

# Measurement Results

1-8684/19-01-07\_Annex\_MR\_A\_1

[Test logging](#)

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## IUT Summary

IUT DEFINITION & Common settings	
Manufacturer	FLIR Systems AB
Type	FLIR-C8940
Serial No.   Setup No.	894000030   1.0
SW Version   HW Version	-/-   -/-
Comment 1   2	Region: EN   -/-
Tlow   Tmid   Thigh [°C]	-10   20   50
Vlow   Vmid   Vhigh [V] @Imax [A]	3.3   3.7   4.2 @1
Auto Control enabled Power Supply   Climatic Box	No   No
Antenna Gain [dBi]	0
Additional Path Loss [dB]	0.3

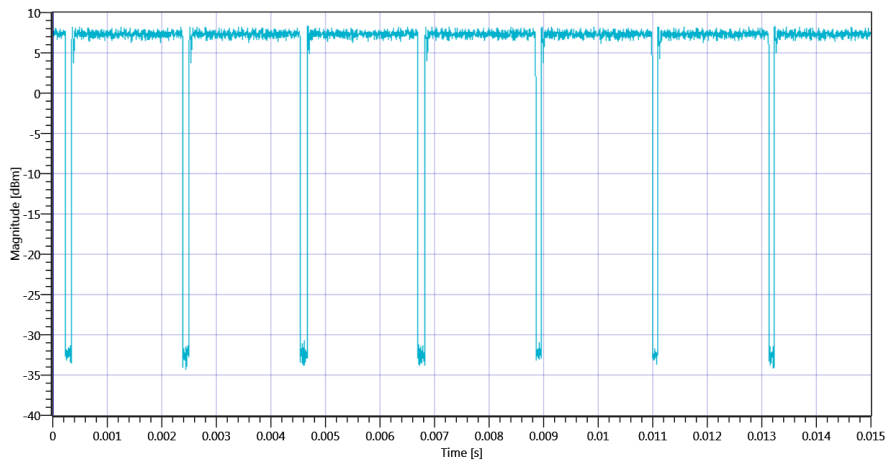
## 1. FCC Part 15.407 Max Output Power and PSD ~ WLAN5Gx a mode U-NII-1

Test References	
TC Start	25.02.2020 14:18:37
System Version	1.0.0.33
Test Specification	FCC Part 15.407
Test Method	KDB789033 D02, F., E.2.e.
Class / TC Version	TC_VM_FCC15407_Max_Output_Power_and_PSD_V01 Version: 0.0.1
My Description	FCC 15.407 Max Output Power & PSD - WLAN5Gx a mode U-NII-1
Add. Information	

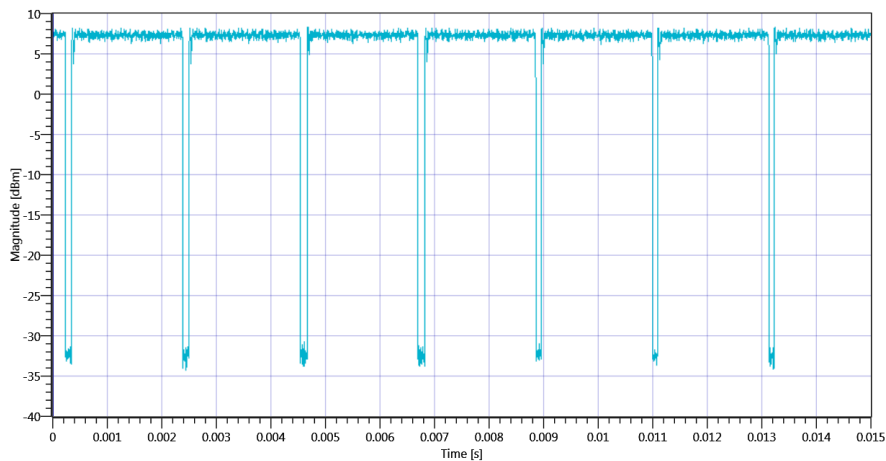
Test Parameter	
Technology to test	WLAN5Gx a mode U-NII-1
Antenna Port used	1
Temperature	mid
Voltage	mid
Frequency low to test	True   Freq [MHz] 5180
Frequency mid to test	False   Freq [MHz] 5200
Frequency high to test	False   Freq [MHz] 5240
Switched Path	IUT - SignalingUnit - SpectrumAnalyzer
Devices in use	SA: Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.60

## Test at TX 5180 MHz

Duty Cycle evaluation					
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Result Duty Cycles					
Result Summary					
Number of detected Bursts:6					
Duty Cycle (Burst Ratio) max	---	---	0.949	---	Information
Duty Cycle max	---	---	0.227	dB	Information
Duty Cycle (Burst Ratio) min	---	---	0.936	---	Information
Duty Cycle min	---	---	0.287	dB	Information
Max TX Burst Length	---	---	2.025	ms	Information
Min Gap Length	---	---	0.109	ms	Information
Max Gap Length	---	---	0.139	ms	Information

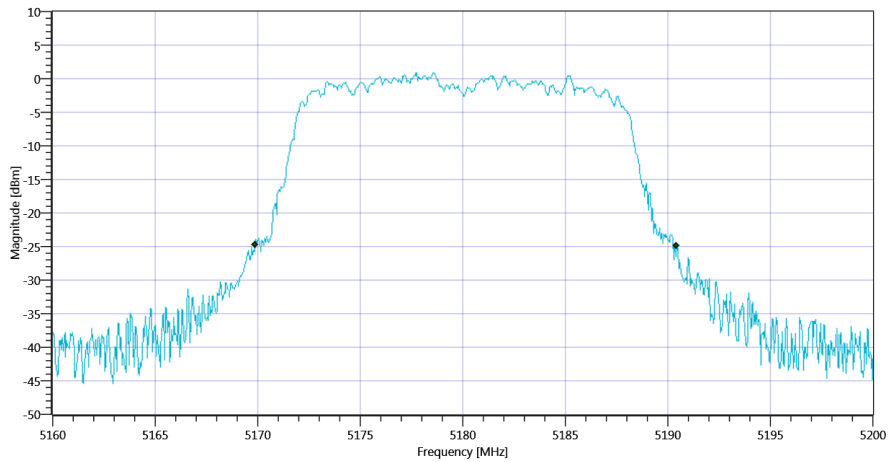


Plot\_FCC Part 15.407 Max Output Power and PSD ~ WLAN5Gx a mode U-NII-1 5180 MHz - Duty Cycle\_25022020\_141853.png



Plot\_FCC Part 15.407 Max Output Power and PSD ~ WLAN5Gx a mode U-NII-1 5180 MHz - DutyCycle\_25022020\_141855.png

RESULT					
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 26dB	---	---	20.56	MHz	INFO
T1 26dB	---	---	5169.8800	MHz	INFO
T2 26dB	---	---	5190.4400	MHz	INFO



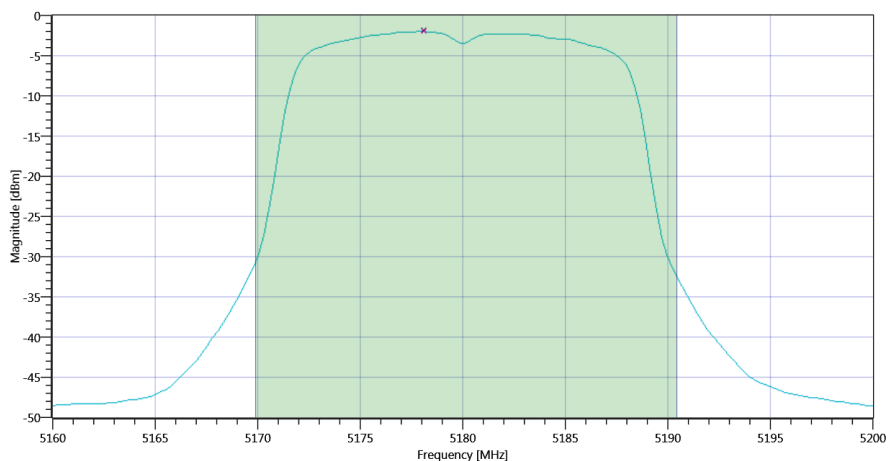
Plot\_FCC Part 15.407 Max Output Power and PSD ~ WLAN5Gx a mode U-NII-1 BW\_25022020\_141907.png

**READ SA SETTINGS:**

RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]	18.31   14.49   20
Start [MHz]   Stop [MHz]	5160.000   5200.000
RBW [MHz]   VBW [MHz]	1.000000   3.000000
Detector   TraceMode	RMS   MAXH
Sweep: Time [ms]   Count   Points per Section   Type	8000   1   160   SWE

**RESULT**

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Max Output Power	---	---	8.94	dBm	INFO
Duty Cycle Correction	---	---	0.29	dB	INFO
<b>Limit absolute</b>					
Max Output Power DC corrected	---	24	9.23	dBm	PASS
<b>Limit by: 11 dBm + 10 log Bandwidth</b>					
Max Output Power DC corrected	---	24.13	9.23	dBm	PASS



Plot\_FCC Part 15.407 Max Output Power and PSD ~ WLAN5Gx a mode U-NII-1 Max OP and PSD\_25022020\_141923.png

**RESULT**

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Power Spectral Density	---	---	-2	dBm/1MHz	INFO
Duty Cycle Correction	---	---	0.29	dB	INFO
Power Spectral Density DC corrected	---	11	-1.71	dBm/1MHz	PASS

TEST FINISHED

General Verdict

25.02.2020 14:19:25 / RT: 48 s

PASS

## 2. ISED Max Output Power and PSD ~ WLAN5Gx a mode U-NII-1

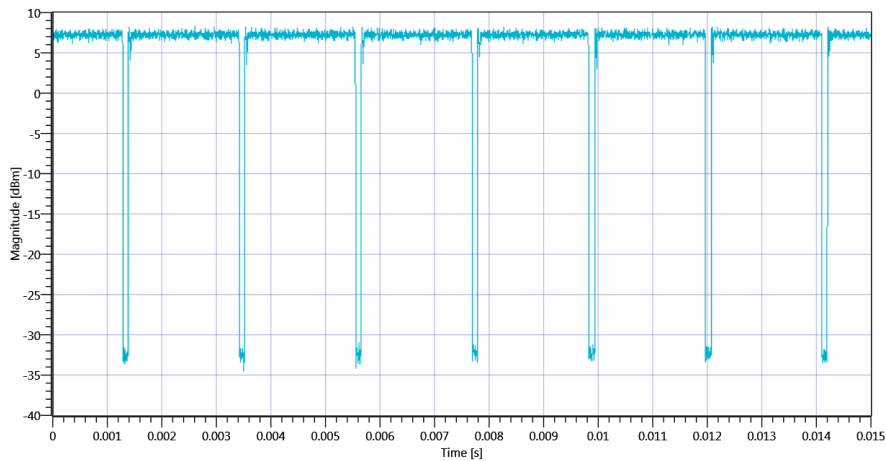
Test References	
TC Start	25.02.2020 14:19:30
System Version	1.0.0.33
Test Specification	ISED
Test Method	
Class / TC Version	TC_VM_FCC15407_Max_Output_Power_and_PSD_V01 Version: 0.0.1
My Description	ISED Max Output Power & PSD - WLAN5Gx a mode U-NII-1
Add. Information	

Test Parameter	
Technology to test	WLAN5Gx a mode U-NII-1
Antenna Port used	1
Temperature	mid
Voltage	mid
Frequency low to test	True   Freq [MHz] 5180
Frequency mid to test	False   Freq [MHz] 5200
Frequency high to test	False   Freq [MHz] 5240
Switched Path	IUT - SignalingUnit - SpectrumAnalyzer
Devices in use	SA: Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.60

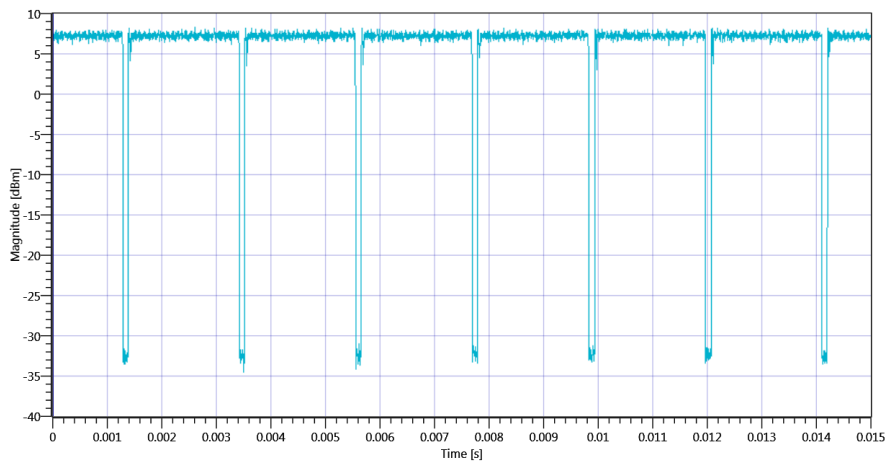


## Test at TX 5180 MHz

Duty Cycle evaluation					
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Result Duty Cycles					
Result Summary					
Number of detected Bursts:6					
Duty Cycle (Burst Ratio) max	---	---	0.949	---	Information
Duty Cycle max	---	---	0.227	dB	Information
Duty Cycle (Burst Ratio) min	---	---	0.944	---	Information
Duty Cycle min	---	---	0.25	dB	Information
Max TX Burst Length	---	---	2.025	ms	Information
Min Gap Length	---	---	0.109	ms	Information
Max Gap Length	---	---	0.12	ms	Information

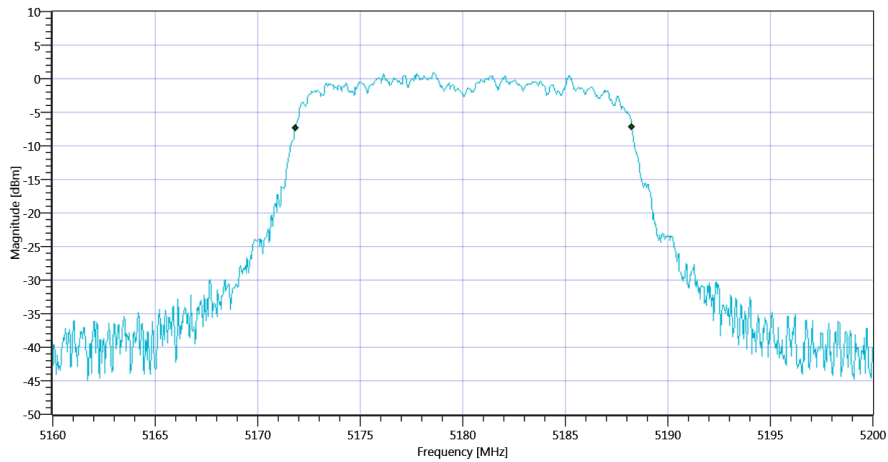


Plot\_ISED Max Output Power and PSD ~ WLAN5Gx a mode U-NII-1 5180 MHz - Duty Cycle\_25022020\_141947.png



Plot\_ISED Max Output Power and PSD ~ WLAN5Gx a mode U-NII-1 5180 MHz - DutyCycle\_25022020\_141948.png

RESULT					
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 99%	---	---	16.384	MHz	INFO
T1 99%	---	---	5171.8482	MHz	INFO
T2 99%	---	---	5188.2318	MHz	INFO



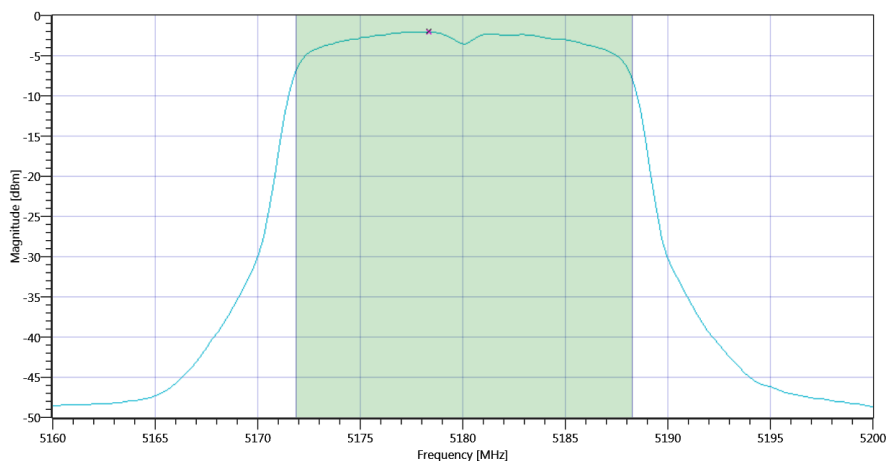
Plot\_ISED Max Output Power and PSD ~ WLAN5Gx a mode U-NII-1 BW\_25022020\_142001.png

**READ SA SETTINGS:**

RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]	17.80   14.49   20
Start [MHz]   Stop [MHz]	5160.000   5200.000
RBW [MHz]   VBW [MHz]	1.000000   3.000000
Detector   TraceMode	RMS   MAXH
Sweep: Time [ms]   Count   Points per Section   Type	8000   1   160   SWE

**RESULT**

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Max Output Power	---	---	8.81	dBm	INFO
Duty Cycle Correction	---	---	0.25	dB	INFO
<b>Limit absolute</b>					
Max Output Power DC corrected	---	24	9.06	dBm	PASS
<b>Limit by: 11 dBm + 10 log Bandwidth</b>					
Max Output Power DC corrected	---	23.14	9.06	dBm	PASS



Plot\_ISED Max Output Power and PSD ~ WLAN5Gx a mode U-NII-1 Max OP and PSD\_25022020\_142016.png

**RESULT**

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Power Spectral Density	---	---	-2.05	dBm/1MHz	INFO
Duty Cycle Correction	---	---	0.25	dB	INFO
Power Spectral Density DC corrected	---	11	-1.8	dBm/1MHz	PASS

TEST FINISHED

General Verdict

25.02.2020 14:20:19 / RT: 48 s

PASS

### 3. FCC Part 15.407 & ISED Bandwidths ~ WLAN5Gx a mode U-NII-1

Test References	
TC Start	25.02.2020 14:20:23
System Version	1.0.0.33
Test Specification	FCC Part 15.407 & ISET RSS-GEN
Test Method	26dB Bandwidth KDB789033 D02, C.1 / ISED RSS-GEN
Class / TC Version	TC_VM_FCC15407_Bandwidths_V01 Version: 0.0.1
My Description	FCC 15.407 Bandwidths - WLAN5Gx a mode U-NII-1
Add. Information	

Test Parameter	
Technology to test	WLAN5Gx a mode U-NII-1
Antenna Port used	1
Temperature	mid
Voltage	mid
Frequency low to test	True   Freq [MHz] 5180
Frequency mid to test	False   Freq [MHz] 5200
Frequency high to test	False   Freq [MHz] 5240
Switched Path	IUT - SignalingUnit - SpectrumAnalyzer
Devices in use	SA: Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.60

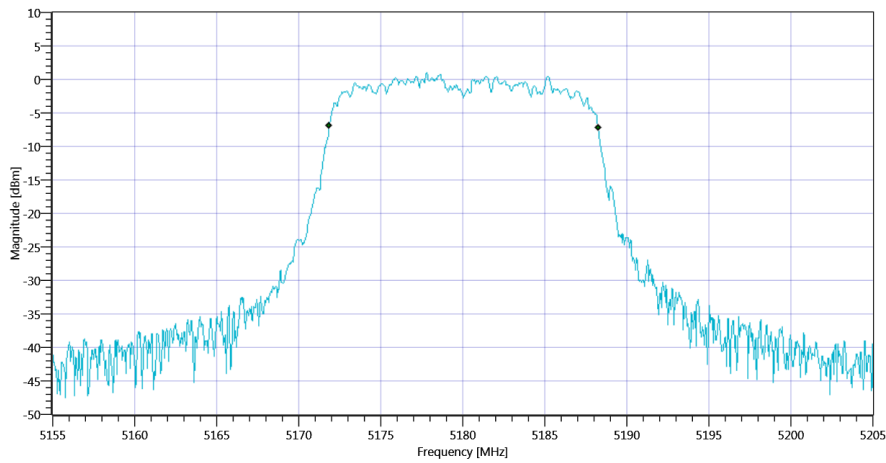
## Test at TX 5180 MHz

### READ SA SETTINGS:

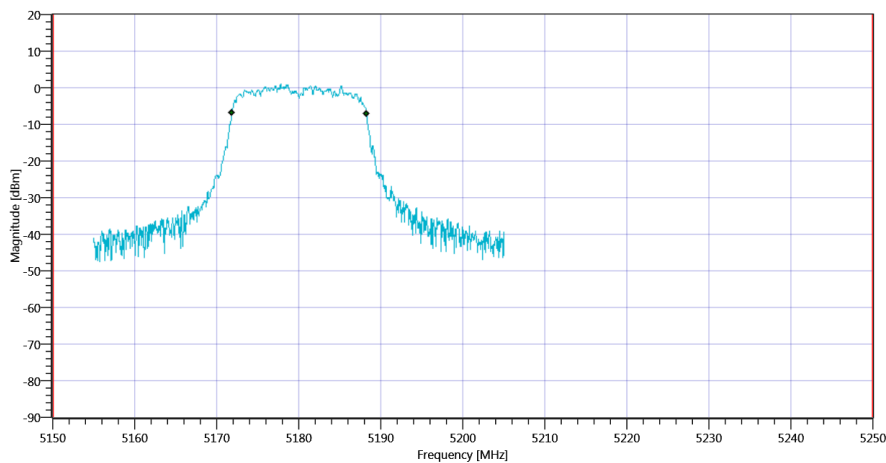
RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]	13.61   14.49   15
Start [MHz]   Stop [MHz]	5155.000   5205.000
RBW [MHz]   VBW [MHz]	0.300000   1.000000
Detector   TraceMode	POS   MAXH
Sweep: Time [ms]   Count   Points per Section   Type	1   2500   1001   SWE

### RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 99%	---	---	16.384	MHz	INFO
T1 99%	5150.000000	---	5171.8581	MHz	PASS
T2 99%	---	5250.000000	5188.2418	MHz	PASS



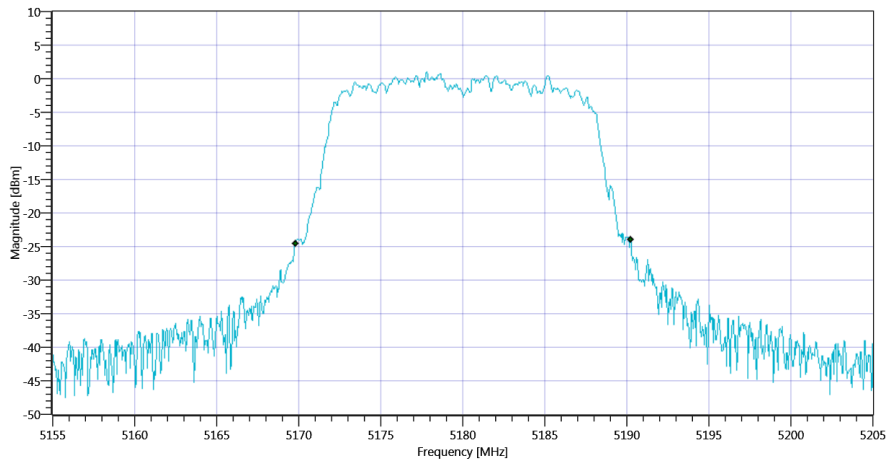
Plot\_FCC Part 15.407 & ISED Bandwidths ~ WLAN5Gx a mode U-NII-1 99PCT\_25022020\_142053.png



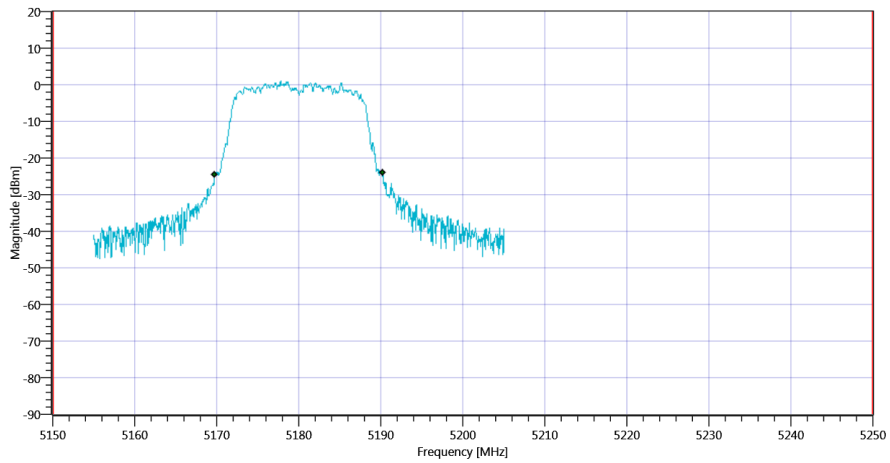
Plot\_FCC Part 15.407 & ISED Bandwidths ~ WLAN5Gx a mode U-NII-1\_25022020\_142057.png

### RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 26dB	---	---	20.45	MHz	INFO
T1 26dB	5150.000000	---	5169.8000	MHz	PASS
T2 26dB	---	5250.000000	5190.2500	MHz	PASS



Plot\_FCC Part 15.407 & ISSED Bandwidths ~ WLAN5Gx a mode U-NII-1 26dB\_25022020\_142102.png



Plot\_FCC Part 15.407 & ISSED Bandwidths ~ WLAN5Gx a mode U-NII-1\_25022020\_142106.png

TEST FINISHED

General Verdict

25.02.2020 14:21:07 / RT: 43 s

PASS

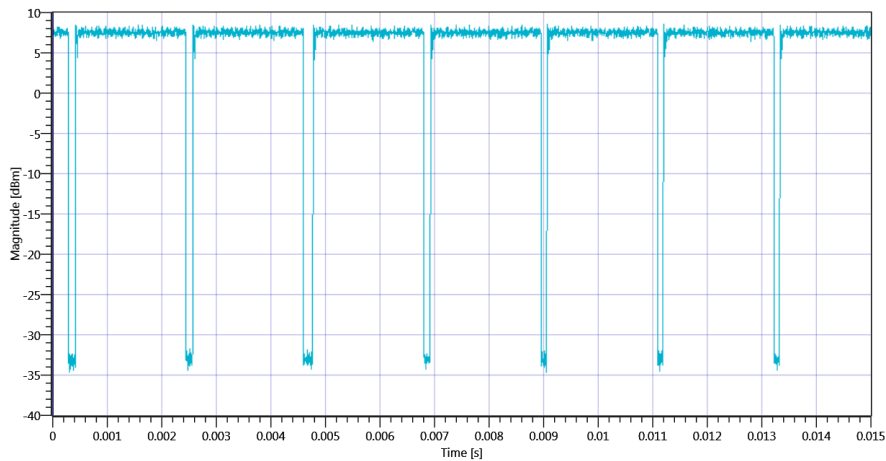
## 4. FCC Part 15.407 Max Output Power and PSD ~ WLAN5Gx a mode U-NII-1

Test References	
TC Start	25.02.2020 14:22:42
System Version	1.0.0.33
Test Specification	FCC Part 15.407
Test Method	KDB789033 D02, F., E.2.e.
Class / TC Version	TC_VM_FCC15407_Max_Output_Power_and_PSD_V01 Version: 0.0.1
My Description	FCC 15.407 Max Output Power & PSD - WLAN5Gx a mode U-NII-1
Add. Information	

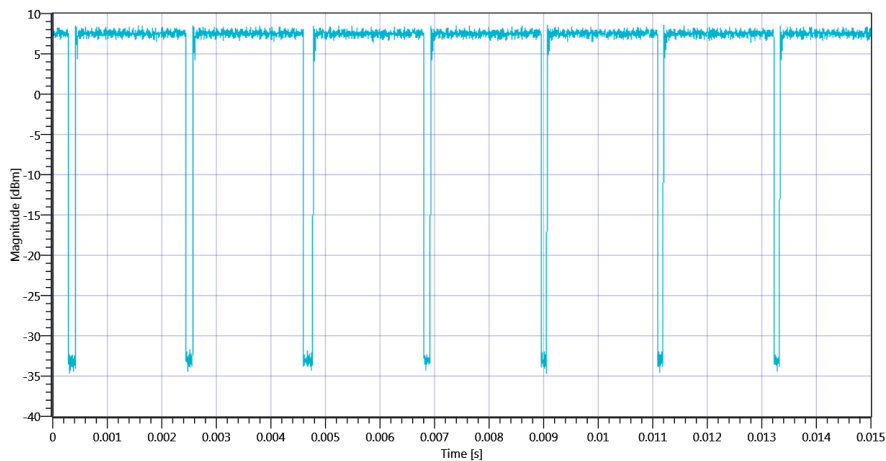
Test Parameter	
Technology to test	WLAN5Gx a mode U-NII-1
Antenna Port used	1
Temperature	mid
Voltage	mid
Frequency low to test	False   Freq [MHz] 5180
Frequency mid to test	True   Freq [MHz] 5200
Frequency high to test	False   Freq [MHz] 5240
Switched Path	IUT - SignalingUnit - SpectrumAnalyzer
Devices in use	SA: Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.60

## Test at TX 5200 MHz

Duty Cycle evaluation					
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Result Duty Cycles					
Result Summary					
Number of detected Bursts:6					
Duty Cycle (Burst Ratio) max	---	---	0.947	---	Information
Duty Cycle max	---	---	0.237	dB	Information
Duty Cycle (Burst Ratio) min	---	---	0.917	---	Information
Duty Cycle min	---	---	0.376	dB	Information
Max TX Burst Length	---	---	2.025	ms	Information
Min Gap Length	---	---	0.112	ms	Information
Max Gap Length	---	---	0.184	ms	Information



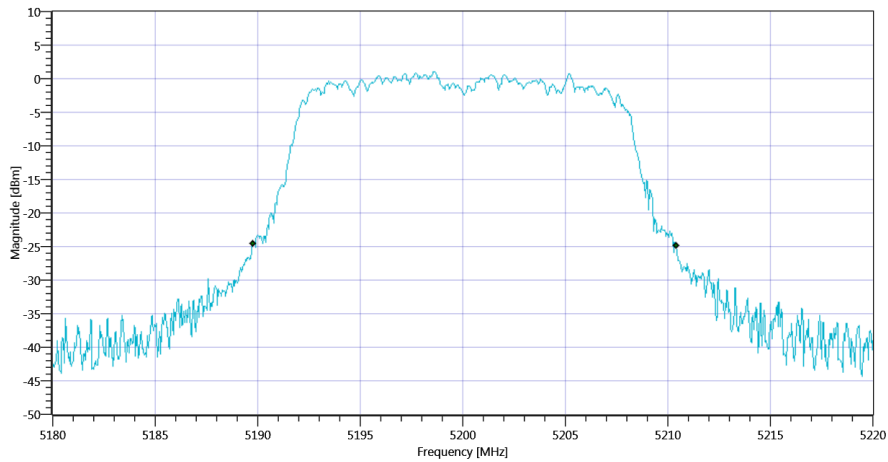
Plot\_FCC Part 15.407 Max Output Power and PSD ~ WLAN5Gx a mode U-NII-1 5200 MHz - Duty Cycle\_25022020\_142259.png



Plot\_FCC Part 15.407 Max Output Power and PSD ~ WLAN5Gx a mode U-NII-1 5200 MHz - DutyCycle\_25022020\_142301.png

RESULT					
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 26dB	---	---	20.64	MHz	INFO
T1 26dB	---	---	5189.7600	MHz	INFO
T2 26dB	---	---	5210.4000	MHz	INFO





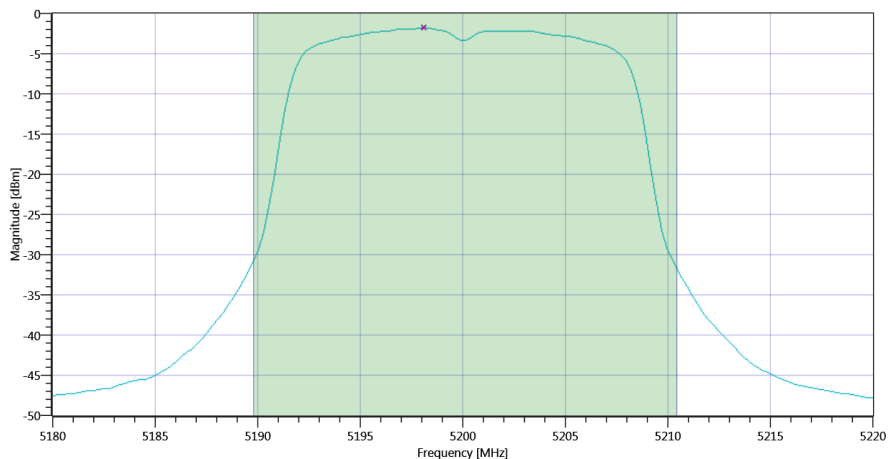
Plot\_FCC Part 15.407 Max Output Power and PSD ~ WLAN5Gx a mode U-NII-1 BW\_25022020\_142315.png

**READ SA SETTINGS:**

RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]	17.97   14.67   20
Start [MHz]   Stop [MHz]	5180.000   5220.000
RBW [MHz]   VBW [MHz]	1.000000   3.000000
Detector   TraceMode	RMS   MAXH
Sweep: Time [ms]   Count   Points per Section   Type	8000   1   160   SWE

**RESULT**

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Max Output Power	---	---	9.1	dBm	INFO
Duty Cycle Correction	---	---	0.38	dB	INFO
<b>Limit absolute</b>					
Max Output Power DC corrected	---	24	9.48	dBm	PASS
<b>Limit by: 11 dBm + 10 log Bandwidth</b>					
Max Output Power DC corrected	---	24.15	9.48	dBm	PASS



Plot\_FCC Part 15.407 Max Output Power and PSD ~ WLAN5Gx a mode U-NII-1 Max OP and PSD\_25022020\_142330.png

**RESULT**

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Power Spectral Density	---	---	-1.85	dBm/1MHz	INFO
Duty Cycle Correction	---	---	0.38	dB	INFO
Power Spectral Density DC corrected	---	11	-1.47	dBm/1MHz	PASS

TEST FINISHED

General Verdict

25.02.2020 14:23:33 / RT: 50 s

PASS

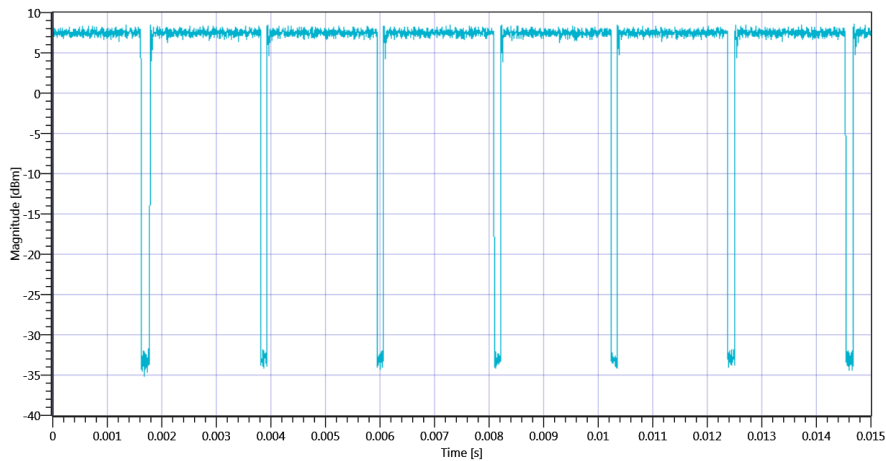
## 5. ISED Max Output Power and PSD ~ WLAN5Gx a mode U-NII-1

Test References	
TC Start	25.02.2020 14:23:37
System Version	1.0.0.33
Test Specification	ISED
Test Method	
Class / TC Version	TC_VM_FCC15407_Max_Output_Power_and_PSD_V01 Version: 0.0.1
My Description	ISED Max Output Power & PSD - WLAN5Gx a mode U-NII-1
Add. Information	

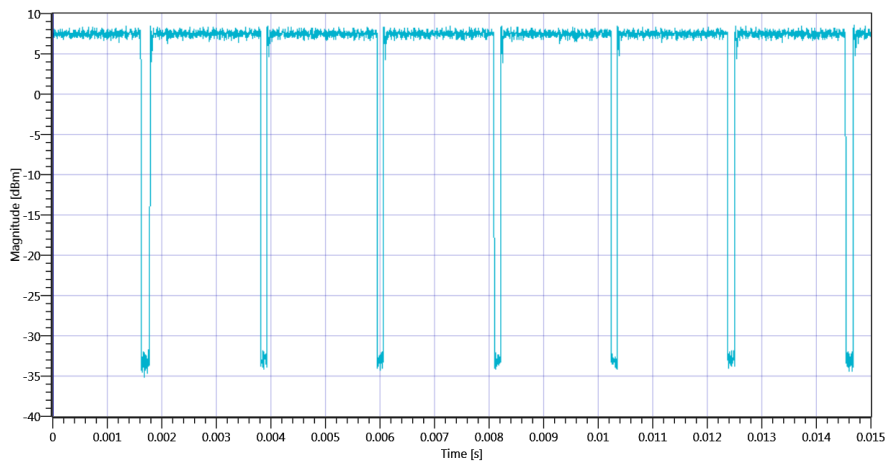
Test Parameter	
Technology to test	WLAN5Gx a mode U-NII-1
Antenna Port used	1
Temperature	mid
Voltage	mid
Frequency low to test	False   Freq [MHz] 5180
Frequency mid to test	True   Freq [MHz] 5200
Frequency high to test	False   Freq [MHz] 5240
Switched Path	IUT - SignalingUnit - SpectrumAnalyzer
Devices in use	SA: Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.60

## Test at TX 5200 MHz

Duty Cycle evaluation					
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Result Duty Cycles					
Result Summary					
Number of detected Bursts:6					
Duty Cycle (Burst Ratio) max	---	---	0.949	---	Information
Duty Cycle max	---	---	0.227	dB	Information
Duty Cycle (Burst Ratio) min	---	---	0.936	---	Information
Duty Cycle min	---	---	0.287	dB	Information
Max TX Burst Length	---	---	2.025	ms	Information
Min Gap Length	---	---	0.109	ms	Information
Max Gap Length	---	---	0.139	ms	Information

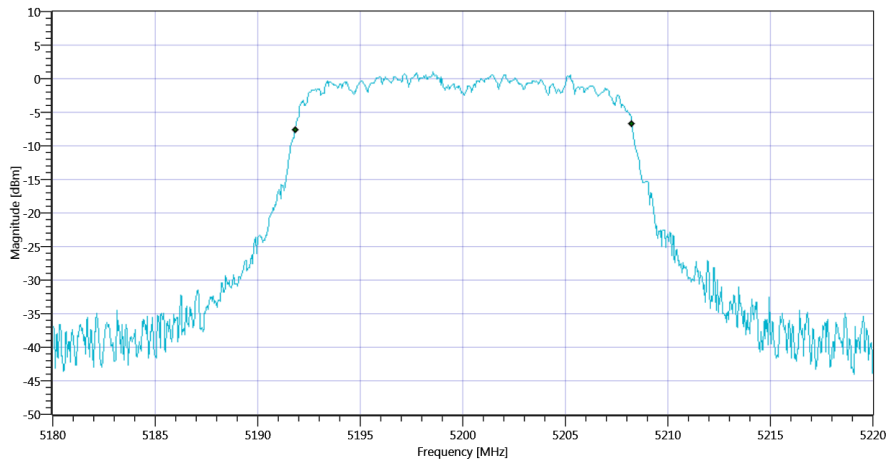


Plot\_ISED Max Output Power and PSD ~ WLAN5Gx a mode U-NII-1 5200 MHz - Duty Cycle\_25022020\_142354.png



Plot\_ISED Max Output Power and PSD ~ WLAN5Gx a mode U-NII-1 5200 MHz - DutyCycle\_25022020\_142356.png

RESULT					
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 99%	---	---	16.384	MHz	INFO
T1 99%	---	---	5191.8482	MHz	INFO
T2 99%	---	---	5208.2318	MHz	INFO



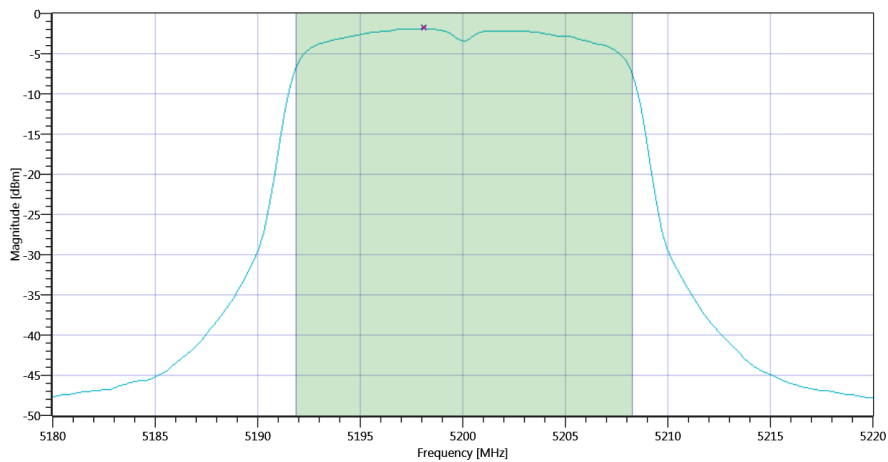
Plot\_ISED Max Output Power and PSD ~ WLAN5Gx a mode U-NII-1 BW\_25022020\_142404.png

**READ SA SETTINGS:**

RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]	18.61   14.67   20
Start [MHz]   Stop [MHz]	5180.000   5220.000
RBW [MHz]   VBW [MHz]	1.000000   3.000000
Detector   TraceMode	RMS   MAXH
Sweep: Time [ms]   Count   Points per Section   Type	8000   1   160   SWE

**RESULT**

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Max Output Power	---	---	8.99	dBm	INFO
Duty Cycle Correction	---	---	0.29	dB	INFO
<b>Limit absolute</b>					
Max Output Power DC corrected	---	24	9.28	dBm	PASS
<b>Limit by: 11 dBm + 10 log Bandwidth</b>					
Max Output Power DC corrected	---	23.14	9.28	dBm	PASS



Plot\_ISED Max Output Power and PSD ~ WLAN5Gx a mode U-NII-1 Max OP and PSD\_25022020\_142420.png

**RESULT**

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Power Spectral Density	---	---	-1.88	dBm/1MHz	INFO
Duty Cycle Correction	---	---	0.29	dB	INFO
Power Spectral Density DC corrected	---	11	-1.59	dBm/1MHz	PASS

TEST FINISHED

General Verdict

25.02.2020 14:24:22 / RT: 45 s

PASS

## 6. FCC Part 15.407 & ISED Bandwidths ~ WLAN5Gx a mode U-NII-1

Test References	
TC Start	25.02.2020 14:24:27
System Version	1.0.0.33
Test Specification	FCC Part 15.407 & ISET RSS-GEN
Test Method	26dB Bandwidth KDB789033 D02, C.1 / ISED RSS-GEN
Class / TC Version	TC_VM_FCC15407_Bandwidths_V01 Version: 0.0.1
My Description	FCC 15.407 Bandwidths - WLAN5Gx a mode U-NII-1
Add. Information	

Test Parameter	
Technology to test	WLAN5Gx a mode U-NII-1
Antenna Port used	1
Temperature	mid
Voltage	mid
Frequency low to test	False   Freq [MHz] 5180
Frequency mid to test	True   Freq [MHz] 5200
Frequency high to test	False   Freq [MHz] 5240
Switched Path	IUT - SignalingUnit - SpectrumAnalyzer
Devices in use	SA: Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.60

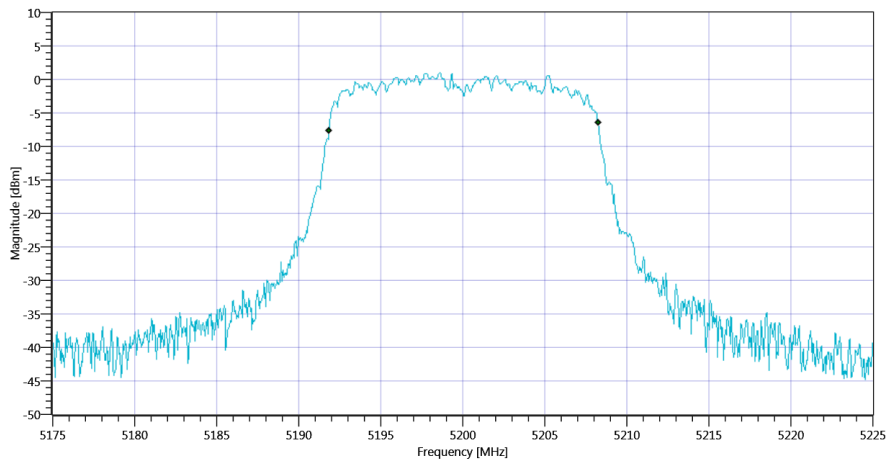
## Test at TX 5200 MHz

### READ SA SETTINGS:

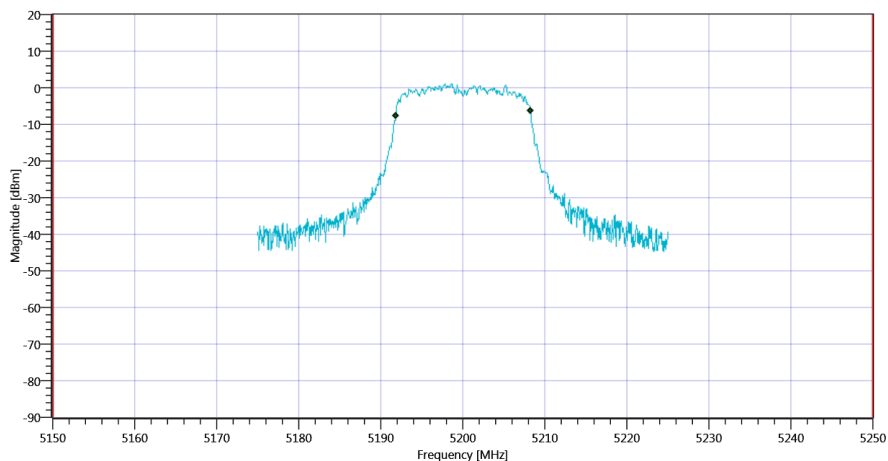
RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]	14.67   14.67   20
Start [MHz]   Stop [MHz]	5175.000   5225.000
RBW [MHz]   VBW [MHz]	0.300000   1.000000
Detector   TraceMode	POS   MAXH
Sweep: Time [ms]   Count   Points per Section   Type	1   2500   1001   SWE

### RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 99%	---	---	16.384	MHz	INFO
T1 99%	5150.000000	---	5191.8581	MHz	PASS
T2 99%	---	5250.000000	5208.2418	MHz	PASS



Plot\_FCC Part 15.407 & ISED Bandwidths ~ WLAN5Gx a mode U-NII-1 99PCT\_25022020\_142512.png

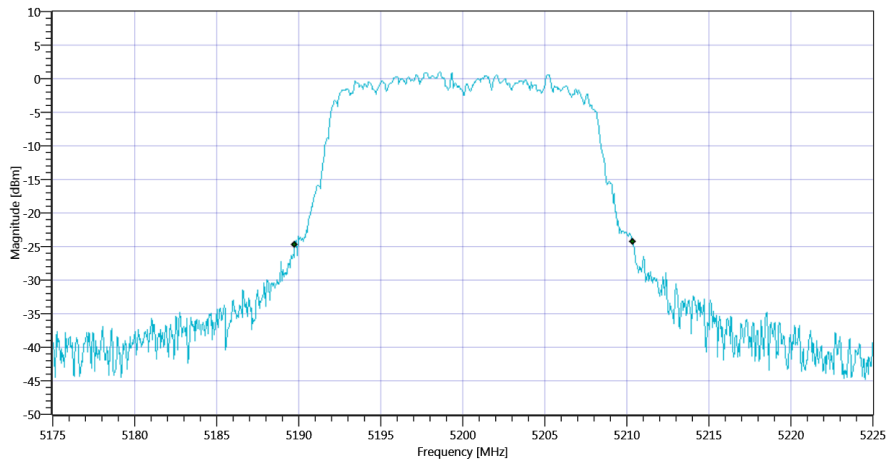


Plot\_FCC Part 15.407 & ISED Bandwidths ~ WLAN5Gx a mode U-NII-1\_25022020\_142516.png

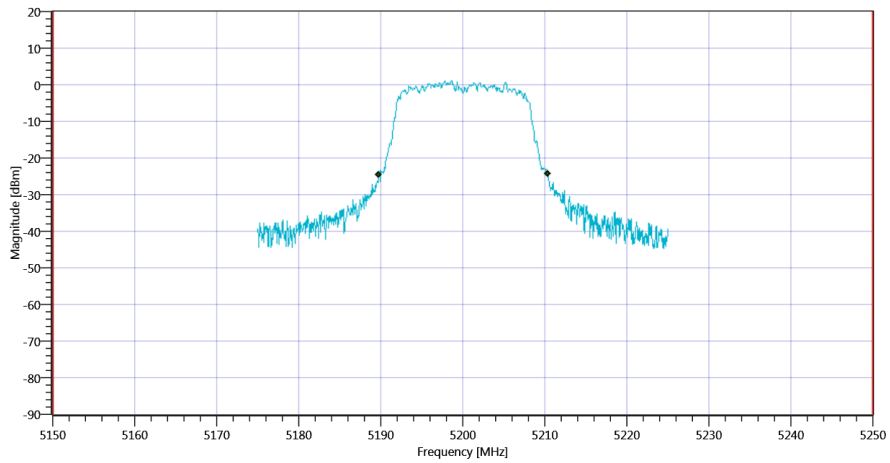
### RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 26dB	---	---	20.65	MHz	INFO
T1 26dB	5150.000000	---	5189.7500	MHz	PASS
T2 26dB	---	5250.000000	5210.4000	MHz	PASS





Plot\_FCC Part 15.407 & ISM Bandwidths ~ WLAN5Gx a mode U-NII-1 26dB\_25022020\_142521.png



Plot\_FCC Part 15.407 & ISM Bandwidths ~ WLAN5Gx a mode U-NII-1\_25022020\_142525.png

TEST FINISHED

General Verdict

25.02.2020 14:25:26 / RT: 59 s

PASS

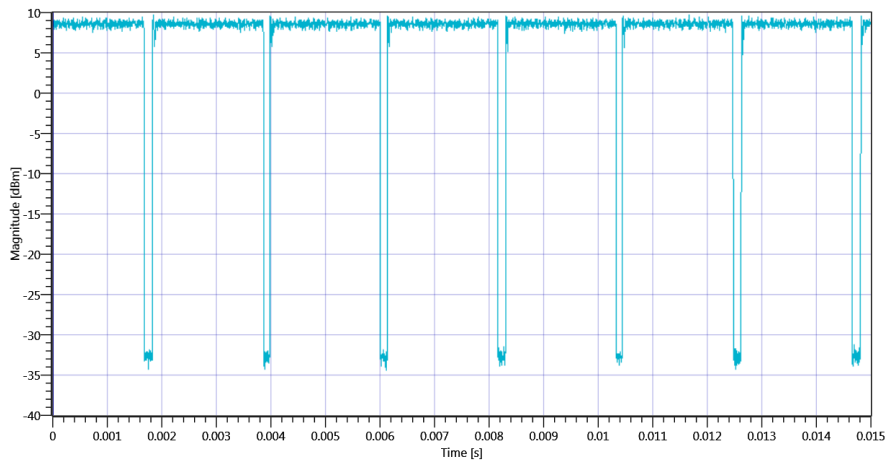
## 7. FCC Part 15.407 Max Output Power and PSD ~ WLAN5Gx a mode U-NII-1

Test References	
TC Start	25.02.2020 14:26:20
System Version	1.0.0.33
Test Specification	FCC Part 15.407
Test Method	KDB789033 D02, F., E.2.e.
Class / TC Version	TC_VM_FCC15407_Max_Output_Power_and_PSD_V01 Version: 0.0.1
My Description	FCC 15.407 Max Output Power & PSD - WLAN5Gx a mode U-NII-1
Add. Information	

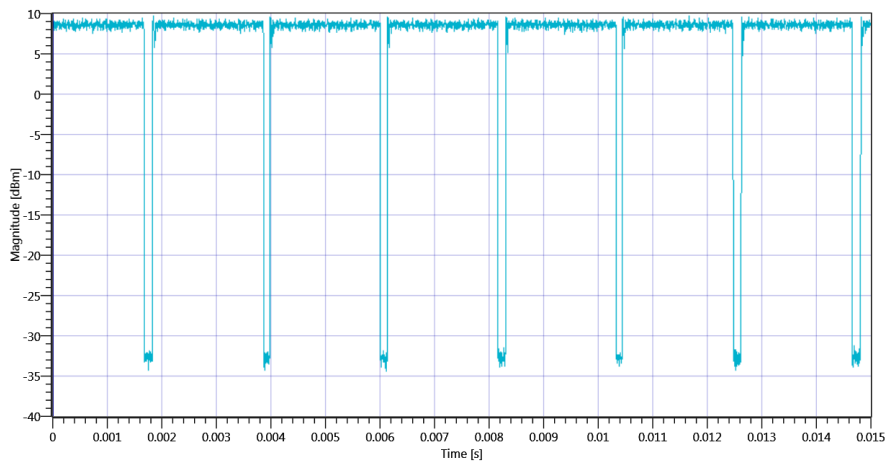
Test Parameter	
Technology to test	WLAN5Gx a mode U-NII-1
Antenna Port used	1
Temperature	mid
Voltage	mid
Frequency low to test	False   Freq [MHz] 5180
Frequency mid to test	False   Freq [MHz] 5200
Frequency high to test	True   Freq [MHz] 5240
Switched Path	IUT - SignalingUnit - SpectrumAnalyzer
Devices in use	SA: Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.60

## Test at TX 5240 MHz

Duty Cycle evaluation					
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Result Duty Cycles					
Result Summary					
Number of detected Bursts:6					
Duty Cycle (Burst Ratio) max	---	---	0.944	---	Information
Duty Cycle max	---	---	0.25	dB	Information
Duty Cycle (Burst Ratio) min	---	---	0.928	---	Information
Duty Cycle min	---	---	0.325	dB	Information
Max TX Burst Length	---	---	2.025	ms	Information
Min Gap Length	---	---	0.12	ms	Information
Max Gap Length	---	---	0.157	ms	Information

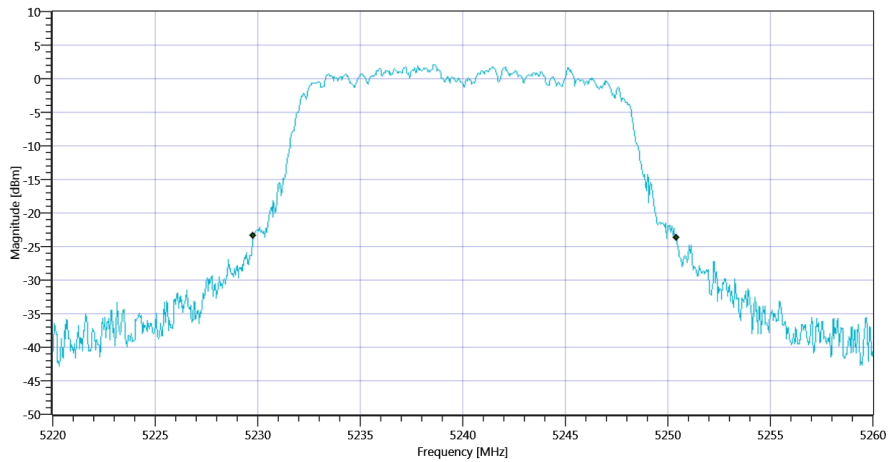


Plot\_FCC Part 15.407 Max Output Power and PSD ~ WLAN5Gx a mode U-NII-1 5240 MHz - Duty Cycle\_25022020\_142637.png



Plot\_FCC Part 15.407 Max Output Power and PSD ~ WLAN5Gx a mode U-NII-1 5240 MHz - DutyCycle\_25022020\_142639.png

RESULT					
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 26dB	---	---	20.6	MHz	INFO
T1 26dB	---	---	5229.8000	MHz	INFO
T2 26dB	---	---	5250.4000	MHz	INFO

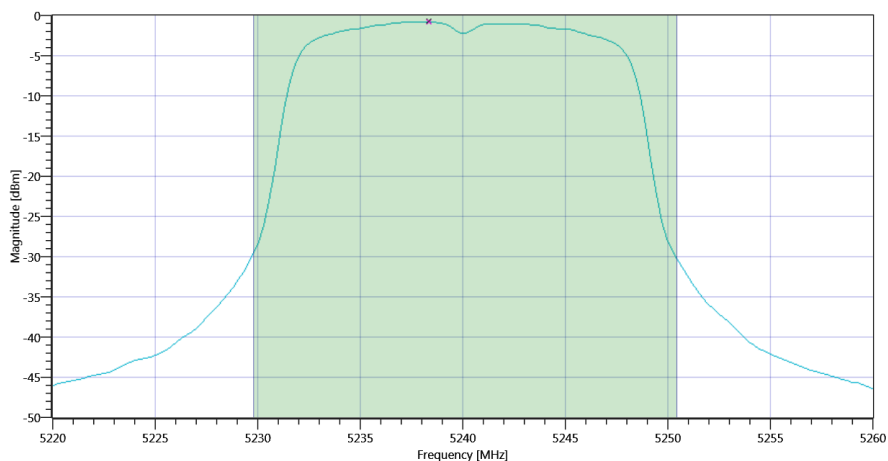


READ SA SETTINGS:

RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]	19.04   14.87   20
Start [MHz]   Stop [MHz]	5220.000   5260.000
RBW [MHz]   VBW [MHz]	1.000000   3.000000
Detector   TraceMode	RMS   MAXH
Sweep: Time [ms]   Count   Points per Section   Type	8000   1   160   SWE

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Max Output Power	---	---	10.17	dBm	INFO
Duty Cycle Correction	---	---	0.32	dB	INFO
Limit absolute					
Max Output Power DC corrected	---	24	10.49	dBm	PASS
Limit by: 11 dBm + 10 log Bandwidth					
Max Output Power DC corrected	---	24.14	10.49	dBm	PASS



RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Power Spectral Density	---	---	-0.76	dBm/1MHz	INFO
Duty Cycle Correction	---	---	0.32	dB	INFO
Power Spectral Density DC corrected	---	11	-0.44	dBm/1MHz	PASS

TEST FINISHED

General Verdict

25.02.2020 14:27:06 / RT: 46 s

PASS

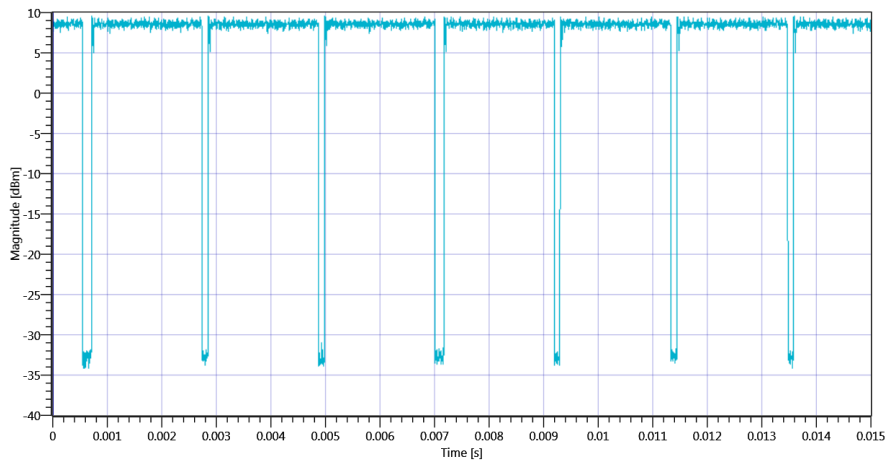
## 8. ISED Max Output Power and PSD ~ WLAN5Gx a mode U-NII-1

Test References	
TC Start	25.02.2020 14:27:11
System Version	1.0.0.33
Test Specification	ISED
Test Method	
Class / TC Version	TC_VM_FCC15407_Max_Output_Power_and_PSD_V01 Version: 0.0.1
My Description	ISED Max Output Power & PSD - WLAN5Gx a mode U-NII-1
Add. Information	

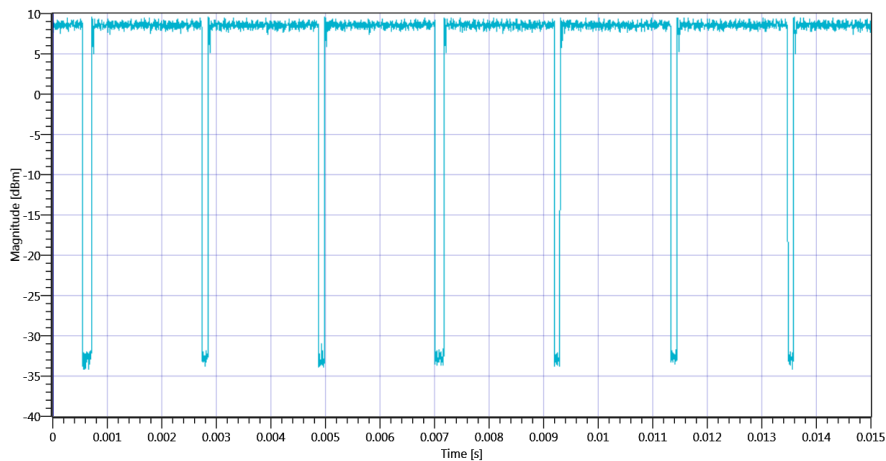
Test Parameter	
Technology to test	WLAN5Gx a mode U-NII-1
Antenna Port used	1
Temperature	mid
Voltage	mid
Frequency low to test	False   Freq [MHz] 5180
Frequency mid to test	False   Freq [MHz] 5200
Frequency high to test	True   Freq [MHz] 5240
Switched Path	IUT - SignalingUnit - SpectrumAnalyzer
Devices in use	SA: Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.60

## Test at TX 5240 MHz

Duty Cycle evaluation					
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Result Duty Cycles					
Result Summary					
Number of detected Bursts:6					
Duty Cycle (Burst Ratio) max	---	---	0.949	---	Information
Duty Cycle max	---	---	0.227	dB	Information
Duty Cycle (Burst Ratio) min	---	---	0.925	---	Information
Duty Cycle min	---	---	0.339	dB	Information
Max TX Burst Length	---	---	2.025	ms	Information
Min Gap Length	---	---	0.109	ms	Information
Max Gap Length	---	---	0.165	ms	Information

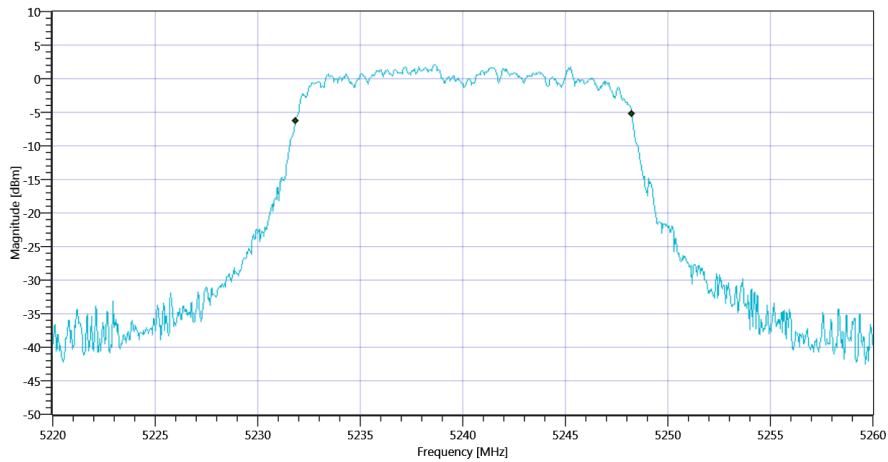


Plot\_ISED Max Output Power and PSD ~ WLAN5Gx a mode U-NII-1 5240 MHz - Duty Cycle\_25022020\_142728.png



Plot\_ISED Max Output Power and PSD ~ WLAN5Gx a mode U-NII-1 5240 MHz - DutyCycle\_25022020\_142729.png

RESULT					
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 99%	---	---	16.384	MHz	INFO
T1 99%	---	---	5231.8482	MHz	INFO
T2 99%	---	---	5248.2318	MHz	INFO



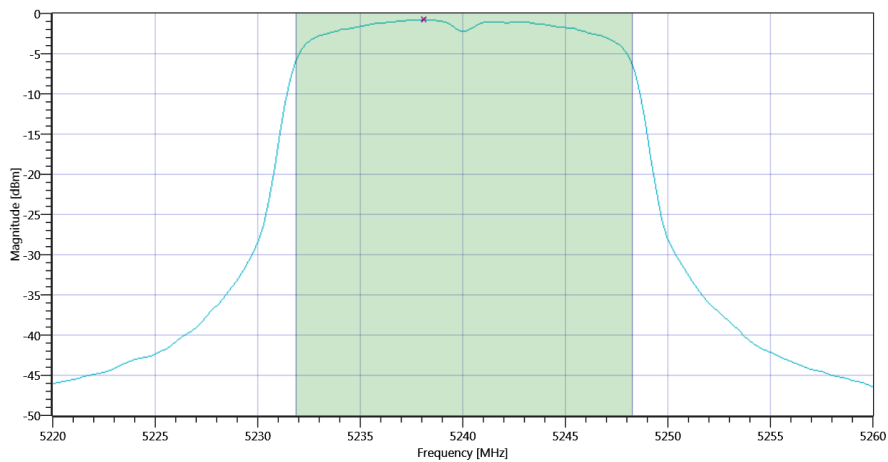
Plot\_ISED Max Output Power and PSD ~ WLAN5Gx a mode U-NII-1 BW\_25022020\_142738.png

**READ SA SETTINGS:**

RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]	19.19   14.87   20
Start [MHz]   Stop [MHz]	5220.000   5260.000
RBW [MHz]   VBW [MHz]	1.000000   3.000000
Detector   TraceMode	RMS   MAXH
Sweep: Time [ms]   Count   Points per Section   Type	8000   1   160   SWE

**RESULT**

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Max Output Power	---	---	10.09	dBm	INFO
Duty Cycle Correction	---	---	0.34	dB	INFO
<b>Limit absolute</b>					
Max Output Power DC corrected	---	24	10.43	dBm	PASS
<b>Limit by: 11 dBm + 10 log Bandwidth</b>					
Max Output Power DC corrected	---	23.14	10.43	dBm	PASS



Plot\_ISED Max Output Power and PSD ~ WLAN5Gx a mode U-NII-1 Max OP and PSD\_25022020\_142754.png

**RESULT**

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Power Spectral Density	---	---	-0.78	dBm/1MHz	INFO
Duty Cycle Correction	---	---	0.34	dB	INFO
Power Spectral Density DC corrected	---	11	-0.44	dBm/1MHz	PASS



TEST FINISHED

General Verdict

25.02.2020 14:27:56 / RT: 45 s

PASS

## 9. FCC Part 15.407 & ISED Bandwidths ~ WLAN5Gx a mode U-NII-1

Test References	
TC Start	25.02.2020 14:28:01
System Version	1.0.0.33
Test Specification	FCC Part 15.407 & ISET RSS-GEN
Test Method	26dB Bandwidth KDB789033 D02, C.1 / ISED RSS-GEN
Class / TC Version	TC_VM_FCC15407_Bandwidths_V01 Version: 0.0.1
My Description	FCC 15.407 Bandwidths - WLAN5Gx a mode U-NII-1
Add. Information	

Test Parameter	
Technology to test	WLAN5Gx a mode U-NII-1
Antenna Port used	1
Temperature	mid
Voltage	mid
Frequency low to test	False   Freq [MHz] 5180
Frequency mid to test	False   Freq [MHz] 5200
Frequency high to test	True   Freq [MHz] 5240
Switched Path	IUT - SignalingUnit - SpectrumAnalyzer
Devices in use	SA: Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.60

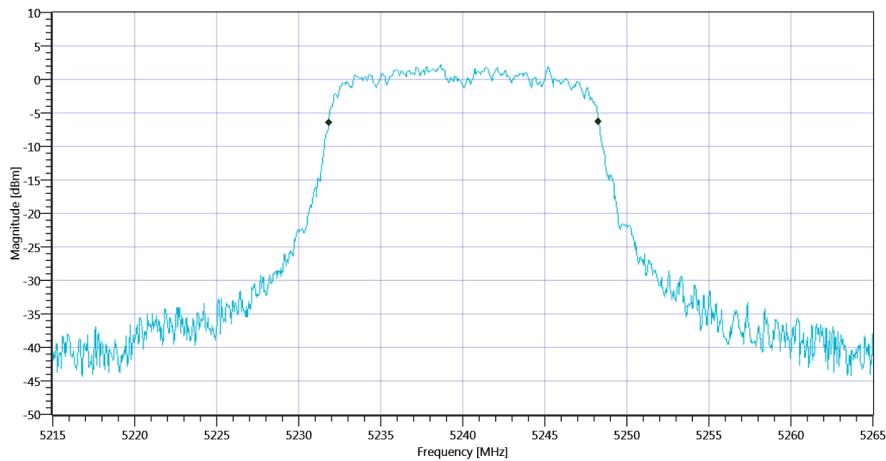
## Test at TX 5240 MHz

### READ SA SETTINGS:

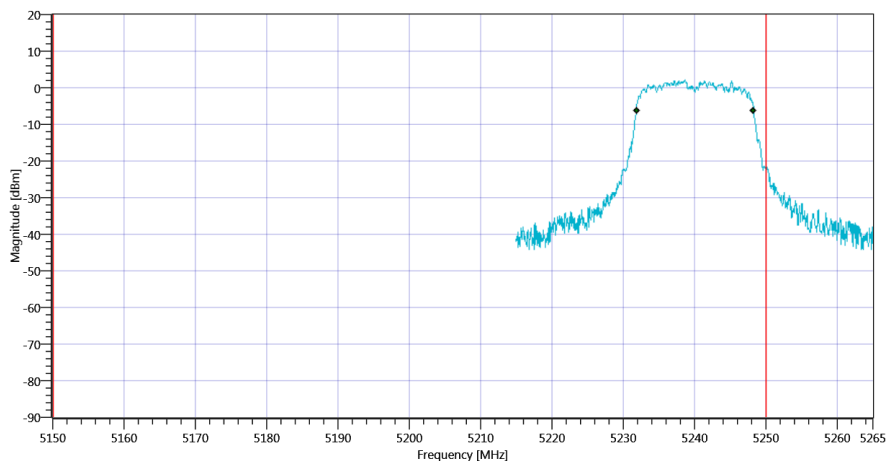
RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]	15.06   14.87   20
Start [MHz]   Stop [MHz]	5215.000   5265.000
RBW [MHz]   VBW [MHz]	0.300000   1.000000
Detector   TraceMode	POS   MAXH
Sweep: Time [ms]   Count   Points per Section   Type	1   2500   1001   SWE

### RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 99%	---	---	16.434	MHz	INFO
T1 99%	5150.000000	---	5231.8581	MHz	PASS
T2 99%	---	5250.000000	5248.2917	MHz	PASS



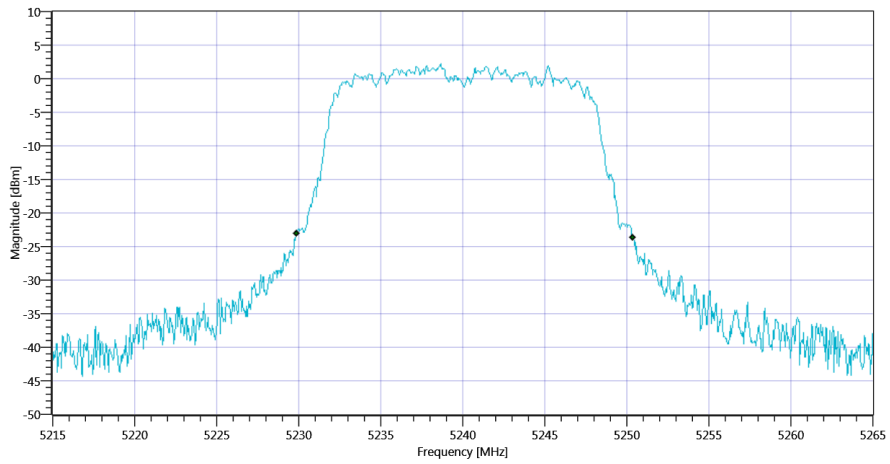
Plot\_FCC Part 15.407 & ISED Bandwidths ~ WLAN5Gx a mode U-NII-1 99PCT\_25022020\_142825.png



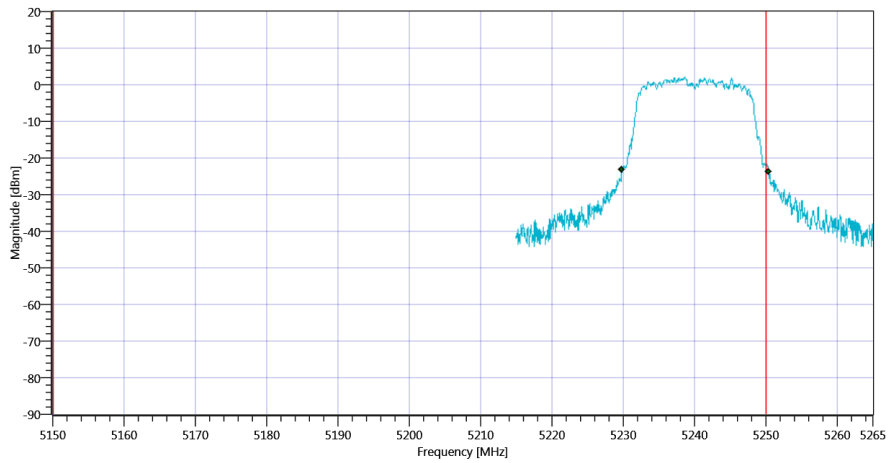
Plot\_FCC Part 15.407 & ISED Bandwidths ~ WLAN5Gx a mode U-NII-1\_25022020\_142829.png

### RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 26dB	---	---	20.55	MHz	INFO
T1 26dB	5150.000000	---	5229.8500	MHz	PASS
T2 26dB	---	5250.000000	5250.4000	MHz	DFS required



Plot\_FCC Part 15.407 & ISED Bandwidths ~ WLAN5Gx a mode U-NII-1 26dB\_25022020\_142834.png



Plot\_FCC Part 15.407 & ISED Bandwidths ~ WLAN5Gx a mode U-NII-1\_25022020\_142838.png

TEST FINISHED

General Verdict

25.02.2020 14:28:39 / RT: 37 s

PASS

## 10. FCC Part 15.407 Max Output Power and PSD ~ WLAN5Gx n-HT20 mode U-NII-1

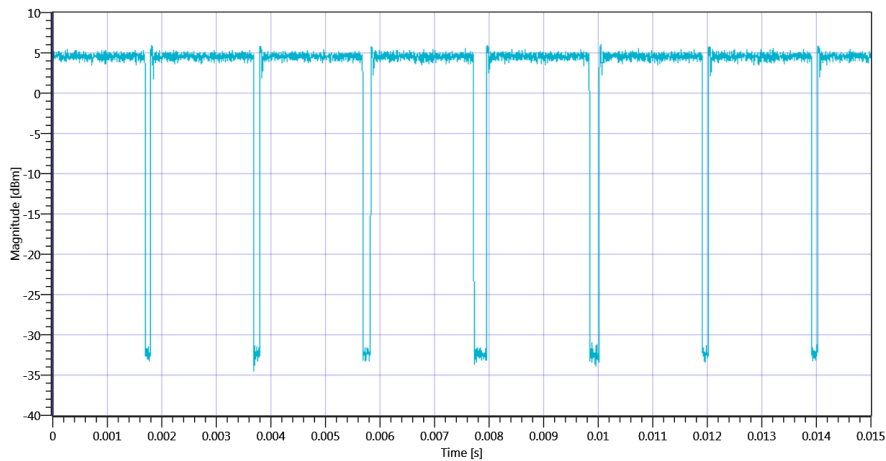
Test References	
TC Start	20.01.2020 15:24:00
System Version	1.0.0.29
Test Specification	FCC Part 15.407
Test Method	KDB789033 D02, F., E.2.e.
Class / TC Version / TC ID	TC_VM_FCC15407_Max_Output_Power_and_PSD_V01 Version: 0.0.1   TCID_FCC15407_3
My Description	FCC 15.407 Max Output Power & PSD - WLAN5Gx n-HT20 mode U-NII-1
Add. Information	

Test Parameter	
Technology to test	WLAN5Gx n-HT20 mode U-NII-1
Antenna Port used	1
Temperature	mid
Voltage	mid
Frequency low to test	True   Freq [MHz] 5180
Frequency mid to test	False   Freq [MHz] 5200
Frequency high to test	False   Freq [MHz] 5240
Switched Path	IUT - SignalingUnit - SpectrumAnalyzer
Devices in use	SA: Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.60

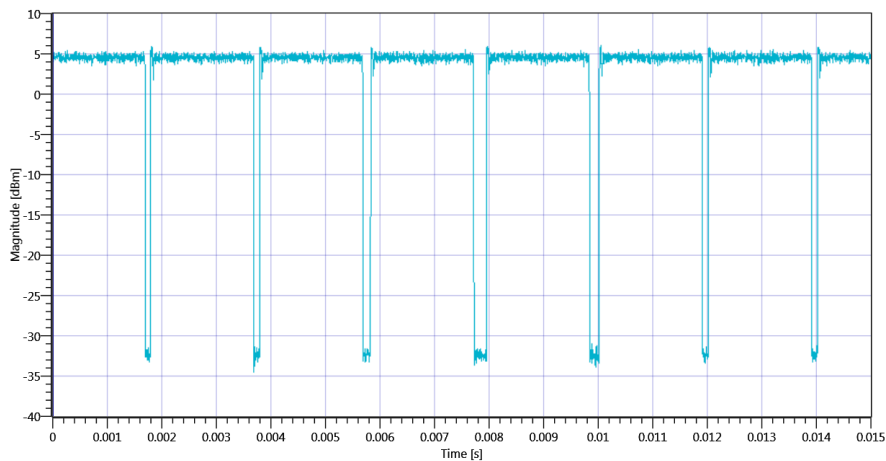
## Test at TX 5180 MHz

RESULT: Duty Cycle evaluation

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Result Duty Cycles					
Result Summary					
Number of detected Bursts:6					
Duty Cycle (Burst Ratio) max	---	---	0.945	---	Information
Duty Cycle max	---	---	0.246	dB	Information
Duty Cycle (Burst Ratio) min	---	---	0.888	---	Information
Duty Cycle min	---	---	0.516	dB	Information
Max TX Burst Length	---	---	1.886	ms	Information
Min Gap Length	---	---	0.109	ms	Information
Max Gap Length	---	---	0.236	ms	Information



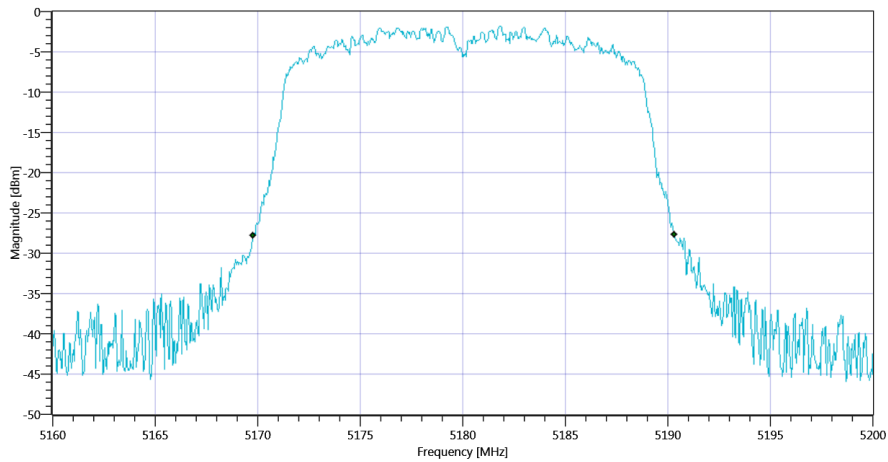
Plot\_FCC Part 15.407 Max Output Power and PSD ~ WLAN5Gx n-HT20 mode U-NII-1 5180 MHz - Duty Cycle\_20012020\_152417.png



Plot\_FCC Part 15.407 Max Output Power and PSD ~ WLAN5Gx n-HT20 mode U-NII-1 5180 MHz - DutyCycle\_20012020\_152418.png

RESULT: TC\_VM\_FCC15407\_Max\_Output\_Power\_and\_PSD\_V01

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 26dB	---	---	20.52	MHz	Information
T1 26dB	---	---	5169.8000	MHz	Information
T2 26dB	---	---	5190.3200	MHz	Information



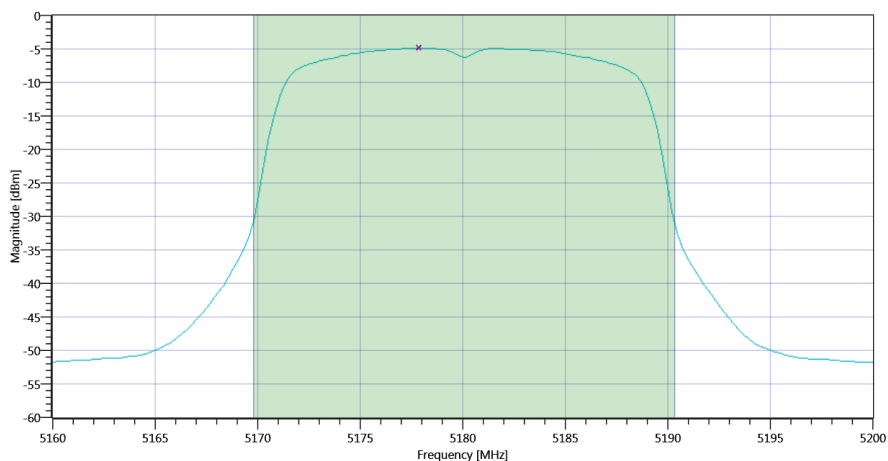
Plot\_FCC Part 15.407 Max Output Power and PSD ~ WLAN5Gx n-HT20 mode U-NII-1 BW\_20012020\_152430.png

**READ SA SETTINGS:**

RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]	14.52   14.49   15
Start [MHz]   Stop [MHz]	5160.000   5200.000
RBW [MHz]   VBW [MHz]	1.000000   3.000000
Detector   TraceMode	RMS   MAXH
Sweep: Time [ms]   Count   Points per Section   Type	8000   1   160   SWE

**RESULT: TC\_VM\_FCC15407\_Max\_Output\_Power\_and\_PSD\_V01**

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Max Output Power	---	---	6.34	dBm	Information
Duty Cycle Correction	---	---	0.52	dB	Information
<b>Limit absolute</b>					
Max Output Power DC corrected	---	24	6.86	dBm	PASS
<b>Limit by: 11 dBm + 10 log Bandwidth</b>					
Max Output Power DC corrected	---	24.12	6.86	dBm	PASS



Plot\_FCC Part 15.407 Max Output Power and PSD ~ WLAN5Gx n-HT20 mode U-NII-1 Max OP and PSD\_20012020\_152444.png

**RESULT: TC\_VM\_FCC15407\_Max\_Output\_Power\_and\_PSD\_V01**

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Power Spectral Density	---	---	-4.89	dBm/1MHz	Information
Duty Cycle Correction	---	---	0.52	dB	Information
Power Spectral Density DC corrected	---	11	-4.37	dBm/1MHz	PASS

TEST FINISHED

General Verdict

20.01.2020 15:24:46 / RT: 45 s

PASS



## 11. ISED Max Output Power and PSD ~ WLAN5Gx n-HT20 mode U-NII-1

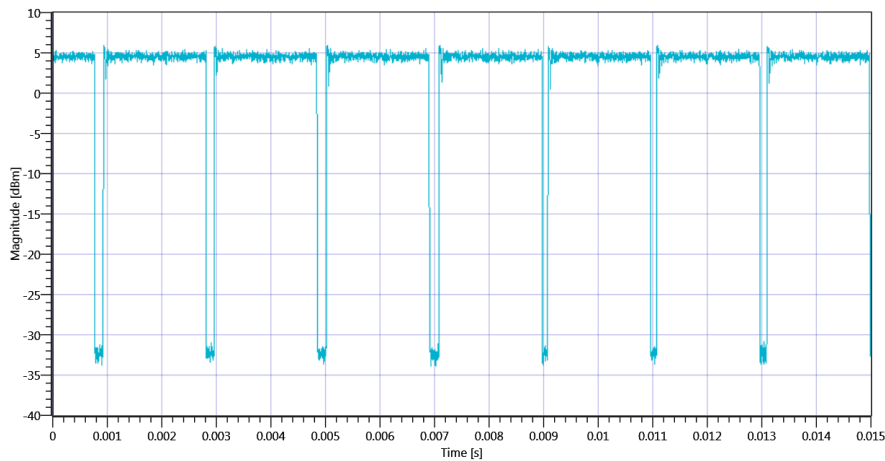
Test References	
TC Start	20.01.2020 15:24:50
System Version	1.0.0.29
Test Specification	ISED
Test Method	
Class / TC Version / TC ID	TC_VM_FCC15407_Max_Output_Power_and_PSD_V01 Version: 0.0.1   TCID_FCC15407_3
My Description	ISED Max Output Power & PSD - WLAN5Gx n-HT20 mode U-NII-1
Add. Information	

Test Parameter	
Technology to test	WLAN5Gx n-HT20 mode U-NII-1
Antenna Port used	1
Temperature	mid
Voltage	mid
Frequency low to test	True   Freq [MHz] 5180
Frequency mid to test	False   Freq [MHz] 5200
Frequency high to test	False   Freq [MHz] 5240
Switched Path	IUT - SignalingUnit - SpectrumAnalyzer
Devices in use	SA: Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.60

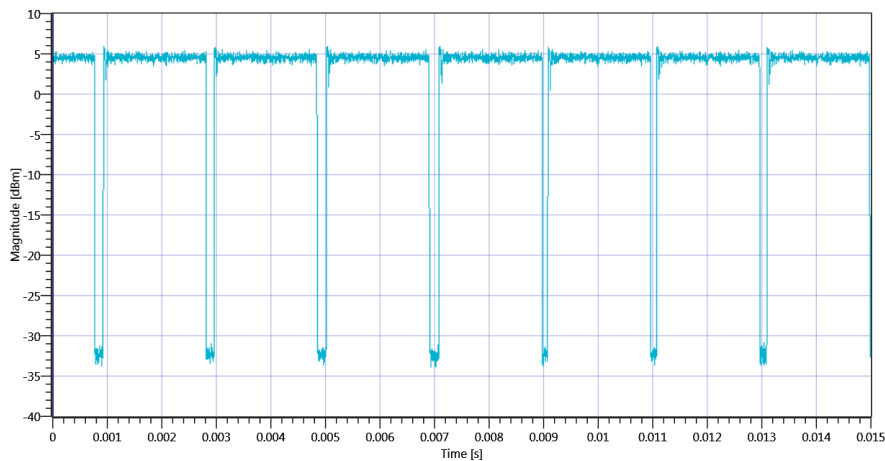
## Test at TX 5180 MHz

RESULT: Duty Cycle evaluation

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Result Duty Cycles					
Result Summary					
Number of detected Bursts:6					
Duty Cycle (Burst Ratio) max	---	---	0.944	---	Information
Duty Cycle max	---	---	0.25	dB	Information
Duty Cycle (Burst Ratio) min	---	---	0.911	---	Information
Duty Cycle min	---	---	0.405	dB	Information
Max TX Burst Length	---	---	1.882	ms	Information
Min Gap Length	---	---	0.112	ms	Information
Max Gap Length	---	---	0.184	ms	Information



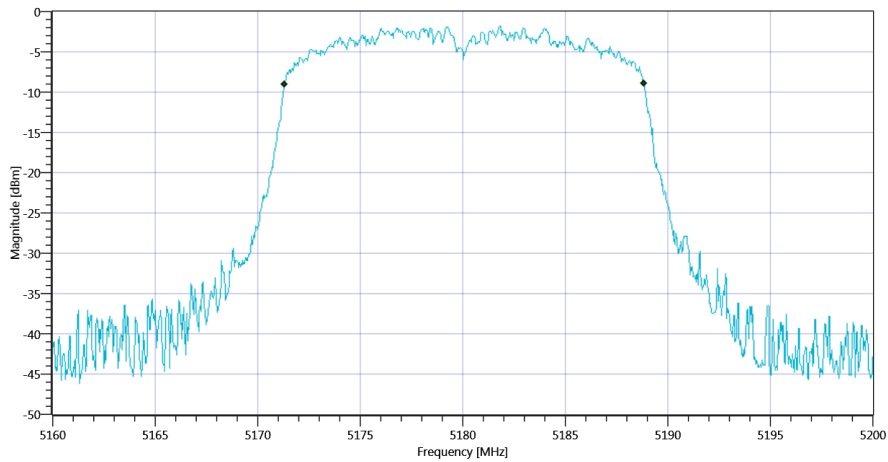
Plot\_ISED Max Output Power and PSD ~ WLAN5Gx n-HT20 mode U-NII-1 5180 MHz - Duty Cycle\_20012020\_152506.png



Plot\_ISED Max Output Power and PSD ~ WLAN5Gx n-HT20 mode U-NII-1 5180 MHz - DutyCycle\_20012020\_152508.png

RESULT: TC\_VM\_FCC15407\_Max\_Output\_Power\_and\_PSD\_V01

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 99%	---	---	17.502	MHz	Information
T1 99%	---	---	5171.3287	MHz	Information
T2 99%	---	---	5188.8312	MHz	Information



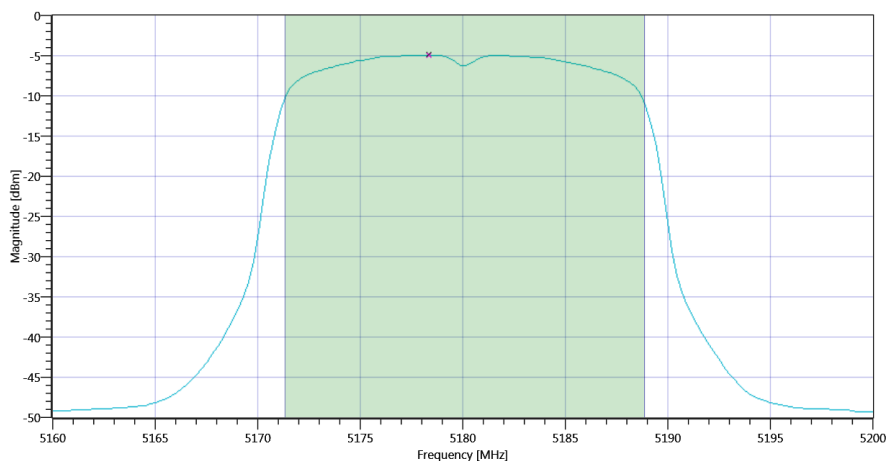
Plot\_ISED Max Output Power and PSD ~ WLAN5Gx n-HT20 mode U-NII-1 BW\_20012020\_152520.png

**READ SA SETTINGS:**

RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]	16.06   14.49   20
Start [MHz]   Stop [MHz]	5160.000   5200.000
RBW [MHz]   VBW [MHz]	1.000000   3.000000
Detector   TraceMode	RMS   MAXH
Sweep: Time [ms]   Count   Points per Section   Type	8000   1   160   SWE

**RESULT: TC\_VM\_FCC15407\_Max\_Output\_Power\_and\_PSD\_V01**

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Max Output Power	---	---	6.24	dBm	Information
Duty Cycle Correction	---	---	0.4	dB	Information
<b>Limit absolute</b>					
Max Output Power DC corrected	---	24	6.64	dBm	PASS
<b>Limit by: 11 dBm + 10 log Bandwidth</b>					
Max Output Power DC corrected	---	23.43	6.64	dBm	PASS



Plot\_ISED Max Output Power and PSD ~ WLAN5Gx n-HT20 mode U-NII-1 Max OP and PSD\_20012020\_152534.png

**RESULT: TC\_VM\_FCC15407\_Max\_Output\_Power\_and\_PSD\_V01**

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Power Spectral Density	---	---	-4.94	dBm/1MHz	Information
Duty Cycle Correction	---	---	0.4	dB	Information
Power Spectral Density DC corrected	---	11	-4.54	dBm/1MHz	PASS

TEST FINISHED

General Verdict

20.01.2020 15:25:36 / RT: 45 s

PASS

## 12. FCC Part 15.407 & ISED Bandwidths ~ WLAN5Gx n-HT20 mode U-NII-1

Test References	
TC Start	20.01.2020 15:25:40
System Version	1.0.0.29
Test Specification	FCC Part 15.407 & ISET RSS-GEN
Test Method	26dB Bandwidth KDB789033 D02, C.1 / ISED RSS-GEN
Class / TC Version / TC ID	TC_VM_FCC15407_Bandwidths_V01 Version: 0.0.1   TCID_FCC15407_1
My Description	FCC 15.407 Bandwidths - WLAN5Gx n-HT20 mode U-NII-1
Add. Information	

Test Parameter	
Technology to test	WLAN5Gx n-HT20 mode U-NII-1
Antenna Port used	1
Temperature	mid
Voltage	mid
Frequency low to test	True   Freq [MHz] 5180
Frequency mid to test	False   Freq [MHz] 5200
Frequency high to test	False   Freq [MHz] 5240
Switched Path	IUT - SignalingUnit - SpectrumAnalyzer
Devices in use	SA: Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.60

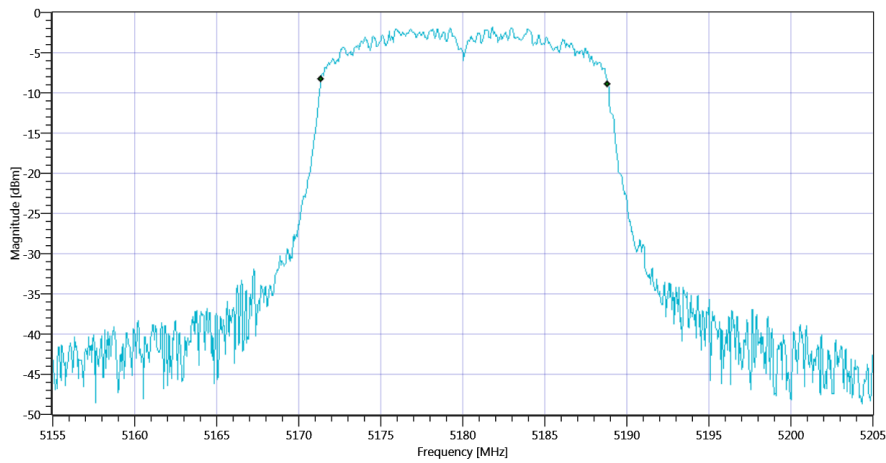
## Test at TX 5180 MHz

### READ SA SETTINGS:

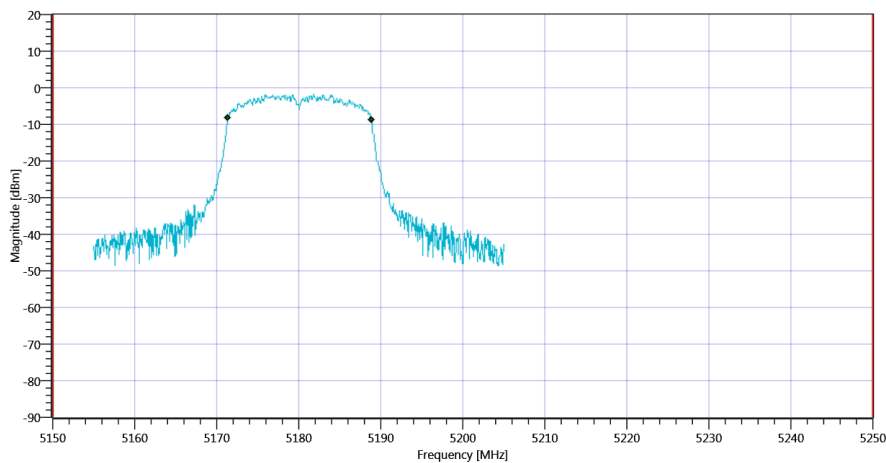
RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]	11.60   14.49   15
Start [MHz]   Stop [MHz]	5155.000   5205.000
RBW [MHz]   VBW [MHz]	0.300000   1.000000
Detector   TraceMode	POS   MAXH
Sweep: Time [ms]   Count   Points per Section   Type	1   2500   1001   SWE

### RESULT: TC\_VM\_FCC15407\_Bandwidths\_V01

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 99%	---	---	17.483	MHz	Information
T1 99%	5150.000000	---	5171.3586	MHz	PASS
T2 99%	---	5250.000000	5188.8412	MHz	PASS



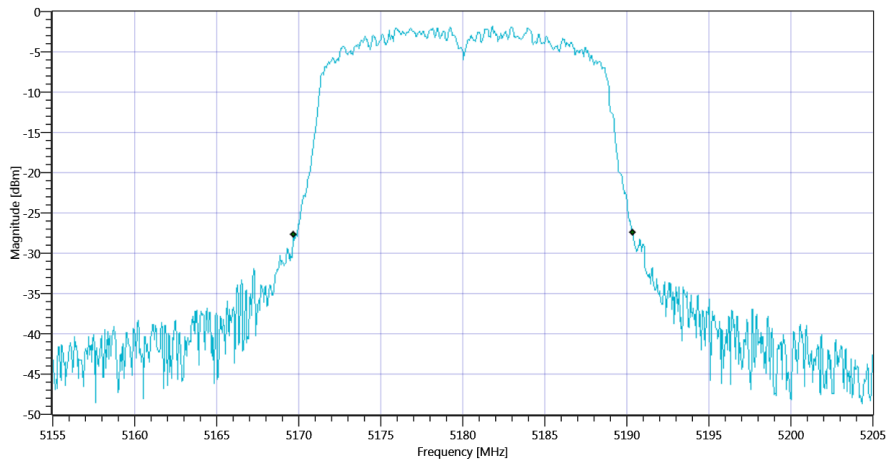
Plot\_FCC Part 15.407 & ISED Bandwidths ~ WLAN5Gx n-HT20 mode U-NII-1 99PCT\_20012020\_152608.png



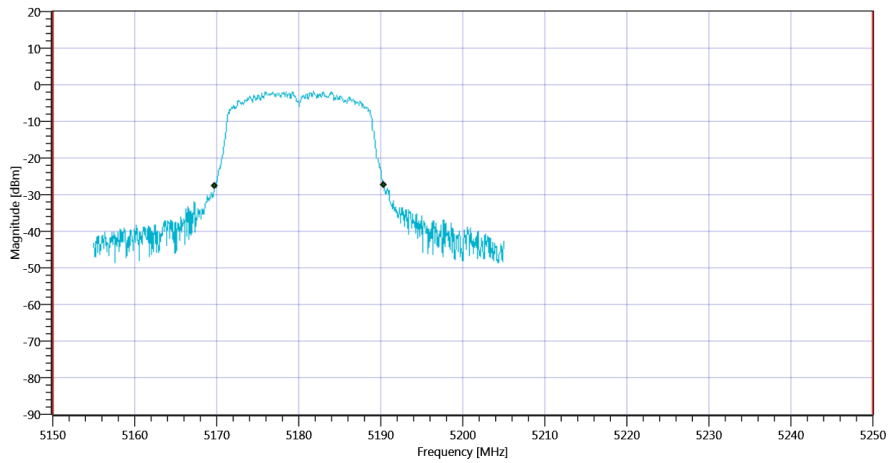
Plot\_FCC Part 15.407 & ISED Bandwidths ~ WLAN5Gx n-HT20 mode U-NII-1\_20012020\_152611.png

### RESULT: TC\_VM\_FCC15407\_Bandwidths\_V01

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 26dB	---	---	20.65	MHz	Information
T1 26dB	5150.000000	---	5169.7000	MHz	PASS
T2 26dB	---	5250.000000	5190.3500	MHz	PASS



Plot\_FCC Part 15.407 & ISSED Bandwidths ~ WLAN5Gx n-HT20 mode U-NII-1 26dB\_20012020\_152616.png



Plot\_FCC Part 15.407 & ISSED Bandwidths ~ WLAN5Gx n-HT20 mode U-NII-1\_20012020\_152619.png

TEST FINISHED

General Verdict

20.01.2020 15:26:20 / RT: 39 s

PASS

## 13. FCC Part 15.407 Max Output Power and PSD ~ WLAN5Gx a mode U-NII-1

Test References	
TC Start	20.01.2020 15:27:48
System Version	1.0.0.29
Test Specification	FCC Part 15.407
Test Method	KDB789033 D02, F., E.2.e.
Class / TC Version / TC ID	TC_VM_FCC15407_Max_Output_Power_and_PSD_V01 Version: 0.0.1   TCID_FCC15407_3
My Description	FCC 15.407 Max Output Power & PSD - WLAN5Gx a mode U-NII-1
Add. Information	

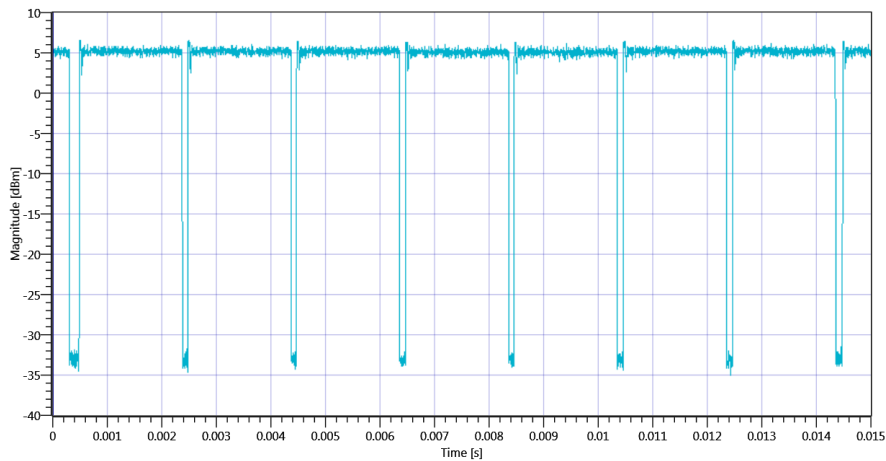
Test Parameter	
Technology to test	WLAN5Gx a mode U-NII-1
Antenna Port used	1
Temperature	mid
Voltage	mid
Frequency low to test	False   Freq [MHz] 5180
Frequency mid to test	True   Freq [MHz] 5200
Frequency high to test	False   Freq [MHz] 5240
Switched Path	IUT - SignalingUnit - SpectrumAnalyzer
Devices in use	SA: Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.60



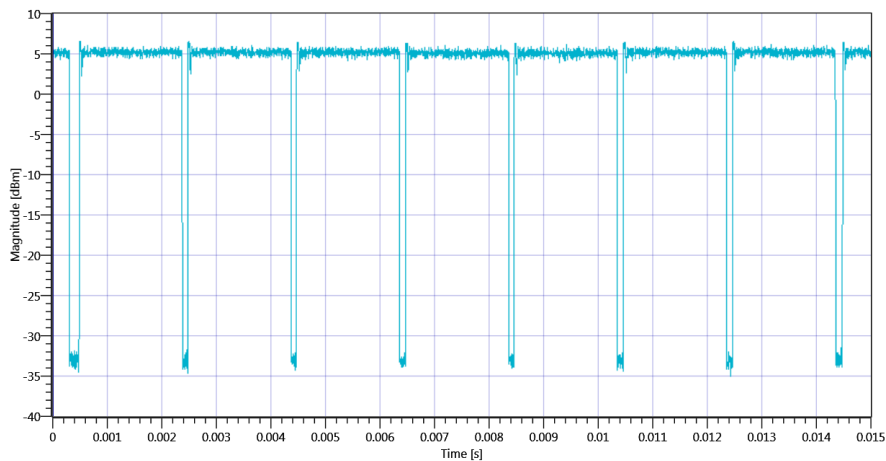
## Test at TX 5200 MHz

RESULT: Duty Cycle evaluation

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Result Duty Cycles					
Result Summary					
Number of detected Bursts:7					
Duty Cycle (Burst Ratio) max	---	---	0.945	---	Information
Duty Cycle max	---	---	0.246	dB	Information
Duty Cycle (Burst Ratio) min	---	---	0.94	---	Information
Duty Cycle min	---	---	0.269	dB	Information
Max TX Burst Length	---	---	1.886	ms	Information
Min Gap Length	---	---	0.109	ms	Information
Max Gap Length	---	---	0.12	ms	Information



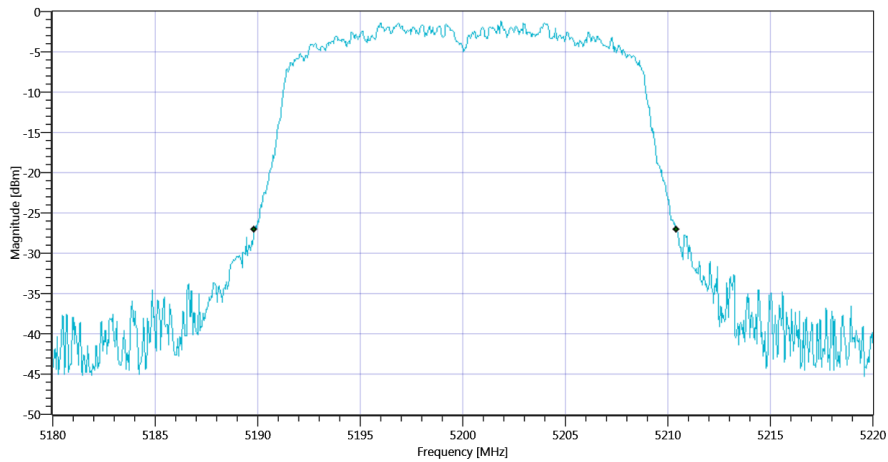
Plot\_FCC Part 15.407 Max Output Power and PSD ~ WLAN5Gx a mode U-NII-1 5200 MHz - Duty Cycle\_20012020\_152804.png



Plot\_FCC Part 15.407 Max Output Power and PSD ~ WLAN5Gx a mode U-NII-1 5200 MHz - DutyCycle\_20012020\_152805.png

RESULT: TC\_VM\_FCC15407\_Max\_Output\_Power\_and\_PSD\_V01

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 26dB	---	---	20.6	MHz	Information
T1 26dB	---	---	5189.8400	MHz	Information
T2 26dB	---	---	5210.4400	MHz	Information



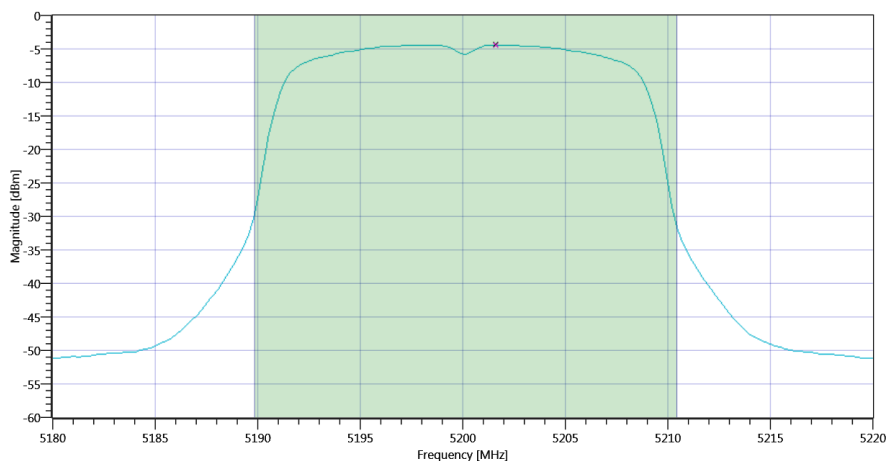
Plot\_FCC Part 15.407 Max Output Power and PSD ~ WLAN5Gx a mode U-NII-1 BW\_20012020\_152813.png

**READ SA SETTINGS:**

RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]	15.57   14.67   15
Start [MHz]   Stop [MHz]	5180.000   5220.000
RBW [MHz]   VBW [MHz]	1.000000   3.000000
Detector   TraceMode	RMS   MAXH
Sweep: Time [ms]   Count   Points per Section   Type	8000   1   160   SWE

**RESULT: TC\_VM\_FCC15407\_Max\_Output\_Power\_and\_PSD\_V01**

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Max Output Power	---	---	6.86	dBm	Information
Duty Cycle Correction	---	---	0.27	dB	Information
<b>Limit absolute</b>					
Max Output Power DC corrected	---	24	7.13	dBm	PASS
<b>Limit by: 11 dBm + 10 log Bandwidth</b>					
Max Output Power DC corrected	---	24.14	7.13	dBm	PASS



Plot\_FCC Part 15.407 Max Output Power and PSD ~ WLAN5Gx a mode U-NII-1 Max OP and PSD\_20012020\_152828.png

**RESULT: TC\_VM\_FCC15407\_Max\_Output\_Power\_and\_PSD\_V01**

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Power Spectral Density	---	---	-4.41	dBm/1MHz	Information
Duty Cycle Correction	---	---	0.27	dB	Information
Power Spectral Density DC corrected	---	11	-4.14	dBm/1MHz	PASS

TEST FINISHED

General Verdict

20.01.2020 15:28:30 / RT: 41 s

PASS

## 14. ISED Max Output Power and PSD ~ WLAN5Gx a mode U-NII-1

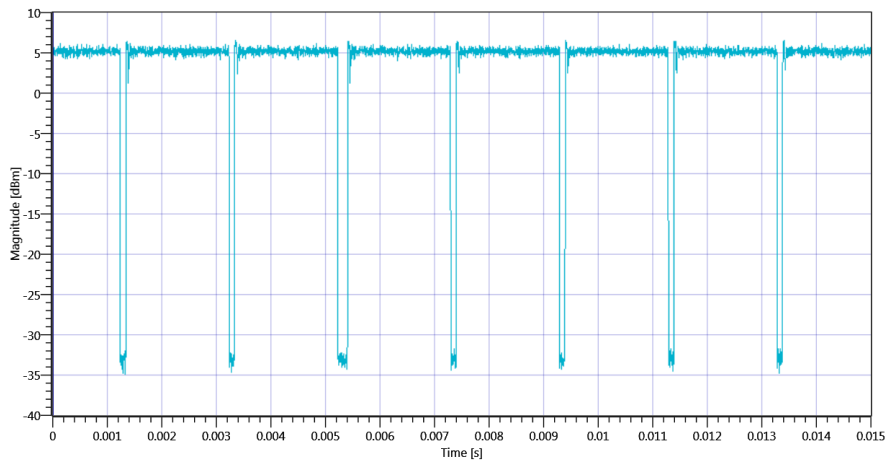
Test References	
TC Start	20.01.2020 15:28:34
System Version	1.0.0.29
Test Specification	ISED
Test Method	
Class / TC Version / TC ID	TC_VM_FCC15407_Max_Output_Power_and_PSD_V01 Version: 0.0.1   TCID_FCC15407_3
My Description	ISED Max Output Power & PSD - WLAN5Gx a mode U-NII-1
Add. Information	

Test Parameter	
Technology to test	WLAN5Gx a mode U-NII-1
Antenna Port used	1
Temperature	mid
Voltage	mid
Frequency low to test	False   Freq [MHz] 5180
Frequency mid to test	True   Freq [MHz] 5200
Frequency high to test	False   Freq [MHz] 5240
Switched Path	IUT - SignalingUnit - SpectrumAnalyzer
Devices in use	SA: Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.60

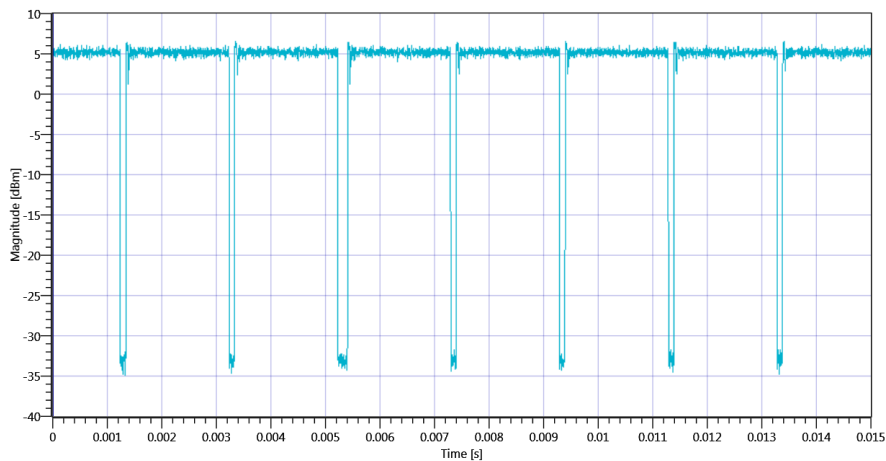
## Test at TX 5200 MHz

**RESULT:** Duty Cycle evaluation

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
<b>Result Duty Cycles</b>					
<b>Result Summary</b>					
Number of detected Bursts:6					
Duty Cycle (Burst Ratio) max	---	---	0.945	---	Information
Duty Cycle max	---	---	0.246	dB	Information
Duty Cycle (Burst Ratio) min	---	---	0.911	---	Information
Duty Cycle min	---	---	0.405	dB	Information
Max TX Burst Length	---	---	1.883	ms	Information
Min Gap Length	---	---	0.109	ms	Information
Max Gap Length	---	---	0.184	ms	Information



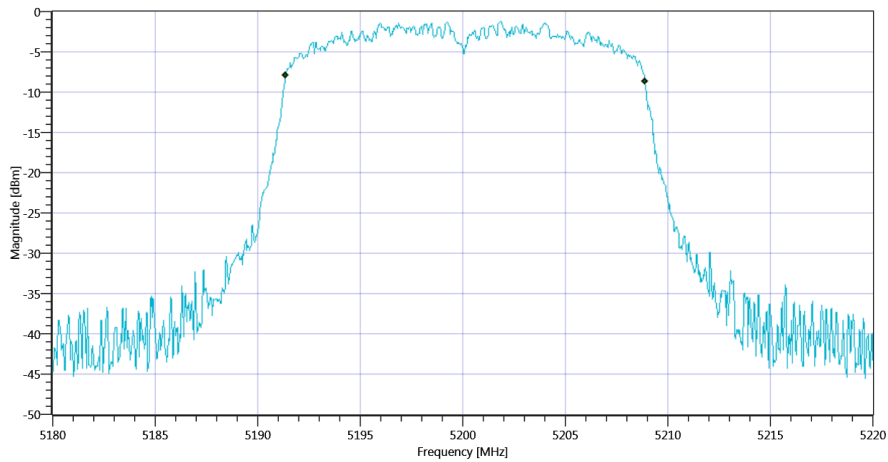
Plot\_ISED Max Output Power and PSD ~ WLAN5Gx a mode U-NII-1 5200 MHz - Duty Cycle\_20012020\_152850.png



Plot\_ISED Max Output Power and PSD ~ WLAN5Gx a mode U-NII-1 5200 MHz - DutyCycle\_20012020\_152851.png

**RESULT:** TC\_VM\_FCC15407\_Max\_Output\_Power\_and\_PSD\_V01

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 99%	---	---	17.502	MHz	Information
T1 99%	---	---	5191.3686	MHz	Information
T2 99%	---	---	5208.8711	MHz	Information



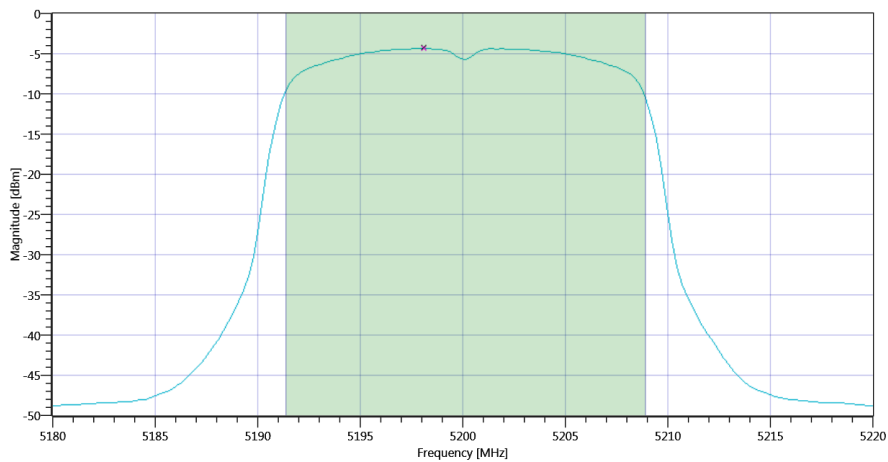
Plot\_ISED Max Output Power and PSD ~ WLAN5Gx a mode U-NII-1 BW\_20012020\_152900.png

**READ SA SETTINGS:**

RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]	15.85   14.67   20
Start [MHz]   Stop [MHz]	5180.000   5220.000
RBW [MHz]   VBW [MHz]	1.000000   3.000000
Detector   TraceMode	RMS   MAXH
Sweep: Time [ms]   Count   Points per Section   Type	8000   1   160   SWE

**RESULT: TC\_VM\_FCC15407\_Max\_Output\_Power\_and\_PSD\_V01**

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Max Output Power	---	---	6.83	dBm	Information
Duty Cycle Correction	---	---	0.4	dB	Information
<b>Limit absolute</b>					
Max Output Power DC corrected	---	24	7.23	dBm	PASS
<b>Limit by: 11 dBm + 10 log Bandwidth</b>					
Max Output Power DC corrected	---	23.43	7.23	dBm	PASS



Plot\_ISED Max Output Power and PSD ~ WLAN5Gx a mode U-NII-1 Max OP and PSD\_20012020\_152914.png

**RESULT: TC\_VM\_FCC15407\_Max\_Output\_Power\_and\_PSD\_V01**

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Power Spectral Density	---	---	-4.39	dBm/1MHz	Information
Duty Cycle Correction	---	---	0.4	dB	Information
Power Spectral Density DC corrected	---	11	-3.99	dBm/1MHz	PASS

TEST FINISHED

General Verdict

20.01.2020 15:29:16 / RT: 41 s

PASS

## 15. FCC Part 15.407 & ISED Bandwidths ~ WLAN5Gx a mode U-NII-1

Test References	
TC Start	20.01.2020 15:29:20
System Version	1.0.0.29
Test Specification	FCC Part 15.407 & ISET RSS-GEN
Test Method	26dB Bandwidth KDB789033 D02, C.1 / ISED RSS-GEN
Class / TC Version / TC ID	TC_VM_FCC15407_Bandwidths_V01 Version: 0.0.1   TCID_FCC15407_1
My Description	FCC 15.407 Bandwidths - WLAN5Gx a mode U-NII-1
Add. Information	

Test Parameter	
Technology to test	WLAN5Gx a mode U-NII-1
Antenna Port used	1
Temperature	mid
Voltage	mid
Frequency low to test	False   Freq [MHz] 5180
Frequency mid to test	True   Freq [MHz] 5200
Frequency high to test	False   Freq [MHz] 5240
Switched Path	IUT - SignalingUnit - SpectrumAnalyzer
Devices in use	SA: Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.60



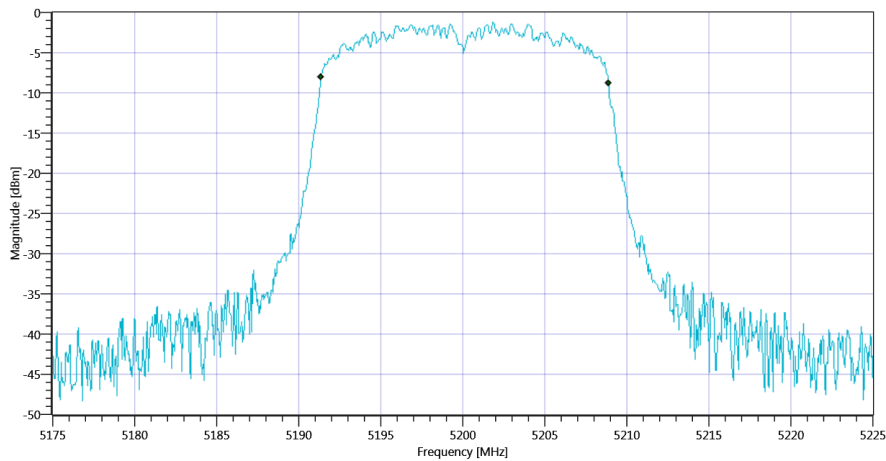
## Test at TX 5200 MHz

### READ SA SETTINGS:

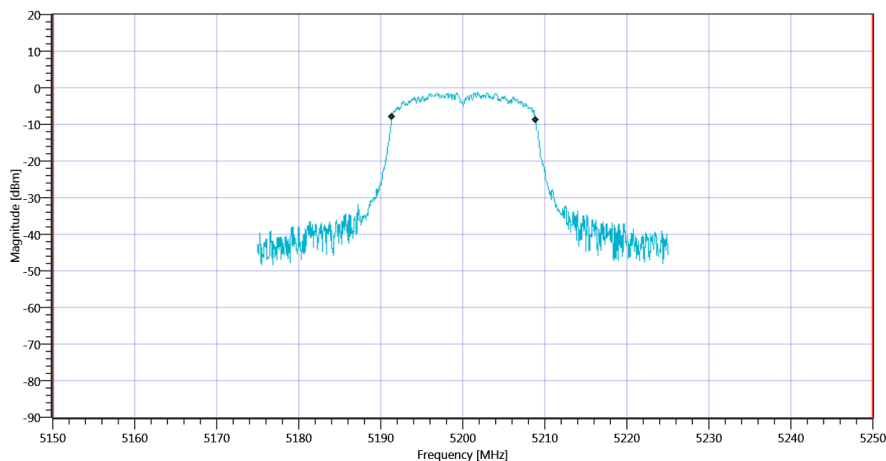
RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]	11.69   14.67   15
Start [MHz]   Stop [MHz]	5175.000   5225.000
RBW [MHz]   VBW [MHz]	0.300000   1.000000
Detector   TraceMode	POS   MAXH
Sweep: Time [ms]   Count   Points per Section   Type	1   2500   1001   SWE

### RESULT: TC\_VM\_FCC15407\_Bandwidths\_V01

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 99%	---	---	17.532	MHz	Information
T1 99%	5150.000000	---	5191.3586	MHz	PASS
T2 99%	---	5250.000000	5208.8911	MHz	PASS



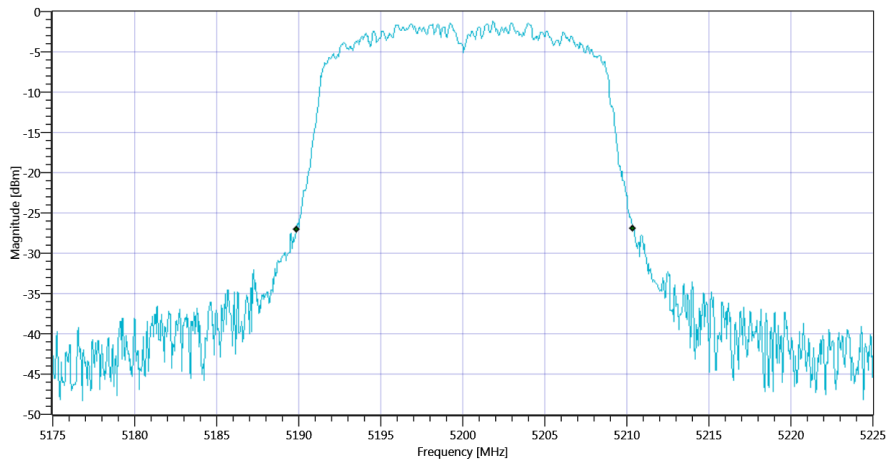
Plot\_FCC Part 15.407 & ISED Bandwidths ~ WLAN5Gx a mode U-NII-1 99PCT\_20012020\_152948.png



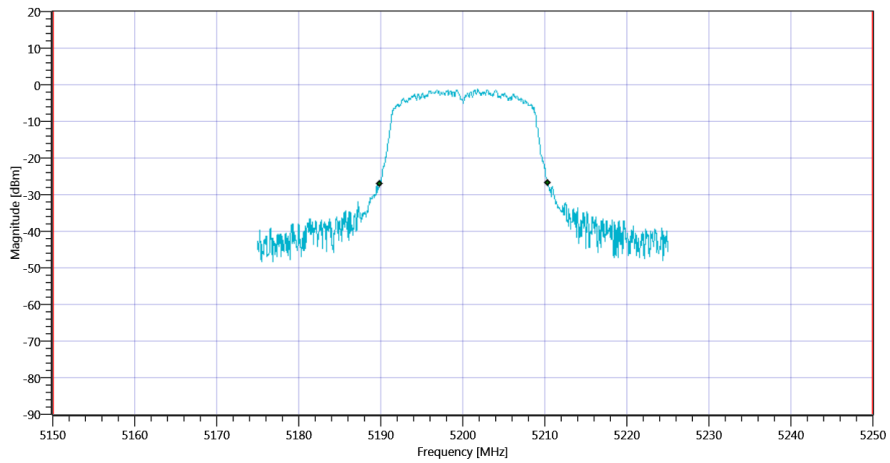
Plot\_FCC Part 15.407 & ISED Bandwidths ~ WLAN5Gx a mode U-NII-1\_20012020\_152951.png

### RESULT: TC\_VM\_FCC15407\_Bandwidths\_V01

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 26dB	---	---	20.55	MHz	Information
T1 26dB	5150.000000	---	5189.8500	MHz	PASS
T2 26dB	---	5250.000000	5210.4000	MHz	PASS



Plot\_FCC Part 15.407 & ISED Bandwidths ~ WLAN5Gx a mode U-NII-1 26dB\_20012020\_152956.png



Plot\_FCC Part 15.407 & ISED Bandwidths ~ WLAN5Gx a mode U-NII-1\_20012020\_153000.png

TEST FINISHED

General Verdict

20.01.2020 15:30:00 / RT: 39 s

PASS

## 16. FCC Part 15.407 Max Output Power and PSD ~ WLAN5Gx a mode U-NII-1

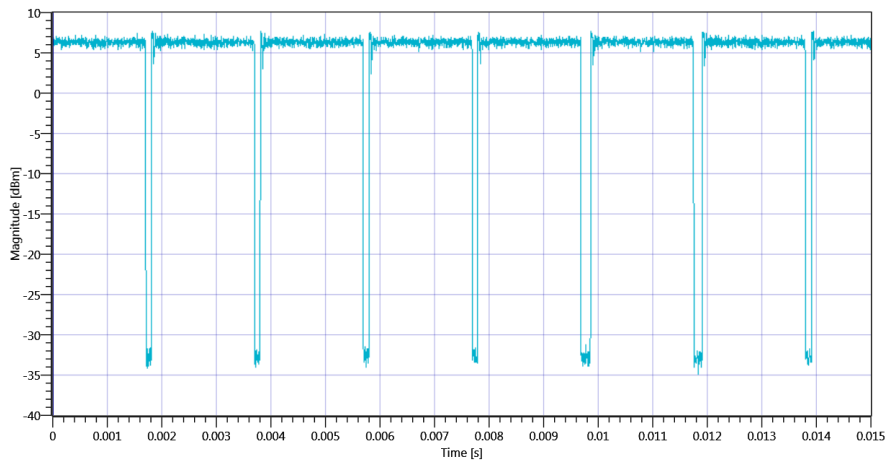
Test References	
TC Start	20.01.2020 15:41:22
System Version	1.0.0.29
Test Specification	FCC Part 15.407
Test Method	KDB789033 D02, F., E.2.e.
Class / TC Version / TC ID	TC_VM_FCC15407_Max_Output_Power_and_PSD_V01 Version: 0.0.1   TCID_FCC15407_3
My Description	FCC 15.407 Max Output Power & PSD - WLAN5Gx a mode U-NII-1
Add. Information	

Test Parameter	
Technology to test	WLAN5Gx a mode U-NII-1
Antenna Port used	1
Temperature	mid
Voltage	mid
Frequency low to test	False   Freq [MHz] 5180
Frequency mid to test	False   Freq [MHz] 5200
Frequency high to test	True   Freq [MHz] 5240
Switched Path	IUT - SignalingUnit - SpectrumAnalyzer
Devices in use	SA: Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.60

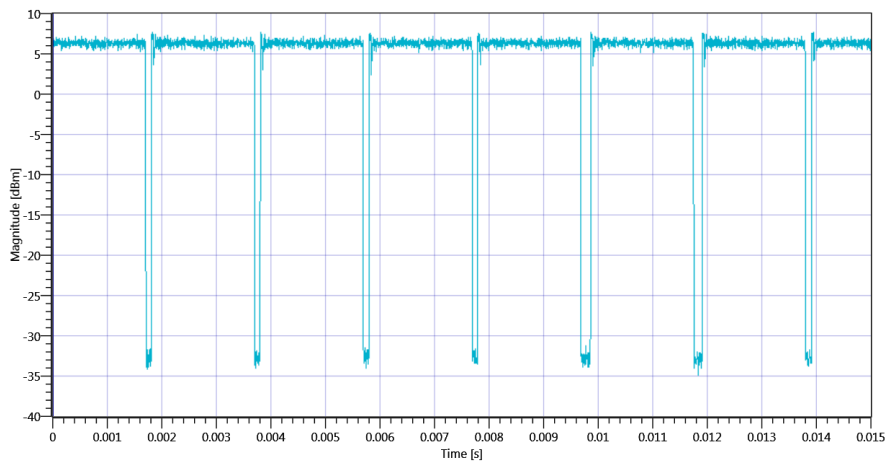
## Test at TX 5240 MHz

RESULT: Duty Cycle evaluation

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Result Duty Cycles					
Result Summary					
Number of detected Bursts:6					
Duty Cycle (Burst Ratio) max	---	---	0.944	---	Information
Duty Cycle max	---	---	0.25	dB	Information
Duty Cycle (Burst Ratio) min	---	---	0.911	---	Information
Duty Cycle min	---	---	0.405	dB	Information
Max TX Burst Length	---	---	1.883	ms	Information
Min Gap Length	---	---	0.112	ms	Information
Max Gap Length	---	---	0.184	ms	Information



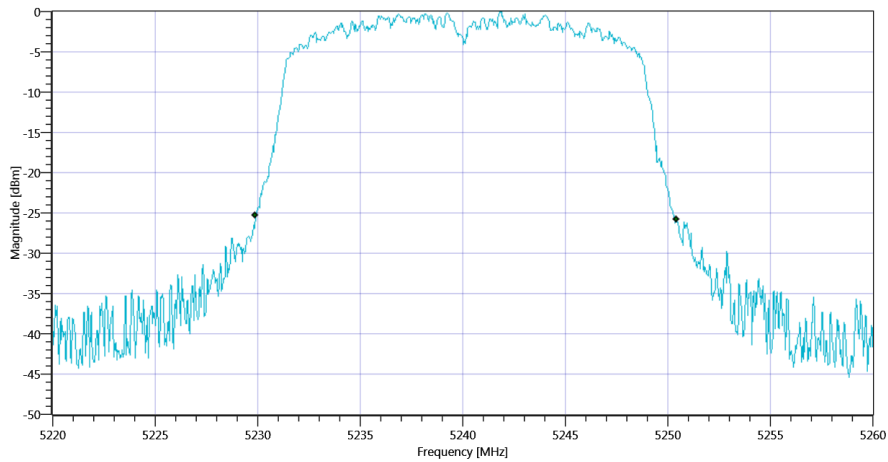
Plot\_FCC Part 15.407 Max Output Power and PSD ~ WLAN5Gx a mode U-NII-1 5240 MHz - Duty Cycle\_20012020\_154138.png



Plot\_FCC Part 15.407 Max Output Power and PSD ~ WLAN5Gx a mode U-NII-1 5240 MHz - DutyCycle\_20012020\_154140.png

RESULT: TC\_VM\_FCC15407\_Max\_Output\_Power\_and\_PSD\_V01

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 26dB	---	---	20.52	MHz	Information
T1 26dB	---	---	5229.8800	MHz	Information
T2 26dB	---	---	5250.4000	MHz	Information



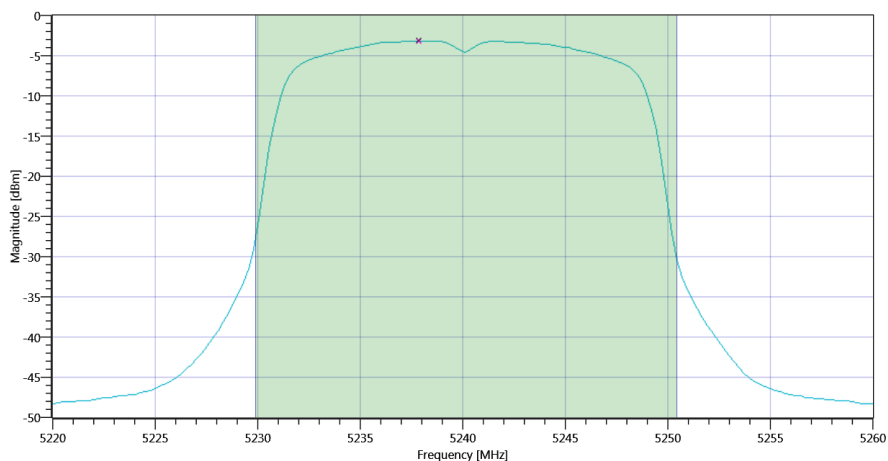
Plot\_FCC Part 15.407 Max Output Power and PSD ~ WLAN5Gx a mode U-NII-1 BW\_20012020\_154148.png

**READ SA SETTINGS:**

RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]	16.29   14.87   20
Start [MHz]   Stop [MHz]	5220.000   5260.000
RBW [MHz]   VBW [MHz]	1.000000   3.000000
Detector   TraceMode	RMS   MAXH
Sweep: Time [ms]   Count   Points per Section   Type	8000   1   160   SWE

**RESULT: TC\_VM\_FCC15407\_Max\_Output\_Power\_and\_PSD\_V01**

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Max Output Power	---	---	8.07	dBm	Information
Duty Cycle Correction	---	---	0.4	dB	Information
<b>Limit absolute</b>					
Max Output Power DC corrected	---	24	8.47	dBm	PASS
<b>Limit by: 11 dBm + 10 log Bandwidth</b>					
Max Output Power DC corrected	---	24.12	8.47	dBm	PASS



Plot\_FCC Part 15.407 Max Output Power and PSD ~ WLAN5Gx a mode U-NII-1 Max OP and PSD\_20012020\_154202.png

**RESULT: TC\_VM\_FCC15407\_Max\_Output\_Power\_and\_PSD\_V01**

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Power Spectral Density	---	---	-3.18	dBm/1MHz	Information
Duty Cycle Correction	---	---	0.4	dB	Information
Power Spectral Density DC corrected	---	11	-2.78	dBm/1MHz	PASS

TEST FINISHED

General Verdict

20.01.2020 15:42:04 / RT: 41 s

PASS

## 17. ISED Max Output Power and PSD ~ WLAN5Gx a mode U-NII-1

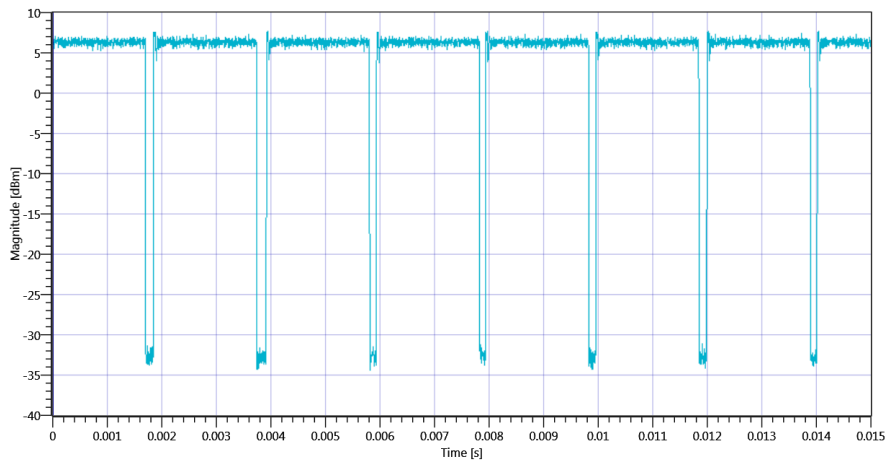
Test References	
TC Start	20.01.2020 15:42:08
System Version	1.0.0.29
Test Specification	ISED
Test Method	
Class / TC Version / TC ID	TC_VM_FCC15407_Max_Output_Power_and_PSD_V01 Version: 0.0.1   TCID_FCC15407_3
My Description	ISED Max Output Power & PSD - WLAN5Gx a mode U-NII-1
Add. Information	

Test Parameter	
Technology to test	WLAN5Gx a mode U-NII-1
Antenna Port used	1
Temperature	mid
Voltage	mid
Frequency low to test	False   Freq [MHz] 5180
Frequency mid to test	False   Freq [MHz] 5200
Frequency high to test	True   Freq [MHz] 5240
Switched Path	IUT - SignalingUnit - SpectrumAnalyzer
Devices in use	SA: Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.60

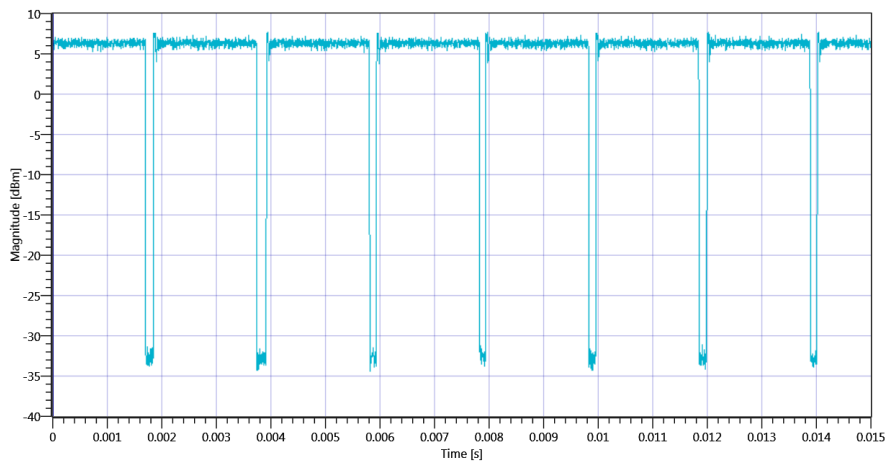
## Test at TX 5240 MHz

**RESULT:** Duty Cycle evaluation

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
<b>Result Duty Cycles</b>					
<b>Result Summary</b>					
Number of detected Bursts:6					
Duty Cycle (Burst Ratio) max	---	---	0.945	---	Information
Duty Cycle max	---	---	0.246	dB	Information
Duty Cycle (Burst Ratio) min	---	---	0.911	---	Information
Duty Cycle min	---	---	0.405	dB	Information
Max TX Burst Length	---	---	1.886	ms	Information
Min Gap Length	---	---	0.109	ms	Information
Max Gap Length	---	---	0.184	ms	Information



Plot\_ISED Max Output Power and PSD ~ WLAN5Gx a mode U-NII-1 5240 MHz - DutyCycle\_20012020\_154224.png

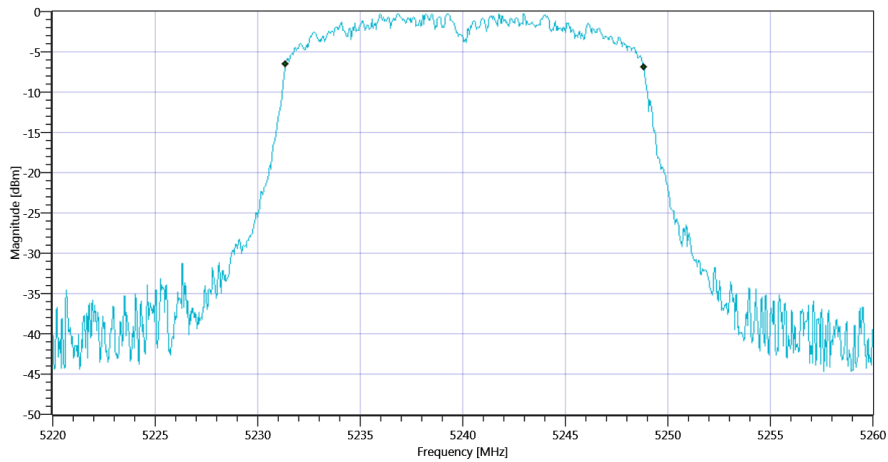


Plot\_ISED Max Output Power and PSD ~ WLAN5Gx a mode U-NII-1 5240 MHz - DutyCycle\_20012020\_154225.png

**RESULT:** TC\_VM\_FCC15407\_Max\_Output\_Power\_and\_PSD\_V01

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 99%	---	---	17.463	MHz	Information
T1 99%	---	---	5231.3686	MHz	Information
T2 99%	---	---	5248.8312	MHz	Information





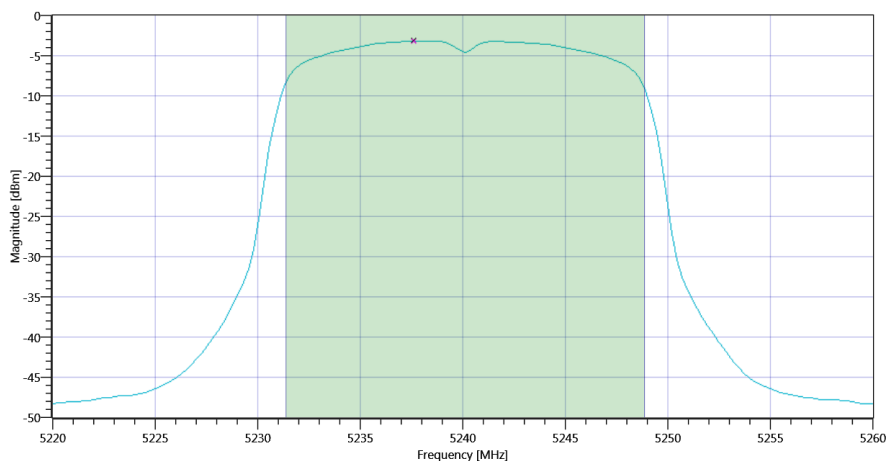
Plot\_ISED Max Output Power and PSD ~ WLAN5Gx a mode U-NII-1 BW\_20012020\_154234.png

**READ SA SETTINGS:**

RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]	17.40   14.87   20
Start [MHz]   Stop [MHz]	5220.000   5260.000
RBW [MHz]   VBW [MHz]	1.000000   3.000000
Detector   TraceMode	RMS   MAXH
Sweep: Time [ms]   Count   Points per Section   Type	8000   1   160   SWE

**RESULT: TC\_VM\_FCC15407\_Max\_Output\_Power\_and\_PSD\_V01**

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Max Output Power	---	---	7.99	dBm	Information
Duty Cycle Correction	---	---	0.4	dB	Information
<b>Limit absolute</b>					
Max Output Power DC corrected	---	24	8.39	dBm	PASS
<b>Limit by: 11 dBm + 10 log Bandwidth</b>					
Max Output Power DC corrected	---	23.42	8.39	dBm	PASS



Plot\_ISED Max Output Power and PSD ~ WLAN5Gx a mode U-NII-1 Max OP and PSD\_20012020\_154248.png

**RESULT: TC\_VM\_FCC15407\_Max\_Output\_Power\_and\_PSD\_V01**

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Power Spectral Density	---	---	-3.18	dBm/1MHz	Information
Duty Cycle Correction	---	---	0.4	dB	Information
Power Spectral Density DC corrected	---	11	-2.78	dBm/1MHz	PASS

TEST FINISHED

General Verdict

20.01.2020 15:42:50 / RT: 41 s

PASS

## 18. FCC Part 15.407 & ISED Bandwidths ~ WLAN5Gx a mode U-NII-1

Test References	
TC Start	20.01.2020 15:42:54
System Version	1.0.0.29
Test Specification	FCC Part 15.407 & ISET RSS-GEN
Test Method	26dB Bandwidth KDB789033 D02, C.1 / ISED RSS-GEN
Class / TC Version / TC ID	TC_VM_FCC15407_Bandwidths_V01 Version: 0.0.1   TCID_FCC15407_1
My Description	FCC 15.407 Bandwidths - WLAN5Gx a mode U-NII-1
Add. Information	

Test Parameter	
Technology to test	WLAN5Gx a mode U-NII-1
Antenna Port used	1
Temperature	mid
Voltage	mid
Frequency low to test	False   Freq [MHz] 5180
Frequency mid to test	False   Freq [MHz] 5200
Frequency high to test	True   Freq [MHz] 5240
Switched Path	IUT - SignalingUnit - SpectrumAnalyzer
Devices in use	SA: Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.60

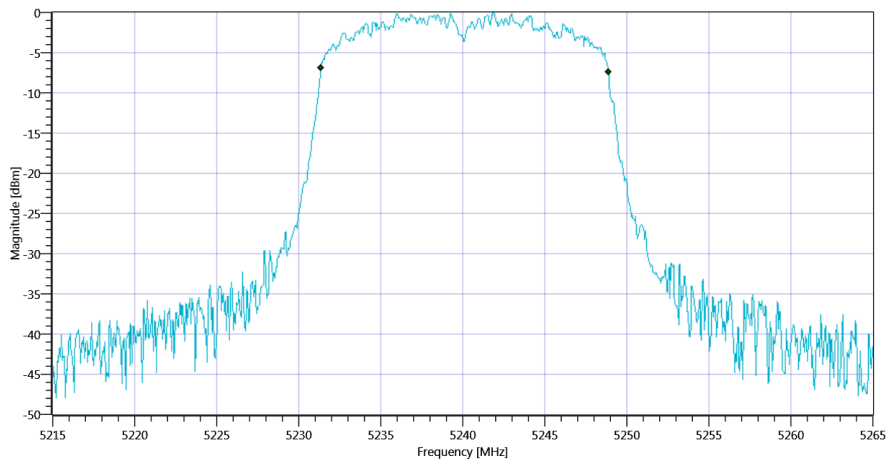
## Test at TX 5240 MHz

### READ SA SETTINGS:

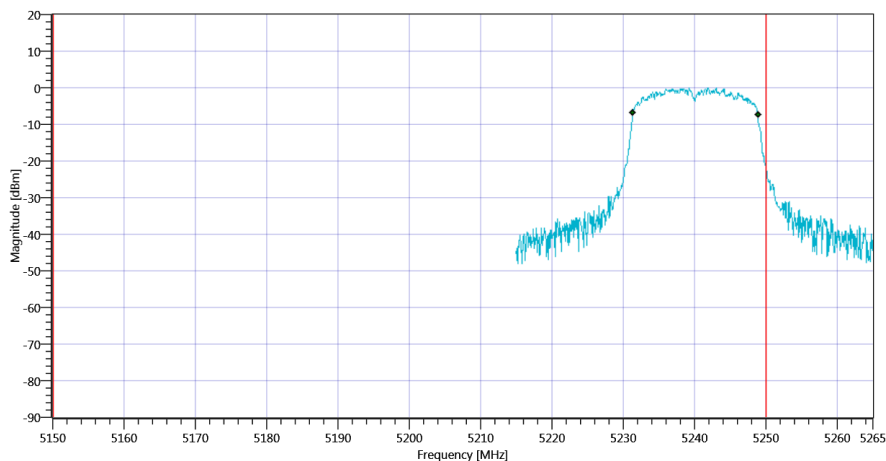
RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]	12.82   14.87   15
Start [MHz]   Stop [MHz]	5215.000   5265.000
RBW [MHz]   VBW [MHz]	0.300000   1.000000
Detector   TraceMode	POS   MAXH
Sweep: Time [ms]   Count   Points per Section   Type	1   2500   1001   SWE

### RESULT: TC\_VM\_FCC15407\_Bandwidths\_V01

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 99%	---	---	17.532	MHz	Information
T1 99%	5150.000000	---	5231.3586	MHz	PASS
T2 99%	---	5250.000000	5248.8911	MHz	PASS



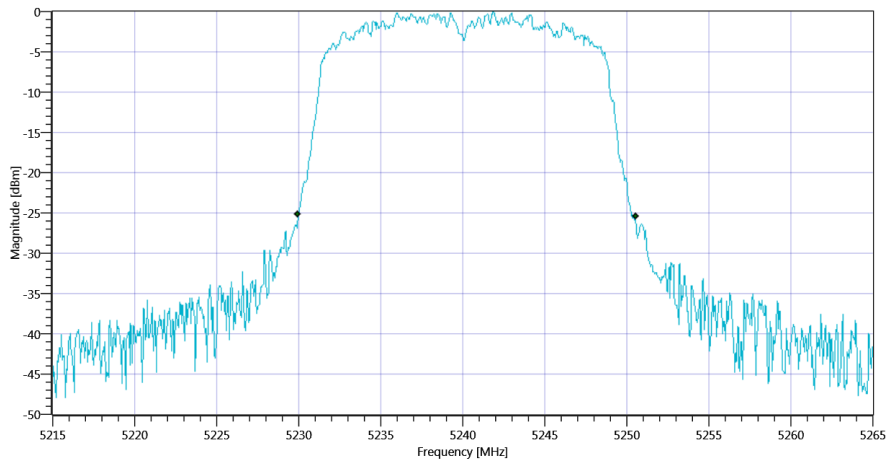
Plot\_FCC Part 15.407 & ISED Bandwidths ~ WLAN5Gx a mode U-NII-1 99PCT\_20012020\_154315.png



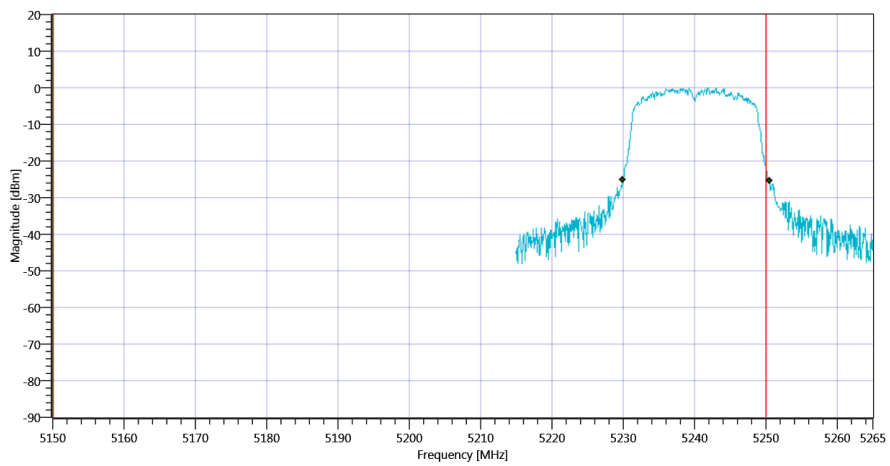
Plot\_FCC Part 15.407 & ISED Bandwidths ~ WLAN5Gx a mode U-NII-1\_20012020\_154319.png

### RESULT: TC\_VM\_FCC15407\_Bandwidths\_V01

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 26dB	---	---	20.6	MHz	Information
T1 26dB	5150.000000	---	5229.9500	MHz	PASS
T2 26dB	---	5250.000000	5250.5500	MHz	DFS required



Plot\_FCC Part 15.407 & ISED Bandwidths ~ WLAN5Gx a mode U-NII-1 26dB\_20012020\_154323.png



Plot\_FCC Part 15.407 & ISED Bandwidths ~ WLAN5Gx a mode U-NII-1\_20012020\_154327.png

TEST FINISHED

General Verdict

20.01.2020 15:43:28 / RT: 33 s

PASS

- END OF DOCUMENT -