Measurement Results

No.1-4450/22-01-07_Annex_MR_A1

Test logging

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Test/s performed:

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2022.07.07 12:14:14 +02'00'

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Table of Content

EUT Information

EUT DEFINITION	
Manufacturer	Sonnova Communications AG
Type	DigiMaster 5000 /V2 & DigiMaster 7000 /V2
Serial Number	Sample 7
Setup Number	1.0
Version SW	NI
Version FW	NI
Version HW	NI
Comment 1	
Comment 2	
Temperature [°C] Min	0
Temperature [°C] Nom	20
Temperature [°C] Max	40
Voltage [V] Min	100
Voltage [V] Nom	220
Voltage [V] Max	240

Common2G4 Peak OP 3MHz/3MHz ~ BT Classic Basic rate

Test References	
TC Start	23.05.2022 13:58:23
Ambit Temp [°C] | Humidity [rel%]	26.3 | 49
System Version	3.0.6.3
Test Specification	None
Test Method	
TC Version	0.0.1
My Description	Peak Output Power conducted 3MHz/3MHz - BT Classic Basic Rate
Add. Information	

EUT Common Settings BT Classic	
Intermodulation Value N	3
Image Freq. Low | Mid | High [MHz]	0 | 0 | 0
Power Class	1
Power Control	Enhanced
Longest Supported Packet Type	DH5
RF Supported	Basic Rate True | EDR Pi/4DQPSK False | EDR 8DPSK False
Testmode	None
Perform Inquiry	No
EUT BT Address (if Inqiury No)	BABEBEDADBAD
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
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer

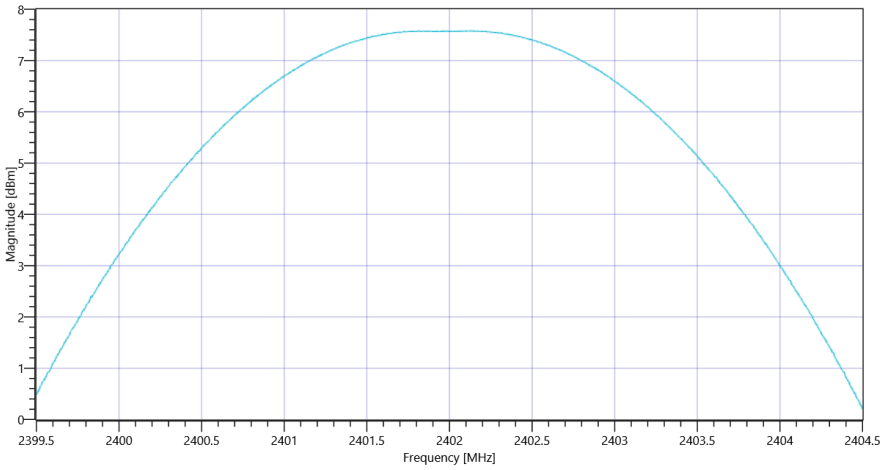
Test Equipment
Signal analyzer,Rohde&Schwarz,FSV-30,1321.3008K30/103809,3.70
Switch matrix,CTCadvanced,RSM-1 NI DAQ,29655273,NI

Test at TX 2402 MHz

RESULT: Reference Power cond.					
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	7.82	dBm	INFO
Ref. Frequency	---	---	2401.800	MHz	INFO

READ SA SETTINGS:	
RefLevel [dBm] | RefLevelOffset [dB] | InpAtt [dB]	17.82 | 10.79 | 25
Start [MHz] | Stop [MHz]	2399.500 | 2404.500
RBW [MHz] | VBW [MHz]	3.000000 | 3.000000
Detector | TraceMode	POS | MAXH
Sweep: Time [ms] | Count | Points per Section | Type	1000 | 10 | 1001 | SWE

RESULT					
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Peak Power	---	---	7.58	dBm	INFO
Peak Power	---	---	5.72796	mW	INFO
Frequency at Peak	---	---	2402.11	MHz	INFO



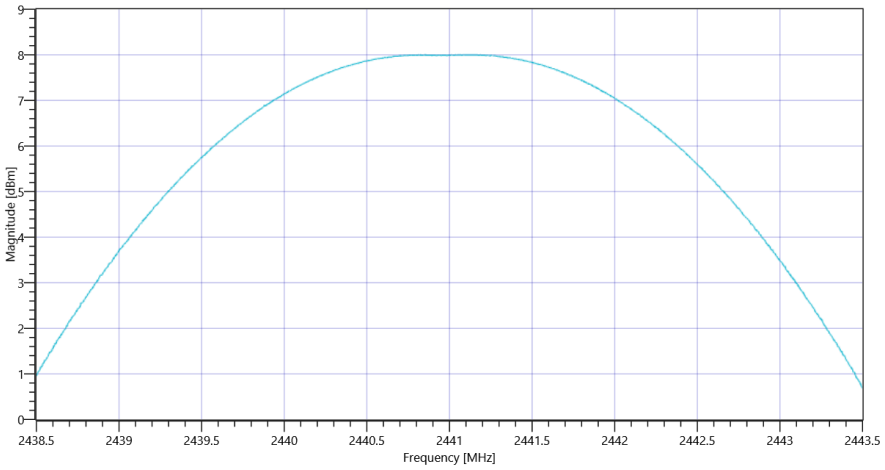
Common2G4 Peak OP 3MHz-3MHz ~ BT Classic Basic rate

Test at TX 2441 MHz

RESULT: Reference Power cond.					
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	8.16	dBm	INFO
Ref. Frequency	---	---	2440.800	MHz	INFO

READ SA SETTINGS:	
RefLevel [dBm] | RefLevelOffset [dB] | InpAtt [dB]	18.16 | 10.8 | 25
Start [MHz] | Stop [MHz]	2438.500 | 2443.500
RBW [MHz] | VBW [MHz]	3.000000 | 3.000000
Detector | TraceMode	POS | MAXH
Sweep: Time [ms] | Count | Points per Section | Type	1000 | 10 | 1001 | SWE

RESULT					
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Peak Power	---	---	8	dBm	INFO
Peak Power	---	---	6.309573	mW	INFO
Frequency at Peak	---	---	2441.015	MHz	INFO



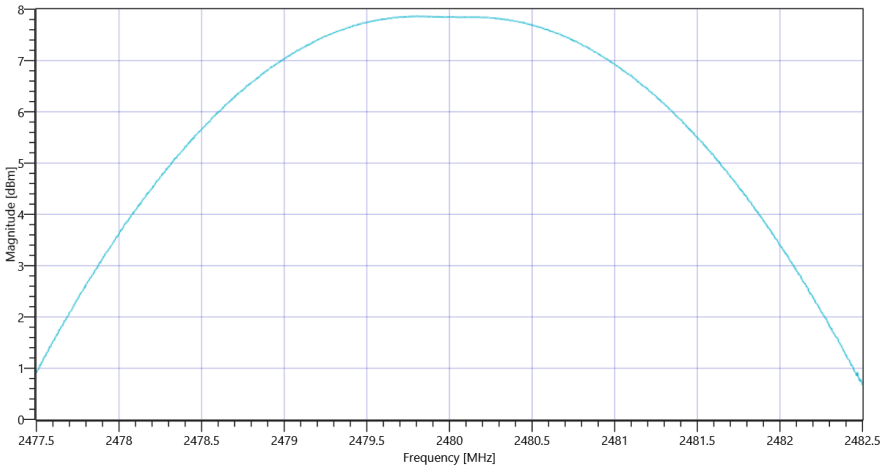
Common2G4 Peak OP 3MHz-3MHz ~ BT Classic Basic rate

Test at TX 2480 MHz

RESULT: Reference Power cond.					
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	7.96	dBm	INFO
Ref. Frequency	---	---	2479.800	MHz	INFO

READ SA SETTINGS:	
RefLevel [dBm] | RefLevelOffset [dB] | InpAtt [dB]	17.96 | 10.85 | 25
Start [MHz] | Stop [MHz]	2477.500 | 2482.500
RBW [MHz] | VBW [MHz]	3.000000 | 3.000000
Detector | TraceMode	POS | MAXH
Sweep: Time [ms] | Count | Points per Section | Type	1000 | 10 | 1001 | SWE

RESULT					
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Peak Power	---	---	7.86	dBm	INFO
Peak Power	---	---	6.10942	mW	INFO
Frequency at Peak	---	---	2479.83	MHz	INFO



Common2G4 Peak OP 3MHz-3MHz ~ BT Classic Basic rate

General verdict	PASS

FCC Part 15.247 Bandwidth 99PCT-20dB ~ BT Classic Basic rate

Test References	
TC Start	23.05.2022 11:55:03
Ambit Temp [°C] | Humidity [rel%]	25.9 | 48
System Version	3.0.6.3
Test Specification	FCC Part 15.247
Test Method	
TC Version	0.0.2
My Description	FCC 15.247 Bandwidth 99PCT - 20DB FHSS - BT Classic Basic Rate
Add. Information	

EUT Common Settings BT Classic	
Intermodulation Value N	3
Image Freq. Low | Mid | High [MHz]	0 | 0 | 0
Power Class	1
Power Control	Enhanced
Longest Supported Packet Type	DH5
RF Supported	Basic Rate True | EDR Pi/4DQPSK False | EDR 8DPSK False
Testmode	None
Perform Inquiry	No
EUT BT Address (if Inqiury No)	BABEBEDADBAD
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	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
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer

Test Equipment
Signal analyzer,Rohde&Schwarz,FSV-30,1321.3008K30/103809,3.70
Switch matrix,CTCadvanced,RSM-1 NI DAQ,29655273,NI

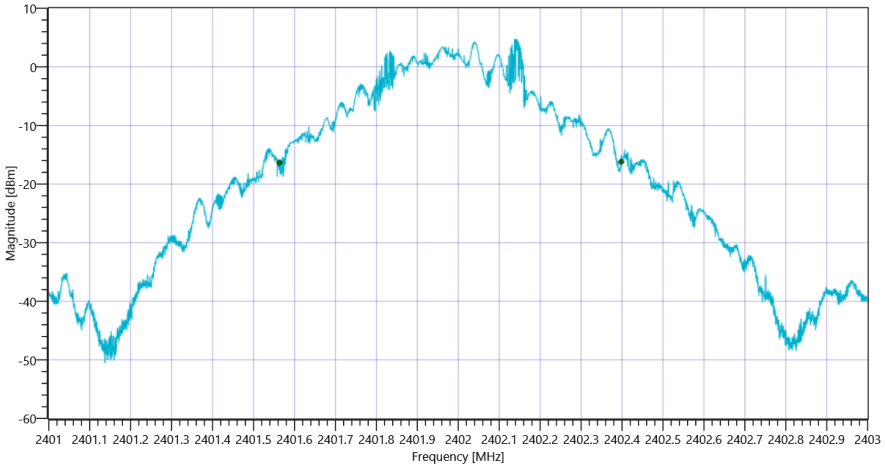
Test at TX 2402 MHz

RESULT: Reference Power cond.					
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	7.84	dBm	INFO
Ref. Frequency	---	---	2401.900	MHz	INFO

READ SA SETTINGS:	
RefLevel [dBm] | RefLevelOffset [dB] | InpAtt [dB]	12.84 | 10.79 | 20
Start [MHz] | Stop [MHz]	2401.000 | 2403.000
RBW [MHz] | VBW [MHz]	0.020000 | 0.100000
Detector | TraceMode	POS | MAXH
Sweep: Time [ms] | Count | Points per Section | Type	50 | 200 | 10001 | SWE

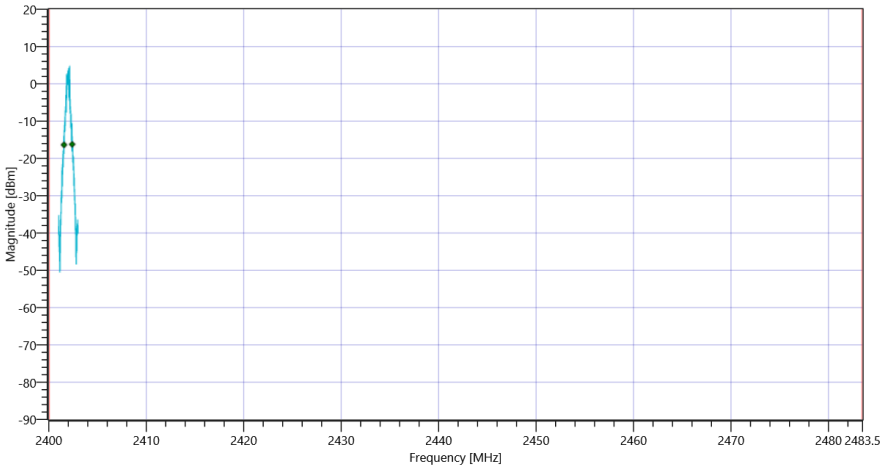
RESULT					
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 99%	---	---	834.717	kHz	INFO
T1 99%	2400.000000	---	2401.5632	MHz	PASS
T2 99%	---	2483.500000	2402.3980	MHz	PASS

Plot: Bandwidth only



FCC Part 15.247 Bandwidth 99PCT-20dB ~ BT Classic Basic rate 99PCT

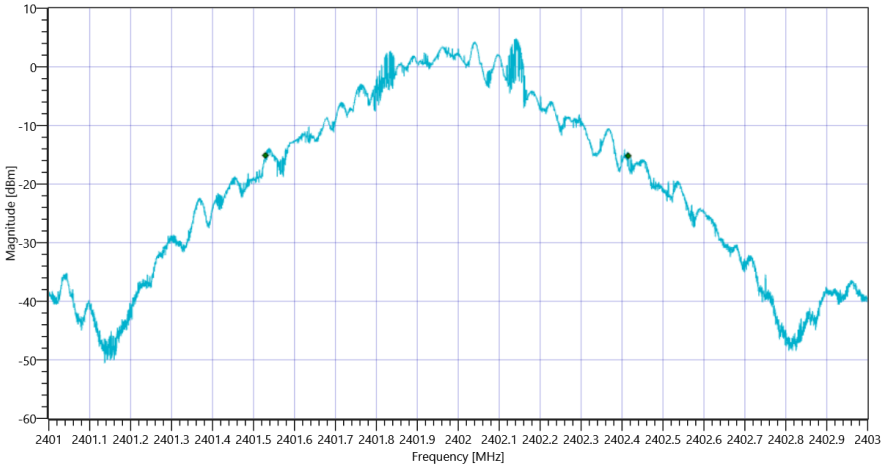
Plot: Bandwidth within Band



FCC Part 15.247 Bandwidth 99PCT-20dB ~ BT Classic Basic rate

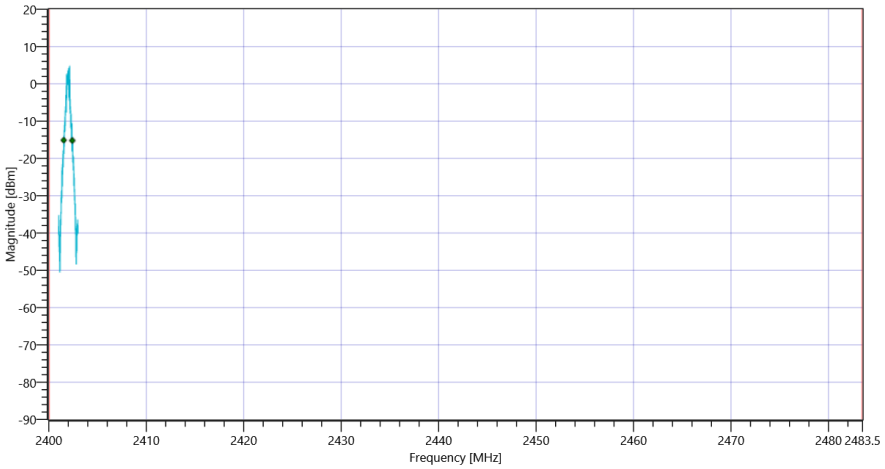
RESULT					
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 20dB	---	---	886	kHz	INFO
T1 20DB	2400.000000	---	2401.5290	MHz	PASS
T2 20dB	---	2483.500000	2402.4152	MHz	PASS

Plot: Bandwidth only



FCC Part 15.247 Bandwidth 99PCT-20dB ~ BT Classic Basic rate 20dB

Plot: Bandwidth within Band



FCC Part 15.247 Bandwidth 99PCT-20dB ~ BT Classic Basic rate

General verdict	PASS

FCC Part 15.247 Bandwidth 99PCT-20dB ~ BT Classic Basic rate

Test References	
TC Start	23.05.2022 12:43:09
Ambit Temp [°C] | Humidity [rel%]	26.1 | 48
System Version	3.0.6.3
Test Specification	FCC Part 15.247
Test Method	
TC Version	0.0.2
My Description	FCC 15.247 Bandwidth 99PCT - 20DB FHSS - BT Classic Basic Rate
Add. Information	

EUT Common Settings BT Classic	
Intermodulation Value N	3
Image Freq. Low | Mid | High [MHz]	0 | 0 | 0
Power Class	1
Power Control	Enhanced
Longest Supported Packet Type	DH5
RF Supported	Basic Rate True | EDR Pi/4DQPSK False | EDR 8DPSK False
Testmode	None
Perform Inquiry	No
EUT BT Address (if Inqiury No)	BABEBEDADBAD
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	True | 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
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer

Test Equipment
Signal analyzer,Rohde&Schwarz,FSV-30,1321.3008K30/103809,3.70
Switch matrix,CTCadvanced,RSM-1 NI DAQ,29655273,NI

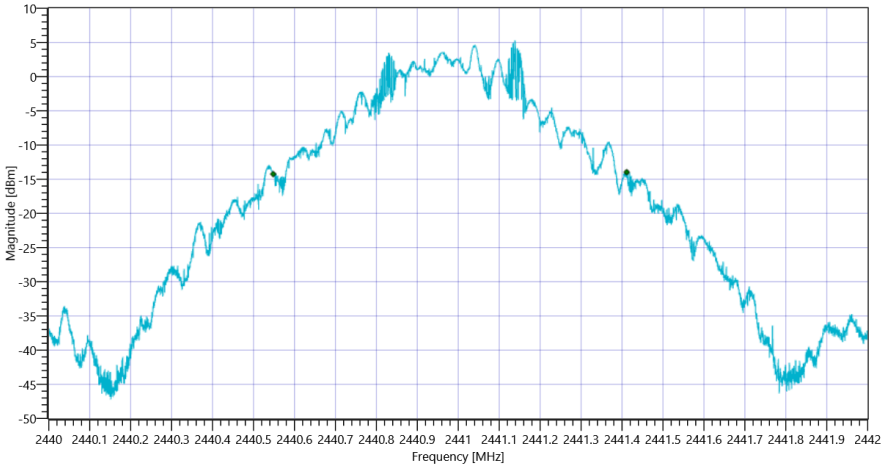
Test at TX 2441 MHz

RESULT: Reference Power cond.					
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	8.22	dBm	INFO
Ref. Frequency	---	---	2440.800	MHz	INFO

READ SA SETTINGS:	
RefLevel [dBm] | RefLevelOffset [dB] | InpAtt [dB]	13.22 | 10.8 | 20
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

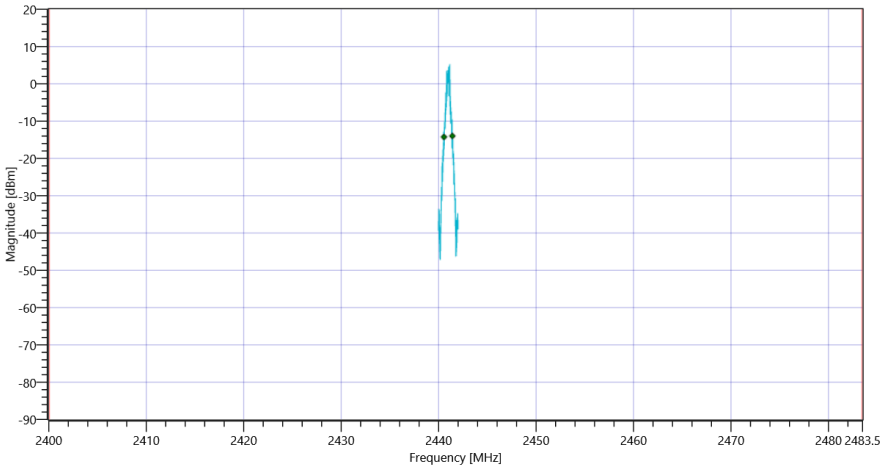
RESULT					
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 99%	---	---	863.314	kHz	INFO
T1 99%	2400.000000	---	2440.5480	MHz	PASS
T2 99%	---	2483.500000	2441.4114	MHz	PASS

Plot: Bandwidth only



FCC Part 15.247 Bandwidth 99PCT-20dB ~ BT Classic Basic rate 99PCT

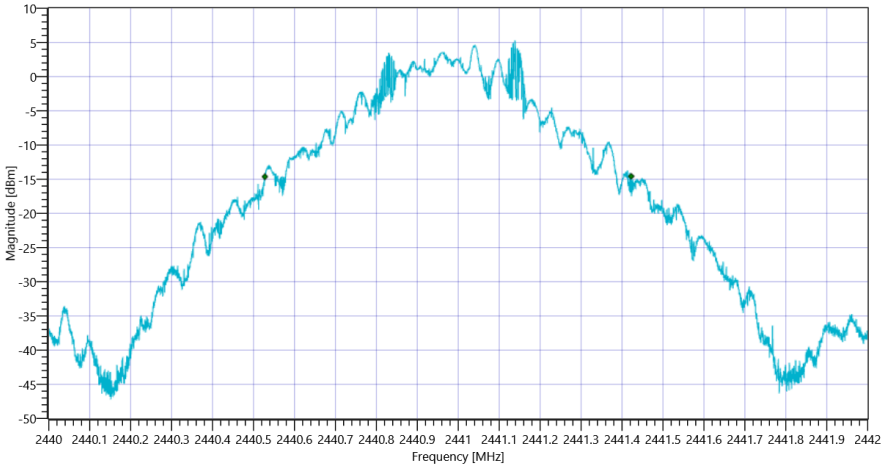
Plot: Bandwidth within Band



FCC Part 15.247 Bandwidth 99PCT-20dB ~ BT Classic Basic rate

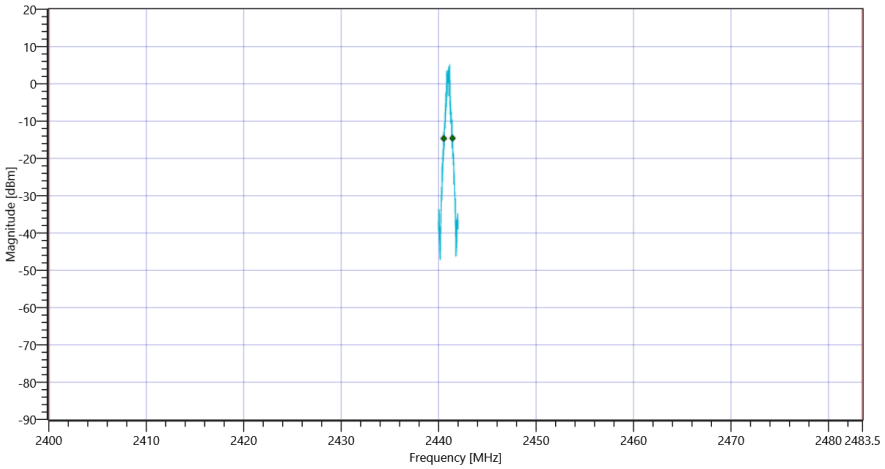
RESULT					
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 20dB	---	---	895	kHz	INFO
T1 20DB	2400.000000	---	2440.5278	MHz	PASS
T2 20dB	---	2483.500000	2441.4224	MHz	PASS

Plot: Bandwidth only



FCC Part 15.247 Bandwidth 99PCT-20dB ~ BT Classic Basic rate 20dB

Plot: Bandwidth within Band



FCC Part 15.247 Bandwidth 99PCT-20dB ~ BT Classic Basic rate

General verdict	PASS

FCC Part 15.247 Bandwidth 99PCT-20dB ~ BT Classic Basic rate

Test References	
TC Start	23.05.2022 13:00:12
Ambit Temp [°C] | Humidity [rel%]	26.1 | 50
System Version	3.0.6.3
Test Specification	FCC Part 15.247
Test Method	
TC Version	0.0.2
My Description	FCC 15.247 Bandwidth 99PCT - 20DB FHSS - BT Classic Basic Rate
Add. Information	

EUT Common Settings BT Classic	
Intermodulation Value N	3
Image Freq. Low | Mid | High [MHz]	0 | 0 | 0
Power Class	1
Power Control	Enhanced
Longest Supported Packet Type	DH5
RF Supported	Basic Rate True | EDR Pi/4DQPSK False | EDR 8DPSK False
Testmode	None
Perform Inquiry	No
EUT BT Address (if Inqiury No)	BABEBEDADBAD
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	True | Freq [MHz] 2480
Auto Control enabled Power Supply | Climatic Box	No | No
Additional Path Loss [dB]	0.7
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer

Test Equipment
Signal analyzer,Rohde&Schwarz,FSV-30,1321.3008K30/103809,3.70
Switch matrix,CTCadvanced,RSM-1 NI DAQ,29655273,NI

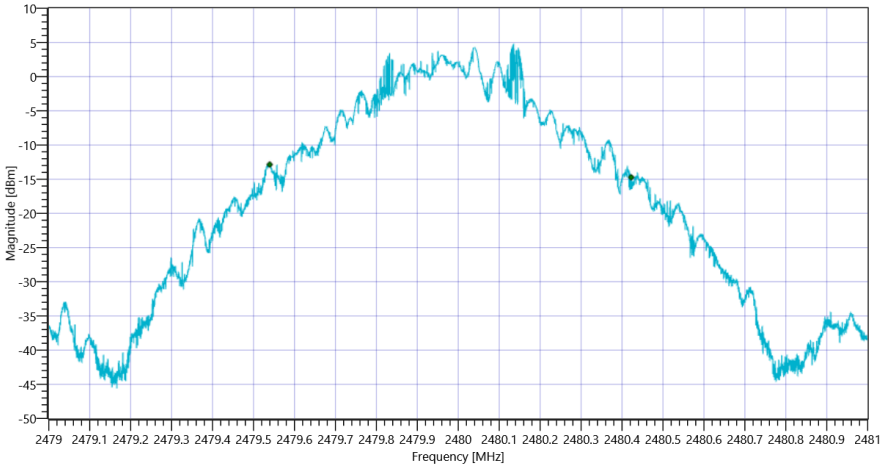
Test at TX 2480 MHz

RESULT: Reference Power cond.					
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	7.98	dBm	INFO
Ref. Frequency	---	---	2479.800	MHz	INFO

READ SA SETTINGS:	
RefLevel [dBm] | RefLevelOffset [dB] | InpAtt [dB]	12.98 | 10.85 | 20
Start [MHz] | Stop [MHz]	2479.000 | 2481.000
RBW [MHz] | VBW [MHz]	0.020000 | 0.100000
Detector | TraceMode	POS | MAXH
Sweep: Time [ms] | Count | Points per Section | Type	50 | 200 | 10001 | SWE

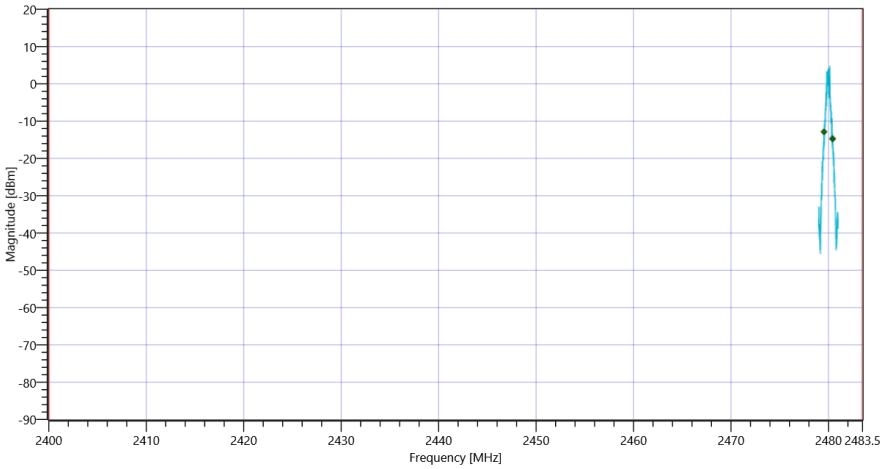
RESULT					
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 99%	---	---	882.912	kHz	INFO
T1 99%	2400.000000	---	2479.5394	MHz	PASS
T2 99%	---	2483.500000	2480.4224	MHz	PASS

Plot: Bandwidth only



FCC Part 15.247 Bandwidth 99PCT-20dB ~ BT Classic Basic rate 99PCT

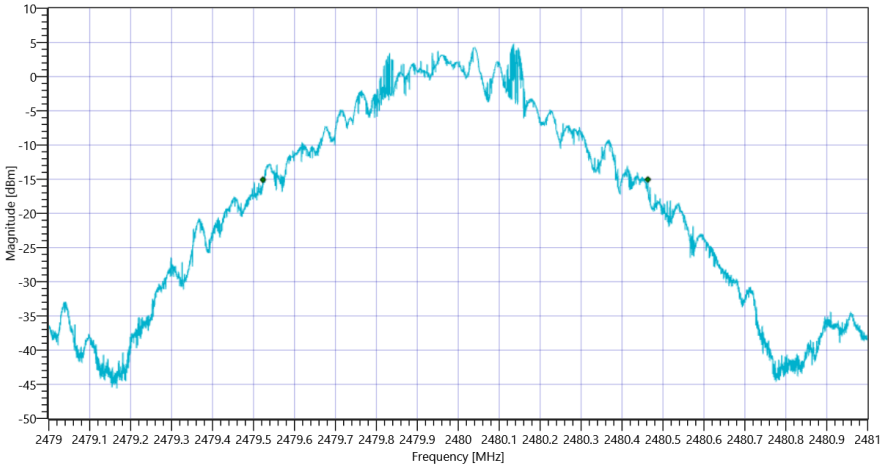
Plot: Bandwidth within Band



FCC Part 15.247 Bandwidth 99PCT-20dB ~ BT Classic Basic rate

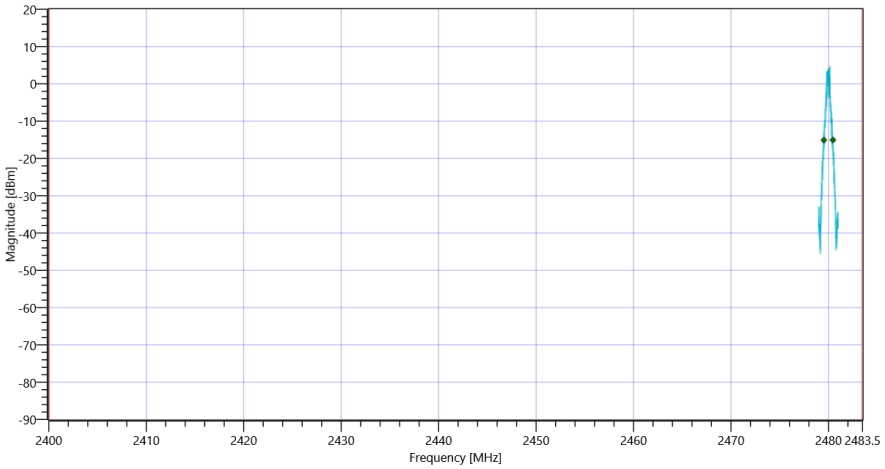
RESULT					
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 20dB	---	---	940	kHz	INFO
T1 20DB	2400.000000	---	2479.5230	MHz	PASS
T2 20dB	---	2483.500000	2480.4630	MHz	PASS

Plot: Bandwidth only



FCC Part 15.247 Bandwidth 99PCT-20dB ~ BT Classic Basic rate 20dB

Plot: Bandwidth within Band



FCC Part 15.247 Bandwidth 99PCT-20dB ~ BT Classic Basic rate

General verdict	PASS

FCC Part 15.247 Carrier Frequency Separation FHSS ~ BT Classic Basic rate

Test References	
TC Start	23.05.2022 14:01:15
Ambit Temp [°C] | Humidity [rel%]	26.3 | 49
System Version	3.0.6.3
Test Specification	FCC Part 15.247
Test Method	
TC Version	0.0.1
My Description	FCC 15.247 Carrier Frequency Separation FHSS - BT Classic Basic Rate
Add. Information	

EUT Common Settings BT Classic	
Intermodulation Value N	3
Image Freq. Low | Mid | High [MHz]	0 | 0 | 0
Power Class	1
Power Control	Enhanced
Longest Supported Packet Type	DH5
RF Supported	Basic Rate True | EDR Pi/4DQPSK False | EDR 8DPSK False
Testmode	None
Perform Inquiry	No
EUT BT Address (if Inqiury No)	BABEBEDADBAD
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
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer

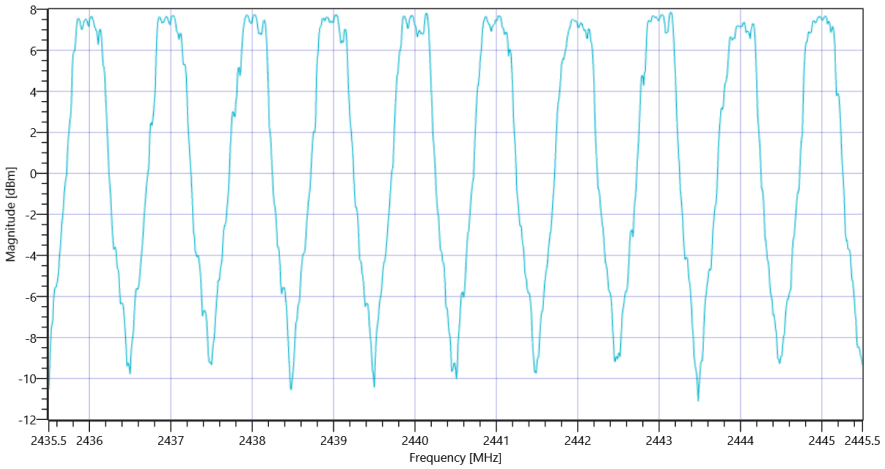
Test Equipment
Signal analyzer,Rohde&Schwarz,FSV-30,1321.3008K30/103809,3.70
Switch matrix,CTCadvanced,RSM-1 NI DAQ,29655273,NI

Test at TX hopping MHz

RESULT: Reference Power cond.					
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	8.24	dBm	INFO
Ref. Frequency	---	---	2463.180	MHz	INFO

READ SA SETTINGS:	
RefLevel [dBm] | RefLevelOffset [dB] | InpAtt [dB]	13.24 | 10.8 | 20
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					
Test 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
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



FCC Part 15.247 Carrier Frequency Separation FHSS ~ BT Classic Basic rate

General verdict	PASS

FCC Part 15.247 Maximum Peak Conducted Output Power FHSS ~ BT Classic Basic rate

Test References	
TC Start	23.05.2022 11:46:55
Ambit Temp [°C] | Humidity [rel%]	25.7 | 50
System Version	3.0.6.3
Test Specification	FCC Part 15.247
Test Method	
TC Version	0.0.1
My Description	FCC 15.247 Maximum Peak Output Power Conducted FHSS - BT Classic Basic Rate
Add. Information	

EUT Common Settings BT Classic	
Intermodulation Value N	3
Image Freq. Low | Mid | High [MHz]	0 | 0 | 0
Power Class	1
Power Control	Enhanced
Longest Supported Packet Type	DH5
RF Supported	Basic Rate True | EDR Pi/4DQPSK False | EDR 8DPSK False
Testmode	None
Perform Inquiry	No
EUT BT Address (if Inqiury No)	BABEBEDADBAD
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	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
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer

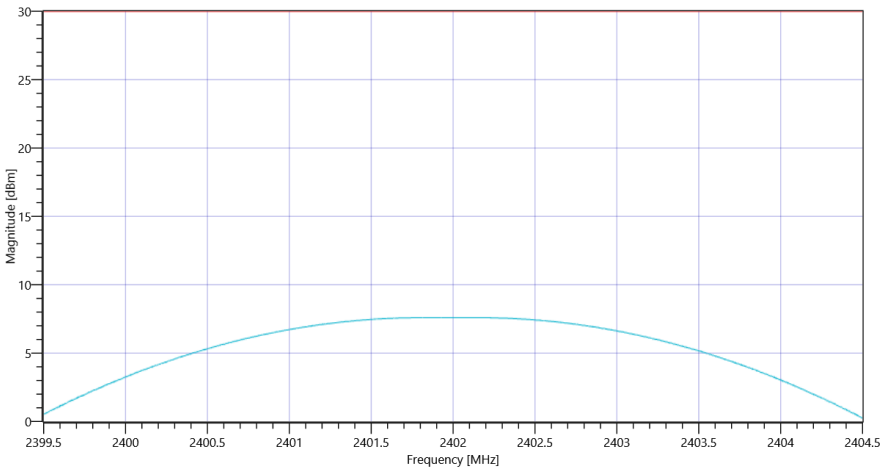
Test Equipment
Signal analyzer,Rohde&Schwarz,FSV-30,1321.3008K30/103809,3.70
Switch matrix,CTCadvanced,RSM-1 NI DAQ,29655273,NI

Test at TX 2402 MHz

RESULT: Reference Power cond.					
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	7.83	dBm	INFO
Ref. Frequency	---	---	2401.800	MHz	INFO

READ SA SETTINGS:	
RefLevel [dBm] | RefLevelOffset [dB] | InpAtt [dB]	17.83 | 10.79 | 25
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					
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Peak Power	---	30.00	7.6	dBm	PASS
Peak Power	---	1000	5.754399	mW	PASS
Frequency at Peak	---	---	2402	MHz	INFO



FCC Part 15.247 Maximum Peak Conducted Output Power FHSS ~ BT Classic Basic rate

General verdict	PASS

FCC Part 15.247 Maximum Peak Conducted Output Power FHSS ~ BT Classic Basic rate

Test References	
TC Start	23.05.2022 12:05:37
Ambit Temp [°C] | Humidity [rel%]	25.8 | 48
System Version	3.0.6.3
Test Specification	FCC Part 15.247
Test Method	
TC Version	0.0.1
My Description	FCC 15.247 Maximum Peak Output Power Conducted FHSS - BT Classic Basic Rate
Add. Information	

EUT Common Settings BT Classic	
Intermodulation Value N	3
Image Freq. Low | Mid | High [MHz]	0 | 0 | 0
Power Class	1
Power Control	Enhanced
Longest Supported Packet Type	DH5
RF Supported	Basic Rate True | EDR Pi/4DQPSK False | EDR 8DPSK False
Testmode	None
Perform Inquiry	No
EUT BT Address (if Inqiury No)	BABEBEDADBAD
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	True | 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
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer

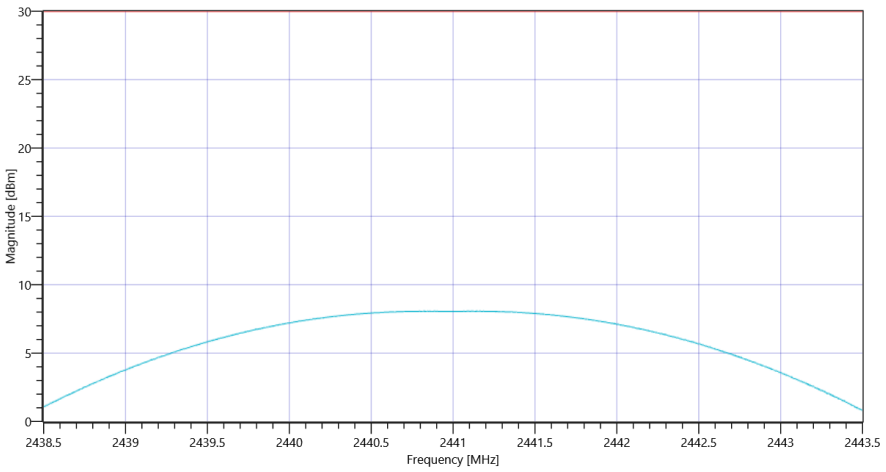
Test Equipment
Signal analyzer,Rohde&Schwarz,FSV-30,1321.3008K30/103809,3.70
Switch matrix,CTCadvanced,RSM-1 NI DAQ,29655273,NI

Test at TX 2441 MHz

RESULT: Reference Power cond.					
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	8.21	dBm	INFO
Ref. Frequency	---	---	2440.800	MHz	INFO

READ SA SETTINGS:	
RefLevel [dBm] | RefLevelOffset [dB] | InpAtt [dB]	18.21 | 10.8 | 25
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

RESULT					
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Peak Power	---	30.00	8.07	dBm	PASS
Peak Power	---	1000	6.412096	mW	PASS
Frequency at Peak	---	---	2441.115	MHz	INFO



FCC Part 15.247 Maximum Peak Conducted Output Power FHSS ~ BT Classic Basic rate

General verdict	PASS

FCC Part 15.247 Maximum Peak Conducted Output Power FHSS ~ BT Classic Basic rate

Test References	
TC Start	23.05.2022 12:52:03
Ambit Temp [°C] | Humidity [rel%]	26.3 | 48
System Version	3.0.6.3
Test Specification	FCC Part 15.247
Test Method	
TC Version	0.0.1
My Description	FCC 15.247 Maximum Peak Output Power Conducted FHSS - BT Classic Basic Rate
Add. Information	

EUT Common Settings BT Classic	
Intermodulation Value N	3
Image Freq. Low | Mid | High [MHz]	0 | 0 | 0
Power Class	1
Power Control	Enhanced
Longest Supported Packet Type	DH5
RF Supported	Basic Rate True | EDR Pi/4DQPSK False | EDR 8DPSK False
Testmode	None
Perform Inquiry	No
EUT BT Address (if Inqiury No)	BABEBEDADBAD
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	True | Freq [MHz] 2480
Auto Control enabled Power Supply | Climatic Box	No | No
Additional Path Loss [dB]	0.7
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer

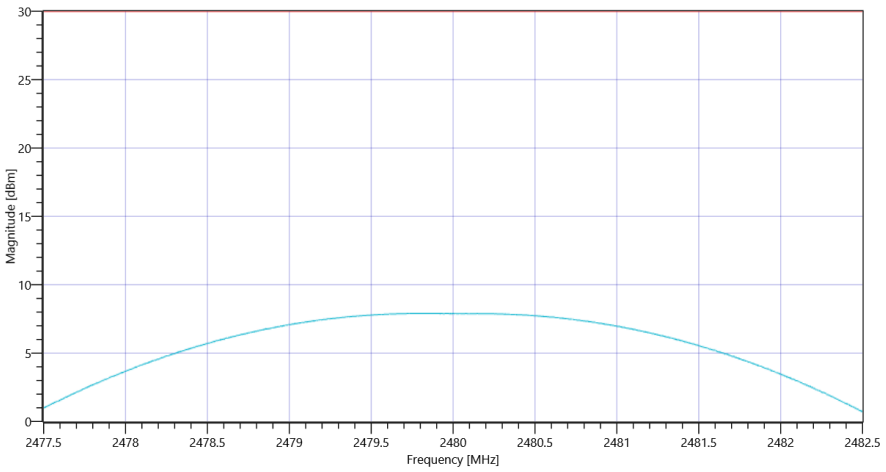
Test Equipment
Signal analyzer,Rohde&Schwarz,FSV-30,1321.3008K30/103809,3.70
Switch matrix,CTCadvanced,RSM-1 NI DAQ,29655273,NI

Test at TX 2480 MHz

RESULT: Reference Power cond.					
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	7.98	dBm	INFO
Ref. Frequency	---	---	2479.800	MHz	INFO

READ SA SETTINGS:	
RefLevel [dBm] | RefLevelOffset [dB] | InpAtt [dB]	17.98 | 10.85 | 25
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

RESULT					
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Peak Power	---	30.00	7.9	dBm	PASS
Peak Power	---	1000	6.16595	mW	PASS
Frequency at Peak	---	---	2479.85	MHz	INFO



FCC Part 15.247 Maximum Peak Conducted Output Power FHSS ~ BT Classic Basic rate

General verdict	PASS

FCC Part 15.247 Number Of Hopping Channels FHSS ~ BT Classic Basic rate

Test References	
TC Start	23.05.2022 14:00:22
Ambit Temp [°C] | Humidity [rel%]	26.3 | 50
System Version	3.0.6.3
Test Specification	FCC Part 15.247
Test Method	
TC Version	0.0.1
My Description	FCC 15.247 Number Of Hopping Channels FHSS - BT Classic Basic Rate
Add. Information	

EUT Common Settings BT Classic	
Intermodulation Value N	3
Image Freq. Low | Mid | High [MHz]	0 | 0 | 0
Power Class	1
Power Control	Enhanced
Longest Supported Packet Type	DH5
RF Supported	Basic Rate True | EDR Pi/4DQPSK False | EDR 8DPSK False
Testmode	None
Perform Inquiry	No
EUT BT Address (if Inqiury No)	BABEBEDADBAD
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
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer

Test Equipment
Signal analyzer,Rohde&Schwarz,FSV-30,1321.3008K30/103809,3.70
Switch matrix,CTCadvanced,RSM-1 NI DAQ,29655273,NI

Test at TX hopping MHz

RESULT: Reference Power cond.					
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	8.24	dBm	INFO
Ref. Frequency	---	---	2463.880	MHz	INFO

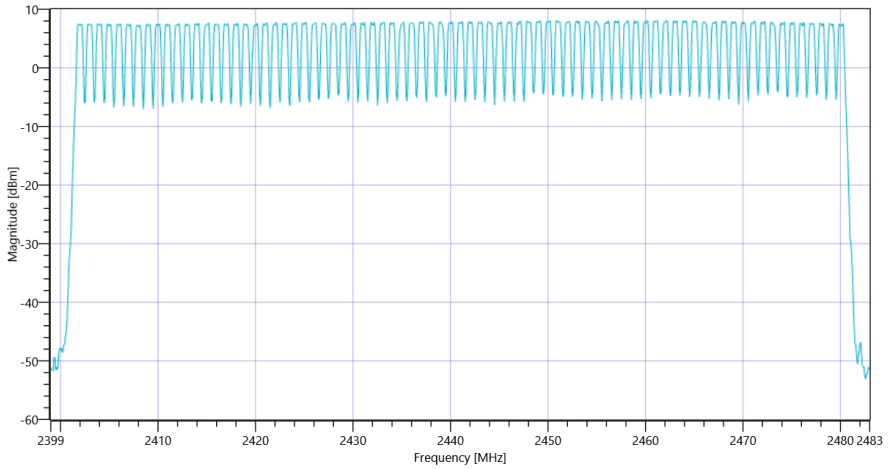
READ SA SETTINGS:	
RefLevel [dBm] | RefLevelOffset [dB] | InpAtt [dB]	13.24 | 10.8 | 20
Start [MHz] | Stop [MHz]	2399.000 | 2483.000
RBW [MHz] | VBW [MHz]	0.200000 | 0.500000
Detector | TraceMode	POS | MAXH
Sweep: Time [ms] | Count | Points per Section | Type	1 | 10000 | 1001 | SWE

RESULT					
Test 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
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

RESULT					
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
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
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

RESULT					
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
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
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

RESULT					
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Hopp channel (rounded)	---	---	2477	MHz	INFO
Hopp channel (rounded)	---	---	2478	MHz	INFO
Hopp channel (rounded)	---	---	2479	MHz	INFO
Hopp channel (rounded)	---	---	2480	MHz	INFO
Σ Hopping channels	15	---	79	Number	PASS



FCC Part 15.247 Number Of Hopping Channels FHSS ~ BT Classic Basic rate

General verdict	PASS

FCC Part 15.247 TX Spurious Conducted 20dBc ~ BT Classic Basic rate

Test References	
TC Start	23.05.2022 11:47:33
Ambit Temp [°C] | Humidity [rel%]	25.7 | 50
System Version	3.0.6.3
Test Specification	FCC Part 15.247
Test Method	IF DTS then 8.5 DTS emissions in non-restricted frequency bands: Subclause 11.11 of ANSI C63.10 is applicable.
TC Version	0.0.1
My Description	FCC 15.247 TX Emissions Conducted FHSS - BT Classic Basic Rate
Add. Information	

EUT Common Settings BT Classic	
Intermodulation Value N	3
Image Freq. Low | Mid | High [MHz]	0 | 0 | 0
Power Class	1
Power Control	Enhanced
Longest Supported Packet Type	DH5
RF Supported	Basic Rate True | EDR Pi/4DQPSK False | EDR 8DPSK False
Testmode	None
Perform Inquiry	No
EUT BT Address (if Inqiury No)	BABEBEDADBAD
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	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
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer

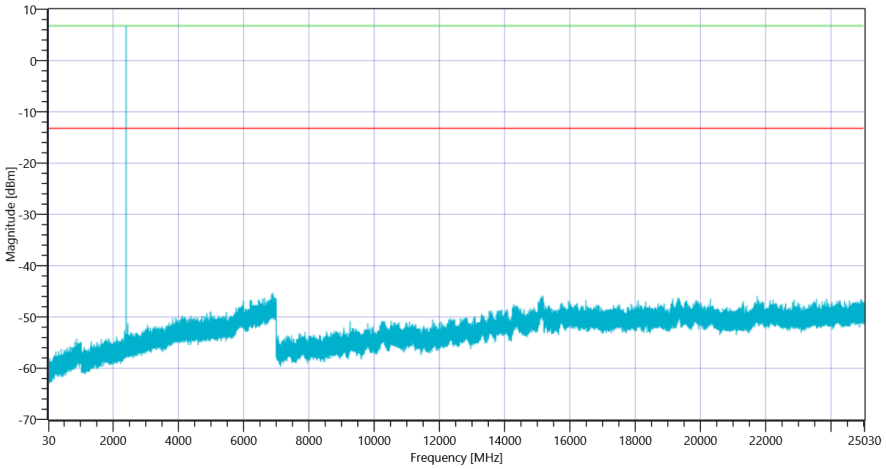
Test Equipment
Signal analyzer,Rohde&Schwarz,FSV-30,1321.3008K30/103809,3.70
Switch matrix,CTCadvanced,RSM-1 NI DAQ,29655273,NI

Test at TX 2402 MHz

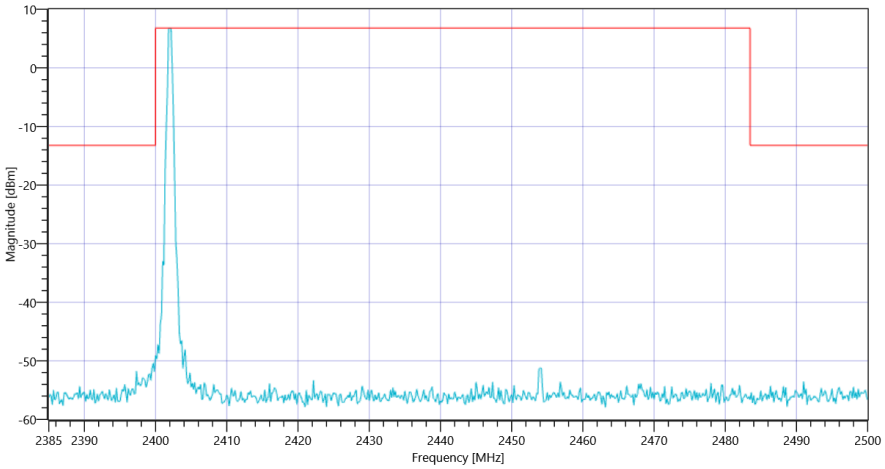
RESULT: Reference Power cond.					
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	7.82	dBm	INFO
Ref. Frequency	---	---	2401.800	MHz	INFO

READ SA SETTINGS:	
RefLevel [dBm] | RefLevelOffset [dB] | InpAtt [dB]	7.82 | 0 | 25
Start [MHz] | Stop [MHz]	24530.000 | 25030.000
RBW [MHz] | VBW [MHz]	0.100000 | 0.300000
Detector | TraceMode	POS | MAXH
Sweep: Time [ms] | Count | Points per Section | Type	200 | 25 | 3001 | SWE

RESULT					
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Reference @ 2401.83 MHz	---	---	6.78	dBm	INFO
No peaks detected	---	---			PASS
Lowest margin to limit 6892.5 MHz	0	---	32.07	dB	INFO



FCC Part 15.247 TX Spurious Conducted 20dBc ~ BT Classic Basic rate 2402



FCC Part 15.247 TX Spurious Conducted 20dBc ~ BT Classic Basic rate 2402

General verdict	PASS

FCC Part 15.247 TX Spurious Conducted 20dBc ~ BT Classic Basic rate

Test References	
TC Start	23.05.2022 11:58:07
Ambit Temp [°C] | Humidity [rel%]	25.8 | 49
System Version	3.0.6.3
Test Specification	FCC Part 15.247
Test Method	IF DTS then 8.5 DTS emissions in non-restricted frequency bands: Subclause 11.11 of ANSI C63.10 is applicable.
TC Version	0.0.1
My Description	FCC 15.247 TX Emissions Conducted FHSS - BT Classic Basic Rate
Add. Information	

EUT Common Settings BT Classic	
Intermodulation Value N	3
Image Freq. Low | Mid | High [MHz]	0 | 0 | 0
Power Class	1
Power Control	Enhanced
Longest Supported Packet Type	DH5
RF Supported	Basic Rate True | EDR Pi/4DQPSK False | EDR 8DPSK False
Testmode	None
Perform Inquiry	No
EUT BT Address (if Inqiury No)	BABEBEDADBAD
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	True | 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
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer

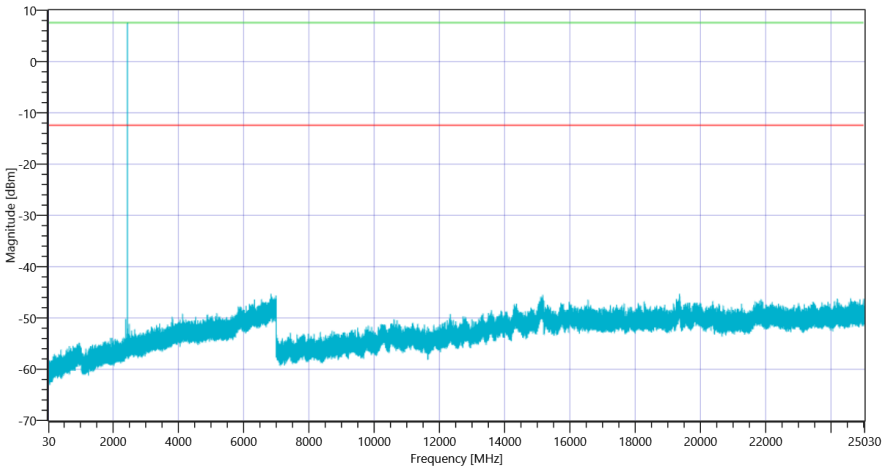
Test Equipment
Signal analyzer,Rohde&Schwarz,FSV-30,1321.3008K30/103809,3.70
Switch matrix,CTCadvanced,RSM-1 NI DAQ,29655273,NI

Test at TX 2441 MHz

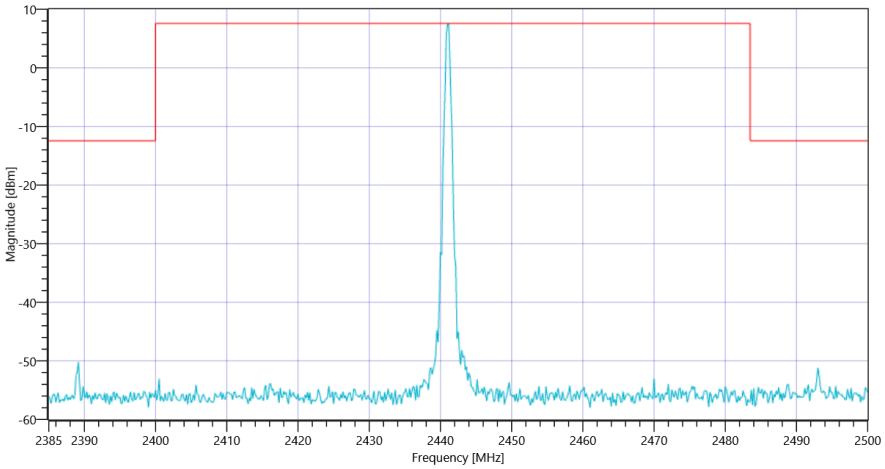
RESULT: Reference Power cond.					
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	8.24	dBm	INFO
Ref. Frequency	---	---	2440.800	MHz	INFO

READ SA SETTINGS:	
RefLevel [dBm] | RefLevelOffset [dB] | InpAtt [dB]	8.24 | 0 | 25
Start [MHz] | Stop [MHz]	24530.000 | 25030.000
RBW [MHz] | VBW [MHz]	0.100000 | 0.300000
Detector | TraceMode	POS | MAXH
Sweep: Time [ms] | Count | Points per Section | Type	200 | 25 | 3001 | SWE

RESULT					
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Reference @ 2441.17 MHz	---	---	7.56	dBm	INFO
No peaks detected	---	---			PASS
Lowest margin to limit 19358.667 MHz	0	---	32.86	dB	INFO



FCC Part 15.247 TX Spurious Conducted 20dBc ~ BT Classic Basic rate 2441



FCC Part 15.247 TX Spurious Conducted 20dBc ~ BT Classic Basic rate 2441

General verdict	PASS

FCC Part 15.247 TX Spurious Conducted 20dBc ~ BT Classic Basic rate

Test References	
TC Start	23.05.2022 12:44:33
Ambit Temp [°C] | Humidity [rel%]	26.2 | 49
System Version	3.0.6.3
Test Specification	FCC Part 15.247
Test Method	IF DTS then 8.5 DTS emissions in non-restricted frequency bands: Subclause 11.11 of ANSI C63.10 is applicable.
TC Version	0.0.1
My Description	FCC 15.247 TX Emissions Conducted FHSS - BT Classic Basic Rate
Add. Information	

EUT Common Settings BT Classic	
Intermodulation Value N	3
Image Freq. Low | Mid | High [MHz]	0 | 0 | 0
Power Class	1
Power Control	Enhanced
Longest Supported Packet Type	DH5
RF Supported	Basic Rate True | EDR Pi/4DQPSK False | EDR 8DPSK False
Testmode	None
Perform Inquiry	No
EUT BT Address (if Inqiury No)	BABEBEDADBAD
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	True | Freq [MHz] 2480
Auto Control enabled Power Supply | Climatic Box	No | No
Additional Path Loss [dB]	0.7
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer

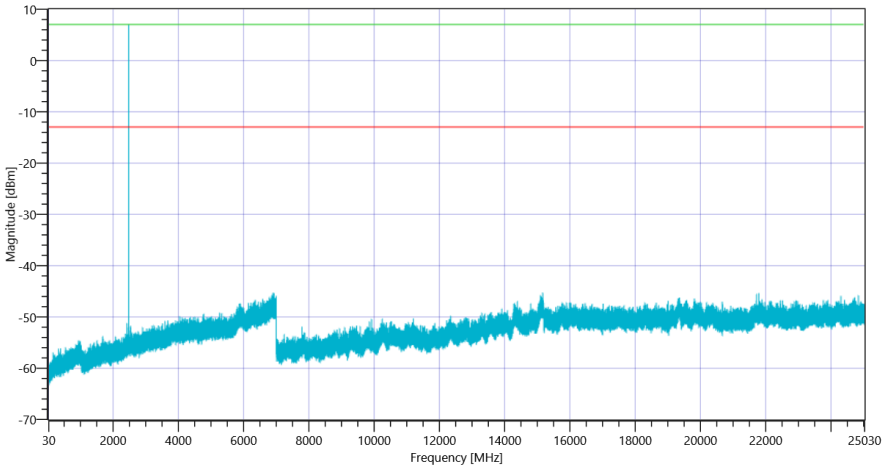
Test Equipment
Signal analyzer,Rohde&Schwarz,FSV-30,1321.3008K30/103809,3.70
Switch matrix,CTCadvanced,RSM-1 NI DAQ,29655273,NI

Test at TX 2480 MHz

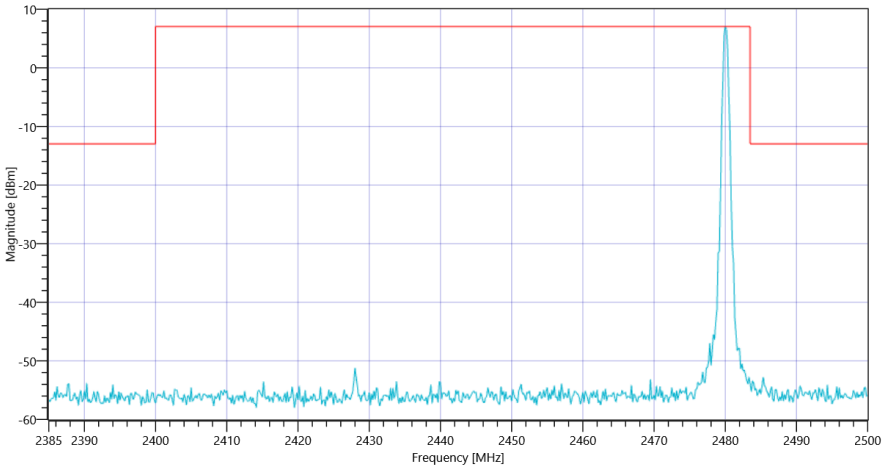
RESULT: Reference Power cond.					
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	8.01	dBm	INFO
Ref. Frequency	---	---	2479.800	MHz	INFO

READ SA SETTINGS:	
RefLevel [dBm] | RefLevelOffset [dB] | InpAtt [dB]	8.01 | 0 | 25
Start [MHz] | Stop [MHz]	24530.000 | 25030.000
RBW [MHz] | VBW [MHz]	0.100000 | 0.300000
Detector | TraceMode	POS | MAXH
Sweep: Time [ms] | Count | Points per Section | Type	200 | 25 | 3001 | SWE

RESULT					
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Reference @ 2480.00 MHz	---	---	7.03	dBm	INFO
No peaks detected	---	---			PASS
Lowest margin to limit 15166 MHz	0	---	32.3	dB	INFO



FCC Part 15.247 TX Spurious Conducted 20dBc ~ BT Classic Basic rate 2480



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General verdict	PASS

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