

FCC 15.247 # Max output power and psd ~ WLAN5Gx ac-VHT20 mode U-NII-2A_BW

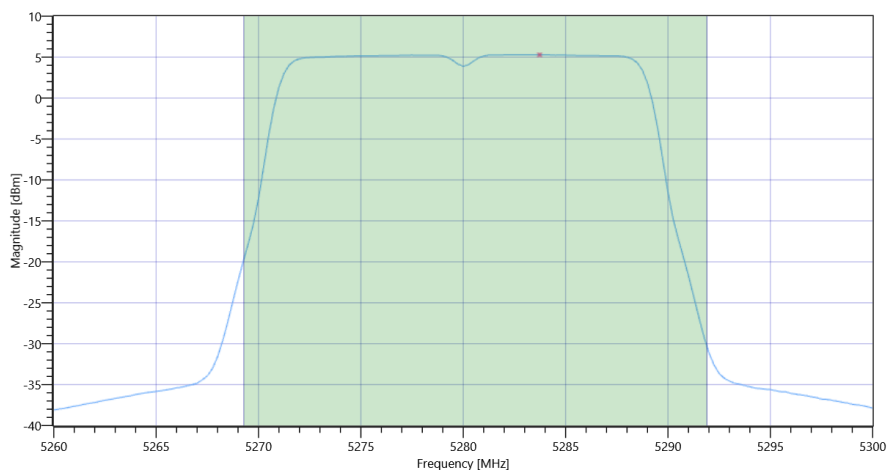
Maximum Output Power

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	26.00 18.69 25
Start [MHz] Stop [MHz]	5260.000 5300.000
RBW [MHz] VBW [MHz]	1.000000 3.000000
Detector TraceMode	RMS MAXH
Sweep: Time [ms] Count Points per Section Type	53700 1 161 SWE

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Max Output Power	---	---	17.32	dBm	INFO
Duty Cycle Correction	---	---	0.33	dB	INFO
Limit absolute					
Max Output Power DC corrected	---	24	17.65	dBm	PASS
Limit by: 11 dBm + 10 log Bandwidth					
Max Output Power DC corrected	---	24.54	17.65	dBm	PASS



FCC 15.247 # Max output power and psd ~ WLAN5Gx ac-VHT20 mode U-NII-2A Max OP and PSD

Power Spectral Density

RESULT					
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Power Spectral Density	---	---	5.29	dBm/1MHz	INFO
Duty Cycle Correction	---	---	0.33	dB	INFO
Power Spectral Density DC corrected	---	11	5.62	dBm/1MHz	PASS
General verdict			PASS		

FCC 15.247 # Max output power and psd ~ WLAN5Gx ac-VHT20 mode U-NII-2A

Test References	
TC Start	14.07.2022 16:02:11
Ambit Temp [°C] Humidity [rel%]	28.2 41
System Version	3.2.0.2
Test Specification	FCC 15.247 -
Test Method	KDB789033 D02, F., E.2.e.
TC Version	0.0.1
My Description	FCC 15.407 Max Output Power & PSD - WLAN5Gx ac-VHT20 mode U-NII-2A
Add. Information	

EUT Common Settings WLAN5Gx	
Number of Antenna Ports	2
User Interaction	No
Device Class UNII_1	Client

Test Parameter	
Technology to test	WLAN5Gx ac-VHT20 mode
Antenna Port used	2
Temperature	nom
Voltage	nom
Frequency low to test	False Freq [MHz] 5260
Frequency mid to test	False Freq [MHz] 5280
Frequency high to test	True Freq [MHz] 5320
Auto Control enabled Power Supply Climatic Box	No No
Additional Path Loss [dB]	1.4
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer

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

Test at TX 5320 MHz

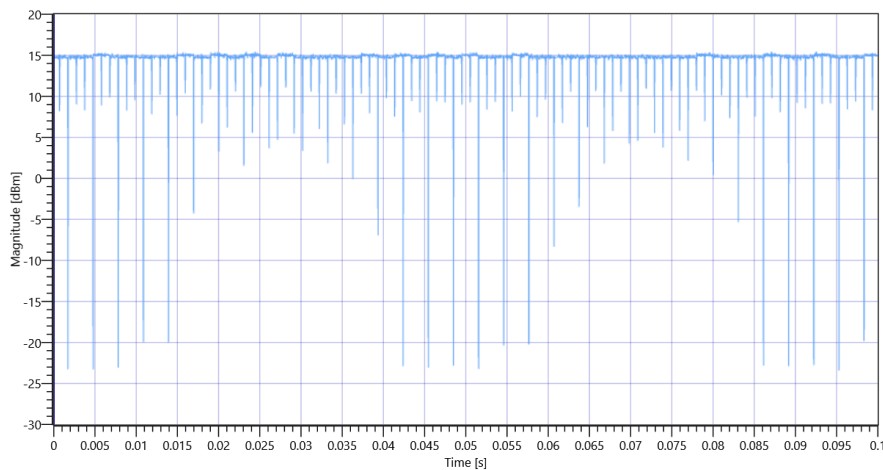
RESULT: Reference Power cond.

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	13.81	dBm	INFO
Ref. Frequency	---	---	5322.400	MHz	INFO

Evaluation max. Duty Cycle

Duty Cycle evaluation

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Result Summary					
Number of detected Bursts:34					
Duty Cycle (Burst Ratio) max	---	---	0.975	---	INFO
Duty Cycle max	---	---	0.11	dB	INFO
Duty Cycle (Burst Ratio) min	---	---	0.927	---	INFO
Duty Cycle min	---	---	0.329	dB	INFO
Max TX Burst Length	---	---	2.975	ms	INFO
Min Gap Length	---	---	0.075	ms	INFO
Max Gap Length	---	---	0.075	ms	INFO

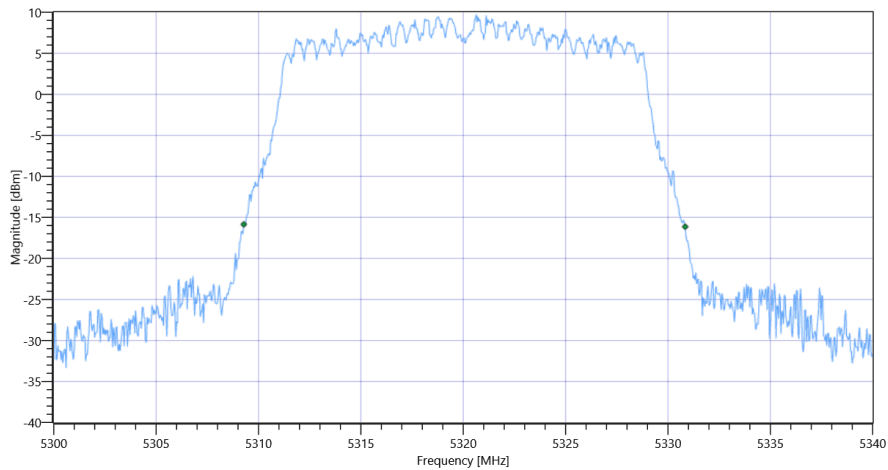


FCC 15.247 # Max output power and psd ~ WLAN5Gx ac-VHT20 mode U-NII-2A 5320 MHz - DutyCycle

Evaluation Bandwidth

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 26dB	---	---	21.56	MHz	INFO
T1 26dB	---	---	5309.2800	MHz	INFO
T2 26dB	---	---	5330.8400	MHz	INFO



FCC 15.247 # Max output power and psd ~ WLAN5Gx ac-VHT20 mode U-NII-2A_BW

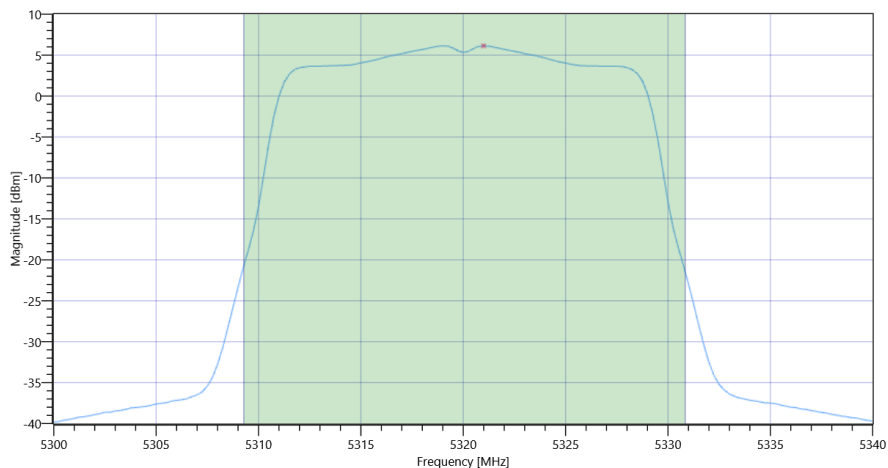
Maximum Output Power

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	25.81 18.41 25
Start [MHz] Stop [MHz]	5300.000 5340.000
RBW [MHz] VBW [MHz]	1.000000 3.000000
Detector TraceMode	RMS MAXH
Sweep: Time [ms] Count Points per Section Type	53700 1 161 SWE

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Max Output Power	---	---	16.9	dBm	INFO
Duty Cycle Correction	---	---	0.33	dB	INFO
Limit absolute					
Max Output Power DC corrected	---	24	17.23	dBm	PASS
Limit by: 11 dBm + 10 log Bandwidth					
Max Output Power DC corrected	---	24.34	17.23	dBm	PASS



FCC 15.247 # Max output power and psd ~ WLAN5Gx ac-VHT20 mode U-NII-2A Max OP and PSD

Power Spectral Density

RESULT					
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Power Spectral Density	---	---	6.14	dBm/1MHz	INFO
Duty Cycle Correction	---	---	0.33	dB	INFO
Power Spectral Density DC corrected	---	11	6.47	dBm/1MHz	PASS
General verdict			PASS		

FCC 15.247 # Max output power and psd ~ WLAN5Gx ac-VHT20 mode U-NII-2C

Test References	
TC Start	14.07.2022 16:07:37
Ambit Temp [°C] Humidity [rel%]	28.2 41
System Version	3.2.0.2
Test Specification	FCC 15.247 -
Test Method	KDB789033 D02, F., E.2.e.
TC Version	0.0.1
My Description	FCC 15.407 Max Output Power & PSD - WLAN5Gx ac-VHT20 mode U-NII-2C
Add. Information	

EUT Common Settings WLAN5Gx	
Number of Antenna Ports	2
User Interaction	No
Device Class UNII_1	Client

Test Parameter	
Technology to test	WLAN5Gx ac-VHT20 mode
Antenna Port used	2
Temperature	nom
Voltage	nom
Frequency low to test	True Freq [MHz] 5500
Frequency mid to test	False Freq [MHz] 5600
Frequency high to test	False Freq [MHz] 5700
Auto Control enabled Power Supply Climatic Box	No No
Additional Path Loss [dB]	1.4
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer

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

Test at TX 5500 MHz

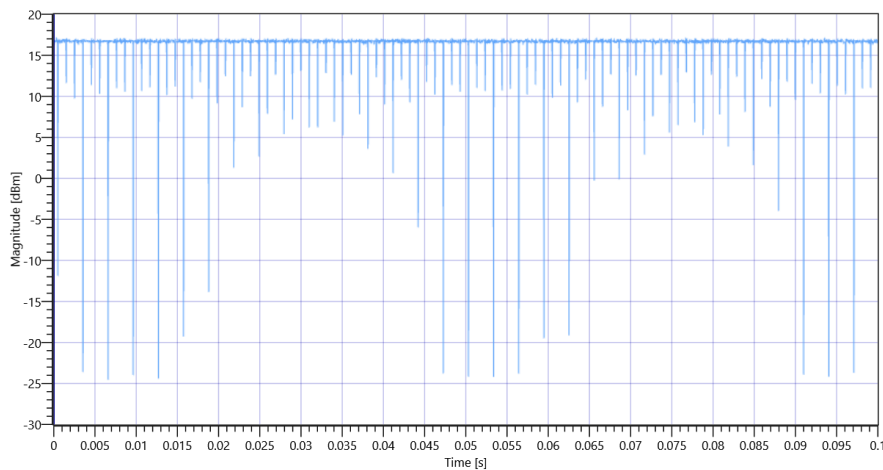
RESULT: Reference Power cond.

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	15.66	dBm	INFO
Ref. Frequency	---	---	5499.400	MHz	INFO

Evaluation max. Duty Cycle

Duty Cycle evaluation

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Result Summary					
Number of detected Bursts:35					
Duty Cycle (Burst Ratio) max	---	---	0.975	---	INFO
Duty Cycle max	---	---	0.11	dB	INFO
Duty Cycle (Burst Ratio) min	---	---	0.927	---	INFO
Duty Cycle min	---	---	0.329	dB	INFO
Max TX Burst Length	---	---	2.975	ms	INFO
Min Gap Length	---	---	0.075	ms	INFO
Max Gap Length	---	---	0.075	ms	INFO

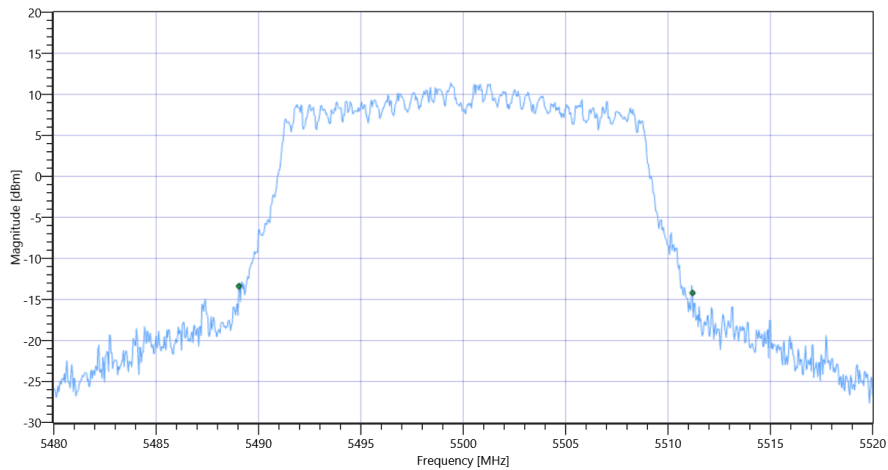


FCC 15.247 # Max output power and psd ~ WLAN5Gx ac-VHT20 mode U-NII-2C 5500 MHz - DutyCycle

Evaluation Bandwidth

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 26dB	---	---	22.16	MHz	INFO
T1 26dB	---	---	5489.0400	MHz	INFO
T2 26dB	---	---	5511.2000	MHz	INFO



FCC 15.247 # Max output power and psd ~ WLAN5Gx ac-VHT20 mode U-NII-2C_BW

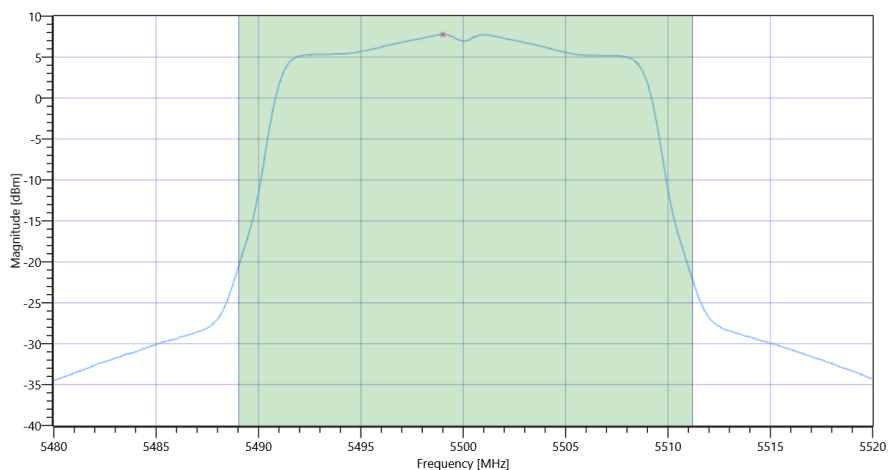
Maximum Output Power

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	27.66 18.5 25
Start [MHz] Stop [MHz]	5480.000 5520.000
RBW [MHz] VBW [MHz]	1.000000 3.000000
Detector TraceMode	RMS MAXH
Sweep: Time [ms] Count Points per Section Type	53700 1 161 SWE

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Max Output Power	---	---	18.5	dBm	INFO
Duty Cycle Correction	---	---	0.33	dB	INFO
Limit absolute					
Max Output Power DC corrected	---	24	18.83	dBm	PASS
Limit by: 11 dBm + 10 log Bandwidth					
Max Output Power DC corrected	---	24.46	18.83	dBm	PASS



FCC 15.247 # Max output power and psd ~ WLAN5Gx ac-VHT20 mode U-NII-2C Max OP and PSD

Power Spectral Density

RESULT					
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Power Spectral Density	---	---	7.76	dBm/1MHz	INFO
Duty Cycle Correction	---	---	0.33	dB	INFO
Power Spectral Density DC corrected	---	11	8.09	dBm/1MHz	PASS
General verdict			PASS		

FCC 15.247 # Max output power and psd ~ WLAN5Gx ac-VHT20 mode U-NII-2C

Test References	
TC Start	14.07.2022 16:13:03
Ambit Temp [°C] Humidity [rel%]	28.2 41
System Version	3.2.0.2
Test Specification	FCC 15.247 -
Test Method	KDB789033 D02, F., E.2.e.
TC Version	0.0.1
My Description	FCC 15.407 Max Output Power & PSD - WLAN5Gx ac-VHT20 mode U-NII-2C
Add. Information	

EUT Common Settings WLAN5Gx	
Number of Antenna Ports	2
User Interaction	No
Device Class UNII_1	Client

Test Parameter	
Technology to test	WLAN5Gx ac-VHT20 mode
Antenna Port used	2
Temperature	nom
Voltage	nom
Frequency low to test	False Freq [MHz] 5500
Frequency mid to test	True Freq [MHz] 5600
Frequency high to test	False Freq [MHz] 5700
Auto Control enabled Power Supply Climatic Box	No No
Additional Path Loss [dB]	1.4
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer

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

Test at TX 5600 MHz

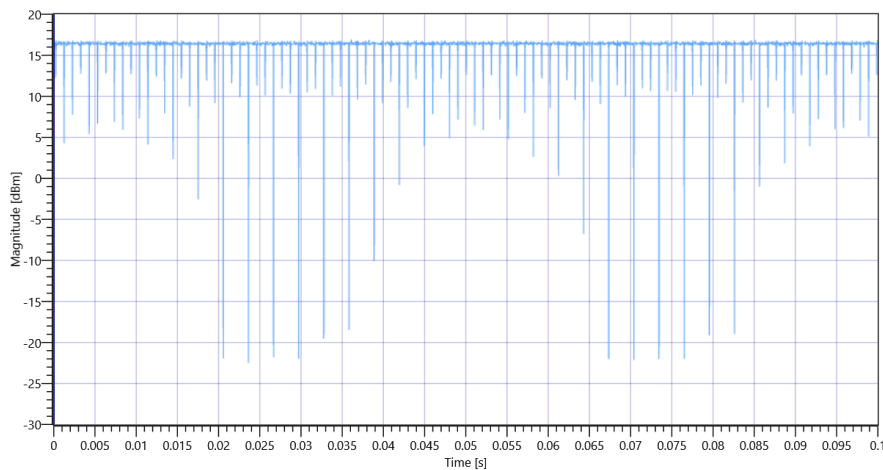
RESULT: Reference Power cond.

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	15.19	dBm	INFO
Ref. Frequency	---	---	5605.190	MHz	INFO

Evaluation max. Duty Cycle

Duty Cycle evaluation

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Result Summary					
Number of detected Bursts:35					
Duty Cycle (Burst Ratio) max	---	---	0.975	---	INFO
Duty Cycle max	---	---	0.11	dB	INFO
Duty Cycle (Burst Ratio) min	---	---	0.927	---	INFO
Duty Cycle min	---	---	0.329	dB	INFO
Max TX Burst Length	---	---	2.975	ms	INFO
Min Gap Length	---	---	0.075	ms	INFO
Max Gap Length	---	---	0.075	ms	INFO

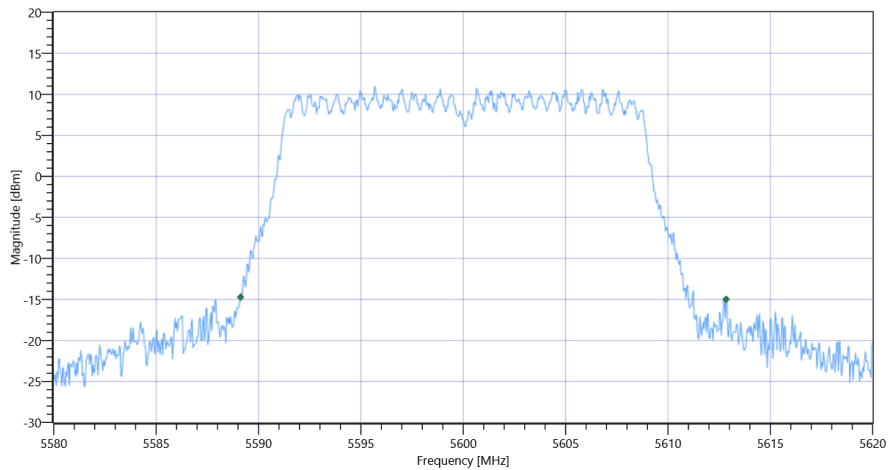


FCC 15.247 # Max output power and psd ~ WLAN5Gx ac-VHT20 mode U-NII-2C 5600 MHz - DutyCycle

Evaluation Bandwidth

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 26dB	---	---	23.72	MHz	INFO
T1 26dB	---	---	5589.1200	MHz	INFO
T2 26dB	---	---	5612.8400	MHz	INFO



FCC 15.247 # Max output power and psd ~ WLAN5Gx ac-VHT20 mode U-NII-2C_BW

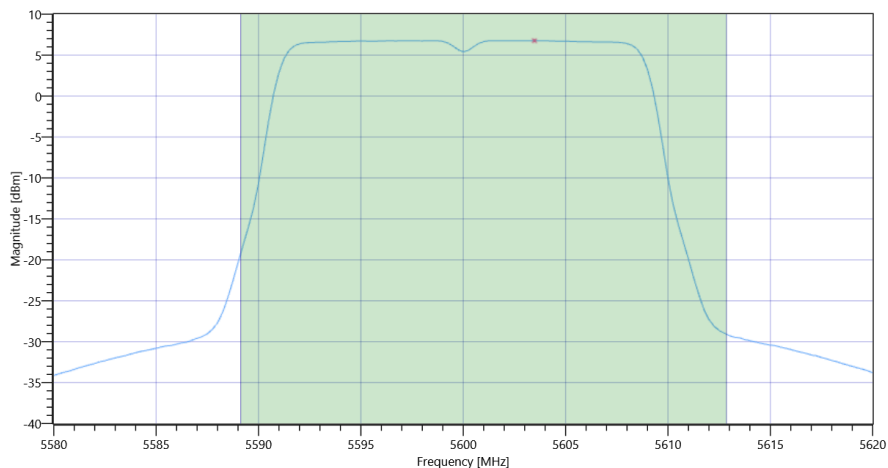
Maximum Output Power

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	27.19 19.06 25
Start [MHz] Stop [MHz]	5580.000 5620.000
RBW [MHz] VBW [MHz]	1.000000 3.000000
Detector TraceMode	RMS MAXH
Sweep: Time [ms] Count Points per Section Type	53700 1 161 SWE

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Max Output Power	---	---	18.83	dBm	INFO
Duty Cycle Correction	---	---	0.33	dB	INFO
Limit absolute					
Max Output Power DC corrected	---	24	19.16	dBm	PASS
Limit by: 11 dBm + 10 log Bandwidth					
Max Output Power DC corrected	---	24.75	19.16	dBm	PASS



FCC 15.247 # Max output power and psd ~ WLAN5Gx ac-VHT20 mode U-NII-2C Max OP and PSD

Power Spectral Density

RESULT					
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Power Spectral Density	---	---	6.77	dBm/1MHz	INFO
Duty Cycle Correction	---	---	0.33	dB	INFO
Power Spectral Density DC corrected	---	11	7.1	dBm/1MHz	PASS
General verdict			PASS		

FCC 15.247 # Max output power and psd ~ WLAN5Gx ac-VHT20 mode U-NII-2C

Test References	
TC Start	14.07.2022 16:18:37
Ambit Temp [°C] Humidity [rel%]	28.2 40
System Version	3.2.0.2
Test Specification	FCC 15.247 -
Test Method	KDB789033 D02, F., E.2.e.
TC Version	0.0.1
My Description	FCC 15.407 Max Output Power & PSD - WLAN5Gx ac-VHT20 mode U-NII-2C
Add. Information	

EUT Common Settings WLAN5Gx	
Number of Antenna Ports	2
User Interaction	No
Device Class UNII_1	Client

Test Parameter	
Technology to test	WLAN5Gx ac-VHT20 mode
Antenna Port used	2
Temperature	nom
Voltage	nom
Frequency low to test	False Freq [MHz] 5500
Frequency mid to test	False Freq [MHz] 5600
Frequency high to test	True Freq [MHz] 5700
Auto Control enabled Power Supply Climatic Box	No No
Additional Path Loss [dB]	1.4
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer

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

Test at TX 5700 MHz

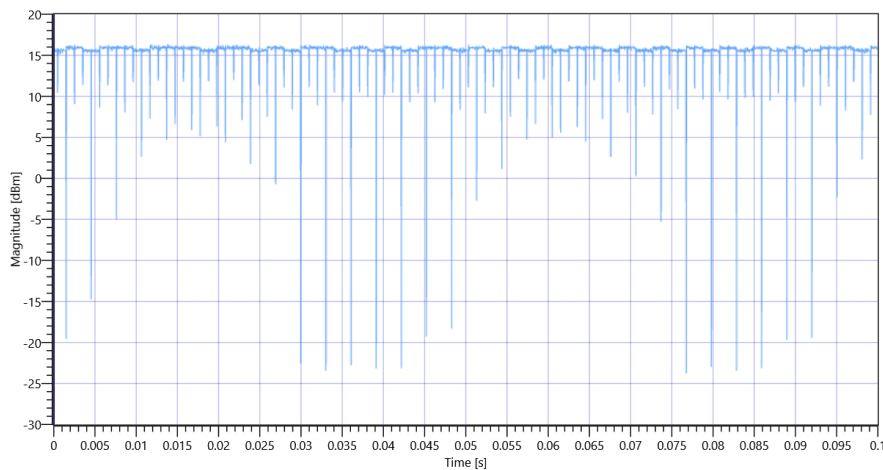
RESULT: Reference Power cond.

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	14.71	dBm	INFO
Ref. Frequency	---	---	5698.600	MHz	INFO

Evaluation max. Duty Cycle

Duty Cycle evaluation

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Result Summary					
Number of detected Bursts:35					
Duty Cycle (Burst Ratio) max	---	---	0.975	---	INFO
Duty Cycle max	---	---	0.11	dB	INFO
Duty Cycle (Burst Ratio) min	---	---	0.927	---	INFO
Duty Cycle min	---	---	0.329	dB	INFO
Max TX Burst Length	---	---	2.975	ms	INFO
Min Gap Length	---	---	0.075	ms	INFO
Max Gap Length	---	---	0.075	ms	INFO

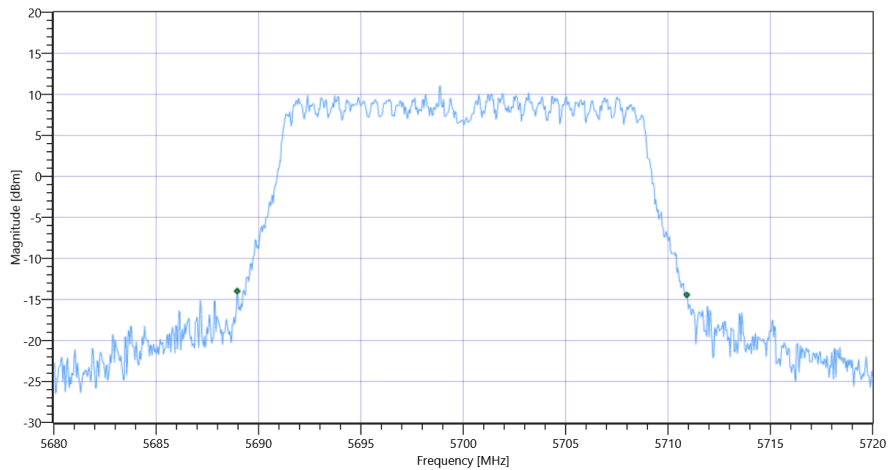


FCC 15.247 # Max output power and psd ~ WLAN5Gx ac-VHT20 mode U-NII-2C 5700 MHz - DutyCycle

Evaluation Bandwidth

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 26dB	---	---	21.96	MHz	INFO
T1 26dB	---	---	5688.9600	MHz	INFO
T2 26dB	---	---	5710.9200	MHz	INFO



FCC 15.247 # Max output power and psd ~ WLAN5Gx ac-VHT20 mode U-NII-2C_BW

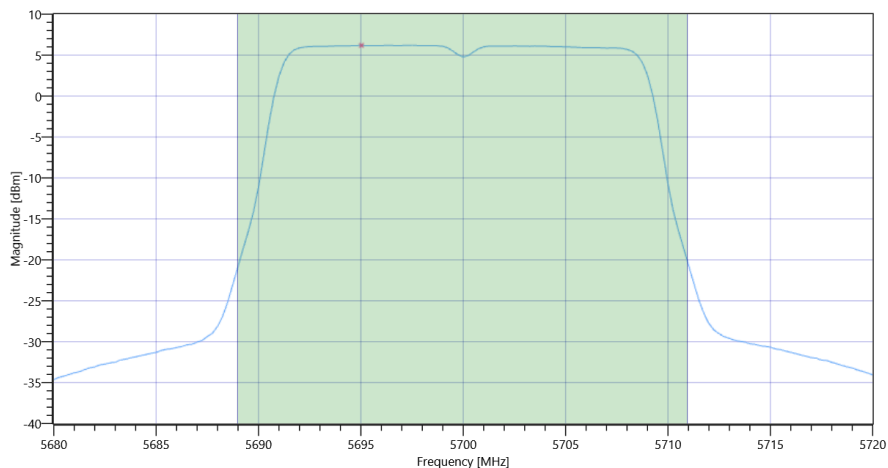
Maximum Output Power

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	26.71 18.46 25
Start [MHz] Stop [MHz]	5680.000 5720.000
RBW [MHz] VBW [MHz]	1.000000 3.000000
Detector TraceMode	RMS MAXH
Sweep: Time [ms] Count Points per Section Type	53700 1 161 SWE

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Max Output Power	---	---	18.21	dBm	INFO
Duty Cycle Correction	---	---	0.33	dB	INFO
Limit absolute					
Max Output Power DC corrected	---	24	18.54	dBm	PASS
Limit by: 11 dBm + 10 log Bandwidth					
Max Output Power DC corrected	---	24.42	18.54	dBm	PASS



FCC 15.247 # Max output power and psd ~ WLAN5Gx ac-VHT20 mode U-NII-2C Max OP and PSD

Power Spectral Density

RESULT					
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Power Spectral Density	---	---	6.19	dBm/1MHz	INFO
Duty Cycle Correction	---	---	0.33	dB	INFO
Power Spectral Density DC corrected	---	11	6.52	dBm/1MHz	PASS
General verdict			PASS		

FCC 15.247 # Max output power and psd ~ WLAN5Gx ac-VHT20 mode U-NII-3

Test References	
TC Start	14.07.2022 16:27:10
Ambit Temp [°C] Humidity [rel%]	28.2 41
System Version	3.2.0.2
Test Specification	FCC 15.247 -
Test Method	KDB789033 D02, F., E.2.e.
TC Version	0.0.1
My Description	FCC 15.407 Max Output Power & PSD - WLAN5Gx ac-VHT20 mode U-NII-3
Add. Information	

EUT Common Settings WLAN5Gx	
Number of Antenna Ports	2
User Interaction	No
Device Class UNII_1	Client

Test Parameter	
Technology to test	WLAN5Gx ac-VHT20 mode
Antenna Port used	2
Temperature	nom
Voltage	nom
Frequency low to test	True Freq [MHz] 5745
Frequency mid to test	False Freq [MHz] 5785
Frequency high to test	False Freq [MHz] 5825
Auto Control enabled Power Supply Climatic Box	No No
Additional Path Loss [dB]	1.4
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer

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

Test at TX 5745 MHz

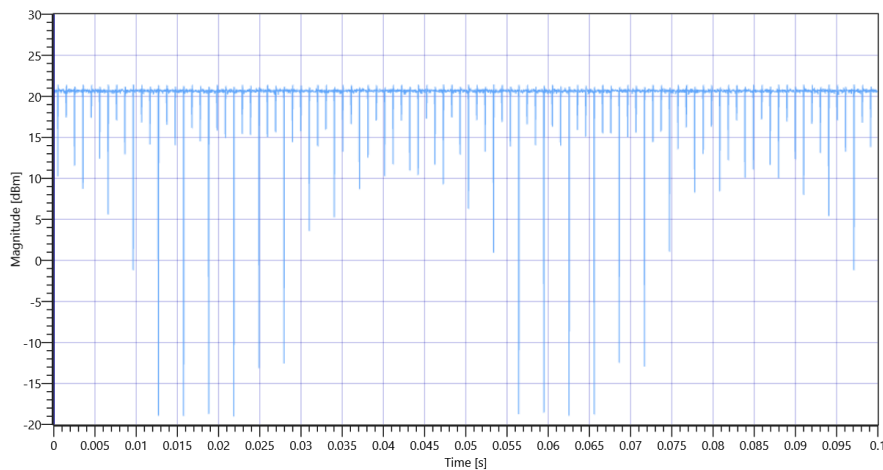
RESULT: Reference Power cond.

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	20.64	dBm	INFO
Ref. Frequency	---	---	5748.000	MHz	INFO

Evaluation max. Duty Cycle

Duty Cycle evaluation

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Result Summary					
Number of detected Bursts:33					
Duty Cycle (Burst Ratio) max	---	---	0.975	---	INFO
Duty Cycle max	---	---	0.11	dB	INFO
Duty Cycle (Burst Ratio) min	---	---	0.927	---	INFO
Duty Cycle min	---	---	0.329	dB	INFO
Max TX Burst Length	---	---	2.975	ms	INFO
Min Gap Length	---	---	0.075	ms	INFO
Max Gap Length	---	---	0.075	ms	INFO

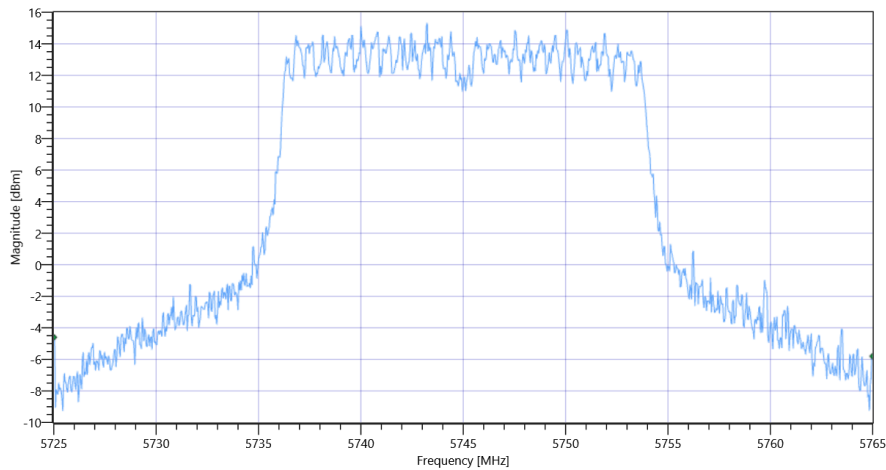


FCC 15.247 # Max output power and psd ~ WLAN5Gx ac-VHT20 mode U-NII-3 5745 MHz - DutyCycle

Evaluation Bandwidth

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 26dB	---	---	40	MHz	INFO
T1 26dB	---	---	5725.0000	MHz	INFO
T2 26dB	---	---	5765.0000	MHz	INFO



FCC 15.247 # Max output power and psd ~ WLAN5Gx ac-VHT20 mode U-NII-3_BW

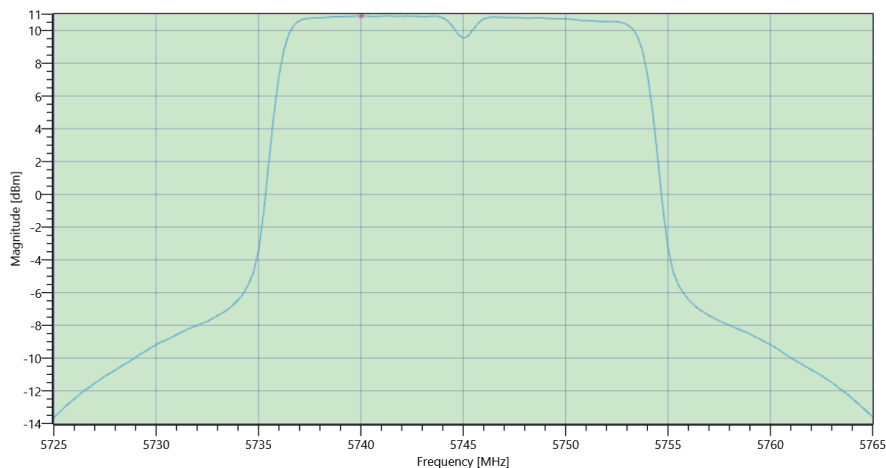
Maximum Output Power

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	32.64 18.72 30
Start [MHz] Stop [MHz]	5725.000 5765.000
RBW [MHz] VBW [MHz]	1.000000 3.000000
Detector TraceMode	RMS MAXH
Sweep: Time [ms] Count Points per Section Type	53700 1 161 SWE

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Max Output Power	---	---	22.99	dBm	INFO
Duty Cycle Correction	---	---	0.33	dB	INFO
Limit absolute					
Max Output Power DC corrected	---	30	23.32	dBm	PASS
Limit by: 11 dBm + 10 log Bandwidth					
Max Output Power DC corrected	---	27.02	23.32	dBm	not applicable



FCC 15.247 # Max output power and psd ~ WLAN5Gx ac-VHT20 mode U-NII-3 Max OP and PSD

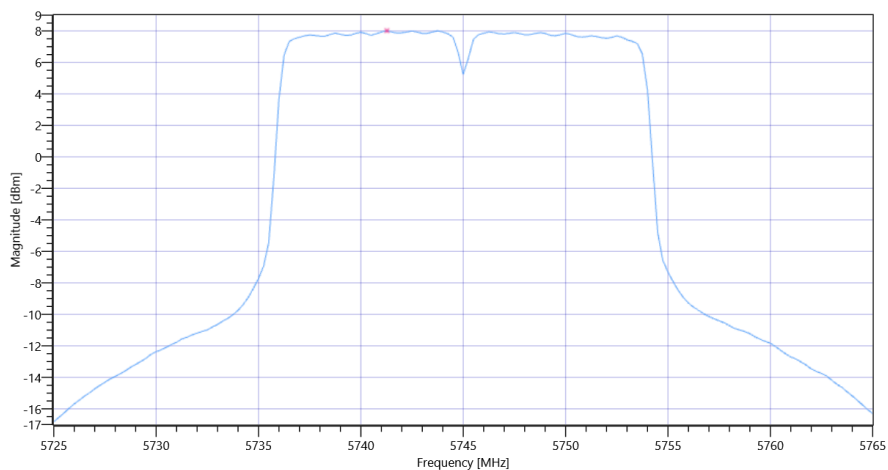
Power Spectral Density U-NII-3

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	32.64 18.72 30
Start [MHz] Stop [MHz]	5725.000 5765.000
RBW [MHz] VBW [MHz]	0.500000 3.000000
Detector TraceMode	RMS MAXH
Sweep: Time [ms] Count Points per Section Type	53700 1 161 SWE

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Power Spectral Density	---	---	8.01	dBm/0.5MHz	INFO
Duty Cycle Correction	---	---	0.33	dB	INFO
Power Spectral Density DC corrected	---	30	8.34	dBm/0.5MHz	PASS



FCC 15.247 # Max output power and psd ~ WLAN5Gx ac-VHT20 mode U-NII-3 PSD UNII-3

General verdict

PASS

FCC 15.247 # Max output power and psd ~ WLAN5Gx ac-VHT20 mode U-NII-3

Test References	
TC Start	14.07.2022 16:36:11
Ambit Temp [°C] Humidity [rel%]	28.2 40
System Version	3.2.0.2
Test Specification	FCC 15.247 -
Test Method	KDB789033 D02, F., E.2.e.
TC Version	0.0.1
My Description	FCC 15.407 Max Output Power & PSD - WLAN5Gx ac-VHT20 mode U-NII-3
Add. Information	

EUT Common Settings WLAN5Gx	
Number of Antenna Ports	2
User Interaction	No
Device Class UNII_1	Client

Test Parameter	
Technology to test	WLAN5Gx ac-VHT20 mode
Antenna Port used	2
Temperature	nom
Voltage	nom
Frequency low to test	False Freq [MHz] 5745
Frequency mid to test	True Freq [MHz] 5785
Frequency high to test	False Freq [MHz] 5825
Auto Control enabled Power Supply Climatic Box	No No
Additional Path Loss [dB]	1.4
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer

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

Test at TX 5785 MHz

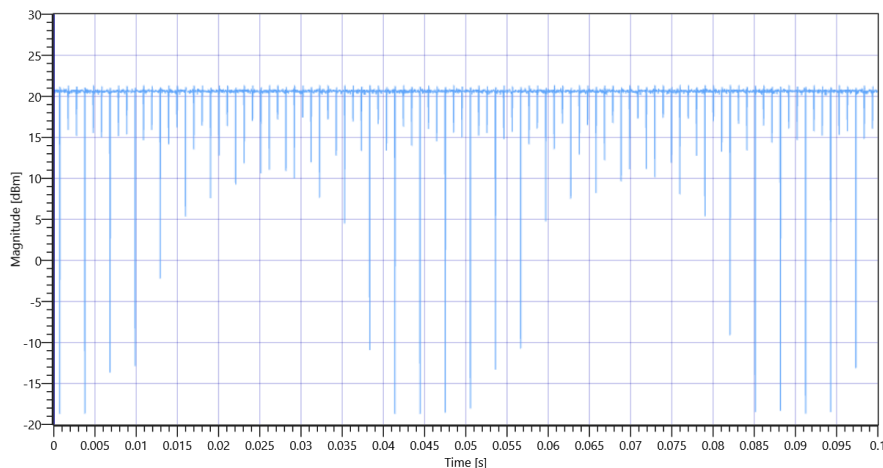
RESULT: Reference Power cond.

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	19.90	dBm	INFO
Ref. Frequency	---	---	5788.600	MHz	INFO

Evaluation max. Duty Cycle

Duty Cycle evaluation

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Result Summary					
Number of detected Bursts:35					
Duty Cycle (Burst Ratio) max	---	---	0.975	---	INFO
Duty Cycle max	---	---	0.11	dB	INFO
Duty Cycle (Burst Ratio) min	---	---	0.927	---	INFO
Duty Cycle min	---	---	0.329	dB	INFO
Max TX Burst Length	---	---	2.975	ms	INFO
Min Gap Length	---	---	0.075	ms	INFO
Max Gap Length	---	---	0.075	ms	INFO

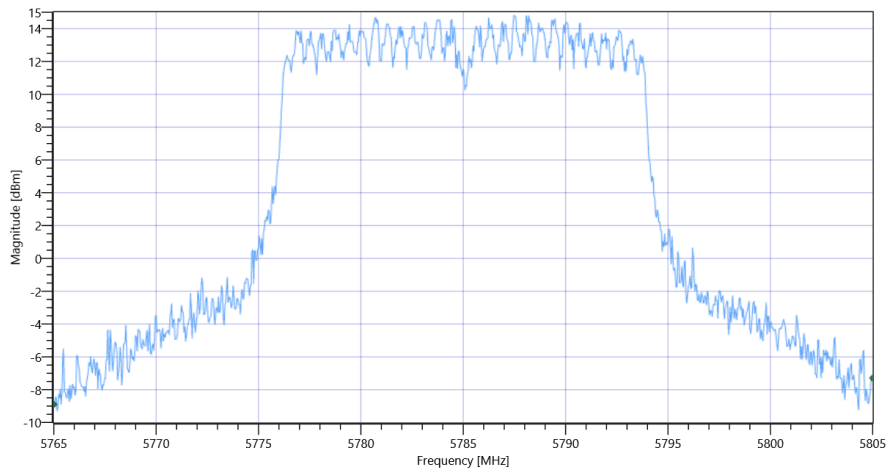


FCC 15.247 # Max output power and psd ~ WLAN5Gx ac-VHT20 mode U-NII-3 5785 MHz - DutyCycle

Evaluation Bandwidth

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 26dB	---	---	40	MHz	INFO
T1 26dB	---	---	5765.0000	MHz	INFO
T2 26dB	---	---	5805.0000	MHz	INFO



FCC 15.247 # Max output power and psd ~ WLAN5Gx ac-VHT20 mode U-NII-3_BW

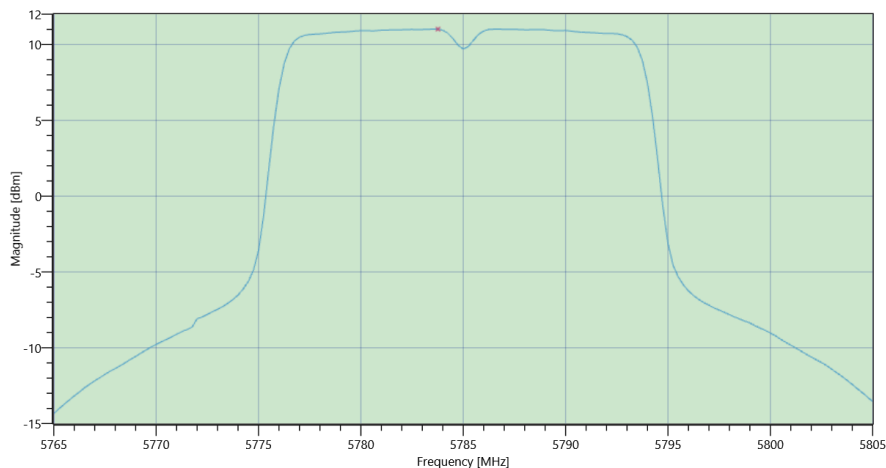
Maximum Output Power

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	31.90 18.76 30
Start [MHz] Stop [MHz]	5765.000 5805.000
RBW [MHz] VBW [MHz]	1.000000 3.000000
Detector TraceMode	RMS MAXH
Sweep: Time [ms] Count Points per Section Type	53700 1 161 SWE

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Max Output Power	---	---	23.1	dBm	INFO
Duty Cycle Correction	---	---	0.33	dB	INFO
Limit absolute					
Max Output Power DC corrected	---	30	23.43	dBm	PASS
Limit by: 11 dBm + 10 log Bandwidth					
Max Output Power DC corrected	---	27.02	23.43	dBm	not applicable



FCC 15.247 # Max output power and psd ~ WLAN5Gx ac-VHT20 mode U-NII-3 Max OP and PSD

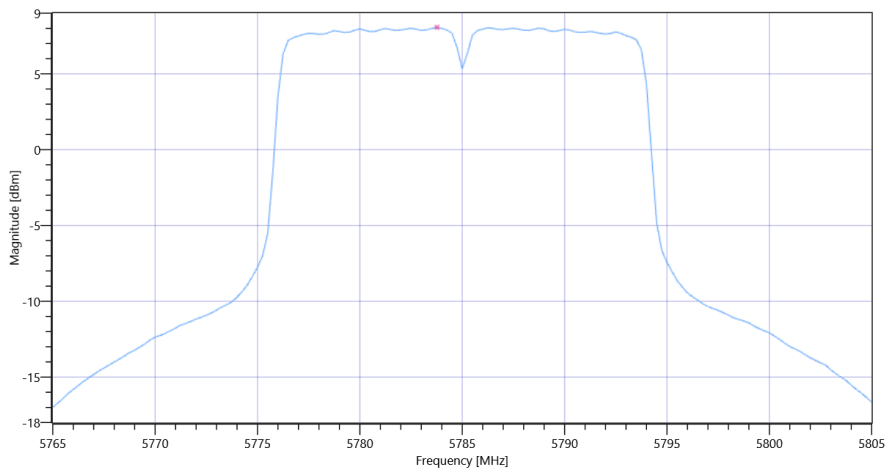
Power Spectral Density U-NII-3

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	31.90 18.76 30
Start [MHz] Stop [MHz]	5765.000 5805.000
RBW [MHz] VBW [MHz]	0.500000 3.000000
Detector TraceMode	RMS MAXH
Sweep: Time [ms] Count Points per Section Type	53700 1 161 SWE

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Power Spectral Density	---	---	8.06	dBm/0.5MHz	INFO
Duty Cycle Correction	---	---	0.33	dB	INFO
Power Spectral Density DC corrected	---	30	8.39	dBm/0.5MHz	PASS



FCC 15.247 # Max output power and psd ~ WLAN5Gx ac-VHT20 mode U-NII-3 PSD UNII-3

General verdict

PASS

FCC 15.247 # Max output power and psd ~ WLAN5Gx ac-VHT20 mode U-NII-3

Test References	
TC Start	14.07.2022 16:44:29
Ambit Temp [°C] Humidity [rel%]	28.1 40
System Version	3.2.0.2
Test Specification	FCC 15.247 -
Test Method	KDB789033 D02, F., E.2.e.
TC Version	0.0.1
My Description	FCC 15.407 Max Output Power & PSD - WLAN5Gx ac-VHT20 mode U-NII-3
Add. Information	

EUT Common Settings WLAN5Gx	
Number of Antenna Ports	2
User Interaction	No
Device Class UNII_1	Client

Test Parameter	
Technology to test	WLAN5Gx ac-VHT20 mode
Antenna Port used	2
Temperature	nom
Voltage	nom
Frequency low to test	False Freq [MHz] 5745
Frequency mid to test	False Freq [MHz] 5785
Frequency high to test	True Freq [MHz] 5825
Auto Control enabled Power Supply Climatic Box	No No
Additional Path Loss [dB]	1.4
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer

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

Test at TX 5825 MHz

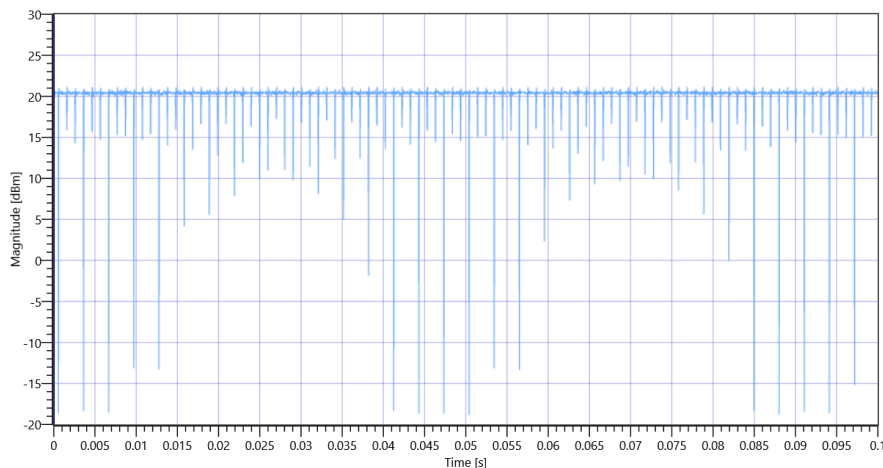
RESULT: Reference Power cond.

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	19.94	dBm	INFO
Ref. Frequency	---	---	5826.800	MHz	INFO

Evaluation max. Duty Cycle

Duty Cycle evaluation

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Result Summary					
Number of detected Bursts:34					
Duty Cycle (Burst Ratio) max	---	---	0.975	---	INFO
Duty Cycle max	---	---	0.11	dB	INFO
Duty Cycle (Burst Ratio) min	---	---	0.927	---	INFO
Duty Cycle min	---	---	0.329	dB	INFO
Max TX Burst Length	---	---	2.975	ms	INFO
Min Gap Length	---	---	0.075	ms	INFO
Max Gap Length	---	---	0.075	ms	INFO

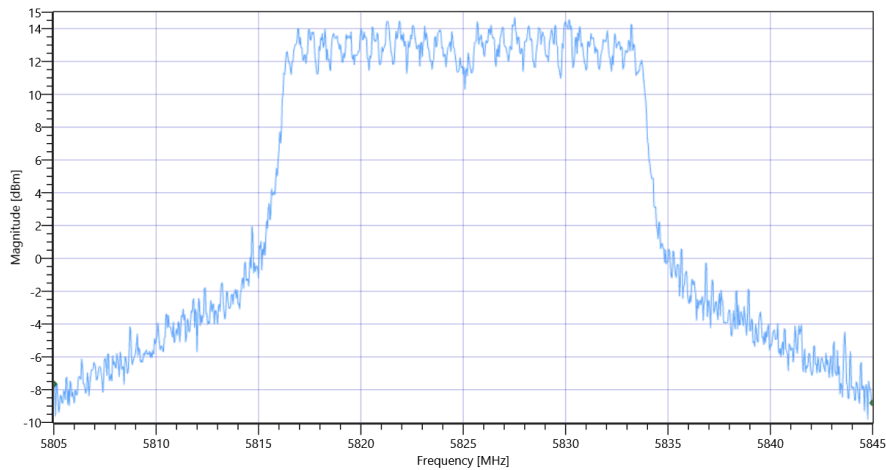


FCC 15.247 # Max output power and psd ~ WLAN5Gx ac-VHT20 mode U-NII-3 5825 MHz - DutyCycle

Evaluation Bandwidth

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 26dB	---	---	40	MHz	INFO
T1 26dB	---	---	5805.0000	MHz	INFO
T2 26dB	---	---	5845.0000	MHz	INFO



FCC 15.247 # Max output power and psd ~ WLAN5Gx ac-VHT20 mode U-NII-3_BW

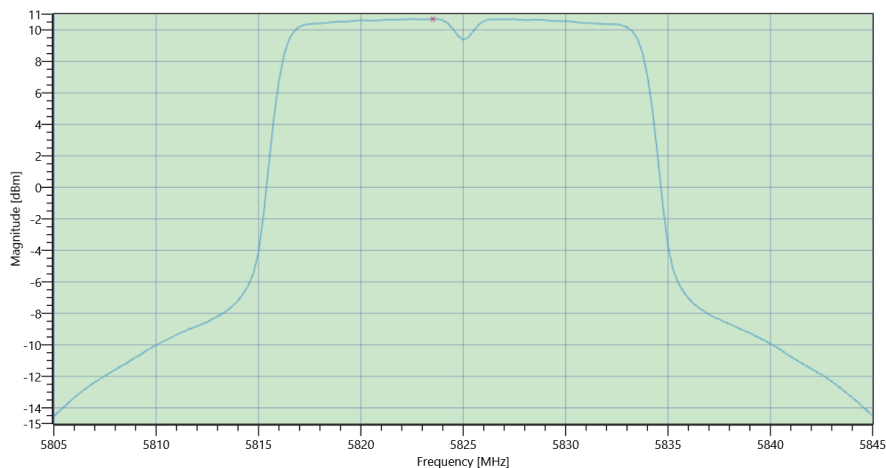
Maximum Output Power

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	31.94 18.74 30
Start [MHz] Stop [MHz]	5805.000 5845.000
RBW [MHz] VBW [MHz]	1.000000 3.000000
Detector TraceMode	RMS MAXH
Sweep: Time [ms] Count Points per Section Type	53700 1 161 SWE

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Max Output Power	---	---	22.77	dBm	INFO
Duty Cycle Correction	---	---	0.33	dB	INFO
Limit absolute					
Max Output Power DC corrected	---	30	23.1	dBm	PASS
Limit by: 11 dBm + 10 log Bandwidth					
Max Output Power DC corrected	---	27.02	23.1	dBm	not applicable



FCC 15.247 # Max output power and psd ~ WLAN5Gx ac-VHT20 mode U-NII-3 Max OP and PSD

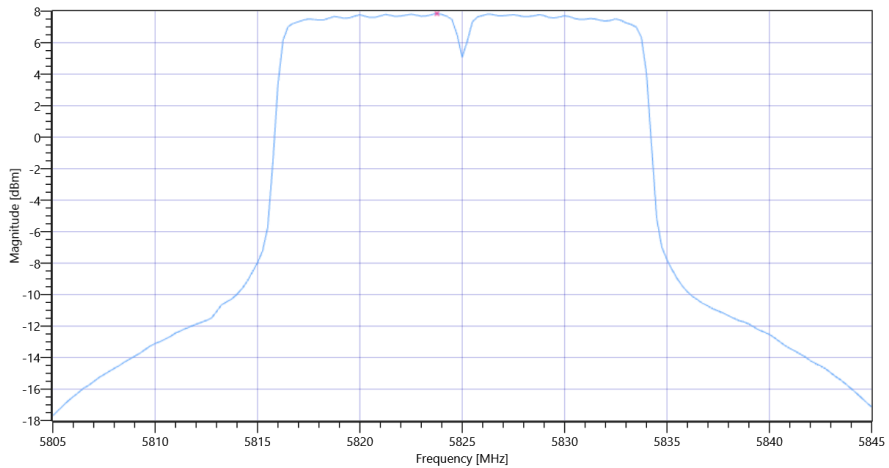
Power Spectral Density U-NII-3

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	31.94 18.74 30
Start [MHz] Stop [MHz]	5805.000 5845.000
RBW [MHz] VBW [MHz]	0.500000 3.000000
Detector TraceMode	RMS MAXH
Sweep: Time [ms] Count Points per Section Type	53700 1 161 SWE

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Power Spectral Density	---	---	7.85	dBm/0.5MHz	INFO
Duty Cycle Correction	---	---	0.33	dB	INFO
Power Spectral Density DC corrected	---	30	8.18	dBm/0.5MHz	PASS



FCC 15.247 # Max output power and psd ~ WLAN5Gx ac-VHT20 mode U-NII-3 PSD UNII-3

General verdict

PASS

FCC 15.247 # Max output power and psd ~ WLAN5Gx ac-VHT20 mode U-NII-1

Test References	
TC Start	23.08.2022 08:52:42
Ambit Temp [°C] Humidity [rel%]	21.9 55
System Version	3.3.0.2
Test Specification	FCC 15.247 -
Test Method	KDB789033 D02, F., E.2.e.
TC Version	0.0.1
My Description	FCC 15.407 Max Output Power & PSD - WLAN5Gx ac-VHT20 mode U-NII-1
Add. Information	

EUT Common Settings WLAN5Gx	
Number of Antenna Ports	2
User Interaction	No
Device Class UNII_1	Client

Test Parameter	
Technology to test	WLAN5Gx ac-VHT20 mode
Antenna Port used	1
Temperature	nom
Voltage	nom
Frequency low to test	True Freq [MHz] 5180
Frequency mid to test	False Freq [MHz] 5200
Frequency high to test	False Freq [MHz] 5240
Auto Control enabled Power Supply Climatic Box	No No
Additional Path Loss [dB]	1.4
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer

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

Test at TX 5180 MHz

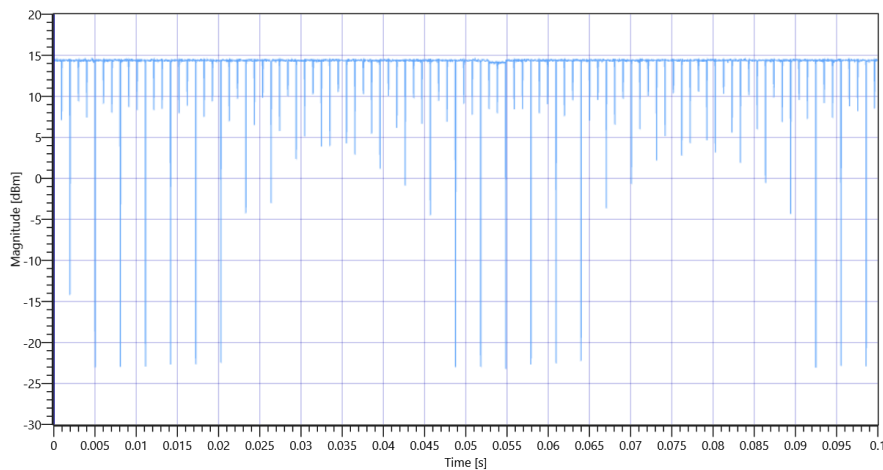
RESULT: Reference Power cond.

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	12.96	dBm	INFO
Ref. Frequency	---	---	5181.200	MHz	INFO

Evaluation max. Duty Cycle

Duty Cycle evaluation

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Result Summary					
Number of detected Bursts:35					
Duty Cycle (Burst Ratio) max	---	---	0.975	---	INFO
Duty Cycle max	---	---	0.11	dB	INFO
Duty Cycle (Burst Ratio) min	---	---	0.927	---	INFO
Duty Cycle min	---	---	0.329	dB	INFO
Max TX Burst Length	---	---	2.975	ms	INFO
Min Gap Length	---	---	0.075	ms	INFO
Max Gap Length	---	---	0.075	ms	INFO

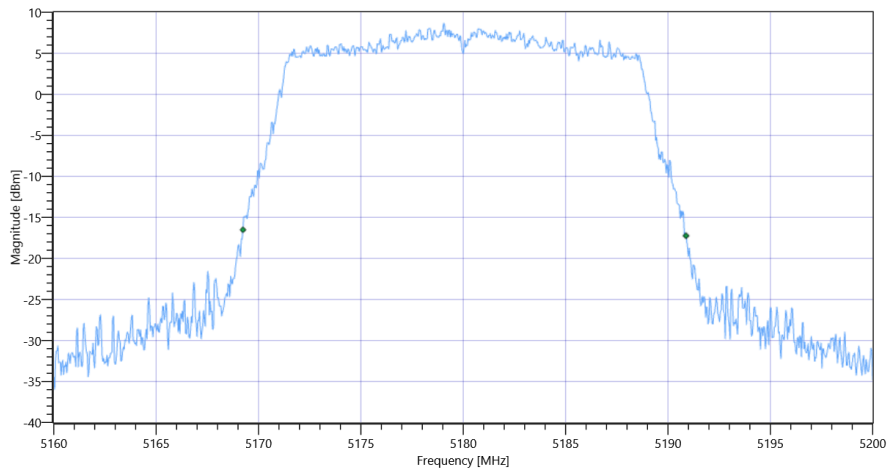


FCC 15.247 # Max output power and psd ~ WLAN5Gx ac-VHT20 mode U-NII-1 5180 MHz - DutyCycle

Evaluation Bandwidth

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 26dB	---	---	21.64	MHz	INFO
T1 26dB	---	---	5169.2400	MHz	INFO
T2 26dB	---	---	5190.8800	MHz	INFO



FCC 15.247 # Max output power and psd ~ WLAN5Gx ac-VHT20 mode U-NII-1_BW

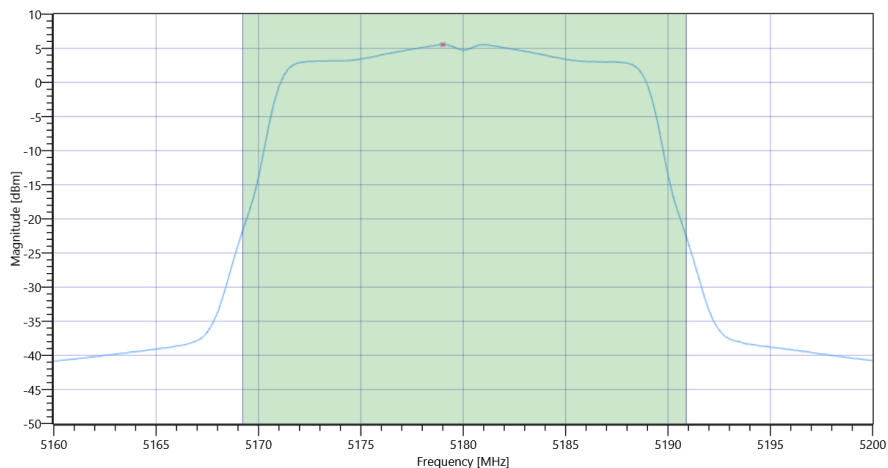
Maximum Output Power

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	24.96 17.99 25
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	53700 1 161 SWE

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Max Output Power	---	---	16.29	dBm	INFO
Duty Cycle Correction	---	---	0.33	dB	INFO
Limit absolute					
Max Output Power DC corrected	---	24	16.62	dBm	PASS
Limit: 11 dBm + 10 log 21.64					
Max Output Power DC corrected	---	24.35	16.62	dBm	na



FCC 15.247 # Max output power and psd ~ WLAN5Gx ac-VHT20 mode U-NII-1 Max OP and PSD

Power Spectral Density

RESULT					
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Power Spectral Density	---	---	5.53	dBm/1MHz	INFO
Duty Cycle Correction	---	---	0.33	dB	INFO
Power Spectral Density DC corrected	---	11	5.86	dBm/1MHz	PASS
General verdict			PASS		

FCC 15.247 # Max output power and psd ~ WLAN5Gx ac-VHT20 mode U-NII-1

Test References	
TC Start	23.08.2022 08:55:30
Ambit Temp [°C] Humidity [rel%]	22.0 55
System Version	3.3.0.2
Test Specification	FCC 15.247 -
Test Method	KDB789033 D02, F., E.2.e.
TC Version	0.0.1
My Description	FCC 15.407 Max Output Power & PSD - WLAN5Gx ac-VHT20 mode U-NII-1
Add. Information	

EUT Common Settings WLAN5Gx	
Number of Antenna Ports	2
User Interaction	No
Device Class UNII_1	Client

Test Parameter	
Technology to test	WLAN5Gx ac-VHT20 mode
Antenna Port used	2
Temperature	nom
Voltage	nom
Frequency low to test	True Freq [MHz] 5180
Frequency mid to test	False Freq [MHz] 5200
Frequency high to test	False Freq [MHz] 5240
Auto Control enabled Power Supply Climatic Box	No No
Additional Path Loss [dB]	1.4
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer

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

Test at TX 5180 MHz

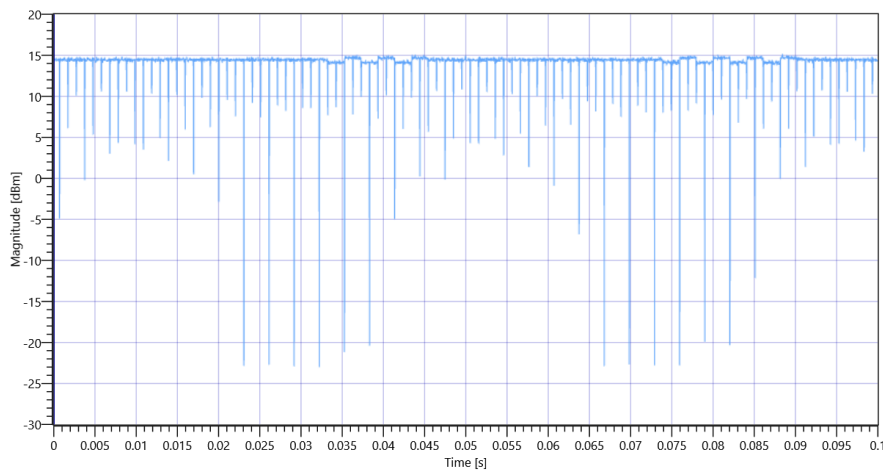
RESULT: Reference Power cond.

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	14.43	dBm	INFO
Ref. Frequency	---	---	5182.000	MHz	INFO

Evaluation max. Duty Cycle

Duty Cycle evaluation

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Result Summary					
Number of detected Bursts:40					
Duty Cycle (Burst Ratio) max	---	---	0.975	---	INFO
Duty Cycle max	---	---	0.11	dB	INFO
Duty Cycle (Burst Ratio) min	---	---	0.927	---	INFO
Duty Cycle min	---	---	0.329	dB	INFO
Max TX Burst Length	---	---	2.975	ms	INFO
Min Gap Length	---	---	0.075	ms	INFO
Max Gap Length	---	---	0.075	ms	INFO

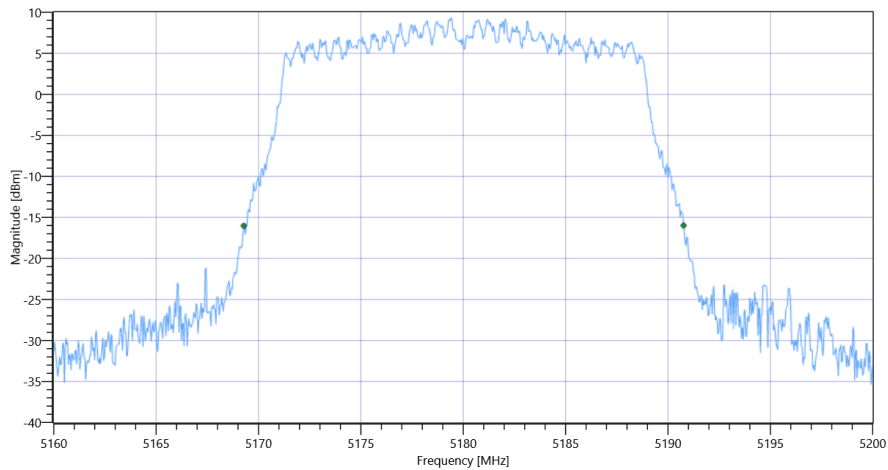


FCC 15.247 # Max output power and psd ~ WLAN5Gx ac-VHT20 mode U-NII-1 5180 MHz - DutyCycle

Evaluation Bandwidth

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 26dB	---	---	21.48	MHz	INFO
T1 26dB	---	---	5169.2800	MHz	INFO
T2 26dB	---	---	5190.7600	MHz	INFO



FCC 15.247 # Max output power and psd ~ WLAN5Gx ac-VHT20 mode U-NII-1_BW

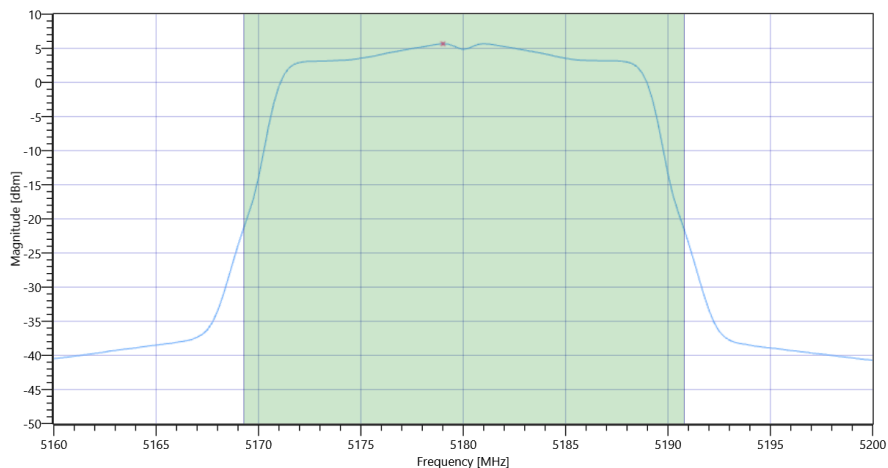
Maximum Output Power

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	26.43 17.99 25
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	53700 1 161 SWE

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Max Output Power	---	---	16.41	dBm	INFO
Duty Cycle Correction	---	---	0.33	dB	INFO
Limit absolute					
Max Output Power DC corrected	---	24	16.74	dBm	PASS
Limit: 11 dBm + 10 log 21.48					
Max Output Power DC corrected	---	24.32	16.74	dBm	na



FCC 15.247 # Max output power and psd ~ WLAN5Gx ac-VHT20 mode U-NII-1 Max OP and PSD

Power Spectral Density

RESULT					
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Power Spectral Density	---	---	5.66	dBm/1MHz	INFO
Duty Cycle Correction	---	---	0.33	dB	INFO
Power Spectral Density DC corrected	---	11	5.99	dBm/1MHz	PASS
General verdict			PASS		

FCC 15.247 # Max output power and psd ~ WLAN5Gx ac-VHT20 mode U-NII-1

Test References	
TC Start	23.08.2022 09:07:02
Ambit Temp [°C] Humidity [rel%]	22.2 54
System Version	3.3.0.2
Test Specification	FCC 15.247 -
Test Method	KDB789033 D02, F., E.2.e.
TC Version	0.0.1
My Description	FCC 15.407 Max Output Power & PSD - WLAN5Gx ac-VHT20 mode U-NII-1
Add. Information	

EUT Common Settings WLAN5Gx	
Number of Antenna Ports	2
User Interaction	No
Device Class UNII_1	Client

Test Parameter	
Technology to test	WLAN5Gx ac-VHT20 mode
Antenna Port used	1
Temperature	nom
Voltage	nom
Frequency low to test	False Freq [MHz] 5180
Frequency mid to test	True Freq [MHz] 5200
Frequency high to test	False Freq [MHz] 5240
Auto Control enabled Power Supply Climatic Box	No No
Additional Path Loss [dB]	1.4
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer

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

Test at TX 5200 MHz

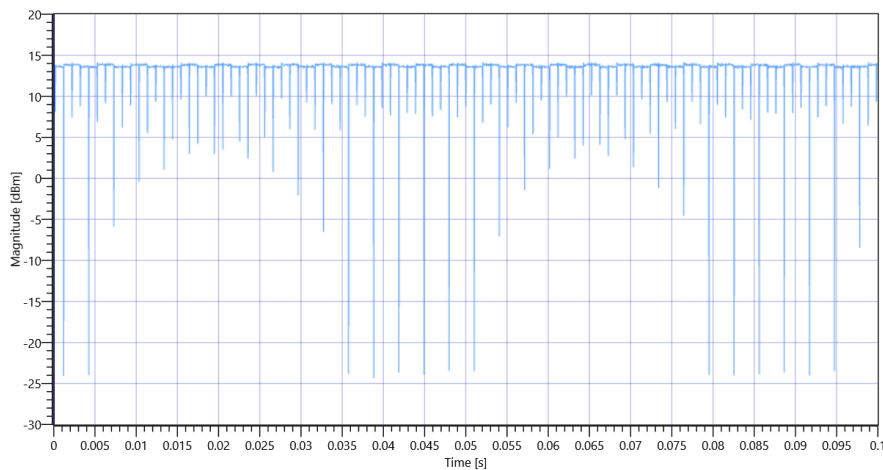
RESULT: Reference Power cond.

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	12.64	dBm	INFO
Ref. Frequency	---	---	5196.600	MHz	INFO

Evaluation max. Duty Cycle

Duty Cycle evaluation

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Result Summary					
Number of detected Bursts:34					
Duty Cycle (Burst Ratio) max	---	---	0.975	---	INFO
Duty Cycle max	---	---	0.11	dB	INFO
Duty Cycle (Burst Ratio) min	---	---	0.927	---	INFO
Duty Cycle min	---	---	0.329	dB	INFO
Max TX Burst Length	---	---	2.975	ms	INFO
Min Gap Length	---	---	0.075	ms	INFO
Max Gap Length	---	---	0.075	ms	INFO

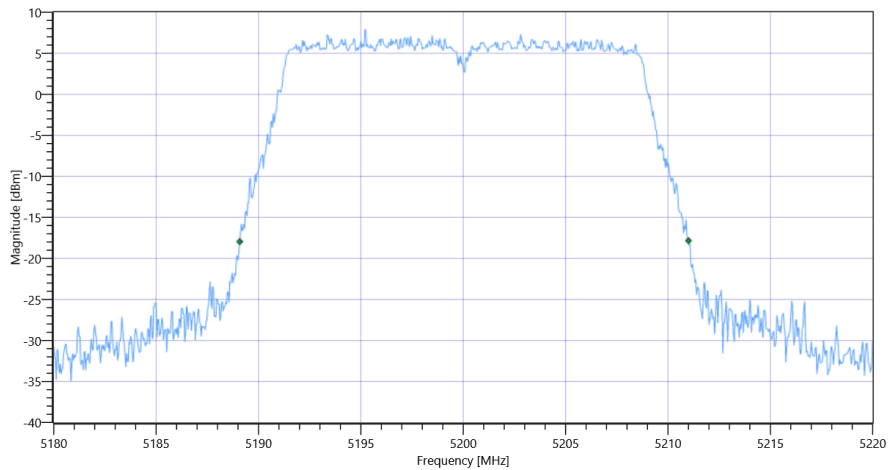


FCC 15.247 # Max output power and psd ~ WLAN5Gx ac-VHT20 mode U-NII-1 5200 MHz - DutyCycle

Evaluation Bandwidth

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 26dB	---	---	21.92	MHz	INFO
T1 26dB	---	---	5189.0800	MHz	INFO
T2 26dB	---	---	5211.0000	MHz	INFO



FCC 15.247 # Max output power and psd ~ WLAN5Gx ac-VHT20 mode U-NII-1_BW

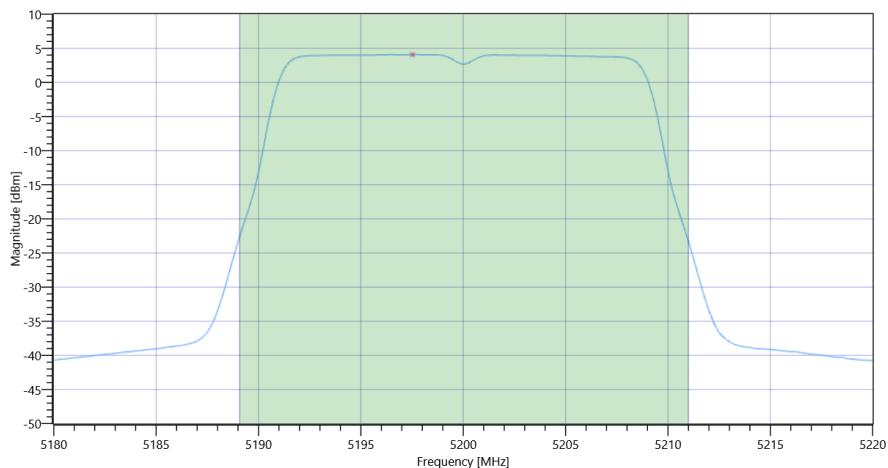
Maximum Output Power

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	24.64 17.91 25
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	53700 1 161 SWE

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Max Output Power	---	---	16.09	dBm	INFO
Duty Cycle Correction	---	---	0.33	dB	INFO
Limit absolute					
Max Output Power DC corrected	---	24	16.42	dBm	PASS
Limit: 11 dBm + 10 log 21.92					
Max Output Power DC corrected	---	24.41	16.42	dBm	na



FCC 15.247 # Max output power and psd ~ WLAN5Gx ac-VHT20 mode U-NII-1 Max OP and PSD

Power Spectral Density

RESULT					
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Power Spectral Density	---	---	4.07	dBm/1MHz	INFO
Duty Cycle Correction	---	---	0.33	dB	INFO
Power Spectral Density DC corrected	---	11	4.4	dBm/1MHz	PASS
General verdict			PASS		

FCC 15.247 # Max output power and psd ~ WLAN5Gx ac-VHT20 mode U-NII-1

Test References	
TC Start	23.08.2022 09:09:47
Ambit Temp [°C] Humidity [rel%]	22.2 54
System Version	3.3.0.2
Test Specification	FCC 15.247 -
Test Method	KDB789033 D02, F., E.2.e.
TC Version	0.0.1
My Description	FCC 15.407 Max Output Power & PSD - WLAN5Gx ac-VHT20 mode U-NII-1
Add. Information	

EUT Common Settings WLAN5Gx	
Number of Antenna Ports	2
User Interaction	No
Device Class UNII_1	Client

Test Parameter	
Technology to test	WLAN5Gx ac-VHT20 mode
Antenna Port used	2
Temperature	nom
Voltage	nom
Frequency low to test	False Freq [MHz] 5180
Frequency mid to test	True Freq [MHz] 5200
Frequency high to test	False Freq [MHz] 5240
Auto Control enabled Power Supply Climatic Box	No No
Additional Path Loss [dB]	1.4
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer

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

Test at TX 5200 MHz

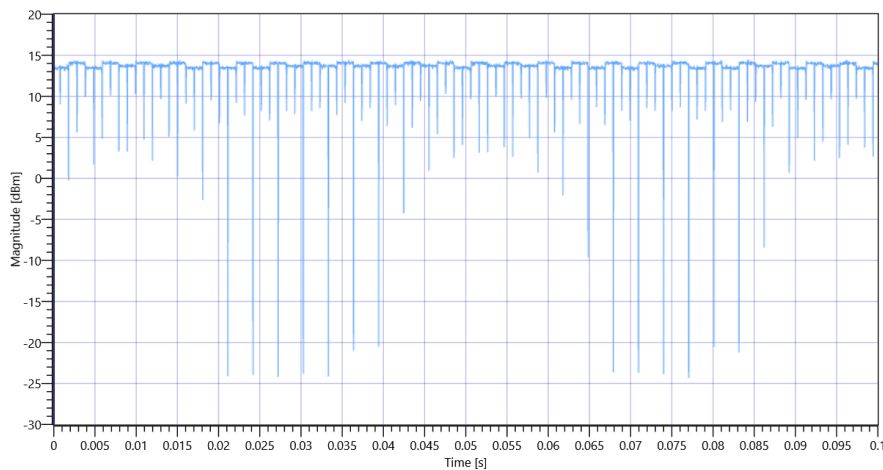
RESULT: Reference Power cond.

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	13.40	dBm	INFO
Ref. Frequency	---	---	5203.200	MHz	INFO

Evaluation max. Duty Cycle

Duty Cycle evaluation

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Result Summary					
Number of detected Bursts:38					
Duty Cycle (Burst Ratio) max	---	---	0.975	---	INFO
Duty Cycle max	---	---	0.11	dB	INFO
Duty Cycle (Burst Ratio) min	---	---	0.927	---	INFO
Duty Cycle min	---	---	0.329	dB	INFO
Max TX Burst Length	---	---	2.975	ms	INFO
Min Gap Length	---	---	0.075	ms	INFO
Max Gap Length	---	---	0.075	ms	INFO

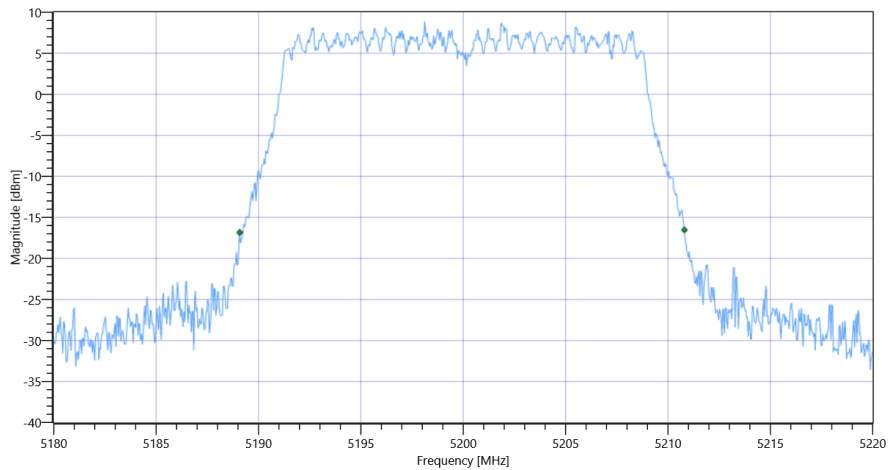


FCC 15.247 # Max output power and psd ~ WLAN5Gx ac-VHT20 mode U-NII-1 5200 MHz - DutyCycle

Evaluation Bandwidth

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 26dB	---	---	21.72	MHz	INFO
T1 26dB	---	---	5189.0800	MHz	INFO
T2 26dB	---	---	5210.8000	MHz	INFO



FCC 15.247 # Max output power and psd ~ WLAN5Gx ac-VHT20 mode U-NII-1_BW

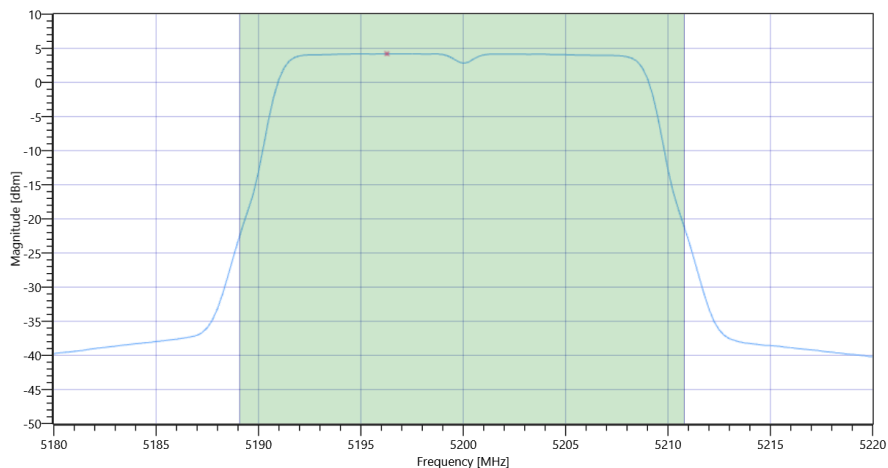
Maximum Output Power

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	25.40 17.91 25
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	53700 1 161 SWE

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Max Output Power	---	---	16.24	dBm	INFO
Duty Cycle Correction	---	---	0.33	dB	INFO
Limit absolute					
Max Output Power DC corrected	---	24	16.57	dBm	PASS
Limit: 11 dBm + 10 log 21.72					
Max Output Power DC corrected	---	24.37	16.57	dBm	na



FCC 15.247 # Max output power and psd ~ WLAN5Gx ac-VHT20 mode U-NII-1 Max OP and PSD

Power Spectral Density

RESULT					
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Power Spectral Density	---	---	4.2	dBm/1MHz	INFO
Duty Cycle Correction	---	---	0.33	dB	INFO
Power Spectral Density DC corrected	---	11	4.53	dBm/1MHz	PASS
General verdict			PASS		

FCC 15.247 # Max output power and psd ~ WLAN5Gx ac-VHT20 mode U-NII-1

Test References	
TC Start	23.08.2022 09:17:46
Ambit Temp [°C] Humidity [rel%]	22.3 53
System Version	3.3.0.2
Test Specification	FCC 15.247 -
Test Method	KDB789033 D02, F., E.2.e.
TC Version	0.0.1
My Description	FCC 15.407 Max Output Power & PSD - WLAN5Gx ac-VHT20 mode U-NII-1
Add. Information	

EUT Common Settings WLAN5Gx	
Number of Antenna Ports	2
User Interaction	No
Device Class UNII_1	Client

Test Parameter	
Technology to test	WLAN5Gx ac-VHT20 mode
Antenna Port used	1
Temperature	nom
Voltage	nom
Frequency low to test	False Freq [MHz] 5180
Frequency mid to test	False Freq [MHz] 5200
Frequency high to test	True Freq [MHz] 5240
Auto Control enabled Power Supply Climatic Box	No No
Additional Path Loss [dB]	1.4
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer

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

Test at TX 5240 MHz

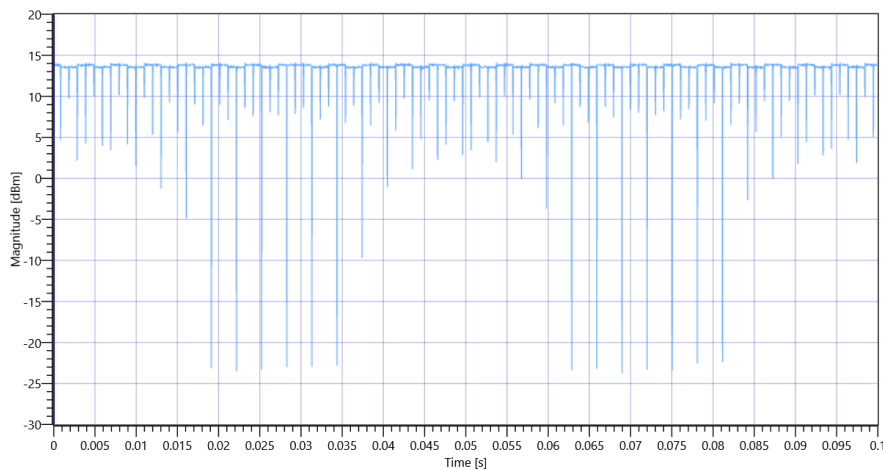
RESULT: Reference Power cond.

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	13.05	dBm	INFO
Ref. Frequency	---	---	5244.000	MHz	INFO

Evaluation max. Duty Cycle

Duty Cycle evaluation

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Result Summary					
Number of detected Bursts:34					
Duty Cycle (Burst Ratio) max	---	---	0.975	---	INFO
Duty Cycle max	---	---	0.11	dB	INFO
Duty Cycle (Burst Ratio) min	---	---	0.927	---	INFO
Duty Cycle min	---	---	0.329	dB	INFO
Max TX Burst Length	---	---	2.975	ms	INFO
Min Gap Length	---	---	0.075	ms	INFO
Max Gap Length	---	---	0.075	ms	INFO

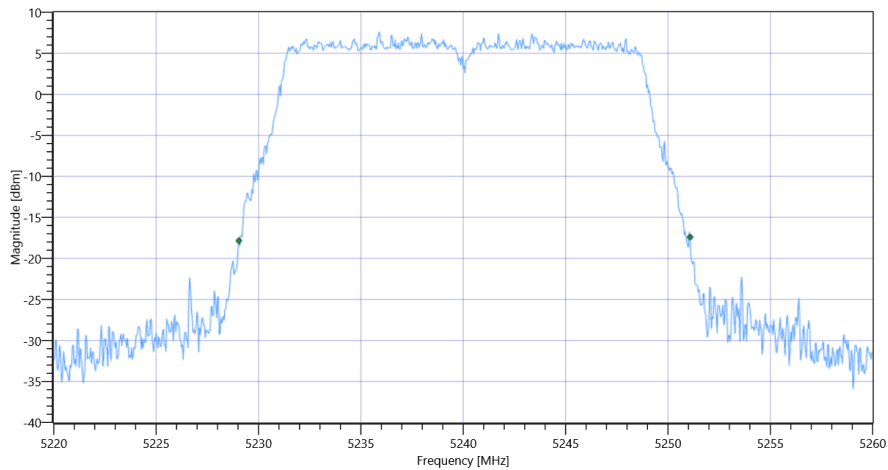


FCC 15.247 # Max output power and psd ~ WLAN5Gx ac-VHT20 mode U-NII-1 5240 MHz - DutyCycle

Evaluation Bandwidth

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 26dB	---	---	22.04	MHz	INFO
T1 26dB	---	---	5229.0400	MHz	INFO
T2 26dB	---	---	5251.0800	MHz	INFO



FCC 15.247 # Max output power and psd ~ WLAN5Gx ac-VHT20 mode U-NII-1_BW

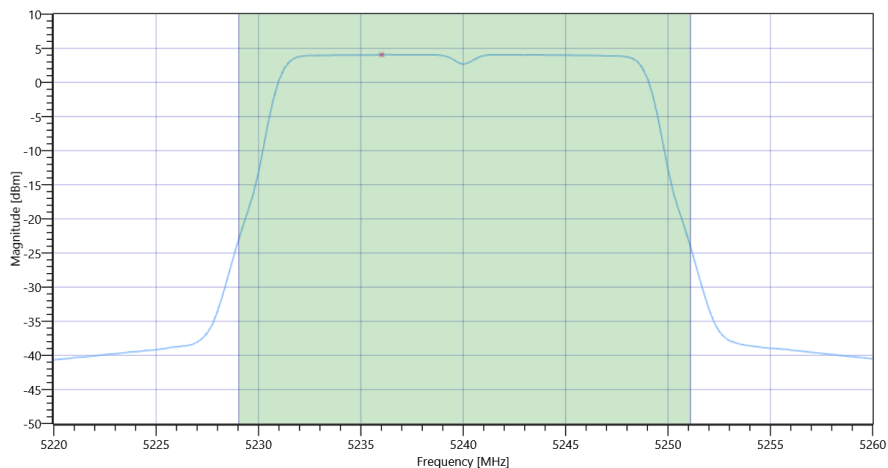
Maximum Output Power

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	25.05 18.56 25
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	53700 1 161 SWE

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Max Output Power	---	---	16.13	dBm	INFO
Duty Cycle Correction	---	---	0.33	dB	INFO
Limit absolute					
Max Output Power DC corrected	---	24	16.46	dBm	PASS
Limit: 11 dBm + 10 log 22.04					
Max Output Power DC corrected	---	24.43	16.46	dBm	na



FCC 15.247 # Max output power and psd ~ WLAN5Gx ac-VHT20 mode U-NII-1 Max OP and PSD

Power Spectral Density

RESULT					
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Power Spectral Density	---	---	4.06	dBm/1MHz	INFO
Duty Cycle Correction	---	---	0.33	dB	INFO
Power Spectral Density DC corrected	---	11	4.39	dBm/1MHz	PASS
General verdict			PASS		

FCC 15.247 # Max output power and psd ~ WLAN5Gx ac-VHT20 mode U-NII-1

Test References	
TC Start	23.08.2022 09:20:24
Ambit Temp [°C] Humidity [rel%]	22.3 53
System Version	3.3.0.2
Test Specification	FCC 15.247 -
Test Method	KDB789033 D02, F., E.2.e.
TC Version	0.0.1
My Description	FCC 15.407 Max Output Power & PSD - WLAN5Gx ac-VHT20 mode U-NII-1
Add. Information	

EUT Common Settings WLAN5Gx	
Number of Antenna Ports	2
User Interaction	No
Device Class UNII_1	Client

Test Parameter	
Technology to test	WLAN5Gx ac-VHT20 mode
Antenna Port used	2
Temperature	nom
Voltage	nom
Frequency low to test	False Freq [MHz] 5180
Frequency mid to test	False Freq [MHz] 5200
Frequency high to test	True Freq [MHz] 5240
Auto Control enabled Power Supply Climatic Box	No No
Additional Path Loss [dB]	1.4
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer

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

Test at TX 5240 MHz

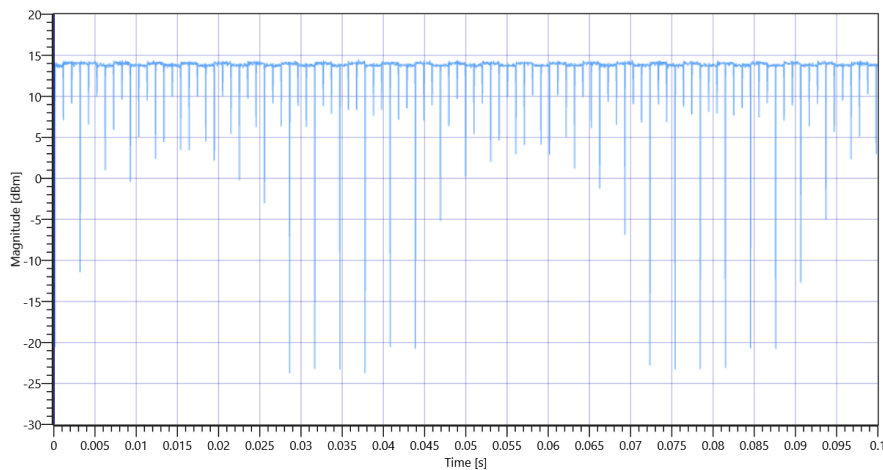
RESULT: Reference Power cond.

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	12.82	dBm	INFO
Ref. Frequency	---	---	5244.800	MHz	INFO

Evaluation max. Duty Cycle

Duty Cycle evaluation

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Result Summary					
Number of detected Bursts:36					
Duty Cycle (Burst Ratio) max	---	---	0.975	---	INFO
Duty Cycle max	---	---	0.11	dB	INFO
Duty Cycle (Burst Ratio) min	---	---	0.927	---	INFO
Duty Cycle min	---	---	0.329	dB	INFO
Max TX Burst Length	---	---	2.975	ms	INFO
Min Gap Length	---	---	0.075	ms	INFO
Max Gap Length	---	---	0.075	ms	INFO

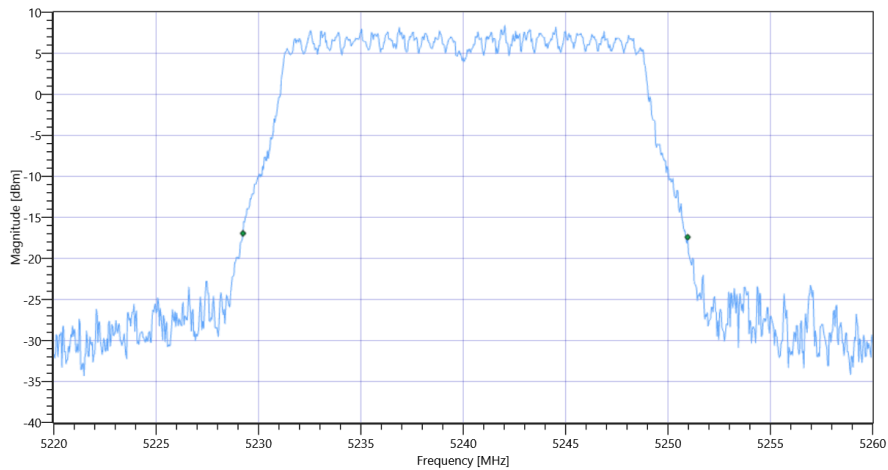


FCC 15.247 # Max output power and psd ~ WLAN5Gx ac-VHT20 mode U-NII-1 5240 MHz - DutyCycle

Evaluation Bandwidth

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 26dB	---	---	21.72	MHz	INFO
T1 26dB	---	---	5229.2400	MHz	INFO
T2 26dB	---	---	5250.9600	MHz	INFO



FCC 15.247 # Max output power and psd ~ WLAN5Gx ac-VHT20 mode U-NII-1_BW

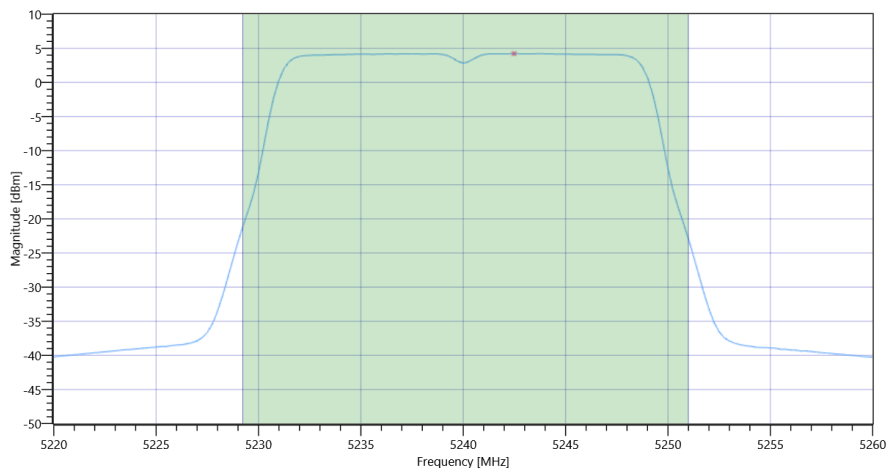
Maximum Output Power

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	24.82 18.56 25
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	53700 1 161 SWE

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Max Output Power	---	---	16.27	dBm	INFO
Duty Cycle Correction	---	---	0.33	dB	INFO
Limit absolute					
Max Output Power DC corrected	---	24	16.6	dBm	PASS
Limit: 11 dBm + 10 log 21.72					
Max Output Power DC corrected	---	24.37	16.6	dBm	na



FCC 15.247 # Max output power and psd ~ WLAN5Gx ac-VHT20 mode U-NII-1 Max OP and PSD

Power Spectral Density

RESULT					
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Power Spectral Density	---	---	4.22	dBm/1MHz	INFO
Duty Cycle Correction	---	---	0.33	dB	INFO
Power Spectral Density DC corrected	---	11	4.55	dBm/1MHz	PASS
General verdict			PASS		

FCC 15.407, ISED RSS247 # Minimum emission bandwidth ~ WLAN5Gx ac-VHT20 mode U-NII-3

Test References	
TC Start	14.07.2022 15:03:33
Ambit Temp [°C] Humidity [rel%]	27.5 42
System Version	3.2.0.2
Test Specification	FCC 15.407, ISED RSS247 -
Test Method	KDB789033 D02, C.2.
TC Version	0.0.1
My Description	FCC 15.407 Min Emission Bandwidth - WLAN5Gx ac-VHT20 mode U-NII-3
Add. Information	

EUT Common Settings WLAN5Gx	
Number of Antenna Ports	2
User Interaction	No
Device Class UNII_1	Client

Test Parameter	
Technology to test	WLAN5Gx ac-VHT20 mode
Antenna Port used	1
Temperature	nom
Voltage	nom
Frequency low to test	True Freq [MHz] 5745
Frequency mid to test	False Freq [MHz] 5785
Frequency high to test	False Freq [MHz] 5825
Auto Control enabled Power Supply Climatic Box	No No
Additional Path Loss [dB]	1.4
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer

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

Test at TX 5745 MHz

RESULT: Reference Power cond.

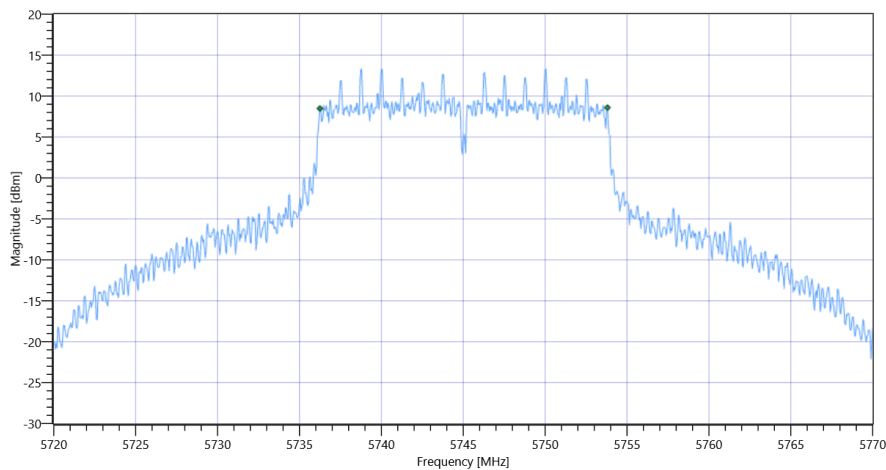
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	19.72	dBm	INFO
Ref. Frequency	---	---	5741.000	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	31.72 18.72 30
Start [MHz] Stop [MHz]	5720.000 5770.000
RBW [MHz] VBW [MHz]	0.100000 0.300000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	2 1500 1001 SWE

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth (6dB)	0.500	---	17.55	MHz	PASS



FCC 15.407, ISED RSS247 # Minimum emission bandwidth ~ WLAN5Gx ac-VHT20 mode U-NII-3

General verdict

PASS

FCC 15.407, ISED RSS247 # Minimum emission bandwidth ~ WLAN5Gx ac-VHT20 mode U-NII-3

Test References

TC Start	14.07.2022 15:12:14
Ambit Temp [°C] Humidity [rel%]	27.5 42
System Version	3.2.0.2
Test Specification	FCC 15.407, ISED RSS247 -
Test Method	KDB789033 D02, C.2.
TC Version	0.0.1
My Description	FCC 15.407 Min Emission Bandwidth - WLAN5Gx ac-VHT20 mode U-NII-3

Add. Information

EUT Common Settings WLAN5Gx

Number of Antenna Ports	2
User Interaction	No
Device Class UNII_1	Client

Test Parameter

Technology to test	WLAN5Gx ac-VHT20 mode
Antenna Port used	1
Temperature	nom
Voltage	nom
Frequency low to test	False Freq [MHz] 5745
Frequency mid to test	True Freq [MHz] 5785
Frequency high to test	False Freq [MHz] 5825
Auto Control enabled Power Supply Climatic Box	No No
Additional Path Loss [dB]	1.4
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer

Test Equipment

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

Test at TX 5785 MHz

RESULT: Reference Power cond.

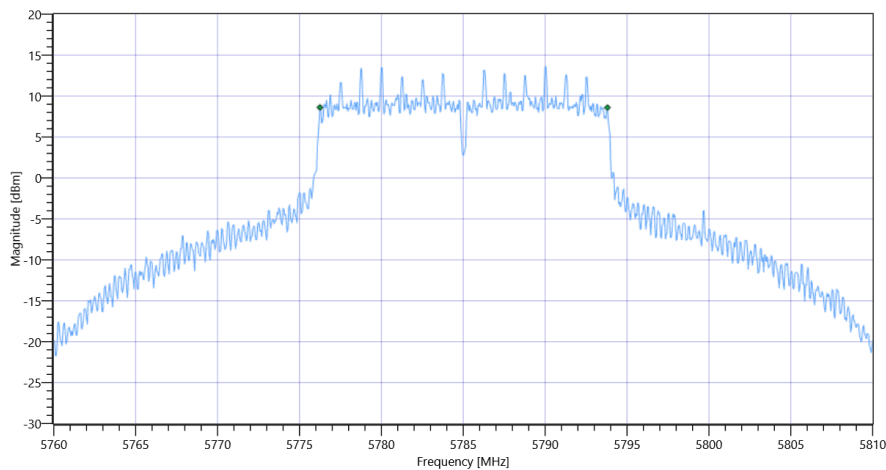
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	20.44	dBm	INFO
Ref. Frequency	---	---	5786.800	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	32.44 18.76 30
Start [MHz] Stop [MHz]	5760.000 5810.000
RBW [MHz] VBW [MHz]	0.100000 0.300000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	2 1500 1001 SWE

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth (6dB)	0.500	---	17.55	MHz	PASS



FCC 15.407, ISED RSS247 # Minimum emission bandwidth ~ WLAN5Gx ac-VHT20 mode U-NII-3

General verdict

PASS

FCC 15.407, ISED RSS247 # Minimum emission bandwidth ~ WLAN5Gx ac-VHT20 mode U-NII-3

Test References	
TC Start	14.07.2022 15:21:11
Ambit Temp [°C] Humidity [rel%]	27.9 42
System Version	3.2.0.2
Test Specification	FCC 15.407, ISED RSS247 -
Test Method	KDB789033 D02, C.2.
TC Version	0.0.1
My Description	FCC 15.407 Min Emission Bandwidth - WLAN5Gx ac-VHT20 mode U-NII-3
Add. Information	

EUT Common Settings WLAN5Gx	
Number of Antenna Ports	2
User Interaction	No
Device Class UNII_1	Client

Test Parameter	
Technology to test	WLAN5Gx ac-VHT20 mode
Antenna Port used	1
Temperature	nom
Voltage	nom
Frequency low to test	False Freq [MHz] 5745
Frequency mid to test	False Freq [MHz] 5785
Frequency high to test	True Freq [MHz] 5825
Auto Control enabled Power Supply Climatic Box	No No
Additional Path Loss [dB]	1.4
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer

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

Test at TX 5825 MHz

RESULT: Reference Power cond.

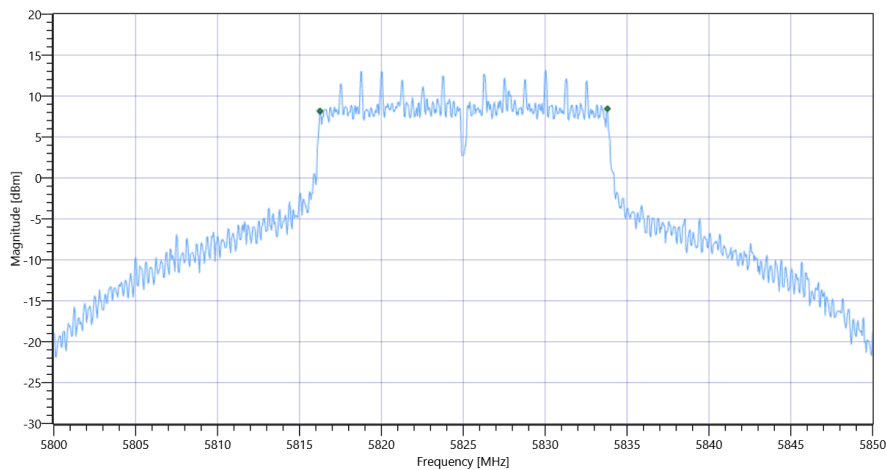
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	19.61	dBm	INFO
Ref. Frequency	---	---	5822.200	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	31.61 18.74 30
Start [MHz] Stop [MHz]	5800.000 5850.000
RBW [MHz] VBW [MHz]	0.100000 0.300000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	2 1500 1001 SWE

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth (6dB)	0.500	---	17.55	MHz	PASS



FCC 15.407, ISED RSS247 # Minimum emission bandwidth ~ WLAN5Gx ac-VHT20 mode U-NII-3

General verdict

PASS

FCC 15.407, ISED RSS247 # Minimum emission bandwidth ~ WLAN5Gx ac-VHT20 mode U-NII-3

Test References

TC Start	14.07.2022 16:33:29
Ambit Temp [°C] Humidity [rel%]	28.1 40
System Version	3.2.0.2
Test Specification	FCC 15.407, ISED RSS247 -
Test Method	KDB789033 D02, C.2.
TC Version	0.0.1
My Description	FCC 15.407 Min Emission Bandwidth - WLAN5Gx ac-VHT20 mode U-NII-3

Add. Information

EUT Common Settings WLAN5Gx

Number of Antenna Ports	2
User Interaction	No
Device Class UNII_1	Client

Test Parameter

Technology to test	WLAN5Gx ac-VHT20 mode
Antenna Port used	2
Temperature	nom
Voltage	nom
Frequency low to test	True Freq [MHz] 5745
Frequency mid to test	False Freq [MHz] 5785
Frequency high to test	False Freq [MHz] 5825
Auto Control enabled Power Supply Climatic Box	No No
Additional Path Loss [dB]	1.4
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer

Test Equipment

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

Test at TX 5745 MHz

RESULT: Reference Power cond.

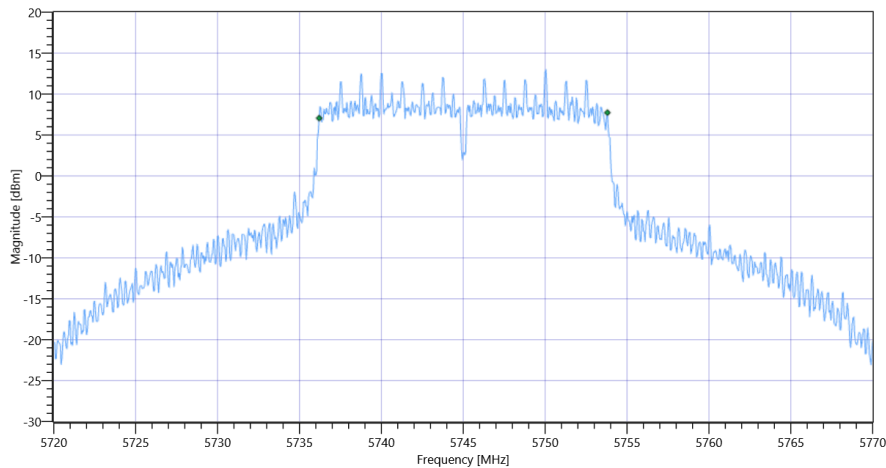
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	19.19	dBm	INFO
Ref. Frequency	---	---	5743.400	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	31.19 18.72 30
Start [MHz] Stop [MHz]	5720.000 5770.000
RBW [MHz] VBW [MHz]	0.100000 0.300000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	2 1500 1001 SWE

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth (6dB)	0.500	---	17.6	MHz	PASS



FCC 15.407, ISED RSS247 # Minimum emission bandwidth ~ WLAN5Gx ac-VHT20 mode U-NII-3

General verdict

PASS

FCC 15.407, ISED RSS247 # Minimum emission bandwidth ~ WLAN5Gx ac-VHT20 mode U-NII-3

Test References	
TC Start	14.07.2022 16:42:31
Ambit Temp [°C] Humidity [rel%]	28.1 40
System Version	3.2.0.2
Test Specification	FCC 15.407, ISED RSS247 -
Test Method	KDB789033 D02, C.2.
TC Version	0.0.1
My Description	FCC 15.407 Min Emission Bandwidth - WLAN5Gx ac-VHT20 mode U-NII-3
Add. Information	

EUT Common Settings WLAN5Gx	
Number of Antenna Ports	2
User Interaction	No
Device Class UNII_1	Client

Test Parameter	
Technology to test	WLAN5Gx ac-VHT20 mode
Antenna Port used	2
Temperature	nom
Voltage	nom
Frequency low to test	False Freq [MHz] 5745
Frequency mid to test	True Freq [MHz] 5785
Frequency high to test	False Freq [MHz] 5825
Auto Control enabled Power Supply Climatic Box	No No
Additional Path Loss [dB]	1.4
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer

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

Test at TX 5785 MHz

RESULT: Reference Power cond.

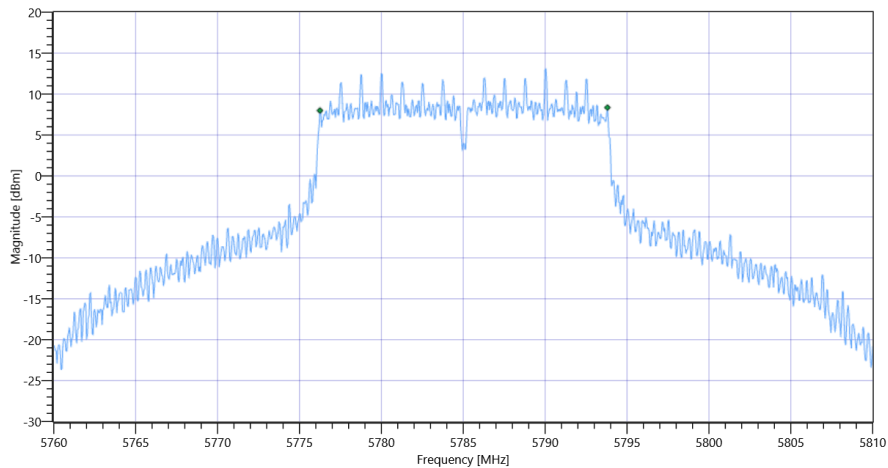
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	19.75	dBm	INFO
Ref. Frequency	---	---	5782.000	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	31.75 18.76 30
Start [MHz] Stop [MHz]	5760.000 5810.000
RBW [MHz] VBW [MHz]	0.100000 0.300000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	2 1500 1001 SWE

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth (6dB)	0.500	---	17.55	MHz	PASS



FCC 15.407, ISED RSS247 # Minimum emission bandwidth ~ WLAN5Gx ac-VHT20 mode U-NII-3

General verdict

PASS

FCC 15.407, ISED RSS247 # Minimum emission bandwidth ~ WLAN5Gx ac-VHT20 mode U-NII-3

Test References

TC Start	14.07.2022 16:50:56
Ambit Temp [°C] Humidity [rel%]	28.2 40
System Version	3.2.0.2
Test Specification	FCC 15.407, ISED RSS247 -
Test Method	KDB789033 D02, C.2.
TC Version	0.0.1
My Description	FCC 15.407 Min Emission Bandwidth - WLAN5Gx ac-VHT20 mode U-NII-3

Add. Information

EUT Common Settings WLAN5Gx

Number of Antenna Ports	2
User Interaction	No
Device Class UNII_1	Client

Test Parameter

Technology to test	WLAN5Gx ac-VHT20 mode
Antenna Port used	2
Temperature	nom
Voltage	nom
Frequency low to test	False Freq [MHz] 5745
Frequency mid to test	False Freq [MHz] 5785
Frequency high to test	True Freq [MHz] 5825
Auto Control enabled Power Supply Climatic Box	No No
Additional Path Loss [dB]	1.4
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer

Test Equipment

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

Test at TX 5825 MHz

RESULT: Reference Power cond.

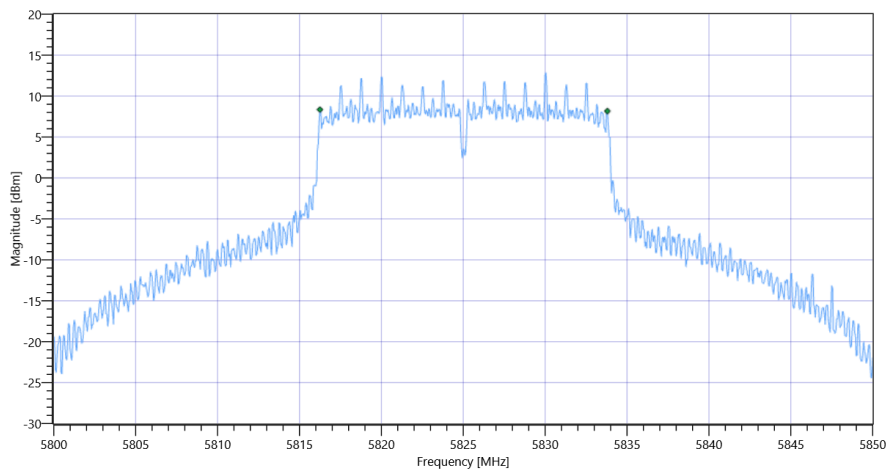
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	19.35	dBm	INFO
Ref. Frequency	---	---	5817.610	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	31.35 18.74 30
Start [MHz] Stop [MHz]	5800.000 5850.000
RBW [MHz] VBW [MHz]	0.100000 0.300000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	2 1500 1001 SWE

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth (6dB)	0.500	---	17.55	MHz	PASS



FCC 15.407, ISED RSS247 # Minimum emission bandwidth ~ WLAN5Gx ac-VHT20 mode U-NII-3

General verdict

PASS

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