480.5353	MHz	PASS



RESULT					
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 20dB	---	---	1117	kHz	INFO
T1 20DB	2400.000000	---	2479.4568	MHz	PASS