Conducted test results

No.24-1-0039801T021_TR1-A202-R01

September 23, 2024

Test Standard(s)	FCC 15.247 - NI

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Authorized

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Table of Content

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

References

TC start	18.09.2024 16:01:03
Ambit temp [°C] | humidity [rel%]	not enabled | not enabled
System version	5.0.7.8
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	DH1
RF Supported	Basic Rate True | EDR Pi/4DQPSK True | EDR 8DPSK True
Testmode	None
Perform Inquiry	Yes
EUT BT Address (if Inqiury No)	0123456789AB
Signaling BT Address	BABEBEDADBAD

Equipment

Signal analyzer,Rohde&Schwarz,FSV3030,1330.5000K30/101247,1.90
Switch matrix,cetecom advanced GmbH,USM,D001,1.0.0

Test Parameter

Technology to test	BT Classic EDR 8DPSK
EUT port	EUT1
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

Test Parameter

Full path type	EUT_SA_GEN_SIG
Full path name	EUT1.MP.SIG1/EUT1.SA/
Switch bits	00000001:00000001:00000000:00000110

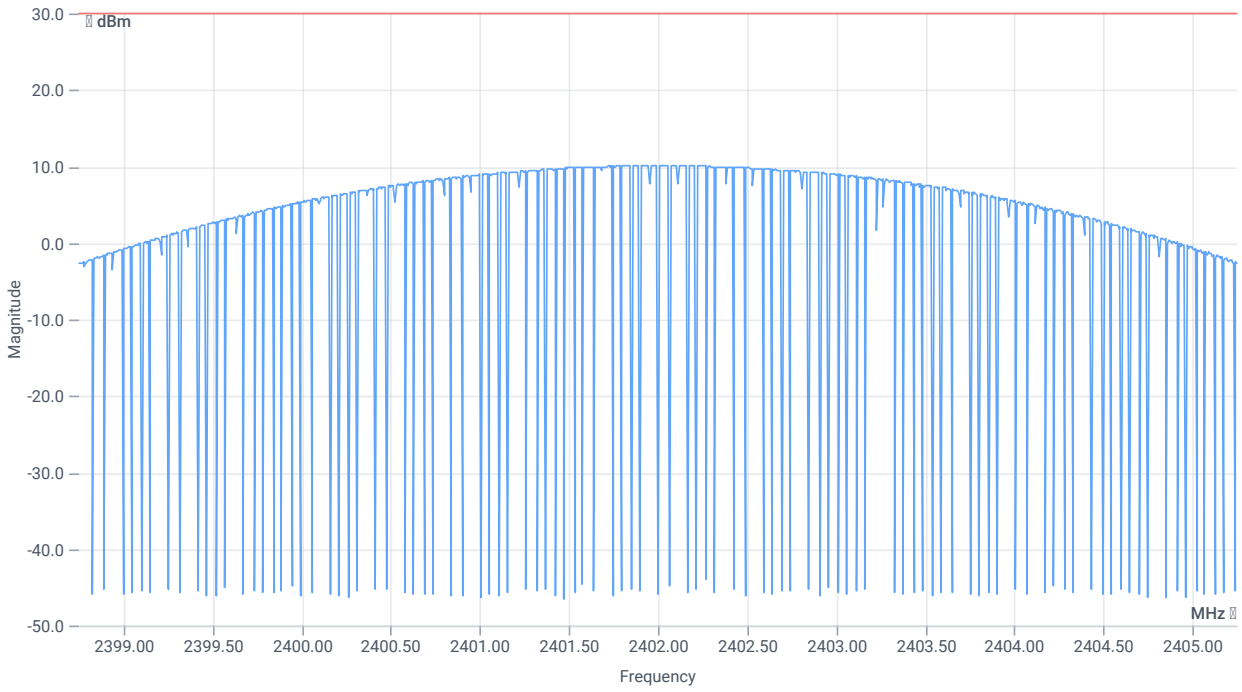
Test at TX 2402 MHz

RESULT: Reference power cond.

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. power 1MHz/1MHz cond.	---	---	9.66	dBm	INFO
Ref. frequency	---	---	2402.100	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] | RefLevelOffset [dB] | InpAtt [dB]	19.66 | 3.02 | 27
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



Peak output power

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Peak power	---	30.00	10.09	dBm	PASS
Peak power	---	1000	10.209395	mW	PASS
Frequency at peak	---	---	2402.052	MHz	INFO

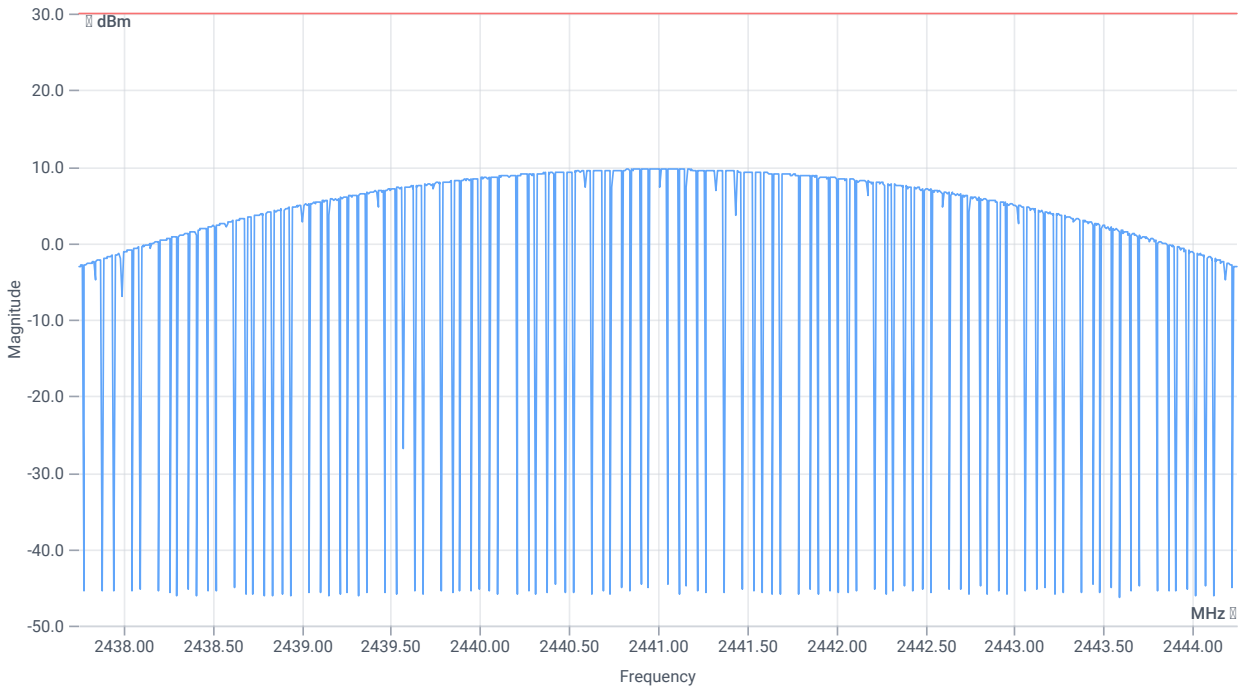
Test at TX 2441 MHz

RESULT: Reference power cond.

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. power 1MHz/1MHz cond.	---	---	9.14	dBm	INFO
Ref. frequency	---	---	2441.100	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] | RefLevelOffset [dB] | InpAtt [dB]	19.14 | 3.07 | 27
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



Peak output power

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Peak power	---	30.00	9.61	dBm	PASS
Peak power	---	1000	9.141132	mW	PASS
Frequency at peak	---	---	2440.987	MHz	INFO

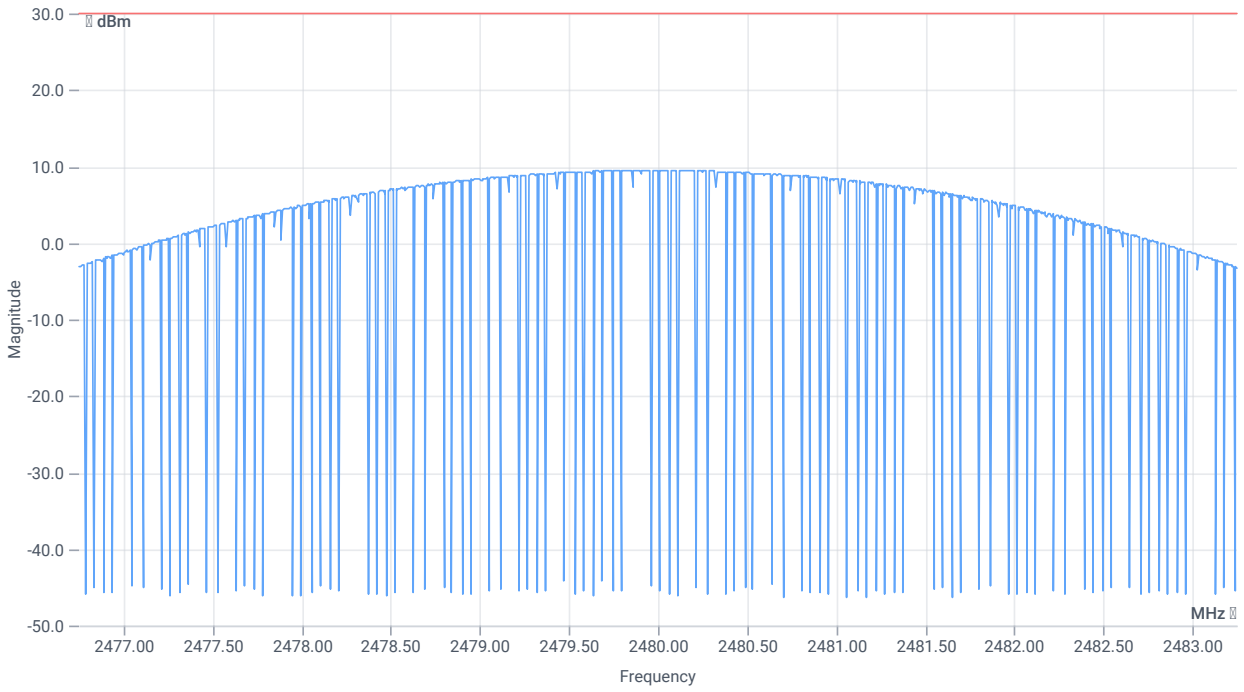
Test at TX 2480 MHz

RESULT: Reference power cond.

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. power 1MHz/1MHz cond.	---	---	9.09	dBm	INFO
Ref. frequency	---	---	2480.000	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] | RefLevelOffset [dB] | InpAtt [dB]	19.09 | 3.08 | 27
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	9.49	dBm	PASS
Peak power	---	1000	8.892011	mW	PASS
Frequency at peak	---	---	2479.987	MHz	INFO

Verdict
PASS

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

References

TC start	18.09.2024 15:59:00
Ambit temp [°C] | humidity [rel%]	not enabled | not enabled
System version	5.0.7.8
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	DH1
RF Supported	Basic Rate True | EDR Pi/4DQPSK True | EDR 8DPSK True
Testmode	None
Perform Inquiry	Yes
EUT BT Address (if Inqiury No)	0123456789AB
Signaling BT Address	BABEBEDADBAD

Equipment

Signal analyzer,Rohde&Schwarz,FSV3030,1330.5000K30/101247,1.90
Switch matrix,cetecom advanced GmbH,USM,D001,1.0.0

Test Parameter

Technology to test	BT Classic EDR Pi/4DQPSK
EUT port	EUT1
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

Test Parameter

Full path type	EUT_SA_GEN_SIG
Full path name	EUT1.MP.SIG1/EUT1.SA/
Switch bits	00000001:00000001:00000000:00000110

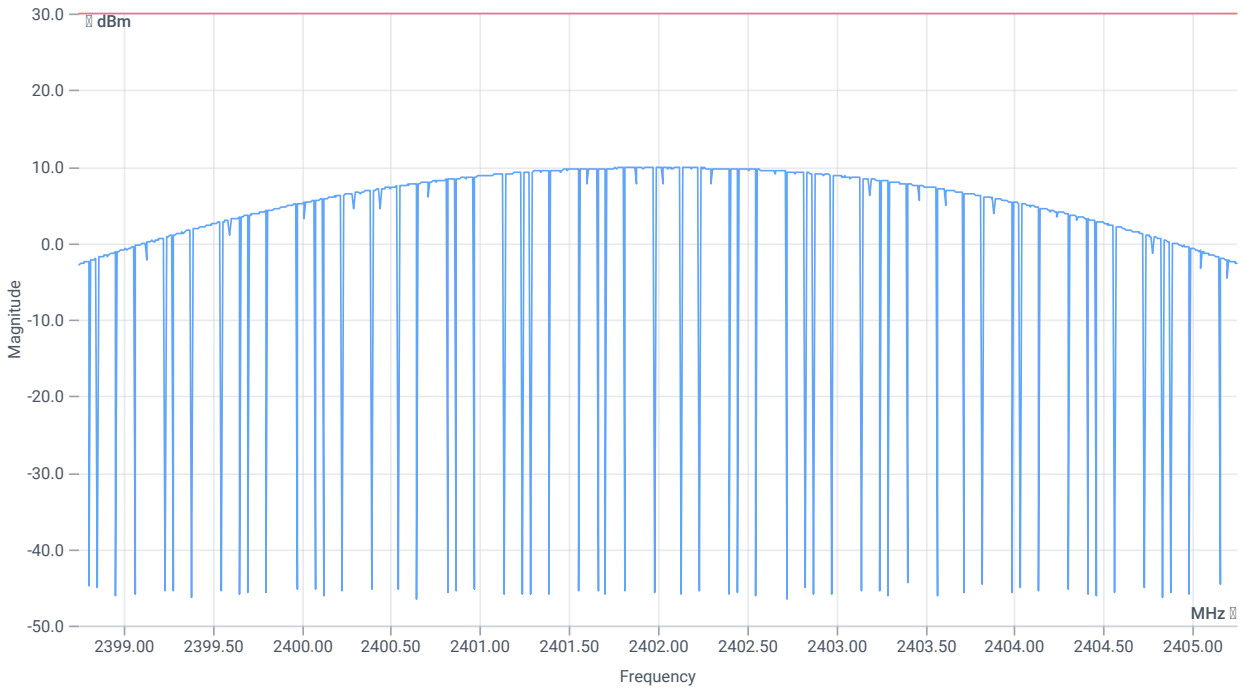
Test at TX 2402 MHz

RESULT: Reference power cond.

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. power 1MHz/1MHz cond.	---	---	9.37	dBm	INFO
Ref. frequency	---	---	2401.800	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] | RefLevelOffset [dB] | InpAtt [dB]	19.37 | 3.02 | 27
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



Peak output power

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Peak power	---	30.00	9.82	dBm	PASS
Peak power	---	1000	9.594006	mW	PASS
Frequency at peak	---	---	2401.896	MHz	INFO

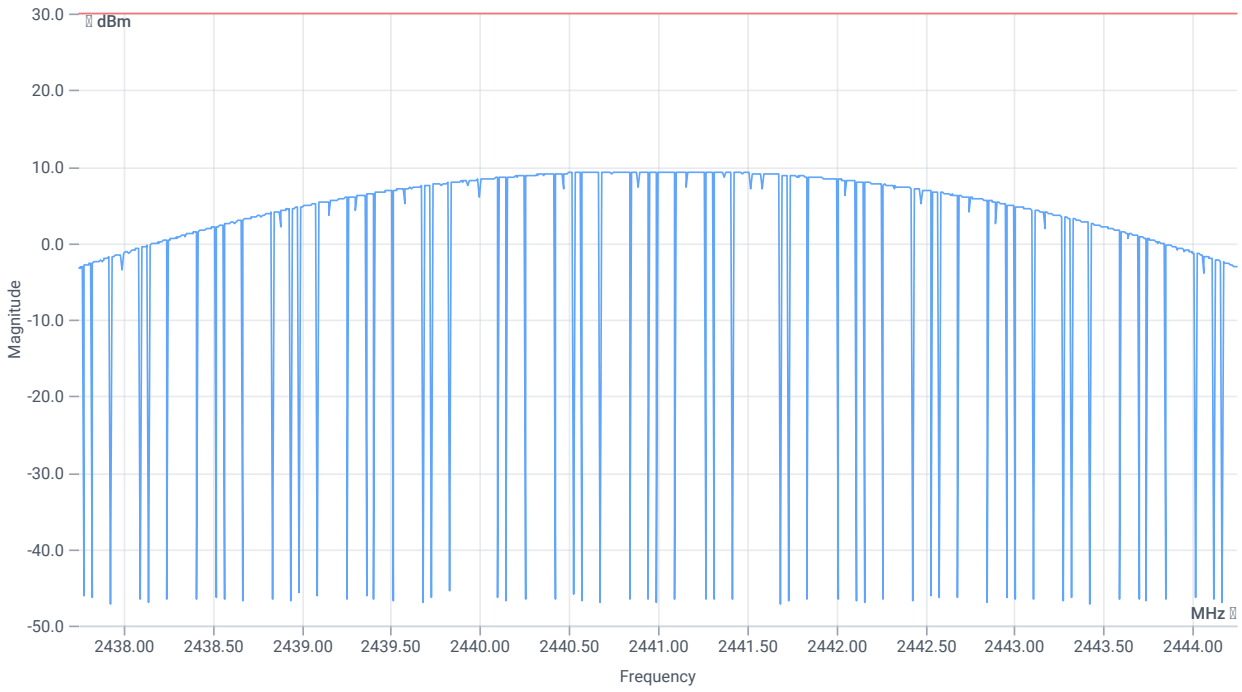
Test at TX 2441 MHz

RESULT: Reference power cond.

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. power 1MHz/1MHz cond.	---	---	8.88	dBm	INFO
Ref. frequency	---	---	2441.200	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] | RefLevelOffset [dB] | InpAtt [dB]	18.88 | 3.07 | 26
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



Peak output power

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Peak power	---	30.00	9.34	dBm	PASS
Peak power	---	1000	8.590135	mW	PASS
Frequency at peak	---	---	2440.896	MHz	INFO

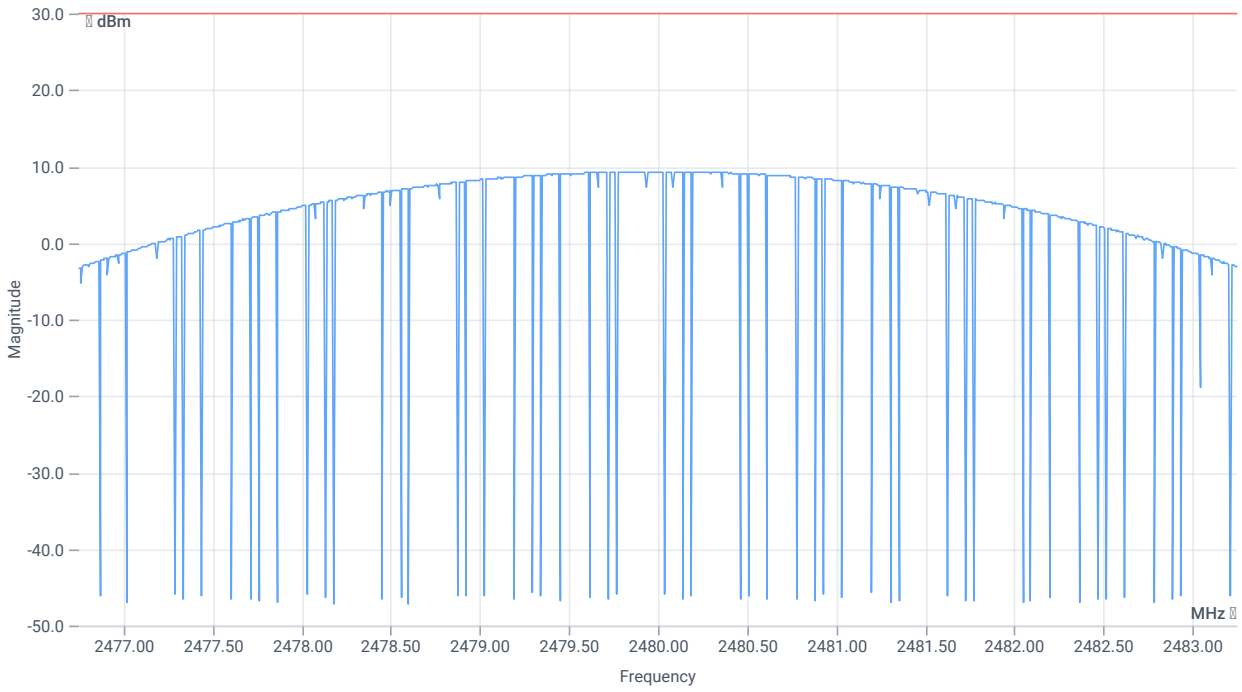
Test at TX 2480 MHz

RESULT: Reference power cond.

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. power 1MHz/1MHz cond.	---	---	8.92	dBm	INFO
Ref. frequency	---	---	2479.900	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] | RefLevelOffset [dB] | InpAtt [dB]	18.92 | 3.08 | 26
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	9.25	dBm	PASS
Peak power	---	1000	8.413951	mW	PASS
Frequency at peak	---	---	2479.909	MHz	INFO

Verdict
PASS

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

References

TC start	18.09.2024 15:57:32
Ambit temp [°C] | humidity [rel%]	not enabled | not enabled
System version	5.0.7.8
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	DH1
RF Supported	Basic Rate True | EDR Pi/4DQPSK True | EDR 8DPSK True
Testmode	None
Perform Inquiry	Yes
EUT BT Address (if Inqiury No)	0123456789AB
Signaling BT Address	BABEBEDADBAD

Equipment

Signal analyzer,Rohde&Schwarz,FSV3030,1330.5000K30/101247,1.90
Switch matrix,cetecom advanced GmbH,USM,D001,1.0.0

Test Parameter

Technology to test	BT Classic Basic rate
EUT port	EUT1
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

Test Parameter

Full path type	EUT_SA_GEN_SIG
Full path name	EUT1.MP.SIG1/EUT1.SA/
Switch bits	00000001:00000001:00000000:00000110

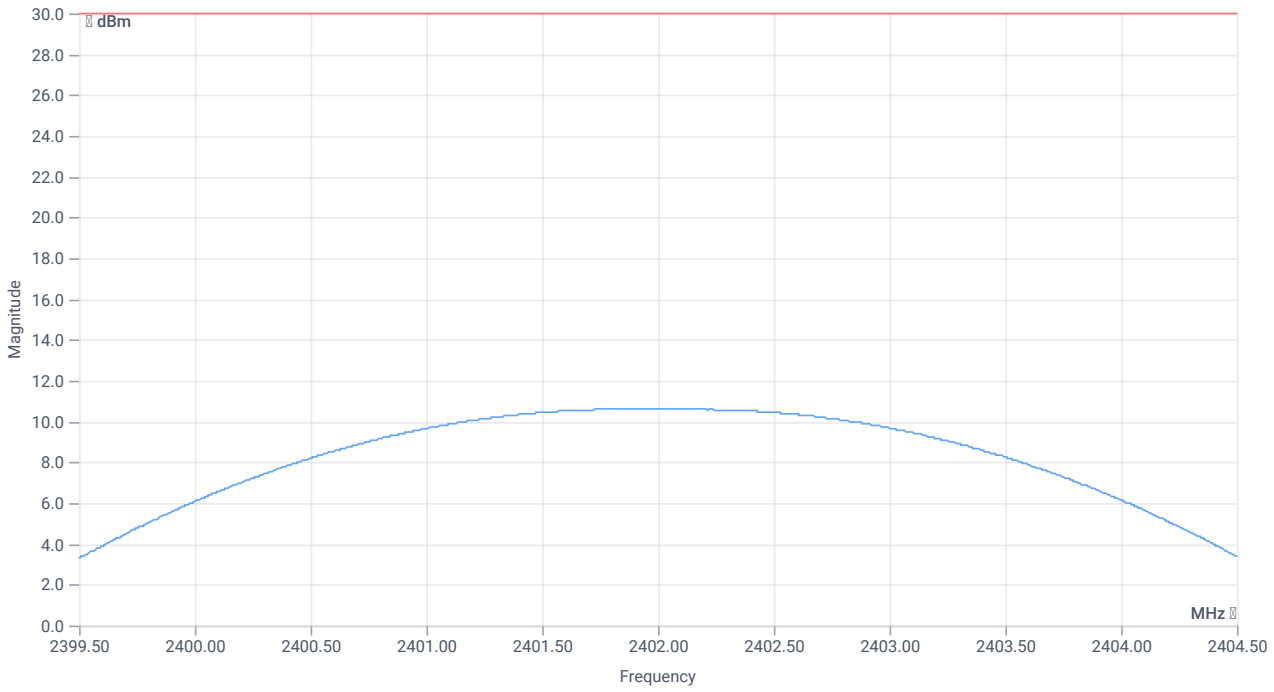
Test at TX 2402 MHz

RESULT: Reference power cond.

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. power 1MHz/1MHz cond.	---	---	10.58	dBm	INFO
Ref. frequency	---	---	2401.900	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] | RefLevelOffset [dB] | InpAtt [dB]	20.58 | 3.02 | 28
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



Peak output power

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Peak power	---	30.00	10.6	dBm	PASS
Peak power	---	1000	11.481536	mW	PASS
Frequency at peak	---	---	2401.875	MHz	INFO

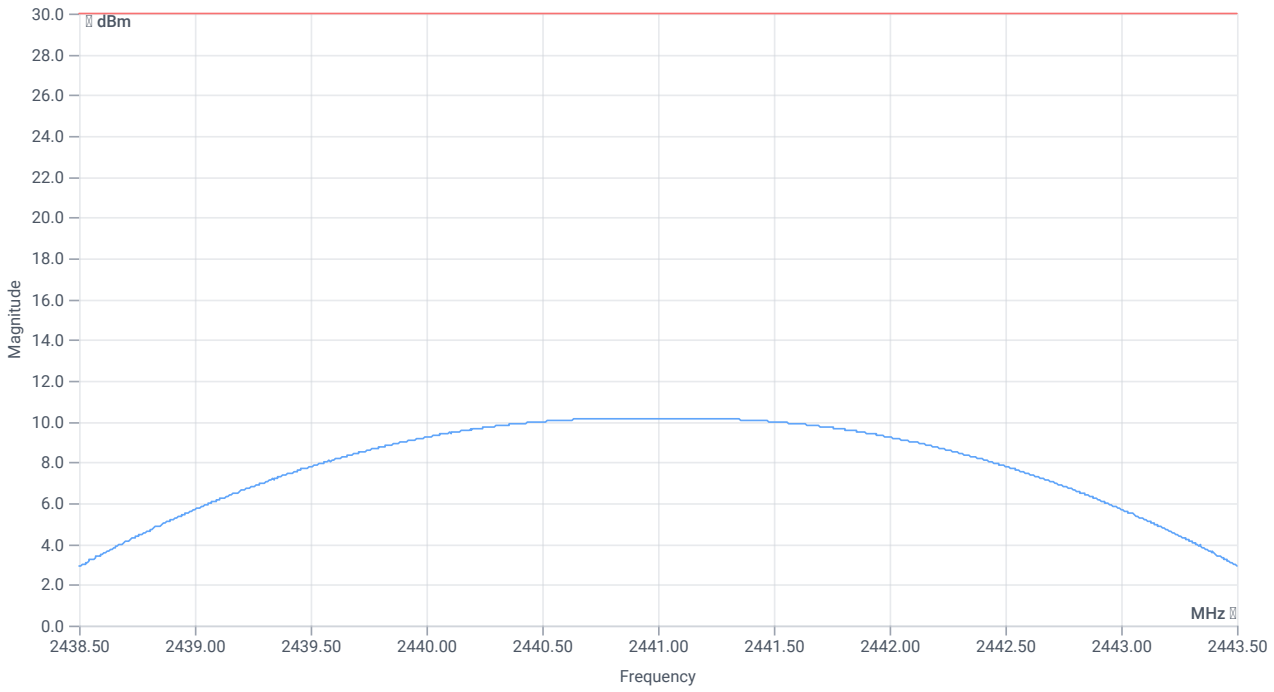
Test at TX 2441 MHz

RESULT: Reference power cond.

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. power 1MHz/1MHz cond.	---	---	10.13	dBm	INFO
Ref. frequency	---	---	2440.900	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] | RefLevelOffset [dB] | InpAtt [dB]	20.13 | 3.07 | 28
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	10.15	dBm	PASS
Peak power	---	1000	10.351422	mW	PASS
Frequency at peak	---	---	2440.855	MHz	INFO

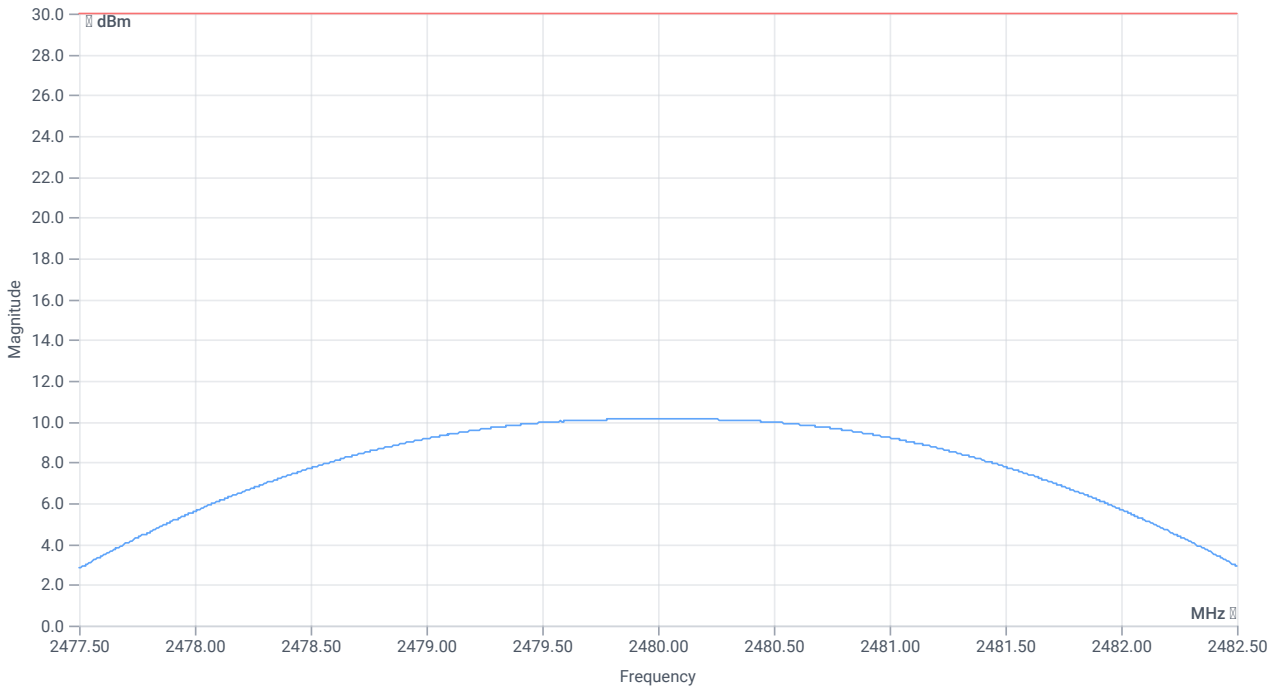
Test at TX 2480 MHz

RESULT: Reference power cond.

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. power 1MHz/1MHz cond.	---	---	10.09	dBm	INFO
Ref. frequency	---	---	2480.200	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] | RefLevelOffset [dB] | InpAtt [dB]	20.09 | 3.08 | 28
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	10.11	dBm	PASS
Peak power	---	1000	10.256519	mW	PASS
Frequency at peak	---	---	2480.175	MHz	INFO

Verdict
PASS

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