

Measurement Results

No.1-5761/23-01-05_Annex_MR_7

Test logging

This document is electronically signed and valid without handwritten signature.
For verification of the electronic signatures, the public keys can be requested at the testing laboratory.

Document authorized:

David Lang
Lab Manager
Radio Communications

Table of Content

EUT Information	4
FCC 15.247 # MIMO Power PSD Calculator ~ WLAN5Gx ax-HE40 U-NII-2A	5
FCC 15.407, ISED RSS247 # Bandwidths 99PCT and 26dB ~ WLAN5Gx ax-HE40 U-NII-2A	7
FCC 15.247 # Max output power and psd ~ WLAN5Gx ax-HE40 U-NII-2A	12
FCC 15.407, ISED RSS247 # Bandwidths 99PCT and 26dB ~ WLAN5Gx ax-HE40 U-NII-2A	16
FCC 15.247 # Max output power and psd ~ WLAN5Gx ax-HE40 U-NII-2A	21
FCC 15.247 # MIMO Power PSD Calculator ~ WLAN5Gx ax-HE40 U-NII-2A	25
FCC 15.407, ISED RSS247 # Bandwidths 99PCT and 26dB ~ WLAN5Gx ax-HE40 U-NII-2A	27
FCC 15.247 # Max output power and psd ~ WLAN5Gx ax-HE40 U-NII-2A	32
FCC 15.407, ISED RSS247 # Bandwidths 99PCT and 26dB ~ WLAN5Gx ax-HE40 U-NII-2A	36
FCC 15.247 # Max output power and psd ~ WLAN5Gx ax-HE40 U-NII-2A	41
FCC 15.247 # MIMO Power PSD Calculator ~ WLAN5Gx ax-HE40 U-NII-1	45
FCC 15.407, ISED RSS247 # Bandwidths 99PCT and 26dB ~ WLAN5Gx ax-HE40 U-NII-1	47
FCC 15.247 # Max output power and psd ~ WLAN5Gx ax-HE40 U-NII-1	51
FCC 15.407, ISED RSS247 # Bandwidths 99PCT and 26dB ~ WLAN5Gx ax-HE40 U-NII-1	55
FCC 15.247 # Max output power and psd ~ WLAN5Gx ax-HE40 U-NII-1	59
FCC 15.247 # MIMO Power PSD Calculator ~ WLAN5Gx ax-HE40 U-NII-1	63
FCC 15.407, ISED RSS247 # Bandwidths 99PCT and 26dB ~ WLAN5Gx ax-HE40 U-NII-1	65
FCC 15.247 # Max output power and psd ~ WLAN5Gx ax-HE40 U-NII-1	69
FCC 15.407, ISED RSS247 # Bandwidths 99PCT and 26dB ~ WLAN5Gx ax-HE40 U-NII-1	73
FCC 15.247 # Max output power and psd ~ WLAN5Gx ax-HE40 U-NII-1	77
FCC 15.247 # MIMO Power PSD Calculator ~ WLAN5Gx ax-HE40 U-NII-2C	81
FCC 15.407, ISED RSS247 # Bandwidths 99PCT and 26dB ~ WLAN5Gx ax-HE40 U-NII-2C	83
FCC 15.247 # Max output power and psd ~ WLAN5Gx ax-HE40 U-NII-2C	88
FCC 15.407, ISED RSS247 # Bandwidths 99PCT and 26dB ~ WLAN5Gx ax-HE40 U-NII-2C	92
FCC 15.247 # Max output power and psd ~ WLAN5Gx ax-HE40 U-NII-2C	97
FCC 15.407, ISED RSS247 # Bandwidths 99PCT and 26dB ~ WLAN5Gx ax-HE40 U-NII-2C	101
FCC 15.407, ISED RSS247 # Bandwidths 99PCT and 26dB ~ WLAN5Gx ax-HE40 U-NII-2C	106
FCC 15.407, ISED RSS247 # Bandwidths 99PCT and 26dB ~ WLAN5Gx ax-HE40 U-NII-2C	111
FCC 15.407, ISED RSS247 # Bandwidths 99PCT and 26dB ~ WLAN5Gx ax-HE40 U-NII-2C	116
FCC 15.247 # MIMO Power PSD Calculator ~ WLAN5Gx ax-HE40 U-NII-2C	121
FCC 15.247 # Max output power and psd ~ WLAN5Gx ax-HE40 U-NII-2C	123
FCC 15.247 # Max output power and psd ~ WLAN5Gx ax-HE40 U-NII-2C	127
FCC 15.247 # MIMO Power PSD Calculator ~ WLAN5Gx ax-HE40 U-NII-2C	131
FCC 15.247 # Max output power and psd ~ WLAN5Gx ax-HE40 U-NII-2C	133
FCC 15.247 # Max output power and psd ~ WLAN5Gx ax-HE40 U-NII-2C	137
FCC 15.247 # MIMO Power PSD Calculator ~ WLAN5Gx ax-HE40 U-NII-3	141
FCC 15.407, ISED RSS247 # Minimum emission bandwidth ~ WLAN5Gx ax-HE40 U-NII-3	144
FCC 15.407, ISED RSS247 # Bandwidths 99PCT and 26dB ~ WLAN5Gx ax-HE40 U-NII-3	146
FCC 15.247 # Max output power and psd ~ WLAN5Gx ax-HE40 U-NII-3	150
FCC 15.407, ISED RSS247 # Minimum emission bandwidth ~ WLAN5Gx ax-HE40 U-NII-3	155

FCC 15.407, ISED RSS247 # Bandwidths 99PCT and 26dB ~ WLAN5Gx ax-HE40 U-NII-3	157
FCC 15.247 # Max output power and psd ~ WLAN5Gx ax-HE40 U-NII-3	161
FCC 15.407, ISED RSS247 # Minimum emission bandwidth ~ WLAN5Gx ax-HE40 U-NII-3	166
FCC 15.407, ISED RSS247 # Bandwidths 99PCT and 26dB ~ WLAN5Gx ax-HE40 U-NII-3	168
FCC 15.247 # Max output power and psd ~ WLAN5Gx ax-HE40 U-NII-3	172
FCC 15.407, ISED RSS247 # Minimum emission bandwidth ~ WLAN5Gx ax-HE40 U-NII-3	177
FCC 15.407, ISED RSS247 # Bandwidths 99PCT and 26dB ~ WLAN5Gx ax-HE40 U-NII-3	179
FCC 15.247 # Max output power and psd ~ WLAN5Gx ax-HE40 U-NII-3	183

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 ax-HE40 U-NII-2A

Test References

TC Start	13.02.2023 14:05:53
Ambit Temp [°C] Humidity [rel%]	23.2 30
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 ax-HE40 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 ax-HE40
Antenna Port used	several
Temperature	nom
Voltage	nom
Frequency low to test	False Freq [MHz] 5270
Frequency mid to test	False Freq [MHz] 0
Frequency high to test	True Freq [MHz] 5310
Auto Control enabled Power Supply Climatic Box	No No
Additional Path Loss [dB]	1.4
Switched Path	None

Test Equipment

Test at TX 5310 MHz

RESULT Power

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ant:1 Max Output Power DC corrected	--	--	13.83	dBm	INFO
Ant:1 BW 26dB	--	--	40.000	MHz	INFO
Ant:2 Max Output Power DC corrected	--	--	14.29	dBm	INFO
Ant:2 BW 26dB	--	--	39.920	MHz	INFO
Σ Limit absolute	--	24	17.08	dBm	PASS
Σ Limit: 11 dBm + 10 log 39.92	--	27.01	17.08	dBm	PASS

RESULT PSD

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ant:1 PSD	--	--	-0.9	dBm/1MHz	INFO
Ant:2 PSD	--	--	-0.32	dBm/1MHz	INFO
Σ	--	11	2.41	dBm/1MHz	PASS

Verdict

PASS

FCC 15.407, ISED RSS247 # Bandwidths 99PCT and 26dB ~ WLAN5Gx ax-HE40 U-NII-2A

Test References

TC Start	13.02.2023 14:05:17
Ambit Temp [°C] Humidity [rel%]	23.2 30
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 ax-HE40 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 ax-HE40
Antenna Port used	2
Temperature	nom
Voltage	nom
Frequency low to test	False Freq [MHz] 5270
Frequency mid to test	False Freq [MHz] 0
Frequency high to test	True Freq [MHz] 5310
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

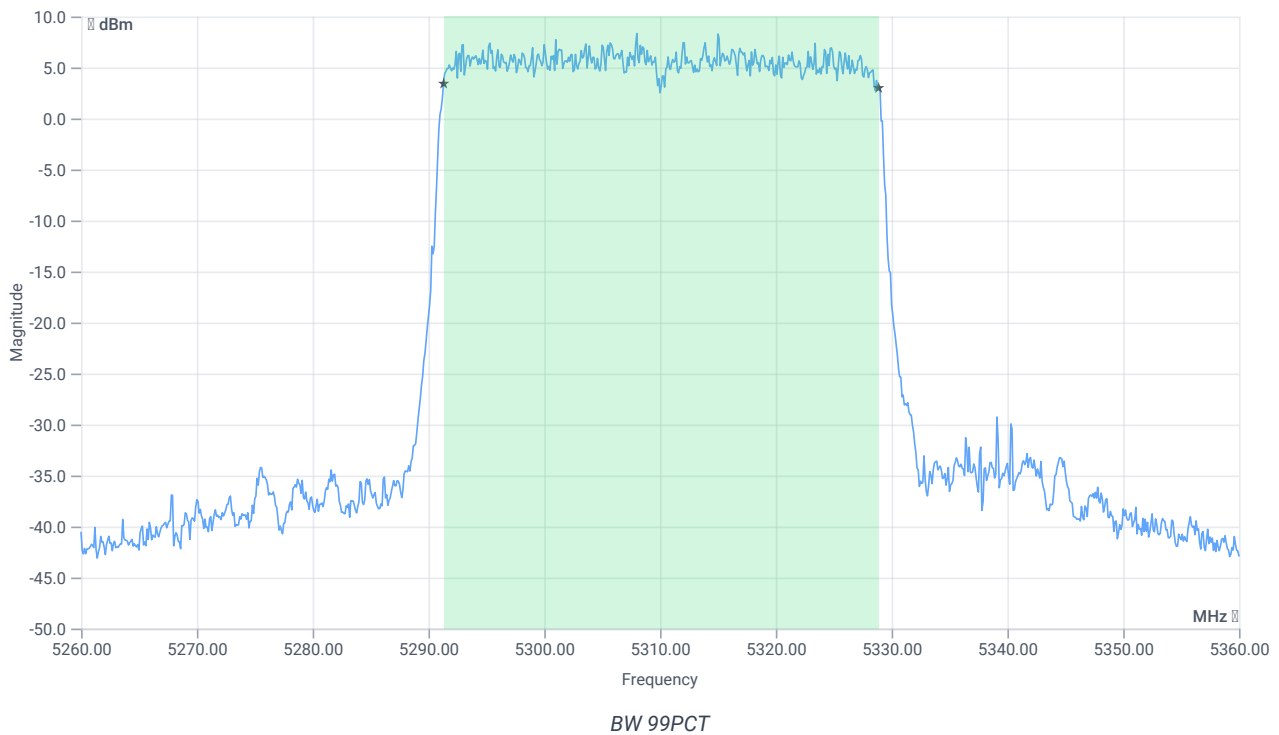
Test at TX 5310 MHz

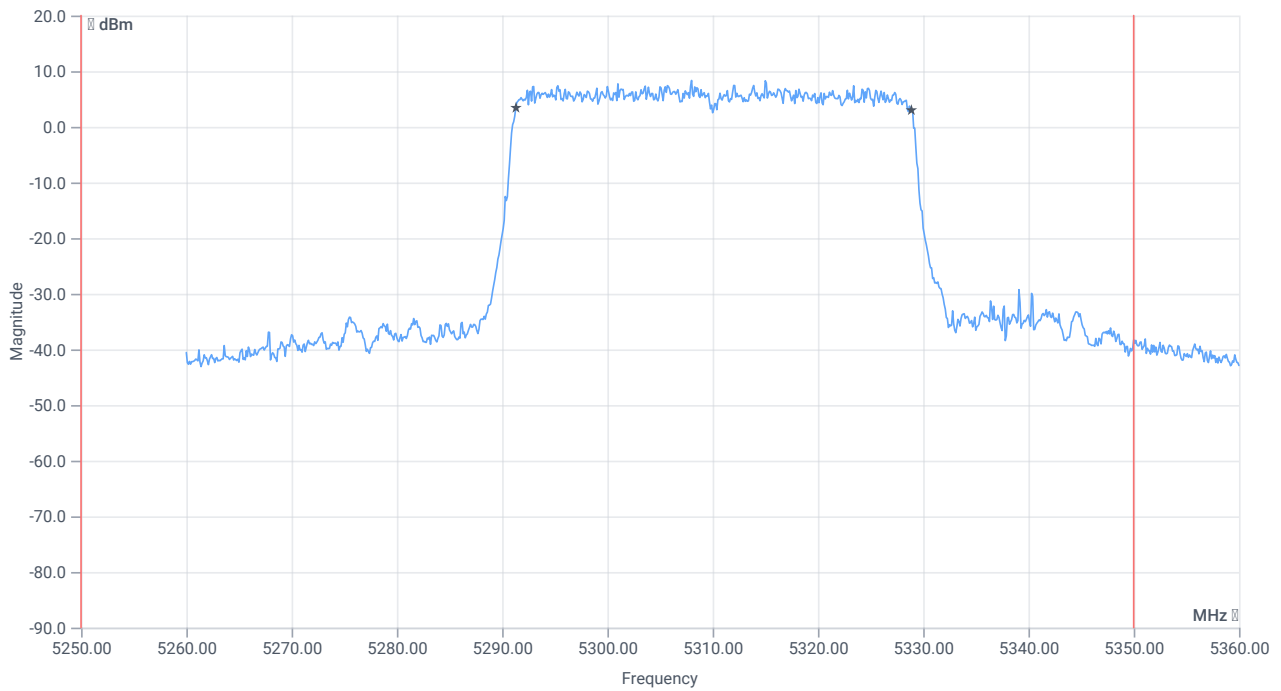
RESULT: Reference Power cond.

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	--	--	10.54	dBm	INFO
Ref. Frequency	--	--	5306.600	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	18.54 16.22 20
Start [MHz] Stop [MHz]	5260.000 5360.000
RBW [MHz] VBW [MHz]	0.500000 3.000000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	1 2500 1001 SWE

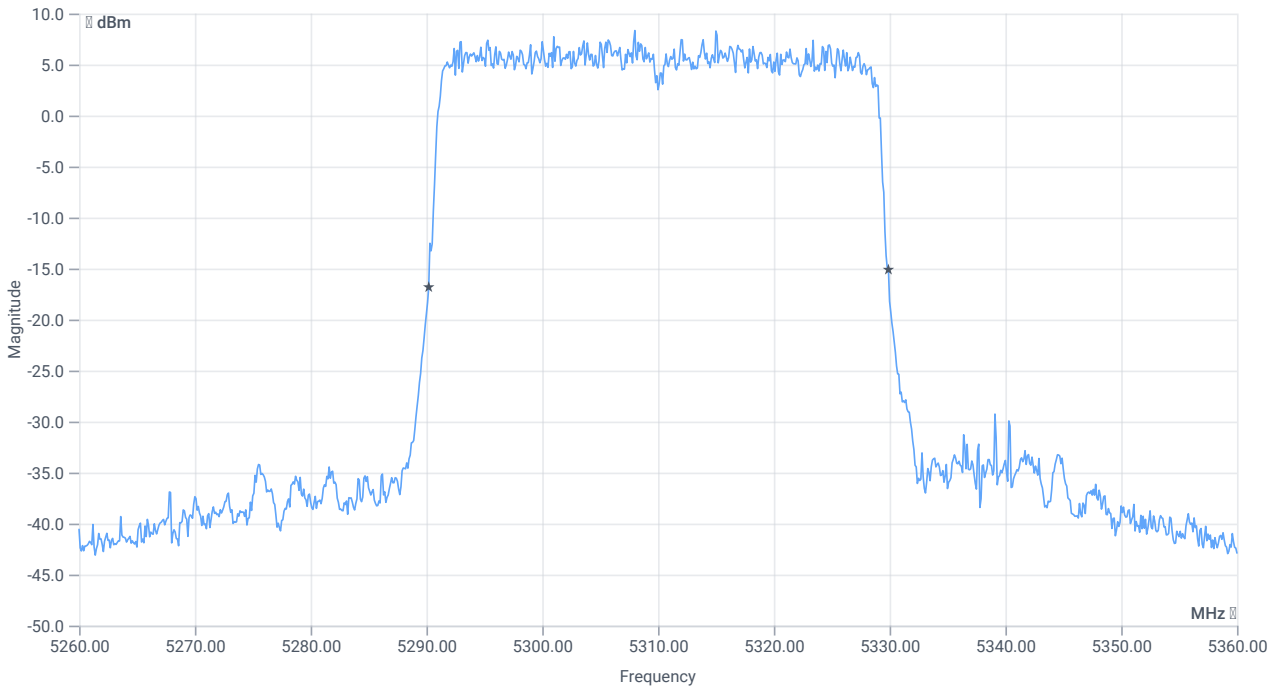




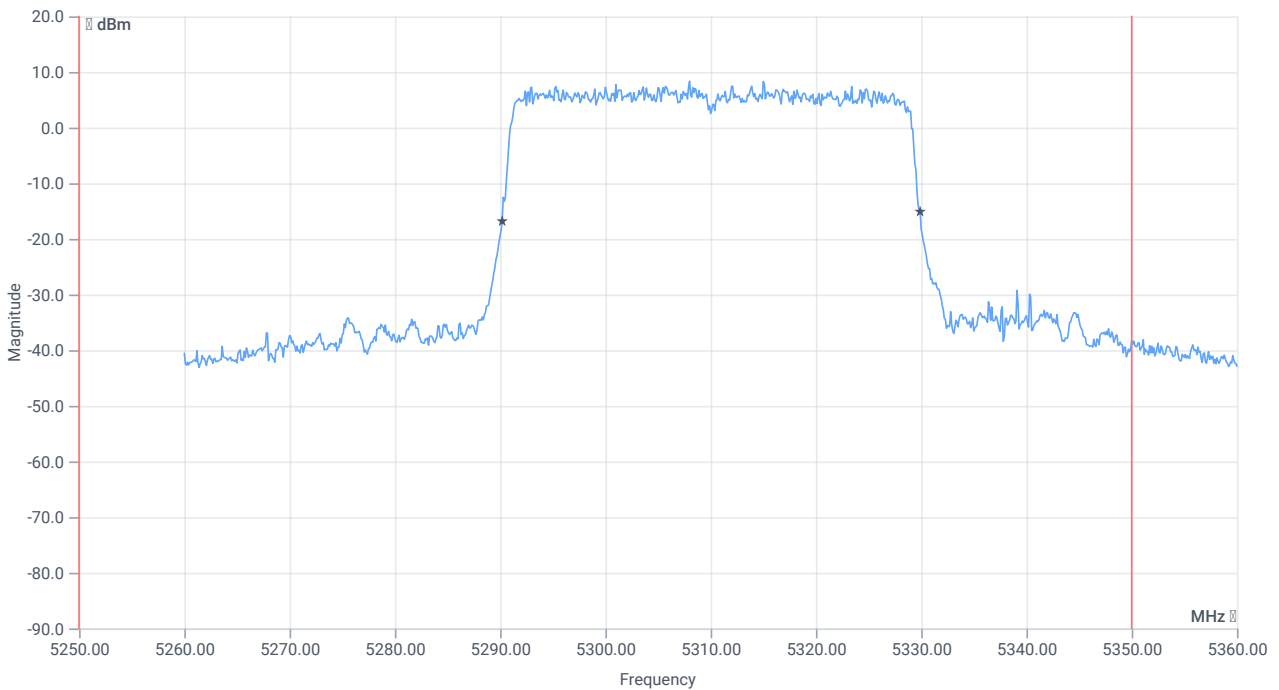
BW within Band 99PCT

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 99%	--	--	37.562	MHz	INFO
T1 99%	5250.000000	--	5291.3187	MHz	PASS since U-NII-1 is supported
T2 99%	--	5350.000000	5328.8811	MHz	PASS



BW 26dB



BW within Band 26dB

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 26dB	---	---	39.7	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	--	5290.2000	MHz	PASS since U-NII-1 is supported
T2 26dB	--	5350.000000	5329.9000	MHz	PASS

Verdict

PASS

FCC 15.247 # Max output power and psd ~ WLAN5Gx ax-HE40 U-NII-2A

Test References

TC Start	13.02.2023 14:03:46
Ambit Temp [°C] Humidity [rel%]	23.1 30
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 ax-HE40 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 ax-HE40
Antenna Port used	2
Temperature	nom
Voltage	nom
Frequency low to test	False Freq [MHz] 5270
Frequency mid to test	False Freq [MHz] 0
Frequency high to test	True Freq [MHz] 5310
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 5310 MHz

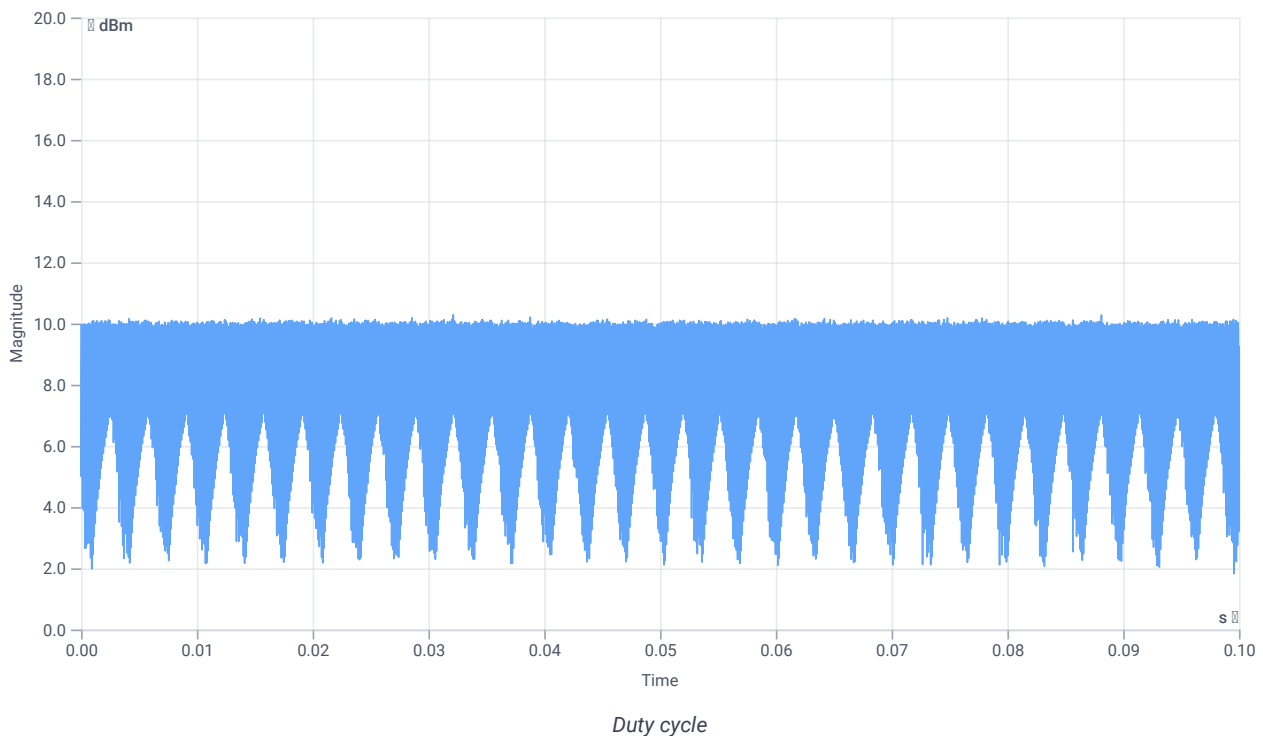
RESULT: Reference Power cond.

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	--	--	8.95	dBm	INFO
Ref. Frequency	--	--	5301.410	MHz	INFO

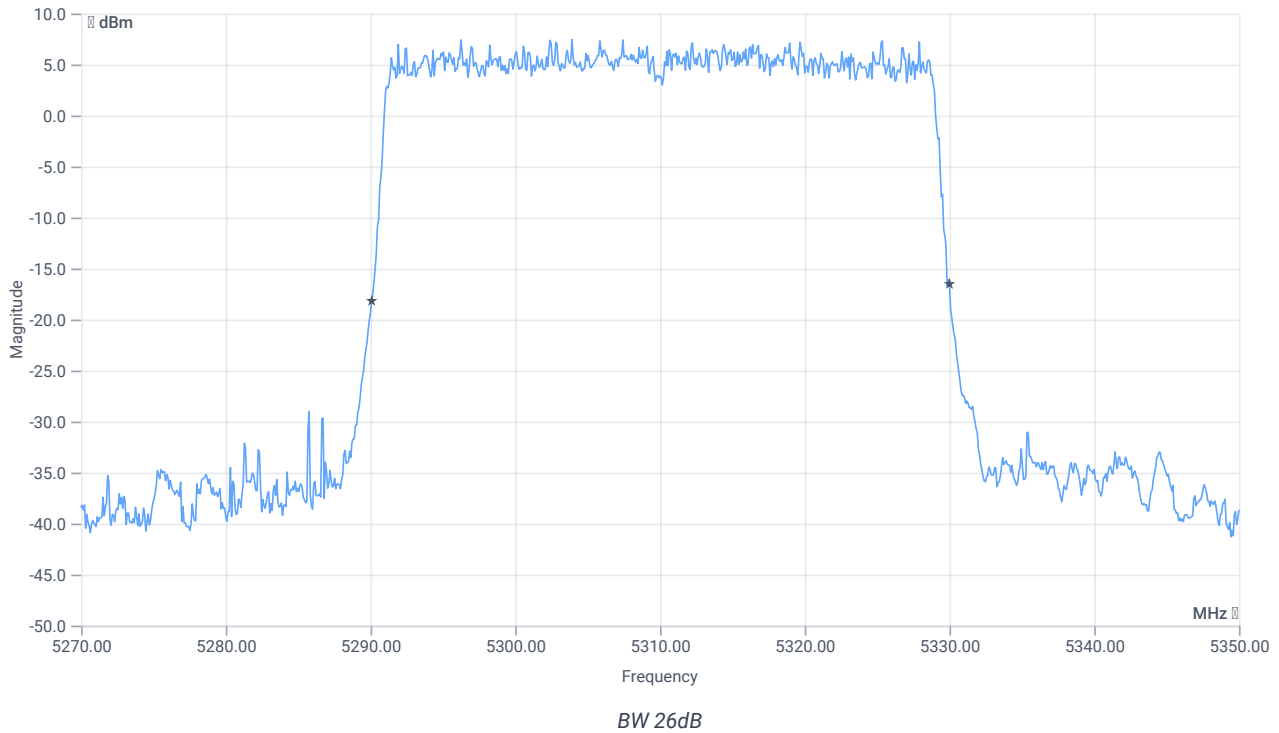
Evaluation max. Duty Cycle

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



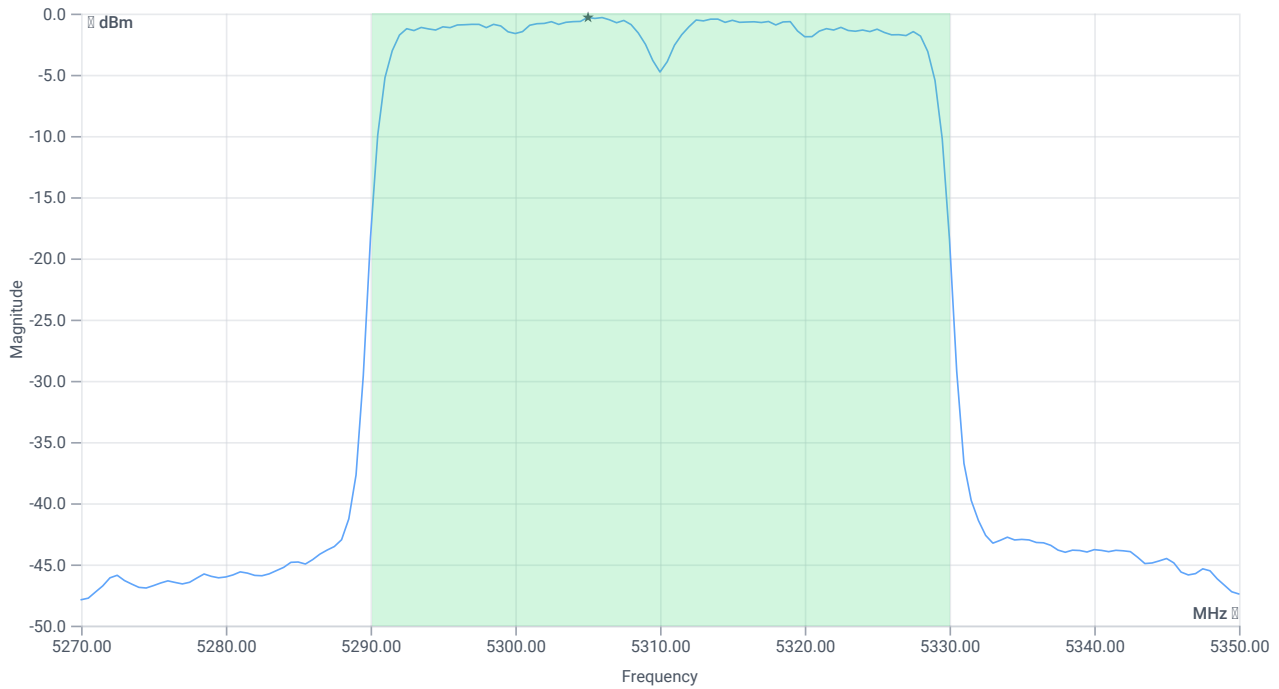
RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 26dB	---	---	39.92	MHz	INFO
T1 26dB	---	---	5290.0800	MHz	INFO
T2 26dB	---	---	5330.0000	MHz	INFO

Maximum Output Power

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	20.95 16.22 20
Start [MHz] Stop [MHz]	5270.000 5350.000
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	--	--	14.29	dBm	INFO
Duty Cycle Correction	--	--	0	dB	INFO
Limit absolute					
Max Output Power DC corrected	--	24	14.29	dBm	PASS
Limit: 11 dBm + 10 log 39.92					
Max Output Power DC corrected	--	27.01	14.29	dBm	PASS

Power Spectral Density

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Power Spectral Density	--	--	-0.32	dBm/1MHz	INFO
Duty Cycle Correction	--	--	0	dB	INFO
Power Spectral Density DC corrected	--	11	-0.32	dBm/1MHz	PASS

Verdict

PASS

FCC 15.407, ISED RSS247 # Bandwidths 99PCT and 26dB ~ WLAN5Gx ax-HE40 U-NII-2A

Test References

TC Start	13.02.2023 14:03:10
Ambit Temp [°C] Humidity [rel%]	23.1 30
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 ax-HE40 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 ax-HE40
Antenna Port used	1
Temperature	nom
Voltage	nom
Frequency low to test	False Freq [MHz] 5270
Frequency mid to test	False Freq [MHz] 0
Frequency high to test	True Freq [MHz] 5310
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

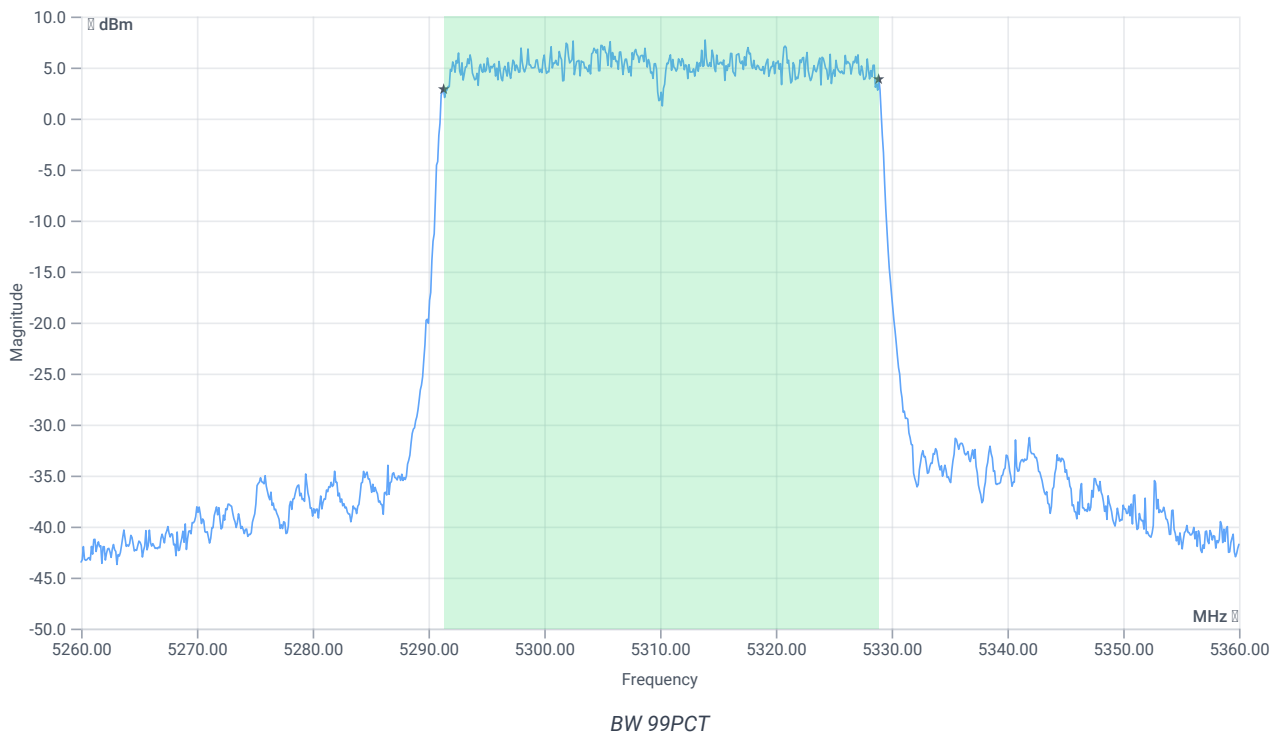
Test at TX 5310 MHz

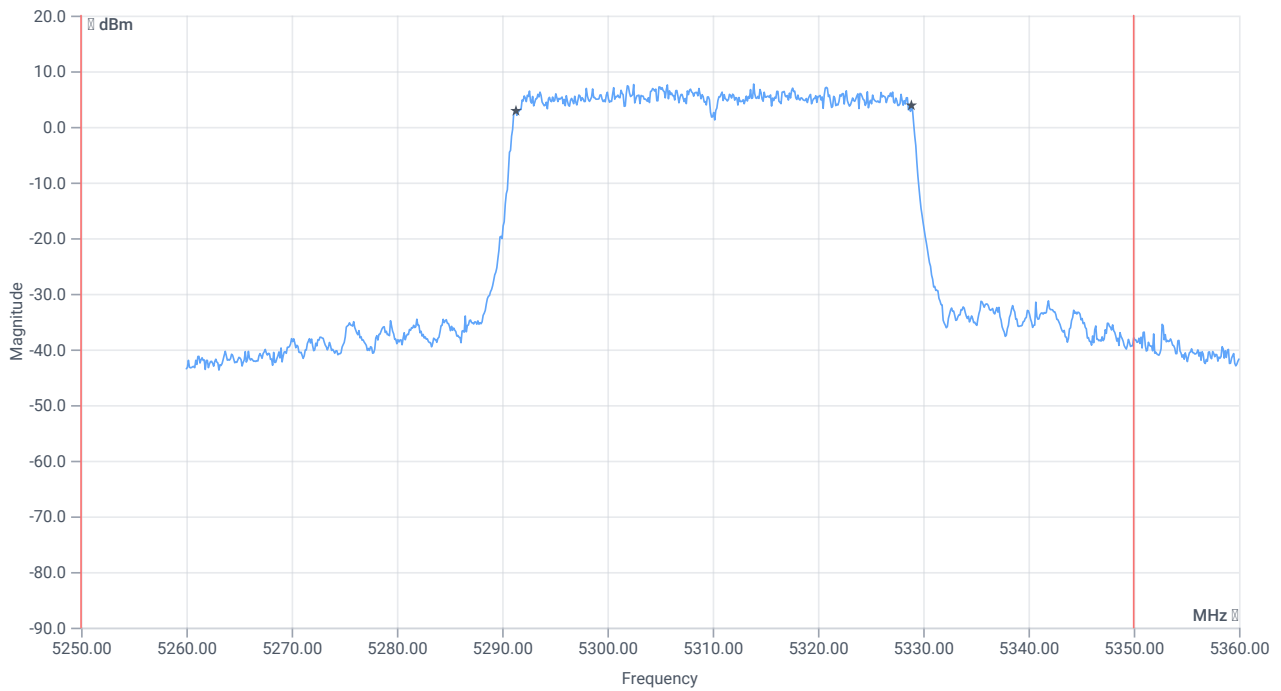
RESULT: Reference Power cond.

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	--	--	8.90	dBm	INFO
Ref. Frequency	--	--	5312.600	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	16.90 16.22 20
Start [MHz] Stop [MHz]	5260.000 5360.000
RBW [MHz] VBW [MHz]	0.500000 3.000000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	1 2500 1001 SWE

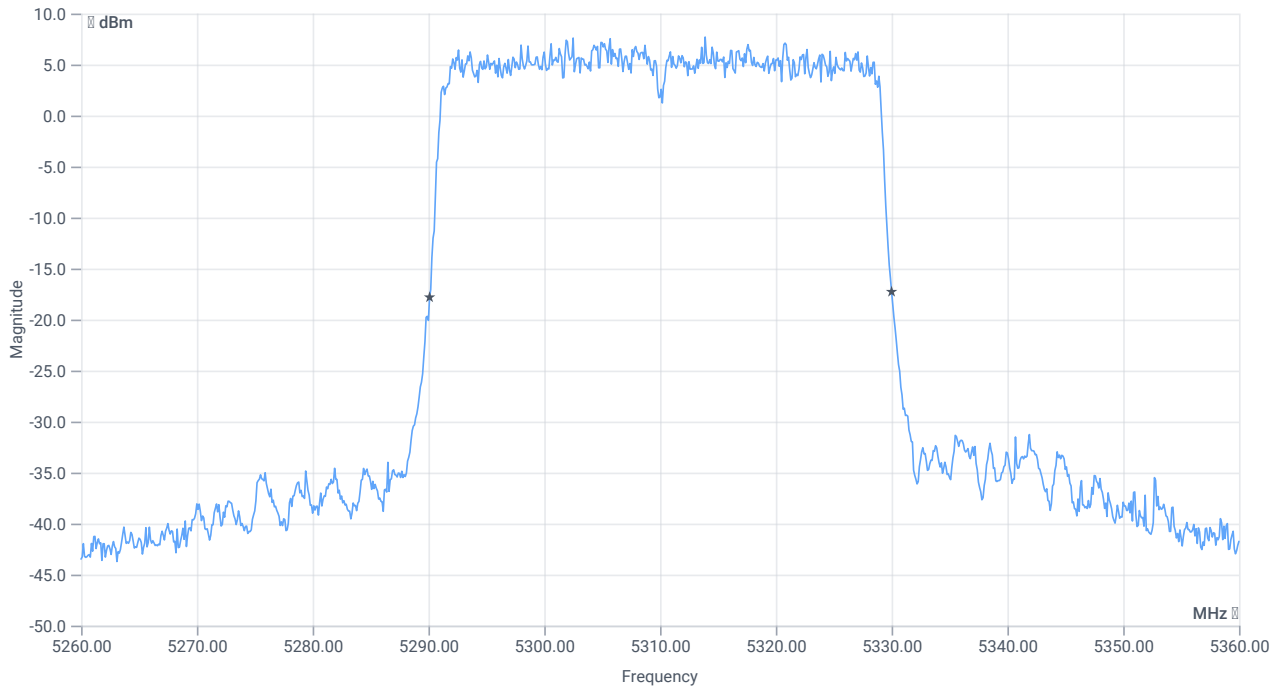




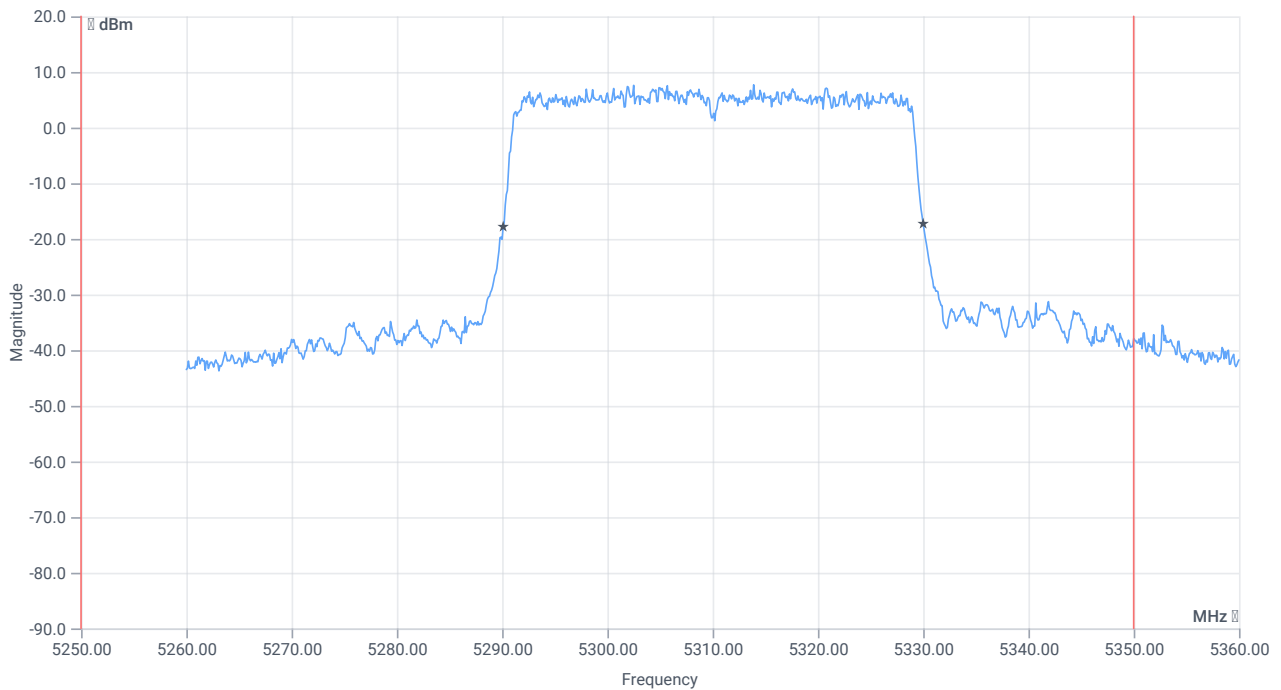
BW within Band 99PCT

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 99%	--	--	37.562	MHz	INFO
T1 99%	5250.000000	--	5291.3187	MHz	PASS since U-NII-1 is supported
T2 99%	--	5350.000000	5328.8811	MHz	PASS



BW 26dB



BW within Band 26dB

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 26dB	---	---	39.9	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	--	5290.1000	MHz	PASS since U-NII-1 is supported
T2 26dB	--	5350.000000	5330.0000	MHz	PASS

Verdict**PASS**

FCC 15.247 # Max output power and psd ~ WLAN5Gx ax-HE40 U-NII-2A

Test References

TC Start	13.02.2023 14:01:39
Ambit Temp [°C] Humidity [rel%]	23.1 30
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 ax-HE40 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 ax-HE40
Antenna Port used	1
Temperature	nom
Voltage	nom
Frequency low to test	False Freq [MHz] 5270
Frequency mid to test	False Freq [MHz] 0
Frequency high to test	True Freq [MHz] 5310
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 5310 MHz

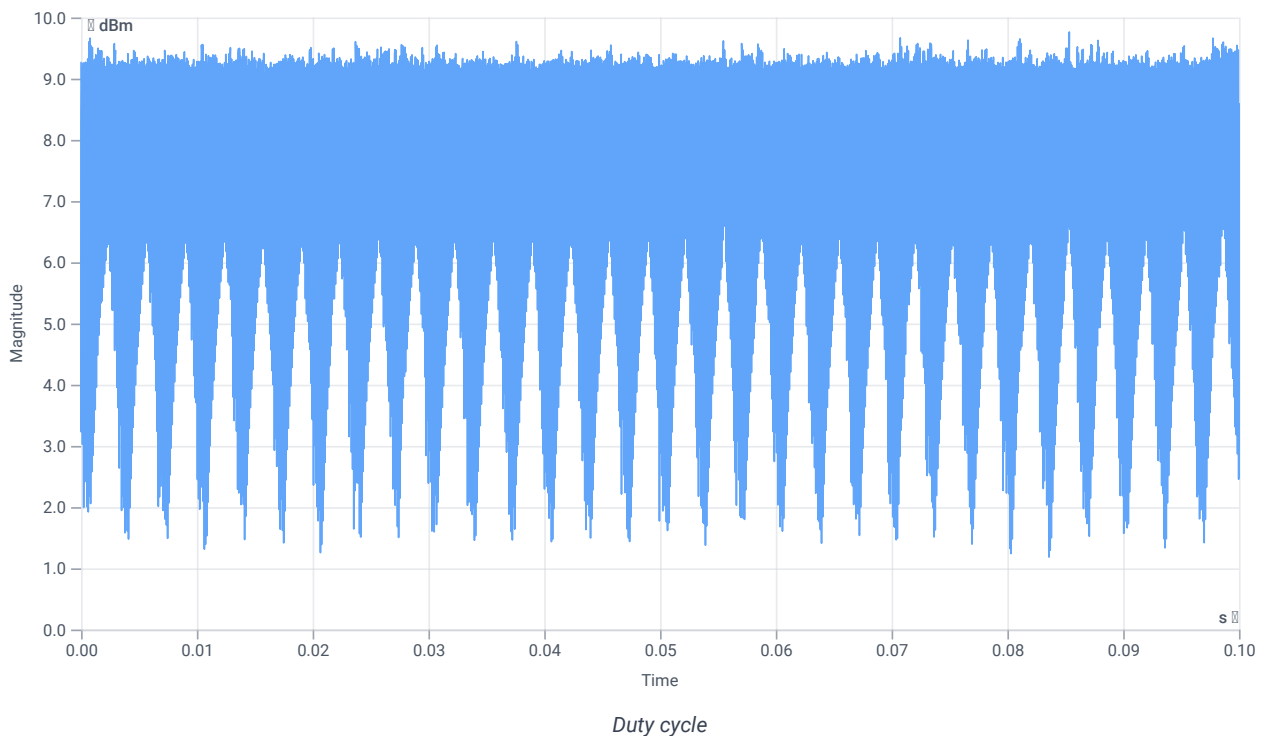
RESULT: Reference Power cond.

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	--	--	8.97	dBm	INFO
Ref. Frequency	--	--	5321.790	MHz	INFO

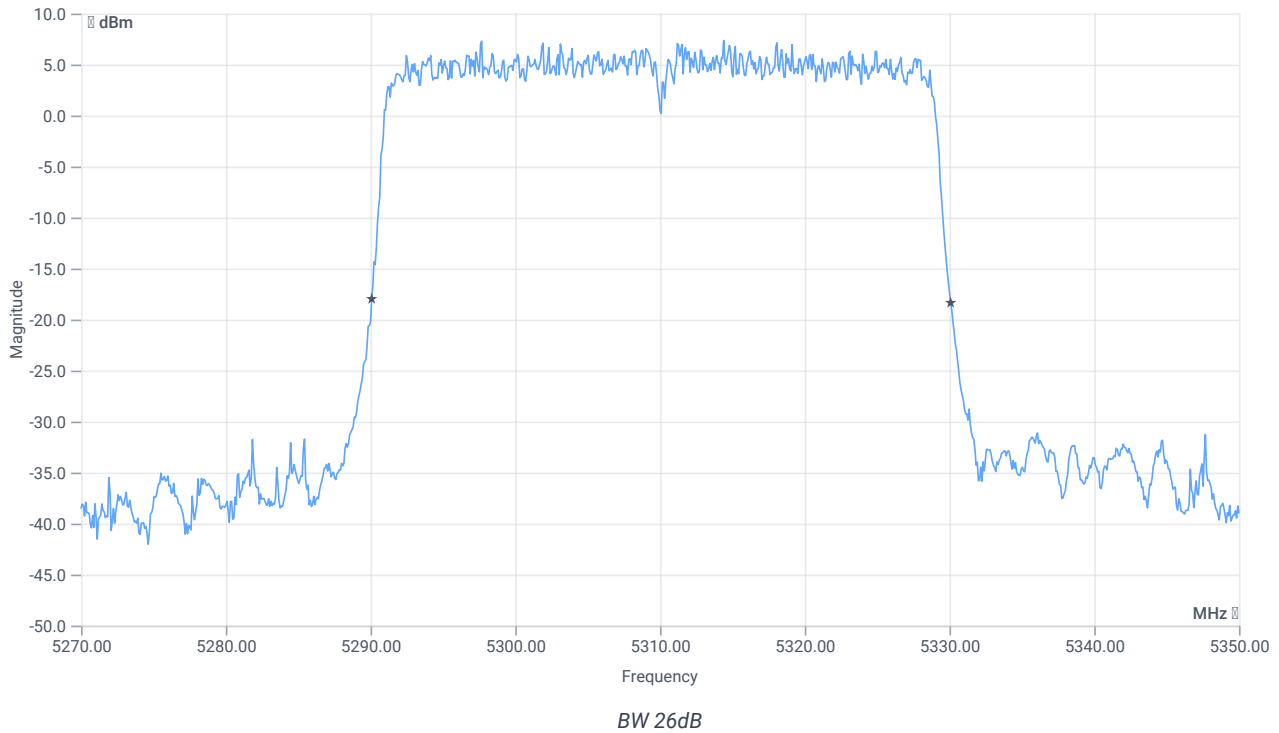
Evaluation max. Duty Cycle

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



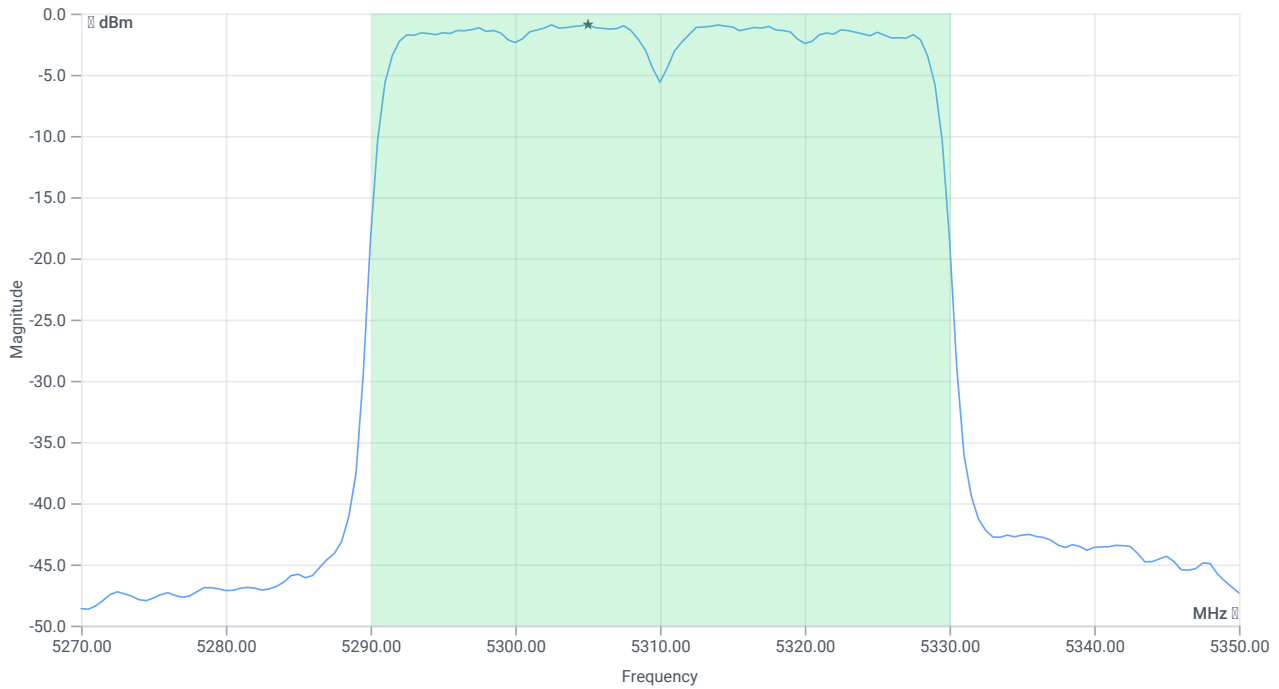
RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 26dB	---	---	40	MHz	INFO
T1 26dB	---	---	5290.0800	MHz	INFO
T2 26dB	---	---	5330.0800	MHz	INFO

Maximum Output Power

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	20.97 16.22 20
Start [MHz] Stop [MHz]	5270.000 5350.000
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	--	--	13.83	dBm	INFO
Duty Cycle Correction	--	--	0	dB	INFO
Limit absolute					
Max Output Power DC corrected	--	24	13.83	dBm	PASS
Limit: 11 dBm + 10 log 40					
Max Output Power DC corrected	--	27.02	13.83	dBm	PASS

Power Spectral Density

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Power Spectral Density	--	--	-0.9	dBm/1MHz	INFO
Duty Cycle Correction	--	--	0	dB	INFO
Power Spectral Density DC corrected	--	11	-0.9	dBm/1MHz	PASS

Verdict

PASS

FCC 15.247 # MIMO Power PSD Calculator ~ WLAN5Gx ax-HE40 U-NII-2A

Test References

TC Start	13.02.2023 13:59:28
Ambit Temp [°C] Humidity [rel%]	23.1 30
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 ax-HE40 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 ax-HE40
Antenna Port used	several
Temperature	nom
Voltage	nom
Frequency low to test	True Freq [MHz] 5270
Frequency mid to test	False Freq [MHz] 0
Frequency high to test	False Freq [MHz] 5310
Auto Control enabled Power Supply Climatic Box	No No
Additional Path Loss [dB]	1.4
Switched Path	None

Test Equipment

Test at TX 5270 MHz

RESULT Power

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ant:1 Max Output Power DC corrected	--	--	19.58	dBm	INFO
Ant:1 BW 26dB	--	--	66.160	MHz	INFO
Ant:2 Max Output Power DC corrected	--	--	19.96	dBm	INFO
Ant:2 BW 26dB	--	--	66.320	MHz	INFO
Σ Limit absolute	--	24	22.78	dBm	PASS
Σ Limit: 11 dBm + 10 log 66.16	--	29.21	22.78	dBm	PASS

RESULT PSD

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ant:1 PSD	--	--	4.88	dBm/1MHz	INFO
Ant:2 PSD	--	--	5.22	dBm/1MHz	INFO
Σ	--	11	8.06	dBm/1MHz	PASS

Verdict

PASS

FCC 15.407, ISED RSS247 # Bandwidths 99PCT and 26dB ~ WLAN5Gx ax-HE40 U-NII-2A

Test References

TC Start	13.02.2023 13:58:52
Ambit Temp [°C] Humidity [rel%]	23.1 30
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 ax-HE40 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 ax-HE40
Antenna Port used	2
Temperature	nom
Voltage	nom
Frequency low to test	True Freq [MHz] 5270
Frequency mid to test	False Freq [MHz] 0
Frequency high to test	False Freq [MHz] 5310
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

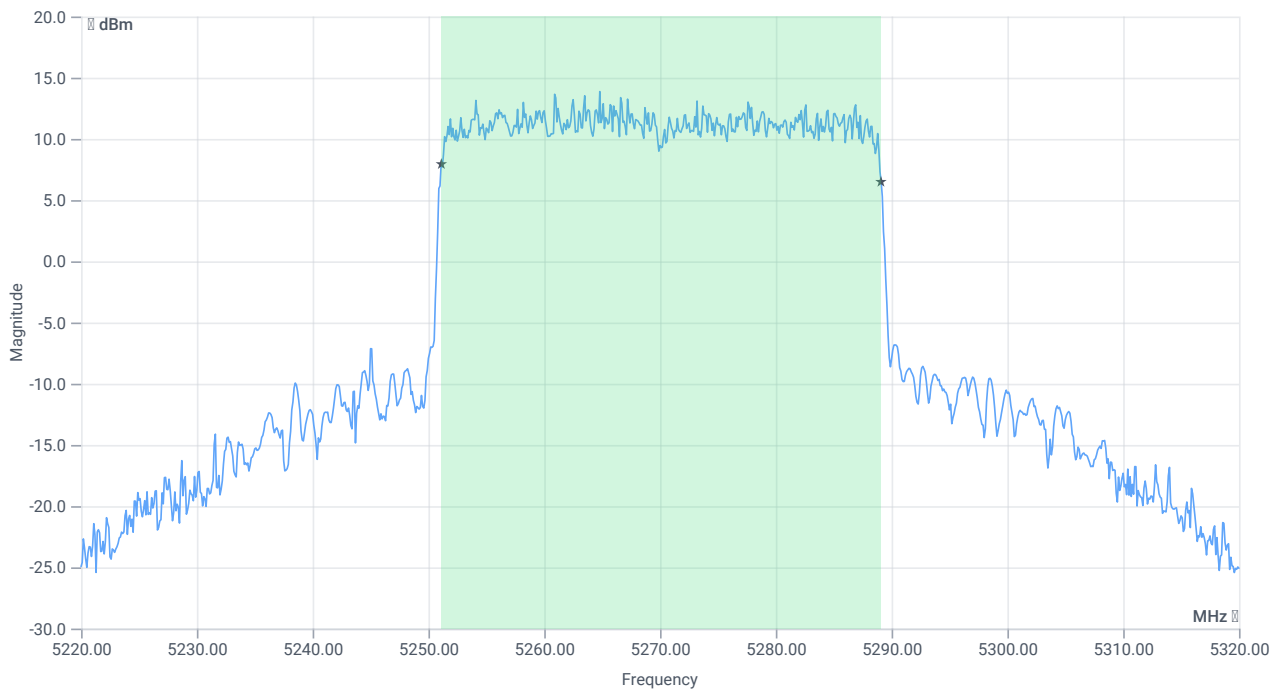
Test at TX 5270 MHz

RESULT: Reference Power cond.

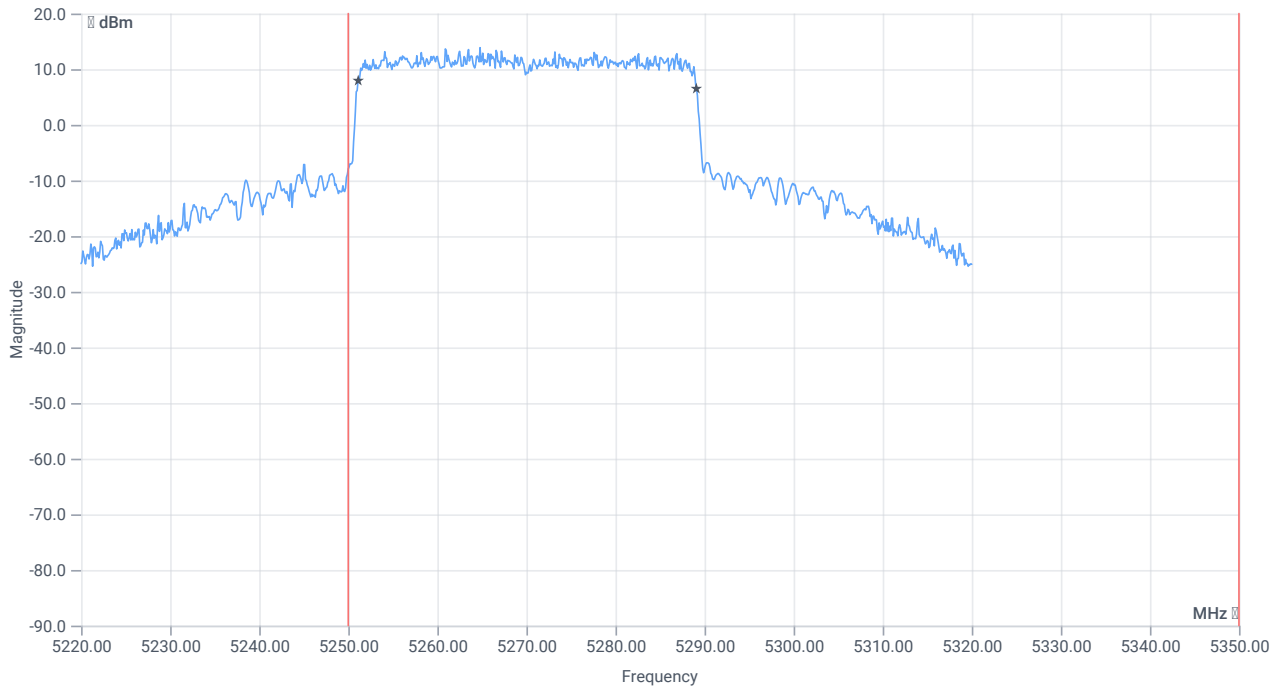
Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	--	--	14.23	dBm	INFO
Ref. Frequency	--	--	5267.800	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	22.23 16.32 25
Start [MHz] Stop [MHz]	5220.000 5320.000
RBW [MHz] VBW [MHz]	0.500000 3.000000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	1 2500 1001 SWE



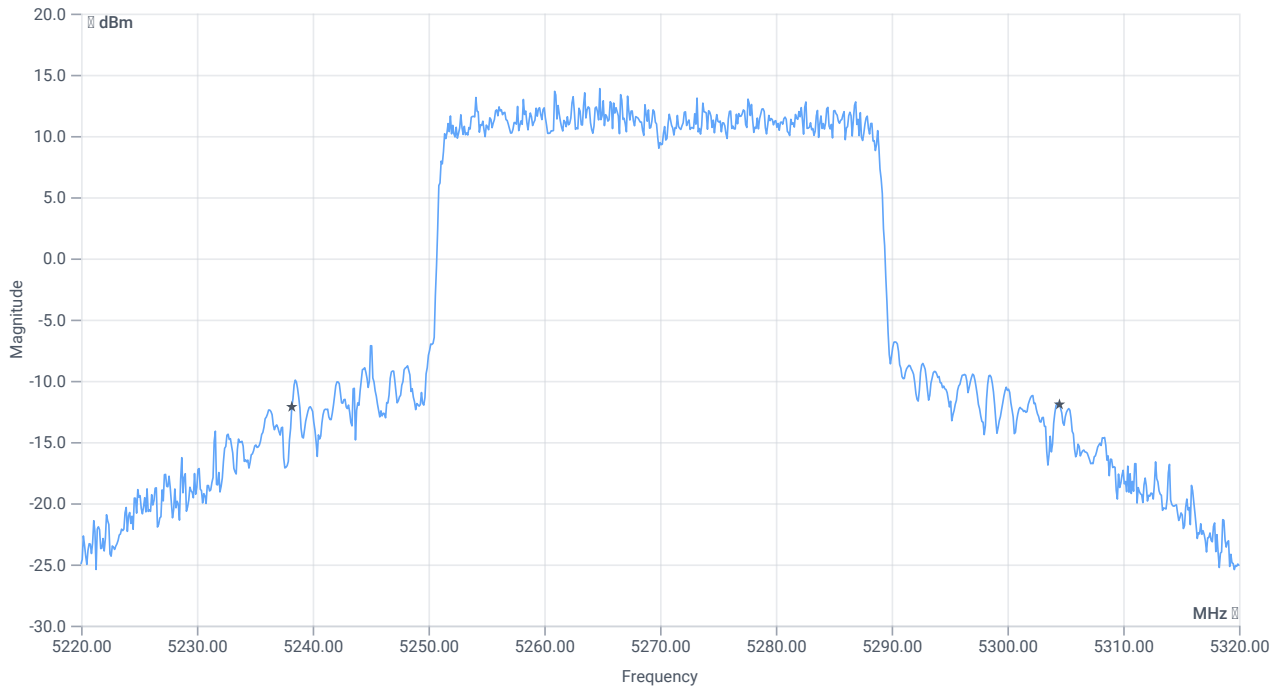
BW 99PCT



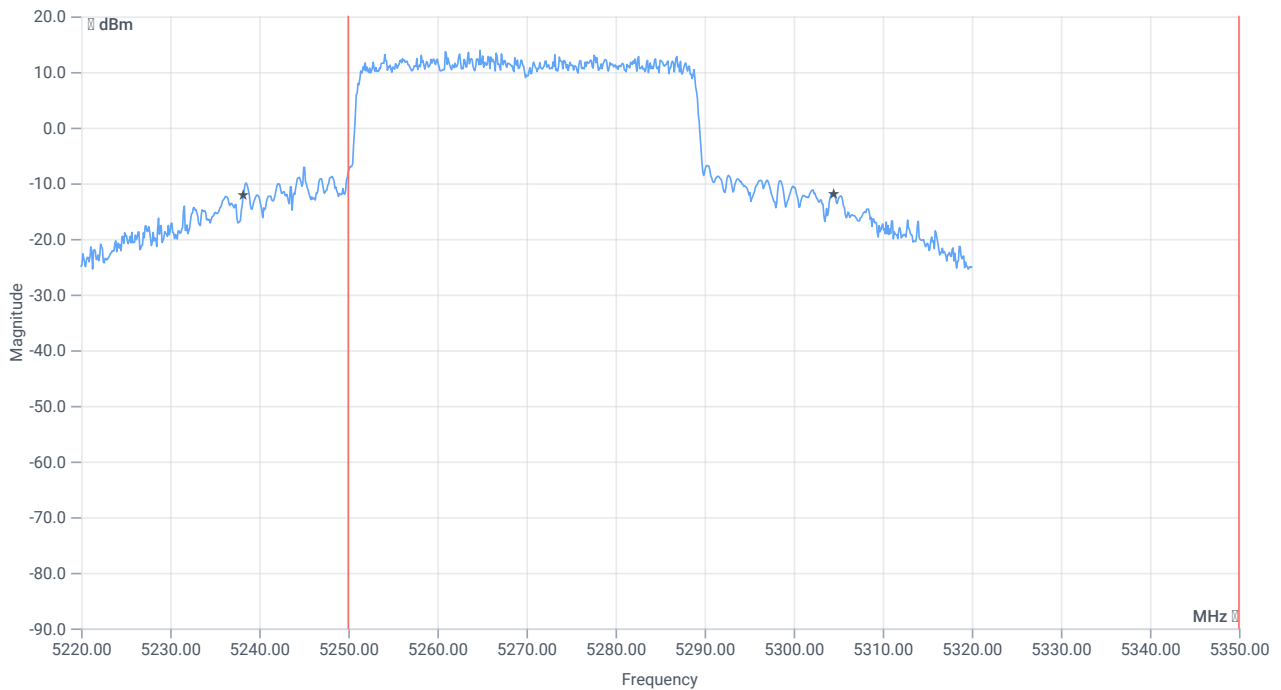
BW within Band 99PCT

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 99%	---	---	37.962	MHz	INFO
T1 99%	5250.000000	---	5251.1189	MHz	PASS since U-NII-1 is supported
T2 99%	---	5350.000000	5289.0809	MHz	PASS



BW 26dB



BW within Band 26dB

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 26dB	---	---	66.3	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	--	5238.2000	MHz	PASS since U-NII-1 is supported
T2 26dB	--	5350.000000	5304.5000	MHz	PASS

Verdict

PASS

FCC 15.247 # Max output power and psd ~ WLAN5Gx ax-HE40 U-NII-2A

Test References

TC Start	13.02.2023 13:57:22
Ambit Temp [°C] Humidity [rel%]	23.1 30
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 ax-HE40 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 ax-HE40
Antenna Port used	2
Temperature	nom
Voltage	nom
Frequency low to test	True Freq [MHz] 5270
Frequency mid to test	False Freq [MHz] 0
Frequency high to test	False Freq [MHz] 5310
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 5270 MHz

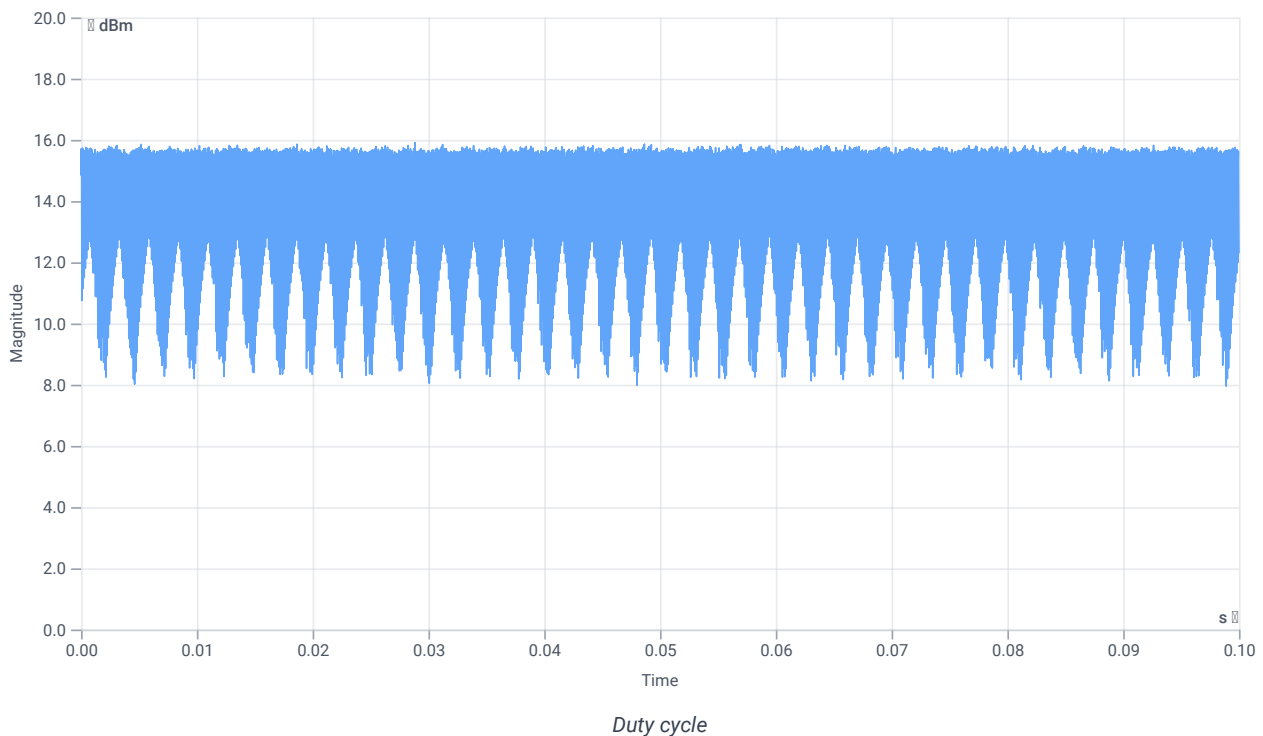
RESULT: Reference Power cond.

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	--	--	14.83	dBm	INFO
Ref. Frequency	--	--	5272.000	MHz	INFO

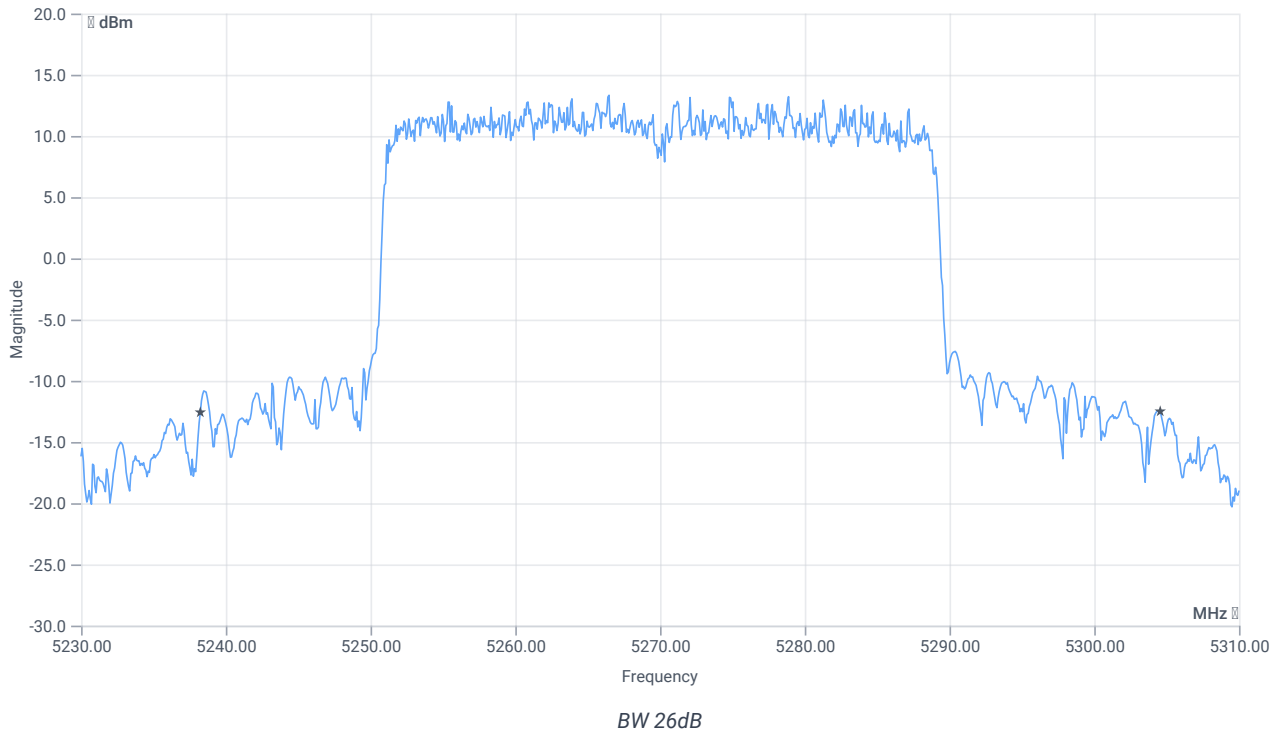
Evaluation max. Duty Cycle

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



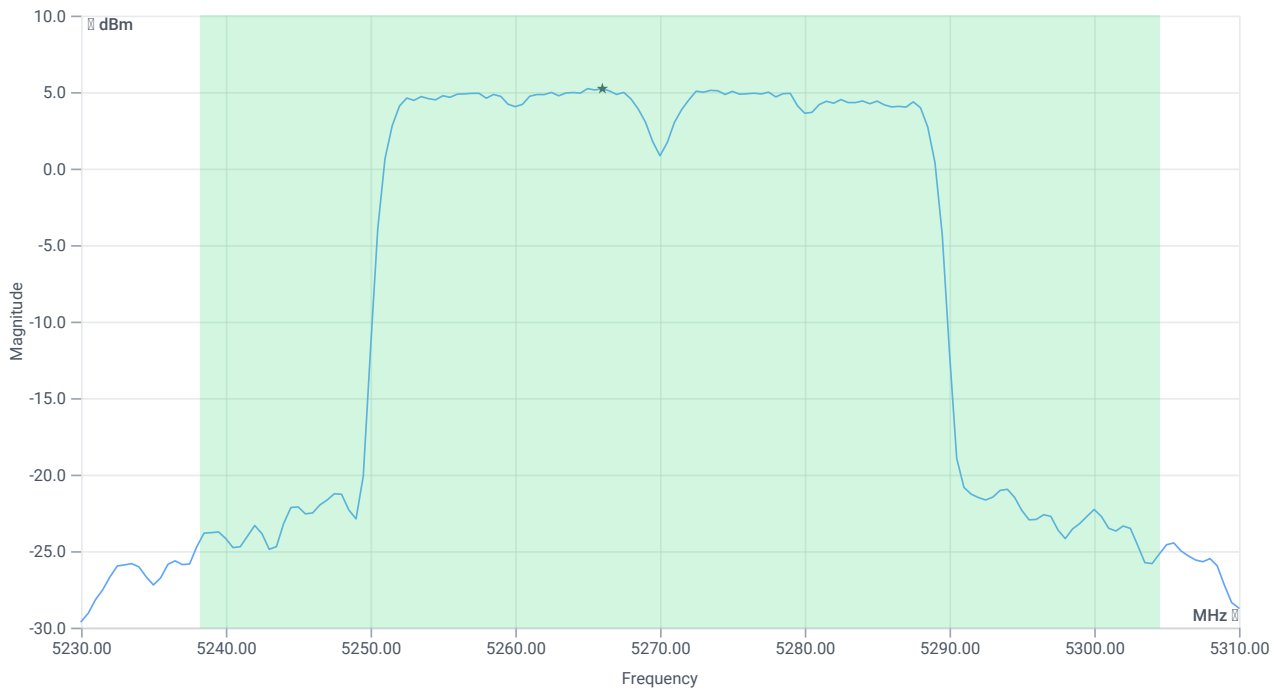
RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 26dB	---	---	66.32	MHz	INFO
T1 26dB	---	---	5238.2400	MHz	INFO
T2 26dB	---	---	5304.5600	MHz	INFO

Maximum Output Power

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	26.83 16.32 25
Start [MHz] Stop [MHz]	5230.000 5310.000
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	--	--	19.96	dBm	INFO
Duty Cycle Correction	--	--	0	dB	INFO
Limit absolute					
Max Output Power DC corrected	--	24	19.96	dBm	PASS
Limit: 11 dBm + 10 log 66.32					
Max Output Power DC corrected	--	29.22	19.96	dBm	PASS

Power Spectral Density

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Power Spectral Density	--	--	5.22	dBm/1MHz	INFO
Duty Cycle Correction	--	--	0	dB	INFO
Power Spectral Density DC corrected	--	11	5.22	dBm/1MHz	PASS

Verdict

PASS

FCC 15.407, ISED RSS247 # Bandwidths 99PCT and 26dB ~ WLAN5Gx ax-HE40 U-NII-2A

Test References

TC Start	13.02.2023 13:56:46
Ambit Temp [°C] Humidity [rel%]	23.1 30
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 ax-HE40 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 ax-HE40
Antenna Port used	1
Temperature	nom
Voltage	nom
Frequency low to test	True Freq [MHz] 5270
Frequency mid to test	False Freq [MHz] 0
Frequency high to test	False Freq [MHz] 5310
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

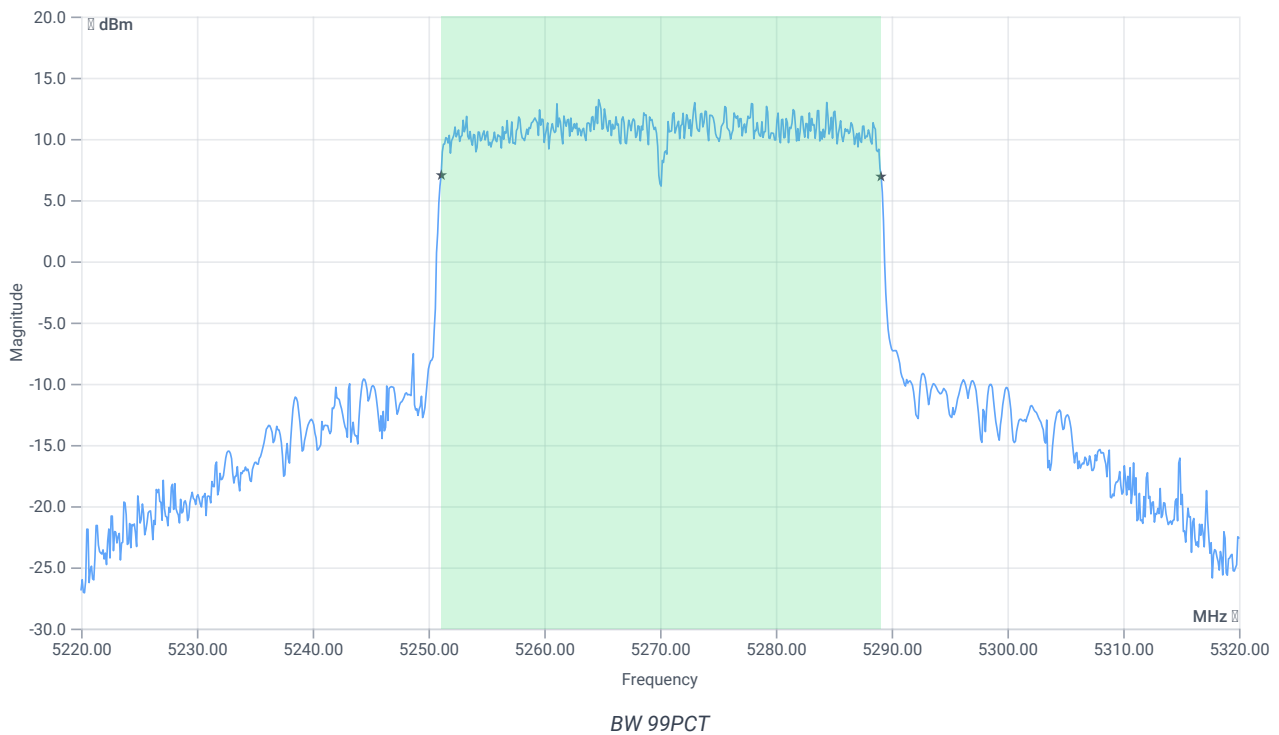
Test at TX 5270 MHz

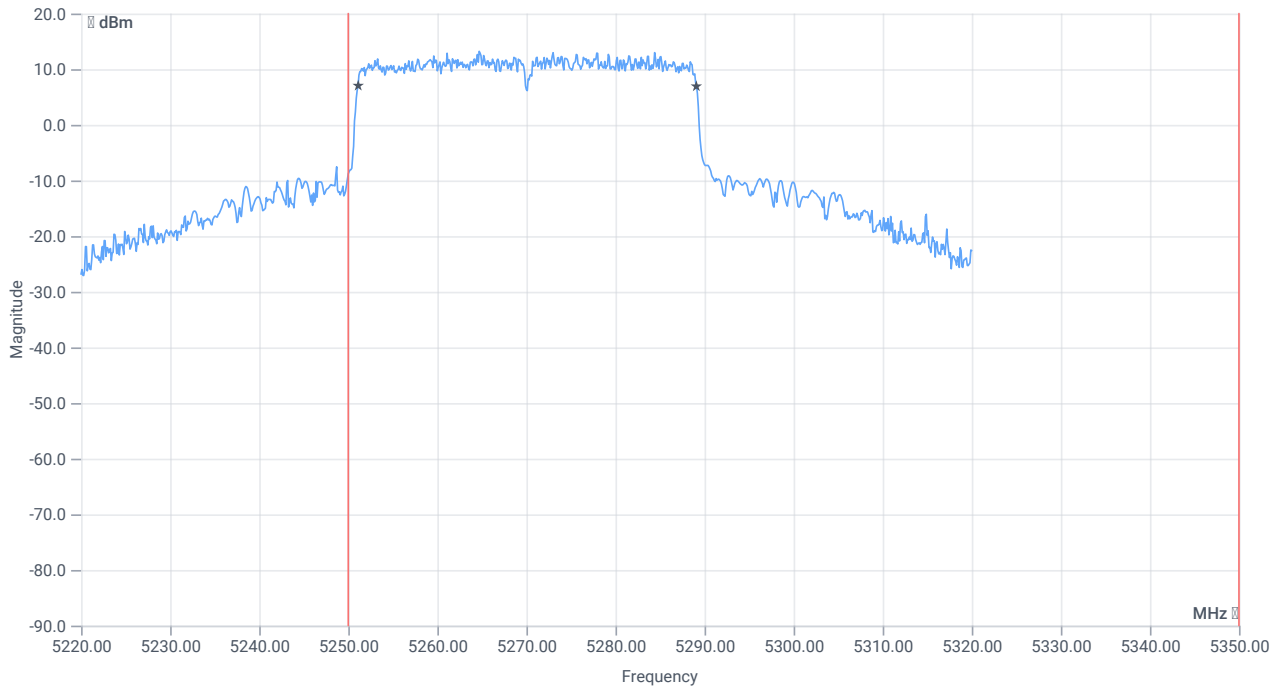
RESULT: Reference Power cond.

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	--	--	14.02	dBm	INFO
Ref. Frequency	--	--	5264.410	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	22.02 16.32 25
Start [MHz] Stop [MHz]	5220.000 5320.000
RBW [MHz] VBW [MHz]	0.500000 3.000000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	1 2500 1001 SWE

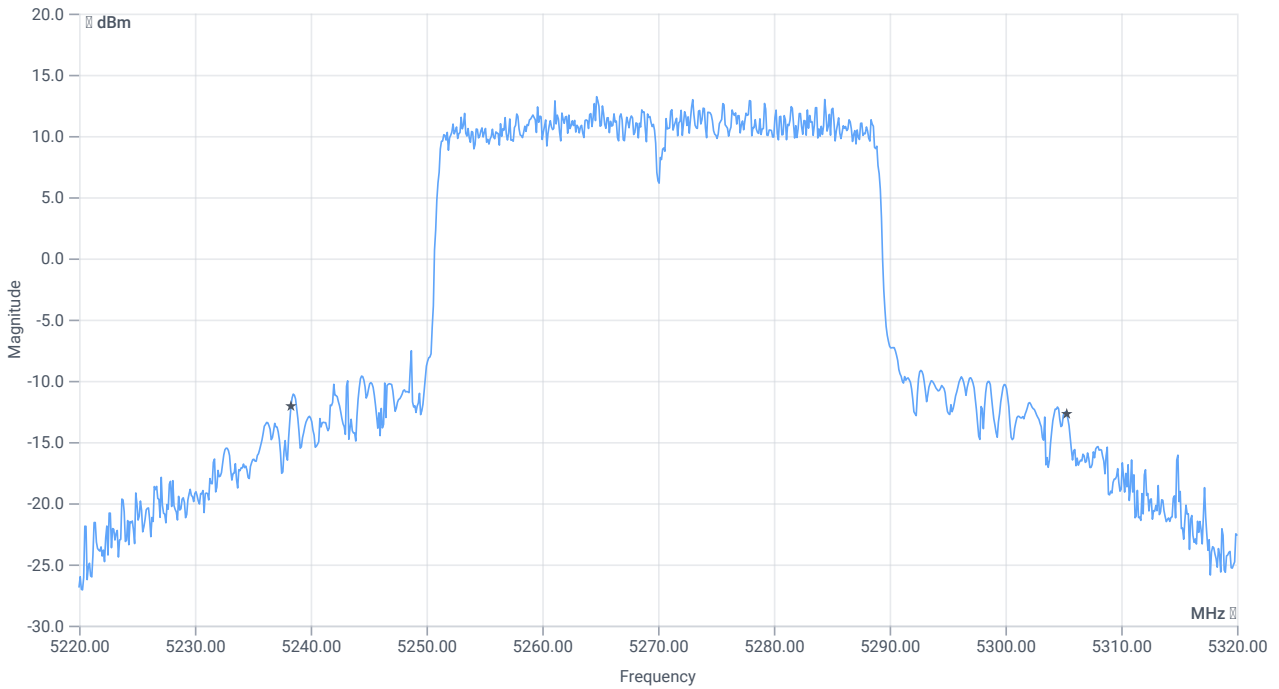




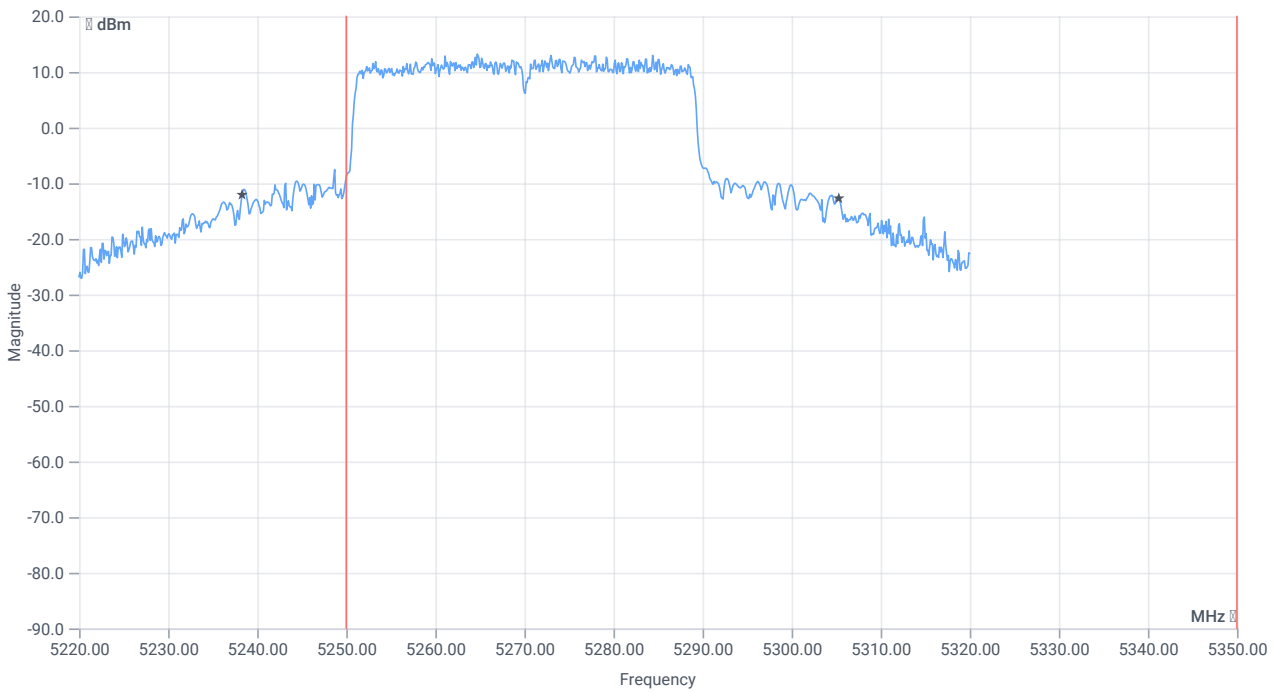
BW within Band 99PCT

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 99%	--	--	37.962	MHz	INFO
T1 99%	5250.000000	--	5251.1189	MHz	PASS since U-NII-1 is supported
T2 99%	--	5350.000000	5289.0809	MHz	PASS



BW 26dB



BW within Band 26dB

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 26dB	---	---	67	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	--	5238.3000	MHz	PASS since U-NII-1 is supported
T2 26dB	--	5350.000000	5305.3000	MHz	PASS

Verdict

PASS

FCC 15.247 # Max output power and psd ~ WLAN5Gx ax-HE40 U-NII-2A

Test References

TC Start	13.02.2023 13:55:15
Ambit Temp [°C] Humidity [rel%]	23.0 30
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 ax-HE40 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 ax-HE40
Antenna Port used	1
Temperature	nom
Voltage	nom
Frequency low to test	True Freq [MHz] 5270
Frequency mid to test	False Freq [MHz] 0
Frequency high to test	False Freq [MHz] 5310
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 5270 MHz

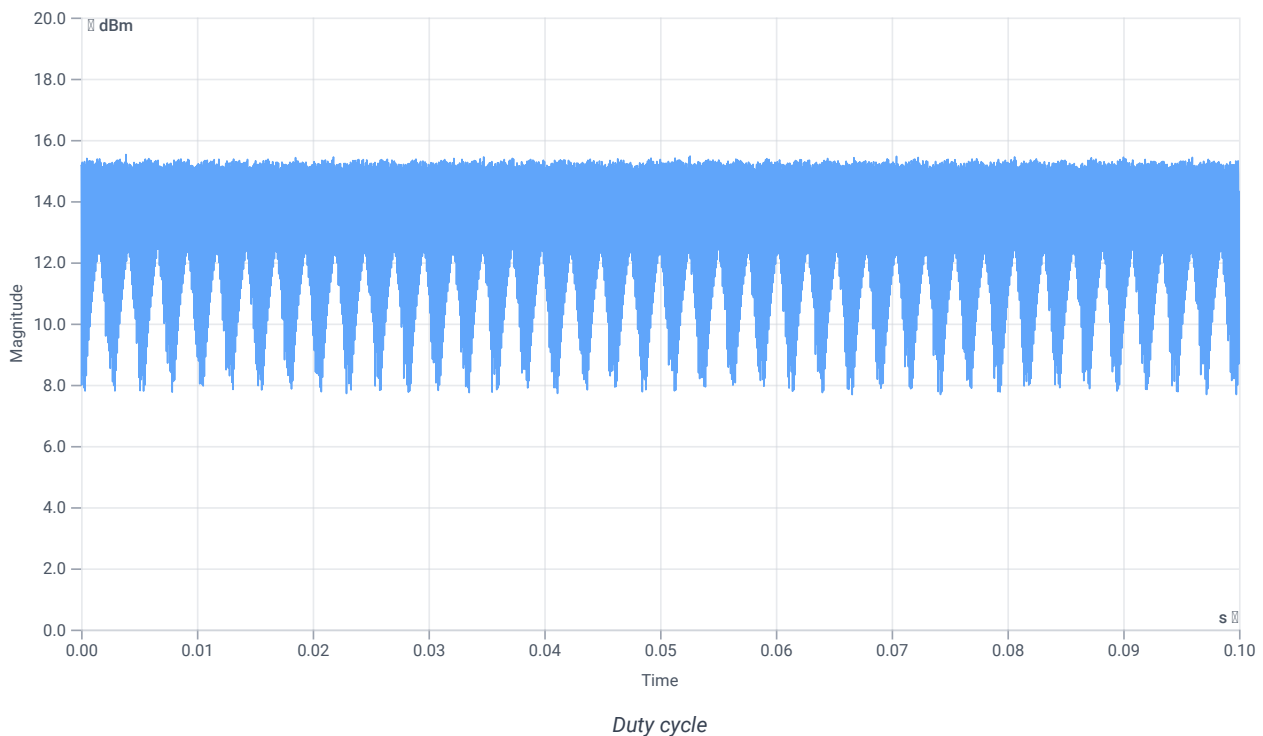
RESULT: Reference Power cond.

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	--	--	14.84	dBm	INFO
Ref. Frequency	--	--	5261.010	MHz	INFO

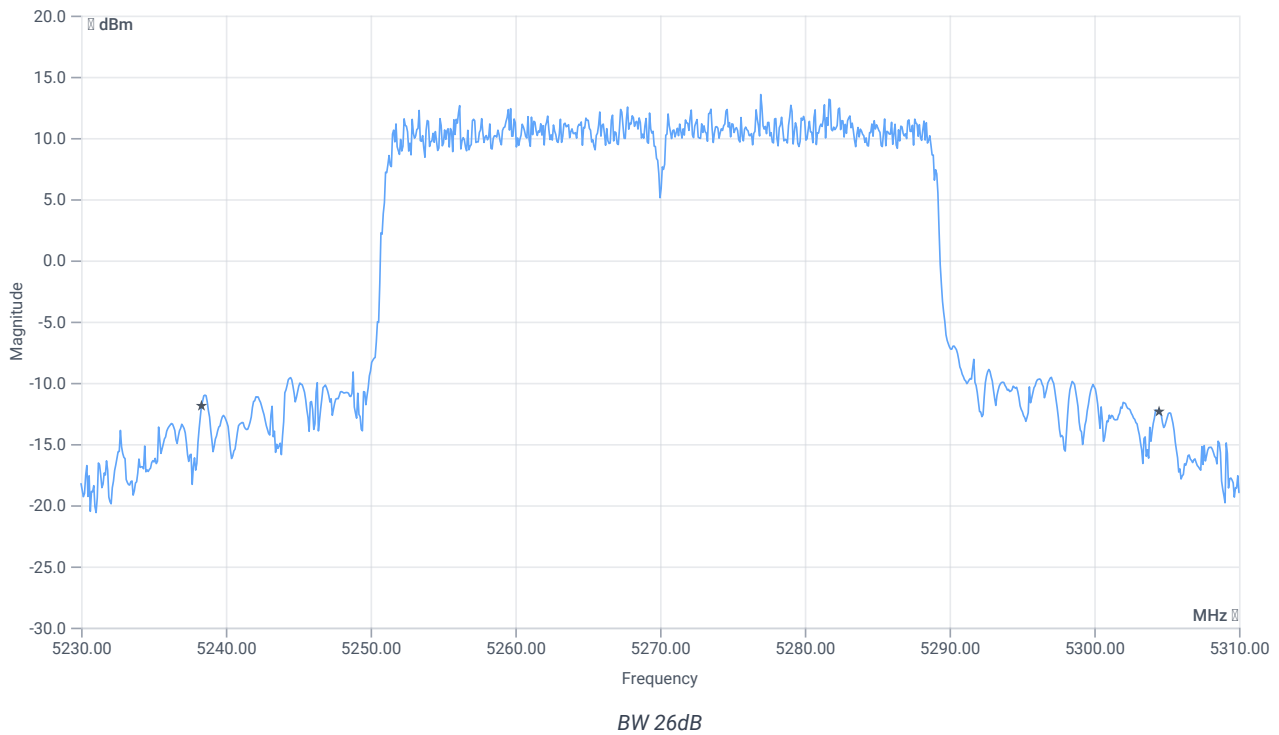
Evaluation max. Duty Cycle

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



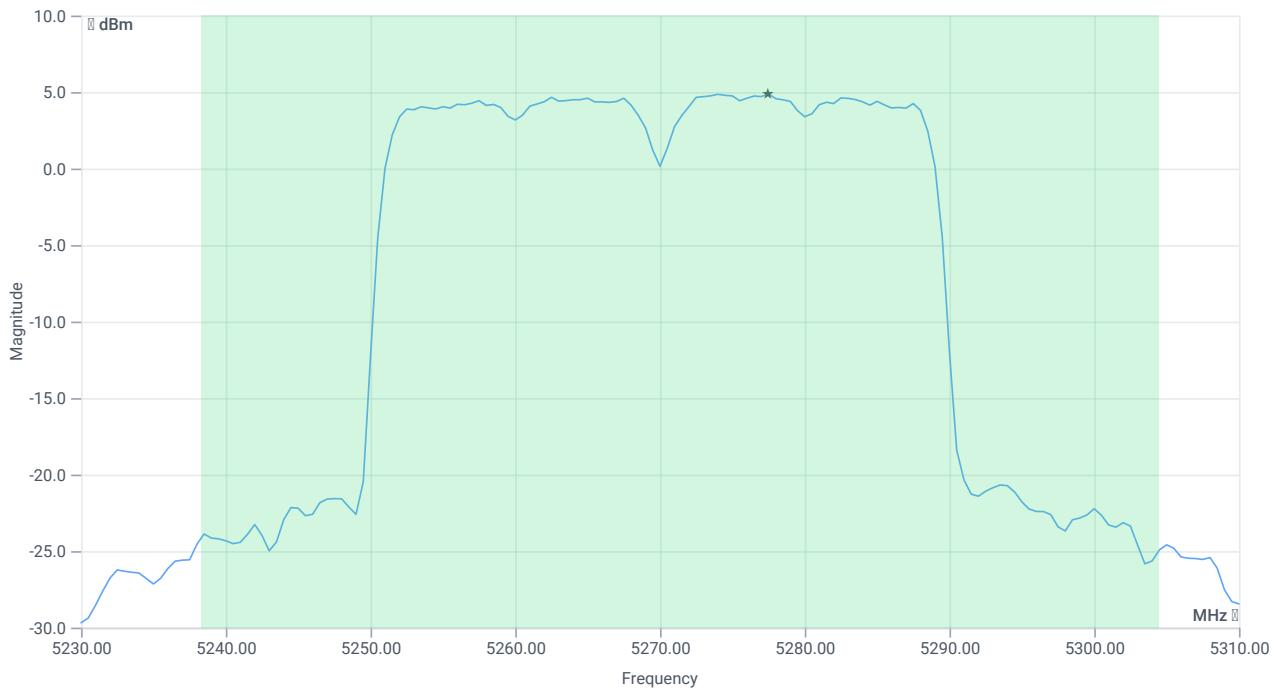
RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 26dB	---	---	66.16	MHz	INFO
T1 26dB	---	---	5238.3200	MHz	INFO
T2 26dB	---	---	5304.4800	MHz	INFO

Maximum Output Power

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	26.84 16.32 25
Start [MHz] Stop [MHz]	5230.000 5310.000
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	--	--	19.58	dBm	INFO
Duty Cycle Correction	--	--	0	dB	INFO
Limit absolute					
Max Output Power DC corrected	--	24	19.58	dBm	PASS
Limit: 11 dBm + 10 log 66.16					
Max Output Power DC corrected	--	29.21	19.58	dBm	PASS

Power Spectral Density

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Power Spectral Density	--	--	4.88	dBm/1MHz	INFO
Duty Cycle Correction	--	--	0	dB	INFO
Power Spectral Density DC corrected	--	11	4.88	dBm/1MHz	PASS

Verdict

PASS

FCC 15.247 # MIMO Power PSD Calculator ~ WLAN5Gx ax-HE40 U-NII-1

Test References

TC Start	13.02.2023 13:51:21
Ambit Temp [°C] Humidity [rel%]	23.0 30
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 ax-HE40 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 ax-HE40
Antenna Port used	several
Temperature	nom
Voltage	nom
Frequency low to test	False Freq [MHz] 5190
Frequency mid to test	False Freq [MHz] 0
Frequency high to test	True Freq [MHz] 5230
Auto Control enabled Power Supply Climatic Box	No No
Additional Path Loss [dB]	1.4
Switched Path	None

Test Equipment

Test at TX 5230 MHz

RESULT Power

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ant:1 Max Output Power DC corrected	--	--	13.44	dBm	INFO
Ant:1 BW 26dB	--	--	39.920	MHz	INFO
Ant:2 Max Output Power DC corrected	--	--	13.93	dBm	INFO
Ant:2 BW 26dB	--	--	39.840	MHz	INFO
Σ Limit absolute	--	24	16.7	dBm	PASS
Σ Limit: 11 dBm + 10 log 39.84	--	27	16.7	dBm	na

RESULT PSD

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ant:1 PSD	--	--	-1.28	dBm/1MHz	INFO
Ant:2 PSD	--	--	-0.73	dBm/1MHz	INFO
Σ	--	11	2.01	dBm/1MHz	PASS

Verdict

PASS

FCC 15.407, ISED RSS247 # Bandwidths 99PCT and 26dB ~ WLAN5Gx ax-HE40 U-NII-1

Test References

TC Start	13.02.2023 13:50:45
Ambit Temp [°C] Humidity [rel%]	23.0 30
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 ax-HE40 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 ax-HE40
Antenna Port used	2
Temperature	nom
Voltage	nom
Frequency low to test	False Freq [MHz] 5190
Frequency mid to test	False Freq [MHz] 0
Frequency high to test	True Freq [MHz] 5230
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

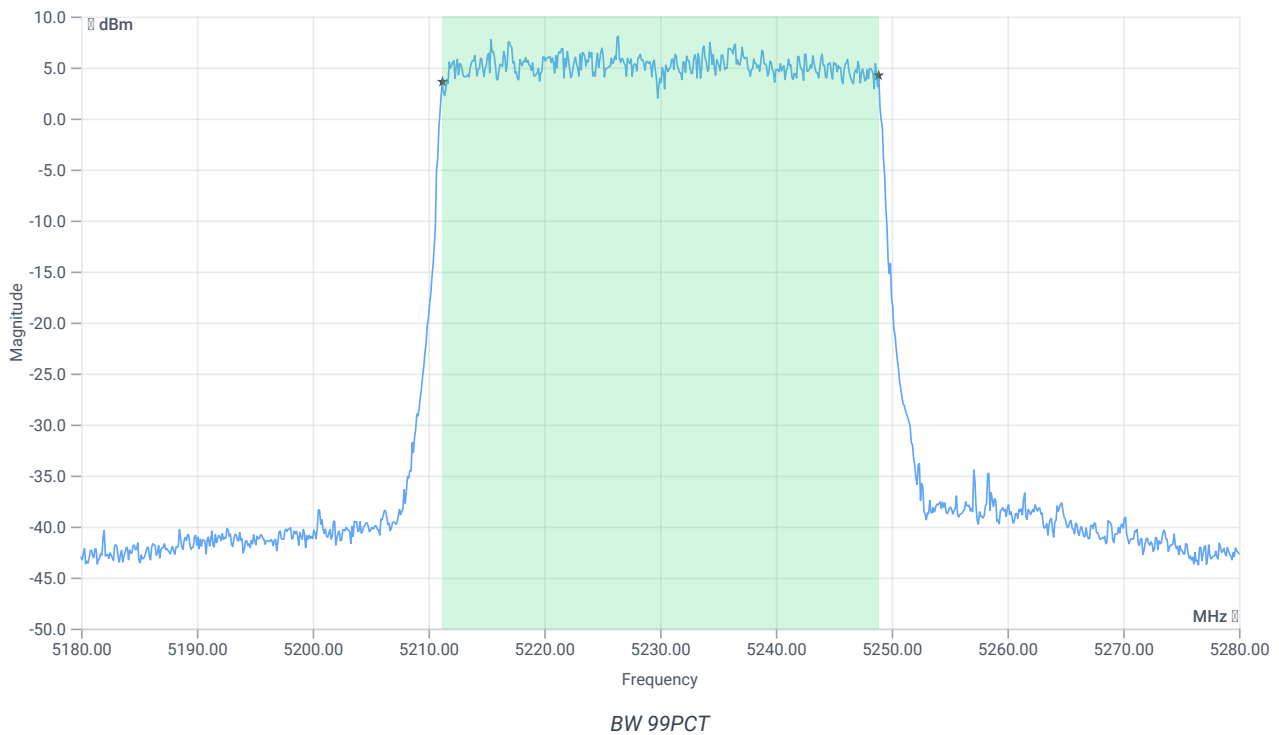
Test at TX 5230 MHz

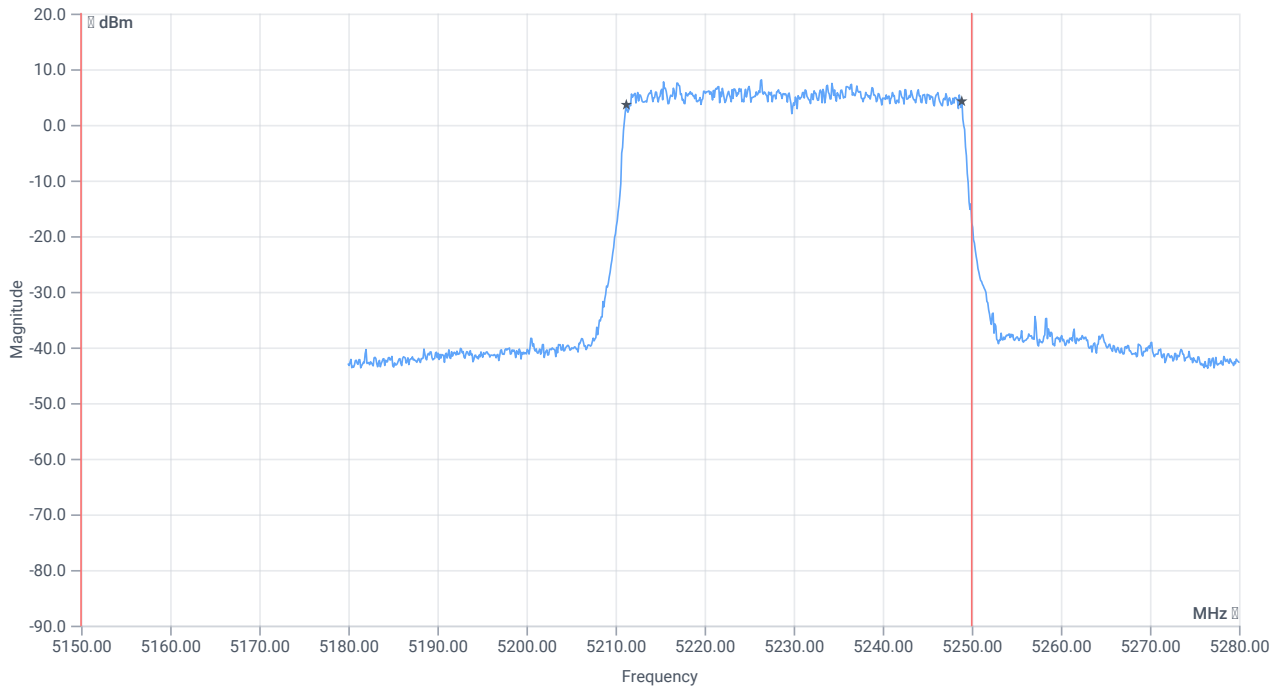
RESULT: Reference Power cond.

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	--	--	9.04	dBm	INFO
Ref. Frequency	--	--	5226.200	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	17.04 16.45 20
Start [MHz] Stop [MHz]	5180.000 5280.000
RBW [MHz] VBW [MHz]	0.500000 3.000000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	1 2500 1001 SWE

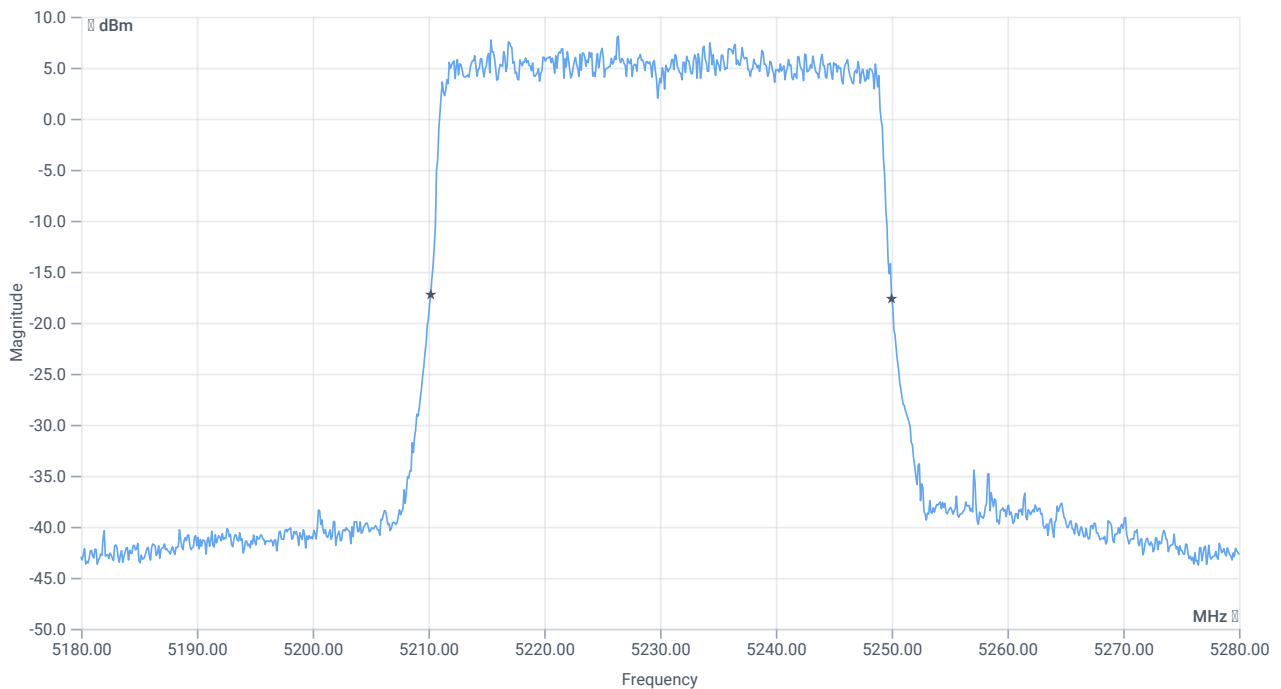




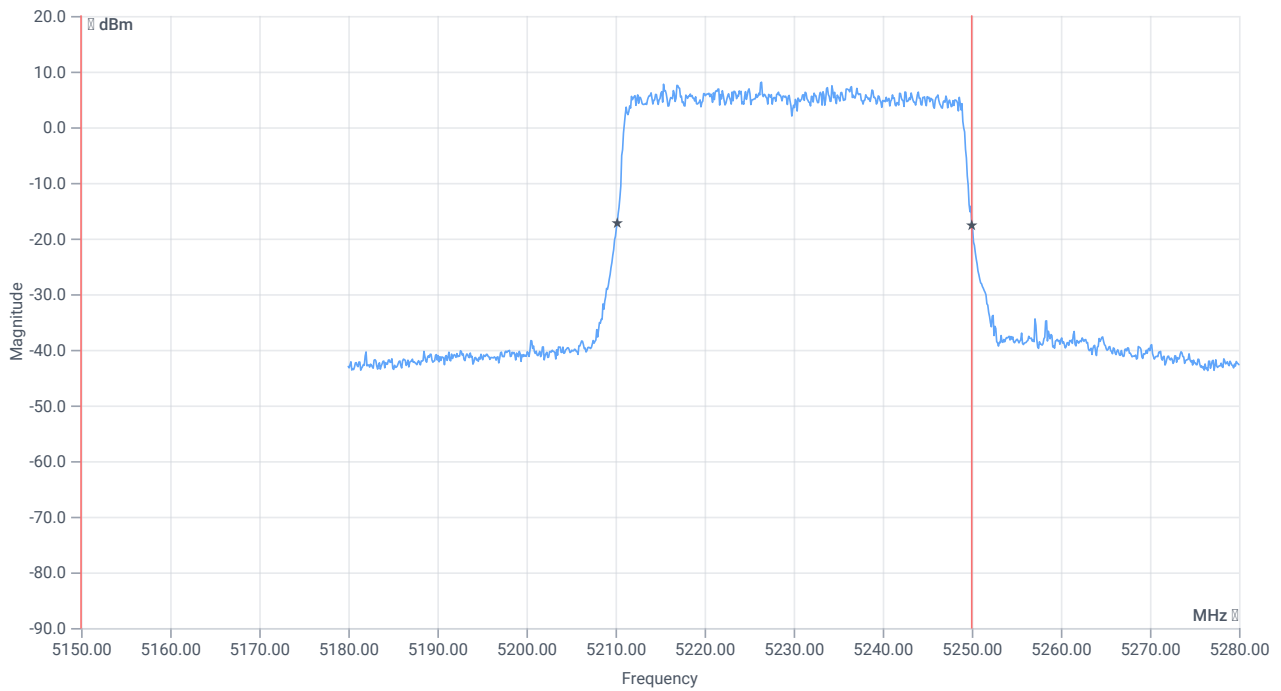
BW within Band 99PCT

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 99%	--	--	37.662	MHz	INFO
T1 99%	5150.000000	--	5211.2188	MHz	PASS
T2 99%	--	5250.000000	5248.8811	MHz	PASS



BW 26dB



BW within Band 26dB

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 26dB	--	--	39.8	MHz	INFO
T1 26dB	5150.000000	--	5210.2000	MHz	PASS
T2 26dB	--	5250.000000	5250.0000	MHz	DFS required

Verdict

PASS

FCC 15.247 # Max output power and psd ~ WLAN5Gx ax-HE40 U-NII-1

Test References

TC Start	13.02.2023 13:49:14
Ambit Temp [°C] Humidity [rel%]	23.0 30
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 ax-HE40 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 ax-HE40
Antenna Port used	2
Temperature	nom
Voltage	nom
Frequency low to test	False Freq [MHz] 5190
Frequency mid to test	False Freq [MHz] 0
Frequency high to test	True Freq [MHz] 5230
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 5230 MHz

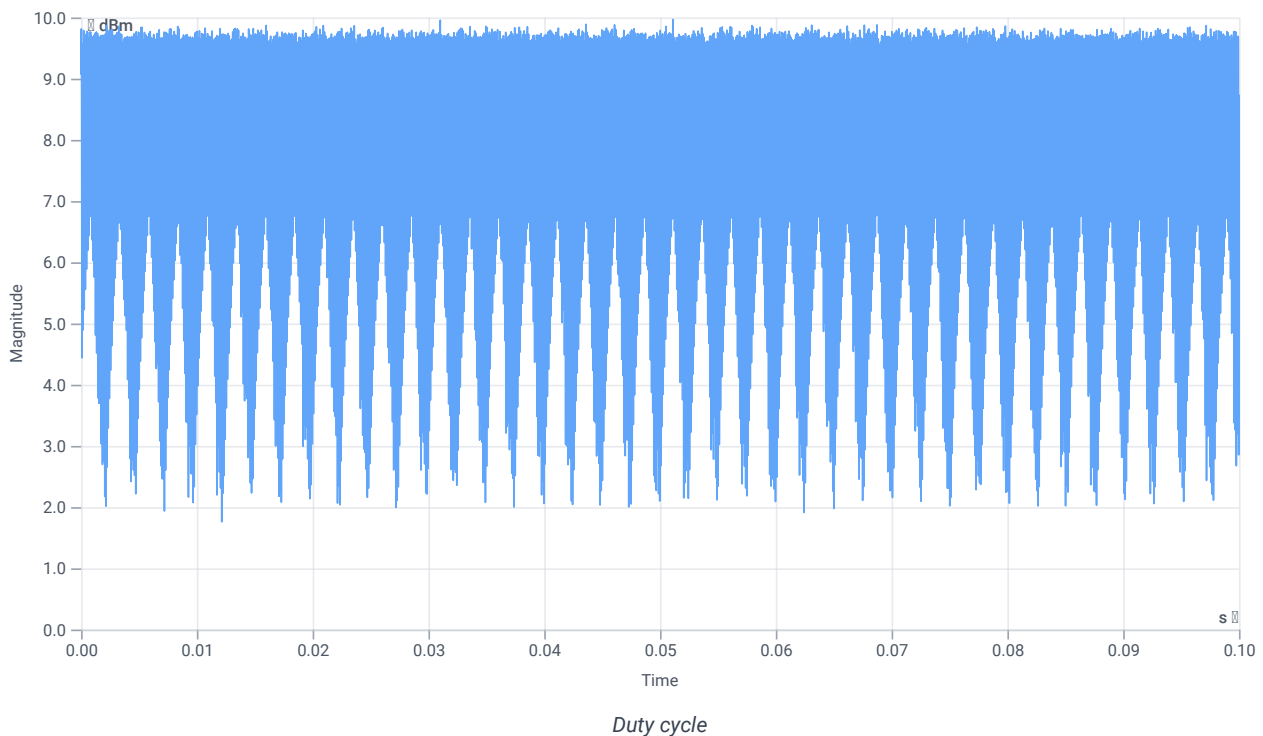
RESULT: Reference Power cond.

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	--	--	9.81	dBm	INFO
Ref. Frequency	--	--	5228.400	MHz	INFO

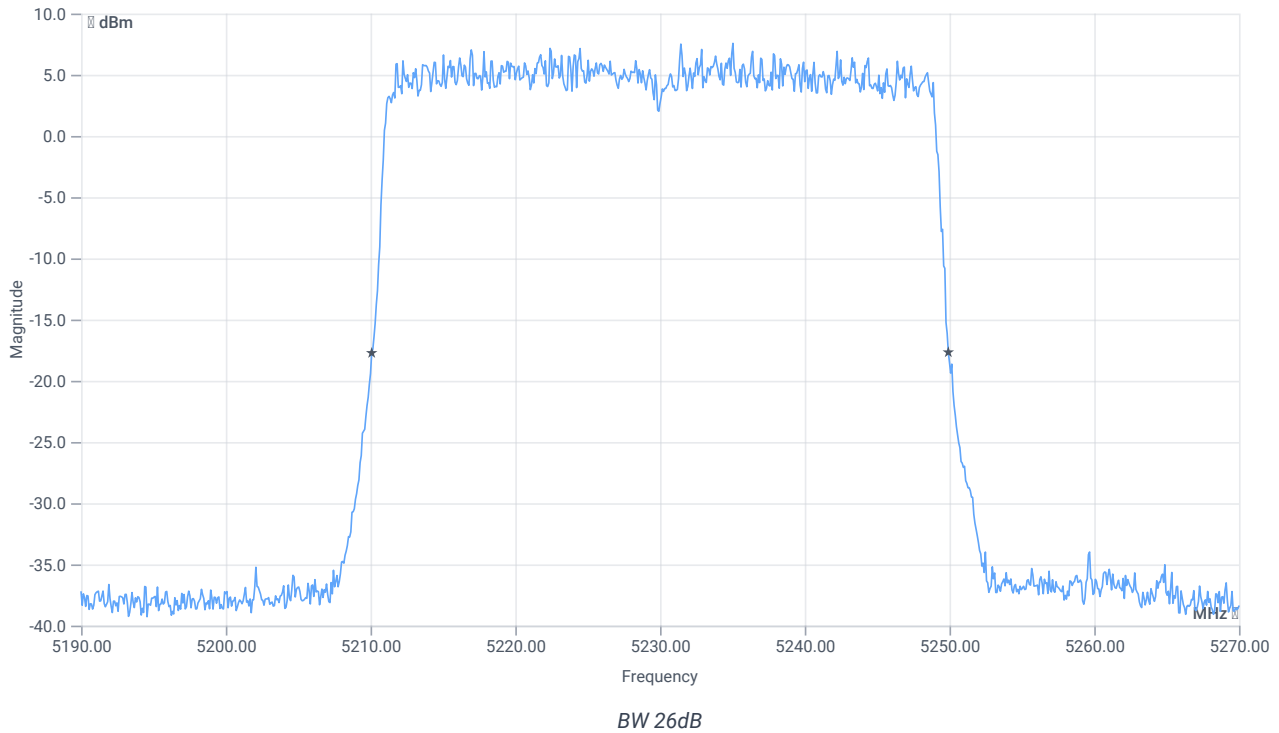
Evaluation max. Duty Cycle

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



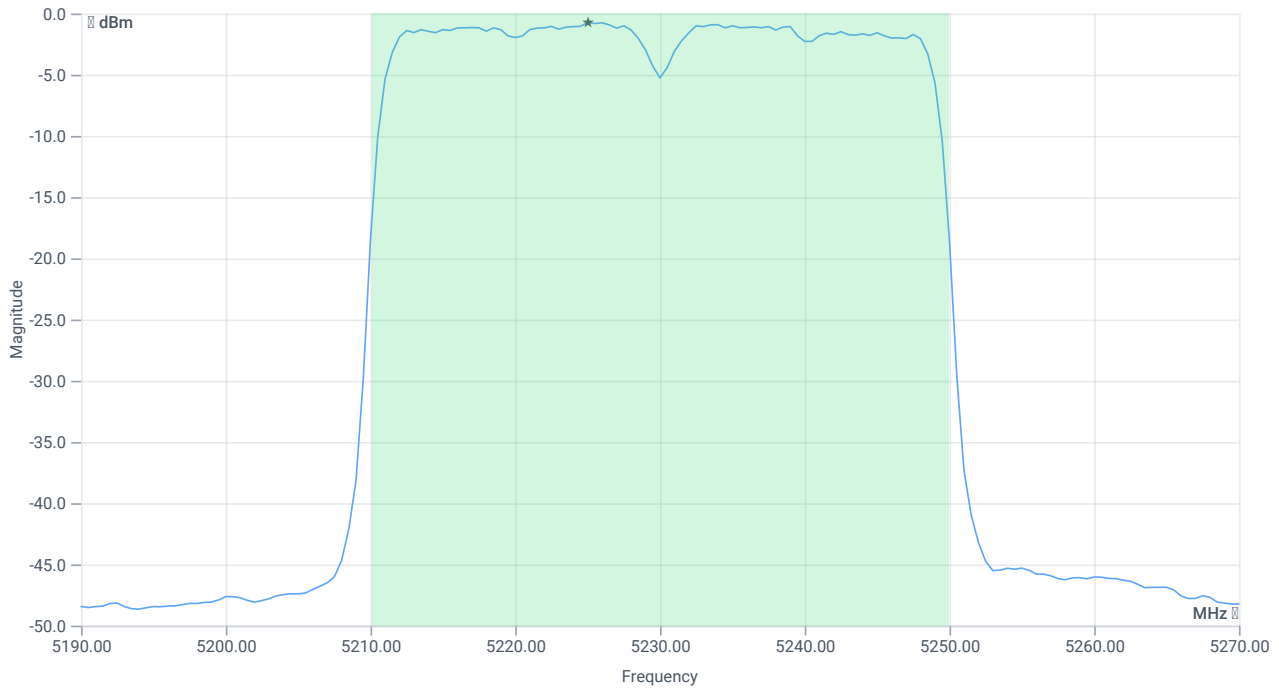
RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 26dB	---	---	39.84	MHz	INFO
T1 26dB	---	---	5210.0800	MHz	INFO
T2 26dB	---	---	5249.9200	MHz	INFO

Maximum Output Power

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	21.81 16.45 20
Start [MHz] Stop [MHz]	5190.000 5270.000
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	--	--	13.93	dBm	INFO
Duty Cycle Correction	--	--	0	dB	INFO
Limit absolute					
Max Output Power DC corrected	--	24	13.93	dBm	PASS
Limit: 11 dBm + 10 log 39.84					
Max Output Power DC corrected	--	27	13.93	dBm	na

Power Spectral Density

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Power Spectral Density	--	--	-0.73	dBm/1MHz	INFO
Duty Cycle Correction	--	--	0	dB	INFO
Power Spectral Density DC corrected	--	11	-0.73	dBm/1MHz	PASS

Verdict

PASS

FCC 15.407, ISED RSS247 # Bandwidths 99PCT and 26dB ~ WLAN5Gx ax-HE40 U-NII-1

Test References

TC Start	13.02.2023 13:48:38
Ambit Temp [°C] Humidity [rel%]	23.0 30
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 ax-HE40 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 ax-HE40
Antenna Port used	1
Temperature	nom
Voltage	nom
Frequency low to test	False Freq [MHz] 5190
Frequency mid to test	False Freq [MHz] 0
Frequency high to test	True Freq [MHz] 5230
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

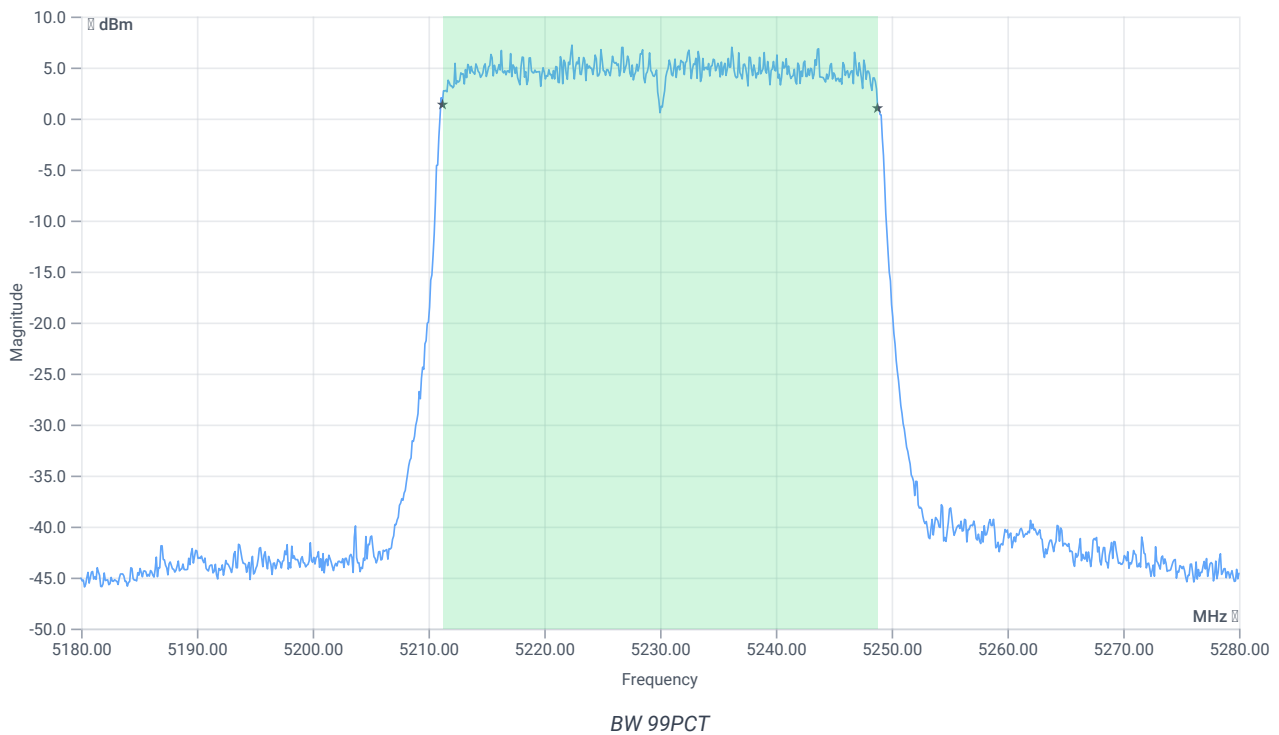
Test at TX 5230 MHz

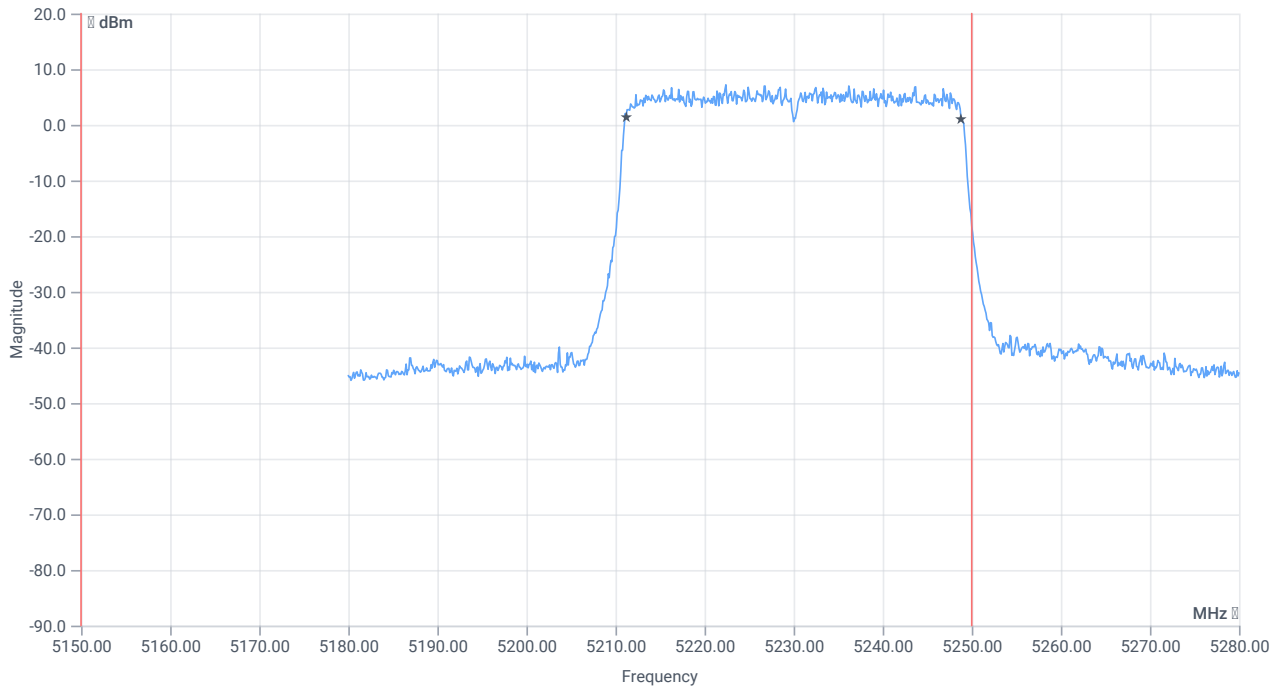
RESULT: Reference Power cond.

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	--	--	8.29	dBm	INFO
Ref. Frequency	--	--	5216.410	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	16.29 16.45 15
Start [MHz] Stop [MHz]	5180.000 5280.000
RBW [MHz] VBW [MHz]	0.500000 3.000000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	1 2500 1001 SWE





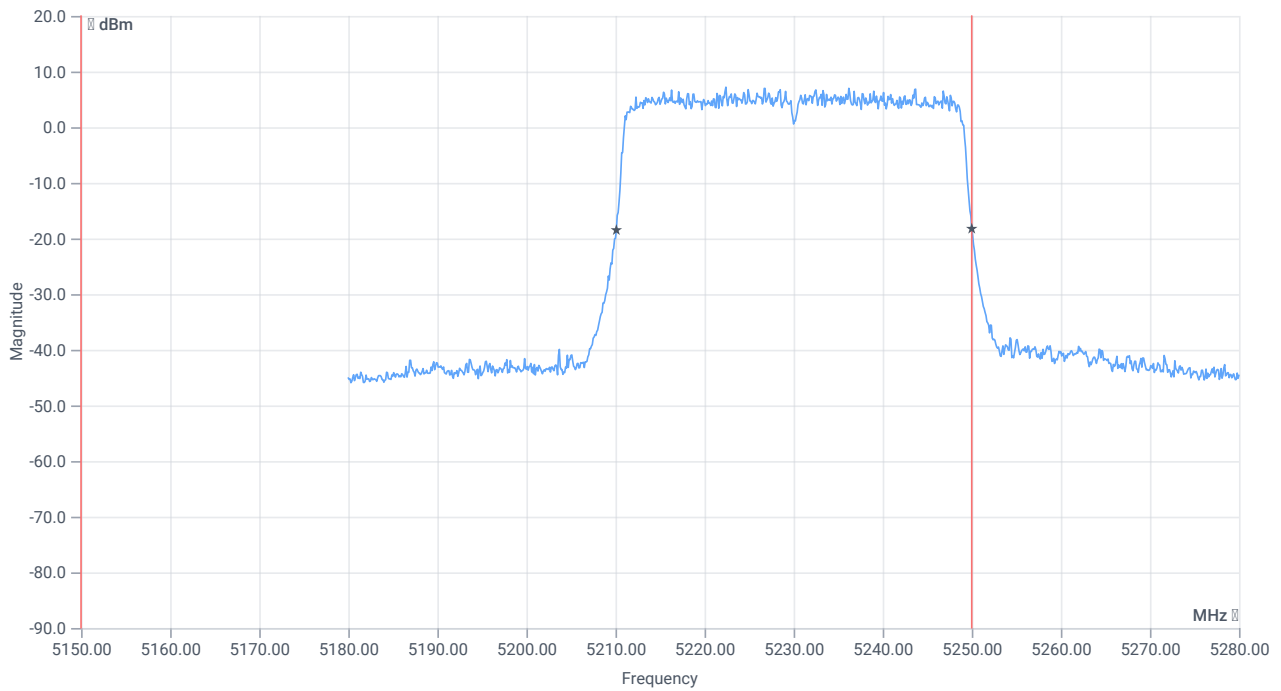
BW within Band 99PCT

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 99%	--	--	37.562	MHz	INFO
T1 99%	5150.000000	--	5211.2188	MHz	PASS
T2 99%	--	5250.000000	5248.7812	MHz	PASS



BW 26dB



BW within Band 26dB

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 26dB	--	--	39.9	MHz	INFO
T1 26dB	5150.000000	--	5210.1000	MHz	PASS
T2 26dB	--	5250.000000	5250.0000	MHz	DFS required

Verdict

PASS

FCC 15.247 # Max output power and psd ~ WLAN5Gx ax-HE40 U-NII-1

Test References

TC Start	13.02.2023 13:47:07
Ambit Temp [°C] Humidity [rel%]	23.0 30
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 ax-HE40 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 ax-HE40
Antenna Port used	1
Temperature	nom
Voltage	nom
Frequency low to test	False Freq [MHz] 5190
Frequency mid to test	False Freq [MHz] 0
Frequency high to test	True Freq [MHz] 5230
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 5230 MHz

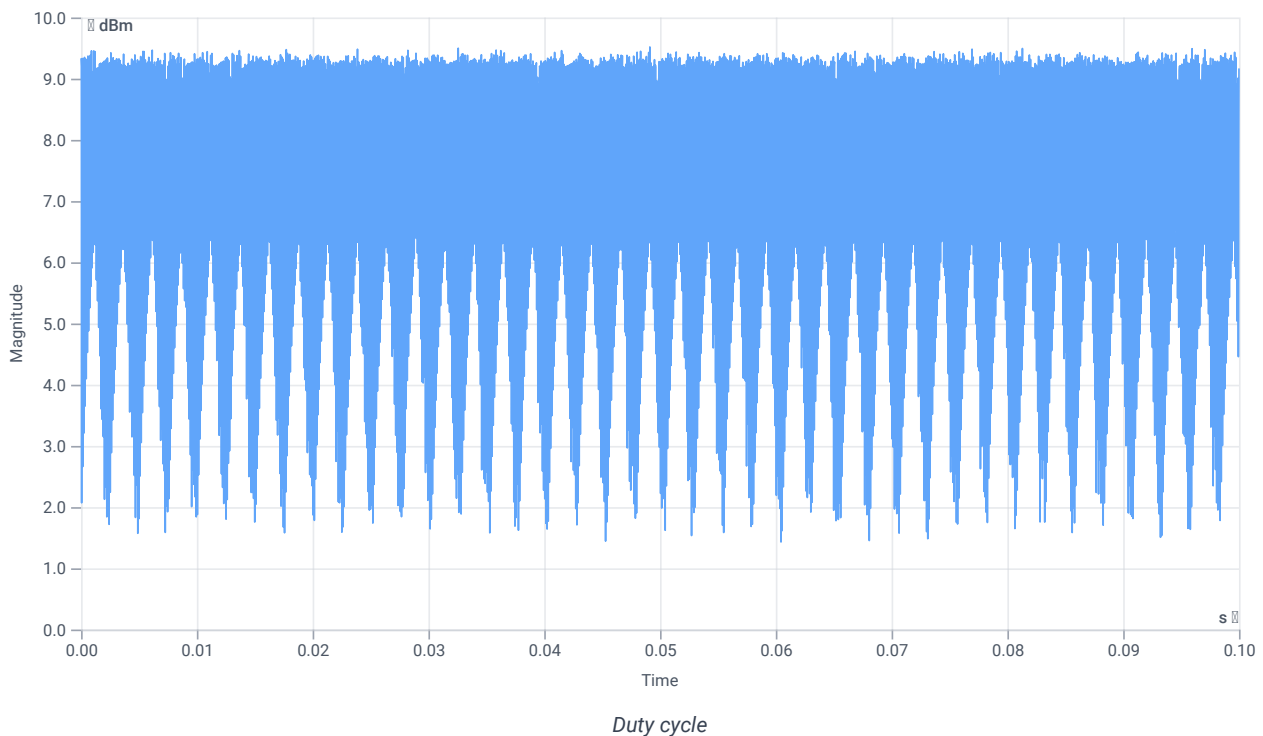
RESULT: Reference Power cond.

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	--	--	9.55	dBm	INFO
Ref. Frequency	--	--	5239.190	MHz	INFO

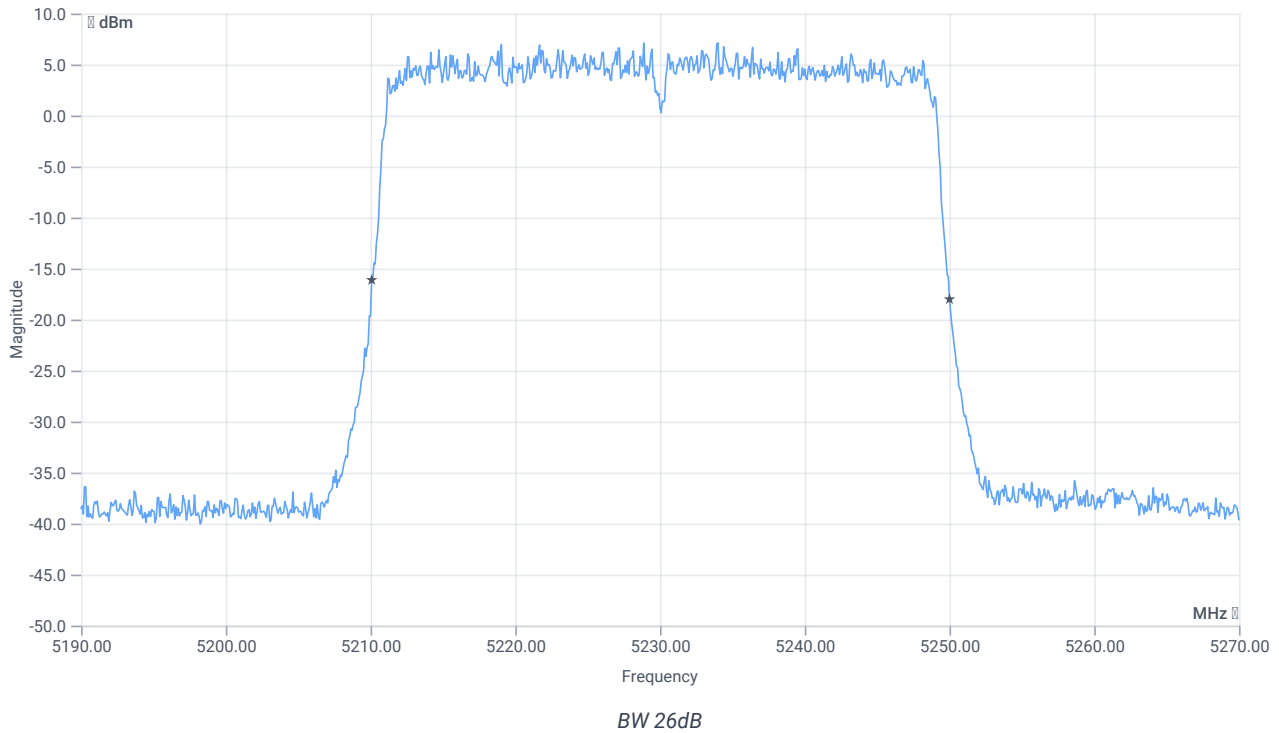
Evaluation max. Duty Cycle

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



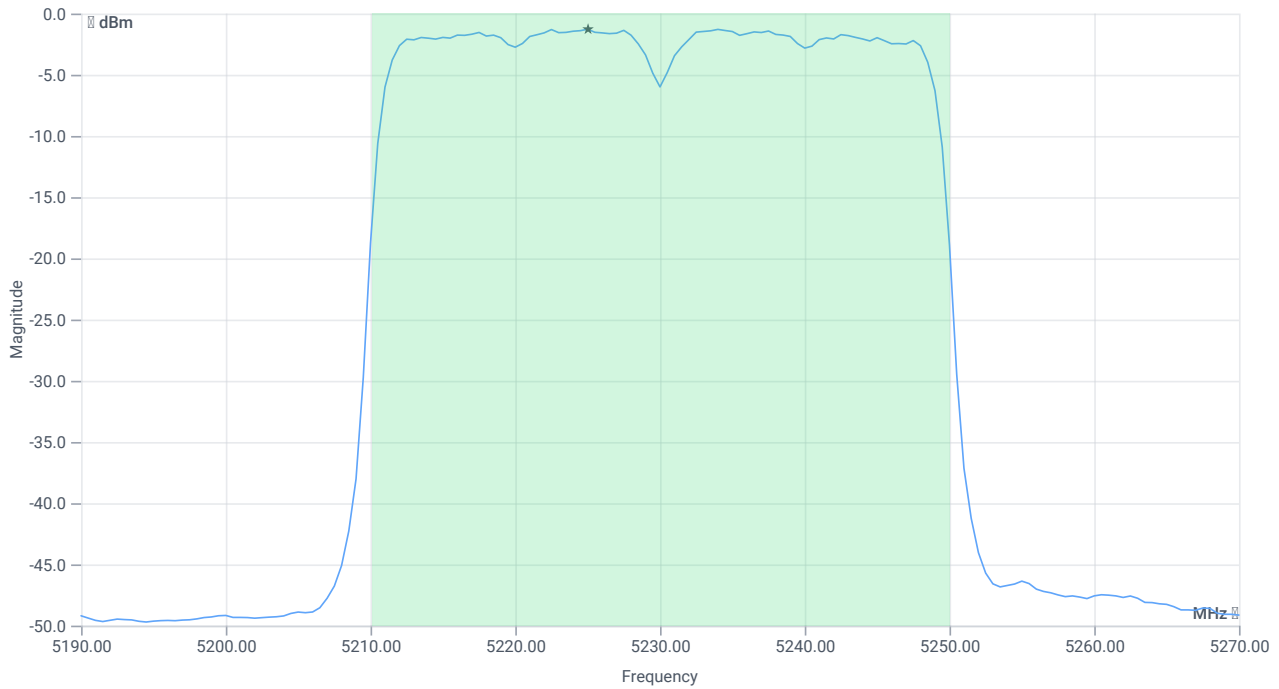
RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 26dB	---	---	39.92	MHz	INFO
T1 26dB	---	---	5210.0800	MHz	INFO
T2 26dB	---	---	5250.0000	MHz	INFO

Maximum Output Power

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	21.55 16.45 20
Start [MHz] Stop [MHz]	5190.000 5270.000
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	--	--	13.44	dBm	INFO
Duty Cycle Correction	--	--	0	dB	INFO
Limit absolute					
Max Output Power DC corrected	--	24	13.44	dBm	PASS
Limit: 11 dBm + 10 log 39.92					
Max Output Power DC corrected	--	27.01	13.44	dBm	na

Power Spectral Density

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Power Spectral Density	--	--	-1.28	dBm/1MHz	INFO
Duty Cycle Correction	--	--	0	dB	INFO
Power Spectral Density DC corrected	--	11	-1.28	dBm/1MHz	PASS

Verdict

PASS

FCC 15.247 # MIMO Power PSD Calculator ~ WLAN5Gx ax-HE40 U-NII-1

Test References

TC Start	13.02.2023 13:20:04
Ambit Temp [°C] Humidity [rel%]	23.1 30
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 ax-HE40 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 ax-HE40
Antenna Port used	several
Temperature	nom
Voltage	nom
Frequency low to test	True Freq [MHz] 5190
Frequency mid to test	False Freq [MHz] 0
Frequency high to test	False Freq [MHz] 5230
Auto Control enabled Power Supply Climatic Box	No No
Additional Path Loss [dB]	1.4
Switched Path	None

Test Equipment

Test at TX 5190 MHz

RESULT Power

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ant:1 Max Output Power DC corrected	--	--	13.9	dBm	INFO
Ant:1 BW 26dB	--	--	39.920	MHz	INFO
Ant:2 Max Output Power DC corrected	--	--	14.15	dBm	INFO
Ant:2 BW 26dB	--	--	39.760	MHz	INFO
∑ Limit absolute	--	24	17.04	dBm	PASS
∑ Limit: 11 dBm + 10 log 39.76	--	26.99	17.04	dBm	na

RESULT PSD

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ant:1 PSD	--	--	-0.81	dBm/1MHz	INFO
Ant:2 PSD	--	--	-0.56	dBm/1MHz	INFO
∑	--	11	2.33	dBm/1MHz	PASS

Verdict

PASS

FCC 15.407, ISED RSS247 # Bandwidths 99PCT and 26dB ~ WLAN5Gx ax-HE40 U-NII-1

Test References

TC Start	13.02.2023 13:19:28
Ambit Temp [°C] Humidity [rel%]	23.1 30
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 ax-HE40 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 ax-HE40
Antenna Port used	2
Temperature	nom
Voltage	nom
Frequency low to test	True Freq [MHz] 5190
Frequency mid to test	False Freq [MHz] 0
Frequency high to test	False Freq [MHz] 5230
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

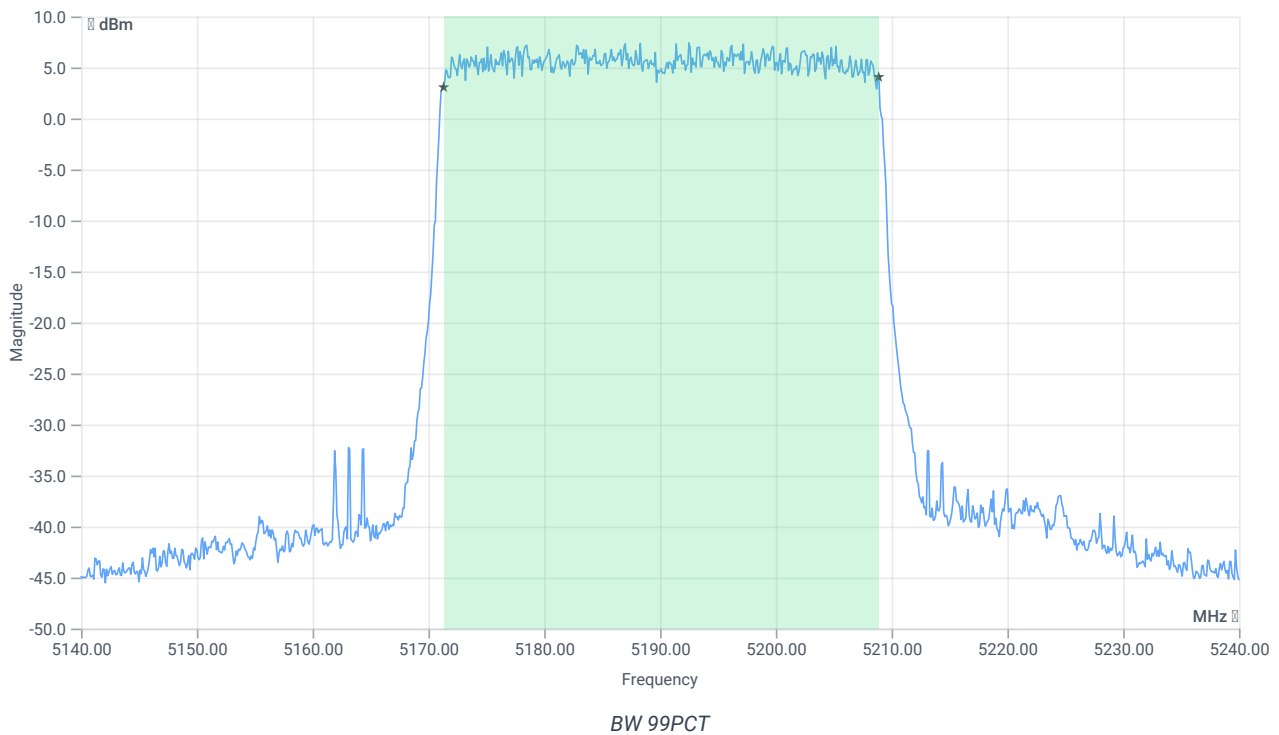
Test at TX 5190 MHz

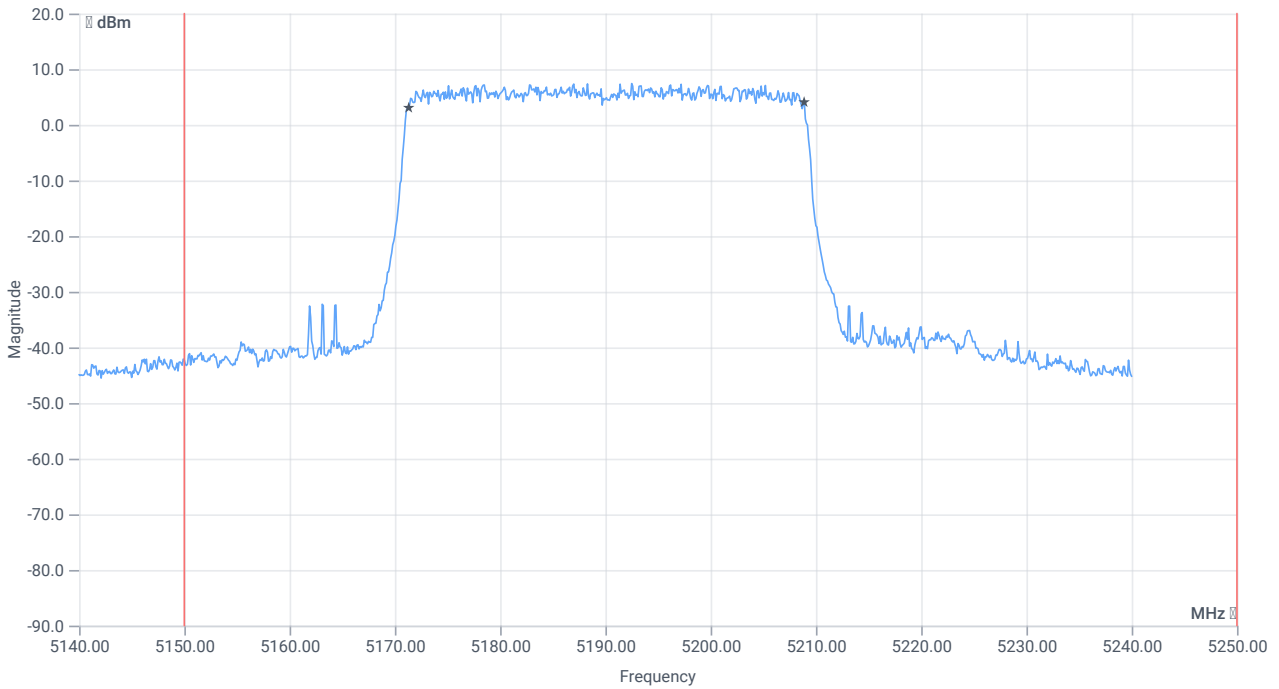
RESULT: Reference Power cond.

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	--	--	8.31	dBm	INFO
Ref. Frequency	--	--	5195.590	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	16.31 16.45 15
Start [MHz] Stop [MHz]	5140.000 5240.000
RBW [MHz] VBW [MHz]	0.500000 3.000000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	1 2500 1001 SWE

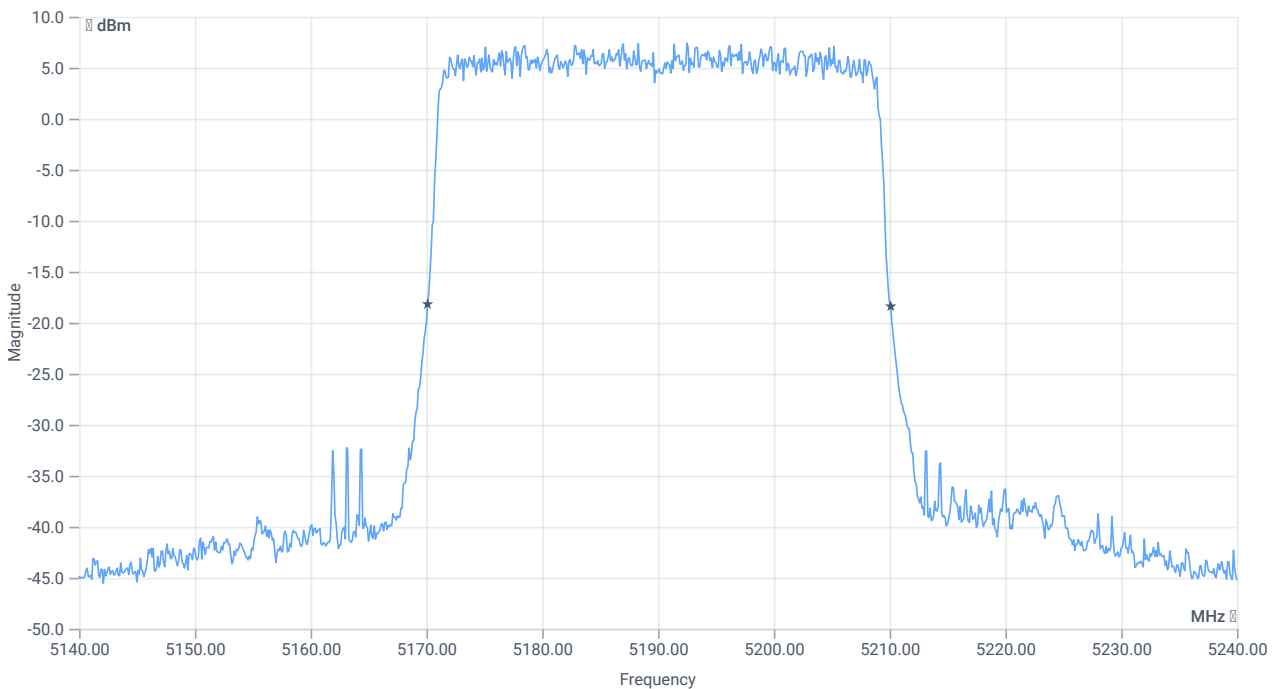




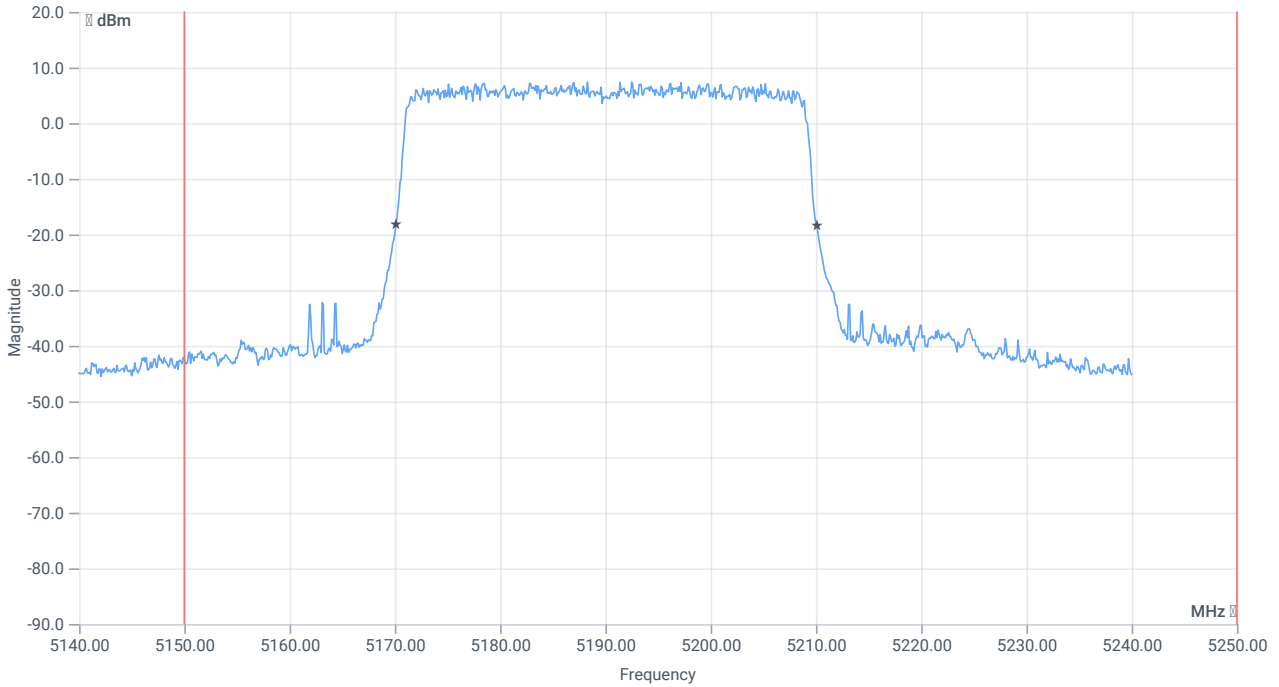
BW within Band 99PCT

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 99%	--	--	37.562	MHz	INFO
T1 99%	5150.000000	--	5171.3187	MHz	PASS
T2 99%	--	5250.000000	5208.8811	MHz	PASS



BW 26dB



BW within Band 26dB

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 26dB	---	---	40	MHz	INFO
T1 26dB	5150.000000	---	5170.1000	MHz	PASS
T2 26dB	---	5250.000000	5210.1000	MHz	PASS

Verdict

PASS

FCC 15.247 # Max output power and psd ~ WLAN5Gx ax-HE40 U-NII-1

Test References

TC Start	13.02.2023 13:17:57
Ambit Temp [°C] Humidity [rel%]	23.1 30
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 ax-HE40 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 ax-HE40
Antenna Port used	2
Temperature	nom
Voltage	nom
Frequency low to test	True Freq [MHz] 5190
Frequency mid to test	False Freq [MHz] 0
Frequency high to test	False Freq [MHz] 5230
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 5190 MHz

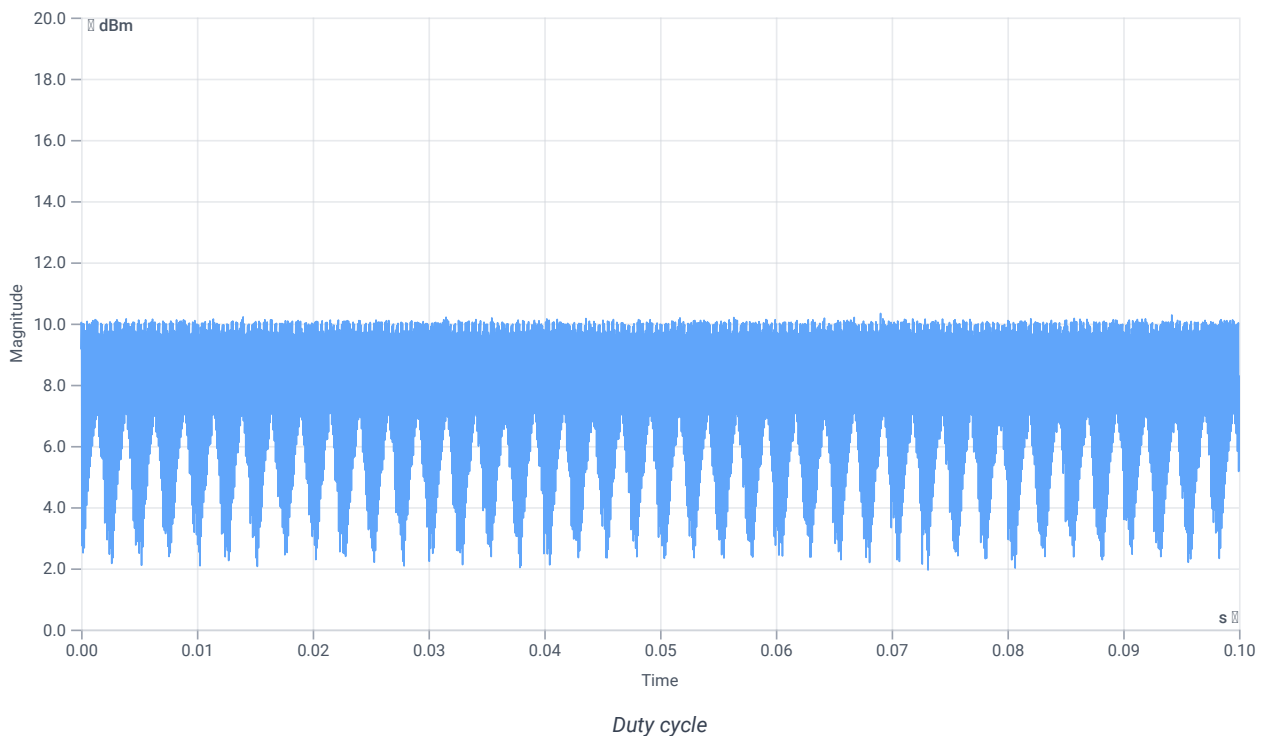
RESULT: Reference Power cond.

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	--	--	9.68	dBm	INFO
Ref. Frequency	--	--	5185.600	MHz	INFO

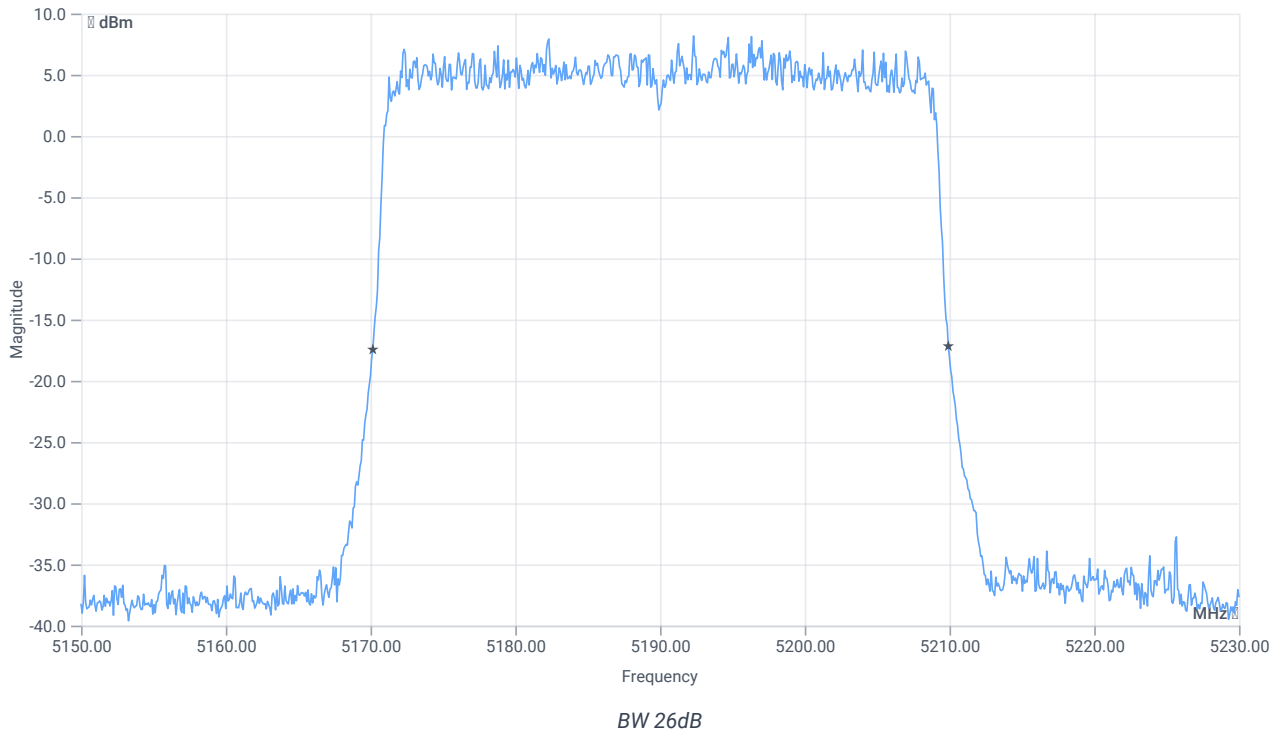
Evaluation max. Duty Cycle

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



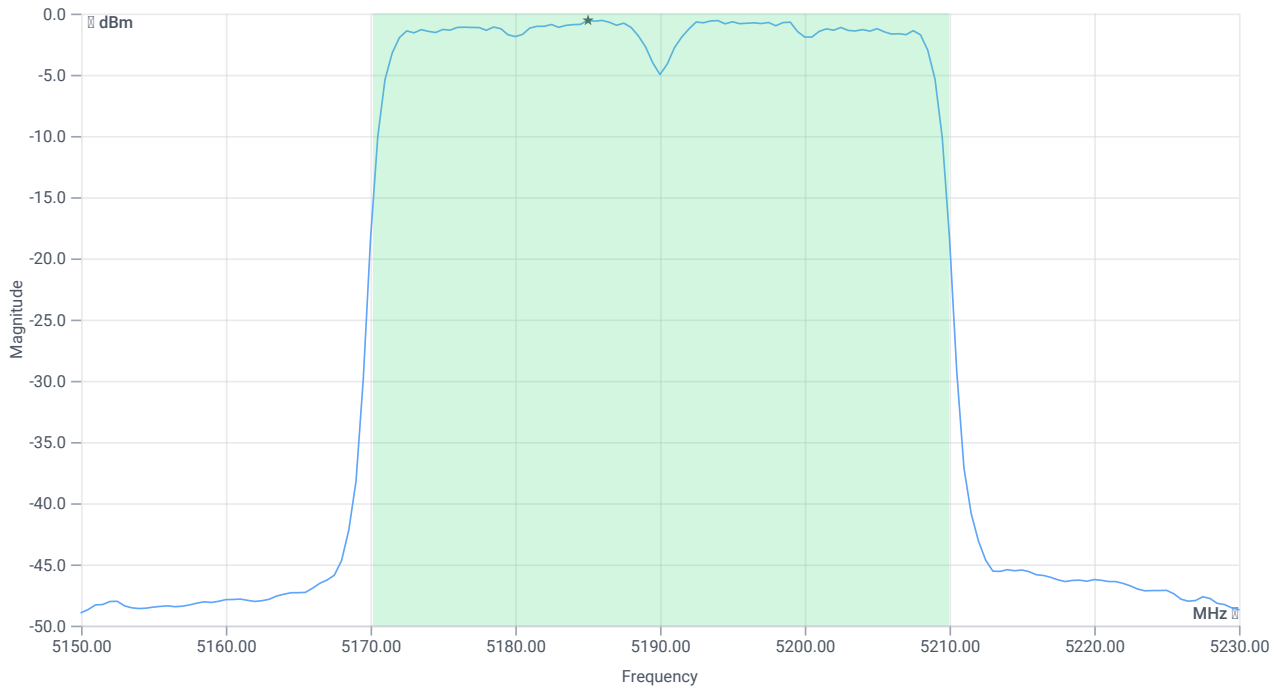
RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 26dB	---	---	39.76	MHz	INFO
T1 26dB	---	---	5170.1600	MHz	INFO
T2 26dB	---	---	5209.9200	MHz	INFO

Maximum Output Power

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	21.68 16.45 20
Start [MHz] Stop [MHz]	5150.000 5230.000
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	--	--	14.15	dBm	INFO
Duty Cycle Correction	--	--	0	dB	INFO
Limit absolute					
Max Output Power DC corrected	--	24	14.15	dBm	PASS
Limit: 11 dBm + 10 log 39.76					
Max Output Power DC corrected	--	26.99	14.15	dBm	na

Power Spectral Density

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Power Spectral Density	--	--	-0.56	dBm/1MHz	INFO
Duty Cycle Correction	--	--	0	dB	INFO
Power Spectral Density DC corrected	--	11	-0.56	dBm/1MHz	PASS

Verdict

PASS

FCC 15.407, ISED RSS247 # Bandwidths 99PCT and 26dB ~ WLAN5Gx ax-HE40 U-NII-1

Test References

TC Start	13.02.2023 13:17:21
Ambit Temp [°C] Humidity [rel%]	23.1 30
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 ax-HE40 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 ax-HE40
Antenna Port used	1
Temperature	nom
Voltage	nom
Frequency low to test	True Freq [MHz] 5190
Frequency mid to test	False Freq [MHz] 0
Frequency high to test	False Freq [MHz] 5230
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

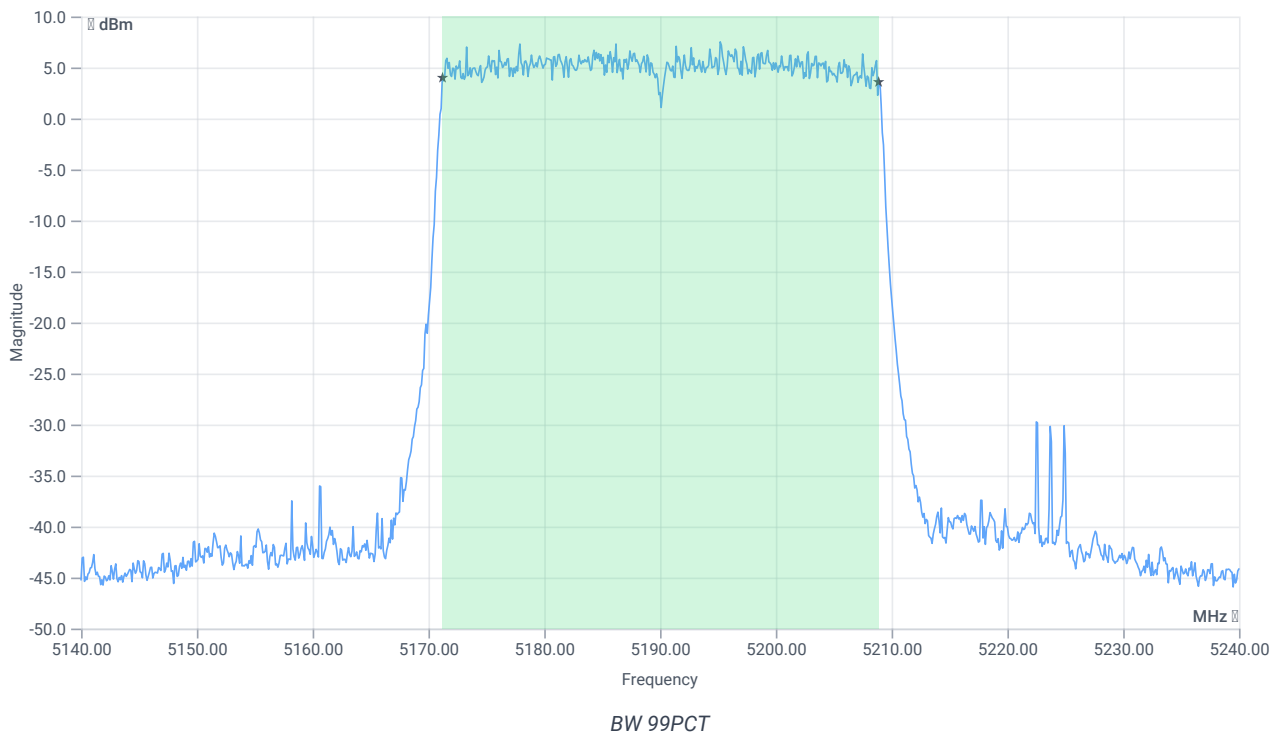
Test at TX 5190 MHz

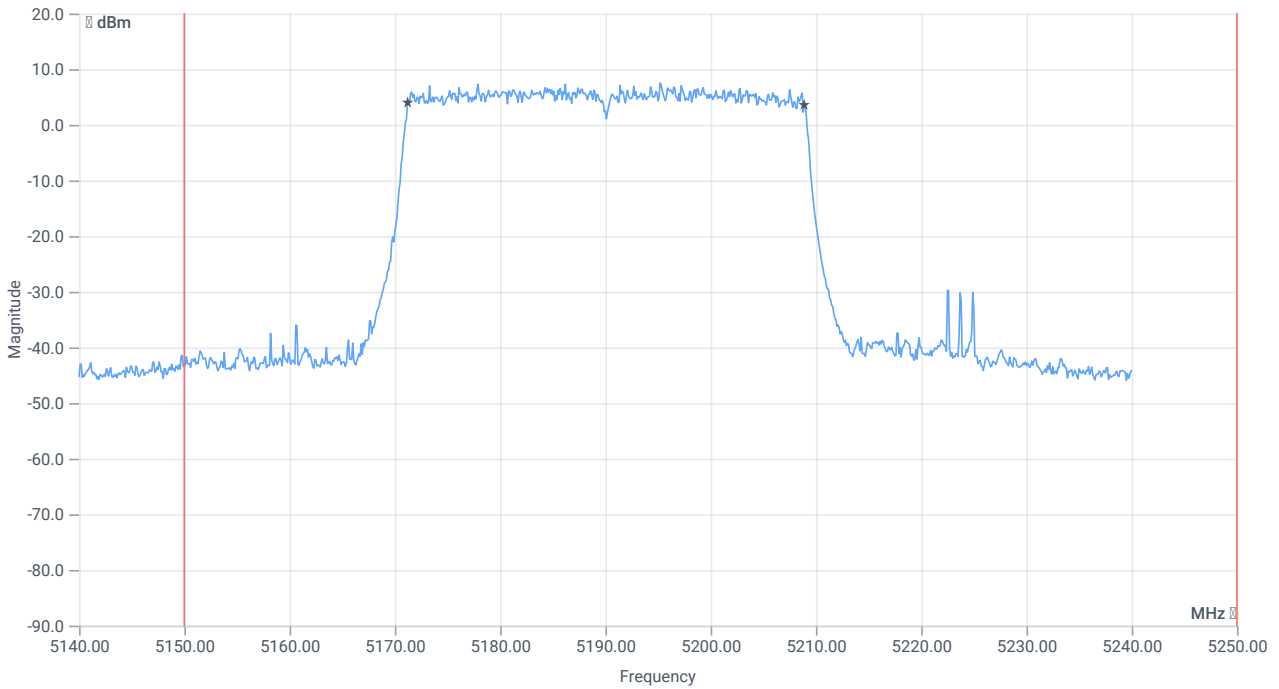
RESULT: Reference Power cond.

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	--	--	8.41	dBm	INFO
Ref. Frequency	--	--	5182.810	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	16.41 16.45 15
Start [MHz] Stop [MHz]	5140.000 5240.000
RBW [MHz] VBW [MHz]	0.500000 3.000000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	1 2500 1001 SWE

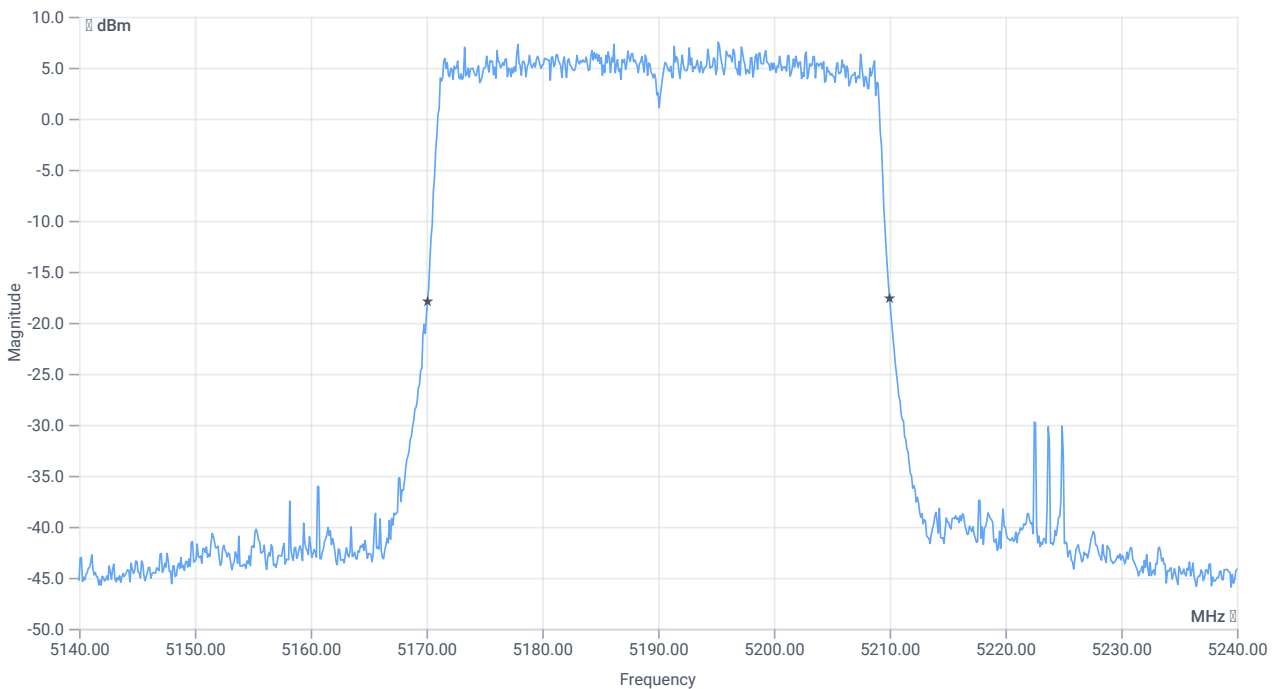




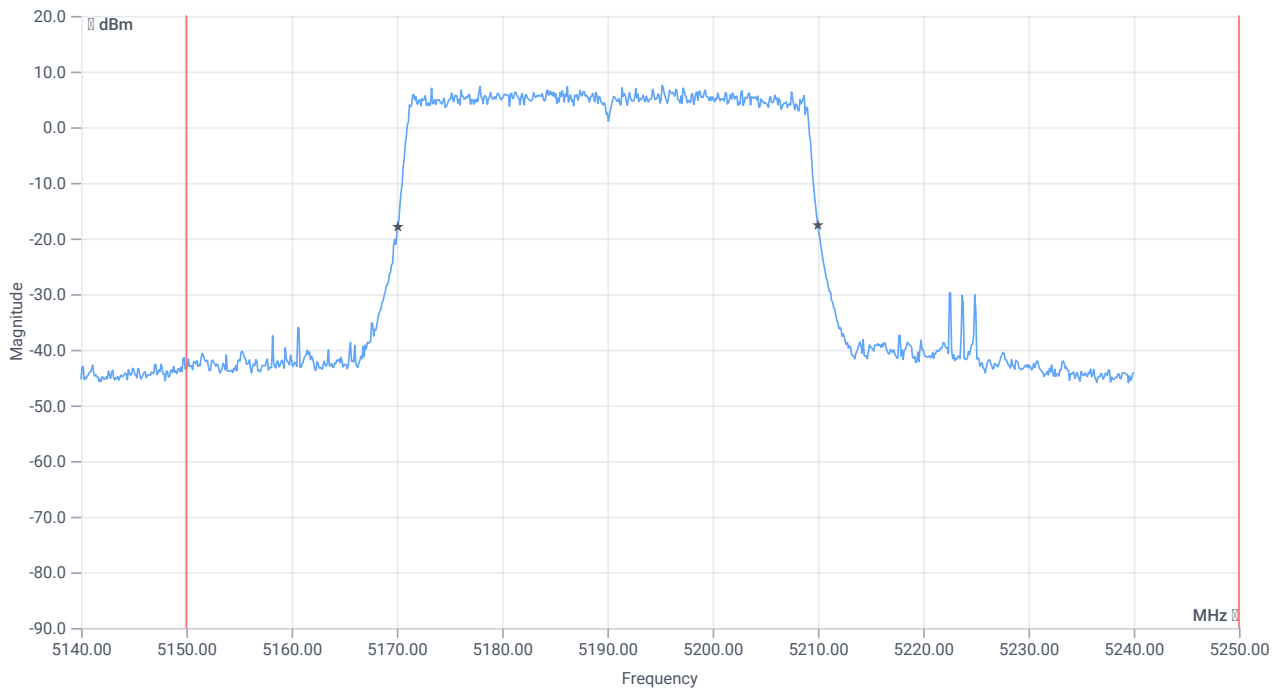
BW within Band 99PCT

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 99%	--	--	37.662	MHz	INFO
T1 99%	5150.000000	--	5171.2188	MHz	PASS
T2 99%	--	5250.000000	5208.8811	MHz	PASS



BW 26dB



BW within Band 26dB

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 26dB	---	---	39.9	MHz	INFO
T1 26dB	5150.000000	---	5170.1000	MHz	PASS
T2 26dB	---	5250.000000	5210.0000	MHz	PASS

Verdict

PASS

FCC 15.247 # Max output power and psd ~ WLAN5Gx ax-HE40 U-NII-1

Test References

TC Start	13.02.2023 13:15:50
Ambit Temp [°C] Humidity [rel%]	23.1 30
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 ax-HE40 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 ax-HE40
Antenna Port used	1
Temperature	nom
Voltage	nom
Frequency low to test	True Freq [MHz] 5190
Frequency mid to test	False Freq [MHz] 0
Frequency high to test	False Freq [MHz] 5230
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 5190 MHz

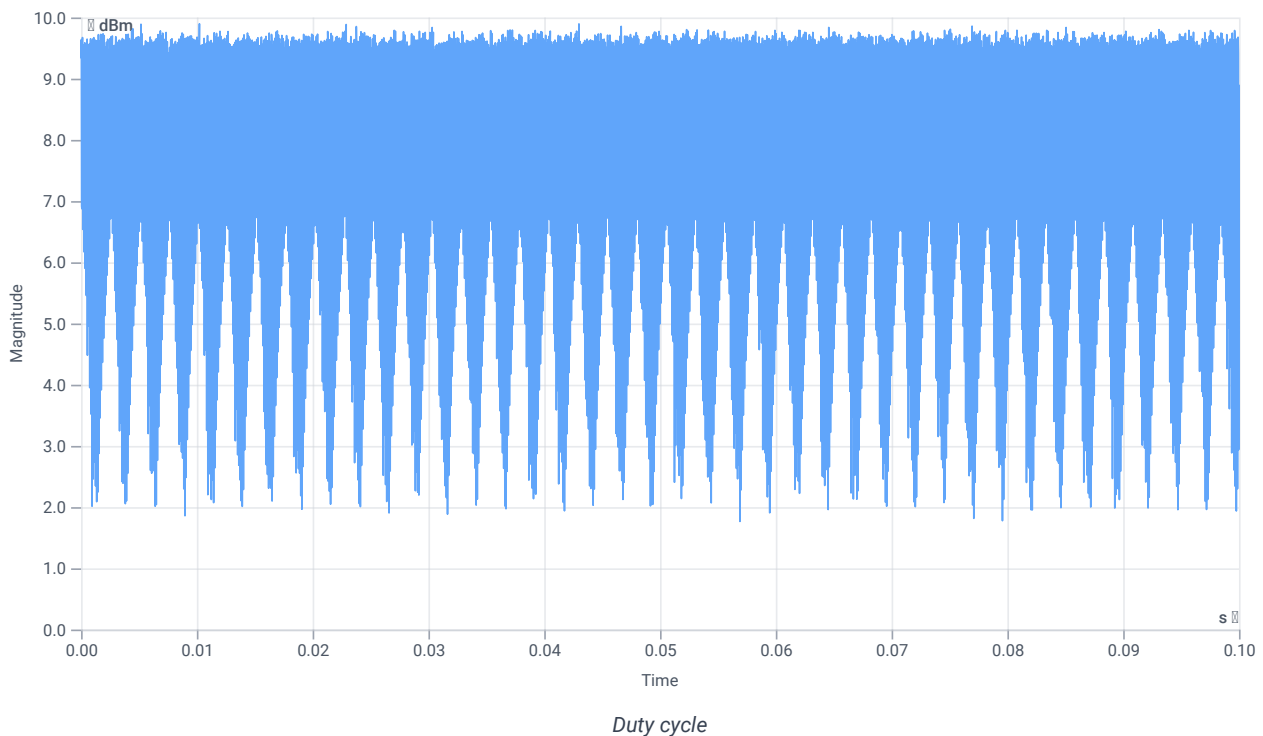
RESULT: Reference Power cond.

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	--	--	9.20	dBm	INFO
Ref. Frequency	--	--	5173.620	MHz	INFO

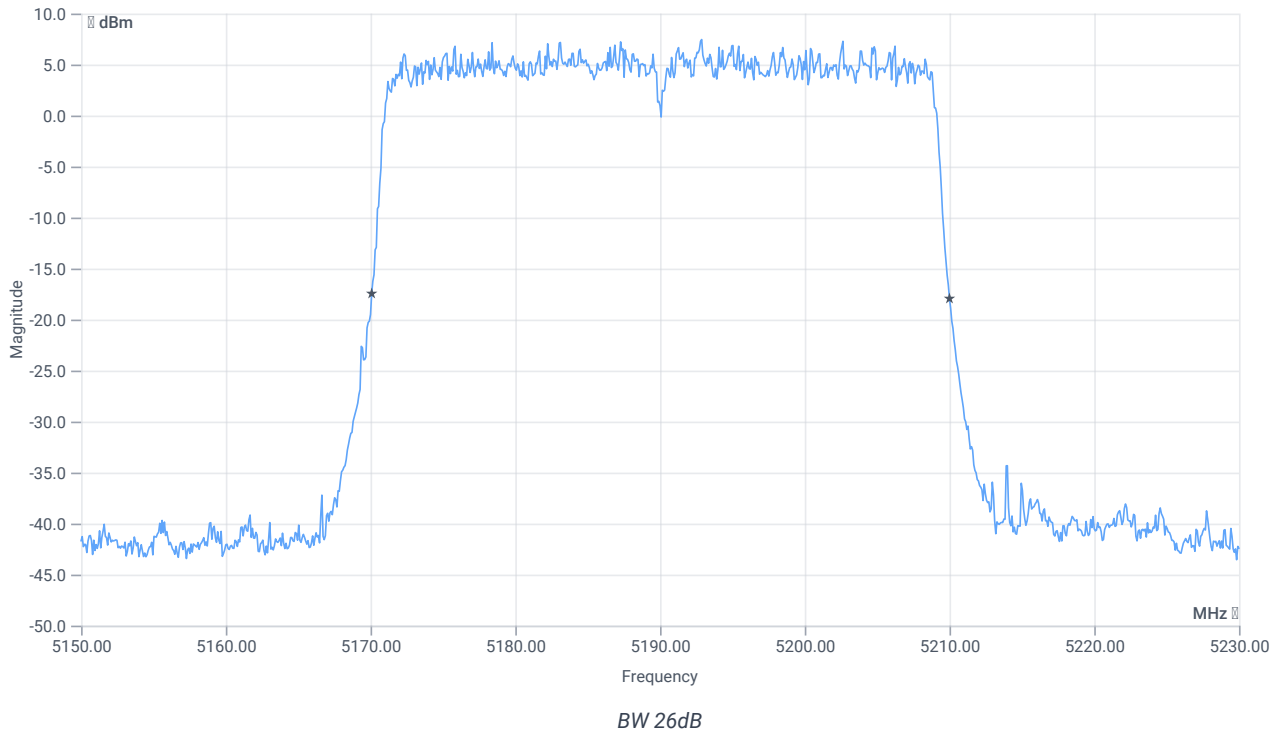
Evaluation max. Duty Cycle

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



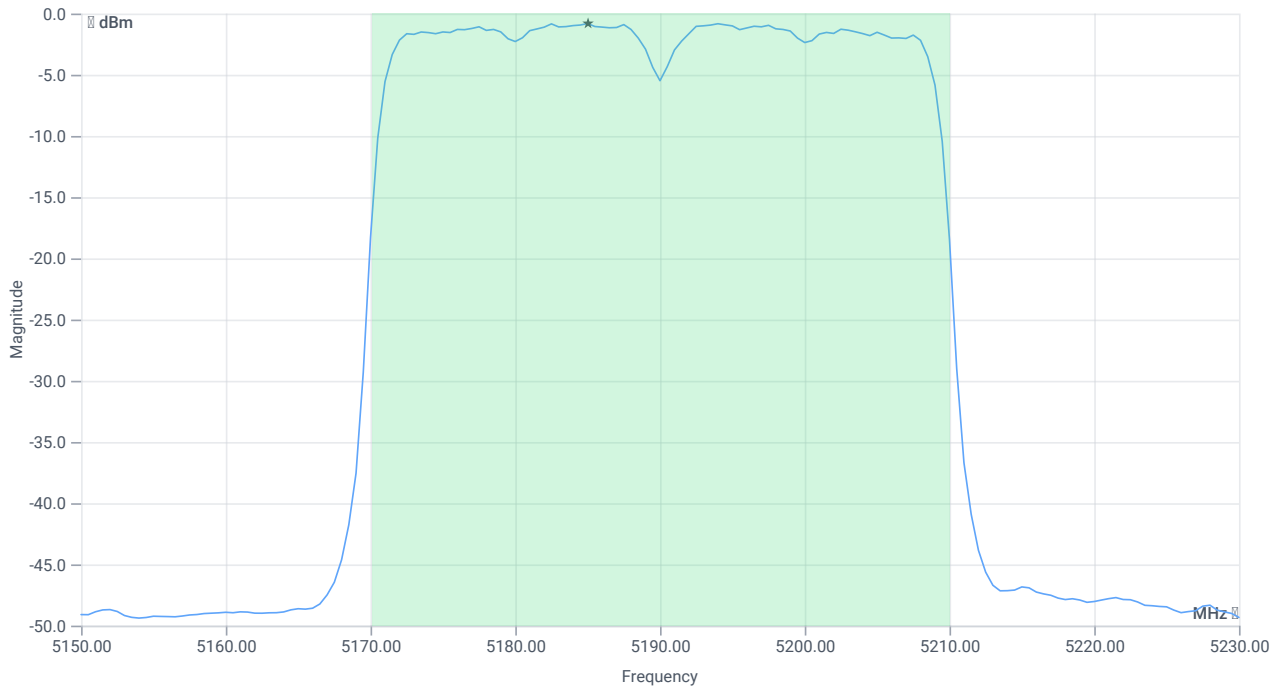
RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 26dB	---	---	39.92	MHz	INFO
T1 26dB	---	---	5170.0800	MHz	INFO
T2 26dB	---	---	5210.0000	MHz	INFO

Maximum Output Power

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	21.20 16.45 20
Start [MHz] Stop [MHz]	5150.000 5230.000
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	--	--	13.9	dBm	INFO
Duty Cycle Correction	--	--	0	dB	INFO
Limit absolute					
Max Output Power DC corrected	--	24	13.9	dBm	PASS
Limit: 11 dBm + 10 log 39.92					
Max Output Power DC corrected	--	27.01	13.9	dBm	na

Power Spectral Density

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Power Spectral Density	--	--	-0.81	dBm/1MHz	INFO
Duty Cycle Correction	--	--	0	dB	INFO
Power Spectral Density DC corrected	--	11	-0.81	dBm/1MHz	PASS

Verdict

PASS

FCC 15.247 # MIMO Power PSD Calculator ~ WLAN5Gx ax-HE40 U-NII-2C

Test References

TC Start	13.02.2023 14:12:02
Ambit Temp [°C] Humidity [rel%]	23.2 30
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 ax-HE40 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 ax-HE40
Antenna Port used	several
Temperature	nom
Voltage	nom
Frequency low to test	True Freq [MHz] 5510
Frequency mid to test	False Freq [MHz] 5590
Frequency high to test	False Freq [MHz] 5710
Auto Control enabled Power Supply Climatic Box	No No
Additional Path Loss [dB]	1.4
Switched Path	None

Test Equipment

Test at TX 5510 MHz

RESULT Power

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ant:1 Max Output Power DC corrected	--	--	16.37	dBm	INFO
Ant:1 BW 26dB	--	--	40.160	MHz	INFO
Ant:2 Max Output Power DC corrected	--	--	15.79	dBm	INFO
Ant:2 BW 26dB	--	--	40.000	MHz	INFO
Σ Limit absolute	--	24	19.1	dBm	PASS
Σ Limit: 11 dBm + 10 log 40	--	27.02	19.1	dBm	PASS

RESULT PSD

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ant:1 PSD	--	--	1.69	dBm/1MHz	INFO
Ant:2 PSD	--	--	1.2	dBm/1MHz	INFO
Σ	--	11	4.46	dBm/1MHz	PASS

Verdict

PASS

FCC 15.407, ISED RSS247 # Bandwidths 99PCT and 26dB ~ WLAN5Gx ax-HE40 U-NII-2C

Test References

TC Start	13.02.2023 14:11:32
Ambit Temp [°C] Humidity [rel%]	23.2 30
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 ax-HE40 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 ax-HE40
Antenna Port used	2
Temperature	nom
Voltage	nom
Frequency low to test	True Freq [MHz] 5510
Frequency mid to test	False Freq [MHz] 5590
Frequency high to test	False Freq [MHz] 5710
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

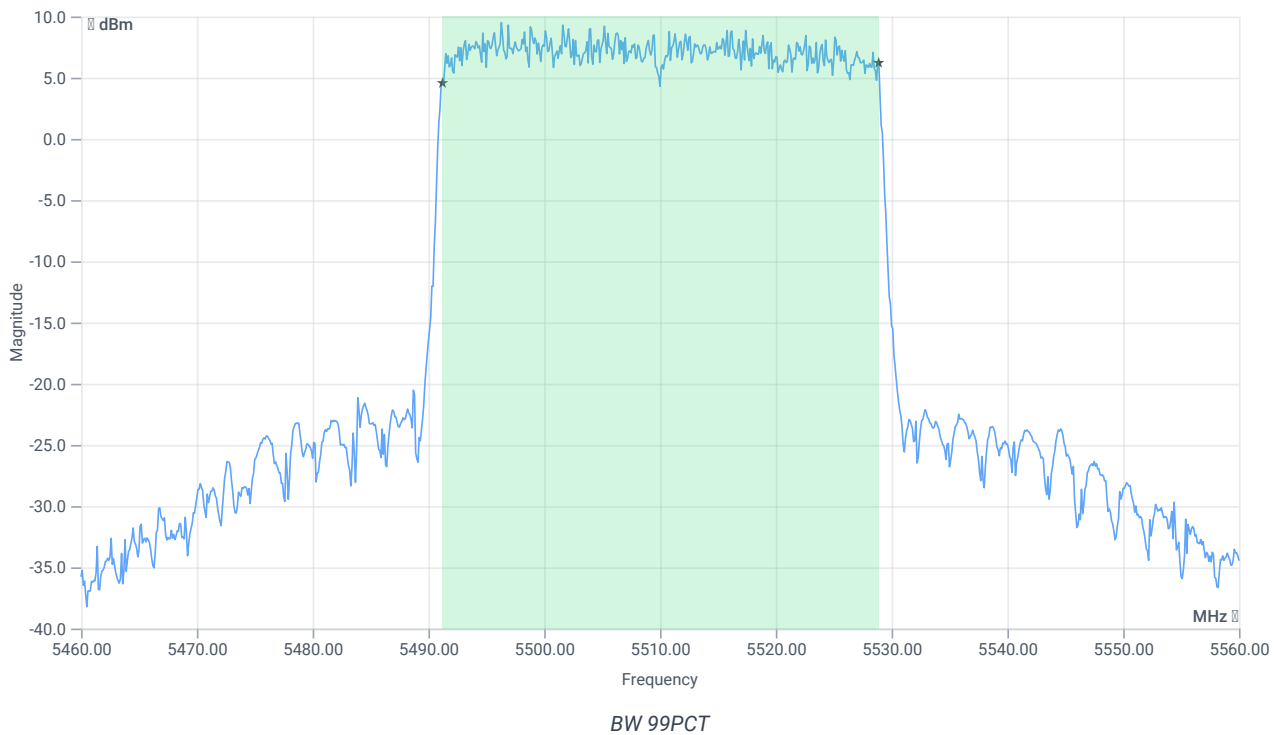
Test at TX 5510 MHz

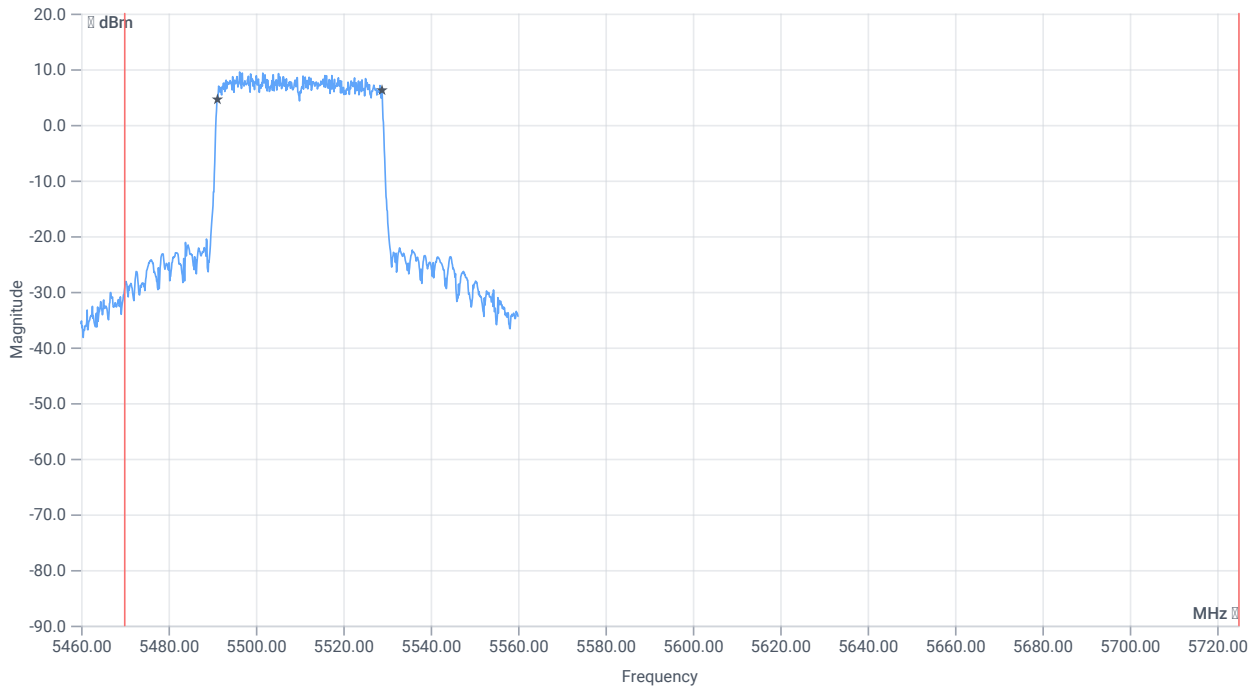
RESULT: Reference Power cond.

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	--	--	11.10	dBm	INFO
Ref. Frequency	--	--	5506.600	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	19.10 16.69 20
Start [MHz] Stop [MHz]	5460.000 5560.000
RBW [MHz] VBW [MHz]	0.500000 3.000000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	1 2500 1001 SWE

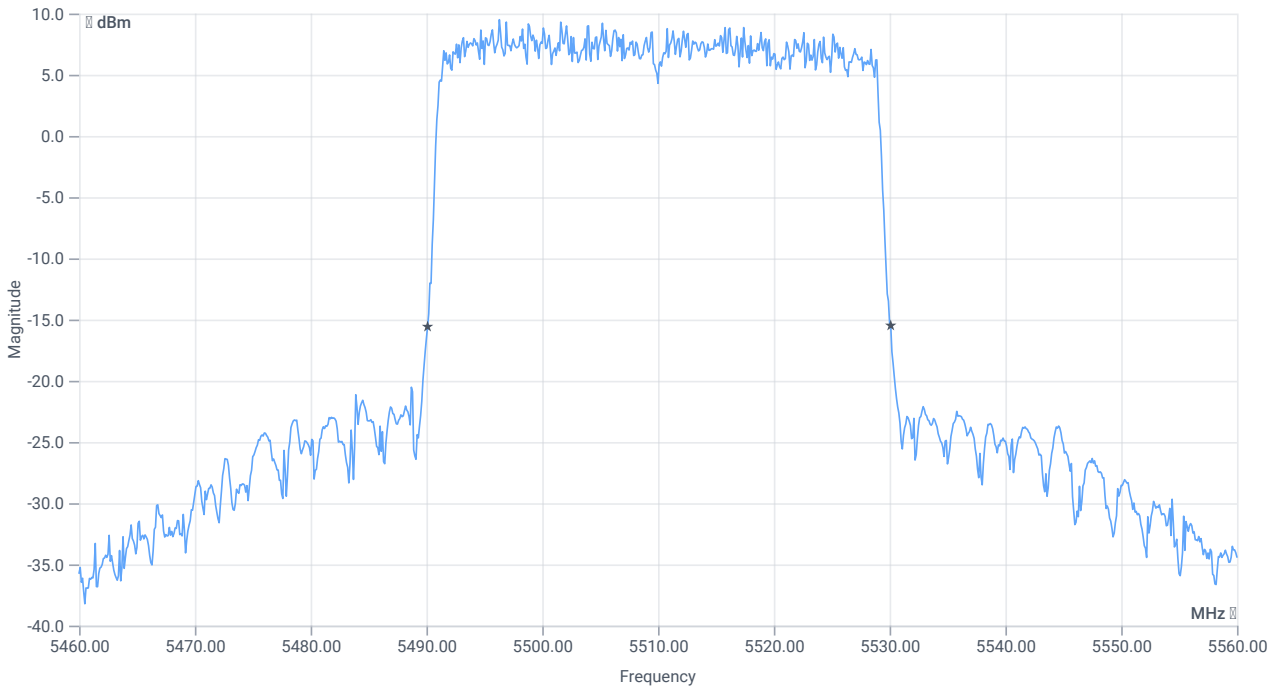




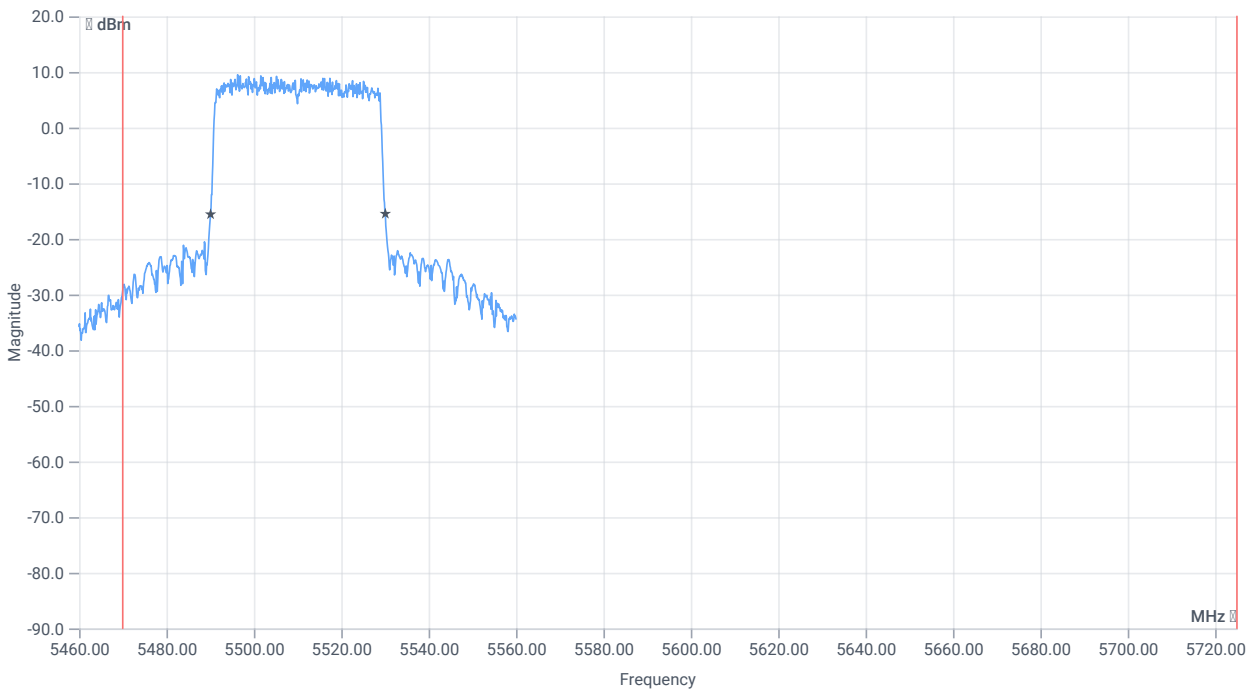
BW within Band 99PCT

RESULT

<i>Test Description</i>	<i>Lower Limit</i>	<i>Upper Limit</i>	<i>Measured</i>	<i>Unit</i>	<i>Verdict</i>
Bandwidth 99%	--	--	37.662	MHz	INFO
T1 99%	5470.000000	--	5491.2188	MHz	PASS since U-NII-3 is supported
T2 99%	--	5725.000000	5528.8811	MHz	



BW 26dB



BW within Band 26dB

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 26dB	---	---	40	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	--	5490.1000	MHz	PASS since U-NII-3 is supported
T2 26dB	--	5725.000000	5530.1000	MHz	

Verdict**PASS**

FCC 15.247 # Max output power and psd ~ WLAN5Gx ax-HE40 U-NII-2C

Test References

TC Start	13.02.2023 14:10:06
Ambit Temp [°C] Humidity [rel%]	23.2 30
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 ax-HE40 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 ax-HE40
Antenna Port used	2
Temperature	nom
Voltage	nom
Frequency low to test	True Freq [MHz] 5510
Frequency mid to test	False Freq [MHz] 5590
Frequency high to test	False Freq [MHz] 5710
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 5510 MHz

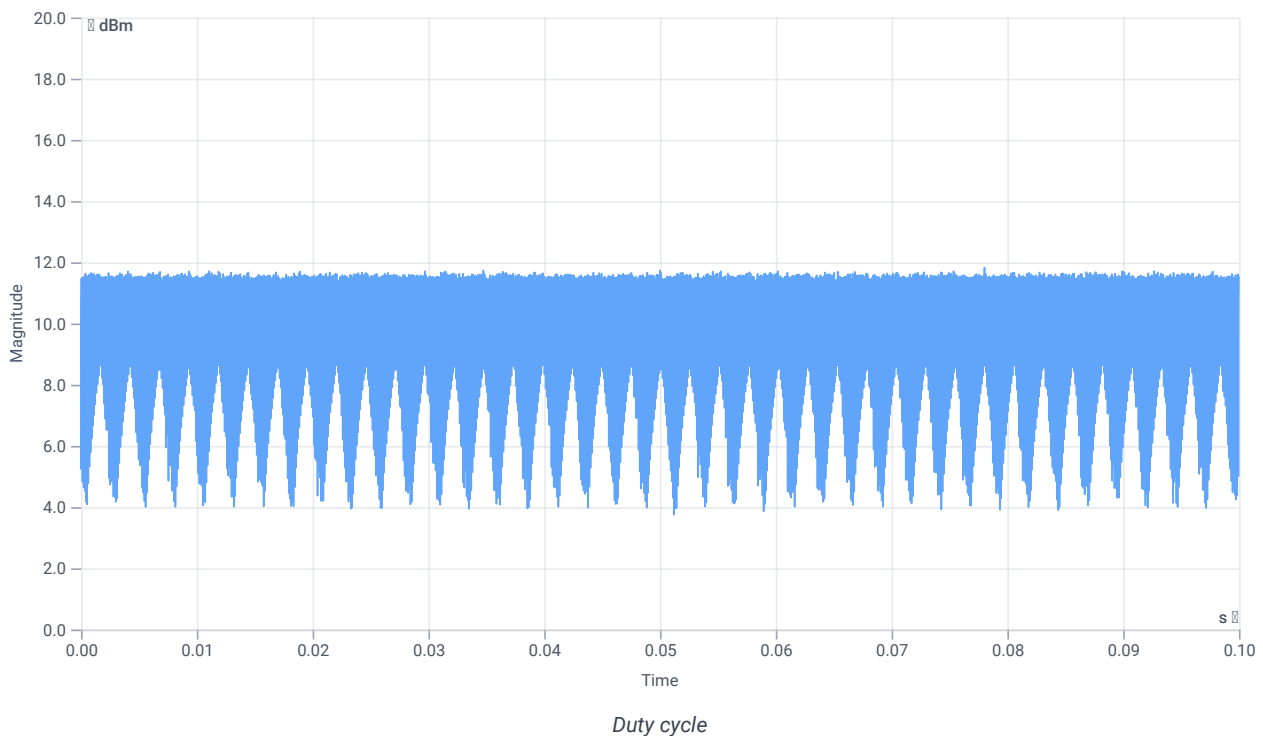
RESULT: Reference Power cond.

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	--	--	11.65	dBm	INFO
Ref. Frequency	--	--	5499.610	MHz	INFO

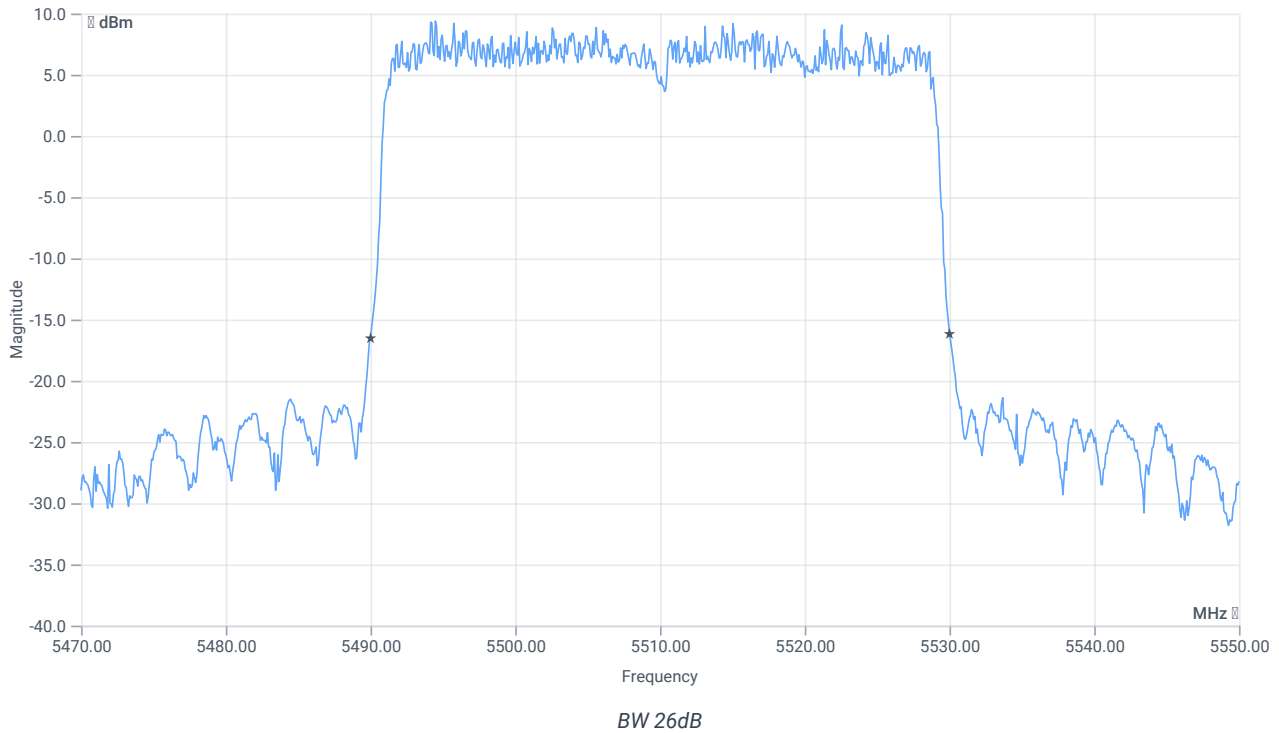
Evaluation max. Duty Cycle

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



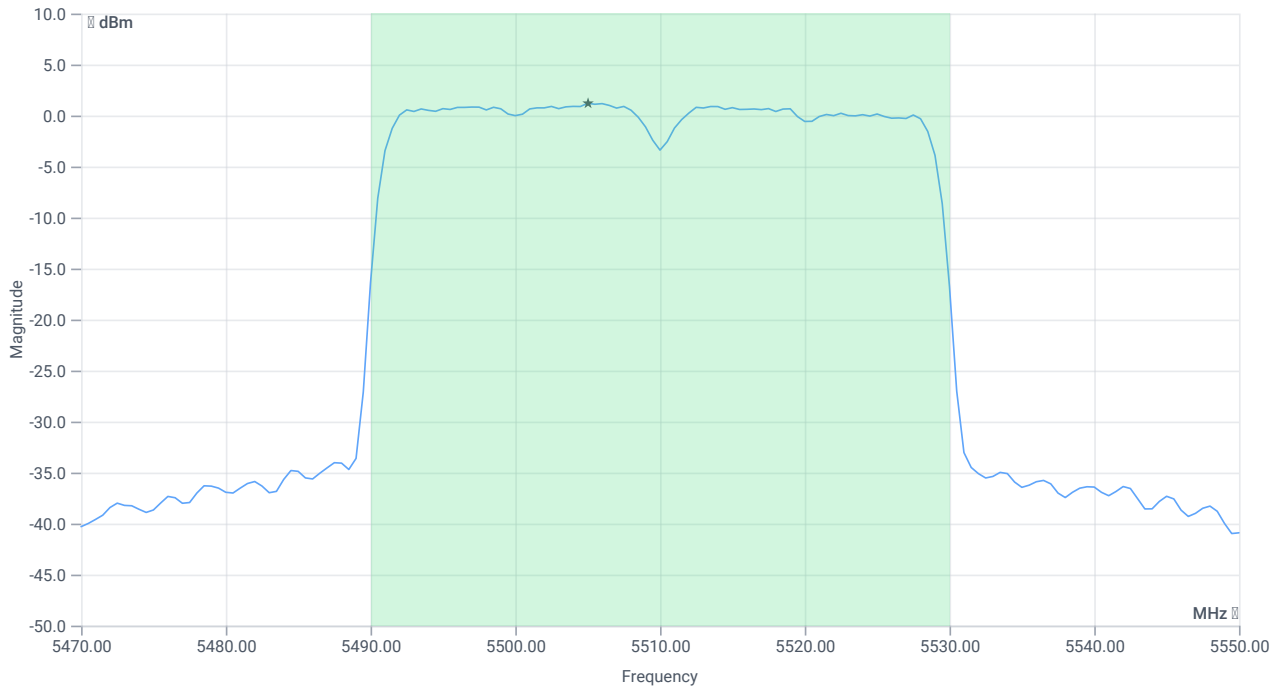
RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 26dB	---	---	40	MHz	INFO
T1 26dB	---	---	5490.0000	MHz	INFO
T2 26dB	---	---	5530.0000	MHz	INFO

Maximum Output Power

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	23.65 16.69 25
Start [MHz] Stop [MHz]	5470.000 5550.000
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	--	--	15.79	dBm	INFO
Duty Cycle Correction	--	--	0	dB	INFO
Limit absolute					
Max Output Power DC corrected	--	24	15.79	dBm	PASS
Limit: 11 dBm + 10 log 40					
Max Output Power DC corrected	--	27.02	15.79	dBm	PASS

Power Spectral Density

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Power Spectral Density	--	--	1.2	dBm/1MHz	INFO
Duty Cycle Correction	--	--	0	dB	INFO
Power Spectral Density DC corrected	--	11	1.2	dBm/1MHz	PASS

Verdict

PASS

FCC 15.407, ISED RSS247 # Bandwidths 99PCT and 26dB ~ WLAN5Gx ax-HE40 U-NII-2C

Test References

TC Start	13.02.2023 14:09:36
Ambit Temp [°C] Humidity [rel%]	23.2 30
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 ax-HE40 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 ax-HE40
Antenna Port used	1
Temperature	nom
Voltage	nom
Frequency low to test	True Freq [MHz] 5510
Frequency mid to test	False Freq [MHz] 5590
Frequency high to test	False Freq [MHz] 5710
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 5510 MHz

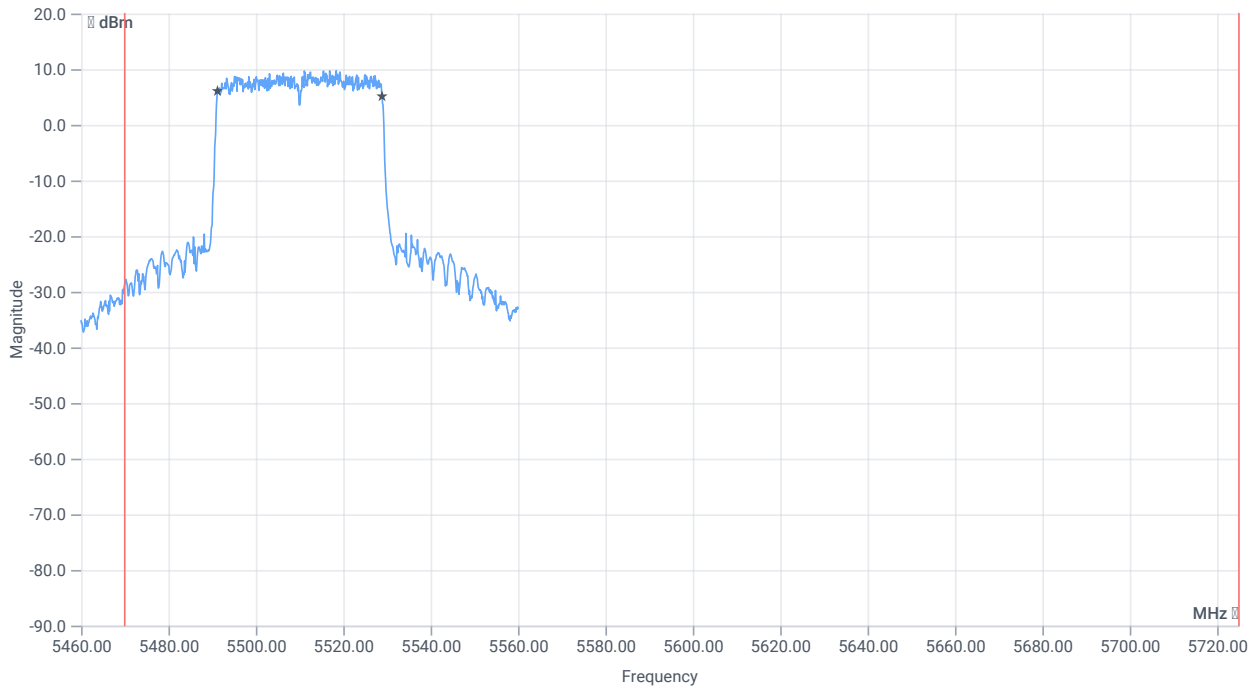
RESULT: Reference Power cond.

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	--	--	12.25	dBm	INFO
Ref. Frequency	--	--	5524.990	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	20.25 16.69 20
Start [MHz] Stop [MHz]	5460.000 5560.000
RBW [MHz] VBW [MHz]	0.500000 3.000000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	1 2500 1001 SWE

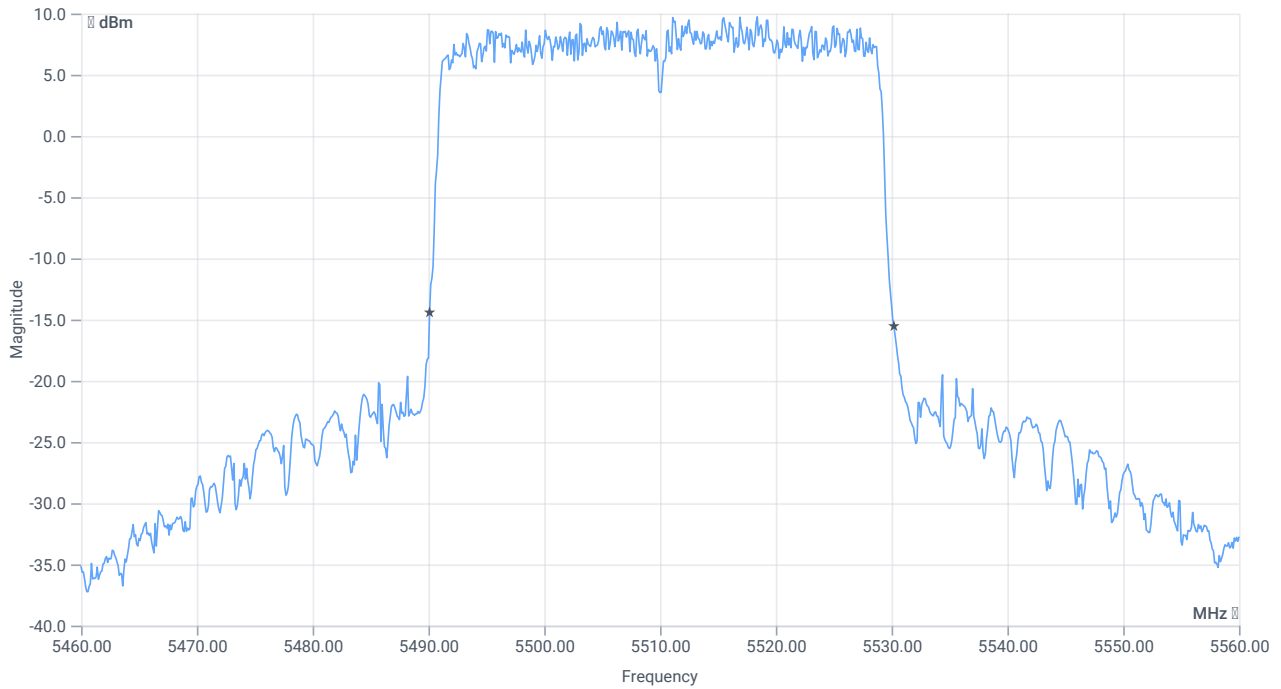




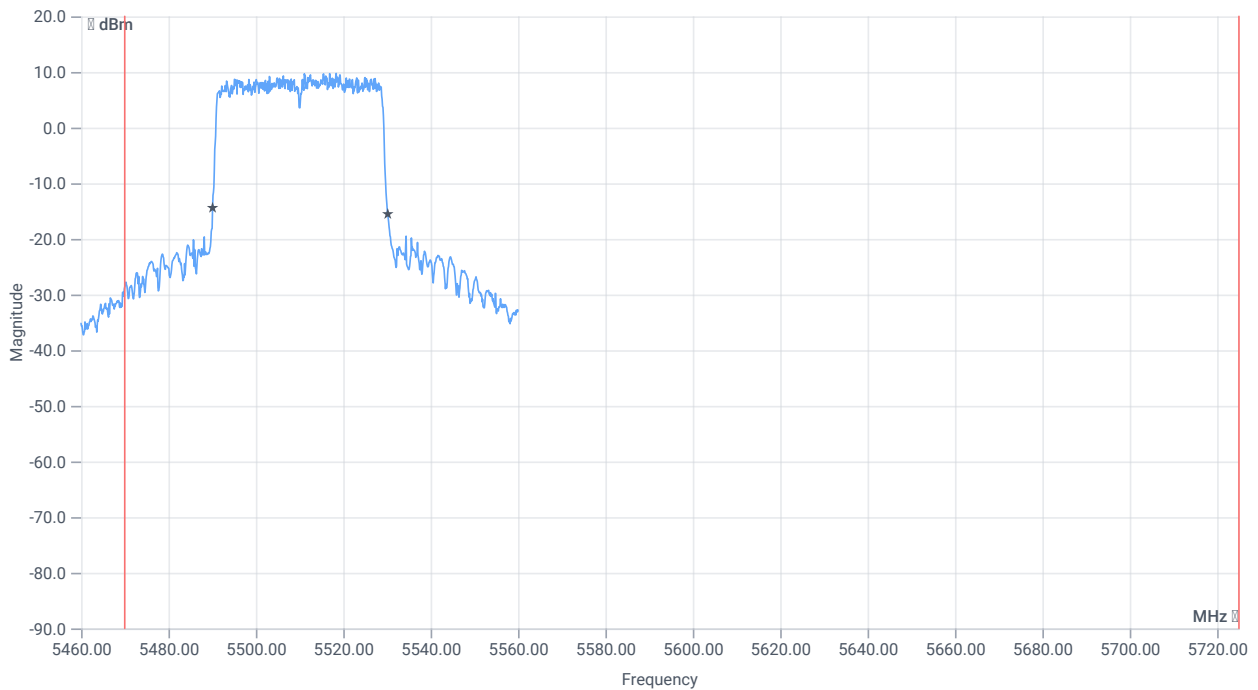
BW within Band 99PCT

RESULT

<i>Test Description</i>	<i>Lower Limit</i>	<i>Upper Limit</i>	<i>Measured</i>	<i>Unit</i>	<i>Verdict</i>
Bandwidth 99%	--	--	37.662	MHz	INFO
T1 99%	5470.000000	--	5491.2188	MHz	PASS since U-NII-3 is supported
T2 99%	--	5725.000000	5528.8811	MHz	



BW 26dB



BW within Band 26dB

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 26dB	---	---	40.1	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	5470.000000	--	5490.1000	MHz	PASS since U-NII-3 is supported
T2 26dB	--	5725.000000	5530.2000	MHz	

Verdict**PASS**

FCC 15.247 # Max output power and psd ~ WLAN5Gx ax-HE40 U-NII-2C

Test References

TC Start	13.02.2023 14:08:10
Ambit Temp [°C] Humidity [rel%]	23.2 30
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 ax-HE40 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 ax-HE40
Antenna Port used	1
Temperature	nom
Voltage	nom
Frequency low to test	True Freq [MHz] 5510
Frequency mid to test	False Freq [MHz] 5590
Frequency high to test	False Freq [MHz] 5710
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 5510 MHz

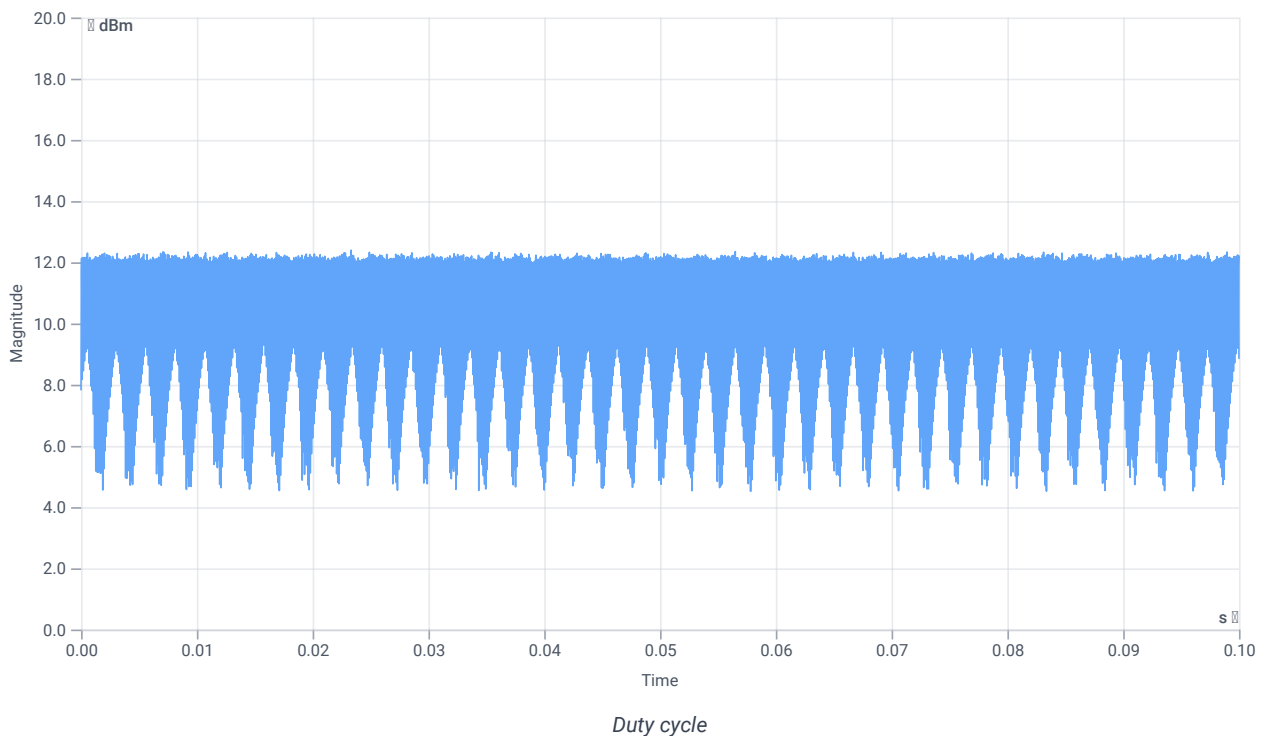
RESULT: Reference Power cond.

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	--	--	11.99	dBm	INFO
Ref. Frequency	--	--	5496.210	MHz	INFO

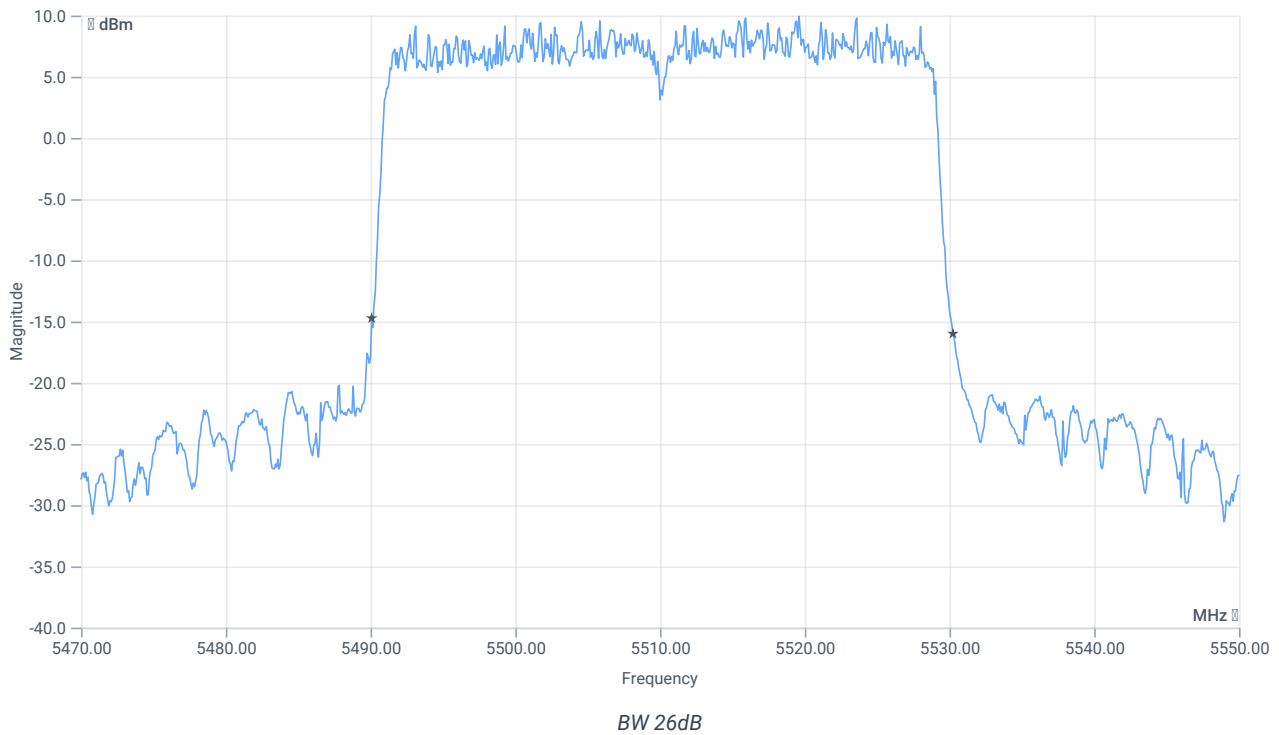
Evaluation max. Duty Cycle

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



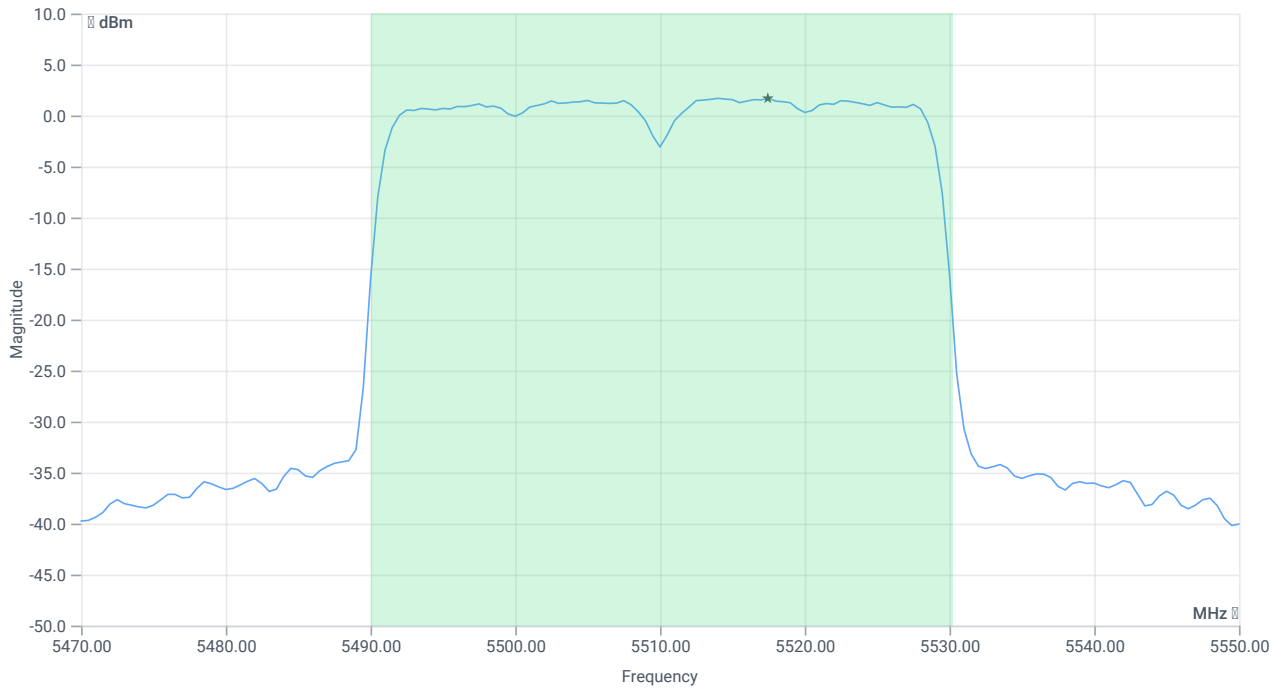
RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 26dB	---	---	40.16	MHz	INFO
T1 26dB	---	---	5490.0800	MHz	INFO
T2 26dB	---	---	5530.2400	MHz	INFO

Maximum Output Power

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	23.99 16.69 25
Start [MHz] Stop [MHz]	5470.000 5550.000
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	--	--	16.37	dBm	INFO
Duty Cycle Correction	--	--	0	dB	INFO
Limit absolute					
Max Output Power DC corrected	--	24	16.37	dBm	PASS
Limit: 11 dBm + 10 log 40.16					
Max Output Power DC corrected	--	27.04	16.37	dBm	PASS

Power Spectral Density

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Power Spectral Density	--	--	1.69	dBm/1MHz	INFO
Duty Cycle Correction	--	--	0	dB	INFO
Power Spectral Density DC corrected	--	11	1.69	dBm/1MHz	PASS

Verdict

PASS

FCC 15.407, ISED RSS247 # Bandwidths 99PCT and 26dB ~ WLAN5Gx ax-HE40 U-NII-2C

Test References

TC Start	28.02.2023 16:45:19
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 ax-HE40 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 ax-HE40
Antenna Port used	1
Temperature	nom
Voltage	nom
Frequency low to test	False Freq [MHz] 5510
Frequency mid to test	True Freq [MHz] 5590
Frequency high to test	False Freq [MHz] 5710
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 5590 MHz

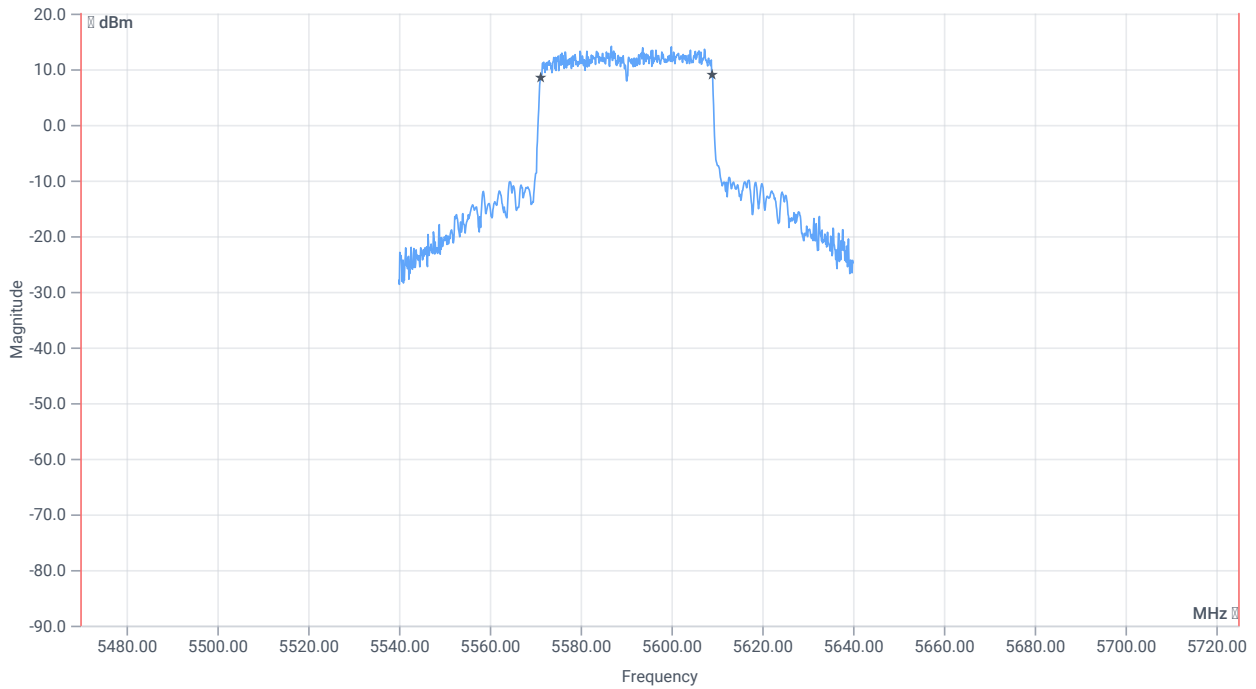
RESULT: Reference Power cond.

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	--	--	15.26	dBm	INFO
Ref. Frequency	--	--	5584.810	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	23.26 16.82 25
Start [MHz] Stop [MHz]	5540.000 5640.000
RBW [MHz] VBW [MHz]	0.500000 3.000000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	1 2500 1001 SWE

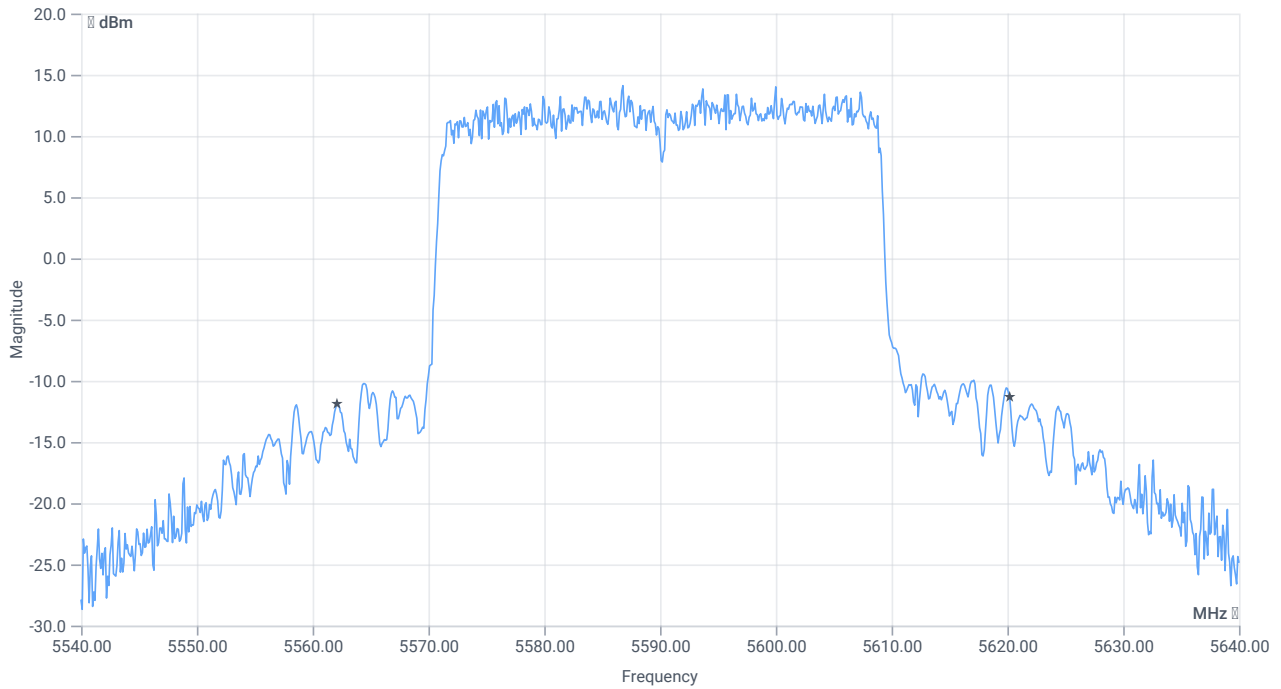




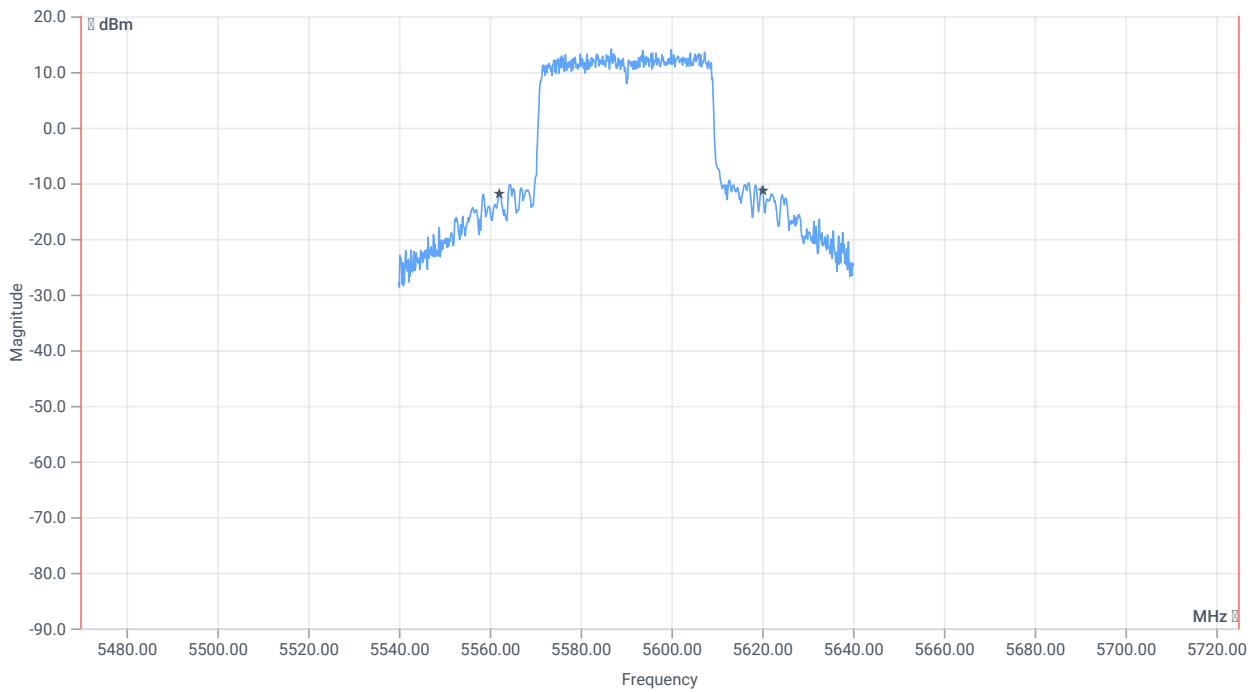
BW within Band 99PCT

RESULT

<i>Test Description</i>	<i>Lower Limit</i>	<i>Upper Limit</i>	<i>Measured</i>	<i>Unit</i>	<i>Verdict</i>
Bandwidth 99%	--	--	37.762	MHz	INFO
T1 99%	5470.000000	--	5571.2188	MHz	PASS since U-NII-3 is supported
T2 99%	--	5725.000000	5608.9810	MHz	



BW 26dB



BW within Band 26dB

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 26dB	---	---	58.1	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	5470.000000	--	5562.1000	MHz	PASS since U-NII-3 is supported
T2 26dB	--	5725.000000	5620.2000	MHz	

Verdict**PASS**

FCC 15.407, ISED RSS247 # Bandwidths 99PCT and 26dB ~ WLAN5Gx ax-HE40 U-NII-2C

Test References

TC Start	28.02.2023 16:47:14
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 ax-HE40 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 ax-HE40
Antenna Port used	2
Temperature	nom
Voltage	nom
Frequency low to test	False Freq [MHz] 5510
Frequency mid to test	True Freq [MHz] 5590
Frequency high to test	False Freq [MHz] 5710
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 5590 MHz

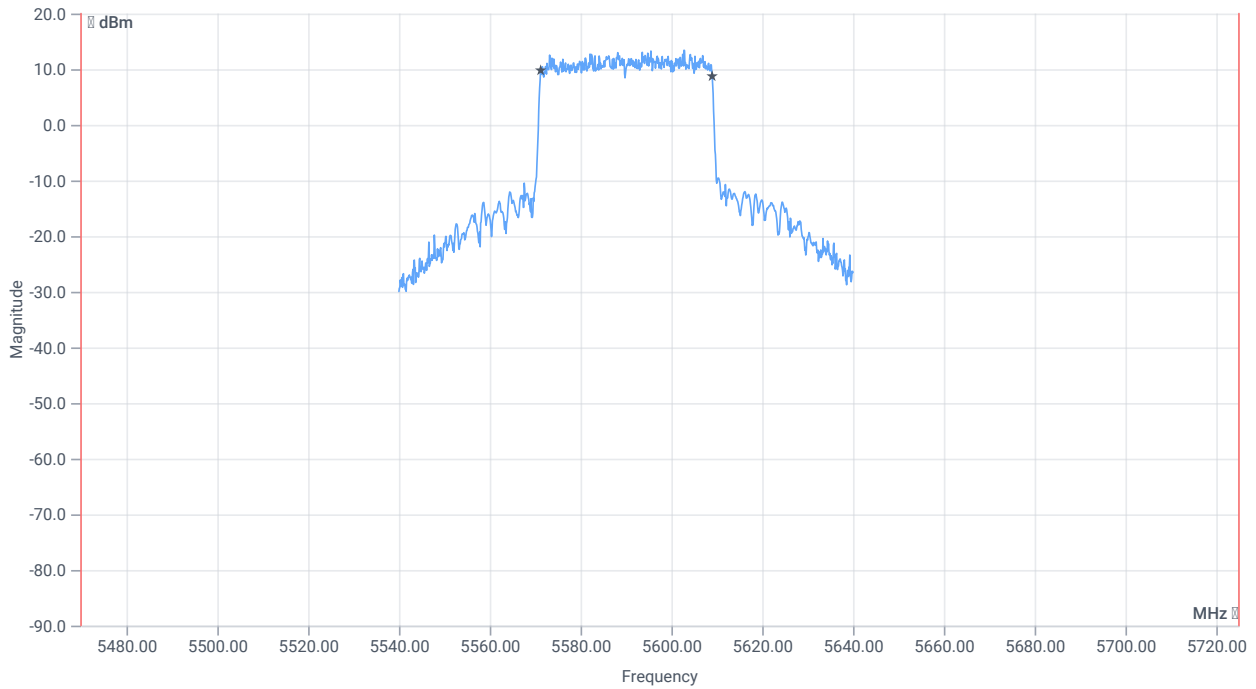
RESULT: Reference Power cond.

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	--	--	14.61	dBm	INFO
Ref. Frequency	--	--	5577.410	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	22.61 16.82 25
Start [MHz] Stop [MHz]	5540.000 5640.000
RBW [MHz] VBW [MHz]	0.500000 3.000000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	1 2500 1001 SWE

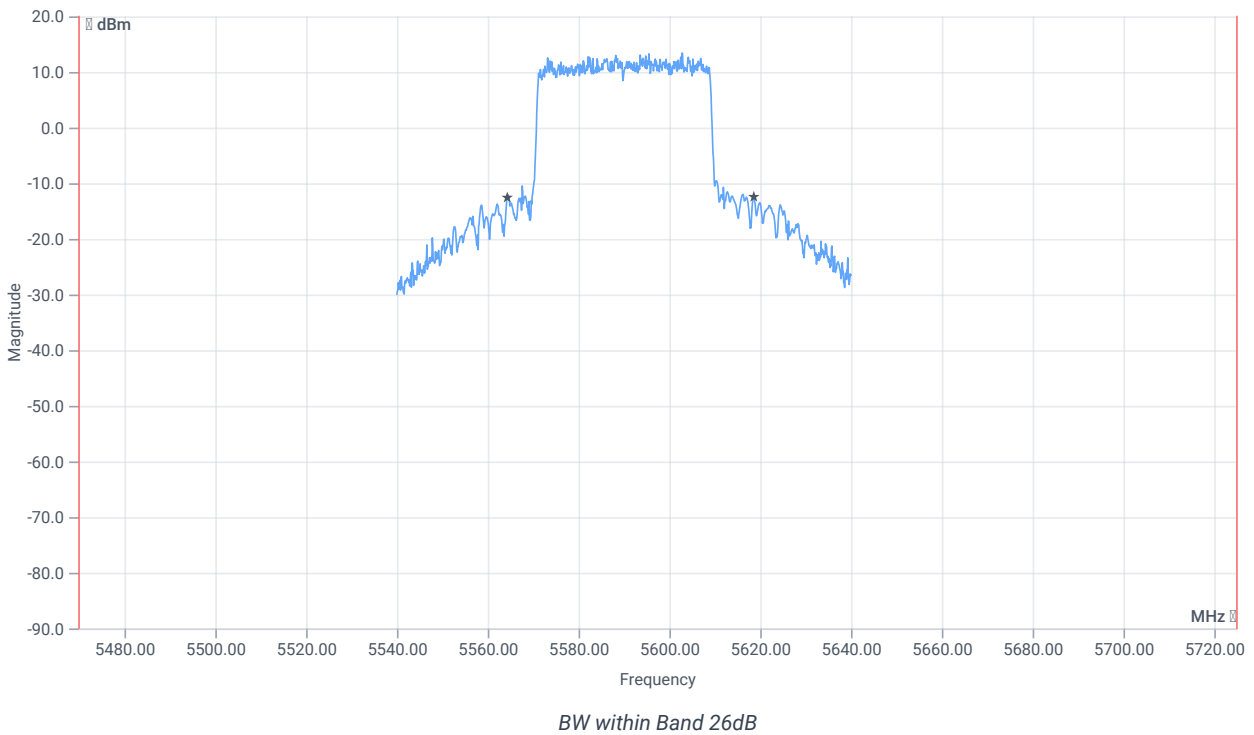
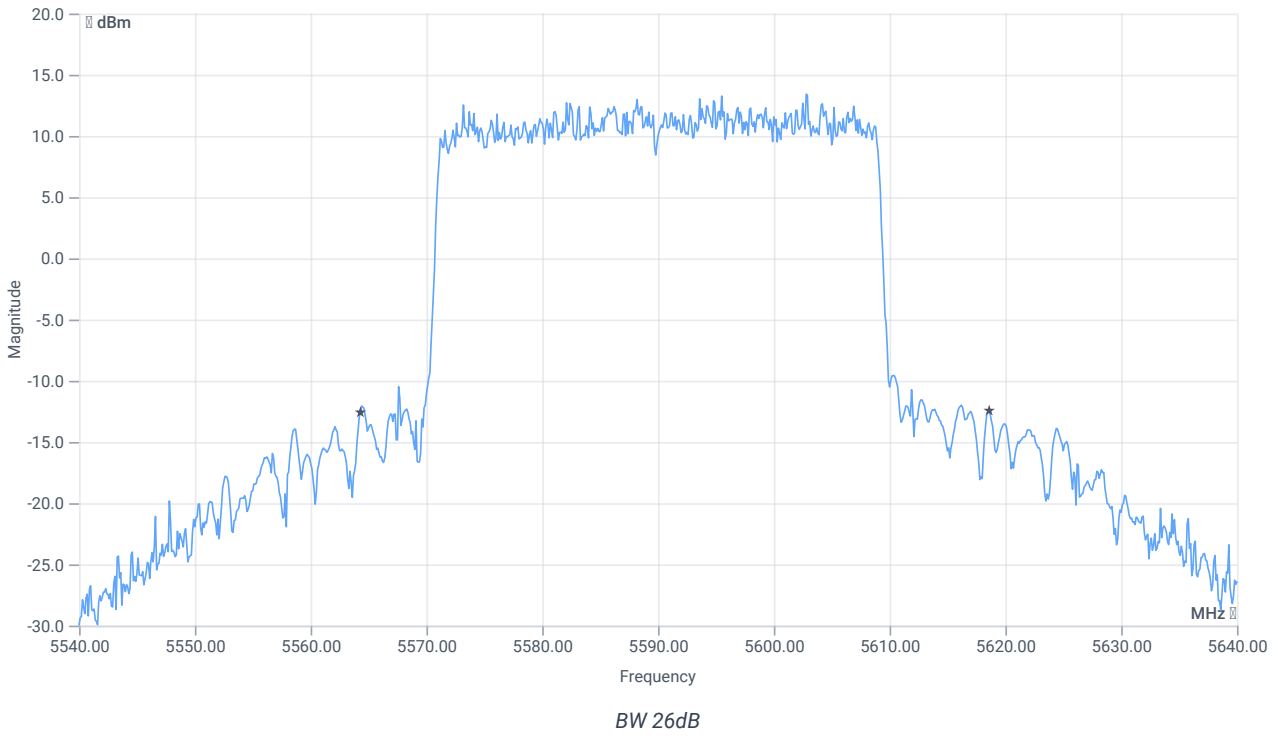




BW within Band 99PCT

RESULT

<i>Test Description</i>	<i>Lower Limit</i>	<i>Upper Limit</i>	<i>Measured</i>	<i>Unit</i>	<i>Verdict</i>
Bandwidth 99%	--	--	37.762	MHz	INFO
T1 99%	5470.000000	--	5571.2188	MHz	PASS since U-NII-3 is supported
T2 99%	--	5725.000000	5608.9810	MHz	



RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 26dB	---	---	54.3	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	--	5564.3000	MHz	PASS since U-NII-3 is supported
T2 26dB	--	5725.000000	5618.6000	MHz	

Verdict**PASS**

FCC 15.407, ISED RSS247 # Bandwidths 99PCT and 26dB ~ WLAN5Gx ax-HE40 U-NII-2C

Test References

TC Start	28.02.2023 16:50:31
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 ax-HE40 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 ax-HE40
Antenna Port used	1
Temperature	nom
Voltage	nom
Frequency low to test	False Freq [MHz] 5510
Frequency mid to test	False Freq [MHz] 5590
Frequency high to test	True Freq [MHz] 5710
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

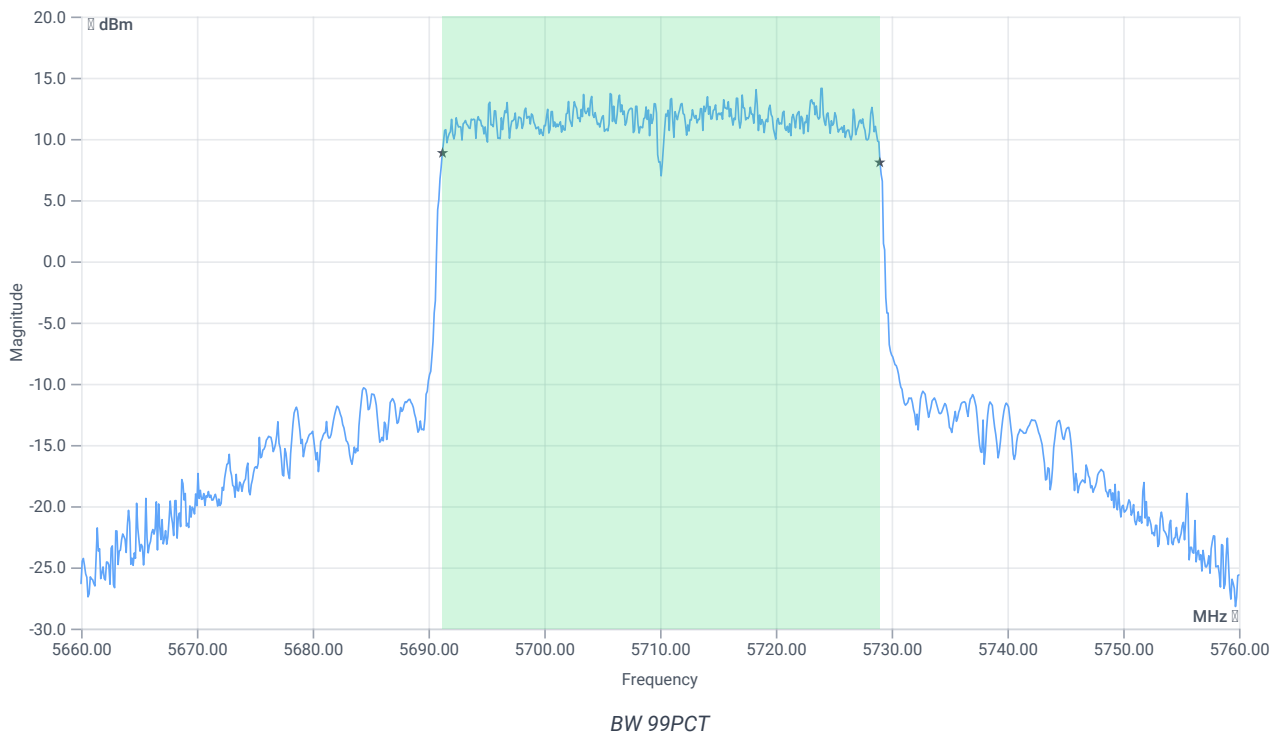
Test at TX 5710 MHz

RESULT: Reference Power cond.

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	--	--	15.17	dBm	INFO
Ref. Frequency	--	--	5723.590	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	23.17 16.61 25
Start [MHz] Stop [MHz]	5660.000 5760.000
RBW [MHz] VBW [MHz]	0.500000 3.000000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	1 2500 1001 SWE

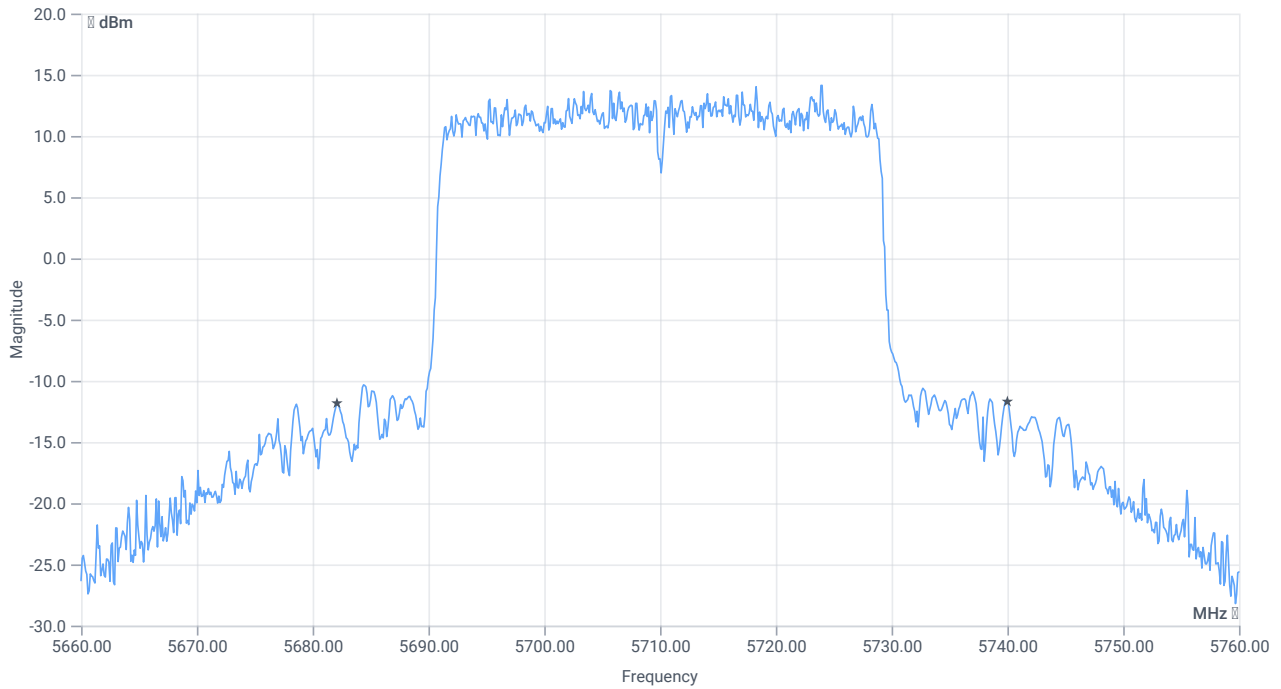




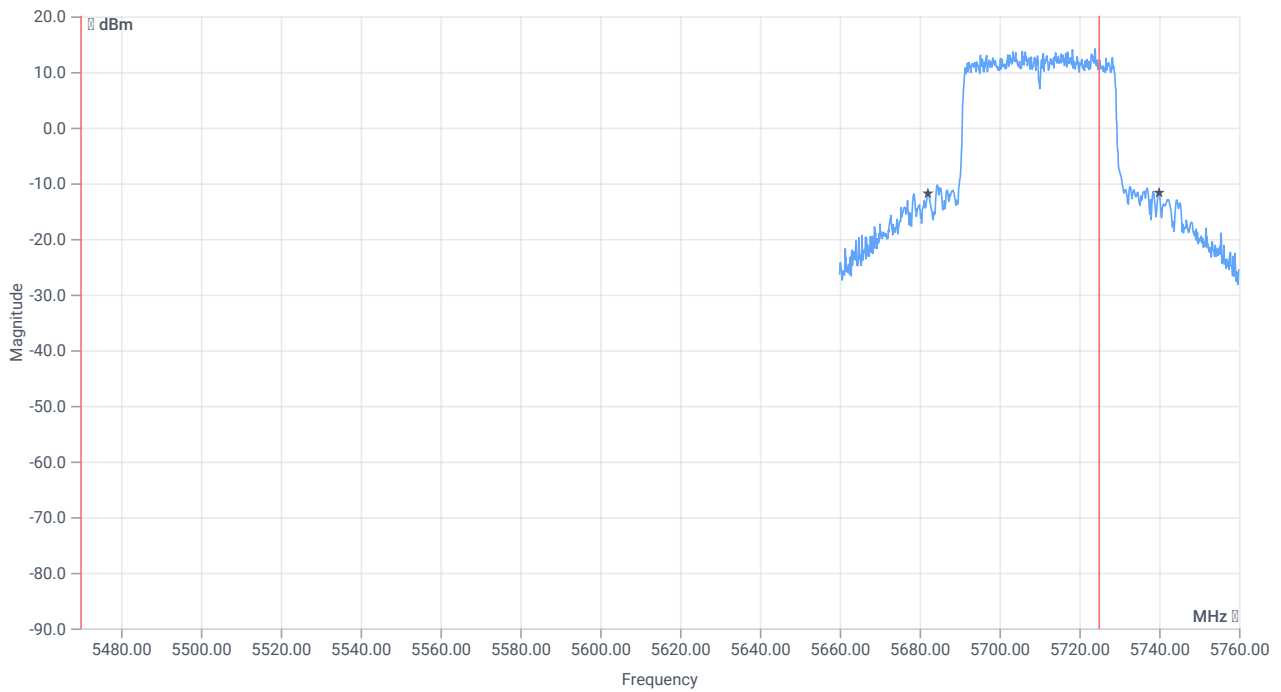
BW within Band 99PCT

RESULT

<i>Test Description</i>	<i>Lower Limit</i>	<i>Upper Limit</i>	<i>Measured</i>	<i>Unit</i>	<i>Verdict</i>
Bandwidth 99%	--	--	37.762	MHz	INFO
T1 99%	5470.000000	--	5691.2188	MHz	PASS since U-NII-3 is supported
T2 99%	--	5725.000000	5728.9810	MHz	



BW 26dB



BW within Band 26dB

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 26dB	---	---	57.9	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	--	5682.1000	MHz	PASS since U-NII-3 is supported
T2 26dB	--	5725.000000	5740.0000	MHz	

Verdict**PASS**

FCC 15.407, ISED RSS247 # Bandwidths 99PCT and 26dB ~ WLAN5Gx ax-HE40 U-NII-2C

Test References

TC Start	28.02.2023 16:52:26
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 ax-HE40 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 ax-HE40
Antenna Port used	2
Temperature	nom
Voltage	nom
Frequency low to test	False Freq [MHz] 5510
Frequency mid to test	False Freq [MHz] 5590
Frequency high to test	True Freq [MHz] 5710
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

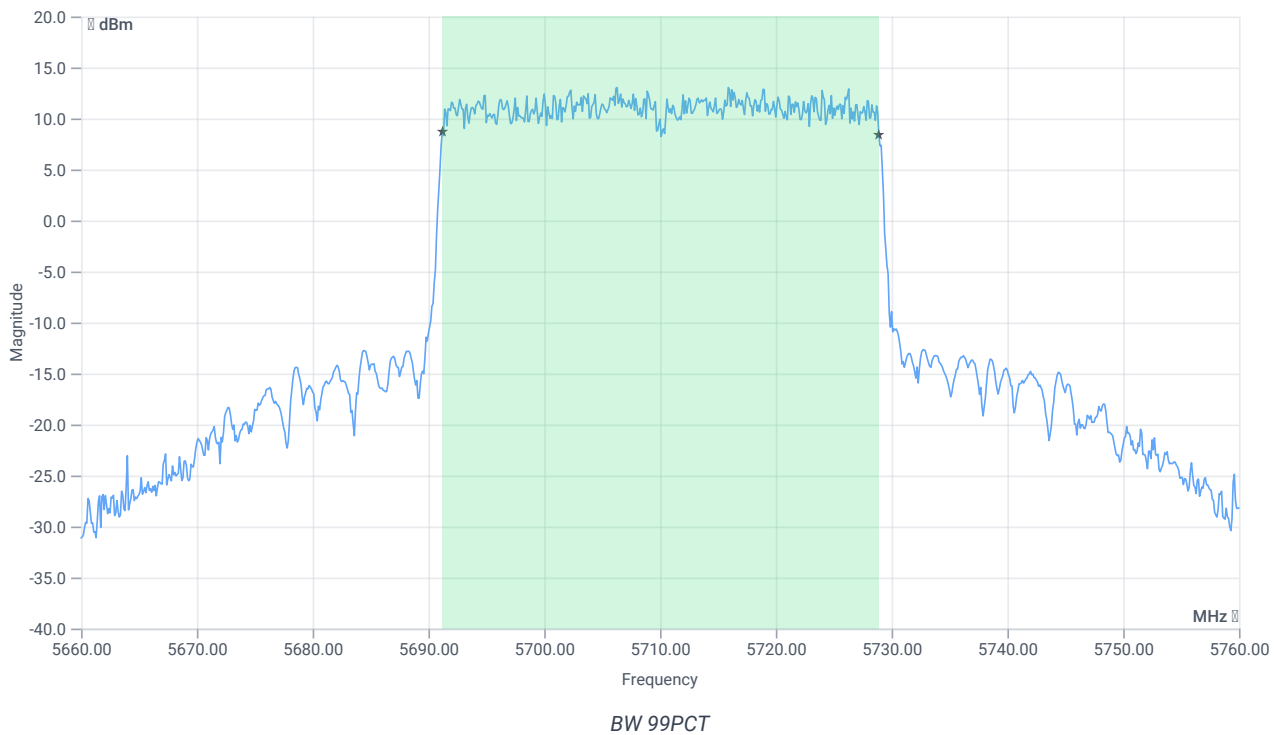
Test at TX 5710 MHz

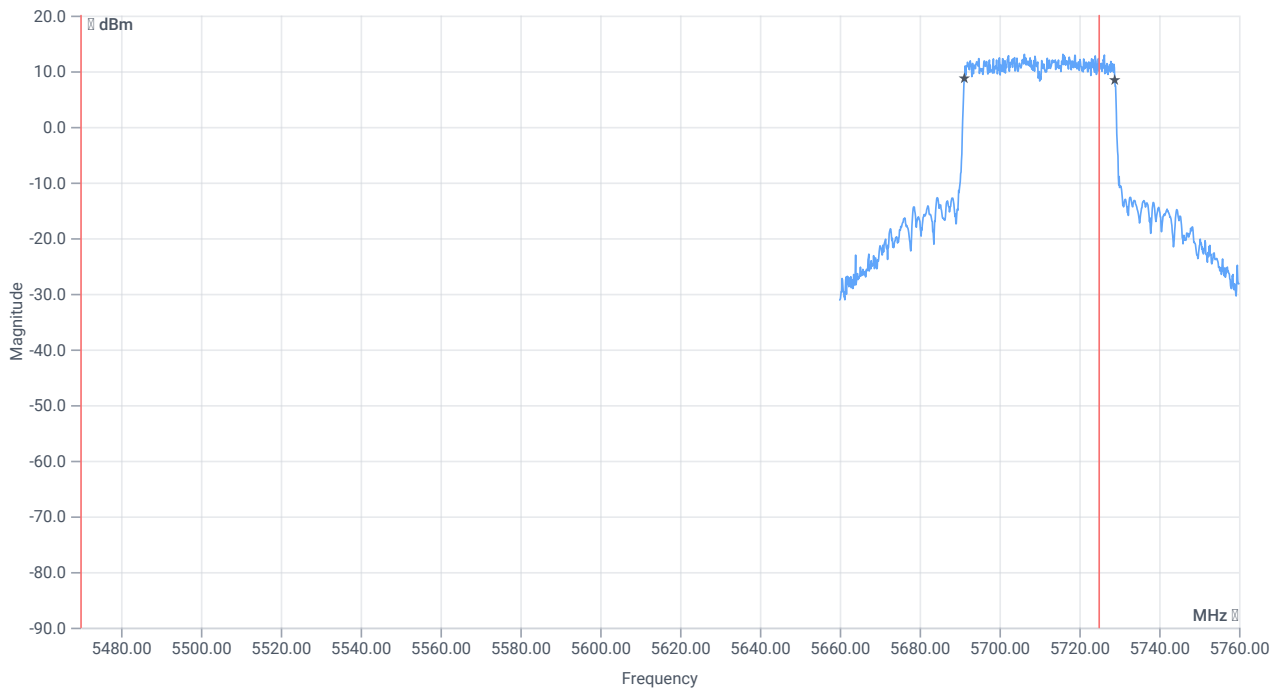
RESULT: Reference Power cond.

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	--	--	13.78	dBm	INFO
Ref. Frequency	--	--	5718.790	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	21.78 16.61 25
Start [MHz] Stop [MHz]	5660.000 5760.000
RBW [MHz] VBW [MHz]	0.500000 3.000000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	1 2500 1001 SWE

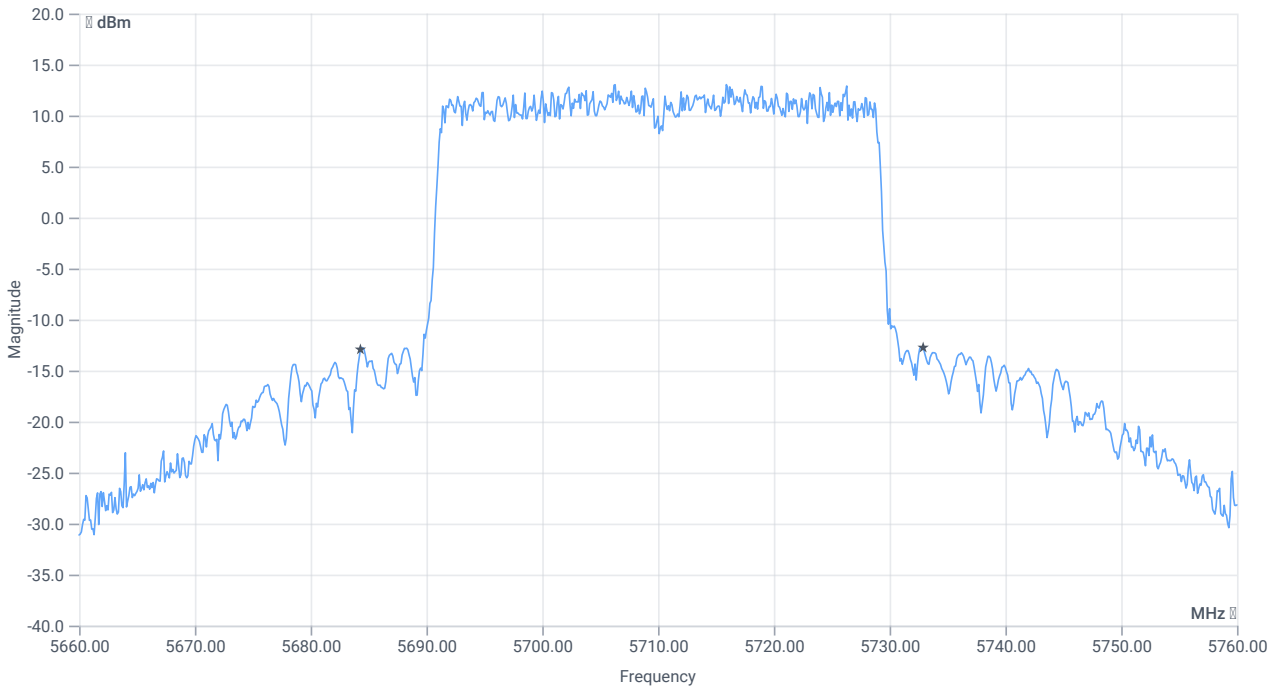




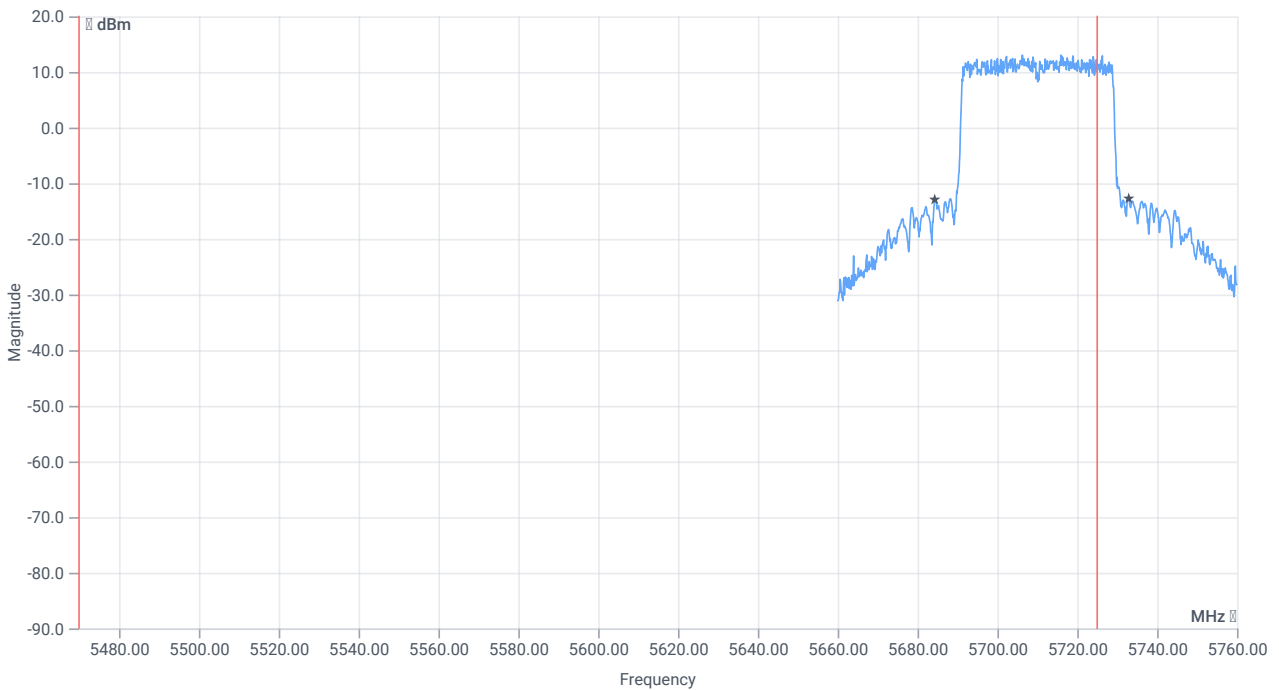
BW within Band 99PCT

RESULT

<i>Test Description</i>	<i>Lower Limit</i>	<i>Upper Limit</i>	<i>Measured</i>	<i>Unit</i>	<i>Verdict</i>
Bandwidth 99%	--	--	37.662	MHz	INFO
T1 99%	5470.000000	--	5691.2188	MHz	PASS since U-NII-3 is supported
T2 99%	--	5725.000000	5728.8811	MHz	



BW 26dB



BW within Band 26dB

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 26dB	---	---	48.6	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	--	5684.3000	MHz	PASS since U-NII-3 is supported
T2 26dB	--	5725.000000	5732.9000	MHz	

Verdict**PASS**

FCC 15.247 # MIMO Power PSD Calculator ~ WLAN5Gx ax-HE40 U-NII-2C

Test References

TC Start	28.02.2023 16:52:55
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 ax-HE40 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 ax-HE40
Antenna Port used	several
Temperature	nom
Voltage	nom
Frequency low to test	False Freq [MHz] 5510
Frequency mid to test	False Freq [MHz] 5590
Frequency high to test	True Freq [MHz] 5710
Auto Control enabled Power Supply Climatic Box	No No
Additional Path Loss [dB]	1.4
Switched Path	None

Test Equipment

Test at TX 5710 MHz

RESULT Power

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ant:1 Max Output Power DC corrected	--	--	20.25	dBm	INFO
Ant:1 BW 26dB	--	--	61.600	MHz	INFO
Ant:2 Max Output Power DC corrected	--	--	19.73	dBm	INFO
Ant:2 BW 26dB	--	--	40.800	MHz	INFO
Σ Limit absolute	--	24	23.01	dBm	PASS
Σ Limit: 11 dBm + 10 log 40.8	--	27.11	23.01	dBm	PASS

RESULT PSD

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ant:1 PSD	--	--	5.55	dBm/1MHz	INFO
Ant:2 PSD	--	--	5.02	dBm/1MHz	INFO
Σ	--	11	8.3	dBm/1MHz	PASS

Verdict

PASS

FCC 15.247 # Max output power and psd ~ WLAN5Gx ax-HE40 U-NII-2C

Test References

TC Start	28.02.2023 16:51:01
Ambit Temp [°C] Humidity [rel%]	22.6 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 ax-HE40 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 ax-HE40
Antenna Port used	2
Temperature	nom
Voltage	nom
Frequency low to test	False Freq [MHz] 5510
Frequency mid to test	False Freq [MHz] 5590
Frequency high to test	True Freq [MHz] 5710
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 5710 MHz

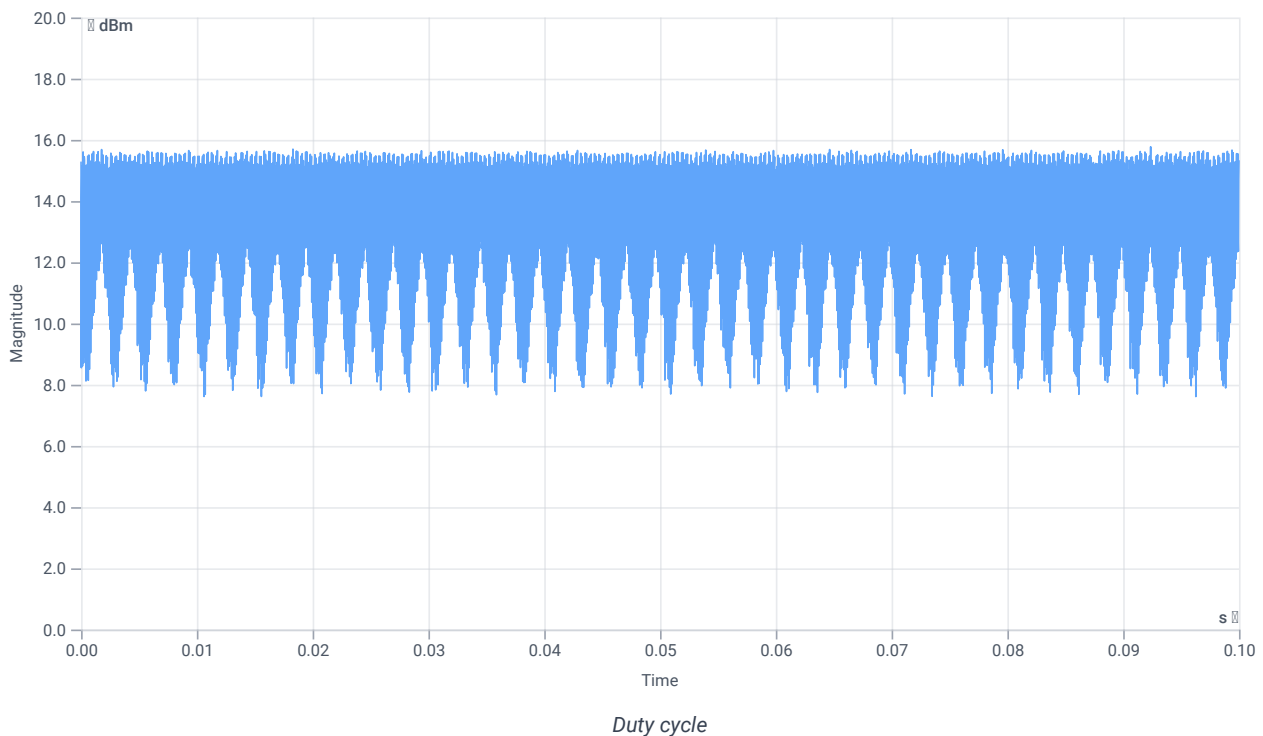
RESULT: Reference Power cond.

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	--	--	15.01	dBm	INFO
Ref. Frequency	--	--	5706.000	MHz	INFO

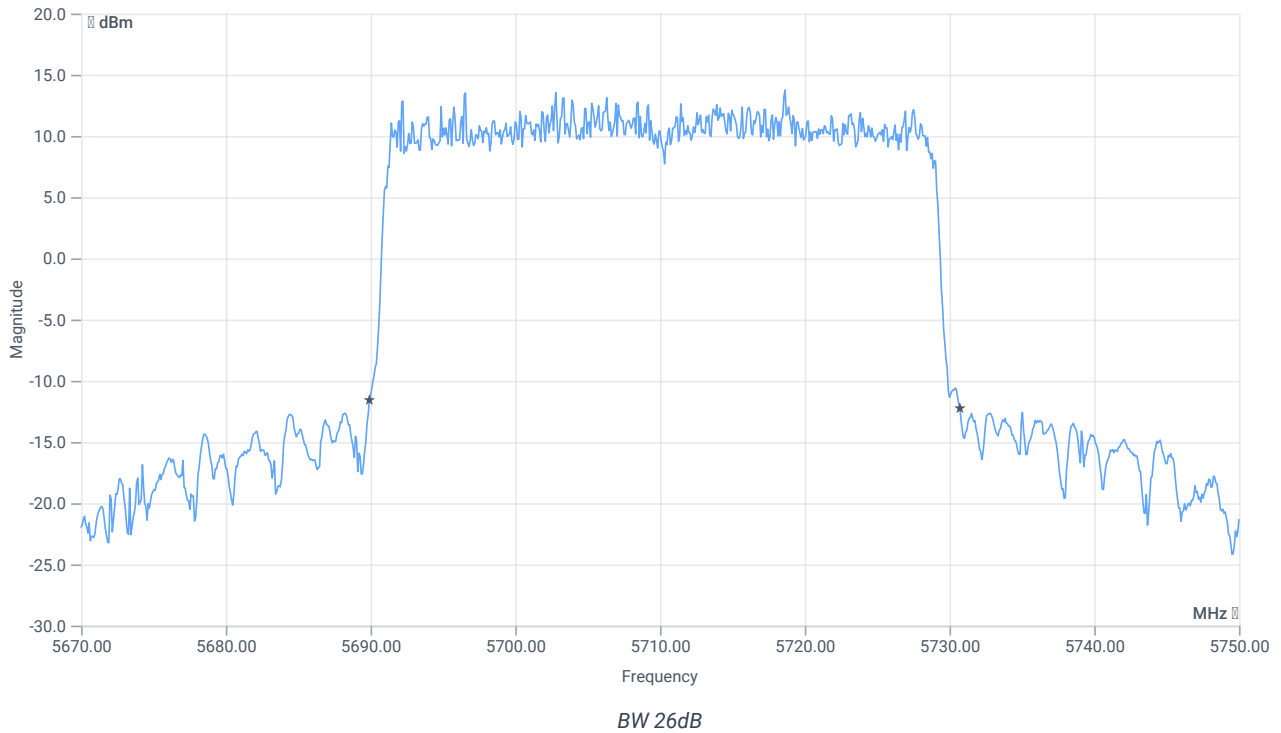
Evaluation max. Duty Cycle

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



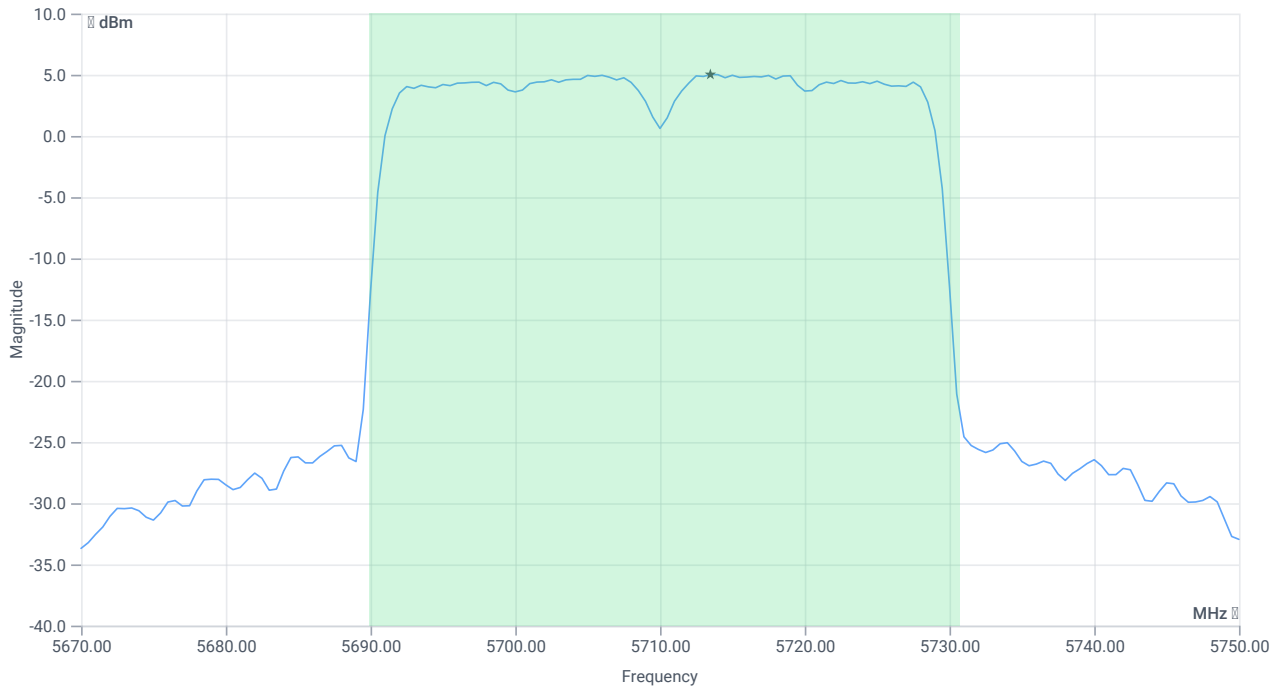
RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 26dB	---	---	40.8	MHz	INFO
T1 26dB	---	---	5689.9200	MHz	INFO
T2 26dB	---	---	5730.7200	MHz	INFO

Maximum Output Power

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	27.01 16.61 25
Start [MHz] Stop [MHz]	5670.000 5750.000
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	--	--	19.73	dBm	INFO
Duty Cycle Correction	--	--	0	dB	INFO
Limit absolute					
Max Output Power DC corrected	--	24	19.73	dBm	PASS
Limit: 11 dBm + 10 log 40.8					
Max Output Power DC corrected	--	27.11	19.73	dBm	PASS

Power Spectral Density

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Power Spectral Density	--	--	5.02	dBm/1MHz	INFO
Duty Cycle Correction	--	--	0	dB	INFO
Power Spectral Density DC corrected	--	11	5.02	dBm/1MHz	PASS

Verdict

PASS

FCC 15.247 # Max output power and psd ~ WLAN5Gx ax-HE40 U-NII-2C

Test References

TC Start	28.02.2023 16:49:06
Ambit Temp [°C] Humidity [rel%]	22.6 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 ax-HE40 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 ax-HE40
Antenna Port used	1
Temperature	nom
Voltage	nom
Frequency low to test	False Freq [MHz] 5510
Frequency mid to test	False Freq [MHz] 5590
Frequency high to test	True Freq [MHz] 5710
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 5710 MHz

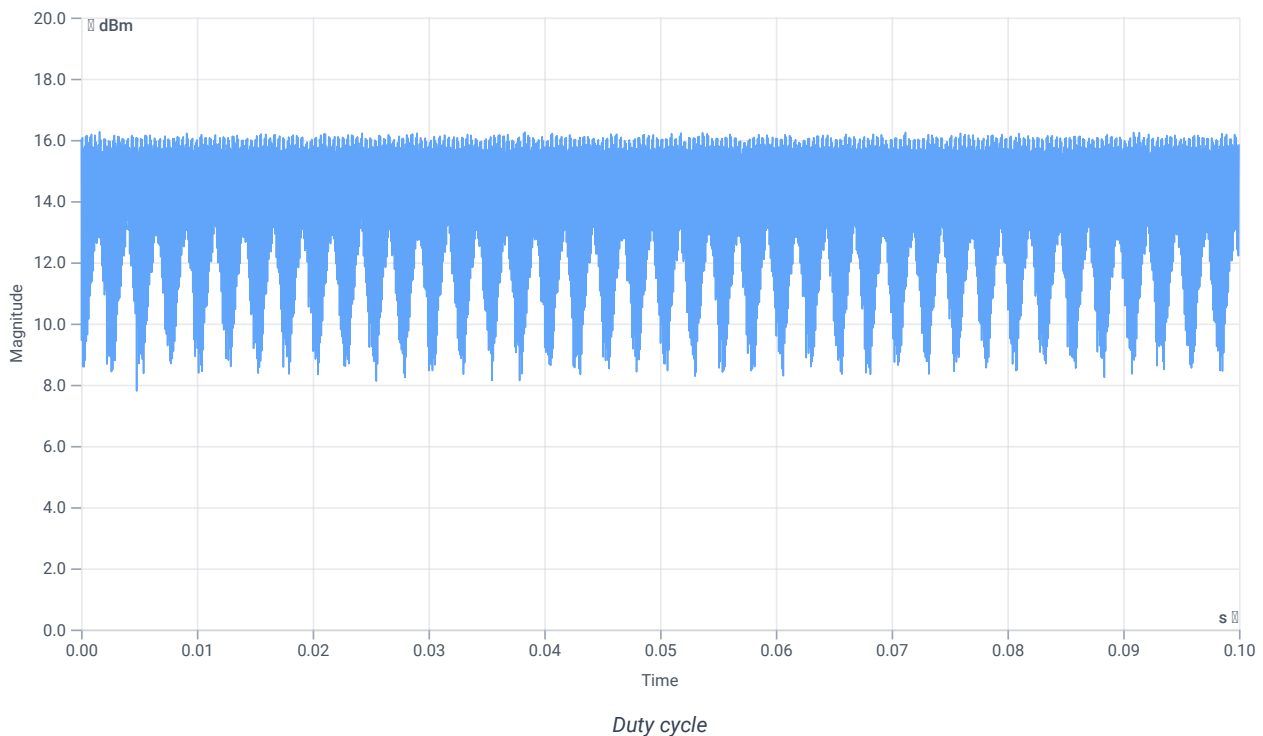
RESULT: Reference Power cond.

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	--	--	15.96	dBm	INFO
Ref. Frequency	--	--	5714.000	MHz	INFO

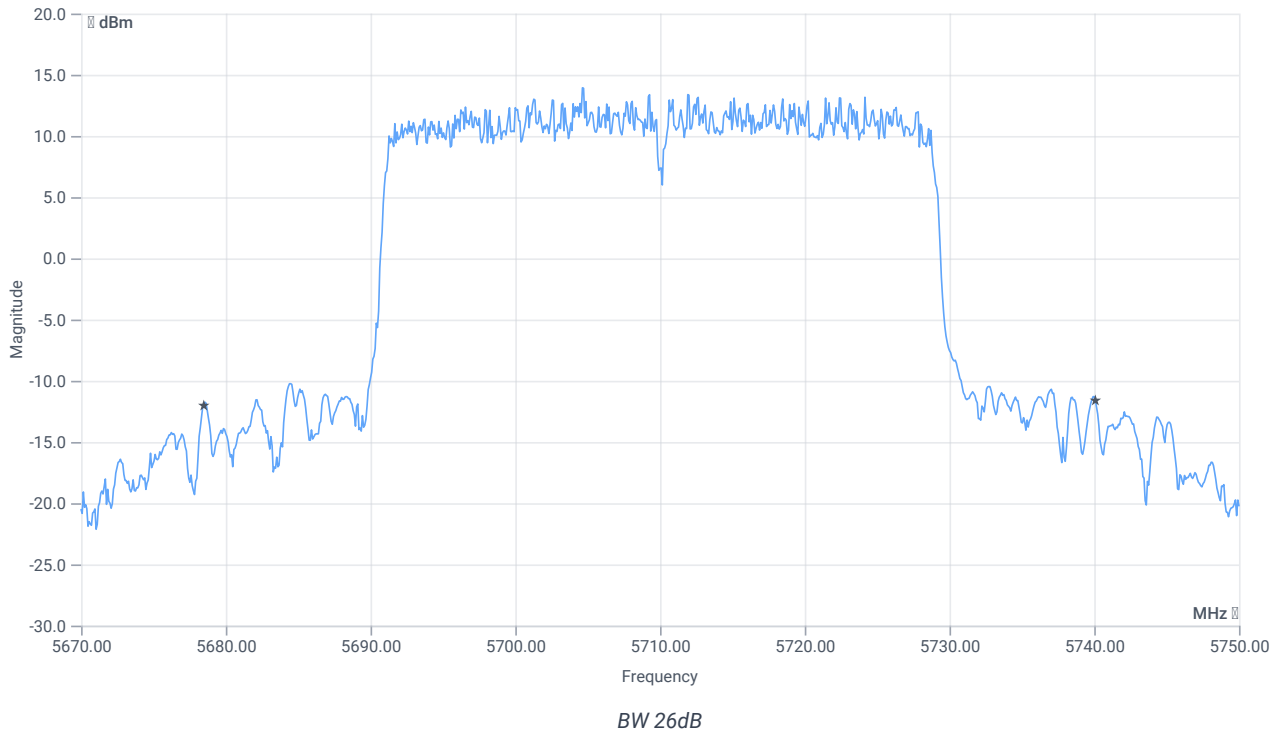
Evaluation max. Duty Cycle

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



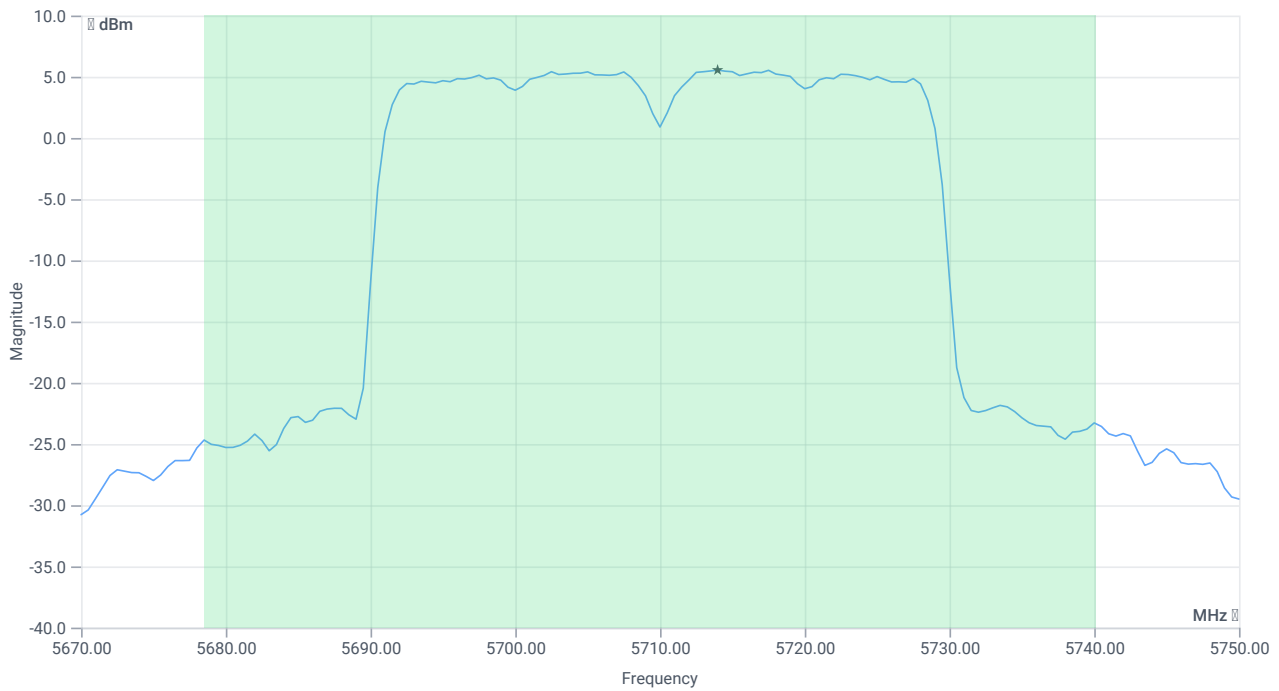
RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 26dB	---	---	61.6	MHz	INFO
T1 26dB	---	---	5678.4800	MHz	INFO
T2 26dB	---	---	5740.0800	MHz	INFO

Maximum Output Power

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	27.96 16.61 30
Start [MHz] Stop [MHz]	5670.000 5750.000
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	--	--	20.25	dBm	INFO
Duty Cycle Correction	--	--	0	dB	INFO
Limit absolute					
Max Output Power DC corrected	--	24	20.25	dBm	PASS
Limit: 11 dBm + 10 log 61.6					
Max Output Power DC corrected	--	28.9	20.25	dBm	PASS

Power Spectral Density

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Power Spectral Density	--	--	5.55	dBm/1MHz	INFO
Duty Cycle Correction	--	--	0	dB	INFO
Power Spectral Density DC corrected	--	11	5.55	dBm/1MHz	PASS

Verdict

PASS

FCC 15.247 # MIMO Power PSD Calculator ~ WLAN5Gx ax-HE40 U-NII-2C

Test References

TC Start	28.02.2023 16:47:44
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 ax-HE40 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 ax-HE40
Antenna Port used	several
Temperature	nom
Voltage	nom
Frequency low to test	False Freq [MHz] 5510
Frequency mid to test	True Freq [MHz] 5590
Frequency high to test	False Freq [MHz] 5710
Auto Control enabled Power Supply Climatic Box	No No
Additional Path Loss [dB]	1.4
Switched Path	None

Test Equipment

Test at TX 5590 MHz

RESULT Power

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ant:1 Max Output Power DC corrected	--	--	20.34	dBm	INFO
Ant:1 BW 26dB	--	--	55.920	MHz	INFO
Ant:2 Max Output Power DC corrected	--	--	19.63	dBm	INFO
Ant:2 BW 26dB	--	--	54.480	MHz	INFO
∑ Limit absolute	--	24	23.01	dBm	PASS
∑ Limit: 11 dBm + 10 log 54.48	--	28.36	23.01	dBm	PASS

RESULT PSD

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ant:1 PSD	--	--	5.75	dBm/1MHz	INFO
Ant:2 PSD	--	--	4.87	dBm/1MHz	INFO
∑	--	11	8.34	dBm/1MHz	PASS

Verdict

PASS

FCC 15.247 # Max output power and psd ~ WLAN5Gx ax-HE40 U-NII-2C

Test References

TC Start	28.02.2023 16:45:49
Ambit Temp [°C] Humidity [rel%]	22.6 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 ax-HE40 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 ax-HE40
Antenna Port used	2
Temperature	nom
Voltage	nom
Frequency low to test	False Freq [MHz] 5510
Frequency mid to test	True Freq [MHz] 5590
Frequency high to test	False Freq [MHz] 5710
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 5590 MHz

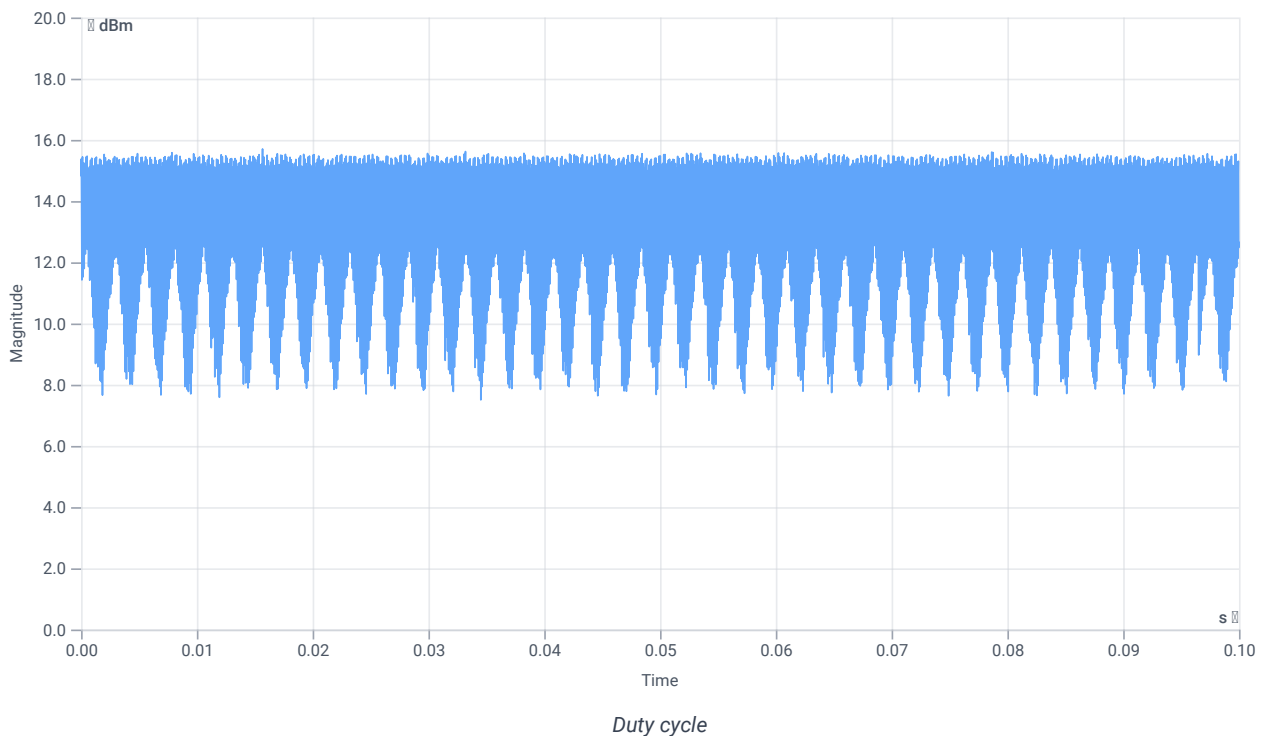
RESULT: Reference Power cond.

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	--	--	13.80	dBm	INFO
Ref. Frequency	--	--	5588.400	MHz	INFO

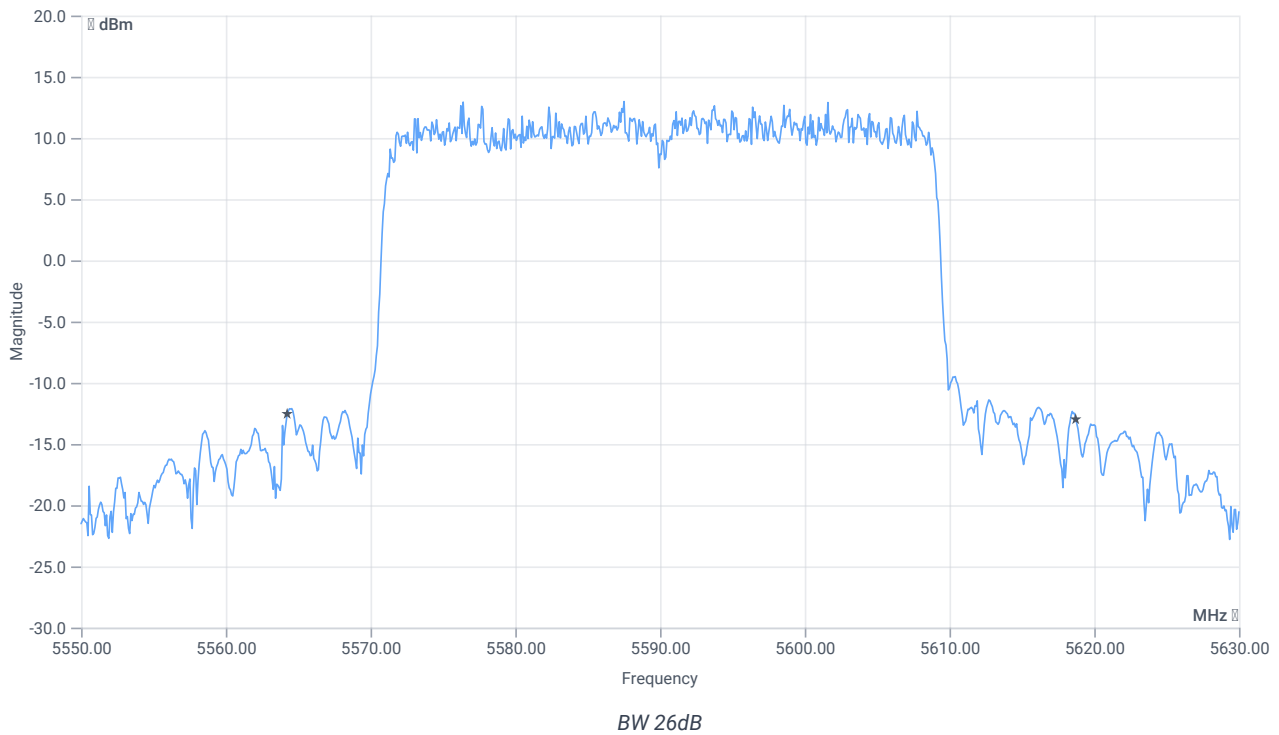
Evaluation max. Duty Cycle

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



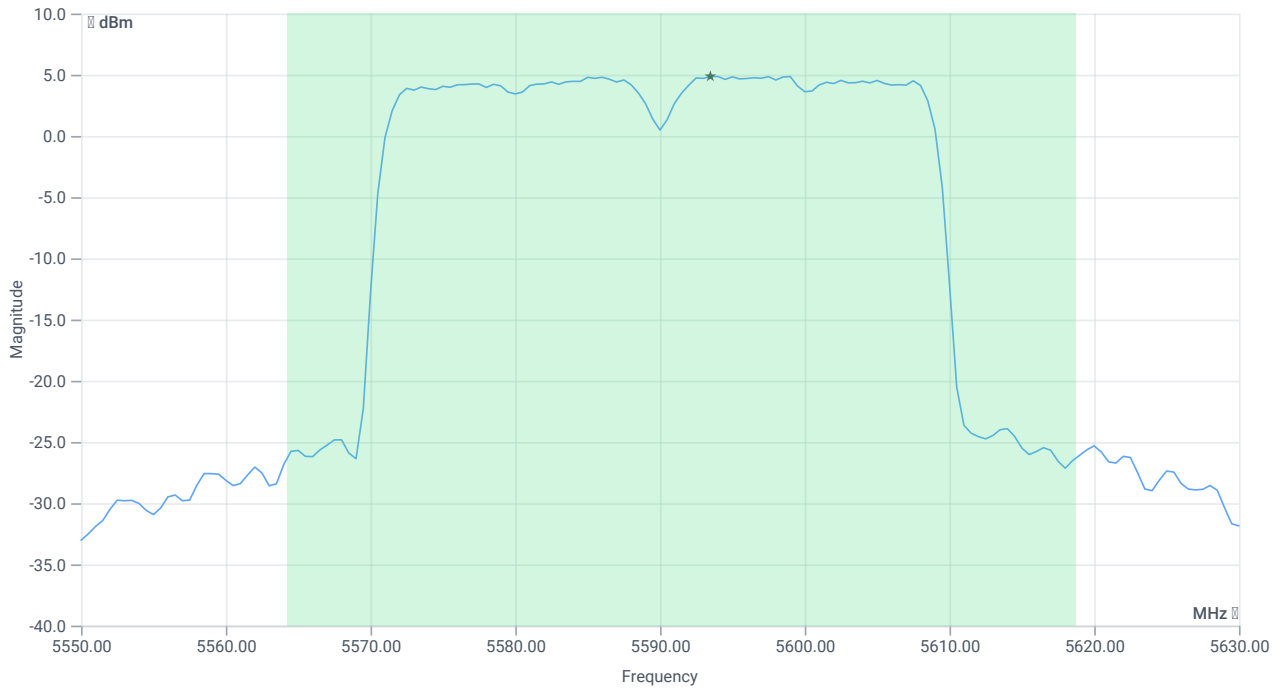
RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 26dB	---	---	54.48	MHz	INFO
T1 26dB	---	---	5564.2400	MHz	INFO
T2 26dB	---	---	5618.7200	MHz	INFO

Maximum Output Power

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	25.80 16.82 25
Start [MHz] Stop [MHz]	5550.000 5630.000
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	--	--	19.63	dBm	INFO
Duty Cycle Correction	--	--	0	dB	INFO
Limit absolute					
Max Output Power DC corrected	--	24	19.63	dBm	PASS
Limit: 11 dBm + 10 log 54.48					
Max Output Power DC corrected	--	28.36	19.63	dBm	PASS

Power Spectral Density

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Power Spectral Density	--	--	4.87	dBm/1MHz	INFO
Duty Cycle Correction	--	--	0	dB	INFO
Power Spectral Density DC corrected	--	11	4.87	dBm/1MHz	PASS

Verdict

PASS

FCC 15.247 # Max output power and psd ~ WLAN5Gx ax-HE40 U-NII-2C

Test References

TC Start	28.02.2023 16:43:54
Ambit Temp [°C] Humidity [rel%]	22.6 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 ax-HE40 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 ax-HE40
Antenna Port used	1
Temperature	nom
Voltage	nom
Frequency low to test	False Freq [MHz] 5510
Frequency mid to test	True Freq [MHz] 5590
Frequency high to test	False Freq [MHz] 5710
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 5590 MHz

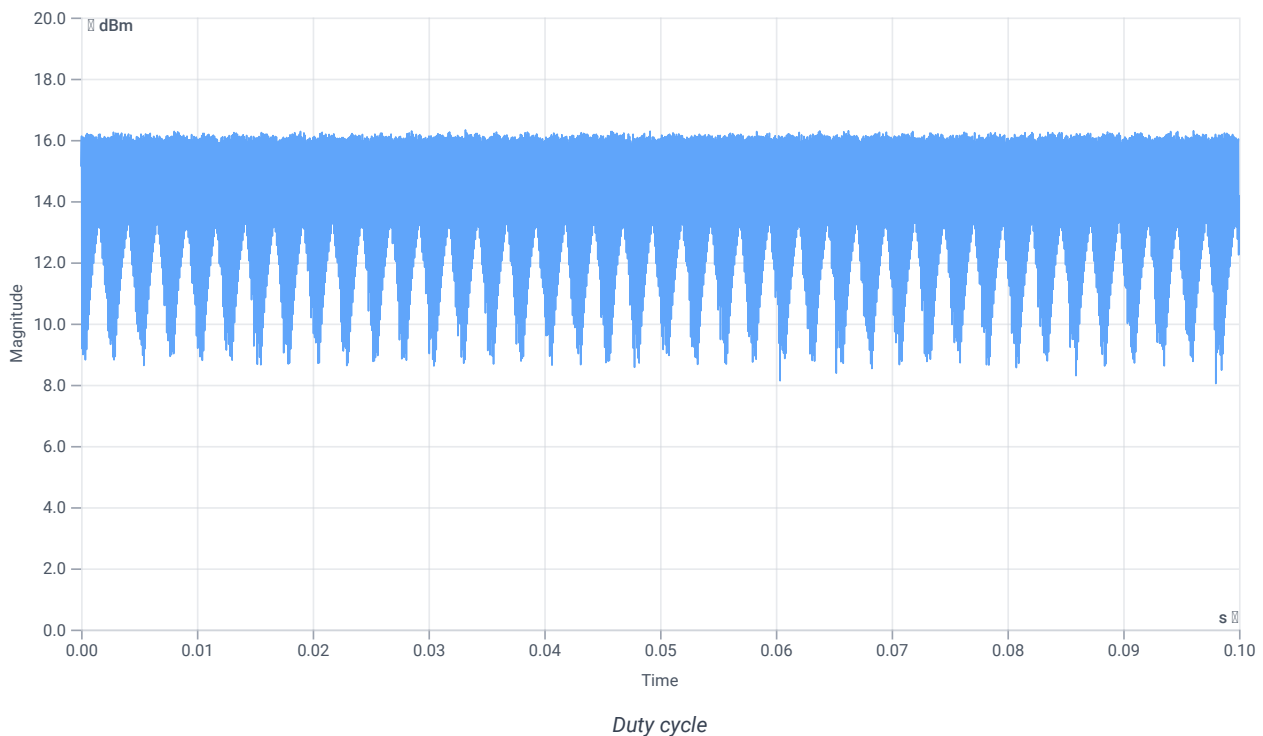
RESULT: Reference Power cond.

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	--	--	15.00	dBm	INFO
Ref. Frequency	--	--	5593.600	MHz	INFO

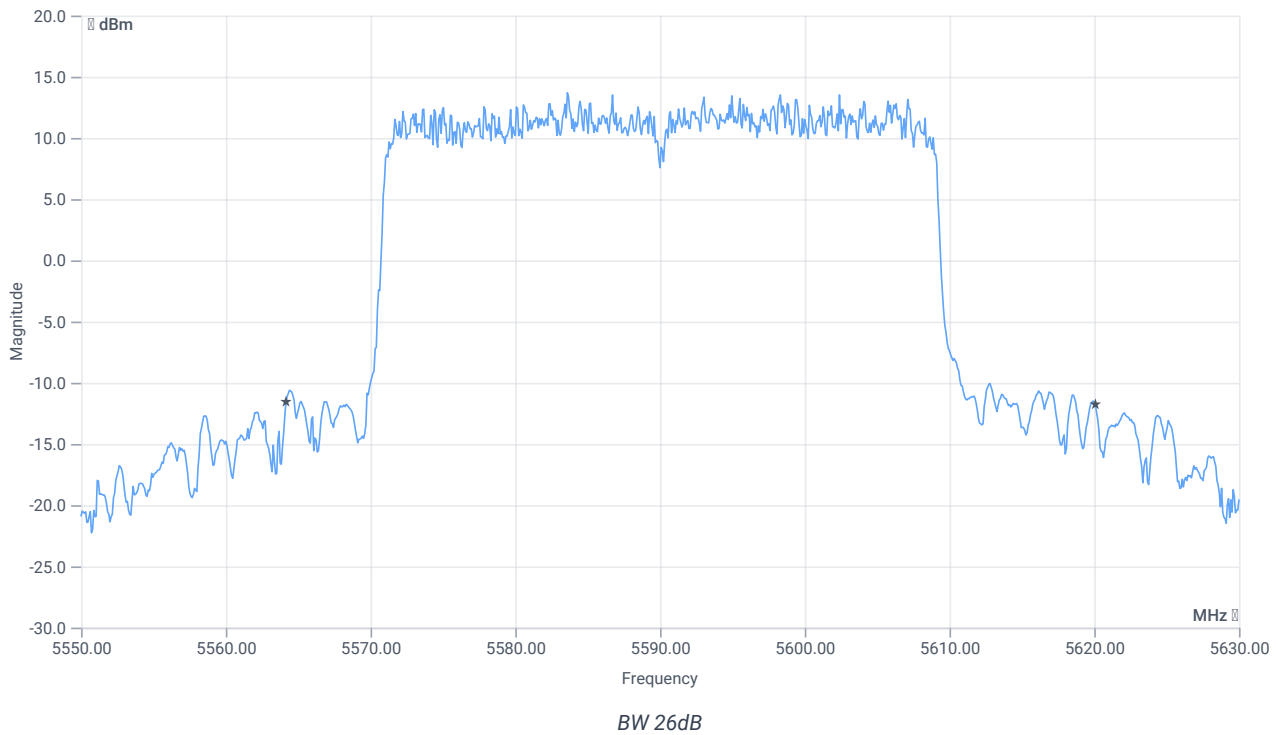
Evaluation max. Duty Cycle

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



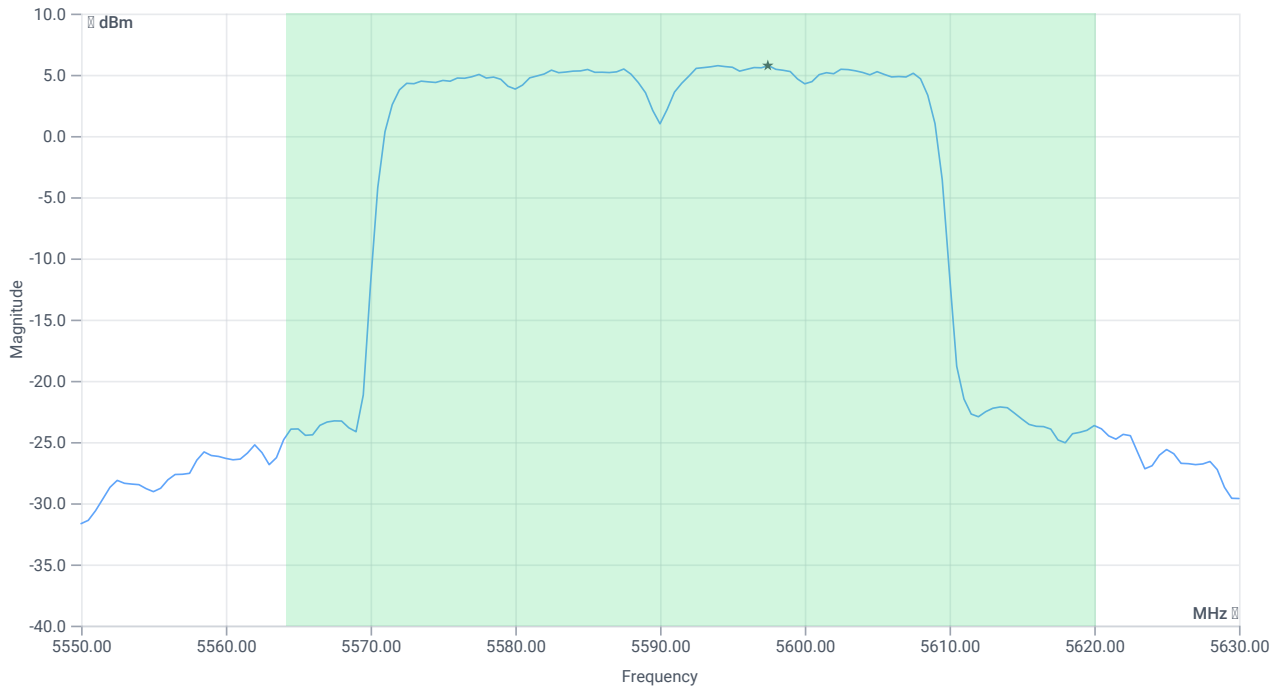
RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 26dB	---	---	55.92	MHz	INFO
T1 26dB	---	---	5564.1600	MHz	INFO
T2 26dB	---	---	5620.0800	MHz	INFO

Maximum Output Power

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	27.00 16.82 25
Start [MHz] Stop [MHz]	5550.000 5630.000
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	--	--	20.34	dBm	INFO
Duty Cycle Correction	--	--	0	dB	INFO
Limit absolute					
Max Output Power DC corrected	--	24	20.34	dBm	PASS
Limit: 11 dBm + 10 log 55.92					
Max Output Power DC corrected	--	28.48	20.34	dBm	PASS

Power Spectral Density

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Power Spectral Density	--	--	5.75	dBm/1MHz	INFO
Duty Cycle Correction	--	--	0	dB	INFO
Power Spectral Density DC corrected	--	11	5.75	dBm/1MHz	PASS

Verdict

PASS

FCC 15.247 # MIMO Power PSD Calculator ~ WLAN5Gx ax-HE40 U-NII-3

Test References

TC Start	21.02.2023 16:18:36
Ambit Temp [°C] Humidity [rel%]	23.3 33
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 ax-HE40 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 ax-HE40
Antenna Port used	several
Temperature	nom
Voltage	nom
Frequency low to test	True Freq [MHz] 5755
Frequency mid to test	False Freq [MHz] 0
Frequency high to test	True Freq [MHz] 5795
Auto Control enabled Power Supply Climatic Box	No No
Additional Path Loss [dB]	1.4
Switched Path	None

Test Equipment

Test at TX 5755 MHz

RESULT Power

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ant:1 Max Output Power DC corrected	--	--	19.87	dBm	INFO
Ant:1 BW 26dB	--	--	61.760	MHz	INFO
Ant:2 Max Output Power DC corrected	--	--	19.86	dBm	INFO
Ant:2 BW 26dB	--	--	51.920	MHz	INFO
Σ Limit absolute	--	30	22.88	dBm	PASS
Σ Limit: 11 dBm + 10 log 51.92	--	28.15	22.88	dBm	na

RESULT PSD

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ant:1 PSD	--	--	2.58	dBm/0.5MHz	INFO
Ant:2 PSD	--	--	2.57	dBm/0.5MHz	INFO
Σ	--	30	5.59	dBm/0.5MHz	PASS

Test at TX 5795 MHz

RESULT Power

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ant:1 Max Output Power DC corrected	--	--	20.94	dBm	INFO
Ant:1 BW 26dB	--	--	69.200	MHz	INFO
Ant:2 Max Output Power DC corrected	--	--	20.87	dBm	INFO
Ant:2 BW 26dB	--	--	72.000	MHz	INFO
∑ Limit absolute	--	30	23.92	dBm	PASS
∑ Limit: 11 dBm + 10 log 69.2	--	29.4	23.92	dBm	na

RESULT PSD

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ant:1 PSD	--	--	3.97	dBm/0.5MHz	INFO
Ant:2 PSD	--	--	3.61	dBm/0.5MHz	INFO
∑	--	30	6.8	dBm/0.5MHz	PASS

Verdict

PASS

FCC 15.407, ISED RSS247 # Minimum emission bandwidth ~ WLAN5Gx ax-HE40 U-NII-3

Test References

TC Start	21.02.2023 16:18:11
Ambit Temp [°C] Humidity [rel%]	23.3 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 ax-HE40 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 ax-HE40
Antenna Port used	2
Temperature	nom
Voltage	nom
Frequency low to test	False Freq [MHz] 5755
Frequency mid to test	False Freq [MHz] 0
Frequency high to test	True Freq [MHz] 5795
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

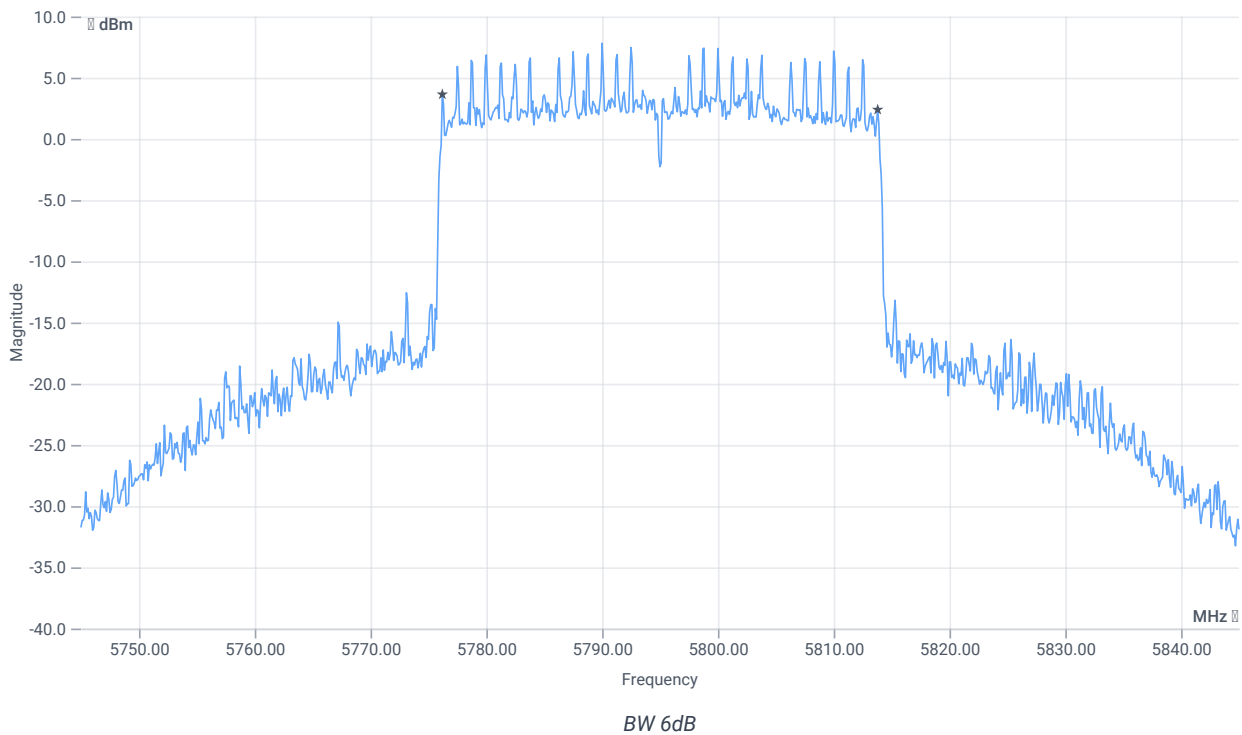
Test at TX 5795 MHz

RESULT: Reference Power cond.

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	16.21	dBm	INFO
Ref. Frequency	---	---	5808.590	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	28.21 16.77 30
Start [MHz] Stop [MHz]	5745.000 5845.000
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	---	37.6	MHz	PASS

Verdict

PASS

FCC 15.407, ISED RSS247 # Bandwidths 99PCT and 26dB ~ WLAN5Gx ax-HE40 U-NII-3

Test References

TC Start	21.02.2023 16:17:40
Ambit Temp [°C] Humidity [rel%]	23.3 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 ax-HE40 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 ax-HE40
Antenna Port used	2
Temperature	nom
Voltage	nom
Frequency low to test	False Freq [MHz] 5755
Frequency mid to test	False Freq [MHz] 0
Frequency high to test	True Freq [MHz] 5795
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

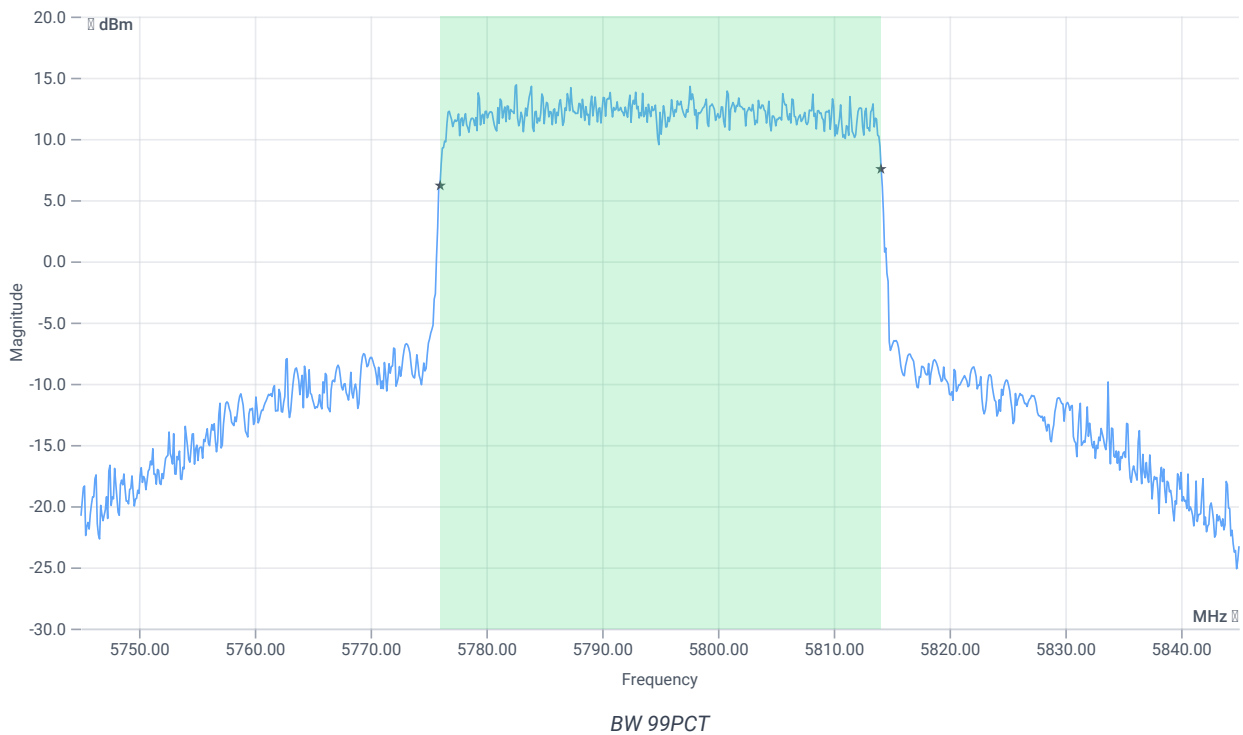
Test at TX 5795 MHz

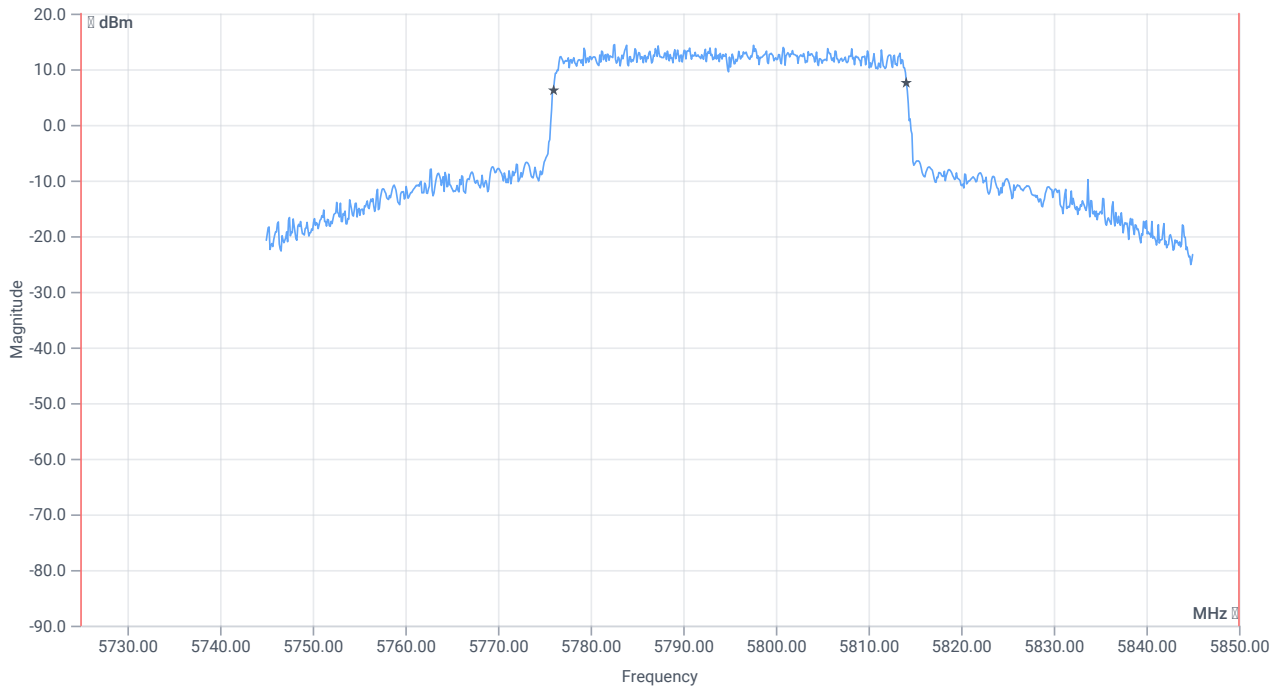
RESULT: Reference Power cond.

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	--	--	15.39	dBm	INFO
Ref. Frequency	--	--	5809.590	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	23.39 16.77 25
Start [MHz] Stop [MHz]	5745.000 5845.000
RBW [MHz] VBW [MHz]	0.500000 3.000000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	1 2500 1001 SWE

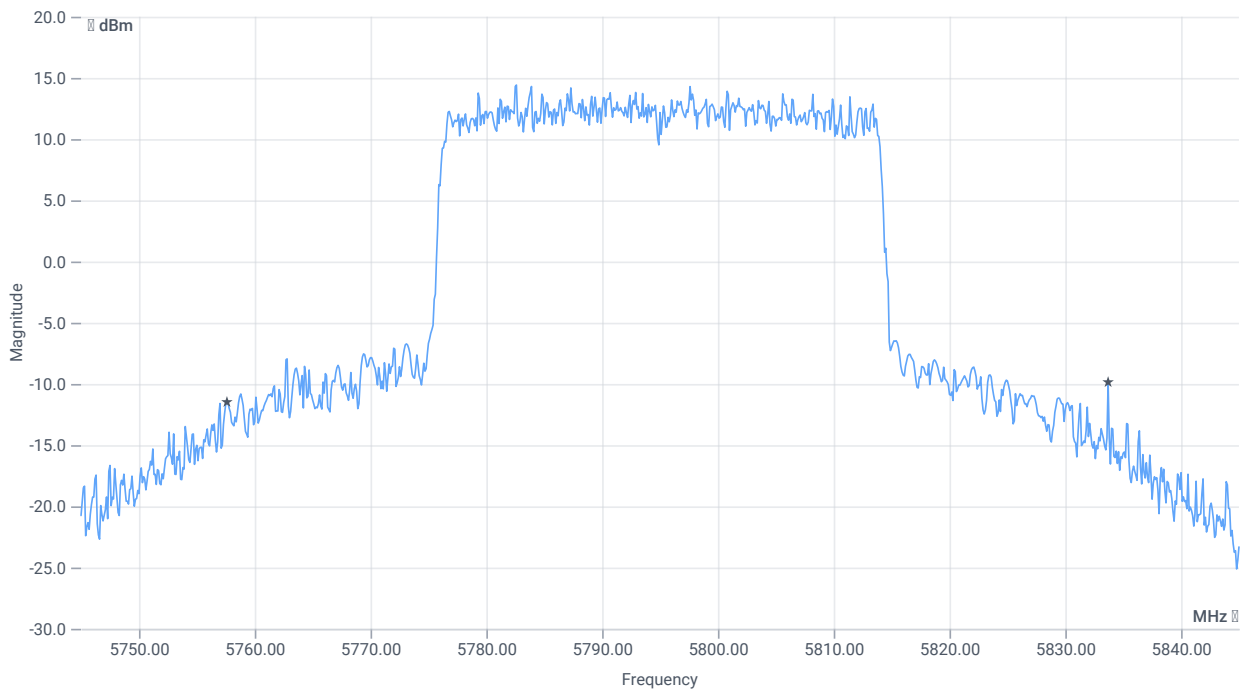




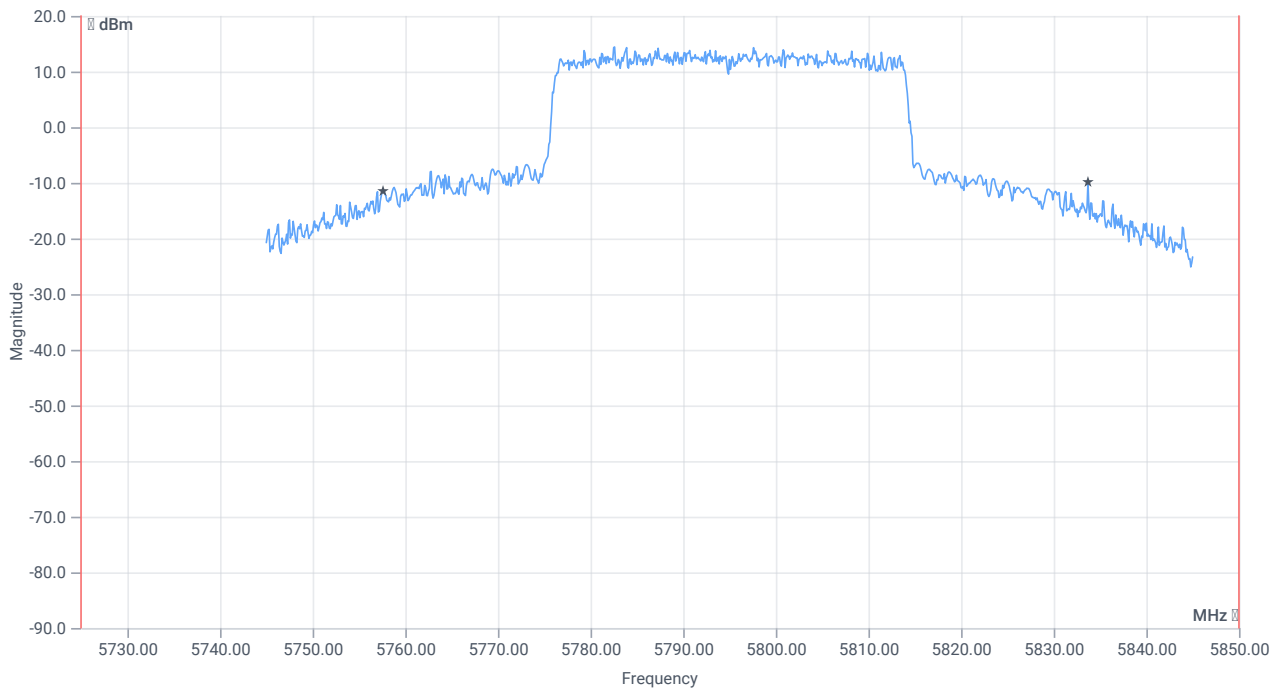
BW within Band 99PCT

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 99%	--	--	38.062	MHz	INFO
T1 99%	5725.000000	--	5776.0190	MHz	PASS
T2 99%	--	5850.000000	5814.0809	MHz	PASS



BW 26dB



BW within Band 26dB

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 26dB	--	--	76.1	MHz	INFO
T1 26dB	5725.000000	--	5757.6000	MHz	PASS
T2 26dB	--	5850.000000	5833.7000	MHz	PASS

Verdict

PASS

FCC 15.247 # Max output power and psd ~ WLAN5Gx ax-HE40 U-NII-3

Test References

TC Start	21.02.2023 16:15:16
Ambit Temp [°C] Humidity [rel%]	23.3 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 ax-HE40 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 ax-HE40
Antenna Port used	2
Temperature	nom
Voltage	nom
Frequency low to test	False Freq [MHz] 5755
Frequency mid to test	False Freq [MHz] 0
Frequency high to test	True Freq [MHz] 5795
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 5795 MHz

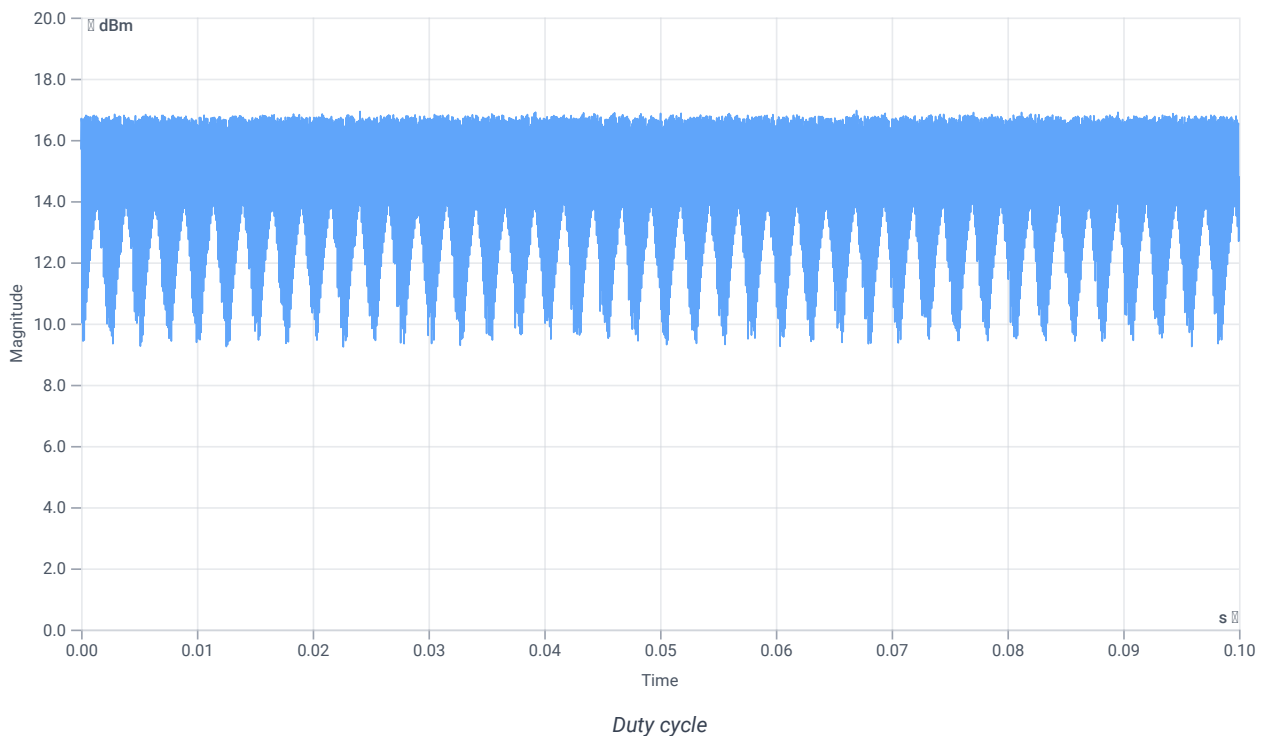
RESULT: Reference Power cond.

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	--	--	15.13	dBm	INFO
Ref. Frequency	--	--	5792.200	MHz	INFO

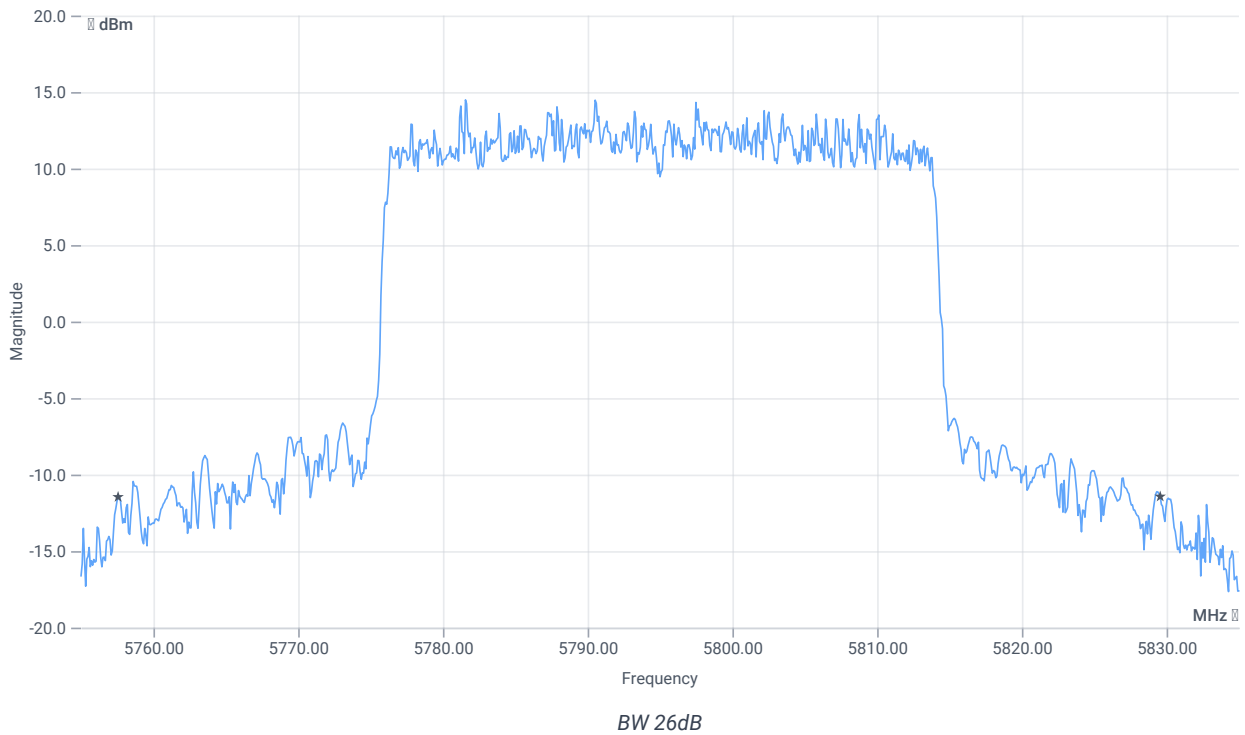
Evaluation max. Duty Cycle

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



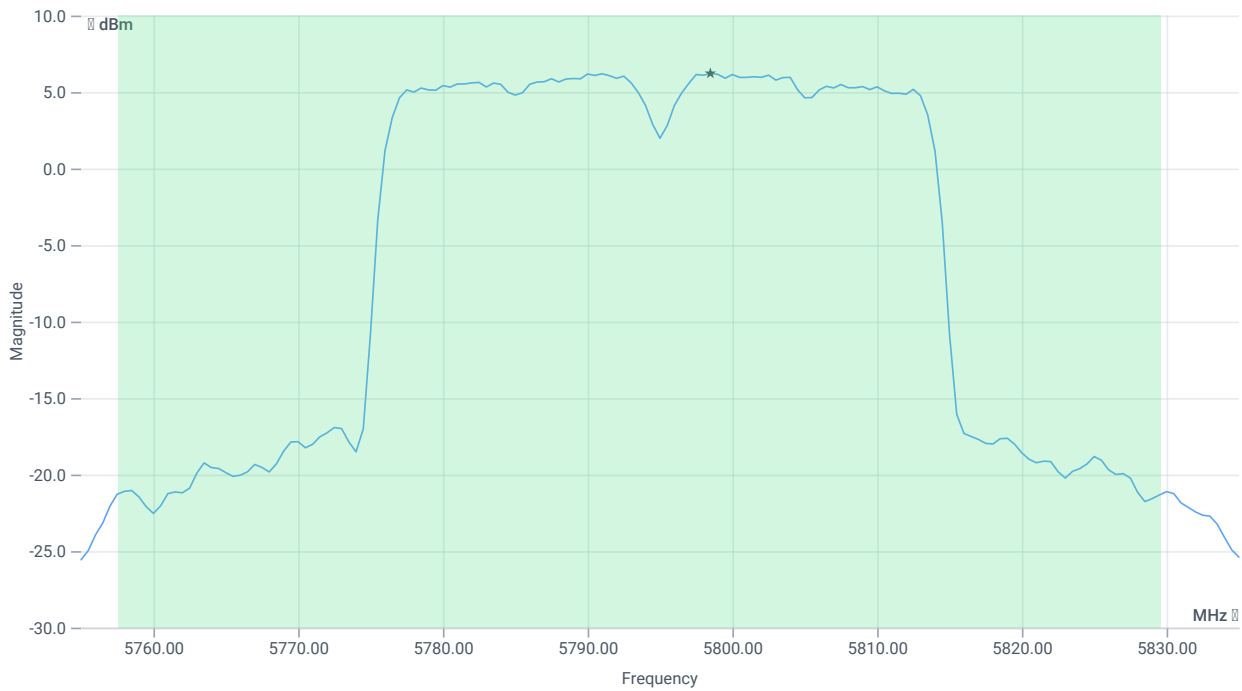
RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 26dB	---	---	72	MHz	INFO
T1 26dB	---	---	5757.5600	MHz	INFO
T2 26dB	---	---	5829.5600	MHz	INFO

Maximum Output Power

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	27.13 16.77 25
Start [MHz] Stop [MHz]	5755.000 5835.000
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

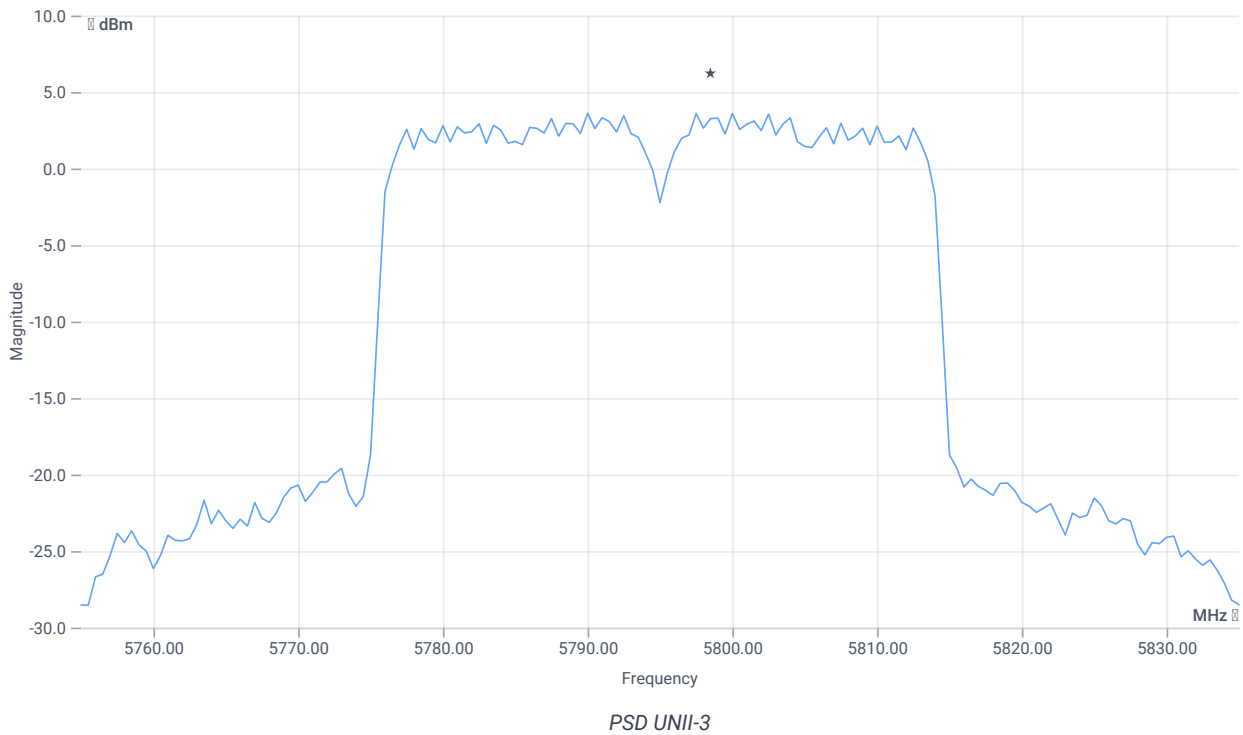
RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Max Output Power	--	--	20.87	dBm	INFO
Duty Cycle Correction	--	--	0	dB	INFO
Limit absolute					
Max Output Power DC corrected	--	30	20.87	dBm	PASS
Limit: 11 dBm + 10 log 72					
Max Output Power DC corrected	--	29.57	20.87	dBm	na

Power Spectral Density U-NII-3

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	27.13 16.77 30
Start [MHz] Stop [MHz]	5755.000 5835.000
RBW [MHz] VBW [MHz]	0.500000 3.000000
Detector TraceMode	RMS MAXH
Sweep: Time [ms] Count Points per Section Type	53700 1 161 SWE



RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Power Spectral Density	--	--	3.61	dBm/0.5MHz	INFO
Duty Cycle Correction	--	--	0	dB	INFO
Power Spectral Density DC corrected	--	30	3.61	dBm/0.5MHz	PASS

Verdict

PASS

FCC 15.407, ISED RSS247 # Minimum emission bandwidth ~ WLAN5Gx ax-HE40 U-NII-3

Test References

TC Start	21.02.2023 16:14:51
Ambit Temp [°C] Humidity [rel%]	23.3 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 ax-HE40 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 ax-HE40
Antenna Port used	1
Temperature	nom
Voltage	nom
Frequency low to test	False Freq [MHz] 5755
Frequency mid to test	False Freq [MHz] 0
Frequency high to test	True Freq [MHz] 5795
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

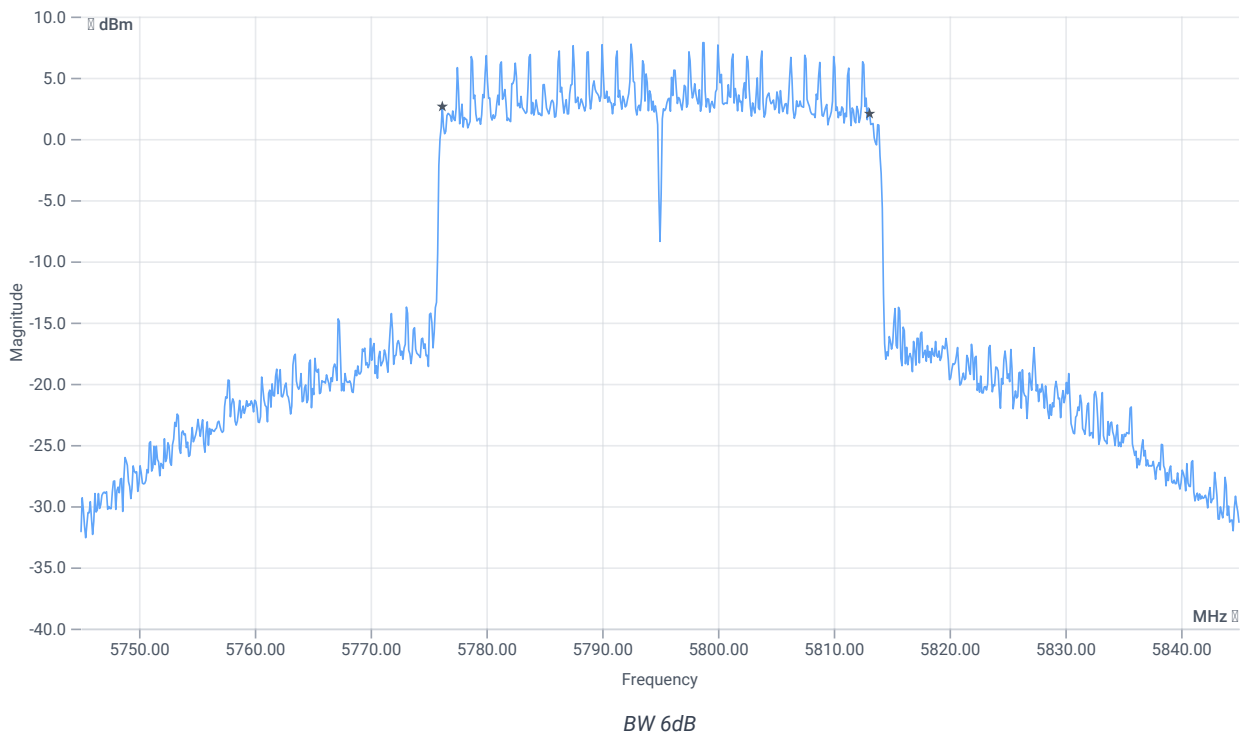
Test at TX 5795 MHz

RESULT: Reference Power cond.

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	15.73	dBm	INFO
Ref. Frequency	---	---	5804.990	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	27.73 16.77 30
Start [MHz] Stop [MHz]	5745.000 5845.000
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	---	36.9	MHz	PASS

Verdict

PASS

FCC 15.407, ISED RSS247 # Bandwidths 99PCT and 26dB ~ WLAN5Gx ax-HE40 U-NII-3

Test References

TC Start	21.02.2023 16:14:21
Ambit Temp [°C] Humidity [rel%]	23.3 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 ax-HE40 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 ax-HE40
Antenna Port used	1
Temperature	nom
Voltage	nom
Frequency low to test	False Freq [MHz] 5755
Frequency mid to test	False Freq [MHz] 0
Frequency high to test	True Freq [MHz] 5795
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

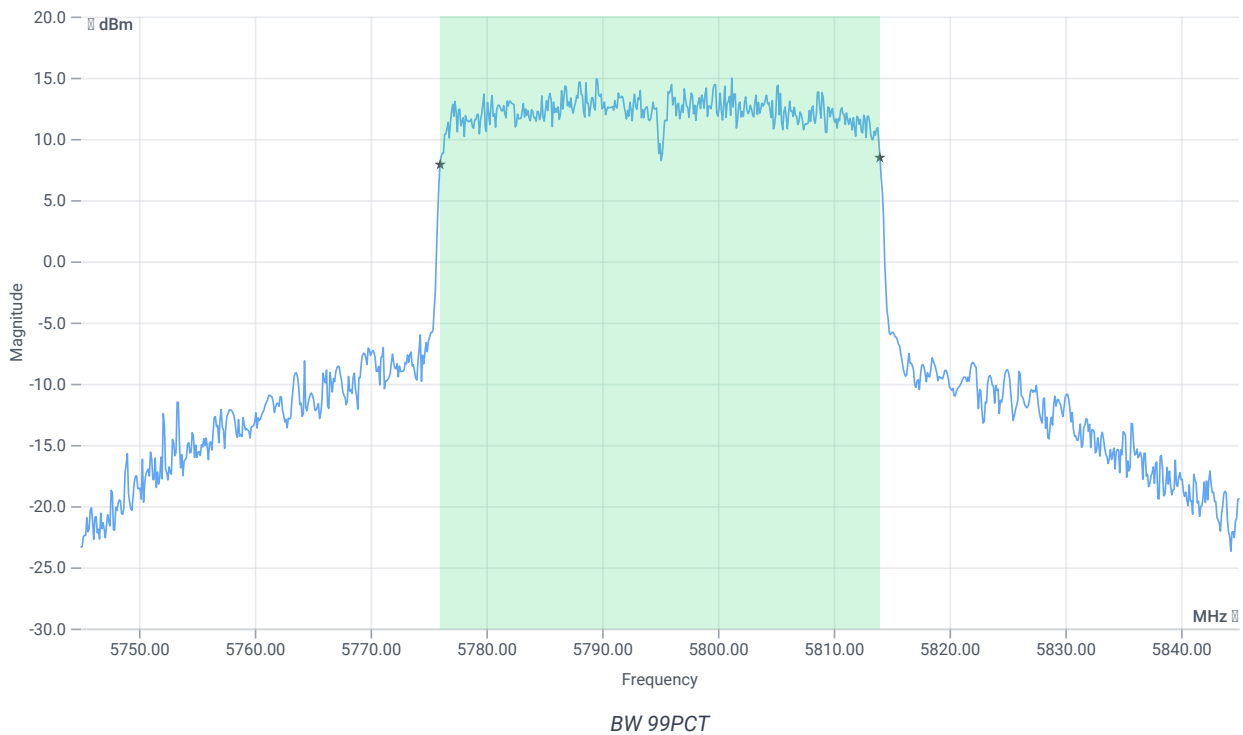
Test at TX 5795 MHz

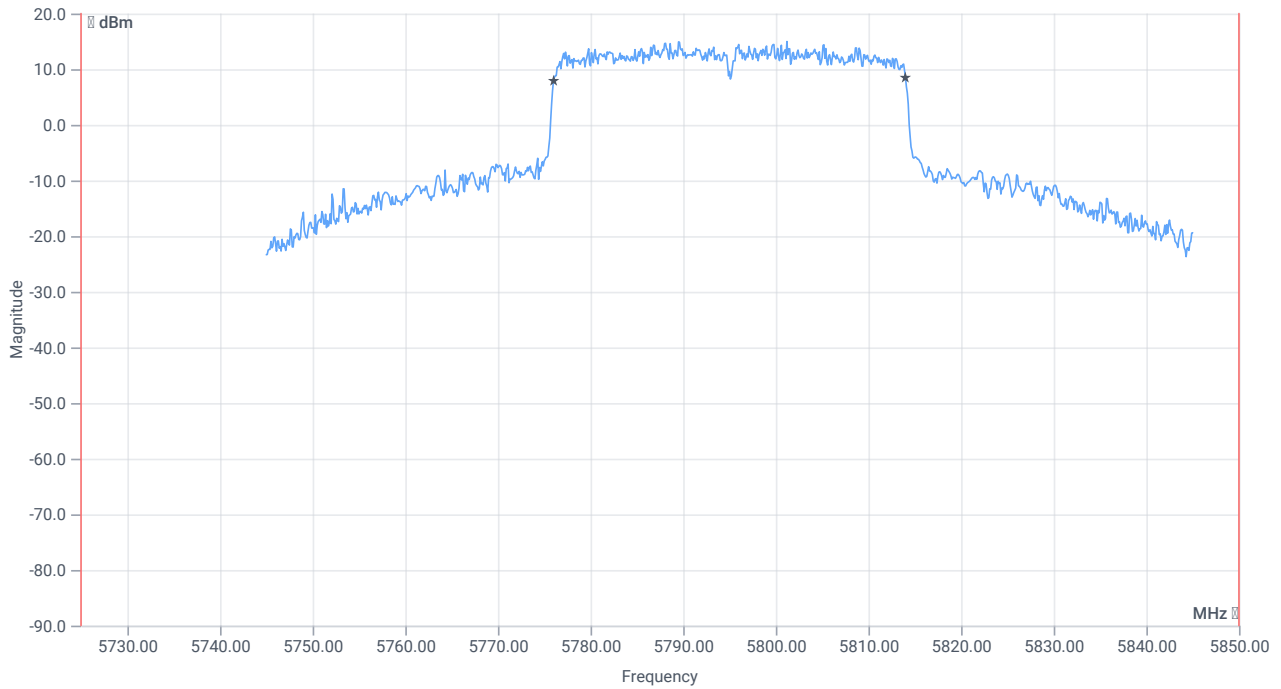
RESULT: Reference Power cond.

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	--	--	15.39	dBm	INFO
Ref. Frequency	--	--	5799.400	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	23.39 16.77 25
Start [MHz] Stop [MHz]	5745.000 5845.000
RBW [MHz] VBW [MHz]	0.500000 3.000000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	1 2500 1001 SWE

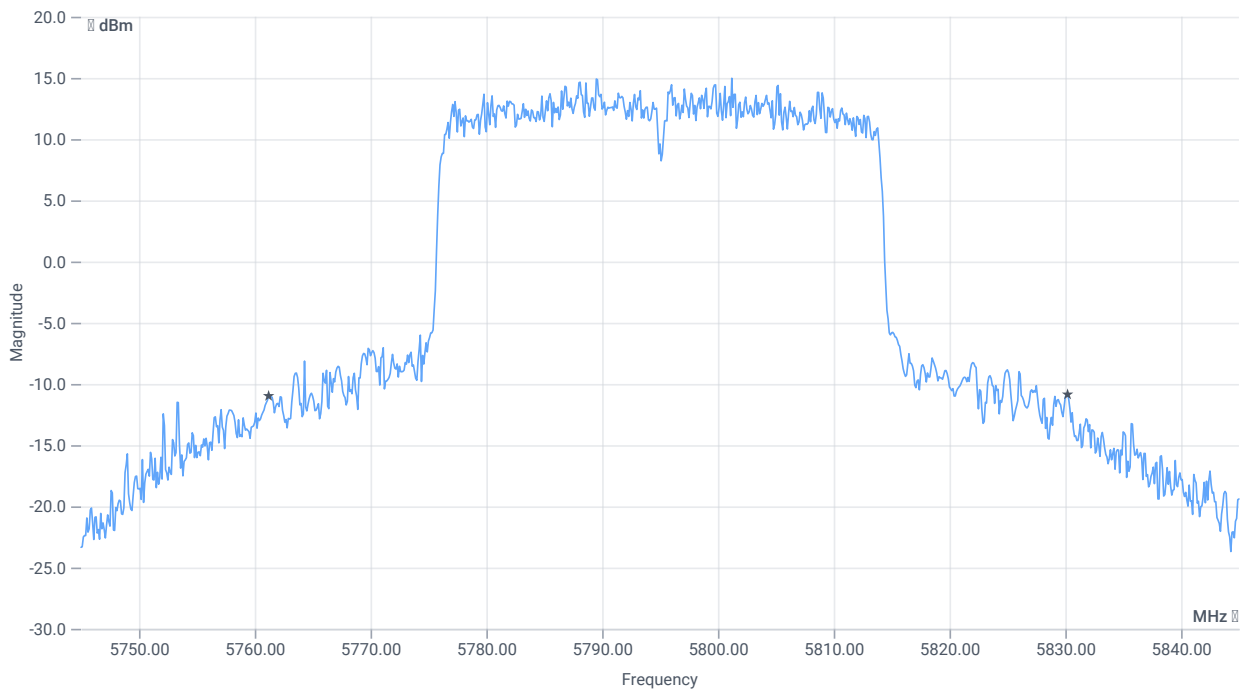




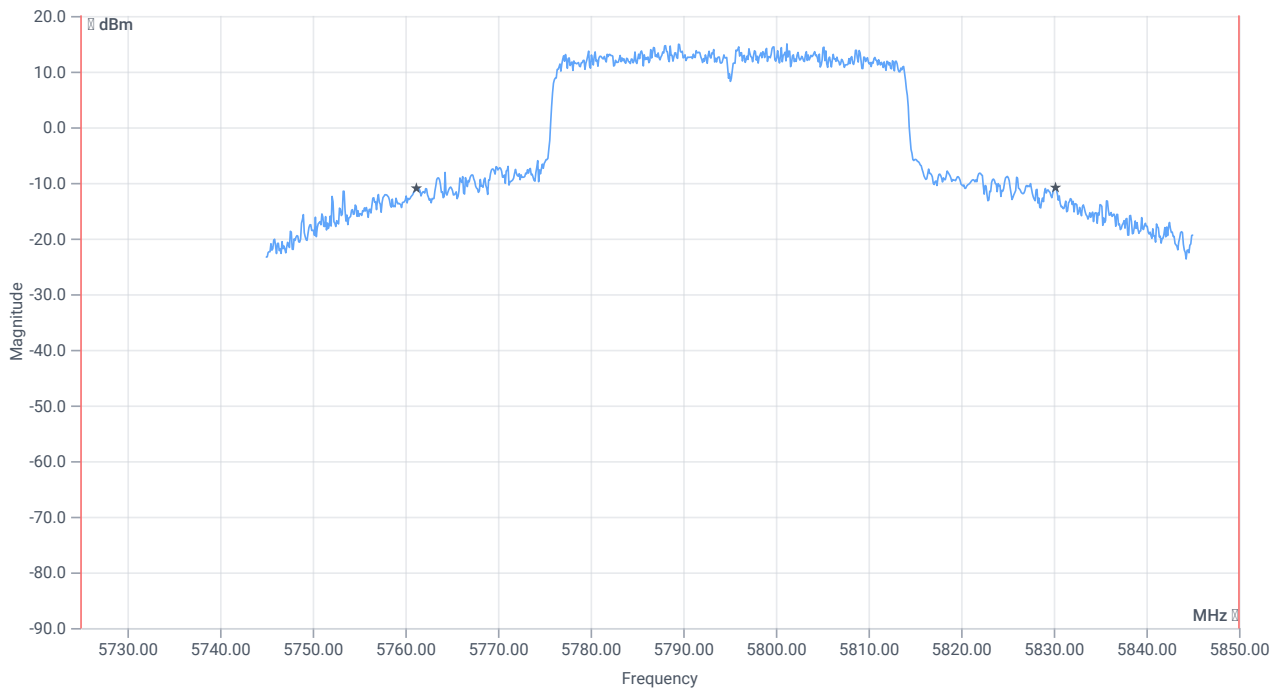
BW within Band 99PCT

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 99%	--	--	37.962	MHz	INFO
T1 99%	5725.000000	--	5776.0190	MHz	PASS
T2 99%	--	5850.000000	5813.9810	MHz	PASS



BW 26dB



BW within Band 26dB

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 26dB	--	--	69	MHz	INFO
T1 26dB	5725.000000	--	5761.2000	MHz	PASS
T2 26dB	--	5850.000000	5830.2000	MHz	PASS

Verdict

PASS

FCC 15.247 # Max output power and psd ~ WLAN5Gx ax-HE40 U-NII-3

Test References

TC Start	21.02.2023 16:11:57
Ambit Temp [°C] Humidity [rel%]	23.3 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 ax-HE40 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 ax-HE40
Antenna Port used	1
Temperature	nom
Voltage	nom
Frequency low to test	False Freq [MHz] 5755
Frequency mid to test	False Freq [MHz] 0
Frequency high to test	True Freq [MHz] 5795
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 5795 MHz

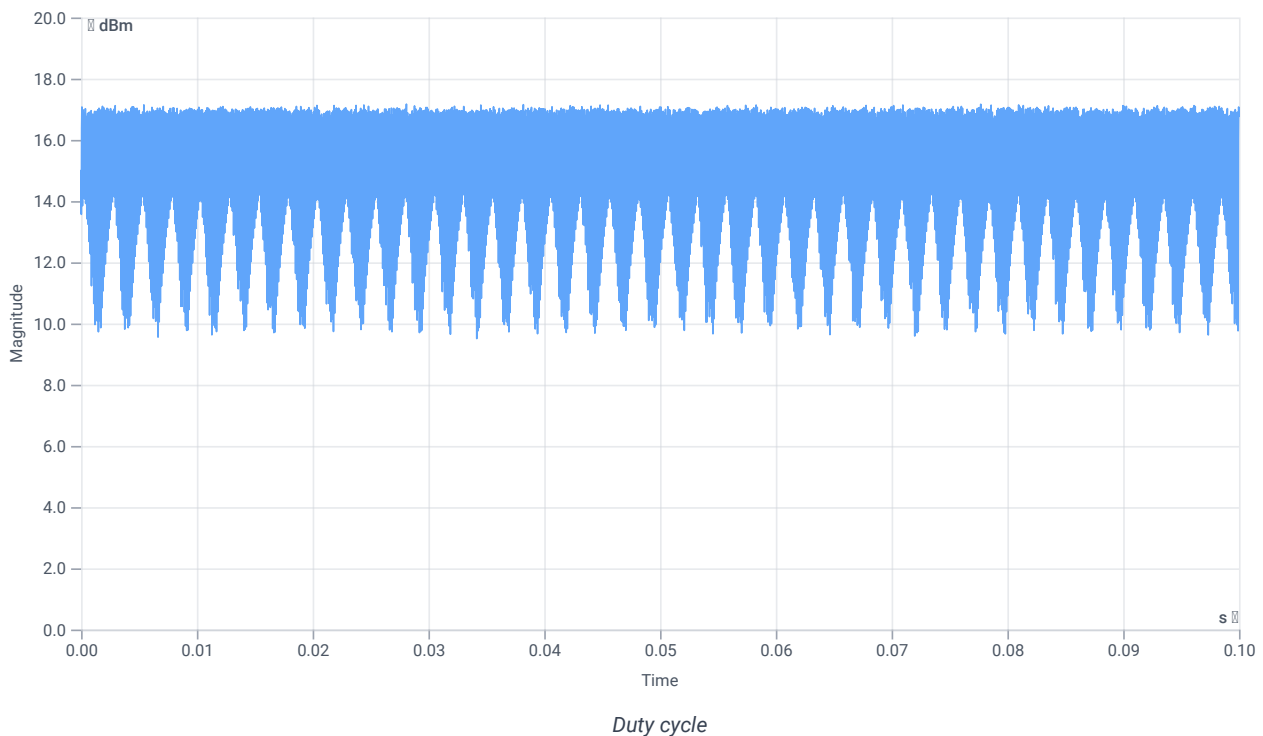
RESULT: Reference Power cond.

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	--	--	16.45	dBm	INFO
Ref. Frequency	--	--	5787.210	MHz	INFO

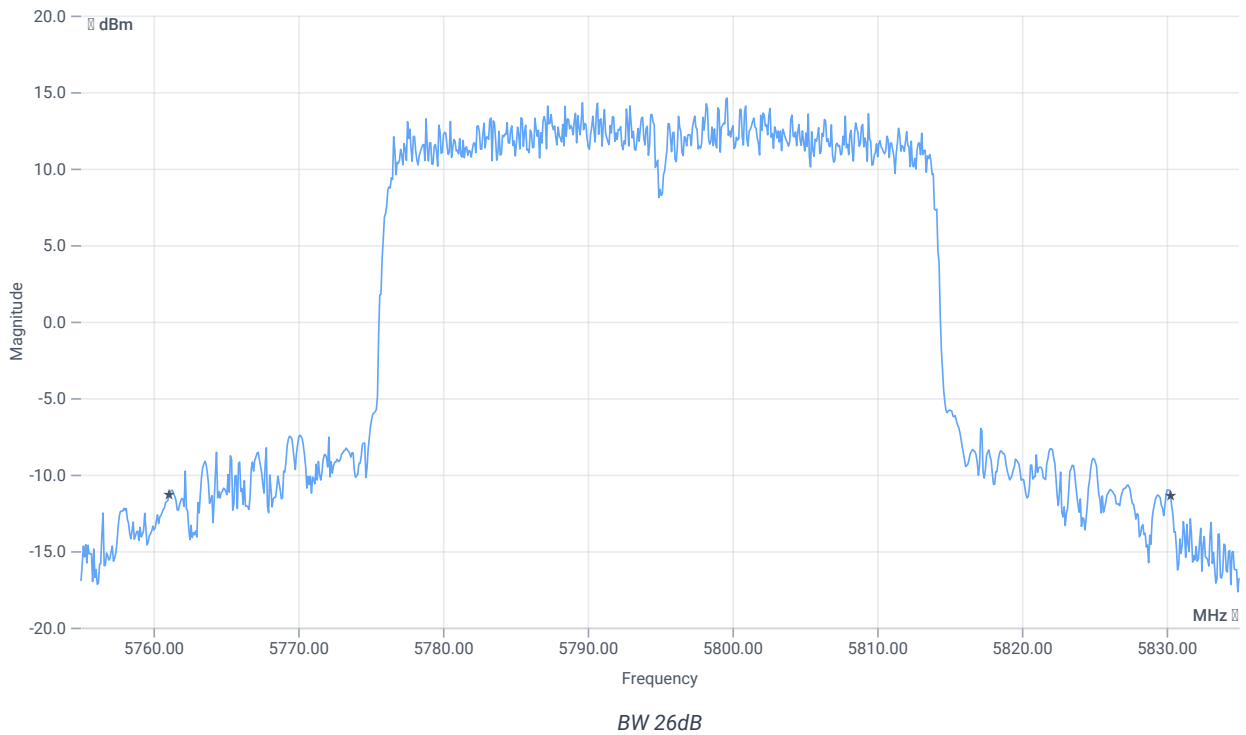
Evaluation max. Duty Cycle

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



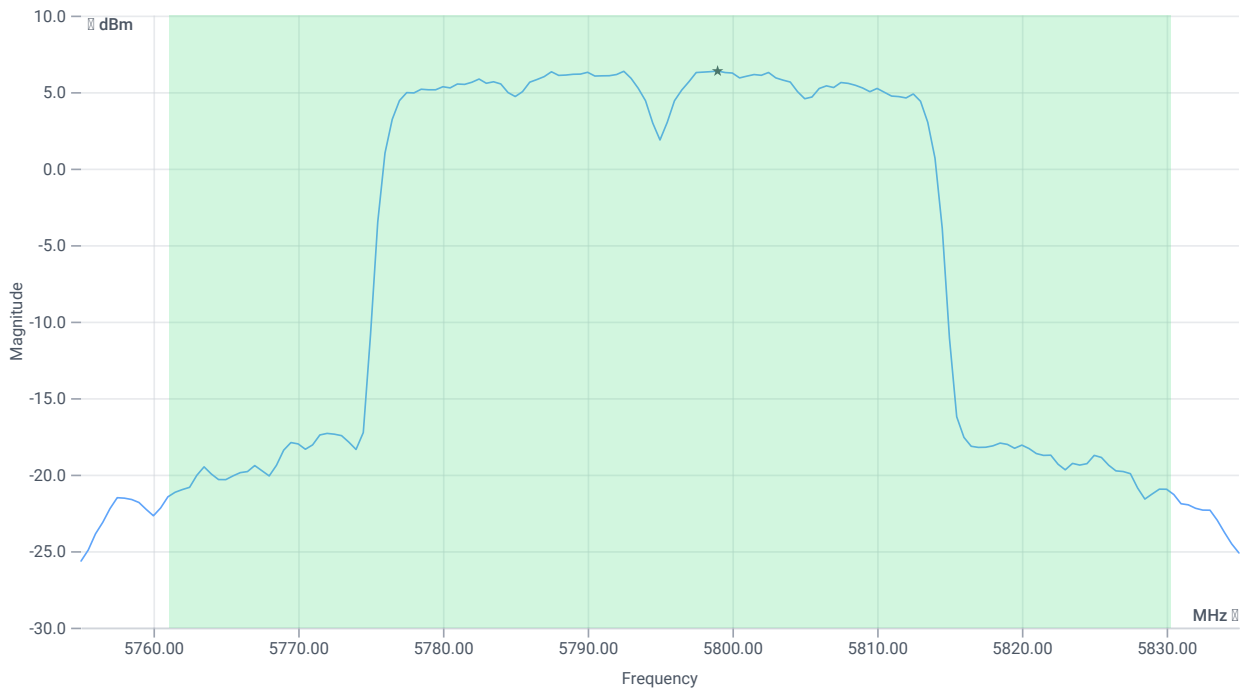
RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 26dB	---	---	69.2	MHz	INFO
T1 26dB	---	---	5761.0800	MHz	INFO
T2 26dB	---	---	5830.2800	MHz	INFO

Maximum Output Power

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	28.45 16.77 30
Start [MHz] Stop [MHz]	5755.000 5835.000
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

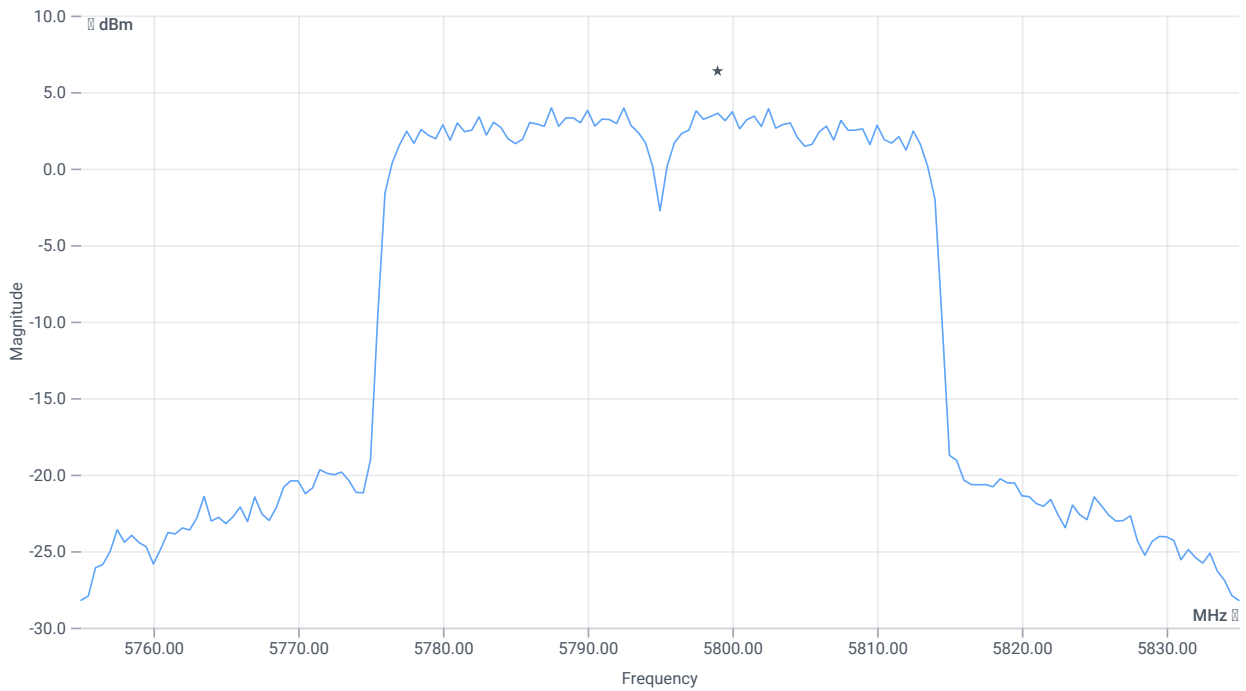
RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Max Output Power	--	--	20.94	dBm	INFO
Duty Cycle Correction	--	--	0	dB	INFO
Limit absolute					
Max Output Power DC corrected	--	30	20.94	dBm	PASS
Limit: 11 dBm + 10 log 69.2					
Max Output Power DC corrected	--	29.4	20.94	dBm	na

Power Spectral Density U-NII-3

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	28.45 16.77 30
Start [MHz] Stop [MHz]	5755.000 5835.000
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	--	--	3.97	dBm/0.5MHz	INFO
Duty Cycle Correction	--	--	0	dB	INFO
Power Spectral Density DC corrected	--	30	3.97	dBm/0.5MHz	PASS

Verdict

PASS

FCC 15.407, ISED RSS247 # Minimum emission bandwidth ~ WLAN5Gx ax-HE40 U-NII-3

Test References

TC Start	21.02.2023 16:10:43
Ambit Temp [°C] Humidity [rel%]	23.3 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 ax-HE40 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 ax-HE40
Antenna Port used	2
Temperature	nom
Voltage	nom
Frequency low to test	True Freq [MHz] 5755
Frequency mid to test	False Freq [MHz] 0
Frequency high to test	False Freq [MHz] 5795
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

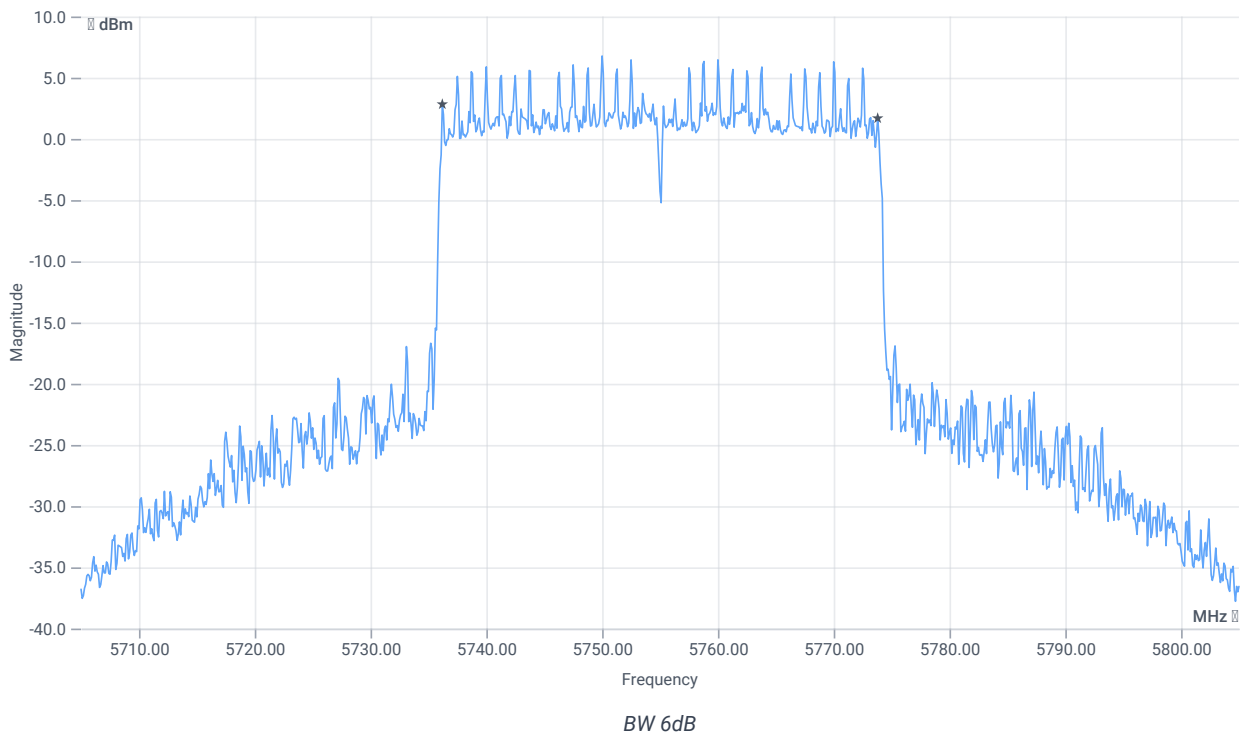
Test at TX 5755 MHz

RESULT: Reference Power cond.

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	---	---	14.49	dBm	INFO
Ref. Frequency	---	---	5745.010	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	26.49 16.87 25
Start [MHz] Stop [MHz]	5705.000 5805.000
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	---	37.6	MHz	PASS

Verdict

PASS

FCC 15.407, ISED RSS247 # Bandwidths 99PCT and 26dB ~ WLAN5Gx ax-HE40 U-NII-3

Test References

TC Start	21.02.2023 16:10:13
Ambit Temp [°C] Humidity [rel%]	23.3 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 ax-HE40 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 ax-HE40
Antenna Port used	2
Temperature	nom
Voltage	nom
Frequency low to test	True Freq [MHz] 5755
Frequency mid to test	False Freq [MHz] 0
Frequency high to test	False Freq [MHz] 5795
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

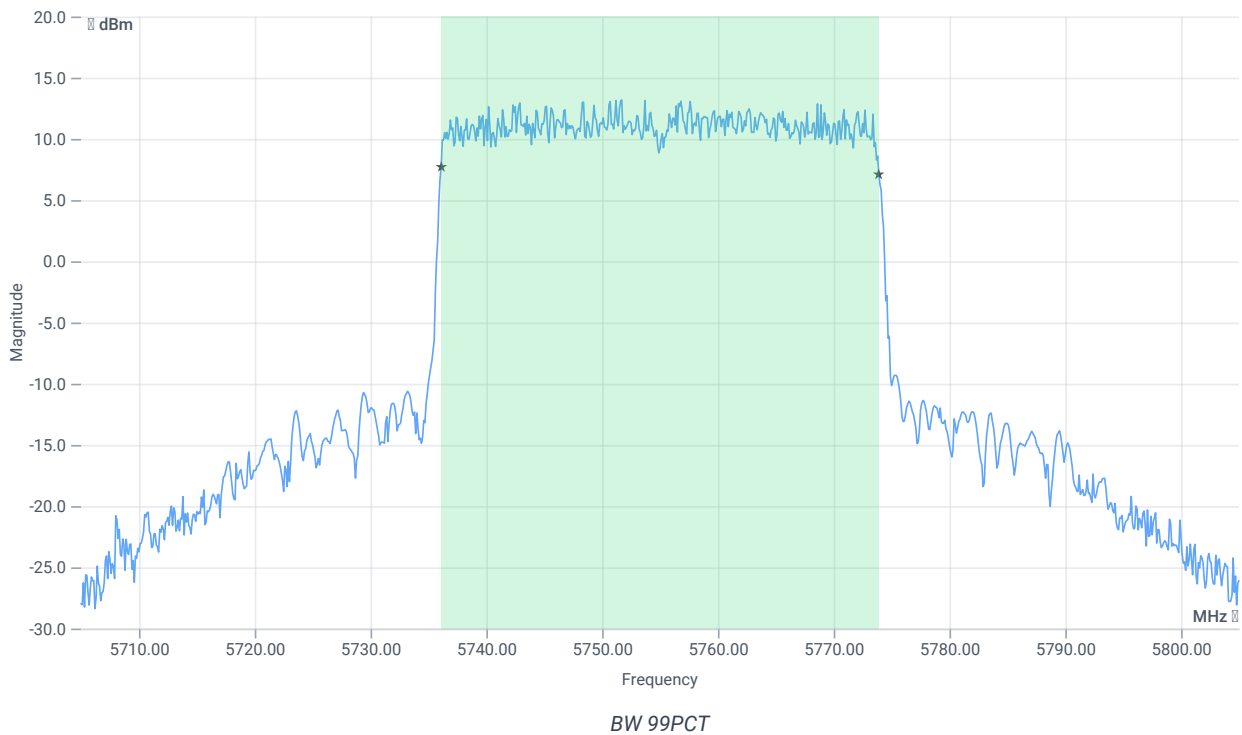
Test at TX 5755 MHz

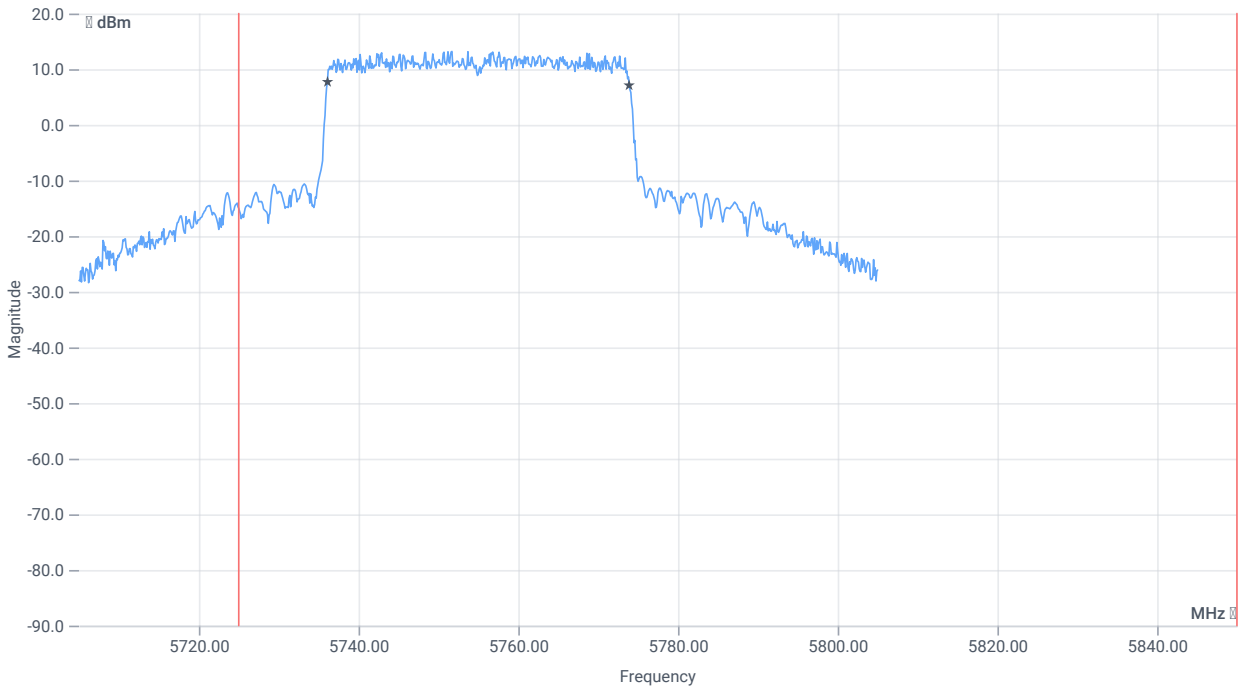
RESULT: Reference Power cond.

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	--	--	13.93	dBm	INFO
Ref. Frequency	--	--	5751.400	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	21.93 16.87 25
Start [MHz] Stop [MHz]	5705.000 5805.000
RBW [MHz] VBW [MHz]	0.500000 3.000000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	1 2500 1001 SWE

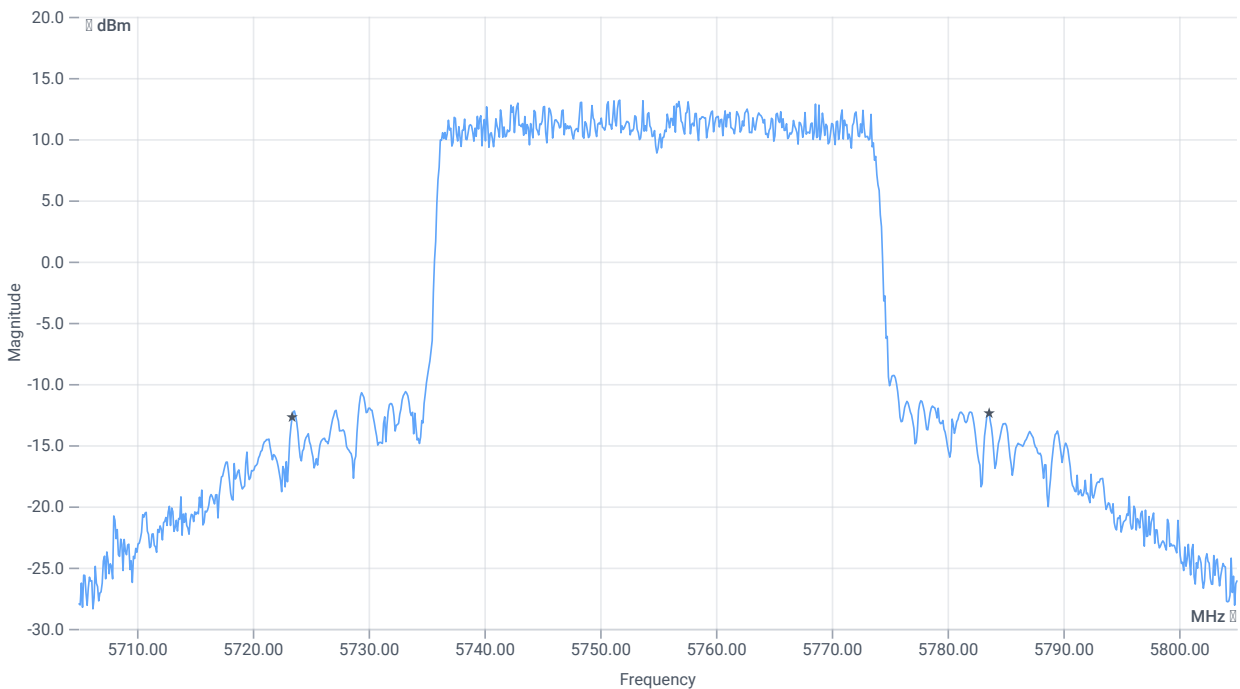




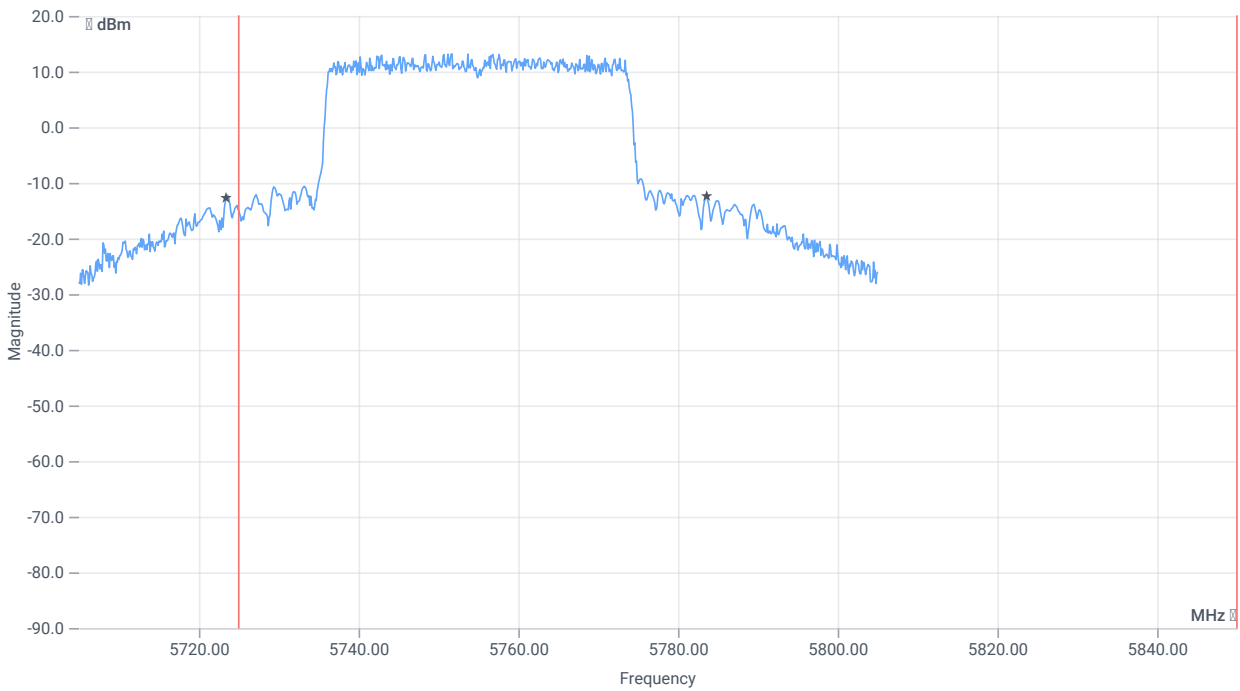
BW within Band 99PCT

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 99%	--	--	37.762	MHz	INFO
T1 99%	5725.000000	--	5736.1189	MHz	PASS
T2 99%	--	5850.000000	5773.8811	MHz	PASS



BW 26dB



BW within Band 26dB

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 26dB	---	---	60.2	MHz	INFO
T1 26dB	5725.000000	---	5723.4000	MHz	DFS required
T2 26dB	---	5850.000000	5783.6000	MHz	PASS

Verdict

PASS

FCC 15.247 # Max output power and psd ~ WLAN5Gx ax-HE40 U-NII-3

Test References

TC Start	21.02.2023 16:07:48
Ambit Temp [°C] Humidity [rel%]	23.3 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 ax-HE40 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 ax-HE40
Antenna Port used	2
Temperature	nom
Voltage	nom
Frequency low to test	True Freq [MHz] 5755
Frequency mid to test	False Freq [MHz] 0
Frequency high to test	False Freq [MHz] 5795
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 5755 MHz

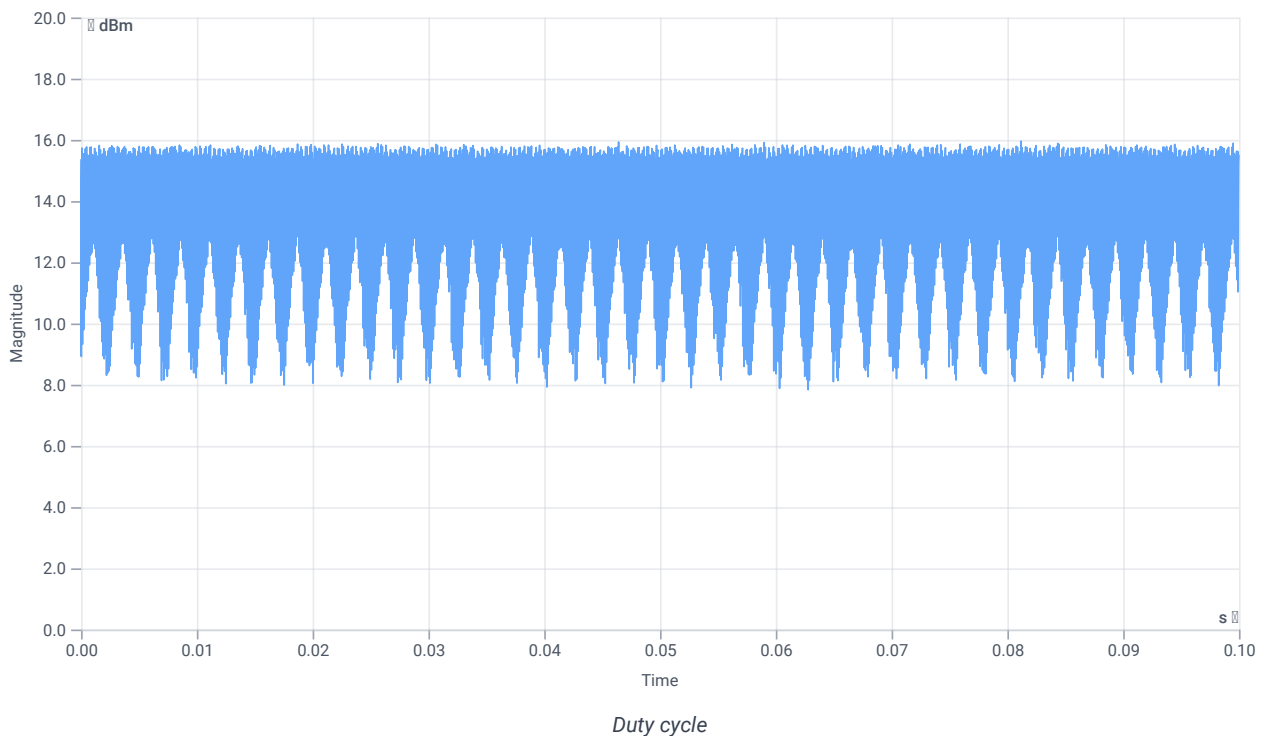
RESULT: Reference Power cond.

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	--	--	14.73	dBm	INFO
Ref. Frequency	--	--	5758.000	MHz	INFO

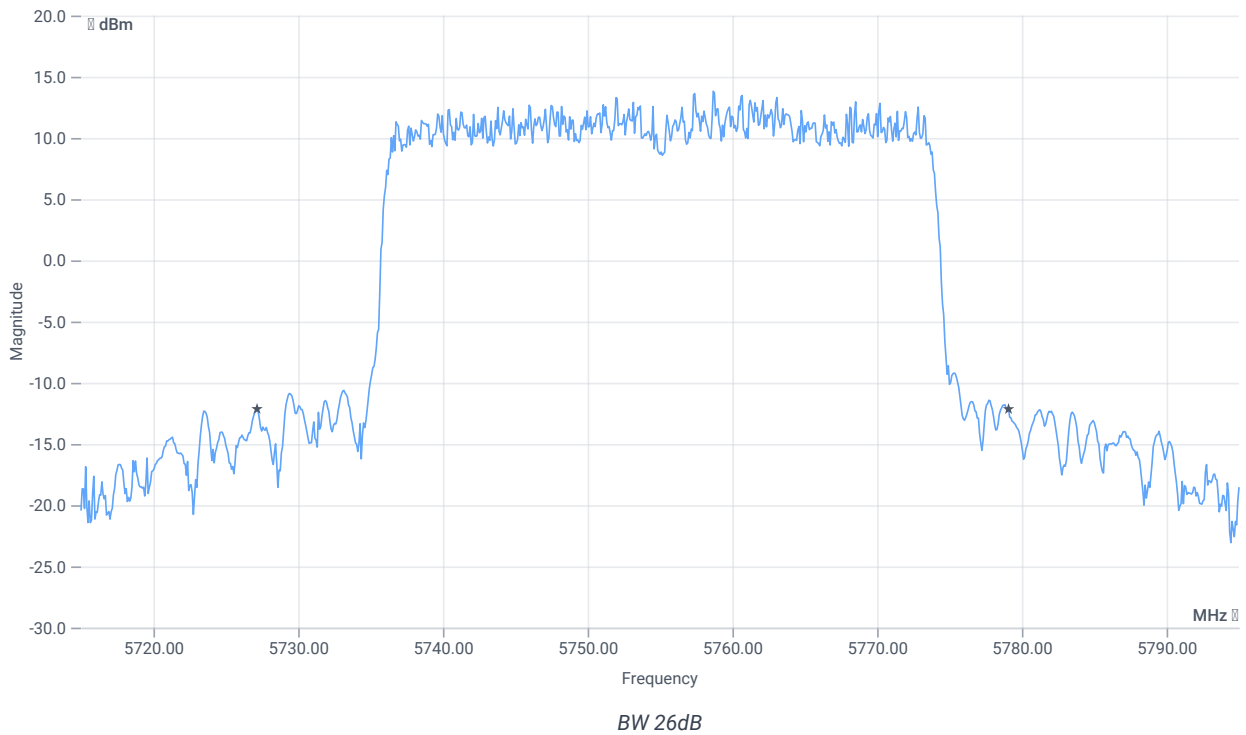
Evaluation max. Duty Cycle

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



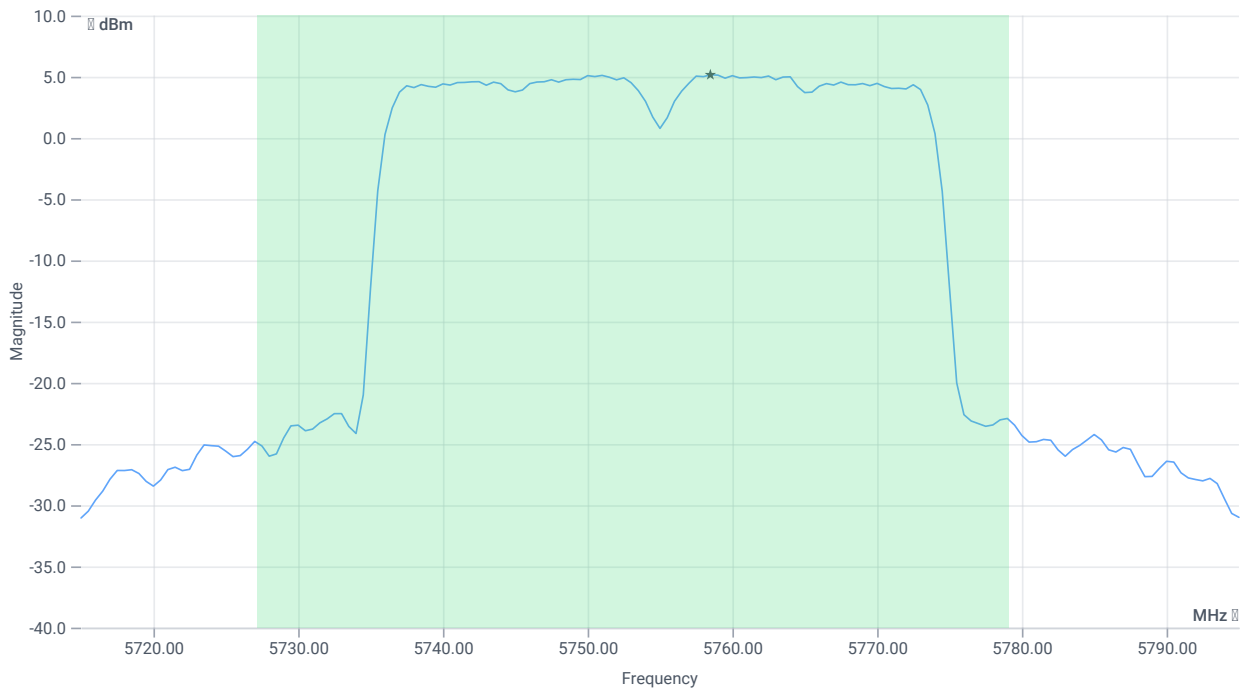
RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 26dB	---	---	51.92	MHz	INFO
T1 26dB	---	---	5727.1600	MHz	INFO
T2 26dB	---	---	5779.0800	MHz	INFO

Maximum Output Power

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	26.73 16.87 25
Start [MHz] Stop [MHz]	5715.000 5795.000
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

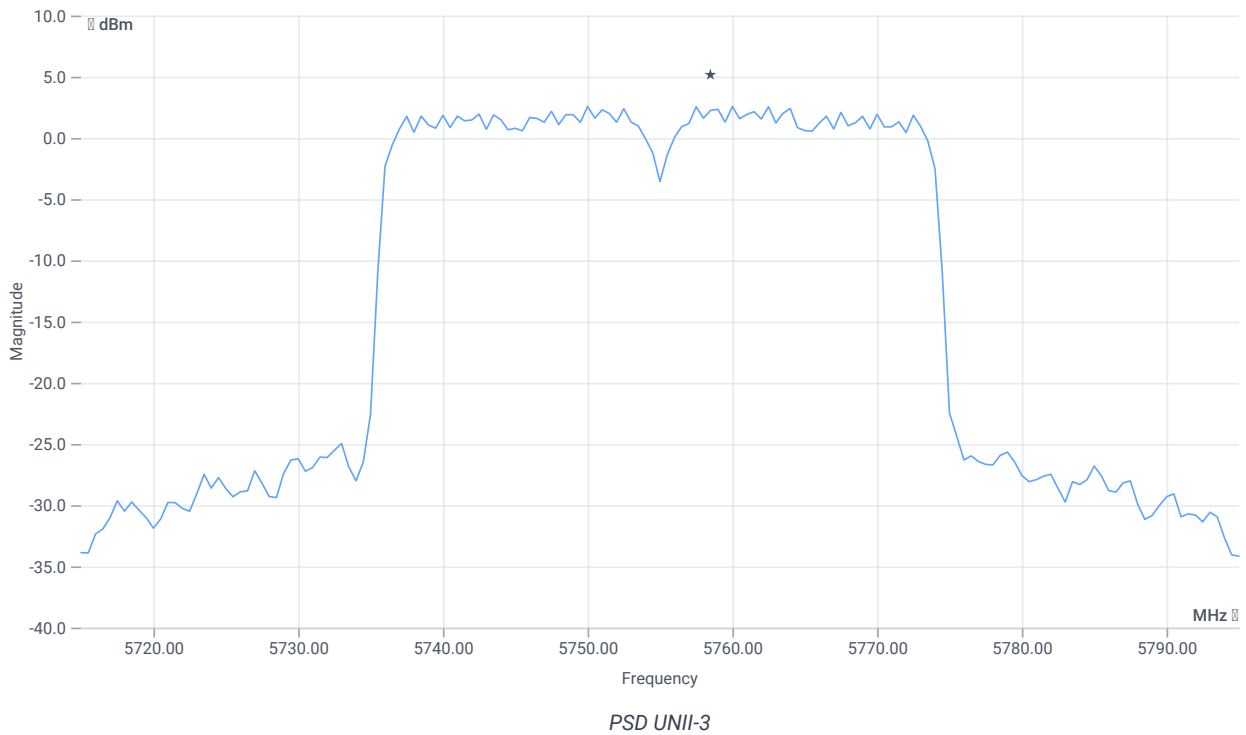
RESULT

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	--	30	19.86	dBm	PASS
Limit: 11 dBm + 10 log 51.92					
Max Output Power DC corrected	--	28.15	19.86	dBm	na

Power Spectral Density U-NII-3

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	26.73 16.87 25
Start [MHz] Stop [MHz]	5715.000 5795.000
RBW [MHz] VBW [MHz]	0.500000 3.000000
Detector TraceMode	RMS MAXH
Sweep: Time [ms] Count Points per Section Type	53700 1 161 SWE



RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Power Spectral Density	--	--	2.57	dBm/0.5MHz	INFO
Duty Cycle Correction	--	--	0	dB	INFO
Power Spectral Density DC corrected	--	30	2.57	dBm/0.5MHz	PASS

Verdict

PASS

FCC 15.407, ISED RSS247 # Minimum emission bandwidth ~ WLAN5Gx ax-HE40 U-NII-3

Test References

TC Start	21.02.2023 16:07:23
Ambit Temp [°C] Humidity [rel%]	23.3 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 ax-HE40 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 ax-HE40
Antenna Port used	1
Temperature	nom
Voltage	nom
Frequency low to test	True Freq [MHz] 5755
Frequency mid to test	False Freq [MHz] 0
Frequency high to test	False Freq [MHz] 5795
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

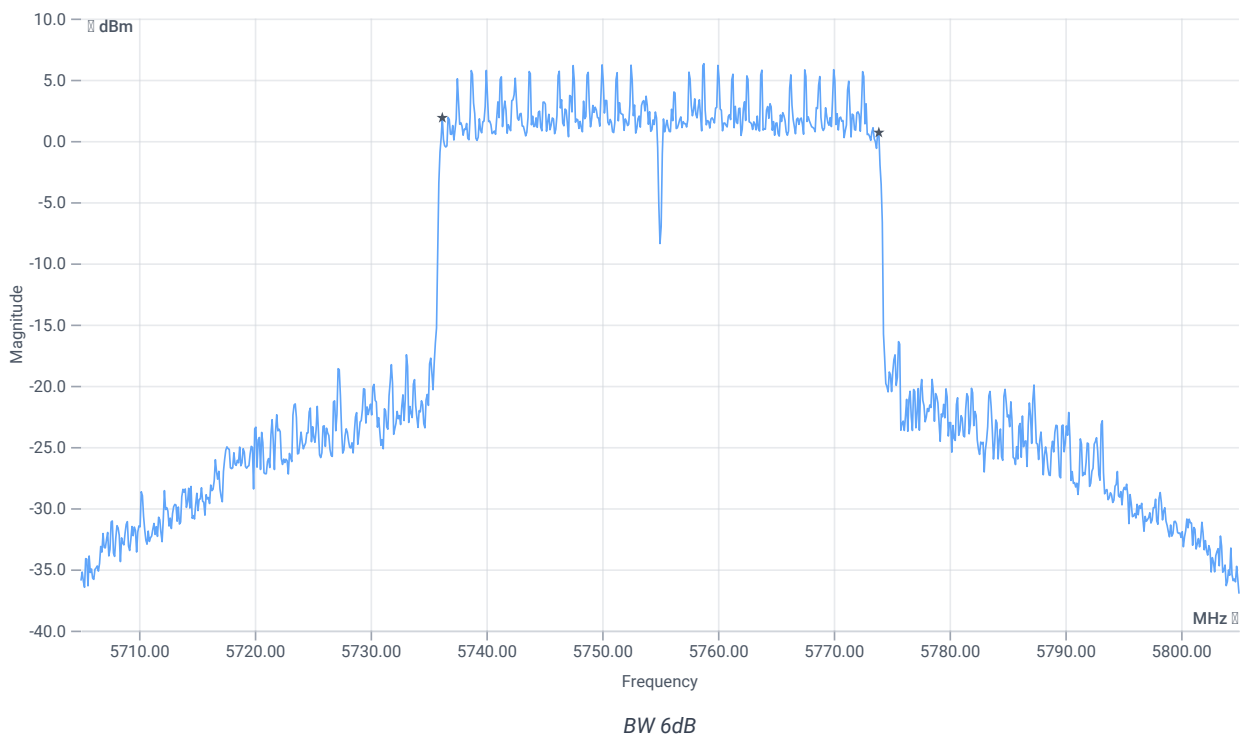
Test at TX 5755 MHz

RESULT: Reference Power cond.

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	--	--	14.32	dBm	INFO
Ref. Frequency	--	--	5769.190	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	26.32 16.87 25
Start [MHz] Stop [MHz]	5705.000 5805.000
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	--	37.7	MHz	PASS

Verdict

PASS

FCC 15.407, ISED RSS247 # Bandwidths 99PCT and 26dB ~ WLAN5Gx ax-HE40 U-NII-3

Test References

TC Start	21.02.2023 16:06:53
Ambit Temp [°C] Humidity [rel%]	23.3 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 ax-HE40 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 ax-HE40
Antenna Port used	1
Temperature	nom
Voltage	nom
Frequency low to test	True Freq [MHz] 5755
Frequency mid to test	False Freq [MHz] 0
Frequency high to test	False Freq [MHz] 5795
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

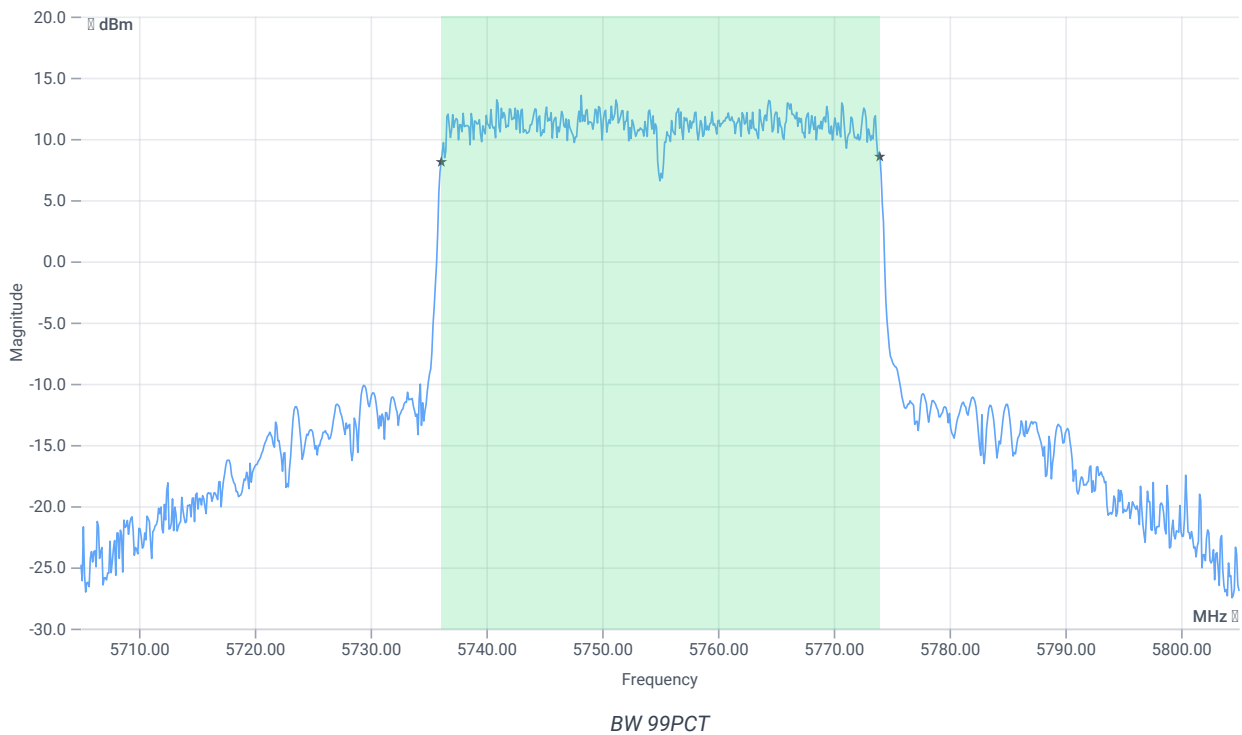
Test at TX 5755 MHz

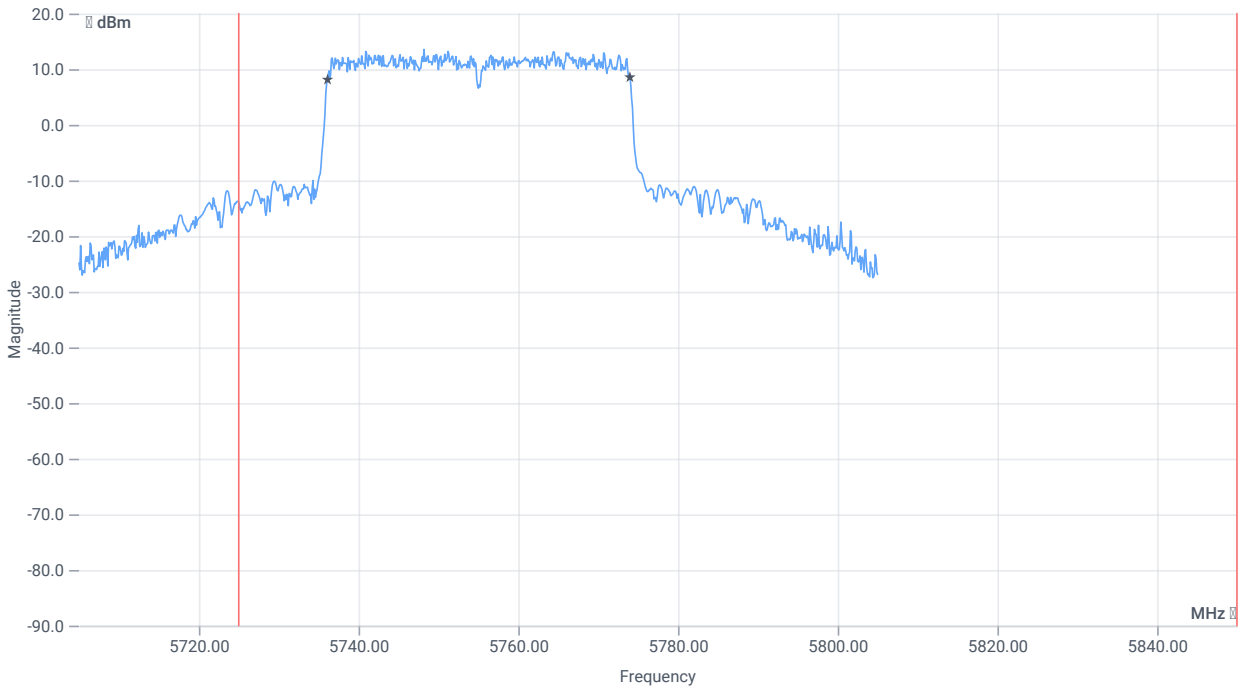
RESULT: Reference Power cond.

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	--	--	15.53	dBm	INFO
Ref. Frequency	--	--	5769.990	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	23.53 16.87 25
Start [MHz] Stop [MHz]	5705.000 5805.000
RBW [MHz] VBW [MHz]	0.500000 3.000000
Detector TraceMode	POS MAXH
Sweep: Time [ms] Count Points per Section Type	1 2500 1001 SWE

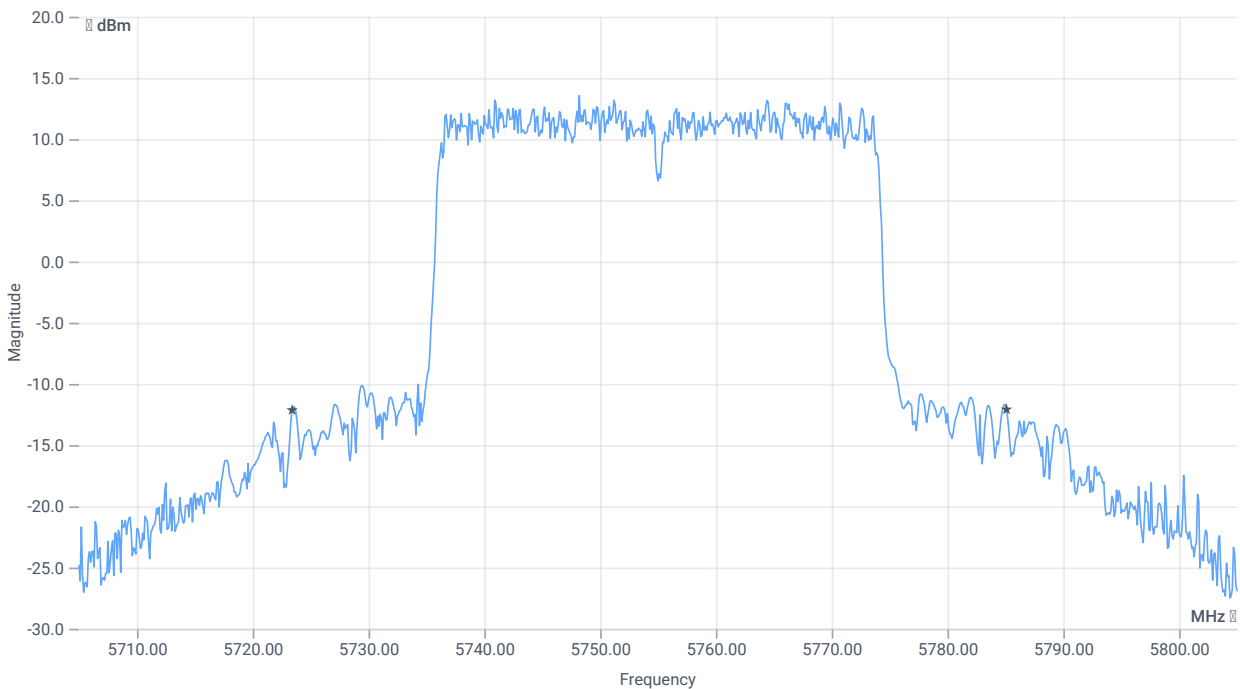




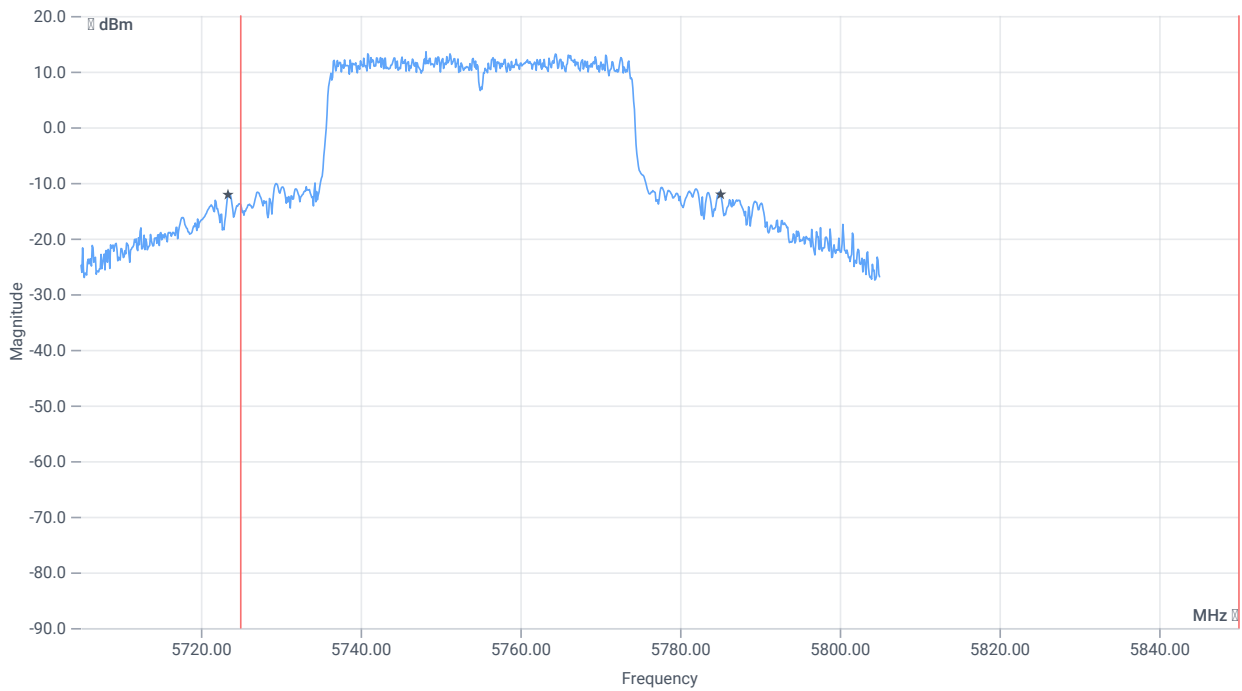
BW within Band 99PCT

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 99%	--	--	37.862	MHz	INFO
T1 99%	5725.000000	--	5736.1189	MHz	PASS
T2 99%	--	5850.000000	5773.9810	MHz	PASS



BW 26dB



BW within Band 26dB

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 26dB	---	---	61.7	MHz	INFO
T1 26dB	5725.000000	---	5723.4000	MHz	DFS required
T2 26dB	---	5850.000000	5785.1000	MHz	PASS

Verdict

PASS

FCC 15.247 # Max output power and psd ~ WLAN5Gx ax-HE40 U-NII-3

Test References

TC Start	21.02.2023 16:04:28
Ambit Temp [°C] Humidity [rel%]	23.3 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 ax-HE40 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 ax-HE40
Antenna Port used	1
Temperature	nom
Voltage	nom
Frequency low to test	True Freq [MHz] 5755
Frequency mid to test	False Freq [MHz] 0
Frequency high to test	False Freq [MHz] 5795
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 5755 MHz

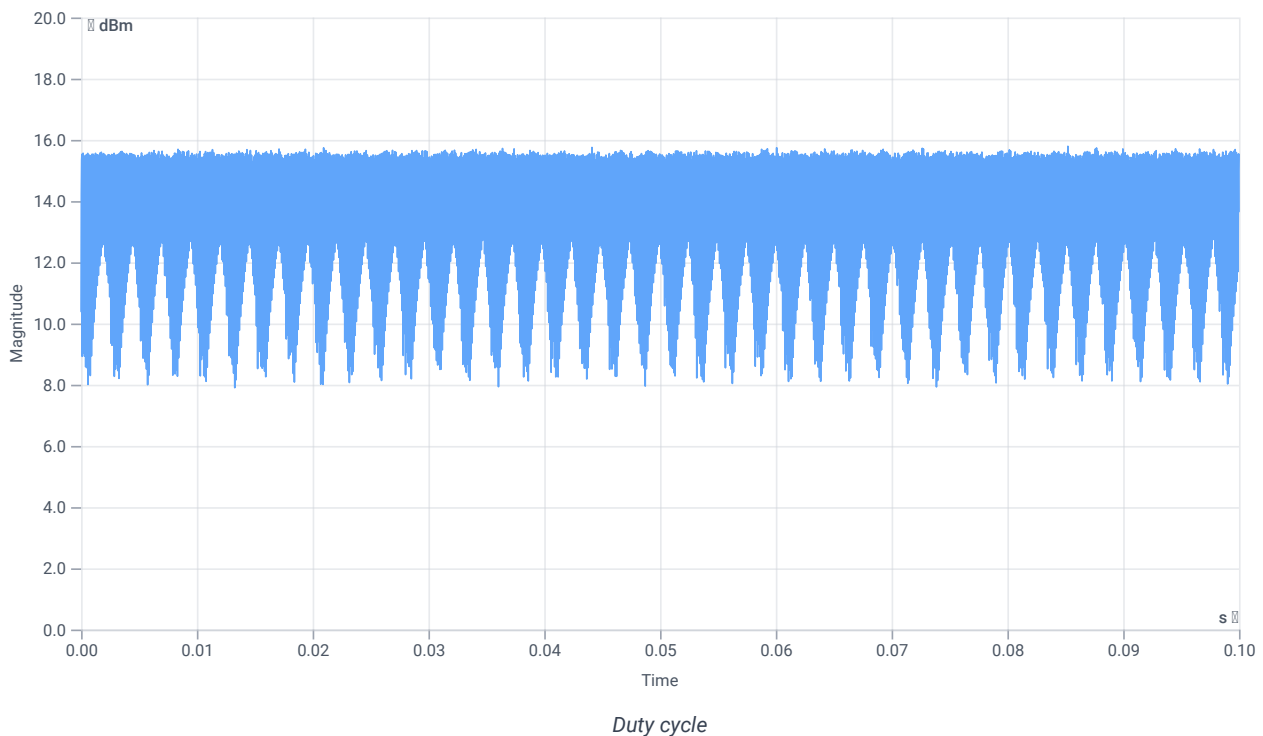
RESULT: Reference Power cond.

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	--	--	13.53	dBm	INFO
Ref. Frequency	--	--	5746.410	MHz	INFO

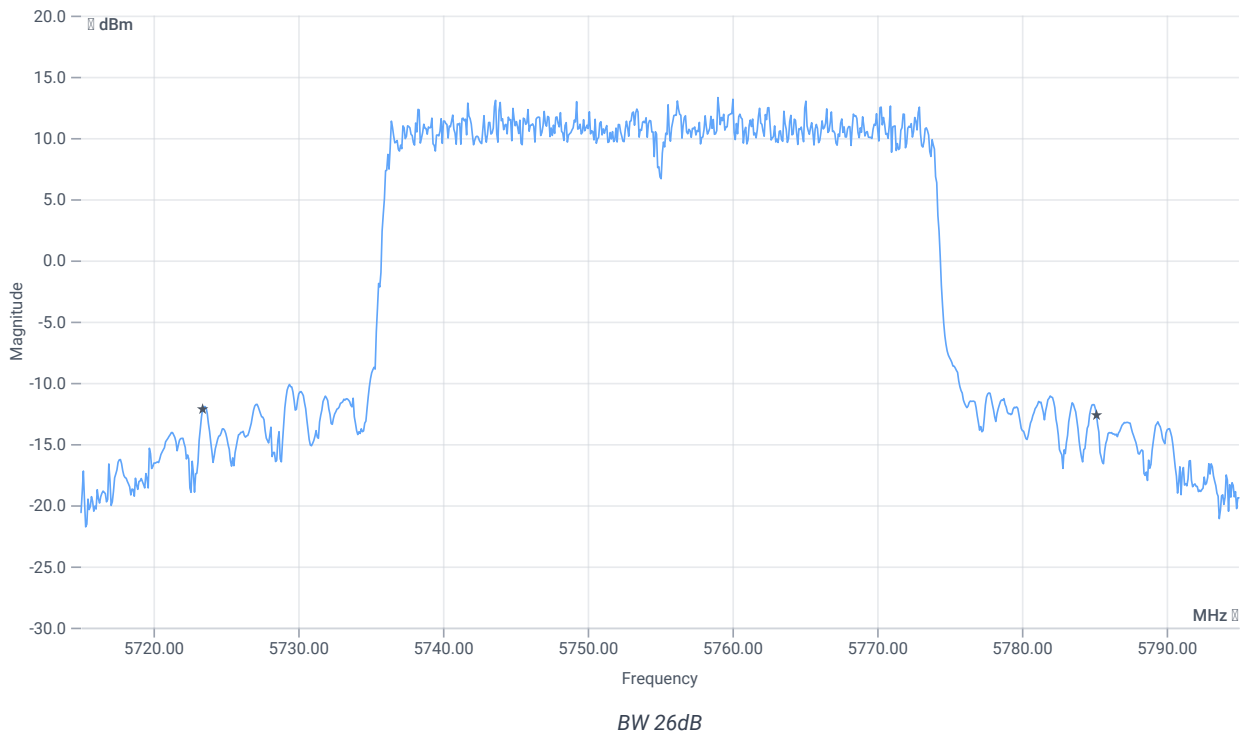
Evaluation max. Duty Cycle

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



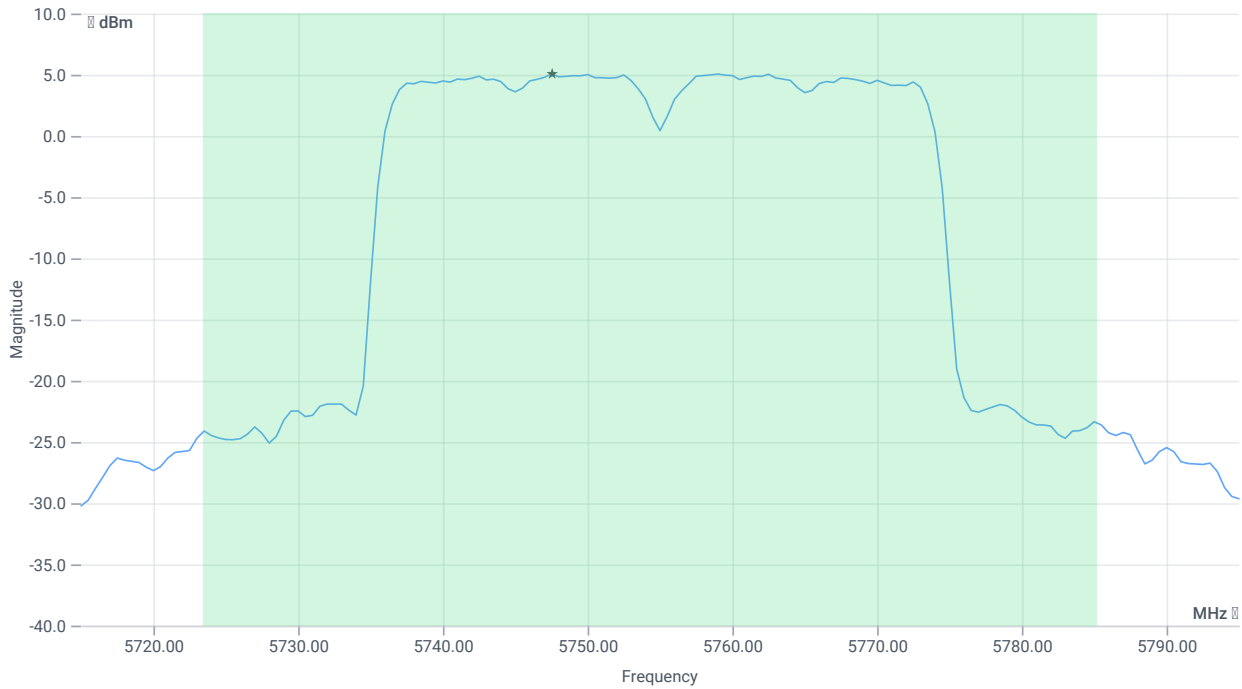
RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 26dB	---	---	61.76	MHz	INFO
T1 26dB	---	---	5723.4000	MHz	INFO
T2 26dB	---	---	5785.1600	MHz	INFO

Maximum Output Power

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	25.53 16.87 25
Start [MHz] Stop [MHz]	5715.000 5795.000
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

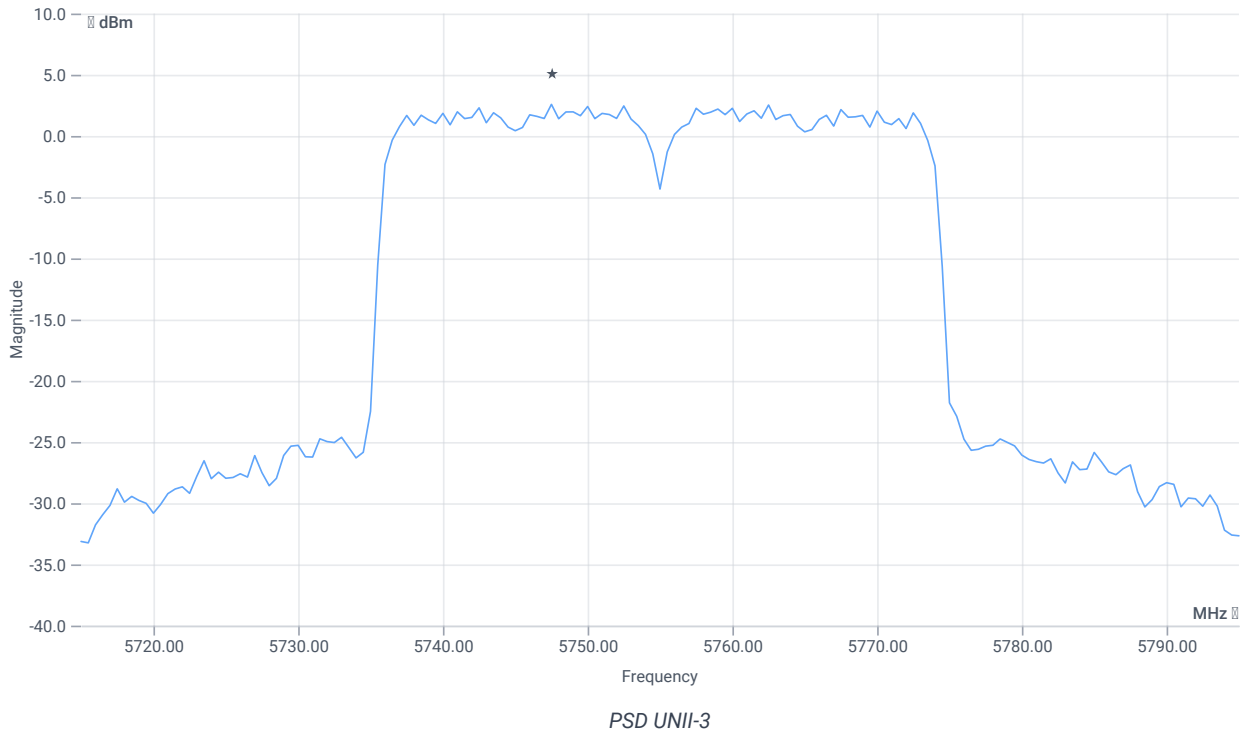
RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Max Output Power	--	--	19.87	dBm	INFO
Duty Cycle Correction	--	--	0	dB	INFO
Limit absolute					
Max Output Power DC corrected	--	30	19.87	dBm	PASS
Limit: 11 dBm + 10 log 61.76					
Max Output Power DC corrected	--	28.91	19.87	dBm	na

Power Spectral Density U-NII-3

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	25.53 16.87 25
Start [MHz] Stop [MHz]	5715.000 5795.000
RBW [MHz] VBW [MHz]	0.500000 3.000000
Detector TraceMode	RMS MAXH
Sweep: Time [ms] Count Points per Section Type	53700 1 161 SWE



RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Power Spectral Density	--	--	2.58	dBm/0.5MHz	INFO
Duty Cycle Correction	--	--	0	dB	INFO
Power Spectral Density DC corrected	--	30	2.58	dBm/0.5MHz	PASS

Verdict

PASS

- END OF DOCUMENT -