

Measurement Results

1-9420/19-03-05_log1_conducted

[Test logging](#)

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Document authorized:

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EUT Summary

EUT DEFINITION	
Manufacturer	Valeo
Type	BRTVRR
Kind	Smart Hub
Serial Number Setup Number	NI 1.0
Version SW FW HW	V3.27 NI NI
Comment 1 2	
Temperature [°C] Min Nom Max	- 20 -
Voltage [V] Min Nom Max @Current Max [A]	- 12 - @ 2A

EUT Common Settings 2G4	
Hopping supported	No
Burst length [ms]	10
Nominal Bandwidth [MHz]	1.5
User Interaction	Yes

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

Test References	
TC Start	26.01.2021 15:50:19
Ambit Temp [°C] Humidity [rel%]	23.8 23
System Version	1.9.9.4
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	

Test Parameter	
Technology to test	Generic 2G4
Antenna Port used	1
Temperature	nom
Voltage	nom
Frequency low to test	True Freq [MHz] 2402
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
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer
Devices in use	SA: Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.60

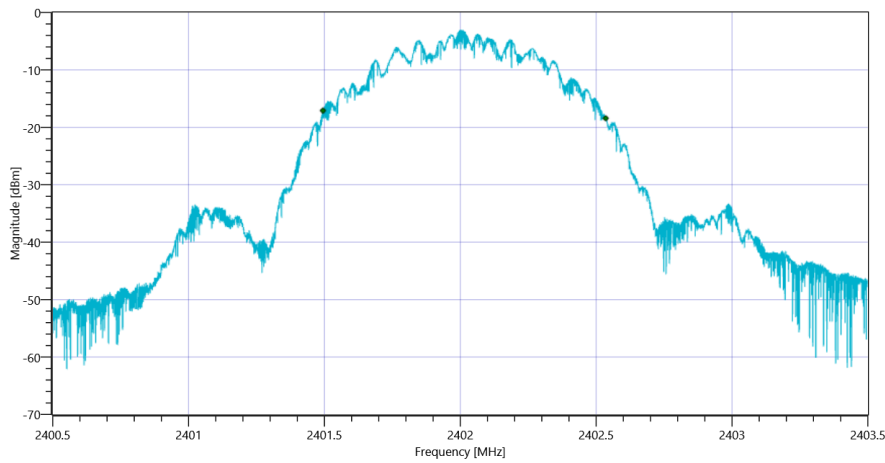
Test at TX 2402 MHz

READ SA SETTINGS:

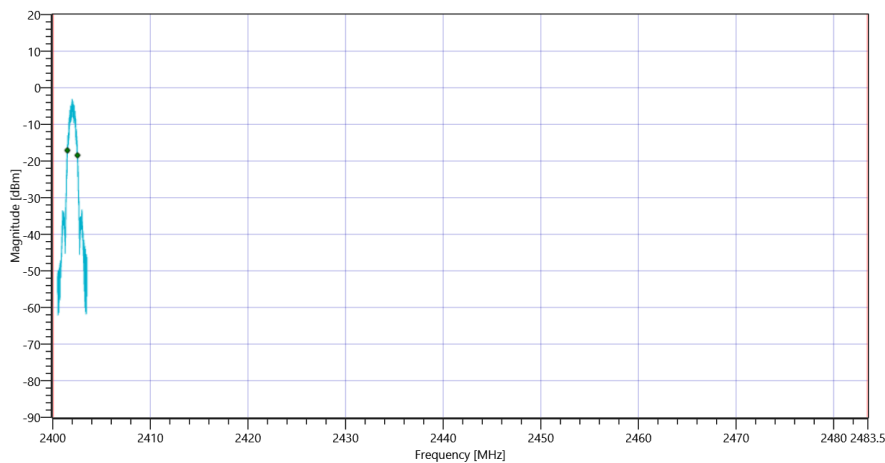
RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	5.42 15.57 5
Start [MHz] Stop [MHz]	2400.500 2403.500
RBW [MHz] VBW [MHz]	0.030000 0.100000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	50 200 10001 SWE

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 99%	---	---	1041	kHz	INFO
T1 99%	2400.000000	---	2401.4946	MHz	PASS
T2 99%	---	2483.500000	2402.5351	MHz	PASS



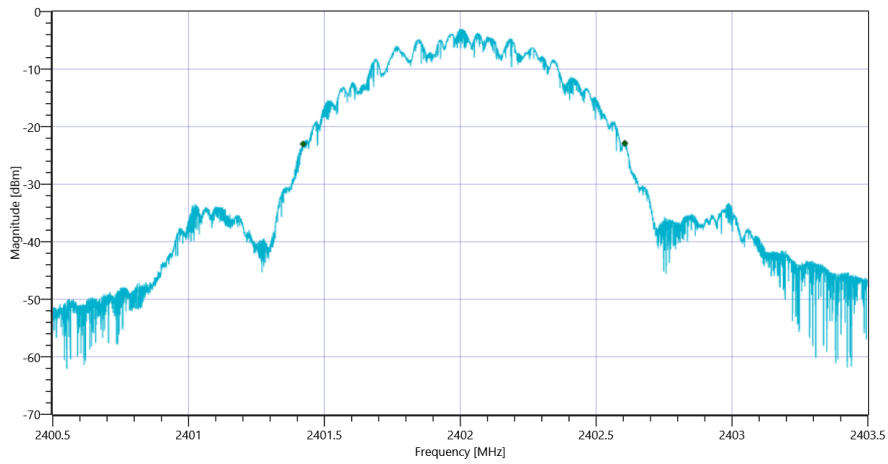
Plot_FCC Part 15.247 Bandwidth 99PCT-20dB ~ Generic 2G4 99PCT_26012021_155102.png



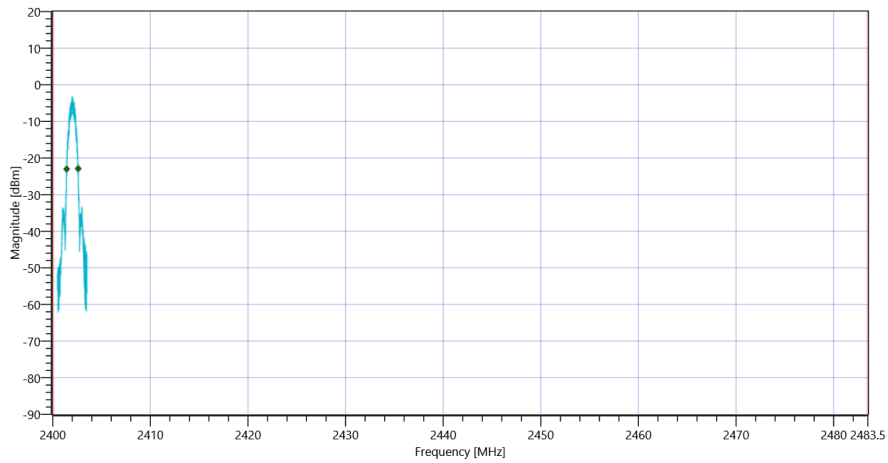
Plot_FCC Part 15.247 Bandwidth 99PCT-20dB ~ Generic 2G4_26012021_155113.png

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 20dB	---	---	1184	kHz	INFO
T1 20dB	2400.000000	---	2401.4216	MHz	PASS
T2 20dB	---	2483.500000	2402.6054	MHz	PASS



Plot_FCC Part 15.247 Bandwidth 99PCT-20dB ~ Generic 2G4 20dB_26012021_155123.png



Plot_FCC Part 15.247 Bandwidth 99PCT-20dB ~ Generic 2G4_26012021_155134.png

TEST FINISHED

General Verdict

PASS

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

Test References	
TC Start	26.01.2021 15:51:39
Ambit Temp [°C] Humidity [rel%]	23.8 23
System Version	1.9.9.4
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	

Test Parameter	
Technology to test	Generic 2G4
Antenna Port used	1
Temperature	nom
Voltage	nom
Frequency low to test	False Freq [MHz] 2402
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
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer
Devices in use	SA: Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.60

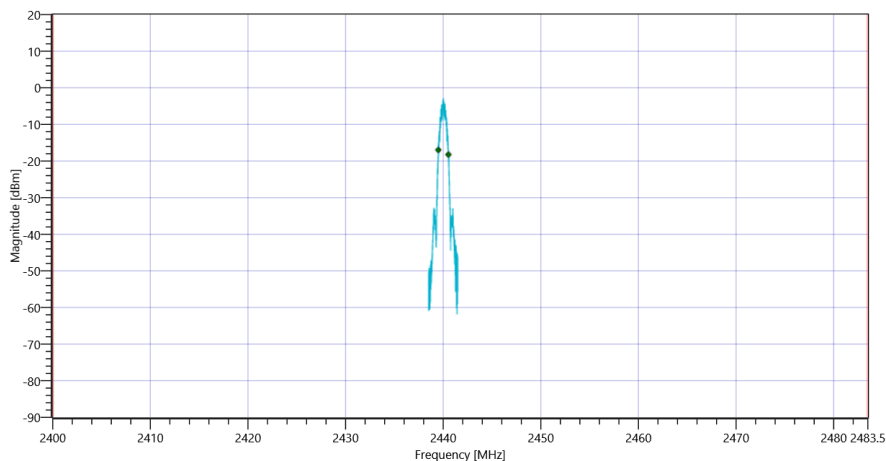
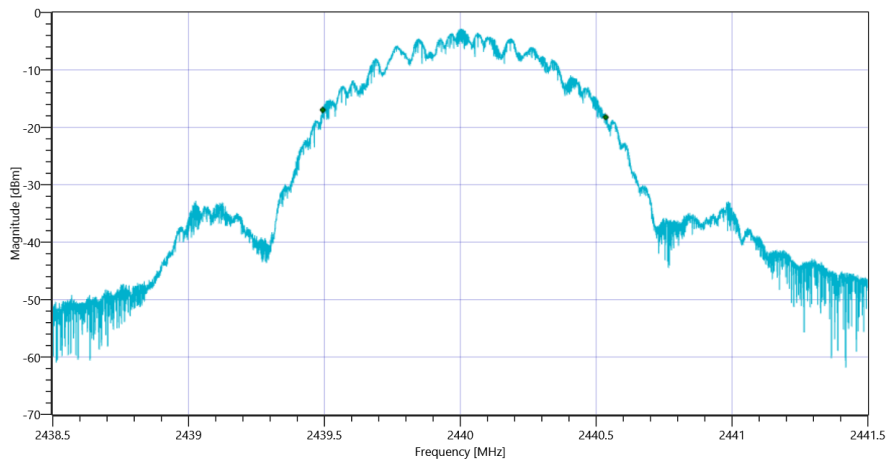
Test at TX 2440 MHz

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	5.55 15.48 10
Start [MHz] Stop [MHz]	2438.500 2441.500
RBW [MHz] VBW [MHz]	0.030000 0.100000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	50 200 10001 SWE

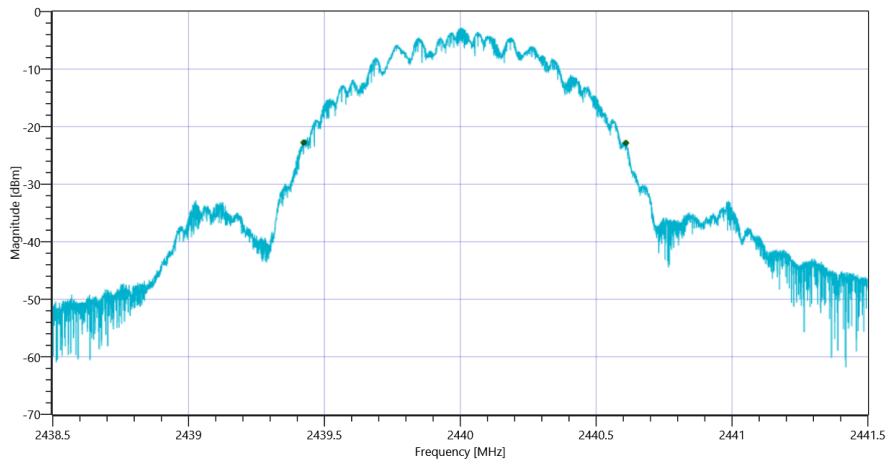
RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 99%	---	---	1041	kHz	INFO
T1 99%	2400.000000	---	2439.4937	MHz	PASS
T2 99%	---	2483.500000	2440.5351	MHz	PASS

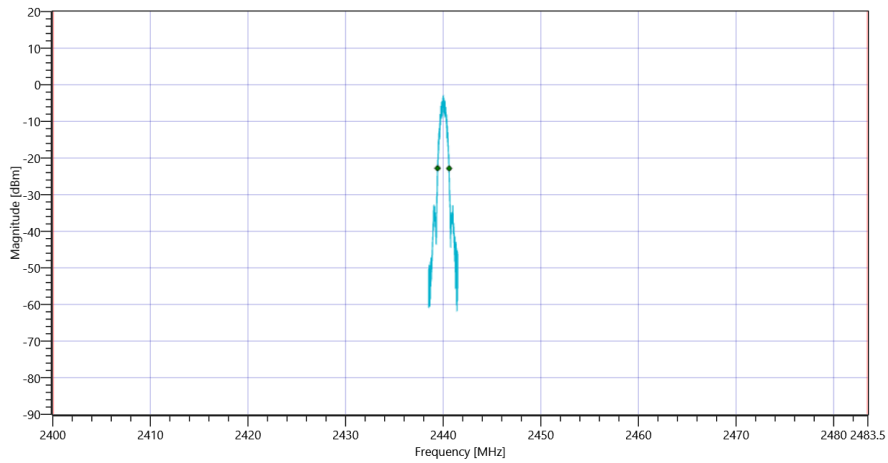


RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 20dB	---	---	1186	kHz	INFO
T1 20DB	2400.000000	---	2439.4234	MHz	PASS
T2 20dB	---	2483.500000	2440.6093	MHz	PASS



Plot_FCC Part 15.247 Bandwidth 99PCT-20dB ~ Generic 2G4 20dB_26012021_155255.png



Plot_FCC Part 15.247 Bandwidth 99PCT-20dB ~ Generic 2G4_26012021_155306.png

TEST FINISHED

General Verdict

PASS

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

Test References	
TC Start	26.01.2021 15:53:11
Ambit Temp [°C] Humidity [rel%]	23.8 23
System Version	1.9.9.4
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	

Test Parameter	
Technology to test	Generic 2G4
Antenna Port used	1
Temperature	nom
Voltage	nom
Frequency low to test	False Freq [MHz] 2402
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]	0
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer
Devices in use	SA: Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.60

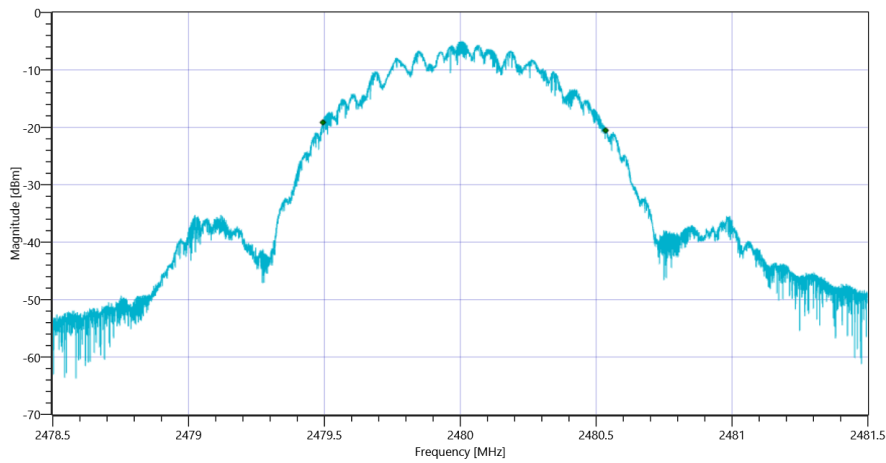
Test at TX 2480 MHz

READ SA SETTINGS:

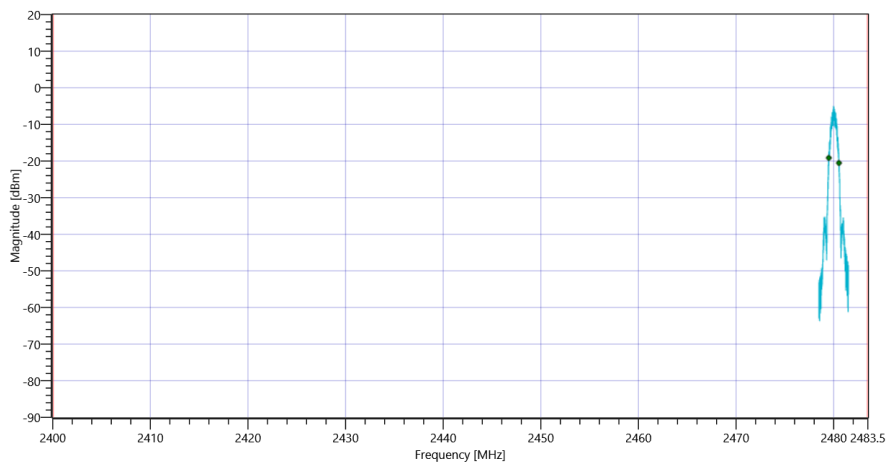
RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	3.83 15.41 5
Start [MHz] Stop [MHz]	2478.500 2481.500
RBW [MHz] VBW [MHz]	0.030000 0.100000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	50 200 10001 SWE

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 99%	---	---	1041	kHz	INFO
T1 99%	2400.000000	---	2479.4943	MHz	PASS
T2 99%	---	2483.500000	2480.5348	MHz	PASS



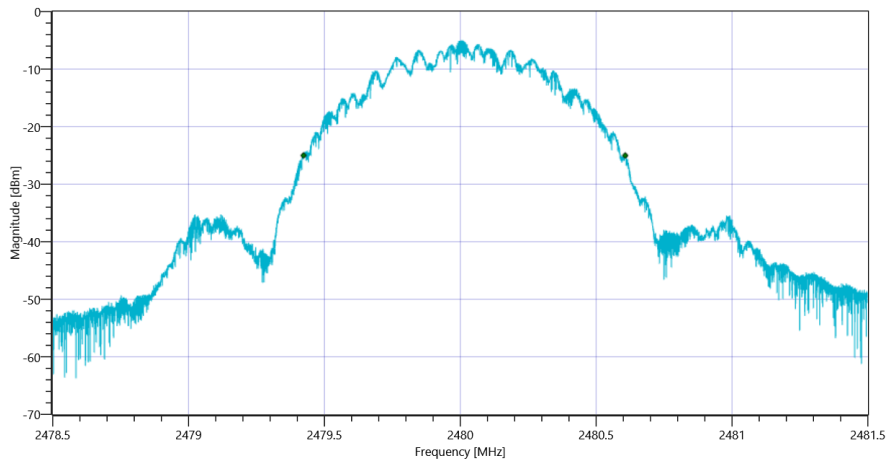
Plot_FCC Part 15.247 Bandwidth 99PCT-20dB ~ Generic 2G4 99PCT_26012021_155542.png



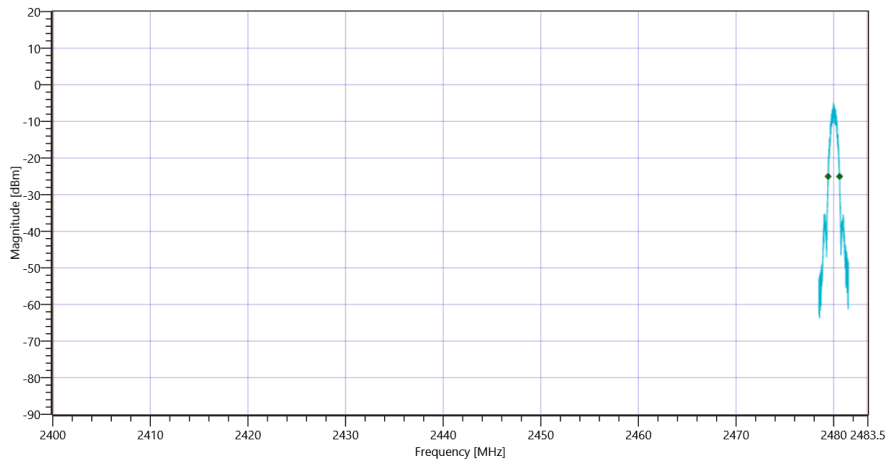
Plot_FCC Part 15.247 Bandwidth 99PCT-20dB ~ Generic 2G4_26012021_155553.png

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 20dB	---	---	1184	kHz	INFO
T1 20DB	2400.000000	---	2479.4231	MHz	PASS
T2 20dB	---	2483.500000	2480.6069	MHz	PASS



Plot_FCC Part 15.247 Bandwidth 99PCT-20dB ~ Generic 2G4 20dB_26012021_155603.png



Plot_FCC Part 15.247 Bandwidth 99PCT-20dB ~ Generic 2G4_26012021_155614.png

TEST FINISHED

General Verdict

PASS

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

Test References	
TC Start	26.01.2021 15:56:18
Ambit Temp [°C] Humidity [rel%]	23.9 23
System Version	1.9.9.4
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	

Test Parameter	
Technology to test	Generic 2G4
Antenna Port used	1
Temperature	nom
Voltage	nom
Frequency low to test	True Freq [MHz] 2402
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
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer
Devices in use	SA: Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.60

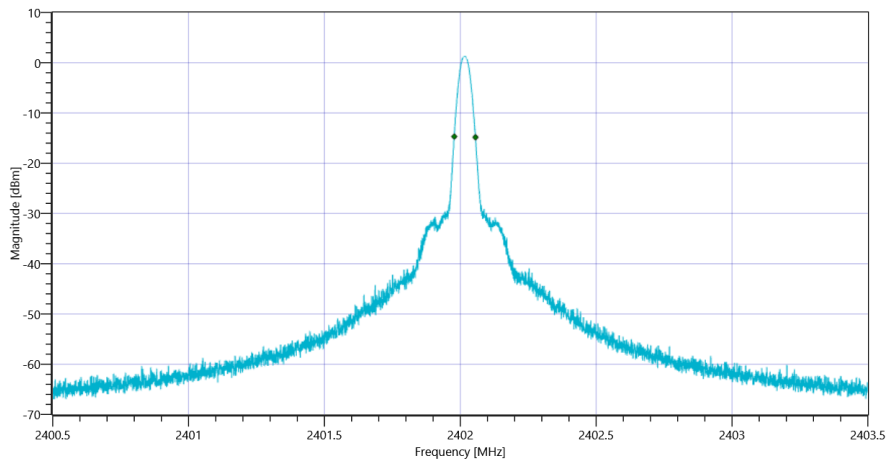
Test at TX 2402 MHz

READ SA SETTINGS:

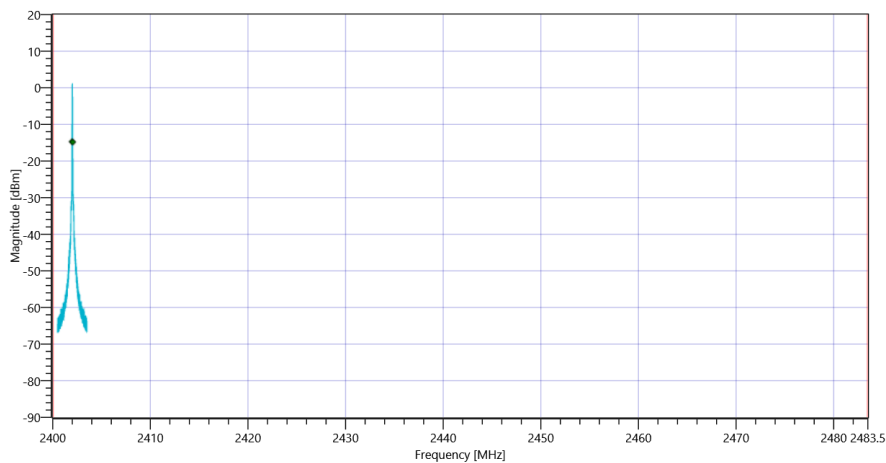
RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	6.43 15.57 10
Start [MHz] Stop [MHz]	2400.500 2403.500
RBW [MHz] VBW [MHz]	0.030000 0.100000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	50 200 10001 SWE

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 99%	---	---	78	kHz	INFO
T1 99%	2400.000000	---	2401.9778	MHz	PASS
T2 99%	---	2483.500000	2402.0558	MHz	PASS



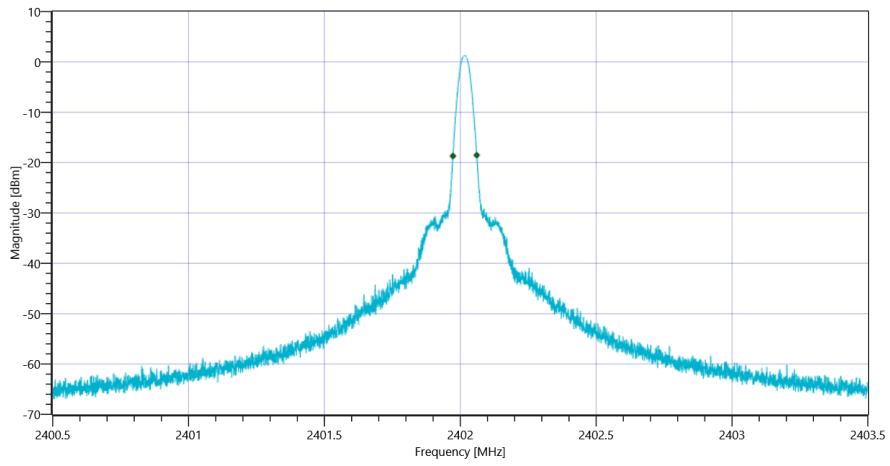
Plot_FCC Part 15.247 Bandwidth 99PCT-20dB ~ Generic 2G4 99PCT_26012021_155731.png



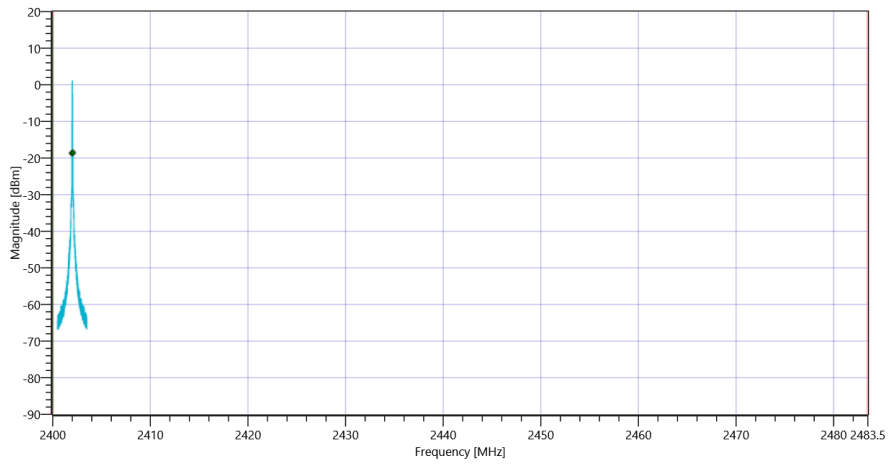
Plot_FCC Part 15.247 Bandwidth 99PCT-20dB ~ Generic 2G4_26012021_155742.png

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 20dB	---	---	87	kHz	INFO
T1 20dB	2400.000000	---	2401.9730	MHz	PASS
T2 20dB	---	2483.500000	2402.0603	MHz	PASS



Plot_FCC Part 15.247 Bandwidth 99PCT-20dB ~ Generic 2G4 20dB_26012021_155753.png



Plot_FCC Part 15.247 Bandwidth 99PCT-20dB ~ Generic 2G4_26012021_155804.png

TEST FINISHED

General Verdict

PASS

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

Test References	
TC Start	26.01.2021 15:58:08
Ambit Temp [°C] Humidity [rel%]	23.9 23
System Version	1.9.9.4
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	

Test Parameter	
Technology to test	Generic 2G4
Antenna Port used	1
Temperature	nom
Voltage	nom
Frequency low to test	False Freq [MHz] 2402
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
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer
Devices in use	SA: Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.60

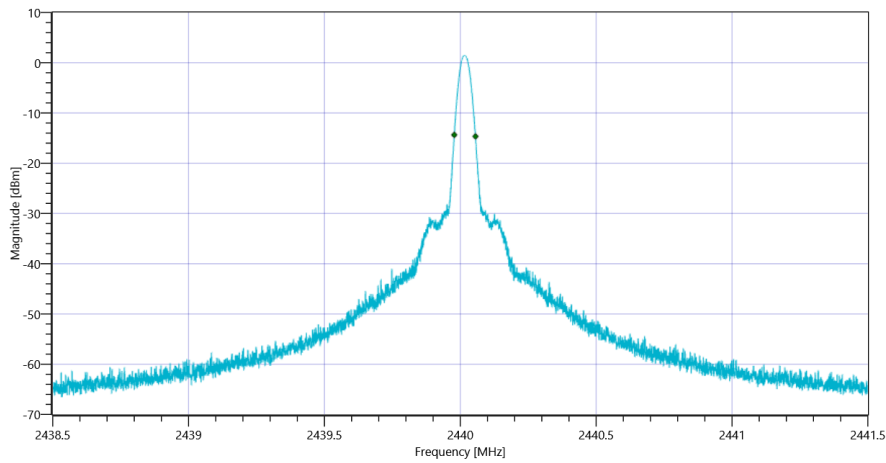
Test at TX 2440 MHz

READ SA SETTINGS:

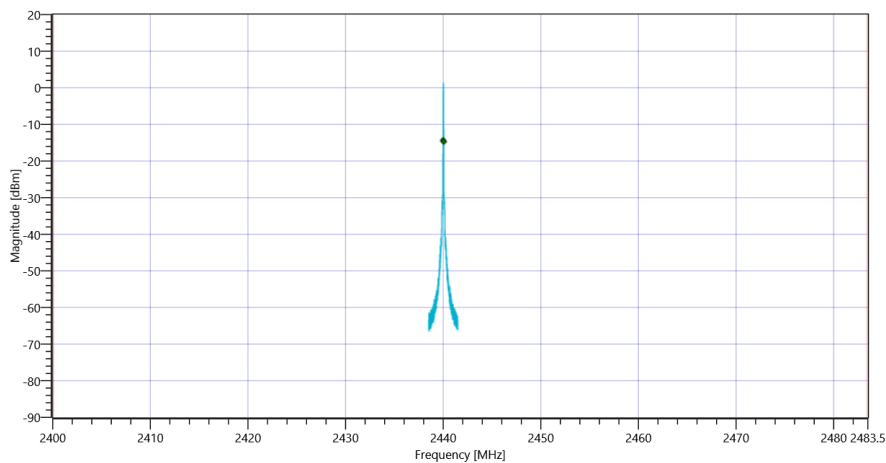
RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	6.46 15.48 10
Start [MHz] Stop [MHz]	2438.500 2441.500
RBW [MHz] VBW [MHz]	0.030000 0.100000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	50 200 10001 SWE

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 99%	---	---	78	kHz	INFO
T1 99%	2400.000000	---	2439.9778	MHz	PASS
T2 99%	---	2483.500000	2440.0558	MHz	PASS



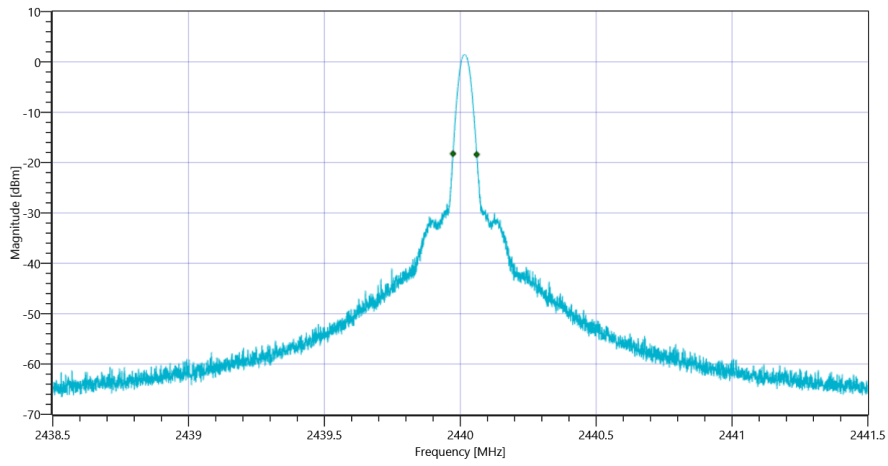
Plot_FCC Part 15.247 Bandwidth 99PCT-20dB ~ Generic 2G4 99PCT_26012021_155929.png



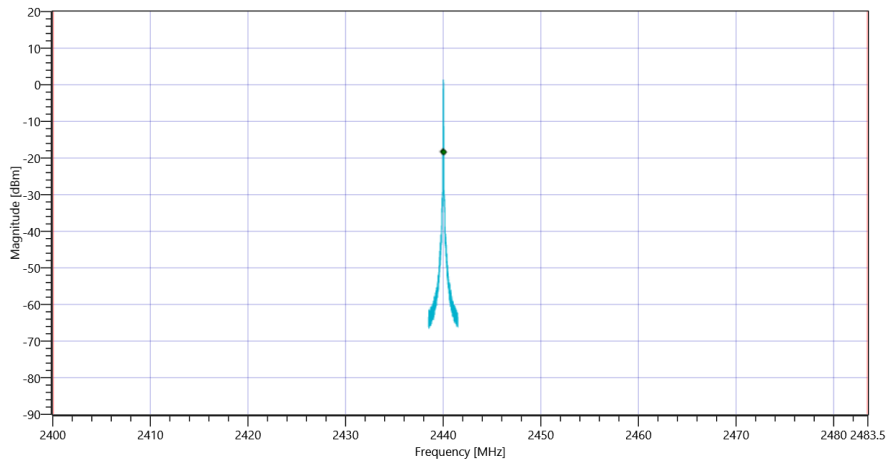
Plot_FCC Part 15.247 Bandwidth 99PCT-20dB ~ Generic 2G4_26012021_155940.png

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 20dB	---	---	87	kHz	INFO
T1 20DB	2400.000000	---	2439.9730	MHz	PASS
T2 20dB	---	2483.500000	2440.0603	MHz	PASS



Plot_FCC Part 15.247 Bandwidth 99PCT-20dB ~ Generic 2G4 20dB_26012021_155950.png



Plot_FCC Part 15.247 Bandwidth 99PCT-20dB ~ Generic 2G4_26012021_160001.png

TEST FINISHED

General Verdict

PASS

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

Test References	
TC Start	26.01.2021 16:00:05
Ambit Temp [°C] Humidity [rel%]	23.9 23
System Version	1.9.9.4
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	

Test Parameter	
Technology to test	Generic 2G4
Antenna Port used	1
Temperature	nom
Voltage	nom
Frequency low to test	False Freq [MHz] 2402
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]	0
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer
Devices in use	SA: Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.60

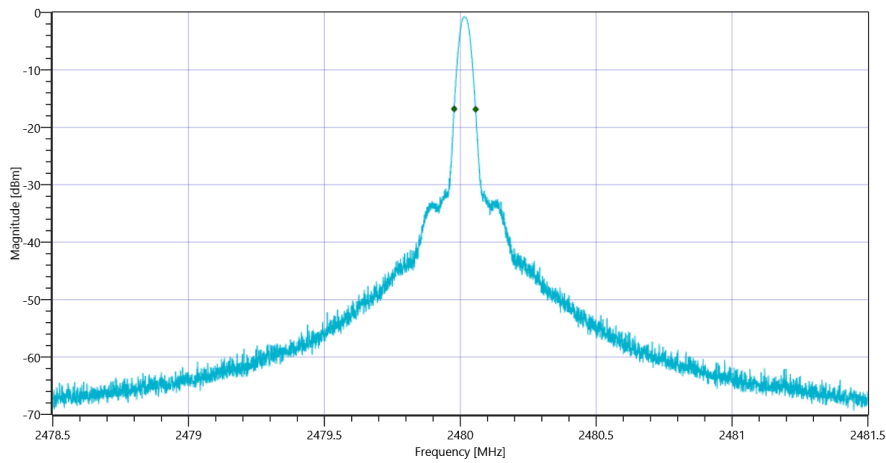
Test at TX 2480 MHz

READ SA SETTINGS:

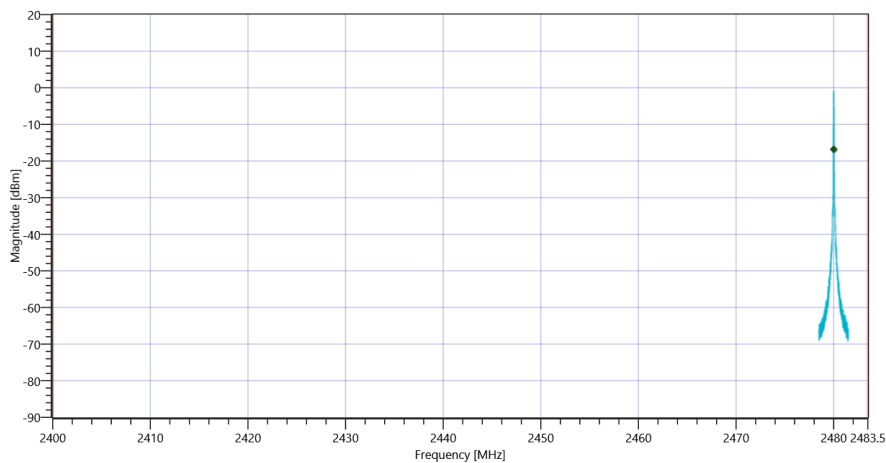
RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	4.63 15.41 5
Start [MHz] Stop [MHz]	2478.500 2481.500
RBW [MHz] VBW [MHz]	0.030000 0.100000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	50 200 10001 SWE

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 99%	---	---	79	kHz	INFO
T1 99%	2400.000000	---	2479.9775	MHz	PASS
T2 99%	---	2483.500000	2480.0564	MHz	PASS



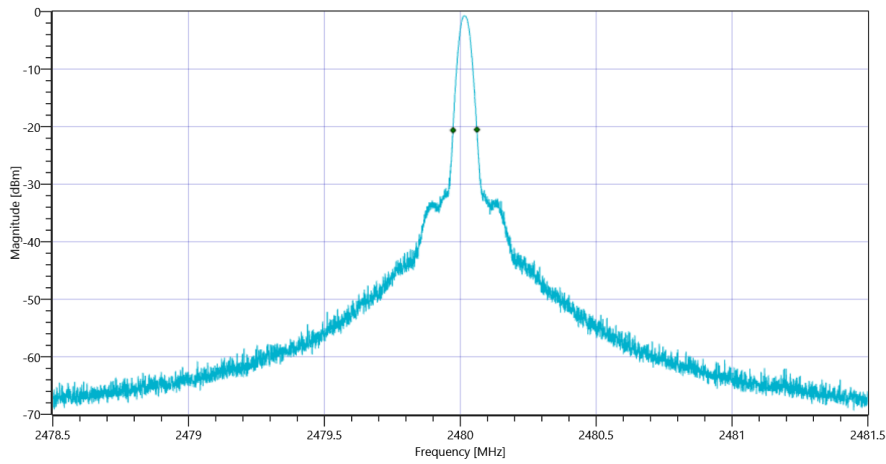
Plot_FCC Part 15.247 Bandwidth 99PCT-20dB ~ Generic 2G4 99PCT_26012021_160126.png



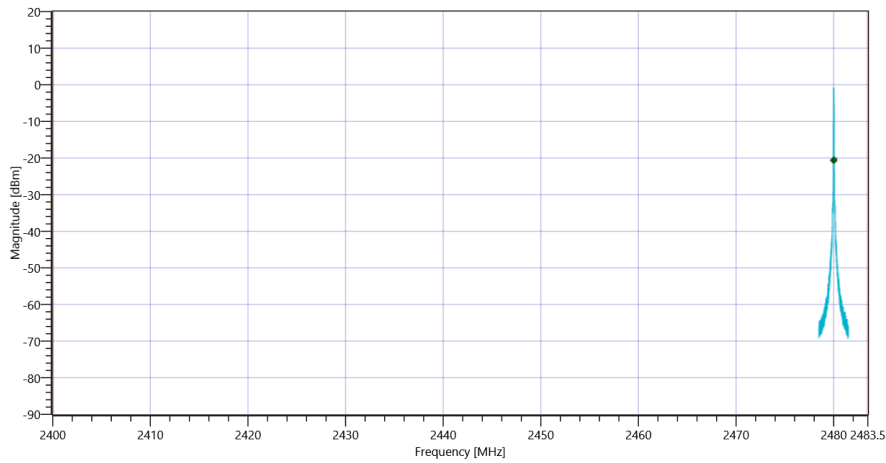
Plot_FCC Part 15.247 Bandwidth 99PCT-20dB ~ Generic 2G4_26012021_160137.png

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 20dB	---	---	88	kHz	INFO
T1 20DB	2400.000000	---	2479.9733	MHz	PASS
T2 20dB	---	2483.500000	2480.0612	MHz	PASS



Plot_FCC Part 15.247 Bandwidth 99PCT-20dB ~ Generic 2G4 20dB_26012021_160147.png



Plot_FCC Part 15.247 Bandwidth 99PCT-20dB ~ Generic 2G4_26012021_160159.png

TEST FINISHED

General Verdict

PASS

- END OF DOCUMENT -