

Conducted test results

No.1-6998/23-01-23_TR1-A201-R1

February 05, 2024

Test Standard(s) FCC 15.247 - NI
 FCC 15.247, ISED RSS247 - NI

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Authorized

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Testing Manager
Radio Labs

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FCC 15.247 # Maximum peak conducted output power FHSS ~ BT Classic Basic rate

References

TC start	15.12.2023 11:43:13
Ambit temp [°C] humidity [rel%]	26.7 31
System version	4.7.1.4
Standard Version	FCC 15.247 NI
Method	
Description	FCC 15.247 Maximum Peak Output Power Conducted FHSS - BT Classic Basic Rate
Information	

EUT Common Settings BT Classic

Intermodulation Value N	3
Image Freq. Low Mid High [MHz]	0 0 0
Power Class	1
Power Control	No
Longest Supported Packet Type	DH5
RF Supported	Basic Rate True EDR Pi/4DQPSK True EDR 8DPSK True
Testmode	None
Perform Inquiry	Yes
EUT BT Address (if Inquiry No)	6C1DEB90A60A
Signaling BT Address	BABEBEDADBAD
Switch Matrix & Pathcompensation enabled	Yes

Test Parameter

Technology to test	BT Classic Basic rate
Antenna port used	1
Temperature	nom
Voltage	nom
Frequency low to test	True Freq [MHz] 2402
Frequency mid to test	True Freq [MHz] 2441
Frequency high to test	True Freq [MHz] 2480
Auto control enabled power supply Climatic Box	No No
Additional path loss [dB]	0.7
Full path name type	EUT - SignalingUnit - SpectrumAnalyzer

Equipment

Equipment

Signal analyzer,Rohde&Schwarz,FSV-30,1321.3008K30/103170,3.60

Switch matrix,CTCadvanced,RSM-1 NI DAQ,31534892,NI

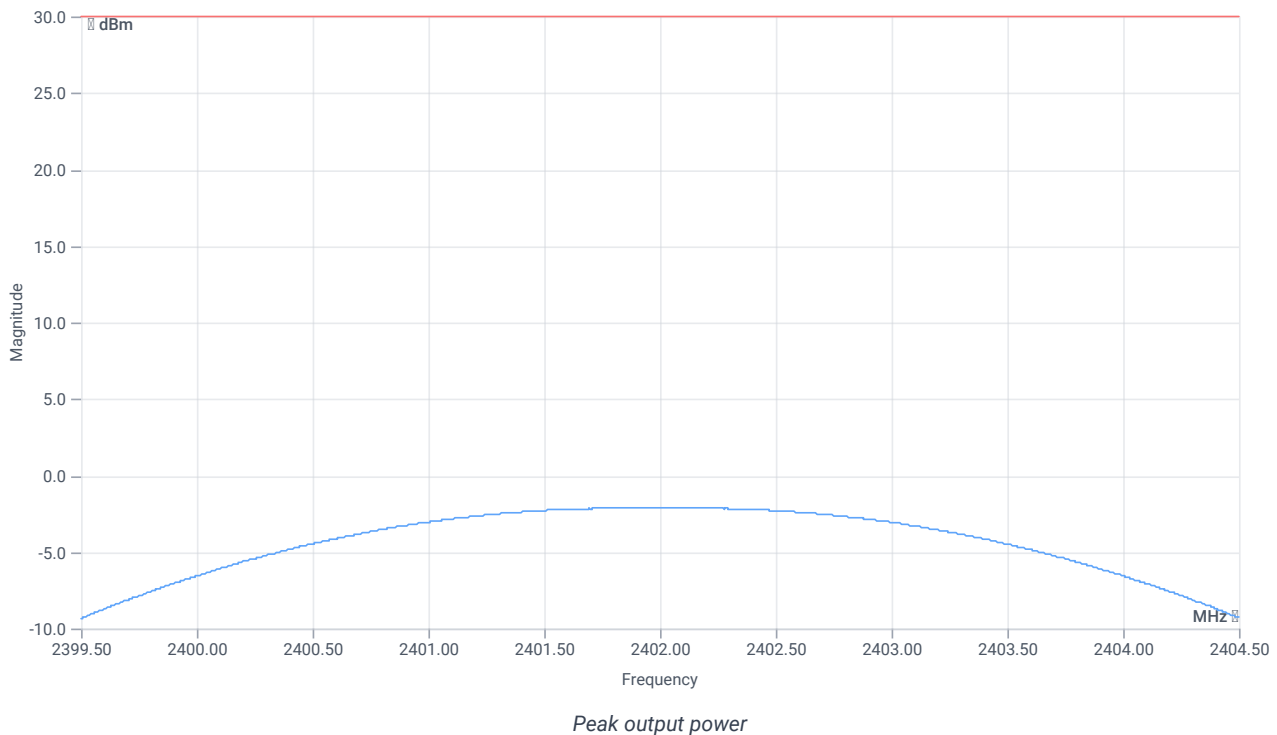
Test at TX 2402 MHz

RESULT: Reference Power cond.

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	--	--	-1.94	dBm	INFO
Ref. Frequency	--	--	2402.200	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	8.06 11.29 15
Start [MHz] Stop [MHz]	2399.500 2404.500
RBW [MHz] VBW [MHz]	3.000000 10.000000
Detector TraceMode	POS MAXH
Sweep: time [ms] count points per Section type	1000 10 1001 SWE



RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Peak Power	--	30.00	-2.13	dBm	PASS
Peak Power	--	1000	0.61235	mW	PASS
Frequency at Peak	--	--	2401.875	MHz	INFO

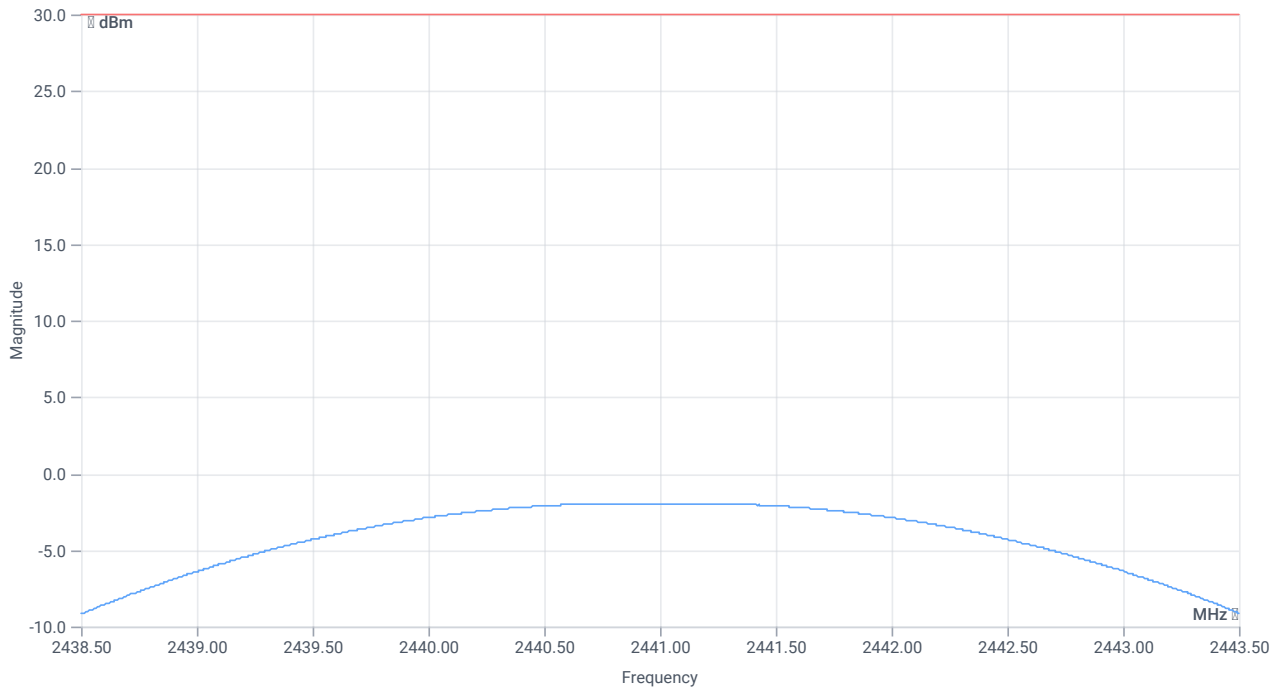
Test at TX 2441 MHz

RESULT: Reference Power cond.

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	--	--	-1.83	dBm	INFO
Ref. Frequency	--	--	2441.200	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	8.17 11.36 15
Start [MHz] Stop [MHz]	2438.500 2443.500
RBW [MHz] VBW [MHz]	3.000000 10.000000
Detector TraceMode	POS MAXH
Sweep: time [ms] count points per Section type	1000 10 1001 SWE



Peak output power

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Peak Power	--	30.00	-1.95	dBm	PASS
Peak Power	--	1000	0.638263	mW	PASS
Frequency at Peak	--	--	2441.12	MHz	INFO

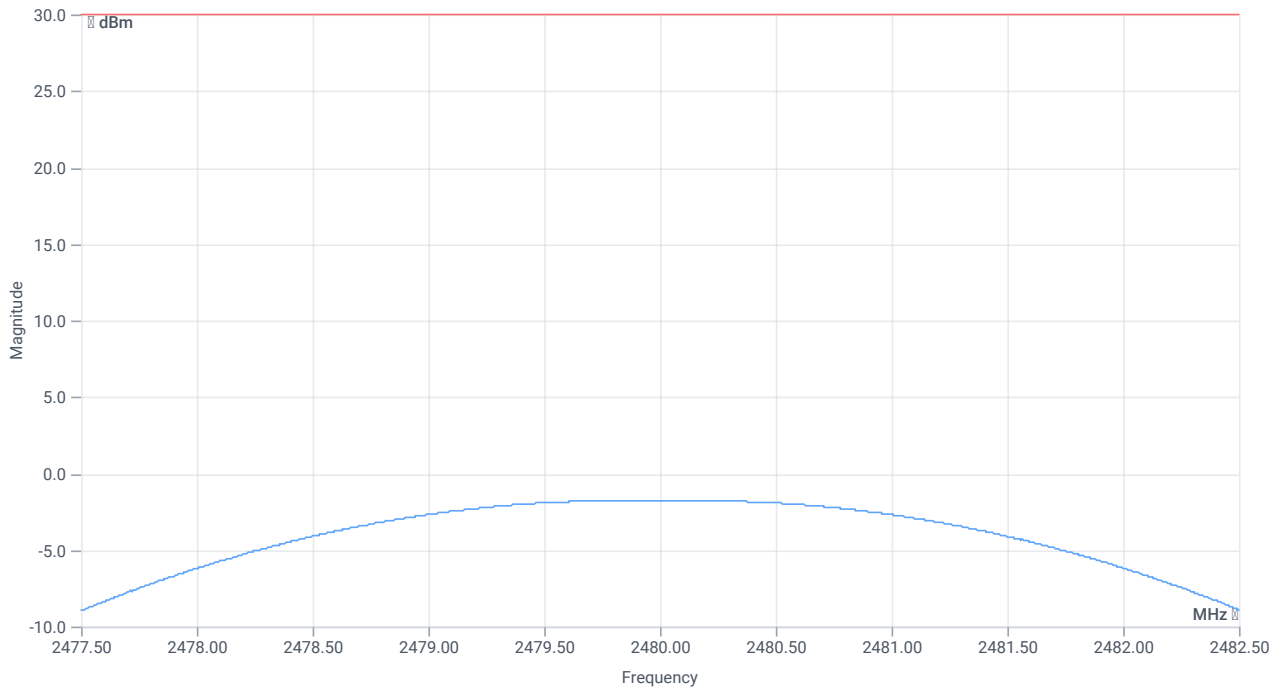
Test at TX 2480 MHz

RESULT: Reference Power cond.

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	--	--	-1.62	dBm	INFO
Ref. Frequency	--	--	2480.200	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	8.38 11.41 15
Start [MHz] Stop [MHz]	2477.500 2482.500
RBW [MHz] VBW [MHz]	3.000000 10.000000
Detector TraceMode	POS MAXH
Sweep: time [ms] count points per Section type	1000 10 1001 SWE



Peak output power

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Peak Power	--	30.00	-1.76	dBm	PASS
Peak Power	--	1000	0.666807	mW	PASS
Frequency at Peak	--	--	2479.845	MHz	INFO

Verdict

PASS

FCC 15.247 # Number of hopping channels FHSS ~ BT Classic Basic rate

References

TC start	15.12.2023 11:45:38
Ambit temp [°C] humidity [rel%]	26.7 31
System version	4.7.1.4
Standard Version	FCC 15.247 NI
Method	
Description	FCC 15.247 Number Of Hopping Channels FHSS - BT Classic Basic Rate
Information	

EUT Common Settings BT Classic

Intermodulation Value N	3
Image Freq. Low Mid High [MHz]	0 0 0
Power Class	1
Power Control	No
Longest Supported Packet Type	DH5
RF Supported	Basic Rate True EDR Pi/4DQPSK True EDR 8DPSK True
Testmode	None
Perform Inquiry	Yes
EUT BT Address (if Inquiry No)	6C1DEB90A60A
Signaling BT Address	BABEBEDADBAD
Switch Matrix & Pathcompensation enabled	Yes

Test Parameter

Technology to test	BT Classic Basic rate
Antenna port used	1
Temperature	nom
Voltage	nom
Frequency low to test	False Freq [MHz] 2402
Frequency mid to test	False Freq [MHz] 2441
Frequency high to test	False Freq [MHz] 2480
Auto control enabled power supply Climatic Box	No No
Additional path loss [dB]	0.7
Full path name type	EUT - SignalingUnit - SpectrumAnalyzer

Equipment

Equipment

Signal analyzer,Rohde&Schwarz,FSV-30,1321.3008K30/103170,3.60

Switch matrix,CTCadvanced,RSM-1 NI DAQ,31534892,NI

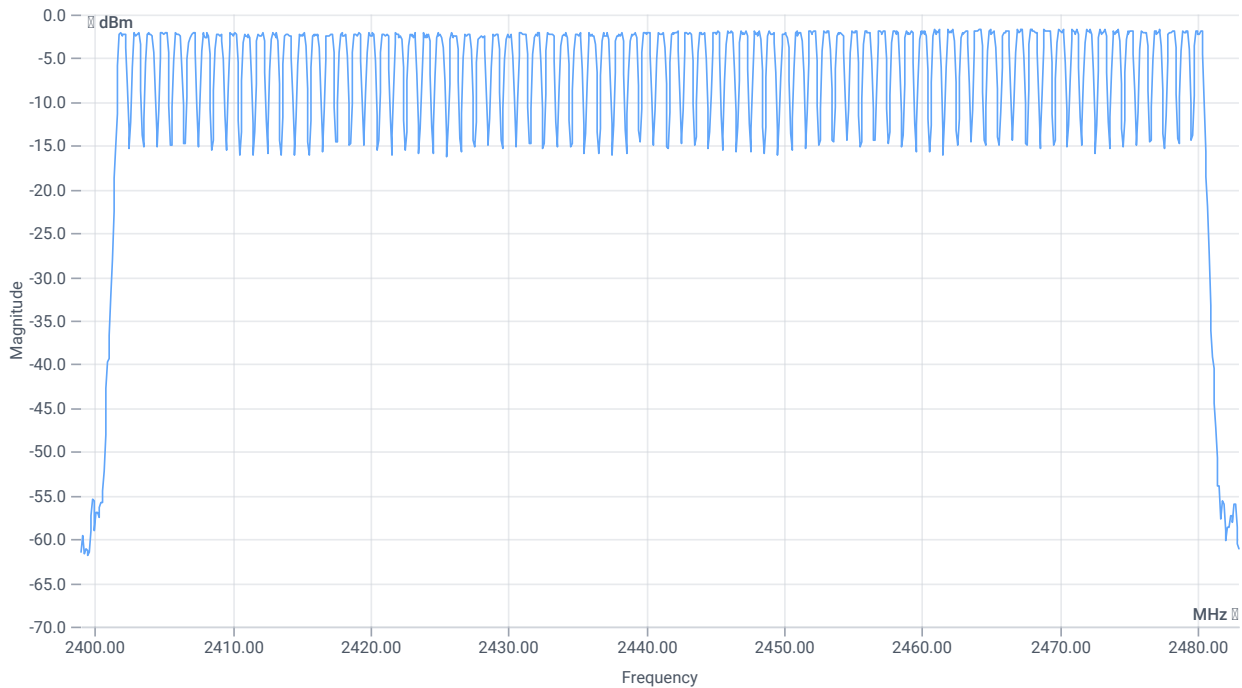
Test at TX hopping MHz

RESULT: Reference Power cond.

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	--	--	-1.51	dBm	INFO
Ref. Frequency	--	--	2461.180	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	3.49 11.36 10
Start [MHz] Stop [MHz]	2399.000 2483.000
RBW [MHz] VBW [MHz]	0.200000 0.500000
Detector TraceMode	POS MAXH
Sweep: time [ms] count points per Section type	1 10000 1001 SWE



Number of hopping channels

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Hopp channel (rounded)	--	--	2402	MHz	INFO
Hopp channel (rounded)	--	--	2403	MHz	INFO
Hopp channel (rounded)	--	--	2404	MHz	INFO

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Hopp channel (rounded)	--	--	2405	MHz	INFO
Hopp channel (rounded)	--	--	2406	MHz	INFO
Hopp channel (rounded)	--	--	2407	MHz	INFO
Hopp channel (rounded)	--	--	2408	MHz	INFO
Hopp channel (rounded)	--	--	2409	MHz	INFO
Hopp channel (rounded)	--	--	2410	MHz	INFO
Hopp channel (rounded)	--	--	2411	MHz	INFO
Hopp channel (rounded)	--	--	2412	MHz	INFO
Hopp channel (rounded)	--	--	2413	MHz	INFO
Hopp channel (rounded)	--	--	2414	MHz	INFO
Hopp channel (rounded)	--	--	2415	MHz	INFO
Hopp channel (rounded)	--	--	2416	MHz	INFO
Hopp channel (rounded)	--	--	2417	MHz	INFO
Hopp channel (rounded)	--	--	2418	MHz	INFO
Hopp channel (rounded)	--	--	2419	MHz	INFO
Hopp channel (rounded)	--	--	2420	MHz	INFO
Hopp channel (rounded)	--	--	2421	MHz	INFO
Hopp channel (rounded)	--	--	2422	MHz	INFO
Hopp channel (rounded)	--	--	2423	MHz	INFO
Hopp channel (rounded)	--	--	2424	MHz	INFO
Hopp channel (rounded)	--	--	2425	MHz	INFO
Hopp channel (rounded)	--	--	2426	MHz	INFO
Hopp channel (rounded)	--	--	2427	MHz	INFO
Hopp channel (rounded)	--	--	2428	MHz	INFO
Hopp channel (rounded)	--	--	2429	MHz	INFO

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Hopp channel (rounded)	--	--	2430	MHz	INFO
Hopp channel (rounded)	--	--	2431	MHz	INFO
Hopp channel (rounded)	--	--	2432	MHz	INFO
Hopp channel (rounded)	--	--	2433	MHz	INFO
Hopp channel (rounded)	--	--	2434	MHz	INFO
Hopp channel (rounded)	--	--	2435	MHz	INFO
Hopp channel (rounded)	--	--	2436	MHz	INFO
Hopp channel (rounded)	--	--	2437	MHz	INFO
Hopp channel (rounded)	--	--	2438	MHz	INFO
Hopp channel (rounded)	--	--	2439	MHz	INFO
Hopp channel (rounded)	--	--	2440	MHz	INFO
Hopp channel (rounded)	--	--	2441	MHz	INFO
Hopp channel (rounded)	--	--	2442	MHz	INFO
Hopp channel (rounded)	--	--	2443	MHz	INFO
Hopp channel (rounded)	--	--	2444	MHz	INFO
Hopp channel (rounded)	--	--	2445	MHz	INFO
Hopp channel (rounded)	--	--	2446	MHz	INFO
Hopp channel (rounded)	--	--	2447	MHz	INFO
Hopp channel (rounded)	--	--	2448	MHz	INFO
Hopp channel (rounded)	--	--	2449	MHz	INFO
Hopp channel (rounded)	--	--	2450	MHz	INFO
Hopp channel (rounded)	--	--	2451	MHz	INFO
Hopp channel (rounded)	--	--	2452	MHz	INFO
Hopp channel (rounded)	--	--	2453	MHz	INFO
Hopp channel (rounded)	--	--	2454	MHz	INFO

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Hopp channel (rounded)	--	--	2455	MHz	INFO
Hopp channel (rounded)	--	--	2456	MHz	INFO
Hopp channel (rounded)	--	--	2457	MHz	INFO
Hopp channel (rounded)	--	--	2458	MHz	INFO
Hopp channel (rounded)	--	--	2459	MHz	INFO
Hopp channel (rounded)	--	--	2460	MHz	INFO
Hopp channel (rounded)	--	--	2461	MHz	INFO
Hopp channel (rounded)	--	--	2462	MHz	INFO
Hopp channel (rounded)	--	--	2463	MHz	INFO
Hopp channel (rounded)	--	--	2464	MHz	INFO
Hopp channel (rounded)	--	--	2465	MHz	INFO
Hopp channel (rounded)	--	--	2466	MHz	INFO
Hopp channel (rounded)	--	--	2467	MHz	INFO
Hopp channel (rounded)	--	--	2468	MHz	INFO
Hopp channel (rounded)	--	--	2469	MHz	INFO
Hopp channel (rounded)	--	--	2470	MHz	INFO
Hopp channel (rounded)	--	--	2471	MHz	INFO
Hopp channel (rounded)	--	--	2472	MHz	INFO
Hopp channel (rounded)	--	--	2473	MHz	INFO
Hopp channel (rounded)	--	--	2474	MHz	INFO
Hopp channel (rounded)	--	--	2475	MHz	INFO
Hopp channel (rounded)	--	--	2476	MHz	INFO
Hopp channel (rounded)	--	--	2477	MHz	INFO
Hopp channel (rounded)	--	--	2478	MHz	INFO
Hopp channel (rounded)	--	--	2479	MHz	INFO

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Hopp channel (rounded)	--	--	2480	MHz	INFO
Σ Hopping channels	15	--	79	Number	PASS

Verdict

PASS

FCC 15.247 # Carrier frequency separation FHSS ~ BT Classic Basic rate

References

TC start	15.12.2023 11:46:43
Ambit temp [°C] humidity [rel%]	26.7 31
System version	4.7.1.4
Standard Version	FCC 15.247 NI
Method	
Description	FCC 15.247 Carrier Frequency Separation FHSS - BT Classic Basic Rate
Information	

EUT Common Settings BT Classic

Intermodulation Value N	3
Image Freq. Low Mid High [MHz]	0 0 0
Power Class	1
Power Control	No
Longest Supported Packet Type	DH5
RF Supported	Basic Rate True EDR Pi/4DQPSK True EDR 8DPSK True
Testmode	None
Perform Inquiry	Yes
EUT BT Address (if Inquiry No)	6C1DEB90A60A
Signaling BT Address	BABEBEDADBAD
Switch Matrix & Pathcompensation enabled	Yes

Test Parameter

Technology to test	BT Classic Basic rate
Antenna port used	1
Temperature	nom
Voltage	nom
Frequency low to test	False Freq [MHz] 2402
Frequency mid to test	False Freq [MHz] 2441
Frequency high to test	False Freq [MHz] 2480
Auto control enabled power supply Climatic Box	No No
Additional path loss [dB]	0.7
Full path name type	EUT - SignalingUnit - SpectrumAnalyzer

Equipment

Equipment

Signal analyzer,Rohde&Schwarz,FSV-30,1321.3008K30/103170,3.60

Switch matrix,CTCadvanced,RSM-1 NI DAQ,31534892,NI

Test at TX hopping MHz

RESULT: Reference Power cond.

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	--	--	-1.43	dBm	INFO
Ref. Frequency	--	--	2462.880	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	3.57 11.36 10
Start [MHz] Stop [MHz]	2435.500 2445.500
RBW [MHz] VBW [MHz]	0.100000 0.300000
Detector TraceMode	POS MAXH
Sweep: time [ms] count points per Section type	1 20000 1001 SWE



RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
1 CFS n to n+1 (rnd)	0.025	--	1	MHz	PASS
1 CFS n to n+1 (rnd)	0.667 (2/3 Nom.BW)	--	1	MHz	PASS
2 CFS n to n+1 (rnd)	0.025	--	1	MHz	PASS
2 CFS n to n+1 (rnd)	0.667 (2/3 Nom.BW)	--	1	MHz	PASS
3 CFS n to n+1 (rnd)	0.025	--	1	MHz	PASS

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
3 CFS n to n+1 (rnd)	0.667 (2/3 Nom.BW)	--	1	MHz	PASS
4 CFS n to n+1 (rnd)	0.025	--	1	MHz	PASS
4 CFS n to n+1 (rnd)	0.667 (2/3 Nom.BW)	--	1	MHz	PASS
5 CFS n to n+1 (rnd)	0.025	--	1	MHz	PASS
5 CFS n to n+1 (rnd)	0.667 (2/3 Nom.BW)	--	1	MHz	PASS
6 CFS n to n+1 (rnd)	0.025	--	1	MHz	PASS
6 CFS n to n+1 (rnd)	0.667 (2/3 Nom.BW)	--	1	MHz	PASS
7 CFS n to n+1 (rnd)	0.025	--	1	MHz	PASS
7 CFS n to n+1 (rnd)	0.667 (2/3 Nom.BW)	--	1	MHz	PASS
8 CFS n to n+1 (rnd)	0.025	--	1	MHz	PASS
8 CFS n to n+1 (rnd)	0.667 (2/3 Nom.BW)	--	1	MHz	PASS
9 CFS n to n+1 (rnd)	0.025	--	1	MHz	PASS
9 CFS n to n+1 (rnd)	0.667 (2/3 Nom.BW)	--	1	MHz	PASS
Carrier Freq. (rnd)	--	--	2436	MHz	INFO
Carrier Freq. (rnd)	--	--	2437	MHz	INFO
Carrier Freq. (rnd)	--	--	2438	MHz	INFO
Carrier Freq. (rnd)	--	--	2439	MHz	INFO
Carrier Freq. (rnd)	--	--	2440	MHz	INFO
Carrier Freq. (rnd)	--	--	2441	MHz	INFO
Carrier Freq. (rnd)	--	--	2442	MHz	INFO
Carrier Freq. (rnd)	--	--	2443	MHz	INFO
Carrier Freq. (rnd)	--	--	2444	MHz	INFO
Carrier Freq. (rnd)	--	--	2445	MHz	INFO

Verdict

PASS

FCC 15.247, ISED RSS247 # Bandwidth 99PCT and 20dB ~ BT Classic Basic rate

References

TC start	15.12.2023 11:49:15
Ambit temp [°C] humidity [rel%]	26.7 31
System version	4.7.1.4
Standard Version	FCC 15.247, ISED RSS247 NI
Method	
Description	FCC 15.247 Bandwidth 99PCT - 20dB FHSS - BT Classic Basic Rate
Information	

EUT Common Settings BT Classic

Intermodulation Value N	3
Image Freq. Low Mid High [MHz]	0 0 0
Power Class	1
Power Control	No
Longest Supported Packet Type	DH5
RF Supported	Basic Rate True EDR Pi/4DQPSK True EDR 8DPSK True
Testmode	None
Perform Inquiry	Yes
EUT BT Address (if Inquiry No)	6C1DEB90A60A
Signaling BT Address	BABEBEDADBAD
Switch Matrix & Pathcompensation enabled	Yes

Test Parameter

Technology to test	BT Classic Basic rate
Antenna port used	1
Temperature	nom
Voltage	nom
Frequency low to test	True Freq [MHz] 2402
Frequency mid to test	True Freq [MHz] 2441
Frequency high to test	True Freq [MHz] 2480
Auto control enabled power supply Climatic Box	No No
Additional path loss [dB]	0.7
Full path name type	EUT - SignalingUnit - SpectrumAnalyzer

Equipment

Signal analyzer,Rohde&Schwarz,FSV-30,1321.3008K30/103170,3.60

Equipment

Switch matrix,CTCadvanced,RSM-1 NI DAQ,31534892,NI

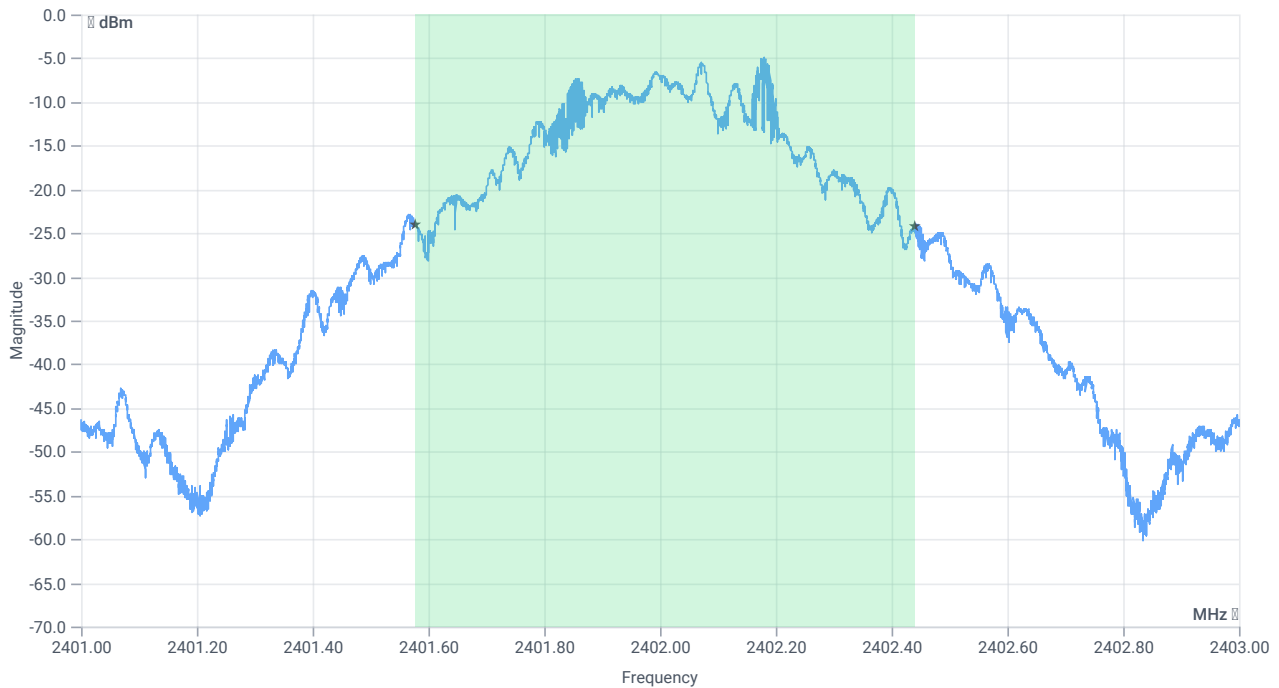
Test at TX 2402 MHz

RESULT: Reference Power cond.

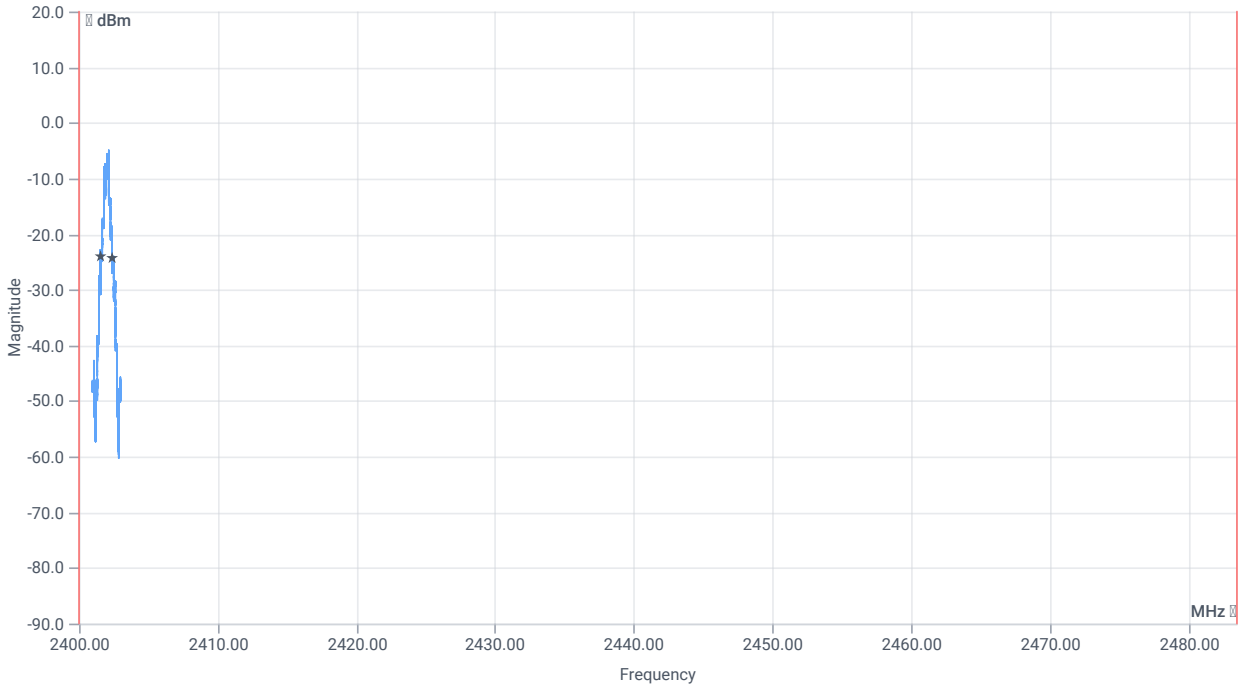
DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	--	--	-1.99	dBm	INFO
Ref. Frequency	--	--	2402.200	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	3.01 11.29 10
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



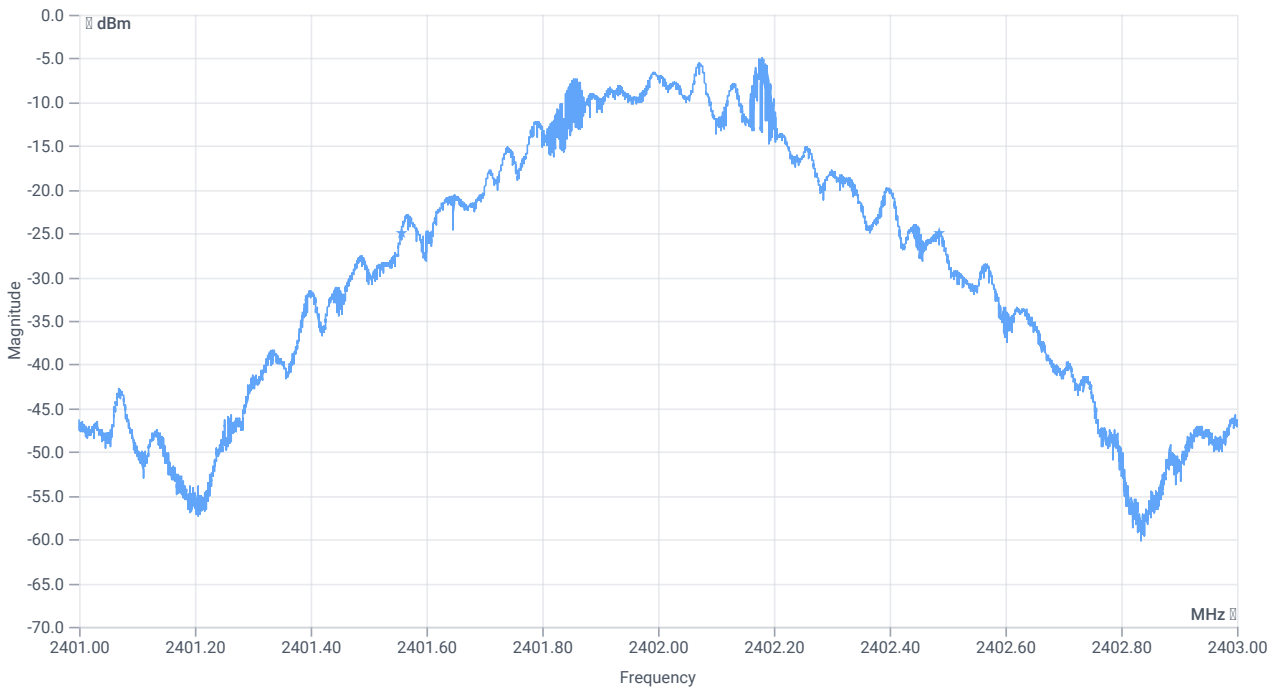
BW 99PCT



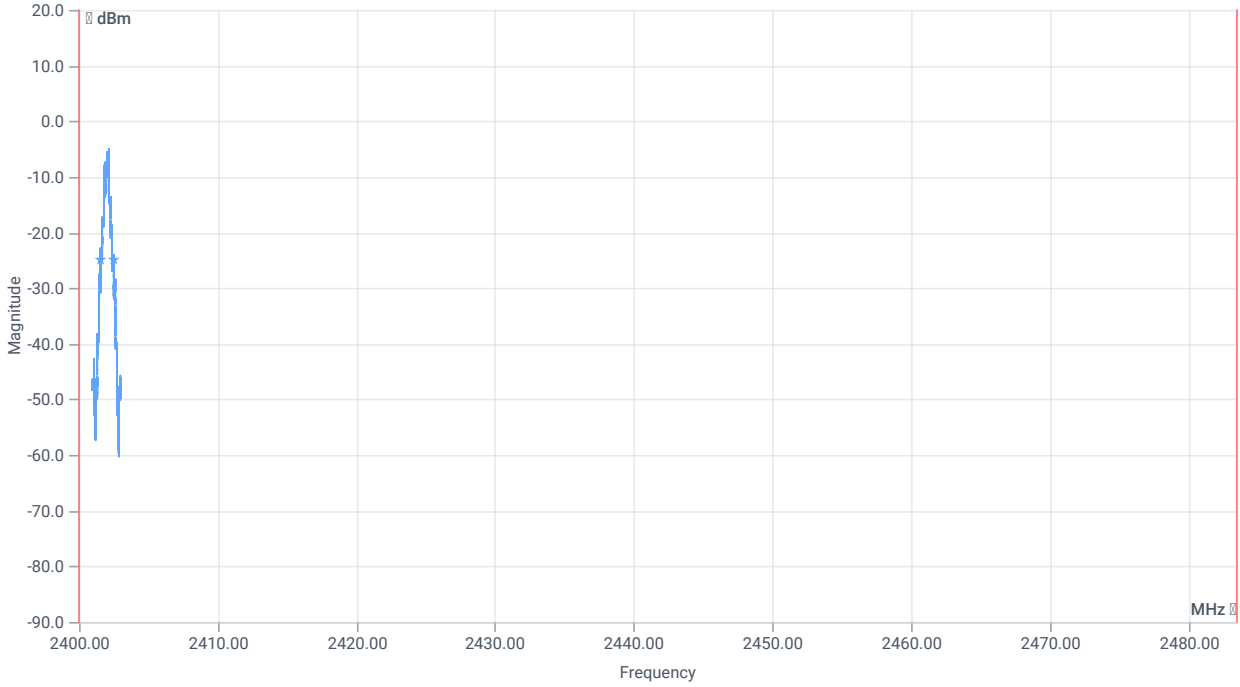
BW within Band 99PCT

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 99%	--	--	862.000	kHz	INFO
T1 99%	2400.000000	--	2401.5782	MHz	PASS
T2 99%	--	2483.500000	2402.4400	MHz	PASS



BW 20dB



BW within Band 20dB

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 20dB	--	--	931	kHz	INFO
T1 20dB	2400.000000	--	2401.5560	MHz	PASS
T2 20dB	--	2483.500000	2402.4870	MHz	PASS

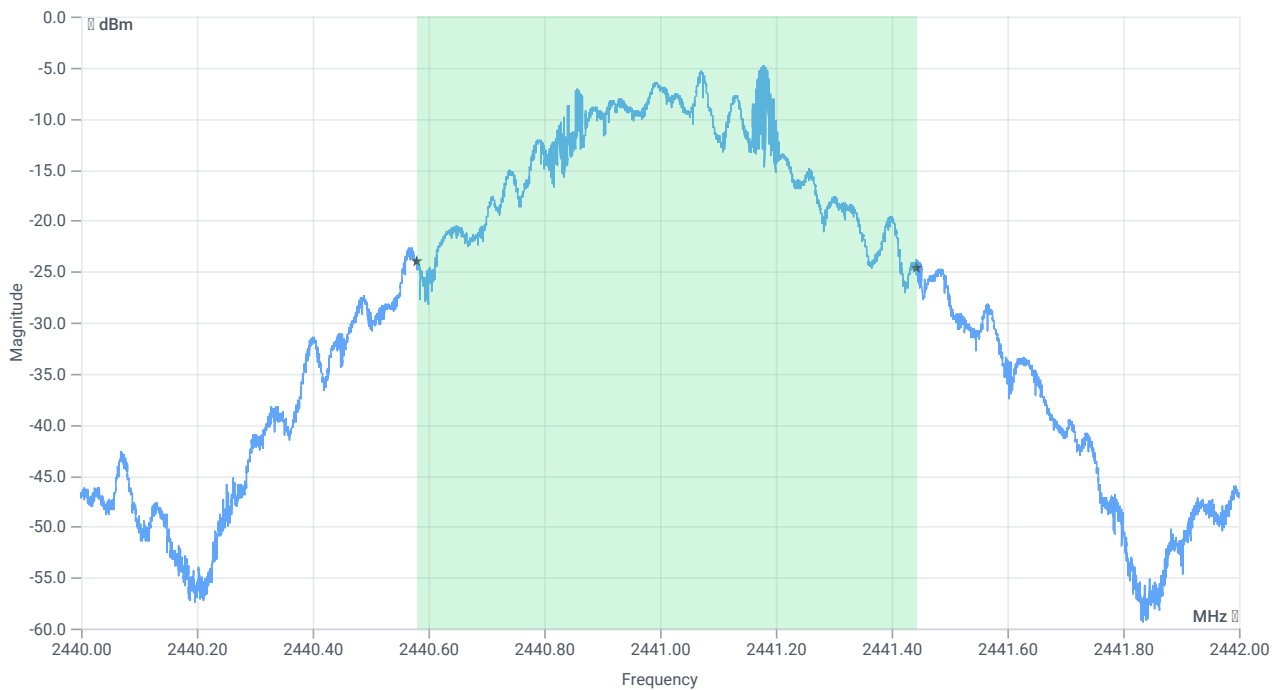
Test at TX 2441 MHz

RESULT: Reference Power cond.

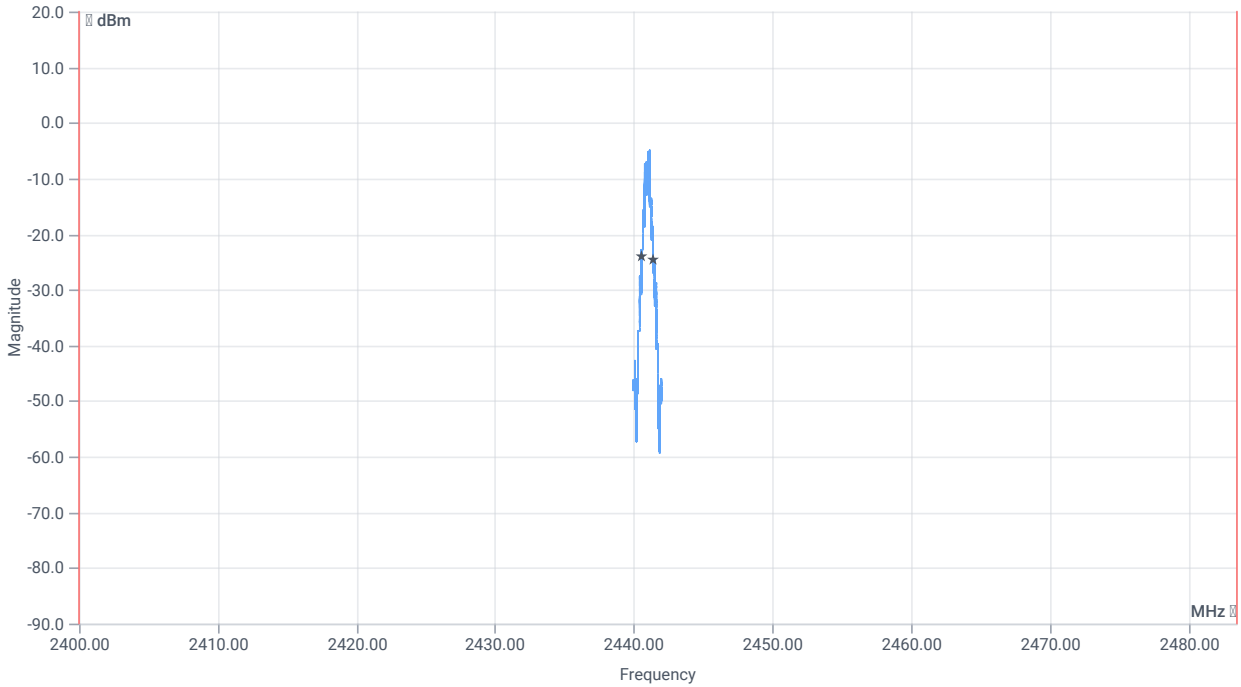
DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	--	--	-1.84	dBm	INFO
Ref. Frequency	--	--	2441.200	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	3.16 11.36 10
Start [MHz] Stop [MHz]	2440.000 2442.000
RBW [MHz] VBW [MHz]	0.020000 0.100000
Detector TraceMode	POS MAXH
Sweep: time [ms] count points per Section type	50 200 10001 SWE



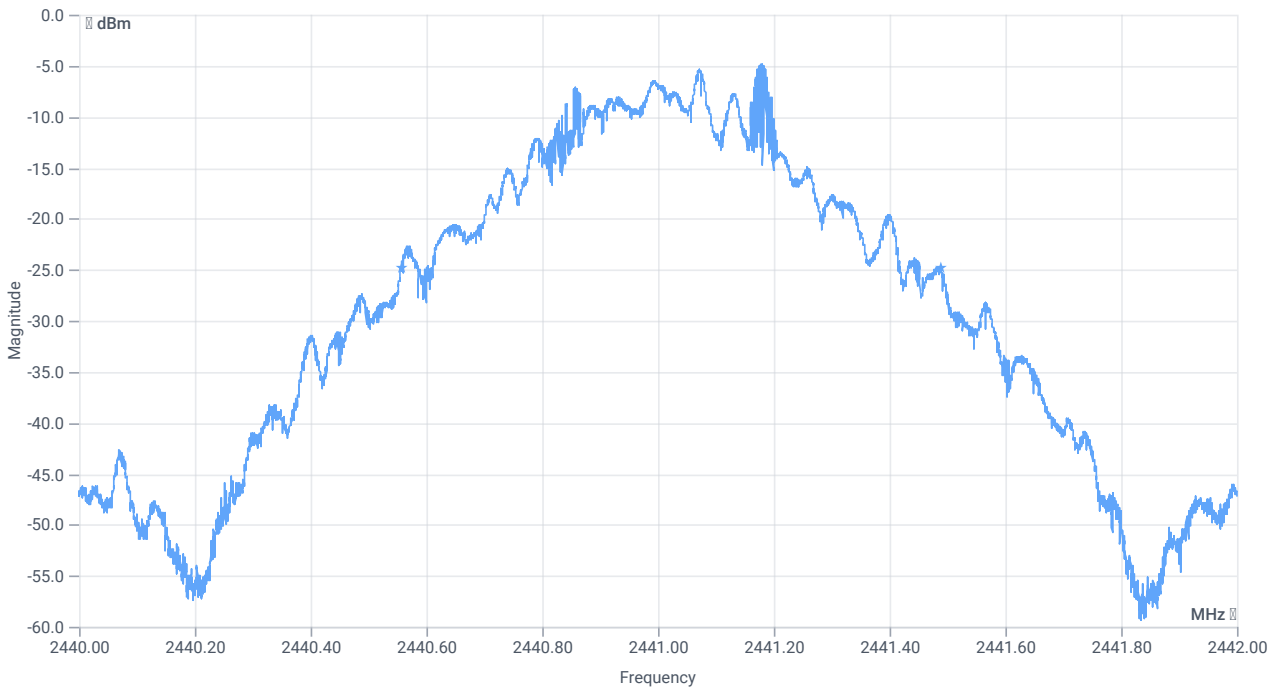
BW 99PCT



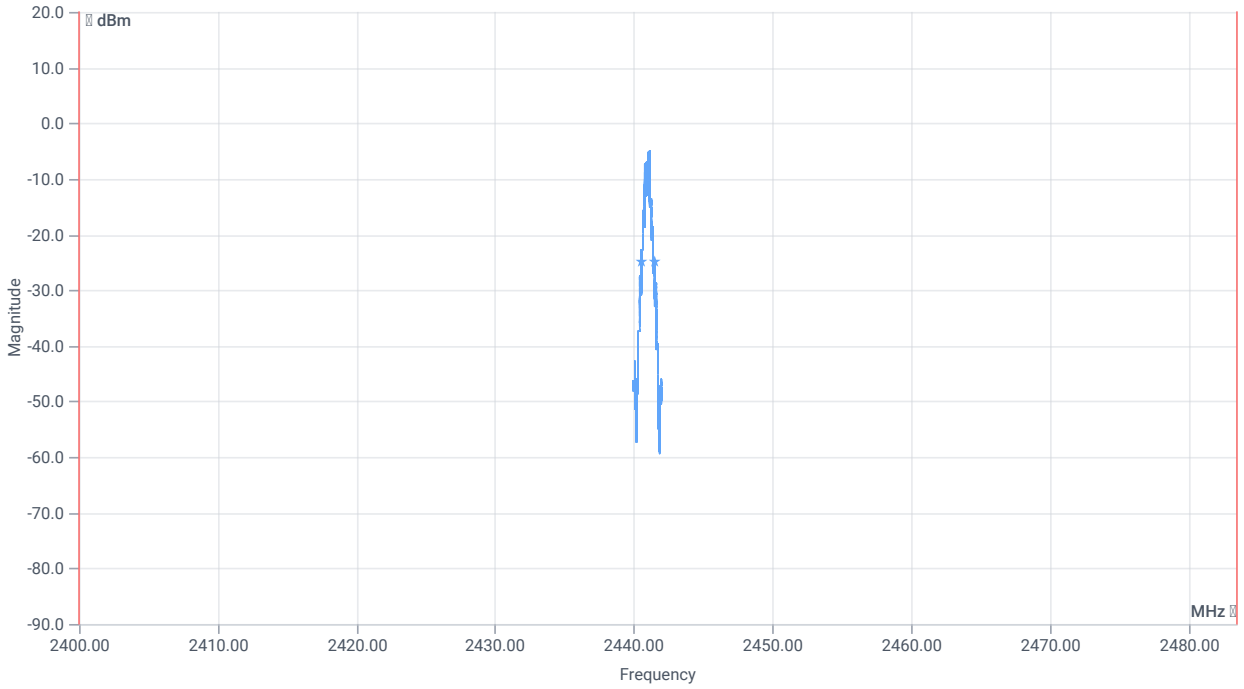
BW within Band 99PCT

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 99%	--	--	863.000	kHz	INFO
T1 99%	2400.000000	--	2440.5788	MHz	PASS
T2 99%	--	2483.500000	2441.4416	MHz	PASS



BW 20dB



BW within Band 20dB

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 20dB	--	--	932	kHz	INFO
T1 20dB	2400.000000	--	2440.5558	MHz	PASS
T2 20dB	--	2483.500000	2441.4876	MHz	PASS

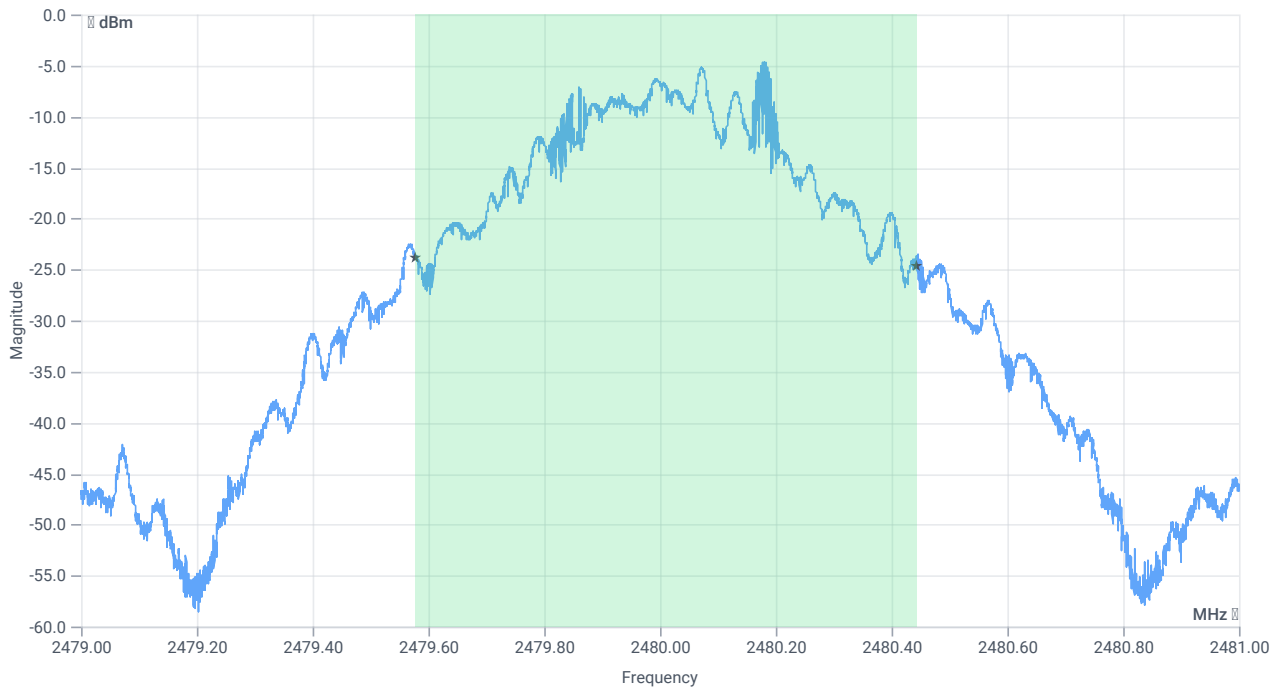
Test at TX 2480 MHz

RESULT: Reference Power cond.

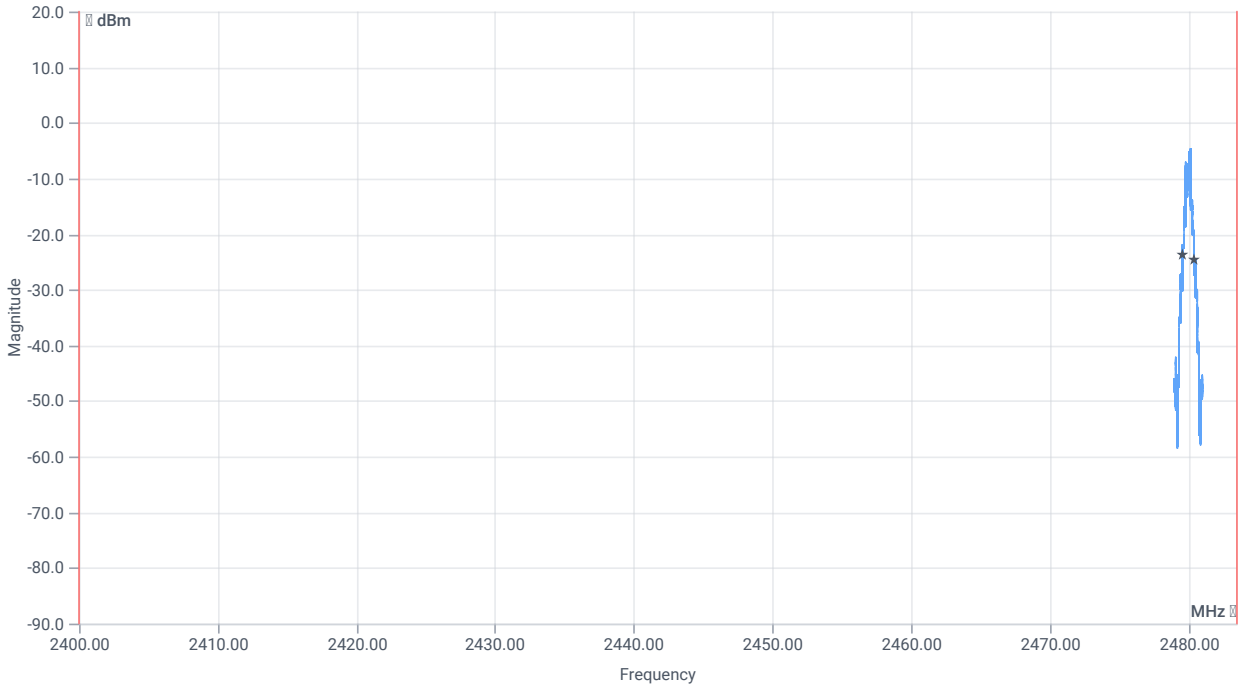
DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	--	--	-1.64	dBm	INFO
Ref. Frequency	--	--	2480.200	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	3.36 11.41 10
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



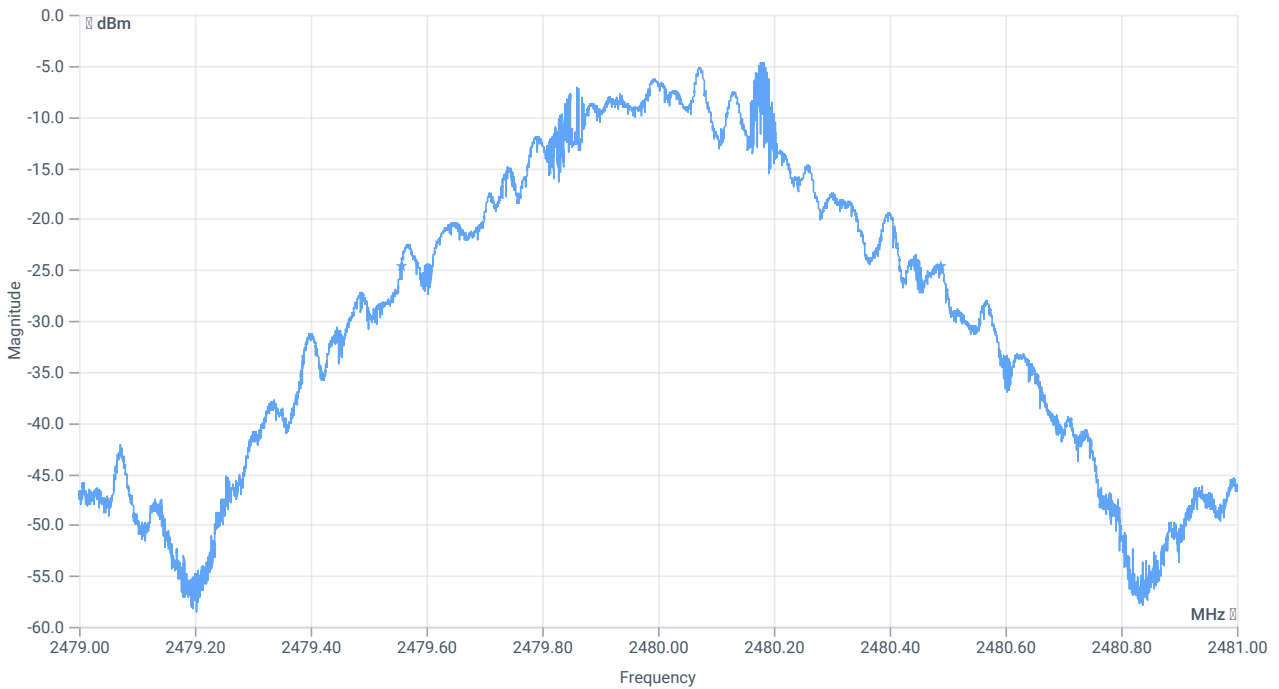
BW 99PCT



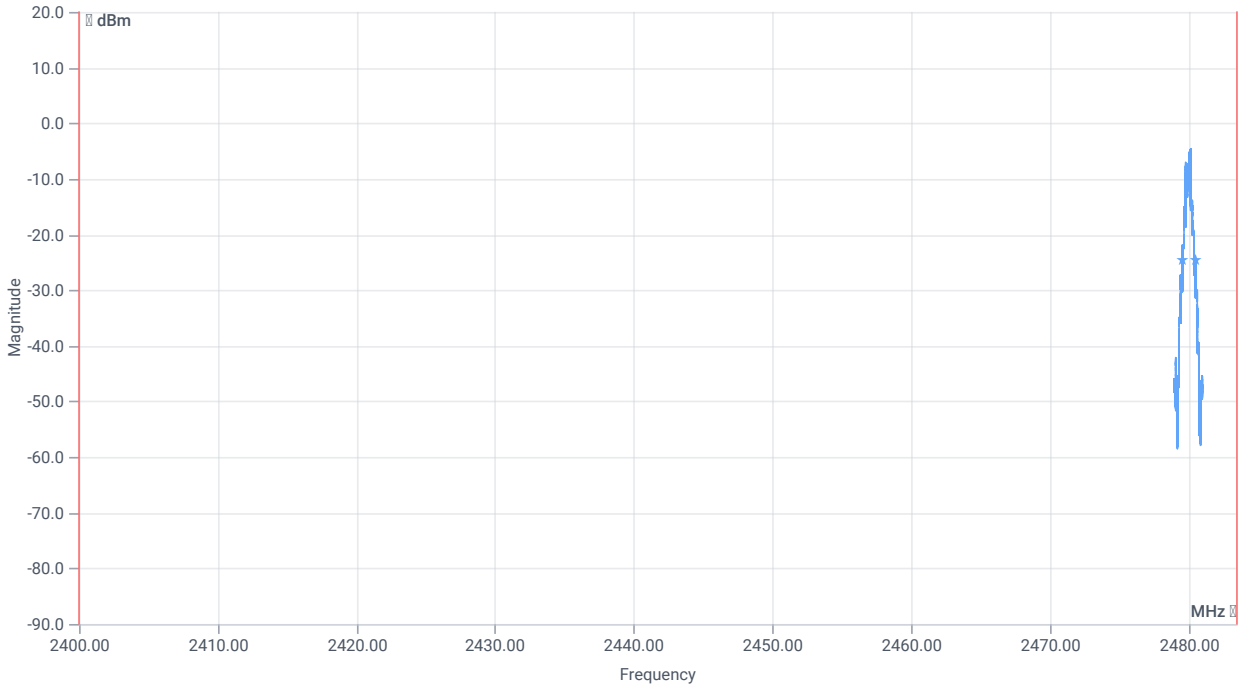
BW within Band 99PCT

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 99%	--	--	864.000	kHz	INFO
T1 99%	2400.000000	--	2479.5780	MHz	PASS
T2 99%	--	2483.500000	2480.4420	MHz	PASS



BW 20dB



BW within Band 20dB

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 20dB	--	--	931	kHz	INFO
T1 20dB	2400.000000	--	2479.5568	MHz	PASS
T2 20dB	--	2483.500000	2480.4876	MHz	PASS

Verdict

PASS

FCC 15.247 # TX spurious conducted 20dBc ~ BT Classic Basic rate

References

TC start	15.12.2023 11:51:51
Ambit temp [°C] humidity [rel%]	26.7 31
System version	4.7.1.4
Standard Version	FCC 15.247 NI
Method	IF DTS then 8.5 DTS emissions in non-restricted frequency bands: Subclause 11.11 of ANSI C63.10 is applicable
Description	FCC 15.247 TX Emissions Conducted FHSS - BT Classic Basic Rate
Information	

EUT Common Settings BT Classic

Intermodulation Value N	3
Image Freq. Low Mid High [MHz]	0 0 0
Power Class	1
Power Control	No
Longest Supported Packet Type	DH5
RF Supported	Basic Rate True EDR Pi/4DQPSK True EDR 8DPSK True
Testmode	None
Perform Inquiry	Yes
EUT BT Address (if Inquiry No)	6C1DEB90A60A
Signaling BT Address	BABEBEDADBAD
Switch Matrix & Pathcompensation enabled	Yes

Test Parameter

Technology to test	BT Classic Basic rate
Antenna port used	1
Temperature	nom
Voltage	nom
Frequency low to test	True Freq [MHz] 2402
Frequency mid to test	True Freq [MHz] 2441
Frequency high to test	True Freq [MHz] 2480
Auto control enabled power supply Climatic Box	No No
Additional path loss [dB]	0.7
Full path name type	EUT - SignalingUnit - SpectrumAnalyzer

Equipment

Signal analyzer,Rohde&Schwarz,FSV-30,1321.3008K30/103170,3.60

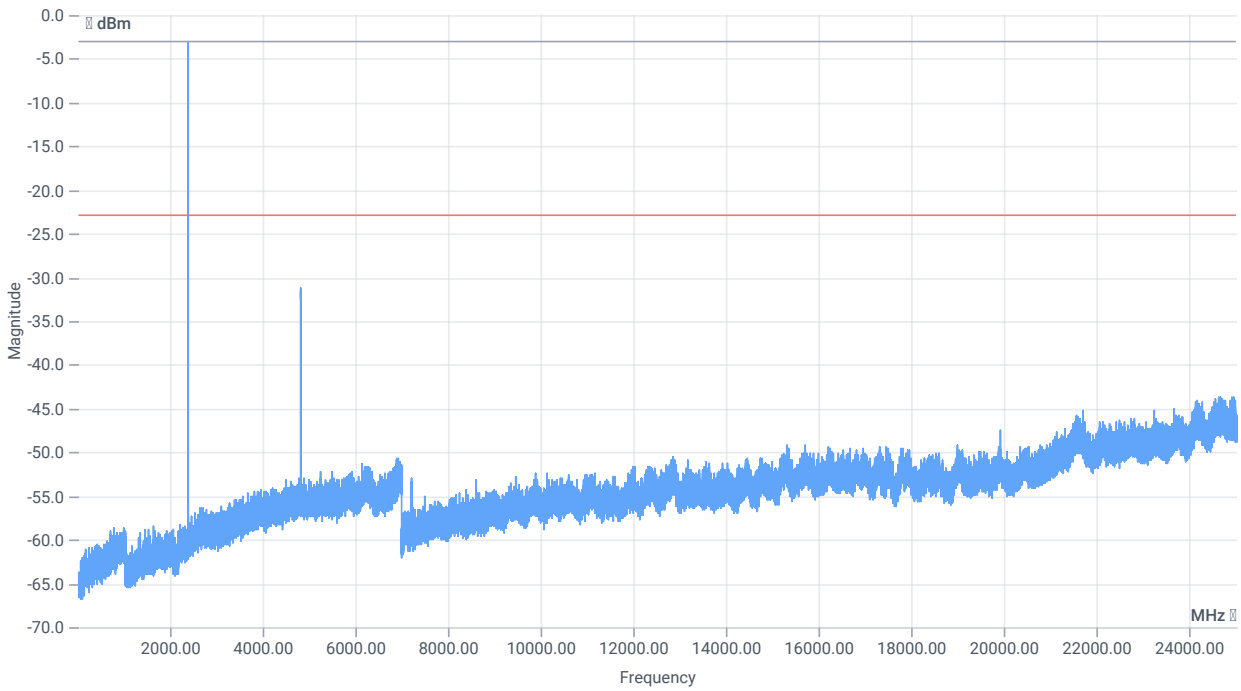
Equipment

Switch matrix,CTCadvanced,RSM-1 NI DAQ,31534892,NI

Test at TX 2402 MHz

RESULT: Reference Power cond.

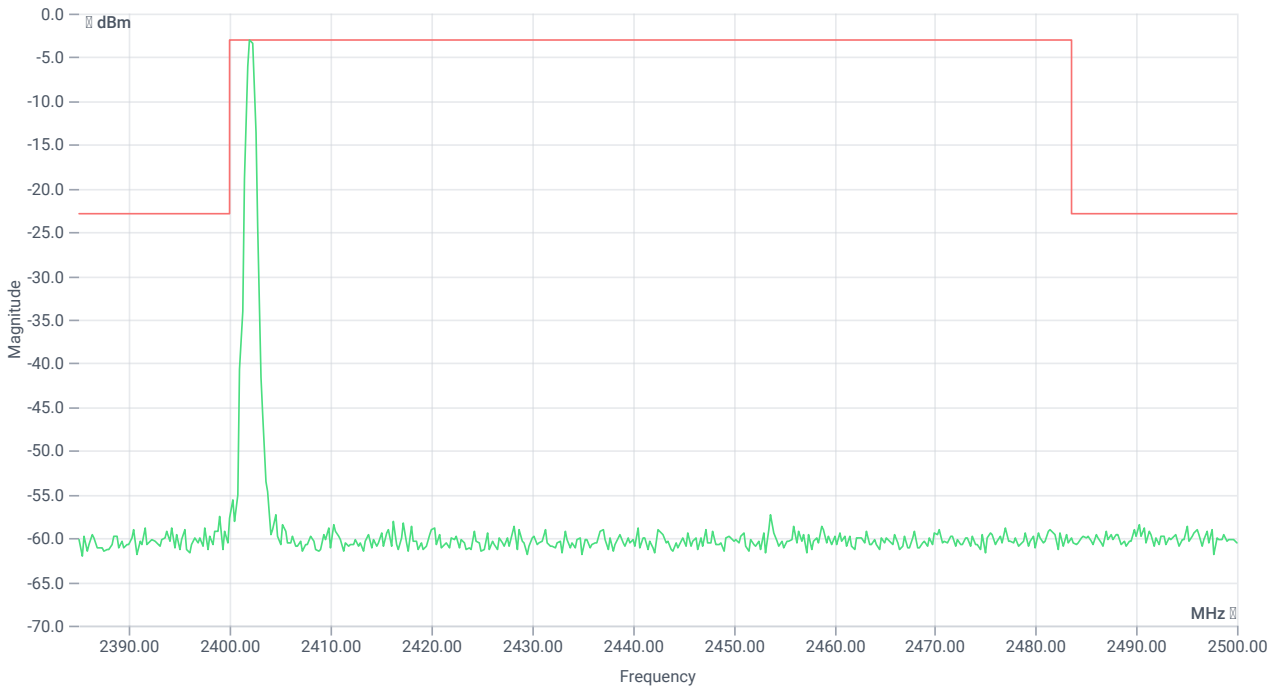
DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	--	--	-1.94	dBm	INFO
Ref. Frequency	--	--	2402.200	MHz	INFO



TX emissions

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	-1.94 0 15
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 2001 SWE



TX emissions band zoomed

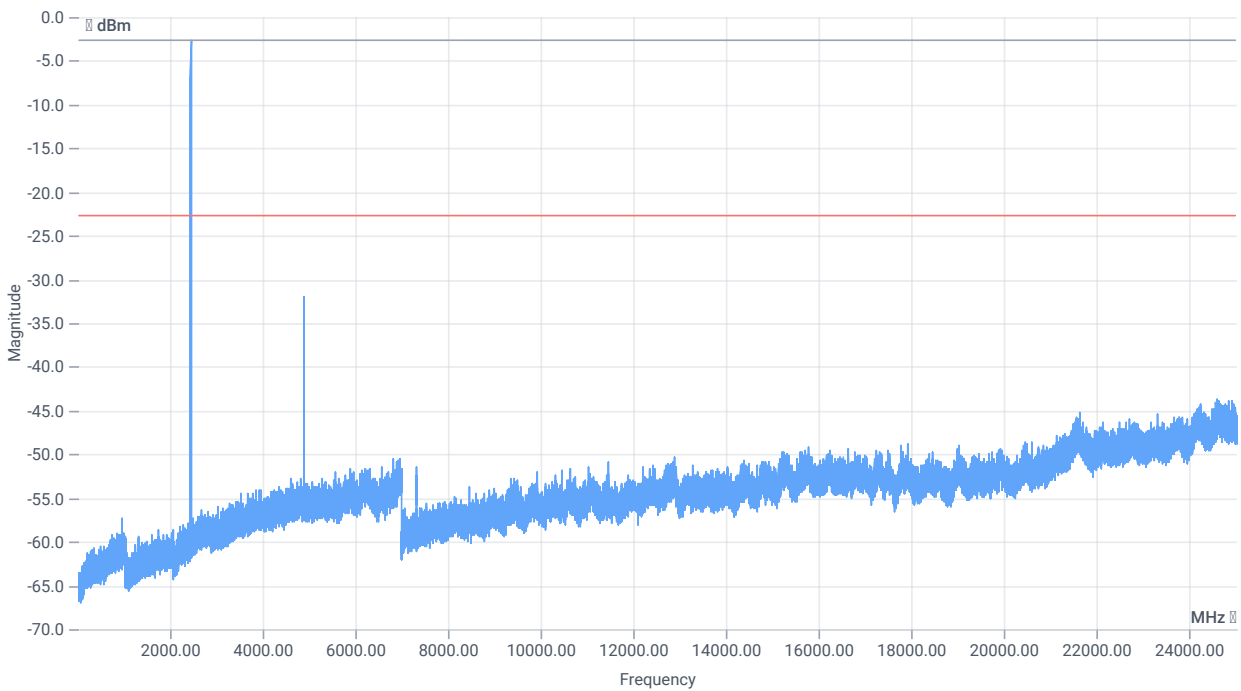
RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Reference @ 2402.00 MHz	--	--	-2.94	dBm	INFO
No peaks detected	--	--			PASS
Lowest margin to limit 4804.5 MHz	0	--	8.3	dB	INFO

Test at TX 2441 MHz

RESULT: Reference Power cond.

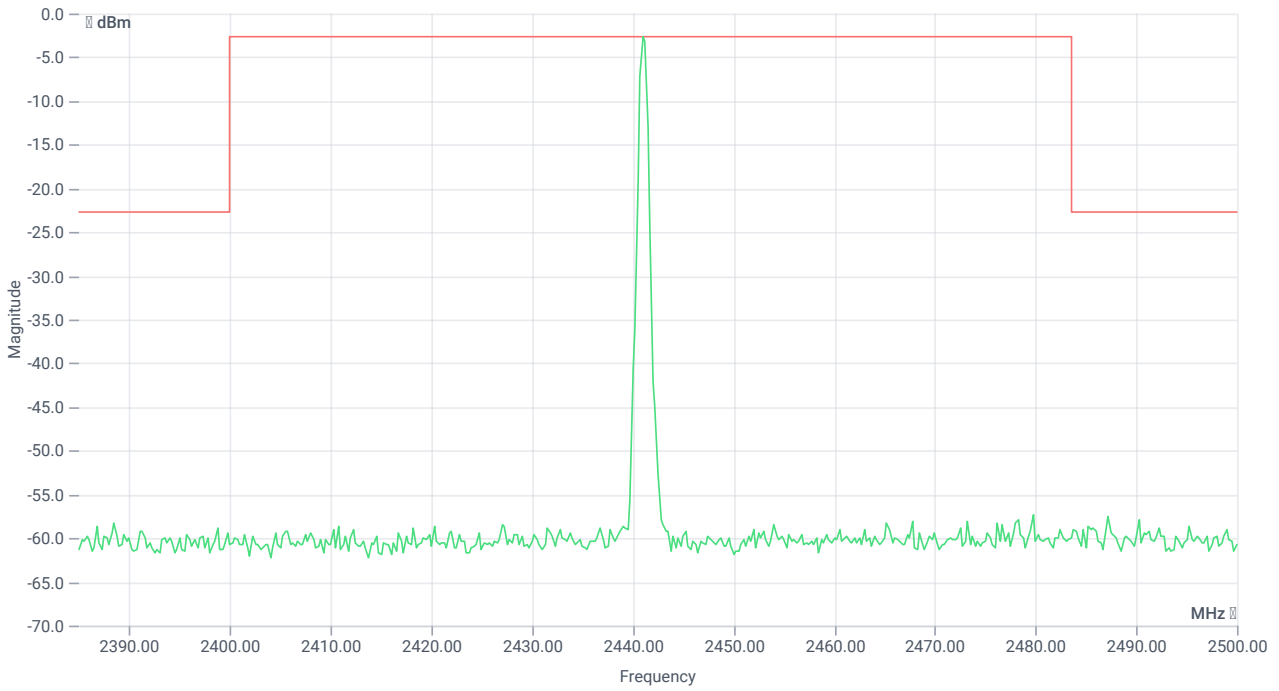
DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	--	--	-1.79	dBm	INFO
Ref. Frequency	--	--	2441.200	MHz	INFO



TX emissions

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	-1.79 0 15
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 2001 SWE



TX emissions band zoomed

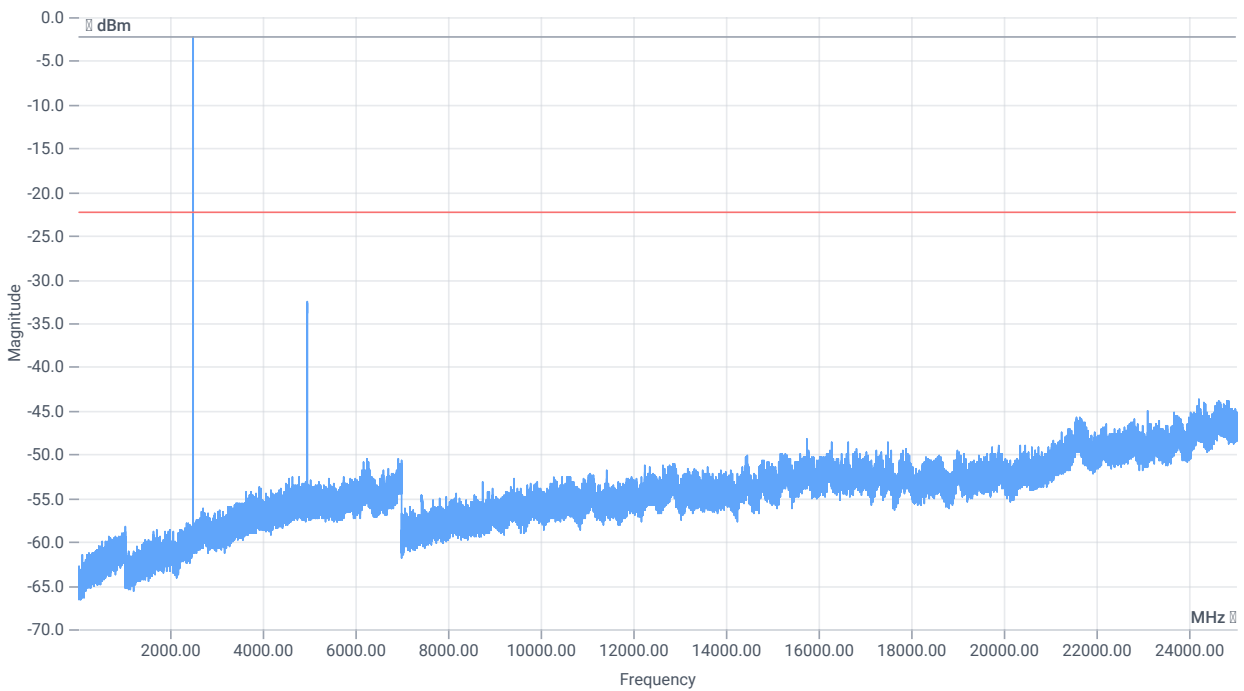
RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Reference @ 2441.00 MHz	--	--	-2.62	dBm	INFO
No peaks detected	--	--			PASS
Lowest margin to limit 4882.5 MHz	0	--	9.42	dB	INFO

Test at TX 2480 MHz

RESULT: Reference Power cond.

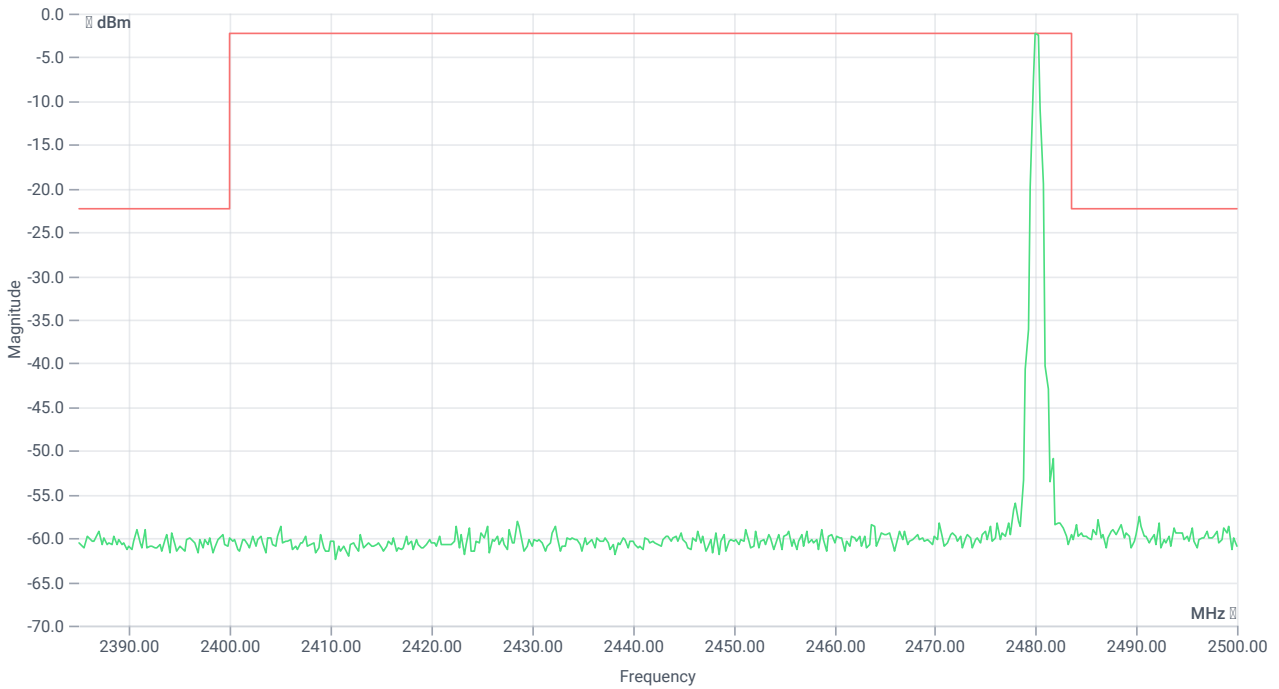
DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	--	--	-1.62	dBm	INFO
Ref. Frequency	--	--	2480.100	MHz	INFO



TX emissions

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	-1.62 0 15
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 2001 SWE



TX emissions band zoomed

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Reference @ 2480.00 MHz	--	--	-2.31	dBm	INFO
No peaks detected	--	--			PASS
Lowest margin to limit 4960.5 MHz	0	--	10.31	dB	INFO

Verdict

PASS

FCC 15.247 # TX Emissions on band edge FCC ~ BT Classic Basic rate

References

TC start	15.12.2023 13:32:18
Ambit temp [°C] humidity [rel%]	27.0 32
System version	4.7.1.4
Standard Version	FCC 15.247 NI
Method	
Description	FCC 15.247 TX Emissions conducted on band edge FHSS - BT Classic Basic Rate
Information	

EUT Common Settings BT Classic

Intermodulation Value N	3
Image Freq. Low Mid High [MHz]	0 0 0
Power Class	1
Power Control	No
Longest Supported Packet Type	DH5
RF Supported	Basic Rate True EDR Pi/4DQPSK True EDR 8DPSK True
Testmode	None
Perform Inquiry	Yes
EUT BT Address (if Inquiry No)	6C1DEB90A60A
Signaling BT Address	BABEBEDADBAD
Switch Matrix & Pathcompensation enabled	Yes

Test Parameter

Technology to test	BT Classic Basic rate
Antenna port used	1
Temperature	nom
Voltage	nom
Frequency low to test	False Freq [MHz] 2402
Frequency mid to test	False Freq [MHz] 2441
Frequency high to test	False Freq [MHz] 2480
Auto control enabled power supply Climatic Box	No No
Additional path loss [dB]	0.7
Full path name type	EUT - SignalingUnit - SpectrumAnalyzer

Equipment

Equipment

Signal analyzer,Rohde&Schwarz,FSV-30,1321.3008K30/103170,3.60

Switch matrix,CTCadvanced,RSM-1 NI DAQ,31534892,NI

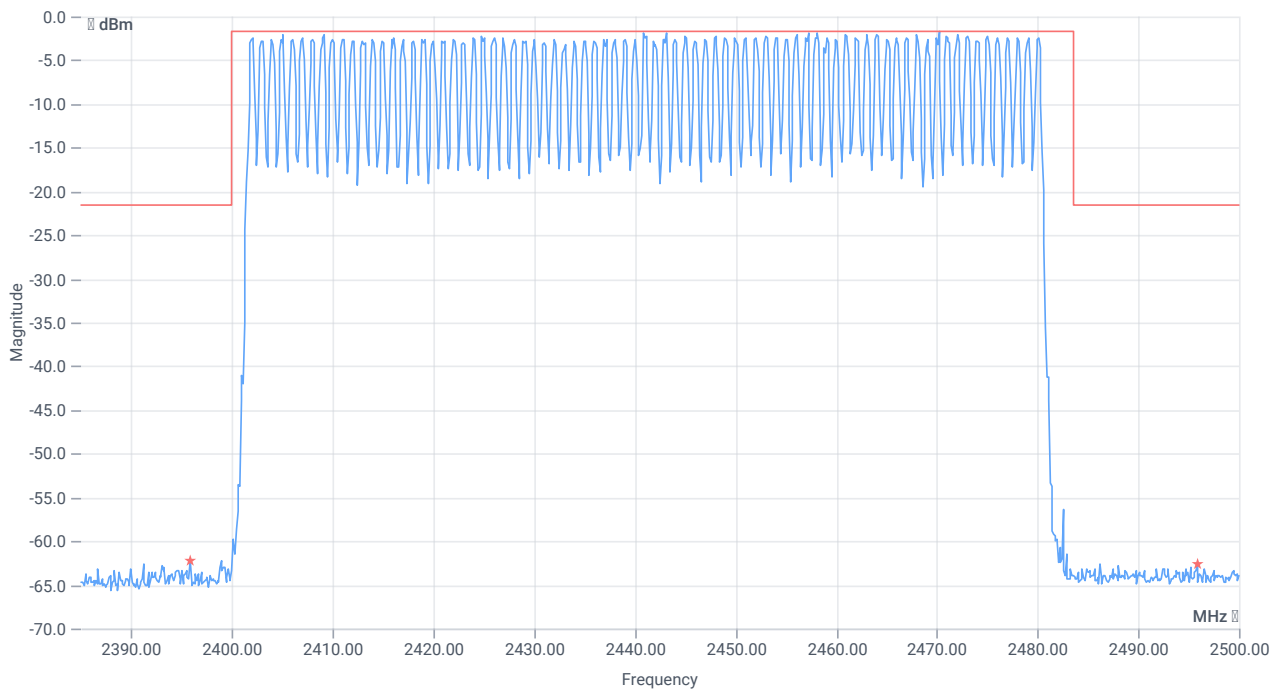
Test at TX hopping MHz

RESULT: Reference Power cond.

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	--	--	-1.38	dBm	INFO
Ref. Frequency	--	--	2467.170	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	3.62 11.36 10
Start [MHz] Stop [MHz]	2385.000 2500.000
RBW [MHz] VBW [MHz]	0.100000 0.300000
Detector TraceMode	POS MAXH
Sweep: time [ms] count points per Section type	30 1800 1001 SWE



TX emissions on band edge

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Max peak lower Band	--	-21.63	-62.20	dBm	PASS
Max peak upper Band	--	-21.63	-62.55	dBm	PASS

Verdict

FCC 15.247 # Maximum peak conducted output power FHSS ~ BT Classic EDR Pi/4DQPSK

References

TC start	15.12.2023 12:18:21
Ambit temp [°C] humidity [rel%]	26.8 31
System version	4.7.1.4
Standard Version	FCC 15.247 NI
Method	
Description	FCC 15.247 Maximum Peak Output Power Conducted FHSS - BT Classic EDR Pi/4DQPSK
Information	

EUT Common Settings BT Classic

Intermodulation Value N	3
Image Freq. Low Mid High [MHz]	0 0 0
Power Class	1
Power Control	No
Longest Supported Packet Type	DH5
RF Supported	Basic Rate True EDR Pi/4DQPSK True EDR 8DPSK True
Testmode	None
Perform Inquiry	Yes
EUT BT Address (if Inquiry No)	6C1DEB90A60A
Signaling BT Address	BABEBEDADBAD
Switch Matrix & Pathcompensation enabled	Yes

Test Parameter

Technology to test	BT Classic EDR Pi/4DQPSK
Antenna port used	1
Temperature	nom
Voltage	nom
Frequency low to test	True Freq [MHz] 2402
Frequency mid to test	True Freq [MHz] 2441
Frequency high to test	True Freq [MHz] 2480
Auto control enabled power supply Climatic Box	No No
Additional path loss [dB]	0.7
Full path name type	EUT - SignalingUnit - SpectrumAnalyzer

Equipment

Equipment

Signal analyzer,Rohde&Schwarz,FSV-30,1321.3008K30/103170,3.60

Switch matrix,CTCadvanced,RSM-1 NI DAQ,31534892,NI

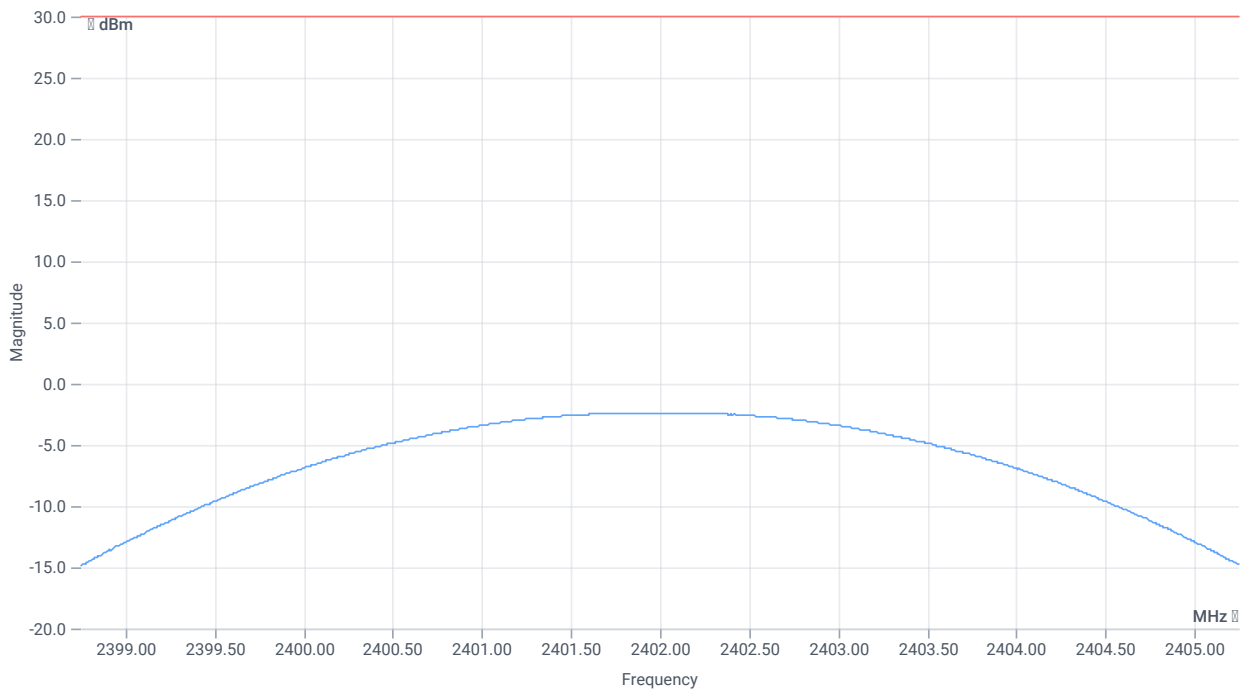
Test at TX 2402 MHz

RESULT: Reference Power cond.

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	--	--	-3.24	dBm	INFO
Ref. Frequency	--	--	2402.200	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	6.76 11.29 15
Start [MHz] Stop [MHz]	2398.750 2405.250
RBW [MHz] VBW [MHz]	3.000000 10.000000
Detector TraceMode	POS MAXH
Sweep: time [ms] count points per Section type	1000 10 1001 SWE



RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Peak Power	--	30.00	-2.39	dBm	PASS
Peak Power	--	1000	0.576766	mW	PASS
Frequency at Peak	--	--	2401.844	MHz	INFO

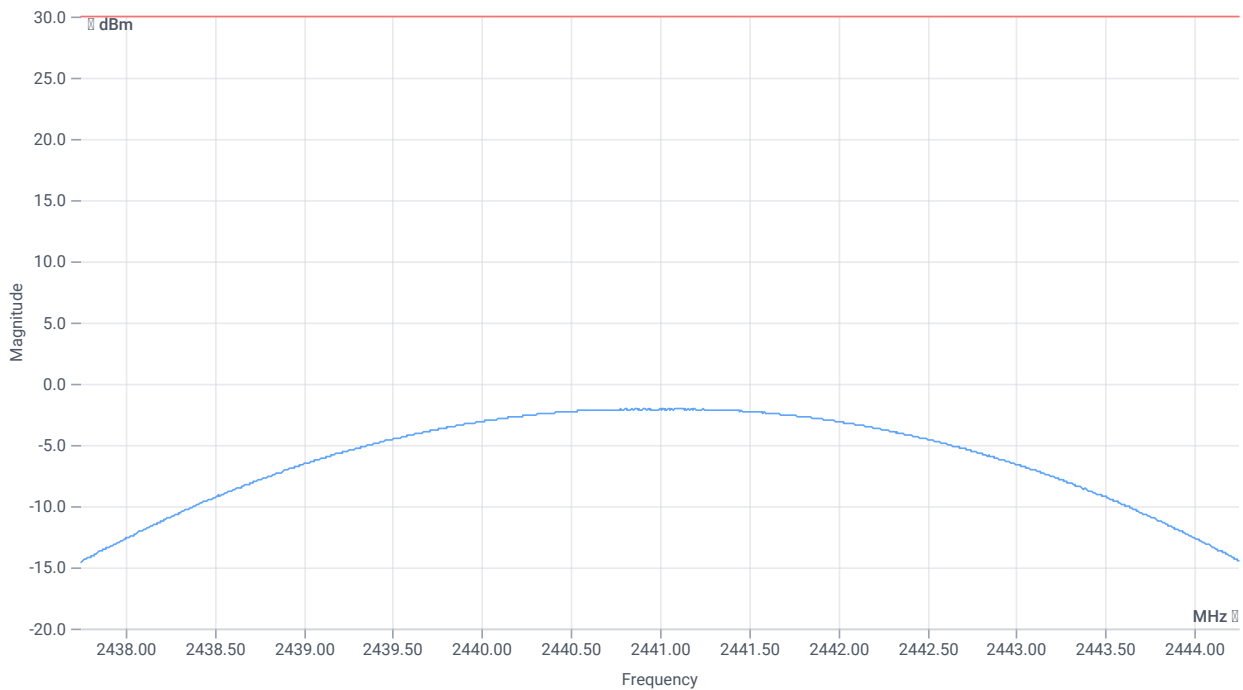
Test at TX 2441 MHz

RESULT: Reference Power cond.

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	--	--	-3.05	dBm	INFO
Ref. Frequency	--	--	2441.100	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	6.95 11.36 15
Start [MHz] Stop [MHz]	2437.750 2444.250
RBW [MHz] VBW [MHz]	3.000000 10.000000
Detector TraceMode	POS MAXH
Sweep: time [ms] count points per Section type	1000 10 1001 SWE



RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Peak Power	--	30.00	-2.07	dBm	PASS
Peak Power	--	1000	0.620869	mW	PASS
Frequency at Peak	--	--	2440.844	MHz	INFO

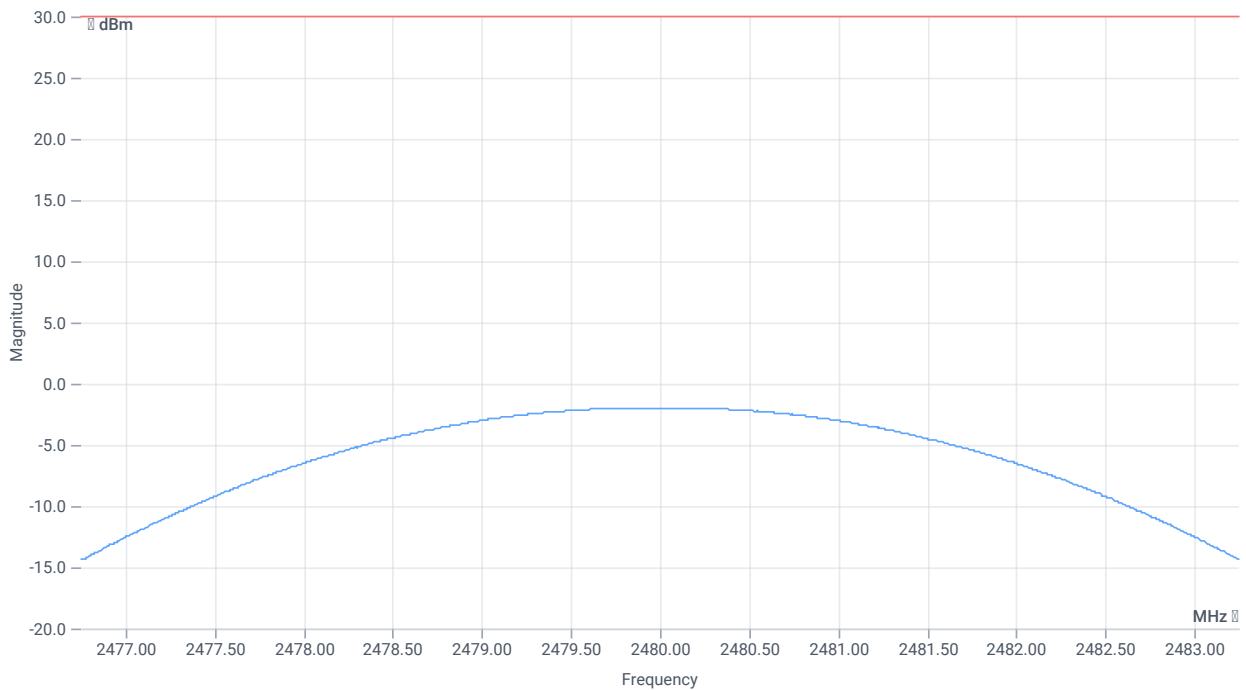
Test at TX 2480 MHz

RESULT: Reference Power cond.

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	--	--	-3.06	dBm	INFO
Ref. Frequency	--	--	2480.200	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	6.94 11.41 15
Start [MHz] Stop [MHz]	2476.750 2483.250
RBW [MHz] VBW [MHz]	3.000000 10.000000
Detector TraceMode	POS MAXH
Sweep: time [ms] count points per Section type	1000 10 1001 SWE



Peak output power

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Peak Power	--	30.00	-1.99	dBm	PASS
Peak Power	--	1000	0.632412	mW	PASS
Frequency at Peak	--	--	2479.864	MHz	INFO

Verdict

PASS

FCC 15.247, ISED RSS247 # Bandwidth 99PCT and 20dB ~ BT Classic EDR Pi/4DQPSK

References

TC start	15.12.2023 12:20:37
Ambit temp [°C] humidity [rel%]	26.8 32
System version	4.7.1.4
Standard Version	FCC 15.247, ISED RSS247 NI
Method	
Description	FCC 15.247 Bandwidth 99PCT - 20dB FHSS - BT Classic EDR Pi/4DQPSK
Information	

EUT Common Settings BT Classic

Intermodulation Value N	3
Image Freq. Low Mid High [MHz]	0 0 0
Power Class	1
Power Control	No
Longest Supported Packet Type	DH5
RF Supported	Basic Rate True EDR Pi/4DQPSK True EDR 8DPSK True
Testmode	None
Perform Inquiry	Yes
EUT BT Address (if Inquiry No)	6C1DEB90A60A
Signaling BT Address	BABEBEDADBAD
Switch Matrix & Pathcompensation enabled	Yes

Test Parameter

Technology to test	BT Classic EDR Pi/4DQPSK
Antenna port used	1
Temperature	nom
Voltage	nom
Frequency low to test	True Freq [MHz] 2402
Frequency mid to test	True Freq [MHz] 2441
Frequency high to test	True Freq [MHz] 2480
Auto control enabled power supply Climatic Box	No No
Additional path loss [dB]	0.7
Full path name type	EUT - SignalingUnit - SpectrumAnalyzer

Equipment

Equipment

Signal analyzer,Rohde&Schwarz,FSV-30,1321.3008K30/103170,3.60

Switch matrix,CTCadvanced,RSM-1 NI DAQ,31534892,NI

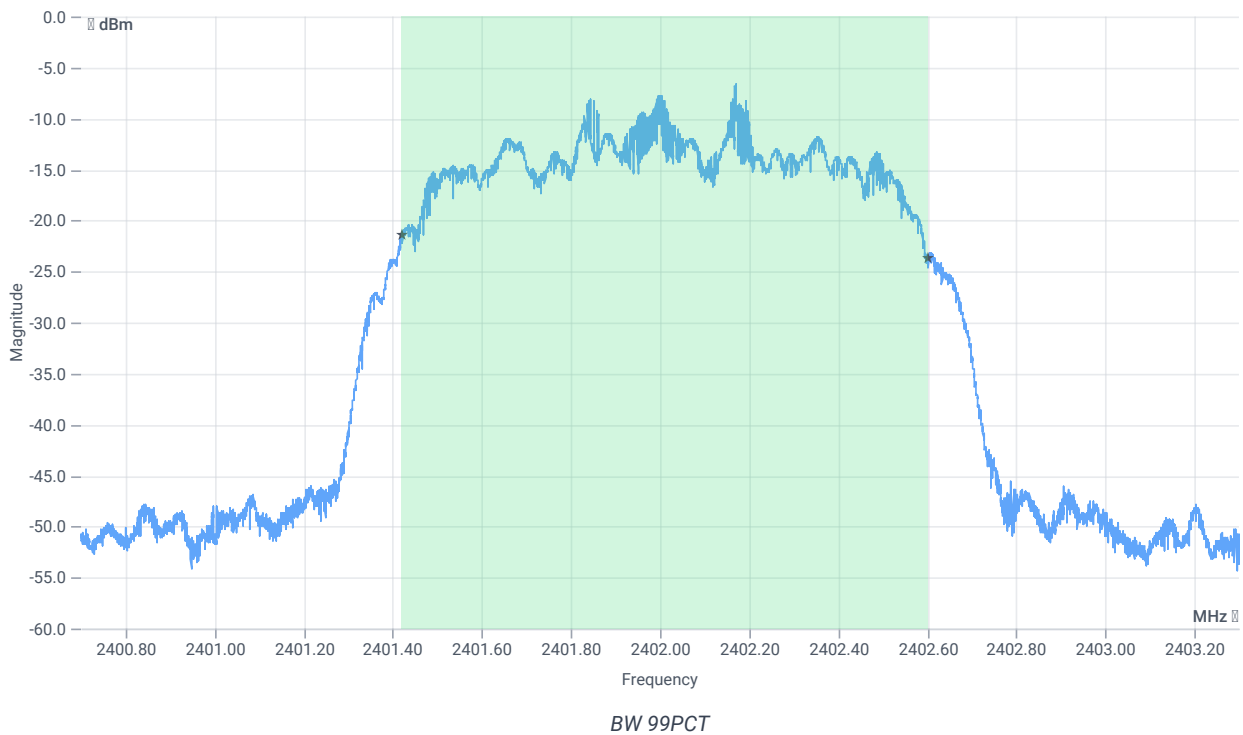
Test at TX 2402 MHz

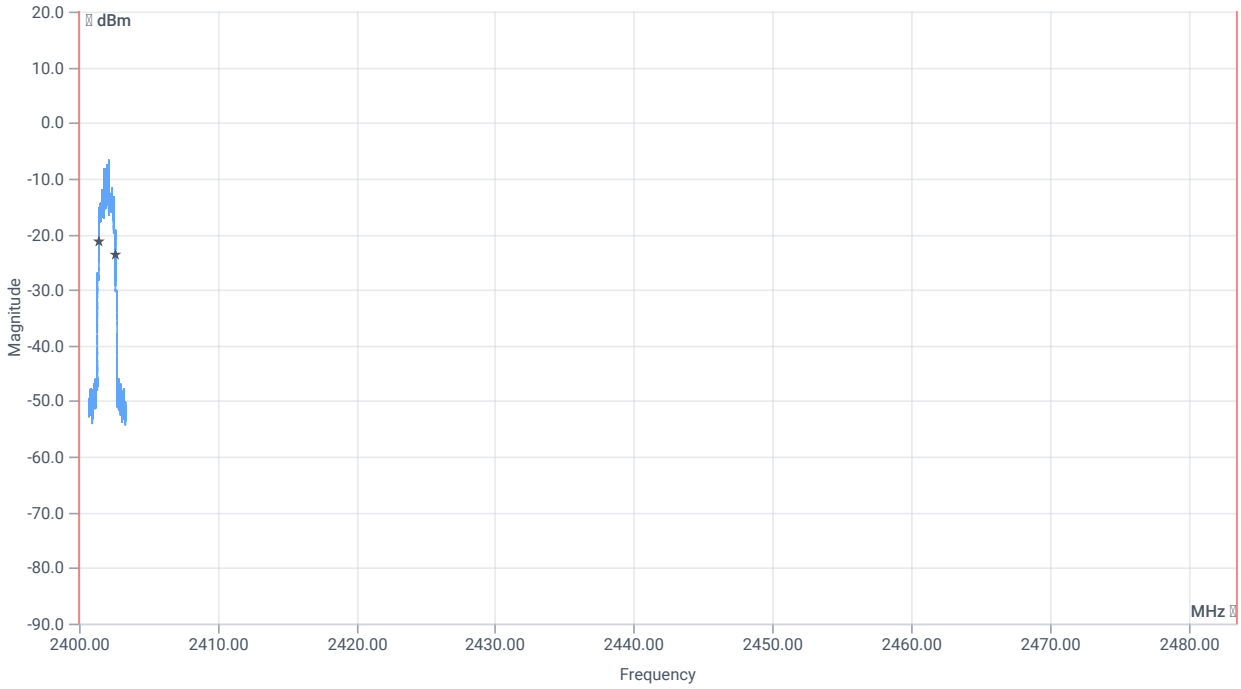
RESULT: Reference Power cond.

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	--	--	-3.35	dBm	INFO
Ref. Frequency	--	--	2402.100	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	1.65 11.29 10
Start [MHz] Stop [MHz]	2400.700 2403.300
RBW [MHz] VBW [MHz]	0.030000 0.100000
Detector TraceMode	POS MAXH
Sweep: time [ms] count points per Section type	50 200 10001 SWE

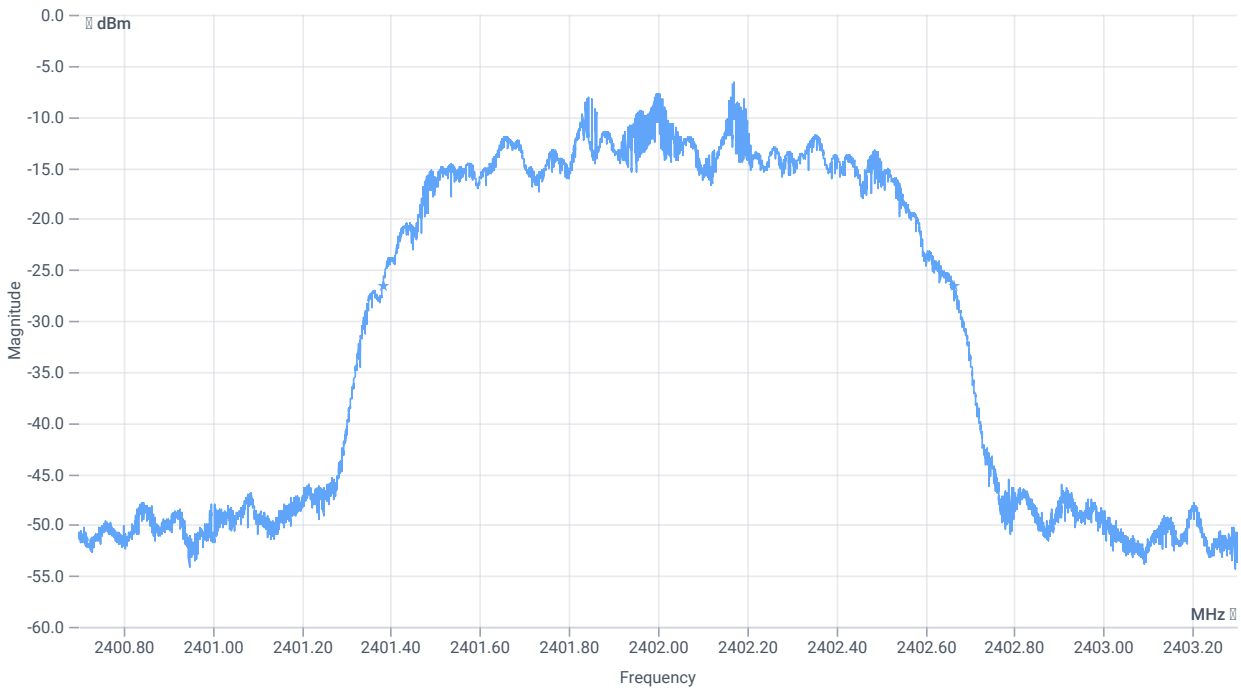




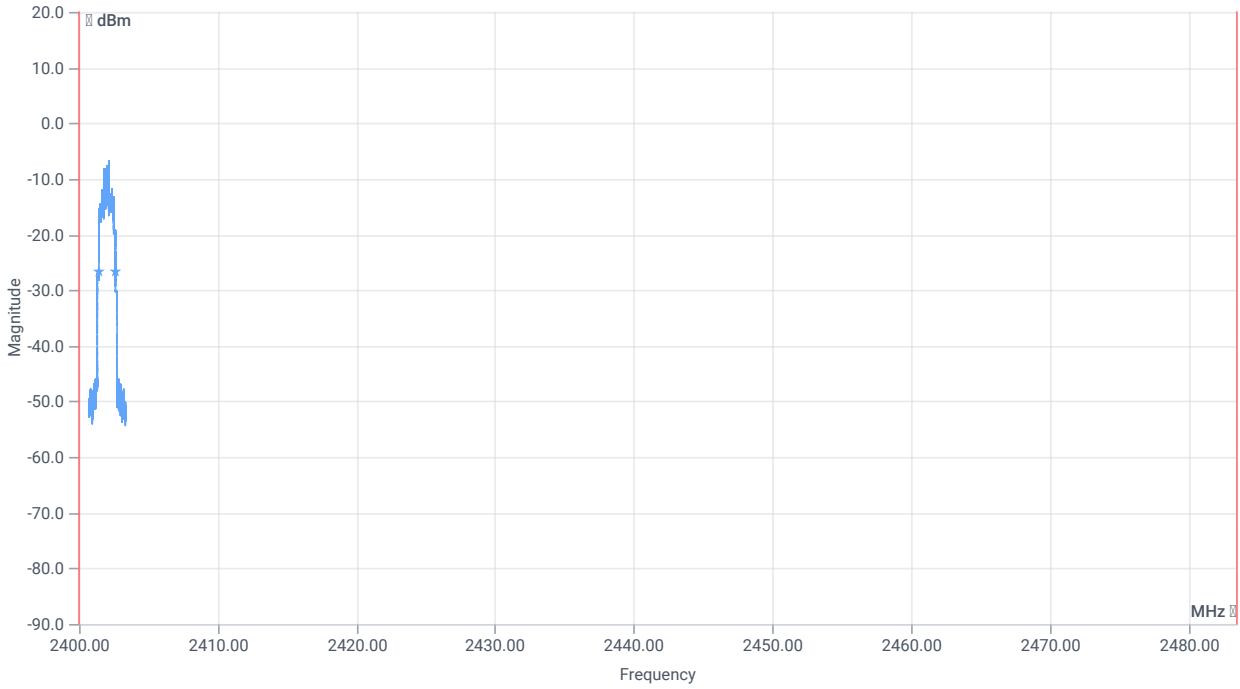
BW within Band 99PCT

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 99%	--	--	1181.000	kHz	INFO
T1 99%	2400.000000	--	2401.4218	MHz	PASS
T2 99%	--	2483.500000	2402.6024	MHz	PASS



BW 20dB



BW within Band 20dB

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 20dB	--	--	1282	kHz	INFO
T1 20dB	2400.000000	--	2401.3820	MHz	PASS
T2 20dB	--	2483.500000	2402.6635	MHz	PASS

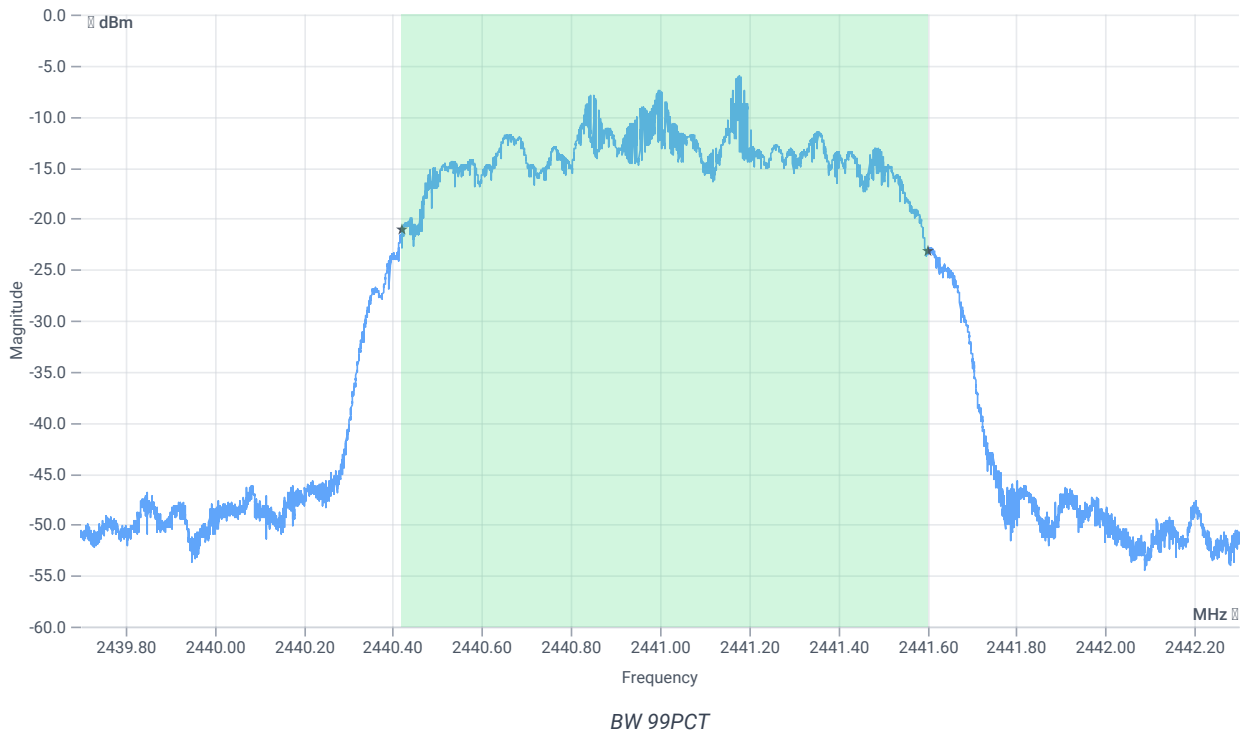
Test at TX 2441 MHz

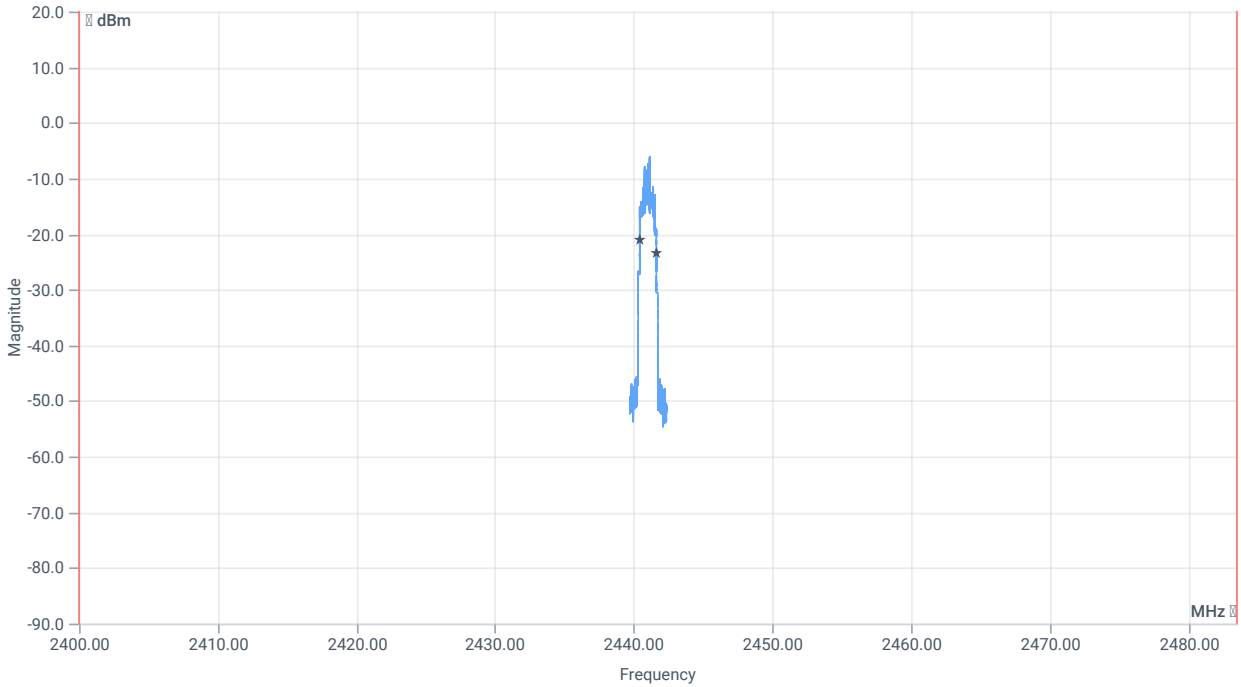
RESULT: Reference Power cond.

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	--	--	-3.12	dBm	INFO
Ref. Frequency	--	--	2440.800	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	1.88 11.36 10
Start [MHz] Stop [MHz]	2439.700 2442.300
RBW [MHz] VBW [MHz]	0.030000 0.100000
Detector TraceMode	POS MAXH
Sweep: time [ms] count points per Section type	50 200 10001 SWE

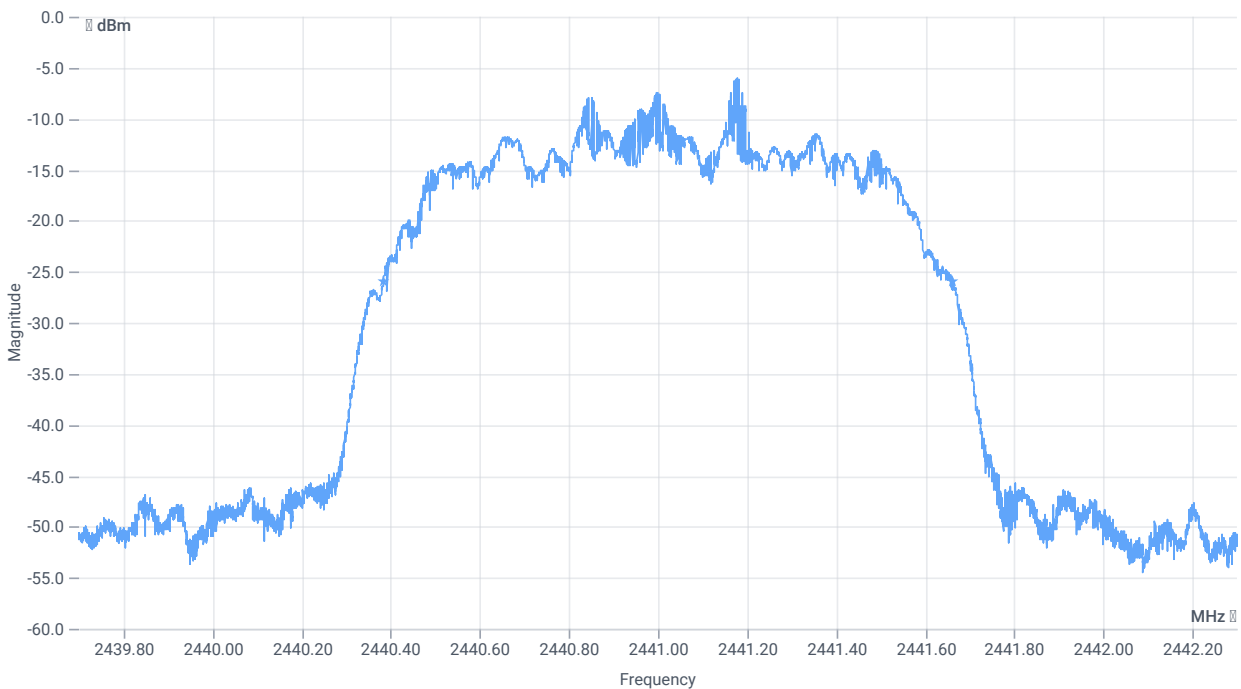




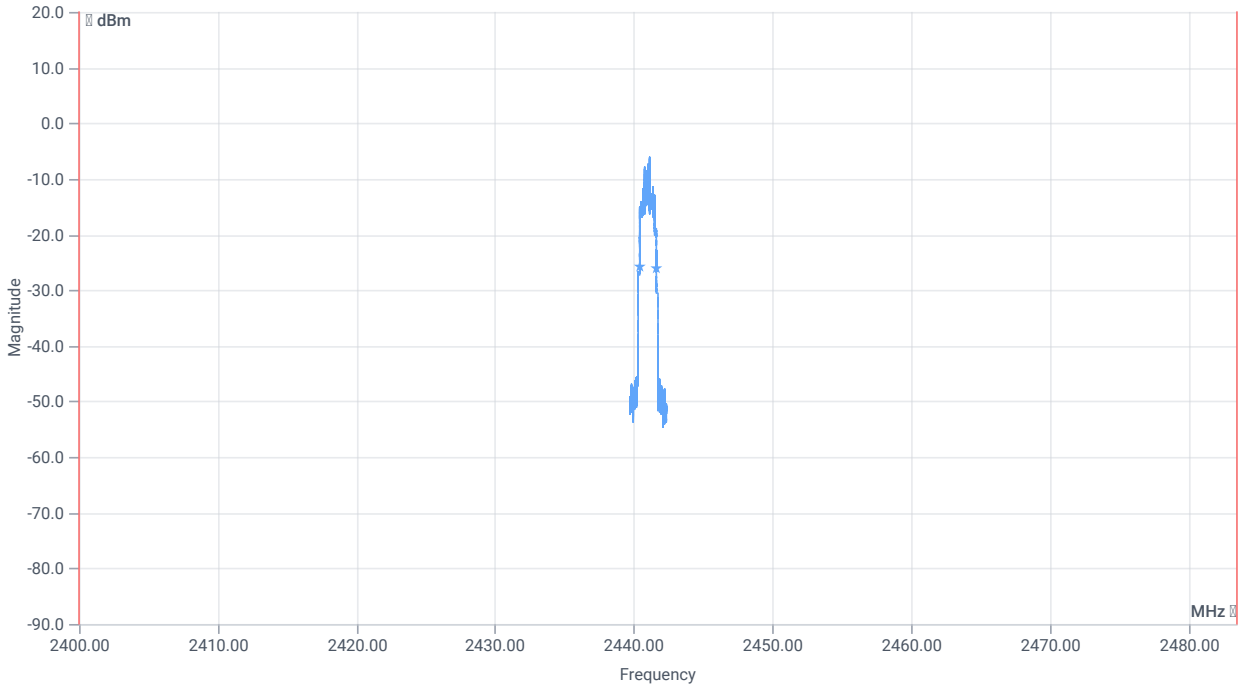
BW within Band 99PCT

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 99%	--	--	1180.000	kHz	INFO
T1 99%	2400.000000	--	2440.4223	MHz	PASS
T2 99%	--	2483.500000	2441.6024	MHz	PASS



BW 20dB



BW within Band 20dB

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 20dB	--	--	1279	kHz	INFO
T1 20dB	2400.000000	--	2440.3828	MHz	PASS
T2 20dB	--	2483.500000	2441.6622	MHz	PASS

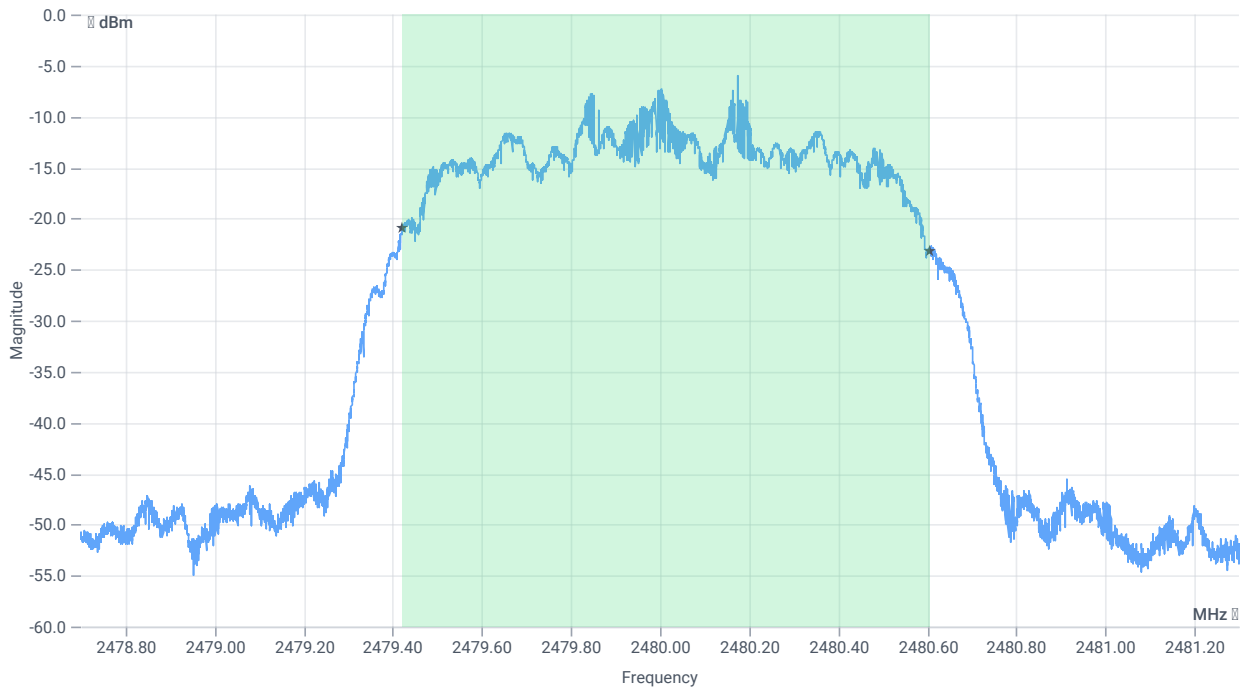
Test at TX 2480 MHz

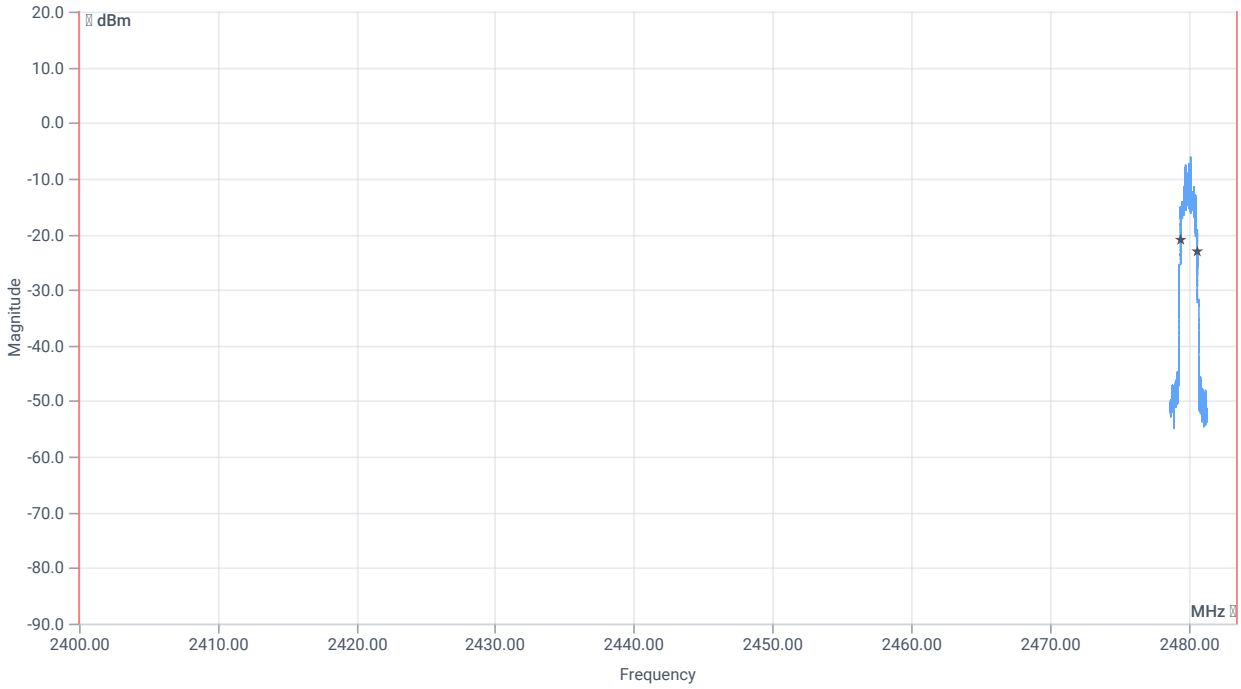
RESULT: Reference Power cond.

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	--	--	-3.05	dBm	INFO
Ref. Frequency	--	--	2480.100	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	1.95 11.41 10
Start [MHz] Stop [MHz]	2478.700 2481.300
RBW [MHz] VBW [MHz]	0.030000 0.100000
Detector TraceMode	POS MAXH
Sweep: time [ms] count points per Section type	50 200 10001 SWE

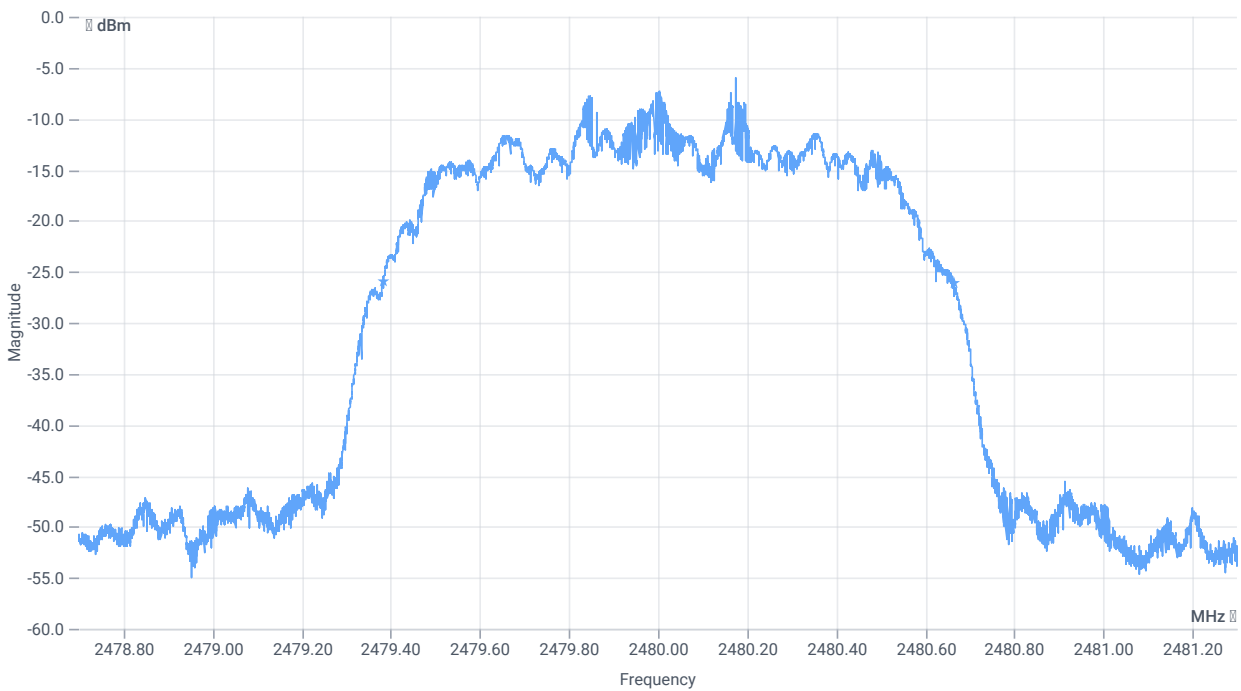




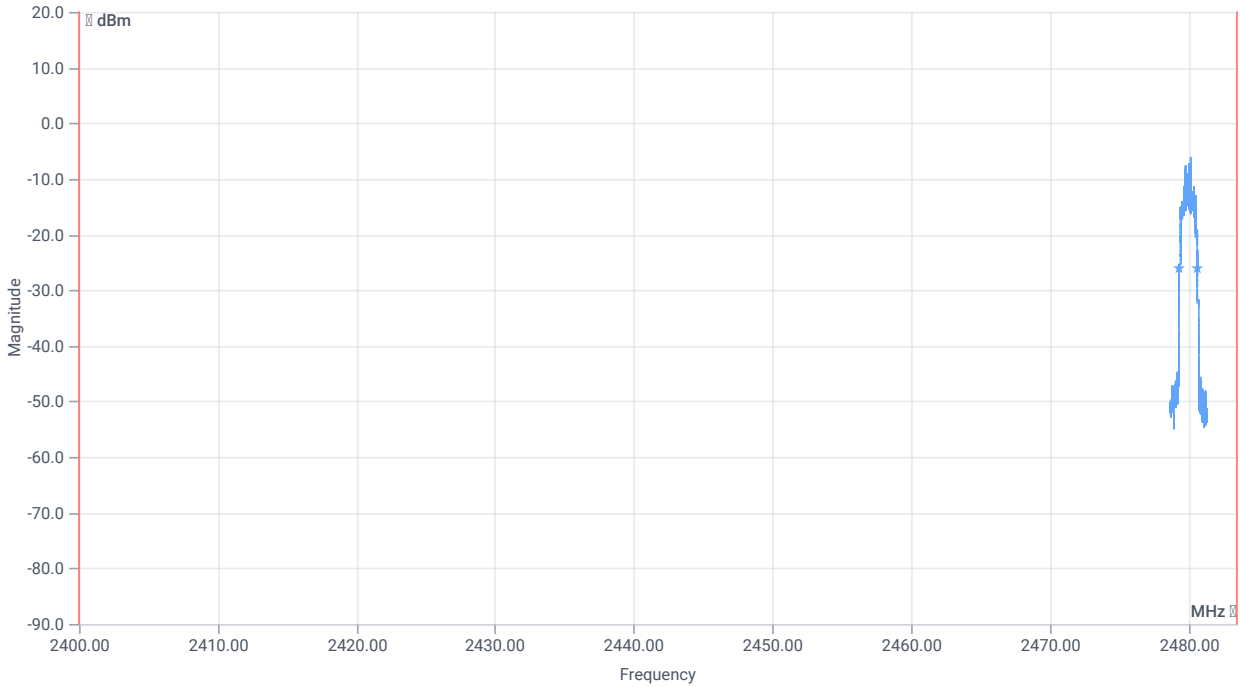
BW within Band 99PCT

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 99%	--	--	1182.000	kHz	INFO
T1 99%	2400.000000	--	2479.4213	MHz	PASS
T2 99%	--	2483.500000	2480.6037	MHz	PASS



BW 20dB



BW within Band 20dB

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 20dB	--	--	1280	kHz	INFO
T1 20dB	2400.000000	--	2479.3830	MHz	PASS
T2 20dB	--	2483.500000	2480.6633	MHz	PASS

Verdict

PASS

FCC 15.247 # TX spurious conducted 20dBc ~ BT Classic EDR Pi/4DQPSK

References

TC start	15.12.2023 12:33:43
Ambit temp [°C] humidity [rel%]	26.7 32
System version	4.7.1.4
Standard Version	FCC 15.247 NI
Method	IF DTS then 8.5 DTS emissions in non-restricted frequency bands: Subclause 11.11 of ANSI C63.10 is applicable
Description	FCC 15.247 TX Emissions Conducted FHSS - BT Classic EDR Pi/4DQPSK
Information	

EUT Common Settings BT Classic

Intermodulation Value N	3
Image Freq. Low Mid High [MHz]	0 0 0
Power Class	1
Power Control	No
Longest Supported Packet Type	DH5
RF Supported	Basic Rate True EDR Pi/4DQPSK True EDR 8DPSK True
Testmode	None
Perform Inquiry	Yes
EUT BT Address (if Inquiry No)	6C1DEB90A60A
Signaling BT Address	BABEBEDADBAD
Switch Matrix & Pathcompensation enabled	Yes

Test Parameter

Technology to test	BT Classic EDR Pi/4DQPSK
Antenna port used	1
Temperature	nom
Voltage	nom
Frequency low to test	True Freq [MHz] 2402
Frequency mid to test	True Freq [MHz] 2441
Frequency high to test	True Freq [MHz] 2480
Auto control enabled power supply Climatic Box	No No
Additional path loss [dB]	0.7
Full path name type	EUT - SignalingUnit - SpectrumAnalyzer

Equipment

Equipment

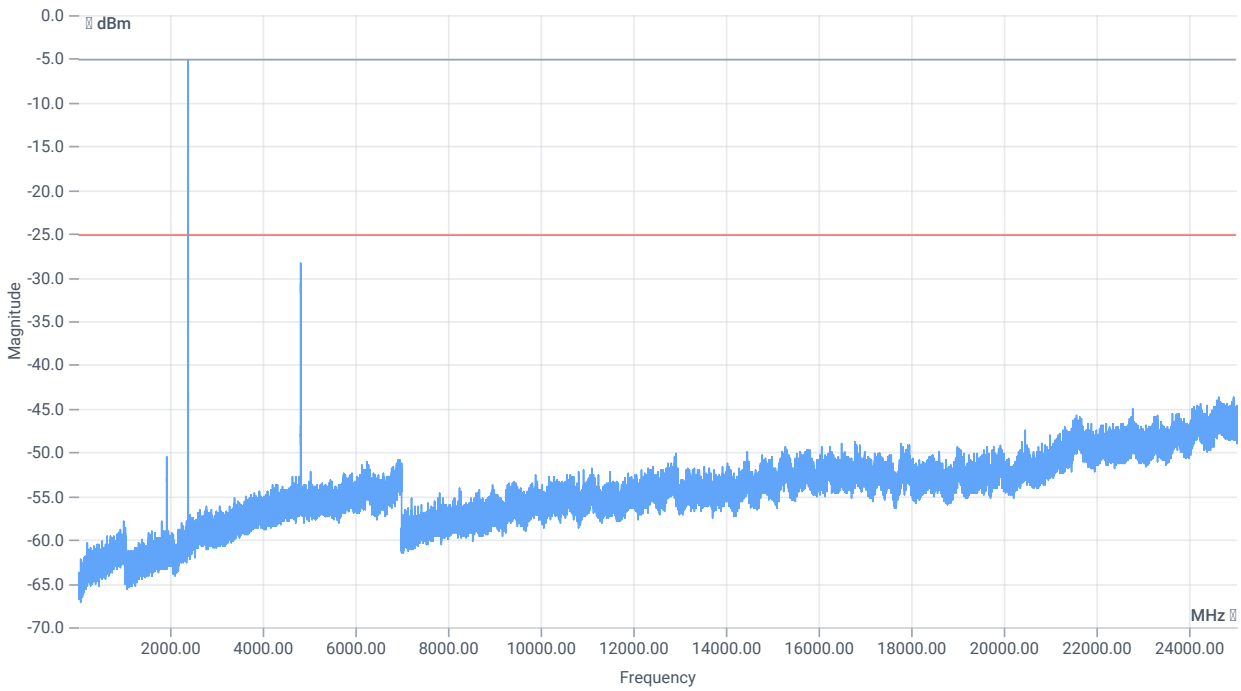
Signal analyzer,Rohde&Schwarz,FSV-30,1321.3008K30/103170,3.60

Switch matrix,CTCadvanced,RSM-1 NI DAQ,31534892,NI

Test at TX 2402 MHz

RESULT: Reference Power cond.

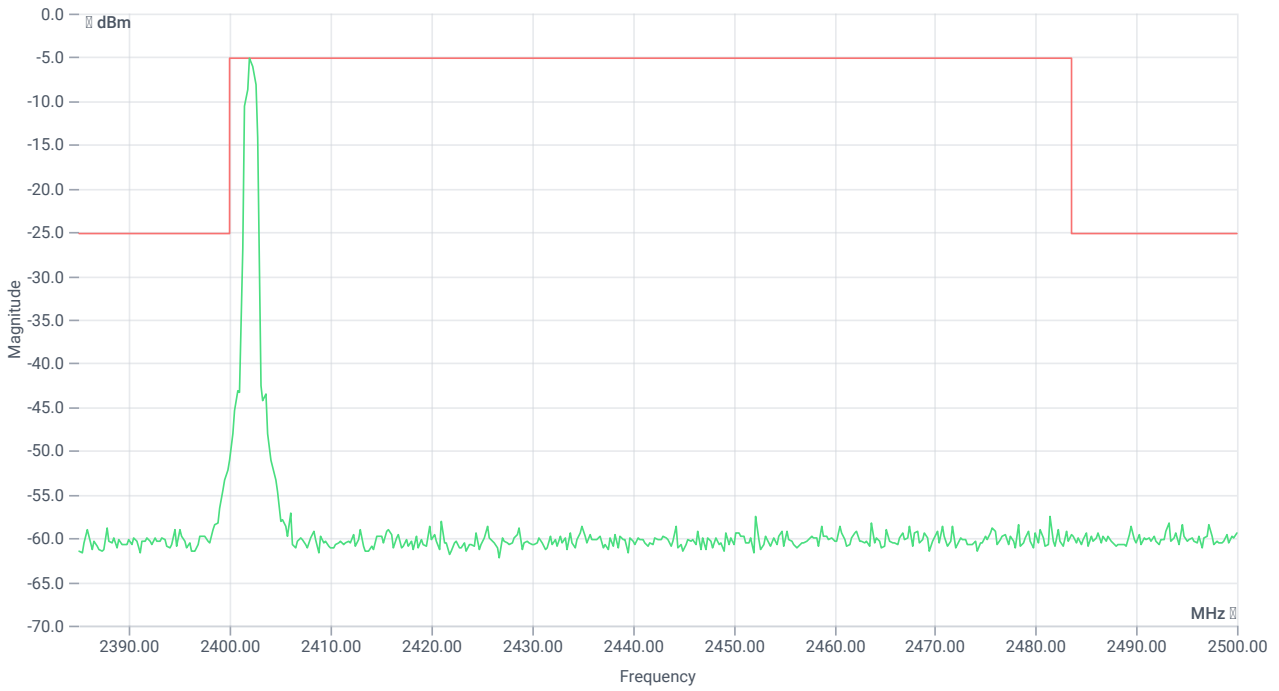
DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	--	--	-3.42	dBm	INFO
Ref. Frequency	--	--	2402.100	MHz	INFO



TX emissions

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	-3.42 0 15
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 2001 SWE



TX emissions band zoomed

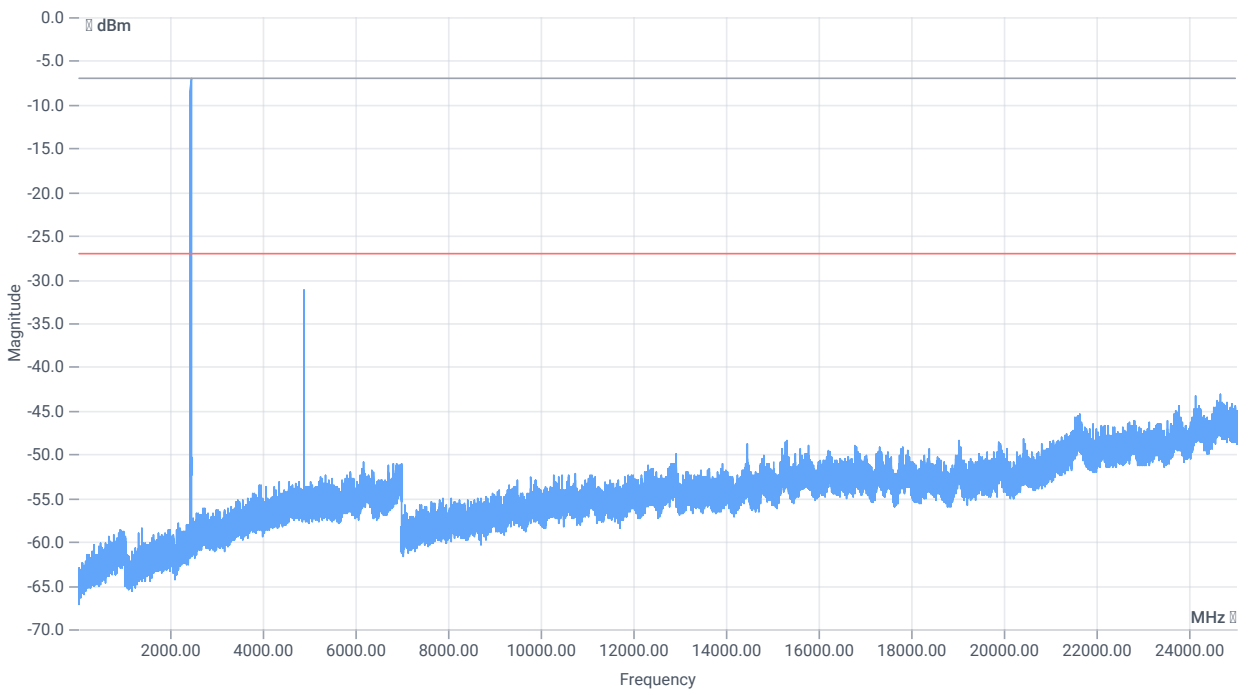
RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Reference @ 2402.00 MHz	--	--	-5.13	dBm	INFO
No peaks detected	--	--			PASS
Lowest margin to limit 4803.75 MHz	0	--	3.2	dB	INFO

Test at TX 2441 MHz

RESULT: Reference Power cond.

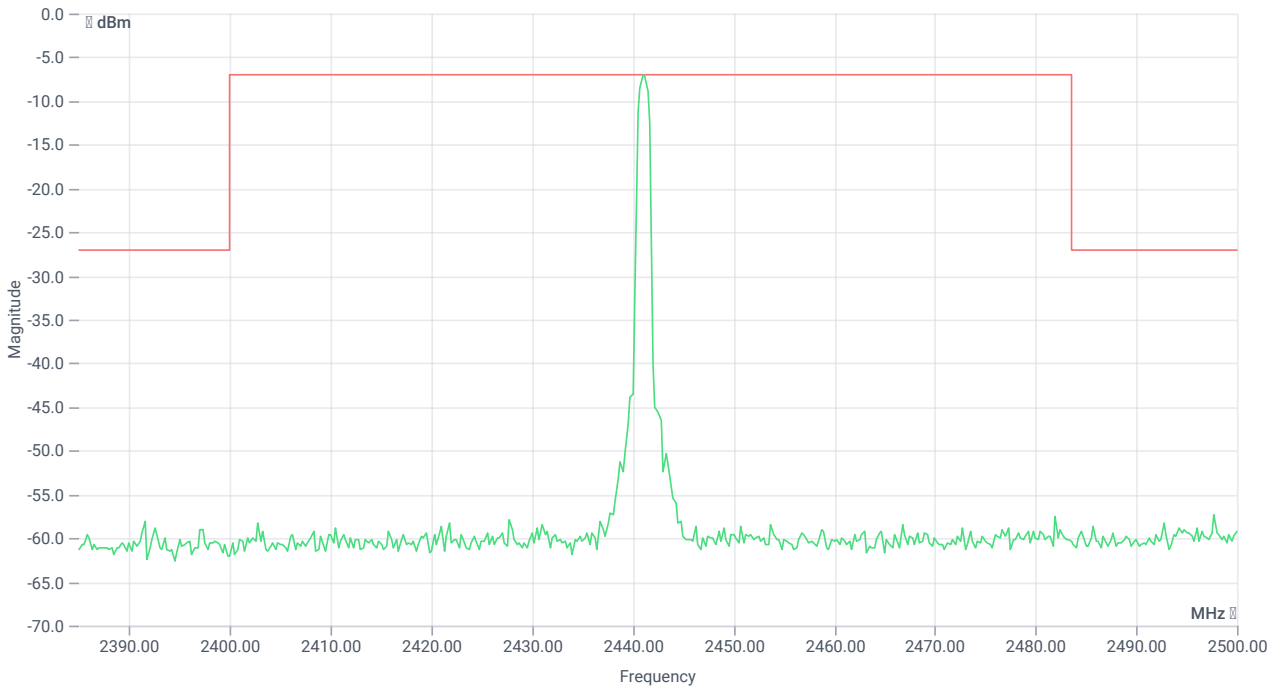
DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	--	--	-2.95	dBm	INFO
Ref. Frequency	--	--	2441.200	MHz	INFO



TX emissions

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	-2.95 0 15
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 2001 SWE



TX emissions band zoomed

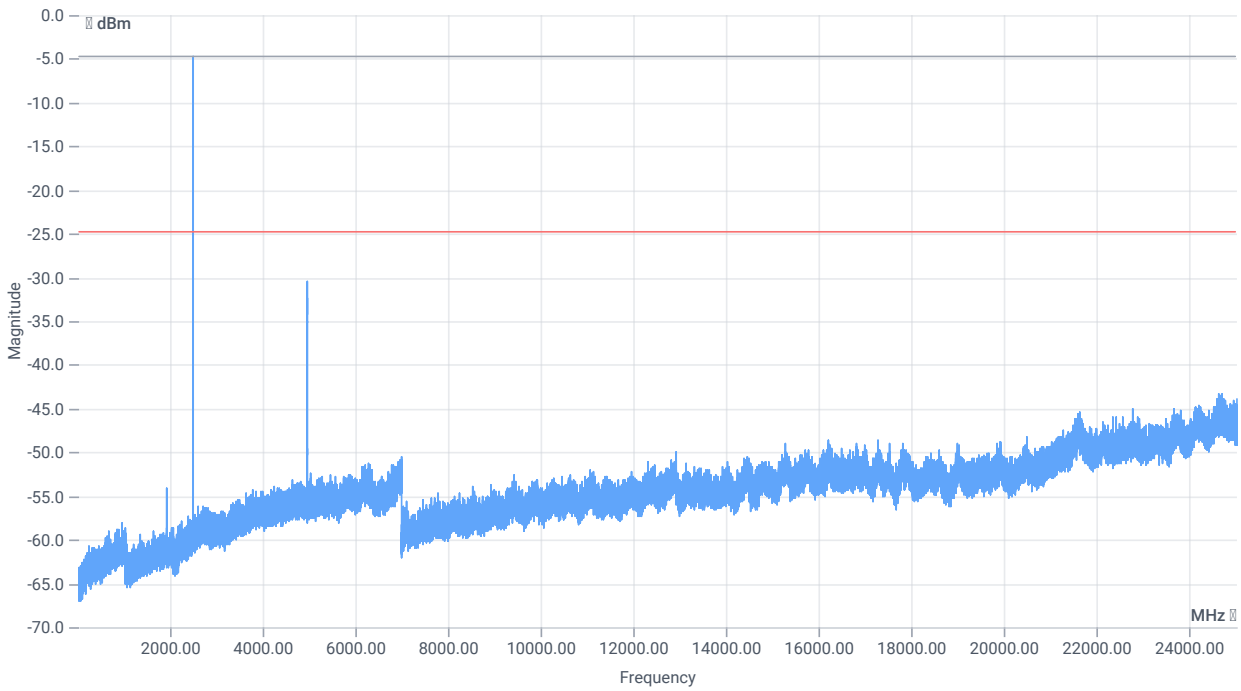
RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Reference @ 2441.00 MHz	--	--	-7.03	dBm	INFO
No peaks detected	--	--			PASS
Lowest margin to limit 4881.75 MHz	0	--	4.16	dB	INFO

Test at TX 2480 MHz

RESULT: Reference Power cond.

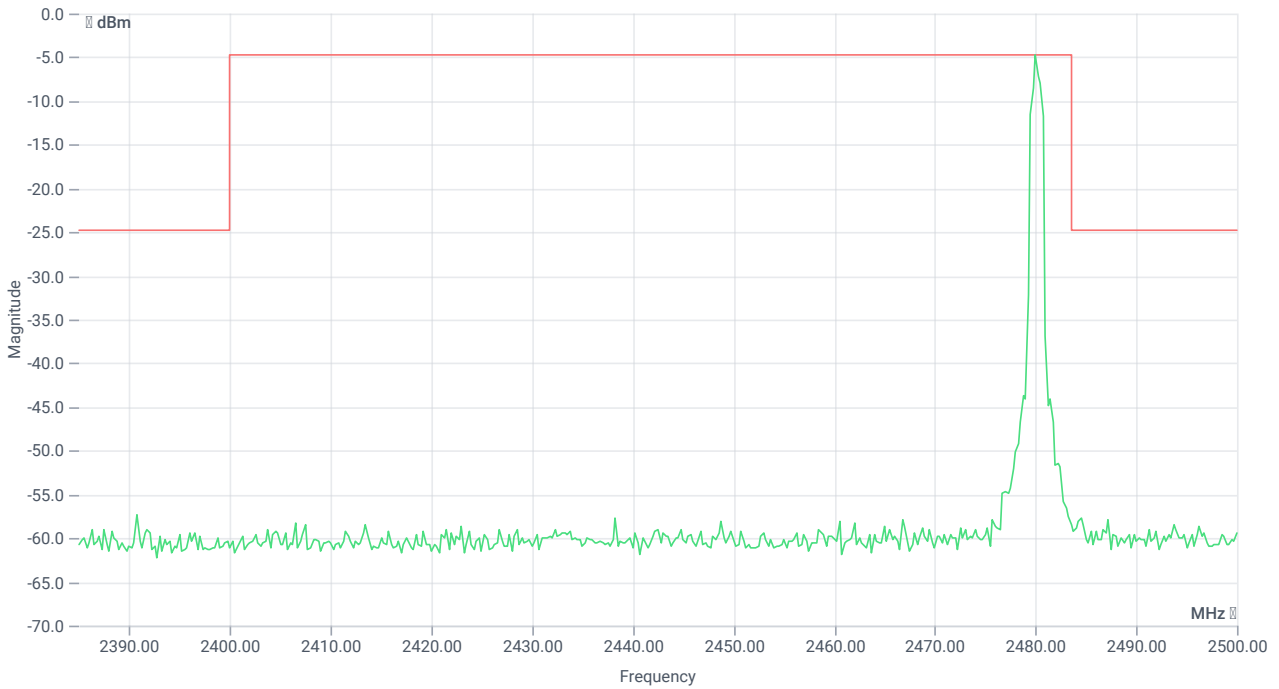
DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	--	--	-2.63	dBm	INFO
Ref. Frequency	--	--	2479.800	MHz	INFO



TX emissions

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	-2.63 0 15
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 2001 SWE



TX emissions band zoomed

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Reference @ 2480.00 MHz	--	--	-4.73	dBm	INFO
No peaks detected	--	--			PASS
Lowest margin to limit 4960 MHz	0	--	5.74	dB	INFO

Verdict

PASS

FCC 15.247 # TX Emissions on band edge FCC ~ BT Classic EDR Pi/4DQPSK

References

TC start	15.12.2023 13:34:32
Ambit temp [°C] humidity [rel%]	27.0 32
System version	4.7.1.4
Standard Version	FCC 15.247 NI
Method	
Description	FCC 15.247 TX Emissions conducted on band edge FHSS - BT Classic EDR Pi/4DQPSK
Information	

EUT Common Settings BT Classic

Intermodulation Value N	3
Image Freq. Low Mid High [MHz]	0 0 0
Power Class	1
Power Control	No
Longest Supported Packet Type	DH5
RF Supported	Basic Rate True EDR Pi/4DQPSK True EDR 8DPSK True
Testmode	None
Perform Inquiry	Yes
EUT BT Address (if Inquiry No)	6C1DEB90A60A
Signaling BT Address	BABEBEDADBAD
Switch Matrix & Pathcompensation enabled	Yes

Test Parameter

Technology to test	BT Classic EDR Pi/4DQPSK
Antenna port used	1
Temperature	nom
Voltage	nom
Frequency low to test	False Freq [MHz] 2402
Frequency mid to test	False Freq [MHz] 2441
Frequency high to test	False Freq [MHz] 2480
Auto control enabled power supply Climatic Box	No No
Additional path loss [dB]	0.7
Full path name type	EUT - SignalingUnit - SpectrumAnalyzer

Equipment

Equipment

Signal analyzer,Rohde&Schwarz,FSV-30,1321.3008K30/103170,3.60

Switch matrix,CTCadvanced,RSM-1 NI DAQ,31534892,NI

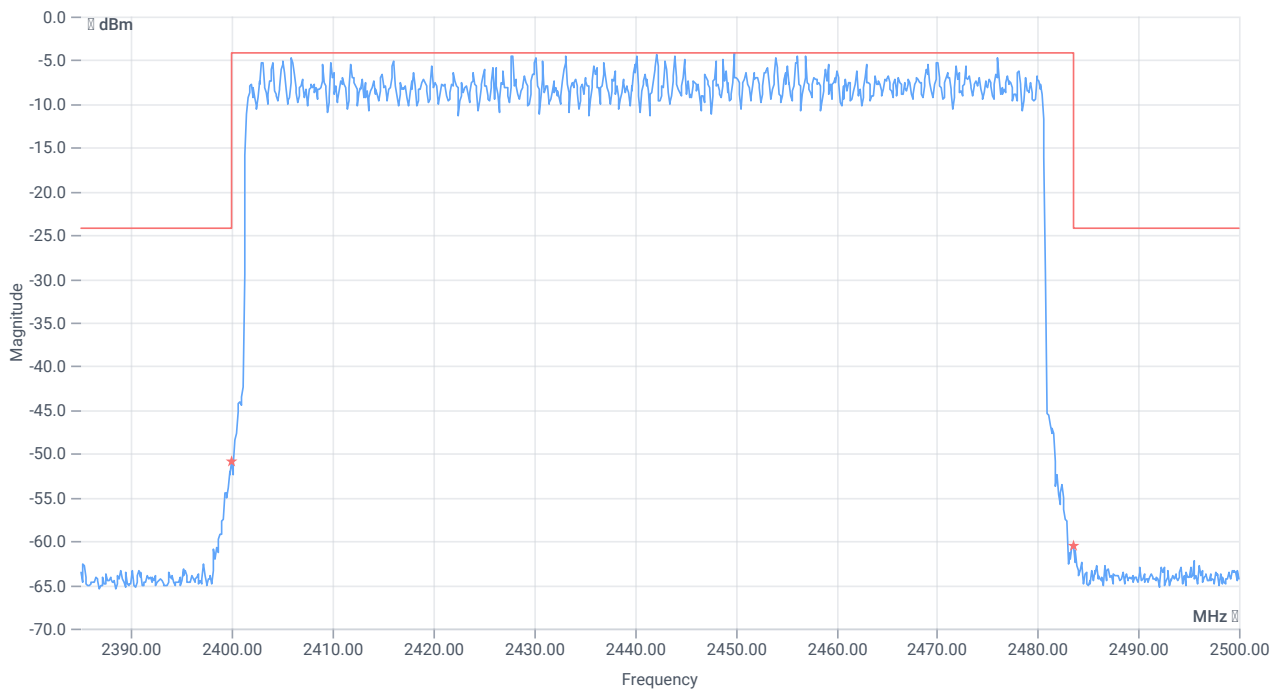
Test at TX hopping MHz

RESULT: Reference Power cond.

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	--	--	-2.29	dBm	INFO
Ref. Frequency	--	--	2473.870	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	2.71 11.36 10
Start [MHz] Stop [MHz]	2385.000 2500.000
RBW [MHz] VBW [MHz]	0.100000 0.300000
Detector TraceMode	POS MAXH
Sweep: time [ms] count points per Section type	30 1800 1001 SWE



TX emissions on band edge

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Max peak lower Band	--	-24.25	-50.94	dBm	PASS
Max peak upper Band	--	-24.25	-60.48	dBm	PASS

Verdict

FCC 15.247 # Maximum peak conducted output power FHSS ~ BT Classic EDR 8DPSK

References

TC start	15.12.2023 13:05:49
Ambit temp [°C] humidity [rel%]	26.9 32
System version	4.7.1.4
Standard Version	FCC 15.247 NI
Method	
Description	FCC 15.247 Maximum Peak Output Power Conducted FHSS - BT Classic EDR 8DPSK
Information	

EUT Common Settings BT Classic

Intermodulation Value N	3
Image Freq. Low Mid High [MHz]	0 0 0
Power Class	1
Power Control	No
Longest Supported Packet Type	DH5
RF Supported	Basic Rate True EDR Pi/4DQPSK True EDR 8DPSK True
Testmode	None
Perform Inquiry	Yes
EUT BT Address (if Inquiry No)	6C1DEB90A60A
Signaling BT Address	BABEBEDADBAD
Switch Matrix & Pathcompensation enabled	Yes

Test Parameter

Technology to test	BT Classic EDR 8DPSK
Antenna port used	1
Temperature	nom
Voltage	nom
Frequency low to test	True Freq [MHz] 2402
Frequency mid to test	True Freq [MHz] 2441
Frequency high to test	True Freq [MHz] 2480
Auto control enabled power supply Climatic Box	No No
Additional path loss [dB]	0.7
Full path name type	EUT - SignalingUnit - SpectrumAnalyzer

Equipment

Equipment

Signal analyzer,Rohde&Schwarz,FSV-30,1321.3008K30/103170,3.60

Switch matrix,CTCadvanced,RSM-1 NI DAQ,31534892,NI

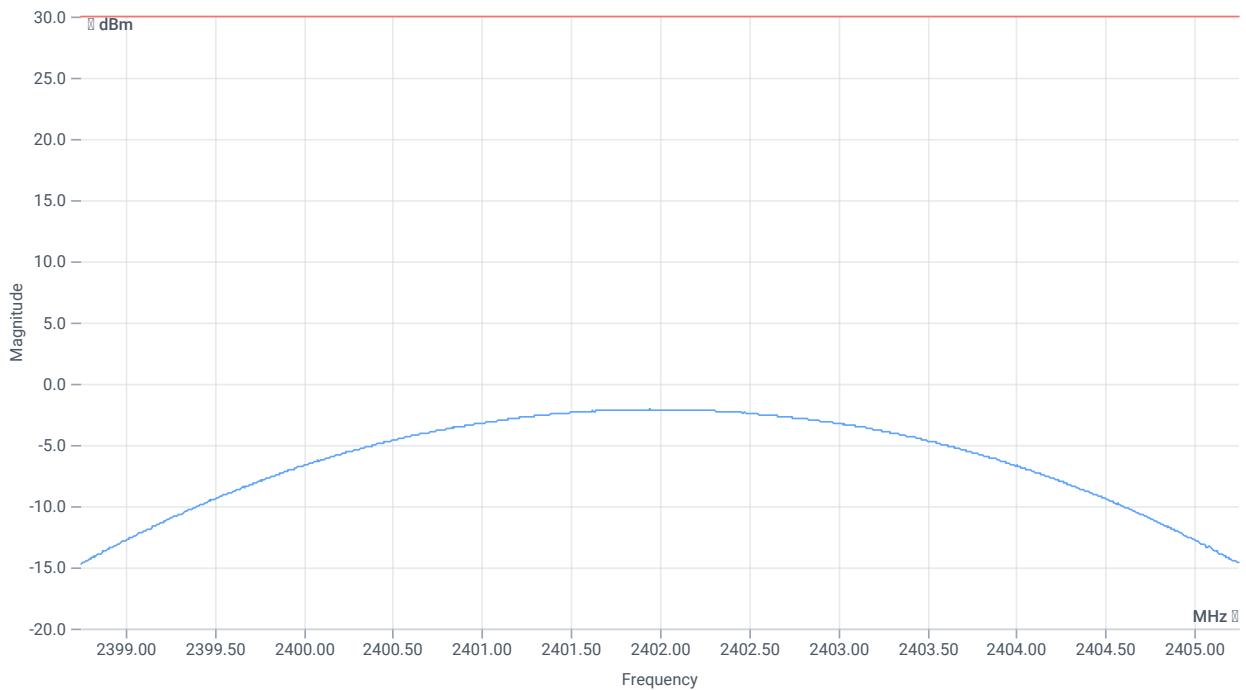
Test at TX 2402 MHz

RESULT: Reference Power cond.

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	--	--	-3.21	dBm	INFO
Ref. Frequency	--	--	2402.100	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	6.79 11.29 15
Start [MHz] Stop [MHz]	2398.750 2405.250
RBW [MHz] VBW [MHz]	3.000000 10.000000
Detector TraceMode	POS MAXH
Sweep: time [ms] count points per Section type	1000 10 1001 SWE



RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Peak Power	--	30.00	-2.09	dBm	PASS
Peak Power	--	1000	0.618016	mW	PASS
Frequency at Peak	--	--	2401.942	MHz	INFO

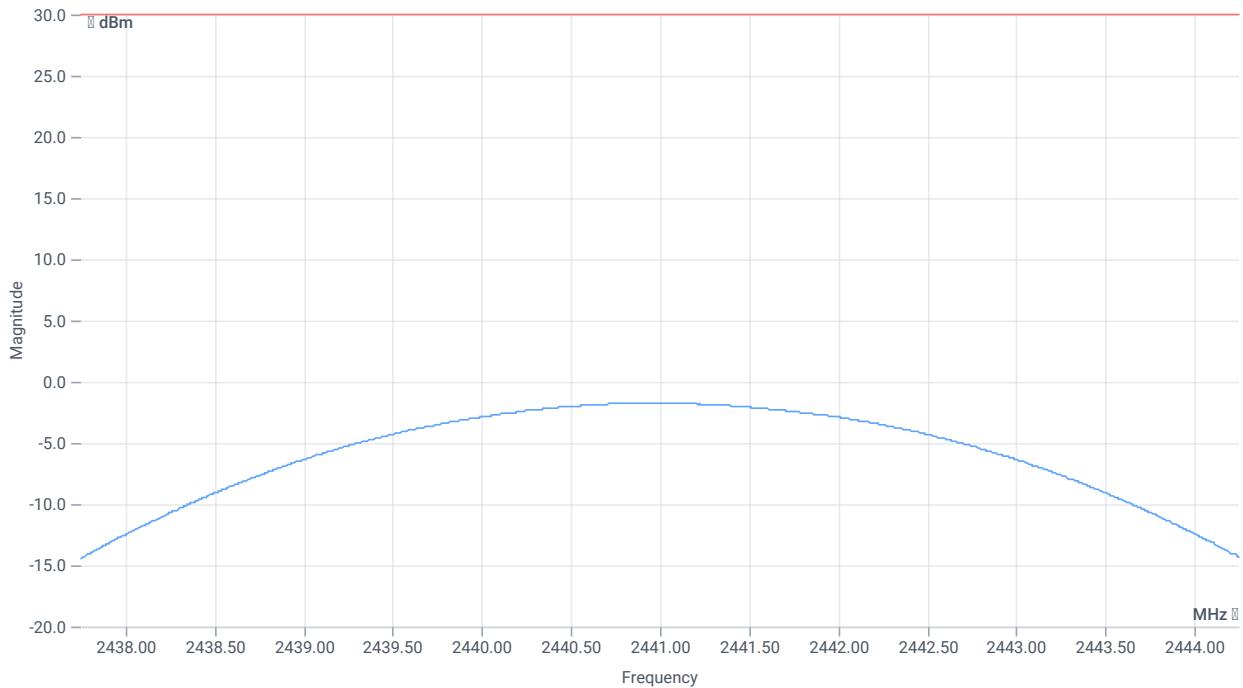
Test at TX 2441 MHz

RESULT: Reference Power cond.

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	--	--	-3.02	dBm	INFO
Ref. Frequency	--	--	2441.300	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	6.98 11.36 15
Start [MHz] Stop [MHz]	2437.750 2444.250
RBW [MHz] VBW [MHz]	3.000000 10.000000
Detector TraceMode	POS MAXH
Sweep: time [ms] count points per Section type	1000 10 1001 SWE



RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Peak Power	--	30.00	-1.75	dBm	PASS
Peak Power	--	1000	0.668344	mW	PASS
Frequency at Peak	--	--	2440.974	MHz	INFO

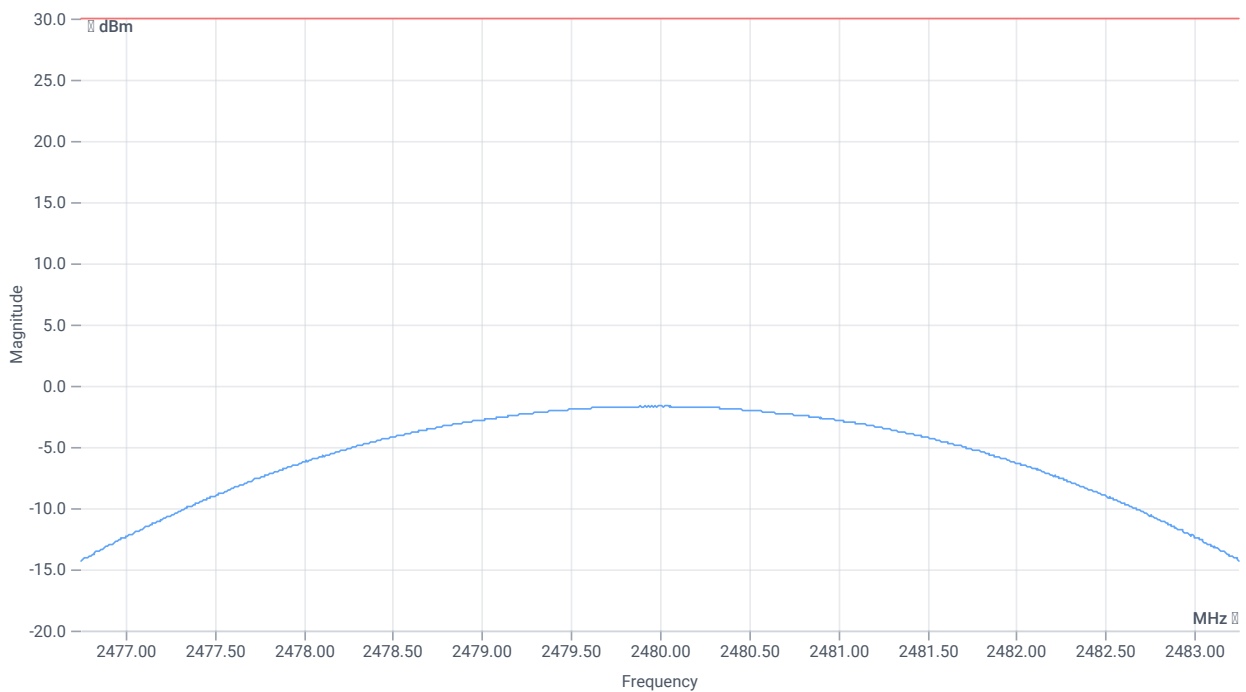
Test at TX 2480 MHz

RESULT: Reference Power cond.

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	--	--	-2.56	dBm	INFO
Ref. Frequency	--	--	2480.100	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	7.44 11.41 15
Start [MHz] Stop [MHz]	2476.750 2483.250
RBW [MHz] VBW [MHz]	3.000000 10.000000
Detector TraceMode	POS MAXH
Sweep: time [ms] count points per Section type	1000 10 1001 SWE



RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Peak Power	--	30.00	-1.67	dBm	PASS
Peak Power	--	1000	0.680769	mW	PASS
Frequency at Peak	--	--	2480	MHz	INFO

Verdict

PASS

FCC 15.247, ISED RSS247 # Bandwidth 99PCT and 20dB ~ BT Classic EDR 8DPSK

References

TC start	15.12.2023 13:08:13
Ambit temp [°C] humidity [rel%]	27.0 32
System version	4.7.1.4
Standard Version	FCC 15.247, ISED RSS247 NI
Method	
Description	FCC 15.247 Bandwidth 99PCT - 20dB FHSS - BT Classic EDR 8DPSK
Information	

EUT Common Settings BT Classic

Intermodulation Value N	3
Image Freq. Low Mid High [MHz]	0 0 0
Power Class	1
Power Control	No
Longest Supported Packet Type	DH5
RF Supported	Basic Rate True EDR Pi/4DQPSK True EDR 8DPSK True
Testmode	None
Perform Inquiry	Yes
EUT BT Address (if Inquiry No)	6C1DEB90A60A
Signaling BT Address	BABEBEDADBAD
Switch Matrix & Pathcompensation enabled	Yes

Test Parameter

Technology to test	BT Classic EDR 8DPSK
Antenna port used	1
Temperature	nom
Voltage	nom
Frequency low to test	True Freq [MHz] 2402
Frequency mid to test	True Freq [MHz] 2441
Frequency high to test	True Freq [MHz] 2480
Auto control enabled power supply Climatic Box	No No
Additional path loss [dB]	0.7
Full path name type	EUT - SignalingUnit - SpectrumAnalyzer

Equipment

Signal analyzer,Rohde&Schwarz,FSV-30,1321.3008K30/103170,3.60

Equipment

Switch matrix,CTCadvanced,RSM-1 NI DAQ,31534892,NI

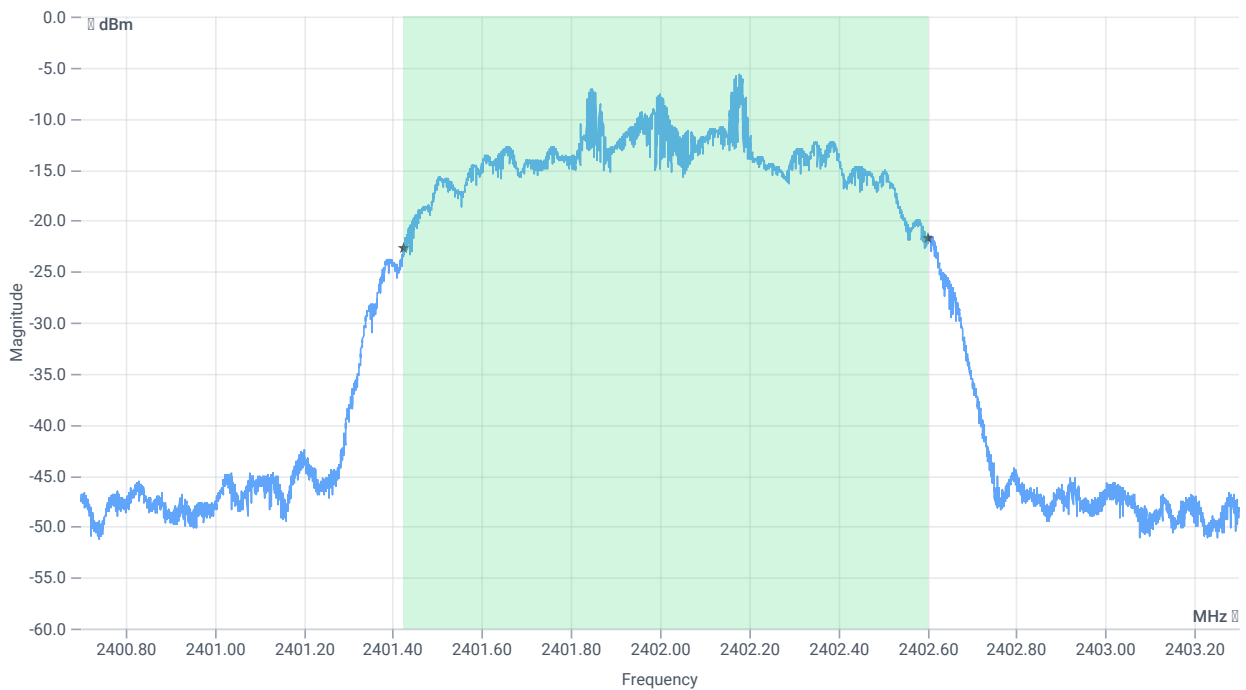
Test at TX 2402 MHz

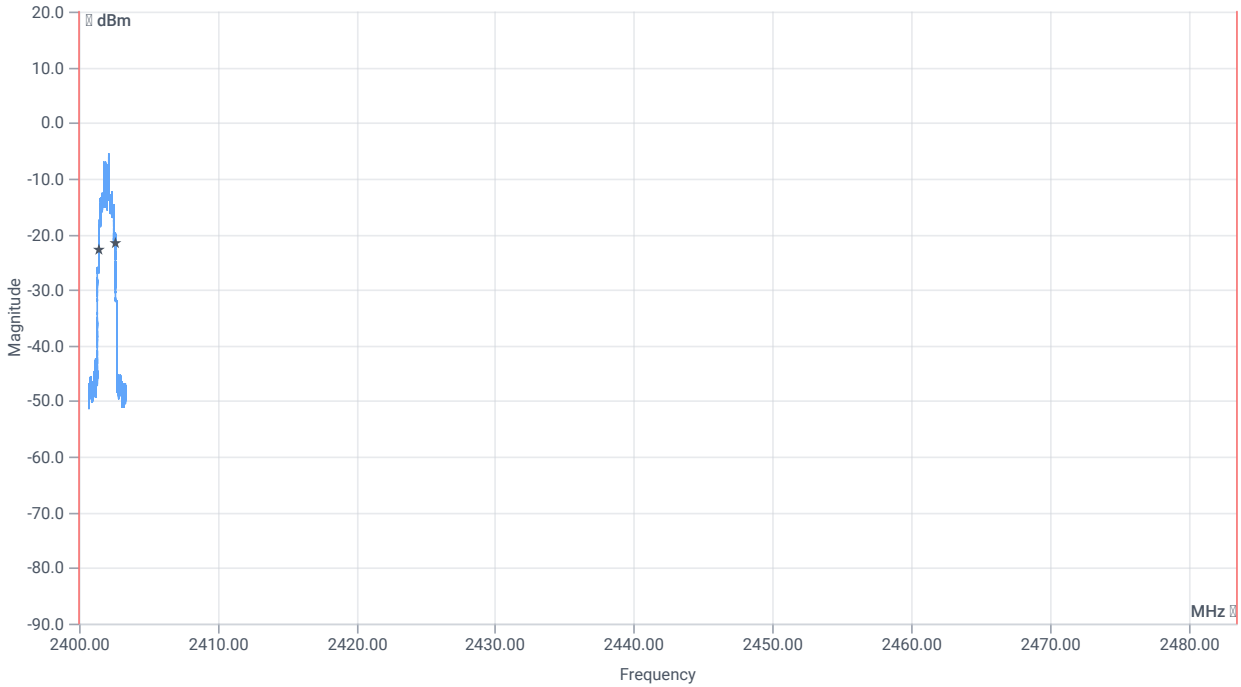
RESULT: Reference Power cond.

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	--	--	-3.35	dBm	INFO
Ref. Frequency	--	--	2401.900	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	1.65 11.29 10
Start [MHz] Stop [MHz]	2400.700 2403.300
RBW [MHz] VBW [MHz]	0.030000 0.100000
Detector TraceMode	POS MAXH
Sweep: time [ms] count points per Section type	50 200 10001 SWE

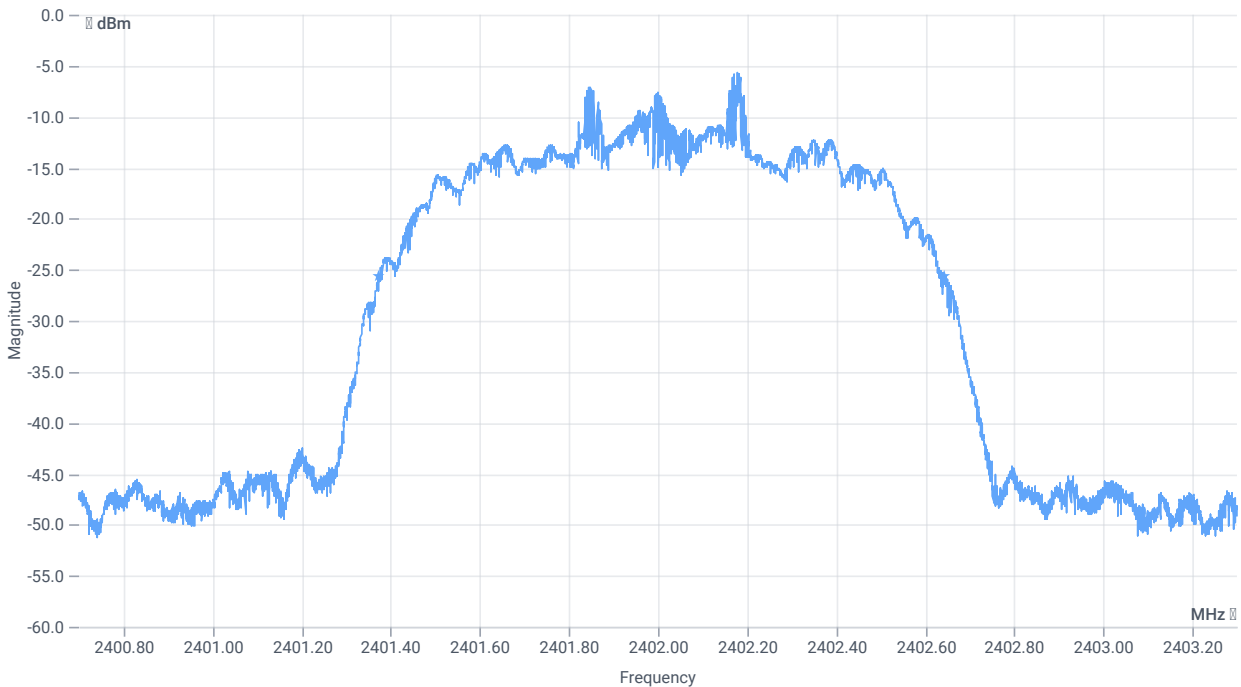




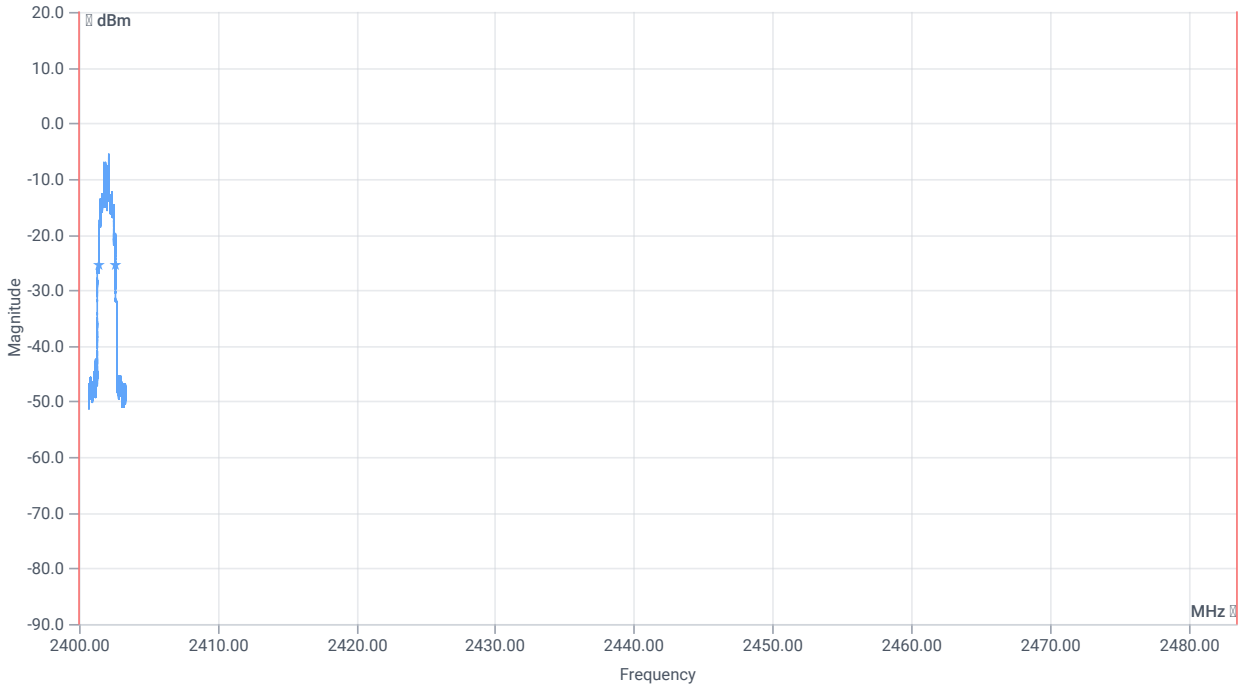
BW within Band 99PCT

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 99%	--	--	1178.000	kHz	INFO
T1 99%	2400.000000	--	2401.4247	MHz	PASS
T2 99%	--	2483.500000	2402.6026	MHz	PASS



BW 20dB



BW within Band 20dB

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 20dB	--	--	1269	kHz	INFO
T1 20dB	2400.000000	--	2401.3739	MHz	PASS
T2 20dB	--	2483.500000	2402.6425	MHz	PASS

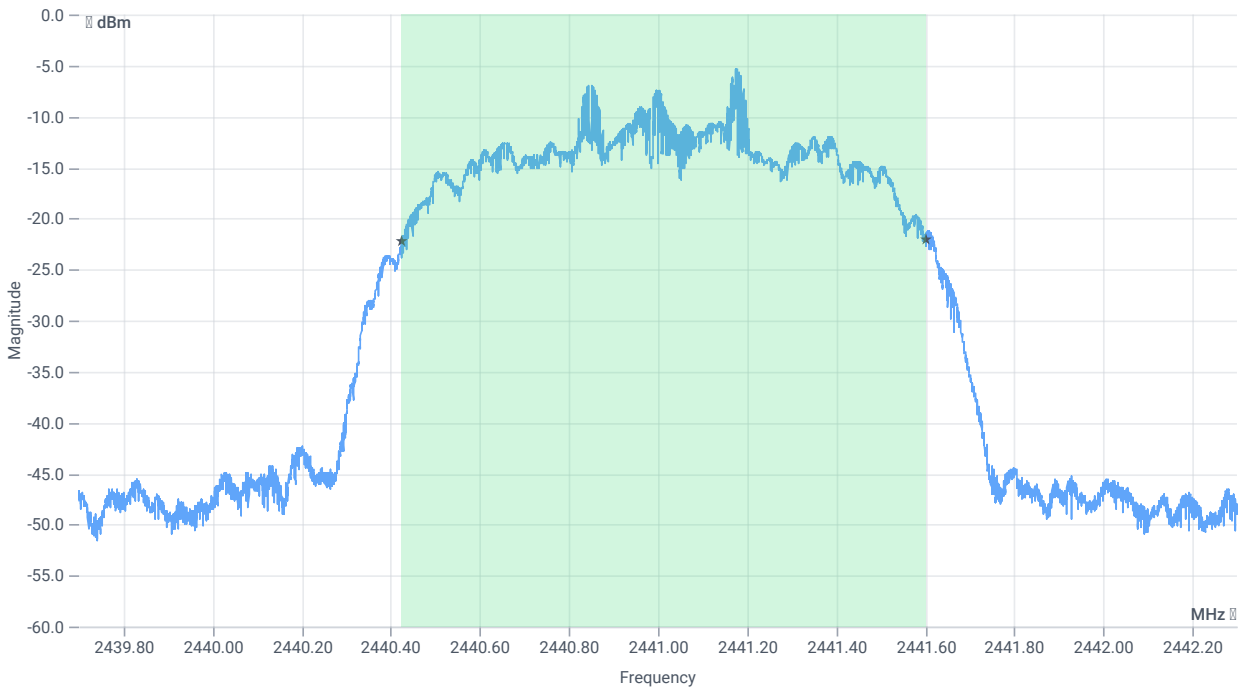
Test at TX 2441 MHz

RESULT: Reference Power cond.

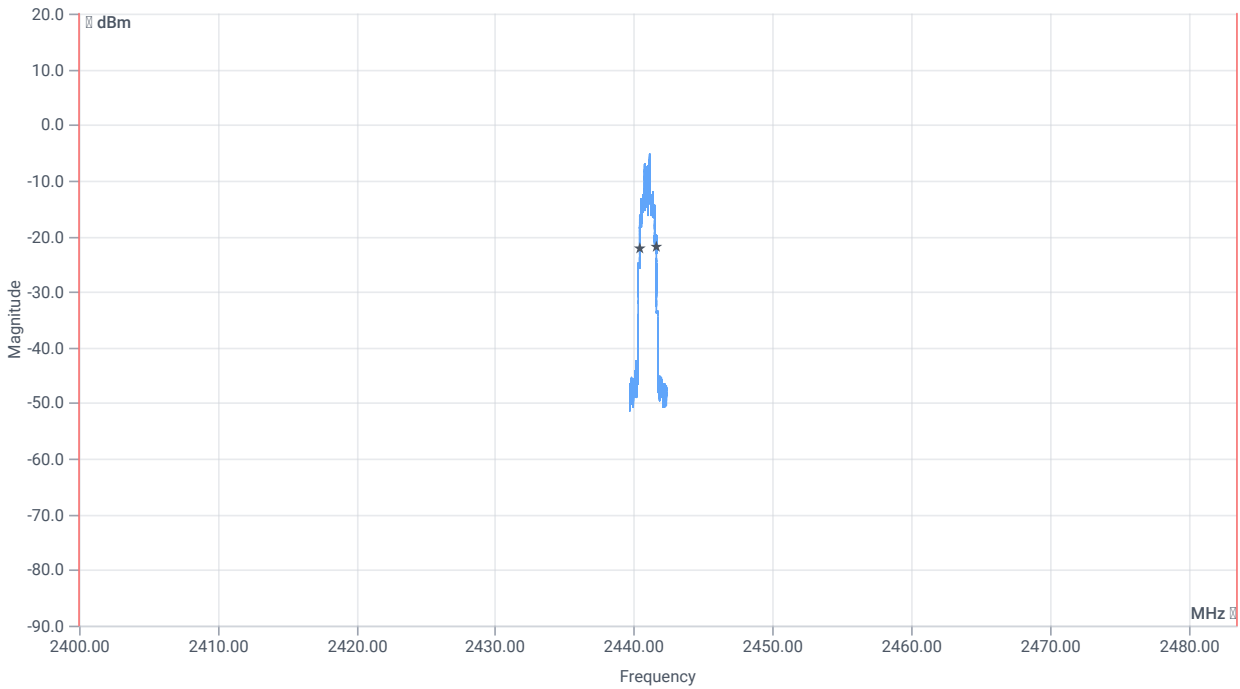
DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	--	--	-2.76	dBm	INFO
Ref. Frequency	--	--	2441.000	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	2.24 11.36 10
Start [MHz] Stop [MHz]	2439.700 2442.300
RBW [MHz] VBW [MHz]	0.030000 0.100000
Detector TraceMode	POS MAXH
Sweep: time [ms] count points per Section type	50 200 10001 SWE



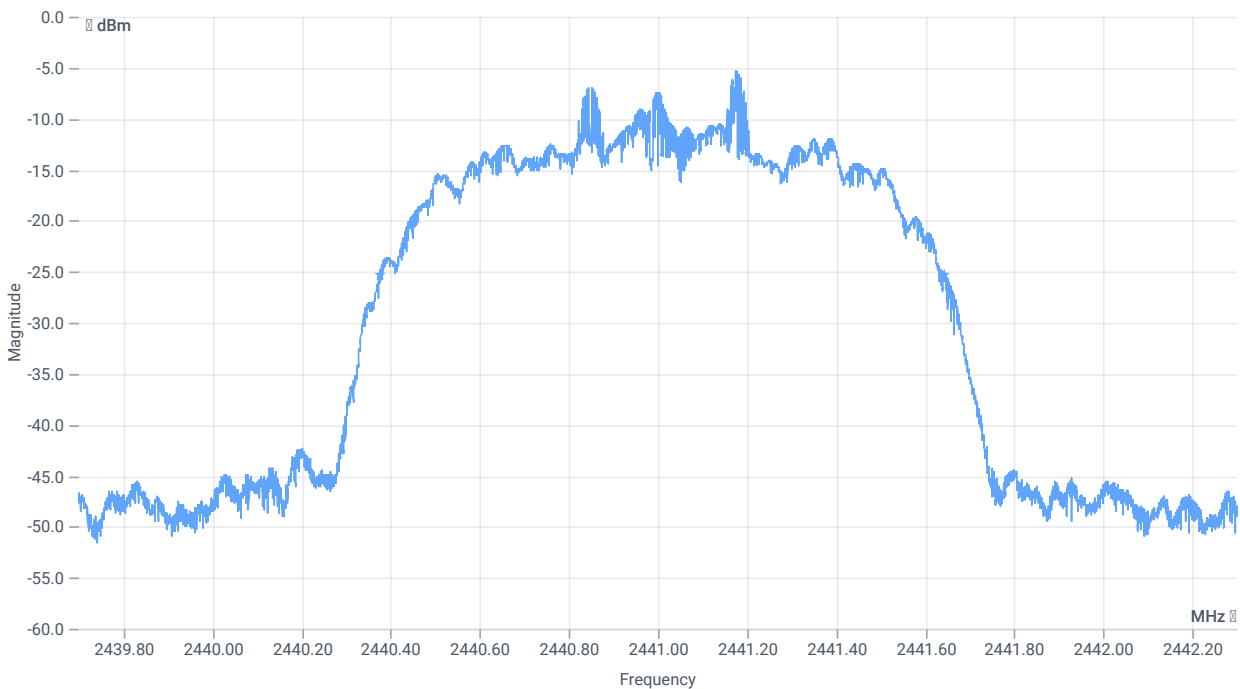
BW 99PCT



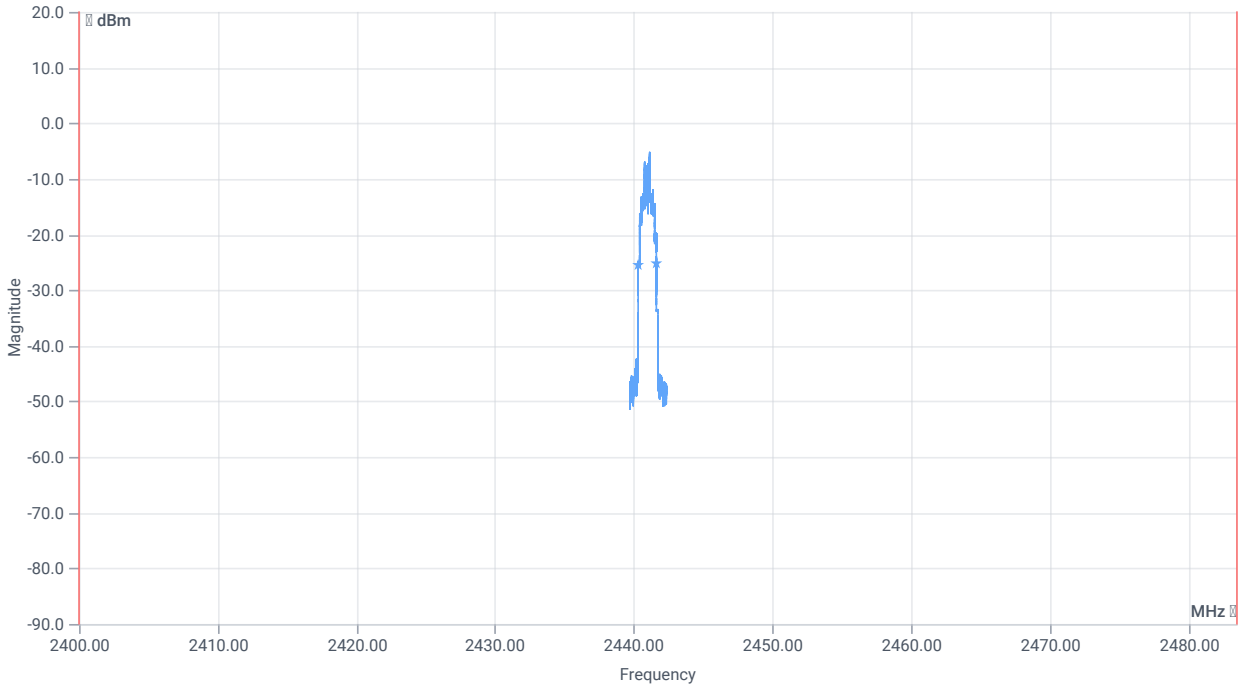
BW within Band 99PCT

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 99%	--	--	1178.000	kHz	INFO
T1 99%	2400.000000	--	2440.4252	MHz	PASS
T2 99%	--	2483.500000	2441.6029	MHz	PASS



BW 20dB



BW within Band 20dB

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 20dB	--	--	1267	kHz	INFO
T1 20DB	2400.000000	--	2440.3747	MHz	PASS
T2 20dB	--	2483.500000	2441.6422	MHz	PASS

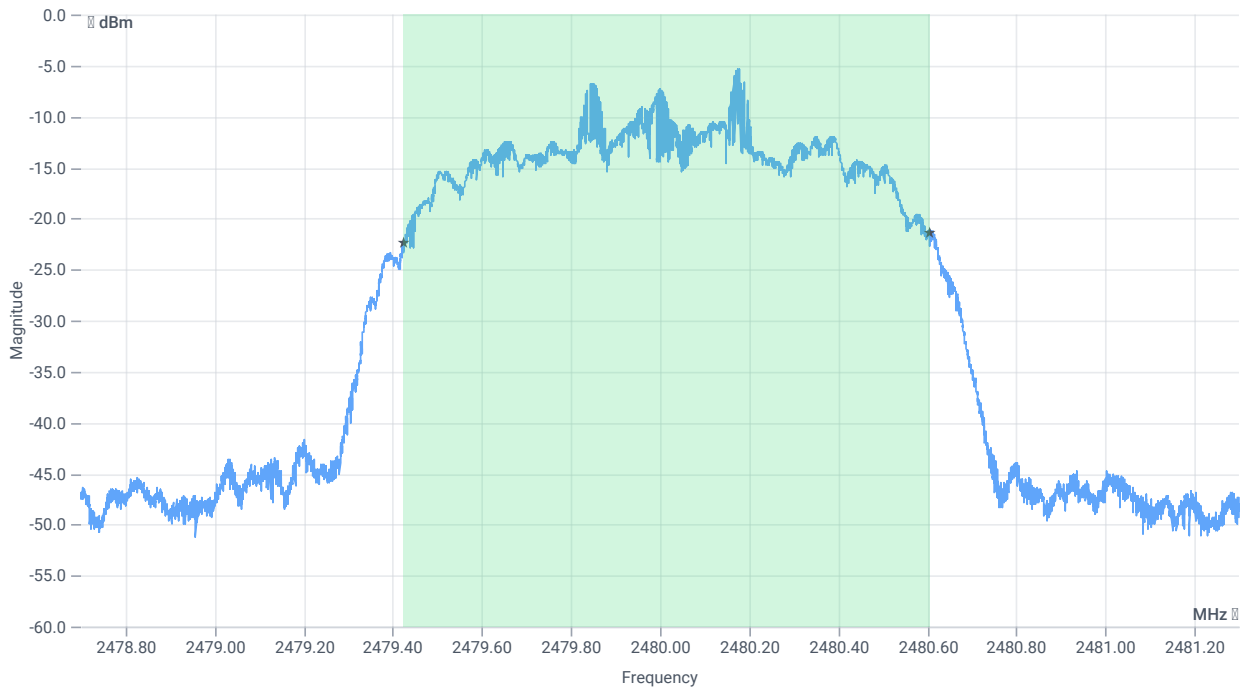
Test at TX 2480 MHz

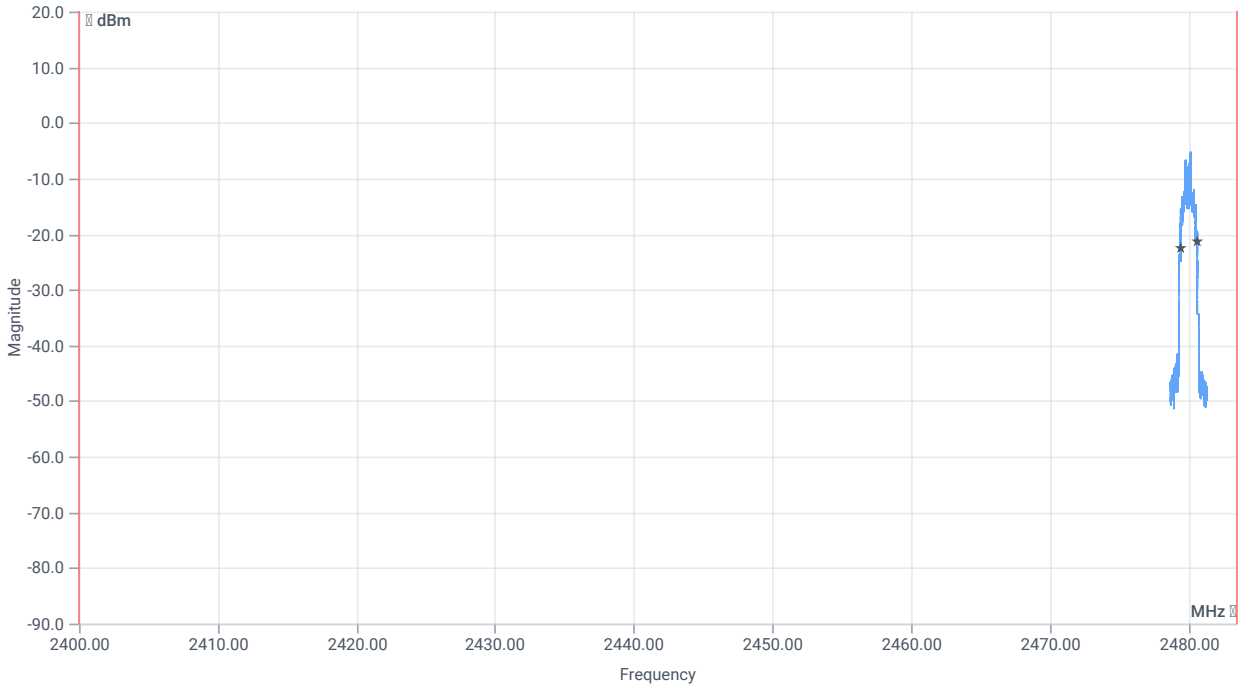
RESULT: Reference Power cond.

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	--	--	-2.95	dBm	INFO
Ref. Frequency	--	--	2479.900	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	2.05 11.41 10
Start [MHz] Stop [MHz]	2478.700 2481.300
RBW [MHz] VBW [MHz]	0.030000 0.100000
Detector TraceMode	POS MAXH
Sweep: time [ms] count points per Section type	50 200 10001 SWE

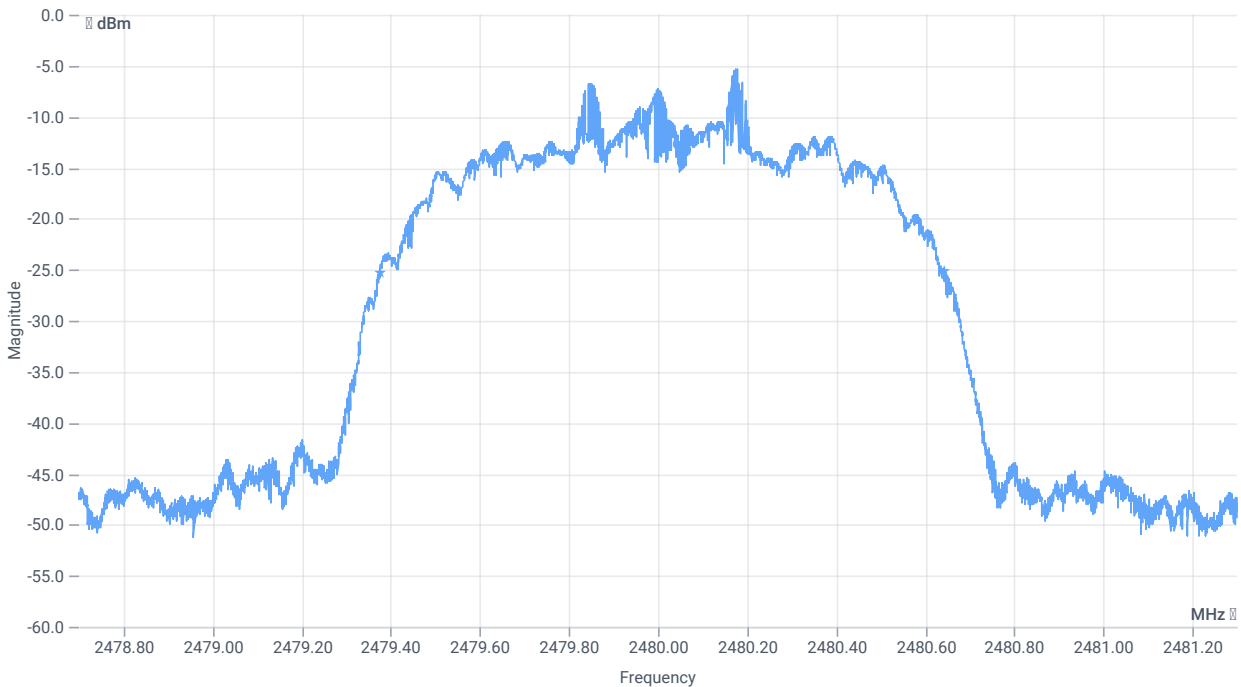




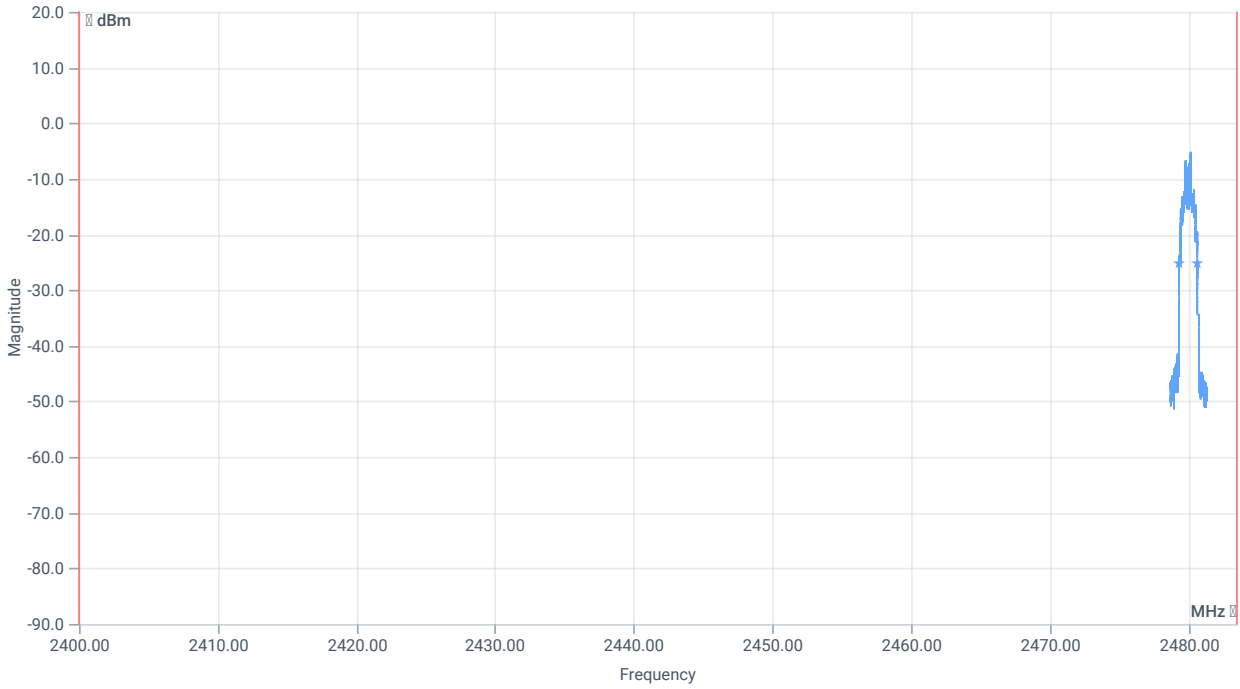
BW within Band 99PCT

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 99%	--	--	1179.000	kHz	INFO
T1 99%	2400.000000	--	2479.4249	MHz	PASS
T2 99%	--	2483.500000	2480.6037	MHz	PASS



BW 20dB



BW within Band 20dB

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 20dB	--	--	1270	kHz	INFO
T1 20dB	2400.000000	--	2479.3744	MHz	PASS
T2 20dB	--	2483.500000	2480.6443	MHz	PASS

Verdict

PASS

FCC 15.247 # TX spurious conducted 20dBc ~ BT Classic EDR 8DPSK

References

TC start	15.12.2023 13:11:04
Ambit temp [°C] humidity [rel%]	26.9 33
System version	4.7.1.4
Standard Version	FCC 15.247 NI
Method	IF DTS then 8.5 DTS emissions in non-restricted frequency bands: Subclause 11.11 of ANSI C63.10 is applicable
Description	FCC 15.247 TX Emissions Conducted FHSS - BT Classic EDR 8DPSK
Information	

EUT Common Settings BT Classic

Intermodulation Value N	3
Image Freq. Low Mid High [MHz]	0 0 0
Power Class	1
Power Control	No
Longest Supported Packet Type	DH5
RF Supported	Basic Rate True EDR Pi/4DQPSK True EDR 8DPSK True
Testmode	None
Perform Inquiry	Yes
EUT BT Address (if Inquiry No)	6C1DEB90A60A
Signaling BT Address	BABEBEDADBAD
Switch Matrix & Pathcompensation enabled	Yes

Test Parameter

Technology to test	BT Classic EDR 8DPSK
Antenna port used	1
Temperature	nom
Voltage	nom
Frequency low to test	True Freq [MHz] 2402
Frequency mid to test	True Freq [MHz] 2441
Frequency high to test	True Freq [MHz] 2480
Auto control enabled power supply Climatic Box	No No
Additional path loss [dB]	0.7
Full path name type	EUT - SignalingUnit - SpectrumAnalyzer

Equipment

Signal analyzer,Rohde&Schwarz,FSV-30,1321.3008K30/103170,3.60

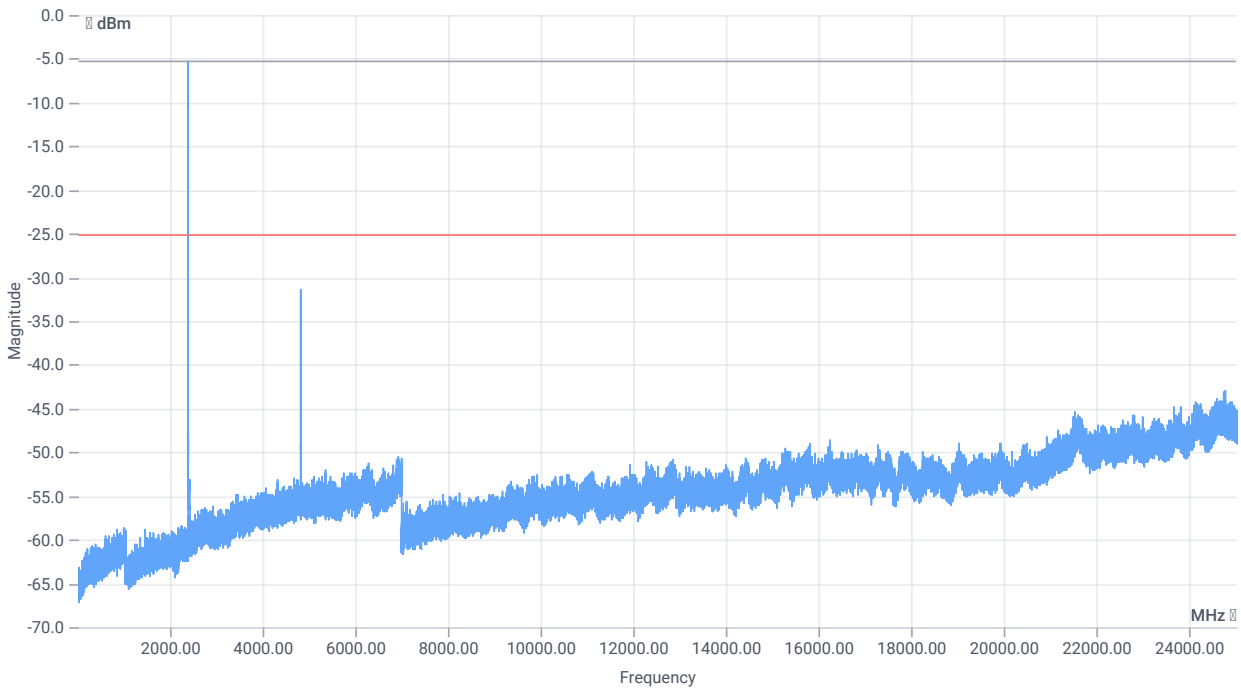
Equipment

Switch matrix,CTCadvanced,RSM-1 NI DAQ,31534892,NI

Test at TX 2402 MHz

RESULT: Reference Power cond.

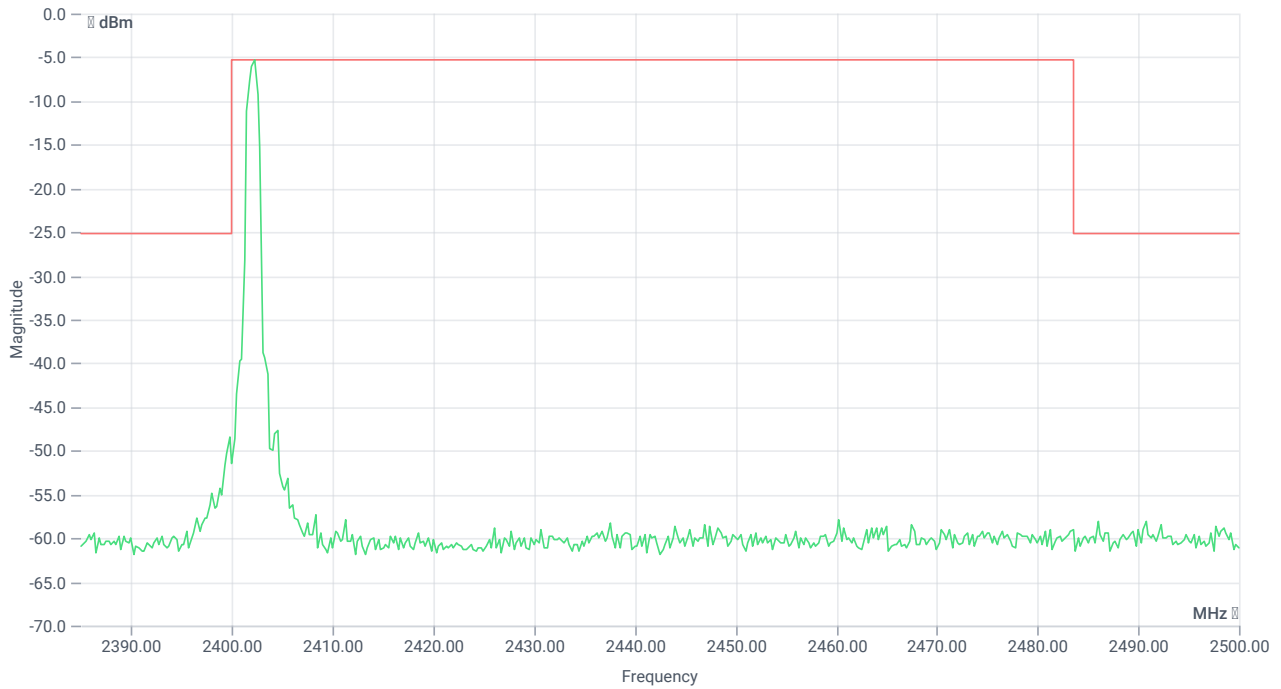
DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	--	--	-3.40	dBm	INFO
Ref. Frequency	--	--	2402.100	MHz	INFO



TX emissions

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	-3.40 0 15
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 2001 SWE



TX emissions band zoomed

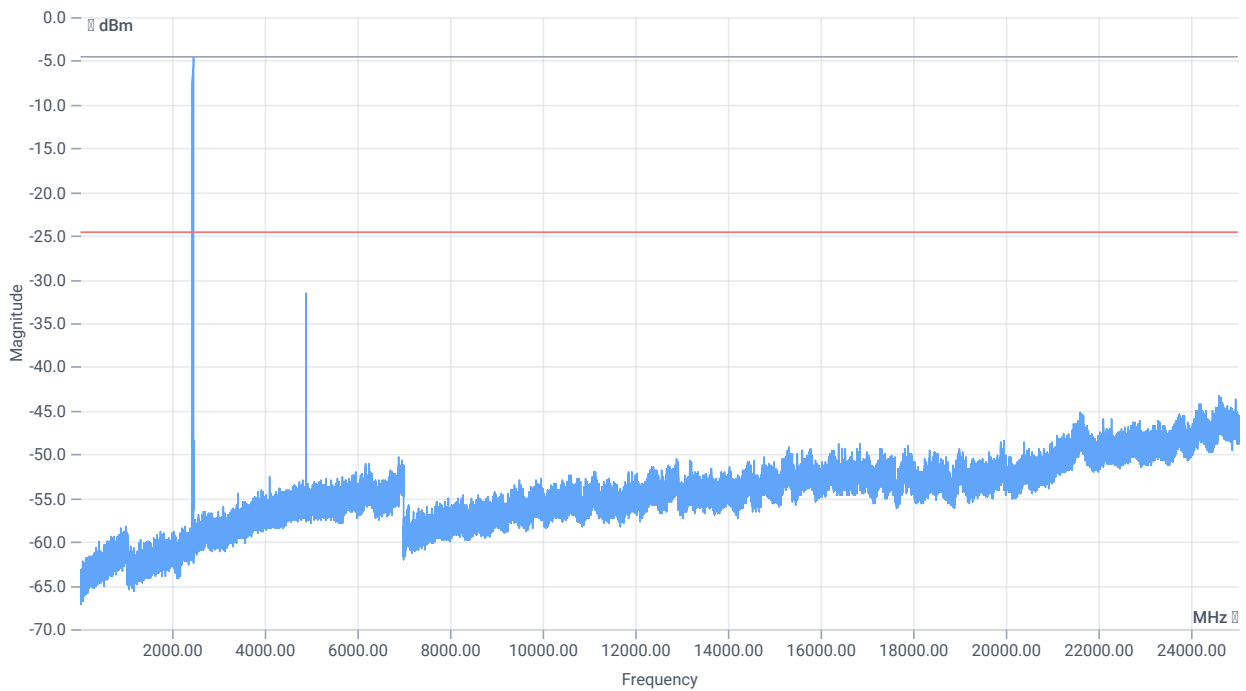
RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Reference @ 2402.25 MHz	--	--	-5.22	dBm	INFO
No peaks detected	--	--			PASS
Lowest margin to limit 4804 MHz	0	--	6.26	dB	INFO

Test at TX 2441 MHz

RESULT: Reference Power cond.

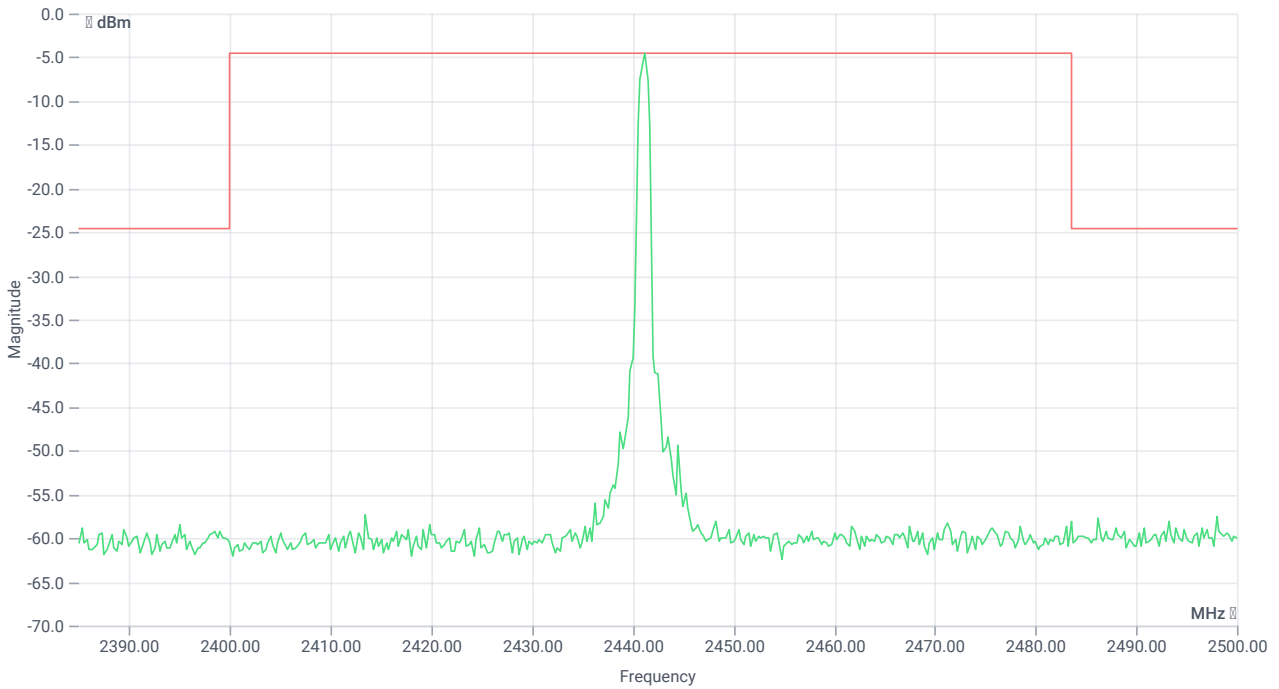
DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	--	--	-3.16	dBm	INFO
Ref. Frequency	--	--	2441.100	MHz	INFO



TX emissions

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	-3.16 0 15
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 2001 SWE



TX emissions band zoomed

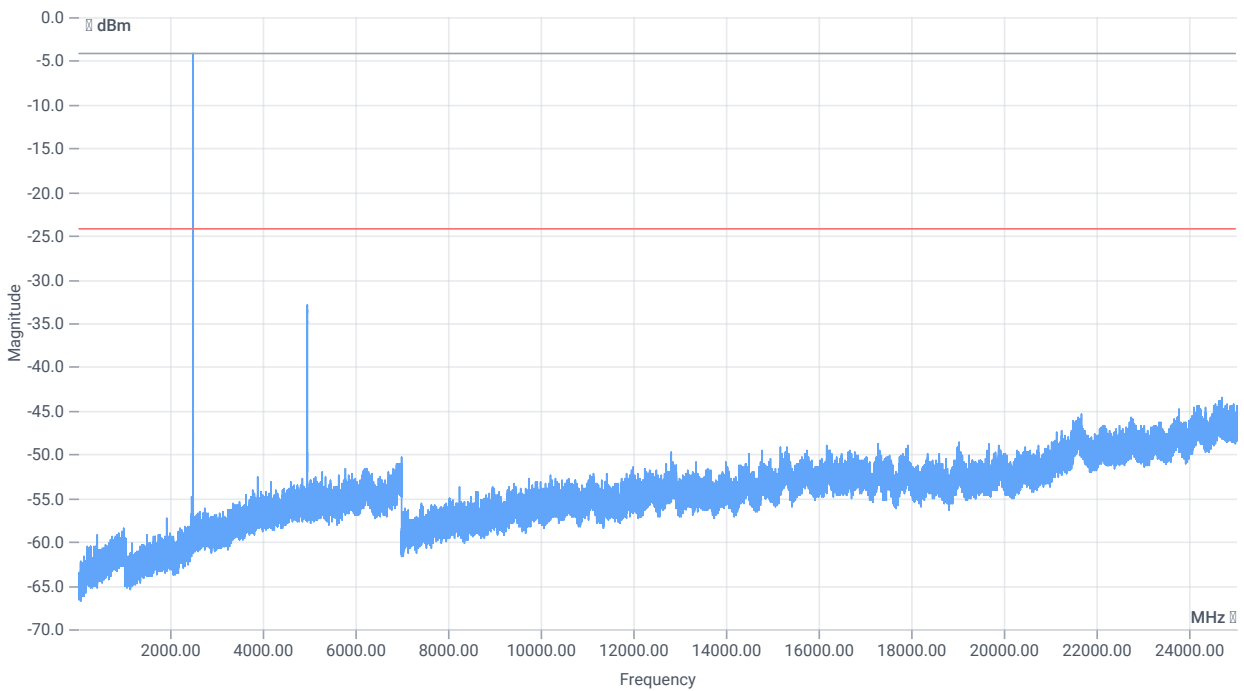
RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Reference @ 2441.25 MHz	--	--	-4.61	dBm	INFO
No peaks detected	--	--			PASS
Lowest margin to limit 30 MHz	0	--	-135.54	dB	INFO

Test at TX 2480 MHz

RESULT: Reference Power cond.

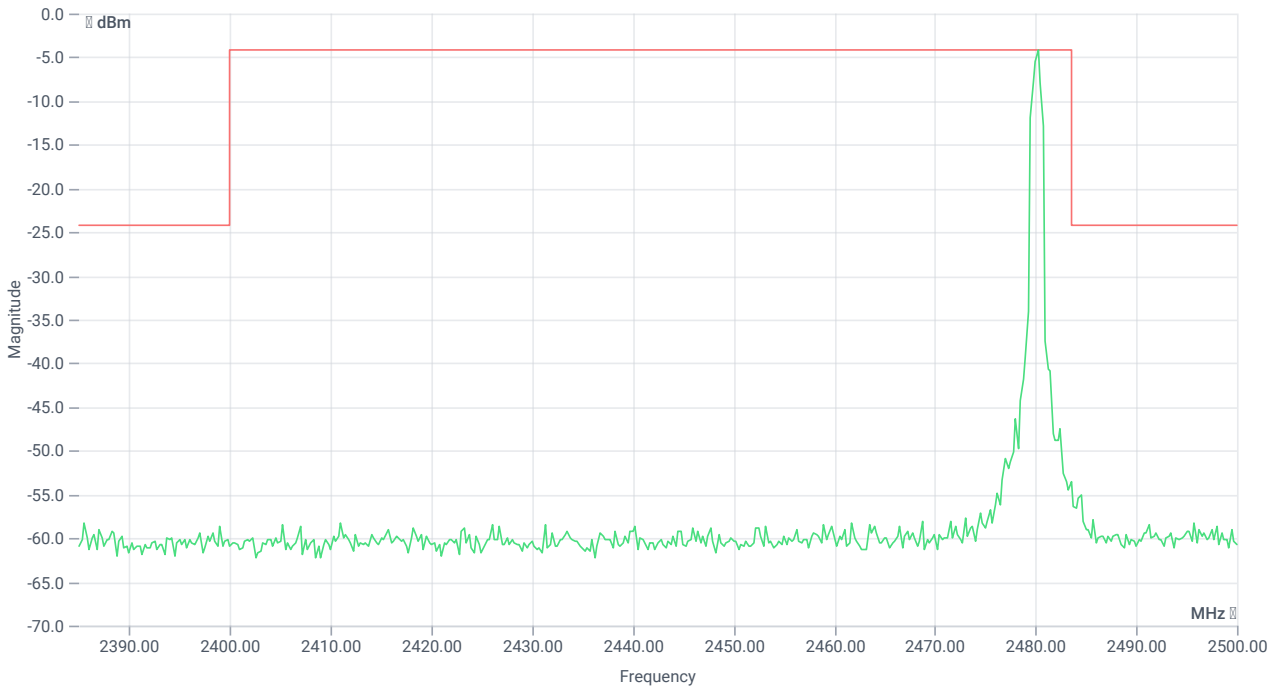
DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	--	--	-2.96	dBm	INFO
Ref. Frequency	--	--	2480.100	MHz	INFO



TX emissions

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	-2.96 0 15
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 2001 SWE



TX emissions band zoomed

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Reference @ 2480.25 MHz	--	--	-4.22	dBm	INFO
No peaks detected	--	--			PASS
Lowest margin to limit 4960.5 MHz	0	--	8.77	dB	INFO

Verdict

PASS

FCC 15.247 # TX Emissions on band edge FCC ~ BT Classic EDR 8DPSK

References

TC start	15.12.2023 13:36:14
Ambit temp [°C] humidity [rel%]	27.0 32
System version	4.7.1.4
Standard Version	FCC 15.247 NI
Method	
Description	FCC 15.247 TX Emissions conducted on band edge FHSS - BT Classic EDR 8DPSK
Information	

EUT Common Settings BT Classic

Intermodulation Value N	3
Image Freq. Low Mid High [MHz]	0 0 0
Power Class	1
Power Control	No
Longest Supported Packet Type	DH5
RF Supported	Basic Rate True EDR Pi/4DQPSK True EDR 8DPSK True
Testmode	None
Perform Inquiry	Yes
EUT BT Address (if Inquiry No)	6C1DEB90A60A
Signaling BT Address	BABEBEDADBAD
Switch Matrix & Pathcompensation enabled	Yes

Test Parameter

Technology to test	BT Classic EDR 8DPSK
Antenna port used	1
Temperature	nom
Voltage	nom
Frequency low to test	False Freq [MHz] 2402
Frequency mid to test	False Freq [MHz] 2441
Frequency high to test	False Freq [MHz] 2480
Auto control enabled power supply Climatic Box	No No
Additional path loss [dB]	0.7
Full path name type	EUT - SignalingUnit - SpectrumAnalyzer

Equipment

Equipment

Signal analyzer,Rohde&Schwarz,FSV-30,1321.3008K30/103170,3.60

Switch matrix,CTCadvanced,RSM-1 NI DAQ,31534892,NI

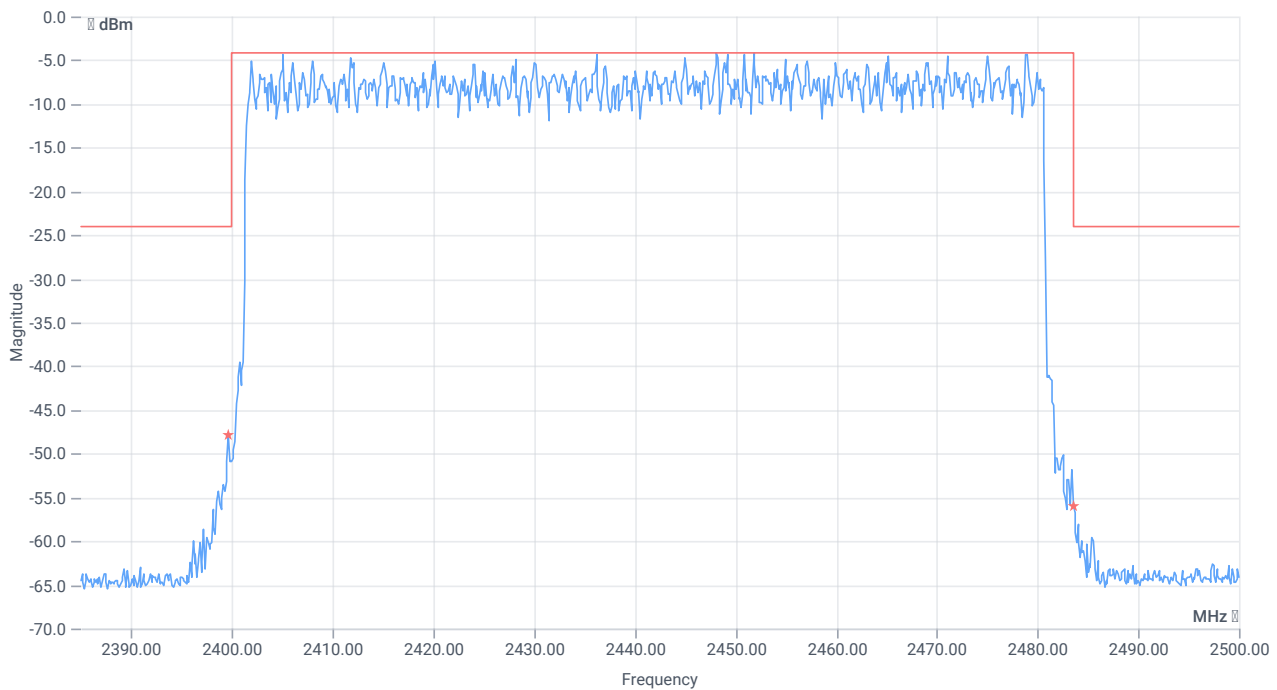
Test at TX hopping MHz

RESULT: Reference Power cond.

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	--	--	-2.06	dBm	INFO
Ref. Frequency	--	--	2462.080	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	2.94 11.36 10
Start [MHz] Stop [MHz]	2385.000 2500.000
RBW [MHz] VBW [MHz]	0.100000 0.300000
Detector TraceMode	POS MAXH
Sweep: time [ms] count points per Section type	30 1800 1001 SWE



TX emissions on band edge

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Max peak lower Band	--	-24.11	-47.87	dBm	PASS
Max peak upper Band	--	-24.11	-55.96	dBm	PASS

Verdict

PASS

- END OF DOCUMENT -