

Conducted test results

No.23-1-0068401T003a-A6

July 14, 2023

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

This document is electronically signed and valid without handwritten signature.
Public keys for verification of the electronic signatures can be requested at the testing laboratory.

Authorized

David Lang
Lab Manager
Radio Labs

Table of Content

# Message with SA scan ~	7
FCC 15.247 # Bandwidth 6dB DTS ~ WLAN2G4 ax-HE20	8
FCC 15.247 # Avg psd DTS ~ WLAN2G4 ax-HE20	10
FCC 15.247, ISSED RSS247 # Bandwidth 99PCT and 20dB ~ WLAN2G4 ax-HE20	13
FCC 15.247 # TX spurious conducted 30dBc ~ WLAN2G4 ax-HE20	17
FCC 15.247 # Avg output power SA DTS ~ WLAN2G4 ax-HE20	20
FCC 15.247 # Bandwidth 6dB DTS ~ WLAN2G4 ax-HE20	23
FCC 15.247 # Avg psd DTS ~ WLAN2G4 ax-HE20	25
FCC 15.247, ISSED RSS247 # Bandwidth 99PCT and 20dB ~ WLAN2G4 ax-HE20	28
FCC 15.247 # TX spurious conducted 30dBc ~ WLAN2G4 ax-HE20	32
FCC 15.247 # Avg output power SA DTS ~ WLAN2G4 ax-HE20	35
# Message with SA scan ~	38
FCC 15.247 # Bandwidth 6dB DTS ~ WLAN2G4 ax-HE20	39
FCC 15.247 # Avg psd DTS ~ WLAN2G4 ax-HE20	41
FCC 15.247, ISSED RSS247 # Bandwidth 99PCT and 20dB ~ WLAN2G4 ax-HE20	44
FCC 15.247 # TX spurious conducted 30dBc ~ WLAN2G4 ax-HE20	48
FCC 15.247 # Avg output power SA DTS ~ WLAN2G4 ax-HE20	51
FCC 15.247 # Bandwidth 6dB DTS ~ WLAN2G4 ax-HE20	54
FCC 15.247 # Avg psd DTS ~ WLAN2G4 ax-HE20	56
FCC 15.247, ISSED RSS247 # Bandwidth 99PCT and 20dB ~ WLAN2G4 ax-HE20	59
FCC 15.247 # TX spurious conducted 30dBc ~ WLAN2G4 ax-HE20	63
FCC 15.247 # Avg output power SA DTS ~ WLAN2G4 ax-HE20	66
# Message with SA scan ~	69
FCC 15.247 # Bandwidth 6dB DTS ~ WLAN2G4 ax-HE20	70
FCC 15.247 # Avg psd DTS ~ WLAN2G4 ax-HE20	72
FCC 15.247, ISSED RSS247 # Bandwidth 99PCT and 20dB ~ WLAN2G4 ax-HE20	75
FCC 15.247 # TX spurious conducted 30dBc ~ WLAN2G4 ax-HE20	79
FCC 15.247 # Avg output power SA DTS ~ WLAN2G4 ax-HE20	82
# Message with SA scan ~	85
FCC 15.247 # Bandwidth 6dB DTS ~ WLAN2G4 ax-HE20	86
FCC 15.247 # Avg psd DTS ~ WLAN2G4 ax-HE20	88
FCC 15.247, ISSED RSS247 # Bandwidth 99PCT and 20dB ~ WLAN2G4 ax-HE20	91
FCC 15.247 # TX spurious conducted 30dBc ~ WLAN2G4 ax-HE20	95
FCC 15.247 # Avg output power SA DTS ~ WLAN2G4 ax-HE20	98
FCC 15.247 # MIMO Σ Avg output power SA DTS ~ WLAN2G4 ax-HE20 2400-2483.5 MHz	101
FCC 15.247 # MIMO Σ Avg psd DTS ~ WLAN2G4 ax-HE20 2400-2483.5 MHz	103
FCC 15.247 # MIMO Σ Avg output power SA DTS ~ WLAN2G4 ax-HE20 2400-2483.5 MHz	105
FCC 15.247 # MIMO Σ Avg psd DTS ~ WLAN2G4 ax-HE20 2400-2483.5 MHz	107
FCC 15.247 # MIMO Σ Avg output power SA DTS ~ WLAN2G4 ax-HE20 2400-2483.5 MHz	109
FCC 15.247 # MIMO Σ Avg psd DTS ~ WLAN2G4 ax-HE20 2400-2483.5 MHz	111
# Message with SA scan ~	113

FCC 15.247 # Bandwidth 6dB DTS ~ WLAN2G4 b mode	114
FCC 15.247 # Avg psd DTS ~ WLAN2G4 b mode	116
FCC 15.247, ISED RSS247 # Bandwidth 99PCT and 20dB ~ WLAN2G4 b mode	119
FCC 15.247 # TX spurious conducted 30dBc ~ WLAN2G4 b mode	123
FCC 15.247 # Avg output power SA DTS ~ WLAN2G4 b mode	126
FCC 15.247 # Bandwidth 6dB DTS ~ WLAN2G4 b mode	129
FCC 15.247 # Avg psd DTS ~ WLAN2G4 b mode	131
FCC 15.247, ISED RSS247 # Bandwidth 99PCT and 20dB ~ WLAN2G4 b mode	134
FCC 15.247 # TX spurious conducted 30dBc ~ WLAN2G4 b mode	138
FCC 15.247 # Avg output power SA DTS ~ WLAN2G4 b mode	141
# Message with SA scan ~	144
FCC 15.247 # Bandwidth 6dB DTS ~ WLAN2G4 b mode	145
FCC 15.247 # Avg psd DTS ~ WLAN2G4 b mode	147
FCC 15.247, ISED RSS247 # Bandwidth 99PCT and 20dB ~ WLAN2G4 b mode	150
FCC 15.247 # TX spurious conducted 30dBc ~ WLAN2G4 b mode	154
FCC 15.247 # Avg output power SA DTS ~ WLAN2G4 b mode	157
FCC 15.247 # Bandwidth 6dB DTS ~ WLAN2G4 b mode	160
FCC 15.247 # Avg psd DTS ~ WLAN2G4 b mode	162
FCC 15.247, ISED RSS247 # Bandwidth 99PCT and 20dB ~ WLAN2G4 b mode	165
FCC 15.247 # TX spurious conducted 30dBc ~ WLAN2G4 b mode	169
FCC 15.247 # Avg output power SA DTS ~ WLAN2G4 b mode	172
# Message with SA scan ~	175
FCC 15.247 # Bandwidth 6dB DTS ~ WLAN2G4 b mode	176
FCC 15.247 # Avg psd DTS ~ WLAN2G4 b mode	178
FCC 15.247, ISED RSS247 # Bandwidth 99PCT and 20dB ~ WLAN2G4 b mode	181
FCC 15.247 # TX spurious conducted 30dBc ~ WLAN2G4 b mode	185
FCC 15.247 # Avg output power SA DTS ~ WLAN2G4 b mode	188
FCC 15.247 # Bandwidth 6dB DTS ~ WLAN2G4 b mode	191
FCC 15.247 # Avg psd DTS ~ WLAN2G4 b mode	193
FCC 15.247, ISED RSS247 # Bandwidth 99PCT and 20dB ~ WLAN2G4 b mode	196
FCC 15.247 # TX spurious conducted 30dBc ~ WLAN2G4 b mode	200
FCC 15.247 # Avg output power SA DTS ~ WLAN2G4 b mode	203
FCC 15.247 # MIMO Σ Avg output power SA DTS ~ WLAN2G4 b mode 2400-2483.5 MHz	206
FCC 15.247 # MIMO Σ Avg psd DTS ~ WLAN2G4 b mode 2400-2483.5 MHz	208
FCC 15.247 # MIMO Σ Avg output power SA DTS ~ WLAN2G4 b mode 2400-2483.5 MHz	210
FCC 15.247 # MIMO Σ Avg psd DTS ~ WLAN2G4 b mode 2400-2483.5 MHz	212
FCC 15.247 # MIMO Σ Avg output power SA DTS ~ WLAN2G4 b mode 2400-2483.5 MHz	214
FCC 15.247 # MIMO Σ Avg psd DTS ~ WLAN2G4 b mode 2400-2483.5 MHz	216
# Message with SA scan ~	218
FCC 15.247 # Bandwidth 6dB DTS ~ WLAN2G4 n-HT20 mode	219
FCC 15.247 # Avg psd DTS ~ WLAN2G4 n-HT20 mode	221
FCC 15.247, ISED RSS247 # Bandwidth 99PCT and 20dB ~ WLAN2G4 n-HT20 mode	224
FCC 15.247 # TX spurious conducted 30dBc ~ WLAN2G4 n-HT20 mode	228
FCC 15.247 # Avg output power SA DTS ~ WLAN2G4 n-HT20 mode	231

FCC 15.247 # Bandwidth 6dB DTS ~ WLAN2G4 n-HT20 mode	234
FCC 15.247 # Avg psd DTS ~ WLAN2G4 n-HT20 mode	236
FCC 15.247, ISED RSS247 # Bandwidth 99PCT and 20dB ~ WLAN2G4 n-HT20 mode	239
FCC 15.247 # TX spurious conducted 30dBc ~ WLAN2G4 n-HT20 mode	243
FCC 15.247 # Avg output power SA DTS ~ WLAN2G4 n-HT20 mode	246
# Message with SA scan ~	249
FCC 15.247 # Bandwidth 6dB DTS ~ WLAN2G4 n-HT20 mode	250
FCC 15.247 # Avg psd DTS ~ WLAN2G4 n-HT20 mode	252
FCC 15.247, ISED RSS247 # Bandwidth 99PCT and 20dB ~ WLAN2G4 n-HT20 mode	255
FCC 15.247 # TX spurious conducted 30dBc ~ WLAN2G4 n-HT20 mode	259
FCC 15.247 # Avg output power SA DTS ~ WLAN2G4 n-HT20 mode	262
FCC 15.247 # Bandwidth 6dB DTS ~ WLAN2G4 n-HT20 mode	265
FCC 15.247 # Avg psd DTS ~ WLAN2G4 n-HT20 mode	267
FCC 15.247, ISED RSS247 # Bandwidth 99PCT and 20dB ~ WLAN2G4 n-HT20 mode	270
FCC 15.247 # TX spurious conducted 30dBc ~ WLAN2G4 n-HT20 mode	274
FCC 15.247 # Avg output power SA DTS ~ WLAN2G4 n-HT20 mode	277
# Message with SA scan ~	280
FCC 15.247 # Bandwidth 6dB DTS ~ WLAN2G4 n-HT20 mode	281
FCC 15.247 # Avg psd DTS ~ WLAN2G4 n-HT20 mode	283
FCC 15.247, ISED RSS247 # Bandwidth 99PCT and 20dB ~ WLAN2G4 n-HT20 mode	286
FCC 15.247 # TX spurious conducted 30dBc ~ WLAN2G4 n-HT20 mode	290
FCC 15.247 # Avg output power SA DTS ~ WLAN2G4 n-HT20 mode	293
FCC 15.247 # Bandwidth 6dB DTS ~ WLAN2G4 n-HT20 mode	296
FCC 15.247 # Avg psd DTS ~ WLAN2G4 n-HT20 mode	298
FCC 15.247, ISED RSS247 # Bandwidth 99PCT and 20dB ~ WLAN2G4 n-HT20 mode	301
FCC 15.247 # TX spurious conducted 30dBc ~ WLAN2G4 n-HT20 mode	305
FCC 15.247 # Avg output power SA DTS ~ WLAN2G4 n-HT20 mode	308
FCC 15.247 # MIMO Σ Avg output power SA DTS ~ WLAN2G4 n-HT20 mode 2400-2483.5 MHz	311
FCC 15.247 # MIMO Σ Avg psd DTS ~ WLAN2G4 n-HT20 mode 2400-2483.5 MHz	313
FCC 15.247 # MIMO Σ Avg output power SA DTS ~ WLAN2G4 n-HT20 mode 2400-2483.5 MHz	315
FCC 15.247 # MIMO Σ Avg psd DTS ~ WLAN2G4 n-HT20 mode 2400-2483.5 MHz	317
FCC 15.247 # MIMO Σ Avg output power SA DTS ~ WLAN2G4 n-HT20 mode 2400-2483.5 MHz	319
FCC 15.247 # MIMO Σ Avg psd DTS ~ WLAN2G4 n-HT20 mode 2400-2483.5 MHz	321
# Message with SA scan ~	323
FCC 15.247 # Bandwidth 6dB DTS ~ WLAN2G4 g mode	324
FCC 15.247 # Avg psd DTS ~ WLAN2G4 g mode	326
FCC 15.247, ISED RSS247 # Bandwidth 99PCT and 20dB ~ WLAN2G4 g mode	329
FCC 15.247 # TX spurious conducted 30dBc ~ WLAN2G4 g mode	333
FCC 15.247 # Avg output power SA DTS ~ WLAN2G4 g mode	336
FCC 15.247 # Bandwidth 6dB DTS ~ WLAN2G4 g mode	339
FCC 15.247 # Avg psd DTS ~ WLAN2G4 g mode	341
FCC 15.247, ISED RSS247 # Bandwidth 99PCT and 20dB ~ WLAN2G4 g mode	344
FCC 15.247 # TX spurious conducted 30dBc ~ WLAN2G4 g mode	348
FCC 15.247 # Avg output power SA DTS ~ WLAN2G4 g mode	351

# Message with SA scan ~	354
FCC 15.247 # Bandwidth 6dB DTS ~ WLAN2G4 g mode	355
FCC 15.247 # Avg psd DTS ~ WLAN2G4 g mode	357
FCC 15.247, ISSED RSS247 # Bandwidth 99PCT and 20dB ~ WLAN2G4 g mode	360
FCC 15.247 # TX spurious conducted 30dBc ~ WLAN2G4 g mode	364
FCC 15.247 # Avg output power SA DTS ~ WLAN2G4 g mode	367
FCC 15.247 # Bandwidth 6dB DTS ~ WLAN2G4 g mode	370
FCC 15.247 # Avg psd DTS ~ WLAN2G4 g mode	372
FCC 15.247, ISSED RSS247 # Bandwidth 99PCT and 20dB ~ WLAN2G4 g mode	375
FCC 15.247 # TX spurious conducted 30dBc ~ WLAN2G4 g mode	379
FCC 15.247 # Avg output power SA DTS ~ WLAN2G4 g mode	382
# Message with SA scan ~	385
FCC 15.247 # Bandwidth 6dB DTS ~ WLAN2G4 g mode	386
FCC 15.247 # Avg psd DTS ~ WLAN2G4 g mode	388
FCC 15.247, ISSED RSS247 # Bandwidth 99PCT and 20dB ~ WLAN2G4 g mode	391
FCC 15.247 # TX spurious conducted 30dBc ~ WLAN2G4 g mode	395
FCC 15.247 # Avg output power SA DTS ~ WLAN2G4 g mode	398
FCC 15.247 # Bandwidth 6dB DTS ~ WLAN2G4 g mode	401
FCC 15.247 # Avg psd DTS ~ WLAN2G4 g mode	403
FCC 15.247, ISSED RSS247 # Bandwidth 99PCT and 20dB ~ WLAN2G4 g mode	406
FCC 15.247 # TX spurious conducted 30dBc ~ WLAN2G4 g mode	410
FCC 15.247 # Avg output power SA DTS ~ WLAN2G4 g mode	413
FCC 15.247 # MIMO Σ Avg output power SA DTS ~ WLAN2G4 g mode 2400-2483.5 MHz	416
FCC 15.247 # MIMO Σ Avg psd DTS ~ WLAN2G4 g mode 2400-2483.5 MHz	418
FCC 15.247 # MIMO Σ Avg output power SA DTS ~ WLAN2G4 g mode 2400-2483.5 MHz	420
FCC 15.247 # MIMO Σ Avg psd DTS ~ WLAN2G4 g mode 2400-2483.5 MHz	422
FCC 15.247 # MIMO Σ Avg output power SA DTS ~ WLAN2G4 g mode 2400-2483.5 MHz	424
FCC 15.247 # MIMO Σ Avg psd DTS ~ WLAN2G4 g mode 2400-2483.5 MHz	426
# Message with SA scan ~	428
FCC 15.247 # Bandwidth 6dB DTS ~ WLAN2G4 n-HT20 mode	429
FCC 15.247 # Avg psd DTS ~ WLAN2G4 n-HT20 mode	431
FCC 15.247, ISSED RSS247 # Bandwidth 99PCT and 20dB ~ WLAN2G4 n-HT20 mode	434
FCC 15.247 # TX spurious conducted 30dBc ~ WLAN2G4 n-HT20 mode	438
FCC 15.247 # Avg output power SA DTS ~ WLAN2G4 n-HT20 mode	441
FCC 15.247 # Bandwidth 6dB DTS ~ WLAN2G4 n-HT20 mode	444
FCC 15.247 # Avg psd DTS ~ WLAN2G4 n-HT20 mode	446
FCC 15.247, ISSED RSS247 # Bandwidth 99PCT and 20dB ~ WLAN2G4 n-HT20 mode	449
FCC 15.247 # TX spurious conducted 30dBc ~ WLAN2G4 n-HT20 mode	453
FCC 15.247 # Avg output power SA DTS ~ WLAN2G4 n-HT20 mode	456
# Message with SA scan ~	459
FCC 15.247 # Bandwidth 6dB DTS ~ WLAN2G4 n-HT20 mode	460
FCC 15.247 # Avg psd DTS ~ WLAN2G4 n-HT20 mode	462
FCC 15.247, ISSED RSS247 # Bandwidth 99PCT and 20dB ~ WLAN2G4 n-HT20 mode	465
FCC 15.247 # TX spurious conducted 30dBc ~ WLAN2G4 n-HT20 mode	469

FCC 15.247 # Avg output power SA DTS ~ WLAN2G4 n-HT20 mode	472
FCC 15.247 # Bandwidth 6dB DTS ~ WLAN2G4 n-HT20 mode	475
FCC 15.247 # Avg psd DTS ~ WLAN2G4 n-HT20 mode	477
FCC 15.247, ISED RSS247 # Bandwidth 99PCT and 20dB ~ WLAN2G4 n-HT20 mode	480
FCC 15.247 # TX spurious conducted 30dBc ~ WLAN2G4 n-HT20 mode	484
FCC 15.247 # Avg output power SA DTS ~ WLAN2G4 n-HT20 mode	487
# Message with SA scan ~	490
FCC 15.247 # Bandwidth 6dB DTS ~ WLAN2G4 n-HT20 mode	491
FCC 15.247 # Avg psd DTS ~ WLAN2G4 n-HT20 mode	493
FCC 15.247, ISED RSS247 # Bandwidth 99PCT and 20dB ~ WLAN2G4 n-HT20 mode	496
FCC 15.247 # TX spurious conducted 30dBc ~ WLAN2G4 n-HT20 mode	500
FCC 15.247 # Avg output power SA DTS ~ WLAN2G4 n-HT20 mode	503
FCC 15.247 # Bandwidth 6dB DTS ~ WLAN2G4 n-HT20 mode	506
FCC 15.247 # Avg psd DTS ~ WLAN2G4 n-HT20 mode	508
FCC 15.247, ISED RSS247 # Bandwidth 99PCT and 20dB ~ WLAN2G4 n-HT20 mode	511
FCC 15.247 # TX spurious conducted 30dBc ~ WLAN2G4 n-HT20 mode	515
FCC 15.247 # Avg output power SA DTS ~ WLAN2G4 n-HT20 mode	518
FCC 15.247 # MIMO Σ Avg output power SA DTS ~ WLAN2G4 n-HT20 mode 2400-2483.5 MHz	521
FCC 15.247 # MIMO Σ Avg psd DTS ~ WLAN2G4 n-HT20 mode 2400-2483.5 MHz	523
FCC 15.247 # MIMO Σ Avg output power SA DTS ~ WLAN2G4 n-HT20 mode 2400-2483.5 MHz	525
FCC 15.247 # MIMO Σ Avg psd DTS ~ WLAN2G4 n-HT20 mode 2400-2483.5 MHz	527
FCC 15.247 # MIMO Σ Avg output power SA DTS ~ WLAN2G4 n-HT20 mode 2400-2483.5 MHz	529
FCC 15.247 # MIMO Σ Avg psd DTS ~ WLAN2G4 n-HT20 mode 2400-2483.5 MHz	531

Message with SA scan ~

Test References

TC Start	06.07.2023 15:51:58
Ambit Temp [°C] Humidity [rel%]	26.4 35
System Version	4.5.2.0
Test Specification	-
Test Method	
TC Version	0.0.1
My Description	Message with SA Scan ax-HE20
Add. Information	

Test Parameter

Switched Path	EUT - SignalingUnit - SpectrumAnalyzer
Message start	06.07.2023 15:51:58
Message	set WLAN2G4 to ax-HE20, Frequency [MHz] 2412 ,

Test Equipment

Signal analyzer,Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.70
Switch matrix,CTCadvanced,SPM-4 NI DAQ,28016133,NI

Verdict

INFO

FCC 15.247 # Bandwidth 6dB DTS ~ WLAN2G4 ax-HE20

Test References

TC Start	06.07.2023 15:52:07
Ambit Temp [°C] Humidity [rel%]	26.4 35
System Version	4.5.2.0
Test Specification	FCC 15.247 -
Test Method	
TC Version	0.0.1
My Description	FCC 15.247 Bandwidth 6dB DTS - WLAN2G4 ax-HE20
Add. Information	

EUT Common Settings WLAN2G4

Number of Antenna Ports	1
User Interaction	No

Test Parameter

Technology to test	WLAN2G4 ax-HE20
Antenna Port used	1
Temperature	nom
Voltage	nom
Frequency low to test	True Freq [MHz] 2412
Frequency mid to test	False Freq [MHz] 2437
Frequency high to test	False Freq [MHz] 2462
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-40,1307.9002K40/101042,3.70
Switch matrix,CTCadvanced,SPM-4 NI DAQ,28016133,NI

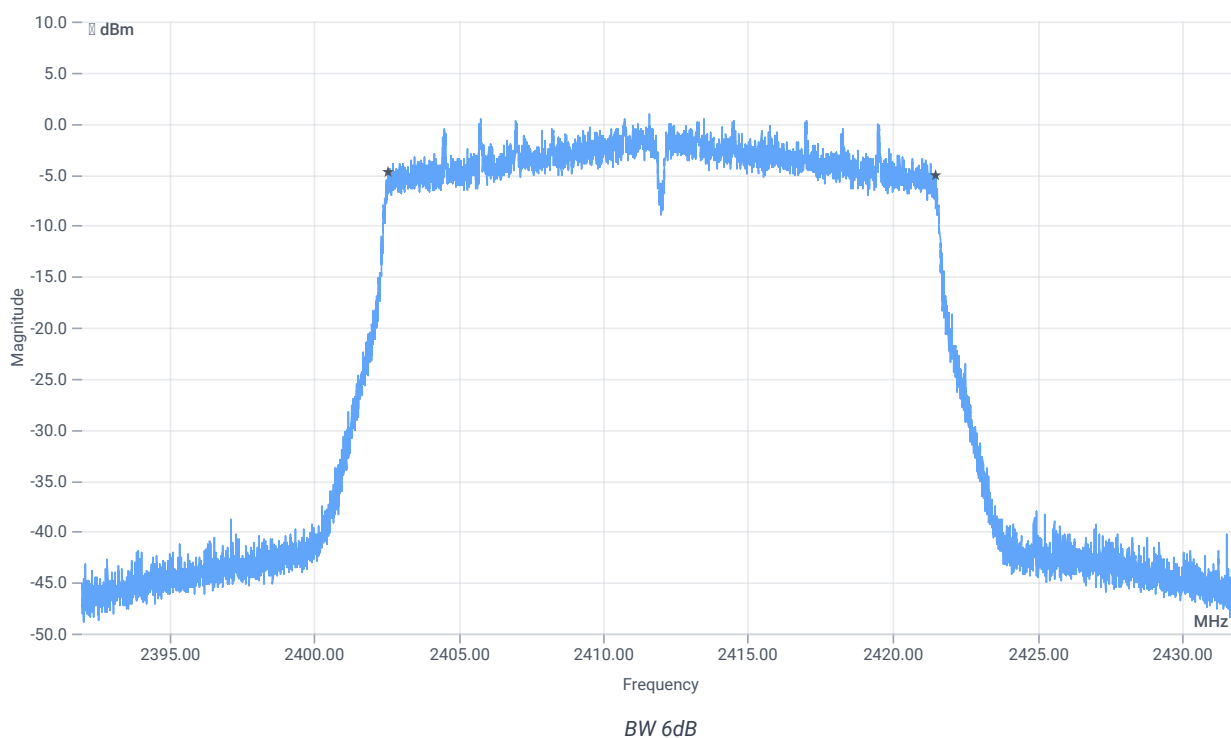
Test at TX 2412 MHz

RESULT: Reference Power cond.

TEST DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	10.63	dBm	INFO
Ref. Frequency	---	---	2417.190	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	15.63 14.43 20
Start [MHz] Stop [MHz]	2392.000 2432.000
RBW [MHz] VBW [MHz]	0.100000 0.300000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	50 200 10001 SWE



RESULT

TEST DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
DTS Bandwidth (6dB)	500	---	18888	kHz	PASS

Verdict

PASS

FCC 15.247 # Avg psd DTS ~ WLAN2G4 ax-HE20

Test References

TC Start	06.07.2023 15:52:41
Ambit Temp [°C] Humidity [rel%]	26.4 34
System Version	4.5.2.0
Test Specification	FCC 15.247 -
Test Method	ANSI C63.10-2013 Chapter 11.10.5 or.3
TC Version	0.0.1
My Description	FCC 15.247 Avg psd DTS - WLAN2G4 ax-HE20
Add. Information	

EUT Common Settings WLAN2G4

Number of Antenna Ports	1
User Interaction	No

Test Parameter

Technology to test	WLAN2G4 ax-HE20
Antenna Port used	1
Temperature	nom
Voltage	nom
Frequency low to test	True Freq [MHz] 2412
Frequency mid to test	False Freq [MHz] 2437
Frequency high to test	False Freq [MHz] 2462
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-40,1307.9002K40/101042,3.70
Switch matrix,CTCadvanced,SPM-4 NI DAQ,28016133,NI

Test at TX 2412 MHz

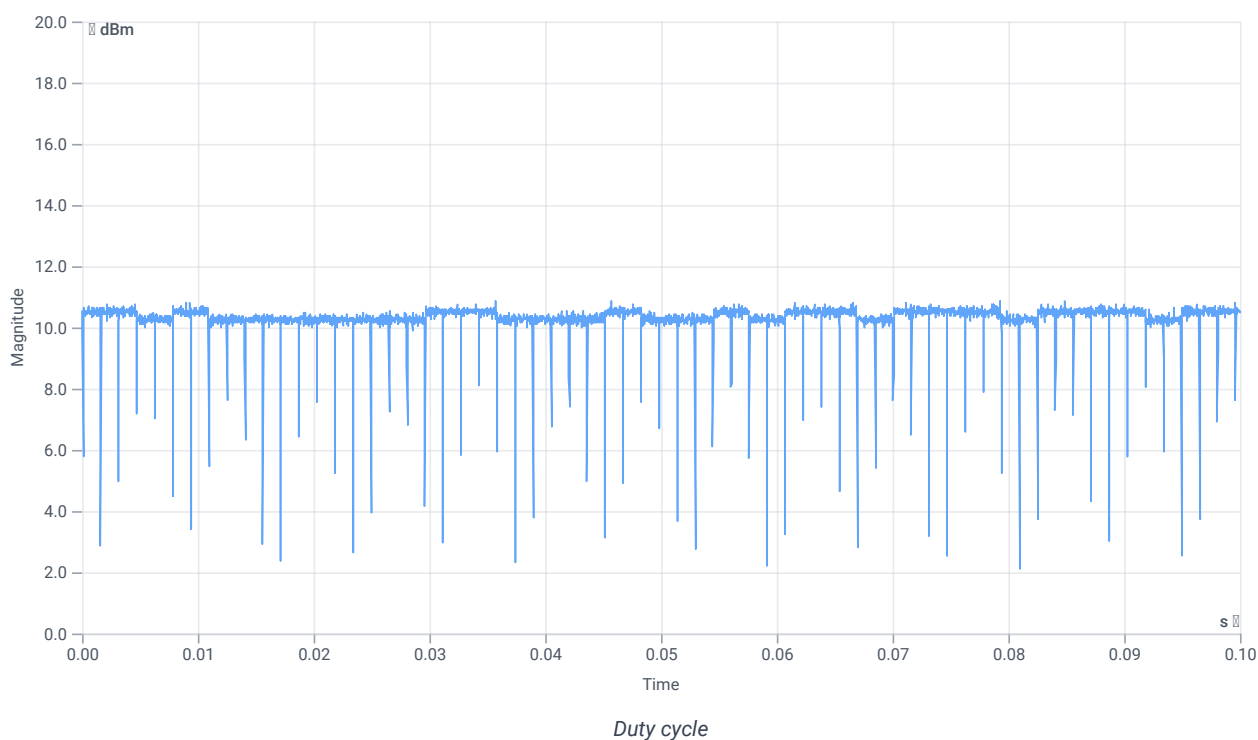
RESULT: Reference Power cond.

TEST DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	10.94	dBm	INFO
Ref. Frequency	---	---	2411.200	MHz	INFO

Evaluation max. Duty Cycle

Duty Cycle evaluation

TEST DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
No enough Bursts detected, Duty Cycle Burst Ratio set to 1					
Duty Cycle (Burst Ratio) max	---	---	1	---	INFO
Duty Cycle max	---	---	0	dB	INFO
Duty Cycle (Burst Ratio) min	---	---	1	---	INFO
Duty Cycle min	---	---	0	dB	INFO



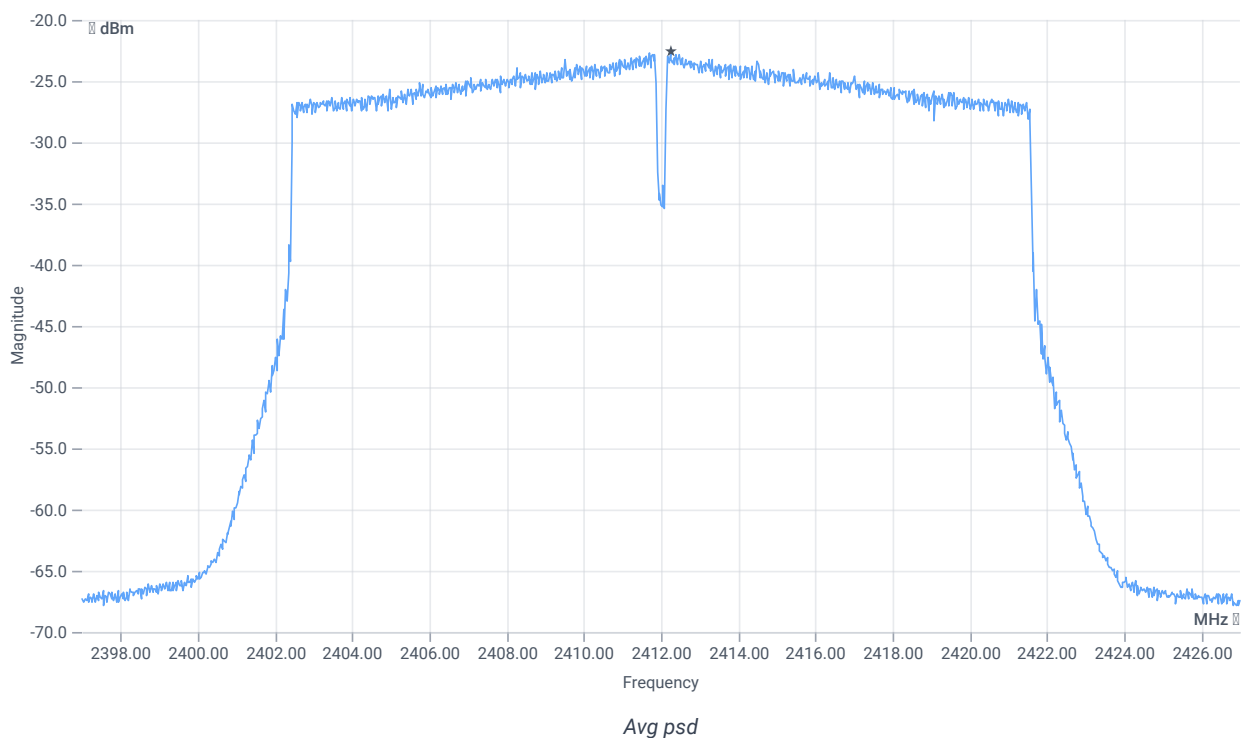
Avg. psd

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	15.94 14.43 20
Start [MHz] Stop [MHz]	2397.000 2427.000

READ SA SETTINGS:

RBW [MHz] VBW [MHz]	0.003000 0.010000
Detector TraceMode	RMS AVER
Sweep: Time [ms] Count Points per Section Type	334 100 1001 SWE



RESULT

TEST DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Avg psd uncorrected	---	---	-22.59	dBm	INFO
Duty cycle correction	---	---	0	dB	INFO
Avg psd DC corrected	---	8	-22.59	dBm/3kHz	PASS

Verdict

PASS

FCC 15.247, ISED RSS247 # Bandwidth 99PCT and 20dB ~ WLAN2G4 ax-HE20

Test References

TC Start	06.07.2023 15:53:44
Ambit Temp [°C] Humidity [rel%]	26.4 35
System Version	4.5.2.0
Test Specification	FCC 15.247, ISED RSS247 -
Test Method	
TC Version	0.0.2
My Description	FCC 15.247 Bandwidth 99PCT-20dB DTS - WLAN2G4 ax-HE20
Add. Information	

EUT Common Settings WLAN2G4

Number of Antenna Ports	1
User Interaction	No

Test Parameter

Technology to test	WLAN2G4 ax-HE20
Antenna Port used	1
Temperature	nom
Voltage	nom
Frequency low to test	True Freq [MHz] 2412
Frequency mid to test	False Freq [MHz] 2437
Frequency high to test	False Freq [MHz] 2462
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-40,1307.9002K40/101042,3.70
Switch matrix,CTCadvanced,SPM-4 NI DAQ,28016133,NI

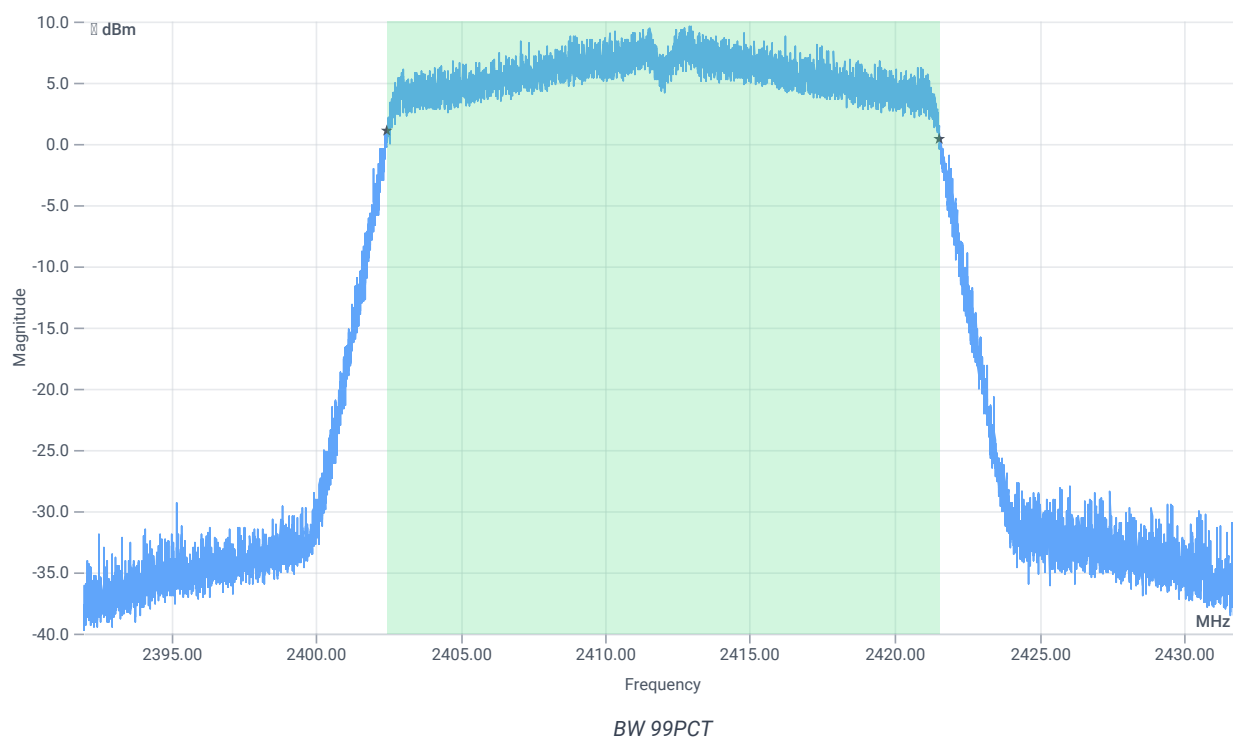
Test at TX 2412 MHz

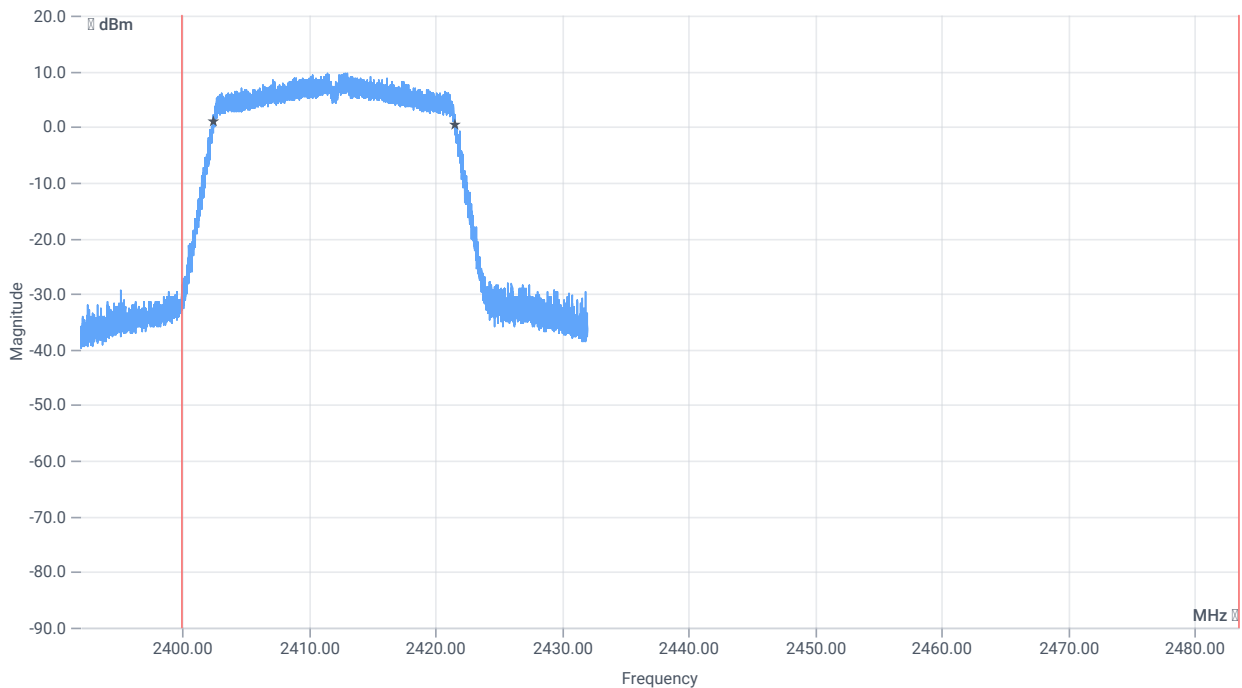
RESULT: Reference Power cond.

TEST DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	9.37	dBm	INFO
Ref. Frequency	---	---	2412.700	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	14.37 14.43 15
Start [MHz] Stop [MHz]	2392.000 2432.000
RBW [MHz] VBW [MHz]	0.500000 2.000000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	50 200 10001 SWE

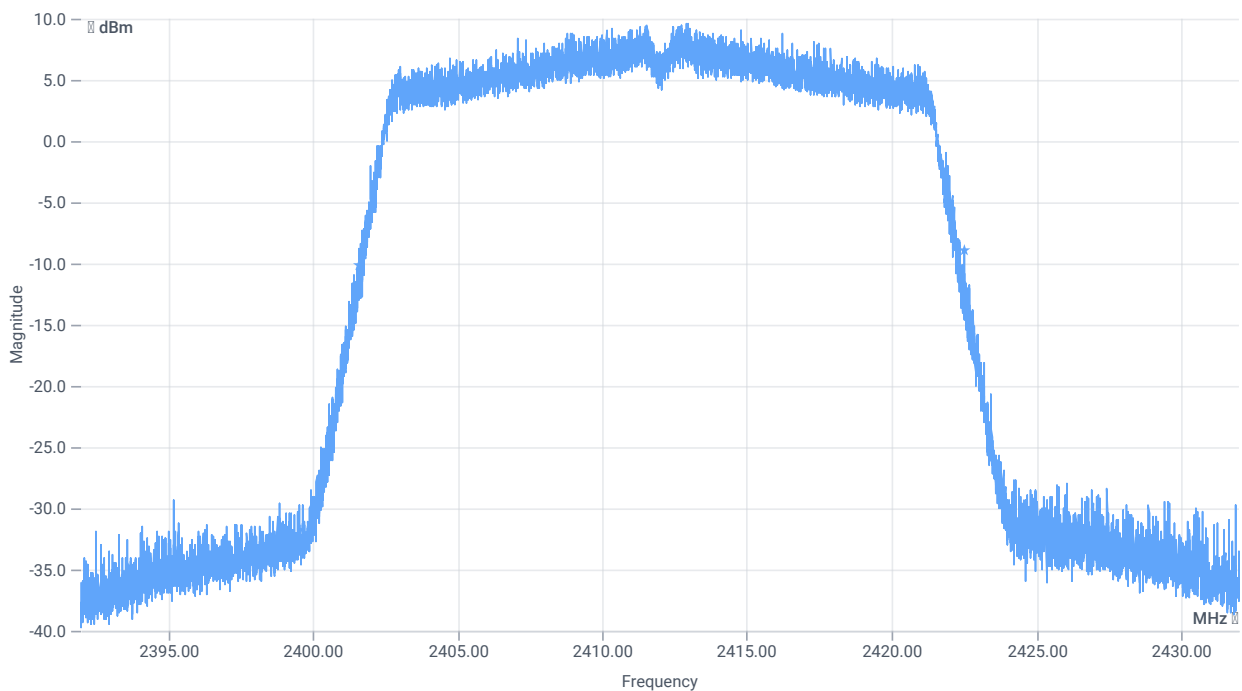




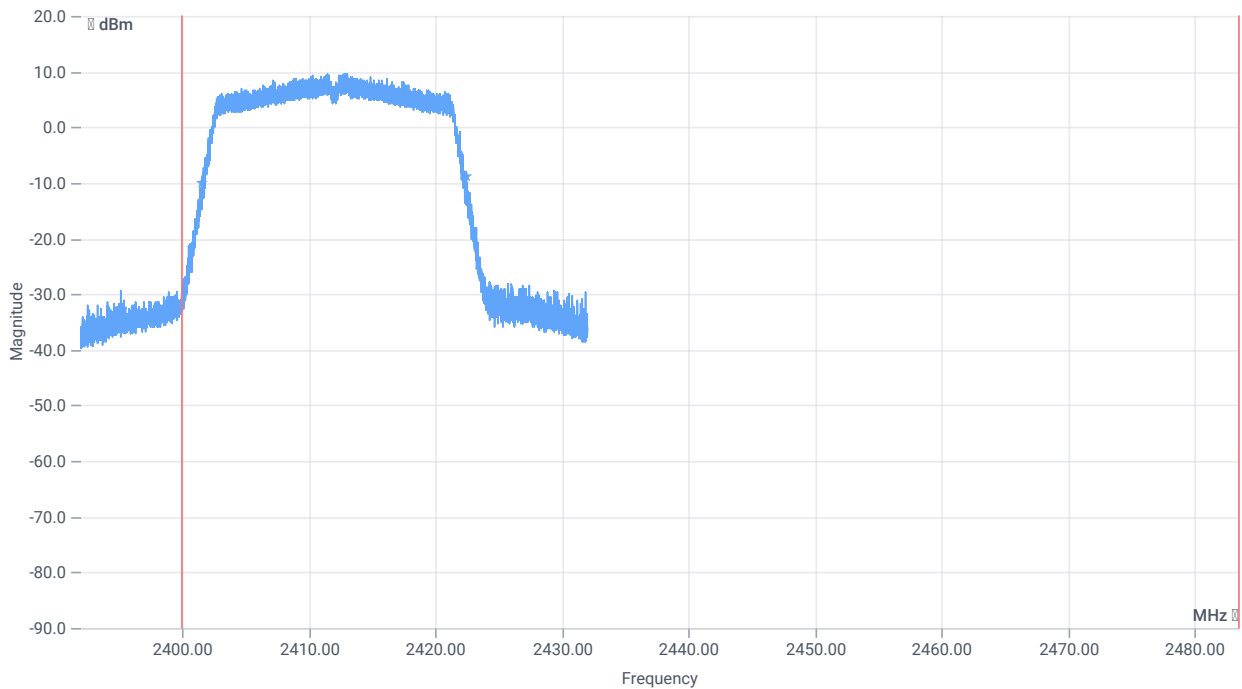
BW within Band 99PCT

RESULT

TEST DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 99%	---	---	19082.000	kHz	INFO
T1 99%	2400.000000	---	2402.4610	MHz	PASS
T2 99%	---	2483.500000	2421.5430	MHz	PASS



BW 20dB



BW within Band 20dB

RESULT

TEST DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 20dB	---	---	20932	kHz	INFO
T1 20dB	2400.000000	---	2401.5720	MHz	PASS
T2 20dB	---	2483.500000	2422.5040	MHz	PASS

Verdict

PASS

FCC 15.247 # TX spurious conducted 30dBc ~ WLAN2G4 ax-HE20

Test References

TC Start	06.07.2023 15:54:21
Ambit Temp [°C] Humidity [rel%]	26.4 34
System Version	4.5.2.0
Test Specification	FCC 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 30dBc DTS DTS - WLAN2G4 ax-HE20
Add. Information	

EUT Common Settings WLAN2G4

Number of Antenna Ports	1
User Interaction	No

Test Parameter

Technology to test	WLAN2G4 ax-HE20
Antenna Port used	1
Temperature	nom
Voltage	nom
Frequency low to test	True Freq [MHz] 2412
Frequency mid to test	False Freq [MHz] 2437
Frequency high to test	False Freq [MHz] 2462
Auto Control enabled Power Supply Climatic Box	No No
Additional Path Loss [dB]	0.7
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer

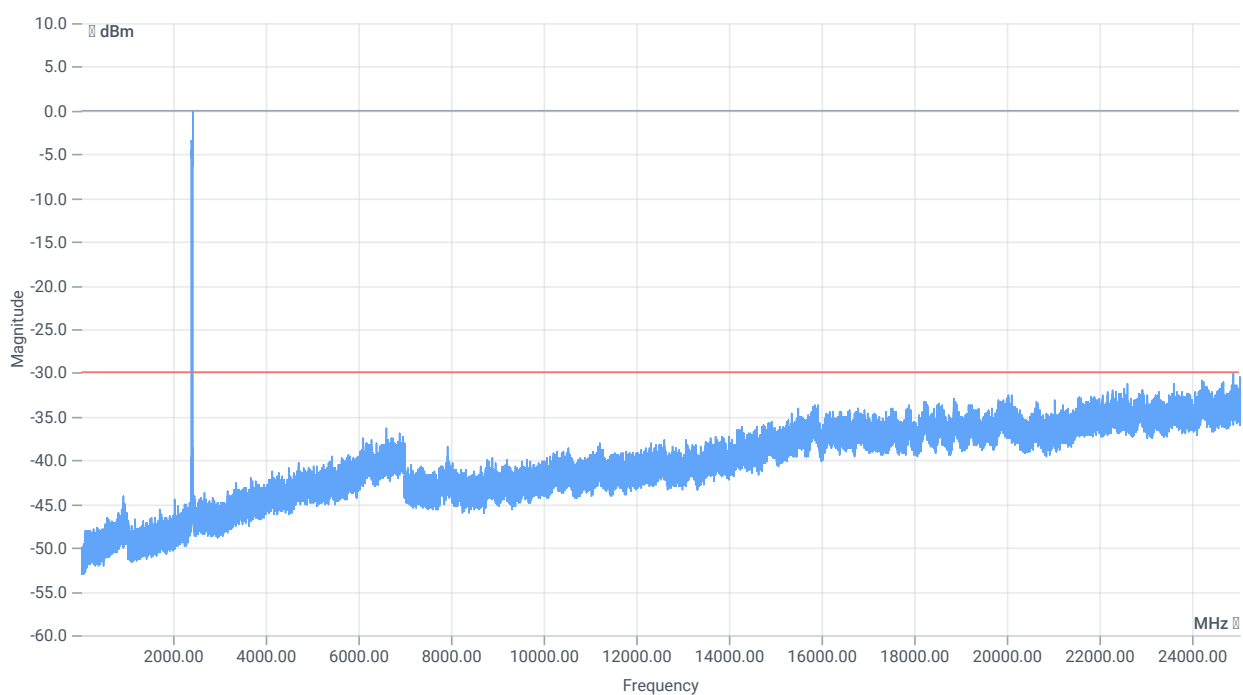
Test Equipment

Signal analyzer,Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.70
Switch matrix,CTCadvanced,SPM-4 NI DAQ,28016133,NI

Test at TX 2412 MHz

RESULT: Reference Power cond.

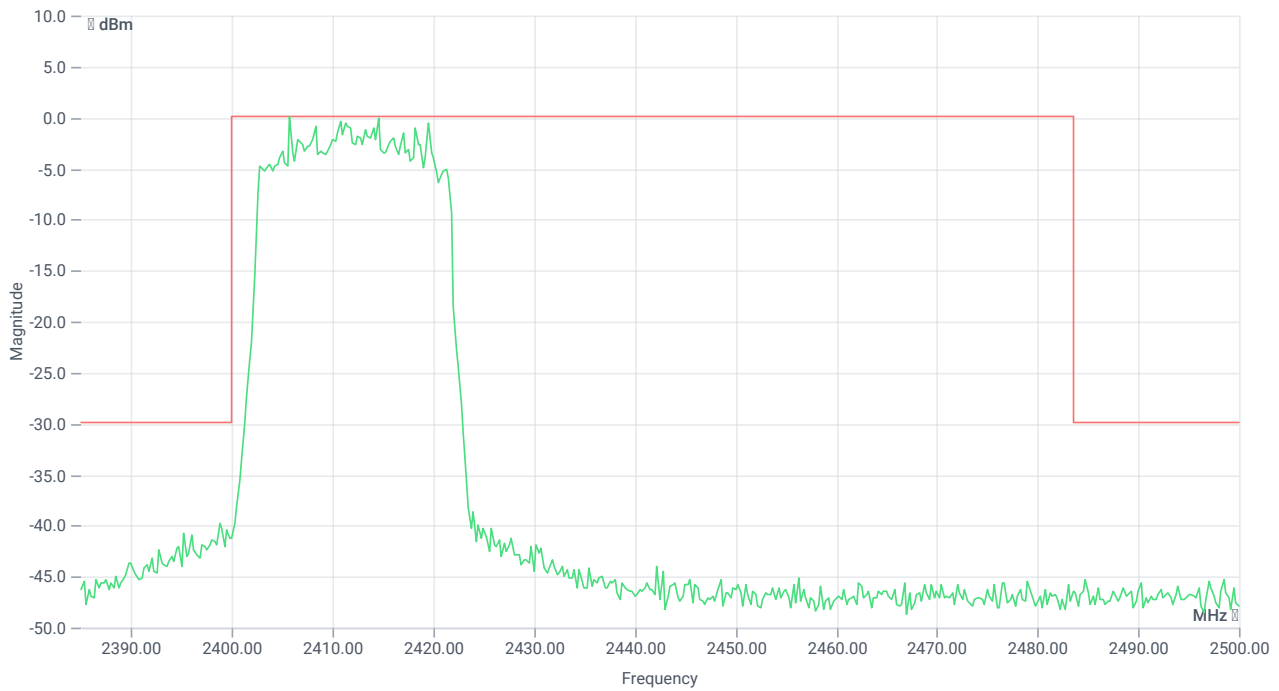
TEST DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	11.84	dBm	INFO
Ref. Frequency	---	---	2412.700	MHz	INFO



TX emissions

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	11.84 0 30
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



RESULT

TEST DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Reference @ 2405.75 MHz	---	---	0.05	dBm	INFO
No peaks detected	---	---			PASS
Lowest margin to limit 24883.75 MHz	0	---	0.14	dB	INFO

Verdict

PASS

FCC 15.247 # Avg output power SA DTS ~ WLAN2G4 ax-HE20

Test References

TC Start	06.07.2023 16:01:01
Ambit Temp [°C] Humidity [rel%]	26.4 34
System Version	4.5.2.0
Test Specification	FCC 15.247 -
Test Method	ANSI C63.10-2013 Chapter 11.9.2.2.2 or .4
TC Version	0.0.1
My Description	FCC 15.247 Avg output power SA DTS - WLAN2G4 ax-HE20
Add. Information	

EUT Common Settings WLAN2G4

Number of Antenna Ports	1
User Interaction	No

Test Parameter

Technology to test	WLAN2G4 ax-HE20
Antenna Port used	1
Temperature	nom
Voltage	nom
Frequency low to test	True Freq [MHz] 2412
Frequency mid to test	False Freq [MHz] 2437
Frequency high to test	False Freq [MHz] 2462
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-40,1307.9002K40/101042,3.70
Switch matrix,CTCadvanced,SPM-4 NI DAQ,28016133,NI

Test at TX 2412 MHz

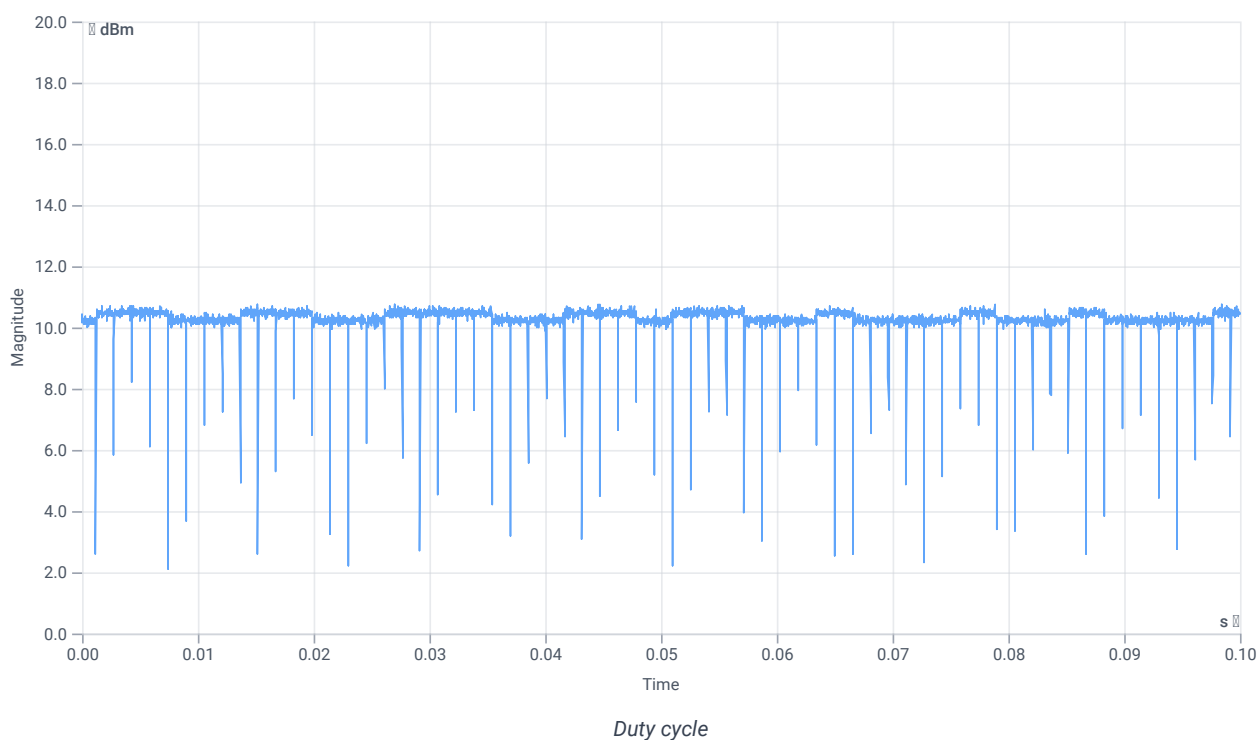
RESULT: Reference Power cond.

TEST DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	10.54	dBm	INFO
Ref. Frequency	---	---	2411.400	MHz	INFO

Evaluation max. Duty Cycle

Duty Cycle evaluation

TEST DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
No enough Bursts detected, Duty Cycle Burst Ratio set to 1					
Duty Cycle (Burst Ratio) max	---	---	1	---	INFO
Duty Cycle max	---	---	0	dB	INFO
Duty Cycle (Burst Ratio) min	---	---	1	---	INFO
Duty Cycle min	---	---	0	dB	INFO



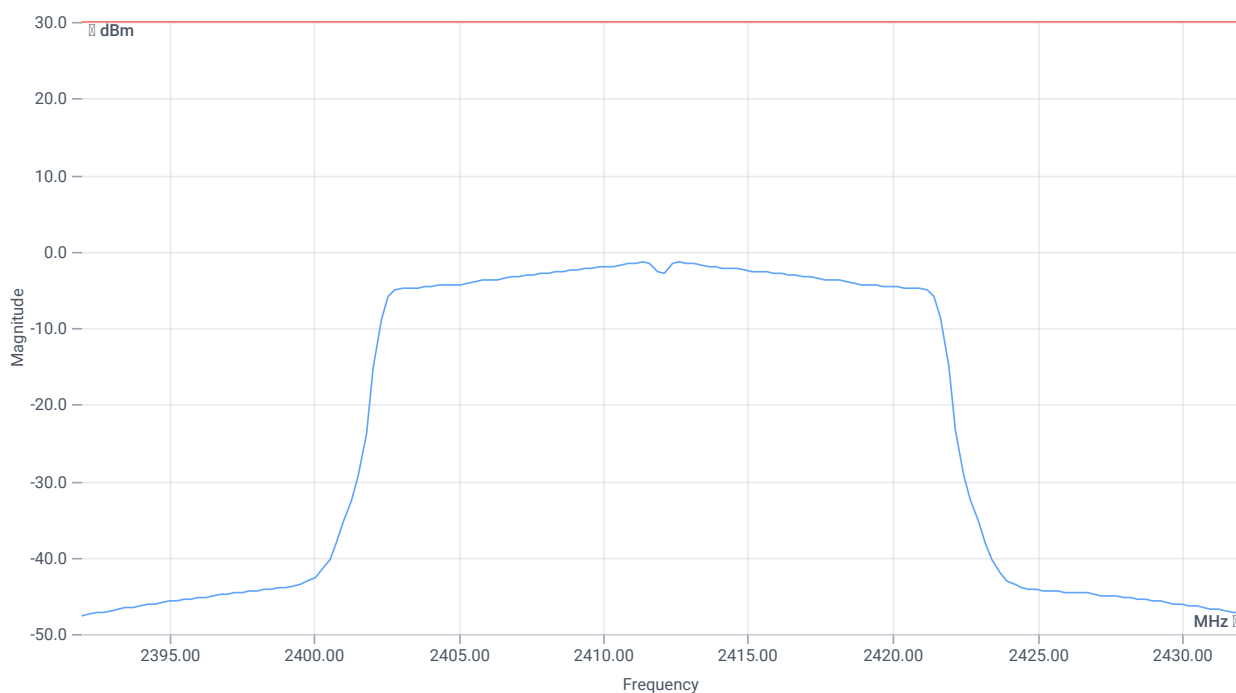
Avg output power SA DTS

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	20.54 14.43 25
Start [MHz] Stop [MHz]	2392.000 2432.000

READ SA SETTINGS:

RBW [MHz] VBW [MHz]	0.500000 2.000000
Detector TraceMode	RMS AVER
Sweep: Time [ms] Count Points per Section Type	500 100 160 SWE



Avg output power SA DTS

RESULT (Channel power method)

TEST DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Avg output power uncorrected	---	---	12.43	dBm	INFO
Duty cycle correction	---	---	0	dB	INFO
Avg power DC corrected	---	30	12.43	dBm	PASS

Verdict

PASS

FCC 15.247 # Bandwidth 6dB DTS ~ WLAN2G4 ax-HE20

Test References

TC Start	06.07.2023 16:02:16
Ambit Temp [°C] Humidity [rel%]	26.4 34
System Version	4.5.2.0
Test Specification	FCC 15.247 -
Test Method	
TC Version	0.0.1
My Description	FCC 15.247 Bandwidth 6dB DTS - WLAN2G4 ax-HE20
Add. Information	

EUT Common Settings WLAN2G4

Number of Antenna Ports	1
User Interaction	No

Test Parameter

Technology to test	WLAN2G4 ax-HE20
Antenna Port used	2
Temperature	nom
Voltage	nom
Frequency low to test	True Freq [MHz] 2412
Frequency mid to test	False Freq [MHz] 2437
Frequency high to test	False Freq [MHz] 2462
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-40,1307.9002K40/101042,3.70
Switch matrix,CTCadvanced,SPM-4 NI DAQ,28016133,NI

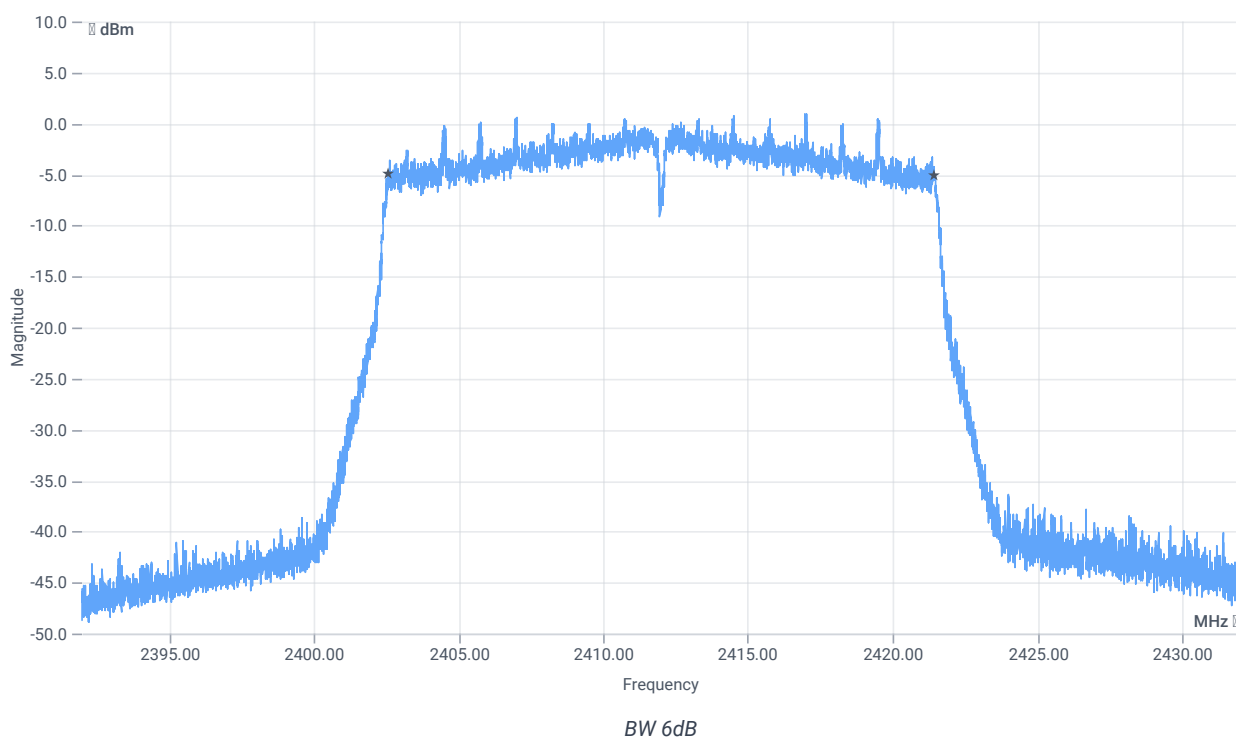
Test at TX 2412 MHz

RESULT: Reference Power cond.

TEST DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	10.80	dBm	INFO
Ref. Frequency	---	---	2411.100	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	15.80 14.43 20
Start [MHz] Stop [MHz]	2392.000 2432.000
RBW [MHz] VBW [MHz]	0.100000 0.300000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	50 200 10001 SWE



RESULT

TEST DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
DTS Bandwidth (6dB)	500	---	18868	kHz	PASS

Verdict

PASS

FCC 15.247 # Avg psd DTS ~ WLAN2G4 ax-HE20

Test References

TC Start	06.07.2023 16:02:50
Ambit Temp [°C] Humidity [rel%]	26.4 34
System Version	4.5.2.0
Test Specification	FCC 15.247 -
Test Method	ANSI C63.10-2013 Chapter 11.10.5 or.3
TC Version	0.0.1
My Description	FCC 15.247 Avg psd DTS - WLAN2G4 ax-HE20
Add. Information	

EUT Common Settings WLAN2G4

Number of Antenna Ports	1
User Interaction	No

Test Parameter

Technology to test	WLAN2G4 ax-HE20
Antenna Port used	2
Temperature	nom
Voltage	nom
Frequency low to test	True Freq [MHz] 2412
Frequency mid to test	False Freq [MHz] 2437
Frequency high to test	False Freq [MHz] 2462
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-40,1307.9002K40/101042,3.70
Switch matrix,CTCadvanced,SPM-4 NI DAQ,28016133,NI

Test at TX 2412 MHz

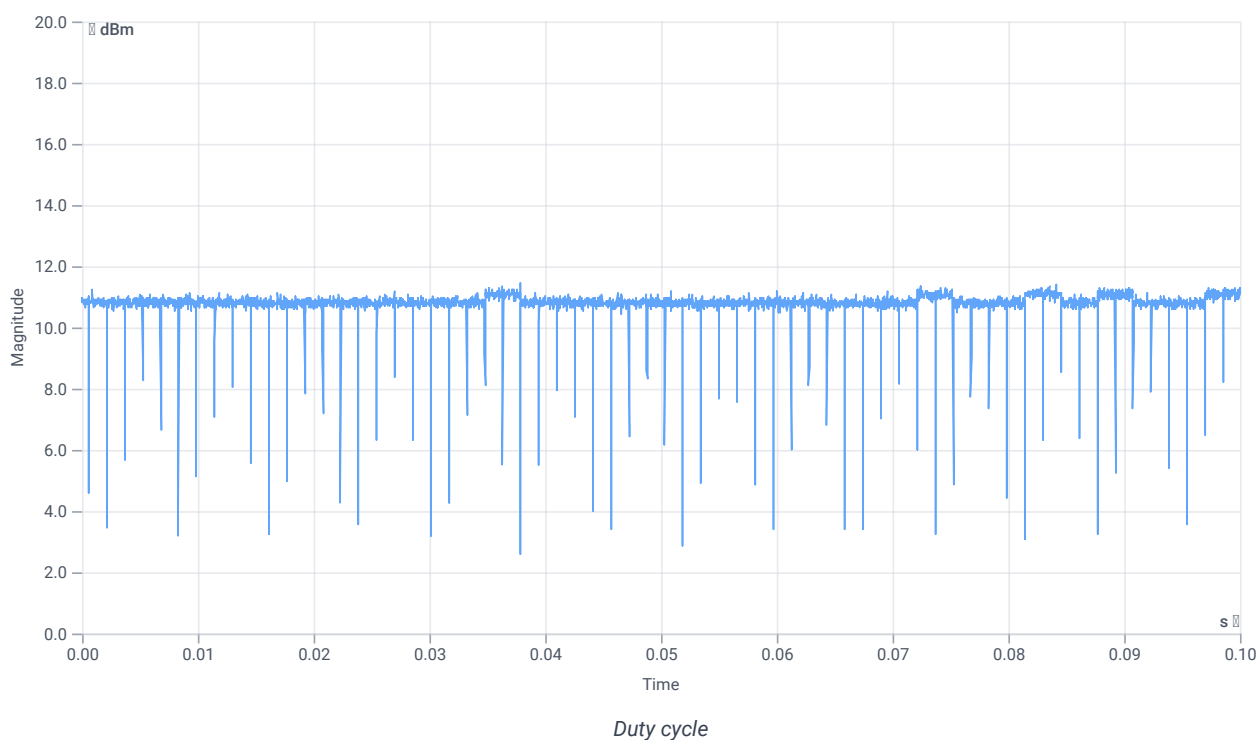
RESULT: Reference Power cond.

TEST DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	12.61	dBm	INFO
Ref. Frequency	---	---	2412.900	MHz	INFO

Evaluation max. Duty Cycle

Duty Cycle evaluation

TEST DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
No enough Bursts detected, Duty Cycle Burst Ratio set to 1					
Duty Cycle (Burst Ratio) max	---	---	1	---	INFO
Duty Cycle max	---	---	0	dB	INFO
Duty Cycle (Burst Ratio) min	---	---	1	---	INFO
Duty Cycle min	---	---	0	dB	INFO



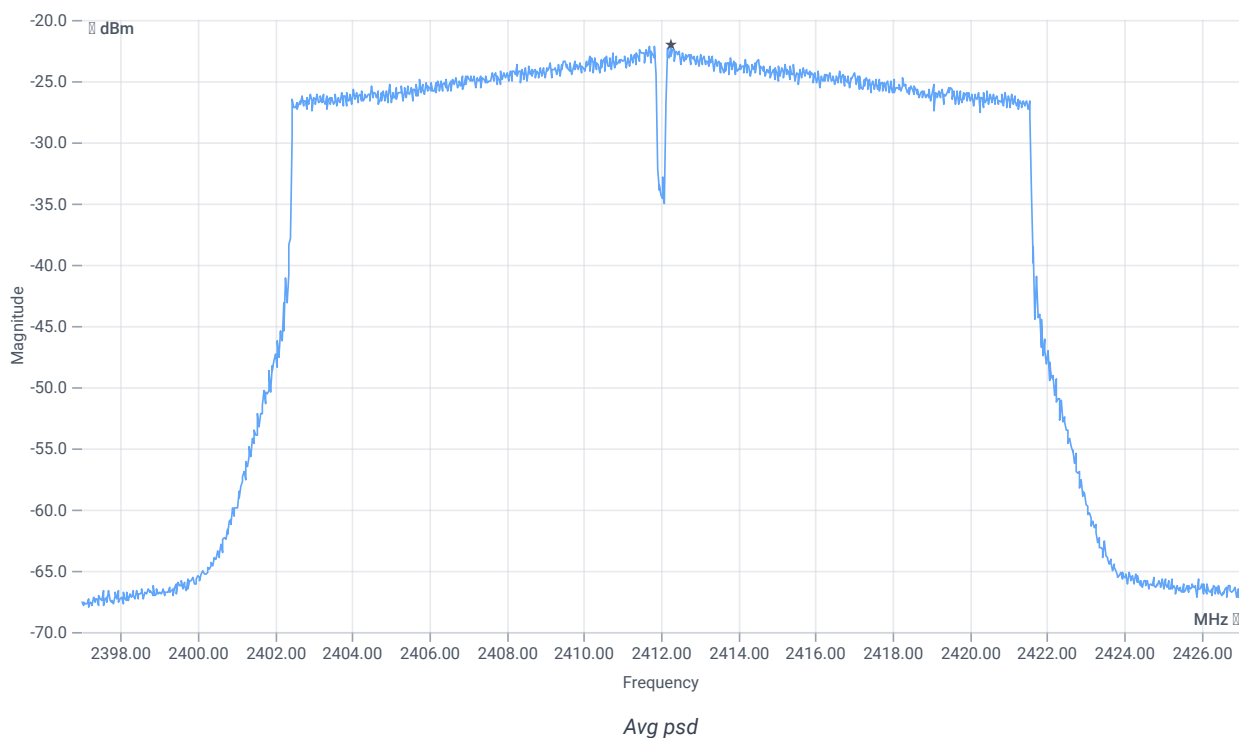
Avg. psd

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	17.61 14.43 20
Start [MHz] Stop [MHz]	2397.000 2427.000

READ SA SETTINGS:

RBW [MHz] VBW [MHz]	0.003000 0.010000
Detector TraceMode	RMS AVER
Sweep: Time [ms] Count Points per Section Type	334 100 1001 SWE



RESULT

TEST DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Avg psd uncorrected	---	---	-22.03	dBm	INFO
Duty cycle correction	---	---	0	dB	INFO
Avg psd DC corrected	---	8	-22.03	dBm/3kHz	PASS

Verdict

PASS

FCC 15.247, ISED RSS247 # Bandwidth 99PCT and 20dB ~ WLAN2G4 ax-HE20

Test References

TC Start	06.07.2023 16:03:53
Ambit Temp [°C] Humidity [rel%]	26.4 35
System Version	4.5.2.0
Test Specification	FCC 15.247, ISED RSS247 -
Test Method	
TC Version	0.0.2
My Description	FCC 15.247 Bandwidth 99PCT-20dB DTS - WLAN2G4 ax-HE20
Add. Information	

EUT Common Settings WLAN2G4

Number of Antenna Ports	1
User Interaction	No

Test Parameter

Technology to test	WLAN2G4 ax-HE20
Antenna Port used	2
Temperature	nom
Voltage	nom
Frequency low to test	True Freq [MHz] 2412
Frequency mid to test	False Freq [MHz] 2437
Frequency high to test	False Freq [MHz] 2462
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-40,1307.9002K40/101042,3.70
Switch matrix,CTCadvanced,SPM-4 NI DAQ,28016133,NI

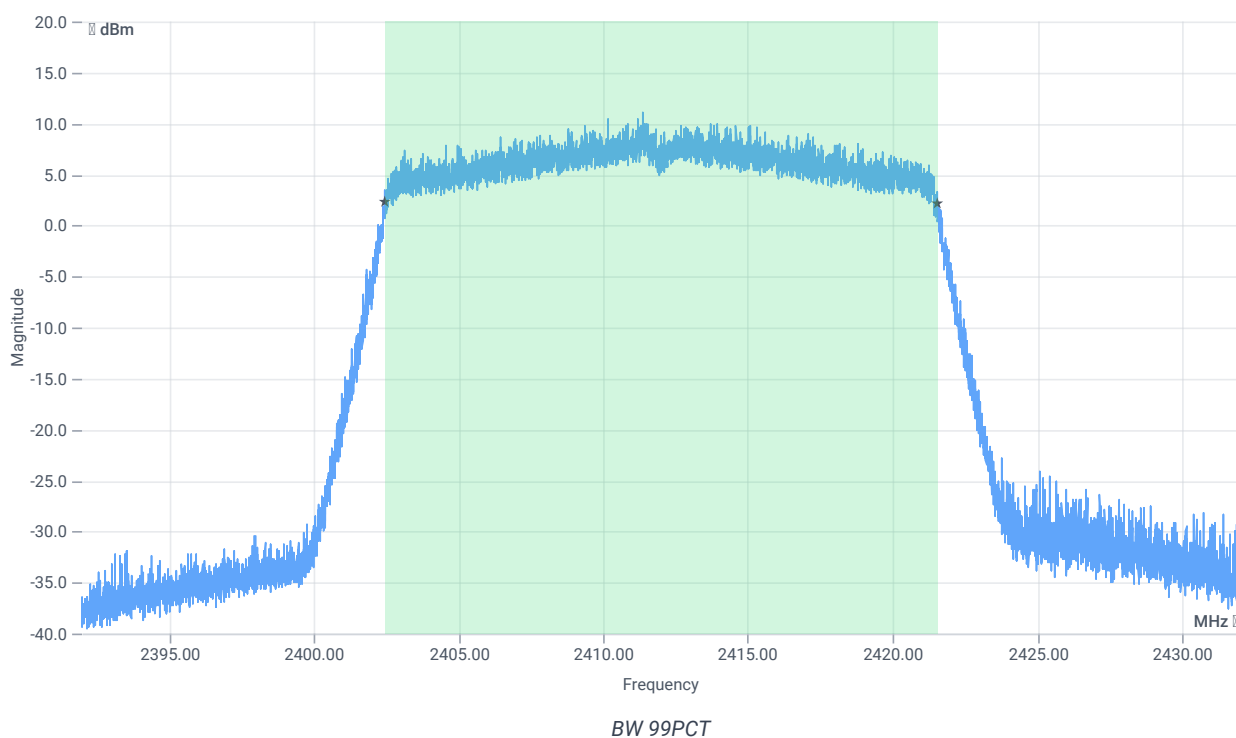
Test at TX 2412 MHz

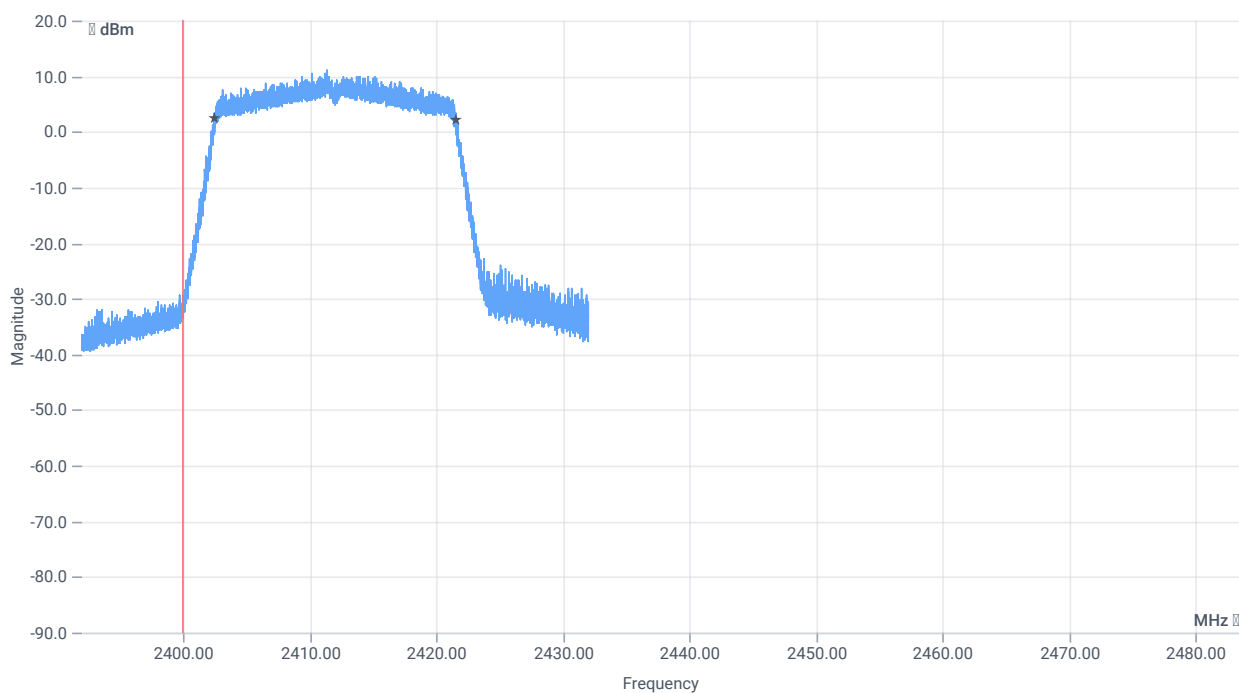
RESULT: Reference Power cond.

TEST DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	10.39	dBm	INFO
Ref. Frequency	---	---	2413.400	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	15.39 14.43 20
Start [MHz] Stop [MHz]	2392.000 2432.000
RBW [MHz] VBW [MHz]	0.500000 2.000000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	50 200 10001 SWE

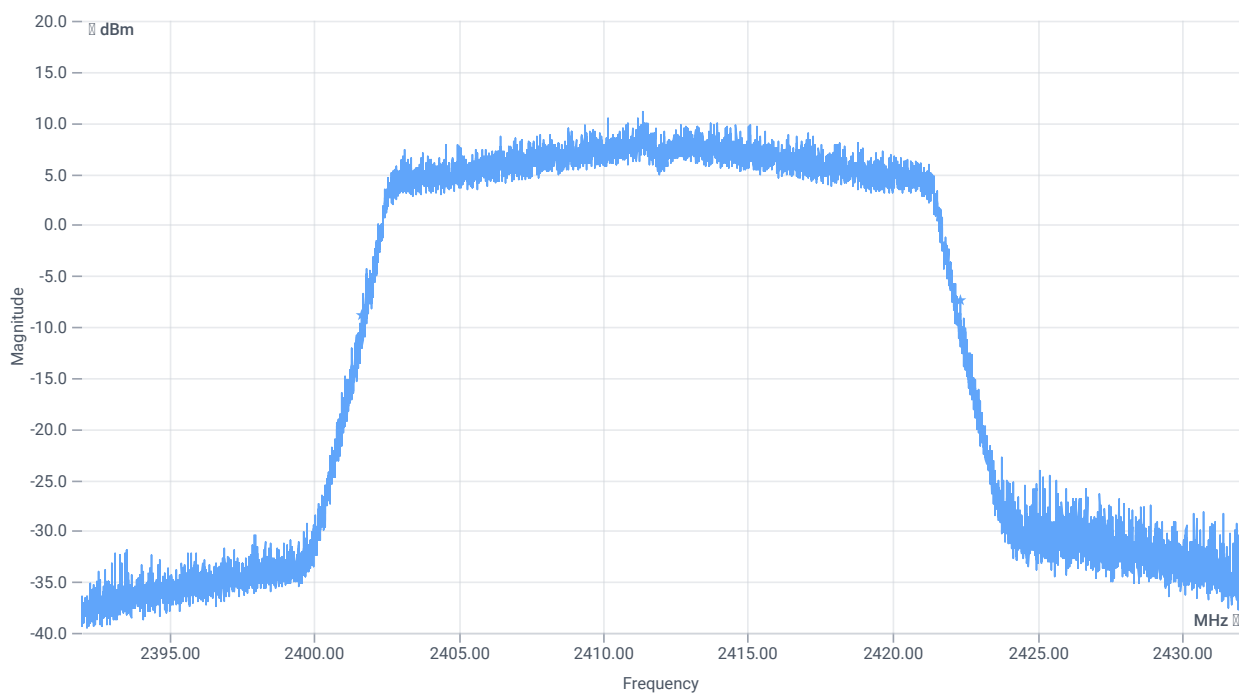




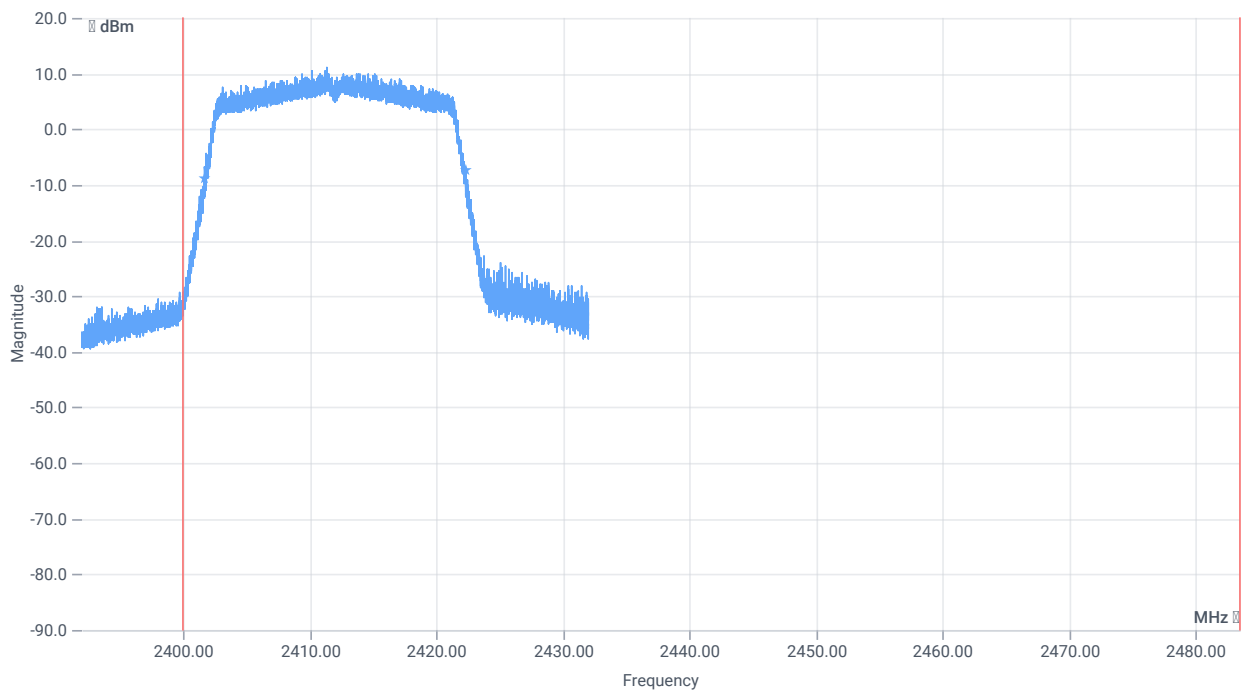
BW within Band 99PCT

RESULT

TEST DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 99%	---	---	19078.000	kHz	INFO
T1 99%	2400.000000	---	2402.4690	MHz	PASS
T2 99%	---	2483.500000	2421.5470	MHz	PASS



BW 20dB



BW within Band 20dB

RESULT

TEST DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 20dB	---	---	20684	kHz	INFO
T1 20dB	2400.000000	---	2401.6400	MHz	PASS
T2 20dB	---	2483.500000	2422.3240	MHz	PASS

Verdict

PASS

FCC 15.247 # TX spurious conducted 30dBc ~ WLAN2G4 ax-HE20

Test References

TC Start	06.07.2023 16:04:30
Ambit Temp [°C] Humidity [rel%]	26.4 35
System Version	4.5.2.0
Test Specification	FCC 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 30dBc DTS DTS - WLAN2G4 ax-HE20
Add. Information	

EUT Common Settings WLAN2G4

Number of Antenna Ports	1
User Interaction	No

Test Parameter

Technology to test	WLAN2G4 ax-HE20
Antenna Port used	2
Temperature	nom
Voltage	nom
Frequency low to test	True Freq [MHz] 2412
Frequency mid to test	False Freq [MHz] 2437
Frequency high to test	False Freq [MHz] 2462
Auto Control enabled Power Supply Climatic Box	No No
Additional Path Loss [dB]	0.7
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer

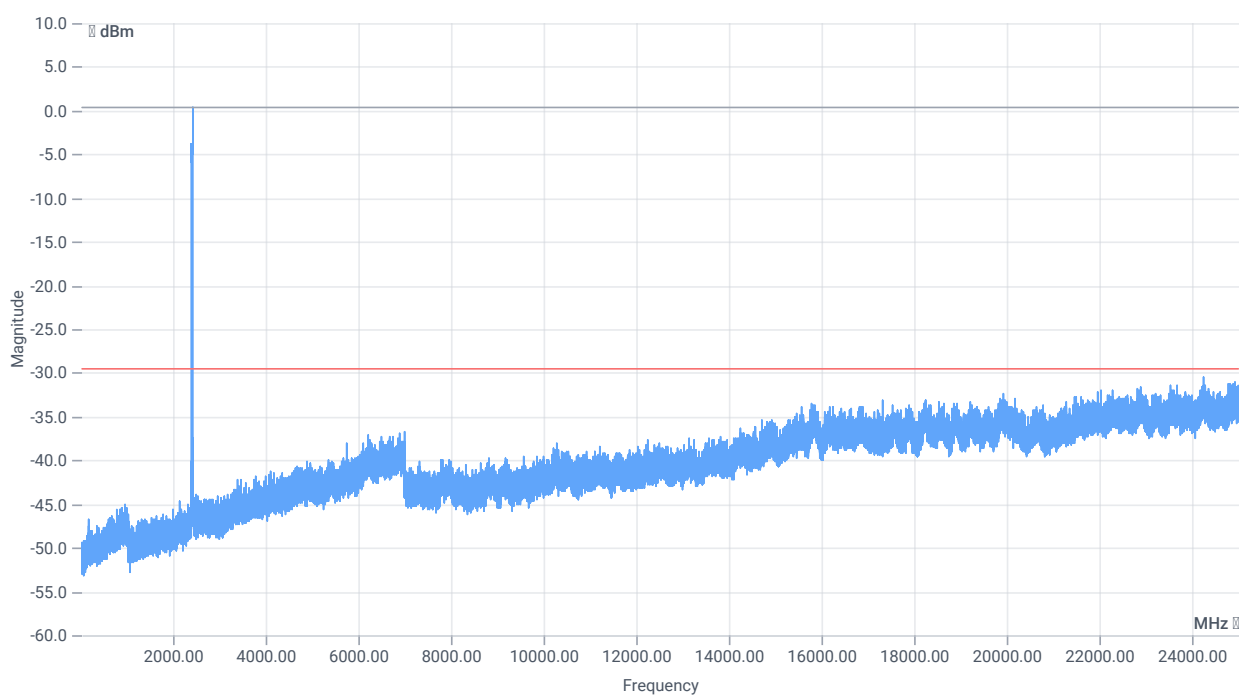
Test Equipment

Signal analyzer,Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.70
Switch matrix,CTCadvanced,SPM-4 NI DAQ,28016133,NI

Test at TX 2412 MHz

RESULT: Reference Power cond.

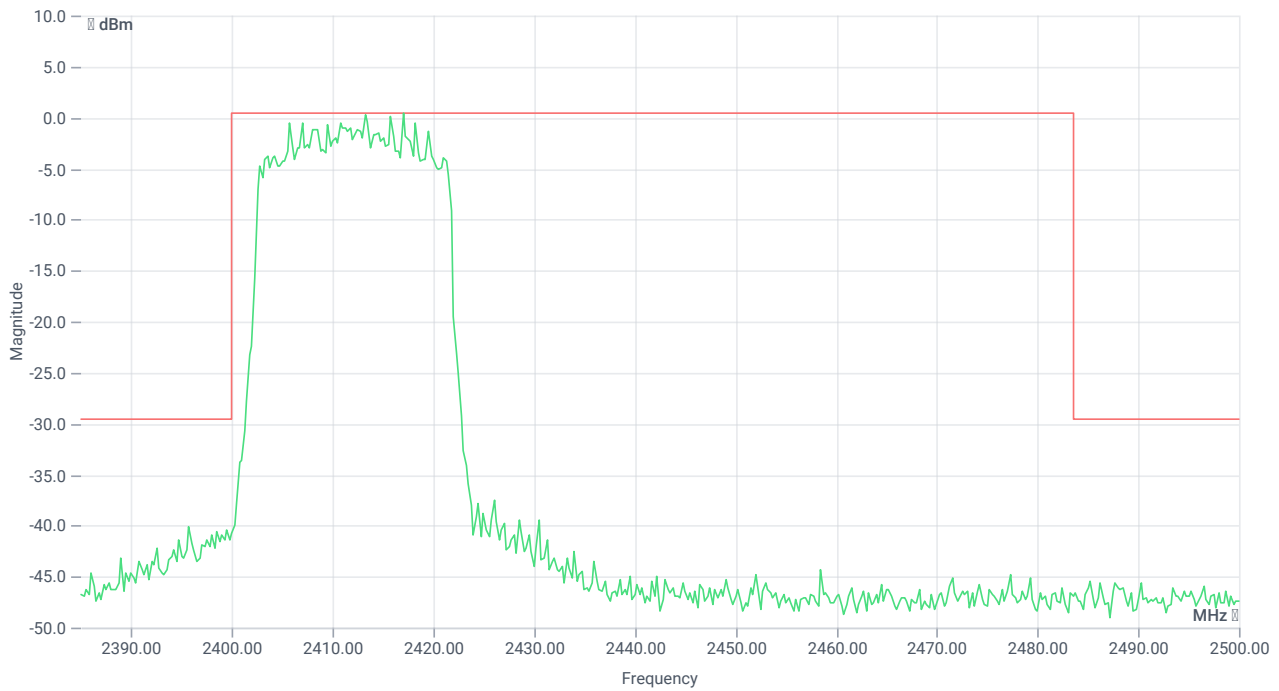
TEST DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	11.68	dBm	INFO
Ref. Frequency	---	---	2413.300	MHz	INFO



TX emissions

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	11.68 0 30
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



RESULT

TEST DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Reference @ 2417.00 MHz	---	---	0.42	dBm	INFO
No peaks detected	---	---			PASS
Lowest margin to limit 24239.75 MHz	0	---	0.86	dB	INFO

Verdict

PASS

FCC 15.247 # Avg output power SA DTS ~ WLAN2G4 ax-HE20

Test References

TC Start	06.07.2023 16:11:10
Ambit Temp [°C] Humidity [rel%]	26.4 35
System Version	4.5.2.0
Test Specification	FCC 15.247 -
Test Method	ANSI C63.10-2013 Chapter 11.9.2.2.2 or .4
TC Version	0.0.1
My Description	FCC 15.247 Avg output power SA DTS - WLAN2G4 ax-HE20
Add. Information	

EUT Common Settings WLAN2G4

Number of Antenna Ports	1
User Interaction	No

Test Parameter

Technology to test	WLAN2G4 ax-HE20
Antenna Port used	2
Temperature	nom
Voltage	nom
Frequency low to test	True Freq [MHz] 2412
Frequency mid to test	False Freq [MHz] 2437
Frequency high to test	False Freq [MHz] 2462
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-40,1307.9002K40/101042,3.70
Switch matrix,CTCadvanced,SPM-4 NI DAQ,28016133,NI

Test at TX 2412 MHz

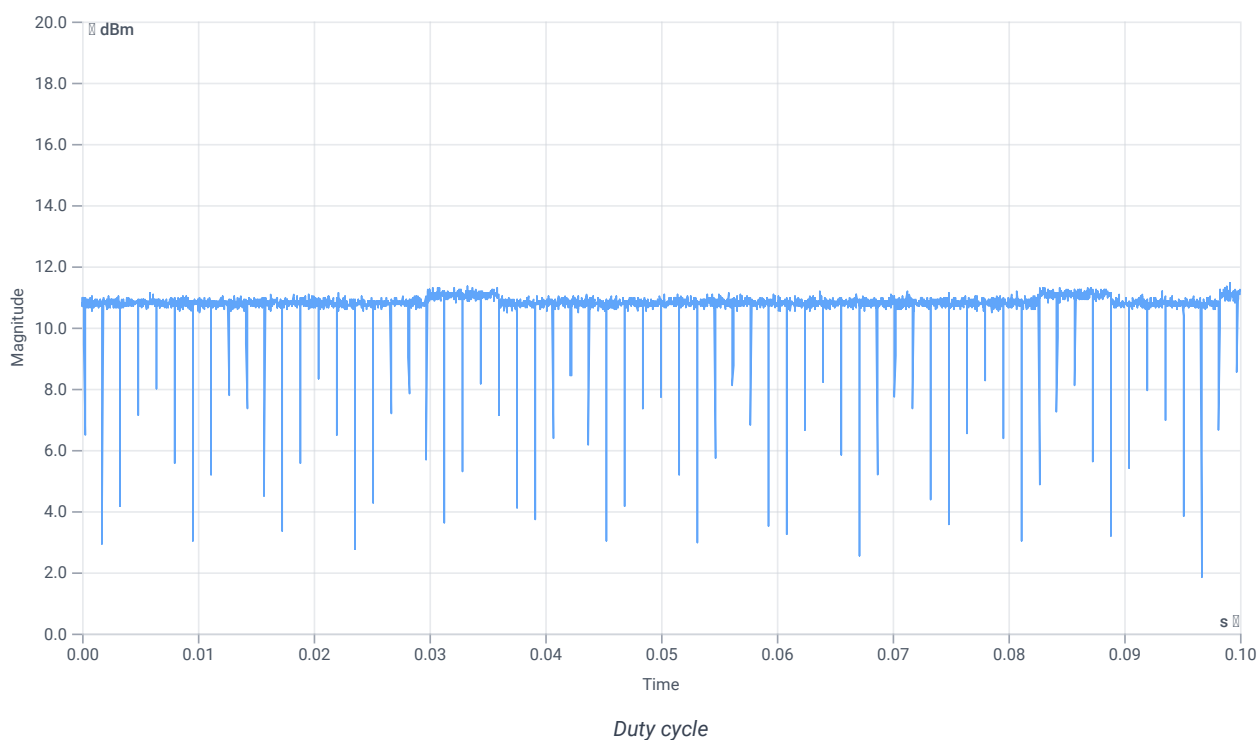
RESULT: Reference Power cond.

TEST DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	10.88	dBm	INFO
Ref. Frequency	---	---	2408.800	MHz	INFO

Evaluation max. Duty Cycle

Duty Cycle evaluation

TEST DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
No enough Bursts detected, Duty Cycle Burst Ratio set to 1					
Duty Cycle (Burst Ratio) max	---	---	1	---	INFO
Duty Cycle max	---	---	0	dB	INFO
Duty Cycle (Burst Ratio) min	---	---	1	---	INFO
Duty Cycle min	---	---	0	dB	INFO



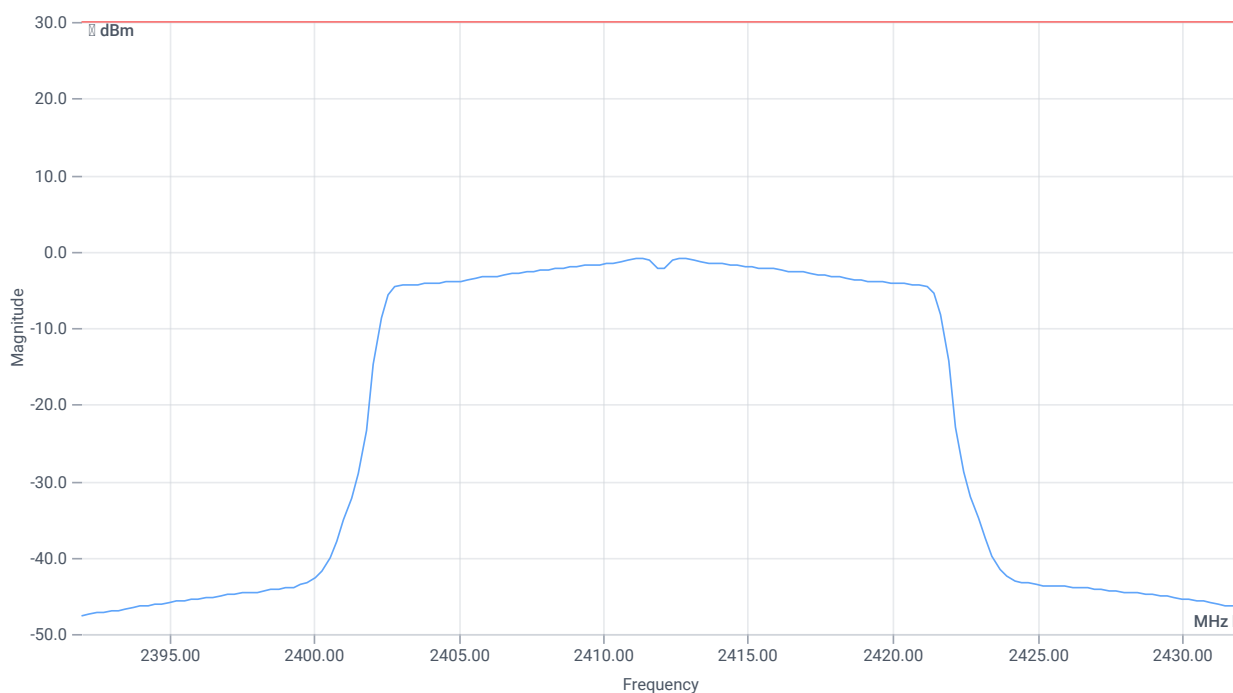
Avg output power SA DTS

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	20.88 14.43 25
Start [MHz] Stop [MHz]	2392.000 2432.000

READ SA SETTINGS:

RBW [MHz] VBW [MHz]	0.500000 2.000000
Detector TraceMode	RMS AVER
Sweep: Time [ms] Count Points per Section Type	500 100 160 SWE



Avg output power SA DTS

RESULT (Channel power method)

TEST DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Avg output power uncorrected	---	---	12.89	dBm	INFO
Duty cycle correction	---	---	0	dB	INFO
Avg power DC corrected	---	30	12.89	dBm	PASS

Verdict

PASS

Message with SA scan ~

Test References

TC Start	06.07.2023 16:12:25
Ambit Temp [°C] Humidity [rel%]	26.4 34
System Version	4.5.2.0
Test Specification	-
Test Method	
TC Version	0.0.1
My Description	Message with SA Scan ax-HE20
Add. Information	

Test Parameter

Switched Path	EUT - SignalingUnit - SpectrumAnalyzer
Message start	06.07.2023 16:12:25
Message	set WLAN2G4 to ax-HE20, Frequency [MHz] 2437 ,

Test Equipment

Signal analyzer,Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.70
Switch matrix,CTCadvanced,SPM-4 NI DAQ,28016133,NI

Verdict

INFO

FCC 15.247 # Bandwidth 6dB DTS ~ WLAN2G4 ax-HE20

Test References

TC Start	06.07.2023 16:13:27
Ambit Temp [°C] Humidity [rel%]	26.4 34
System Version	4.5.2.0
Test Specification	FCC 15.247 -
Test Method	
TC Version	0.0.1
My Description	FCC 15.247 Bandwidth 6dB DTS - WLAN2G4 ax-HE20
Add. Information	

EUT Common Settings WLAN2G4

Number of Antenna Ports	1
User Interaction	No

Test Parameter

Technology to test	WLAN2G4 ax-HE20
Antenna Port used	1
Temperature	nom
Voltage	nom
Frequency low to test	False Freq [MHz] 2412
Frequency mid to test	True Freq [MHz] 2437
Frequency high to test	False Freq [MHz] 2462
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-40,1307.9002K40/101042,3.70
Switch matrix,CTCadvanced,SPM-4 NI DAQ,28016133,NI

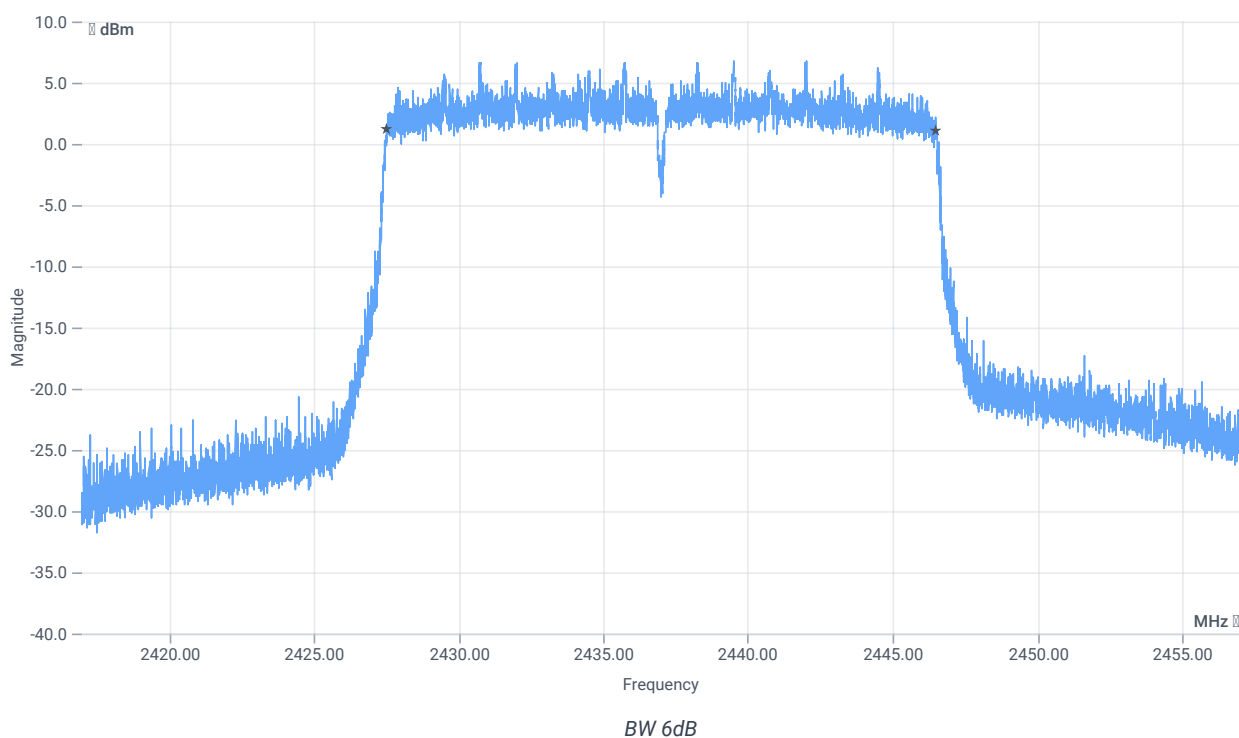
Test at TX 2437 MHz

RESULT: Reference Power cond.

TEST DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	16.05	dBm	INFO
Ref. Frequency	---	---	2442.890	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	21.05 14.2 25
Start [MHz] Stop [MHz]	2417.000 2457.000
RBW [MHz] VBW [MHz]	0.100000 0.300000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	50 200 10001 SWE



RESULT

TEST DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
DTS Bandwidth (6dB)	500	---	18964	kHz	PASS

Verdict

PASS

FCC 15.247 # Avg psd DTS ~ WLAN2G4 ax-HE20

Test References

TC Start	06.07.2023 16:14:00
Ambit Temp [°C] Humidity [rel%]	26.4 34
System Version	4.5.2.0
Test Specification	FCC 15.247 -
Test Method	ANSI C63.10-2013 Chapter 11.10.5 or.3
TC Version	0.0.1
My Description	FCC 15.247 Avg psd DTS - WLAN2G4 ax-HE20
Add. Information	

EUT Common Settings WLAN2G4

Number of Antenna Ports	1
User Interaction	No

Test Parameter

Technology to test	WLAN2G4 ax-HE20
Antenna Port used	1
Temperature	nom
Voltage	nom
Frequency low to test	False Freq [MHz] 2412
Frequency mid to test	True Freq [MHz] 2437
Frequency high to test	False Freq [MHz] 2462
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-40,1307.9002K40/101042,3.70
Switch matrix,CTCadvanced,SPM-4 NI DAQ,28016133,NI

Test at TX 2437 MHz

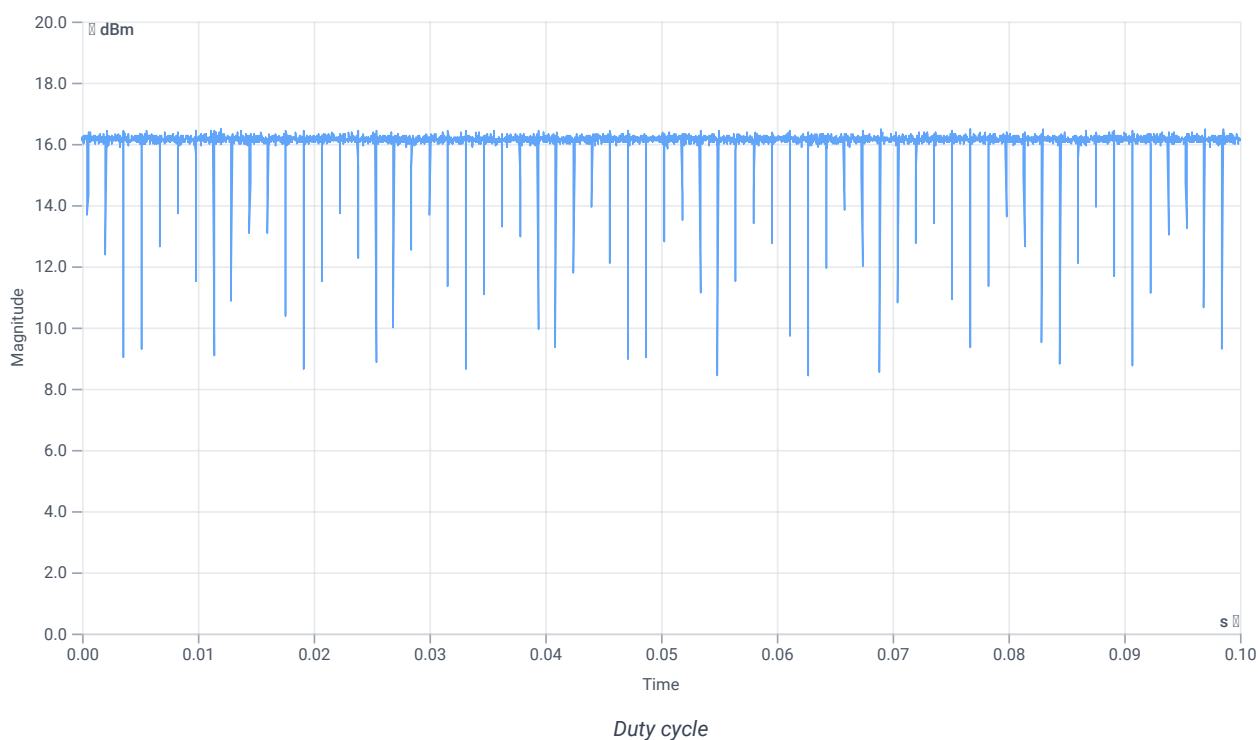
RESULT: Reference Power cond.

TEST DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	17.83	dBm	INFO
Ref. Frequency	---	---	2432.500	MHz	INFO

Evaluation max. Duty Cycle

Duty Cycle evaluation

TEST DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
No enough Bursts detected, Duty Cycle Burst Ratio set to 1					
Duty Cycle (Burst Ratio) max	---	---	1	---	INFO
Duty Cycle max	---	---	0	dB	INFO
Duty Cycle (Burst Ratio) min	---	---	1	---	INFO
Duty Cycle min	---	---	0	dB	INFO



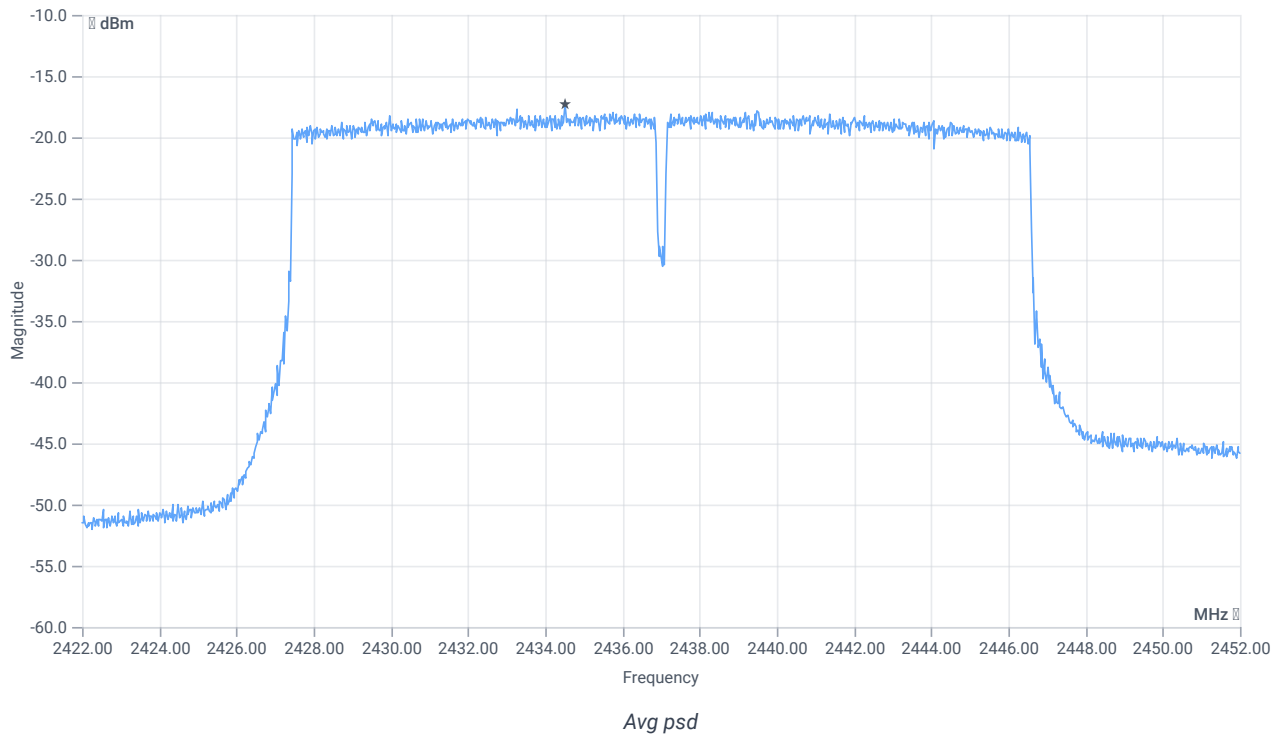
Avg. psd

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	22.83 14.2 25
Start [MHz] Stop [MHz]	2422.000 2452.000

READ SA SETTINGS:

RBW [MHz] VBW [MHz]	0.003000 0.010000
Detector TraceMode	RMS AVER
Sweep: Time [ms] Count Points per Section Type	334 100 1001 SWE



RESULT

TEST DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Avg psd uncorrected	---	---	-17.28	dBm	INFO
Duty cycle correction	---	---	0	dB	INFO
Avg psd DC corrected	---	8	-17.28	dBm/3kHz	PASS

Verdict

PASS

FCC 15.247, ISED RSS247 # Bandwidth 99PCT and 20dB ~ WLAN2G4 ax-HE20

Test References

TC Start	06.07.2023 16:15:03
Ambit Temp [°C] Humidity [rel%]	26.4 34
System Version	4.5.2.0
Test Specification	FCC 15.247, ISED RSS247 -
Test Method	
TC Version	0.0.2
My Description	FCC 15.247 Bandwidth 99PCT-20dB DTS - WLAN2G4 ax-HE20
Add. Information	

EUT Common Settings WLAN2G4

Number of Antenna Ports	1
User Interaction	No

Test Parameter

Technology to test	WLAN2G4 ax-HE20
Antenna Port used	1
Temperature	nom
Voltage	nom
Frequency low to test	False Freq [MHz] 2412
Frequency mid to test	True Freq [MHz] 2437
Frequency high to test	False Freq [MHz] 2462
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-40,1307.9002K40/101042,3.70
Switch matrix,CTCadvanced,SPM-4 NI DAQ,28016133,NI

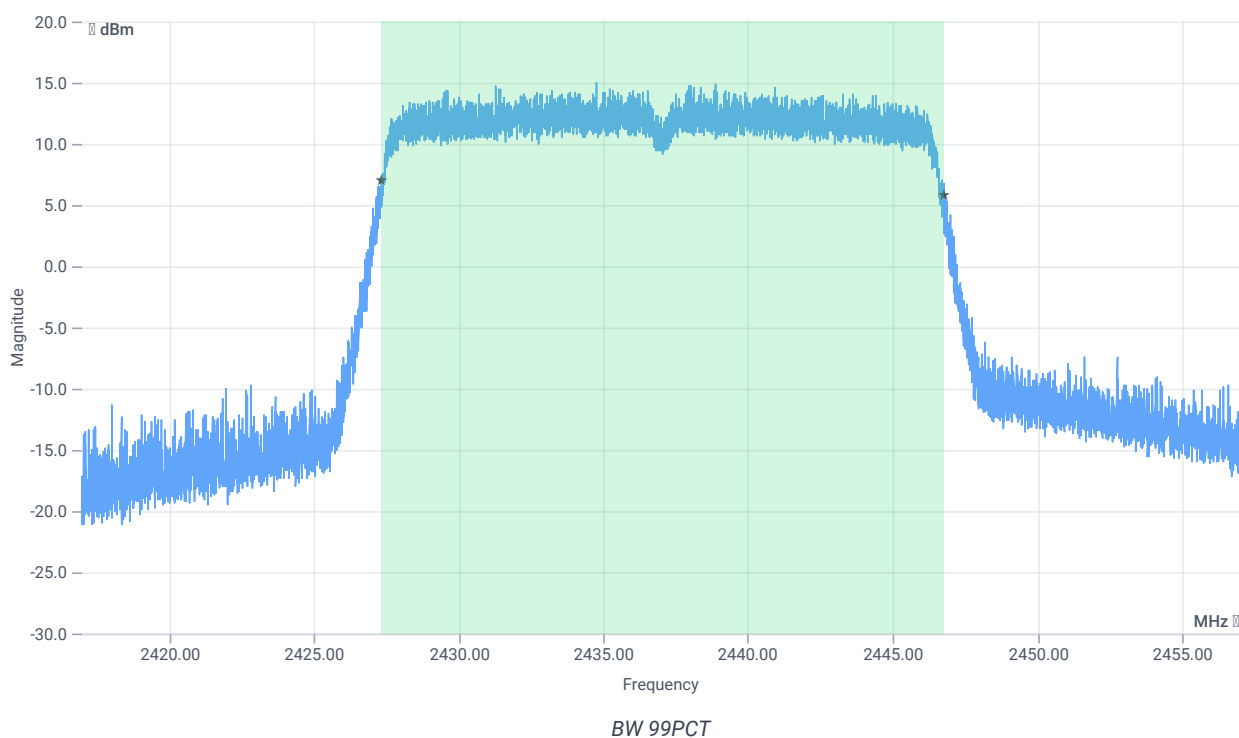
Test at TX 2437 MHz

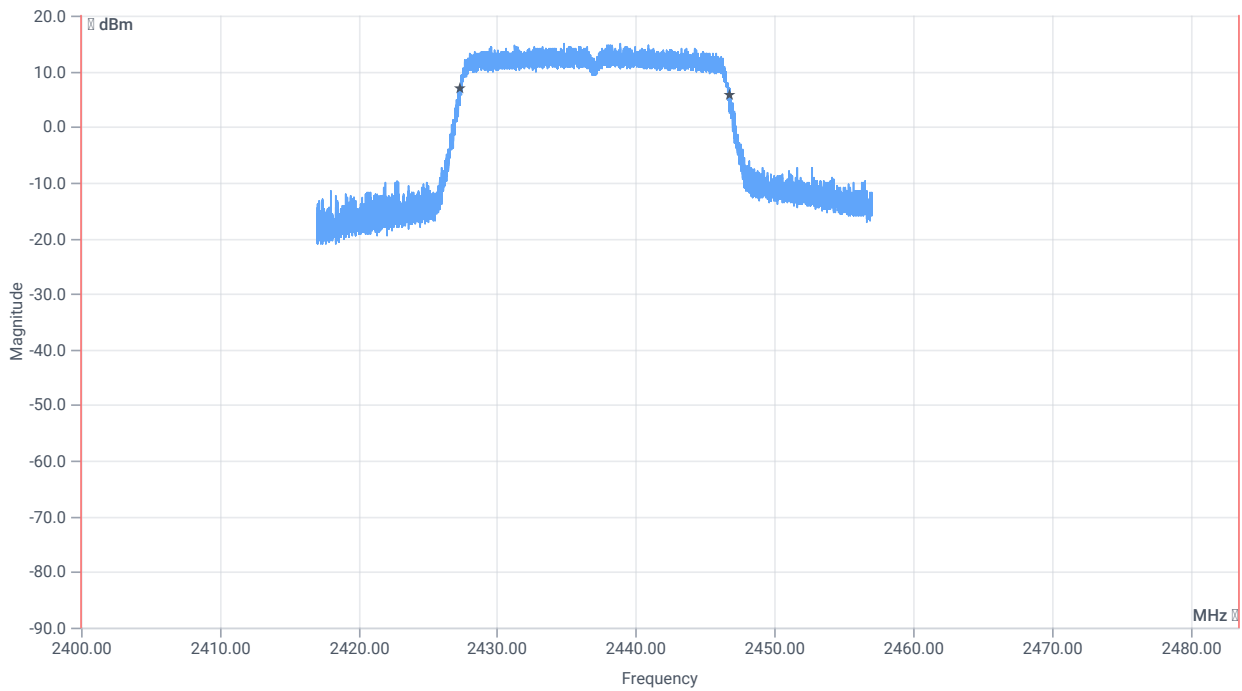
RESULT: Reference Power cond.

TEST DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	17.17	dBm	INFO
Ref. Frequency	---	---	2438.100	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	22.17 14.2 25
Start [MHz] Stop [MHz]	2417.000 2457.000
RBW [MHz] VBW [MHz]	0.500000 2.000000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	50 200 10001 SWE

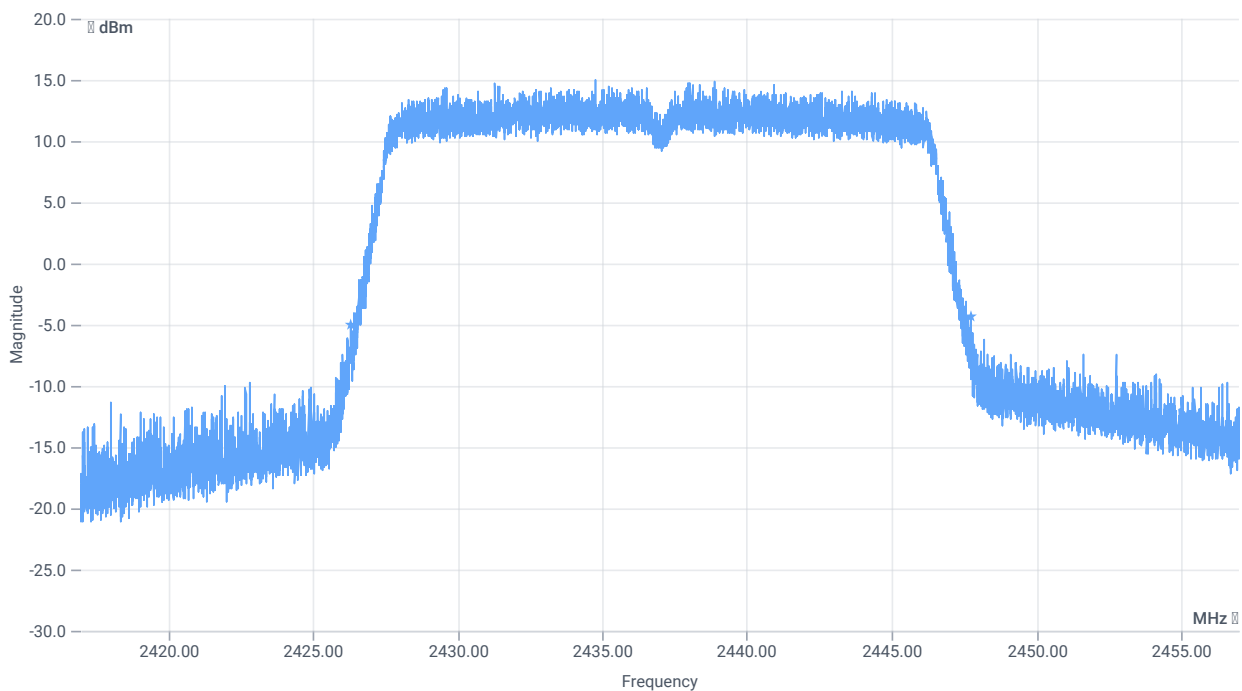




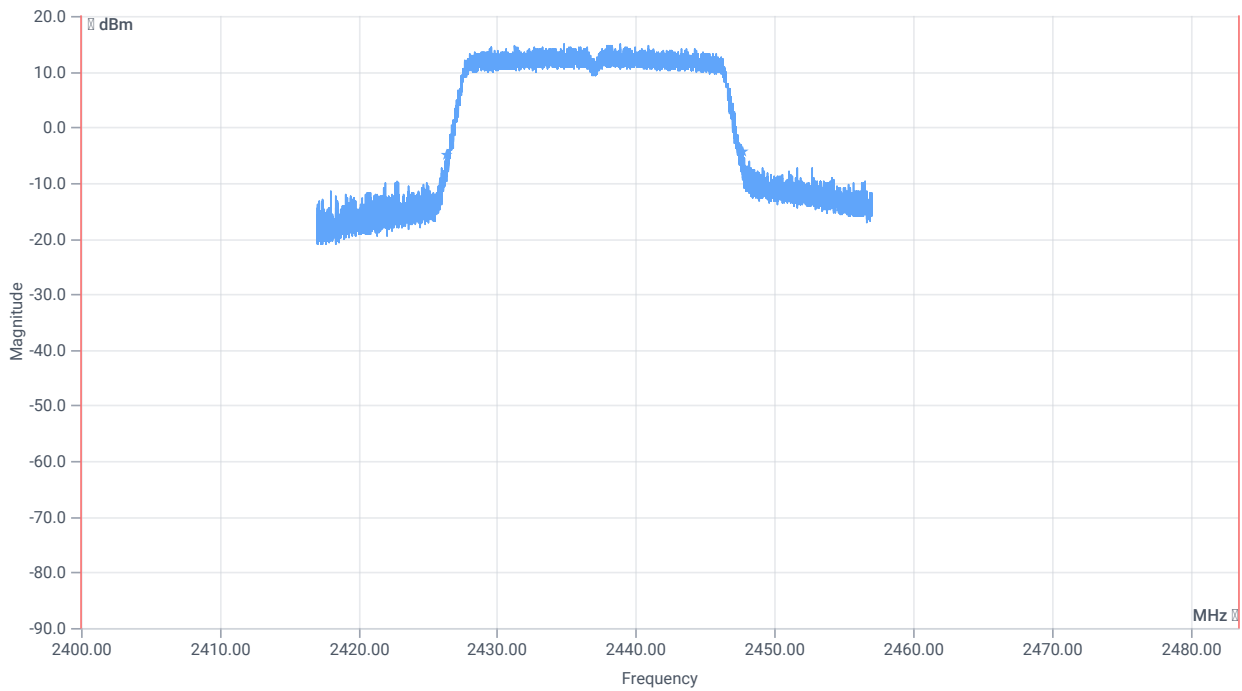
BW within Band 99PCT

RESULT

TEST DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 99%	---	---	19442.000	kHz	INFO
T1 99%	2400.000000	---	2427.3330	MHz	PASS
T2 99%	---	2483.500000	2446.7750	MHz	PASS



BW 20dB



BW within Band 20dB

RESULT

TEST DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 20dB	---	---	21388	kHz	INFO
T1 20dB	2400.000000	---	2426.3360	MHz	PASS
T2 20dB	---	2483.500000	2447.7240	MHz	PASS

Verdict

PASS

FCC 15.247 # TX spurious conducted 30dBc ~ WLAN2G4 ax-HE20

Test References

TC Start	06.07.2023 16:15:40
Ambit Temp [°C] Humidity [rel%]	26.4 35
System Version	4.5.2.0
Test Specification	FCC 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 30dBc DTS DTS - WLAN2G4 ax-HE20
Add. Information	

EUT Common Settings WLAN2G4

Number of Antenna Ports	1
User Interaction	No

Test Parameter

Technology to test	WLAN2G4 ax-HE20
Antenna Port used	1
Temperature	nom
Voltage	nom
Frequency low to test	False Freq [MHz] 2412
Frequency mid to test	True Freq [MHz] 2437
Frequency high to test	False Freq [MHz] 2462
Auto Control enabled Power Supply Climatic Box	No No
Additional Path Loss [dB]	0.7
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer

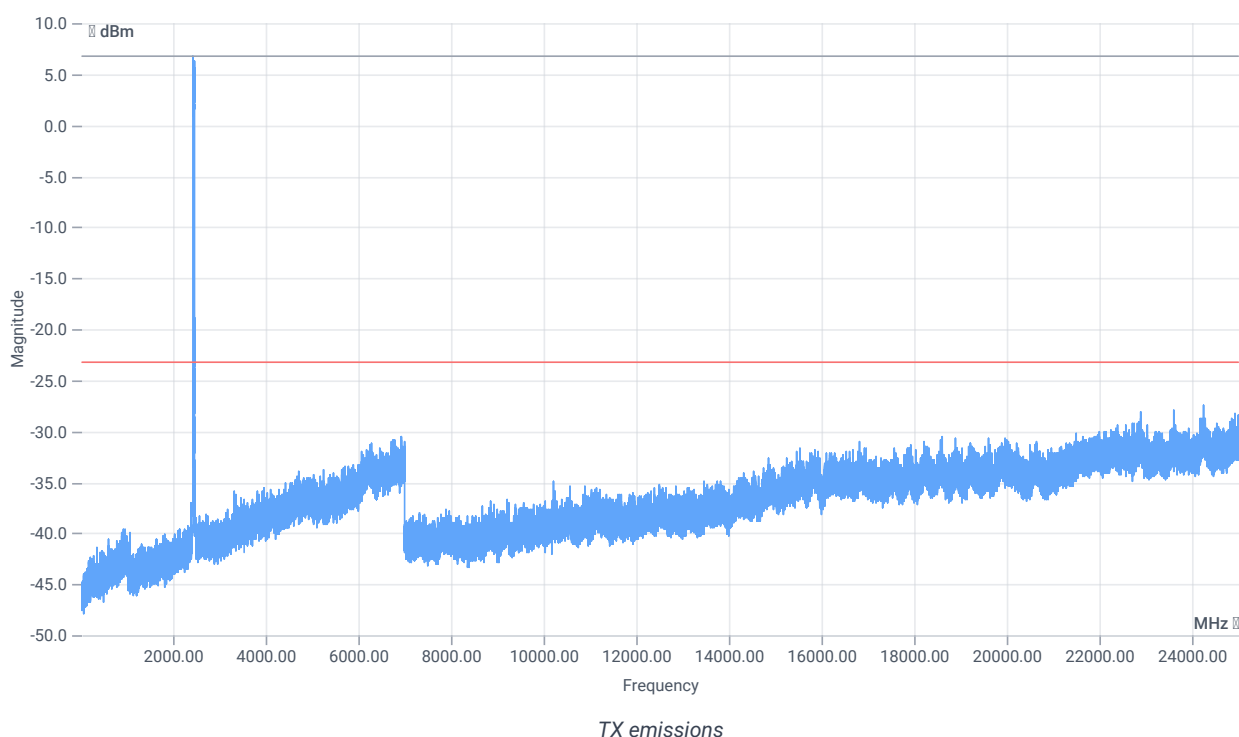
Test Equipment

Signal analyzer,Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.70
Switch matrix,CTCadvanced,SPM-4 NI DAQ,28016133,NI

Test at TX 2437 MHz

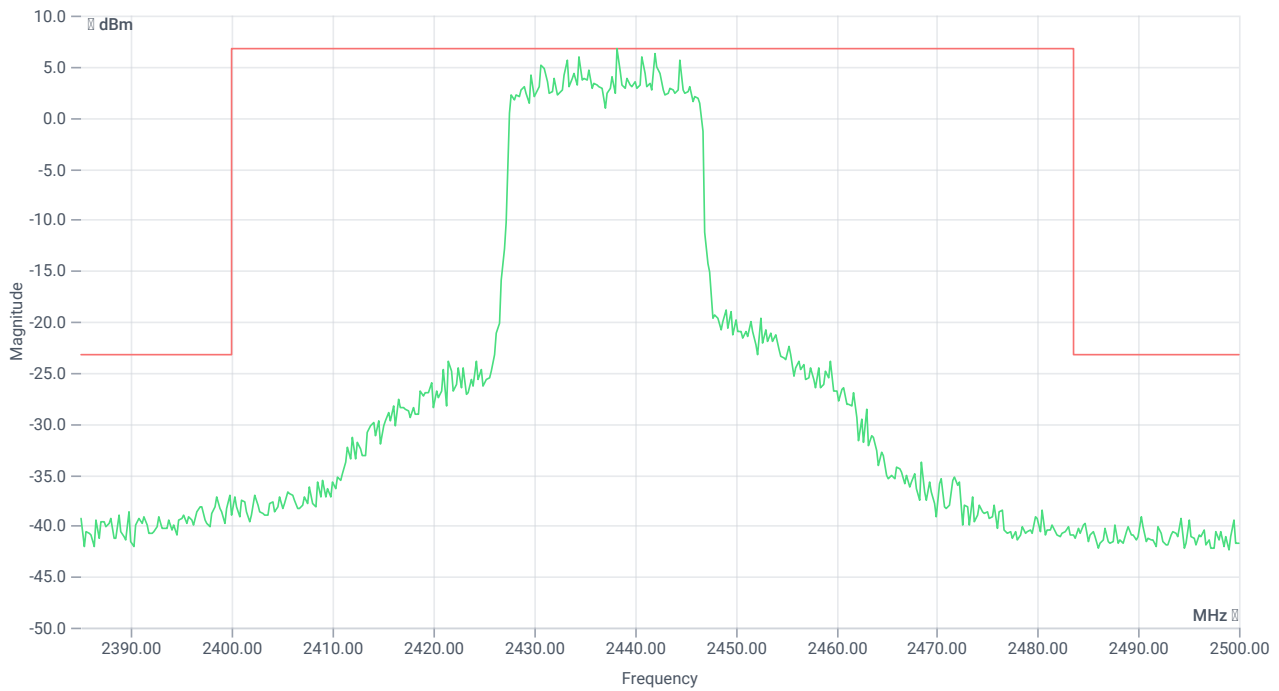
RESULT: Reference Power cond.

TEST DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	16.80	dBm	INFO
Ref. Frequency	---	---	2434.000	MHz	INFO



READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	16.80 0 35
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



RESULT

TEST DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Reference @ 2438.25 MHz	---	---	6.72	dBm	INFO
No peaks detected	---	---			PASS
Lowest margin to limit 30 MHz	0	---	-154.01	dB	INFO

Verdict

PASS

FCC 15.247 # Avg output power SA DTS ~ WLAN2G4 ax-HE20

Test References

TC Start	06.07.2023 16:22:21
Ambit Temp [°C] Humidity [rel%]	26.4 34
System Version	4.5.2.0
Test Specification	FCC 15.247 -
Test Method	ANSI C63.10-2013 Chapter 11.9.2.2.2 or .4
TC Version	0.0.1
My Description	FCC 15.247 Avg output power SA DTS - WLAN2G4 ax-HE20
Add. Information	

EUT Common Settings WLAN2G4

Number of Antenna Ports	1
User Interaction	No

Test Parameter

Technology to test	WLAN2G4 ax-HE20
Antenna Port used	1
Temperature	nom
Voltage	nom
Frequency low to test	False Freq [MHz] 2412
Frequency mid to test	True Freq [MHz] 2437
Frequency high to test	False Freq [MHz] 2462
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-40,1307.9002K40/101042,3.70
Switch matrix,CTCadvanced,SPM-4 NI DAQ,28016133,NI

Test at TX 2437 MHz

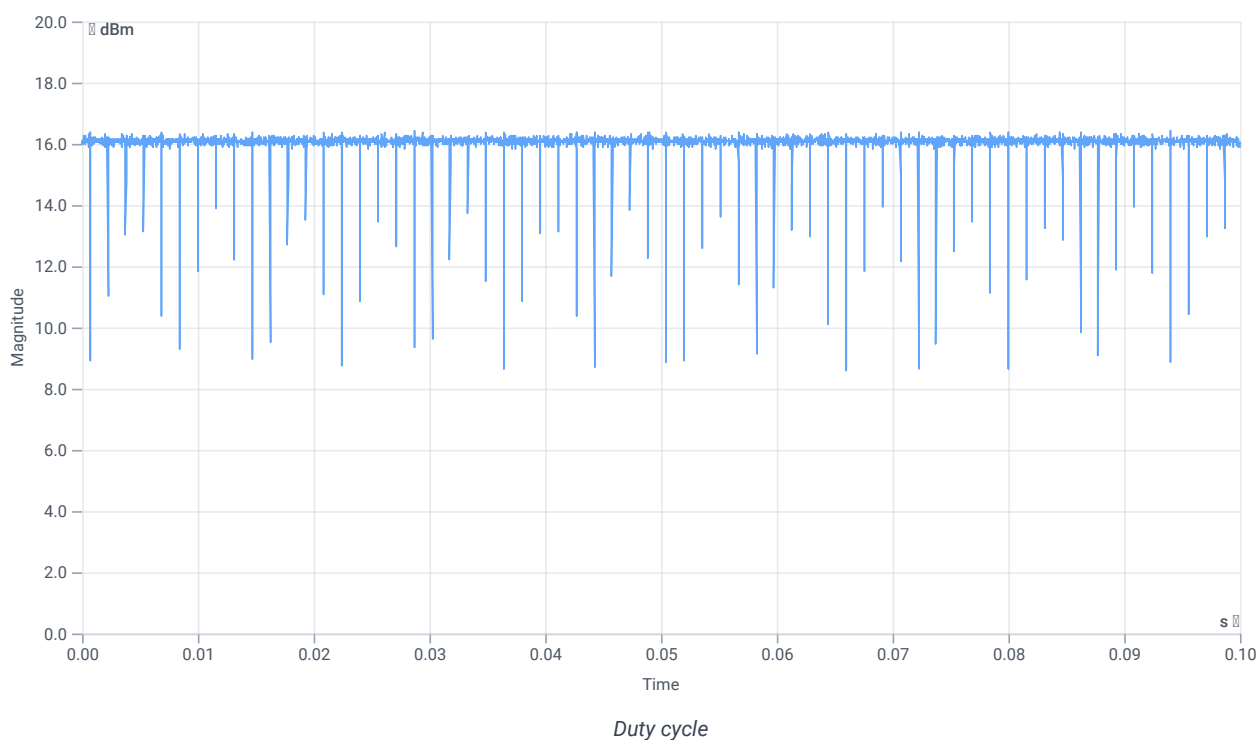
RESULT: Reference Power cond.

TEST DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	17.30	dBm	INFO
Ref. Frequency	---	---	2438.900	MHz	INFO

Evaluation max. Duty Cycle

Duty Cycle evaluation

TEST DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
No enough Bursts detected, Duty Cycle Burst Ratio set to 1					
Duty Cycle (Burst Ratio) max	---	---	1	---	INFO
Duty Cycle max	---	---	0	dB	INFO
Duty Cycle (Burst Ratio) min	---	---	1	---	INFO
Duty Cycle min	---	---	0	dB	INFO



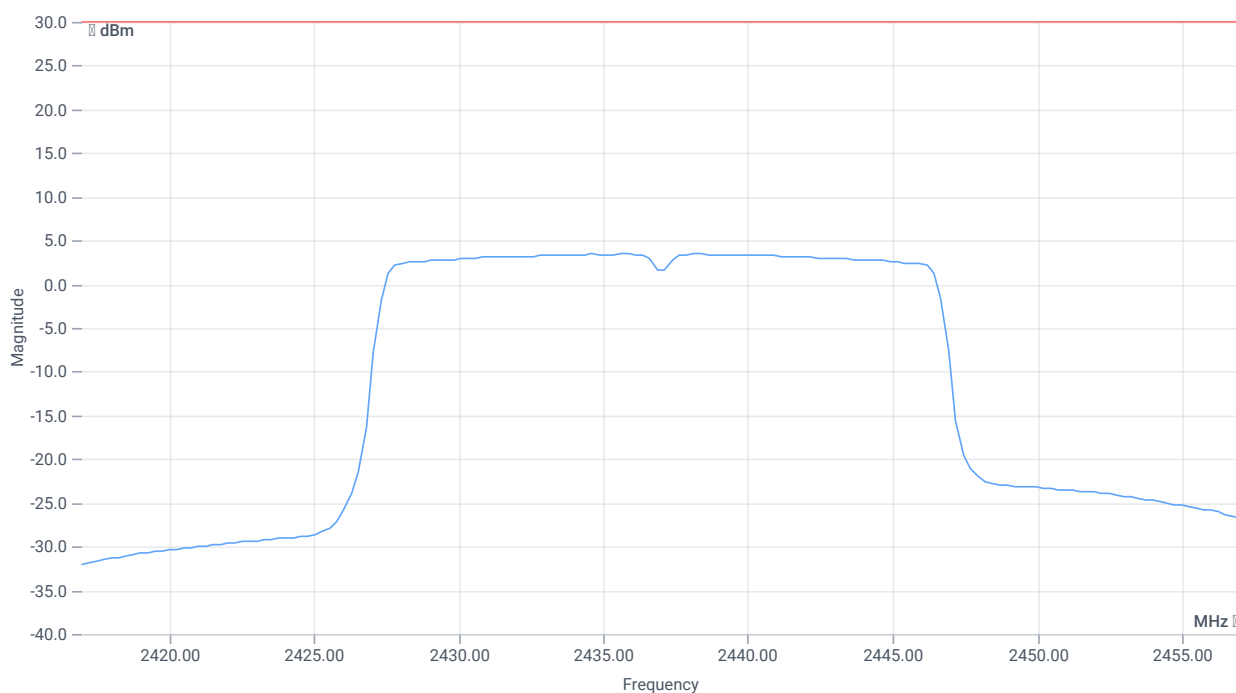
Avg output power SA DTS

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	27.30 14.2 30
Start [MHz] Stop [MHz]	2417.000 2457.000

READ SA SETTINGS:

RBW [MHz] VBW [MHz]	0.500000 2.000000
Detector TraceMode	RMS AVER
Sweep: Time [ms] Count Points per Section Type	500 100 160 SWE



Avg output power SA DTS

RESULT (Channel power method)

TEST DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Avg output power uncorrected	---	---	18.55	dBm	INFO
Duty cycle correction	---	---	0	dB	INFO
Avg power DC corrected	---	30	18.55	dBm	PASS

Verdict

PASS

FCC 15.247 # Bandwidth 6dB DTS ~ WLAN2G4 ax-HE20

Test References

TC Start	06.07.2023 16:23:36
Ambit Temp [°C] Humidity [rel%]	26.4 34
System Version	4.5.2.0
Test Specification	FCC 15.247 -
Test Method	
TC Version	0.0.1
My Description	FCC 15.247 Bandwidth 6dB DTS - WLAN2G4 ax-HE20
Add. Information	

EUT Common Settings WLAN2G4

Number of Antenna Ports	1
User Interaction	No

Test Parameter

Technology to test	WLAN2G4 ax-HE20
Antenna Port used	2
Temperature	nom
Voltage	nom
Frequency low to test	False Freq [MHz] 2412
Frequency mid to test	True Freq [MHz] 2437
Frequency high to test	False Freq [MHz] 2462
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-40,1307.9002K40/101042,3.70
Switch matrix,CTCadvanced,SPM-4 NI DAQ,28016133,NI

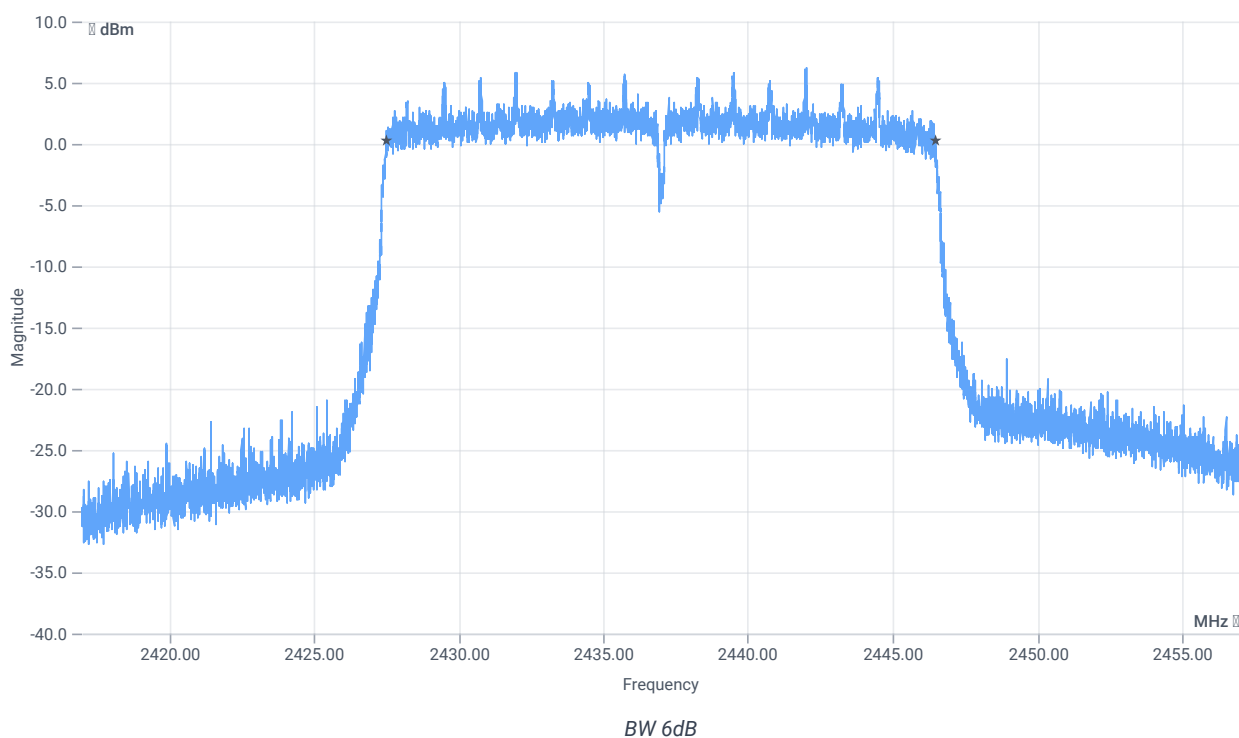
Test at TX 2437 MHz

RESULT: Reference Power cond.

TEST DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	15.20	dBm	INFO
Ref. Frequency	---	---	2431.610	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	20.20 14.2 25
Start [MHz] Stop [MHz]	2417.000 2457.000
RBW [MHz] VBW [MHz]	0.100000 0.300000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	50 200 10001 SWE



RESULT

TEST DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
DTS Bandwidth (6dB)	500	---	18964	kHz	PASS

Verdict

PASS

FCC 15.247 # Avg psd DTS ~ WLAN2G4 ax-HE20

Test References

TC Start	06.07.2023 16:24:09
Ambit Temp [°C] Humidity [rel%]	26.5 34
System Version	4.5.2.0
Test Specification	FCC 15.247 -
Test Method	ANSI C63.10-2013 Chapter 11.10.5 or.3
TC Version	0.0.1
My Description	FCC 15.247 Avg psd DTS - WLAN2G4 ax-HE20
Add. Information	

EUT Common Settings WLAN2G4

Number of Antenna Ports	1
User Interaction	No

Test Parameter

Technology to test	WLAN2G4 ax-HE20
Antenna Port used	2
Temperature	nom
Voltage	nom
Frequency low to test	False Freq [MHz] 2412
Frequency mid to test	True Freq [MHz] 2437
Frequency high to test	False Freq [MHz] 2462
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-40,1307.9002K40/101042,3.70
Switch matrix,CTCadvanced,SPM-4 NI DAQ,28016133,NI

Test at TX 2437 MHz

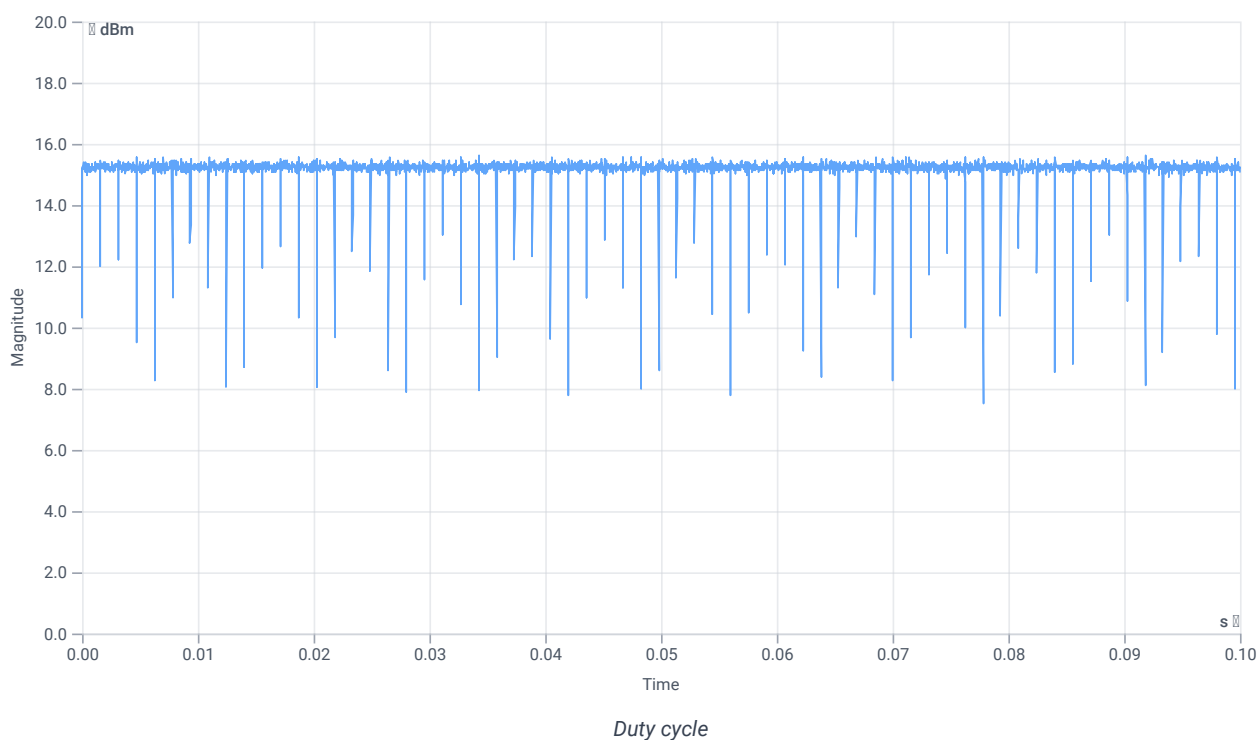
RESULT: Reference Power cond.

TEST DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	16.04	dBm	INFO
Ref. Frequency	---	---	2434.800	MHz	INFO

Evaluation max. Duty Cycle

Duty Cycle evaluation

TEST DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
No enough Bursts detected, Duty Cycle Burst Ratio set to 1					
Duty Cycle (Burst Ratio) max	---	---	1	---	INFO
Duty Cycle max	---	---	0	dB	INFO
Duty Cycle (Burst Ratio) min	---	---	1	---	INFO
Duty Cycle min	---	---	0	dB	INFO



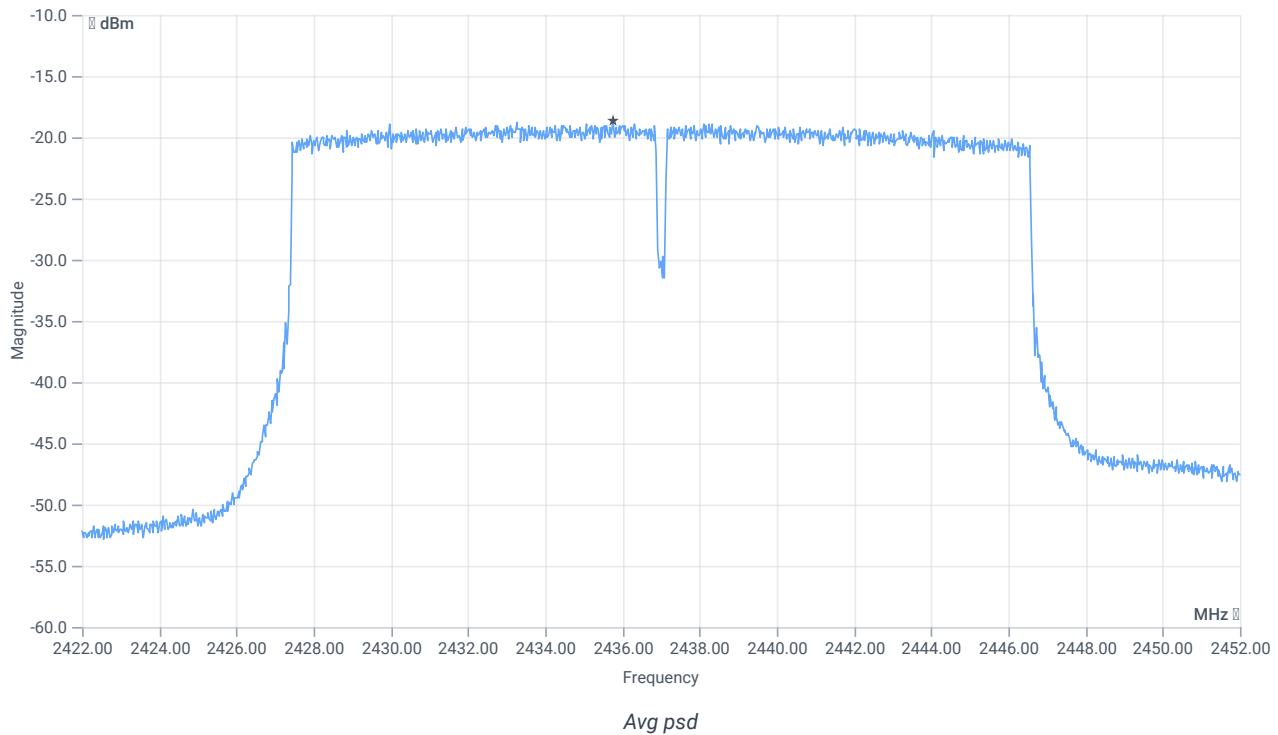
Avg. psd

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	21.04 14.2 25
Start [MHz] Stop [MHz]	2422.000 2452.000

READ SA SETTINGS:

RBW [MHz] VBW [MHz]	0.003000 0.010000
Detector TraceMode	RMS AVER
Sweep: Time [ms] Count Points per Section Type	334 100 1001 SWE



RESULT

TEST DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Avg psd uncorrected	---	---	-18.59	dBm	INFO
Duty cycle correction	---	---	0	dB	INFO
Avg psd DC corrected	---	8	-18.59	dBm/3kHz	PASS

Verdict

PASS

FCC 15.247, ISED RSS247 # Bandwidth 99PCT and 20dB ~ WLAN2G4 ax-HE20

Test References

TC Start	06.07.2023 16:25:11
Ambit Temp [°C] Humidity [rel%]	26.5 34
System Version	4.5.2.0
Test Specification	FCC 15.247, ISED RSS247 -
Test Method	
TC Version	0.0.2
My Description	FCC 15.247 Bandwidth 99PCT-20dB DTS - WLAN2G4 ax-HE20
Add. Information	

EUT Common Settings WLAN2G4

Number of Antenna Ports	1
User Interaction	No

Test Parameter

Technology to test	WLAN2G4 ax-HE20
Antenna Port used	2
Temperature	nom
Voltage	nom
Frequency low to test	False Freq [MHz] 2412
Frequency mid to test	True Freq [MHz] 2437
Frequency high to test	False Freq [MHz] 2462
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-40,1307.9002K40/101042,3.70
Switch matrix,CTCadvanced,SPM-4 NI DAQ,28016133,NI

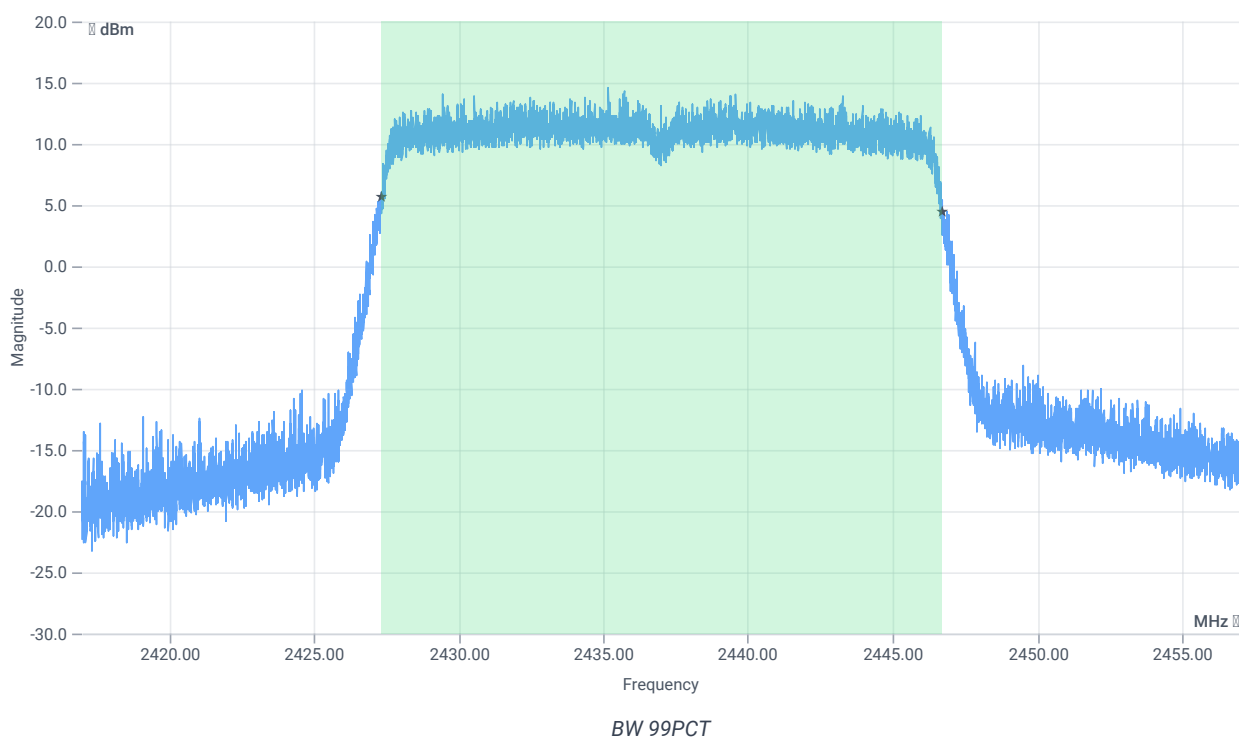
Test at TX 2437 MHz

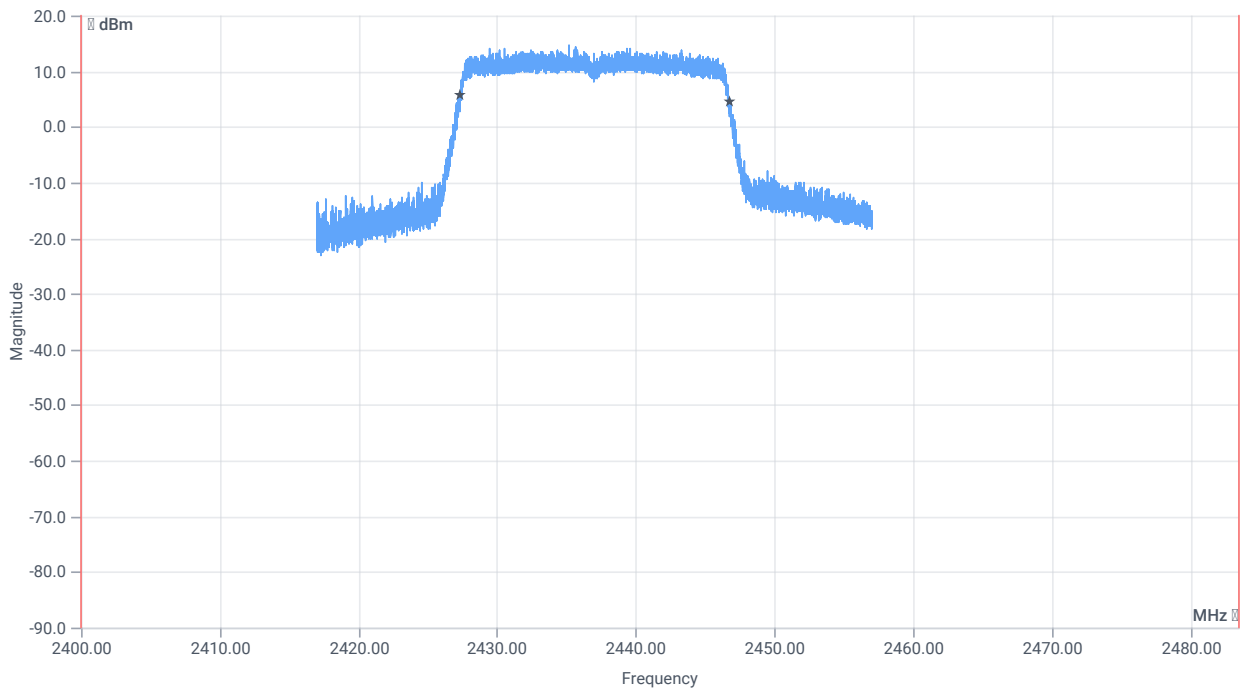
RESULT: Reference Power cond.

TEST DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	15.26	dBm	INFO
Ref. Frequency	---	---	2430.010	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	20.26 14.2 25
Start [MHz] Stop [MHz]	2417.000 2457.000
RBW [MHz] VBW [MHz]	0.500000 2.000000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	50 200 10001 SWE

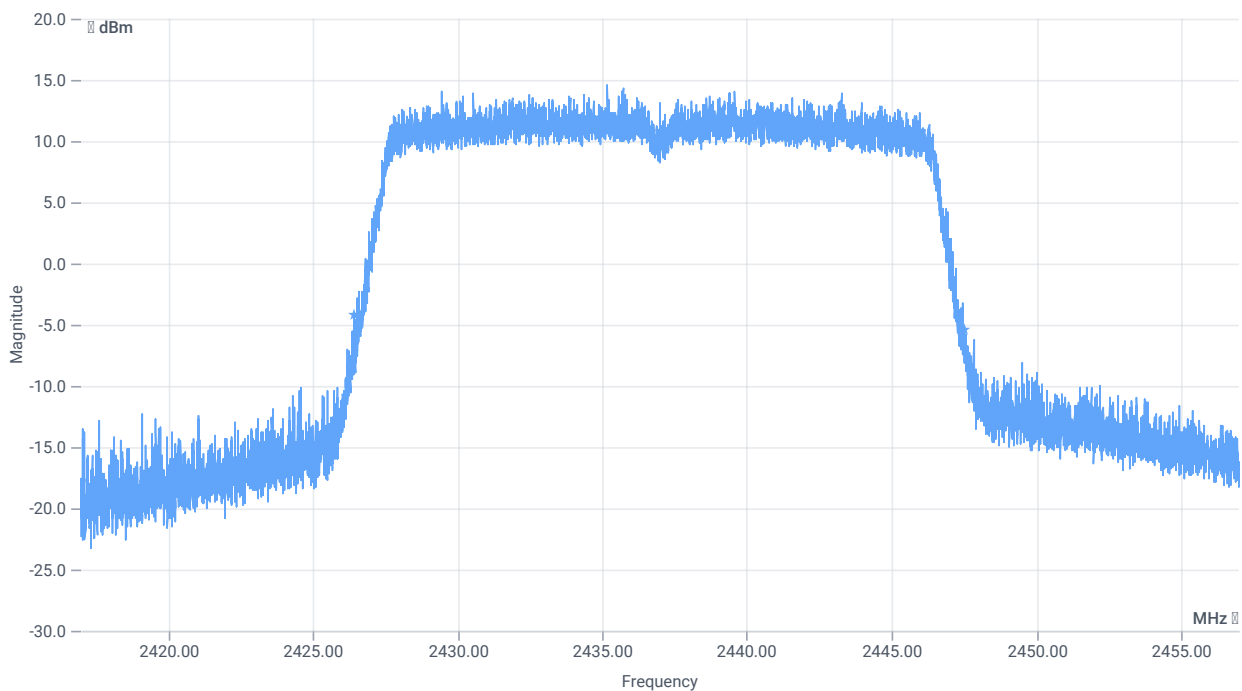




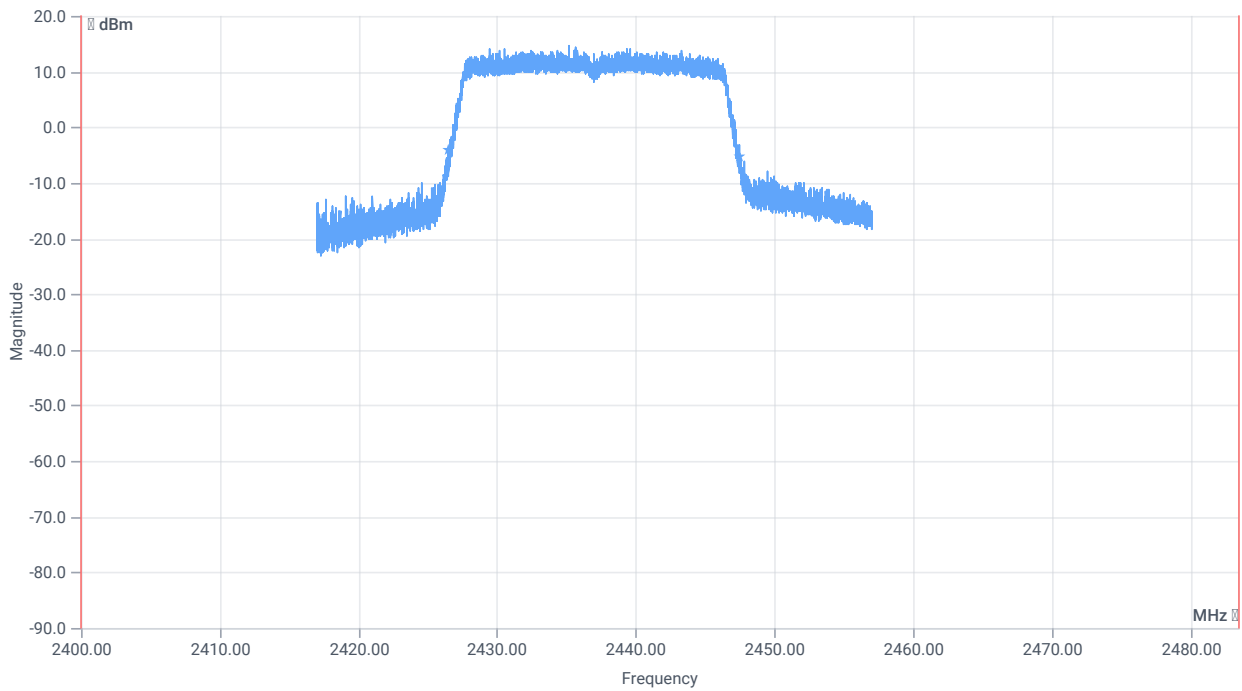
BW within Band 99PCT

RESULT

TEST DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 99%	---	---	19358.000	kHz	INFO
T1 99%	2400.000000	---	2427.3450	MHz	PASS
T2 99%	---	2483.500000	2446.7030	MHz	PASS



BW 20dB



BW within Band 20dB

RESULT

TEST DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 20dB	---	---	21072	kHz	INFO
T1 20dB	2400.000000	---	2426.4520	MHz	PASS
T2 20dB	---	2483.500000	2447.5240	MHz	PASS

Verdict

PASS

FCC 15.247 # TX spurious conducted 30dBc ~ WLAN2G4 ax-HE20

Test References

TC Start	06.07.2023 16:25:48
Ambit Temp [°C] Humidity [rel%]	26.5 34
System Version	4.5.2.0
Test Specification	FCC 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 30dBc DTS DTS - WLAN2G4 ax-HE20
Add. Information	

EUT Common Settings WLAN2G4

Number of Antenna Ports	1
User Interaction	No

Test Parameter

Technology to test	WLAN2G4 ax-HE20
Antenna Port used	2
Temperature	nom
Voltage	nom
Frequency low to test	False Freq [MHz] 2412
Frequency mid to test	True Freq [MHz] 2437
Frequency high to test	False Freq [MHz] 2462
Auto Control enabled Power Supply Climatic Box	No No
Additional Path Loss [dB]	0.7
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer

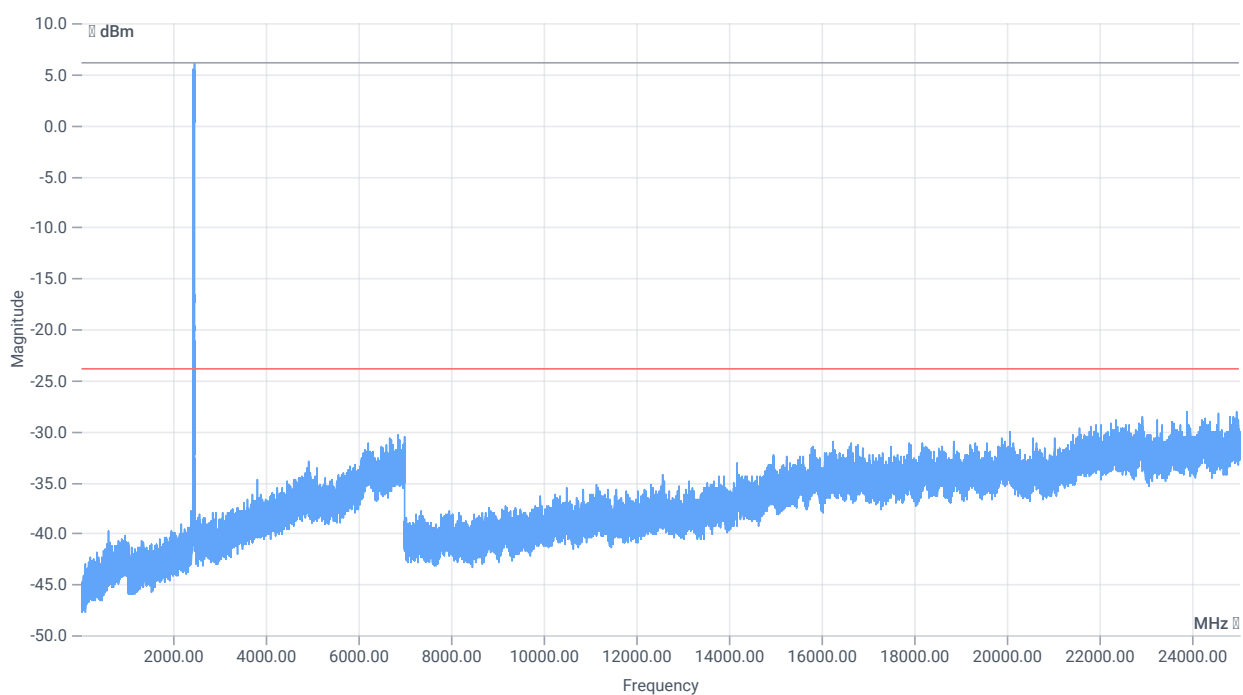
Test Equipment

Signal analyzer,Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.70
Switch matrix,CTCadvanced,SPM-4 NI DAQ,28016133,NI

Test at TX 2437 MHz

RESULT: Reference Power cond.

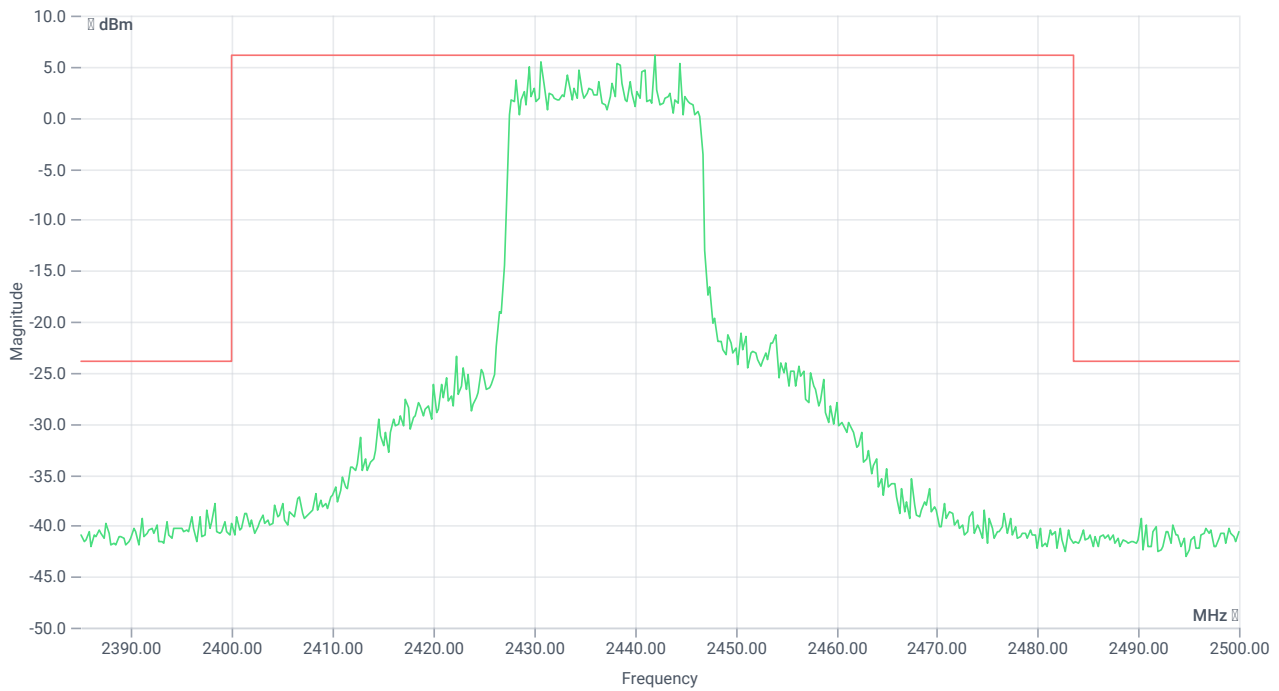
TEST DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	15.08	dBm	INFO
Ref. Frequency	---	---	2435.600	MHz	INFO



TX emissions

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	15.08 0 35
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

TEST DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Reference @ 2442.00 MHz	---	---	6.15	dBm	INFO
No peaks detected	---	---			PASS
Lowest margin to limit 24946.75 MHz	0	---	4.29	dB	INFO

Verdict

PASS

FCC 15.247 # Avg output power SA DTS ~ WLAN2G4 ax-HE20

Test References

TC Start	06.07.2023 16:32:29
Ambit Temp [°C] Humidity [rel%]	26.5 34
System Version	4.5.2.0
Test Specification	FCC 15.247 -
Test Method	ANSI C63.10-2013 Chapter 11.9.2.2.2 or .4
TC Version	0.0.1
My Description	FCC 15.247 Avg output power SA DTS - WLAN2G4 ax-HE20
Add. Information	

EUT Common Settings WLAN2G4

Number of Antenna Ports	1
User Interaction	No

Test Parameter

Technology to test	WLAN2G4 ax-HE20
Antenna Port used	2
Temperature	nom
Voltage	nom
Frequency low to test	False Freq [MHz] 2412
Frequency mid to test	True Freq [MHz] 2437
Frequency high to test	False Freq [MHz] 2462
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-40,1307.9002K40/101042,3.70
Switch matrix,CTCadvanced,SPM-4 NI DAQ,28016133,NI

Test at TX 2437 MHz

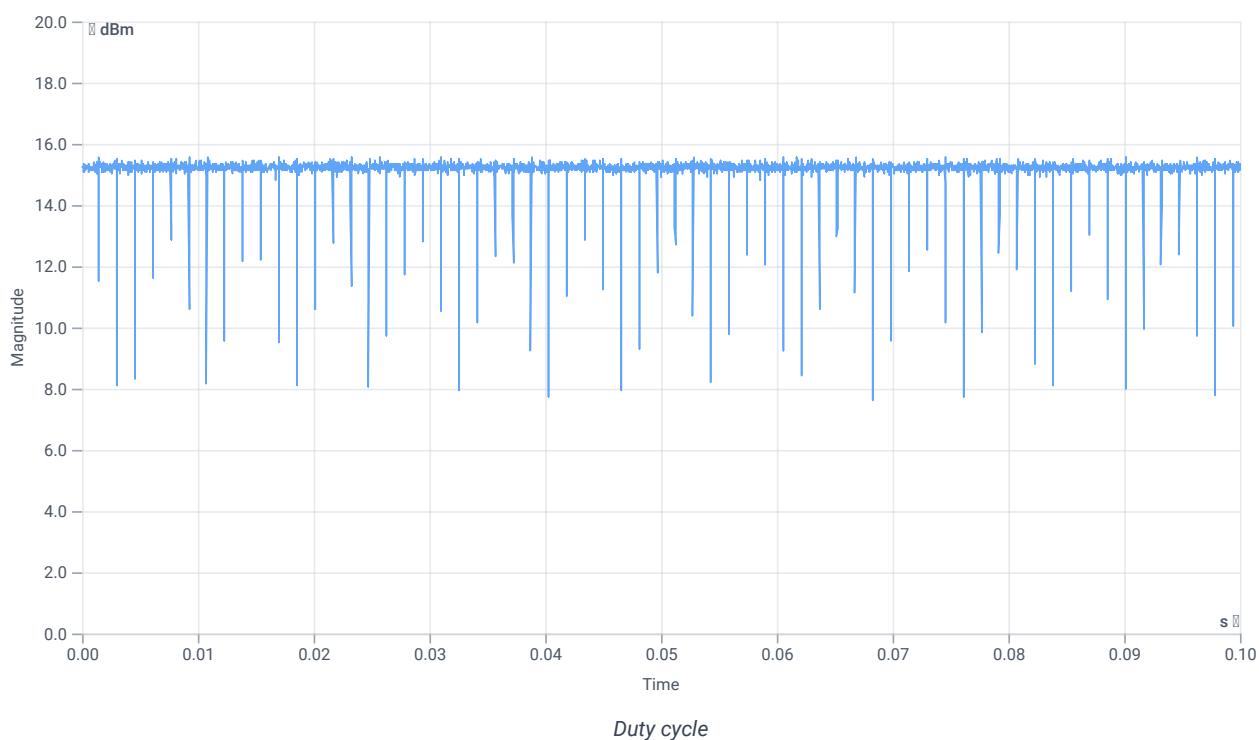
RESULT: Reference Power cond.

TEST DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	14.78	dBm	INFO
Ref. Frequency	---	---	2434.000	MHz	INFO

Evaluation max. Duty Cycle

Duty Cycle evaluation

TEST DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
No enough Bursts detected, Duty Cycle Burst Ratio set to 1					
Duty Cycle (Burst Ratio) max	---	---	1	---	INFO
Duty Cycle max	---	---	0	dB	INFO
Duty Cycle (Burst Ratio) min	---	---	1	---	INFO
Duty Cycle min	---	---	0	dB	INFO



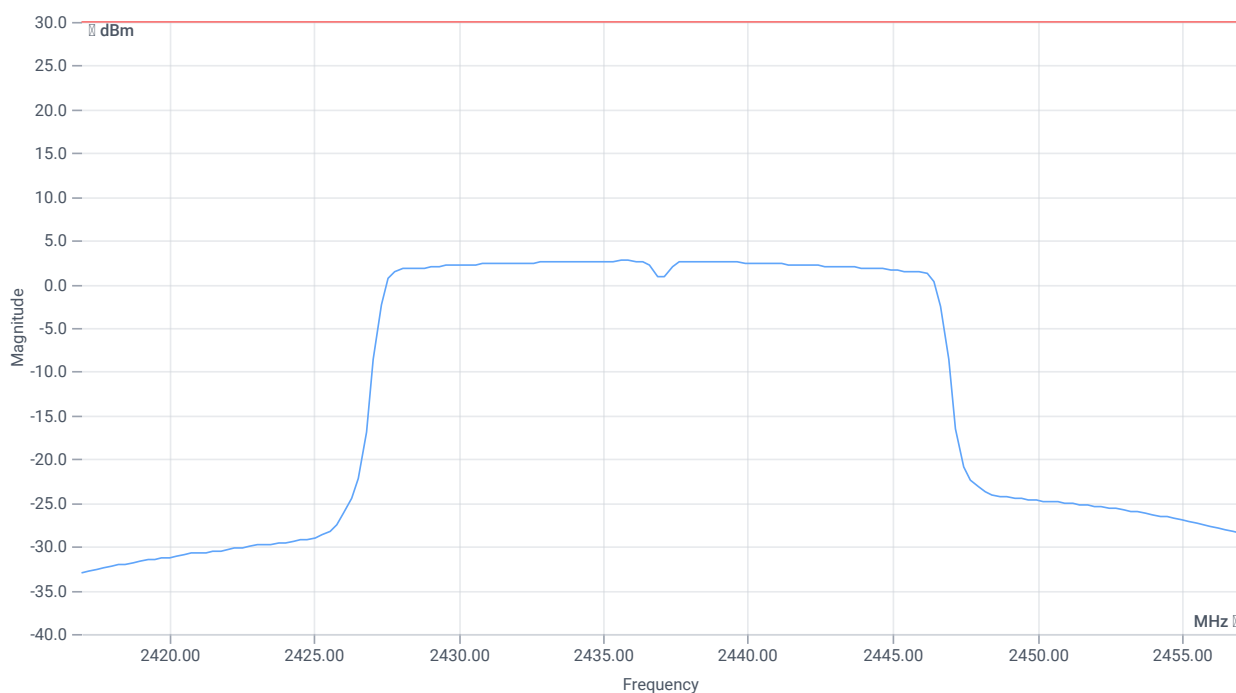
Avg output power SA DTS

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	24.78 14.2 25
Start [MHz] Stop [MHz]	2417.000 2457.000

READ SA SETTINGS:

RBW [MHz] VBW [MHz]	0.500000 2.000000
Detector TraceMode	RMS AVER
Sweep: Time [ms] Count Points per Section Type	500 100 160 SWE



Avg output power SA DTS

RESULT (Channel power method)

TEST DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Avg output power uncorrected	---	---	17.74	dBm	INFO
Duty cycle correction	---	---	0	dB	INFO
Avg power DC corrected	---	30	17.74	dBm	PASS

Verdict

PASS

Message with SA scan ~

Test References

TC Start	06.07.2023 16:33:44
Ambit Temp [°C] Humidity [rel%]	26.5 34
System Version	4.5.2.0
Test Specification	-
Test Method	
TC Version	0.0.1
My Description	Message with SA Scan ax-HE20
Add. Information	

Test Parameter

Switched Path	EUT - SignalingUnit - SpectrumAnalyzer
Message start	06.07.2023 16:33:44
Message	set WLAN2G4 to ax-HE20, Frequency [MHz] 2462

Test Equipment

Signal analyzer,Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.70
Switch matrix,CTCadvanced,SPM-4 NI DAQ,28016133,NI

Verdict

INFO

FCC 15.247 # Bandwidth 6dB DTS ~ WLAN2G4 ax-HE20

Test References

TC Start	06.07.2023 16:34:38
Ambit Temp [°C] Humidity [rel%]	26.5 34
System Version	4.5.2.0
Test Specification	FCC 15.247 -
Test Method	
TC Version	0.0.1
My Description	FCC 15.247 Bandwidth 6dB DTS - WLAN2G4 ax-HE20
Add. Information	

EUT Common Settings WLAN2G4

Number of Antenna Ports	1
User Interaction	No

Test Parameter

Technology to test	WLAN2G4 ax-HE20
Antenna Port used	1
Temperature	nom
Voltage	nom
Frequency low to test	False Freq [MHz] 2412
Frequency mid to test	False Freq [MHz] 2437
Frequency high to test	True Freq [MHz] 2462
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-40,1307.9002K40/101042,3.70
Switch matrix,CTCadvanced,SPM-4 NI DAQ,28016133,NI

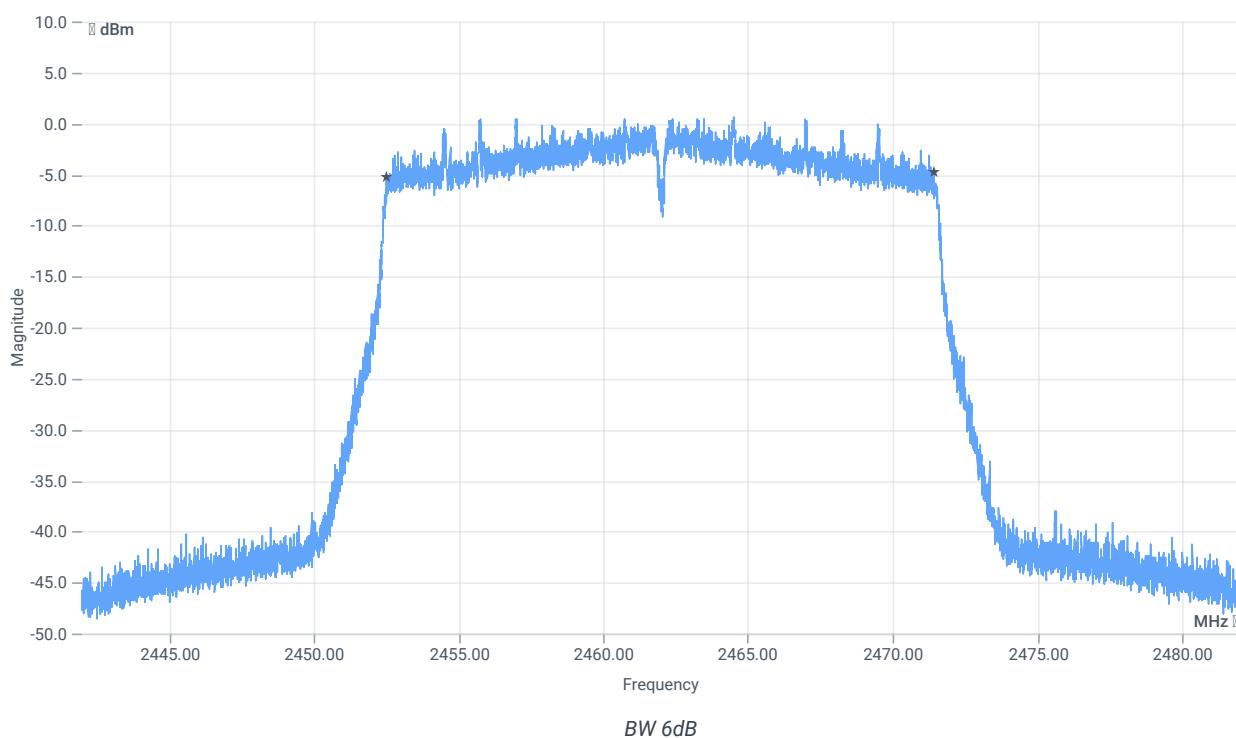
Test at TX 2462 MHz

RESULT: Reference Power cond.

TEST DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	10.68	dBm	INFO
Ref. Frequency	---	---	2461.400	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	15.68 14.04 20
Start [MHz] Stop [MHz]	2442.000 2482.000
RBW [MHz] VBW [MHz]	0.100000 0.300000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	50 200 10001 SWE



RESULT

TEST DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
DTS Bandwidth (6dB)	500	---	18908	kHz	PASS

Verdict

PASS

FCC 15.247 # Avg psd DTS ~ WLAN2G4 ax-HE20

Test References

TC Start	06.07.2023 16:35:11
Ambit Temp [°C] Humidity [rel%]	26.5 34
System Version	4.5.2.0
Test Specification	FCC 15.247 -
Test Method	ANSI C63.10-2013 Chapter 11.10.5 or.3
TC Version	0.0.1
My Description	FCC 15.247 Avg psd DTS - WLAN2G4 ax-HE20
Add. Information	

EUT Common Settings WLAN2G4

Number of Antenna Ports	1
User Interaction	No

Test Parameter

Technology to test	WLAN2G4 ax-HE20
Antenna Port used	1
Temperature	nom
Voltage	nom
Frequency low to test	False Freq [MHz] 2412
Frequency mid to test	False Freq [MHz] 2437
Frequency high to test	True Freq [MHz] 2462
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-40,1307.9002K40/101042,3.70
Switch matrix,CTCadvanced,SPM-4 NI DAQ,28016133,NI

Test at TX 2462 MHz

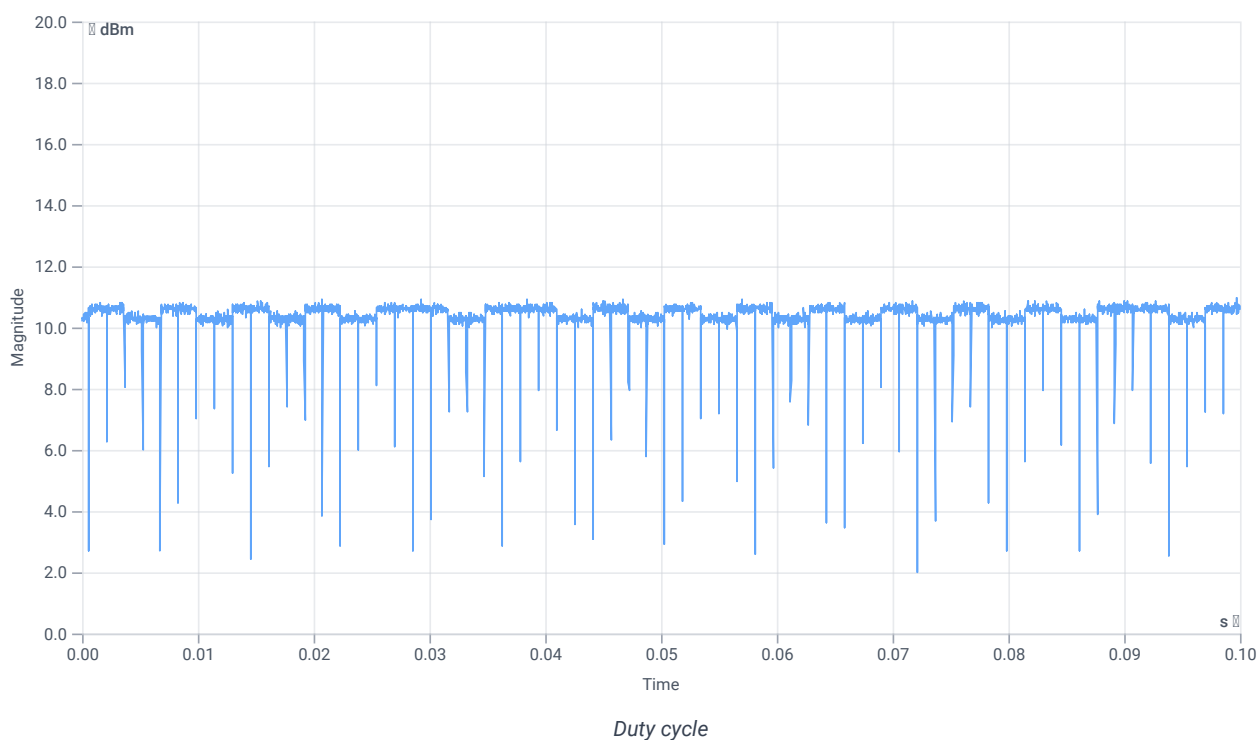
RESULT: Reference Power cond.

TEST DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	11.42	dBm	INFO
Ref. Frequency	---	---	2463.300	MHz	INFO

Evaluation max. Duty Cycle

Duty Cycle evaluation

TEST DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
No enough Bursts detected, Duty Cycle Burst Ratio set to 1					
Duty Cycle (Burst Ratio) max	---	---	1	---	INFO
Duty Cycle max	---	---	0	dB	INFO
Duty Cycle (Burst Ratio) min	---	---	1	---	INFO
Duty Cycle min	---	---	0	dB	INFO



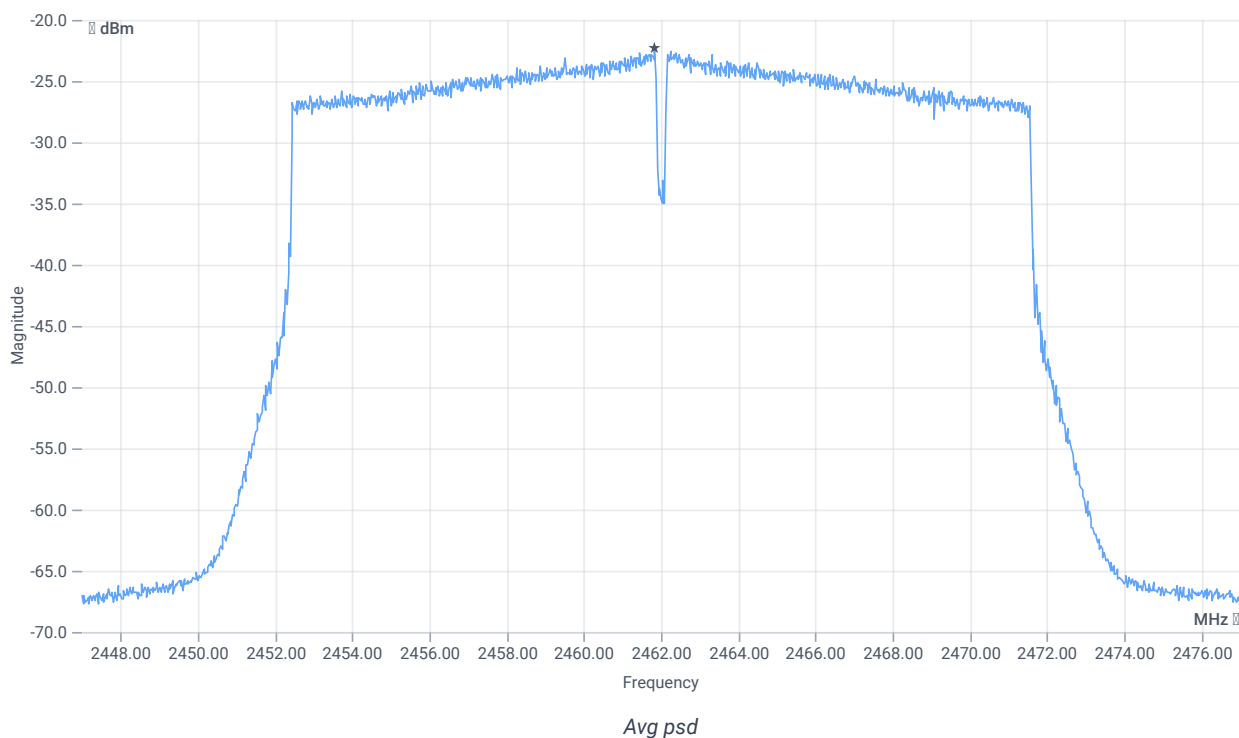
Avg. psd

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	16.42 14.04 20
Start [MHz] Stop [MHz]	2447.000 2477.000

READ SA SETTINGS:

RBW [MHz] VBW [MHz]	0.003000 0.010000
Detector TraceMode	RMS AVER
Sweep: Time [ms] Count Points per Section Type	334 100 1001 SWE



RESULT

TEST DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Avg psd uncorrected	---	---	-22.36	dBm	INFO
Duty cycle correction	---	---	0	dB	INFO
Avg psd DC corrected	---	8	-22.36	dBm/3kHz	PASS

Verdict

PASS

FCC 15.247, ISED RSS247 # Bandwidth 99PCT and 20dB ~ WLAN2G4 ax-HE20

Test References

TC Start	06.07.2023 16:36:14
Ambit Temp [°C] Humidity [rel%]	26.5 34
System Version	4.5.2.0
Test Specification	FCC 15.247, ISED RSS247 -
Test Method	
TC Version	0.0.2
My Description	FCC 15.247 Bandwidth 99PCT-20dB DTS - WLAN2G4 ax-HE20
Add. Information	

EUT Common Settings WLAN2G4

Number of Antenna Ports	1
User Interaction	No

Test Parameter

Technology to test	WLAN2G4 ax-HE20
Antenna Port used	1
Temperature	nom
Voltage	nom
Frequency low to test	False Freq [MHz] 2412
Frequency mid to test	False Freq [MHz] 2437
Frequency high to test	True Freq [MHz] 2462
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-40,1307.9002K40/101042,3.70
Switch matrix,CTCadvanced,SPM-4 NI DAQ,28016133,NI

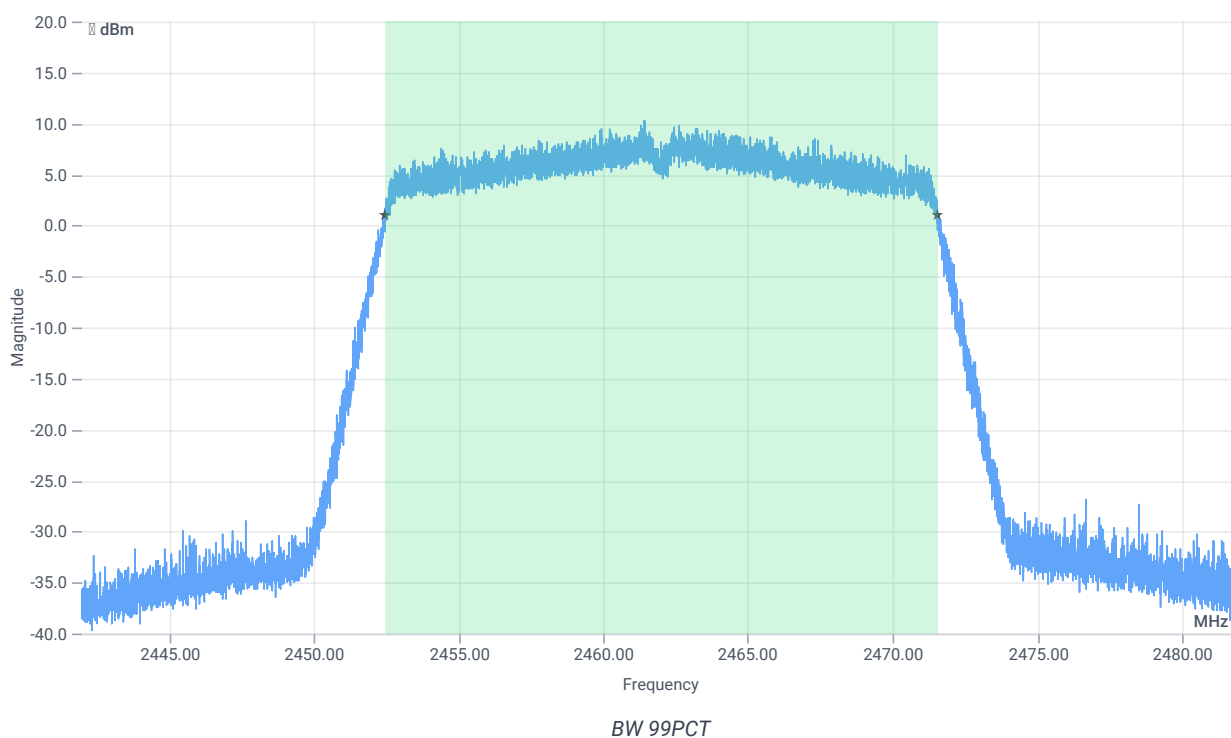
Test at TX 2462 MHz

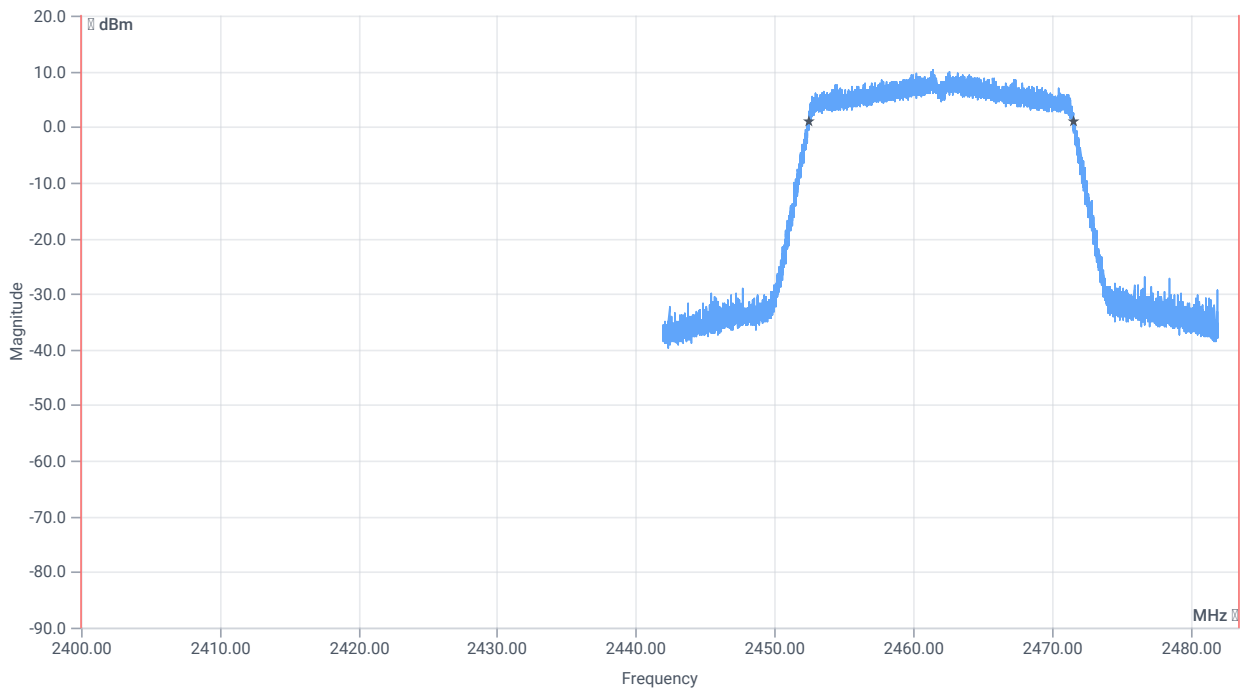
RESULT: Reference Power cond.

TEST DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	11.06	dBm	INFO
Ref. Frequency	---	---	2461.400	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	16.06 14.04 20
Start [MHz] Stop [MHz]	2442.000 2482.000
RBW [MHz] VBW [MHz]	0.500000 2.000000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	50 200 10001 SWE

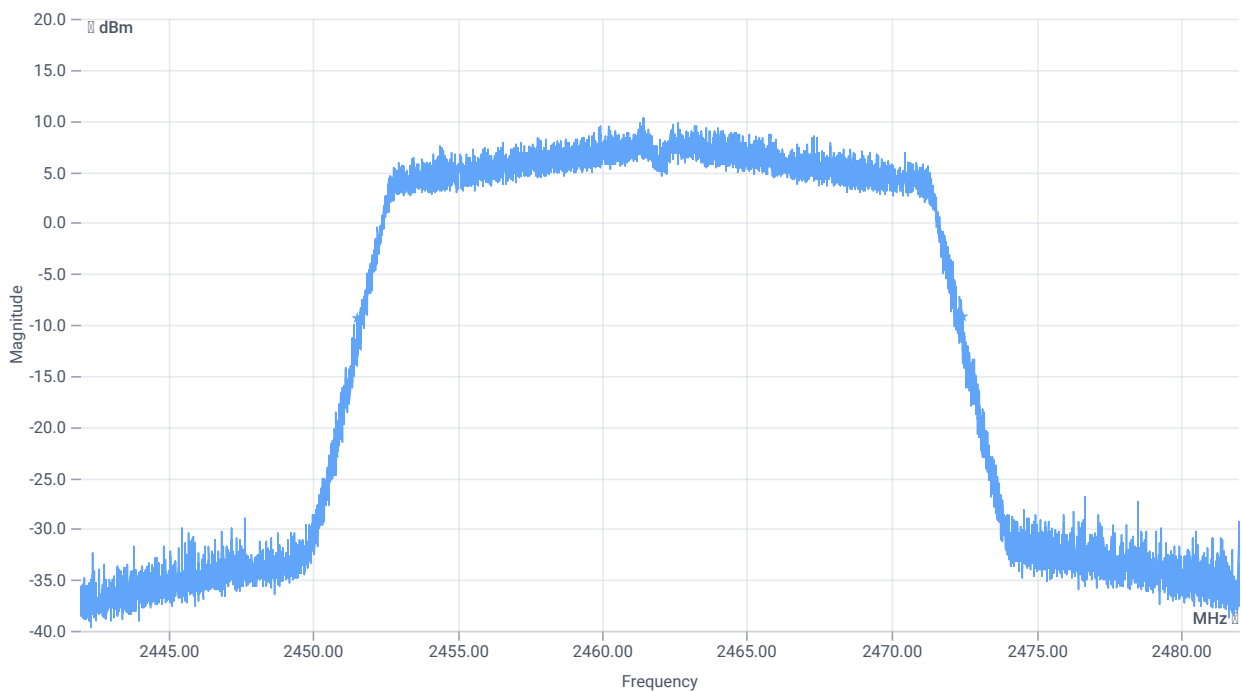




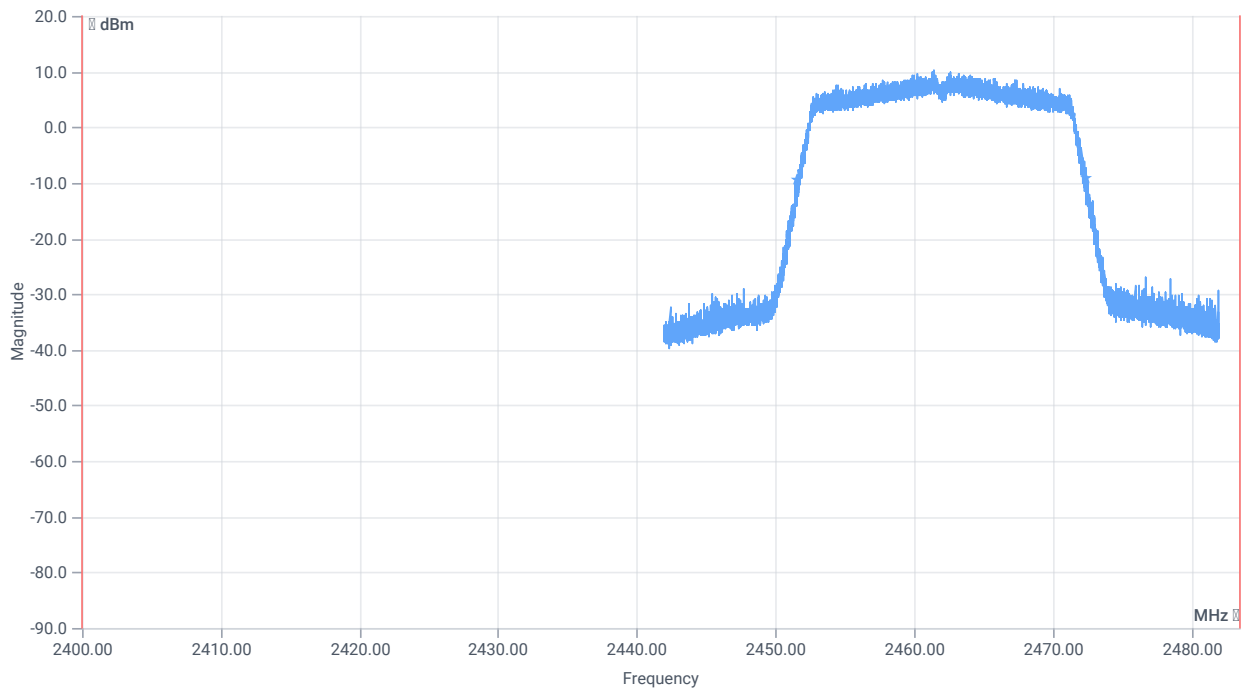
BW within Band 99PCT

RESULT

TEST DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 99%	---	---	19098.000	kHz	INFO
T1 99%	2400.000000	---	2452.4570	MHz	PASS
T2 99%	---	2483.500000	2471.5550	MHz	PASS



BW 20dB



BW within Band 20dB

RESULT

TEST DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 20dB	---	---	20904	kHz	INFO
T1 20dB	2400.000000	---	2451.5560	MHz	PASS
T2 20dB	---	2483.500000	2472.4600	MHz	PASS

Verdict
PASS

FCC 15.247 # TX spurious conducted 30dBc ~ WLAN2G4 ax-HE20

Test References

TC Start	06.07.2023 16:36:51
Ambit Temp [°C] Humidity [rel%]	26.5 34
System Version	4.5.2.0
Test Specification	FCC 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 30dBc DTS DTS - WLAN2G4 ax-HE20
Add. Information	

EUT Common Settings WLAN2G4

Number of Antenna Ports	1
User Interaction	No

Test Parameter

Technology to test	WLAN2G4 ax-HE20
Antenna Port used	1
Temperature	nom
Voltage	nom
Frequency low to test	False Freq [MHz] 2412
Frequency mid to test	False Freq [MHz] 2437
Frequency high to test	True Freq [MHz] 2462
Auto Control enabled Power Supply Climatic Box	No No
Additional Path Loss [dB]	0.7
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer

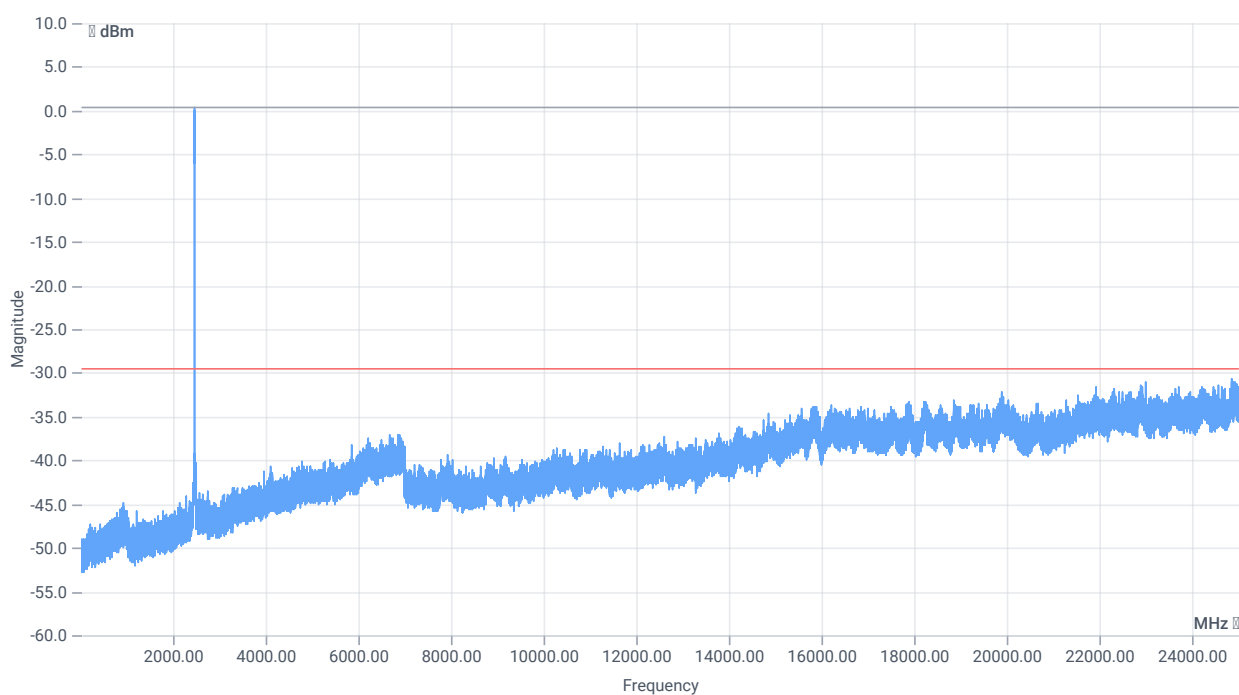
Test Equipment

Signal analyzer,Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.70
Switch matrix,CTCadvanced,SPM-4 NI DAQ,28016133,NI

Test at TX 2462 MHz

RESULT: Reference Power cond.

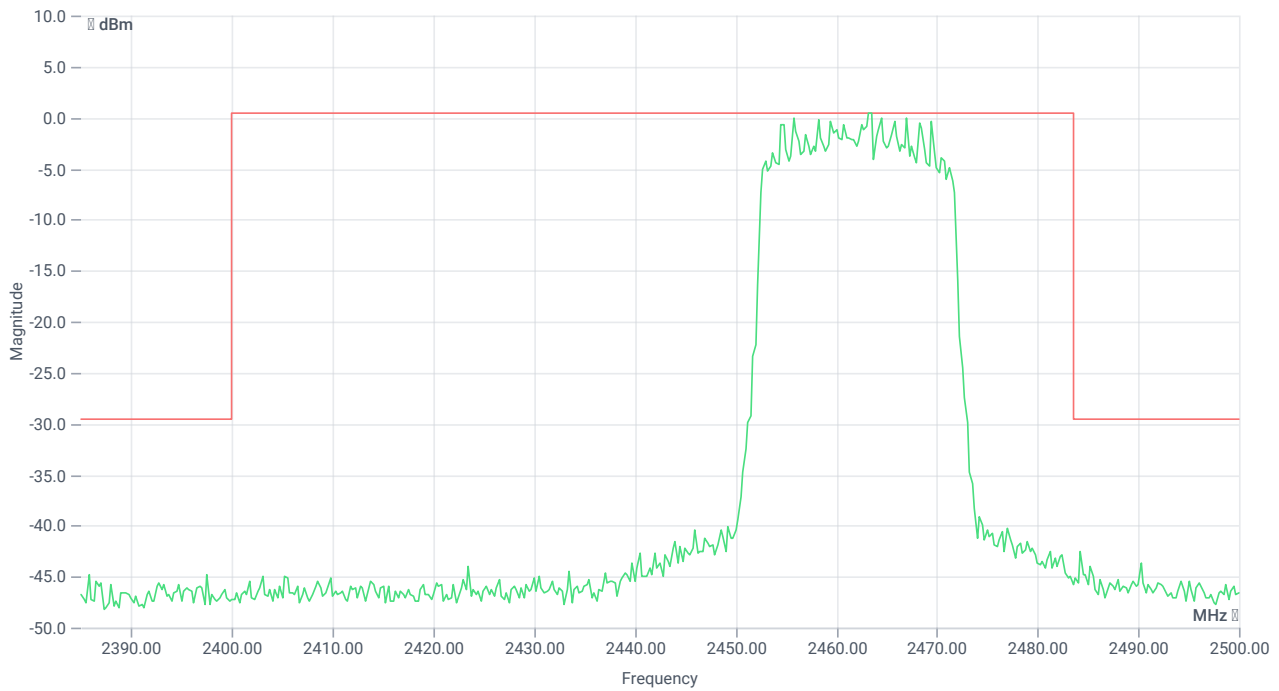
TEST DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	11.25	dBm	INFO
Ref. Frequency	---	---	2462.600	MHz	INFO



TX emissions

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	11.25 0 30
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



RESULT

TEST DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Reference @ 2463.25 MHz	---	---	0.44	dBm	INFO
No peaks detected	---	---			PASS
Lowest margin to limit 24842 MHz	0	---	1.16	dB	INFO

Verdict

PASS

FCC 15.247 # Avg output power SA DTS ~ WLAN2G4 ax-HE20

Test References

TC Start	06.07.2023 16:43:31
Ambit Temp [°C] Humidity [rel%]	26.5 34
System Version	4.5.2.0
Test Specification	FCC 15.247 -
Test Method	ANSI C63.10-2013 Chapter 11.9.2.2.2 or .4
TC Version	0.0.1
My Description	FCC 15.247 Avg output power SA DTS - WLAN2G4 ax-HE20
Add. Information	

EUT Common Settings WLAN2G4

Number of Antenna Ports	1
User Interaction	No

Test Parameter

Technology to test	WLAN2G4 ax-HE20
Antenna Port used	1
Temperature	nom
Voltage	nom
Frequency low to test	False Freq [MHz] 2412
Frequency mid to test	False Freq [MHz] 2437
Frequency high to test	True Freq [MHz] 2462
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-40,1307.9002K40/101042,3.70
Switch matrix,CTCadvanced,SPM-4 NI DAQ,28016133,NI

Test at TX 2462 MHz

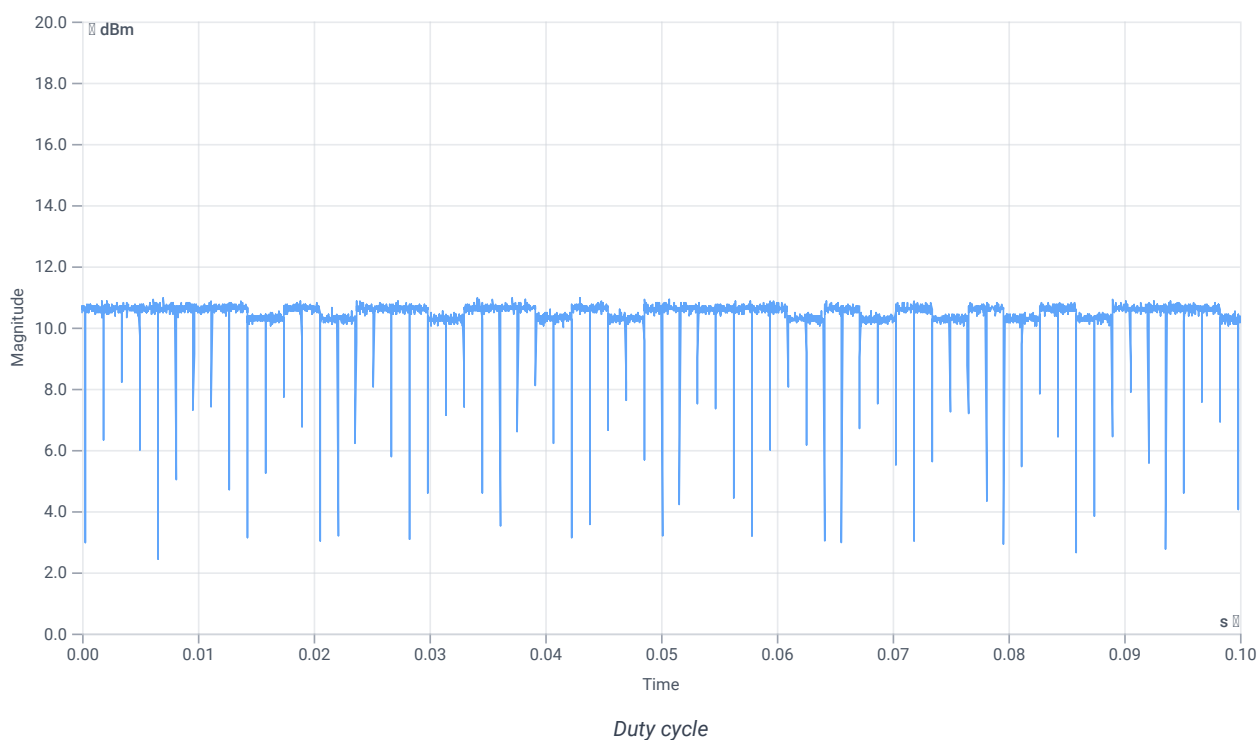
RESULT: Reference Power cond.

TEST DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	11.72	dBm	INFO
Ref. Frequency	---	---	2466.700	MHz	INFO

Evaluation max. Duty Cycle

Duty Cycle evaluation

TEST DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
No enough Bursts detected, Duty Cycle Burst Ratio set to 1					
Duty Cycle (Burst Ratio) max	---	---	1	---	INFO
Duty Cycle max	---	---	0	dB	INFO
Duty Cycle (Burst Ratio) min	---	---	1	---	INFO
Duty Cycle min	---	---	0	dB	INFO



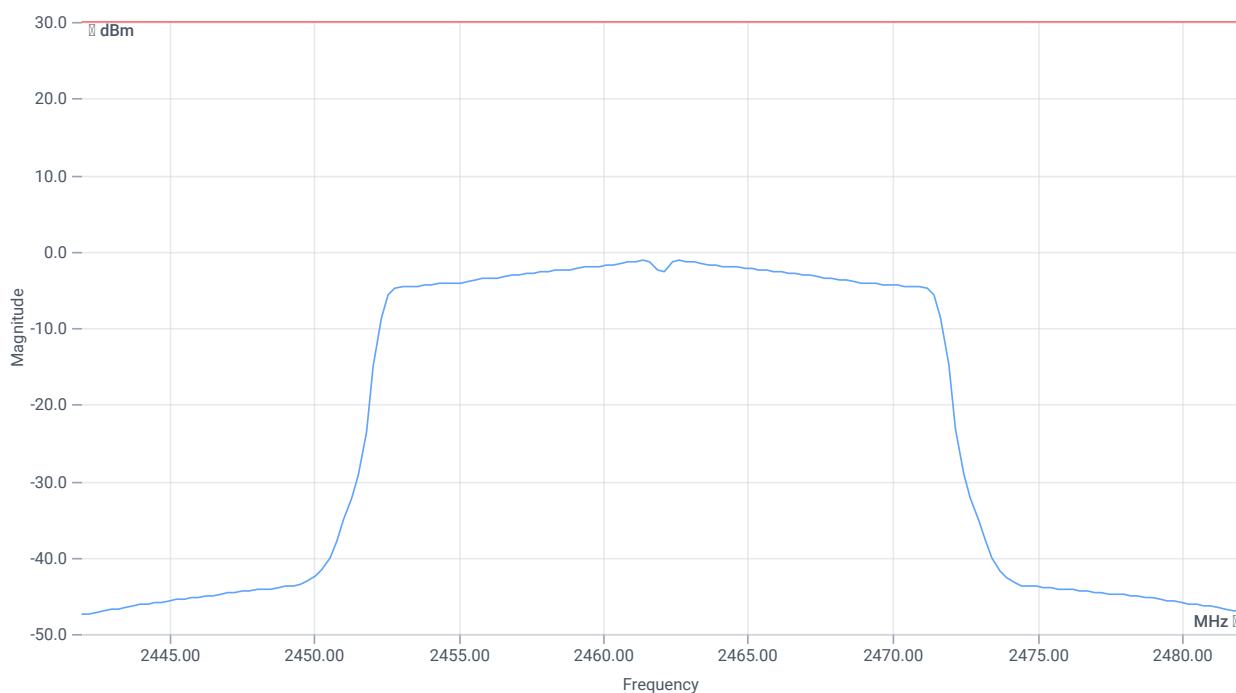
Avg output power SA DTS

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	21.72 14.04 25
Start [MHz] Stop [MHz]	2442.000 2482.000

READ SA SETTINGS:

RBW [MHz] VBW [MHz]	0.500000 2.000000
Detector TraceMode	RMS AVER
Sweep: Time [ms] Count Points per Section Type	500 100 160 SWE



Avg output power SA DTS

RESULT (Channel power method)

TEST DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Avg output power uncorrected	---	---	12.63	dBm	INFO
Duty cycle correction	---	---	0	dB	INFO
Avg power DC corrected	---	30	12.63	dBm	PASS

Verdict

PASS

Message with SA scan ~

Test References

TC Start	06.07.2023 16:44:45
Ambit Temp [°C] Humidity [rel%]	26.5 34
System Version	4.5.2.0
Test Specification	-
Test Method	
TC Version	0.0.1
My Description	Message with SA Scan ax-HE20
Add. Information	

Test Parameter

Switched Path	EUT - SignalingUnit - SpectrumAnalyzer
Message start	06.07.2023 16:44:46
Message	set WLAN2G4 to ax-HE20, Frequency [MHz] 2462

Test Equipment

Signal analyzer,Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.70
Switch matrix,CTCadvanced,SPM-4 NI DAQ,28016133,NI

Verdict

INFO

FCC 15.247 # Bandwidth 6dB DTS ~ WLAN2G4 ax-HE20

Test References

TC Start	06.07.2023 16:58:51
Ambit Temp [°C] Humidity [rel%]	26.4 34
System Version	4.5.2.0
Test Specification	FCC 15.247 -
Test Method	
TC Version	0.0.1
My Description	FCC 15.247 Bandwidth 6dB DTS - WLAN2G4 ax-HE20
Add. Information	

EUT Common Settings WLAN2G4

Number of Antenna Ports	1
User Interaction	No

Test Parameter

Technology to test	WLAN2G4 ax-HE20
Antenna Port used	2
Temperature	nom
Voltage	nom
Frequency low to test	False Freq [MHz] 2412
Frequency mid to test	False Freq [MHz] 2437
Frequency high to test	True Freq [MHz] 2462
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-40,1307.9002K40/101042,3.70
Switch matrix,CTCadvanced,SPM-4 NI DAQ,28016133,NI

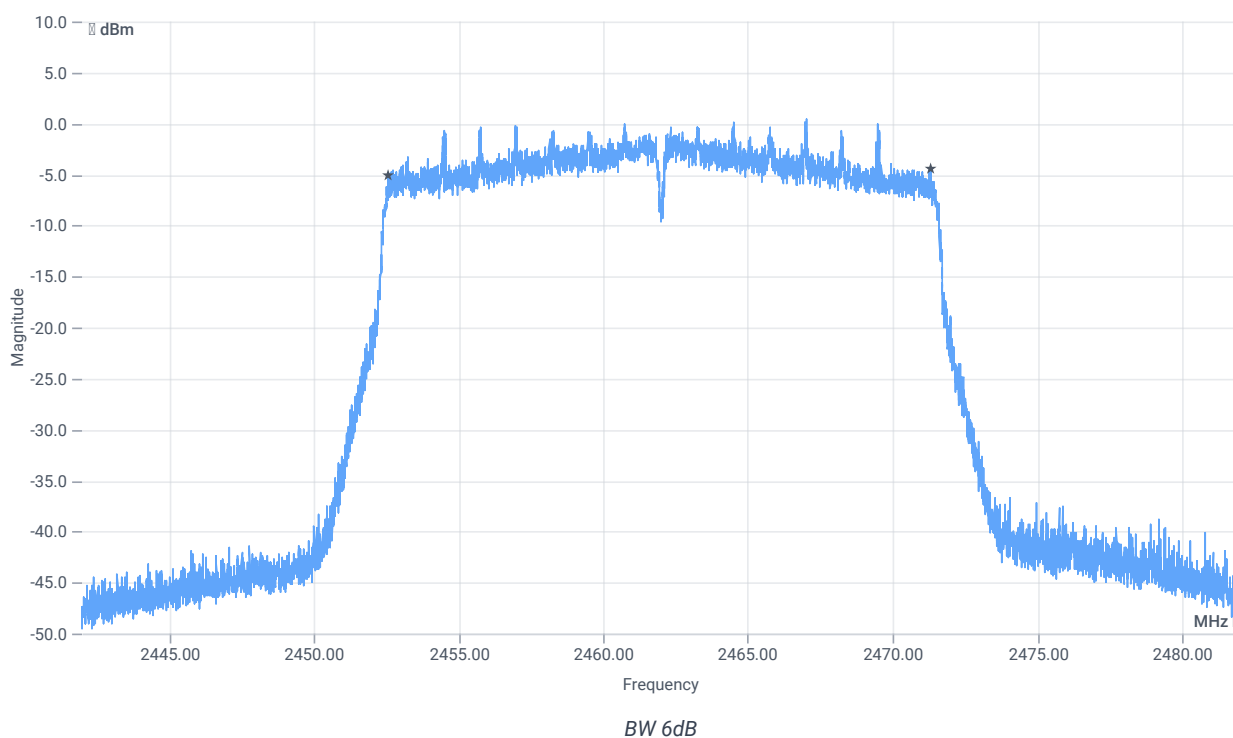
Test at TX 2462 MHz

RESULT: Reference Power cond.

TEST DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	11.46	dBm	INFO
Ref. Frequency	---	---	2459.800	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	16.46 14.04 20
Start [MHz] Stop [MHz]	2442.000 2482.000
RBW [MHz] VBW [MHz]	0.100000 0.300000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	50 200 10001 SWE



RESULT

TEST DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
DTS Bandwidth (6dB)	500	---	18724	kHz	PASS

Verdict

PASS

FCC 15.247 # Avg psd DTS ~ WLAN2G4 ax-HE20

Test References

TC Start	06.07.2023 16:59:24
Ambit Temp [°C] Humidity [rel%]	26.4 34
System Version	4.5.2.0
Test Specification	FCC 15.247 -
Test Method	ANSI C63.10-2013 Chapter 11.10.5 or.3
TC Version	0.0.1
My Description	FCC 15.247 Avg psd DTS - WLAN2G4 ax-HE20
Add. Information	

EUT Common Settings WLAN2G4

Number of Antenna Ports	1
User Interaction	No

Test Parameter

Technology to test	WLAN2G4 ax-HE20
Antenna Port used	2
Temperature	nom
Voltage	nom
Frequency low to test	False Freq [MHz] 2412
Frequency mid to test	False Freq [MHz] 2437
Frequency high to test	True Freq [MHz] 2462
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-40,1307.9002K40/101042,3.70
Switch matrix,CTCadvanced,SPM-4 NI DAQ,28016133,NI

Test at TX 2462 MHz

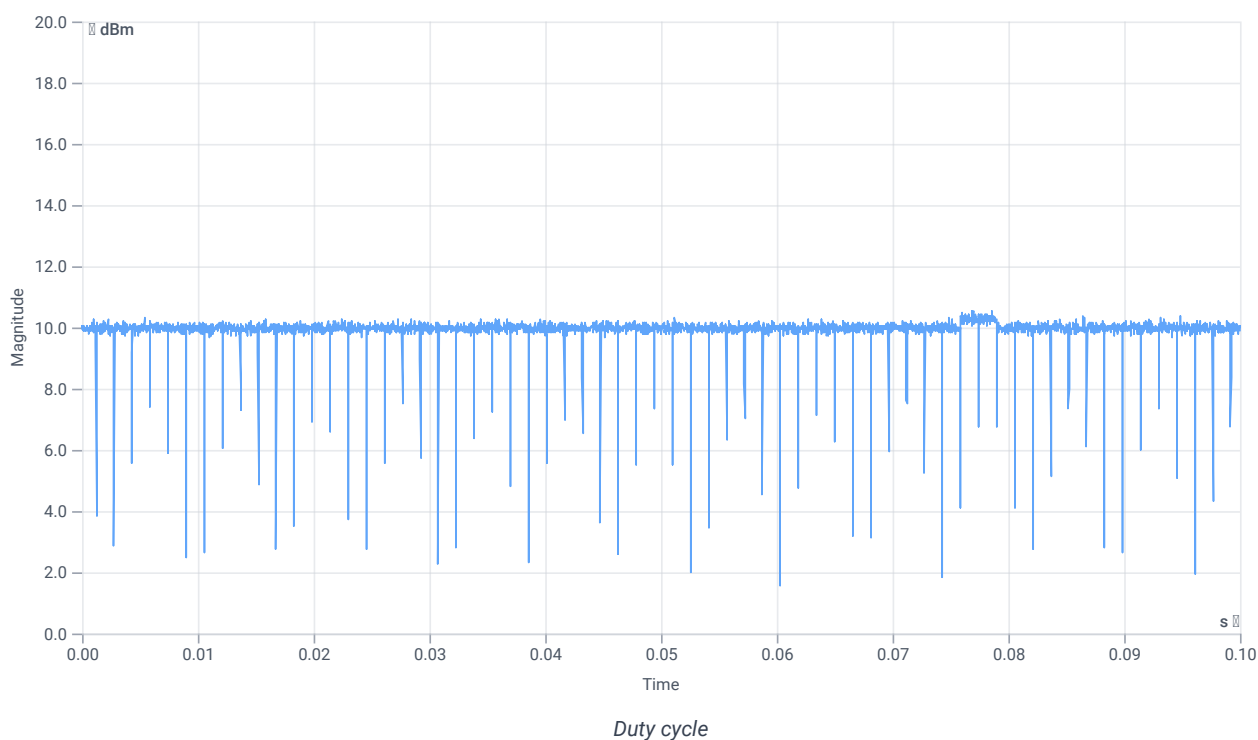
RESULT: Reference Power cond.

TEST DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	10.29	dBm	INFO
Ref. Frequency	---	---	2463.800	MHz	INFO

Evaluation max. Duty Cycle

Duty Cycle evaluation

TEST DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
No enough Bursts detected, Duty Cycle Burst Ratio set to 1					
Duty Cycle (Burst Ratio) max	---	---	1	---	INFO
Duty Cycle max	---	---	0	dB	INFO
Duty Cycle (Burst Ratio) min	---	---	1	---	INFO
Duty Cycle min	---	---	0	dB	INFO



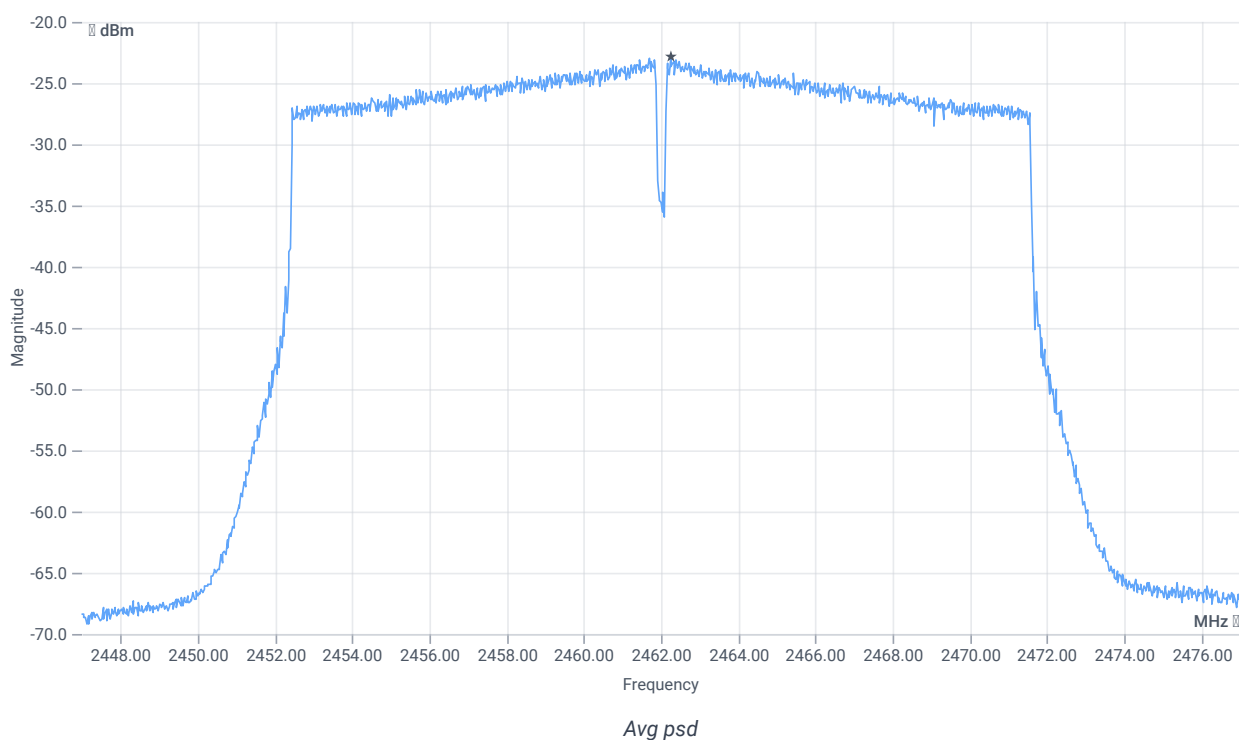
Avg. psd

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	15.29 14.04 20
Start [MHz] Stop [MHz]	2447.000 2477.000

READ SA SETTINGS:

RBW [MHz] VBW [MHz]	0.003000 0.010000
Detector TraceMode	RMS AVER
Sweep: Time [ms] Count Points per Section Type	334 100 1001 SWE



RESULT

TEST DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Avg psd uncorrected	---	---	-22.81	dBm	INFO
Duty cycle correction	---	---	0	dB	INFO
Avg psd DC corrected	---	8	-22.81	dBm/3kHz	PASS

Verdict

PASS

FCC 15.247, ISED RSS247 # Bandwidth 99PCT and 20dB ~ WLAN2G4 ax-HE20

Test References

TC Start	06.07.2023 17:00:26
Ambit Temp [°C] Humidity [rel%]	26.4 34
System Version	4.5.2.0
Test Specification	FCC 15.247, ISED RSS247 -
Test Method	
TC Version	0.0.2
My Description	FCC 15.247 Bandwidth 99PCT-20dB DTS - WLAN2G4 ax-HE20
Add. Information	

EUT Common Settings WLAN2G4

Number of Antenna Ports	1
User Interaction	No

Test Parameter

Technology to test	WLAN2G4 ax-HE20
Antenna Port used	2
Temperature	nom
Voltage	nom
Frequency low to test	False Freq [MHz] 2412
Frequency mid to test	False Freq [MHz] 2437
Frequency high to test	True Freq [MHz] 2462
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-40,1307.9002K40/101042,3.70
Switch matrix,CTCadvanced,SPM-4 NI DAQ,28016133,NI

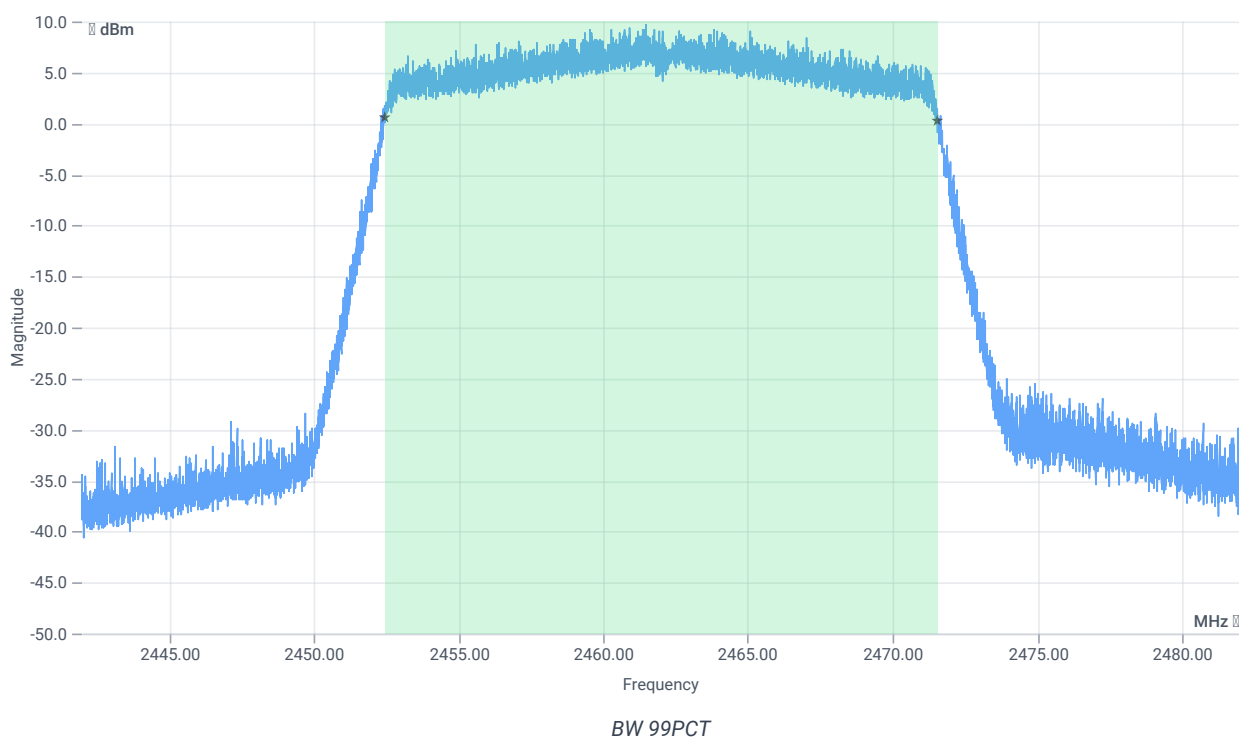
Test at TX 2462 MHz

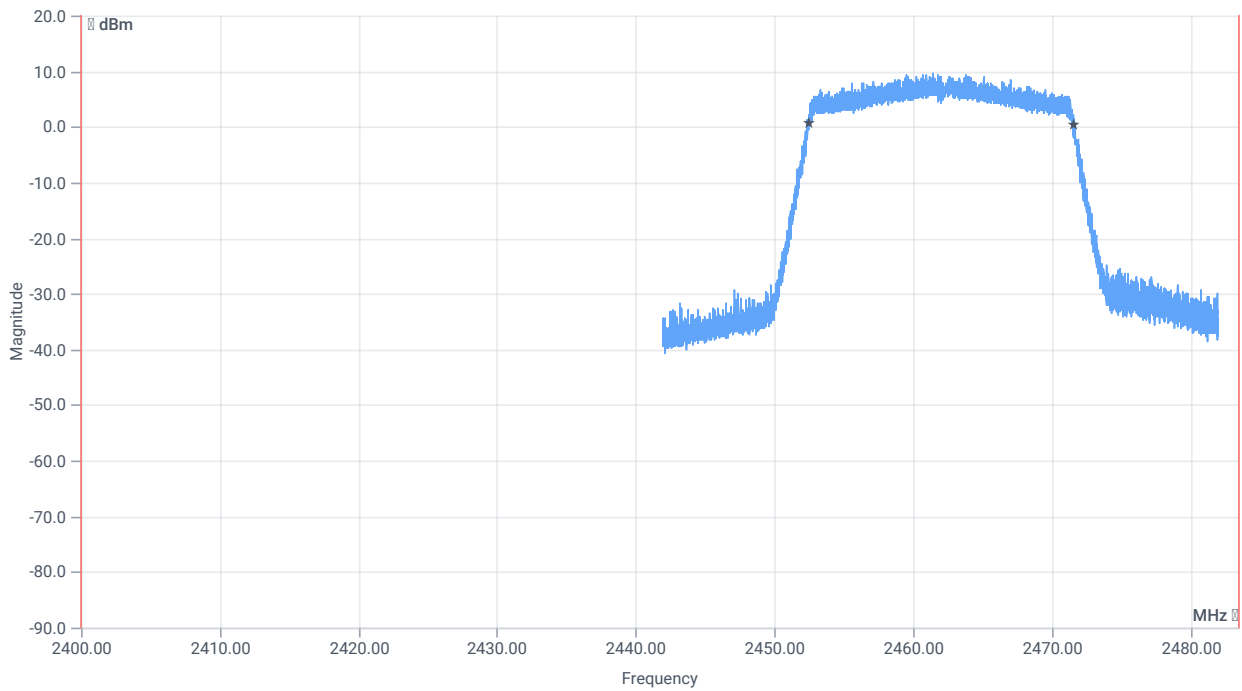
RESULT: Reference Power cond.

TEST DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	10.71	dBm	INFO
Ref. Frequency	---	---	2465.600	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	15.71 14.04 20
Start [MHz] Stop [MHz]	2442.000 2482.000
RBW [MHz] VBW [MHz]	0.500000 2.000000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	50 200 10001 SWE

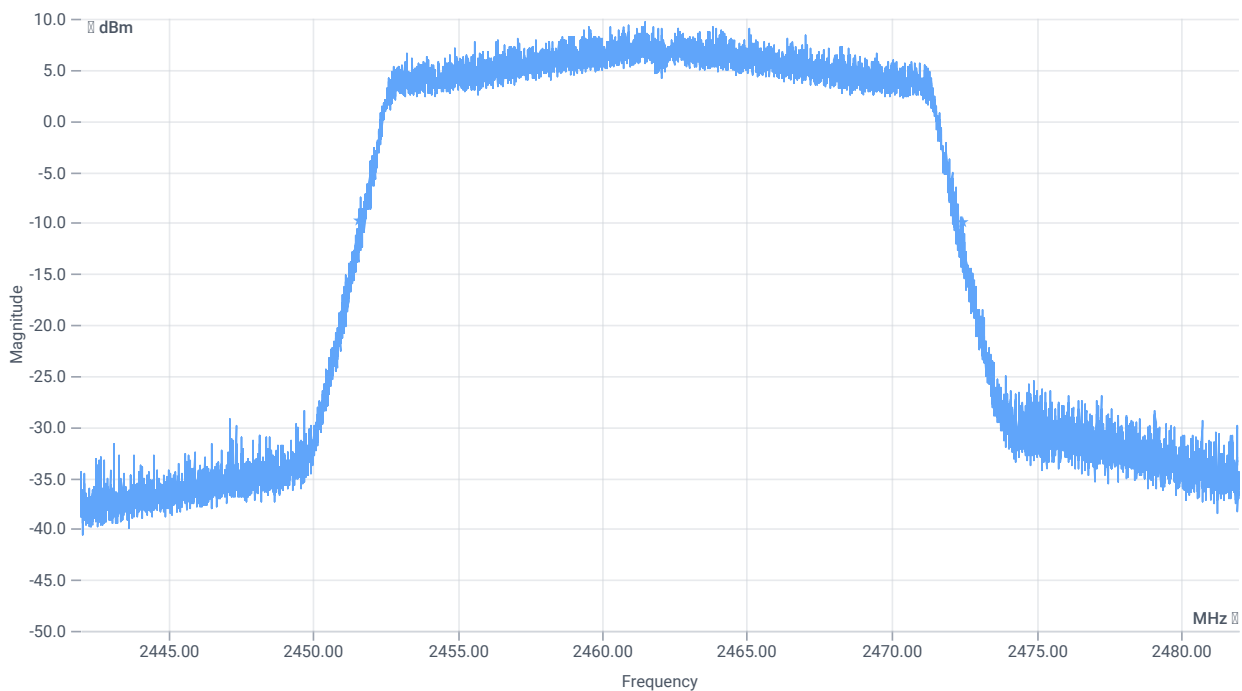




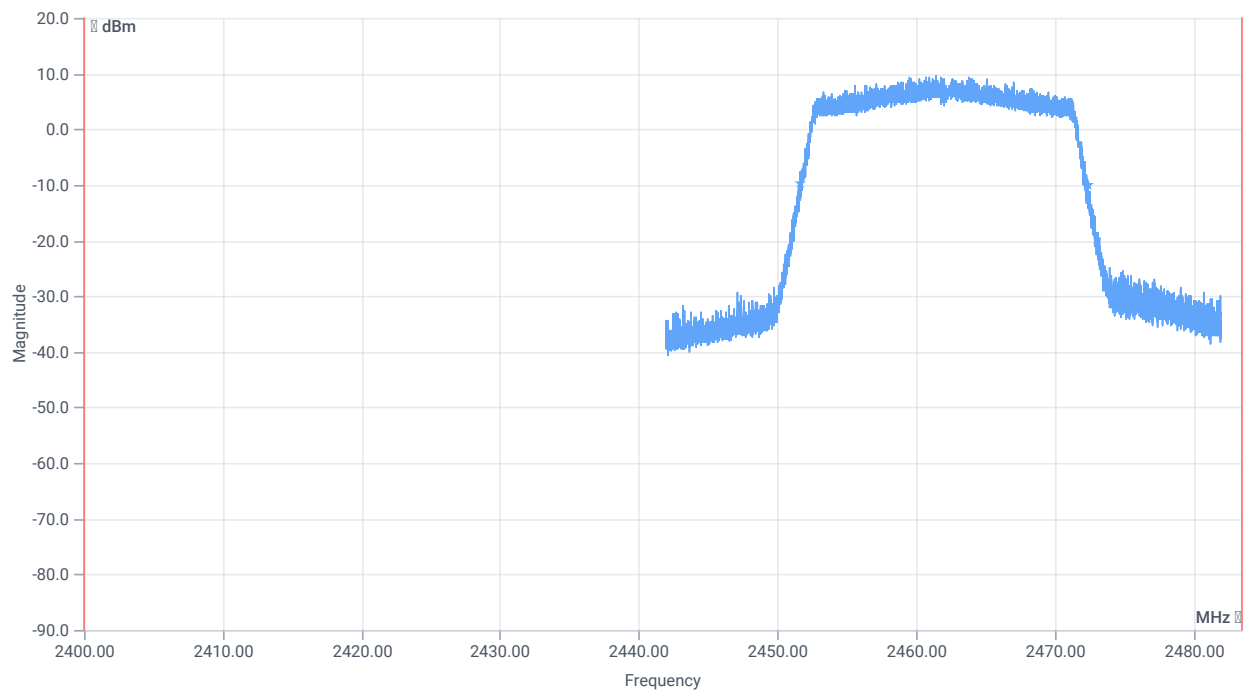
BW within Band 99PCT

RESULT

TEST DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 99%	---	---	19082.000	kHz	INFO
T1 99%	2400.000000	---	2452.4570	MHz	PASS
T2 99%	---	2483.500000	2471.5390	MHz	PASS



BW 20dB



BW within Band 20dB

RESULT

TEST DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 20dB	---	---	20856	kHz	INFO
T1 20dB	2400.000000	---	2451.6000	MHz	PASS
T2 20dB	---	2483.500000	2472.4560	MHz	PASS

Verdict
PASS

FCC 15.247 # TX spurious conducted 30dBc ~ WLAN2G4 ax-HE20

Test References

TC Start	06.07.2023 17:01:03
Ambit Temp [°C] Humidity [rel%]	26.4 34
System Version	4.5.2.0
Test Specification	FCC 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 30dBc DTS DTS - WLAN2G4 ax-HE20
Add. Information	

EUT Common Settings WLAN2G4

Number of Antenna Ports	1
User Interaction	No

Test Parameter

Technology to test	WLAN2G4 ax-HE20
Antenna Port used	2
Temperature	nom
Voltage	nom
Frequency low to test	False Freq [MHz] 2412
Frequency mid to test	False Freq [MHz] 2437
Frequency high to test	True Freq [MHz] 2462
Auto Control enabled Power Supply Climatic Box	No No
Additional Path Loss [dB]	0.7
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer

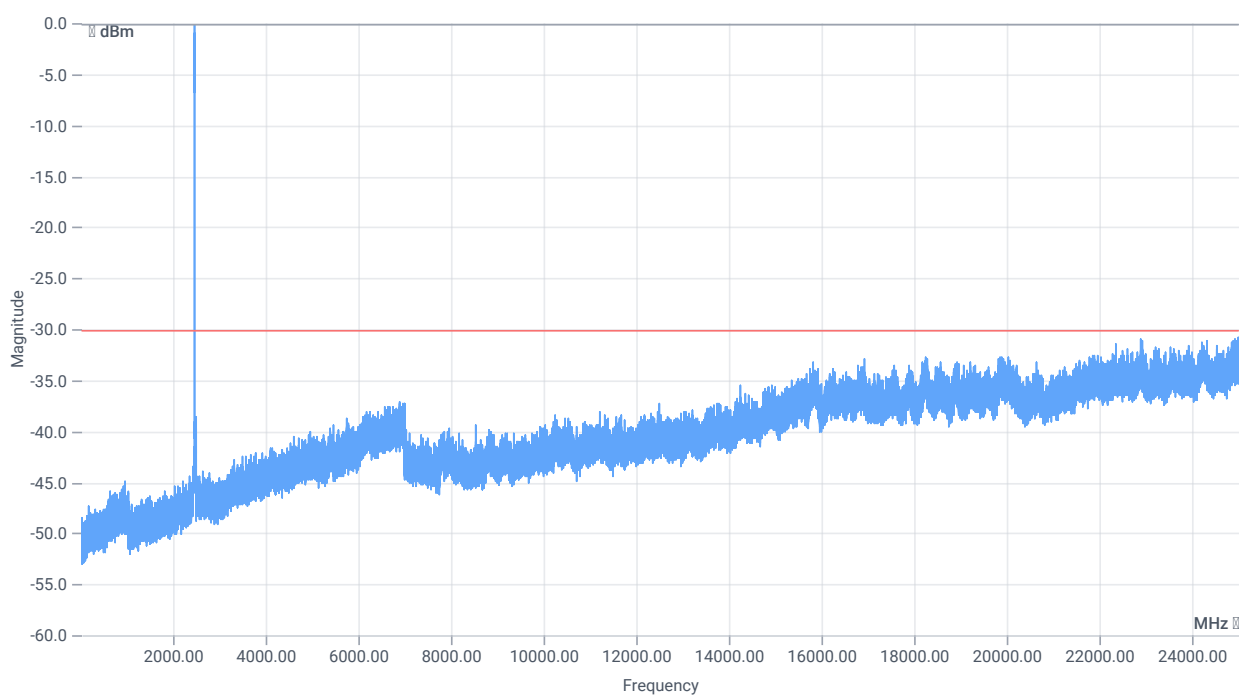
Test Equipment

Signal analyzer,Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.70
Switch matrix,CTCadvanced,SPM-4 NI DAQ,28016133,NI

Test at TX 2462 MHz

RESULT: Reference Power cond.

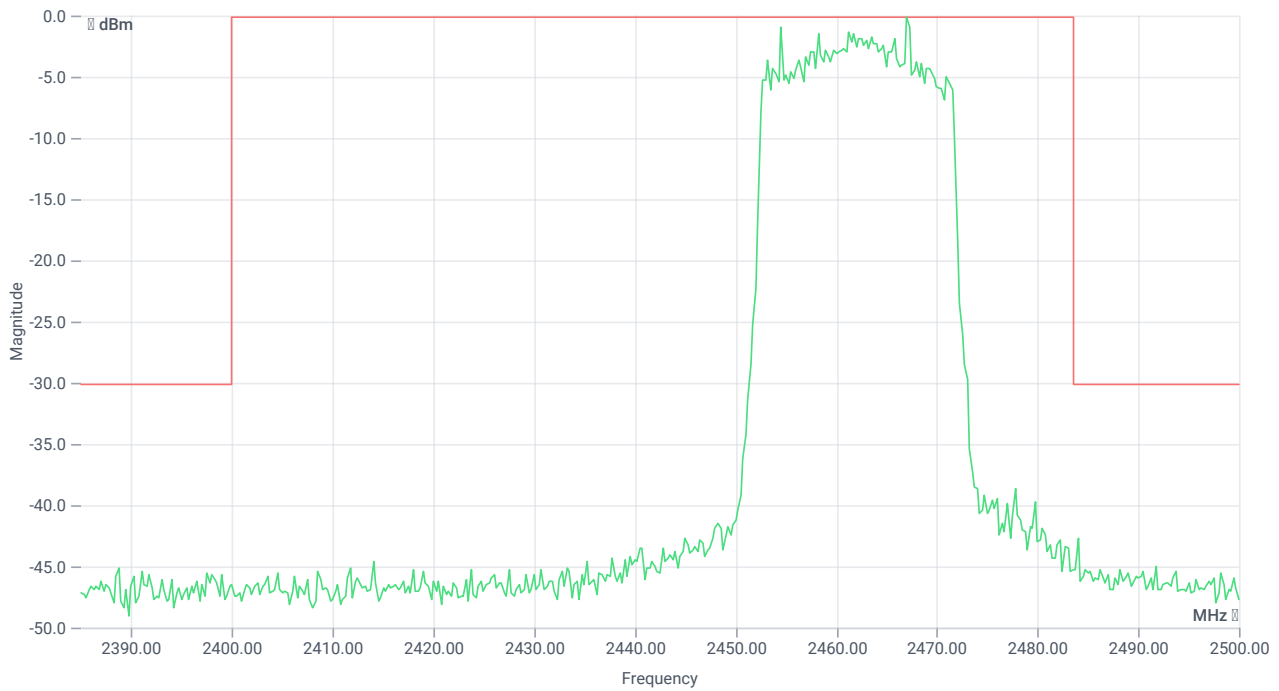
TEST DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	10.62	dBm	INFO
Ref. Frequency	---	---	2461.000	MHz	INFO



TX emissions

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	10.62 0 30
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



RESULT

TEST DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Reference @ 2467.00 MHz	---	---	-0.15	dBm	INFO
No peaks detected	---	---			PASS
Lowest margin to limit 30 MHz	0	---	-151.3	dB	INFO

Verdict

PASS

FCC 15.247 # Avg output power SA DTS ~ WLAN2G4 ax-HE20

Test References

TC Start	06.07.2023 17:07:44
Ambit Temp [°C] Humidity [rel%]	26.5 34
System Version	4.5.2.0
Test Specification	FCC 15.247 -
Test Method	ANSI C63.10-2013 Chapter 11.9.2.2.2 or .4
TC Version	0.0.1
My Description	FCC 15.247 Avg output power SA DTS - WLAN2G4 ax-HE20
Add. Information	

EUT Common Settings WLAN2G4

Number of Antenna Ports	1
User Interaction	No

Test Parameter

Technology to test	WLAN2G4 ax-HE20
Antenna Port used	2
Temperature	nom
Voltage	nom
Frequency low to test	False Freq [MHz] 2412
Frequency mid to test	False Freq [MHz] 2437
Frequency high to test	True Freq [MHz] 2462
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-40,1307.9002K40/101042,3.70
Switch matrix,CTCadvanced,SPM-4 NI DAQ,28016133,NI

Test at TX 2462 MHz

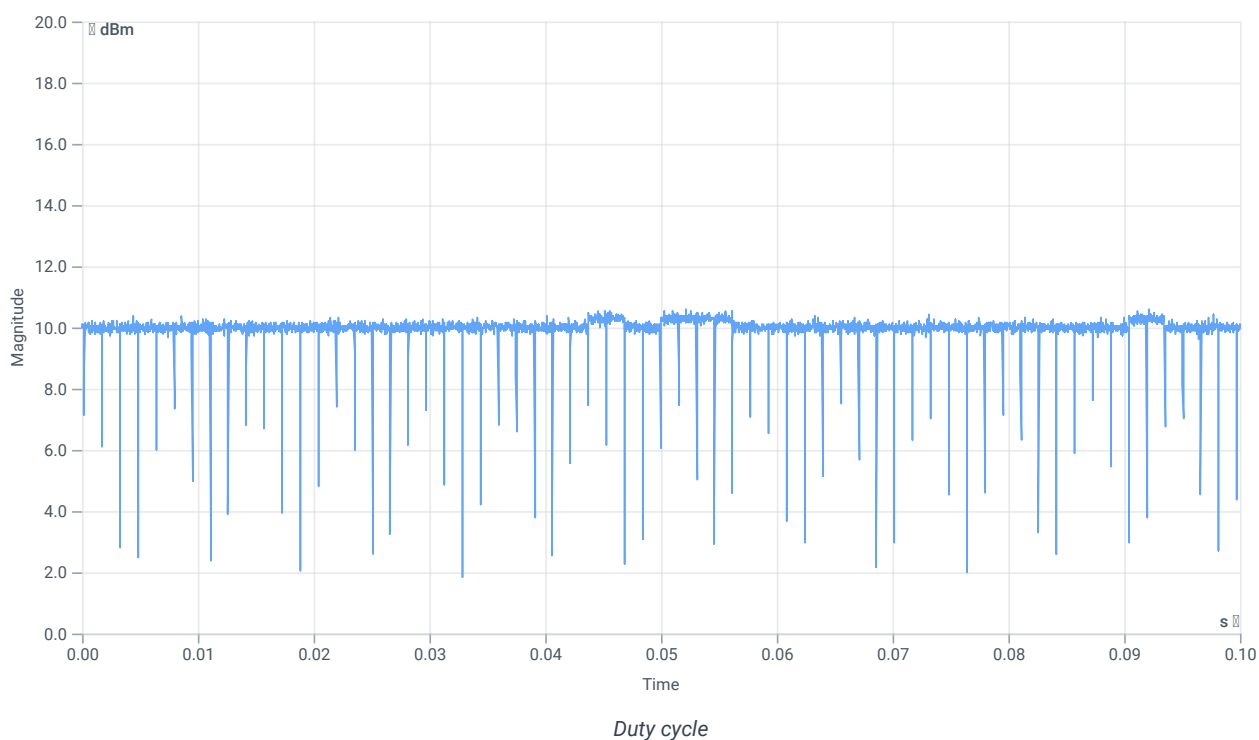
RESULT: Reference Power cond.

TEST DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	10.84	dBm	INFO
Ref. Frequency	---	---	2462.700	MHz	INFO

Evaluation max. Duty Cycle

Duty Cycle evaluation

TEST DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
No enough Bursts detected, Duty Cycle Burst Ratio set to 1					
Duty Cycle (Burst Ratio) max	---	---	1	---	INFO
Duty Cycle max	---	---	0	dB	INFO
Duty Cycle (Burst Ratio) min	---	---	1	---	INFO
Duty Cycle min	---	---	0	dB	INFO



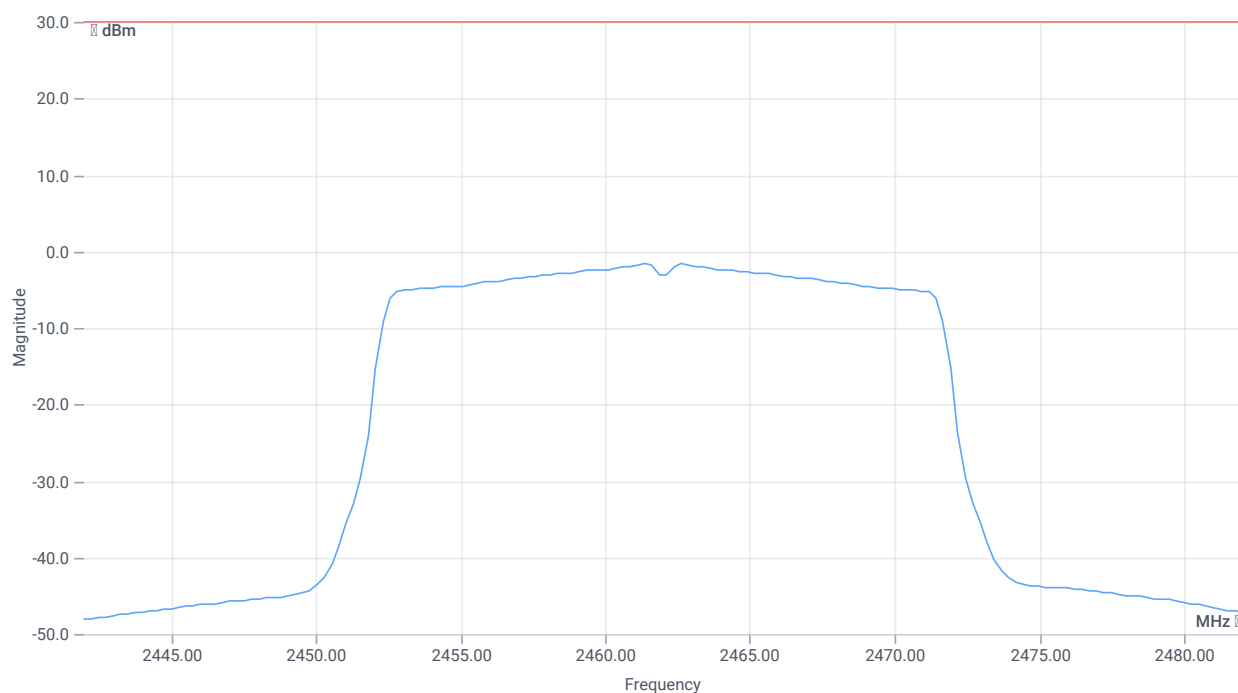
Avg output power SA DTS

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	20.84 14.04 25
Start [MHz] Stop [MHz]	2442.000 2482.000

READ SA SETTINGS:

RBW [MHz] VBW [MHz]	0.500000 2.000000
Detector TraceMode	RMS AVER
Sweep: Time [ms] Count Points per Section Type	500 100 160 SWE



Avg output power SA DTS

RESULT (Channel power method)

TEST DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Avg output power uncorrected	---	---	12.17	dBm	INFO
Duty cycle correction	---	---	0	dB	INFO
Avg power DC corrected	---	30	12.17	dBm	PASS

Verdict

PASS

FCC 15.247 # MIMO Σ Avg output power SA DTS ~ WLAN2G4 ax-HE20 2400-2483.5 MHz

Test References

TC Start	06.07.2023 17:08:59
Ambit Temp [°C] Humidity [rel%]	26.5 34
System Version	4.5.2.0
Test Specification	FCC 15.247 -
Test Method	
TC Version	0.0.1
My Description	MIMO Σ FCC Avg output power SA DTS - WLAN2G4 ax-HE20 2400-2483.5 MHz
Add. Information	

EUT Common Settings WLAN2G4

Number of Antenna Ports	1
User Interaction	No

Test Parameter

Technology to test	WLAN2G4 ax-HE20
Antenna Port used	several
Temperature	nom
Voltage	nom
Frequency low to test	True Freq [MHz] 2412
Frequency mid to test	False Freq [MHz] 2437
Frequency high to test	False Freq [MHz] 2462
Auto Control enabled Power Supply Climatic Box	No No
Additional Path Loss [dB]	0.7
Switched Path	None

Test Equipment

Test at TX 2412 MHz

RESULT Power

TEST DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ant:1 Avg power DC corr.	---	---	12.43	dBm	INFO
Ant:2 Avg power DC corr.	---	---	12.89	dBm	INFO
Σ Avg output power DC corr.	---	30	15.68	dBm	PASS

Verdict

PASS

FCC 15.247 # MIMO Σ Avg psd DTS ~ WLAN2G4 ax-HE20 2400-2483.5 MHz

Test References

TC Start	06.07.2023 17:09:18
Ambit Temp [°C] Humidity [rel%]	26.5 34
System Version	4.5.2.0
Test Specification	FCC 15.247 -
Test Method	
TC Version	0.0.1
My Description	MIMO Σ FCC Avg psd DTS - WLAN2G4 ax-HE20 2400-2483.5 MHz
Add. Information	

EUT Common Settings WLAN2G4

Number of Antenna Ports	1
User Interaction	No

Test Parameter

Technology to test	WLAN2G4 ax-HE20
Antenna Port used	several
Temperature	nom
Voltage	nom
Frequency low to test	True Freq [MHz] 2412
Frequency mid to test	False Freq [MHz] 2437
Frequency high to test	False Freq [MHz] 2462
Auto Control enabled Power Supply Climatic Box	No No
Additional Path Loss [dB]	0.7
Switched Path	None

Test Equipment

Test at TX 2412 MHz

RESULT psd

TEST DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ant:1 Avg psd DC corr ---		---	-22.59	dBm/3kHz	INFO
Ant:2 Avg psd DC corr ---		---	-22.03	dBm/3kHz	INFO
Σ Avg psd DC corr ---		8	-19.29	dBm/3kHz	PASS

Verdict

PASS

FCC 15.247 # MIMO Σ Avg output power SA DTS ~ WLAN2G4 ax-HE20 2400-2483.5 MHz

Test References

TC Start	06.07.2023 17:09:28
Ambit Temp [°C] Humidity [rel%]	26.5 34
System Version	4.5.2.0
Test Specification	FCC 15.247 -
Test Method	
TC Version	0.0.1
My Description	MIMO Σ FCC Avg output power SA DTS - WLAN2G4 ax-HE20 2400-2483.5 MHz
Add. Information	

EUT Common Settings WLAN2G4

Number of Antenna Ports	1
User Interaction	No

Test Parameter

Technology to test	WLAN2G4 ax-HE20
Antenna Port used	several
Temperature	nom
Voltage	nom
Frequency low to test	False Freq [MHz] 2412
Frequency mid to test	True Freq [MHz] 2437
Frequency high to test	False Freq [MHz] 2462
Auto Control enabled Power Supply Climatic Box	No No
Additional Path Loss [dB]	0.7
Switched Path	None

Test Equipment

Test at TX 2437 MHz

RESULT Power

TEST DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ant:1 Avg power DC corr.	---	---	18.55	dBm	INFO
Ant:2 Avg power DC corr.	---	---	17.74	dBm	INFO
Σ Avg output power DC corr.	---	30	21.17	dBm	PASS

Verdict

PASS

FCC 15.247 # MIMO Σ Avg psd DTS ~ WLAN2G4 ax-HE20 2400-2483.5 MHz

Test References

TC Start	06.07.2023 17:09:46
Ambit Temp [°C] Humidity [rel%]	26.5 34
System Version	4.5.2.0
Test Specification	FCC 15.247 -
Test Method	
TC Version	0.0.1
My Description	MIMO Σ FCC Avg psd DTS - WLAN2G4 ax-HE20 2400-2483.5 MHz
Add. Information	

EUT Common Settings WLAN2G4

Number of Antenna Ports	1
User Interaction	No

Test Parameter

Technology to test	WLAN2G4 ax-HE20
Antenna Port used	several
Temperature	nom
Voltage	nom
Frequency low to test	False Freq [MHz] 2412
Frequency mid to test	True Freq [MHz] 2437
Frequency high to test	False Freq [MHz] 2462
Auto Control enabled Power Supply Climatic Box	No No
Additional Path Loss [dB]	0.7
Switched Path	None

Test Equipment

Test at TX 2437 MHz

RESULT psd

TEST DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ant:1 Avg psd DC corr ---	---	---	-17.28	dBm/3kHz	INFO
Ant:2 Avg psd DC corr ---	---	---	-18.59	dBm/3kHz	INFO
Σ Avg psd DC corr ---	---	8	-14.88	dBm/3kHz	PASS

Verdict

PASS

FCC 15.247 # MIMO Σ Avg output power SA DTS ~ WLAN2G4 ax-HE20 2400-2483.5 MHz

Test References

TC Start	06.07.2023 17:10:14
Ambit Temp [°C] Humidity [rel%]	26.5 34
System Version	4.5.2.0
Test Specification	FCC 15.247 -
Test Method	
TC Version	0.0.1
My Description	MIMO Σ FCC Avg output power SA DTS - WLAN2G4 ax-HE20 2400-2483.5 MHz
Add. Information	

EUT Common Settings WLAN2G4

Number of Antenna Ports	1
User Interaction	No

Test Parameter

Technology to test	WLAN2G4 ax-HE20
Antenna Port used	several
Temperature	nom
Voltage	nom
Frequency low to test	False Freq [MHz] 2412
Frequency mid to test	False Freq [MHz] 2437
Frequency high to test	True Freq [MHz] 2462
Auto Control enabled Power Supply Climatic Box	No No
Additional Path Loss [dB]	0.7
Switched Path	None

Test Equipment

Test at TX 2462 MHz

RESULT Power

TEST DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ant:1 Avg power DC corr.	---	---	12.63	dBm	INFO
Ant:2 Avg power DC corr.	---	---	12.17	dBm	INFO
Σ Avg output power DC corr.	---	30	15.42	dBm	PASS

Verdict

PASS

FCC 15.247 # MIMO Σ Avg psd DTS ~ WLAN2G4 ax-HE20 2400-2483.5 MHz

Test References

TC Start	06.07.2023 17:10:25
Ambit Temp [°C] Humidity [rel%]	26.5 34
System Version	4.5.2.0
Test Specification	FCC 15.247 -
Test Method	
TC Version	0.0.1
My Description	MIMO Σ FCC Avg psd DTS - WLAN2G4 ax-HE20 2400-2483.5 MHz
Add. Information	

EUT Common Settings WLAN2G4

Number of Antenna Ports	1
User Interaction	No

Test Parameter

Technology to test	WLAN2G4 ax-HE20
Antenna Port used	several
Temperature	nom
Voltage	nom
Frequency low to test	False Freq [MHz] 2412
Frequency mid to test	False Freq [MHz] 2437
Frequency high to test	True Freq [MHz] 2462
Auto Control enabled Power Supply Climatic Box	No No
Additional Path Loss [dB]	0.7
Switched Path	None

Test Equipment

Test at TX 2462 MHz

RESULT psd

TEST DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ant:1 Avg psd DC corr ---		---	-22.36	dBm/3kHz	INFO
Ant:2 Avg psd DC corr ---		---	-22.81	dBm/3kHz	INFO
Σ Avg psd DC corr ---		8	-19.57	dBm/3kHz	PASS

Verdict

PASS

Message with SA scan ~

Test References

TC Start	06.07.2023 10:06:52
Ambit Temp [°C] Humidity [rel%]	23.9 42
System Version	4.5.2.0
Test Specification	-
Test Method	
TC Version	0.0.1
My Description	Message with SA Scan b mode
Add. Information	

Test Parameter

Switched Path	EUT - SignalingUnit - SpectrumAnalyzer
Message start	06.07.2023 10:06:53
Message	set WLAN2G4 to b mode, Frequency [MHz] 2412 ,

Test Equipment

Signal analyzer,Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.70
Switch matrix,CTCadvanced,SPM-4 NI DAQ,28016133,NI

Verdict

INFO

FCC 15.247 # Bandwidth 6dB DTS ~ WLAN2G4 b mode

Test References

TC Start	06.07.2023 10:07:03
Ambit Temp [°C] Humidity [rel%]	23.9 42
System Version	4.5.2.0
Test Specification	FCC 15.247 -
Test Method	
TC Version	0.0.1
My Description	FCC 15.247 Bandwidth 6dB DTS - WLAN2G4 b mode
Add. Information	

EUT Common Settings WLAN2G4

Number of Antenna Ports	1
User Interaction	No

Test Parameter

Technology to test	WLAN2G4 b mode
Antenna Port used	1
Temperature	nom
Voltage	nom
Frequency low to test	True Freq [MHz] 2412
Frequency mid to test	False Freq [MHz] 2437
Frequency high to test	False Freq [MHz] 2462
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-40,1307.9002K40/101042,3.70
Switch matrix,CTCadvanced,SPM-4 NI DAQ,28016133,NI

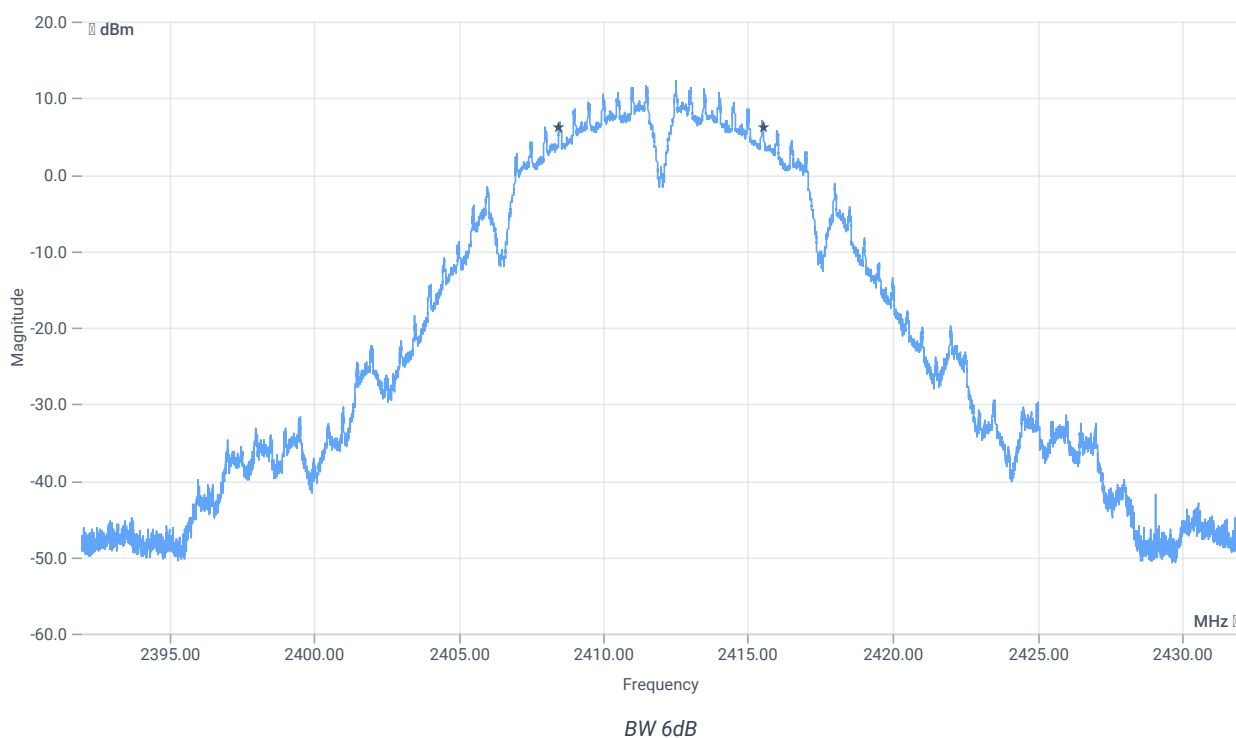
Test at TX 2412 MHz

RESULT: Reference Power cond.

TEST DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	15.12	dBm	INFO
Ref. Frequency	---	---	2413.200	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	20.12 14.43 25
Start [MHz] Stop [MHz]	2392.000 2432.000
RBW [MHz] VBW [MHz]	0.100000 0.300000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	50 200 10001 SWE



RESULT

TEST DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
DTS Bandwidth (6dB)	500	---	7064	kHz	PASS

Verdict

PASS

FCC 15.247 # Avg psd DTS ~ WLAN2G4 b mode

Test References

TC Start	06.07.2023 10:07:39
Ambit Temp [°C] Humidity [rel%]	23.9 42
System Version	4.5.2.0
Test Specification	FCC 15.247 -
Test Method	ANSI C63.10-2013 Chapter 11.10.5 or.3
TC Version	0.0.1
My Description	FCC 15.247 Avg psd DTS - WLAN2G4 b mode
Add. Information	

EUT Common Settings WLAN2G4

Number of Antenna Ports	1
User Interaction	No

Test Parameter

Technology to test	WLAN2G4 b mode
Antenna Port used	1
Temperature	nom
Voltage	nom
Frequency low to test	True Freq [MHz] 2412
Frequency mid to test	False Freq [MHz] 2437
Frequency high to test	False Freq [MHz] 2462
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-40,1307.9002K40/101042,3.70
Switch matrix,CTCadvanced,SPM-4 NI DAQ,28016133,NI

Test at TX 2412 MHz

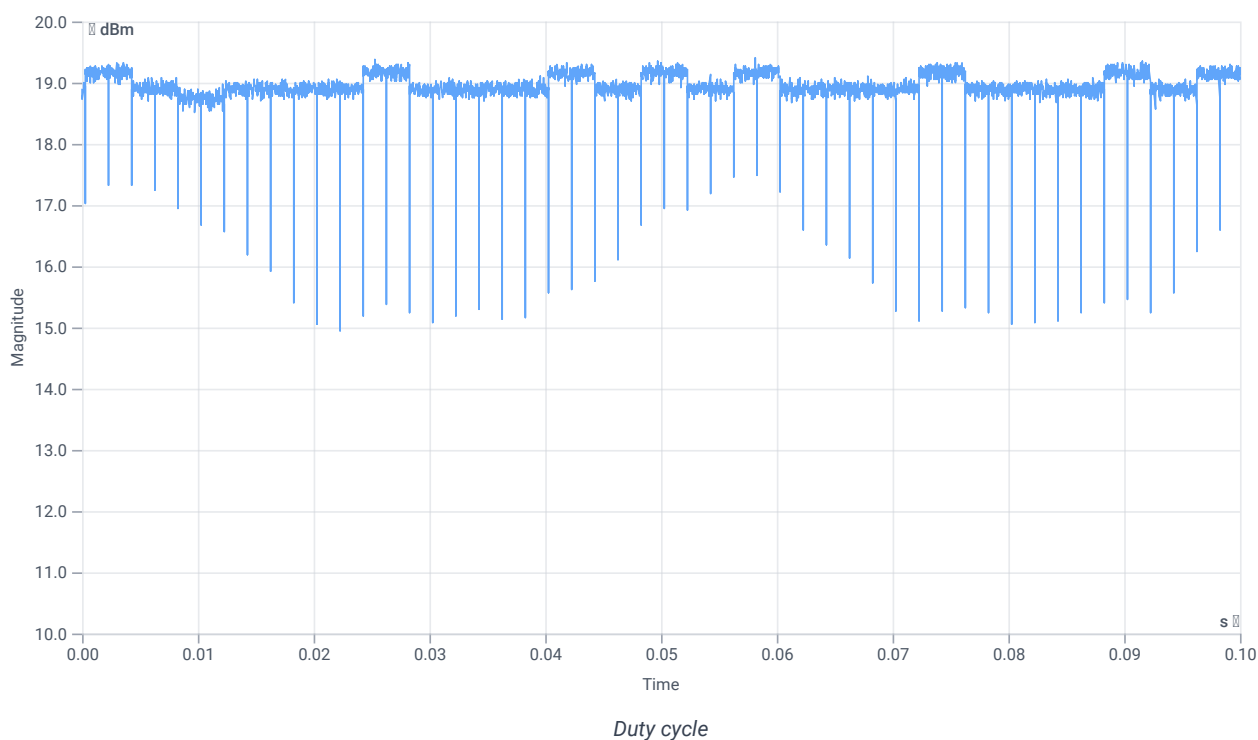
RESULT: Reference Power cond.

TEST DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	15.07	dBm	INFO
Ref. Frequency	---	---	2413.200	MHz	INFO

Evaluation max. Duty Cycle

Duty Cycle evaluation

TEST DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
No enough Bursts detected, Duty Cycle Burst Ratio set to 1					
Duty Cycle (Burst Ratio) max	---	---	1	---	INFO
Duty Cycle max	---	---	0	dB	INFO
Duty Cycle (Burst Ratio) min	---	---	1	---	INFO
Duty Cycle min	---	---	0	dB	INFO



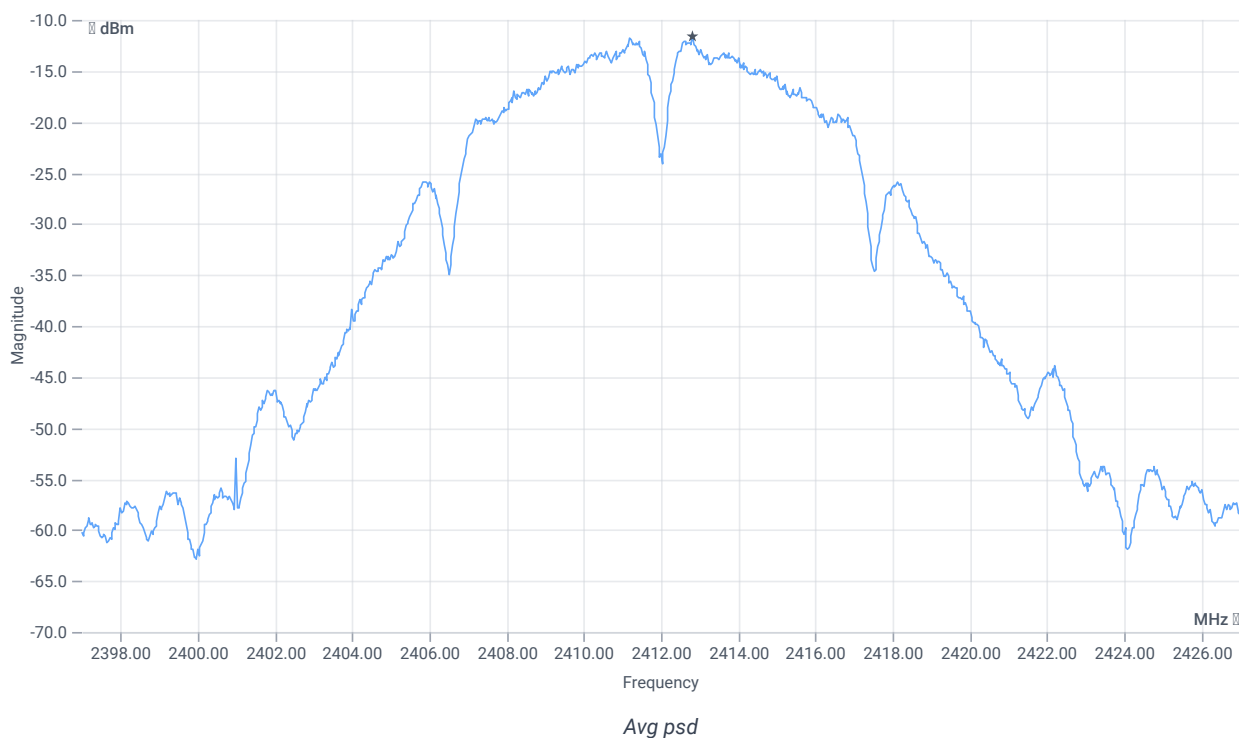
Avg. psd

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	20.07 14.43 25
Start [MHz] Stop [MHz]	2397.000 2427.000

READ SA SETTINGS:

RBW [MHz] VBW [MHz]	0.003000 0.010000
Detector TraceMode	RMS AVER
Sweep: Time [ms] Count Points per Section Type	334 100 1001 SWE



RESULT

TEST DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Avg psd uncorrected	---	---	-11.68	dBm	INFO
Duty cycle correction	---	---	0	dB	INFO
Avg psd DC corrected	---	8	-11.68	dBm/3kHz	PASS

Verdict

PASS

FCC 15.247, ISED RSS247 # Bandwidth 99PCT and 20dB ~ WLAN2G4 b mode

Test References

TC Start	06.07.2023 10:08:46
Ambit Temp [°C] Humidity [rel%]	23.9 42
System Version	4.5.2.0
Test Specification	FCC 15.247, ISED RSS247 -
Test Method	
TC Version	0.0.2
My Description	FCC 15.247 Bandwidth 99PCT-20dB DTS - WLAN2G4 b mode
Add. Information	

EUT Common Settings WLAN2G4

Number of Antenna Ports	1
User Interaction	No

Test Parameter

Technology to test	WLAN2G4 b mode
Antenna Port used	1
Temperature	nom
Voltage	nom
Frequency low to test	True Freq [MHz] 2412
Frequency mid to test	False Freq [MHz] 2437
Frequency high to test	False Freq [MHz] 2462
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-40,1307.9002K40/101042,3.70
Switch matrix,CTCadvanced,SPM-4 NI DAQ,28016133,NI

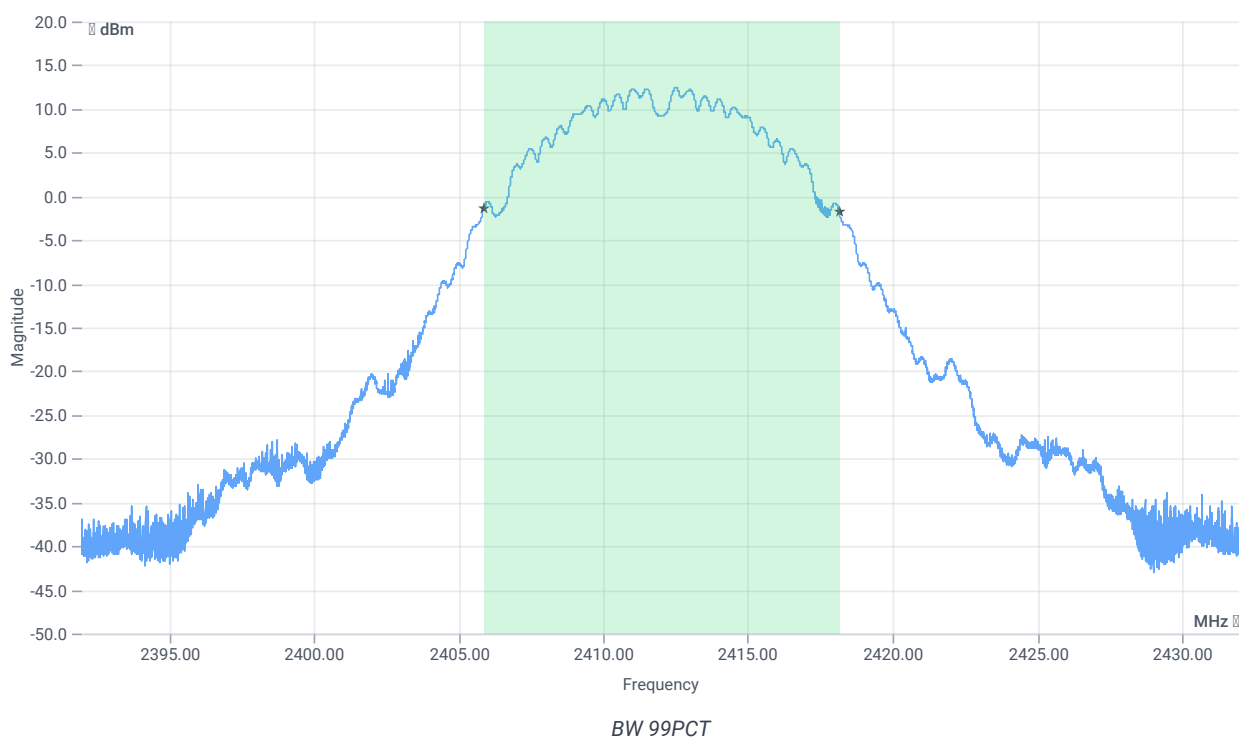
Test at TX 2412 MHz

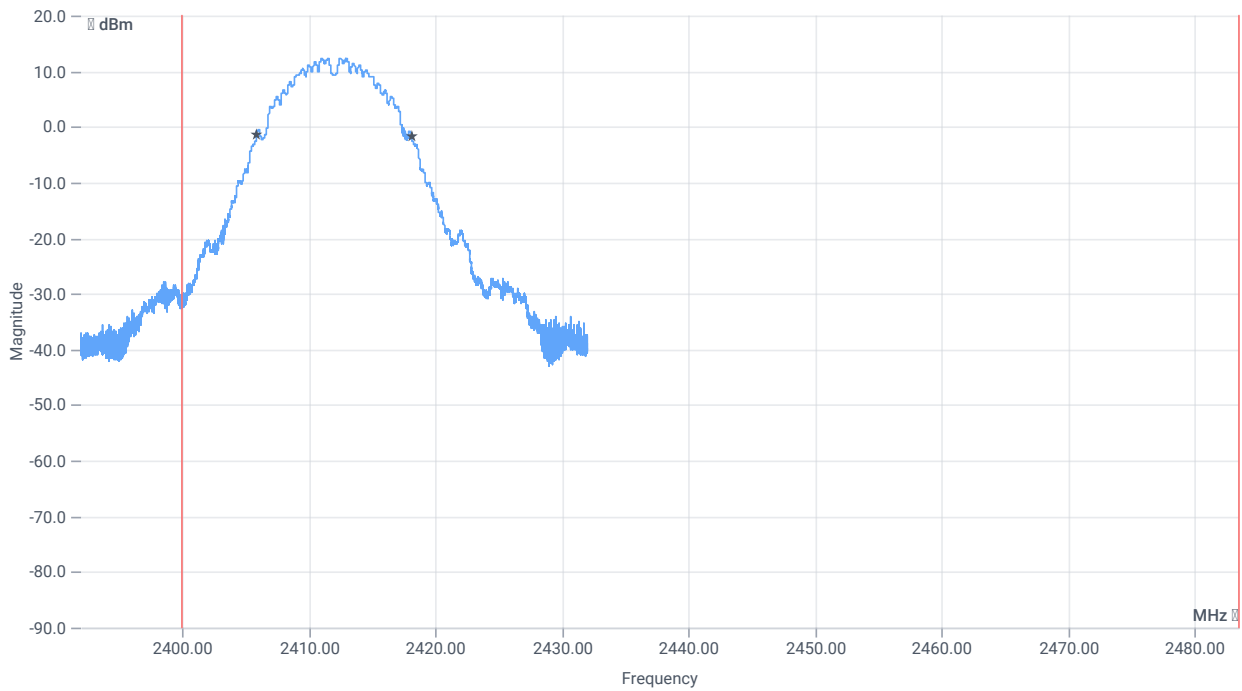
RESULT: Reference Power cond.

TEST DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	15.05	dBm	INFO
Ref. Frequency	---	---	2410.800	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	20.05 14.43 25
Start [MHz] Stop [MHz]	2392.000 2432.000
RBW [MHz] VBW [MHz]	0.500000 2.000000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	50 200 10001 SWE

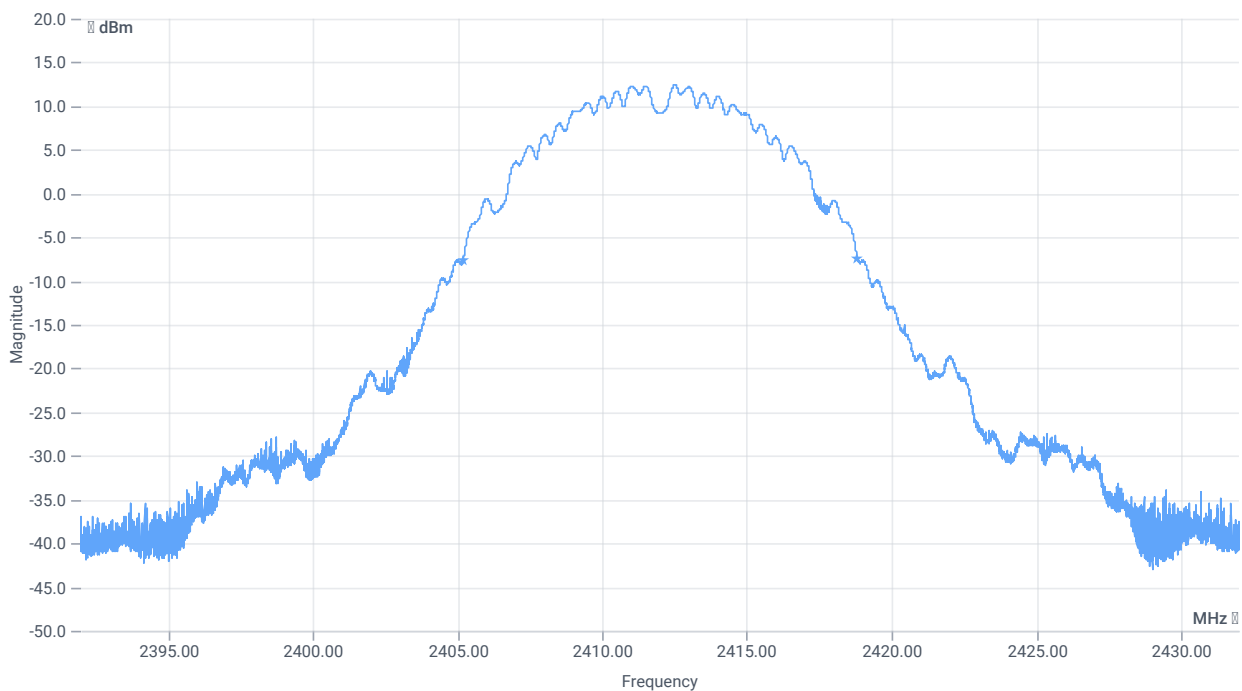




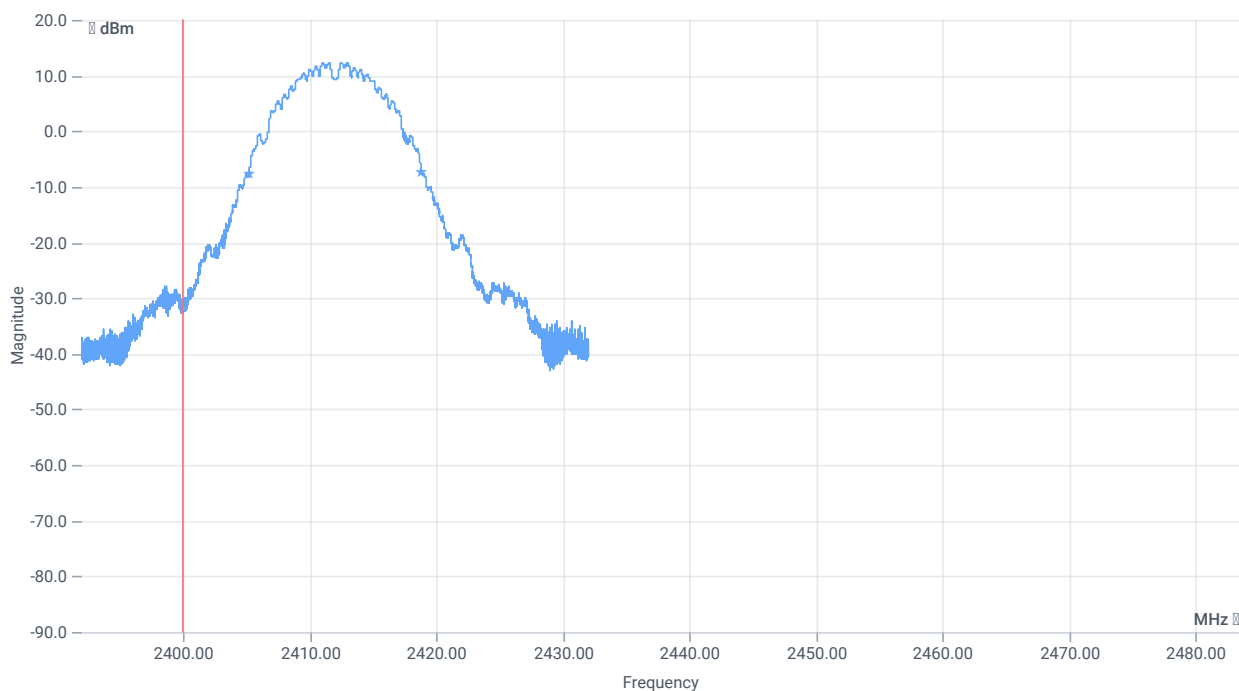
BW within Band 99PCT

RESULT

TEST DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 99%	---	---	12271.000	kHz	INFO
T1 99%	2400.000000	---	2405.8806	MHz	PASS
T2 99%	---	2483.500000	2418.1514	MHz	PASS



BW 20dB



BW within Band 20dB

RESULT

TEST DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 20dB	---	---	13616	kHz	INFO
T1 20dB	2400.000000	---	2405.2120	MHz	PASS
T2 20dB	---	2483.500000	2418.8280	MHz	PASS

Verdict

PASS

FCC 15.247 # TX spurious conducted 30dBc ~ WLAN2G4 b mode

Test References

TC Start	06.07.2023 10:09:25
Ambit Temp [°C] Humidity [rel%]	24.0 42
System Version	4.5.2.0
Test Specification	FCC 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 30dBc DTS - WLAN2G4 b mode
Add. Information	

EUT Common Settings WLAN2G4

Number of Antenna Ports	1
User Interaction	No

Test Parameter

Technology to test	WLAN2G4 b mode
Antenna Port used	1
Temperature	nom
Voltage	nom
Frequency low to test	True Freq [MHz] 2412
Frequency mid to test	False Freq [MHz] 2437
Frequency high to test	False Freq [MHz] 2462
Auto Control enabled Power Supply Climatic Box	No No
Additional Path Loss [dB]	0.7
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer

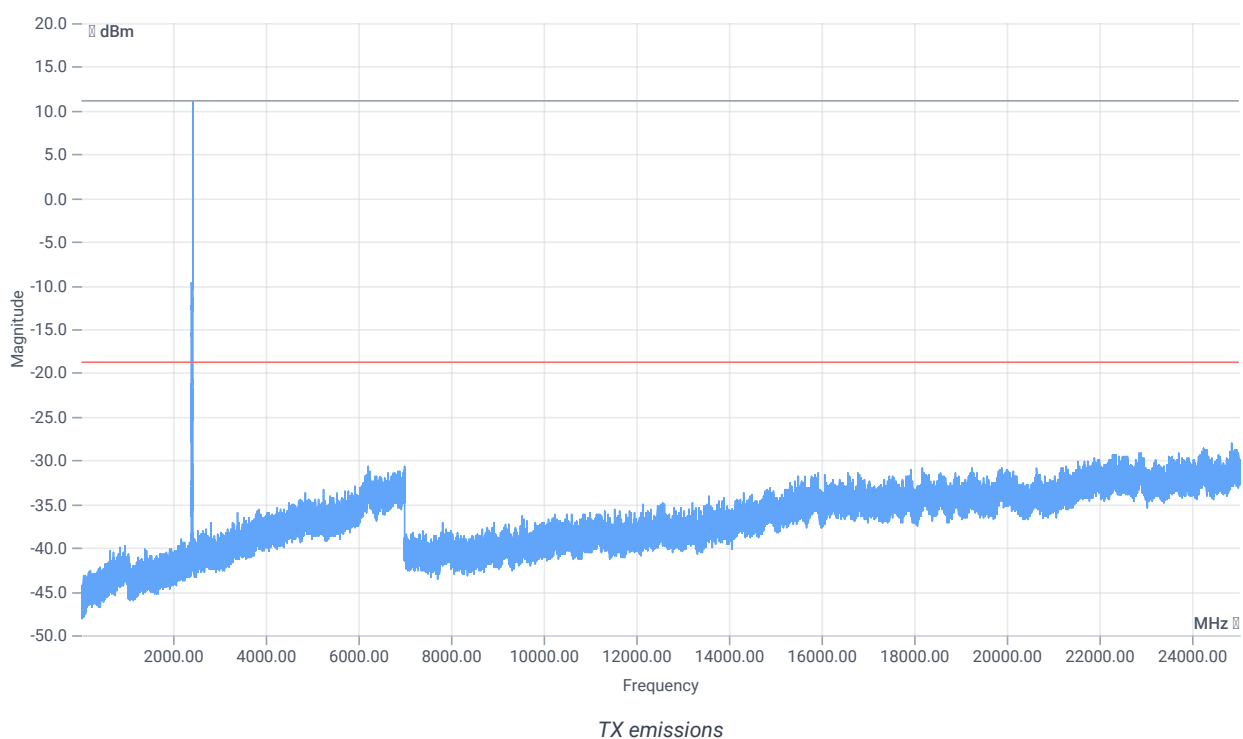
Test Equipment

Signal analyzer,Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.70
Switch matrix,CTCadvanced,SPM-4 NI DAQ,28016133,NI

Test at TX 2412 MHz

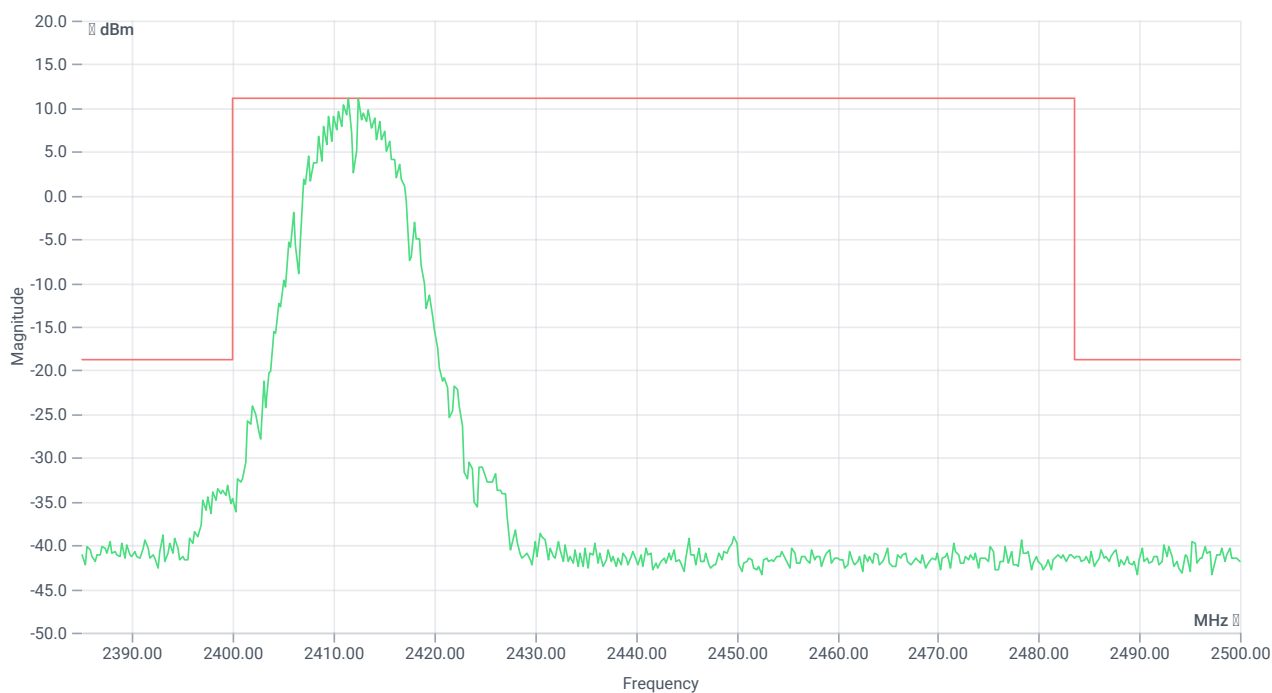
RESULT: Reference Power cond.

TEST DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	15.02	dBm	INFO
Ref. Frequency	---	---	2413.200	MHz	INFO



READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	15.02 0 35
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



RESULT

TEST DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Reference @ 2411.50 MHz	---	---	11.14	dBm	INFO
No peaks detected	---	---			PASS
Lowest margin to limit 24863.25 MHz	0	---	9.21	dB	INFO

Verdict

PASS

FCC 15.247 # Avg output power SA DTS ~ WLAN2G4 b mode

Test References

TC Start	06.07.2023 10:16:07
Ambit Temp [°C] Humidity [rel%]	24.0 41
System Version	4.5.2.0
Test Specification	FCC 15.247 -
Test Method	ANSI C63.10-2013 Chapter 11.9.2.2.2 or .4
TC Version	0.0.1
My Description	FCC 15.247 Avg output power SA DTS - WLAN2G4 b mode
Add. Information	

EUT Common Settings WLAN2G4

Number of Antenna Ports	1
User Interaction	No

Test Parameter

Technology to test	WLAN2G4 b mode
Antenna Port used	1
Temperature	nom
Voltage	nom
Frequency low to test	True Freq [MHz] 2412
Frequency mid to test	False Freq [MHz] 2437
Frequency high to test	False Freq [MHz] 2462
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-40,1307.9002K40/101042,3.70
Switch matrix,CTCadvanced,SPM-4 NI DAQ,28016133,NI

Test at TX 2412 MHz

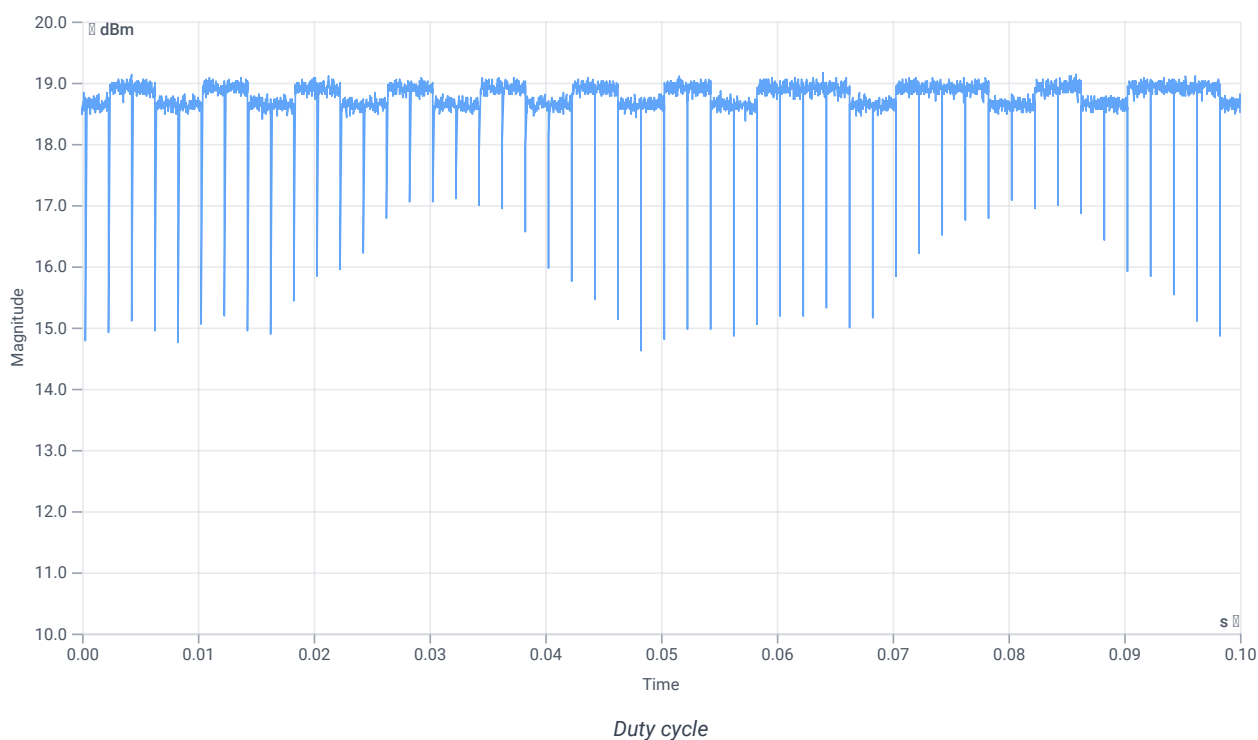
RESULT: Reference Power cond.

TEST DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	14.86	dBm	INFO
Ref. Frequency	---	---	2413.200	MHz	INFO

Evaluation max. Duty Cycle

Duty Cycle evaluation

TEST DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
No enough Bursts detected, Duty Cycle Burst Ratio set to 1					
Duty Cycle (Burst Ratio) max	---	---	1	---	INFO
Duty Cycle max	---	---	0	dB	INFO
Duty Cycle (Burst Ratio) min	---	---	1	---	INFO
Duty Cycle min	---	---	0	dB	INFO



Avg output power SA DTS

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	24.86 14.43 25
Start [MHz] Stop [MHz]	2392.000 2432.000

READ SA SETTINGS:

RBW [MHz] VBW [MHz]	0.500000 2.000000
Detector TraceMode	RMS AVER
Sweep: Time [ms] Count Points per Section Type	500 100 160 SWE



Avg output power SA DTS

RESULT (Channel power method)

TEST DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Avg output power uncorrected	---	---	19.46	dBm	INFO
Duty cycle correction	---	---	0	dB	INFO
Avg power DC corrected	---	30	19.46	dBm	PASS

Verdict

PASS

FCC 15.247 # Bandwidth 6dB DTS ~ WLAN2G4 b mode

Test References

TC Start	06.07.2023 10:17:25
Ambit Temp [°C] Humidity [rel%]	24.0 41
System Version	4.5.2.0
Test Specification	FCC 15.247 -
Test Method	
TC Version	0.0.1
My Description	FCC 15.247 Bandwidth 6dB DTS - WLAN2G4 b mode
Add. Information	

EUT Common Settings WLAN2G4

Number of Antenna Ports	1
User Interaction	No

Test Parameter

Technology to test	WLAN2G4 b mode
Antenna Port used	2
Temperature	nom
Voltage	nom
Frequency low to test	True Freq [MHz] 2412
Frequency mid to test	False Freq [MHz] 2437
Frequency high to test	False Freq [MHz] 2462
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-40,1307.9002K40/101042,3.70
Switch matrix,CTCadvanced,SPM-4 NI DAQ,28016133,NI

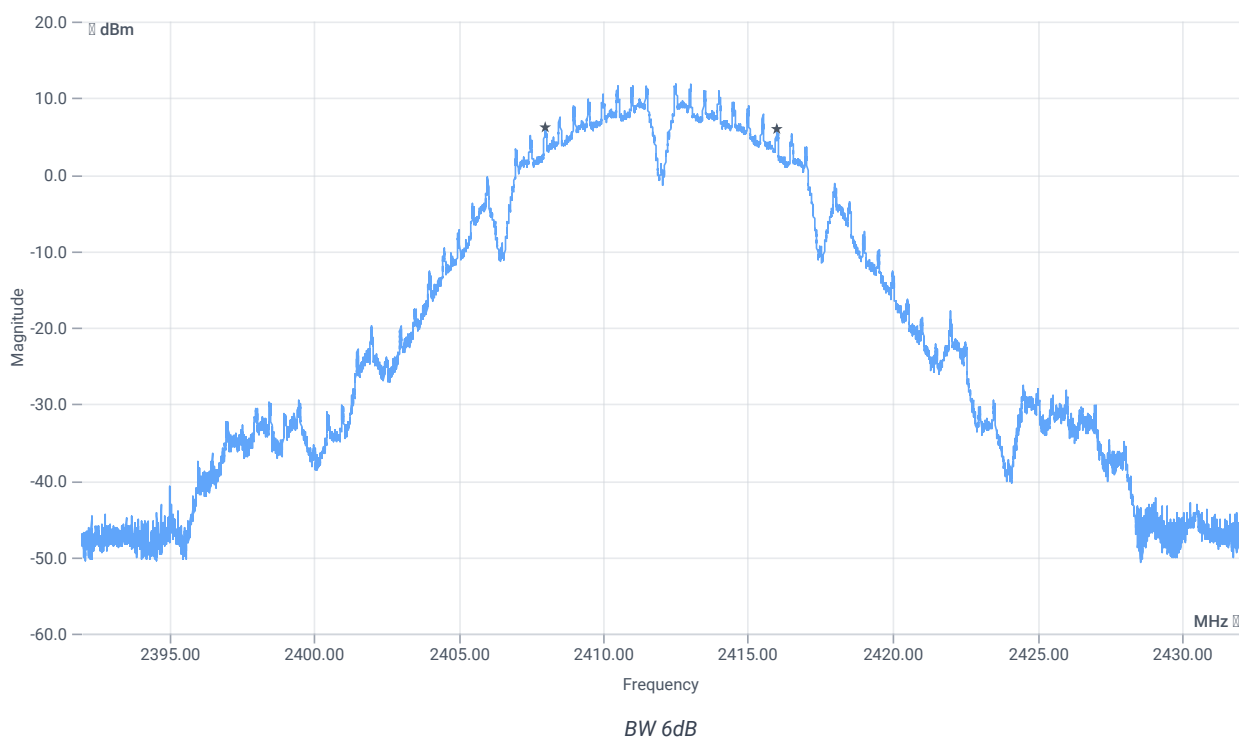
Test at TX 2412 MHz

RESULT: Reference Power cond.

TEST DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	15.33	dBm	INFO
Ref. Frequency	---	---	2413.100	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	20.33 14.43 25
Start [MHz] Stop [MHz]	2392.000 2432.000
RBW [MHz] VBW [MHz]	0.100000 0.300000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	50 200 10001 SWE



RESULT

TEST DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
DTS Bandwidth (6dB)	500	---	8016	kHz	PASS

Verdict

PASS

FCC 15.247 # Avg psd DTS ~ WLAN2G4 b mode

Test References

TC Start	06.07.2023 10:18:02
Ambit Temp [°C] Humidity [rel%]	24.0 41
System Version	4.5.2.0
Test Specification	FCC 15.247 -
Test Method	ANSI C63.10-2013 Chapter 11.10.5 or.3
TC Version	0.0.1
My Description	FCC 15.247 Avg psd DTS - WLAN2G4 b mode
Add. Information	

EUT Common Settings WLAN2G4

Number of Antenna Ports	1
User Interaction	No

Test Parameter

Technology to test	WLAN2G4 b mode
Antenna Port used	2
Temperature	nom
Voltage	nom
Frequency low to test	True Freq [MHz] 2412
Frequency mid to test	False Freq [MHz] 2437
Frequency high to test	False Freq [MHz] 2462
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-40,1307.9002K40/101042,3.70
Switch matrix,CTCadvanced,SPM-4 NI DAQ,28016133,NI

Test at TX 2412 MHz

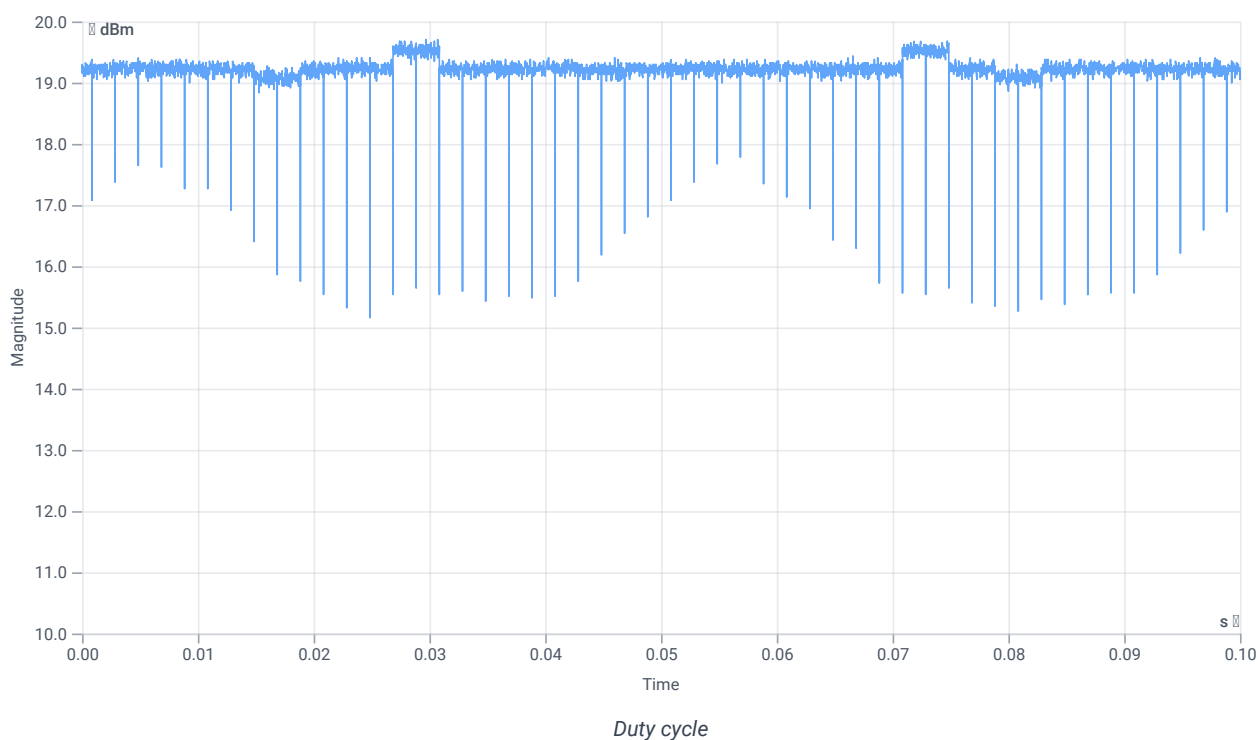
RESULT: Reference Power cond.

TEST DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	15.32	dBm	INFO
Ref. Frequency	---	---	2410.800	MHz	INFO

Evaluation max. Duty Cycle

Duty Cycle evaluation

TEST DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
No enough Bursts detected, Duty Cycle Burst Ratio set to 1					
Duty Cycle (Burst Ratio) max	---	---	1	---	INFO
Duty Cycle max	---	---	0	dB	INFO
Duty Cycle (Burst Ratio) min	---	---	1	---	INFO
Duty Cycle min	---	---	0	dB	INFO



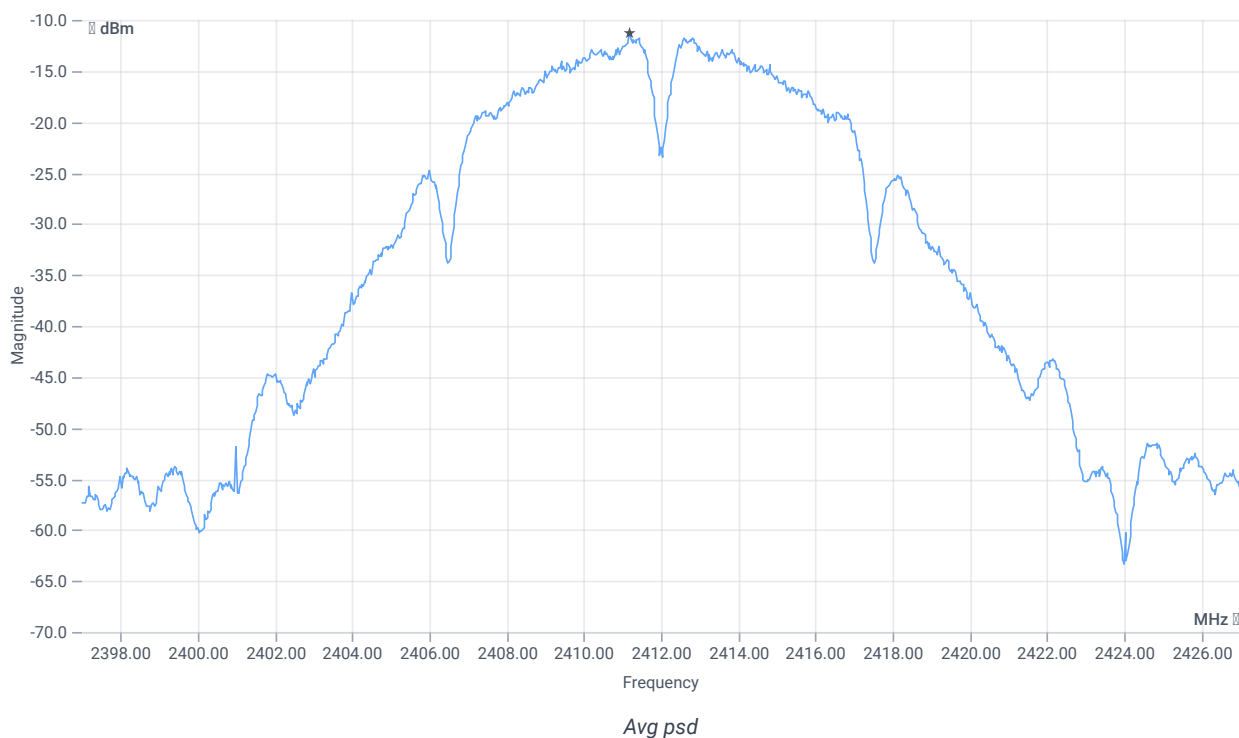
Avg. psd

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	20.32 14.43 25
Start [MHz] Stop [MHz]	2397.000 2427.000

READ SA SETTINGS:

RBW [MHz] VBW [MHz]	0.003000 0.010000
Detector TraceMode	RMS AVER
Sweep: Time [ms] Count Points per Section Type	334 100 1001 SWE



RESULT

TEST DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Avg psd uncorrected	---	---	-11.34	dBm	INFO
Duty cycle correction	---	---	0	dB	INFO
Avg psd DC corrected	---	8	-11.34	dBm/3kHz	PASS

Verdict

PASS

FCC 15.247, ISED RSS247 # Bandwidth 99PCT and 20dB ~ WLAN2G4 b mode

Test References

TC Start	06.07.2023 10:19:07
Ambit Temp [°C] Humidity [rel%]	24.0 41
System Version	4.5.2.0
Test Specification	FCC 15.247, ISED RSS247 -
Test Method	
TC Version	0.0.2
My Description	FCC 15.247 Bandwidth 99PCT-20dB DTS - WLAN2G4 b mode
Add. Information	

EUT Common Settings WLAN2G4

Number of Antenna Ports	1
User Interaction	No

Test Parameter

Technology to test	WLAN2G4 b mode
Antenna Port used	2
Temperature	nom
Voltage	nom
Frequency low to test	True Freq [MHz] 2412
Frequency mid to test	False Freq [MHz] 2437
Frequency high to test	False Freq [MHz] 2462
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-40,1307.9002K40/101042,3.70
Switch matrix,CTCadvanced,SPM-4 NI DAQ,28016133,NI

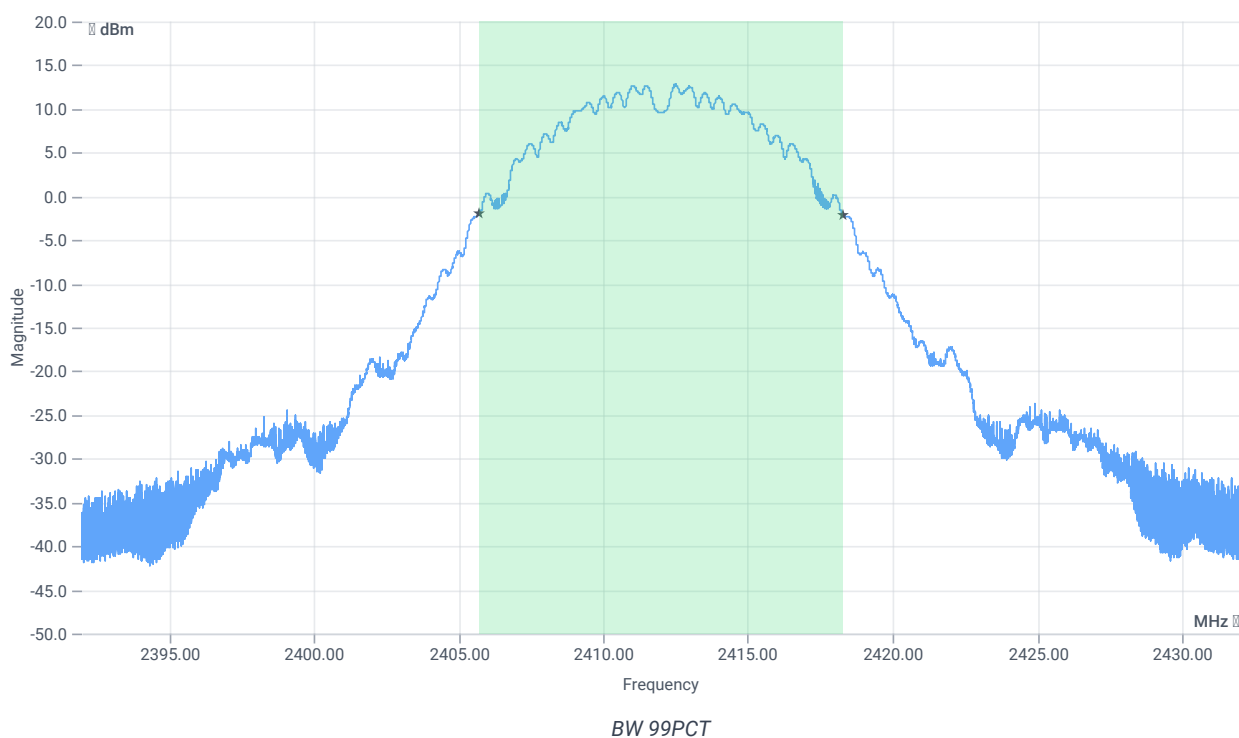
Test at TX 2412 MHz

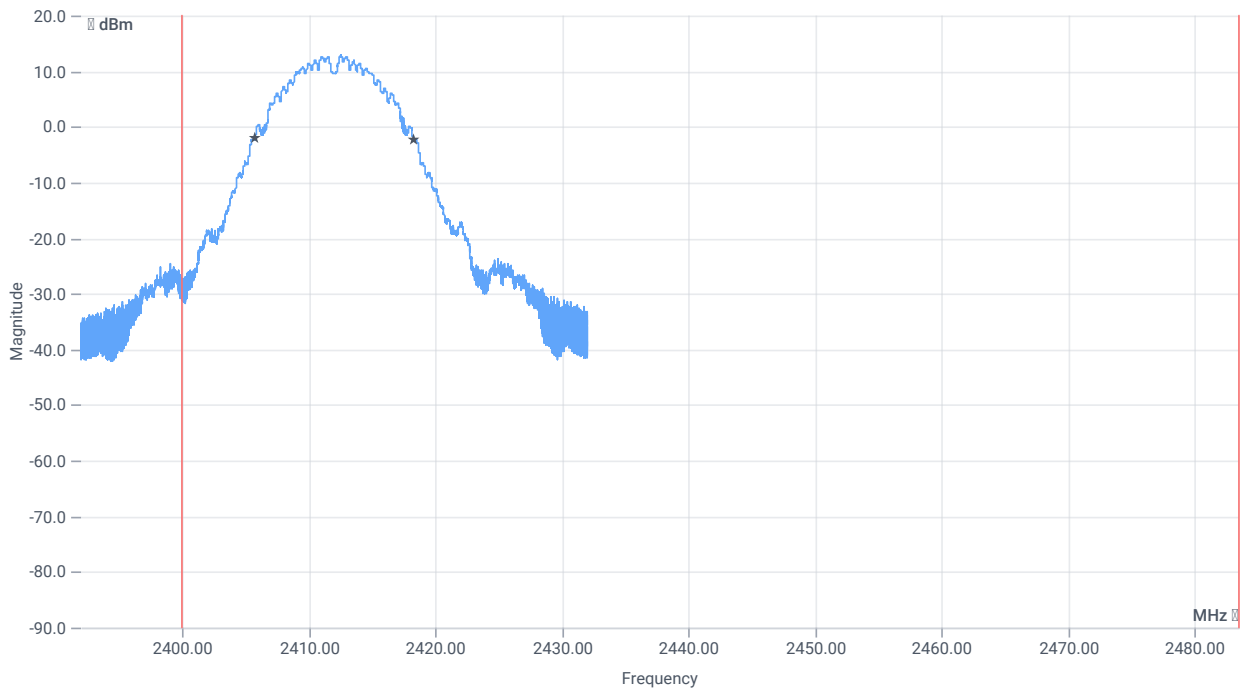
RESULT: Reference Power cond.

TEST DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	15.37	dBm	INFO
Ref. Frequency	---	---	2413.200	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	20.37 14.43 25
Start [MHz] Stop [MHz]	2392.000 2432.000
RBW [MHz] VBW [MHz]	0.500000 2.000000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	50 200 10001 SWE

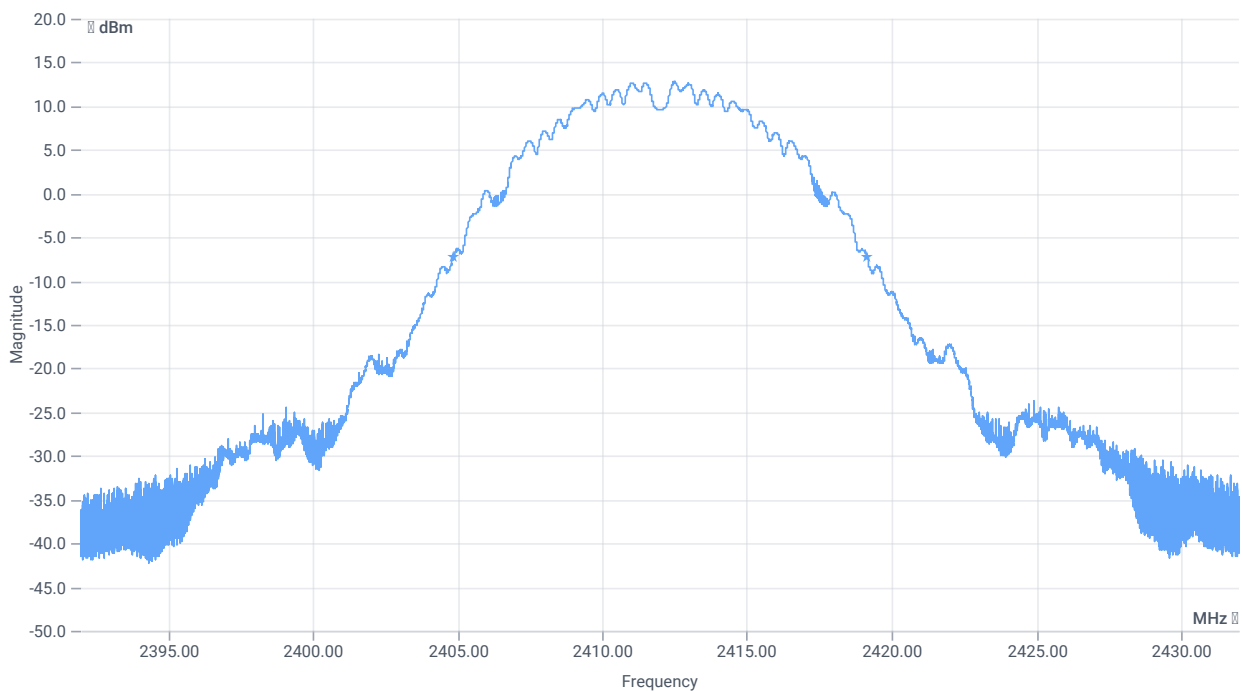




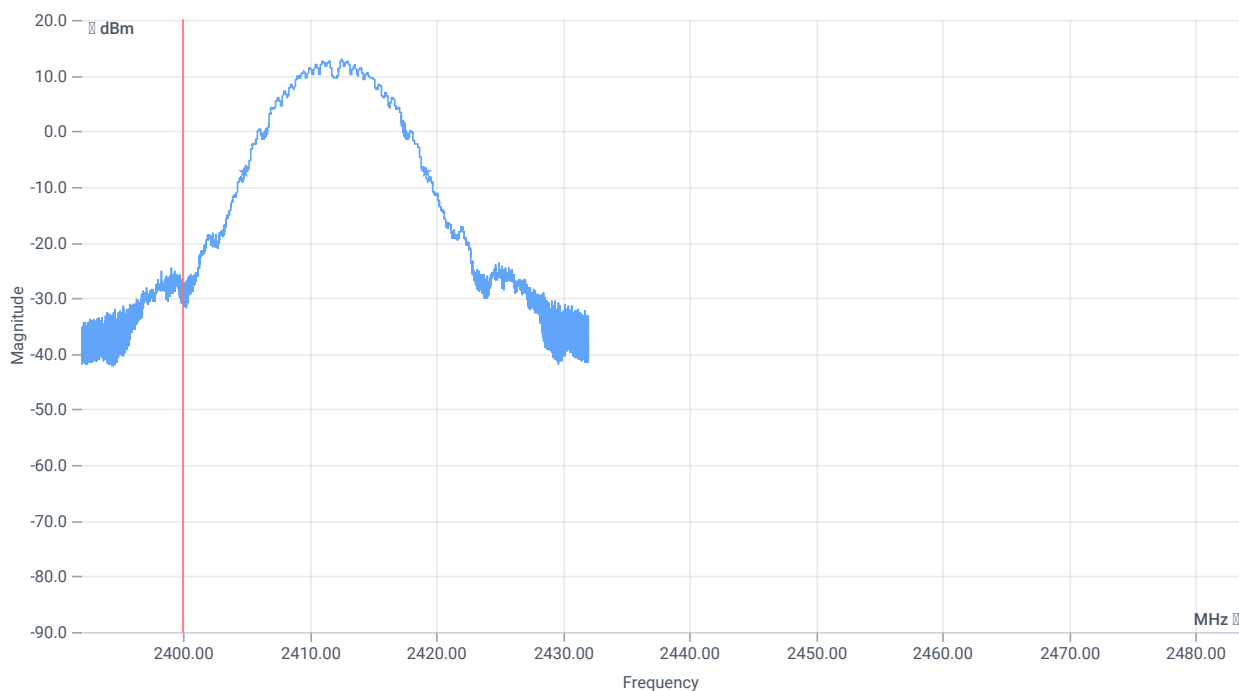
BW within Band 99PCT

RESULT

TEST DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 99%	---	---	12559.000	kHz	INFO
T1 99%	2400.000000	---	2405.7406	MHz	PASS
T2 99%	---	2483.500000	2418.2994	MHz	PASS



BW 20dB



BW within Band 20dB

RESULT

TEST DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 20dB	---	---	14288	kHz	INFO
T1 20dB	2400.000000	---	2404.8600	MHz	PASS
T2 20dB	---	2483.500000	2419.1480	MHz	PASS

Verdict

PASS

FCC 15.247 # TX spurious conducted 30dBc ~ WLAN2G4 b mode

Test References

TC Start	06.07.2023 10:19:45
Ambit Temp [°C] Humidity [rel%]	24.0 41
System Version	4.5.2.0
Test Specification	FCC 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 30dBc DTS - WLAN2G4 b mode
Add. Information	

EUT Common Settings WLAN2G4

Number of Antenna Ports	1
User Interaction	No

Test Parameter

Technology to test	WLAN2G4 b mode
Antenna Port used	2
Temperature	nom
Voltage	nom
Frequency low to test	True Freq [MHz] 2412
Frequency mid to test	False Freq [MHz] 2437
Frequency high to test	False Freq [MHz] 2462
Auto Control enabled Power Supply Climatic Box	No No
Additional Path Loss [dB]	0.7
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer

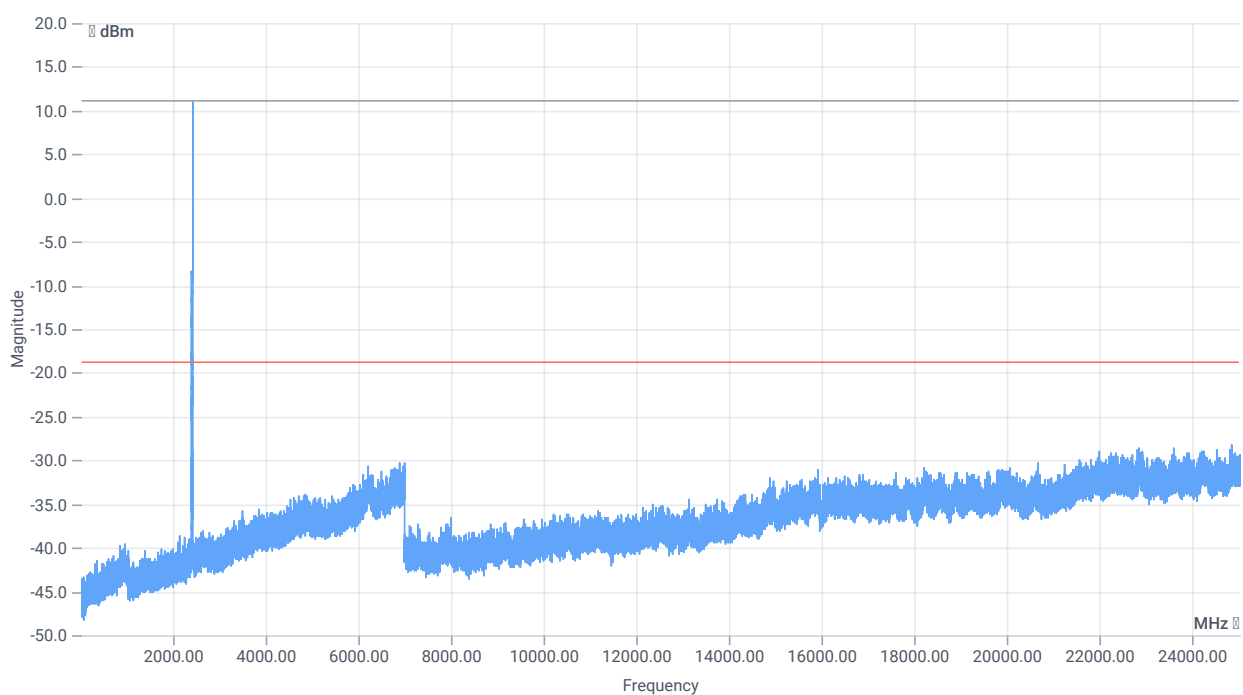
Test Equipment

Signal analyzer,Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.70
Switch matrix,CTCadvanced,SPM-4 NI DAQ,28016133,NI

Test at TX 2412 MHz

RESULT: Reference Power cond.

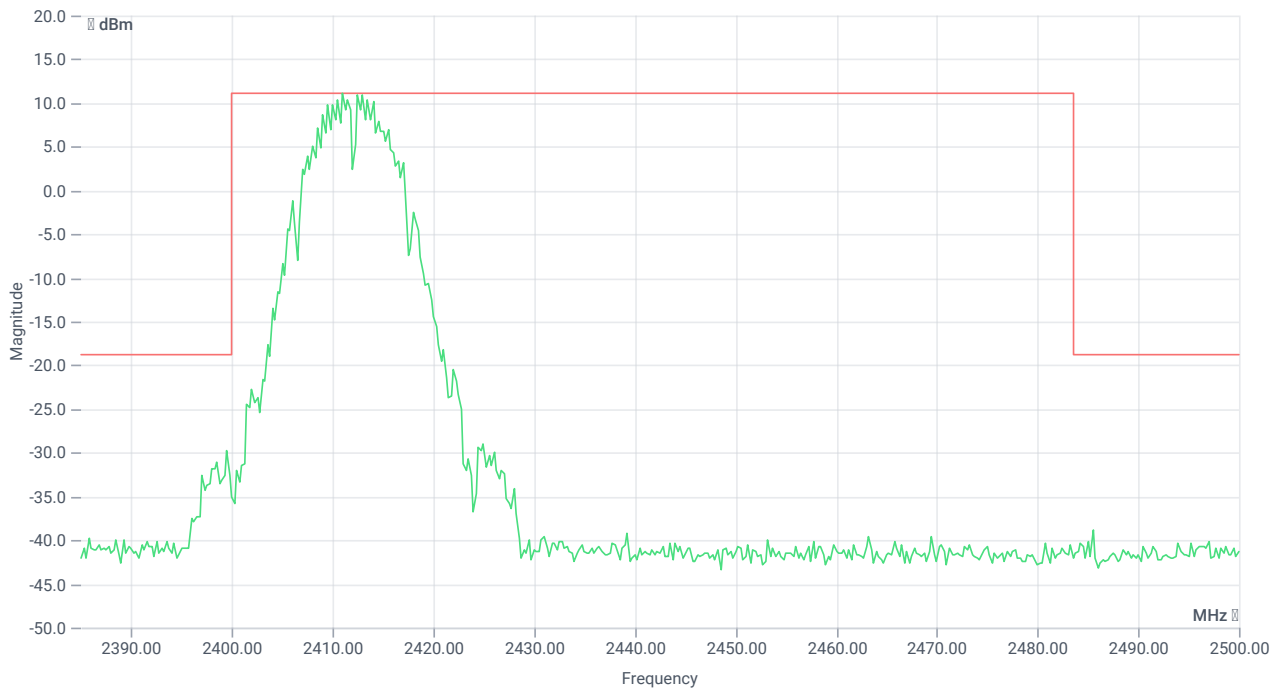
TEST DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	15.34	dBm	INFO
Ref. Frequency	---	---	2413.200	MHz	INFO



TX emissions

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	15.34 0 35
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



RESULT

TEST DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Reference @ 2411.00 MHz	---	---	11.14	dBm	INFO
No peaks detected	---	---			PASS
Lowest margin to limit 24839.5 MHz	0	---	9.48	dB	INFO

Verdict

PASS

FCC 15.247 # Avg output power SA DTS ~ WLAN2G4 b mode

Test References

TC Start	06.07.2023 10:26:28
Ambit Temp [°C] Humidity [rel%]	24.1 40
System Version	4.5.2.0
Test Specification	FCC 15.247 -
Test Method	ANSI C63.10-2013 Chapter 11.9.2.2.2 or .4
TC Version	0.0.1
My Description	FCC 15.247 Avg output power SA DTS - WLAN2G4 b mode
Add. Information	

EUT Common Settings WLAN2G4

Number of Antenna Ports	1
User Interaction	No

Test Parameter

Technology to test	WLAN2G4 b mode
Antenna Port used	2
Temperature	nom
Voltage	nom
Frequency low to test	True Freq [MHz] 2412
Frequency mid to test	False Freq [MHz] 2437
Frequency high to test	False Freq [MHz] 2462
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-40,1307.9002K40/101042,3.70
Switch matrix,CTCadvanced,SPM-4 NI DAQ,28016133,NI

Test at TX 2412 MHz

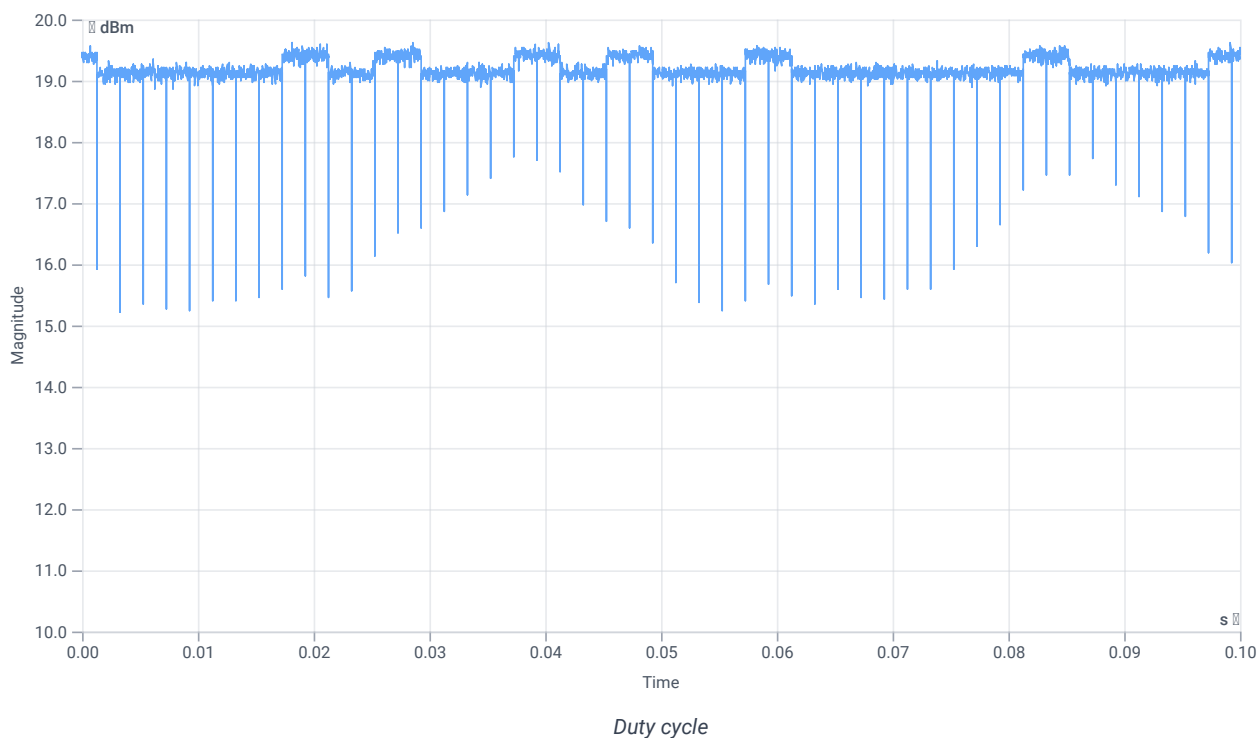
RESULT: Reference Power cond.

TEST DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	15.32	dBm	INFO
Ref. Frequency	---	---	2413.200	MHz	INFO

Evaluation max. Duty Cycle

Duty Cycle evaluation

TEST DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
No enough Bursts detected, Duty Cycle Burst Ratio set to 1					
Duty Cycle (Burst Ratio) max	---	---	1	---	INFO
Duty Cycle max	---	---	0	dB	INFO
Duty Cycle (Burst Ratio) min	---	---	1	---	INFO
Duty Cycle min	---	---	0	dB	INFO



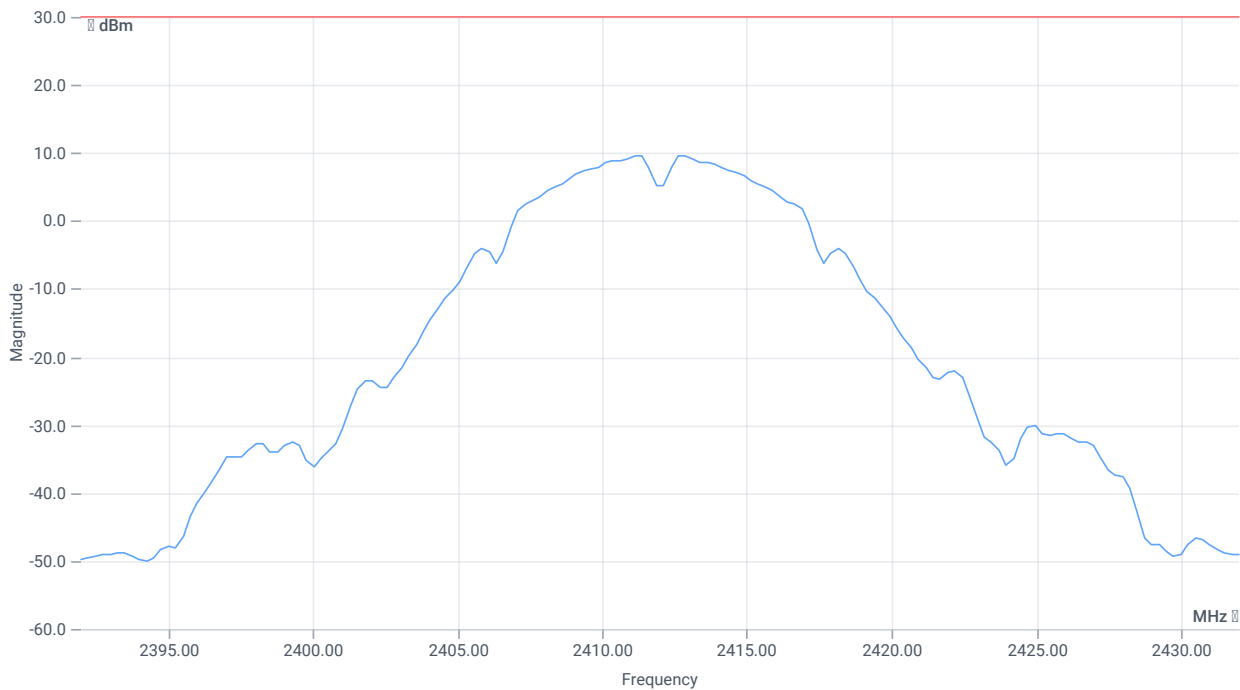
Avg output power SA DTS

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	25.32 14.43 25
Start [MHz] Stop [MHz]	2392.000 2432.000

READ SA SETTINGS:

RBW [MHz] VBW [MHz]	0.500000 2.000000
Detector TraceMode	RMS AVER
Sweep: Time [ms] Count Points per Section Type	500 100 160 SWE



Avg output power SA DTS

RESULT (Channel power method)

TEST DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Avg output power uncorrected	---	---	19.89	dBm	INFO
Duty cycle correction	---	---	0	dB	INFO
Avg power DC corrected	---	30	19.89	dBm	PASS

Verdict

PASS

Message with SA scan ~

Test References

TC Start	06.07.2023 10:27:45
Ambit Temp [°C] Humidity [rel%]	24.1 40
System Version	4.5.2.0
Test Specification	-
Test Method	
TC Version	0.0.1
My Description	Message with SA Scan b mode
Add. Information	

Test Parameter

Switched Path	EUT - SignalingUnit - SpectrumAnalyzer
Message start	06.07.2023 10:27:46
Message	set WLAN2G4 to b mode, Frequency [MHz] 2437 ,

Test Equipment

Signal analyzer,Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.70
Switch matrix,CTCadvanced,SPM-4 NI DAQ,28016133,NI

Verdict

INFO

FCC 15.247 # Bandwidth 6dB DTS ~ WLAN2G4 b mode

Test References

TC Start	06.07.2023 10:33:22
Ambit Temp [°C] Humidity [rel%]	24.1 40
System Version	4.5.2.0
Test Specification	FCC 15.247 -
Test Method	
TC Version	0.0.1
My Description	FCC 15.247 Bandwidth 6dB DTS - WLAN2G4 b mode
Add. Information	

EUT Common Settings WLAN2G4

Number of Antenna Ports	1
User Interaction	No

Test Parameter

Technology to test	WLAN2G4 b mode
Antenna Port used	1
Temperature	nom
Voltage	nom
Frequency low to test	False Freq [MHz] 2412
Frequency mid to test	True Freq [MHz] 2437
Frequency high to test	False Freq [MHz] 2462
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-40,1307.9002K40/101042,3.70
Switch matrix,CTCadvanced,SPM-4 NI DAQ,28016133,NI

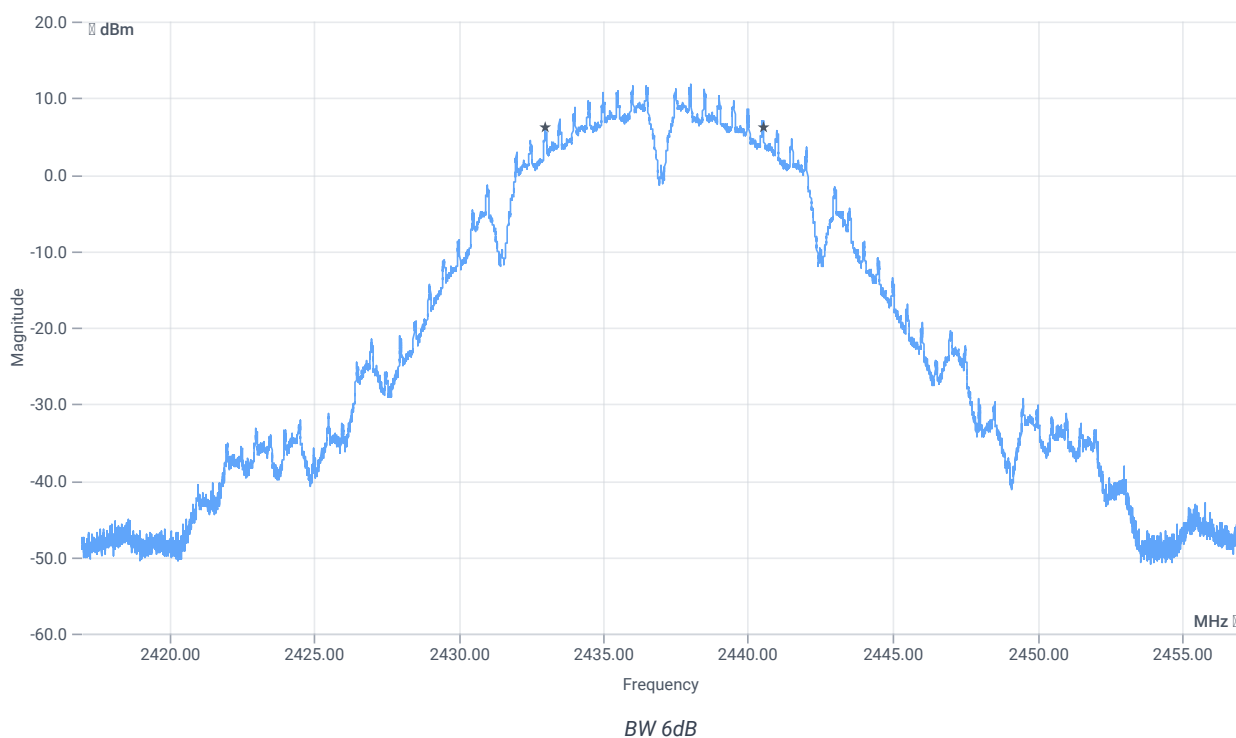
Test at TX 2437 MHz

RESULT: Reference Power cond.

TEST DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	14.97	dBm	INFO
Ref. Frequency	---	---	2438.100	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	19.97 14.2 25
Start [MHz] Stop [MHz]	2417.000 2457.000
RBW [MHz] VBW [MHz]	0.100000 0.300000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	50 200 10001 SWE



RESULT

TEST DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
DTS Bandwidth (6dB)	500	---	7536	kHz	PASS

Verdict

PASS

FCC 15.247 # Avg psd DTS ~ WLAN2G4 b mode

Test References

TC Start	06.07.2023 10:33:57
Ambit Temp [°C] Humidity [rel%]	24.1 39
System Version	4.5.2.0
Test Specification	FCC 15.247 -
Test Method	ANSI C63.10-2013 Chapter 11.10.5 or.3
TC Version	0.0.1
My Description	FCC 15.247 Avg psd DTS - WLAN2G4 b mode
Add. Information	

EUT Common Settings WLAN2G4

Number of Antenna Ports	1
User Interaction	No

Test Parameter

Technology to test	WLAN2G4 b mode
Antenna Port used	1
Temperature	nom
Voltage	nom
Frequency low to test	False Freq [MHz] 2412
Frequency mid to test	True Freq [MHz] 2437
Frequency high to test	False Freq [MHz] 2462
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-40,1307.9002K40/101042,3.70
Switch matrix,CTCadvanced,SPM-4 NI DAQ,28016133,NI

Test at TX 2437 MHz

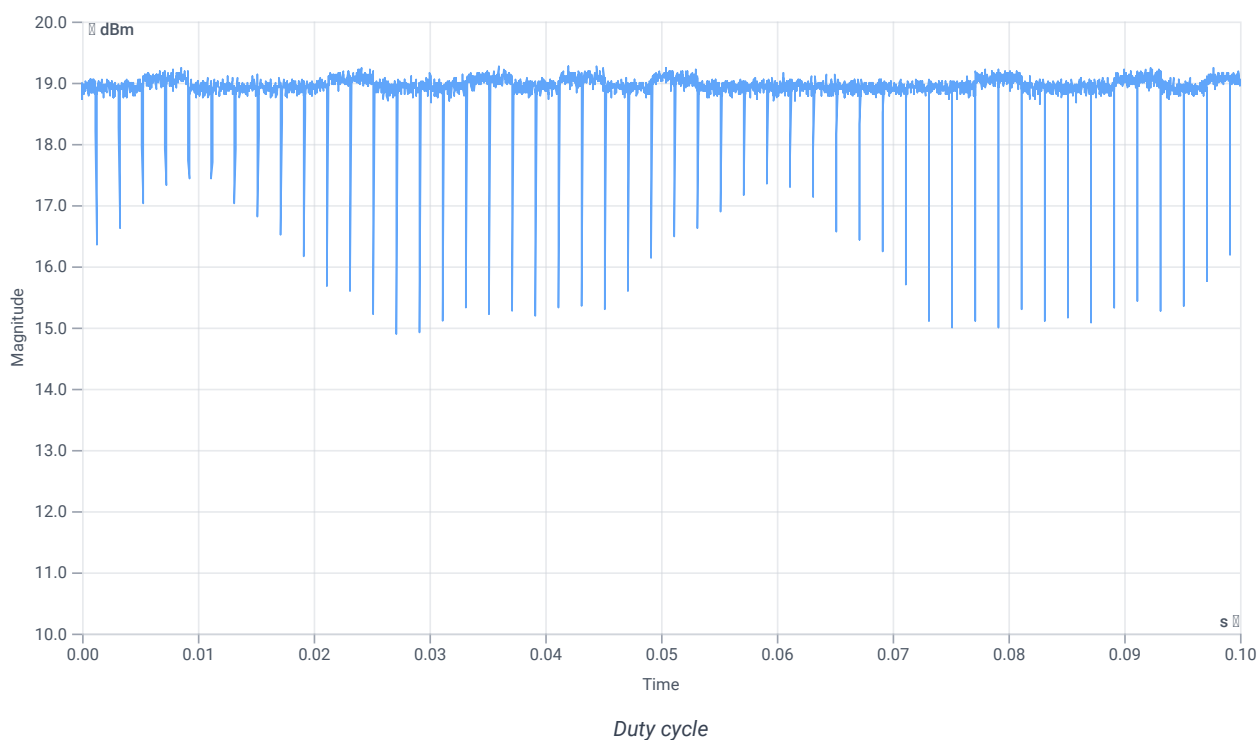
RESULT: Reference Power cond.

TEST DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	14.95	dBm	INFO
Ref. Frequency	---	---	2438.200	MHz	INFO

Evaluation max. Duty Cycle

Duty Cycle evaluation

TEST DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
No enough Bursts detected, Duty Cycle Burst Ratio set to 1					
Duty Cycle (Burst Ratio) max	---	---	1	---	INFO
Duty Cycle max	---	---	0	dB	INFO
Duty Cycle (Burst Ratio) min	---	---	1	---	INFO
Duty Cycle min	---	---	0	dB	INFO



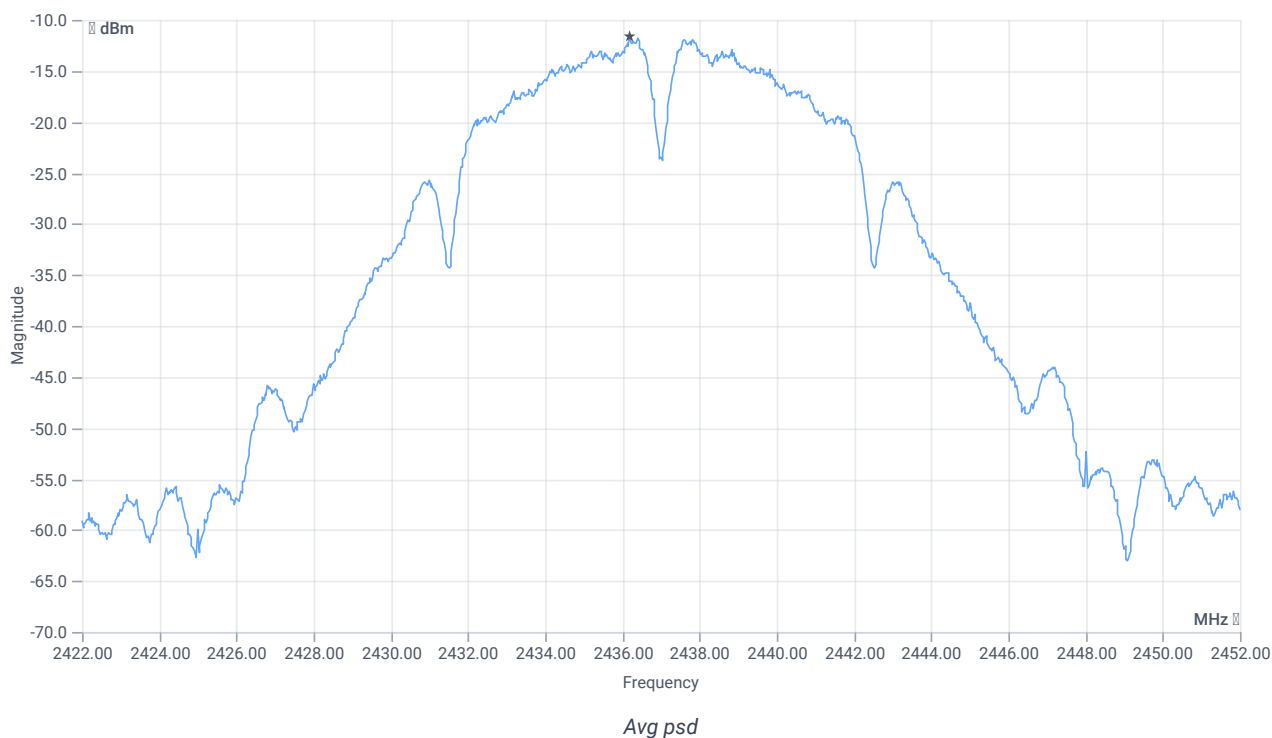
Avg. psd

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	19.95 14.2 25
Start [MHz] Stop [MHz]	2422.000 2452.000

READ SA SETTINGS:

RBW [MHz] VBW [MHz]	0.003000 0.010000
Detector TraceMode	RMS AVER
Sweep: Time [ms] Count Points per Section Type	334 100 1001 SWE



RESULT

TEST DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Avg psd uncorrected	---	---	-11.69	dBm	INFO
Duty cycle correction	---	---	0	dB	INFO
Avg psd DC corrected	---	8	-11.69	dBm/3kHz	PASS

Verdict

PASS

FCC 15.247, ISED RSS247 # Bandwidth 99PCT and 20dB ~ WLAN2G4 b mode

Test References

TC Start	06.07.2023 10:35:02
Ambit Temp [°C] Humidity [rel%]	24.1 39
System Version	4.5.2.0
Test Specification	FCC 15.247, ISED RSS247 -
Test Method	
TC Version	0.0.2
My Description	FCC 15.247 Bandwidth 99PCT-20dB DTS - WLAN2G4 b mode
Add. Information	

EUT Common Settings WLAN2G4

Number of Antenna Ports	1
User Interaction	No

Test Parameter

Technology to test	WLAN2G4 b mode
Antenna Port used	1
Temperature	nom
Voltage	nom
Frequency low to test	False Freq [MHz] 2412
Frequency mid to test	True Freq [MHz] 2437
Frequency high to test	False Freq [MHz] 2462
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-40,1307.9002K40/101042,3.70
Switch matrix,CTCadvanced,SPM-4 NI DAQ,28016133,NI

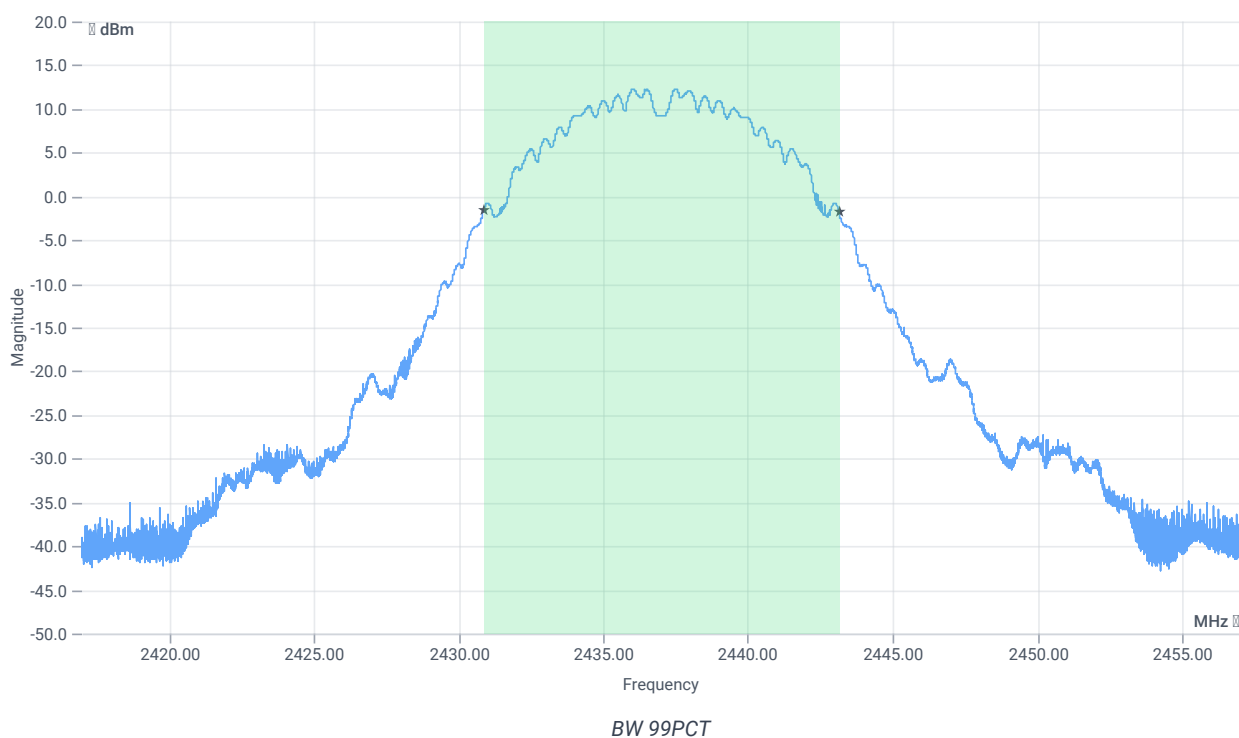
Test at TX 2437 MHz

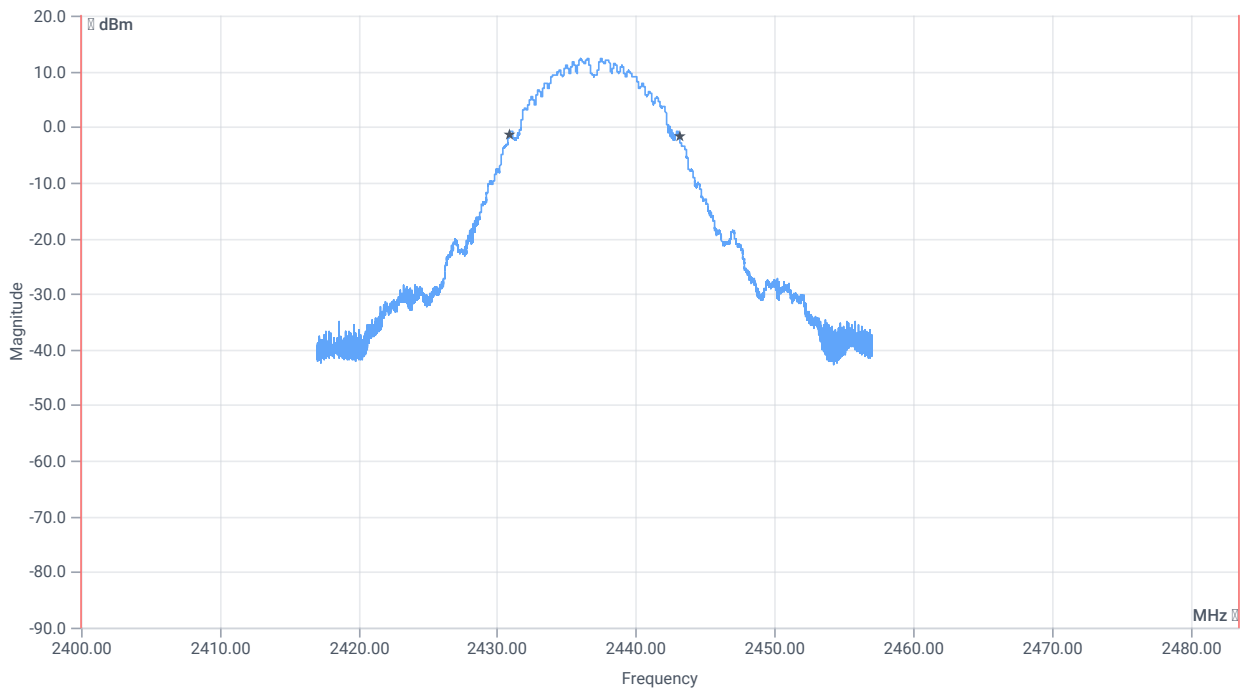
RESULT: Reference Power cond.

TEST DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	14.98	dBm	INFO
Ref. Frequency	---	---	2438.200	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	19.98 14.2 25
Start [MHz] Stop [MHz]	2417.000 2457.000
RBW [MHz] VBW [MHz]	0.500000 2.000000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	50 200 10001 SWE

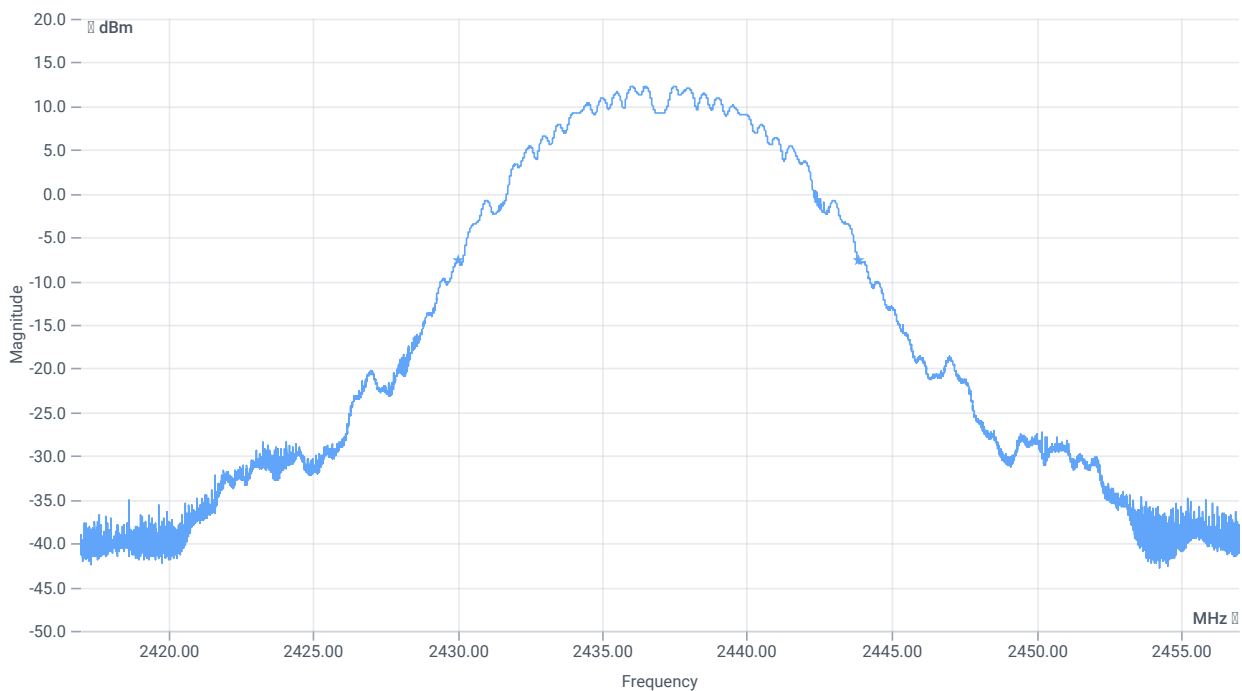




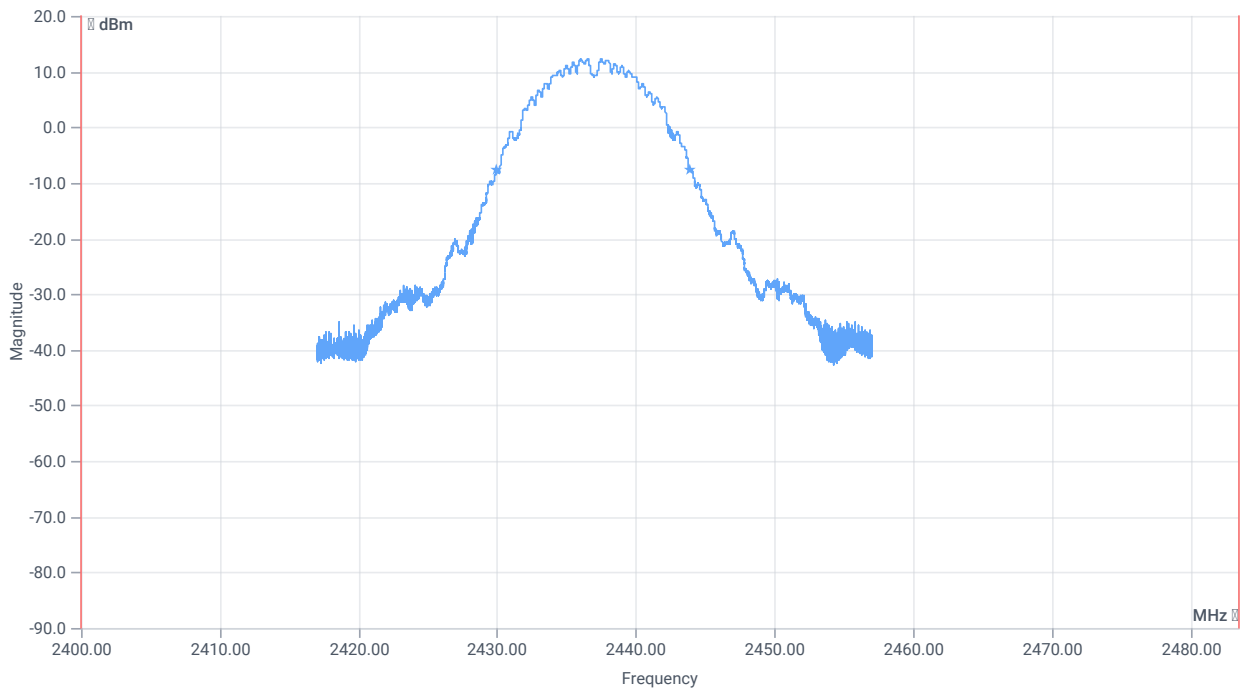
BW within Band 99PCT

RESULT

TEST DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 99%	---	---	12275.000	kHz	INFO
T1 99%	2400.000000	---	2430.8806	MHz	PASS
T2 99%	---	2483.500000	2443.1554	MHz	PASS



BW 20dB



BW within Band 20dB

RESULT

TEST DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 20dB	---	---	13840	kHz	INFO
T1 20dB	2400.000000	---	2430.0000	MHz	PASS
T2 20dB	---	2483.500000	2443.8400	MHz	PASS

Verdict

PASS

FCC 15.247 # TX spurious conducted 30dBc ~ WLAN2G4 b mode

Test References

TC Start	06.07.2023 10:35:40
Ambit Temp [°C] Humidity [rel%]	24.1 39
System Version	4.5.2.0
Test Specification	FCC 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 30dBc DTS - WLAN2G4 b mode
Add. Information	

EUT Common Settings WLAN2G4

Number of Antenna Ports	1
User Interaction	No

Test Parameter

Technology to test	WLAN2G4 b mode
Antenna Port used	1
Temperature	nom
Voltage	nom
Frequency low to test	False Freq [MHz] 2412
Frequency mid to test	True Freq [MHz] 2437
Frequency high to test	False Freq [MHz] 2462
Auto Control enabled Power Supply Climatic Box	No No
Additional Path Loss [dB]	0.7
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer

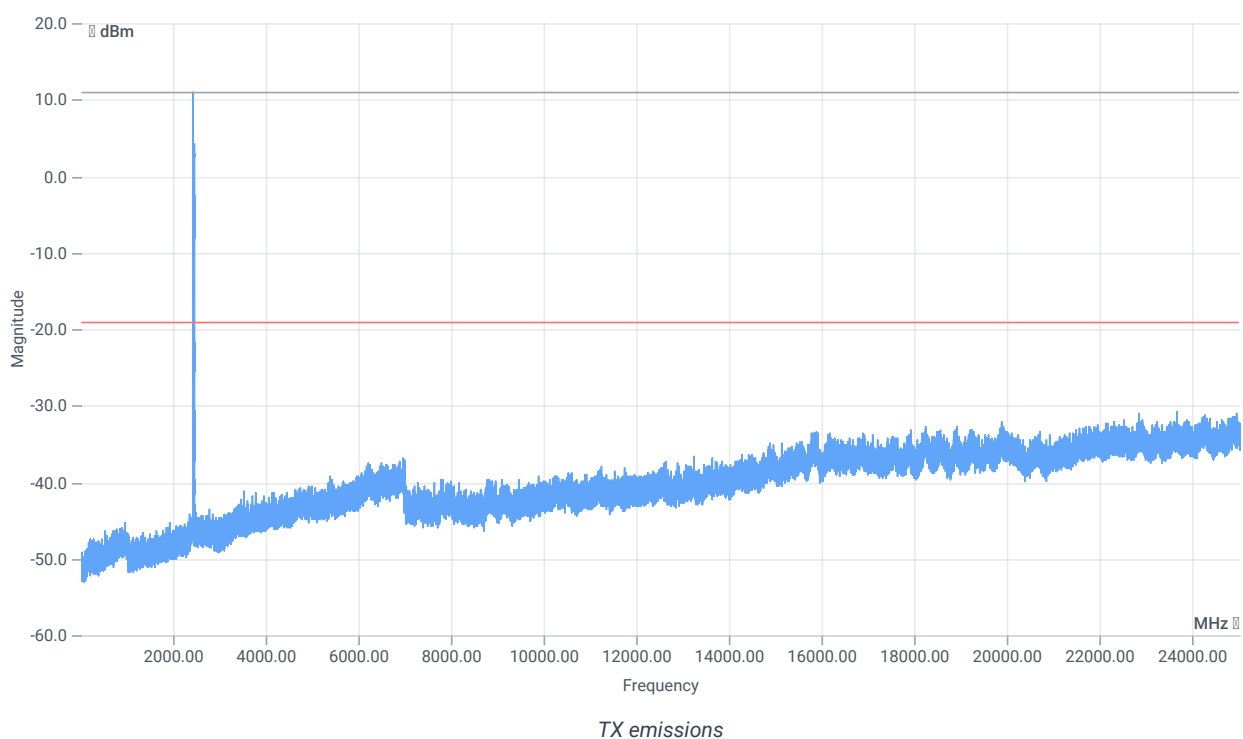
Test Equipment

Signal analyzer,Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.70
Switch matrix,CTCadvanced,SPM-4 NI DAQ,28016133,NI

Test at TX 2437 MHz

RESULT: Reference Power cond.

TEST DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	14.89	dBm	INFO
Ref. Frequency	---	---	2438.200	MHz	INFO



READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	14.89 0 30
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



RESULT

TEST DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Reference @ 2438.00 MHz	---	---	10.95	dBm	INFO
No peaks detected	---	---			PASS
Lowest margin to limit 23663.5 MHz	0	---	11.84	dB	INFO

Verdict

PASS

FCC 15.247 # Avg output power SA DTS ~ WLAN2G4 b mode

Test References

TC Start	06.07.2023 10:42:22
Ambit Temp [°C] Humidity [rel%]	24.1 39
System Version	4.5.2.0
Test Specification	FCC 15.247 -
Test Method	ANSI C63.10-2013 Chapter 11.9.2.2.2 or .4
TC Version	0.0.1
My Description	FCC 15.247 Avg output power SA DTS - WLAN2G4 b mode
Add. Information	

EUT Common Settings WLAN2G4

Number of Antenna Ports	1
User Interaction	No

Test Parameter

Technology to test	WLAN2G4 b mode
Antenna Port used	1
Temperature	nom
Voltage	nom
Frequency low to test	False Freq [MHz] 2412
Frequency mid to test	True Freq [MHz] 2437
Frequency high to test	False Freq [MHz] 2462
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-40,1307.9002K40/101042,3.70
Switch matrix,CTCadvanced,SPM-4 NI DAQ,28016133,NI

Test at TX 2437 MHz

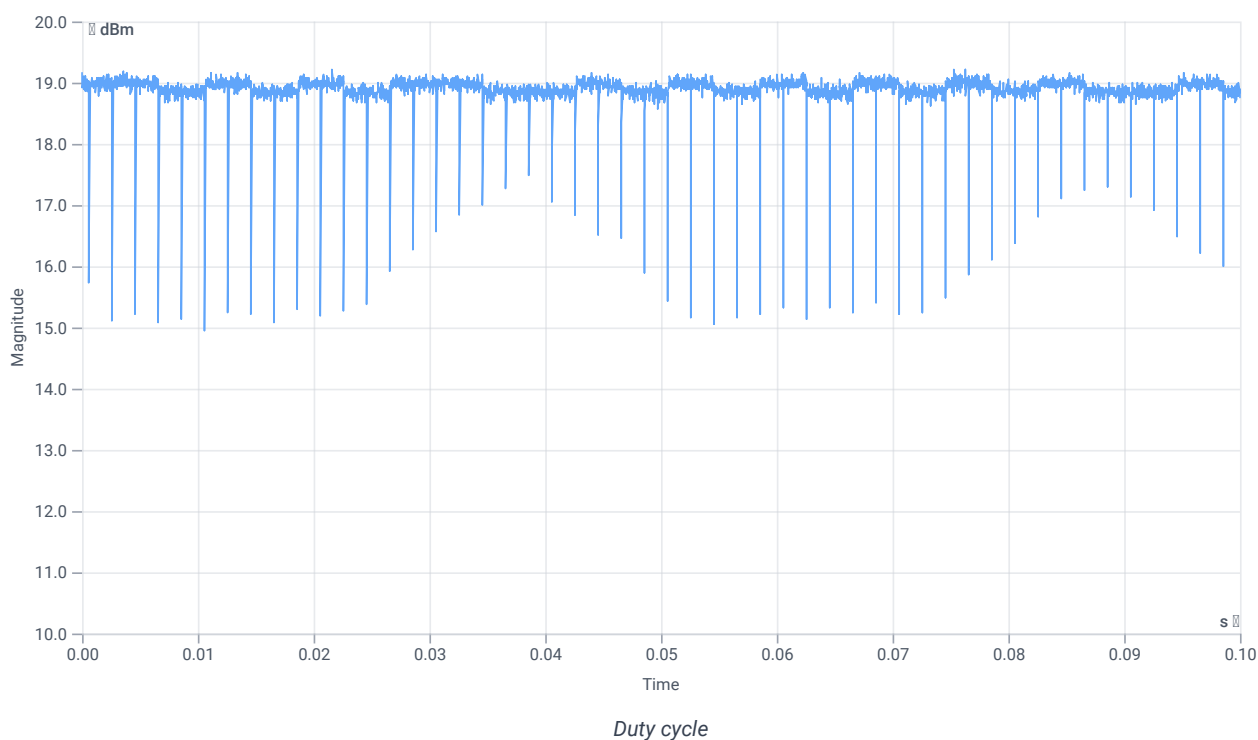
RESULT: Reference Power cond.

TEST DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	14.92	dBm	INFO
Ref. Frequency	---	---	2438.200	MHz	INFO

Evaluation max. Duty Cycle

Duty Cycle evaluation

TEST DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
No enough Bursts detected, Duty Cycle Burst Ratio set to 1					
Duty Cycle (Burst Ratio) max	---	---	1	---	INFO
Duty Cycle max	---	---	0	dB	INFO
Duty Cycle (Burst Ratio) min	---	---	1	---	INFO
Duty Cycle min	---	---	0	dB	INFO



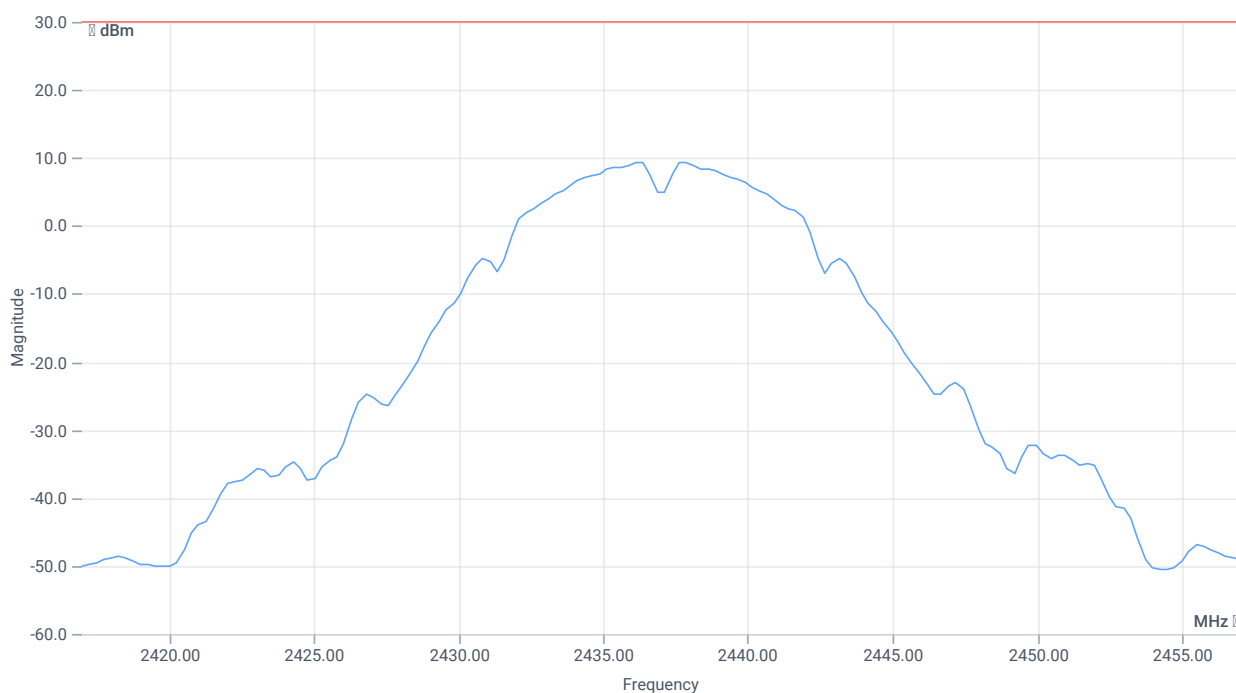
Avg output power SA DTS

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	24.92 14.2 25
Start [MHz] Stop [MHz]	2417.000 2457.000

READ SA SETTINGS:

RBW [MHz] VBW [MHz]	0.500000 2.000000
Detector TraceMode	RMS AVER
Sweep: Time [ms] Count Points per Section Type	500 100 160 SWE



Avg output power SA DTS

RESULT (Channel power method)

TEST DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Avg output power uncorrected	---	---	19.6	dBm	INFO
Duty cycle correction	---	---	0	dB	INFO
Avg power DC corrected	---	30	19.6	dBm	PASS

Verdict

PASS

FCC 15.247 # Bandwidth 6dB DTS ~ WLAN2G4 b mode

Test References

TC Start	06.07.2023 10:43:38
Ambit Temp [°C] Humidity [rel%]	24.2 39
System Version	4.5.2.0
Test Specification	FCC 15.247 -
Test Method	
TC Version	0.0.1
My Description	FCC 15.247 Bandwidth 6dB DTS - WLAN2G4 b mode
Add. Information	

EUT Common Settings WLAN2G4

Number of Antenna Ports	1
User Interaction	No

Test Parameter

Technology to test	WLAN2G4 b mode
Antenna Port used	2
Temperature	nom
Voltage	nom
Frequency low to test	False Freq [MHz] 2412
Frequency mid to test	True Freq [MHz] 2437
Frequency high to test	False Freq [MHz] 2462
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-40,1307.9002K40/101042,3.70
Switch matrix,CTCadvanced,SPM-4 NI DAQ,28016133,NI

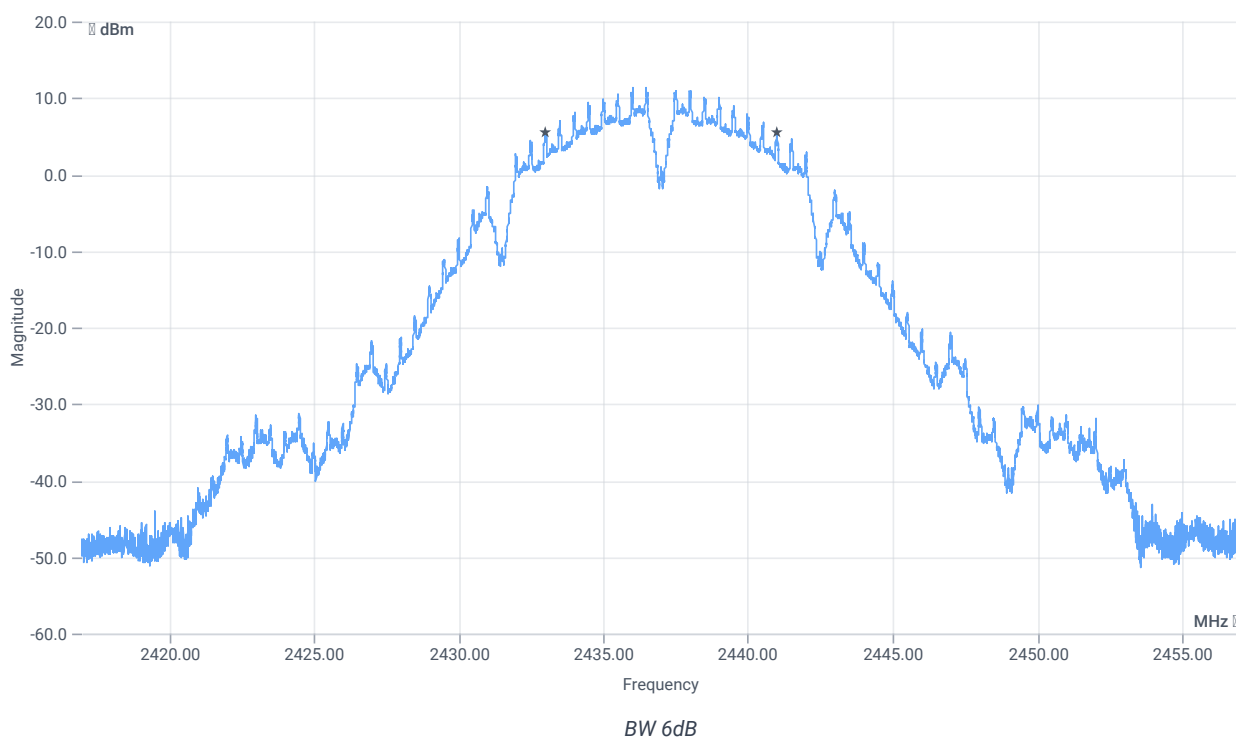
Test at TX 2437 MHz

RESULT: Reference Power cond.

TEST DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	14.43	dBm	INFO
Ref. Frequency	---	---	2435.800	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	19.43 14.2 25
Start [MHz] Stop [MHz]	2417.000 2457.000
RBW [MHz] VBW [MHz]	0.100000 0.300000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	50 200 10001 SWE



RESULT

TEST DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
DTS Bandwidth (6dB)	500	---	8016	kHz	PASS

Verdict

PASS

FCC 15.247 # Avg psd DTS ~ WLAN2G4 b mode

Test References

TC Start	06.07.2023 10:44:13
Ambit Temp [°C] Humidity [rel%]	24.1 39
System Version	4.5.2.0
Test Specification	FCC 15.247 -
Test Method	ANSI C63.10-2013 Chapter 11.10.5 or.3
TC Version	0.0.1
My Description	FCC 15.247 Avg psd DTS - WLAN2G4 b mode
Add. Information	

EUT Common Settings WLAN2G4

Number of Antenna Ports	1
User Interaction	No

Test Parameter

Technology to test	WLAN2G4 b mode
Antenna Port used	2
Temperature	nom
Voltage	nom
Frequency low to test	False Freq [MHz] 2412
Frequency mid to test	True Freq [MHz] 2437
Frequency high to test	False Freq [MHz] 2462
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-40,1307.9002K40/101042,3.70
Switch matrix,CTCadvanced,SPM-4 NI DAQ,28016133,NI

Test at TX 2437 MHz

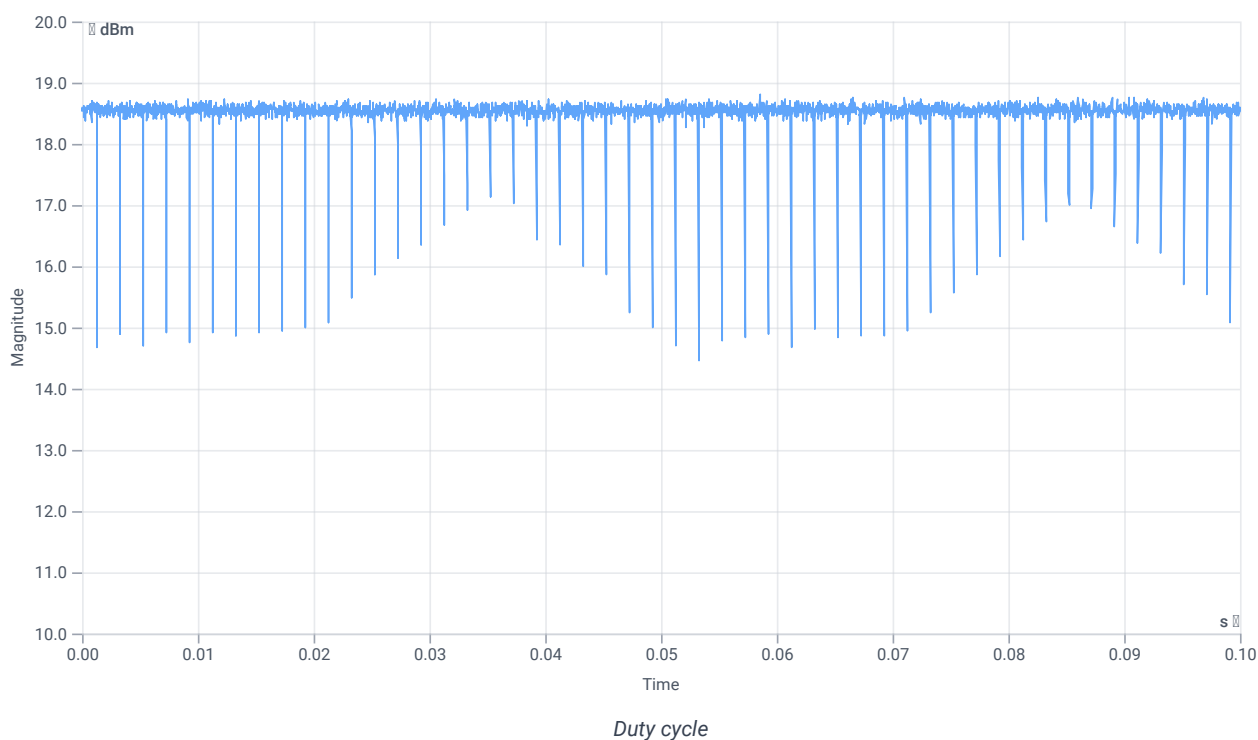
RESULT: Reference Power cond.

TEST DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	14.43	dBm	INFO
Ref. Frequency	---	---	2435.800	MHz	INFO

Evaluation max. Duty Cycle

Duty Cycle evaluation

TEST DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
No enough Bursts detected, Duty Cycle Burst Ratio set to 1					
Duty Cycle (Burst Ratio) max	---	---	1	---	INFO
Duty Cycle max	---	---	0	dB	INFO
Duty Cycle (Burst Ratio) min	---	---	1	---	INFO
Duty Cycle min	---	---	0	dB	INFO



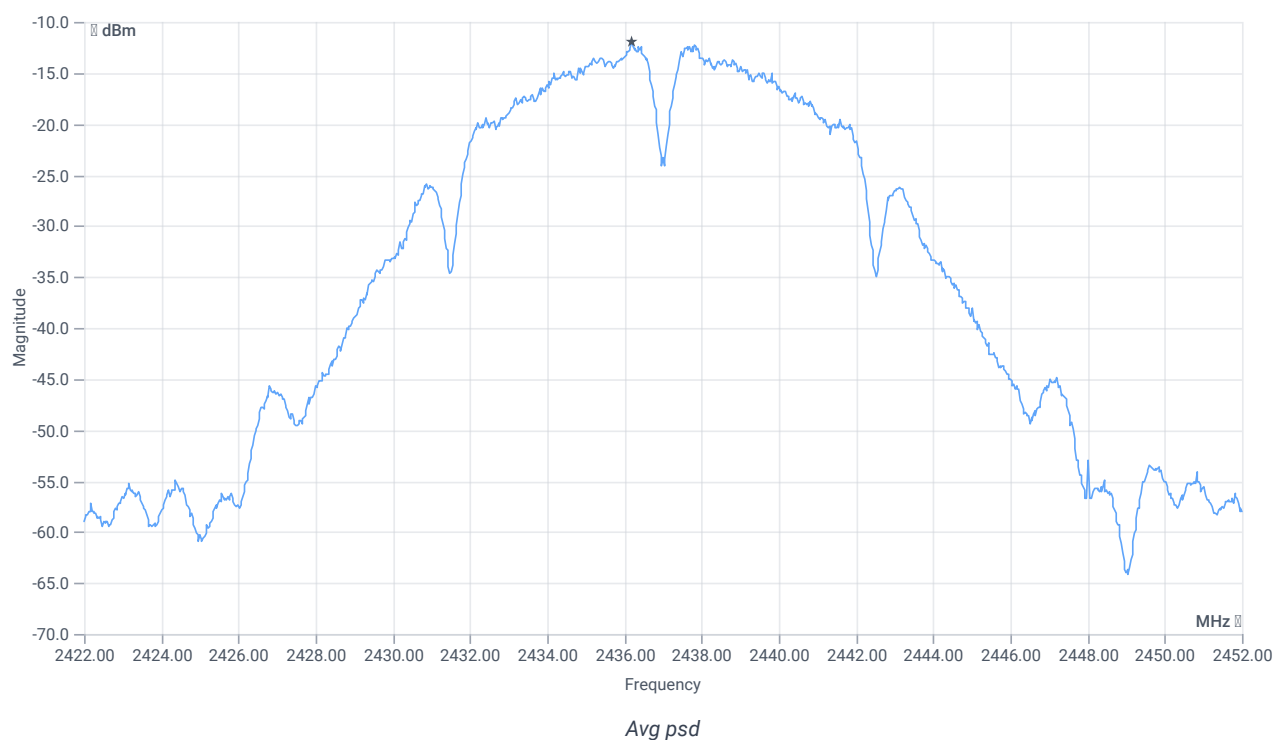
Avg. psd

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	19.43 14.2 25
Start [MHz] Stop [MHz]	2422.000 2452.000

READ SA SETTINGS:

RBW [MHz] VBW [MHz]	0.003000 0.010000
Detector TraceMode	RMS AVER
Sweep: Time [ms] Count Points per Section Type	334 100 1001 SWE



RESULT

TEST DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Avg psd uncorrected	---	---	-11.9	dBm	INFO
Duty cycle correction	---	---	0	dB	INFO
Avg psd DC corrected	---	8	-11.9	dBm/3kHz	PASS

Verdict

PASS

FCC 15.247, ISED RSS247 # Bandwidth 99PCT and 20dB ~ WLAN2G4 b mode

Test References

TC Start	06.07.2023 10:45:17
Ambit Temp [°C] Humidity [rel%]	24.2 40
System Version	4.5.2.0
Test Specification	FCC 15.247, ISED RSS247 -
Test Method	
TC Version	0.0.2
My Description	FCC 15.247 Bandwidth 99PCT-20dB DTS - WLAN2G4 b mode
Add. Information	

EUT Common Settings WLAN2G4

Number of Antenna Ports	1
User Interaction	No

Test Parameter

Technology to test	WLAN2G4 b mode
Antenna Port used	2
Temperature	nom
Voltage	nom
Frequency low to test	False Freq [MHz] 2412
Frequency mid to test	True Freq [MHz] 2437
Frequency high to test	False Freq [MHz] 2462
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-40,1307.9002K40/101042,3.70
Switch matrix,CTCadvanced,SPM-4 NI DAQ,28016133,NI

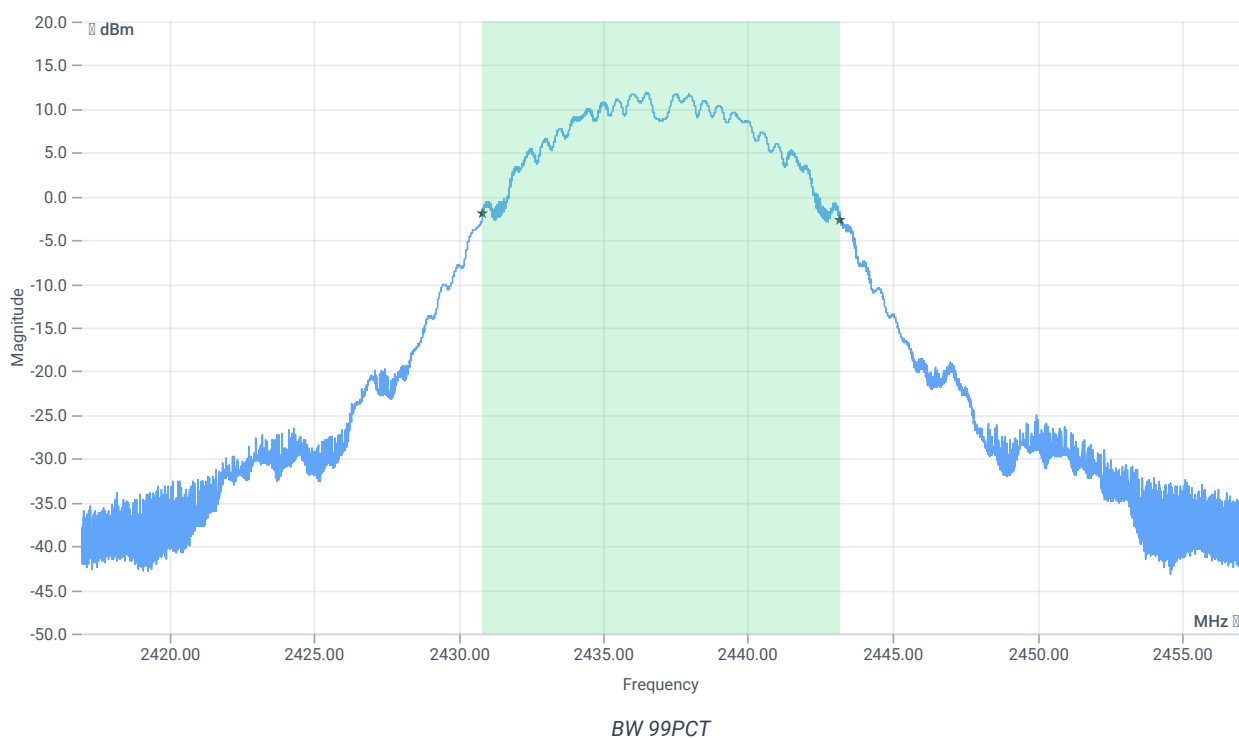
Test at TX 2437 MHz

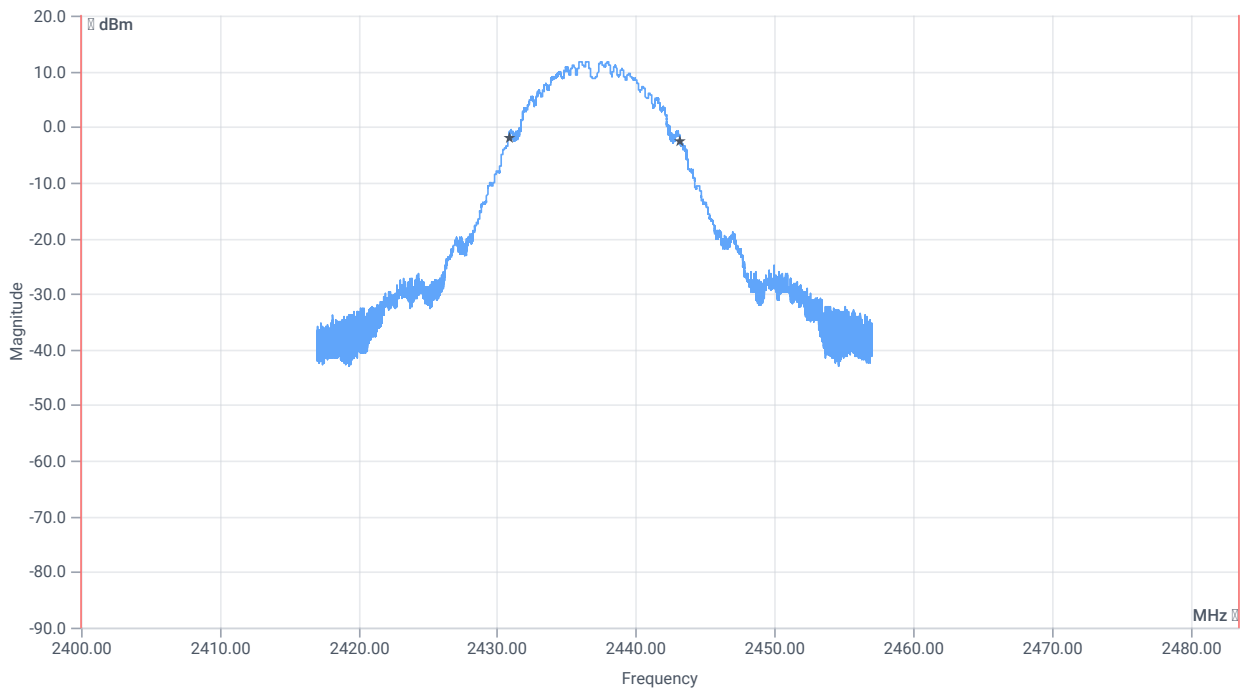
RESULT: Reference Power cond.

TEST DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	14.45	dBm	INFO
Ref. Frequency	---	---	2438.200	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	19.45 14.2 25
Start [MHz] Stop [MHz]	2417.000 2457.000
RBW [MHz] VBW [MHz]	0.500000 2.000000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	50 200 10001 SWE

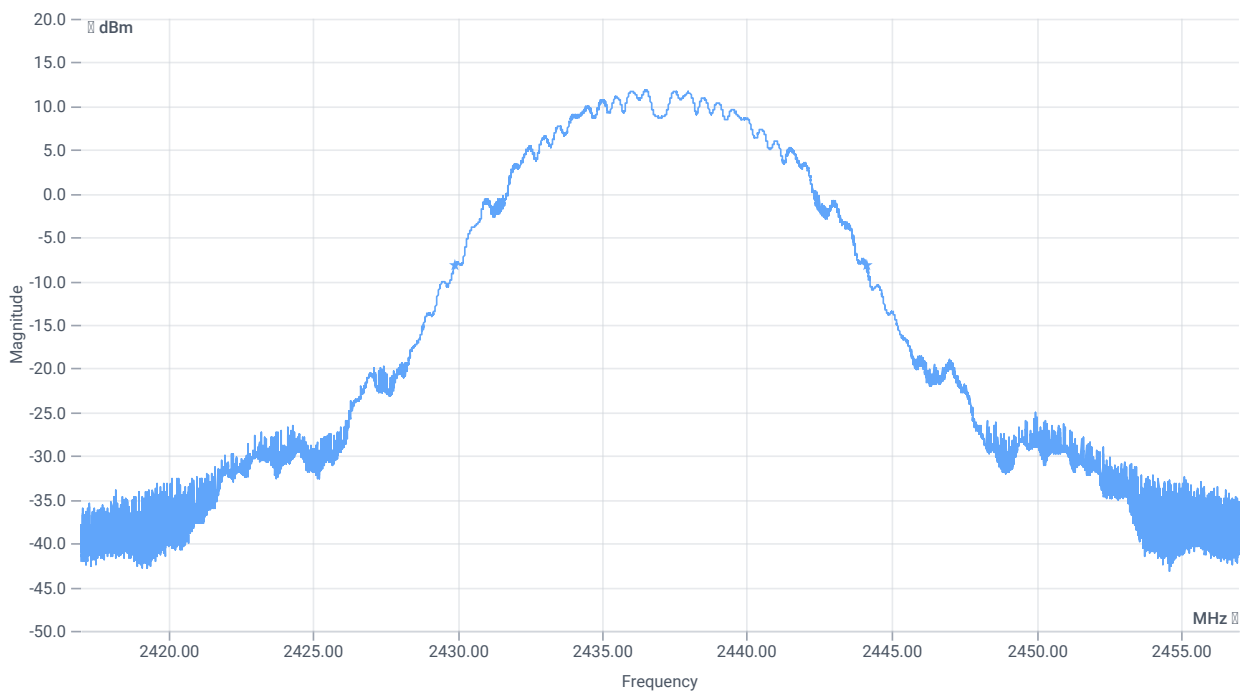




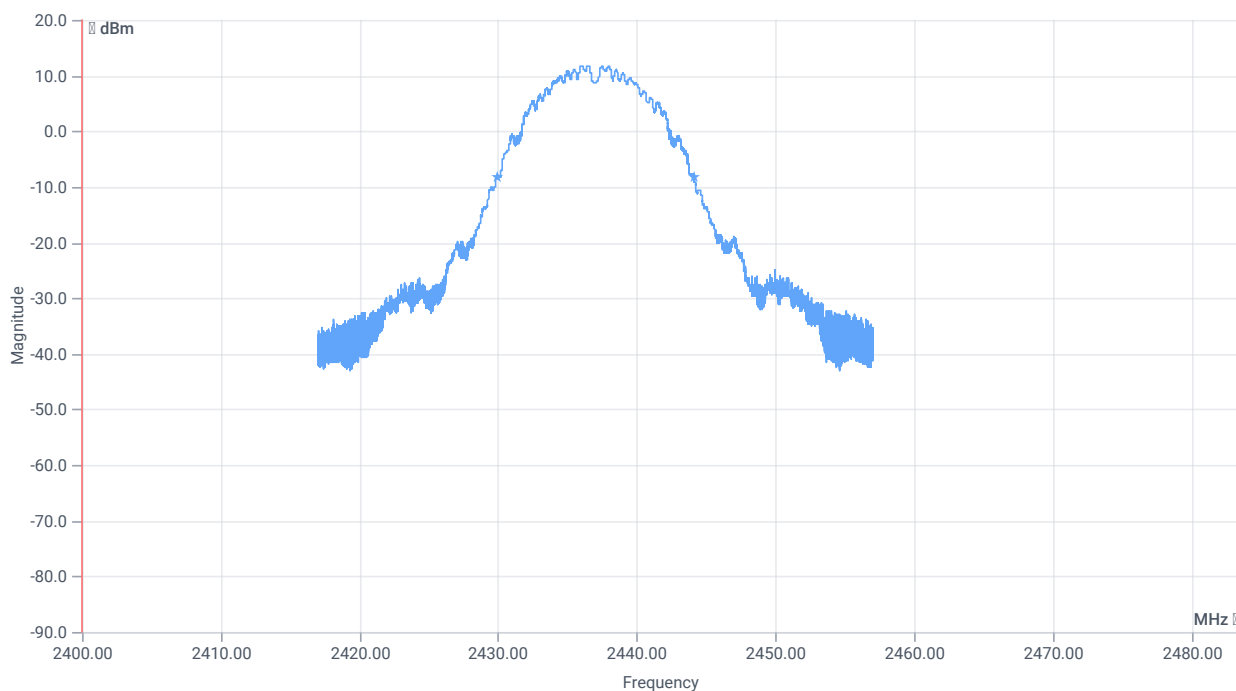
BW within Band 99PCT

RESULT

TEST DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 99%	---	---	12351.000	kHz	INFO
T1 99%	2400.000000	---	2430.8486	MHz	PASS
T2 99%	---	2483.500000	2443.1994	MHz	PASS



BW 20dB



BW within Band 20dB

RESULT

TEST DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 20dB	---	---	14200	kHz	INFO
T1 20dB	2400.000000	---	2429.9280	MHz	PASS
T2 20dB	---	2483.500000	2444.1280	MHz	PASS

Verdict

PASS

FCC 15.247 # TX spurious conducted 30dBc ~ WLAN2G4 b mode

Test References

TC Start	06.07.2023 10:45:55
Ambit Temp [°C] Humidity [rel%]	24.2 40
System Version	4.5.2.0
Test Specification	FCC 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 30dBc DTS - WLAN2G4 b mode
Add. Information	

EUT Common Settings WLAN2G4

Number of Antenna Ports	1
User Interaction	No

Test Parameter

Technology to test	WLAN2G4 b mode
Antenna Port used	2
Temperature	nom
Voltage	nom
Frequency low to test	False Freq [MHz] 2412
Frequency mid to test	True Freq [MHz] 2437
Frequency high to test	False Freq [MHz] 2462
Auto Control enabled Power Supply Climatic Box	No No
Additional Path Loss [dB]	0.7
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer

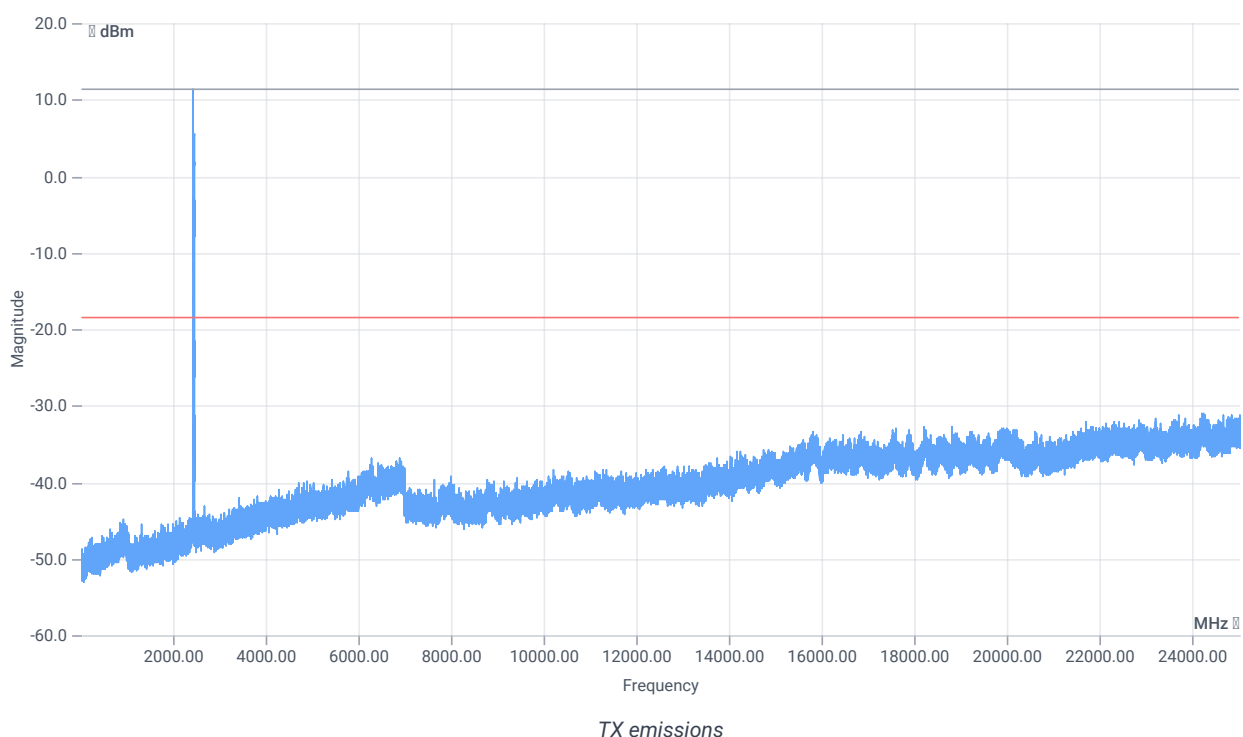
Test Equipment

Signal analyzer,Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.70
Switch matrix,CTCadvanced,SPM-4 NI DAQ,28016133,NI

Test at TX 2437 MHz

RESULT: Reference Power cond.

TEST DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	14.39	dBm	INFO
Ref. Frequency	---	---	2438.200	MHz	INFO



READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	14.39 0 30
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



RESULT

TEST DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Reference @ 2436.50 MHz	---	---	11.43	dBm	INFO
No peaks detected	---	---			PASS
Lowest margin to limit 24216 MHz	0	---	12.39	dB	INFO

Verdict

PASS

FCC 15.247 # Avg output power SA DTS ~ WLAN2G4 b mode

Test References

TC Start	06.07.2023 10:52:37
Ambit Temp [°C] Humidity [rel%]	24.4 39
System Version	4.5.2.0
Test Specification	FCC 15.247 -
Test Method	ANSI C63.10-2013 Chapter 11.9.2.2.2 or .4
TC Version	0.0.1
My Description	FCC 15.247 Avg output power SA DTS - WLAN2G4 b mode
Add. Information	

EUT Common Settings WLAN2G4

Number of Antenna Ports	1
User Interaction	No

Test Parameter

Technology to test	WLAN2G4 b mode
Antenna Port used	2
Temperature	nom
Voltage	nom
Frequency low to test	False Freq [MHz] 2412
Frequency mid to test	True Freq [MHz] 2437
Frequency high to test	False Freq [MHz] 2462
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-40,1307.9002K40/101042,3.70
Switch matrix,CTCadvanced,SPM-4 NI DAQ,28016133,NI

Test at TX 2437 MHz

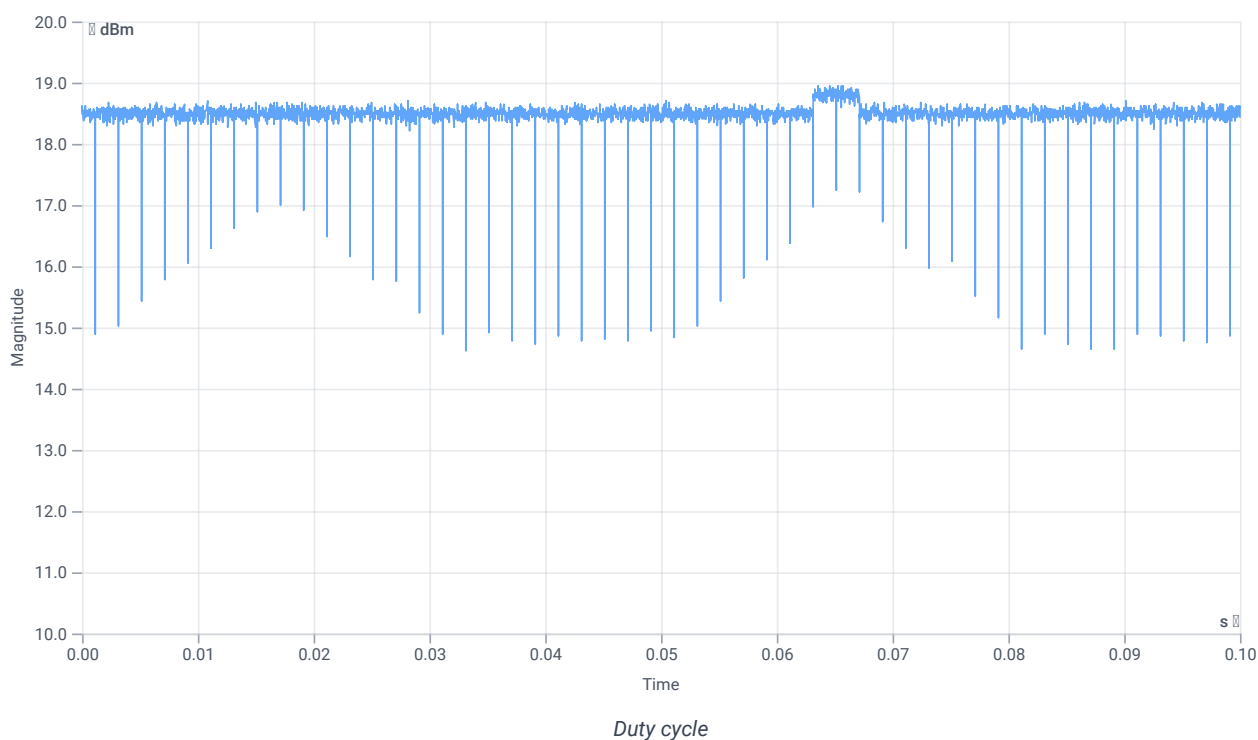
RESULT: Reference Power cond.

TEST DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	14.65	dBm	INFO
Ref. Frequency	---	---	2435.800	MHz	INFO

Evaluation max. Duty Cycle

Duty Cycle evaluation

TEST DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
No enough Bursts detected, Duty Cycle Burst Ratio set to 1					
Duty Cycle (Burst Ratio) max	---	---	1	---	INFO
Duty Cycle max	---	---	0	dB	INFO
Duty Cycle (Burst Ratio) min	---	---	1	---	INFO
Duty Cycle min	---	---	0	dB	INFO



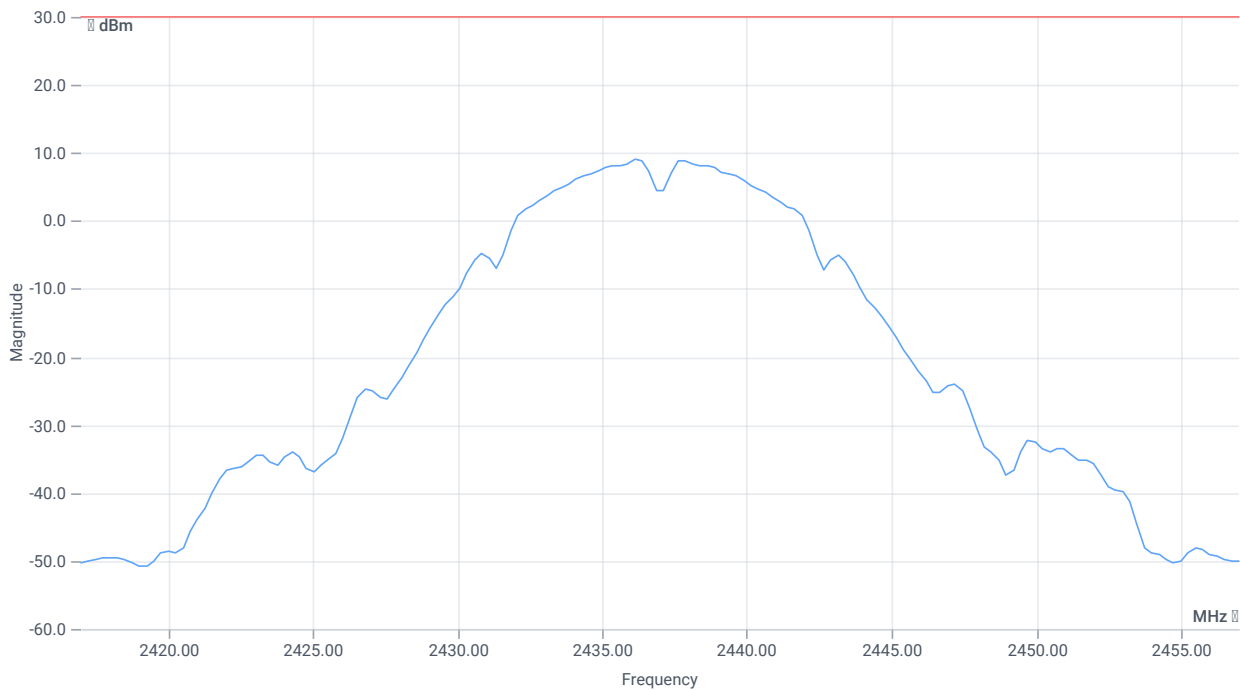
Avg output power SA DTS

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	24.65 14.2 25
Start [MHz] Stop [MHz]	2417.000 2457.000

READ SA SETTINGS:

RBW [MHz] VBW [MHz]	0.500000 2.000000
Detector TraceMode	RMS AVER
Sweep: Time [ms] Count Points per Section Type	500 100 160 SWE



Avg output power SA DTS

RESULT (Channel power method)

TEST DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Avg output power uncorrected	---	---	19.22	dBm	INFO
Duty cycle correction	---	---	0	dB	INFO
Avg power DC corrected	---	30	19.22	dBm	PASS

Verdict

PASS

Message with SA scan ~

Test References

TC Start	06.07.2023 10:53:53
Ambit Temp [°C] Humidity [rel%]	24.4 39
System Version	4.5.2.0
Test Specification	-
Test Method	
TC Version	0.0.1
My Description	Message with SA Scan b mode
Add. Information	

Test Parameter

Switched Path	EUT - SignalingUnit - SpectrumAnalyzer
Message start	06.07.2023 10:53:53
Message	set WLAN2G4 to b mode, Frequency [MHz] 2462

Test Equipment

Signal analyzer,Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.70
Switch matrix,CTCadvanced,SPM-4 NI DAQ,28016133,NI

Verdict

INFO

FCC 15.247 # Bandwidth 6dB DTS ~ WLAN2G4 b mode

Test References

TC Start	06.07.2023 10:55:18
Ambit Temp [°C] Humidity [rel%]	24.4 39
System Version	4.5.2.0
Test Specification	FCC 15.247 -
Test Method	
TC Version	0.0.1
My Description	FCC 15.247 Bandwidth 6dB DTS - WLAN2G4 b mode
Add. Information	

EUT Common Settings WLAN2G4

Number of Antenna Ports	1
User Interaction	No

Test Parameter

Technology to test	WLAN2G4 b mode
Antenna Port used	1
Temperature	nom
Voltage	nom
Frequency low to test	False Freq [MHz] 2412
Frequency mid to test	False Freq [MHz] 2437
Frequency high to test	True Freq [MHz] 2462
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-40,1307.9002K40/101042,3.70
Switch matrix,CTCadvanced,SPM-4 NI DAQ,28016133,NI

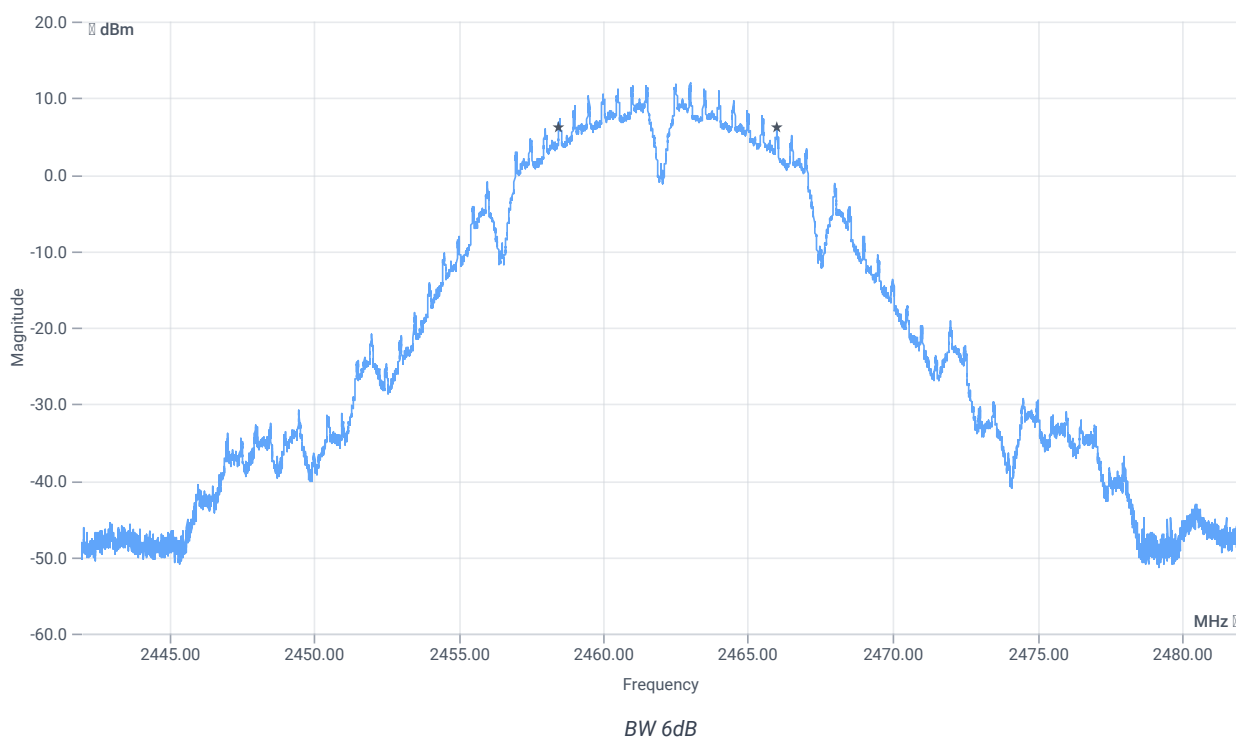
Test at TX 2462 MHz

RESULT: Reference Power cond.

TEST DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	15.23	dBm	INFO
Ref. Frequency	---	---	2460.800	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	20.23 14.04 25
Start [MHz] Stop [MHz]	2442.000 2482.000
RBW [MHz] VBW [MHz]	0.100000 0.300000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	50 200 10001 SWE



RESULT

TEST DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
DTS Bandwidth (6dB)	500	---	7524	kHz	PASS

Verdict

PASS

FCC 15.247 # Avg psd DTS ~ WLAN2G4 b mode

Test References

TC Start	06.07.2023 10:55:53
Ambit Temp [°C] Humidity [rel%]	24.4 39
System Version	4.5.2.0
Test Specification	FCC 15.247 -
Test Method	ANSI C63.10-2013 Chapter 11.10.5 or.3
TC Version	0.0.1
My Description	FCC 15.247 Avg psd DTS - WLAN2G4 b mode
Add. Information	

EUT Common Settings WLAN2G4

Number of Antenna Ports	1
User Interaction	No

Test Parameter

Technology to test	WLAN2G4 b mode
Antenna Port used	1
Temperature	nom
Voltage	nom
Frequency low to test	False Freq [MHz] 2412
Frequency mid to test	False Freq [MHz] 2437
Frequency high to test	True Freq [MHz] 2462
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-40,1307.9002K40/101042,3.70
Switch matrix,CTCadvanced,SPM-4 NI DAQ,28016133,NI

Test at TX 2462 MHz

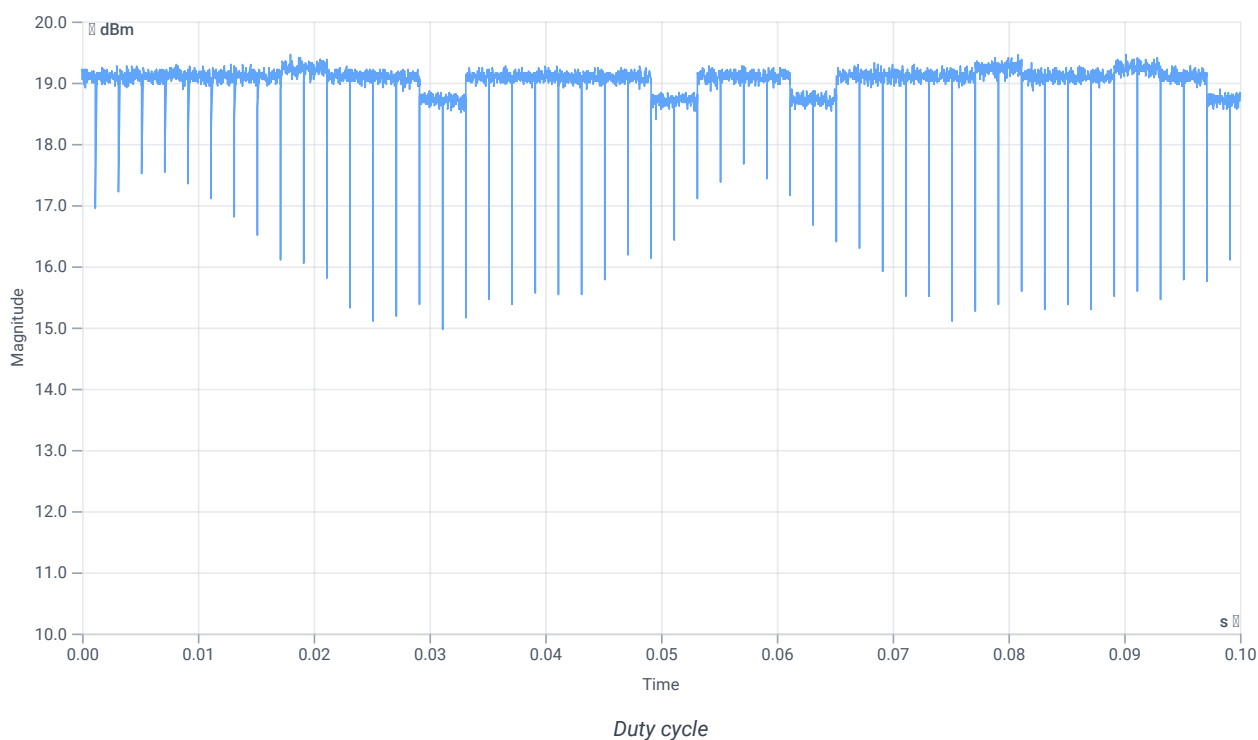
RESULT: Reference Power cond.

TEST DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	15.11	dBm	INFO
Ref. Frequency	---	---	2463.100	MHz	INFO

Evaluation max. Duty Cycle

Duty Cycle evaluation

TEST DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
No enough Bursts detected, Duty Cycle Burst Ratio set to 1					
Duty Cycle (Burst Ratio) max	---	---	1	---	INFO
Duty Cycle max	---	---	0	dB	INFO
Duty Cycle (Burst Ratio) min	---	---	1	---	INFO
Duty Cycle min	---	---	0	dB	INFO



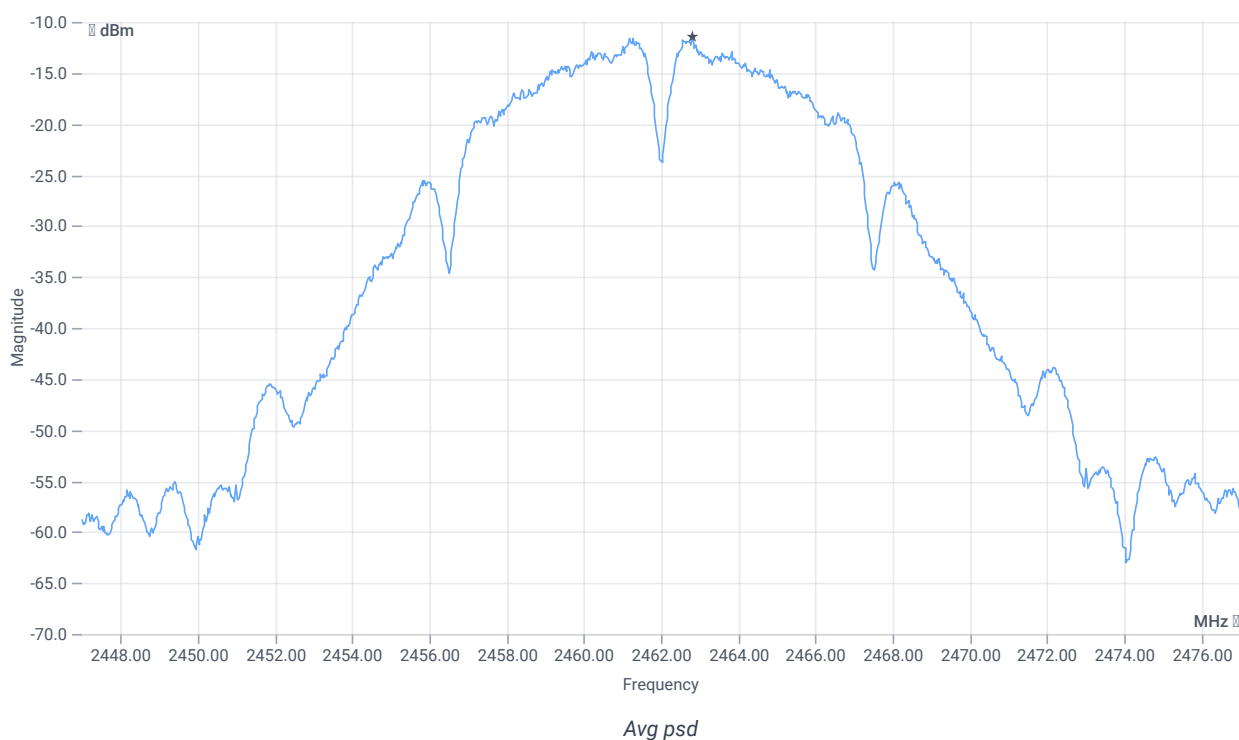
Avg. psd

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	20.11 14.04 25
Start [MHz] Stop [MHz]	2447.000 2477.000

READ SA SETTINGS:

RBW [MHz] VBW [MHz]	0.003000 0.010000
Detector TraceMode	RMS AVER
Sweep: Time [ms] Count Points per Section Type	334 100 1001 SWE



RESULT

TEST DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Avg psd uncorrected	---	---	-11.48	dBm	INFO
Duty cycle correction	---	---	0	dB	INFO
Avg psd DC corrected	---	8	-11.48	dBm/3kHz	PASS

Verdict

PASS

FCC 15.247, ISED RSS247 # Bandwidth 99PCT and 20dB ~ WLAN2G4 b mode

Test References

TC Start	06.07.2023 10:56:57
Ambit Temp [°C] Humidity [rel%]	24.5 39
System Version	4.5.2.0
Test Specification	FCC 15.247, ISED RSS247 -
Test Method	
TC Version	0.0.2
My Description	FCC 15.247 Bandwidth 99PCT-20dB DTS - WLAN2G4 b mode
Add. Information	

EUT Common Settings WLAN2G4

Number of Antenna Ports	1
User Interaction	No

Test Parameter

Technology to test	WLAN2G4 b mode
Antenna Port used	1
Temperature	nom
Voltage	nom
Frequency low to test	False Freq [MHz] 2412
Frequency mid to test	False Freq [MHz] 2437
Frequency high to test	True Freq [MHz] 2462
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-40,1307.9002K40/101042,3.70
Switch matrix,CTCadvanced,SPM-4 NI DAQ,28016133,NI

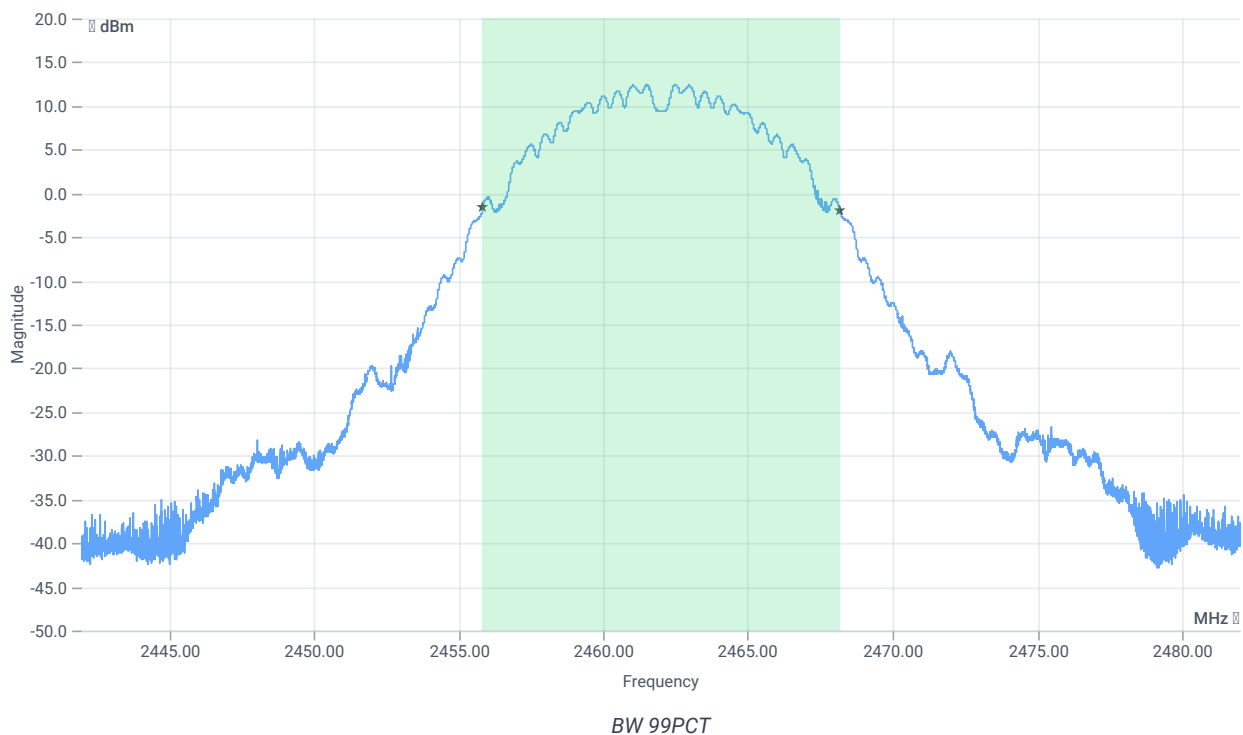
Test at TX 2462 MHz

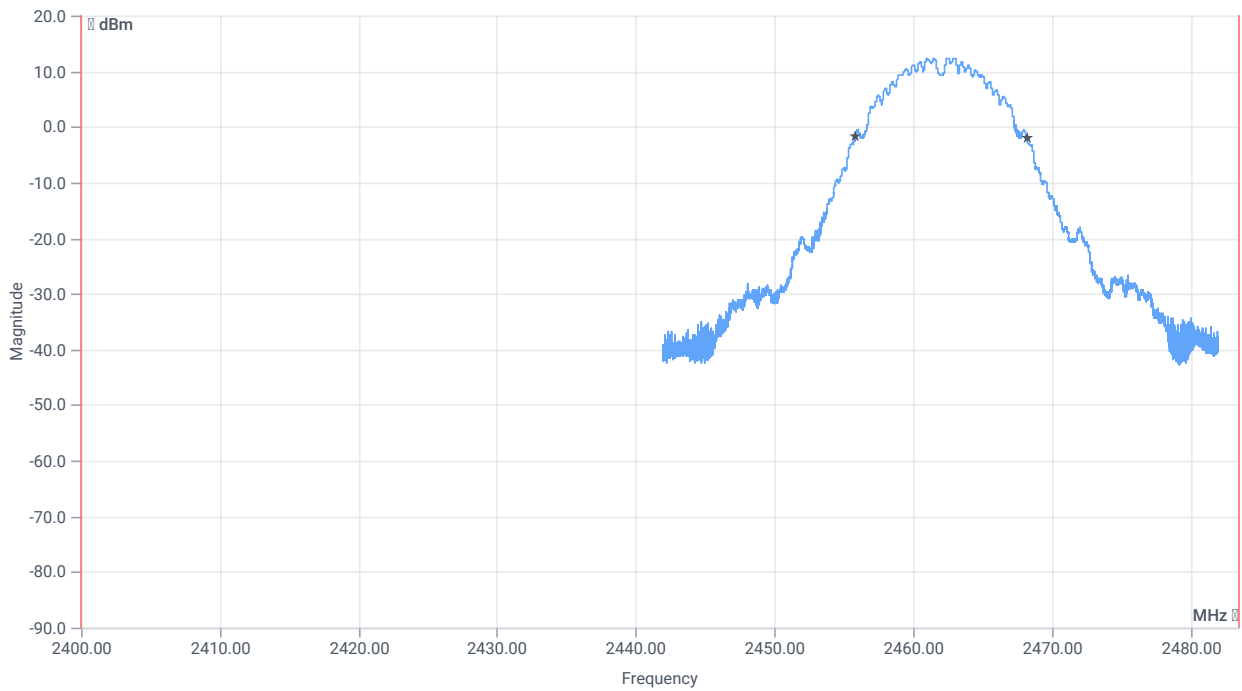
RESULT: Reference Power cond.

TEST DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	15.17	dBm	INFO
Ref. Frequency	---	---	2460.800	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	20.17 14.04 25
Start [MHz] Stop [MHz]	2442.000 2482.000
RBW [MHz] VBW [MHz]	0.500000 2.000000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	50 200 10001 SWE

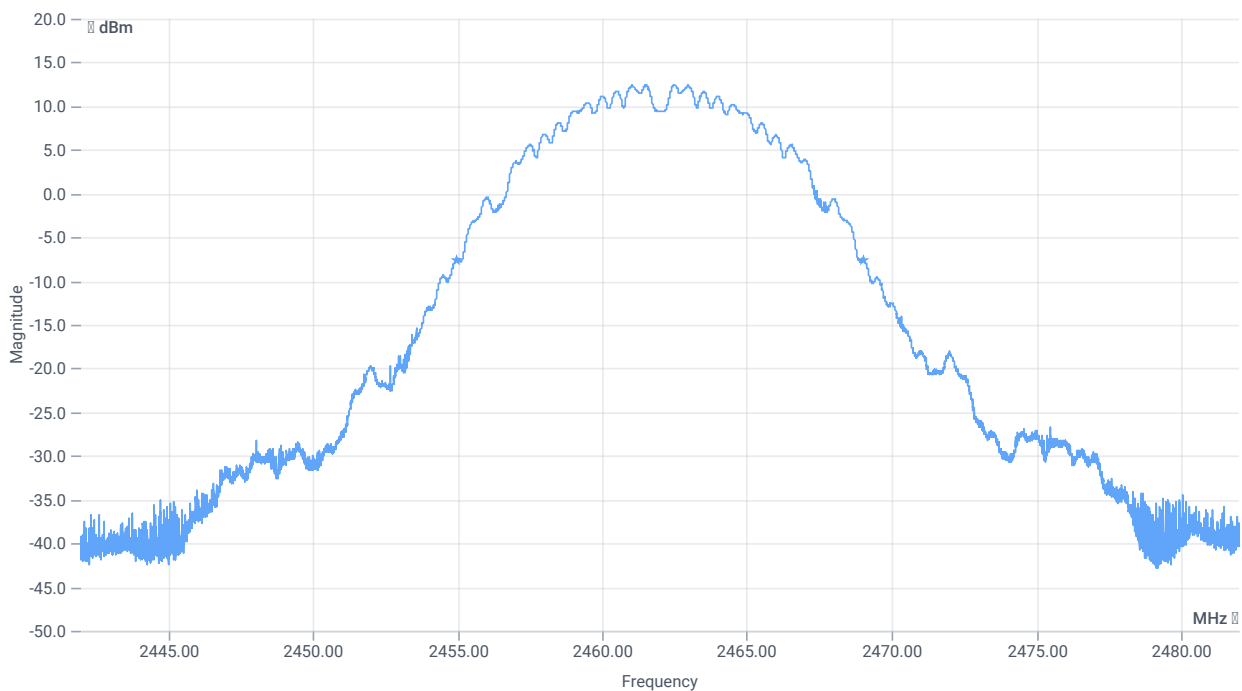




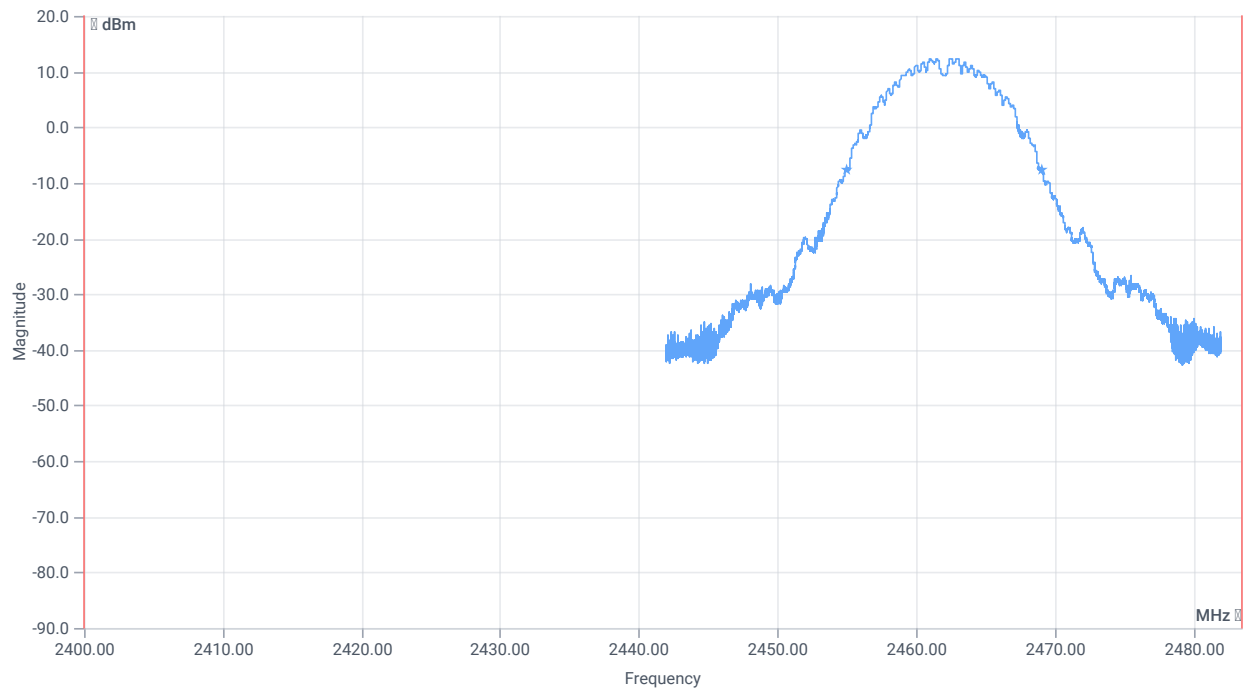
BW within Band 99PCT

RESULT

TEST DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 99%	---	---	12323.000	kHz	INFO
T1 99%	2400.000000	---	2455.8526	MHz	PASS
T2 99%	---	2483.500000	2468.1754	MHz	PASS



BW 20dB



BW within Band 20dB

RESULT

TEST DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 20dB	---	---	14104	kHz	INFO
T1 20dB	2400.000000	---	2454.9440	MHz	PASS
T2 20dB	---	2483.500000	2469.0480	MHz	PASS

Verdict

PASS

FCC 15.247 # TX spurious conducted 30dBc ~ WLAN2G4 b mode

Test References

TC Start	06.07.2023 10:57:34
Ambit Temp [°C] Humidity [rel%]	24.4 39
System Version	4.5.2.0
Test Specification	FCC 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 30dBc DTS - WLAN2G4 b mode
Add. Information	

EUT Common Settings WLAN2G4

Number of Antenna Ports	1
User Interaction	No

Test Parameter

Technology to test	WLAN2G4 b mode
Antenna Port used	1
Temperature	nom
Voltage	nom
Frequency low to test	False Freq [MHz] 2412
Frequency mid to test	False Freq [MHz] 2437
Frequency high to test	True Freq [MHz] 2462
Auto Control enabled Power Supply Climatic Box	No No
Additional Path Loss [dB]	0.7
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer

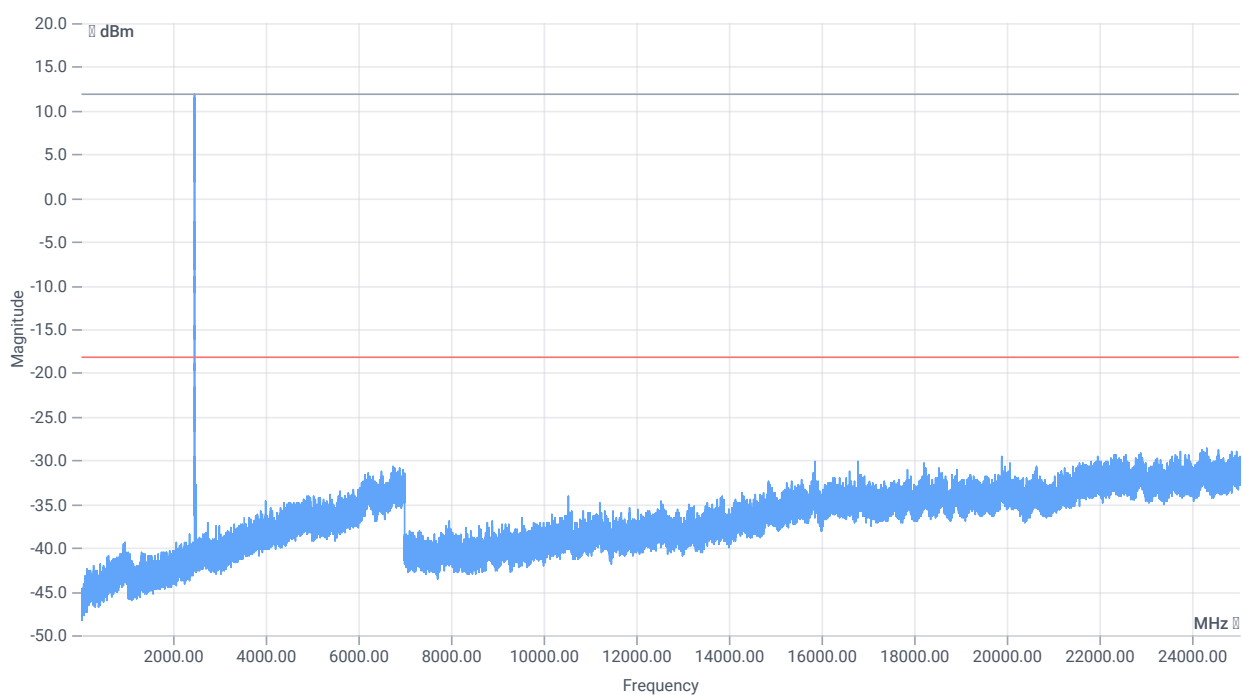
Test Equipment

Signal analyzer,Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.70
Switch matrix,CTCadvanced,SPM-4 NI DAQ,28016133,NI

Test at TX 2462 MHz

RESULT: Reference Power cond.

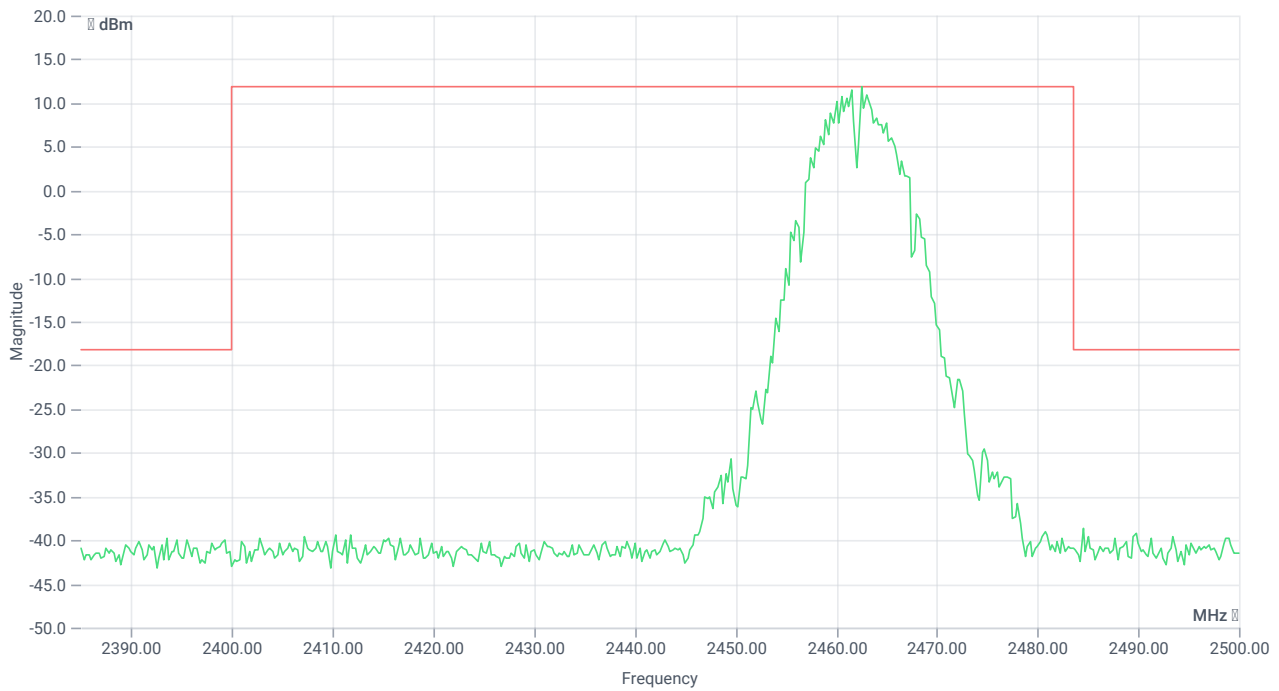
TEST DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	15.18	dBm	INFO
Ref. Frequency	---	---	2460.800	MHz	INFO



TX emissions

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	15.18 0 35
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



RESULT

TEST DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Reference @ 2462.50 MHz	---	---	11.83	dBm	INFO
No peaks detected	---	---			PASS
Lowest margin to limit 30 MHz	0	---	-154.02	dB	INFO

Verdict

PASS

FCC 15.247 # Avg output power SA DTS ~ WLAN2G4 b mode

Test References

TC Start	06.07.2023 11:04:16
Ambit Temp [°C] Humidity [rel%]	24.5 39
System Version	4.5.2.0
Test Specification	FCC 15.247 -
Test Method	ANSI C63.10-2013 Chapter 11.9.2.2.2 or .4
TC Version	0.0.1
My Description	FCC 15.247 Avg output power SA DTS - WLAN2G4 b mode
Add. Information	

EUT Common Settings WLAN2G4

Number of Antenna Ports	1
User Interaction	No

Test Parameter

Technology to test	WLAN2G4 b mode
Antenna Port used	1
Temperature	nom
Voltage	nom
Frequency low to test	False Freq [MHz] 2412
Frequency mid to test	False Freq [MHz] 2437
Frequency high to test	True Freq [MHz] 2462
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-40,1307.9002K40/101042,3.70
Switch matrix,CTCadvanced,SPM-4 NI DAQ,28016133,NI

Test at TX 2462 MHz

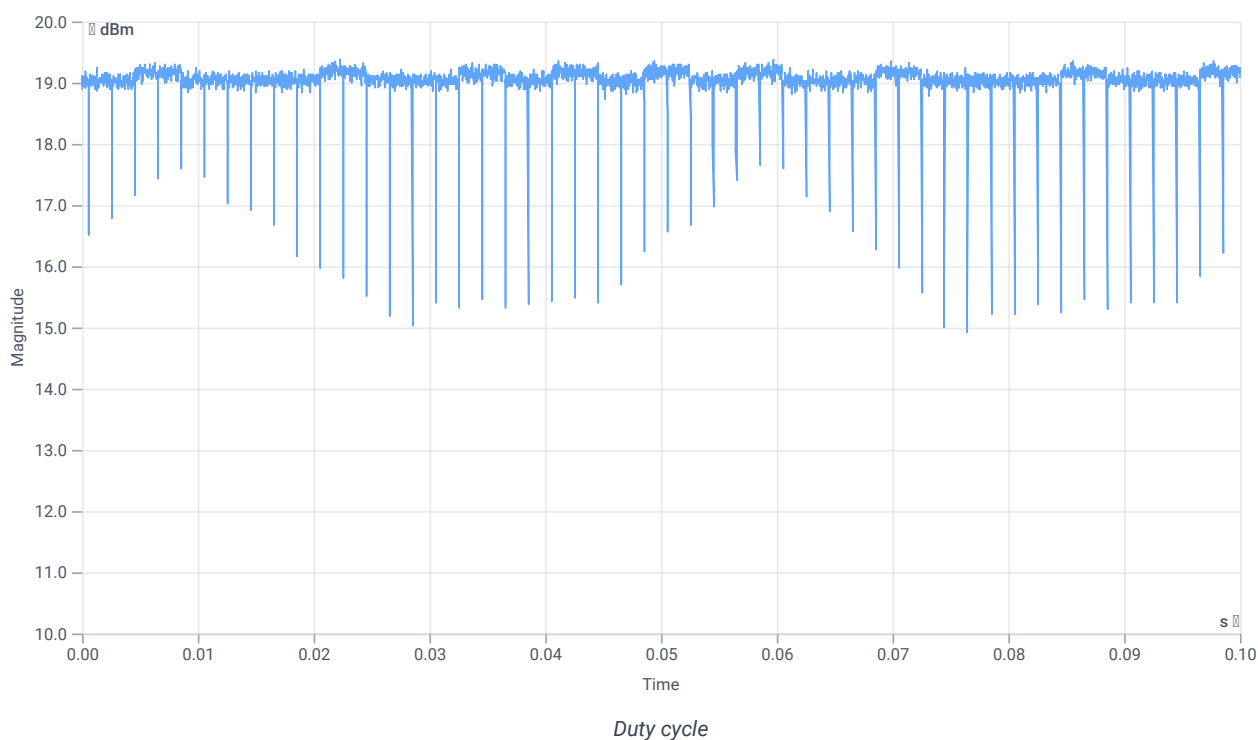
RESULT: Reference Power cond.

TEST DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	15.17	dBm	INFO
Ref. Frequency	---	---	2460.800	MHz	INFO

Evaluation max. Duty Cycle

Duty Cycle evaluation

TEST DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
No enough Bursts detected, Duty Cycle Burst Ratio set to 1					
Duty Cycle (Burst Ratio) max	---	---	1	---	INFO
Duty Cycle max	---	---	0	dB	INFO
Duty Cycle (Burst Ratio) min	---	---	1	---	INFO
Duty Cycle min	---	---	0	dB	INFO



Avg output power SA DTS

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	25.17 14.04 30
Start [MHz] Stop [MHz]	2442.000 2482.000

READ SA SETTINGS:

RBW [MHz] VBW [MHz]	0.500000 2.000000
Detector TraceMode	RMS AVER
Sweep: Time [ms] Count Points per Section Type	500 100 160 SWE



Avg output power SA DTS

RESULT (Channel power method)

TEST DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Avg output power uncorrected	---	---	19.68	dBm	INFO
Duty cycle correction	---	---	0	dB	INFO
Avg power DC corrected	---	30	19.68	dBm	PASS

Verdict

PASS

FCC 15.247 # Bandwidth 6dB DTS ~ WLAN2G4 b mode

Test References

TC Start	06.07.2023 11:05:32
Ambit Temp [°C] Humidity [rel%]	24.6 39
System Version	4.5.2.0
Test Specification	FCC 15.247 -
Test Method	
TC Version	0.0.1
My Description	FCC 15.247 Bandwidth 6dB DTS - WLAN2G4 b mode
Add. Information	

EUT Common Settings WLAN2G4

Number of Antenna Ports	1
User Interaction	No

Test Parameter

Technology to test	WLAN2G4 b mode
Antenna Port used	2
Temperature	nom
Voltage	nom
Frequency low to test	False Freq [MHz] 2412
Frequency mid to test	False Freq [MHz] 2437
Frequency high to test	True Freq [MHz] 2462
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-40,1307.9002K40/101042,3.70
Switch matrix,CTCadvanced,SPM-4 NI DAQ,28016133,NI

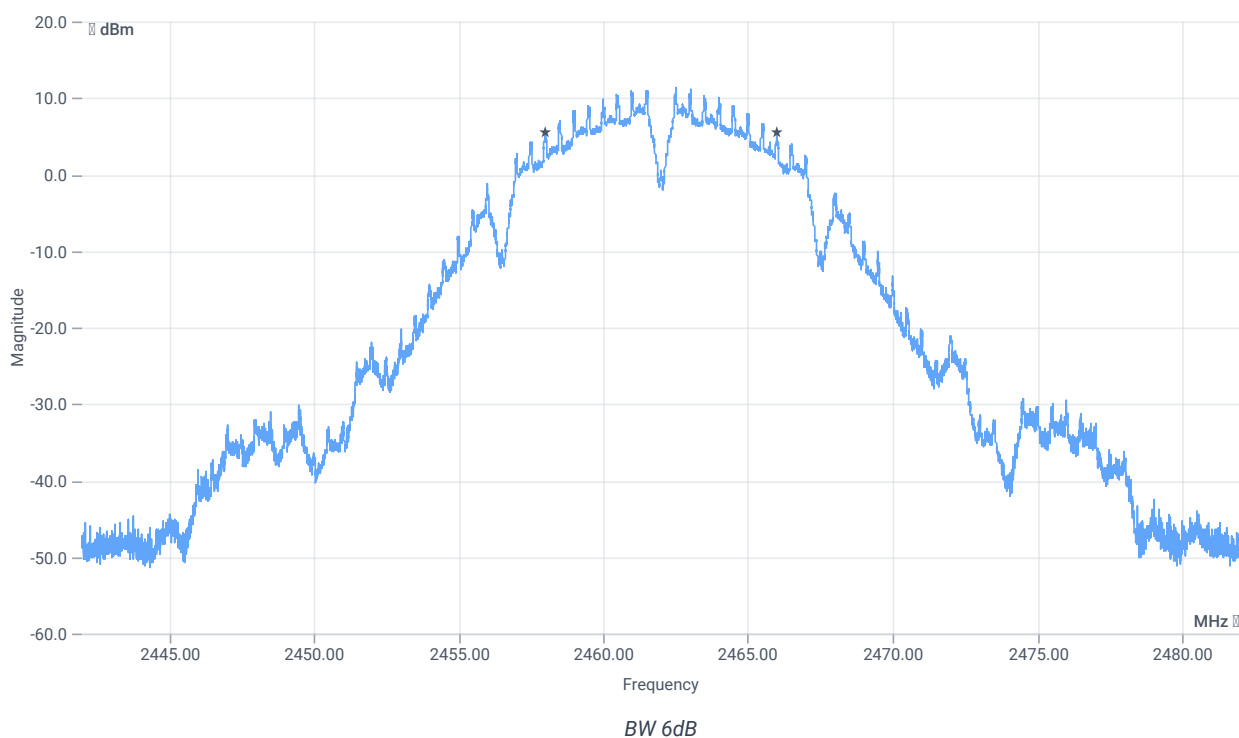
Test at TX 2462 MHz

RESULT: Reference Power cond.

TEST DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	14.76	dBm	INFO
Ref. Frequency	---	---	2460.800	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	19.76 14.04 25
Start [MHz] Stop [MHz]	2442.000 2482.000
RBW [MHz] VBW [MHz]	0.100000 0.300000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	50 200 10001 SWE



RESULT

TEST DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
DTS Bandwidth (6dB)	500	---	8008	kHz	PASS

Verdict

PASS

FCC 15.247 # Avg psd DTS ~ WLAN2G4 b mode

Test References

TC Start	06.07.2023 11:06:07
Ambit Temp [°C] Humidity [rel%]	24.6 39
System Version	4.5.2.0
Test Specification	FCC 15.247 -
Test Method	ANSI C63.10-2013 Chapter 11.10.5 or.3
TC Version	0.0.1
My Description	FCC 15.247 Avg psd DTS - WLAN2G4 b mode
Add. Information	

EUT Common Settings WLAN2G4

Number of Antenna Ports	1
User Interaction	No

Test Parameter

Technology to test	WLAN2G4 b mode
Antenna Port used	2
Temperature	nom
Voltage	nom
Frequency low to test	False Freq [MHz] 2412
Frequency mid to test	False Freq [MHz] 2437
Frequency high to test	True Freq [MHz] 2462
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-40,1307.9002K40/101042,3.70
Switch matrix,CTCadvanced,SPM-4 NI DAQ,28016133,NI

Test at TX 2462 MHz

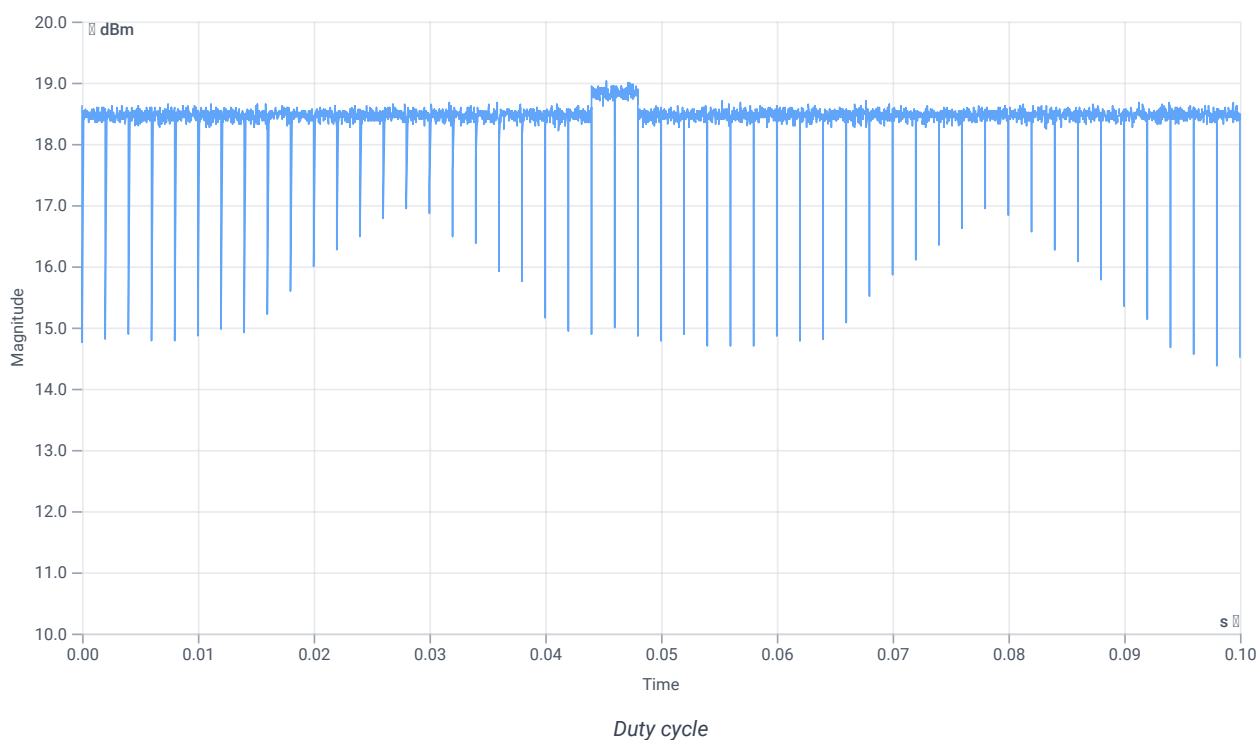
RESULT: Reference Power cond.

TEST DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	14.75	dBm	INFO
Ref. Frequency	---	---	2460.800	MHz	INFO

Evaluation max. Duty Cycle

Duty Cycle evaluation

TEST DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
No enough Bursts detected, Duty Cycle Burst Ratio set to 1					
Duty Cycle (Burst Ratio) max	---	---	1	---	INFO
Duty Cycle max	---	---	0	dB	INFO
Duty Cycle (Burst Ratio) min	---	---	1	---	INFO
Duty Cycle min	---	---	0	dB	INFO



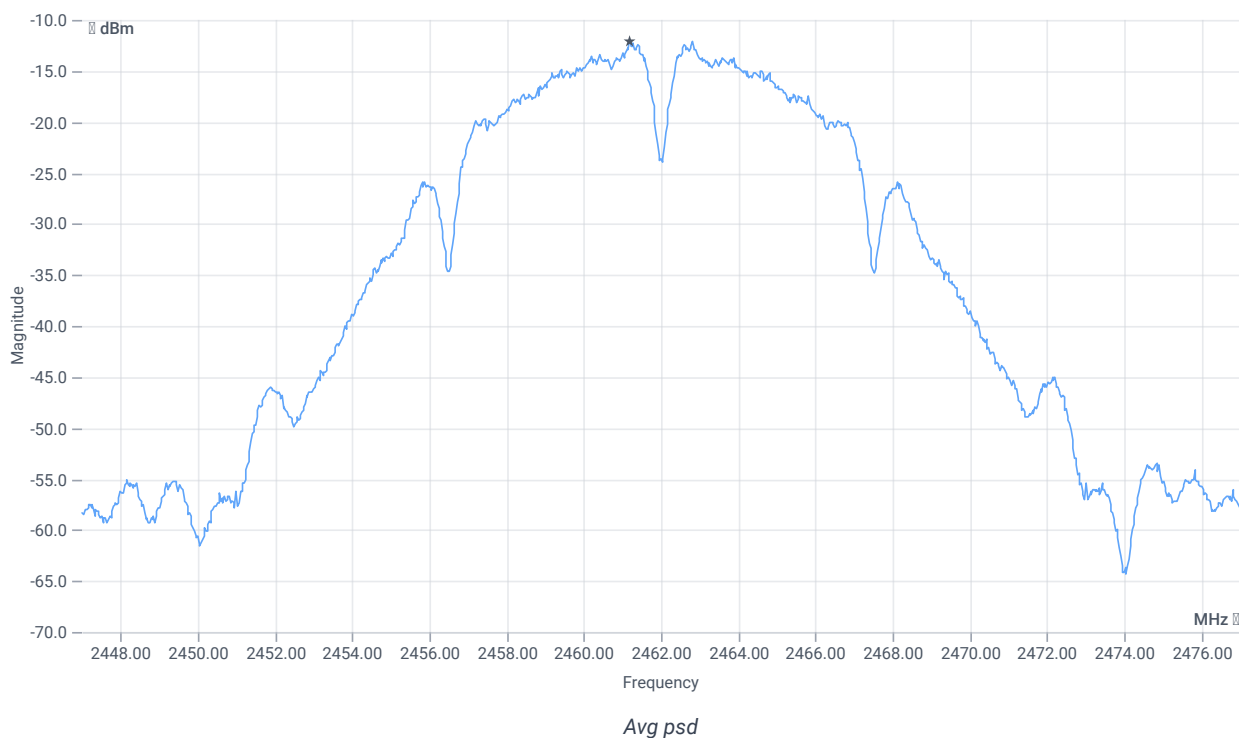
Avg. psd

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	19.75 14.04 25
Start [MHz] Stop [MHz]	2447.000 2477.000

READ SA SETTINGS:

RBW [MHz] VBW [MHz]	0.003000 0.010000
Detector TraceMode	RMS AVER
Sweep: Time [ms] Count Points per Section Type	334 100 1001 SWE



RESULT

TEST DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Avg psd uncorrected	---	---	-12.03	dBm	INFO
Duty cycle correction	---	---	0	dB	INFO
Avg psd DC corrected	---	8	-12.03	dBm/3kHz	PASS

Verdict

PASS

FCC 15.247, ISED RSS247 # Bandwidth 99PCT and 20dB ~ WLAN2G4 b mode

Test References

TC Start	06.07.2023 11:07:11
Ambit Temp [°C] Humidity [rel%]	24.6 39
System Version	4.5.2.0
Test Specification	FCC 15.247, ISED RSS247 -
Test Method	
TC Version	0.0.2
My Description	FCC 15.247 Bandwidth 99PCT-20dB DTS - WLAN2G4 b mode
Add. Information	

EUT Common Settings WLAN2G4

Number of Antenna Ports	1
User Interaction	No

Test Parameter

Technology to test	WLAN2G4 b mode
Antenna Port used	2
Temperature	nom
Voltage	nom
Frequency low to test	False Freq [MHz] 2412
Frequency mid to test	False Freq [MHz] 2437
Frequency high to test	True Freq [MHz] 2462
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-40,1307.9002K40/101042,3.70
Switch matrix,CTCadvanced,SPM-4 NI DAQ,28016133,NI

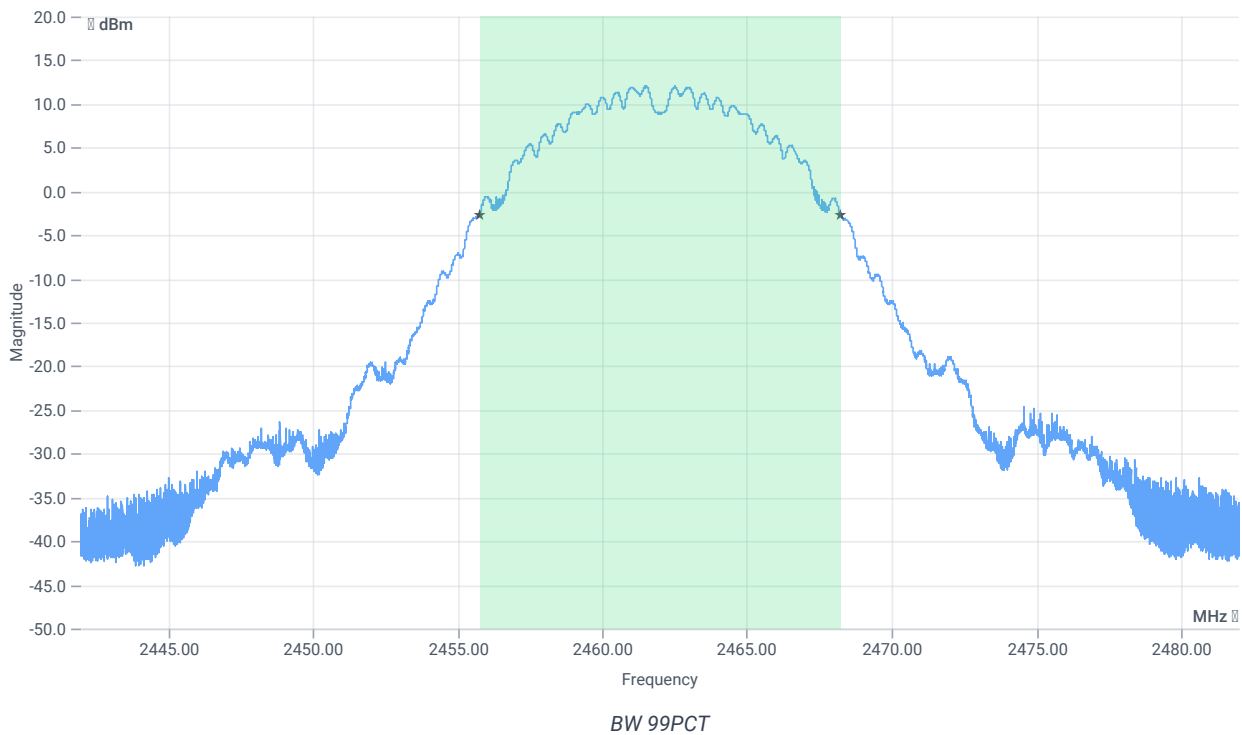
Test at TX 2462 MHz

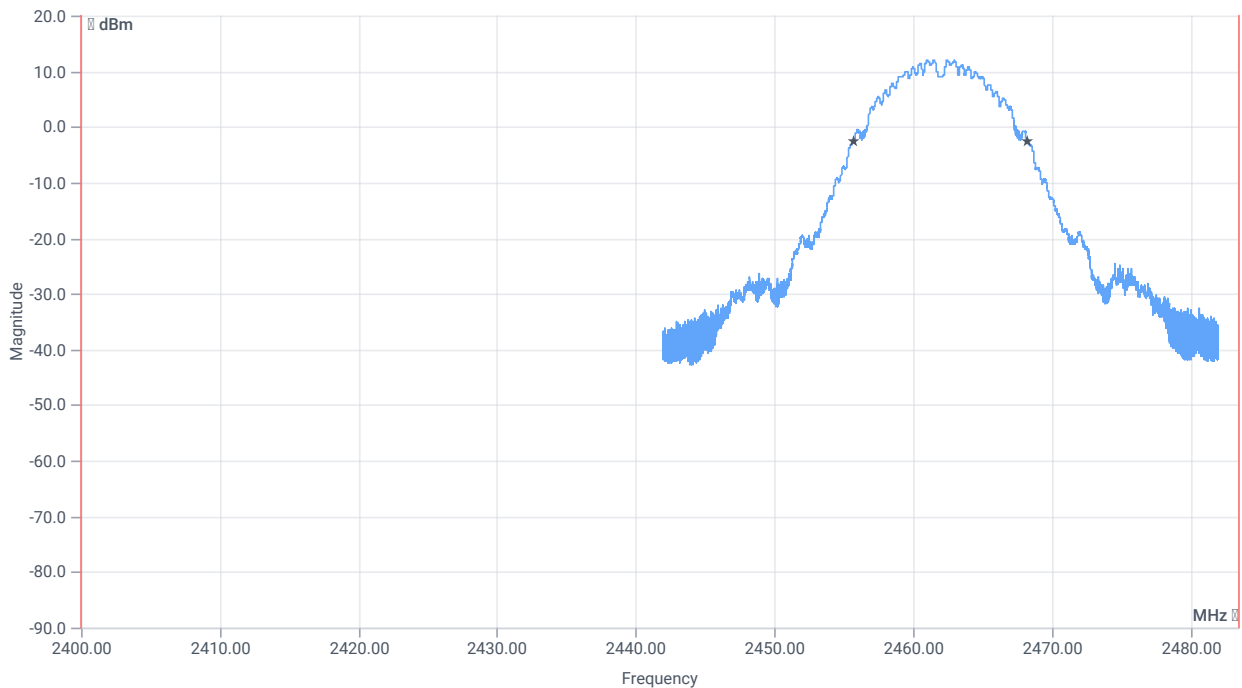
RESULT: Reference Power cond.

TEST DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	14.76	dBm	INFO
Ref. Frequency	---	---	2460.800	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	19.76 14.04 25
Start [MHz] Stop [MHz]	2442.000 2482.000
RBW [MHz] VBW [MHz]	0.500000 2.000000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	50 200 10001 SWE

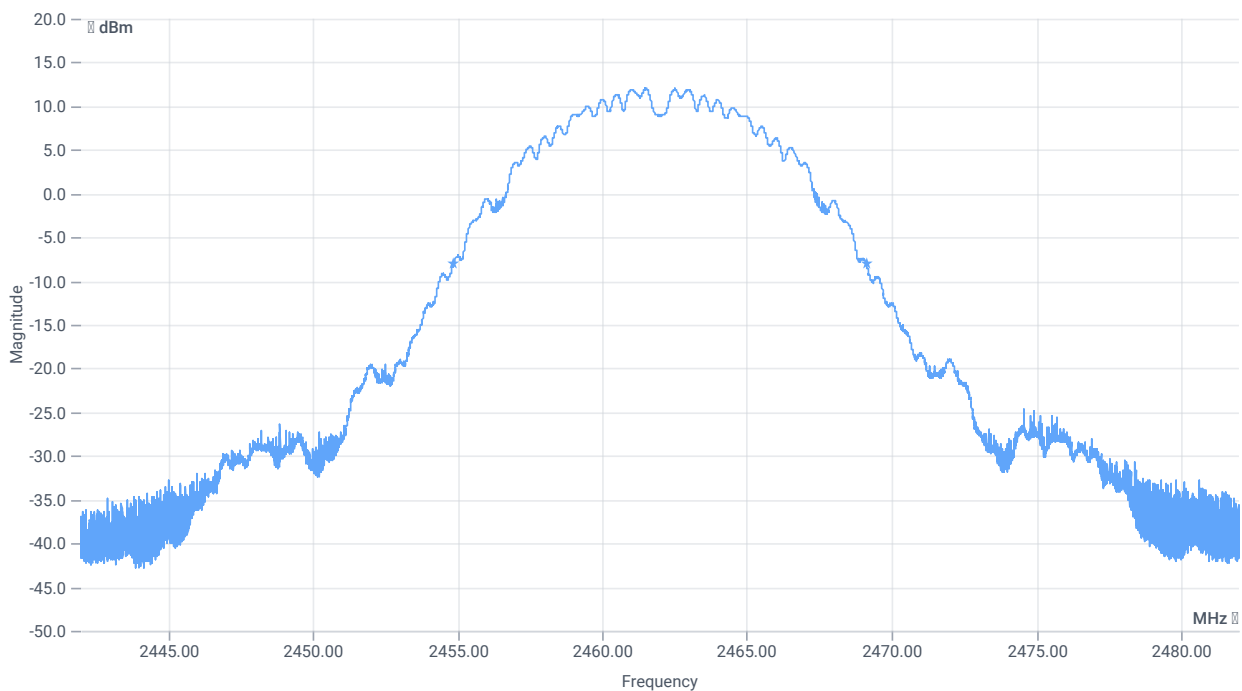




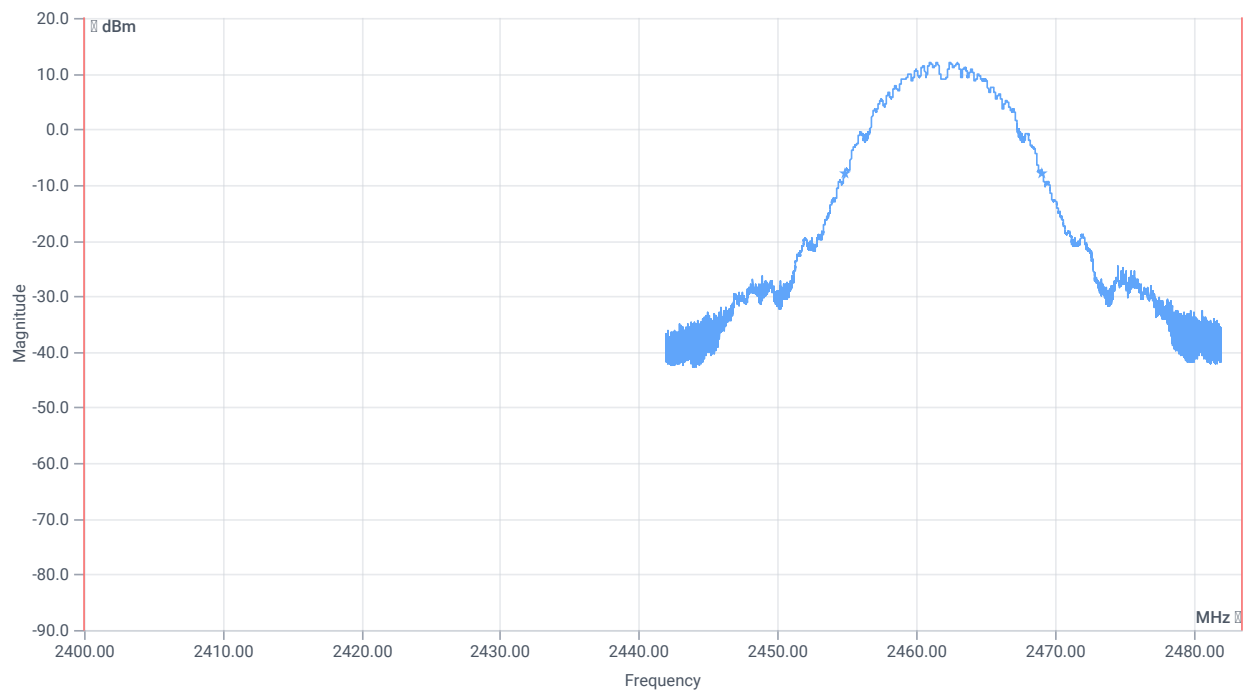
BW within Band 99PCT

RESULT

TEST DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 99%	---	---	12467.000	kHz	INFO
T1 99%	2400.000000	---	2455.7606	MHz	PASS
T2 99%	---	2483.500000	2468.2274	MHz	PASS



BW 20dB



BW within Band 20dB

RESULT

TEST DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 20dB	---	---	14248	kHz	INFO
T1 20dB	2400.000000	---	2454.8680	MHz	PASS
T2 20dB	---	2483.500000	2469.1160	MHz	PASS

Verdict

PASS

FCC 15.247 # TX spurious conducted 30dBc ~ WLAN2G4 b mode

Test References

TC Start	06.07.2023 11:07:48
Ambit Temp [°C] Humidity [rel%]	24.6 39
System Version	4.5.2.0
Test Specification	FCC 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 30dBc DTS - WLAN2G4 b mode
Add. Information	

EUT Common Settings WLAN2G4

Number of Antenna Ports	1
User Interaction	No

Test Parameter

Technology to test	WLAN2G4 b mode
Antenna Port used	2
Temperature	nom
Voltage	nom
Frequency low to test	False Freq [MHz] 2412
Frequency mid to test	False Freq [MHz] 2437
Frequency high to test	True Freq [MHz] 2462
Auto Control enabled Power Supply Climatic Box	No No
Additional Path Loss [dB]	0.7
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer

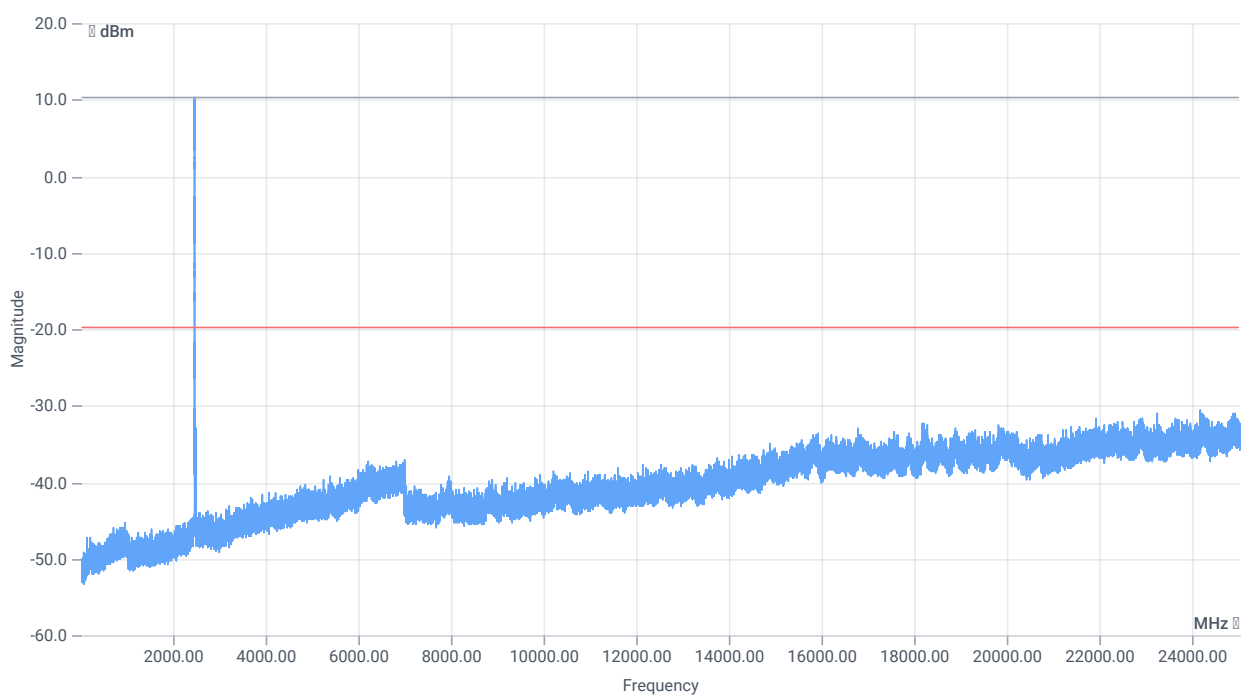
Test Equipment

Signal analyzer,Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.70
Switch matrix,CTCadvanced,SPM-4 NI DAQ,28016133,NI

Test at TX 2462 MHz

RESULT: Reference Power cond.

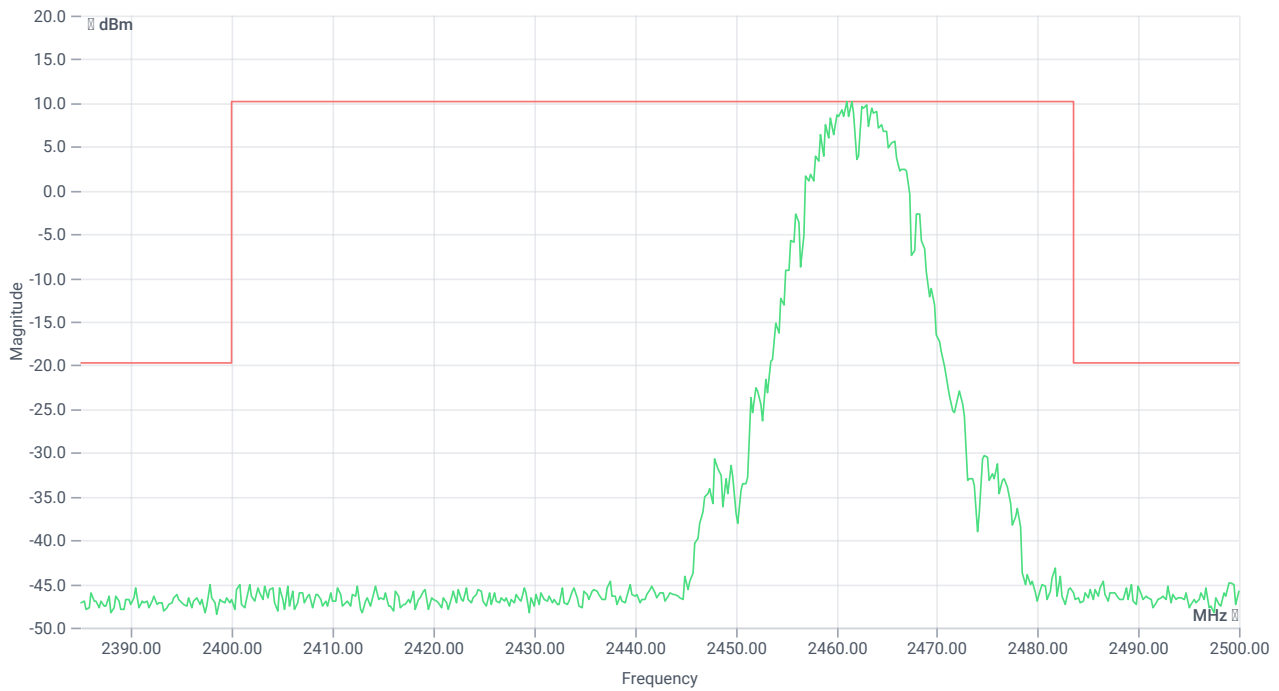
TEST DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	14.74	dBm	INFO
Ref. Frequency	---	---	2460.800	MHz	INFO



TX emissions

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	14.74 0 30
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



RESULT

TEST DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Reference @ 2461.00 MHz	---	---	10.20	dBm	INFO
No peaks detected	---	---			PASS
Lowest margin to limit 24167.5 MHz	0	---	10.89	dB	INFO

Verdict

PASS

FCC 15.247 # Avg output power SA DTS ~ WLAN2G4 b mode

Test References

TC Start	06.07.2023 11:14:29
Ambit Temp [°C] Humidity [rel%]	24.7 38
System Version	4.5.2.0
Test Specification	FCC 15.247 -
Test Method	ANSI C63.10-2013 Chapter 11.9.2.2.2 or .4
TC Version	0.0.1
My Description	FCC 15.247 Avg output power SA DTS - WLAN2G4 b mode
Add. Information	

EUT Common Settings WLAN2G4

Number of Antenna Ports	1
User Interaction	No

Test Parameter

Technology to test	WLAN2G4 b mode
Antenna Port used	2
Temperature	nom
Voltage	nom
Frequency low to test	False Freq [MHz] 2412
Frequency mid to test	False Freq [MHz] 2437
Frequency high to test	True Freq [MHz] 2462
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-40,1307.9002K40/101042,3.70
Switch matrix,CTCadvanced,SPM-4 NI DAQ,28016133,NI

Test at TX 2462 MHz

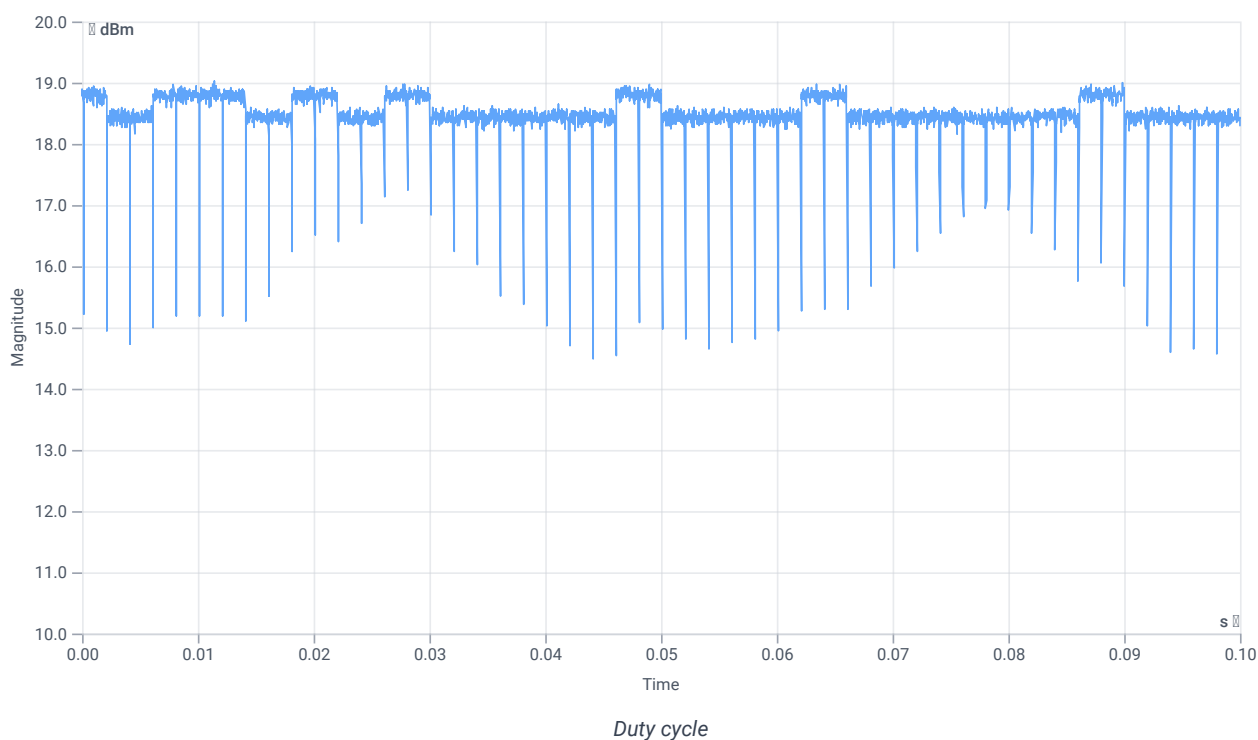
RESULT: Reference Power cond.

TEST DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	14.80	dBm	INFO
Ref. Frequency	---	---	2460.800	MHz	INFO

Evaluation max. Duty Cycle

Duty Cycle evaluation

TEST DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
No enough Bursts detected, Duty Cycle Burst Ratio set to 1					
Duty Cycle (Burst Ratio) max	---	---	1	---	INFO
Duty Cycle max	---	---	0	dB	INFO
Duty Cycle (Burst Ratio) min	---	---	1	---	INFO
Duty Cycle min	---	---	0	dB	INFO



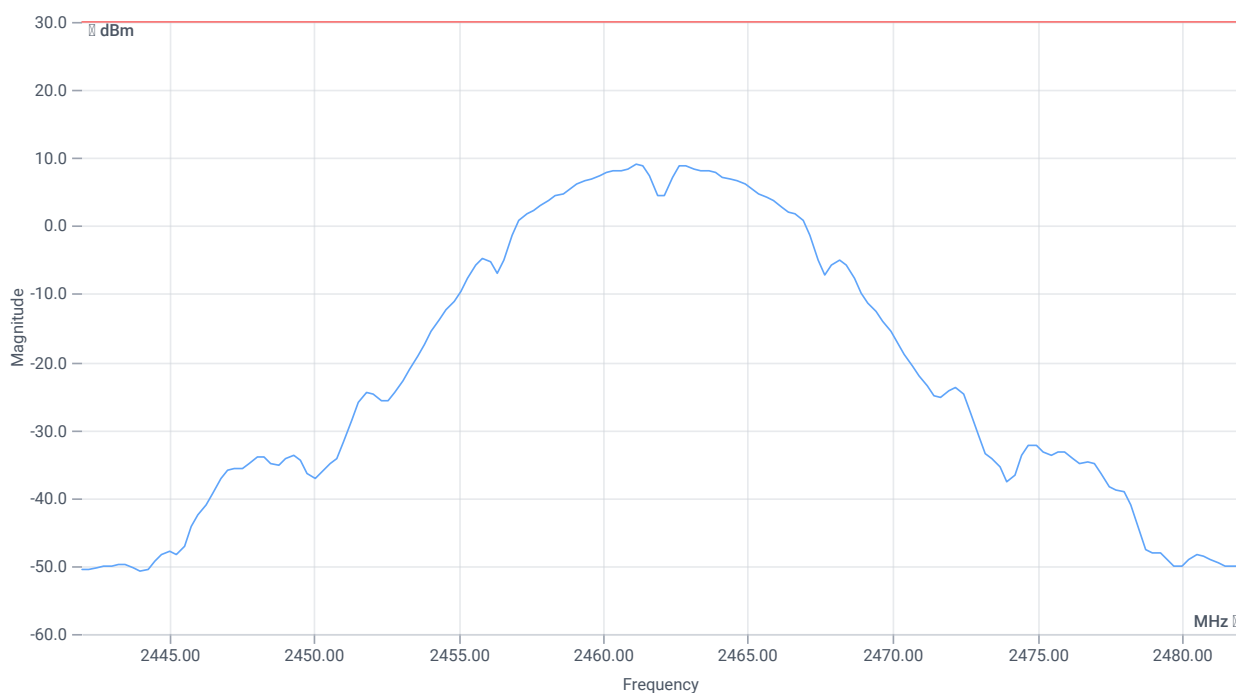
Avg output power SA DTS

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	24.80 14.04 25
Start [MHz] Stop [MHz]	2442.000 2482.000

READ SA SETTINGS:

RBW [MHz] VBW [MHz]	0.500000 2.000000
Detector TraceMode	RMS AVER
Sweep: Time [ms] Count Points per Section Type	500 100 160 SWE



Avg output power SA DTS

RESULT (Channel power method)

TEST DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Avg output power uncorrected	---	---	19.22	dBm	INFO
Duty cycle correction	---	---	0	dB	INFO
Avg power DC corrected	---	30	19.22	dBm	PASS

Verdict

PASS

FCC 15.247 # MIMO Σ Avg output power SA DTS ~ WLAN2G4 b mode 2400-2483.5 MHz

Test References

TC Start	06.07.2023 11:15:44
Ambit Temp [°C] Humidity [rel%]	24.7 38
System Version	4.5.2.0
Test Specification	FCC 15.247 -
Test Method	
TC Version	0.0.1
My Description	MIMO Σ FCC Avg output power SA DTS - WLAN2G4 b mode 2400-2483.5 MHz
Add. Information	

EUT Common Settings WLAN2G4

Number of Antenna Ports	1
User Interaction	No

Test Parameter

Technology to test	WLAN2G4 b mode
Antenna Port used	several
Temperature	nom
Voltage	nom
Frequency low to test	True Freq [MHz] 2412
Frequency mid to test	False Freq [MHz] 2437
Frequency high to test	False Freq [MHz] 2462
Auto Control enabled Power Supply Climatic Box	No No
Additional Path Loss [dB]	0.7
Switched Path	None

Test Equipment

Test at TX 2412 MHz

RESULT Power

TEST DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ant:1 Avg power DC corr.	---	---	19.46	dBm	INFO
Ant:2 Avg power DC corr.	---	---	19.89	dBm	INFO
Σ Avg output power DC corr.	---	30	22.69	dBm	PASS

Verdict

PASS

FCC 15.247 # MIMO Σ Avg psd DTS ~ WLAN2G4 b mode 2400-2483.5 MHz

Test References

TC Start	06.07.2023 11:18:04
Ambit Temp [°C] Humidity [rel%]	24.7 38
System Version	4.5.2.0
Test Specification	FCC 15.247 -
Test Method	
TC Version	0.0.1
My Description	MIMO Σ FCC Avg psd DTS - WLAN2G4 b mode 2400-2483.5 MHz
Add. Information	

EUT Common Settings WLAN2G4

Number of Antenna Ports	1
User Interaction	No

Test Parameter

Technology to test	WLAN2G4 b mode
Antenna Port used	several
Temperature	nom
Voltage	nom
Frequency low to test	True Freq [MHz] 2412
Frequency mid to test	False Freq [MHz] 2437
Frequency high to test	False Freq [MHz] 2462
Auto Control enabled Power Supply Climatic Box	No No
Additional Path Loss [dB]	0.7
Switched Path	None

Test Equipment

Test at TX 2412 MHz

RESULT psd

TEST DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ant:1 Avg psd DC corr ---		---	-11.68	dBm/3kHz	INFO
Ant:2 Avg psd DC corr ---		---	-11.34	dBm/3kHz	INFO
Σ Avg psd DC corr ---		8	-8.5	dBm/3kHz	PASS

Verdict

PASS

FCC 15.247 # MIMO Σ Avg output power SA DTS ~ WLAN2G4 b mode 2400-2483.5 MHz

Test References

TC Start	06.07.2023 11:18:14
Ambit Temp [°C] Humidity [rel%]	24.7 38
System Version	4.5.2.0
Test Specification	FCC 15.247 -
Test Method	
TC Version	0.0.1
My Description	MIMO Σ FCC Avg output power SA DTS - WLAN2G4 b mode 2400-2483.5 MHz
Add. Information	

EUT Common Settings WLAN2G4

Number of Antenna Ports	1
User Interaction	No

Test Parameter

Technology to test	WLAN2G4 b mode
Antenna Port used	several
Temperature	nom
Voltage	nom
Frequency low to test	False Freq [MHz] 2412
Frequency mid to test	True Freq [MHz] 2437
Frequency high to test	False Freq [MHz] 2462
Auto Control enabled Power Supply Climatic Box	No No
Additional Path Loss [dB]	0.7
Switched Path	None

Test Equipment

Test at TX 2437 MHz

RESULT Power

TEST DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ant:1 Avg power DC corr.	---	---	19.6	dBm	INFO
Ant:2 Avg power DC corr.	---	---	19.22	dBm	INFO
Σ Avg output power DC corr.	---	30	22.42	dBm	PASS

Verdict

PASS

FCC 15.247 # MIMO Σ Avg psd DTS ~ WLAN2G4 b mode 2400-2483.5 MHz

Test References

TC Start	06.07.2023 11:18:33
Ambit Temp [°C] Humidity [rel%]	24.8 38
System Version	4.5.2.0
Test Specification	FCC 15.247 -
Test Method	
TC Version	0.0.1
My Description	MIMO Σ FCC Avg psd DTS - WLAN2G4 b mode 2400-2483.5 MHz
Add. Information	

EUT Common Settings WLAN2G4

Number of Antenna Ports	1
User Interaction	No

Test Parameter

Technology to test	WLAN2G4 b mode
Antenna Port used	several
Temperature	nom
Voltage	nom
Frequency low to test	False Freq [MHz] 2412
Frequency mid to test	True Freq [MHz] 2437
Frequency high to test	False Freq [MHz] 2462
Auto Control enabled Power Supply Climatic Box	No No
Additional Path Loss [dB]	0.7
Switched Path	None

Test Equipment

Test at TX 2437 MHz

RESULT psd

TEST DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ant:1 Avg psd DC corr ---		---	-11.69	dBm/3kHz	INFO
Ant:2 Avg psd DC corr ---		---	-11.9	dBm/3kHz	INFO
Σ Avg psd DC corr ---		8	-8.78	dBm/3kHz	PASS

Verdict

PASS

FCC 15.247 # MIMO Σ Avg output power SA DTS ~ WLAN2G4 b mode 2400-2483.5 MHz

Test References

TC Start	06.07.2023 11:19:23
Ambit Temp [°C] Humidity [rel%]	24.8 38
System Version	4.5.2.0
Test Specification	FCC 15.247 -
Test Method	
TC Version	0.0.1
My Description	MIMO Σ FCC Avg output power SA DTS - WLAN2G4 b mode 2400-2483.5 MHz
Add. Information	

EUT Common Settings WLAN2G4

Number of Antenna Ports	1
User Interaction	No

Test Parameter

Technology to test	WLAN2G4 b mode
Antenna Port used	several
Temperature	nom
Voltage	nom
Frequency low to test	False Freq [MHz] 2412
Frequency mid to test	False Freq [MHz] 2437
Frequency high to test	True Freq [MHz] 2462
Auto Control enabled Power Supply Climatic Box	No No
Additional Path Loss [dB]	0.7
Switched Path	None

Test Equipment

Test at TX 2462 MHz

RESULT Power

TEST DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ant:1 Avg power DC corr.	---	---	19.68	dBm	INFO
Ant:2 Avg power DC corr.	---	---	19.22	dBm	INFO
Σ Avg output power DC corr.	---	30	22.47	dBm	PASS

Verdict

PASS

FCC 15.247 # MIMO Σ Avg psd DTS ~ WLAN2G4 b mode 2400-2483.5 MHz

Test References

TC Start	06.07.2023 11:20:52
Ambit Temp [°C] Humidity [rel%]	24.8 38
System Version	4.5.2.0
Test Specification	FCC 15.247 -
Test Method	
TC Version	0.0.1
My Description	MIMO Σ FCC Avg psd DTS - WLAN2G4 b mode 2400-2483.5 MHz
Add. Information	

EUT Common Settings WLAN2G4

Number of Antenna Ports	1
User Interaction	No

Test Parameter

Technology to test	WLAN2G4 b mode
Antenna Port used	several
Temperature	nom
Voltage	nom
Frequency low to test	False Freq [MHz] 2412
Frequency mid to test	False Freq [MHz] 2437
Frequency high to test	True Freq [MHz] 2462
Auto Control enabled Power Supply Climatic Box	No No
Additional Path Loss [dB]	0.7
Switched Path	None

Test Equipment

Test at TX 2462 MHz

RESULT psd

TEST DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ant:1 Avg psd DC corr ---		---	-11.48	dBm/3kHz	INFO
Ant:2 Avg psd DC corr ---		---	-12.03	dBm/3kHz	INFO
Σ Avg psd DC corr ---		8	-8.74	dBm/3kHz	PASS

Verdict

PASS

Message with SA scan ~

Test References

TC Start	06.07.2023 13:59:03
Ambit Temp [°C] Humidity [rel%]	25.8 37
System Version	4.5.2.0
Test Specification	-
Test Method	
TC Version	0.0.1
My Description	Message with SA Scan n-HT20 mode
Add. Information	ac20-mode

Test Parameter

Switched Path	EUT - SignalingUnit - SpectrumAnalyzer
Message start	06.07.2023 13:59:04
Message	set WLAN2G4 to n-HT20 mode, Frequency [MHz] 2412 ,

Test Equipment

Signal analyzer,Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.70
Switch matrix,CTCadvanced,SPM-4 NI DAQ,28016133,NI

Verdict

INFO

FCC 15.247 # Bandwidth 6dB DTS ~ WLAN2G4 n-HT20 mode

Test References

TC Start	06.07.2023 13:59:14
Ambit Temp [°C] Humidity [rel%]	25.8 37
System Version	4.5.2.0
Test Specification	FCC 15.247 -
Test Method	
TC Version	0.0.1
My Description	FCC 15.247 Bandwidth 6dB DTS - WLAN2G4 n-HT20 mode
Add. Information	ac20-mode

EUT Common Settings WLAN2G4

Number of Antenna Ports	1
User Interaction	No

Test Parameter

Technology to test	WLAN2G4 n-HT20 mode
Antenna Port used	1
Temperature	nom
Voltage	nom
Frequency low to test	True Freq [MHz] 2412
Frequency mid to test	False Freq [MHz] 2437
Frequency high to test	False Freq [MHz] 2462
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-40,1307.9002K40/101042,3.70
Switch matrix,CTCadvanced,SPM-4 NI DAQ,28016133,NI

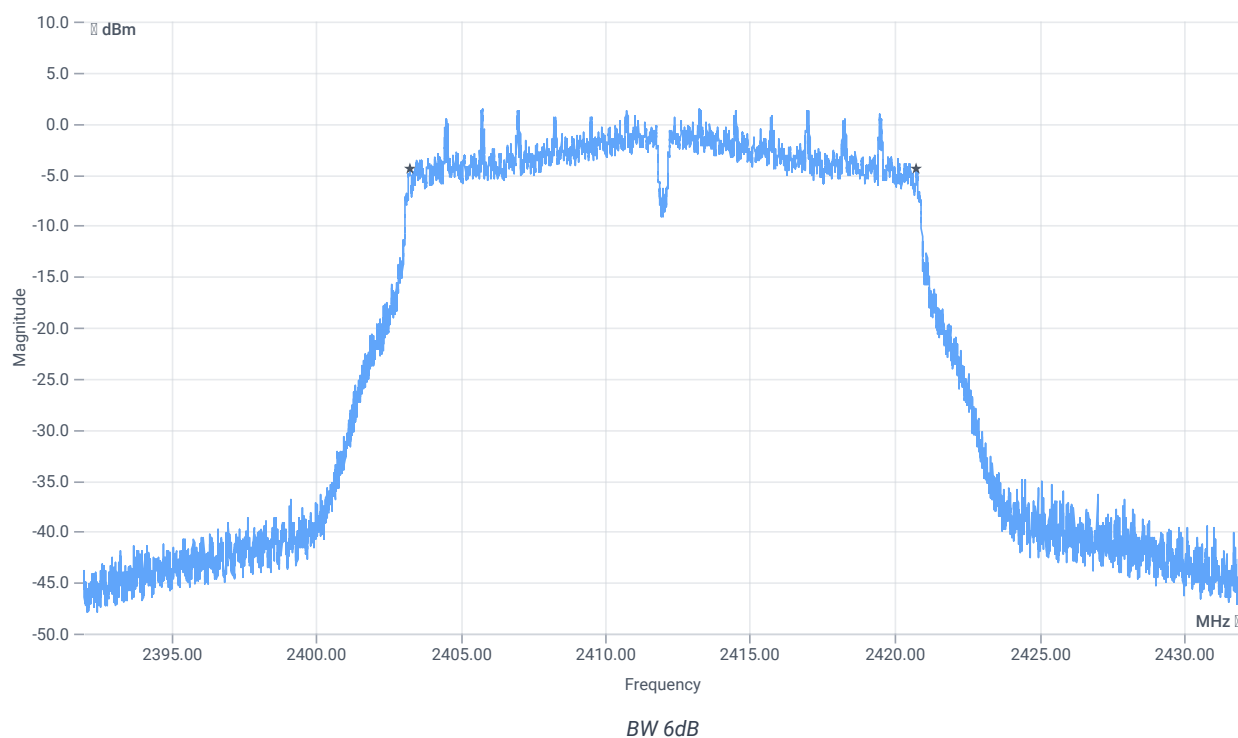
Test at TX 2412 MHz

RESULT: Reference Power cond.

TEST DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	10.29	dBm	INFO
Ref. Frequency	---	---	2413.000	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	15.29 14.43 20
Start [MHz] Stop [MHz]	2392.000 2432.000
RBW [MHz] VBW [MHz]	0.100000 0.300000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	50 200 10001 SWE



RESULT

TEST DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
DTS Bandwidth (6dB)	500	---	17528	kHz	PASS

Verdict

PASS

FCC 15.247 # Avg psd DTS ~ WLAN2G4 n-HT20 mode

Test References

TC Start	06.07.2023 13:59:48
Ambit Temp [°C] Humidity [rel%]	25.8 37
System Version	4.5.2.0
Test Specification	FCC 15.247 -
Test Method	ANSI C63.10-2013 Chapter 11.10.5 or.3
TC Version	0.0.1
My Description	FCC 15.247 Avg psd DTS - WLAN2G4 n-HT20 mode
Add. Information	ac20-mode

EUT Common Settings WLAN2G4

Number of Antenna Ports	1
User Interaction	No

Test Parameter

Technology to test	WLAN2G4 n-HT20 mode
Antenna Port used	1
Temperature	nom
Voltage	nom
Frequency low to test	True Freq [MHz] 2412
Frequency mid to test	False Freq [MHz] 2437
Frequency high to test	False Freq [MHz] 2462
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-40,1307.9002K40/101042,3.70
Switch matrix,CTCadvanced,SPM-4 NI DAQ,28016133,NI

Test at TX 2412 MHz

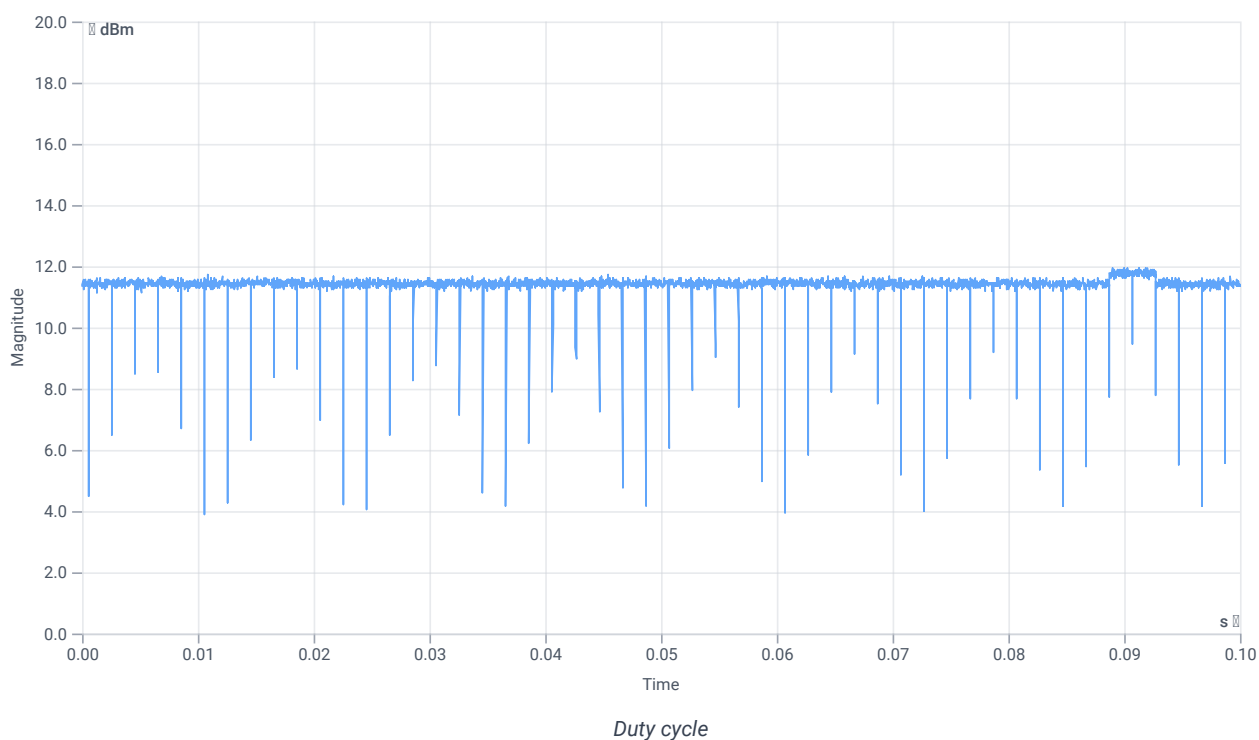
RESULT: Reference Power cond.

TEST DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	10.66	dBm	INFO
Ref. Frequency	---	---	2413.300	MHz	INFO

Evaluation max. Duty Cycle

Duty Cycle evaluation

TEST DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
No enough Bursts detected, Duty Cycle Burst Ratio set to 1					
Duty Cycle (Burst Ratio) max	---	---	1	---	INFO
Duty Cycle max	---	---	0	dB	INFO
Duty Cycle (Burst Ratio) min	---	---	1	---	INFO
Duty Cycle min	---	---	0	dB	INFO



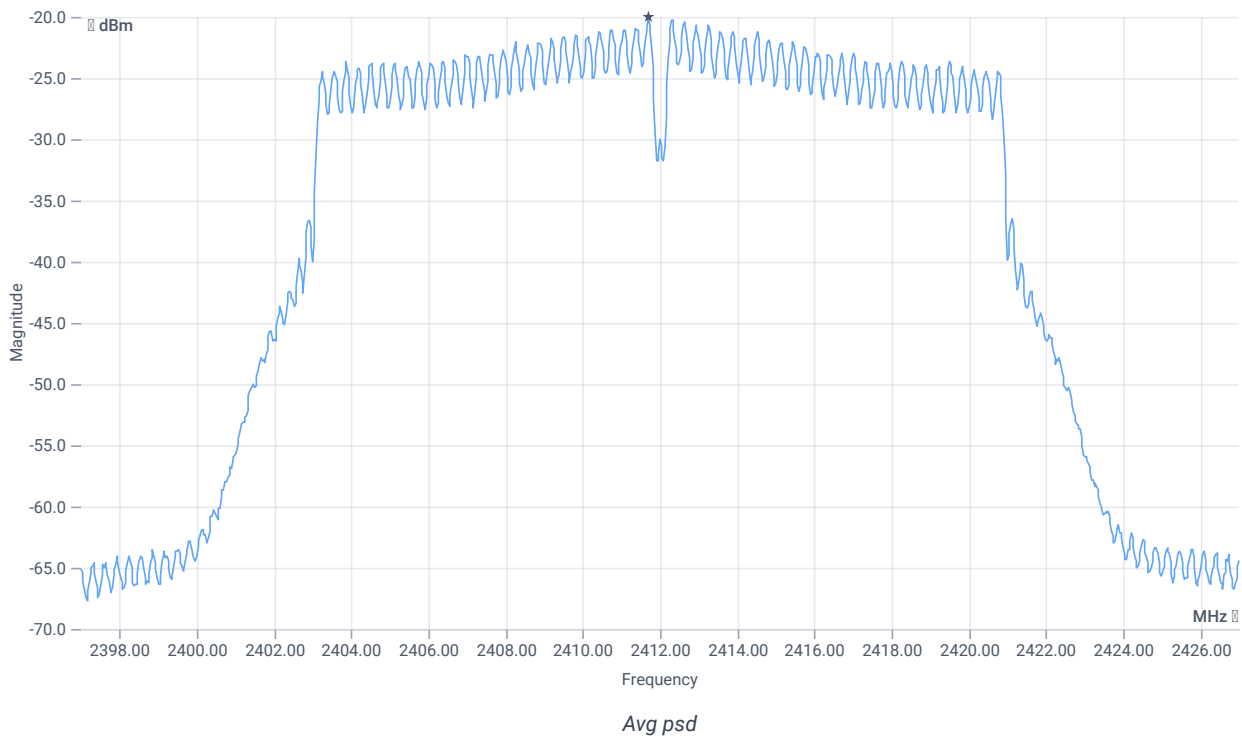
Avg. psd

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	15.66 14.43 20
Start [MHz] Stop [MHz]	2397.000 2427.000

READ SA SETTINGS:

RBW [MHz] VBW [MHz]	0.003000 0.010000
Detector TraceMode	RMS AVER
Sweep: Time [ms] Count Points per Section Type	334 100 1001 SWE



RESULT

TEST DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Avg psd uncorrected	---	---	-20.03	dBm	INFO
Duty cycle correction	---	---	0	dB	INFO
Avg psd DC corrected	---	8	-20.03	dBm/3kHz	PASS

Verdict

PASS

FCC 15.247, ISED RSS247 # Bandwidth 99PCT and 20dB ~ WLAN2G4 n-HT20 mode

Test References

TC Start	06.07.2023 14:00:51
Ambit Temp [°C] Humidity [rel%]	25.8 36
System Version	4.5.2.0
Test Specification	FCC 15.247, ISED RSS247 -
Test Method	
TC Version	0.0.2
My Description	FCC 15.247 Bandwidth 99PCT-20dB DTS - WLAN2G4 n-HT20 mode
Add. Information	ac20-mode

EUT Common Settings WLAN2G4

Number of Antenna Ports	1
User Interaction	No

Test Parameter

Technology to test	WLAN2G4 n-HT20 mode
Antenna Port used	1
Temperature	nom
Voltage	nom
Frequency low to test	True Freq [MHz] 2412
Frequency mid to test	False Freq [MHz] 2437
Frequency high to test	False Freq [MHz] 2462
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-40,1307.9002K40/101042,3.70
Switch matrix,CTCadvanced,SPM-4 NI DAQ,28016133,NI

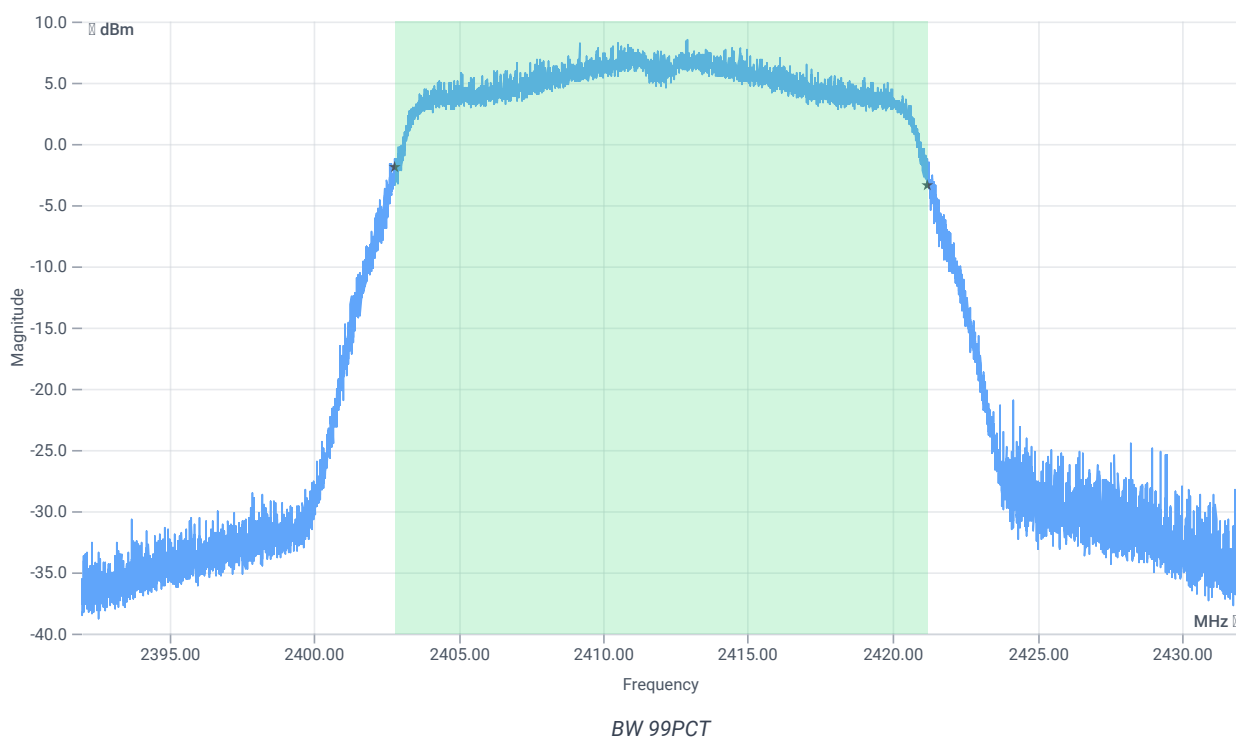
Test at TX 2412 MHz

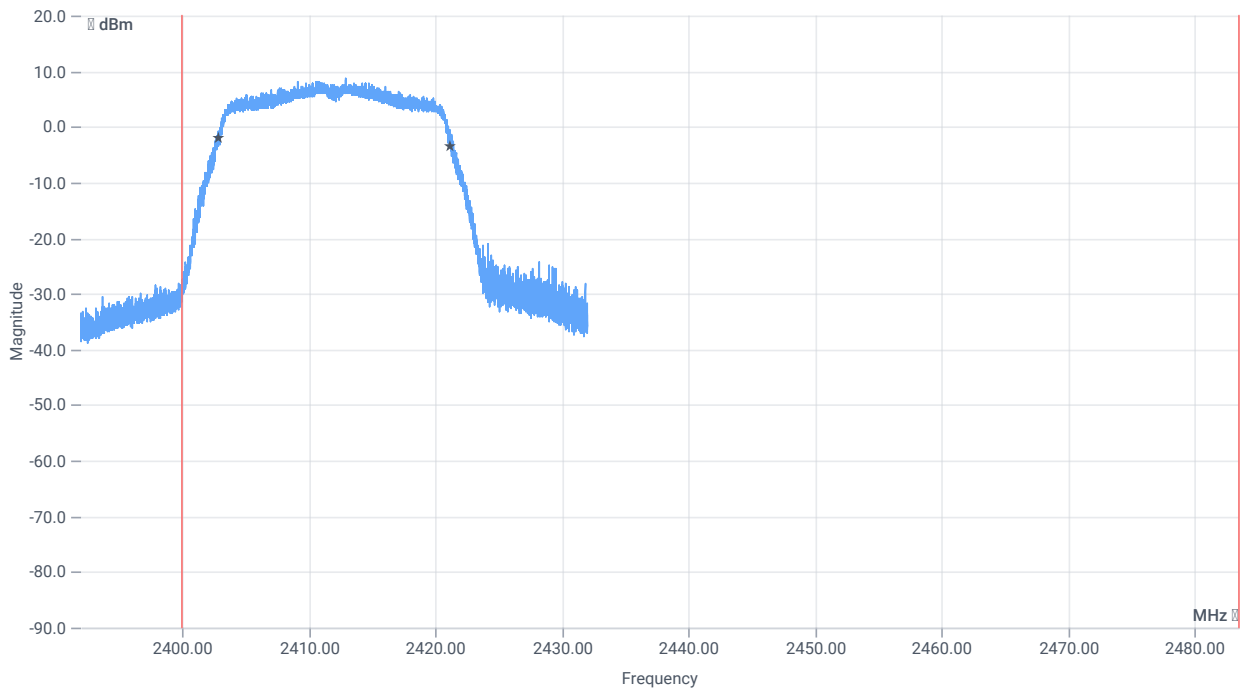
RESULT: Reference Power cond.

TEST DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	10.94	dBm	INFO
Ref. Frequency	---	---	2410.900	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	15.94 14.43 20
Start [MHz] Stop [MHz]	2392.000 2432.000
RBW [MHz] VBW [MHz]	0.500000 2.000000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	50 200 10001 SWE

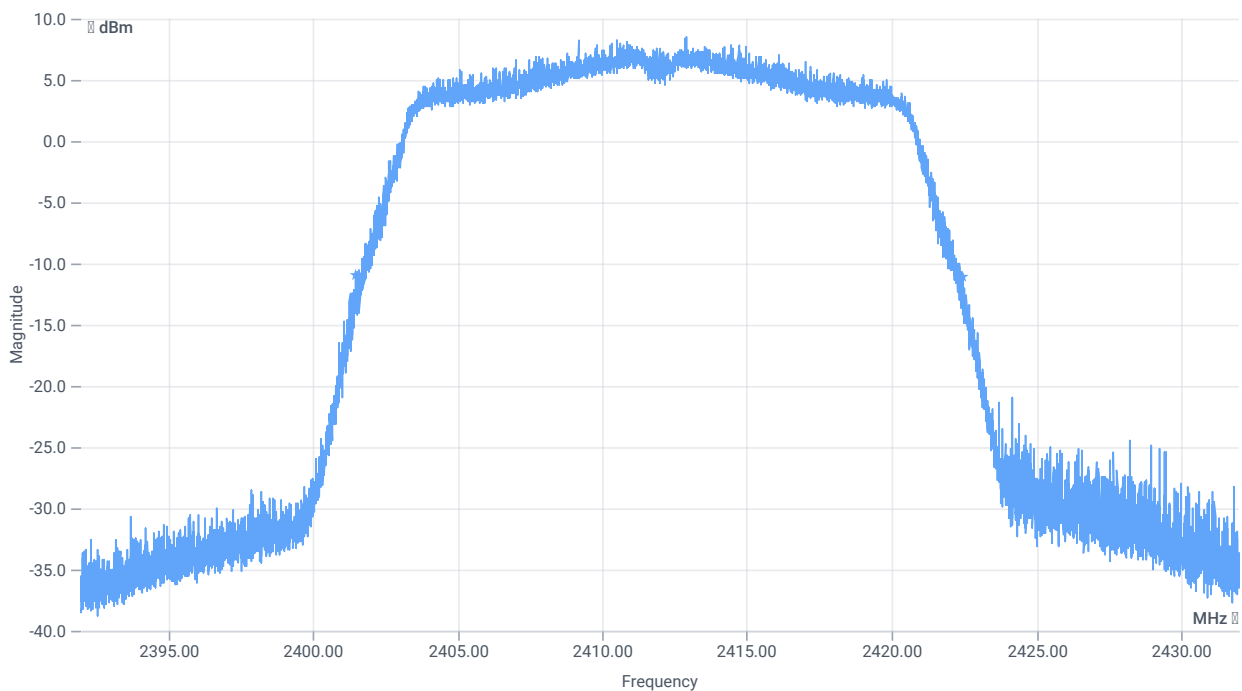




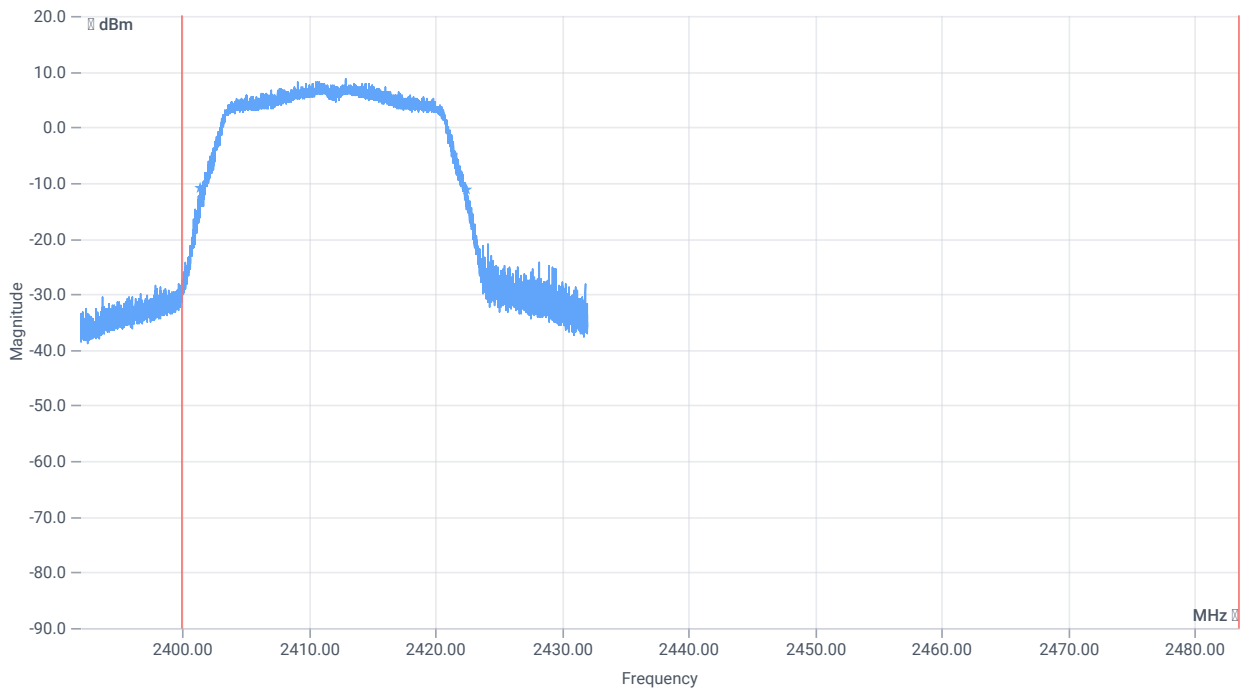
BW within Band 99PCT

RESULT

TEST DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 99%	---	---	18418.000	kHz	INFO
T1 99%	2400.000000	---	2402.7929	MHz	PASS
T2 99%	---	2483.500000	2421.2111	MHz	PASS



BW 20dB



BW within Band 20dB

RESULT

TEST DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 20dB	---	---	20980	kHz	INFO
T1 20dB	2400.000000	---	2401.4680	MHz	PASS
T2 20dB	---	2483.500000	2422.4480	MHz	PASS

Verdict

PASS

FCC 15.247 # TX spurious conducted 30dBc ~ WLAN2G4 n-HT20 mode

Test References

TC Start	06.07.2023 14:01:28
Ambit Temp [°C] Humidity [rel%]	25.8 36
System Version	4.5.2.0
Test Specification	FCC 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 30dBc DTS DTS - WLAN2G4 n-HT20 mode
Add. Information	ac20-mode

EUT Common Settings WLAN2G4

Number of Antenna Ports	1
User Interaction	No

Test Parameter

Technology to test	WLAN2G4 n-HT20 mode
Antenna Port used	1
Temperature	nom
Voltage	nom
Frequency low to test	True Freq [MHz] 2412
Frequency mid to test	False Freq [MHz] 2437
Frequency high to test	False Freq [MHz] 2462
Auto Control enabled Power Supply Climatic Box	No No
Additional Path Loss [dB]	0.7
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer

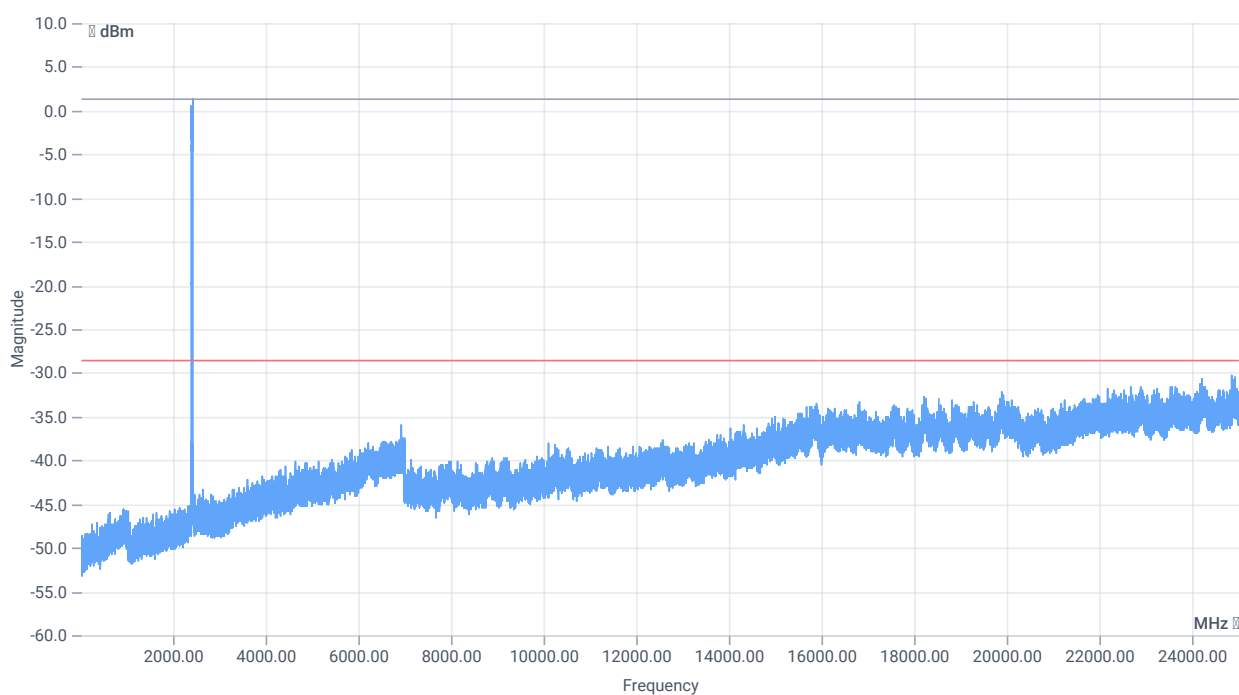
Test Equipment

Signal analyzer,Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.70
Switch matrix,CTCadvanced,SPM-4 NI DAQ,28016133,NI

Test at TX 2412 MHz

RESULT: Reference Power cond.

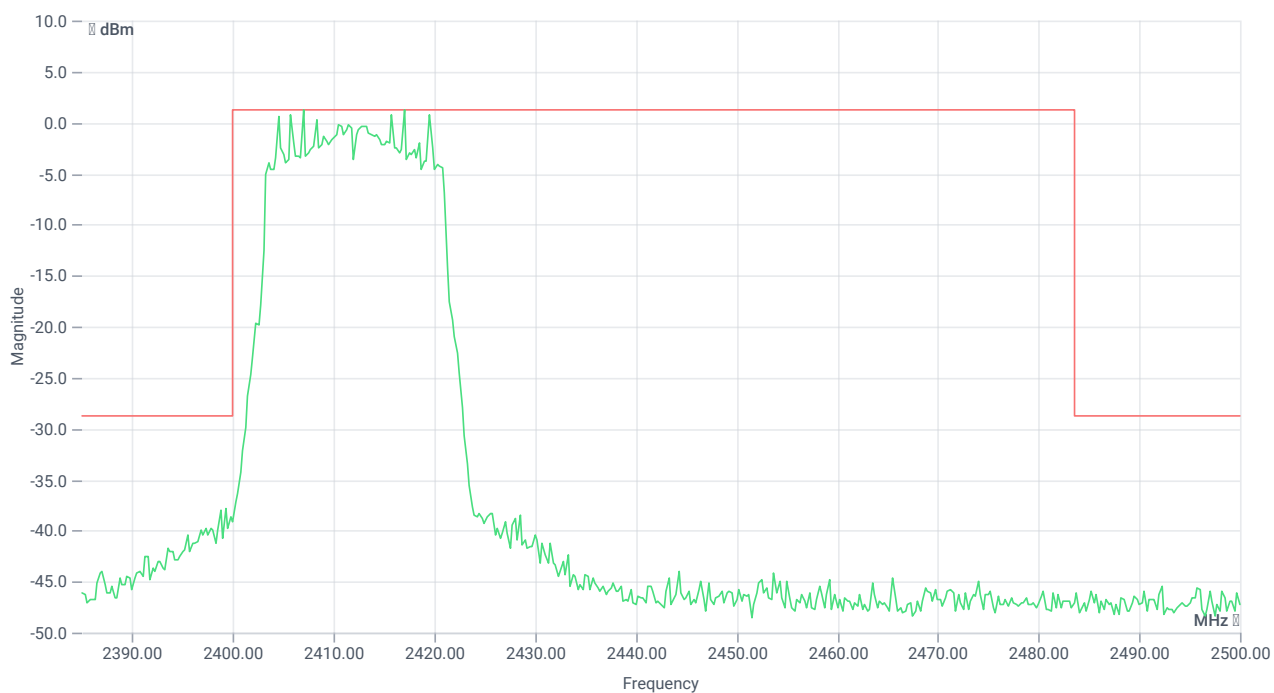
TEST DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	10.55	dBm	INFO
Ref. Frequency	---	---	2410.600	MHz	INFO



TX emissions

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	10.55 0 30
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



RESULT

TEST DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Reference @ 2407.00 MHz	---	---	1.31	dBm	INFO
No peaks detected	---	---			PASS
Lowest margin to limit 24845.75 MHz	0	---	1.7	dB	INFO

Verdict

PASS

FCC 15.247 # Avg output power SA DTS ~ WLAN2G4 n-HT20 mode

Test References

TC Start	06.07.2023 14:08:09
Ambit Temp [°C] Humidity [rel%]	25.9 36
System Version	4.5.2.0
Test Specification	FCC 15.247 -
Test Method	ANSI C63.10-2013 Chapter 11.9.2.2.2 or .4
TC Version	0.0.1
My Description	FCC 15.247 Avg output power SA DTS - WLAN2G4 n-HT20 mode
Add. Information	ac20-mode

EUT Common Settings WLAN2G4

Number of Antenna Ports	1
User Interaction	No

Test Parameter

Technology to test	WLAN2G4 n-HT20 mode
Antenna Port used	1
Temperature	nom
Voltage	nom
Frequency low to test	True Freq [MHz] 2412
Frequency mid to test	False Freq [MHz] 2437
Frequency high to test	False Freq [MHz] 2462
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-40,1307.9002K40/101042,3.70
Switch matrix,CTCadvanced,SPM-4 NI DAQ,28016133,NI

Test at TX 2412 MHz

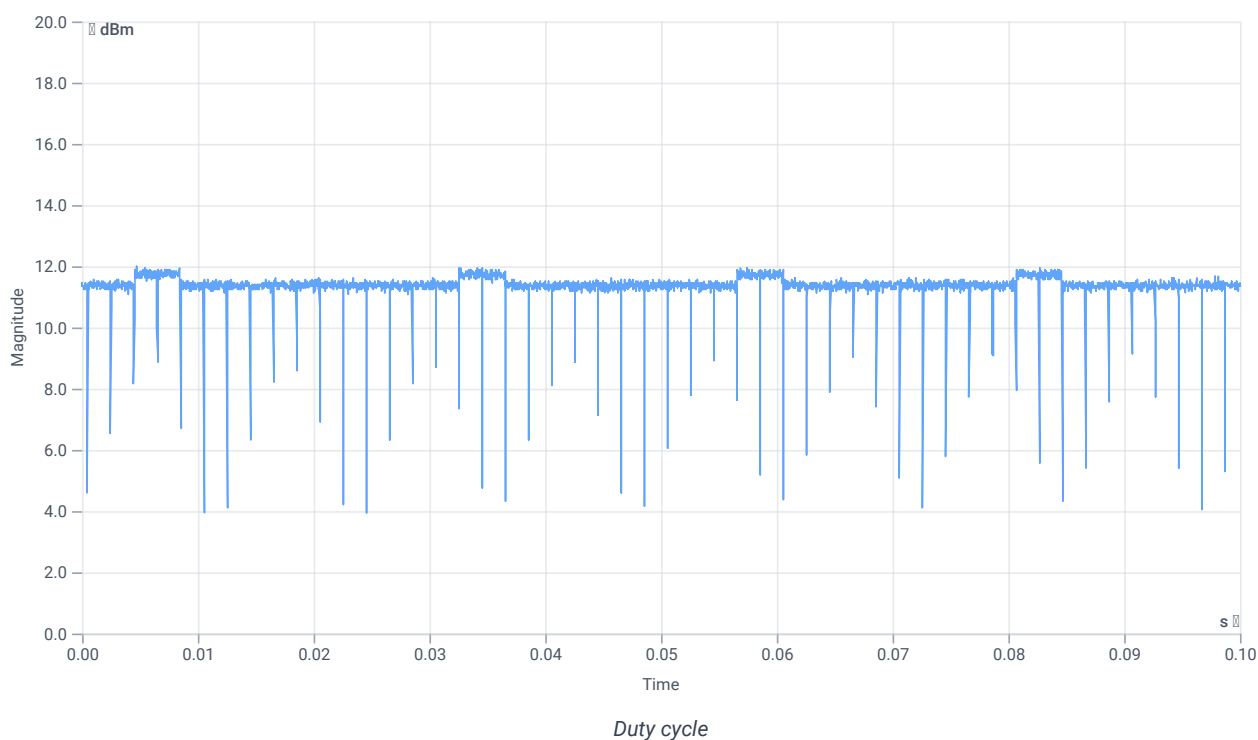
RESULT: Reference Power cond.

TEST DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	10.55	dBm	INFO
Ref. Frequency	---	---	2413.100	MHz	INFO

Evaluation max. Duty Cycle

Duty Cycle evaluation

TEST DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
No enough Bursts detected, Duty Cycle Burst Ratio set to 1					
Duty Cycle (Burst Ratio) max	---	---	1	---	INFO
Duty Cycle max	---	---	0	dB	INFO
Duty Cycle (Burst Ratio) min	---	---	1	---	INFO
Duty Cycle min	---	---	0	dB	INFO



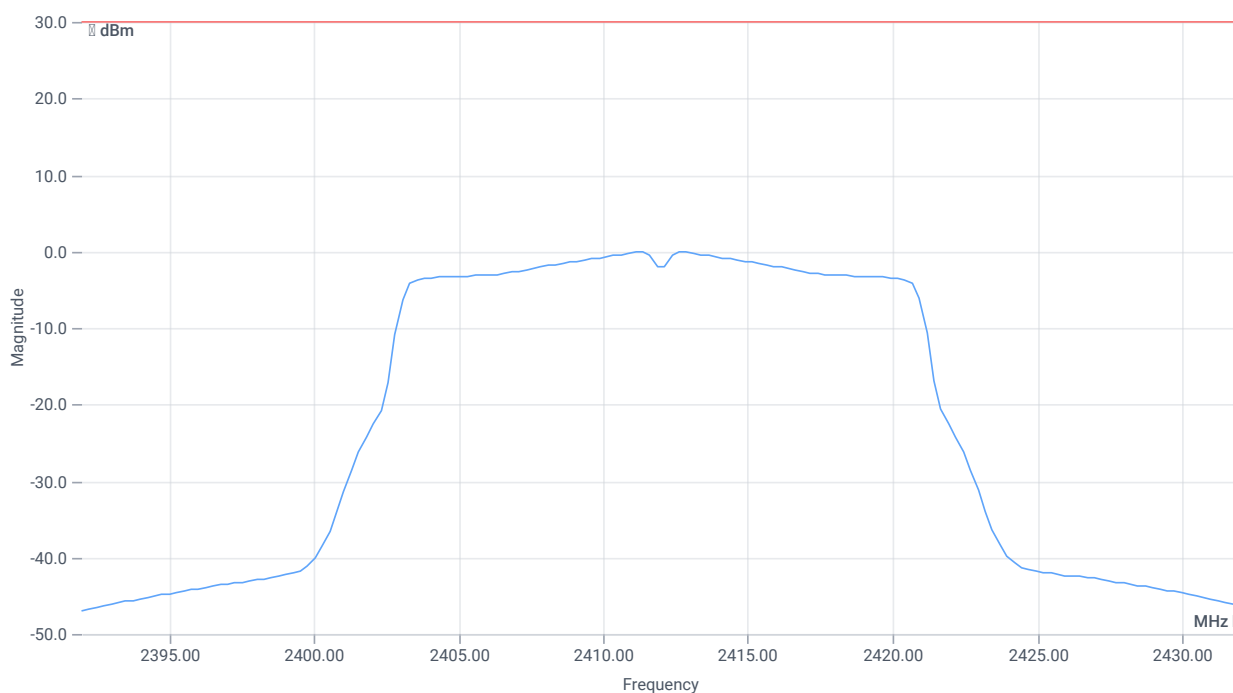
Avg output power SA DTS

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	20.55 14.43 25
Start [MHz] Stop [MHz]	2392.000 2432.000

READ SA SETTINGS:

RBW [MHz] VBW [MHz]	0.500000 2.000000
Detector TraceMode	RMS AVER
Sweep: Time [ms] Count Points per Section Type	500 100 160 SWE



Avg output power SA DTS

RESULT (Channel power method)

TEST DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Avg output power uncorrected	---	---	13.28	dBm	INFO
Duty cycle correction	---	---	0	dB	INFO
Avg power DC corrected	---	30	13.28	dBm	PASS

Verdict

PASS

FCC 15.247 # Bandwidth 6dB DTS ~ WLAN2G4 n-HT20 mode

Test References

TC Start	06.07.2023 14:09:23
Ambit Temp [°C] Humidity [rel%]	25.9 36
System Version	4.5.2.0
Test Specification	FCC 15.247 -
Test Method	
TC Version	0.0.1
My Description	FCC 15.247 Bandwidth 6dB DTS - WLAN2G4 n-HT20 mode
Add. Information	ac20-mode

EUT Common Settings WLAN2G4

Number of Antenna Ports	1
User Interaction	No

Test Parameter

Technology to test	WLAN2G4 n-HT20 mode
Antenna Port used	2
Temperature	nom
Voltage	nom
Frequency low to test	True Freq [MHz] 2412
Frequency mid to test	False Freq [MHz] 2437
Frequency high to test	False Freq [MHz] 2462
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-40,1307.9002K40/101042,3.70
Switch matrix,CTCadvanced,SPM-4 NI DAQ,28016133,NI

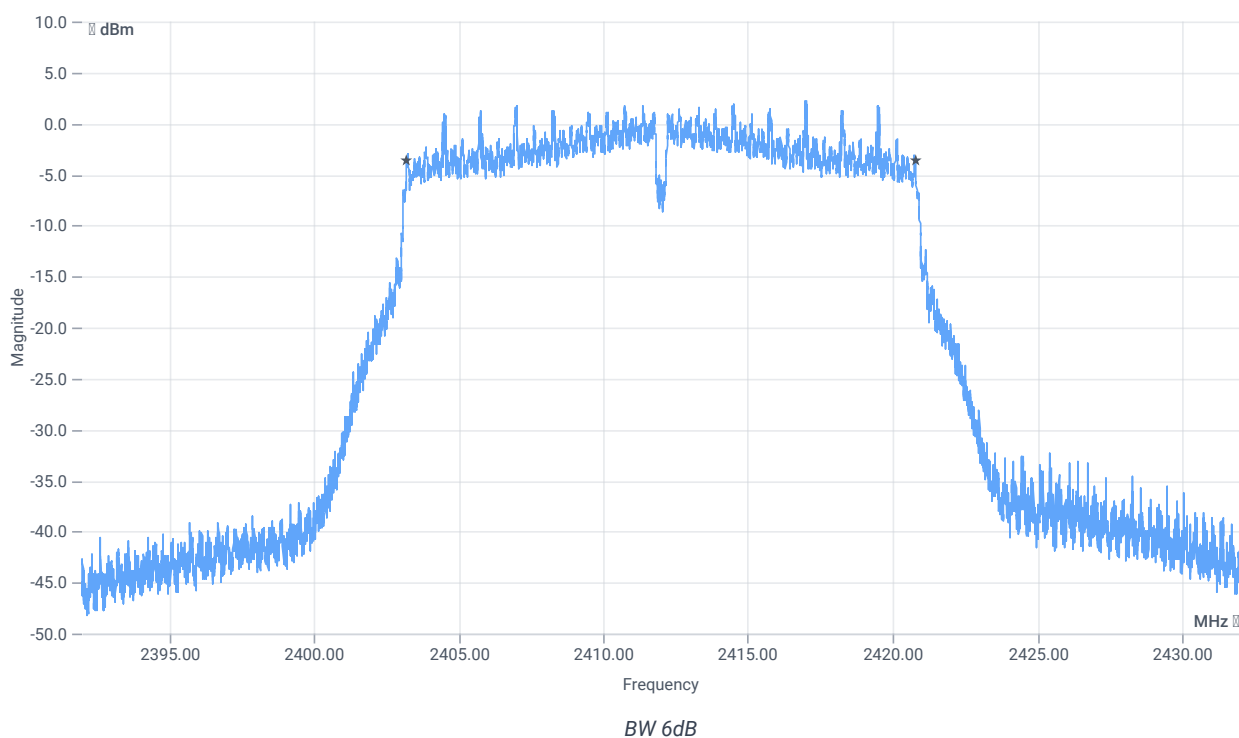
Test at TX 2412 MHz

RESULT: Reference Power cond.

TEST DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	11.64	dBm	INFO
Ref. Frequency	---	---	2409.500	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	16.65 14.43 20
Start [MHz] Stop [MHz]	2392.000 2432.000
RBW [MHz] VBW [MHz]	0.100000 0.300000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	50 200 10001 SWE



RESULT

TEST DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
DTS Bandwidth (6dB)	500	---	17556	kHz	PASS

Verdict

PASS

FCC 15.247 # Avg psd DTS ~ WLAN2G4 n-HT20 mode

Test References

TC Start	06.07.2023 14:09:58
Ambit Temp [°C] Humidity [rel%]	25.9 36
System Version	4.5.2.0
Test Specification	FCC 15.247 -
Test Method	ANSI C63.10-2013 Chapter 11.10.5 or.3
TC Version	0.0.1
My Description	FCC 15.247 Avg psd DTS - WLAN2G4 n-HT20 mode
Add. Information	ac20-mode

EUT Common Settings WLAN2G4

Number of Antenna Ports	1
User Interaction	No

Test Parameter

Technology to test	WLAN2G4 n-HT20 mode
Antenna Port used	2
Temperature	nom
Voltage	nom
Frequency low to test	True Freq [MHz] 2412
Frequency mid to test	False Freq [MHz] 2437
Frequency high to test	False Freq [MHz] 2462
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-40,1307.9002K40/101042,3.70
Switch matrix,CTCadvanced,SPM-4 NI DAQ,28016133,NI

Test at TX 2412 MHz

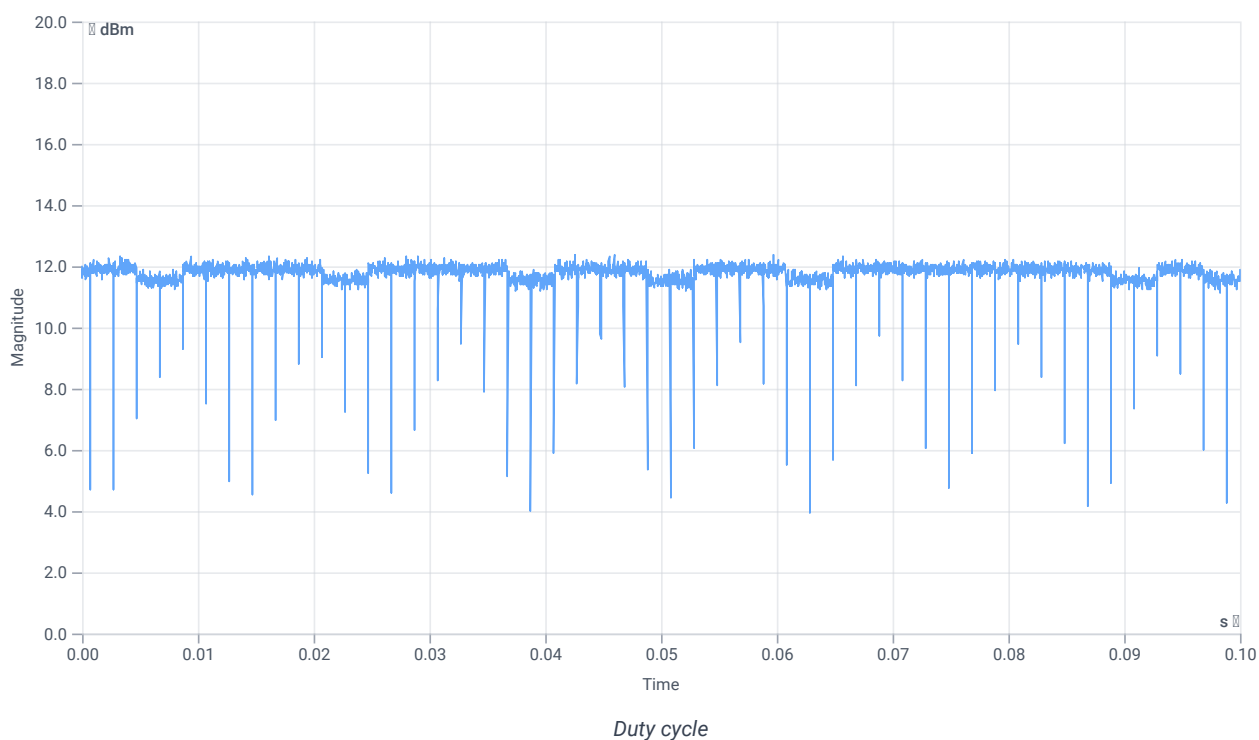
RESULT: Reference Power cond.

TEST DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	11.90	dBm	INFO
Ref. Frequency	---	---	2410.600	MHz	INFO

Evaluation max. Duty Cycle

Duty Cycle evaluation

TEST DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
No enough Bursts detected, Duty Cycle Burst Ratio set to 1					
Duty Cycle (Burst Ratio) max	---	---	1	---	INFO
Duty Cycle max	---	---	0	dB	INFO
Duty Cycle (Burst Ratio) min	---	---	1	---	INFO
Duty Cycle min	---	---	0	dB	INFO



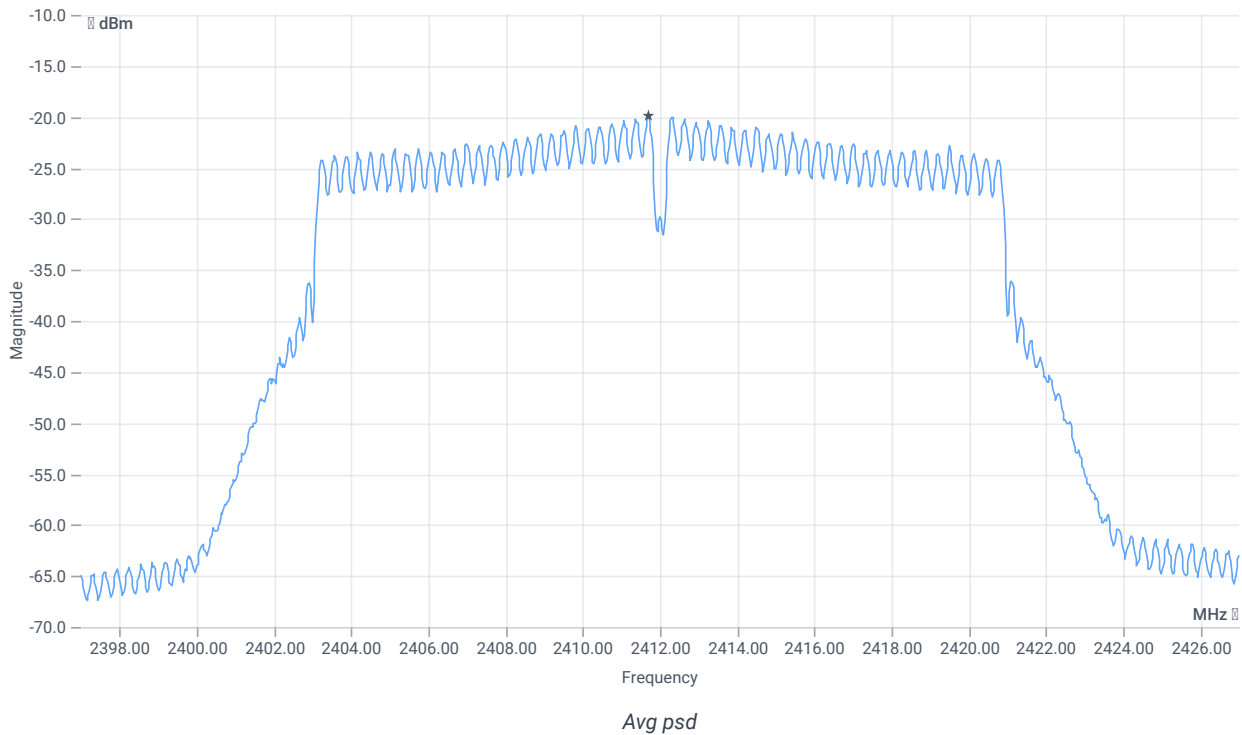
Avg. psd

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	16.90 14.43 20
Start [MHz] Stop [MHz]	2397.000 2427.000

READ SA SETTINGS:

RBW [MHz] VBW [MHz]	0.003000 0.010000
Detector TraceMode	RMS AVER
Sweep: Time [ms] Count Points per Section Type	334 100 1001 SWE



RESULT

TEST DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Avg psd uncorrected	---	---	-19.86	dBm	INFO
Duty cycle correction	---	---	0	dB	INFO
Avg psd DC corrected	---	8	-19.86	dBm/3kHz	PASS

Verdict

PASS

FCC 15.247, ISED RSS247 # Bandwidth 99PCT and 20dB ~ WLAN2G4 n-HT20 mode

Test References

TC Start	06.07.2023 14:11:00
Ambit Temp [°C] Humidity [rel%]	25.9 36
System Version	4.5.2.0
Test Specification	FCC 15.247, ISED RSS247 -
Test Method	
TC Version	0.0.2
My Description	FCC 15.247 Bandwidth 99PCT-20dB DTS - WLAN2G4 n-HT20 mode
Add. Information	ac20-mode

EUT Common Settings WLAN2G4

Number of Antenna Ports	1
User Interaction	No

Test Parameter

Technology to test	WLAN2G4 n-HT20 mode
Antenna Port used	2
Temperature	nom
Voltage	nom
Frequency low to test	True Freq [MHz] 2412
Frequency mid to test	False Freq [MHz] 2437
Frequency high to test	False Freq [MHz] 2462
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-40,1307.9002K40/101042,3.70
Switch matrix,CTCadvanced,SPM-4 NI DAQ,28016133,NI

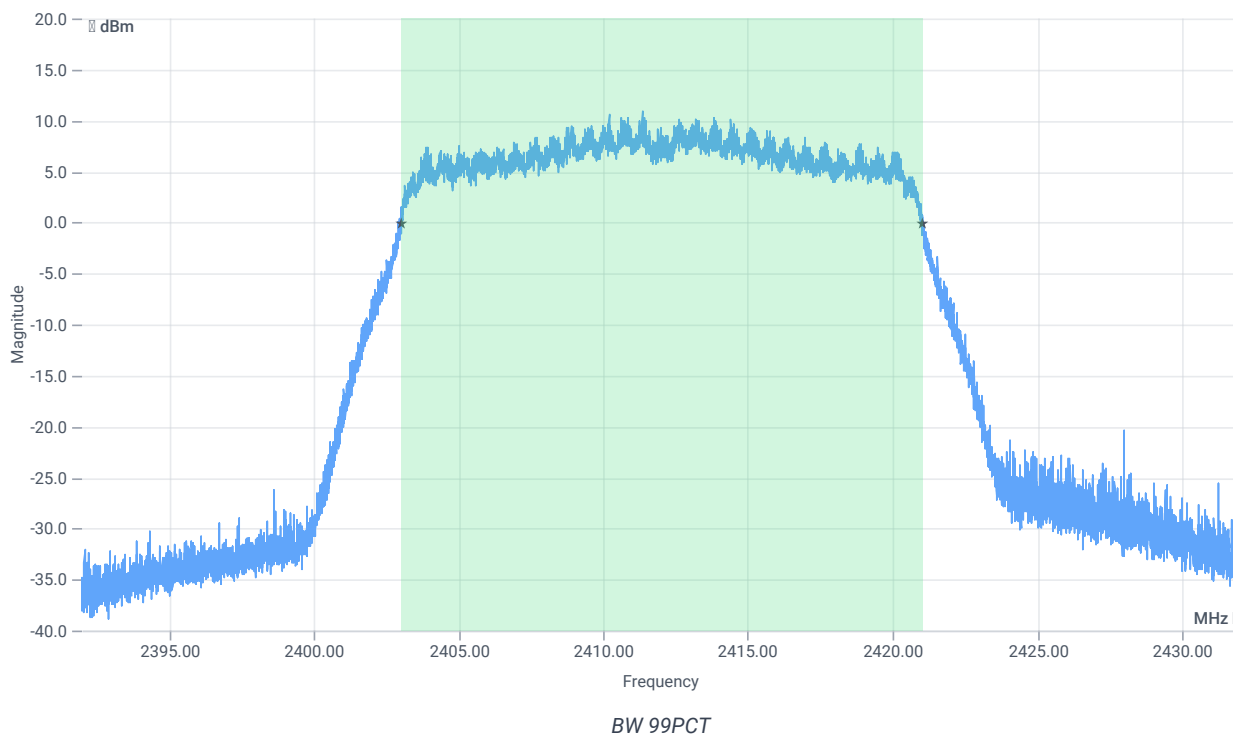
Test at TX 2412 MHz

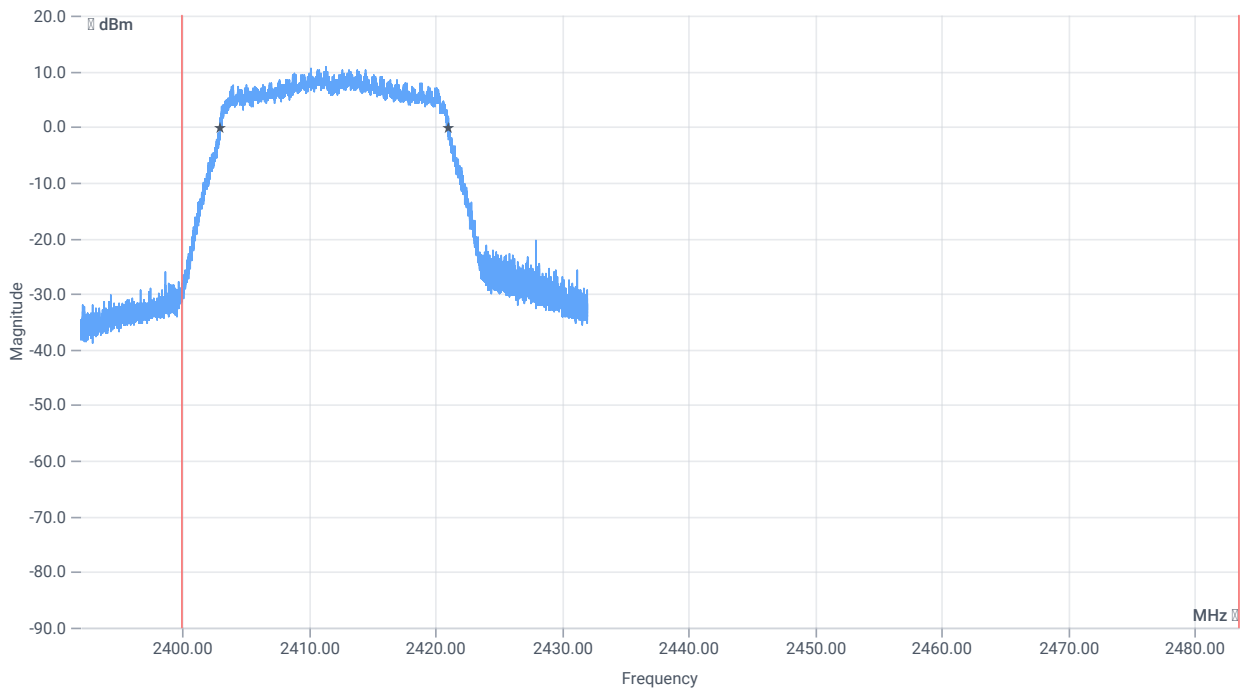
RESULT: Reference Power cond.

TEST DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	10.92	dBm	INFO
Ref. Frequency	---	---	2413.300	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	15.92 14.43 20
Start [MHz] Stop [MHz]	2392.000 2432.000
RBW [MHz] VBW [MHz]	0.500000 2.000000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	50 200 10001 SWE

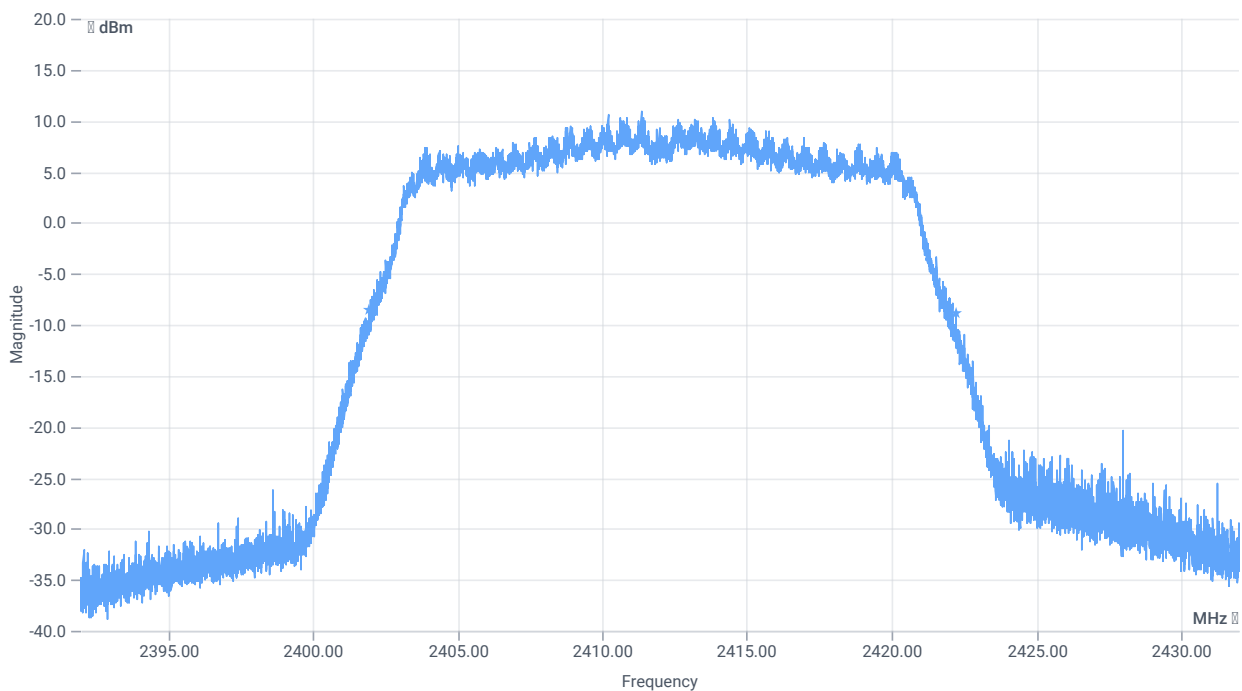




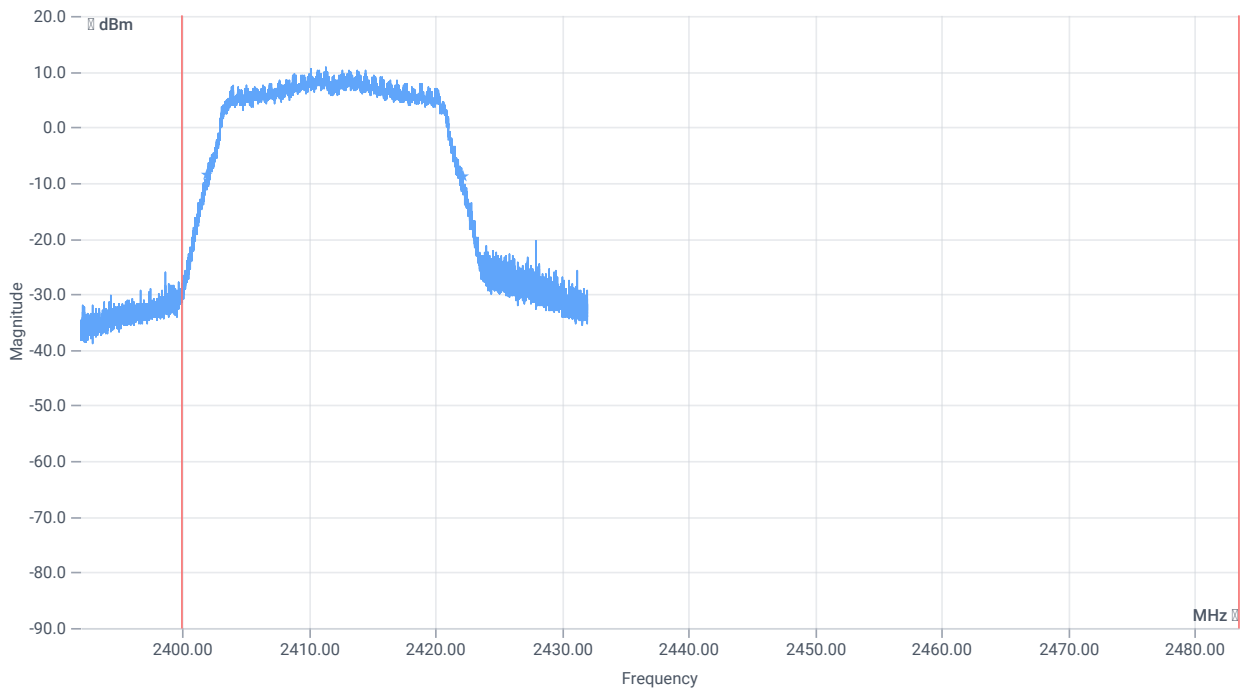
BW within Band 99PCT

RESULT

TEST DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 99%	---	---	18010.000	kHz	INFO
T1 99%	2400.000000	---	2403.0049	MHz	PASS
T2 99%	---	2483.500000	2421.0151	MHz	PASS



BW 20dB



BW within Band 20dB

RESULT

TEST DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 20dB	---	---	20284	kHz	INFO
T1 20dB	2400.000000	---	2401.9320	MHz	PASS
T2 20dB	---	2483.500000	2422.2160	MHz	PASS

Verdict

PASS

FCC 15.247 # TX spurious conducted 30dBc ~ WLAN2G4 n-HT20 mode

Test References

TC Start	06.07.2023 14:11:37
Ambit Temp [°C] Humidity [rel%]	25.9 36
System Version	4.5.2.0
Test Specification	FCC 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 30dBc DTS DTS - WLAN2G4 n-HT20 mode
Add. Information	ac20-mode

EUT Common Settings WLAN2G4

Number of Antenna Ports	1
User Interaction	No

Test Parameter

Technology to test	WLAN2G4 n-HT20 mode
Antenna Port used	2
Temperature	nom
Voltage	nom
Frequency low to test	True Freq [MHz] 2412
Frequency mid to test	False Freq [MHz] 2437
Frequency high to test	False Freq [MHz] 2462
Auto Control enabled Power Supply Climatic Box	No No
Additional Path Loss [dB]	0.7
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer

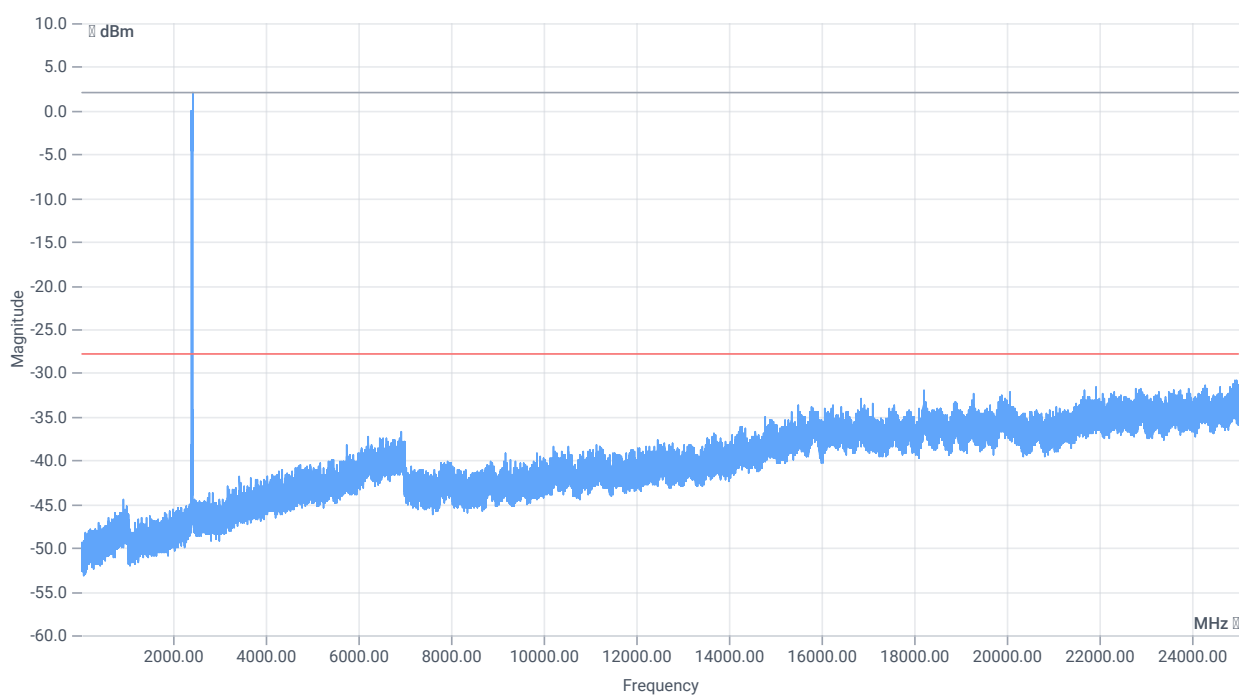
Test Equipment

Signal analyzer,Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.70
Switch matrix,CTCadvanced,SPM-4 NI DAQ,28016133,NI

Test at TX 2412 MHz

RESULT: Reference Power cond.

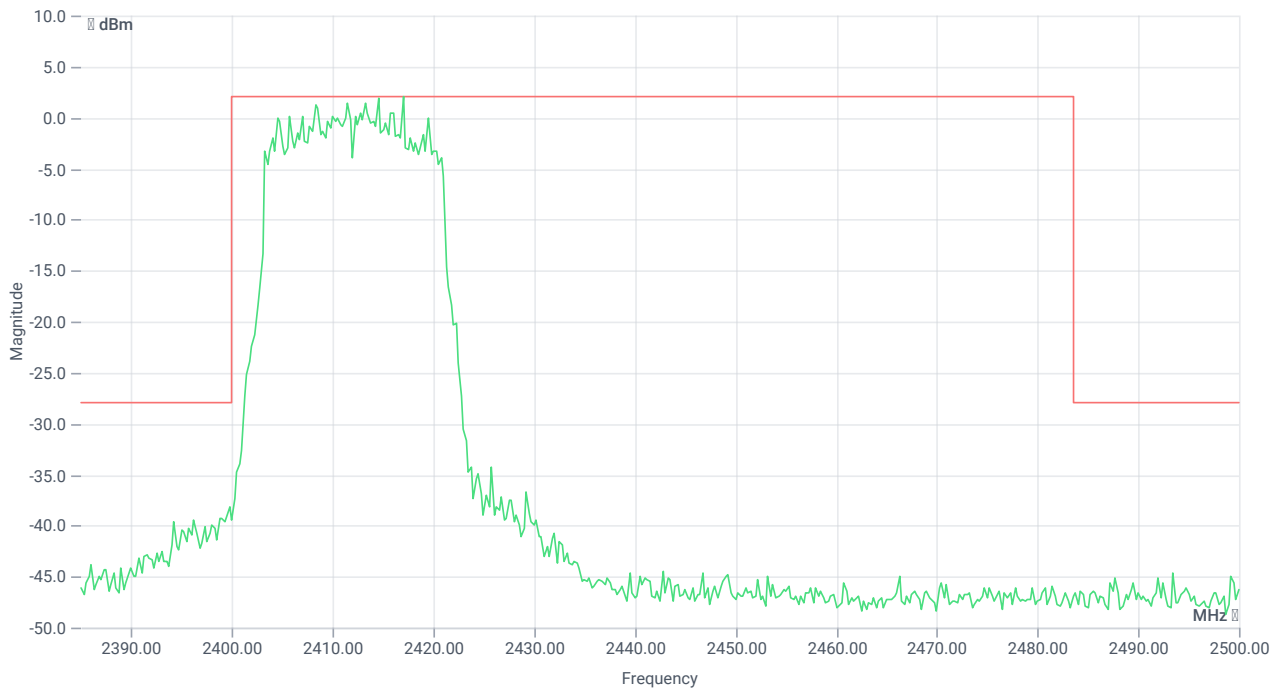
TEST DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	11.06	dBm	INFO
Ref. Frequency	---	---	2412.700	MHz	INFO



TX emissions

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	11.06 0 30
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



RESULT

TEST DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Reference @ 2417.00 MHz	---	---	2.08	dBm	INFO
No peaks detected	---	---			PASS
Lowest margin to limit 24943 MHz	0	---	2.86	dB	INFO

Verdict

PASS

FCC 15.247 # Avg output power SA DTS ~ WLAN2G4 n-HT20 mode

Test References

TC Start	06.07.2023 14:18:18
Ambit Temp [°C] Humidity [rel%]	25.9 36
System Version	4.5.2.0
Test Specification	FCC 15.247 -
Test Method	ANSI C63.10-2013 Chapter 11.9.2.2.2 or .4
TC Version	0.0.1
My Description	FCC 15.247 Avg output power SA DTS - WLAN2G4 n-HT20 mode
Add. Information	ac20-mode

EUT Common Settings WLAN2G4

Number of Antenna Ports	1
User Interaction	No

Test Parameter

Technology to test	WLAN2G4 n-HT20 mode
Antenna Port used	2
Temperature	nom
Voltage	nom
Frequency low to test	True Freq [MHz] 2412
Frequency mid to test	False Freq [MHz] 2437
Frequency high to test	False Freq [MHz] 2462
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-40,1307.9002K40/101042,3.70
Switch matrix,CTCadvanced,SPM-4 NI DAQ,28016133,NI

Test at TX 2412 MHz

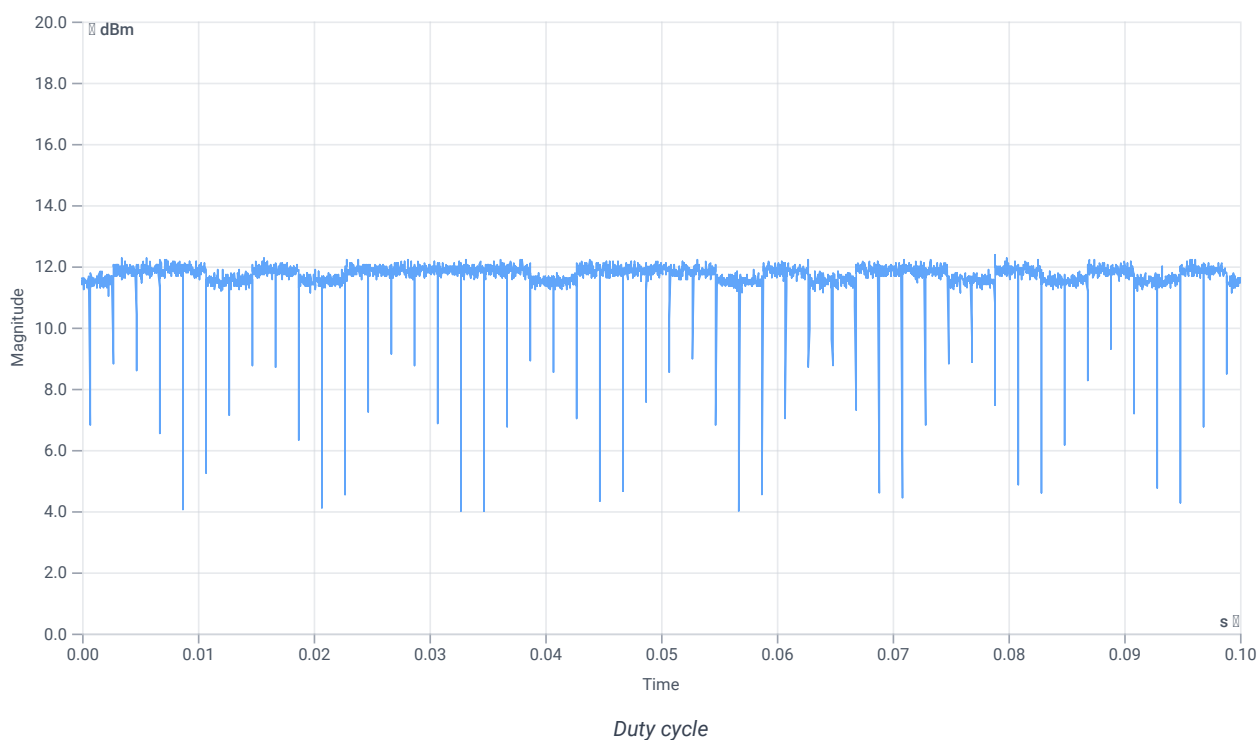
RESULT: Reference Power cond.

TEST DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	11.20	dBm	INFO
Ref. Frequency	---	---	2414.300	MHz	INFO

Evaluation max. Duty Cycle

Duty Cycle evaluation

TEST DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
No enough Bursts detected, Duty Cycle Burst Ratio set to 1					
Duty Cycle (Burst Ratio) max	---	---	1	---	INFO
Duty Cycle max	---	---	0	dB	INFO
Duty Cycle (Burst Ratio) min	---	---	1	---	INFO
Duty Cycle min	---	---	0	dB	INFO



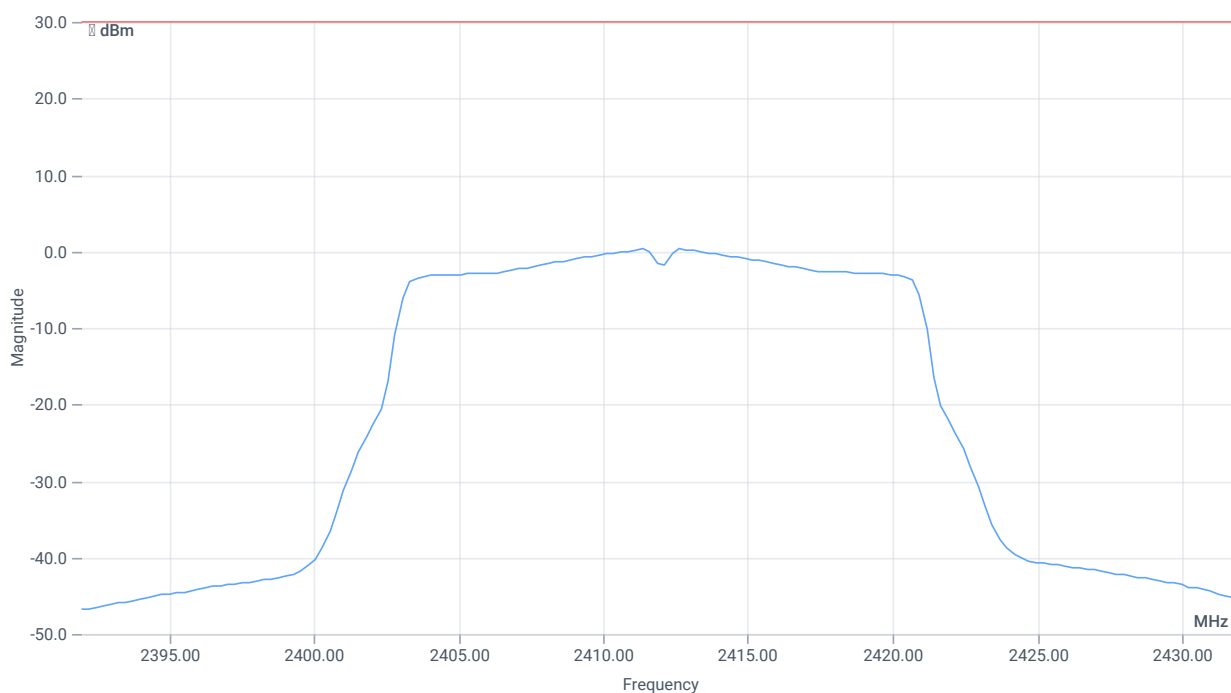
Avg output power SA DTS

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	21.20 14.43 25
Start [MHz] Stop [MHz]	2392.000 2432.000

READ SA SETTINGS:

RBW [MHz] VBW [MHz]	0.500000 2.000000
Detector TraceMode	RMS AVER
Sweep: Time [ms] Count Points per Section Type	500 100 160 SWE



Avg output power SA DTS

RESULT (Channel power method)

TEST DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Avg output power uncorrected	---	---	13.62	dBm	INFO
Duty cycle correction	---	---	0	dB	INFO
Avg power DC corrected	---	30	13.62	dBm	PASS

Verdict

PASS

Message with SA scan ~

Test References

TC Start	06.07.2023 14:55:11
Ambit Temp [°C] Humidity [rel%]	26.1 35
System Version	4.5.2.0
Test Specification	-
Test Method	
TC Version	0.0.1
My Description	Message with SA Scan n-HT20 mode
Add. Information	ac20-mode

Test Parameter

Switched Path	EUT - SignalingUnit - SpectrumAnalyzer
Message start	06.07.2023 14:55:12
Message	set WLAN2G4 to n-HT20 mode, Frequency [MHz] 2437 ,

Test Equipment

Signal analyzer,Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.70
Switch matrix,CTCadvanced,SPM-4 NI DAQ,28016133,NI

Verdict

INFO

FCC 15.247 # Bandwidth 6dB DTS ~ WLAN2G4 n-HT20 mode

Test References

TC Start	06.07.2023 14:55:47
Ambit Temp [°C] Humidity [rel%]	26.1 34
System Version	4.5.2.0
Test Specification	FCC 15.247 -
Test Method	
TC Version	0.0.1
My Description	FCC 15.247 Bandwidth 6dB DTS - WLAN2G4 n-HT20 mode
Add. Information	ac20-mode

EUT Common Settings WLAN2G4

Number of Antenna Ports	1
User Interaction	No

Test Parameter

Technology to test	WLAN2G4 n-HT20 mode
Antenna Port used	1
Temperature	nom
Voltage	nom
Frequency low to test	False Freq [MHz] 2412
Frequency mid to test	True Freq [MHz] 2437
Frequency high to test	False Freq [MHz] 2462
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-40,1307.9002K40/101042,3.70
Switch matrix,CTCadvanced,SPM-4 NI DAQ,28016133,NI

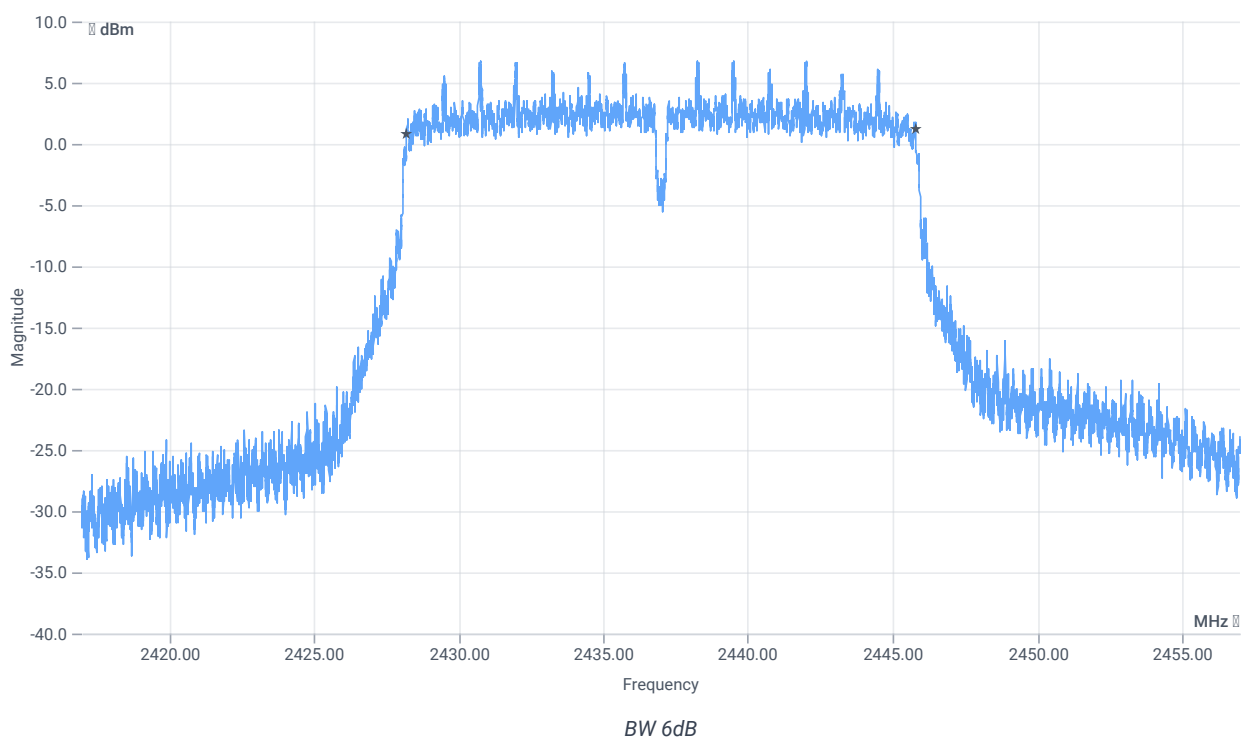
Test at TX 2437 MHz

RESULT: Reference Power cond.

TEST DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	14.52	dBm	INFO
Ref. Frequency	---	---	2435.500	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	19.52 14.2 25
Start [MHz] Stop [MHz]	2417.000 2457.000
RBW [MHz] VBW [MHz]	0.100000 0.300000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	50 200 10001 SWE



RESULT

TEST DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
DTS Bandwidth (6dB)	500	---	17568	kHz	PASS

Verdict

PASS

FCC 15.247 # Avg psd DTS ~ WLAN2G4 n-HT20 mode

Test References

TC Start	06.07.2023 14:56:20
Ambit Temp [°C] Humidity [rel%]	26.1 34
System Version	4.5.2.0
Test Specification	FCC 15.247 -
Test Method	ANSI C63.10-2013 Chapter 11.10.5 or.3
TC Version	0.0.1
My Description	FCC 15.247 Avg psd DTS - WLAN2G4 n-HT20 mode
Add. Information	ac20-mode

EUT Common Settings WLAN2G4

Number of Antenna Ports	1
User Interaction	No

Test Parameter

Technology to test	WLAN2G4 n-HT20 mode
Antenna Port used	1
Temperature	nom
Voltage	nom
Frequency low to test	False Freq [MHz] 2412
Frequency mid to test	True Freq [MHz] 2437
Frequency high to test	False Freq [MHz] 2462
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-40,1307.9002K40/101042,3.70
Switch matrix,CTCadvanced,SPM-4 NI DAQ,28016133,NI

Test at TX 2437 MHz

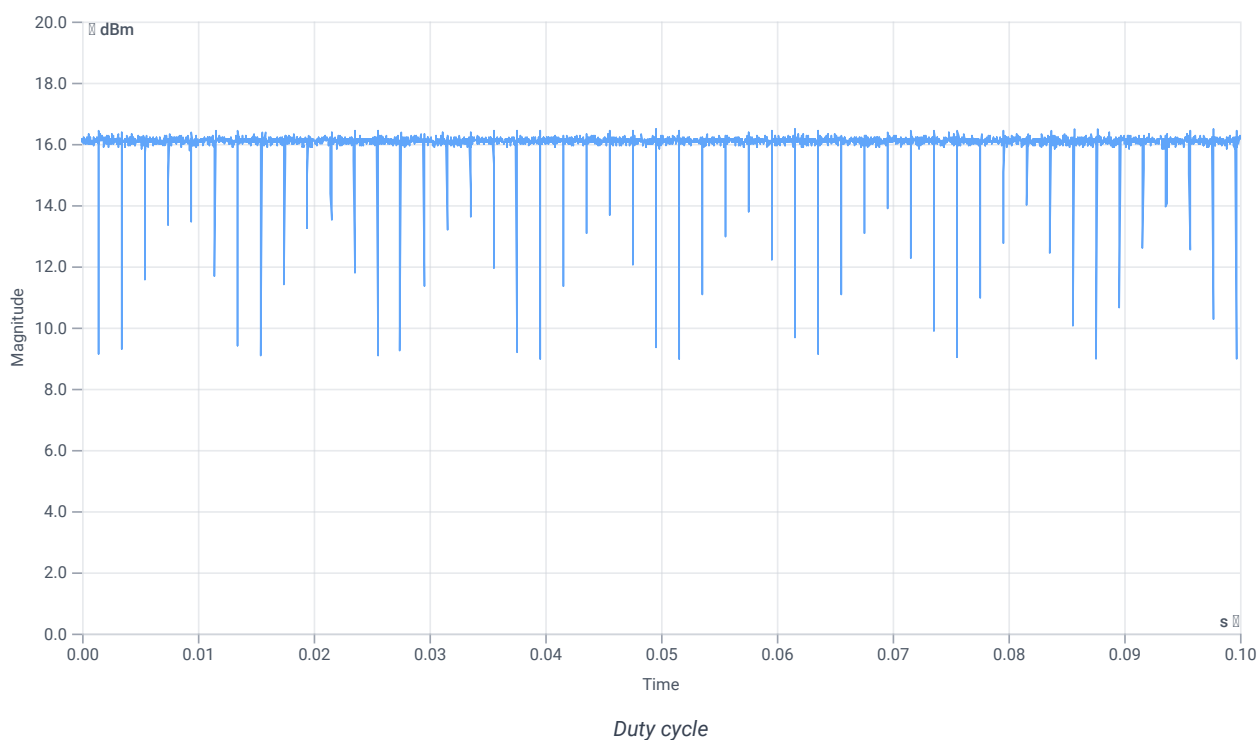
RESULT: Reference Power cond.

TEST DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	14.43	dBm	INFO
Ref. Frequency	---	---	2433.400	MHz	INFO

Evaluation max. Duty Cycle

Duty Cycle evaluation

TEST DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
No enough Bursts detected, Duty Cycle Burst Ratio set to 1					
Duty Cycle (Burst Ratio) max	---	---	1	---	INFO
Duty Cycle max	---	---	0	dB	INFO
Duty Cycle (Burst Ratio) min	---	---	1	---	INFO
Duty Cycle min	---	---	0	dB	INFO



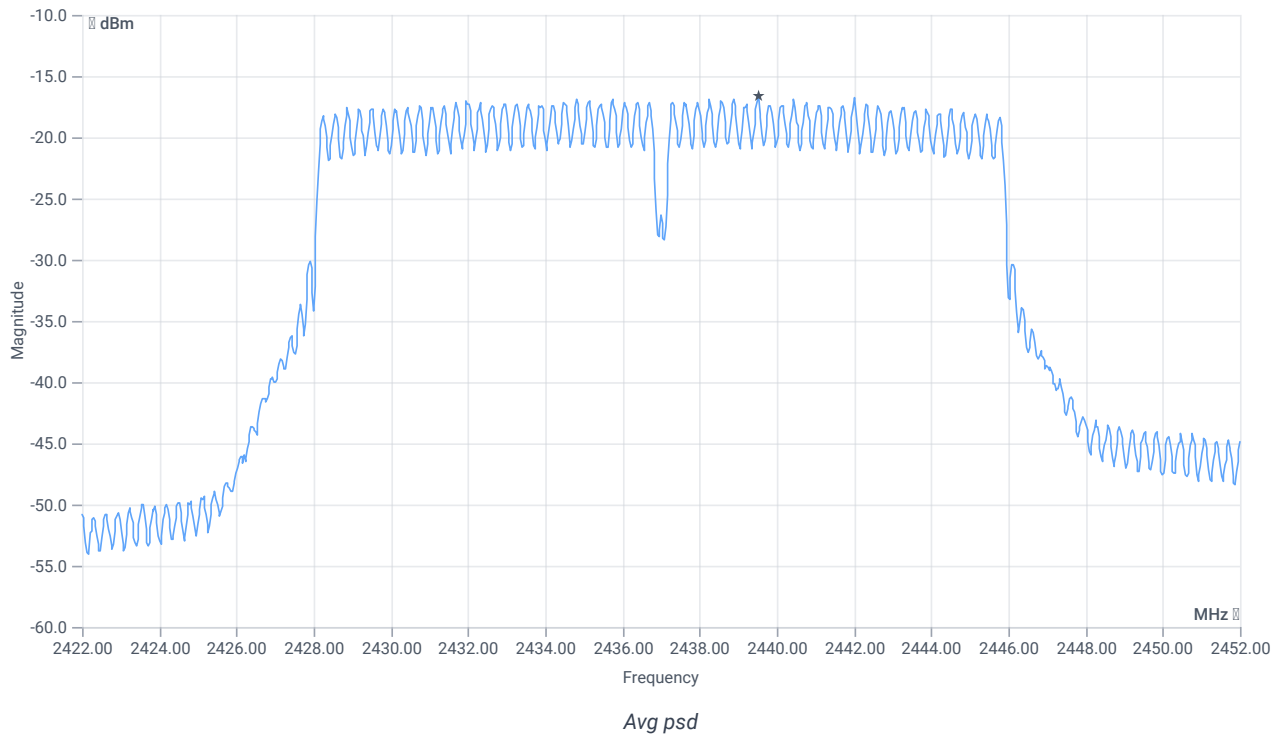
Avg. psd

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	19.43 14.2 25
Start [MHz] Stop [MHz]	2422.000 2452.000

READ SA SETTINGS:

RBW [MHz] VBW [MHz]	0.003000 0.010000
Detector TraceMode	RMS AVER
Sweep: Time [ms] Count Points per Section Type	334 100 1001 SWE



RESULT

TEST DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Avg psd uncorrected	---	---	-16.67	dBm	INFO
Duty cycle correction	---	---	0	dB	INFO
Avg psd DC corrected	---	8	-16.67	dBm/3kHz	PASS

Verdict

PASS

FCC 15.247, ISED RSS247 # Bandwidth 99PCT and 20dB ~ WLAN2G4 n-HT20 mode

Test References

TC Start	06.07.2023 14:57:23
Ambit Temp [°C] Humidity [rel%]	26.1 34
System Version	4.5.2.0
Test Specification	FCC 15.247, ISED RSS247 -
Test Method	
TC Version	0.0.2
My Description	FCC 15.247 Bandwidth 99PCT-20dB DTS - WLAN2G4 n-HT20 mode
Add. Information	ac20-mode

EUT Common Settings WLAN2G4

Number of Antenna Ports	1
User Interaction	No

Test Parameter

Technology to test	WLAN2G4 n-HT20 mode
Antenna Port used	1
Temperature	nom
Voltage	nom
Frequency low to test	False Freq [MHz] 2412
Frequency mid to test	True Freq [MHz] 2437
Frequency high to test	False Freq [MHz] 2462
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-40,1307.9002K40/101042,3.70
Switch matrix,CTCadvanced,SPM-4 NI DAQ,28016133,NI

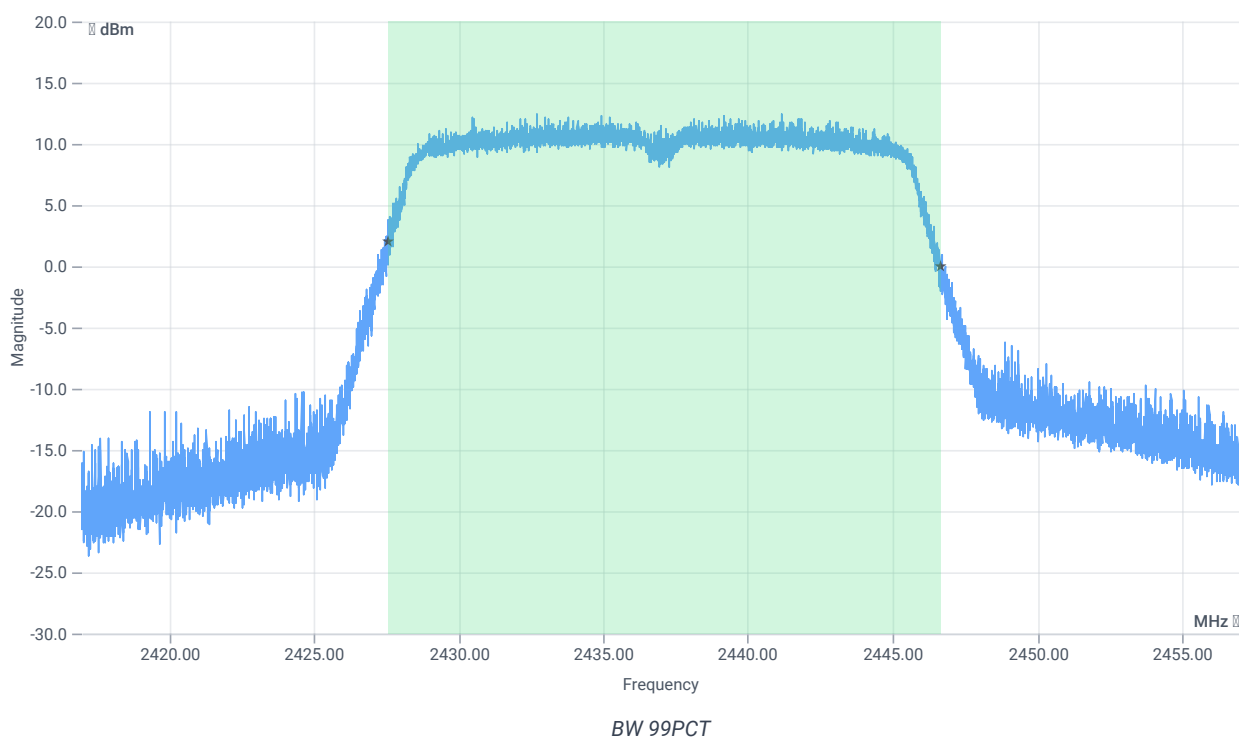
Test at TX 2437 MHz

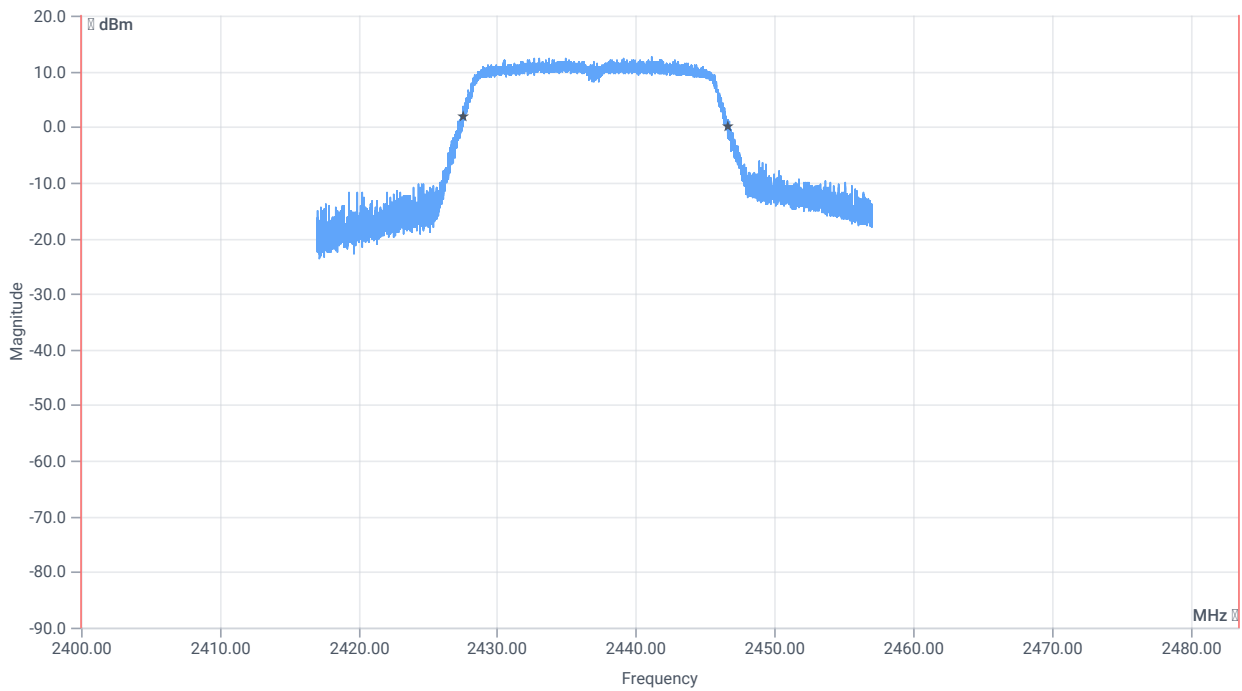
RESULT: Reference Power cond.

TEST DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	14.57	dBm	INFO
Ref. Frequency	---	---	2439.000	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	19.57 14.2 25
Start [MHz] Stop [MHz]	2417.000 2457.000
RBW [MHz] VBW [MHz]	0.500000 2.000000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	50 200 10001 SWE

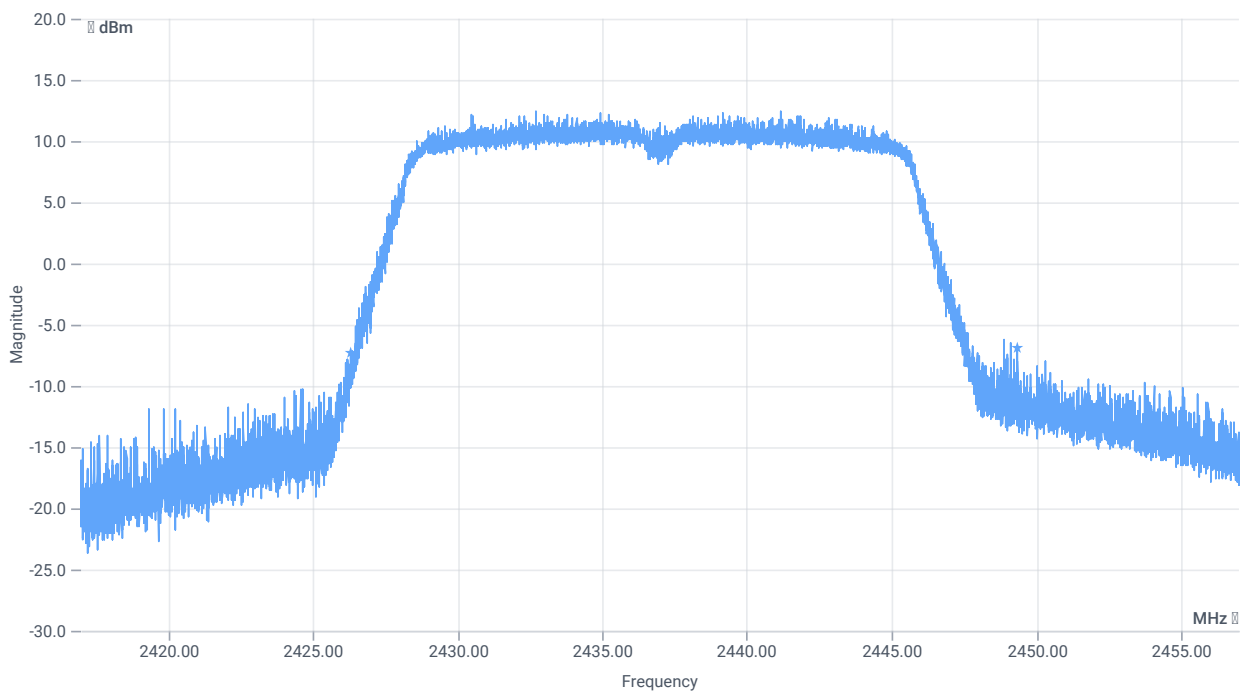




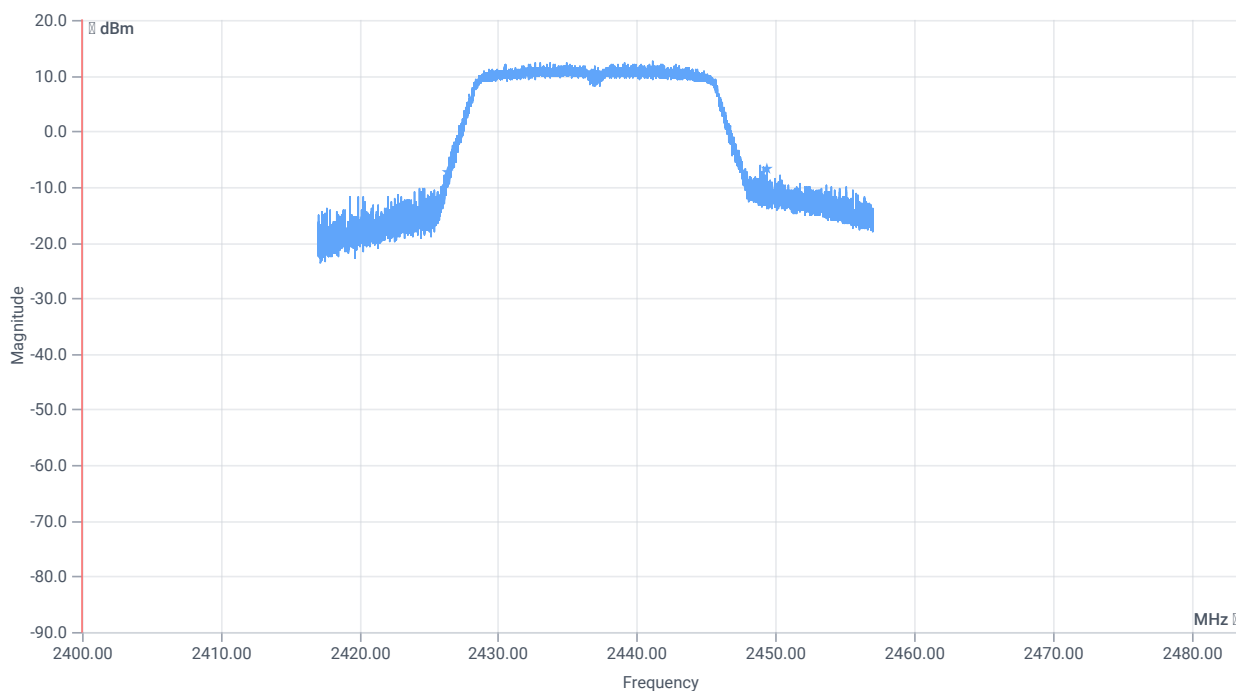
BW within Band 99PCT

RESULT

TEST DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 99%	---	---	19090.000	kHz	INFO
T1 99%	2400.000000	---	2427.5809	MHz	PASS
T2 99%	---	2483.500000	2446.6710	MHz	PASS



BW 20dB



BW within Band 20dB

RESULT

TEST DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 20dB	---	---	23040	kHz	INFO
T1 20dB	2400.000000	---	2426.3160	MHz	PASS
T2 20dB	---	2483.500000	2449.3560	MHz	PASS

Verdict

PASS

FCC 15.247 # TX spurious conducted 30dBc ~ WLAN2G4 n-HT20 mode

Test References

TC Start	06.07.2023 14:58:00
Ambit Temp [°C] Humidity [rel%]	26.1 34
System Version	4.5.2.0
Test Specification	FCC 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 30dBc DTS DTS - WLAN2G4 n-HT20 mode
Add. Information	ac20-mode

EUT Common Settings WLAN2G4

Number of Antenna Ports	1
User Interaction	No

Test Parameter

Technology to test	WLAN2G4 n-HT20 mode
Antenna Port used	1
Temperature	nom
Voltage	nom
Frequency low to test	False Freq [MHz] 2412
Frequency mid to test	True Freq [MHz] 2437
Frequency high to test	False Freq [MHz] 2462
Auto Control enabled Power Supply Climatic Box	No No
Additional Path Loss [dB]	0.7
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer

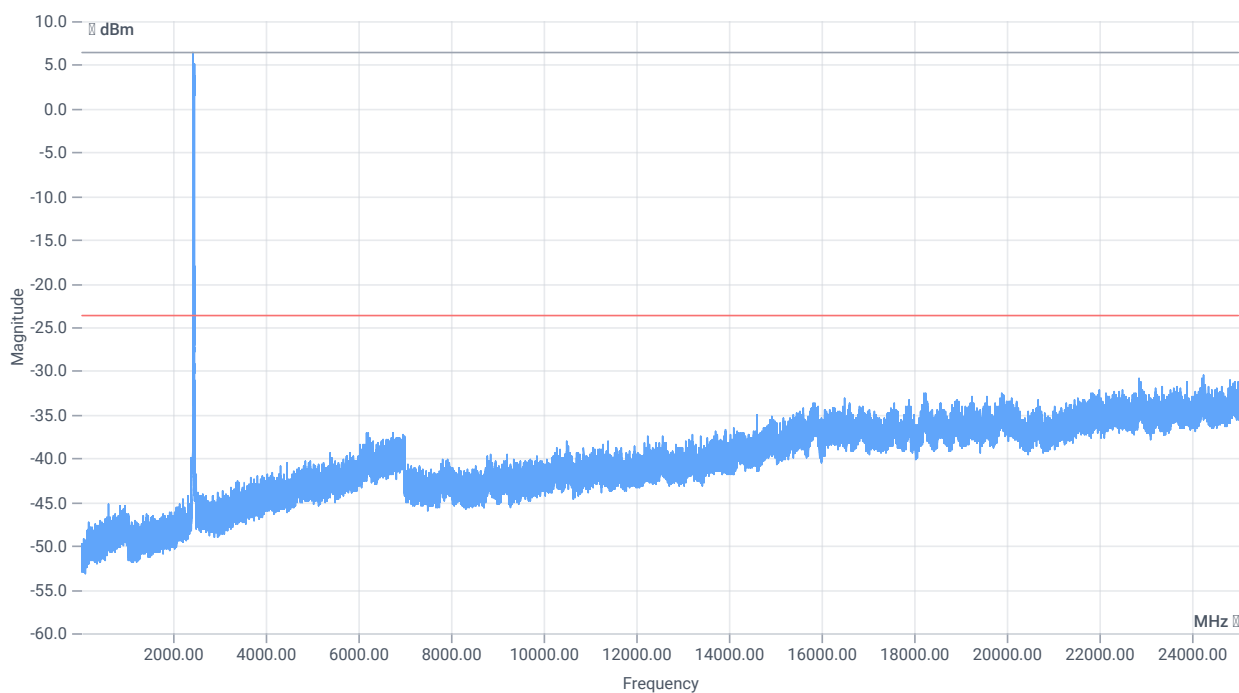
Test Equipment

Signal analyzer,Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.70
Switch matrix,CTCadvanced,SPM-4 NI DAQ,28016133,NI

Test at TX 2437 MHz

RESULT: Reference Power cond.

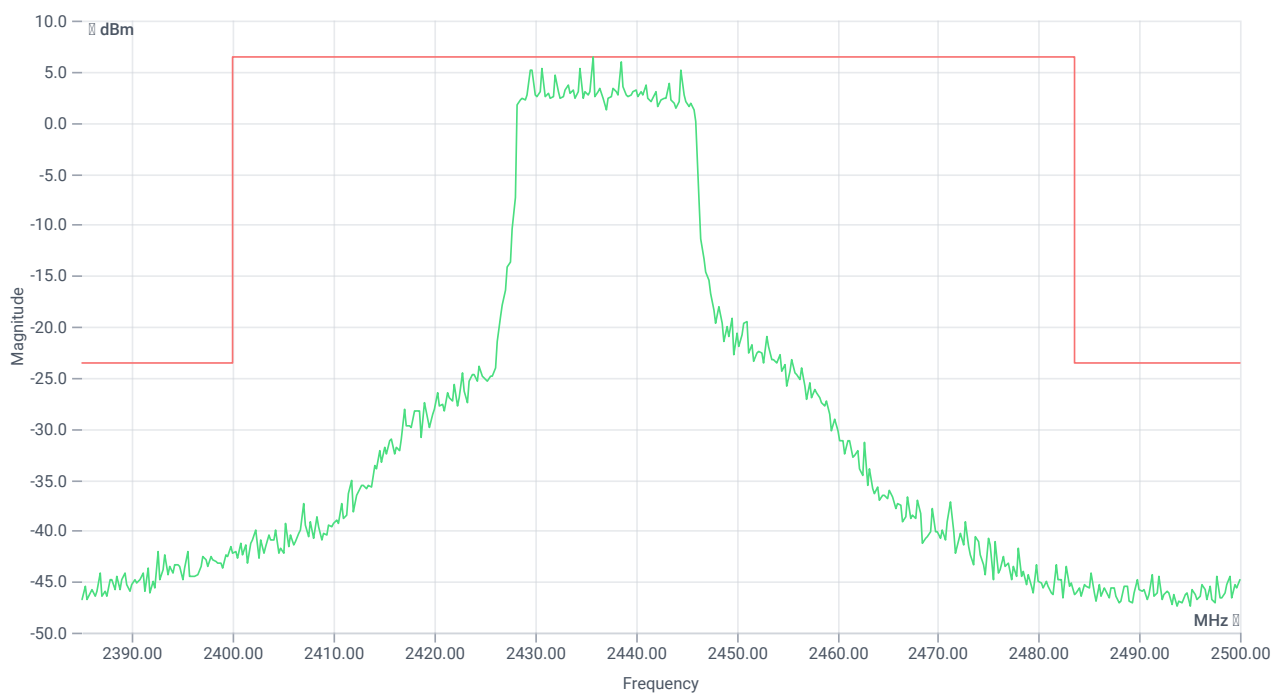
TEST DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	14.56	dBm	INFO
Ref. Frequency	---	---	2435.100	MHz	INFO



TX emissions

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	14.56 0 30
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

TEST DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Reference @ 2435.75 MHz	---	---	6.39	dBm	INFO
No peaks detected	---	---			PASS
Lowest margin to limit 30 MHz	0	---	-147.99	dB	INFO

Verdict

PASS

FCC 15.247 # Avg output power SA DTS ~ WLAN2G4 n-HT20 mode

Test References

TC Start	06.07.2023 15:04:41
Ambit Temp [°C] Humidity [rel%]	26.1 35
System Version	4.5.2.0
Test Specification	FCC 15.247 -
Test Method	ANSI C63.10-2013 Chapter 11.9.2.2.2 or .4
TC Version	0.0.1
My Description	FCC 15.247 Avg output power SA DTS - WLAN2G4 n-HT20 mode
Add. Information	ac20-mode

EUT Common Settings WLAN2G4

Number of Antenna Ports	1
User Interaction	No

Test Parameter

Technology to test	WLAN2G4 n-HT20 mode
Antenna Port used	1
Temperature	nom
Voltage	nom
Frequency low to test	False Freq [MHz] 2412
Frequency mid to test	True Freq [MHz] 2437
Frequency high to test	False Freq [MHz] 2462
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-40,1307.9002K40/101042,3.70
Switch matrix,CTCadvanced,SPM-4 NI DAQ,28016133,NI

Test at TX 2437 MHz

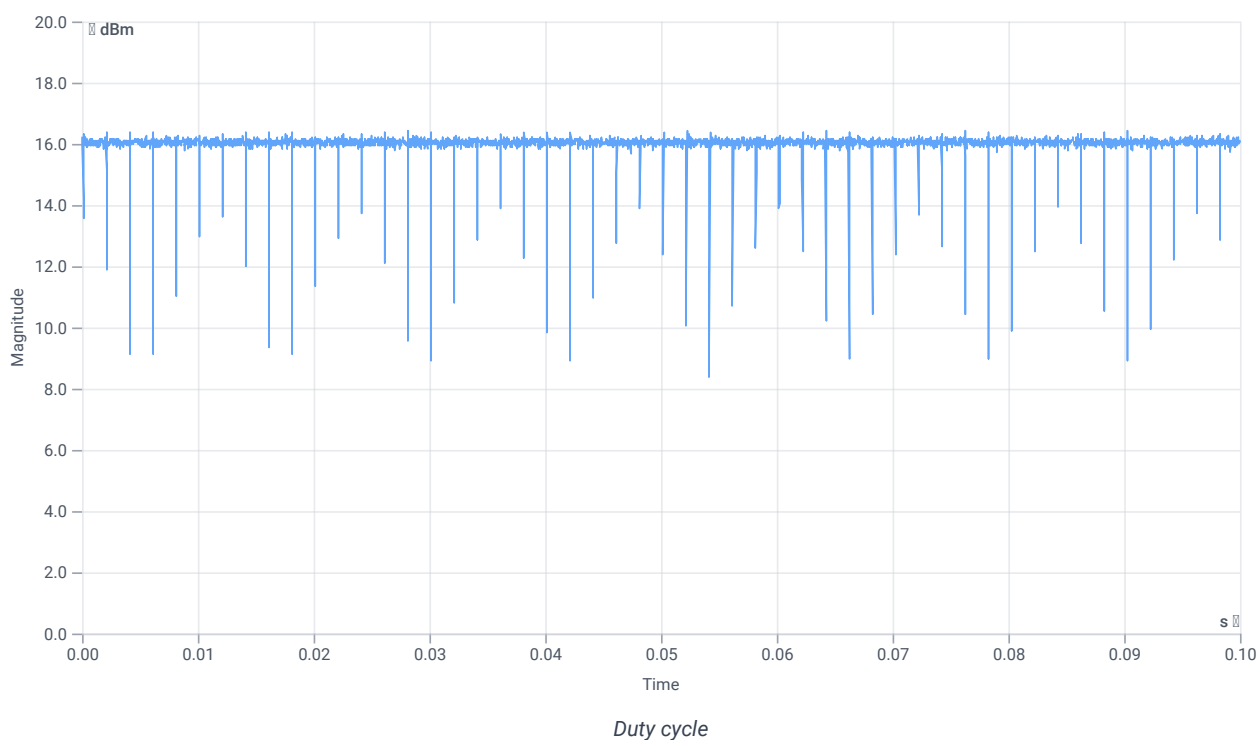
RESULT: Reference Power cond.

TEST DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	14.80	dBm	INFO
Ref. Frequency	---	---	2440.900	MHz	INFO

Evaluation max. Duty Cycle

Duty Cycle evaluation

TEST DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
No enough Bursts detected, Duty Cycle Burst Ratio set to 1					
Duty Cycle (Burst Ratio) max	---	---	1	---	INFO
Duty Cycle max	---	---	0	dB	INFO
Duty Cycle (Burst Ratio) min	---	---	1	---	INFO
Duty Cycle min	---	---	0	dB	INFO



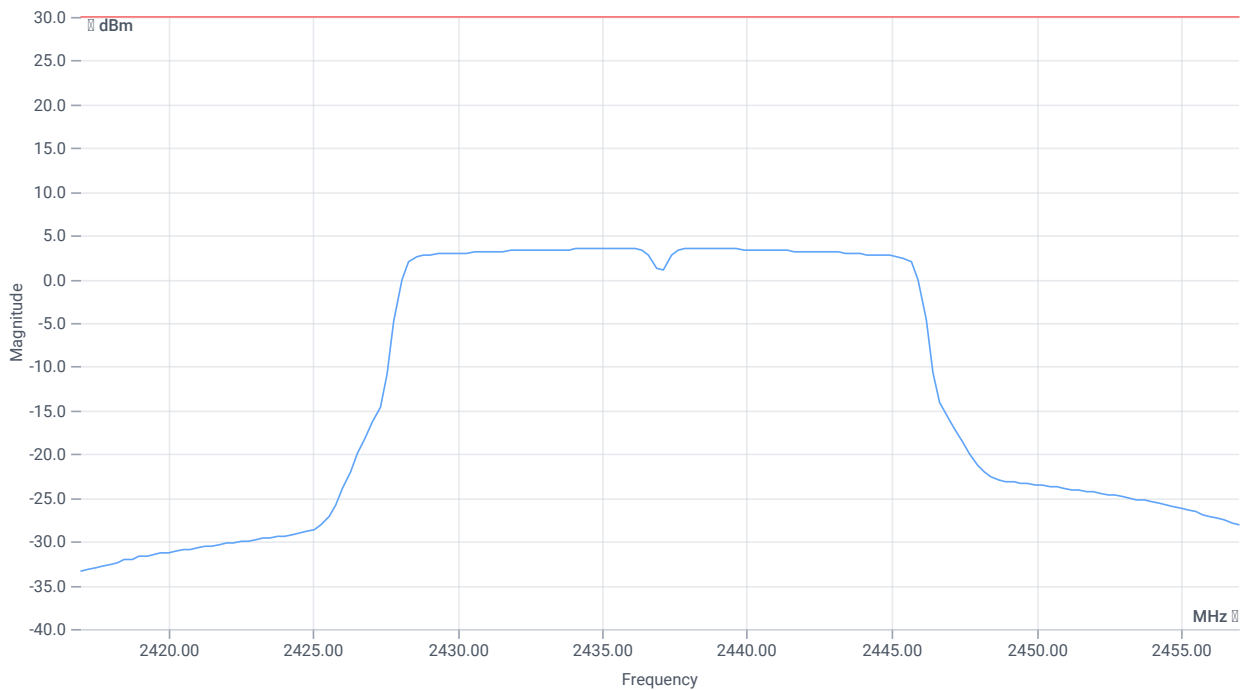
Avg output power SA DTS

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	24.80 14.2 25
Start [MHz] Stop [MHz]	2417.000 2457.000

READ SA SETTINGS:

RBW [MHz] VBW [MHz]	0.500000 2.000000
Detector TraceMode	RMS AVER
Sweep: Time [ms] Count Points per Section Type	500 100 160 SWE



Avg output power SA DTS

RESULT (Channel power method)

TEST DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Avg output power uncorrected	---	---	18.38	dBm	INFO
Duty cycle correction	---	---	0	dB	INFO
Avg power DC corrected	---	30	18.38	dBm	PASS

Verdict

PASS

FCC 15.247 # Bandwidth 6dB DTS ~ WLAN2G4 n-HT20 mode

Test References

TC Start	06.07.2023 15:06:27
Ambit Temp [°C] Humidity [rel%]	26.1 35
System Version	4.5.2.0
Test Specification	FCC 15.247 -
Test Method	
TC Version	0.0.1
My Description	FCC 15.247 Bandwidth 6dB DTS - WLAN2G4 n-HT20 mode
Add. Information	ac20-mode

EUT Common Settings WLAN2G4

Number of Antenna Ports	1
User Interaction	No

Test Parameter

Technology to test	WLAN2G4 n-HT20 mode
Antenna Port used	2
Temperature	nom
Voltage	nom
Frequency low to test	False Freq [MHz] 2412
Frequency mid to test	True Freq [MHz] 2437
Frequency high to test	False Freq [MHz] 2462
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-40,1307.9002K40/101042,3.70
Switch matrix,CTCadvanced,SPM-4 NI DAQ,28016133,NI

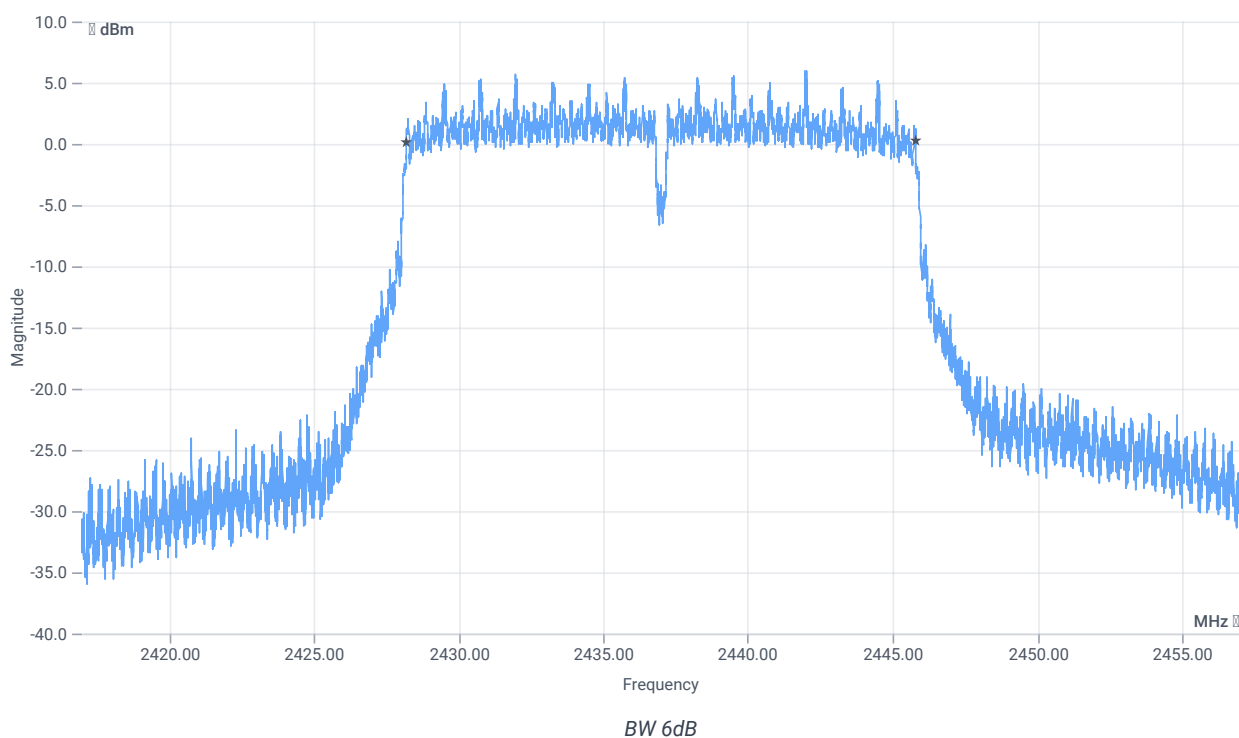
Test at TX 2437 MHz

RESULT: Reference Power cond.

TEST DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	13.82	dBm	INFO
Ref. Frequency	---	---	2435.700	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	18.82 14.2 20
Start [MHz] Stop [MHz]	2417.000 2457.000
RBW [MHz] VBW [MHz]	0.100000 0.300000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	50 200 10001 SWE



RESULT

TEST DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
DTS Bandwidth (6dB)	500	---	17588	kHz	PASS

Verdict

PASS

FCC 15.247 # Avg psd DTS ~ WLAN2G4 n-HT20 mode

Test References

TC Start	06.07.2023 15:07:00
Ambit Temp [°C] Humidity [rel%]	26.2 35
System Version	4.5.2.0
Test Specification	FCC 15.247 -
Test Method	ANSI C63.10-2013 Chapter 11.10.5 or.3
TC Version	0.0.1
My Description	FCC 15.247 Avg psd DTS - WLAN2G4 n-HT20 mode
Add. Information	ac20-mode

EUT Common Settings WLAN2G4

Number of Antenna Ports	1
User Interaction	No

Test Parameter

Technology to test	WLAN2G4 n-HT20 mode
Antenna Port used	2
Temperature	nom
Voltage	nom
Frequency low to test	False Freq [MHz] 2412
Frequency mid to test	True Freq [MHz] 2437
Frequency high to test	False Freq [MHz] 2462
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-40,1307.9002K40/101042,3.70
Switch matrix,CTCadvanced,SPM-4 NI DAQ,28016133,NI

Test at TX 2437 MHz

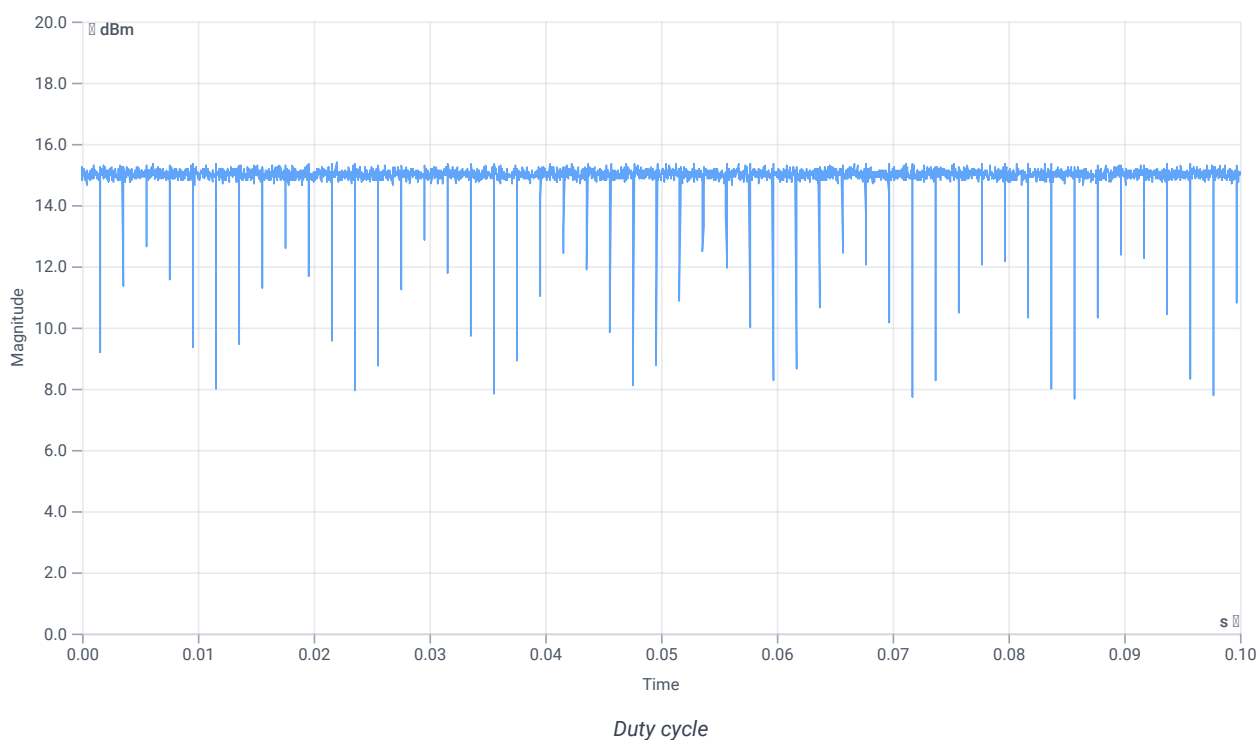
RESULT: Reference Power cond.

TEST DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	14.10	dBm	INFO
Ref. Frequency	---	---	2433.800	MHz	INFO

Evaluation max. Duty Cycle

Duty Cycle evaluation

TEST DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
No enough Bursts detected, Duty Cycle Burst Ratio set to 1					
Duty Cycle (Burst Ratio) max	---	---	1	---	INFO
Duty Cycle max	---	---	0	dB	INFO
Duty Cycle (Burst Ratio) min	---	---	1	---	INFO
Duty Cycle min	---	---	0	dB	INFO



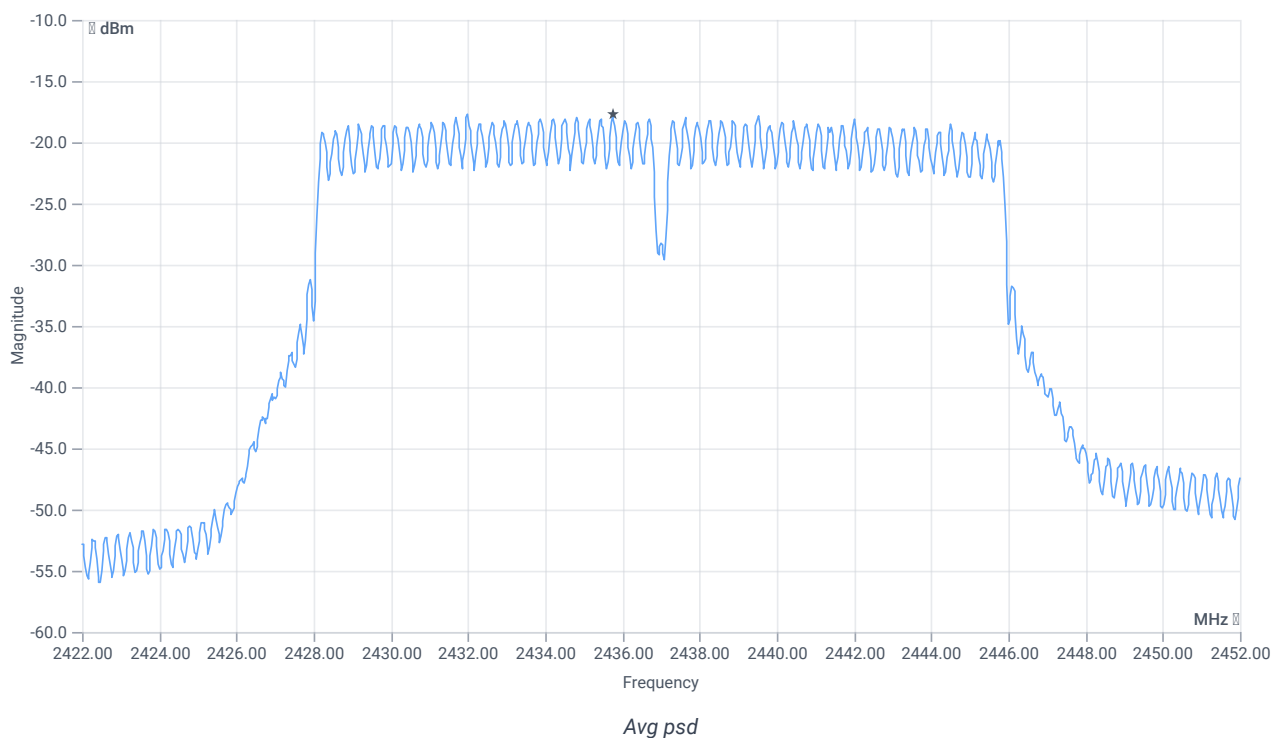
Avg. psd

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	19.10 14.2 20
Start [MHz] Stop [MHz]	2422.000 2452.000

READ SA SETTINGS:

RBW [MHz] VBW [MHz]	0.003000 0.010000
Detector TraceMode	RMS AVER
Sweep: Time [ms] Count Points per Section Type	334 100 1001 SWE



RESULT

TEST DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Avg psd uncorrected	---	---	-17.68	dBm	INFO
Duty cycle correction	---	---	0	dB	INFO
Avg psd DC corrected	---	8	-17.68	dBm/3kHz	PASS

Verdict

PASS

FCC 15.247, ISED RSS247 # Bandwidth 99PCT and 20dB ~ WLAN2G4 n-HT20 mode

Test References

TC Start	06.07.2023 15:08:03
Ambit Temp [°C] Humidity [rel%]	26.2 35
System Version	4.5.2.0
Test Specification	FCC 15.247, ISED RSS247 -
Test Method	
TC Version	0.0.2
My Description	FCC 15.247 Bandwidth 99PCT-20dB DTS - WLAN2G4 n-HT20 mode
Add. Information	ac20-mode

EUT Common Settings WLAN2G4

Number of Antenna Ports	1
User Interaction	No

Test Parameter

Technology to test	WLAN2G4 n-HT20 mode
Antenna Port used	2
Temperature	nom
Voltage	nom
Frequency low to test	False Freq [MHz] 2412
Frequency mid to test	True Freq [MHz] 2437
Frequency high to test	False Freq [MHz] 2462
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-40,1307.9002K40/101042,3.70
Switch matrix,CTCadvanced,SPM-4 NI DAQ,28016133,NI

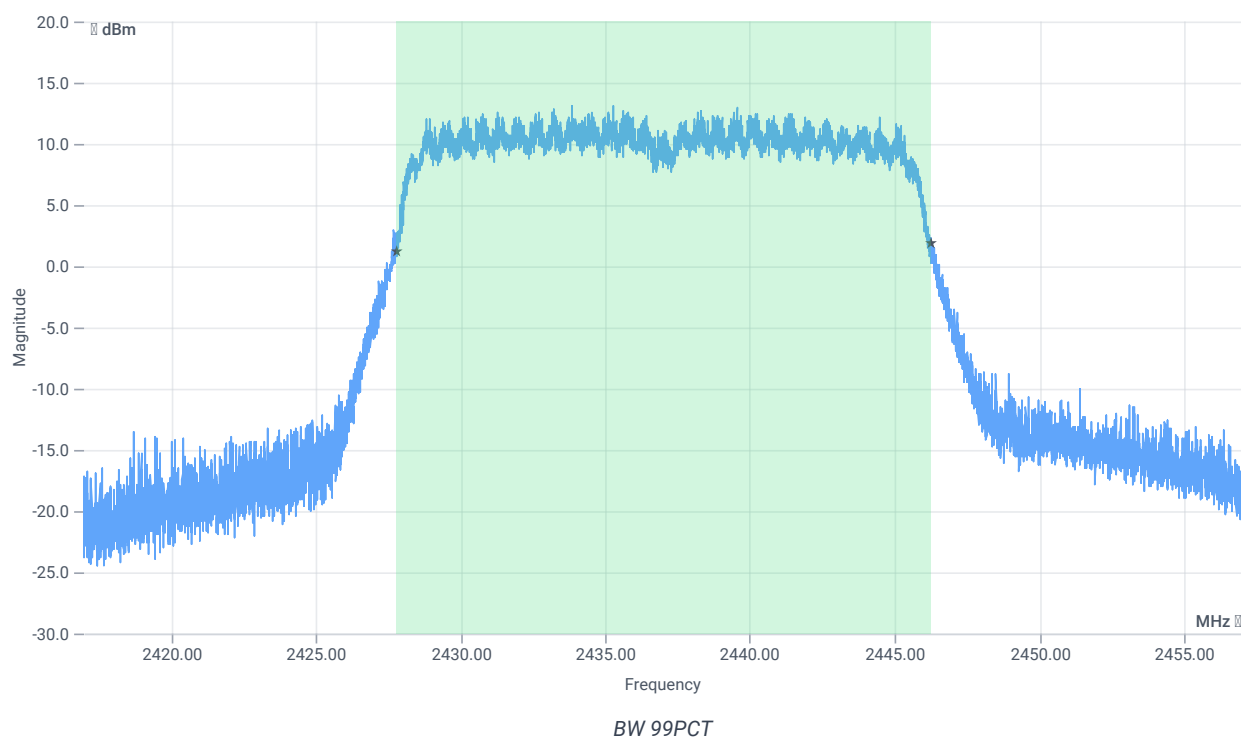
Test at TX 2437 MHz

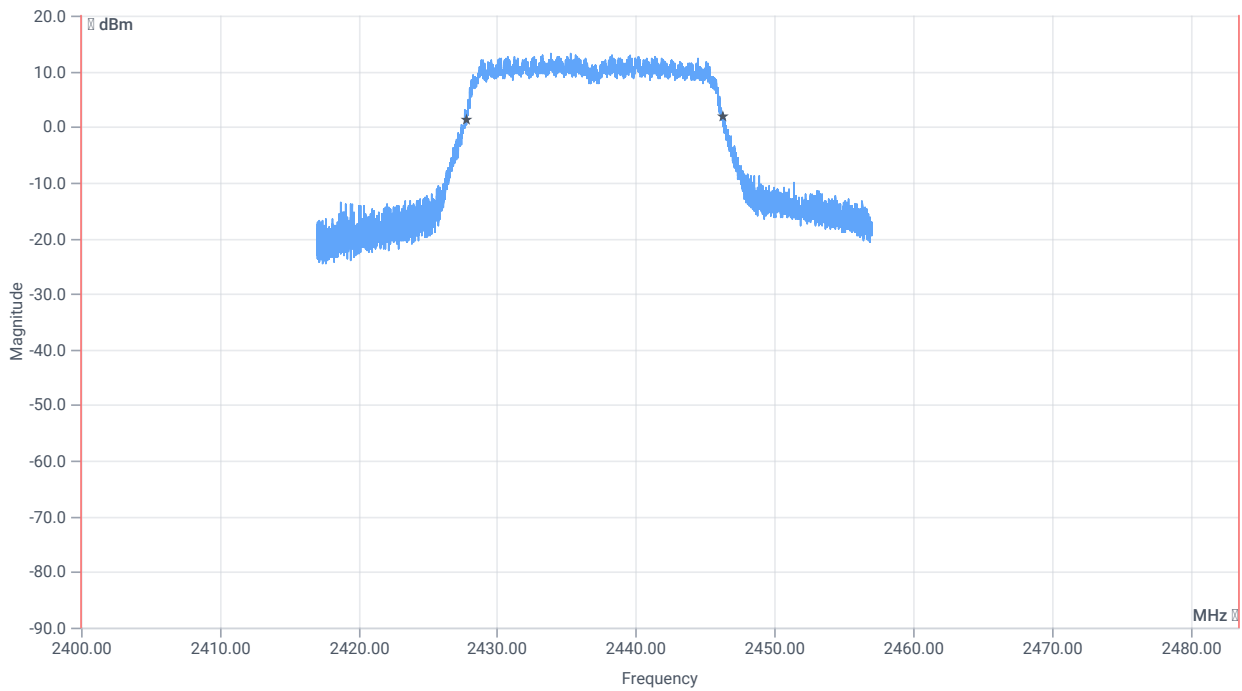
RESULT: Reference Power cond.

TEST DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	14.29	dBm	INFO
Ref. Frequency	---	---	2439.600	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	19.29 14.2 25
Start [MHz] Stop [MHz]	2417.000 2457.000
RBW [MHz] VBW [MHz]	0.500000 2.000000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	50 200 10001 SWE

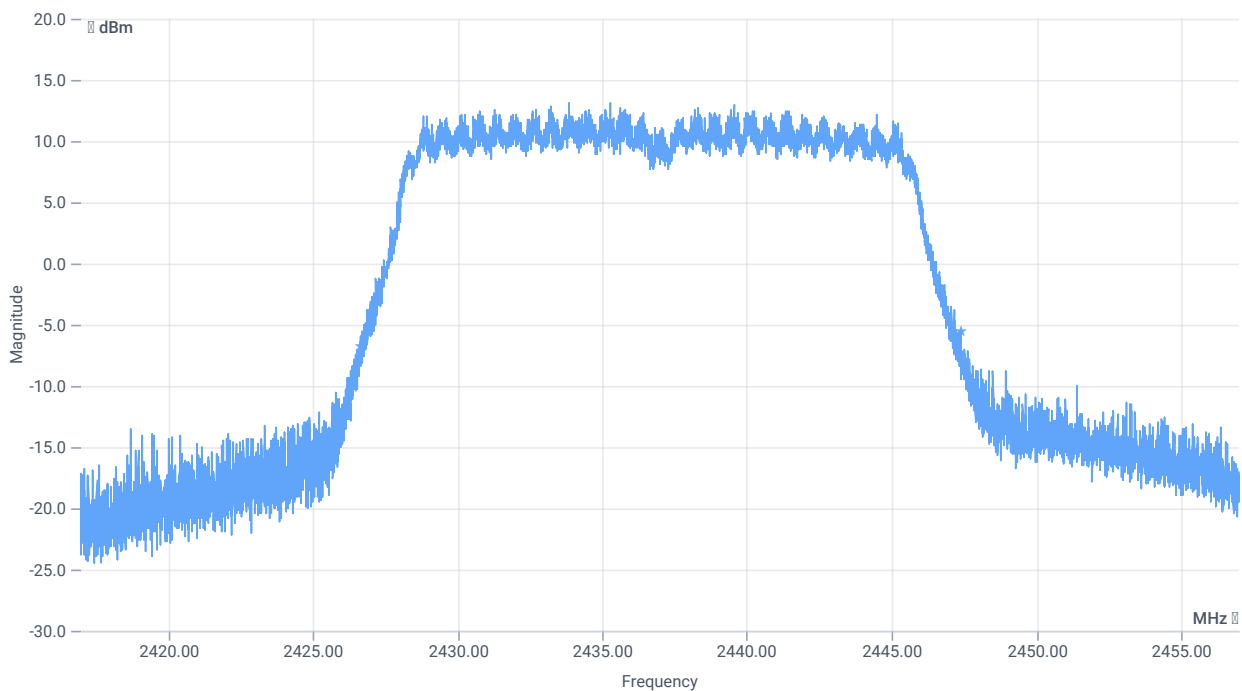




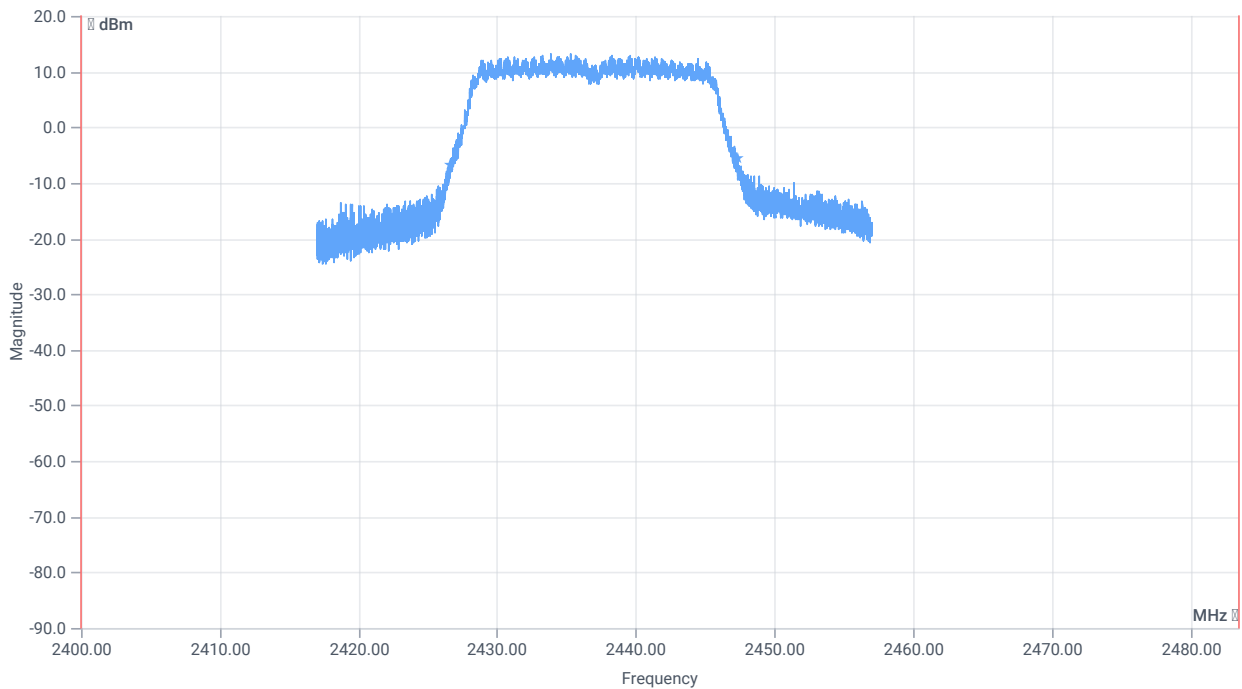
BW within Band 99PCT

RESULT

TEST DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 99%	---	---	18470.000	kHz	INFO
T1 99%	2400.000000	---	2427.8129	MHz	PASS
T2 99%	---	2483.500000	2446.2831	MHz	PASS



BW 20dB



BW within Band 20dB

RESULT

TEST DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 20dB	---	---	20752	kHz	INFO
T1 20dB	2400.000000	---	2426.6480	MHz	PASS
T2 20dB	---	2483.500000	2447.4000	MHz	PASS

Verdict

PASS

FCC 15.247 # TX spurious conducted 30dBc ~ WLAN2G4 n-HT20 mode

Test References

TC Start	06.07.2023 15:08:40
Ambit Temp [°C] Humidity [rel%]	26.2 35
System Version	4.5.2.0
Test Specification	FCC 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 30dBc DTS DTS - WLAN2G4 n-HT20 mode
Add. Information	ac20-mode

EUT Common Settings WLAN2G4

Number of Antenna Ports	1
User Interaction	No

Test Parameter

Technology to test	WLAN2G4 n-HT20 mode
Antenna Port used	2
Temperature	nom
Voltage	nom
Frequency low to test	False Freq [MHz] 2412
Frequency mid to test	True Freq [MHz] 2437
Frequency high to test	False Freq [MHz] 2462
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-40,1307.9002K40/101042,3.70
Switch matrix,CTCadvanced,SPM-4 NI DAQ,28016133,NI