

Conducted test results

No.1-7494/24-01-02_TR1-A201-R1

April 04, 2024

Test Standard(s)	FCC 15.247, ISSED RSS247 - NI
	NA - NI
	FCC 15.247 - NI

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Authorized

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Radio Labs

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FCC 15.247, ISED RSS247 # Bandwidth 99PCT and 20dB ~ Generic 2G4

References

TC start	03.04.2024 13:10:13
Ambit temp [°C] humidity [rel%]	0.0 0
System version	5.0.3.6
Standard Version	FCC 15.247, ISED RSS247 NI
Method	
Description	FCC 15.247 Bandwidth 99PCT - 20DB FHSS - Generic 2G4
Information	

EUT Common settings 2G4

Hopping supported	No
Burst length [ms]	10
Nominal bandwidth [MHz]	2
User interaction	No

Equipment

Signal analyzer,Rohde&Schwarz,FSV-30,1321.3008K30/103170,3.60
Signaling unit,Rohde&Schwarz,CMW,1201.0002k75/102550,4.0.190
Switch matrix,cetecom advanced GmbH,USM,A001,1.0.0

Test Parameter

Technology to test	Generic 2G4
EUT port	EUT1
Temperature	nom
Voltage	nom
Frequency low to test	False Freq [MHz] 2403
Frequency mid to test	False Freq [MHz] 2441
Frequency high to test	True Freq [MHz] 2479
Auto control enabled power supply Climatic Box	No No
Additional path loss [dB]	0
Full path type	EUT_SA_GEN_SIG
Full path name	EUT1.MP.SIG1/EUT1.SA/EUT1.GEN1/EUT1.GEN2/
Switch bits	00010001:00010001:00000000:00000001

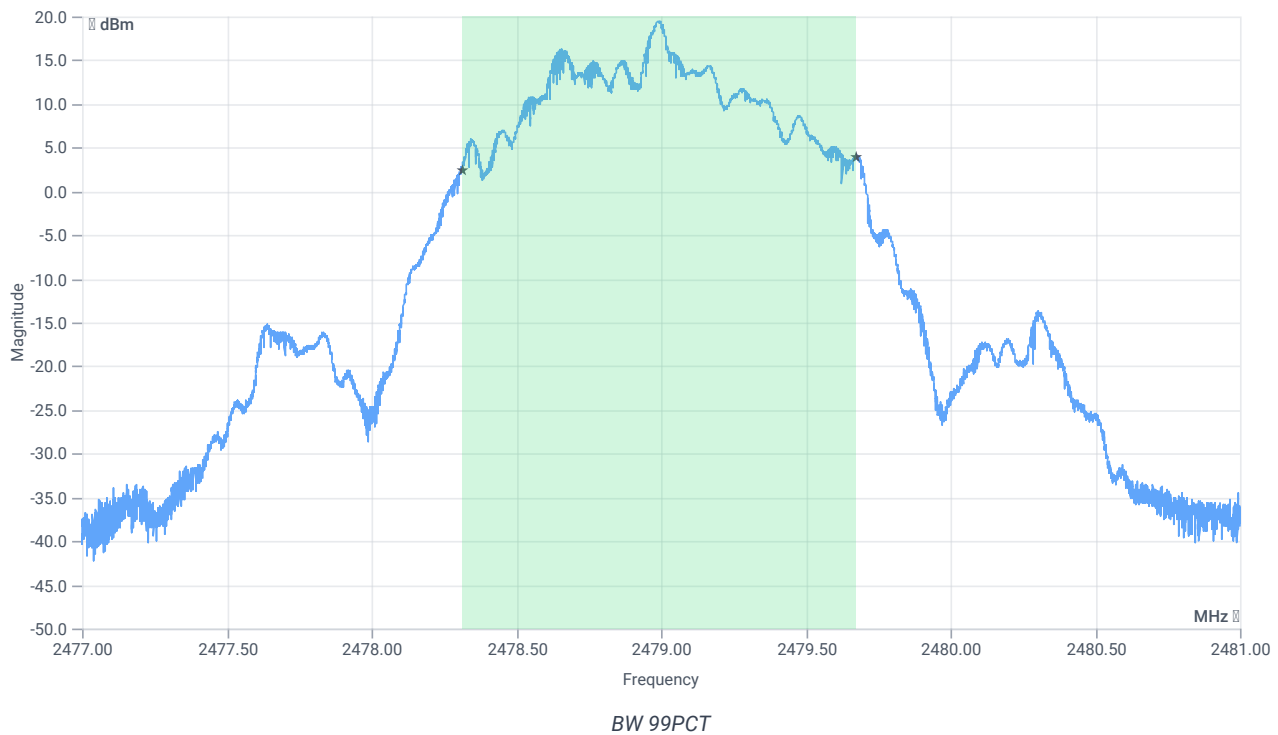
Test at TX 2479 MHz

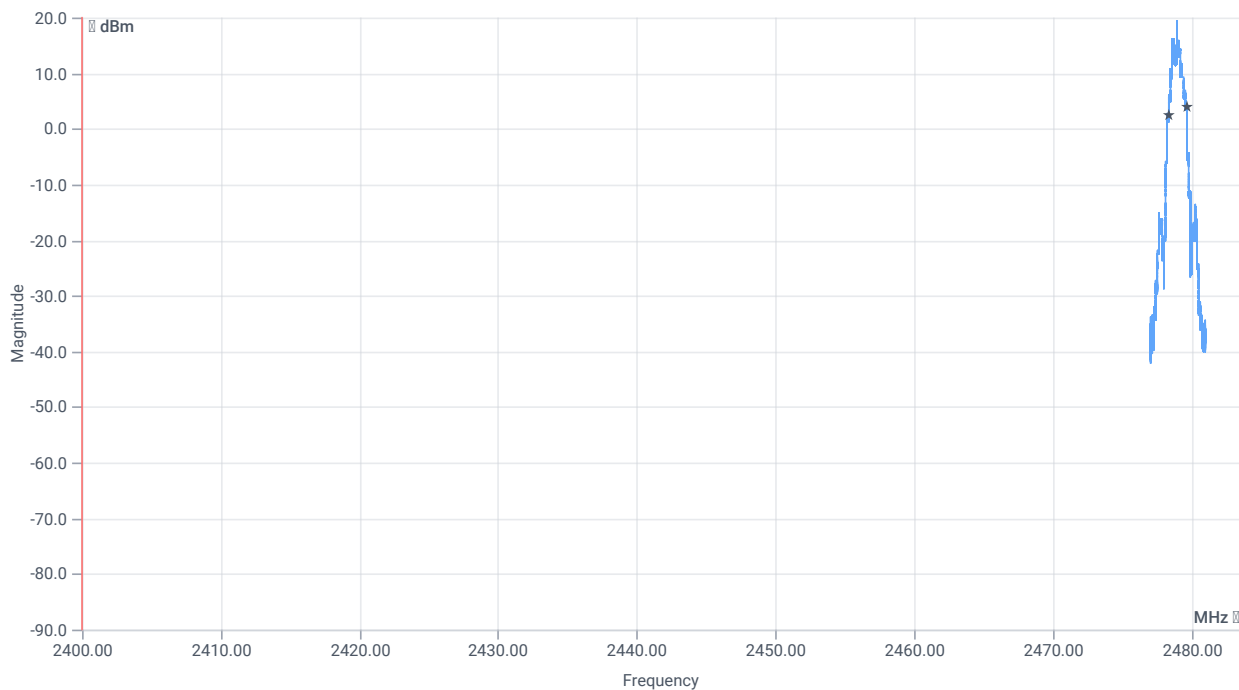
RESULT: Reference power cond.

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. power 1MHz/1MHz cond.	---	---	18.88	dBm	INFO
Ref. frequency	---	---	2478.500	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	23.88 8.39 35
Start [MHz] Stop [MHz]	2477.000 2481.000
RBW [MHz] VBW [MHz]	0.050000 0.200000
Detector TraceMode	POS MAXH
Sweep: time [ms] count points per Section type	50 2000 10001 SWE

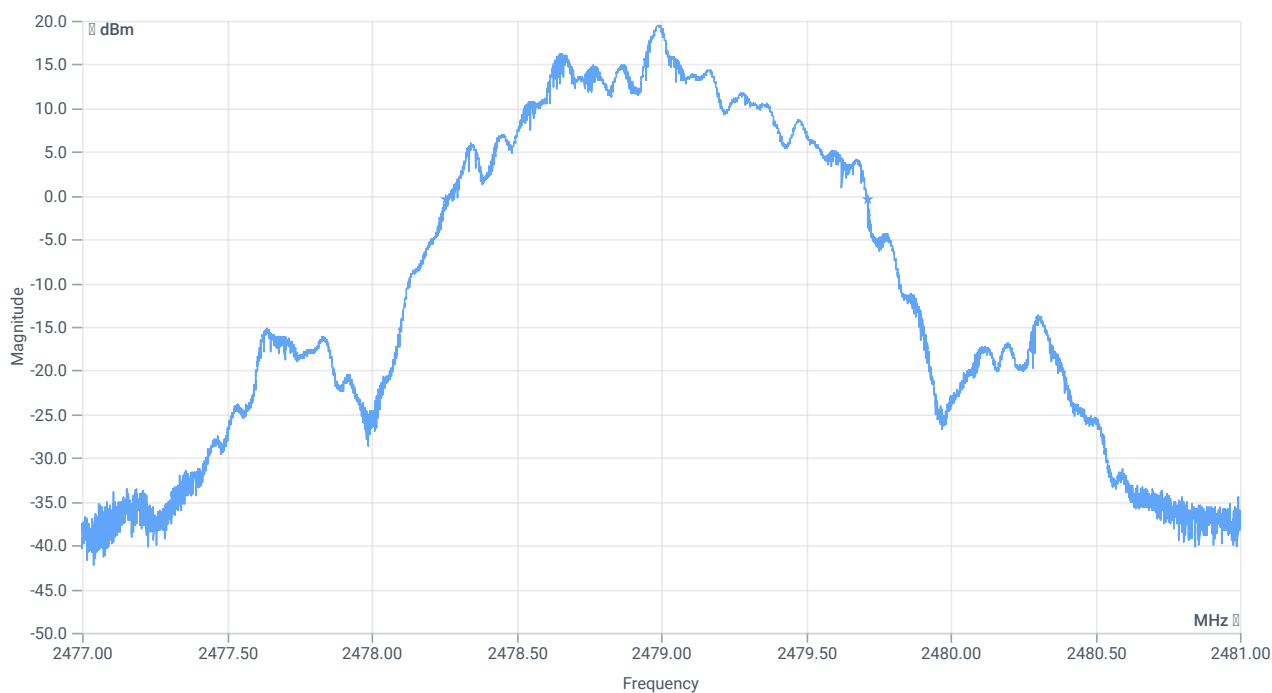




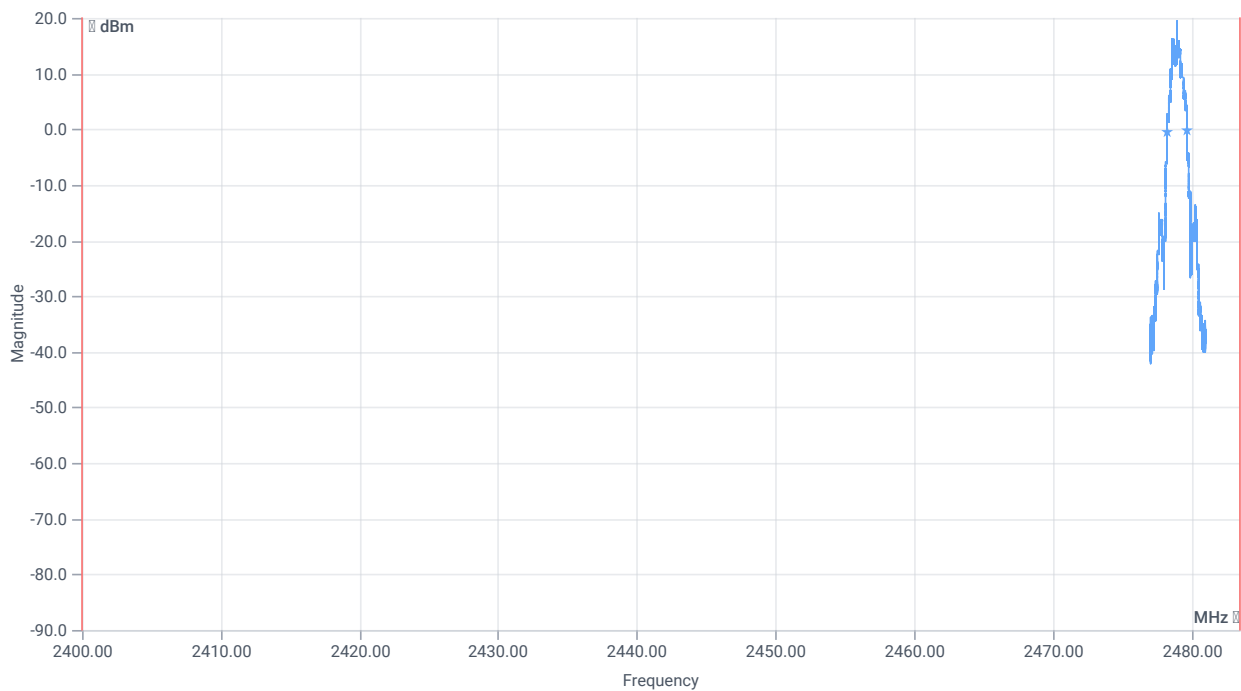
BW within Band 99PCT

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 99%	---	---	1363.000	kHz	INFO
T1 99%	2400.000000	---	2478.3121	MHz	PASS
T2 99%	---	2483.500000	2479.6751	MHz	PASS



BW 20dB



BW within band 20dB

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 20dB	---	---	1452	kHz	INFO
T1 20dB	2400.000000	---	2478.2596	MHz	PASS
T2 20dB	---	2483.500000	2479.7120	MHz	PASS

Verdict
PASS

FCC 15.247, ISED RSS247 # Bandwidth 99PCT and 20dB ~ Generic 2G4

References

TC start	03.04.2024 12:08:11
Ambit temp [°C] humidity [rel%]	0.0 0
System version	5.0.3.6
Standard Version	FCC 15.247, ISED RSS247 NI
Method	
Description	FCC 15.247 Bandwidth 99PCT - 20DB FHSS - Generic 2G4
Information	

EUT Common settings 2G4

Hopping supported	No
Burst length [ms]	10
Nominal bandwidth [MHz]	2
User interaction	No

Equipment

Signal analyzer,Rohde&Schwarz,FSV-30,1321.3008K30/103170,3.60
Signaling unit,Rohde&Schwarz,CMW,1201.0002k75/102550,4.0.190
Switch matrix,cetecom advanced GmbH,USM,A001,1.0.0

Test Parameter

Technology to test	Generic 2G4
EUT port	EUT1
Temperature	nom
Voltage	nom
Frequency low to test	False Freq [MHz] 2403
Frequency mid to test	True Freq [MHz] 2441
Frequency high to test	False Freq [MHz] 2479
Auto control enabled power supply Climatic Box	No No
Additional path loss [dB]	0
Full path type	EUT_SA_GEN_SIG
Full path name	EUT1.MP.SIG1/EUT1.SA/EUT1.GEN1/EUT1.GEN2/
Switch bits	00010001:00010001:00000000:00000001

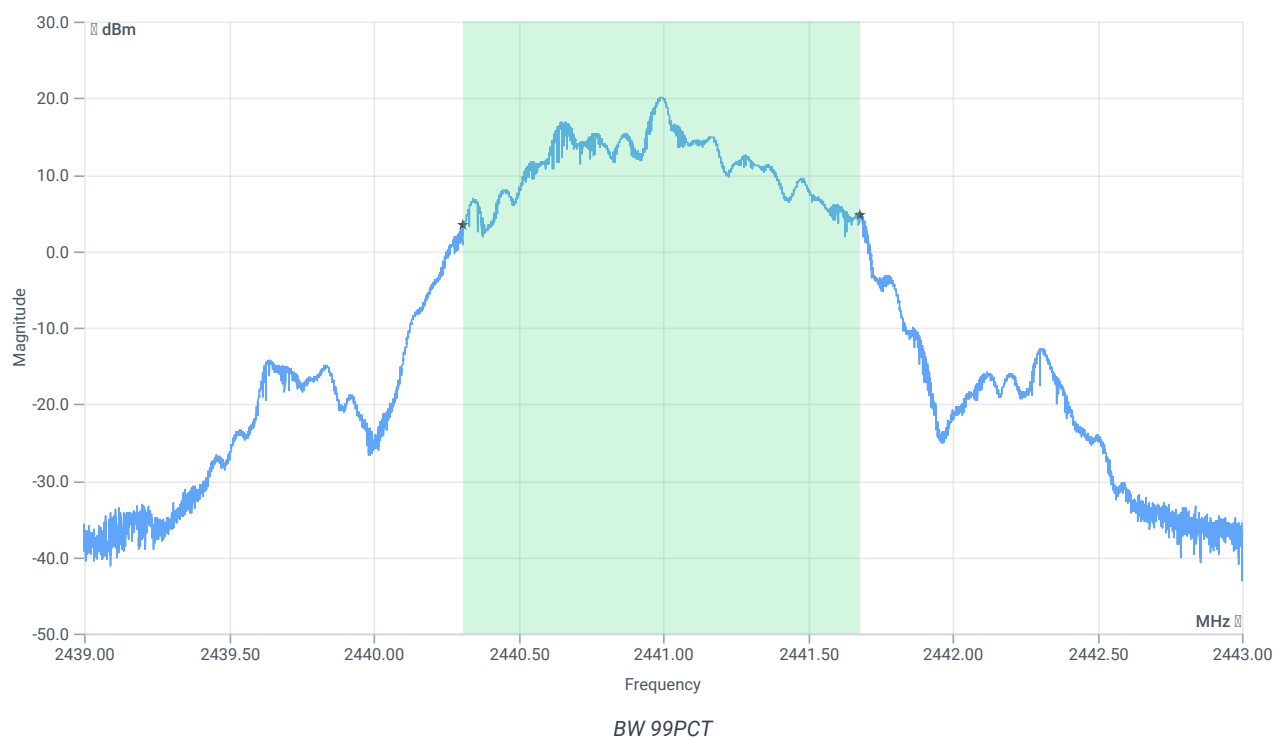
Test at TX 2441 MHz

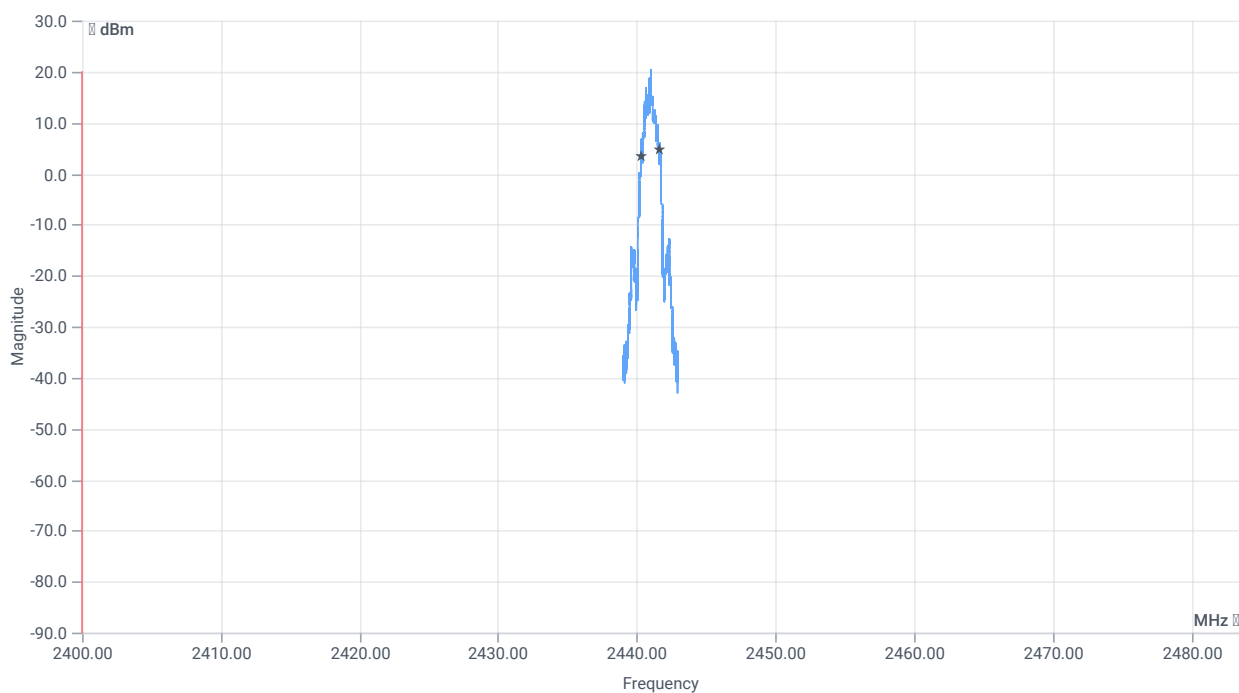
RESULT: Reference power cond.

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. power 1MHz/1MHz cond.	---	---	19.60	dBm	INFO
Ref. frequency	---	---	2441.500	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	24.60 8.3 35
Start [MHz] Stop [MHz]	2439.000 2443.000
RBW [MHz] VBW [MHz]	0.050000 0.200000
Detector TraceMode	POS MAXH
Sweep: time [ms] count points per Section type	50 2000 10001 SWE

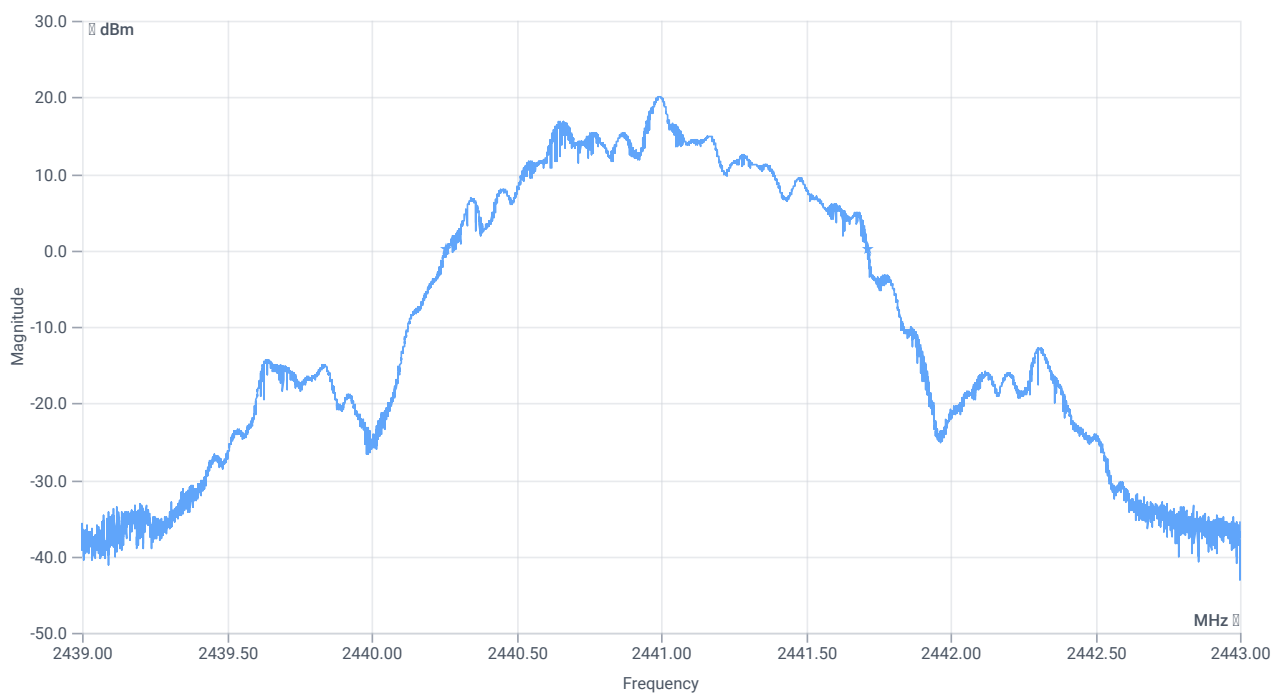




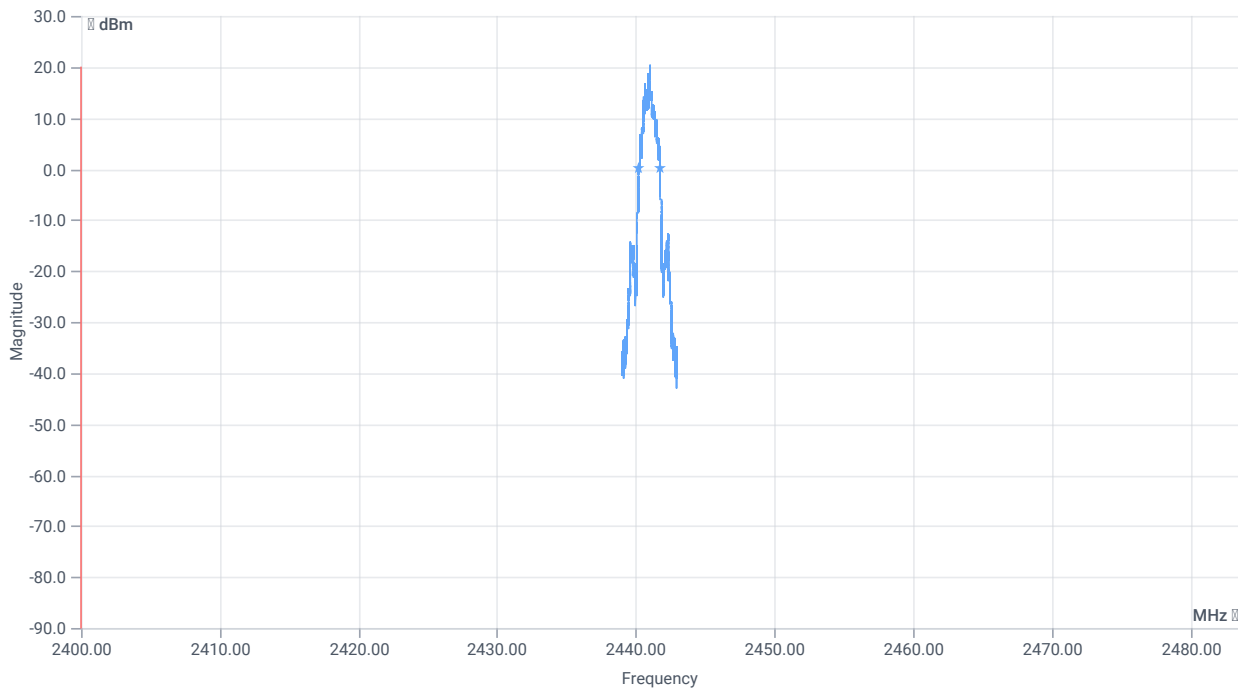
BW within Band 99PCT

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 99%	---	---	1369.000	kHz	INFO
T1 99%	2400.000000	---	2440.3113	MHz	PASS
T2 99%	---	2483.500000	2441.6803	MHz	PASS



BW 20dB



BW within band 20dB

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 20dB	---	---	1459	kHz	INFO
T1 20dB	2400.000000	---	2440.2568	MHz	PASS
T2 20dB	---	2483.500000	2441.7160	MHz	PASS

Verdict

PASS

FCC 15.247, ISED RSS247 # Bandwidth 99PCT and 20dB ~ Generic 2G4

References

TC start	03.04.2024 11:11:51
Ambit temp [°C] humidity [rel%]	0.0 0
System version	5.0.3.6
Standard Version	FCC 15.247, ISED RSS247 NI
Method	
Description	FCC 15.247 Bandwidth 99PCT - 20DB FHSS - Generic 2G4
Information	

EUT Common settings 2G4

Hopping supported	No
Burst length [ms]	10
Nominal bandwidth [MHz]	2
User interaction	No

Equipment

Signal analyzer,Rohde&Schwarz,FSV-30,1321.3008K30/103170,3.60
Signaling unit,Rohde&Schwarz,CMW,1201.0002k75/102550,4.0.190
Switch matrix,cetecom advanced GmbH,USM,A001,1.0.0

Test Parameter

Technology to test	Generic 2G4
EUT port	EUT1
Temperature	nom
Voltage	nom
Frequency low to test	True Freq [MHz] 2403
Frequency mid to test	False Freq [MHz] 2441
Frequency high to test	False Freq [MHz] 2479
Auto control enabled power supply Climatic Box	No No
Additional path loss [dB]	0
Full path type	EUT_SA_GEN_SIG
Full path name	EUT1.MP.SIG1/EUT1.SA/EUT1.GEN1/EUT1.GEN2/
Switch bits	00010001:00010001:00000000:00000001

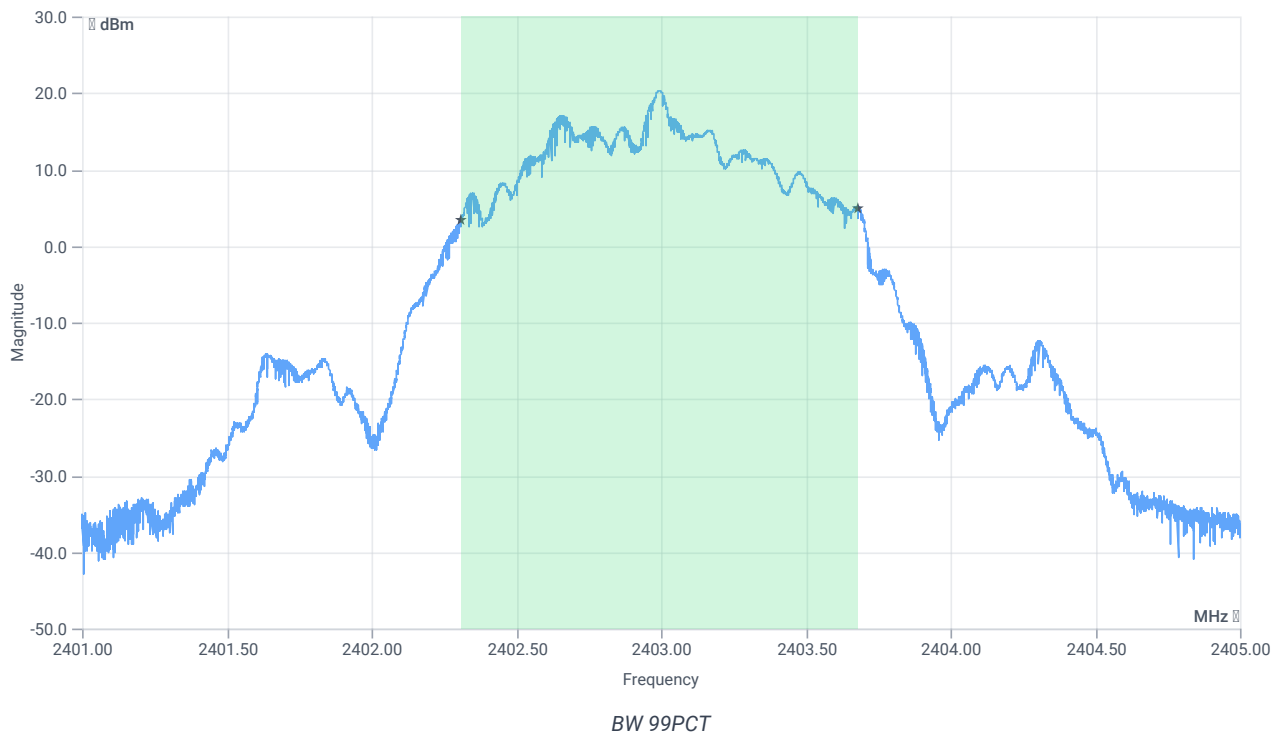
Test at TX 2403 MHz

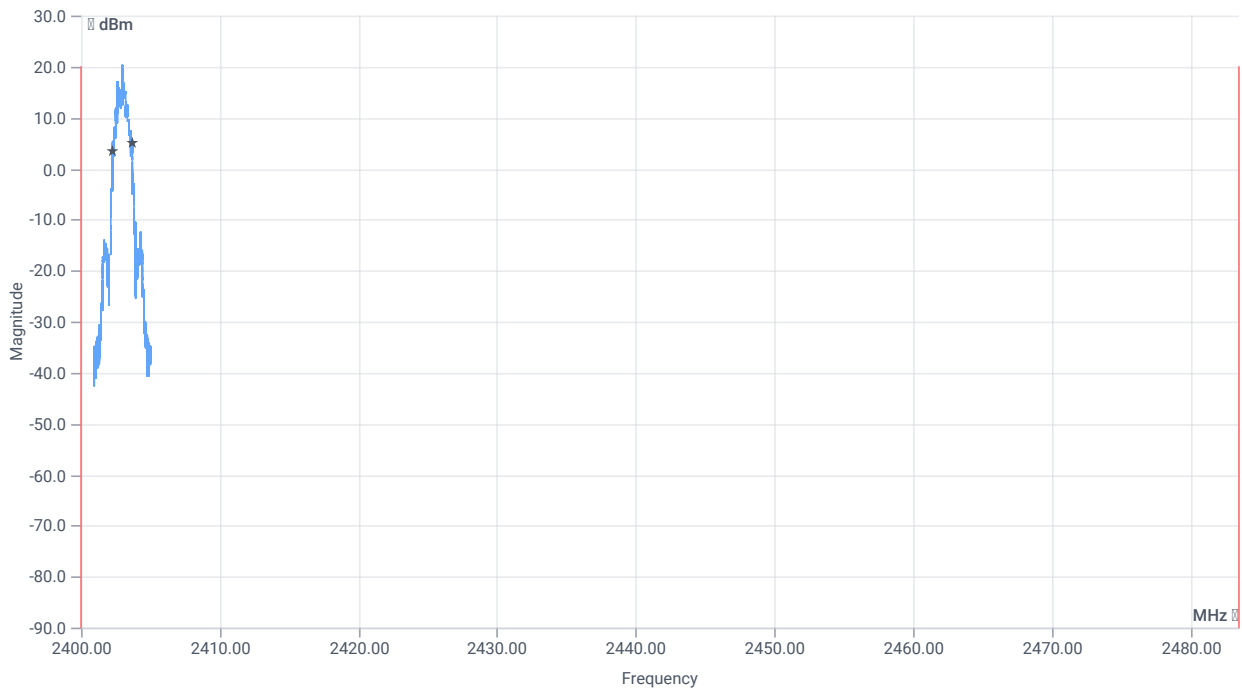
RESULT: Reference power cond.

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. power 1MHz/1MHz cond.	---	---	19.81	dBm	INFO
Ref. frequency	---	---	2403.500	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	24.81 8.26 35
Start [MHz] Stop [MHz]	2401.000 2405.000
RBW [MHz] VBW [MHz]	0.050000 0.200000
Detector TraceMode	POS MAXH
Sweep: time [ms] count points per Section type	50 2000 10001 SWE

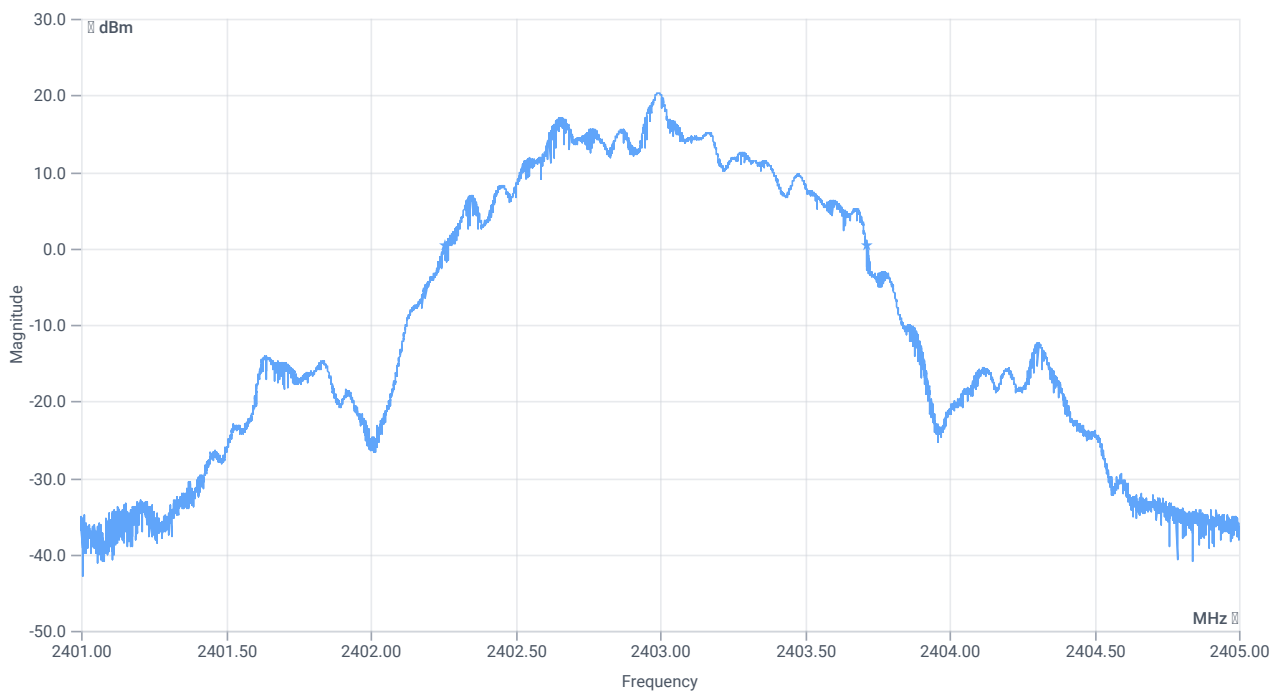




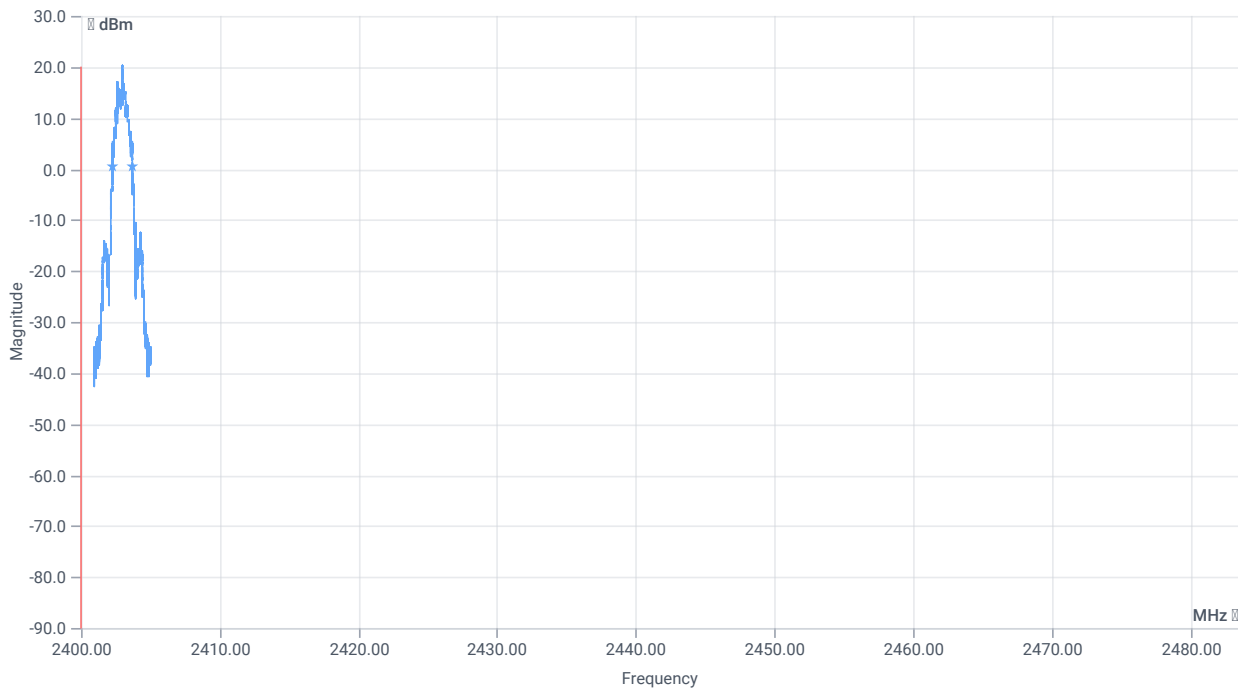
BW within Band 99PCT

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 99%	---	---	1370.000	kHz	INFO
T1 99%	2400.000000	---	2402.3101	MHz	PASS
T2 99%	---	2483.500000	2403.6799	MHz	PASS



BW 20dB



BW within band 20dB

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 20dB	---	---	1458	kHz	INFO
T1 20dB	2400.000000	---	2402.2568	MHz	PASS
T2 20dB	---	2483.500000	2403.7148	MHz	PASS

Verdict

PASS

NA # Hardcopy SA ~

References

TC start	03.04.2024 15:03:30
Ambit temp [°C] humidity [rel%]	0.0 0
System version	5.0.3.6
Standard Version	NA NI
Method	
Description	Hardcopy spectrum analyzer
Information	

Equipment

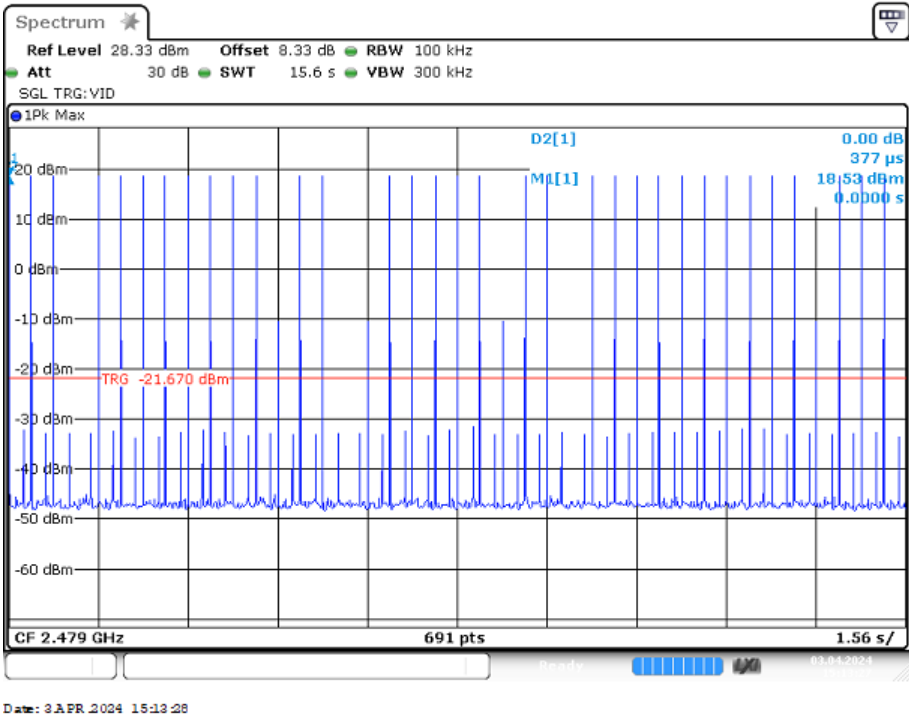
Signal analyzer,Rohde&Schwarz,FSV-30,1321.3008K30/103170,3.60

Test Parameter

Technology to test

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	28.33 8.33 30
Start [MHz] Stop [MHz]	2479.000 2479.000
RBW [MHz] VBW [MHz]	0.100000 0.300000
Detector TraceMode	POS MAXH
Sweep: time [ms] count points per Section type	15600 0 691 SWE



NA # Hardcopy SA ~

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Marker Readout					
Marker 1 Time	---	---	0.000	ms	INFO

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Delta Marker Readout					
Delta Marker 2 Time	---	---	0.377	ms	INFO
Delta Marker 2 Level	---	---	0.000	dB	INFO

Verdict
INFO

NA # Hardcopy SA ~

References

TC start	03.04.2024 15:02:44
Ambit temp [°C] humidity [rel%]	0.0 0
System version	5.0.3.6
Standard Version	NA NI
Method	
Description	Hardcopy spectrum analyzer
Information	

Equipment

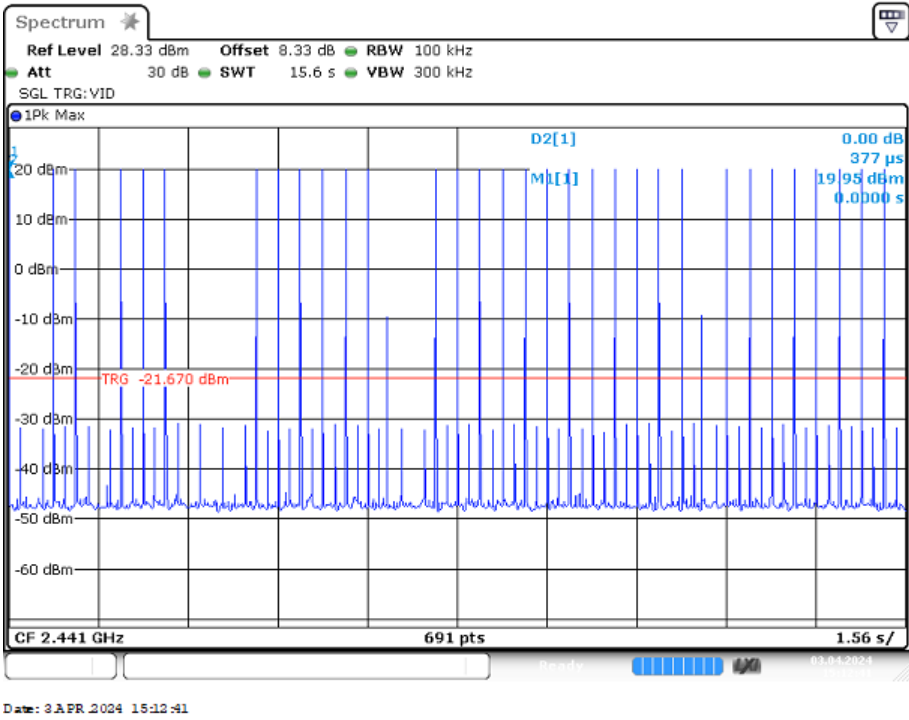
Signal analyzer,Rohde&Schwarz,FSV-30,1321.3008K30/103170,3.60

Test Parameter

Technology to test

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	28.33 8.33 30
Start [MHz] Stop [MHz]	2441.000 2441.000
RBW [MHz] VBW [MHz]	0.100000 0.300000
Detector TraceMode	POS MAXH
Sweep: time [ms] count points per Section type	15600 0 691 SWE



NA # Hardcopy SA ~

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Marker Readout					
Marker 1 Time	---	---	0.000	ms	INFO

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Delta Marker Readout					
Delta Marker 2 Time	---	---	0.377	ms	INFO
Delta Marker 2 Level	---	---	0.000	dB	INFO

Verdict
INFO

NA # Hardcopy SA ~

References

TC start	03.04.2024 15:02:03
Ambit temp [°C] humidity [rel%]	0.0 0
System version	5.0.3.6
Standard Version	NA NI
Method	
Description	Hardcopy spectrum analyzer
Information	

Equipment

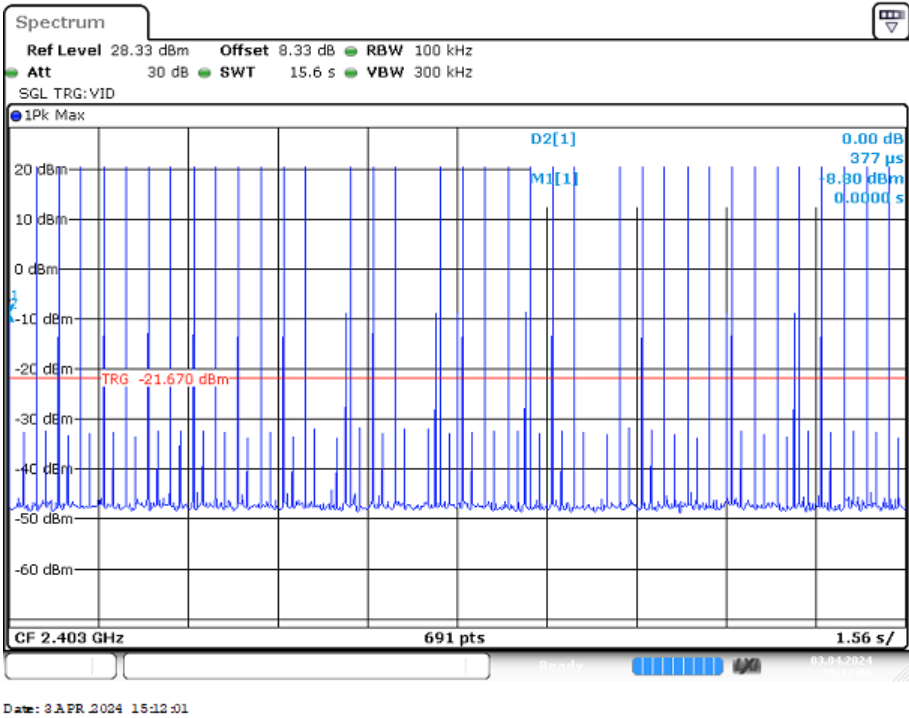
Signal analyzer,Rohde&Schwarz,FSV-30,1321.3008K30/103170,3.60

Test Parameter

Technology to test

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	28.33 8.33 30
Start [MHz] Stop [MHz]	2403.000 2403.000
RBW [MHz] VBW [MHz]	0.100000 0.300000
Detector TraceMode	POS MAXH
Sweep: time [ms] count points per Section type	15600 0 691 SWE



NA # Hardcopy SA ~

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Marker Readout					
Marker 1 Time	---	---	0.000	ms	INFO

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Delta Marker Readout					
Delta Marker 2 Time	---	---	0.377	ms	INFO
Delta Marker 2 Level	---	---	0.000	dB	INFO

Verdict
INFO

NA # Hardcopy SA ~

References

TC start	03.04.2024 14:59:53
Ambit temp [°C] humidity [rel%]	0.0 0
System version	5.0.3.6
Standard Version	NA NI
Method	
Description	Hardcopy spectrum analyzer
Information	

Equipment

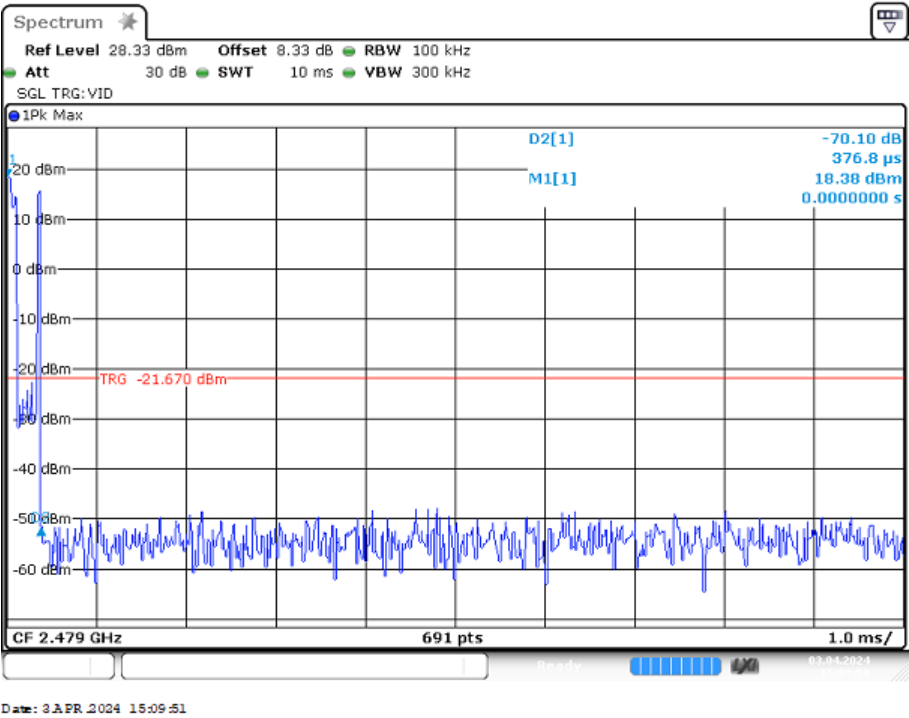
Signal analyzer,Rohde&Schwarz,FSV-30,1321.3008K30/103170,3.60

Test Parameter

Technology to test

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	28.33 8.33 30
Start [MHz] Stop [MHz]	2479.000 2479.000
RBW [MHz] VBW [MHz]	0.100000 0.300000
Detector TraceMode	POS MAXH
Sweep: time [ms] count points per Section type	10 0 691 SWE



NA # Hardcopy SA ~

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Marker Readout					
Marker 1 Time	---	---	0.000	ms	INFO

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Delta Marker Readout					
Delta Marker 2 Time	---	---	0.377	ms	INFO
Delta Marker 2 Level	---	---	-70.102	dB	INFO

Verdict
INFO

NA # Hardcopy SA ~

References

TC start	03.04.2024 14:59:25
Ambit temp [°C] humidity [rel%]	0.0 0
System version	5.0.3.6
Standard Version	NA NI
Method	
Description	Hardcopy spectrum analyzer
Information	

Equipment

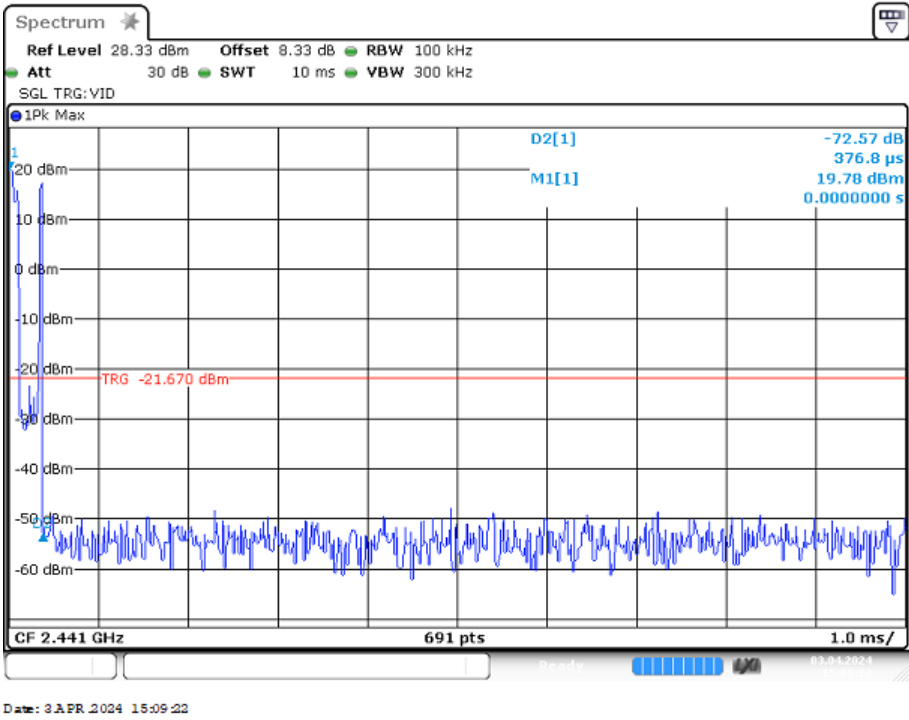
Signal analyzer,Rohde&Schwarz,FSV-30,1321.3008K30/103170,3.60

Test Parameter

Technology to test

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	28.33 8.33 30
Start [MHz] Stop [MHz]	2441.000 2441.000
RBW [MHz] VBW [MHz]	0.100000 0.300000
Detector TraceMode	POS MAXH
Sweep: time [ms] count points per Section type	10 0 691 SWE



NA # Hardcopy SA ~

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Marker Readout					
Marker 1 Time	---	---	0.000	ms	INFO

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Delta Marker Readout					
Delta Marker 2 Time	---	---	0.377	ms	INFO
Delta Marker 2 Level	---	---	-72.566	dB	INFO

Verdict
INFO

NA # Hardcopy SA ~

References

TC start	03.04.2024 14:59:00
Ambit temp [°C] humidity [rel%]	0.0 0
System version	5.0.3.6
Standard Version	NA NI
Method	
Description	Hardcopy spectrum analyzer
Information	

Equipment

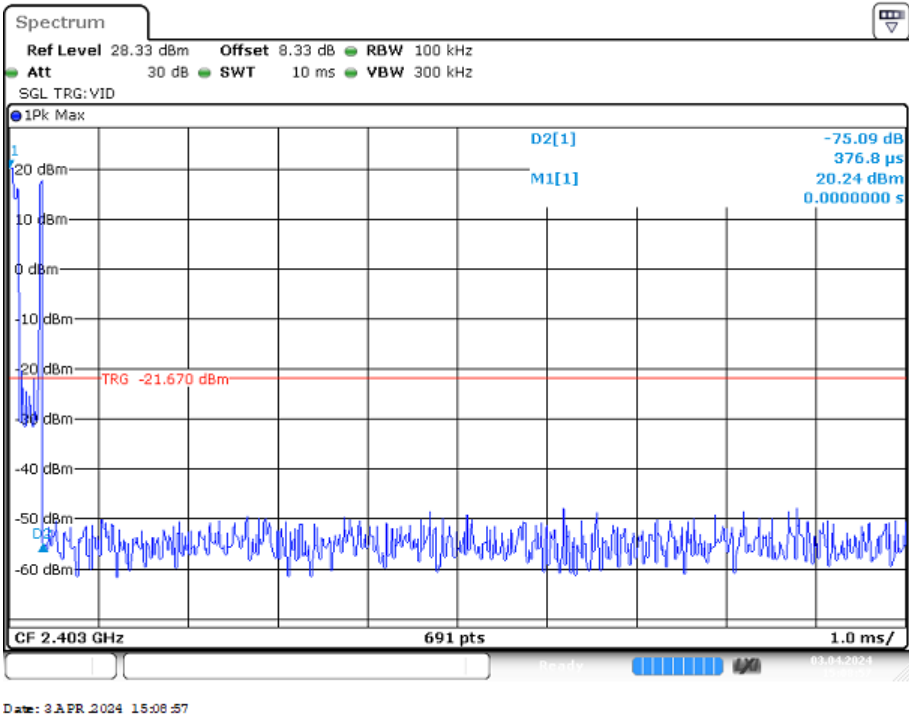
Signal analyzer,Rohde&Schwarz,FSV-30,1321.3008K30/103170,3.60

Test Parameter

Technology to test

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	28.33 8.33 30
Start [MHz] Stop [MHz]	2403.000 2403.000
RBW [MHz] VBW [MHz]	0.100000 0.300000
Detector TraceMode	POS MAXH
Sweep: time [ms] count points per Section type	10 0 691 SWE



NA # Hardcopy SA ~

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Marker Readout					
Marker 1 Time	---	---	0.000	ms	INFO

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Delta Marker Readout					
Delta Marker 2 Time	---	---	0.377	ms	INFO
Delta Marker 2 Level	---	---	-75.090	dB	INFO

Verdict
INFO

FCC 15.247 # Maximum peak conducted output power FHSS ~ Generic 2G4

References

TC start	03.04.2024 12:16:32
Ambit temp [°C] humidity [rel%]	0.0 0
System version	5.0.3.6
Standard Version	FCC 15.247 NI
Method	
Description	FCC 15.247 Maximum Peak Output Power Conducted FHSS - Generic 2G4
Information	

EUT Common settings 2G4

Hopping supported	No
Burst length [ms]	10
Nominal bandwidth [MHz]	2
User interaction	No

Equipment

Signal analyzer,Rohde&Schwarz,FSV-30,1321.3008K30/103170,3.60
Signaling unit,Rohde&Schwarz,CMW,1201.0002k75/102550,4.0.190
Switch matrix,cetecom advanced GmbH,USM,A001,1.0.0

Test Parameter

Technology to test	Generic 2G4
EUT port	EUT1
Temperature	nom
Voltage	nom
Frequency low to test	False Freq [MHz] 2403
Frequency mid to test	False Freq [MHz] 2441
Frequency high to test	True Freq [MHz] 2479
Auto control enabled power supply Climatic Box	No No
Additional path loss [dB]	0
Full path type	EUT_SA_GEN_SIG
Full path name	EUT1.MP.SIG1/EUT1.SA/EUT1.GEN1/EUT1.GEN2/
Switch bits	00010001:00010001:00000000:00000001

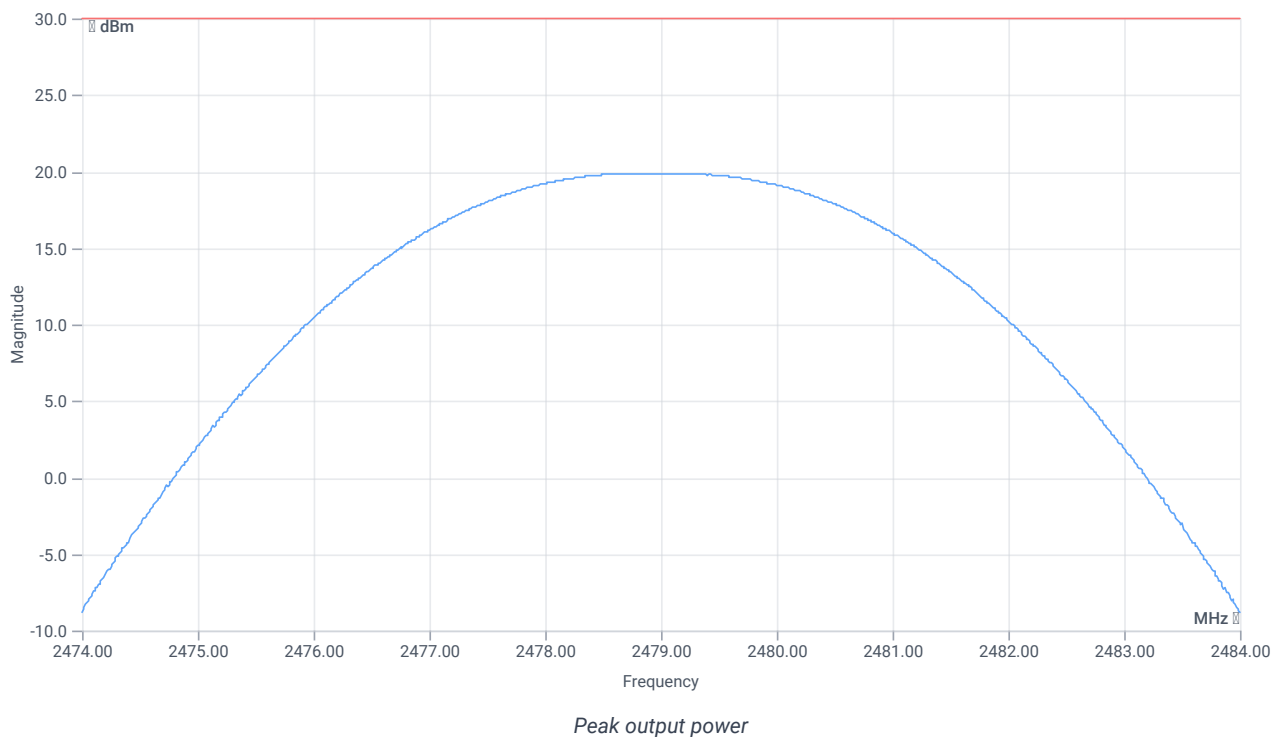
Test at TX 2479 MHz

RESULT: Reference power cond.

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. power 1MHz/1MHz cond.	---	---	18.94	dBm	INFO
Ref. frequency	---	---	2479.500	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	28.94 8.39 40
Start [MHz] Stop [MHz]	2474.000 2484.000
RBW [MHz] VBW [MHz]	3.000000 10.000000
Detector TraceMode	POS MAXH
Sweep: time [ms] count points per Section type	1000 20 1001 SWE



RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Peak power	---	30.00	19.87	dBm	PASS
Peak power	---	1000	97.050997	mW	PASS
Frequency at peak	---	---	2478.77	MHz	INFO

Verdict

PASS

FCC 15.247 # Maximum peak conducted output power FHSS ~ Generic 2G4

References

TC start	03.04.2024 11:14:31
Ambit temp [°C] humidity [rel%]	0.0 0
System version	5.0.3.6
Standard Version	FCC 15.247 NI
Method	
Description	FCC 15.247 Maximum Peak Output Power Conducted FHSS - Generic 2G4
Information	

EUT Common settings 2G4

Hopping supported	No
Burst length [ms]	10
Nominal bandwidth [MHz]	2
User interaction	No

Equipment

Signal analyzer,Rohde&Schwarz,FSV-30,1321.3008K30/103170,3.60
Signaling unit,Rohde&Schwarz,CMW,1201.0002k75/102550,4.0.190
Switch matrix,cetecom advanced GmbH,USM,A001,1.0.0

Test Parameter

Technology to test	Generic 2G4
EUT port	EUT1
Temperature	nom
Voltage	nom
Frequency low to test	False Freq [MHz] 2403
Frequency mid to test	True Freq [MHz] 2441
Frequency high to test	False Freq [MHz] 2479
Auto control enabled power supply Climatic Box	No No
Additional path loss [dB]	0
Full path type	EUT_SA_GEN_SIG
Full path name	EUT1.MP.SIG1/EUT1.SA/EUT1.GEN1/EUT1.GEN2/
Switch bits	00010001:00010001:00000000:00000001

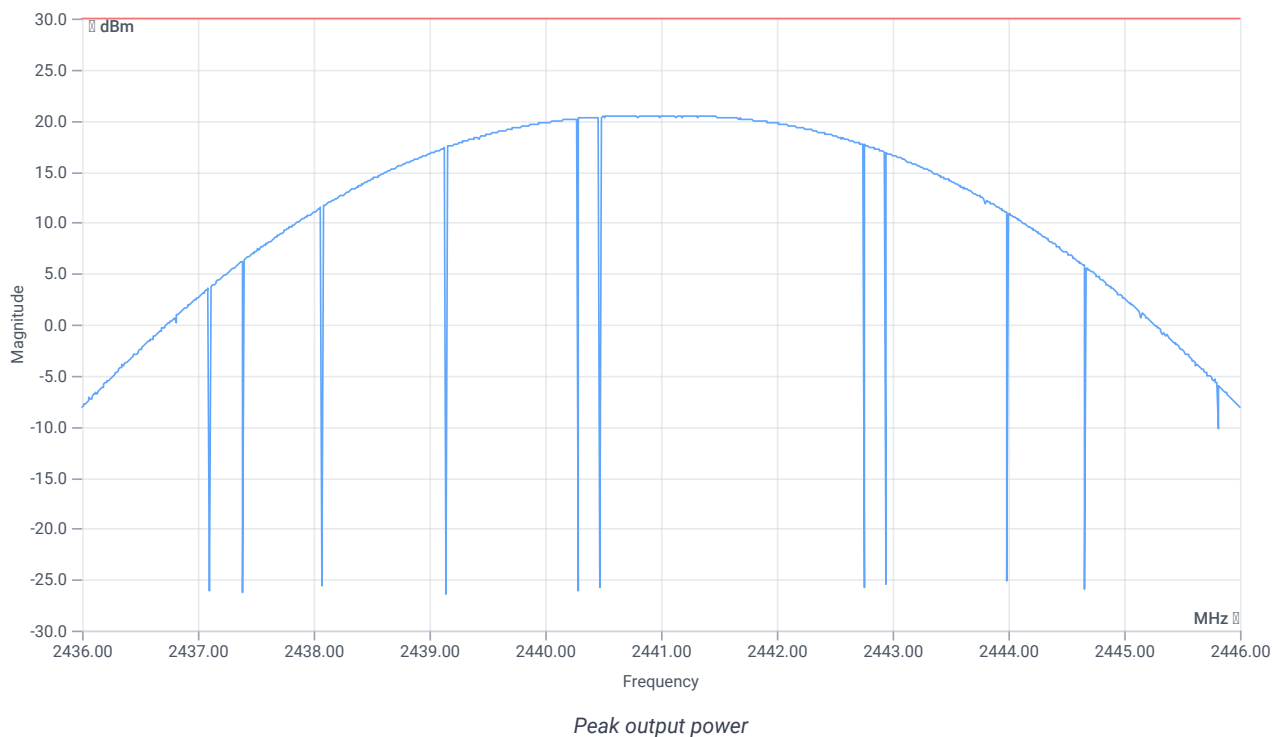
Test at TX 2441 MHz

RESULT: Reference power cond.

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. power 1MHz/1MHz cond.	---	---	19.52	dBm	INFO
Ref. frequency	---	---	2441.500	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	29.52 8.3 40
Start [MHz] Stop [MHz]	2436.000 2446.000
RBW [MHz] VBW [MHz]	3.000000 10.000000
Detector TraceMode	POS MAXH
Sweep: time [ms] count points per Section type	1000 20 1001 SWE



RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Peak power	---	30.00	20.44	dBm	PASS
Peak power	---	1000	110.662378	mW	PASS
Frequency at peak	---	---	2440.83	MHz	INFO

Verdict

PASS

FCC 15.247 # Maximum peak conducted output power FHSS ~ Generic 2G4

References

TC start	03.04.2024 10:18:14
Ambit temp [°C] humidity [rel%]	0.0 0
System version	5.0.3.6
Standard Version	FCC 15.247 NI
Method	
Description	FCC 15.247 Maximum Peak Output Power Conducted FHSS - Generic 2G4
Information	

EUT Common settings 2G4

Hopping supported	No
Burst length [ms]	10
Nominal bandwidth [MHz]	2
User interaction	No

Equipment

Signal analyzer,Rohde&Schwarz,FSV-30,1321.3008K30/103170,3.60
Signaling unit,Rohde&Schwarz,CMW,1201.0002k75/102550,4.0.190
Switch matrix,cetecom advanced GmbH,USM,A001,1.0.0

Test Parameter

Technology to test	Generic 2G4
EUT port	EUT1
Temperature	nom
Voltage	nom
Frequency low to test	True Freq [MHz] 2403
Frequency mid to test	False Freq [MHz] 2441
Frequency high to test	False Freq [MHz] 2479
Auto control enabled power supply Climatic Box	No No
Additional path loss [dB]	0
Full path type	EUT_SA_GEN_SIG
Full path name	EUT1.MP.SIG1/EUT1.SA/EUT1.GEN1/EUT1.GEN2/
Switch bits	00010001:00010001:00000000:00000001

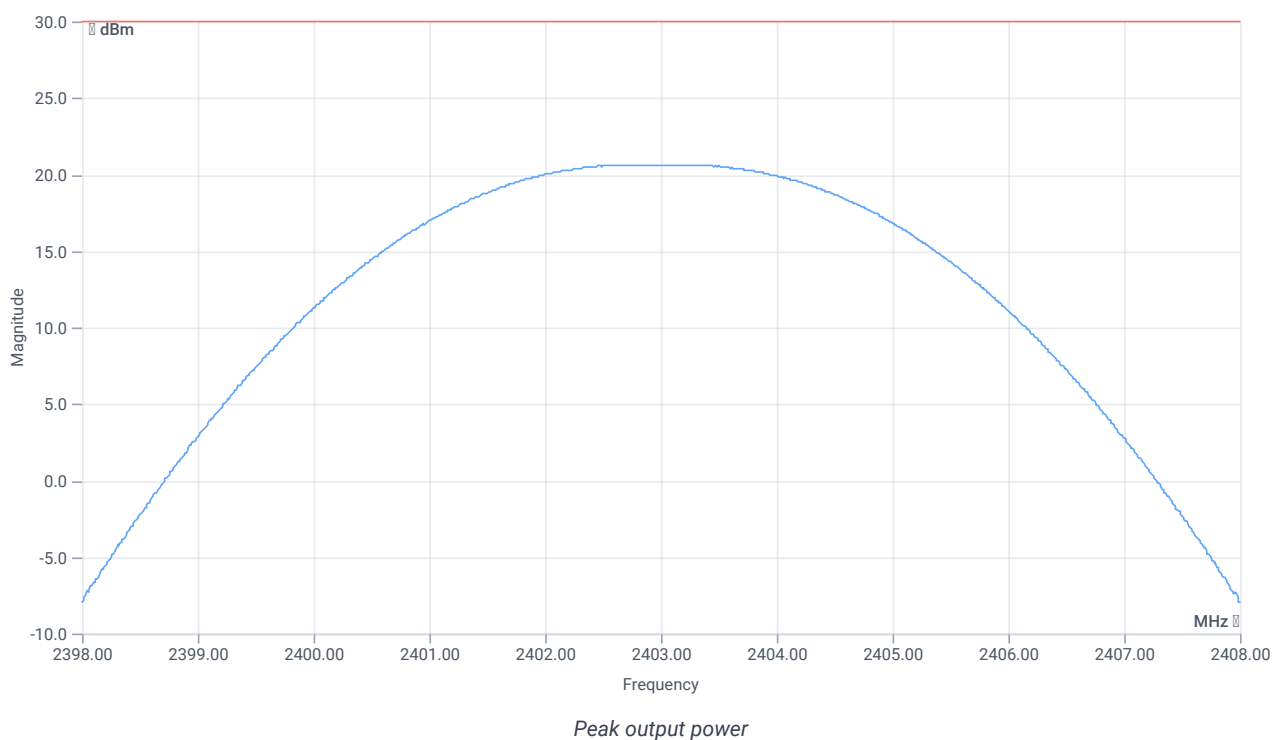
Test at TX 2403 MHz

RESULT: Reference power cond.

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. power 1MHz/1MHz cond.	---	---	19.73	dBm	INFO
Ref. frequency	---	---	2403.500	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	29.73 8.26 40
Start [MHz] Stop [MHz]	2398.000 2408.000
RBW [MHz] VBW [MHz]	3.000000 10.000000
Detector TraceMode	POS MAXH
Sweep: time [ms] count points per Section type	1000 20 1001 SWE



RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Peak power	---	30.00	20.63	dBm	PASS
Peak power	---	1000	115.611224	mW	PASS
Frequency at peak	---	---	2402.77	MHz	INFO

Verdict

PASS

NA # Peak output power 3MHz/3MHz ~ Generic 2G4

References

TC start	03.04.2024 10:10:07
Ambit temp [°C] humidity [rel%]	0.0 0
System version	5.0.3.6
Standard Version	NA NI
Method	
Description	Peak OP 3MHz/3MHz - Generic 2G4
Information	ANT2

EUT Common settings 2G4

Hopping supported	No
Burst length [ms]	10
Nominal bandwidth [MHz]	2
User interaction	Yes

Equipment

Signal analyzer,Rohde&Schwarz,FSV-30,1321.3008K30/103170,3.60
Signaling unit,Rohde&Schwarz,CMW,1201.0002k75/102550,4.0.190
Switch matrix,cetecom advanced GmbH,USM,A001,1.0.0

Test Parameter

Technology to test	Generic 2G4
EUT port	EUT1
Temperature	nom
Voltage	nom
Frequency low to test	True Freq [MHz] 2403
Frequency mid to test	True Freq [MHz] 2441
Frequency high to test	True Freq [MHz] 2479
Auto control enabled power supply Climatic Box	No No
Additional path loss [dB]	0
Full path type	EUT_SA_GEN_SIG
Full path name	EUT1.MP.SIG1/EUT1.SA/EUT1.GEN1/EUT1.GEN2/
Switch bits	00010001:00010001:00000000:00000001

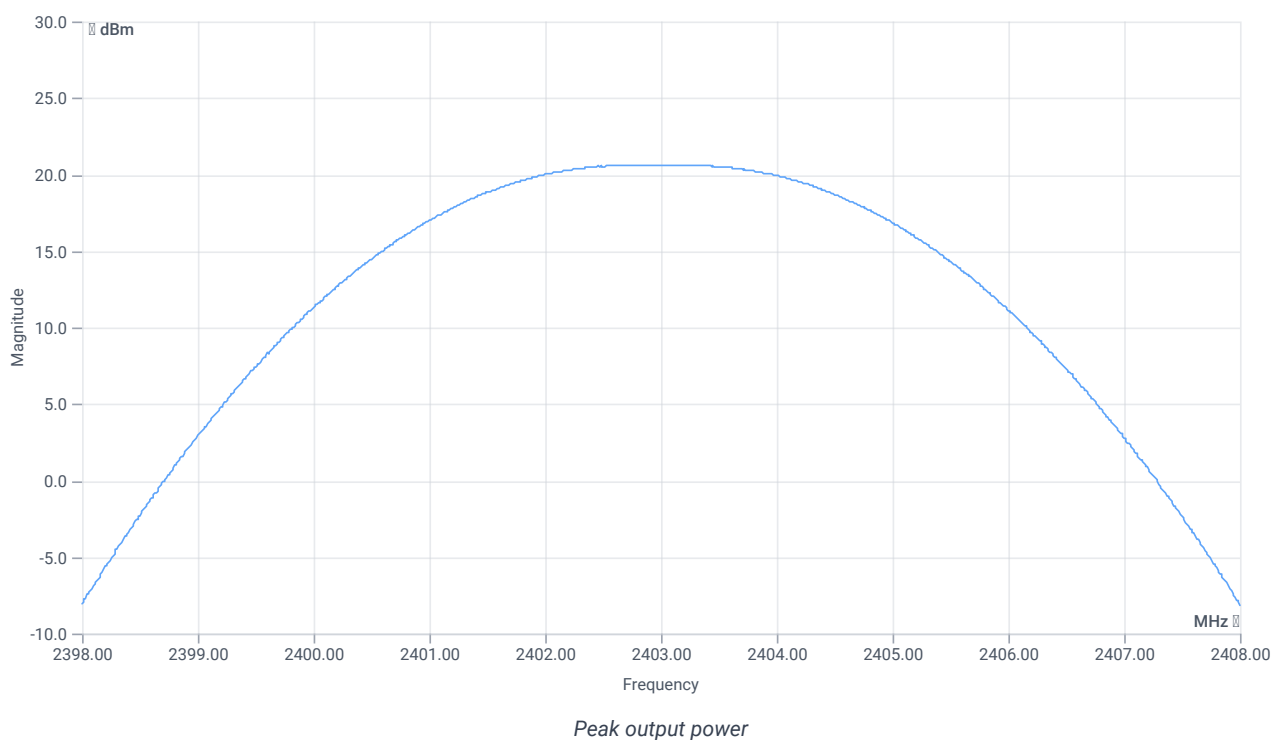
Test at TX 2403 MHz

RESULT: Reference power cond.

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. power 1MHz/1MHz cond.	---	---	19.73	dBm	INFO
Ref. frequency	---	---	2403.500	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	29.73 8.26 40
Start [MHz] Stop [MHz]	2398.000 2408.000
RBW [MHz] VBW [MHz]	3.000000 3.000000
Detector TraceMode	POS MAXH
Sweep: time [ms] count points per Section type	1000 20 1001 SWE



RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Peak power	---	---	20.63	dBm	INFO
Peak power	---	---	115.611224	mW	INFO
Frequency at peak	---	---	2402.77	MHz	INFO

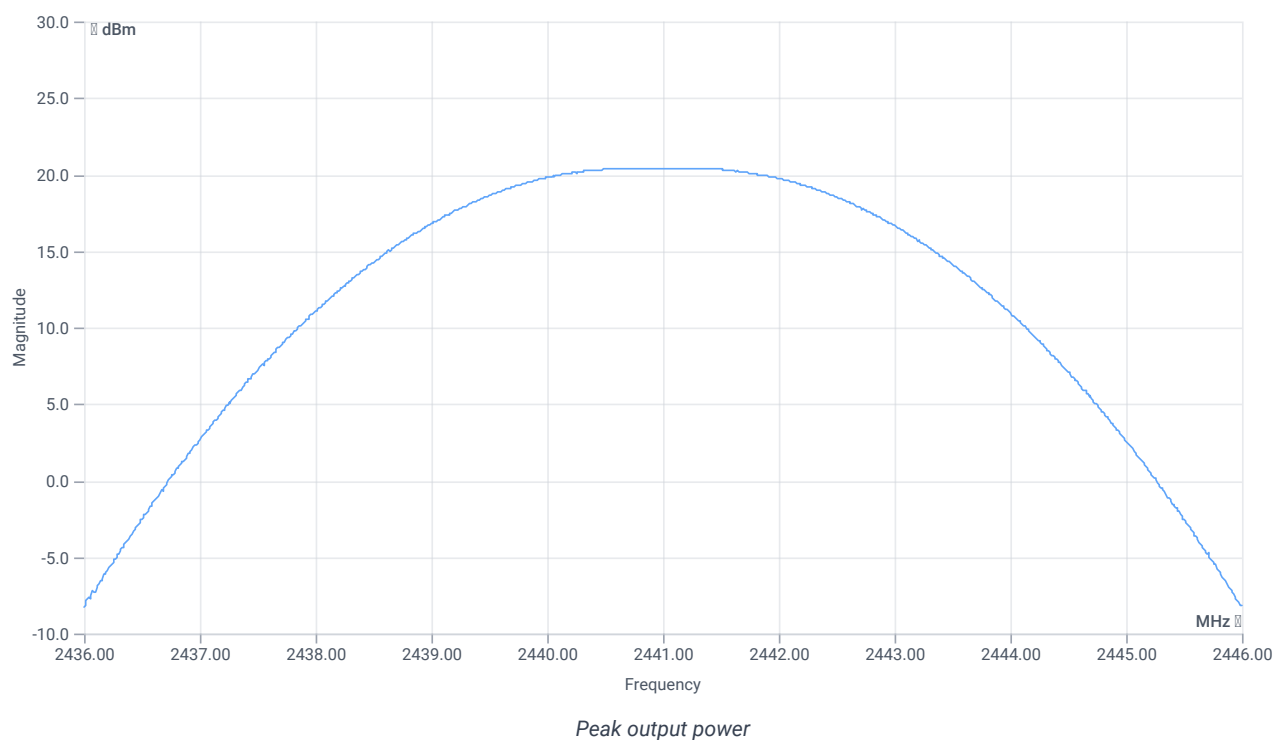
Test at TX 2441 MHz

RESULT: Reference power cond.

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. power 1MHz/1MHz cond.	---	---	19.56	dBm	INFO
Ref. frequency	---	---	2441.500	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	29.56 8.3 40
Start [MHz] Stop [MHz]	2436.000 2446.000
RBW [MHz] VBW [MHz]	3.000000 3.000000
Detector TraceMode	POS MAXH
Sweep: time [ms] count points per Section type	1000 20 1001 SWE



RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Peak power	---	---	20.43	dBm	INFO
Peak power	---	---	110.407862	mW	INFO
Frequency at peak	---	---	2440.84	MHz	INFO

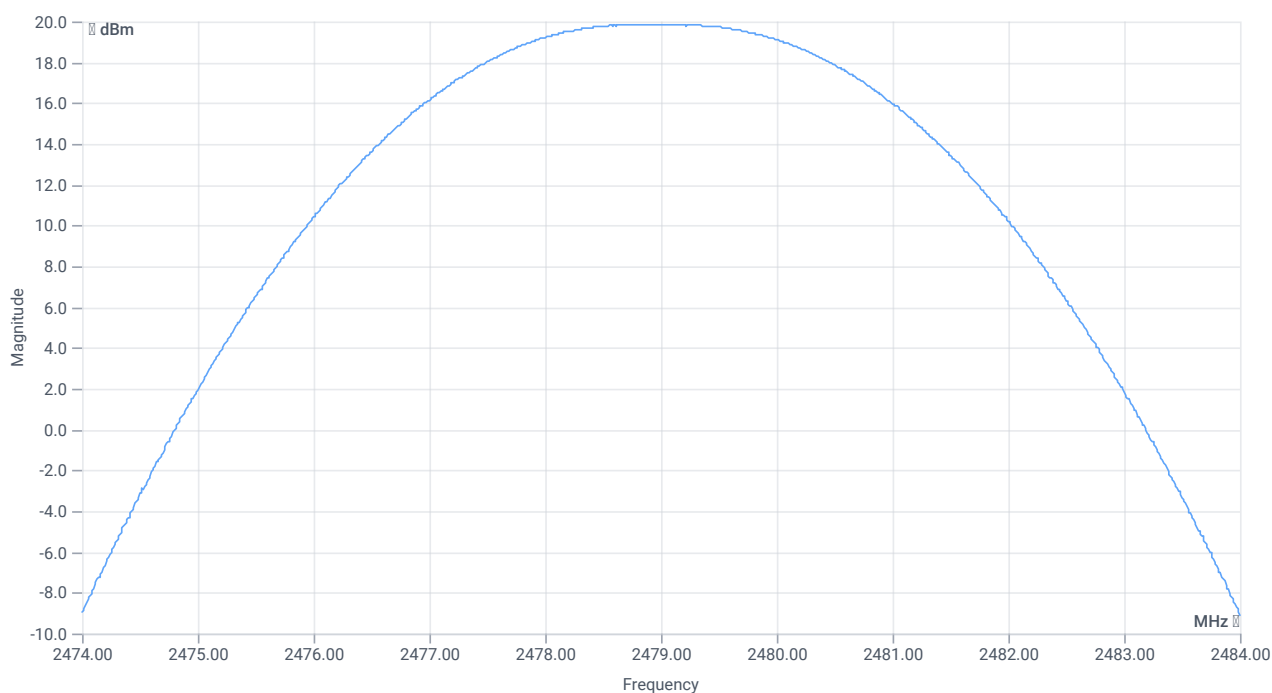
Test at TX 2479 MHz

RESULT: Reference power cond.

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. power 1MHz/1MHz cond.	---	---	18.93	dBm	INFO
Ref. frequency	---	---	2479.500	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	28.93 8.39 40
Start [MHz] Stop [MHz]	2474.000 2484.000
RBW [MHz] VBW [MHz]	3.000000 3.000000
Detector TraceMode	POS MAXH
Sweep: time [ms] count points per Section type	1000 20 1001 SWE



RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Peak power	---	---	19.86	dBm	INFO
Peak power	---	---	96.827786	mW	INFO
Frequency at peak	---	---	2478.74	MHz	INFO

Verdict

PASS

NA # Peak output power 3MHz/3MHz ~ Generic 2G4

References

TC start	03.04.2024 10:06:24
Ambit temp [°C] humidity [rel%]	0.0 0
System version	5.0.3.6
Standard Version	NA NI
Method	
Description	Peak OP 3MHz/3MHz - Generic 2G4
Information	

EUT Common settings 2G4

Hopping supported	No
Burst length [ms]	10
Nominal bandwidth [MHz]	2
User interaction	Yes

Equipment

Signal analyzer,Rohde&Schwarz,FSV-30,1321.3008K30/103170,3.60
Signaling unit,Rohde&Schwarz,CMW,1201.0002k75/102550,4.0.190
Switch matrix,cetecom advanced GmbH,USM,A001,1.0.0

Test Parameter

Technology to test	Generic 2G4
EUT port	EUT1
Temperature	nom
Voltage	nom
Frequency low to test	True Freq [MHz] 2403
Frequency mid to test	True Freq [MHz] 2441
Frequency high to test	True Freq [MHz] 2479
Auto control enabled power supply Climatic Box	No No
Additional path loss [dB]	0
Full path type	EUT_SA_GEN_SIG
Full path name	EUT1.MP.SIG1/EUT1.SA/EUT1.GEN1/EUT1.GEN2/
Switch bits	00010001:00010001:00000000:00000001

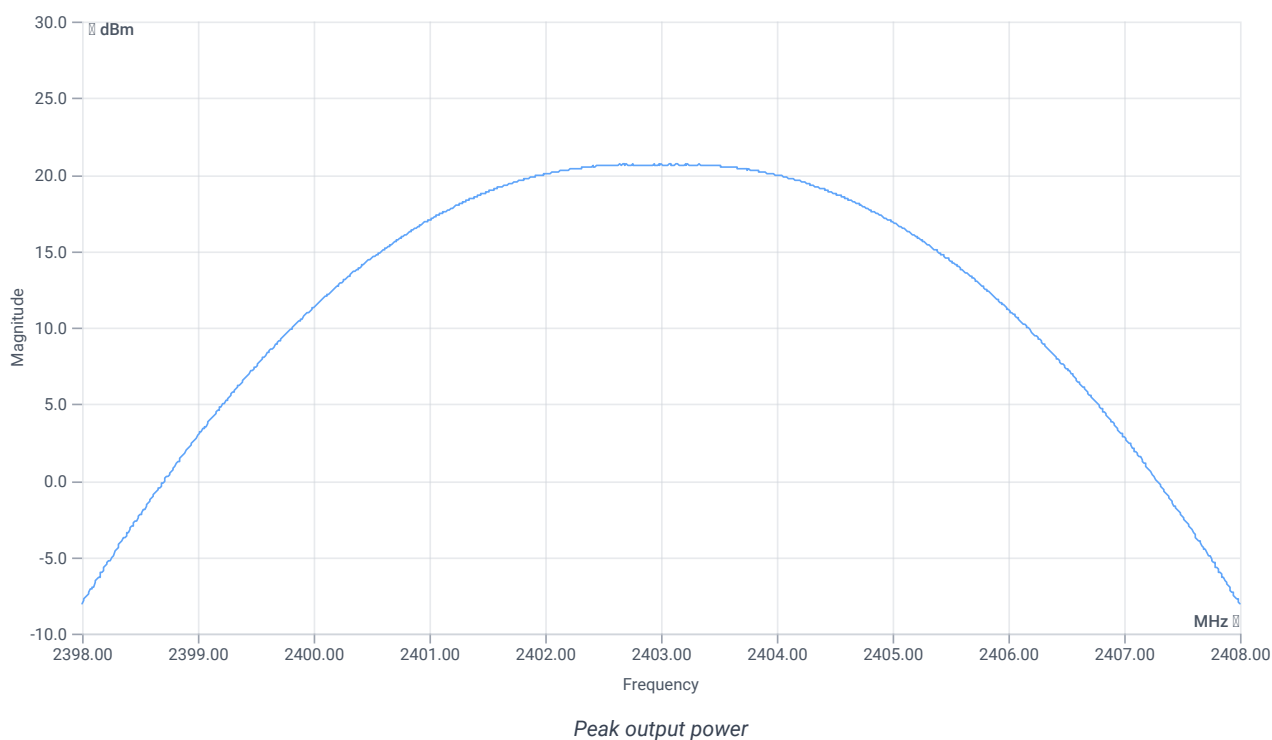
Test at TX 2403 MHz

RESULT: Reference power cond.

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. power 1MHz/1MHz cond.	---	---	19.80	dBm	INFO
Ref. frequency	---	---	2403.500	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	29.80 8.26 40
Start [MHz] Stop [MHz]	2398.000 2408.000
RBW [MHz] VBW [MHz]	3.000000 3.000000
Detector TraceMode	POS MAXH
Sweep: time [ms] count points per Section type	1000 20 1001 SWE



RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Peak power	---	---	20.66	dBm	INFO
Peak power	---	---	116.412603	mW	INFO
Frequency at peak	---	---	2403.21	MHz	INFO

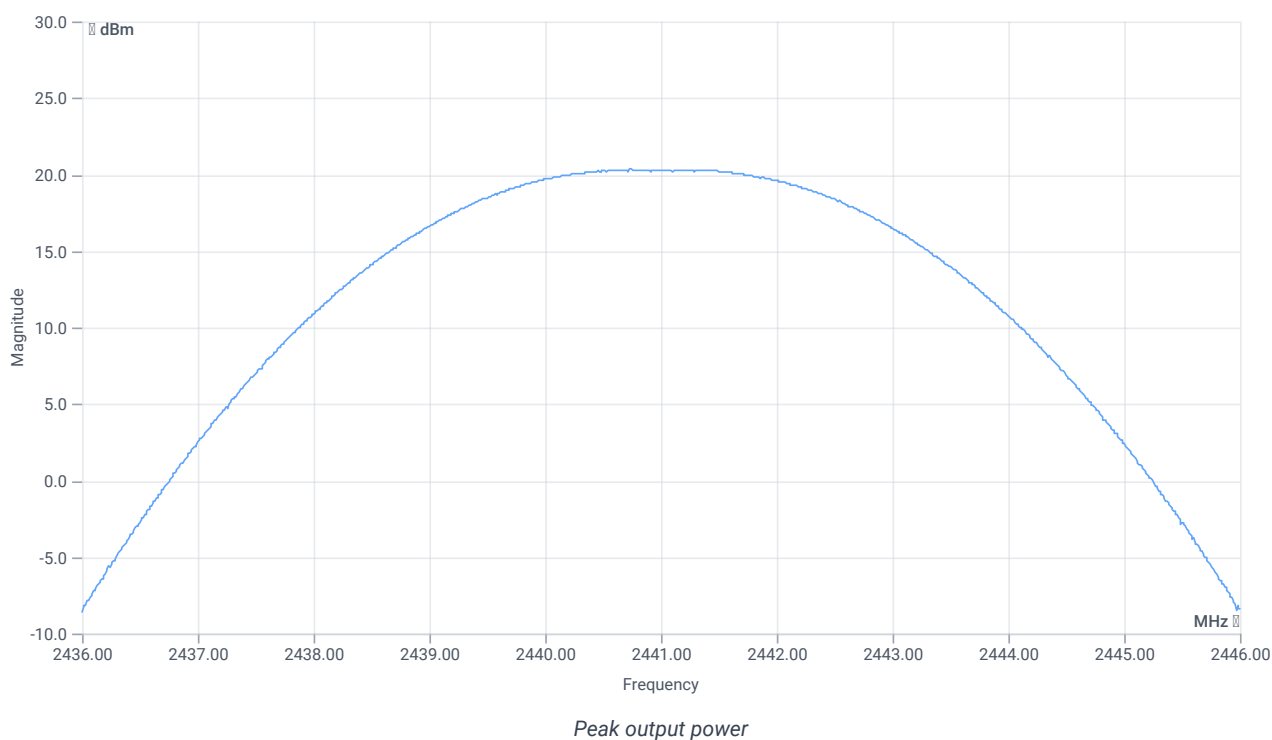
Test at TX 2441 MHz

RESULT: Reference power cond.

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. power 1MHz/1MHz cond.	---	---	19.44	dBm	INFO
Ref. frequency	---	---	2441.500	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	29.44 8.3 40
Start [MHz] Stop [MHz]	2436.000 2446.000
RBW [MHz] VBW [MHz]	3.000000 3.000000
Detector TraceMode	POS MAXH
Sweep: time [ms] count points per Section type	1000 20 1001 SWE



RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Peak power	---	---	20.33	dBm	INFO
Peak power	---	---	107.894672	mW	INFO
Frequency at peak	---	---	2440.73	MHz	INFO

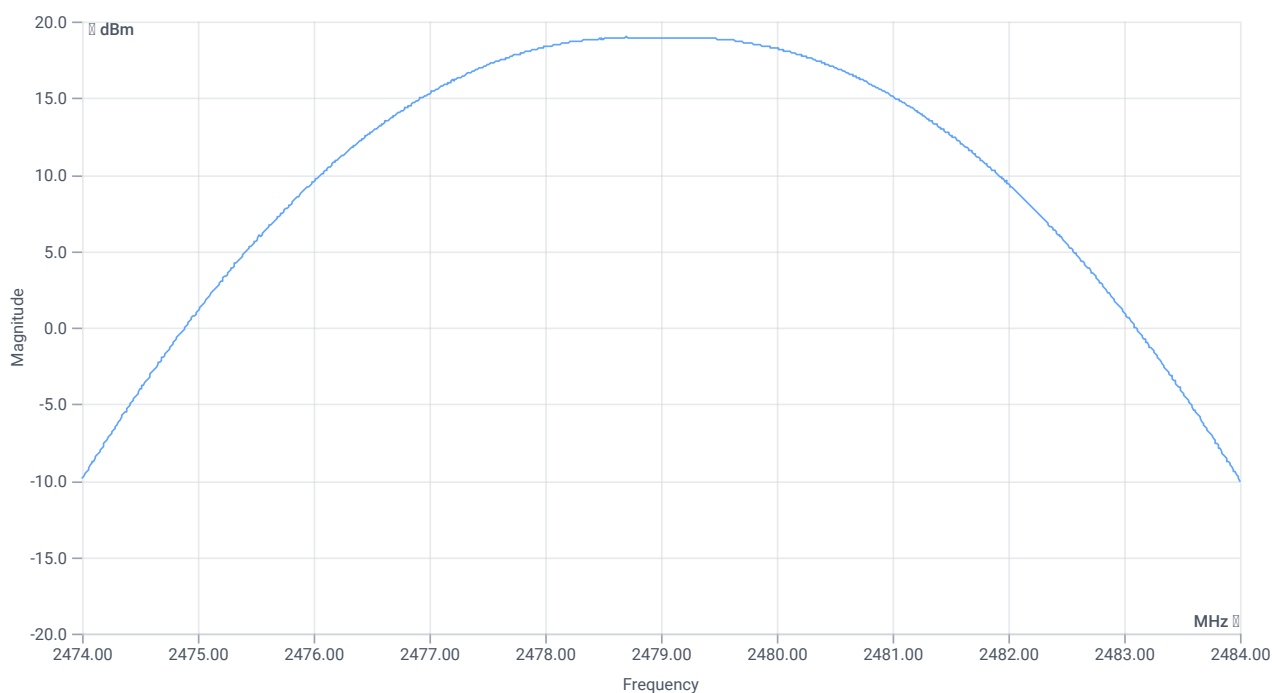
Test at TX 2479 MHz

RESULT: Reference power cond.

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. power 1MHz/1MHz cond.	---	---	18.13	dBm	INFO
Ref. frequency	---	---	2479.500	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	28.13 8.39 35
Start [MHz] Stop [MHz]	2474.000 2484.000
RBW [MHz] VBW [MHz]	3.000000 3.000000
Detector TraceMode	POS MAXH
Sweep: time [ms] count points per Section type	1000 20 1001 SWE



RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Peak power	---	---	18.98	dBm	INFO
Peak power	---	---	79.067863	mW	INFO
Frequency at peak	---	---	2478.7	MHz	INFO

Verdict

PASS

FCC 15.247 # TX Emissions on band edge FCC ~ Generic 2G4 hopp

References

TC start	03.04.2024 14:42:03
Ambit temp [°C] humidity [rel%]	0.0 0
System version	5.0.3.6
Standard Version	FCC 15.247 NI
Method	
Description	FCC 15.247 TX Emissions conducted on band edge FHSS - Generic 2G4 hopp
Information	

EUT Common settings 2G4

Hopping supported	Yes
Burst length [ms]	10
Nominal bandwidth [MHz]	2
User interaction	No

Equipment

Signal analyzer,Rohde&Schwarz,FSV-30,1321.3008K30/103170,3.60
Signaling unit,Rohde&Schwarz,CMW,1201.0002k75/102550,4.0.190
Switch matrix,cetecom advanced GmbH,USM,A001,1.0.0

Test Parameter

Technology to test	Generic 2G4 hopp
EUT port	EUT2
Temperature	nom
Voltage	nom
Frequency low to test	False Freq [MHz] 0
Frequency mid to test	False Freq [MHz] 0
Frequency high to test	False Freq [MHz] 0
Auto control enabled power supply Climatic Box	No No
Additional path loss [dB]	0
Full path type	EUT_SA_GEN_SIG
Full path name	EUT2.MP.SIG1/EUT2.SA/EUT2.GEN1/EUT2.GEN2/
Switch bits	00100010:00010001:00000000:00000001

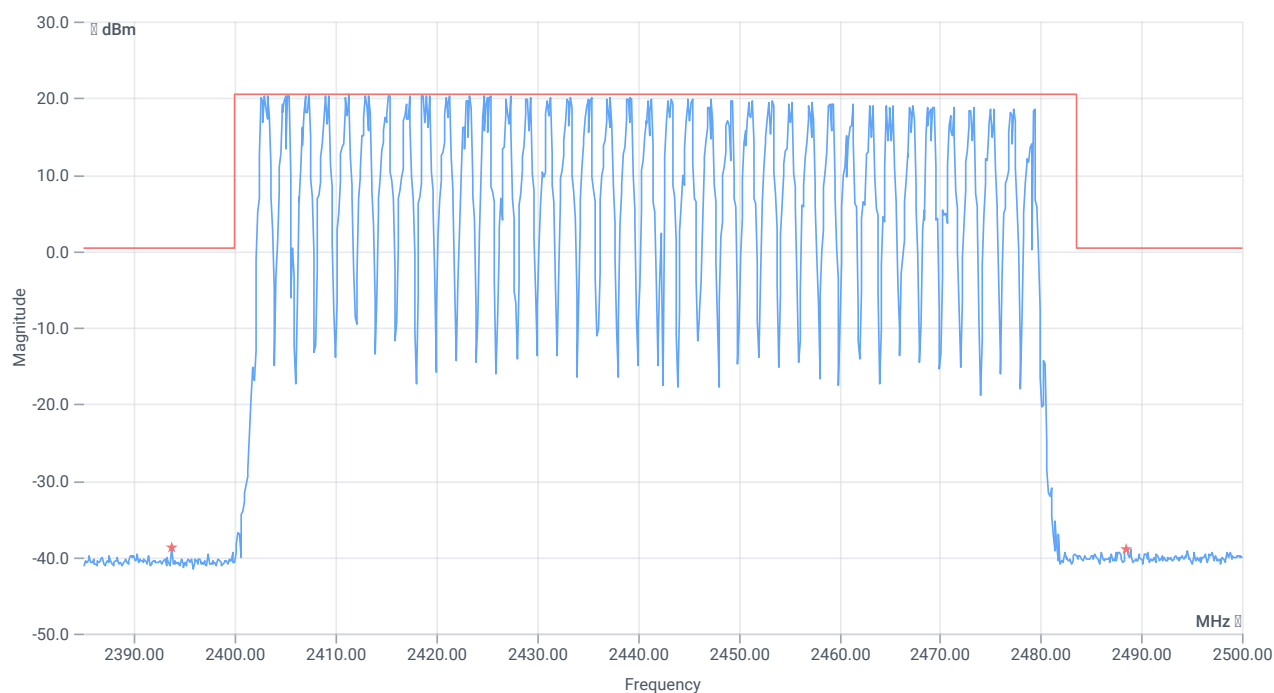
Test at TX hopping MHz

RESULT: Reference power cond.

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. power 1MHz/1MHz cond.	---	---	20.45	dBm	INFO
Ref. frequency	---	---	2411.330	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	25.45 8.33 35
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 18000 1001 SWE



TX emissions on band edge

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Max peak lower Band	---	0.39	-38.79	dBm	PASS
Max peak upper Band	---	0.39	-39.03	dBm	PASS

Verdict

FCC 15.247 # TX spurious conducted 20dBc ~ Generic 2G4

References

TC start	03.04.2024 12:17:13
Ambit temp [°C] humidity [rel%]	0.0 0
System version	5.0.3.6
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 - Generic 2G4
Information	

EUT Common settings 2G4

Hopping supported	No
Burst length [ms]	10
Nominal bandwidth [MHz]	2
User interaction	No

Equipment

Signal analyzer,Rohde&Schwarz,FSV-30,1321.3008K30/103170,3.60
Signaling unit,Rohde&Schwarz,CMW,1201.0002k75/102550,4.0.190
Switch matrix,cetecom advanced GmbH,USM,A001,1.0.0

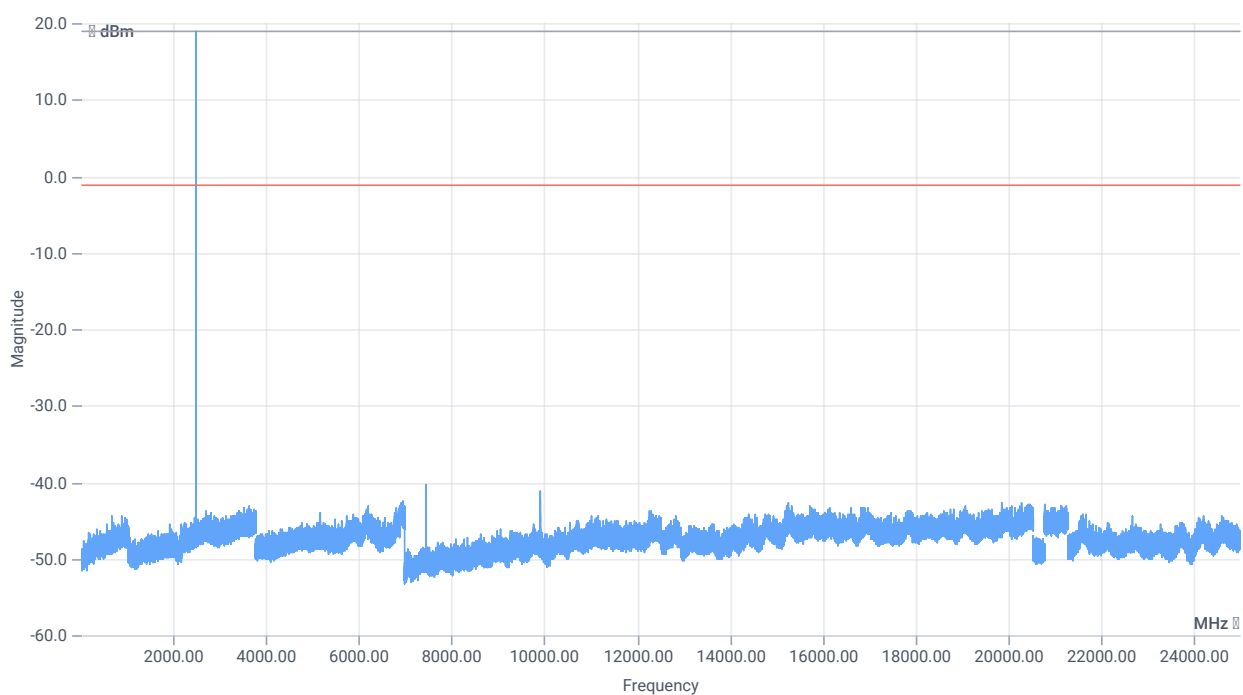
Test Parameter

Technology to test	Generic 2G4
EUT port	EUT1
Temperature	nom
Voltage	nom
Frequency low to test	False Freq [MHz] 2403
Frequency mid to test	False Freq [MHz] 2441
Frequency high to test	True Freq [MHz] 2479
Auto control enabled power supply Climatic Box	No No
Additional path loss [dB]	0
Full path type	EUT_SA_GEN_SIG
Full path name	EUT1.MP.SIG1/EUT1.SA/EUT1.GEN1/EUT1.GEN2/
Switch bits	00010001:00010001:00000000:00000001

Test at TX 2479 MHz

RESULT: Reference power cond.

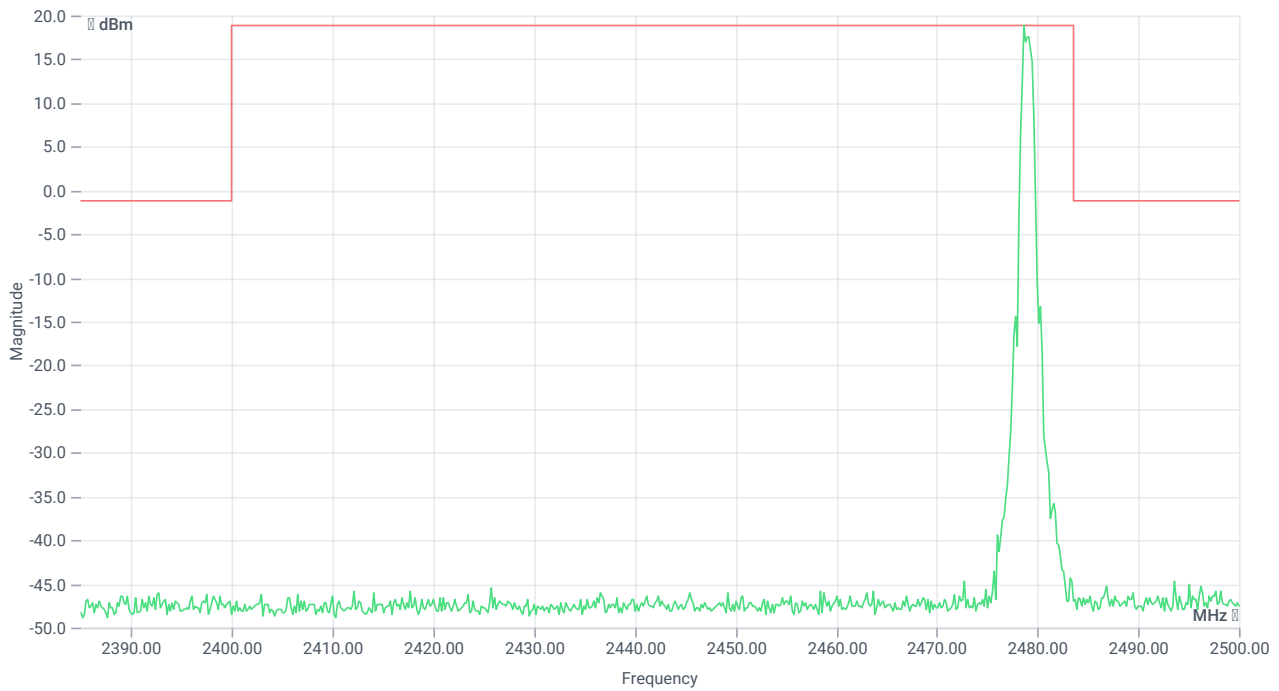
DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. power 1MHz/1MHz cond.	---	---	18.92	dBm	INFO
Ref. frequency	---	---	2479.500	MHz	INFO



TX emissions

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	18.92 15.22 20
Start [MHz] Stop [MHz]	24780.000 25000.000
RBW [MHz] VBW [MHz]	0.100000 0.300000
Detector TraceMode	POS MAXH
Sweep: time [ms] count points per Section type	200 125 1501 SWE



RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Reference @ 2478.67 MHz	---	---	18.86	dBm	INFO
No peaks detected	---	---			PASS
Lowest margin to limit 7437 MHz	0	---	39.22	dB	INFO

Verdict

PASS

FCC 15.247 # TX spurious conducted 20dBc ~ Generic 2G4

References

TC start	03.04.2024 11:15:12
Ambit temp [°C] humidity [rel%]	0.0 0
System version	5.0.3.6
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 - Generic 2G4
Information	

EUT Common settings 2G4

Hopping supported	No
Burst length [ms]	10
Nominal bandwidth [MHz]	2
User interaction	No

Equipment

Signal analyzer,Rohde&Schwarz,FSV-30,1321.3008K30/103170,3.60
Signaling unit,Rohde&Schwarz,CMW,1201.0002k75/102550,4.0.190
Switch matrix,cetecom advanced GmbH,USM,A001,1.0.0

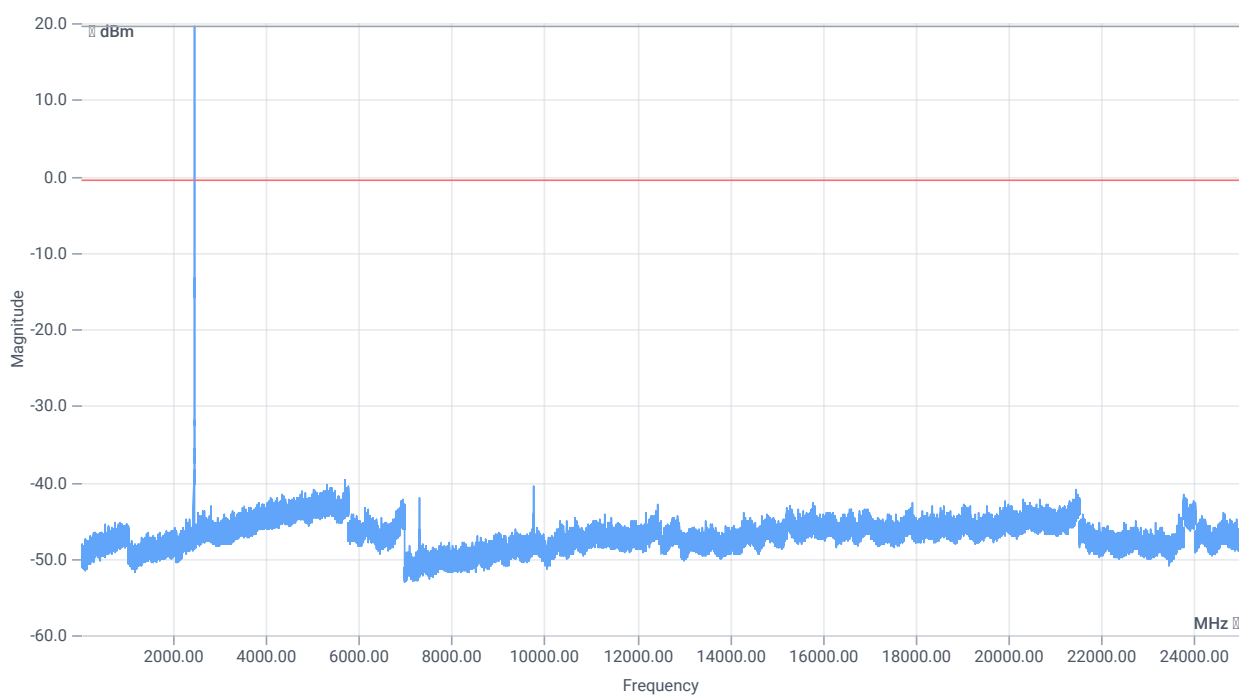
Test Parameter

Technology to test	Generic 2G4
EUT port	EUT1
Temperature	nom
Voltage	nom
Frequency low to test	False Freq [MHz] 2403
Frequency mid to test	True Freq [MHz] 2441
Frequency high to test	False Freq [MHz] 2479
Auto control enabled power supply Climatic Box	No No
Additional path loss [dB]	0
Full path type	EUT_SA_GEN_SIG
Full path name	EUT1.MP.SIG1/EUT1.SA/EUT1.GEN1/EUT1.GEN2/
Switch bits	00010001:00010001:00000000:00000001

Test at TX 2441 MHz

RESULT: Reference power cond.

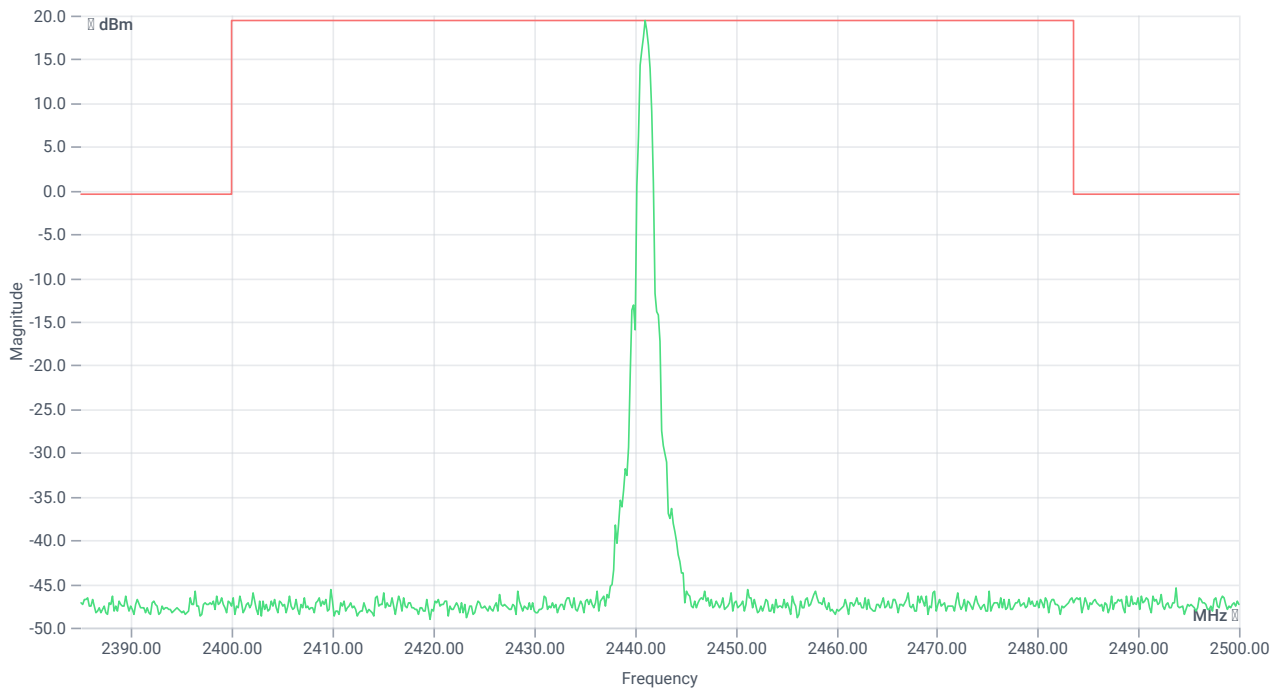
DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. power 1MHz/1MHz cond.	---	---	19.56	dBm	INFO
Ref. frequency	---	---	2441.500	MHz	INFO



TX emissions

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	19.56 15.22 20
Start [MHz] Stop [MHz]	24780.000 25000.000
RBW [MHz] VBW [MHz]	0.100000 0.300000
Detector TraceMode	POS MAXH
Sweep: time [ms] count points per Section type	200 125 1501 SWE



RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Reference @ 2441.00 MHz	---	---	19.52	dBm	INFO
No peaks detected	---	---			PASS
Lowest margin to limit 5713.833 MHz	0	---	39.29	dB	INFO

Verdict

PASS

FCC 15.247 # TX spurious conducted 20dBc ~ Generic 2G4

References

TC start	03.04.2024 10:18:55
Ambit temp [°C] humidity [rel%]	0.0 0
System version	5.0.3.6
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 - Generic 2G4
Information	

EUT Common settings 2G4

Hopping supported	No
Burst length [ms]	10
Nominal bandwidth [MHz]	2
User interaction	No

Equipment

Signal analyzer,Rohde&Schwarz,FSV-30,1321.3008K30/103170,3.60
Signaling unit,Rohde&Schwarz,CMW,1201.0002k75/102550,4.0.190
Switch matrix,cetecom advanced GmbH,USM,A001,1.0.0

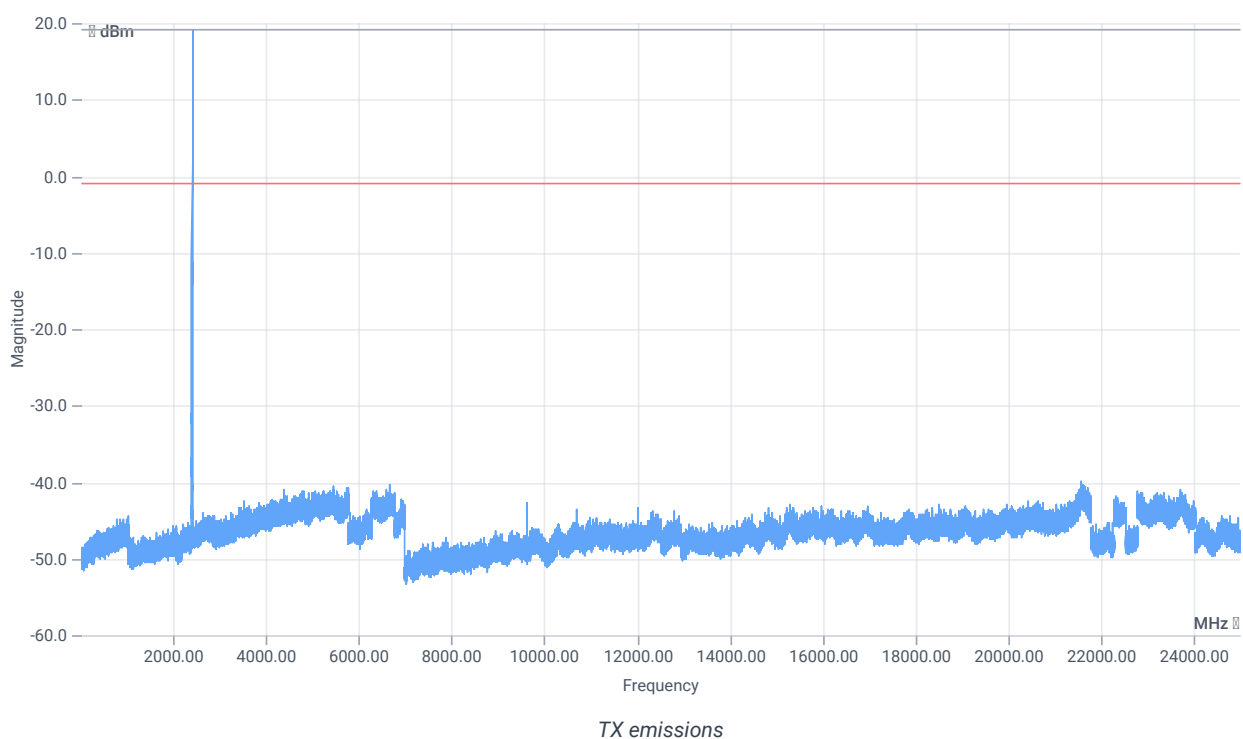
Test Parameter

Technology to test	Generic 2G4
EUT port	EUT1
Temperature	nom
Voltage	nom
Frequency low to test	True Freq [MHz] 2403
Frequency mid to test	False Freq [MHz] 2441
Frequency high to test	False Freq [MHz] 2479
Auto control enabled power supply Climatic Box	No No
Additional path loss [dB]	0
Full path type	EUT_SA_GEN_SIG
Full path name	EUT1.MP.SIG1/EUT1.SA/EUT1.GEN1/EUT1.GEN2/
Switch bits	00010001:00010001:00000000:00000001

Test at TX 2403 MHz

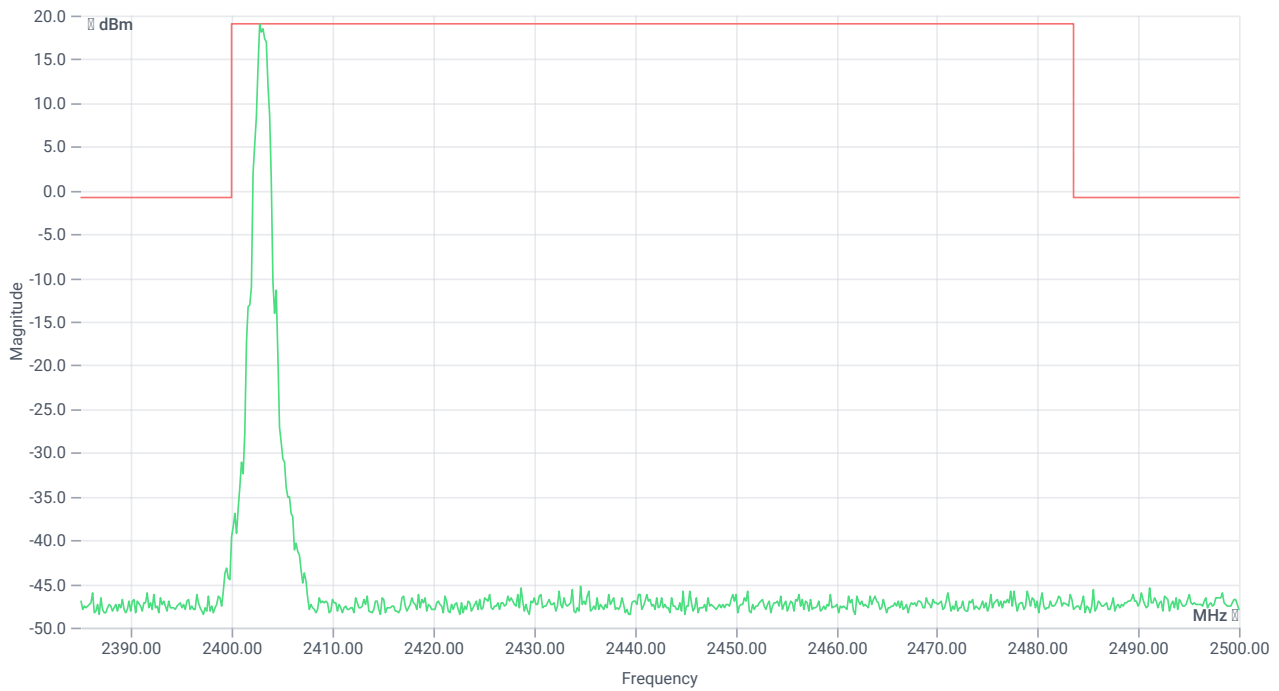
RESULT: Reference power cond.

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. power 1MHz/1MHz cond.	---	---	19.77	dBm	INFO
Ref. frequency	---	---	2403.500	MHz	INFO



READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	19.77 15.22 20
Start [MHz] Stop [MHz]	24780.000 25000.000
RBW [MHz] VBW [MHz]	0.100000 0.300000
Detector TraceMode	POS MAXH
Sweep: time [ms] count points per Section type	200 125 1501 SWE



RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Reference @ 2402.67 MHz	---	---	19.10	dBm	INFO
No peaks detected	---	---			PASS
Lowest margin to limit 21577.833 MHz	0	---	39.1	dB	INFO

Verdict

PASS

- END OF DOCUMENT -