

# Conducted test results

No.23-1-0061401T004a-A6g

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August 03, 2023

Test Standard(s)                      FCC 15.407

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Authorized

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## NA # Message with SA scan ~

### References

TC start	28.07.2023 08:54:17
Ambit temp [°C]   humidity [rel%]	24.8   53
System version	4.6.0.1
Standard   Version	NA   NI
Method	
Description	Message with SA WLAN5Gx ax-HE40 U-NII-1
Information	PS44

### Test Parameter

Switched Path	EUT - SignalingUnit - SpectrumAnalyzer
Message start	28.07.2023 08:54:17
Message	set WLAN5Gx to WLAN5Gx ax-HE40 U-NII-1, Frequency [MHz] 5190 , Information: PS44

### Equipment

Signal analyzer,Rohde&Schwarz,FSV-40,1307.9002K40/101042,3.70

Switch matrix,CTCadvanced,SPM-4 NI DAQ,28016133,NI

### Verdict

INFO

# FCC 15.407 # Max output power and psd ~ WLAN5Gx ax-HE40 U-NII-1

## References

TC start	28.07.2023 08:54:55
Ambit temp [°C]   humidity [rel%]	24.8   53
System version	4.6.0.1
Standard   Version	FCC 15.407   NI
Method	KDB789033 D02, F, E.2.e.
Description	FCC 15.407 Max Output Power & PSD - WLAN5Gx ax-HE40 U-NII-1
Information	PS44

## EUT Common Settings WLAN5Gx

Number of Antenna Ports	1
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]	1.3
Switched path	EUT - SignalingUnit - SpectrumAnalyzer

## 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

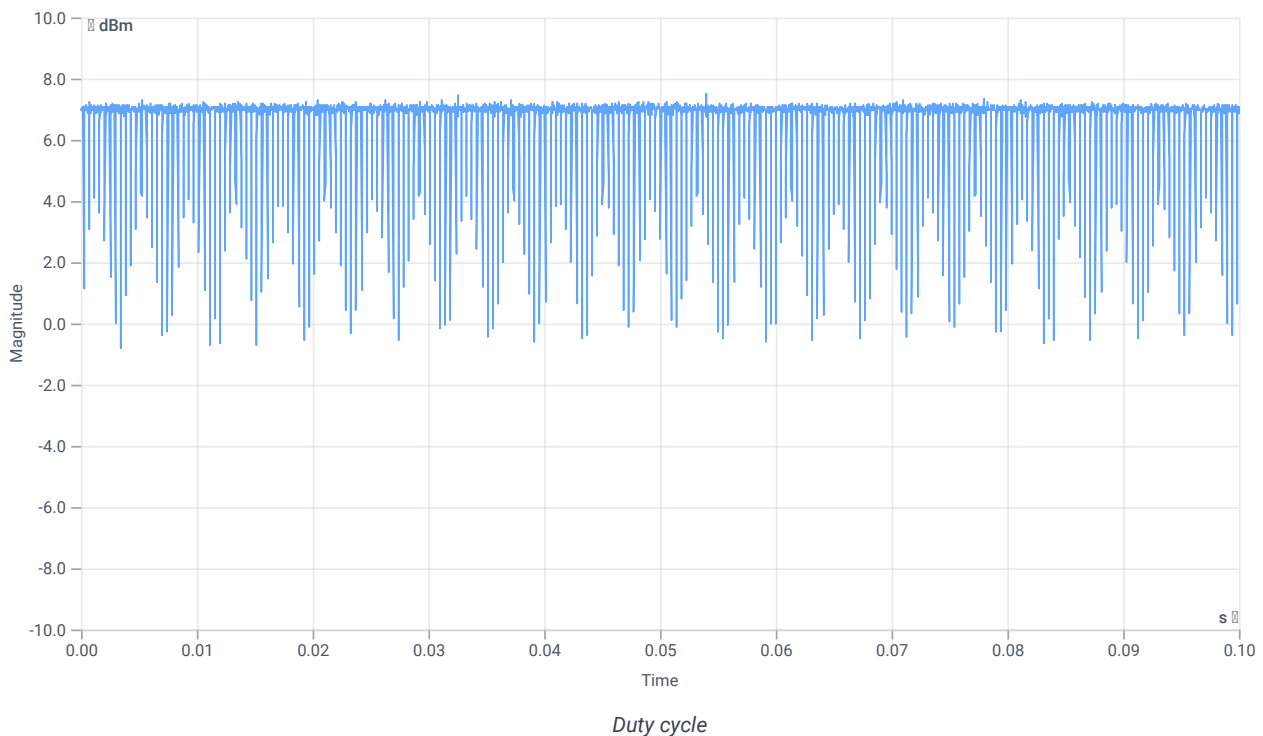
RESULT: Reference Power cond.

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	--	--	7.11	dBm	INFO
Ref. Frequency	--	--	5186.400	MHz	INFO

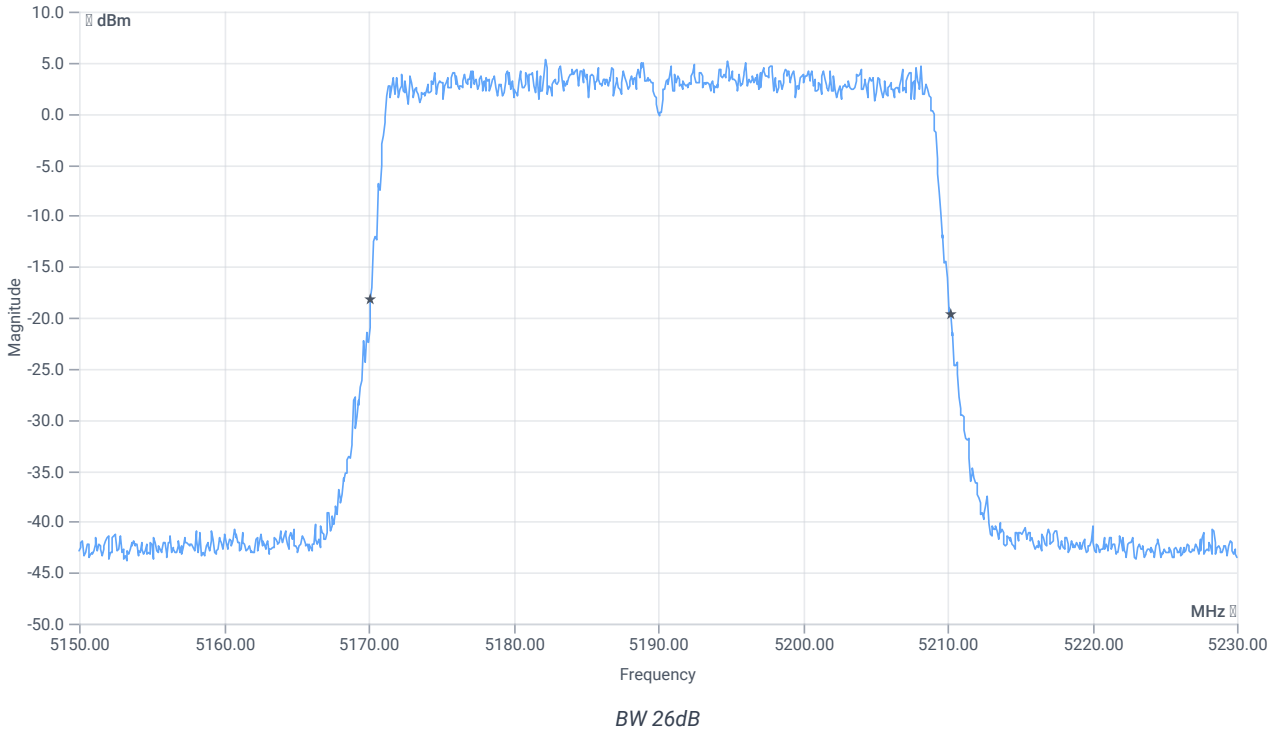
## Evaluation max. Duty Cycle

### Duty Cycle evaluation

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



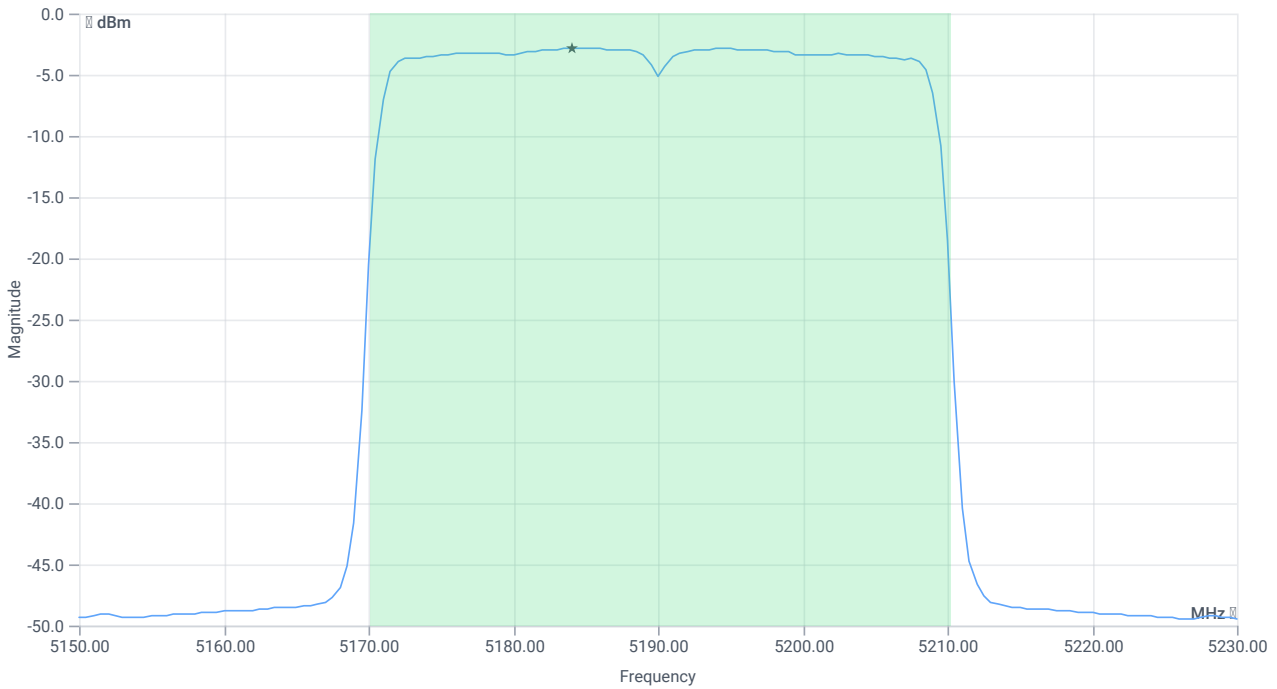
## RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 26dB	---	---	40.08	MHz	INFO
T1 26dB	---	---	5170.1600	MHz	INFO
T2 26dB	---	---	5210.2400	MHz	INFO

## Maximum Output Power

### READ SA SETTINGS:

RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]	19.11   16.35   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

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Max Output Power	--	--	12.21	dBm	INFO
Duty Cycle Correction	--	--	0	dB	INFO
Limit absolute					
Max Output Power DC corrected	--	24	12.21	dBm	PASS
Limit: 11 dBm + 10 log 40.08					
Max Output Power DC corrected	--	27.03	12.21	dBm	na

## Power Spectral Density

### RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Power Spectral Density	--	--	-2.86	dBm/1MHz	INFO
Duty Cycle Correction	--	--	0	dB	INFO
Power Spectral Density DC corrected	--	11	-2.86	dBm/1MHz	PASS

### Verdict

PASS



# FCC 15.407, ISED RSS247 # Bandwidths 99PCT and 20dB ~ WLAN5Gx ax-HE40 U-NII-1

## References

TC start	28.07.2023 08:56:33
Ambit temp [°C]   humidity [rel%]	24.8   53
System version	4.6.0.1
Standard   Version	FCC 15.407, ISED RSS247   NI
Method	26dB Bandwidth KDB789033 D02, C.1 / ISED RSS-GEN
Description	FCC 15.407 Bandwidths - WLAN5Gx ax-HE40 U-NII-1
Information	PS44

## EUT Common Settings WLAN5Gx

Number of Antenna Ports	1
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]	1.3
Switched path	EUT - SignalingUnit - SpectrumAnalyzer

## Equipment

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

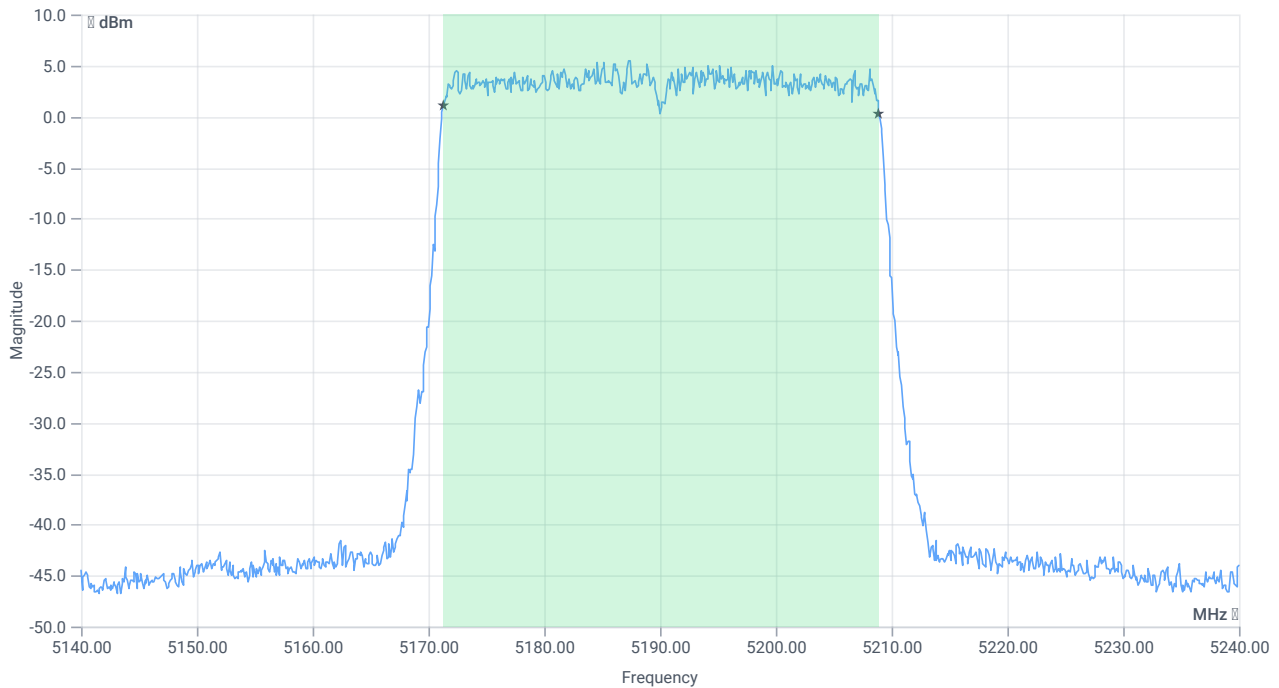
## Test at TX 5190 MHz

RESULT: Reference Power cond.

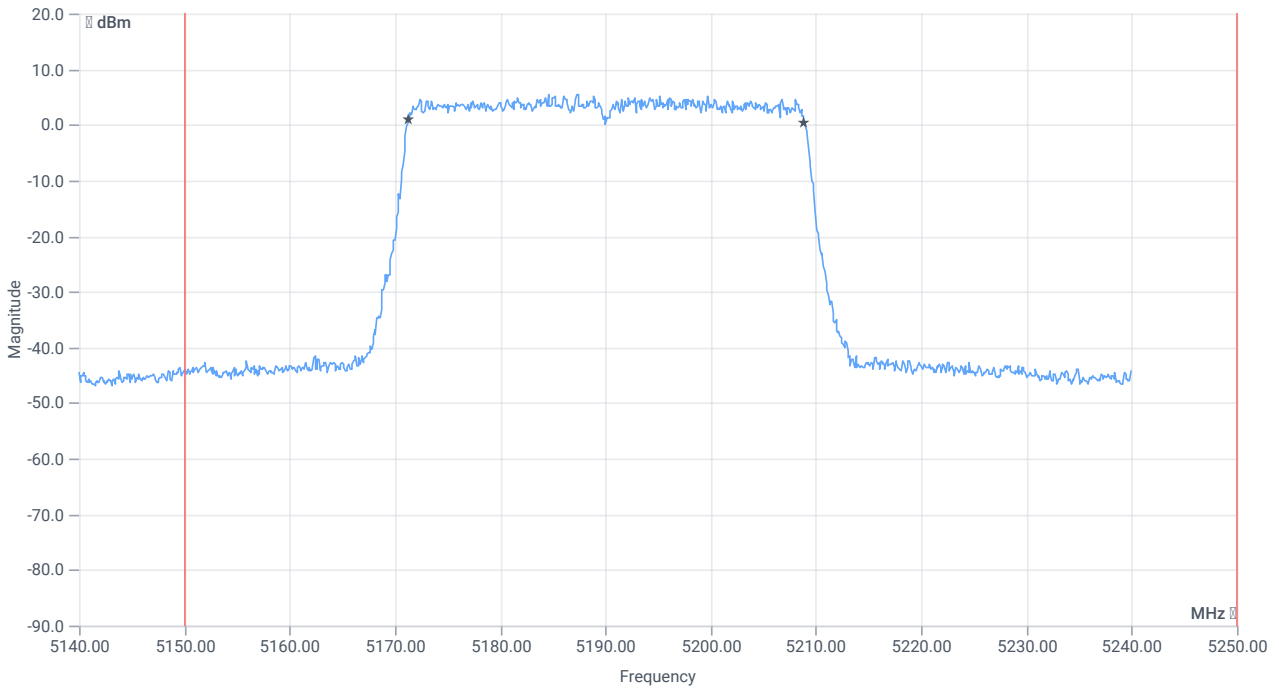
DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	--	--	6.28	dBm	INFO
Ref. Frequency	--	--	5194.800	MHz	INFO

### READ SA SETTINGS:

RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]	14.28   16.35   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



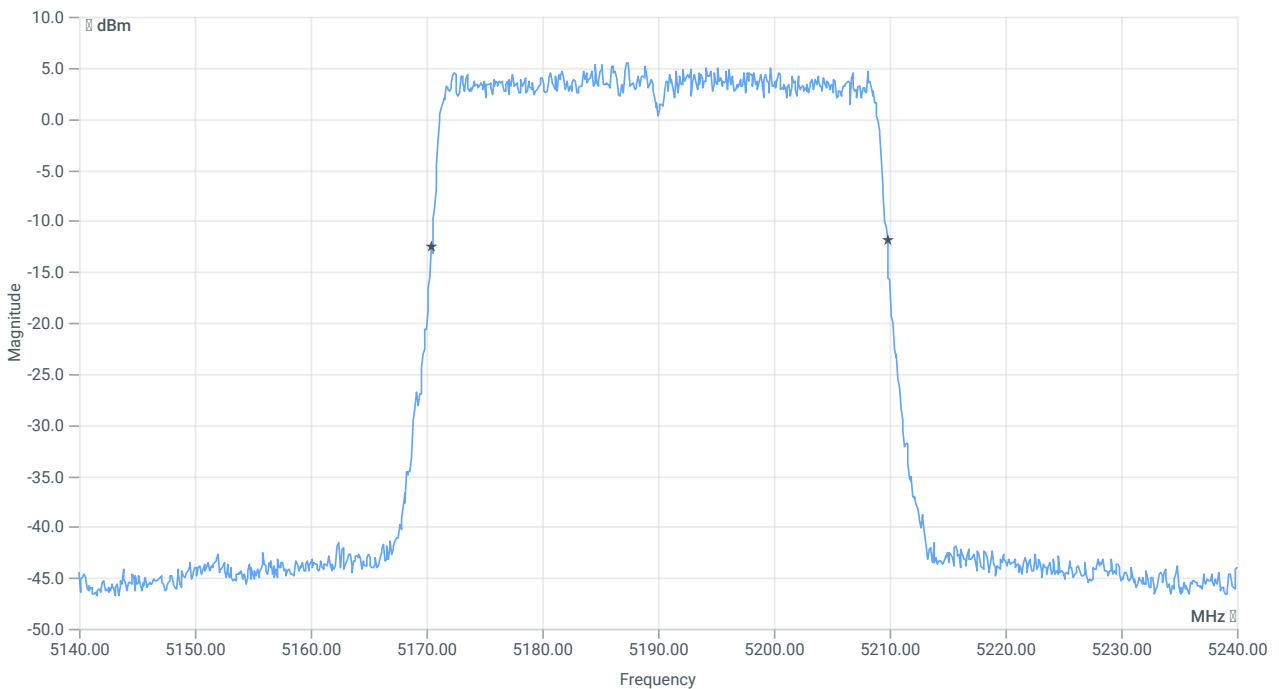
BW 99PCT



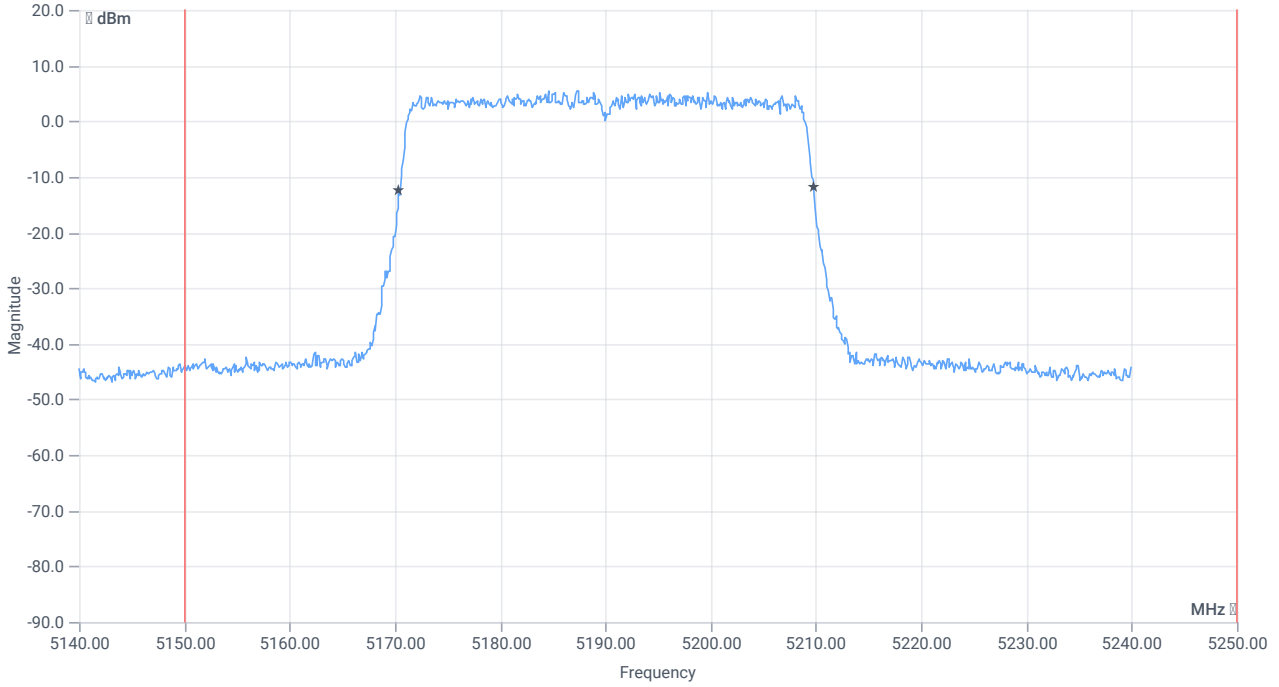
*BW within Band 99PCT*

## RESULT

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 20dB



BW within Band 20dB

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 20dB	--	--	39.4	MHz	INFO
T1 20dB	5150.000000	--	5170.4000	MHz	PASS
T2 20dB	--	5250.000000	5209.8000	MHz	PASS

Verdict

PASS

# FCC 15.407 # Max output power and psd ~ WLAN5Gx ax-HE40 U-NII-1

## References

TC start	28.07.2023 08:57:13
Ambit temp [°C]   humidity [rel%]	24.8   52
System version	4.6.0.1
Standard   Version	FCC 15.407   NI
Method	KDB789033 D02, F, E.2.e.
Description	FCC 15.407 Max Output Power & PSD - WLAN5Gx ax-HE40 U-NII-1
Information	PS44

## EUT Common Settings WLAN5Gx

Number of Antenna Ports	1
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]	1.3
Switched path	EUT - SignalingUnit - SpectrumAnalyzer

## 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

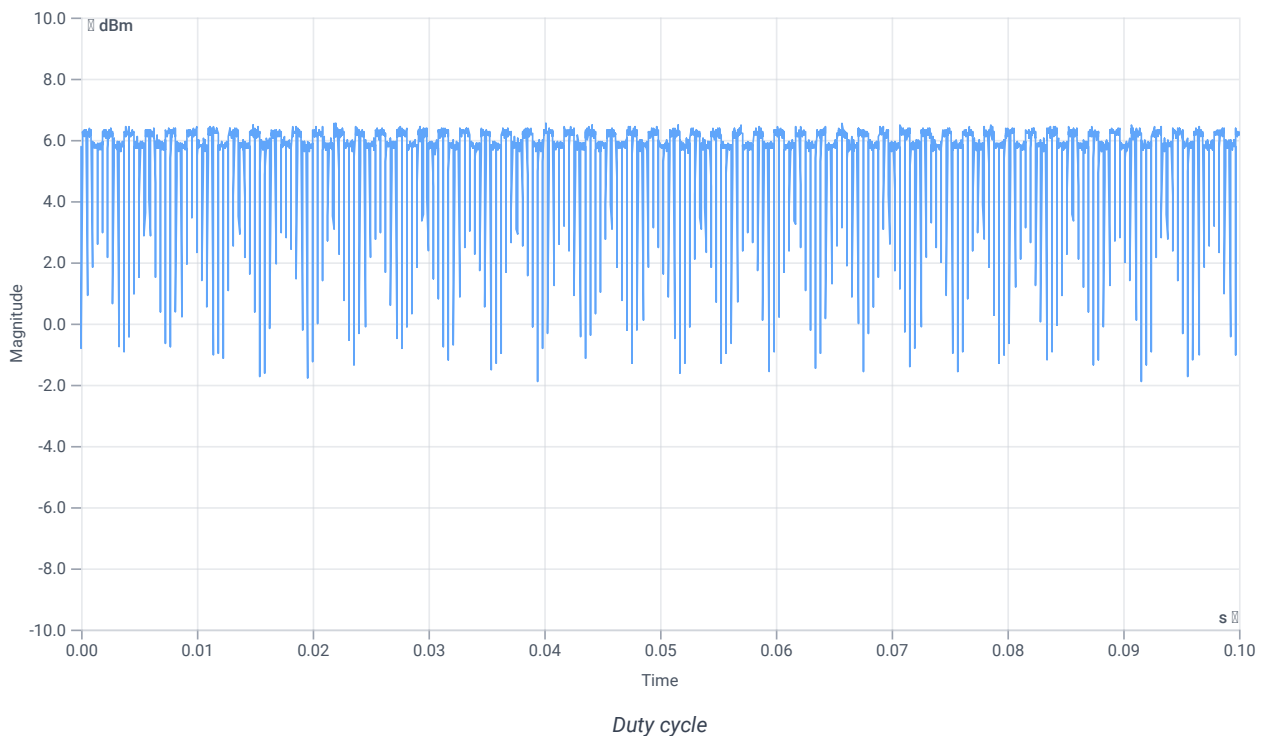
RESULT: Reference Power cond.

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	--	--	6.02	dBm	INFO
Ref. Frequency	--	--	5174.420	MHz	INFO

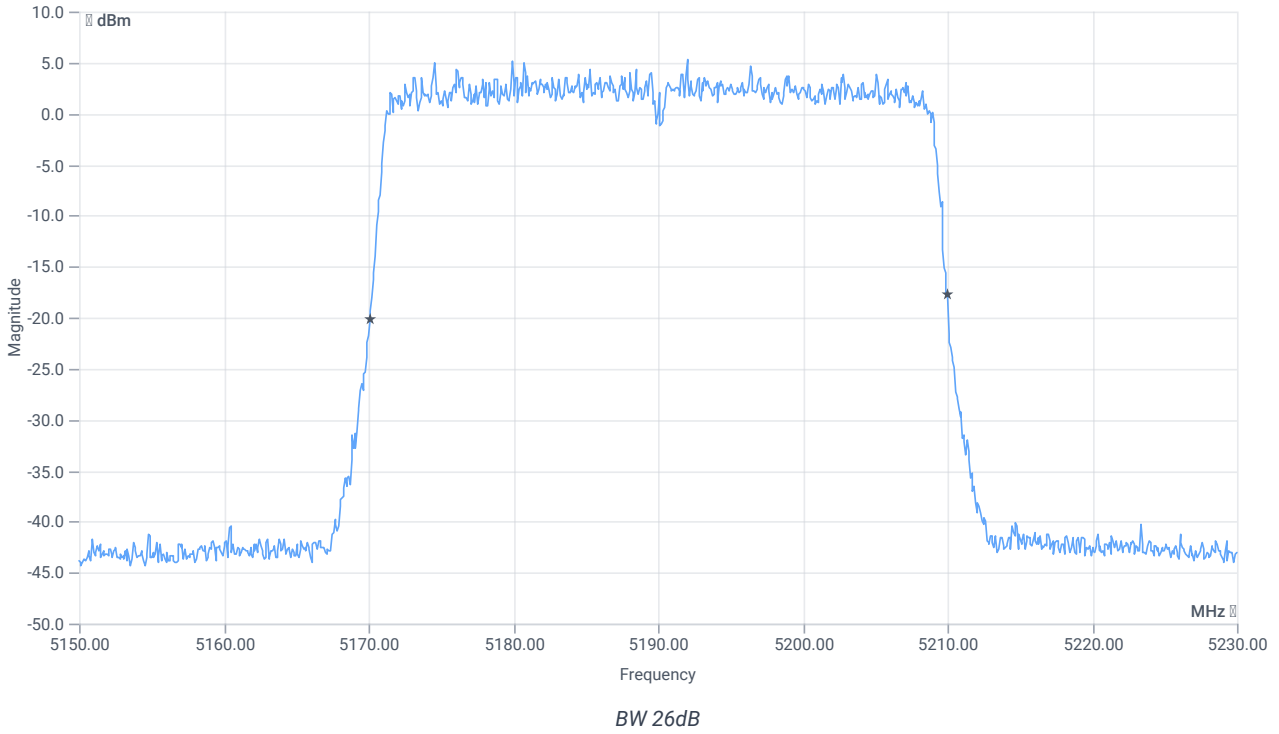
## Evaluation max. Duty Cycle

### Duty Cycle evaluation

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



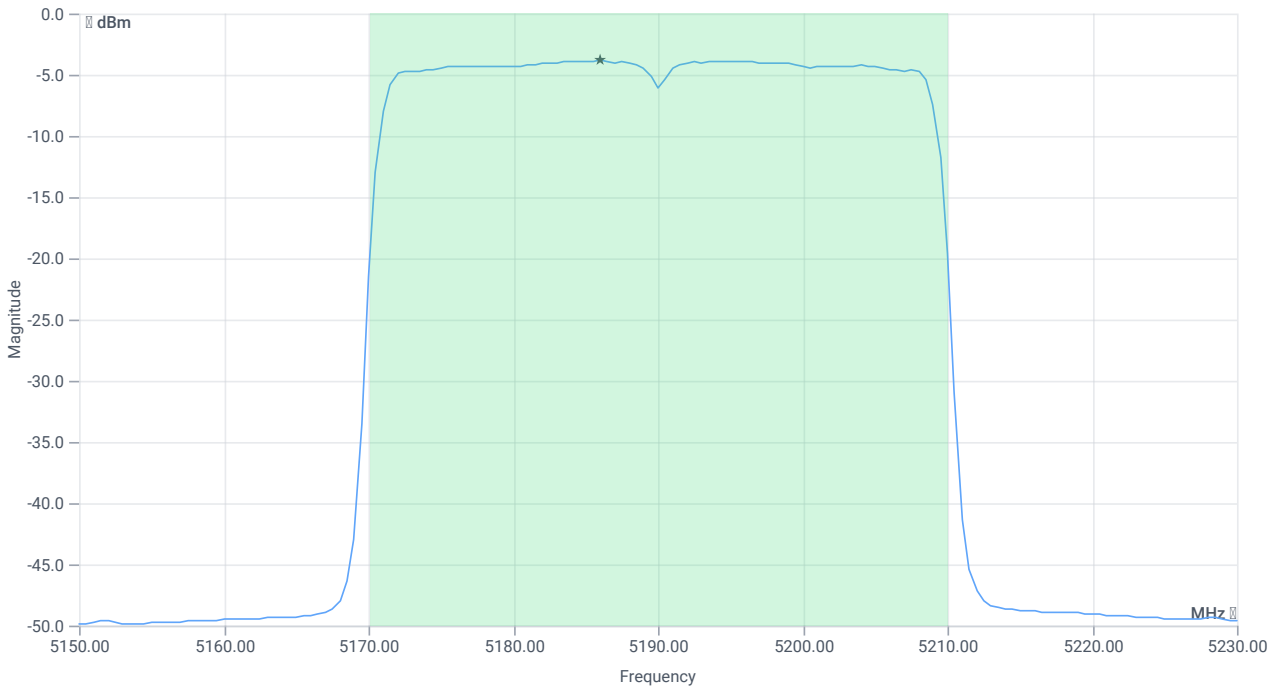
## RESULT

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]	18.02   16.35   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

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Max Output Power	--	--	11.21	dBm	INFO
Duty Cycle Correction	--	--	0	dB	INFO
Limit absolute					
Max Output Power DC corrected	--	24	11.21	dBm	PASS
Limit: 11 dBm + 10 log 39.92					
Max Output Power DC corrected	--	27.01	11.21	dBm	na

## Power Spectral Density

### RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Power Spectral Density	--	--	-3.84	dBm/1MHz	INFO
Duty Cycle Correction	--	--	0	dB	INFO
Power Spectral Density DC corrected	--	11	-3.84	dBm/1MHz	PASS

### Verdict

PASS



# FCC 15.407, ISED RSS247 # Bandwidths 99PCT and 20dB ~ WLAN5Gx ax-HE40 U-NII-1

## References

TC start	28.07.2023 08:58:50
Ambit temp [°C]   humidity [rel%]	24.9   52
System version	4.6.0.1
Standard   Version	FCC 15.407, ISED RSS247   NI
Method	26dB Bandwidth KDB789033 D02, C.1 / ISED RSS-GEN
Description	FCC 15.407 Bandwidths - WLAN5Gx ax-HE40 U-NII-1
Information	PS44

## EUT Common Settings WLAN5Gx

Number of Antenna Ports	1
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]	1.3
Switched path	EUT - SignalingUnit - SpectrumAnalyzer

## Equipment

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

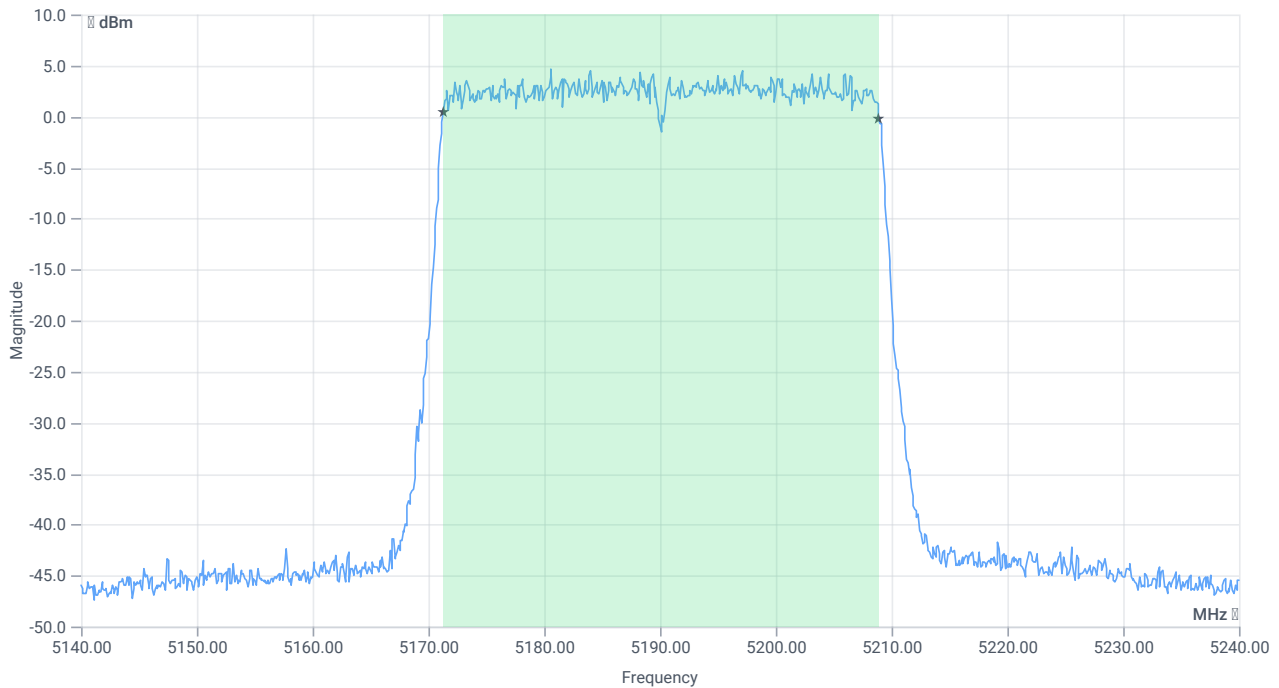
## Test at TX 5190 MHz

RESULT: Reference Power cond.

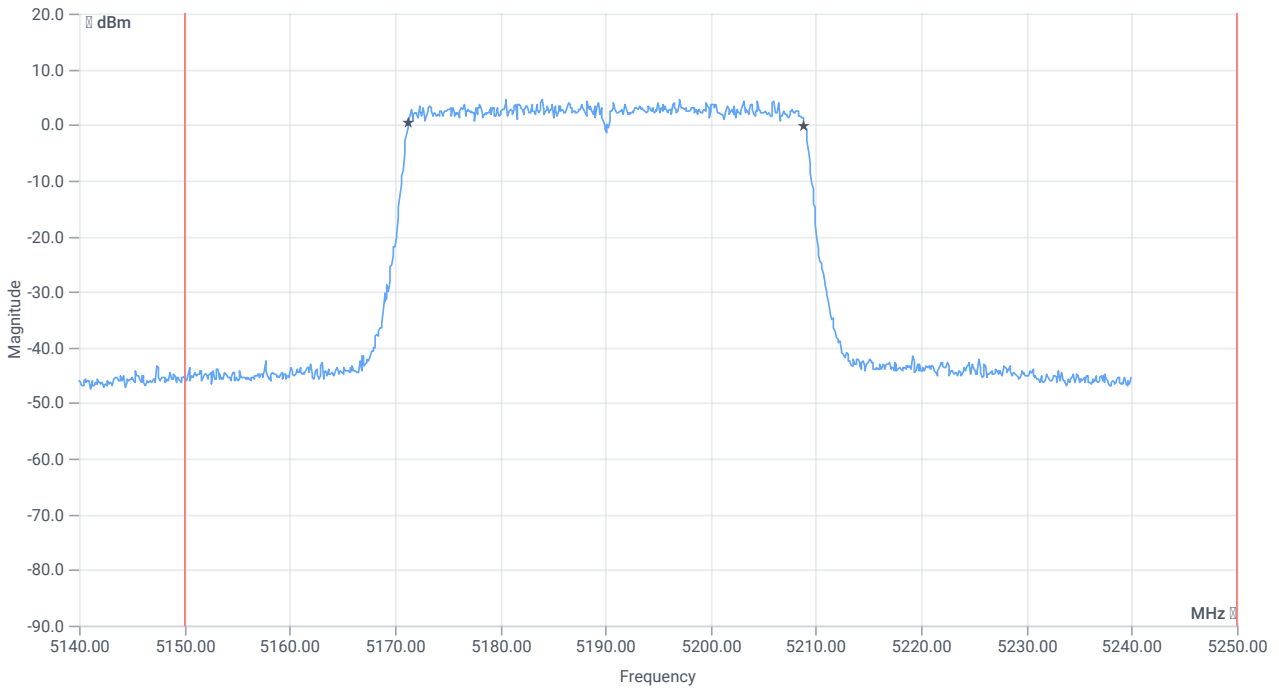
DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	--	--	6.02	dBm	INFO
Ref. Frequency	--	--	5184.610	MHz	INFO

### READ SA SETTINGS:

RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]	14.02   16.35   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



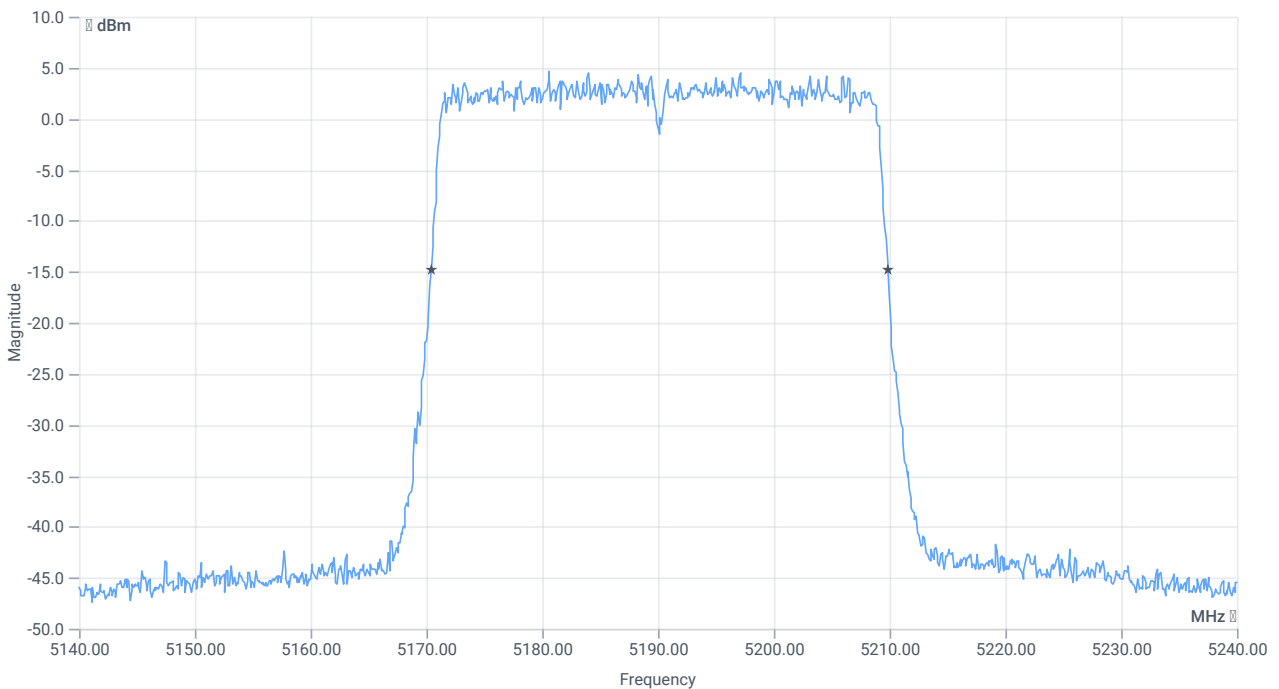
BW 99PCT



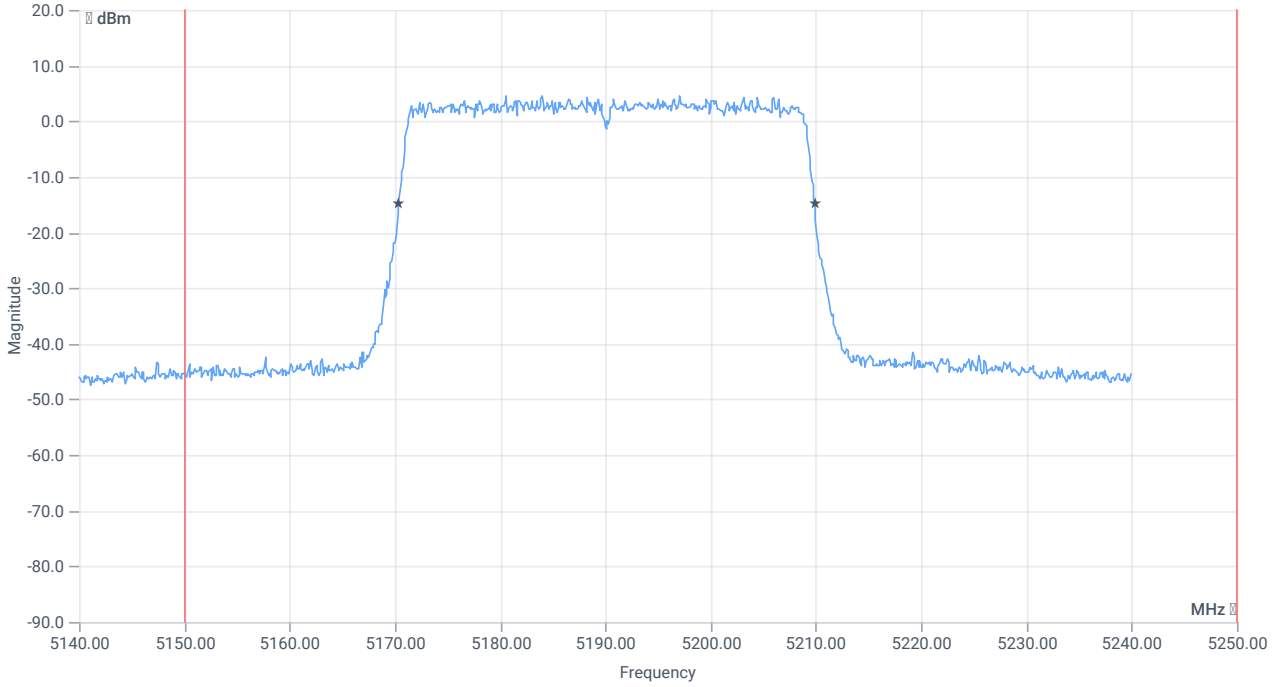
BW within Band 99PCT

## RESULT

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 20dB



BW within Band 20dB

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 20dB	---	---	39.5	MHz	INFO
T1 20dB	5150.000000	---	5170.4000	MHz	PASS
T2 20dB	---	5250.000000	5209.9000	MHz	PASS

Verdict

PASS

## FCC 15.407 # MIMO $\Sigma$ Max output power and psd ~ WLAN5Gx ax-HE40 U-NII-1

### References

TC start	28.07.2023 08:59:31
Ambit temp [°C]   humidity [rel%]	24.9   52
System version	4.6.0.1
Standard   Version	FCC 15.407   NI
Method	
Description	MIMO $\Sigma$ FCC Power & psd - WLAN5Gx ax-HE40 U-NII-1
Information	

### EUT Common Settings WLAN5Gx

Number of Antenna Ports	1
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]	1.3
Switched path	None

### Equipment

## Test at TX 5190 MHz

### RESULT Power

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ant:1 Max Output Power DC corrected	--	--	12.21	dBm	INFO
Ant:1 BW 26dB	--	--	40.080	MHz	INFO
Ant:2 Max Output Power DC corrected	--	--	11.21	dBm	INFO
Ant:2 BW 26dB	--	--	39.920	MHz	INFO
$\Sigma$ Limit absolute	--	24	14.75	dBm	PASS
$\Sigma$ Limit: 11 dBm + 10 log 39.92	--	27.01	14.75	dBm	na

### RESULT PSD

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ant:1 PSD	--	--	-2.86	dBm/1MHz	INFO
Ant:2 PSD	--	--	-3.84	dBm/1MHz	INFO
$\Sigma$	--	11	-0.31	dBm/1MHz	PASS

### Verdict

PASS

## NA # Message with SA scan ~

### References

TC start	28.07.2023 09:12:34
Ambit temp [°C]   humidity [rel%]	25.0   52
System version	4.6.0.1
Standard   Version	NA   NI
Method	
Description	Message with SA WLAN5Gx ax-HE40 U-NII-1
Information	PS79

### Test Parameter

Switched Path	EUT - SignalingUnit - SpectrumAnalyzer
Message start	28.07.2023 09:12:34
Message	set WLAN5Gx to WLAN5Gx ax-HE40 U-NII-1, Frequency [MHz] 5230 Information: PS79

### Equipment

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

### Verdict

INFO

# FCC 15.407 # Max output power and psd ~ WLAN5Gx ax-HE40 U-NII-1

## References

TC start	28.07.2023 09:12:44
Ambit temp [°C]   humidity [rel%]	25.0   52
System version	4.6.0.1
Standard   Version	FCC 15.407   NI
Method	KDB789033 D02, F, E.2.e.
Description	FCC 15.407 Max Output Power & PSD - WLAN5Gx ax-HE40 U-NII-1
Information	PS79

## EUT Common Settings WLAN5Gx

Number of Antenna Ports	1
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]	1.3
Switched path	EUT - SignalingUnit - SpectrumAnalyzer

## 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

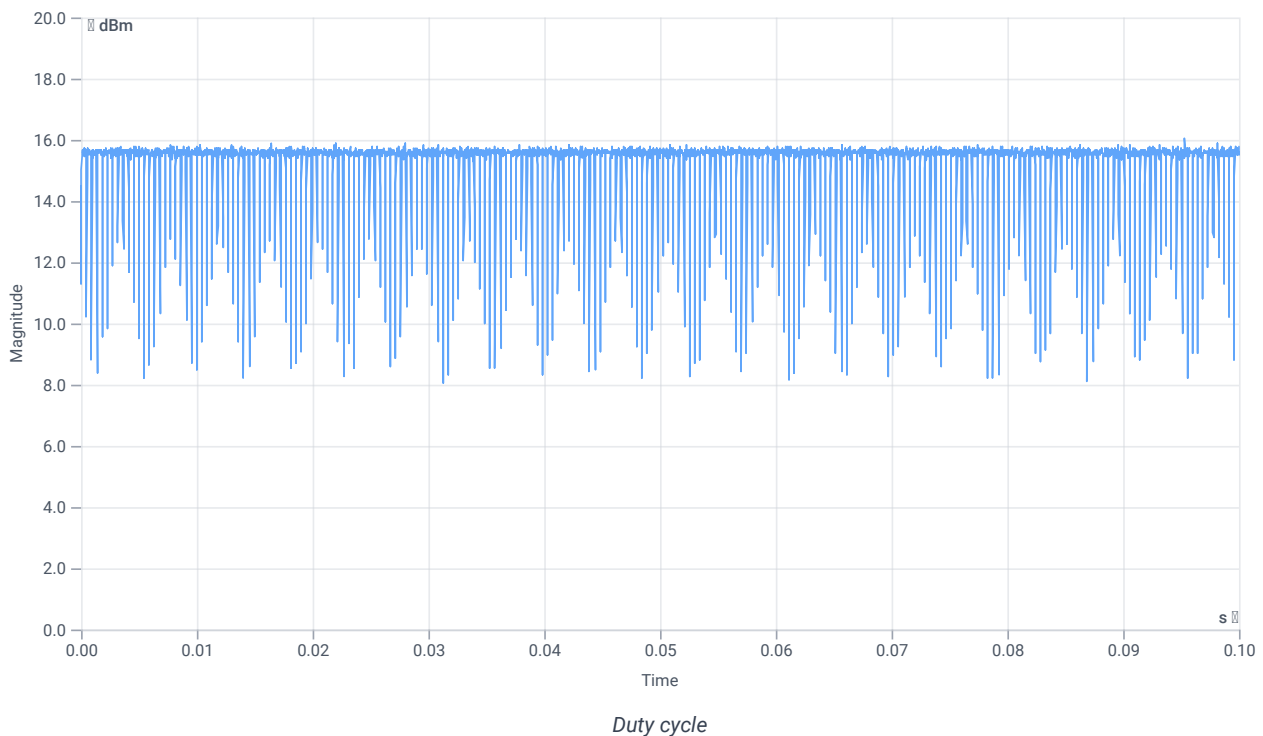
RESULT: Reference Power cond.

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	--	--	16.55	dBm	INFO
Ref. Frequency	--	--	5232.400	MHz	INFO

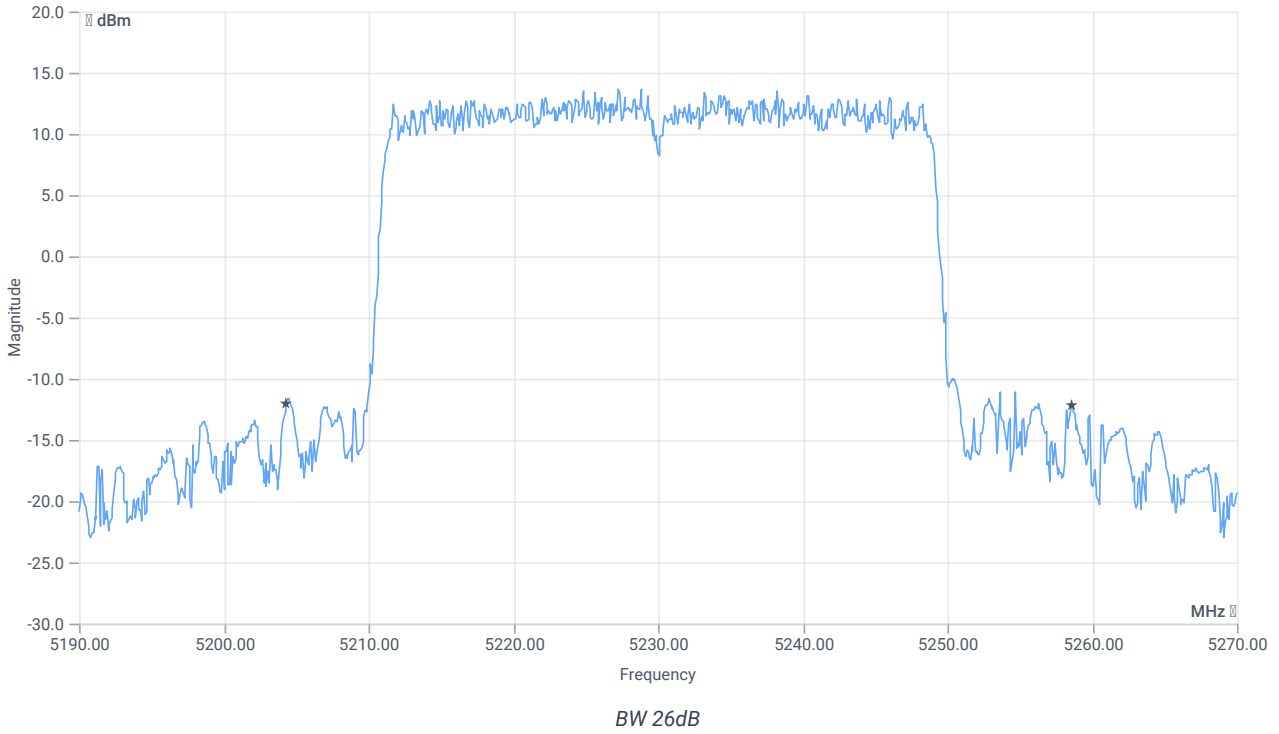
## Evaluation max. Duty Cycle

### Duty Cycle evaluation

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



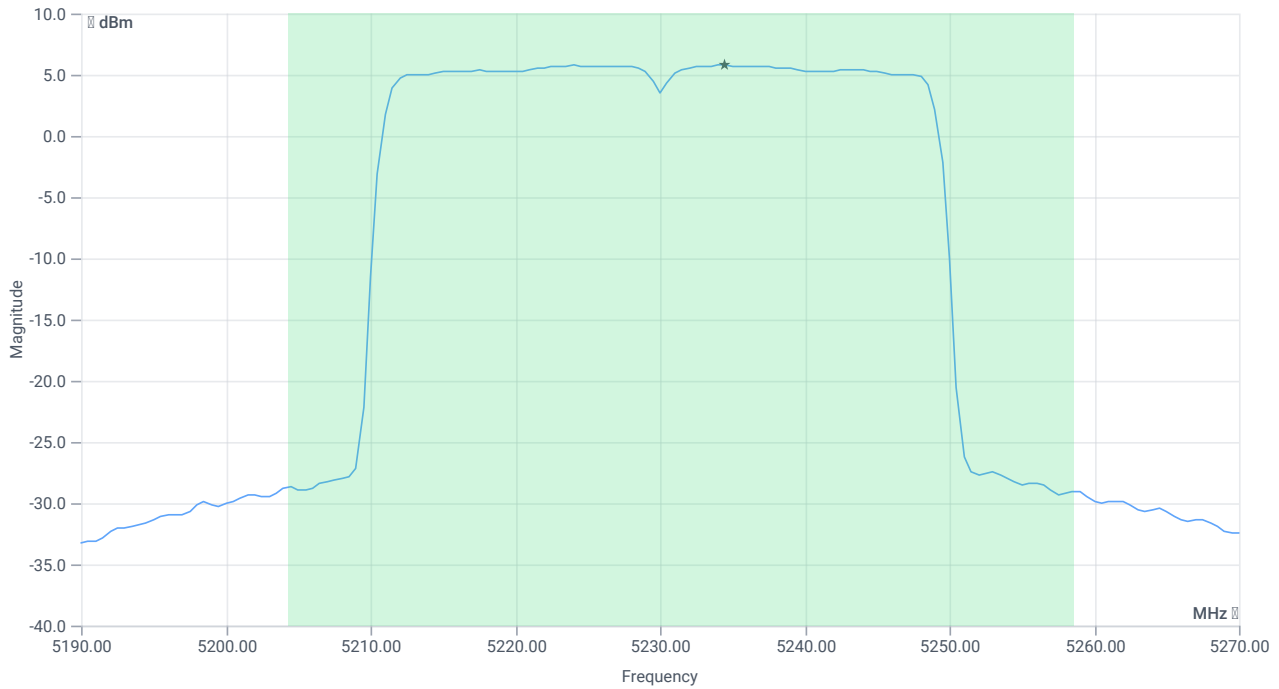
## RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 26dB	---	---	54.24	MHz	INFO
T1 26dB	---	---	5204.3200	MHz	INFO
T2 26dB	---	---	5258.5600	MHz	INFO

## Maximum Output Power

### READ SA SETTINGS:

RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]	28.55   16.34   30
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

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Max Output Power	--	--	20.84	dBm	INFO
Duty Cycle Correction	--	--	0	dB	INFO
Limit absolute					
Max Output Power DC corrected	--	24	20.84	dBm	PASS
Limit: 11 dBm + 10 log 54.24					
Max Output Power DC corrected	--	28.34	20.84	dBm	na

## Power Spectral Density

### RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Power Spectral Density	--	--	5.76	dBm/1MHz	INFO
Duty Cycle Correction	--	--	0	dB	INFO
Power Spectral Density DC corrected	--	11	5.76	dBm/1MHz	PASS

### Verdict

PASS

## FCC 15.407, ISED RSS247 # Bandwidths 99PCT and 20dB ~ WLAN5Gx ax-HE40 U-NII-1

### References

TC start	28.07.2023 09:14:19
Ambit temp [°C]   humidity [rel%]	25.1   52
System version	4.6.0.1
Standard   Version	FCC 15.407, ISED RSS247   NI
Method	26dB Bandwidth KDB789033 D02, C.1 / ISED RSS-GEN
Description	FCC 15.407 Bandwidths - WLAN5Gx ax-HE40 U-NII-1
Information	PS79

### EUT Common Settings WLAN5Gx

Number of Antenna Ports	1
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]	1.3
Switched path	EUT - SignalingUnit - SpectrumAnalyzer

### Equipment

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

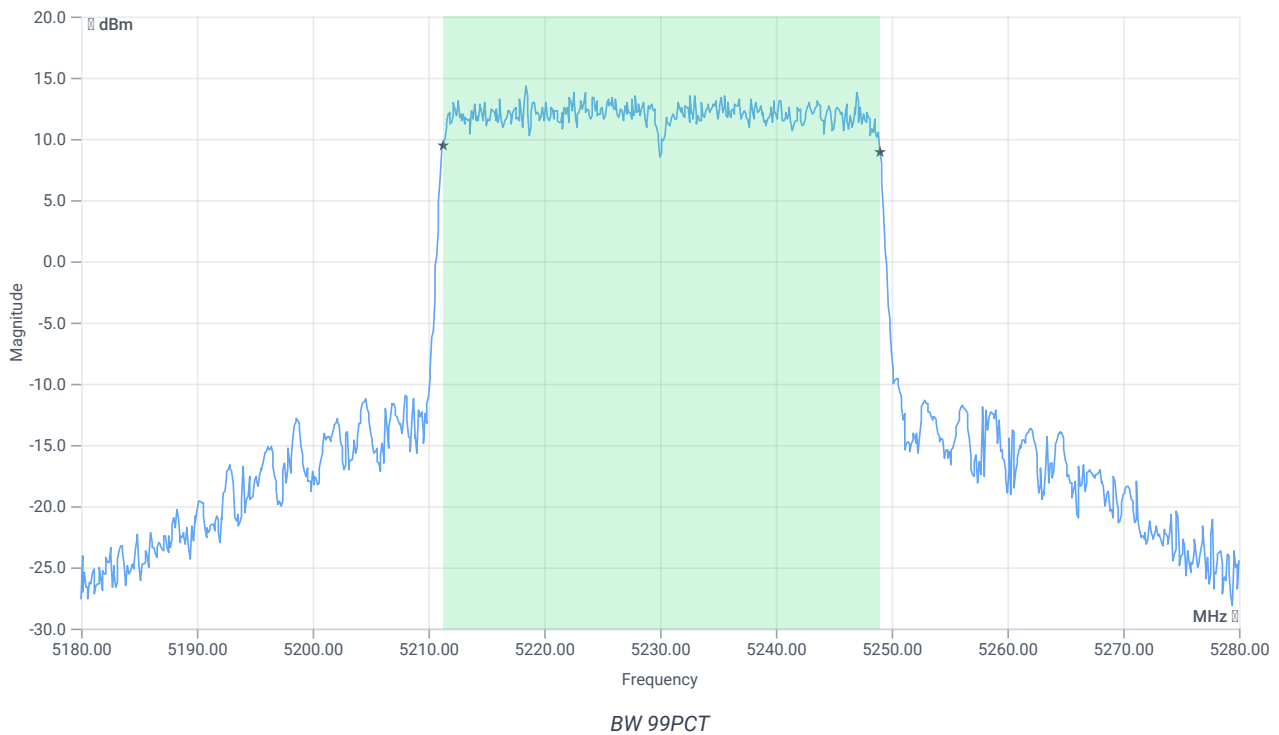
## Test at TX 5230 MHz

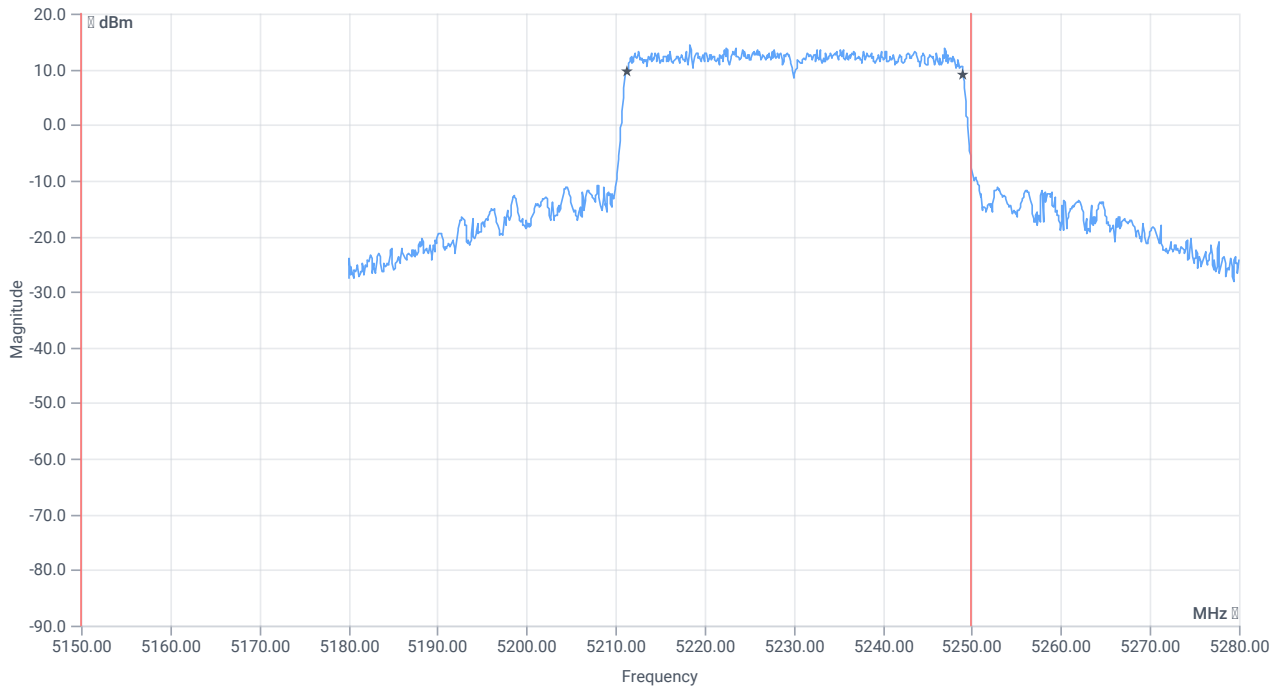
RESULT: Reference Power cond.

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	--	--	15.31	dBm	INFO
Ref. Frequency	--	--	5240.190	MHz	INFO

### READ SA SETTINGS:

RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]	23.31   16.34   25
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

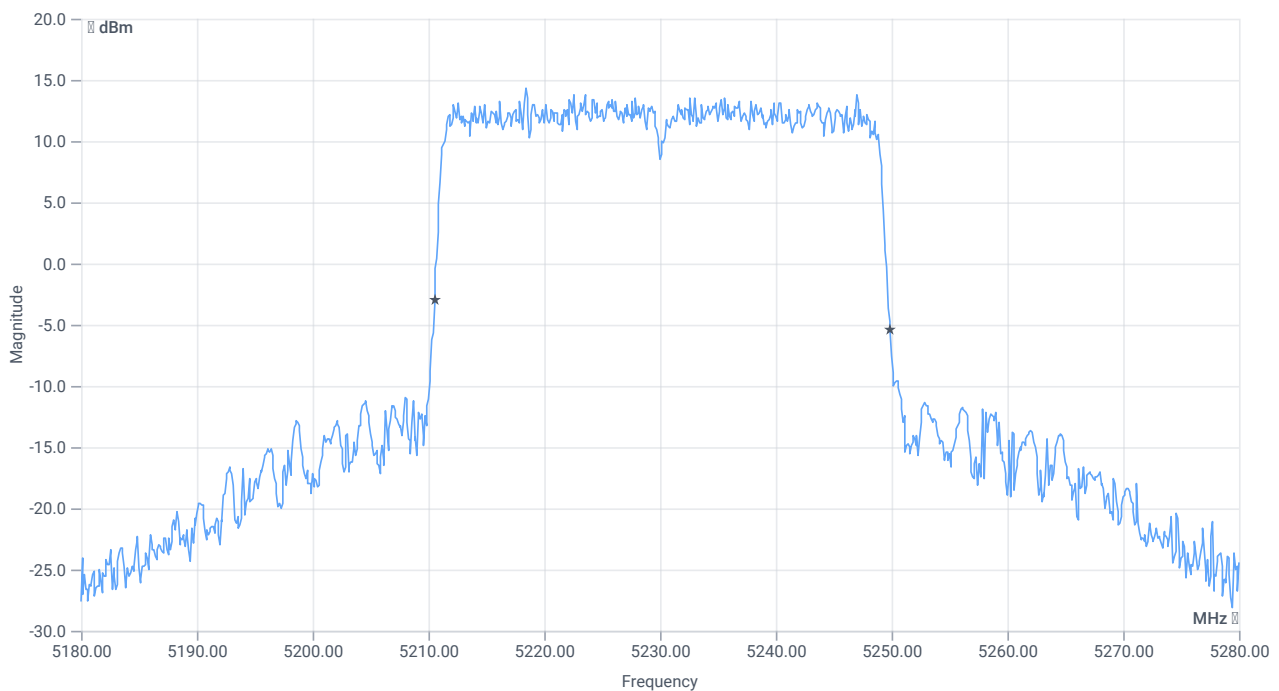




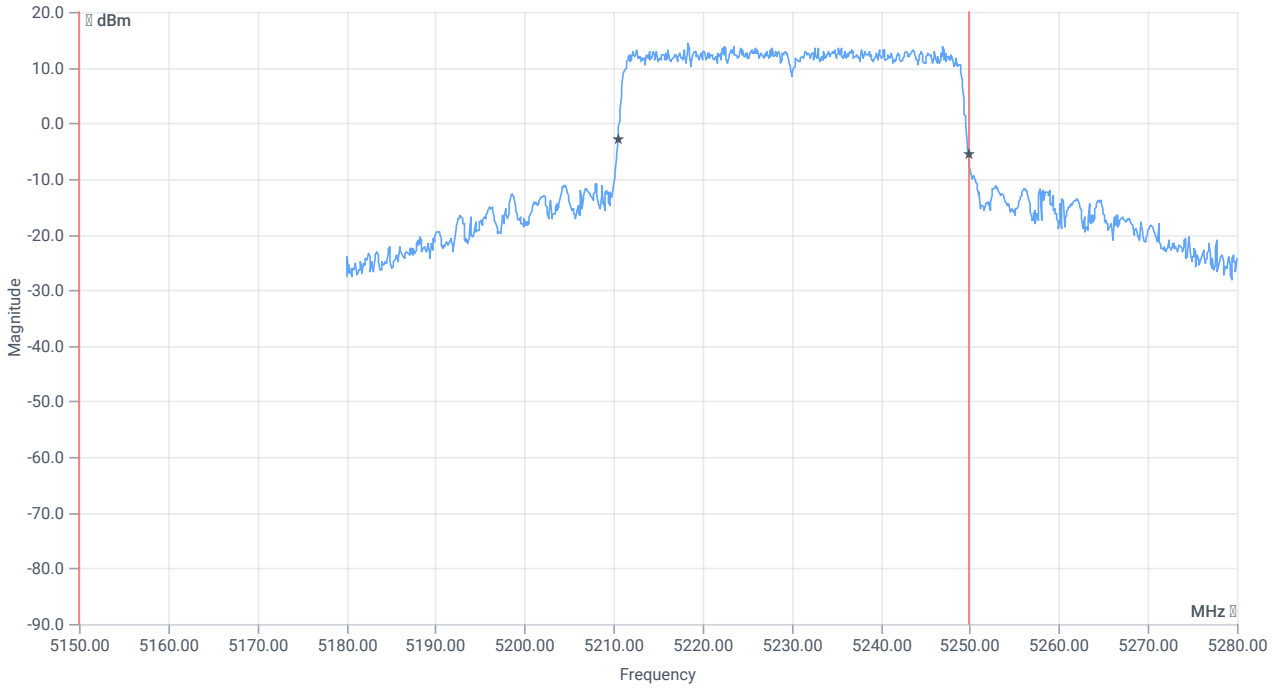
BW within Band 99PCT

## RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 99%	--	--	37.762	MHz	INFO
T1 99%	5150.000000	--	5211.2188	MHz	PASS
T2 99%	--	5250.000000	5248.9810	MHz	PASS



BW 20dB



BW within Band 20dB

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 20dB	--	--	39.4	MHz	INFO
T1 20dB	5150.000000	--	5210.5000	MHz	PASS
T2 20dB	--	5250.000000	5249.9000	MHz	PASS

Verdict

PASS

# FCC 15.407 # Max output power and psd ~ WLAN5Gx ax-HE40 U-NII-1

## References

TC start	28.07.2023 09:15:01
Ambit temp [°C]   humidity [rel%]	25.1   52
System version	4.6.0.1
Standard   Version	FCC 15.407   NI
Method	KDB789033 D02, F, E.2.e.
Description	FCC 15.407 Max Output Power & PSD - WLAN5Gx ax-HE40 U-NII-1
Information	PS79

## EUT Common Settings WLAN5Gx

Number of Antenna Ports	1
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]	1.3
Switched path	EUT - SignalingUnit - SpectrumAnalyzer

## 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

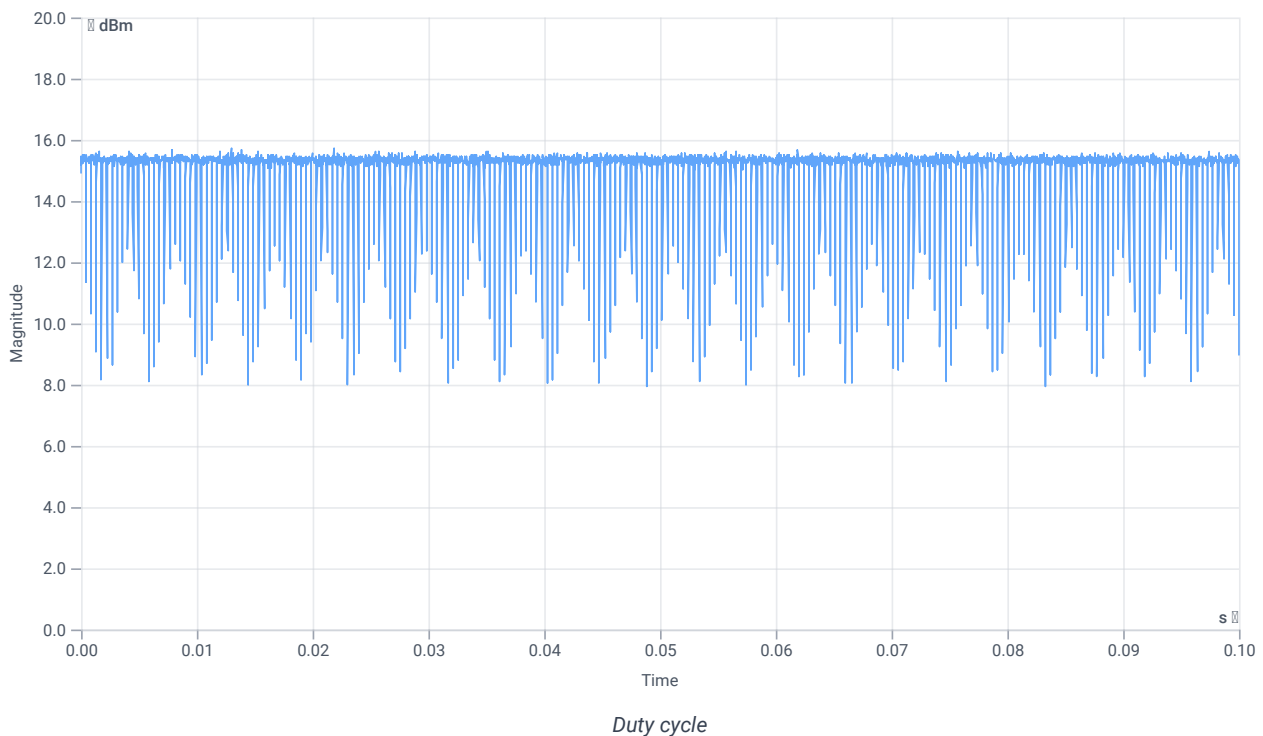
RESULT: Reference Power cond.

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	--	--	15.40	dBm	INFO
Ref. Frequency	--	--	5216.610	MHz	INFO

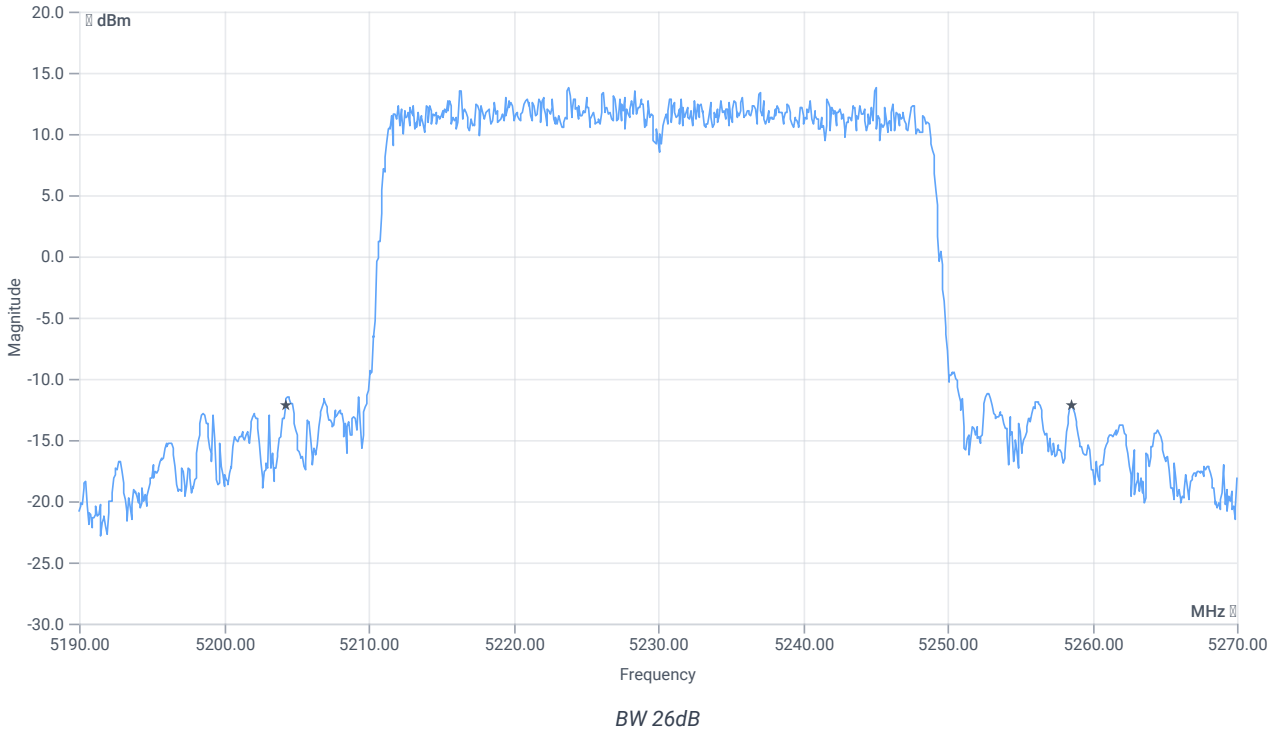
## Evaluation max. Duty Cycle

### Duty Cycle evaluation

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



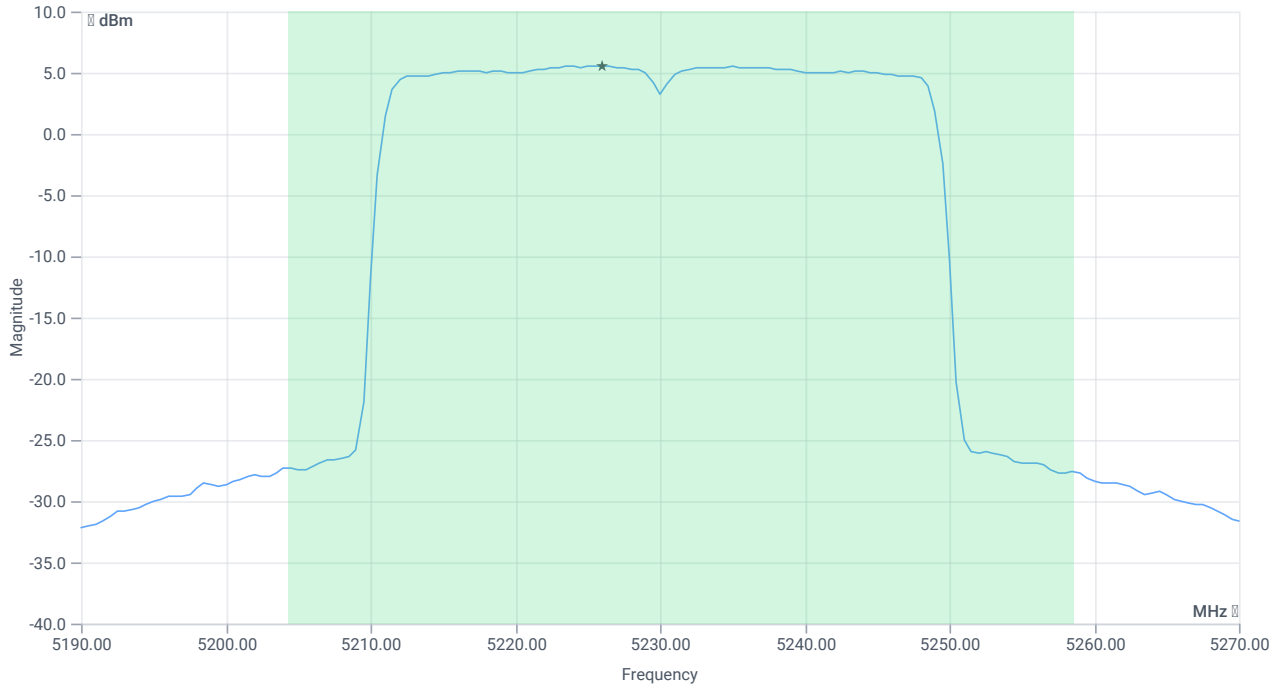
## RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 26dB	---	---	54.32	MHz	INFO
T1 26dB	---	---	5204.2400	MHz	INFO
T2 26dB	---	---	5258.5600	MHz	INFO

## Maximum Output Power

### READ SA SETTINGS:

RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]	27.40   16.34   30
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

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Max Output Power	--	--	20.6	dBm	INFO
Duty Cycle Correction	--	--	0	dB	INFO
Limit absolute					
Max Output Power DC corrected	--	24	20.6	dBm	PASS
Limit: 11 dBm + 10 log 54.32					
Max Output Power DC corrected	--	28.35	20.6	dBm	na

## Power Spectral Density

### RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Power Spectral Density	--	--	5.56	dBm/1MHz	INFO
Duty Cycle Correction	--	--	0	dB	INFO
Power Spectral Density DC corrected	--	11	5.56	dBm/1MHz	PASS

### Verdict

PASS

## FCC 15.407, ISED RSS247 # Bandwidths 99PCT and 20dB ~ WLAN5Gx ax-HE40 U-NII-1

### References

TC start	28.07.2023 09:16:36
Ambit temp [°C]   humidity [rel%]	25.1   52
System version	4.6.0.1
Standard   Version	FCC 15.407, ISED RSS247   NI
Method	26dB Bandwidth KDB789033 D02, C.1 / ISED RSS-GEN
Description	FCC 15.407 Bandwidths - WLAN5Gx ax-HE40 U-NII-1
Information	PS79

### EUT Common Settings WLAN5Gx

Number of Antenna Ports	1
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]	1.3
Switched path	EUT - SignalingUnit - SpectrumAnalyzer

### Equipment

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

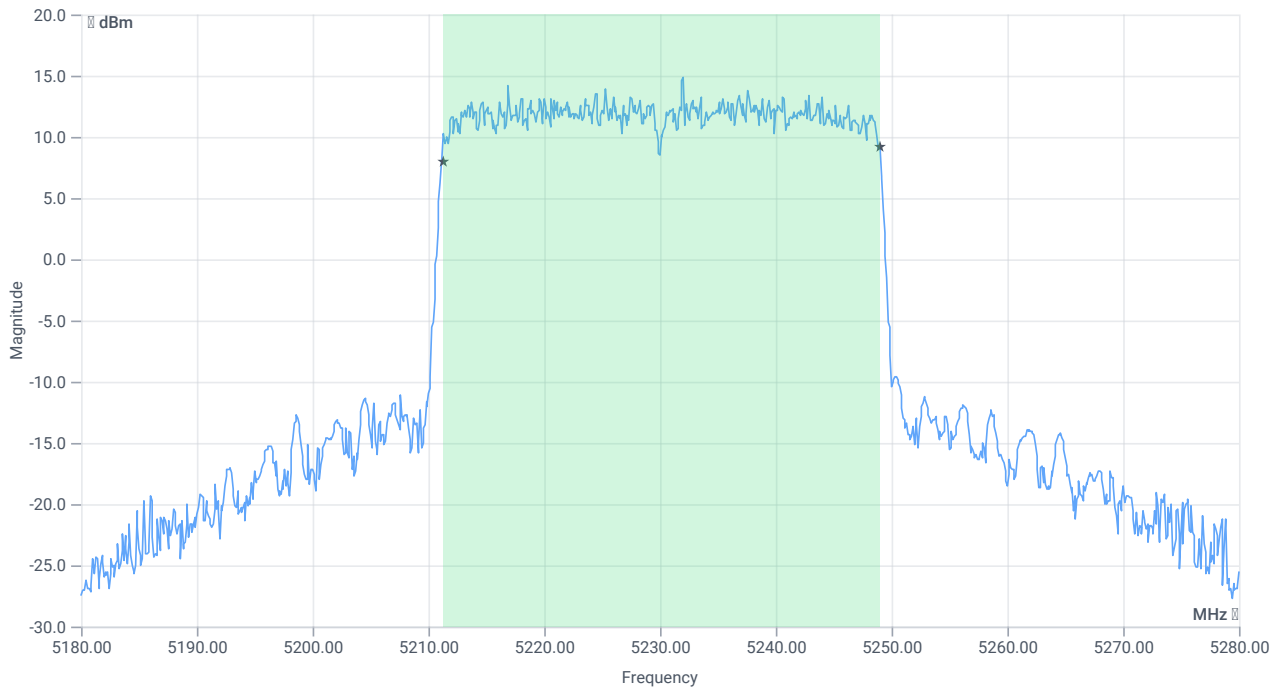
## Test at TX 5230 MHz

RESULT: Reference Power cond.

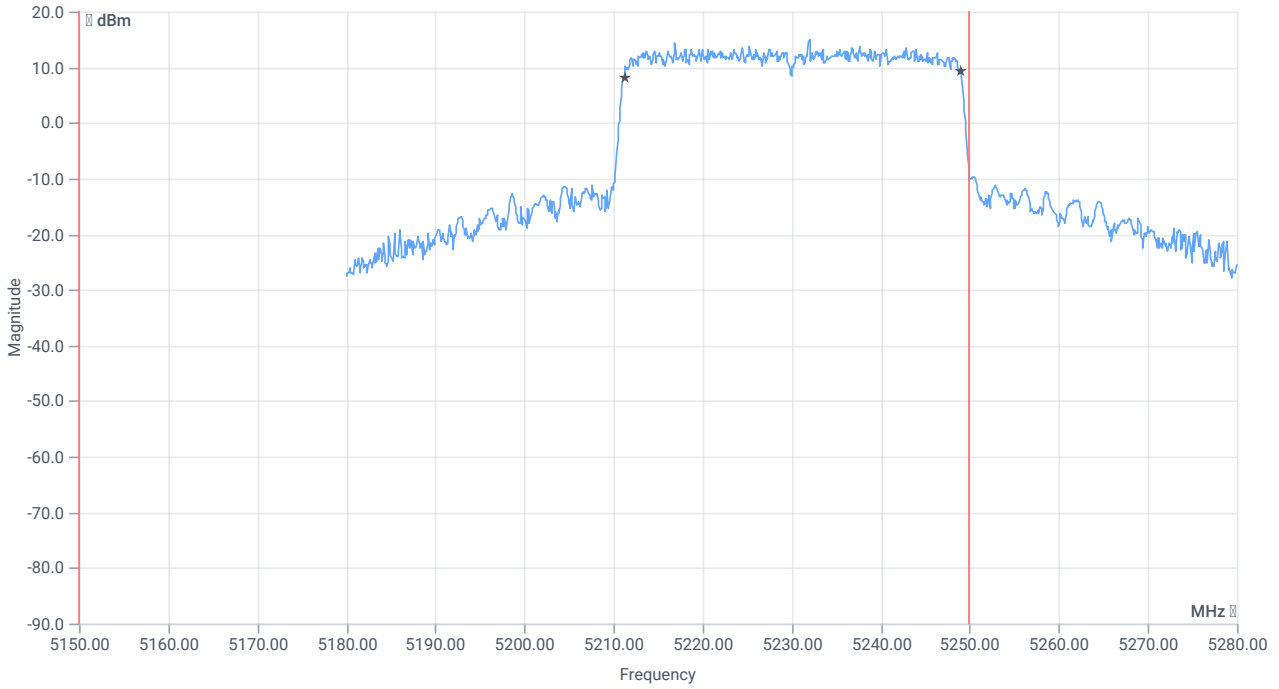
DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	--	--	15.17	dBm	INFO
Ref. Frequency	--	--	5229.200	MHz	INFO

### READ SA SETTINGS:

RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]	23.17   16.34   25
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 99PCT



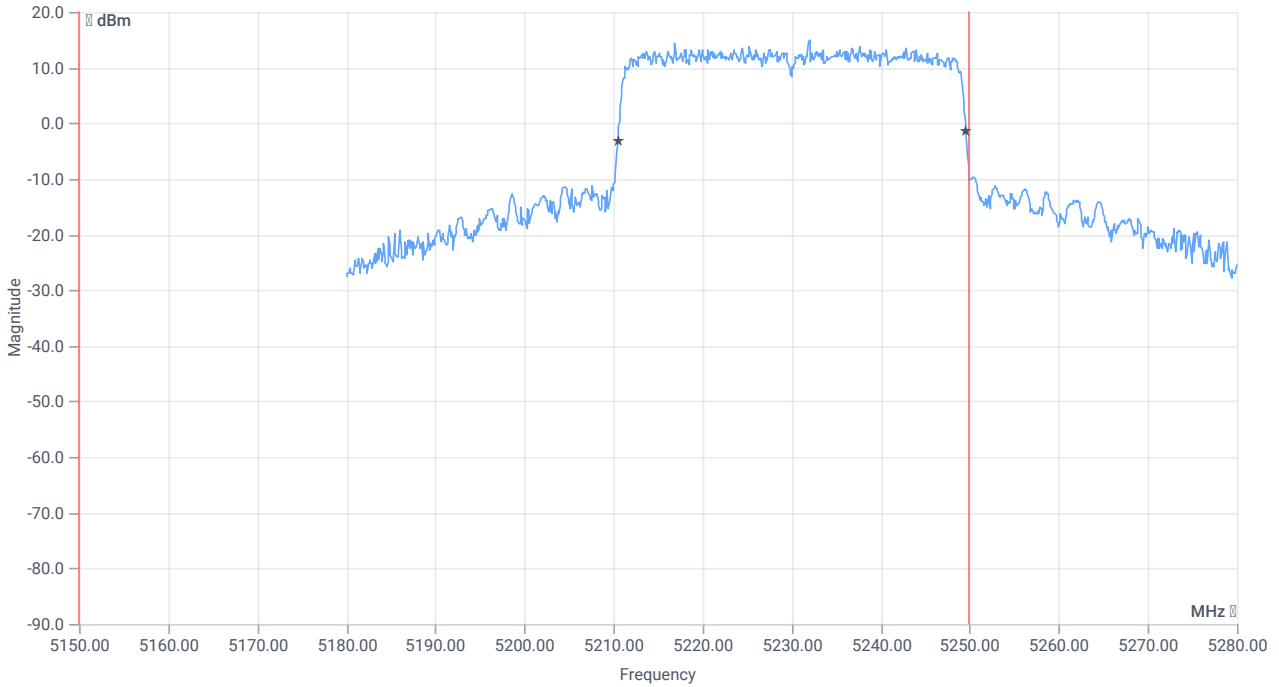
*BW within Band 99PCT*

## RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 99%	--	--	37.762	MHz	INFO
T1 99%	5150.000000	--	5211.2188	MHz	PASS
T2 99%	--	5250.000000	5248.9810	MHz	PASS



BW 20dB



BW within Band 20dB

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 20dB	--	--	39.1	MHz	INFO
T1 20dB	5150.000000	--	5210.5000	MHz	PASS
T2 20dB	--	5250.000000	5249.6000	MHz	PASS

Verdict

PASS

## FCC 15.407 # MIMO $\Sigma$ Max output power and psd ~ WLAN5Gx ax-HE40 U-NII-1

### References

TC start	28.07.2023 09:17:18
Ambit temp [°C]   humidity [rel%]	25.1   52
System version	4.6.0.1
Standard   Version	FCC 15.407   NI
Method	
Description	MIMO $\Sigma$ FCC Power & psd - WLAN5Gx ax-HE40 U-NII-1
Information	

### EUT Common Settings WLAN5Gx

Number of Antenna Ports	1
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]	1.3
Switched path	None

### Equipment



## Test at TX 5230 MHz

### RESULT Power

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ant:1 Max Output Power DC corrected	--	--	20.84	dBm	INFO
Ant:1 BW 26dB	--	--	54.240	MHz	INFO
Ant:2 Max Output Power DC corrected	--	--	20.6	dBm	INFO
Ant:2 BW 26dB	--	--	54.320	MHz	INFO
Σ Limit absolute	--	24	23.73	dBm	PASS
Σ Limit: 11 dBm + 10 log 54.24	--	28.34	23.73	dBm	na

### RESULT PSD

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ant:1 PSD	--	--	5.76	dBm/1MHz	INFO
Ant:2 PSD	--	--	5.56	dBm/1MHz	INFO
Σ	--	11	8.67	dBm/1MHz	PASS

Verdict

PASS

## NA # Message with SA scan ~

### References

TC start	28.07.2023 09:35:04
Ambit temp [°C]   humidity [rel%]	25.2   52
System version	4.6.0.1
Standard   Version	NA   NI
Method	
Description	Message with SA Scan ax-HE40 U-NII-2A
Information	PS79

### Test Parameter

Switched Path	EUT - SignalingUnit - SpectrumAnalyzer
Message start	28.07.2023 09:35:05
Message	set WLAN5Gx to ax-HE40 U-NII-2A, Frequency [MHz] 5270 , Information: PS79

### Equipment

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

### Verdict

INFO

## FCC 15.407 # Max output power and psd ~ WLAN5Gx ax-HE40 U-NII-2A

### References

TC start	28.07.2023 09:35:14
Ambit temp [°C]   humidity [rel%]	25.2   52
System version	4.6.0.1
Standard   Version	FCC 15.407   NI
Method	KDB789033 D02, F, E.2.e.
Description	FCC 15.407 Max Output Power & PSD - WLAN5Gx ax-HE40 U-NII-2A
Information	PS79

### EUT Common Settings WLAN5Gx

Number of Antenna Ports	1
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]	1.3
Switched path	EUT - SignalingUnit - SpectrumAnalyzer

### 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

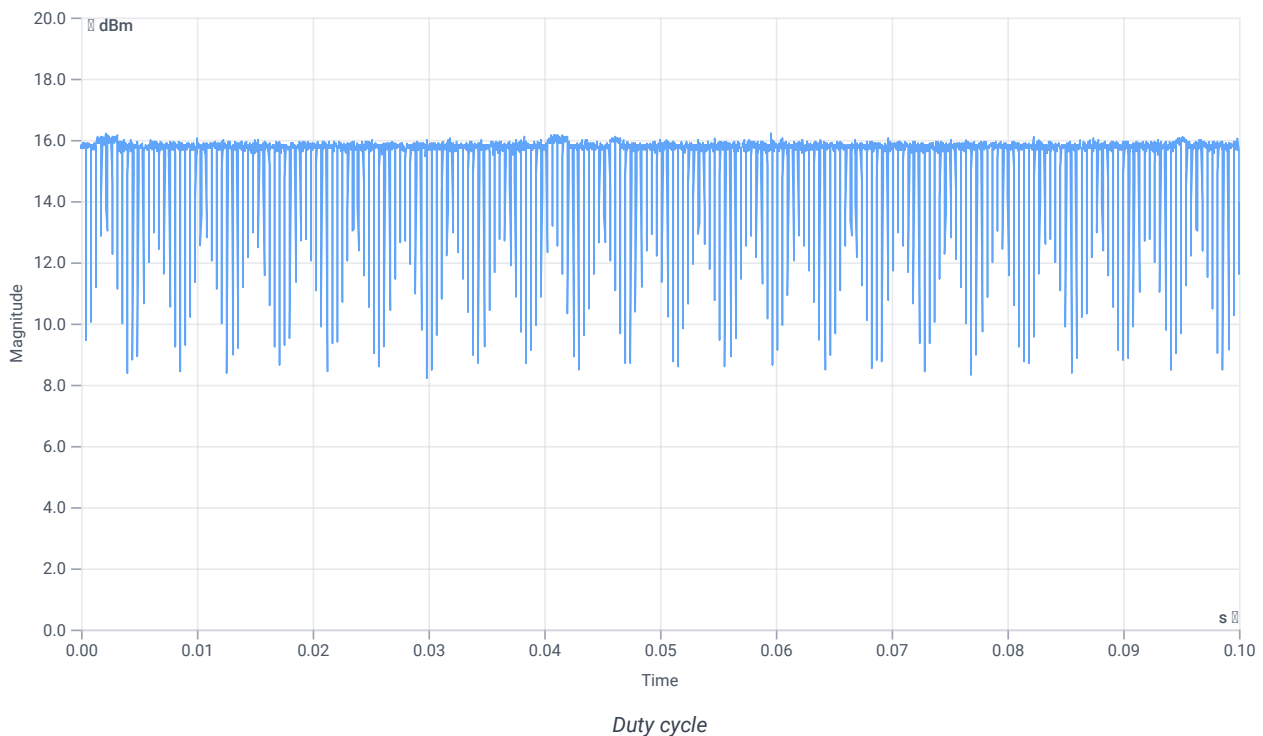
RESULT: Reference Power cond.

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	--	--	15.61	dBm	INFO
Ref. Frequency	--	--	5260.010	MHz	INFO

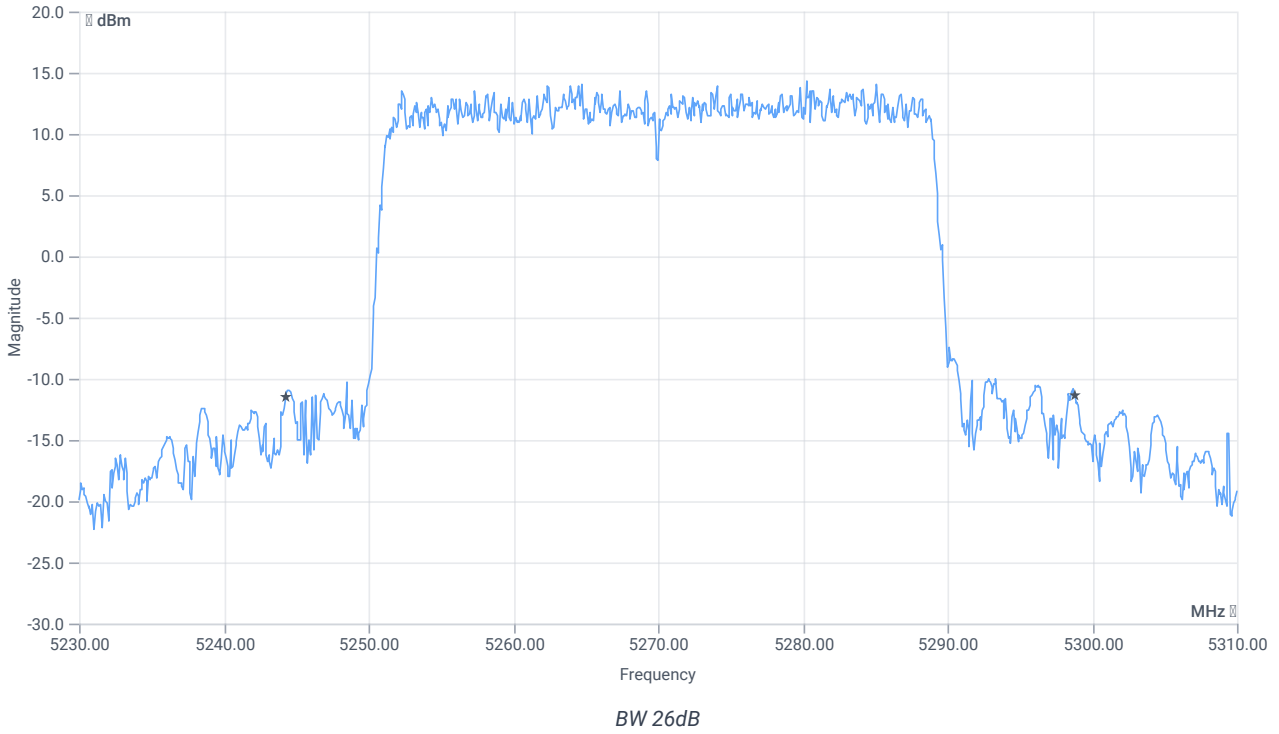
## Evaluation max. Duty Cycle

### Duty Cycle evaluation

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



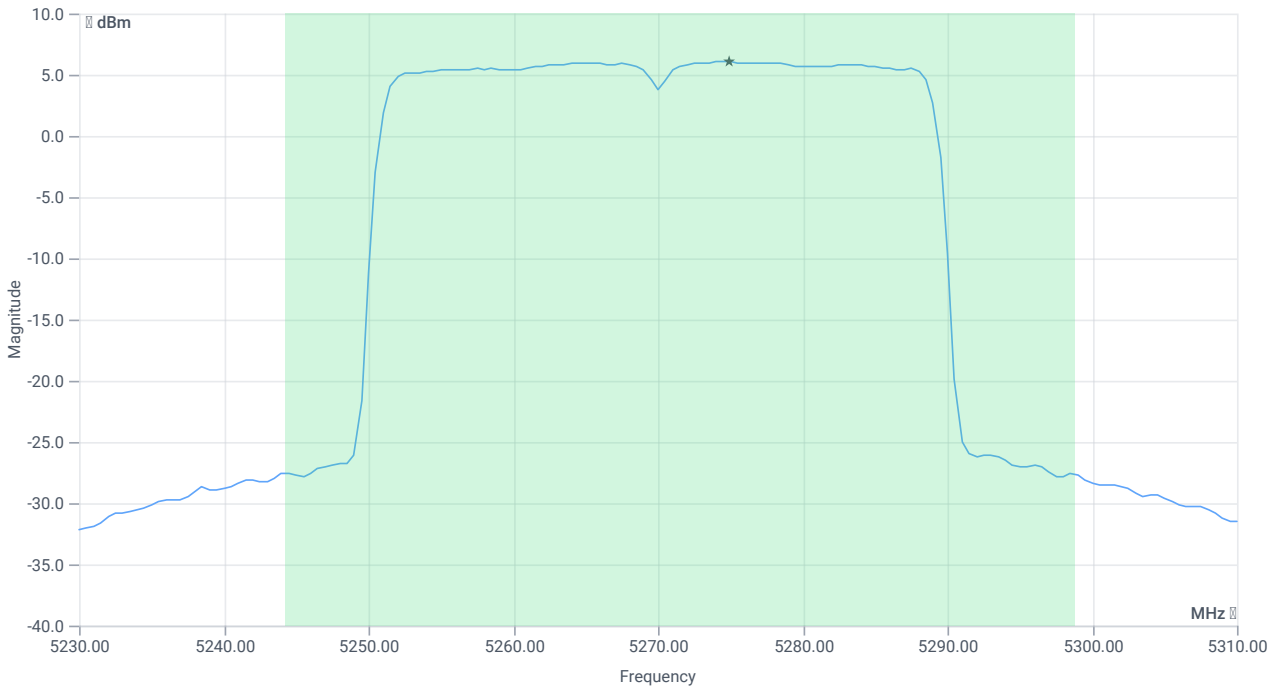
## RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 26dB	---	---	54.56	MHz	INFO
T1 26dB	---	---	5244.2400	MHz	INFO
T2 26dB	---	---	5298.8000	MHz	INFO

## Maximum Output Power

### READ SA SETTINGS:

RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]	27.61   16.22   30
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

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Max Output Power	--	--	21.11	dBm	INFO
Duty Cycle Correction	--	--	0	dB	INFO
Limit absolute					
Max Output Power DC corrected	--	24	21.11	dBm	PASS
Limit: 11 dBm + 10 log 54.56					
Max Output Power DC corrected	--	28.37	21.11	dBm	PASS

## Power Spectral Density

### RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Power Spectral Density	--	--	6.05	dBm/1MHz	INFO
Duty Cycle Correction	--	--	0	dB	INFO
Power Spectral Density DC corrected	--	11	6.05	dBm/1MHz	PASS

### Verdict

PASS

## FCC 15.407, ISED RSS247 # Bandwidths 99PCT and 20dB ~ WLAN5Gx ax-HE40 U-NII-2A

### References

TC start	28.07.2023 09:36:49
Ambit temp [°C]   humidity [rel%]	25.2   52
System version	4.6.0.1
Standard   Version	FCC 15.407, ISED RSS247   NI
Method	26dB Bandwidth KDB789033 D02, C.1 / ISED RSS-GEN
Description	FCC 15.407 Bandwidths - WLAN5Gx ax-HE40 U-NII-2A
Information	PS79

### EUT Common Settings WLAN5Gx

Number of Antenna Ports	1
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]	1.3
Switched path	EUT - SignalingUnit - SpectrumAnalyzer

### Equipment

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

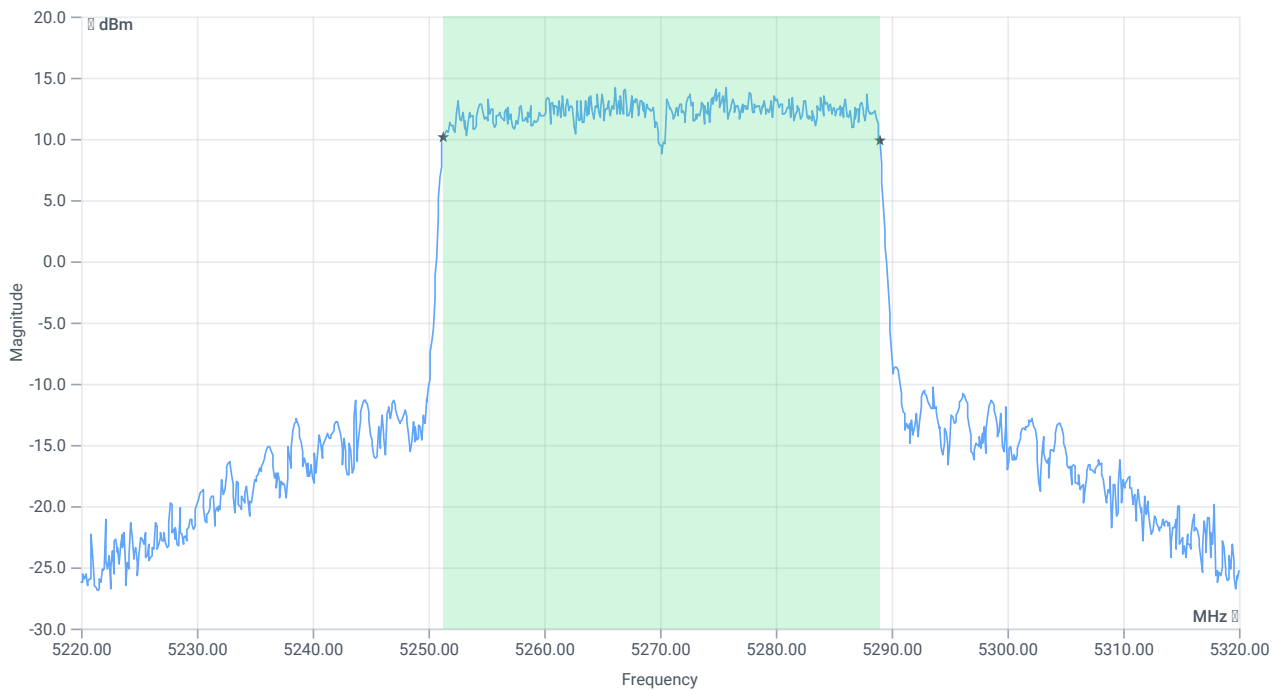
## Test at TX 5270 MHz

RESULT: Reference Power cond.

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	--	--	16.12	dBm	INFO
Ref. Frequency	--	--	5259.410	MHz	INFO

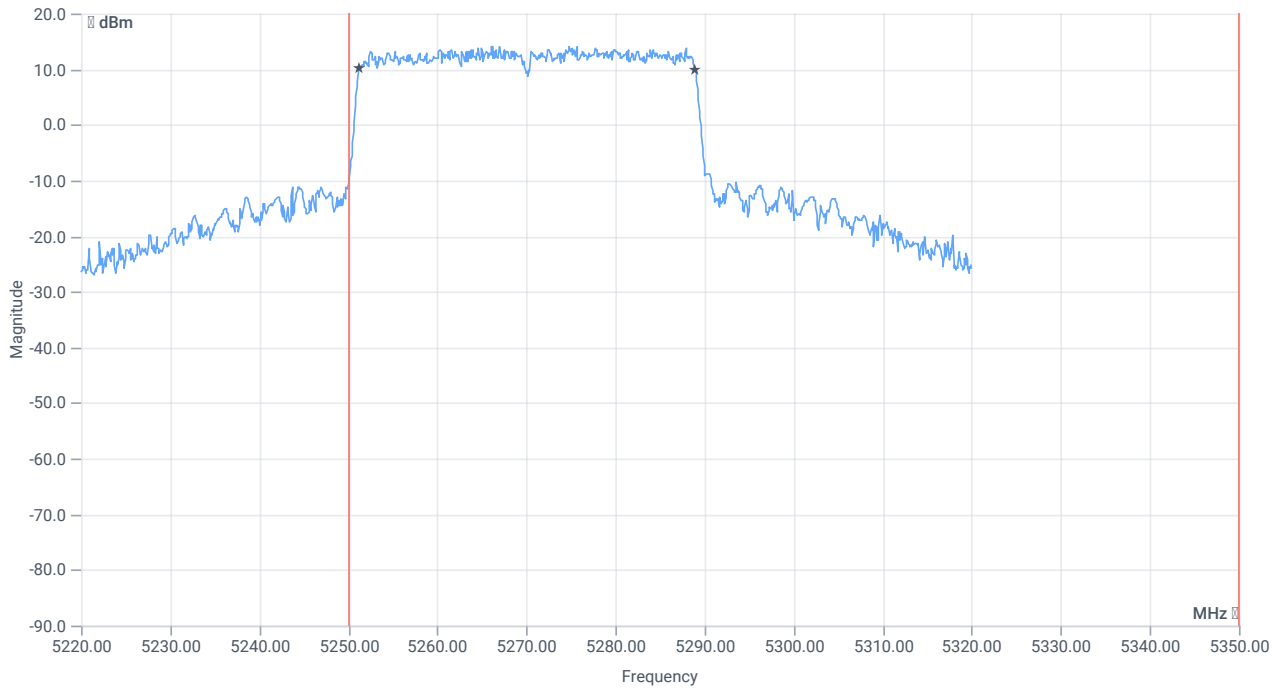
### READ SA SETTINGS:

RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]	24.12   16.22   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

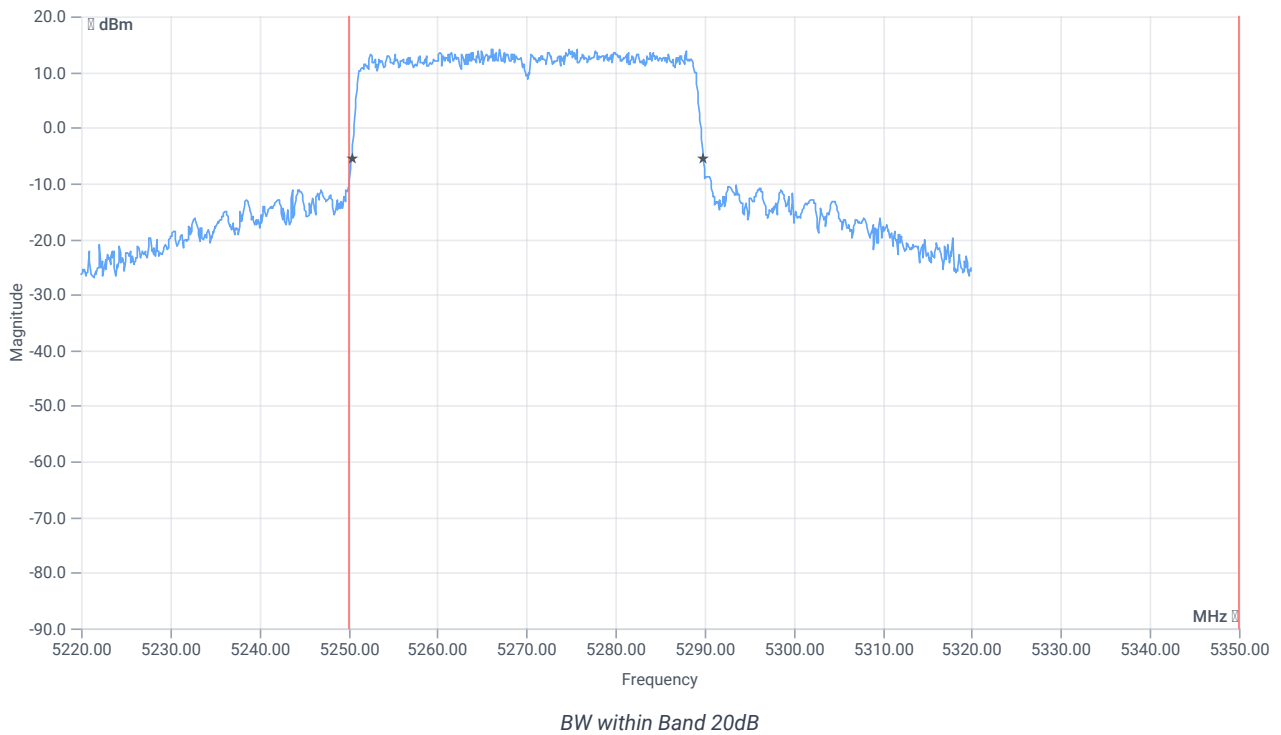
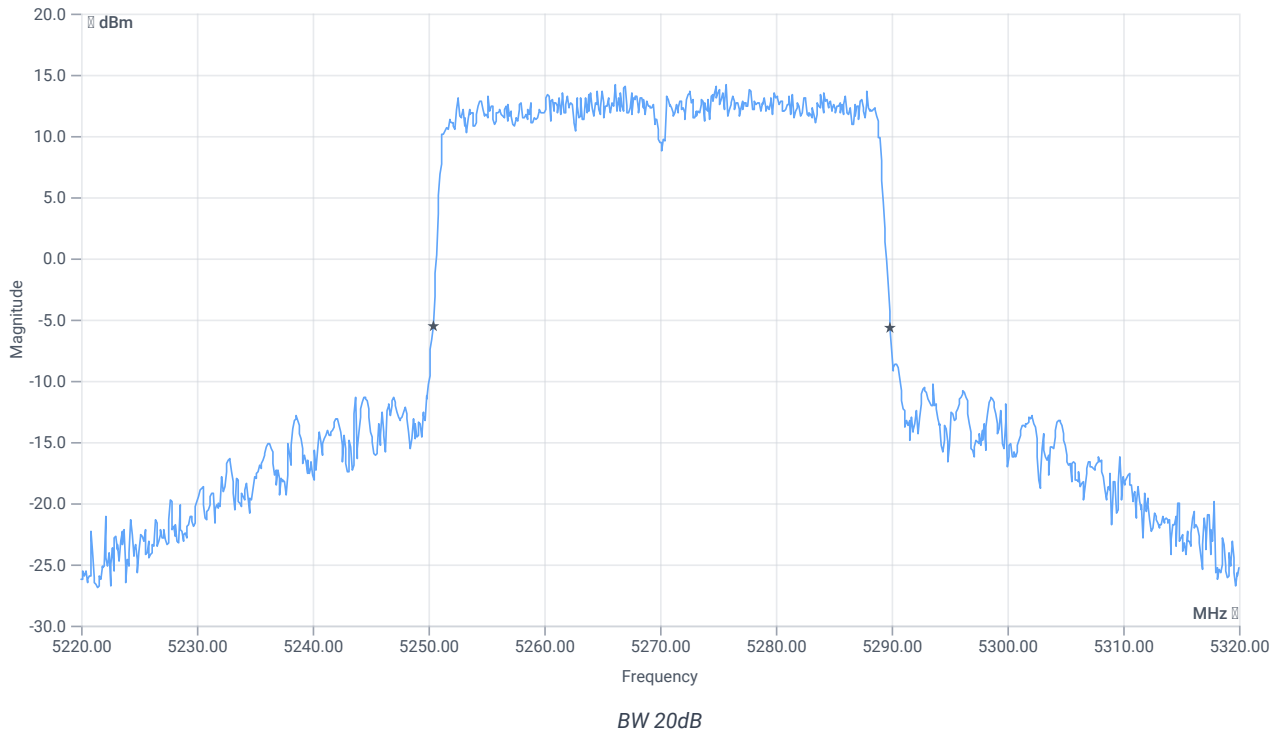




*BW within Band 99PCT*

## RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 99%	--	--	37.762	MHz	INFO
T1 99%	5250.000000	--	5251.2188	MHz	PASS since U-NII-1 is supported
T2 99%	--	5350.000000	5288.9810	MHz	PASS



## RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 20dB	---	---	39.5	MHz	INFO

**RESULT**

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
T1 20dB	5250.000000	--	5250.4000	MHz	PASS since U-NII-1 is supported
T2 20dB	--	5350.000000	5289.9000	MHz	PASS

Verdict

PASS

## FCC 15.407 # Max output power and psd ~ WLAN5Gx ax-HE40 U-NII-2A

### References

TC start	28.07.2023 09:37:28
Ambit temp [°C]   humidity [rel%]	25.2   52
System version	4.6.0.1
Standard   Version	FCC 15.407   NI
Method	KDB789033 D02, F, E.2.e.
Description	FCC 15.407 Max Output Power & PSD - WLAN5Gx ax-HE40 U-NII-2A
Information	PS79

### EUT Common Settings WLAN5Gx

Number of Antenna Ports	1
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]	1.3
Switched path	EUT - SignalingUnit - SpectrumAnalyzer

### 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

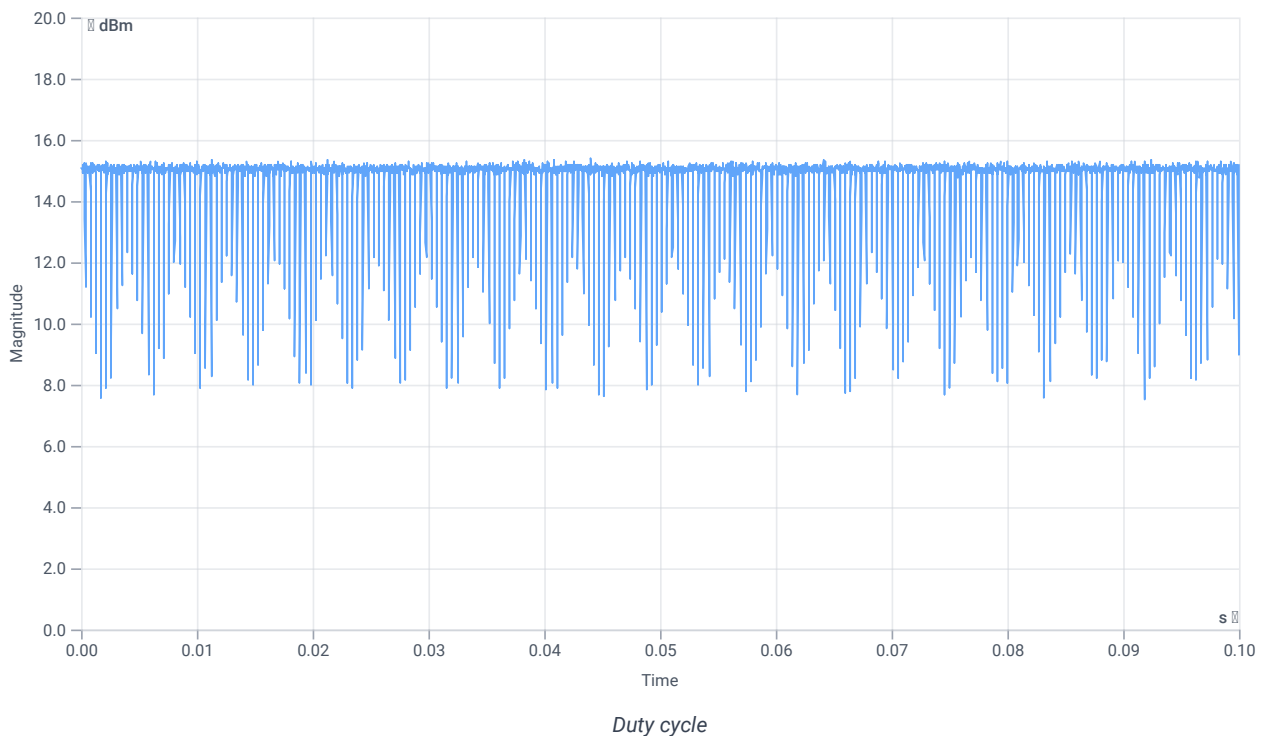
RESULT: Reference Power cond.

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	--	--	15.38	dBm	INFO
Ref. Frequency	--	--	5256.210	MHz	INFO

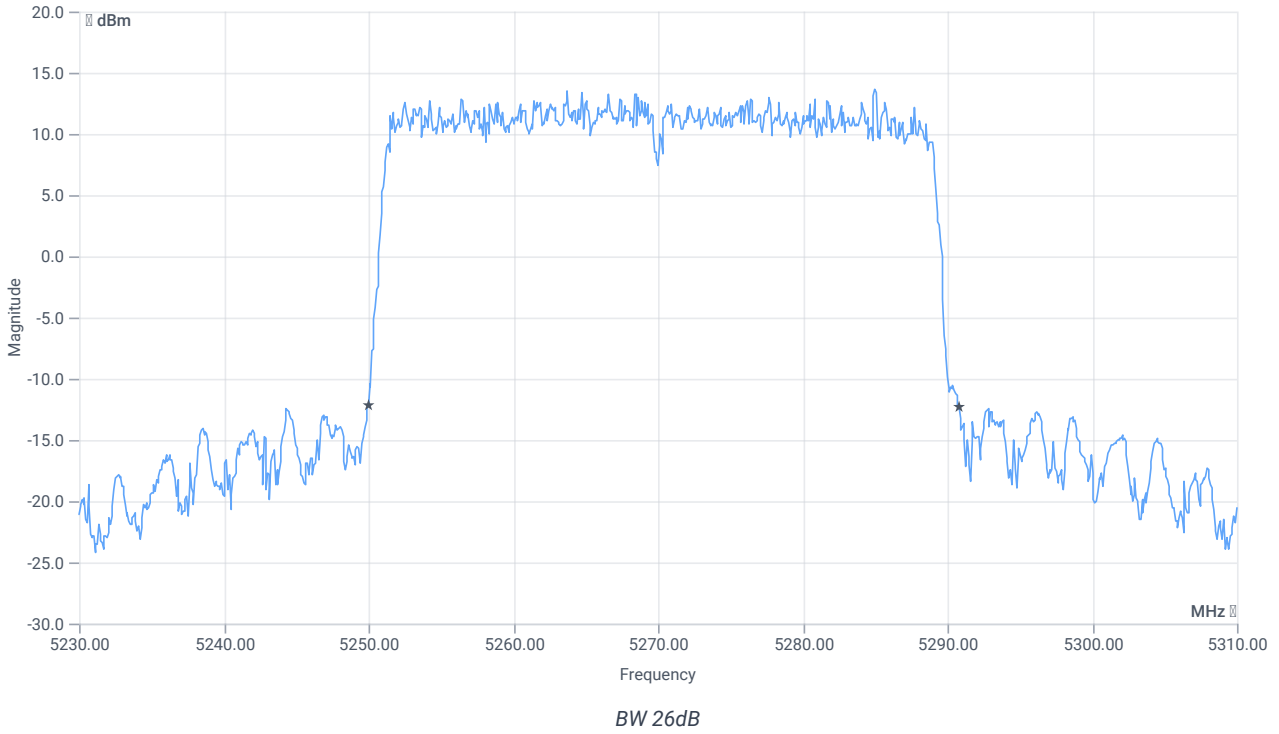
## Evaluation max. Duty Cycle

### Duty Cycle evaluation

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



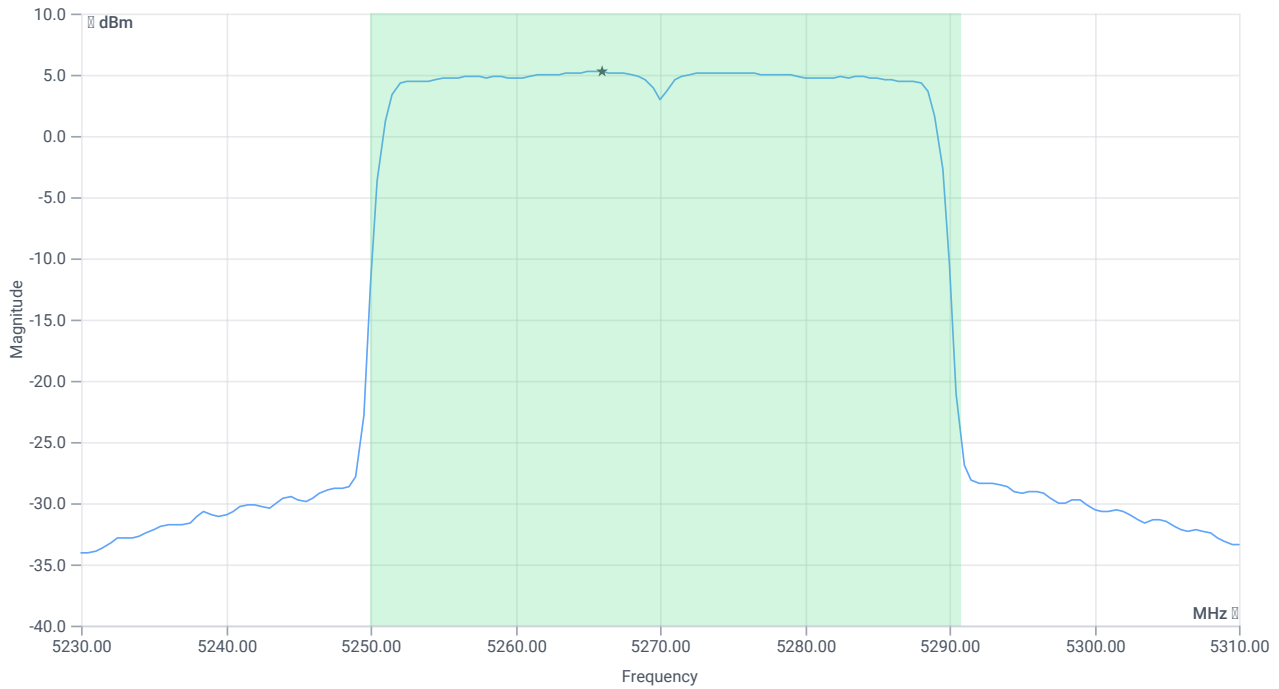
## RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 26dB	---	---	40.8	MHz	INFO
T1 26dB	---	---	5250.0000	MHz	INFO
T2 26dB	---	---	5290.8000	MHz	INFO

## Maximum Output Power

### READ SA SETTINGS:

RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]	27.38   16.22   30
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

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Max Output Power	--	--	20.29	dBm	INFO
Duty Cycle Correction	--	--	0	dB	INFO
Limit absolute					
Max Output Power DC corrected	--	24	20.29	dBm	PASS
Limit: 11 dBm + 10 log 40.8					
Max Output Power DC corrected	--	27.11	20.29	dBm	PASS

## Power Spectral Density

### RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Power Spectral Density	--	--	5.24	dBm/1MHz	INFO
Duty Cycle Correction	--	--	0	dB	INFO
Power Spectral Density DC corrected	--	11	5.24	dBm/1MHz	PASS

### Verdict

PASS

# FCC 15.407, ISED RSS247 # Bandwidths 99PCT and 20dB ~ WLAN5Gx ax-HE40 U-NII-2A

## References

TC start	28.07.2023 09:39:03
Ambit temp [°C]   humidity [rel%]	25.2   52
System version	4.6.0.1
Standard   Version	FCC 15.407, ISED RSS247   NI
Method	26dB Bandwidth KDB789033 D02, C.1 / ISED RSS-GEN
Description	FCC 15.407 Bandwidths - WLAN5Gx ax-HE40 U-NII-2A
Information	PS79

## EUT Common Settings WLAN5Gx

Number of Antenna Ports	1
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]	1.3
Switched path	EUT - SignalingUnit - SpectrumAnalyzer

## Equipment

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



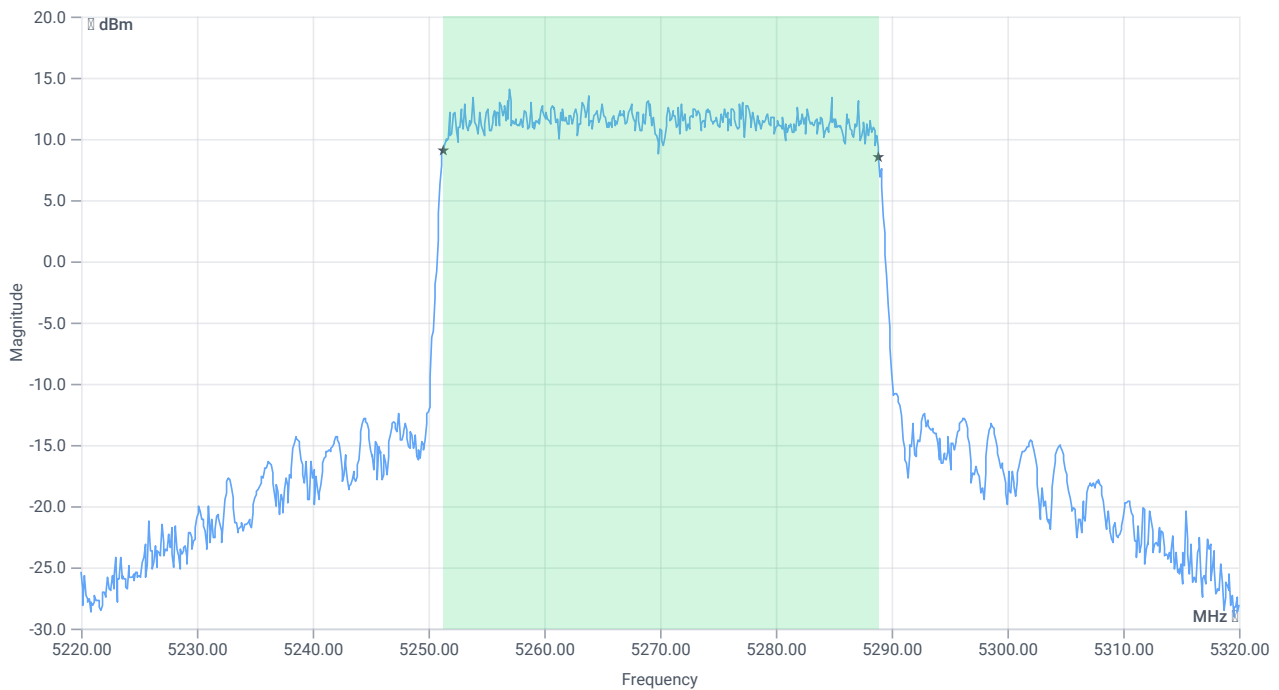
## Test at TX 5270 MHz

RESULT: Reference Power cond.

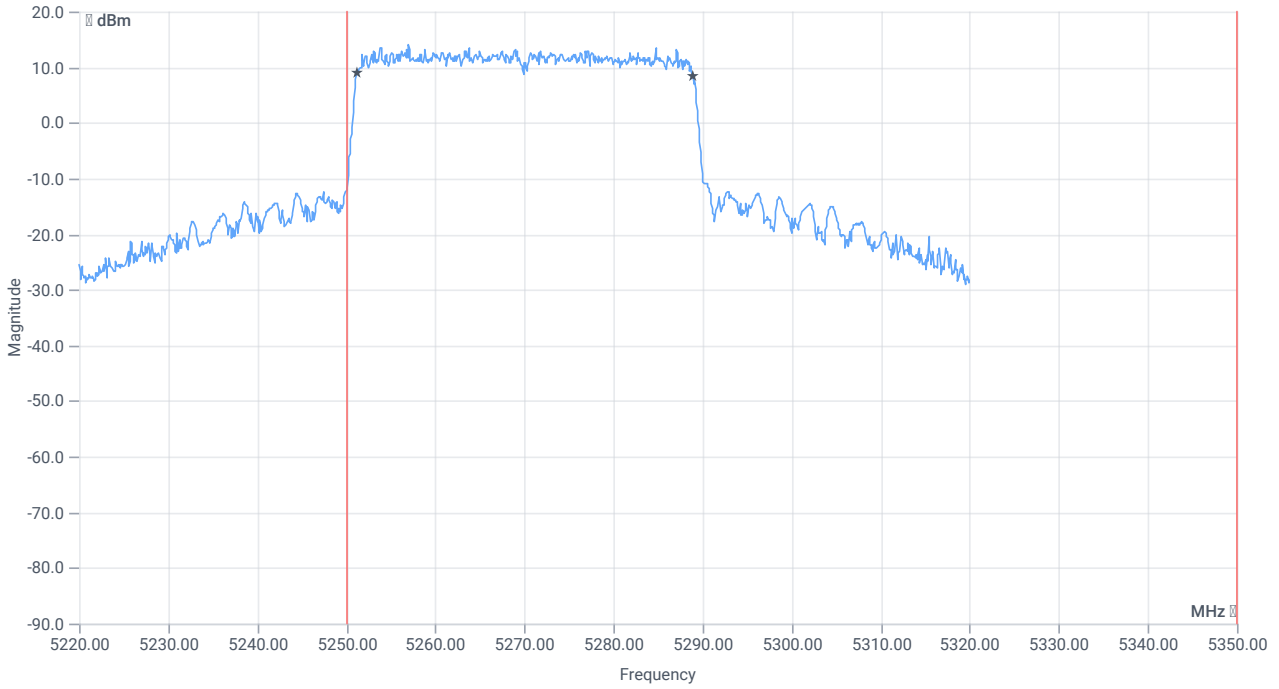
DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	--	--	15.54	dBm	INFO
Ref. Frequency	--	--	5283.190	MHz	INFO

### READ SA SETTINGS:

RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]	23.54   16.22   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



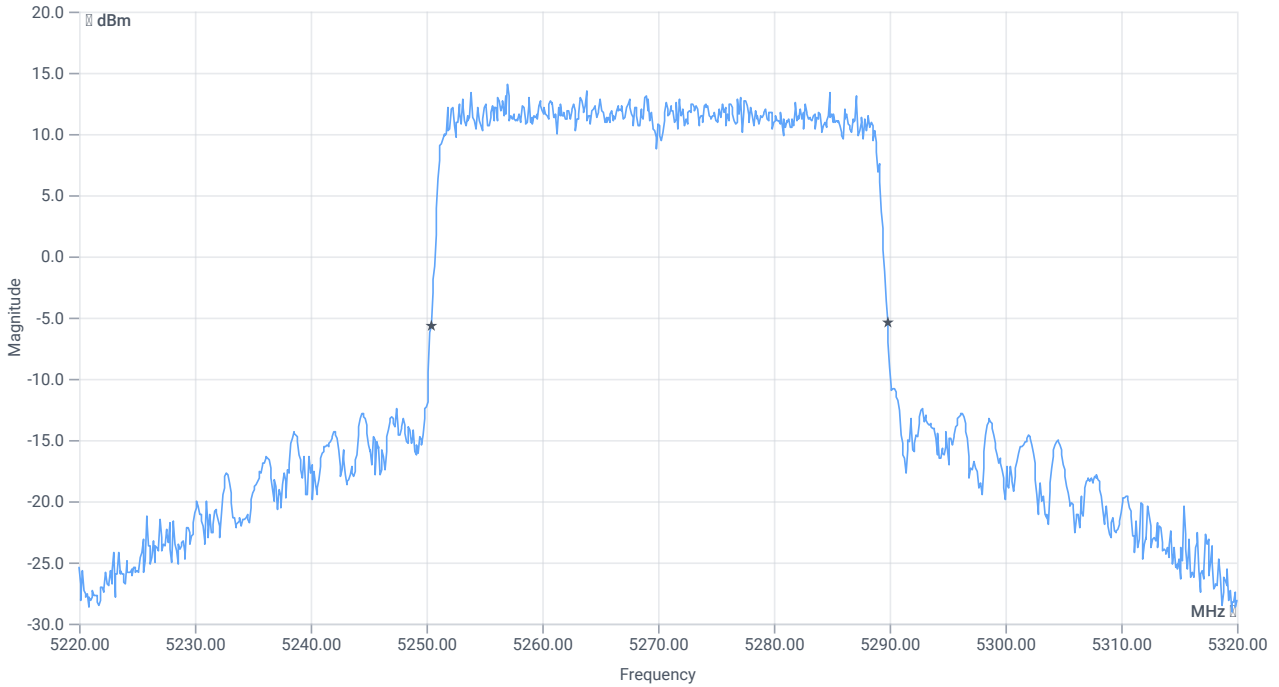
BW 99PCT



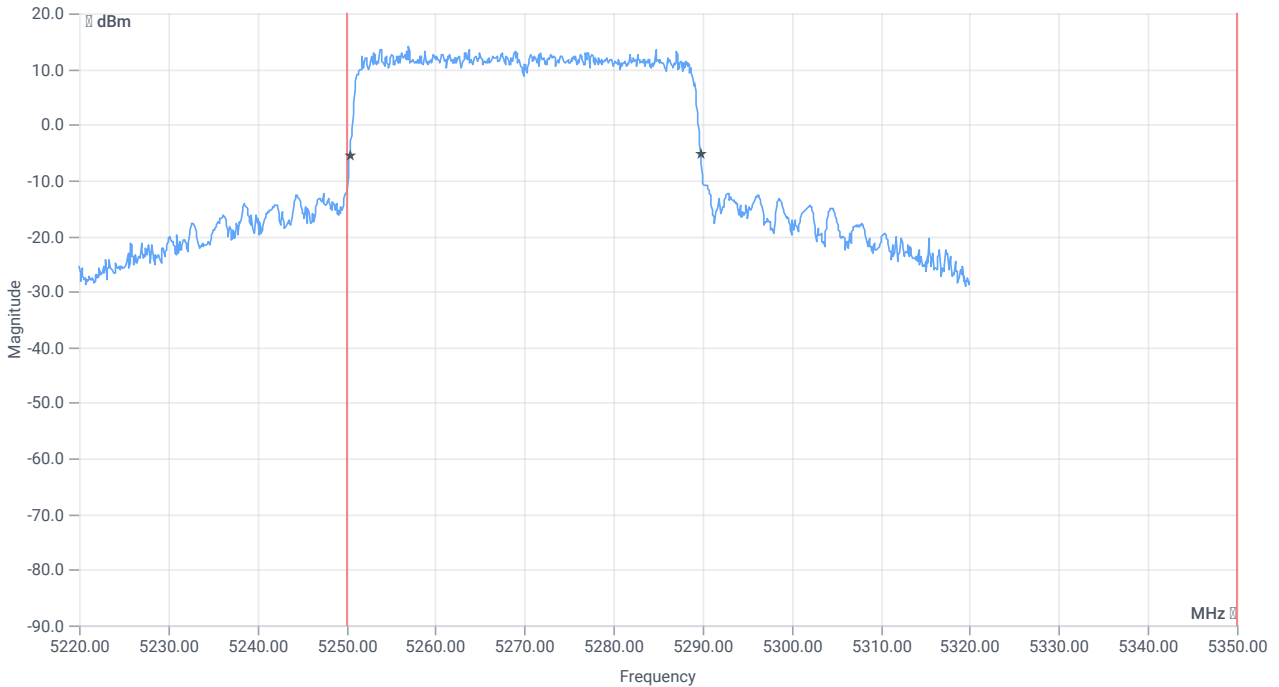
*BW within Band 99PCT*

## RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 99%	--	--	37.662	MHz	INFO
T1 99%	5250.000000	--	5251.2188	MHz	PASS since U-NII-1 is supported
T2 99%	--	5350.000000	5288.8811	MHz	PASS



BW 20dB



BW within Band 20dB

## RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 20dB	---	---	39.4	MHz	INFO

**RESULT**

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
T1 20dB	5250.000000	--	5250.4000	MHz	PASS since U-NII-1 is supported
T2 20dB	--	5350.000000	5289.8000	MHz	PASS

Verdict

PASS

# FCC 15.407 # MIMO Σ Max output power and psd ~ WLAN5Gx ax-HE40 U-NII-2A

## References

TC start	28.07.2023 09:39:41
Ambit temp [°C]   humidity [rel%]	25.2   52
System version	4.6.0.1
Standard   Version	FCC 15.407   NI
Method	
Description	MIMO Σ FCC Power & psd - WLAN5Gx ax-HE40 U-NII-2A
Information	

## EUT Common Settings WLAN5Gx

Number of Antenna Ports	1
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]	1.3
Switched path	None

## Equipment

## Test at TX 5270 MHz

### RESULT Power

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ant:1 Max Output Power DC corrected	--	--	21.11	dBm	INFO
Ant:1 BW 26dB	--	--	54.560	MHz	INFO
Ant:2 Max Output Power DC corrected	--	--	20.29	dBm	INFO
Ant:2 BW 26dB	--	--	40.800	MHz	INFO
Σ Limit absolute	--	24	23.73	dBm	PASS
Σ Limit: 11 dBm + 10 log 40.8	--	27.11	23.73	dBm	PASS

### RESULT PSD

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ant:1 PSD	--	--	6.05	dBm/1MHz	INFO
Ant:2 PSD	--	--	5.24	dBm/1MHz	INFO
Σ	--	11	8.67	dBm/1MHz	PASS

### Verdict

PASS

## NA # Message with SA scan ~

### References

TC start	28.07.2023 09:45:44
Ambit temp [°C]   humidity [rel%]	25.3   52
System version	4.6.0.1
Standard   Version	NA   NI
Method	
Description	Message with SA Scan ax-HE40 U-NII-2A
Information	PS46

### Test Parameter

Switched Path	EUT - SignalingUnit - SpectrumAnalyzer
Message start	28.07.2023 09:45:44
Message	set WLAN5Gx to ax-HE40 U-NII-2A, Frequency [MHz] 5310 Information: PS79

### Equipment

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

### Verdict

INFO

# FCC 15.407 # Max output power and psd ~ WLAN5Gx ax-HE40 U-NII-2A

## References

TC start	28.07.2023 09:46:05
Ambit temp [°C]   humidity [rel%]	25.3   52
System version	4.6.0.1
Standard   Version	FCC 15.407   NI
Method	KDB789033 D02, F, E.2.e.
Description	FCC 15.407 Max Output Power & PSD - WLAN5Gx ax-HE40 U-NII-2A
Information	PS46

## EUT Common Settings WLAN5Gx

Number of Antenna Ports	1
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]	1.3
Switched path	EUT - SignalingUnit - SpectrumAnalyzer

## 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

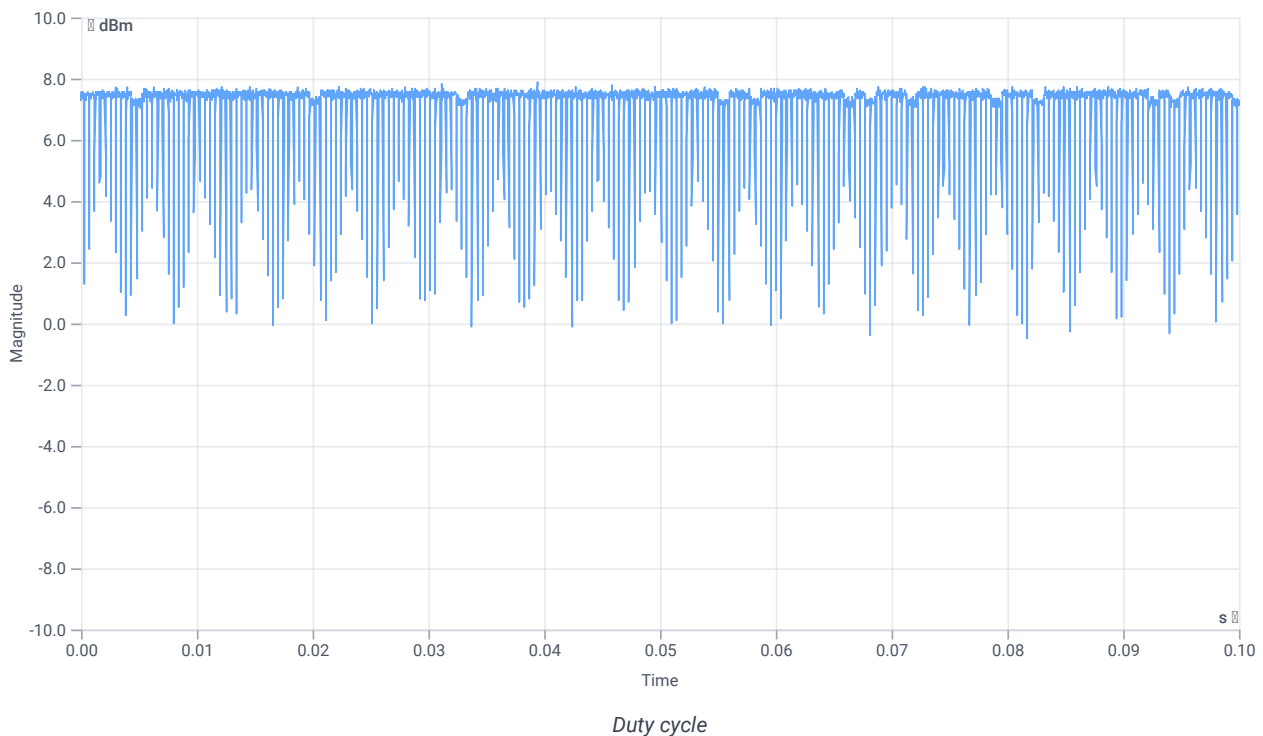
RESULT: Reference Power cond.

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	--	--	9.66	dBm	INFO
Ref. Frequency	--	--	5314.800	MHz	INFO

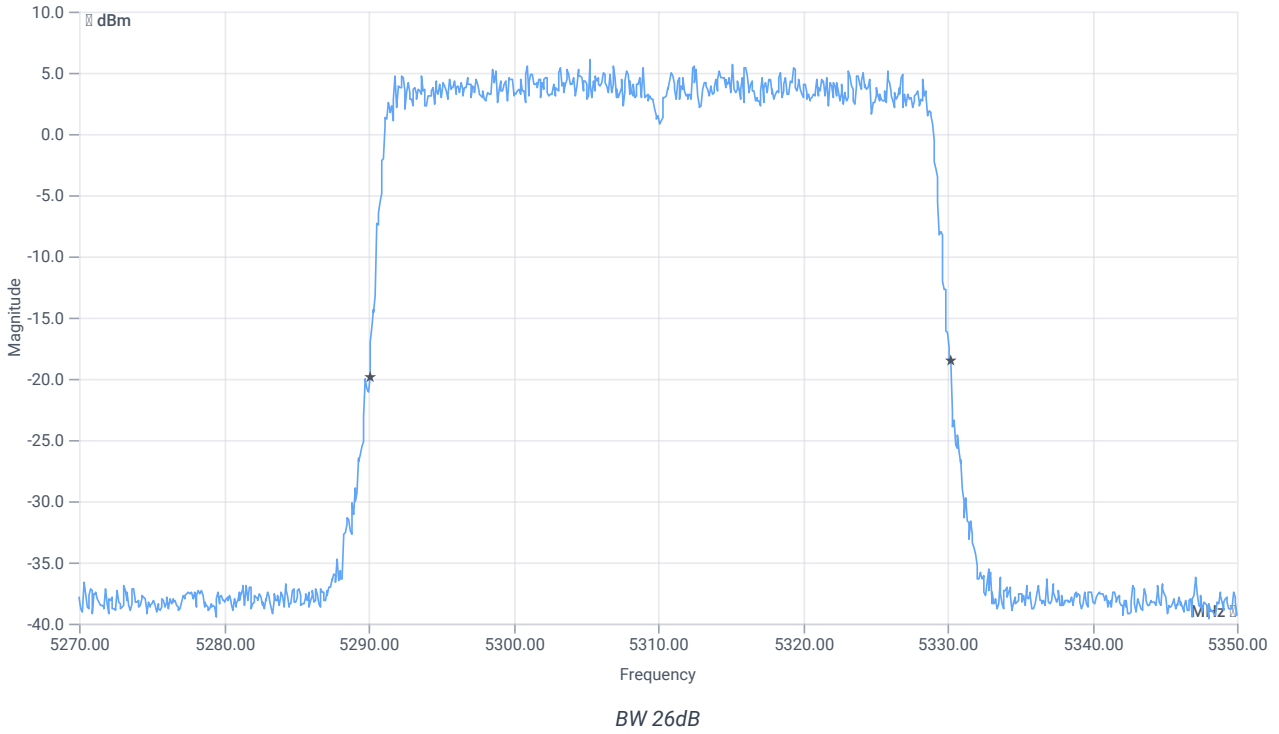
## Evaluation max. Duty Cycle

### Duty Cycle evaluation

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



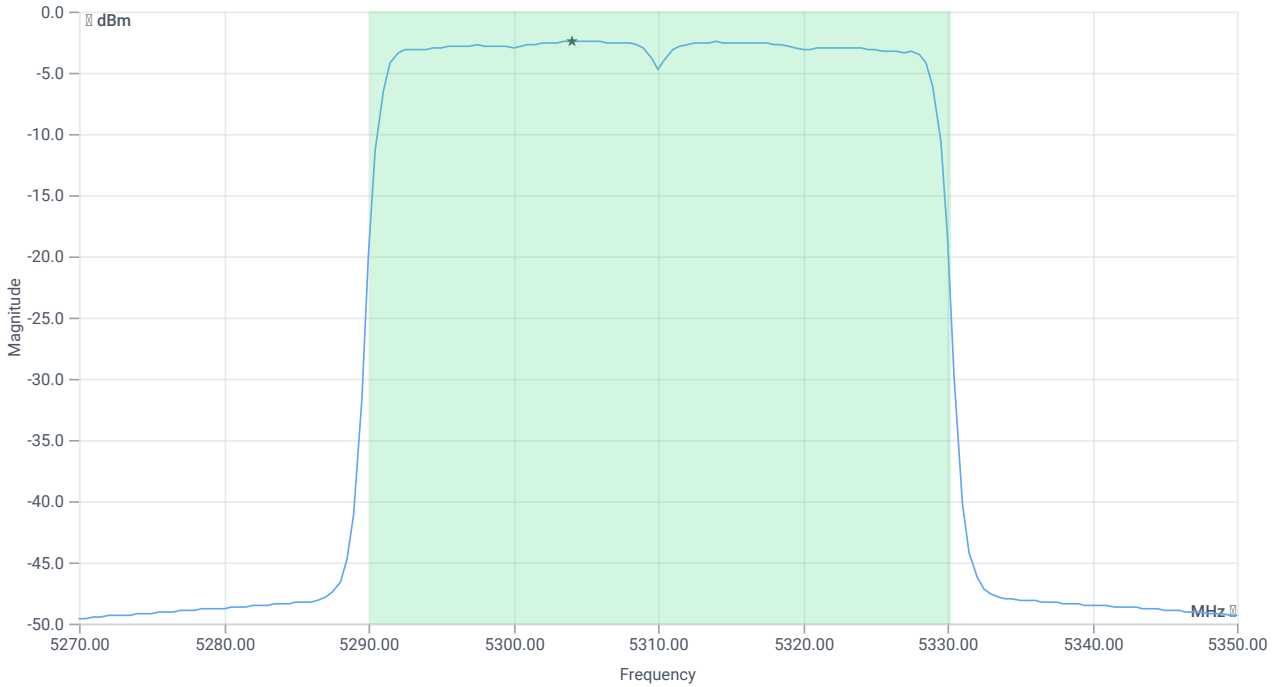
## RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 26dB	---	---	40.16	MHz	INFO
T1 26dB	---	---	5290.0800	MHz	INFO
T2 26dB	---	---	5330.2400	MHz	INFO

## Maximum Output Power

### READ SA SETTINGS:

RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]	21.66   16.12   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

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Max Output Power	--	--	12.62	dBm	INFO
Duty Cycle Correction	--	--	0	dB	INFO
Limit absolute					
Max Output Power DC corrected	--	24	12.62	dBm	PASS
Limit: 11 dBm + 10 log 40.16					
Max Output Power DC corrected	--	27.04	12.62	dBm	PASS

## Power Spectral Density

### RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Power Spectral Density	--	--	-2.42	dBm/1MHz	INFO
Duty Cycle Correction	--	--	0	dB	INFO
Power Spectral Density DC corrected	--	11	-2.42	dBm/1MHz	PASS

### Verdict

PASS

## FCC 15.407, ISED RSS247 # Bandwidths 99PCT and 20dB ~ WLAN5Gx ax-HE40 U-NII-2A

### References

TC start	28.07.2023 09:47:40
Ambit temp [°C]   humidity [rel%]	25.3   52
System version	4.6.0.1
Standard   Version	FCC 15.407, ISED RSS247   NI
Method	26dB Bandwidth KDB789033 D02, C.1 / ISED RSS-GEN
Description	FCC 15.407 Bandwidths - WLAN5Gx ax-HE40 U-NII-2A
Information	PS46

### EUT Common Settings WLAN5Gx

Number of Antenna Ports	1
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]	1.3
Switched path	EUT - SignalingUnit - SpectrumAnalyzer

### Equipment

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

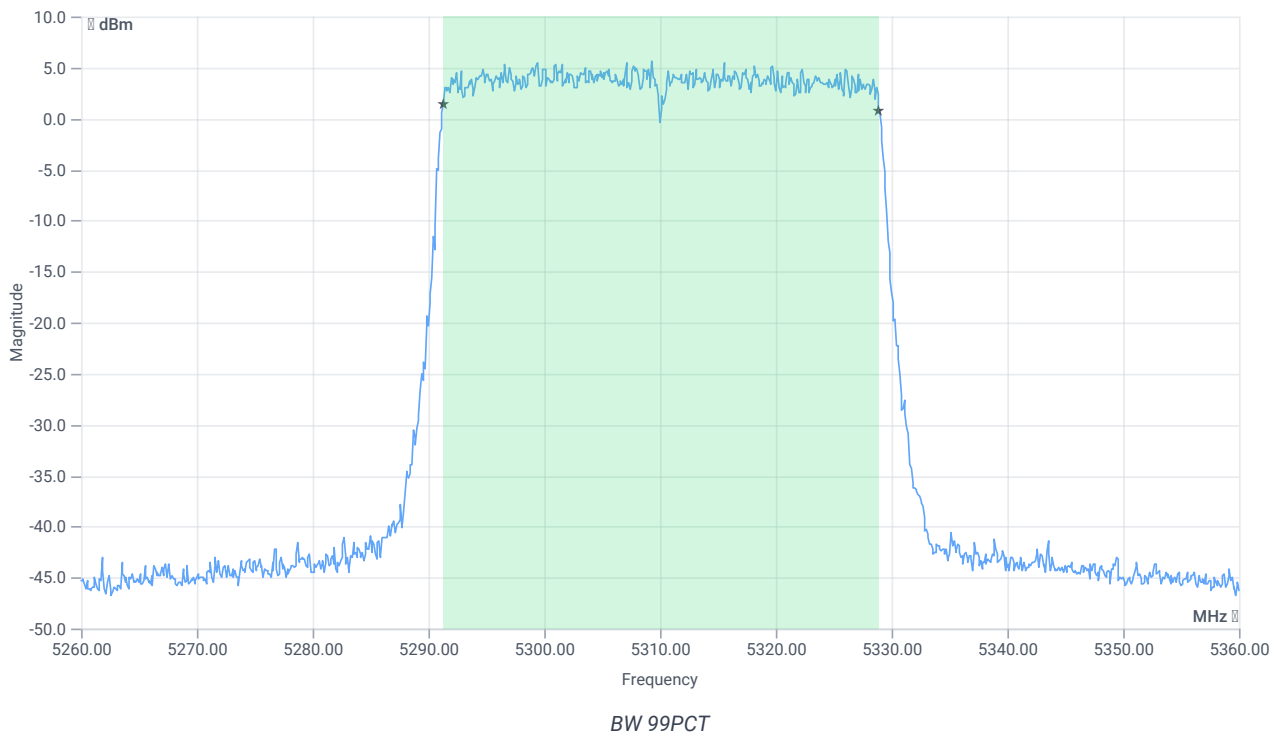
## Test at TX 5310 MHz

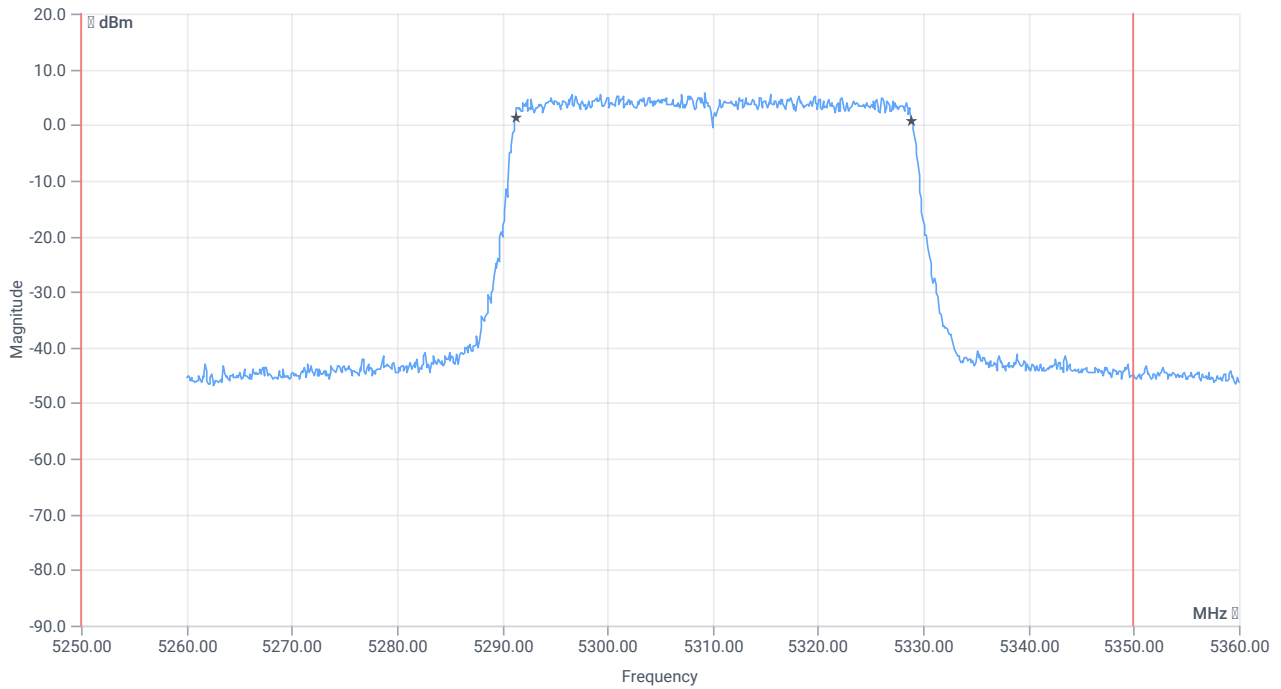
RESULT: Reference Power cond.

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	--	--	7.71	dBm	INFO
Ref. Frequency	--	--	5316.190	MHz	INFO

### READ SA SETTINGS:

RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]	15.71   16.12   15
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

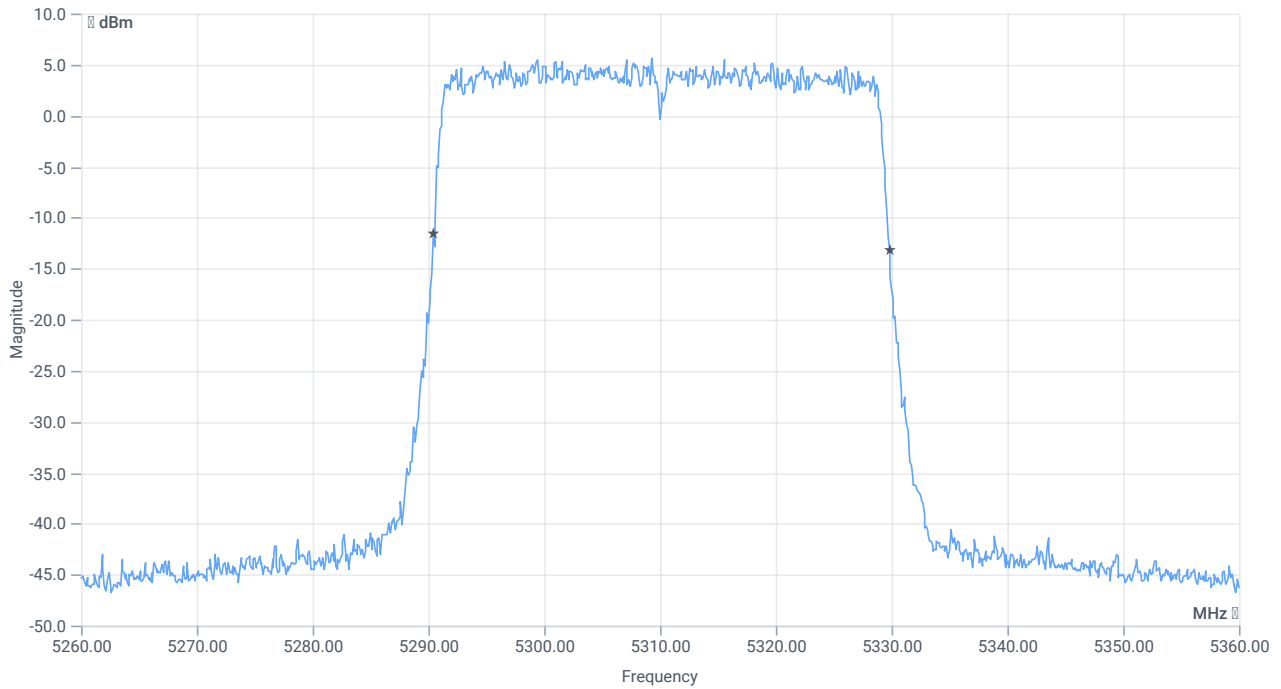




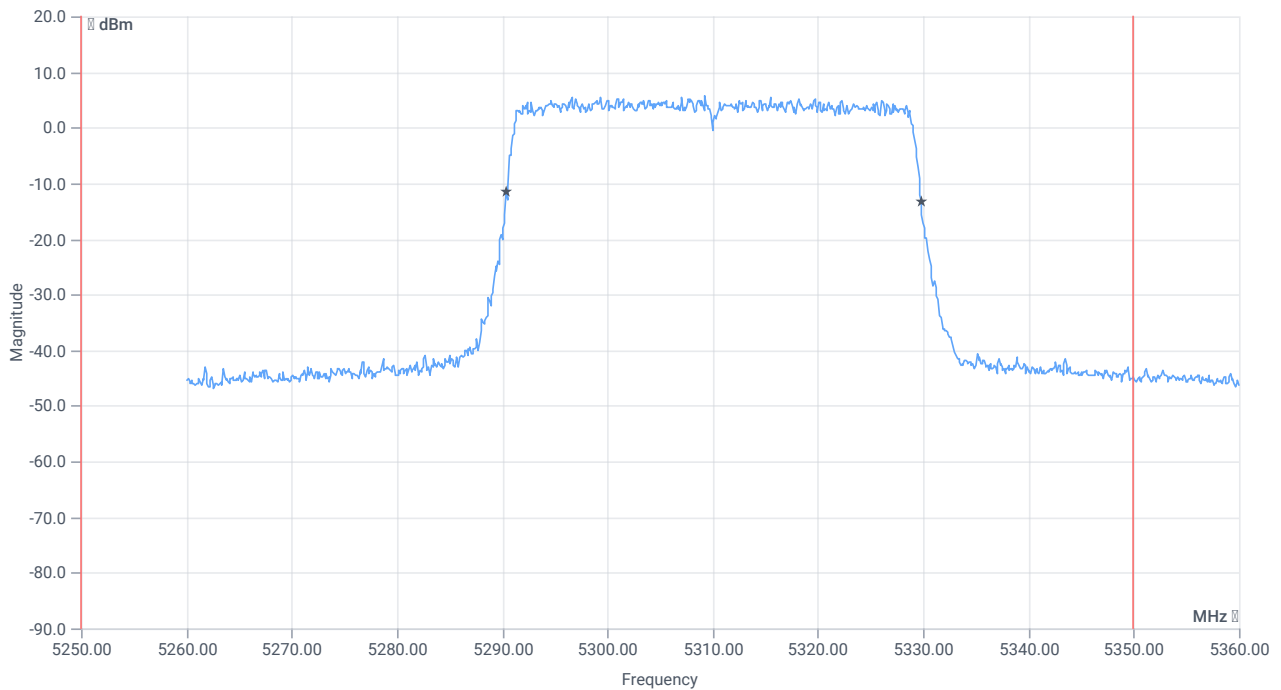
*BW within Band 99PCT*

## RESULT

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 20dB



BW within Band 20dB

## RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 20dB	---	---	39.4	MHz	INFO

**RESULT**

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
T1 20dB	5250.000000	--	5290.4000	MHz	PASS since U-NII-1 is supported
T2 20dB	--	5350.000000	5329.8000	MHz	PASS

Verdict

PASS



## FCC 15.407 # Max output power and psd ~ WLAN5Gx ax-HE40 U-NII-2A

### References

TC start	28.07.2023 09:48:19
Ambit temp [°C]   humidity [rel%]	25.3   52
System version	4.6.0.1
Standard   Version	FCC 15.407   NI
Method	KDB789033 D02, F, E.2.e.
Description	FCC 15.407 Max Output Power & PSD - WLAN5Gx ax-HE40 U-NII-2A
Information	PS46

### EUT Common Settings WLAN5Gx

Number of Antenna Ports	1
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]	1.3
Switched path	EUT - SignalingUnit - SpectrumAnalyzer

### 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

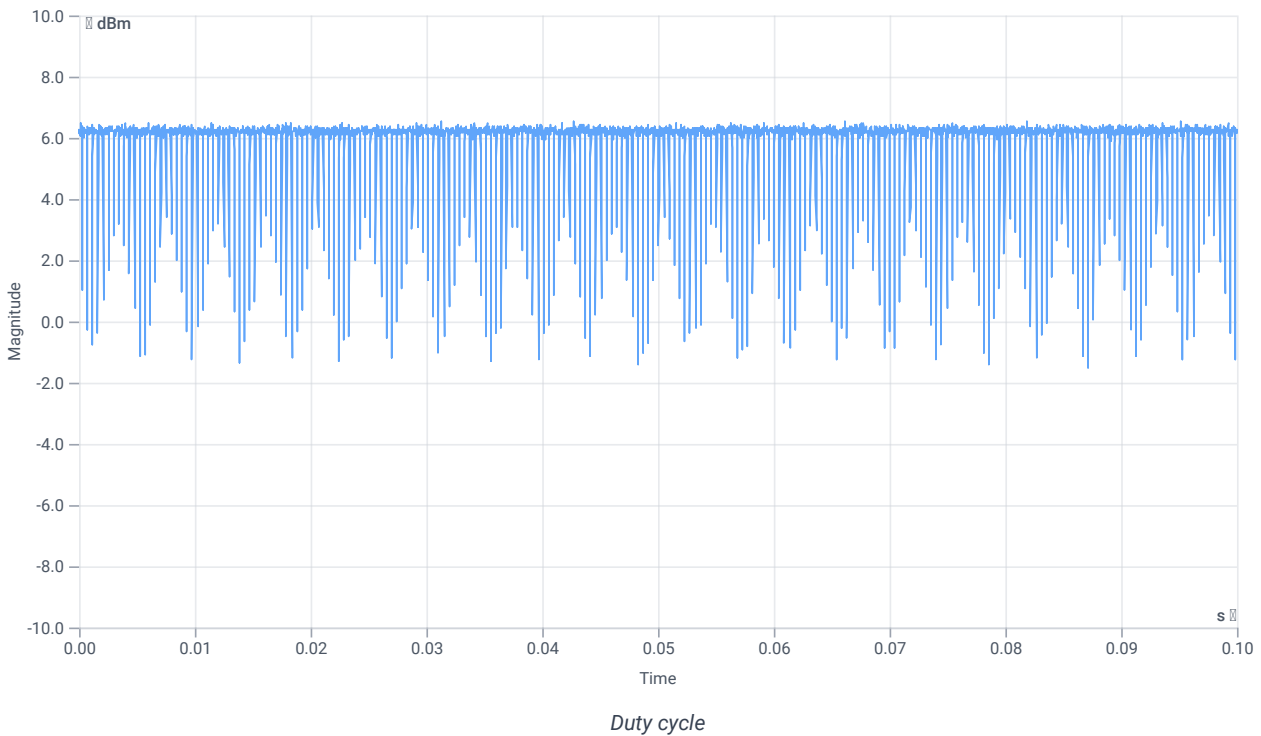
RESULT: Reference Power cond.

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	--	--	5.99	dBm	INFO
Ref. Frequency	--	--	5317.790	MHz	INFO

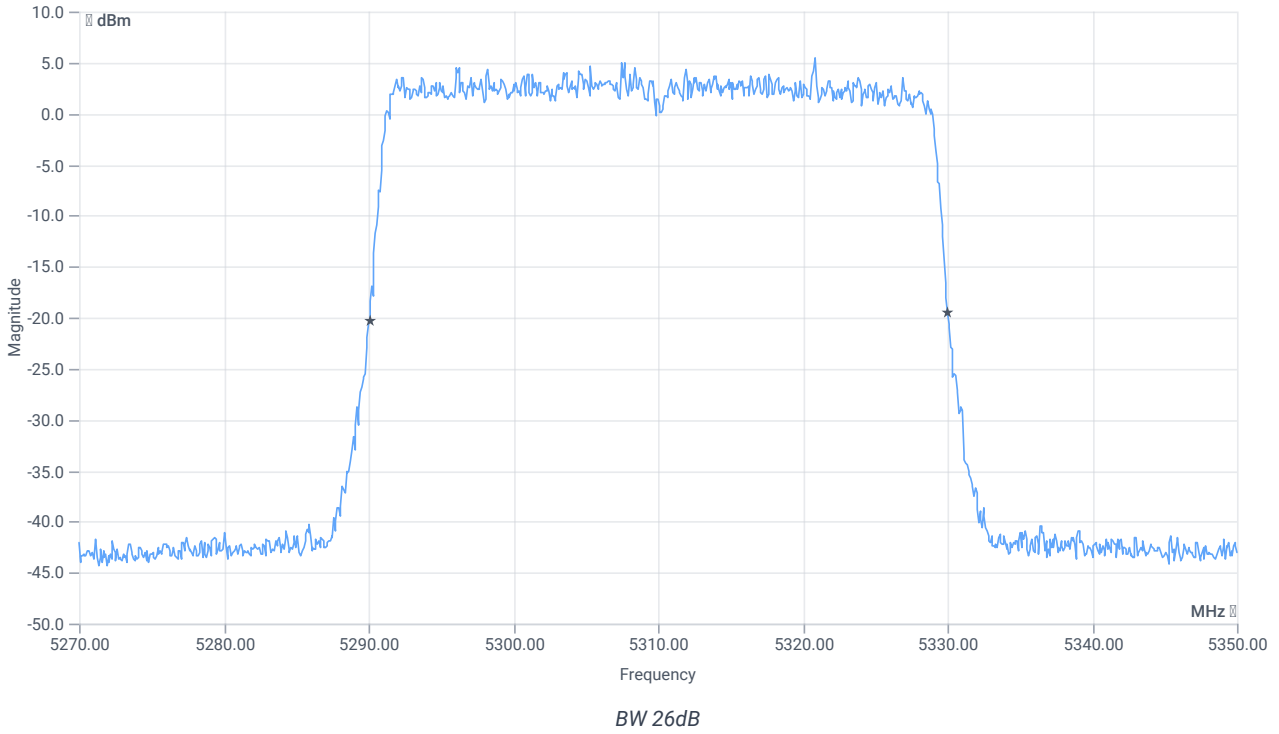
### Evaluation max. Duty Cycle

#### Duty Cycle evaluation

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



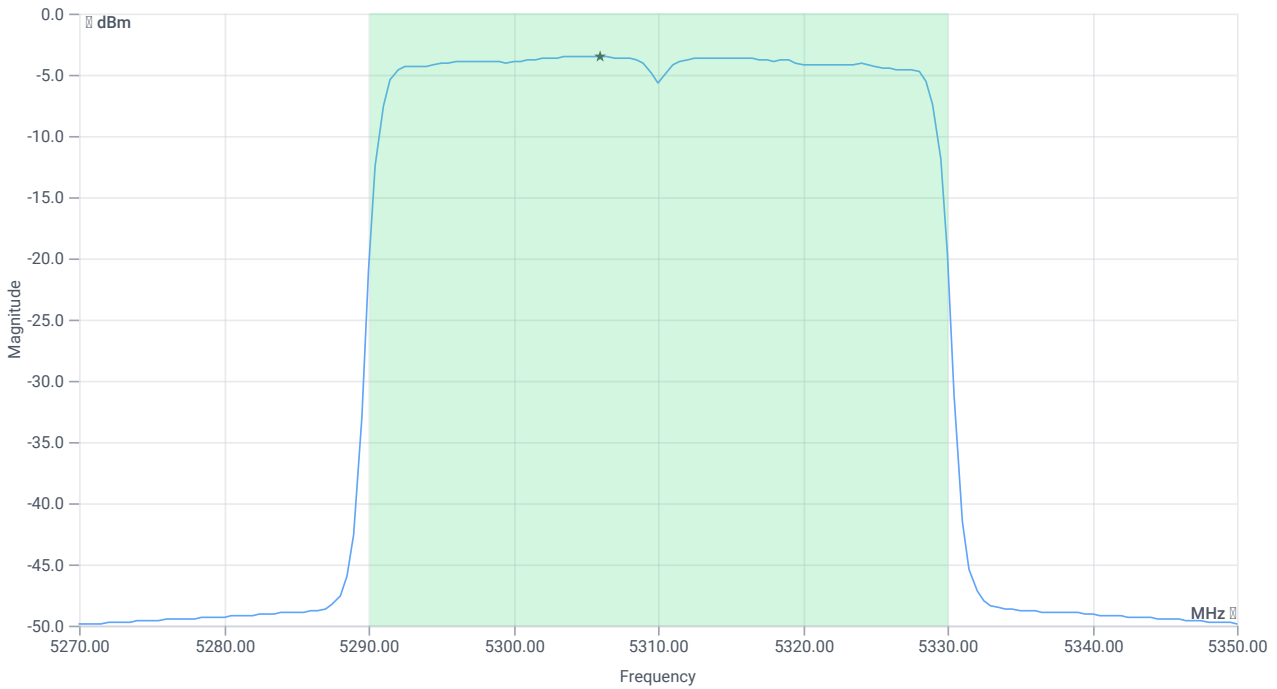
## RESULT

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]	17.99   16.12   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

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Max Output Power	--	--	11.49	dBm	INFO
Duty Cycle Correction	--	--	0	dB	INFO
Limit absolute					
Max Output Power DC corrected	--	24	11.49	dBm	PASS
Limit: 11 dBm + 10 log 39.92					
Max Output Power DC corrected	--	27.01	11.49	dBm	PASS

## Power Spectral Density

### RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Power Spectral Density	--	--	-3.46	dBm/1MHz	INFO
Duty Cycle Correction	--	--	0	dB	INFO
Power Spectral Density DC corrected	--	11	-3.46	dBm/1MHz	PASS

### Verdict

PASS

## FCC 15.407, ISED RSS247 # Bandwidths 99PCT and 20dB ~ WLAN5Gx ax-HE40 U-NII-2A

### References

TC start	28.07.2023 09:49:54
Ambit temp [°C]   humidity [rel%]	25.3   52
System version	4.6.0.1
Standard   Version	FCC 15.407, ISED RSS247   NI
Method	26dB Bandwidth KDB789033 D02, C.1 / ISED RSS-GEN
Description	FCC 15.407 Bandwidths - WLAN5Gx ax-HE40 U-NII-2A
Information	PS46

### EUT Common Settings WLAN5Gx

Number of Antenna Ports	1
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]	1.3
Switched path	EUT - SignalingUnit - SpectrumAnalyzer

### Equipment

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

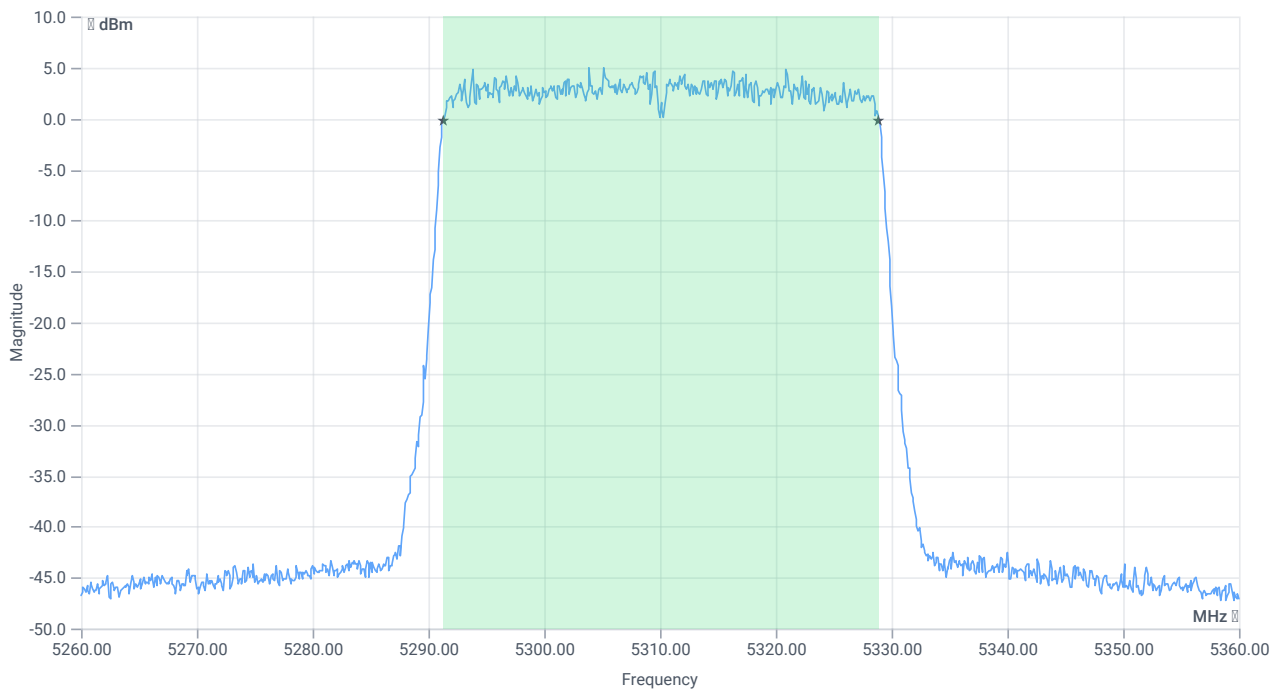
## Test at TX 5310 MHz

RESULT: Reference Power cond.

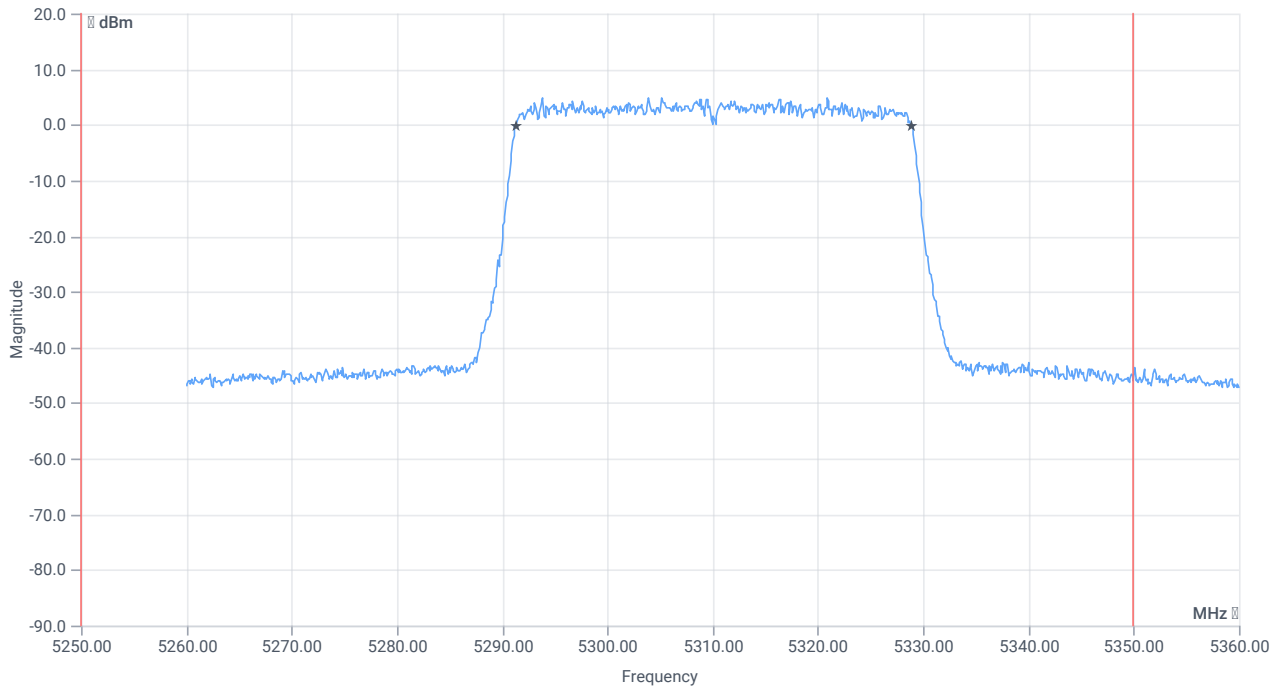
DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	--	--	5.78	dBm	INFO
Ref. Frequency	--	--	5304.610	MHz	INFO

### READ SA SETTINGS:

RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]	13.78   16.12   15
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



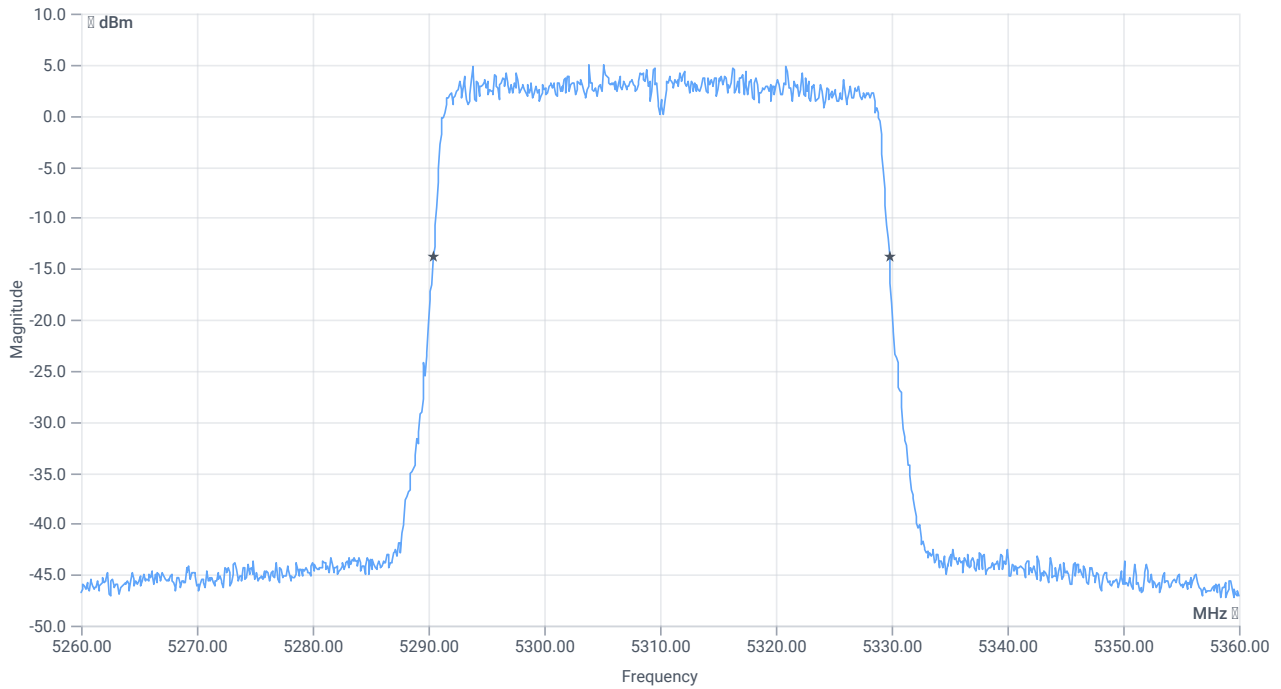
BW 99PCT



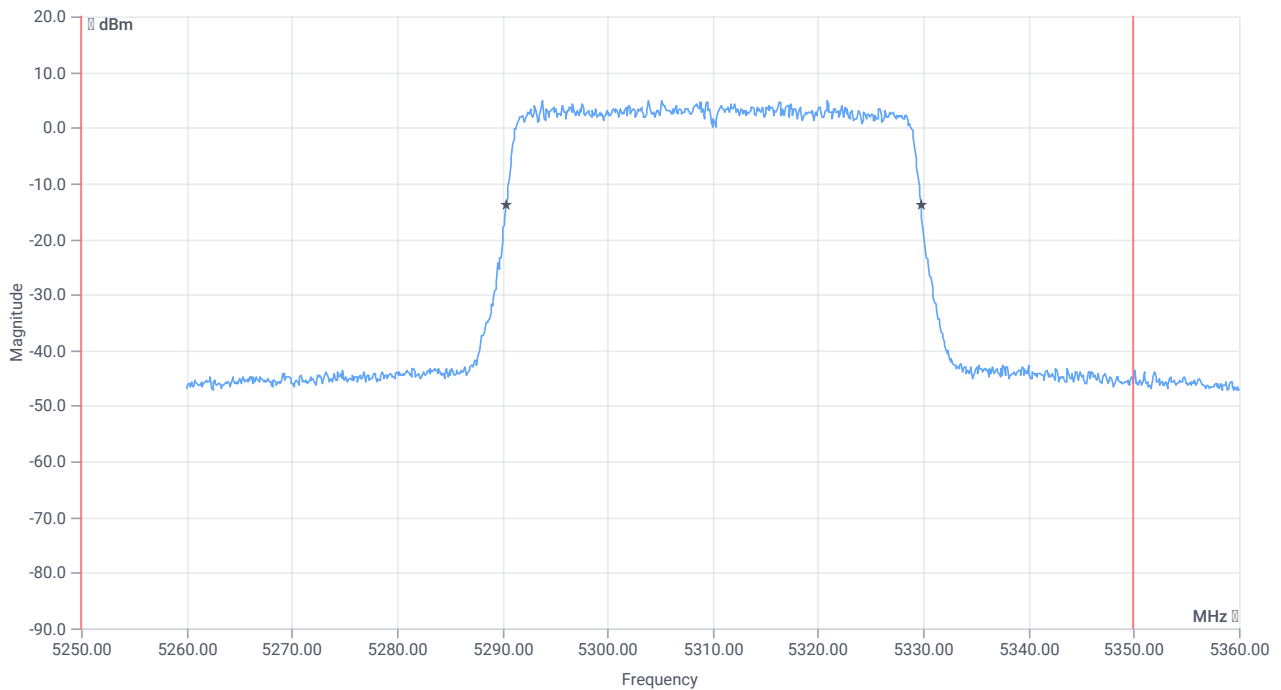
*BW within Band 99PCT*

## RESULT

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 20dB



BW within Band 20dB

## RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 20dB	---	---	39.4	MHz	INFO



**RESULT**

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
T1 20dB	5250.000000	--	5290.4000	MHz	PASS since U-NII-1 is supported
T2 20dB	--	5350.000000	5329.8000	MHz	PASS

Verdict

PASS

## FCC 15.407 # MIMO $\Sigma$ Max output power and psd ~ WLAN5Gx ax-HE40 U-NII-2A

### References

TC start	28.07.2023 09:50:32
Ambit temp [°C]   humidity [rel%]	25.3   52
System version	4.6.0.1
Standard   Version	FCC 15.407   NI
Method	
Description	MIMO $\Sigma$ FCC Power & psd - WLAN5Gx ax-HE40 U-NII-2A
Information	PS46

### EUT Common Settings WLAN5Gx

Number of Antenna Ports	1
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]	1.3
Switched path	None

### Equipment

## Test at TX 5310 MHz

### RESULT Power

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ant:1 Max Output Power DC corrected	--	--	12.62	dBm	INFO
Ant:1 BW 26dB	--	--	40.160	MHz	INFO
Ant:2 Max Output Power DC corrected	--	--	11.49	dBm	INFO
Ant:2 BW 26dB	--	--	39.920	MHz	INFO
$\Sigma$ Limit absolute	--	24	15.1	dBm	PASS
$\Sigma$ Limit: 11 dBm + 10 log 39.92	--	27.01	15.1	dBm	PASS

### RESULT PSD

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ant:1 PSD	--	--	-2.42	dBm/1MHz	INFO
Ant:2 PSD	--	--	-3.46	dBm/1MHz	INFO
$\Sigma$	--	11	0.1	dBm/1MHz	PASS

Verdict

PASS

## NA # Message with SA scan ~

### References

TC start	28.07.2023 10:03:13
Ambit temp [°C]   humidity [rel%]	25.4   52
System version	4.6.0.1
Standard   Version	NA   NI
Method	
Description	Message with SA Scan ax_HE40_U_NII_2C
Information	PS56

### Test Parameter

Switched Path	EUT - SignalingUnit - SpectrumAnalyzer
Message start	28.07.2023 10:03:13
Message	set WLAN5Gx to ax_HE40_U_NII_2C, Frequency [MHz] 5510 , Information: PS56

### Equipment

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

### Verdict

INFO

## FCC 15.407 # Max output power and psd ~ WLAN5Gx ax-HE40 U-NII-2C

### References

TC start	28.07.2023 10:03:22
Ambit temp [°C]   humidity [rel%]	25.4   52
System version	4.6.0.1
Standard   Version	FCC 15.407   NI
Method	KDB789033 D02, F, E.2.e.
Description	FCC 15.407 Max Output Power & PSD - WLAN5Gx ax-HE40 U-NII-2C
Information	PS56

### EUT Common Settings WLAN5Gx

Number of Antenna Ports	1
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] 5670
Auto control enabled power supply   Climatic Box	No   No
Additional path loss [dB]	1.3
Switched path	EUT - SignalingUnit - SpectrumAnalyzer

### 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

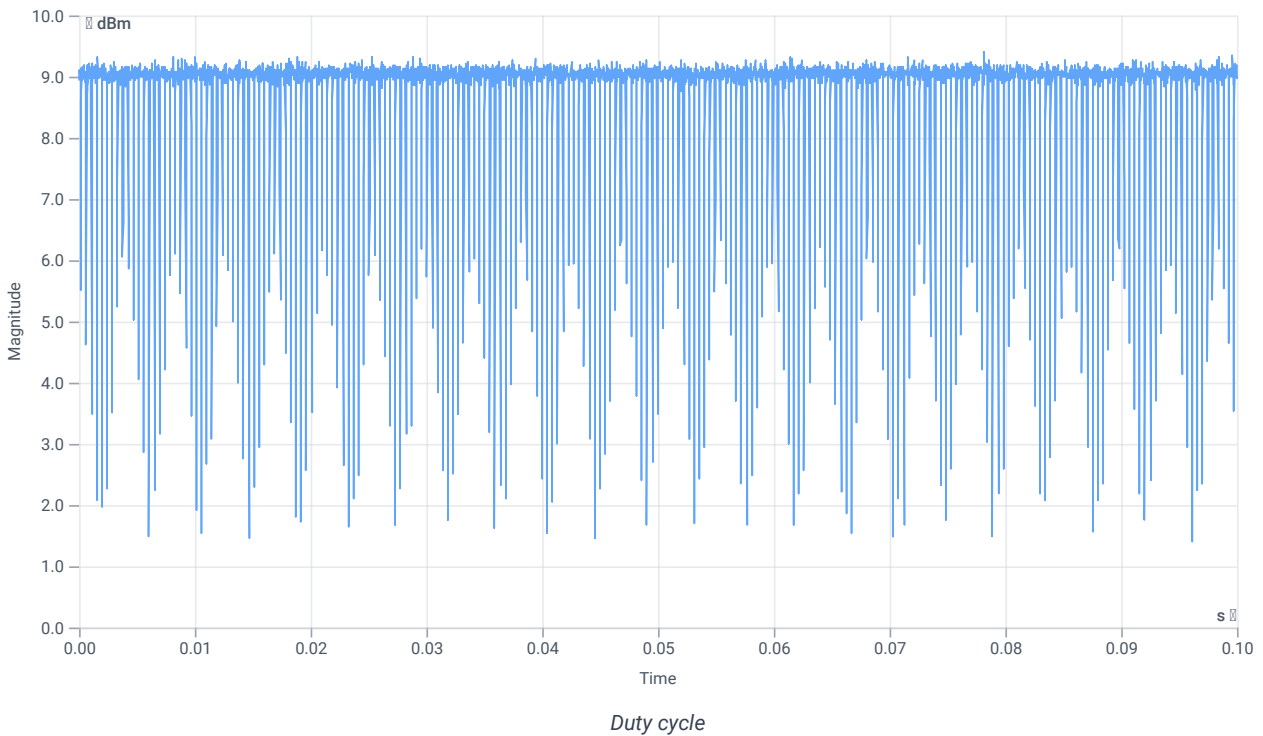
RESULT: Reference Power cond.

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	--	--	8.32	dBm	INFO
Ref. Frequency	--	--	5513.000	MHz	INFO

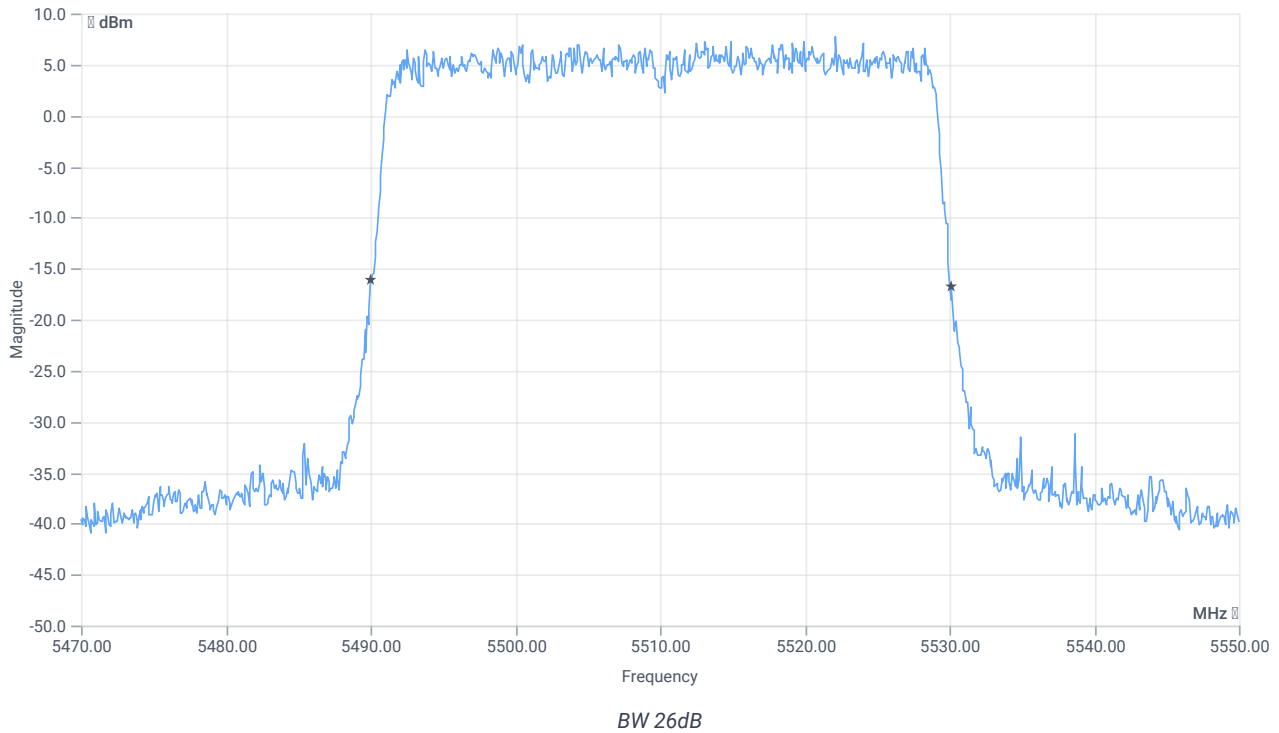
### Evaluation max. Duty Cycle

#### Duty Cycle evaluation

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



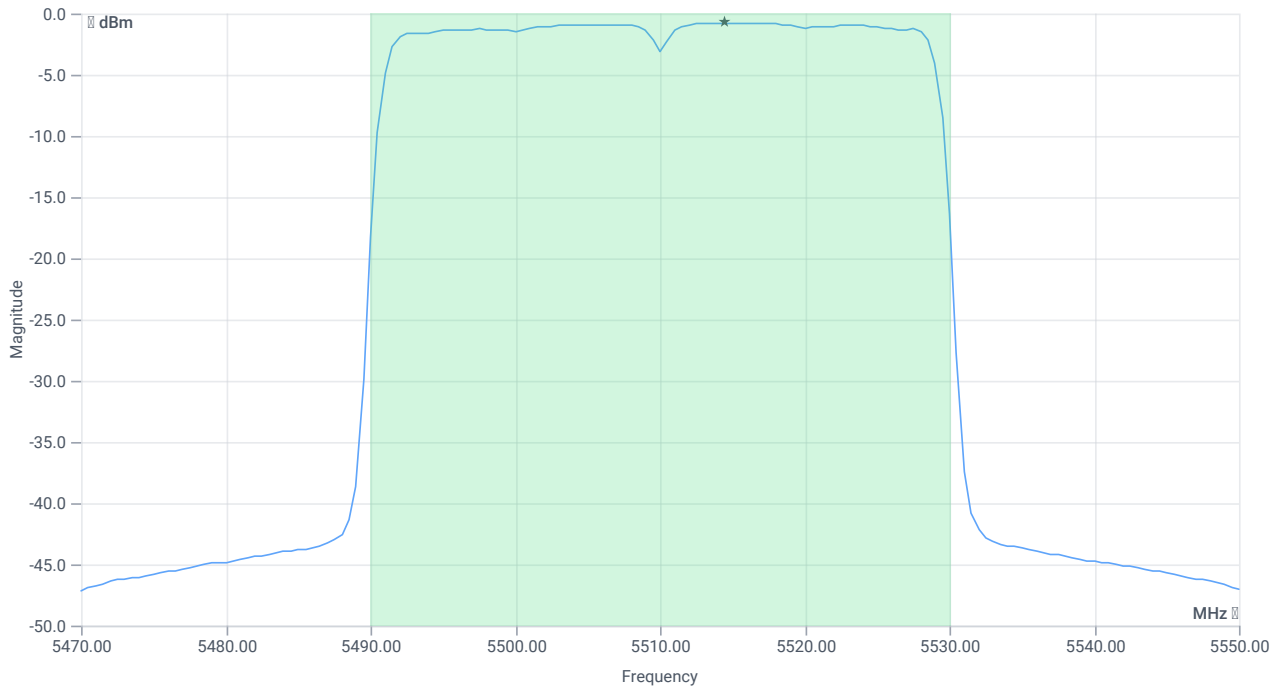
## RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 26dB	---	---	40.16	MHz	INFO
T1 26dB	---	---	5490.0000	MHz	INFO
T2 26dB	---	---	5530.1600	MHz	INFO

## Maximum Output Power

### READ SA SETTINGS:

RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]	20.32   16.59   20
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

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Max Output Power	--	--	14.33	dBm	INFO
Duty Cycle Correction	--	--	0	dB	INFO
Limit absolute					
Max Output Power DC corrected	--	24	14.33	dBm	PASS
Limit: 11 dBm + 10 log 40.16					
Max Output Power DC corrected	--	27.04	14.33	dBm	PASS

## Power Spectral Density

### RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Power Spectral Density	--	--	-0.74	dBm/1MHz	INFO
Duty Cycle Correction	--	--	0	dB	INFO
Power Spectral Density DC corrected	--	11	-0.74	dBm/1MHz	PASS

### Verdict

PASS



## FCC 15.407, ISED RSS247 # Bandwidths 99PCT and 20dB ~ WLAN5Gx ax-HE40 U-NII-2C

### References

TC start	28.07.2023 10:04:50
Ambit temp [°C]   humidity [rel%]	25.5   52
System version	4.6.0.1
Standard   Version	FCC 15.407, ISED RSS247   NI
Method	26dB Bandwidth KDB789033 D02, C.1 / ISED RSS-GEN
Description	FCC 15.407 Bandwidths - WLAN5Gx ax-HE40 U-NII-2C
Information	PS56

### EUT Common Settings WLAN5Gx

Number of Antenna Ports	1
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] 5670
Auto control enabled power supply   Climatic Box	No   No
Additional path loss [dB]	1.3
Switched path	EUT - SignalingUnit - SpectrumAnalyzer

### Equipment

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

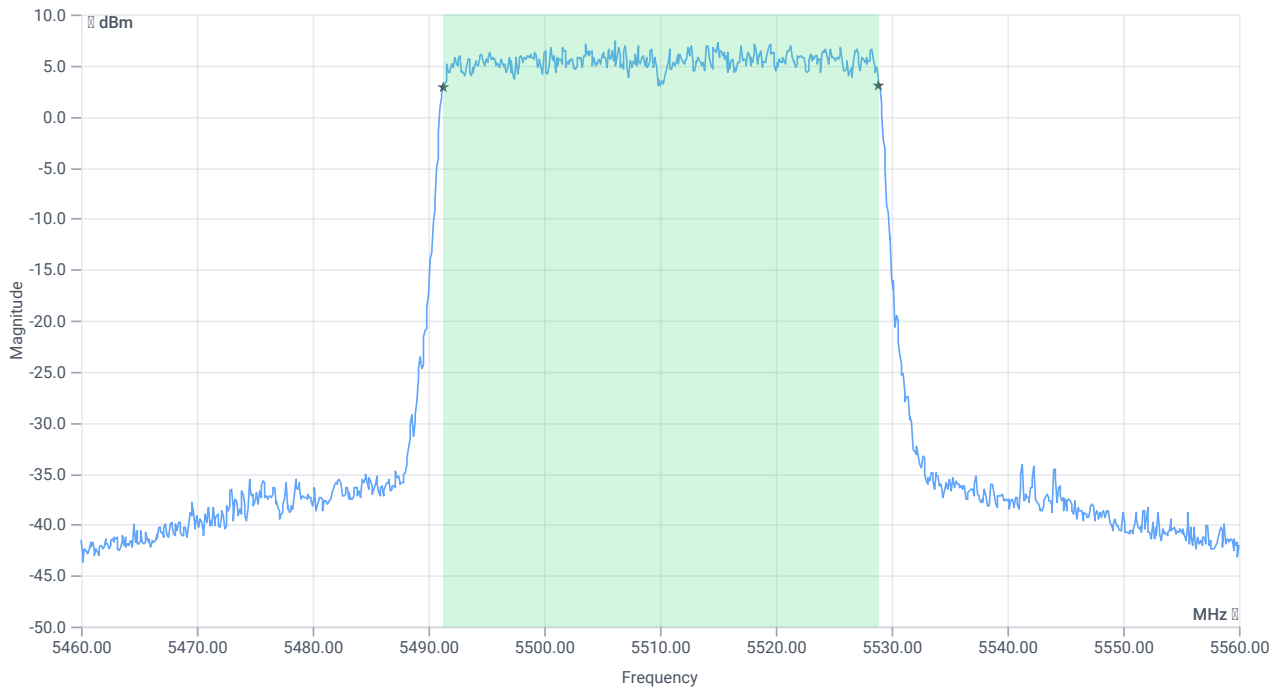
## Test at TX 5510 MHz

RESULT: Reference Power cond.

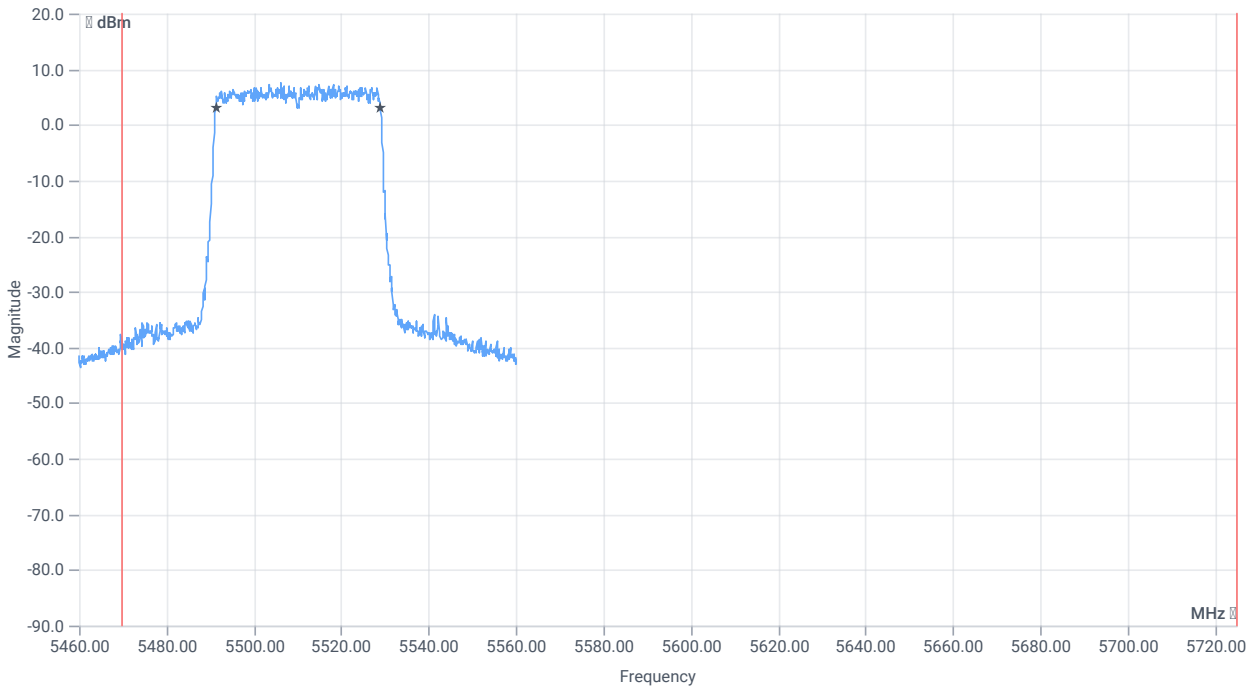
DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	--	--	8.76	dBm	INFO
Ref. Frequency	--	--	5507.600	MHz	INFO

### READ SA SETTINGS:

RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]	16.76   16.59   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



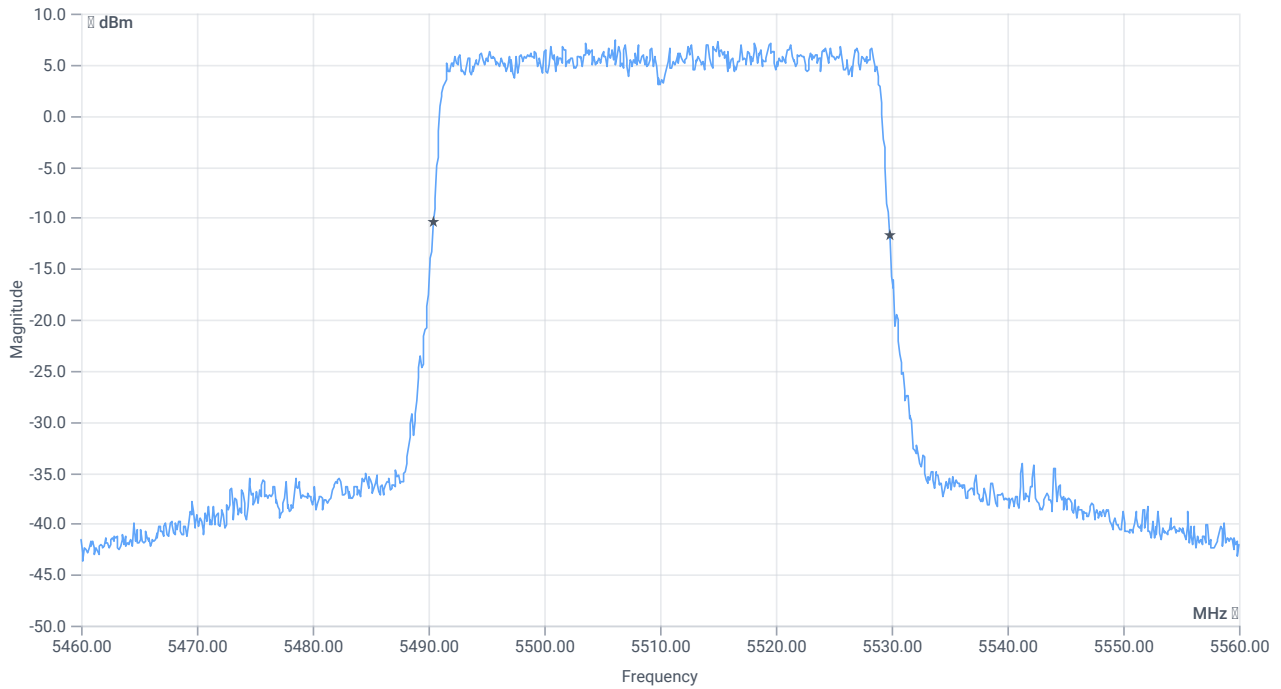
BW 99PCT



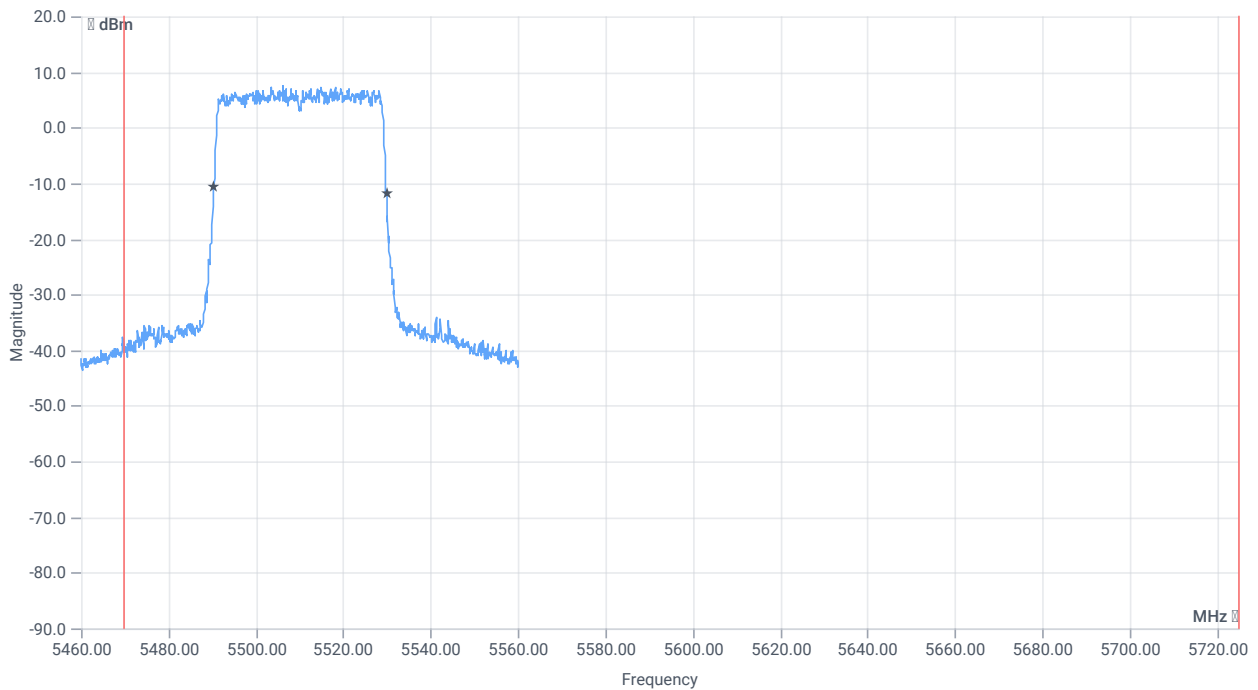
BW within Band 99PCT

## RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 99%	--	--	37.562	MHz	INFO
T1 99%	5470.000000	--	5491.3187	MHz	PASS since U-NII-3 is supported
T2 99%	--	5725.000000	5528.8811	MHz	



BW 20dB



BW within Band 20dB

## RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 20dB	---	---	39.5	MHz	INFO

**RESULT**

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
T1 20dB	5470.000000	--	5490.4000	MHz	PASS since U-NII-3 is supported
T2 20dB	--	5725.000000	5529.9000	MHz	

Verdict

**PASS**

## FCC 15.407 # Max output power and psd ~ WLAN5Gx ax-HE40 U-NII-2C

### References

TC start	28.07.2023 10:05:24
Ambit temp [°C]   humidity [rel%]	25.4   52
System version	4.6.0.1
Standard   Version	FCC 15.407   NI
Method	KDB789033 D02, F, E.2.e.
Description	FCC 15.407 Max Output Power & PSD - WLAN5Gx ax-HE40 U-NII-2C
Information	PS56

### EUT Common Settings WLAN5Gx

Number of Antenna Ports	1
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] 5670
Auto control enabled power supply   Climatic Box	No   No
Additional path loss [dB]	1.3
Switched path	EUT - SignalingUnit - SpectrumAnalyzer

### 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

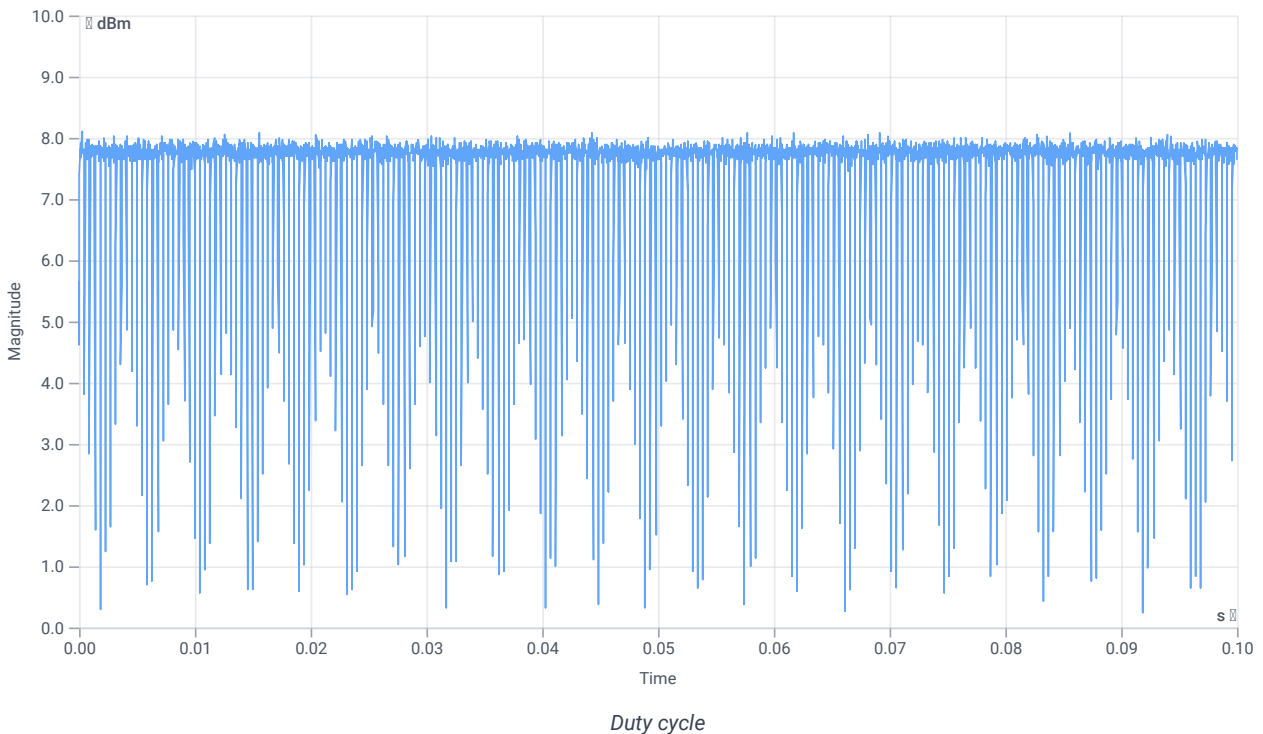
RESULT: Reference Power cond.

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	--	--	7.68	dBm	INFO
Ref. Frequency	--	--	5507.000	MHz	INFO

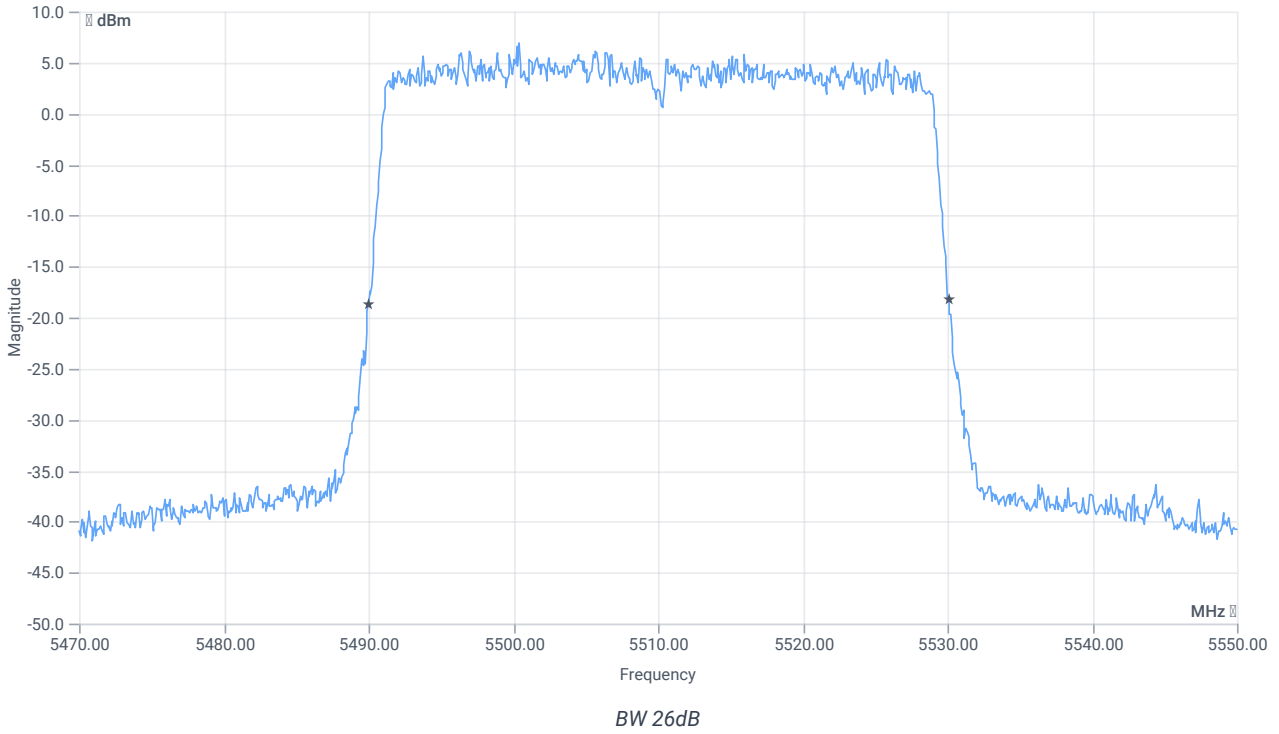
### Evaluation max. Duty Cycle

#### Duty Cycle evaluation

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

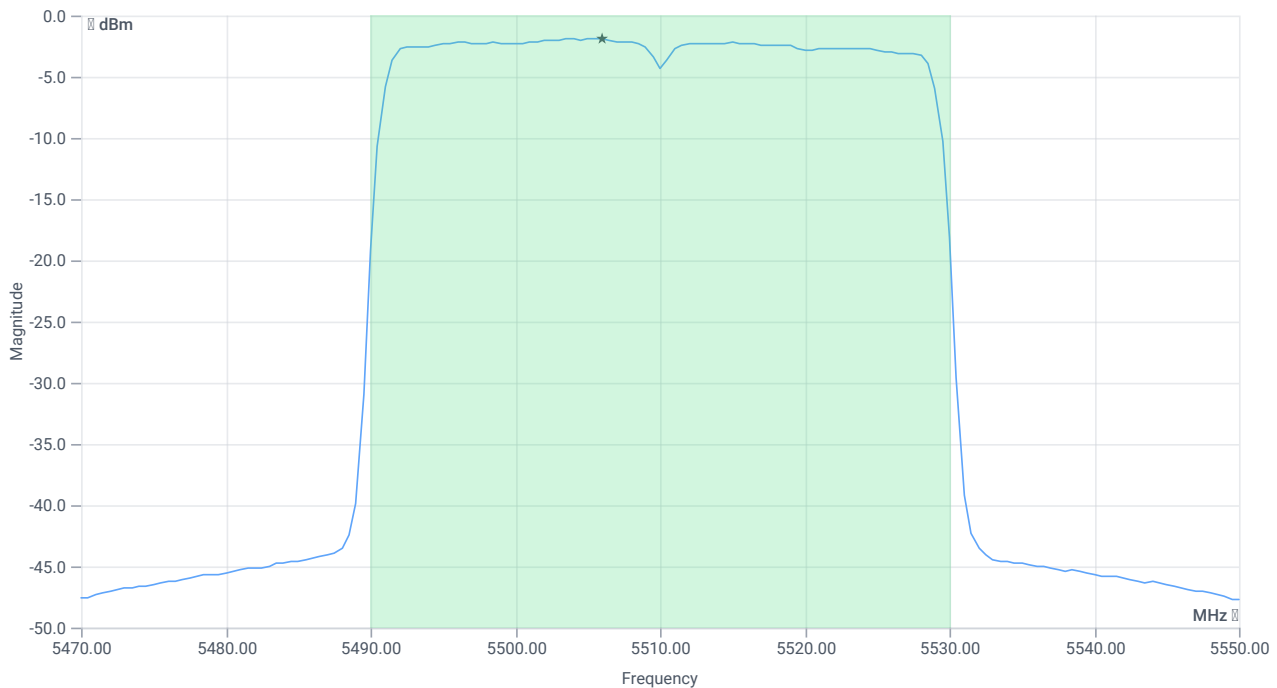
DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 26dB	---	---	40.08	MHz	INFO
T1 26dB	---	---	5490.0000	MHz	INFO
T2 26dB	---	---	5530.0800	MHz	INFO

## Maximum Output Power

### READ SA SETTINGS:

RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]	19.68   16.59   20
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

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Max Output Power	--	--	13.03	dBm	INFO
Duty Cycle Correction	--	--	0	dB	INFO
Limit absolute					
Max Output Power DC corrected	--	24	13.03	dBm	PASS
Limit: 11 dBm + 10 log 40.08					
Max Output Power DC corrected	--	27.03	13.03	dBm	PASS

## Power Spectral Density

### RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Power Spectral Density	--	--	-1.93	dBm/1MHz	INFO
Duty Cycle Correction	--	--	0	dB	INFO
Power Spectral Density DC corrected	--	11	-1.93	dBm/1MHz	PASS

### Verdict

PASS

## FCC 15.407, ISED RSS247 # Bandwidths 99PCT and 20dB ~ WLAN5Gx ax-HE40 U-NII-2C

### References

TC start	28.07.2023 10:06:53
Ambit temp [°C]   humidity [rel%]	25.4   52
System version	4.6.0.1
Standard   Version	FCC 15.407, ISED RSS247   NI
Method	26dB Bandwidth KDB789033 D02, C.1 / ISED RSS-GEN
Description	FCC 15.407 Bandwidths - WLAN5Gx ax-HE40 U-NII-2C
Information	PS56

### EUT Common Settings WLAN5Gx

Number of Antenna Ports	1
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] 5670
Auto control enabled power supply   Climatic Box	No   No
Additional path loss [dB]	1.3
Switched path	EUT - SignalingUnit - SpectrumAnalyzer

### Equipment

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

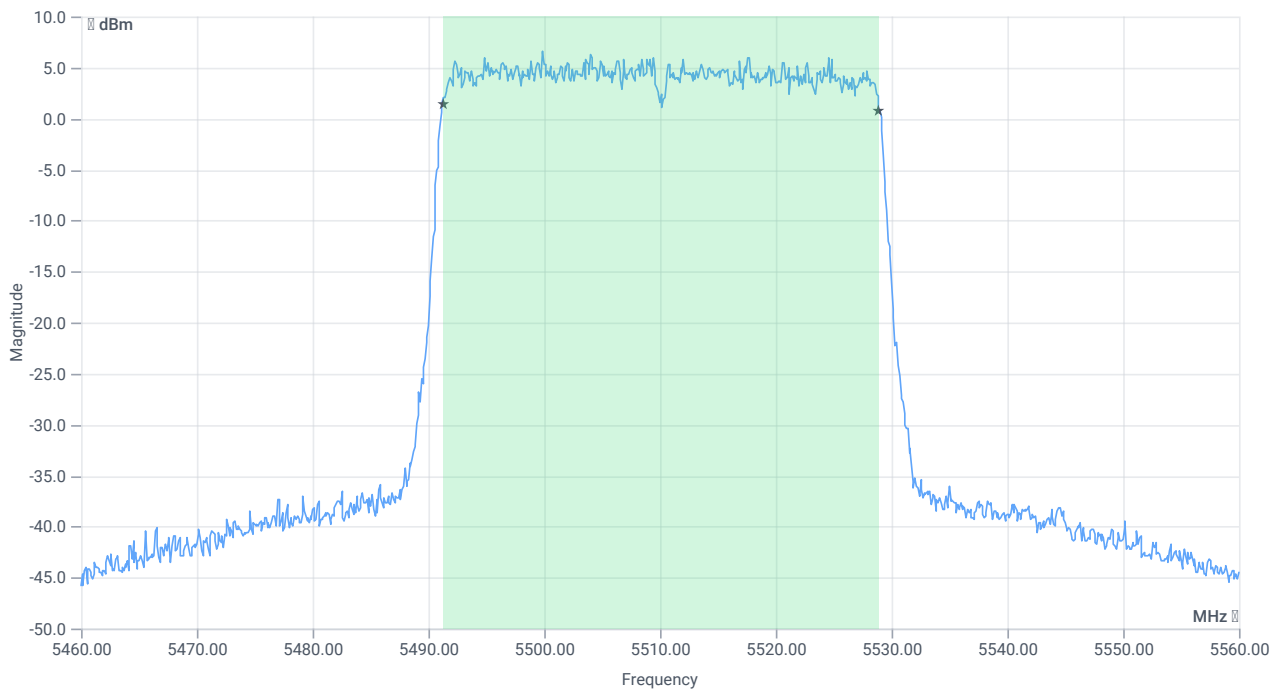
## Test at TX 5510 MHz

RESULT: Reference Power cond.

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	--	--	6.79	dBm	INFO
Ref. Frequency	--	--	5500.010	MHz	INFO

### READ SA SETTINGS:

RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]	14.79   16.59   15
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



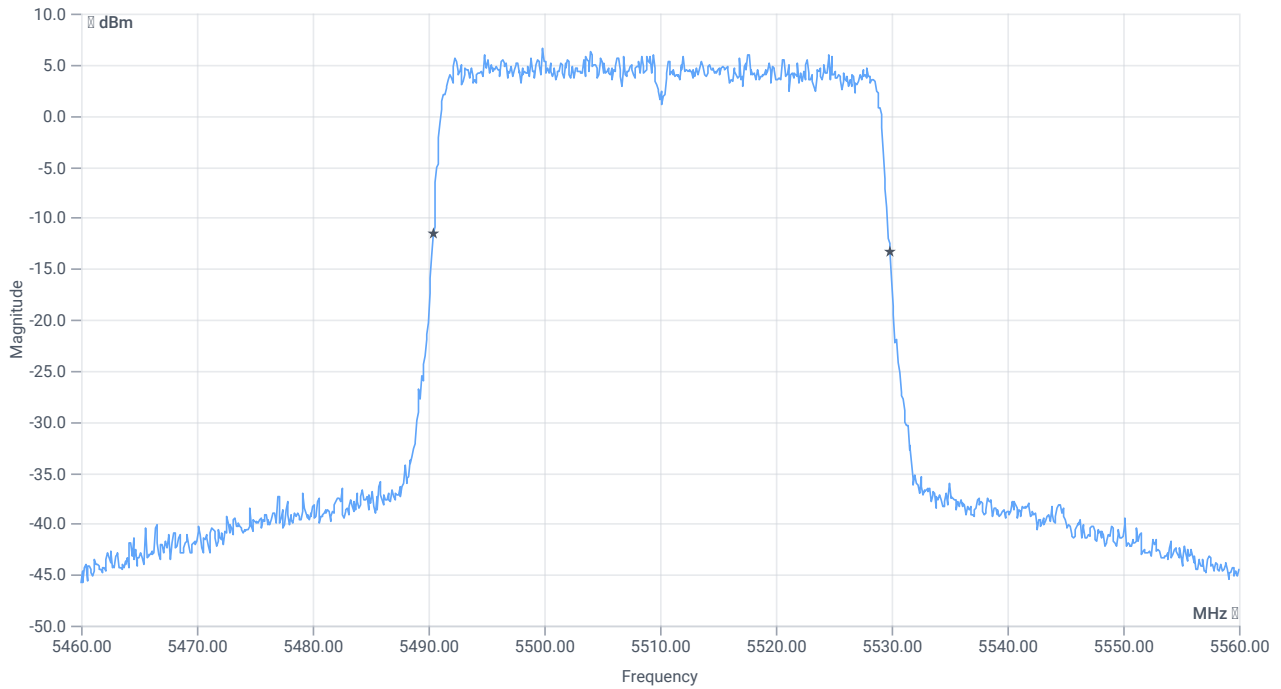
BW 99PCT



*BW within Band 99PCT*

## RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
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 20dB



BW within Band 20dB

## RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 20dB	---	---	39.5	MHz	INFO

**RESULT**

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
T1 20dB	5470.000000	--	5490.4000	MHz	PASS since U-NII-3 is supported
T2 20dB	--	5725.000000	5529.9000	MHz	

Verdict

**PASS**

# FCC 15.407 # MIMO $\Sigma$ Max output power and psd ~ WLAN5Gx ax-HE40 U-NII-2C

## References

TC start	28.07.2023 10:07:26
Ambit temp [°C]   humidity [rel%]	25.4   52
System version	4.6.0.1
Standard   Version	FCC 15.407   NI
Method	
Description	MIMO $\Sigma$ FCC Power & psd - WLAN5Gx ax-HE40 U-NII-2C
Information	

## EUT Common Settings WLAN5Gx

Number of Antenna Ports	1
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] 5670
Auto control enabled power supply   Climatic Box	No   No
Additional path loss [dB]	1.3
Switched path	None

## Equipment

## Test at TX 5510 MHz

### RESULT Power

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ant:1 Max Output Power DC corrected	--	--	14.33	dBm	INFO
Ant:1 BW 26dB	--	--	40.160	MHz	INFO
Ant:2 Max Output Power DC corrected	--	--	13.03	dBm	INFO
Ant:2 BW 26dB	--	--	40.080	MHz	INFO
Σ Limit absolute	--	24	16.74	dBm	PASS
Σ Limit: 11 dBm + 10 log 40.08	--	27.03	16.74	dBm	PASS

### RESULT PSD

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ant:1 PSD	--	--	-0.74	dBm/1MHz	INFO
Ant:2 PSD	--	--	-1.93	dBm/1MHz	INFO
Σ	--	11	1.72	dBm/1MHz	PASS

Verdict

PASS



## NA # Message with SA scan ~

### References

TC start	28.07.2023 10:09:26
Ambit temp [°C]   humidity [rel%]	25.5   51
System version	4.6.0.1
Standard   Version	NA   NI
Method	
Description	Message with SA Scan ax_HE40_U_NII_2C
Information	PS80

### Test Parameter

Switched Path	EUT - SignalingUnit - SpectrumAnalyzer
Message start	28.07.2023 10:09:27
Message	set WLAN5Gx to ax_HE40_U_NII_2C, Frequency [MHz] 5590 , Information: PS80

### Equipment

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

### Verdict

INFO

## FCC 15.407 # Max output power and psd ~ WLAN5Gx ax-HE40 U-NII-2C

### References

TC start	28.07.2023 10:10:22
Ambit temp [°C]   humidity [rel%]	25.5   51
System version	4.6.0.1
Standard   Version	FCC 15.407   NI
Method	KDB789033 D02, F, E.2.e.
Description	FCC 15.407 Max Output Power & PSD - WLAN5Gx ax-HE40 U-NII-2C
Information	PS80

### EUT Common Settings WLAN5Gx

Number of Antenna Ports	1
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] 5670
Auto control enabled power supply   Climatic Box	No   No
Additional path loss [dB]	1.3
Switched path	EUT - SignalingUnit - SpectrumAnalyzer

### 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

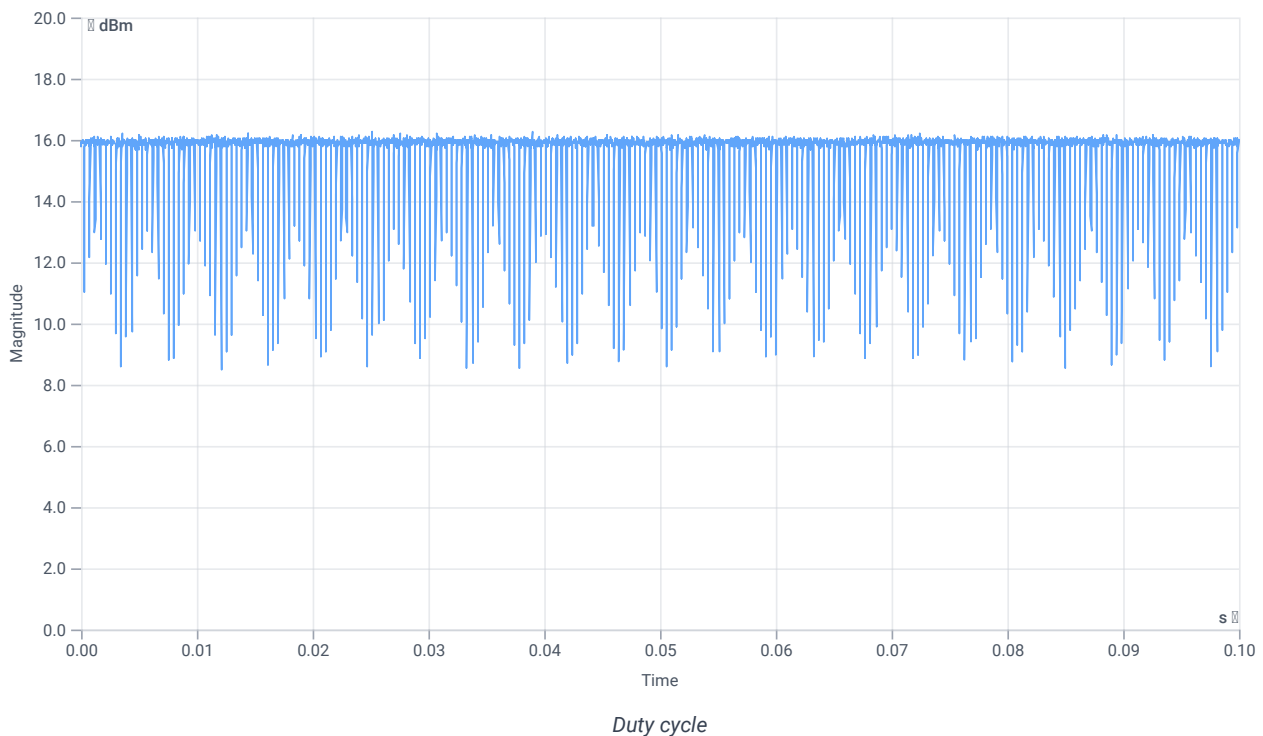
RESULT: Reference Power cond.

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	--	--	17.21	dBm	INFO
Ref. Frequency	--	--	5586.200	MHz	INFO

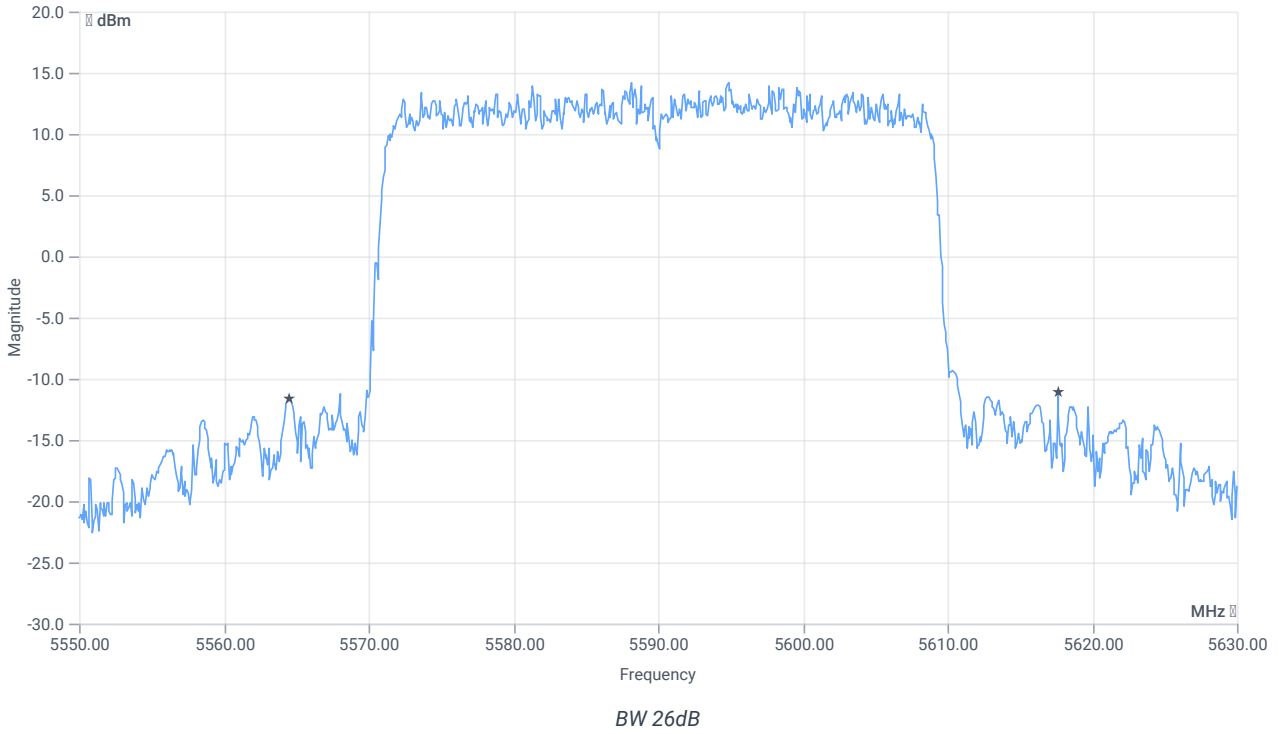
## Evaluation max. Duty Cycle

### Duty Cycle evaluation

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



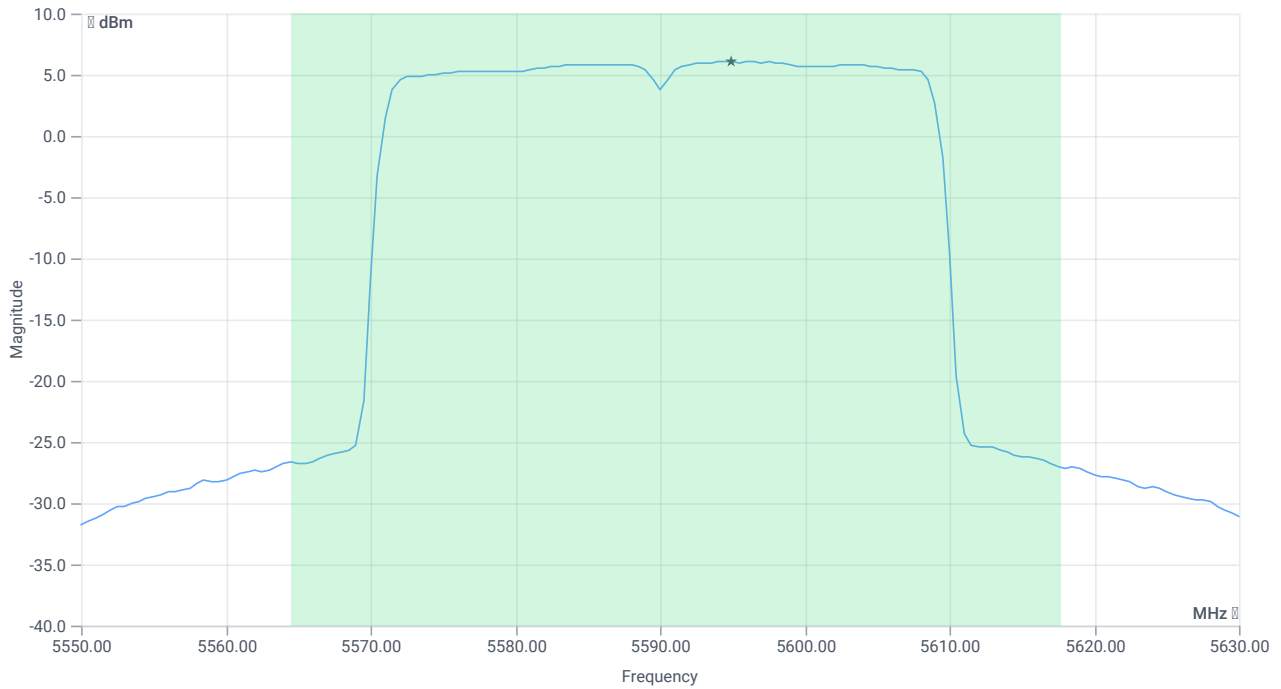
## RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 26dB	---	---	53.12	MHz	INFO
T1 26dB	---	---	5564.4800	MHz	INFO
T2 26dB	---	---	5617.6000	MHz	INFO

## Maximum Output Power

### READ SA SETTINGS:

RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]	29.21   16.72   30
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

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Max Output Power	--	--	21.04	dBm	INFO
Duty Cycle Correction	--	--	0	dB	INFO
Limit absolute					
Max Output Power DC corrected	--	24	21.04	dBm	PASS
Limit: 11 dBm + 10 log 53.12					
Max Output Power DC corrected	--	28.25	21.04	dBm	PASS

## Power Spectral Density

### RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Power Spectral Density	--	--	6.06	dBm/1MHz	INFO
Duty Cycle Correction	--	--	0	dB	INFO
Power Spectral Density DC corrected	--	11	6.06	dBm/1MHz	PASS

### Verdict

PASS

## FCC 15.407, ISED RSS247 # Bandwidths 99PCT and 20dB ~ WLAN5Gx ax-HE40 U-NII-2C

### References

TC start	28.07.2023 10:11:52
Ambit temp [°C]   humidity [rel%]	25.5   51
System version	4.6.0.1
Standard   Version	FCC 15.407, ISED RSS247   NI
Method	26dB Bandwidth KDB789033 D02, C.1 / ISED RSS-GEN
Description	FCC 15.407 Bandwidths - WLAN5Gx ax-HE40 U-NII-2C
Information	PS80

### EUT Common Settings WLAN5Gx

Number of Antenna Ports	1
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] 5670
Auto control enabled power supply   Climatic Box	No   No
Additional path loss [dB]	1.3
Switched path	EUT - SignalingUnit - SpectrumAnalyzer

### Equipment

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

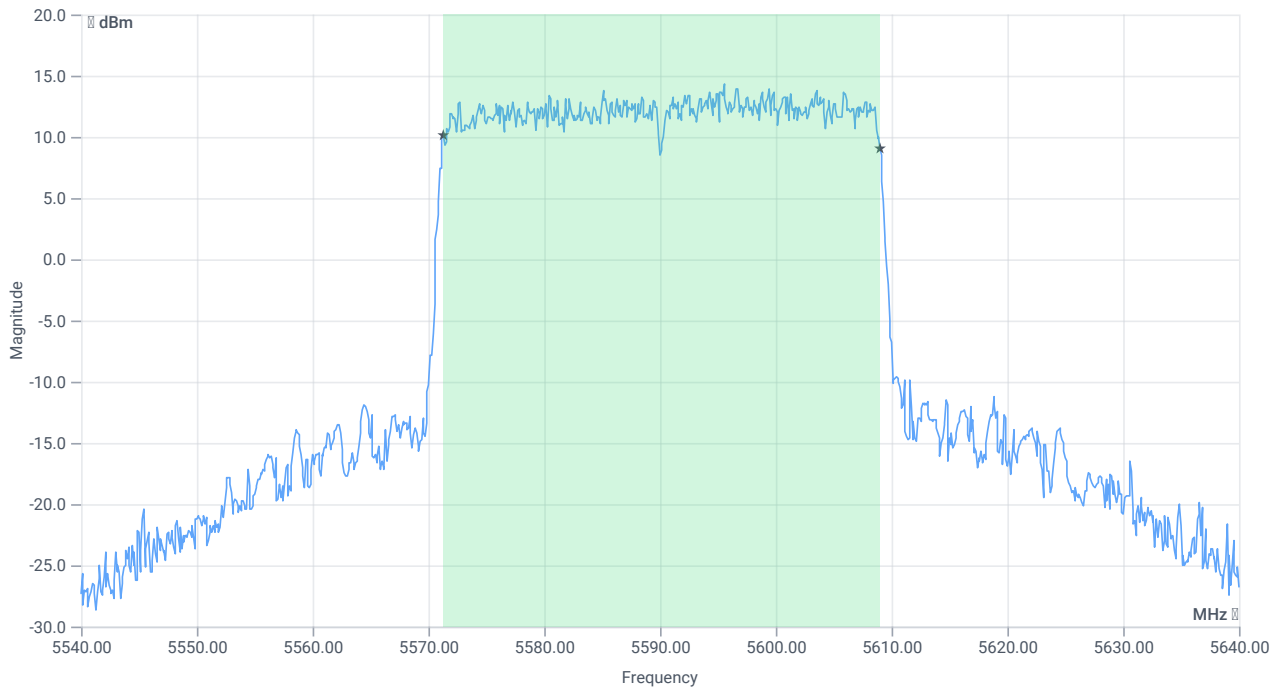
## Test at TX 5590 MHz

RESULT: Reference Power cond.

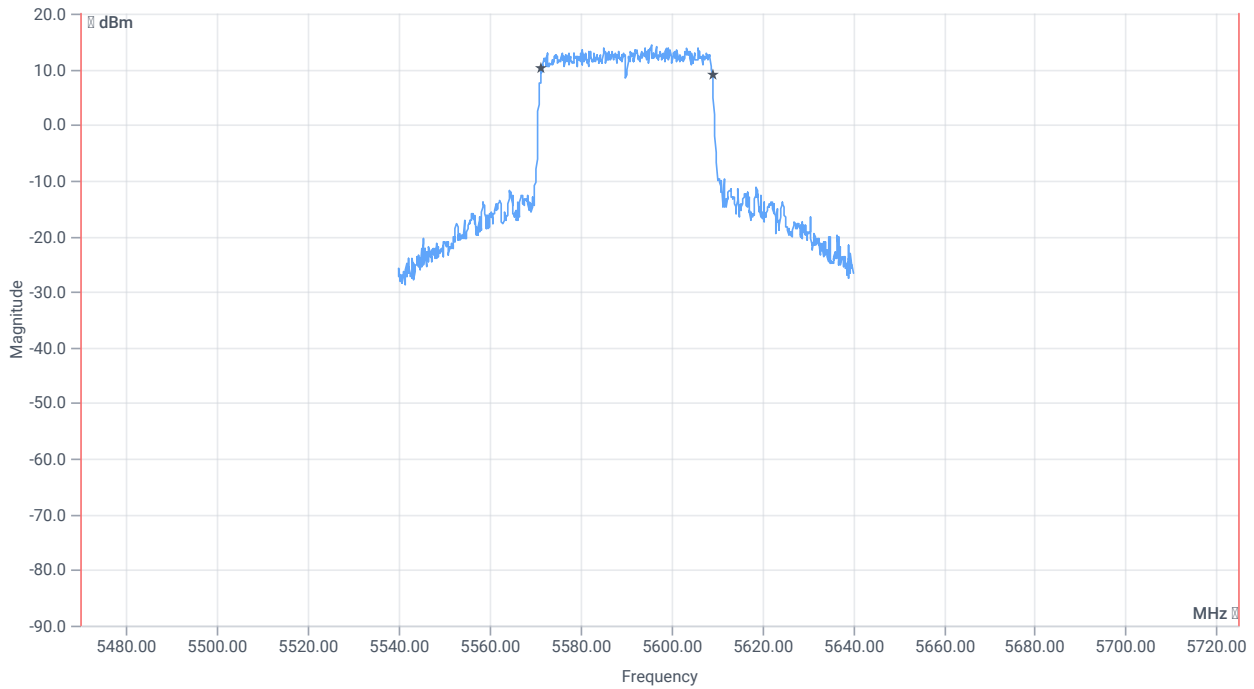
DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	--	--	15.27	dBm	INFO
Ref. Frequency	--	--	5581.010	MHz	INFO

### READ SA SETTINGS:

RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]	23.27   16.72   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 99PCT

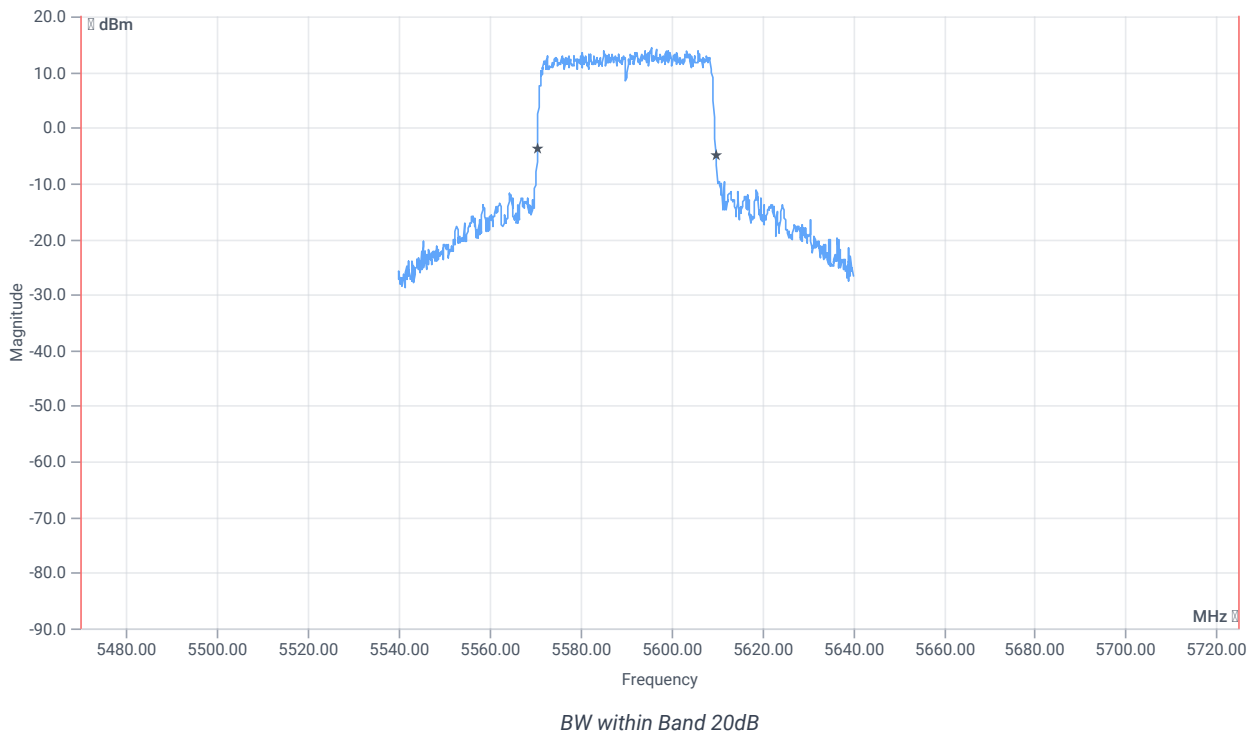
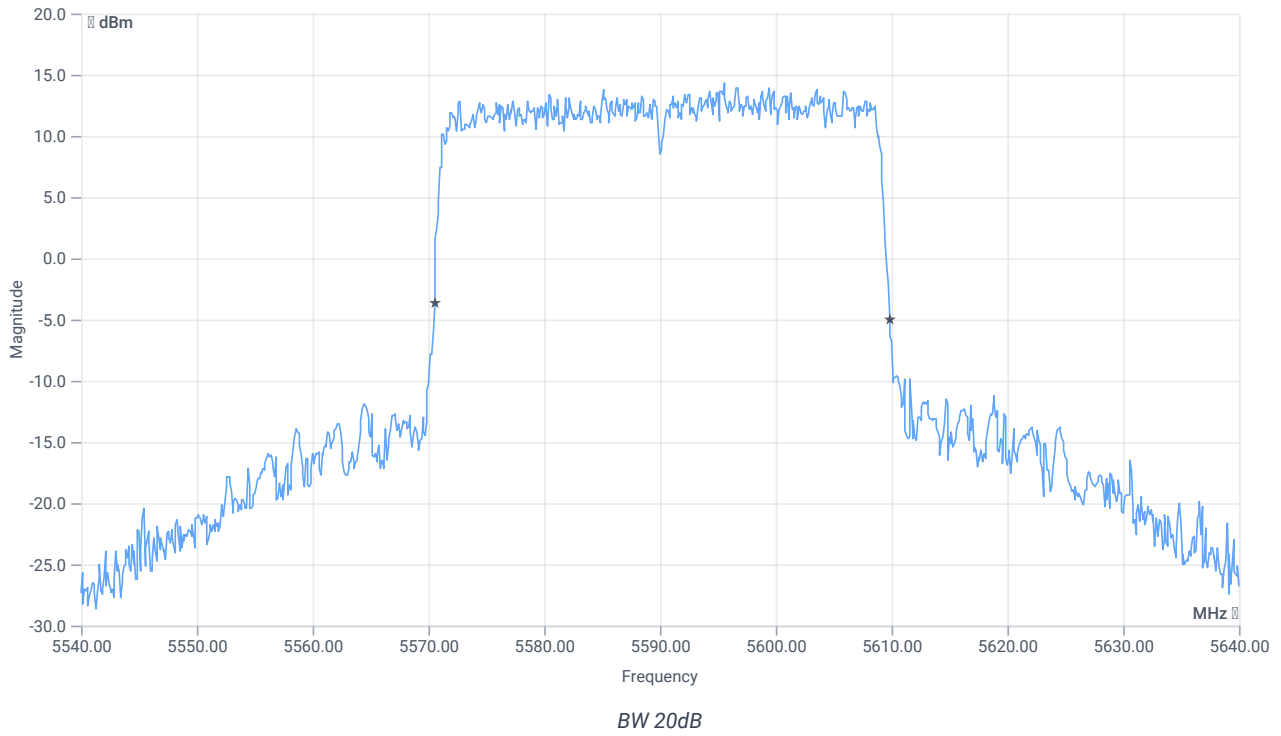


*BW within Band 99PCT*

## RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
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

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 20dB	---	---	39.3	MHz	INFO

**RESULT**

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
T1 20dB	5470.000000	--	5570.5000	MHz	PASS since U-NII-3 is supported
T2 20dB	--	5725.000000	5609.8000	MHz	

Verdict

**PASS**

## FCC 15.407 # Max output power and psd ~ WLAN5Gx ax-HE40 U-NII-2C

### References

TC start	28.07.2023 10:12:23
Ambit temp [°C]   humidity [rel%]	25.5   51
System version	4.6.0.1
Standard   Version	FCC 15.407   NI
Method	KDB789033 D02, F, E.2.e.
Description	FCC 15.407 Max Output Power & PSD - WLAN5Gx ax-HE40 U-NII-2C
Information	PS80

### EUT Common Settings WLAN5Gx

Number of Antenna Ports	1
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] 5670
Auto control enabled power supply   Climatic Box	No   No
Additional path loss [dB]	1.3
Switched path	EUT - SignalingUnit - SpectrumAnalyzer

### 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

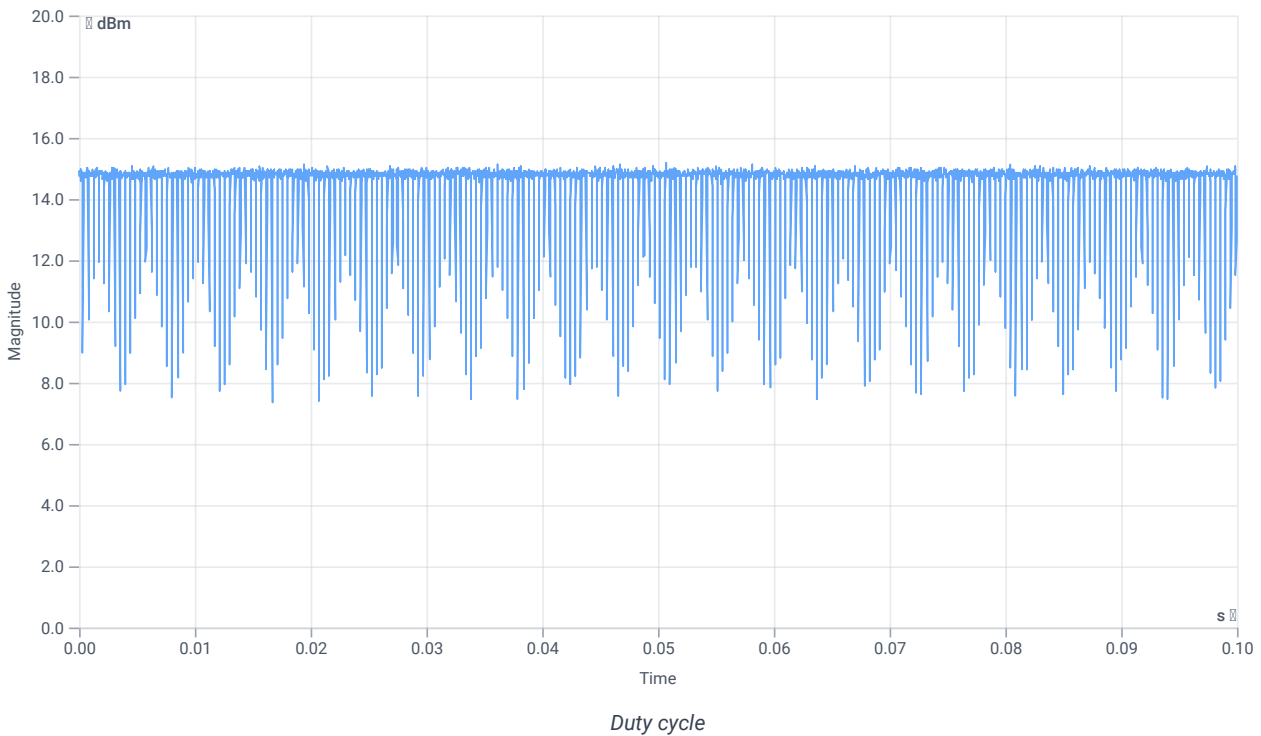
RESULT: Reference Power cond.

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	--	--	15.06	dBm	INFO
Ref. Frequency	--	--	5577.810	MHz	INFO

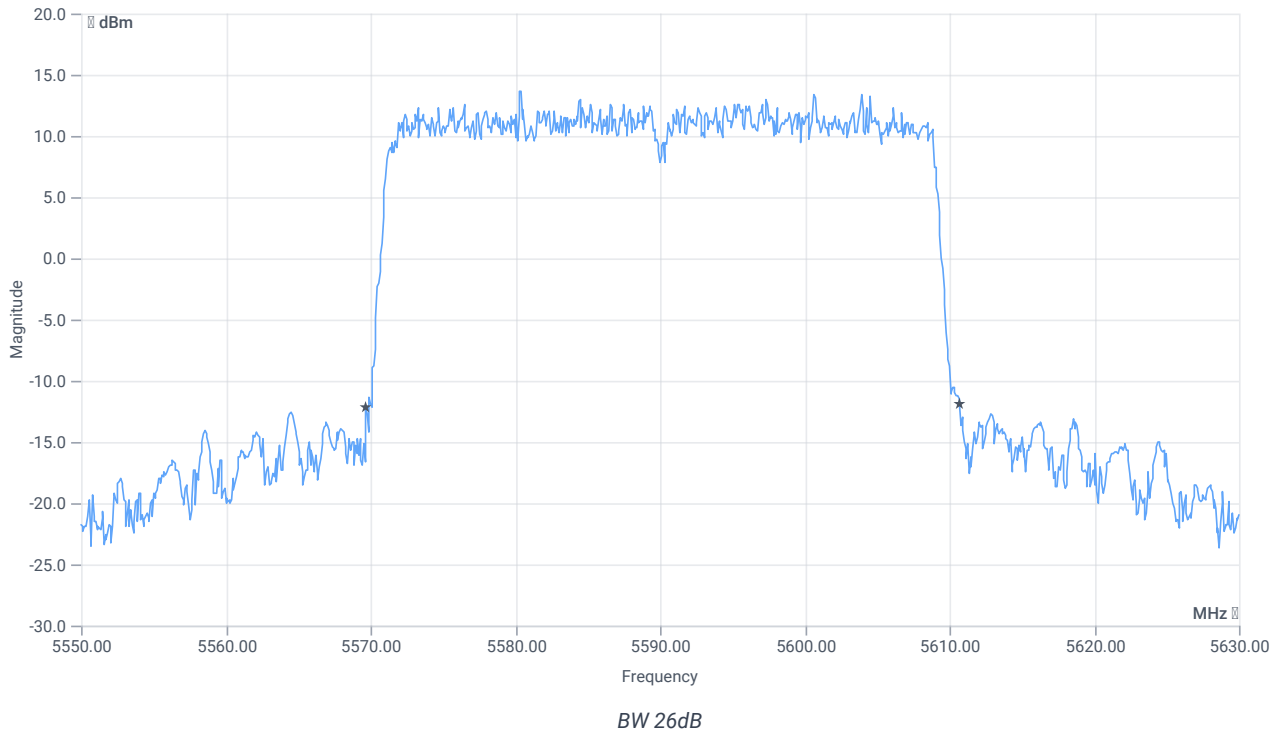
### Evaluation max. Duty Cycle

#### Duty Cycle evaluation

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



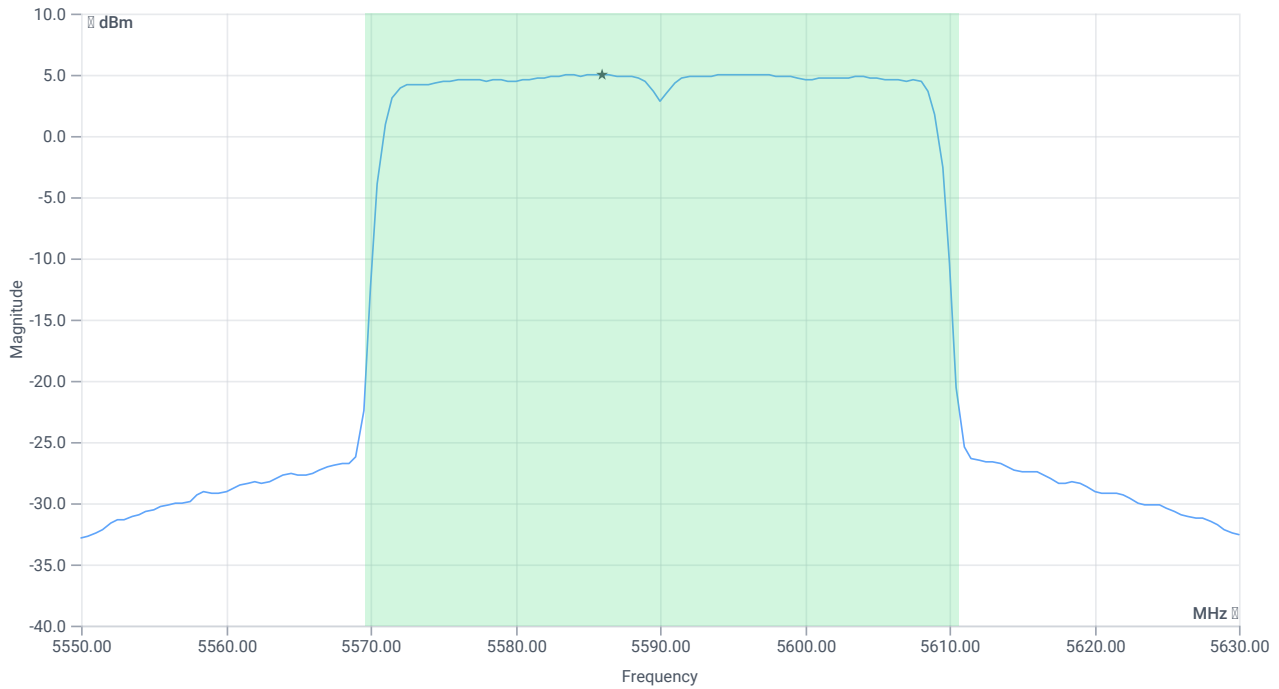
## RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 26dB	---	---	41.04	MHz	INFO
T1 26dB	---	---	5569.6800	MHz	INFO
T2 26dB	---	---	5610.7200	MHz	INFO

## Maximum Output Power

### READ SA SETTINGS:

RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]	27.06   16.72   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

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Max Output Power	--	--	20.14	dBm	INFO
Duty Cycle Correction	--	--	0	dB	INFO
Limit absolute					
Max Output Power DC corrected	--	24	20.14	dBm	PASS
Limit: 11 dBm + 10 log 41.04					
Max Output Power DC corrected	--	27.13	20.14	dBm	PASS

## Power Spectral Density

### RESULT

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 15.407, ISED RSS247 # Bandwidths 99PCT and 20dB ~ WLAN5Gx ax-HE40 U-NII-2C

### References

TC start	28.07.2023 10:13:53
Ambit temp [°C]   humidity [rel%]	25.5   51
System version	4.6.0.1
Standard   Version	FCC 15.407, ISED RSS247   NI
Method	26dB Bandwidth KDB789033 D02, C.1 / ISED RSS-GEN
Description	FCC 15.407 Bandwidths - WLAN5Gx ax-HE40 U-NII-2C
Information	PS80

### EUT Common Settings WLAN5Gx

Number of Antenna Ports	1
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] 5670
Auto control enabled power supply   Climatic Box	No   No
Additional path loss [dB]	1.3
Switched path	EUT - SignalingUnit - SpectrumAnalyzer

### Equipment

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

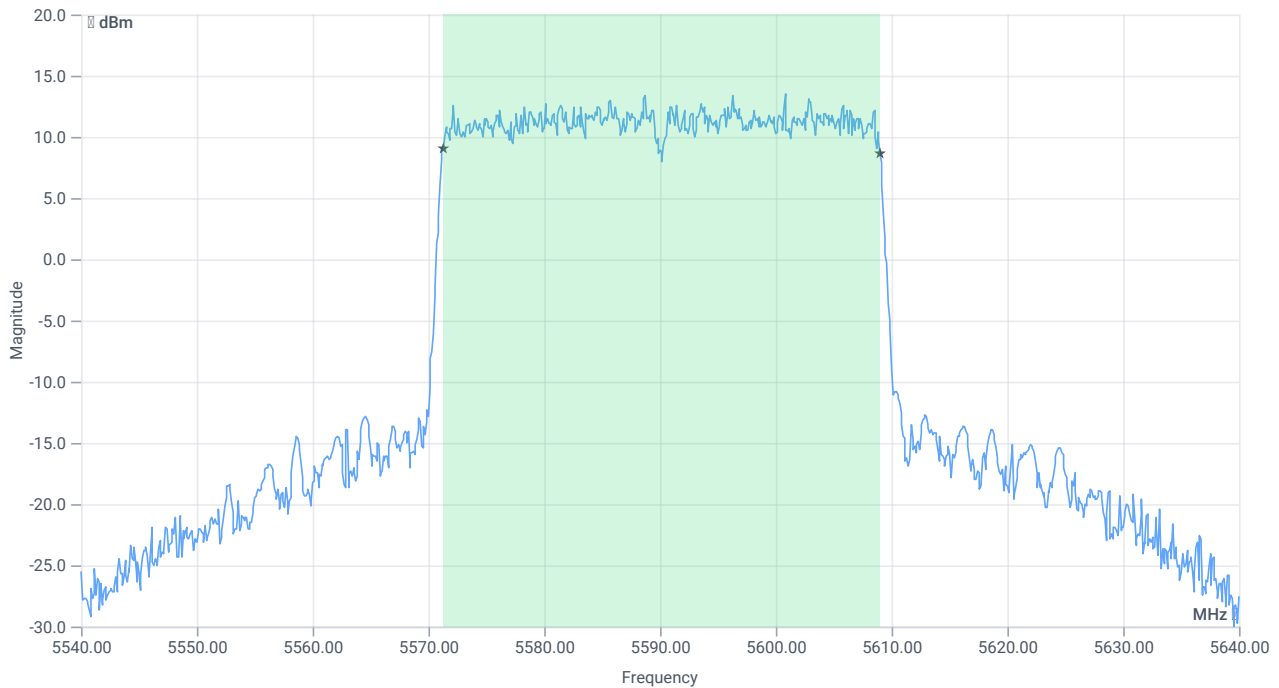
## Test at TX 5590 MHz

RESULT: Reference Power cond.

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	--	--	16.01	dBm	INFO
Ref. Frequency	--	--	5587.600	MHz	INFO

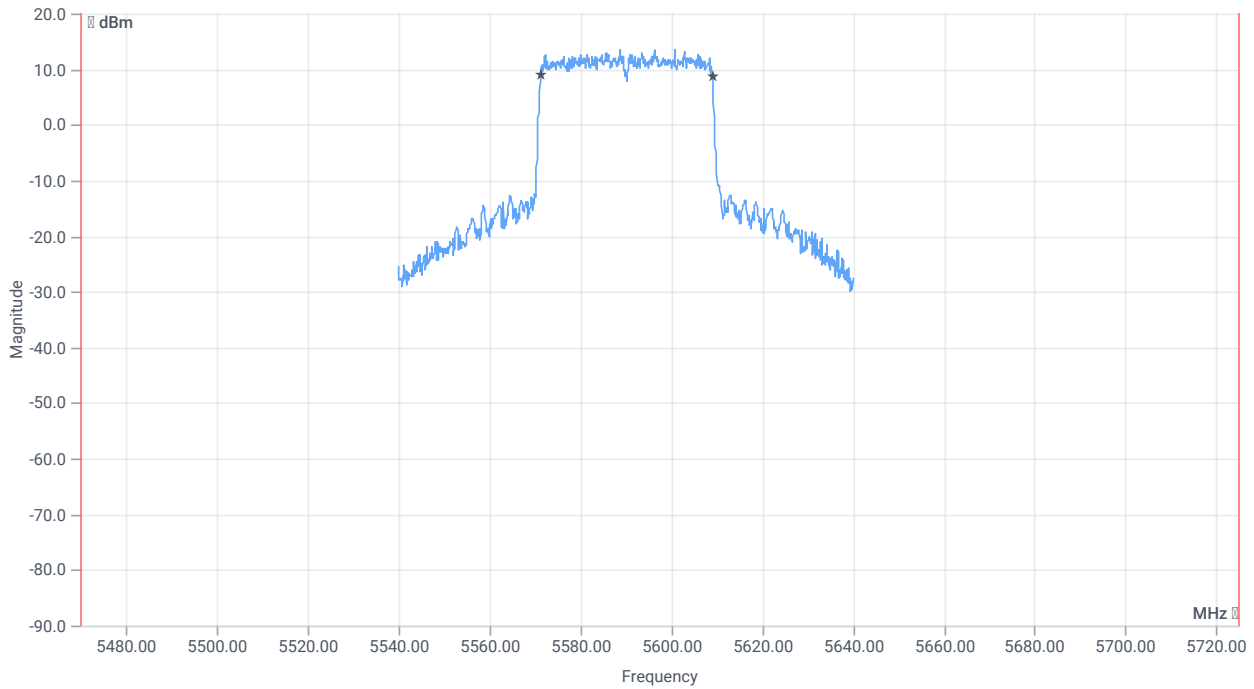
### READ SA SETTINGS:

RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]	24.01   16.72   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 99PCT

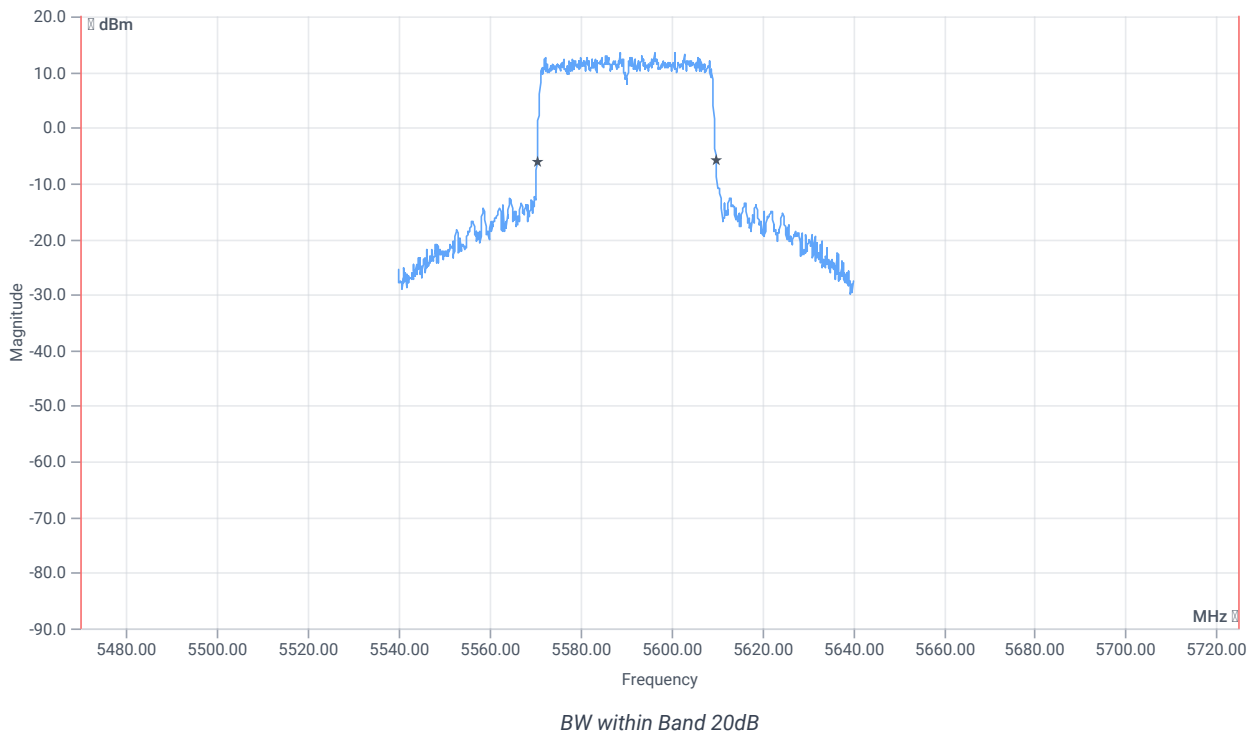
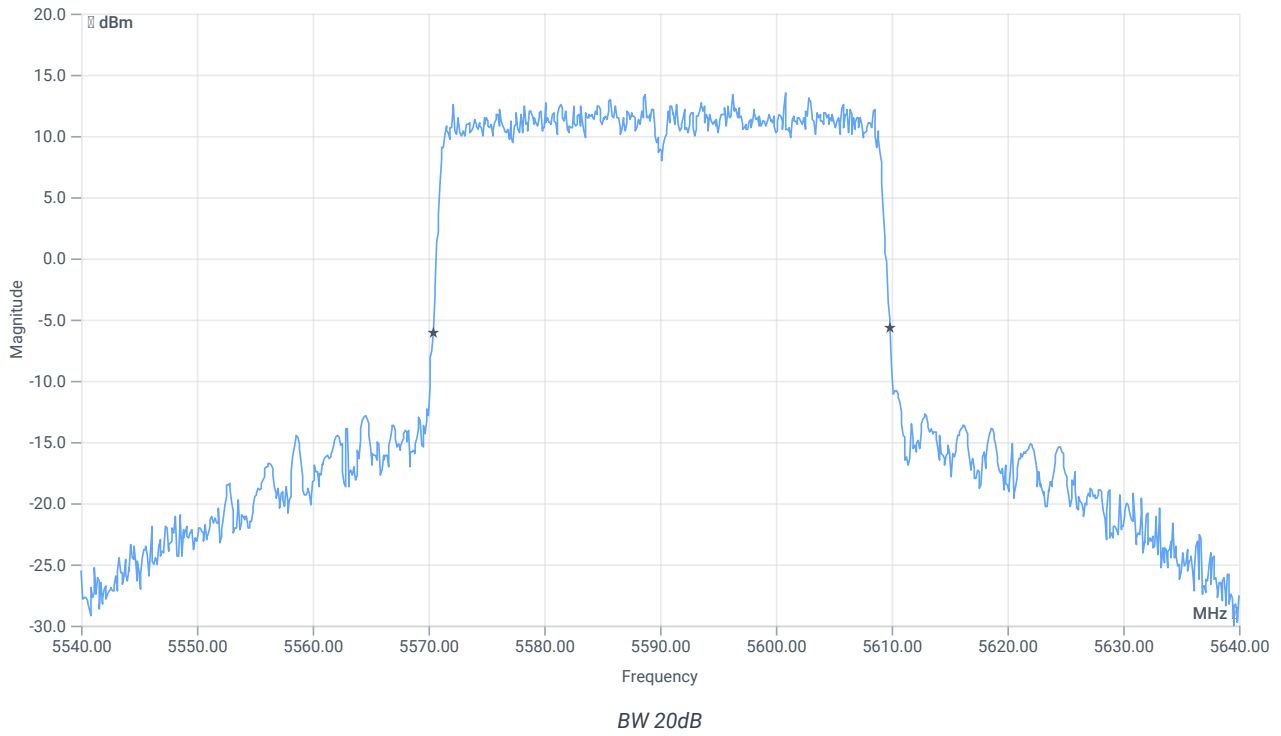




*BW within Band 99PCT*

## RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
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

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 20dB	---	---	39.5	MHz	INFO

**RESULT**

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
T1 20dB	5470.000000	--	5570.4000	MHz	PASS since U-NII-3 is supported
T2 20dB	--	5725.000000	5609.9000	MHz	

Verdict

**PASS**

## FCC 15.407 # MIMO Σ Max output power and psd ~ WLAN5Gx ax-HE40 U-NII-2C

### References

TC start	28.07.2023 10:14:25
Ambit temp [°C]   humidity [rel%]	25.5   51
System version	4.6.0.1
Standard   Version	FCC 15.407   NI
Method	
Description	MIMO Σ FCC Power & psd - WLAN5Gx ax-HE40 U-NII-2C
Information	

### EUT Common Settings WLAN5Gx

Number of Antenna Ports	1
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] 5670
Auto control enabled power supply   Climatic Box	No   No
Additional path loss [dB]	1.3
Switched path	None

### Equipment

## Test at TX 5590 MHz

### RESULT Power

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ant:1 Max Output Power DC corrected	--	--	21.04	dBm	INFO
Ant:1 BW 26dB	--	--	53.120	MHz	INFO
Ant:2 Max Output Power DC corrected	--	--	20.14	dBm	INFO
Ant:2 BW 26dB	--	--	41.040	MHz	INFO
Σ Limit absolute	--	24	23.62	dBm	PASS
Σ Limit: 11 dBm + 10 log 41.04	--	27.13	23.62	dBm	PASS

### RESULT PSD

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ant:1 PSD	--	--	6.06	dBm/1MHz	INFO
Ant:2 PSD	--	--	5.02	dBm/1MHz	INFO
Σ	--	11	8.58	dBm/1MHz	PASS

### Verdict

PASS

## NA # Message with SA scan ~

### References

TC start	28.07.2023 10:22:35
Ambit temp [°C]   humidity [rel%]	25.6   51
System version	4.6.0.1
Standard   Version	NA   NI
Method	
Description	Message with SA Scan ax_HE40_U_NII_2C
Information	PS79

### Test Parameter

Switched Path	EUT - SignalingUnit - SpectrumAnalyzer
Message start	28.07.2023 10:22:36
Message	set WLAN5Gx to ax_HE40_U_NII_2C, Frequency [MHz] 5670 Information: PS80

### Equipment

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

### Verdict

INFO

# FCC 15.407 # Max output power and psd ~ WLAN5Gx ax-HE40 U-NII-2C

## References

TC start	28.07.2023 10:23:01
Ambit temp [°C]   humidity [rel%]	25.6   51
System version	4.6.0.1
Standard   Version	FCC 15.407   NI
Method	KDB789033 D02, F, E.2.e.
Description	FCC 15.407 Max Output Power & PSD - WLAN5Gx ax-HE40 U-NII-2C
Information	PS79

## EUT Common Settings WLAN5Gx

Number of Antenna Ports	1
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] 5670
Auto control enabled power supply   Climatic Box	No   No
Additional path loss [dB]	1.3
Switched path	EUT - SignalingUnit - SpectrumAnalyzer

## Equipment

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

## Test at TX 5670 MHz

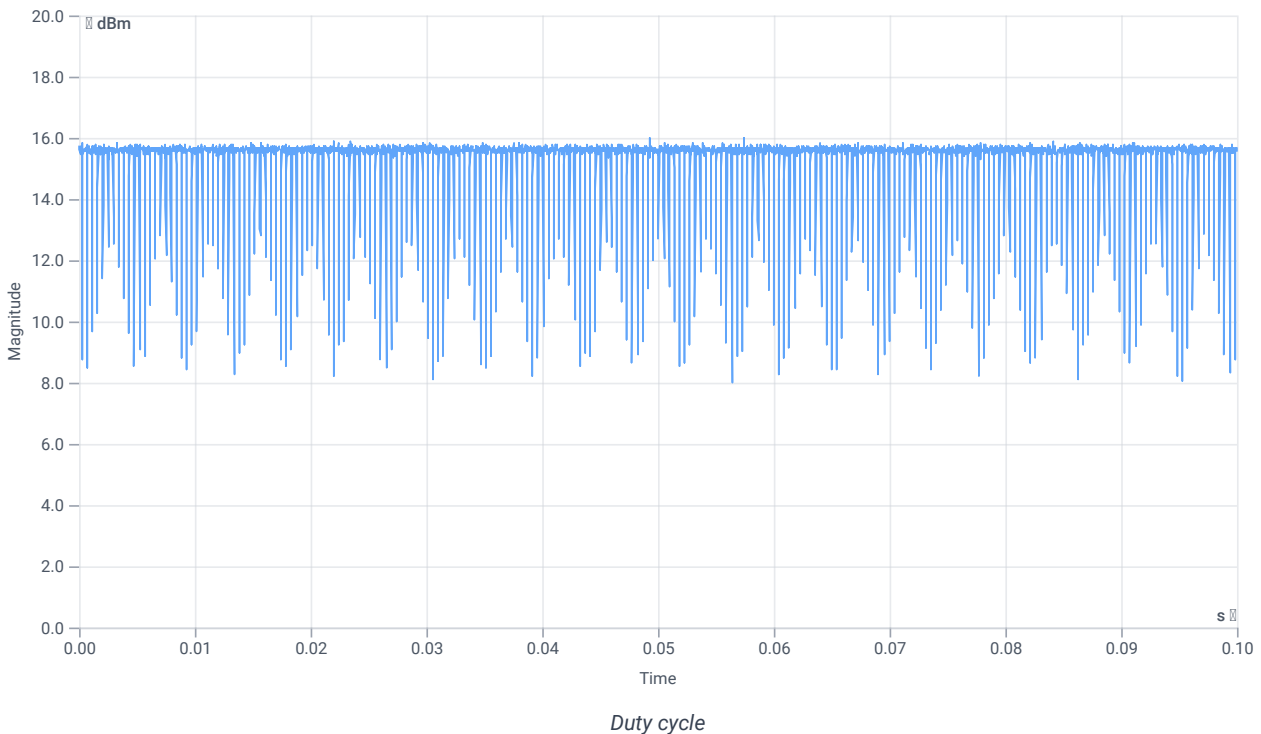
RESULT: Reference Power cond.

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	--	--	15.53	dBm	INFO
Ref. Frequency	--	--	5673.000	MHz	INFO

## Evaluation max. Duty Cycle

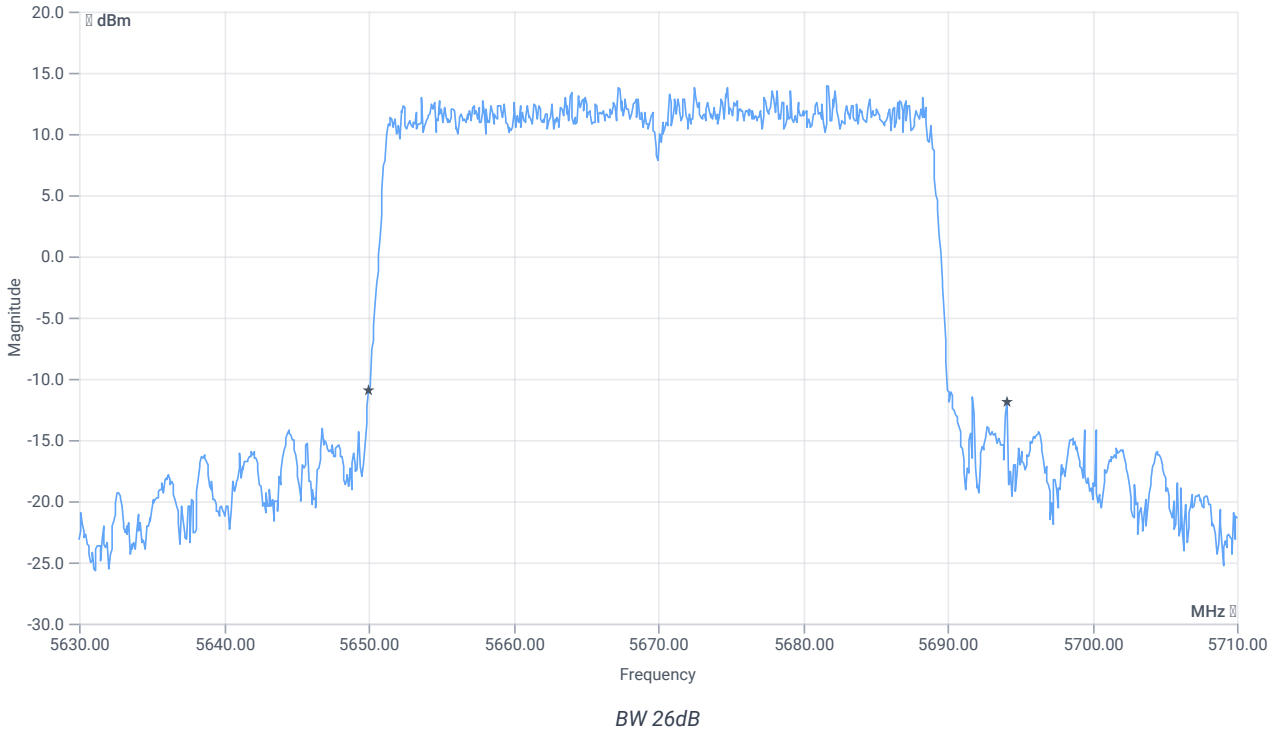
### Duty Cycle evaluation

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





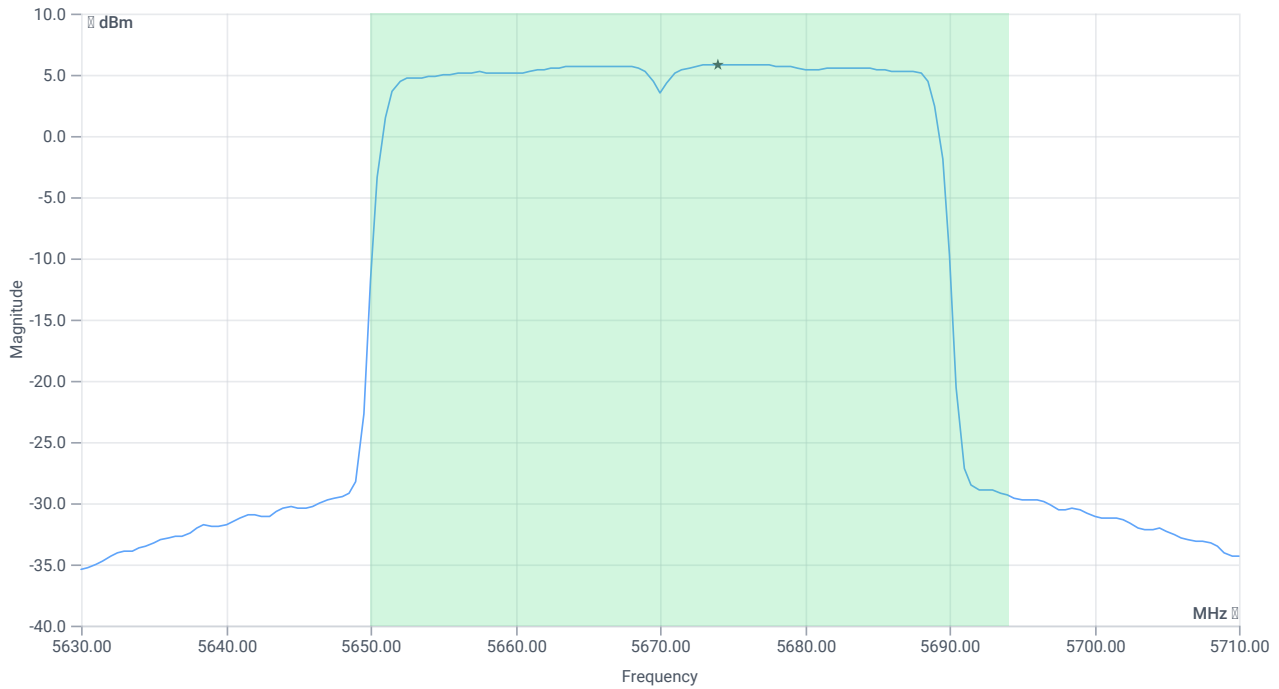
## RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 26dB	---	---	44.16	MHz	INFO
T1 26dB	---	---	5650.0000	MHz	INFO
T2 26dB	---	---	5694.1600	MHz	INFO

## Maximum Output Power

### READ SA SETTINGS:

RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]	27.53   16.68   25
Start [MHz]   Stop [MHz]	5630.000   5710.000
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

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Max Output Power	--	--	20.86	dBm	INFO
Duty Cycle Correction	--	--	0	dB	INFO
Limit absolute					
Max Output Power DC corrected	--	24	20.86	dBm	PASS
Limit: 11 dBm + 10 log 44.16					
Max Output Power DC corrected	--	27.45	20.86	dBm	PASS

## Power Spectral Density

### RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Power Spectral Density	--	--	5.83	dBm/1MHz	INFO
Duty Cycle Correction	--	--	0	dB	INFO
Power Spectral Density DC corrected	--	11	5.83	dBm/1MHz	PASS

### Verdict

PASS

## FCC 15.407, ISED RSS247 # Bandwidths 99PCT and 20dB ~ WLAN5Gx ax-HE40 U-NII-2C

### References

TC start	28.07.2023 10:24:28
Ambit temp [°C]   humidity [rel%]	25.5   51
System version	4.6.0.1
Standard   Version	FCC 15.407, ISED RSS247   NI
Method	26dB Bandwidth KDB789033 D02, C.1 / ISED RSS-GEN
Description	FCC 15.407 Bandwidths - WLAN5Gx ax-HE40 U-NII-2C
Information	PS79

### EUT Common Settings WLAN5Gx

Number of Antenna Ports	1
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] 5670
Auto control enabled power supply   Climatic Box	No   No
Additional path loss [dB]	1.3
Switched path	EUT - SignalingUnit - SpectrumAnalyzer

### Equipment

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

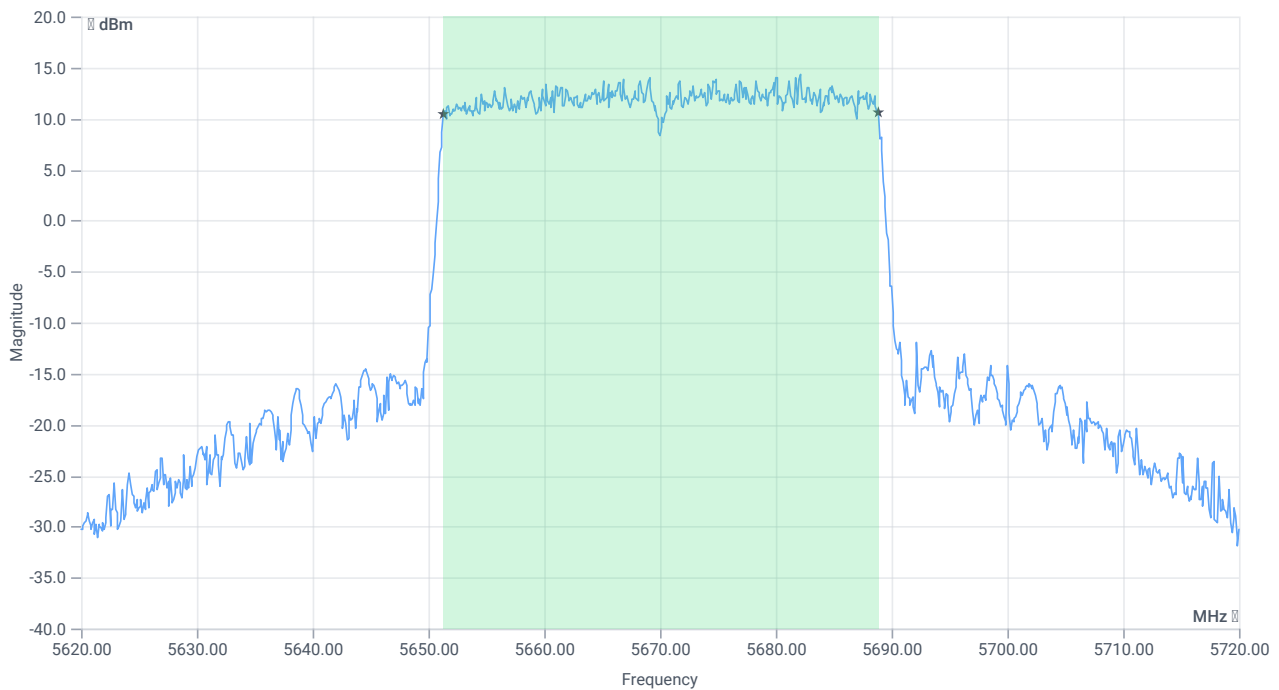
## Test at TX 5670 MHz

RESULT: Reference Power cond.

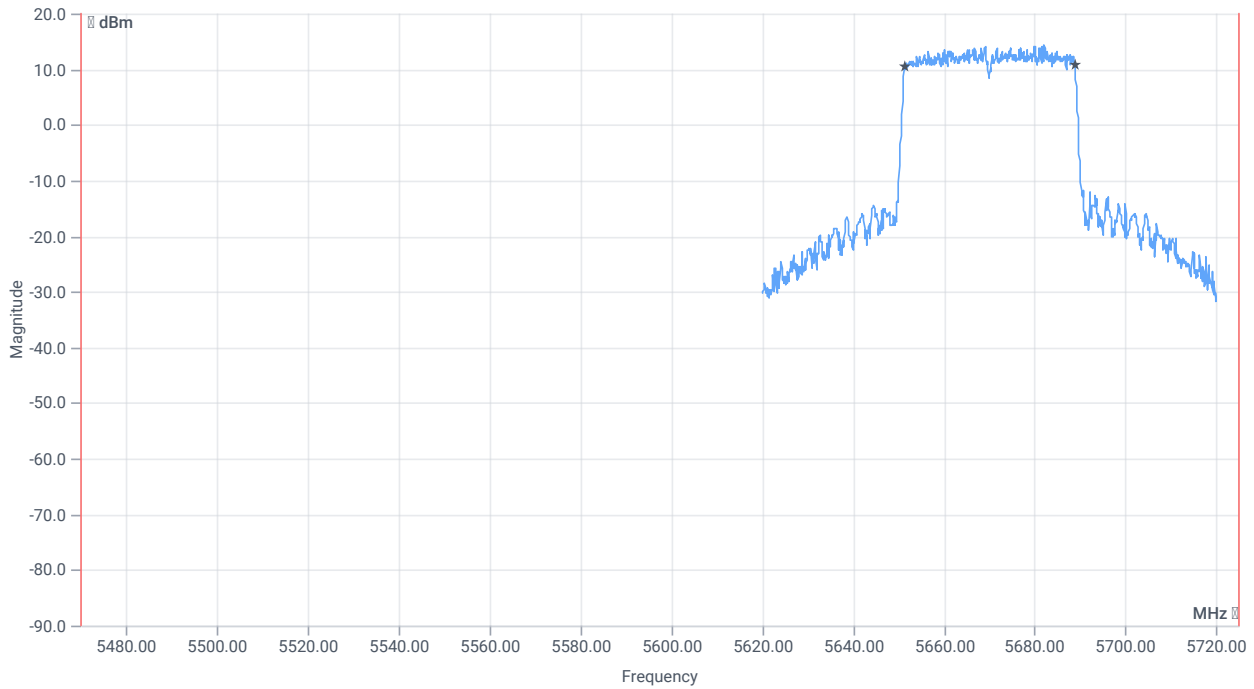
DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	--	--	15.71	dBm	INFO
Ref. Frequency	--	--	5664.010	MHz	INFO

### READ SA SETTINGS:

RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]	23.71   16.68   25
Start [MHz]   Stop [MHz]	5620.000   5720.000
RBW [MHz]   VBW [MHz]	0.500000   3.000000
Detector   TraceMode	POS   MAXH
Sweep: time [ms]   count   points per Section   type	1   2500   1001   SWE



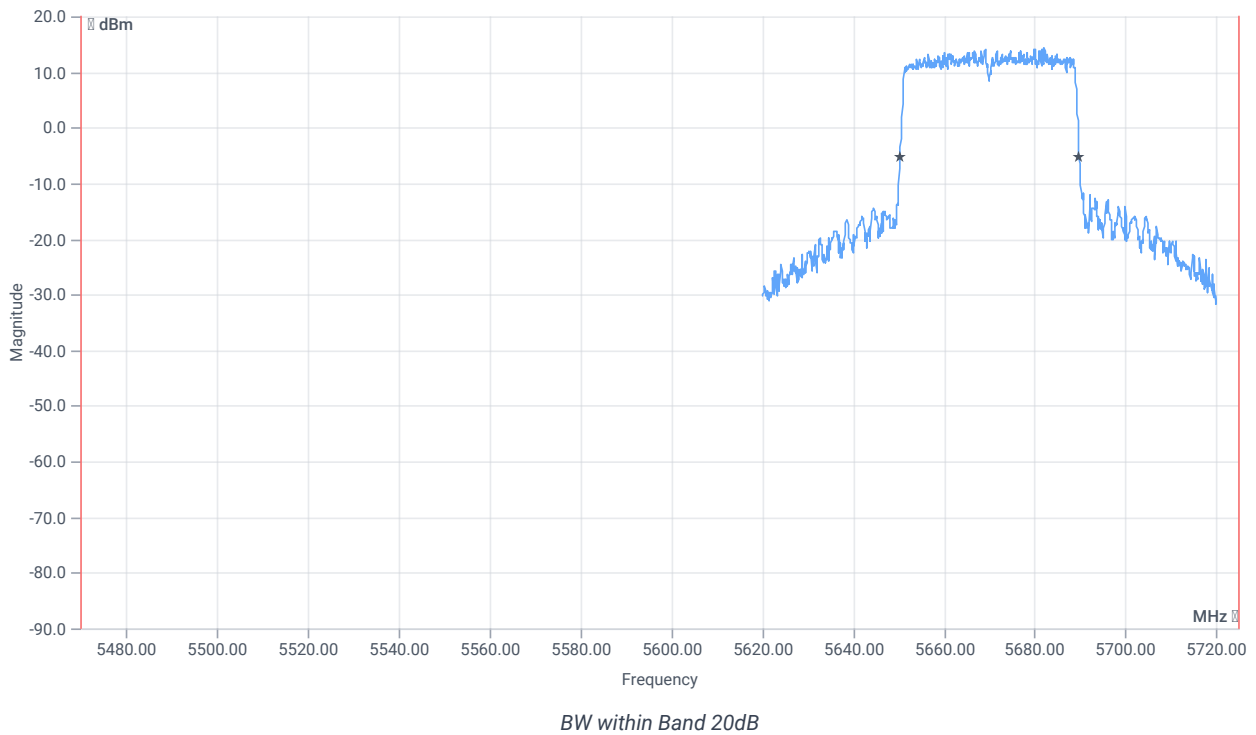
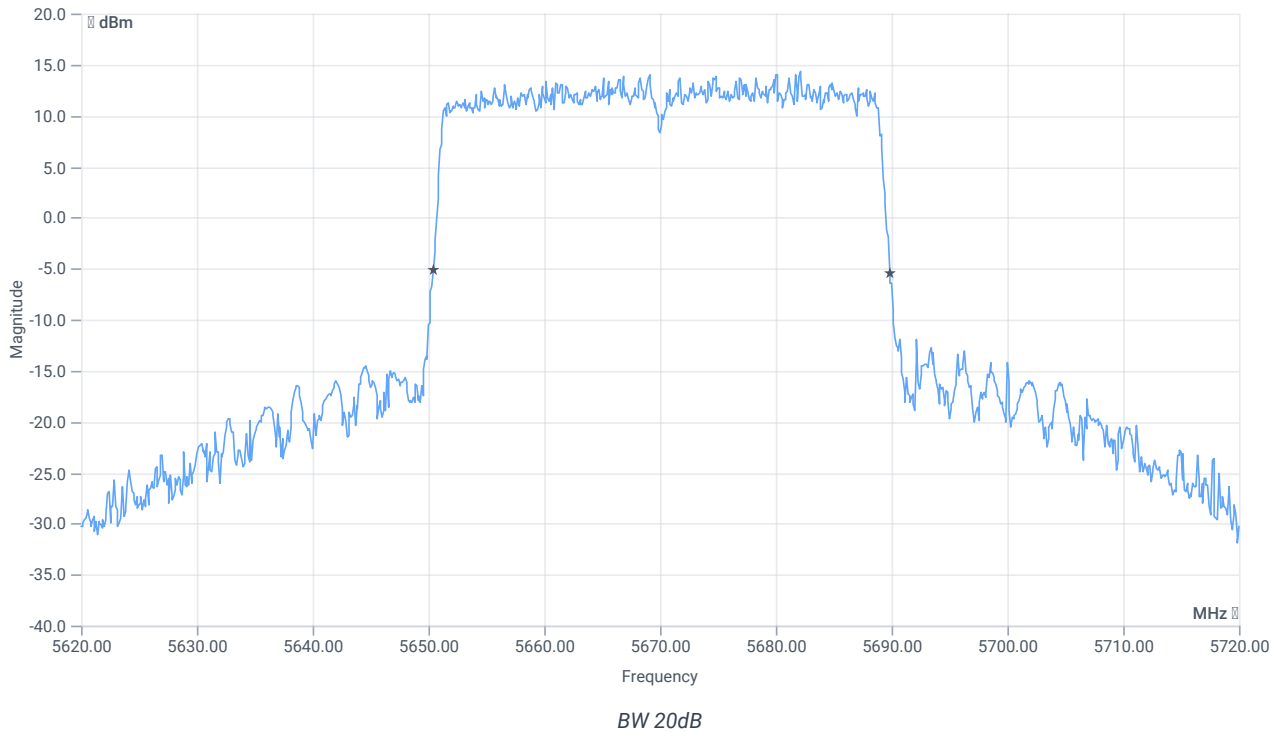
BW 99PCT



*BW within Band 99PCT*

## RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 99%	--	--	37.562	MHz	INFO
T1 99%	5470.000000	--	5651.3187	MHz	PASS since U-NII-3 is supported
T2 99%	--	5725.000000	5688.8811	MHz	



## RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 20dB	---	---	39.4	MHz	INFO

**RESULT**

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
T1 20dB	5470.000000	--	5650.4000	MHz	PASS since U-NII-3 is supported
T2 20dB	--	5725.000000	5689.8000	MHz	

Verdict

**PASS**

## FCC 15.407 # Max output power and psd ~ WLAN5Gx ax-HE40 U-NII-2C

### References

TC start	28.07.2023 10:25:02
Ambit temp [°C]   humidity [rel%]	25.6   51
System version	4.6.0.1
Standard   Version	FCC 15.407   NI
Method	KDB789033 D02, F, E.2.e.
Description	FCC 15.407 Max Output Power & PSD - WLAN5Gx ax-HE40 U-NII-2C
Information	PS79

### EUT Common Settings WLAN5Gx

Number of Antenna Ports	1
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] 5670
Auto control enabled power supply   Climatic Box	No   No
Additional path loss [dB]	1.3
Switched path	EUT - SignalingUnit - SpectrumAnalyzer

### Equipment

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



## Test at TX 5670 MHz

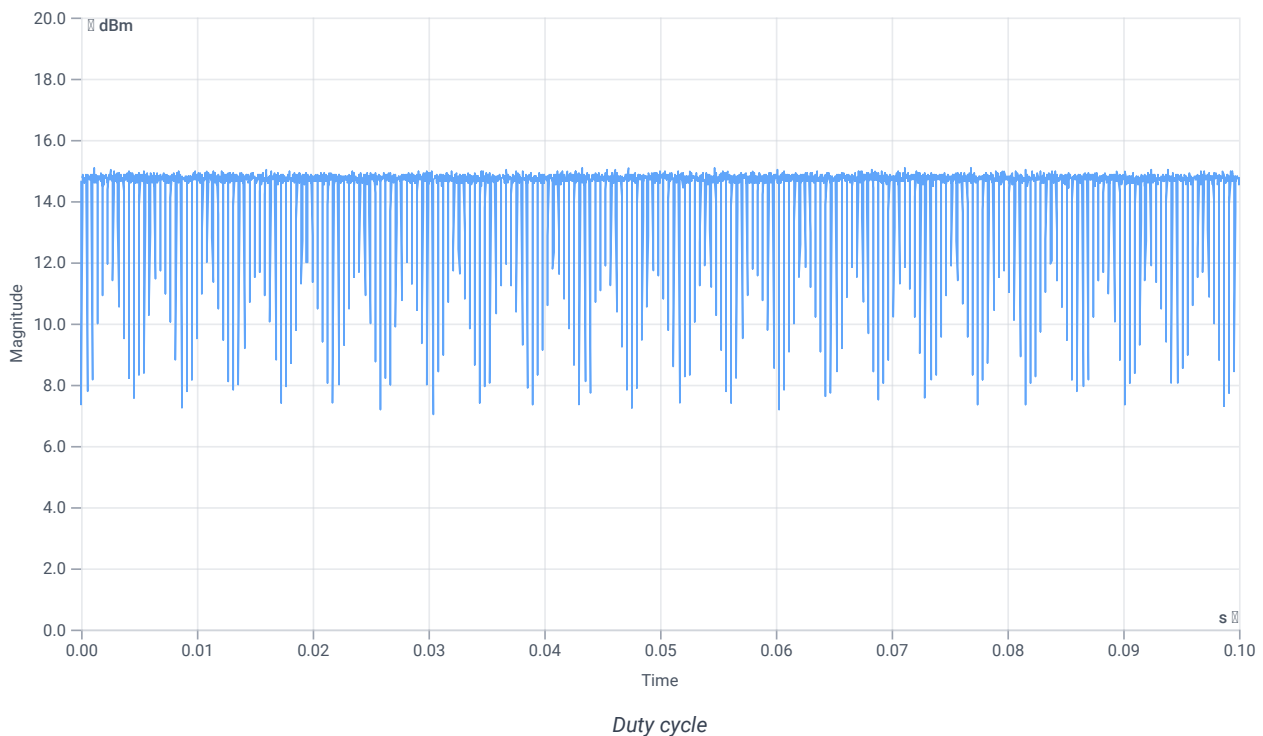
RESULT: Reference Power cond.

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	--	--	14.57	dBm	INFO
Ref. Frequency	--	--	5675.190	MHz	INFO

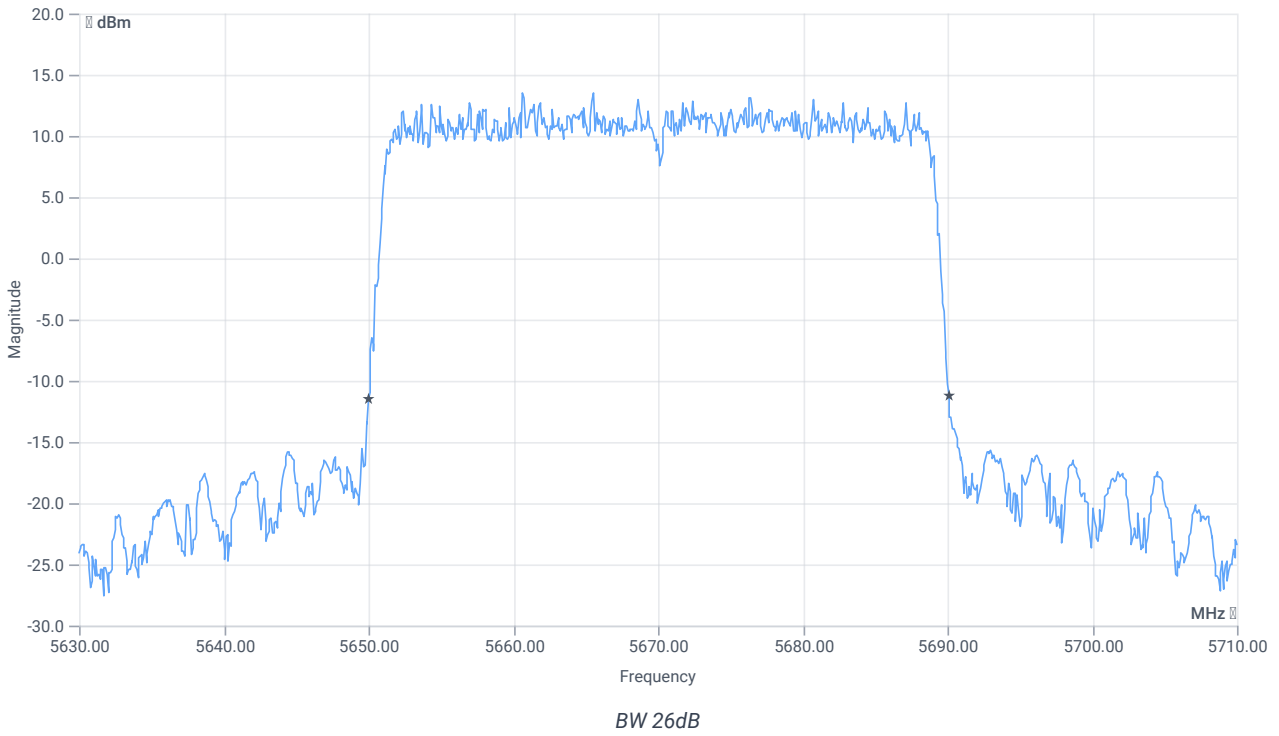
## Evaluation max. Duty Cycle

### Duty Cycle evaluation

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



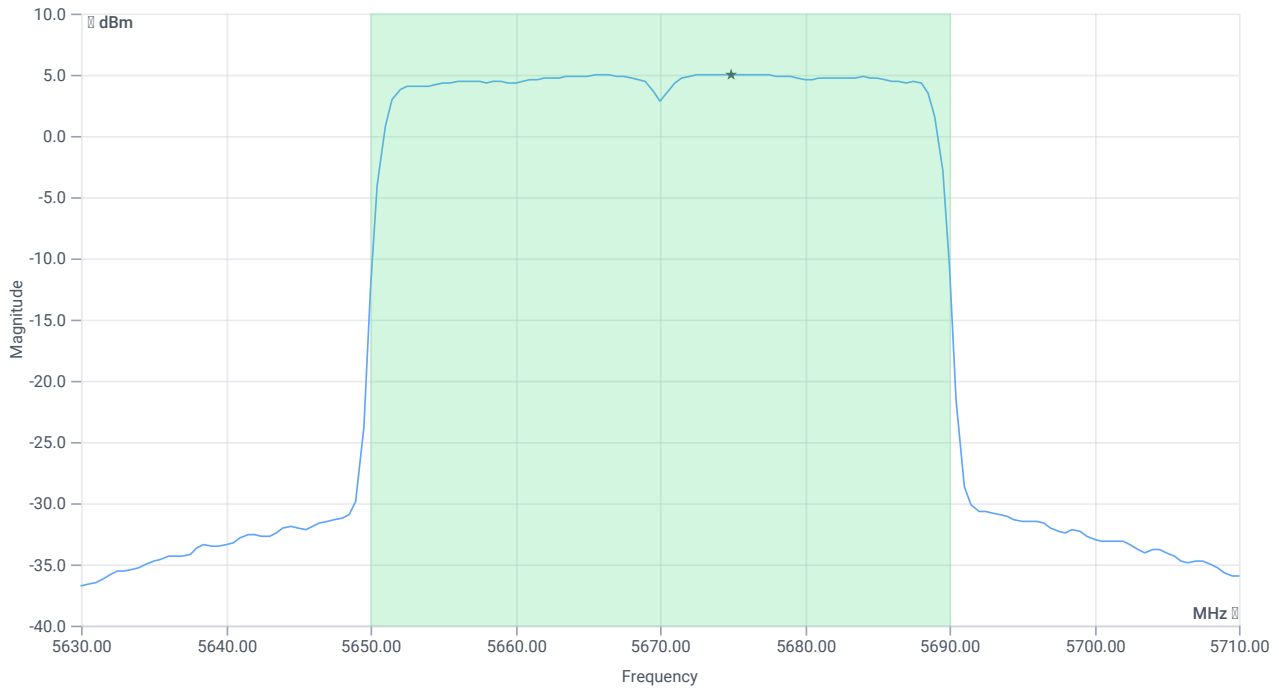
## RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 26dB	---	---	40.08	MHz	INFO
T1 26dB	---	---	5650.0000	MHz	INFO
T2 26dB	---	---	5690.0800	MHz	INFO

## Maximum Output Power

### READ SA SETTINGS:

RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]	26.57   16.68   25
Start [MHz]   Stop [MHz]	5630.000   5710.000
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

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Max Output Power	--	--	20.08	dBm	INFO
Duty Cycle Correction	--	--	0	dB	INFO
Limit absolute					
Max Output Power DC corrected	--	24	20.08	dBm	PASS
Limit: 11 dBm + 10 log 40.08					
Max Output Power DC corrected	--	27.03	20.08	dBm	PASS

## Power Spectral Density

### RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Power Spectral Density	--	--	5.05	dBm/1MHz	INFO
Duty Cycle Correction	--	--	0	dB	INFO
Power Spectral Density DC corrected	--	11	5.05	dBm/1MHz	PASS

### Verdict

PASS

# FCC 15.407, ISED RSS247 # Bandwidths 99PCT and 20dB ~ WLAN5Gx ax-HE40 U-NII-2C

## References

TC start	28.07.2023 10:26:29
Ambit temp [°C]   humidity [rel%]	25.6   51
System version	4.6.0.1
Standard   Version	FCC 15.407, ISED RSS247   NI
Method	26dB Bandwidth KDB789033 D02, C.1 / ISED RSS-GEN
Description	FCC 15.407 Bandwidths - WLAN5Gx ax-HE40 U-NII-2C
Information	PS79

## EUT Common Settings WLAN5Gx

Number of Antenna Ports	1
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] 5670
Auto control enabled power supply   Climatic Box	No   No
Additional path loss [dB]	1.3
Switched path	EUT - SignalingUnit - SpectrumAnalyzer

## Equipment

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

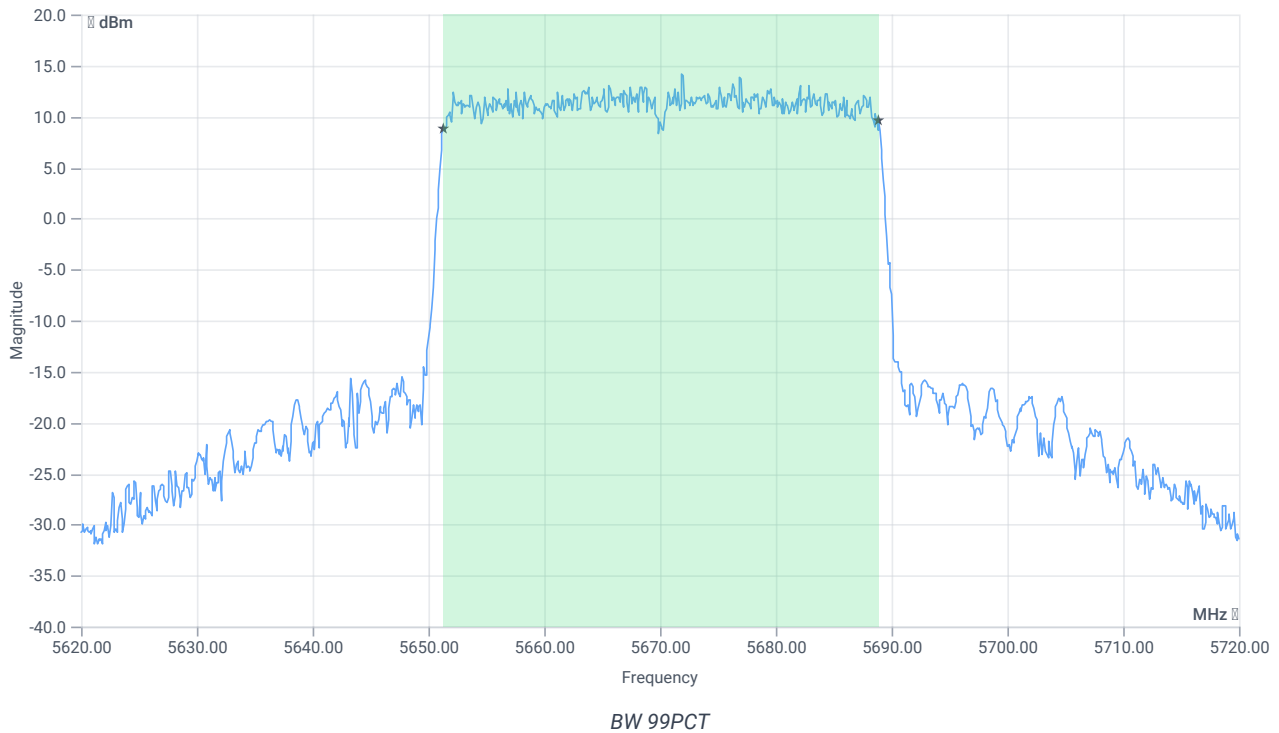
## Test at TX 5670 MHz

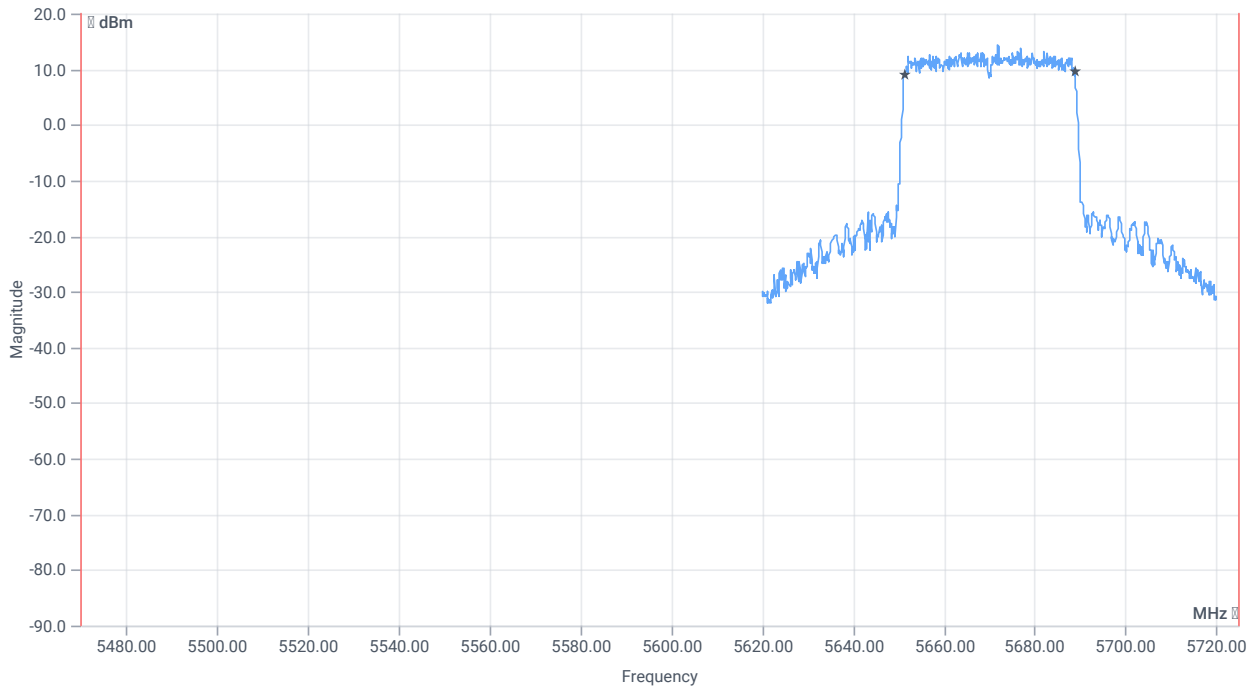
RESULT: Reference Power cond.

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	--	--	15.29	dBm	INFO
Ref. Frequency	--	--	5677.190	MHz	INFO

### READ SA SETTINGS:

RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]	23.29   16.68   25
Start [MHz]   Stop [MHz]	5620.000   5720.000
RBW [MHz]   VBW [MHz]	0.500000   3.000000
Detector   TraceMode	POS   MAXH
Sweep: time [ms]   count   points per Section   type	1   2500   1001   SWE

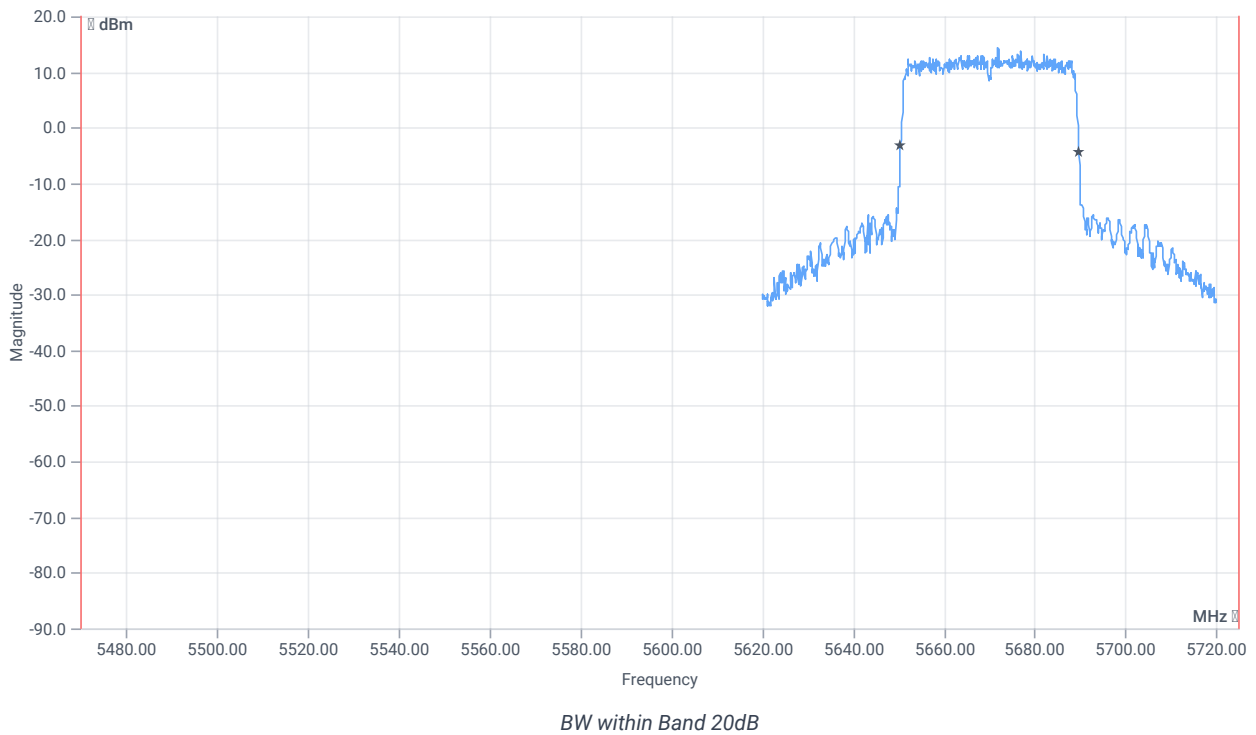
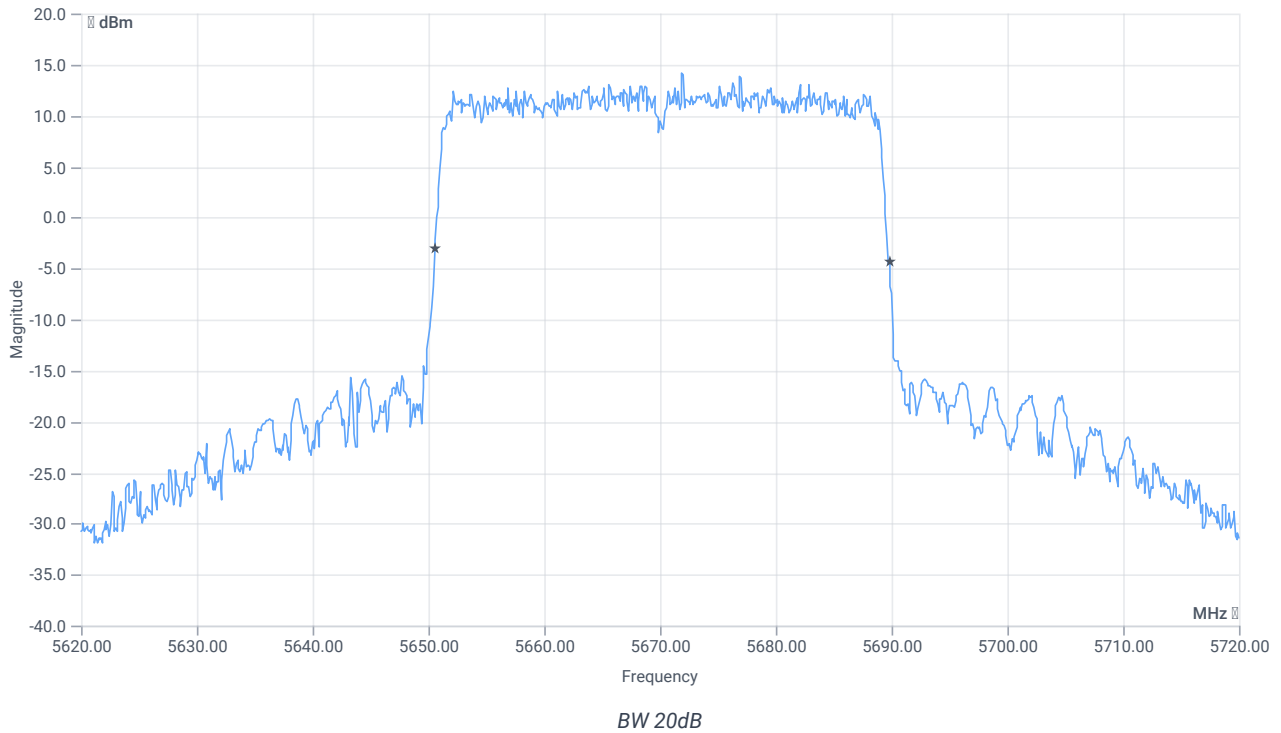




*BW within Band 99PCT*

## RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 99%	--	--	37.562	MHz	INFO
T1 99%	5470.000000	--	5651.3187	MHz	PASS since U-NII-3 is supported
T2 99%	--	5725.000000	5688.8811	MHz	



## RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 20dB	---	---	39.3	MHz	INFO

**RESULT**

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
T1 20dB	5470.000000	--	5650.5000	MHz	PASS since U-NII-3 is supported
T2 20dB	--	5725.000000	5689.8000	MHz	

Verdict

**PASS**



## FCC 15.407 # MIMO $\Sigma$ Max output power and psd ~ WLAN5Gx ax-HE40 U-NII-2C

### References

TC start	28.07.2023 10:27:03
Ambit temp [°C]   humidity [rel%]	25.6   51
System version	4.6.0.1
Standard   Version	FCC 15.407   NI
Method	
Description	MIMO $\Sigma$ FCC Power & psd - WLAN5Gx ax-HE40 U-NII-2C
Information	PS79

### EUT Common Settings WLAN5Gx

Number of Antenna Ports	1
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] 5670
Auto control enabled power supply   Climatic Box	No   No
Additional path loss [dB]	1.3
Switched path	None

### Equipment

## Test at TX 5670 MHz

### RESULT Power

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ant:1 Max Output Power DC corrected	--	--	20.86	dBm	INFO
Ant:1 BW 26dB	--	--	44.160	MHz	INFO
Ant:2 Max Output Power DC corrected	--	--	20.08	dBm	INFO
Ant:2 BW 26dB	--	--	40.080	MHz	INFO
Σ Limit absolute	--	24	23.5	dBm	PASS
Σ Limit: 11 dBm + 10 log 40.08	--	27.03	23.5	dBm	PASS

### RESULT PSD

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ant:1 PSD	--	--	5.83	dBm/1MHz	INFO
Ant:2 PSD	--	--	5.05	dBm/1MHz	INFO
Σ	--	11	8.47	dBm/1MHz	PASS

Verdict

PASS

## NA # Message with SA scan ~

### References

TC start	02.08.2023 11:15:00
Ambit temp [°C]   humidity [rel%]	25.7   50
System version	4.6.0.3
Standard   Version	NA   NI
Method	
Description	Message with SA Scan ax-HE40 U-NII-3
Information	PS96

### Test Parameter

Switched Path	EUT - SignalingUnit - SpectrumAnalyzer
Message start	02.08.2023 11:15:00
Message	set WLAN5Gx to ax-HE40 U-NII-3, Frequency [MHz] 5755 , Information: PS96

### Equipment

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

### Verdict

INFO

## FCC 15.407 # Max output power and psd ~ WLAN5Gx ax-HE40 U-NII-3

### References

TC start	02.08.2023 11:15:44
Ambit temp [°C]   humidity [rel%]	25.7   50
System version	4.6.0.3
Standard   Version	FCC 15.407   NI
Method	KDB789033 D02, F, E.2.e.
Description	FCC 15.407 Max Output Power & PSD - WLAN5Gx ax-HE40 U-NII-3
Information	PS96

### EUT Common Settings WLAN5Gx

Number of Antenna Ports	1
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]	1.3
Switched path	EUT - SignalingUnit - SpectrumAnalyzer

### 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

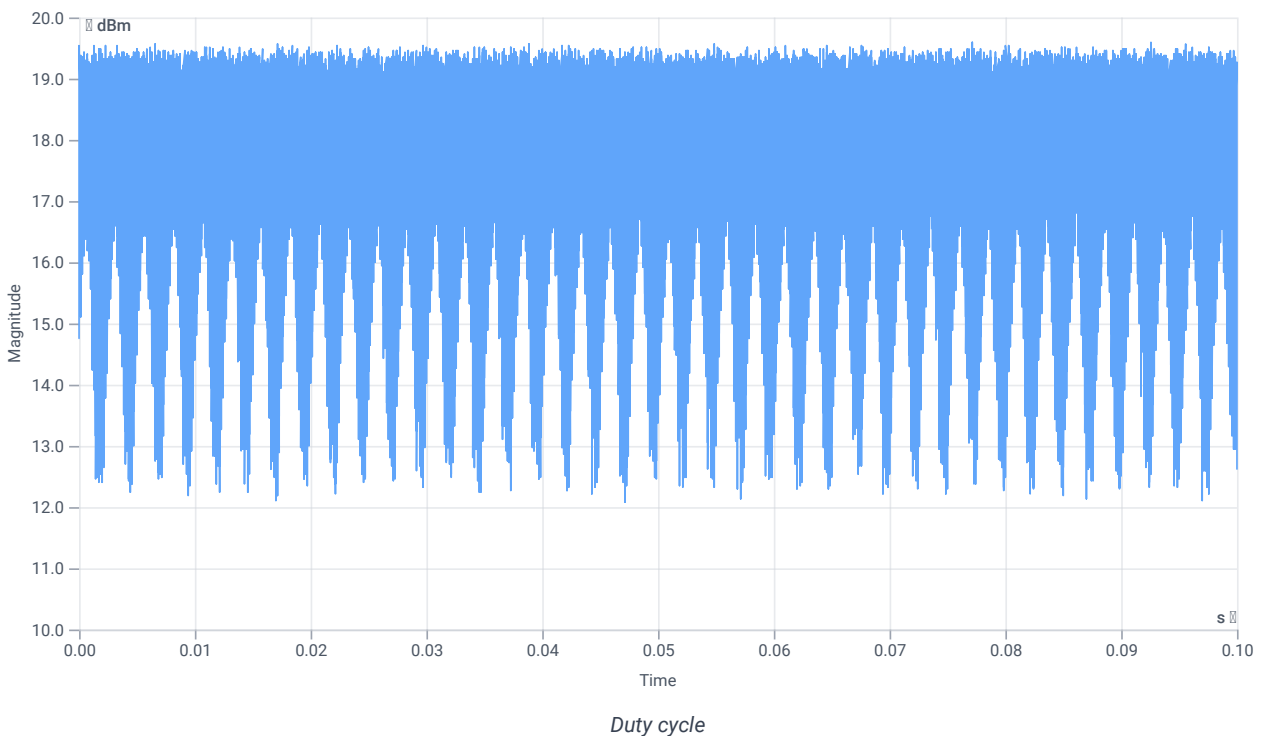
RESULT: Reference Power cond.

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	--	--	19.61	dBm	INFO
Ref. Frequency	--	--	5753.200	MHz	INFO

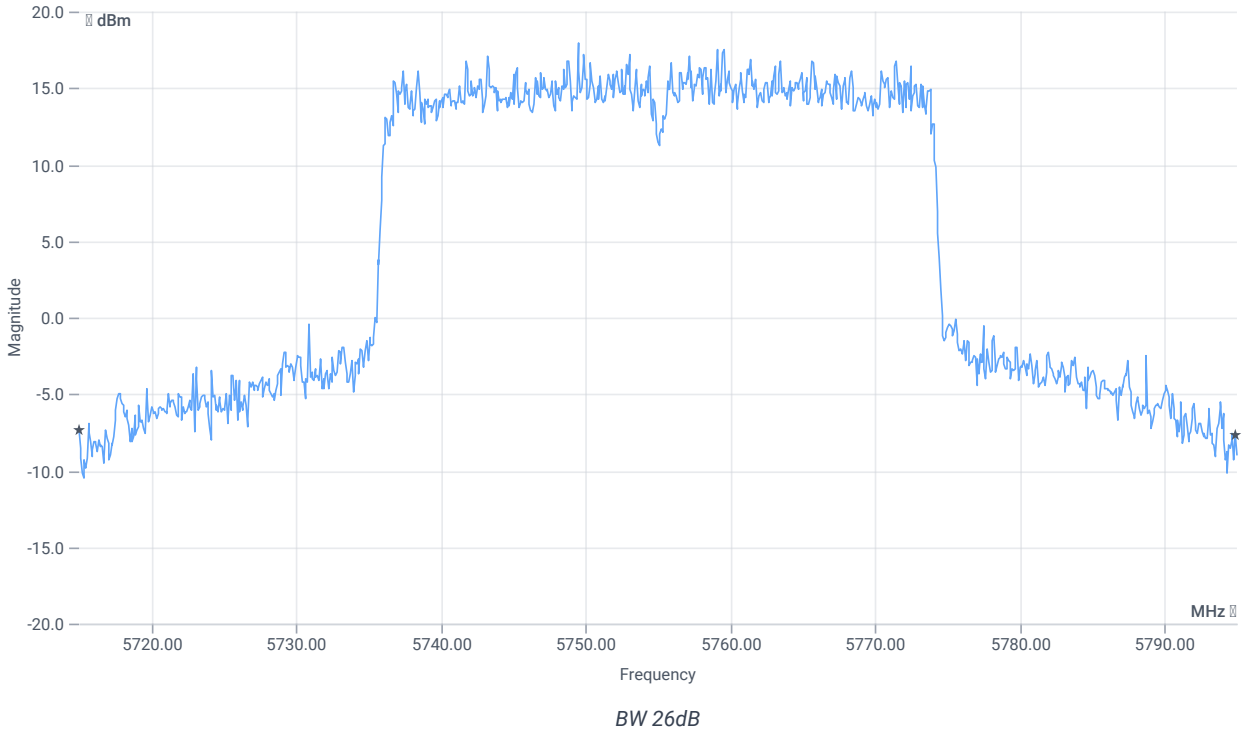
## Evaluation max. Duty Cycle

### Duty Cycle evaluation

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



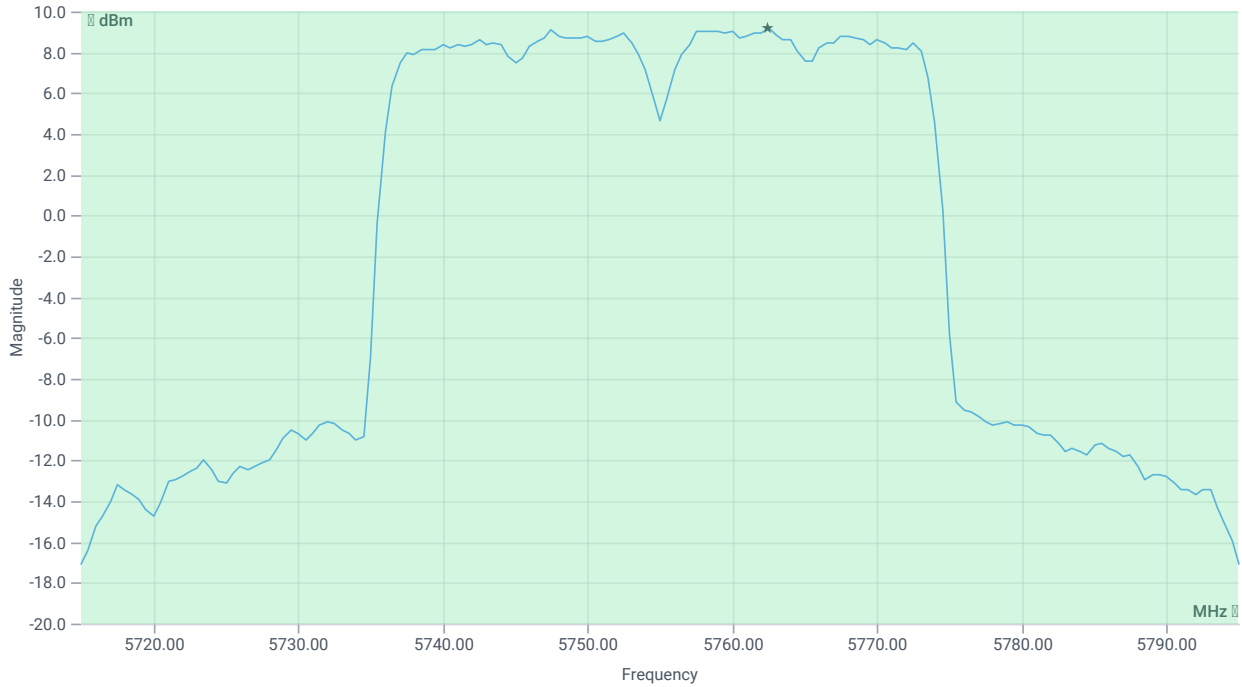
## RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 26dB	---	---	79.92	MHz	INFO
T1 26dB	---	---	5715.0000	MHz	INFO
T2 26dB	---	---	5794.9200	MHz	INFO

## Maximum Output Power

### READ SA SETTINGS:

RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]	31.61   16.77   30
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

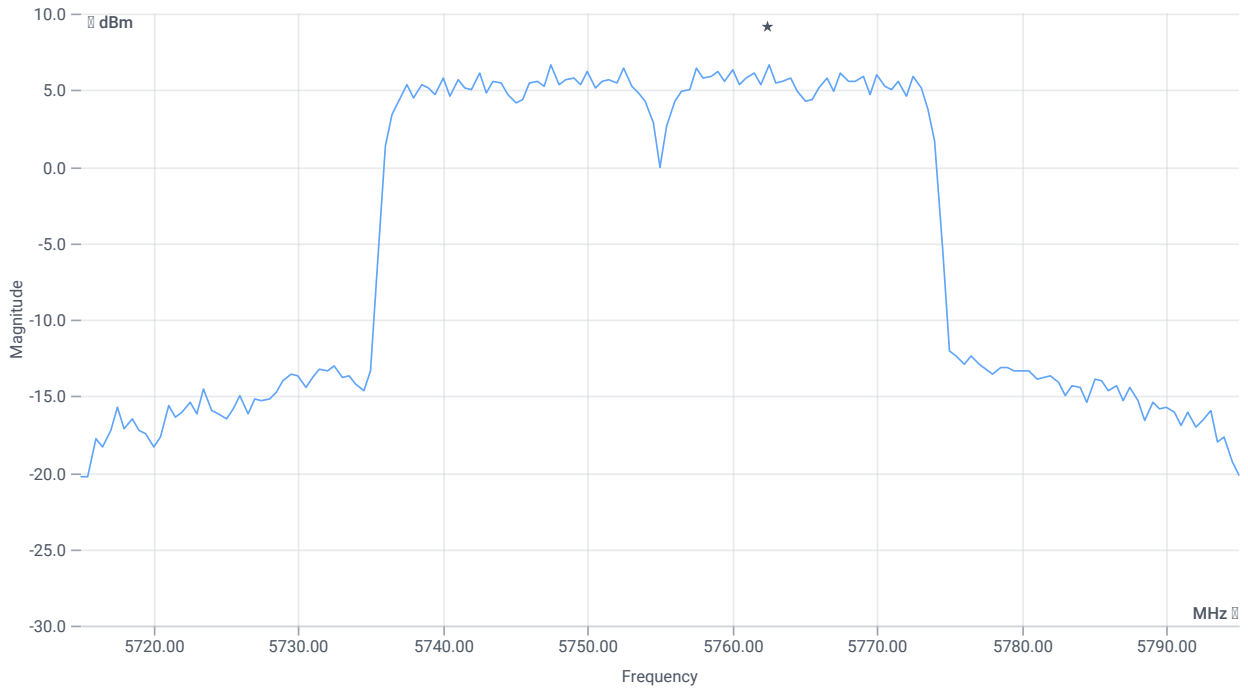
## RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Max Output Power	--	--	23.88	dBm	INFO
Duty Cycle Correction	--	--	0	dB	INFO
Limit absolute					
Max Output Power DC corrected	--	30	23.88	dBm	PASS
Limit: 11 dBm + 10 log 79.92					
Max Output Power DC corrected	--	30.03	23.88	dBm	na

## Power Spectral Density U-NII-3

### READ SA SETTINGS:

RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]	31.61   16.77   30
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



PSD UNII-3

## RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Power Spectral Density	--	--	6.68	dBm/0.5MHz	INFO
Duty Cycle Correction	--	--	0	dB	INFO
Power Spectral Density DC corrected	--	30	6.68	dBm/0.5MHz	PASS

Verdict

PASS



# FCC 15.407, ISED RSS247 # Bandwidths 99PCT and 20dB ~ WLAN5Gx ax-HE40 U-NII-3

## References

TC start	02.08.2023 11:18:11
Ambit temp [°C]   humidity [rel%]	25.7   50
System version	4.6.0.3
Standard   Version	FCC 15.407, ISED RSS247   NI
Method	26dB Bandwidth KDB789033 D02, C.1 / ISED RSS-GEN
Description	FCC 15.407 Bandwidths - WLAN5Gx ax-HE40 U-NII-3
Information	PS96

## EUT Common Settings WLAN5Gx

Number of Antenna Ports	1
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]	1.3
Switched path	EUT - SignalingUnit - SpectrumAnalyzer

## Equipment

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

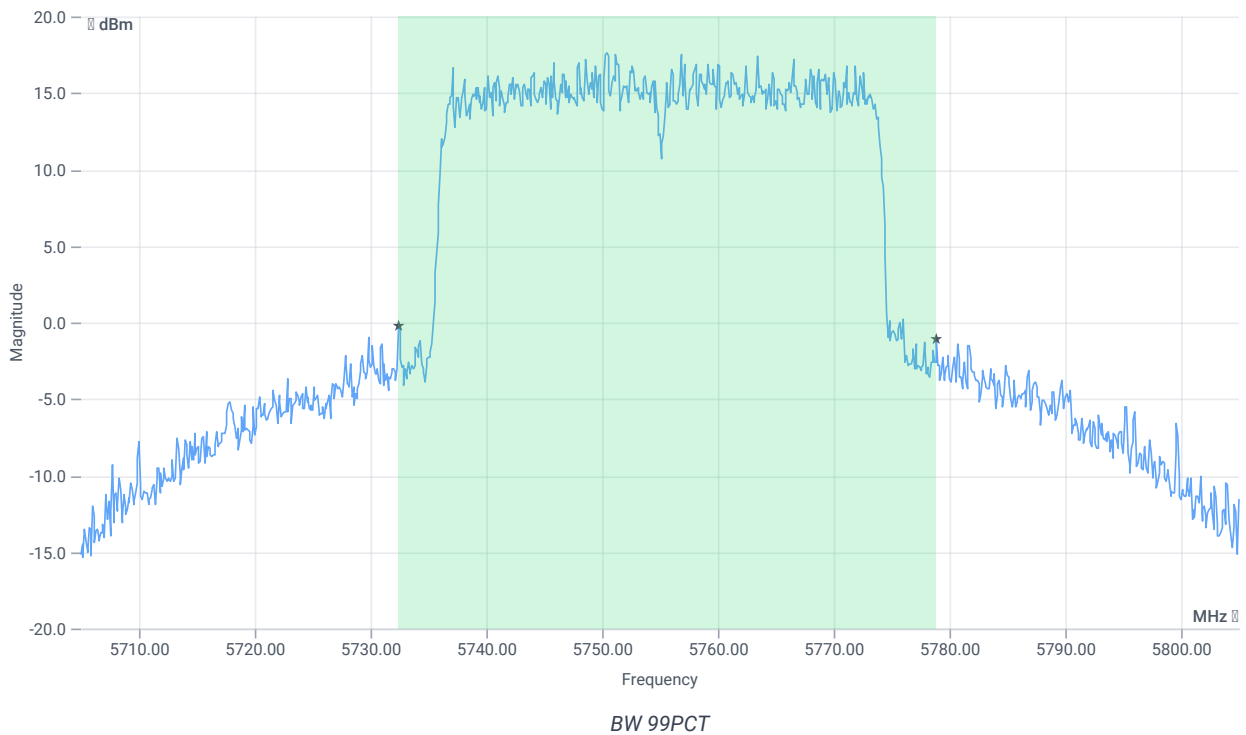
## Test at TX 5755 MHz

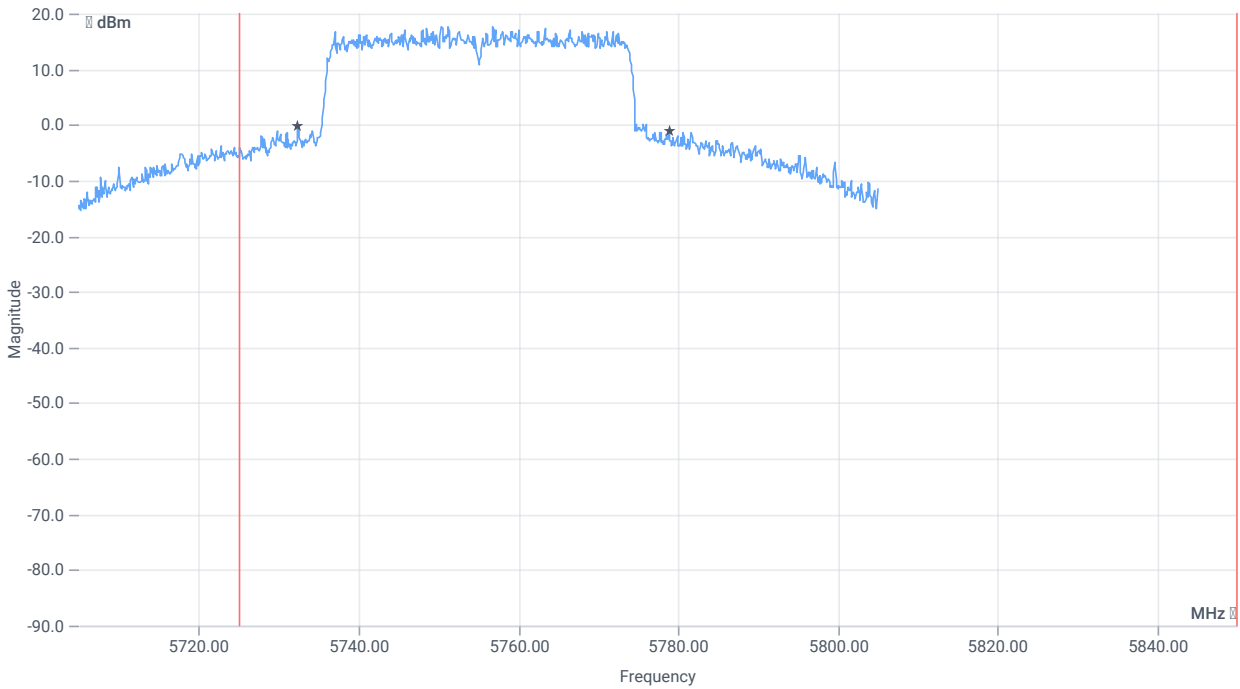
RESULT: Reference Power cond.

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	--	--	18.66	dBm	INFO
Ref. Frequency	--	--	5750.800	MHz	INFO

### READ SA SETTINGS:

RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]	26.66   16.77   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

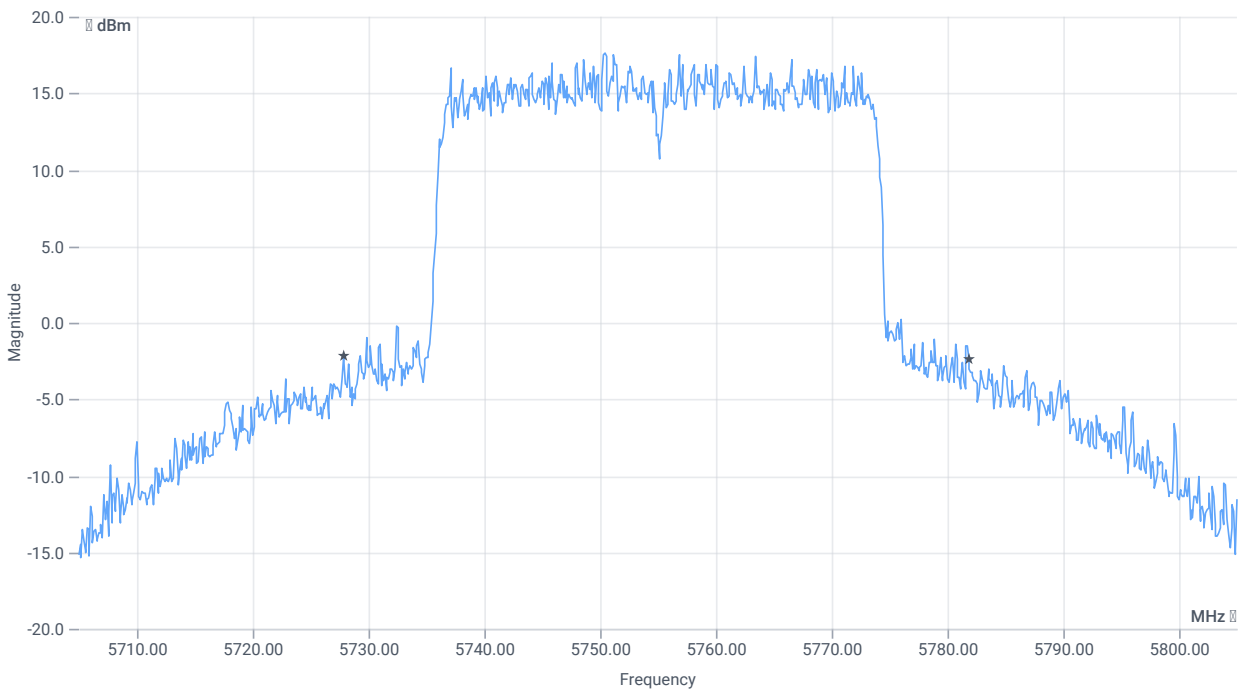




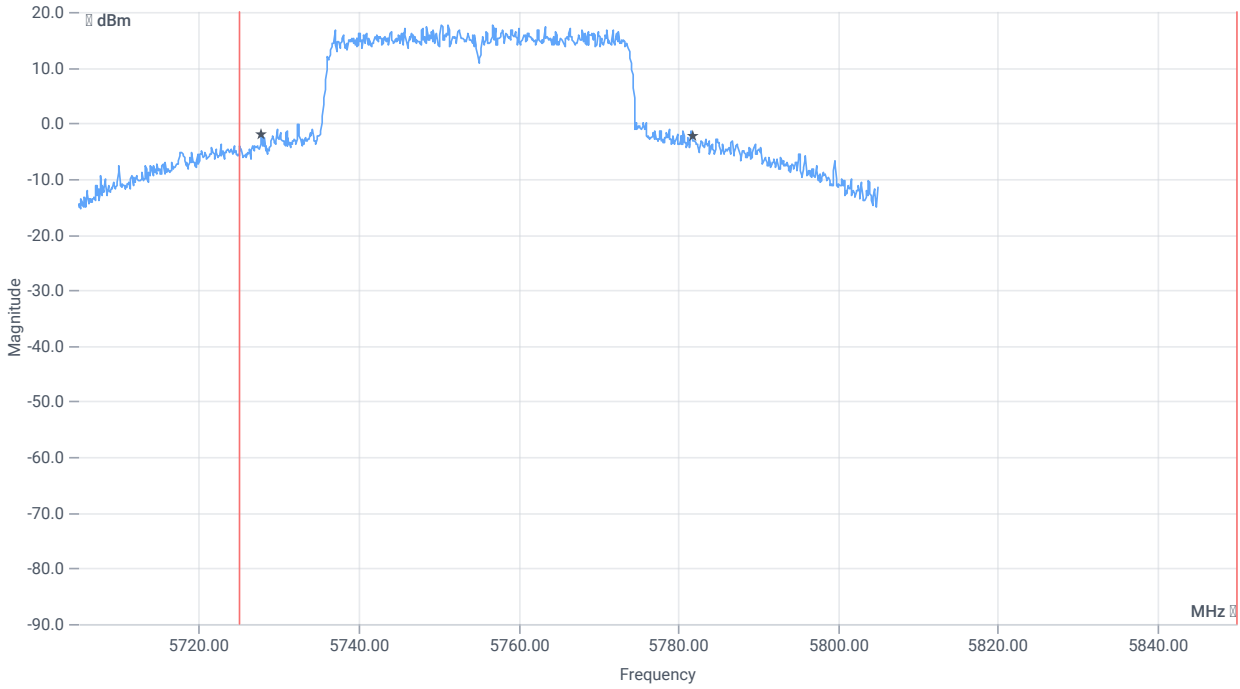
BW within Band 99PCT

### RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 99%	--	--	46.454	MHz	INFO
T1 99%	5725.000000	--	5732.4226	MHz	PASS
T2 99%	--	5850.000000	5778.8761	MHz	PASS



BW 20dB



BW within Band 20dB

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 20dB	---	---	54	MHz	INFO
T1 20dB	5725.000000	---	5727.8000	MHz	PASS
T2 20dB	---	5850.000000	5781.8000	MHz	PASS

Verdict

PASS

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

### References

TC start	02.08.2023 11:18:42
Ambit temp [°C]   humidity [rel%]	25.7   50
System version	4.6.0.3
Standard   Version	FCC 15.407, ISED RSS247   NI
Method	KDB789033 D02, C.2.
Description	FCC 15.407 Min Emission Bandwidth - WLAN5Gx ax-HE40 U-NII-3
Information	PS96

### EUT Common Settings WLAN5Gx

Number of Antenna Ports	1
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]	1.3
Switched path	EUT - SignalingUnit - SpectrumAnalyzer

### Equipment

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

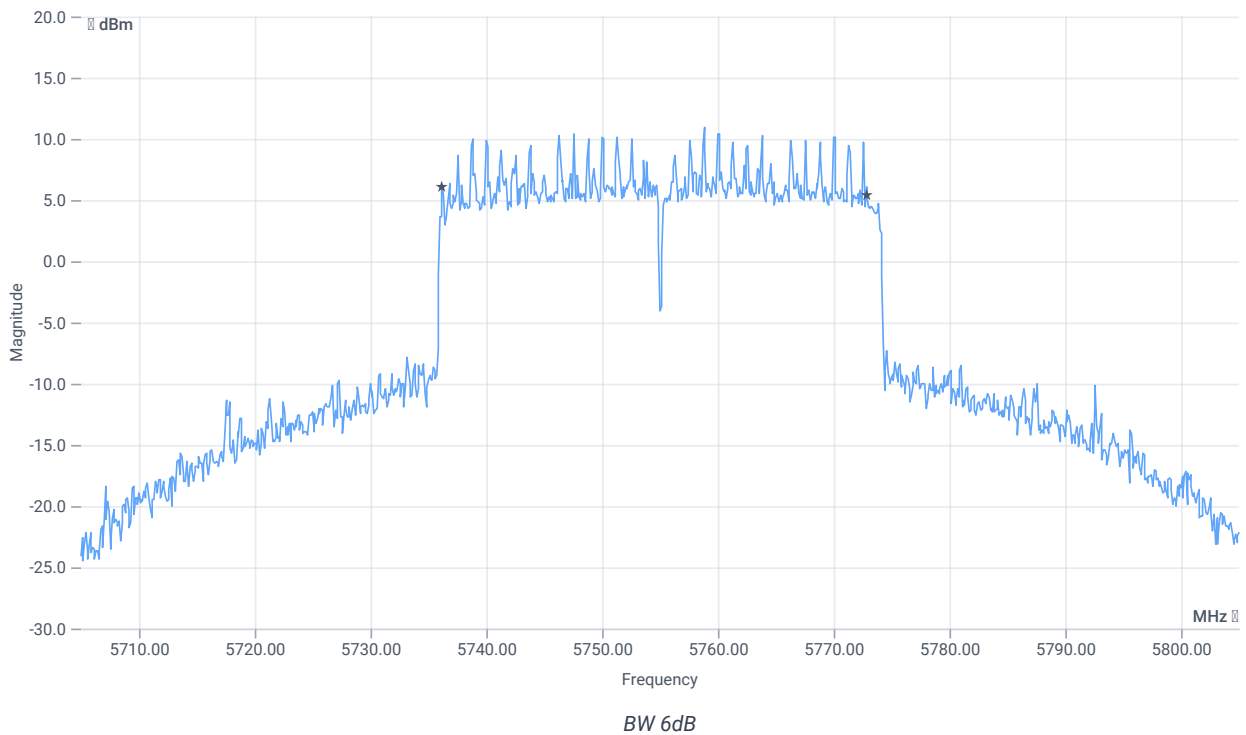
## Test at TX 5755 MHz

RESULT: Reference Power cond.

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	--	--	18.53	dBm	INFO
Ref. Frequency	--	--	5764.390	MHz	INFO

### READ SA SETTINGS:

RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]	30.53   16.77   30
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

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth (6dB)	0.500	--	36.7	MHz	PASS

Verdict

PASS

## FCC 15.407 # Max output power and psd ~ WLAN5Gx ax-HE40 U-NII-3

### References

TC start	02.08.2023 11:19:09
Ambit temp [°C]   humidity [rel%]	25.7   50
System version	4.6.0.3
Standard   Version	FCC 15.407   NI
Method	KDB789033 D02, F, E.2.e.
Description	FCC 15.407 Max Output Power & PSD - WLAN5Gx ax-HE40 U-NII-3
Information	PS96

### EUT Common Settings WLAN5Gx

Number of Antenna Ports	1
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]	1.3
Switched path	EUT - SignalingUnit - SpectrumAnalyzer

### 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

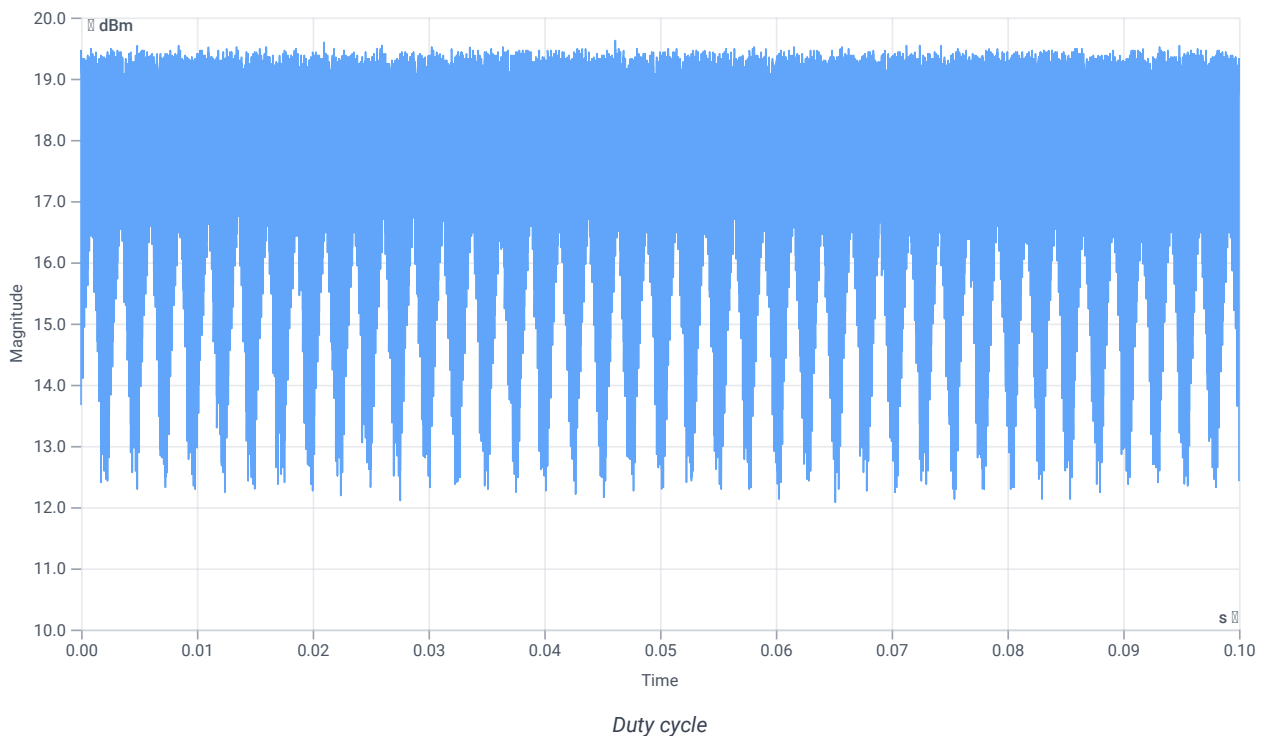
RESULT: Reference Power cond.

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	--	--	18.59	dBm	INFO
Ref. Frequency	--	--	5757.200	MHz	INFO

## Evaluation max. Duty Cycle

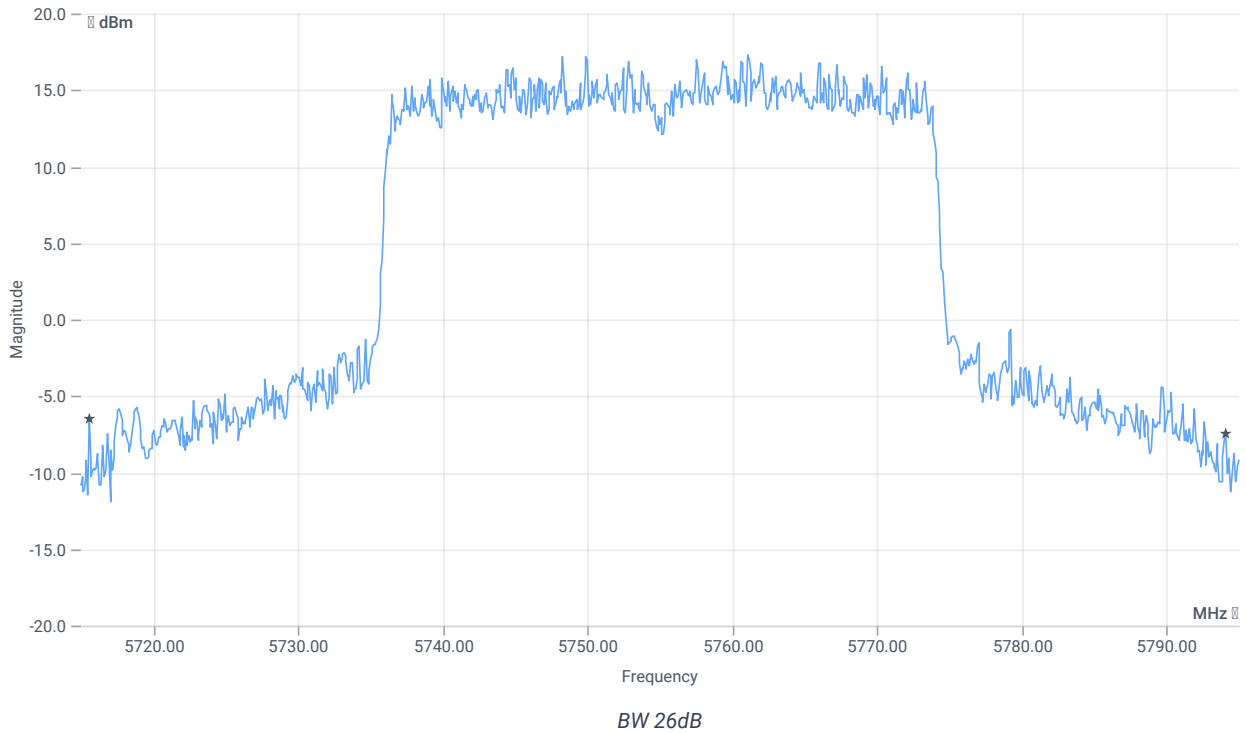
### Duty Cycle evaluation

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





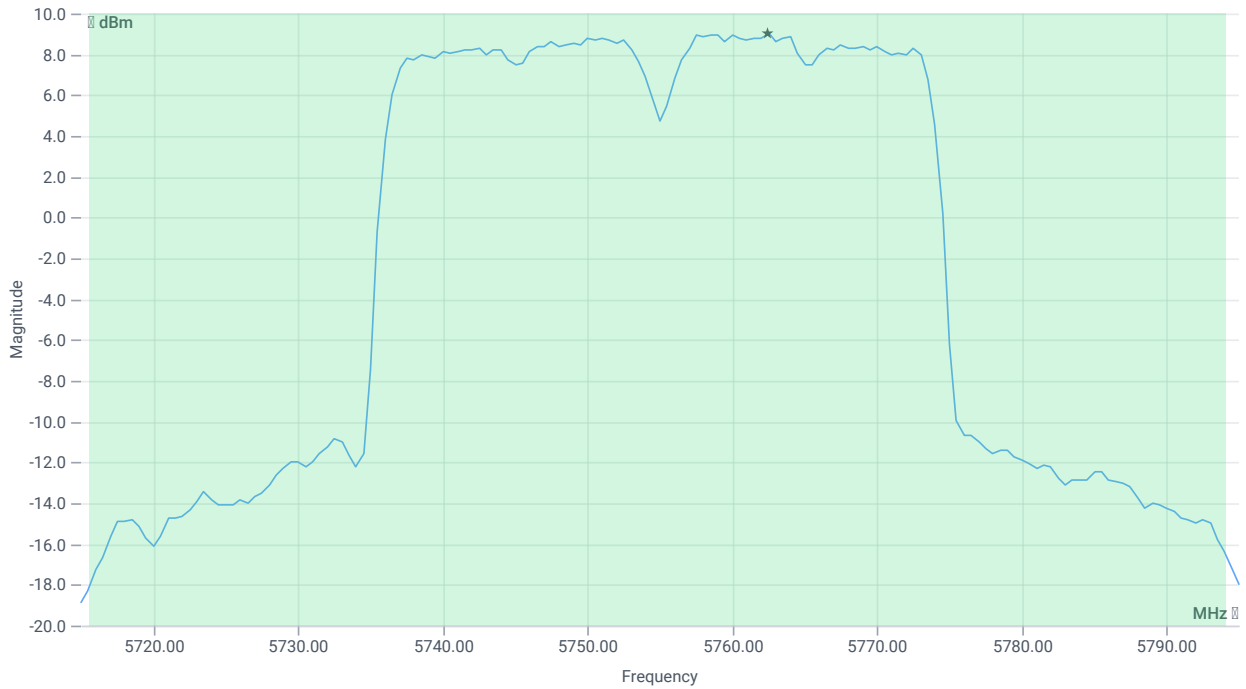
## RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 26dB	---	---	78.56	MHz	INFO
T1 26dB	---	---	5715.5600	MHz	INFO
T2 26dB	---	---	5794.1200	MHz	INFO

## Maximum Output Power

### READ SA SETTINGS:

RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]	30.59   16.77   30
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

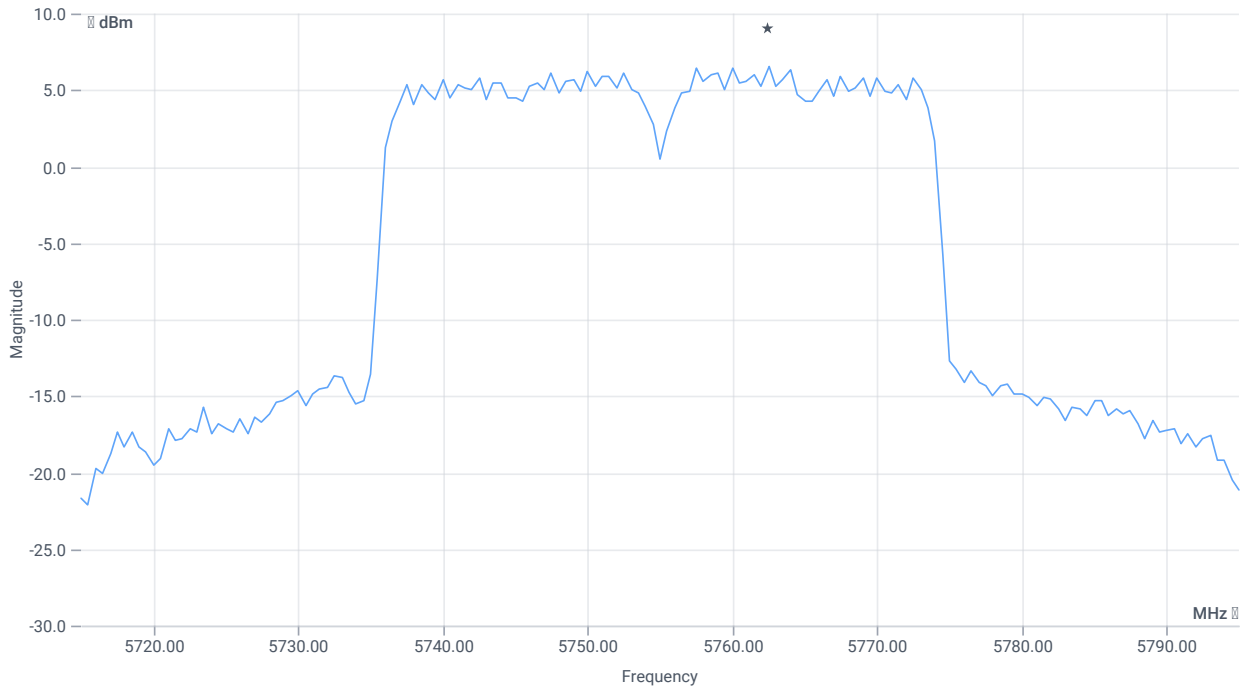
## RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Max Output Power	--	--	23.69	dBm	INFO
Duty Cycle Correction	--	--	0	dB	INFO
Limit absolute					
Max Output Power DC corrected	--	30	23.69	dBm	PASS
Limit: 11 dBm + 10 log 78.56					
Max Output Power DC corrected	--	29.95	23.69	dBm	na

## Power Spectral Density U-NII-3

### READ SA SETTINGS:

RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]	30.59   16.77   30
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



PSD UNII-3

## RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Power Spectral Density	--	--	6.52	dBm/0.5MHz	INFO
Duty Cycle Correction	--	--	0	dB	INFO
Power Spectral Density DC corrected	--	30	6.52	dBm/0.5MHz	PASS

Verdict

PASS

# FCC 15.407, ISED RSS247 # Bandwidths 99PCT and 20dB ~ WLAN5Gx ax-HE40 U-NII-3

## References

TC start	02.08.2023 11:21:35
Ambit temp [°C]   humidity [rel%]	25.7   50
System version	4.6.0.3
Standard   Version	FCC 15.407, ISED RSS247   NI
Method	26dB Bandwidth KDB789033 D02, C.1 / ISED RSS-GEN
Description	FCC 15.407 Bandwidths - WLAN5Gx ax-HE40 U-NII-3
Information	PS96

## EUT Common Settings WLAN5Gx

Number of Antenna Ports	1
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]	1.3
Switched path	EUT - SignalingUnit - SpectrumAnalyzer

## Equipment

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

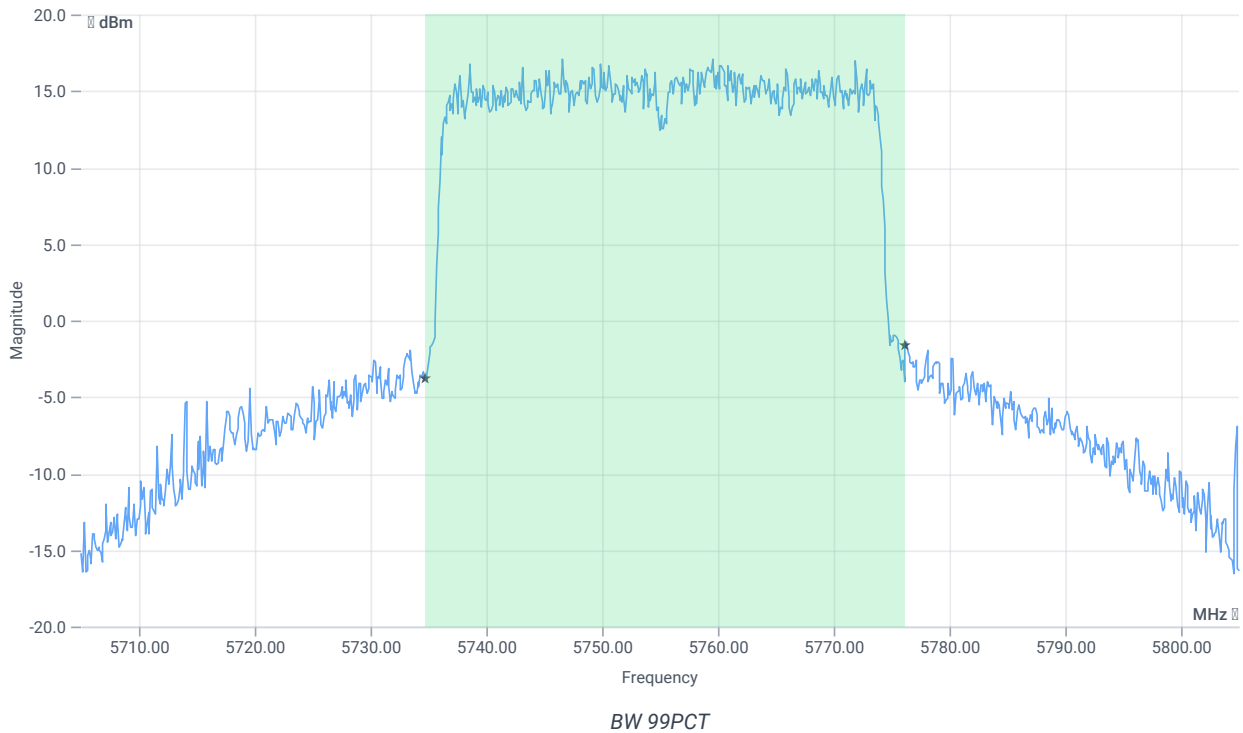
## Test at TX 5755 MHz

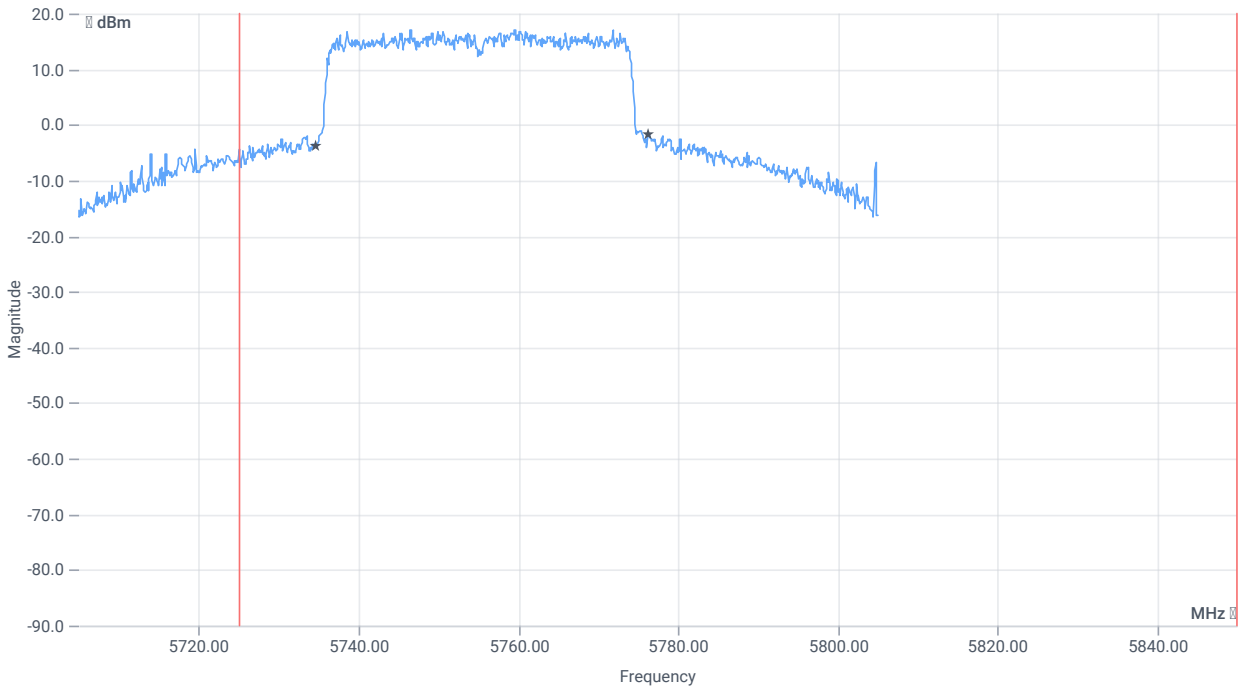
RESULT: Reference Power cond.

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	--	--	18.08	dBm	INFO
Ref. Frequency	--	--	5751.200	MHz	INFO

### READ SA SETTINGS:

RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]	26.08   16.77   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

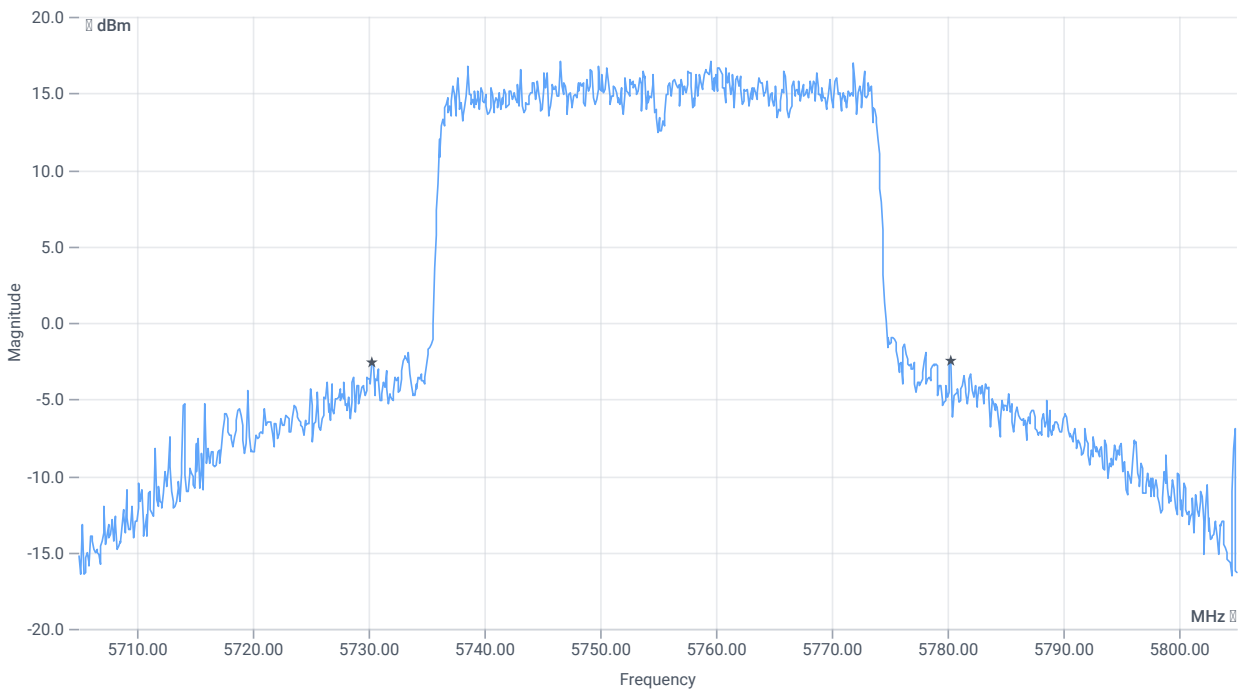




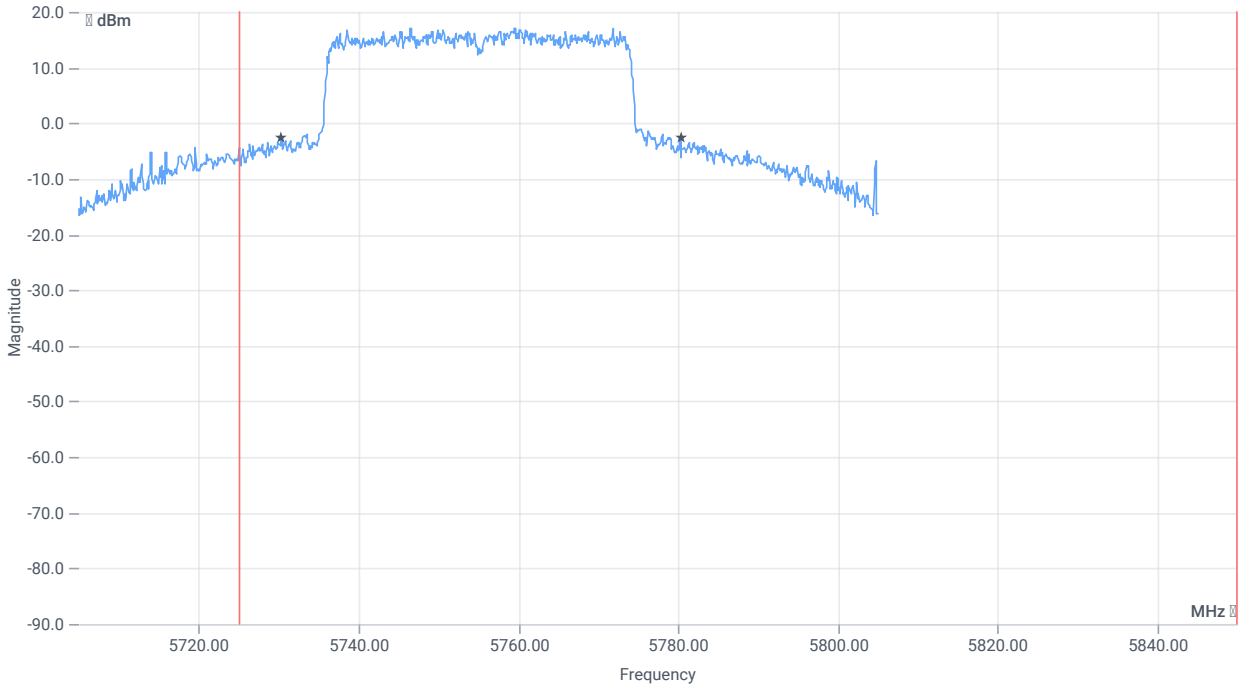
*BW within Band 99PCT*

## RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 99%	--	--	41.459	MHz	INFO
T1 99%	5725.000000	--	5734.7203	MHz	PASS
T2 99%	--	5850.000000	5776.1788	MHz	PASS



BW 20dB



BW within Band 20dB

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 20dB	---	---	50	MHz	INFO
T1 20dB	5725.000000	---	5730.3000	MHz	PASS
T2 20dB	---	5850.000000	5780.3000	MHz	PASS

Verdict

PASS

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

### References

TC start	02.08.2023 11:22:07
Ambit temp [°C]   humidity [rel%]	25.7   50
System version	4.6.0.3
Standard   Version	FCC 15.407, ISED RSS247   NI
Method	KDB789033 D02, C.2.
Description	FCC 15.407 Min Emission Bandwidth - WLAN5Gx ax-HE40 U-NII-3
Information	PS96

### EUT Common Settings WLAN5Gx

Number of Antenna Ports	1
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]	1.3
Switched path	EUT - SignalingUnit - SpectrumAnalyzer

### Equipment

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



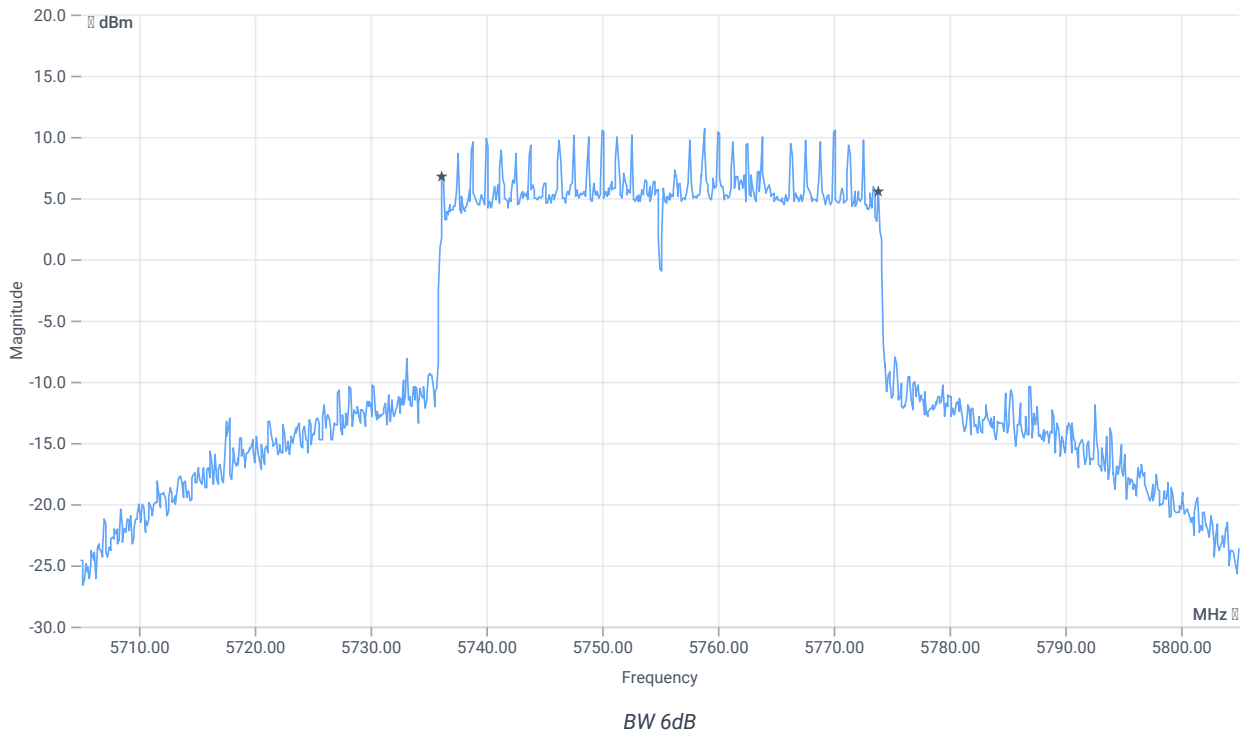
## Test at TX 5755 MHz

RESULT: Reference Power cond.

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	--	--	18.05	dBm	INFO
Ref. Frequency	--	--	5749.410	MHz	INFO

### READ SA SETTINGS:

RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]	30.05   16.77   30
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

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth (6dB)	0.500	--	37.7	MHz	PASS

Verdict

PASS

## FCC 15.407 # MIMO $\Sigma$ Max output power and psd ~ WLAN5Gx ax-HE40 U-NII-3

### References

TC start	02.08.2023 11:22:31
Ambit temp [°C]   humidity [rel%]	25.7   50
System version	4.6.0.3
Standard   Version	FCC 15.407   NI
Method	
Description	MIMO $\Sigma$ FCC Power & psd - WLAN5Gx ax-HE40 U-NII-3
Information	

### EUT Common Settings WLAN5Gx

Number of Antenna Ports	1
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	False   Freq [MHz] 5795
Auto control enabled power supply   Climatic Box	No   No
Additional path loss [dB]	1.3
Switched path	None

### Equipment

## Test at TX 5755 MHz

### RESULT Power

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ant:1 Max Output Power DC corrected	--	--	23.88	dBm	INFO
Ant:1 BW 26dB	--	--	79.920	MHz	INFO
Ant:2 Max Output Power DC corrected	--	--	23.69	dBm	INFO
Ant:2 BW 26dB	--	--	78.560	MHz	INFO
$\Sigma$ Limit absolute	--	30	26.8	dBm	PASS
$\Sigma$ Limit: 11 dBm + 10 log 78.56	--	29.95	26.8	dBm	na

### RESULT PSD

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ant:1 PSD	--	--	6.68	dBm/0.5MHz	INFO
Ant:2 PSD	--	--	6.52	dBm/0.5MHz	INFO
$\Sigma$	--	30	9.61	dBm/0.5MHz	PASS

### Verdict

PASS

## NA # Message with SA scan ~

### References

TC start	02.08.2023 11:28:56
Ambit temp [°C]   humidity [rel%]	25.7   50
System version	4.6.0.3
Standard   Version	NA   NI
Method	
Description	Message with SA Scan ax-HE40 U-NII-3
Information	PS96

### Test Parameter

Switched Path	EUT - SignalingUnit - SpectrumAnalyzer
Message start	02.08.2023 11:28:56
Message	set WLAN5Gx to ax-HE40 U-NII-3, Frequency [MHz] 5795 Information: PS96

### Equipment

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

### Verdict

INFO

## FCC 15.407 # Max output power and psd ~ WLAN5Gx ax-HE40 U-NII-3

### References

TC start	02.08.2023 11:29:18
Ambit temp [°C]   humidity [rel%]	25.7   50
System version	4.6.0.3
Standard   Version	FCC 15.407   NI
Method	KDB789033 D02, F, E.2.e.
Description	FCC 15.407 Max Output Power & PSD - WLAN5Gx ax-HE40 U-NII-3
Information	PS96

### EUT Common Settings WLAN5Gx

Number of Antenna Ports	1
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]	1.3
Switched path	EUT - SignalingUnit - SpectrumAnalyzer

### 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

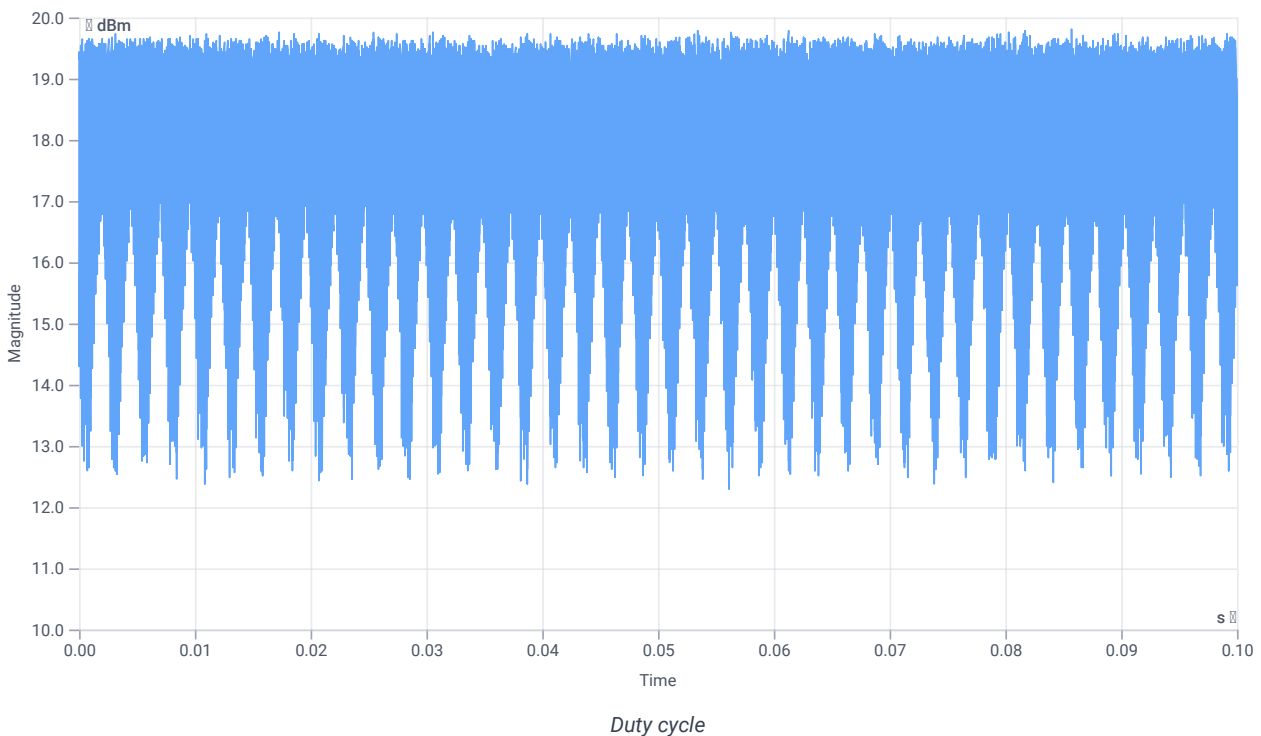
RESULT: Reference Power cond.

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	--	--	18.15	dBm	INFO
Ref. Frequency	--	--	5789.410	MHz	INFO

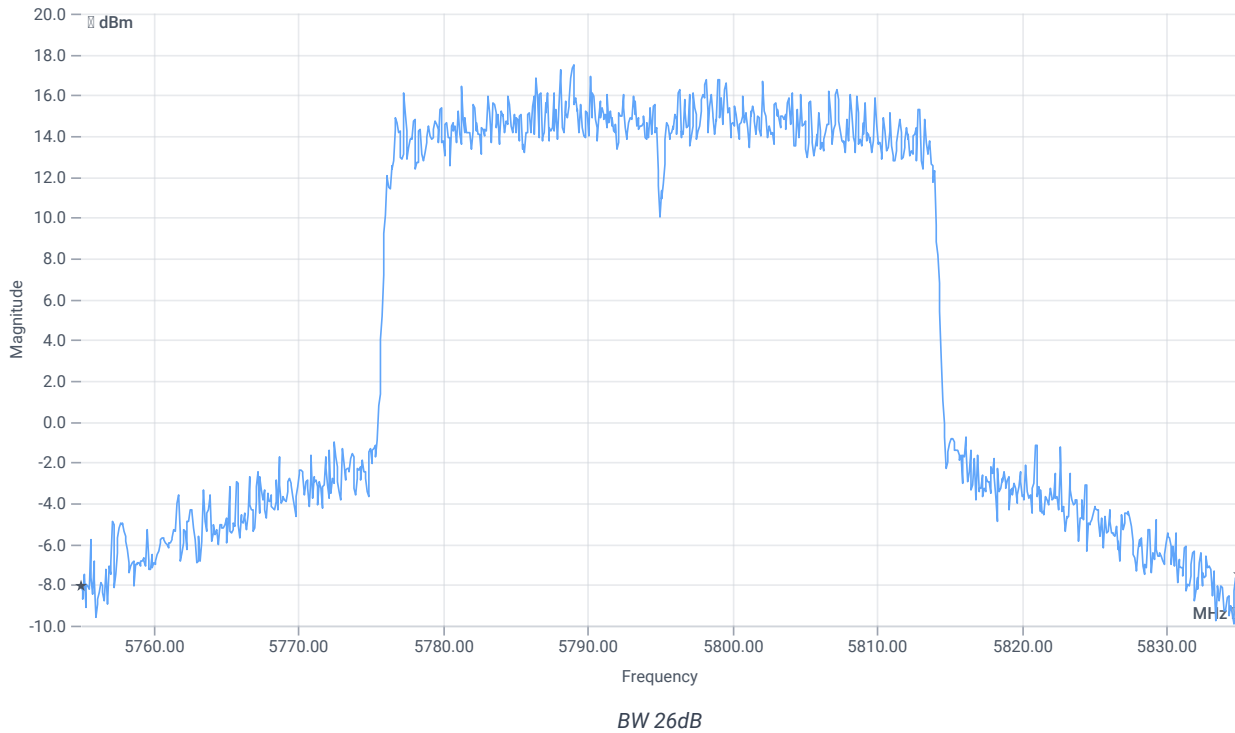
## Evaluation max. Duty Cycle

### Duty Cycle evaluation

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



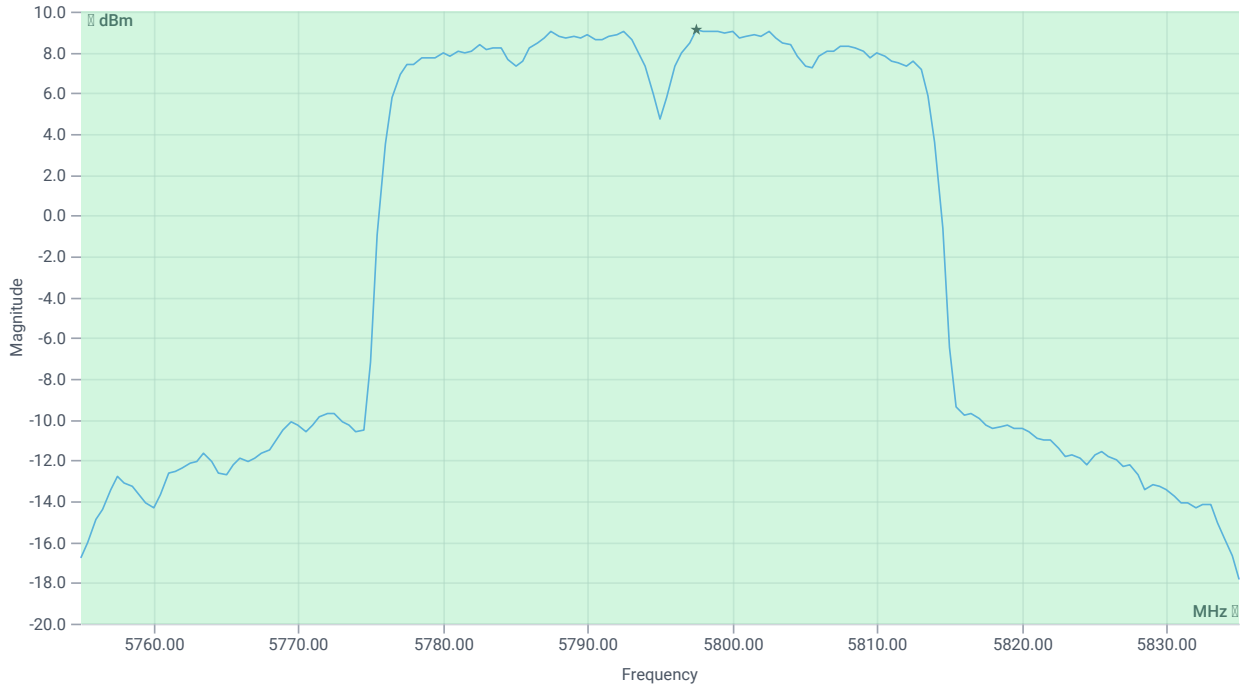
## RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 26dB	---	---	80	MHz	INFO
T1 26dB	---	---	5755.0000	MHz	INFO
T2 26dB	---	---	5835.0000	MHz	INFO

## Maximum Output Power

### READ SA SETTINGS:

RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]	30.15   16.67   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

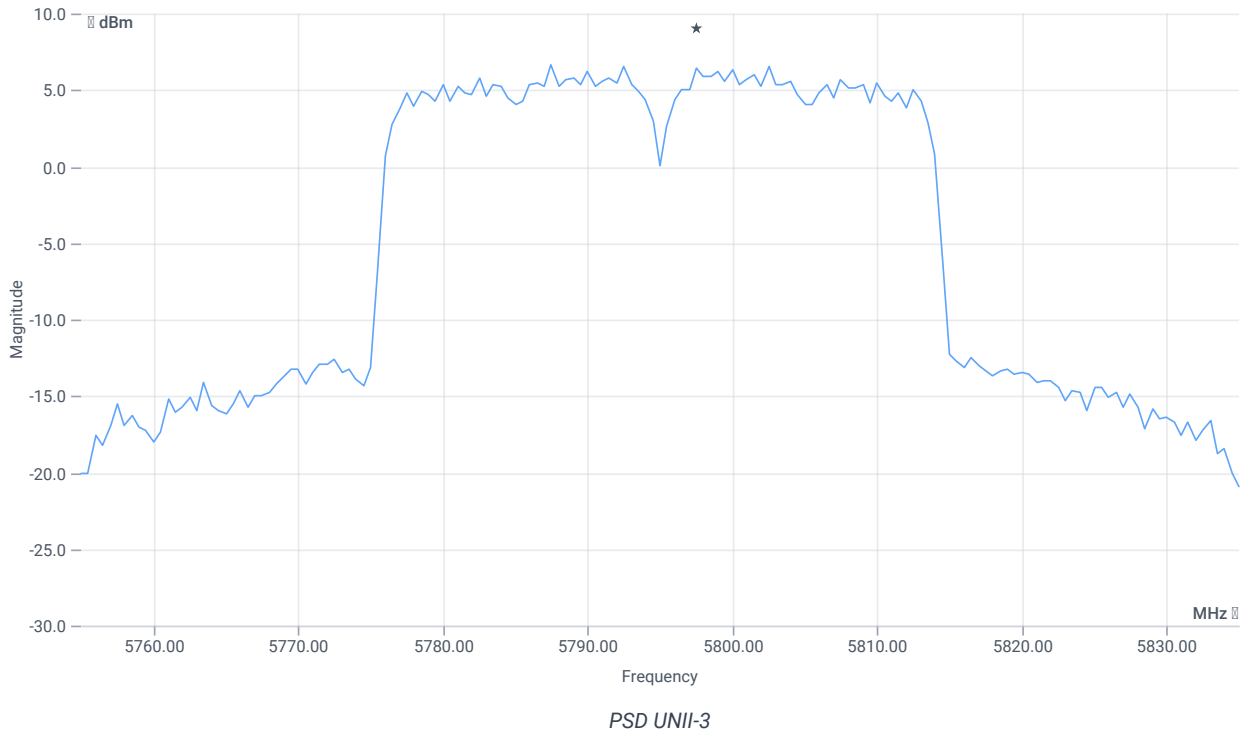
DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Max Output Power	--	--	23.67	dBm	INFO
Duty Cycle Correction	--	--	0	dB	INFO
Limit absolute					
Max Output Power DC corrected	--	30	23.67	dBm	PASS
Limit: 11 dBm + 10 log 80					
Max Output Power DC corrected	--	30.03	23.67	dBm	na

## Power Spectral Density U-NII-3

### READ SA SETTINGS:

RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]	30.15   16.67   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

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Power Spectral Density	--	--	6.61	dBm/0.5MHz	INFO
Duty Cycle Correction	--	--	0	dB	INFO
Power Spectral Density DC corrected	--	30	6.61	dBm/0.5MHz	PASS

Verdict

PASS

## FCC 15.407, ISED RSS247 # Bandwidths 99PCT and 20dB ~ WLAN5Gx ax-HE40 U-NII-3

### References

TC start	02.08.2023 11:31:44
Ambit temp [°C]   humidity [rel%]	25.8   50
System version	4.6.0.3
Standard   Version	FCC 15.407, ISED RSS247   NI
Method	26dB Bandwidth KDB789033 D02, C.1 / ISED RSS-GEN
Description	FCC 15.407 Bandwidths - WLAN5Gx ax-HE40 U-NII-3
Information	PS96

### EUT Common Settings WLAN5Gx

Number of Antenna Ports	1
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]	1.3
Switched path	EUT - SignalingUnit - SpectrumAnalyzer

### Equipment

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

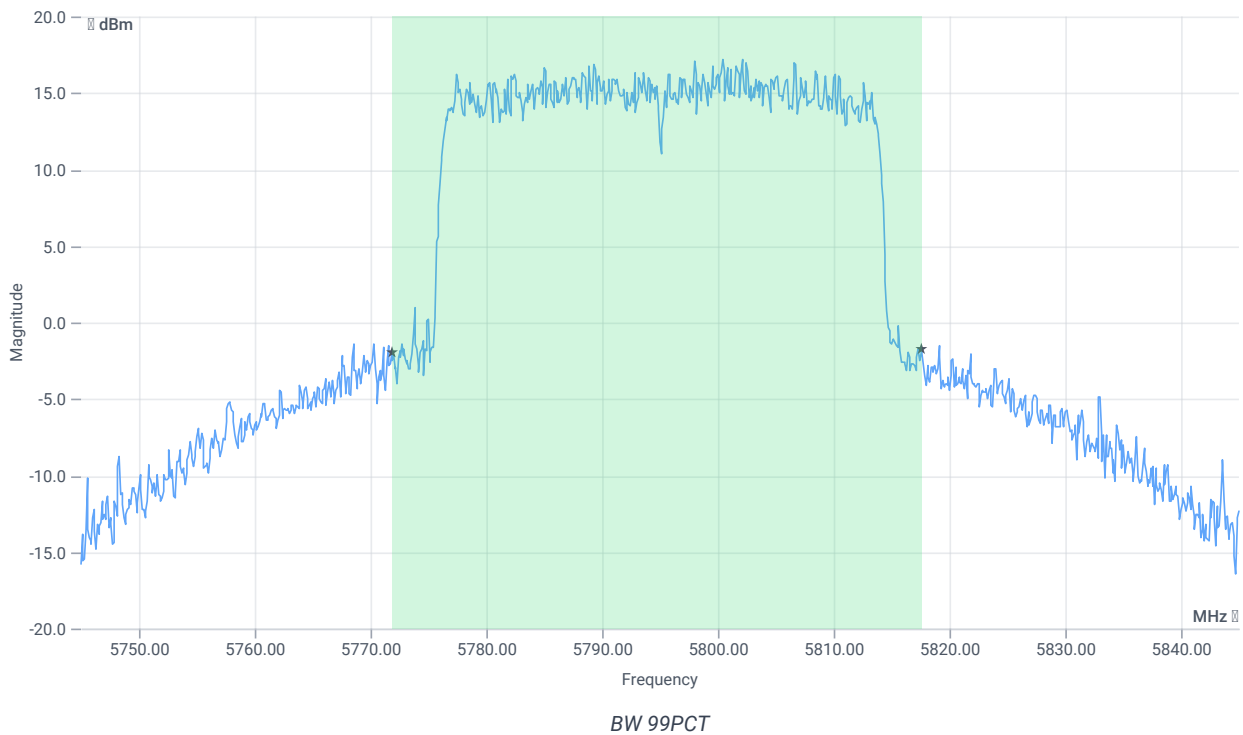
## Test at TX 5795 MHz

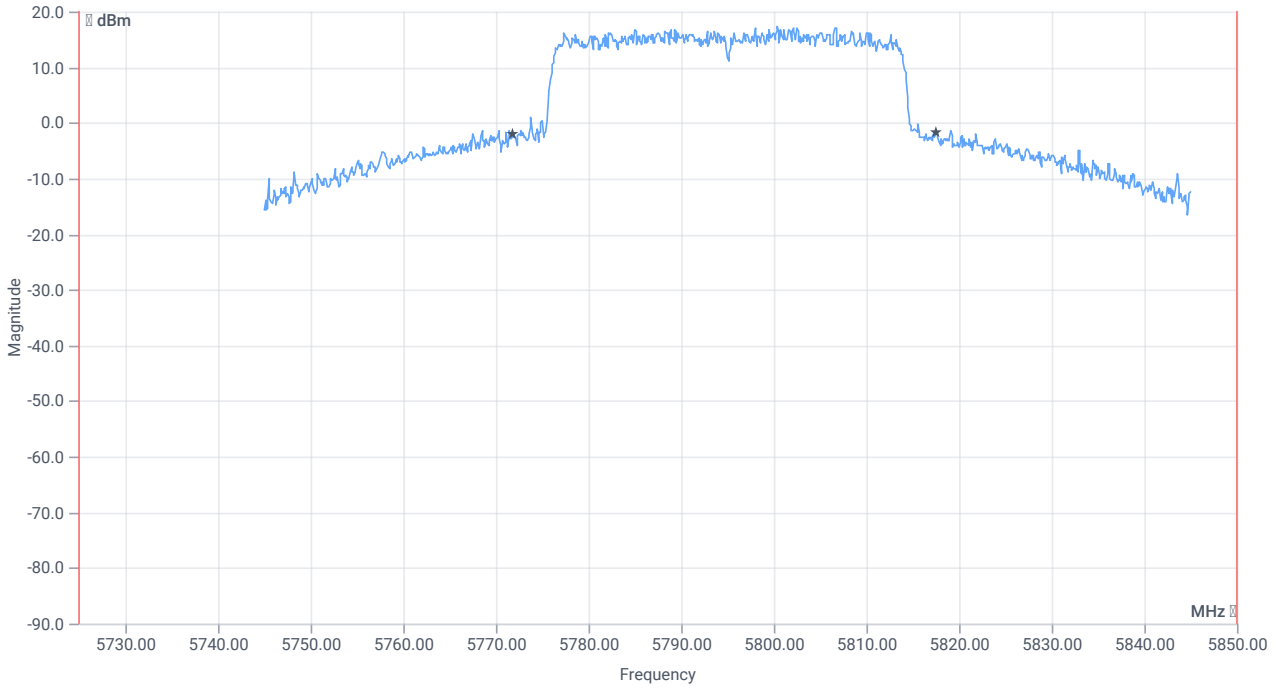
RESULT: Reference Power cond.

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	--	--	20.17	dBm	INFO
Ref. Frequency	--	--	5792.000	MHz	INFO

### READ SA SETTINGS:

RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]	28.17   16.67   30
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

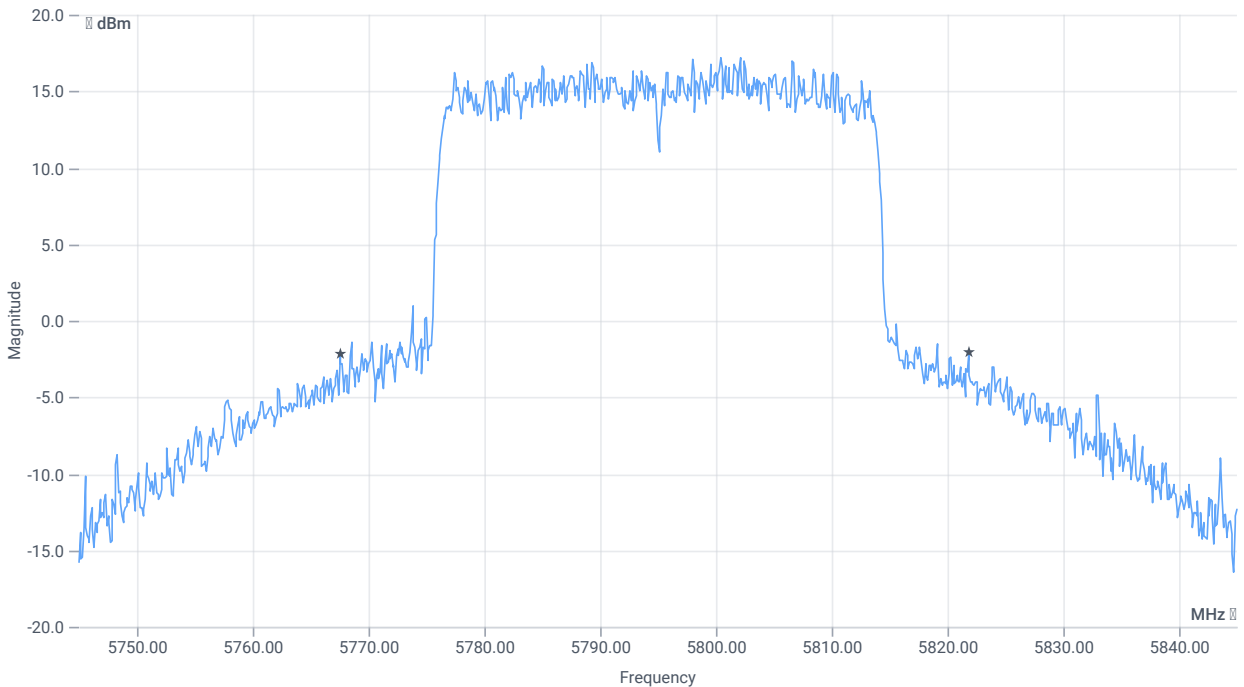




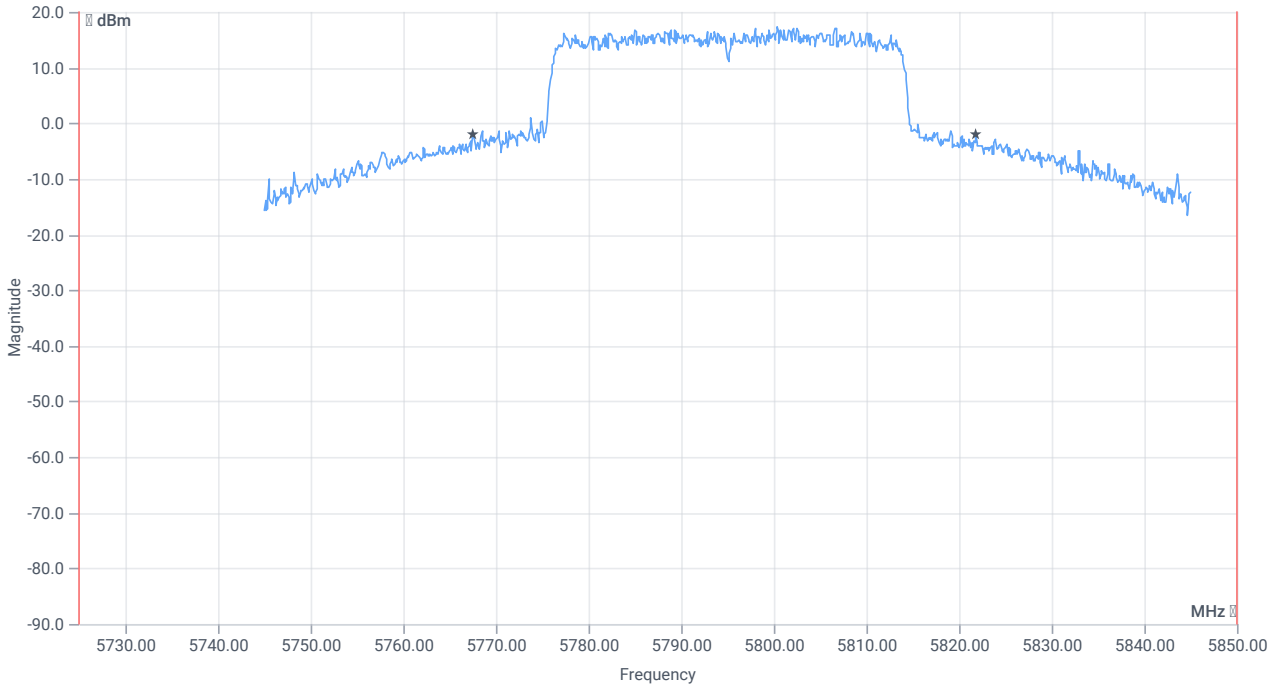
*BW within Band 99PCT*

## RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 99%	--	--	45.754	MHz	INFO
T1 99%	5725.000000	--	5771.8232	MHz	PASS
T2 99%	--	5850.000000	5817.5774	MHz	PASS



BW 20dB



BW within Band 20dB

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 20dB	--	--	54.3	MHz	INFO
T1 20dB	5725.000000	--	5767.5000	MHz	PASS
T2 20dB	--	5850.000000	5821.8000	MHz	PASS

Verdict

PASS

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

### References

TC start	02.08.2023 11:32:16
Ambit temp [°C]   humidity [rel%]	25.7   50
System version	4.6.0.3
Standard   Version	FCC 15.407, ISED RSS247   NI
Method	KDB789033 D02, C.2.
Description	FCC 15.407 Min Emission Bandwidth - WLAN5Gx ax-HE40 U-NII-3
Information	PS96

### EUT Common Settings WLAN5Gx

Number of Antenna Ports	1
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]	1.3
Switched path	EUT - SignalingUnit - SpectrumAnalyzer

### Equipment

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

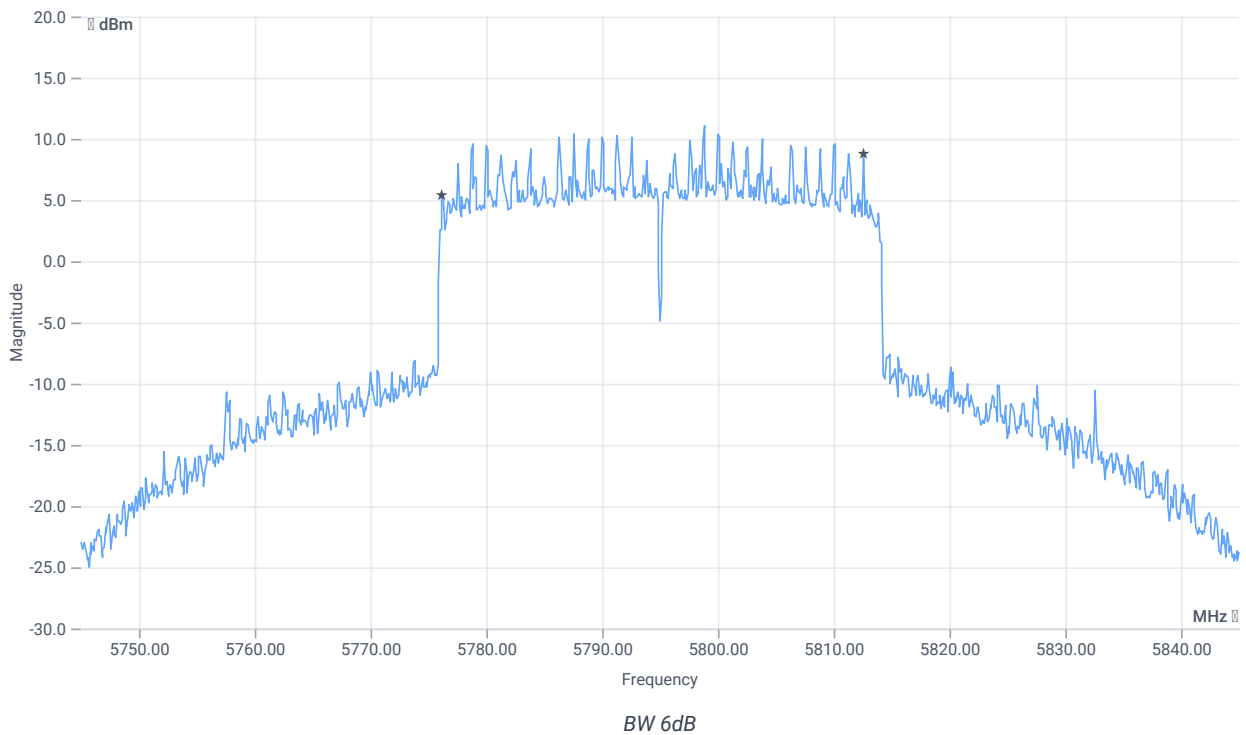
## Test at TX 5795 MHz

RESULT: Reference Power cond.

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	--	--	19.19	dBm	INFO
Ref. Frequency	--	--	5787.810	MHz	INFO

### READ SA SETTINGS:

RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]	31.19   16.67   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

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth (6dB)	0.500	--	36.4	MHz	PASS

Verdict

PASS

## FCC 15.407 # Max output power and psd ~ WLAN5Gx ax-HE40 U-NII-3

### References

TC start	02.08.2023 11:32:40
Ambit temp [°C]   humidity [rel%]	25.7   50
System version	4.6.0.3
Standard   Version	FCC 15.407   NI
Method	KDB789033 D02, F, E.2.e.
Description	FCC 15.407 Max Output Power & PSD - WLAN5Gx ax-HE40 U-NII-3
Information	PS96

### EUT Common Settings WLAN5Gx

Number of Antenna Ports	1
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]	1.3
Switched path	EUT - SignalingUnit - SpectrumAnalyzer

### 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

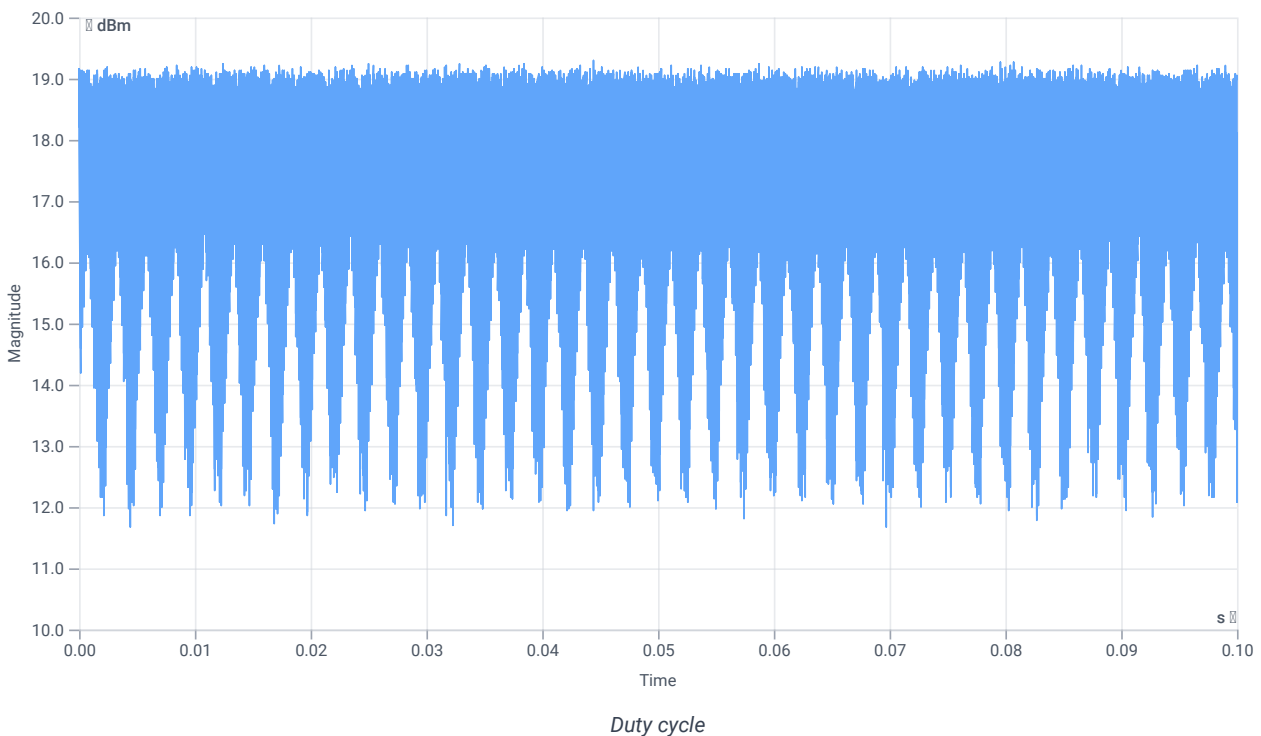
RESULT: Reference Power cond.

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	--	--	19.00	dBm	INFO
Ref. Frequency	--	--	5803.590	MHz	INFO

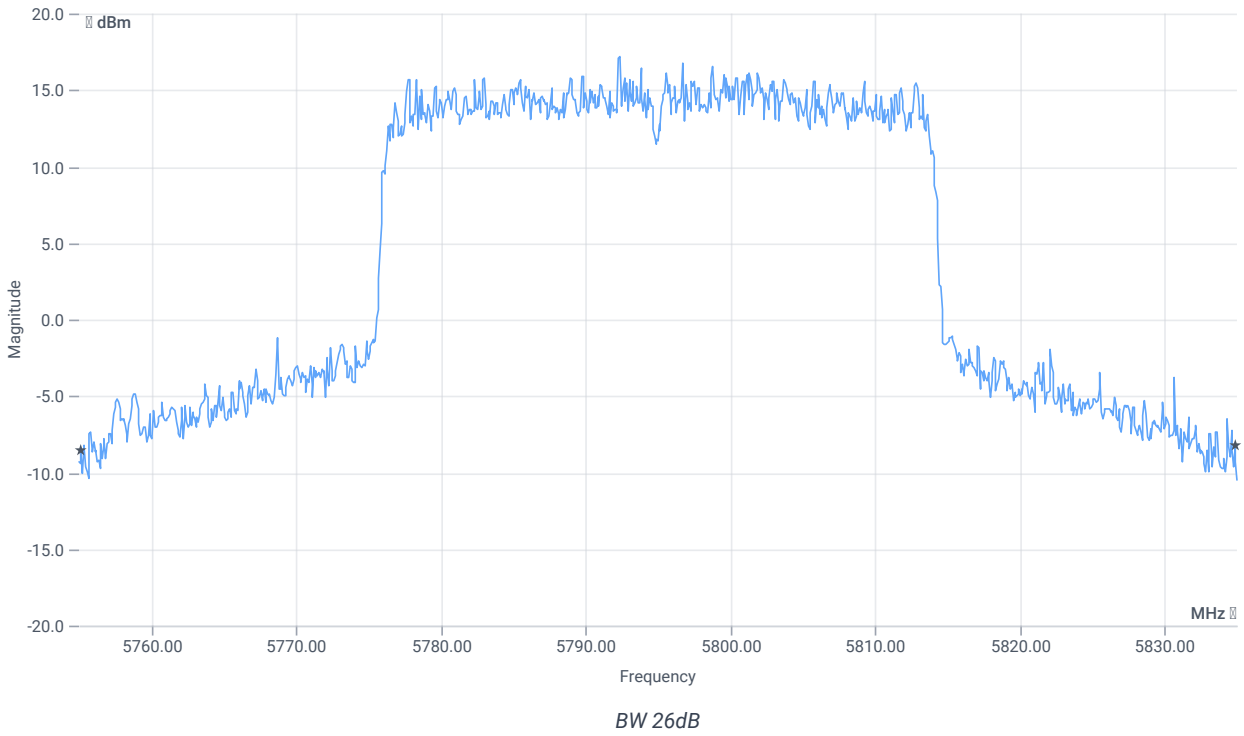
## Evaluation max. Duty Cycle

### Duty Cycle evaluation

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



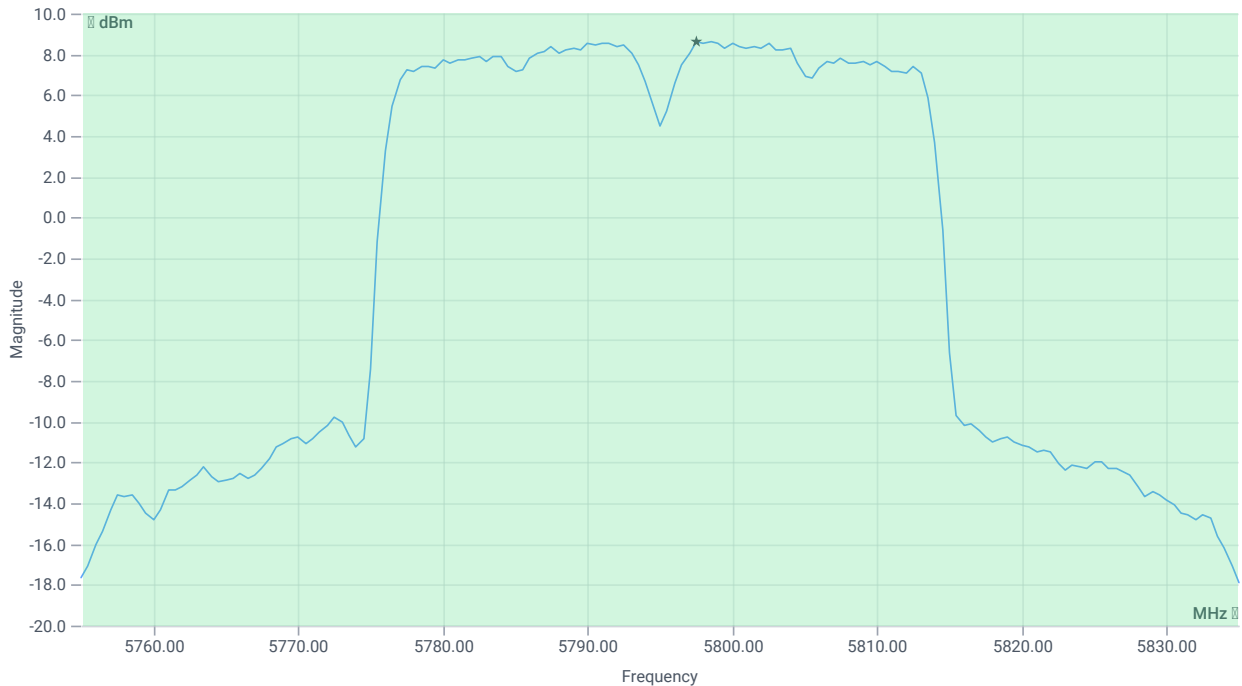
## RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 26dB	---	---	79.68	MHz	INFO
T1 26dB	---	---	5755.1600	MHz	INFO
T2 26dB	---	---	5834.8400	MHz	INFO

## Maximum Output Power

### READ SA SETTINGS:

RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]	31.00   16.67   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

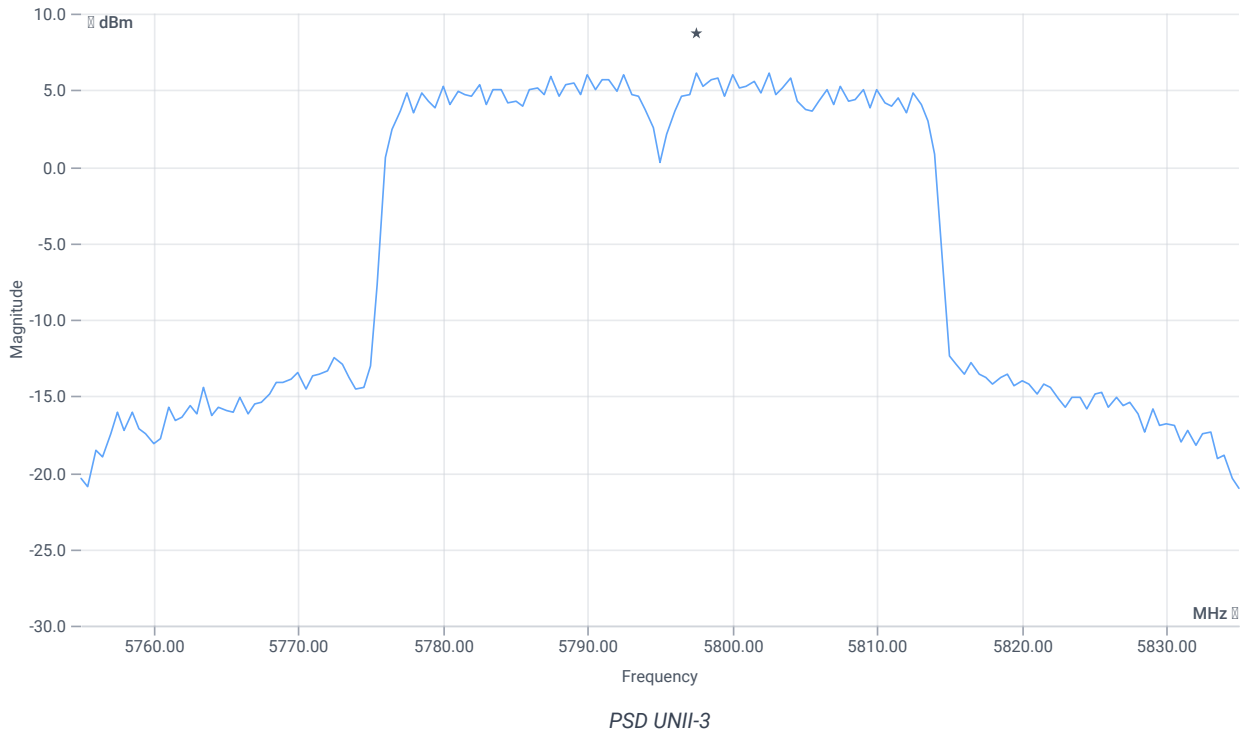
## RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Max Output Power	--	--	23.26	dBm	INFO
Duty Cycle Correction	--	--	0	dB	INFO
Limit absolute					
Max Output Power DC corrected	--	30	23.26	dBm	PASS
Limit: 11 dBm + 10 log 79.68					
Max Output Power DC corrected	--	30.01	23.26	dBm	na

## Power Spectral Density U-NII-3

### READ SA SETTINGS:

RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]	31.00   16.67   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

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Power Spectral Density	--	--	6.15	dBm/0.5MHz	INFO
Duty Cycle Correction	--	--	0	dB	INFO
Power Spectral Density DC corrected	--	30	6.15	dBm/0.5MHz	PASS

Verdict

PASS

## FCC 15.407, ISED RSS247 # Bandwidths 99PCT and 20dB ~ WLAN5Gx ax-HE40 U-NII-3

### References

TC start	02.08.2023 11:35:07
Ambit temp [°C]   humidity [rel%]	25.8   50
System version	4.6.0.3
Standard   Version	FCC 15.407, ISED RSS247   NI
Method	26dB Bandwidth KDB789033 D02, C.1 / ISED RSS-GEN
Description	FCC 15.407 Bandwidths - WLAN5Gx ax-HE40 U-NII-3
Information	PS96

### EUT Common Settings WLAN5Gx

Number of Antenna Ports	1
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]	1.3
Switched path	EUT - SignalingUnit - SpectrumAnalyzer

### Equipment

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

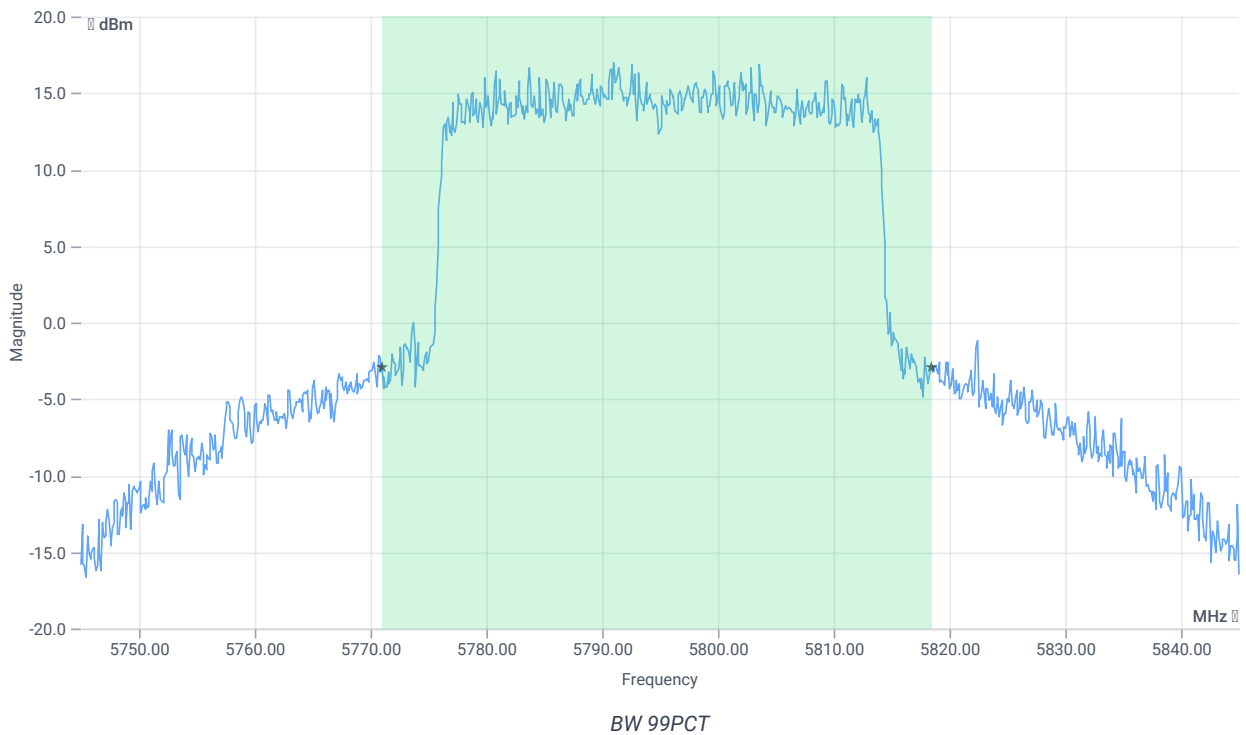
## Test at TX 5795 MHz

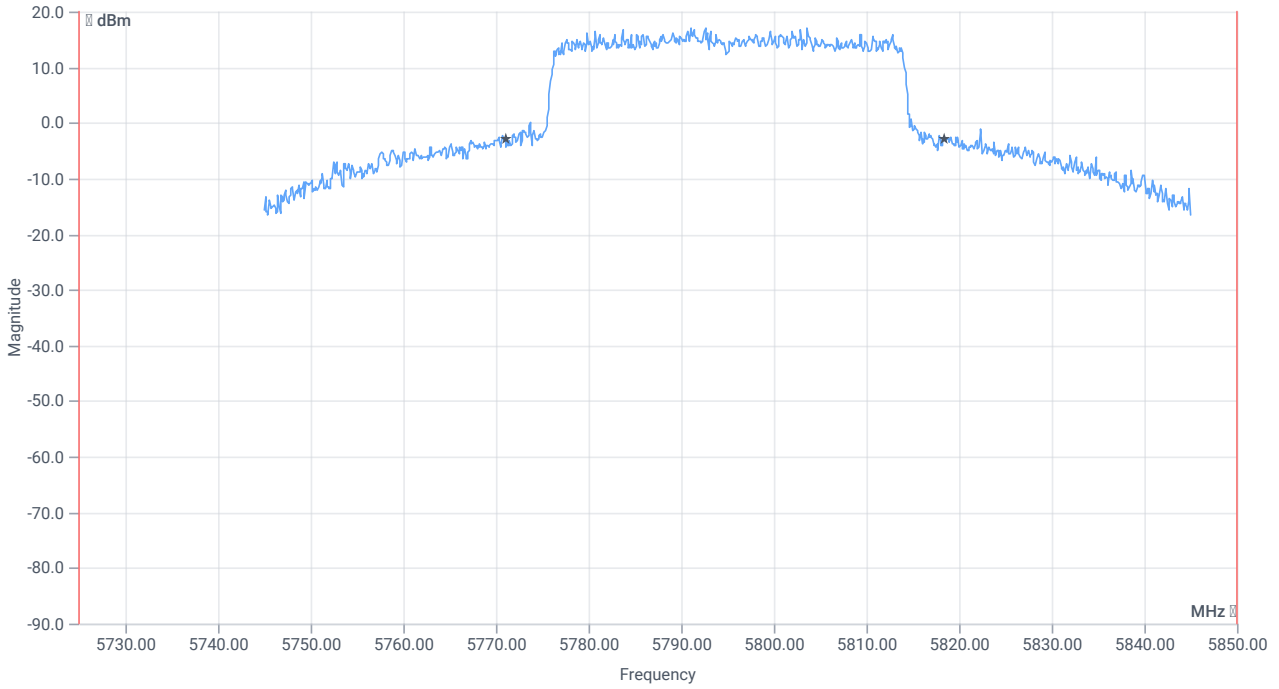
RESULT: Reference Power cond.

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	--	--	16.83	dBm	INFO
Ref. Frequency	--	--	5798.600	MHz	INFO

### READ SA SETTINGS:

RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]	24.83   16.67   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

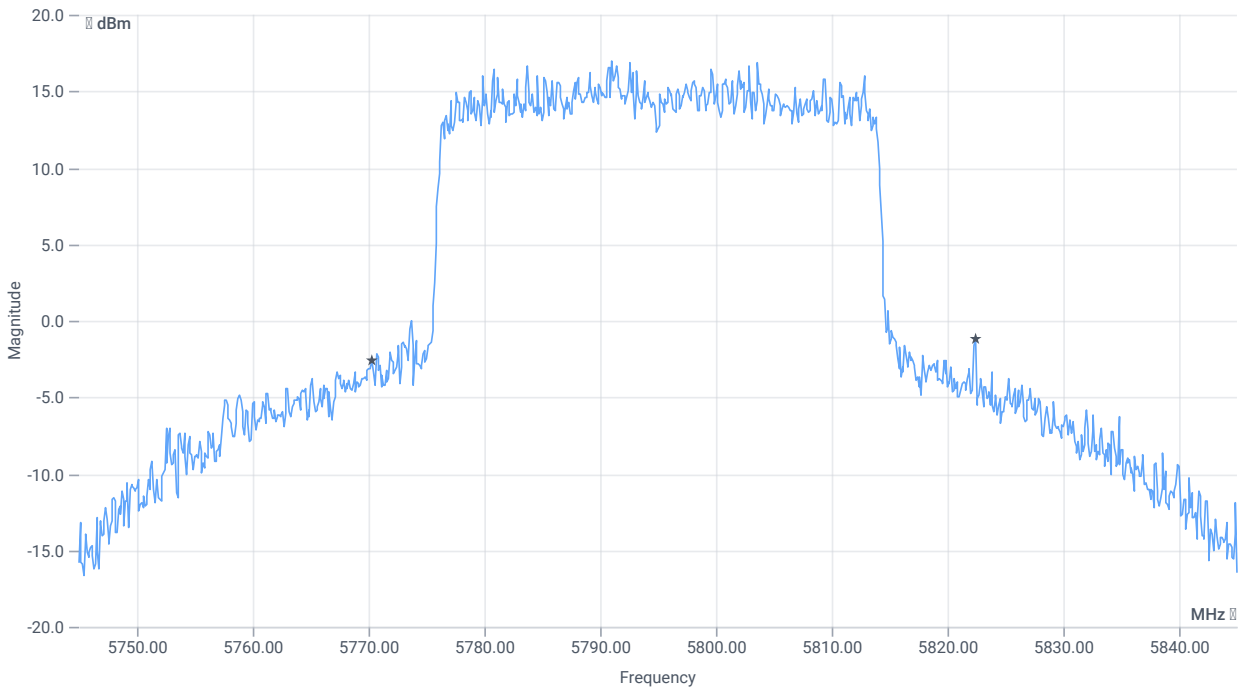




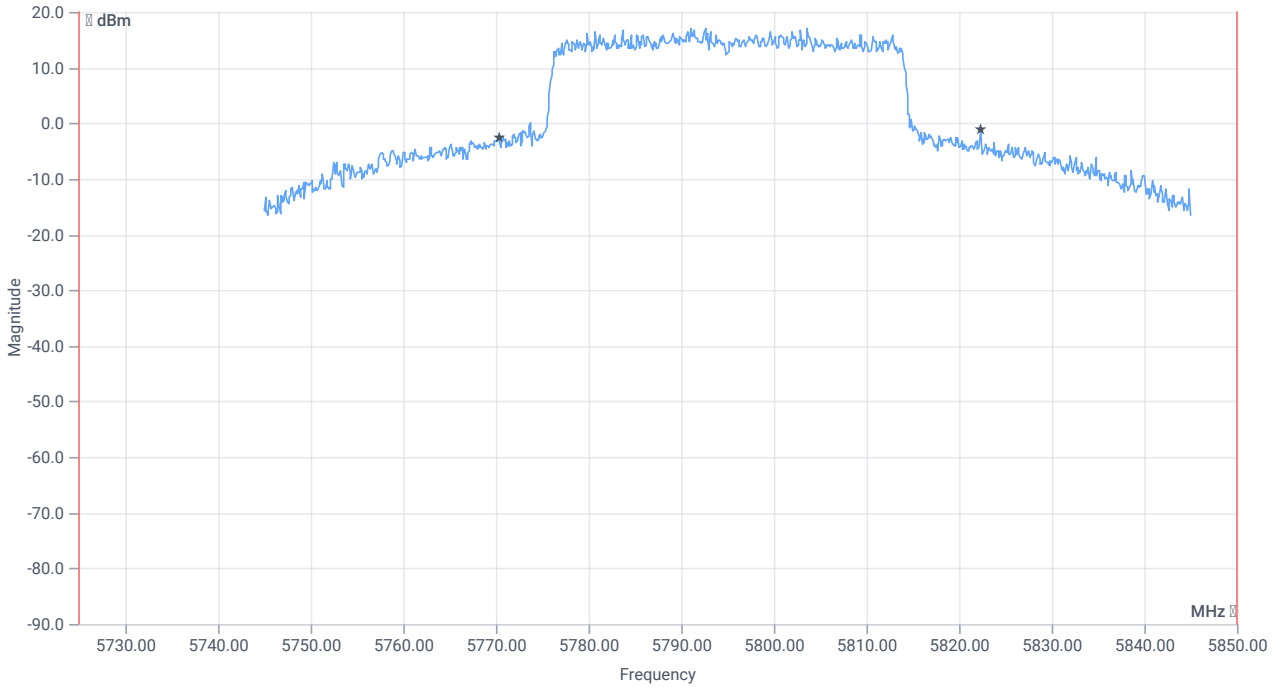
BW within Band 99PCT

## RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 99%	--	--	47.353	MHz	INFO
T1 99%	5725.000000	--	5771.0240	MHz	PASS
T2 99%	--	5850.000000	5818.3766	MHz	PASS



BW 20dB



BW within Band 20dB

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 20dB	--	--	52.1	MHz	INFO
T1 20dB	5725.000000	--	5770.3000	MHz	PASS
T2 20dB	--	5850.000000	5822.4000	MHz	PASS

Verdict

PASS



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

## References

TC start	02.08.2023 11:35:37
Ambit temp [°C]   humidity [rel%]	25.7   50
System version	4.6.0.3
Standard   Version	FCC 15.407, ISED RSS247   NI
Method	KDB789033 D02, C.2.
Description	FCC 15.407 Min Emission Bandwidth - WLAN5Gx ax-HE40 U-NII-3
Information	PS96

## EUT Common Settings WLAN5Gx

Number of Antenna Ports	1
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]	1.3
Switched path	EUT - SignalingUnit - SpectrumAnalyzer

## Equipment

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

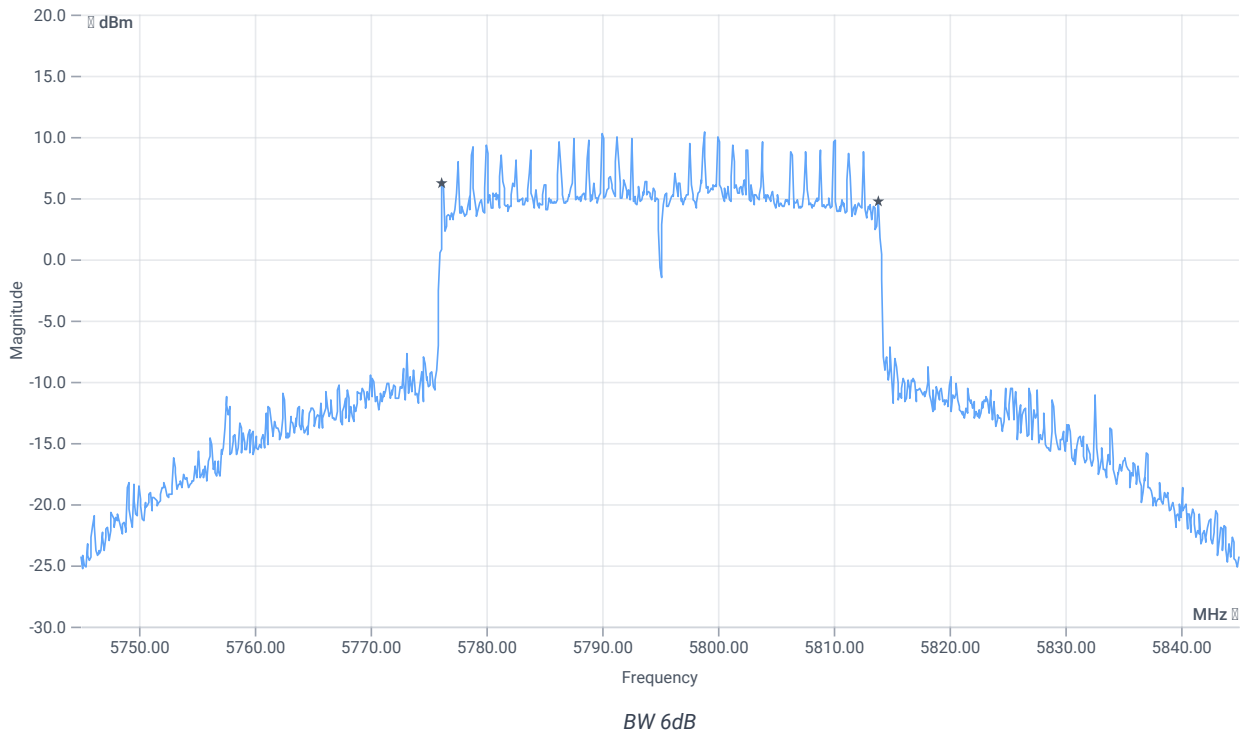
## Test at TX 5795 MHz

RESULT: Reference Power cond.

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	--	--	19.37	dBm	INFO
Ref. Frequency	--	--	5805.190	MHz	INFO

### READ SA SETTINGS:

RefLevel [dBm]   RefLevelOffset [dB]   InpAtt [dB]	31.37   16.67   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

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth (6dB)	0.500	--	37.7	MHz	PASS

Verdict

PASS

# FCC 15.407 # MIMO Σ Max output power and psd ~ WLAN5Gx ax-HE40 U-NII-3

## References

TC start	02.08.2023 11:36:04
Ambit temp [°C]   humidity [rel%]	25.8   50
System version	4.6.0.3
Standard   Version	FCC 15.407   NI
Method	
Description	MIMO Σ FCC Power & psd - WLAN5Gx ax-HE40 U-NII-3
Information	

## EUT Common Settings WLAN5Gx

Number of Antenna Ports	1
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] 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]	1.3
Switched path	None

## Equipment

## Test at TX 5795 MHz

### RESULT Power

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ant:1 Max Output Power DC corrected	--	--	23.67	dBm	INFO
Ant:1 BW 26dB	--	--	80.000	MHz	INFO
Ant:2 Max Output Power DC corrected	--	--	23.26	dBm	INFO
Ant:2 BW 26dB	--	--	79.680	MHz	INFO
$\Sigma$ Limit absolute	--	30	26.48	dBm	PASS
$\Sigma$ Limit: 11 dBm + 10 log 79.68	--	30.01	26.48	dBm	na

### RESULT PSD

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ant:1 PSD	--	--	6.61	dBm/0.5MHz	INFO
Ant:2 PSD	--	--	6.15	dBm/0.5MHz	INFO
$\Sigma$	--	30	9.4	dBm/0.5MHz	PASS

Verdict

PASS

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