

Measurement Results

1-2521/21-01-07_log1_conducted

[Test logging](#)

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EUT Summary

EUT DEFINITION	
Manufacturer	beyerdynamic GmbH & Co. KG
Type	Blue Byrd 2 ANC
Kind	Bluetooth headset
Serial Number Setup Number	0022BB770043 1.0
Version SW FW HW	NI NI NI
Comment 1 2	
Temperature [°C] Min Nom Max	-10 20 55
Voltage [V] Min Nom Max	3.8 3.8 3.8

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	Yes
Switch Matrix & Pathcompensation enabled	Yes

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

Test References	
TC Start	13.12.2021 13:09:05
Ambit Temp [°C] Humidity [rel%]	23.8 32
System Version	3.0.3.2
Test Specification	FCC Part 15.247
Test Method	DTS: KDB 558074 D01 V05 - Chapter 8.3.1.1 RBW ≥ DTS Bandwidth
TC Version	0.0.1
My Description	FCC 15.247 Maximum Peak Output Power Conducted DTS - BT LE 1 Msps
Add. Information	

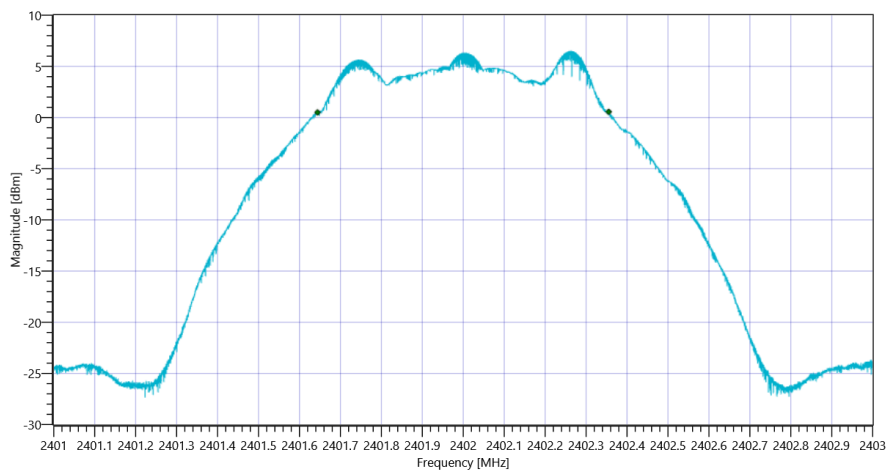
Test Parameter	
Technology to test	BT LE 1 Msps
Antenna Port used	1
Temperature	nom
Voltage	nom
Frequency low to test	True Freq [MHz] 2402
Frequency mid to test	True Freq [MHz] 2440
Frequency high to test	True Freq [MHz] 2480
Auto Control enabled Power Supply Climatic Box	No No
Additional Path Loss [dB]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

Test at TX 2402 MHz

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	11.73 10.66 20
Start [MHz] Stop [MHz]	2401.000 2403.000
RBW [MHz] VBW [MHz]	0.100000 0.300000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	50 200 10001 SWE

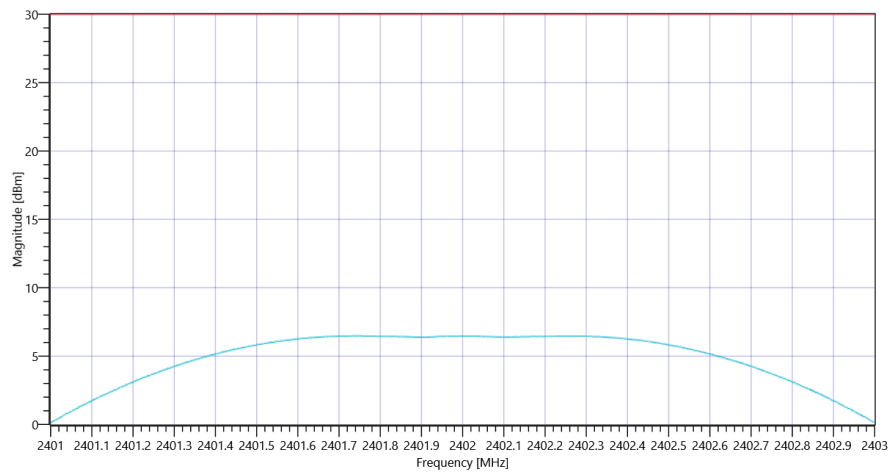
DTS Bandwidth					
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
DTS Bandwidth (6dB)	---	---	711	kHz	INFO



READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	16.73 10.66 25
Start [MHz] Stop [MHz]	2401.000 2403.000
RBW [MHz] VBW [MHz]	1.000000 5.000000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	50 200 1001 SWE

RESULT					
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Peak Power	---	30.00	6.48	dBm	PASS
Peak Power	---	1000	4.446313	mW	PASS
Frequency at Peak	---	---	2401.744	MHz	INFO



Plot_FCC Part 15.247 Maximum Peak Conducted Output Power DTS ~ BT LE 1 Msp_13122021_130959.png

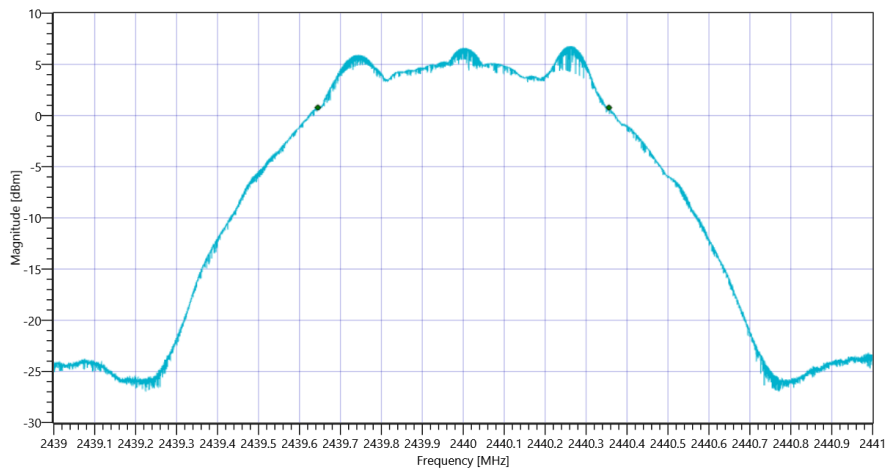
Test at TX 2440 MHz

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	11.97 10.74 20
Start [MHz] Stop [MHz]	2439.000 2441.000
RBW [MHz] VBW [MHz]	0.100000 0.300000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	50 200 10001 SWE

DTS Bandwidth

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
DTS Bandwidth (6dB)	---	---	711	kHz	INFO



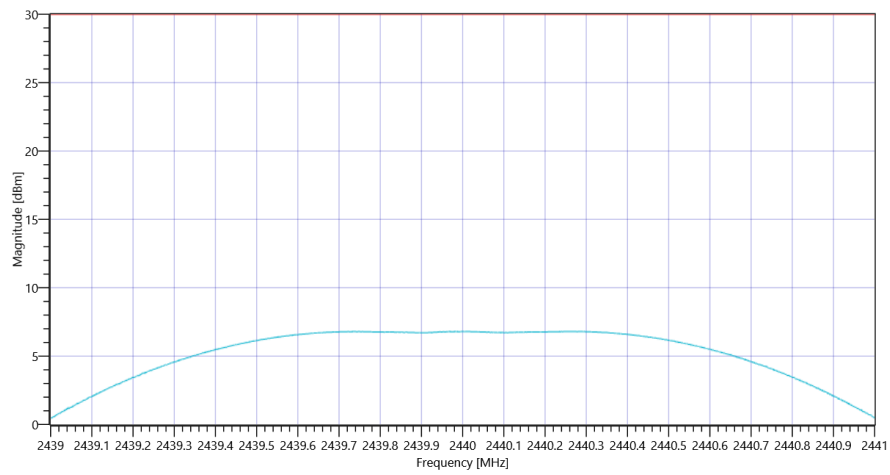
Plot_FCC Part 15.247 Maximum Peak Conducted Output Power DTS ~ BT LE 1 Msps DTS BW_13122021_131054.png

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	16.97 10.74 25
Start [MHz] Stop [MHz]	2439.000 2441.000
RBW [MHz] VBW [MHz]	1.000000 5.000000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	50 200 1001 SWE

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Peak Power	---	30.00	6.8	dBm	PASS
Peak Power	---	1000	4.786301	mW	PASS
Frequency at Peak	---	---	2440.01	MHz	INFO



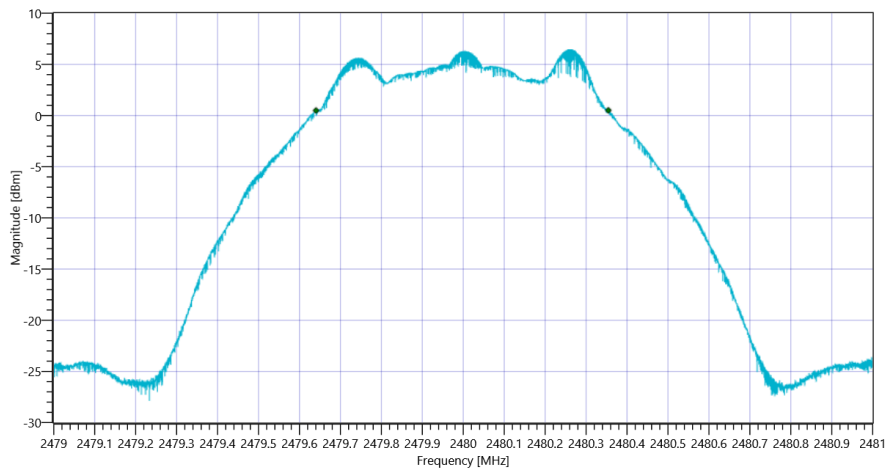
Plot_FCC Part 15.247 Maximum Peak Conducted Output Power DTS ~ BT LE 1 Msp_13122021_131112.png

Test at TX 2480 MHz

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	11.70 10.8 20
Start [MHz] Stop [MHz]	2479.000 2481.000
RBW [MHz] VBW [MHz]	0.100000 0.300000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	50 200 10001 SWE

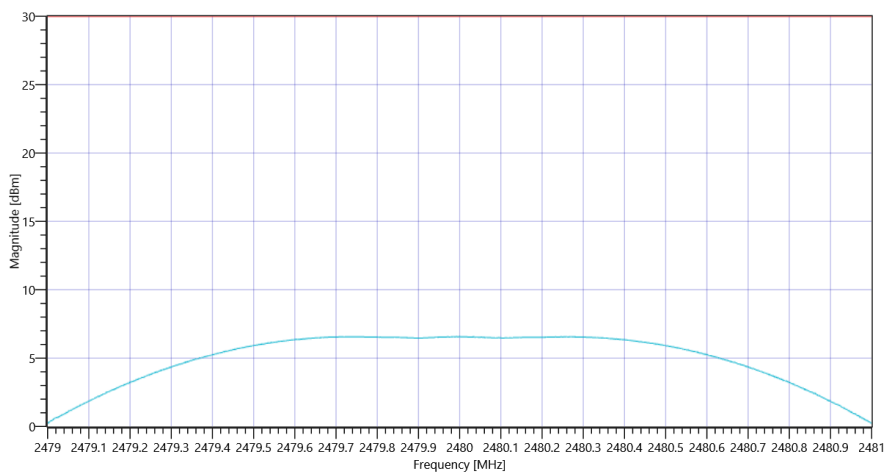
DTS Bandwidth					
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
DTS Bandwidth (6dB)	---	---	714	kHz	INFO



READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	16.70 10.8 25
Start [MHz] Stop [MHz]	2479.000 2481.000
RBW [MHz] VBW [MHz]	1.000000 5.000000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	50 200 1001 SWE

RESULT					
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Peak Power	---	30.00	6.57	dBm	PASS
Peak Power	---	1000	4.539416	mW	PASS
Frequency at Peak	---	---	2479.998	MHz	INFO



Plot_FCC Part 15.247 Maximum Peak Conducted Output Power DTS ~ BT LE 1 Msp_13122021_131212.png

TEST FINISHED	
General Verdict	PASS

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

Test References	
TC Start	13.12.2021 13:13:06
Ambit Temp [°C] Humidity [rel%]	24.1 31
System Version	3.0.3.2
Test Specification	FCC Part 15.247
Test Method	DTS: KDB 558074 D01 V05 - Chapter 8.3.1.1 RBW ≥ DTS Bandwidth
TC Version	0.0.1
My Description	FCC 15.247 Maximum Peak Output Power Conducted DTS - BT LE 2 Msps
Add. Information	

Test Parameter	
Technology to test	BT LE 2 Msps
Antenna Port used	1
Temperature	nom
Voltage	nom
Frequency low to test	True Freq [MHz] 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]	0.5
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer

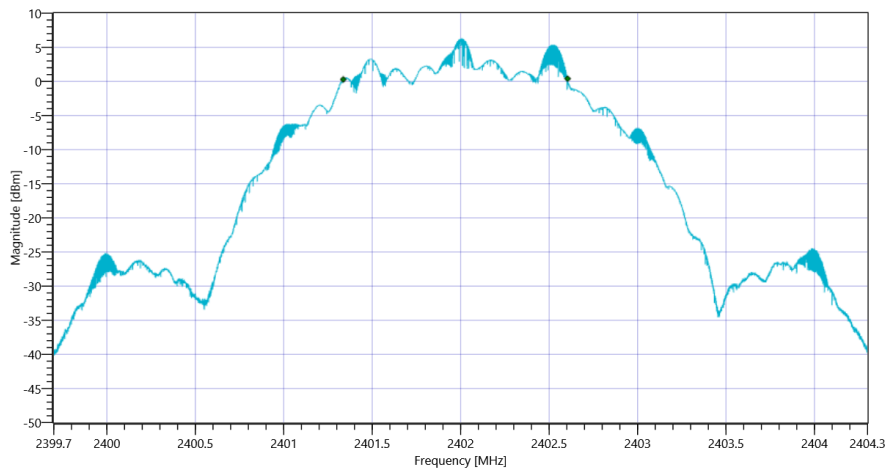
Test at TX 2402 MHz

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	11.72 10.66 20
Start [MHz] Stop [MHz]	2399.700 2404.300
RBW [MHz] VBW [MHz]	0.100000 0.300000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	50 200 10001 SWE

DTS Bandwidth

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
DTS Bandwidth (6dB)	---	---	1268	kHz	INFO



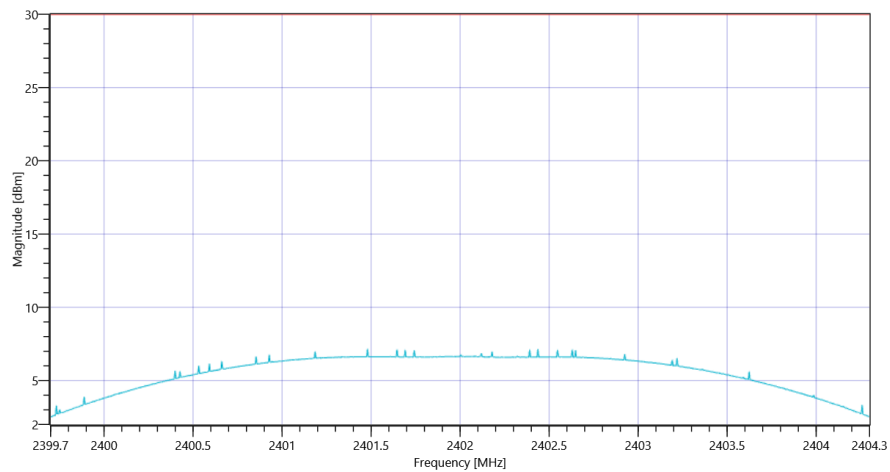
Plot_FCC Part 15.247 Maximum Peak Conducted Output Power DTS ~ BT LE 2 Msps DTS BW_13122021_131344.png

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	16.72 10.66 25
Start [MHz] Stop [MHz]	2399.700 2404.300
RBW [MHz] VBW [MHz]	3.000000 10.000000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	50 200 1001 SWE

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Peak Power	---	30.00	7.16	dBm	PASS
Peak Power	---	1000	5.19996	mW	PASS
Frequency at Peak	---	---	2401.481	MHz	INFO



Plot_FCC Part 15.247 Maximum Peak Conducted Output Power DTS ~ BT LE 2 Msp_13122021_131402.png

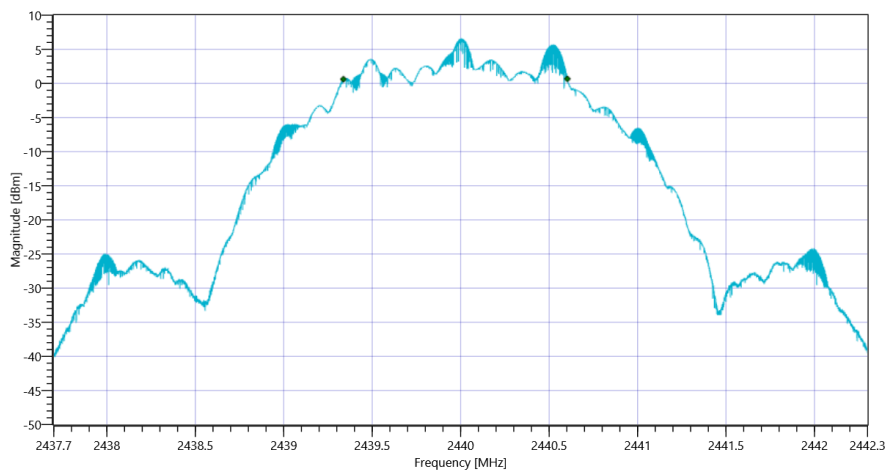
Test at TX 2440 MHz

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	12.03 10.74 20
Start [MHz] Stop [MHz]	2437.700 2442.300
RBW [MHz] VBW [MHz]	0.100000 0.300000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	50 200 10001 SWE

DTS Bandwidth

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
DTS Bandwidth (6dB)	---	---	1266	kHz	INFO

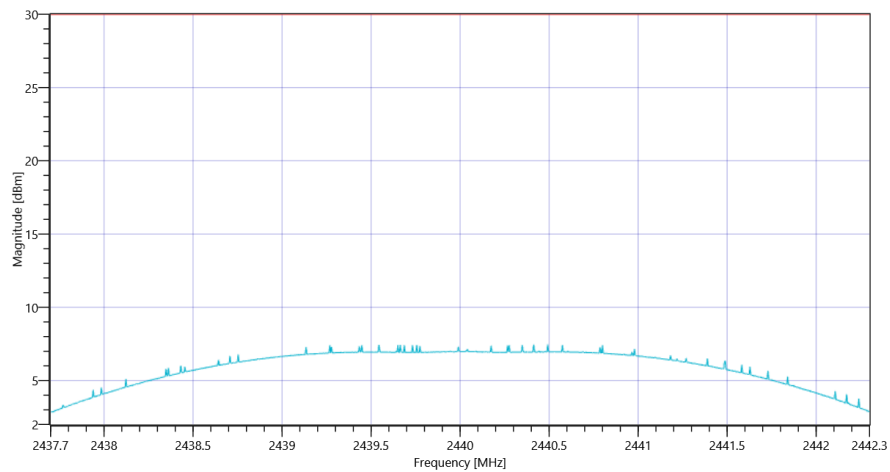


READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	17.03 10.74 25
Start [MHz] Stop [MHz]	2437.700 2442.300
RBW [MHz] VBW [MHz]	3.000000 10.000000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	50 200 1001 SWE

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Peak Power	---	30.00	7.47	dBm	PASS
Peak Power	---	1000	5.584702	mW	PASS
Frequency at Peak	---	---	2440.492	MHz	INFO



Plot_FCC Part 15.247 Maximum Peak Conducted Output Power DTS ~ BT LE 2 Msp_13122021_131502.png

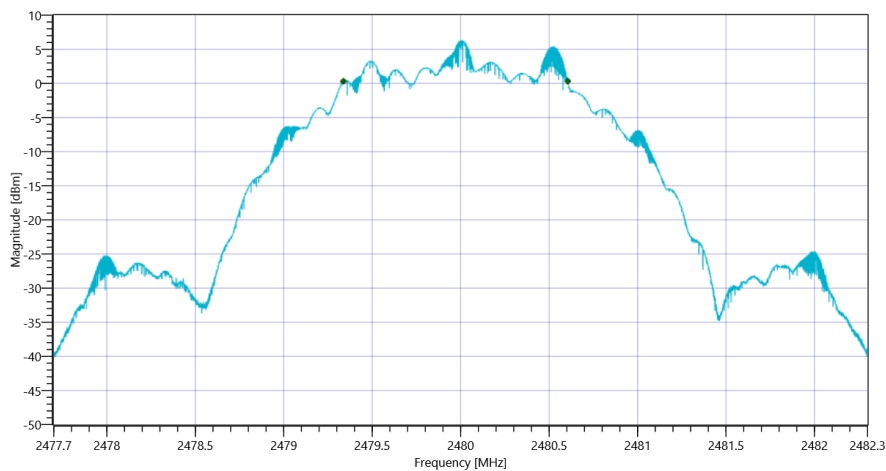
Test at TX 2480 MHz

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	11.77 10.8 20
Start [MHz] Stop [MHz]	2477.700 2482.300
RBW [MHz] VBW [MHz]	0.100000 0.300000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	50 200 10001 SWE

DTS Bandwidth

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
DTS Bandwidth (6dB)	---	---	1268	kHz	INFO

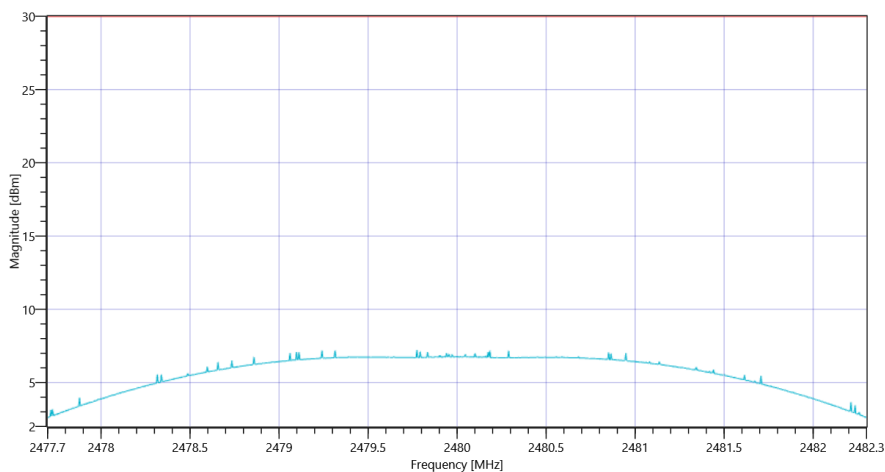


READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	16.77 10.8 25
Start [MHz] Stop [MHz]	2477.700 2482.300
RBW [MHz] VBW [MHz]	3.000000 10.000000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	50 200 1001 SWE

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Peak Power	---	30.00	7.21	dBm	PASS
Peak Power	---	1000	5.260173	mW	PASS
Frequency at Peak	---	---	2479.775	MHz	INFO



Plot_FCC Part 15.247 Maximum Peak Conducted Output Power DTS ~ BT LE 2 MspS_13122021_131600.png

TEST FINISHED	
General Verdict	PASS

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