

Measurement Results

No.1-5761/23-01-05_Annex_MR_2

Test logging

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EUT Information

EUT DEFINITION

Manufacturer	Sagemcom
Type	Video Soundbox
Serial Number	Config#1 (conducted)
Setup Number	1.0
Version SW	NI
Version FW	NI
Version HW	M393 AL VSB-3
Comment 1	
Comment 2	
Temperature [°C] Min	0
Temperature [°C] Nom	20
Temperature [°C] Max	40
Voltage [V] Min	103.5 V AC
Voltage [V] Nom	115 V AC
Voltage [V] Max	126.5 V AC

FCC 15.247 # MIMO Power PSD Calculator ~ WLAN5Gx n-HT20 mode U-NII-2A

Test References

TC Start	09.02.2023 15:03:38
Ambit Temp [°C] Humidity [rel%]	23.4 24
System Version	3.3.4.3
Test Specification	FCC 15.247 -
Test Method	
TC Version	0.0.1
My Description	FCC MIMO_Power_PSD_Calculator - WLAN5Gx n-HT20 mode U-NII-2A
Add. Information	

EUT Common Settings WLAN5Gx

Number of Antenna Ports	2
User Interaction	No
Device Class UNII_1	Client
Limit W52 Japan	Standard

Test Parameter

Technology to test	WLAN5Gx n-HT20 mode
Antenna Port used	several
Temperature	nom
Voltage	nom
Frequency low to test	True Freq [MHz] 5260
Frequency mid to test	True 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	None

Test Equipment

Test at TX 5260 MHz

RESULT Power

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ant:1 Max Output Power DC corrected	--	--	19.4	dBm	INFO
Ant:1 BW 26dB	--	--	33.160	MHz	INFO
Ant:2 Max Output Power DC corrected	--	--	20.27	dBm	INFO
Ant:2 BW 26dB	--	--	32.960	MHz	INFO
Σ Limit absolute	--	24	22.87	dBm	PASS
Σ Limit: 11 dBm + 10 log 32.96	--	26.18	22.87	dBm	PASS

RESULT PSD

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ant:1 PSD	--	--	7.31	dBm/1MHz	INFO
Ant:2 PSD	--	--	8.24	dBm/1MHz	INFO
Σ	--	11	10.81	dBm/1MHz	PASS

Test at TX 5280 MHz

RESULT Power

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ant:1 Max Output Power DC corrected	--	--	19.62	dBm	INFO
Ant:1 BW 26dB	--	--	29.400	MHz	INFO
Ant:2 Max Output Power DC corrected	--	--	19.86	dBm	INFO
Ant:2 BW 26dB	--	--	31.920	MHz	INFO
Σ Limit absolute	--	24	22.75	dBm	PASS
Σ Limit: 11 dBm + 10 log 29.4	--	25.68	22.75	dBm	PASS

RESULT PSD

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ant:1 PSD	--	--	7.6	dBm/1MHz	INFO
Ant:2 PSD	--	--	7.77	dBm/1MHz	INFO
Σ	--	11	10.7	dBm/1MHz	PASS

Test at TX 5320 MHz

RESULT Power

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ant:1 Max Output Power DC corrected	--	--	16.82	dBm	INFO
Ant:1 BW 26dB	--	--	21.760	MHz	INFO
Ant:2 Max Output Power DC corrected	--	--	17.63	dBm	INFO
Ant:2 BW 26dB	--	--	21.320	MHz	INFO
Σ Limit absolute	--	24	20.25	dBm	PASS
Σ Limit: 11 dBm + 10 log 21.32	--	24.29	20.25	dBm	PASS

RESULT PSD

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ant:1 PSD	--	--	6.06	dBm/1MHz	INFO
Ant:2 PSD	--	--	6.91	dBm/1MHz	INFO
Σ	--	11	9.52	dBm/1MHz	PASS

Verdict

PASS

FCC 15.407, ISED RSS247 # Bandwidths 99PCT and 26dB ~ WLAN5Gx n-HT20 mode U-NII-2A

Test References

TC Start	09.02.2023 14:57:40
Ambit Temp [°C] Humidity [rel%]	23.5 24
System Version	3.3.4.3
Test Specification	FCC 15.407, ISED RSS247 -
Test Method	26dB Bandwidth KDB789033 D02, C.1 / ISED RSS-GEN
TC Version	0.0.1
My Description	FCC 15.407 Bandwidths - WLAN5Gx n-HT20 mode U-NII-2A
Add. Information	

EUT Common Settings WLAN5Gx

Number of Antenna Ports	2
User Interaction	No
Device Class UNII_1	Client
Limit W52 Japan	Standard

Test Parameter

Technology to test	WLAN5Gx n-HT20 mode
Antenna Port used	2
Temperature	nom
Voltage	nom
Frequency low to test	True Freq [MHz] 5260
Frequency mid to test	False Freq [MHz] 5280
Frequency high to test	False 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

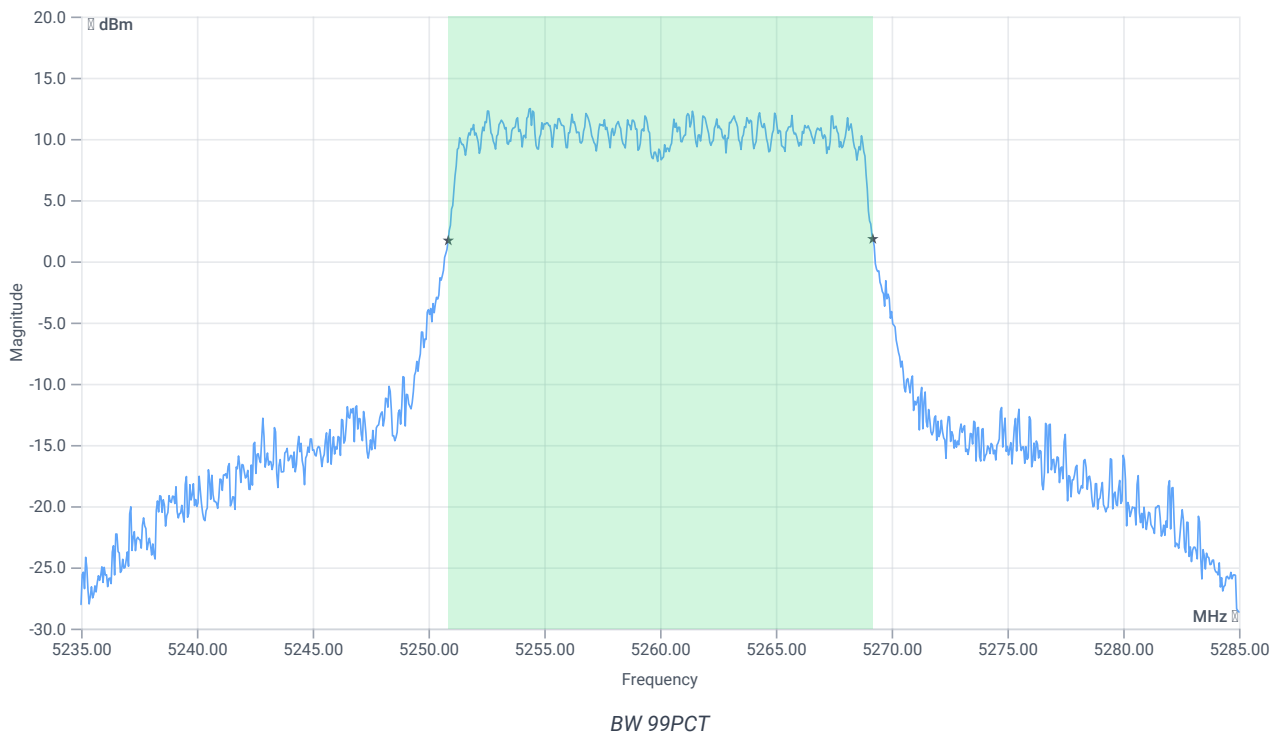
Test at TX 5260 MHz

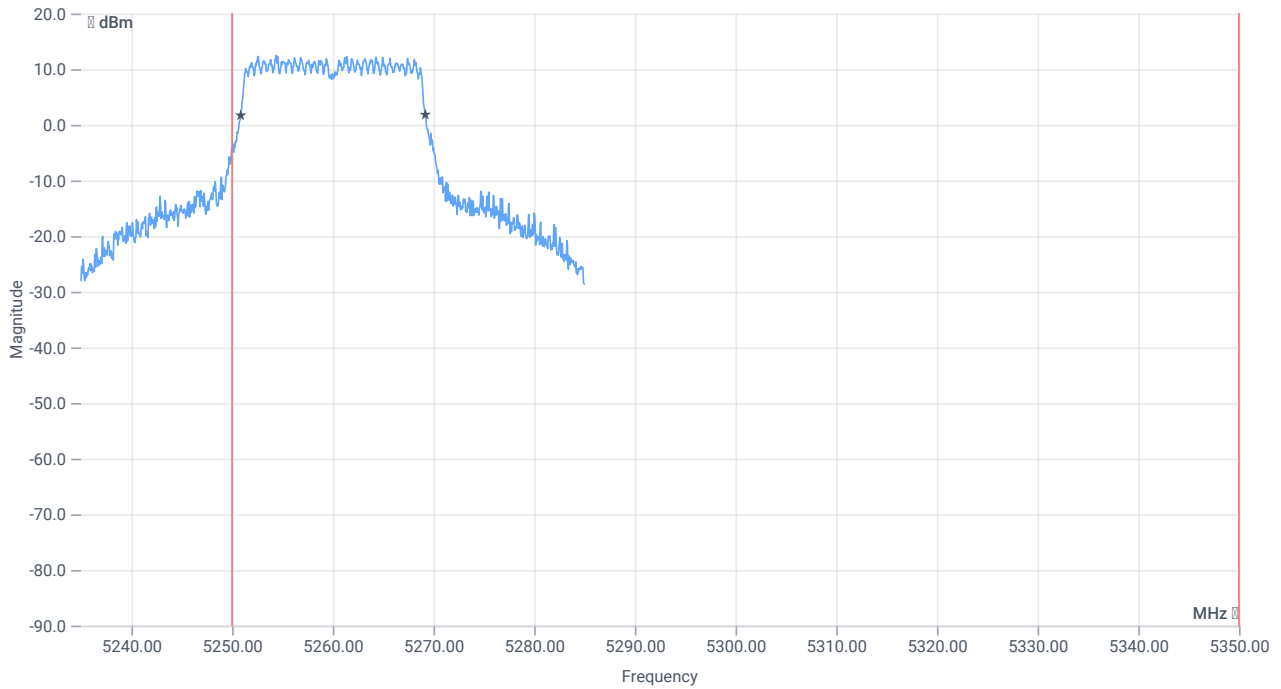
RESULT: Reference Power cond.

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	--	--	17.67	dBm	INFO
Ref. Frequency	--	--	5264.000	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	25.67 16.44 25
Start [MHz] Stop [MHz]	5235.000 5285.000
RBW [MHz] VBW [MHz]	0.300000 1.000000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	1 2500 1001 SWE

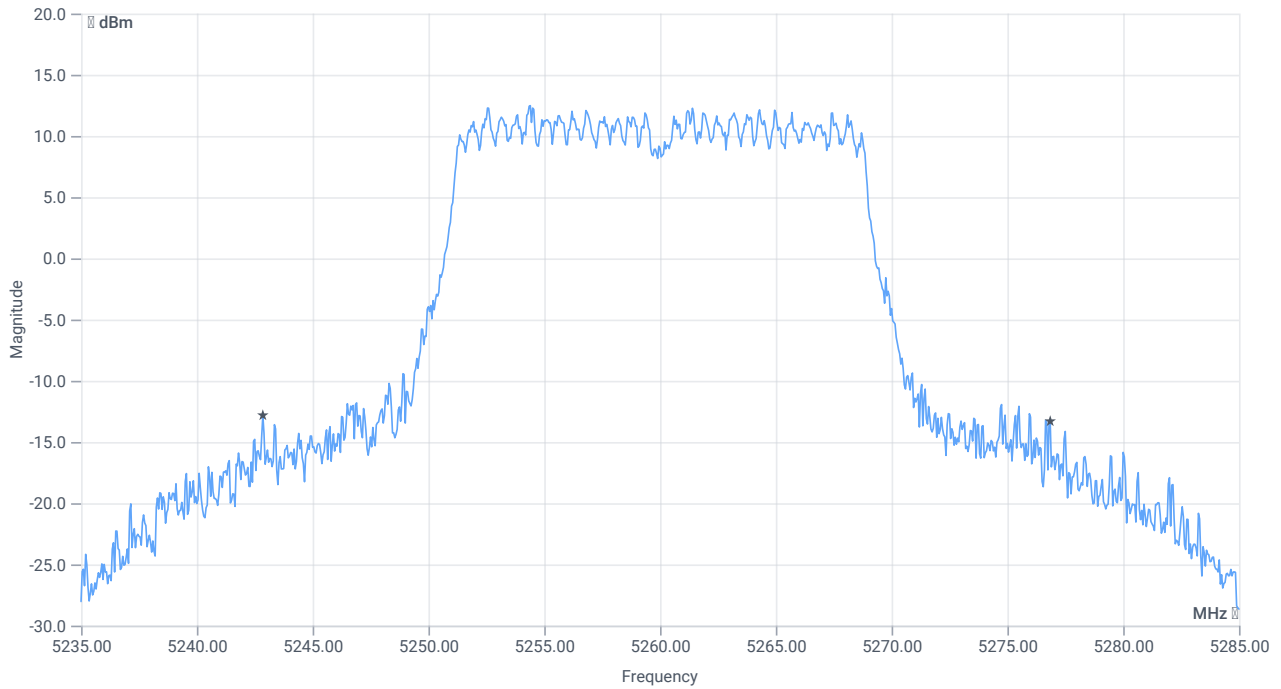




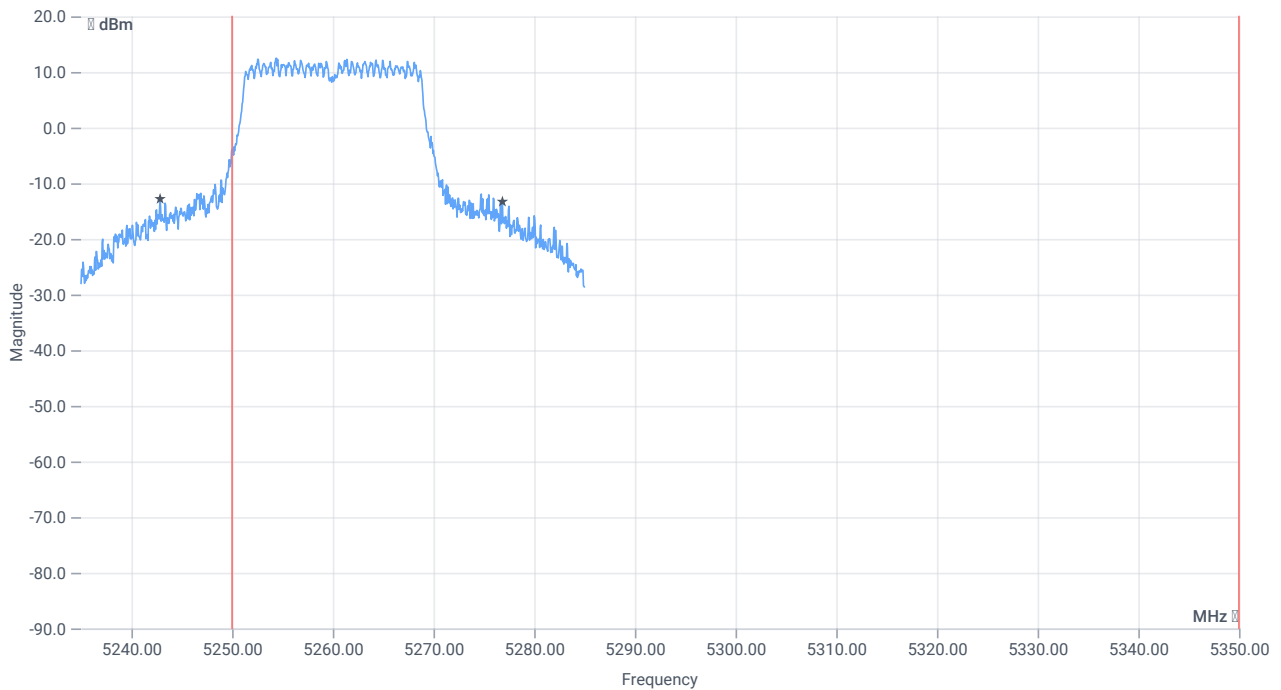
BW within Band 99PCT

RESULT

<i>Test Description</i>	<i>Lower Limit</i>	<i>Upper Limit</i>	<i>Measured</i>	<i>Unit</i>	<i>Verdict</i>
Bandwidth 99%	--	--	18.332	MHz	INFO
T1 99%	5250.000000	--	5250.8591	MHz	PASS since U-NII-1 is supported
T2 99%	--	5350.000000	5269.1908	MHz	PASS



BW 26dB



BW within Band 26dB

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 26dB	---	---	34	MHz	INFO

RESULT

<i>Test Description</i>	<i>Lower Limit</i>	<i>Upper Limit</i>	<i>Measured</i>	<i>Unit</i>	<i>Verdict</i>
T1 26dB	5250.000000	--	5242.8500	MHz	PASS since U-NII-1 is supported
T2 26dB	--	5350.000000	5276.8500	MHz	PASS

Verdict

PASS

FCC 15.247 # Max output power and psd ~ WLAN5Gx n-HT20 mode U-NII-2A

Test References

TC Start	09.02.2023 14:56:14
Ambit Temp [°C] Humidity [rel%]	23.6 24
System Version	3.3.4.3
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 n-HT20 mode U-NII-2A

Add. Information

EUT Common Settings WLAN5Gx

Number of Antenna Ports	2
User Interaction	No
Device Class UNII_1	Client
Limit W52 Japan	Standard

Test Parameter

Technology to test	WLAN5Gx n-HT20 mode
Antenna Port used	2
Temperature	nom
Voltage	nom
Frequency low to test	True Freq [MHz] 5260
Frequency mid to test	False Freq [MHz] 5280
Frequency high to test	False 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 5260 MHz

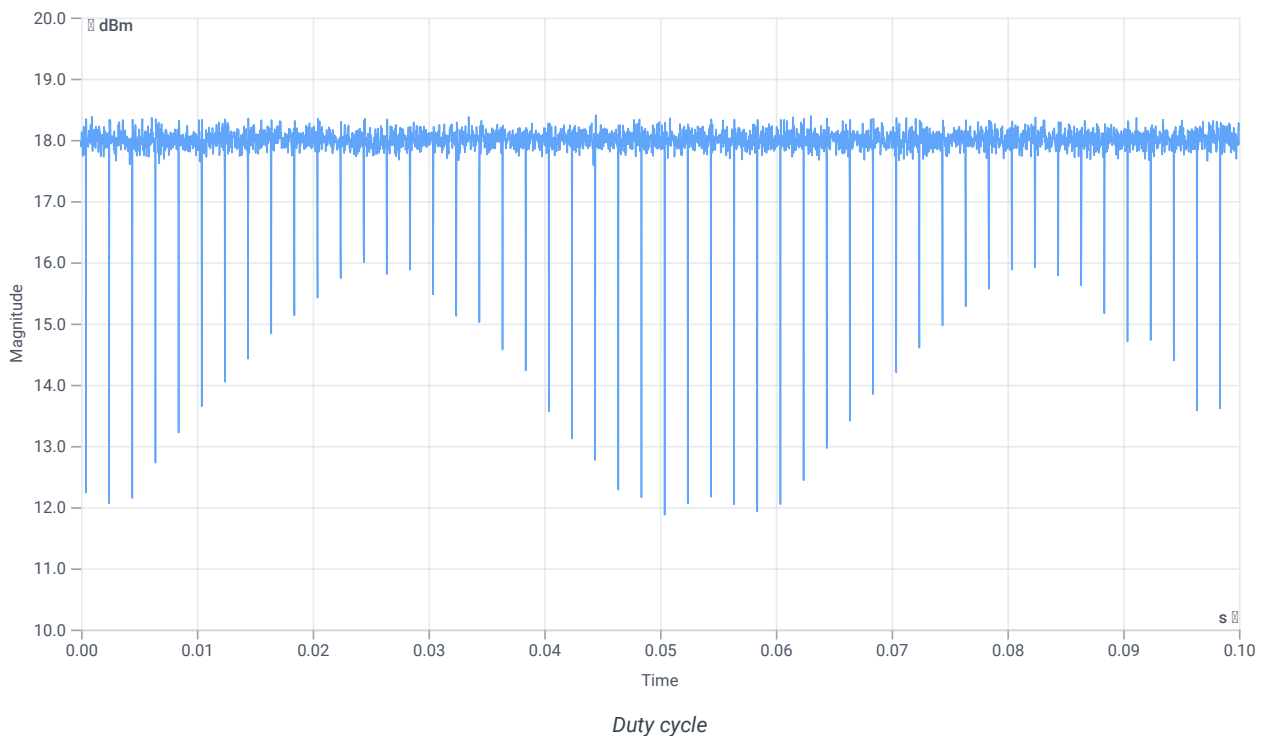
RESULT: Reference Power cond.

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	--	--	17.37	dBm	INFO
Ref. Frequency	--	--	5254.210	MHz	INFO

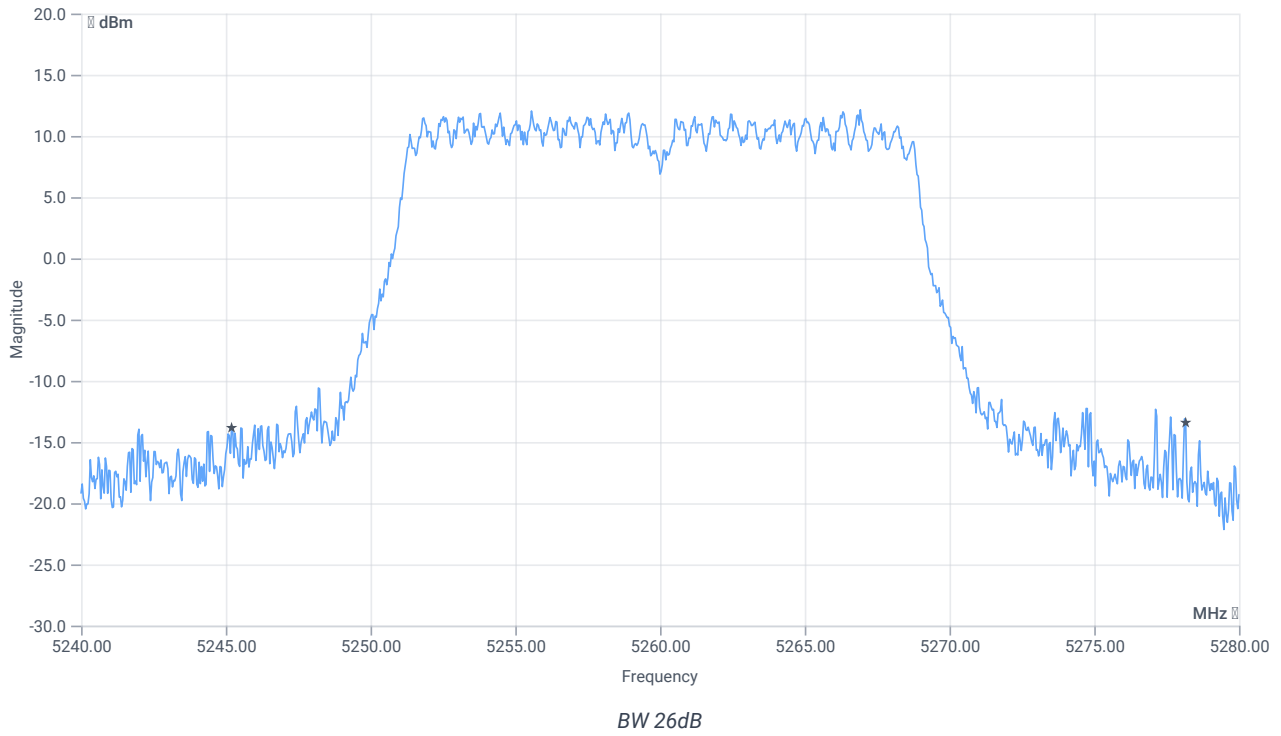
Evaluation max. Duty Cycle

Duty Cycle evaluation

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
No enough Bursts detected, Duty Cycle Burst Ratio set to 1					
Duty Cycle (Burst Ratio) max	--	--	1	--	INFO
Duty Cycle max	--	--	0	dB	INFO
Duty Cycle (Burst Ratio) min	--	--	1	--	INFO
Duty Cycle min	--	--	0	dB	INFO



Evaluation Bandwidth



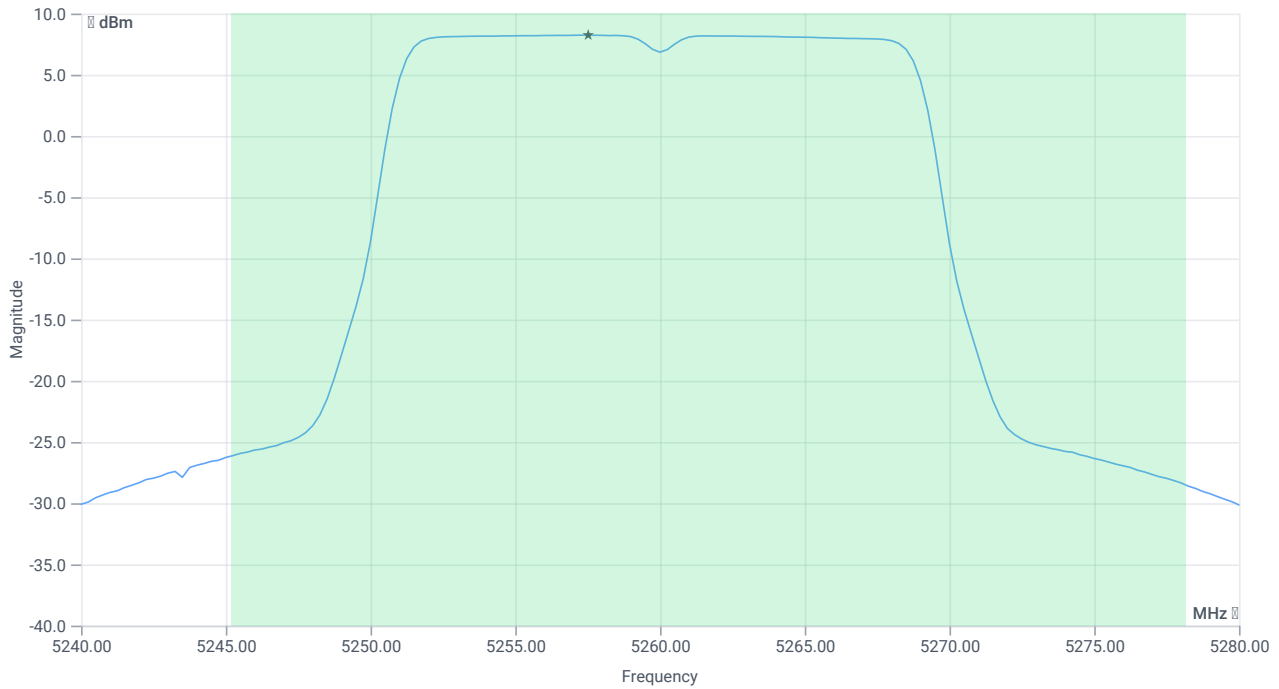
RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 26dB	---	---	32.96	MHz	INFO
T1 26dB	---	---	5245.2000	MHz	INFO
T2 26dB	---	---	5278.1600	MHz	INFO

Maximum Output Power

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	29.37 16.44 30
Start [MHz] Stop [MHz]	5240.000 5280.000
RBW [MHz] VBW [MHz]	1.000000 3.000000
Detector TraceMode	RMS MAXH
Sweep: Time [ms] Count Points per Section Type	53700 1 161 SWE



Max OP and PSD

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Max Output Power	--	--	20.27	dBm	INFO
Duty Cycle Correction	--	--	0	dB	INFO
Limit absolute					
Max Output Power DC corrected	--	24	20.27	dBm	PASS
Limit: 11 dBm + 10 log 32.96					
Max Output Power DC corrected	--	26.18	20.27	dBm	PASS

Power Spectral Density

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Power Spectral Density	--	--	8.24	dBm/1MHz	INFO
Duty Cycle Correction	--	--	0	dB	INFO
Power Spectral Density DC corrected	--	11	8.24	dBm/1MHz	PASS

Verdict

PASS

FCC 15.407, ISED RSS247 # Bandwidths 99PCT and 26dB ~ WLAN5Gx n-HT20 mode U-NII-2A

Test References

TC Start	09.02.2023 14:55:45
Ambit Temp [°C] Humidity [rel%]	23.6 24
System Version	3.3.4.3
Test Specification	FCC 15.407, ISED RSS247 -
Test Method	26dB Bandwidth KDB789033 D02, C.1 / ISED RSS-GEN
TC Version	0.0.1
My Description	FCC 15.407 Bandwidths - WLAN5Gx n-HT20 mode U-NII-2A
Add. Information	

EUT Common Settings WLAN5Gx

Number of Antenna Ports	2
User Interaction	No
Device Class UNII_1	Client
Limit W52 Japan	Standard

Test Parameter

Technology to test	WLAN5Gx n-HT20 mode
Antenna Port used	1
Temperature	nom
Voltage	nom
Frequency low to test	True Freq [MHz] 5260
Frequency mid to test	False Freq [MHz] 5280
Frequency high to test	False 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

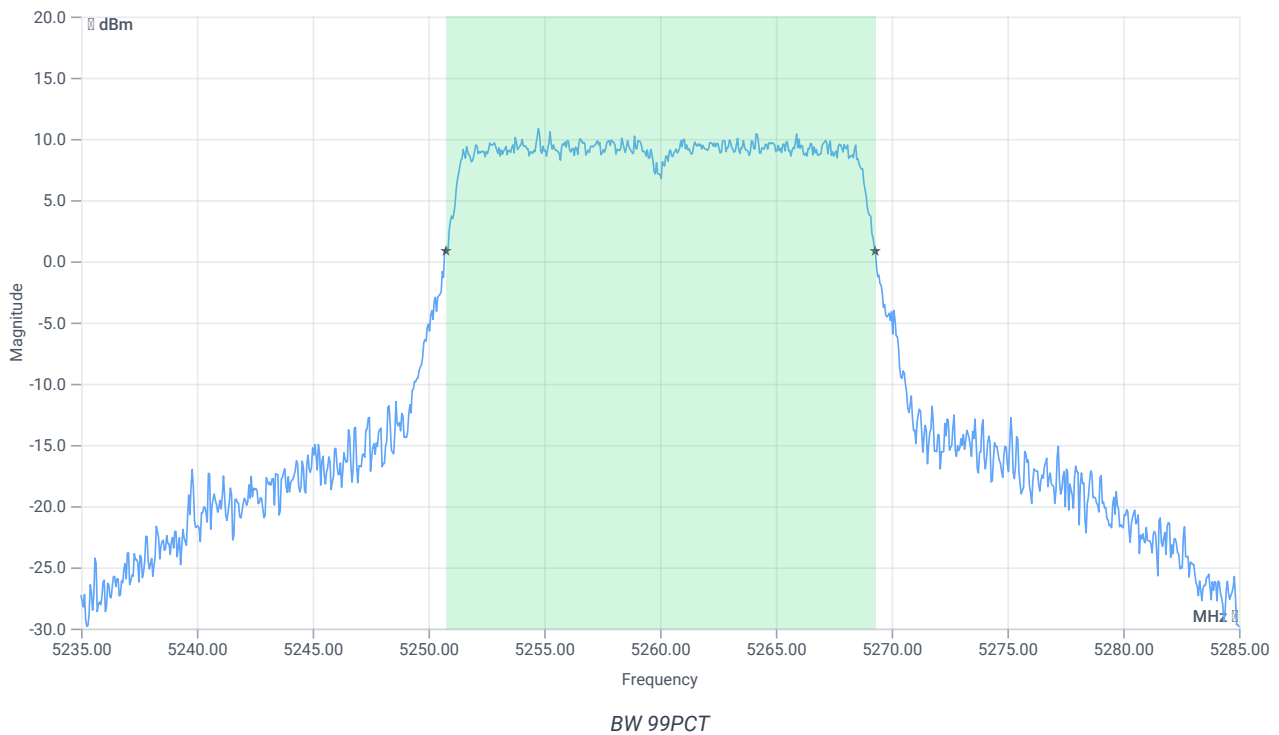
Test at TX 5260 MHz

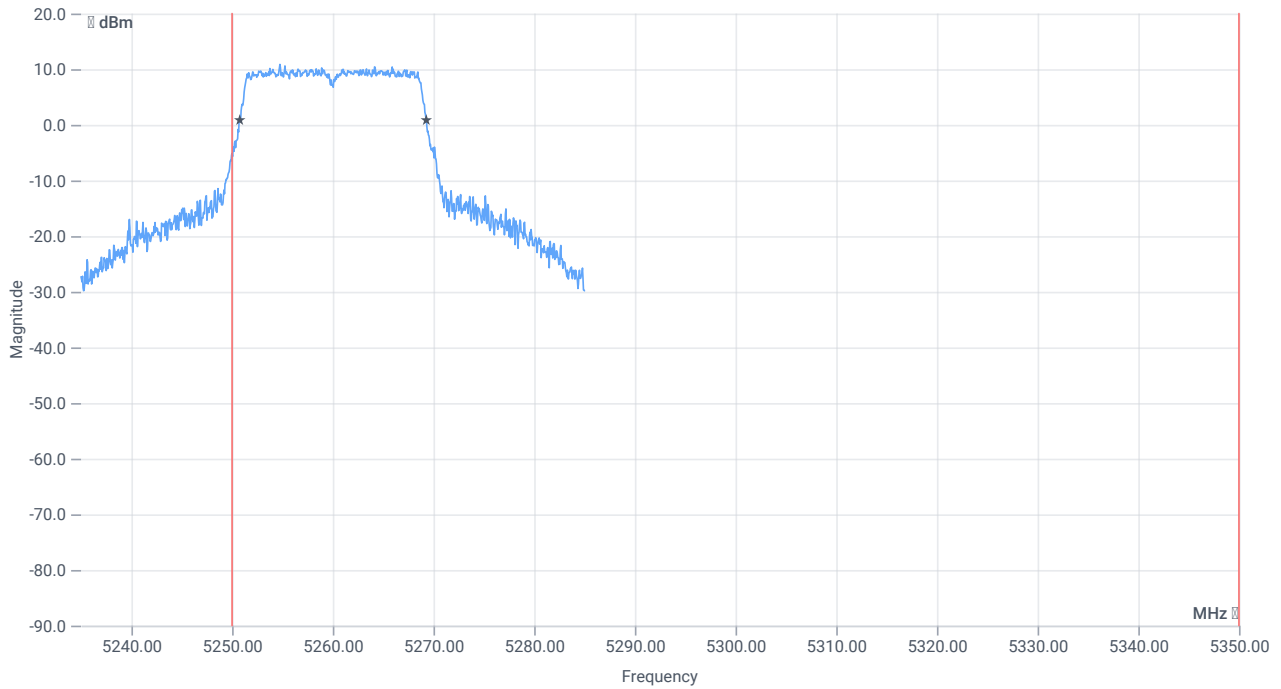
RESULT: Reference Power cond.

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	--	--	15.52	dBm	INFO
Ref. Frequency	--	--	5254.010	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	23.52 16.44 25
Start [MHz] Stop [MHz]	5235.000 5285.000
RBW [MHz] VBW [MHz]	0.300000 1.000000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	1 2500 1001 SWE

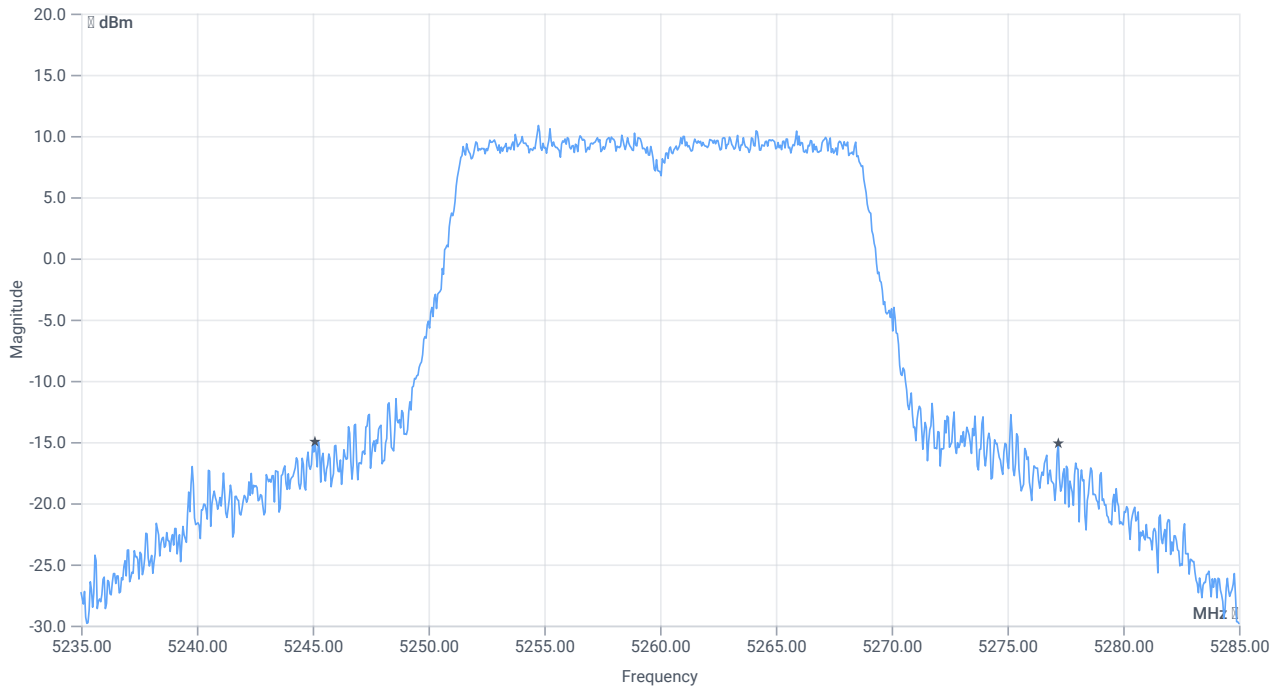




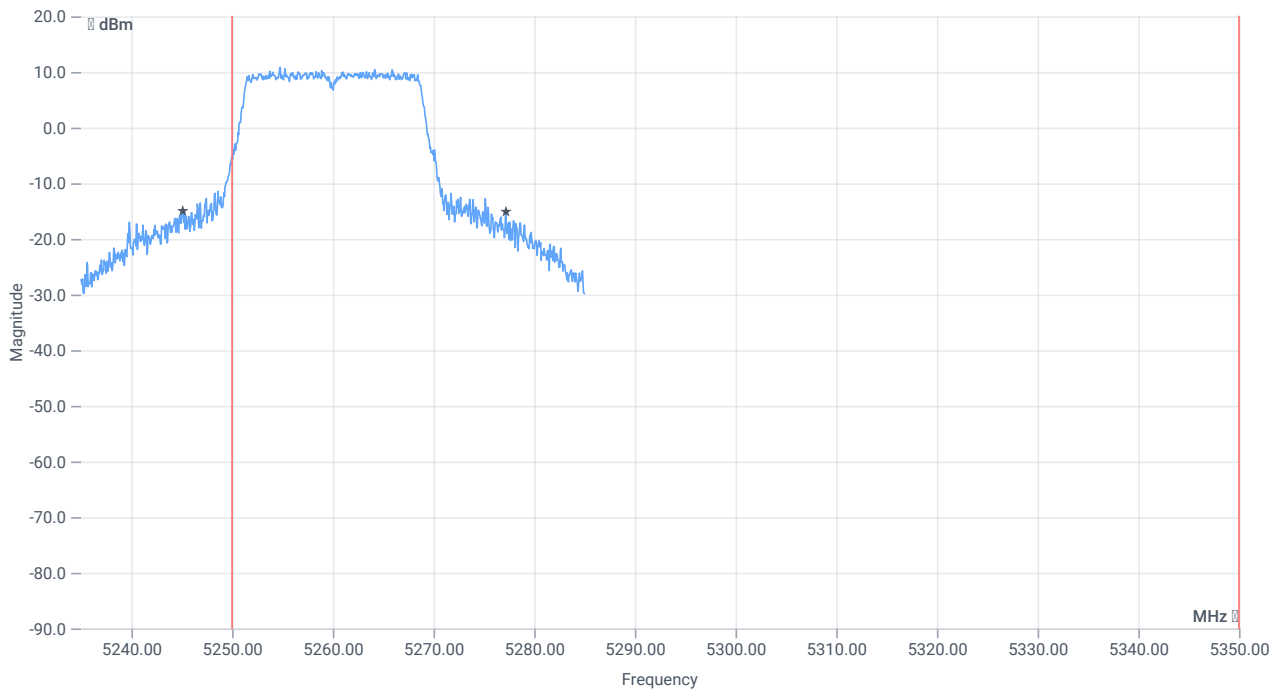
BW within Band 99PCT

RESULT

<i>Test Description</i>	<i>Lower Limit</i>	<i>Upper Limit</i>	<i>Measured</i>	<i>Unit</i>	<i>Verdict</i>
Bandwidth 99%	--	--	18.531	MHz	INFO
T1 99%	5250.000000	--	5250.7592	MHz	PASS since U-NII-1 is supported
T2 99%	--	5350.000000	5269.2907	MHz	PASS



BW 26dB



BW within Band 26dB

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 26dB	---	---	32.1	MHz	INFO

RESULT

<i>Test Description</i>	<i>Lower Limit</i>	<i>Upper Limit</i>	<i>Measured</i>	<i>Unit</i>	<i>Verdict</i>
T1 26dB	5250.000000	--	5245.1000	MHz	PASS since U-NII-1 is supported
T2 26dB	--	5350.000000	5277.2000	MHz	PASS

Verdict

PASS

FCC 15.247 # Max output power and psd ~ WLAN5Gx n-HT20 mode U-NII-2A

Test References

TC Start	09.02.2023 14:54:19
Ambit Temp [°C] Humidity [rel%]	23.5 24
System Version	3.3.4.3
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 n-HT20 mode U-NII-2A
Add. Information	

EUT Common Settings WLAN5Gx

Number of Antenna Ports	2
User Interaction	No
Device Class UNII_1	Client
Limit W52 Japan	Standard

Test Parameter

Technology to test	WLAN5Gx n-HT20 mode
Antenna Port used	1
Temperature	nom
Voltage	nom
Frequency low to test	True Freq [MHz] 5260
Frequency mid to test	False Freq [MHz] 5280
Frequency high to test	False 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 5260 MHz

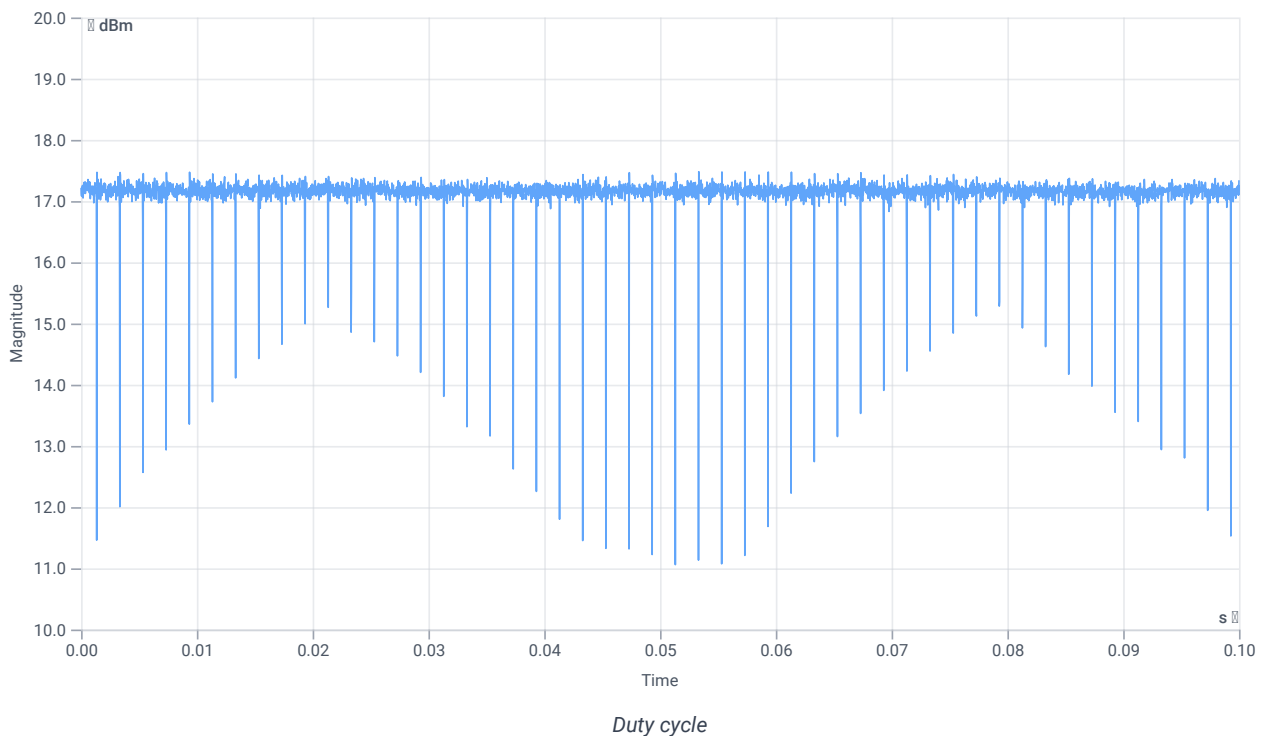
RESULT: Reference Power cond.

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	--	--	15.81	dBm	INFO
Ref. Frequency	--	--	5257.000	MHz	INFO

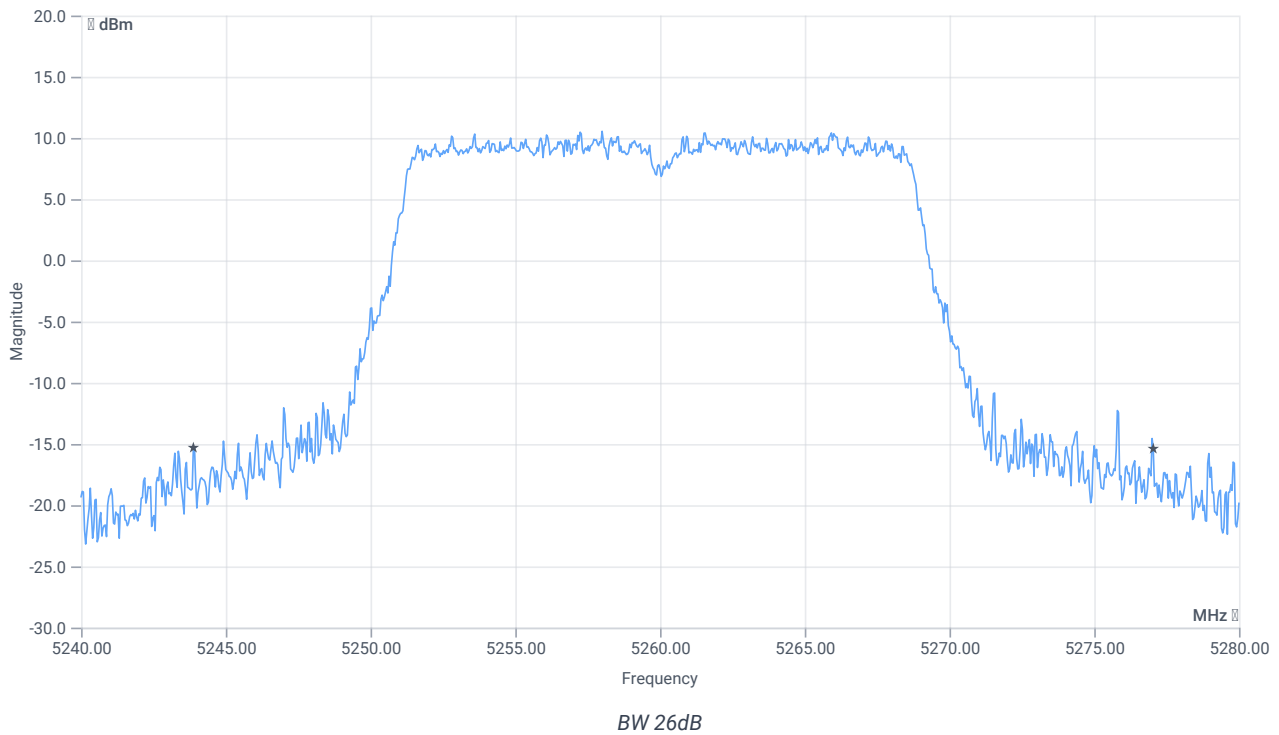
Evaluation max. Duty Cycle

Duty Cycle evaluation

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
No enough Bursts detected, Duty Cycle Burst Ratio set to 1					
Duty Cycle (Burst Ratio) max	--	--	1	--	INFO
Duty Cycle max	--	--	0	dB	INFO
Duty Cycle (Burst Ratio) min	--	--	1	--	INFO
Duty Cycle min	--	--	0	dB	INFO



Evaluation Bandwidth



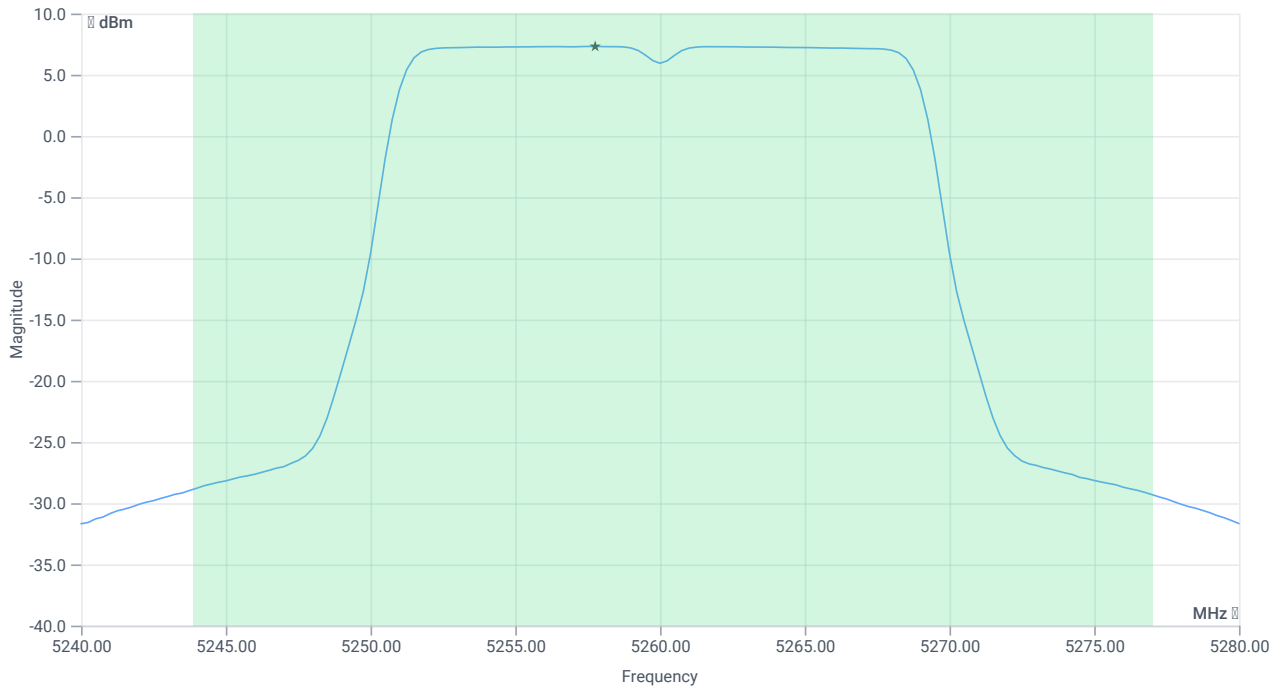
RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 26dB	---	---	33.16	MHz	INFO
T1 26dB	---	---	5243.8800	MHz	INFO
T2 26dB	---	---	5277.0400	MHz	INFO

Maximum Output Power

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	27.81 16.44 30
Start [MHz] Stop [MHz]	5240.000 5280.000
RBW [MHz] VBW [MHz]	1.000000 3.000000
Detector TraceMode	RMS MAXH
Sweep: Time [ms] Count Points per Section Type	53700 1 161 SWE



Max OP and PSD

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Max Output Power	--	--	19.4	dBm	INFO
Duty Cycle Correction	--	--	0	dB	INFO
Limit absolute					
Max Output Power DC corrected	--	24	19.4	dBm	PASS
Limit: 11 dBm + 10 log 33.16					
Max Output Power DC corrected	--	26.21	19.4	dBm	PASS

Power Spectral Density

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Power Spectral Density	--	--	7.31	dBm/1MHz	INFO
Duty Cycle Correction	--	--	0	dB	INFO
Power Spectral Density DC corrected	--	11	7.31	dBm/1MHz	PASS

Verdict

PASS

FCC 15.407, ISED RSS247 # Bandwidths 99PCT and 26dB ~ WLAN5Gx n-HT20 mode U-NII-2A

Test References

TC Start	09.02.2023 14:46:59
Ambit Temp [°C] Humidity [rel%]	23.6 23
System Version	3.3.4.3
Test Specification	FCC 15.407, ISED RSS247 -
Test Method	26dB Bandwidth KDB789033 D02, C.1 / ISED RSS-GEN
TC Version	0.0.1
My Description	FCC 15.407 Bandwidths - WLAN5Gx n-HT20 mode U-NII-2A
Add. Information	

EUT Common Settings WLAN5Gx

Number of Antenna Ports	2
User Interaction	No
Device Class UNII_1	Client
Limit W52 Japan	Standard

Test Parameter

Technology to test	WLAN5Gx n-HT20 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

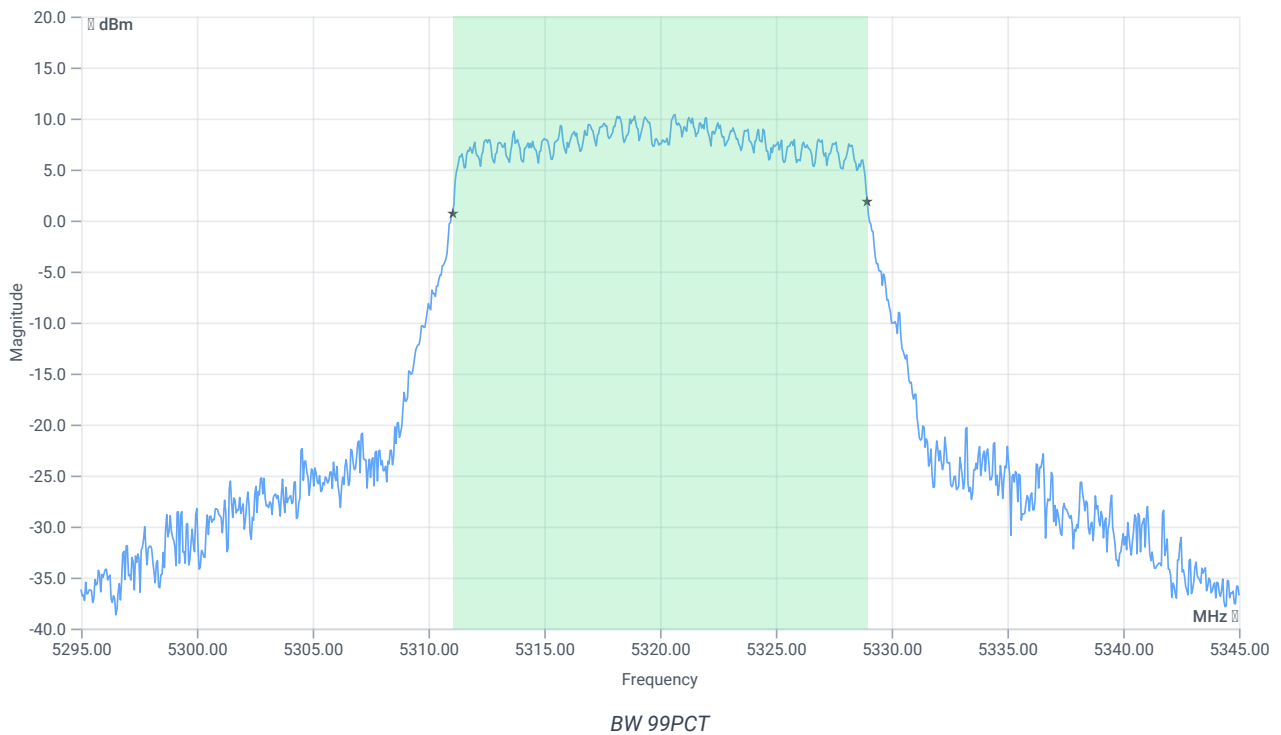
Test at TX 5320 MHz

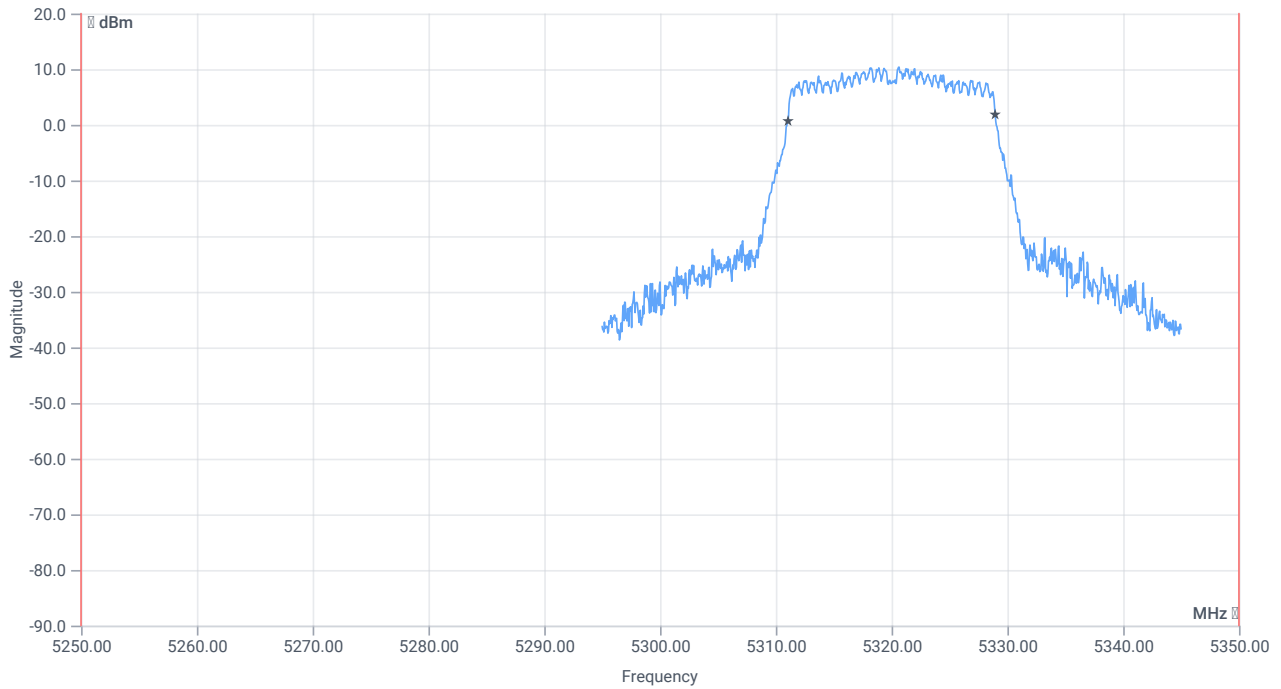
RESULT: Reference Power cond.

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	--	--	14.38	dBm	INFO
Ref. Frequency	--	--	5321.200	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	22.38 16.26 25
Start [MHz] Stop [MHz]	5295.000 5345.000
RBW [MHz] VBW [MHz]	0.300000 1.000000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	1 2500 1001 SWE

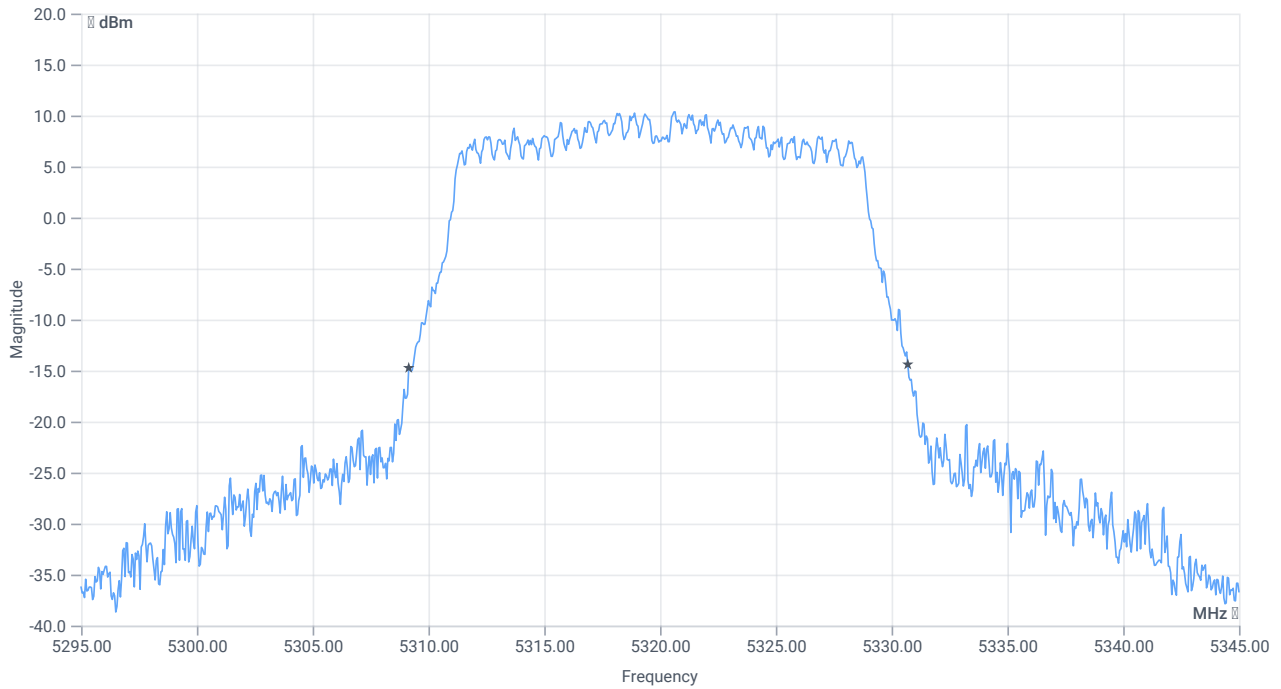




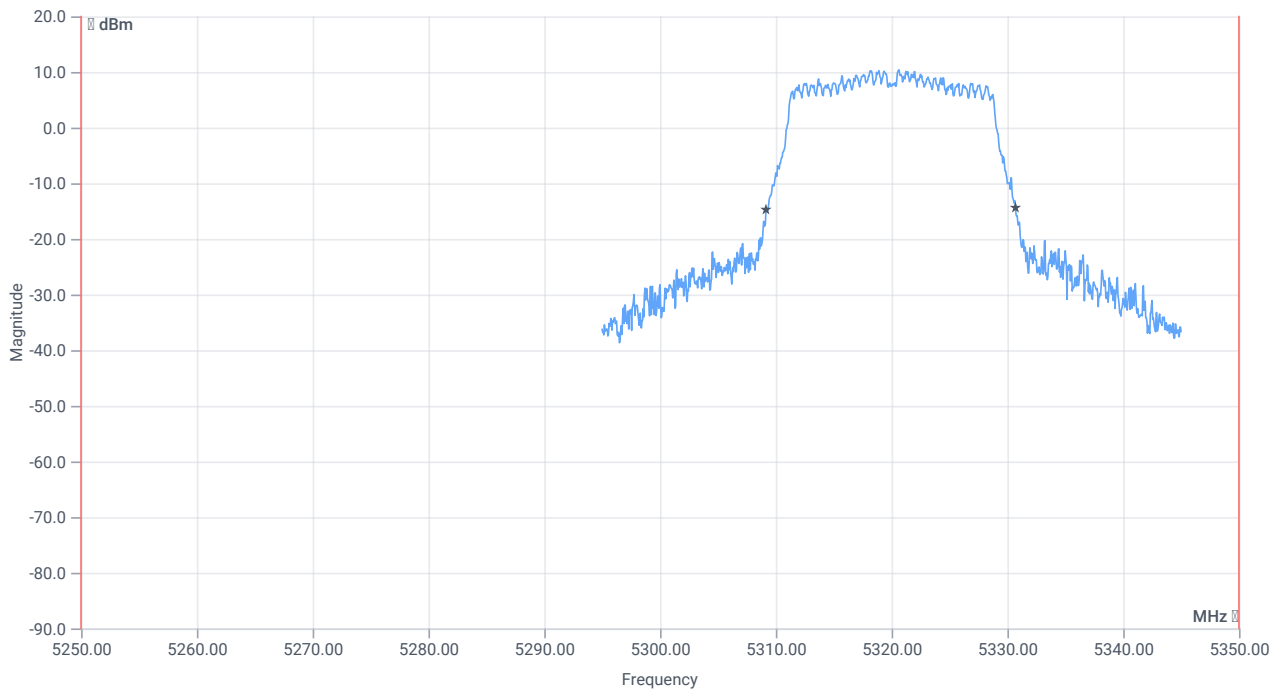
BW within Band 99PCT

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 99%	--	--	17.882	MHz	INFO
T1 99%	5250.000000	--	5311.0589	MHz	PASS since U-NII-1 is supported
T2 99%	--	5350.000000	5328.9411	MHz	PASS



BW 26dB



BW within Band 26dB

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 26dB	---	---	21.55	MHz	INFO

RESULT

<i>Test Description</i>	<i>Lower Limit</i>	<i>Upper Limit</i>	<i>Measured</i>	<i>Unit</i>	<i>Verdict</i>
T1 26dB	5250.000000	--	5309.1500	MHz	PASS since U-NII-1 is supported
T2 26dB	--	5350.000000	5330.7000	MHz	PASS

Verdict

PASS

FCC 15.247 # Max output power and psd ~ WLAN5Gx n-HT20 mode U-NII-2A

Test References

TC Start	09.02.2023 14:45:33
Ambit Temp [°C] Humidity [rel%]	23.6 24
System Version	3.3.4.3
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 n-HT20 mode U-NII-2A

Add. Information

EUT Common Settings WLAN5Gx

Number of Antenna Ports	2
User Interaction	No
Device Class UNII_1	Client
Limit W52 Japan	Standard

Test Parameter

Technology to test	WLAN5Gx n-HT20 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

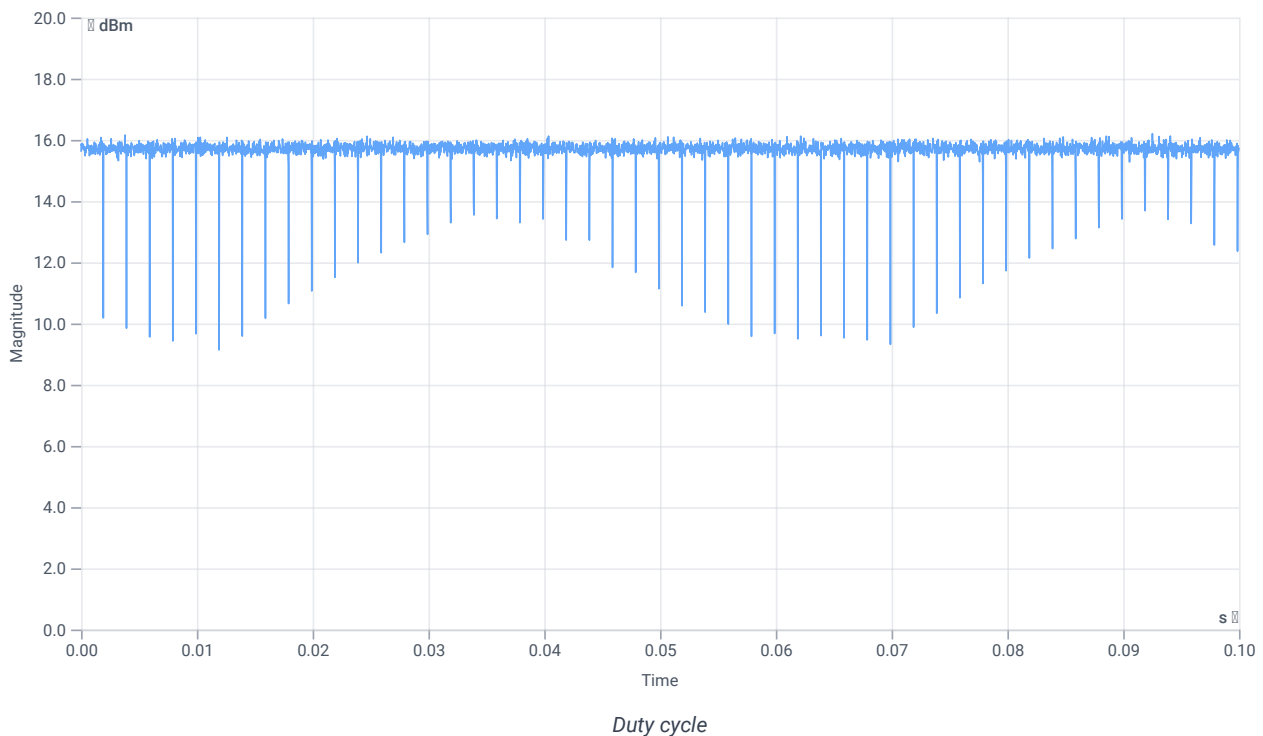
RESULT: Reference Power cond.

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	--	--	14.24	dBm	INFO
Ref. Frequency	--	--	5321.200	MHz	INFO

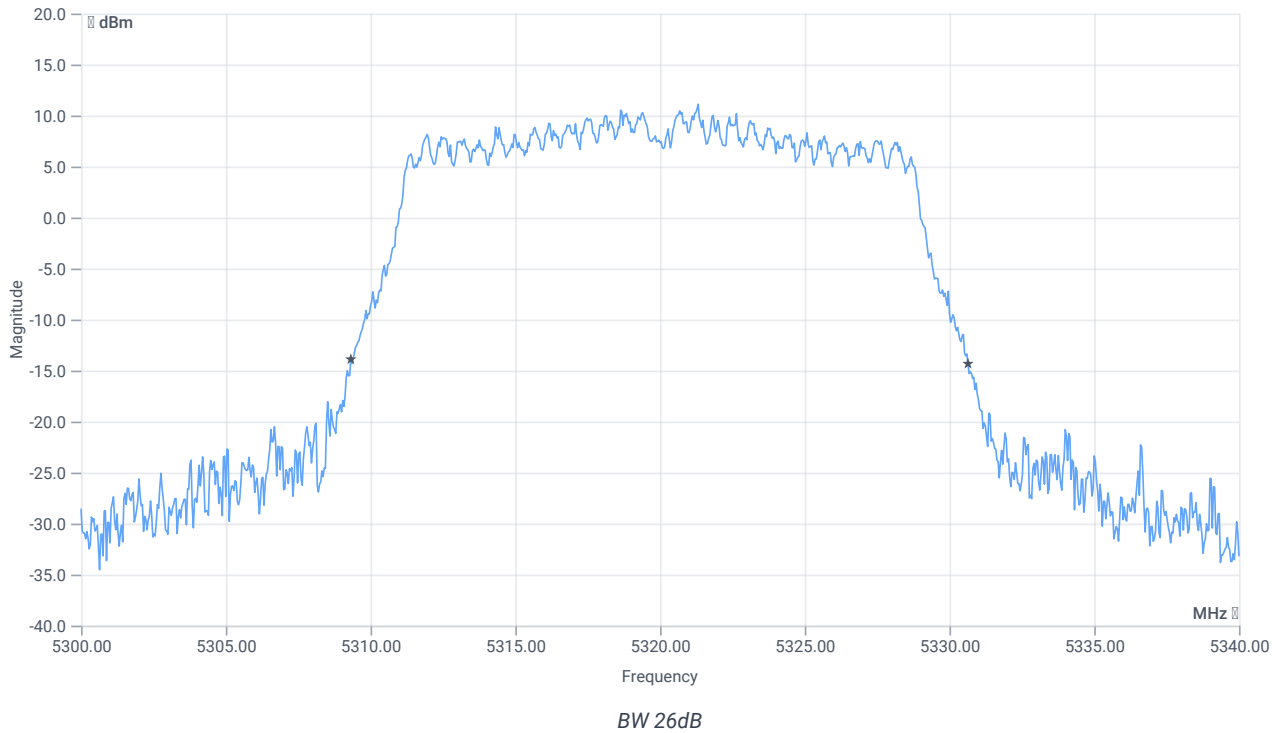
Evaluation max. Duty Cycle

Duty Cycle evaluation

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
No enough Bursts detected, Duty Cycle Burst Ratio set to 1					
Duty Cycle (Burst Ratio) max	--	--	1	--	INFO
Duty Cycle max	--	--	0	dB	INFO
Duty Cycle (Burst Ratio) min	--	--	1	--	INFO
Duty Cycle min	--	--	0	dB	INFO



Evaluation Bandwidth



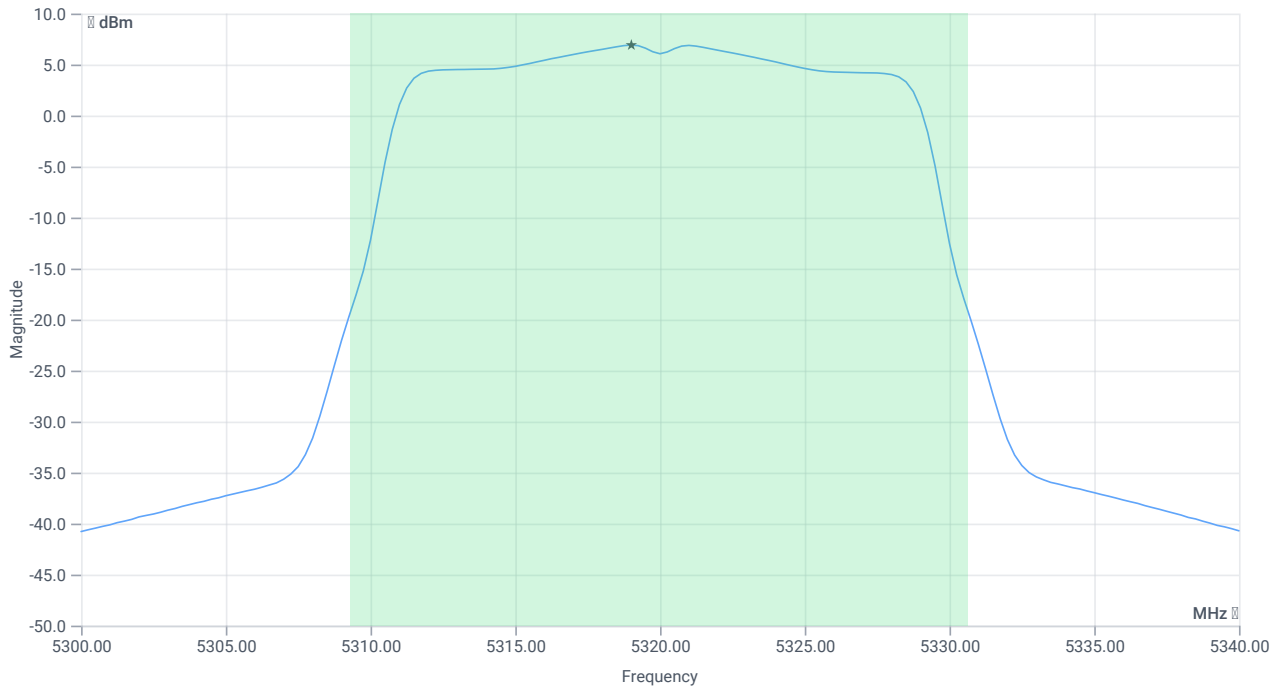
RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 26dB	---	---	21.32	MHz	INFO
T1 26dB	---	---	5309.3200	MHz	INFO
T2 26dB	---	---	5330.6400	MHz	INFO

Maximum Output Power

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	26.24 16.26 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



Max OP and PSD

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Max Output Power	--	--	17.63	dBm	INFO
Duty Cycle Correction	--	--	0	dB	INFO
Limit absolute					
Max Output Power DC corrected	--	24	17.63	dBm	PASS
Limit: 11 dBm + 10 log 21.32					
Max Output Power DC corrected	--	24.29	17.63	dBm	PASS

Power Spectral Density

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Power Spectral Density	--	--	6.91	dBm/1MHz	INFO
Duty Cycle Correction	--	--	0	dB	INFO
Power Spectral Density DC corrected	--	11	6.91	dBm/1MHz	PASS

Verdict

PASS

FCC 15.407, ISED RSS247 # Bandwidths 99PCT and 26dB ~ WLAN5Gx n-HT20 mode U-NII-2A

Test References

TC Start	09.02.2023 14:45:03
Ambit Temp [°C] Humidity [rel%]	23.6 23
System Version	3.3.4.3
Test Specification	FCC 15.407, ISED RSS247 -
Test Method	26dB Bandwidth KDB789033 D02, C.1 / ISED RSS-GEN
TC Version	0.0.1
My Description	FCC 15.407 Bandwidths - WLAN5Gx n-HT20 mode U-NII-2A
Add. Information	

EUT Common Settings WLAN5Gx

Number of Antenna Ports	2
User Interaction	No
Device Class UNII_1	Client
Limit W52 Japan	Standard

Test Parameter

Technology to test	WLAN5Gx n-HT20 mode
Antenna Port used	1
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

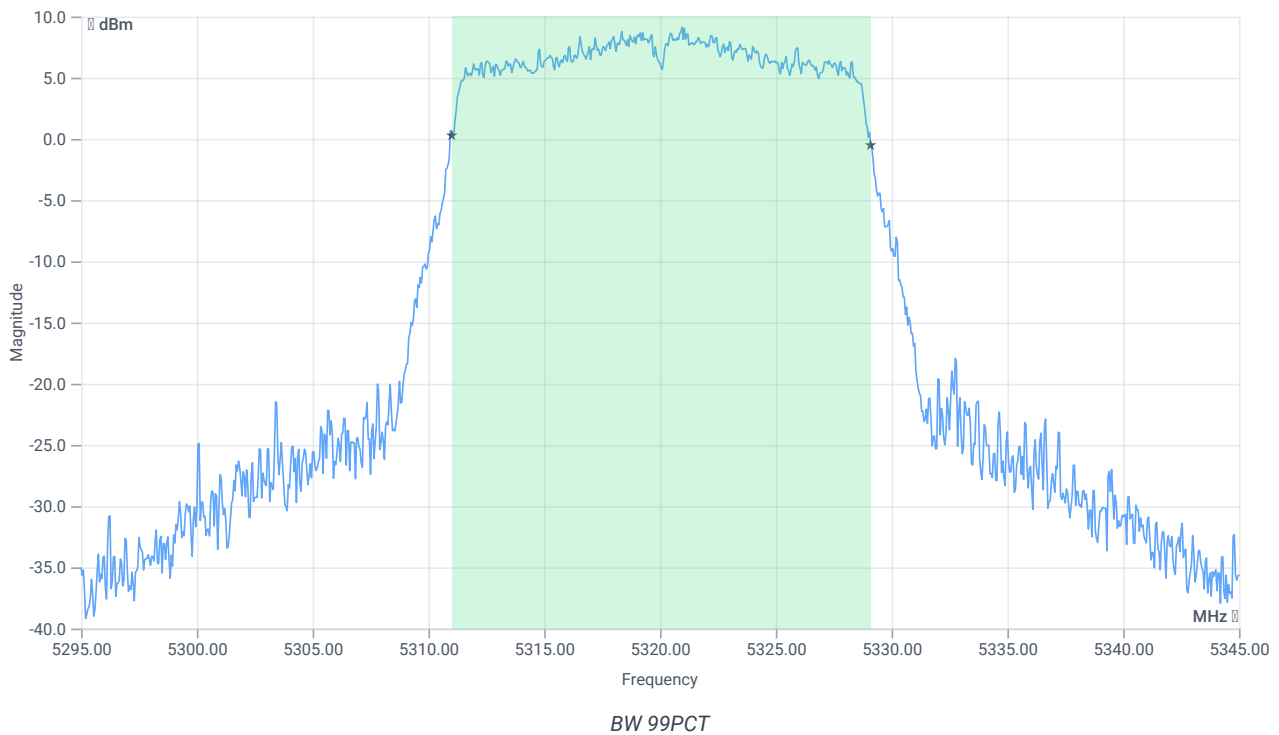
Test at TX 5320 MHz

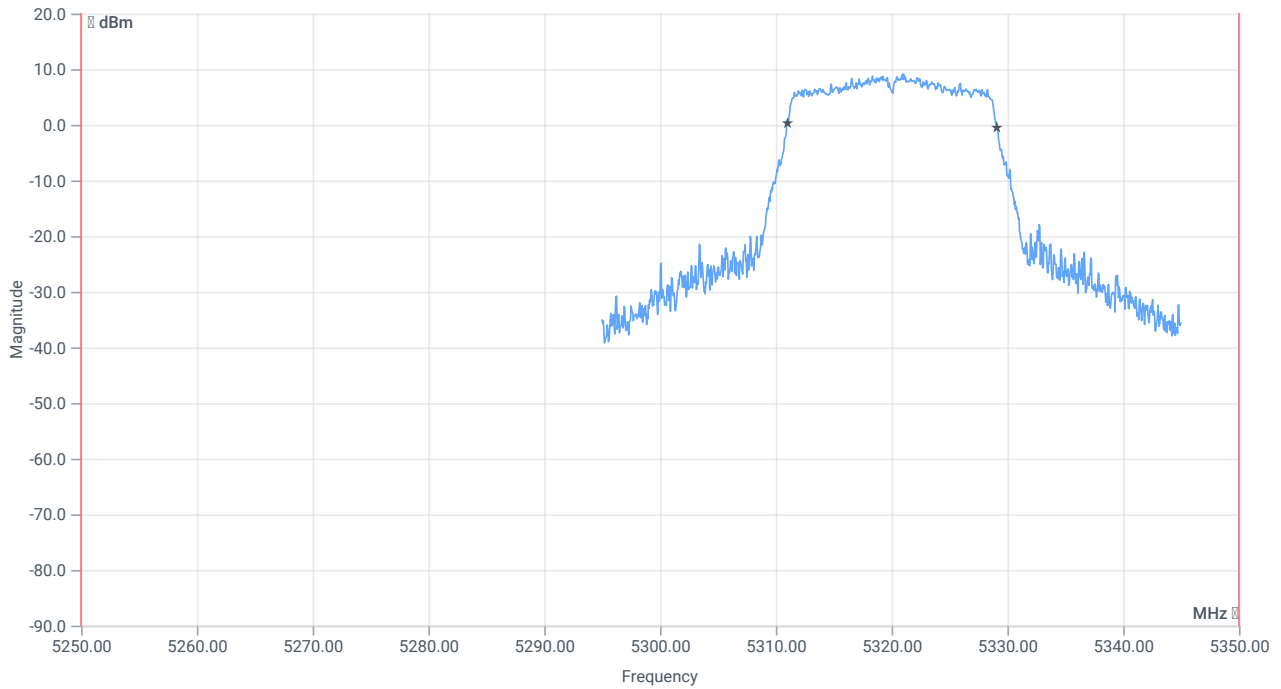
RESULT: Reference Power cond.

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	--	--	13.66	dBm	INFO
Ref. Frequency	--	--	5318.800	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	21.66 16.26 25
Start [MHz] Stop [MHz]	5295.000 5345.000
RBW [MHz] VBW [MHz]	0.300000 1.000000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	1 2500 1001 SWE

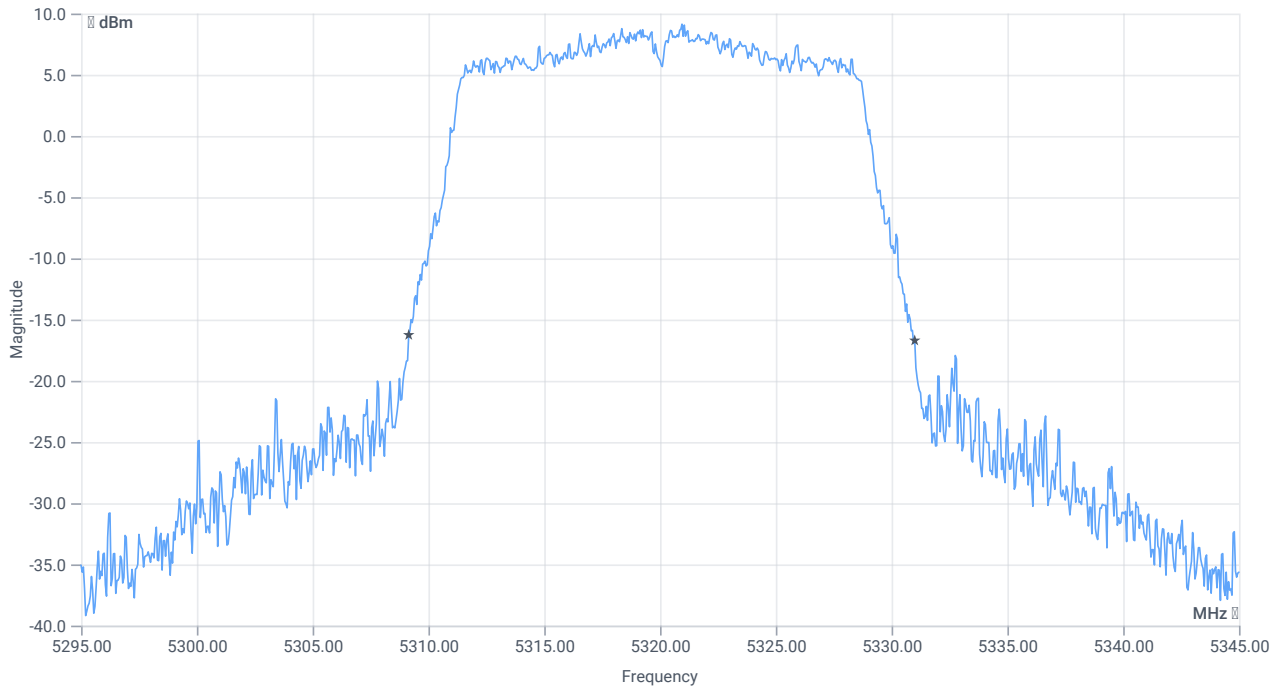




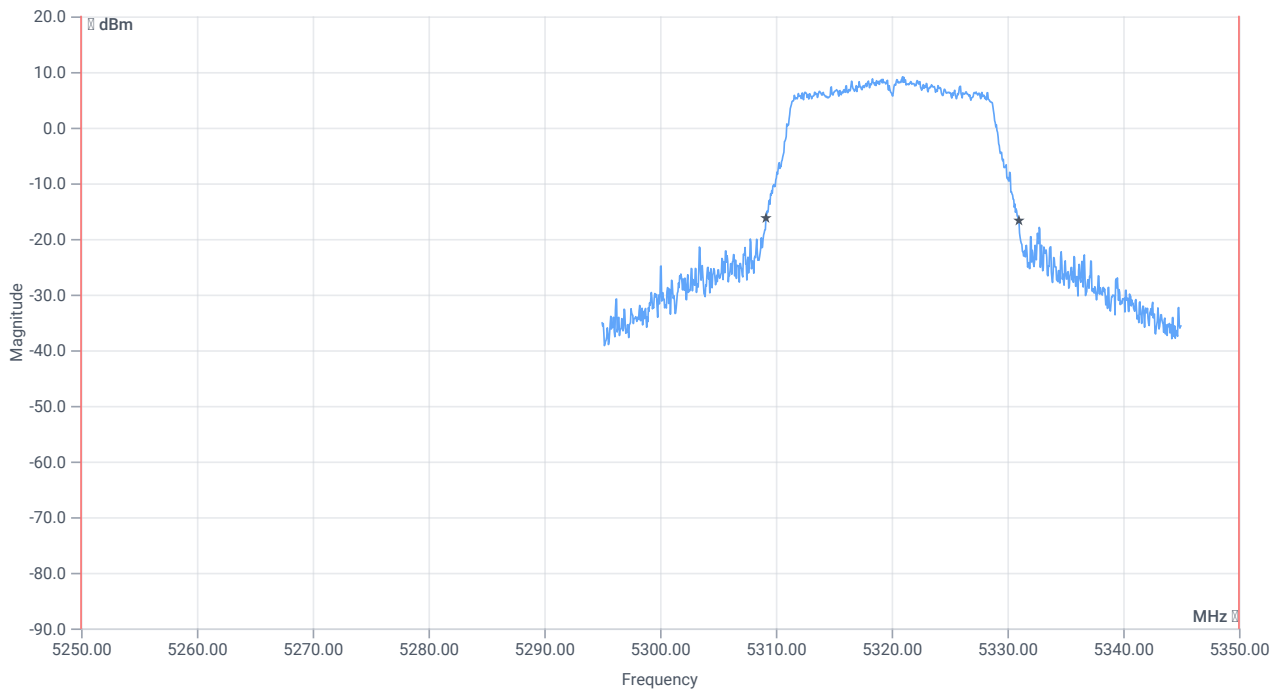
BW within Band 99PCT

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 99%	--	--	18.082	MHz	INFO
T1 99%	5250.000000	--	5311.0090	MHz	PASS since U-NII-1 is supported
T2 99%	--	5350.000000	5329.0909	MHz	PASS



BW 26dB



BW within Band 26dB

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 26dB	---	---	21.85	MHz	INFO

RESULT

<i>Test Description</i>	<i>Lower Limit</i>	<i>Upper Limit</i>	<i>Measured</i>	<i>Unit</i>	<i>Verdict</i>
T1 26dB	5250.000000	--	5309.1500	MHz	PASS since U-NII-1 is supported
T2 26dB	--	5350.000000	5331.0000	MHz	PASS

Verdict

PASS

FCC 15.247 # Max output power and psd ~ WLAN5Gx n-HT20 mode U-NII-2A

Test References

TC Start	09.02.2023 14:43:38
Ambit Temp [°C] Humidity [rel%]	23.6 23
System Version	3.3.4.3
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 n-HT20 mode U-NII-2A
Add. Information	

EUT Common Settings WLAN5Gx

Number of Antenna Ports	2
User Interaction	No
Device Class UNII_1	Client
Limit W52 Japan	Standard

Test Parameter

Technology to test	WLAN5Gx n-HT20 mode
Antenna Port used	1
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

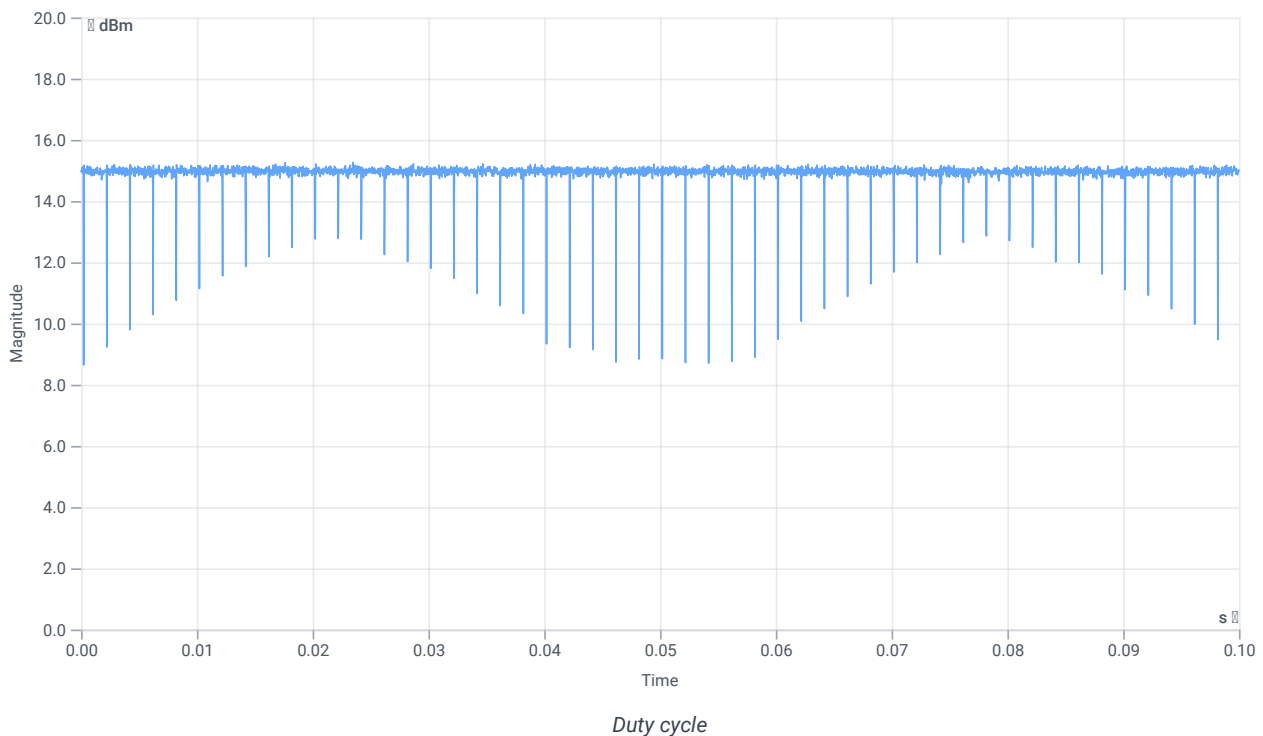
RESULT: Reference Power cond.

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	--	--	14.13	dBm	INFO
Ref. Frequency	--	--	5321.000	MHz	INFO

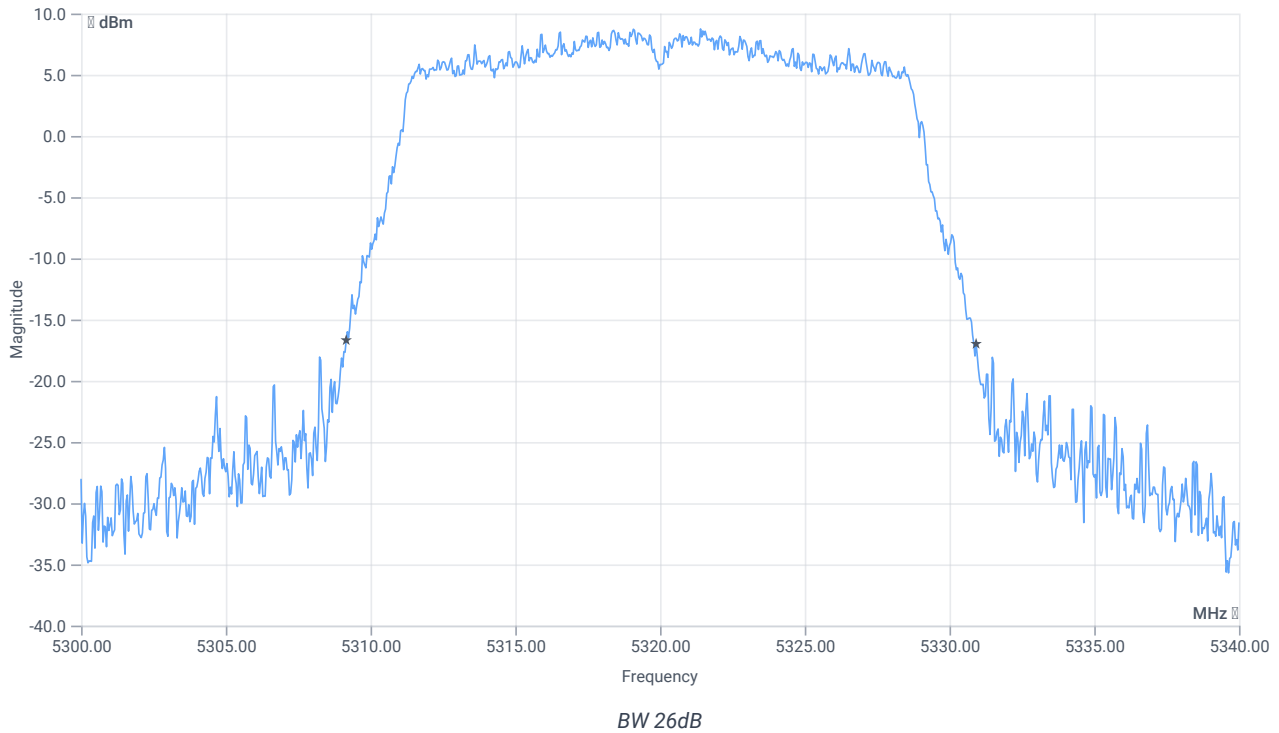
Evaluation max. Duty Cycle

Duty Cycle evaluation

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
No enough Bursts detected, Duty Cycle Burst Ratio set to 1					
Duty Cycle (Burst Ratio) max	--	--	1	--	INFO
Duty Cycle max	--	--	0	dB	INFO
Duty Cycle (Burst Ratio) min	--	--	1	--	INFO
Duty Cycle min	--	--	0	dB	INFO



Evaluation Bandwidth



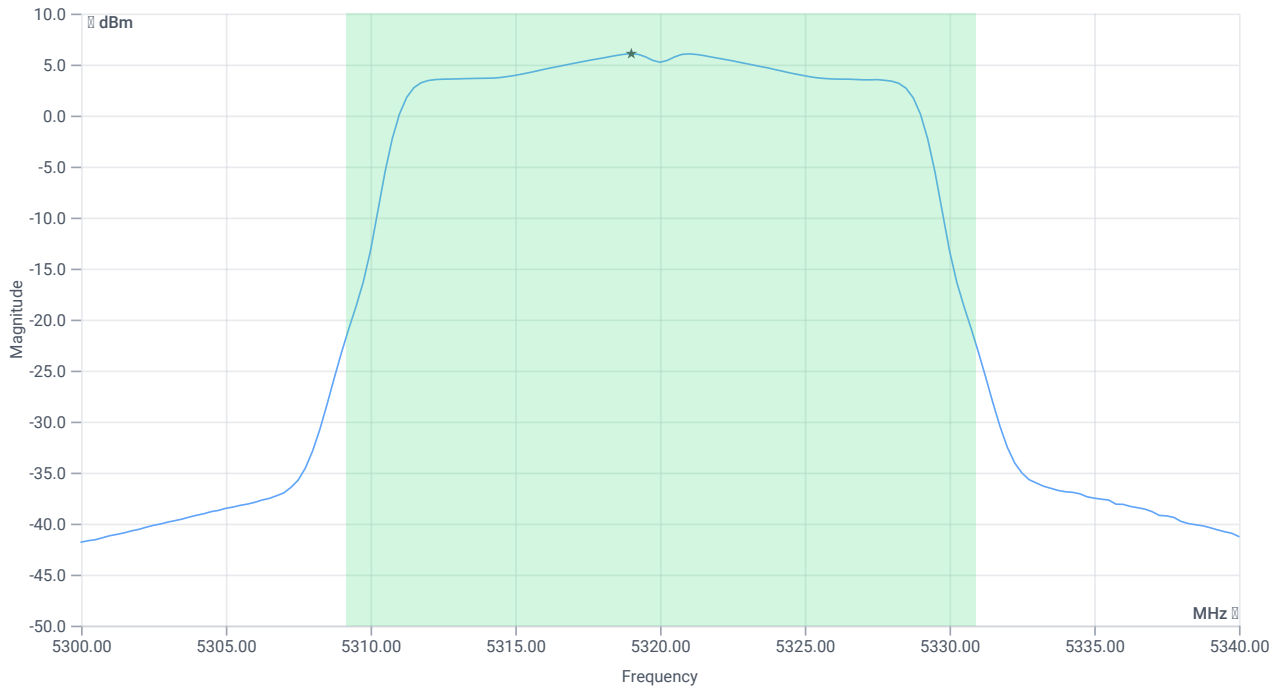
RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 26dB	---	---	21.76	MHz	INFO
T1 26dB	---	---	5309.1600	MHz	INFO
T2 26dB	---	---	5330.9200	MHz	INFO

Maximum Output Power

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	26.13 16.26 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



Max OP and PSD

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Max Output Power	--	--	16.82	dBm	INFO
Duty Cycle Correction	--	--	0	dB	INFO
Limit absolute					
Max Output Power DC corrected	--	24	16.82	dBm	PASS
Limit: 11 dBm + 10 log 21.76					
Max Output Power DC corrected	--	24.38	16.82	dBm	PASS

Power Spectral Density

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Power Spectral Density	--	--	6.06	dBm/1MHz	INFO
Duty Cycle Correction	--	--	0	dB	INFO
Power Spectral Density DC corrected	--	11	6.06	dBm/1MHz	PASS

Verdict

PASS

FCC 15.407, ISED RSS247 # Bandwidths 99PCT and 26dB ~ WLAN5Gx n-HT20 mode U-NII-2A

Test References

TC Start	09.02.2023 14:29:58
Ambit Temp [°C] Humidity [rel%]	23.5 23
System Version	3.3.4.3
Test Specification	FCC 15.407, ISED RSS247 -
Test Method	26dB Bandwidth KDB789033 D02, C.1 / ISED RSS-GEN
TC Version	0.0.1
My Description	FCC 15.407 Bandwidths - WLAN5Gx n-HT20 mode U-NII-2A
Add. Information	

EUT Common Settings WLAN5Gx

Number of Antenna Ports	2
User Interaction	No
Device Class UNII_1	Client
Limit W52 Japan	Standard

Test Parameter

Technology to test	WLAN5Gx n-HT20 mode
Antenna Port used	2
Temperature	nom
Voltage	nom
Frequency low to test	False Freq [MHz] 5260
Frequency mid to test	True Freq [MHz] 5280
Frequency high to test	False 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

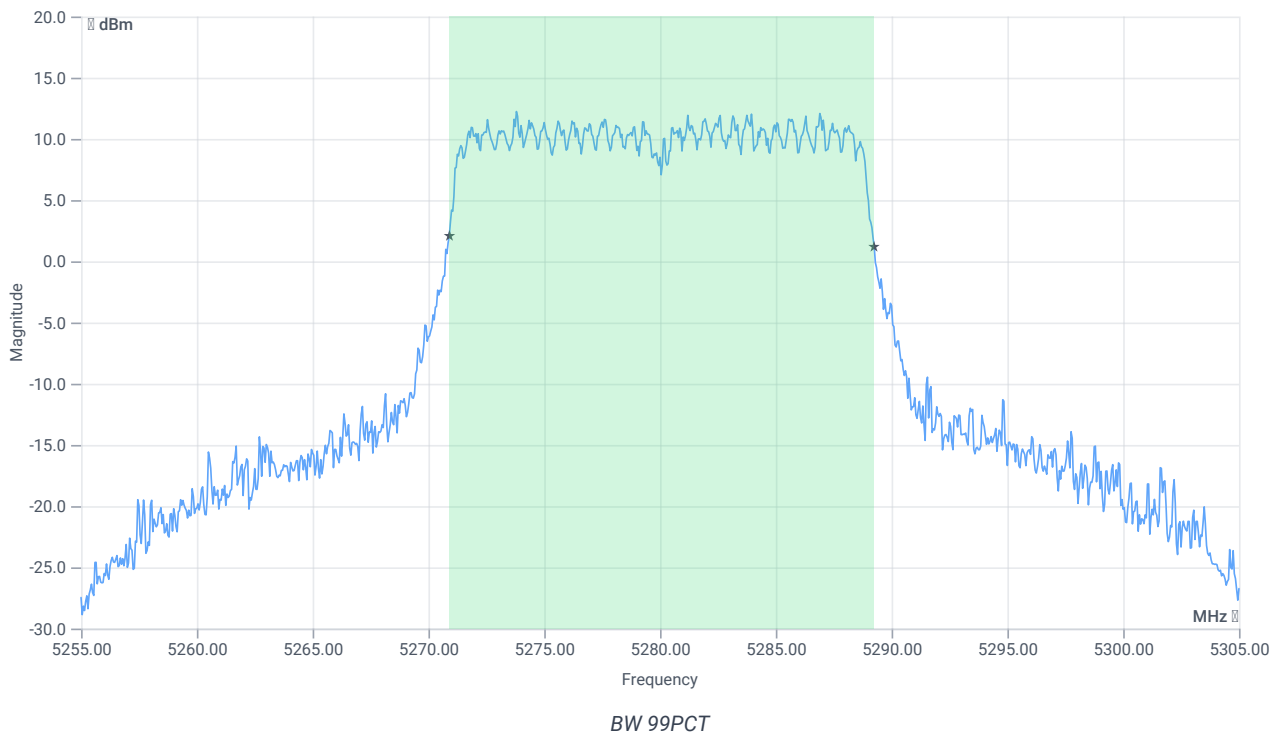
Test at TX 5280 MHz

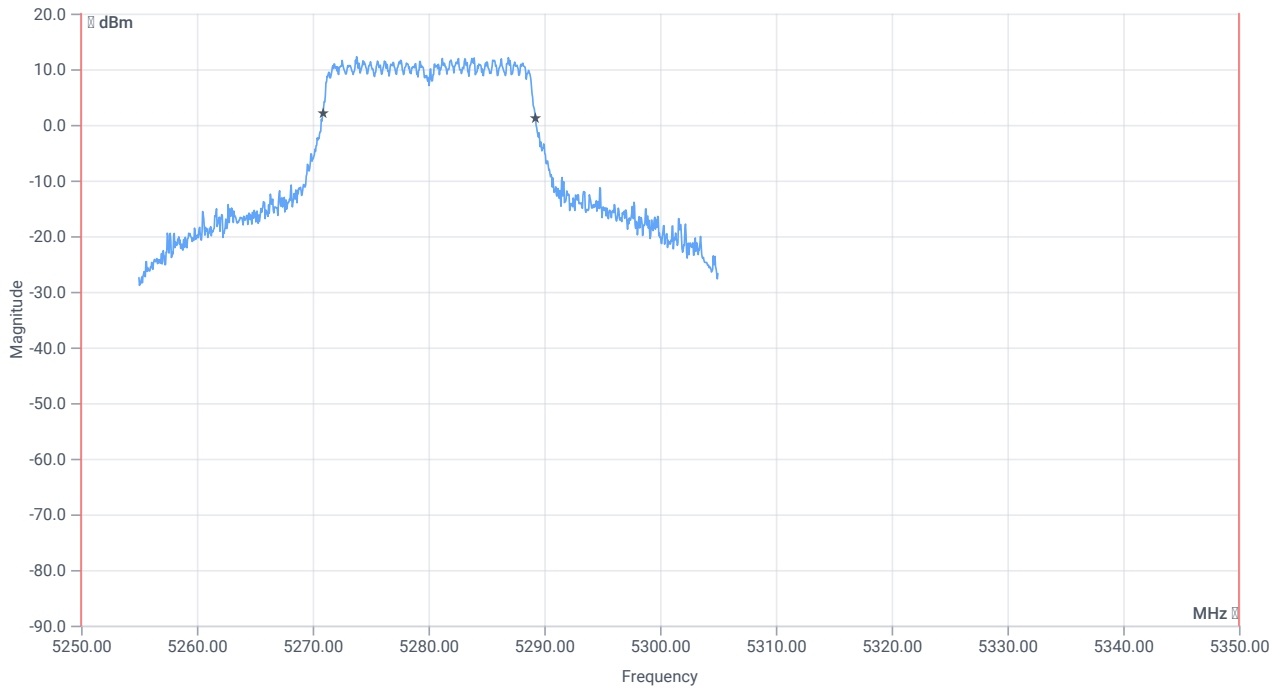
RESULT: Reference Power cond.

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	--	--	15.83	dBm	INFO
Ref. Frequency	--	--	5279.400	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	23.83 16.2 25
Start [MHz] Stop [MHz]	5255.000 5305.000
RBW [MHz] VBW [MHz]	0.300000 1.000000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	1 2500 1001 SWE

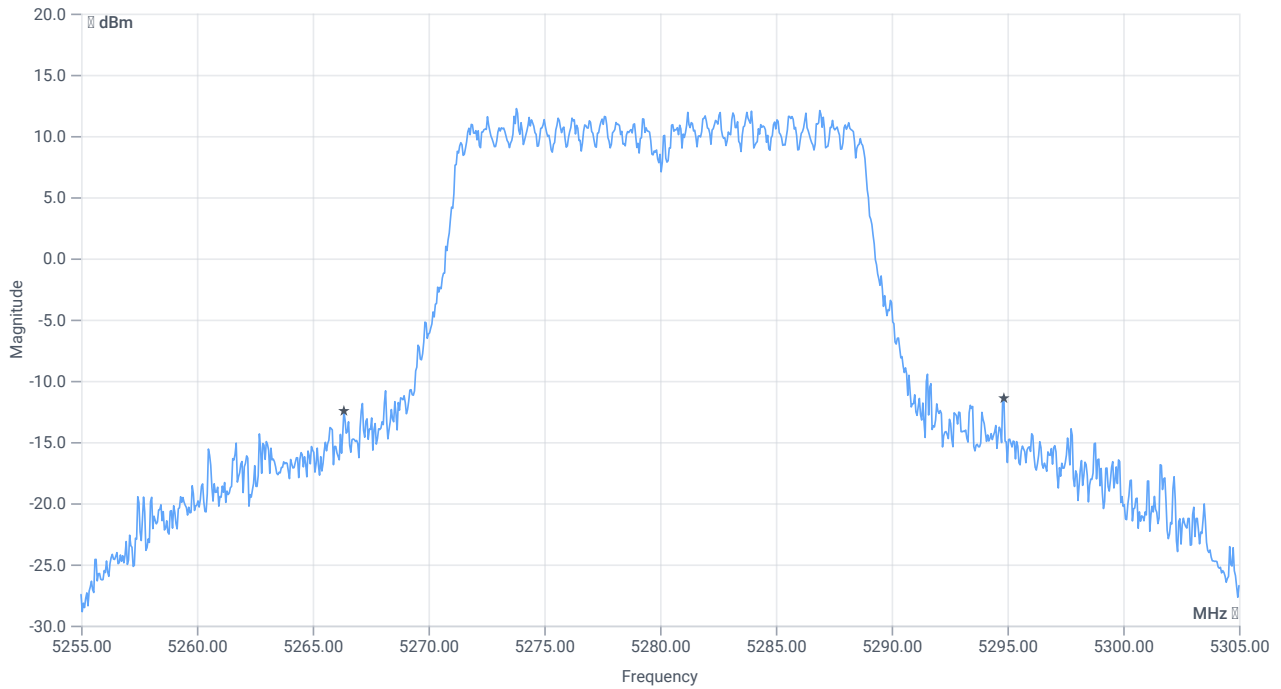




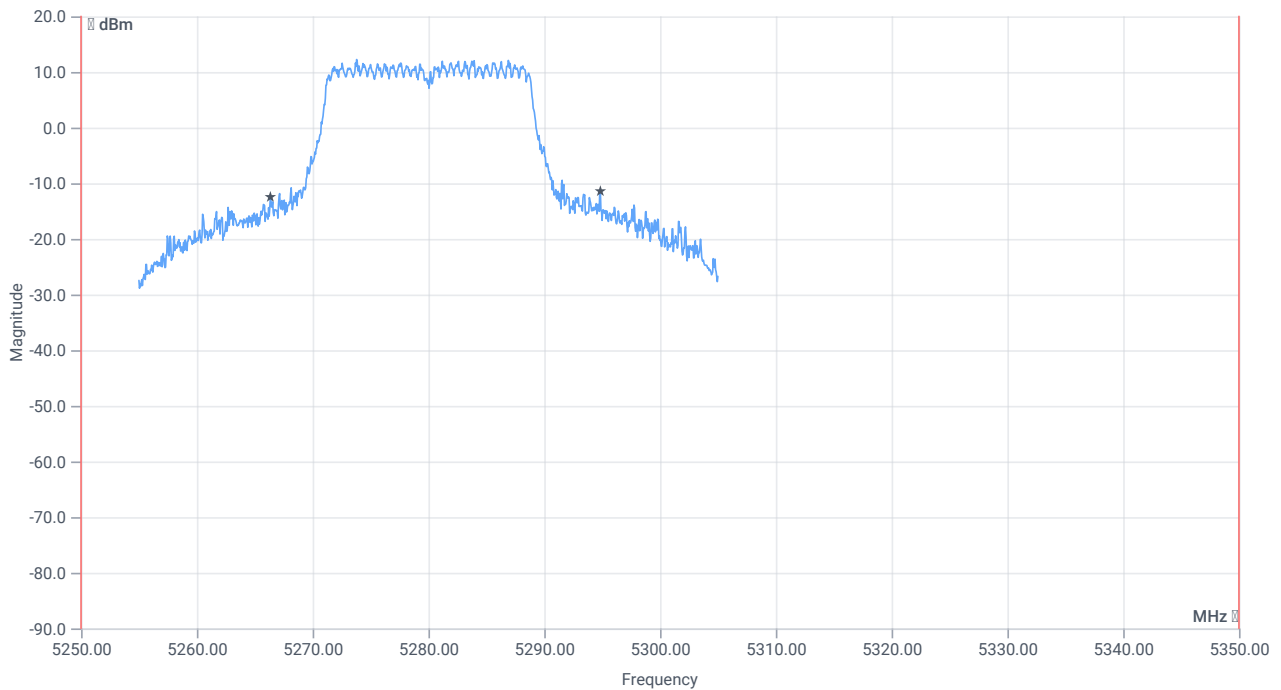
BW within Band 99PCT

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 99%	--	--	18.332	MHz	INFO
T1 99%	5250.000000	--	5270.9091	MHz	PASS since U-NII-1 is supported
T2 99%	--	5350.000000	5289.2408	MHz	PASS



BW 26dB



BW within Band 26dB

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 26dB	---	---	28.5	MHz	INFO

RESULT

<i>Test Description</i>	<i>Lower Limit</i>	<i>Upper Limit</i>	<i>Measured</i>	<i>Unit</i>	<i>Verdict</i>
T1 26dB	5250.000000	--	5266.3500	MHz	PASS since U-NII-1 is supported
T2 26dB	--	5350.000000	5294.8500	MHz	PASS

Verdict

PASS

FCC 15.247 # Max output power and psd ~ WLAN5Gx n-HT20 mode U-NII-2A

Test References

TC Start	09.02.2023 14:28:31
Ambit Temp [°C] Humidity [rel%]	23.4 24
System Version	3.3.4.3
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 n-HT20 mode U-NII-2A
Add. Information	

EUT Common Settings WLAN5Gx

Number of Antenna Ports	2
User Interaction	No
Device Class UNII_1	Client
Limit W52 Japan	Standard

Test Parameter

Technology to test	WLAN5Gx n-HT20 mode
Antenna Port used	2
Temperature	nom
Voltage	nom
Frequency low to test	False Freq [MHz] 5260
Frequency mid to test	True Freq [MHz] 5280
Frequency high to test	False 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 5280 MHz

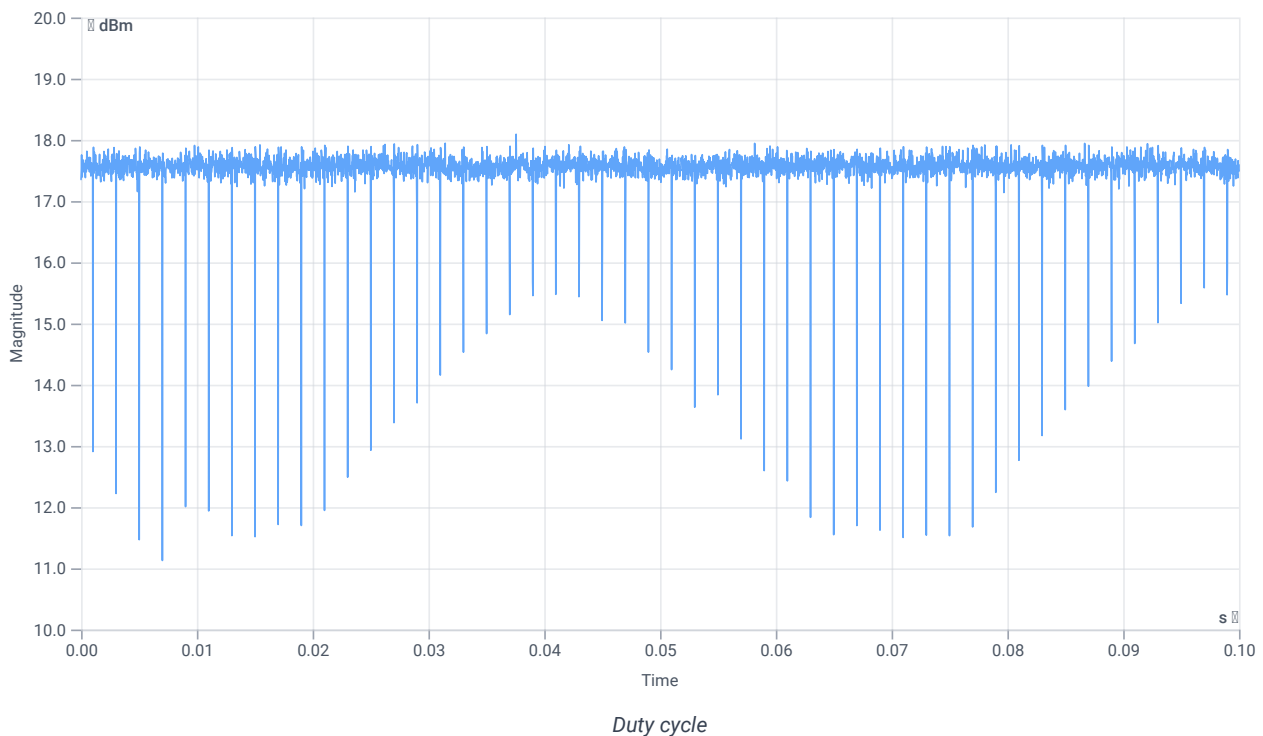
RESULT: Reference Power cond.

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	--	--	16.28	dBm	INFO
Ref. Frequency	--	--	5279.000	MHz	INFO

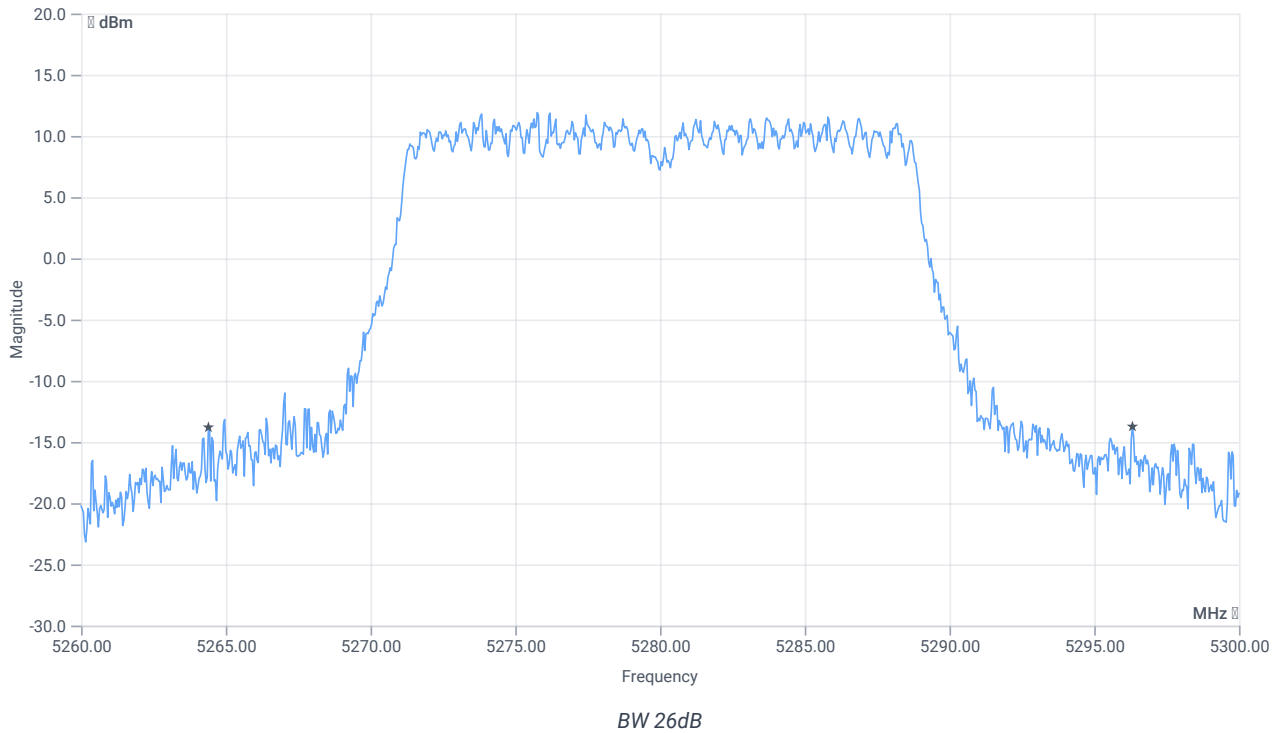
Evaluation max. Duty Cycle

Duty Cycle evaluation

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
No enough Bursts detected, Duty Cycle Burst Ratio set to 1					
Duty Cycle (Burst Ratio) max	--	--	1	--	INFO
Duty Cycle max	--	--	0	dB	INFO
Duty Cycle (Burst Ratio) min	--	--	1	--	INFO
Duty Cycle min	--	--	0	dB	INFO



Evaluation Bandwidth



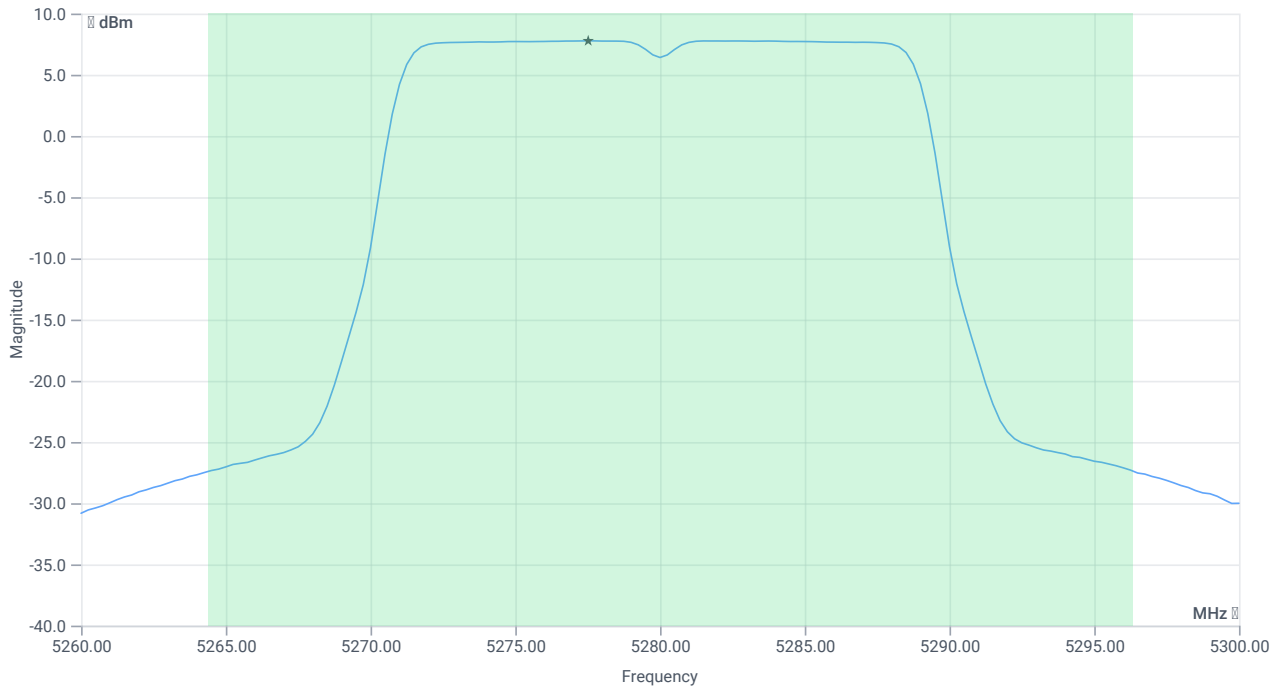
RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 26dB	---	---	31.92	MHz	INFO
T1 26dB	---	---	5264.4000	MHz	INFO
T2 26dB	---	---	5296.3200	MHz	INFO

Maximum Output Power

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	28.28 16.2 30
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



Max OP and PSD

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Max Output Power	--	--	19.86	dBm	INFO
Duty Cycle Correction	--	--	0	dB	INFO
Limit absolute					
Max Output Power DC corrected	--	24	19.86	dBm	PASS
Limit: 11 dBm + 10 log 31.92					
Max Output Power DC corrected	--	26.04	19.86	dBm	PASS

Power Spectral Density

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Power Spectral Density	--	--	7.77	dBm/1MHz	INFO
Duty Cycle Correction	--	--	0	dB	INFO
Power Spectral Density DC corrected	--	11	7.77	dBm/1MHz	PASS

Verdict

PASS

FCC 15.407, ISED RSS247 # Bandwidths 99PCT and 26dB ~ WLAN5Gx n-HT20 mode U-NII-2A

Test References

TC Start	09.02.2023 14:28:02
Ambit Temp [°C] Humidity [rel%]	23.4 24
System Version	3.3.4.3
Test Specification	FCC 15.407, ISED RSS247 -
Test Method	26dB Bandwidth KDB789033 D02, C.1 / ISED RSS-GEN
TC Version	0.0.1
My Description	FCC 15.407 Bandwidths - WLAN5Gx n-HT20 mode U-NII-2A
Add. Information	

EUT Common Settings WLAN5Gx

Number of Antenna Ports	2
User Interaction	No
Device Class UNII_1	Client
Limit W52 Japan	Standard

Test Parameter

Technology to test	WLAN5Gx n-HT20 mode
Antenna Port used	1
Temperature	nom
Voltage	nom
Frequency low to test	False Freq [MHz] 5260
Frequency mid to test	True Freq [MHz] 5280
Frequency high to test	False 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

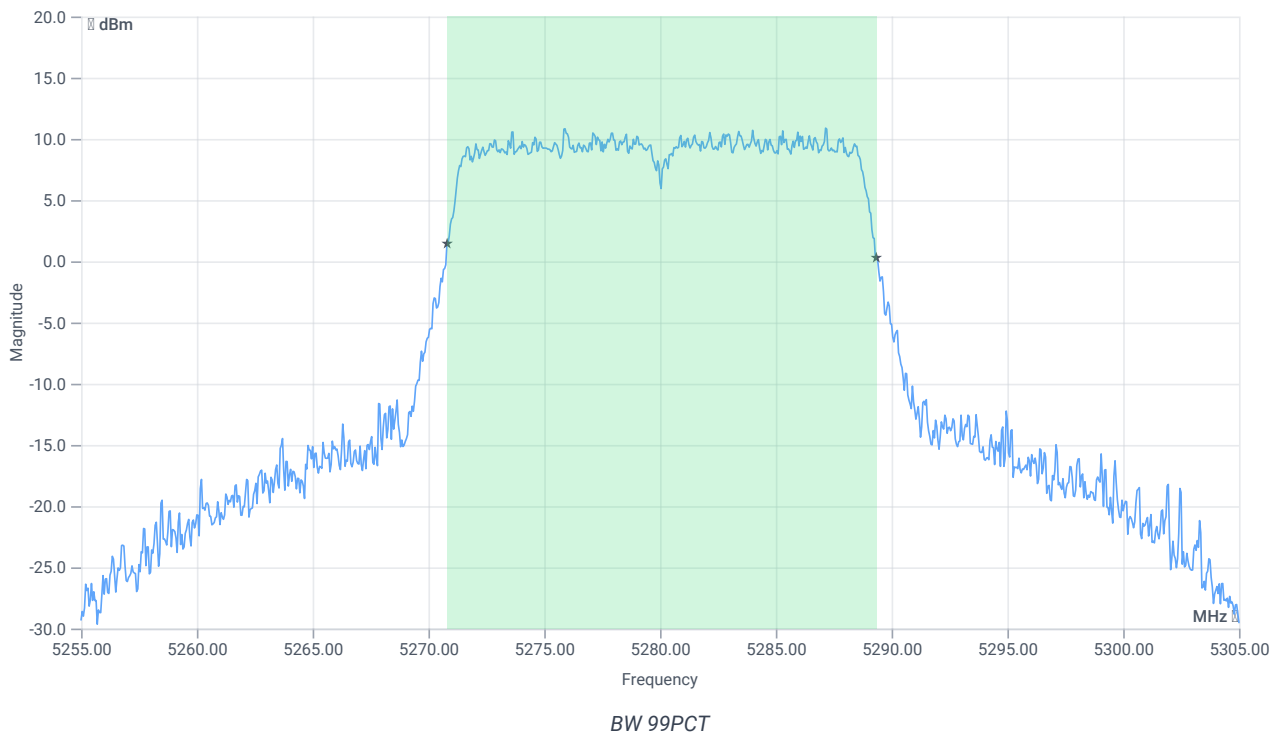
Test at TX 5280 MHz

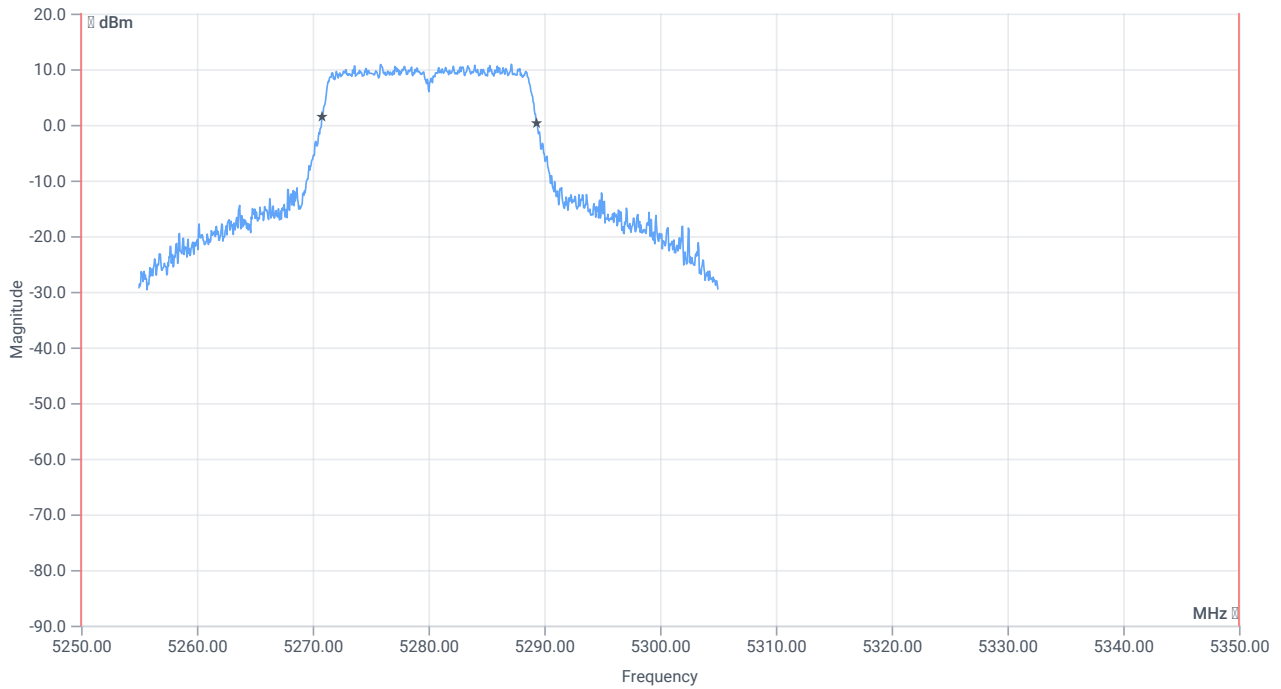
RESULT: Reference Power cond.

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	--	--	15.66	dBm	INFO
Ref. Frequency	--	--	5275.600	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	23.66 16.2 25
Start [MHz] Stop [MHz]	5255.000 5305.000
RBW [MHz] VBW [MHz]	0.300000 1.000000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	1 2500 1001 SWE

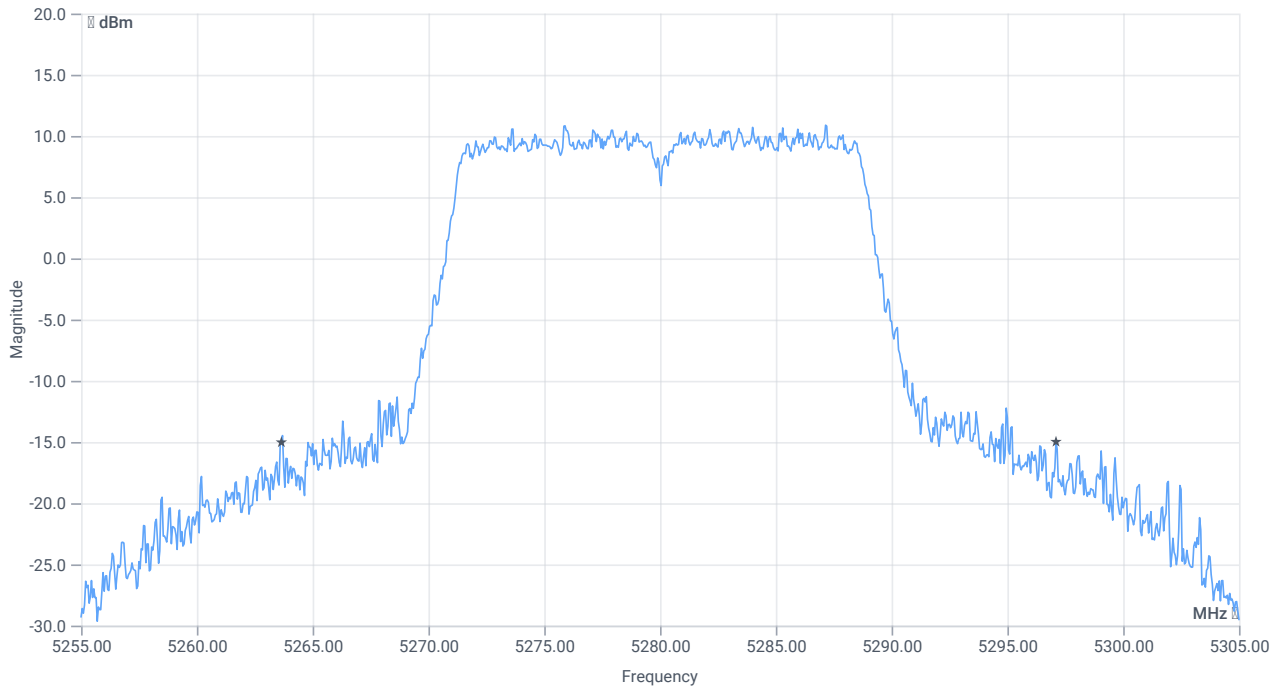




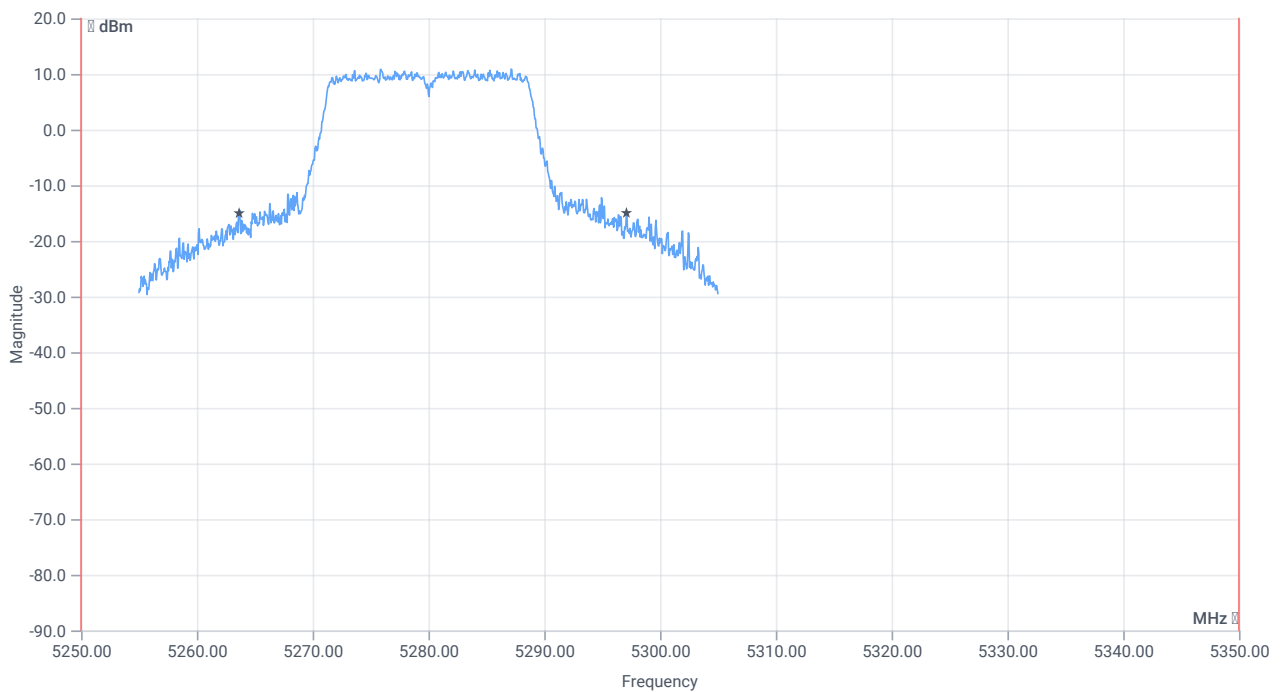
BW within Band 99PCT

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 99%	--	--	18.531	MHz	INFO
T1 99%	5250.000000	--	5270.8092	MHz	PASS since U-NII-1 is supported
T2 99%	--	5350.000000	5289.3407	MHz	PASS



BW 26dB



BW within Band 26dB

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 26dB	---	---	33.45	MHz	INFO

RESULT

<i>Test Description</i>	<i>Lower Limit</i>	<i>Upper Limit</i>	<i>Measured</i>	<i>Unit</i>	<i>Verdict</i>
T1 26dB	5250.000000	--	5263.6500	MHz	PASS since U-NII-1 is supported
T2 26dB	--	5350.000000	5297.1000	MHz	PASS

Verdict**PASS**

FCC 15.247 # Max output power and psd ~ WLAN5Gx n-HT20 mode U-NII-2A

Test References

TC Start	09.02.2023 14:26:35
Ambit Temp [°C] Humidity [rel%]	23.4 24
System Version	3.3.4.3
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 n-HT20 mode U-NII-2A
Add. Information	

EUT Common Settings WLAN5Gx

Number of Antenna Ports	2
User Interaction	No
Device Class UNII_1	Client
Limit W52 Japan	Standard

Test Parameter

Technology to test	WLAN5Gx n-HT20 mode
Antenna Port used	1
Temperature	nom
Voltage	nom
Frequency low to test	False Freq [MHz] 5260
Frequency mid to test	True Freq [MHz] 5280
Frequency high to test	False 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 5280 MHz

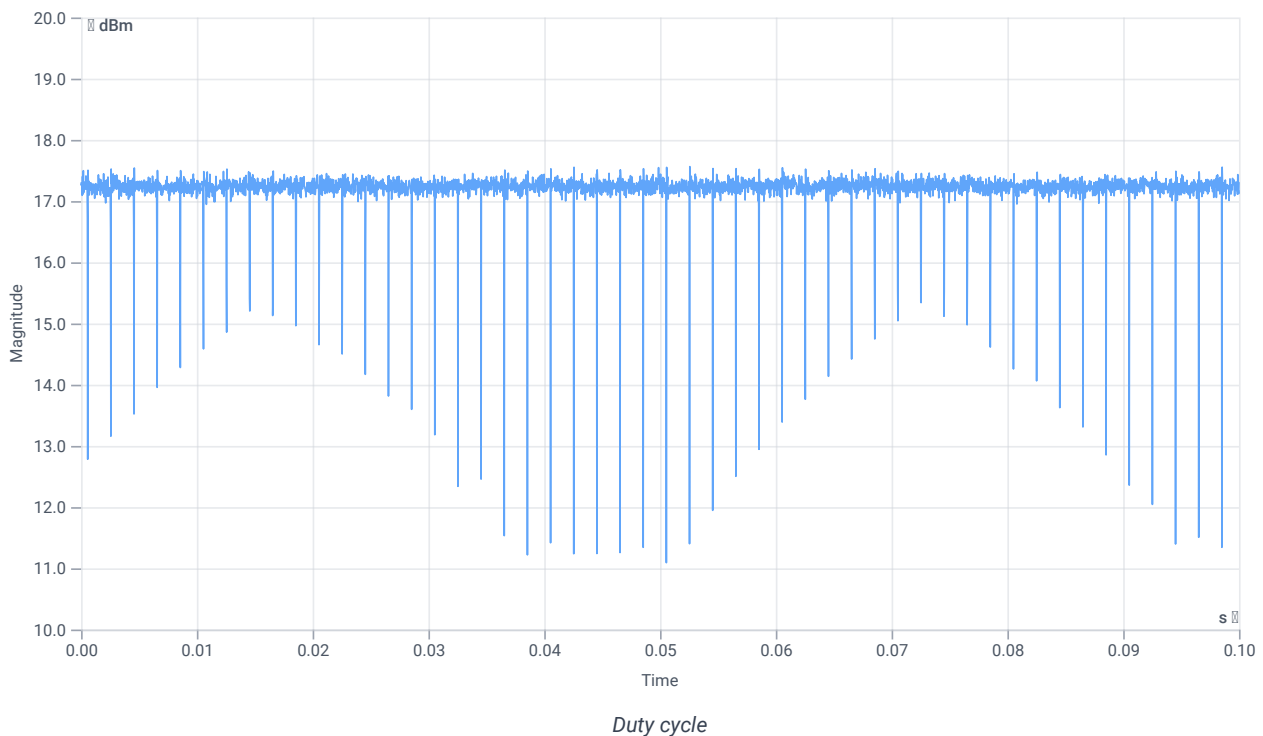
RESULT: Reference Power cond.

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	--	--	15.69	dBm	INFO
Ref. Frequency	--	--	5276.400	MHz	INFO

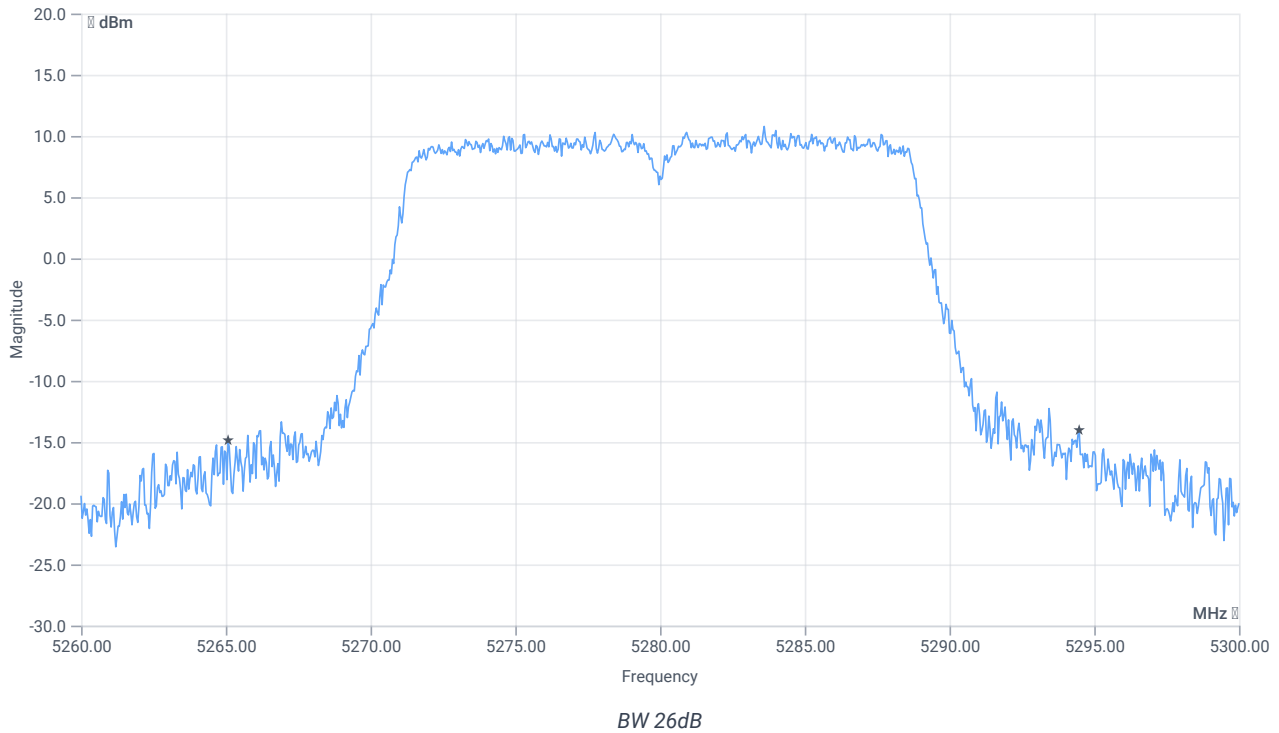
Evaluation max. Duty Cycle

Duty Cycle evaluation

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
No enough Bursts detected, Duty Cycle Burst Ratio set to 1					
Duty Cycle (Burst Ratio) max	--	--	1	--	INFO
Duty Cycle max	--	--	0	dB	INFO
Duty Cycle (Burst Ratio) min	--	--	1	--	INFO
Duty Cycle min	--	--	0	dB	INFO



Evaluation Bandwidth



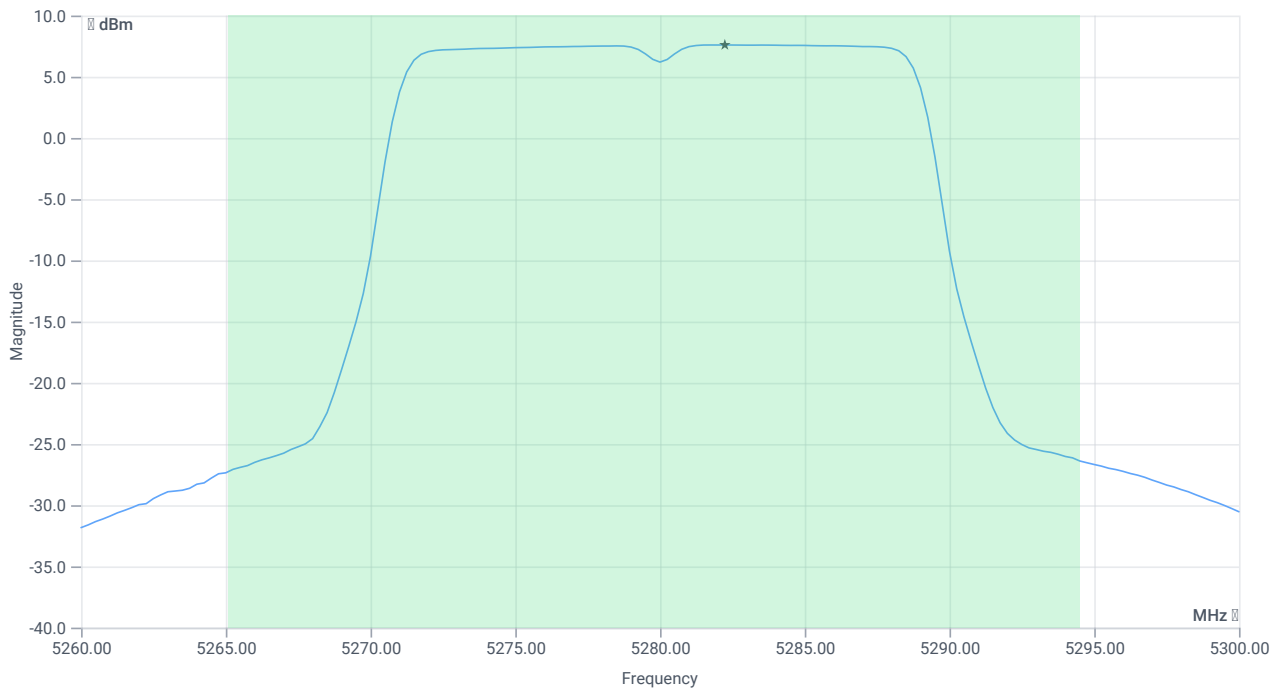
RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 26dB	---	---	29.4	MHz	INFO
T1 26dB	---	---	5265.0800	MHz	INFO
T2 26dB	---	---	5294.4800	MHz	INFO

Maximum Output Power

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	27.69 16.2 30
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



Max OP and PSD

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Max Output Power	--	--	19.62	dBm	INFO
Duty Cycle Correction	--	--	0	dB	INFO
Limit absolute					
Max Output Power DC corrected	--	24	19.62	dBm	PASS
Limit: 11 dBm + 10 log 29.4					
Max Output Power DC corrected	--	25.68	19.62	dBm	PASS

Power Spectral Density

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Power Spectral Density	--	--	7.6	dBm/1MHz	INFO
Duty Cycle Correction	--	--	0	dB	INFO
Power Spectral Density DC corrected	--	11	7.6	dBm/1MHz	PASS

Verdict

PASS

FCC 15.247 # MIMO Power PSD Calculator ~ WLAN5Gx n-HT20 mode U-NII-1

Test References

TC Start	09.02.2023 13:48:08
Ambit Temp [°C] Humidity [rel%]	23.3 24
System Version	3.3.4.3
Test Specification	FCC 15.247 -
Test Method	
TC Version	0.0.1
My Description	FCC MIMO_Power_PSD_Calculator - WLAN5Gx n-HT20 mode U-NII-1
Add. Information	

EUT Common Settings WLAN5Gx

Number of Antenna Ports	2
User Interaction	No
Device Class UNII_1	Client
Limit W52 Japan	Standard

Test Parameter

Technology to test	WLAN5Gx n-HT20 mode
Antenna Port used	several
Temperature	nom
Voltage	nom
Frequency low to test	True Freq [MHz] 5180
Frequency mid to test	True 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	None

Test Equipment

Test at TX 5180 MHz

RESULT Power

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ant:1 Max Output Power DC corrected	--	--	15.13	dBm	INFO
Ant:1 BW 26dB	--	--	21.760	MHz	INFO
Ant:2 Max Output Power DC corrected	--	--	15.22	dBm	INFO
Ant:2 BW 26dB	--	--	21.600	MHz	INFO
Σ Limit absolute	--	24	18.19	dBm	PASS
Σ Limit: 11 dBm + 10 log 21.6	--	24.34	18.19	dBm	na

RESULT PSD

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ant:1 PSD	--	--	4.38	dBm/1MHz	INFO
Ant:2 PSD	--	--	4.46	dBm/1MHz	INFO
Σ	--	11	7.43	dBm/1MHz	PASS

Test at TX 5200 MHz

RESULT Power

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ant:1 Max Output Power DC corrected	--	--	14.96	dBm	INFO
Ant:1 BW 26dB	--	--	21.840	MHz	INFO
Ant:2 Max Output Power DC corrected	--	--	15.26	dBm	INFO
Ant:2 BW 26dB	--	--	21.760	MHz	INFO
Σ Limit absolute	--	24	18.12	dBm	PASS
Σ Limit: 11 dBm + 10 log 21.76	--	24.38	18.12	dBm	na

RESULT PSD

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ant:1 PSD	--	--	2.92	dBm/1MHz	INFO
Ant:2 PSD	--	--	3.23	dBm/1MHz	INFO
Σ	--	11	6.09	dBm/1MHz	PASS

Test at TX 5240 MHz

RESULT Power

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ant:1 Max Output Power DC corrected	--	--	19.72	dBm	INFO
Ant:1 BW 26dB	--	--	28.240	MHz	INFO
Ant:2 Max Output Power DC corrected	--	--	20	dBm	INFO
Ant:2 BW 26dB	--	--	28.360	MHz	INFO
Σ Limit absolute	--	24	22.87	dBm	PASS
Σ Limit: 11 dBm + 10 log 28.24	--	25.51	22.87	dBm	na

RESULT PSD

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ant:1 PSD	--	--	7.69	dBm/1MHz	INFO
Ant:2 PSD	--	--	7.95	dBm/1MHz	INFO
Σ	--	11	10.83	dBm/1MHz	PASS

Verdict

PASS

FCC 15.407, ISED RSS247 # Bandwidths 99PCT and 26dB ~ WLAN5Gx n-HT20 mode U-NII-1

Test References

TC Start	09.02.2023 13:47:39
Ambit Temp [°C] Humidity [rel%]	23.4 24
System Version	3.3.4.3
Test Specification	FCC 15.407, ISED RSS247 -
Test Method	26dB Bandwidth KDB789033 D02, C.1 / ISED RSS-GEN
TC Version	0.0.1
My Description	FCC 15.407 Bandwidths - WLAN5Gx n-HT20 mode U-NII-1
Add. Information	

EUT Common Settings WLAN5Gx

Number of Antenna Ports	2
User Interaction	No
Device Class UNII_1	Client
Limit W52 Japan	Standard

Test Parameter

Technology to test	WLAN5Gx n-HT20 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

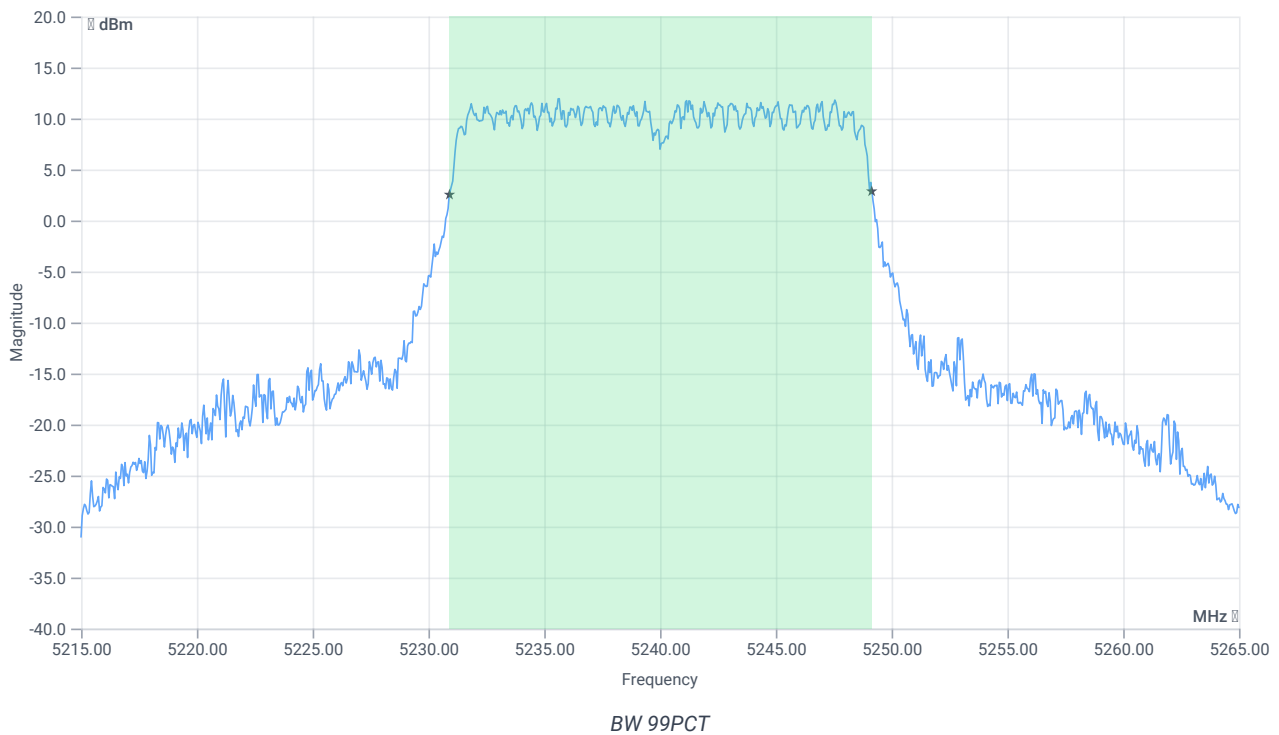
Test at TX 5240 MHz

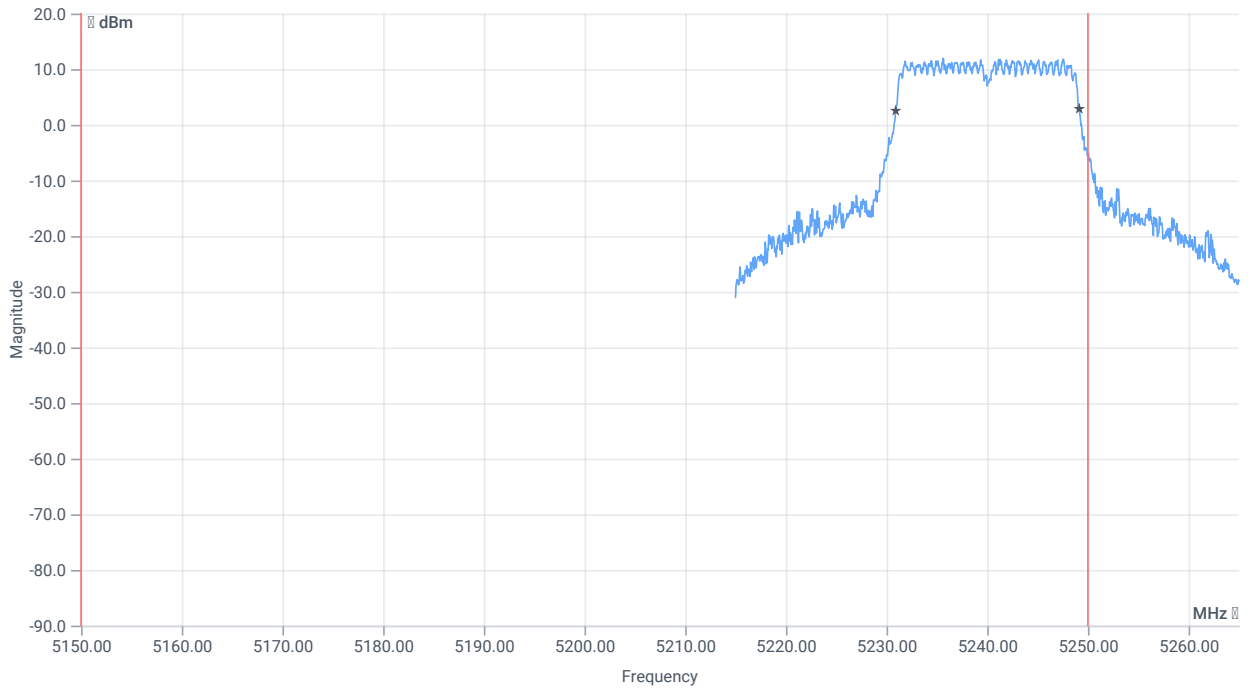
RESULT: Reference Power cond.

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	--	--	16.43	dBm	INFO
Ref. Frequency	--	--	5244.400	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	24.43 16.47 25
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

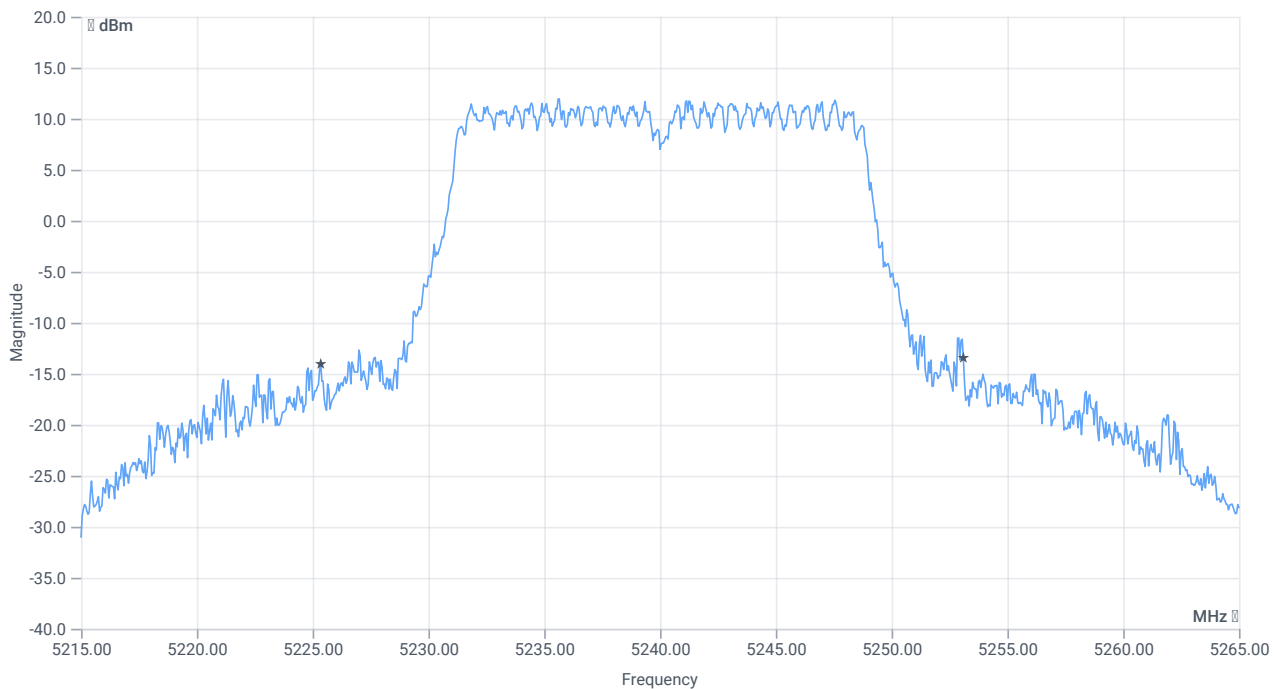




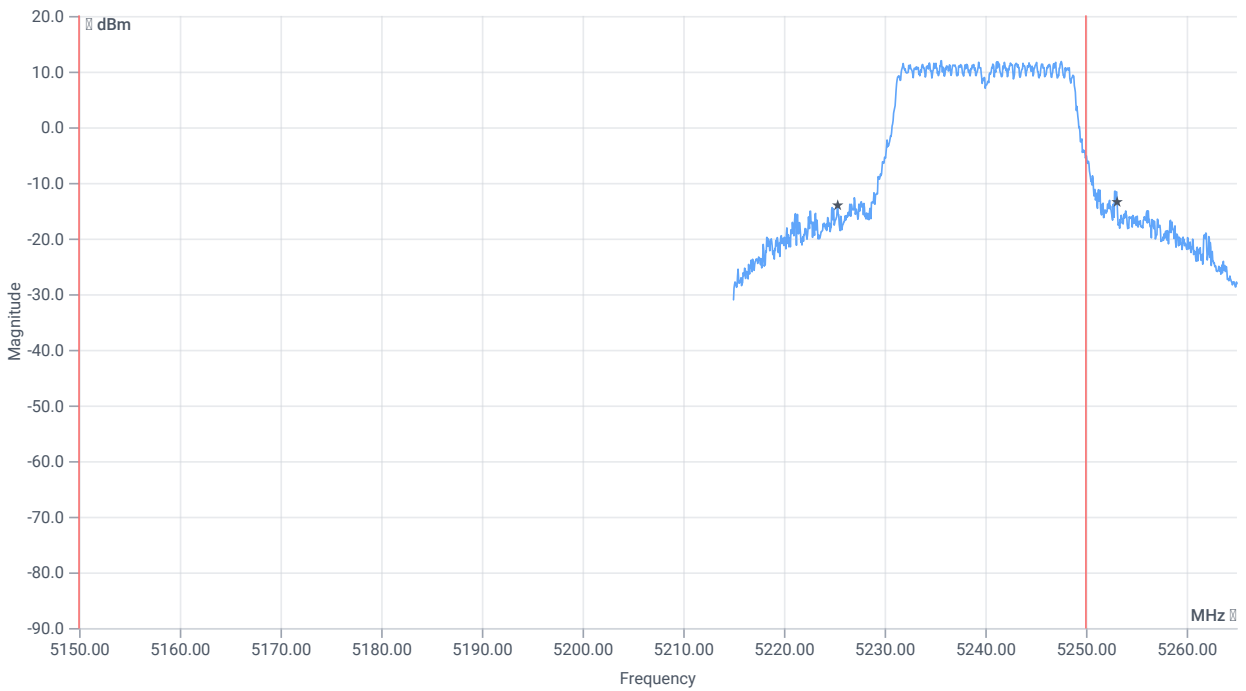
BW within Band 99PCT

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 99%	--	--	18.232	MHz	INFO
T1 99%	5150.000000	--	5230.9091	MHz	PASS
T2 99%	--	5250.000000	5249.1409	MHz	PASS



BW 26dB



BW within Band 26dB

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 26dB	---	---	27.75	MHz	INFO
T1 26dB	5150.000000	---	5225.3500	MHz	PASS
T2 26dB	---	5250.000000	5253.1000	MHz	DFS required

Verdict

PASS

FCC 15.247 # Max output power and psd ~ WLAN5Gx n-HT20 mode U-NII-1

Test References

TC Start	09.02.2023 13:46:13
Ambit Temp [°C] Humidity [rel%]	23.4 24
System Version	3.3.4.3
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 n-HT20 mode U-NII-1

Add. Information

EUT Common Settings WLAN5Gx

Number of Antenna Ports	2
User Interaction	No
Device Class UNII_1	Client
Limit W52 Japan	Standard

Test Parameter

Technology to test	WLAN5Gx n-HT20 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

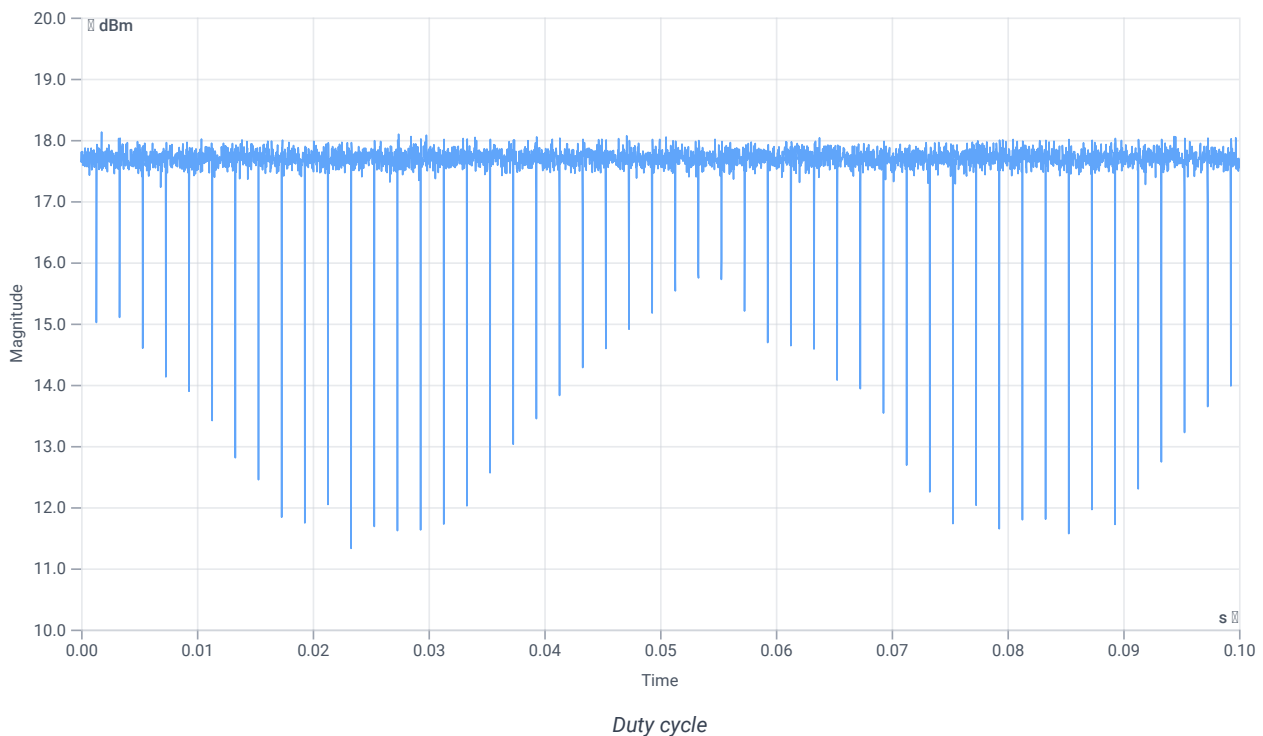
RESULT: Reference Power cond.

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	--	--	16.59	dBm	INFO
Ref. Frequency	--	--	5232.010	MHz	INFO

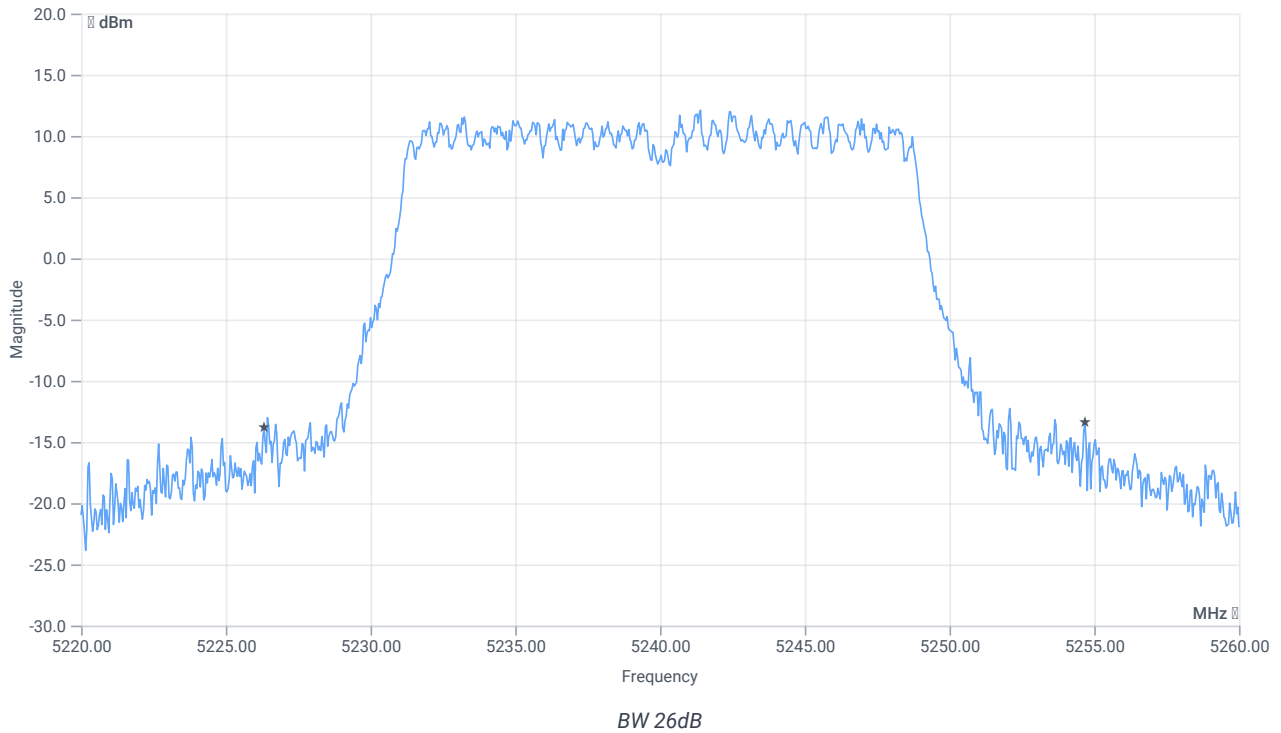
Evaluation max. Duty Cycle

Duty Cycle evaluation

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
No enough Bursts detected, Duty Cycle Burst Ratio set to 1					
Duty Cycle (Burst Ratio) max	--	--	1	--	INFO
Duty Cycle max	--	--	0	dB	INFO
Duty Cycle (Burst Ratio) min	--	--	1	--	INFO
Duty Cycle min	--	--	0	dB	INFO



Evaluation Bandwidth



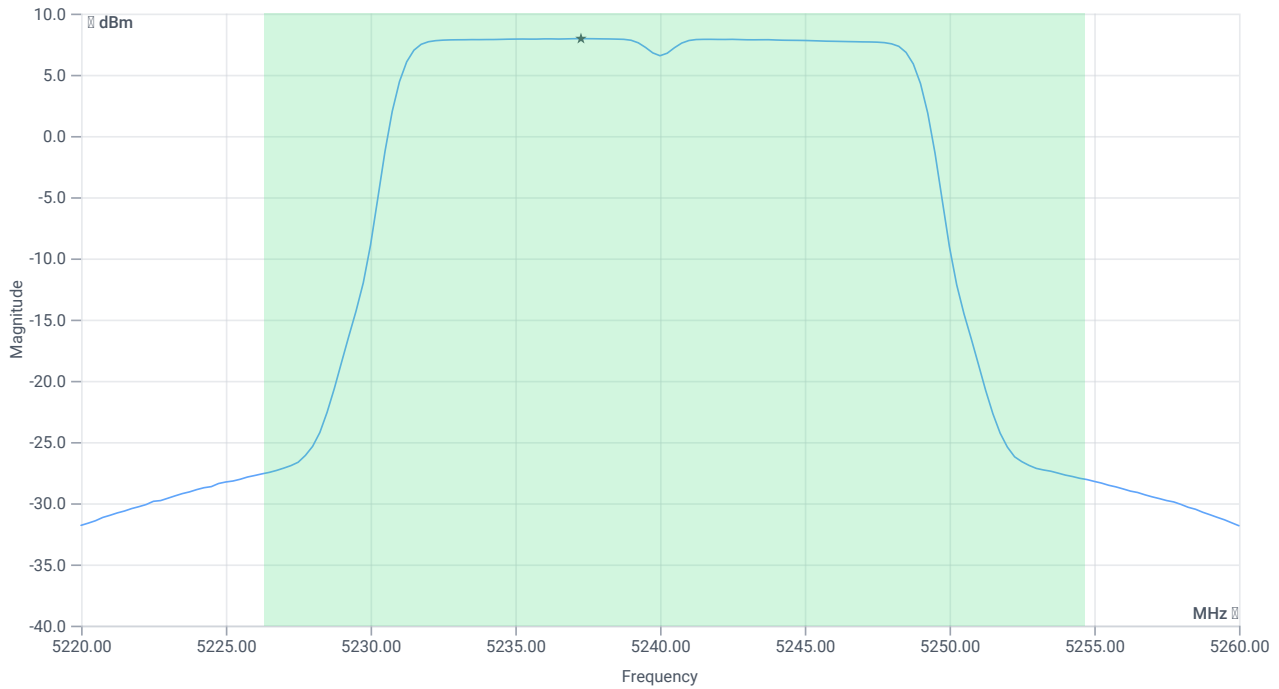
RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 26dB	---	---	28.36	MHz	INFO
T1 26dB	---	---	5226.3200	MHz	INFO
T2 26dB	---	---	5254.6800	MHz	INFO

Maximum Output Power

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	28.59 16.47 30
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



Max OP and PSD

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Max Output Power	--	--	20	dBm	INFO
Duty Cycle Correction	--	--	0	dB	INFO
Limit absolute					
Max Output Power DC corrected	--	24	20	dBm	PASS
Limit: 11 dBm + 10 log 28.36					
Max Output Power DC corrected	--	25.53	20	dBm	na

Power Spectral Density

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Power Spectral Density	--	--	7.95	dBm/1MHz	INFO
Duty Cycle Correction	--	--	0	dB	INFO
Power Spectral Density DC corrected	--	11	7.95	dBm/1MHz	PASS

Verdict

PASS

FCC 15.407, ISED RSS247 # Bandwidths 99PCT and 26dB ~ WLAN5Gx n-HT20 mode U-NII-1

Test References

TC Start	09.02.2023 13:45:44
Ambit Temp [°C] Humidity [rel%]	23.3 24
System Version	3.3.4.3
Test Specification	FCC 15.407, ISED RSS247 -
Test Method	26dB Bandwidth KDB789033 D02, C.1 / ISED RSS-GEN
TC Version	0.0.1
My Description	FCC 15.407 Bandwidths - WLAN5Gx n-HT20 mode U-NII-1
Add. Information	

EUT Common Settings WLAN5Gx

Number of Antenna Ports	2
User Interaction	No
Device Class UNII_1	Client
Limit W52 Japan	Standard

Test Parameter

Technology to test	WLAN5Gx n-HT20 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

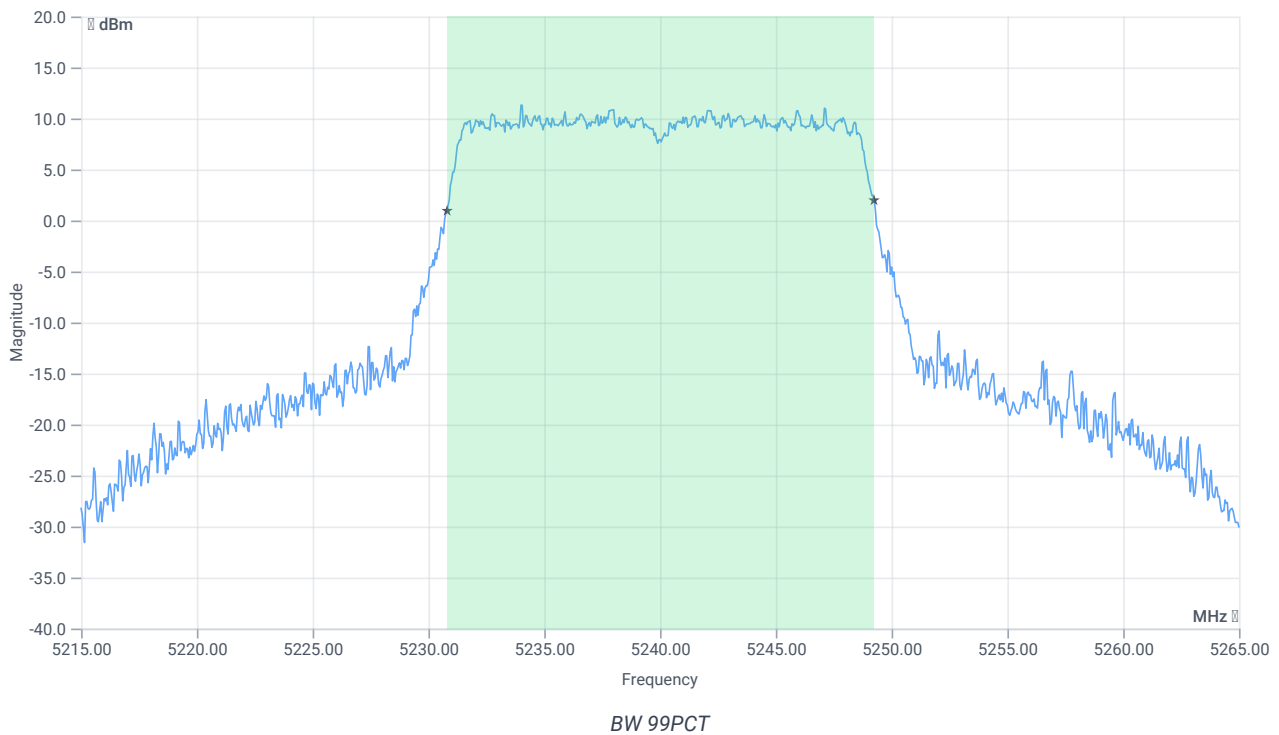
Test at TX 5240 MHz

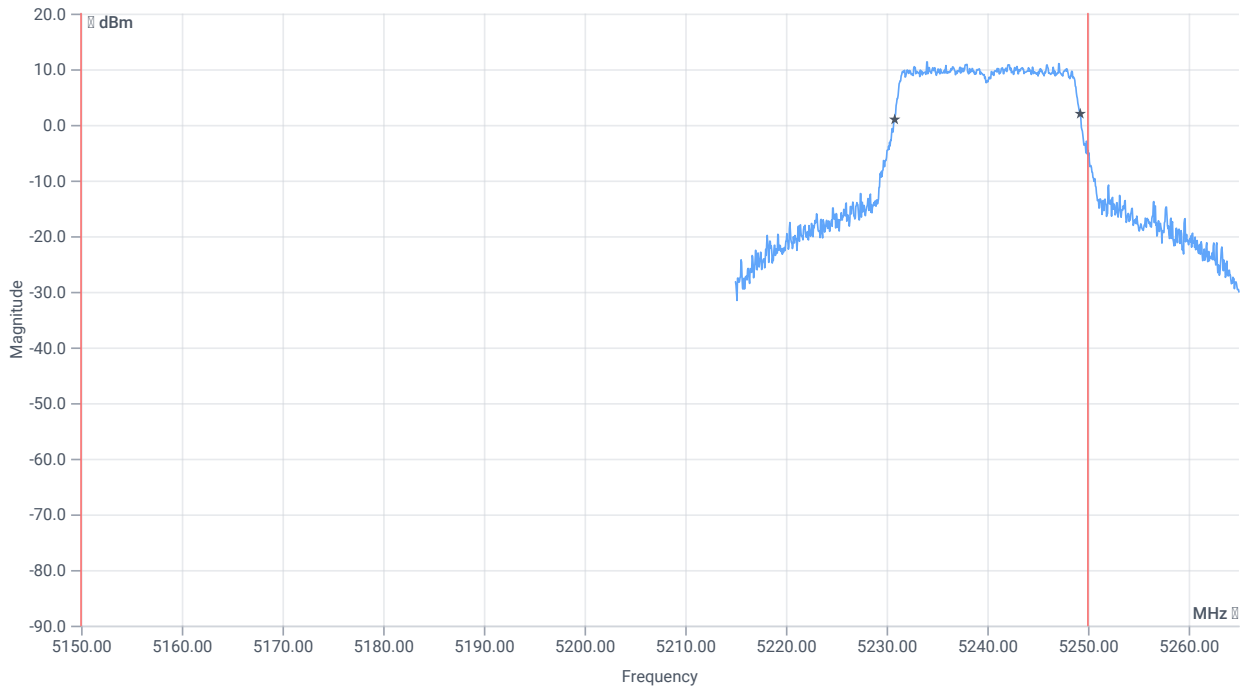
RESULT: Reference Power cond.

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	--	--	15.35	dBm	INFO
Ref. Frequency	--	--	5241.800	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	23.35 16.47 25
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

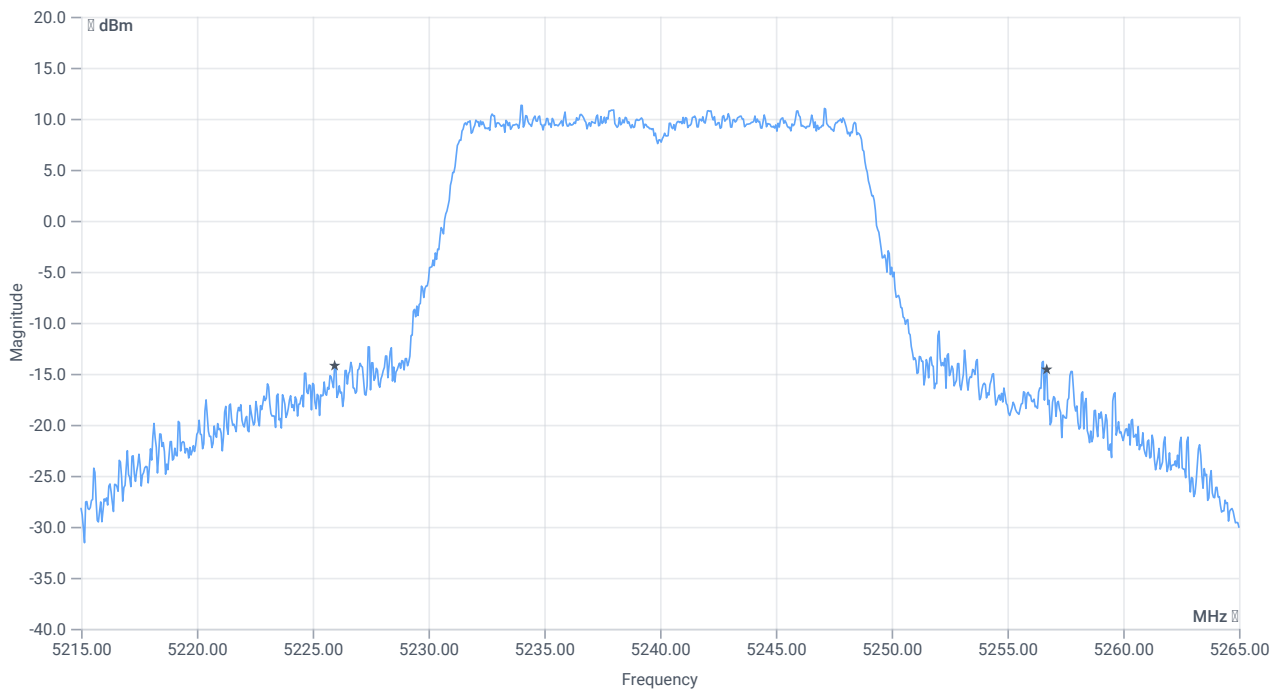




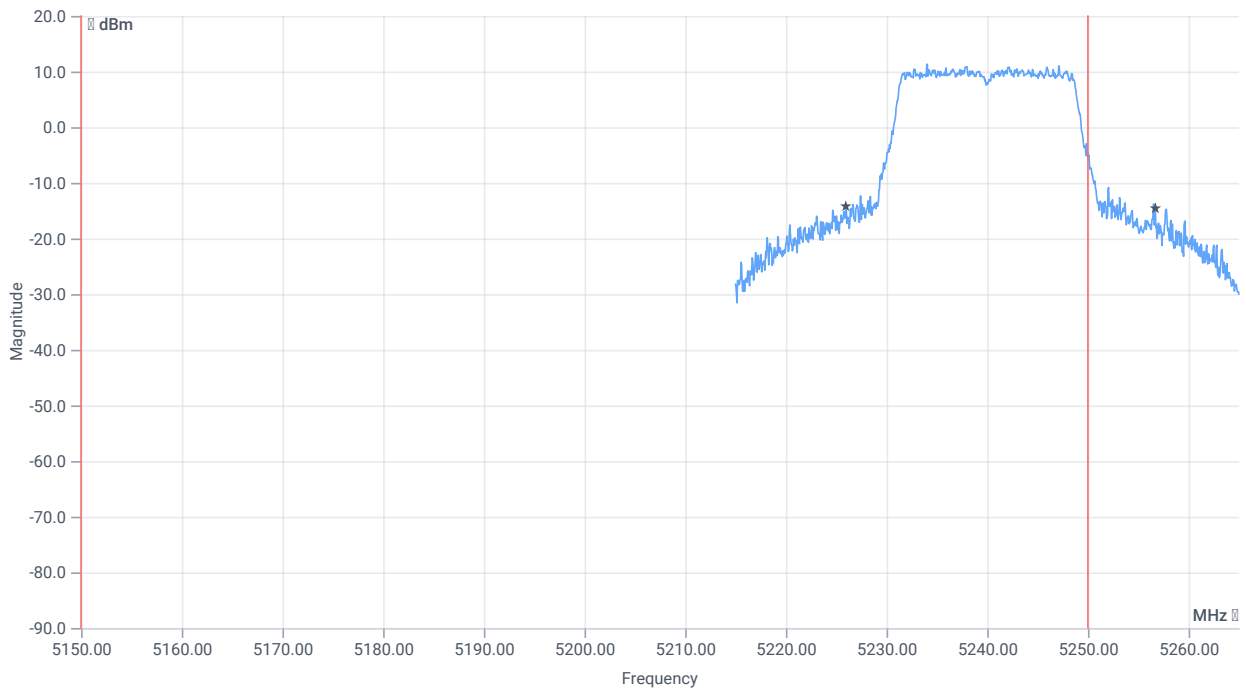
BW within Band 99PCT

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 99%	--	--	18.432	MHz	INFO
T1 99%	5150.000000	--	5230.8092	MHz	PASS
T2 99%	--	5250.000000	5249.2408	MHz	PASS



BW 26dB



BW within Band 26dB

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 26dB	---	---	30.75	MHz	INFO
T1 26dB	5150.000000	---	5225.9500	MHz	PASS
T2 26dB	---	5250.000000	5256.7000	MHz	DFS required

Verdict

PASS

FCC 15.247 # Max output power and psd ~ WLAN5Gx n-HT20 mode U-NII-1

Test References

TC Start	09.02.2023 13:44:17
Ambit Temp [°C] Humidity [rel%]	23.3 24
System Version	3.3.4.3
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 n-HT20 mode U-NII-1

Add. Information

EUT Common Settings WLAN5Gx

Number of Antenna Ports	2
User Interaction	No
Device Class UNII_1	Client
Limit W52 Japan	Standard

Test Parameter

Technology to test	WLAN5Gx n-HT20 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

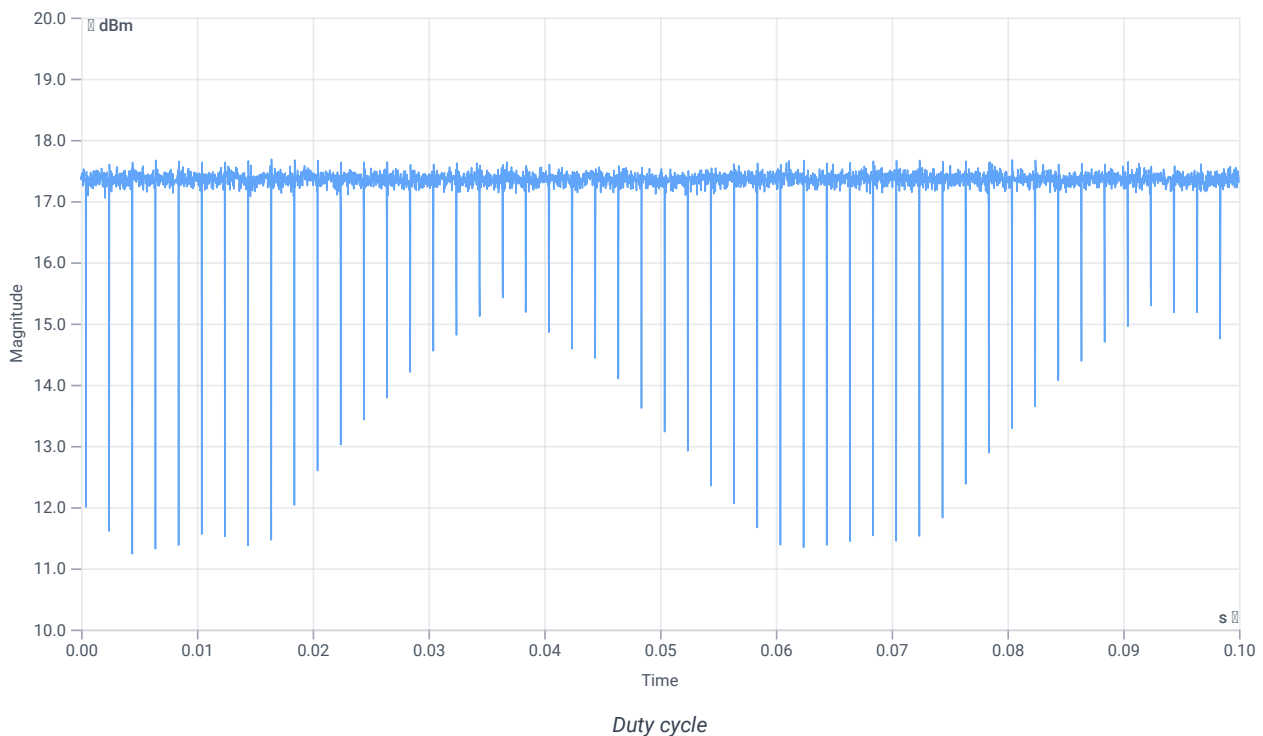
RESULT: Reference Power cond.

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	--	--	15.71	dBm	INFO
Ref. Frequency	--	--	5245.990	MHz	INFO

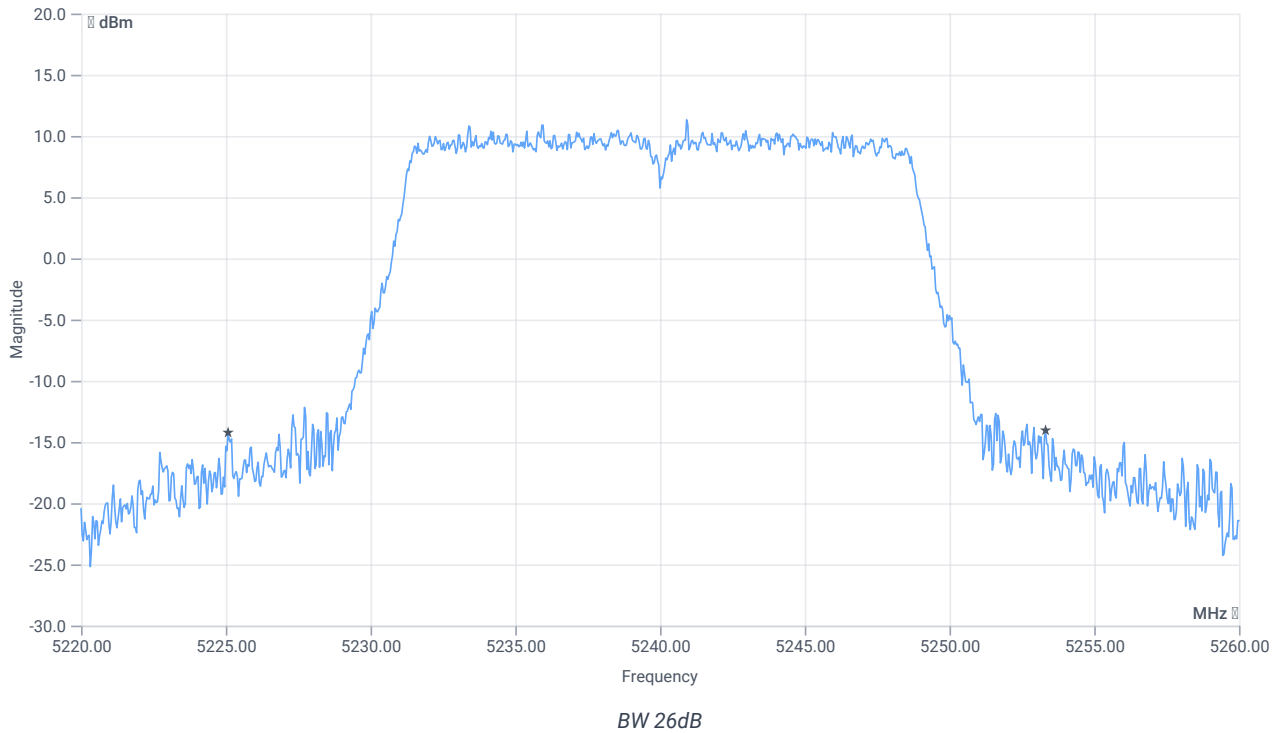
Evaluation max. Duty Cycle

Duty Cycle evaluation

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
No enough Bursts detected, Duty Cycle Burst Ratio set to 1					
Duty Cycle (Burst Ratio) max	--	--	1	--	INFO
Duty Cycle max	--	--	0	dB	INFO
Duty Cycle (Burst Ratio) min	--	--	1	--	INFO
Duty Cycle min	--	--	0	dB	INFO



Evaluation Bandwidth



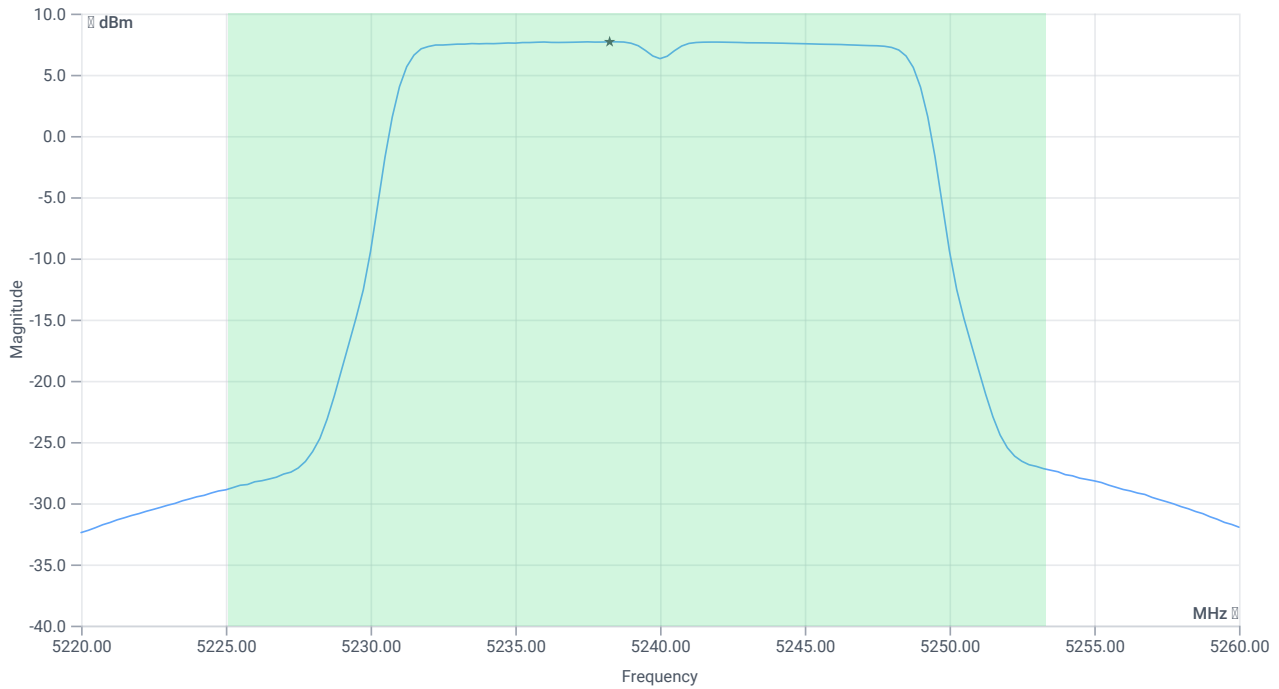
RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 26dB	---	---	28.24	MHz	INFO
T1 26dB	---	---	5225.0800	MHz	INFO
T2 26dB	---	---	5253.3200	MHz	INFO

Maximum Output Power

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	27.71 16.47 30
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



Max OP and PSD

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Max Output Power	--	--	19.72	dBm	INFO
Duty Cycle Correction	--	--	0	dB	INFO
Limit absolute					
Max Output Power DC corrected	--	24	19.72	dBm	PASS
Limit: 11 dBm + 10 log 28.24					
Max Output Power DC corrected	--	25.51	19.72	dBm	na

Power Spectral Density

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Power Spectral Density	--	--	7.69	dBm/1MHz	INFO
Duty Cycle Correction	--	--	0	dB	INFO
Power Spectral Density DC corrected	--	11	7.69	dBm/1MHz	PASS

Verdict

PASS

FCC 15.407, ISED RSS247 # Bandwidths 99PCT and 26dB ~ WLAN5Gx n-HT20 mode U-NII-1

Test References

TC Start	09.02.2023 13:33:09
Ambit Temp [°C] Humidity [rel%]	23.3 23
System Version	3.3.4.3
Test Specification	FCC 15.407, ISED RSS247 -
Test Method	26dB Bandwidth KDB789033 D02, C.1 / ISED RSS-GEN
TC Version	0.0.1
My Description	FCC 15.407 Bandwidths - WLAN5Gx n-HT20 mode U-NII-1
Add. Information	

EUT Common Settings WLAN5Gx

Number of Antenna Ports	2
User Interaction	No
Device Class UNII_1	Client
Limit W52 Japan	Standard

Test Parameter

Technology to test	WLAN5Gx n-HT20 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

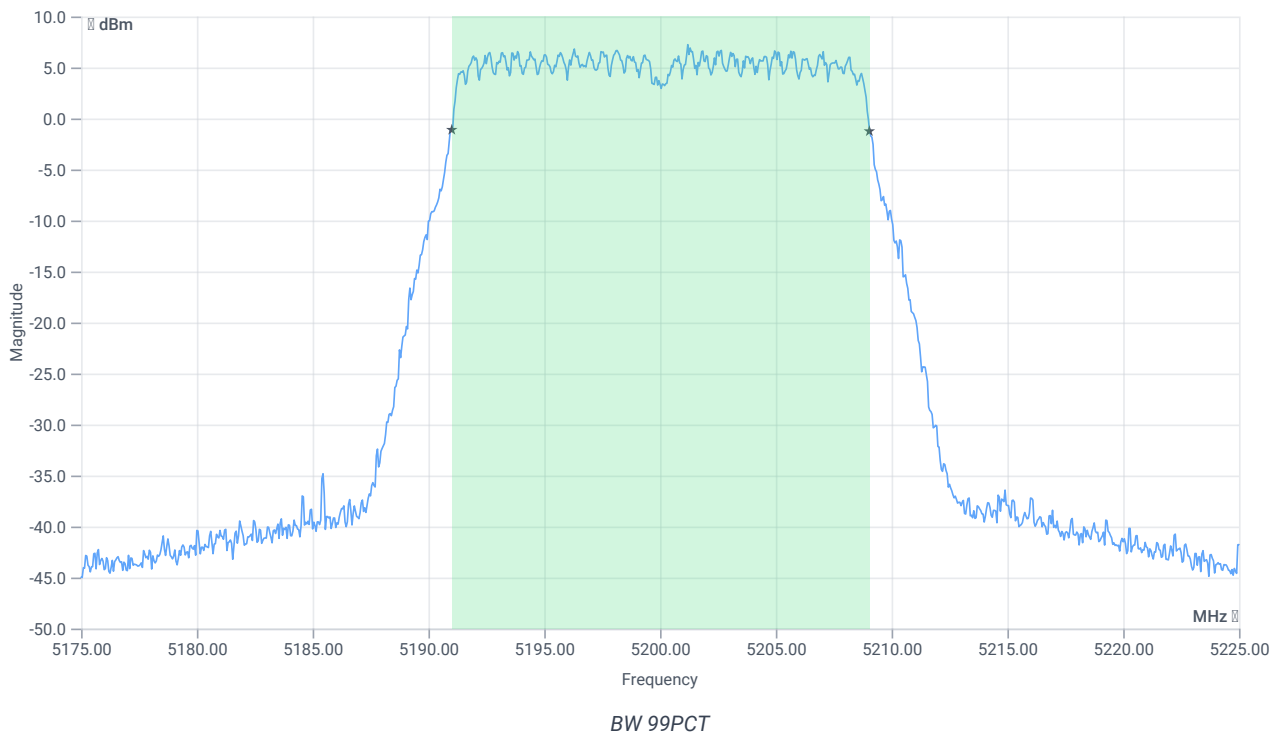
Test at TX 5200 MHz

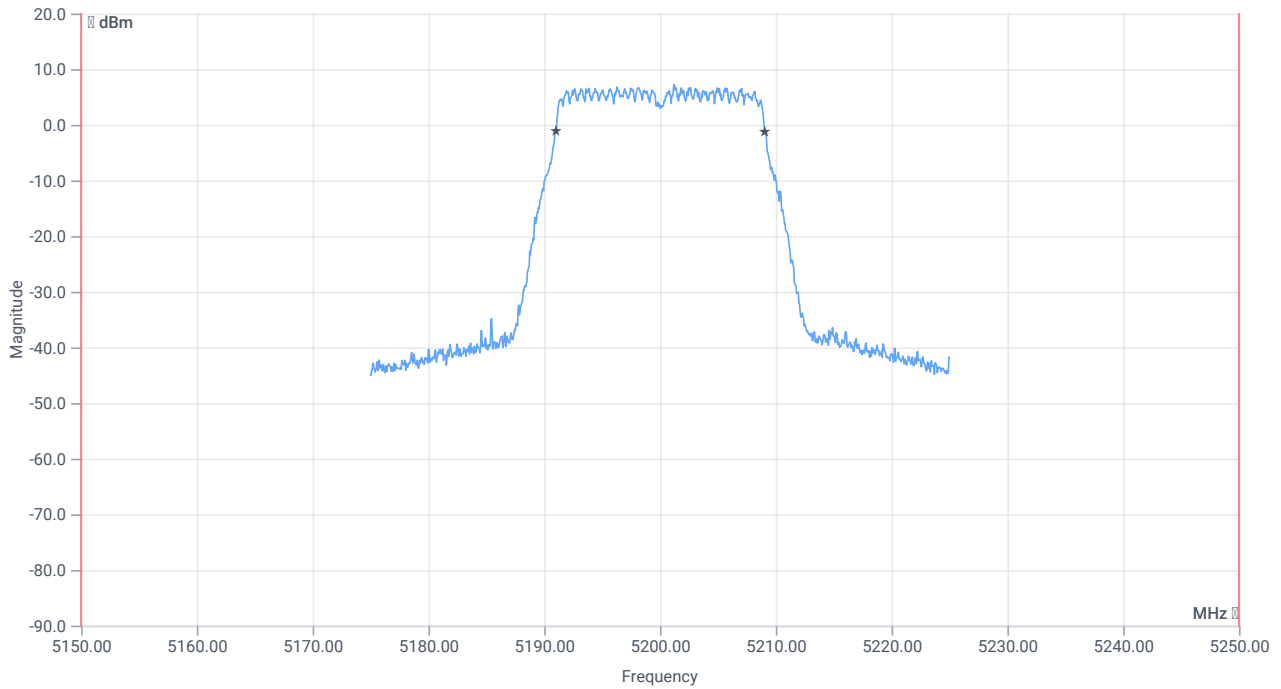
RESULT: Reference Power cond.

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	--	--	12.34	dBm	INFO
Ref. Frequency	--	--	5203.800	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	20.34 16.41 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

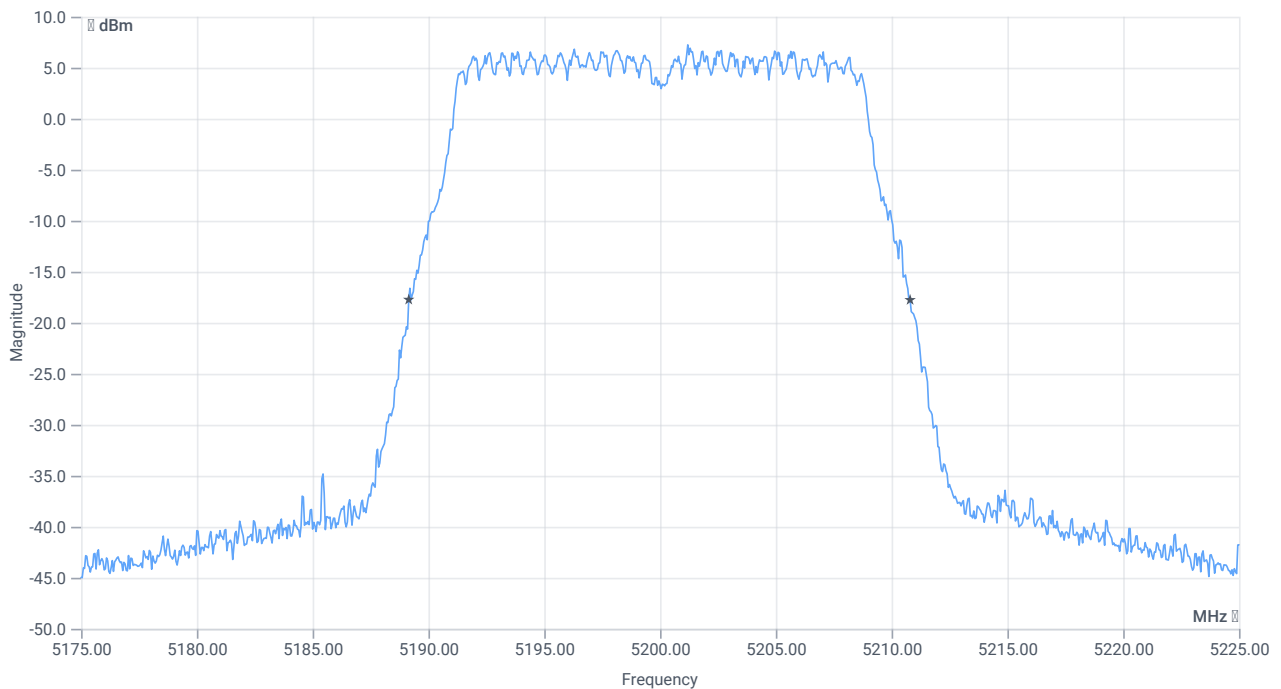




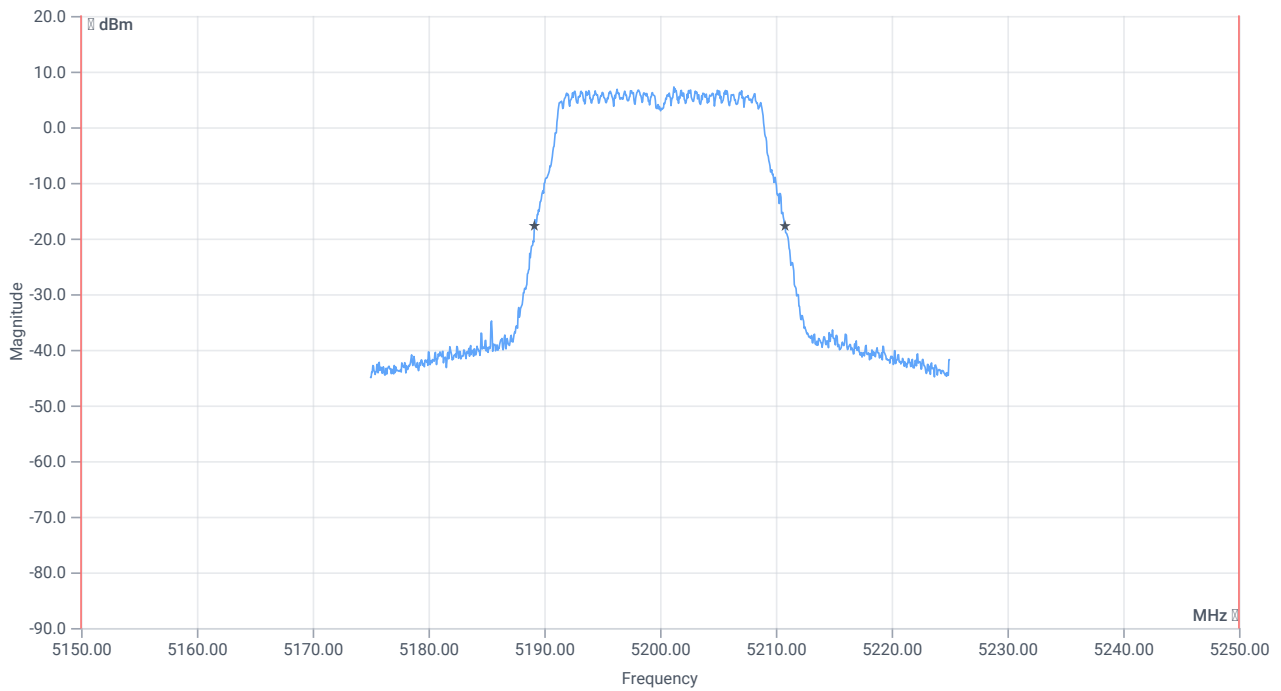
BW within Band 99PCT

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 99%	--	--	18.032	MHz	INFO
T1 99%	5150.000000	--	5191.0090	MHz	PASS
T2 99%	--	5250.000000	5209.0410	MHz	PASS



BW 26dB



BW within Band 26dB

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 26dB	---	---	21.65	MHz	INFO
T1 26dB	5150.000000	---	5189.1500	MHz	PASS
T2 26dB	---	5250.000000	5210.8000	MHz	PASS

Verdict

PASS

FCC 15.247 # Max output power and psd ~ WLAN5Gx n-HT20 mode U-NII-1

Test References

TC Start	09.02.2023 13:31:42
Ambit Temp [°C] Humidity [rel%]	23.3 24
System Version	3.3.4.3
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 n-HT20 mode U-NII-1
Add. Information	

EUT Common Settings WLAN5Gx

Number of Antenna Ports	2
User Interaction	No
Device Class UNII_1	Client
Limit W52 Japan	Standard

Test Parameter

Technology to test	WLAN5Gx n-HT20 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

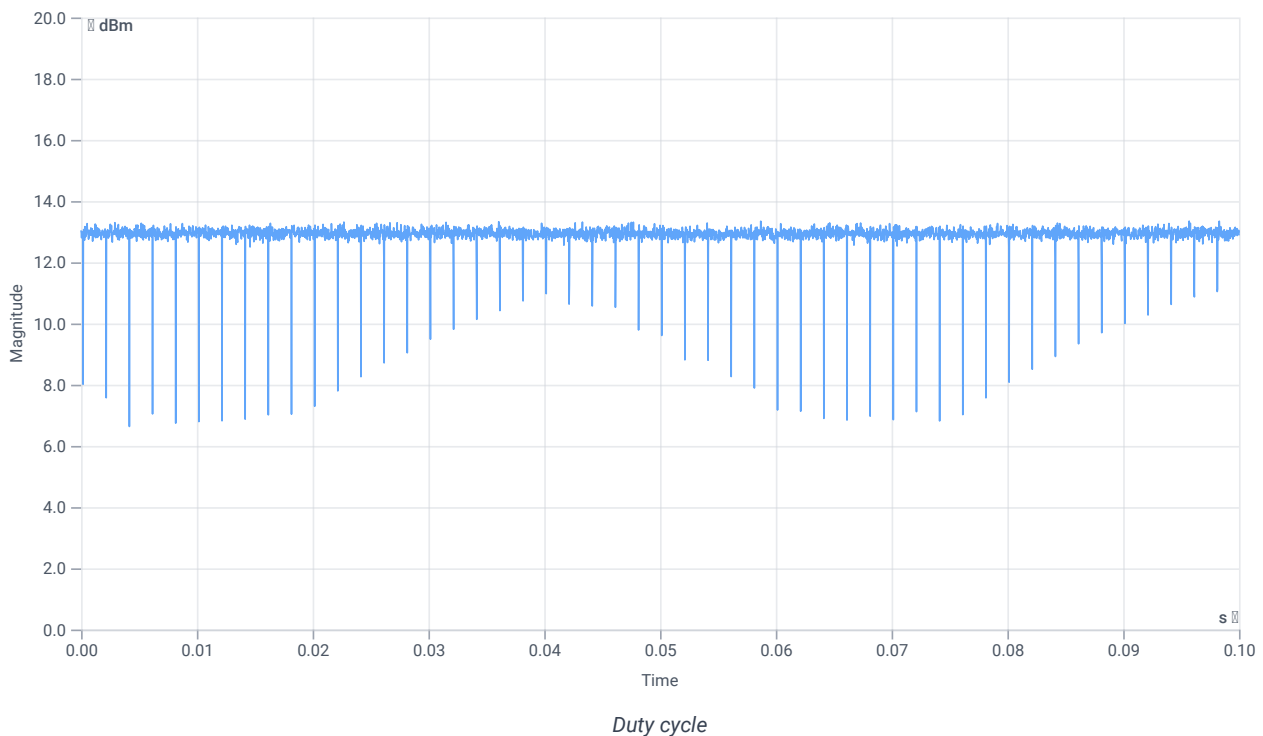
RESULT: Reference Power cond.

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	--	--	11.81	dBm	INFO
Ref. Frequency	--	--	5196.600	MHz	INFO

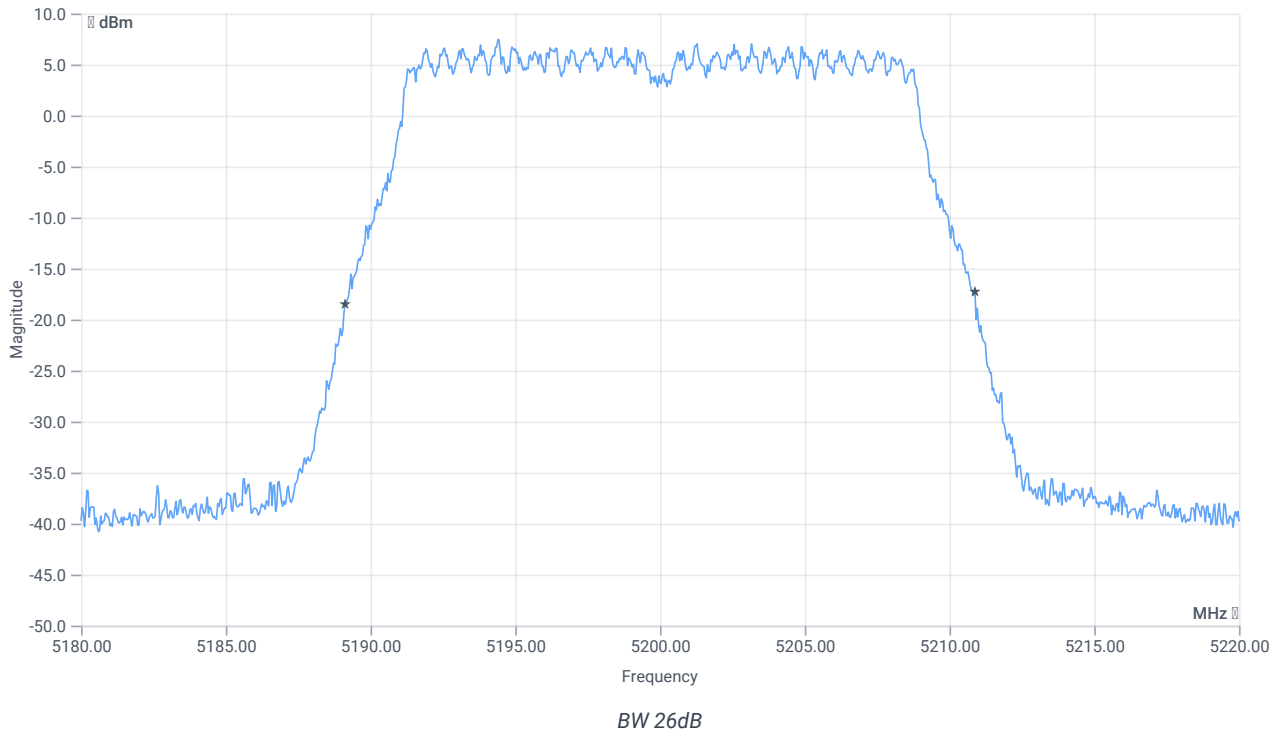
Evaluation max. Duty Cycle

Duty Cycle evaluation

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
No enough Bursts detected, Duty Cycle Burst Ratio set to 1					
Duty Cycle (Burst Ratio) max	--	--	1	--	INFO
Duty Cycle max	--	--	0	dB	INFO
Duty Cycle (Burst Ratio) min	--	--	1	--	INFO
Duty Cycle min	--	--	0	dB	INFO



Evaluation Bandwidth



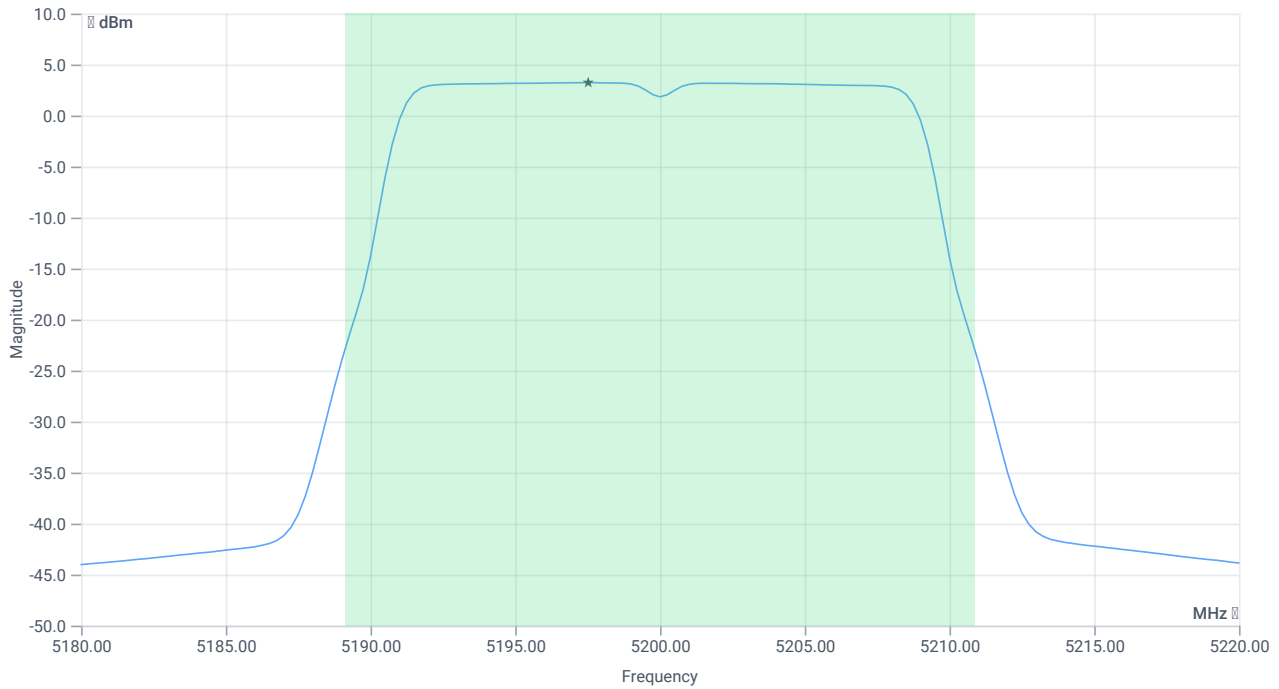
RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 26dB	---	---	21.76	MHz	INFO
T1 26dB	---	---	5189.1200	MHz	INFO
T2 26dB	---	---	5210.8800	MHz	INFO

Maximum Output Power

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	23.81 16.41 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



Max OP and PSD

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Max Output Power	--	--	15.26	dBm	INFO
Duty Cycle Correction	--	--	0	dB	INFO
Limit absolute					
Max Output Power DC corrected	--	24	15.26	dBm	PASS
Limit: 11 dBm + 10 log 21.76					
Max Output Power DC corrected	--	24.38	15.26	dBm	na

Power Spectral Density

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Power Spectral Density	--	--	3.23	dBm/1MHz	INFO
Duty Cycle Correction	--	--	0	dB	INFO
Power Spectral Density DC corrected	--	11	3.23	dBm/1MHz	PASS

Verdict

PASS

FCC 15.407, ISED RSS247 # Bandwidths 99PCT and 26dB ~ WLAN5Gx n-HT20 mode U-NII-1

Test References

TC Start	09.02.2023 13:31:06
Ambit Temp [°C] Humidity [rel%]	23.3 24
System Version	3.3.4.3
Test Specification	FCC 15.407, ISED RSS247 -
Test Method	26dB Bandwidth KDB789033 D02, C.1 / ISED RSS-GEN
TC Version	0.0.1
My Description	FCC 15.407 Bandwidths - WLAN5Gx n-HT20 mode U-NII-1
Add. Information	

EUT Common Settings WLAN5Gx

Number of Antenna Ports	2
User Interaction	No
Device Class UNII_1	Client
Limit W52 Japan	Standard

Test Parameter

Technology to test	WLAN5Gx n-HT20 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

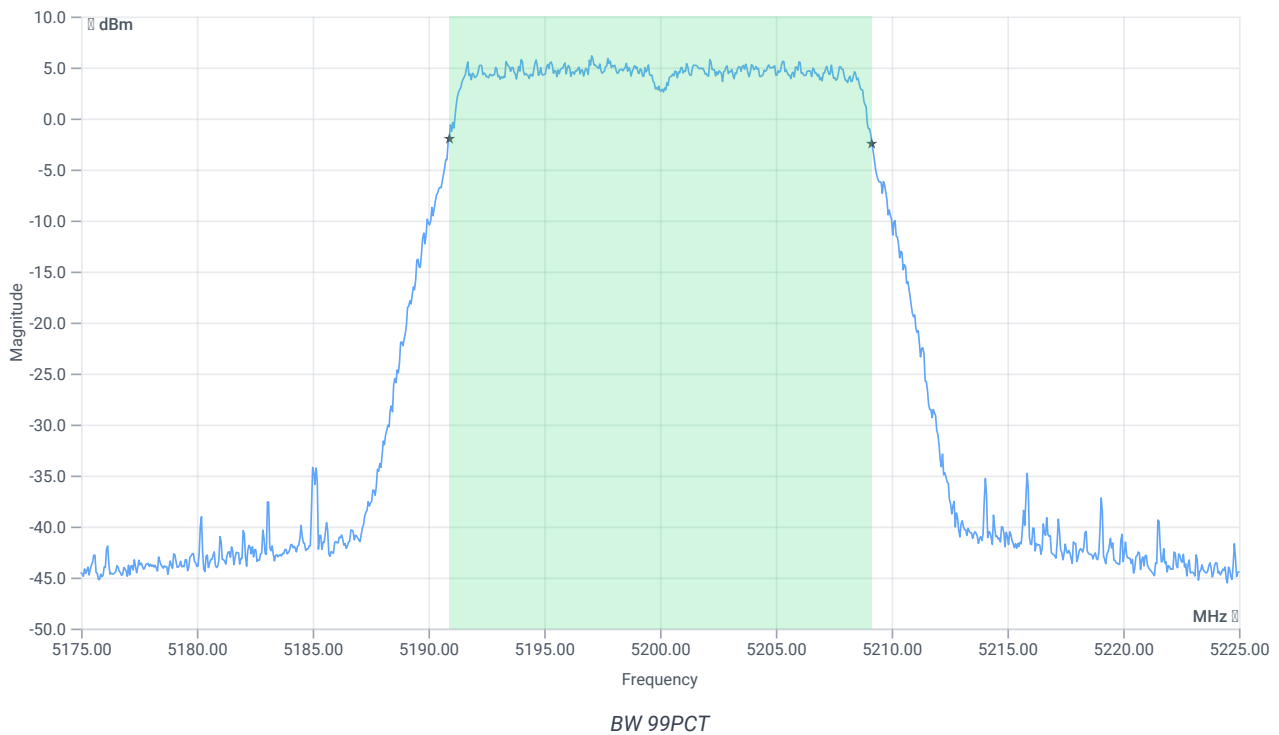
Test at TX 5200 MHz

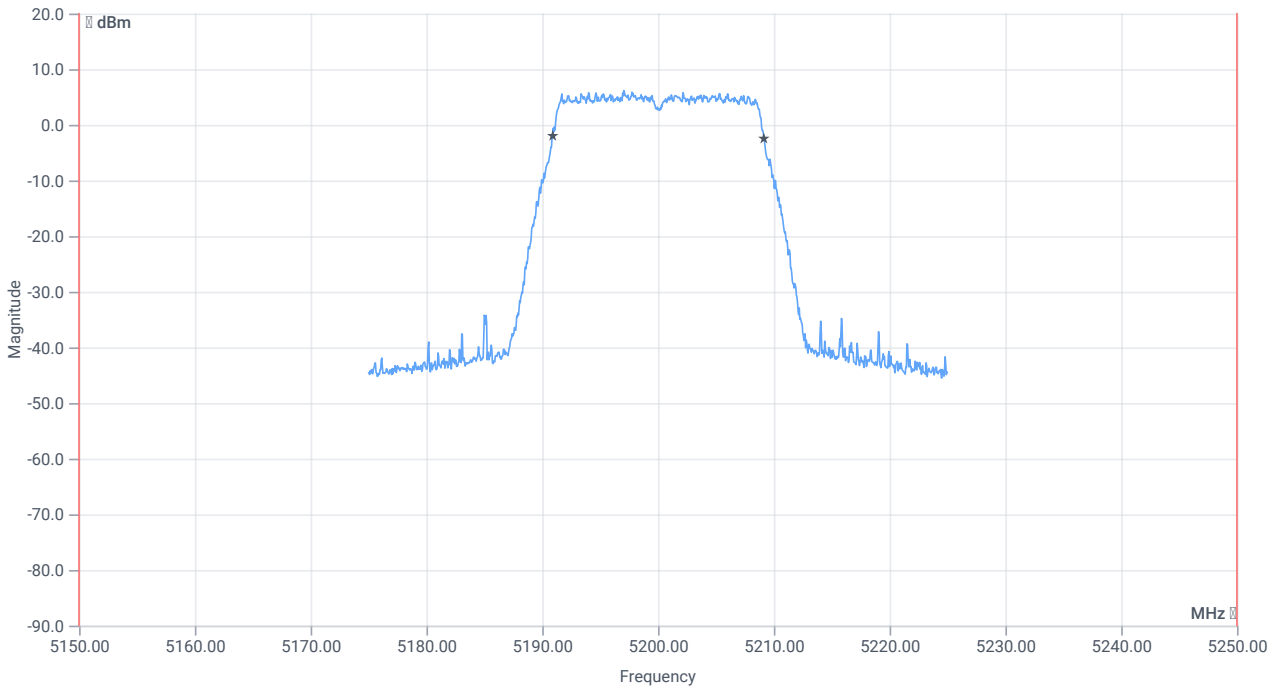
RESULT: Reference Power cond.

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	--	--	10.86	dBm	INFO
Ref. Frequency	--	--	5195.000	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	18.86 16.41 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

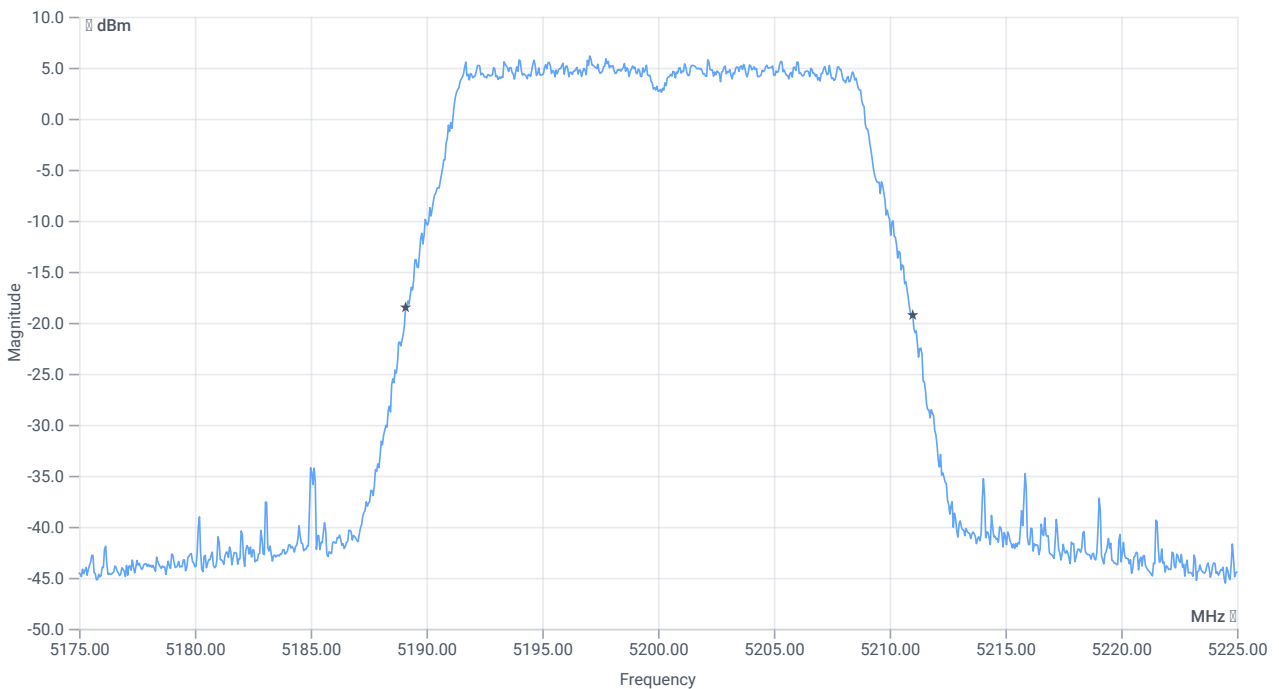




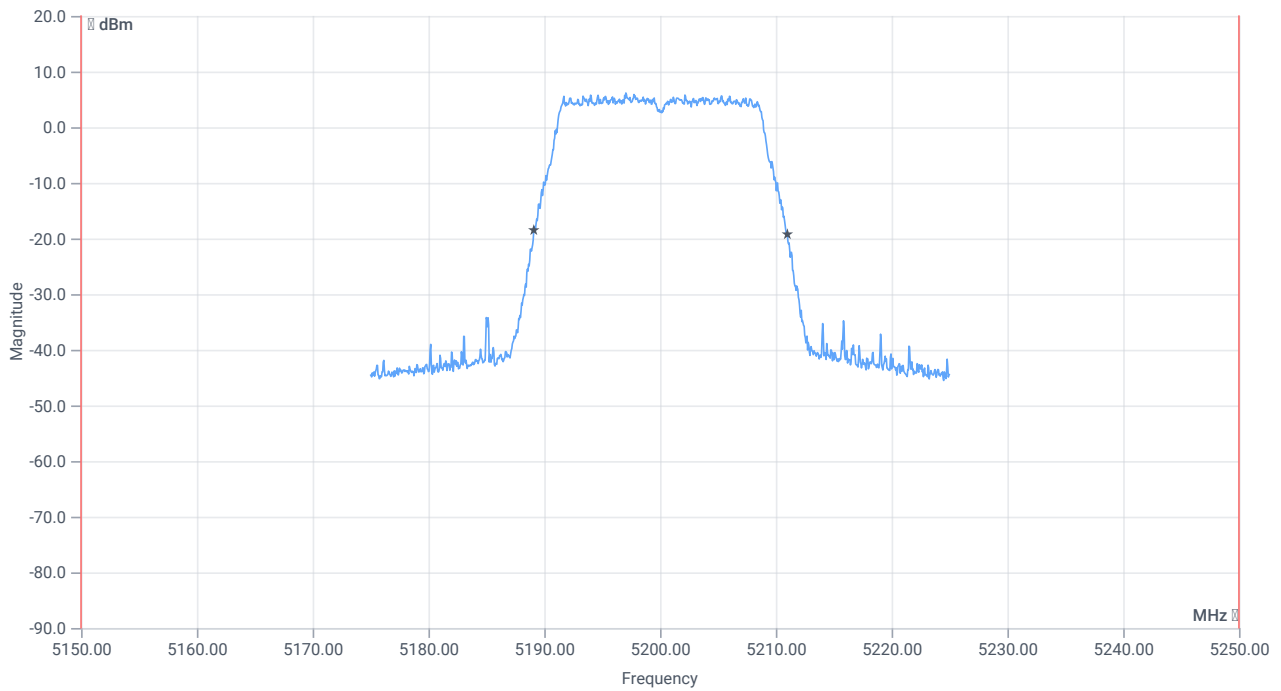
BW within Band 99PCT

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 99%	--	--	18.232	MHz	INFO
T1 99%	5150.000000	--	5190.9091	MHz	PASS
T2 99%	--	5250.000000	5209.1409	MHz	PASS



BW 26dB



BW within Band 26dB

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 26dB	---	---	21.9	MHz	INFO
T1 26dB	5150.000000	---	5189.1000	MHz	PASS
T2 26dB	---	5250.000000	5211.0000	MHz	PASS

Verdict

PASS

FCC 15.247 # Max output power and psd ~ WLAN5Gx n-HT20 mode U-NII-1

Test References

TC Start	09.02.2023 13:29:40
Ambit Temp [°C] Humidity [rel%]	23.3 24
System Version	3.3.4.3
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 n-HT20 mode U-NII-1
Add. Information	

EUT Common Settings WLAN5Gx

Number of Antenna Ports	2
User Interaction	No
Device Class UNII_1	Client
Limit W52 Japan	Standard

Test Parameter

Technology to test	WLAN5Gx n-HT20 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

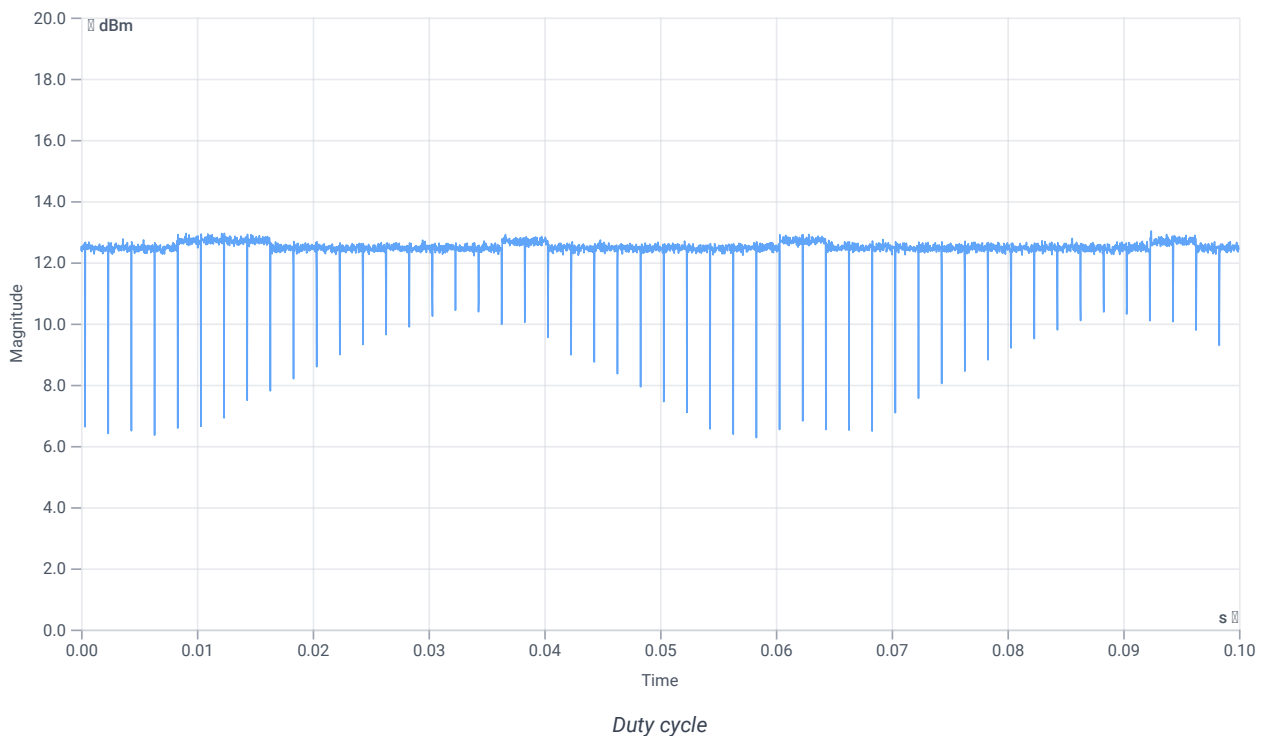
RESULT: Reference Power cond.

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	--	--	10.91	dBm	INFO
Ref. Frequency	--	--	5197.000	MHz	INFO

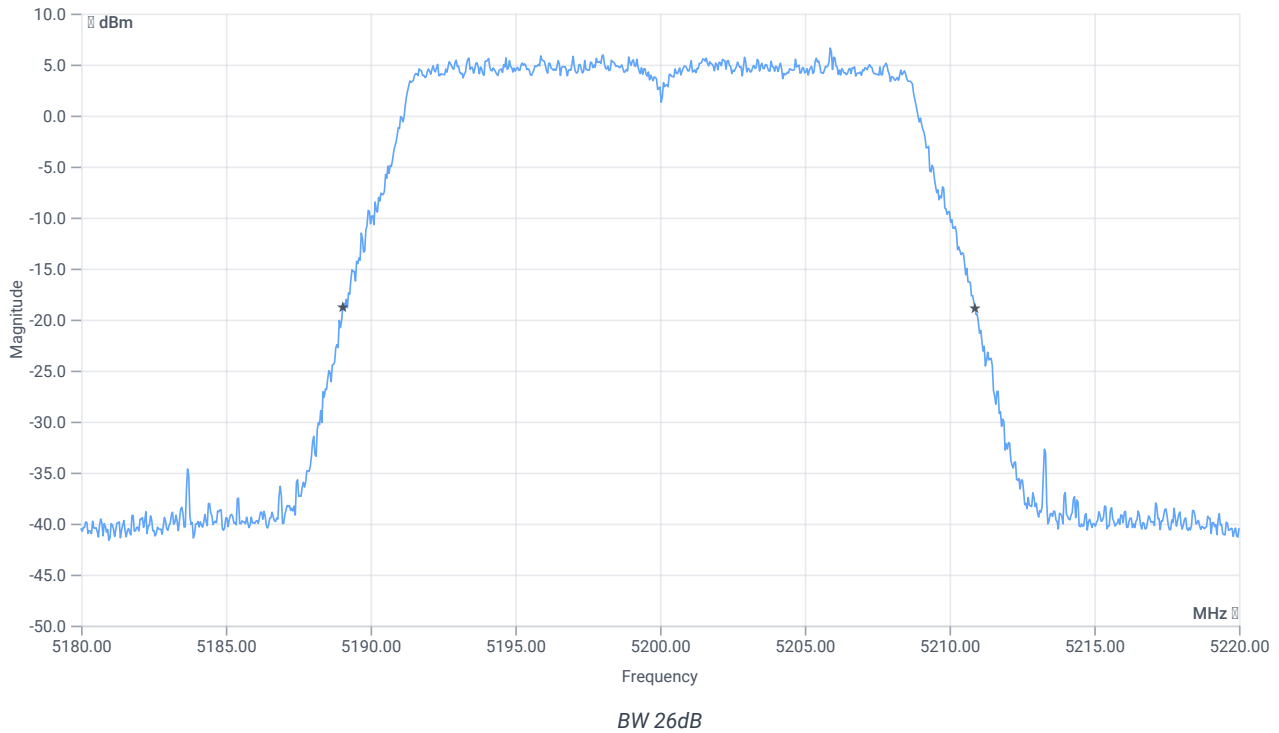
Evaluation max. Duty Cycle

Duty Cycle evaluation

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
No enough Bursts detected, Duty Cycle Burst Ratio set to 1					
Duty Cycle (Burst Ratio) max	--	--	1	--	INFO
Duty Cycle max	--	--	0	dB	INFO
Duty Cycle (Burst Ratio) min	--	--	1	--	INFO
Duty Cycle min	--	--	0	dB	INFO



Evaluation Bandwidth



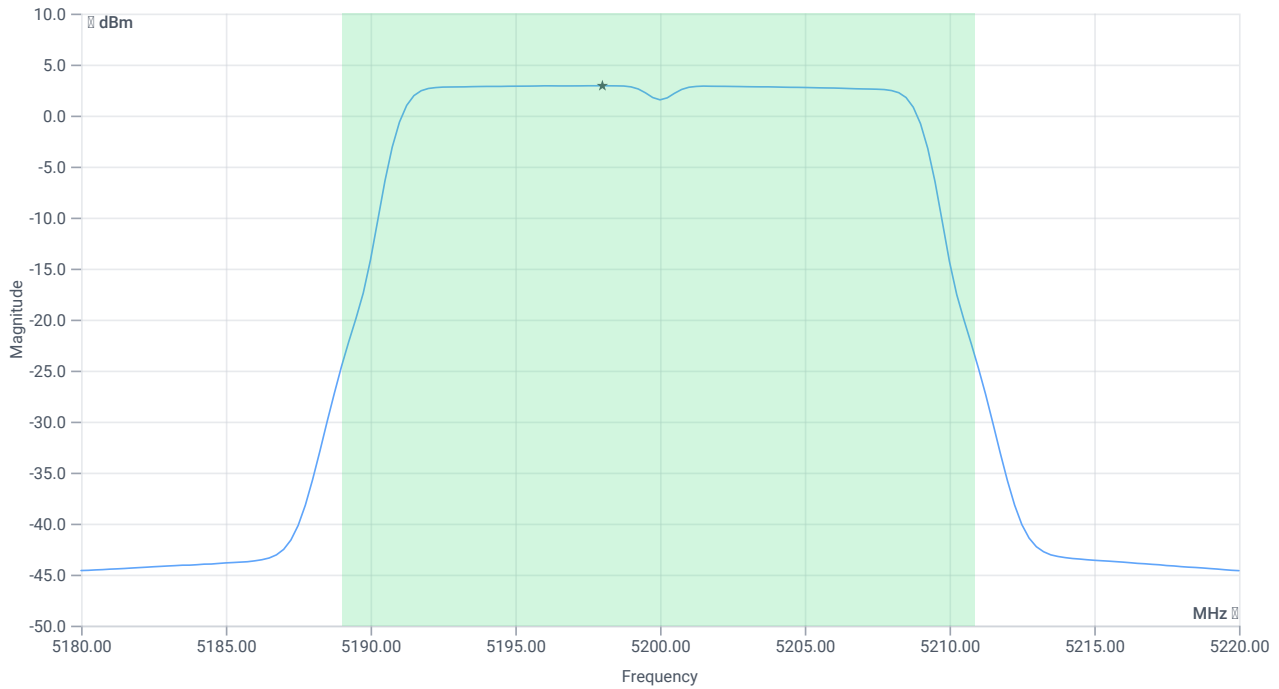
RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 26dB	---	---	21.84	MHz	INFO
T1 26dB	---	---	5189.0400	MHz	INFO
T2 26dB	---	---	5210.8800	MHz	INFO

Maximum Output Power

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	22.91 16.41 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



Max OP and PSD

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Max Output Power	--	--	14.96	dBm	INFO
Duty Cycle Correction	--	--	0	dB	INFO
Limit absolute					
Max Output Power DC corrected	--	24	14.96	dBm	PASS
Limit: 11 dBm + 10 log 21.84					
Max Output Power DC corrected	--	24.39	14.96	dBm	na

Power Spectral Density

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Power Spectral Density	--	--	2.92	dBm/1MHz	INFO
Duty Cycle Correction	--	--	0	dB	INFO
Power Spectral Density DC corrected	--	11	2.92	dBm/1MHz	PASS

Verdict

PASS

FCC 15.407, ISED RSS247 # Bandwidths 99PCT and 26dB ~ WLAN5Gx n-HT20 mode U-NII-1

Test References

TC Start	09.02.2023 13:20:58
Ambit Temp [°C] Humidity [rel%]	23.4 23
System Version	3.3.4.3
Test Specification	FCC 15.407, ISED RSS247 -
Test Method	26dB Bandwidth KDB789033 D02, C.1 / ISED RSS-GEN
TC Version	0.0.1
My Description	FCC 15.407 Bandwidths - WLAN5Gx n-HT20 mode U-NII-1
Add. Information	

EUT Common Settings WLAN5Gx

Number of Antenna Ports	2
User Interaction	No
Device Class UNII_1	Client
Limit W52 Japan	Standard

Test Parameter

Technology to test	WLAN5Gx n-HT20 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

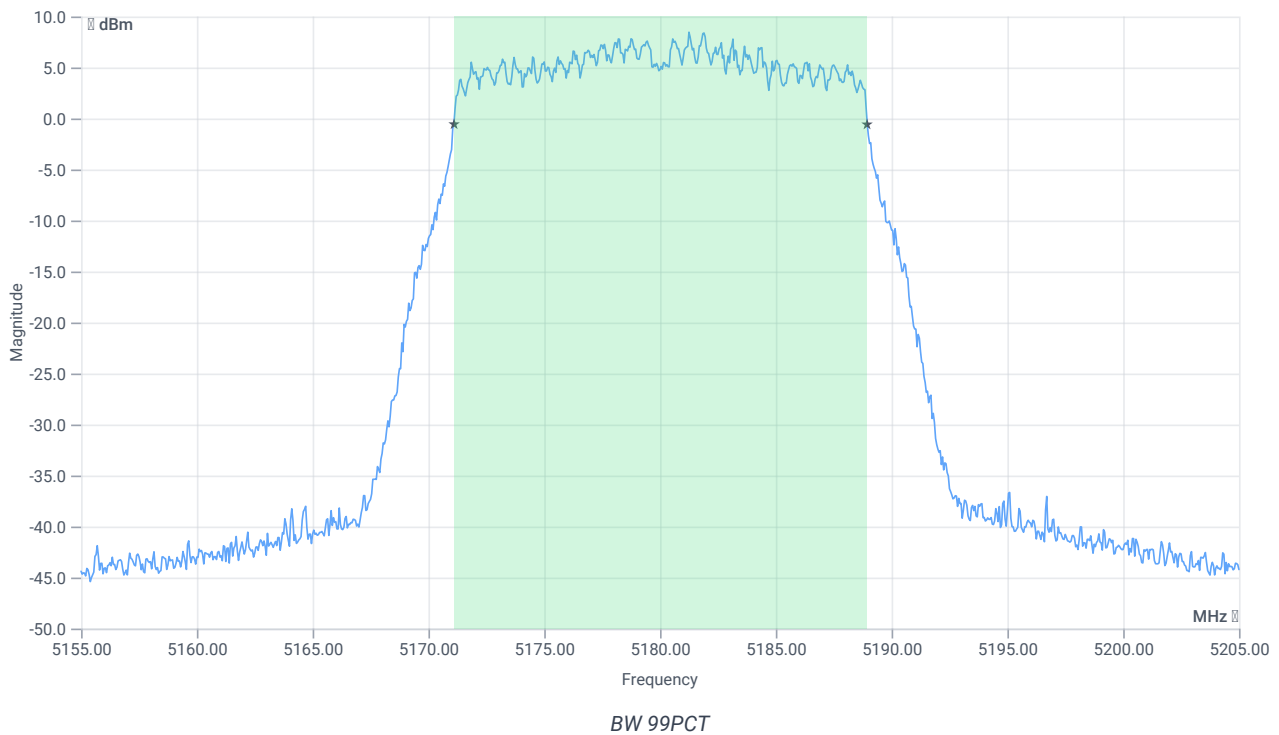
Test at TX 5180 MHz

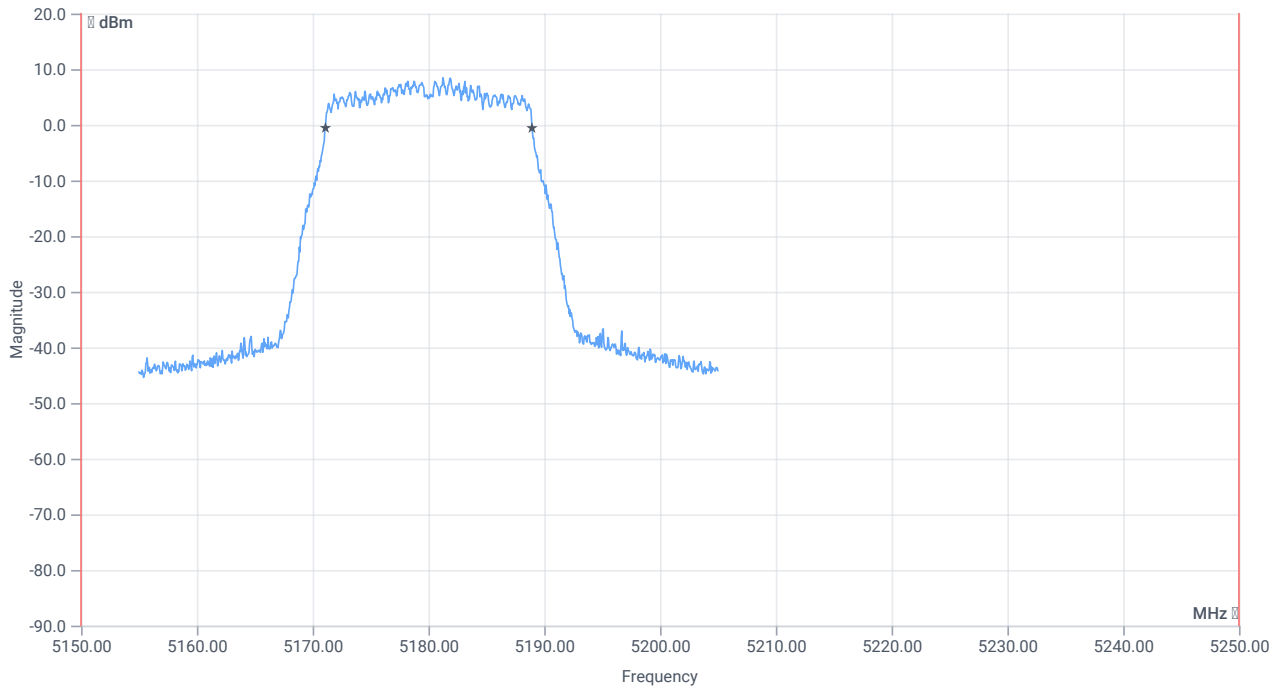
RESULT: Reference Power cond.

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	--	--	12.01	dBm	INFO
Ref. Frequency	--	--	5181.200	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	20.01 16.49 20
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

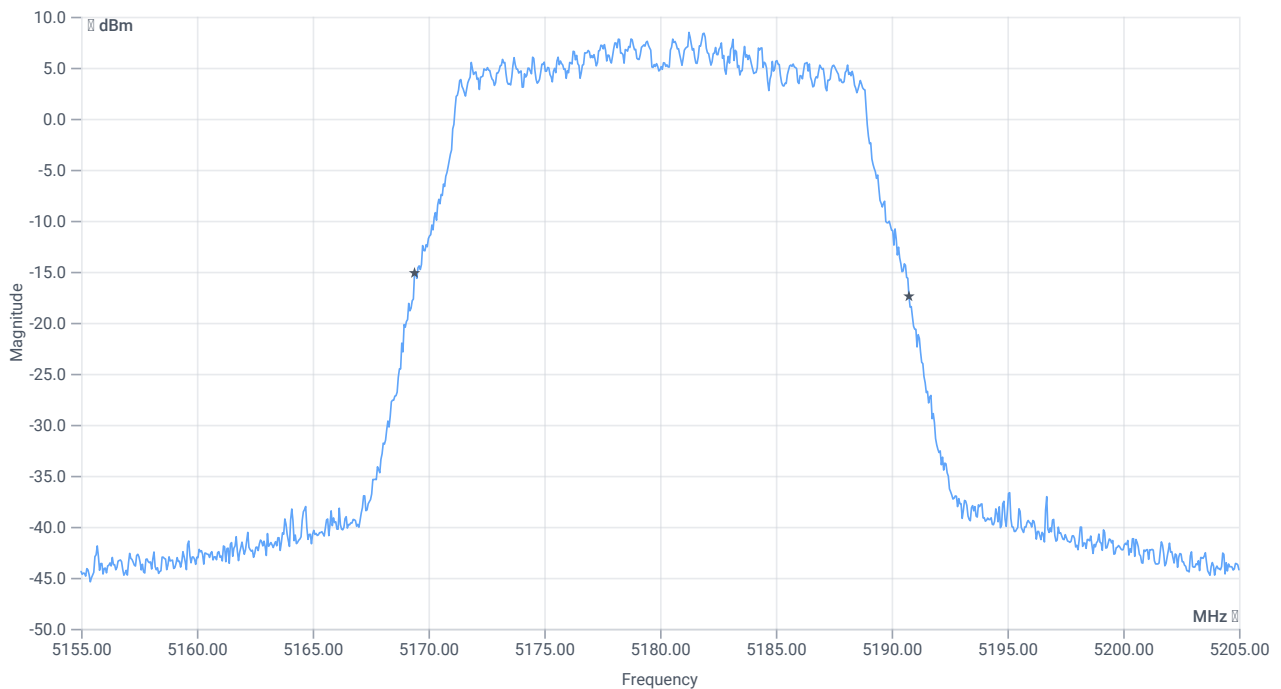




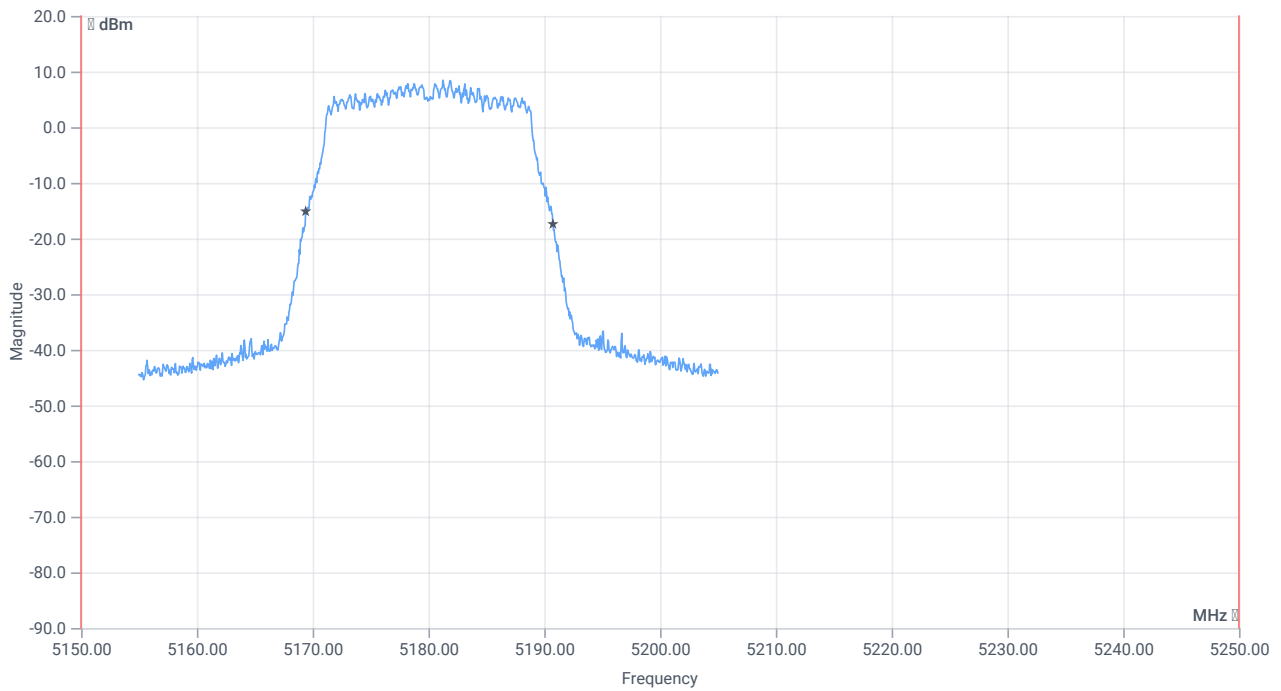
BW within Band 99PCT

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 99%	--	--	17.832	MHz	INFO
T1 99%	5150.000000	--	5171.1089	MHz	PASS
T2 99%	--	5250.000000	5188.9411	MHz	PASS



BW 26dB



BW within Band 26dB

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 26dB	---	---	21.35	MHz	INFO
T1 26dB	5150.000000	---	5169.4000	MHz	PASS
T2 26dB	---	5250.000000	5190.7500	MHz	PASS

Verdict

PASS

FCC 15.247 # Max output power and psd ~ WLAN5Gx n-HT20 mode U-NII-1

Test References

TC Start	09.02.2023 13:19:28
Ambit Temp [°C] Humidity [rel%]	23.4 23
System Version	3.3.4.3
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 n-HT20 mode U-NII-1
Add. Information	

EUT Common Settings WLAN5Gx

Number of Antenna Ports	2
User Interaction	No
Device Class UNII_1	Client
Limit W52 Japan	Standard

Test Parameter

Technology to test	WLAN5Gx n-HT20 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

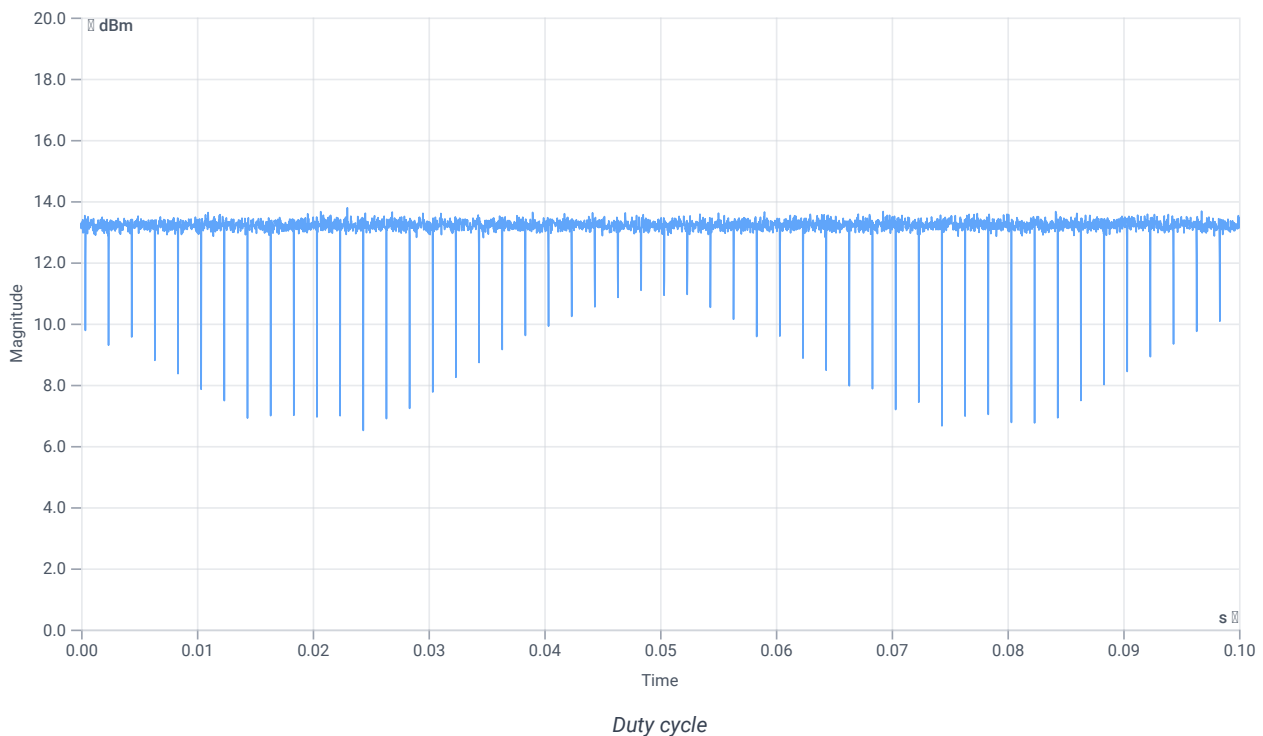
RESULT: Reference Power cond.

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	--	--	11.73	dBm	INFO
Ref. Frequency	--	--	5177.800	MHz	INFO

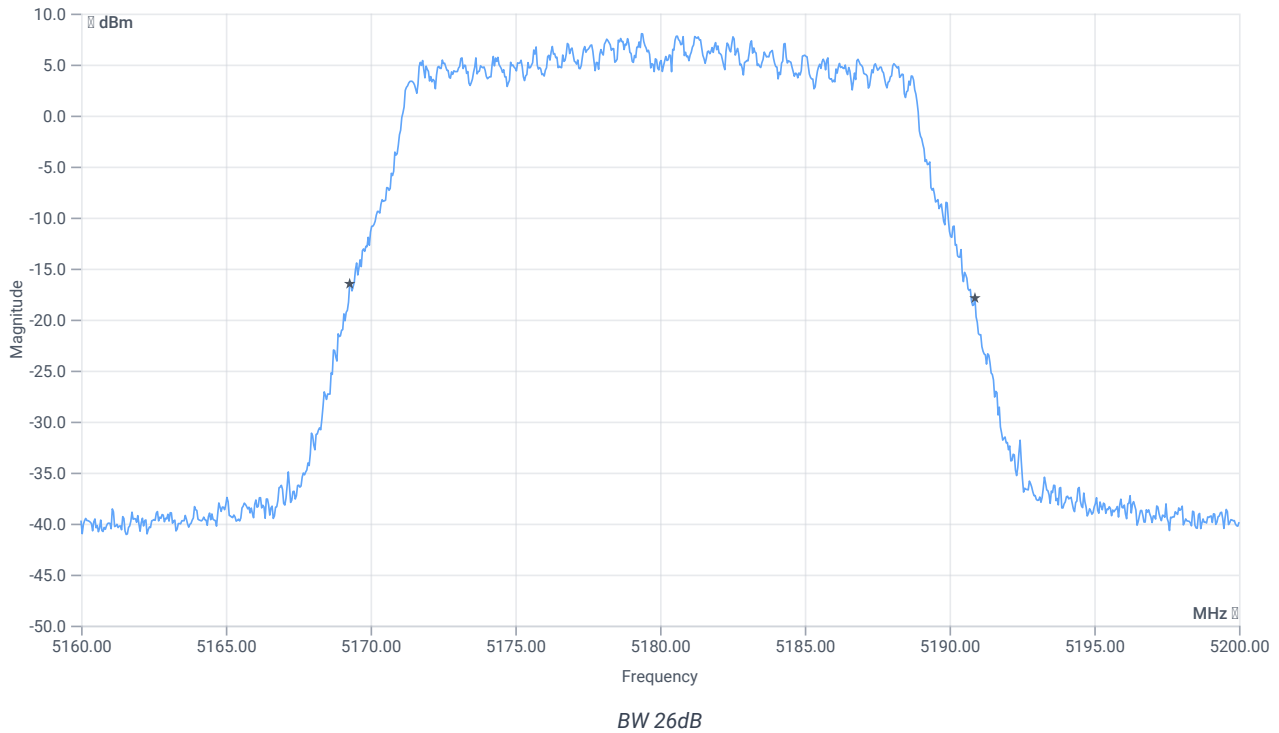
Evaluation max. Duty Cycle

Duty Cycle evaluation

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
No enough Bursts detected, Duty Cycle Burst Ratio set to 1					
Duty Cycle (Burst Ratio) max	--	--	1	--	INFO
Duty Cycle max	--	--	0	dB	INFO
Duty Cycle (Burst Ratio) min	--	--	1	--	INFO
Duty Cycle min	--	--	0	dB	INFO



Evaluation Bandwidth



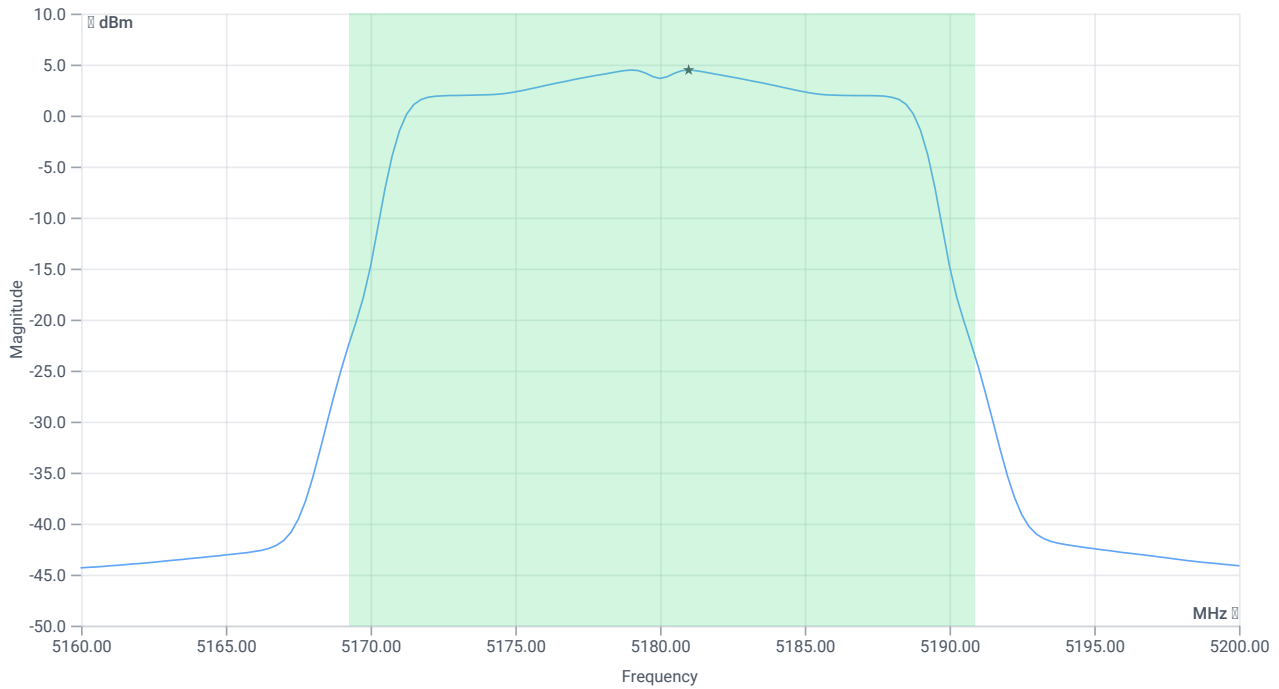
RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 26dB	---	---	21.6	MHz	INFO
T1 26dB	---	---	5169.2800	MHz	INFO
T2 26dB	---	---	5190.8800	MHz	INFO

Maximum Output Power

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	23.73 16.49 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



Max OP and PSD

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Max Output Power	--	--	15.22	dBm	INFO
Duty Cycle Correction	--	--	0	dB	INFO
Limit absolute					
Max Output Power DC corrected	--	24	15.22	dBm	PASS
Limit: 11 dBm + 10 log 21.6					
Max Output Power DC corrected	--	24.34	15.22	dBm	na

Power Spectral Density

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Power Spectral Density	--	--	4.46	dBm/1MHz	INFO
Duty Cycle Correction	--	--	0	dB	INFO
Power Spectral Density DC corrected	--	11	4.46	dBm/1MHz	PASS

Verdict

PASS

FCC 15.407, ISED RSS247 # Bandwidths 99PCT and 26dB ~ WLAN5Gx n-HT20 mode U-NII-1

Test References

TC Start	09.02.2023 13:18:52
Ambit Temp [°C] Humidity [rel%]	23.4 23
System Version	3.3.4.3
Test Specification	FCC 15.407, ISED RSS247 -
Test Method	26dB Bandwidth KDB789033 D02, C.1 / ISED RSS-GEN
TC Version	0.0.1
My Description	FCC 15.407 Bandwidths - WLAN5Gx n-HT20 mode U-NII-1
Add. Information	

EUT Common Settings WLAN5Gx

Number of Antenna Ports	2
User Interaction	No
Device Class UNII_1	Client
Limit W52 Japan	Standard

Test Parameter

Technology to test	WLAN5Gx n-HT20 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

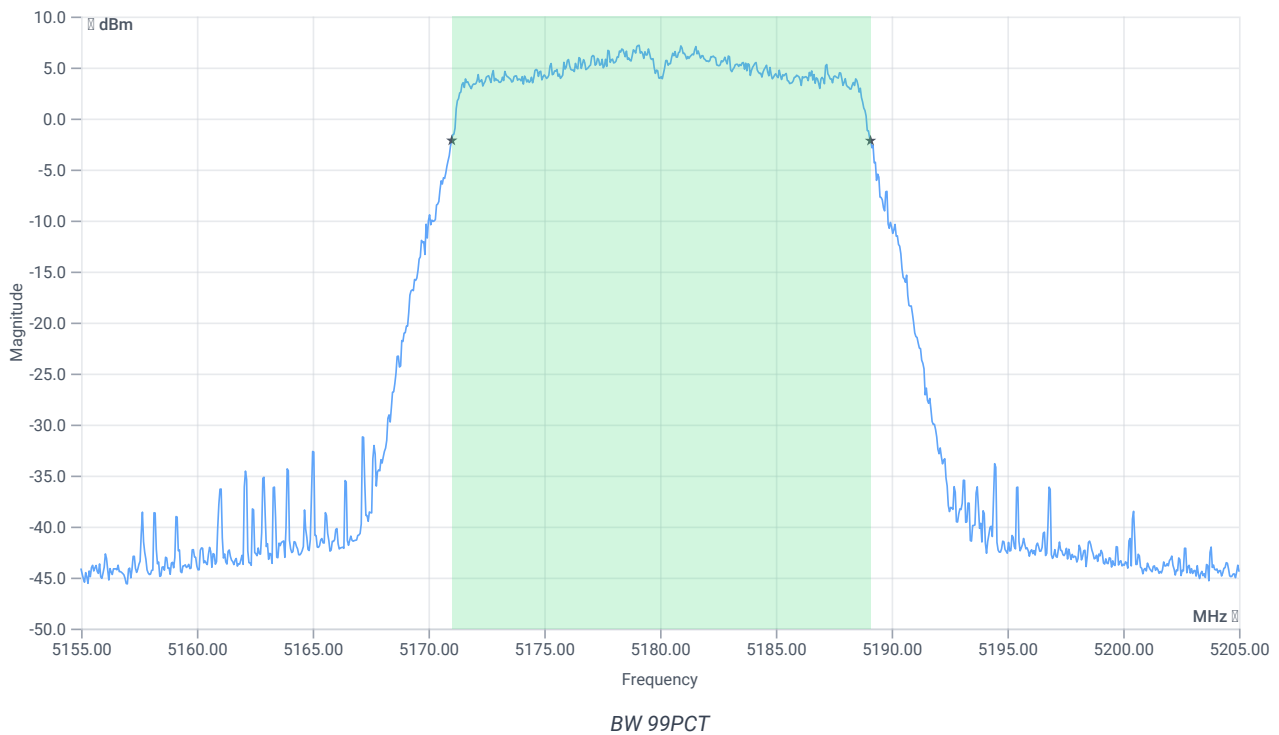
Test at TX 5180 MHz

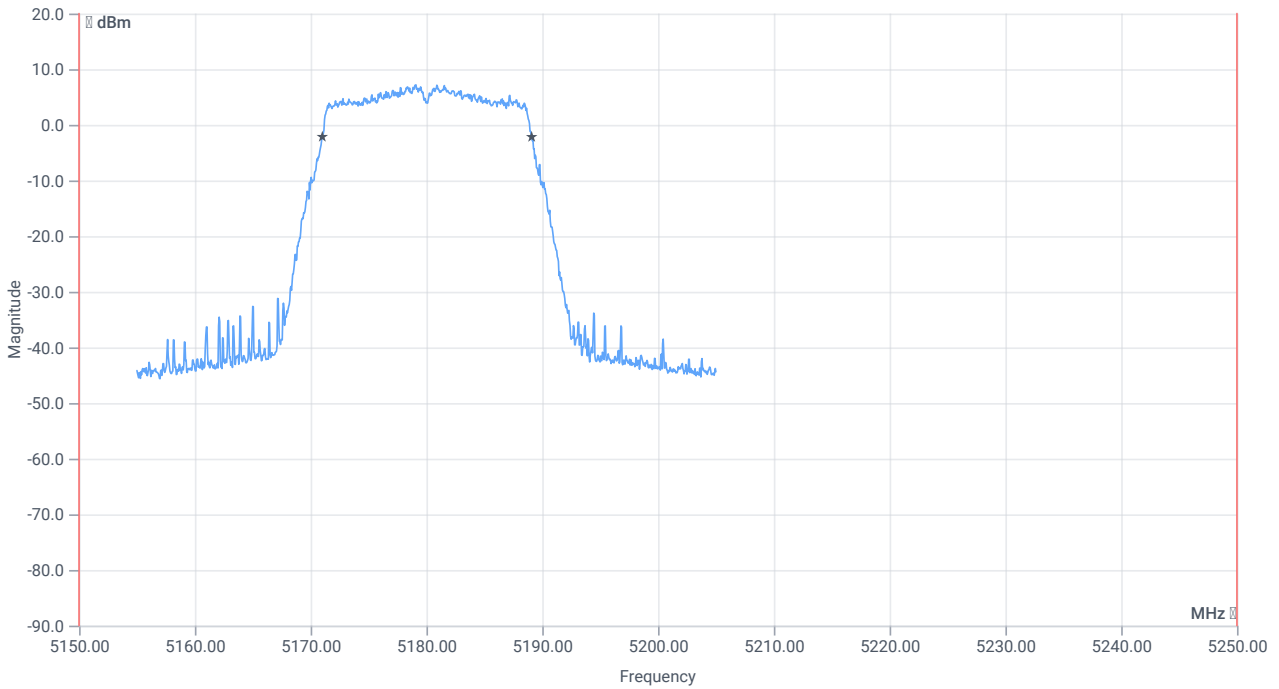
RESULT: Reference Power cond.

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	--	--	11.82	dBm	INFO
Ref. Frequency	--	--	5182.200	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	19.82 16.49 20
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

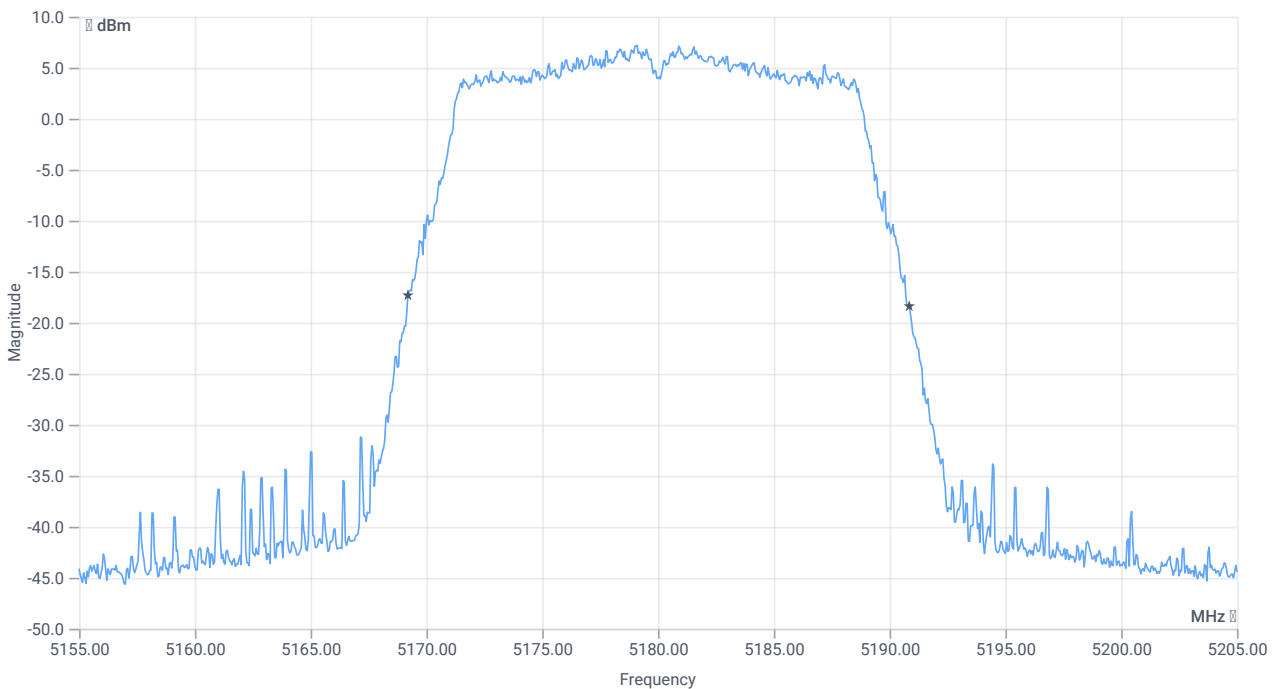




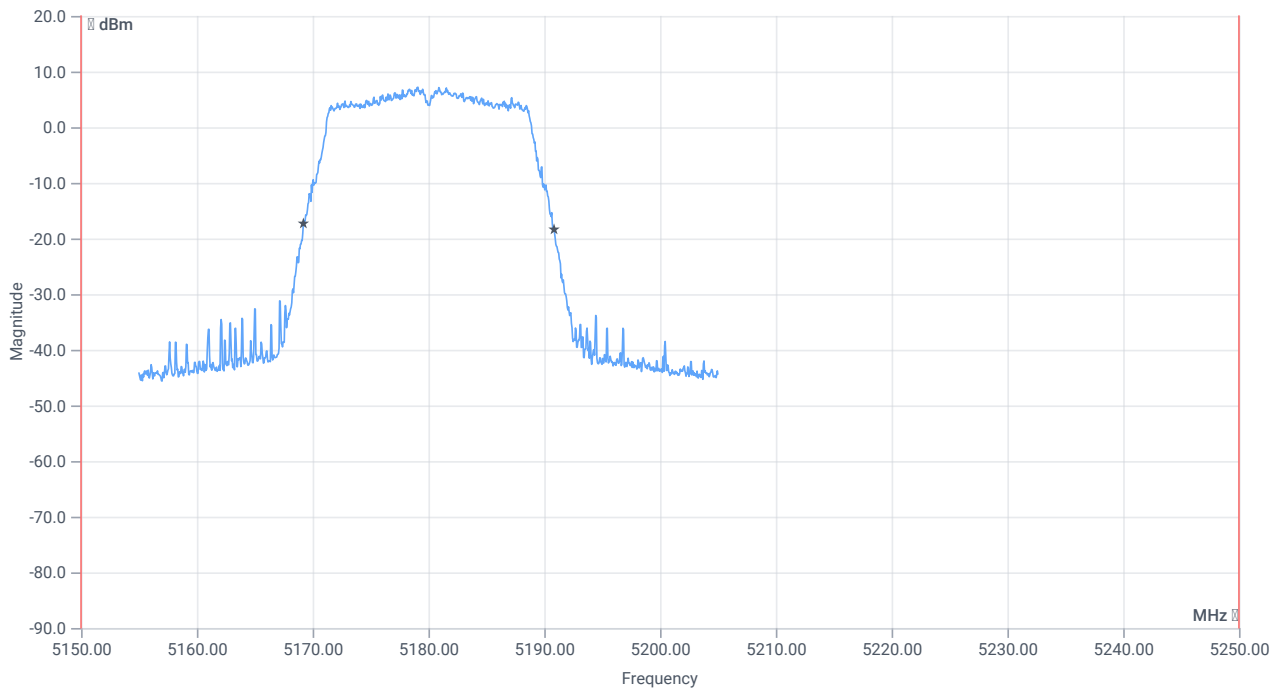
BW within Band 99PCT

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 99%	--	--	18.082	MHz	INFO
T1 99%	5150.000000	--	5171.0090	MHz	PASS
T2 99%	--	5250.000000	5189.0909	MHz	PASS



BW 26dB



BW within Band 26dB

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 26dB	---	---	21.65	MHz	INFO
T1 26dB	5150.000000	---	5169.2000	MHz	PASS
T2 26dB	---	5250.000000	5190.8500	MHz	PASS

Verdict

PASS

FCC 15.247 # Max output power and psd ~ WLAN5Gx n-HT20 mode U-NII-1

Test References

TC Start	09.02.2023 13:17:22
Ambit Temp [°C] Humidity [rel%]	23.4 23
System Version	3.3.4.3
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 n-HT20 mode U-NII-1
Add. Information	

EUT Common Settings WLAN5Gx

Number of Antenna Ports	2
User Interaction	No
Device Class UNII_1	Client
Limit W52 Japan	Standard

Test Parameter

Technology to test	WLAN5Gx n-HT20 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

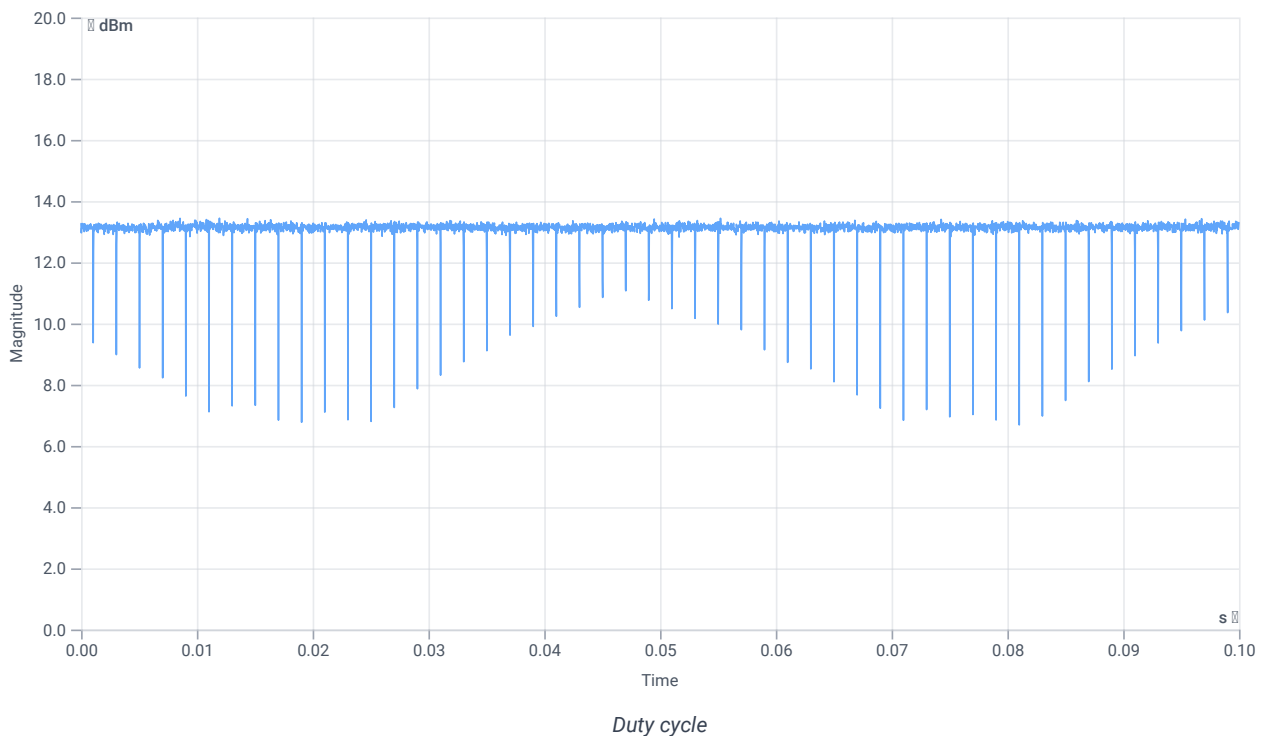
RESULT: Reference Power cond.

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	--	--	11.82	dBm	INFO
Ref. Frequency	--	--	5182.800	MHz	INFO

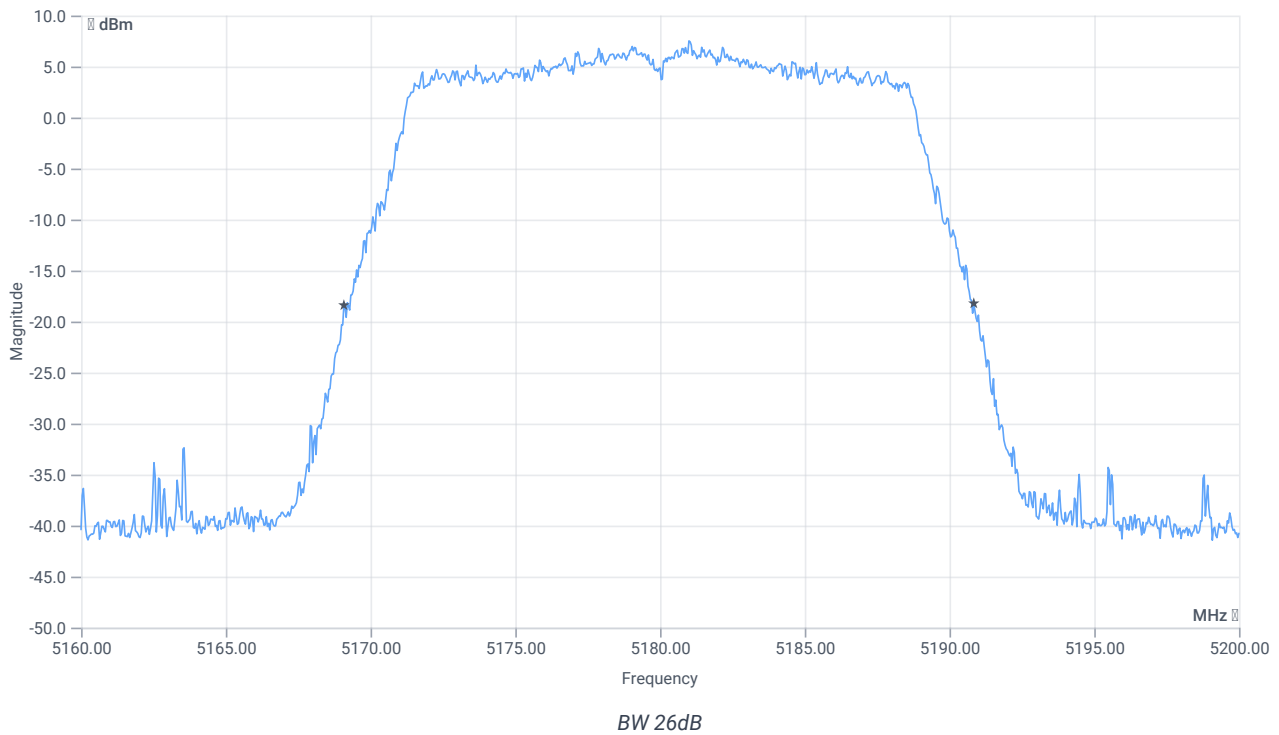
Evaluation max. Duty Cycle

Duty Cycle evaluation

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
No enough Bursts detected, Duty Cycle Burst Ratio set to 1					
Duty Cycle (Burst Ratio) max	--	--	1	--	INFO
Duty Cycle max	--	--	0	dB	INFO
Duty Cycle (Burst Ratio) min	--	--	1	--	INFO
Duty Cycle min	--	--	0	dB	INFO



Evaluation Bandwidth



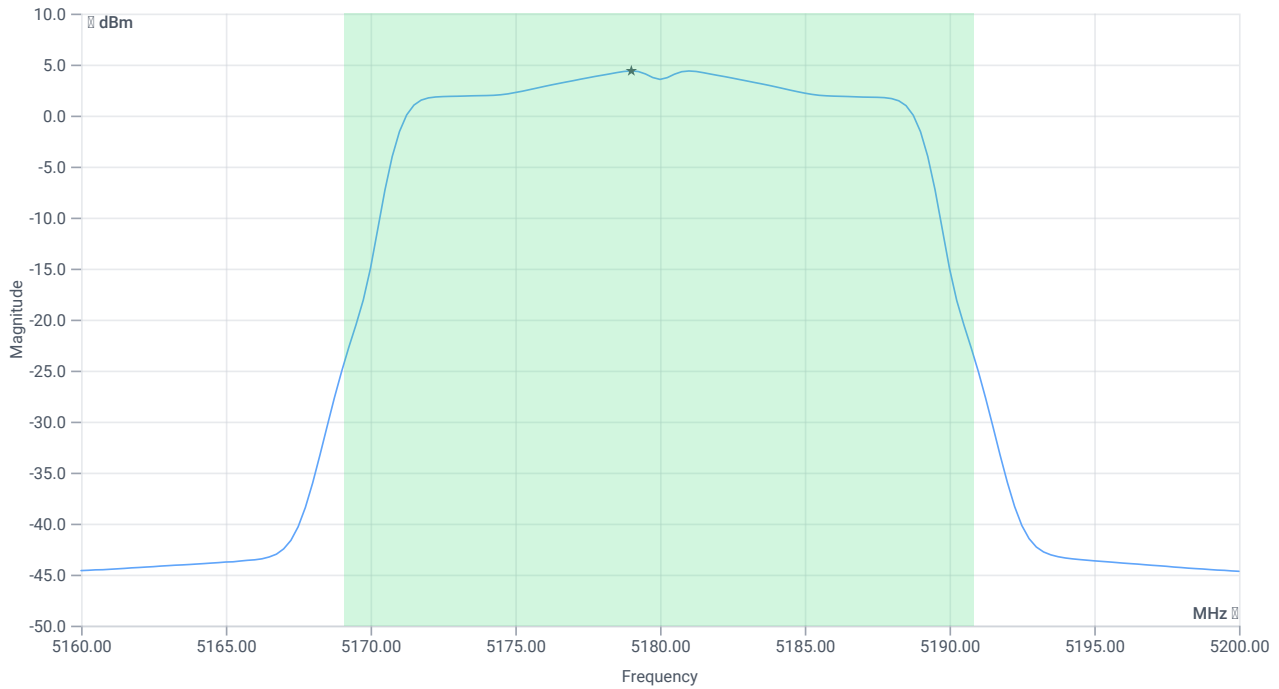
RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 26dB	---	---	21.76	MHz	INFO
T1 26dB	---	---	5169.0800	MHz	INFO
T2 26dB	---	---	5190.8400	MHz	INFO

Maximum Output Power

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	23.82 16.49 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



Max OP and PSD

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Max Output Power	--	--	15.13	dBm	INFO
Duty Cycle Correction	--	--	0	dB	INFO
Limit absolute					
Max Output Power DC corrected	--	24	15.13	dBm	PASS
Limit: 11 dBm + 10 log 21.76					
Max Output Power DC corrected	--	24.38	15.13	dBm	na

Power Spectral Density

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Power Spectral Density	--	--	4.38	dBm/1MHz	INFO
Duty Cycle Correction	--	--	0	dB	INFO
Power Spectral Density DC corrected	--	11	4.38	dBm/1MHz	PASS

Verdict

PASS

FCC 15.247 # MIMO Power PSD Calculator ~ WLAN5Gx n-HT20 mode U-NII-2C

Test References

TC Start	28.02.2023 14:27:00
Ambit Temp [°C] Humidity [rel%]	22.5 23
System Version	3.5.0.0
Test Specification	FCC 15.247 -
Test Method	
TC Version	0.0.1
My Description	FCC MIMO_Power_PSD_Calculator - WLAN5Gx n-HT20 mode U-NII-2C
Add. Information	

EUT Common Settings WLAN5Gx

Number of Antenna Ports	2
User Interaction	No
Device Class UNII_1	Client
Limit W52 Japan	Standard

Test Parameter

Technology to test	WLAN5Gx n-HT20 mode
Antenna Port used	several
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] 5720
Auto Control enabled Power Supply Climatic Box	No No
Additional Path Loss [dB]	1.4
Switched Path	None

Test Equipment

Test at TX 5720 MHz

RESULT Power

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ant:1 Max Output Power DC corrected	--	--	18.99	dBm	INFO
Ant:1 BW 26dB	--	--	22.000	MHz	INFO
Ant:2 Max Output Power DC corrected	--	--	18.85	dBm	INFO
Ant:2 BW 26dB	--	--	21.880	MHz	INFO
Σ Limit absolute	--	24	21.93	dBm	PASS
Σ Limit: 11 dBm + 10 log 21.88	--	24.4	21.93	dBm	PASS

RESULT PSD

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ant:1 PSD	--	--	6.93	dBm/1MHz	INFO
Ant:2 PSD	--	--	6.78	dBm/1MHz	INFO
Σ	--	11	9.87	dBm/1MHz	PASS

Verdict

PASS

FCC 15.407, ISED RSS247 # Bandwidths 99PCT and 26dB ~ WLAN5Gx n-HT20 mode U-NII-2C

Test References

TC Start	28.02.2023 14:26:29
Ambit Temp [°C] Humidity [rel%]	22.5 23
System Version	3.5.0.0
Test Specification	FCC 15.407, ISED RSS247 -
Test Method	26dB Bandwidth KDB789033 D02, C.1 / ISED RSS-GEN
TC Version	0.0.1
My Description	FCC 15.407 Bandwidths - WLAN5Gx n-HT20 mode U-NII-2C
Add. Information	

EUT Common Settings WLAN5Gx

Number of Antenna Ports	2
User Interaction	No
Device Class UNII_1	Client
Limit W52 Japan	Standard

Test Parameter

Technology to test	WLAN5Gx n-HT20 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] 5720
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

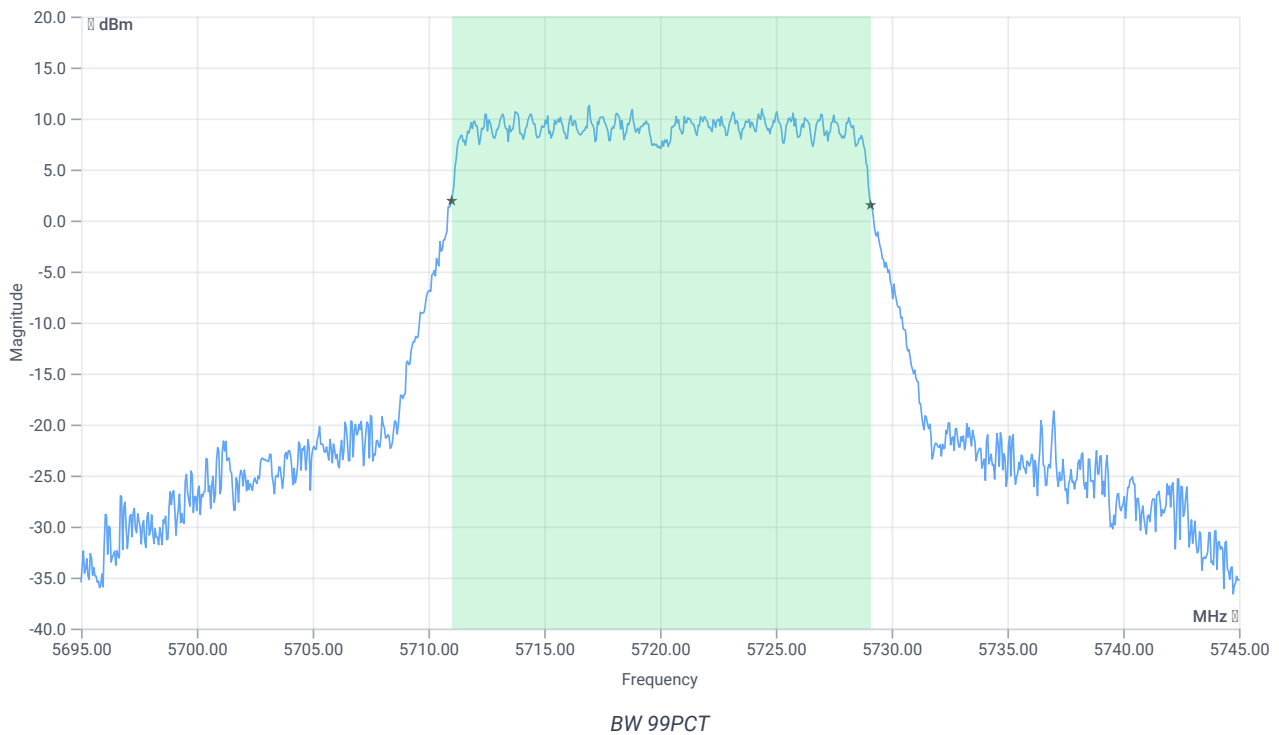
Test at TX 5720 MHz

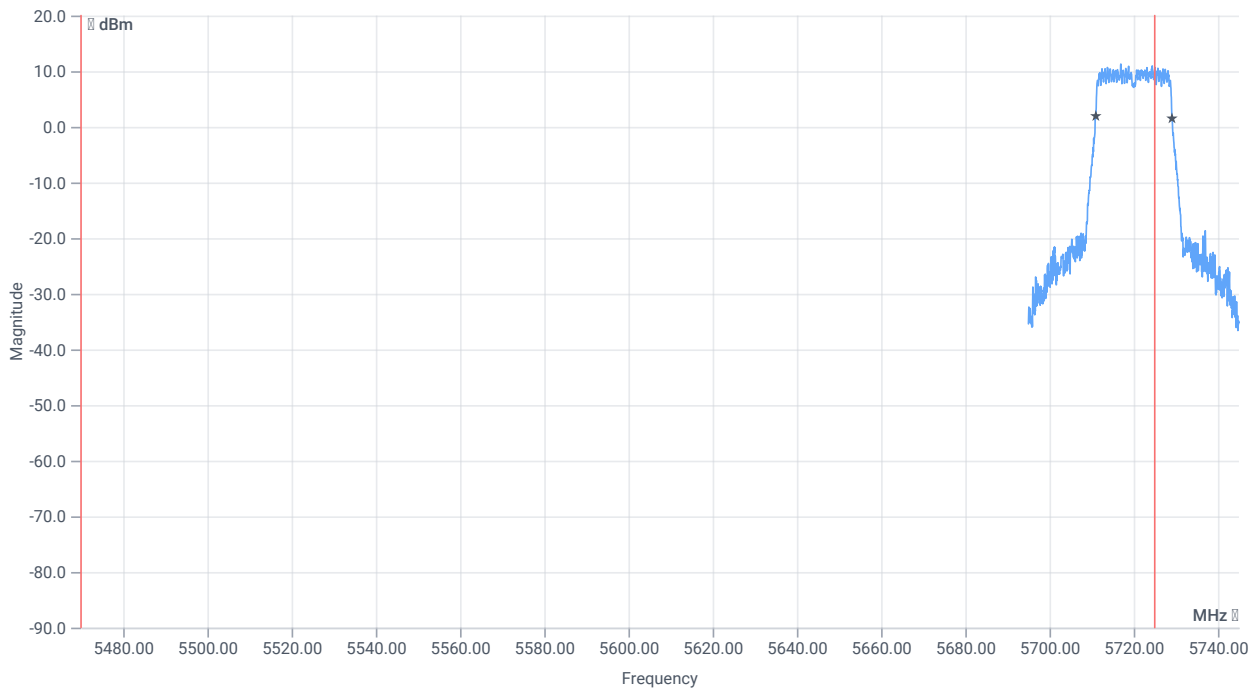
RESULT: Reference Power cond.

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	--	--	15.31	dBm	INFO
Ref. Frequency	--	--	5725.990	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	23.31 16.69 25
Start [MHz] Stop [MHz]	5695.000 5745.000
RBW [MHz] VBW [MHz]	0.300000 1.000000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	1 2500 1001 SWE

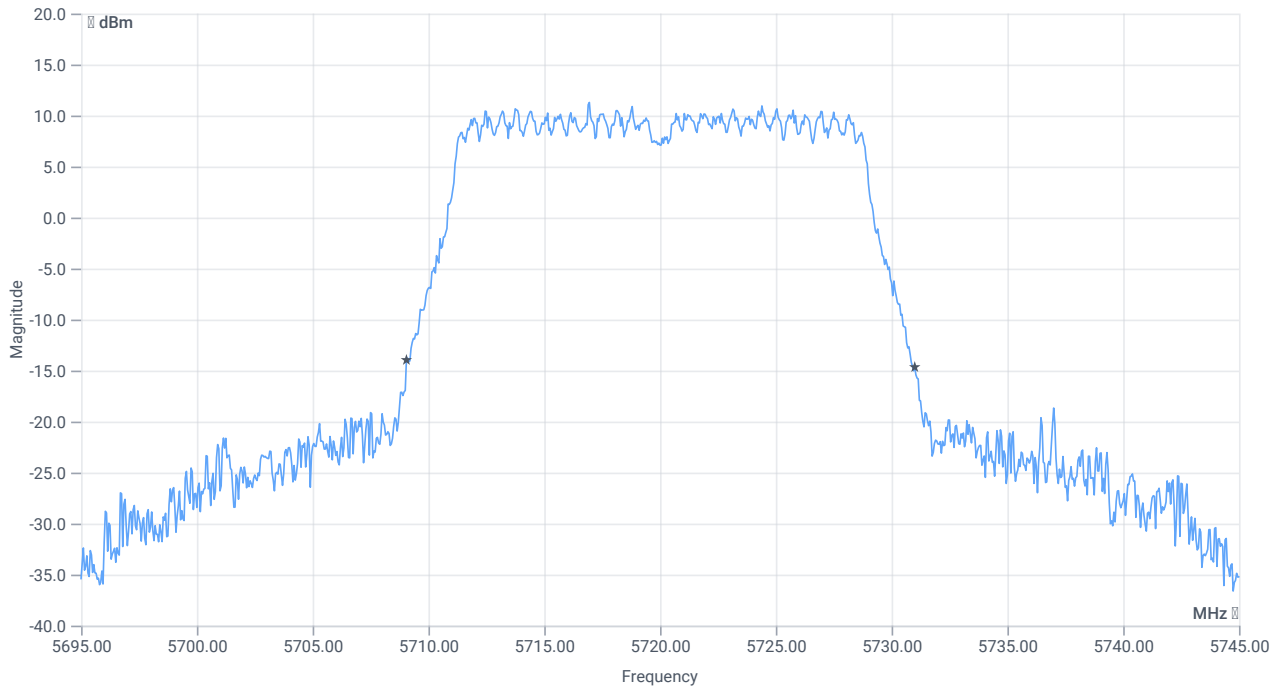




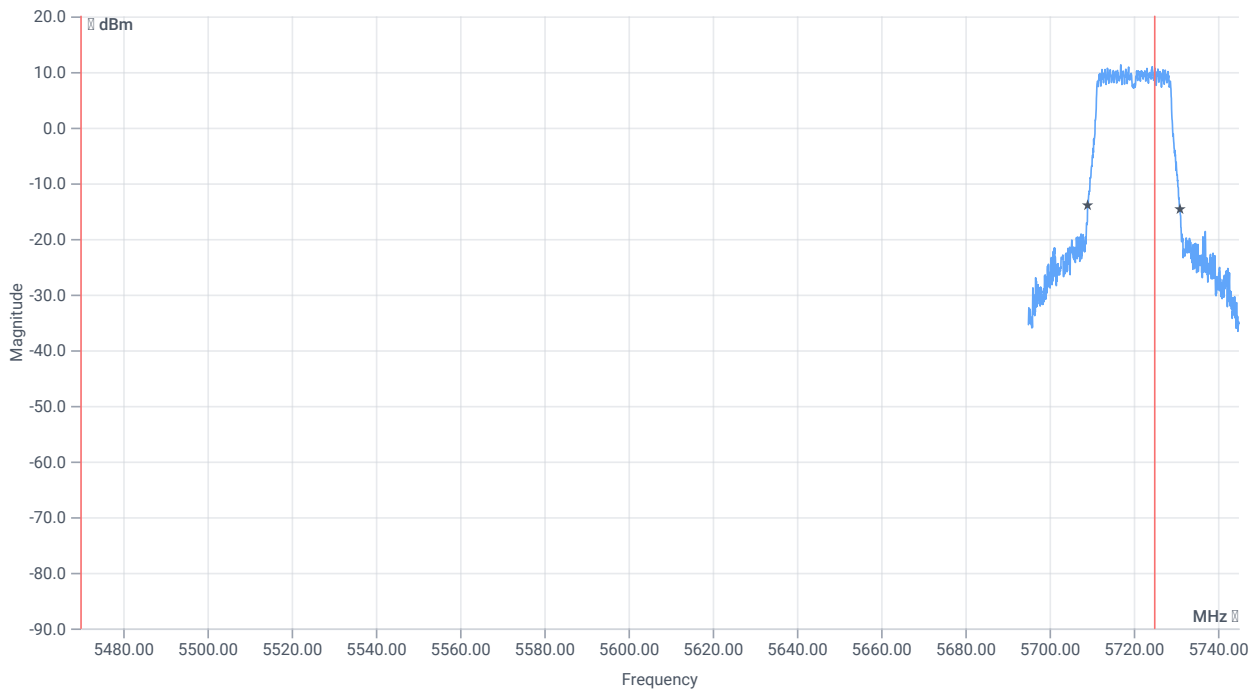
BW within Band 99PCT

RESULT

<i>Test Description</i>	<i>Lower Limit</i>	<i>Upper Limit</i>	<i>Measured</i>	<i>Unit</i>	<i>Verdict</i>
Bandwidth 99%	--	--	18.082	MHz	INFO
T1 99%	5470.000000	--	5711.0090	MHz	PASS since U-NII-3 is supported
T2 99%	--	5725.000000	5729.0909	MHz	



BW 26dB



BW within Band 26dB

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 26dB	---	---	21.95	MHz	INFO

RESULT

<i>Test Description</i>	<i>Lower Limit</i>	<i>Upper Limit</i>	<i>Measured</i>	<i>Unit</i>	<i>Verdict</i>
T1 26dB	5470.000000	--	5709.0500	MHz	PASS since U-NII-3 is supported
T2 26dB	--	5725.000000	5731.0000	MHz	

Verdict**PASS**

FCC 15.247 # Max output power and psd ~ WLAN5Gx n-HT20 mode U-NII-2C

Test References

TC Start	28.02.2023 14:25:02
Ambit Temp [°C] Humidity [rel%]	22.5 23
System Version	3.5.0.0
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 n-HT20 mode U-NII-2C

Add. Information

EUT Common Settings WLAN5Gx

Number of Antenna Ports	2
User Interaction	No
Device Class UNII_1	Client
Limit W52 Japan	Standard

Test Parameter

Technology to test	WLAN5Gx n-HT20 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] 5720
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 5720 MHz

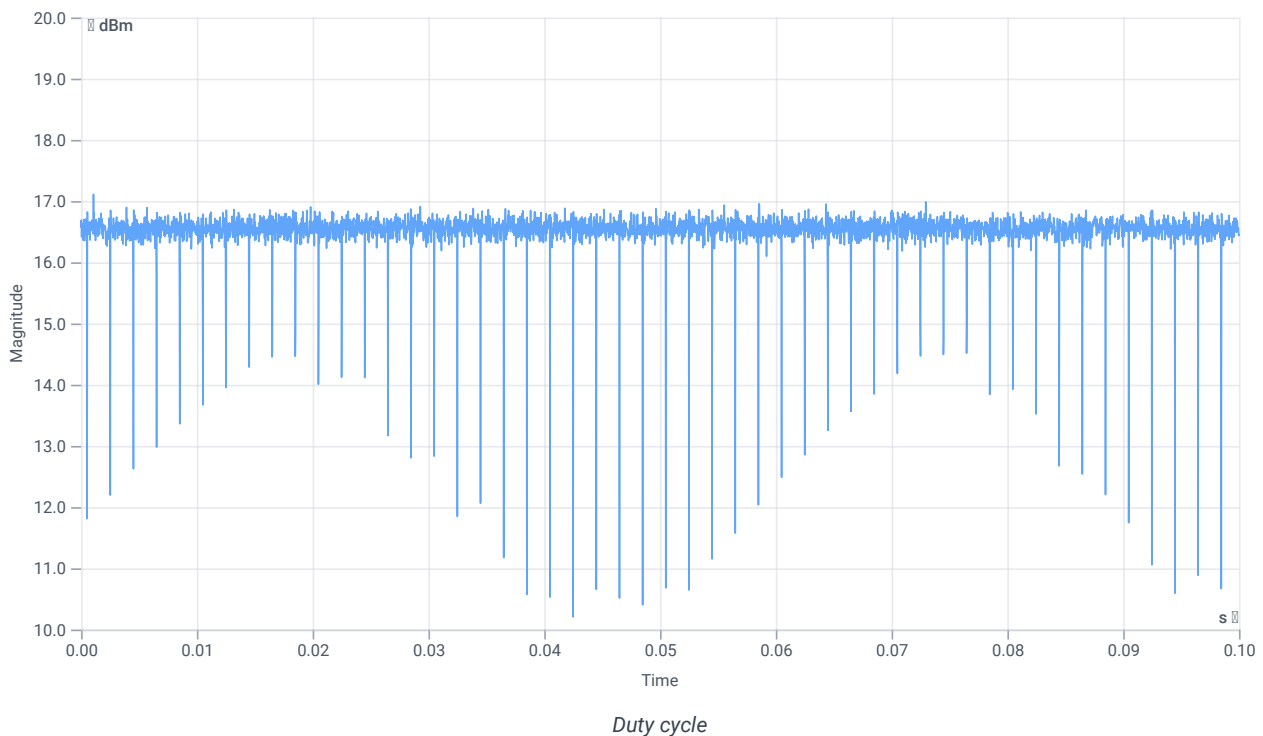
RESULT: Reference Power cond.

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	--	--	15.70	dBm	INFO
Ref. Frequency	--	--	5716.000	MHz	INFO

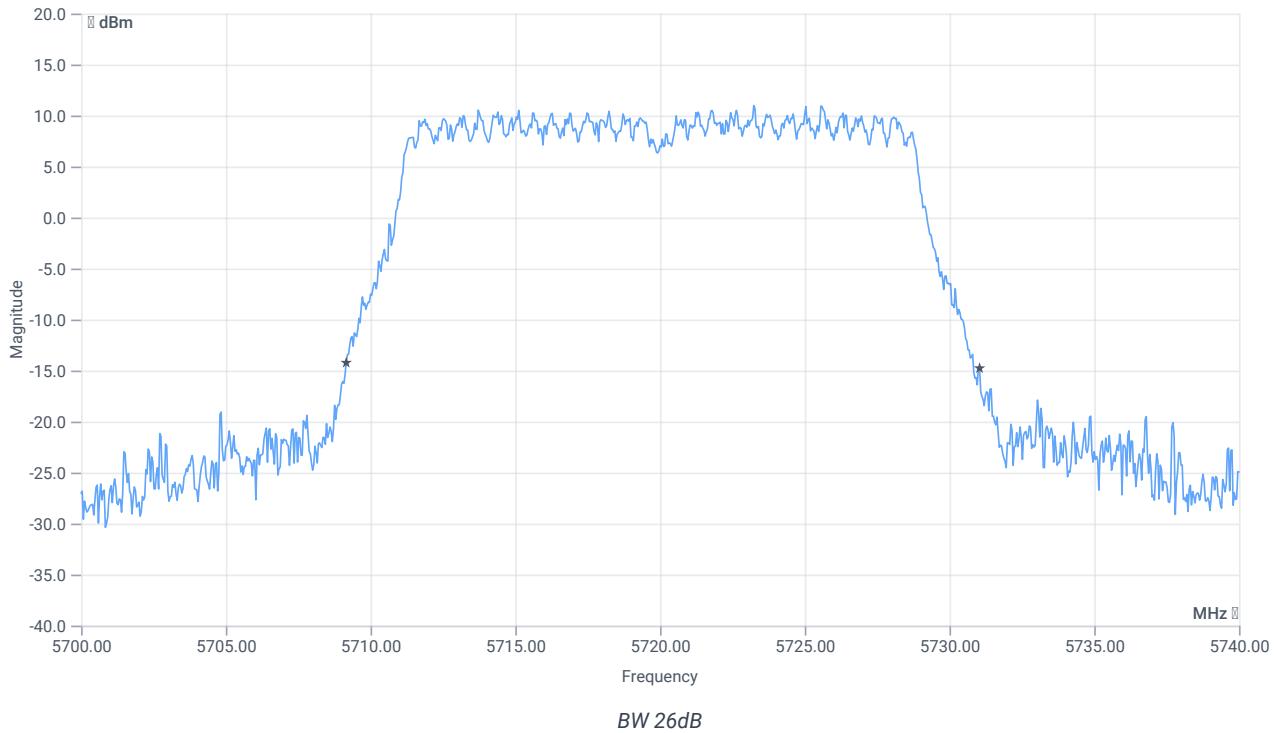
Evaluation max. Duty Cycle

Duty Cycle evaluation

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
No enough Bursts detected, Duty Cycle Burst Ratio set to 1					
Duty Cycle (Burst Ratio) max	--	--	1	--	INFO
Duty Cycle max	--	--	0	dB	INFO
Duty Cycle (Burst Ratio) min	--	--	1	--	INFO
Duty Cycle min	--	--	0	dB	INFO



Evaluation Bandwidth



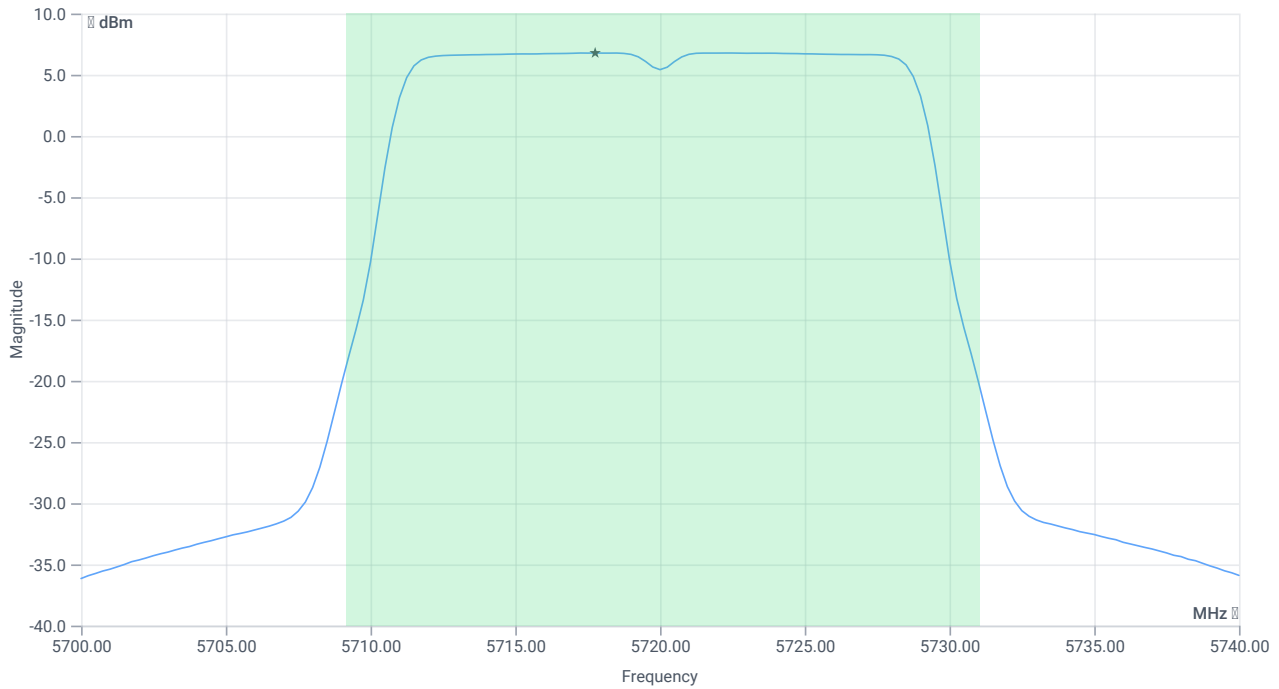
RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 26dB	---	---	21.88	MHz	INFO
T1 26dB	---	---	5709.1600	MHz	INFO
T2 26dB	---	---	5731.0400	MHz	INFO

Maximum Output Power

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	27.70 16.69 30
Start [MHz] Stop [MHz]	5700.000 5740.000
RBW [MHz] VBW [MHz]	1.000000 3.000000
Detector TraceMode	RMS MAXH
Sweep: Time [ms] Count Points per Section Type	53700 1 161 SWE



Max OP and PSD

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Max Output Power	--	--	18.85	dBm	INFO
Duty Cycle Correction	--	--	0	dB	INFO
Limit absolute					
Max Output Power DC corrected	--	24	18.85	dBm	PASS
Limit: 11 dBm + 10 log 21.88					
Max Output Power DC corrected	--	24.4	18.85	dBm	PASS

Power Spectral Density

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Power Spectral Density	--	--	6.78	dBm/1MHz	INFO
Duty Cycle Correction	--	--	0	dB	INFO
Power Spectral Density DC corrected	--	11	6.78	dBm/1MHz	PASS

Verdict

PASS

FCC 15.407, ISED RSS247 # Bandwidths 99PCT and 26dB ~ WLAN5Gx n-HT20 mode U-NII-2C

Test References

TC Start	28.02.2023 14:24:32
Ambit Temp [°C] Humidity [rel%]	22.6 23
System Version	3.5.0.0
Test Specification	FCC 15.407, ISED RSS247 -
Test Method	26dB Bandwidth KDB789033 D02, C.1 / ISED RSS-GEN
TC Version	0.0.1
My Description	FCC 15.407 Bandwidths - WLAN5Gx n-HT20 mode U-NII-2C
Add. Information	

EUT Common Settings WLAN5Gx

Number of Antenna Ports	2
User Interaction	No
Device Class UNII_1	Client
Limit W52 Japan	Standard

Test Parameter

Technology to test	WLAN5Gx n-HT20 mode
Antenna Port used	1
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] 5720
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

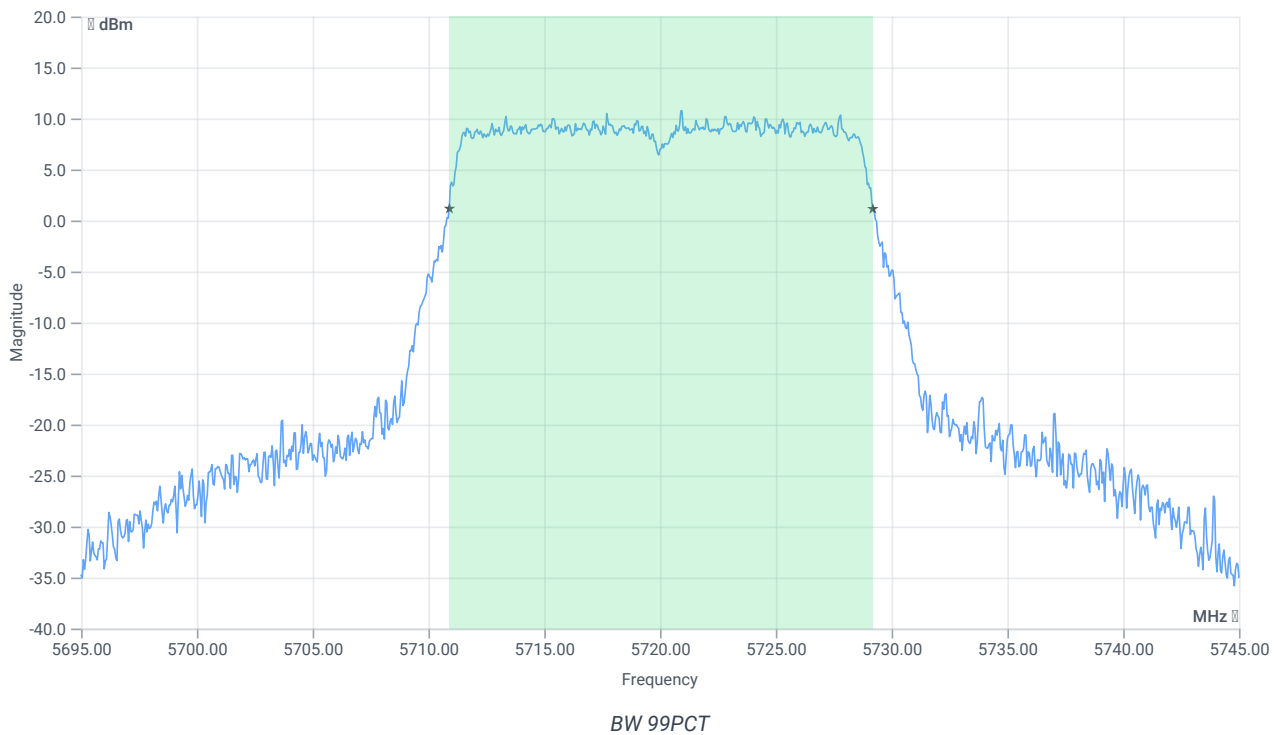
Test at TX 5720 MHz

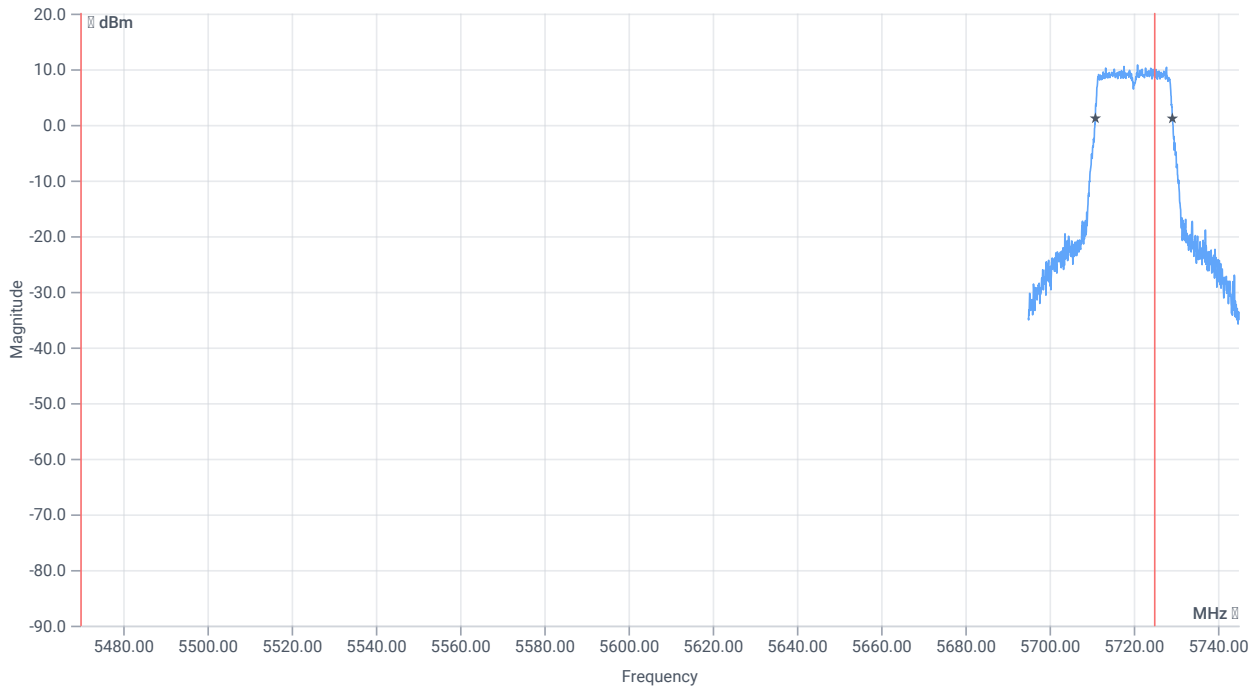
RESULT: Reference Power cond.

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	--	--	14.95	dBm	INFO
Ref. Frequency	--	--	5724.000	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	22.95 16.69 25
Start [MHz] Stop [MHz]	5695.000 5745.000
RBW [MHz] VBW [MHz]	0.300000 1.000000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	1 2500 1001 SWE

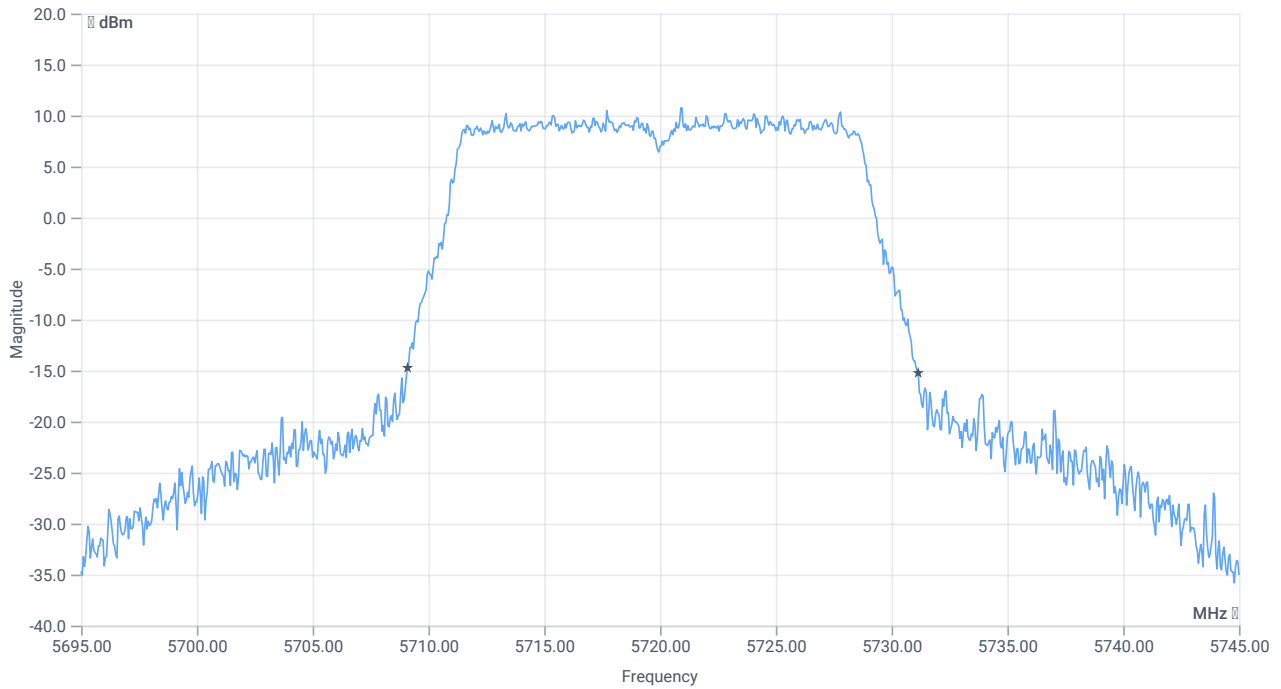




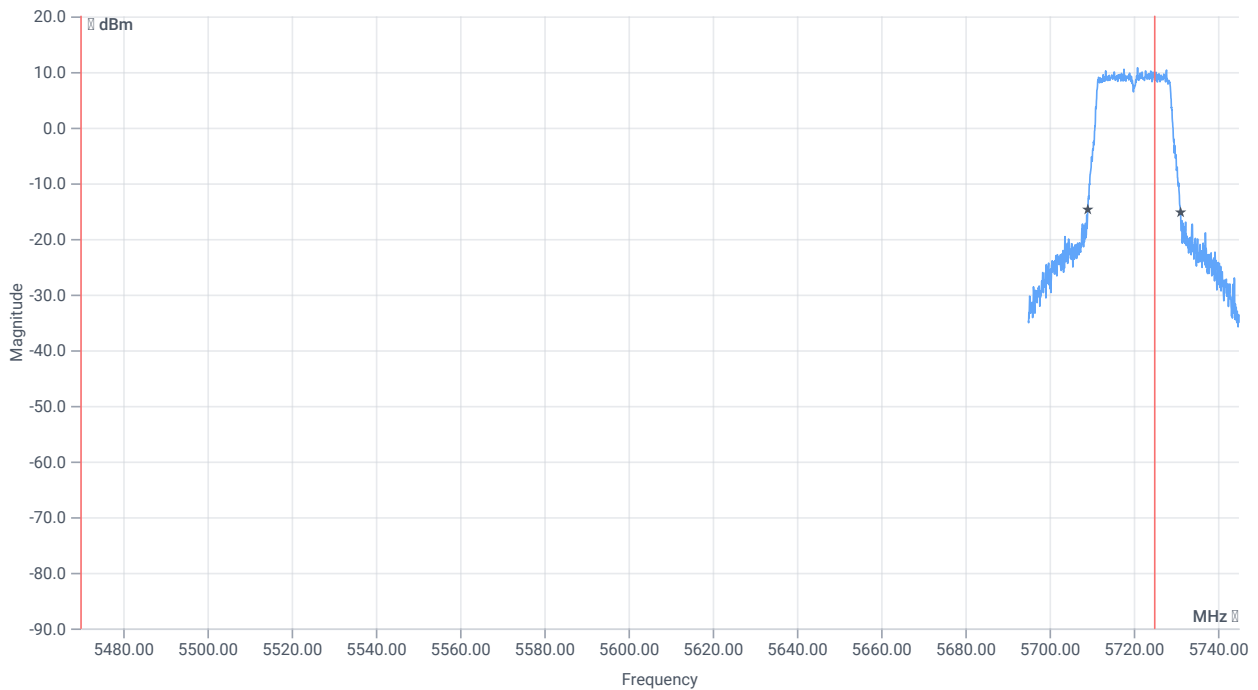
BW within Band 99PCT

RESULT

<i>Test Description</i>	<i>Lower Limit</i>	<i>Upper Limit</i>	<i>Measured</i>	<i>Unit</i>	<i>Verdict</i>
Bandwidth 99%	--	--	18.282	MHz	INFO
T1 99%	5470.000000	--	5710.9091	MHz	PASS since U-NII-3 is supported
T2 99%	--	5725.000000	5729.1908	MHz	



BW 26dB



BW within Band 26dB

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 26dB	---	---	22.05	MHz	INFO

RESULT

<i>Test Description</i>	<i>Lower Limit</i>	<i>Upper Limit</i>	<i>Measured</i>	<i>Unit</i>	<i>Verdict</i>
T1 26dB	5470.000000	--	5709.1000	MHz	PASS since U-NII-3 is supported
T2 26dB	--	5725.000000	5731.1500	MHz	

Verdict**PASS**

FCC 15.247 # Max output power and psd ~ WLAN5Gx n-HT20 mode U-NII-2C

Test References

TC Start	28.02.2023 14:23:05
Ambit Temp [°C] Humidity [rel%]	22.5 23
System Version	3.5.0.0
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 n-HT20 mode U-NII-2C

Add. Information

EUT Common Settings WLAN5Gx

Number of Antenna Ports	2
User Interaction	No
Device Class UNII_1	Client
Limit W52 Japan	Standard

Test Parameter

Technology to test	WLAN5Gx n-HT20 mode
Antenna Port used	1
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] 5720
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 5720 MHz

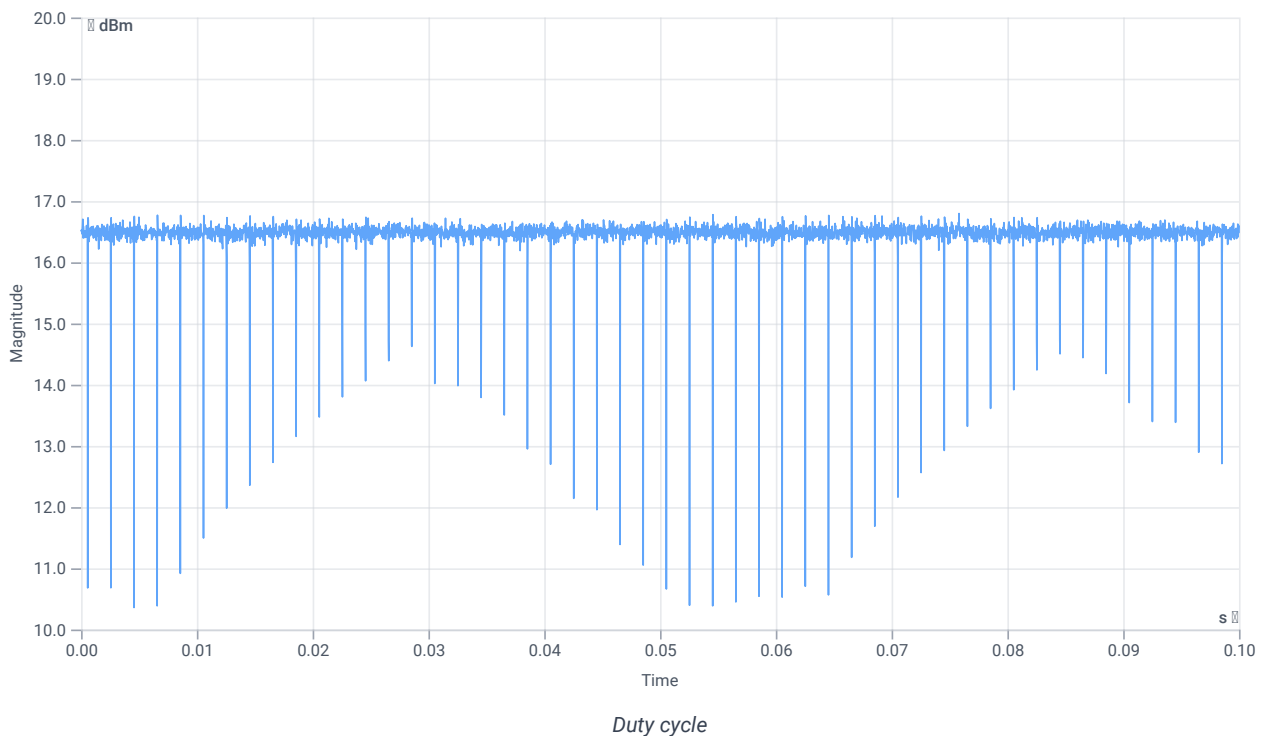
RESULT: Reference Power cond.

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	--	--	15.74	dBm	INFO
Ref. Frequency	--	--	5721.400	MHz	INFO

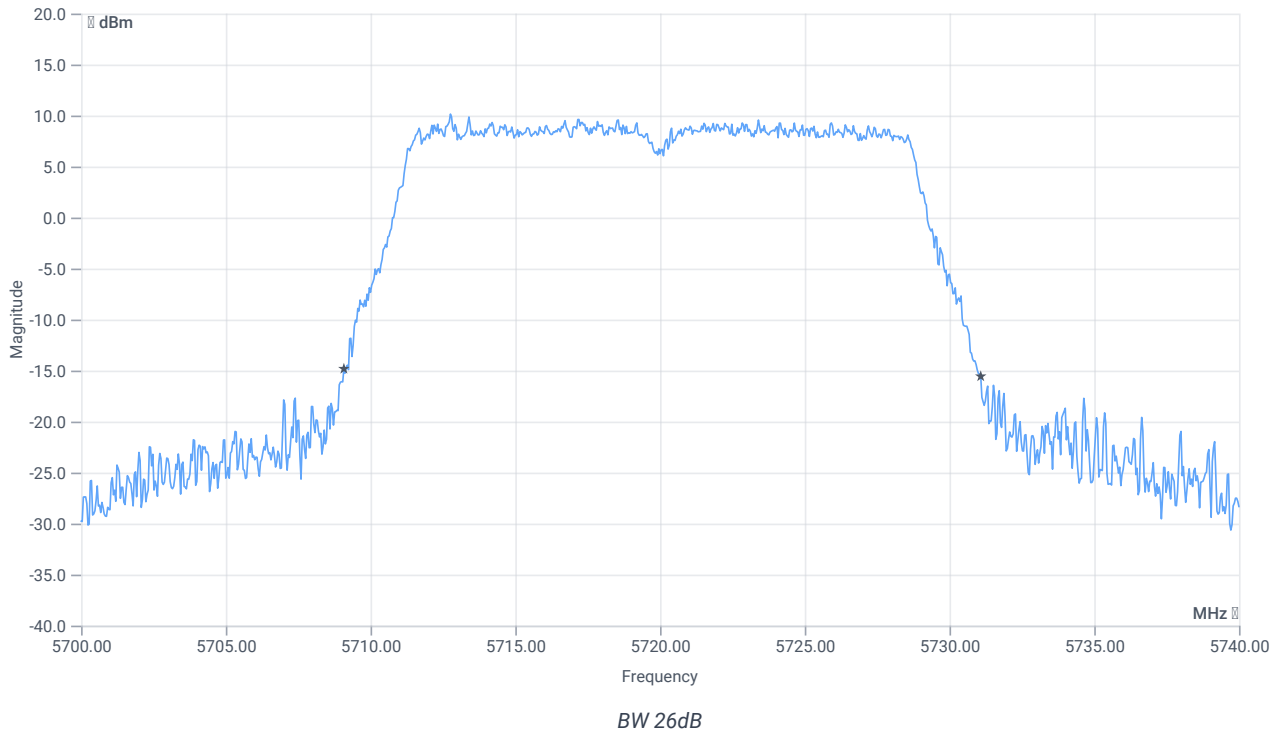
Evaluation max. Duty Cycle

Duty Cycle evaluation

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
No enough Bursts detected, Duty Cycle Burst Ratio set to 1					
Duty Cycle (Burst Ratio) max	--	--	1	--	INFO
Duty Cycle max	--	--	0	dB	INFO
Duty Cycle (Burst Ratio) min	--	--	1	--	INFO
Duty Cycle min	--	--	0	dB	INFO



Evaluation Bandwidth



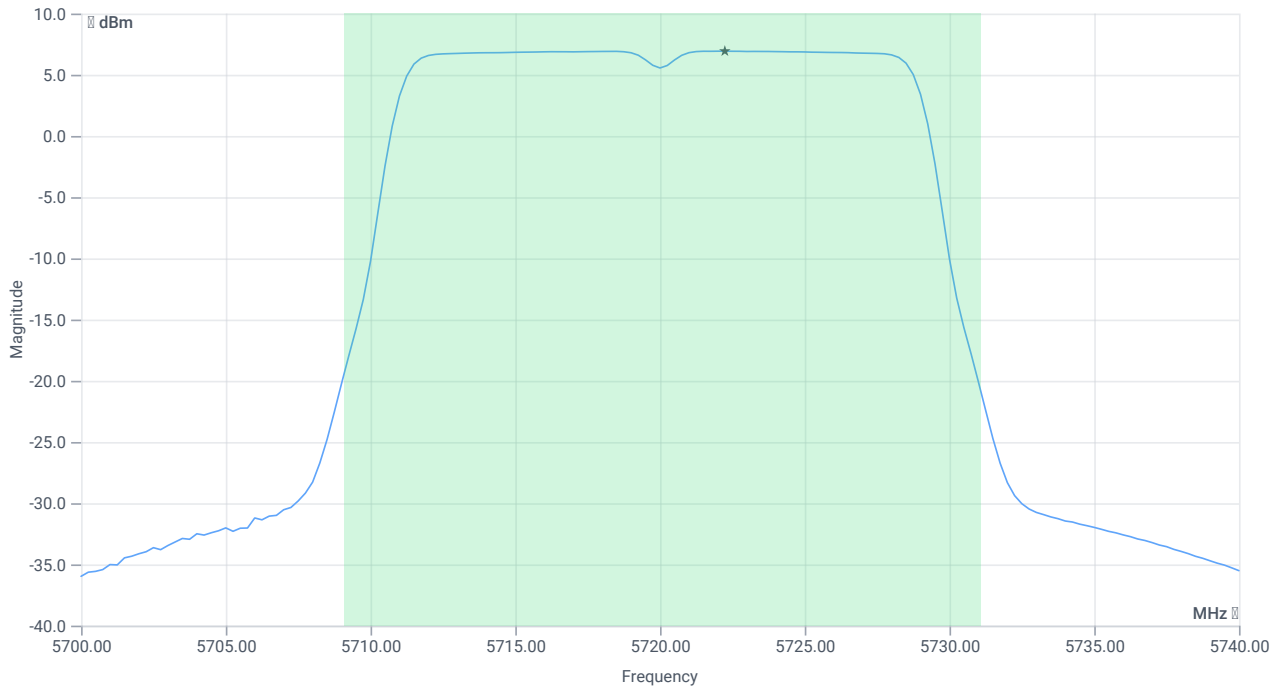
RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 26dB	---	---	22	MHz	INFO
T1 26dB	---	---	5709.0800	MHz	INFO
T2 26dB	---	---	5731.0800	MHz	INFO

Maximum Output Power

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	27.74 16.69 30
Start [MHz] Stop [MHz]	5700.000 5740.000
RBW [MHz] VBW [MHz]	1.000000 3.000000
Detector TraceMode	RMS MAXH
Sweep: Time [ms] Count Points per Section Type	53700 1 161 SWE



Max OP and PSD

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Max Output Power	--	--	18.99	dBm	INFO
Duty Cycle Correction	--	--	0	dB	INFO
Limit absolute					
Max Output Power DC corrected	--	24	18.99	dBm	PASS
Limit: 11 dBm + 10 log 22					
Max Output Power DC corrected	--	24.42	18.99	dBm	PASS

Power Spectral Density

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Power Spectral Density	--	--	6.93	dBm/1MHz	INFO
Duty Cycle Correction	--	--	0	dB	INFO
Power Spectral Density DC corrected	--	11	6.93	dBm/1MHz	PASS

Verdict

PASS

FCC 15.247 # MIMO Power PSD Calculator ~ WLAN5Gx n-HT20 mode U-NII-2C

Test References

TC Start	28.02.2023 14:21:44
Ambit Temp [°C] Humidity [rel%]	22.6 23
System Version	3.5.0.0
Test Specification	FCC 15.247 -
Test Method	
TC Version	0.0.1
My Description	FCC MIMO_Power_PSD_Calculator - WLAN5Gx n-HT20 mode U-NII-2C
Add. Information	

EUT Common Settings WLAN5Gx

Number of Antenna Ports	2
User Interaction	No
Device Class UNII_1	Client
Limit W52 Japan	Standard

Test Parameter

Technology to test	WLAN5Gx n-HT20 mode
Antenna Port used	several
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] 5720
Auto Control enabled Power Supply Climatic Box	No No
Additional Path Loss [dB]	1.4
Switched Path	None

Test Equipment

Test at TX 5600 MHz

RESULT Power

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ant:1 Max Output Power DC corrected	--	--	18.99	dBm	INFO
Ant:1 BW 26dB	--	--	22.000	MHz	INFO
Ant:2 Max Output Power DC corrected	--	--	18.79	dBm	INFO
Ant:2 BW 26dB	--	--	21.960	MHz	INFO
Σ Limit absolute	--	24	21.9	dBm	PASS
Σ Limit: 11 dBm + 10 log 21.96	--	24.42	21.9	dBm	PASS

RESULT PSD

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ant:1 PSD	--	--	6.95	dBm/1MHz	INFO
Ant:2 PSD	--	--	6.78	dBm/1MHz	INFO
Σ	--	11	9.88	dBm/1MHz	PASS

Verdict

PASS

FCC 15.407, ISED RSS247 # Bandwidths 99PCT and 26dB ~ WLAN5Gx n-HT20 mode U-NII-2C

Test References

TC Start	28.02.2023 14:21:13
Ambit Temp [°C] Humidity [rel%]	22.5 23
System Version	3.5.0.0
Test Specification	FCC 15.407, ISED RSS247 -
Test Method	26dB Bandwidth KDB789033 D02, C.1 / ISED RSS-GEN
TC Version	0.0.1
My Description	FCC 15.407 Bandwidths - WLAN5Gx n-HT20 mode U-NII-2C
Add. Information	

EUT Common Settings WLAN5Gx

Number of Antenna Ports	2
User Interaction	No
Device Class UNII_1	Client
Limit W52 Japan	Standard

Test Parameter

Technology to test	WLAN5Gx n-HT20 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] 5720
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

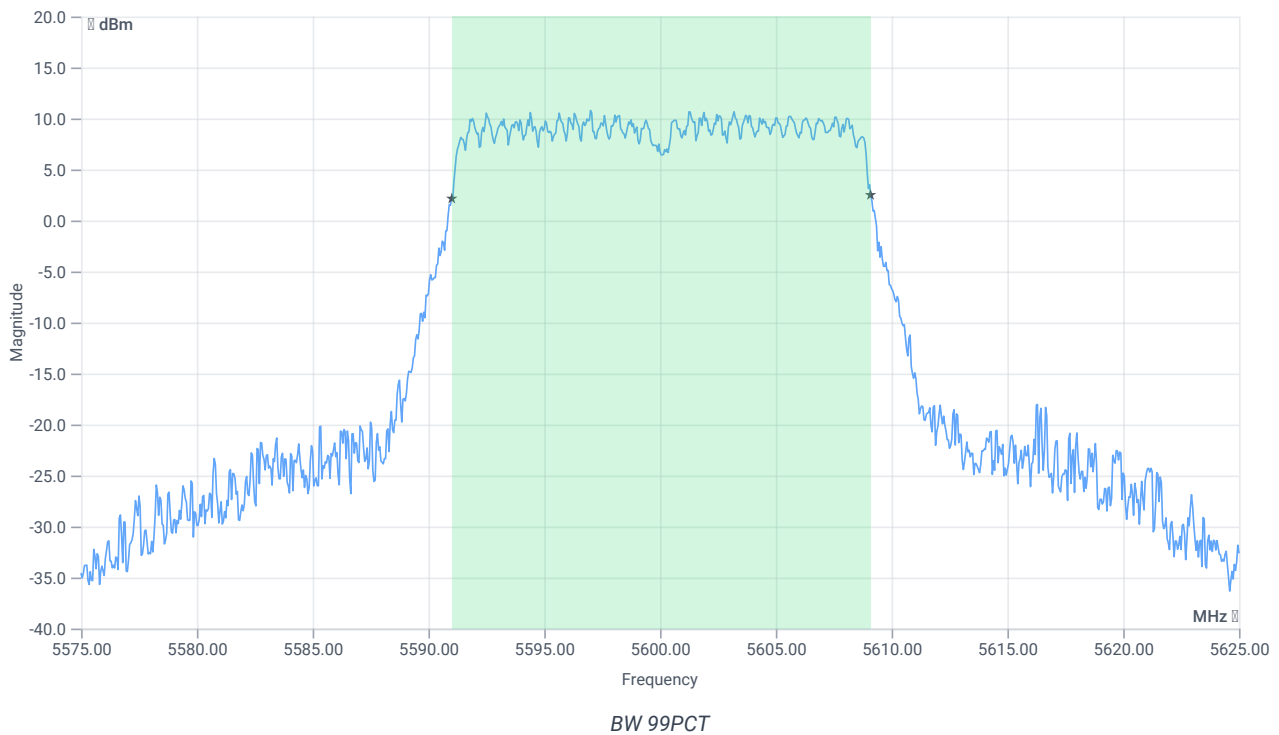
Test at TX 5600 MHz

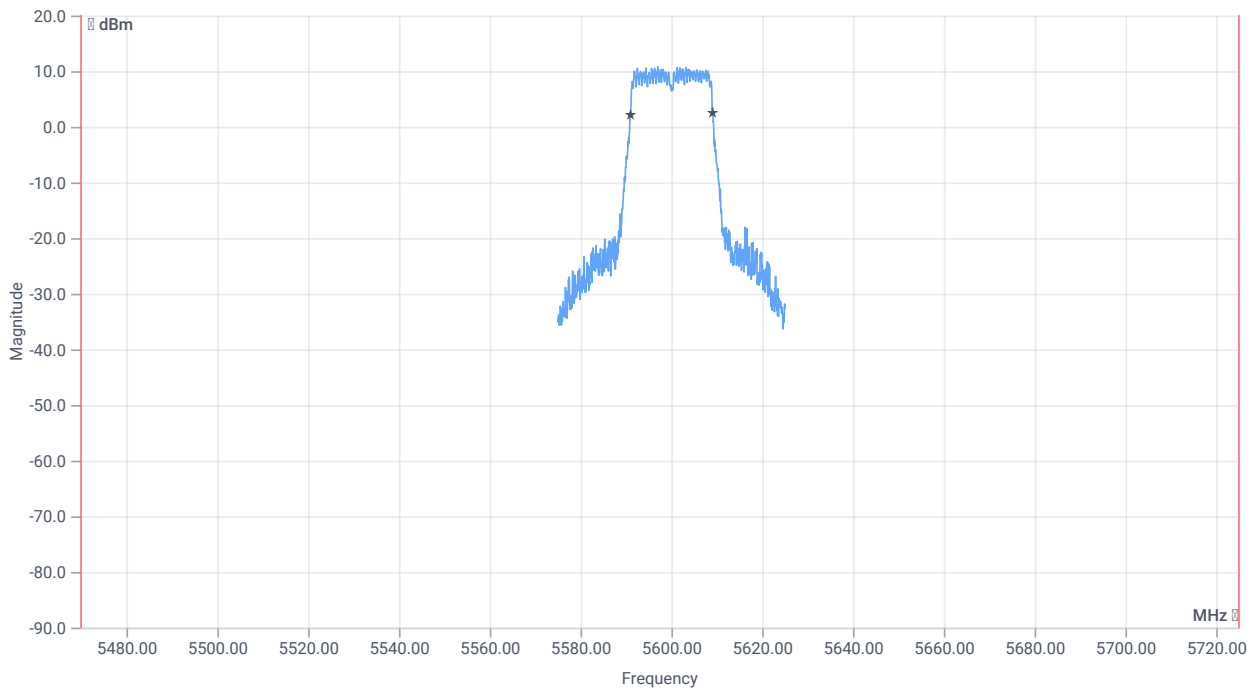
RESULT: Reference Power cond.

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	--	--	15.18	dBm	INFO
Ref. Frequency	--	--	5601.800	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	23.18 16.74 25
Start [MHz] Stop [MHz]	5575.000 5625.000
RBW [MHz] VBW [MHz]	0.300000 1.000000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	1 2500 1001 SWE

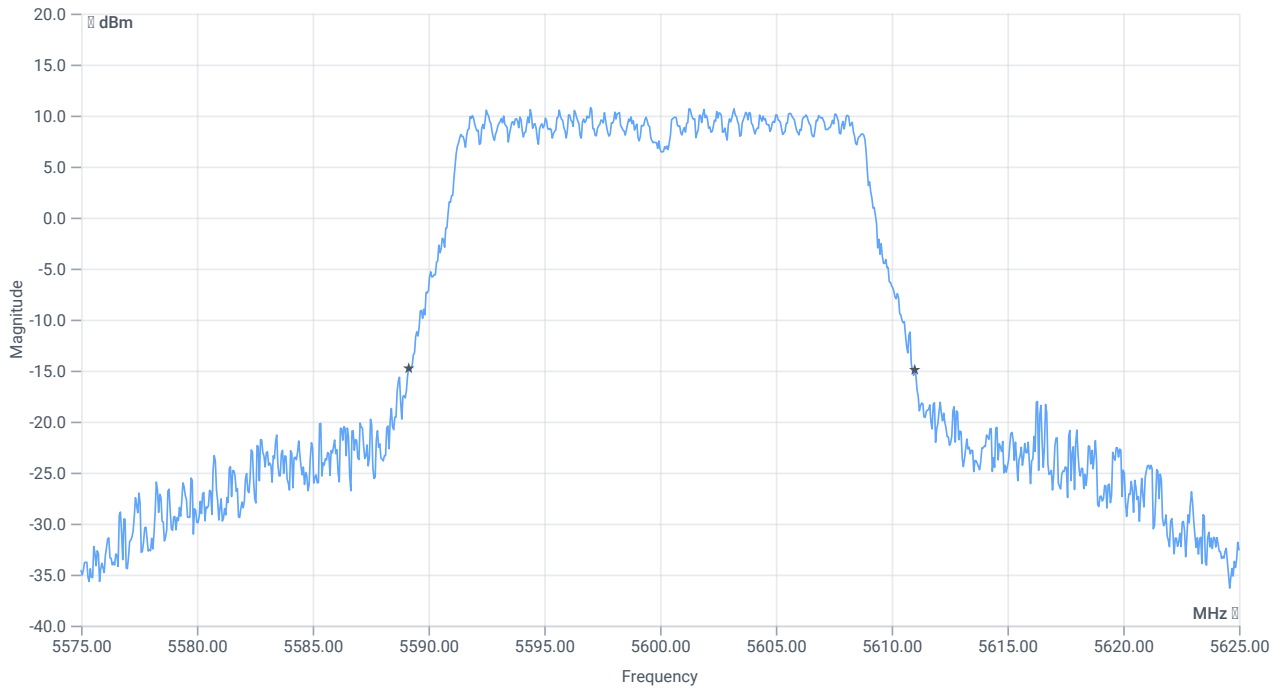




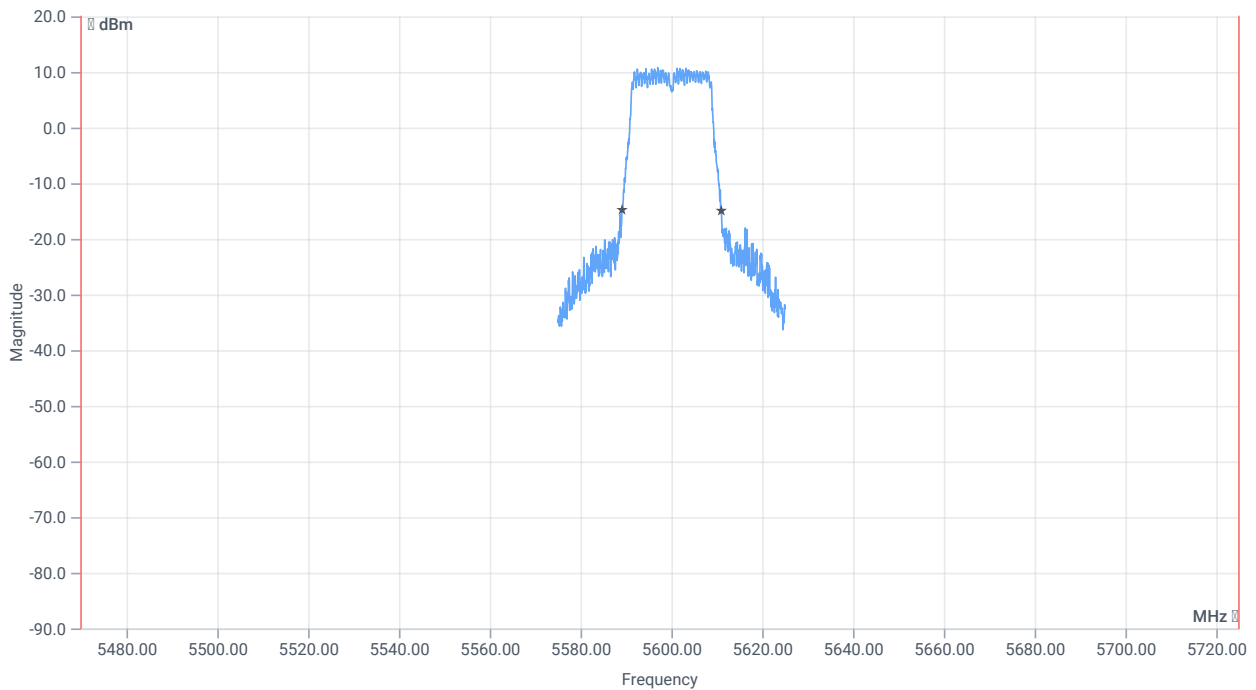
BW within Band 99PCT

RESULT

<i>Test Description</i>	<i>Lower Limit</i>	<i>Upper Limit</i>	<i>Measured</i>	<i>Unit</i>	<i>Verdict</i>
Bandwidth 99%	--	--	18.082	MHz	INFO
T1 99%	5470.000000	--	5591.0090	MHz	PASS since U-NII-3 is supported
T2 99%	--	5725.000000	5609.0909	MHz	



BW 26dB



BW within Band 26dB

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 26dB	---	---	21.85	MHz	INFO

RESULT

<i>Test Description</i>	<i>Lower Limit</i>	<i>Upper Limit</i>	<i>Measured</i>	<i>Unit</i>	<i>Verdict</i>
T1 26dB	5470.000000	--	5589.1500	MHz	PASS since U-NII-3 is supported
T2 26dB	--	5725.000000	5611.0000	MHz	

Verdict

PASS

FCC 15.247 # Max output power and psd ~ WLAN5Gx n-HT20 mode U-NII-2C

Test References

TC Start	28.02.2023 14:19:45
Ambit Temp [°C] Humidity [rel%]	22.5 23
System Version	3.5.0.0
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 n-HT20 mode U-NII-2C

Add. Information

EUT Common Settings WLAN5Gx

Number of Antenna Ports	2
User Interaction	No
Device Class UNII_1	Client
Limit W52 Japan	Standard

Test Parameter

Technology to test	WLAN5Gx n-HT20 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] 5720
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

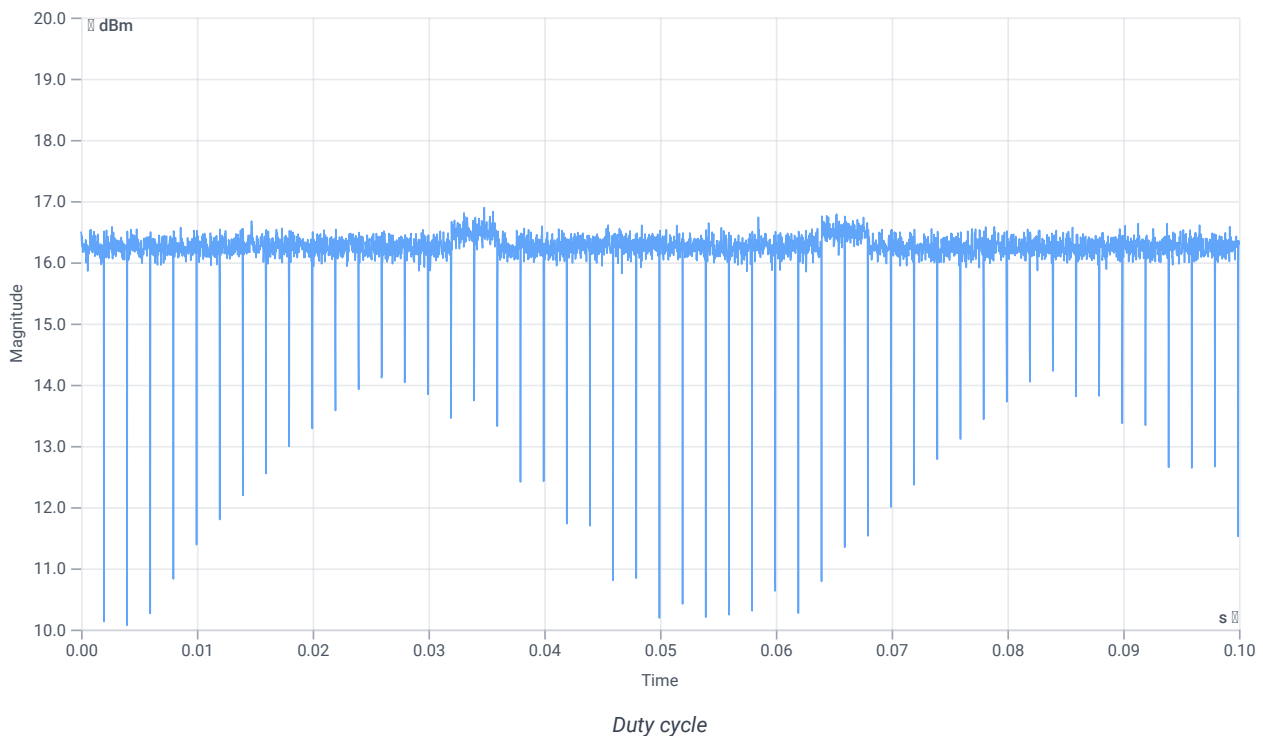
RESULT: Reference Power cond.

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	--	--	15.22	dBm	INFO
Ref. Frequency	--	--	5596.200	MHz	INFO

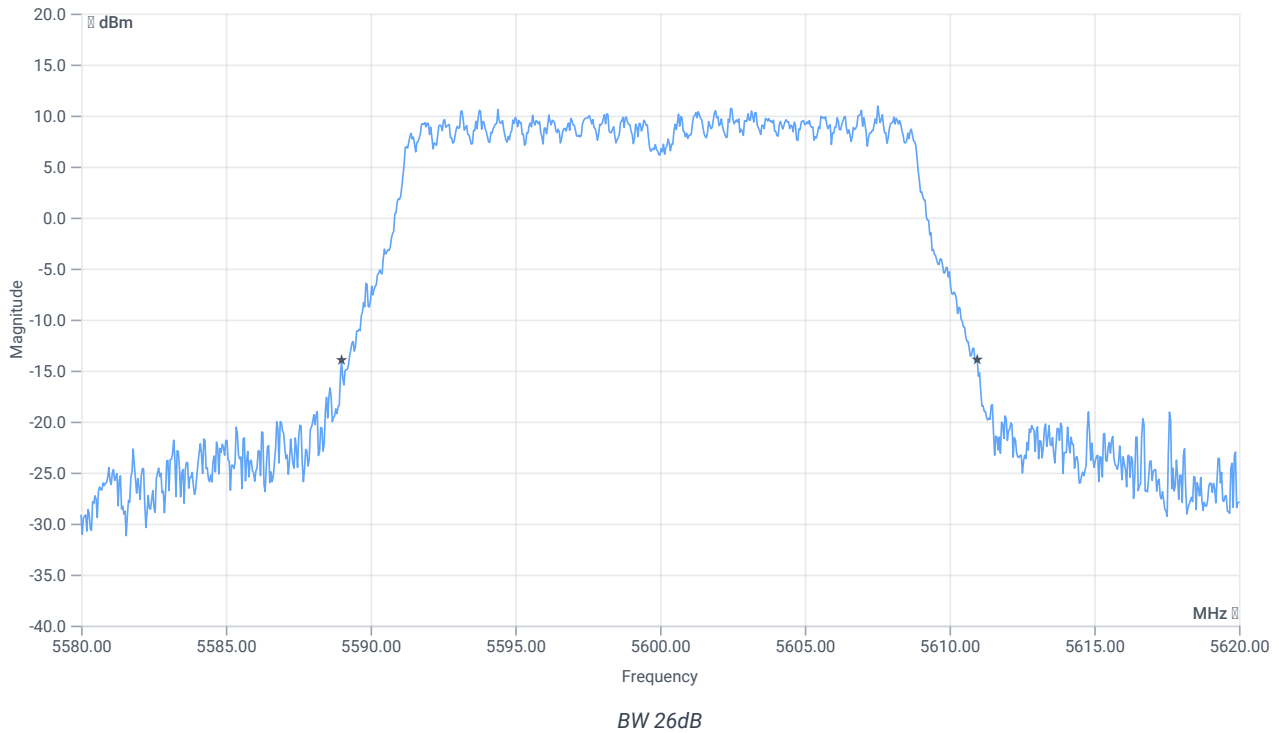
Evaluation max. Duty Cycle

Duty Cycle evaluation

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
No enough Bursts detected, Duty Cycle Burst Ratio set to 1					
Duty Cycle (Burst Ratio) max	--	--	1	--	INFO
Duty Cycle max	--	--	0	dB	INFO
Duty Cycle (Burst Ratio) min	--	--	1	--	INFO
Duty Cycle min	--	--	0	dB	INFO



Evaluation Bandwidth



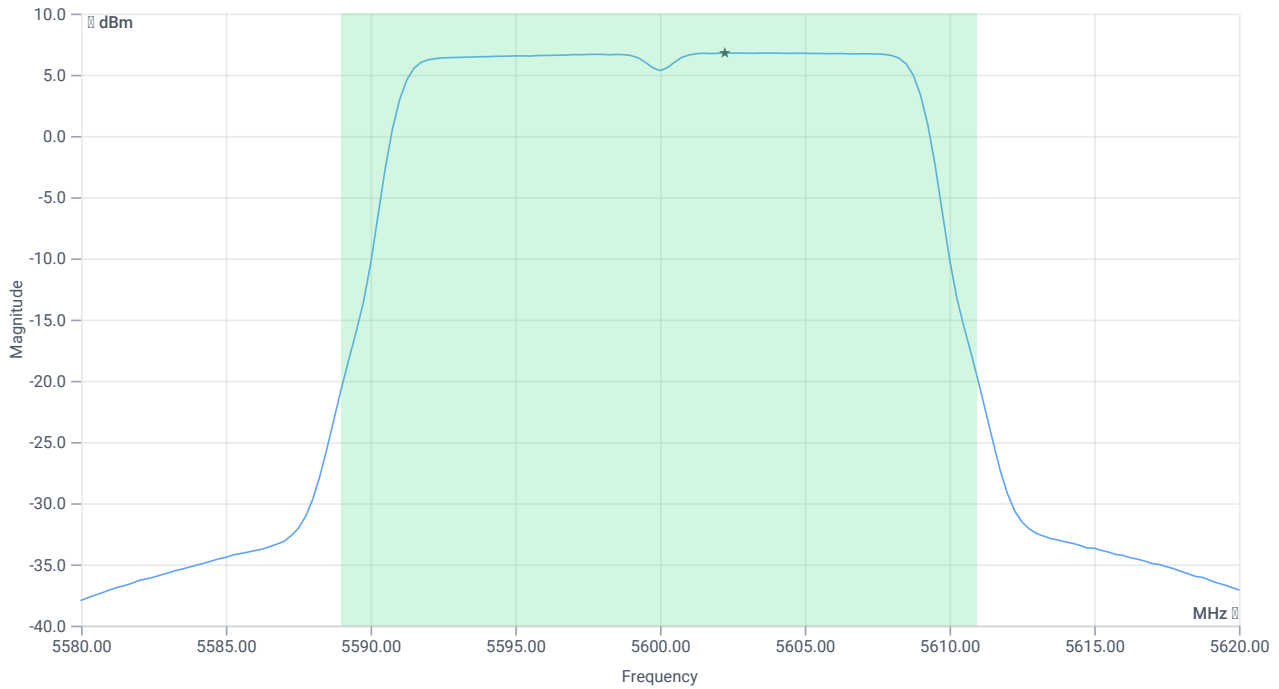
RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 26dB	---	---	21.96	MHz	INFO
T1 26dB	---	---	5589.0000	MHz	INFO
T2 26dB	---	---	5610.9600	MHz	INFO

Maximum Output Power

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	27.22 16.74 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



Max OP and PSD

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Max Output Power	--	--	18.79	dBm	INFO
Duty Cycle Correction	--	--	0	dB	INFO
Limit absolute					
Max Output Power DC corrected	--	24	18.79	dBm	PASS
Limit: 11 dBm + 10 log 21.96					
Max Output Power DC corrected	--	24.42	18.79	dBm	PASS

Power Spectral Density

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Power Spectral Density	--	--	6.78	dBm/1MHz	INFO
Duty Cycle Correction	--	--	0	dB	INFO
Power Spectral Density DC corrected	--	11	6.78	dBm/1MHz	PASS

Verdict

PASS

FCC 15.407, ISED RSS247 # Bandwidths 99PCT and 26dB ~ WLAN5Gx n-HT20 mode U-NII-2C

Test References

TC Start	28.02.2023 14:19:15
Ambit Temp [°C] Humidity [rel%]	22.6 23
System Version	3.5.0.0
Test Specification	FCC 15.407, ISED RSS247 -
Test Method	26dB Bandwidth KDB789033 D02, C.1 / ISED RSS-GEN
TC Version	0.0.1
My Description	FCC 15.407 Bandwidths - WLAN5Gx n-HT20 mode U-NII-2C
Add. Information	

EUT Common Settings WLAN5Gx

Number of Antenna Ports	2
User Interaction	No
Device Class UNII_1	Client
Limit W52 Japan	Standard

Test Parameter

Technology to test	WLAN5Gx n-HT20 mode
Antenna Port used	1
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] 5720
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

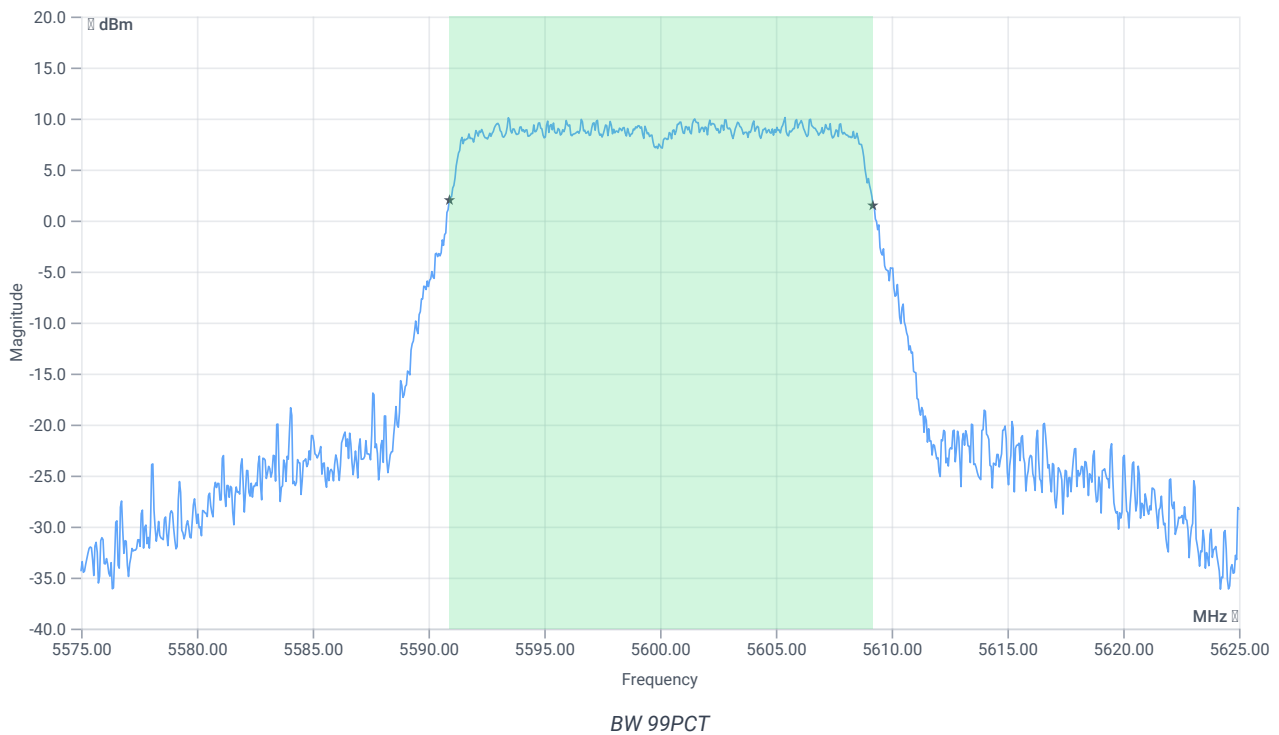
Test at TX 5600 MHz

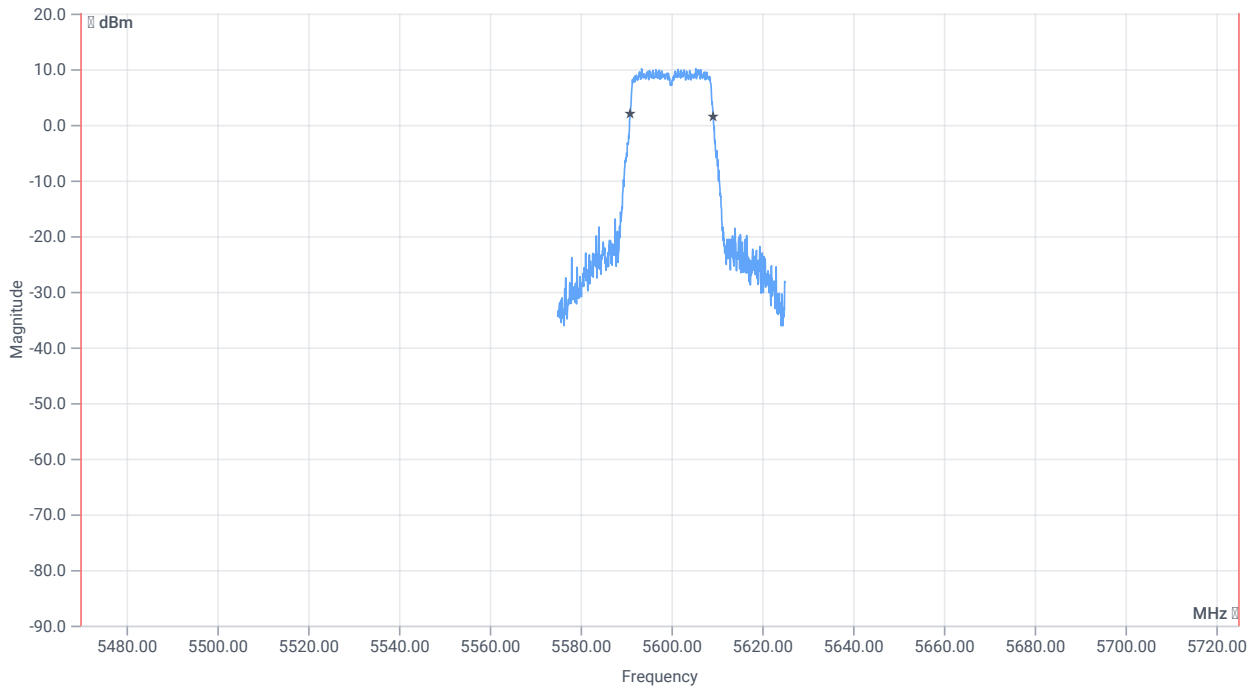
RESULT: Reference Power cond.

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	--	--	14.95	dBm	INFO
Ref. Frequency	--	--	5603.600	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	22.95 16.74 25
Start [MHz] Stop [MHz]	5575.000 5625.000
RBW [MHz] VBW [MHz]	0.300000 1.000000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	1 2500 1001 SWE

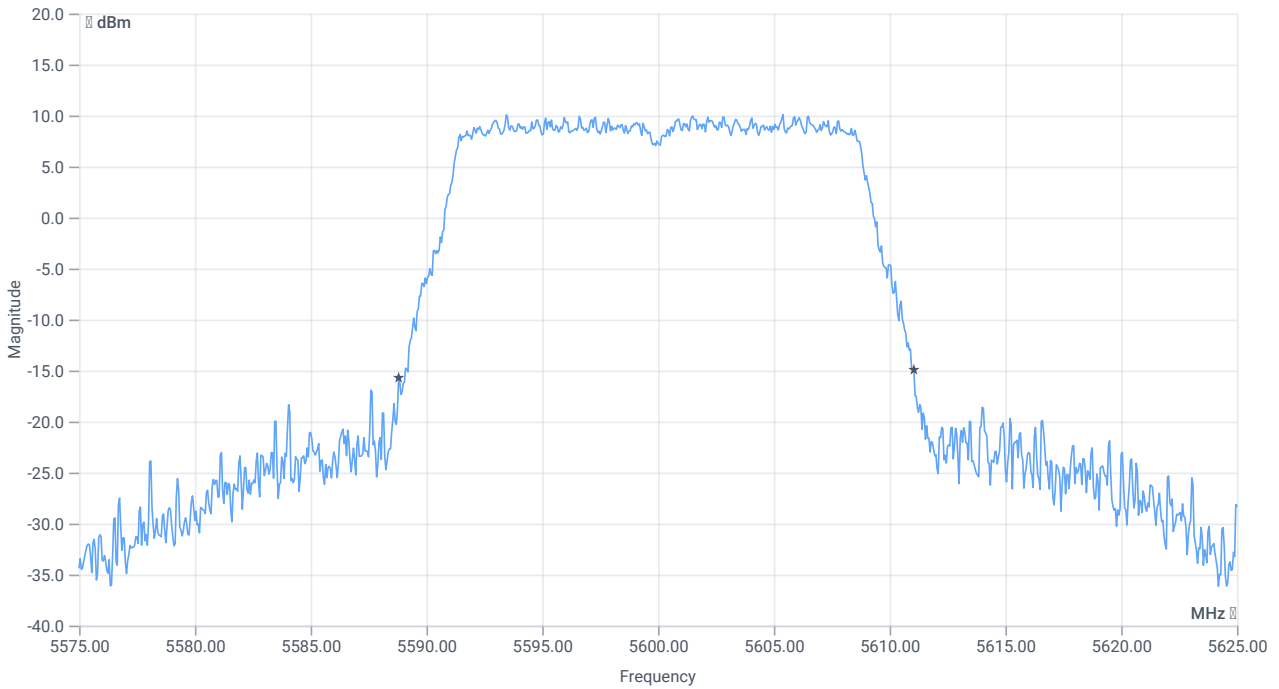




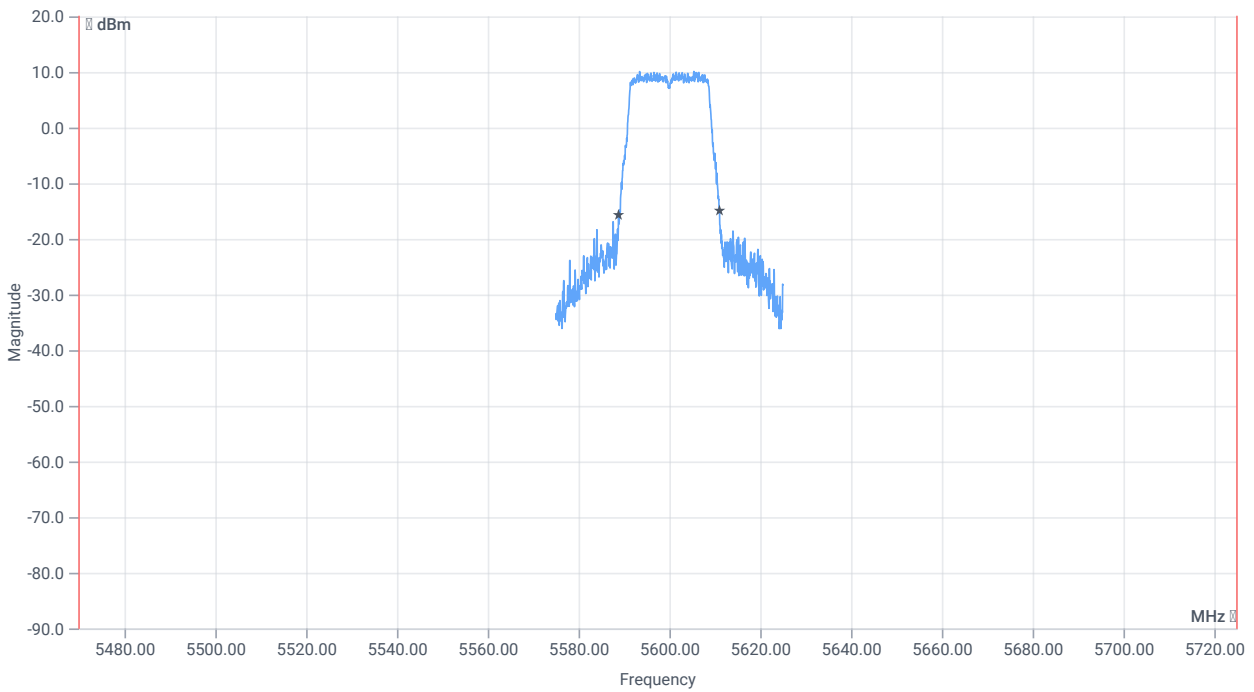
BW within Band 99PCT

RESULT

<i>Test Description</i>	<i>Lower Limit</i>	<i>Upper Limit</i>	<i>Measured</i>	<i>Unit</i>	<i>Verdict</i>
Bandwidth 99%	--	--	18.282	MHz	INFO
T1 99%	5470.000000	--	5590.9091	MHz	PASS since U-NII-3 is supported
T2 99%	--	5725.000000	5609.1908	MHz	



BW 26dB



BW within Band 26dB

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 26dB	---	---	22.25	MHz	INFO

RESULT

<i>Test Description</i>	<i>Lower Limit</i>	<i>Upper Limit</i>	<i>Measured</i>	<i>Unit</i>	<i>Verdict</i>
T1 26dB	5470.000000	--	5588.8000	MHz	PASS since U-NII-3 is supported
T2 26dB	--	5725.000000	5611.0500	MHz	

Verdict

PASS

FCC 15.247 # Max output power and psd ~ WLAN5Gx n-HT20 mode U-NII-2C

Test References

TC Start	28.02.2023 14:17:48
Ambit Temp [°C] Humidity [rel%]	22.5 23
System Version	3.5.0.0
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 n-HT20 mode U-NII-2C

Add. Information

EUT Common Settings WLAN5Gx

Number of Antenna Ports	2
User Interaction	No
Device Class UNII_1	Client
Limit W52 Japan	Standard

Test Parameter

Technology to test	WLAN5Gx n-HT20 mode
Antenna Port used	1
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] 5720
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

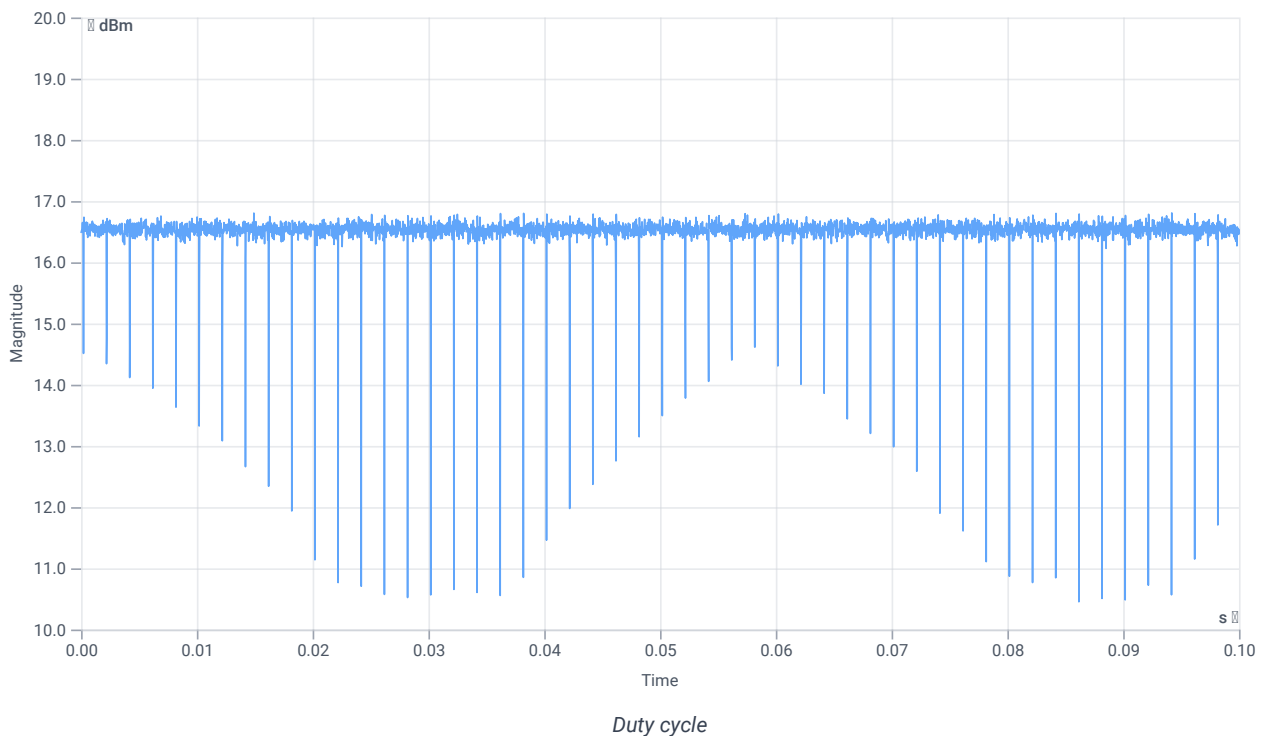
RESULT: Reference Power cond.

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	--	--	14.75	dBm	INFO
Ref. Frequency	--	--	5605.390	MHz	INFO

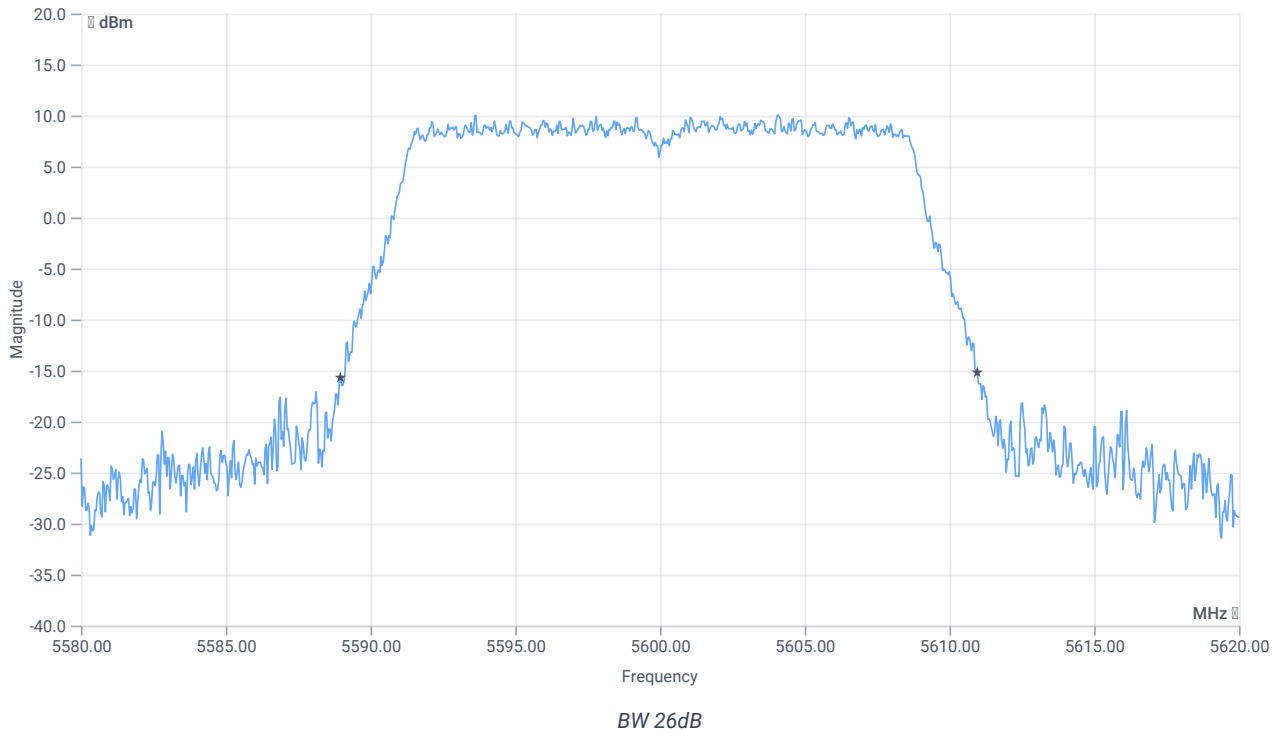
Evaluation max. Duty Cycle

Duty Cycle evaluation

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
No enough Bursts detected, Duty Cycle Burst Ratio set to 1					
Duty Cycle (Burst Ratio) max	--	--	1	--	INFO
Duty Cycle max	--	--	0	dB	INFO
Duty Cycle (Burst Ratio) min	--	--	1	--	INFO
Duty Cycle min	--	--	0	dB	INFO



Evaluation Bandwidth



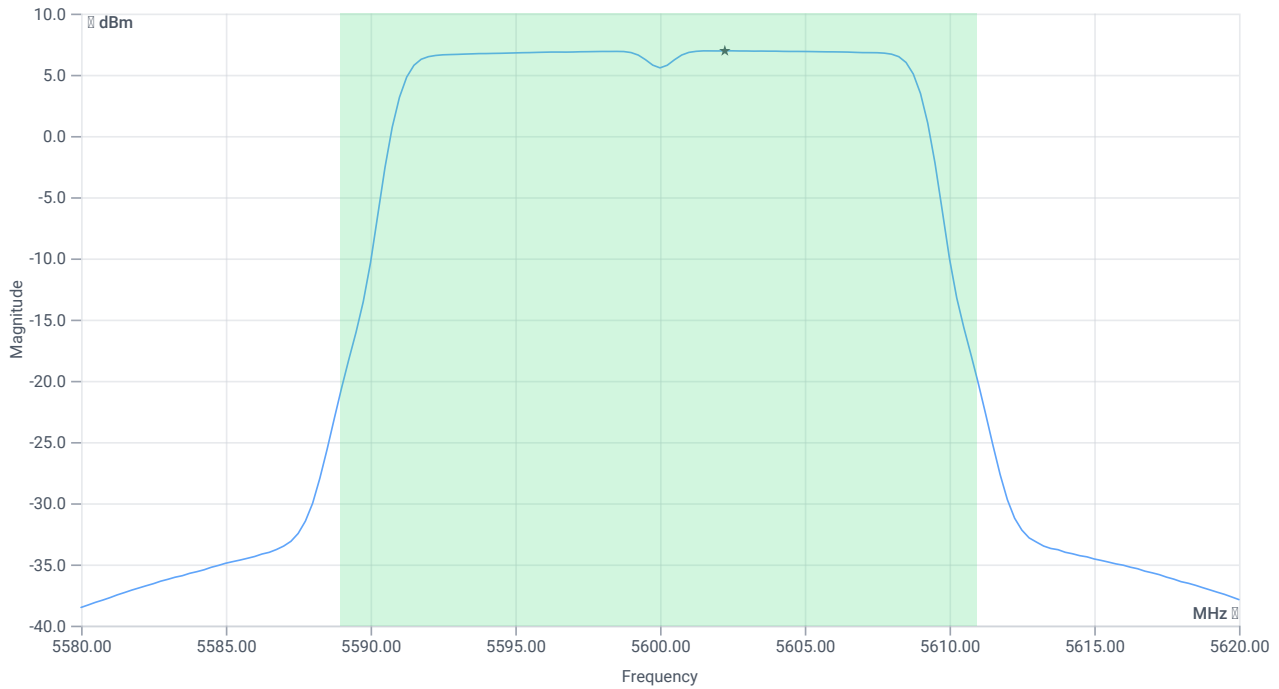
RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 26dB	---	---	22	MHz	INFO
T1 26dB	---	---	5588.9600	MHz	INFO
T2 26dB	---	---	5610.9600	MHz	INFO

Maximum Output Power

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	26.75 16.74 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



Max OP and PSD

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Max Output Power	--	--	18.99	dBm	INFO
Duty Cycle Correction	--	--	0	dB	INFO
Limit absolute					
Max Output Power DC corrected	--	24	18.99	dBm	PASS
Limit: 11 dBm + 10 log 22					
Max Output Power DC corrected	--	24.42	18.99	dBm	PASS

Power Spectral Density

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Power Spectral Density	--	--	6.95	dBm/1MHz	INFO
Duty Cycle Correction	--	--	0	dB	INFO
Power Spectral Density DC corrected	--	11	6.95	dBm/1MHz	PASS

Verdict

PASS

FCC 15.247 # MIMO Power PSD Calculator ~ WLAN5Gx n-HT20 mode U-NII-2C

Test References

TC Start	28.02.2023 14:10:55
Ambit Temp [°C] Humidity [rel%]	22.5 23
System Version	3.5.0.0
Test Specification	FCC 15.247 -
Test Method	
TC Version	0.0.1
My Description	FCC MIMO_Power_PSD_Calculator - WLAN5Gx n-HT20 mode U-NII-2C
Add. Information	

EUT Common Settings WLAN5Gx

Number of Antenna Ports	2
User Interaction	No
Device Class UNII_1	Client
Limit W52 Japan	Standard

Test Parameter

Technology to test	WLAN5Gx n-HT20 mode
Antenna Port used	several
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] 5720
Auto Control enabled Power Supply Climatic Box	No No
Additional Path Loss [dB]	1.4
Switched Path	None

Test Equipment

Test at TX 5500 MHz

RESULT Power

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ant:2 Max Output Power DC corrected	--	--	17.56	dBm	INFO
Ant:2 BW 26dB	--	--	21.600	MHz	INFO
Ant:1 Max Output Power DC corrected	--	--	17.59	dBm	INFO
Ant:1 BW 26dB	--	--	21.680	MHz	INFO
Σ Limit absolute	--	24	20.59	dBm	PASS
Σ Limit: 11 dBm + 10 log 21.6	--	24.34	20.59	dBm	PASS

RESULT PSD

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ant:2 PSD	--	--	6.86	dBm/1MHz	INFO
Ant:1 PSD	--	--	6.84	dBm/1MHz	INFO
Σ	--	11	9.86	dBm/1MHz	PASS

Verdict

PASS

FCC 15.407, ISED RSS247 # Bandwidths 99PCT and 26dB ~ WLAN5Gx n-HT20 mode U-NII-2C

Test References

TC Start	28.02.2023 14:10:23
Ambit Temp [°C] Humidity [rel%]	22.5 23
System Version	3.5.0.0
Test Specification	FCC 15.407, ISED RSS247 -
Test Method	26dB Bandwidth KDB789033 D02, C.1 / ISED RSS-GEN
TC Version	0.0.1
My Description	FCC 15.407 Bandwidths - WLAN5Gx n-HT20 mode U-NII-2C
Add. Information	

EUT Common Settings WLAN5Gx

Number of Antenna Ports	2
User Interaction	No
Device Class UNII_1	Client
Limit W52 Japan	Standard

Test Parameter

Technology to test	WLAN5Gx n-HT20 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] 5720
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

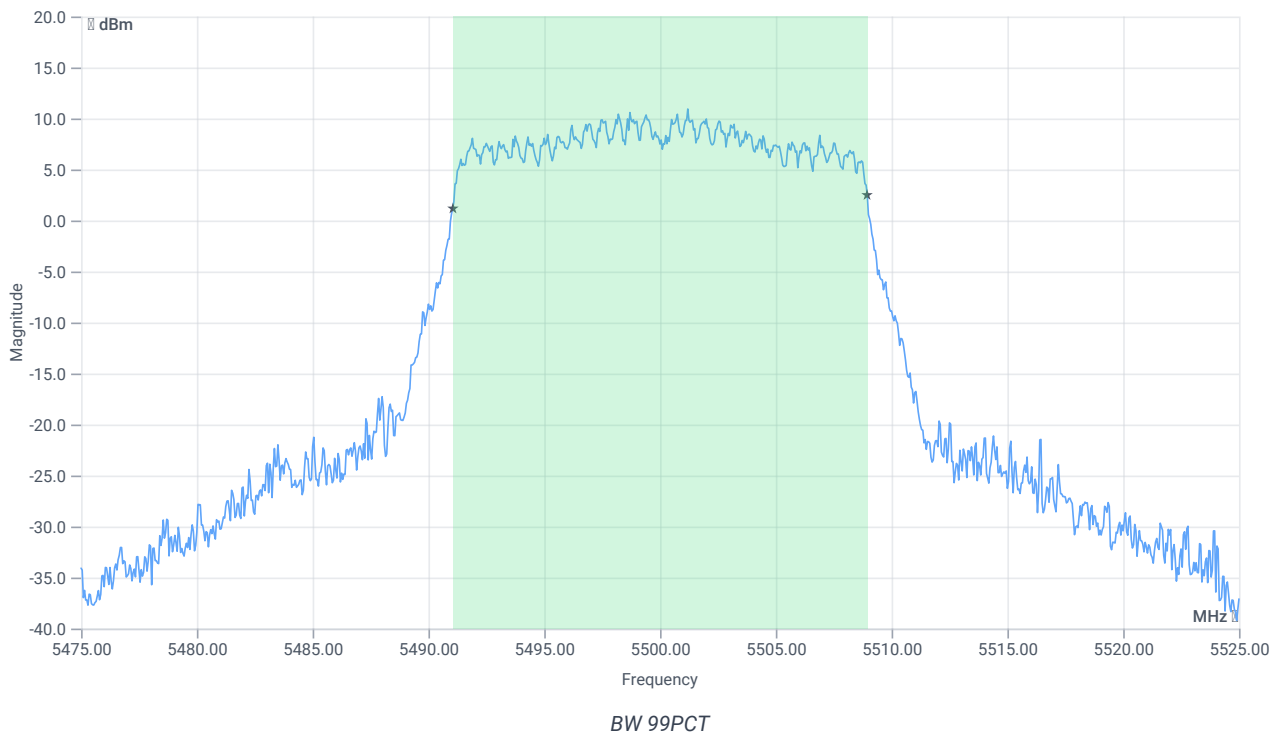
Test at TX 5500 MHz

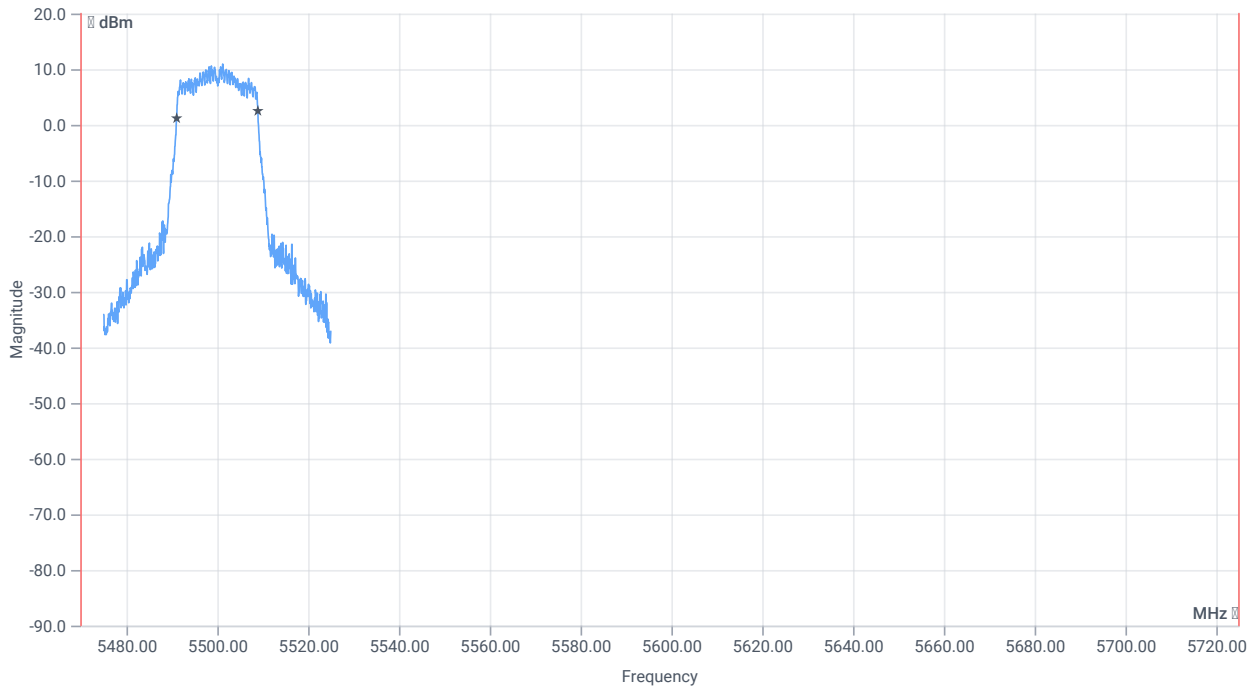
RESULT: Reference Power cond.

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	--	--	16.14	dBm	INFO
Ref. Frequency	--	--	5498.200	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	24.14 16.7 25
Start [MHz] Stop [MHz]	5475.000 5525.000
RBW [MHz] VBW [MHz]	0.300000 1.000000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	1 2500 1001 SWE

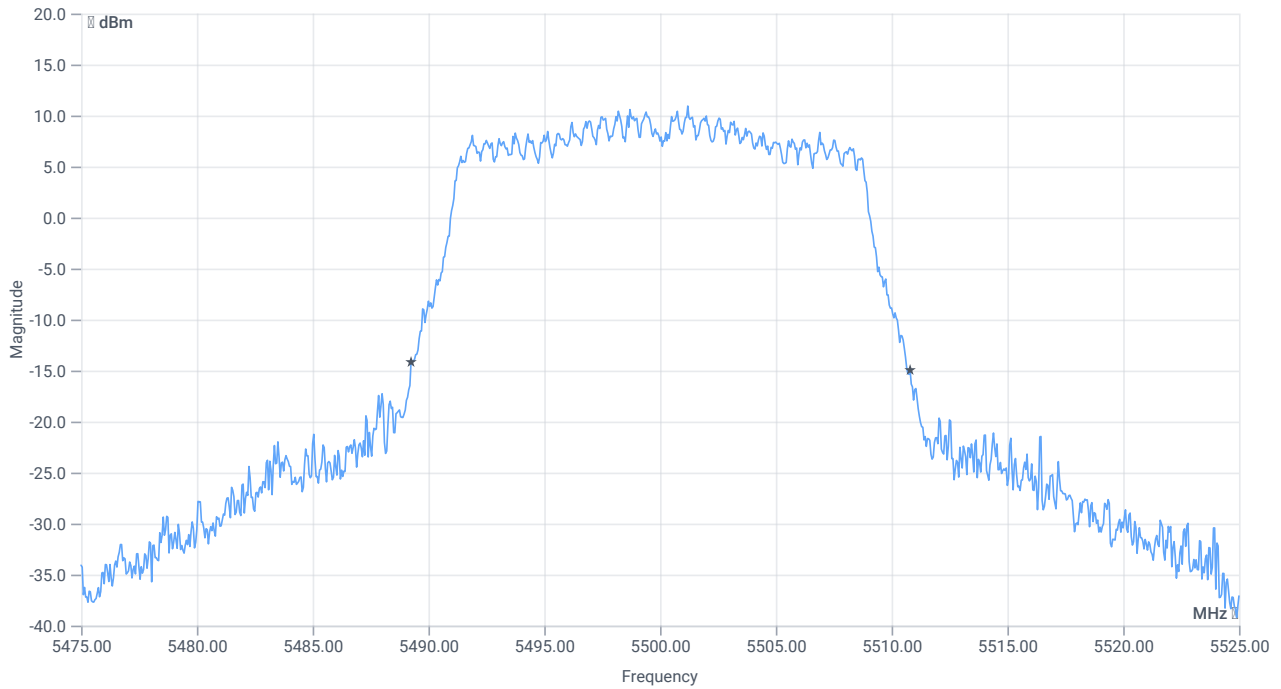




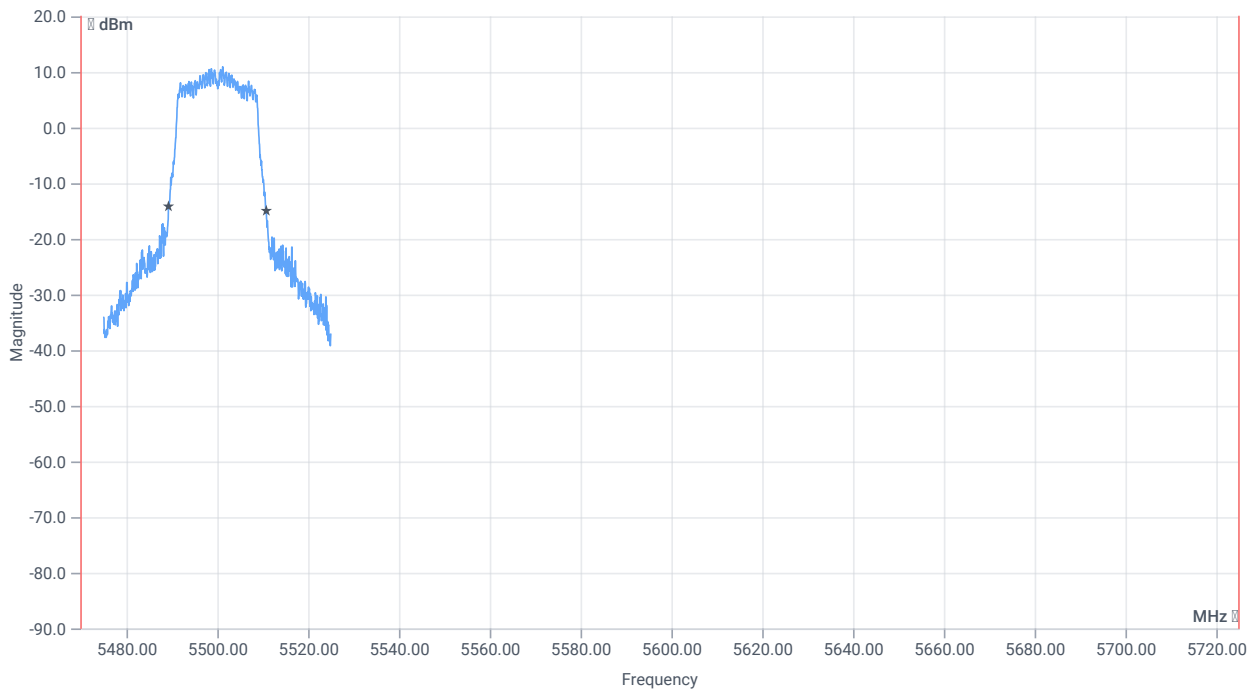
BW within Band 99PCT

RESULT

<i>Test Description</i>	<i>Lower Limit</i>	<i>Upper Limit</i>	<i>Measured</i>	<i>Unit</i>	<i>Verdict</i>
Bandwidth 99%	--	--	17.882	MHz	INFO
T1 99%	5470.000000	--	5491.0589	MHz	PASS since U-NII-3 is supported
T2 99%	--	5725.000000	5508.9411	MHz	



BW 26dB



BW within Band 26dB

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 26dB	---	---	21.55	MHz	INFO

RESULT

<i>Test Description</i>	<i>Lower Limit</i>	<i>Upper Limit</i>	<i>Measured</i>	<i>Unit</i>	<i>Verdict</i>
T1 26dB	5470.000000	--	5489.2500	MHz	PASS since U-NII-3 is supported
T2 26dB	--	5725.000000	5510.8000	MHz	

Verdict

PASS

FCC 15.247 # Max output power and psd ~ WLAN5Gx n-HT20 mode U-NII-2C

Test References

TC Start	28.02.2023 14:08:55
Ambit Temp [°C] Humidity [rel%]	22.5 23
System Version	3.5.0.0
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 n-HT20 mode U-NII-2C

Add. Information

EUT Common Settings WLAN5Gx

Number of Antenna Ports	2
User Interaction	No
Device Class UNII_1	Client
Limit W52 Japan	Standard

Test Parameter

Technology to test	WLAN5Gx n-HT20 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] 5720
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

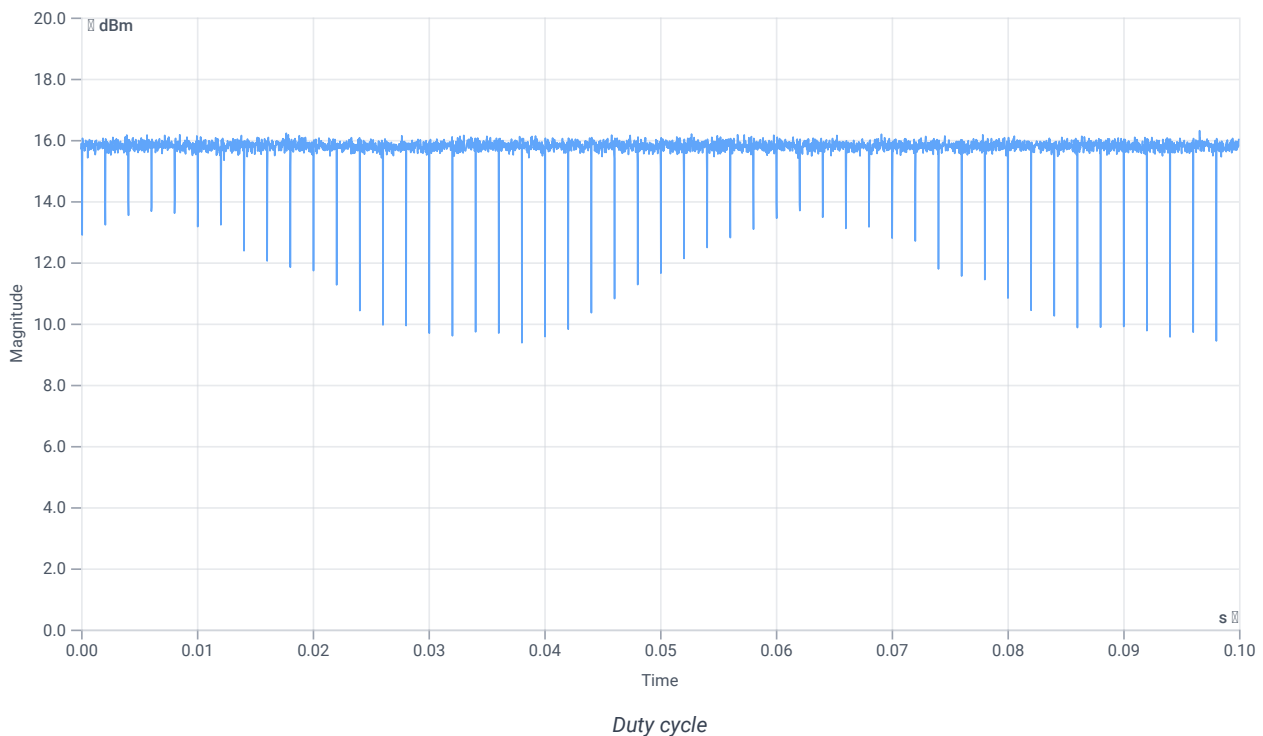
RESULT: Reference Power cond.

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	--	--	14.70	dBm	INFO
Ref. Frequency	--	--	5499.600	MHz	INFO

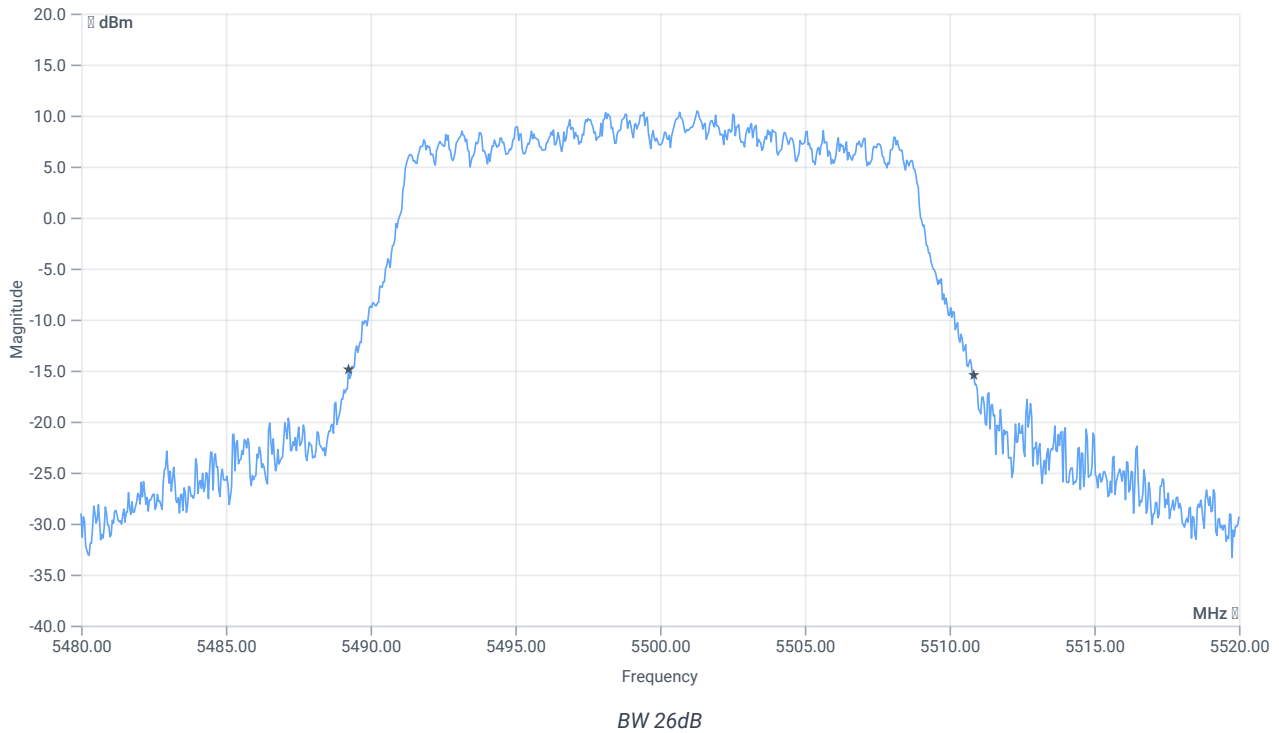
Evaluation max. Duty Cycle

Duty Cycle evaluation

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
No enough Bursts detected, Duty Cycle Burst Ratio set to 1					
Duty Cycle (Burst Ratio) max	--	--	1	--	INFO
Duty Cycle max	--	--	0	dB	INFO
Duty Cycle (Burst Ratio) min	--	--	1	--	INFO
Duty Cycle min	--	--	0	dB	INFO



Evaluation Bandwidth



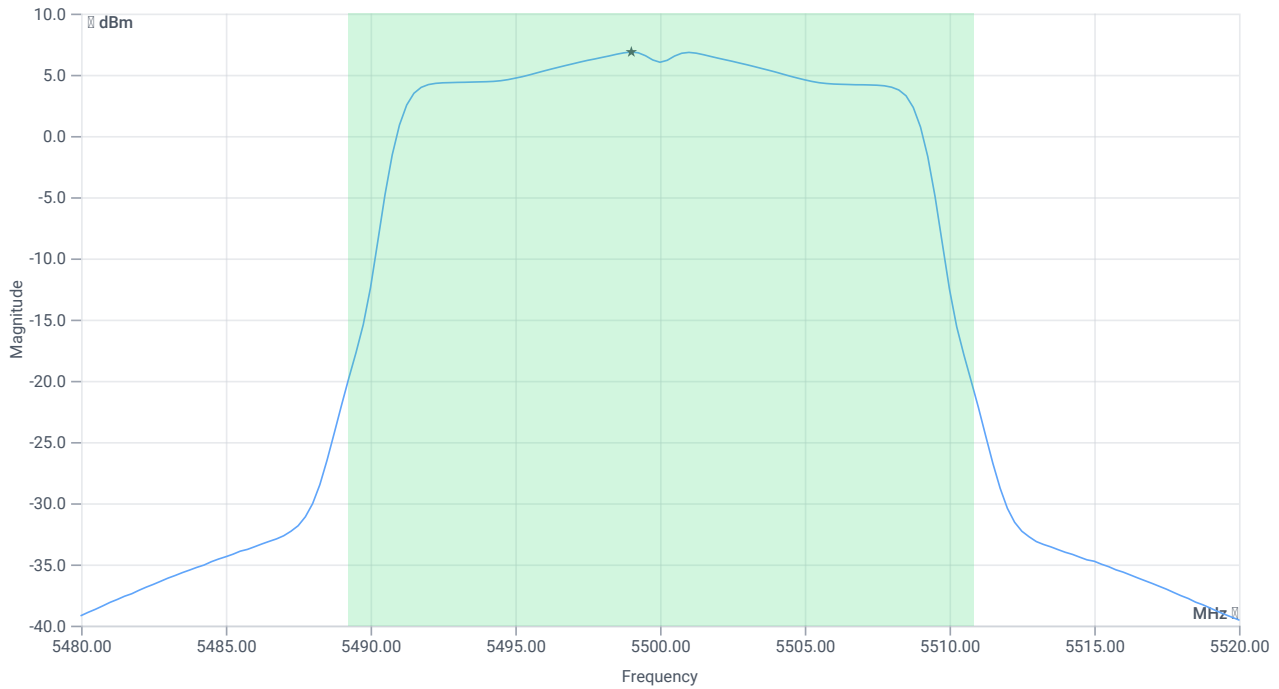
RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 26dB	---	---	21.6	MHz	INFO
T1 26dB	---	---	5489.2400	MHz	INFO
T2 26dB	---	---	5510.8400	MHz	INFO

Maximum Output Power

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	26.70 16.7 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



Max OP and PSD

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Max Output Power	--	--	17.56	dBm	INFO
Duty Cycle Correction	--	--	0	dB	INFO
Limit absolute					
Max Output Power DC corrected	--	24	17.56	dBm	PASS
Limit: 11 dBm + 10 log 21.6					
Max Output Power DC corrected	--	24.34	17.56	dBm	PASS

Power Spectral Density

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Power Spectral Density	--	--	6.86	dBm/1MHz	INFO
Duty Cycle Correction	--	--	0	dB	INFO
Power Spectral Density DC corrected	--	11	6.86	dBm/1MHz	PASS

Verdict

PASS

FCC 15.407, ISED RSS247 # Bandwidths 99PCT and 26dB ~ WLAN5Gx n-HT20 mode U-NII-2C

Test References

TC Start	28.02.2023 14:08:24
Ambit Temp [°C] Humidity [rel%]	22.5 23
System Version	3.5.0.0
Test Specification	FCC 15.407, ISED RSS247 -
Test Method	26dB Bandwidth KDB789033 D02, C.1 / ISED RSS-GEN
TC Version	0.0.1
My Description	FCC 15.407 Bandwidths - WLAN5Gx n-HT20 mode U-NII-2C
Add. Information	

EUT Common Settings WLAN5Gx

Number of Antenna Ports	2
User Interaction	No
Device Class UNII_1	Client
Limit W52 Japan	Standard

Test Parameter

Technology to test	WLAN5Gx n-HT20 mode
Antenna Port used	1
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] 5720
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

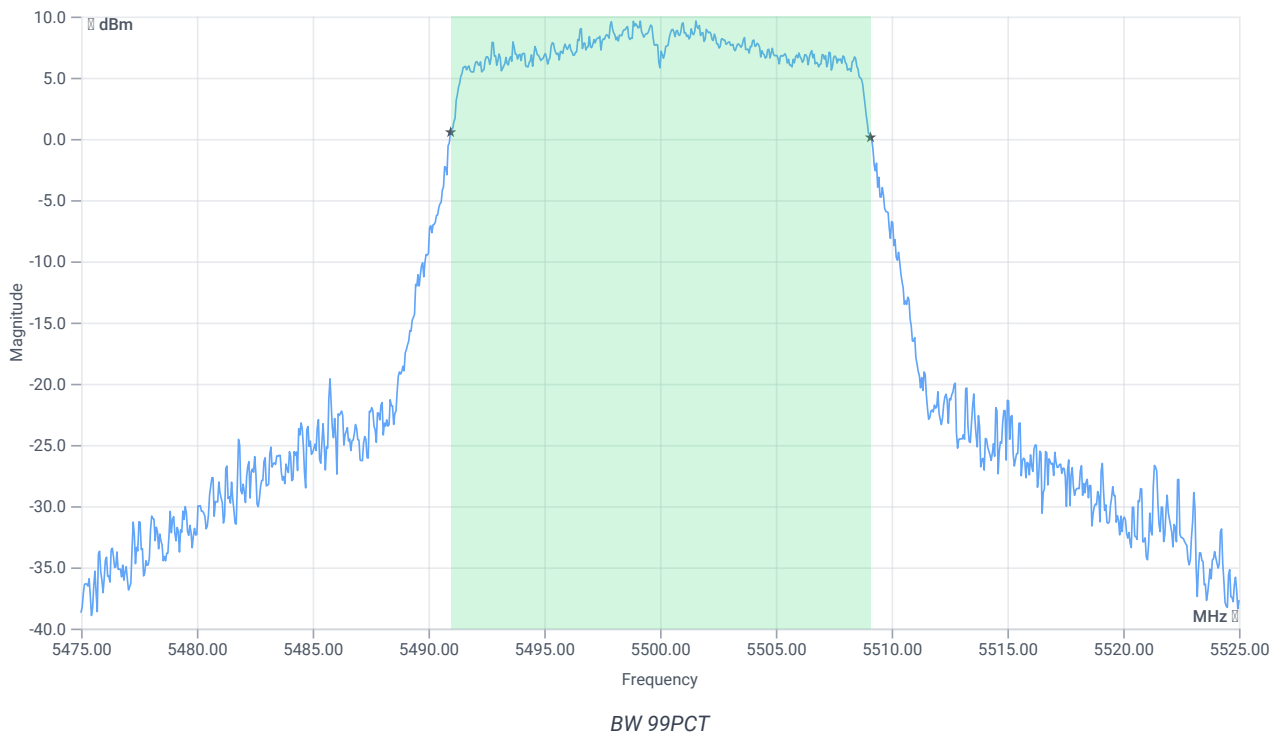
Test at TX 5500 MHz

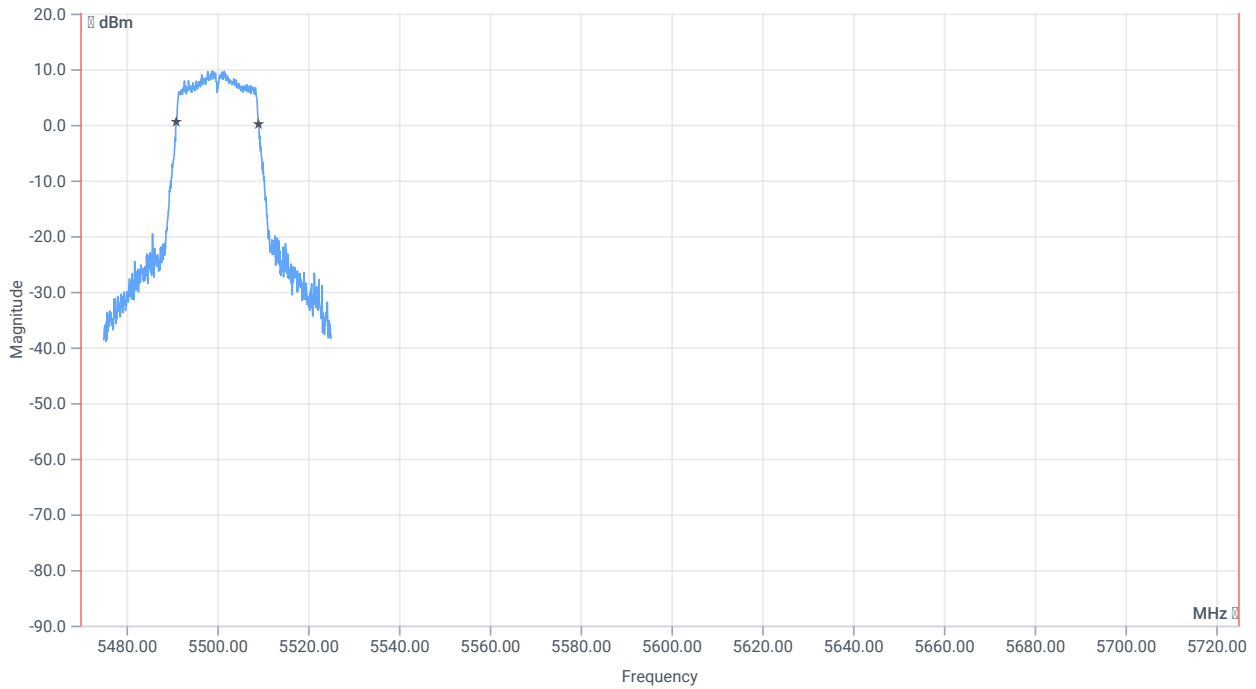
RESULT: Reference Power cond.

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	--	--	13.98	dBm	INFO
Ref. Frequency	--	--	5501.200	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	21.98 16.7 25
Start [MHz] Stop [MHz]	5475.000 5525.000
RBW [MHz] VBW [MHz]	0.300000 1.000000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	1 2500 1001 SWE

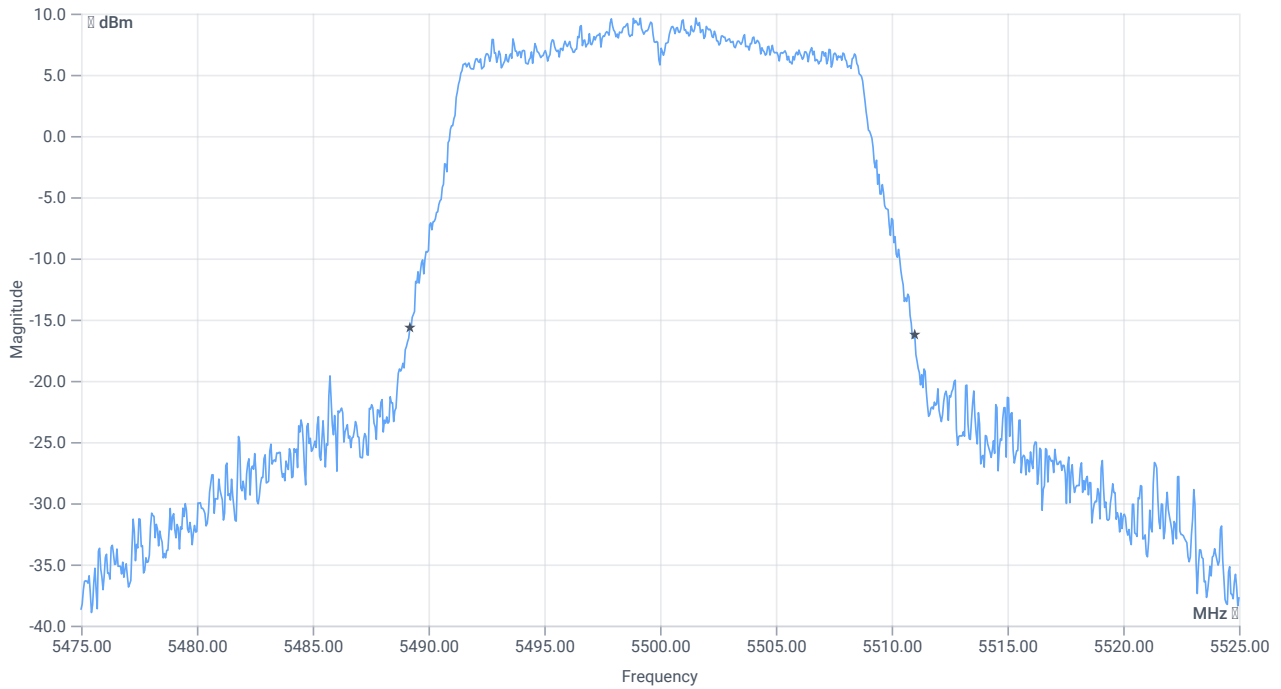




BW within Band 99PCT

RESULT

<i>Test Description</i>	<i>Lower Limit</i>	<i>Upper Limit</i>	<i>Measured</i>	<i>Unit</i>	<i>Verdict</i>
Bandwidth 99%	--	--	18.132	MHz	INFO
T1 99%	5470.000000	--	5490.9590	MHz	PASS since U-NII-3 is supported
T2 99%	--	5725.000000	5509.0909	MHz	



BW 26dB



BW within Band 26dB

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 26dB	---	---	21.8	MHz	INFO

RESULT

<i>Test Description</i>	<i>Lower Limit</i>	<i>Upper Limit</i>	<i>Measured</i>	<i>Unit</i>	<i>Verdict</i>
T1 26dB	5470.000000	--	5489.2000	MHz	PASS since U-NII-3 is supported
T2 26dB	--	5725.000000	5511.0000	MHz	

Verdict

PASS

FCC 15.247 # Max output power and psd ~ WLAN5Gx n-HT20 mode U-NII-2C

Test References

TC Start	28.02.2023 14:06:57
Ambit Temp [°C] Humidity [rel%]	22.5 23
System Version	3.5.0.0
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 n-HT20 mode U-NII-2C

Add. Information

EUT Common Settings WLAN5Gx

Number of Antenna Ports	2
User Interaction	No
Device Class UNII_1	Client
Limit W52 Japan	Standard

Test Parameter

Technology to test	WLAN5Gx n-HT20 mode
Antenna Port used	1
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] 5720
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

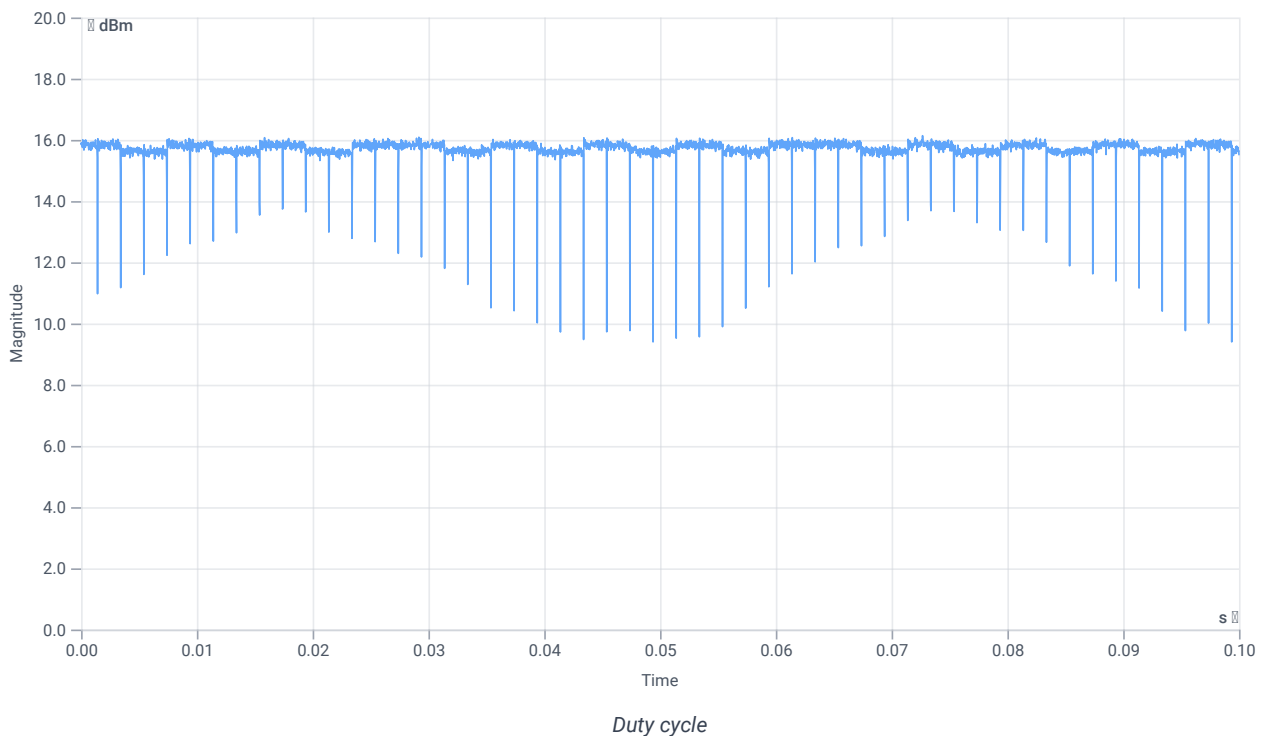
RESULT: Reference Power cond.

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	--	--	14.16	dBm	INFO
Ref. Frequency	--	--	5499.000	MHz	INFO

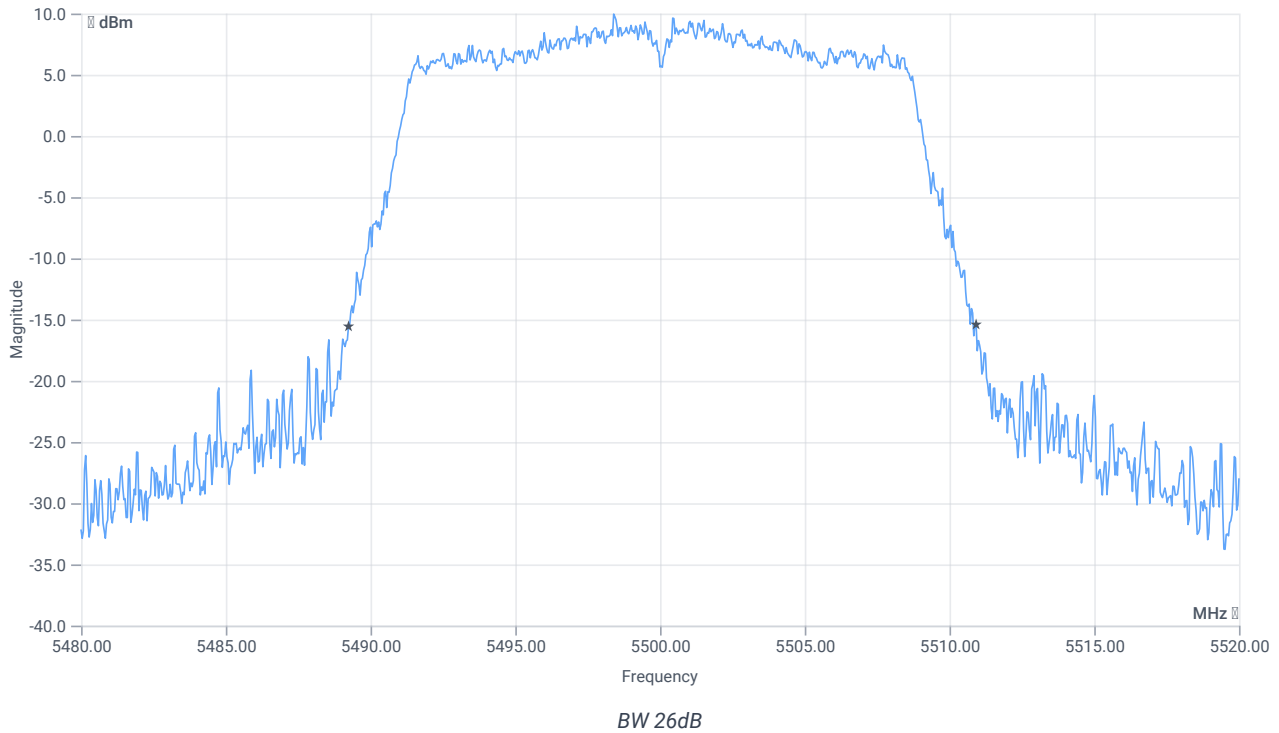
Evaluation max. Duty Cycle

Duty Cycle evaluation

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
No enough Bursts detected, Duty Cycle Burst Ratio set to 1					
Duty Cycle (Burst Ratio) max	--	--	1	--	INFO
Duty Cycle max	--	--	0	dB	INFO
Duty Cycle (Burst Ratio) min	--	--	1	--	INFO
Duty Cycle min	--	--	0	dB	INFO



Evaluation Bandwidth



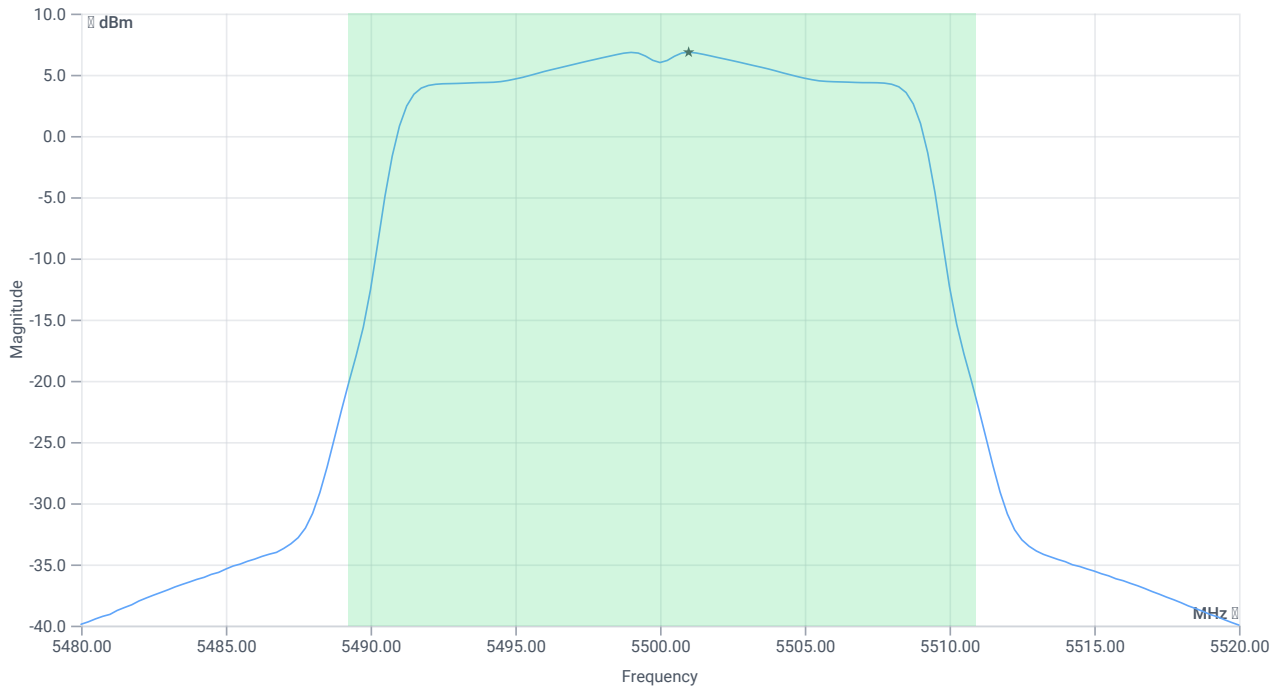
RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 26dB	---	---	21.68	MHz	INFO
T1 26dB	---	---	5489.2400	MHz	INFO
T2 26dB	---	---	5510.9200	MHz	INFO

Maximum Output Power

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	26.16 16.7 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



Max OP and PSD

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Max Output Power	--	--	17.59	dBm	INFO
Duty Cycle Correction	--	--	0	dB	INFO
Limit absolute					
Max Output Power DC corrected	--	24	17.59	dBm	PASS
Limit: 11 dBm + 10 log 21.68					
Max Output Power DC corrected	--	24.36	17.59	dBm	PASS

Power Spectral Density

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Power Spectral Density	--	--	6.84	dBm/1MHz	INFO
Duty Cycle Correction	--	--	0	dB	INFO
Power Spectral Density DC corrected	--	11	6.84	dBm/1MHz	PASS

Verdict

PASS

FCC 15.247 # MIMO Power PSD Calculator ~ WLAN5Gx n-HT20 mode U-NII-3

Test References

TC Start	21.02.2023 14:27:48
Ambit Temp [°C] Humidity [rel%]	22.9 34
System Version	3.5.0.0
Test Specification	FCC 15.247 -
Test Method	
TC Version	0.0.1
My Description	FCC MIMO_Power_PSD_Calculator - WLAN5Gx n-HT20 mode U-NII-3
Add. Information	

EUT Common Settings WLAN5Gx

Number of Antenna Ports	2
User Interaction	No
Device Class UNII_1	Client
Limit W52 Japan	Standard

Test Parameter

Technology to test	WLAN5Gx n-HT20 mode
Antenna Port used	several
Temperature	nom
Voltage	nom
Frequency low to test	True Freq [MHz] 5745
Frequency mid to test	True 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	None

Test Equipment

Test at TX 5745 MHz

RESULT Power

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ant:2 Max Output Power DC corrected	--	--	22.99	dBm	INFO
Ant:2 BW 26dB	--	--	39.880	MHz	INFO
Ant:1 Max Output Power DC corrected	--	--	22.73	dBm	INFO
Ant:1 BW 26dB	--	--	40.000	MHz	INFO
Σ Limit absolute	--	30	25.87	dBm	PASS
Σ Limit: 11 dBm + 10 log 39.88	--	27.01	25.87	dBm	na

RESULT PSD

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ant:2 PSD	--	--	7.9	dBm/0.5MHz	INFO
Ant:1 PSD	--	--	7.68	dBm/0.5MHz	INFO
Σ	--	30	10.8	dBm/0.5MHz	PASS

Test at TX 5785 MHz

RESULT Power

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ant:2 Max Output Power DC corrected	--	--	23.59	dBm	INFO
Ant:2 BW 26dB	--	--	40.000	MHz	INFO
Ant:1 Max Output Power DC corrected	--	--	23.5	dBm	INFO
Ant:1 BW 26dB	--	--	40.000	MHz	INFO
Σ Limit absolute	--	30	26.56	dBm	PASS
Σ Limit: 11 dBm + 10 log 40	--	27.02	26.56	dBm	na

RESULT PSD

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ant:2 PSD	--	--	8.57	dBm/0.5MHz	INFO
Ant:1 PSD	--	--	8.38	dBm/0.5MHz	INFO
Σ	--	30	11.49	dBm/0.5MHz	PASS

Test at TX 5825 MHz

RESULT Power

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ant:2 Max Output Power DC corrected	--	--	23.14	dBm	INFO
Ant:2 BW 26dB	--	--	40.000	MHz	INFO
Ant:1 Max Output Power DC corrected	--	--	22.65	dBm	INFO
Ant:1 BW 26dB	--	--	39.960	MHz	INFO
Σ Limit absolute	--	30	25.91	dBm	PASS
Σ Limit: 11 dBm + 10 log 39.96	--	27.02	25.91	dBm	na

RESULT PSD

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ant:2 PSD	--	--	8.09	dBm/0.5MHz	INFO
Ant:1 PSD	--	--	7.51	dBm/0.5MHz	INFO
Σ	--	30	10.82	dBm/0.5MHz	PASS

Verdict

PASS

FCC 15.407, ISED RSS247 # Minimum emission bandwidth ~ WLAN5Gx n-HT20 mode U-NII-3

Test References

TC Start	21.02.2023 14:23:30
Ambit Temp [°C] Humidity [rel%]	22.9 33
System Version	3.5.0.0
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 n-HT20 mode U-NII-3
Add. Information	

EUT Common Settings WLAN5Gx

Number of Antenna Ports	2
User Interaction	No
Device Class UNII_1	Client
Limit W52 Japan	Standard

Test Parameter

Technology to test	WLAN5Gx n-HT20 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

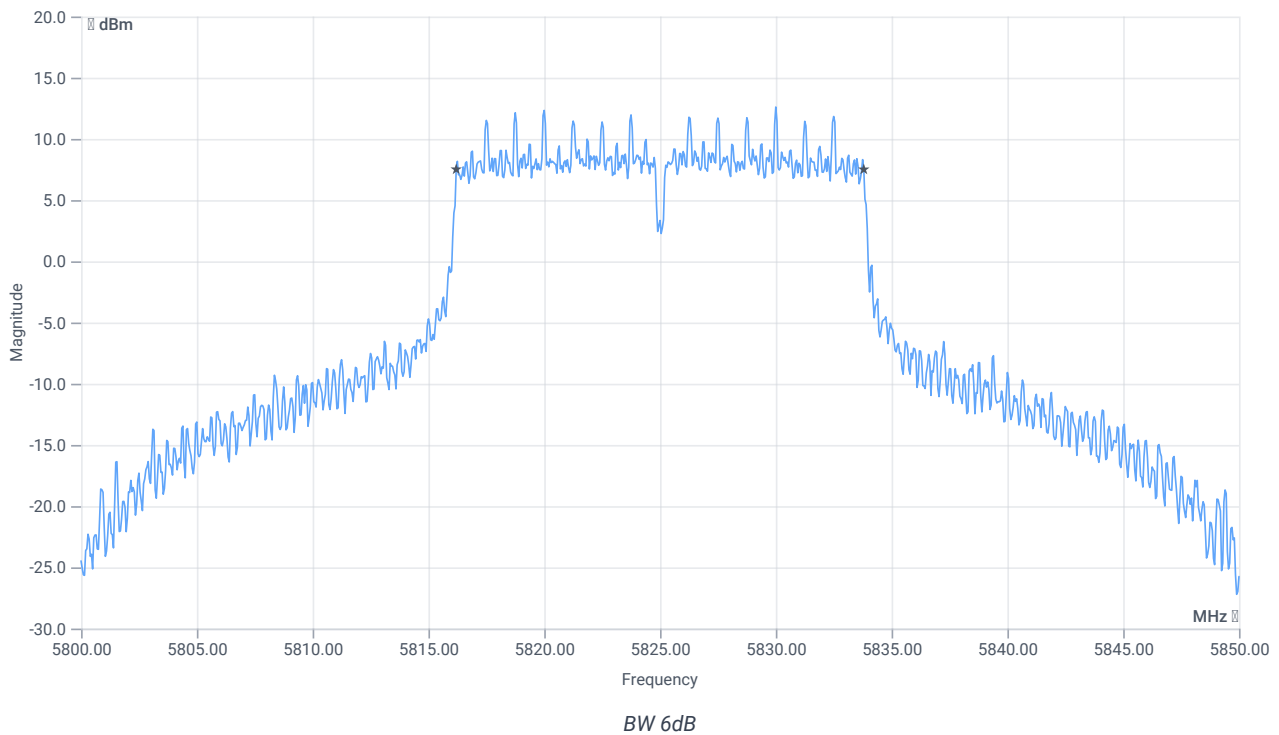
Test at TX 5825 MHz

RESULT: Reference Power cond.

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	--	--	21.00	dBm	INFO
Ref. Frequency	--	--	5820.600	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	33.00 16.78 35
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	--	17.6	MHz	PASS

Verdict

PASS

FCC 15.407, ISED RSS247 # Bandwidths 99PCT and 26dB ~ WLAN5Gx n-HT20 mode U-NII-3

Test References

TC Start	21.02.2023 14:22:52
Ambit Temp [°C] Humidity [rel%]	22.9 33
System Version	3.5.0.0
Test Specification	FCC 15.407, ISED RSS247 -
Test Method	26dB Bandwidth KDB789033 D02, C.1 / ISED RSS-GEN
TC Version	0.0.1
My Description	FCC 15.407 Bandwidths - WLAN5Gx n-HT20 mode U-NII-3
Add. Information	

EUT Common Settings WLAN5Gx

Number of Antenna Ports	2
User Interaction	No
Device Class UNII_1	Client
Limit W52 Japan	Standard

Test Parameter

Technology to test	WLAN5Gx n-HT20 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

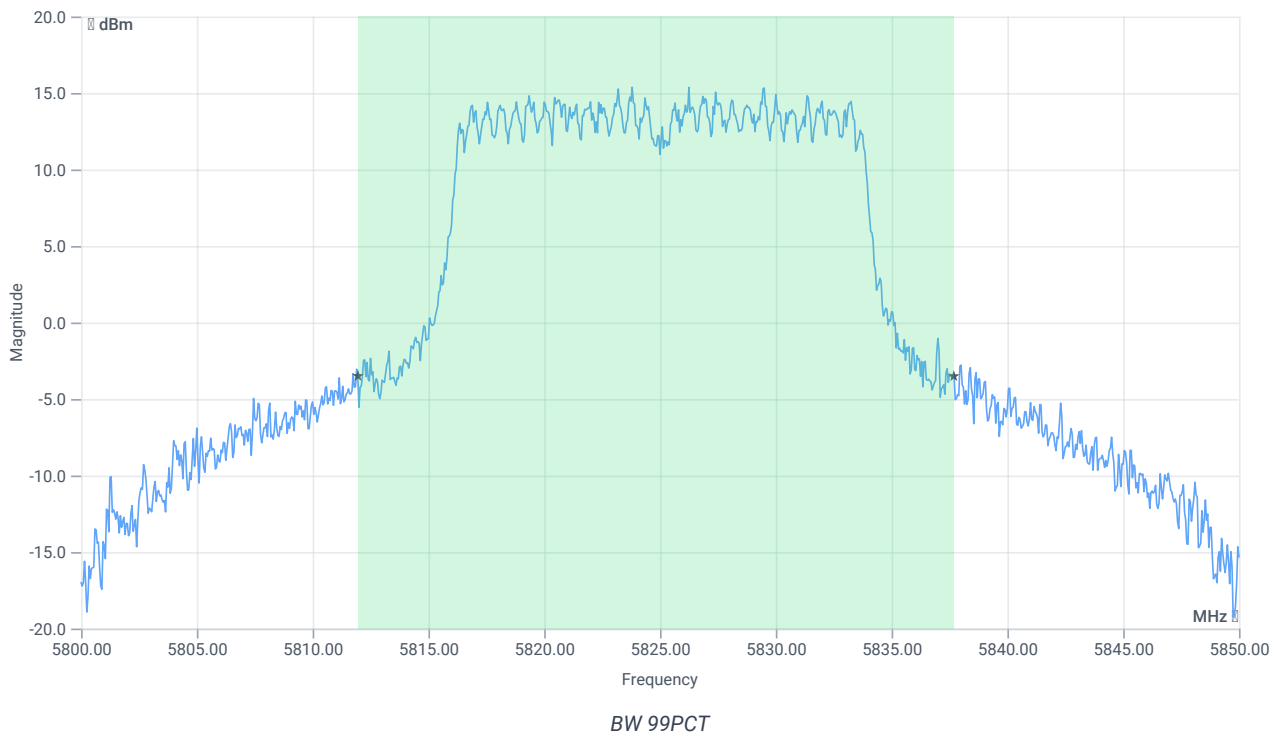
Test at TX 5825 MHz

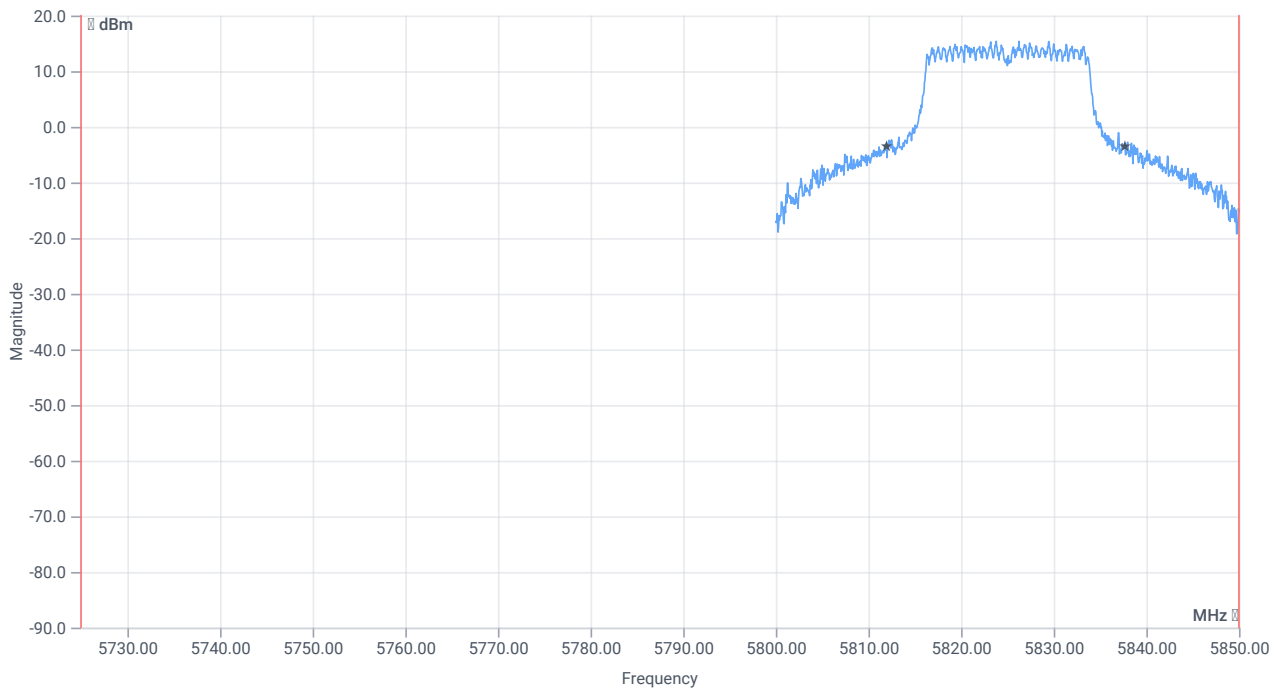
RESULT: Reference Power cond.

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	--	--	20.78	dBm	INFO
Ref. Frequency	--	--	5821.200	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	28.78 16.78 30
Start [MHz] Stop [MHz]	5800.000 5850.000
RBW [MHz] VBW [MHz]	0.300000 1.000000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	1 2500 1001 SWE

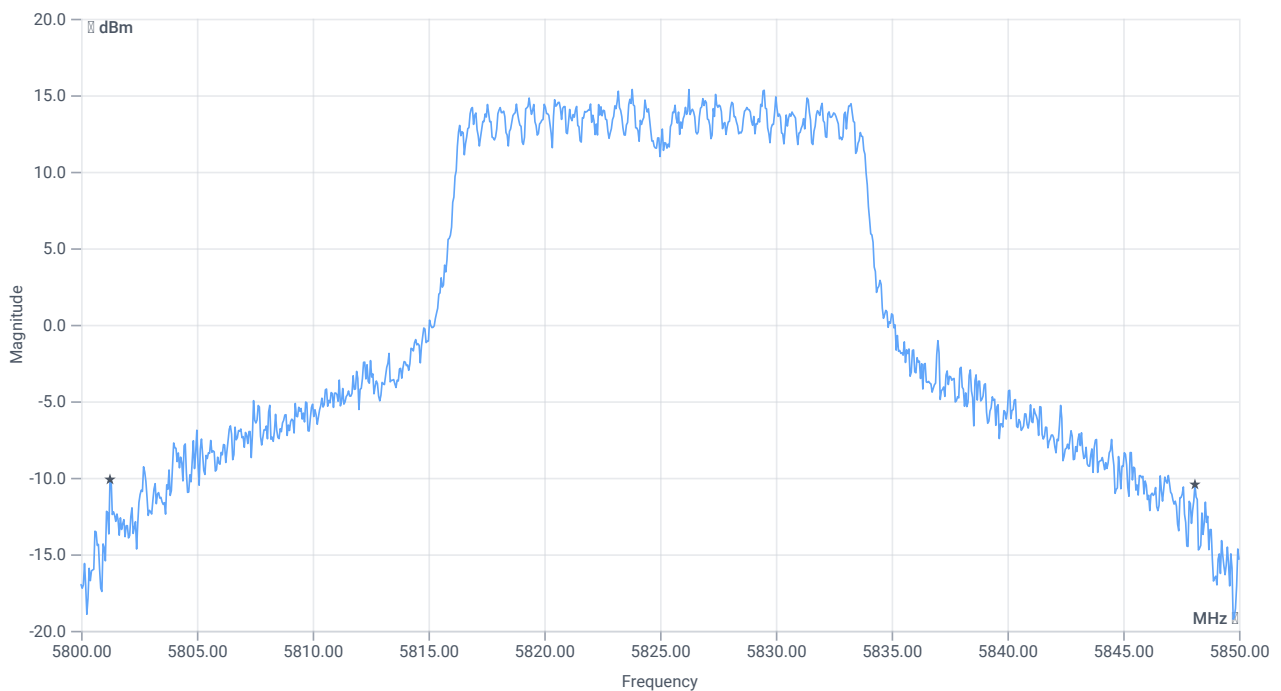




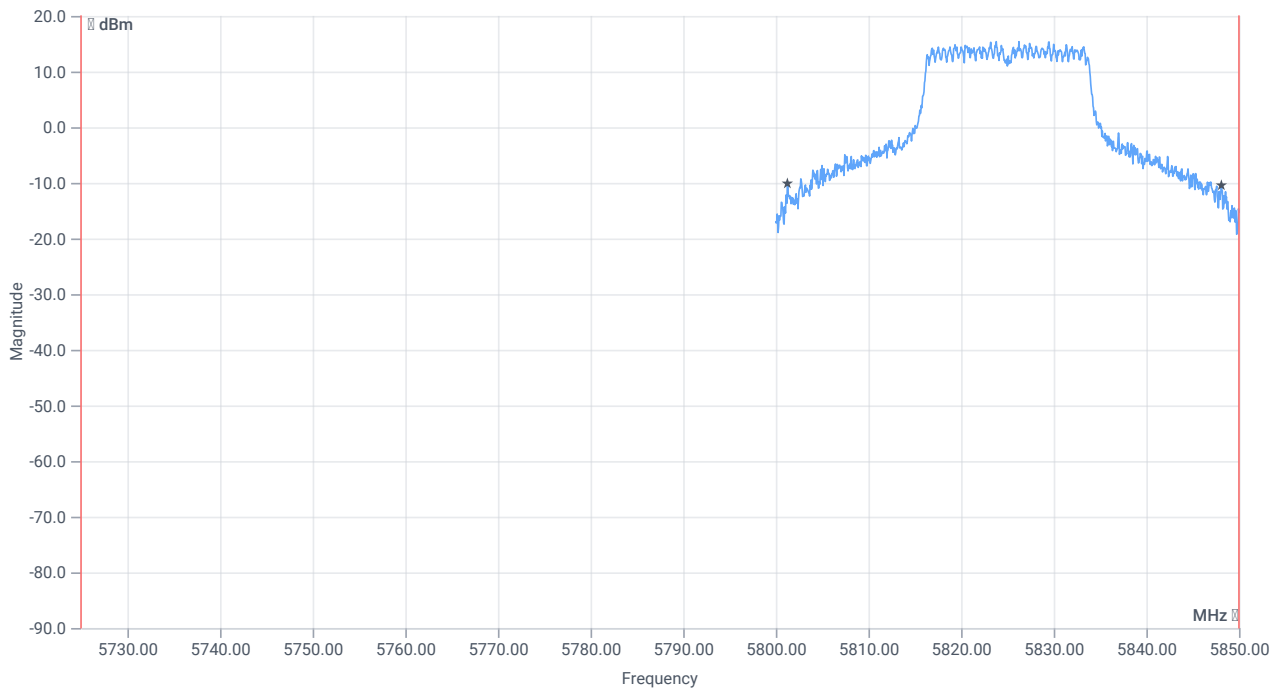
BW within Band 99PCT

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 99%	--	--	25.724	MHz	INFO
T1 99%	5725.000000	--	5811.9630	MHz	PASS
T2 99%	--	5850.000000	5837.6873	MHz	PASS



BW 26dB



BW within Band 26dB

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 26dB	--	--	46.85	MHz	INFO
T1 26dB	5725.000000	--	5801.2500	MHz	PASS
T2 26dB	--	5850.000000	5848.1000	MHz	PASS

Verdict

PASS

FCC 15.247 # Max output power and psd ~ WLAN5Gx n-HT20 mode U-NII-3

Test References

TC Start	21.02.2023 14:20:28
Ambit Temp [°C] Humidity [rel%]	22.9 33
System Version	3.5.0.0
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 n-HT20 mode U-NII-3

Add. Information

EUT Common Settings WLAN5Gx

Number of Antenna Ports	2
User Interaction	No
Device Class UNII_1	Client
Limit W52 Japan	Standard

Test Parameter

Technology to test	WLAN5Gx n-HT20 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

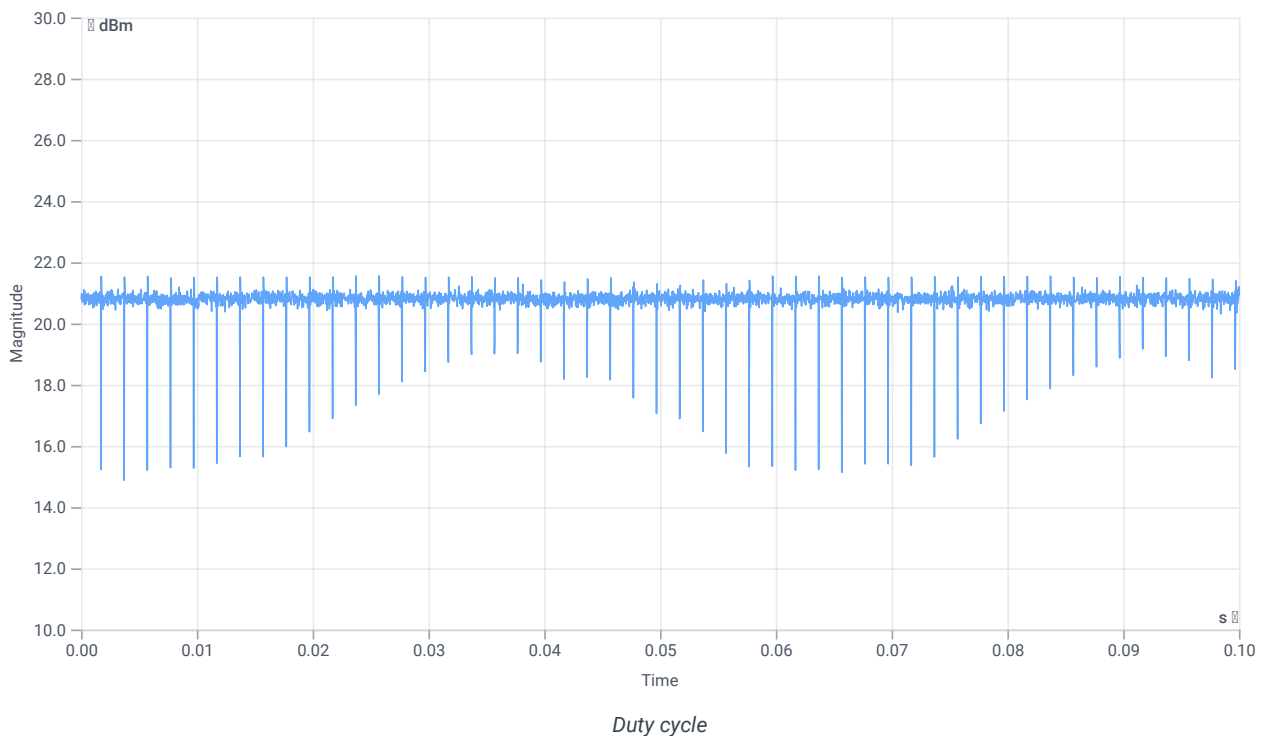
RESULT: Reference Power cond.

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	--	--	19.75	dBm	INFO
Ref. Frequency	--	--	5829.000	MHz	INFO

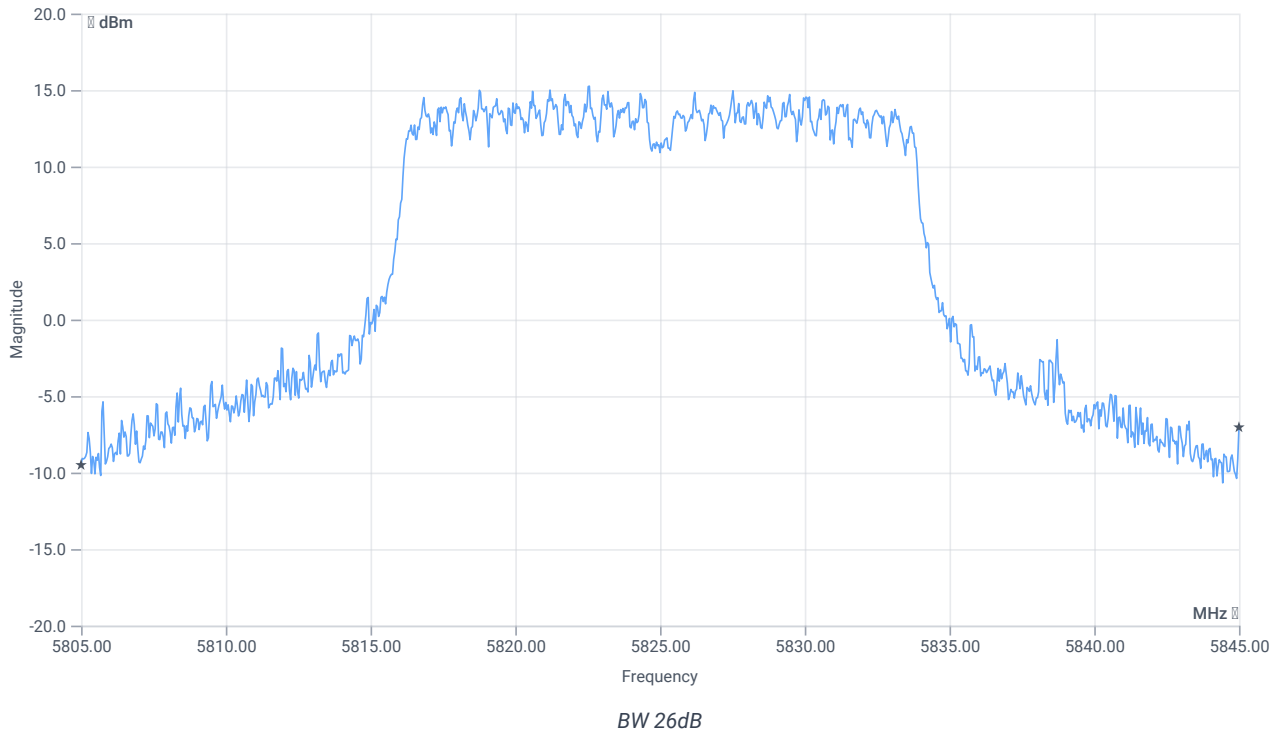
Evaluation max. Duty Cycle

Duty Cycle evaluation

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
No enough Bursts detected, Duty Cycle Burst Ratio set to 1					
Duty Cycle (Burst Ratio) max	--	--	1	--	INFO
Duty Cycle max	--	--	0	dB	INFO
Duty Cycle (Burst Ratio) min	--	--	1	--	INFO
Duty Cycle min	--	--	0	dB	INFO



Evaluation Bandwidth



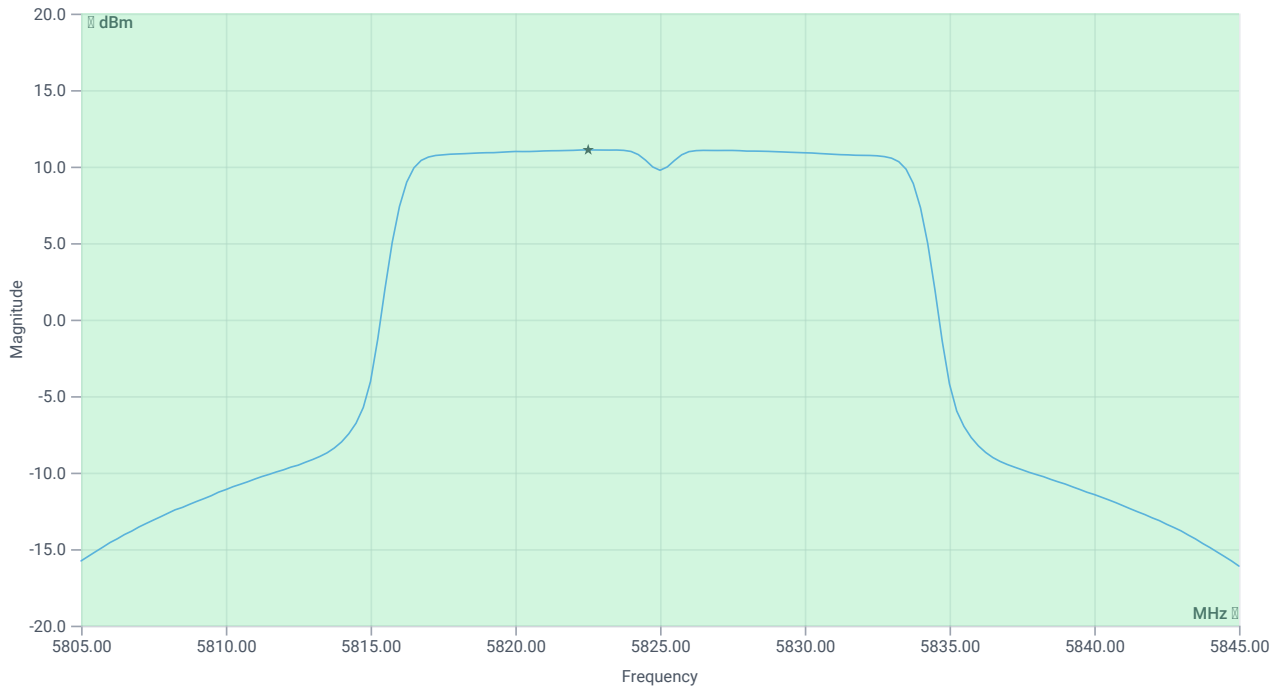
RESULT

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

Maximum Output Power

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	31.75 16.78 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



Max OP and PSD

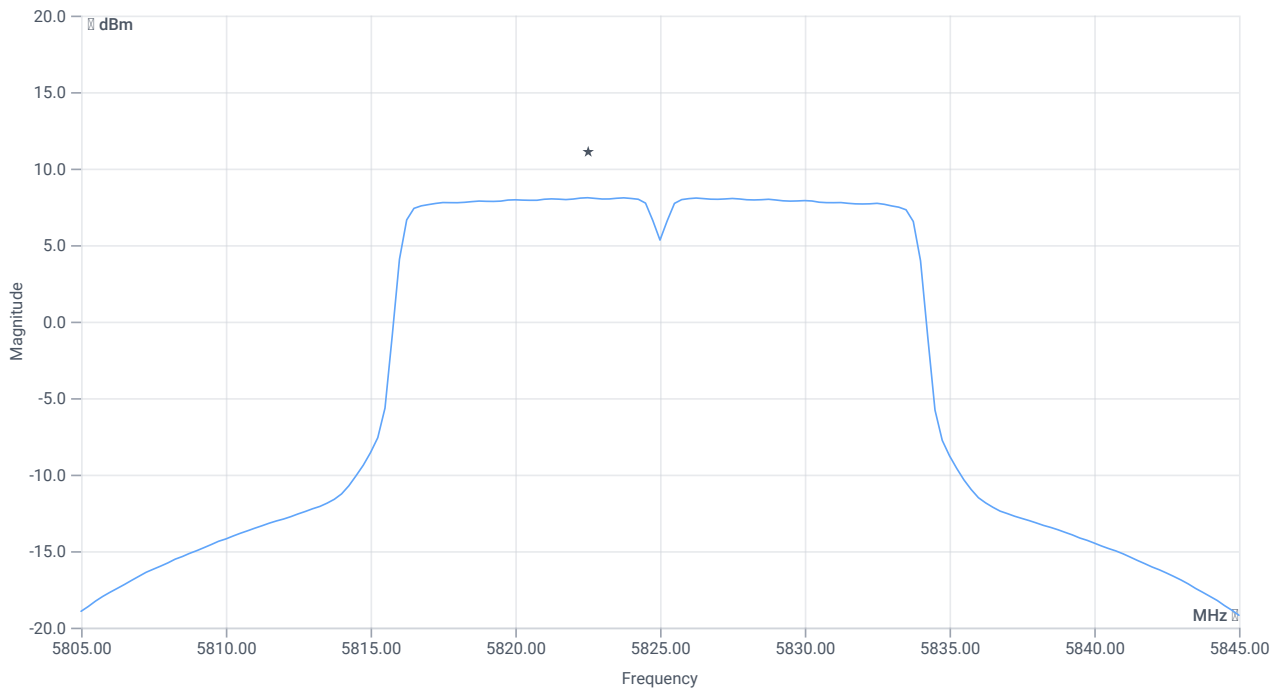
RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Max Output Power	--	--	23.14	dBm	INFO
Duty Cycle Correction	--	--	0	dB	INFO
Limit absolute					
Max Output Power DC corrected	--	30	23.14	dBm	PASS
Limit: 11 dBm + 10 log 40					
Max Output Power DC corrected	--	27.02	23.14	dBm	na

Power Spectral Density U-NII-3

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	31.75 16.78 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



PSD UNII-3

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Power Spectral Density	--	--	8.09	dBm/0.5MHz	INFO
Duty Cycle Correction	--	--	0	dB	INFO
Power Spectral Density DC corrected	--	30	8.09	dBm/0.5MHz	PASS

Verdict

PASS

FCC 15.407, ISED RSS247 # Minimum emission bandwidth ~ WLAN5Gx n-HT20 mode U-NII-3

Test References

TC Start	21.02.2023 14:19:51
Ambit Temp [°C] Humidity [rel%]	22.9 33
System Version	3.5.0.0
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 n-HT20 mode U-NII-3
Add. Information	

EUT Common Settings WLAN5Gx

Number of Antenna Ports	2
User Interaction	No
Device Class UNII_1	Client
Limit W52 Japan	Standard

Test Parameter

Technology to test	WLAN5Gx n-HT20 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

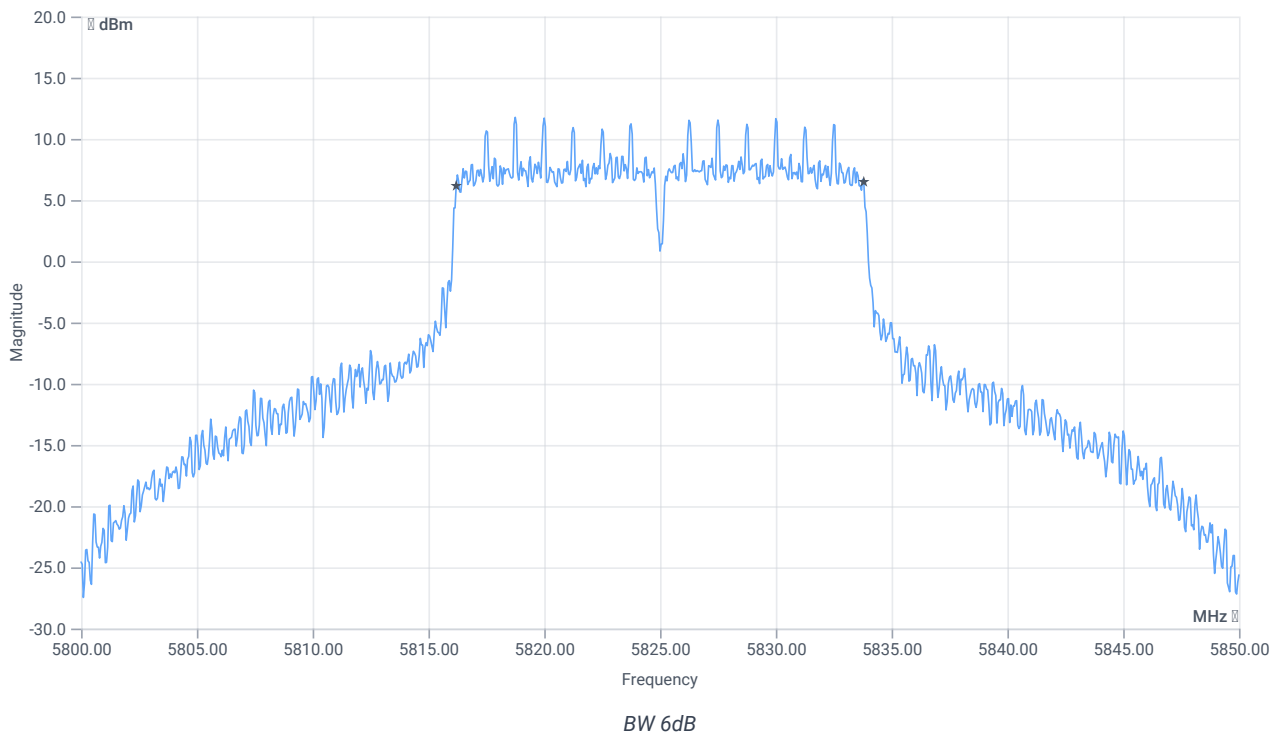
Test at TX 5825 MHz

RESULT: Reference Power cond.

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	--	--	19.15	dBm	INFO
Ref. Frequency	--	--	5830.590	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	31.15 16.78 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	--	17.6	MHz	PASS

Verdict

PASS

FCC 15.407, ISED RSS247 # Bandwidths 99PCT and 26dB ~ WLAN5Gx n-HT20 mode U-NII-3

Test References

TC Start	21.02.2023 14:19:13
Ambit Temp [°C] Humidity [rel%]	22.9 33
System Version	3.5.0.0
Test Specification	FCC 15.407, ISED RSS247 -
Test Method	26dB Bandwidth KDB789033 D02, C.1 / ISED RSS-GEN
TC Version	0.0.1
My Description	FCC 15.407 Bandwidths - WLAN5Gx n-HT20 mode U-NII-3
Add. Information	

EUT Common Settings WLAN5Gx

Number of Antenna Ports	2
User Interaction	No
Device Class UNII_1	Client
Limit W52 Japan	Standard

Test Parameter

Technology to test	WLAN5Gx n-HT20 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

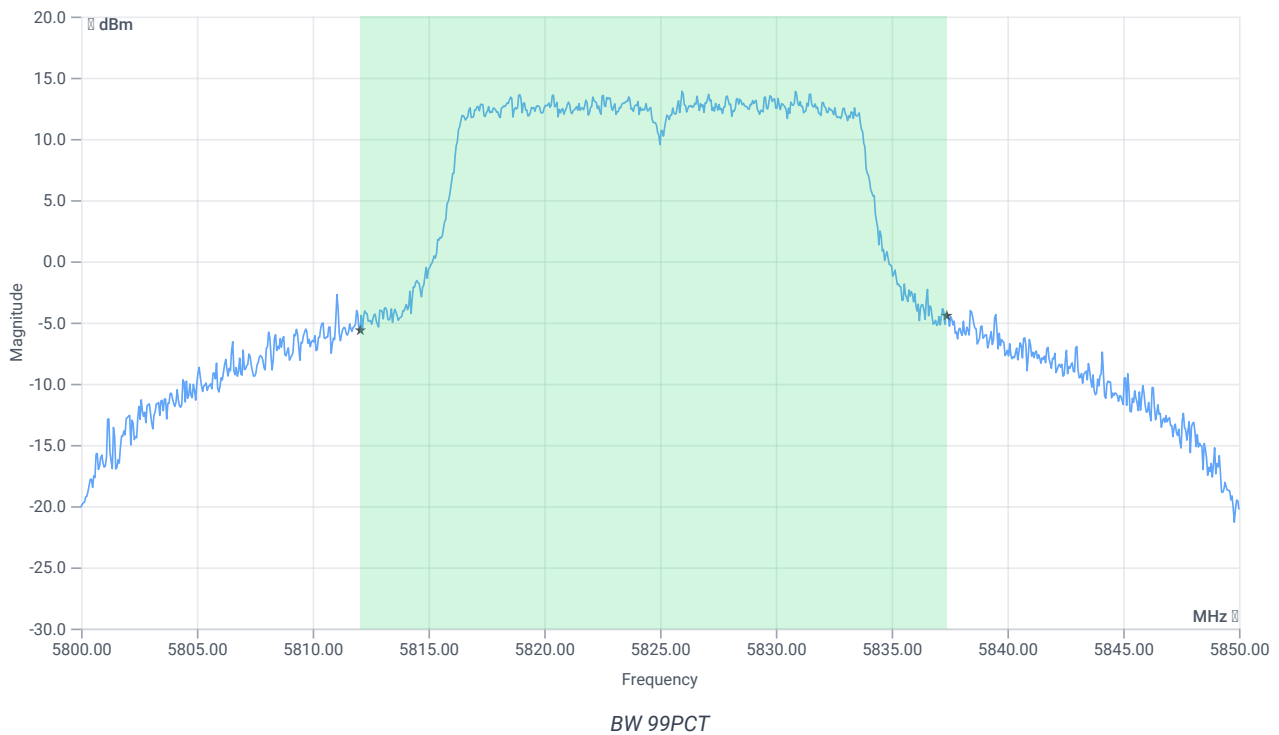
Test at TX 5825 MHz

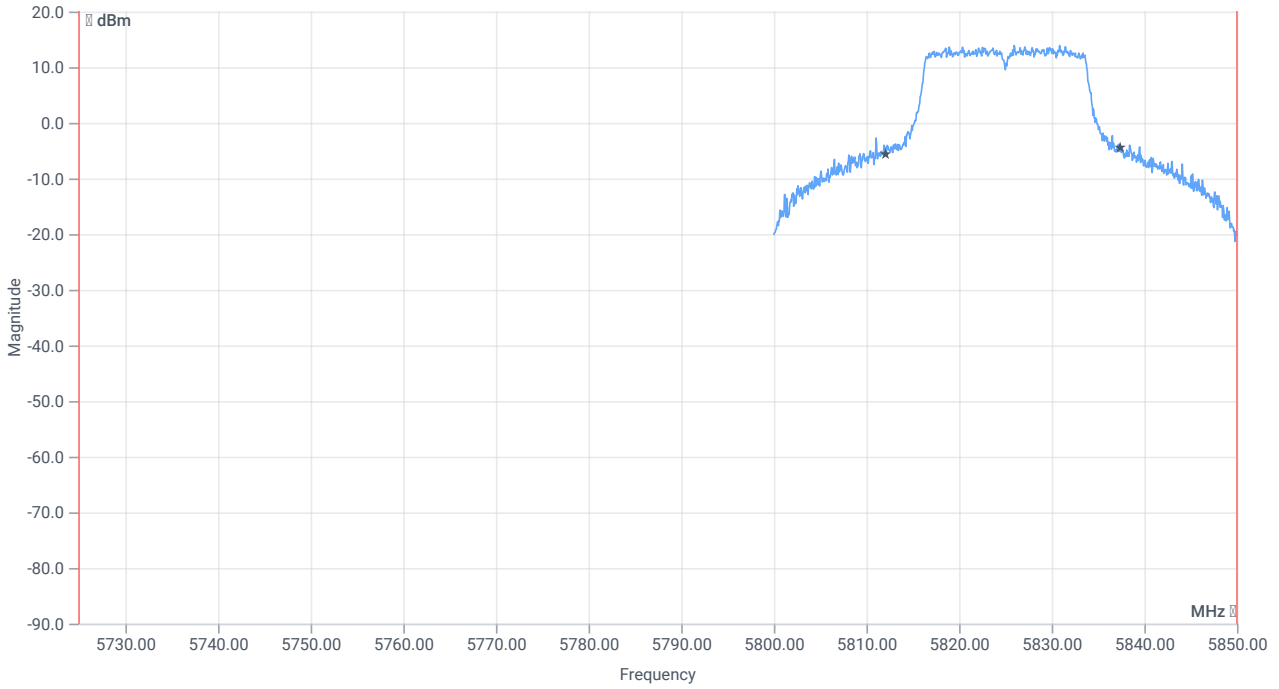
RESULT: Reference Power cond.

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	--	--	18.96	dBm	INFO
Ref. Frequency	--	--	5823.000	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	26.96 16.78 30
Start [MHz] Stop [MHz]	5800.000 5850.000
RBW [MHz] VBW [MHz]	0.300000 1.000000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	1 2500 1001 SWE

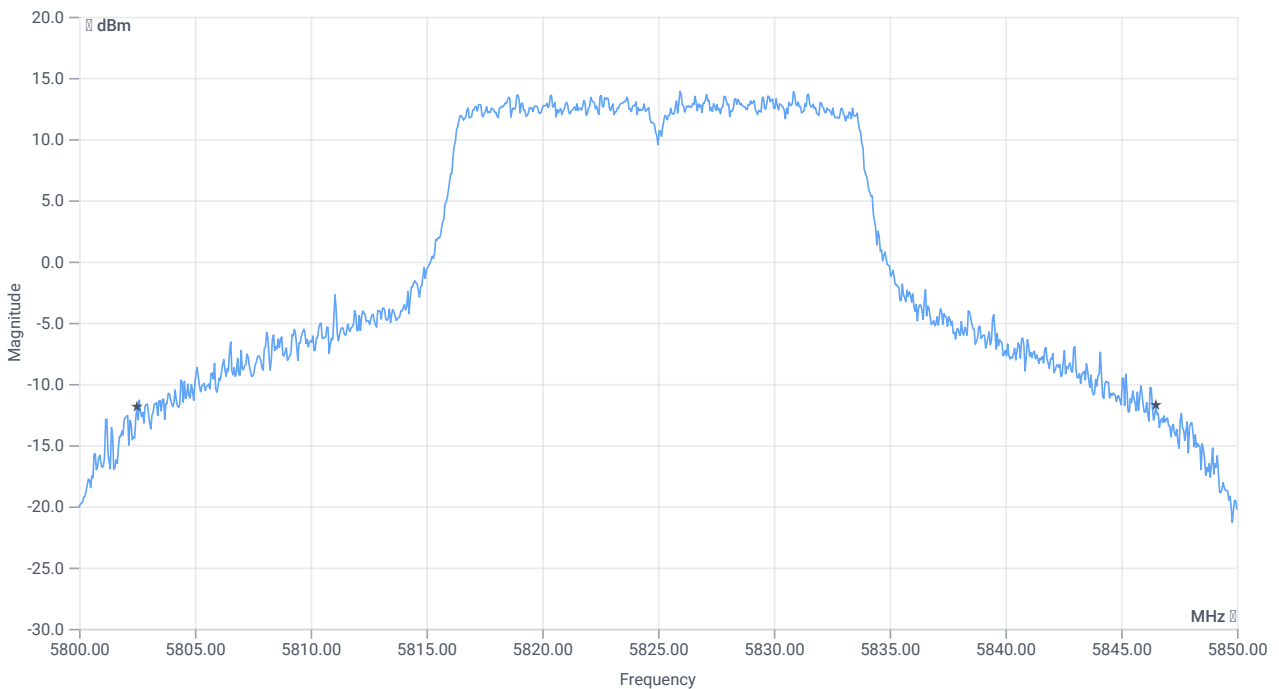




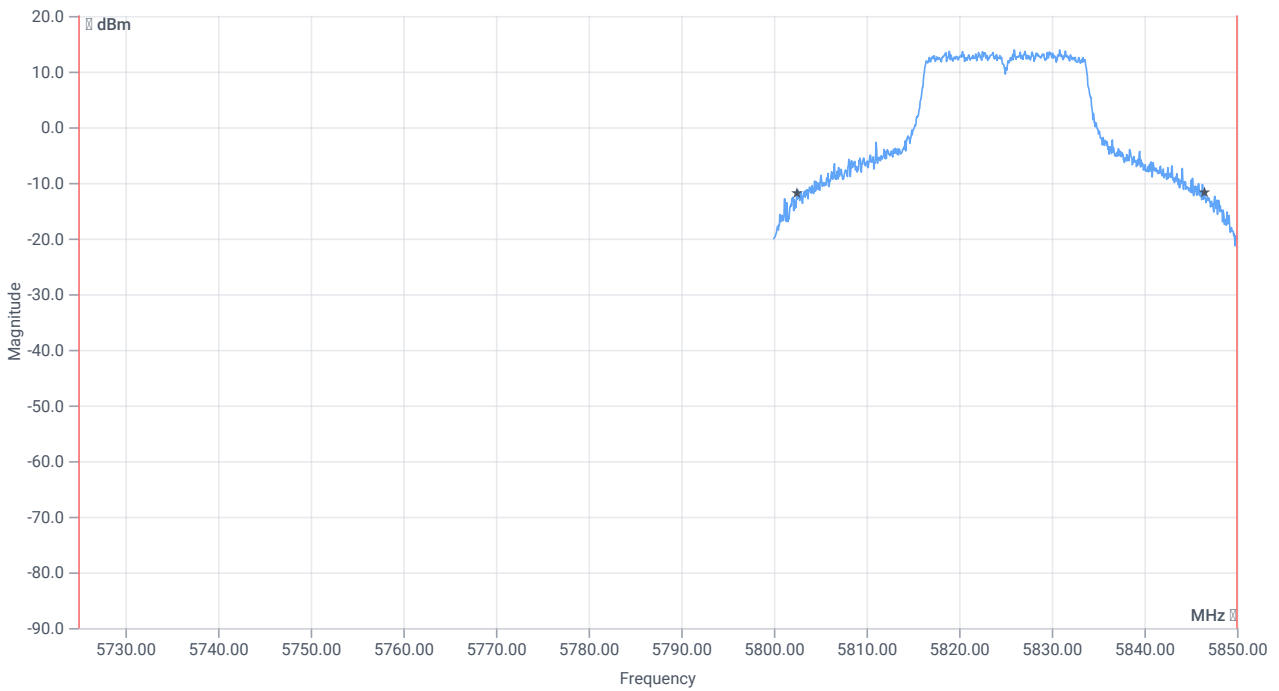
BW within Band 99PCT

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 99%	--	--	25.325	MHz	INFO
T1 99%	5725.000000	--	5812.0629	MHz	PASS
T2 99%	--	5850.000000	5837.3876	MHz	PASS



BW 26dB



BW within Band 26dB

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 26dB	--	--	44	MHz	INFO
T1 26dB	5725.000000	--	5802.5000	MHz	PASS
T2 26dB	--	5850.000000	5846.5000	MHz	PASS

Verdict

PASS

FCC 15.247 # Max output power and psd ~ WLAN5Gx n-HT20 mode U-NII-3

Test References

TC Start	21.02.2023 14:16:49
Ambit Temp [°C] Humidity [rel%]	22.8 33
System Version	3.5.0.0
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 n-HT20 mode U-NII-3
Add. Information	

EUT Common Settings WLAN5Gx

Number of Antenna Ports	2
User Interaction	No
Device Class UNII_1	Client
Limit W52 Japan	Standard

Test Parameter

Technology to test	WLAN5Gx n-HT20 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

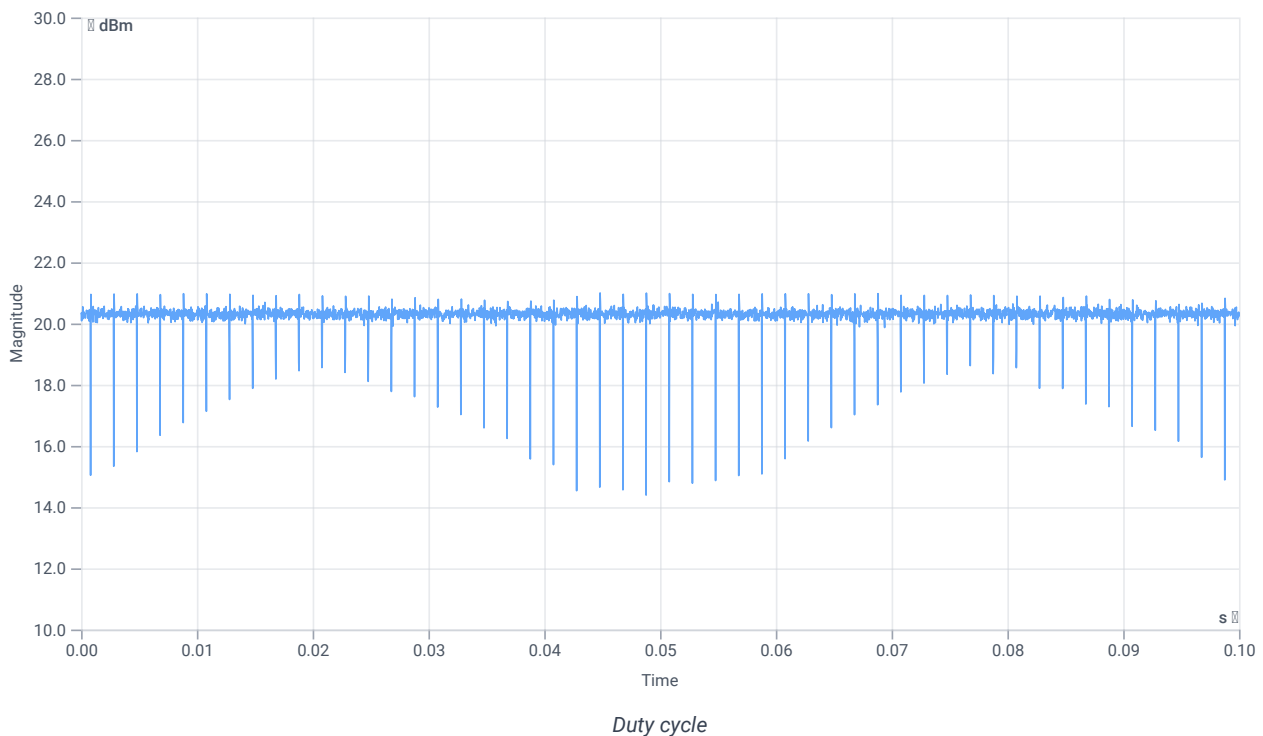
RESULT: Reference Power cond.

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	--	--	19.22	dBm	INFO
Ref. Frequency	--	--	5819.810	MHz	INFO

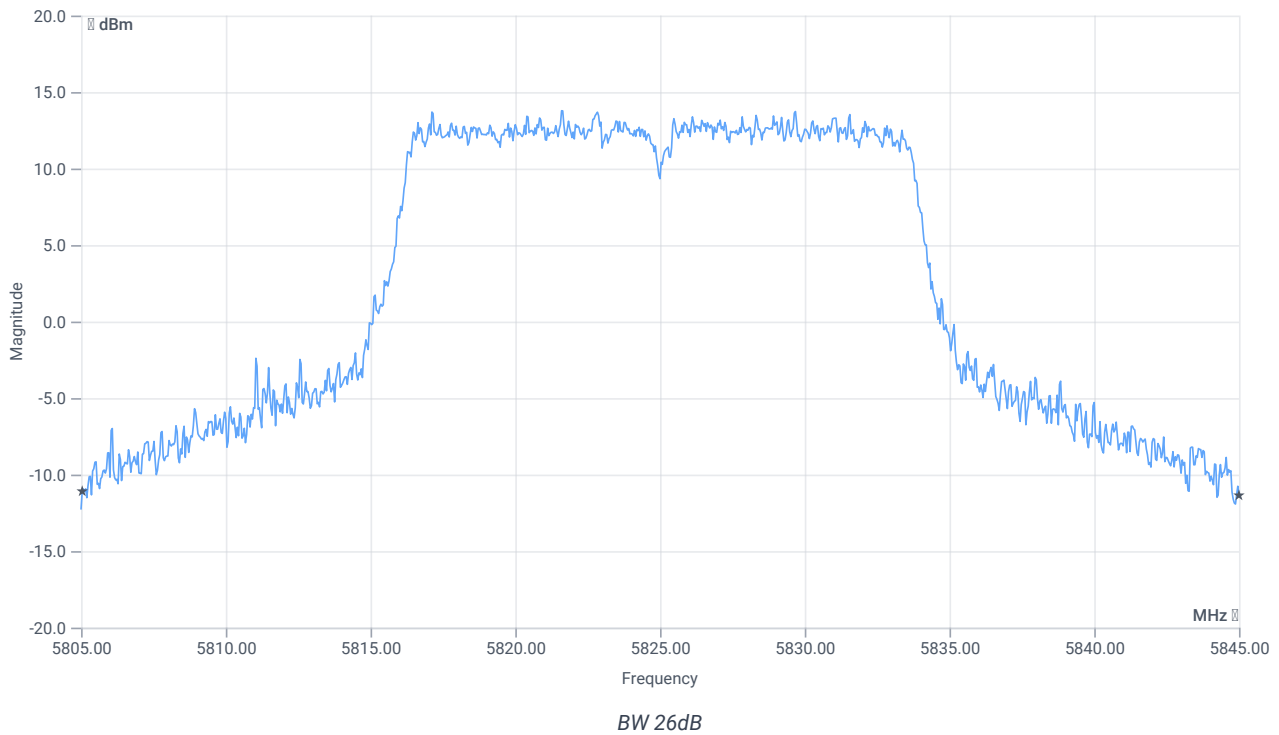
Evaluation max. Duty Cycle

Duty Cycle evaluation

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
No enough Bursts detected, Duty Cycle Burst Ratio set to 1					
Duty Cycle (Burst Ratio) max	--	--	1	--	INFO
Duty Cycle max	--	--	0	dB	INFO
Duty Cycle (Burst Ratio) min	--	--	1	--	INFO
Duty Cycle min	--	--	0	dB	INFO



Evaluation Bandwidth



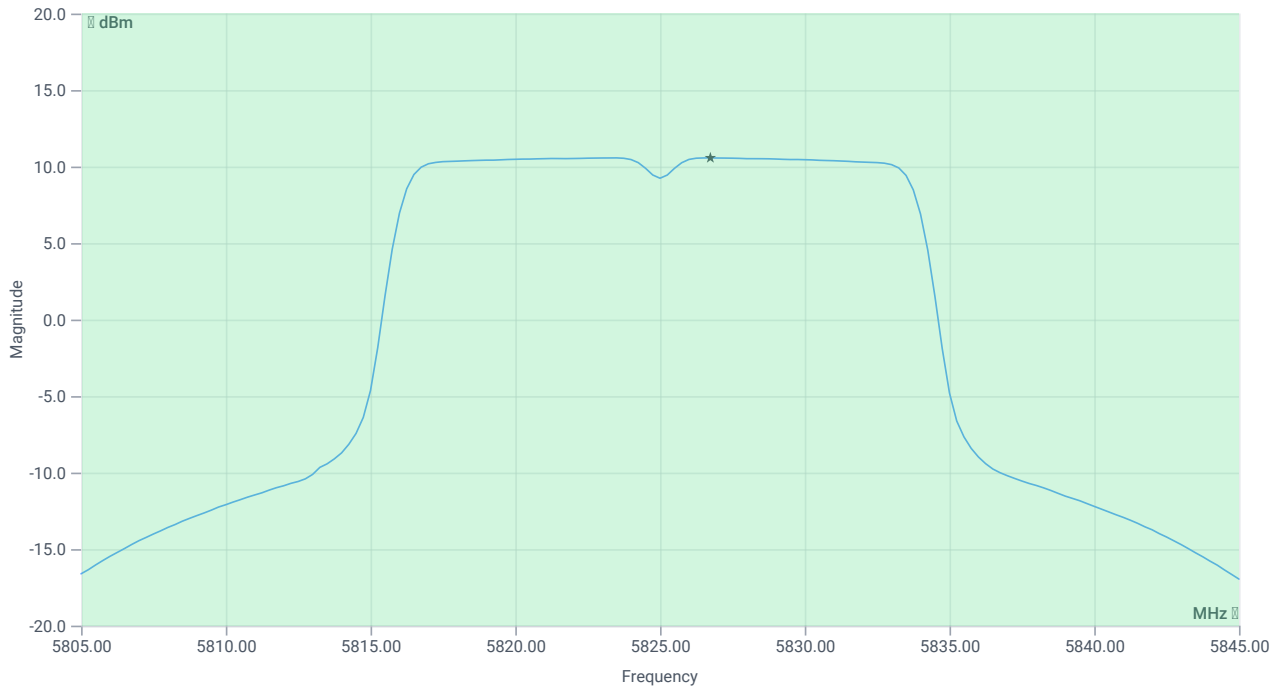
RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 26dB	---	---	39.96	MHz	INFO
T1 26dB	---	---	5805.0400	MHz	INFO
T2 26dB	---	---	5845.0000	MHz	INFO

Maximum Output Power

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	31.22 16.78 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



Max OP and PSD

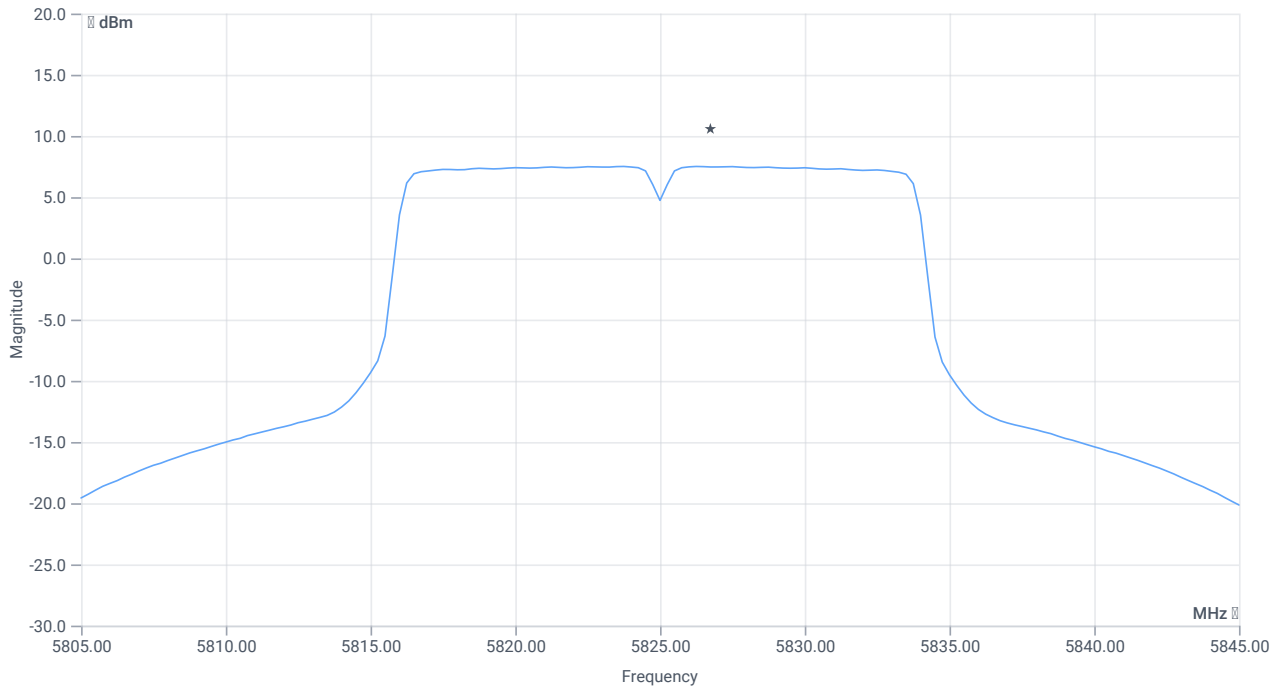
RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Max Output Power	--	--	22.65	dBm	INFO
Duty Cycle Correction	--	--	0	dB	INFO
Limit absolute					
Max Output Power DC corrected	--	30	22.65	dBm	PASS
Limit: 11 dBm + 10 log 39.96					
Max Output Power DC corrected	--	27.02	22.65	dBm	na

Power Spectral Density U-NII-3

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	31.22 16.78 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



PSD UNII-3

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Power Spectral Density	--	--	7.51	dBm/0.5MHz	INFO
Duty Cycle Correction	--	--	0	dB	INFO
Power Spectral Density DC corrected	--	30	7.51	dBm/0.5MHz	PASS

Verdict

PASS

FCC 15.407, ISED RSS247 # Minimum emission bandwidth ~ WLAN5Gx n-HT20 mode U-NII-3

Test References

TC Start	21.02.2023 14:15:06
Ambit Temp [°C] Humidity [rel%]	22.8 33
System Version	3.5.0.0
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 n-HT20 mode U-NII-3
Add. Information	

EUT Common Settings WLAN5Gx

Number of Antenna Ports	2
User Interaction	No
Device Class UNII_1	Client
Limit W52 Japan	Standard

Test Parameter

Technology to test	WLAN5Gx n-HT20 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

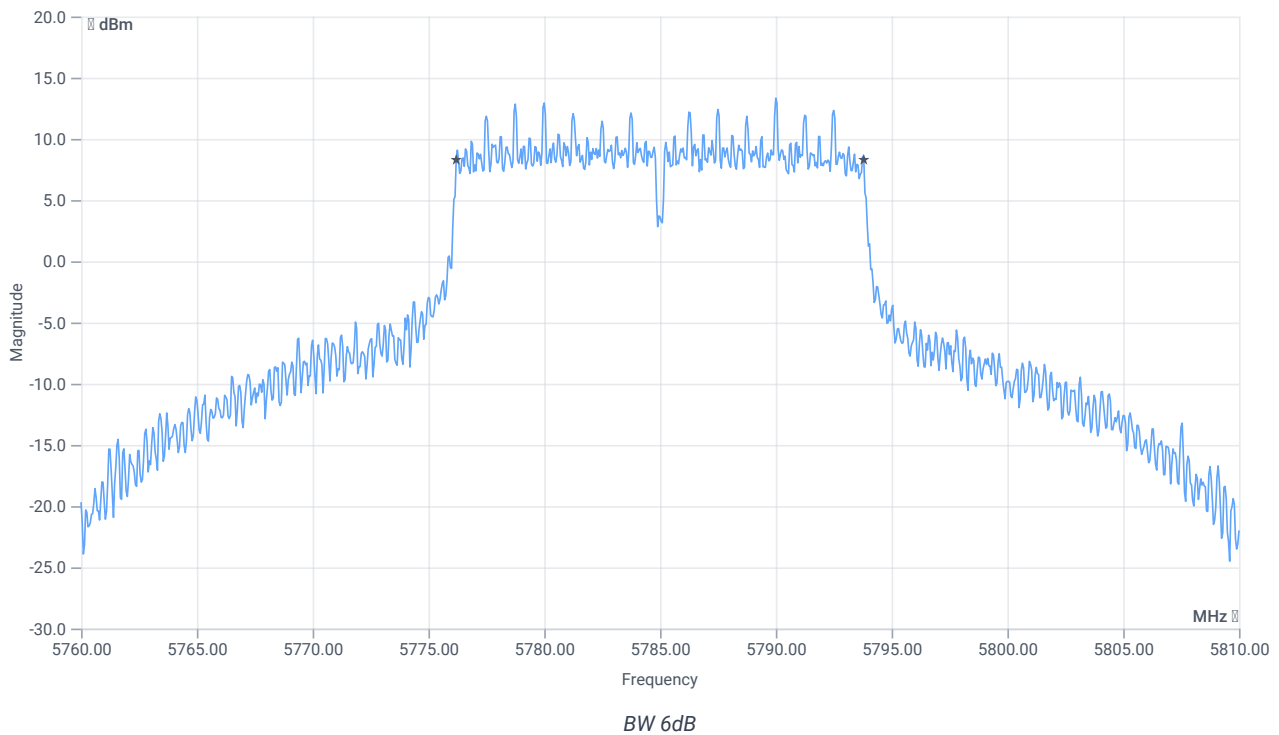
Test at TX 5785 MHz

RESULT: Reference Power cond.

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	--	--	20.21	dBm	INFO
Ref. Frequency	--	--	5783.400	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	32.21 16.8 35
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	--	17.6	MHz	PASS

Verdict

PASS

FCC 15.407, ISED RSS247 # Bandwidths 99PCT and 26dB ~ WLAN5Gx n-HT20 mode U-NII-3

Test References

TC Start	21.02.2023 14:14:34
Ambit Temp [°C] Humidity [rel%]	22.8 33
System Version	3.5.0.0
Test Specification	FCC 15.407, ISED RSS247 -
Test Method	26dB Bandwidth KDB789033 D02, C.1 / ISED RSS-GEN
TC Version	0.0.1
My Description	FCC 15.407 Bandwidths - WLAN5Gx n-HT20 mode U-NII-3
Add. Information	

EUT Common Settings WLAN5Gx

Number of Antenna Ports	2
User Interaction	No
Device Class UNII_1	Client
Limit W52 Japan	Standard

Test Parameter

Technology to test	WLAN5Gx n-HT20 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

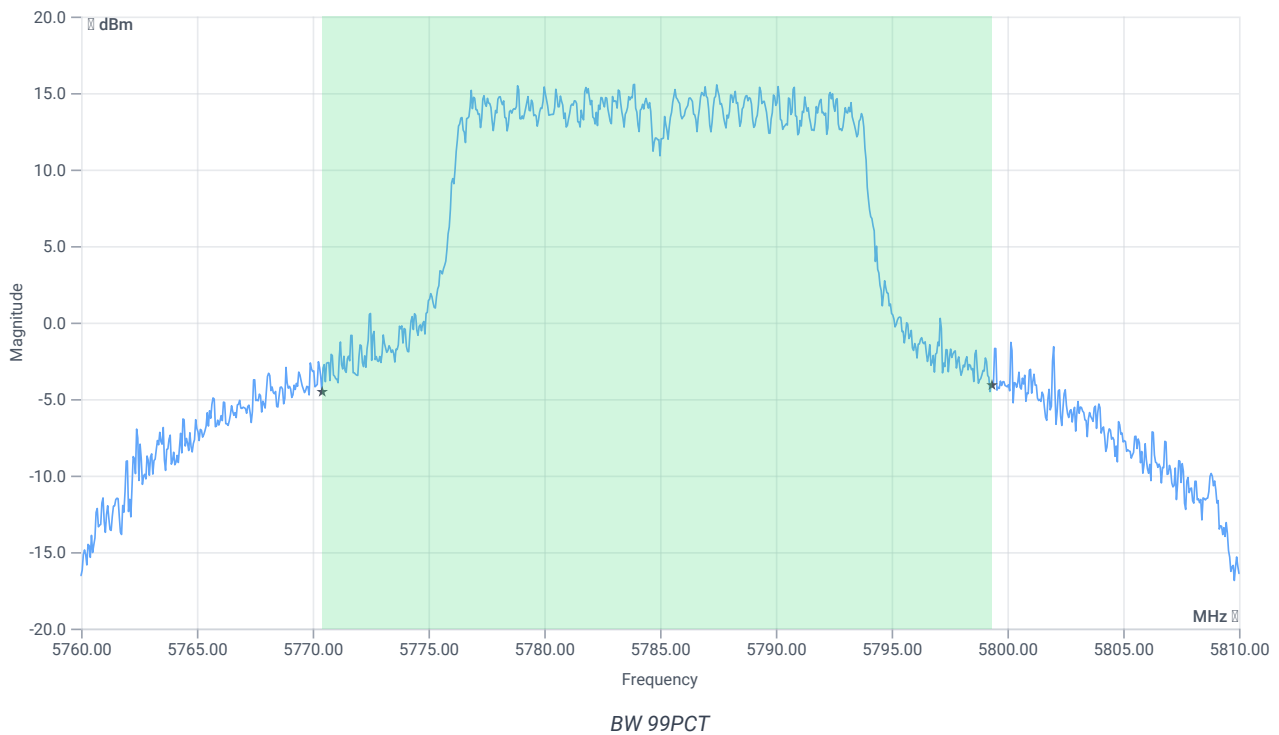
Test at TX 5785 MHz

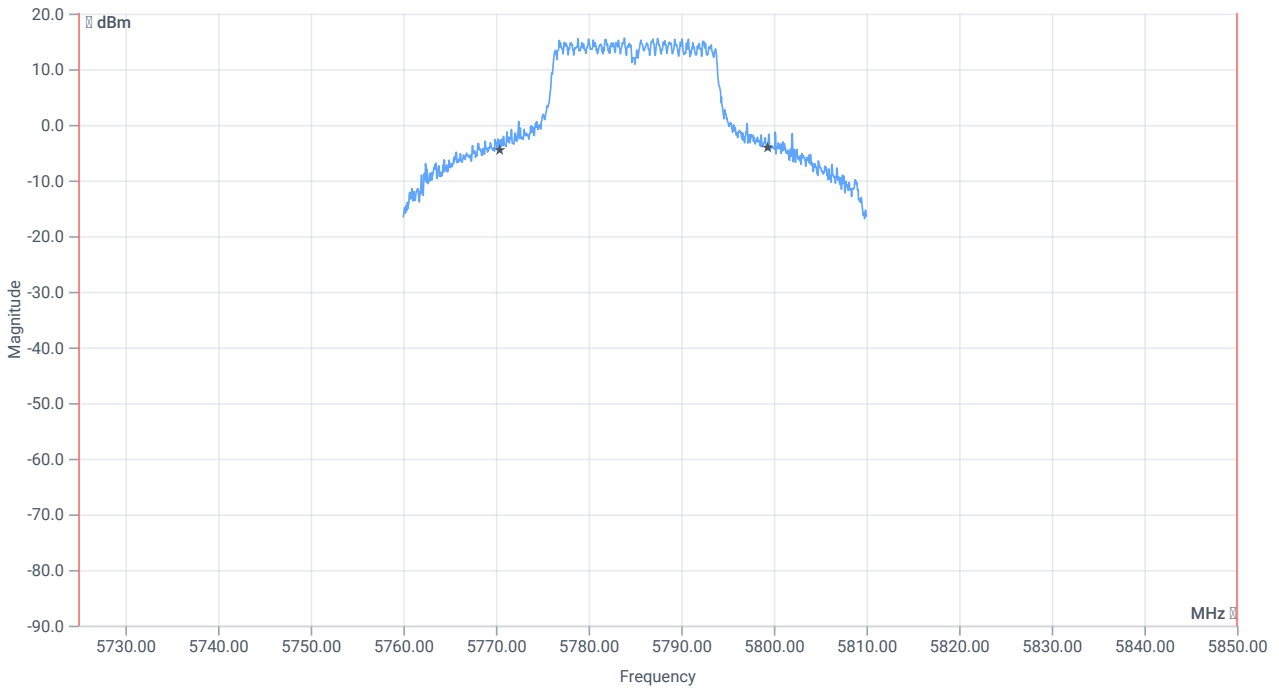
RESULT: Reference Power cond.

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	--	--	20.81	dBm	INFO
Ref. Frequency	--	--	5783.000	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	28.81 16.8 30
Start [MHz] Stop [MHz]	5760.000 5810.000
RBW [MHz] VBW [MHz]	0.300000 1.000000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	1 2500 1001 SWE

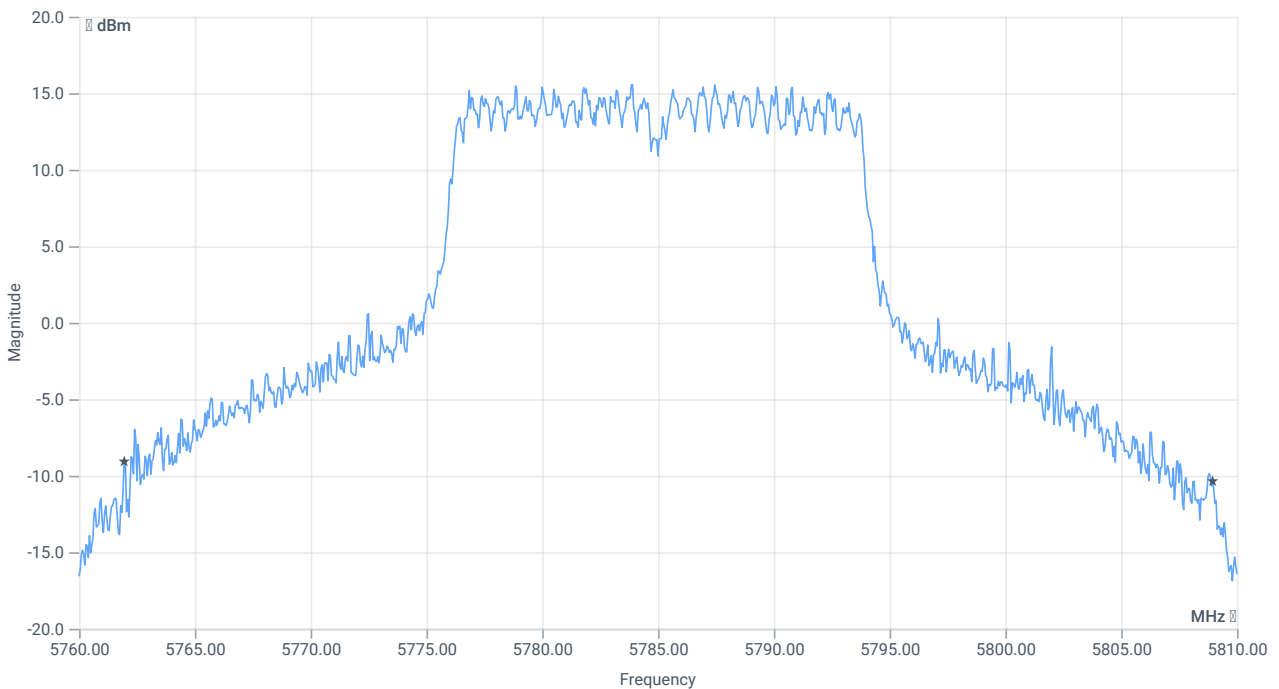




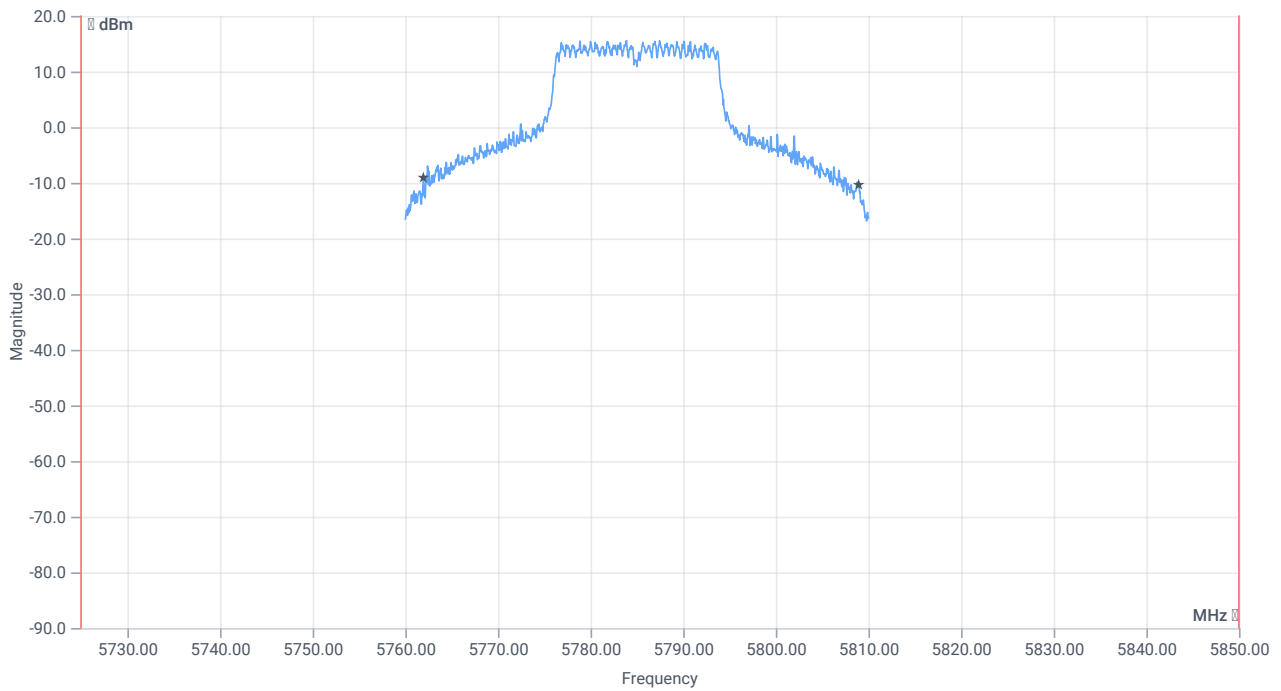
BW within Band 99PCT

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 99%	--	--	28.921	MHz	INFO
T1 99%	5725.000000	--	5770.4146	MHz	PASS
T2 99%	--	5850.000000	5799.3357	MHz	PASS



BW 26dB



BW within Band 26dB

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 26dB	--	--	47	MHz	INFO
T1 26dB	5725.000000	--	5761.9500	MHz	PASS
T2 26dB	--	5850.000000	5808.9500	MHz	PASS

Verdict

PASS

FCC 15.247 # Max output power and psd ~ WLAN5Gx n-HT20 mode U-NII-3

Test References

TC Start	21.02.2023 14:12:09
Ambit Temp [°C] Humidity [rel%]	22.8 33
System Version	3.5.0.0
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 n-HT20 mode U-NII-3
Add. Information	

EUT Common Settings WLAN5Gx

Number of Antenna Ports	2
User Interaction	No
Device Class UNII_1	Client
Limit W52 Japan	Standard

Test Parameter

Technology to test	WLAN5Gx n-HT20 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

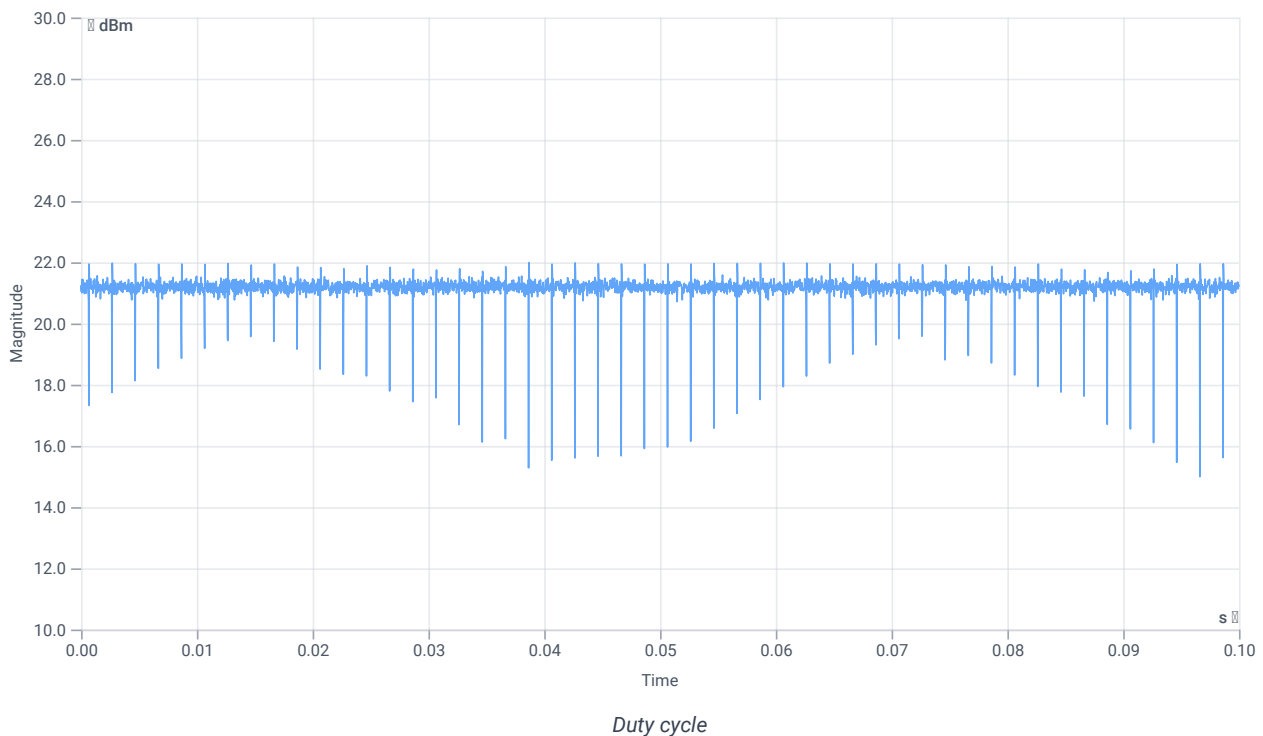
RESULT: Reference Power cond.

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	--	--	19.98	dBm	INFO
Ref. Frequency	--	--	5784.000	MHz	INFO

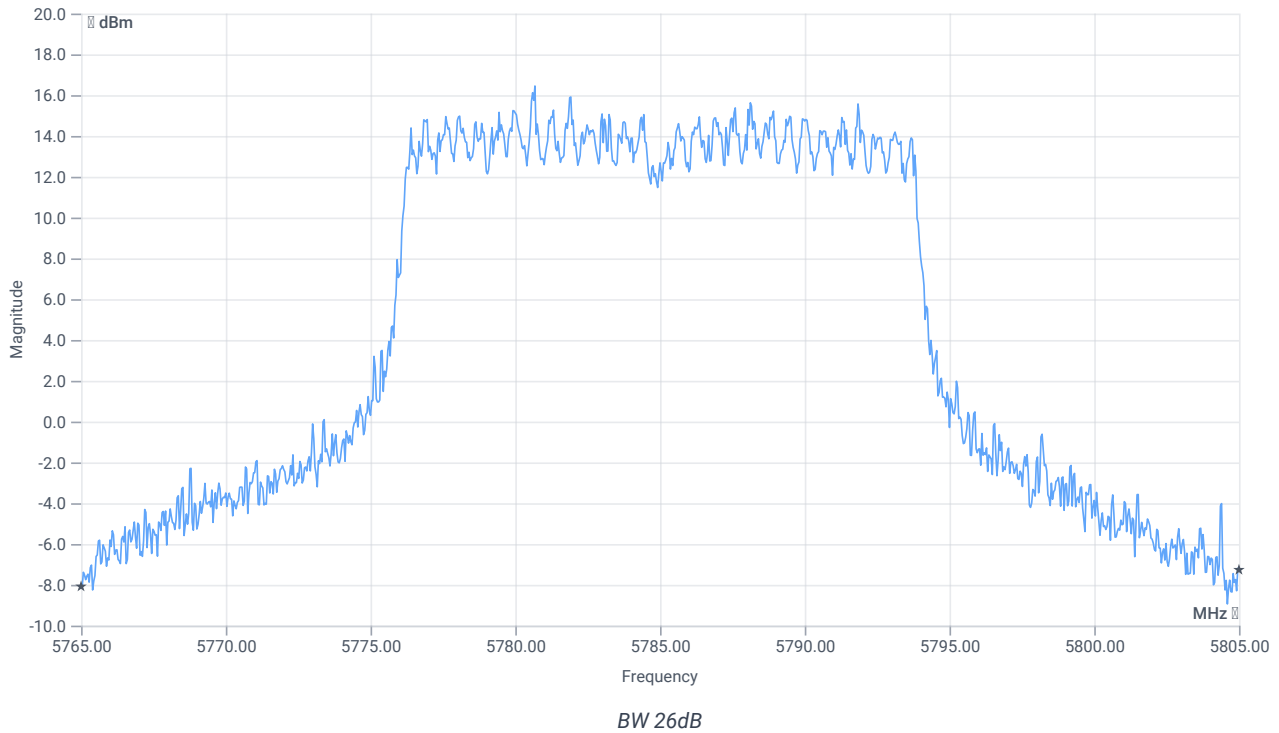
Evaluation max. Duty Cycle

Duty Cycle evaluation

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
No enough Bursts detected, Duty Cycle Burst Ratio set to 1					
Duty Cycle (Burst Ratio) max	--	--	1	--	INFO
Duty Cycle max	--	--	0	dB	INFO
Duty Cycle (Burst Ratio) min	--	--	1	--	INFO
Duty Cycle min	--	--	0	dB	INFO



Evaluation Bandwidth



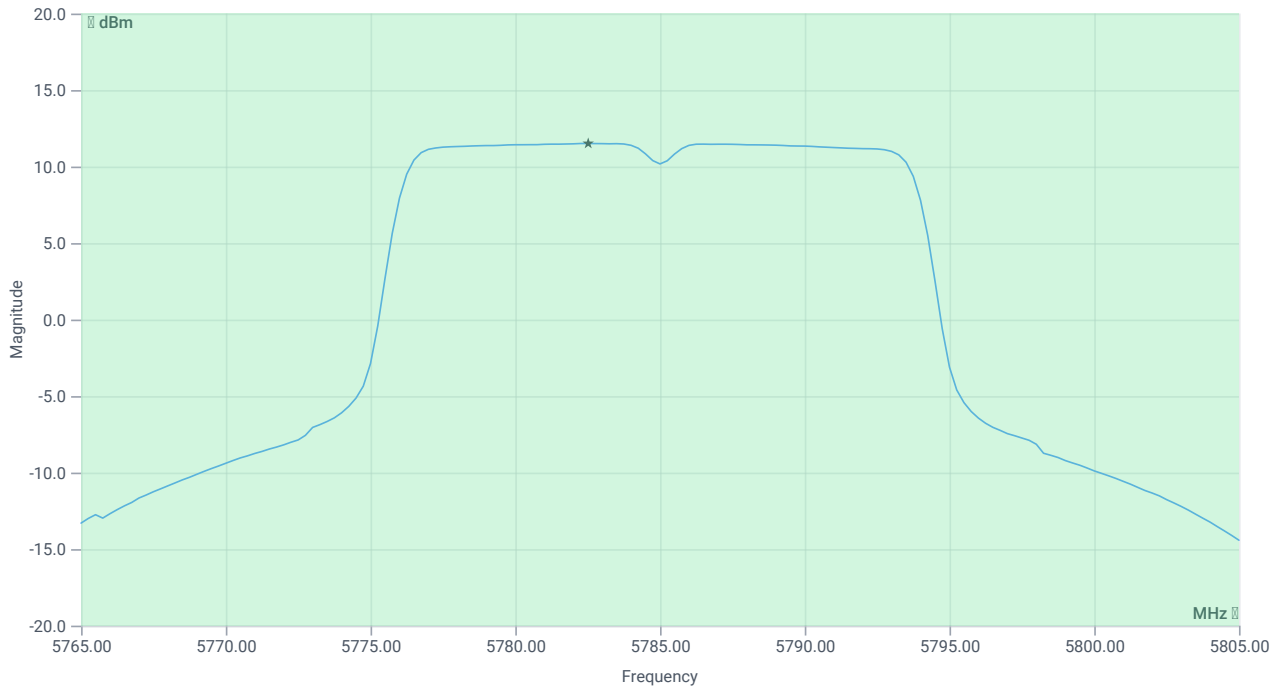
RESULT

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

Maximum Output Power

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	31.98 16.8 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



Max OP and PSD

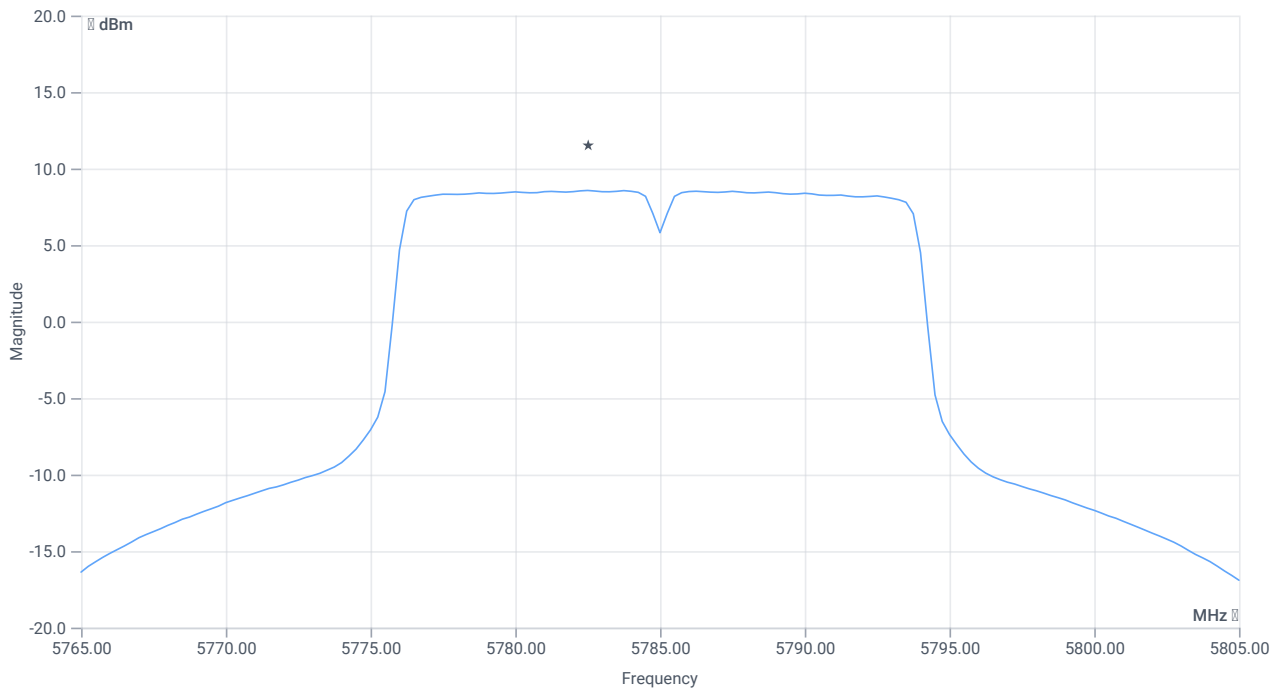
RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Max Output Power	--	--	23.59	dBm	INFO
Duty Cycle Correction	--	--	0	dB	INFO
Limit absolute					
Max Output Power DC corrected	--	30	23.59	dBm	PASS
Limit: 11 dBm + 10 log 40					
Max Output Power DC corrected	--	27.02	23.59	dBm	na

Power Spectral Density U-NII-3

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	31.98 16.8 35
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



PSD UNII-3

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Power Spectral Density	--	--	8.57	dBm/0.5MHz	INFO
Duty Cycle Correction	--	--	0	dB	INFO
Power Spectral Density DC corrected	--	30	8.57	dBm/0.5MHz	PASS

Verdict

PASS

FCC 15.407, ISED RSS247 # Minimum emission bandwidth ~ WLAN5Gx n-HT20 mode U-NII-3

Test References

TC Start	21.02.2023 14:11:20
Ambit Temp [°C] Humidity [rel%]	22.8 33
System Version	3.5.0.0
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 n-HT20 mode U-NII-3
Add. Information	

EUT Common Settings WLAN5Gx

Number of Antenna Ports	2
User Interaction	No
Device Class UNII_1	Client
Limit W52 Japan	Standard

Test Parameter

Technology to test	WLAN5Gx n-HT20 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

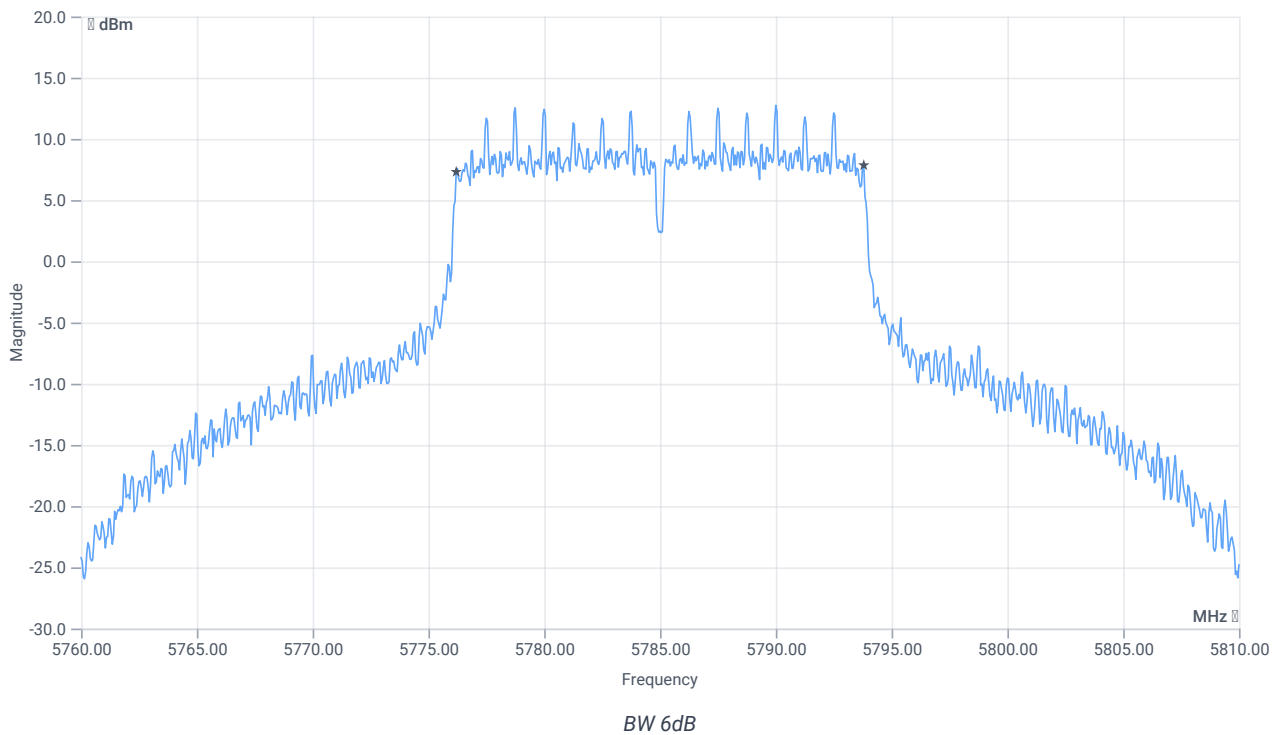
Test at TX 5785 MHz

RESULT: Reference Power cond.

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	--	--	19.46	dBm	INFO
Ref. Frequency	--	--	5779.210	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	31.46 16.8 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	--	17.6	MHz	PASS

Verdict

PASS

FCC 15.407, ISED RSS247 # Bandwidths 99PCT and 26dB ~ WLAN5Gx n-HT20 mode U-NII-3

Test References

TC Start	21.02.2023 14:10:49
Ambit Temp [°C] Humidity [rel%]	22.8 34
System Version	3.5.0.0
Test Specification	FCC 15.407, ISED RSS247 -
Test Method	26dB Bandwidth KDB789033 D02, C.1 / ISED RSS-GEN
TC Version	0.0.1
My Description	FCC 15.407 Bandwidths - WLAN5Gx n-HT20 mode U-NII-3
Add. Information	

EUT Common Settings WLAN5Gx

Number of Antenna Ports	2
User Interaction	No
Device Class UNII_1	Client
Limit W52 Japan	Standard

Test Parameter

Technology to test	WLAN5Gx n-HT20 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

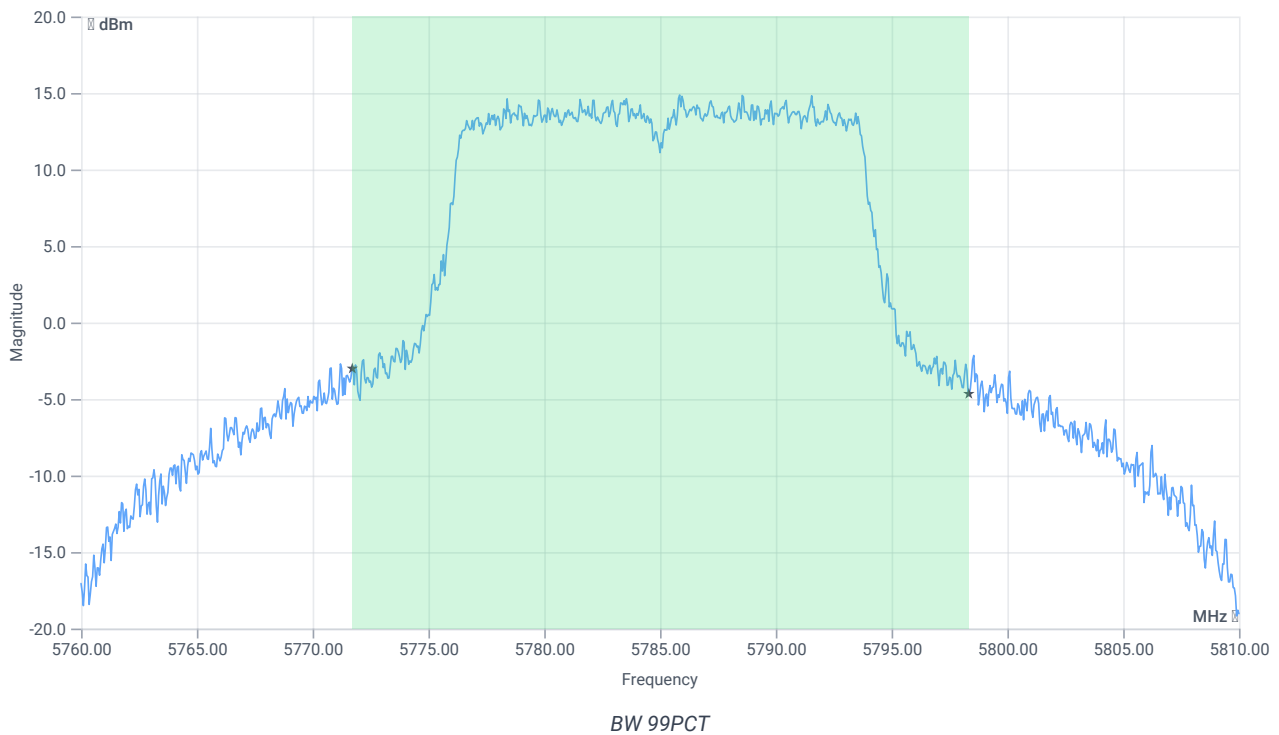
Test at TX 5785 MHz

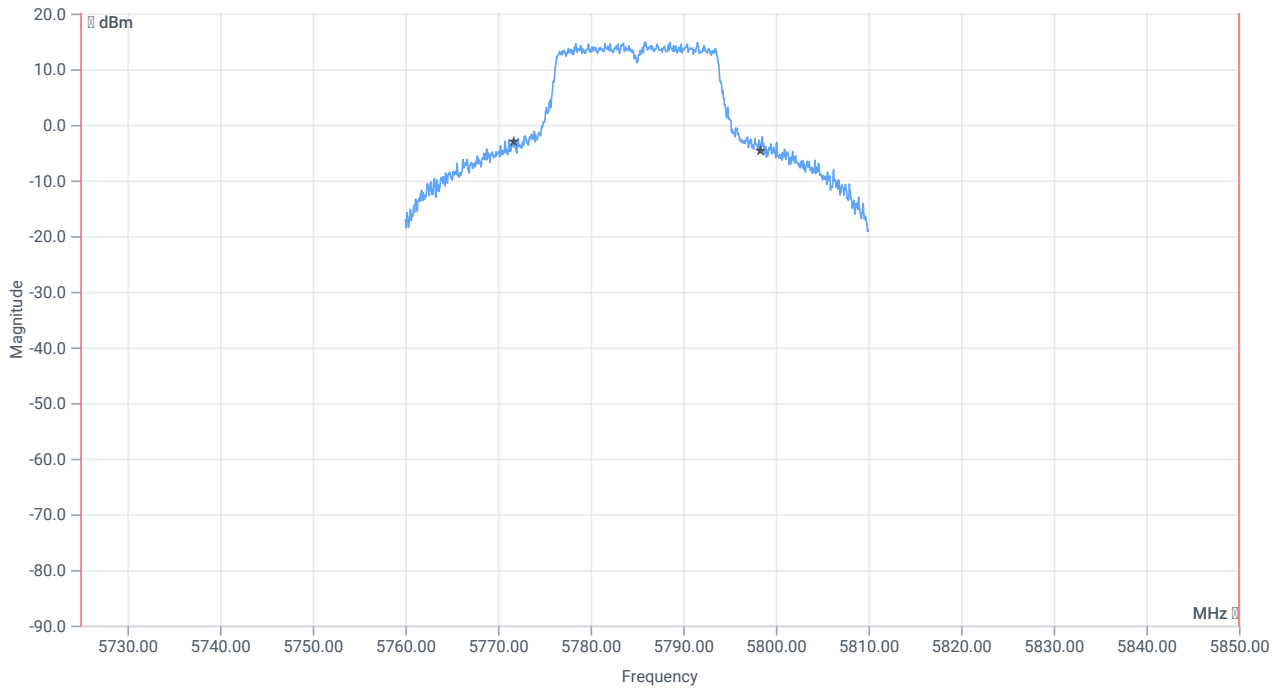
RESULT: Reference Power cond.

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	--	--	20.31	dBm	INFO
Ref. Frequency	--	--	5787.400	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	28.31 16.8 30
Start [MHz] Stop [MHz]	5760.000 5810.000
RBW [MHz] VBW [MHz]	0.300000 1.000000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	1 2500 1001 SWE

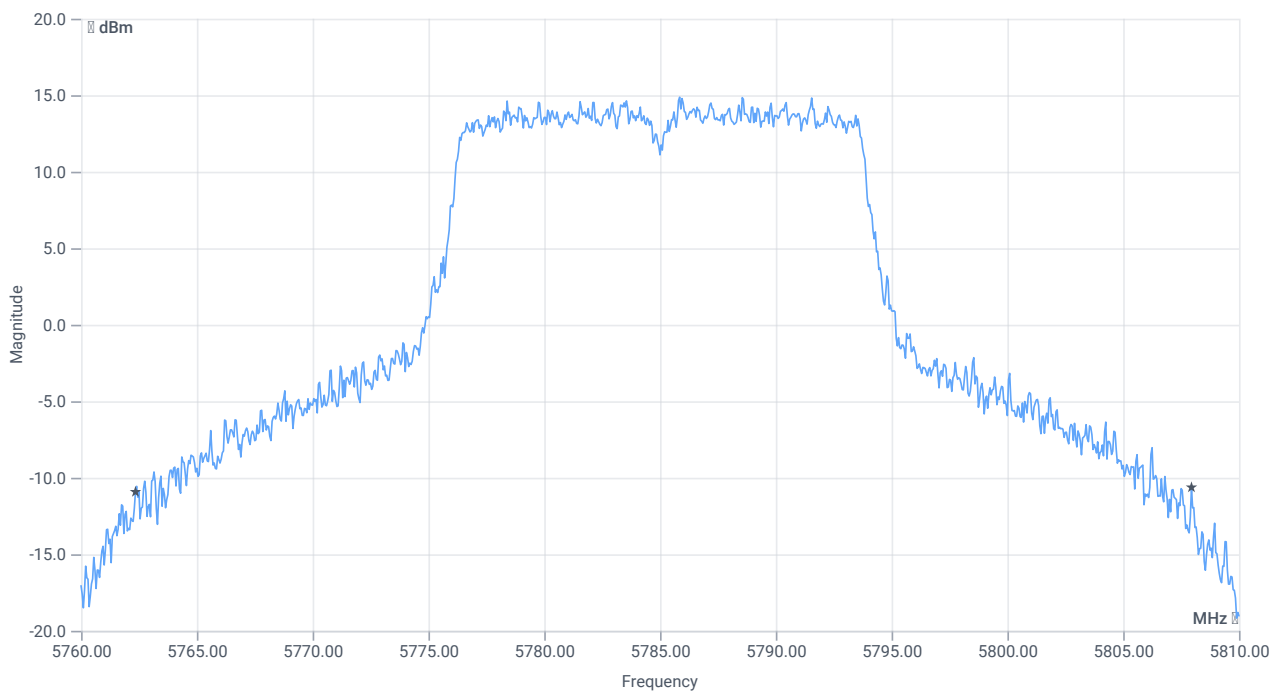




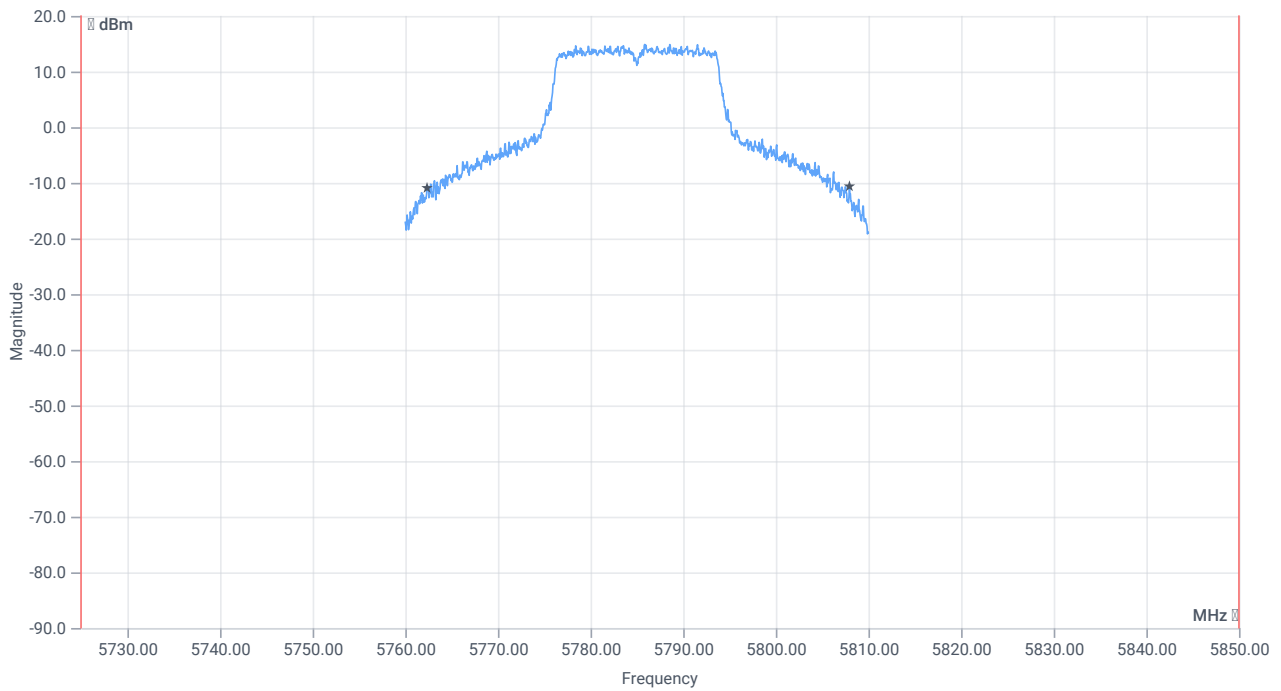
BW within Band 99PCT

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 99%	--	--	26.623	MHz	INFO
T1 99%	5725.000000	--	5771.7133	MHz	PASS
T2 99%	--	5850.000000	5798.3367	MHz	PASS



BW 26dB



BW within Band 26dB

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 26dB	--	--	45.6	MHz	INFO
T1 26dB	5725.000000	--	5762.3500	MHz	PASS
T2 26dB	--	5850.000000	5807.9500	MHz	PASS

Verdict

PASS

FCC 15.247 # Max output power and psd ~ WLAN5Gx n-HT20 mode U-NII-3

Test References

TC Start	21.02.2023 14:08:23
Ambit Temp [°C] Humidity [rel%]	22.8 34
System Version	3.5.0.0
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 n-HT20 mode U-NII-3

Add. Information

EUT Common Settings WLAN5Gx

Number of Antenna Ports	2
User Interaction	No
Device Class UNII_1	Client
Limit W52 Japan	Standard

Test Parameter

Technology to test	WLAN5Gx n-HT20 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

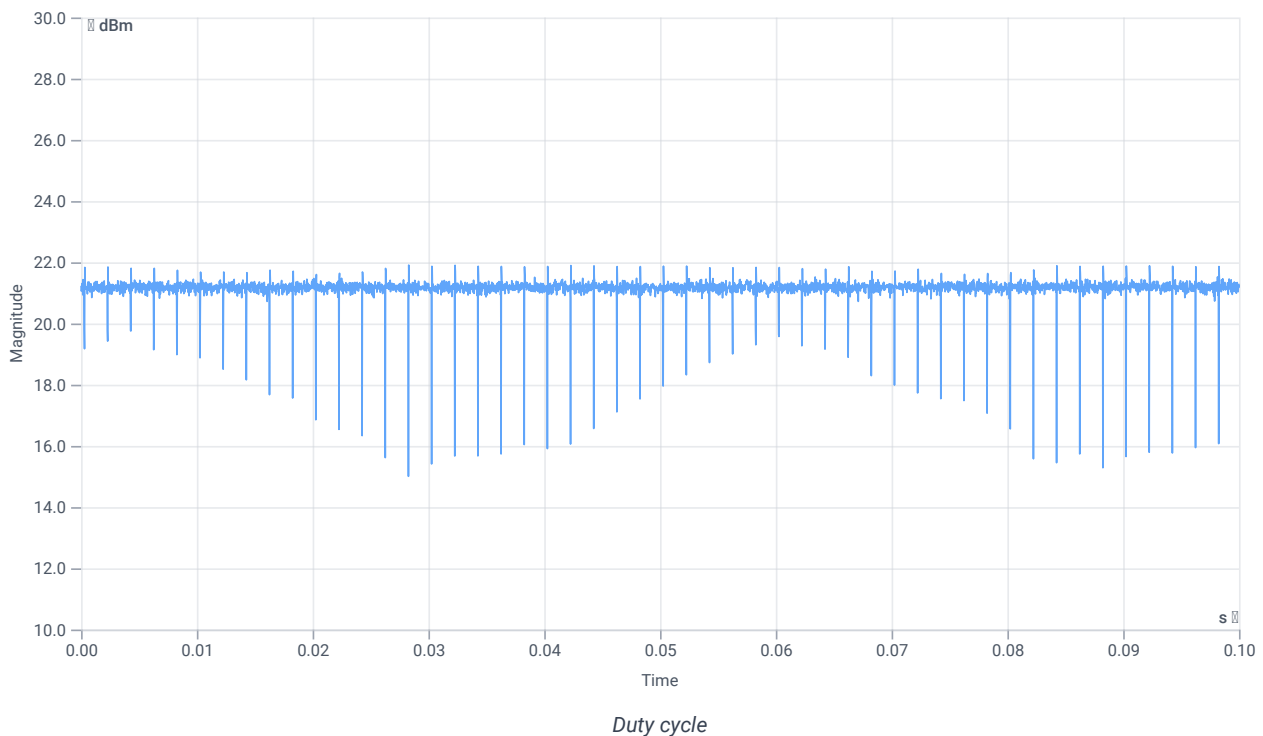
RESULT: Reference Power cond.

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	--	--	19.74	dBm	INFO
Ref. Frequency	--	--	5777.010	MHz	INFO

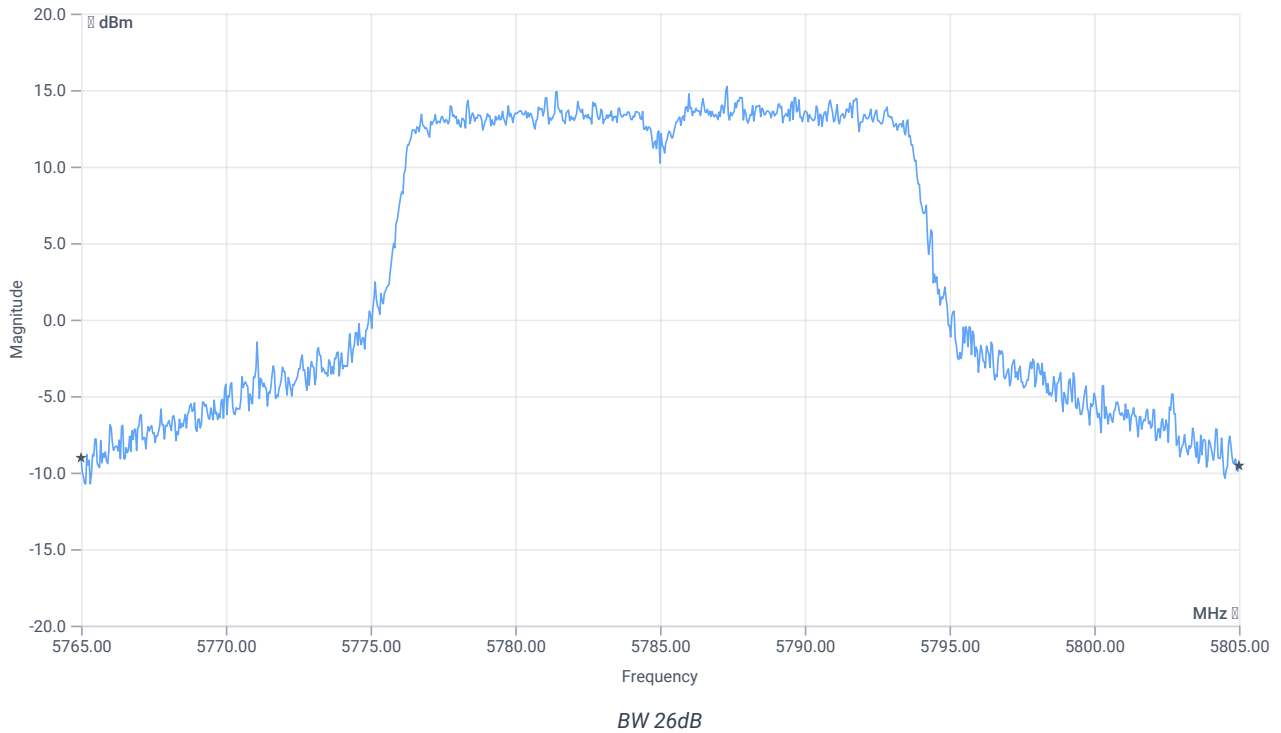
Evaluation max. Duty Cycle

Duty Cycle evaluation

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
No enough Bursts detected, Duty Cycle Burst Ratio set to 1					
Duty Cycle (Burst Ratio) max	--	--	1	--	INFO
Duty Cycle max	--	--	0	dB	INFO
Duty Cycle (Burst Ratio) min	--	--	1	--	INFO
Duty Cycle min	--	--	0	dB	INFO



Evaluation Bandwidth



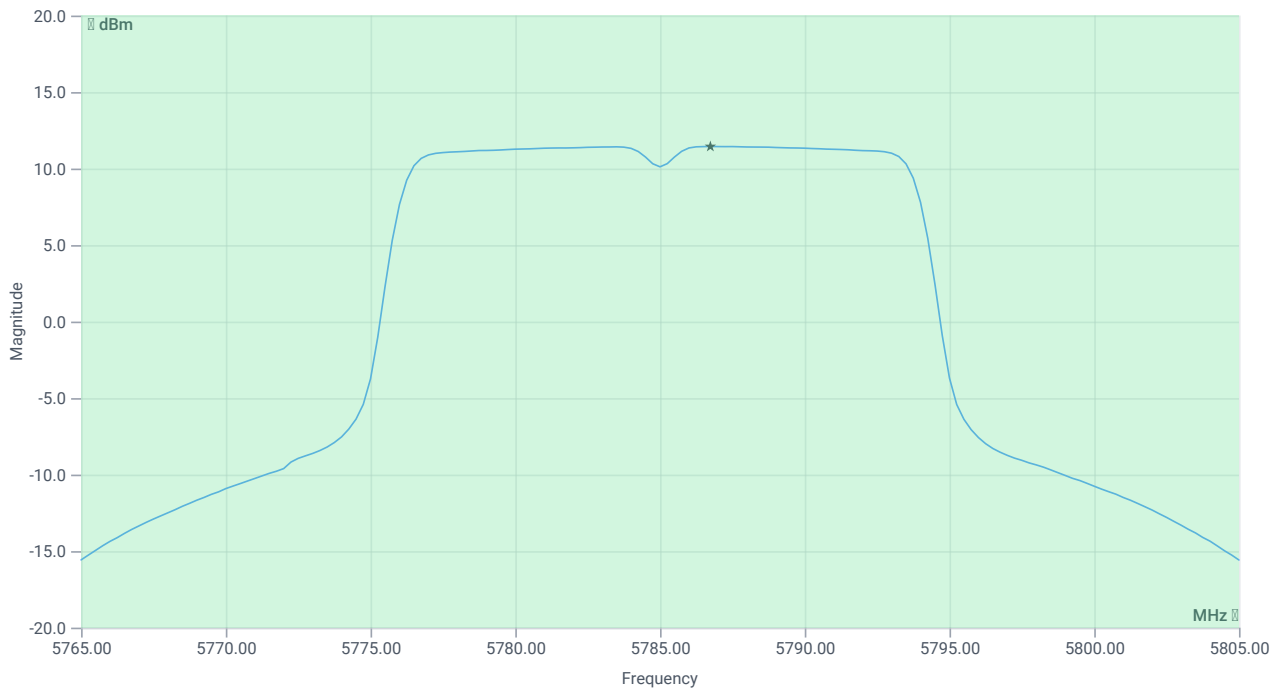
RESULT

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

Maximum Output Power

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	31.74 16.8 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



Max OP and PSD

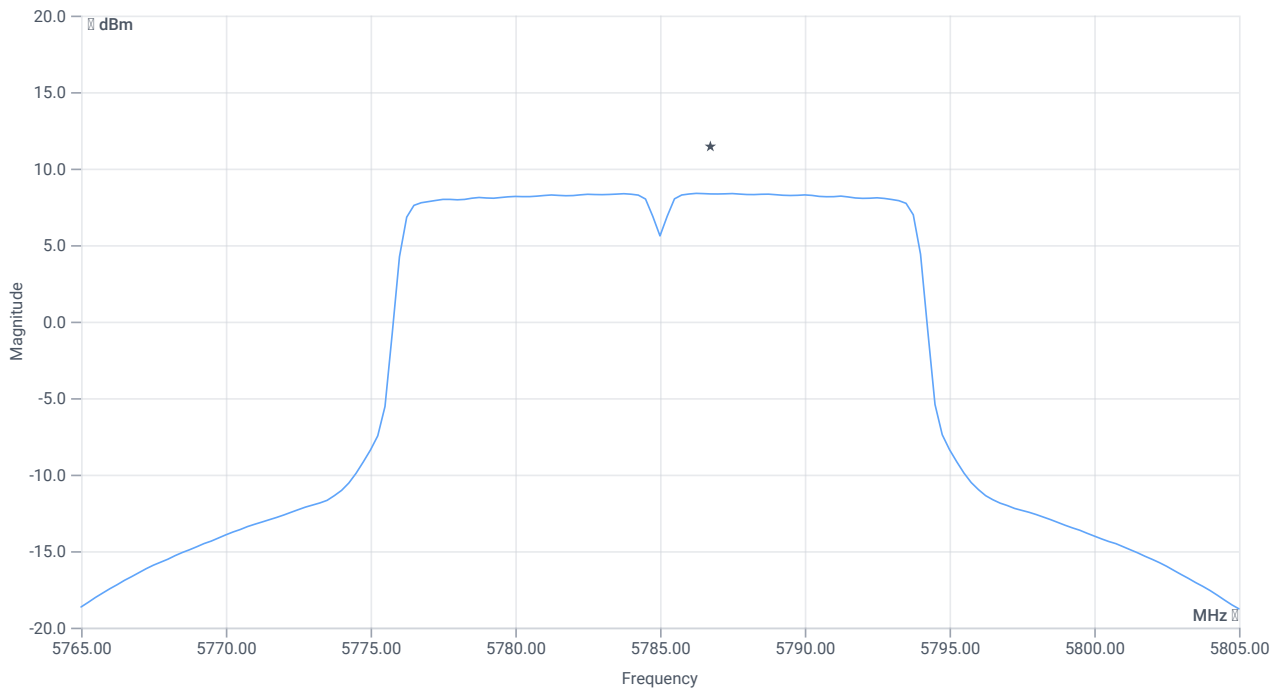
RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Max Output Power	--	--	23.5	dBm	INFO
Duty Cycle Correction	--	--	0	dB	INFO
Limit absolute					
Max Output Power DC corrected	--	30	23.5	dBm	PASS
Limit: 11 dBm + 10 log 40					
Max Output Power DC corrected	--	27.02	23.5	dBm	na

Power Spectral Density U-NII-3

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	31.74 16.8 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



PSD UNII-3

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Power Spectral Density	--	--	8.38	dBm/0.5MHz	INFO
Duty Cycle Correction	--	--	0	dB	INFO
Power Spectral Density DC corrected	--	30	8.38	dBm/0.5MHz	PASS

Verdict

PASS

FCC 15.407, ISED RSS247 # Minimum emission bandwidth ~ WLAN5Gx n-HT20 mode U-NII-3

Test References

TC Start	21.02.2023 13:58:27
Ambit Temp [°C] Humidity [rel%]	22.7 34
System Version	3.5.0.0
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 n-HT20 mode U-NII-3
Add. Information	

EUT Common Settings WLAN5Gx

Number of Antenna Ports	2
User Interaction	No
Device Class UNII_1	Client
Limit W52 Japan	Standard

Test Parameter

Technology to test	WLAN5Gx n-HT20 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

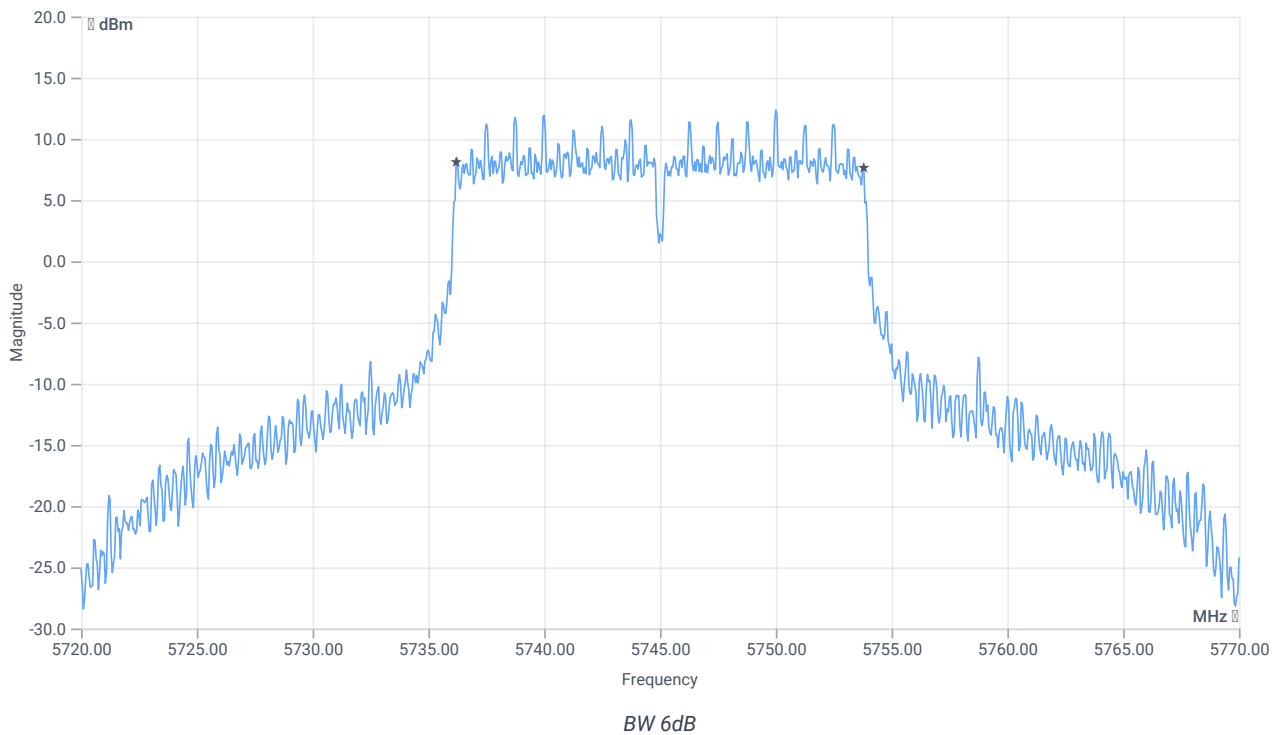
Test at TX 5745 MHz

RESULT: Reference Power cond.

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	--	--	20.06	dBm	INFO
Ref. Frequency	--	--	5741.800	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	32.06 16.82 35
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

Verdict

PASS

FCC 15.407, ISED RSS247 # Bandwidths 99PCT and 26dB ~ WLAN5Gx n-HT20 mode U-NII-3

Test References

TC Start	21.02.2023 13:57:56
Ambit Temp [°C] Humidity [rel%]	22.8 34
System Version	3.5.0.0
Test Specification	FCC 15.407, ISED RSS247 -
Test Method	26dB Bandwidth KDB789033 D02, C.1 / ISED RSS-GEN
TC Version	0.0.1
My Description	FCC 15.407 Bandwidths - WLAN5Gx n-HT20 mode U-NII-3
Add. Information	

EUT Common Settings WLAN5Gx

Number of Antenna Ports	2
User Interaction	No
Device Class UNII_1	Client
Limit W52 Japan	Standard

Test Parameter

Technology to test	WLAN5Gx n-HT20 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

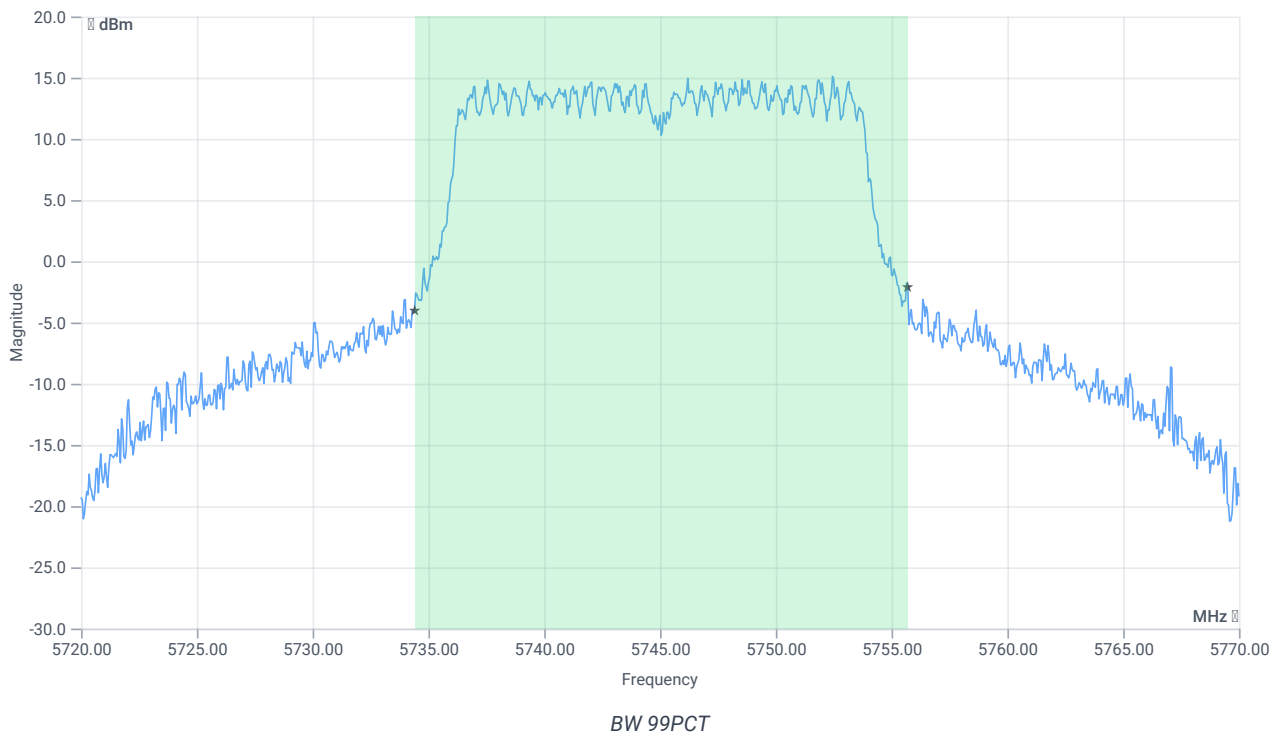
Test at TX 5745 MHz

RESULT: Reference Power cond.

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	--	--	19.63	dBm	INFO
Ref. Frequency	--	--	5747.200	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	27.63 16.82 30
Start [MHz] Stop [MHz]	5720.000 5770.000
RBW [MHz] VBW [MHz]	0.300000 1.000000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	1 2500 1001 SWE

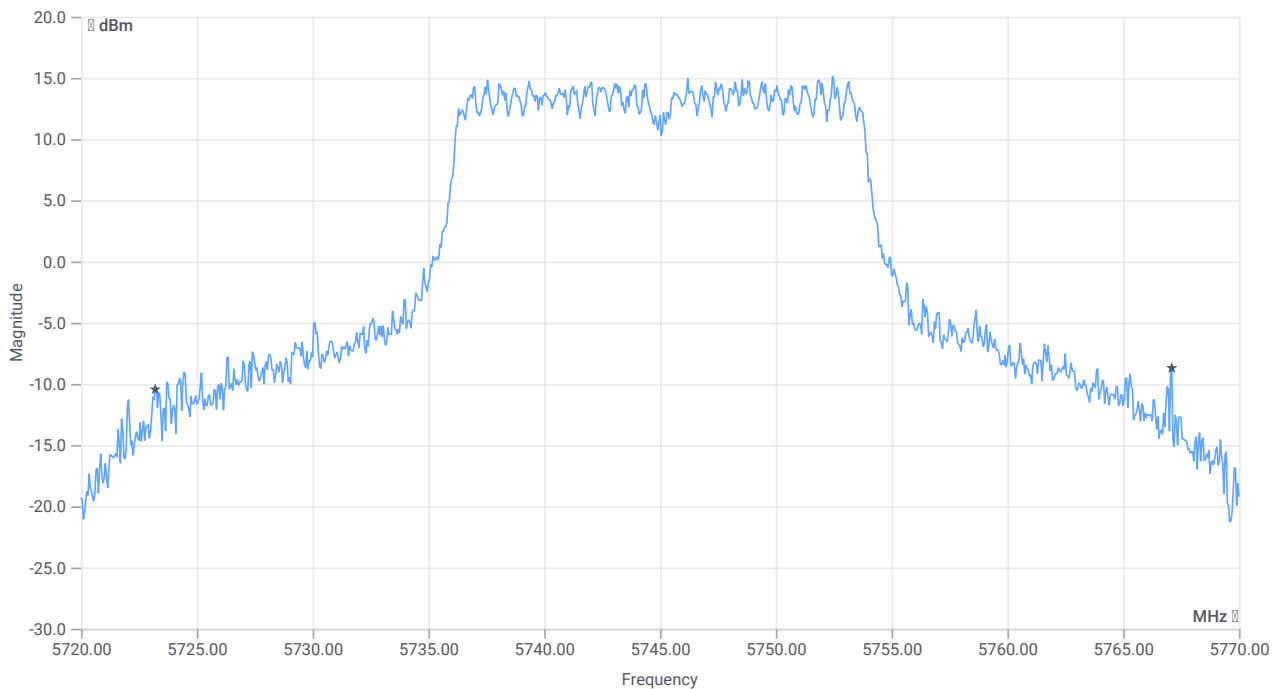




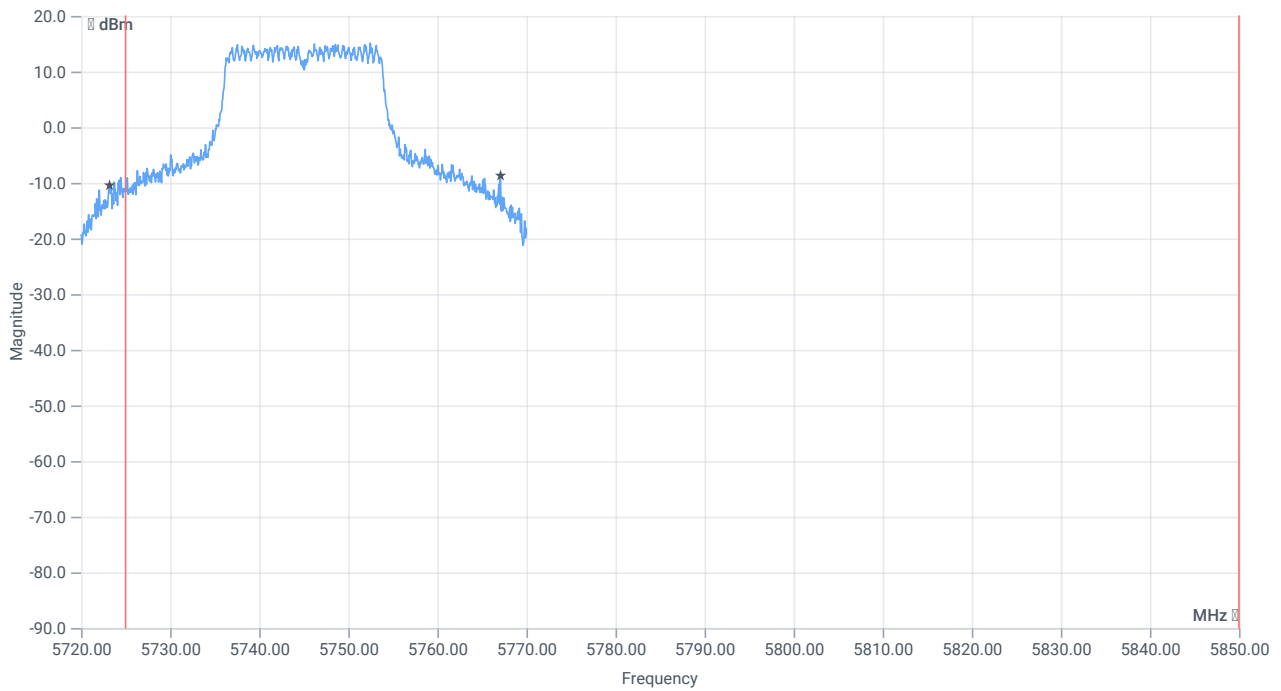
BW within Band 99PCT

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 99%	--	--	21.279	MHz	INFO
T1 99%	5725.000000	--	5734.4106	MHz	PASS
T2 99%	--	5850.000000	5755.6893	MHz	PASS



BW 26dB



BW within Band 26dB

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 26dB	--	--	43.9	MHz	INFO
T1 26dB	5725.000000	--	5723.2000	MHz	DFS required
T2 26dB	--	5850.000000	5767.1000	MHz	PASS

Verdict

PASS

FCC 15.247 # Max output power and psd ~ WLAN5Gx n-HT20 mode U-NII-3

Test References

TC Start	21.02.2023 13:55:30
Ambit Temp [°C] Humidity [rel%]	22.8 34
System Version	3.5.0.0
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 n-HT20 mode U-NII-3
Add. Information	

EUT Common Settings WLAN5Gx

Number of Antenna Ports	2
User Interaction	No
Device Class UNII_1	Client
Limit W52 Japan	Standard

Test Parameter

Technology to test	WLAN5Gx n-HT20 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

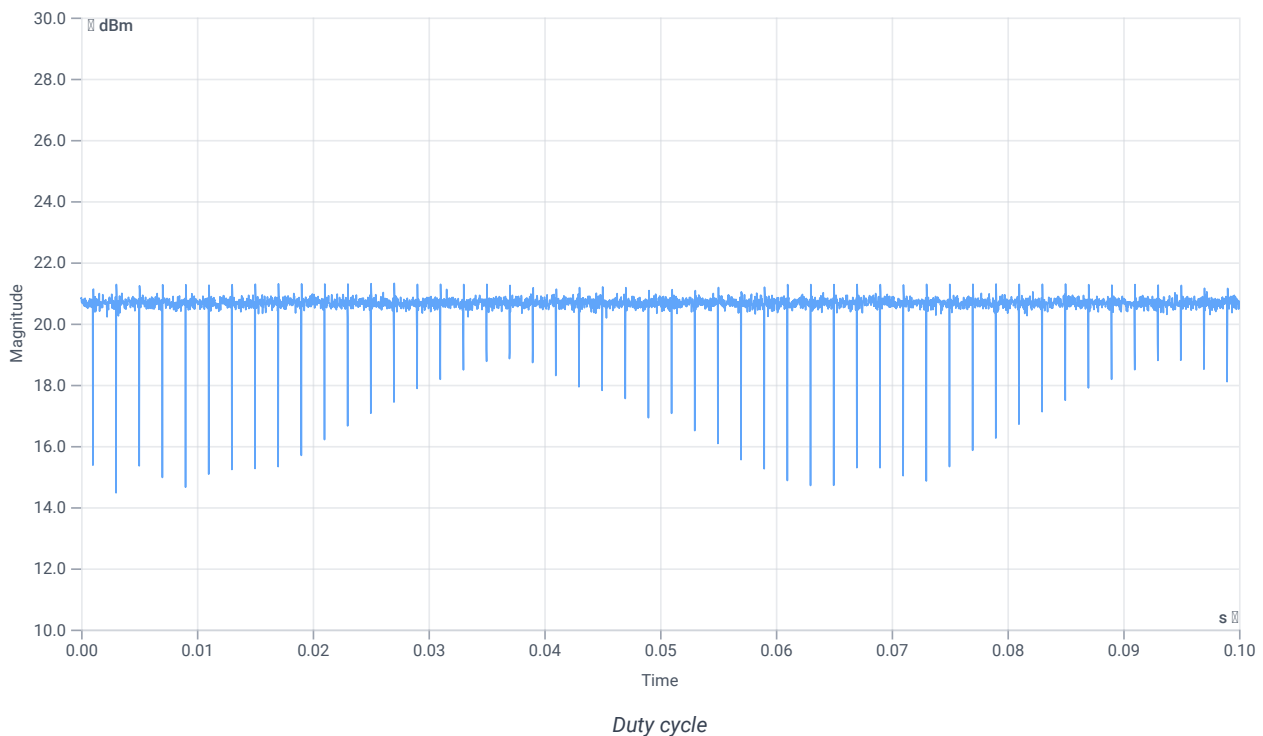
RESULT: Reference Power cond.

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	--	--	19.54	dBm	INFO
Ref. Frequency	--	--	5741.200	MHz	INFO

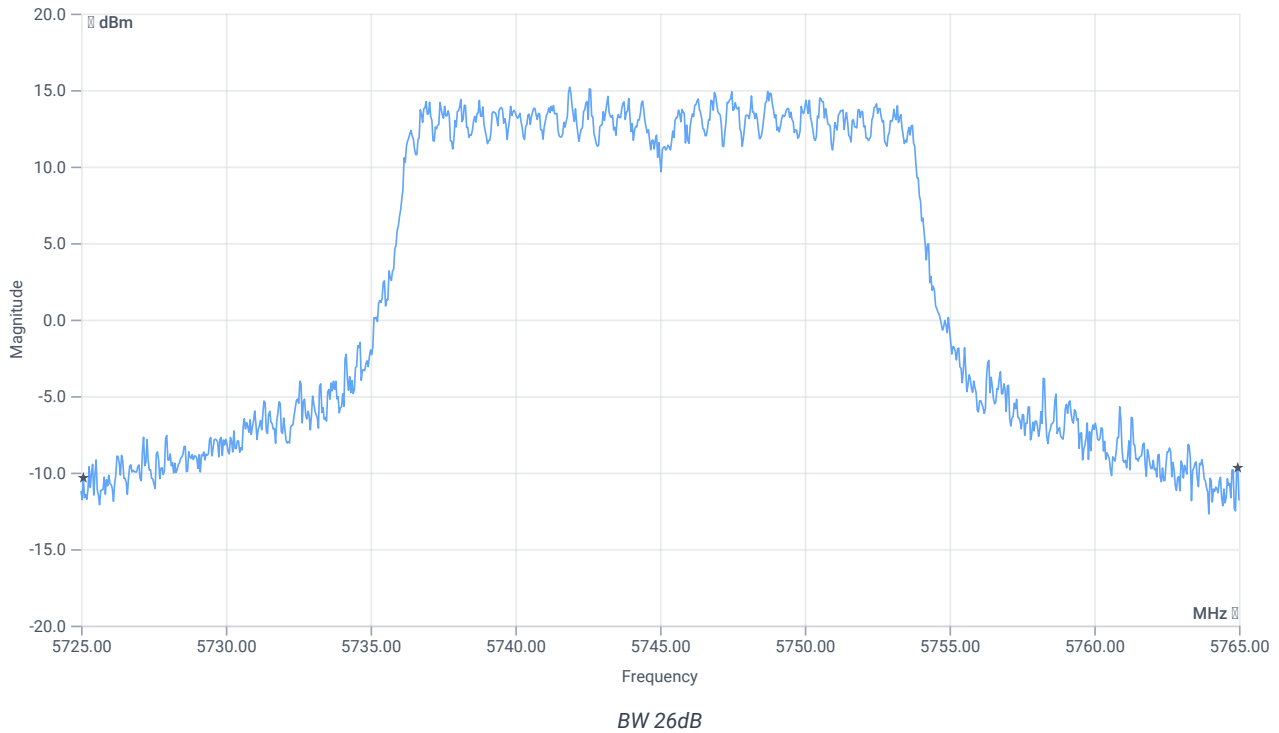
Evaluation max. Duty Cycle

Duty Cycle evaluation

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
No enough Bursts detected, Duty Cycle Burst Ratio set to 1					
Duty Cycle (Burst Ratio) max	--	--	1	--	INFO
Duty Cycle max	--	--	0	dB	INFO
Duty Cycle (Burst Ratio) min	--	--	1	--	INFO
Duty Cycle min	--	--	0	dB	INFO



Evaluation Bandwidth



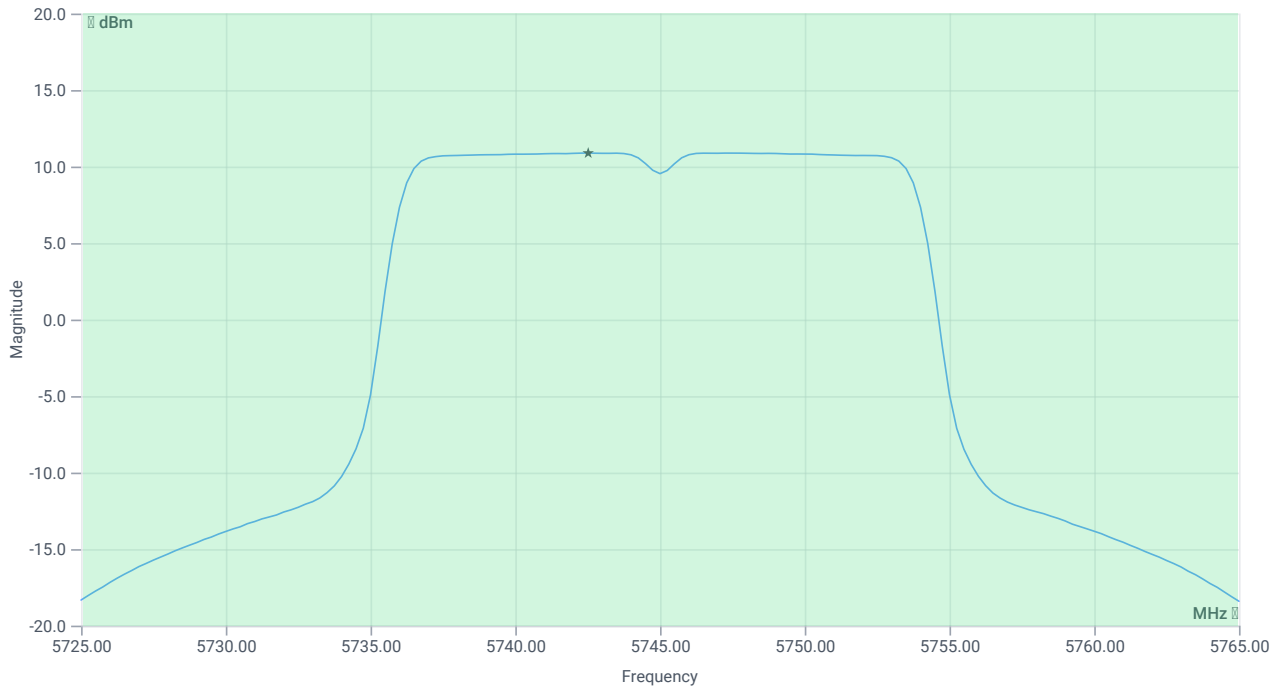
RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 26dB	---	---	39.88	MHz	INFO
T1 26dB	---	---	5725.0800	MHz	INFO
T2 26dB	---	---	5764.9600	MHz	INFO

Maximum Output Power

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	31.54 16.82 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



Max OP and PSD

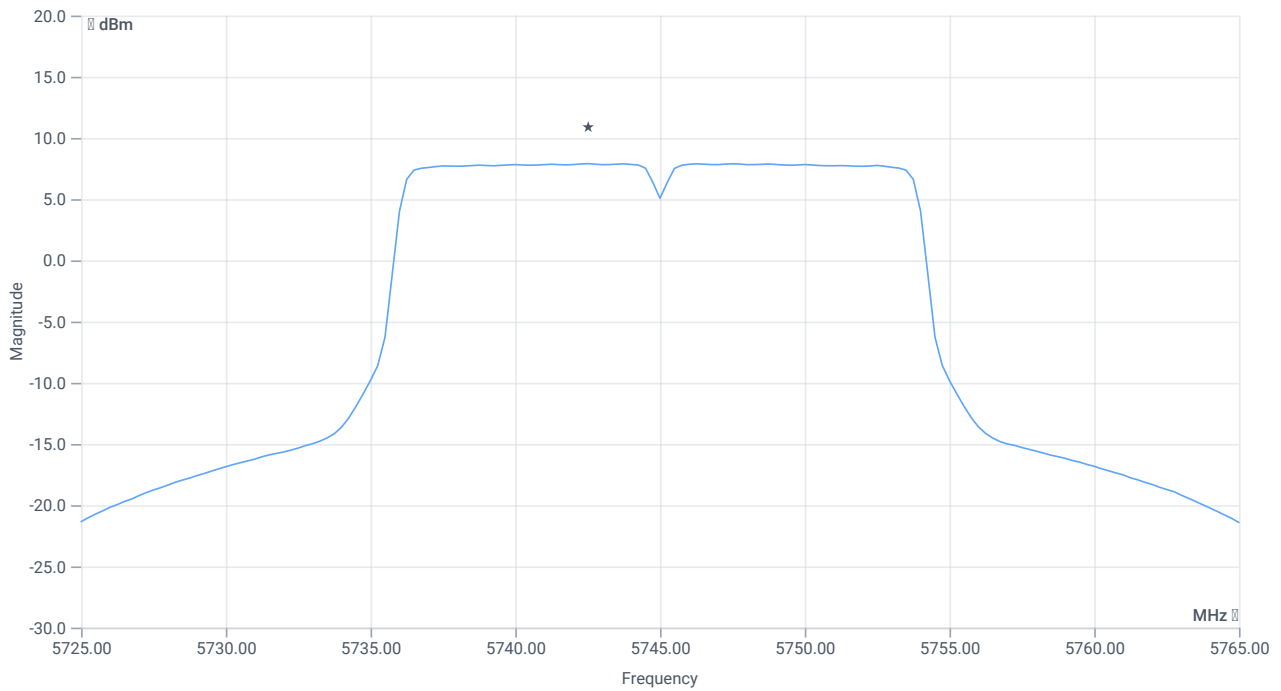
RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Max Output Power	--	--	22.99	dBm	INFO
Duty Cycle Correction	--	--	0	dB	INFO
Limit absolute					
Max Output Power DC corrected	--	30	22.99	dBm	PASS
Limit: 11 dBm + 10 log 39.88					
Max Output Power DC corrected	--	27.01	22.99	dBm	na

Power Spectral Density U-NII-3

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	31.54 16.82 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



PSD UNII-3

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Power Spectral Density	--	--	7.9	dBm/0.5MHz	INFO
Duty Cycle Correction	--	--	0	dB	INFO
Power Spectral Density DC corrected	--	30	7.9	dBm/0.5MHz	PASS

Verdict

PASS

FCC 15.407, ISED RSS247 # Minimum emission bandwidth ~ WLAN5Gx n-HT20 mode U-NII-3

Test References

TC Start	21.02.2023 13:54:46
Ambit Temp [°C] Humidity [rel%]	22.8 34
System Version	3.5.0.0
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 n-HT20 mode U-NII-3
Add. Information	

EUT Common Settings WLAN5Gx

Number of Antenna Ports	2
User Interaction	No
Device Class UNII_1	Client
Limit W52 Japan	Standard

Test Parameter

Technology to test	WLAN5Gx n-HT20 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

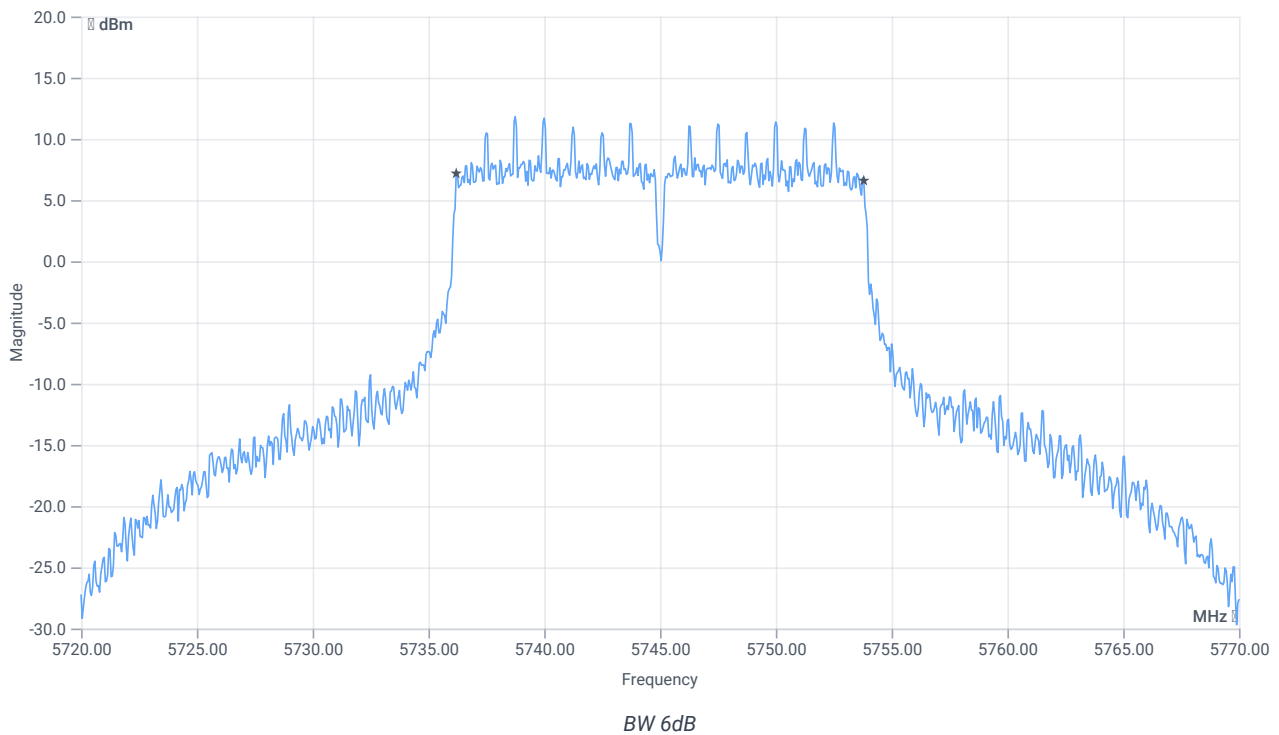
Test at TX 5745 MHz

RESULT: Reference Power cond.

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	--	--	18.79	dBm	INFO
Ref. Frequency	--	--	5740.200	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	30.79 16.82 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

Verdict

PASS

FCC 15.407, ISED RSS247 # Bandwidths 99PCT and 26dB ~ WLAN5Gx n-HT20 mode U-NII-3

Test References

TC Start	21.02.2023 13:54:14
Ambit Temp [°C] Humidity [rel%]	22.8 34
System Version	3.5.0.0
Test Specification	FCC 15.407, ISED RSS247 -
Test Method	26dB Bandwidth KDB789033 D02, C.1 / ISED RSS-GEN
TC Version	0.0.1
My Description	FCC 15.407 Bandwidths - WLAN5Gx n-HT20 mode U-NII-3
Add. Information	

EUT Common Settings WLAN5Gx

Number of Antenna Ports	2
User Interaction	No
Device Class UNII_1	Client
Limit W52 Japan	Standard

Test Parameter

Technology to test	WLAN5Gx n-HT20 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

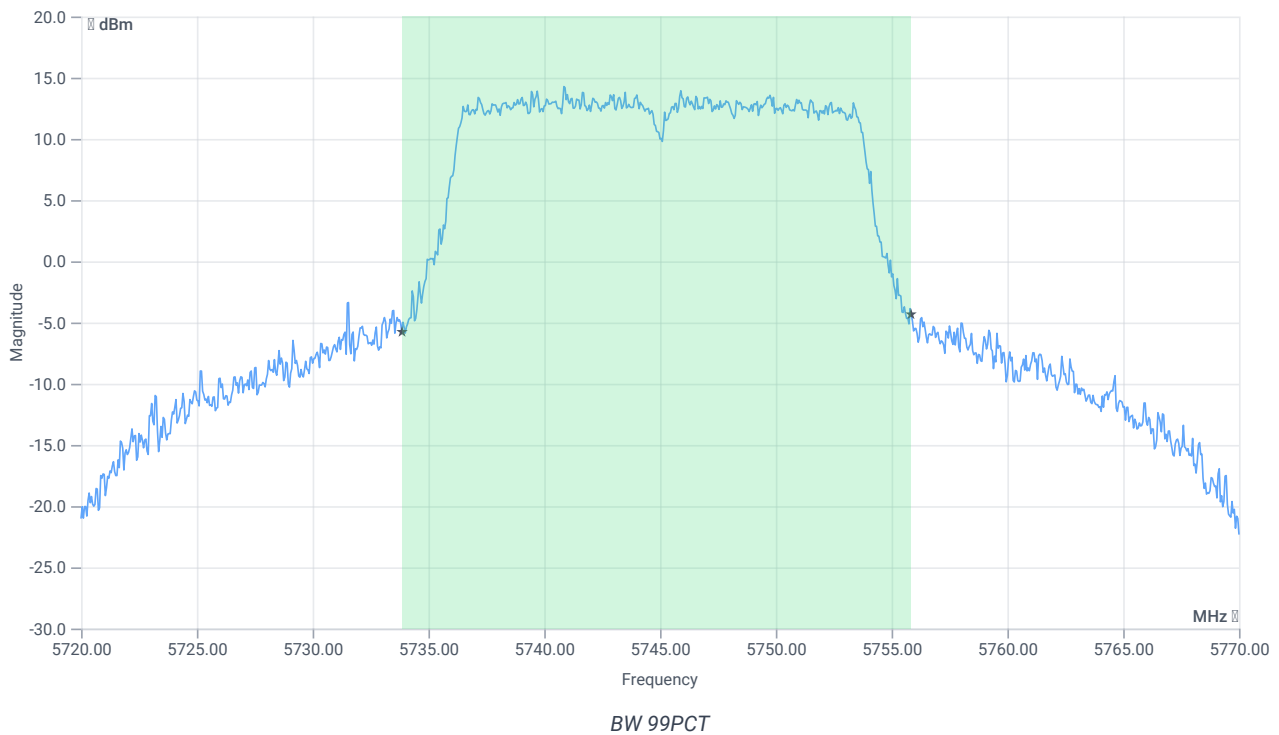
Test at TX 5745 MHz

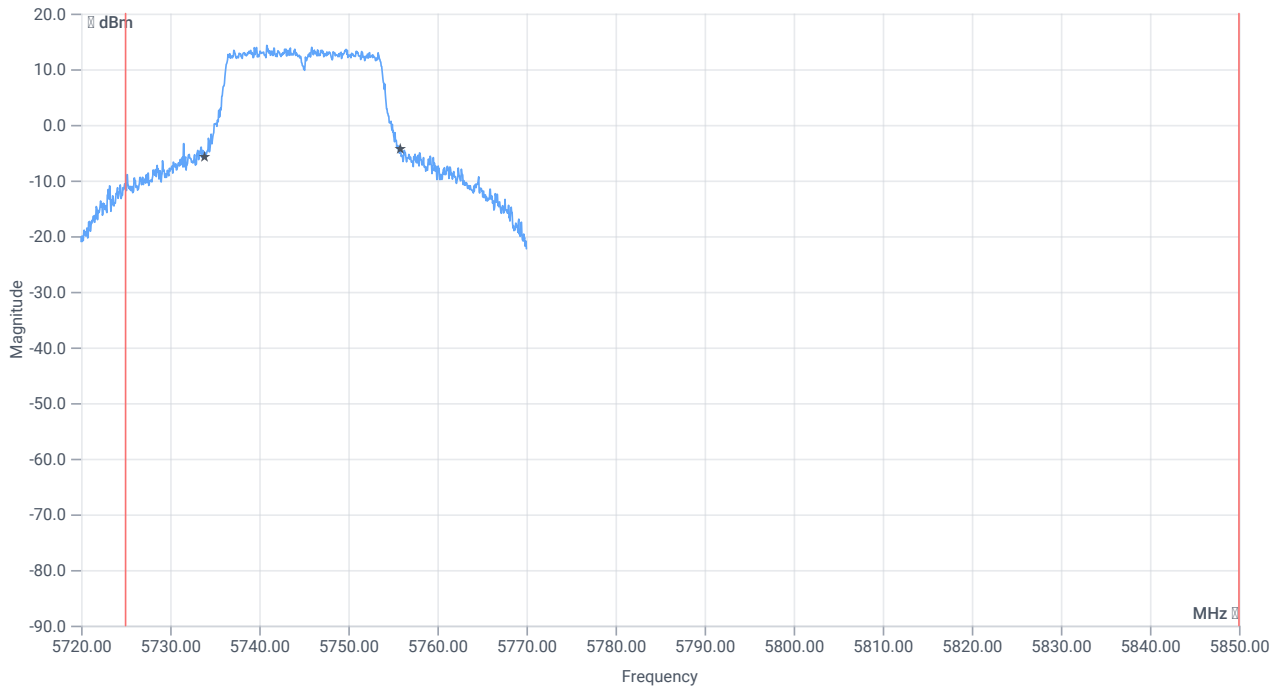
RESULT: Reference Power cond.

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	--	--	18.98	dBm	INFO
Ref. Frequency	--	--	5748.000	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	26.98 16.82 30
Start [MHz] Stop [MHz]	5720.000 5770.000
RBW [MHz] VBW [MHz]	0.300000 1.000000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	1 2500 1001 SWE

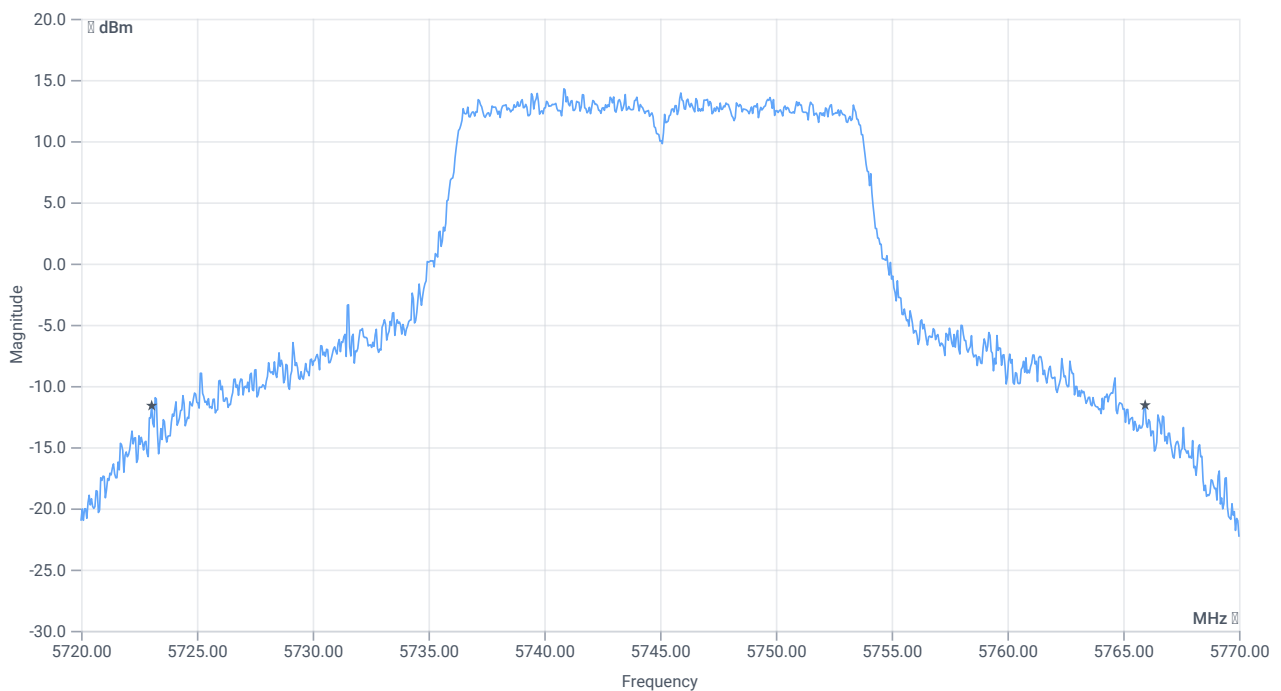




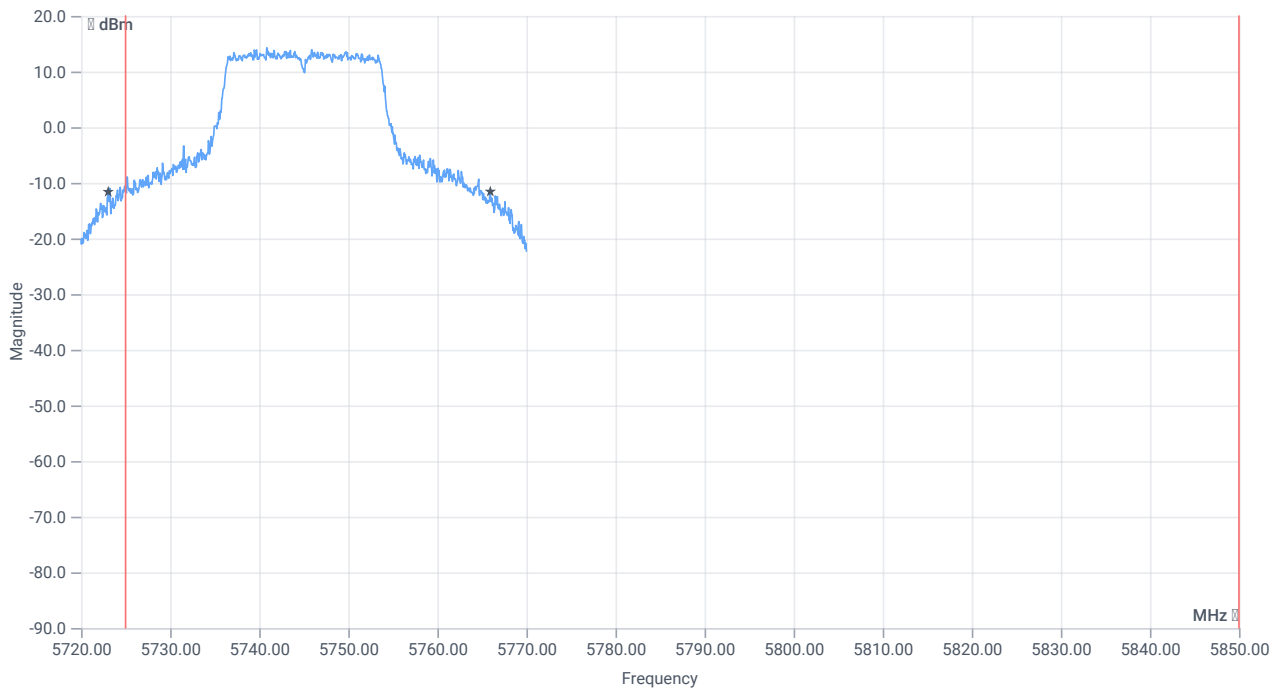
BW within Band 99PCT

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 99%	--	--	21.978	MHz	INFO
T1 99%	5725.000000	--	5733.8611	MHz	PASS
T2 99%	--	5850.000000	5755.8392	MHz	PASS



BW 26dB



BW within Band 26dB

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 26dB	---	---	42.9	MHz	INFO
T1 26dB	5725.000000	---	5723.0500	MHz	DFS required
T2 26dB	---	5850.000000	5765.9500	MHz	PASS

Verdict

PASS

FCC 15.247 # Max output power and psd ~ WLAN5Gx n-HT20 mode U-NII-3

Test References

TC Start	21.02.2023 13:51:47
Ambit Temp [°C] Humidity [rel%]	22.7 34
System Version	3.5.0.0
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 n-HT20 mode U-NII-3
Add. Information	

EUT Common Settings WLAN5Gx

Number of Antenna Ports	2
User Interaction	No
Device Class UNII_1	Client
Limit W52 Japan	Standard

Test Parameter

Technology to test	WLAN5Gx n-HT20 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

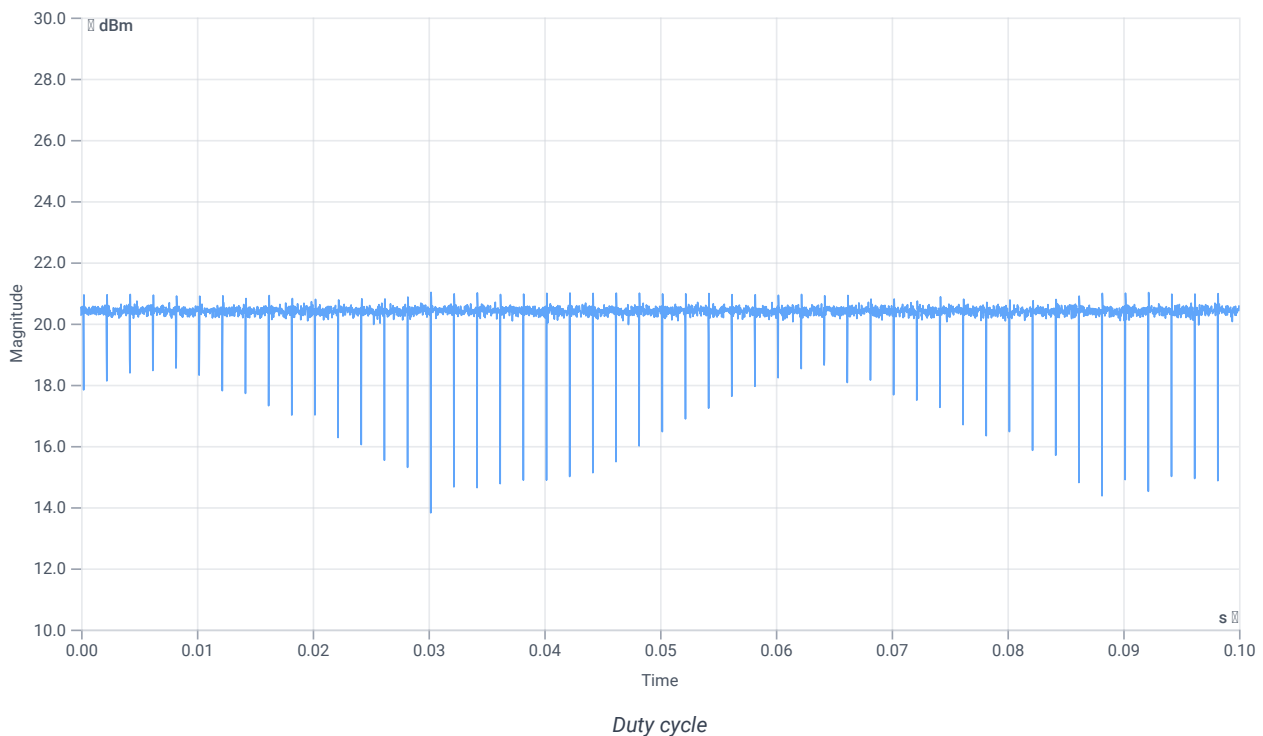
RESULT: Reference Power cond.

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	--	--	19.55	dBm	INFO
Ref. Frequency	--	--	5741.200	MHz	INFO

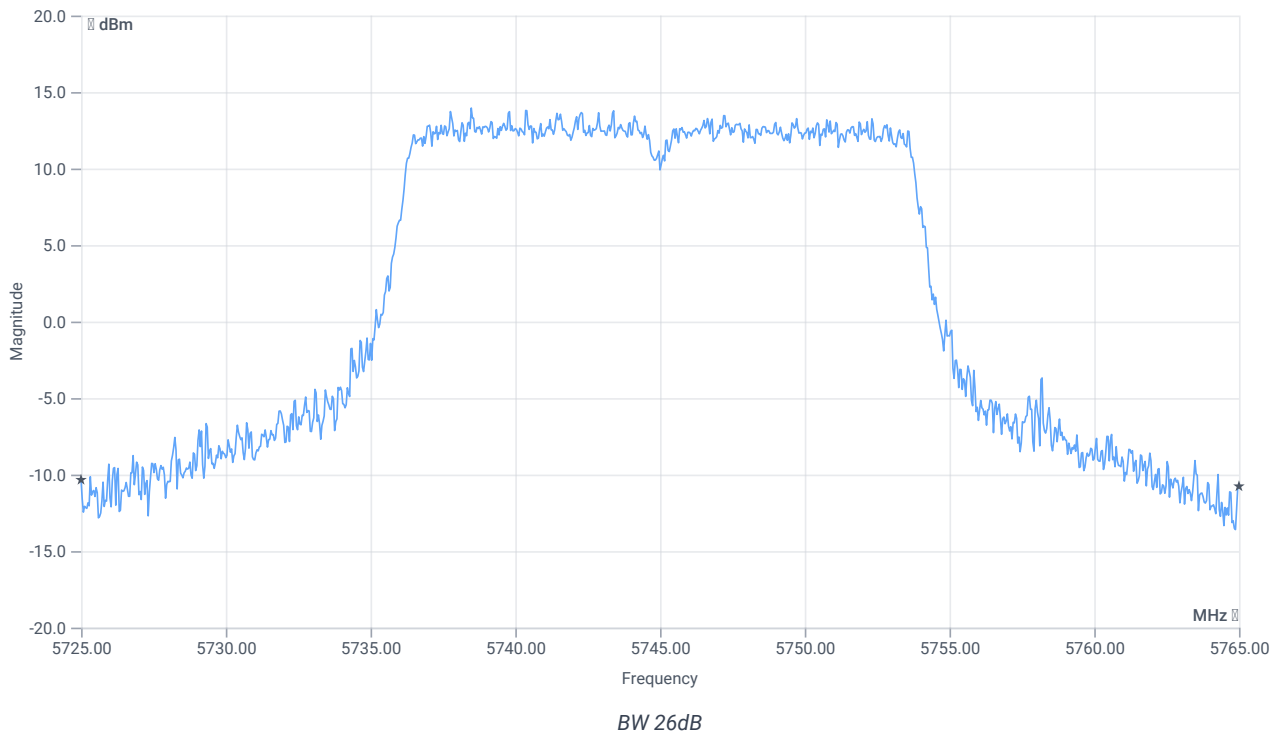
Evaluation max. Duty Cycle

Duty Cycle evaluation

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
No enough Bursts detected, Duty Cycle Burst Ratio set to 1					
Duty Cycle (Burst Ratio) max	--	--	1	--	INFO
Duty Cycle max	--	--	0	dB	INFO
Duty Cycle (Burst Ratio) min	--	--	1	--	INFO
Duty Cycle min	--	--	0	dB	INFO



Evaluation Bandwidth



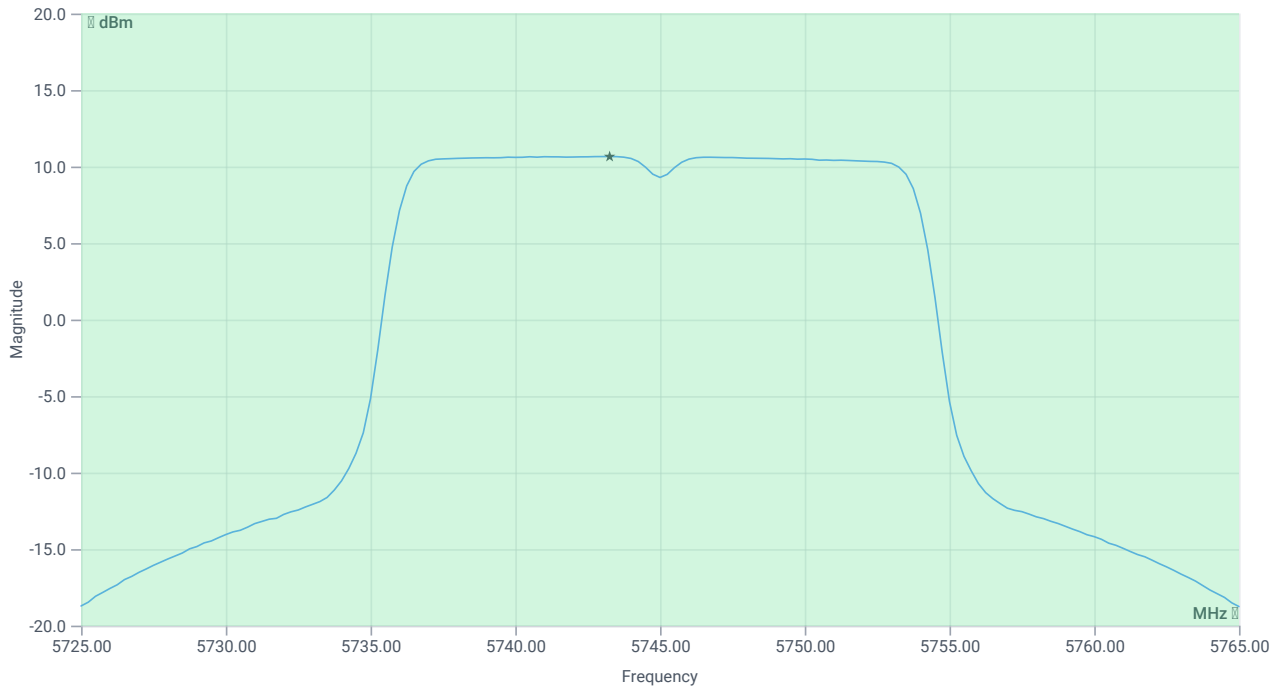
RESULT

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

Maximum Output Power

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	31.55 16.82 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



Max OP and PSD

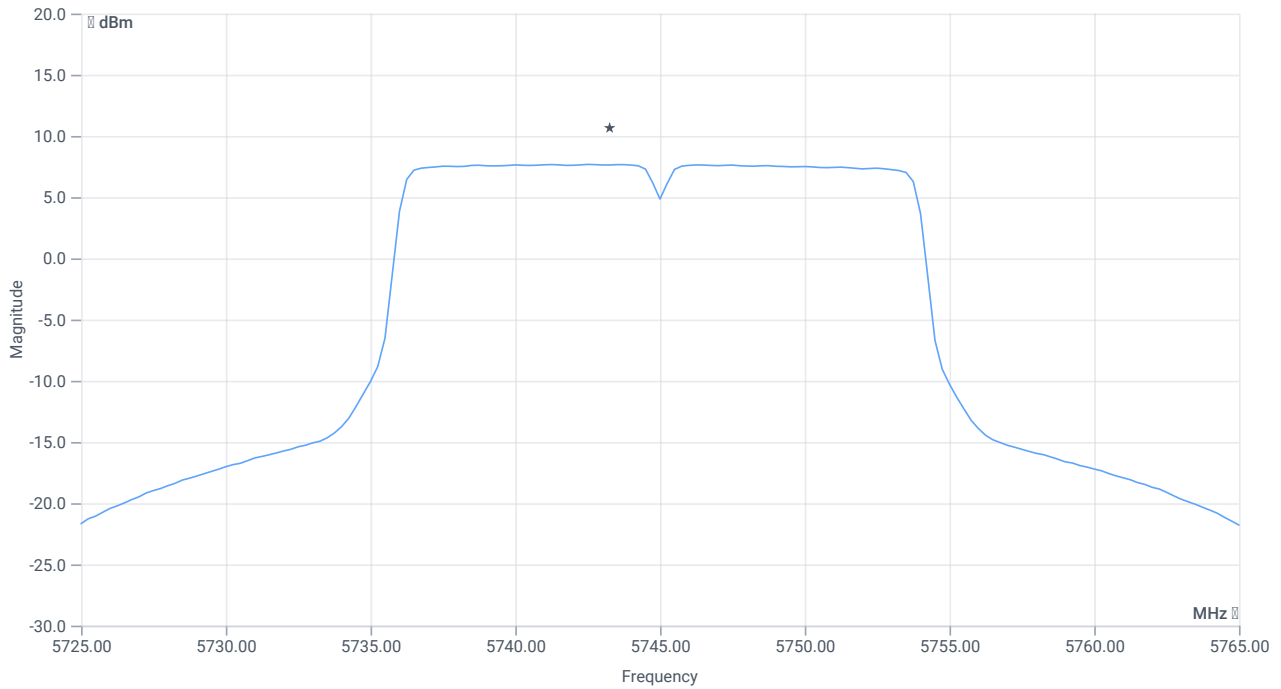
RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Max Output Power	--	--	22.73	dBm	INFO
Duty Cycle Correction	--	--	0	dB	INFO
Limit absolute					
Max Output Power DC corrected	--	30	22.73	dBm	PASS
Limit: 11 dBm + 10 log 40					
Max Output Power DC corrected	--	27.02	22.73	dBm	na

Power Spectral Density U-NII-3

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	31.55 16.82 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



PSD UNII-3

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Power Spectral Density	--	--	7.68	dBm/0.5MHz	INFO
Duty Cycle Correction	--	--	0	dB	INFO
Power Spectral Density DC corrected	--	30	7.68	dBm/0.5MHz	PASS

Verdict

PASS

- END OF DOCUMENT -