

Measurement Results

No.1-1635/20-01-05_Annex_MR

Test logging

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EUT Information

EUT DEFINITION	
Manufacturer	Panasonic Industrial Devices Europe GmbH
Type	PAN1780
Serial Number	ES 3
Setup Number	1.0
Version SW	NI
Version FW	NI
Version HW	NI
Comment 1	
Comment 2	
Temperature [°C] Min	-40
Temperature [°C] Nom	20
Temperature [°C] Max	85
Voltage [V] Min	3.3
Voltage [V] Nom	3.3
Voltage [V] Max	3.3

FCC Part 15.247 Bandwidth 6dB DTS ~ Generic 2G4

Test References

TC Start	13.12.2021 13:59:40
Ambit Temp [°C] Humidity [rel%]	23.9 31
System Version	3.0.3.2
Test Specification	FCC Part 15.247
Test Method	99
TC Version	0.0.1
My Description	FCC 15.247 Bandwidth 6DB DTS - Generic 2G4
Add. Information	

EUT Common settings 2G4

Hopping supported	No
Burst length [ms]	10
Nominal Bandwidth [MHz]	2.4
User Interaction	No

Test Parameter

Technology to test	Generic 2G4
Antenna Port used	1
Temperature	nom
Voltage	nom
Frequency low to test	True Freq [MHz] 2405
Frequency mid to test	False Freq [MHz] 2440
Frequency high to test	False Freq [MHz] 2480
Auto Control enabled Power Supply Climatic Box	No No
Additional Path Loss [dB]	0.5
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer

Test Equipment

Signal analyzer,Rohde&Schwarz,FSV-30,1321.3008K30/103809,3.70
Signaling unit,Rohde&Schwarz,CMW,1201.0002k75/102550,3.8.13
Switch matrix,CTCadvanced,RSM-1 NI DAQ,29655273,NI

Test at TX 2405 MHz

RESULT: Reference Power cond.

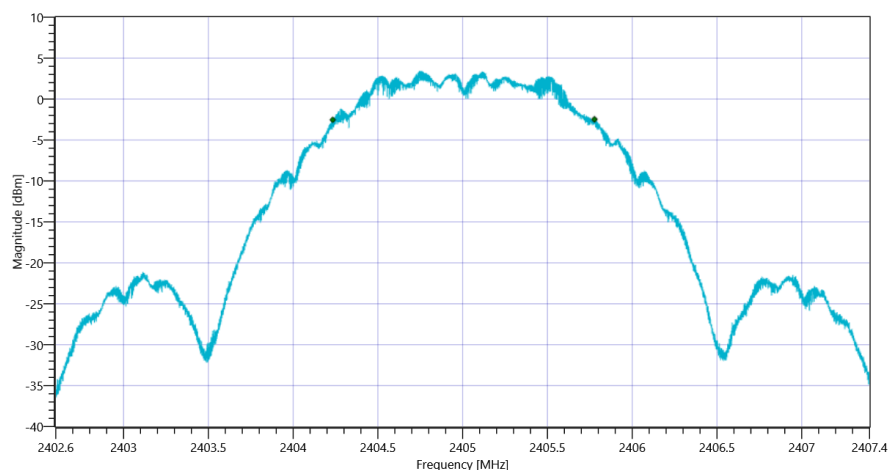
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	7.13	dBm	INFO
Ref. Frequency	---	---	2404.500	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	12.13 10.6 20
Start [MHz] Stop [MHz]	2402.600 2407.400
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	---	1544	kHz	PASS



FCC Part 15.247 Bandwidth 6dB DTS ~ Generic 2G4

General verdict

PASS

FCC Part 15.247 Bandwidth 6dB DTS ~ Generic 2G4

Test References

TC Start	13.12.2021 14:34:00
Ambit Temp [°C] Humidity [rel%]	23.7 32
System Version	3.0.3.2
Test Specification	FCC Part 15.247
Test Method	99
TC Version	0.0.1
My Description	FCC 15.247 Bandwidth 6DB DTS - Generic 2G4
Add. Information	

EUT Common settings 2G4

Hopping supported	No
Burst length [ms]	10
Nominal Bandwidth [MHz]	2.4
User Interaction	No

Test Parameter

Technology to test	Generic 2G4
Antenna Port used	1
Temperature	nom
Voltage	nom
Frequency low to test	False Freq [MHz] 2405
Frequency mid to test	True Freq [MHz] 2440
Frequency high to test	False Freq [MHz] 2480
Auto Control enabled Power Supply Climatic Box	No No
Additional Path Loss [dB]	0.5
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer

Test Equipment

Signal analyzer,Rohde&Schwarz,FSV-30,1321.3008K30/103809,3.70
Signaling unit,Rohde&Schwarz,CMW,1201.0002k75/102550,3.8.13
Switch matrix,CTCadvanced,RSM-1 NI DAQ,29655273,NI

Test at TX 2440 MHz

RESULT: Reference Power cond.

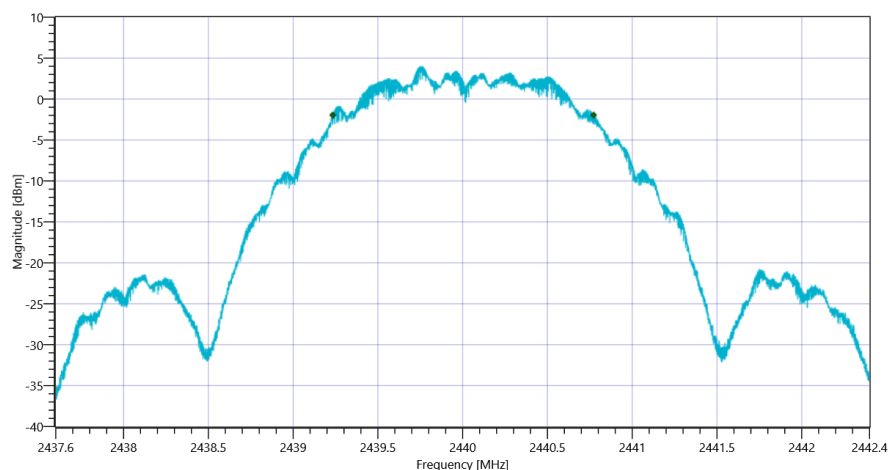
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	6.96	dBm	INFO
Ref. Frequency	---	---	2439.500	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	11.96 10.6 20
Start [MHz] Stop [MHz]	2437.600 2442.400
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	---	1540	kHz	PASS



FCC Part 15.247 Bandwidth 6dB DTS ~ Generic 2G4

General verdict

PASS

FCC Part 15.247 Bandwidth 6dB DTS ~ Generic 2G4 (2475MHz)

Test References	
TC Start	14.01.2022 10:31:24
Ambit Temp [°C] Humidity [rel%]	22.5 24
System Version	3.0.3.7
Test Specification	FCC Part 15.247
Test Method	99
TC Version	0.0.1
My Description	FCC 15.247 Bandwidth 6DB DTS - Generic 2G4
Add. Information	Power Setting 2475 MHz: 8dBm

EUT Common settings 2G4	
Hopping supported	No
Burst length [ms]	10
Nominal Bandwidth [MHz]	2.4
User Interaction	No

Test Parameter	
Technology to test	Generic 2G4
Antenna Port used	1
Temperature	nom
Voltage	nom
Frequency low to test	False Freq [MHz] 2405
Frequency mid to test	False Freq [MHz] 2440
Frequency high to test	True Freq [MHz] 2475
Auto Control enabled Power Supply Climatic Box	No No
Additional Path Loss [dB]	1
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer

Test Equipment	
Signal analyzer,Rohde&Schwarz,FSV-30,1321.3008K30/103809,3.70	
Signaling unit,Rohde&Schwarz,CMW,1201.0002k75/102550,4.0.20	
Switch matrix,CTCadvanced,RSM-1 NI DAQ,29655273,NI	

Test at TX 2475 MHz

RESULT: Reference Power cond.

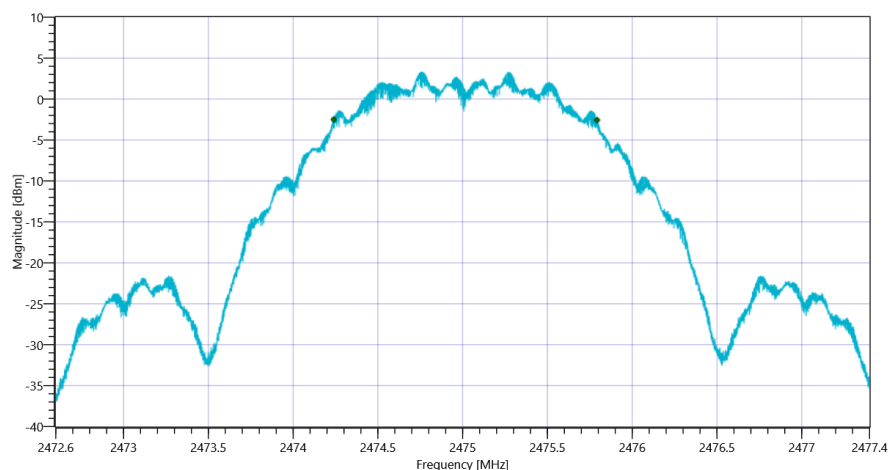
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	6.33	dBm	INFO
Ref. Frequency	---	---	2474.500	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	11.33 11.14 20
Start [MHz] Stop [MHz]	2472.600 2477.400
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	---	1553	kHz	PASS



FCC Part 15.247 Bandwidth 6dB DTS ~ Generic 2G4

General verdict

PASS

FCC Part 15.247 Bandwidth 6dB DTS ~ Generic 2G4 (2480MHz)

Test References	
TC Start	14.01.2022 11:13:18
Ambit Temp [°C] Humidity [rel%]	22.7 24
System Version	3.0.3.7
Test Specification	FCC Part 15.247
Test Method	99
TC Version	0.0.1
My Description	FCC 15.247 Bandwidth 6DB DTS - Generic 2G4
Add. Information	Power Setting 2480 MHz: 0dBm

EUT Common settings 2G4	
Hopping supported	No
Burst length [ms]	10
Nominal Bandwidth [MHz]	2.4
User Interaction	No

Test Parameter	
Technology to test	Generic 2G4
Antenna Port used	1
Temperature	nom
Voltage	nom
Frequency low to test	False Freq [MHz] 2405
Frequency mid to test	False Freq [MHz] 2440
Frequency high to test	True Freq [MHz] 2480
Auto Control enabled Power Supply Climatic Box	No No
Additional Path Loss [dB]	1
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer

Test Equipment	
Signal analyzer,Rohde&Schwarz,FSV-30,1321.3008K30/103809,3.70	
Signaling unit,Rohde&Schwarz,CMW,1201.0002k75/102550,4.0.20	
Switch matrix,CTCadvanced,RSM-1 NI DAQ,29655273,NI	

Test at TX 2480 MHz

RESULT: Reference Power cond.

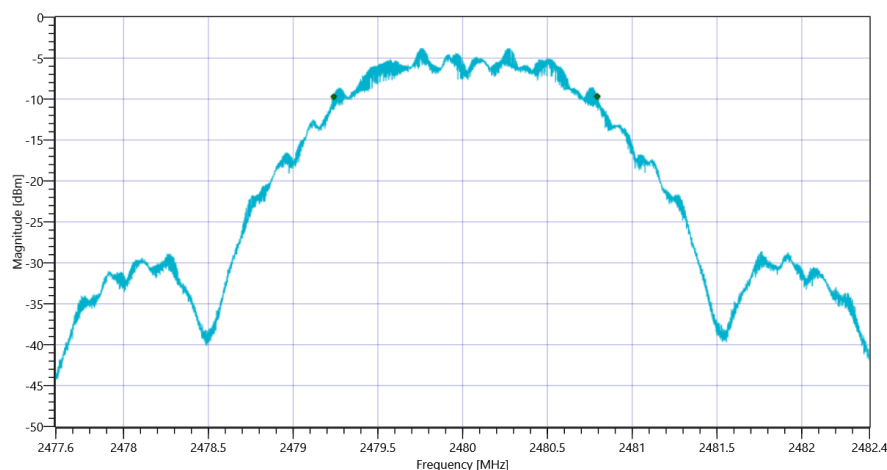
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	-0.75	dBm	INFO
Ref. Frequency	---	---	2480.500	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	4.25 11.15 10
Start [MHz] Stop [MHz]	2477.600 2482.400
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	---	1556	kHz	PASS



FCC Part 15.247 Bandwidth 6dB DTS ~ Generic 2G4

General verdict

PASS

FCC Part 15.247 Bandwidth 99PCT-20dB ~ Generic 2G4

Test References

TC Start	13.12.2021 14:00:57
Ambit Temp [°C] Humidity [rel%]	23.9 31
System Version	3.0.3.2
Test Specification	FCC Part 15.247
Test Method	
TC Version	0.0.2
My Description	FCC 15.247 Bandwidth 99PCT-20DB DTS - Generic 2G4
Add. Information	

EUT Common settings 2G4

Hopping supported	No
Burst length [ms]	10
Nominal Bandwidth [MHz]	2.4
User Interaction	No

Test Parameter

Technology to test	Generic 2G4
Antenna Port used	1
Temperature	nom
Voltage	nom
Frequency low to test	True Freq [MHz] 2405
Frequency mid to test	False Freq [MHz] 2440
Frequency high to test	False Freq [MHz] 2480
Auto Control enabled Power Supply Climatic Box	No No
Additional Path Loss [dB]	0.5
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer

Test Equipment

Signal analyzer,Rohde&Schwarz,FSV-30,1321.3008K30/103809,3.70
Signaling unit,Rohde&Schwarz,CMW,1201.0002k75/102550,3.8.13
Switch matrix,CTCadvanced,RSM-1 NI DAQ,29655273,NI

Test at TX 2405 MHz

RESULT: Reference Power cond.

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	7.09	dBm	INFO
Ref. Frequency	---	---	2404.500	MHz	INFO

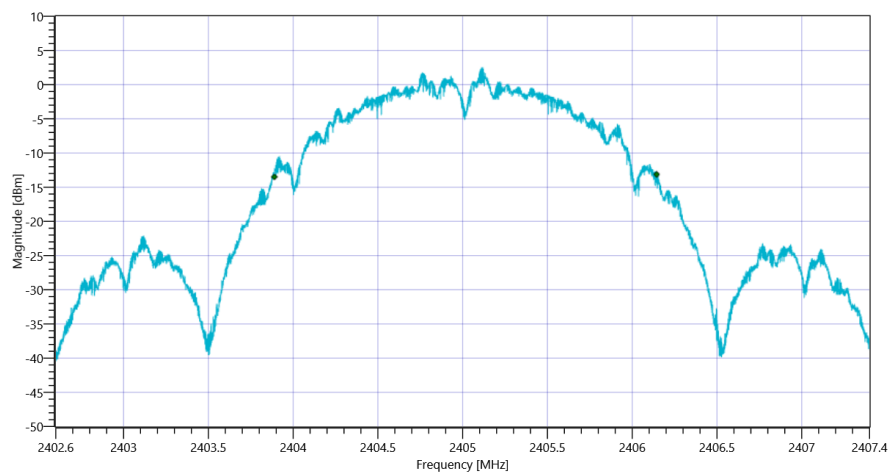
READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	12.09 10.6 20
Start [MHz] Stop [MHz]	2402.600 2407.400
RBW [MHz] VBW [MHz]	0.050000 0.200000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	50 200 10001 SWE

RESULT

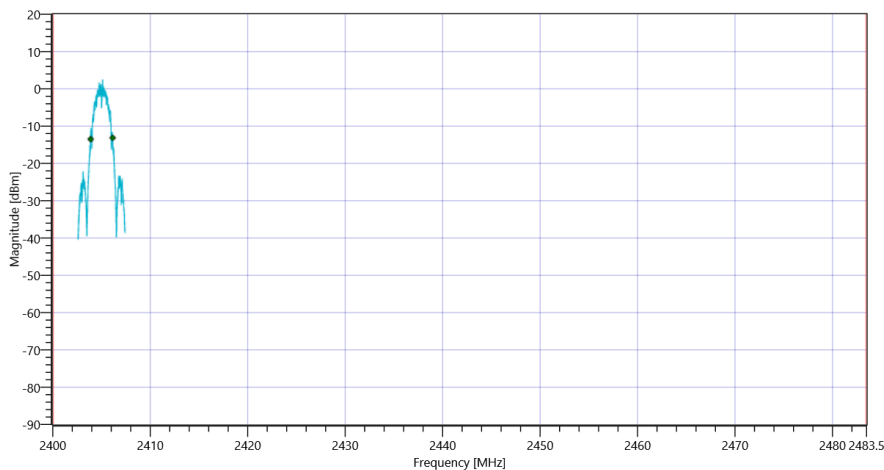
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 99%	---	---	2254.815	kHz	INFO
T1 99%	2400.000000	---	2403.8894	MHz	PASS
T2 99%	---	2483.500000	2406.1442	MHz	PASS

Plot: Bandwidth only



FCC Part 15.247 Bandwidth 99PCT-20dB ~ Generic 2G4 99PCT

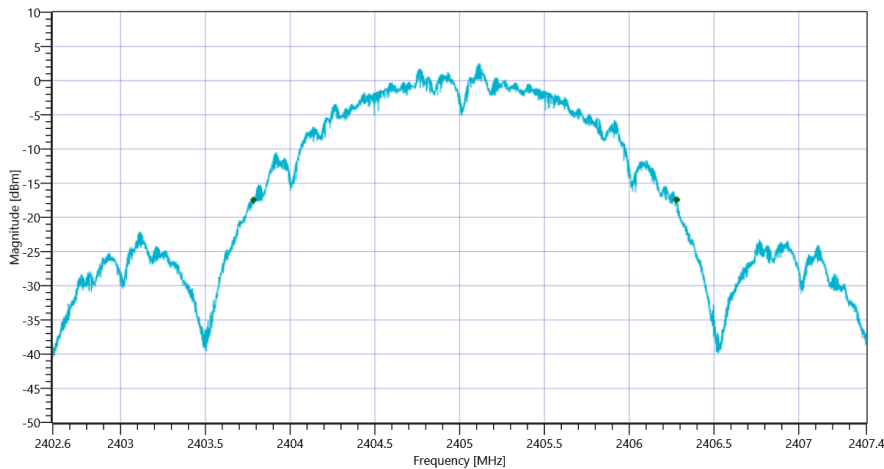
Plot: Bandwidth within Band



FCC Part 15.247 Bandwidth 99PCT-20dB ~ Generic 2G4

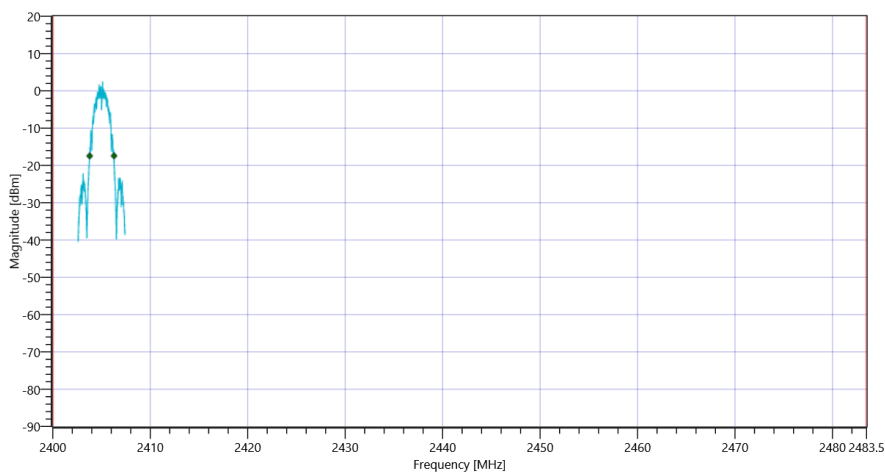
RESULT					
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 20dB	---	---	2497	kHz	INFO
T1 20dB	2400.000000	---	2403.7832	MHz	PASS
T2 20dB	---	2483.500000	2406.2806	MHz	PASS

Plot: Bandwidth only



FCC Part 15.247 Bandwidth 99PCT-20dB ~ Generic 2G4 20dB

Plot: Bandwidth within Band



FCC Part 15.247 Bandwidth 99PCT-20dB ~ Generic 2G4

General verdict

PASS

FCC Part 15.247 Bandwidth 99PCT-20dB ~ Generic 2G4

Test References

TC Start	13.12.2021 14:35:18
Ambit Temp [°C] Humidity [rel%]	23.7 32
System Version	3.0.3.2
Test Specification	FCC Part 15.247
Test Method	
TC Version	0.0.2
My Description	FCC 15.247 Bandwidth 99PCT-20DB DTS - Generic 2G4
Add. Information	

EUT Common settings 2G4

Hopping supported	No
Burst length [ms]	10
Nominal Bandwidth [MHz]	2.4
User Interaction	No

Test Parameter

Technology to test	Generic 2G4
Antenna Port used	1
Temperature	nom
Voltage	nom
Frequency low to test	False Freq [MHz] 2405
Frequency mid to test	True Freq [MHz] 2440
Frequency high to test	False Freq [MHz] 2480
Auto Control enabled Power Supply Climatic Box	No No
Additional Path Loss [dB]	0.5
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer

Test Equipment

Signal analyzer,Rohde&Schwarz,FSV-30,1321.3008K30/103809,3.70
Signaling unit,Rohde&Schwarz,CMW,1201.0002k75/102550,3.8.13
Switch matrix,CTCadvanced,RSM-1 NI DAQ,29655273,NI

Test at TX 2440 MHz

RESULT: Reference Power cond.

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	6.95	dBm	INFO
Ref. Frequency	---	---	2439.500	MHz	INFO

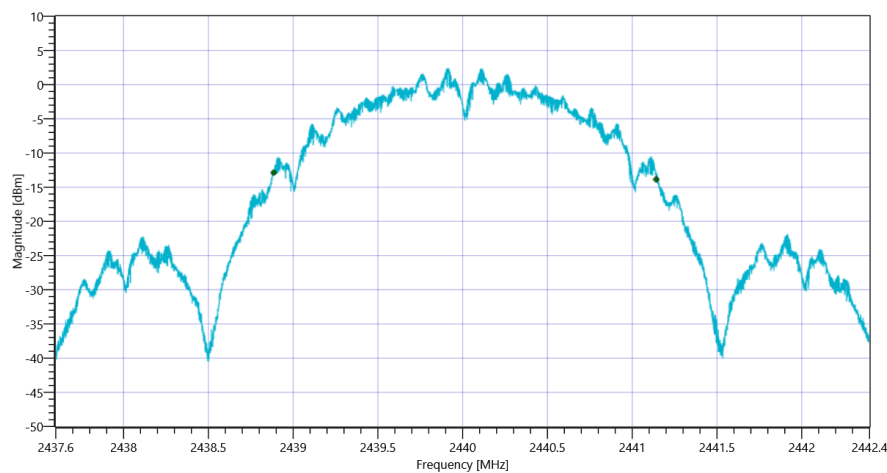
READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	11.95 10.6 20
Start [MHz] Stop [MHz]	2437.600 2442.400
RBW [MHz] VBW [MHz]	0.050000 0.200000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	50 200 10001 SWE

RESULT

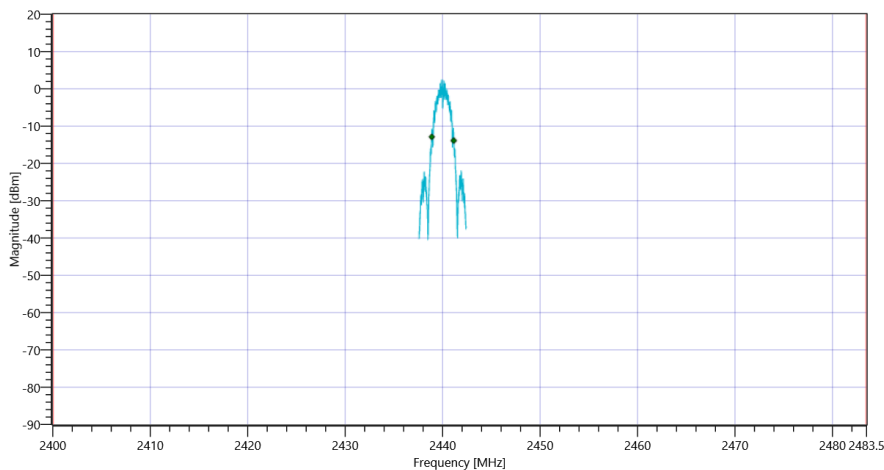
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 99%	---	---	2256.254	kHz	INFO
T1 99%	2400.000000	---	2438.8851	MHz	PASS
T2 99%	---	2483.500000	2441.1413	MHz	PASS

Plot: Bandwidth only



FCC Part 15.247 Bandwidth 99PCT-20dB ~ Generic 2G4 99PCT

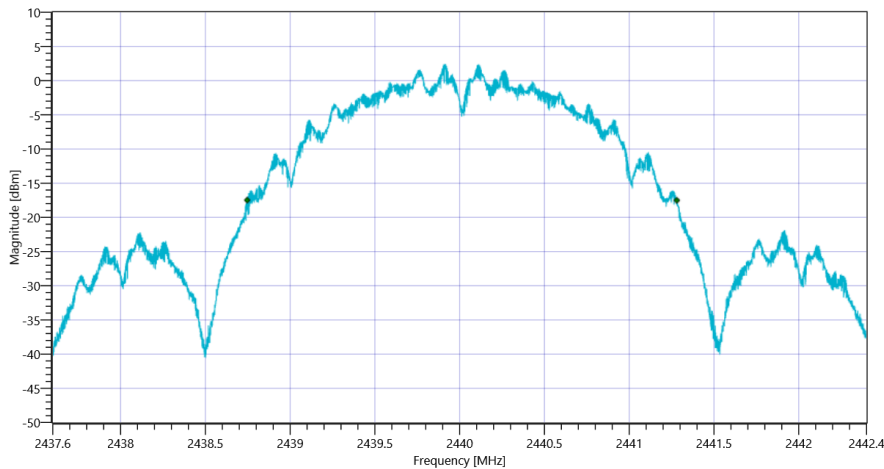
Plot: Bandwidth within Band



FCC Part 15.247 Bandwidth 99PCT-20dB ~ Generic 2G4

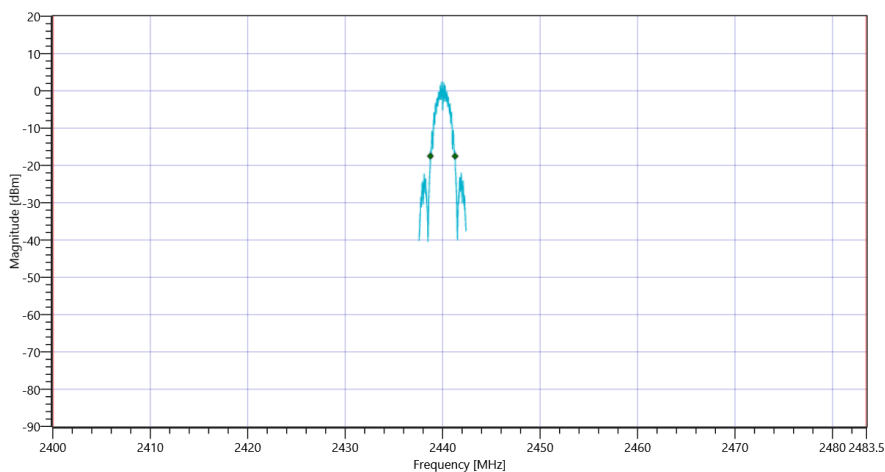
RESULT					
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 20dB	---	---	2534	kHz	INFO
T1 20dB	2400.000000	---	2438.7462	MHz	PASS
T2 20dB	---	2483.500000	2441.2806	MHz	PASS

Plot: Bandwidth only



FCC Part 15.247 Bandwidth 99PCT-20dB ~ Generic 2G4 20dB

Plot: Bandwidth within Band



FCC Part 15.247 Bandwidth 99PCT-20dB ~ Generic 2G4

General verdict	PASS
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FCC Part 15.247 Bandwidth 99PCT-20dB ~ Generic 2G4 (2475MHz)

Test References	
TC Start	14.01.2022 10:32:45
Ambit Temp [°C] Humidity [rel%]	22.5 25
System Version	3.0.3.7
Test Specification	FCC Part 15.247
Test Method	
TC Version	0.0.2
My Description	FCC 15.247 Bandwidth 99PCT-20DB DTS - Generic 2G4
Add. Information	Power Setting 2475 MHz: 8dBm

EUT Common settings 2G4	
Hopping supported	No
Burst length [ms]	10
Nominal Bandwidth [MHz]	2.4
User Interaction	No

Test Parameter	
Technology to test	Generic 2G4
Antenna Port used	1
Temperature	nom
Voltage	nom
Frequency low to test	False Freq [MHz] 2405
Frequency mid to test	False Freq [MHz] 2440
Frequency high to test	True Freq [MHz] 2475
Auto Control enabled Power Supply Climatic Box	No No
Additional Path Loss [dB]	1
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer

Test Equipment	
Signal analyzer,Rohde&Schwarz,FSV-30,1321.3008K30/103809,3.70	
Signaling unit,Rohde&Schwarz,CMW,1201.0002k75/102550,4.0.20	
Switch matrix,CTCadvanced,RSM-1 NI DAQ,29655273,NI	

Test at TX 2475 MHz

RESULT: Reference Power cond.

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	6.31	dBm	INFO
Ref. Frequency	---	---	2474.500	MHz	INFO

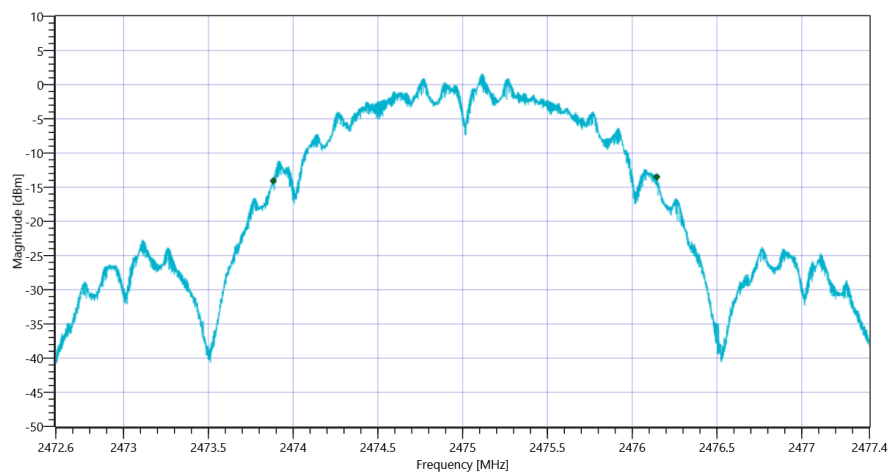
READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	11.31 11.14 20
Start [MHz] Stop [MHz]	2472.600 2477.400
RBW [MHz] VBW [MHz]	0.050000 0.200000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	50 200 10001 SWE

RESULT

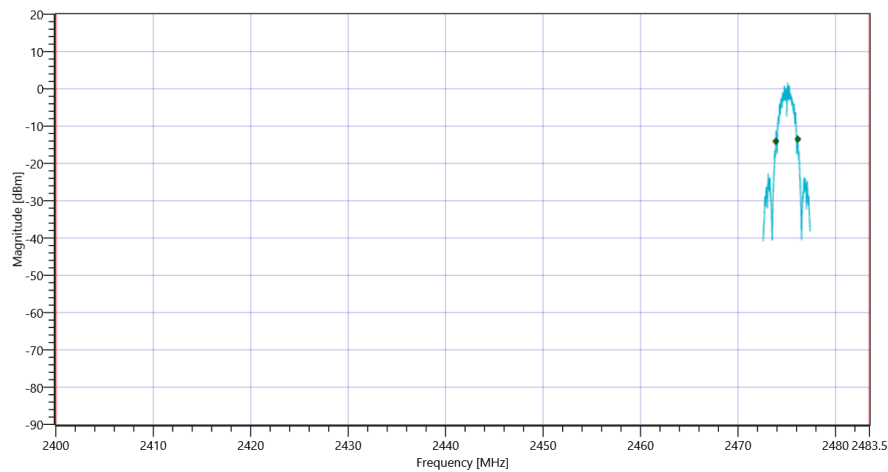
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 99%	---	---	2262.974	kHz	INFO
T1 99%	2400.000000	---	2473.8827	MHz	PASS
T2 99%	---	2483.500000	2476.1456	MHz	PASS

Plot: Bandwidth only



FCC Part 15.247 Bandwidth 99PCT-20dB ~ Generic 2G4 99PCT

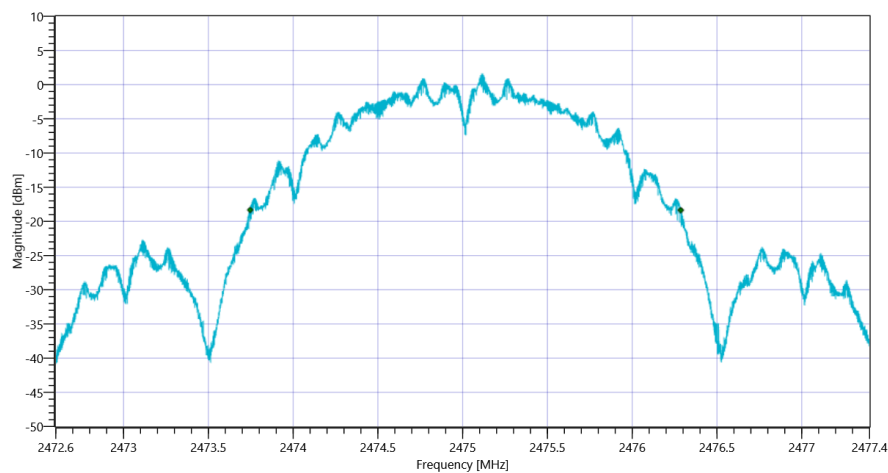
Plot: Bandwidth within Band



FCC Part 15.247 Bandwidth 99PCT-20dB ~ Generic 2G4

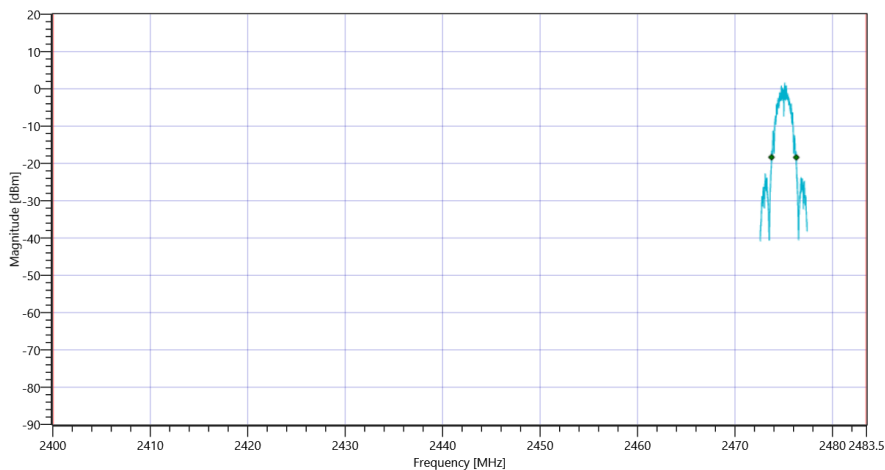
RESULT					
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 20dB	---	---	2540	kHz	INFO
T1 20dB	2400.000000	---	2473.7462	MHz	PASS
T2 20dB	---	2483.500000	2476.2864	MHz	PASS

Plot: Bandwidth only



FCC Part 15.247 Bandwidth 99PCT-20dB ~ Generic 2G4 20dB

Plot: Bandwidth within Band



FCC Part 15.247 Bandwidth 99PCT-20dB ~ Generic 2G4

General verdict

PASS

FCC Part 15.247 Bandwidth 99PCT-20dB ~ Generic 2G4 (2480MHz)

Test References

TC Start	14.01.2022 11:14:38
Ambit Temp [°C] Humidity [rel%]	22.7 24
System Version	3.0.3.7
Test Specification	FCC Part 15.247
Test Method	
TC Version	0.0.2
My Description	FCC 15.247 Bandwidth 99PCT-20DB DTS - Generic 2G4
Add. Information	Power Setting 2480 MHz: 0dBm

EUT Common settings 2G4

Hopping supported	No
Burst length [ms]	10
Nominal Bandwidth [MHz]	2.4
User Interaction	No

Test Parameter

Technology to test	Generic 2G4
Antenna Port used	1
Temperature	nom
Voltage	nom
Frequency low to test	False Freq [MHz] 2405
Frequency mid to test	False Freq [MHz] 2440
Frequency high to test	True Freq [MHz] 2480
Auto Control enabled Power Supply Climatic Box	No No
Additional Path Loss [dB]	1
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer

Test Equipment

Signal analyzer,Rohde&Schwarz,FSV-30,1321.3008K30/103809,3.70

Signaling unit,Rohde&Schwarz,CMW,1201.0002k75/102550,4.0.20

Switch matrix,CTCadvanced,RSM-1 NI DAQ,29655273,NI

Test at TX 2480 MHz

RESULT: Reference Power cond.

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	-0.81	dBm	INFO
Ref. Frequency	---	---	2479.500	MHz	INFO

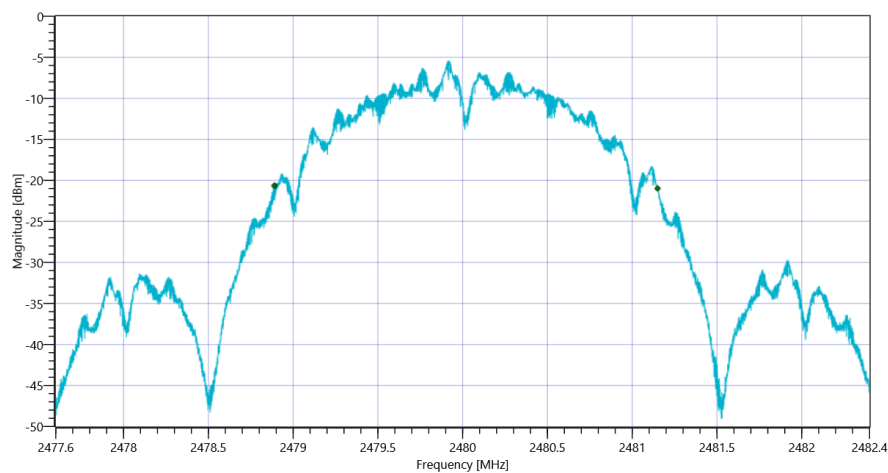
READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	4.19 11.15 10
Start [MHz] Stop [MHz]	2477.600 2482.400
RBW [MHz] VBW [MHz]	0.050000 0.200000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	50 200 10001 SWE

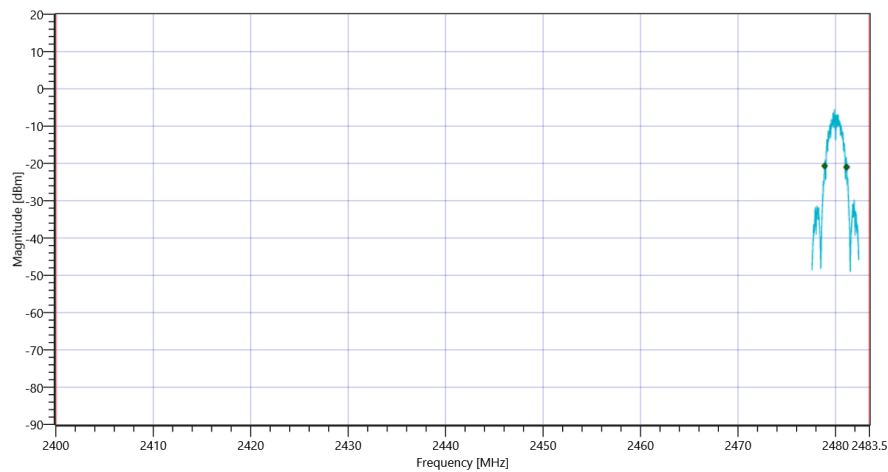
RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 99%	---	---	2259.614	kHz	INFO
T1 99%	2400.000000	---	2478.8899	MHz	PASS
T2 99%	---	2483.500000	2481.1495	MHz	PASS

Plot: Bandwidth only



Plot: Bandwidth within Band

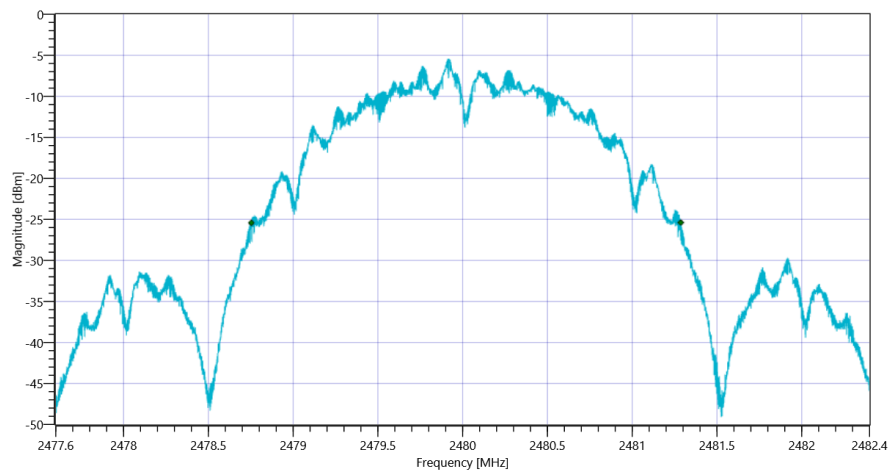


FCC Part 15.247 Bandwidth 99PCT-20dB ~ Generic 2G4

RESULT

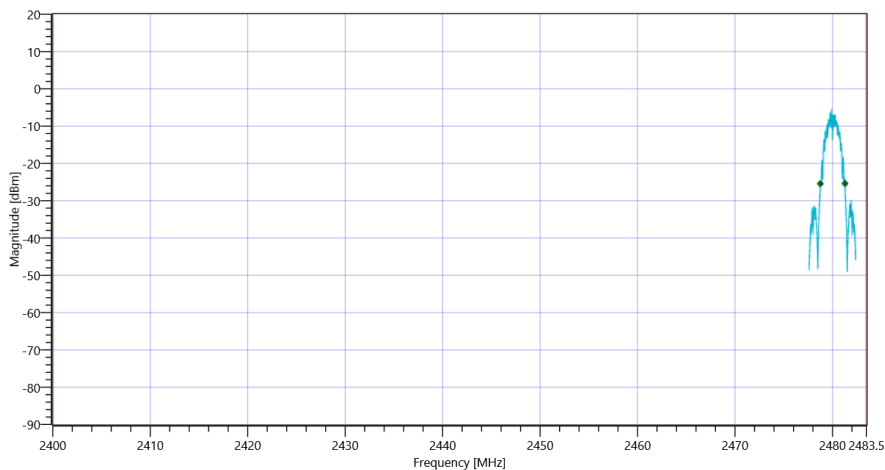
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 20dB	---	---	2533	kHz	INFO
T1 20dB	2400.000000	---	2478.7534	MHz	PASS
T2 20dB	---	2483.500000	2481.2864	MHz	PASS

Plot: Bandwidth only



FCC Part 15.247 Bandwidth 99PCT-20dB ~ Generic 2G4 20dB

Plot: Bandwidth within Band



FCC Part 15.247 Bandwidth 99PCT-20dB ~ Generic 2G4

General verdict	PASS
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FCC Part 15.247 Maximum Peak Conducted Output Power DTS ~ Generic 2G4

Test References

TC Start	13.12.2021 13:58:36
Ambit Temp [°C] Humidity [rel%]	23.9 31
System Version	3.0.3.2
Test Specification	FCC Part 15.247
Test Method	DTS: KDB 558074 D01 V05 - Chapter 8.3.1.1 RBW ≥ DTS Bandwidth
TC Version	0.0.1
My Description	FCC 15.247 Maximum Peak Output Power Conducted DTS4 - Generic 2G4

Add. Information

EUT Common settings 2G4

Hopping supported	No
Burst length [ms]	10
Nominal Bandwidth [MHz]	2.4
User Interaction	No

Test Parameter

Technology to test	Generic 2G4
Antenna Port used	1
Temperature	nom
Voltage	nom
Frequency low to test	True Freq [MHz] 2405
Frequency mid to test	False Freq [MHz] 2440
Frequency high to test	False Freq [MHz] 2480
Auto Control enabled Power Supply Climatic Box	No No
Additional Path Loss [dB]	0.5
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer

Test Equipment

Signal analyzer,Rohde&Schwarz,FSV-30,1321.3008K30/103809,3.70
Signaling unit,Rohde&Schwarz,CMW,1201.0002k75/102550,3.8.13
Switch matrix,CTCadvanced,RSM-1 NI DAQ,29655273,NI

Test at TX 2405 MHz

RESULT: Reference Power cond.

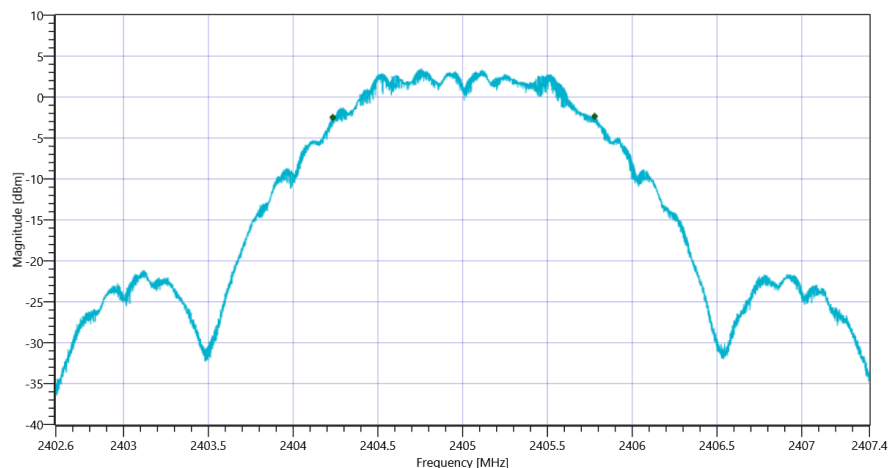
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	7.08	dBm	INFO
Ref. Frequency	---	---	2404.500	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	12.08 10.6 20
Start [MHz] Stop [MHz]	2402.600 2407.400
RBW [MHz] VBW [MHz]	0.100000 0.300000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	50 200 10001 SWE

DTS Bandwidth

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
DTS Bandwidth (6dB)	---	---	1544	kHz	INFO



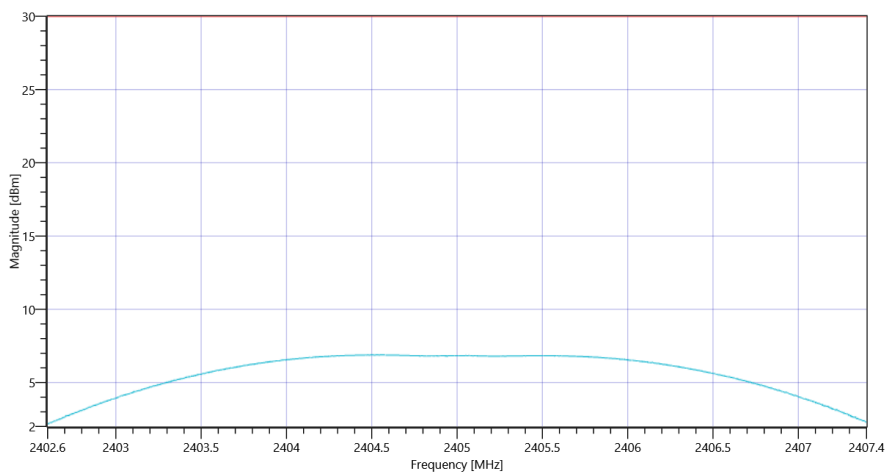
FCC Part 15.247 Maximum Peak Conducted Output Power DTS ~ Generic 2G4 DTS BW

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	17.08 10.6 25
Start [MHz] Stop [MHz]	2402.600 2407.400
RBW [MHz] VBW [MHz]	3.000000 10.000000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	50 200 1001 SWE

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Peak Power	---	30.00	6.88	dBm	PASS
Peak Power	---	1000	4.875285	mW	PASS
Frequency at Peak	---	---	2404.568	MHz	INFO



FCC Part 15.247 Maximum Peak Conducted Output Power DTS ~ Generic 2G4

General verdict

PASS

FCC Part 15.247 Maximum Peak Conducted Output Power DTS ~ Generic 2G4

Test References

TC Start	13.12.2021 14:32:56
Ambit Temp [°C] Humidity [rel%]	23.7 32
System Version	3.0.3.2
Test Specification	FCC Part 15.247
Test Method	DTS: KDB 558074 D01 V05 - Chapter 8.3.1.1 RBW ≥ DTS Bandwidth
TC Version	0.0.1
My Description	FCC 15.247 Maximum Peak Output Power Conducted DTS4 - Generic 2G4
Add. Information	

EUT Common settings 2G4

Hopping supported	No
Burst length [ms]	10
Nominal Bandwidth [MHz]	2.4
User Interaction	No

Test Parameter

Technology to test	Generic 2G4
Antenna Port used	1
Temperature	nom
Voltage	nom
Frequency low to test	False Freq [MHz] 2405
Frequency mid to test	True Freq [MHz] 2440
Frequency high to test	False Freq [MHz] 2480
Auto Control enabled Power Supply Climatic Box	No No
Additional Path Loss [dB]	0.5
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer

Test Equipment

Signal analyzer,Rohde&Schwarz,FSV-30,1321.3008K30/103809,3.70
 Signaling unit,Rohde&Schwarz,CMW,1201.0002k75/102550,3.8.13
 Switch matrix,CTCadvanced,RSM-1 NI DAQ,29655273,NI

Test at TX 2440 MHz

RESULT: Reference Power cond.

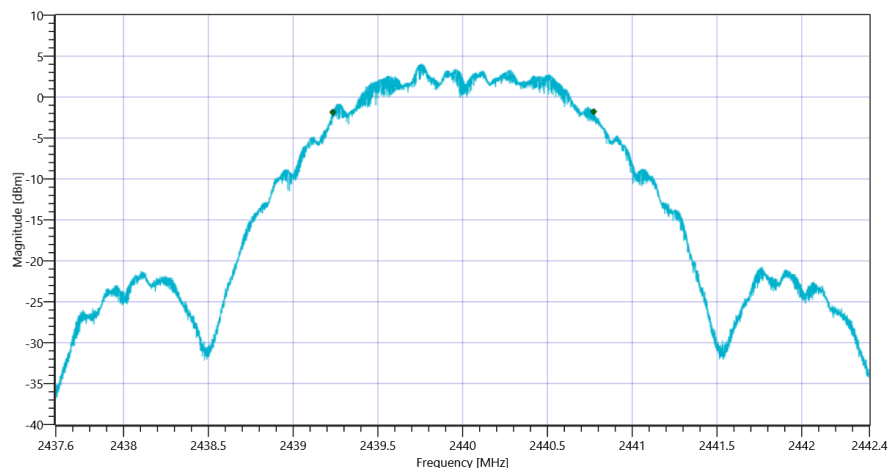
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	7.00	dBm	INFO
Ref. Frequency	---	---	2440.500	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	12.00 10.6 20
Start [MHz] Stop [MHz]	2437.600 2442.400
RBW [MHz] VBW [MHz]	0.100000 0.300000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	50 200 10001 SWE

DTS Bandwidth

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
DTS Bandwidth (6dB)	---	---	1539	kHz	INFO



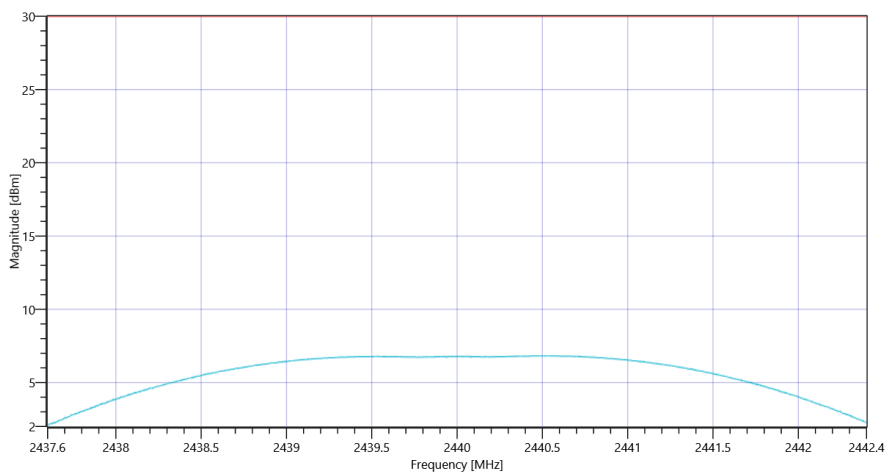
FCC Part 15.247 Maximum Peak Conducted Output Power DTS ~ Generic 2G4 DTS BW

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	17.00 10.6 25
Start [MHz] Stop [MHz]	2437.600 2442.400
RBW [MHz] VBW [MHz]	3.000000 10.000000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	50 200 1001 SWE

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Peak Power	---	30.00	6.82	dBm	PASS
Peak Power	---	1000	4.808393	mW	PASS
Frequency at Peak	---	---	2440.489	MHz	INFO



FCC Part 15.247 Maximum Peak Conducted Output Power DTS ~ Generic 2G4

General verdict

PASS

FCC Part 15.247 Maximum Peak Conducted Output Power DTS ~ Generic 2G4 (2475MHz)

Test References	
TC Start	14.01.2022 10:30:29
Ambit Temp [°C] Humidity [rel%]	22.5 24
System Version	3.0.3.7
Test Specification	FCC Part 15.247
Test Method	DTS: KDB 558074 D01 V05 - Chapter 8.3.1.1 RBW ≥ DTS Bandwidth
TC Version	0.0.1
My Description	FCC 15.247 Maximum Peak Output Power Conducted DTS4 - Generic 2G4
Add. Information	Power Setting 2475 MHz: 8dBm

EUT Common settings 2G4	
Hopping supported	No
Burst length [ms]	10
Nominal Bandwidth [MHz]	2.4
User Interaction	No

Test Parameter	
Technology to test	Generic 2G4
Antenna Port used	1
Temperature	nom
Voltage	nom
Frequency low to test	False Freq [MHz] 2405
Frequency mid to test	False Freq [MHz] 2440
Frequency high to test	True Freq [MHz] 2475
Auto Control enabled Power Supply Climatic Box	No No
Additional Path Loss [dB]	1
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer

Test Equipment	
Signal analyzer,Rohde&Schwarz,FSV-30,1321.3008K30/103809,3.70	
Signaling unit,Rohde&Schwarz,CMW,1201.0002k75/102550,4.0.20	
Switch matrix,CTCadvanced,RSM-1 NI DAQ,29655273,NI	

Test at TX 2475 MHz

RESULT: Reference Power cond.

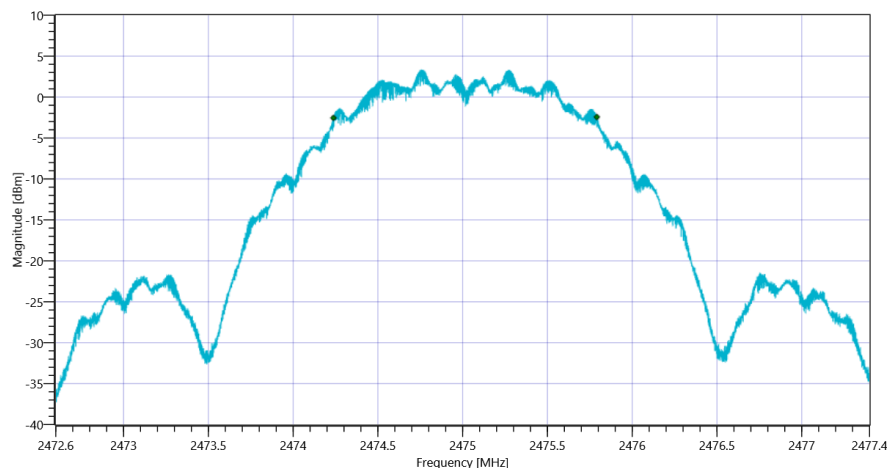
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	6.28	dBm	INFO
Ref. Frequency	---	---	2474.500	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	11.28 11.14 20
Start [MHz] Stop [MHz]	2472.600 2477.400
RBW [MHz] VBW [MHz]	0.100000 0.300000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	50 200 10001 SWE

DTS Bandwidth

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
DTS Bandwidth (6dB)	---	---	1554	kHz	INFO



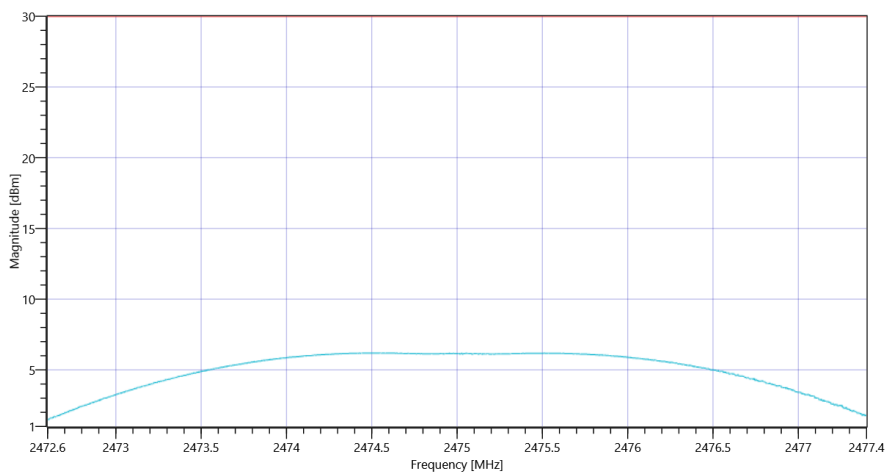
FCC Part 15.247 Maximum Peak Conducted Output Power DTS ~ Generic 2G4 DTS BW

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	16.28 11.14 25
Start [MHz] Stop [MHz]	2472.600 2477.400
RBW [MHz] VBW [MHz]	3.000000 10.000000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	50 200 1001 SWE

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Peak Power	---	30.00	6.19	dBm	PASS
Peak Power	---	1000	4.159106	mW	PASS
Frequency at Peak	---	---	2474.554	MHz	INFO



FCC Part 15.247 Maximum Peak Conducted Output Power DTS ~ Generic 2G4

General verdict

PASS

FCC Part 15.247 Maximum Peak Conducted Output Power DTS ~ Generic 2G4 (2480MHz)

Test References	
TC Start	14.01.2022 11:12:25
Ambit Temp [°C] Humidity [rel%]	22.6 24
System Version	3.0.3.7
Test Specification	FCC Part 15.247
Test Method	DTS: KDB 558074 D01 V05 - Chapter 8.3.1.1 RBW ≥ DTS Bandwidth
TC Version	0.0.1
My Description	FCC 15.247 Maximum Peak Output Power Conducted DTS4 - Generic 2G4
Add. Information	Power Setting 2480 MHz: 0dBm

EUT Common settings 2G4	
Hopping supported	No
Burst length [ms]	10
Nominal Bandwidth [MHz]	2.4
User Interaction	No

Test Parameter	
Technology to test	Generic 2G4
Antenna Port used	1
Temperature	nom
Voltage	nom
Frequency low to test	False Freq [MHz] 2405
Frequency mid to test	False Freq [MHz] 2440
Frequency high to test	True Freq [MHz] 2480
Auto Control enabled Power Supply Climatic Box	No No
Additional Path Loss [dB]	1
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer

Test Equipment	
Signal analyzer,Rohde&Schwarz,FSV-30,1321.3008K30/103809,3.70	
Signaling unit,Rohde&Schwarz,CMW,1201.0002k75/102550,4.0.20	
Switch matrix,CTCadvanced,RSM-1 NI DAQ,29655273,NI	

Test at TX 2480 MHz

RESULT: Reference Power cond.

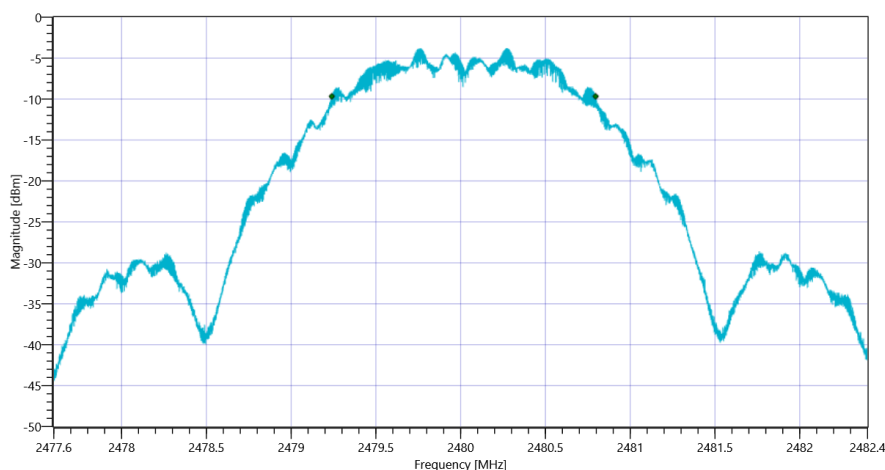
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	-0.84	dBm	INFO
Ref. Frequency	---	---	2480.500	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	4.16 11.15 10
Start [MHz] Stop [MHz]	2477.600 2482.400
RBW [MHz] VBW [MHz]	0.100000 0.300000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	50 200 10001 SWE

DTS Bandwidth

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
DTS Bandwidth (6dB)	---	---	1556	kHz	INFO



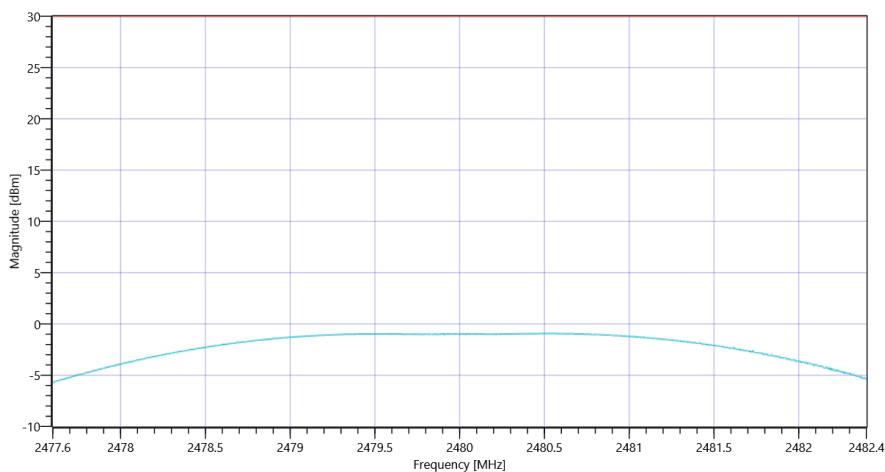
FCC Part 15.247 Maximum Peak Conducted Output Power DTS ~ Generic 2G4 DTS BW

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	9.16 11.15 15
Start [MHz] Stop [MHz]	2477.600 2482.400
RBW [MHz] VBW [MHz]	3.000000 10.000000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	50 200 1001 SWE

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Peak Power	---	30.00	-0.94	dBm	PASS
Peak Power	---	1000	0.805378	mW	PASS
Frequency at Peak	---	---	2480.518	MHz	INFO



FCC Part 15.247 Maximum Peak Conducted Output Power DTS ~ Generic 2G4

General verdict

PASS

FCC Part 15.247 Peak Power Spectral Density DTS ~ Generic 2G4

Test References	
TC Start	13.12.2021 14:00:13
Ambit Temp [°C] Humidity [rel%]	23.9 31
System Version	3.0.3.2
Test Specification	FCC Part 15.247
Test Method	DTS: KDB 558074 D01 V05 - Chapter 8.4 DTS maximum power spectral density level in the fundamental emission
TC Version	0.0.1
My Description	FCC 15.247 Peak Power Spectral Density DTS - Generic 2G4
Add. Information	

EUT Common settings 2G4	
Hopping supported	No
Burst length [ms]	10
Nominal Bandwidth [MHz]	2.4
User Interaction	No

Test Parameter	
Technology to test	Generic 2G4
Antenna Port used	1
Temperature	nom
Voltage	nom
Frequency low to test	True Freq [MHz] 2405
Frequency mid to test	False Freq [MHz] 2440
Frequency high to test	False Freq [MHz] 2480
Auto Control enabled Power Supply Climatic Box	No No
Additional Path Loss [dB]	0.5
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer

Test Equipment	
Signal analyzer,Rohde&Schwarz,FSV-30,1321.3008K30/103809,3.70	
Signaling unit,Rohde&Schwarz,CMW,1201.0002k75/102550,3.8.13	
Switch matrix,CTCadvanced,RSM-1 NI DAQ,29655273,NI	

Test at TX 2405 MHz

RESULT: Reference Power cond.

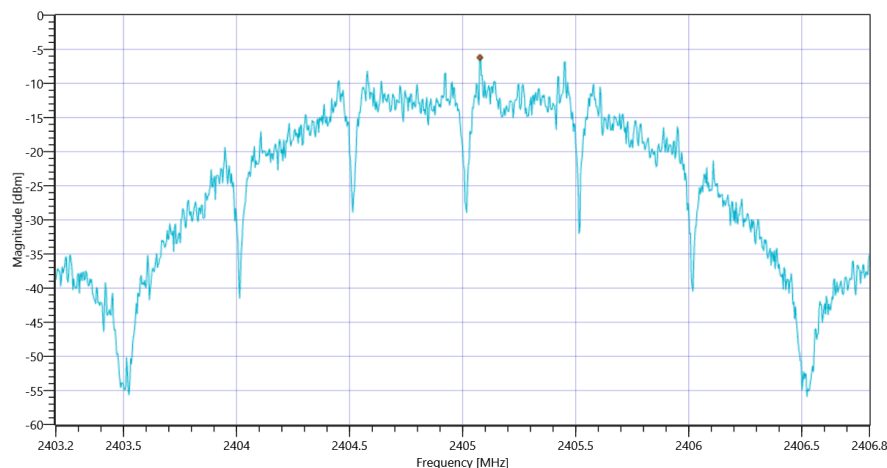
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	7.11	dBm	INFO
Ref. Frequency	---	---	2404.500	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	12.11 10.6 20
Start [MHz] Stop [MHz]	2403.200 2406.800
RBW [MHz] VBW [MHz]	0.003000 0.010000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	1000 20 1001 SWE

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Max Peak power Density	---	8	-6.2	dBm/3KHz	PASS



FCC Part 15.247 Peak Power Spectral Density DTS ~ Generic 2G4

General verdict

PASS

FCC Part 15.247 Peak Power Spectral Density DTS ~ Generic 2G4

Test References	
TC Start	13.12.2021 14:34:34
Ambit Temp [°C] Humidity [rel%]	23.7 32
System Version	3.0.3.2
Test Specification	FCC Part 15.247
Test Method	DTS: KDB 558074 D01 V05 - Chapter 8.4 DTS maximum power spectral density level in the fundamental emission
TC Version	0.0.1
My Description	FCC 15.247 Peak Power Spectral Density DTS - Generic 2G4
Add. Information	

EUT Common settings 2G4	
Hopping supported	No
Burst length [ms]	10
Nominal Bandwidth [MHz]	2.4
User Interaction	No

Test Parameter	
Technology to test	Generic 2G4
Antenna Port used	1
Temperature	nom
Voltage	nom
Frequency low to test	False Freq [MHz] 2405
Frequency mid to test	True Freq [MHz] 2440
Frequency high to test	False Freq [MHz] 2480
Auto Control enabled Power Supply Climatic Box	No No
Additional Path Loss [dB]	0.5
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer

Test Equipment	
Signal analyzer,Rohde&Schwarz,FSV-30,1321.3008K30/103809,3.70	
Signaling unit,Rohde&Schwarz,CMW,1201.0002k75/102550,3.8.13	
Switch matrix,CTCadvanced,RSM-1 NI DAQ,29655273,NI	

Test at TX 2440 MHz

RESULT: Reference Power cond.

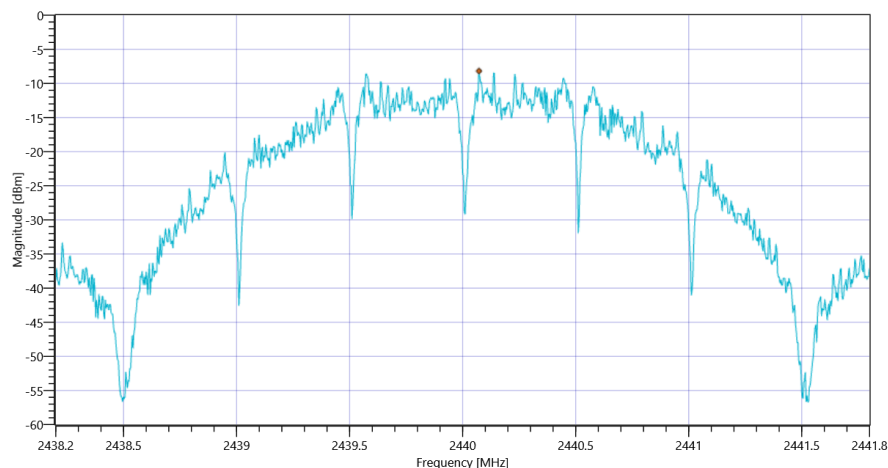
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	6.95	dBm	INFO
Ref. Frequency	---	---	2439.500	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	11.95 10.6 20
Start [MHz] Stop [MHz]	2438.200 2441.800
RBW [MHz] VBW [MHz]	0.003000 0.010000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	1000 20 1001 SWE

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Max Peak power Density	---	8	-8.18	dBm/3KHz	PASS



FCC Part 15.247 Peak Power Spectral Density DTS ~ Generic 2G4

General verdict

PASS

FCC Part 15.247 Peak Power Spectral Density DTS ~ Generic 2G4 (2475MHz)

Test References	
TC Start	14.01.2022 10:32:00
Ambit Temp [°C] Humidity [rel%]	22.5 24
System Version	3.0.3.7
Test Specification	FCC Part 15.247
Test Method	DTS: KDB 558074 D01 V05 - Chapter 8.4 DTS maximum power spectral density level in the fundamental emission
TC Version	0.0.1
My Description	FCC 15.247 Peak Power Spectral Density DTS - Generic 2G4
Add. Information	Power Setting 2475 MHz: 8dBm

EUT Common settings 2G4	
Hopping supported	No
Burst length [ms]	10
Nominal Bandwidth [MHz]	2.4
User Interaction	No

Test Parameter	
Technology to test	Generic 2G4
Antenna Port used	1
Temperature	nom
Voltage	nom
Frequency low to test	False Freq [MHz] 2405
Frequency mid to test	False Freq [MHz] 2440
Frequency high to test	True Freq [MHz] 2475
Auto Control enabled Power Supply Climatic Box	No No
Additional Path Loss [dB]	1
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer

Test Equipment	
Signal analyzer,Rohde&Schwarz,FSV-30,1321.3008K30/103809,3.70	
Signaling unit,Rohde&Schwarz,CMW,1201.0002k75/102550,4.0.20	
Switch matrix,CTCadvanced,RSM-1 NI DAQ,29655273,NI	

Test at TX 2475 MHz

RESULT: Reference Power cond.

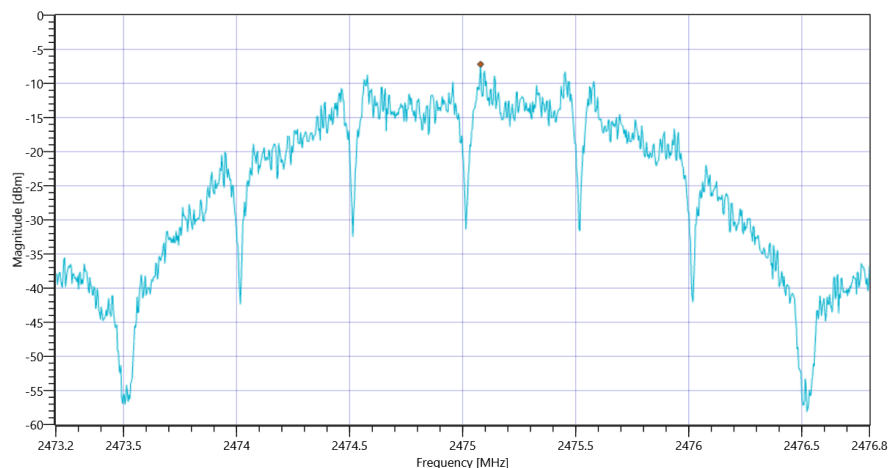
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	6.29	dBm	INFO
Ref. Frequency	---	---	2474.500	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	11.29 11.14 20
Start [MHz] Stop [MHz]	2473.200 2476.800
RBW [MHz] VBW [MHz]	0.003000 0.010000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	1000 20 1001 SWE

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Max Peak power Density	---	8	-7.19	dBm/3KHz	PASS



FCC Part 15.247 Peak Power Spectral Density DTS ~ Generic 2G4

General verdict

PASS

FCC Part 15.247 Peak Power Spectral Density DTS ~ Generic 2G4 (2480MHz)

Test References	
TC Start	14.01.2022 11:13:53
Ambit Temp [°C] Humidity [rel%]	22.7 24
System Version	3.0.3.7
Test Specification	FCC Part 15.247
Test Method	DTS: KDB 558074 D01 V05 - Chapter 8.4 DTS maximum power spectral density level in the fundamental emission
TC Version	0.0.1
My Description	FCC 15.247 Peak Power Spectral Density DTS - Generic 2G4
Add. Information	Power Setting 2480 MHz: 0dBm

EUT Common settings 2G4	
Hopping supported	No
Burst length [ms]	10
Nominal Bandwidth [MHz]	2.4
User Interaction	No

Test Parameter	
Technology to test	Generic 2G4
Antenna Port used	1
Temperature	nom
Voltage	nom
Frequency low to test	False Freq [MHz] 2405
Frequency mid to test	False Freq [MHz] 2440
Frequency high to test	True Freq [MHz] 2480
Auto Control enabled Power Supply Climatic Box	No No
Additional Path Loss [dB]	1
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer

Test Equipment	
Signal analyzer,Rohde&Schwarz,FSV-30,1321.3008K30/103809,3.70	
Signaling unit,Rohde&Schwarz,CMW,1201.0002k75/102550,4.0.20	
Switch matrix,CTCadvanced,RSM-1 NI DAQ,29655273,NI	

Test at TX 2480 MHz

RESULT: Reference Power cond.

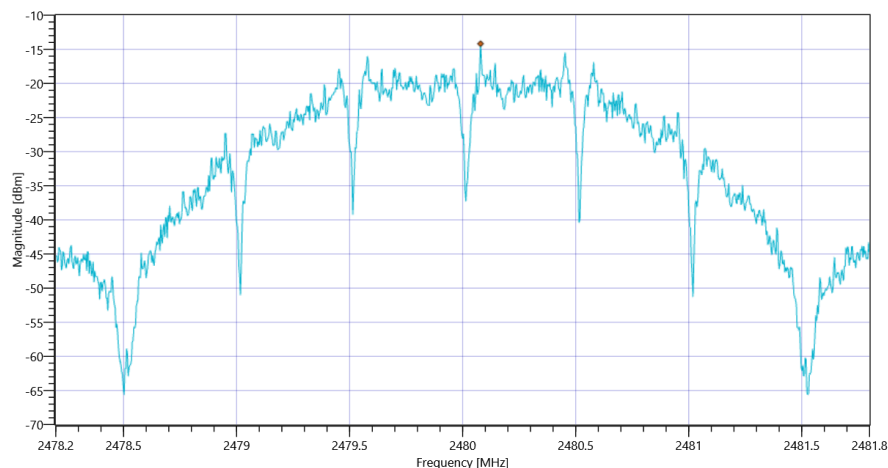
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	-0.81	dBm	INFO
Ref. Frequency	---	---	2480.500	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	4.19 11.15 10
Start [MHz] Stop [MHz]	2478.200 2481.800
RBW [MHz] VBW [MHz]	0.003000 0.010000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	1000 20 1001 SWE

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Max Peak power Density	---	8	-14.18	dBm/3KHz	PASS



FCC Part 15.247 Peak Power Spectral Density DTS ~ Generic 2G4

General verdict

PASS

FCC Part 15.247 TX Spurious Conducted ~ Generic 2G4

Test References	
TC Start	13.12.2021 14:01:51
Ambit Temp [°C] Humidity [rel%]	23.9 31
System Version	3.0.3.2
Test Specification	FCC Part 15.247
Test Method	IF DTS then 8.5 DTS emissions in non-restricted frequency bands: Subclause 11.11 of ANSI C63.10 is applicable.
TC Version	0.0.1
My Description	FCC 15.247 TX Emissions Conducted DTS - Generic 2G4
Add. Information	

EUT Common settings 2G4	
Hopping supported	No
Burst length [ms]	10
Nominal Bandwidth [MHz]	2.4
User Interaction	No

Test Parameter	
Technology to test	Generic 2G4
Antenna Port used	1
Temperature	nom
Voltage	nom
Frequency low to test	True Freq [MHz] 2405
Frequency mid to test	False Freq [MHz] 2440
Frequency high to test	False Freq [MHz] 2480
Auto Control enabled Power Supply Climatic Box	No No
Additional Path Loss [dB]	0.5
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer

Test Equipment	
Signal analyzer,Rohde&Schwarz,FSV-30,1321.3008K30/103809,3.70	
Signaling unit,Rohde&Schwarz,CMW,1201.0002k75/102550,3.8.13	
Switch matrix,CTCadvanced,RSM-1 NI DAQ,29655273,NI	

Test at TX 2405 MHz

RESULT: Reference Power cond.

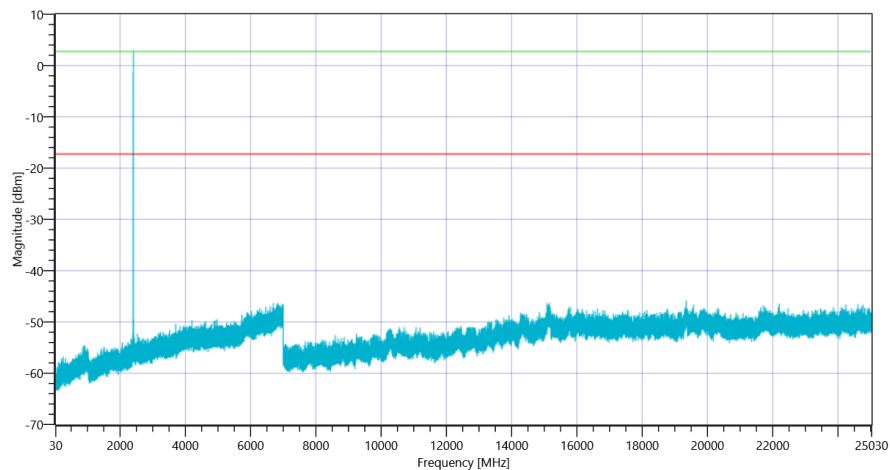
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	7.09	dBm	INFO
Ref. Frequency	---	---	2404.500	MHz	INFO

READ SA SETTINGS:

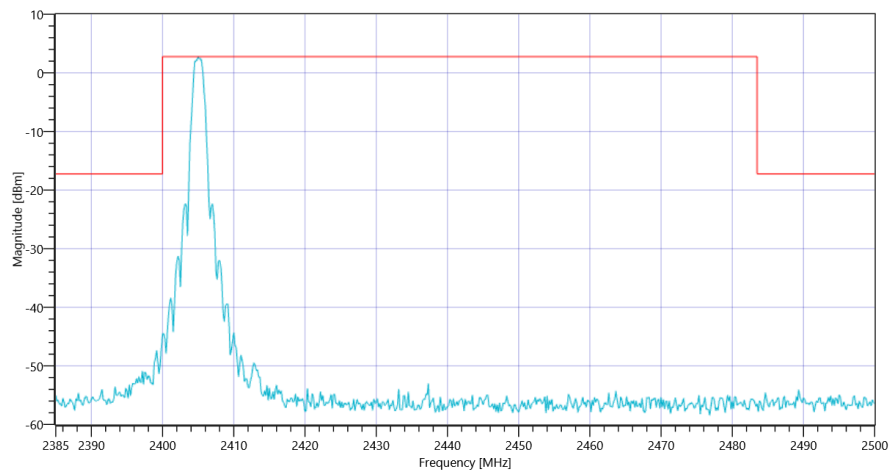
RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	7.09 0 25
Start [MHz] Stop [MHz]	24530.000 25030.000
RBW [MHz] VBW [MHz]	0.100000 0.300000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	500 8 3001 SWE

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Reference @ 2405.00 MHz	---	---	2.76	dBm	INFO
No peaks detected	---	---			PASS
Lowest margin to limit 19352.333 MHz	0	---	28.58	dB	INFO



FCC Part 15.247 TX Spurious Conducted ~ Generic 2G4 2405



FCC Part 15.247 TX Spurious Conducted ~ Generic 2G4 2405

General verdict

PASS

FCC Part 15.247 TX Spurious Conducted ~ Generic 2G4

Test References	
TC Start	13.12.2021 14:36:13
Ambit Temp [°C] Humidity [rel%]	23.7 31
System Version	3.0.3.2
Test Specification	FCC Part 15.247
Test Method	IF DTS then 8.5 DTS emissions in non-restricted frequency bands: Subclause 11.11 of ANSI C63.10 is applicable.
TC Version	0.0.1
My Description	FCC 15.247 TX Emissions Conducted DTS - Generic 2G4
Add. Information	

EUT Common settings 2G4	
Hopping supported	No
Burst length [ms]	10
Nominal Bandwidth [MHz]	2.4
User Interaction	No

Test Parameter	
Technology to test	Generic 2G4
Antenna Port used	1
Temperature	nom
Voltage	nom
Frequency low to test	False Freq [MHz] 2405
Frequency mid to test	True Freq [MHz] 2440
Frequency high to test	False Freq [MHz] 2480
Auto Control enabled Power Supply Climatic Box	No No
Additional Path Loss [dB]	0.5
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer

Test Equipment	
Signal analyzer,Rohde&Schwarz,FSV-30,1321.3008K30/103809,3.70	
Signaling unit,Rohde&Schwarz,CMW,1201.0002k75/102550,3.8.13	
Switch matrix,CTCadvanced,RSM-1 NI DAQ,29655273,NI	

Test at TX 2440 MHz

RESULT: Reference Power cond.

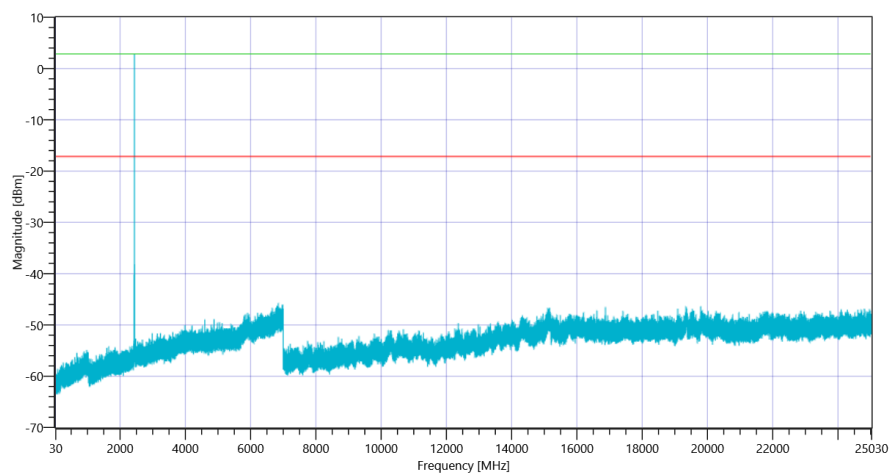
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	6.96	dBm	INFO
Ref. Frequency	---	---	2439.500	MHz	INFO

READ SA SETTINGS:

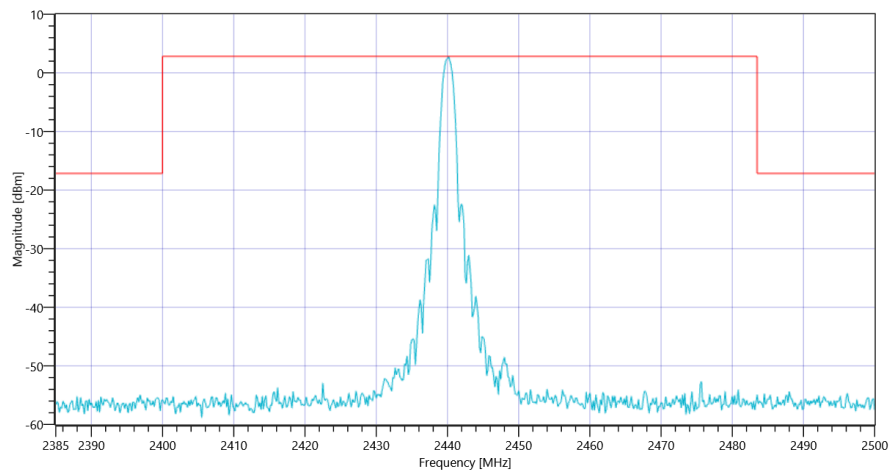
RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	6.96 0 25
Start [MHz] Stop [MHz]	24530.000 25030.000
RBW [MHz] VBW [MHz]	0.100000 0.300000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	500 8 3001 SWE

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Reference @ 2440.17 MHz	---	---	2.84	dBm	INFO
No peaks detected	---	---			PASS
Lowest margin to limit 6849.833 MHz	0	---	28.57	dB	INFO



FCC Part 15.247 TX Spurious Conducted ~ Generic 2G4 2440



FCC Part 15.247 TX Spurious Conducted ~ Generic 2G4 2440

General verdict

PASS

FCC Part 15.247 TX Spurious Conducted ~ Generic 2G4 (2475MHz)

Test References	
TC Start	14.01.2022 10:33:43
Ambit Temp [°C] Humidity [rel%]	22.5 24
System Version	3.0.3.7
Test Specification	FCC Part 15.247
Test Method	IF DTS then 8.5 DTS emissions in non-restricted frequency bands: Subclause 11.11 of ANSI C63.10 is applicable.
TC Version	0.0.1
My Description	FCC 15.247 TX Emissions Conducted DTS - Generic 2G4
Add. Information	Power Setting 2475 MHz: 8dBm

EUT Common settings 2G4	
Hopping supported	No
Burst length [ms]	10
Nominal Bandwidth [MHz]	2.4
User Interaction	No

Test Parameter	
Technology to test	Generic 2G4
Antenna Port used	1
Temperature	nom
Voltage	nom
Frequency low to test	False Freq [MHz] 2405
Frequency mid to test	False Freq [MHz] 2440
Frequency high to test	True Freq [MHz] 2475
Auto Control enabled Power Supply Climatic Box	No No
Additional Path Loss [dB]	1
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer

Test Equipment	
Signal analyzer,Rohde&Schwarz,FSV-30,1321.3008K30/103809,3.70	
Signaling unit,Rohde&Schwarz,CMW,1201.0002k75/102550,4.0.20	
Switch matrix,CTCadvanced,RSM-1 NI DAQ,29655273,NI	

Test at TX 2475 MHz

RESULT: Reference Power cond.

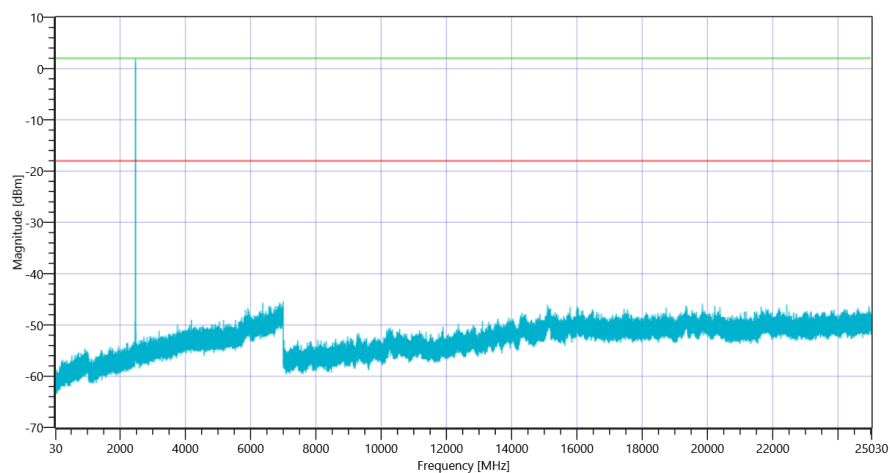
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	6.29	dBm	INFO
Ref. Frequency	---	---	2475.500	MHz	INFO

READ SA SETTINGS:

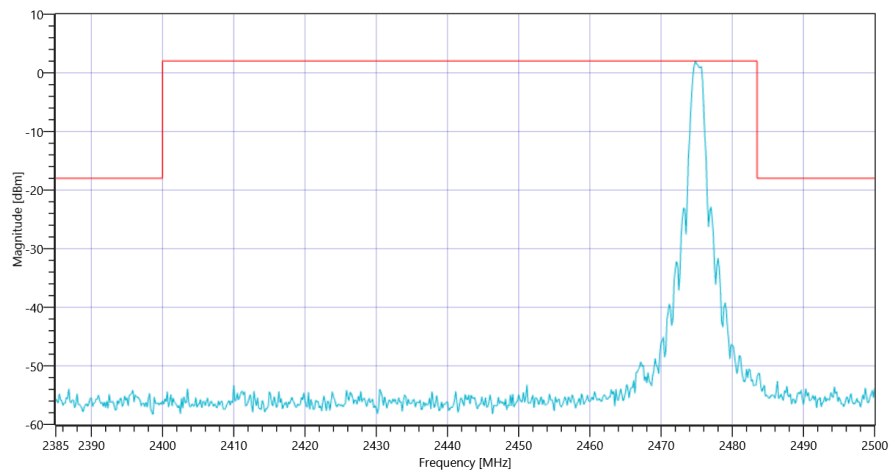
RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	6.29 0 25
Start [MHz] Stop [MHz]	24530.000 25030.000
RBW [MHz] VBW [MHz]	0.100000 0.300000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	500 8 3001 SWE

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Reference @ 2474.83 MHz	---	---	2.00	dBm	INFO
No peaks detected	---	---			PASS
Lowest margin to limit 6998.167 MHz	0	---	27.34	dB	INFO



FCC Part 15.247 TX Spurious Conducted ~ Generic 2G4 2475



FCC Part 15.247 TX Spurious Conducted ~ Generic 2G4 2475

General verdict

PASS

FCC Part 15.247 TX Spurious Conducted ~ Generic 2G4 (2480MHz)

Test References	
TC Start	14.01.2022 11:15:35
Ambit Temp [°C] Humidity [rel%]	22.7 24
System Version	3.0.3.7
Test Specification	FCC Part 15.247
Test Method	IF DTS then 8.5 DTS emissions in non-restricted frequency bands: Subclause 11.11 of ANSI C63.10 is applicable.
TC Version	0.0.1
My Description	FCC 15.247 TX Emissions Conducted DTS - Generic 2G4
Add. Information	Power Setting 2480 MHz: 0dBm

EUT Common settings 2G4	
Hopping supported	No
Burst length [ms]	10
Nominal Bandwidth [MHz]	2.4
User Interaction	No

Test Parameter	
Technology to test	Generic 2G4
Antenna Port used	1
Temperature	nom
Voltage	nom
Frequency low to test	False Freq [MHz] 2405
Frequency mid to test	False Freq [MHz] 2440
Frequency high to test	True Freq [MHz] 2480
Auto Control enabled Power Supply Climatic Box	No No
Additional Path Loss [dB]	1
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer

Test Equipment	
Signal analyzer,Rohde&Schwarz,FSV-30,1321.3008K30/103809,3.70	
Signaling unit,Rohde&Schwarz,CMW,1201.0002k75/102550,4.0.20	
Switch matrix,CTCadvanced,RSM-1 NI DAQ,29655273,NI	

Test at TX 2480 MHz

RESULT: Reference Power cond.

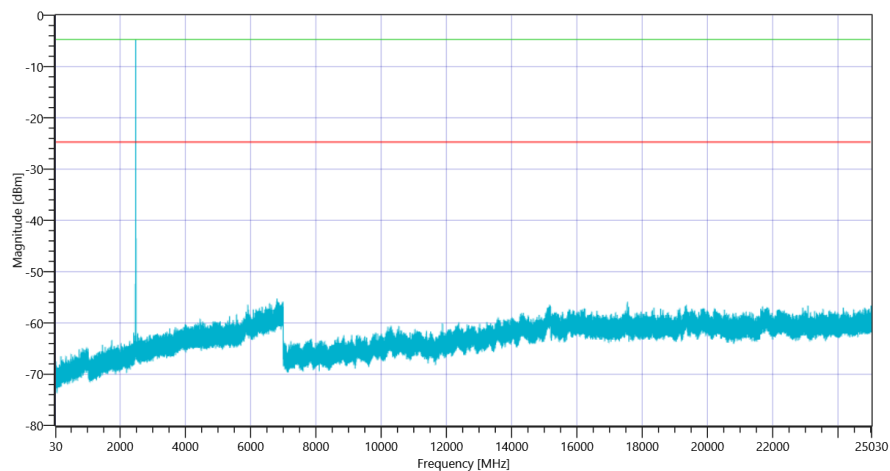
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	-0.81	dBm	INFO
Ref. Frequency	---	---	2479.500	MHz	INFO

READ SA SETTINGS:

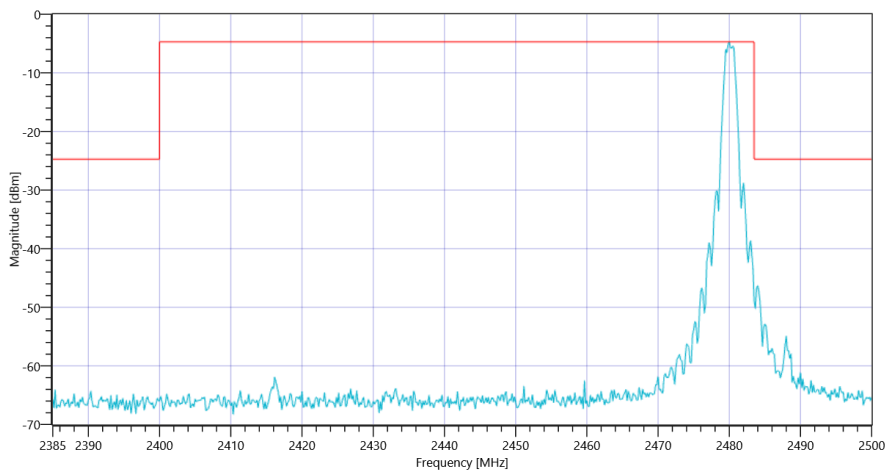
RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	-0.81 0 15
Start [MHz] Stop [MHz]	24530.000 25030.000
RBW [MHz] VBW [MHz]	0.100000 0.300000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	500 8 3001 SWE

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Reference @ 2480.00 MHz	---	---	-4.71	dBm	INFO
No peaks detected	---	---			PASS
Lowest margin to limit 2484 MHz	0	---	21.6	dB	INFO



FCC Part 15.247 TX Spurious Conducted ~ Generic 2G4 2480



FCC Part 15.247 TX Spurious Conducted ~ Generic 2G4 2480

General verdict	PASS
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