

# Measurement Results

No.1-4305/22-01-09\_Annex\_MR\_A1

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## Test logging

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Test/s performed:

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**Michael Dorongovski**  
Lab Manager  
Radio Communications

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## EUT Information

EUT DEFINITION	
Manufacturer	TELEDYNE FLIR
Type	FlirOne Edge
Serial Number	110000083
Setup Number	1.0
Version SW	NI
Version FW	NI
Version HW	NI
Comment 1	
Comment 2	
Temperature [°C] Min	-10
Temperature [°C] Nom	20
Temperature [°C] Max	55
Voltage [V] Min	5
Voltage [V] Nom	5
Voltage [V] Max	5

## FCC 15.247 # Bandwidth 6dB DTS ~ BT LE 1 Msps

Test References	
TC Start	22.08.2022 16:37:35
Ambit Temp [°C]   Humidity [rel%]	29.5   33
System Version	3.3.0.2
Test Specification	FCC 15.247 -
Test Method	
TC Version	0.0.1
My Description	FCC 15.247 Bandwidth 6dB DTS - BT LE 1 Msps
Add. Information	

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	False   TXpayload 255   RXpayload 255
Longrange S8 supported	False   TXpayload 255   RXpayload 255
Longrange S2 supported	False   TXpayload 255   RXpayload 255
Signaling Settings	None   HCI   1   2400   None   S1   None   On
Signaling RF Settings	RF1com   0   0   On
User Interaction	No
Switch Matrix & Pathcompensation enabled	Yes

Test Parameter	
Technology to test	BT LE 1 Msps
Antenna Port used	1
Temperature	nom
Voltage	nom
Frequency low to test	False   Freq [MHz] 2402
Frequency mid to test	False   Freq [MHz] 2440
Frequency high to test	True   Freq [MHz] 2480
Auto Control enabled Power Supply   Climatic Box	No   No
Additional Path Loss [dB]	0.5
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer

Test Equipment	
Signal analyzer,Rohde&Schwarz,FSV-30,1321.3008K30/103809,3.70	
Signaling unit,Rohde&Schwarz,CMW,1201.0002k75/102550,4.0.62	
Switch matrix,CTCadvanced,RSM-1 NI DAQ,29655273,NI	

## Test at TX 2480 MHz

### RESULT: Reference Power cond.

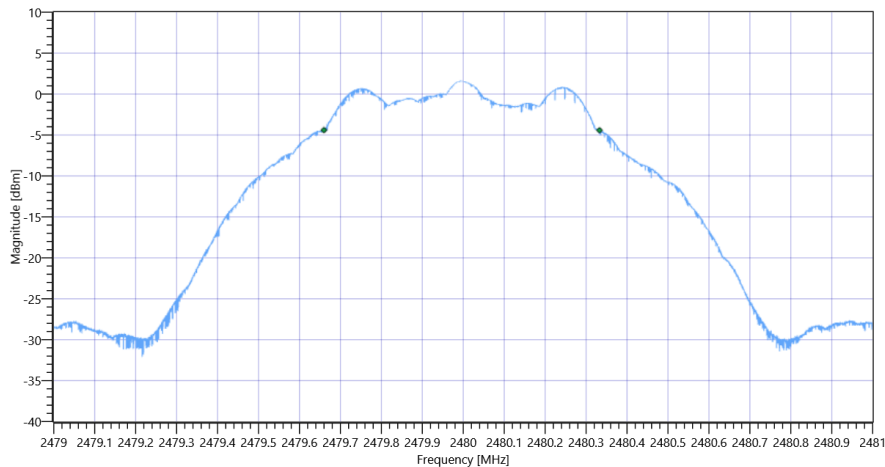
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	1.69	dBm	INFO
Ref. Frequency	---	---	2480.200	MHz	INFO

### READ SA SETTINGS:

RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]	6.69   10.65   15
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	---	673	kHz	PASS



FCC 15.247 # Bandwidth 6dB DTS ~ BT LE 1 Msps

General verdict

PASS

## FCC 15.247 # Bandwidth 6dB DTS ~ BT LE 1 Msps

Test References	
TC Start	22.08.2022 16:00:03
Ambit Temp [°C]   Humidity [rel%]	29.4   33
System Version	3.3.0.2
Test Specification	FCC 15.247 -
Test Method	
TC Version	0.0.1
My Description	FCC 15.247 Bandwidth 6dB DTS - BT LE 1 Msps
Add. Information	

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	False   TXpayload 255   RXpayload 255
Longrange S8 supported	False   TXpayload 255   RXpayload 255
Longrange S2 supported	False   TXpayload 255   RXpayload 255
Signaling Settings	None   HCI   1   2400   None   S1   None   On
Signaling RF Settings	RF1com   0   0   On
User Interaction	No
Switch Matrix & Pathcompensation enabled	Yes

Test Parameter	
Technology to test	BT LE 1 Msps
Antenna Port used	1
Temperature	nom
Voltage	nom
Frequency low to test	False   Freq [MHz] 2402
Frequency mid to test	True   Freq [MHz] 2440
Frequency high to test	False   Freq [MHz] 2480
Auto Control enabled Power Supply   Climatic Box	No   No
Additional Path Loss [dB]	0.5
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer

Test Equipment	
Signal analyzer,Rohde&Schwarz,FSV-30,1321.3008K30/103809,3.70	
Signaling unit,Rohde&Schwarz,CMW,1201.0002k75/102550,4.0.62	
Switch matrix,CTCadvanced,RSM-1 NI DAQ,29655273,NI	

## Test at TX 2440 MHz

### RESULT: Reference Power cond.

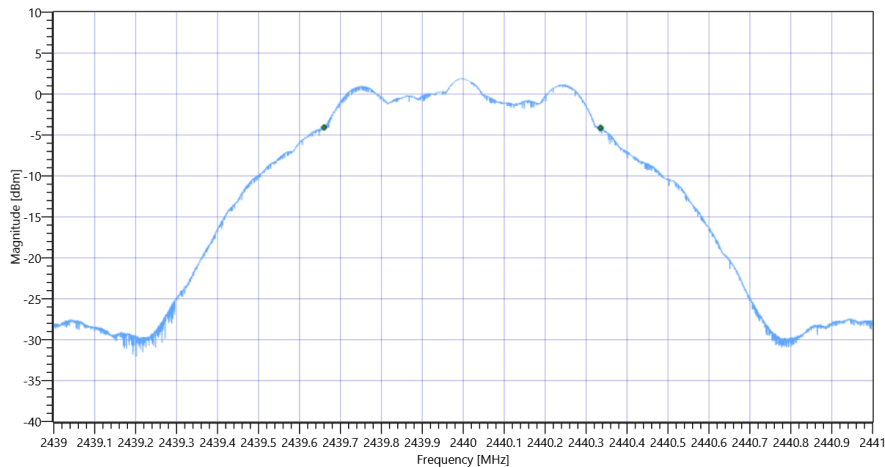
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	1.98	dBm	INFO
Ref. Frequency	---	---	2440.300	MHz	INFO

### READ SA SETTINGS:

RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]	6.98   10.6   15
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	---	675	kHz	PASS



FCC 15.247 # Bandwidth 6dB DTS ~ BT LE 1 Msps

General verdict

PASS

## FCC 15.247 # Bandwidth 6dB DTS ~ BT LE 1 Msps

Test References	
TC Start	22.08.2022 15:46:11
Ambit Temp [°C]   Humidity [rel%]	29.6   33
System Version	3.3.0.2
Test Specification	FCC 15.247 -
Test Method	
TC Version	0.0.1
My Description	FCC 15.247 Bandwidth 6dB DTS - BT LE 1 Msps
Add. Information	

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	False   TXpayload 255   RXpayload 255
Longrange S8 supported	False   TXpayload 255   RXpayload 255
Longrange S2 supported	False   TXpayload 255   RXpayload 255
Signaling Settings	None   HCI   1   2400   None   S1   None   On
Signaling RF Settings	RF1com   0   0   On
User Interaction	No
Switch Matrix & Pathcompensation enabled	Yes

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	False   Freq [MHz] 2440
Frequency high to test	False   Freq [MHz] 2480
Auto Control enabled Power Supply   Climatic Box	No   No
Additional Path Loss [dB]	0.5
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer

Test Equipment	
Signal analyzer,Rohde&Schwarz,FSV-30,1321.3008K30/103809,3.70	
Signaling unit,Rohde&Schwarz,CMW,1201.0002k75/102550,4.0.62	
Switch matrix,CTCadvanced,RSM-1 NI DAQ,29655273,NI	



## Test at TX 2402 MHz

### RESULT: Reference Power cond.

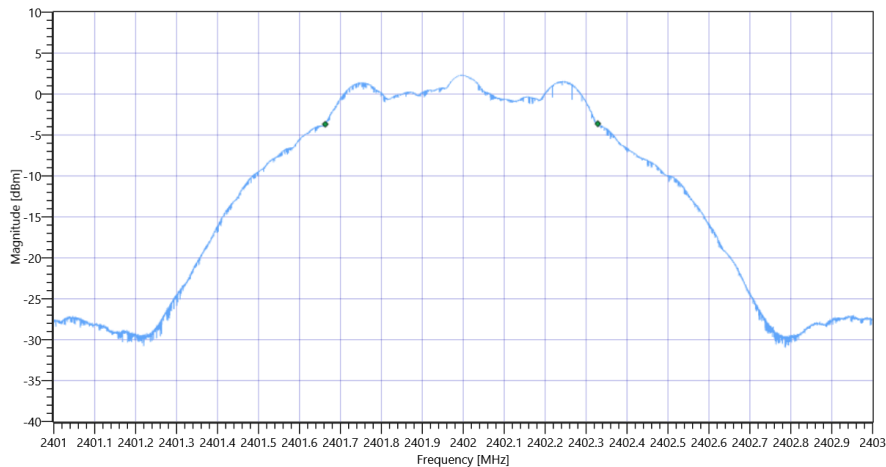
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	2.44	dBm	INFO
Ref. Frequency	---	---	2401.700	MHz	INFO

### READ SA SETTINGS:

RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]	7.44   10.59   15
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	---	666	kHz	PASS



FCC 15.247 # Bandwidth 6dB DTS ~ BT LE 1 Msps

General verdict

PASS

## FCC 15.247, ISED RSS247 # Bandwidth 99PCT and 20dB ~ BT LE 1 Msp

Test References	
TC Start	22.08.2022 16:38:55
Ambit Temp [°C]   Humidity [rel%]	29.5   33
System Version	3.3.0.2
Test Specification	FCC 15.247, ISED RSS247 -
Test Method	
TC Version	0.0.2
My Description	FCC 15.247 Bandwidth 99PCT-20dB DTS - BT LE 1 Msp
Add. Information	

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	False   TXpayload 255   RXpayload 255
Longrange S8 supported	False   TXpayload 255   RXpayload 255
Longrange S2 supported	False   TXpayload 255   RXpayload 255
Signaling Settings	None   HCI   1   2400   None   S1   None   On
Signaling RF Settings	RF1com   0   0   On
User Interaction	No
Switch Matrix & Pathcompensation enabled	Yes

Test Parameter	
Technology to test	BT LE 1 Msp
Antenna Port used	1
Temperature	nom
Voltage	nom
Frequency low to test	False   Freq [MHz] 2402
Frequency mid to test	False   Freq [MHz] 2440
Frequency high to test	True   Freq [MHz] 2480
Auto Control enabled Power Supply   Climatic Box	No   No
Additional Path Loss [dB]	0.5
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer

Test Equipment	
Signal analyzer,Rohde&Schwarz,FSV-30,1321.3008K30/103809,3.70	
Signaling unit,Rohde&Schwarz,CMW,1201.0002k75/102550,4.0.62	
Switch matrix,CTCadvanced,RSM-1 NI DAQ,29655273,NI	

## Test at TX 2480 MHz

### RESULT: Reference Power cond.

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	1.80	dBm	INFO
Ref. Frequency	---	---	2479.700	MHz	INFO

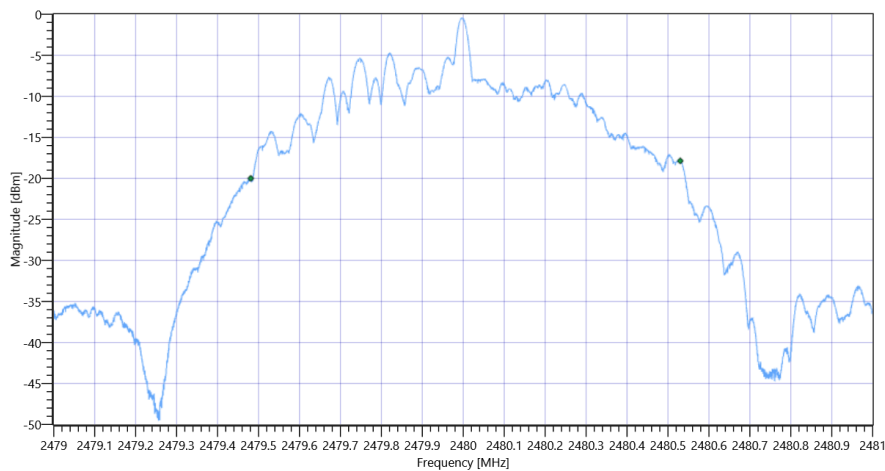
### READ SA SETTINGS:

RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]	6.80   10.65   15
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

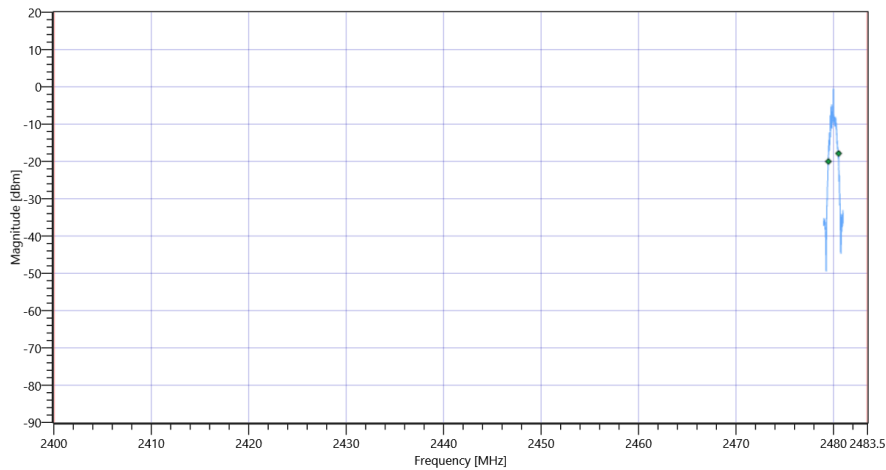
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 99%	---	---	1049.000	kHz	INFO
T1 99%	2400.000000	---	2479.4811	MHz	PASS
T2 99%	---	2483.500000	2480.5299	MHz	PASS

### Plot: Bandwidth only



FCC 15.247, ISED RSS247 # Bandwidth 99PCT and 20dB ~ BT LE 1 MspS 99PCT

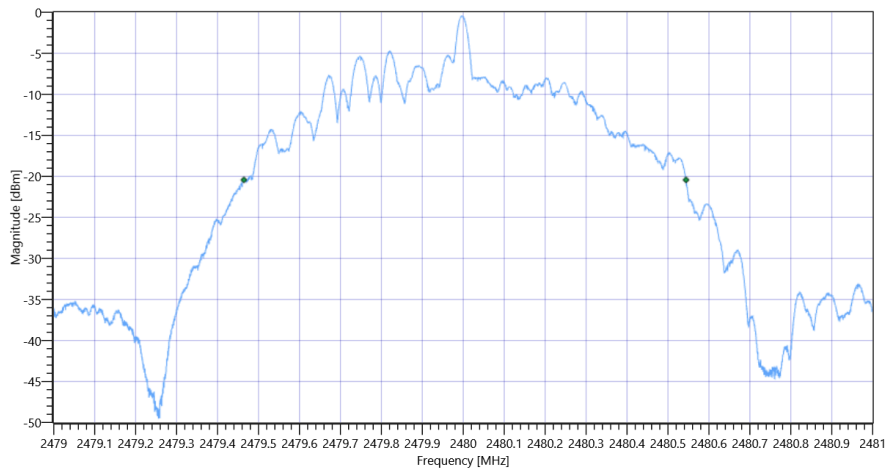
### Plot: Bandwidth within Band



FCC 15.247, ISED RSS247 # Bandwidth 99PCT and 20dB ~ BT LE 1 Msps

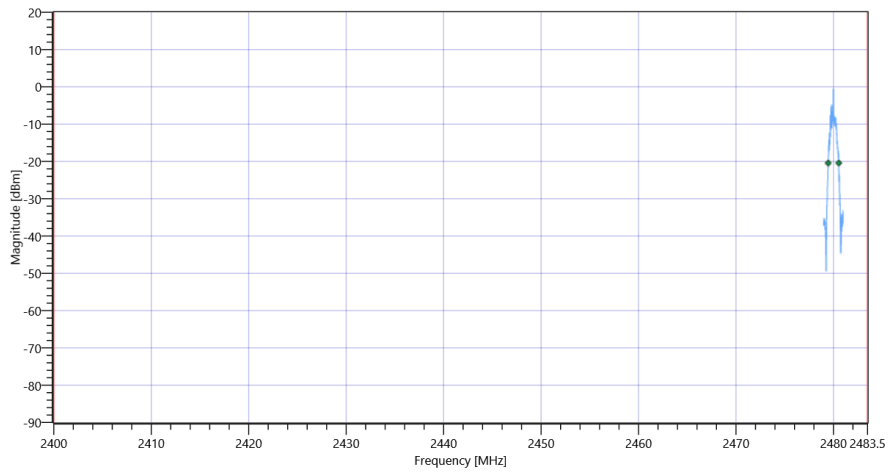
RESULT						
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict	
Bandwidth 20dB	---	---	1080	kHz	INFO	
T1 20dB	2400.000000	---	2479.4642	MHz	PASS	
T2 20dB	---	2483.500000	2480.5440	MHz	PASS	

Plot: Bandwidth only



FCC 15.247, ISED RSS247 # Bandwidth 99PCT and 20dB ~ BT LE 1 Msps 20dB

Plot: Bandwidth within Band



FCC 15.247, ISED RSS247 # Bandwidth 99PCT and 20dB ~ BT LE 1 Msps

General verdict

PASS

## FCC 15.247, ISED RSS247 # Bandwidth 99PCT and 20dB ~ BT LE 1 Msps

Test References	
TC Start	22.08.2022 16:01:22
Ambit Temp [°C]   Humidity [rel%]	29.4   33
System Version	3.3.0.2
Test Specification	FCC 15.247, ISED RSS247 -
Test Method	
TC Version	0.0.2
My Description	FCC 15.247 Bandwidth 99PCT-20dB DTS - BT LE 1 Msps
Add. Information	

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	False   TXpayload 255   RXpayload 255
Longrange S8 supported	False   TXpayload 255   RXpayload 255
Longrange S2 supported	False   TXpayload 255   RXpayload 255
Signaling Settings	None   HCI   1   2400   None   S1   None   On
Signaling RF Settings	RF1com   0   0   On
User Interaction	No
Switch Matrix & Pathcompensation enabled	Yes

Test Parameter	
Technology to test	BT LE 1 Msps
Antenna Port used	1
Temperature	nom
Voltage	nom
Frequency low to test	False   Freq [MHz] 2402
Frequency mid to test	True   Freq [MHz] 2440
Frequency high to test	False   Freq [MHz] 2480
Auto Control enabled Power Supply   Climatic Box	No   No
Additional Path Loss [dB]	0.5
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer

Test Equipment	
Signal analyzer,Rohde&Schwarz,FSV-30,1321.3008K30/103809,3.70	
Signaling unit,Rohde&Schwarz,CMW,1201.0002k75/102550,4.0.62	
Switch matrix,CTCadvanced,RSM-1 NI DAQ,29655273,NI	

## Test at TX 2440 MHz

### RESULT: Reference Power cond.

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	2.02	dBm	INFO
Ref. Frequency	---	---	2440.300	MHz	INFO

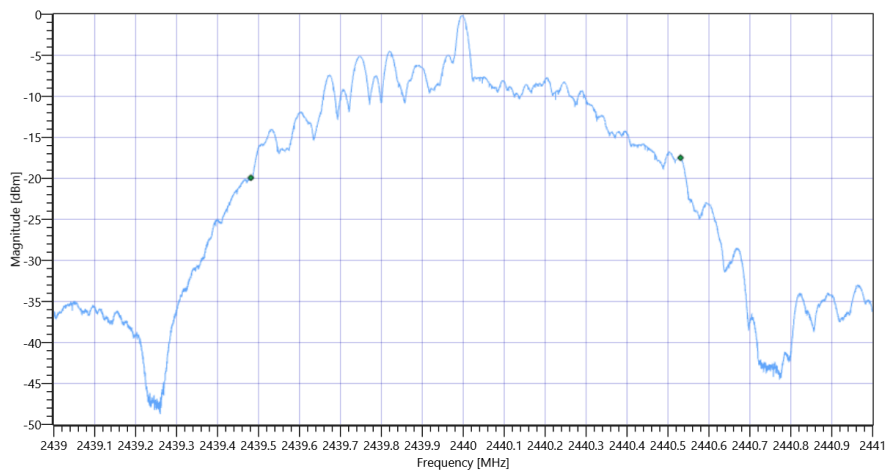
### READ SA SETTINGS:

RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]	7.02   10.6   15
Start [MHz]   Stop [MHz]	2439.000   2441.000
RBW [MHz]   VBW [MHz]	0.020000   0.100000
Detector   TraceMode	POS   MAXH
Sweep: Time [ms]   Count   Points per Section   Type	50   200   10001   SWE

### RESULT

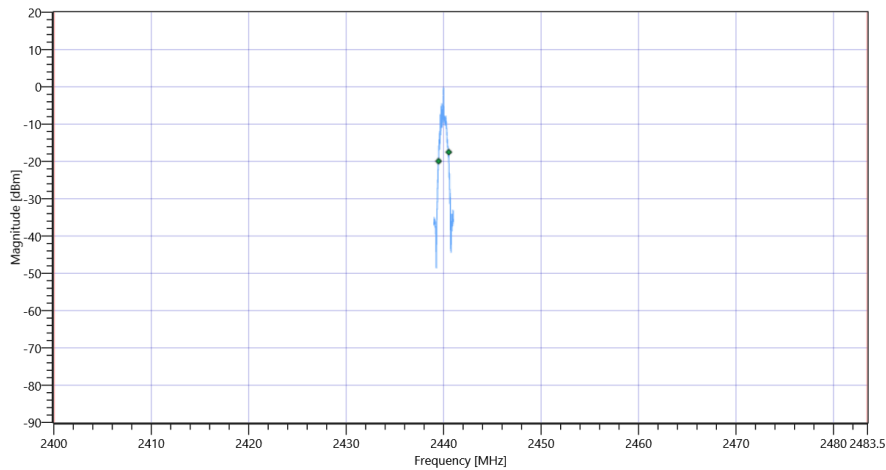
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 99%	---	---	1049.000	kHz	INFO
T1 99%	2400.000000	---	2439.4813	MHz	PASS
T2 99%	---	2483.500000	2440.5307	MHz	PASS

### Plot: Bandwidth only



FCC 15.247, ISED RSS247 # Bandwidth 99PCT and 20dB ~ BT LE 1 Msps 99PCT

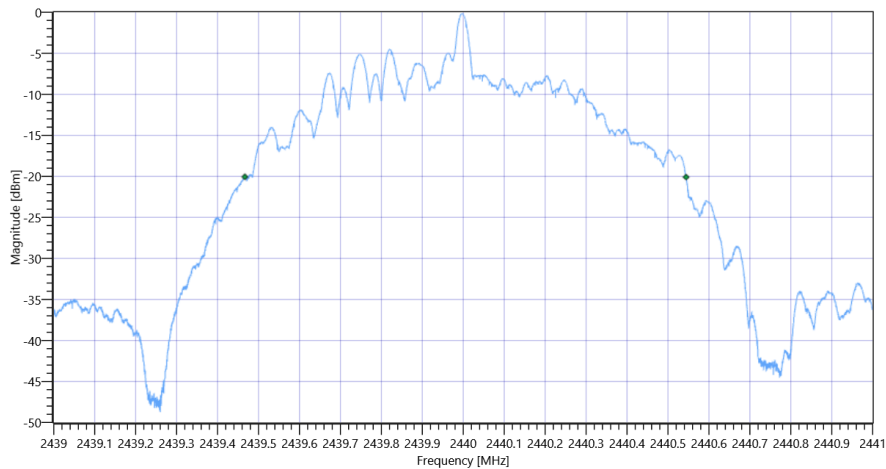
### Plot: Bandwidth within Band



FCC 15.247, ISED RSS247 # Bandwidth 99PCT and 20dB ~ BT LE 1 Msps

RESULT						
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict	
Bandwidth 20dB	---	---	1078	kHz	INFO	
T1 20DB	2400.000000	---	2439.4666	MHz	PASS	
T2 20dB	---	2483.500000	2440.5442	MHz	PASS	

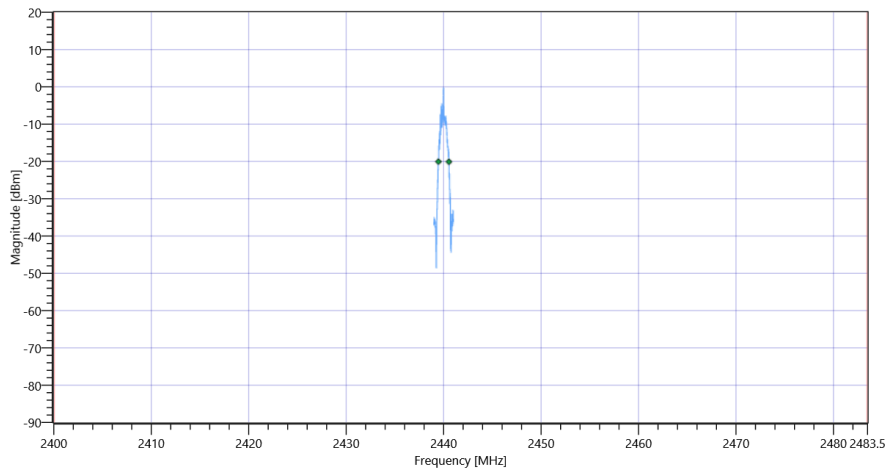
Plot: Bandwidth only



FCC 15.247, ISED RSS247 # Bandwidth 99PCT and 20dB ~ BT LE 1 Msps 20dB

Plot: Bandwidth within Band





FCC 15.247, ISED RSS247 # Bandwidth 99PCT and 20dB ~ BT LE 1 Msps

General verdict

PASS

## FCC 15.247, ISED RSS247 # Bandwidth 99PCT and 20dB ~ BT LE 1 Msps

Test References	
TC Start	22.08.2022 15:47:30
Ambit Temp [°C]   Humidity [rel%]	29.6   33
System Version	3.3.0.2
Test Specification	FCC 15.247, ISED RSS247 -
Test Method	
TC Version	0.0.2
My Description	FCC 15.247 Bandwidth 99PCT-20dB DTS - BT LE 1 Msps
Add. Information	

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	False   TXpayload 255   RXpayload 255
Longrange S8 supported	False   TXpayload 255   RXpayload 255
Longrange S2 supported	False   TXpayload 255   RXpayload 255
Signaling Settings	None   HCI   1   2400   None   S1   None   On
Signaling RF Settings	RF1com   0   0   On
User Interaction	No
Switch Matrix & Pathcompensation enabled	Yes

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	False   Freq [MHz] 2440
Frequency high to test	False   Freq [MHz] 2480
Auto Control enabled Power Supply   Climatic Box	No   No
Additional Path Loss [dB]	0.5
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer

Test Equipment	
Signal analyzer,Rohde&Schwarz,FSV-30,1321.3008K30/103809,3.70	
Signaling unit,Rohde&Schwarz,CMW,1201.0002k75/102550,4.0.62	
Switch matrix,CTCadvanced,RSM-1 NI DAQ,29655273,NI	

## Test at TX 2402 MHz

### RESULT: Reference Power cond.

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	2.48	dBm	INFO
Ref. Frequency	---	---	2402.200	MHz	INFO

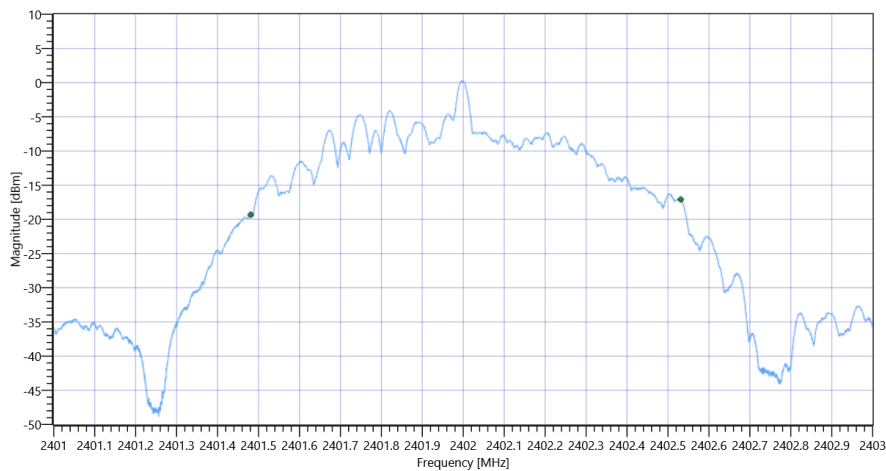
### READ SA SETTINGS:

RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]	7.48   10.59   15
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

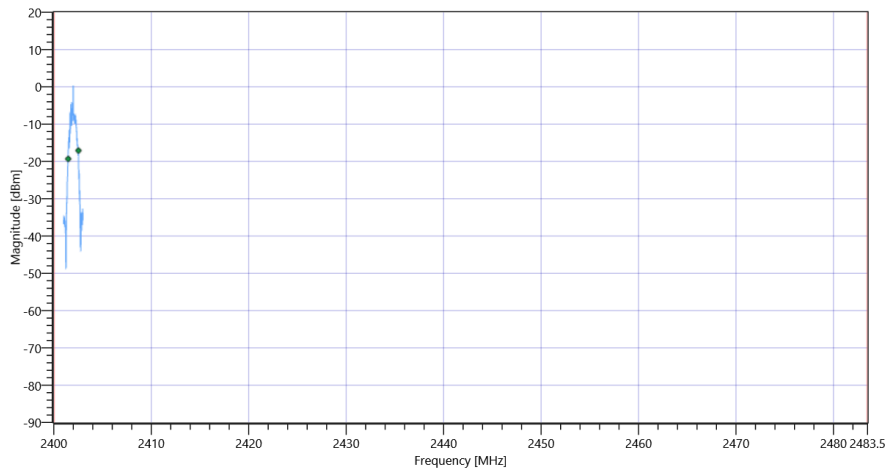
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 99%	---	---	1050.000	kHz	INFO
T1 99%	2400.000000	---	2401.4809	MHz	PASS
T2 99%	---	2483.500000	2402.5311	MHz	PASS

### Plot: Bandwidth only



FCC 15.247, ISED RSS247 # Bandwidth 99PCT and 20dB ~ BT LE 1 Msps 99PCT

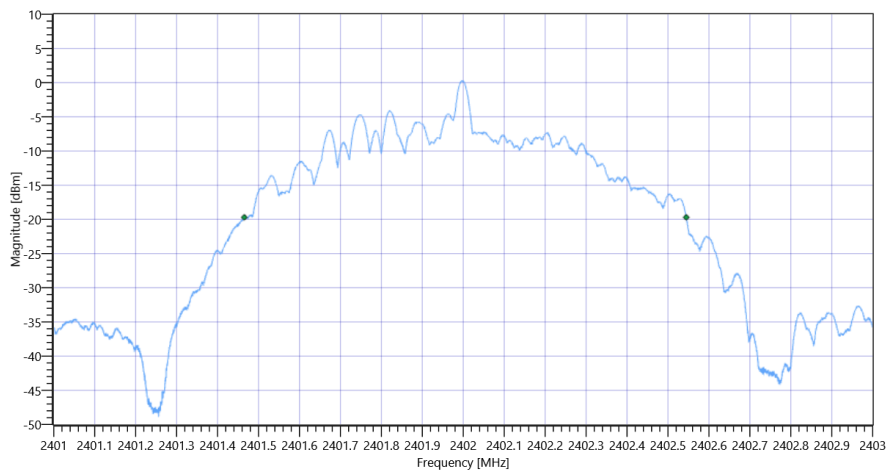
### Plot: Bandwidth within Band



FCC 15.247, ISED RSS247 # Bandwidth 99PCT and 20dB ~ BT LE 1 Msp

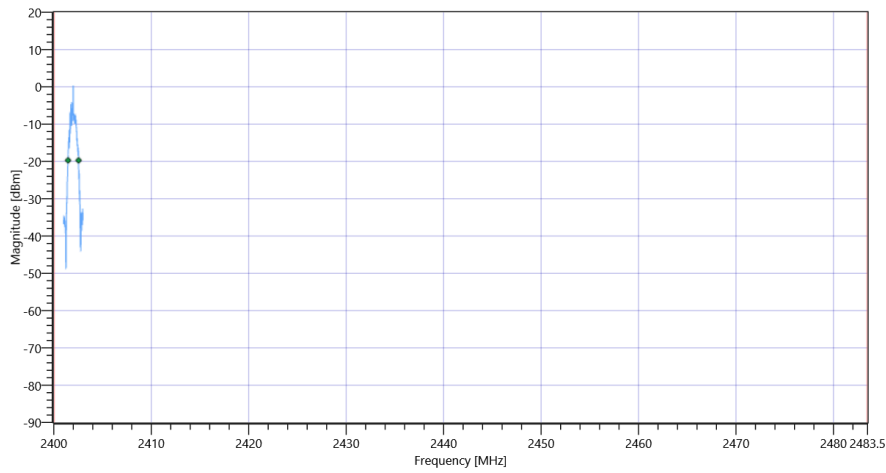
RESULT					
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 20dB	---	---	1079	kHz	INFO
T1 20dB	2400.000000	---	2401.4652	MHz	PASS
T2 20dB	---	2483.500000	2402.5446	MHz	PASS

Plot: Bandwidth only



FCC 15.247, ISED RSS247 # Bandwidth 99PCT and 20dB ~ BT LE 1 Msp 20dB

Plot: Bandwidth within Band



FCC 15.247, ISED RSS247 # Bandwidth 99PCT and 20dB ~ BT LE 1 Msps

General verdict

PASS

## FCC 15.247 # Maximum peak conducted output power DTS ~ BT LE 1 Msps

Test References	
TC Start	22.08.2022 16:36:42
Ambit Temp [°C]   Humidity [rel%]	29.5   33
System Version	3.3.0.2
Test Specification	FCC 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	

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	False   TXpayload 255   RXpayload 255
Longrange S8 supported	False   TXpayload 255   RXpayload 255
Longrange S2 supported	False   TXpayload 255   RXpayload 255
Signaling Settings	None   HCI   1   2400   None   S1   None   On
Signaling RF Settings	RF1com   0   0   On
User Interaction	No
Switch Matrix & Pathcompensation enabled	Yes

Test Parameter	
Technology to test	BT LE 1 Msps
Antenna Port used	1
Temperature	nom
Voltage	nom
Frequency low to test	False   Freq [MHz] 2402
Frequency mid to test	False   Freq [MHz] 2440
Frequency high to test	True   Freq [MHz] 2480
Auto Control enabled Power Supply   Climatic Box	No   No
Additional Path Loss [dB]	0.5
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer

Test Equipment	
Signal analyzer,Rohde&Schwarz,FSV-30,1321.3008K30/103809,3.70	
Signaling unit,Rohde&Schwarz,CMW,1201.0002k75/102550,4.0.62	
Switch matrix,CTCadvanced,RSM-1 NI DAQ,29655273,NI	

## Test at TX 2480 MHz

### RESULT: Reference Power cond.

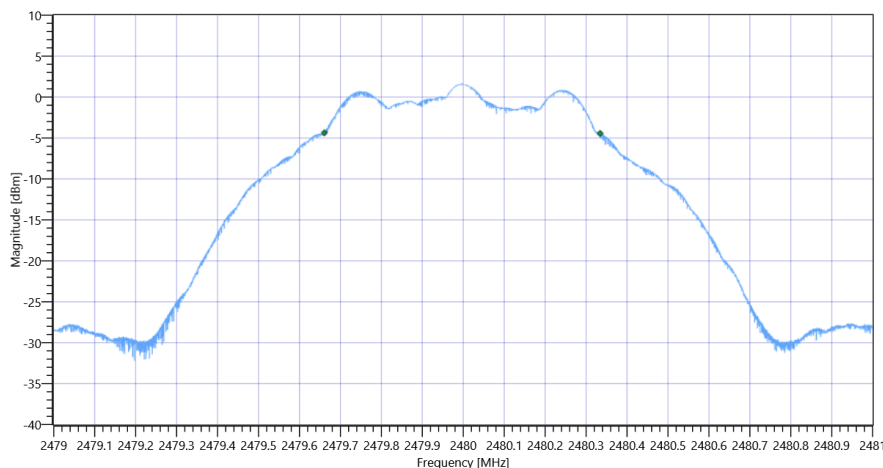
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	1.70	dBm	INFO
Ref. Frequency	---	---	2480.300	MHz	INFO

### READ SA SETTINGS:

RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]	6.70   10.65   15
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)	---	---	674	kHz	INFO



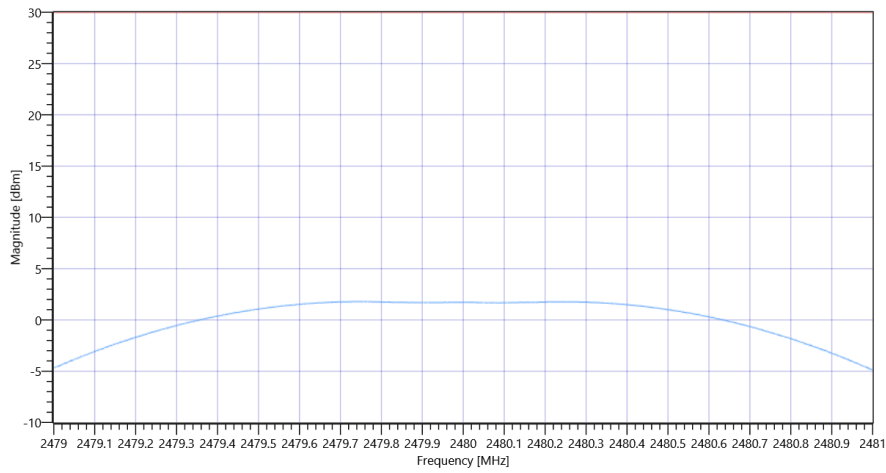
FCC 15.247 # Maximum peak conducted output power DTS ~ BT LE 1 Msps DTS BW

### READ SA SETTINGS:

RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]	11.70   10.65   20
Start [MHz]   Stop [MHz]	2479.000   2481.000
RBW [MHz]   VBW [MHz]	1.000000   5.000000
Detector   TraceMode	POS   MAXH
Sweep: Time [ms]   Count   Points per Section   Type	50   200   1001   SWE

### RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Peak Power	---	30.00	1.79	dBm	PASS
Peak Power	---	1000	1.51008	mW	PASS
Frequency at Peak	---	---	2479.744	MHz	INFO



FCC 15.247 # Maximum peak conducted output power DTS ~ BT LE 1 Msps

General verdict

PASS



## FCC 15.247 # Maximum peak conducted output power DTS ~ BT LE 1 Msps

Test References	
TC Start	22.08.2022 15:59:11
Ambit Temp [°C]   Humidity [rel%]	29.4   33
System Version	3.3.0.2
Test Specification	FCC 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	

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	False   TXpayload 255   RXpayload 255
Longrange S8 supported	False   TXpayload 255   RXpayload 255
Longrange S2 supported	False   TXpayload 255   RXpayload 255
Signaling Settings	None   HCI   1   2400   None   S1   None   On
Signaling RF Settings	RF1com   0   0   On
User Interaction	No
Switch Matrix & Pathcompensation enabled	Yes

Test Parameter	
Technology to test	BT LE 1 Msps
Antenna Port used	1
Temperature	nom
Voltage	nom
Frequency low to test	False   Freq [MHz] 2402
Frequency mid to test	True   Freq [MHz] 2440
Frequency high to test	False   Freq [MHz] 2480
Auto Control enabled Power Supply   Climatic Box	No   No
Additional Path Loss [dB]	0.5
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer

Test Equipment	
Signal analyzer,Rohde&Schwarz,FSV-30,1321.3008K30/103809,3.70	
Signaling unit,Rohde&Schwarz,CMW,1201.0002k75/102550,4.0.62	
Switch matrix,CTCadvanced,RSM-1 NI DAQ,29655273,NI	

## Test at TX 2440 MHz

### RESULT: Reference Power cond.

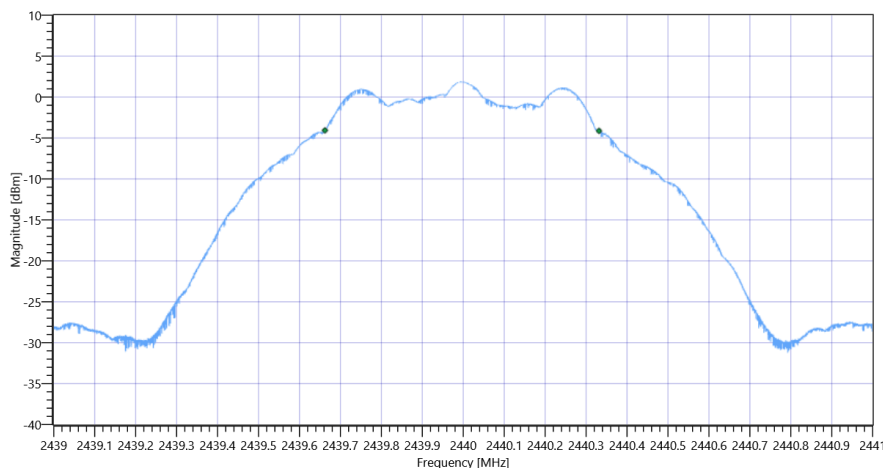
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	1.98	dBm	INFO
Ref. Frequency	---	---	2439.700	MHz	INFO

### READ SA SETTINGS:

RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]	6.98   10.6   15
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)	---	---	669	kHz	INFO



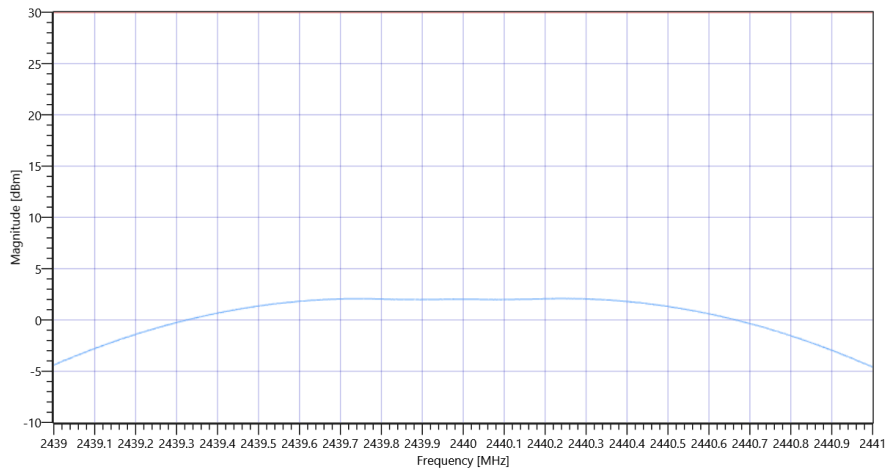
FCC 15.247 # Maximum peak conducted output power DTS ~ BT LE 1 Msps DTS BW

### READ SA SETTINGS:

RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]	11.98   10.6   20
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	2.09	dBm	PASS
Peak Power	---	1000	1.61808	mW	PASS
Frequency at Peak	---	---	2440.236	MHz	INFO



FCC 15.247 # Maximum peak conducted output power DTS ~ BT LE 1 Msps

General verdict

PASS

## FCC 15.247 # Maximum peak conducted output power DTS ~ BT LE 1 Msps

Test References	
TC Start	22.08.2022 15:45:19
Ambit Temp [°C]   Humidity [rel%]	29.6   33
System Version	3.3.0.2
Test Specification	FCC 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	

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	False   TXpayload 255   RXpayload 255
Longrange S8 supported	False   TXpayload 255   RXpayload 255
Longrange S2 supported	False   TXpayload 255   RXpayload 255
Signaling Settings	None   HCI   1   2400   None   S1   None   On
Signaling RF Settings	RF1com   0   0   On
User Interaction	No
Switch Matrix & Pathcompensation enabled	Yes

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	False   Freq [MHz] 2440
Frequency high to test	False   Freq [MHz] 2480
Auto Control enabled Power Supply   Climatic Box	No   No
Additional Path Loss [dB]	0.5
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer

Test Equipment	
Signal analyzer,Rohde&Schwarz,FSV-30,1321.3008K30/103809,3.70	
Signaling unit,Rohde&Schwarz,CMW,1201.0002k75/102550,4.0.62	
Switch matrix,CTCadvanced,RSM-1 NI DAQ,29655273,NI	

## Test at TX 2402 MHz

### RESULT: Reference Power cond.

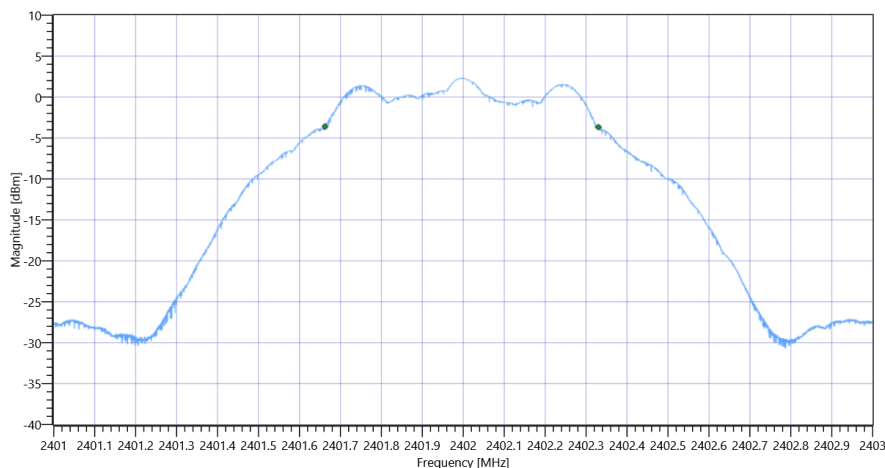
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	2.50	dBm	INFO
Ref. Frequency	---	---	2401.800	MHz	INFO

### READ SA SETTINGS:

RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]	7.50   10.59   15
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)	---	---	668	kHz	INFO



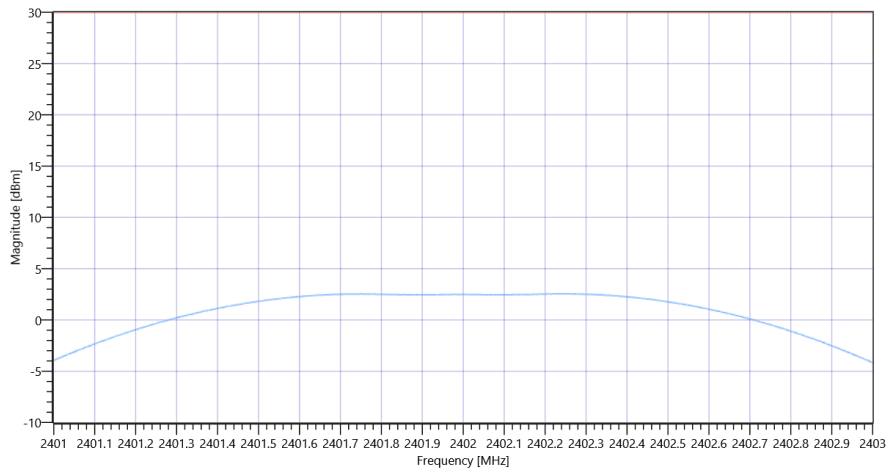
FCC 15.247 # Maximum peak conducted output power DTS ~ BT LE 1 Msps DTS BW

### READ SA SETTINGS:

RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]	12.50   10.59   20
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	2.54	dBm	PASS
Peak Power	---	1000	1.794734	mW	PASS
Frequency at Peak	---	---	2402.246	MHz	INFO



FCC 15.247 # Maximum peak conducted output power DTS ~ BT LE 1 Msps

General verdict

PASS

## Common 2G4 # Peak output power 3MHz/3MHz ~ BT LE 1 Msps

Test References	
TC Start	22.08.2022 16:36:08
Ambit Temp [°C]   Humidity [rel%]	29.5   33
System Version	3.3.0.2
Test Specification	Common 2G4 - none
Test Method	
TC Version	0.0.1
My Description	Peak Output Power conducted 3MHz/3MHz - BT LE 1 Msps
Add. Information	

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	False   TXpayload 255   RXpayload 255
Longrange S8 supported	False   TXpayload 255   RXpayload 255
Longrange S2 supported	False   TXpayload 255   RXpayload 255
Signaling Settings	None   HCI   1   2400   None   S1   None   On
Signaling RF Settings	RF1com   0   0   On
User Interaction	No
Switch Matrix & Pathcompensation enabled	Yes

Test Parameter	
Technology to test	BT LE 1 Msps
Antenna Port used	1
Temperature	nom
Voltage	nom
Frequency low to test	False   Freq [MHz] 2402
Frequency mid to test	False   Freq [MHz] 2440
Frequency high to test	True   Freq [MHz] 2480
Auto Control enabled Power Supply   Climatic Box	No   No
Additional Path Loss [dB]	0.5
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer

Test Equipment	
Signal analyzer,Rohde&Schwarz,FSV-30,1321.3008K30/103809,3.70	
Signaling unit,Rohde&Schwarz,CMW,1201.0002k75/102550,4.0.62	
Switch matrix,CTCadvanced,RSM-1 NI DAQ,29655273,NI	

## Test at TX 2480 MHz

### RESULT: Reference Power cond.

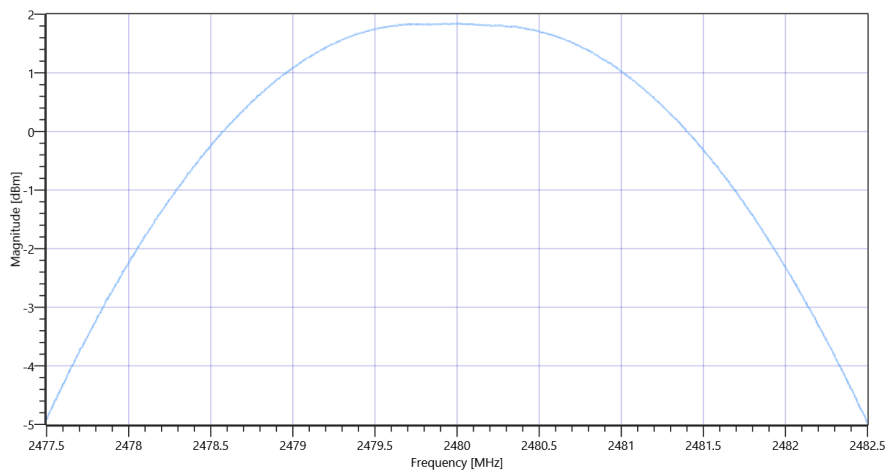
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	1.75	dBm	INFO
Ref. Frequency	---	---	2480.200	MHz	INFO

### READ SA SETTINGS:

RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]	11.75   10.65   20
Start [MHz]   Stop [MHz]	2477.500   2482.500
RBW [MHz]   VBW [MHz]	3.000000   3.000000
Detector   TraceMode	POS   MAXH
Sweep: Time [ms]   Count   Points per Section   Type	1000   10   1001   SWE

### RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Peak Power	---	---	1.84	dBm	INFO
Peak Power	---	---	1.527566	mW	INFO
Frequency at Peak	---	---	2480.025	MHz	INFO



Common 2G4 # Peak output power 3MHz-3MHz ~ BT LE 1 Msps

General verdict

**PASS**



## Common 2G4 # Peak output power 3MHz/3MHz ~ BT LE 1 Msps

Test References	
TC Start	22.08.2022 15:58:37
Ambit Temp [°C]   Humidity [rel%]	29.4   33
System Version	3.3.0.2
Test Specification	Common 2G4 - none
Test Method	
TC Version	0.0.1
My Description	Peak Output Power conducted 3MHz/3MHz - BT LE 1 Msps
Add. Information	

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	False   TXpayload 255   RXpayload 255
Longrange S8 supported	False   TXpayload 255   RXpayload 255
Longrange S2 supported	False   TXpayload 255   RXpayload 255
Signaling Settings	None   HCI   1   2400   None   S1   None   On
Signaling RF Settings	RF1com   0   0   On
User Interaction	No
Switch Matrix & Pathcompensation enabled	Yes

Test Parameter	
Technology to test	BT LE 1 Msps
Antenna Port used	1
Temperature	nom
Voltage	nom
Frequency low to test	False   Freq [MHz] 2402
Frequency mid to test	True   Freq [MHz] 2440
Frequency high to test	False   Freq [MHz] 2480
Auto Control enabled Power Supply   Climatic Box	No   No
Additional Path Loss [dB]	0.5
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer

Test Equipment	
Signal analyzer,Rohde&Schwarz,FSV-30,1321.3008K30/103809,3.70	
Signaling unit,Rohde&Schwarz,CMW,1201.0002k75/102550,4.0.62	
Switch matrix,CTCadvanced,RSM-1 NI DAQ,29655273,NI	

## Test at TX 2440 MHz

### RESULT: Reference Power cond.

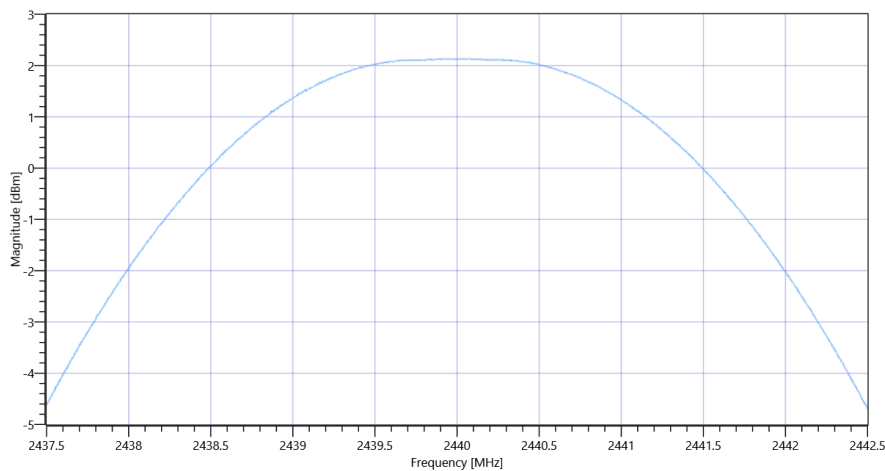
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	2.01	dBm	INFO
Ref. Frequency	---	---	2440.300	MHz	INFO

### READ SA SETTINGS:

RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]	12.01   10.6   20
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	---	---	2.14	dBm	INFO
Peak Power	---	---	1.636817	mW	INFO
Frequency at Peak	---	---	2440.075	MHz	INFO



Common 2G4 # Peak output power 3MHz-3MHz ~ BT LE 1 Msps

General verdict

**PASS**

## Common 2G4 # Peak output power 3MHz/3MHz ~ BT LE 1 Msps

Test References	
TC Start	22.08.2022 15:44:44
Ambit Temp [°C]   Humidity [rel%]	29.6   34
System Version	3.3.0.2
Test Specification	Common 2G4 - none
Test Method	
TC Version	0.0.1
My Description	Peak Output Power conducted 3MHz/3MHz - BT LE 1 Msps
Add. Information	

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	False   TXpayload 255   RXpayload 255
Longrange S8 supported	False   TXpayload 255   RXpayload 255
Longrange S2 supported	False   TXpayload 255   RXpayload 255
Signaling Settings	None   HCI   1   2400   None   S1   None   On
Signaling RF Settings	RF1com   0   0   On
User Interaction	No
Switch Matrix & Pathcompensation enabled	Yes

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	False   Freq [MHz] 2440
Frequency high to test	False   Freq [MHz] 2480
Auto Control enabled Power Supply   Climatic Box	No   No
Additional Path Loss [dB]	0.5
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer

Test Equipment	
Signal analyzer,Rohde&Schwarz,FSV-30,1321.3008K30/103809,3.70	
Signaling unit,Rohde&Schwarz,CMW,1201.0002k75/102550,4.0.62	
Switch matrix,CTCadvanced,RSM-1 NI DAQ,29655273,NI	

## Test at TX 2402 MHz

### RESULT: Reference Power cond.

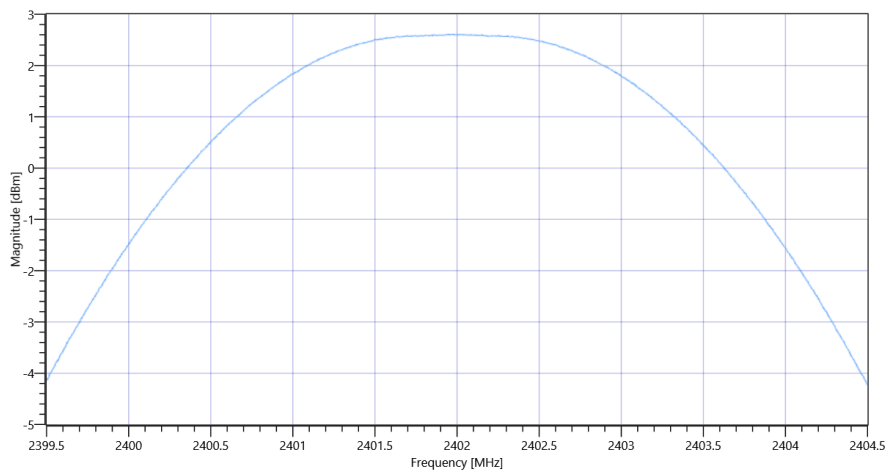
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	2.49	dBm	INFO
Ref. Frequency	---	---	2401.800	MHz	INFO

### READ SA SETTINGS:

RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]	12.49   10.59   20
Start [MHz]   Stop [MHz]	2399.500   2404.500
RBW [MHz]   VBW [MHz]	3.000000   3.000000
Detector   TraceMode	POS   MAXH
Sweep: Time [ms]   Count   Points per Section   Type	1000   10   1001   SWE

### RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Peak Power	---	---	2.61	dBm	INFO
Peak Power	---	---	1.823896	mW	INFO
Frequency at Peak	---	---	2402.015	MHz	INFO



Common 2G4 # Peak output power 3MHz-3MHz ~ BT LE 1 Msps

General verdict

**PASS**

## FCC 15.247 # Peak power spectral density DTS ~ BT LE 1 Msps

Test References	
TC Start	22.08.2022 16:38:10
Ambit Temp [°C]   Humidity [rel%]	29.5   33
System Version	3.3.0.2
Test Specification	FCC 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	

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	False   TXpayload 255   RXpayload 255
Longrange S8 supported	False   TXpayload 255   RXpayload 255
Longrange S2 supported	False   TXpayload 255   RXpayload 255
Signaling Settings	None   HCI   1   2400   None   S1   None   On
Signaling RF Settings	RF1com   0   0   On
User Interaction	No
Switch Matrix & Pathcompensation enabled	Yes

Test Parameter	
Technology to test	BT LE 1 Msps
Antenna Port used	1
Temperature	nom
Voltage	nom
Frequency low to test	False   Freq [MHz] 2402
Frequency mid to test	False   Freq [MHz] 2440
Frequency high to test	True   Freq [MHz] 2480
Auto Control enabled Power Supply   Climatic Box	No   No
Additional Path Loss [dB]	0.5
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer

Test Equipment	
Signal analyzer,Rohde&Schwarz,FSV-30,1321.3008K30/103809,3.70	
Signaling unit,Rohde&Schwarz,CMW,1201.0002k75/102550,4.0.62	
Switch matrix,CTCadvanced,RSM-1 NI DAQ,29655273,NI	

## Test at TX 2480 MHz

### RESULT: Reference Power cond.

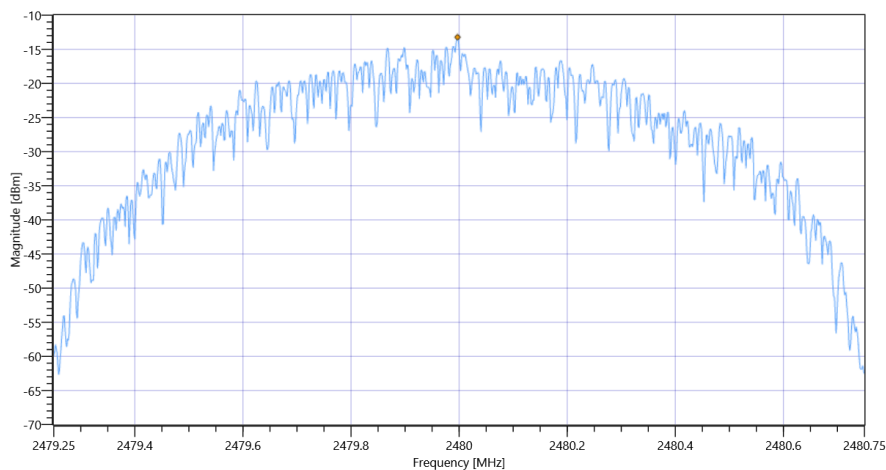
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	1.68	dBm	INFO
Ref. Frequency	---	---	2480.300	MHz	INFO

### READ SA SETTINGS:

RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]	6.68   10.65   15
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	-13.22	dBm/3KHz	PASS



FCC 15.247 # Peak power spectral density DTS ~ BT LE 1 Msps

General verdict

PASS

## FCC 15.247 # Peak power spectral density DTS ~ BT LE 1 Msps

Test References	
TC Start	22.08.2022 16:00:38
Ambit Temp [°C]   Humidity [rel%]	29.4   33
System Version	3.3.0.2
Test Specification	FCC 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	

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	False   TXpayload 255   RXpayload 255
Longrange S8 supported	False   TXpayload 255   RXpayload 255
Longrange S2 supported	False   TXpayload 255   RXpayload 255
Signaling Settings	None   HCI   1   2400   None   S1   None   On
Signaling RF Settings	RF1com   0   0   On
User Interaction	No
Switch Matrix & Pathcompensation enabled	Yes

Test Parameter	
Technology to test	BT LE 1 Msps
Antenna Port used	1
Temperature	nom
Voltage	nom
Frequency low to test	False   Freq [MHz] 2402
Frequency mid to test	True   Freq [MHz] 2440
Frequency high to test	False   Freq [MHz] 2480
Auto Control enabled Power Supply   Climatic Box	No   No
Additional Path Loss [dB]	0.5
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer

Test Equipment	
Signal analyzer,Rohde&Schwarz,FSV-30,1321.3008K30/103809,3.70	
Signaling unit,Rohde&Schwarz,CMW,1201.0002k75/102550,4.0.62	
Switch matrix,CTCadvanced,RSM-1 NI DAQ,29655273,NI	

## Test at TX 2440 MHz

### RESULT: Reference Power cond.

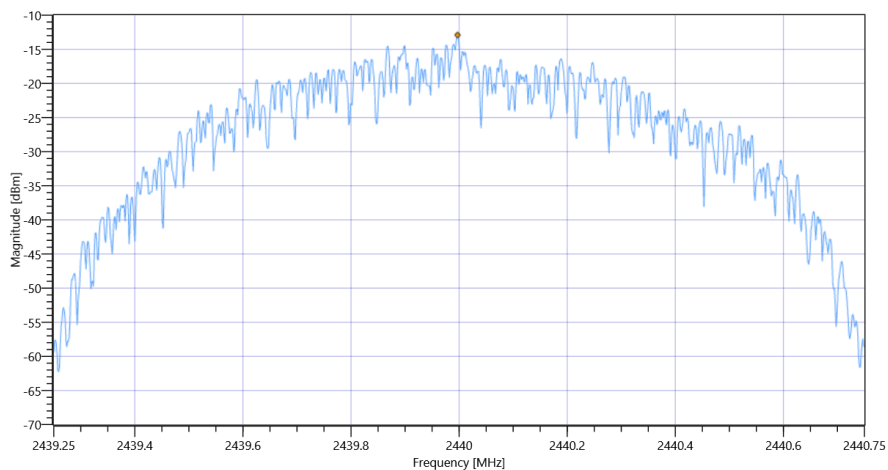
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	1.98	dBm	INFO
Ref. Frequency	---	---	2440.200	MHz	INFO

### READ SA SETTINGS:

RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]	6.98   10.6   15
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	-12.9	dBm/3KHz	PASS



FCC 15.247 # Peak power spectral density DTS ~ BT LE 1 Msps

General verdict

PASS



## FCC 15.247 # Peak power spectral density DTS ~ BT LE 1 Msps

Test References	
TC Start	22.08.2022 15:46:46
Ambit Temp [°C]   Humidity [rel%]	29.6   33
System Version	3.3.0.2
Test Specification	FCC 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	

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	False   TXpayload 255   RXpayload 255
Longrange S8 supported	False   TXpayload 255   RXpayload 255
Longrange S2 supported	False   TXpayload 255   RXpayload 255
Signaling Settings	None   HCI   1   2400   None   S1   None   On
Signaling RF Settings	RF1com   0   0   On
User Interaction	No
Switch Matrix & Pathcompensation enabled	Yes

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	False   Freq [MHz] 2440
Frequency high to test	False   Freq [MHz] 2480
Auto Control enabled Power Supply   Climatic Box	No   No
Additional Path Loss [dB]	0.5
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer

Test Equipment	
Signal analyzer,Rohde&Schwarz,FSV-30,1321.3008K30/103809,3.70	
Signaling unit,Rohde&Schwarz,CMW,1201.0002k75/102550,4.0.62	
Switch matrix,CTCadvanced,RSM-1 NI DAQ,29655273,NI	

## Test at TX 2402 MHz

### RESULT: Reference Power cond.

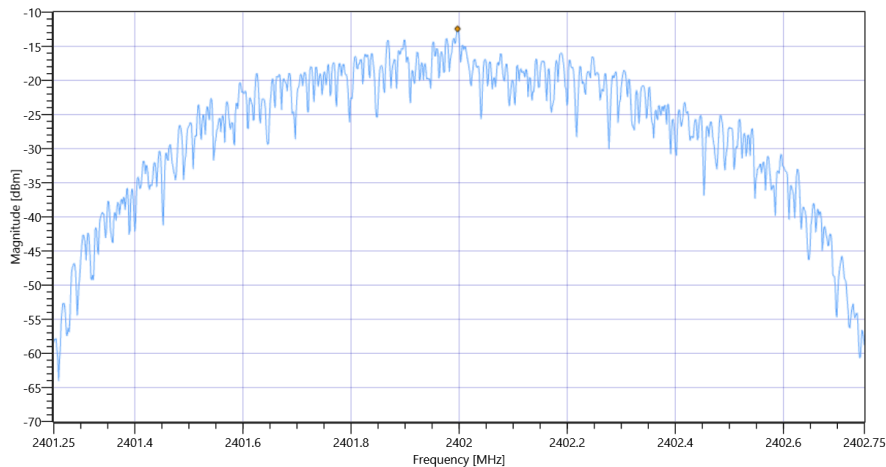
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	2.50	dBm	INFO
Ref. Frequency	---	---	2401.700	MHz	INFO

### READ SA SETTINGS:

RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]	7.50   10.59   15
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	-12.44	dBm/3KHz	PASS



FCC 15.247 # Peak power spectral density DTS ~ BT LE 1 Msps

General verdict

PASS

## FCC 15.247 # TX spurious conducted 20dBc ~ BT LE 1 Msps

Test References	
TC Start	22.08.2022 16:39:53
Ambit Temp [°C]   Humidity [rel%]	29.5   33
System Version	3.3.0.2
Test Specification	FCC 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 Msps
Add. Information	

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	False   TXpayload 255   RXpayload 255
Longrange S8 supported	False   TXpayload 255   RXpayload 255
Longrange S2 supported	False   TXpayload 255   RXpayload 255
Signaling Settings	None   HCI   1   2400   None   S1   None   On
Signaling RF Settings	RF1com   0   0   On
User Interaction	No
Switch Matrix & Pathcompensation enabled	Yes

Test Parameter	
Technology to test	BT LE 1 Msps
Antenna Port used	1
Temperature	nom
Voltage	nom
Frequency low to test	False   Freq [MHz] 2402
Frequency mid to test	False   Freq [MHz] 2440
Frequency high to test	True   Freq [MHz] 2480
Auto Control enabled Power Supply   Climatic Box	No   No
Additional Path Loss [dB]	0.5
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer

Test Equipment	
Signal analyzer,Rohde&Schwarz,FSV-30,1321.3008K30/103809,3.70	
Signaling unit,Rohde&Schwarz,CMW,1201.0002k75/102550,4.0.62	
Switch matrix,CTCadvanced,RSM-1 NI DAQ,29655273,NI	

## Test at TX 2480 MHz

### RESULT: Reference Power cond.

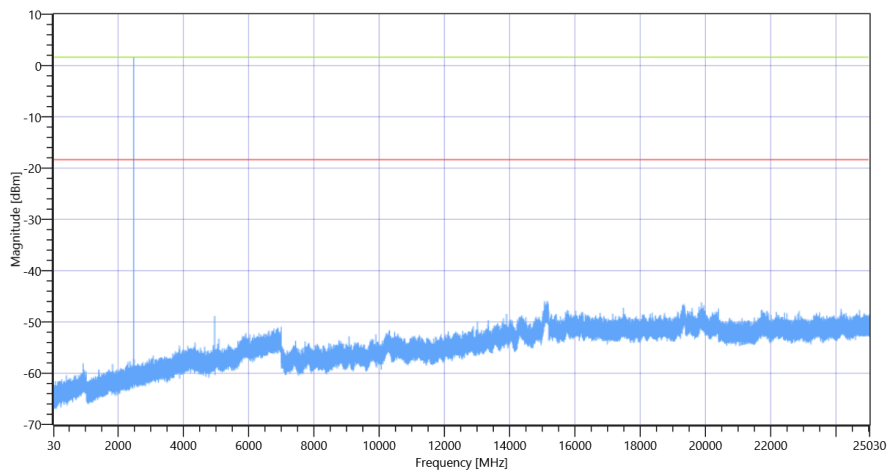
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	1.71	dBm	INFO
Ref. Frequency	---	---	2480.200	MHz	INFO

### READ SA SETTINGS:

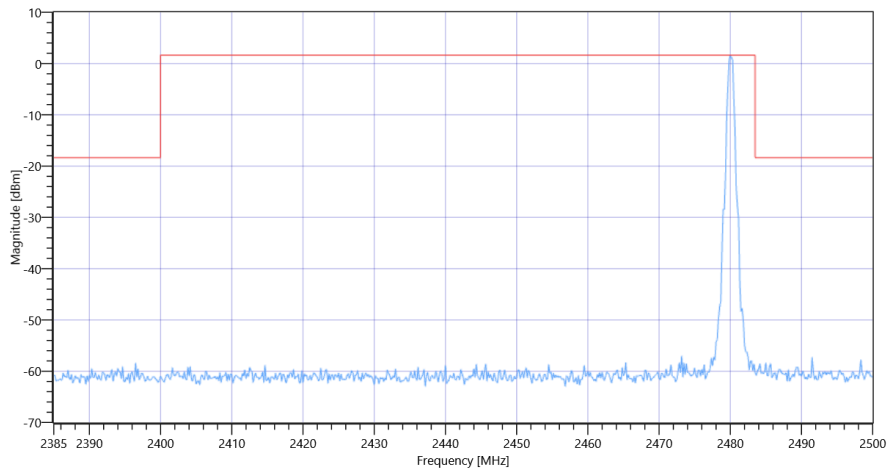
RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]	1.71   0   20
Start [MHz]   Stop [MHz]	24530.000   25030.000
RBW [MHz]   VBW [MHz]	0.100000   0.300000
Detector   TraceMode	POS   MAXH
Sweep: Time [ms]   Count   Points per Section   Type	200   25   3001   SWE

### RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Reference @ 2480.00 MHz	---	---	1.62	dBm	INFO
No peaks detected	---	---			PASS
Lowest margin to limit 15073.667 MHz	0	---	27.6	dB	INFO



FCC 15.247 # TX spurious conducted 20dBc ~ BT LE 1 Msps 2480



General verdict

PASS

## FCC 15.247 # TX spurious conducted 20dBc ~ BT LE 1 Msps

Test References	
TC Start	22.08.2022 16:02:20
Ambit Temp [°C]   Humidity [rel%]	29.4   33
System Version	3.3.0.2
Test Specification	FCC 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 Msps
Add. Information	

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	False   TXpayload 255   RXpayload 255
Longrange S8 supported	False   TXpayload 255   RXpayload 255
Longrange S2 supported	False   TXpayload 255   RXpayload 255
Signaling Settings	None   HCI   1   2400   None   S1   None   On
Signaling RF Settings	RF1com   0   0   On
User Interaction	No
Switch Matrix & Pathcompensation enabled	Yes

Test Parameter	
Technology to test	BT LE 1 Msps
Antenna Port used	1
Temperature	nom
Voltage	nom
Frequency low to test	False   Freq [MHz] 2402
Frequency mid to test	True   Freq [MHz] 2440
Frequency high to test	False   Freq [MHz] 2480
Auto Control enabled Power Supply   Climatic Box	No   No
Additional Path Loss [dB]	0.5
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer

Test Equipment	
Signal analyzer,Rohde&Schwarz,FSV-30,1321.3008K30/103809,3.70	
Signaling unit,Rohde&Schwarz,CMW,1201.0002k75/102550,4.0.62	
Switch matrix,CTCadvanced,RSM-1 NI DAQ,29655273,NI	

## Test at TX 2440 MHz

### RESULT: Reference Power cond.

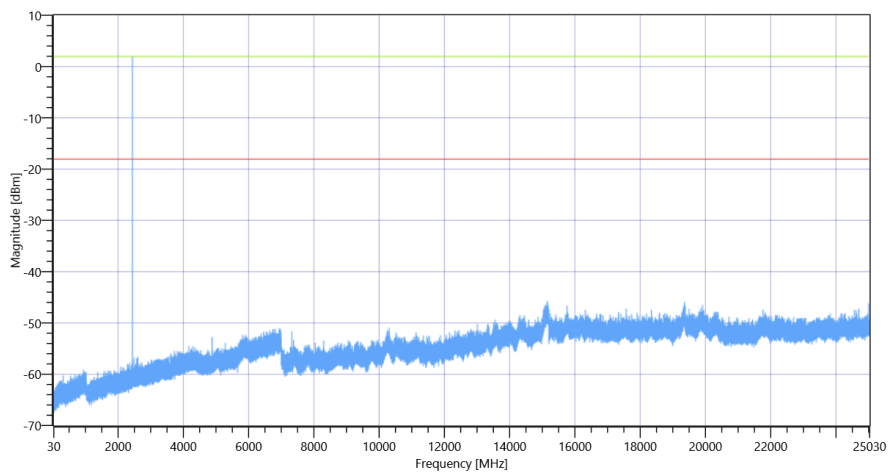
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	2.01	dBm	INFO
Ref. Frequency	---	---	2440.200	MHz	INFO

### READ SA SETTINGS:

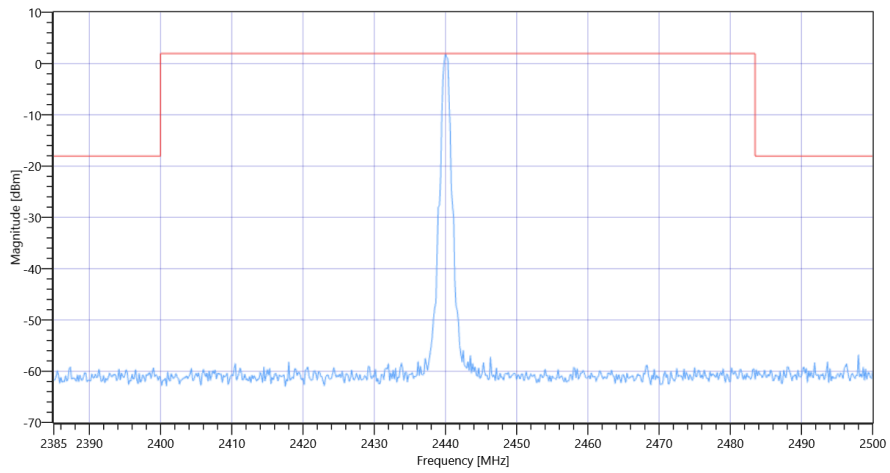
RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]	2.01   0   20
Start [MHz]   Stop [MHz]	24530.000   25030.000
RBW [MHz]   VBW [MHz]	0.100000   0.300000
Detector   TraceMode	POS   MAXH
Sweep: Time [ms]   Count   Points per Section   Type	200   25   3001   SWE

### RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Reference @ 2440.00 MHz	---	---	1.94	dBm	INFO
No peaks detected	---	---			PASS
Lowest margin to limit 15151.5 MHz	0	---	27.68	dB	INFO



FCC 15.247 # TX spurious conducted 20dBc ~ BT LE 1 Msps 2440



FCC 15.247 # TX spurious conducted 20dBc ~ BT LE 1 Msps 2440

General verdict

PASS



## FCC 15.247 # TX spurious conducted 20dBc ~ BT LE 1 Msps

Test References	
TC Start	22.08.2022 15:48:27
Ambit Temp [°C]   Humidity [rel%]	29.5   33
System Version	3.3.0.2
Test Specification	FCC 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 Msps
Add. Information	

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	False   TXpayload 255   RXpayload 255
Longrange S8 supported	False   TXpayload 255   RXpayload 255
Longrange S2 supported	False   TXpayload 255   RXpayload 255
Signaling Settings	None   HCI   1   2400   None   S1   None   On
Signaling RF Settings	RF1com   0   0   On
User Interaction	No
Switch Matrix & Pathcompensation enabled	Yes

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	False   Freq [MHz] 2440
Frequency high to test	False   Freq [MHz] 2480
Auto Control enabled Power Supply   Climatic Box	No   No
Additional Path Loss [dB]	0.5
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer

Test Equipment	
Signal analyzer,Rohde&Schwarz,FSV-30,1321.3008K30/103809,3.70	
Signaling unit,Rohde&Schwarz,CMW,1201.0002k75/102550,4.0.62	
Switch matrix,CTCadvanced,RSM-1 NI DAQ,29655273,NI	

## Test at TX 2402 MHz

### RESULT: Reference Power cond.

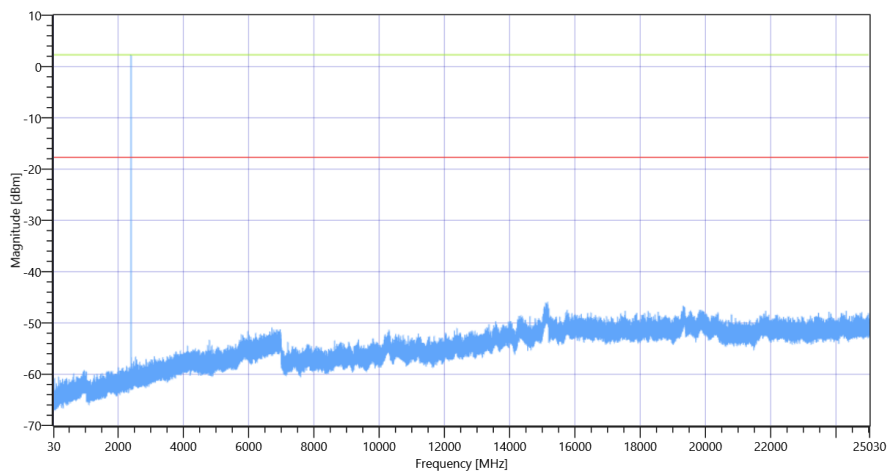
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	2.48	dBm	INFO
Ref. Frequency	---	---	2402.300	MHz	INFO

### READ SA SETTINGS:

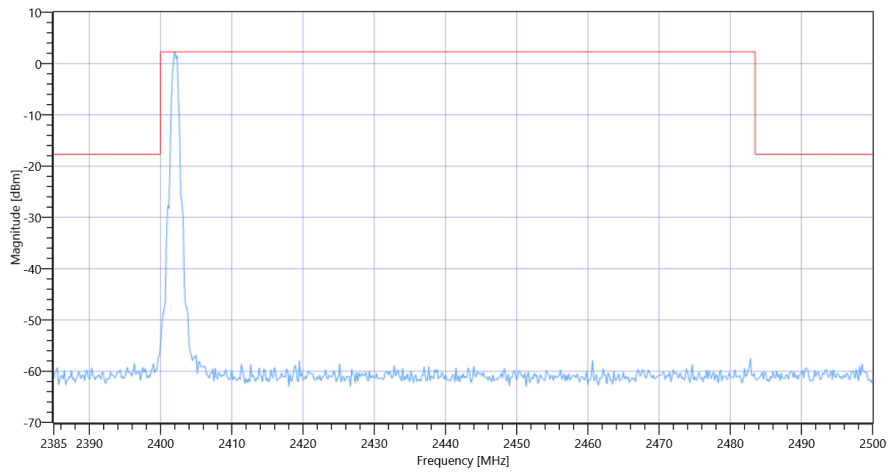
RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]	2.48   0   20
Start [MHz]   Stop [MHz]	24530.000   25030.000
RBW [MHz]   VBW [MHz]	0.100000   0.300000
Detector   TraceMode	POS   MAXH
Sweep: Time [ms]   Count   Points per Section   Type	200   25   3001   SWE

### RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Reference @ 2402.00 MHz	---	---	2.32	dBm	INFO
No peaks detected	---	---			PASS
Lowest margin to limit 15163.5 MHz	0	---	28.24	dB	INFO



FCC 15.247 # TX spurious conducted 20dBc ~ BT LE 1 Msps 2402



FCC 15.247 # TX spurious conducted 20dBc ~ BT LE 1 MspS 2402

General verdict

PASS

- END OF DOCUMENT -