

Measurement Results

No.1-4095/22-01-02_Annex_MR

Test logging

This document is electronically signed and valid without handwritten signature.
For verification of the electronic signatures, the public keys can be requested at the testing laboratory.

Document authorized:

Jörg Warken
Lab Manager
Radio Communications

Table of Content

EUT Information	3
Common 2G4 # Peak output power 3MHz/3MHz ~ BT LE 1 Msps	4
Common 2G4 # Peak output power 3MHz/3MHz ~ BT LE 2 Msps	8
FCC 15.247 # Maximum peak conducted output power DTS ~ BT LE 1 Msps	12
FCC 15.247 # Maximum peak conducted output power DTS ~ BT LE 2 Msps	19
FCC 15.247 # Bandwidth 6dB DTS ~ BT LE 1 Msps	26
FCC 15.247 # Bandwidth 6dB DTS ~ BT LE 2 Msps	30
FCC 15.247, ISED RSS247 # Bandwidth 99PCT and 20dB ~ BT LE 1 Msps	34
FCC 15.247, ISED RSS247 # Bandwidth 99PCT and 20dB ~ BT LE 2 Msps	44
FCC 15.247 # Peak power spectral density DTS ~ BT LE 1 Msps	54
FCC 15.247 # Peak power spectral density DTS ~ BT LE 2 Msps	58
FCC 15.247 # Restricted band edge conducted peak DTS video avg (eirp) ~ BT LE 1 Msps	62
FCC 15.247 # Restricted band edge conducted peak DTS video avg (eirp) ~ BT LE 2 Msps	66
FCC 15.247 # TX spurious conducted 20dBc ~ BT LE 1 Msps	70
FCC 15.247 # TX spurious conducted 20dBc ~ BT LE 2 Msps	77

EUT Information

EUT DEFINITION	
Manufacturer	Sagemcom
Type	DIW377 UHD ALT US
Serial Number	Sample #1
Setup Number	1.0
Version SW	NI
Version FW	NI
Version HW	NI
Comment 1	
Comment 2	
Temperature [°C] Min	20
Temperature [°C] Nom	20
Temperature [°C] Max	20
Voltage [V] Min	12
Voltage [V] Nom	12
Voltage [V] Max	12

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

Test References	
TC Start	31.05.2022 11:34:44
Ambit Temp [°C] Humidity [rel%]	24.8 31
System Version	3.1.0.0
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	True TXpayload 255 RXpayload 255
Longrange S8 supported	False TXpayload 255 RXpayload 255
Longrange S2 supported	False TXpayload 255 RXpayload 255
Signaling Settings	WS_USB_RS232 HCI 15 115200 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	True Freq [MHz] 2440
Frequency high to test	True Freq [MHz] 2480
Auto Control enabled Power Supply Climatic Box	No No
Additional Path Loss [dB]	0
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.

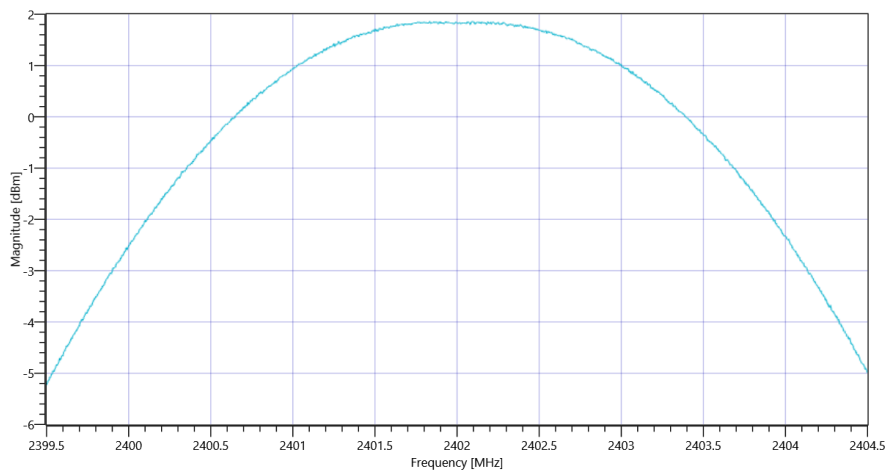
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	1.56	dBm	INFO
Ref. Frequency	---	---	2402.200	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	11.56 10.09 20
Start [MHz] Stop [MHz]	2399.500 2404.500
RBW [MHz] VBW [MHz]	3.000000 3.000000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	1000 10 1001 SWE

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Peak Power	---	---	1.86	dBm	INFO
Peak Power	---	---	1.534617	mW	INFO
Frequency at Peak	---	---	2401.935	MHz	INFO



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

Test at TX 2440 MHz

RESULT: Reference Power cond.

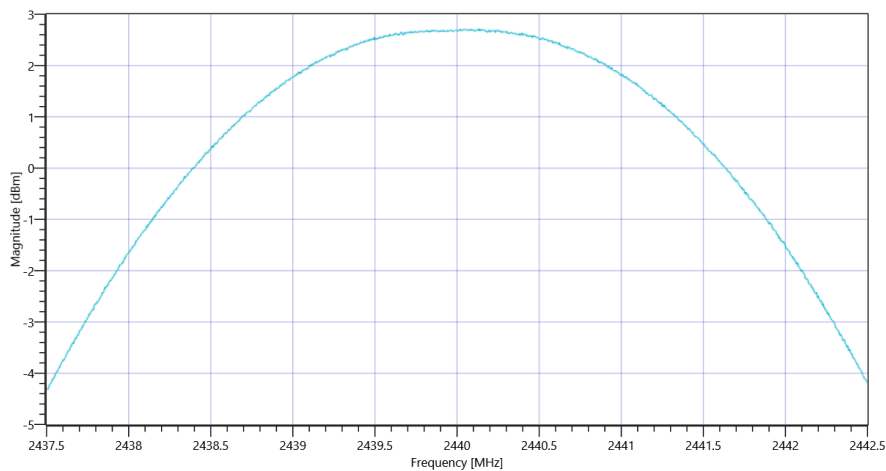
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	2.35	dBm	INFO
Ref. Frequency	---	---	2439.800	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	12.35 10.1 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	---	---	2.72	dBm	INFO
Peak Power	---	---	1.870682	mW	INFO
Frequency at Peak	---	---	2440.135	MHz	INFO



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

Test at TX 2480 MHz

RESULT: Reference Power cond.

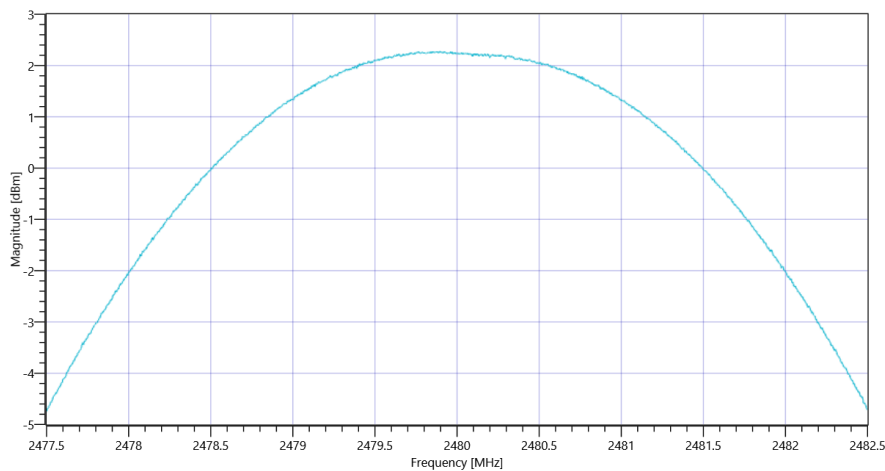
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	2.00	dBm	INFO
Ref. Frequency	---	---	2479.800	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	12.00 10.15 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	---	---	2.27	dBm	INFO
Peak Power	---	---	1.686553	mW	INFO
Frequency at Peak	---	---	2479.895	MHz	INFO



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

General verdict

no verdict

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

Test References	
TC Start	31.05.2022 11:57:11
Ambit Temp [°C] Humidity [rel%]	24.6 32
System Version	3.1.0.0
Test Specification	Common 2G4 - none
Test Method	
TC Version	0.0.1
My Description	Peak Output Power conducted 3MHz/3MHz - BT LE 2 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	True TXpayload 255 RXpayload 255
Longrange S8 supported	False TXpayload 255 RXpayload 255
Longrange S2 supported	False TXpayload 255 RXpayload 255
Signaling Settings	WS_USB_RS232 HCI 15 115200 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 2 Msps
Antenna Port used	1
Temperature	nom
Voltage	nom
Frequency low to test	True Freq [MHz] 2404
Frequency mid to test	True Freq [MHz] 2440
Frequency high to test	True Freq [MHz] 2478
Auto Control enabled Power Supply Climatic Box	No No
Additional Path Loss [dB]	0
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 2404 MHz

RESULT: Reference Power cond.

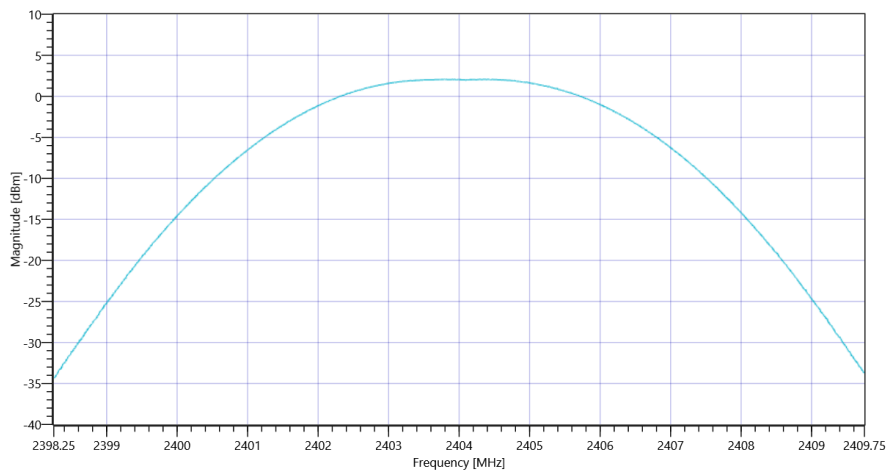
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	1.78	dBm	INFO
Ref. Frequency	---	---	2404.500	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	11.78 10.1 20
Start [MHz] Stop [MHz]	2398.250 2409.750
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	---	---	2.07	dBm	INFO
Peak Power	---	---	1.610646	mW	INFO
Frequency at Peak	---	---	2404.414	MHz	INFO



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

Test at TX 2440 MHz

RESULT: Reference Power cond.

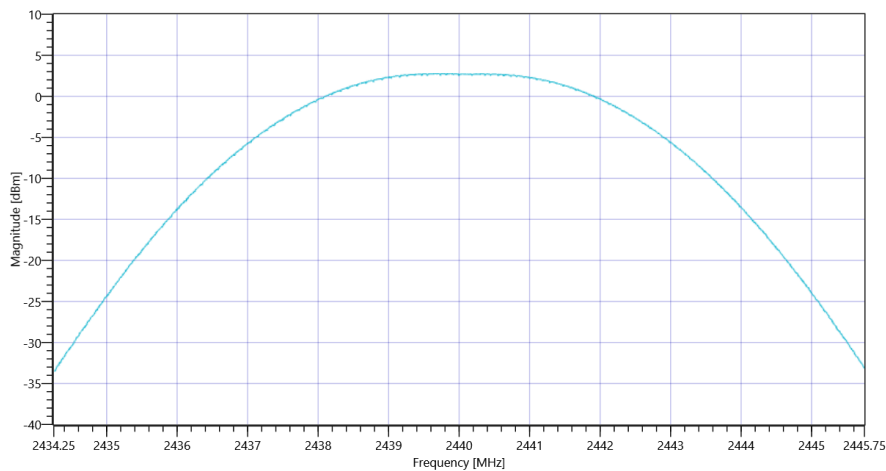
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	2.47	dBm	INFO
Ref. Frequency	---	---	2440.500	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	12.47 10.1 20
Start [MHz] Stop [MHz]	2434.250 2445.750
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	---	---	2.77	dBm	INFO
Peak Power	---	---	1.892344	mW	INFO
Frequency at Peak	---	---	2439.747	MHz	INFO



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

Test at TX 2478 MHz

RESULT: Reference Power cond.

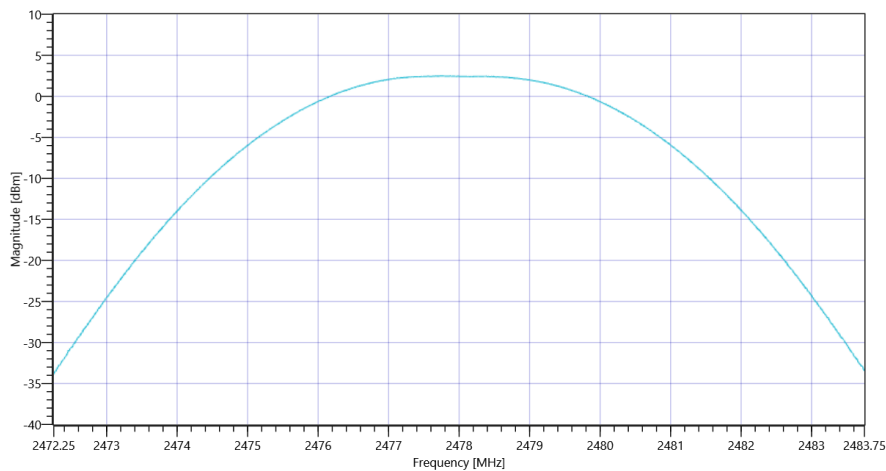
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	2.17	dBm	INFO
Ref. Frequency	---	---	2478.500	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	12.17 10.15 20
Start [MHz] Stop [MHz]	2472.250 2483.750
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	---	---	2.48	dBm	INFO
Peak Power	---	---	1.770109	mW	INFO
Frequency at Peak	---	---	2477.747	MHz	INFO



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

General verdict

no verdict

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

Test References	
TC Start	31.05.2022 11:36:18
Ambit Temp [°C] Humidity [rel%]	24.8 31
System Version	3.1.0.0
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	True TXpayload 255 RXpayload 255
Longrange S8 supported	False TXpayload 255 RXpayload 255
Longrange S2 supported	False TXpayload 255 RXpayload 255
Signaling Settings	WS_USB_RS232 HCI 15 115200 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	True Freq [MHz] 2440
Frequency high to test	True Freq [MHz] 2480
Auto Control enabled Power Supply Climatic Box	No No
Additional Path Loss [dB]	0
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.

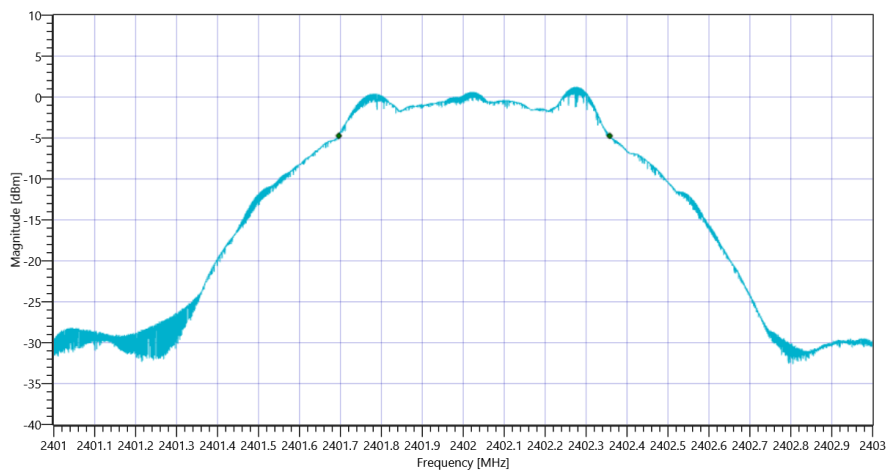
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	1.63	dBm	INFO
Ref. Frequency	---	---	2402.200	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	6.63 10.09 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)	---	---	662	kHz	INFO



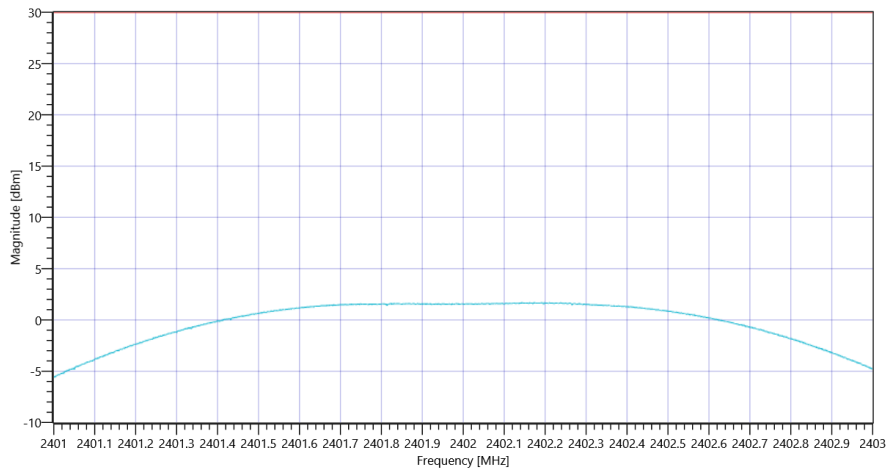
FCC 15.247 # Maximum peak conducted output power DTS ~ BT LE 1 Msps DTS BW

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	11.63 10.09 20
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	1.68	dBm	PASS
Peak Power	---	1000	1.472313	mW	PASS
Frequency at Peak	---	---	2402.188	MHz	INFO



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

Test at TX 2440 MHz

RESULT: Reference Power cond.

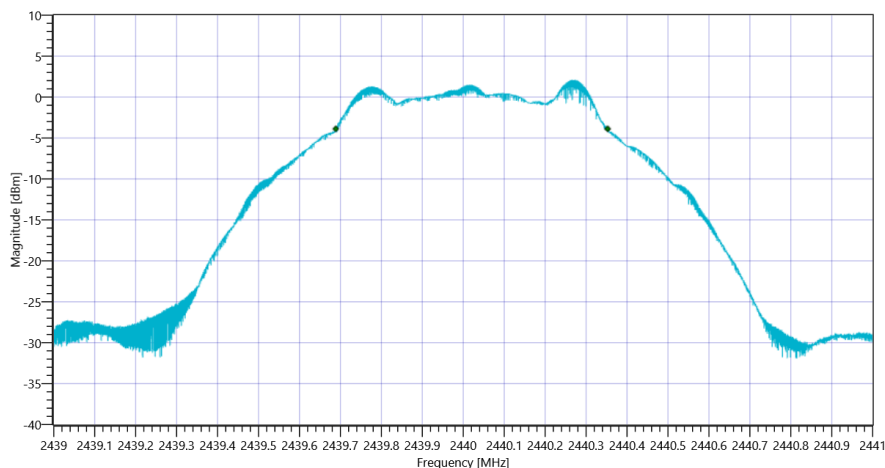
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	2.32	dBm	INFO
Ref. Frequency	---	---	2439.800	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	7.32 10.1 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)	---	---	664	kHz	INFO



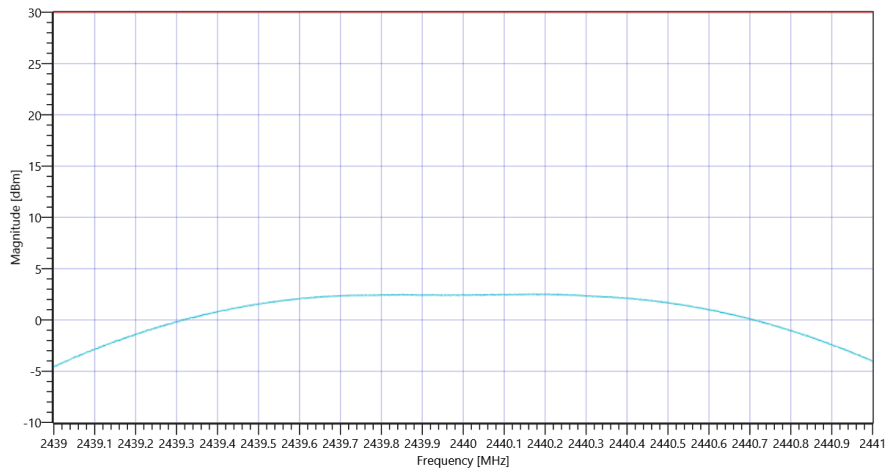
FCC 15.247 # Maximum peak conducted output power DTS ~ BT LE 1 Msps DTS BW

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	12.32 10.1 20
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	2.53	dBm	PASS
Peak Power	---	1000	1.790606	mW	PASS
Frequency at Peak	---	---	2440.192	MHz	INFO



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

Test at TX 2480 MHz

RESULT: Reference Power cond.

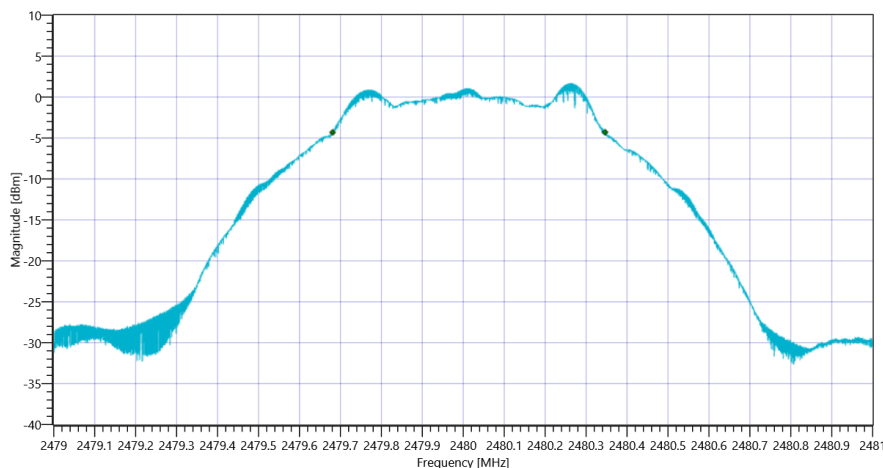
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	1.99	dBm	INFO
Ref. Frequency	---	---	2479.800	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	6.99 10.15 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)	---	---	665	kHz	INFO



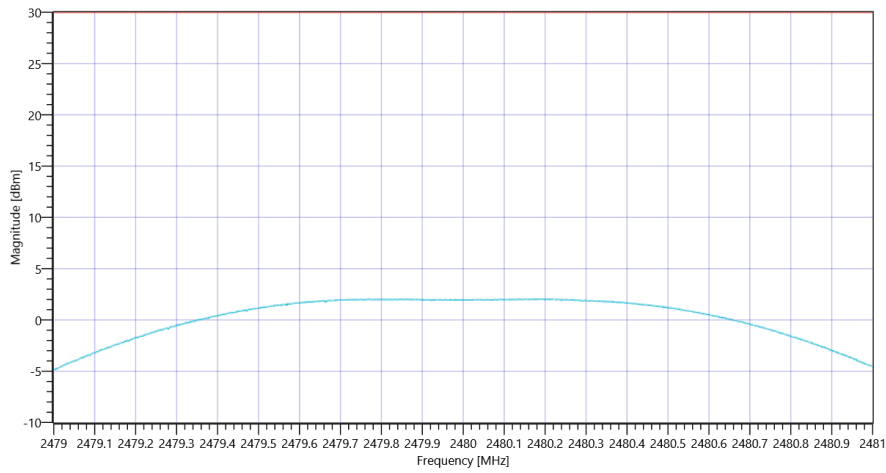
FCC 15.247 # Maximum peak conducted output power DTS ~ BT LE 1 Msps DTS BW

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	11.99 10.15 20
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	2.04	dBm	PASS
Peak Power	---	1000	1.599558	mW	PASS
Frequency at Peak	---	---	2480.176	MHz	INFO



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

General verdict

no verdict

FCC 15.247 # Maximum peak conducted output power DTS ~ BT LE 2 Msps

Test References	
TC Start	31.05.2022 11:58:46
Ambit Temp [°C] Humidity [rel%]	24.7 32
System Version	3.1.0.0
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 2 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	True TXpayload 255 RXpayload 255
Longrange S8 supported	False TXpayload 255 RXpayload 255
Longrange S2 supported	False TXpayload 255 RXpayload 255
Signaling Settings	WS_USB_RS232 HCI 15 115200 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 2 Msps
Antenna Port used	1
Temperature	nom
Voltage	nom
Frequency low to test	True Freq [MHz] 2404
Frequency mid to test	True Freq [MHz] 2440
Frequency high to test	True Freq [MHz] 2478
Auto Control enabled Power Supply Climatic Box	No No
Additional Path Loss [dB]	0
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 2404 MHz

RESULT: Reference Power cond.

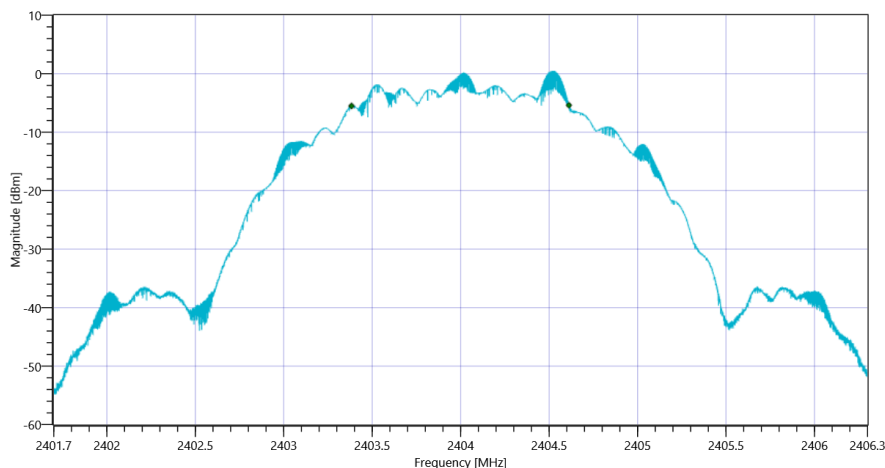
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	1.68	dBm	INFO
Ref. Frequency	---	---	2404.500	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	6.68 10.1 15
Start [MHz] Stop [MHz]	2401.700 2406.300
RBW [MHz] VBW [MHz]	0.100000 0.300000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	50 200 10001 SWE

DTS Bandwidth

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
DTS Bandwidth (6dB)	---	---	1229	kHz	INFO



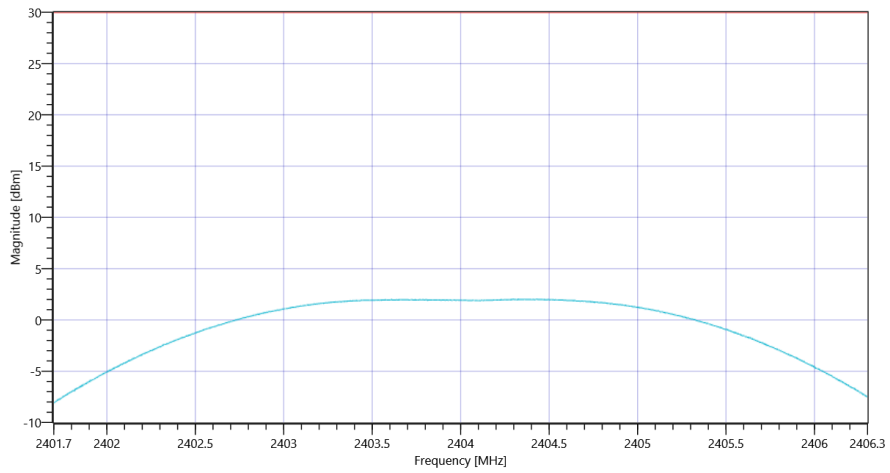
FCC 15.247 # Maximum peak conducted output power DTS ~ BT LE 2 Msps DTS BW

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	11.68 10.1 20
Start [MHz] Stop [MHz]	2401.700 2406.300
RBW [MHz] VBW [MHz]	2.000000 5.000000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	50 200 1001 SWE

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Peak Power	---	30.00	2.01	dBm	PASS
Peak Power	---	1000	1.588547	mW	PASS
Frequency at Peak	---	---	2404.432	MHz	INFO



FCC 15.247 # Maximum peak conducted output power DTS ~ BT LE 2 Msps

Test at TX 2440 MHz

RESULT: Reference Power cond.

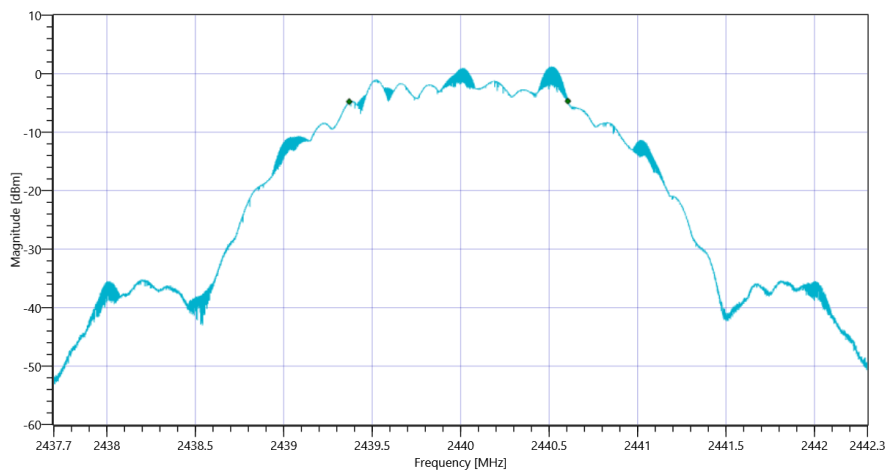
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	2.42	dBm	INFO
Ref. Frequency	---	---	2439.500	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	7.42 10.1 15
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)	---	---	1236	kHz	INFO



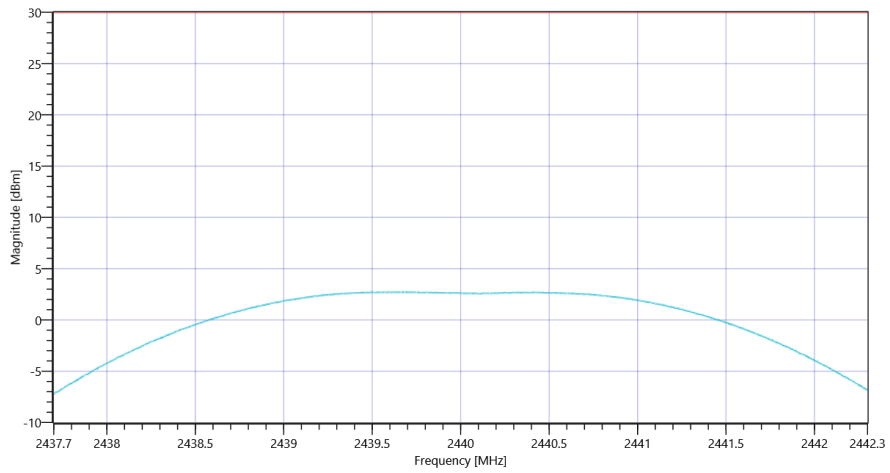
FCC 15.247 # Maximum peak conducted output power DTS ~ BT LE 2 Msps DTS BW

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	12.42 10.1 20
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	2.73	dBm	PASS
Peak Power	---	1000	1.874995	mW	PASS
Frequency at Peak	---	---	2439.697	MHz	INFO



FCC 15.247 # Maximum peak conducted output power DTS ~ BT LE 2 Msps

Test at TX 2478 MHz

RESULT: Reference Power cond.

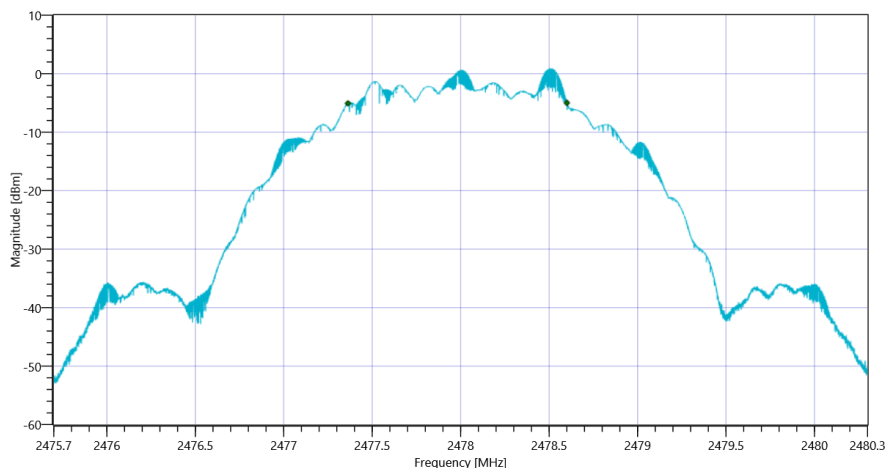
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	2.15	dBm	INFO
Ref. Frequency	---	---	2478.500	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	7.15 10.15 15
Start [MHz] Stop [MHz]	2475.700 2480.300
RBW [MHz] VBW [MHz]	0.100000 0.300000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	50 200 10001 SWE

DTS Bandwidth

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
DTS Bandwidth (6dB)	---	---	1237	kHz	INFO



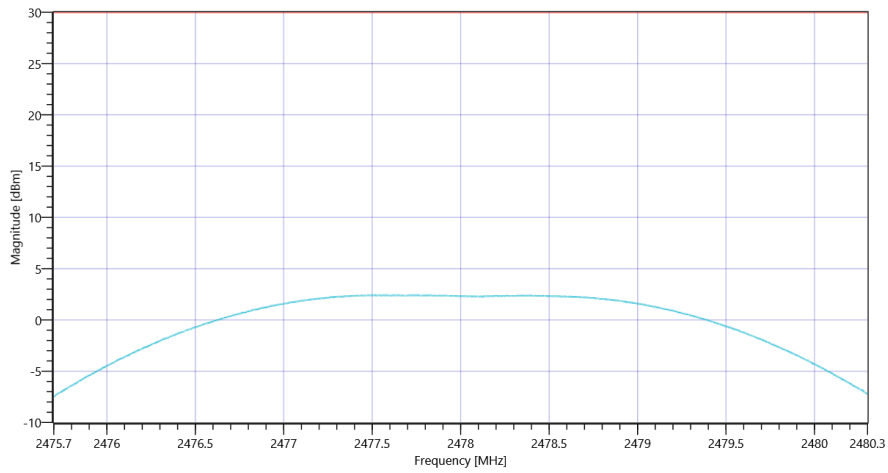
FCC 15.247 # Maximum peak conducted output power DTS ~ BT LE 2 Msps DTS BW

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	12.15 10.15 20
Start [MHz] Stop [MHz]	2475.700 2480.300
RBW [MHz] VBW [MHz]	2.000000 5.000000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	50 200 1001 SWE

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Peak Power	---	30.00	2.43	dBm	PASS
Peak Power	---	1000	1.749847	mW	PASS
Frequency at Peak	---	---	2477.761	MHz	INFO



FCC 15.247 # Maximum peak conducted output power DTS ~ BT LE 2 Msps

General verdict

no verdict

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

Test References	
TC Start	31.05.2022 11:38:48
Ambit Temp [°C] Humidity [rel%]	24.8 31
System Version	3.1.0.0
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	True TXpayload 255 RXpayload 255
Longrange S8 supported	False TXpayload 255 RXpayload 255
Longrange S2 supported	False TXpayload 255 RXpayload 255
Signaling Settings	WS_USB_RS232 HCI 15 115200 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	True Freq [MHz] 2440
Frequency high to test	True Freq [MHz] 2480
Auto Control enabled Power Supply Climatic Box	No No
Additional Path Loss [dB]	0
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.

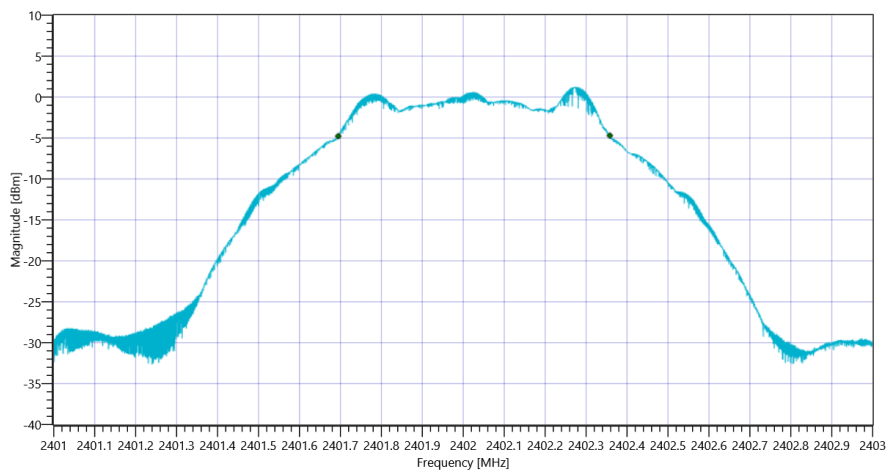
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	1.48	dBm	INFO
Ref. Frequency	---	---	2402.300	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	6.48 10.09 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	---	663	kHz	PASS



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

Test at TX 2440 MHz

RESULT: Reference Power cond.

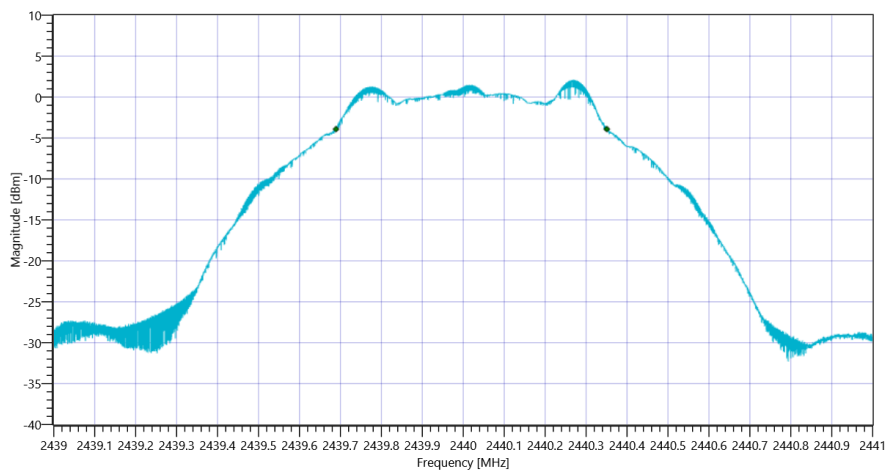
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	2.31	dBm	INFO
Ref. Frequency	---	---	2439.900	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	7.31 10.1 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	---	661	kHz	PASS



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

Test at TX 2480 MHz

RESULT: Reference Power cond.

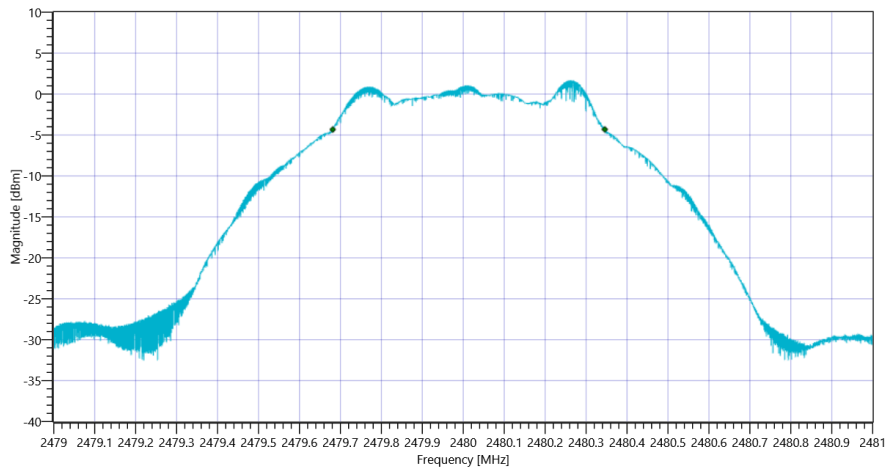
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	1.87	dBm	INFO
Ref. Frequency	---	---	2479.800	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	6.87 10.15 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	---	664	kHz	PASS



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

General verdict

no verdict

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

Test References	
TC Start	31.05.2022 12:01:19
Ambit Temp [°C] Humidity [rel%]	24.7 32
System Version	3.1.0.0
Test Specification	FCC 15.247 -
Test Method	
TC Version	0.0.1
My Description	FCC 15.247 Bandwidth 6dB DTS - BT LE 2 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	True TXpayload 255 RXpayload 255
Longrange S8 supported	False TXpayload 255 RXpayload 255
Longrange S2 supported	False TXpayload 255 RXpayload 255
Signaling Settings	WS_USB_RS232 HCI 15 115200 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 2 Msps
Antenna Port used	1
Temperature	nom
Voltage	nom
Frequency low to test	True Freq [MHz] 2404
Frequency mid to test	True Freq [MHz] 2440
Frequency high to test	True Freq [MHz] 2478
Auto Control enabled Power Supply Climatic Box	No No
Additional Path Loss [dB]	0
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 2404 MHz

RESULT: Reference Power cond.

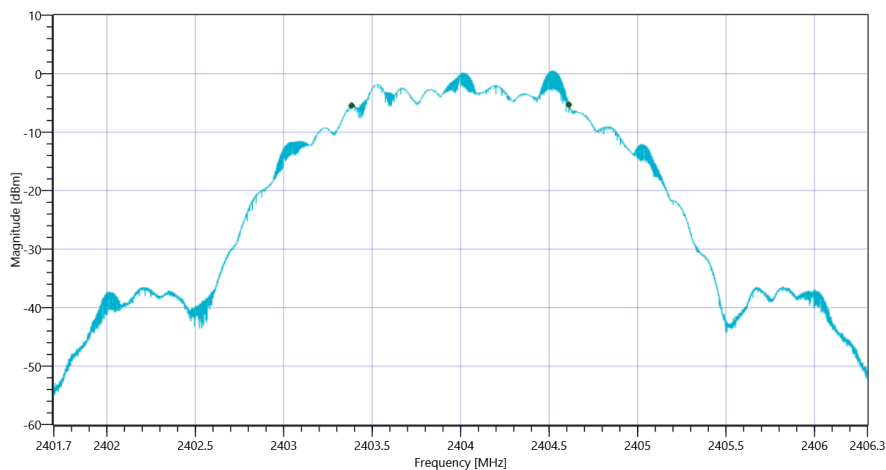
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	1.71	dBm	INFO
Ref. Frequency	---	---	2404.500	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	6.71 10.1 15
Start [MHz] Stop [MHz]	2401.700 2406.300
RBW [MHz] VBW [MHz]	0.100000 0.300000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	50 200 10001 SWE

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
DTS Bandwidth (6dB)	500	---	1228	kHz	PASS



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

Test at TX 2440 MHz

RESULT: Reference Power cond.

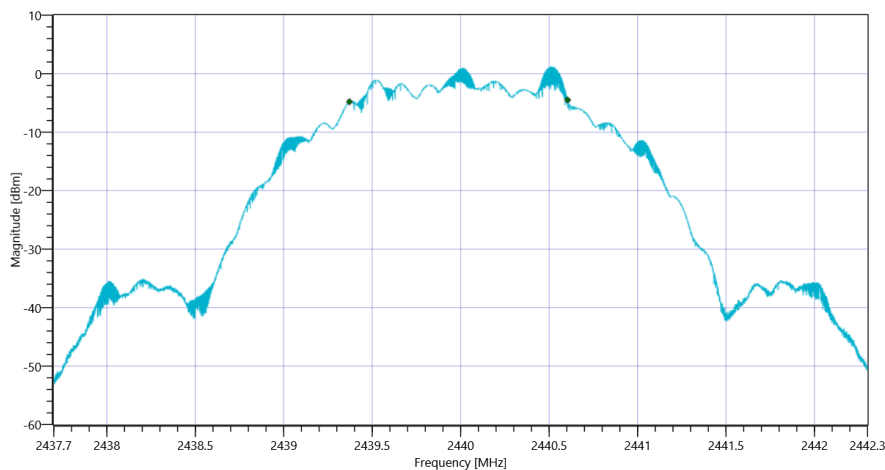
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	2.53	dBm	INFO
Ref. Frequency	---	---	2440.500	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	7.53 10.1 15
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	---	1233	kHz	PASS



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

Test at TX 2478 MHz

RESULT: Reference Power cond.

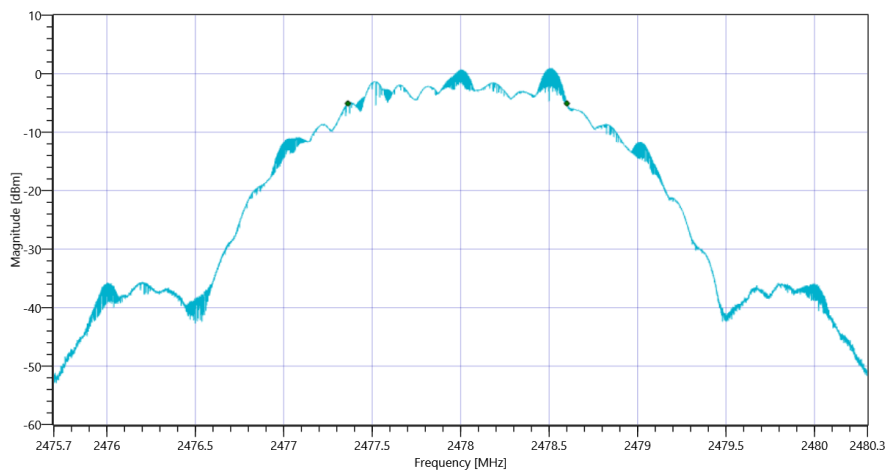
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	2.13	dBm	INFO
Ref. Frequency	---	---	2477.500	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	7.13 10.15 15
Start [MHz] Stop [MHz]	2475.700 2480.300
RBW [MHz] VBW [MHz]	0.100000 0.300000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	50 200 10001 SWE

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
DTS Bandwidth (6dB)	500	---	1238	kHz	PASS



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

General verdict

no verdict

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

Test References	
TC Start	31.05.2022 11:42:28
Ambit Temp [°C] Humidity [rel%]	24.8 31
System Version	3.1.0.0
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	True TXpayload 255 RXpayload 255
Longrange S8 supported	False TXpayload 255 RXpayload 255
Longrange S2 supported	False TXpayload 255 RXpayload 255
Signaling Settings	WS_USB_RS232 HCI 15 115200 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	True Freq [MHz] 2402
Frequency mid to test	True Freq [MHz] 2440
Frequency high to test	True Freq [MHz] 2480
Auto Control enabled Power Supply Climatic Box	No No
Additional Path Loss [dB]	0
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.	---	---	1.56	dBm	INFO
Ref. Frequency	---	---	2402.200	MHz	INFO

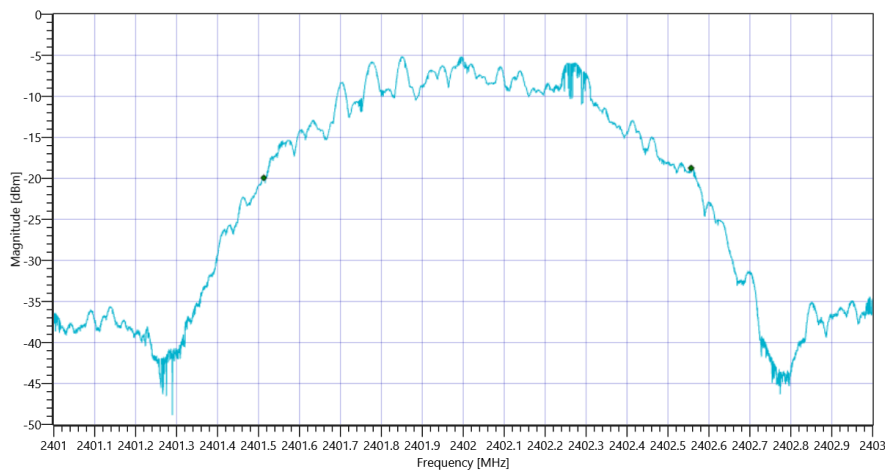
READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	6.56 10.09 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

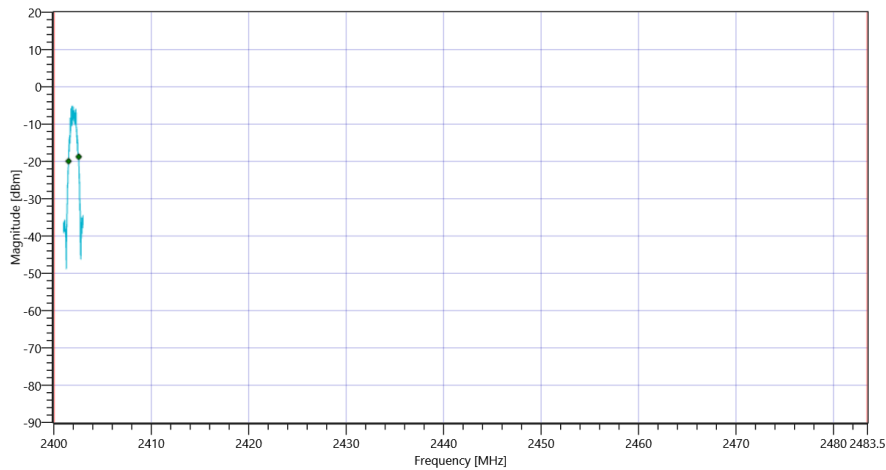
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 99%	---	---	1043.696	kHz	INFO
T1 99%	2400.000000	---	2401.5128	MHz	PASS
T2 99%	---	2483.500000	2402.5565	MHz	PASS

Plot: Bandwidth only



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

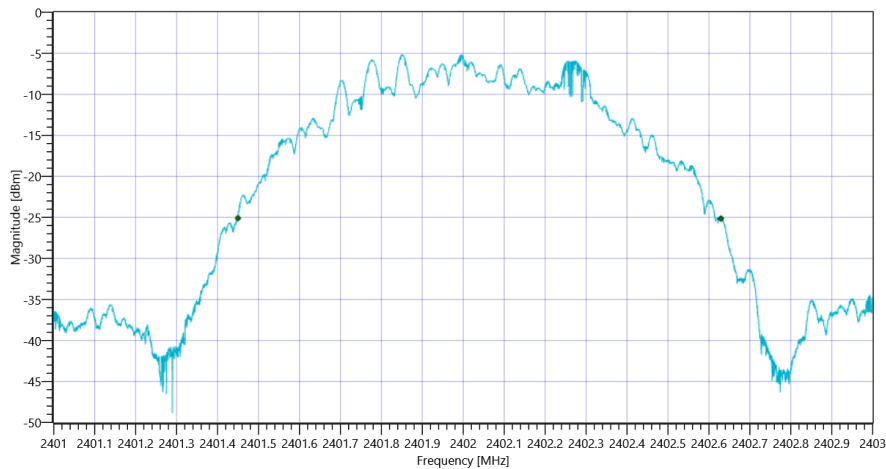
Plot: Bandwidth within Band



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

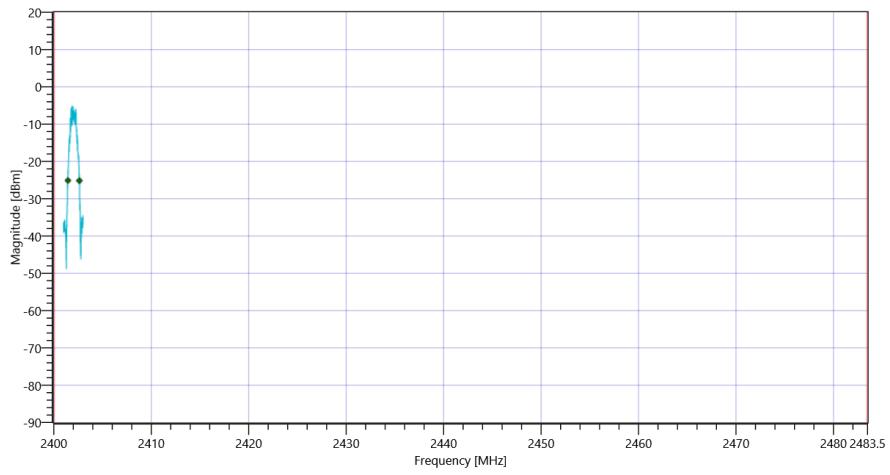
RESULT						
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict	
Bandwidth 20dB	---	---	1180	kHz	INFO	
T1 20dB	2400.000000	---	2401.4496	MHz	PASS	
T2 20dB	---	2483.500000	2402.6294	MHz	PASS	

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

Test at TX 2440 MHz

RESULT: Reference Power cond.

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	2.32	dBm	INFO
Ref. Frequency	---	---	2439.800	MHz	INFO

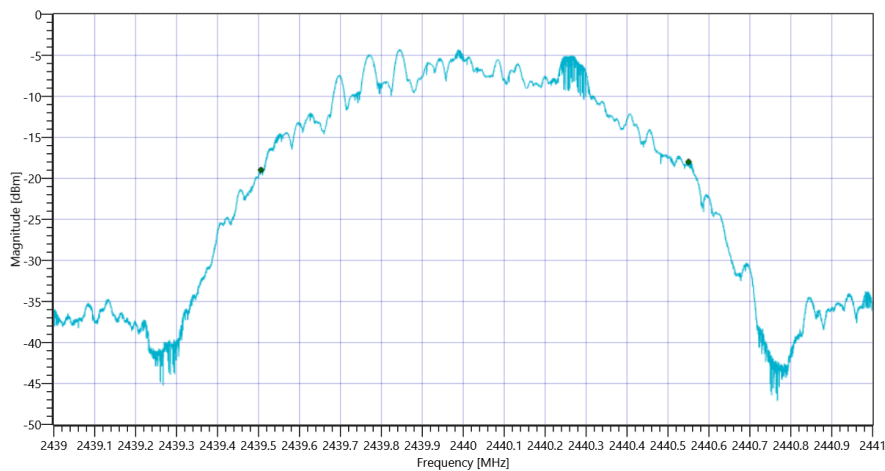
READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	7.32 10.1 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

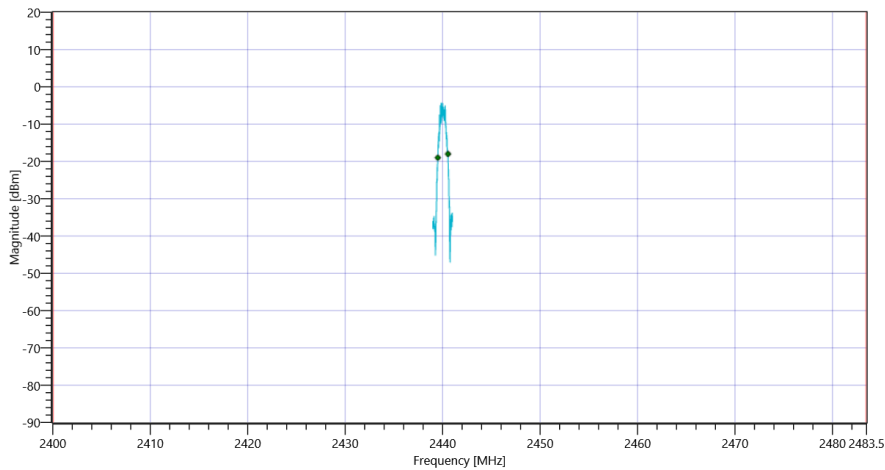
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 99%	---	---	1044.096	kHz	INFO
T1 99%	2400.000000	---	2439.5060	MHz	PASS
T2 99%	---	2483.500000	2440.5501	MHz	PASS

Plot: Bandwidth only



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

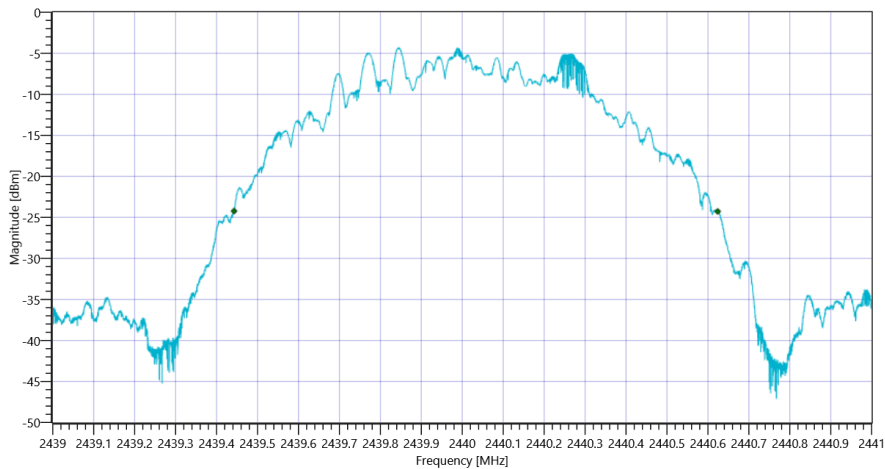
Plot: Bandwidth within Band



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

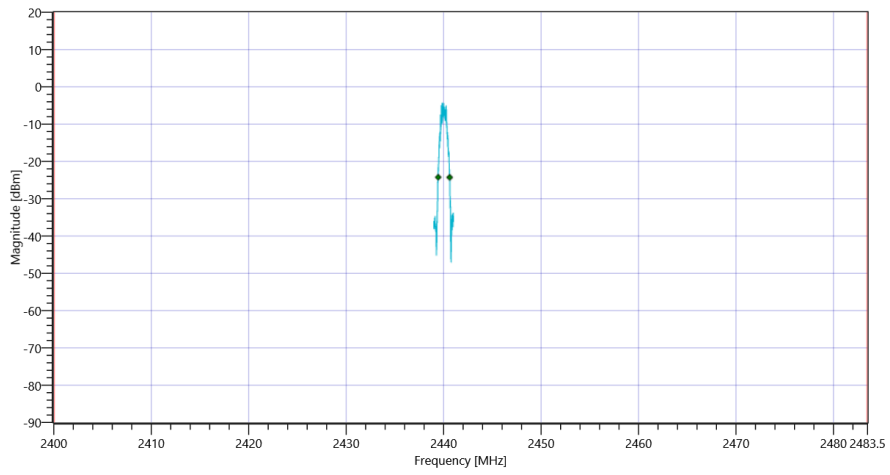
RESULT					
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 20dB	---	---	1181	kHz	INFO
T1 20dB	2400.000000	---	2439.4426	MHz	PASS
T2 20dB	---	2483.500000	2440.6238	MHz	PASS

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

Test at TX 2480 MHz

RESULT: Reference Power cond.

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	1.93	dBm	INFO
Ref. Frequency	---	---	2479.800	MHz	INFO

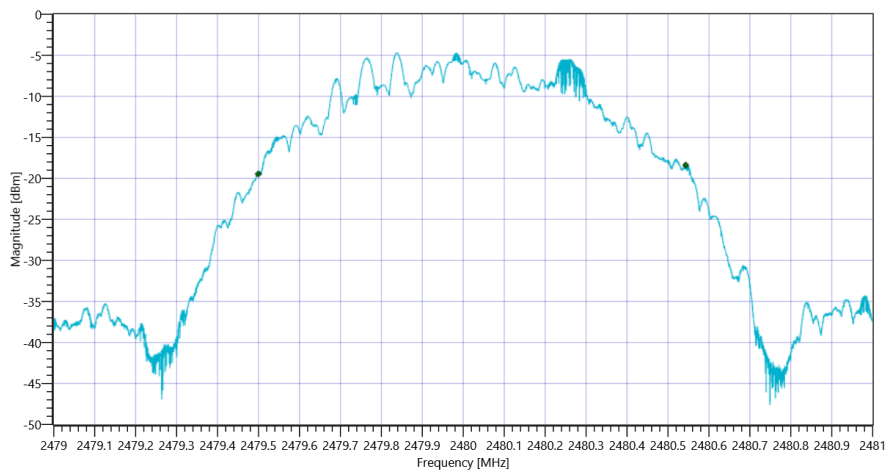
READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	6.93 10.15 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

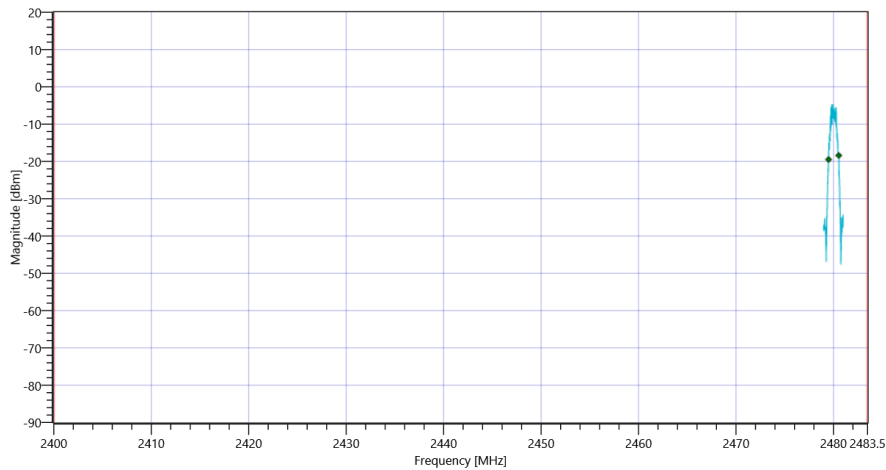
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 99%	---	---	1044.096	kHz	INFO
T1 99%	2400.000000	---	2479.4993	MHz	PASS
T2 99%	---	2483.500000	2480.5433	MHz	PASS

Plot: Bandwidth only



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

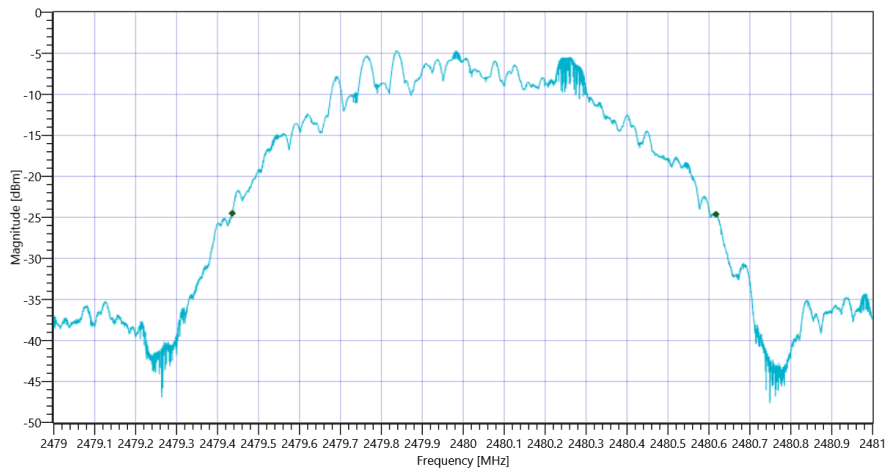
Plot: Bandwidth within Band



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

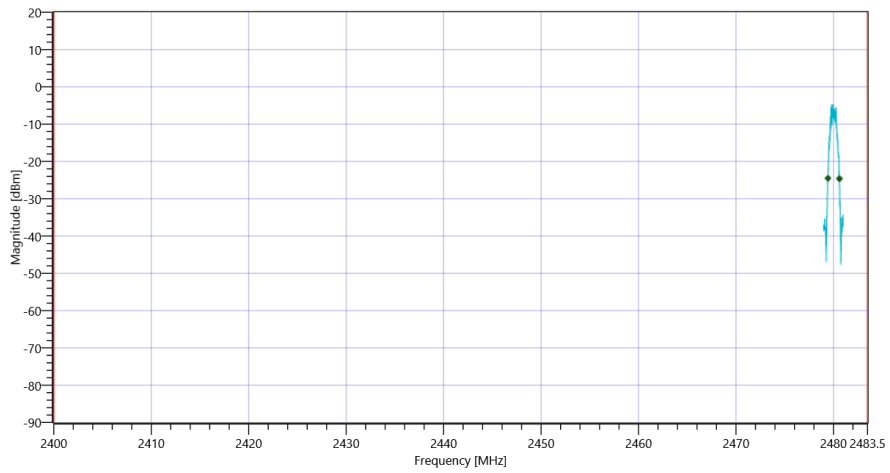
RESULT						
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict	
Bandwidth 20dB	---	---	1181	kHz	INFO	
T1 20dB	2400.000000	---	2479.4358	MHz	PASS	
T2 20dB	---	2483.500000	2480.6172	MHz	PASS	

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

no verdict

FCC 15.247, ISED RSS247 # Bandwidth 99PCT and 20dB ~ BT LE 2 Msp

Test References	
TC Start	31.05.2022 12:05:03
Ambit Temp [°C] Humidity [rel%]	24.6 32
System Version	3.1.0.0
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 2 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	True TXpayload 255 RXpayload 255
Longrange S8 supported	False TXpayload 255 RXpayload 255
Longrange S2 supported	False TXpayload 255 RXpayload 255
Signaling Settings	WS_USB_RS232 HCI 15 115200 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 2 Msp
Antenna Port used	1
Temperature	nom
Voltage	nom
Frequency low to test	True Freq [MHz] 2404
Frequency mid to test	True Freq [MHz] 2440
Frequency high to test	True Freq [MHz] 2478
Auto Control enabled Power Supply Climatic Box	No No
Additional Path Loss [dB]	0
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 2404 MHz

RESULT: Reference Power cond.

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	1.78	dBm	INFO
Ref. Frequency	---	---	2404.500	MHz	INFO

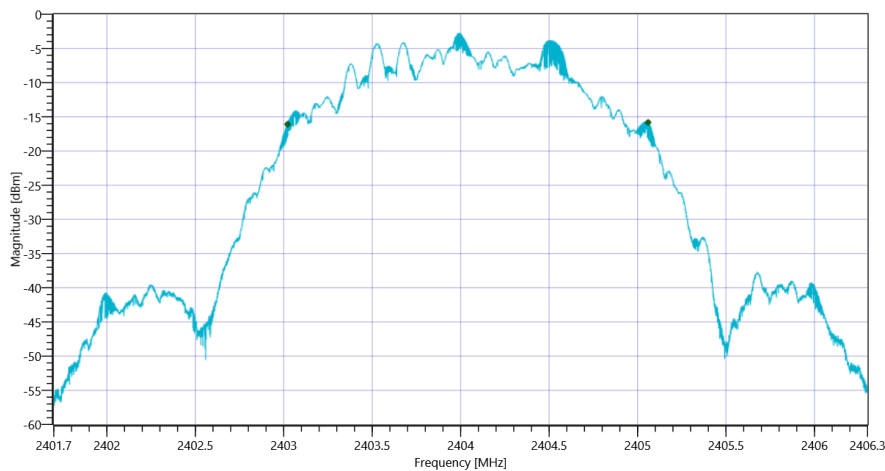
READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	6.78 10.1 15
Start [MHz] Stop [MHz]	2401.700 2406.300
RBW [MHz] VBW [MHz]	0.050000 0.200000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	50 200 10001 SWE

RESULT

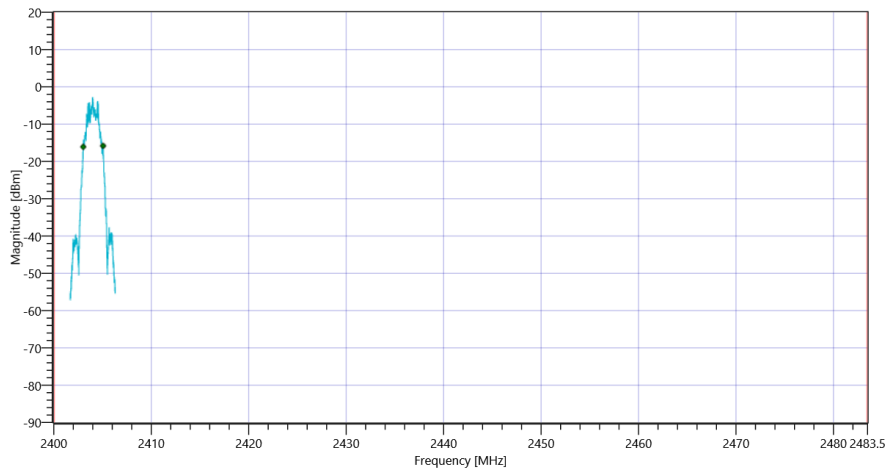
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 99%	---	---	2038.976	kHz	INFO
T1 99%	2400.000000	---	2403.0208	MHz	PASS
T2 99%	---	2483.500000	2405.0597	MHz	PASS

Plot: Bandwidth only



FCC 15.247, ISED RSS247 # Bandwidth 99PCT and 20dB ~ BT LE 2 Msps 99PCT

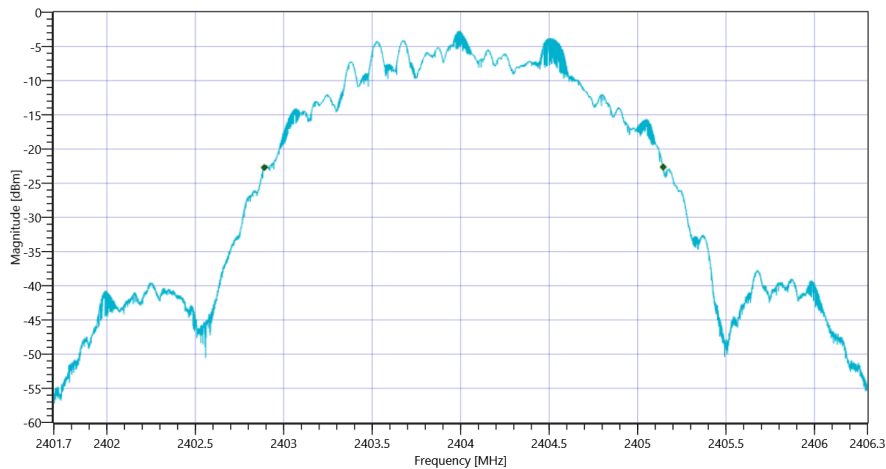
Plot: Bandwidth within Band



FCC 15.247, ISED RSS247 # Bandwidth 99PCT and 20dB ~ BT LE 2 Msps

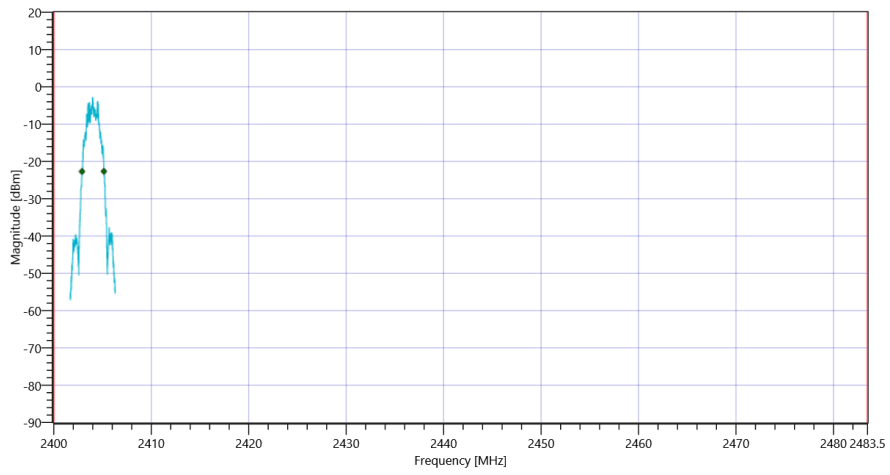
RESULT					
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 20dB	---	---	2255	kHz	INFO
T1 20dB	2400.000000	---	2402.8900	MHz	PASS
T2 20dB	---	2483.500000	2405.1449	MHz	PASS

Plot: Bandwidth only



FCC 15.247, ISED RSS247 # Bandwidth 99PCT and 20dB ~ BT LE 2 Msps 20dB

Plot: Bandwidth within Band



FCC 15.247, ISED RSS247 # Bandwidth 99PCT and 20dB ~ BT LE 2 Msps

Test at TX 2440 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	---	---	2439.500	MHz	INFO

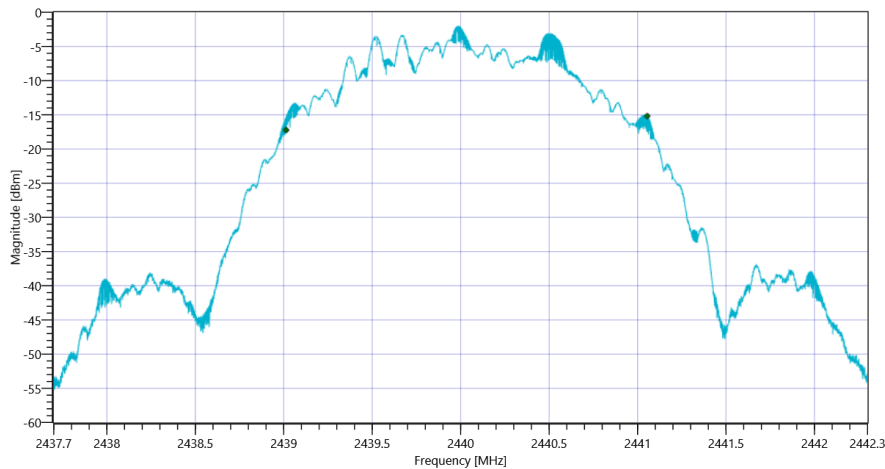
READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	7.44 10.1 15
Start [MHz] Stop [MHz]	2437.700 2442.300
RBW [MHz] VBW [MHz]	0.050000 0.200000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	50 200 10001 SWE

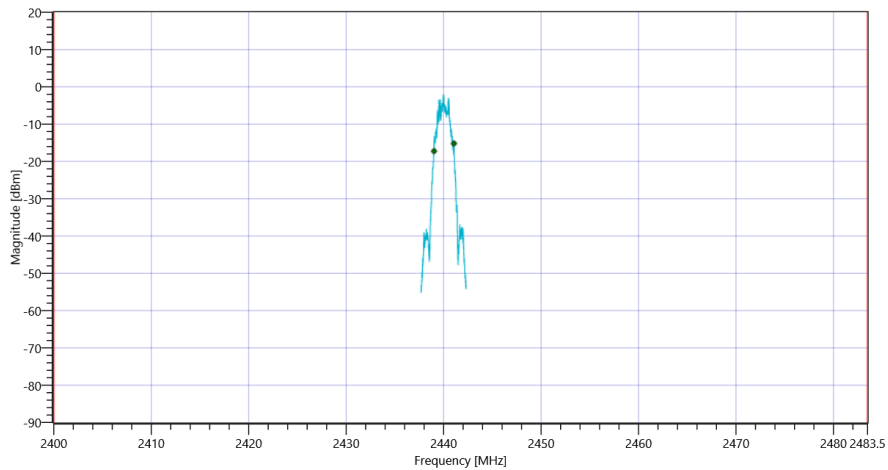
RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 99%	---	---	2041.736	kHz	INFO
T1 99%	2400.000000	---	2439.0129	MHz	PASS
T2 99%	---	2483.500000	2441.0547	MHz	PASS

Plot: Bandwidth only



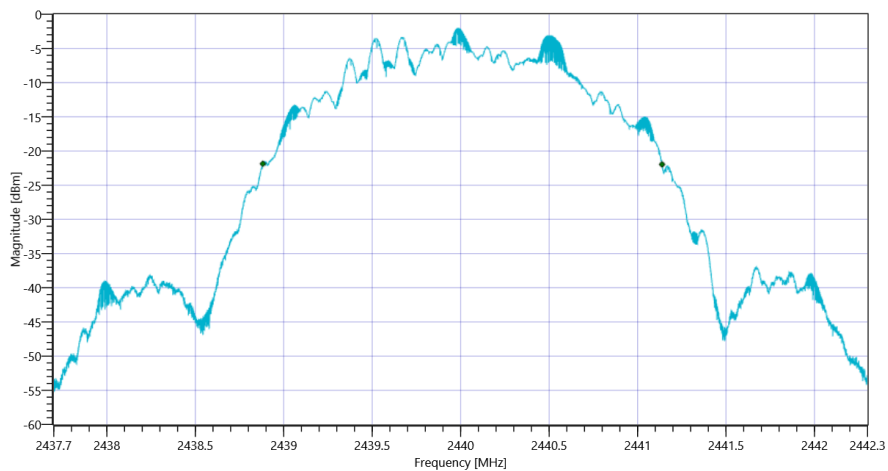
Plot: Bandwidth within Band



FCC 15.247, ISED RSS247 # Bandwidth 99PCT and 20dB ~ BT LE 2 Msps

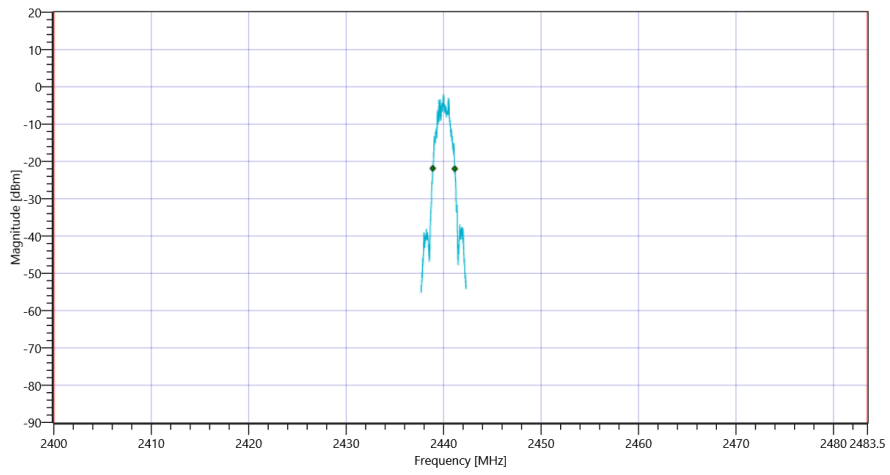
RESULT					
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 20dB	---	---	2257	kHz	INFO
T1 20dB	2400.000000	---	2438.8817	MHz	PASS
T2 20dB	---	2483.500000	2441.1385	MHz	PASS

Plot: Bandwidth only



FCC 15.247, ISED RSS247 # Bandwidth 99PCT and 20dB ~ BT LE 2 Msps 20dB

Plot: Bandwidth within Band



FCC 15.247, ISED RSS247 # Bandwidth 99PCT and 20dB ~ BT LE 2 Msps

Test at TX 2478 MHz

RESULT: Reference Power cond.

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	2.13	dBm	INFO
Ref. Frequency	---	---	2478.500	MHz	INFO

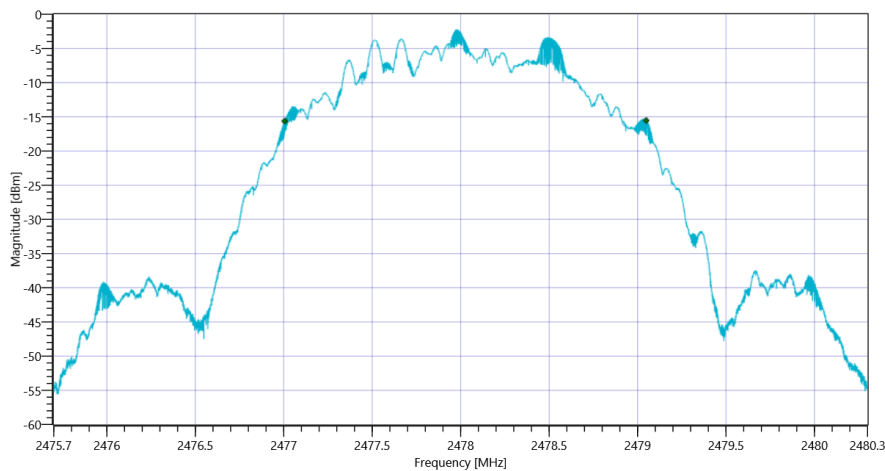
READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	7.13 10.15 15
Start [MHz] Stop [MHz]	2475.700 2480.300
RBW [MHz] VBW [MHz]	0.050000 0.200000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	50 200 10001 SWE

RESULT

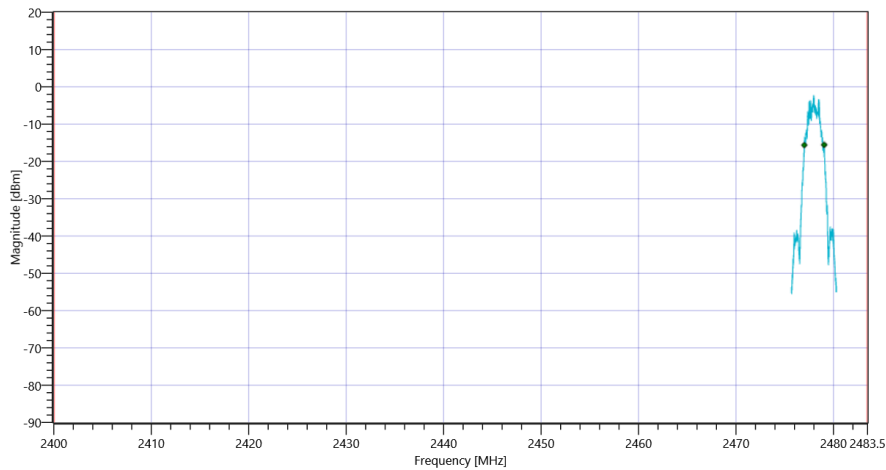
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 99%	---	---	2043.116	kHz	INFO
T1 99%	2400.000000	---	2477.0056	MHz	PASS
T2 99%	---	2483.500000	2479.0487	MHz	PASS

Plot: Bandwidth only



FCC 15.247, ISED RSS247 # Bandwidth 99PCT and 20dB ~ BT LE 2 Msps 99PCT

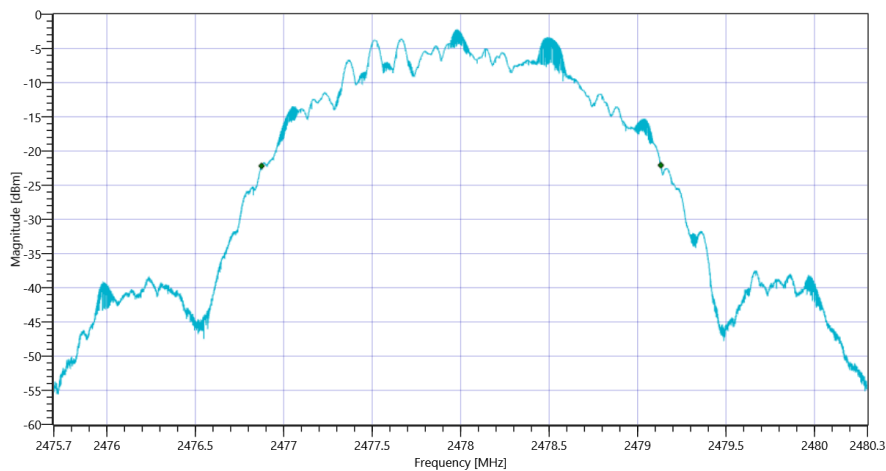
Plot: Bandwidth within Band



FCC 15.247, ISED RSS247 # Bandwidth 99PCT and 20dB ~ BT LE 2 Msps

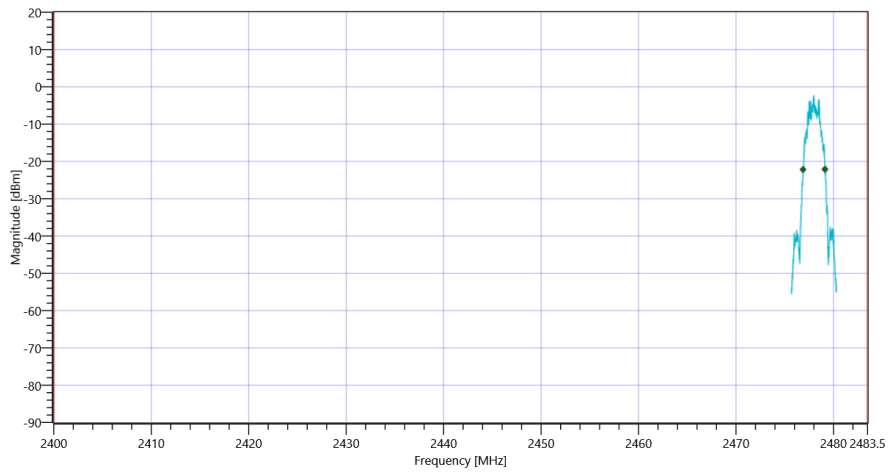
RESULT						
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict	
Bandwidth 20dB	---	---	2257	kHz	INFO	
T1 20DB	2400.000000	---	2476.8744	MHz	PASS	
T2 20dB	---	2483.500000	2479.1316	MHz	PASS	

Plot: Bandwidth only



FCC 15.247, ISED RSS247 # Bandwidth 99PCT and 20dB ~ BT LE 2 Msps 20dB

Plot: Bandwidth within Band



FCC 15.247, ISSED RSS247 # Bandwidth 99PCT and 20dB ~ BT LE 2 Msps

General verdict

no verdict

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

Test References	
TC Start	31.05.2022 11:40:24
Ambit Temp [°C] Humidity [rel%]	24.8 31
System Version	3.1.0.0
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	True TXpayload 255 RXpayload 255
Longrange S8 supported	False TXpayload 255 RXpayload 255
Longrange S2 supported	False TXpayload 255 RXpayload 255
Signaling Settings	WS_USB_RS232 HCI 15 115200 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	True Freq [MHz] 2440
Frequency high to test	True Freq [MHz] 2480
Auto Control enabled Power Supply Climatic Box	No No
Additional Path Loss [dB]	0
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.

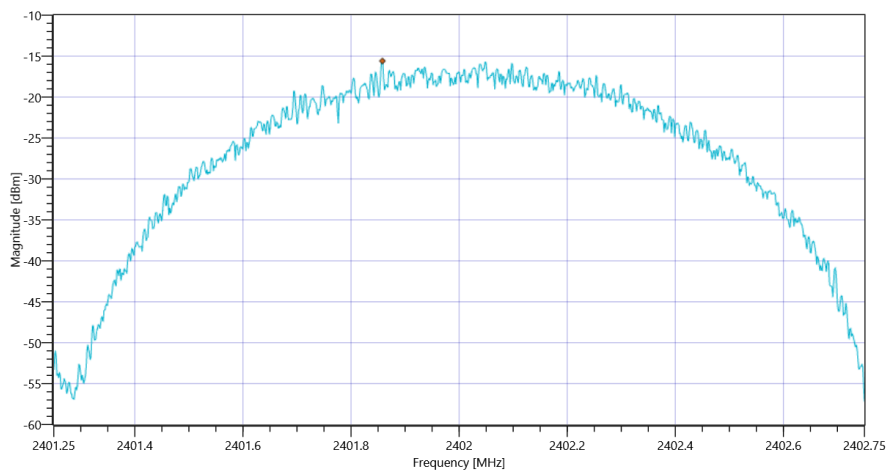
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	1.48	dBm	INFO
Ref. Frequency	---	---	2402.300	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	6.48 10.09 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	-15.59	dBm/3KHz	PASS



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

Test at TX 2440 MHz

RESULT: Reference Power cond.

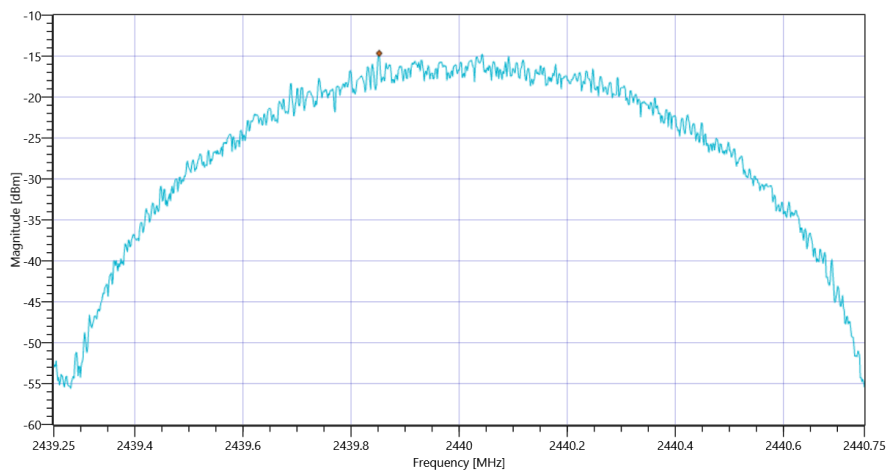
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	2.38	dBm	INFO
Ref. Frequency	---	---	2440.200	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	7.38 10.1 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	-14.66	dBm/3KHz	PASS



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

Test at TX 2480 MHz

RESULT: Reference Power cond.

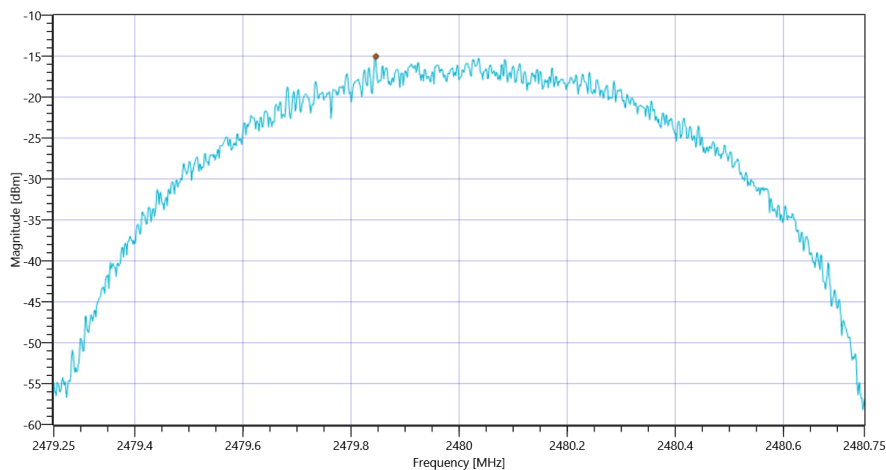
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	1.91	dBm	INFO
Ref. Frequency	---	---	2479.800	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	6.91 10.15 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	-15.04	dBm/3KHz	PASS



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

General verdict

no verdict

FCC 15.247 # Peak power spectral density DTS ~ BT LE 2 Msps

Test References	
TC Start	31.05.2022 12:02:56
Ambit Temp [°C] Humidity [rel%]	24.6 32
System Version	3.1.0.0
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 2 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	True TXpayload 255 RXpayload 255
Longrange S8 supported	False TXpayload 255 RXpayload 255
Longrange S2 supported	False TXpayload 255 RXpayload 255
Signaling Settings	WS_USB_RS232 HCI 15 115200 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 2 Msps
Antenna Port used	1
Temperature	nom
Voltage	nom
Frequency low to test	True Freq [MHz] 2404
Frequency mid to test	True Freq [MHz] 2440
Frequency high to test	True Freq [MHz] 2478
Auto Control enabled Power Supply Climatic Box	No No
Additional Path Loss [dB]	0
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 2404 MHz

RESULT: Reference Power cond.

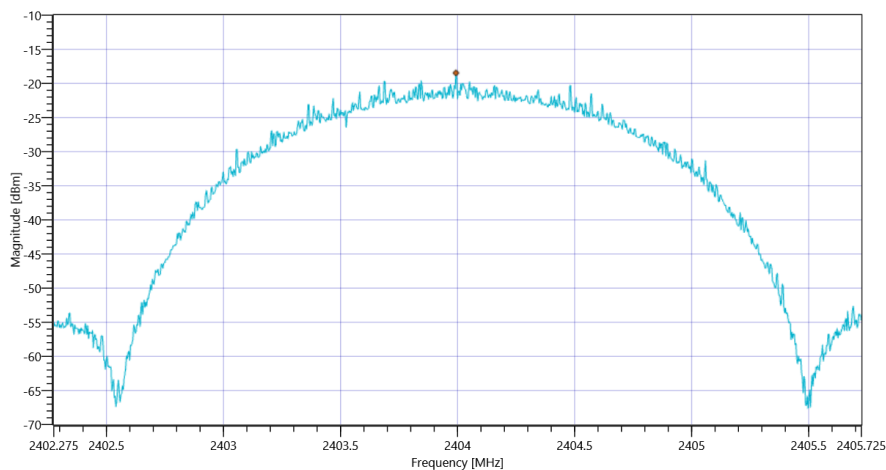
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	1.72	dBm	INFO
Ref. Frequency	---	---	2404.500	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	6.72 10.1 15
Start [MHz] Stop [MHz]	2402.275 2405.725
RBW [MHz] VBW [MHz]	0.003000 0.010000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	1000 20 1001 SWE

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Max Peak power Density	---	8	-18.46	dBm/3KHz	PASS



FCC 15.247 # Peak power spectral density DTS ~ BT LE 2 Msps

Test at TX 2440 MHz

RESULT: Reference Power cond.

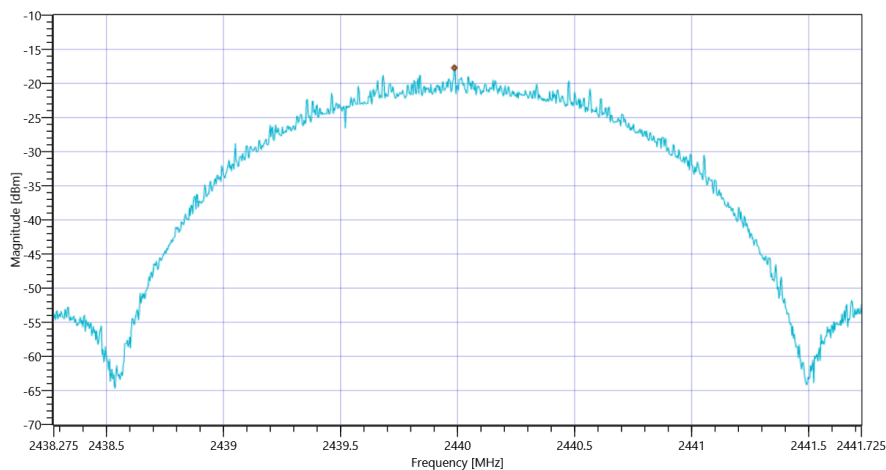
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	2.49	dBm	INFO
Ref. Frequency	---	---	2440.500	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	7.49 10.1 15
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	-17.71	dBm/3KHz	PASS



FCC 15.247 # Peak power spectral density DTS ~ BT LE 2 Msps

Test at TX 2478 MHz

RESULT: Reference Power cond.

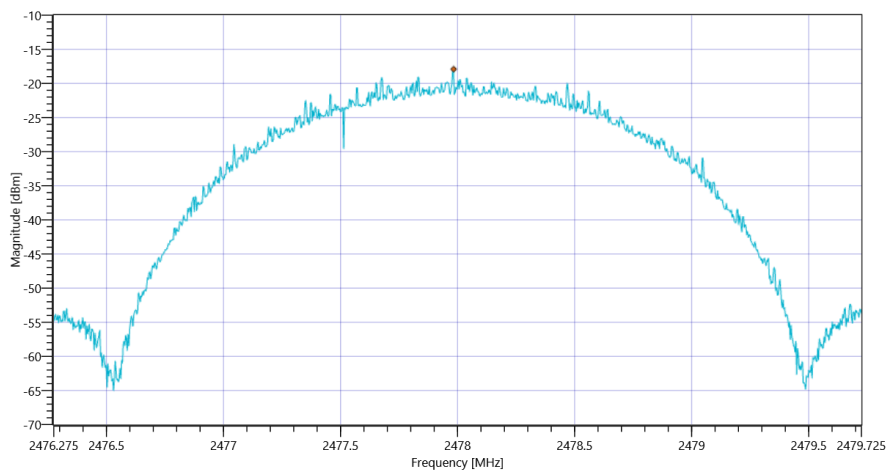
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	2.18	dBm	INFO
Ref. Frequency	---	---	2477.500	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	7.18 10.15 15
Start [MHz] Stop [MHz]	2476.275 2479.725
RBW [MHz] VBW [MHz]	0.003000 0.010000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	1000 20 1001 SWE

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Max Peak power Density	---	8	-17.91	dBm/3KHz	PASS



FCC 15.247 # Peak power spectral density DTS ~ BT LE 2 Msps

General verdict

no verdict

FCC 15.247 # Restricted band edge conducted peak DTS video avg (eirp) ~ BT LE 1 Msps

Test References	
TC Start	31.05.2022 11:56:12
Ambit Temp [°C] Humidity [rel%]	24.6 32
System Version	3.1.0.0
Test Specification	FCC 15.247 -
Test Method	DTS: KDB 558074 D01 V05 - 8.7.3 Integration Method; ANSI C63.10-2013 11.13.3.2 Peak Detection
TC Version	0.0.1
My Description	FCC 15.247 Restricted Band Edge Conducted Peak 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	True TXpayload 255 RXpayload 255
Longrange S8 supported	False TXpayload 255 RXpayload 255
Longrange S2 supported	False TXpayload 255 RXpayload 255
Signaling Settings	WS_USB_RS232 HCI 15 115200 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	True Freq [MHz] 2480
Auto Control enabled Power Supply Climatic Box	No No
Additional Path Loss [dB]	0
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer

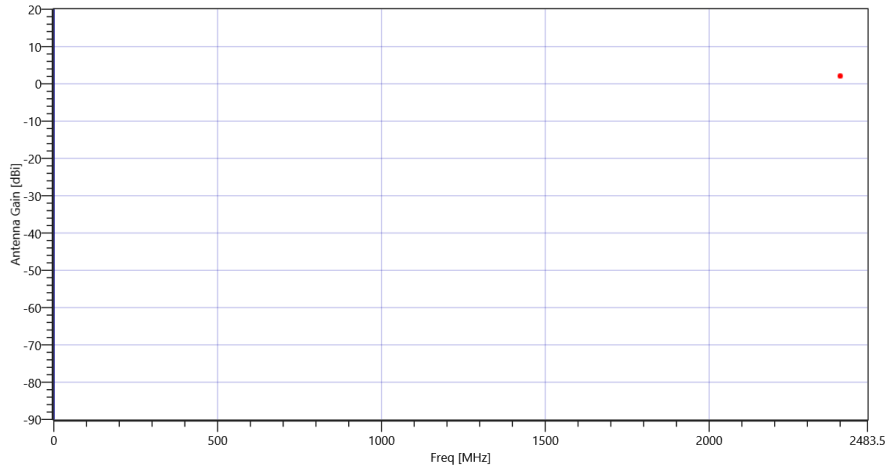
Test Equipment	
Signal analyzer,Rohde&Schwarz,FSV-30,1321.3008K30/103809,3.70	
Signaling unit,Rohde&Schwarz,CMW,1201.0002k75/102550,4.0.62	
Switch matrix,CTCadvanced,RSM-1 NI DAQ,29655273,NI	

Antenna Gain Table	
Freq [MHz]	Gain [dBi]
2400	2.1

Antenna Gain Table

2400

2.1



_GainTable

Test at TX 2402 MHz

RESULT: Reference Power cond.

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	1.62	dBm	INFO
Ref. Frequency	---	---	2401.800	MHz	INFO

READ SA SETTINGS:

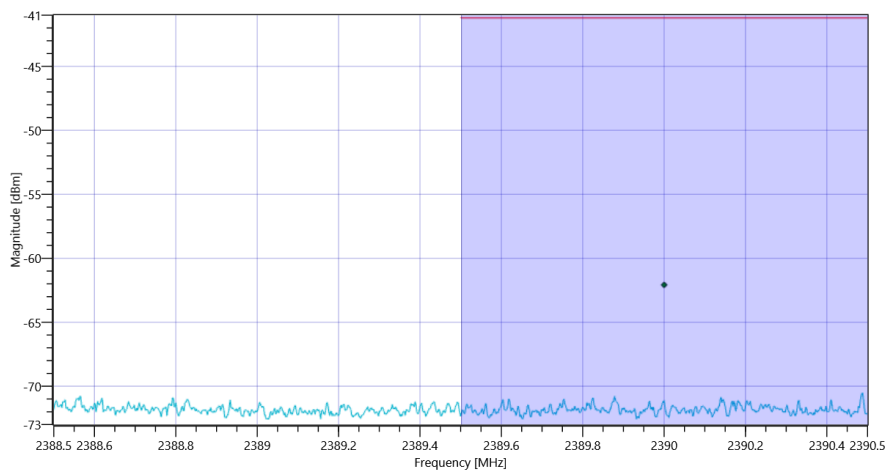
RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	6.62 10.09 15
Start [MHz] Stop [MHz]	2388.500 2390.500
RBW [MHz] VBW [MHz]	0.100000 0.002000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	8 300 1001 SWE

Antenna Gain

Considered Antenna Gain: [dBi]: 2.1 @ 2390MHz

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Band Power	---	-41.23	-62.08	dBm	PASS



FCC 15.247 # Restricted band edge conducted peak DTS video avg (eirp) ~ BT LE 1 Msps

Test at TX 2480 MHz

RESULT: Reference Power cond.

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	1.95	dBm	INFO
Ref. Frequency	---	---	2479.800	MHz	INFO

READ SA SETTINGS:

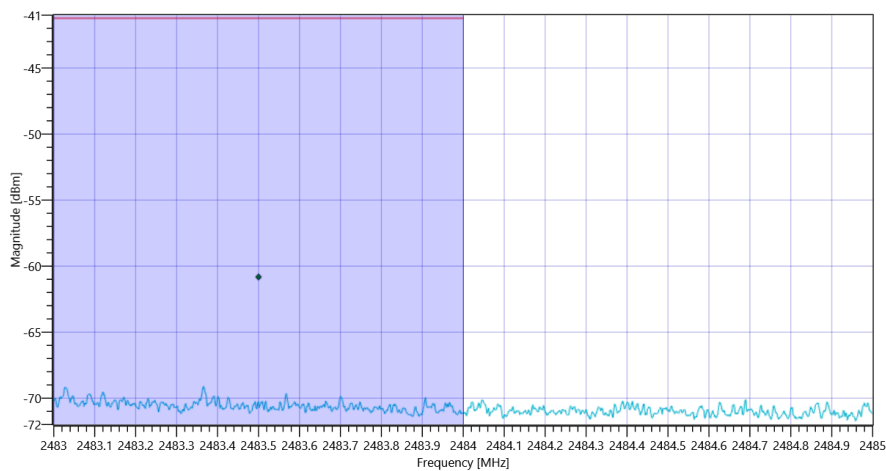
RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	6.95 10.15 15
Start [MHz] Stop [MHz]	2483.000 2485.000
RBW [MHz] VBW [MHz]	0.100000 0.002000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	8 300 1001 SWE

Antenna Gain

Considered Antenna Gain: [dBi]: 2.1 @ 2483.5MHz

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Band Power	---	-41.23	-60.82	dBm	PASS



FCC 15.247 # Restricted band edge conducted peak DTS video avg (eirp) ~ BT LE 1 Msps

General verdict

no verdict

FCC 15.247 # Restricted band edge conducted peak DTS video avg (eirp) ~ BT LE 2 Msps

Test References	
TC Start	31.05.2022 12:30:15
Ambit Temp [°C] Humidity [rel%]	24.8 31
System Version	3.1.0.0
Test Specification	FCC 15.247 -
Test Method	DTS: KDB 558074 D01 V05 - 8.7.3 Integration Method; ANSI C63.10-2013 11.13.3.2 Peak Detection
TC Version	0.0.1
My Description	FCC 15.247 Restricted Band Edge Conducted Peak DTS - BT LE 2 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	True TXpayload 255 RXpayload 255
Longrange S8 supported	False TXpayload 255 RXpayload 255
Longrange S2 supported	False TXpayload 255 RXpayload 255
Signaling Settings	WS_USB_RS232 HCI 15 115200 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 2 Msps
Antenna Port used	1
Temperature	nom
Voltage	nom
Frequency low to test	True Freq [MHz] 2404
Frequency mid to test	False Freq [MHz] 2440
Frequency high to test	True Freq [MHz] 2478
Auto Control enabled Power Supply Climatic Box	No No
Additional Path Loss [dB]	0
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer

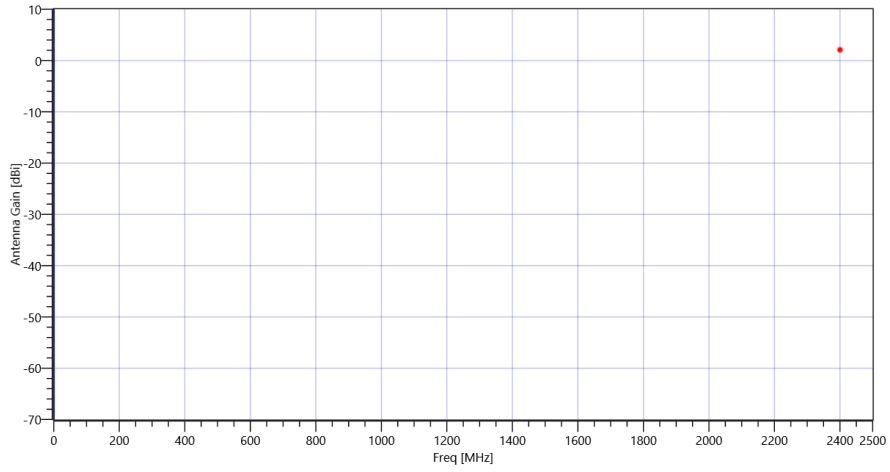
Test Equipment	
Signal analyzer,Rohde&Schwarz,FSV-30,1321.3008K30/103809,3.70	
Signaling unit,Rohde&Schwarz,CMW,1201.0002k75/102550,4.0.62	
Switch matrix,CTCadvanced,RSM-1 NI DAQ,29655273,NI	

Antenna Gain Table	
Freq [MHz]	Gain [dBi]
2400	2.1

Antenna Gain Table

2400

2.1



_GainTable

Test at TX 2404 MHz

RESULT: Reference Power cond.

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	1.83	dBm	INFO
Ref. Frequency	---	---	2404.500	MHz	INFO

READ SA SETTINGS:

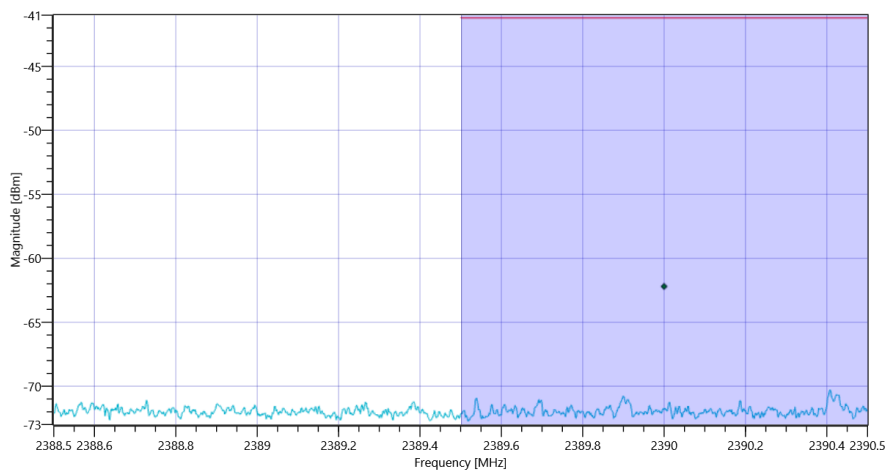
RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	6.83 10.1 15
Start [MHz] Stop [MHz]	2388.500 2390.500
RBW [MHz] VBW [MHz]	0.100000 0.002000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	8 300 1001 SWE

Antenna Gain

Considered Antenna Gain: [dBi]: 2.1 @ 2390MHz

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Band Power	---	-41.23	-62.2	dBm	PASS



FCC 15.247 # Restricted band edge conducted peak DTS video avg (eirp) ~ BT LE 2 Msps

Test at TX 2478 MHz

RESULT: Reference Power cond.

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	2.16	dBm	INFO
Ref. Frequency	---	---	2477.500	MHz	INFO

READ SA SETTINGS:

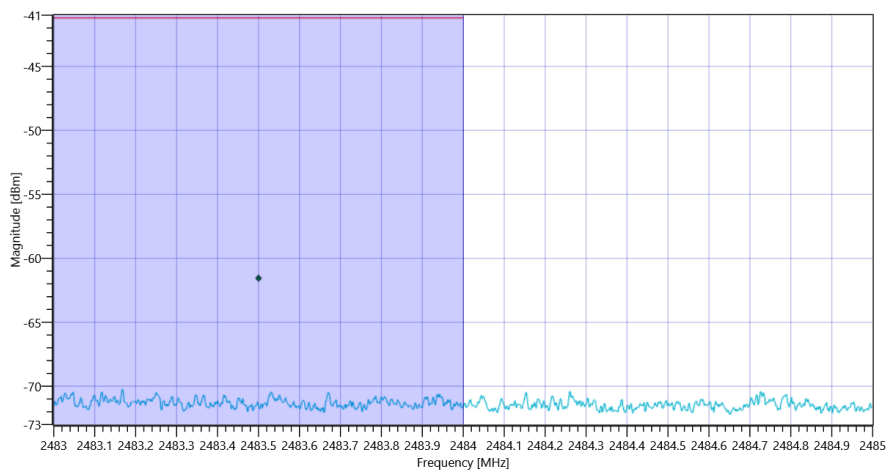
RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	7.16 10.15 15
Start [MHz] Stop [MHz]	2483.000 2485.000
RBW [MHz] VBW [MHz]	0.100000 0.002000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	8 300 1001 SWE

Antenna Gain

Considered Antenna Gain: [dBi]: 2.1 @ 2483.5MHz

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Band Power	---	-41.23	-61.56	dBm	PASS



FCC 15.247 # Restricted band edge conducted peak DTS video avg (eirp) ~ BT LE 2 Msps

General verdict

no verdict

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

Test References	
TC Start	31.05.2022 12:35:49
Ambit Temp [°C] Humidity [rel%]	24.9 31
System Version	3.1.0.0
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	True TXpayload 255 RXpayload 255
Longrange S8 supported	False TXpayload 255 RXpayload 255
Longrange S2 supported	False TXpayload 255 RXpayload 255
Signaling Settings	WS_USB_RS232 HCI 15 115200 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	True Freq [MHz] 2440
Frequency high to test	True Freq [MHz] 2480
Auto Control enabled Power Supply Climatic Box	No No
Additional Path Loss [dB]	0
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.

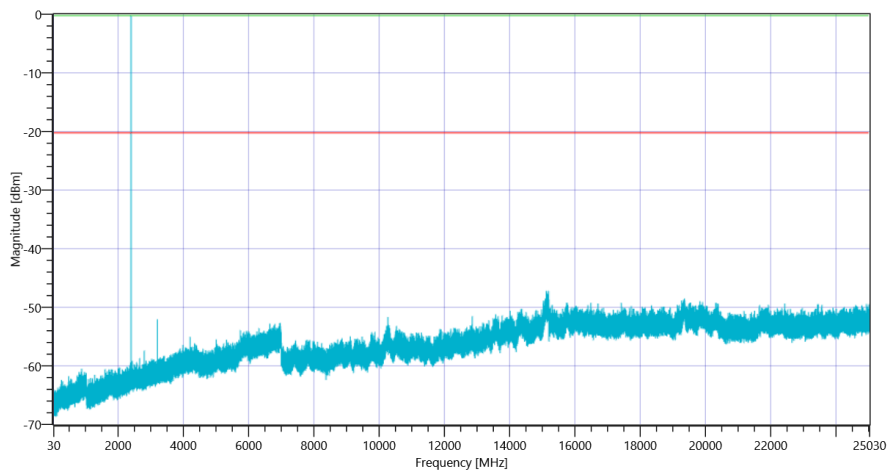
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	1.61	dBm	INFO
Ref. Frequency	---	---	2401.800	MHz	INFO

READ SA SETTINGS:

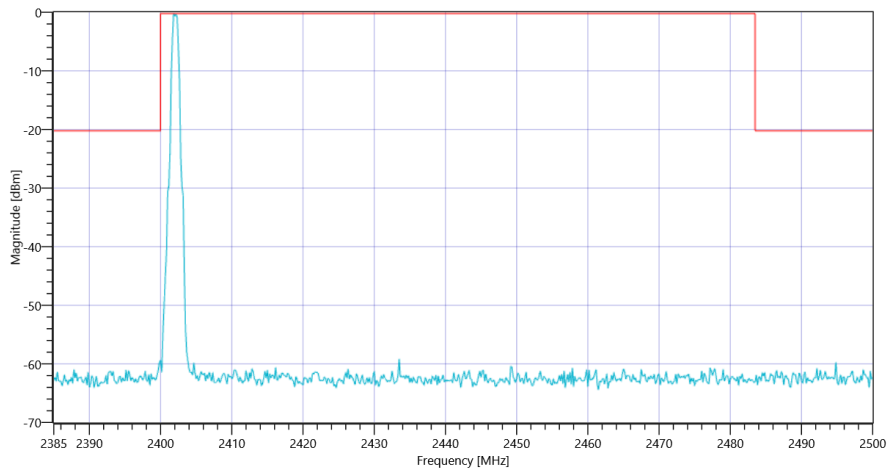
RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	1.61 0 20
Start [MHz] Stop [MHz]	24530.000 25030.000
RBW [MHz] VBW [MHz]	0.100000 0.300000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	200 25 3001 SWE

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Reference @ 2401.83 MHz	---	---	-0.22	dBm	INFO
No peaks detected	---	---			PASS
Lowest margin to limit 15123.167 MHz	0	---	26.98	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

Test at TX 2440 MHz

RESULT: Reference Power cond.

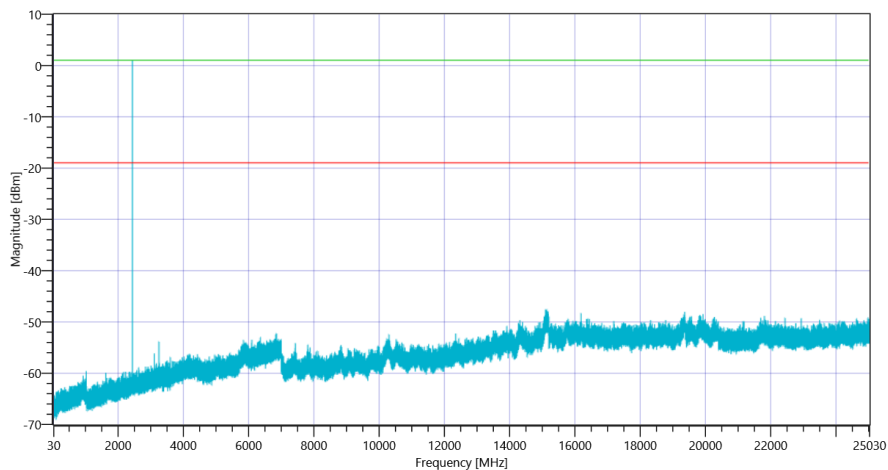
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	2.33	dBm	INFO
Ref. Frequency	---	---	2439.900	MHz	INFO

READ SA SETTINGS:

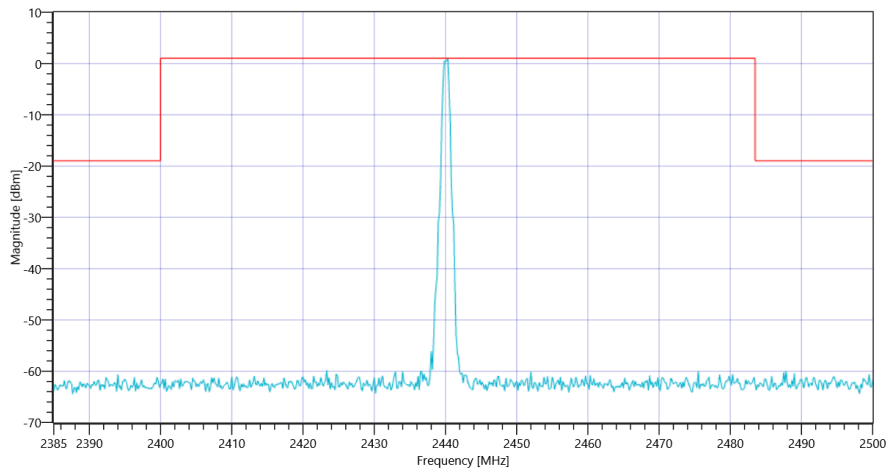
RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	2.33 0 20
Start [MHz] Stop [MHz]	24530.000 25030.000
RBW [MHz] VBW [MHz]	0.100000 0.300000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	200 25 3001 SWE

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Reference @ 2440.33 MHz	---	---	1.04	dBm	INFO
No peaks detected	---	---			PASS
Lowest margin to limit 15130.667 MHz	0	---	28.58	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

Test at TX 2480 MHz

RESULT: Reference Power cond.

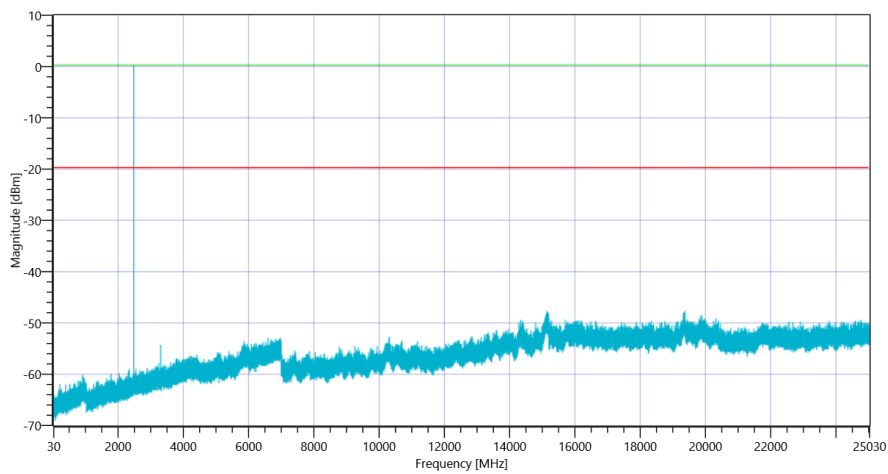
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	1.90	dBm	INFO
Ref. Frequency	---	---	2480.300	MHz	INFO

READ SA SETTINGS:

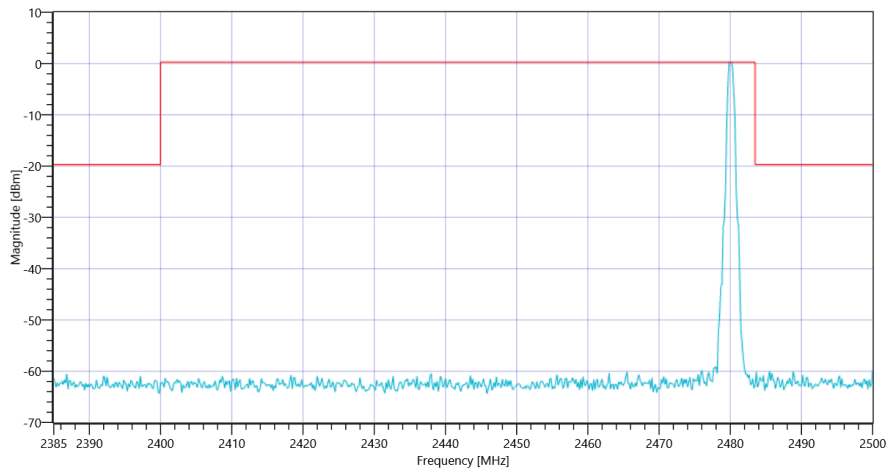
RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	1.90 0 20
Start [MHz] Stop [MHz]	24530.000 25030.000
RBW [MHz] VBW [MHz]	0.100000 0.300000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	200 25 3001 SWE

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Reference @ 2480.17 MHz	---	---	0.29	dBm	INFO
No peaks detected	---	---			PASS
Lowest margin to limit 19369 MHz	0	---	27.95	dB	INFO



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



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

General verdict

no verdict

FCC 15.247 # TX spurious conducted 20dBc ~ BT LE 2 Msps

Test References	
TC Start	31.05.2022 12:07:52
Ambit Temp [°C] Humidity [rel%]	24.6 32
System Version	3.1.0.0
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 2 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	True TXpayload 255 RXpayload 255
Longrange S8 supported	False TXpayload 255 RXpayload 255
Longrange S2 supported	False TXpayload 255 RXpayload 255
Signaling Settings	WS_USB_RS232 HCI 15 115200 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 2 Msps
Antenna Port used	1
Temperature	nom
Voltage	nom
Frequency low to test	True Freq [MHz] 2404
Frequency mid to test	True Freq [MHz] 2440
Frequency high to test	True Freq [MHz] 2478
Auto Control enabled Power Supply Climatic Box	No No
Additional Path Loss [dB]	0
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 2404 MHz

RESULT: Reference Power cond.

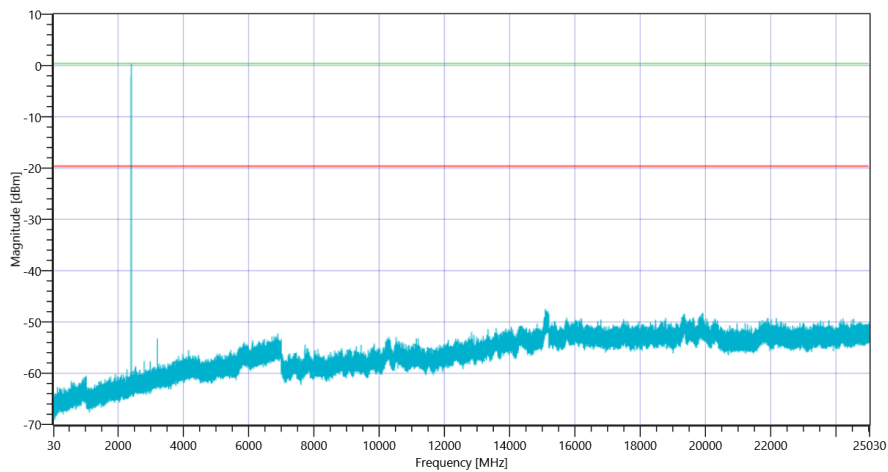
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	1.70	dBm	INFO
Ref. Frequency	---	---	2404.500	MHz	INFO

READ SA SETTINGS:

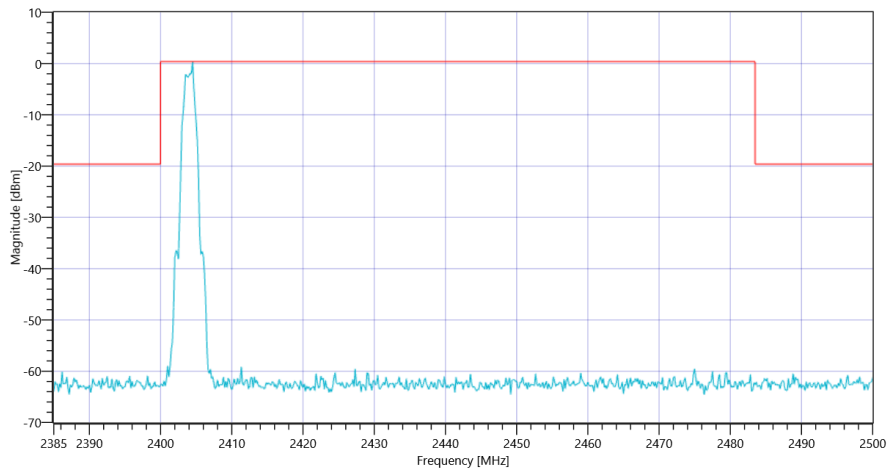
RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	1.70 0 20
Start [MHz] Stop [MHz]	24530.000 25030.000
RBW [MHz] VBW [MHz]	0.100000 0.300000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	200 25 3001 SWE

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Reference @ 2404.50 MHz	---	---	0.36	dBm	INFO
No peaks detected	---	---			PASS
Lowest margin to limit 15087.667 MHz	0	---	27.91	dB	INFO



FCC 15.247 # TX spurious conducted 20dBc ~ BT LE 2 Msps 2404



FCC 15.247 # TX spurious conducted 20dBc ~ BT LE 2 Msps 2404

Test at TX 2440 MHz

RESULT: Reference Power cond.

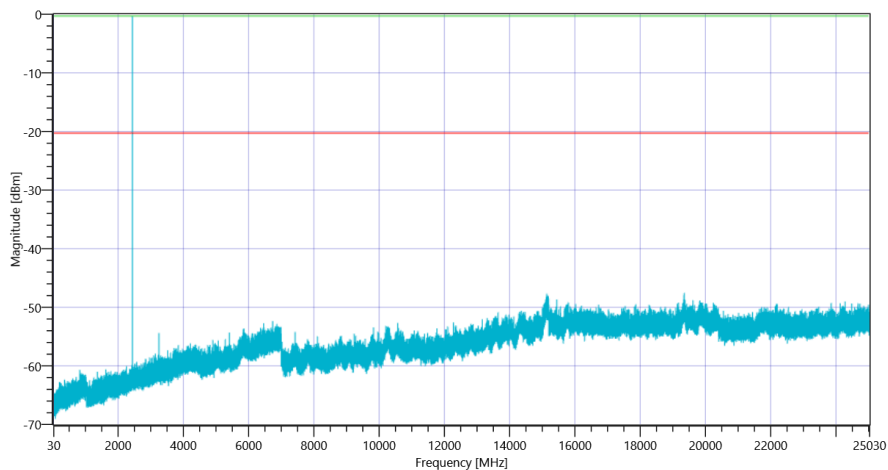
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	2.50	dBm	INFO
Ref. Frequency	---	---	2439.500	MHz	INFO

READ SA SETTINGS:

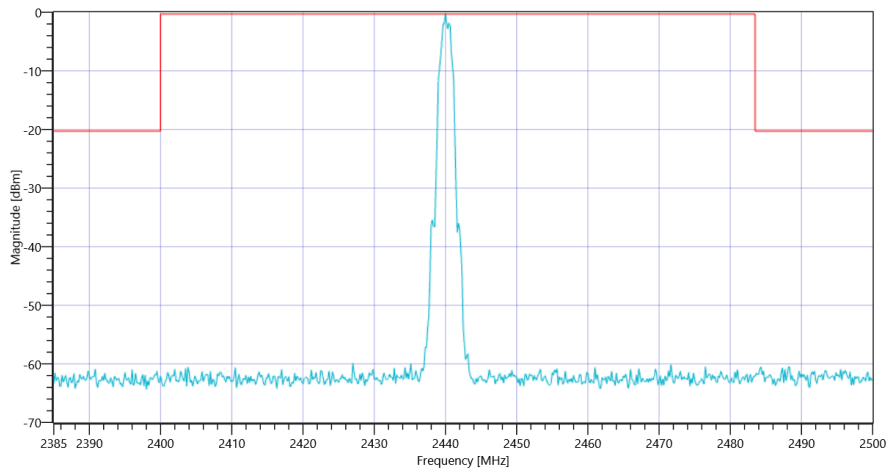
RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	2.50 0 20
Start [MHz] Stop [MHz]	24530.000 25030.000
RBW [MHz] VBW [MHz]	0.100000 0.300000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	200 25 3001 SWE

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Reference @ 2440.00 MHz	---	---	-0.30	dBm	INFO
No peaks detected	---	---			PASS
Lowest margin to limit 19348.833 MHz	0	---	27.26	dB	INFO



FCC 15.247 # TX spurious conducted 20dBc ~ BT LE 2 Msps 2440



FCC 15.247 # TX spurious conducted 20dBc ~ BT LE 2 Msps 2440

Test at TX 2478 MHz

RESULT: Reference Power cond.

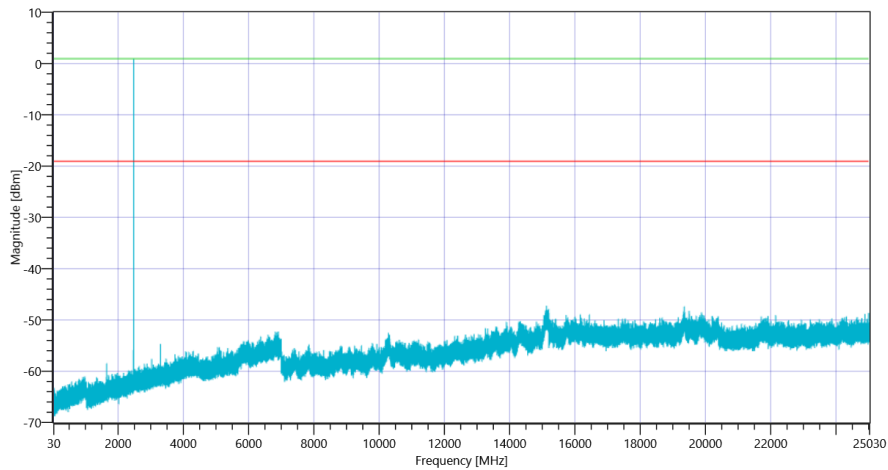
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	2.14	dBm	INFO
Ref. Frequency	---	---	2477.400	MHz	INFO

READ SA SETTINGS:

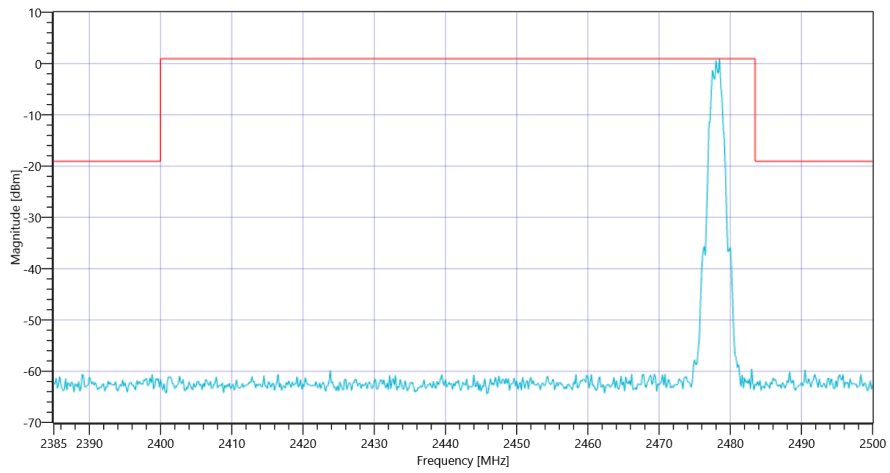
RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	2.14 0 20
Start [MHz] Stop [MHz]	24530.000 25030.000
RBW [MHz] VBW [MHz]	0.100000 0.300000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	200 25 3001 SWE

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Reference @ 2478.50 MHz	---	---	0.92	dBm	INFO
No peaks detected	---	---			PASS
Lowest margin to limit 15127.667 MHz	0	---	28.16	dB	INFO



FCC 15.247 # TX spurious conducted 20dBc ~ BT LE 2 Msps 2478



FCC 15.247 # TX spurious conducted 20dBc ~ BT LE 2 Msps 2478

General verdict

no verdict

- END OF DOCUMENT -
