Conducted test results

No.1-7077/23-01-05_TR1-A204-R1

January 22, 2024

Test Standard(s) FCC 15.407

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FCC 15.407, ISED RSS247 # Bandwidths 99PCT and 20dB ~ WLAN5Gx ax-HE20 U-NII-2A 91
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FCC 15.407 # Max output power and psd ~ WLAN5Gx ax-HE20 U-NII-2A 98
FCC 15.407, ISED RSS247 # Bandwidths 99PCT and 20dB ~ WLAN5Gx ax-HE20 U-NII-2A 102
FCC 15.407 # Max output power and psd ~ WLAN5Gx ax-HE20 U-NII-2A 107
FCC 15.407, ISED RSS247 # Bandwidths 99PCT and 20dB ~ WLAN5Gx ax-HE20 U-NII-2A 111
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FCC 15.407 # Max output power and psd ~ WLAN5Gx ax-HE20 U-NII-2C 138
FCC 15.407, ISED RSS247 # Bandwidths 99PCT and 20dB ~ WLAN5Gx ax-HE20 U-NII-2C 142
FCC 15.407 # Max output power and psd ~ WLAN5Gx ax-HE20 U-NII-2C 147
FCC 15.407, ISED RSS247 # Bandwidths 99PCT and 20dB ~ WLAN5Gx ax-HE20 U-NII-2C 151
FCC 15.407 # MIMO ∑ Max output power and psd ~ WLAN5Gx ax-HE20 U-NII-2C 156
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FCC 15.407, ISED RSS247 # Bandwidths 99PCT and 20dB ~ WLAN5Gx ax-HE20 U-NII-2C 162
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FCC 15.407, ISED RSS247 # Bandwidths 99PCT and 20dB ~ WLAN5Gx ax-HE20 U-NII-3 183
FCC 15.407, ISED RSS247 # Minimum emission bandwidth ~ WLAN5Gx ax-HE20 U-NII-3 187
FCC 15.407 # Max output power and psd ~ WLAN5Gx ax-HE20 U-NII-3 189
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FCC 15.407, ISED RSS247 # Emission mask (eirp) ~ WLAN5Gx ax-HE20 U-NII-3 202
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FCC 15.407, ISED RSS247 # Bandwidths 99PCT and 20dB ~ WLAN5Gx ax-HE20 U-NII-3 213
FCC 15.407, ISED RSS247 # Minimum emission bandwidth ~ WLAN5Gx ax-HE20 U-NII-3 217
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FCC 15.407, ISED RSS247 # Bandwidths 99PCT and 20dB ~ WLAN5Gx ax-HE20 U-NII-3 224
FCC 15.407, ISED RSS247 # Minimum emission bandwidth ~ WLAN5Gx ax-HE20 U-NII-3 228
FCC 15.407 # MIMO ∑ Max output power and psd ~ WLAN5Gx ax-HE20 U-NII-3 230
FCC 15.407, ISED RSS247 # Emission mask (eirp) ~ WLAN5Gx ax-HE20 U-NII-3 232
FCC 15.407, ISED RSS247 # Emission mask (eirp) ~ WLAN5Gx ax-HE20 U-NII-3 235
FCC 15.407 # Max output power and psd ~ WLAN5Gx ax-HE20 U-NII-3 238
FCC 15.407, ISED RSS247 # Bandwidths 99PCT and 20dB ~ WLAN5Gx ax-HE20 U-NII-3 243
FCC 15.407, ISED RSS247 # Minimum emission bandwidth ~ WLAN5Gx ax-HE20 U-NII-3 247
FCC 15.407 # Max output power and psd ~ WLAN5Gx ax-HE20 U-NII-3 249
FCC 15.407, ISED RSS247 # Bandwidths 99PCT and 20dB ~ WLAN5Gx ax-HE20 U-NII-3 254
FCC 15.407, ISED RSS247 # Minimum emission bandwidth ~ WLAN5Gx ax-HE20 U-NII-3 258
FCC 15.407 # MIMO ∑ Max output power and psd ~ WLAN5Gx ax-HE20 U-NII-3 260
FCC 15.407, ISED RSS247 # Emission mask (eirp) ~ WLAN5Gx ax-HE20 U-NII-3 262
FCC 15.407, ISED RSS247 # Emission mask (eirp) ~ WLAN5Gx ax-HE20 U-NII-3 265

FCC 15.407 # Max output power and psd ~ WLAN5Gx ax-HE20 U-NII-1

References

TC start	18.01.2024 14:19:08
Ambit temp [°C] | humidity [rel%]	23.8 | 29
System version	4.7.1.5
Standard | Version	FCC 15.407 | NI
Method	KDB789033 D02, F., E.2.e.
Description	FCC 15.407 Max Output Power & PSD - WLAN5Gx ax-HE20 U-NII-1
Information	

EUT Common Settings WLAN5Gx

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

Test Parameter

Technology to test	WLAN5Gx ax-HE20
Antenna port used	1
Temperature	nom
Voltage	nom
Frequency low to test	True | Freq [MHz] 5180
Frequency mid to test	False | Freq [MHz] 5200
Frequency high to test	False | Freq [MHz] 5240
Auto control enabled power supply | Climatic Box	No | No
Additional path loss [dB]	1.4
Full path name | type	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 5180 MHz

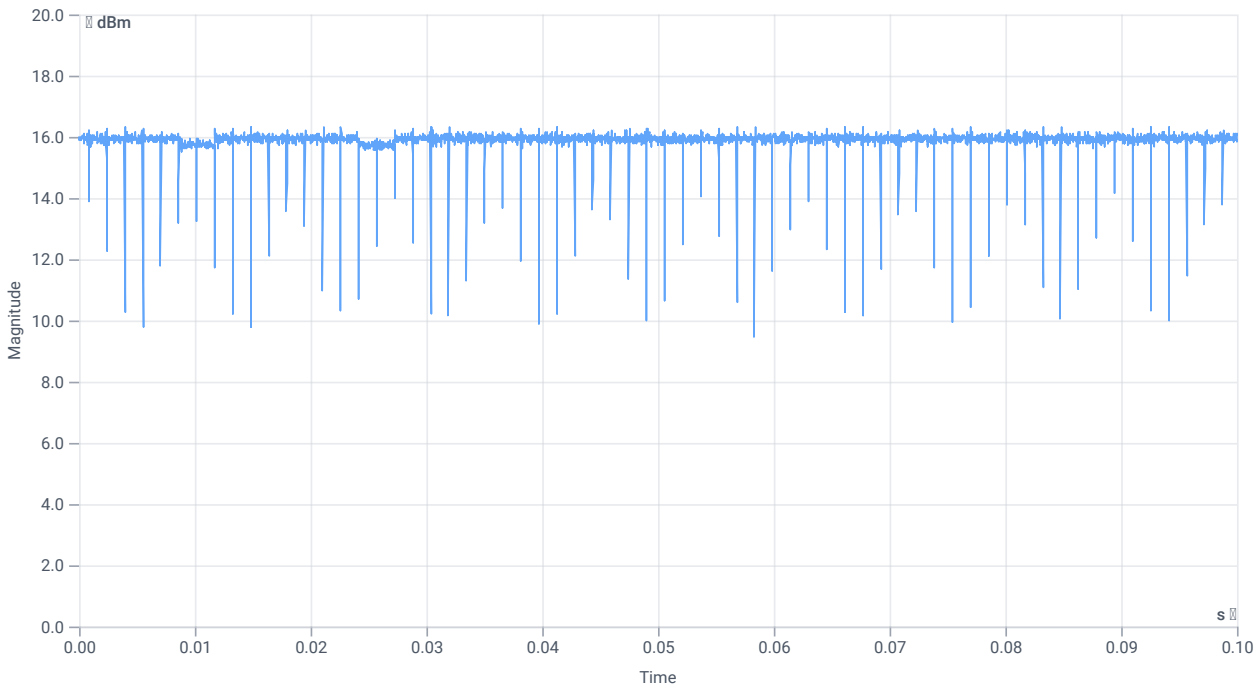
RESULT: Reference Power cond.

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	14.60	dBm	INFO
Ref. Frequency	---	---	5185.990	MHz	INFO

Evaluation max. Duty Cycle

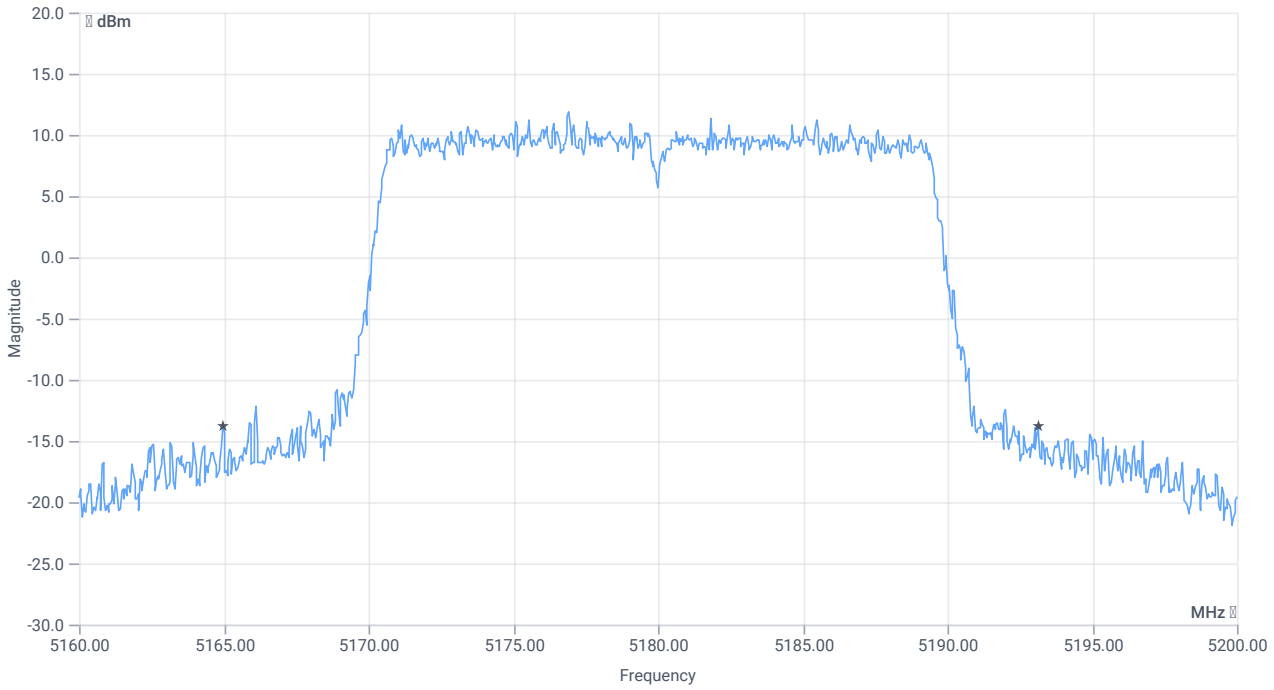
Duty Cycle evaluation

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



Duty cycle

Evaluation Bandwidth



BW 26dB

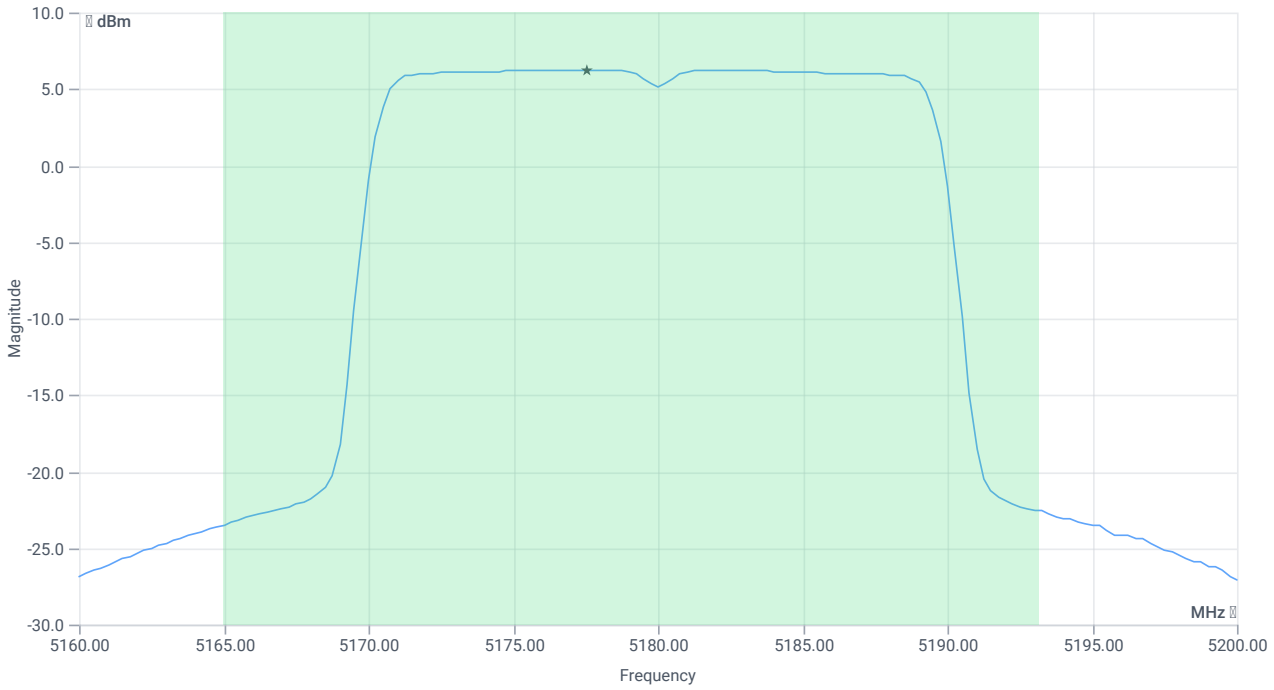
RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 26dB	---	---	28.16	MHz	INFO
T1 26dB	---	---	5164.9600	MHz	INFO
T2 26dB	---	---	5193.1200	MHz	INFO

Maximum Output Power

READ SA SETTINGS:

RefLevel [dBm] | RefLevelOffset [dB] | InpAtt [dB]	26.60 | 16.49 | 25
Start [MHz] | Stop [MHz]	5160.000 | 5200.000
RBW [MHz] | VBW [MHz]	1.000000 | 3.000000
Detector | TraceMode	RMS | MAXH
Sweep: time [ms] | count | points per Section | type	53700 | 1 | 161 | SWE



Max OP and PSD

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Max Output Power	---	---	18.6	dBm	INFO
Duty Cycle Correction	---	---	0	dB	INFO
Limit absolute					
Max Output Power DC corrected	---	24	18.6	dBm	PASS
Limit: 11 dBm + 10 log 28.16					
Max Output Power DC corrected	---	25.5	18.6	dBm	na

Power Spectral Density

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Power Spectral Density	---	---	6.24	dBm/1MHz	INFO
Duty Cycle Correction	---	---	0	dB	INFO
Power Spectral Density DC corrected	---	11	6.24	dBm/1MHz	PASS

Verdict
PASS

FCC 15.407, ISED RSS247 # Bandwidths 99PCT and 20dB ~ WLAN5Gx ax-HE20 U-NII-1

References

TC start	18.01.2024 14:20:38
Ambit temp [°C] | humidity [rel%]	23.8 | 29
System version	4.7.1.5
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-HE20 U-NII-1
Information	

EUT Common Settings WLAN5Gx

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

Test Parameter

Technology to test	WLAN5Gx ax-HE20
Antenna port used	1
Temperature	nom
Voltage	nom
Frequency low to test	True | Freq [MHz] 5180
Frequency mid to test	False | Freq [MHz] 5200
Frequency high to test	False | Freq [MHz] 5240
Auto control enabled power supply | Climatic Box	No | No
Additional path loss [dB]	1.4
Full path name | type	EUT - SignalingUnit - SpectrumAnalyzer

Equipment

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

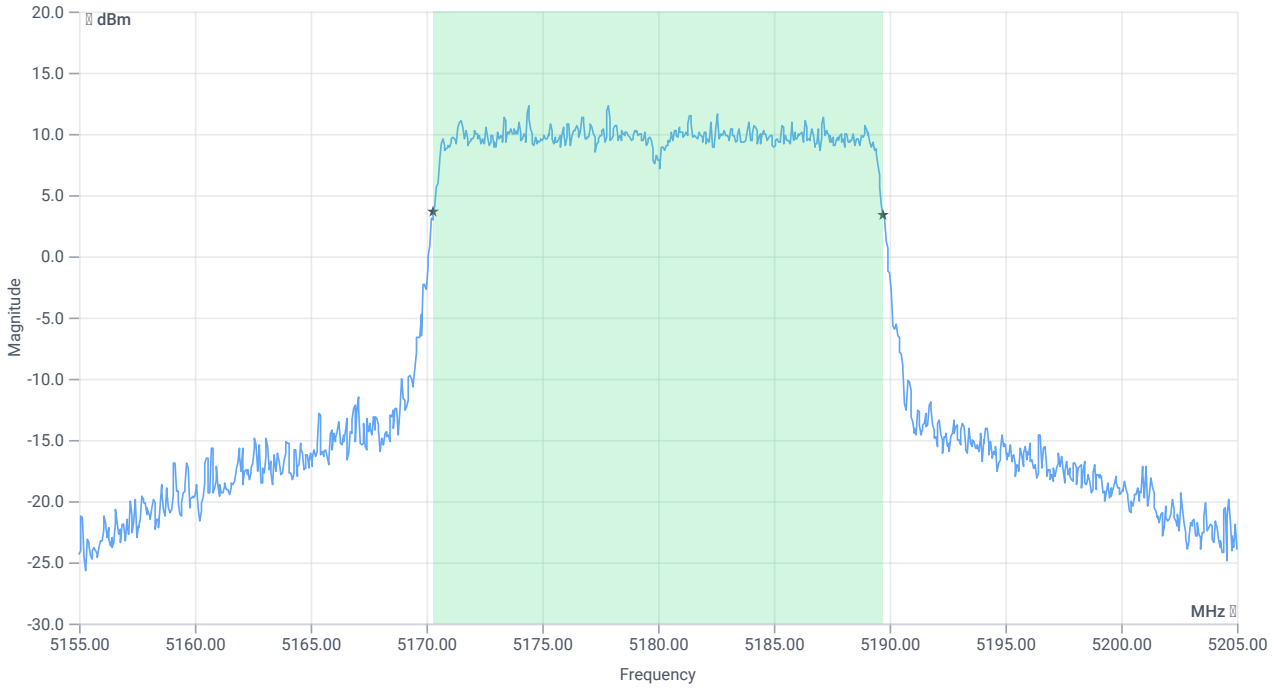
Test at TX 5180 MHz

RESULT: Reference Power cond.

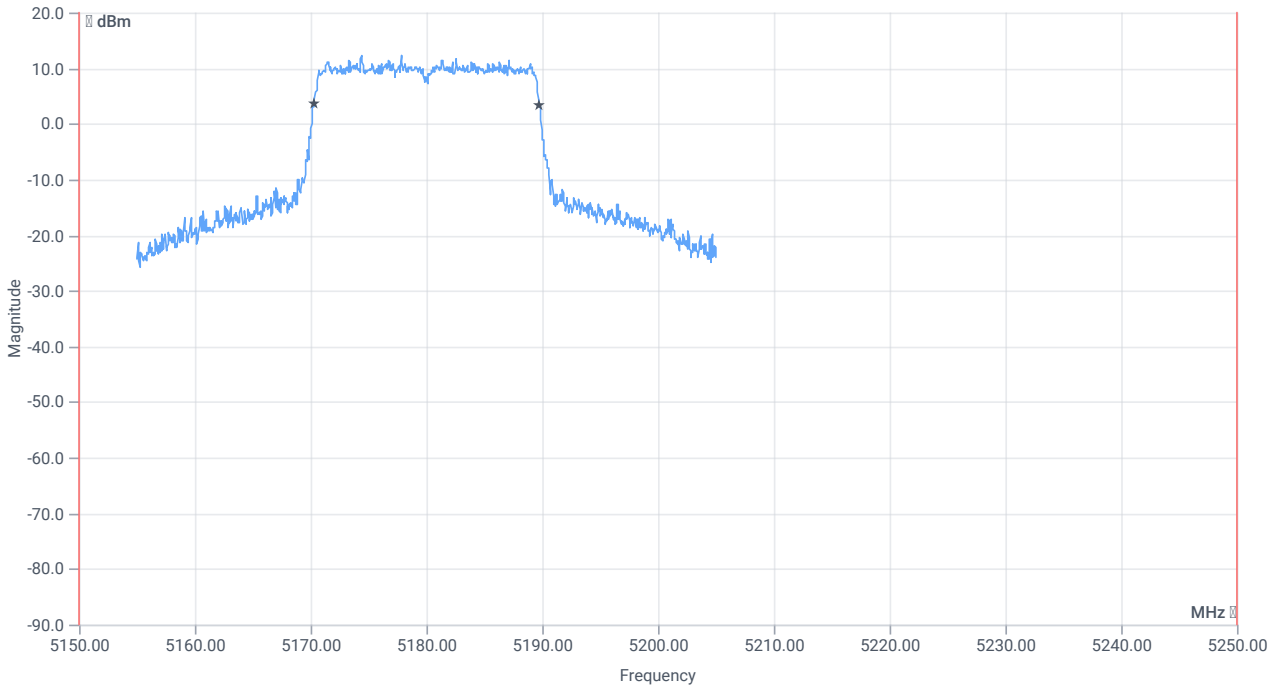
DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	15.44	dBm	INFO
Ref. Frequency	---	---	5174.010	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] | RefLevelOffset [dB] | InpAtt [dB]	23.44 | 16.49 | 25
Start [MHz] | Stop [MHz]	5155.000 | 5205.000
RBW [MHz] | VBW [MHz]	0.300000 | 1.000000
Detector | TraceMode	POS | MAXH
Sweep: time [ms] | count | points per Section | type	1 | 2500 | 1001 | SWE



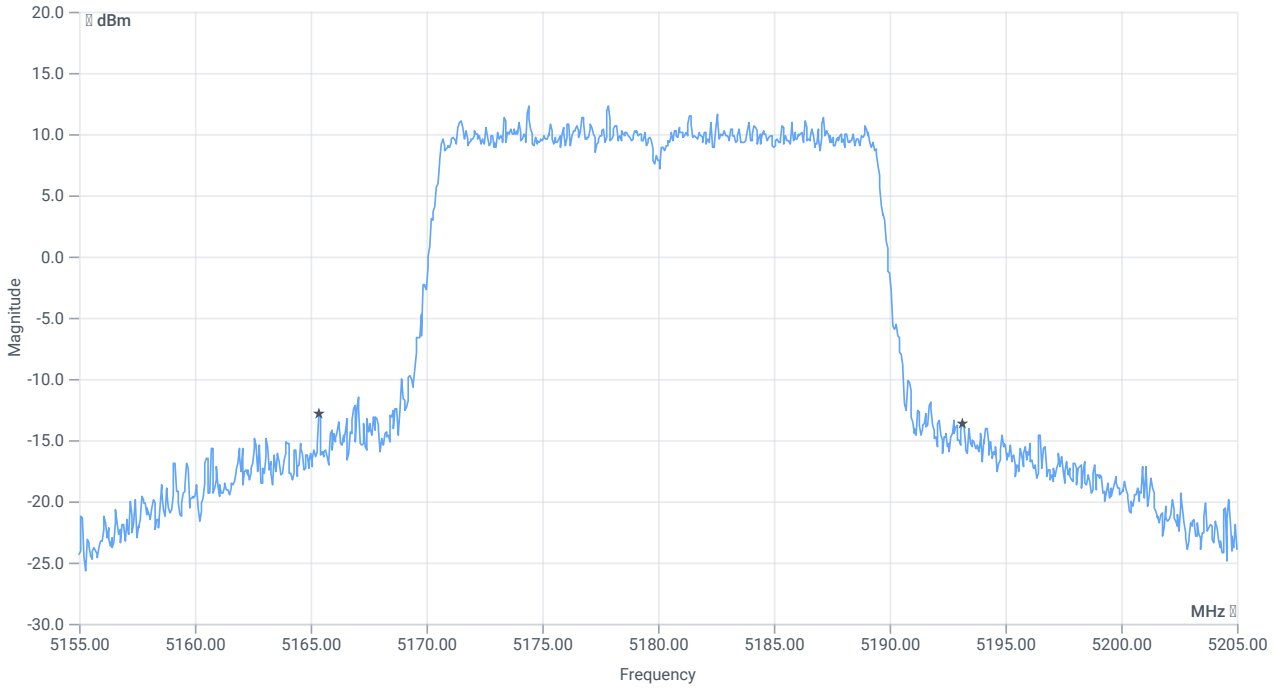
BW 99PCT



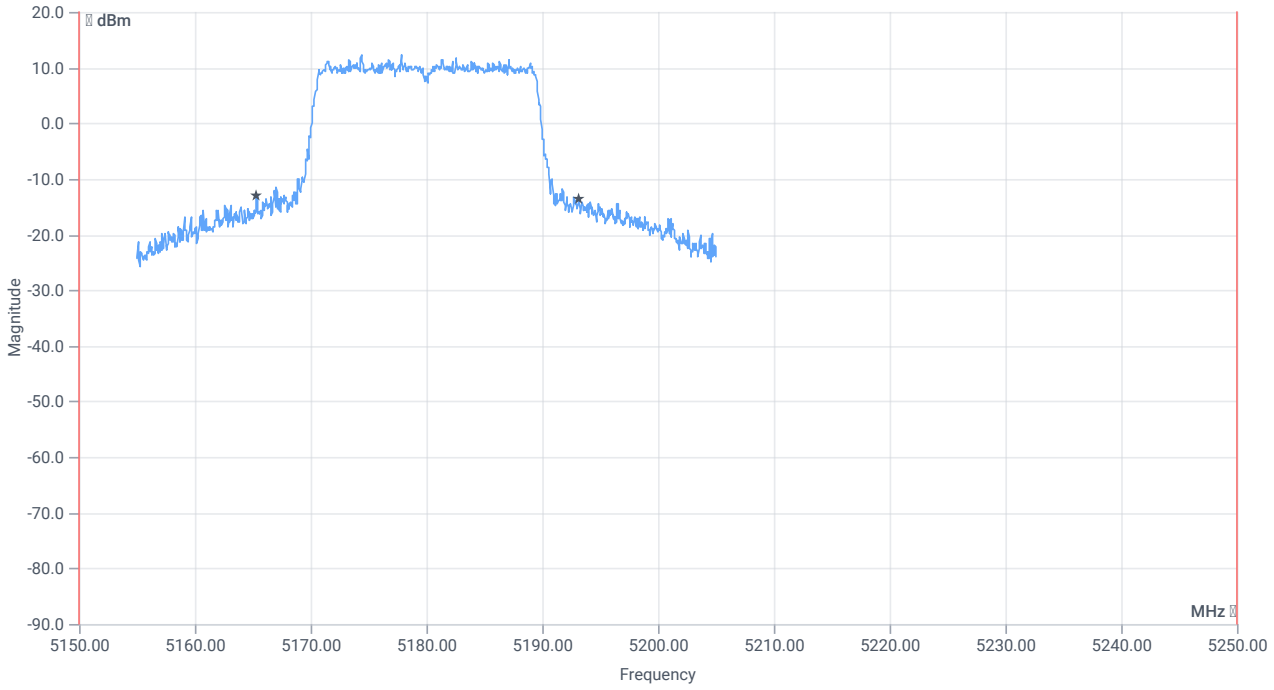
BW within Band 99PCT

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 99%	---	---	19.381	MHz	INFO
T1 99%	5150.000000	---	5170.3097	MHz	PASS
T2 99%	---	5250.000000	5189.6903	MHz	PASS



BW 26dB



BW within Band 26dB

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 26dB	---	---	27.8	MHz	INFO
T1 26dB	5150.000000	---	5165.3500	MHz	PASS
T2 26dB	---	5250.000000	5193.1500	MHz	PASS

Verdict
PASS

FCC 15.407 # Max output power and psd ~ WLAN5Gx ax-HE20 U-NII-1

References

TC start	18.01.2024 14:21:16
Ambit temp [°C] | humidity [rel%]	23.8 | 29
System version	4.7.1.5
Standard | Version	FCC 15.407 | NI
Method	KDB789033 D02, F., E.2.e.
Description	FCC 15.407 Max Output Power & PSD - WLAN5Gx ax-HE20 U-NII-1
Information	

EUT Common Settings WLAN5Gx

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

Test Parameter

Technology to test	WLAN5Gx ax-HE20
Antenna port used	2
Temperature	nom
Voltage	nom
Frequency low to test	True | Freq [MHz] 5180
Frequency mid to test	False | Freq [MHz] 5200
Frequency high to test	False | Freq [MHz] 5240
Auto control enabled power supply | Climatic Box	No | No
Additional path loss [dB]	1.4
Full path name | type	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 5180 MHz

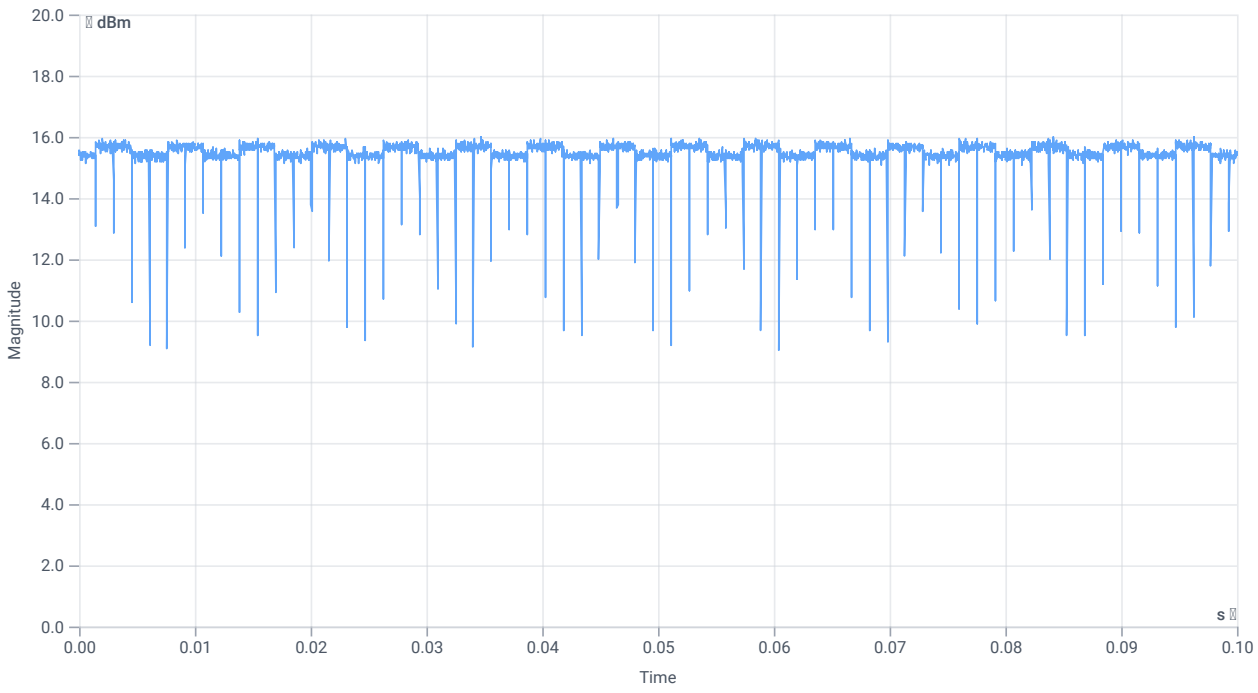
RESULT: Reference Power cond.

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	16.13	dBm	INFO
Ref. Frequency	---	---	5182.600	MHz	INFO

Evaluation max. Duty Cycle

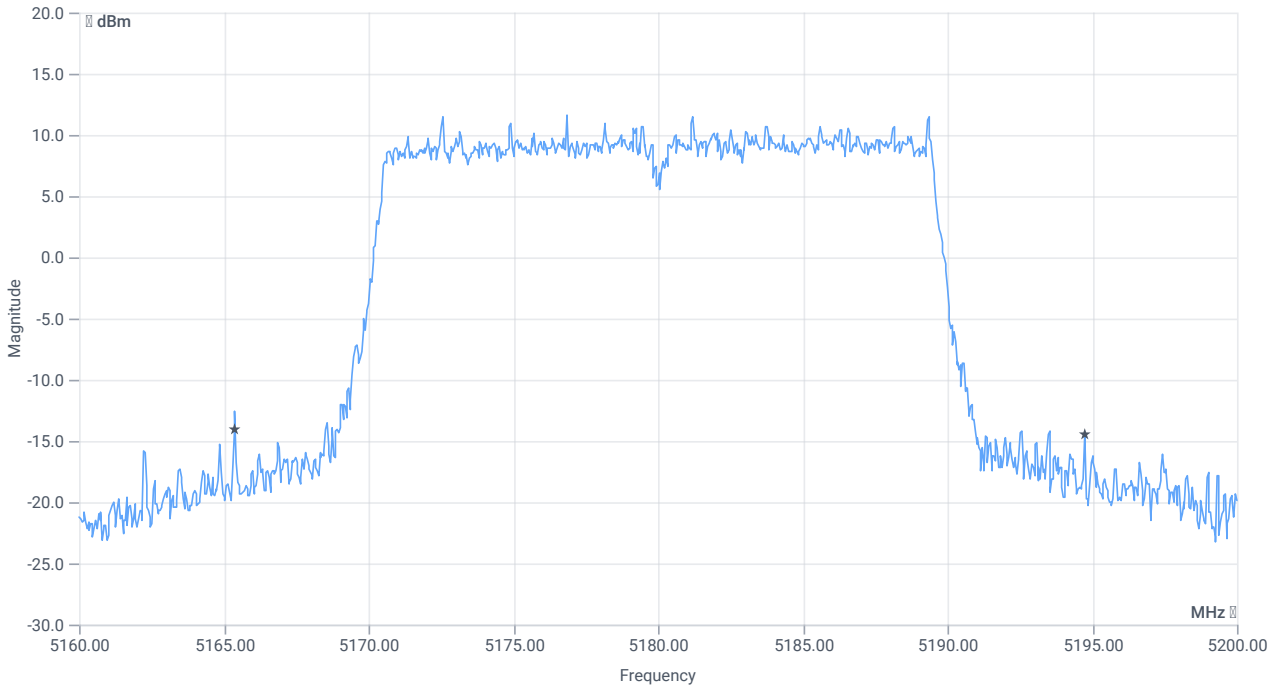
Duty Cycle evaluation

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



Duty cycle

Evaluation Bandwidth



BW 26dB

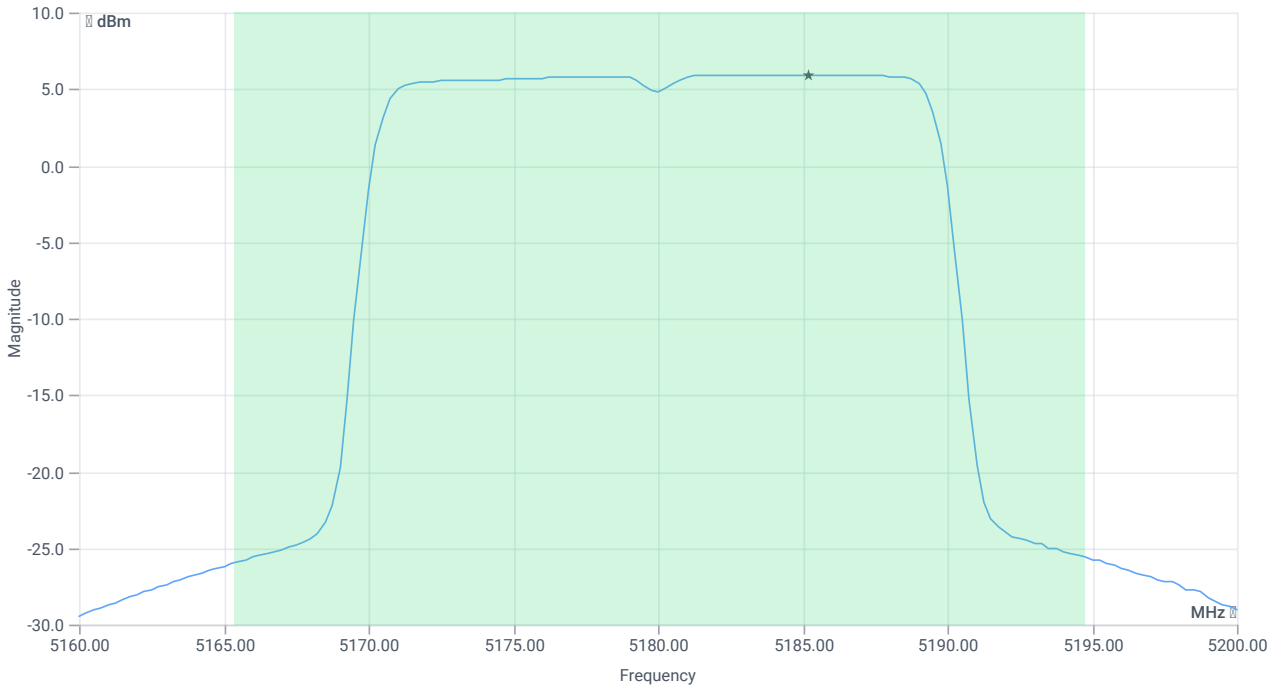
RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 26dB	---	---	29.4	MHz	INFO
T1 26dB	---	---	5165.3600	MHz	INFO
T2 26dB	---	---	5194.7600	MHz	INFO

Maximum Output Power

READ SA SETTINGS:

RefLevel [dBm] | RefLevelOffset [dB] | InpAtt [dB]	28.13 | 16.49 | 30
Start [MHz] | Stop [MHz]	5160.000 | 5200.000
RBW [MHz] | VBW [MHz]	1.000000 | 3.000000
Detector | TraceMode	RMS | MAXH
Sweep: time [ms] | count | points per Section | type	53700 | 1 | 161 | SWE



Max OP and PSD

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Max Output Power	---	---	18.24	dBm	INFO
Duty Cycle Correction	---	---	0	dB	INFO
Limit absolute					
Max Output Power DC corrected	---	24	18.24	dBm	PASS
Limit: 11 dBm + 10 log 29.4					
Max Output Power DC corrected	---	25.68	18.24	dBm	na

Power Spectral Density

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Power Spectral Density	---	---	5.94	dBm/1MHz	INFO
Duty Cycle Correction	---	---	0	dB	INFO
Power Spectral Density DC corrected	---	11	5.94	dBm/1MHz	PASS

Verdict
PASS

FCC 15.407, ISED RSS247 # Bandwidths 99PCT and 20dB ~ WLAN5Gx ax-HE20 U-NII-1

References

TC start	18.01.2024 14:22:47
Ambit temp [°C] | humidity [rel%]	23.9 | 29
System version	4.7.1.5
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-HE20 U-NII-1
Information	

EUT Common Settings WLAN5Gx

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

Test Parameter

Technology to test	WLAN5Gx ax-HE20
Antenna port used	2
Temperature	nom
Voltage	nom
Frequency low to test	True | Freq [MHz] 5180
Frequency mid to test	False | Freq [MHz] 5200
Frequency high to test	False | Freq [MHz] 5240
Auto control enabled power supply | Climatic Box	No | No
Additional path loss [dB]	1.4
Full path name | type	EUT - SignalingUnit - SpectrumAnalyzer

Equipment

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

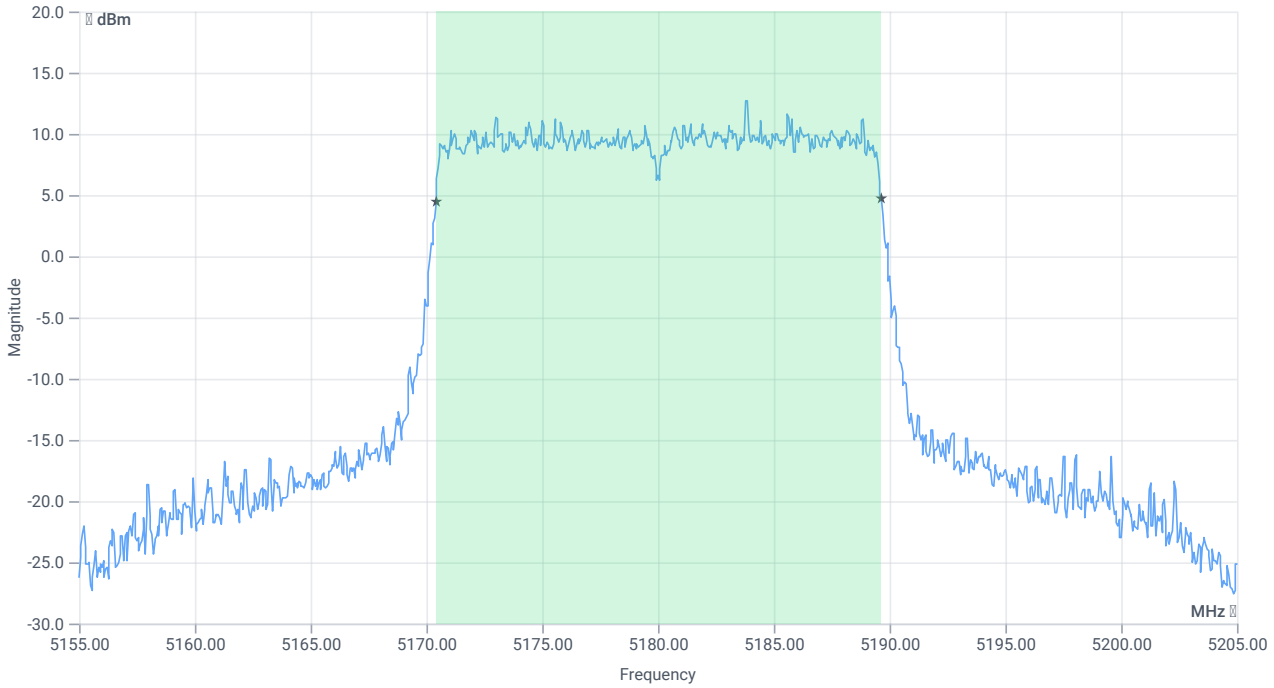
Test at TX 5180 MHz

RESULT: Reference Power cond.

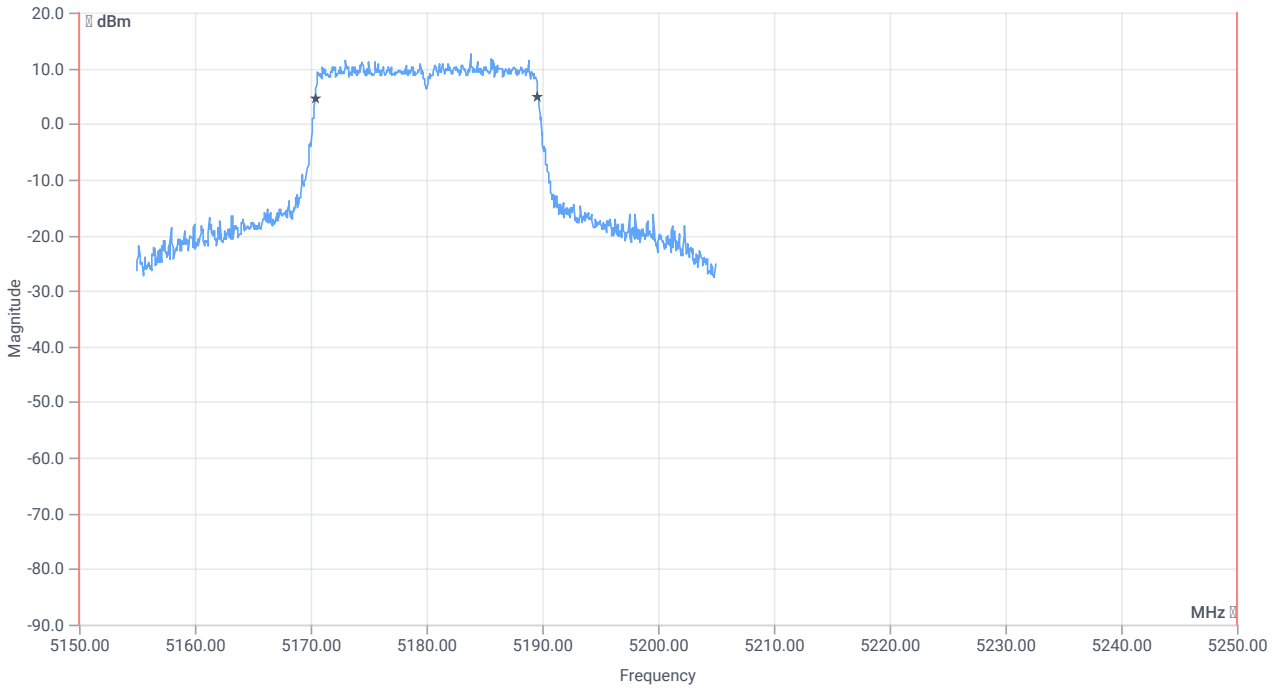
DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	15.54	dBm	INFO
Ref. Frequency	---	---	5187.790	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] | RefLevelOffset [dB] | InpAtt [dB]	23.54 | 16.49 | 25
Start [MHz] | Stop [MHz]	5155.000 | 5205.000
RBW [MHz] | VBW [MHz]	0.300000 | 1.000000
Detector | TraceMode	POS | MAXH
Sweep: time [ms] | count | points per Section | type	1 | 2500 | 1001 | SWE



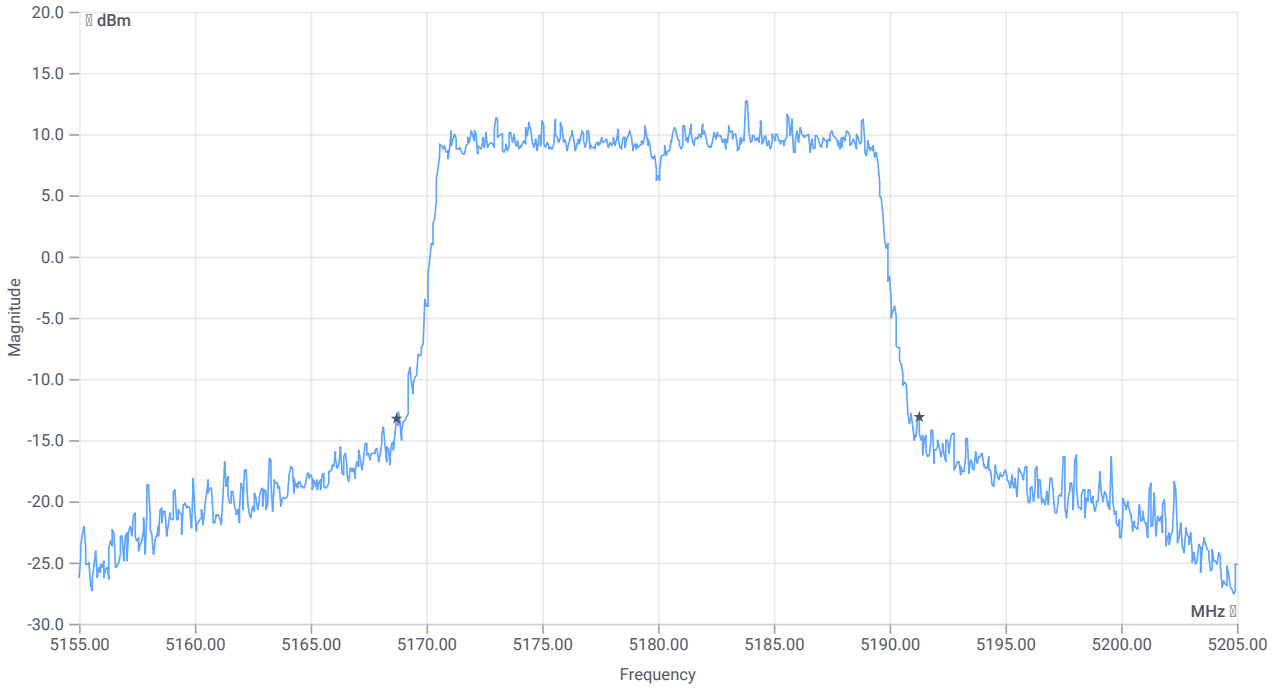
BW 99PCT



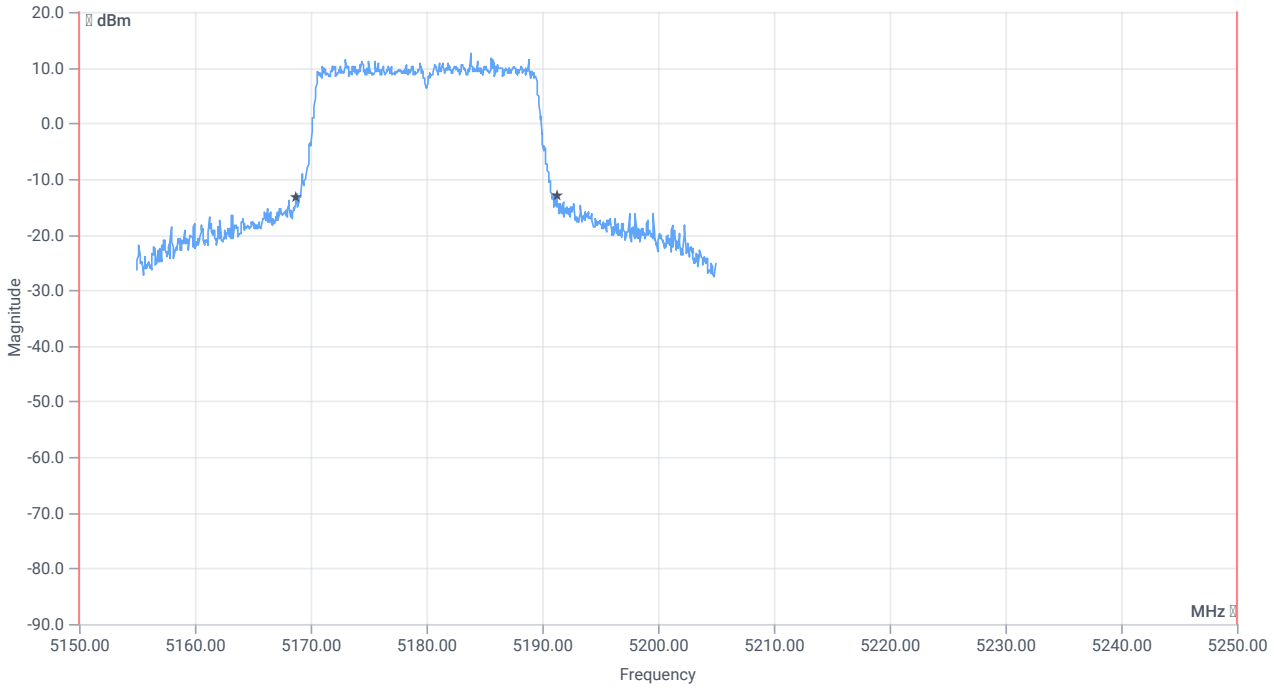
BW within Band 99PCT

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 99%	---	---	19.231	MHz	INFO
T1 99%	5150.000000	---	5170.4096	MHz	PASS
T2 99%	---	5250.000000	5189.6404	MHz	PASS



BW 26dB



BW within Band 26dB

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 26dB	---	---	22.55	MHz	INFO
T1 26dB	5150.000000	---	5168.7000	MHz	PASS
T2 26dB	---	5250.000000	5191.2500	MHz	PASS

Verdict
PASS

FCC 15.407 # MIMO ∑ Max output power and psd ~ WLAN5Gx ax-HE20 U-NII-1

References

TC start	18.01.2024 14:23:26
Ambit temp [°C] | humidity [rel%]	24.0 | 29
System version	4.7.1.5
Standard | Version	FCC 15.407 | NI
Method	
Description	MIMO ∑ FCC Power & psd - WLAN5Gx ax-HE20 U-NII-1
Information	

EUT Common Settings WLAN5Gx

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

Test Parameter

Technology to test	WLAN5Gx ax-HE20
Antenna port used	several
Temperature	nom
Voltage	nom
Frequency low to test	True | Freq [MHz] 5180
Frequency mid to test	False | Freq [MHz] 5200
Frequency high to test	False | Freq [MHz] 5240
Auto control enabled power supply | Climatic Box	No | No
Additional path loss [dB]	1.4
Full path name | type	None

Equipment

Test at TX 5180 MHz

RESULT Power

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ant:1 Max Output Power DC corrected	---	---	18.6	dBm	INFO
Ant:1 BW 26dB	---	---	28.160	MHz	INFO
Ant:2 Max Output Power DC corrected	---	---	18.24	dBm	INFO
Ant:2 BW 26dB	---	---	29.400	MHz	INFO
∑ Limit absolute	---	24	21.43	dBm	PASS
∑ Limit: 11 dBm + 10 log 28.16	---	25.5	21.43	dBm	na

RESULT PSD

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ant:1 PSD	---	---	6.24	dBm/1MHz	INFO
Ant:2 PSD	---	---	5.94	dBm/1MHz	INFO
∑	---	11	9.1	dBm/1MHz	PASS

Verdict
PASS

FCC 15.407 # Max output power and psd ~ WLAN5Gx ax-HE20 U-NII-1

References

TC start	18.01.2024 14:24:46
Ambit temp [°C] | humidity [rel%]	24.0 | 29
System version	4.7.1.5
Standard | Version	FCC 15.407 | NI
Method	KDB789033 D02, F., E.2.e.
Description	FCC 15.407 Max Output Power & PSD - WLAN5Gx ax-HE20 U-NII-1
Information	

EUT Common Settings WLAN5Gx

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

Test Parameter

Technology to test	WLAN5Gx ax-HE20
Antenna port used	1
Temperature	nom
Voltage	nom
Frequency low to test	False | Freq [MHz] 5180
Frequency mid to test	True | Freq [MHz] 5200
Frequency high to test	False | Freq [MHz] 5240
Auto control enabled power supply | Climatic Box	No | No
Additional path loss [dB]	1.4
Full path name | type	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 5200 MHz

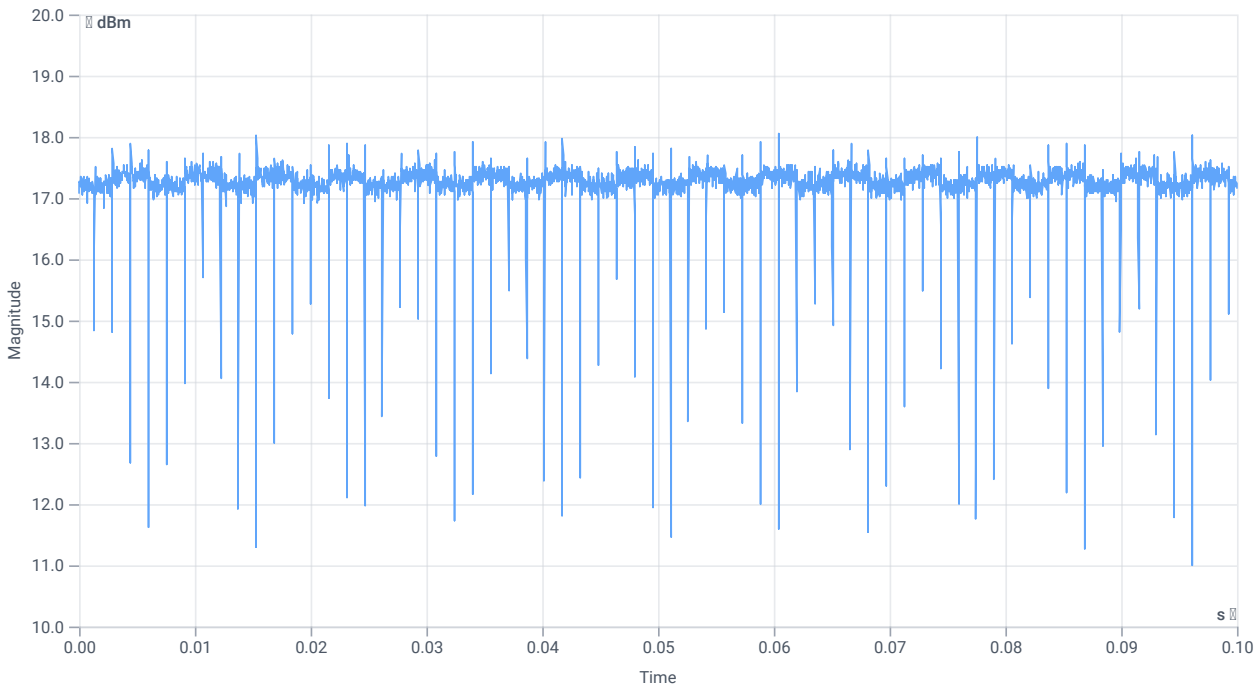
RESULT: Reference Power cond.

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	17.09	dBm	INFO
Ref. Frequency	---	---	5196.000	MHz	INFO

Evaluation max. Duty Cycle

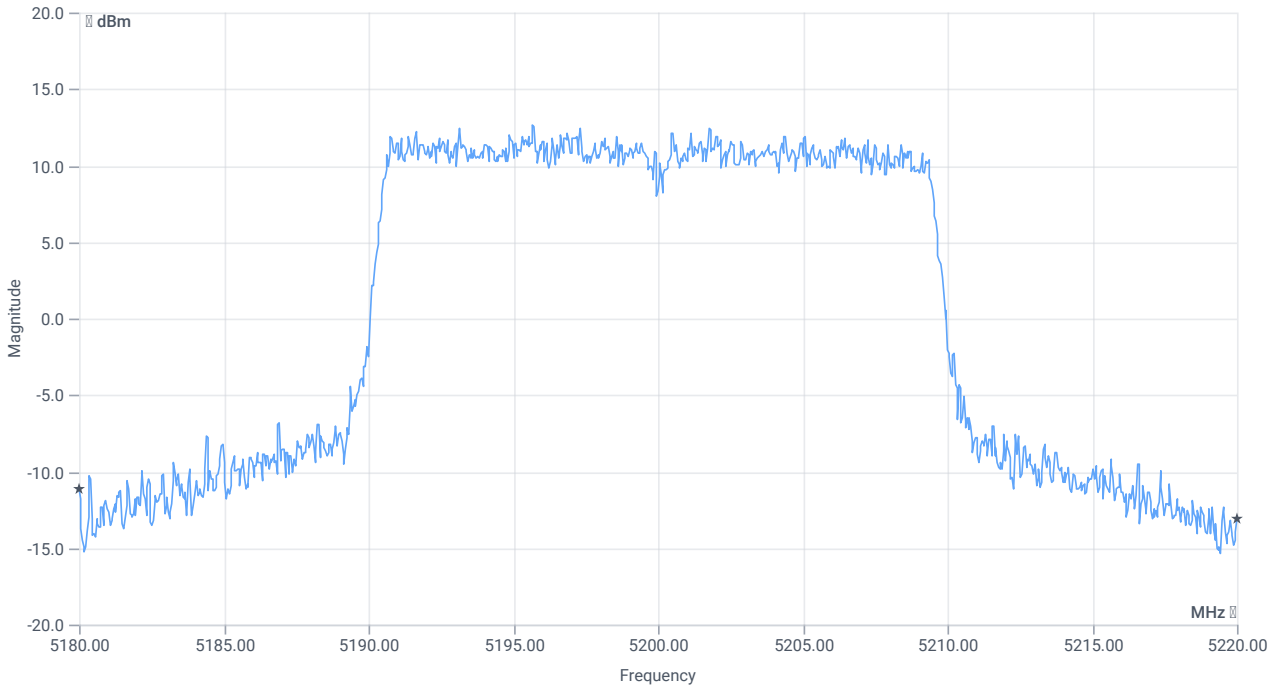
Duty Cycle evaluation

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



Duty cycle

Evaluation Bandwidth



BW 26dB

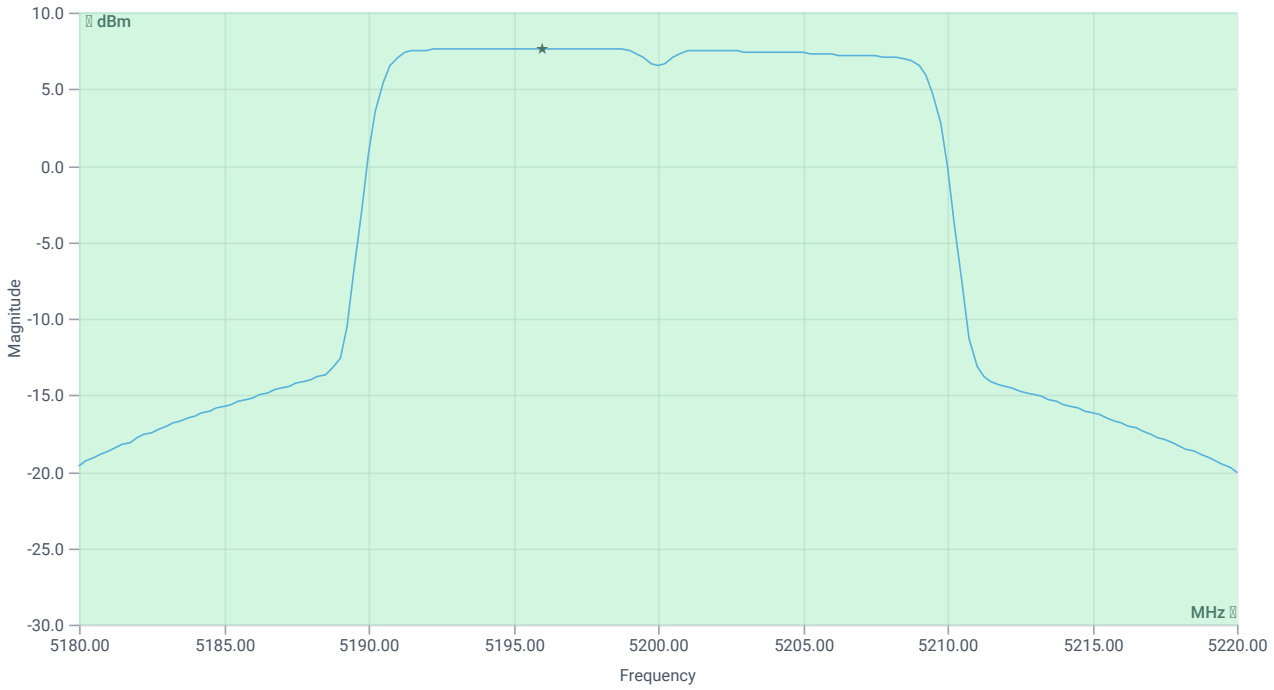
RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 26dB	---	---	40	MHz	INFO
T1 26dB	---	---	5180.0000	MHz	INFO
T2 26dB	---	---	5220.0000	MHz	INFO

Maximum Output Power

READ SA SETTINGS:

RefLevel [dBm] | RefLevelOffset [dB] | InpAtt [dB]	29.09 | 16.41 | 30
Start [MHz] | Stop [MHz]	5180.000 | 5220.000
RBW [MHz] | VBW [MHz]	1.000000 | 3.000000
Detector | TraceMode	RMS | MAXH
Sweep: time [ms] | count | points per Section | type	53700 | 1 | 161 | SWE



Max OP and PSD

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Max Output Power	---	---	19.99	dBm	INFO
Duty Cycle Correction	---	---	0	dB	INFO
Limit absolute					
Max Output Power DC corrected	---	24	19.99	dBm	PASS
Limit: 11 dBm + 10 log 40					
Max Output Power DC corrected	---	27.02	19.99	dBm	na

Power Spectral Density

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Power Spectral Density	---	---	7.66	dBm/1MHz	INFO
Duty Cycle Correction	---	---	0	dB	INFO
Power Spectral Density DC corrected	---	11	7.66	dBm/1MHz	PASS

Verdict
PASS

FCC 15.407, ISED RSS247 # Bandwidths 99PCT and 20dB ~ WLAN5Gx ax-HE20 U-NII-1

References

TC start	18.01.2024 14:26:15
Ambit temp [°C] | humidity [rel%]	24.0 | 29
System version	4.7.1.5
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-HE20 U-NII-1
Information	

EUT Common Settings WLAN5Gx

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

Test Parameter

Technology to test	WLAN5Gx ax-HE20
Antenna port used	1
Temperature	nom
Voltage	nom
Frequency low to test	False | Freq [MHz] 5180
Frequency mid to test	True | Freq [MHz] 5200
Frequency high to test	False | Freq [MHz] 5240
Auto control enabled power supply | Climatic Box	No | No
Additional path loss [dB]	1.4
Full path name | type	EUT - SignalingUnit - SpectrumAnalyzer

Equipment

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

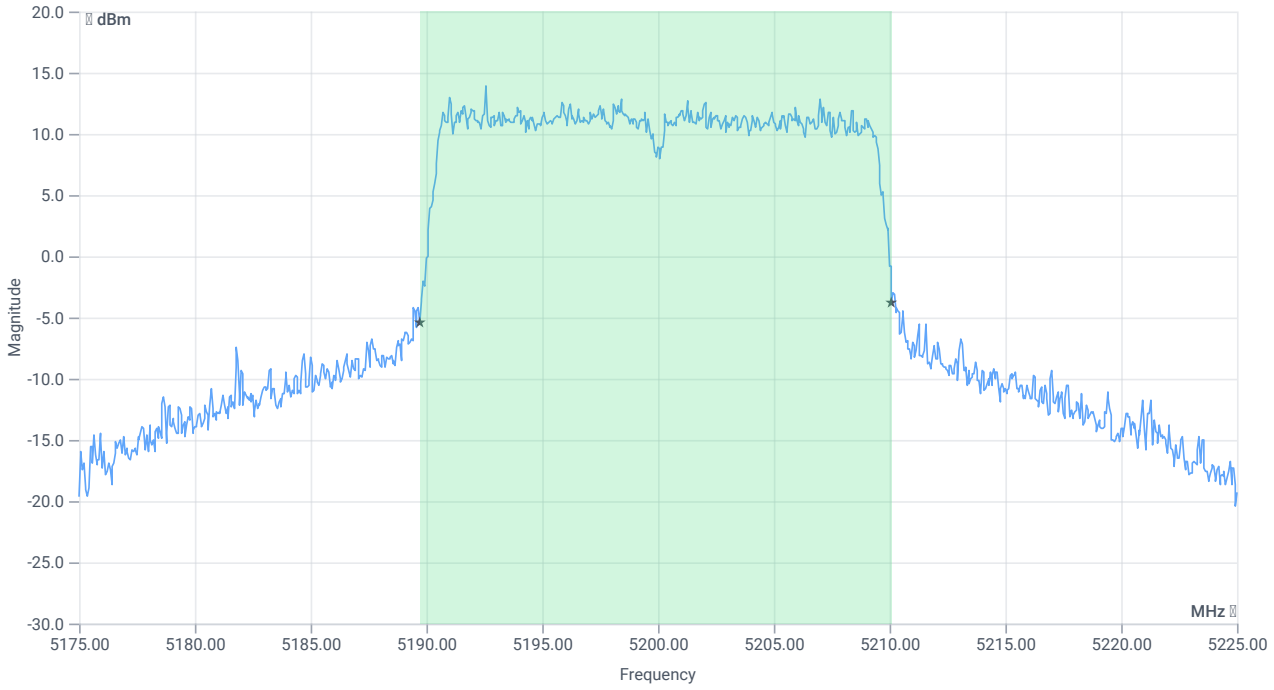
Test at TX 5200 MHz

RESULT: Reference Power cond.

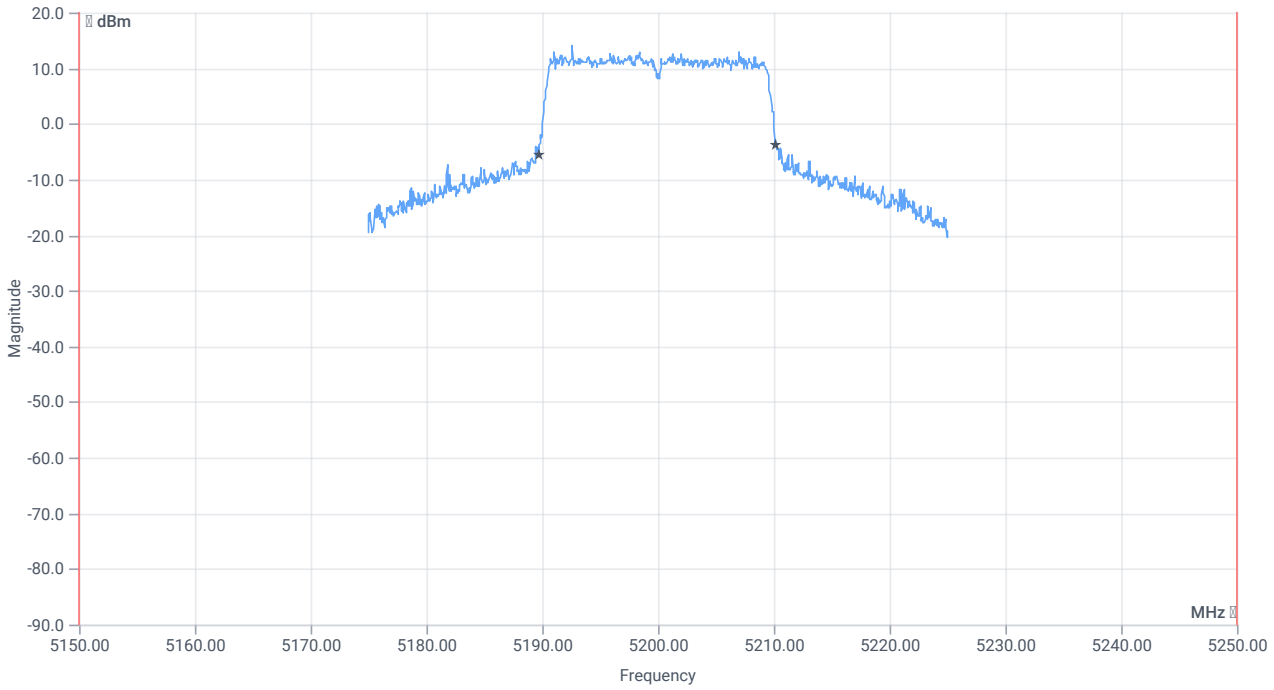
DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	17.28	dBm	INFO
Ref. Frequency	---	---	5202.200	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] | RefLevelOffset [dB] | InpAtt [dB]	25.28 | 16.41 | 25
Start [MHz] | Stop [MHz]	5175.000 | 5225.000
RBW [MHz] | VBW [MHz]	0.300000 | 1.000000
Detector | TraceMode	POS | MAXH
Sweep: time [ms] | count | points per Section | type	1 | 2500 | 1001 | SWE



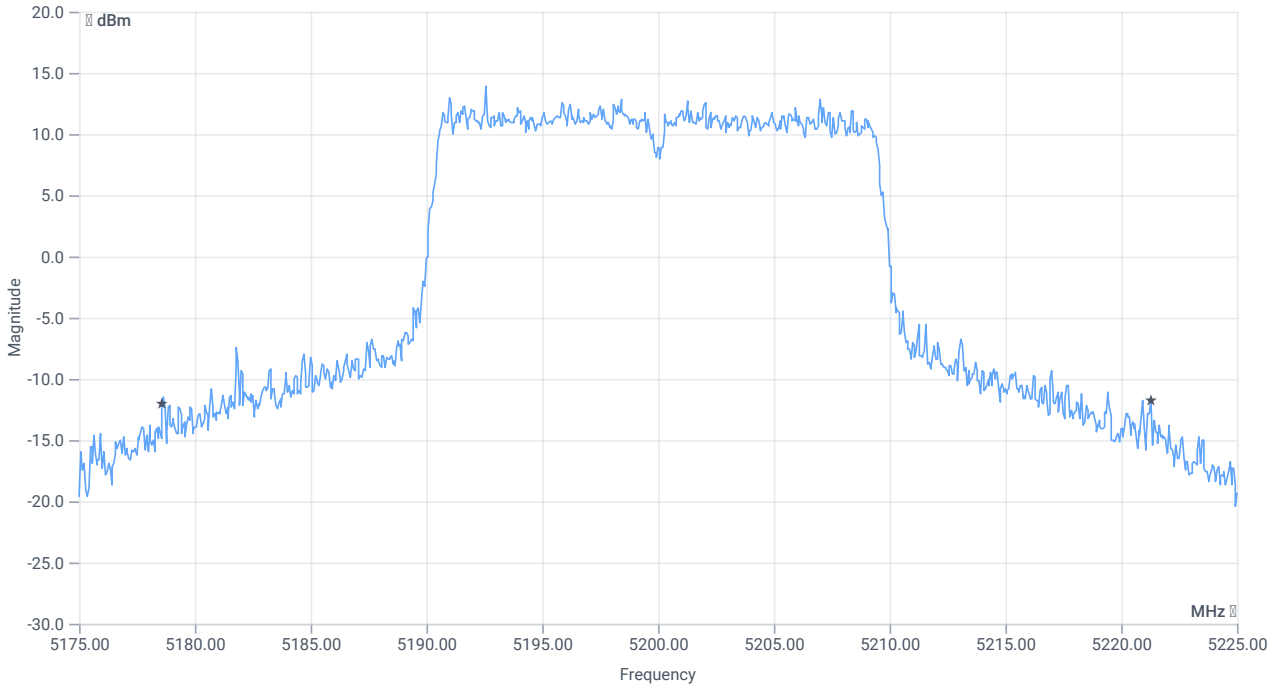
BW 99PCT



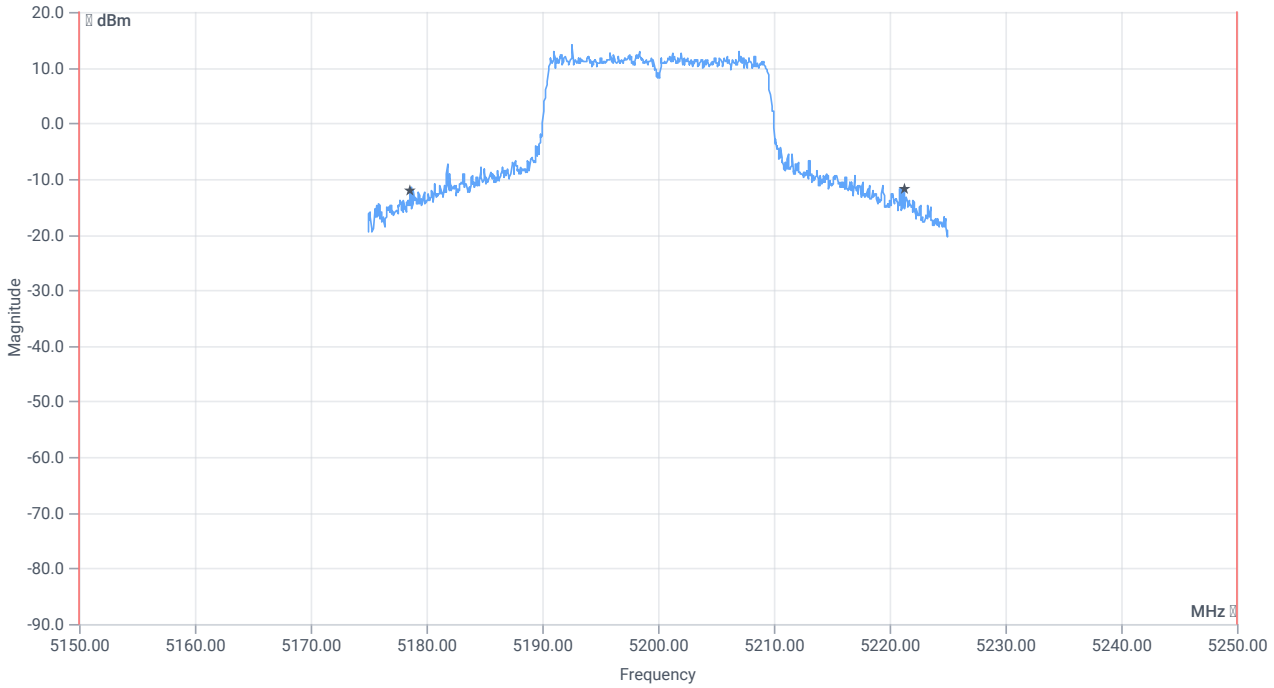
BW within Band 99PCT

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 99%	---	---	20.38	MHz	INFO
T1 99%	5150.000000	---	5189.7103	MHz	PASS
T2 99%	---	5250.000000	5210.0899	MHz	PASS



BW 26dB



BW within Band 26dB

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 26dB	---	---	42.7	MHz	INFO
T1 26dB	5150.000000	---	5178.6000	MHz	PASS
T2 26dB	---	5250.000000	5221.3000	MHz	PASS

Verdict
PASS

FCC 15.407 # Max output power and psd ~ WLAN5Gx ax-HE20 U-NII-1

References

TC start	18.01.2024 14:26:52
Ambit temp [°C] | humidity [rel%]	24.0 | 29
System version	4.7.1.5
Standard | Version	FCC 15.407 | NI
Method	KDB789033 D02, F., E.2.e.
Description	FCC 15.407 Max Output Power & PSD - WLAN5Gx ax-HE20 U-NII-1
Information	

EUT Common Settings WLAN5Gx

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

Test Parameter

Technology to test	WLAN5Gx ax-HE20
Antenna port used	2
Temperature	nom
Voltage	nom
Frequency low to test	False | Freq [MHz] 5180
Frequency mid to test	True | Freq [MHz] 5200
Frequency high to test	False | Freq [MHz] 5240
Auto control enabled power supply | Climatic Box	No | No
Additional path loss [dB]	1.4
Full path name | type	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 5200 MHz

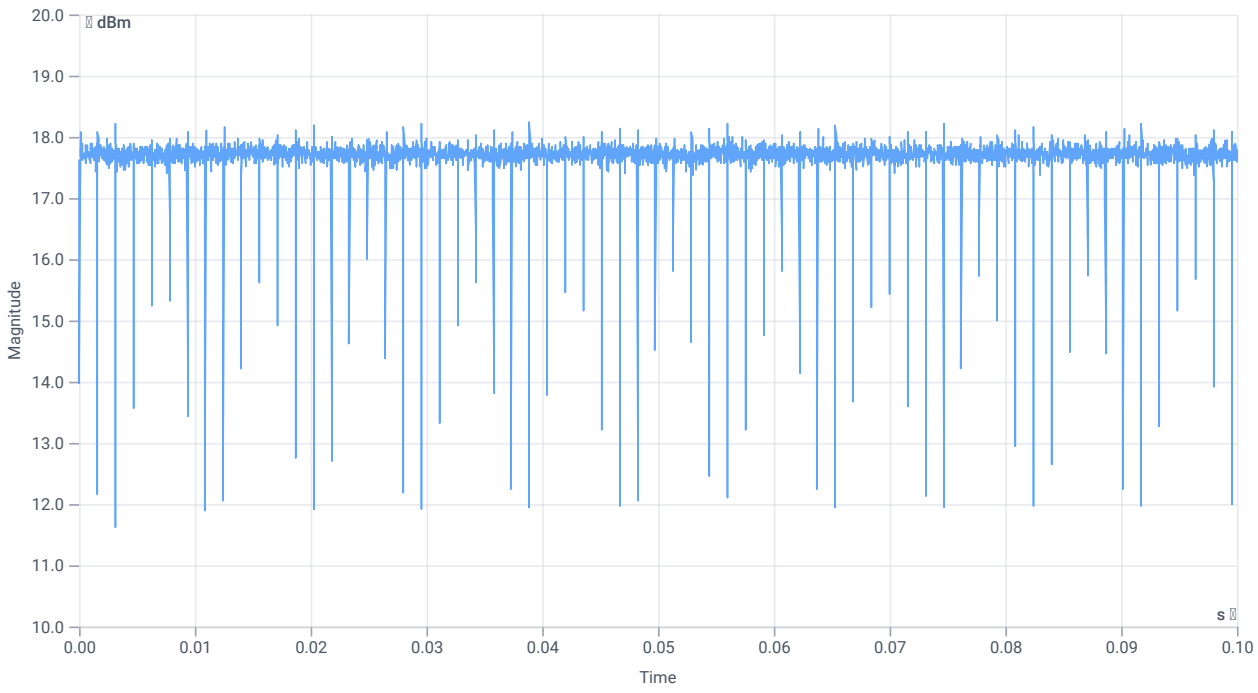
RESULT: Reference Power cond.

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	17.09	dBm	INFO
Ref. Frequency	---	---	5195.400	MHz	INFO

Evaluation max. Duty Cycle

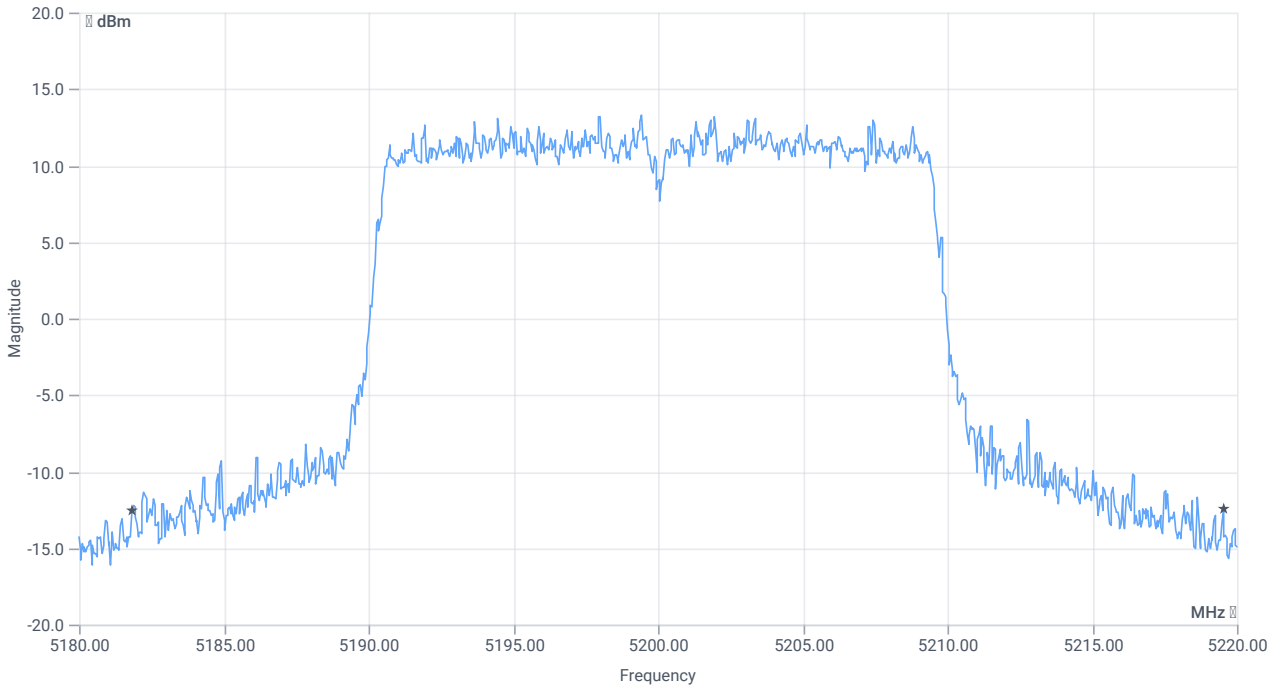
Duty Cycle evaluation

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



Duty cycle

Evaluation Bandwidth



BW 26dB

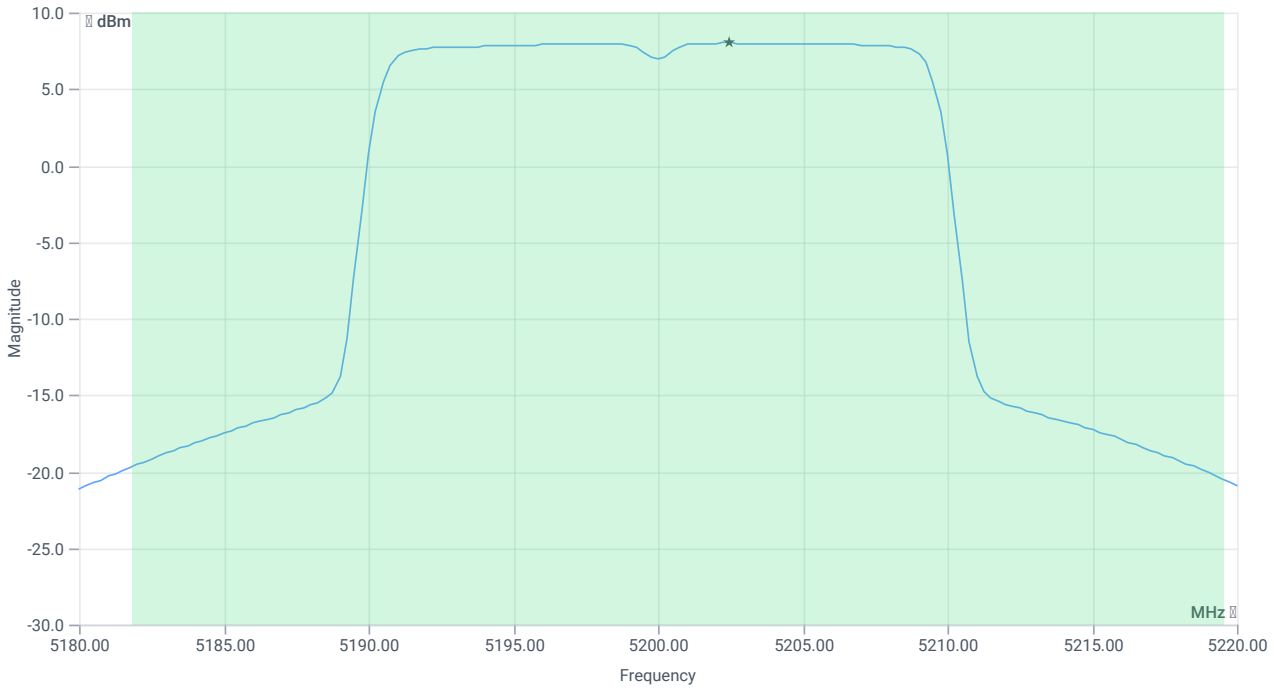
RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 26dB	---	---	37.72	MHz	INFO
T1 26dB	---	---	5181.8000	MHz	INFO
T2 26dB	---	---	5219.5200	MHz	INFO

Maximum Output Power

READ SA SETTINGS:

RefLevel [dBm] | RefLevelOffset [dB] | InpAtt [dB]	29.09 | 16.41 | 30
Start [MHz] | Stop [MHz]	5180.000 | 5220.000
RBW [MHz] | VBW [MHz]	1.000000 | 3.000000
Detector | TraceMode	RMS | MAXH
Sweep: time [ms] | count | points per Section | type	53700 | 1 | 161 | SWE



Max OP and PSD

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Max Output Power	---	---	20.37	dBm	INFO
Duty Cycle Correction	---	---	0	dB	INFO
Limit absolute					
Max Output Power DC corrected	---	24	20.37	dBm	PASS
Limit: 11 dBm + 10 log 37.72					
Max Output Power DC corrected	---	26.77	20.37	dBm	na

Power Spectral Density

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Power Spectral Density	---	---	8.01	dBm/1MHz	INFO
Duty Cycle Correction	---	---	0	dB	INFO
Power Spectral Density DC corrected	---	11	8.01	dBm/1MHz	PASS

Verdict
PASS

FCC 15.407, ISED RSS247 # Bandwidths 99PCT and 20dB ~ WLAN5Gx ax-HE20 U-NII-1

References

TC start	18.01.2024 14:28:21
Ambit temp [°C] | humidity [rel%]	24.0 | 29
System version	4.7.1.5
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-HE20 U-NII-1
Information	

EUT Common Settings WLAN5Gx

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

Test Parameter

Technology to test	WLAN5Gx ax-HE20
Antenna port used	2
Temperature	nom
Voltage	nom
Frequency low to test	False | Freq [MHz] 5180
Frequency mid to test	True | Freq [MHz] 5200
Frequency high to test	False | Freq [MHz] 5240
Auto control enabled power supply | Climatic Box	No | No
Additional path loss [dB]	1.4
Full path name | type	EUT - SignalingUnit - SpectrumAnalyzer

Equipment

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

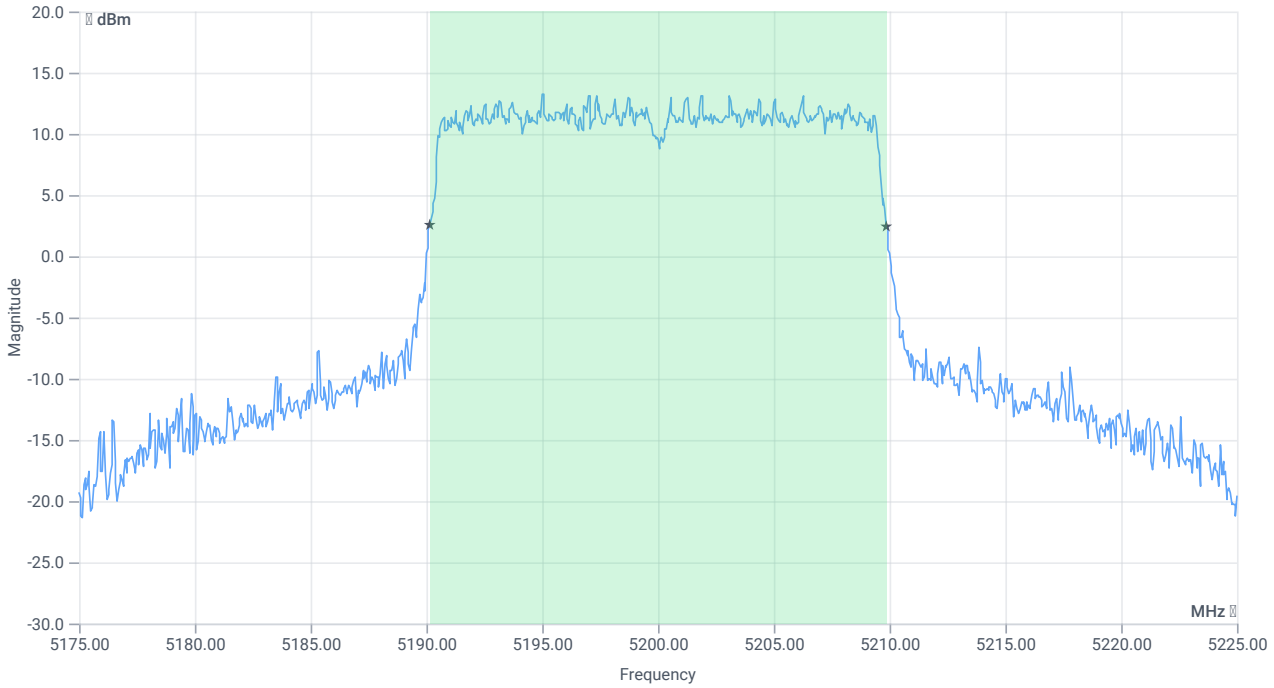
Test at TX 5200 MHz

RESULT: Reference Power cond.

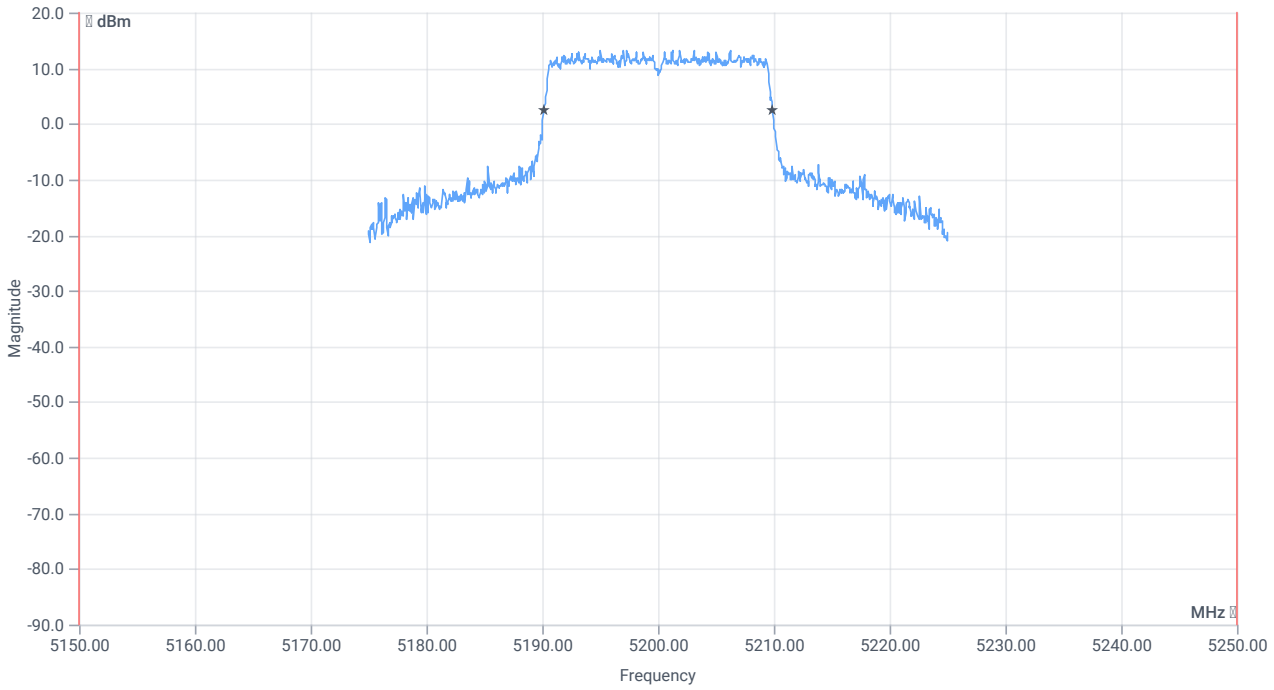
DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	18.80	dBm	INFO
Ref. Frequency	---	---	5202.200	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] | RefLevelOffset [dB] | InpAtt [dB]	26.80 | 16.41 | 30
Start [MHz] | Stop [MHz]	5175.000 | 5225.000
RBW [MHz] | VBW [MHz]	0.300000 | 1.000000
Detector | TraceMode	POS | MAXH
Sweep: time [ms] | count | points per Section | type	1 | 2500 | 1001 | SWE



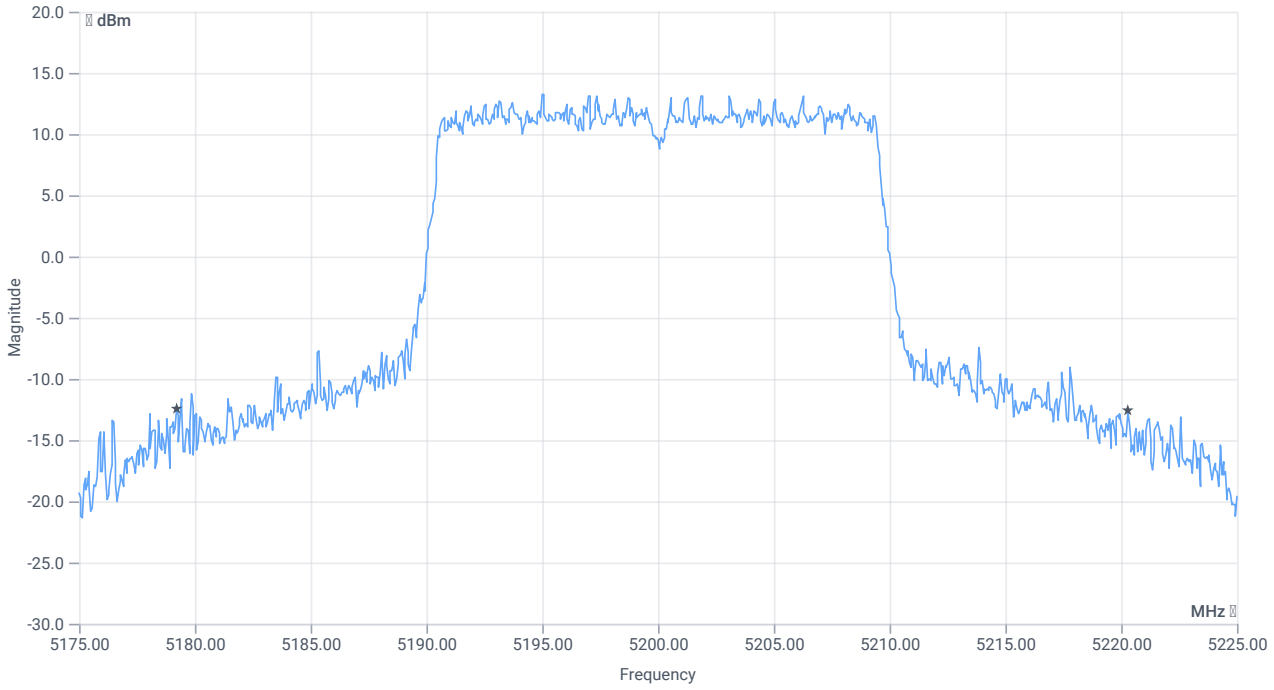
BW 99PCT



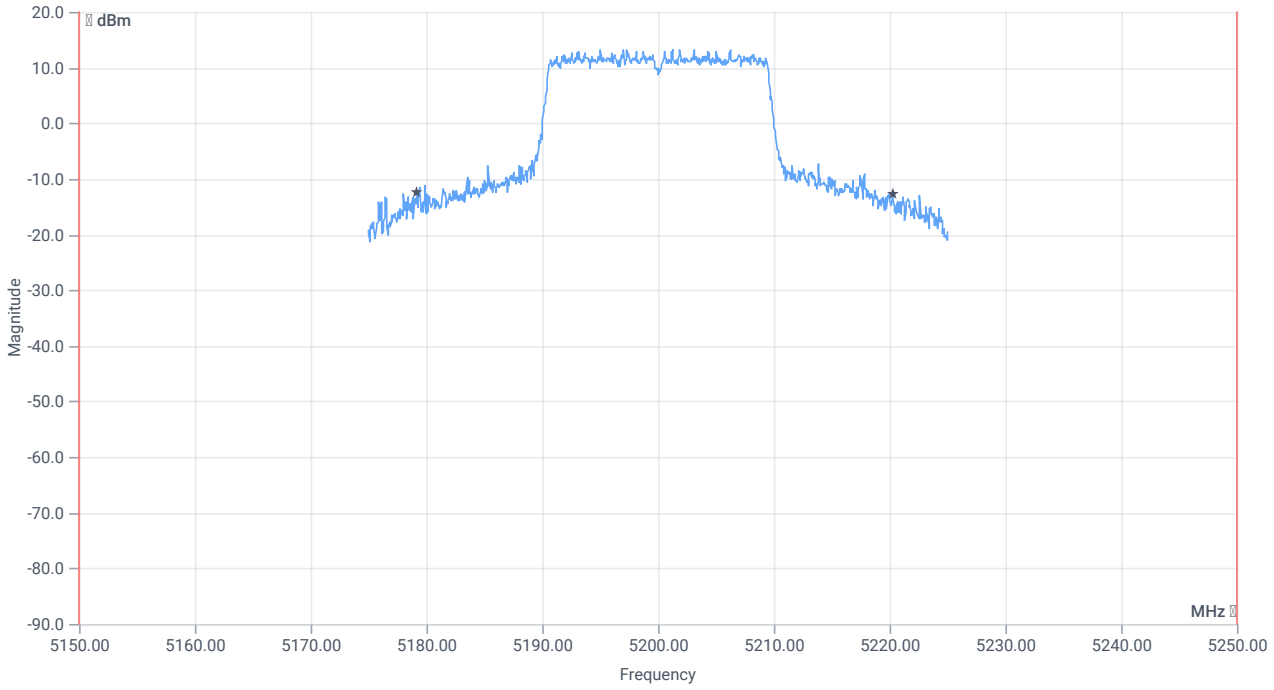
BW within Band 99PCT

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 99%	---	---	19.73	MHz	INFO
T1 99%	5150.000000	---	5190.1598	MHz	PASS
T2 99%	---	5250.000000	5209.8901	MHz	PASS



BW 26dB



BW within Band 26dB

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 26dB	---	---	41.1	MHz	INFO
T1 26dB	5150.000000	---	5179.2000	MHz	PASS
T2 26dB	---	5250.000000	5220.3000	MHz	PASS

Verdict
PASS

FCC 15.407 # MIMO ∑ Max output power and psd ~ WLAN5Gx ax-HE20 U-NII-1

References

TC start	18.01.2024 14:28:57
Ambit temp [°C] | humidity [rel%]	24.0 | 29
System version	4.7.1.5
Standard | Version	FCC 15.407 | NI
Method	
Description	MIMO ∑ FCC Power & psd - WLAN5Gx ax-HE20 U-NII-1
Information	

EUT Common Settings WLAN5Gx

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

Test Parameter

Technology to test	WLAN5Gx ax-HE20
Antenna port used	several
Temperature	nom
Voltage	nom
Frequency low to test	False | Freq [MHz] 5180
Frequency mid to test	True | Freq [MHz] 5200
Frequency high to test	False | Freq [MHz] 5240
Auto control enabled power supply | Climatic Box	No | No
Additional path loss [dB]	1.4
Full path name | type	None

Equipment

Test at TX 5200 MHz

RESULT Power

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ant:1 Max Output Power DC corrected	---	---	19.99	dBm	INFO
Ant:1 BW 26dB	---	---	40.000	MHz	INFO
Ant:2 Max Output Power DC corrected	---	---	20.37	dBm	INFO
Ant:2 BW 26dB	---	---	37.720	MHz	INFO
∑ Limit absolute	---	24	23.19	dBm	PASS
∑ Limit: 11 dBm + 10 log 37.72	---	26.77	23.19	dBm	na

RESULT PSD

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ant:1 PSD	---	---	7.66	dBm/1MHz	INFO
Ant:2 PSD	---	---	8.01	dBm/1MHz	INFO
∑	---	11	10.85	dBm/1MHz	PASS

Verdict
PASS

FCC 15.407 # Max output power and psd ~ WLAN5Gx ax-HE20 U-NII-1

References

TC start	22.01.2024 09:15:04
Ambit temp [°C] | humidity [rel%]	19.6 | 36
System version	4.7.1.5
Standard | Version	FCC 15.407 | NI
Method	KDB789033 D02, F., E.2.e.
Description	FCC 15.407 Max Output Power & PSD - WLAN5Gx ax-HE20 U-NII-1
Information	

EUT Common Settings WLAN5Gx

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

Test Parameter

Technology to test	WLAN5Gx ax-HE20
Antenna port used	1
Temperature	nom
Voltage	nom
Frequency low to test	False | Freq [MHz] 5180
Frequency mid to test	False | Freq [MHz] 5200
Frequency high to test	True | Freq [MHz] 5240
Auto control enabled power supply | Climatic Box	No | No
Additional path loss [dB]	1.4
Full path name | type	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 5240 MHz

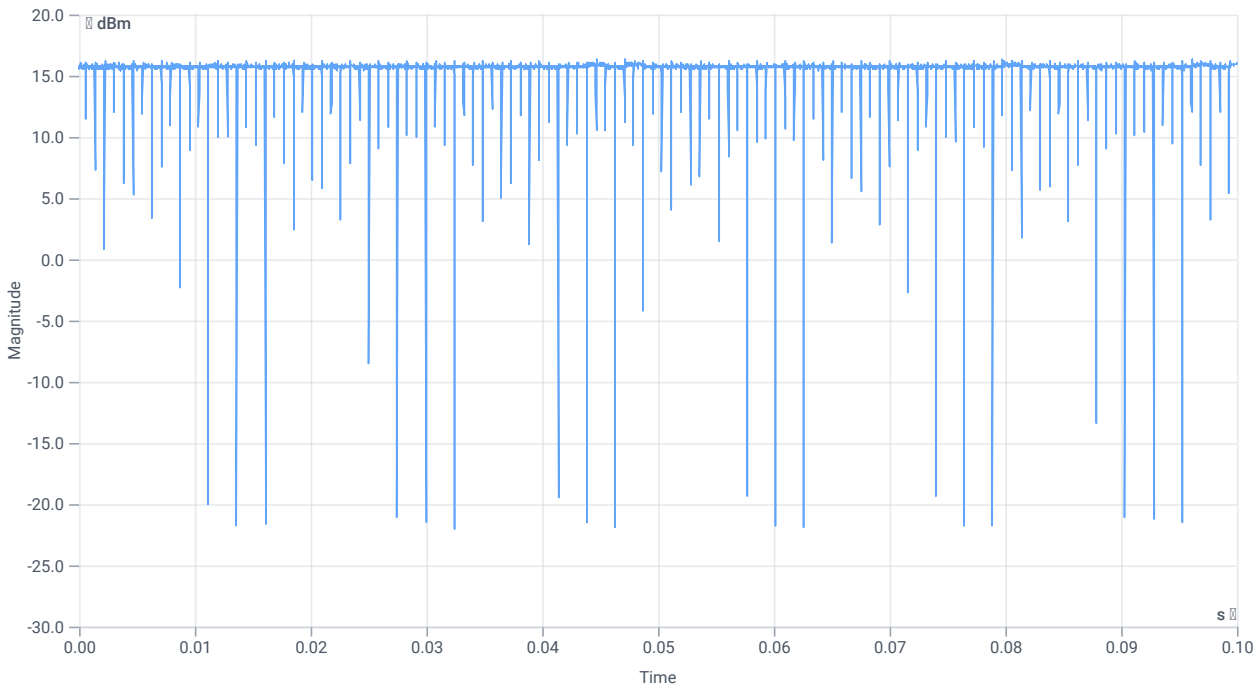
RESULT: Reference Power cond.

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	14.68	dBm	INFO
Ref. Frequency	---	---	5244.400	MHz	INFO

Evaluation max. Duty Cycle

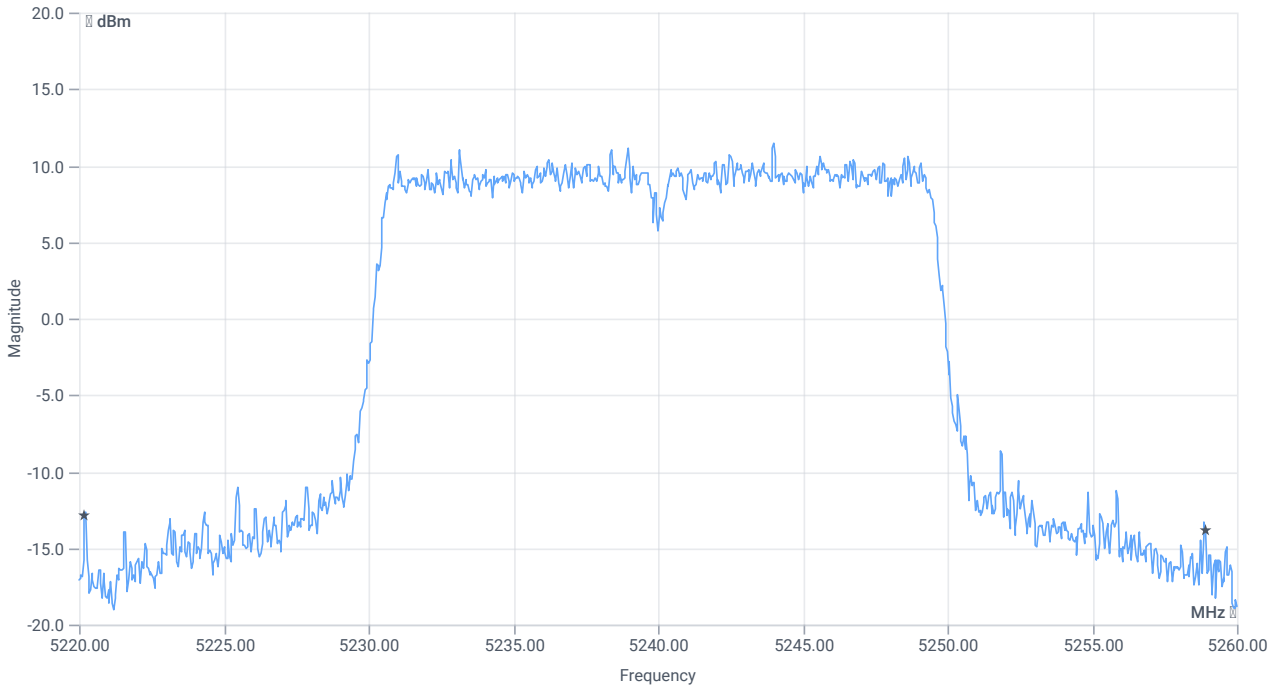
Duty Cycle evaluation

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Result Summary					
Number of detected Bursts:45					
Duty Cycle (Burst Ratio) max	---	---	0.969	---	INFO
Duty Cycle max	---	---	0.137	dB	INFO
Duty Cycle (Burst Ratio) min	---	---	0.909	---	INFO
Duty Cycle min	---	---	0.414	dB	INFO
Max TX Burst Length	---	---	2.375	ms	INFO
Min Gap Length	---	---	0.075	ms	INFO
Max Gap Length	---	---	0.075	ms	INFO



Duty cycle

Evaluation Bandwidth



BW 26dB

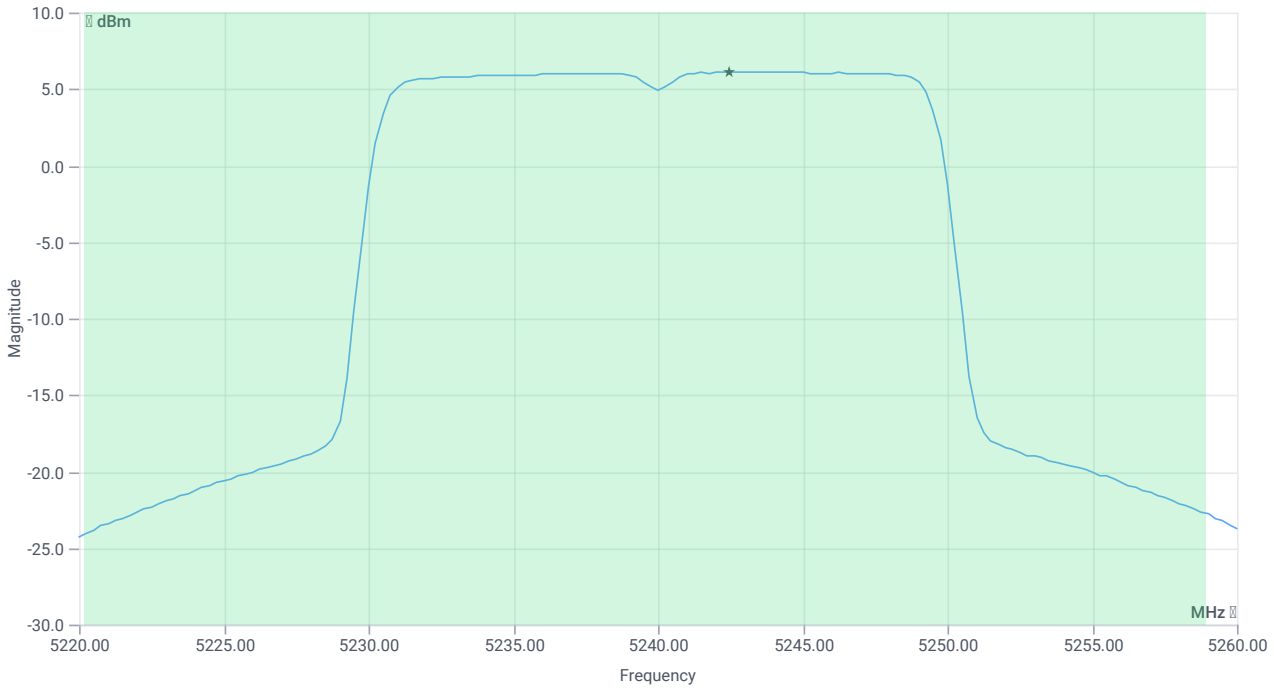
RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 26dB	---	---	38.72	MHz	INFO
T1 26dB	---	---	5220.2000	MHz	INFO
T2 26dB	---	---	5258.9200	MHz	INFO

Maximum Output Power

READ SA SETTINGS:

RefLevel [dBm] | RefLevelOffset [dB] | InpAtt [dB]	26.68 | 16.47 | 25
Start [MHz] | Stop [MHz]	5220.000 | 5260.000
RBW [MHz] | VBW [MHz]	1.000000 | 3.000000
Detector | TraceMode	RMS | MAXH
Sweep: time [ms] | count | points per Section | type	53700 | 1 | 161 | SWE



Max OP and PSD

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Max Output Power	---	---	18.44	dBm	INFO
Duty Cycle Correction	---	---	0.41	dB	INFO
Limit absolute					
Max Output Power DC corrected	---	24	18.85	dBm	PASS
Limit: 11 dBm + 10 log 38.72					
Max Output Power DC corrected	---	26.88	18.85	dBm	na

Power Spectral Density

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Power Spectral Density	---	---	6.09	dBm/1MHz	INFO
Duty Cycle Correction	---	---	0.41	dB	INFO
Power Spectral Density DC corrected	---	11	6.5	dBm/1MHz	PASS

Verdict
PASS

FCC 15.407, ISED RSS247 # Bandwidths 99PCT and 20dB ~ WLAN5Gx ax-HE20 U-NII-1

References

TC start	22.01.2024 09:16:32
Ambit temp [°C] | humidity [rel%]	19.6 | 36
System version	4.7.1.5
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-HE20 U-NII-1
Information	

EUT Common Settings WLAN5Gx

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

Test Parameter

Technology to test	WLAN5Gx ax-HE20
Antenna port used	1
Temperature	nom
Voltage	nom
Frequency low to test	False | Freq [MHz] 5180
Frequency mid to test	False | Freq [MHz] 5200
Frequency high to test	True | Freq [MHz] 5240
Auto control enabled power supply | Climatic Box	No | No
Additional path loss [dB]	1.4
Full path name | type	EUT - SignalingUnit - SpectrumAnalyzer

Equipment

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

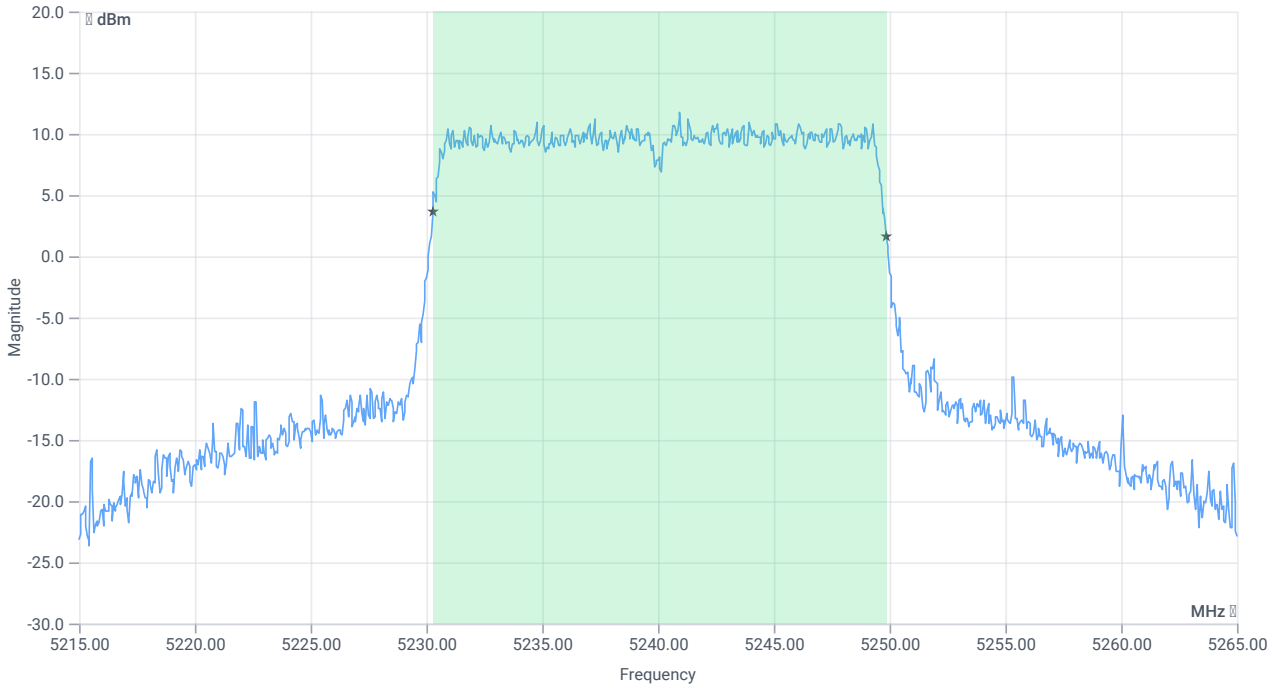
Test at TX 5240 MHz

RESULT: Reference Power cond.

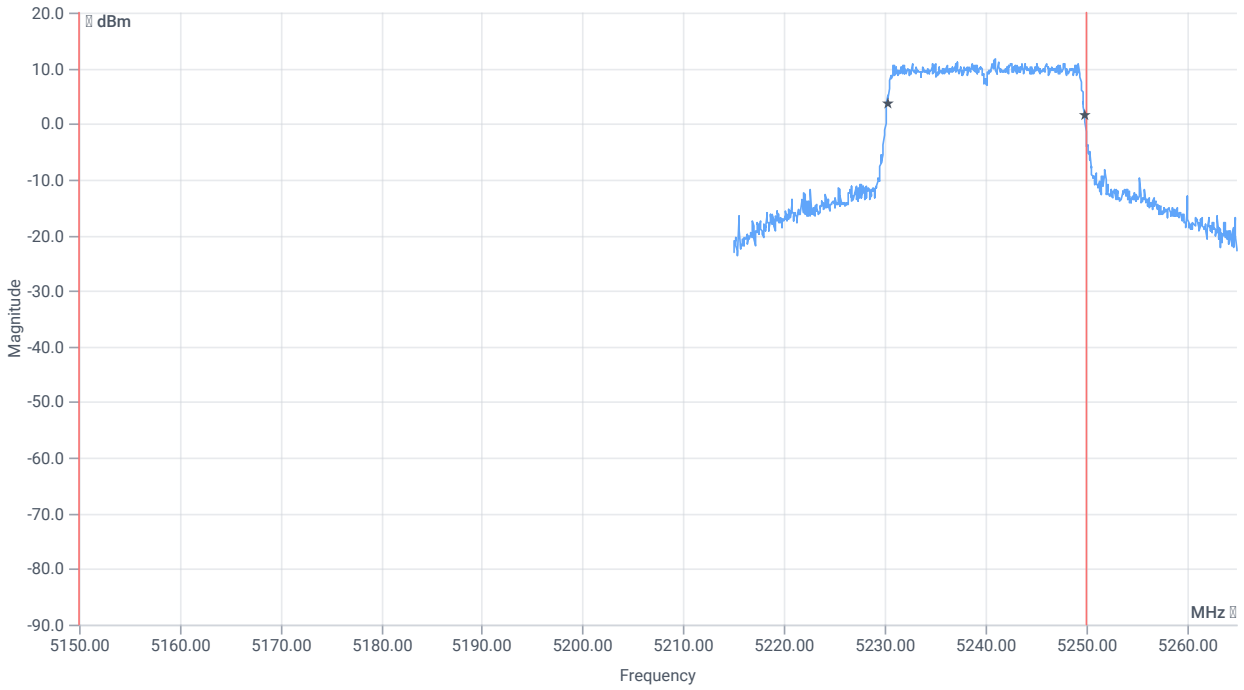
DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	14.67	dBm	INFO
Ref. Frequency	---	---	5237.000	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] | RefLevelOffset [dB] | InpAtt [dB]	22.67 | 16.47 | 25
Start [MHz] | Stop [MHz]	5215.000 | 5265.000
RBW [MHz] | VBW [MHz]	0.300000 | 1.000000
Detector | TraceMode	POS | MAXH
Sweep: time [ms] | count | points per Section | type	1 | 2500 | 1001 | SWE



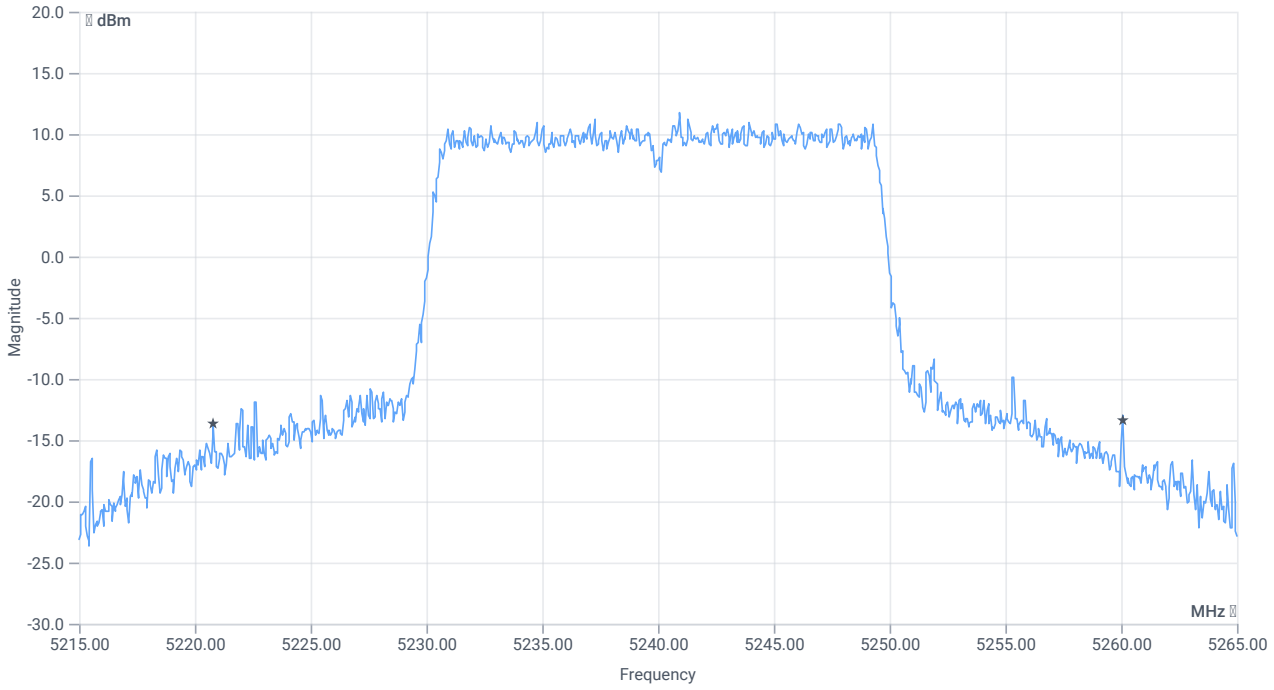
BW 99PCT



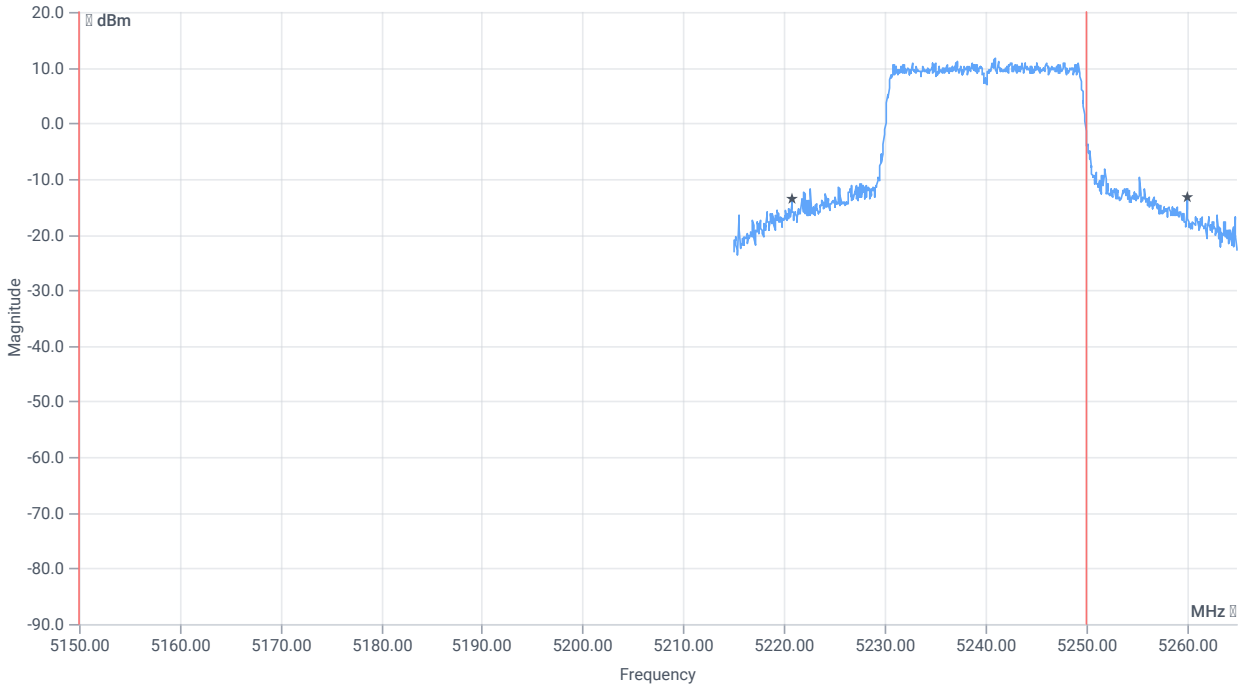
BW within Band 99PCT

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 99%	---	---	19.58	MHz	INFO
T1 99%	5150.000000	---	5230.2597	MHz	PASS
T2 99%	---	5250.000000	5249.8402	MHz	PASS



BW 26dB



BW within Band 26dB

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 26dB	---	---	39.3	MHz	INFO
T1 26dB	5150.000000	---	5220.8000	MHz	PASS
T2 26dB	---	5250.000000	5260.1000	MHz	DFS required

Verdict
PASS

FCC 15.407 # Max output power and psd ~ WLAN5Gx ax-HE20 U-NII-1

References

TC start	22.01.2024 09:17:06
Ambit temp [°C] | humidity [rel%]	19.6 | 35
System version	4.7.1.5
Standard | Version	FCC 15.407 | NI
Method	KDB789033 D02, F., E.2.e.
Description	FCC 15.407 Max Output Power & PSD - WLAN5Gx ax-HE20 U-NII-1
Information	

EUT Common Settings WLAN5Gx

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

Test Parameter

Technology to test	WLAN5Gx ax-HE20
Antenna port used	2
Temperature	nom
Voltage	nom
Frequency low to test	False | Freq [MHz] 5180
Frequency mid to test	False | Freq [MHz] 5200
Frequency high to test	True | Freq [MHz] 5240
Auto control enabled power supply | Climatic Box	No | No
Additional path loss [dB]	1.4
Full path name | type	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 5240 MHz

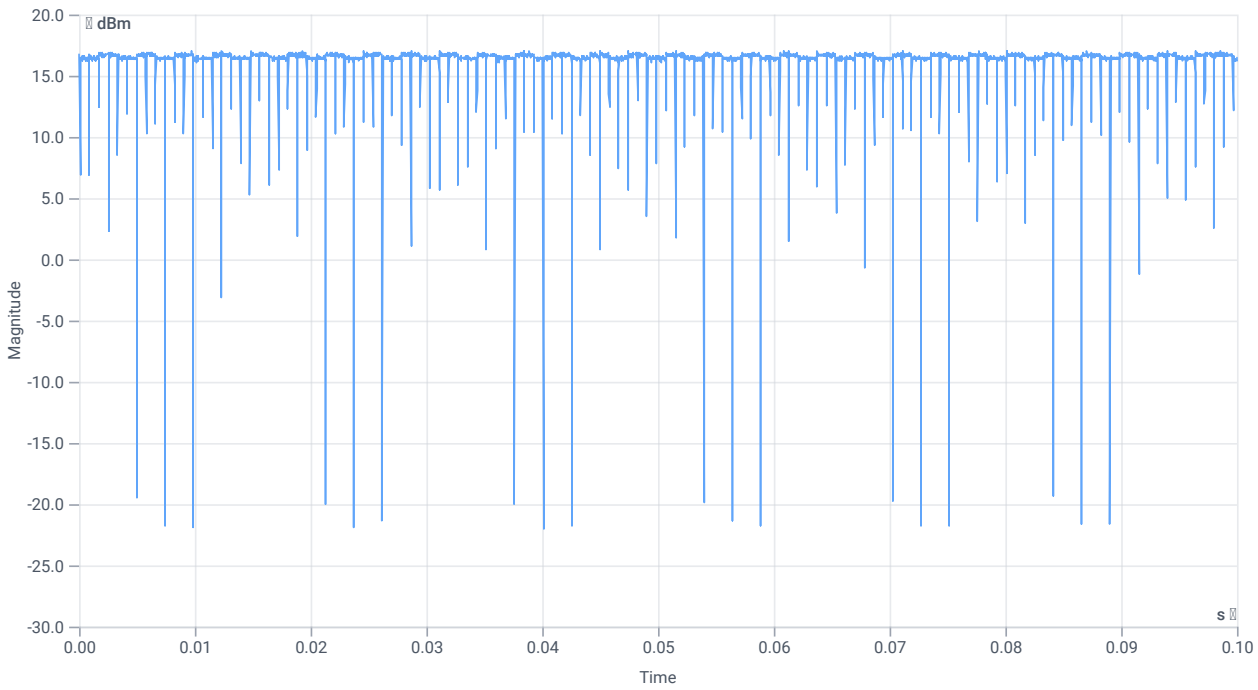
RESULT: Reference Power cond.

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	16.55	dBm	INFO
Ref. Frequency	---	---	5236.400	MHz	INFO

Evaluation max. Duty Cycle

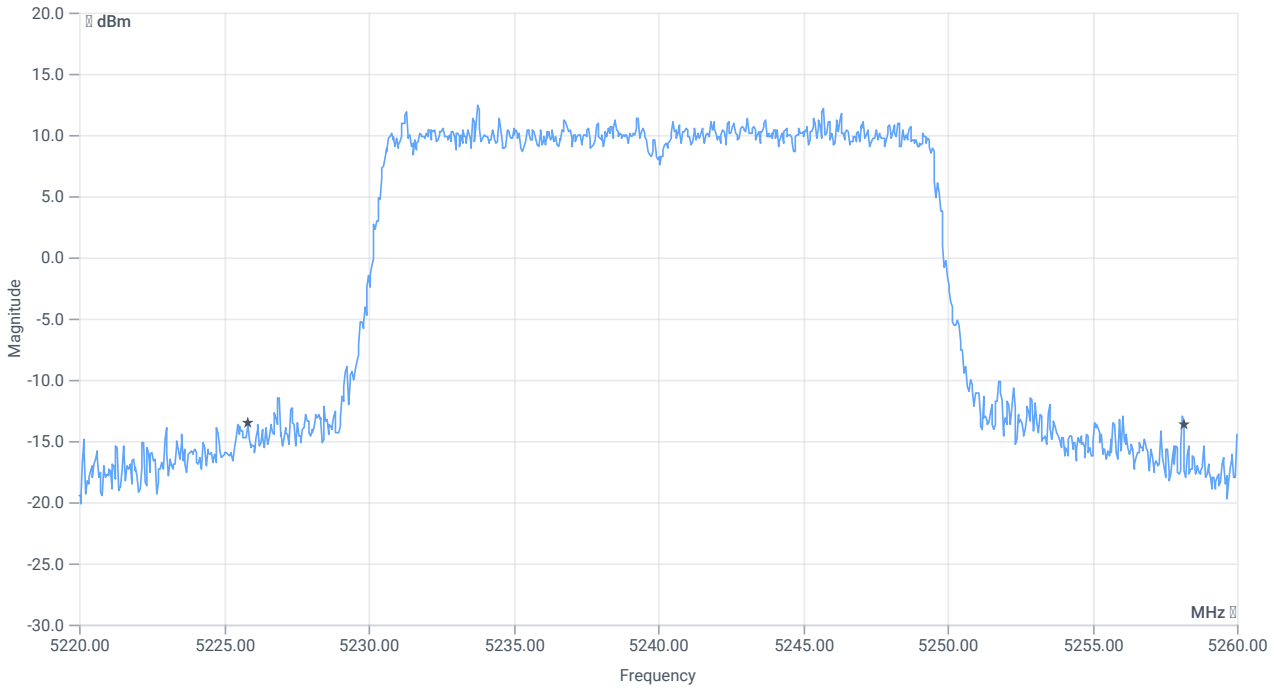
Duty Cycle evaluation

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Result Summary					
Number of detected Bursts:44					
Duty Cycle (Burst Ratio) max	---	---	0.969	---	INFO
Duty Cycle max	---	---	0.137	dB	INFO
Duty Cycle (Burst Ratio) min	---	---	0.909	---	INFO
Duty Cycle min	---	---	0.414	dB	INFO
Max TX Burst Length	---	---	2.375	ms	INFO
Min Gap Length	---	---	0.075	ms	INFO
Max Gap Length	---	---	0.075	ms	INFO



Duty cycle

Evaluation Bandwidth



BW 26dB

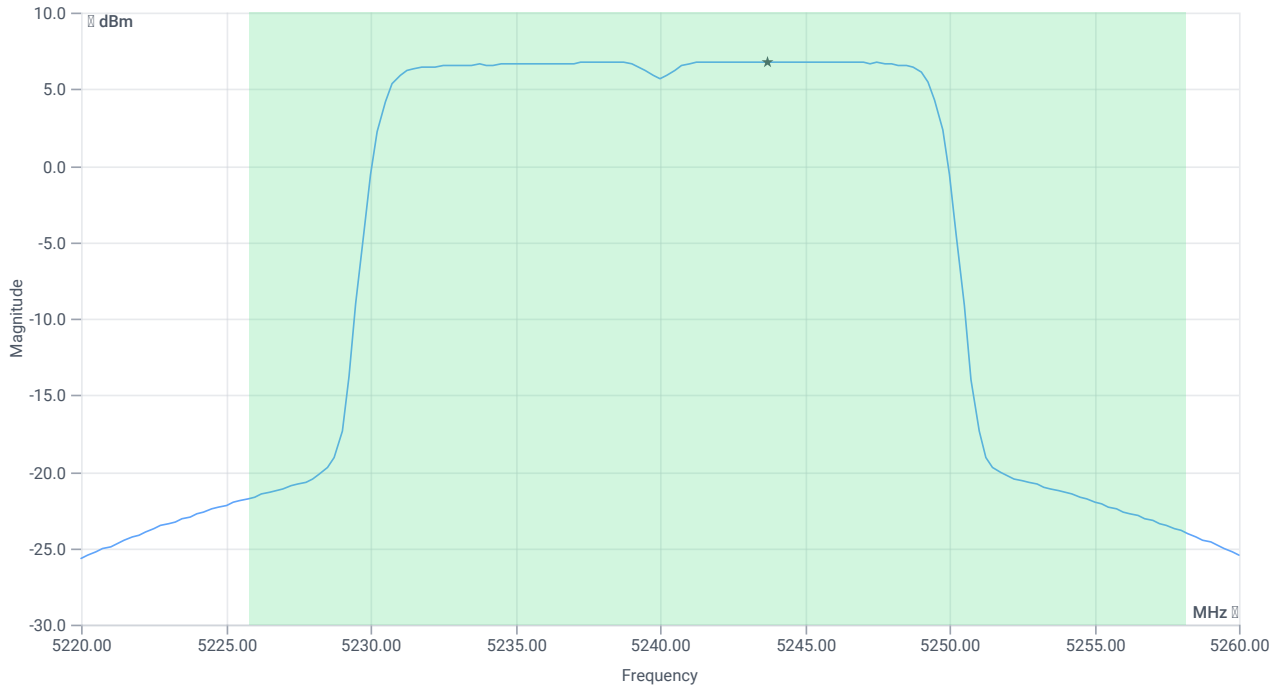
RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 26dB	---	---	32.32	MHz	INFO
T1 26dB	---	---	5225.8400	MHz	INFO
T2 26dB	---	---	5258.1600	MHz	INFO

Maximum Output Power

READ SA SETTINGS:

RefLevel [dBm] | RefLevelOffset [dB] | InpAtt [dB]	28.55 | 16.47 | 30
Start [MHz] | Stop [MHz]	5220.000 | 5260.000
RBW [MHz] | VBW [MHz]	1.000000 | 3.000000
Detector | TraceMode	RMS | MAXH
Sweep: time [ms] | count | points per Section | type	53700 | 1 | 161 | SWE



Max OP and PSD

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Max Output Power	---	---	19.15	dBm	INFO
Duty Cycle Correction	---	---	0.41	dB	INFO
Limit absolute					
Max Output Power DC corrected	---	24	19.56	dBm	PASS
Limit: 11 dBm + 10 log 32.32					
Max Output Power DC corrected	---	26.09	19.56	dBm	na

Power Spectral Density

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Power Spectral Density	---	---	6.8	dBm/1MHz	INFO
Duty Cycle Correction	---	---	0.41	dB	INFO
Power Spectral Density DC corrected	---	11	7.21	dBm/1MHz	PASS

Verdict
PASS

FCC 15.407, ISED RSS247 # Bandwidths 99PCT and 20dB ~ WLAN5Gx ax-HE20 U-NII-1

References

TC start	22.01.2024 09:18:33
Ambit temp [°C] | humidity [rel%]	19.7 | 35
System version	4.7.1.5
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-HE20 U-NII-1
Information	

EUT Common Settings WLAN5Gx

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

Test Parameter

Technology to test	WLAN5Gx ax-HE20
Antenna port used	2
Temperature	nom
Voltage	nom
Frequency low to test	False | Freq [MHz] 5180
Frequency mid to test	False | Freq [MHz] 5200
Frequency high to test	True | Freq [MHz] 5240
Auto control enabled power supply | Climatic Box	No | No
Additional path loss [dB]	1.4
Full path name | type	EUT - SignalingUnit - SpectrumAnalyzer

Equipment

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

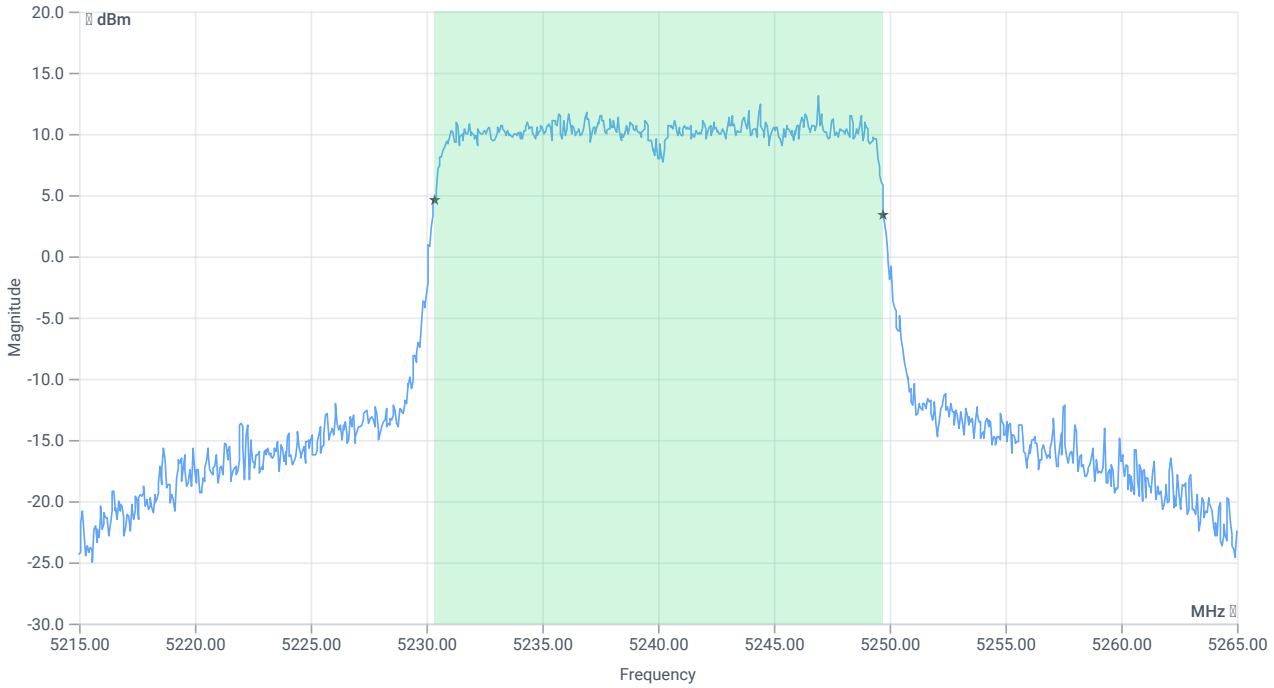
Test at TX 5240 MHz

RESULT: Reference Power cond.

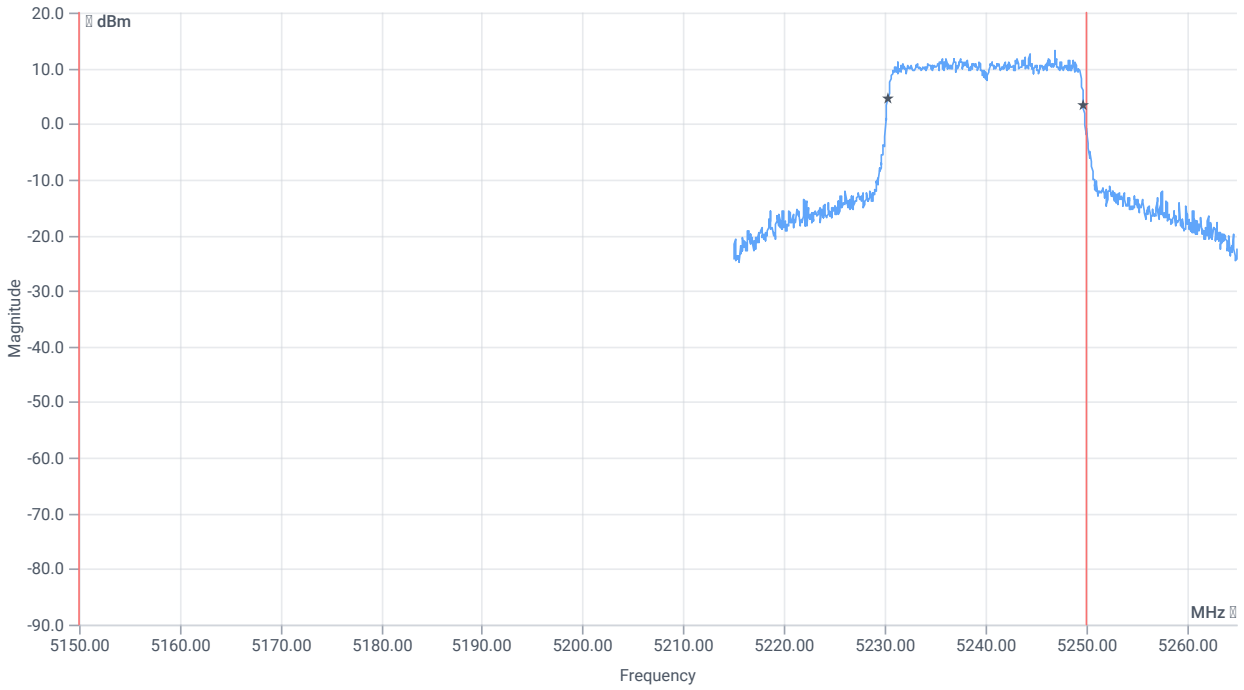
DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	16.40	dBm	INFO
Ref. Frequency	---	---	5231.610	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] | RefLevelOffset [dB] | InpAtt [dB]	24.40 | 16.47 | 25
Start [MHz] | Stop [MHz]	5215.000 | 5265.000
RBW [MHz] | VBW [MHz]	0.300000 | 1.000000
Detector | TraceMode	POS | MAXH
Sweep: time [ms] | count | points per Section | type	1 | 2500 | 1001 | SWE



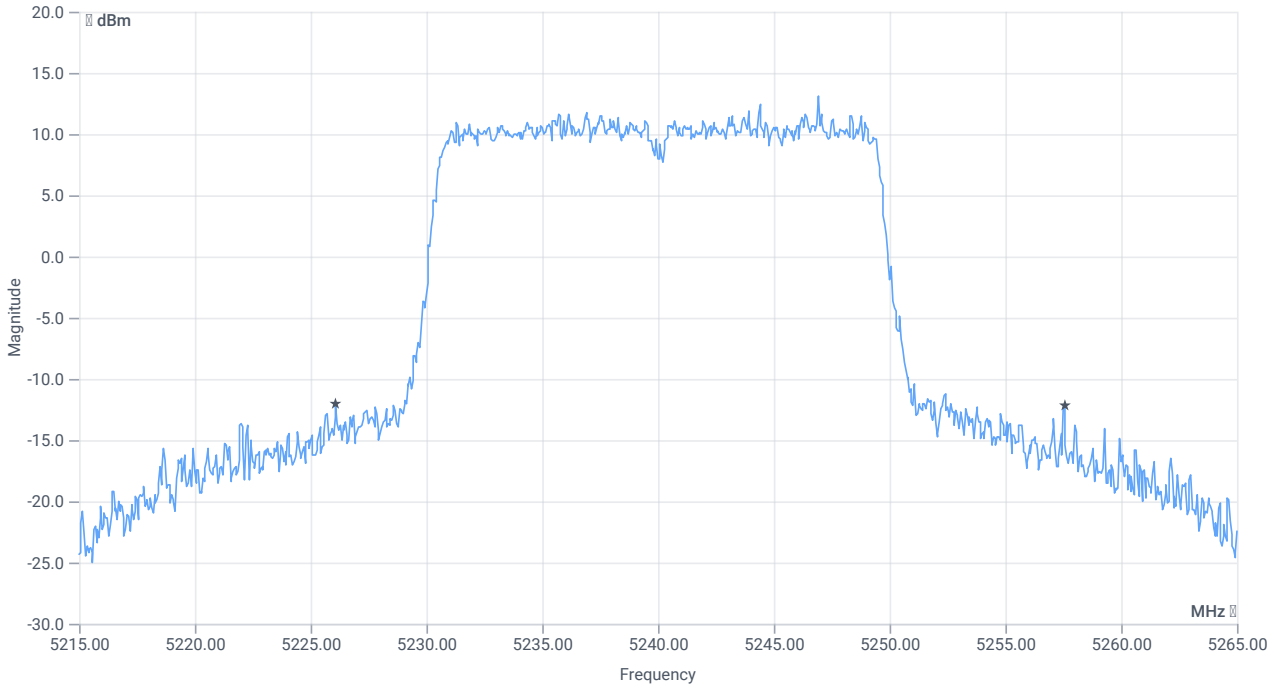
BW 99PCT



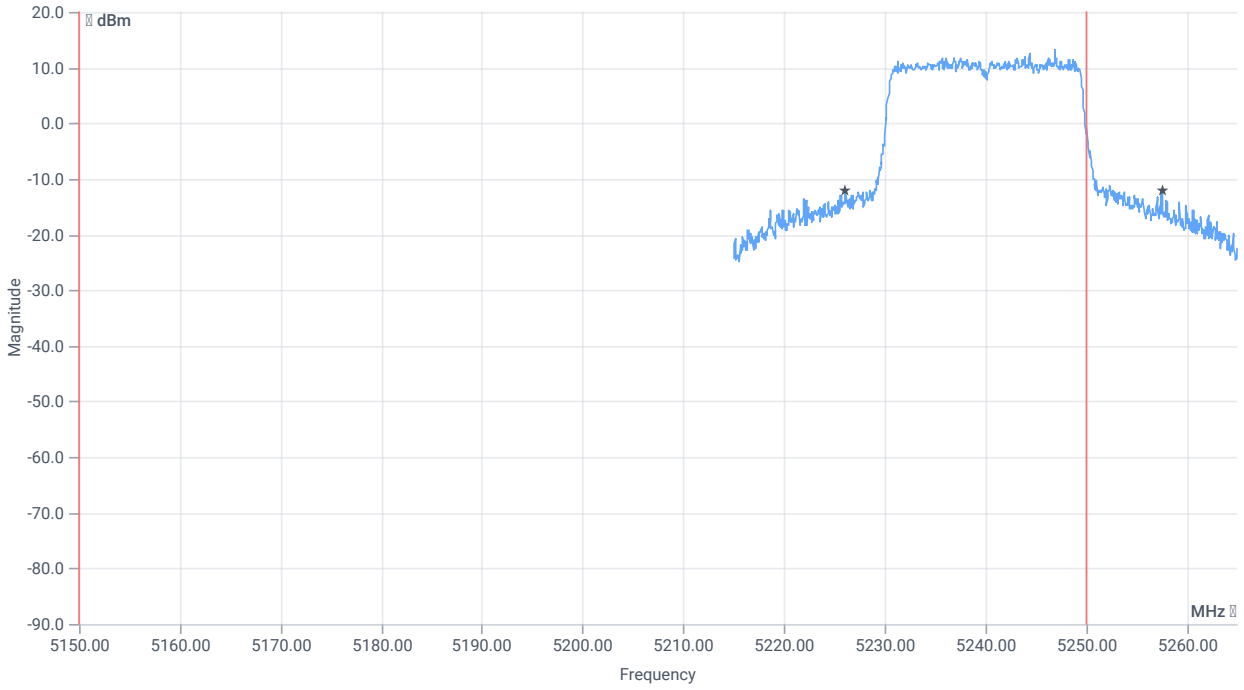
BW within Band 99PCT

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 99%	---	---	19.381	MHz	INFO
T1 99%	5150.000000	---	5230.3596	MHz	PASS
T2 99%	---	5250.000000	5249.7403	MHz	PASS



BW 26dB



BW within Band 26dB

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 26dB	---	---	31.45	MHz	INFO
T1 26dB	5150.000000	---	5226.1000	MHz	PASS
T2 26dB	---	5250.000000	5257.5500	MHz	DFS required

Verdict
PASS

FCC 15.407 # MIMO ∑ Max output power and psd ~ WLAN5Gx ax-HE20 U-NII-1

References

TC start	22.01.2024 09:19:06
Ambit temp [°C] | humidity [rel%]	19.7 | 35
System version	4.7.1.5
Standard | Version	FCC 15.407 | NI
Method	
Description	MIMO ∑ FCC Power & psd - WLAN5Gx ax-HE20 U-NII-1
Information	

EUT Common Settings WLAN5Gx

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

Test Parameter

Technology to test	WLAN5Gx ax-HE20
Antenna port used	several
Temperature	nom
Voltage	nom
Frequency low to test	False | Freq [MHz] 5180
Frequency mid to test	False | Freq [MHz] 5200
Frequency high to test	True | Freq [MHz] 5240
Auto control enabled power supply | Climatic Box	No | No
Additional path loss [dB]	1.4
Full path name | type	None

Equipment

Test at TX 5240 MHz

RESULT Power

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ant:1 Max Output Power DC corrected	---	---	18.85	dBm	INFO
Ant:1 BW 26dB	---	---	38.720	MHz	INFO
Ant:2 Max Output Power DC corrected	---	---	19.56	dBm	INFO
Ant:2 BW 26dB	---	---	32.320	MHz	INFO
∑ Limit absolute	---	24	22.23	dBm	PASS
∑ Limit: 11 dBm + 10 log 32.32	---	26.09	22.23	dBm	na

RESULT PSD

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ant:1 PSD	---	---	6.5	dBm/1MHz	INFO
Ant:2 PSD	---	---	7.21	dBm/1MHz	INFO
∑	---	11	9.88	dBm/1MHz	PASS

Verdict
PASS

FCC 15.407 # Max output power and psd ~ WLAN5Gx ax-HE20 U-NII-2A

References

TC start	18.01.2024 14:37:02
Ambit temp [°C] | humidity [rel%]	24.2 | 29
System version	4.7.1.5
Standard | Version	FCC 15.407 | NI
Method	KDB789033 D02, F., E.2.e.
Description	FCC 15.407 Max Output Power & PSD - WLAN5Gx ax-HE20 U-NII-2A
Information	

EUT Common Settings WLAN5Gx

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

Test Parameter

Technology to test	WLAN5Gx ax-HE20
Antenna port used	1
Temperature	nom
Voltage	nom
Frequency low to test	True | Freq [MHz] 5260
Frequency mid to test	False | Freq [MHz] 5280
Frequency high to test	False | Freq [MHz] 5320
Auto control enabled power supply | Climatic Box	No | No
Additional path loss [dB]	1.4
Full path name | type	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 5260 MHz

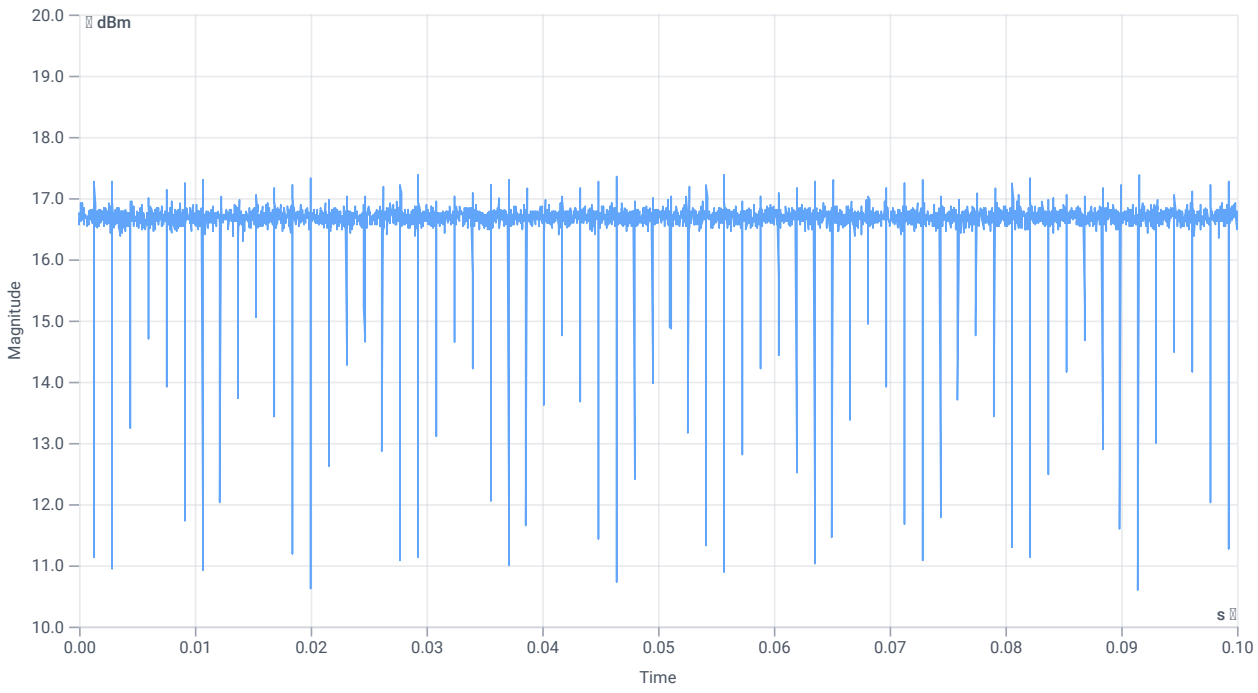
RESULT: Reference Power cond.

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	16.11	dBm	INFO
Ref. Frequency	---	---	5257.200	MHz	INFO

Evaluation max. Duty Cycle

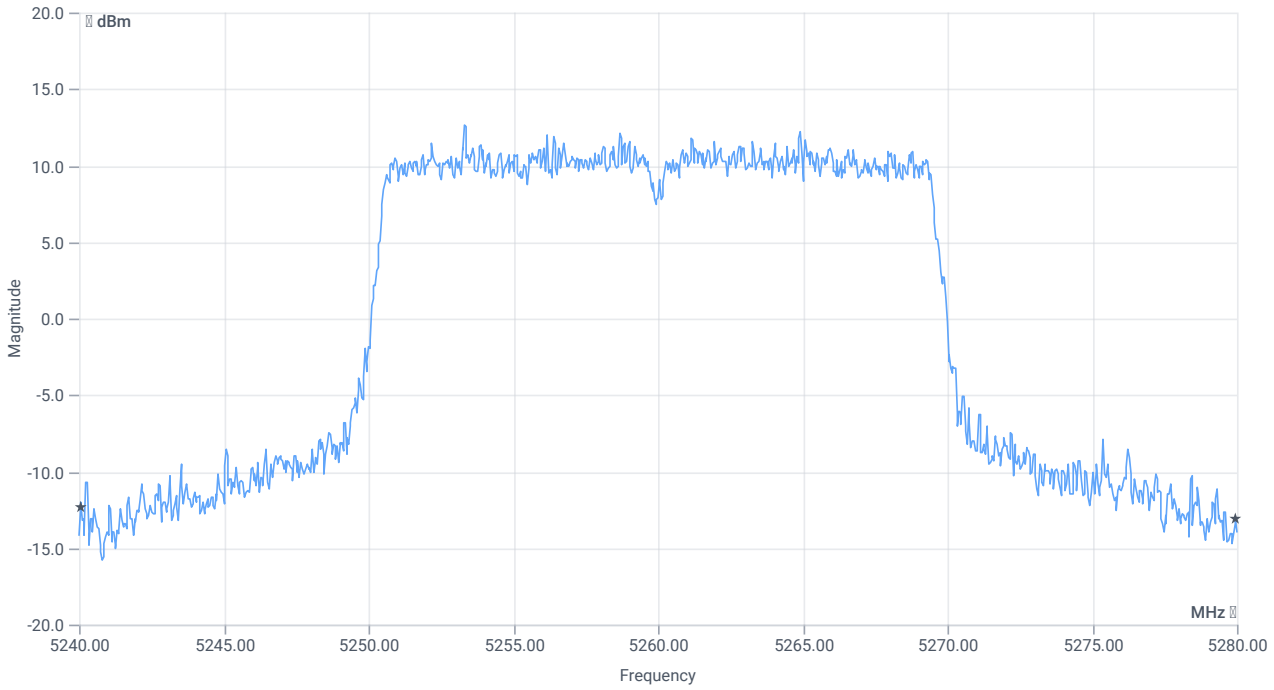
Duty Cycle evaluation

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



Duty cycle

Evaluation Bandwidth



BW 26dB

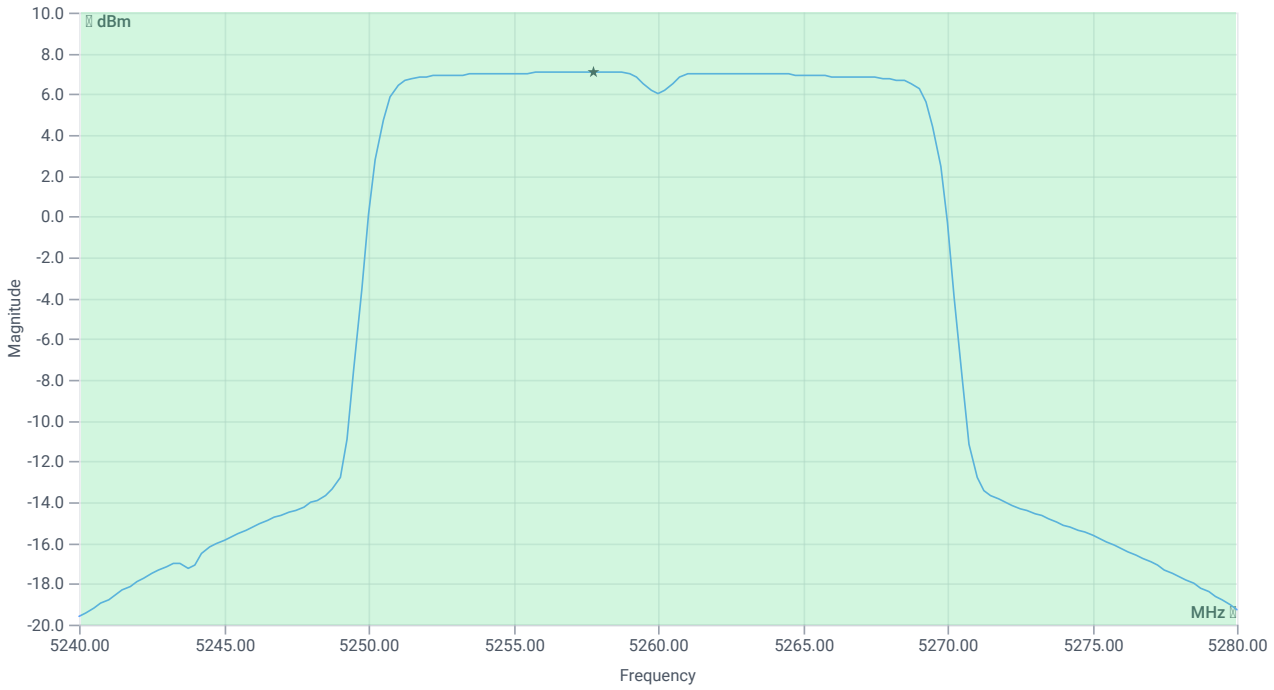
RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 26dB	---	---	39.92	MHz	INFO
T1 26dB	---	---	5240.0400	MHz	INFO
T2 26dB	---	---	5279.9600	MHz	INFO

Maximum Output Power

READ SA SETTINGS:

RefLevel [dBm] | RefLevelOffset [dB] | InpAtt [dB]	28.11 | 16.44 | 30
Start [MHz] | Stop [MHz]	5240.000 | 5280.000
RBW [MHz] | VBW [MHz]	1.000000 | 3.000000
Detector | TraceMode	RMS | MAXH
Sweep: time [ms] | count | points per Section | type	53700 | 1 | 161 | SWE



Max OP and PSD

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Max Output Power	---	---	19.47	dBm	INFO
Duty Cycle Correction	---	---	0	dB	INFO
Limit absolute					
Max Output Power DC corrected	---	24	19.47	dBm	PASS
Limit: 11 dBm + 10 log 39.92					
Max Output Power DC corrected	---	27.01	19.47	dBm	PASS

Power Spectral Density

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Power Spectral Density	---	---	7.09	dBm/1MHz	INFO
Duty Cycle Correction	---	---	0	dB	INFO
Power Spectral Density DC corrected	---	11	7.09	dBm/1MHz	PASS

Verdict
PASS

FCC 15.407, ISED RSS247 # Bandwidths 99PCT and 20dB ~ WLAN5Gx ax-HE20 U-NII-2A

References

TC start	18.01.2024 14:38:28
Ambit temp [°C] | humidity [rel%]	24.2 | 29
System version	4.7.1.5
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-HE20 U-NII-2A
Information	

EUT Common Settings WLAN5Gx

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

Test Parameter

Technology to test	WLAN5Gx ax-HE20
Antenna port used	1
Temperature	nom
Voltage	nom
Frequency low to test	True | Freq [MHz] 5260
Frequency mid to test	False | Freq [MHz] 5280
Frequency high to test	False | Freq [MHz] 5320
Auto control enabled power supply | Climatic Box	No | No
Additional path loss [dB]	1.4
Full path name | type	EUT - SignalingUnit - SpectrumAnalyzer

Equipment

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

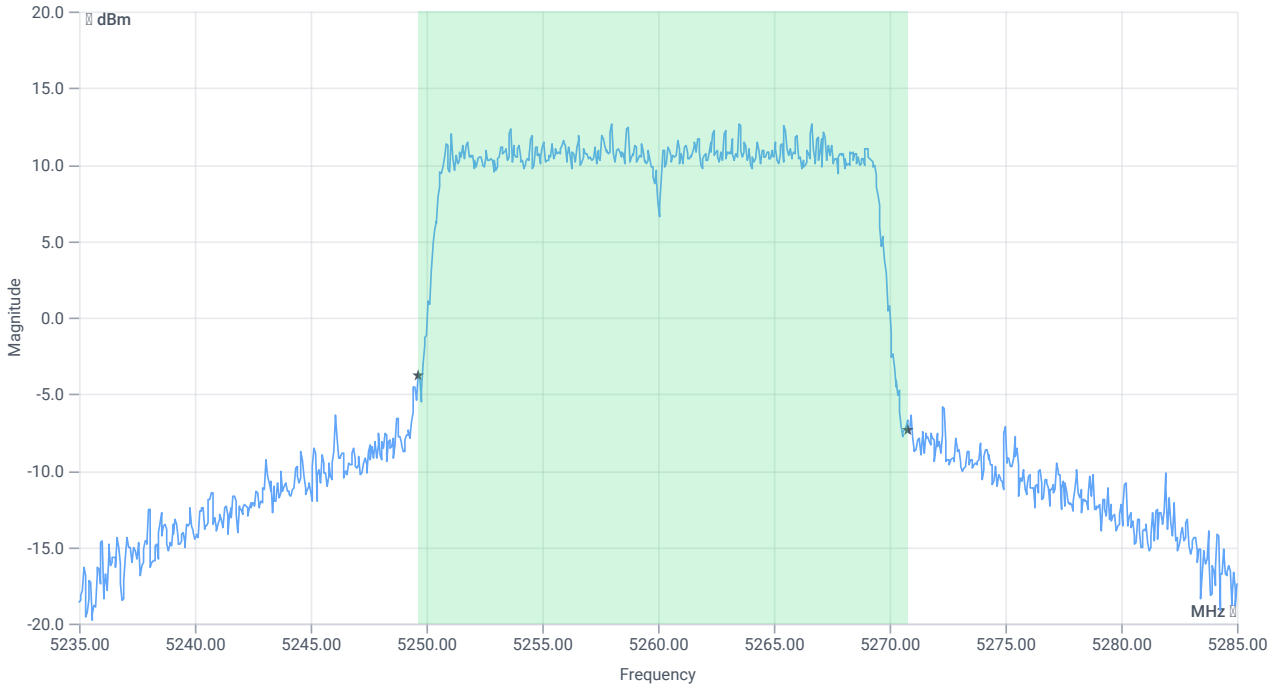
Test at TX 5260 MHz

RESULT: Reference Power cond.

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	16.23	dBm	INFO
Ref. Frequency	---	---	5258.000	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] | RefLevelOffset [dB] | InpAtt [dB]	24.23 | 16.44 | 25
Start [MHz] | Stop [MHz]	5235.000 | 5285.000
RBW [MHz] | VBW [MHz]	0.300000 | 1.000000
Detector | TraceMode	POS | MAXH
Sweep: time [ms] | count | points per Section | type	1 | 2500 | 1001 | SWE

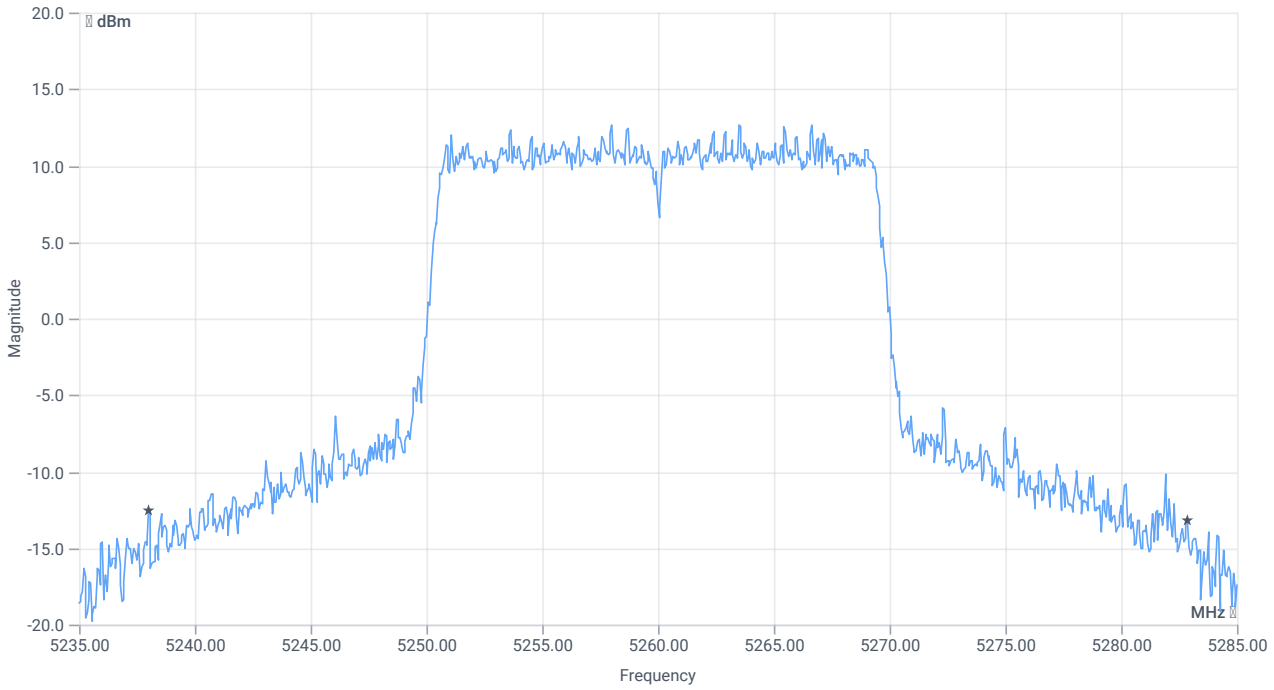


BW 99PCT

BW within Band 99PCT

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 99%	---	---	21.129	MHz	INFO
T1 99%	5250.000000	---	5249.6603	MHz	PASS since U-NII-1 is supported
T2 99%	---	5350.000000	5270.7892	MHz	PASS



BW 26dB

BW within Band 26dB

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 26dB	---	---	44.85	MHz	INFO

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
T1 26dB	5250.000000	---	5238.0000	MHz	PASS since U-NII-1 is supported
T2 26dB	---	5350.000000	5282.8500	MHz	PASS

Verdict
PASS

FCC 15.407 # Max output power and psd ~ WLAN5Gx ax-HE20 U-NII-2A

References

TC start	18.01.2024 14:39:00
Ambit temp [°C] | humidity [rel%]	24.2 | 29
System version	4.7.1.5
Standard | Version	FCC 15.407 | NI
Method	KDB789033 D02, F., E.2.e.
Description	FCC 15.407 Max Output Power & PSD - WLAN5Gx ax-HE20 U-NII-2A
Information	

EUT Common Settings WLAN5Gx

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

Test Parameter

Technology to test	WLAN5Gx ax-HE20
Antenna port used	2
Temperature	nom
Voltage	nom
Frequency low to test	True | Freq [MHz] 5260
Frequency mid to test	False | Freq [MHz] 5280
Frequency high to test	False | Freq [MHz] 5320
Auto control enabled power supply | Climatic Box	No | No
Additional path loss [dB]	1.4
Full path name | type	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 5260 MHz

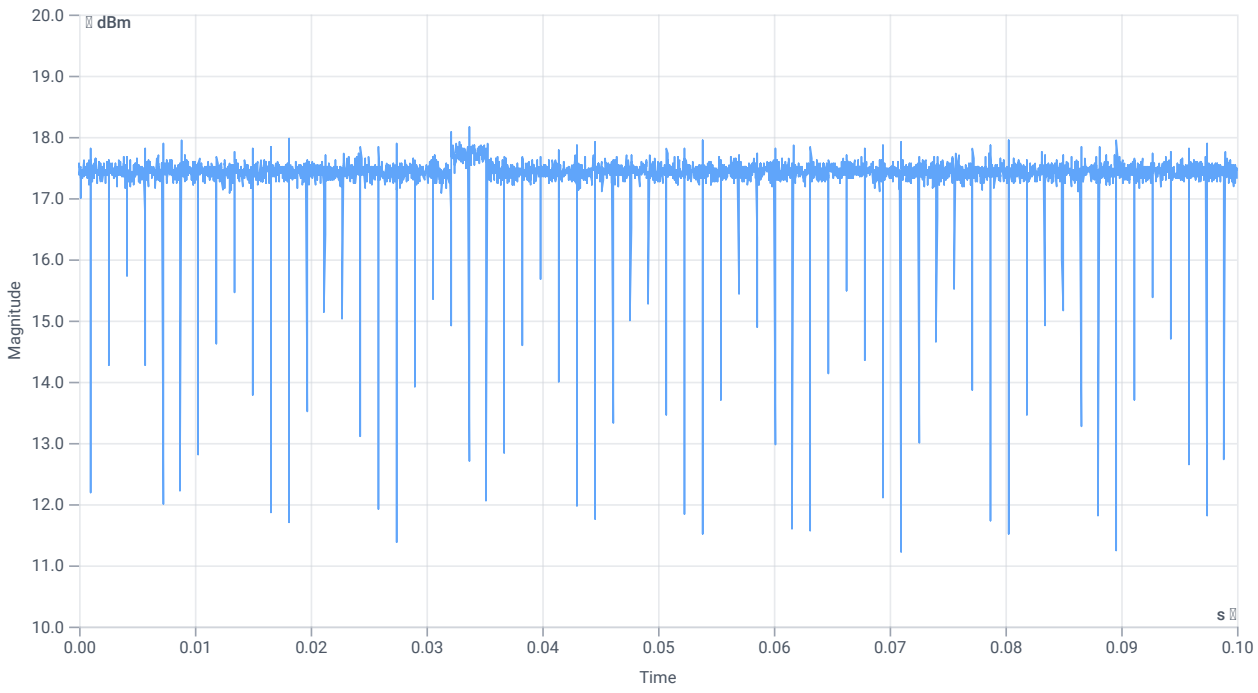
RESULT: Reference Power cond.

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	16.75	dBm	INFO
Ref. Frequency	---	---	5259.000	MHz	INFO

Evaluation max. Duty Cycle

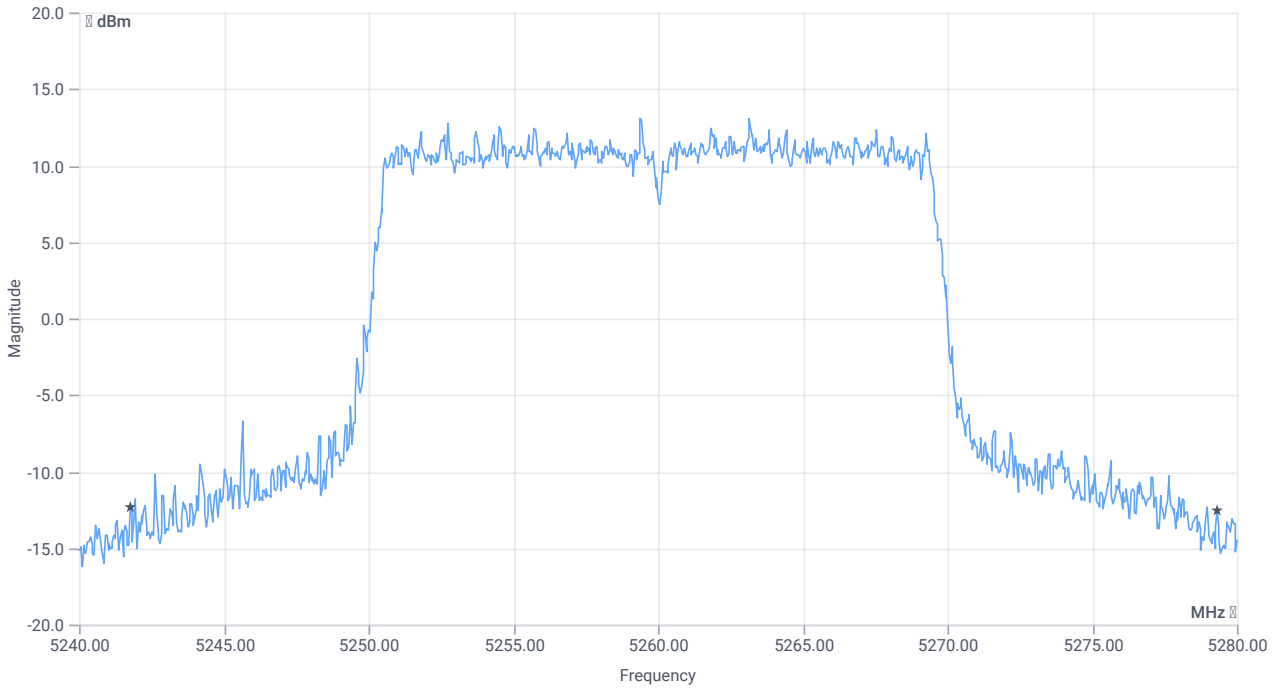
Duty Cycle evaluation

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



Duty cycle

Evaluation Bandwidth



BW 26dB

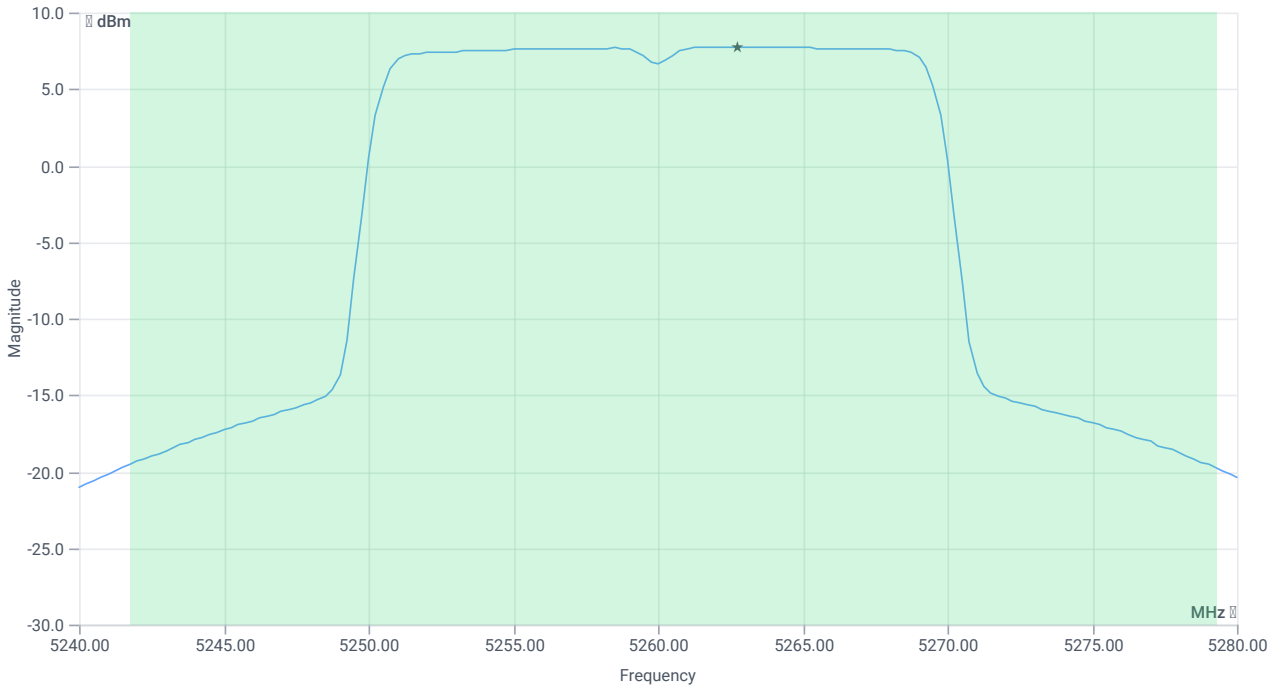
RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 26dB	---	---	37.56	MHz	INFO
T1 26dB	---	---	5241.7600	MHz	INFO
T2 26dB	---	---	5279.3200	MHz	INFO

Maximum Output Power

READ SA SETTINGS:

RefLevel [dBm] | RefLevelOffset [dB] | InpAtt [dB]	28.75 | 16.44 | 30
Start [MHz] | Stop [MHz]	5240.000 | 5280.000
RBW [MHz] | VBW [MHz]	1.000000 | 3.000000
Detector | TraceMode	RMS | MAXH
Sweep: time [ms] | count | points per Section | type	53700 | 1 | 161 | SWE



Max OP and PSD

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Max Output Power	---	---	20.1	dBm	INFO
Duty Cycle Correction	---	---	0	dB	INFO
Limit absolute					
Max Output Power DC corrected	---	24	20.1	dBm	PASS
Limit: 11 dBm + 10 log 37.56					
Max Output Power DC corrected	---	26.75	20.1	dBm	PASS

Power Spectral Density

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Power Spectral Density	---	---	7.72	dBm/1MHz	INFO
Duty Cycle Correction	---	---	0	dB	INFO
Power Spectral Density DC corrected	---	11	7.72	dBm/1MHz	PASS

Verdict
PASS

FCC 15.407, ISED RSS247 # Bandwidths 99PCT and 20dB ~ WLAN5Gx ax-HE20 U-NII-2A

References

TC start	18.01.2024 14:40:27
Ambit temp [°C] | humidity [rel%]	24.3 | 29
System version	4.7.1.5
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-HE20 U-NII-2A
Information	

EUT Common Settings WLAN5Gx

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

Test Parameter

Technology to test	WLAN5Gx ax-HE20
Antenna port used	2
Temperature	nom
Voltage	nom
Frequency low to test	True | Freq [MHz] 5260
Frequency mid to test	False | Freq [MHz] 5280
Frequency high to test	False | Freq [MHz] 5320
Auto control enabled power supply | Climatic Box	No | No
Additional path loss [dB]	1.4
Full path name | type	EUT - SignalingUnit - SpectrumAnalyzer

Equipment

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

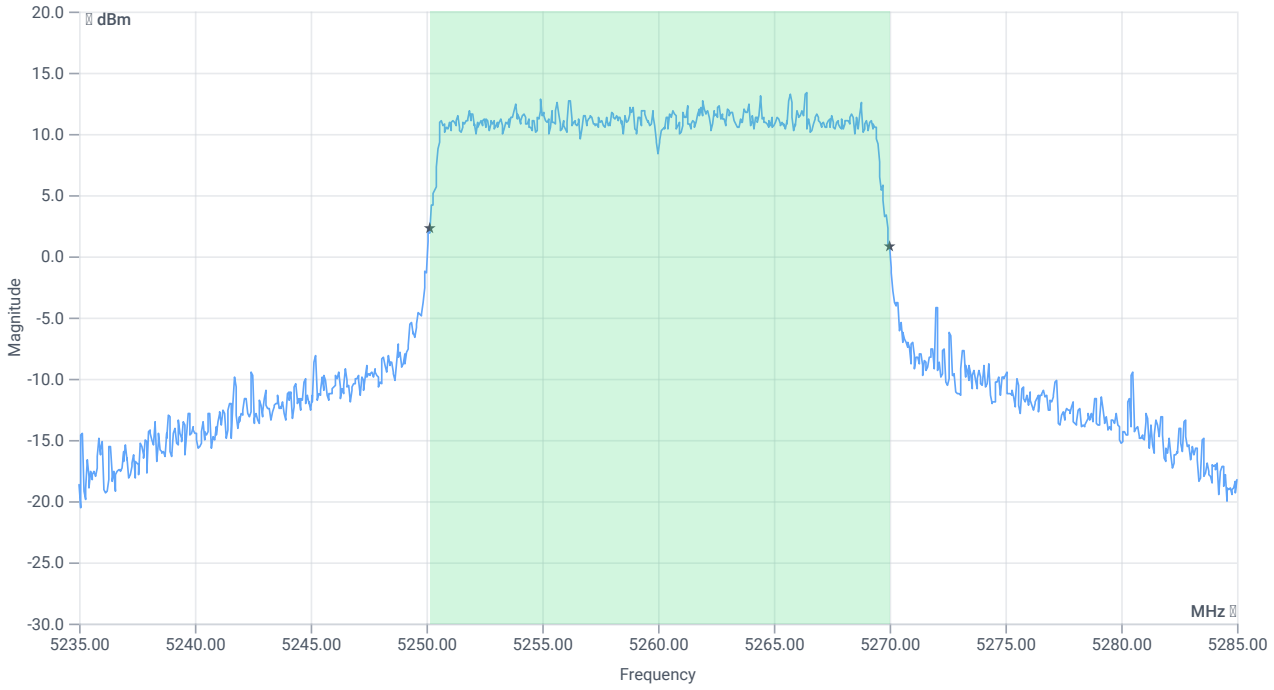
Test at TX 5260 MHz

RESULT: Reference Power cond.

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	16.55	dBm	INFO
Ref. Frequency	---	---	5255.000	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] | RefLevelOffset [dB] | InpAtt [dB]	24.55 | 16.44 | 25
Start [MHz] | Stop [MHz]	5235.000 | 5285.000
RBW [MHz] | VBW [MHz]	0.300000 | 1.000000
Detector | TraceMode	POS | MAXH
Sweep: time [ms] | count | points per Section | type	1 | 2500 | 1001 | SWE

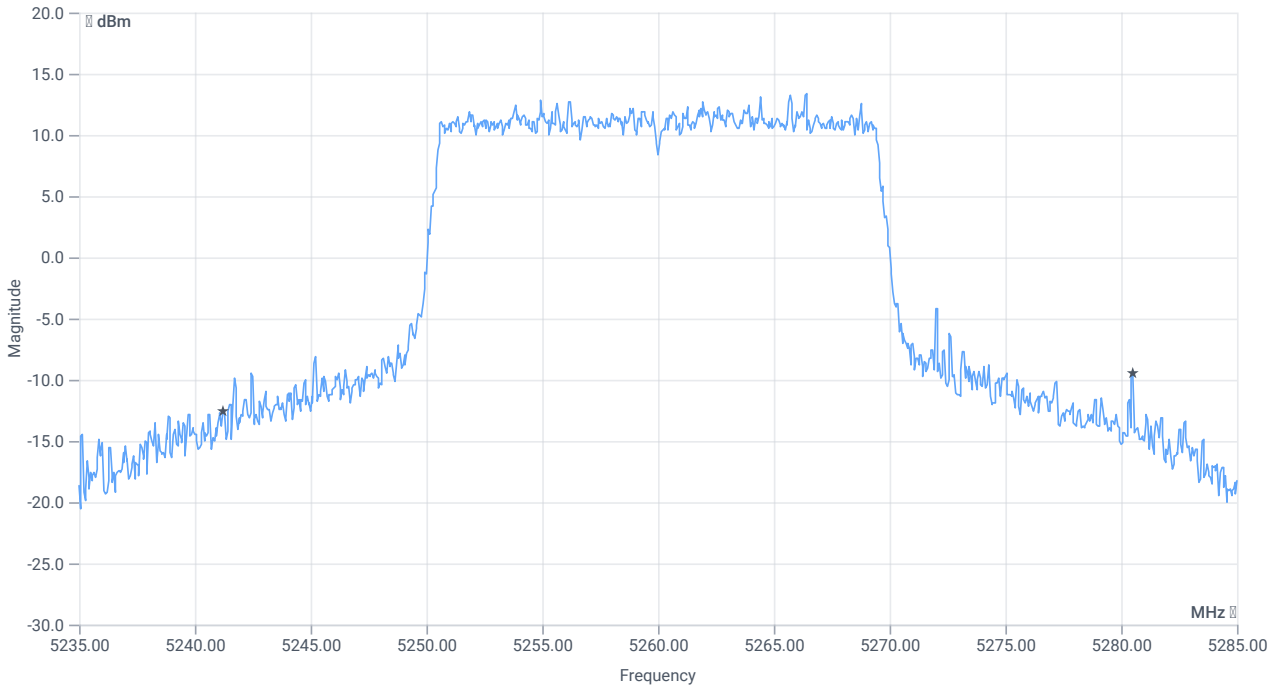


BW 99PCT

BW within Band 99PCT

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 99%	---	---	19.88	MHz	INFO
T1 99%	5250.000000	---	5250.1099	MHz	PASS since U-NII-1 is supported
T2 99%	---	5350.000000	5269.9900	MHz	PASS



BW 26dB

BW within Band 26dB

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 26dB	---	---	39.3	MHz	INFO

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
T1 26dB	5250.000000	---	5241.2000	MHz	PASS since U-NII-1 is supported
T2 26dB	---	5350.000000	5280.5000	MHz	PASS

Verdict
PASS

FCC 15.407 # MIMO ∑ Max output power and psd ~ WLAN5Gx ax-HE20 U-NII-2A

References

TC start	18.01.2024 14:40:57
Ambit temp [°C] | humidity [rel%]	24.3 | 29
System version	4.7.1.5
Standard | Version	FCC 15.407 | NI
Method	
Description	MIMO ∑ FCC Power & psd - WLAN5Gx ax-HE20 U-NII-2A
Information	

EUT Common Settings WLAN5Gx

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

Test Parameter

Technology to test	WLAN5Gx ax-HE20
Antenna port used	several
Temperature	nom
Voltage	nom
Frequency low to test	True | Freq [MHz] 5260
Frequency mid to test	False | Freq [MHz] 5280
Frequency high to test	False | Freq [MHz] 5320
Auto control enabled power supply | Climatic Box	No | No
Additional path loss [dB]	1.4
Full path name | type	None

Equipment

Test at TX 5260 MHz

RESULT Power

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ant:2 Max Output Power DC corrected	---	---	20.1	dBm	INFO
Ant:2 BW 26dB	---	---	37.560	MHz	INFO
Ant:1 Max Output Power DC corrected	---	---	19.47	dBm	INFO
Ant:1 BW 26dB	---	---	39.920	MHz	INFO
∑ Limit absolute	---	24	22.81	dBm	PASS
∑ Limit: 11 dBm + 10 log 37.56	---	26.75	22.81	dBm	PASS

RESULT PSD

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ant:2 PSD	---	---	7.72	dBm/1MHz	INFO
Ant:1 PSD	---	---	7.09	dBm/1MHz	INFO
∑	---	11	10.43	dBm/1MHz	PASS

Verdict
PASS

FCC 15.407 # Max output power and psd ~ WLAN5Gx ax-HE20 U-NII-2A

References

TC start	18.01.2024 14:41:48
Ambit temp [°C] | humidity [rel%]	24.3 | 29
System version	4.7.1.5
Standard | Version	FCC 15.407 | NI
Method	KDB789033 D02, F., E.2.e.
Description	FCC 15.407 Max Output Power & PSD - WLAN5Gx ax-HE20 U-NII-2A
Information	

EUT Common Settings WLAN5Gx

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

Test Parameter

Technology to test	WLAN5Gx ax-HE20
Antenna port used	1
Temperature	nom
Voltage	nom
Frequency low to test	False | Freq [MHz] 5260
Frequency mid to test	True | Freq [MHz] 5280
Frequency high to test	False | Freq [MHz] 5320
Auto control enabled power supply | Climatic Box	No | No
Additional path loss [dB]	1.4
Full path name | type	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 5280 MHz

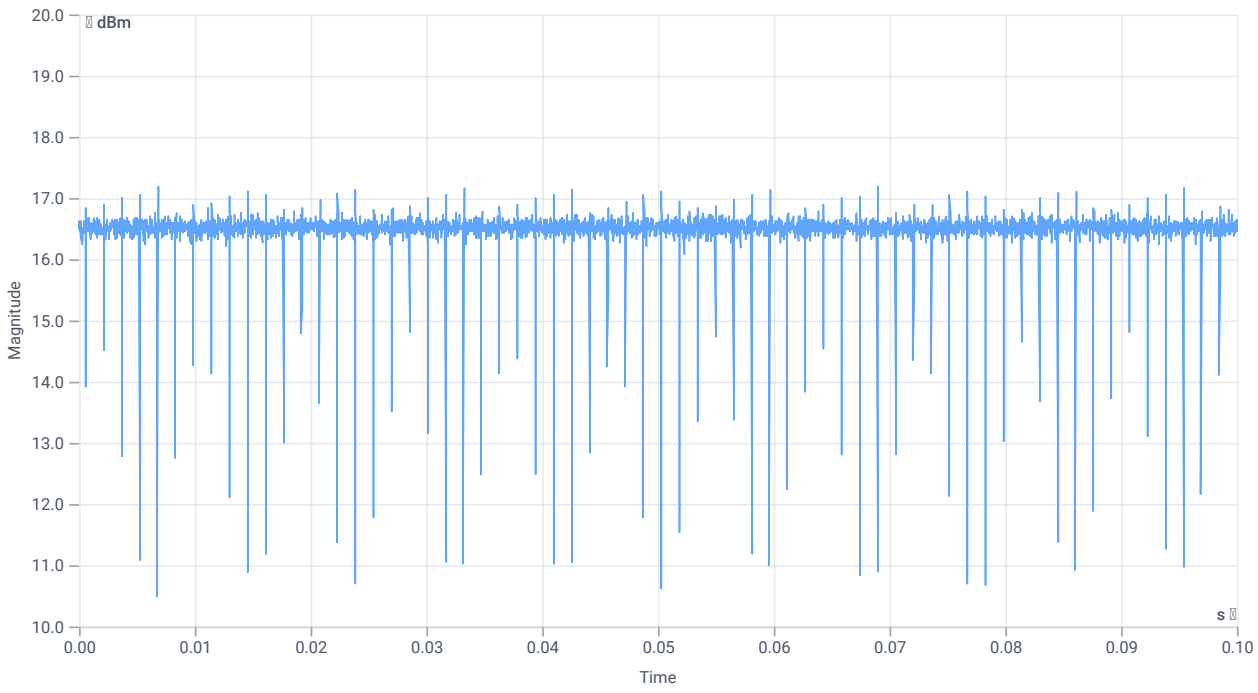
RESULT: Reference Power cond.

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	16.68	dBm	INFO
Ref. Frequency	---	---	5275.400	MHz	INFO

Evaluation max. Duty Cycle

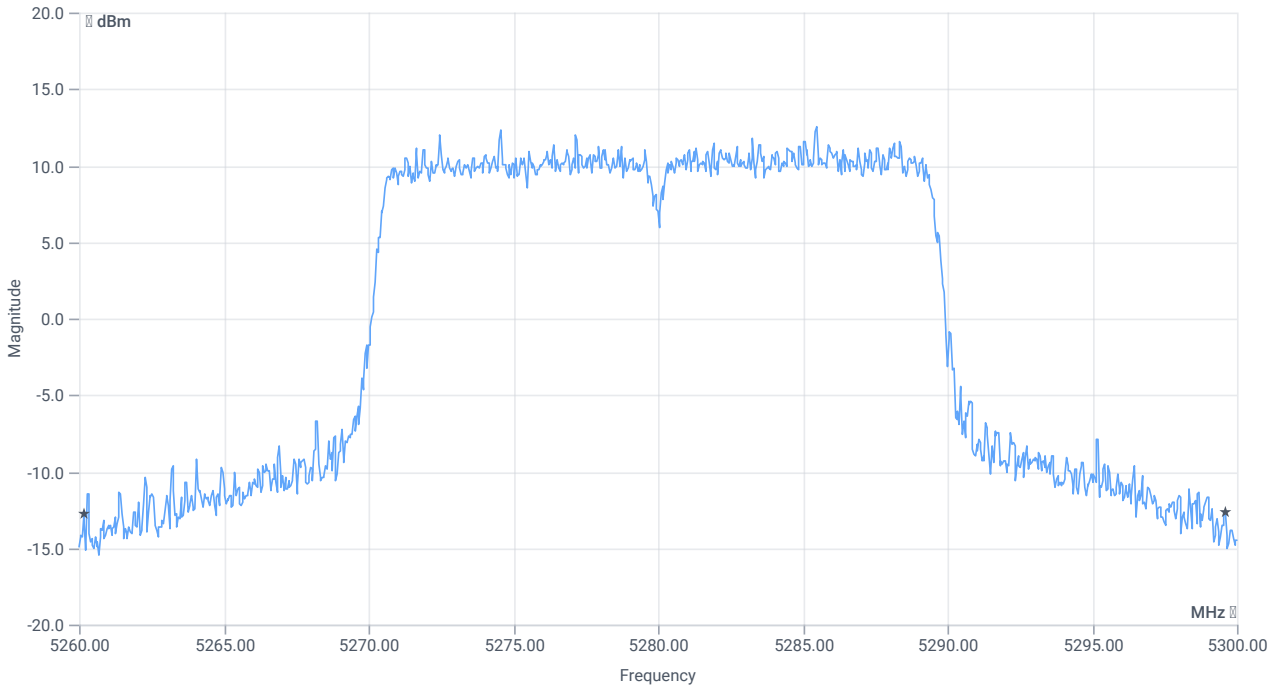
Duty Cycle evaluation

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



Duty cycle

Evaluation Bandwidth



BW 26dB

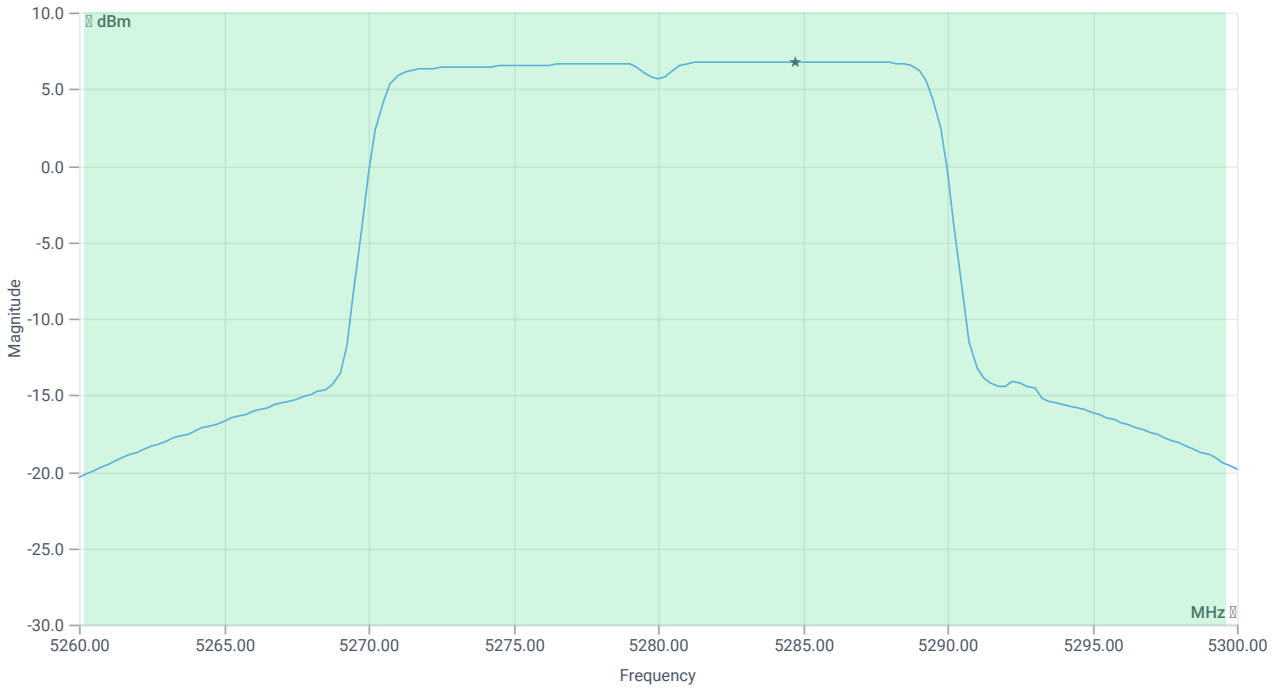
RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 26dB	---	---	39.44	MHz	INFO
T1 26dB	---	---	5260.1600	MHz	INFO
T2 26dB	---	---	5299.6000	MHz	INFO

Maximum Output Power

READ SA SETTINGS:

RefLevel [dBm] | RefLevelOffset [dB] | InpAtt [dB]	28.68 | 16.2 | 30
Start [MHz] | Stop [MHz]	5260.000 | 5300.000
RBW [MHz] | VBW [MHz]	1.000000 | 3.000000
Detector | TraceMode	RMS | MAXH
Sweep: time [ms] | count | points per Section | type	53700 | 1 | 161 | SWE



Max OP and PSD

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Max Output Power	---	---	19.14	dBm	INFO
Duty Cycle Correction	---	---	0	dB	INFO
Limit absolute					
Max Output Power DC corrected	---	24	19.14	dBm	PASS
Limit: 11 dBm + 10 log 39.44					
Max Output Power DC corrected	---	26.96	19.14	dBm	PASS

Power Spectral Density

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Power Spectral Density	---	---	6.78	dBm/1MHz	INFO
Duty Cycle Correction	---	---	0	dB	INFO
Power Spectral Density DC corrected	---	11	6.78	dBm/1MHz	PASS

Verdict
PASS

FCC 15.407, ISED RSS247 # Bandwidths 99PCT and 20dB ~ WLAN5Gx ax-HE20 U-NII-2A

References

TC start	18.01.2024 14:43:17
Ambit temp [°C] | humidity [rel%]	24.3 | 29
System version	4.7.1.5
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-HE20 U-NII-2A
Information	

EUT Common Settings WLAN5Gx

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

Test Parameter

Technology to test	WLAN5Gx ax-HE20
Antenna port used	1
Temperature	nom
Voltage	nom
Frequency low to test	False | Freq [MHz] 5260
Frequency mid to test	True | Freq [MHz] 5280
Frequency high to test	False | Freq [MHz] 5320
Auto control enabled power supply | Climatic Box	No | No
Additional path loss [dB]	1.4
Full path name | type	EUT - SignalingUnit - SpectrumAnalyzer

Equipment

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

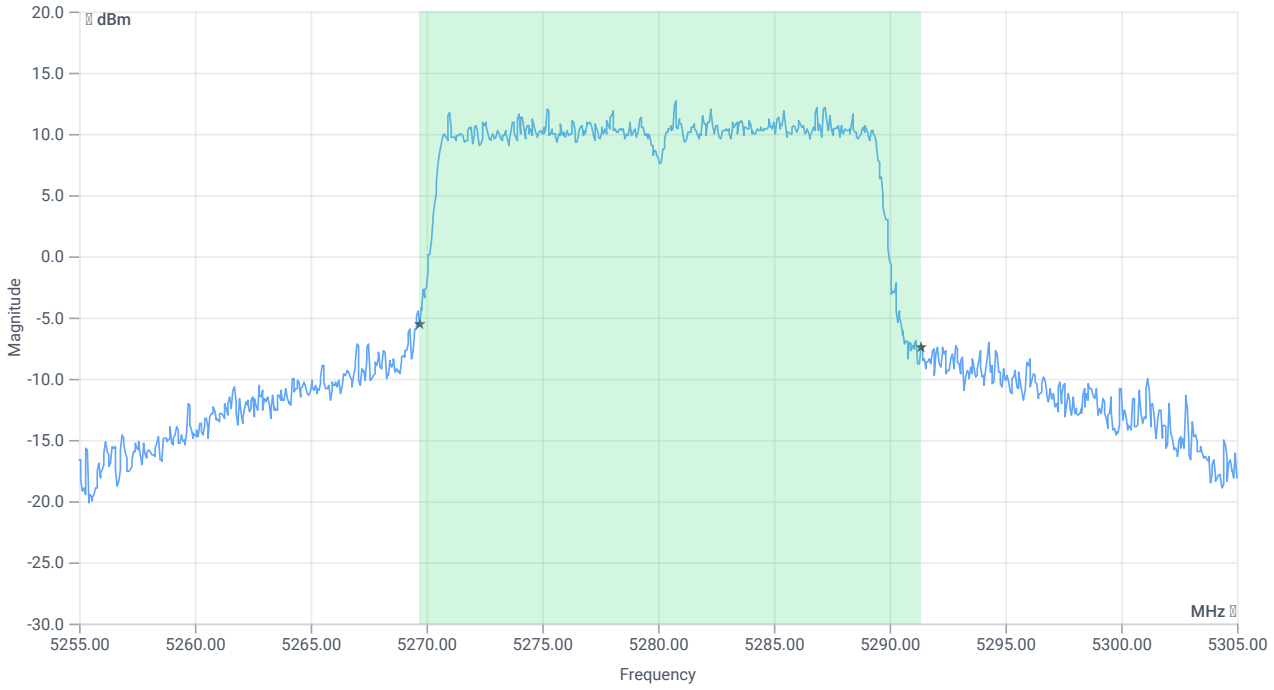
Test at TX 5280 MHz

RESULT: Reference Power cond.

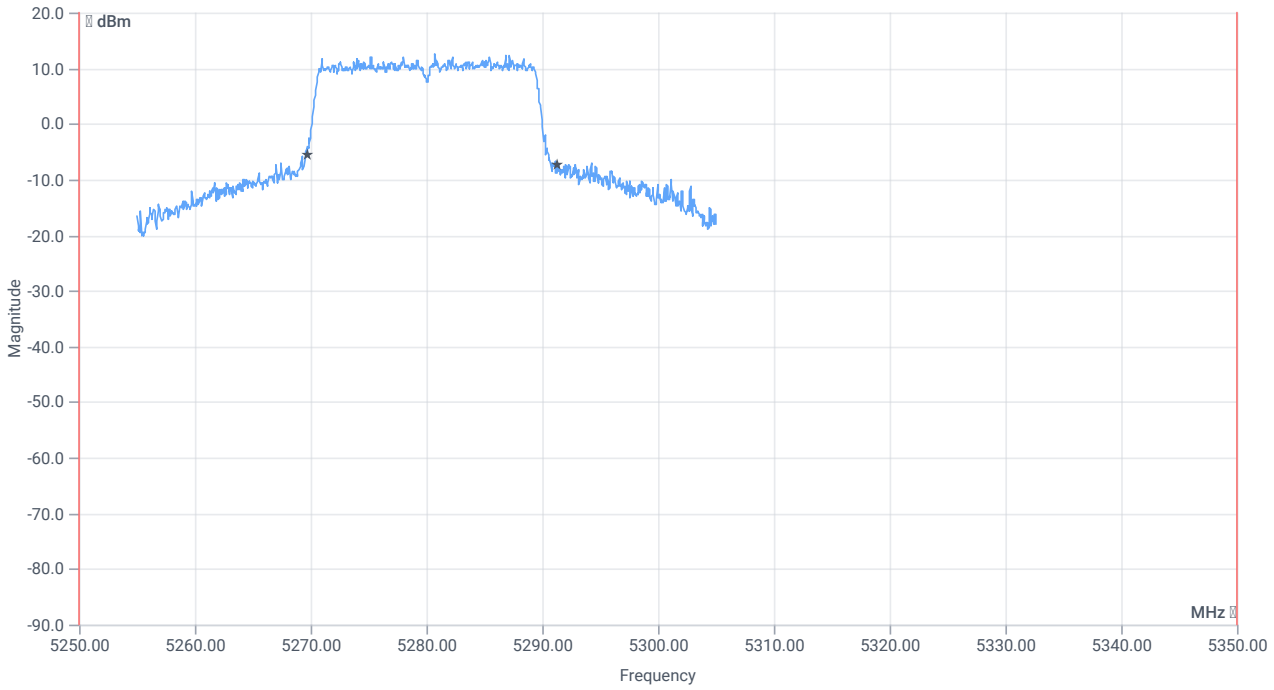
DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	15.74	dBm	INFO
Ref. Frequency	---	---	5285.190	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] | RefLevelOffset [dB] | InpAtt [dB]	23.74 | 16.2 | 25
Start [MHz] | Stop [MHz]	5255.000 | 5305.000
RBW [MHz] | VBW [MHz]	0.300000 | 1.000000
Detector | TraceMode	POS | MAXH
Sweep: time [ms] | count | points per Section | type	1 | 2500 | 1001 | SWE



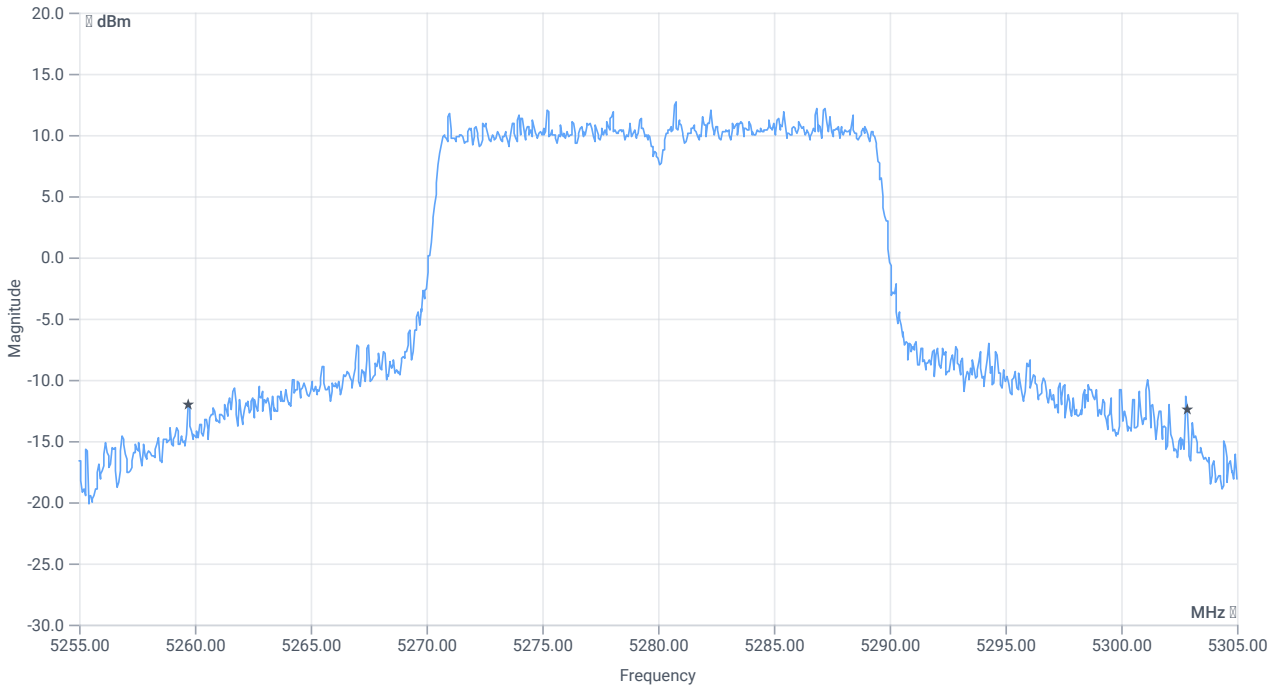
BW 99PCT



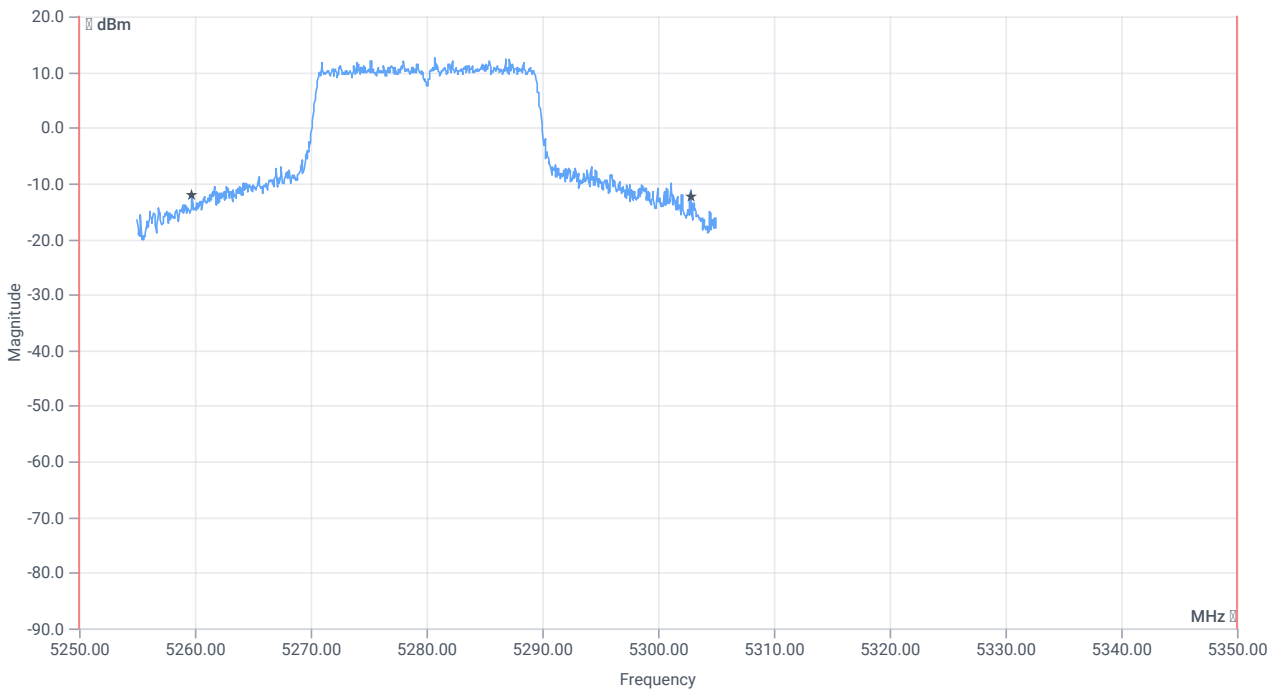
BW within Band 99PCT

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 99%	---	---	21.628	MHz	INFO
T1 99%	5250.000000	---	5269.7103	MHz	PASS since U-NII-1 is supported
T2 99%	---	5350.000000	5291.3387	MHz	PASS



BW 26dB



BW within Band 26dB

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 26dB	---	---	43.15	MHz	INFO

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
T1 26dB	5250.000000	---	5259.7000	MHz	PASS since U-NII-1 is supported
T2 26dB	---	5350.000000	5302.8500	MHz	PASS

Verdict
PASS

FCC 15.407 # Max output power and psd ~ WLAN5Gx ax-HE20 U-NII-2A

References

TC start	18.01.2024 14:43:47
Ambit temp [°C] | humidity [rel%]	24.4 | 29
System version	4.7.1.5
Standard | Version	FCC 15.407 | NI
Method	KDB789033 D02, F., E.2.e.
Description	FCC 15.407 Max Output Power & PSD - WLAN5Gx ax-HE20 U-NII-2A
Information	

EUT Common Settings WLAN5Gx

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

Test Parameter

Technology to test	WLAN5Gx ax-HE20
Antenna port used	2
Temperature	nom
Voltage	nom
Frequency low to test	False | Freq [MHz] 5260
Frequency mid to test	True | Freq [MHz] 5280
Frequency high to test	False | Freq [MHz] 5320
Auto control enabled power supply | Climatic Box	No | No
Additional path loss [dB]	1.4
Full path name | type	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 5280 MHz

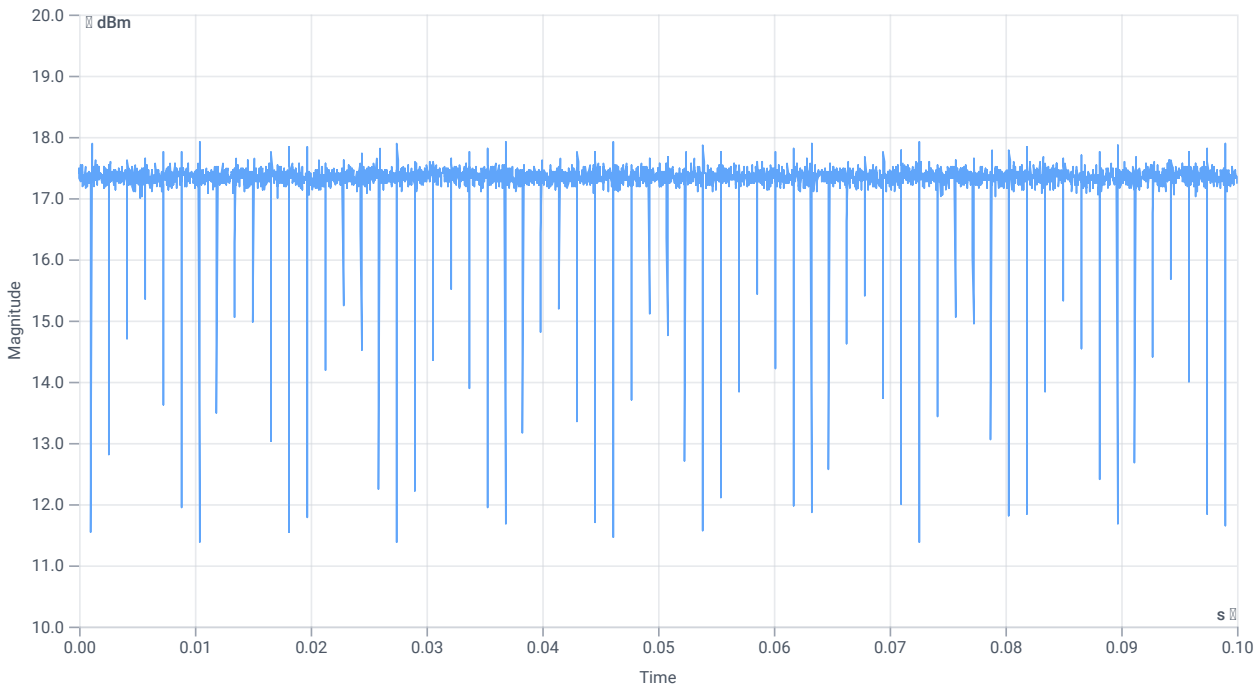
RESULT: Reference Power cond.

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	16.64	dBm	INFO
Ref. Frequency	---	---	5288.590	MHz	INFO

Evaluation max. Duty Cycle

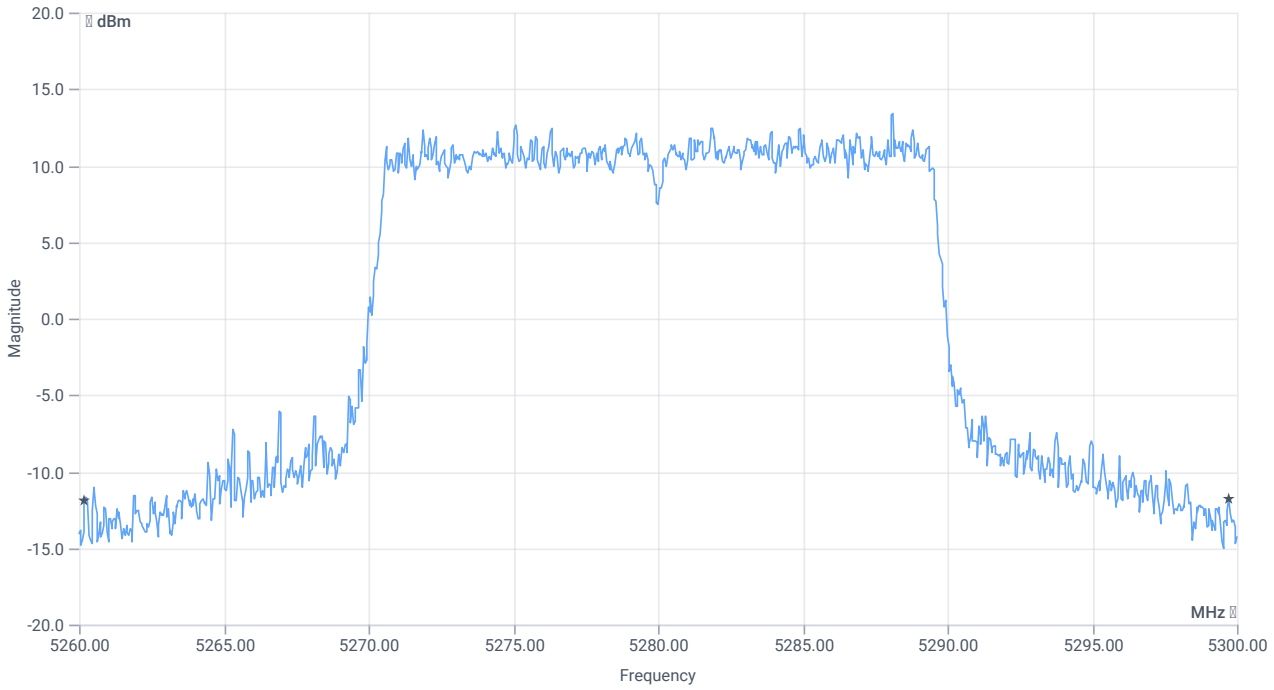
Duty Cycle evaluation

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



Duty cycle

Evaluation Bandwidth



BW 26dB

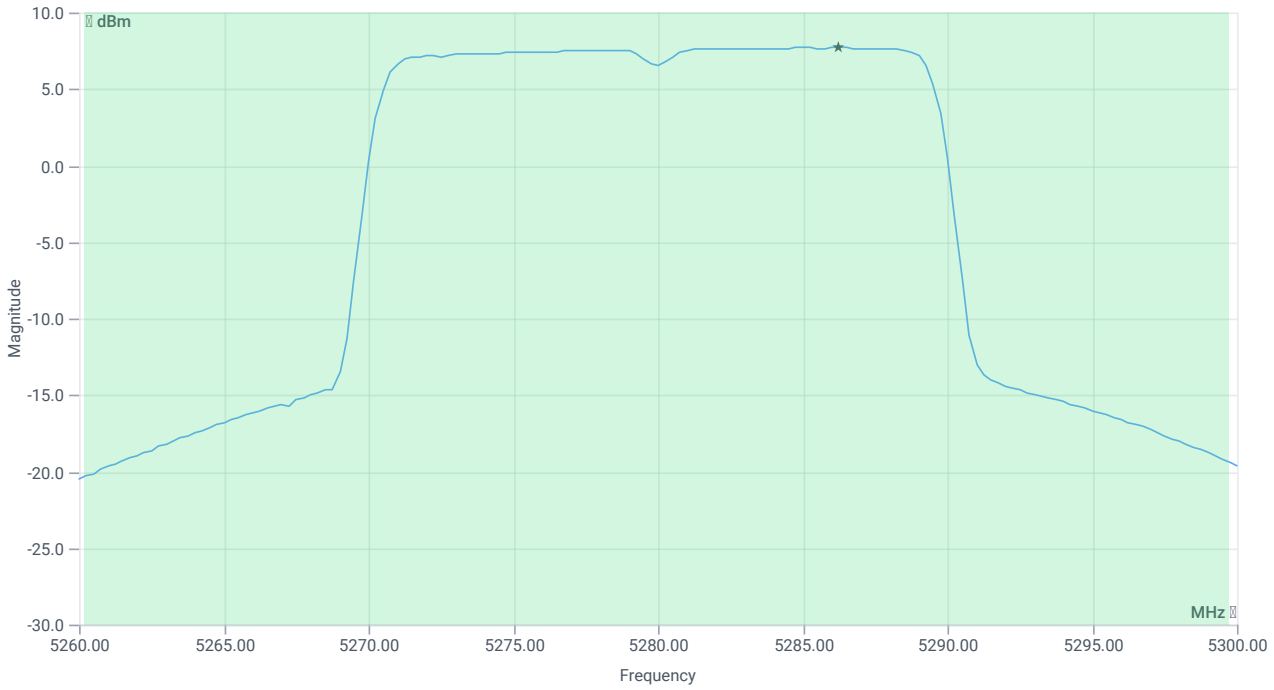
RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 26dB	---	---	39.52	MHz	INFO
T1 26dB	---	---	5260.2000	MHz	INFO
T2 26dB	---	---	5299.7200	MHz	INFO

Maximum Output Power

READ SA SETTINGS:

RefLevel [dBm] | RefLevelOffset [dB] | InpAtt [dB]	28.64 | 16.2 | 30
Start [MHz] | Stop [MHz]	5260.000 | 5300.000
RBW [MHz] | VBW [MHz]	1.000000 | 3.000000
Detector | TraceMode	RMS | MAXH
Sweep: time [ms] | count | points per Section | type	53700 | 1 | 161 | SWE



Max OP and PSD

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Max Output Power	---	---	20.01	dBm	INFO
Duty Cycle Correction	---	---	0	dB	INFO
Limit absolute					
Max Output Power DC corrected	---	24	20.01	dBm	PASS
Limit: 11 dBm + 10 log 39.52					
Max Output Power DC corrected	---	26.97	20.01	dBm	PASS

Power Spectral Density

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Power Spectral Density	---	---	7.69	dBm/1MHz	INFO
Duty Cycle Correction	---	---	0	dB	INFO
Power Spectral Density DC corrected	---	11	7.69	dBm/1MHz	PASS

Verdict
PASS

FCC 15.407, ISED RSS247 # Bandwidths 99PCT and 20dB ~ WLAN5Gx ax-HE20 U-NII-2A

References

TC start	18.01.2024 14:45:16
Ambit temp [°C] | humidity [rel%]	24.4 | 29
System version	4.7.1.5
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-HE20 U-NII-2A
Information	

EUT Common Settings WLAN5Gx

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

Test Parameter

Technology to test	WLAN5Gx ax-HE20
Antenna port used	2
Temperature	nom
Voltage	nom
Frequency low to test	False | Freq [MHz] 5260
Frequency mid to test	True | Freq [MHz] 5280
Frequency high to test	False | Freq [MHz] 5320
Auto control enabled power supply | Climatic Box	No | No
Additional path loss [dB]	1.4
Full path name | type	EUT - SignalingUnit - SpectrumAnalyzer

Equipment

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

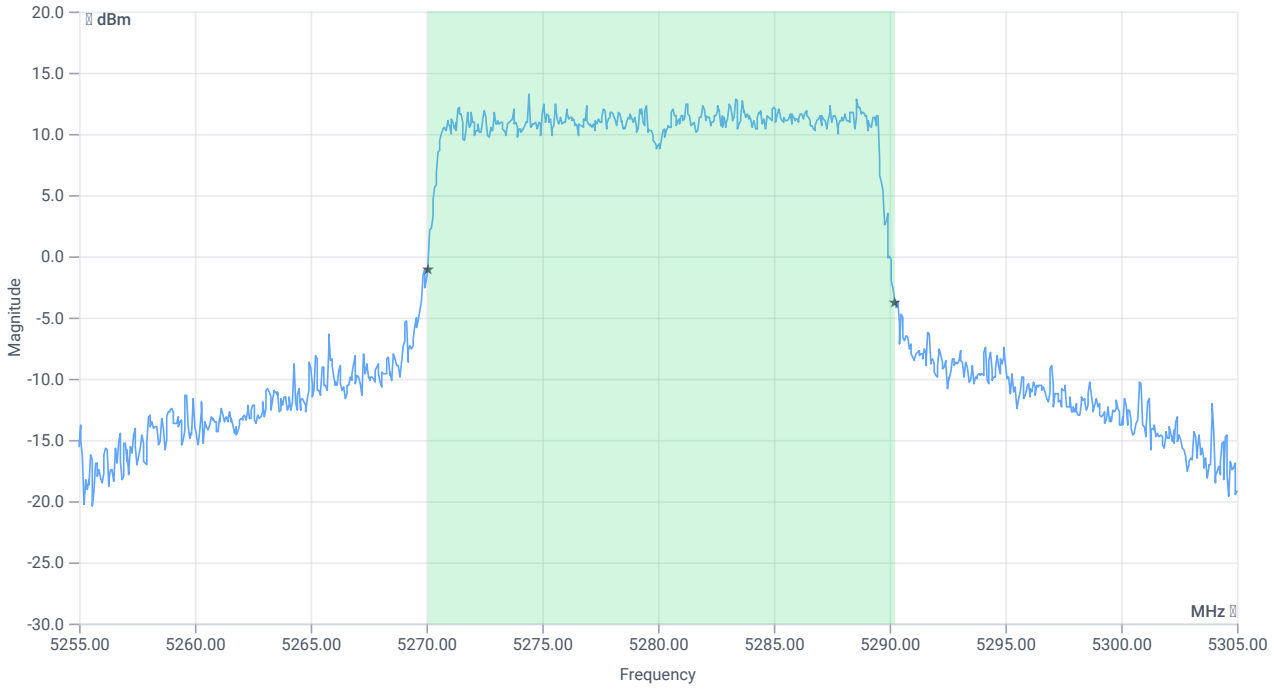
Test at TX 5280 MHz

RESULT: Reference Power cond.

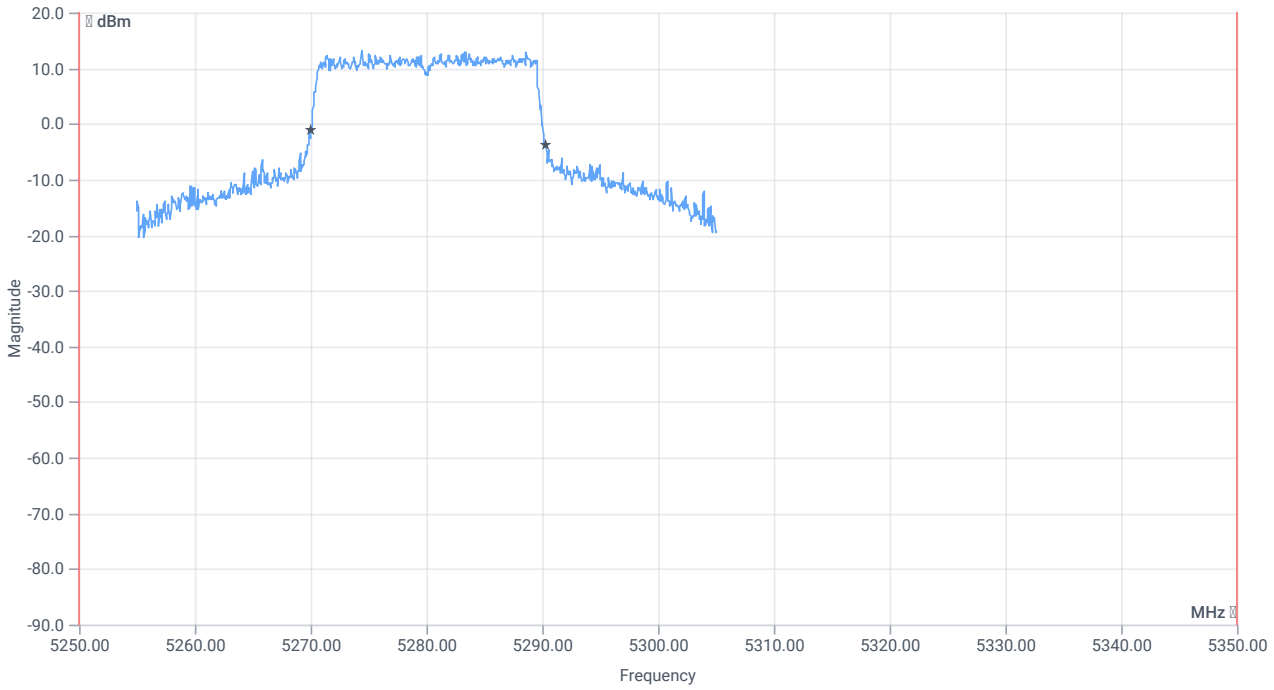
DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	16.91	dBm	INFO
Ref. Frequency	---	---	5275.600	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] | RefLevelOffset [dB] | InpAtt [dB]	24.91 | 16.2 | 25
Start [MHz] | Stop [MHz]	5255.000 | 5305.000
RBW [MHz] | VBW [MHz]	0.300000 | 1.000000
Detector | TraceMode	POS | MAXH
Sweep: time [ms] | count | points per Section | type	1 | 2500 | 1001 | SWE



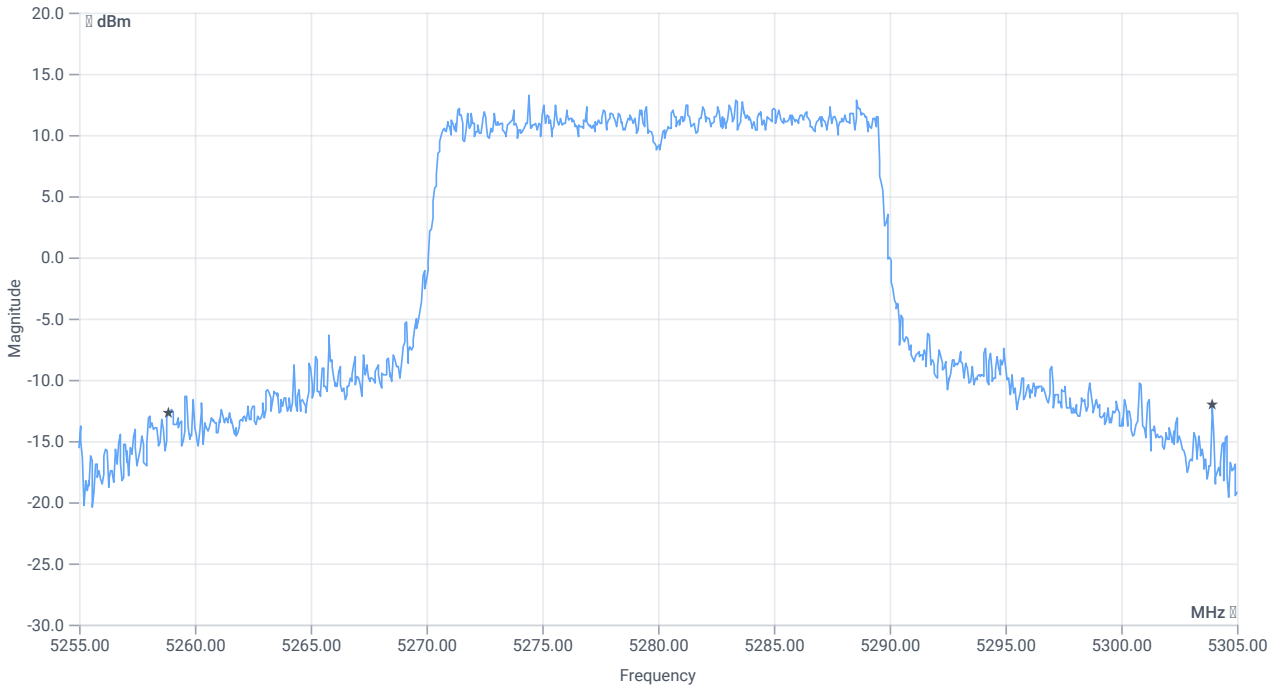
BW 99PCT



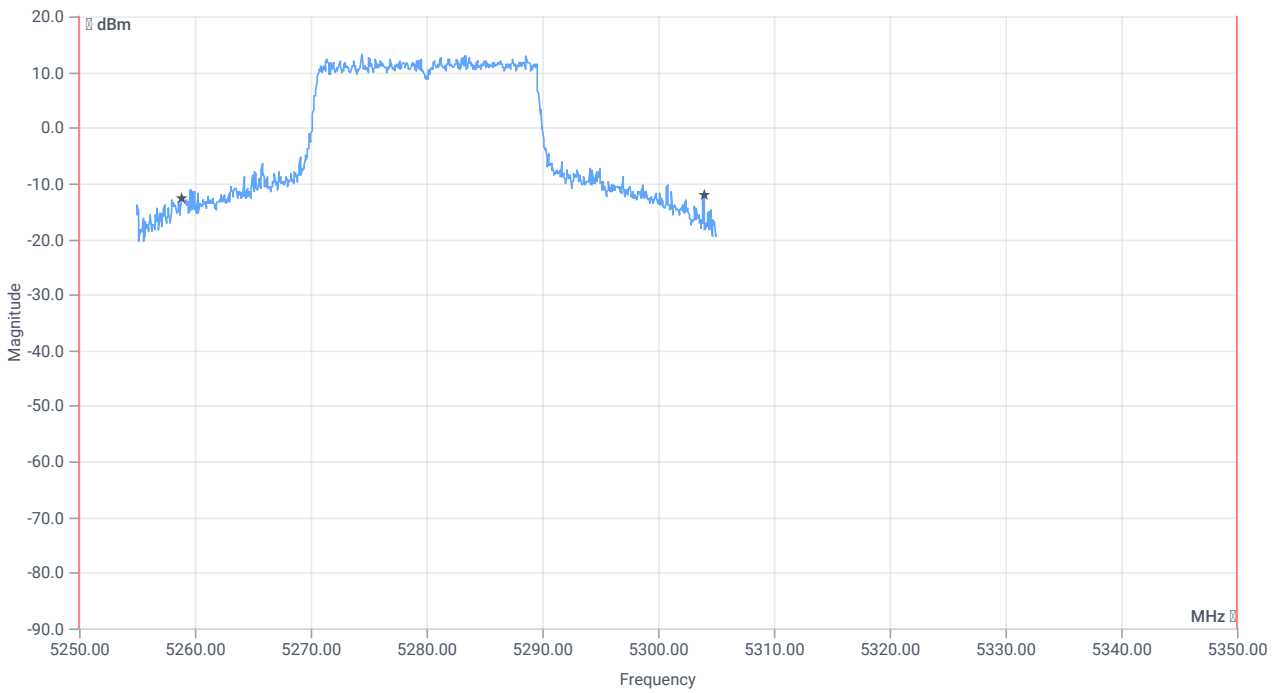
BW within Band 99PCT

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 99%	---	---	20.18	MHz	INFO
T1 99%	5250.000000	---	5270.0599	MHz	PASS since U-NII-1 is supported
T2 99%	---	5350.000000	5290.2398	MHz	PASS



BW 26dB



BW within Band 26dB

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 26dB	---	---	45.1	MHz	INFO

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
T1 26dB	5250.000000	---	5258.8500	MHz	PASS since U-NII-1 is supported
T2 26dB	---	5350.000000	5303.9500	MHz	PASS

Verdict
PASS

FCC 15.407 # MIMO ∑ Max output power and psd ~ WLAN5Gx ax-HE20 U-NII-2A

References

TC start	18.01.2024 14:45:46
Ambit temp [°C] | humidity [rel%]	24.4 | 29
System version	4.7.1.5
Standard | Version	FCC 15.407 | NI
Method	
Description	MIMO ∑ FCC Power & psd - WLAN5Gx ax-HE20 U-NII-2A
Information	

EUT Common Settings WLAN5Gx

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

Test Parameter

Technology to test	WLAN5Gx ax-HE20
Antenna port used	several
Temperature	nom
Voltage	nom
Frequency low to test	False | Freq [MHz] 5260
Frequency mid to test	True | Freq [MHz] 5280
Frequency high to test	False | Freq [MHz] 5320
Auto control enabled power supply | Climatic Box	No | No
Additional path loss [dB]	1.4
Full path name | type	None

Equipment

Test at TX 5280 MHz

RESULT Power

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ant:1 Max Output Power DC corrected	---	---	19.14	dBm	INFO
Ant:1 BW 26dB	---	---	39.440	MHz	INFO
Ant:2 Max Output Power DC corrected	---	---	20.01	dBm	INFO
Ant:2 BW 26dB	---	---	39.520	MHz	INFO
∑ Limit absolute	---	24	22.61	dBm	PASS
∑ Limit: 11 dBm + 10 log 39.44	---	26.96	22.61	dBm	PASS

RESULT PSD

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ant:1 PSD	---	---	6.78	dBm/1MHz	INFO
Ant:2 PSD	---	---	7.69	dBm/1MHz	INFO
∑	---	11	10.27	dBm/1MHz	PASS

Verdict
PASS

FCC 15.407 # Max output power and psd ~ WLAN5Gx ax-HE20 U-NII-2A

References

TC start	18.01.2024 14:48:21
Ambit temp [°C] | humidity [rel%]	24.4 | 29
System version	4.7.1.5
Standard | Version	FCC 15.407 | NI
Method	KDB789033 D02, F., E.2.e.
Description	FCC 15.407 Max Output Power & PSD - WLAN5Gx ax-HE20 U-NII-2A
Information	

EUT Common Settings WLAN5Gx

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

Test Parameter

Technology to test	WLAN5Gx ax-HE20
Antenna port used	1
Temperature	nom
Voltage	nom
Frequency low to test	False | Freq [MHz] 5260
Frequency mid to test	False | Freq [MHz] 5280
Frequency high to test	True | Freq [MHz] 5320
Auto control enabled power supply | Climatic Box	No | No
Additional path loss [dB]	1.4
Full path name | type	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 5320 MHz

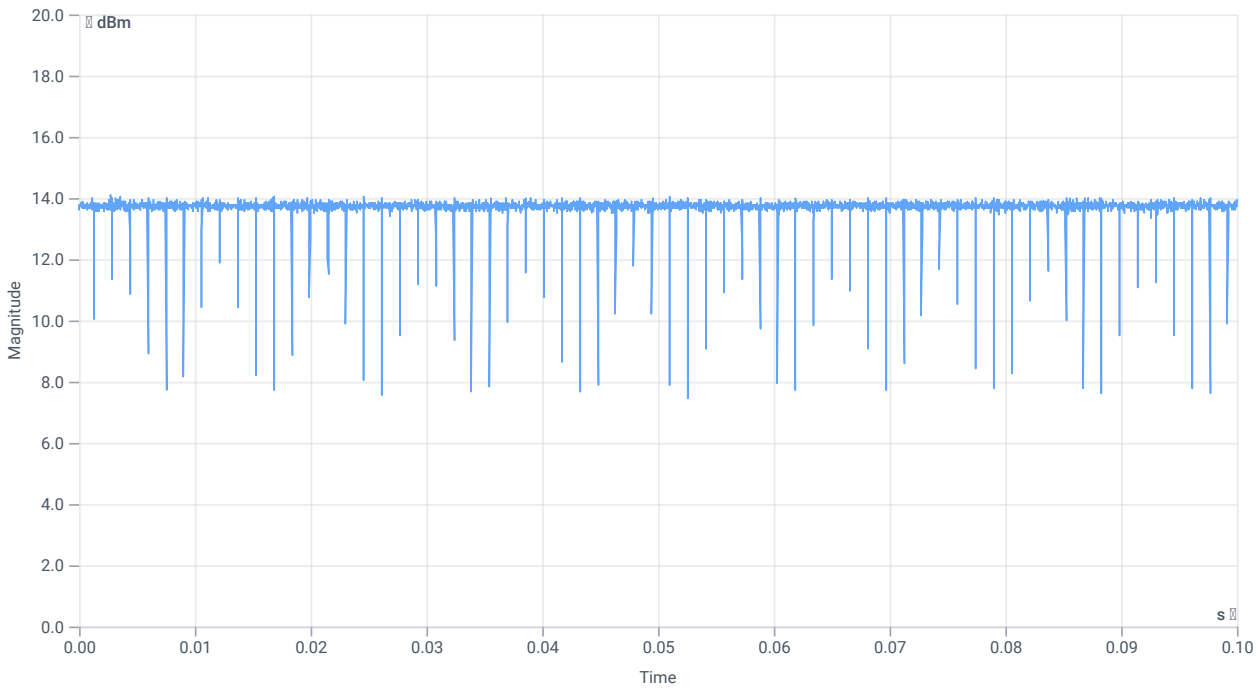
RESULT: Reference Power cond.

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	14.31	dBm	INFO
Ref. Frequency	---	---	5324.000	MHz	INFO

Evaluation max. Duty Cycle

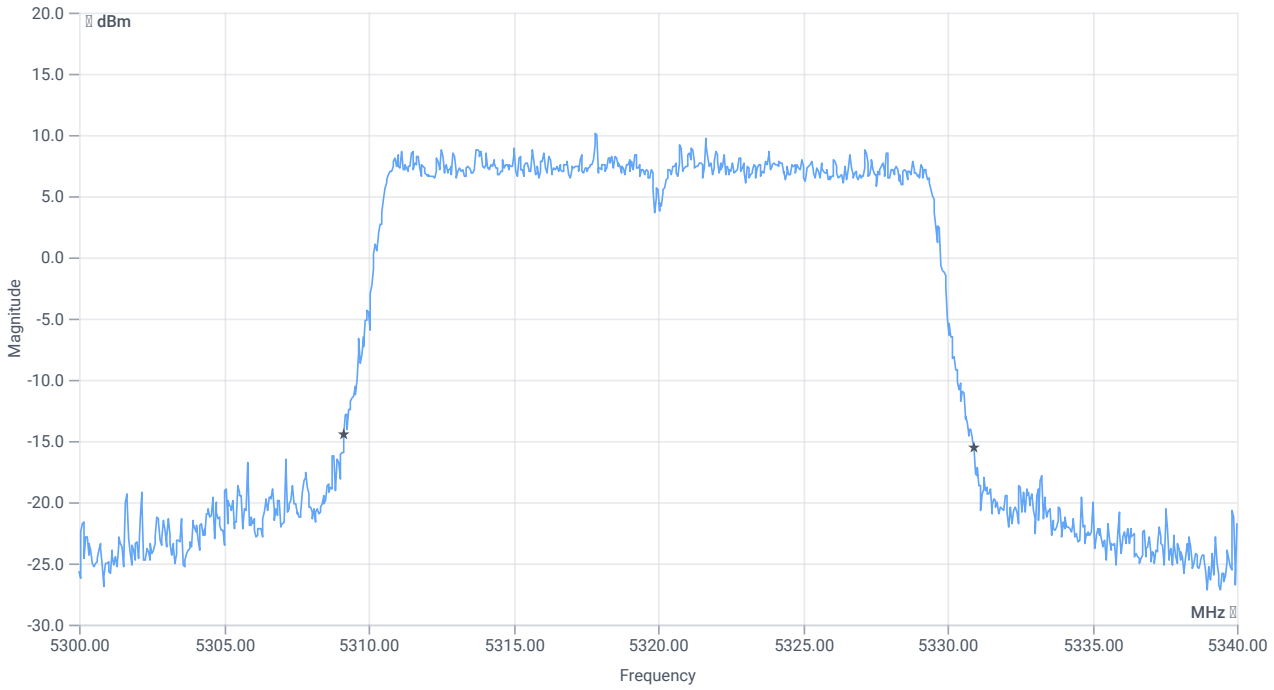
Duty Cycle evaluation

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



Duty cycle

Evaluation Bandwidth



BW 26dB

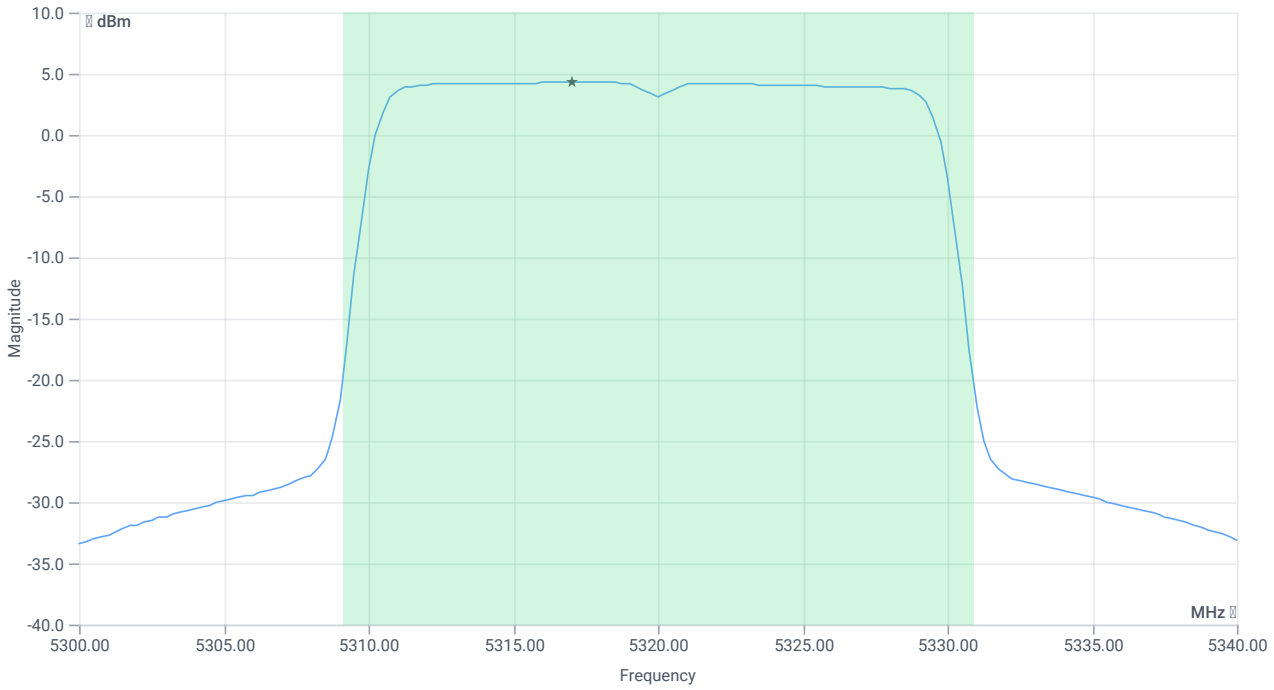
RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 26dB	---	---	21.76	MHz	INFO
T1 26dB	---	---	5309.1600	MHz	INFO
T2 26dB	---	---	5330.9200	MHz	INFO

Maximum Output Power

READ SA SETTINGS:

RefLevel [dBm] | RefLevelOffset [dB] | InpAtt [dB]	26.31 | 16.26 | 25
Start [MHz] | Stop [MHz]	5300.000 | 5340.000
RBW [MHz] | VBW [MHz]	1.000000 | 3.000000
Detector | TraceMode	RMS | MAXH
Sweep: time [ms] | count | points per Section | type	53700 | 1 | 161 | SWE



Max OP and PSD

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Max Output Power	---	---	16.59	dBm	INFO
Duty Cycle Correction	---	---	0	dB	INFO
Limit absolute					
Max Output Power DC corrected	---	24	16.59	dBm	PASS
Limit: 11 dBm + 10 log 21.76					
Max Output Power DC corrected	---	24.38	16.59	dBm	PASS

Power Spectral Density

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Power Spectral Density	---	---	4.27	dBm/1MHz	INFO
Duty Cycle Correction	---	---	0	dB	INFO
Power Spectral Density DC corrected	---	11	4.27	dBm/1MHz	PASS

Verdict
PASS

FCC 15.407, ISED RSS247 # Bandwidths 99PCT and 20dB ~ WLAN5Gx ax-HE20 U-NII-2A

References

TC start	18.01.2024 14:49:48
Ambit temp [°C] | humidity [rel%]	24.5 | 29
System version	4.7.1.5
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-HE20 U-NII-2A
Information	

EUT Common Settings WLAN5Gx

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

Test Parameter

Technology to test	WLAN5Gx ax-HE20
Antenna port used	1
Temperature	nom
Voltage	nom
Frequency low to test	False | Freq [MHz] 5260
Frequency mid to test	False | Freq [MHz] 5280
Frequency high to test	True | Freq [MHz] 5320
Auto control enabled power supply | Climatic Box	No | No
Additional path loss [dB]	1.4
Full path name | type	EUT - SignalingUnit - SpectrumAnalyzer

Equipment

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

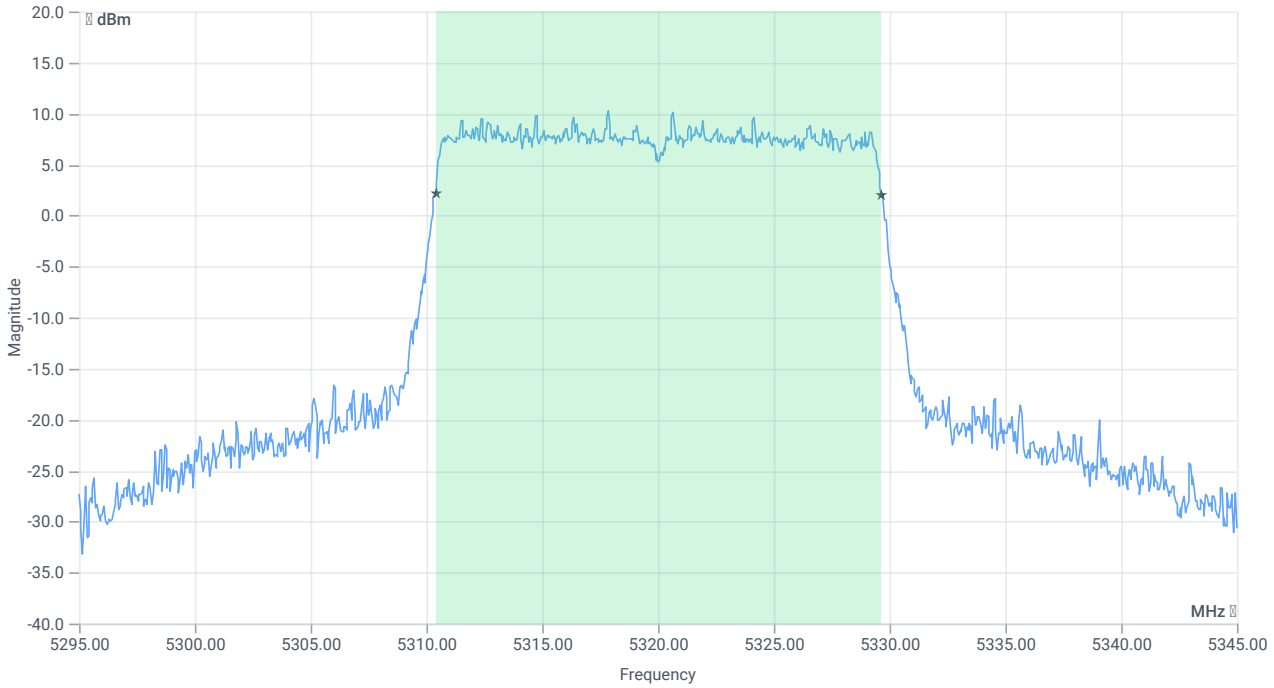
Test at TX 5320 MHz

RESULT: Reference Power cond.

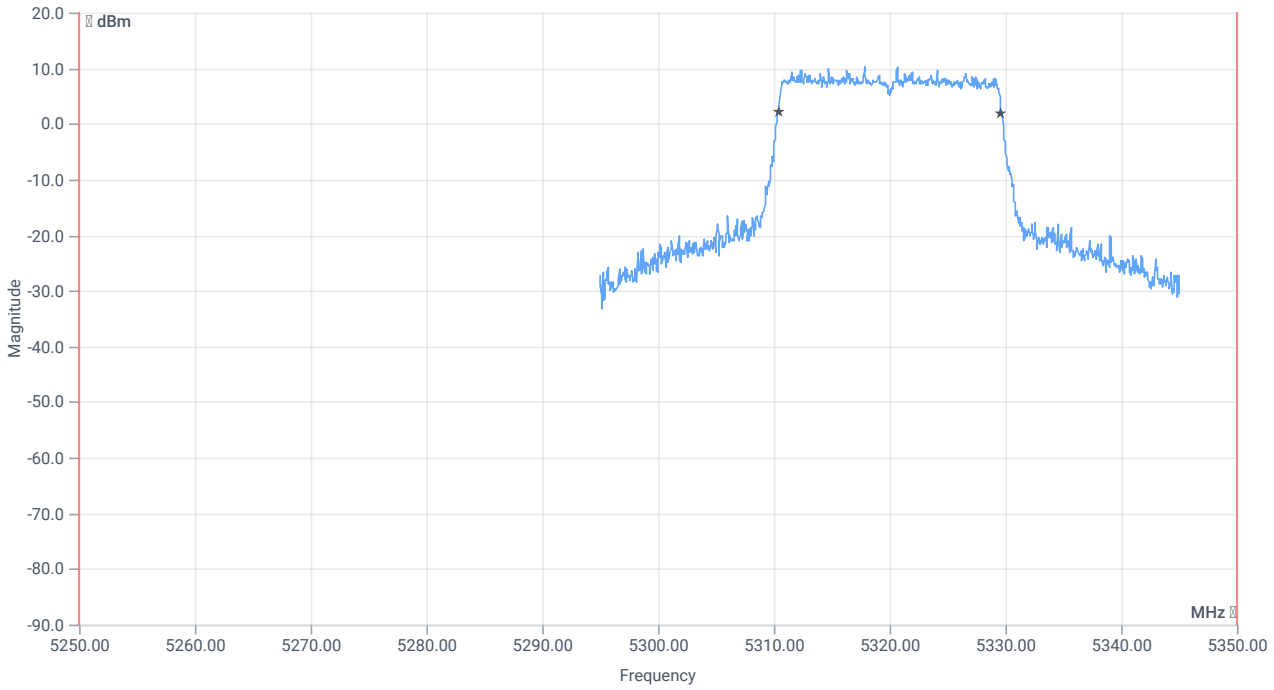
DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	13.05	dBm	INFO
Ref. Frequency	---	---	5312.810	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] | RefLevelOffset [dB] | InpAtt [dB]	21.05 | 16.26 | 20
Start [MHz] | Stop [MHz]	5295.000 | 5345.000
RBW [MHz] | VBW [MHz]	0.300000 | 1.000000
Detector | TraceMode	POS | MAXH
Sweep: time [ms] | count | points per Section | type	1 | 2500 | 1001 | SWE



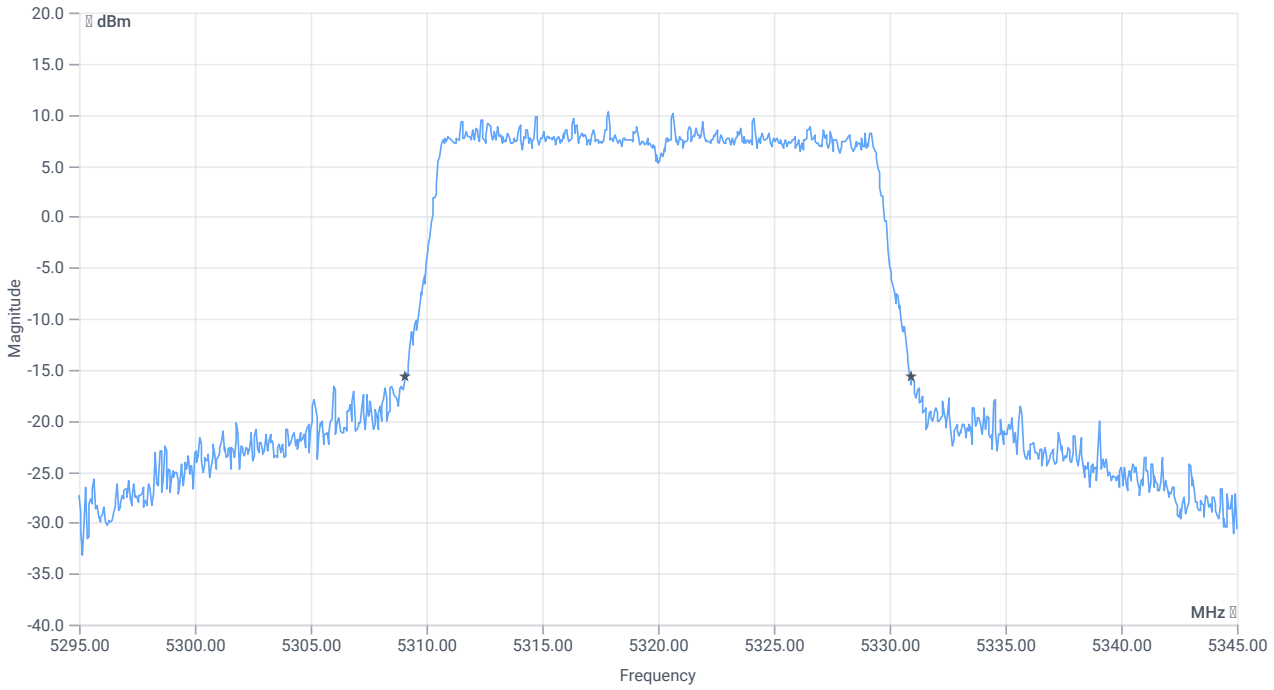
BW 99PCT



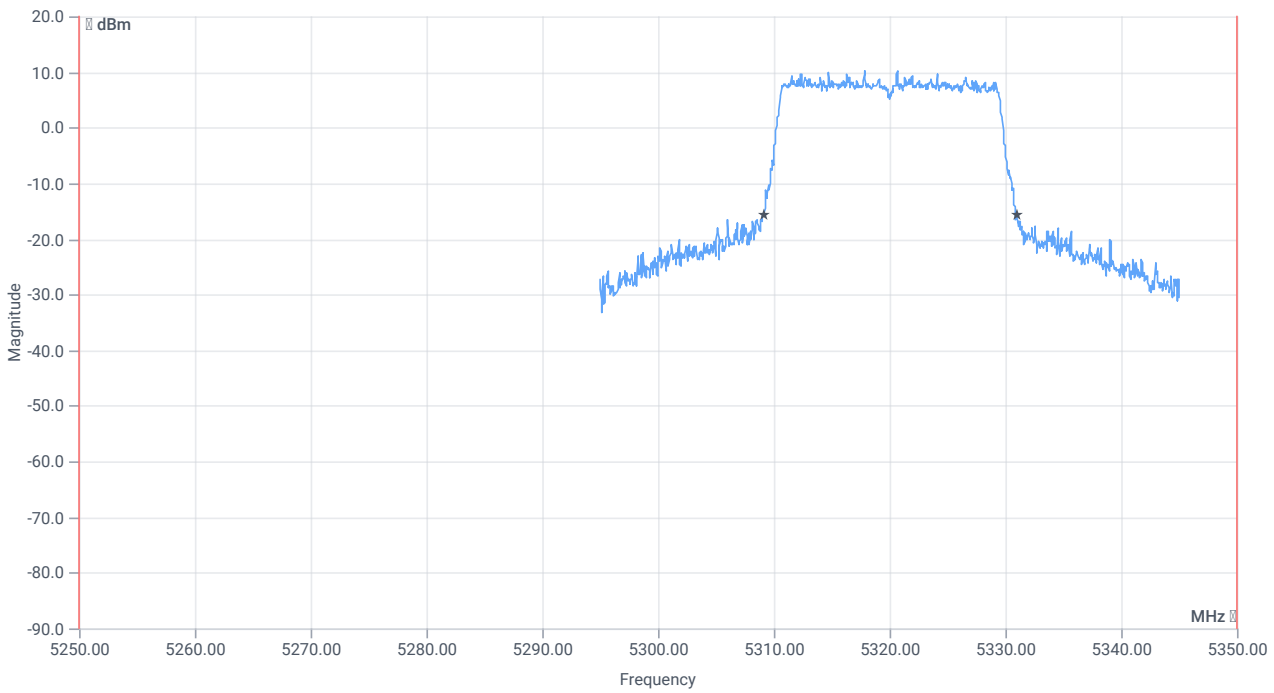
BW within Band 99PCT

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 99%	---	---	19.231	MHz	INFO
T1 99%	5250.000000	---	5310.4096	MHz	PASS since U-NII-1 is supported
T2 99%	---	5350.000000	5329.6404	MHz	PASS



BW 26dB



BW within Band 26dB

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 26dB	---	---	21.85	MHz	INFO

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
T1 26dB	5250.000000	---	5309.1000	MHz	PASS since U-NII-1 is supported
T2 26dB	---	5350.000000	5330.9500	MHz	PASS

Verdict
PASS

FCC 15.407 # Max output power and psd ~ WLAN5Gx ax-HE20 U-NII-2A

References

TC start	18.01.2024 14:50:20
Ambit temp [°C] | humidity [rel%]	24.5 | 29
System version	4.7.1.5
Standard | Version	FCC 15.407 | NI
Method	KDB789033 D02, F., E.2.e.
Description	FCC 15.407 Max Output Power & PSD - WLAN5Gx ax-HE20 U-NII-2A
Information	

EUT Common Settings WLAN5Gx

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

Test Parameter

Technology to test	WLAN5Gx ax-HE20
Antenna port used	2
Temperature	nom
Voltage	nom
Frequency low to test	False | Freq [MHz] 5260
Frequency mid to test	False | Freq [MHz] 5280
Frequency high to test	True | Freq [MHz] 5320
Auto control enabled power supply | Climatic Box	No | No
Additional path loss [dB]	1.4
Full path name | type	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 5320 MHz

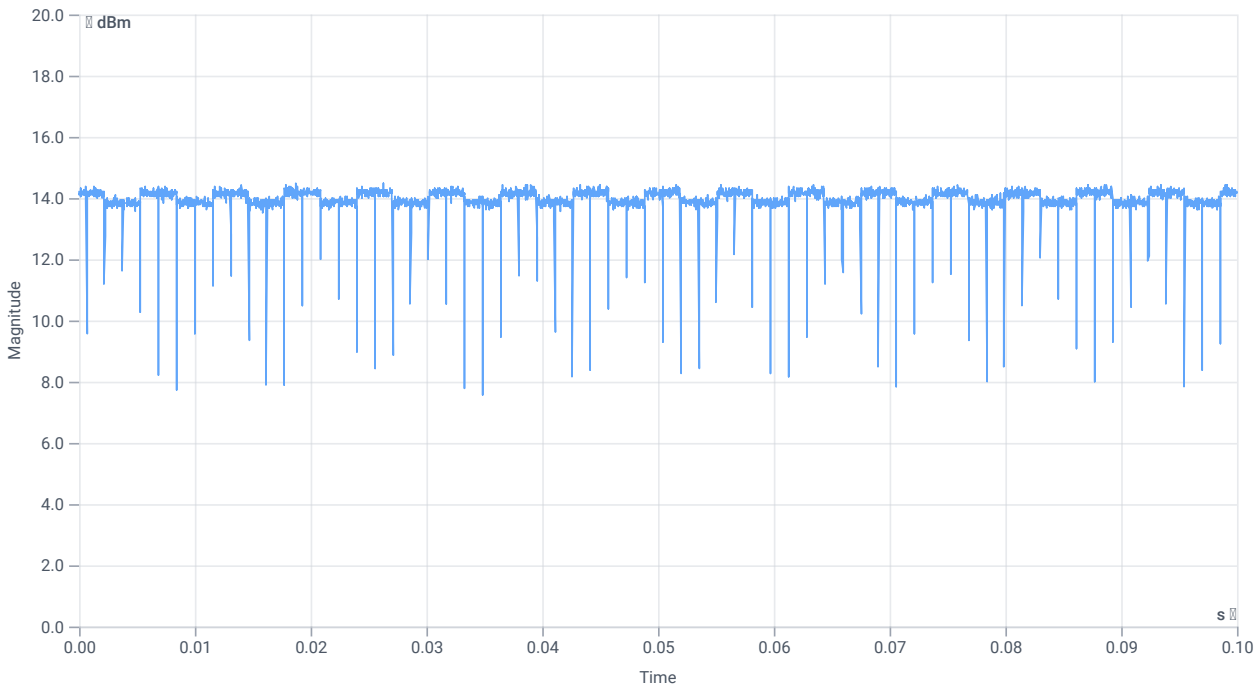
RESULT: Reference Power cond.

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	14.86	dBm	INFO
Ref. Frequency	---	---	5322.000	MHz	INFO

Evaluation max. Duty Cycle

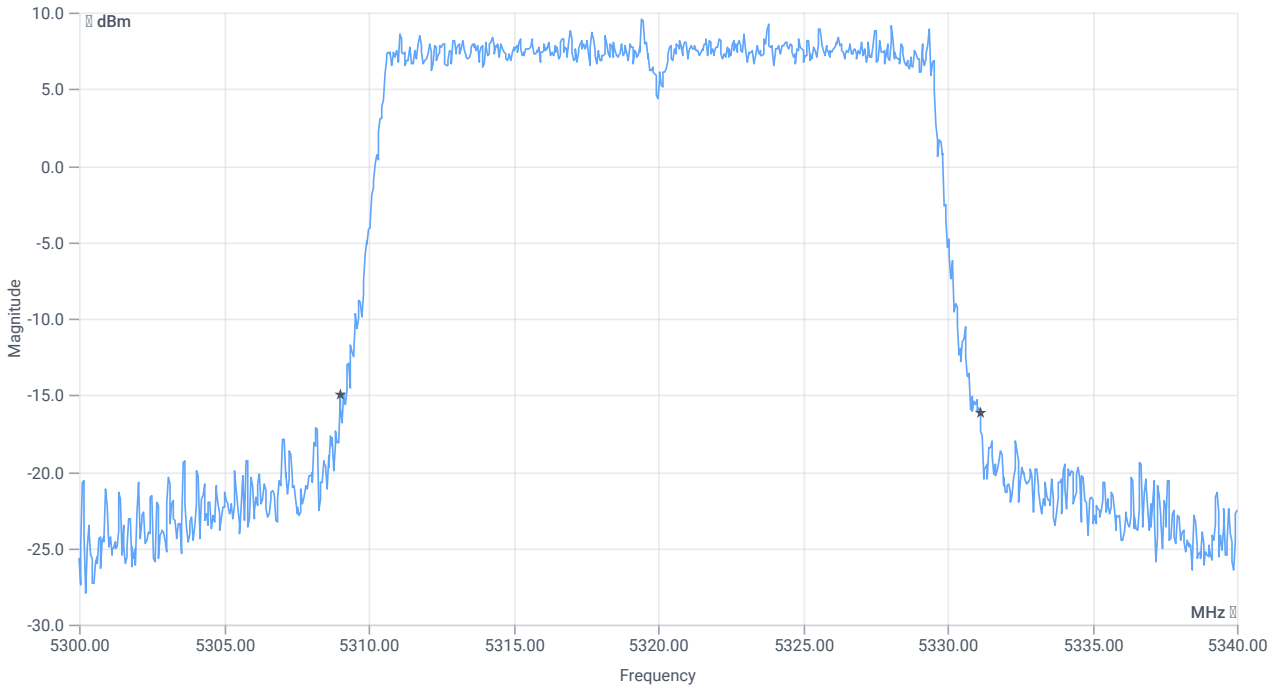
Duty Cycle evaluation

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



Duty cycle

Evaluation Bandwidth



BW 26dB

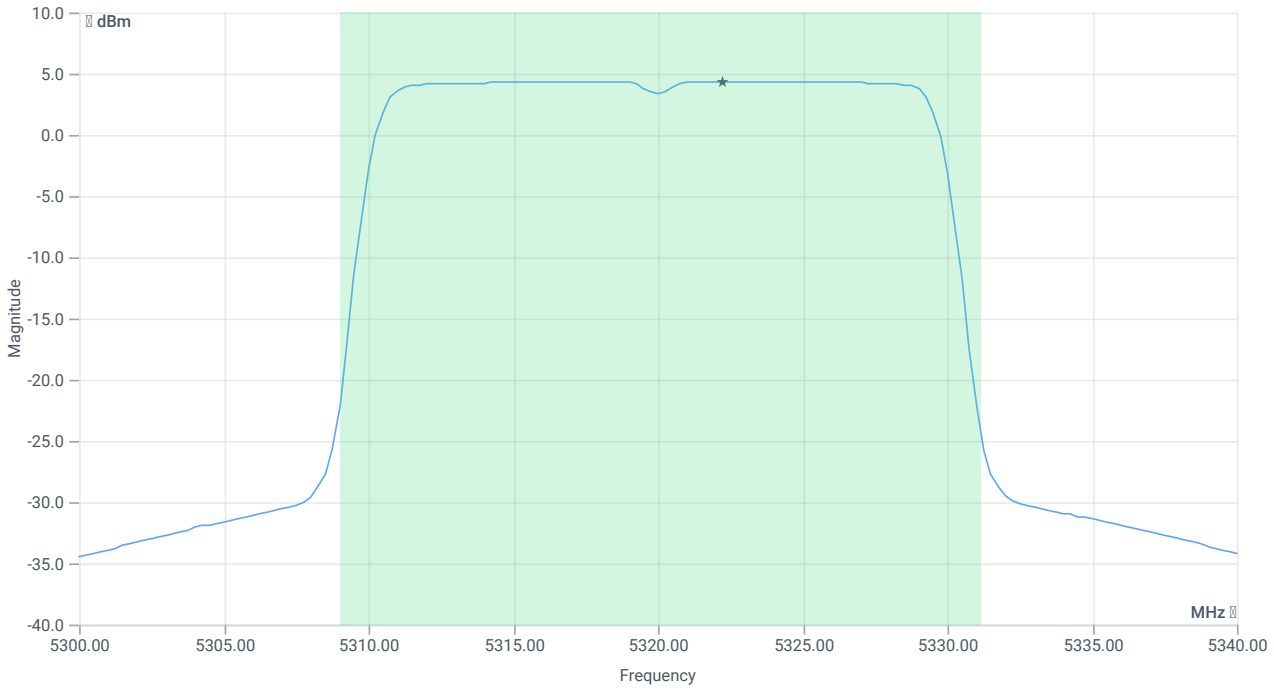
RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 26dB	---	---	22.12	MHz	INFO
T1 26dB	---	---	5309.0000	MHz	INFO
T2 26dB	---	---	5331.1200	MHz	INFO

Maximum Output Power

READ SA SETTINGS:

RefLevel [dBm] | RefLevelOffset [dB] | InpAtt [dB]	26.86 | 16.26 | 25
Start [MHz] | Stop [MHz]	5300.000 | 5340.000
RBW [MHz] | VBW [MHz]	1.000000 | 3.000000
Detector | TraceMode	RMS | MAXH
Sweep: time [ms] | count | points per Section | type	53700 | 1 | 161 | SWE



Max OP and PSD

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Max Output Power	---	---	16.77	dBm	INFO
Duty Cycle Correction	---	---	0	dB	INFO
Limit absolute					
Max Output Power DC corrected	---	24	16.77	dBm	PASS
Limit: 11 dBm + 10 log 22.12					
Max Output Power DC corrected	---	24.45	16.77	dBm	PASS

Power Spectral Density

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Power Spectral Density	---	---	4.39	dBm/1MHz	INFO
Duty Cycle Correction	---	---	0	dB	INFO
Power Spectral Density DC corrected	---	11	4.39	dBm/1MHz	PASS

Verdict
PASS

FCC 15.407, ISED RSS247 # Bandwidths 99PCT and 20dB ~ WLAN5Gx ax-HE20 U-NII-2A

References

TC start	18.01.2024 14:51:47
Ambit temp [°C] | humidity [rel%]	24.5 | 29
System version	4.7.1.5
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-HE20 U-NII-2A
Information	

EUT Common Settings WLAN5Gx

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

Test Parameter

Technology to test	WLAN5Gx ax-HE20
Antenna port used	2
Temperature	nom
Voltage	nom
Frequency low to test	False | Freq [MHz] 5260
Frequency mid to test	False | Freq [MHz] 5280
Frequency high to test	True | Freq [MHz] 5320
Auto control enabled power supply | Climatic Box	No | No
Additional path loss [dB]	1.4
Full path name | type	EUT - SignalingUnit - SpectrumAnalyzer

Equipment

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

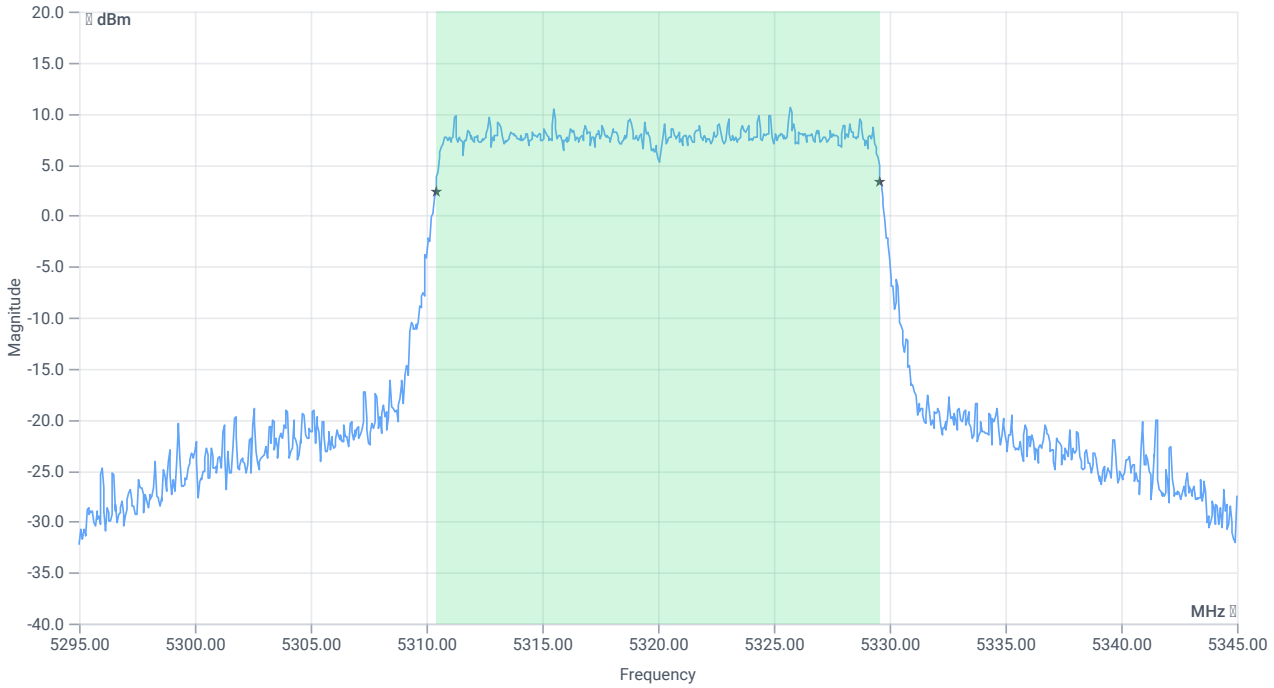
Test at TX 5320 MHz

RESULT: Reference Power cond.

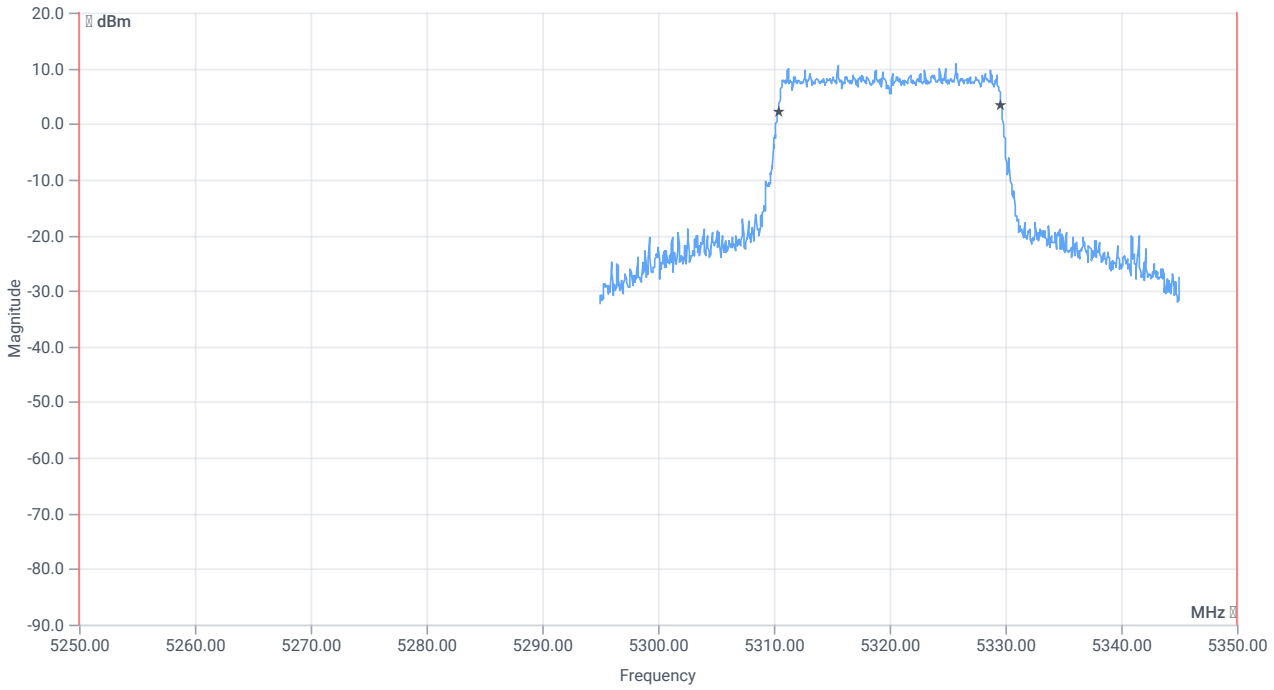
DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	12.55	dBm	INFO
Ref. Frequency	---	---	5325.790	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] | RefLevelOffset [dB] | InpAtt [dB]	20.55 | 16.26 | 20
Start [MHz] | Stop [MHz]	5295.000 | 5345.000
RBW [MHz] | VBW [MHz]	0.300000 | 1.000000
Detector | TraceMode	POS | MAXH
Sweep: time [ms] | count | points per Section | type	1 | 2500 | 1001 | SWE



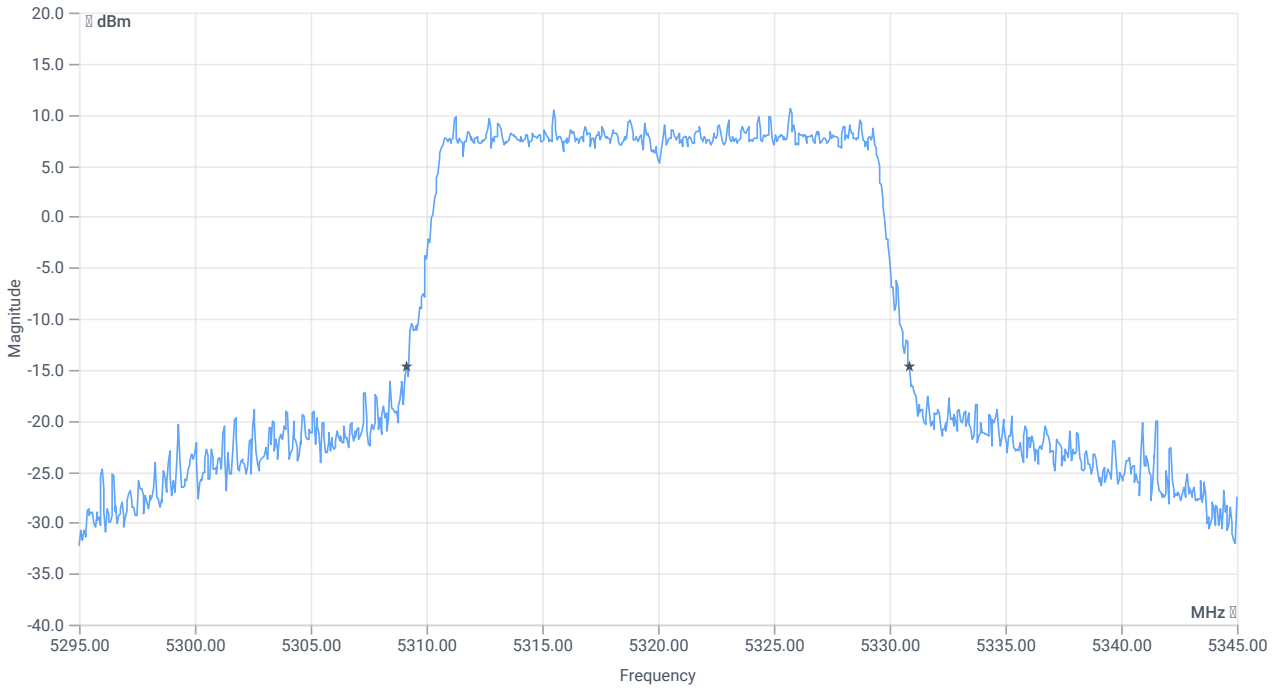
BW 99PCT



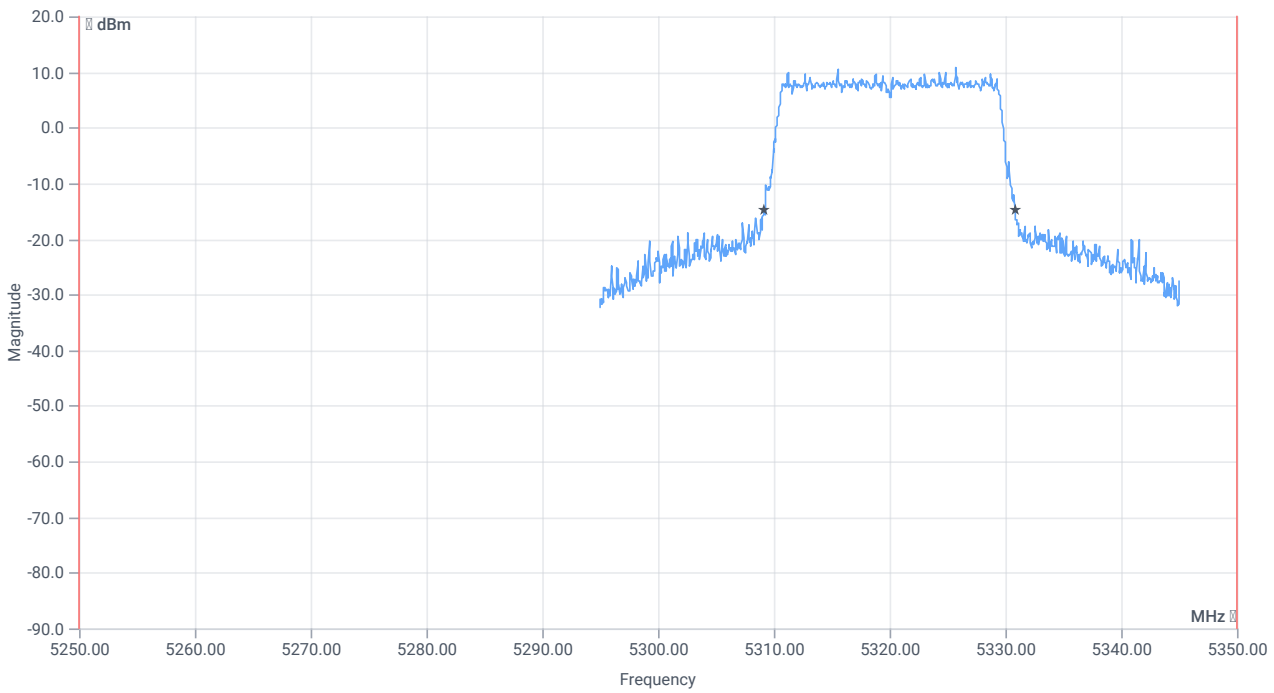
BW within Band 99PCT

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 99%	---	---	19.181	MHz	INFO
T1 99%	5250.000000	---	5310.4096	MHz	PASS since U-NII-1 is supported
T2 99%	---	5350.000000	5329.5904	MHz	PASS



BW 26dB



BW within Band 26dB

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 26dB	---	---	21.7	MHz	INFO

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
T1 26dB	5250.000000	---	5309.1500	MHz	PASS since U-NII-1 is supported
T2 26dB	---	5350.000000	5330.8500	MHz	PASS

Verdict
PASS

FCC 15.407 # MIMO ∑ Max output power and psd ~ WLAN5Gx ax-HE20 U-NII-2A

References

TC start	18.01.2024 14:52:17
Ambit temp [°C] | humidity [rel%]	24.4 | 29
System version	4.7.1.5
Standard | Version	FCC 15.407 | NI
Method	
Description	MIMO ∑ FCC Power & psd - WLAN5Gx ax-HE20 U-NII-2A
Information	

EUT Common Settings WLAN5Gx

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

Test Parameter

Technology to test	WLAN5Gx ax-HE20
Antenna port used	several
Temperature	nom
Voltage	nom
Frequency low to test	False | Freq [MHz] 5260
Frequency mid to test	False | Freq [MHz] 5280
Frequency high to test	True | Freq [MHz] 5320
Auto control enabled power supply | Climatic Box	No | No
Additional path loss [dB]	1.4
Full path name | type	None

Equipment

Test at TX 5320 MHz

RESULT Power

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ant:1 Max Output Power DC corrected	---	---	16.59	dBm	INFO
Ant:1 BW 26dB	---	---	21.760	MHz	INFO
Ant:2 Max Output Power DC corrected	---	---	16.77	dBm	INFO
Ant:2 BW 26dB	---	---	22.120	MHz	INFO
∑ Limit absolute	---	24	19.69	dBm	PASS
∑ Limit: 11 dBm + 10 log 21.76	---	24.38	19.69	dBm	PASS

RESULT PSD

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ant:1 PSD	---	---	4.27	dBm/1MHz	INFO
Ant:2 PSD	---	---	4.39	dBm/1MHz	INFO
∑	---	11	7.34	dBm/1MHz	PASS

Verdict
PASS

FCC 15.407 # Max output power and psd ~ WLAN5Gx ax-HE20 U-NII-2C

References

TC start	18.01.2024 14:58:15
Ambit temp [°C] | humidity [rel%]	24.7 | 28
System version	4.7.1.5
Standard | Version	FCC 15.407 | NI
Method	KDB789033 D02, F., E.2.e.
Description	FCC 15.407 Max Output Power & PSD - WLAN5Gx ax-HE20 U-NII-2C
Information	

EUT Common Settings WLAN5Gx

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

Test Parameter

Technology to test	WLAN5Gx ax-HE20
Antenna port used	1
Temperature	nom
Voltage	nom
Frequency low to test	True | Freq [MHz] 5500
Frequency mid to test	False | Freq [MHz] 5600
Frequency high to test	False | Freq [MHz] 5700
Auto control enabled power supply | Climatic Box	No | No
Additional path loss [dB]	1.4
Full path name | type	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 5500 MHz

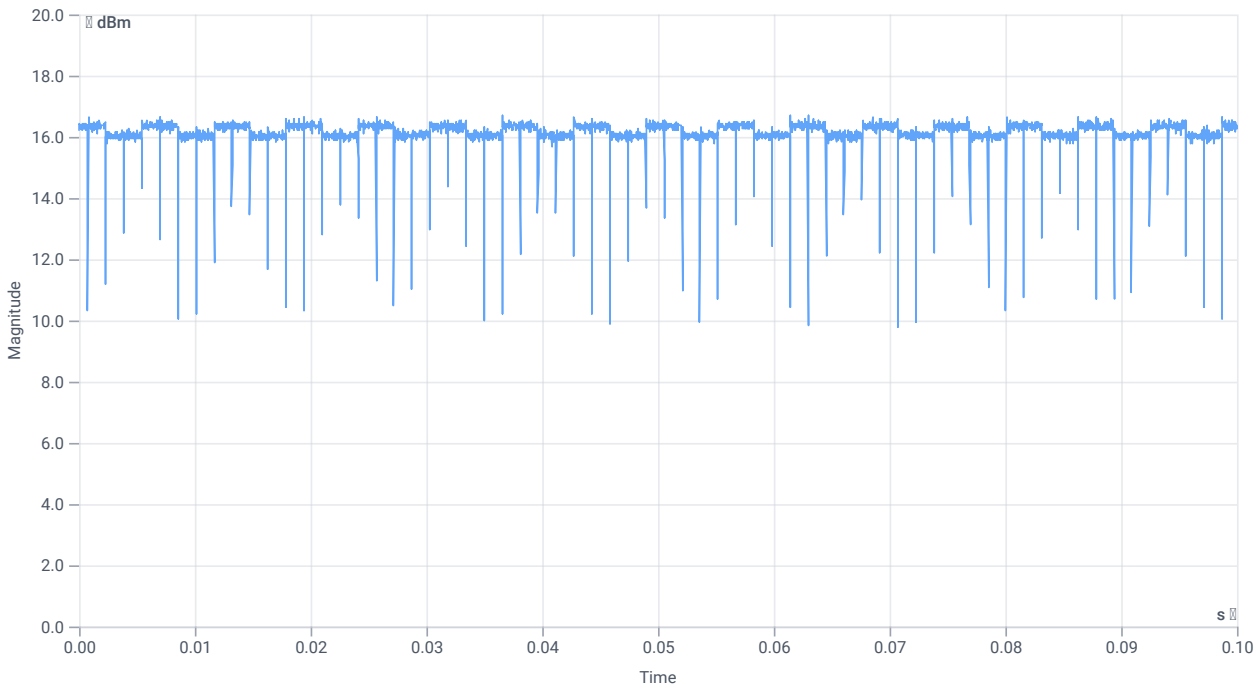
RESULT: Reference Power cond.

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	15.82	dBm	INFO
Ref. Frequency	---	---	5502.400	MHz	INFO

Evaluation max. Duty Cycle

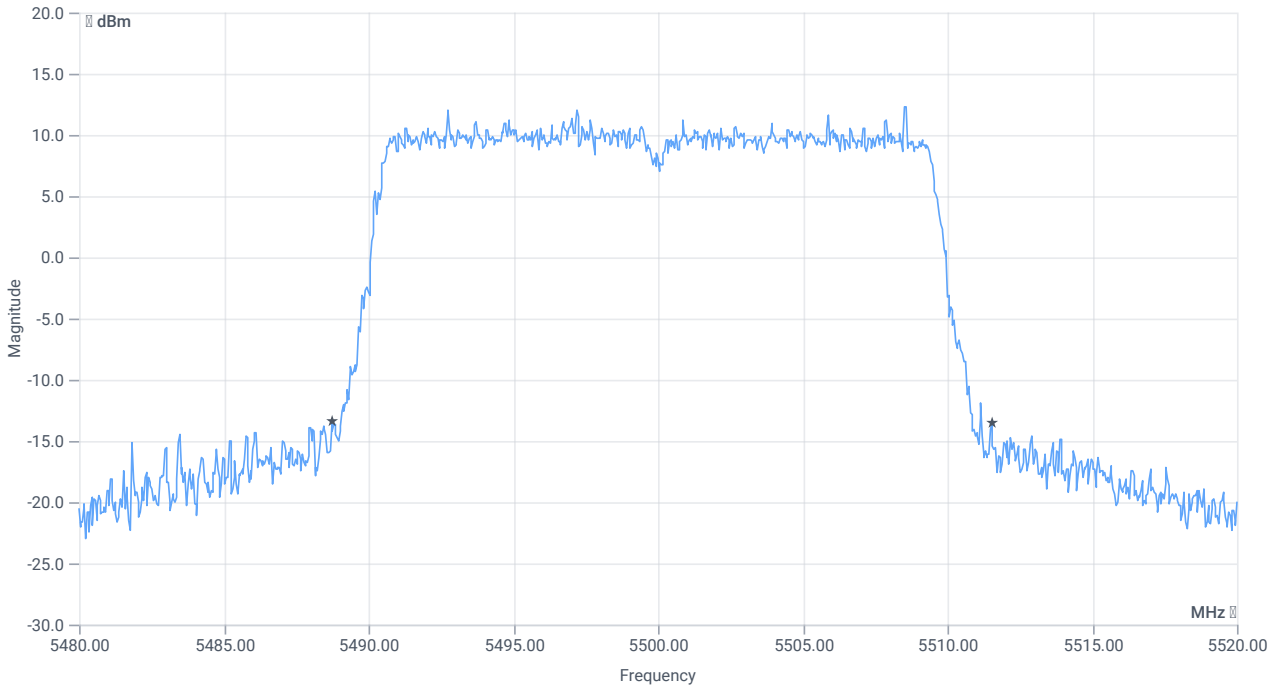
Duty Cycle evaluation

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



Duty cycle

Evaluation Bandwidth



BW 26dB

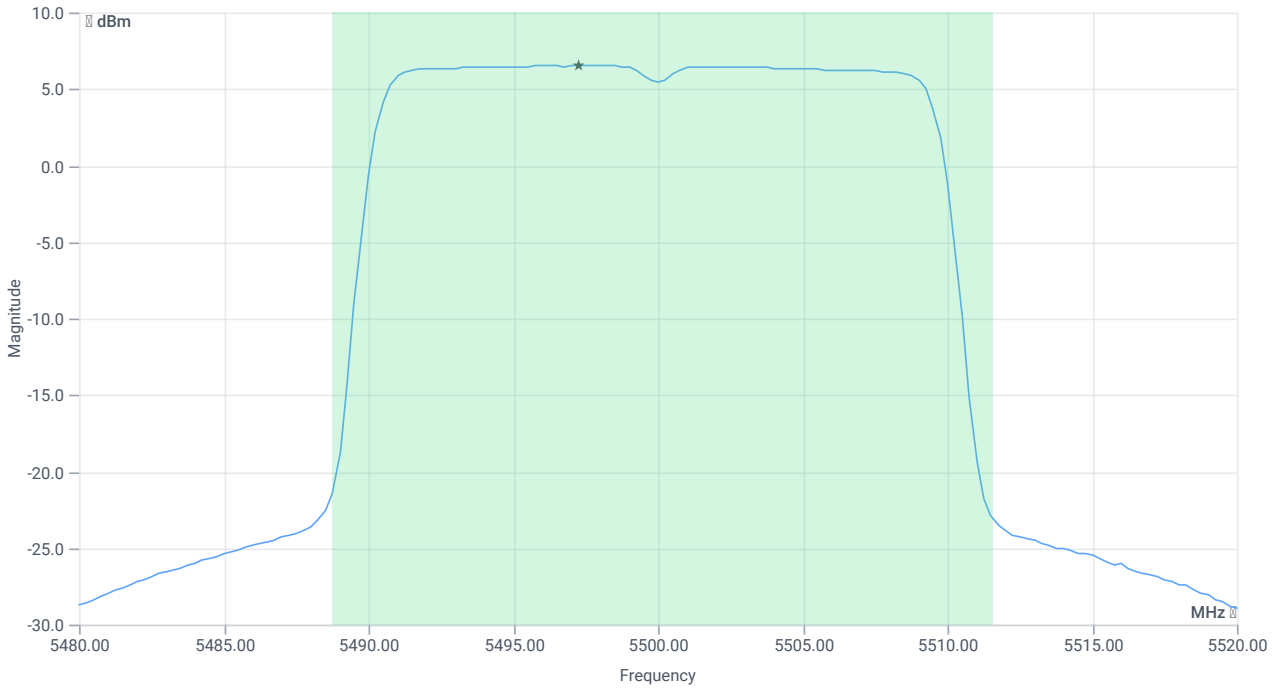
RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 26dB	---	---	22.8	MHz	INFO
T1 26dB	---	---	5488.7200	MHz	INFO
T2 26dB	---	---	5511.5200	MHz	INFO

Maximum Output Power

READ SA SETTINGS:

RefLevel [dBm] | RefLevelOffset [dB] | InpAtt [dB]	27.82 | 16.7 | 30
Start [MHz] | Stop [MHz]	5480.000 | 5520.000
RBW [MHz] | VBW [MHz]	1.000000 | 3.000000
Detector | TraceMode	RMS | MAXH
Sweep: time [ms] | count | points per Section | type	53700 | 1 | 161 | SWE



Max OP and PSD

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Max Output Power	---	---	18.85	dBm	INFO
Duty Cycle Correction	---	---	0	dB	INFO
Limit absolute					
Max Output Power DC corrected	---	24	18.85	dBm	PASS
Limit: 11 dBm + 10 log 22.8					
Max Output Power DC corrected	---	24.58	18.85	dBm	PASS

Power Spectral Density

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Power Spectral Density	---	---	6.54	dBm/1MHz	INFO
Duty Cycle Correction	---	---	0	dB	INFO
Power Spectral Density DC corrected	---	11	6.54	dBm/1MHz	PASS

Verdict
PASS

FCC 15.407, ISED RSS247 # Bandwidths 99PCT and 20dB ~ WLAN5Gx ax-HE20 U-NII-2C

References

TC start	18.01.2024 14:59:41
Ambit temp [°C] | humidity [rel%]	24.7 | 28
System version	4.7.1.5
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-HE20 U-NII-2C
Information	

EUT Common Settings WLAN5Gx

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

Test Parameter

Technology to test	WLAN5Gx ax-HE20
Antenna port used	1
Temperature	nom
Voltage	nom
Frequency low to test	True | Freq [MHz] 5500
Frequency mid to test	False | Freq [MHz] 5600
Frequency high to test	False | Freq [MHz] 5700
Auto control enabled power supply | Climatic Box	No | No
Additional path loss [dB]	1.4
Full path name | type	EUT - SignalingUnit - SpectrumAnalyzer

Equipment

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

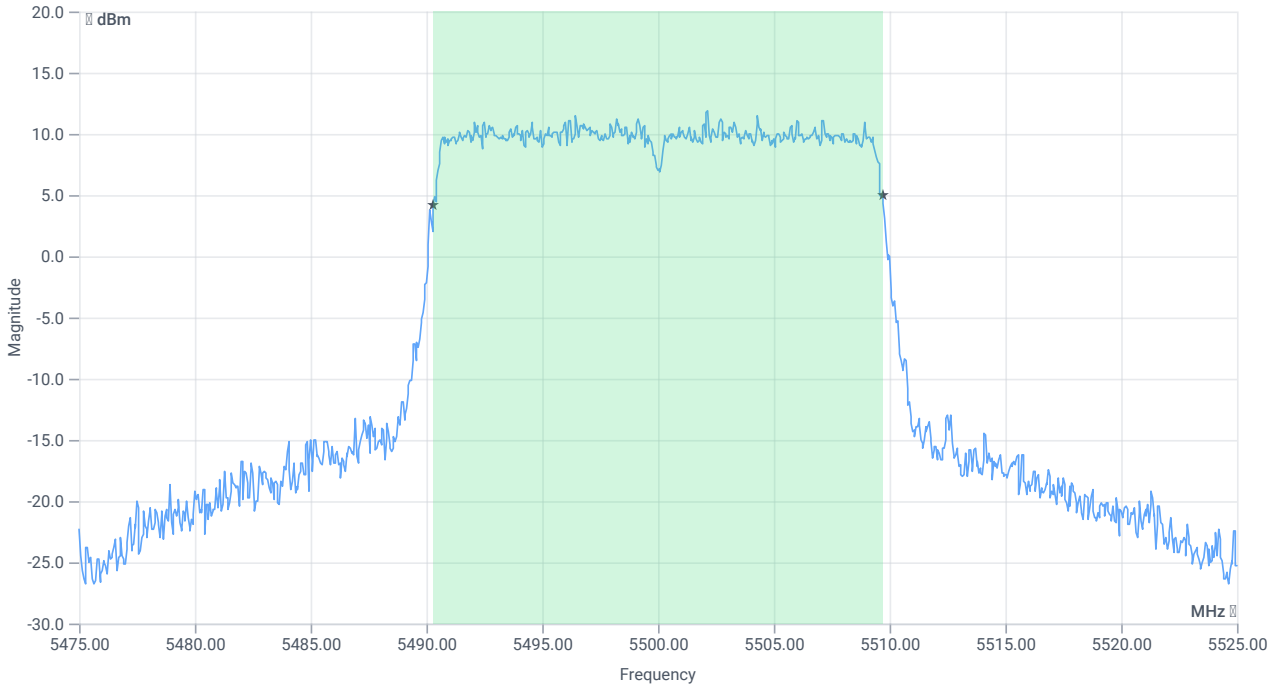
Test at TX 5500 MHz

RESULT: Reference Power cond.

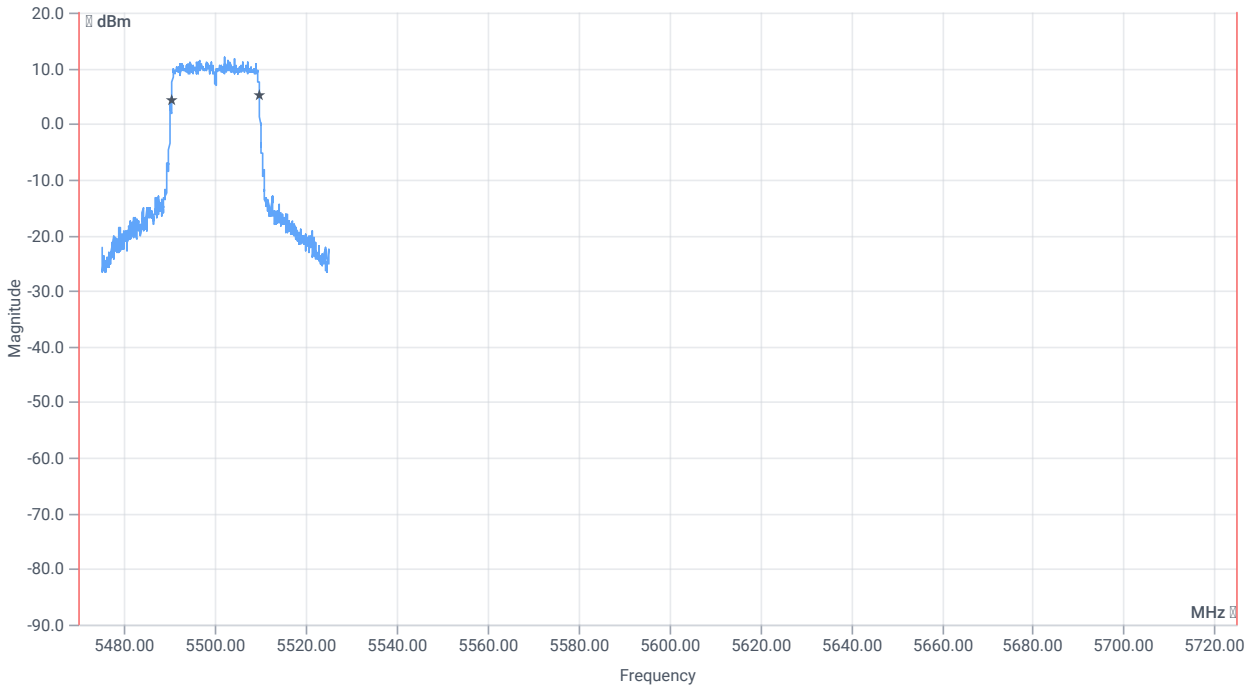
DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	15.02	dBm	INFO
Ref. Frequency	---	---	5502.800	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] | RefLevelOffset [dB] | InpAtt [dB]	23.02 | 16.7 | 25
Start [MHz] | Stop [MHz]	5475.000 | 5525.000
RBW [MHz] | VBW [MHz]	0.300000 | 1.000000
Detector | TraceMode	POS | MAXH
Sweep: time [ms] | count | points per Section | type	1 | 2500 | 1001 | SWE



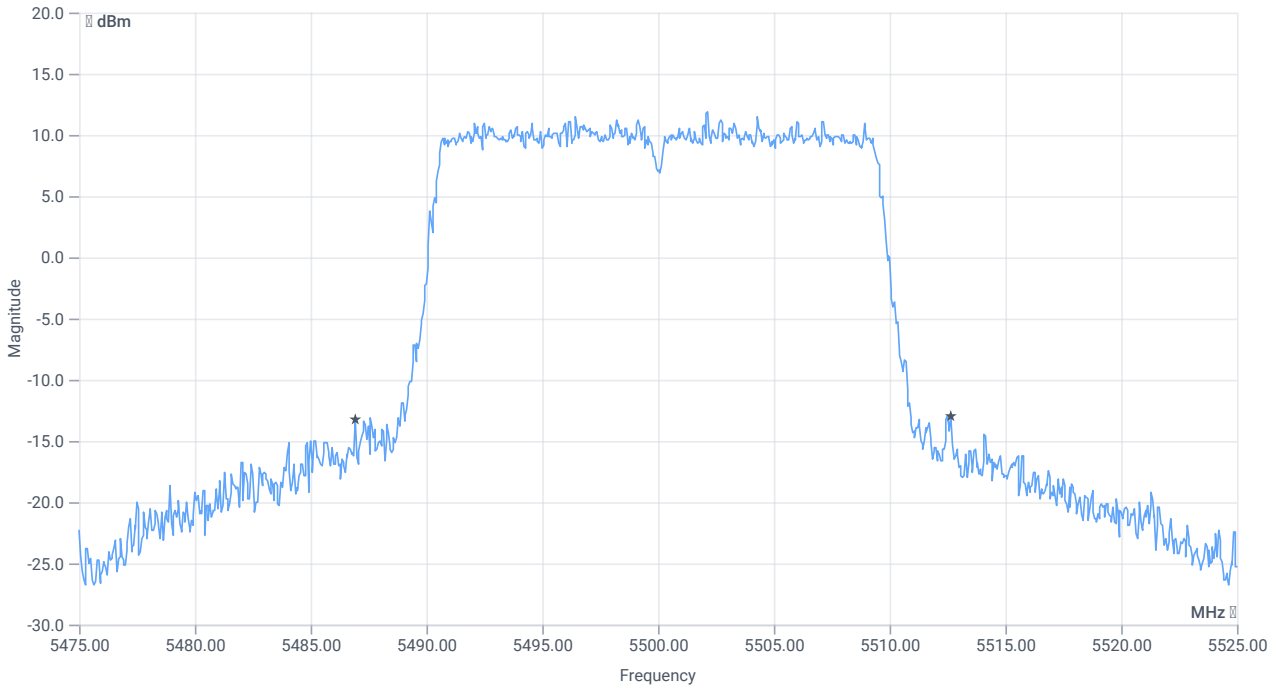
BW 99PCT



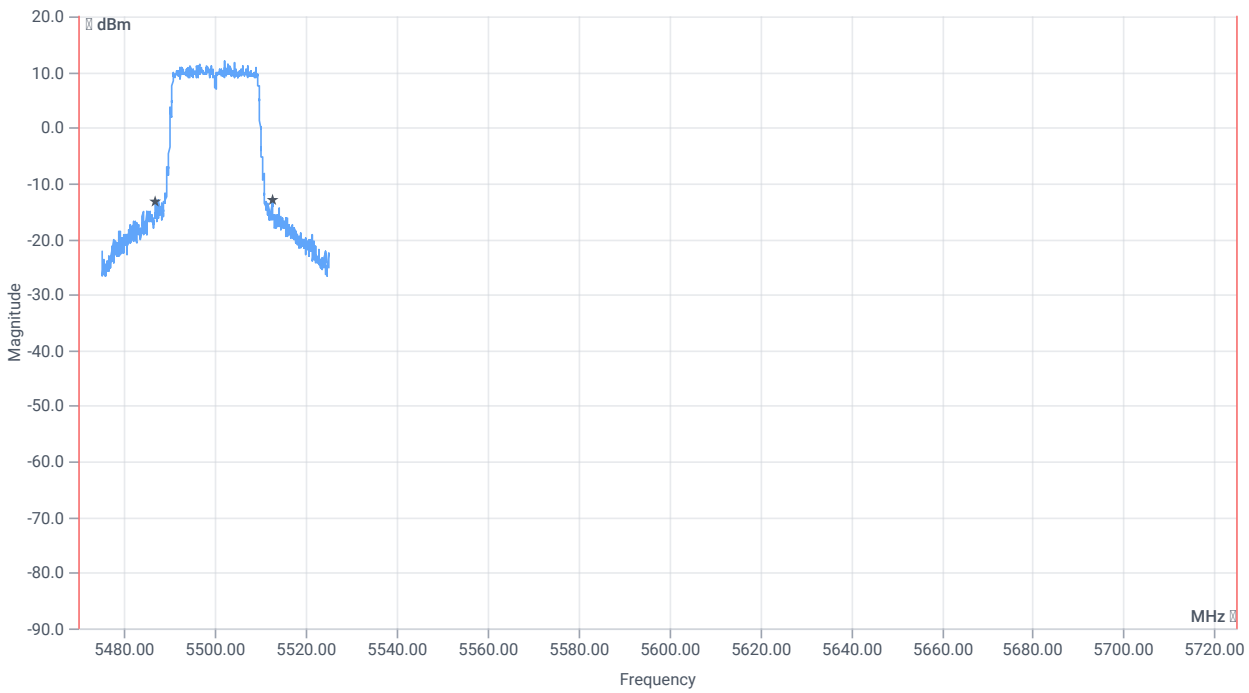
BW within Band 99PCT

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 99%	---	---	19.381	MHz	INFO
T1 99%	5470.000000	---	5490.3097	MHz	PASS since U-NII-3 is supported
T2 99%	---	5725.000000	5509.6903	MHz	



BW 26dB



BW within Band 26dB

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 26dB	---	---	25.75	MHz	INFO

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
T1 26dB	5470.000000	---	5486.9000	MHz	PASS since U-NII-3 is supported
T2 26dB	---	5725.000000	5512.6500	MHz	

Verdict
PASS

FCC 15.407 # Max output power and psd ~ WLAN5Gx ax-HE20 U-NII-2C

References

TC start	18.01.2024 15:00:13
Ambit temp [°C] | humidity [rel%]	24.7 | 28
System version	4.7.1.5
Standard | Version	FCC 15.407 | NI
Method	KDB789033 D02, F., E.2.e.
Description	FCC 15.407 Max Output Power & PSD - WLAN5Gx ax-HE20 U-NII-2C
Information	

EUT Common Settings WLAN5Gx

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

Test Parameter

Technology to test	WLAN5Gx ax-HE20
Antenna port used	2
Temperature	nom
Voltage	nom
Frequency low to test	True | Freq [MHz] 5500
Frequency mid to test	False | Freq [MHz] 5600
Frequency high to test	False | Freq [MHz] 5700
Auto control enabled power supply | Climatic Box	No | No
Additional path loss [dB]	1.4
Full path name | type	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 5500 MHz

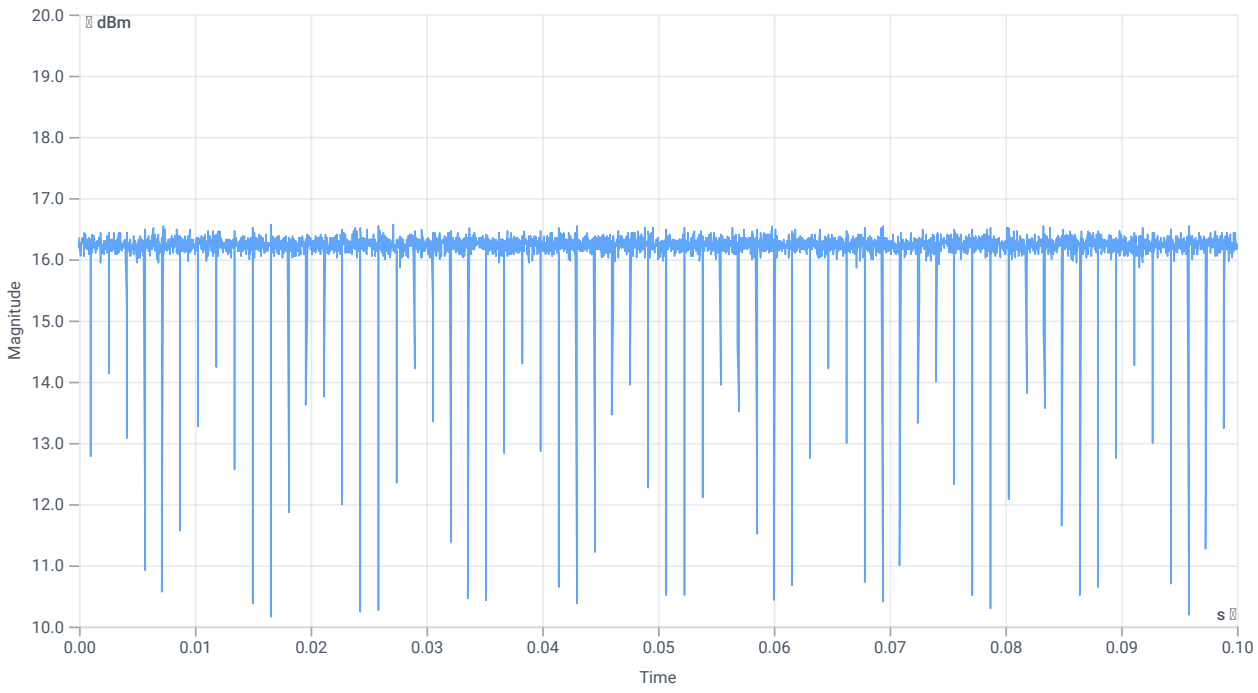
RESULT: Reference Power cond.

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	17.19	dBm	INFO
Ref. Frequency	---	---	5497.800	MHz	INFO

Evaluation max. Duty Cycle

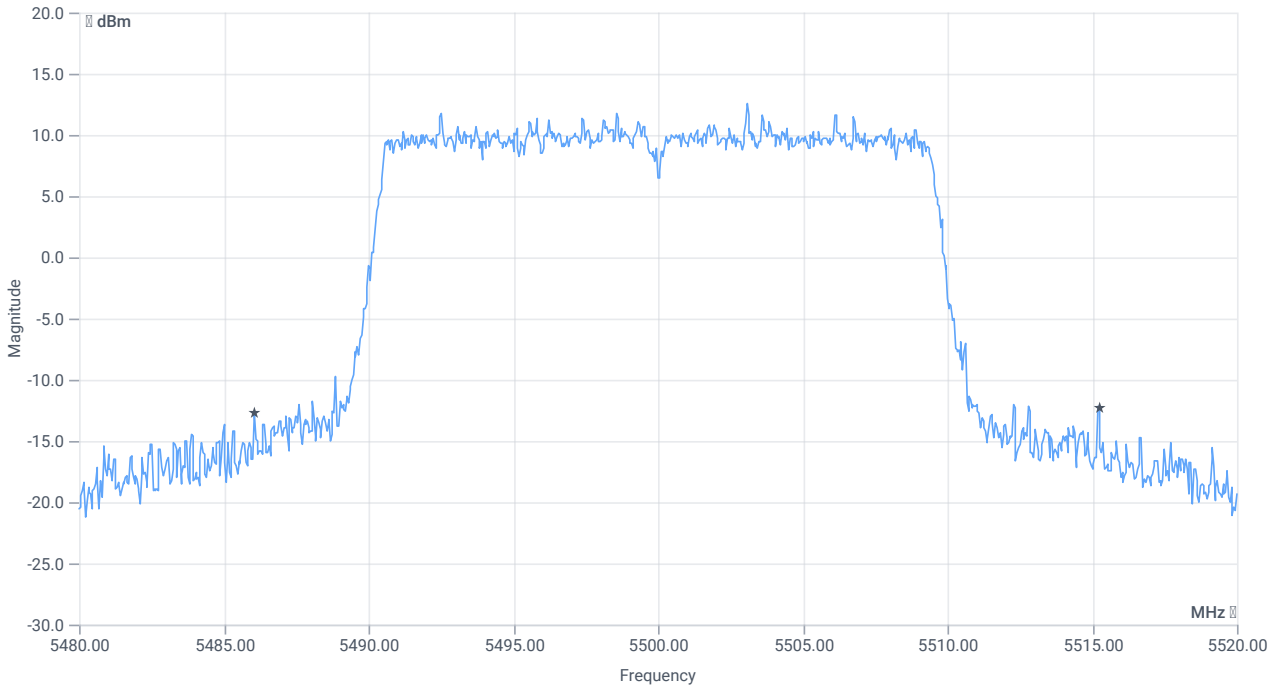
Duty Cycle evaluation

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



Duty cycle

Evaluation Bandwidth



BW 26dB

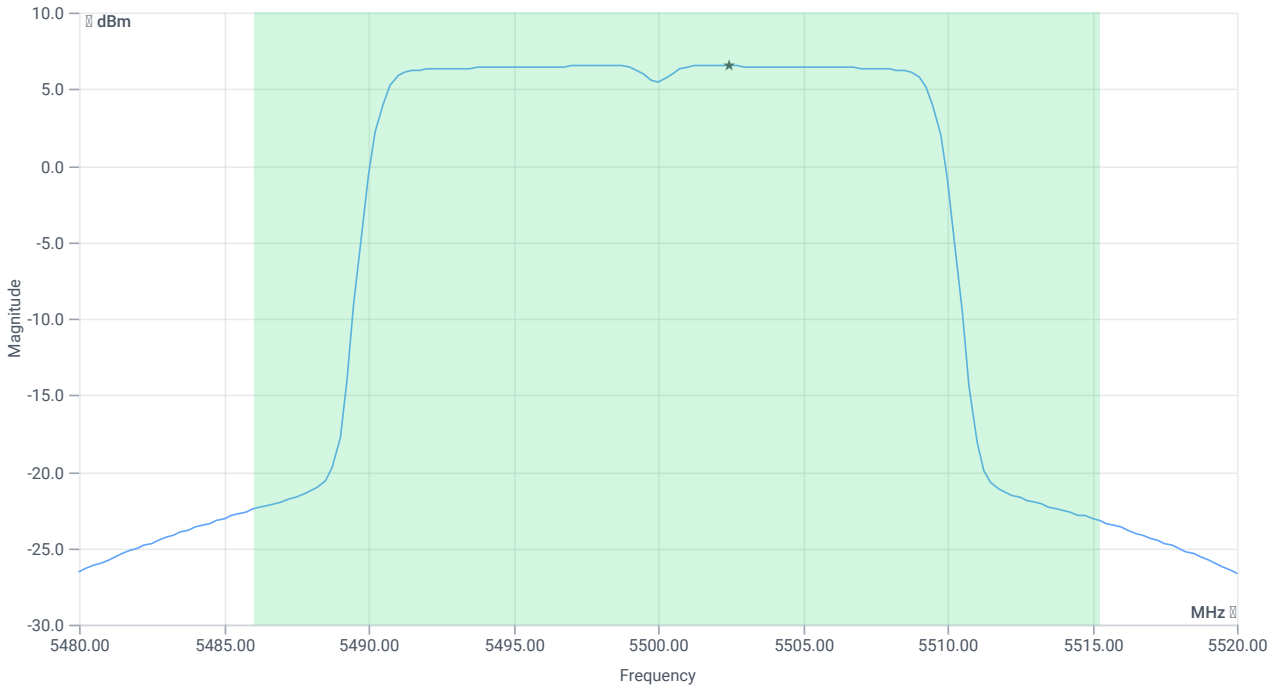
RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 26dB	---	---	29.2	MHz	INFO
T1 26dB	---	---	5486.0400	MHz	INFO
T2 26dB	---	---	5515.2400	MHz	INFO

Maximum Output Power

READ SA SETTINGS:

RefLevel [dBm] | RefLevelOffset [dB] | InpAtt [dB]	29.19 | 16.7 | 30
Start [MHz] | Stop [MHz]	5480.000 | 5520.000
RBW [MHz] | VBW [MHz]	1.000000 | 3.000000
Detector | TraceMode	RMS | MAXH
Sweep: time [ms] | count | points per Section | type	53700 | 1 | 161 | SWE



Max OP and PSD

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Max Output Power	---	---	18.9	dBm	INFO
Duty Cycle Correction	---	---	0	dB	INFO
Limit absolute					
Max Output Power DC corrected	---	24	18.9	dBm	PASS
Limit: 11 dBm + 10 log 29.2					
Max Output Power DC corrected	---	25.65	18.9	dBm	PASS

Power Spectral Density

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Power Spectral Density	---	---	6.52	dBm/1MHz	INFO
Duty Cycle Correction	---	---	0	dB	INFO
Power Spectral Density DC corrected	---	11	6.52	dBm/1MHz	PASS

Verdict
PASS

FCC 15.407, ISED RSS247 # Bandwidths 99PCT and 20dB ~ WLAN5Gx ax-HE20 U-NII-2C

References

TC start	18.01.2024 15:01:39
Ambit temp [°C] | humidity [rel%]	24.7 | 28
System version	4.7.1.5
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-HE20 U-NII-2C
Information	

EUT Common Settings WLAN5Gx

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

Test Parameter

Technology to test	WLAN5Gx ax-HE20
Antenna port used	2
Temperature	nom
Voltage	nom
Frequency low to test	True | Freq [MHz] 5500
Frequency mid to test	False | Freq [MHz] 5600
Frequency high to test	False | Freq [MHz] 5700
Auto control enabled power supply | Climatic Box	No | No
Additional path loss [dB]	1.4
Full path name | type	EUT - SignalingUnit - SpectrumAnalyzer

Equipment

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

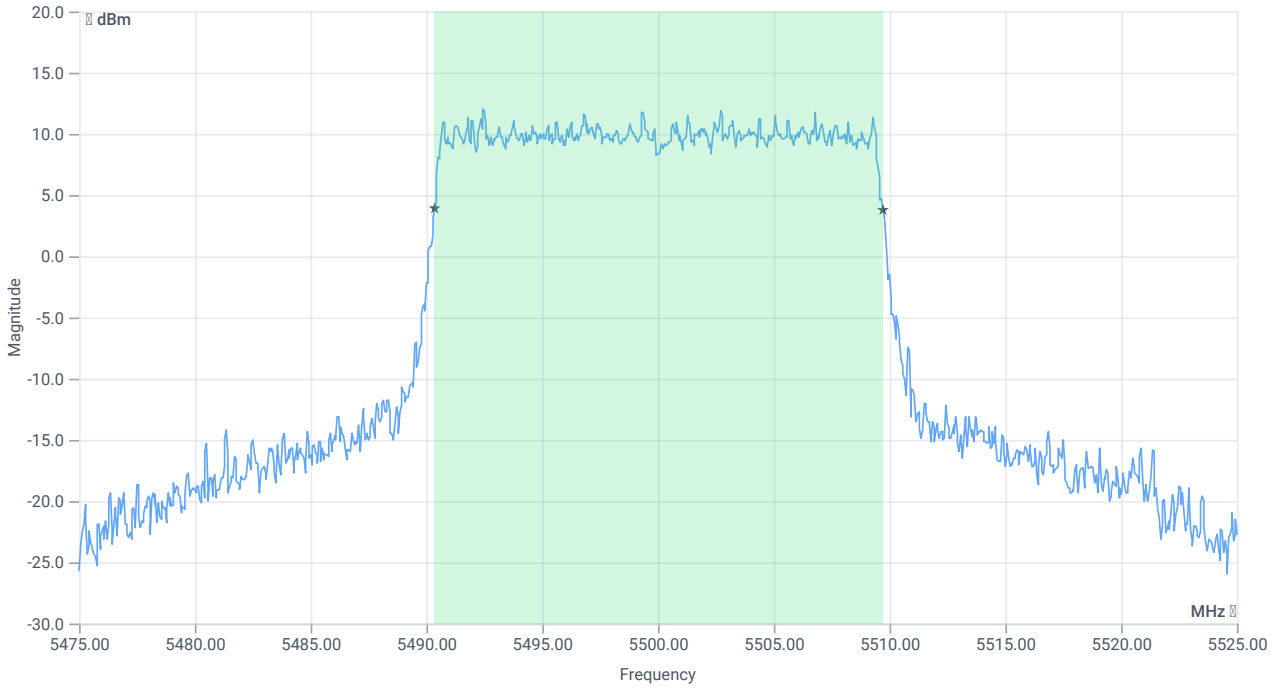
Test at TX 5500 MHz

RESULT: Reference Power cond.

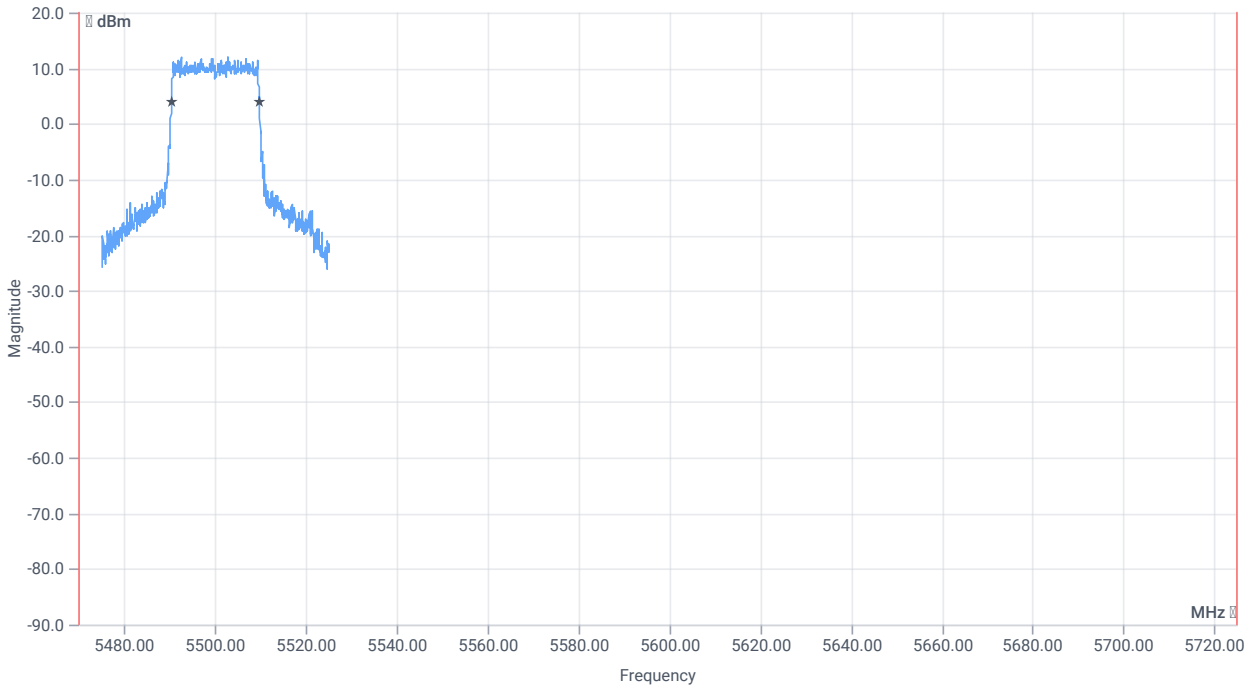
DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	15.44	dBm	INFO
Ref. Frequency	---	---	5500.800	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] | RefLevelOffset [dB] | InpAtt [dB]	23.44 | 16.7 | 25
Start [MHz] | Stop [MHz]	5475.000 | 5525.000
RBW [MHz] | VBW [MHz]	0.300000 | 1.000000
Detector | TraceMode	POS | MAXH
Sweep: time [ms] | count | points per Section | type	1 | 2500 | 1001 | SWE



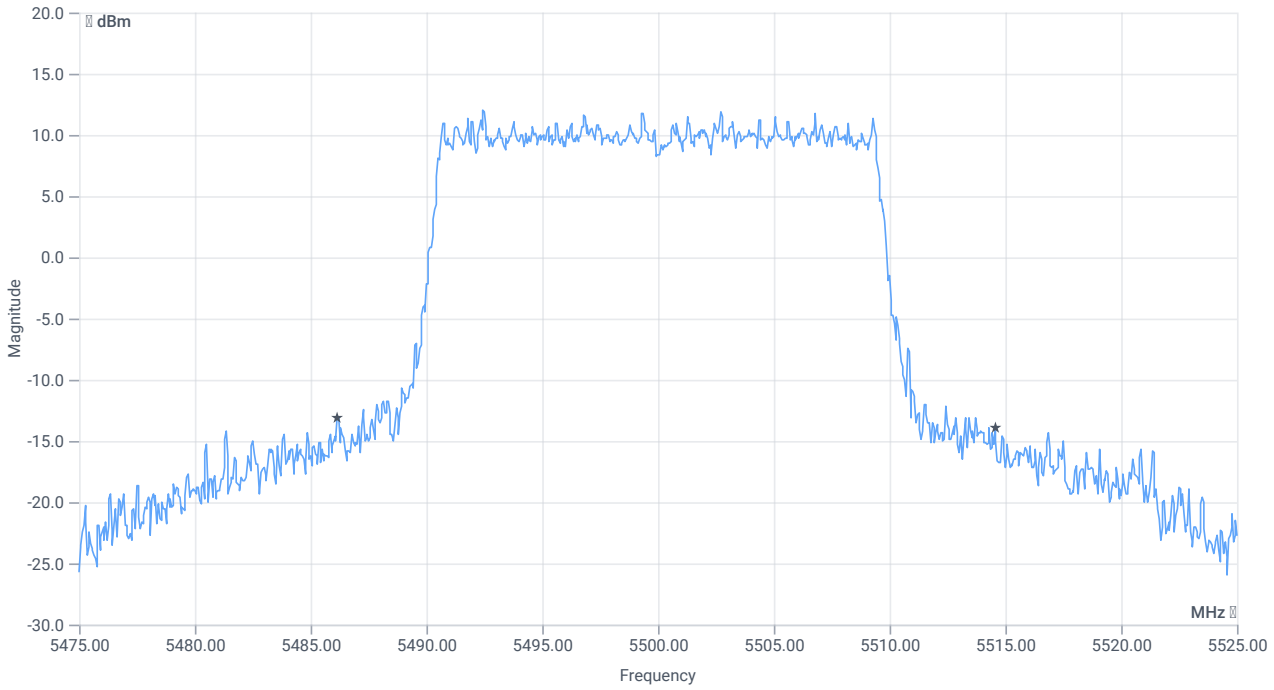
BW 99PCT



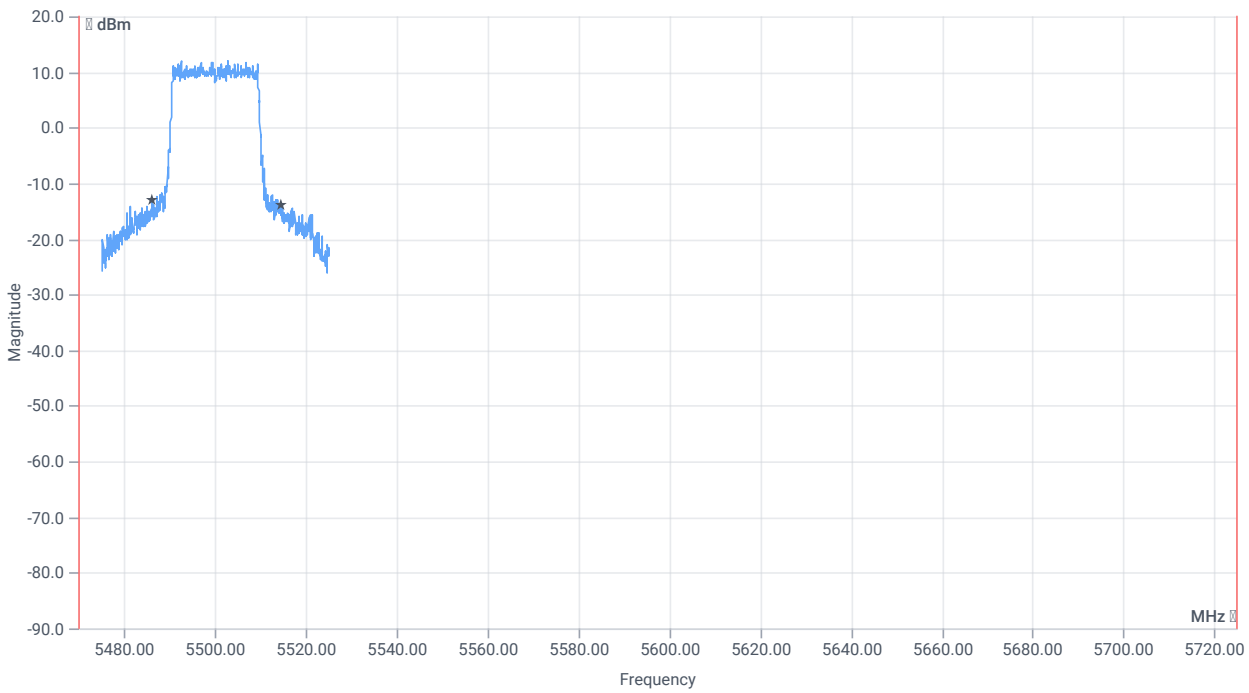
BW within Band 99PCT

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 99%	---	---	19.331	MHz	INFO
T1 99%	5470.000000	---	5490.3596	MHz	PASS since U-NII-3 is supported
T2 99%	---	5725.000000	5509.6903	MHz	



BW 26dB



BW within Band 26dB

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 26dB	---	---	28.4	MHz	INFO

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
T1 26dB	5470.000000	---	5486.1500	MHz	PASS since U-NII-3 is supported
T2 26dB	---	5725.000000	5514.5500	MHz	

Verdict
PASS

FCC 15.407 # MIMO ∑ Max output power and psd ~ WLAN5Gx ax-HE20 U-NII-2C

References

TC start	18.01.2024 15:02:11
Ambit temp [°C] | humidity [rel%]	24.6 | 28
System version	4.7.1.5
Standard | Version	FCC 15.407 | NI
Method	
Description	MIMO ∑ FCC Power & psd - WLAN5Gx ax-HE20 U-NII-2C
Information	

EUT Common Settings WLAN5Gx

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

Test Parameter

Technology to test	WLAN5Gx ax-HE20
Antenna port used	several
Temperature	nom
Voltage	nom
Frequency low to test	True | Freq [MHz] 5500
Frequency mid to test	False | Freq [MHz] 5600
Frequency high to test	False | Freq [MHz] 5700
Auto control enabled power supply | Climatic Box	No | No
Additional path loss [dB]	1.4
Full path name | type	None

Equipment

Test at TX 5500 MHz

RESULT Power

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ant:1 Max Output Power DC corrected	---	---	18.85	dBm	INFO
Ant:1 BW 26dB	---	---	22.800	MHz	INFO
Ant:2 Max Output Power DC corrected	---	---	18.9	dBm	INFO
Ant:2 BW 26dB	---	---	29.200	MHz	INFO
∑ Limit absolute	---	24	21.89	dBm	PASS
∑ Limit: 11 dBm + 10 log 22.8	---	24.58	21.89	dBm	PASS

RESULT PSD

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ant:1 PSD	---	---	6.54	dBm/1MHz	INFO
Ant:2 PSD	---	---	6.52	dBm/1MHz	INFO
∑	---	11	9.54	dBm/1MHz	PASS

Verdict
PASS

FCC 15.407 # Max output power and psd ~ WLAN5Gx ax-HE20 U-NII-2C

References

TC start	18.01.2024 15:03:18
Ambit temp [°C] | humidity [rel%]	24.7 | 28
System version	4.7.1.5
Standard | Version	FCC 15.407 | NI
Method	KDB789033 D02, F., E.2.e.
Description	FCC 15.407 Max Output Power & PSD - WLAN5Gx ax-HE20 U-NII-2C
Information	

EUT Common Settings WLAN5Gx

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

Test Parameter

Technology to test	WLAN5Gx ax-HE20
Antenna port used	1
Temperature	nom
Voltage	nom
Frequency low to test	False | Freq [MHz] 5500
Frequency mid to test	True | Freq [MHz] 5600
Frequency high to test	False | Freq [MHz] 5700
Auto control enabled power supply | Climatic Box	No | No
Additional path loss [dB]	1.4
Full path name | type	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 5600 MHz

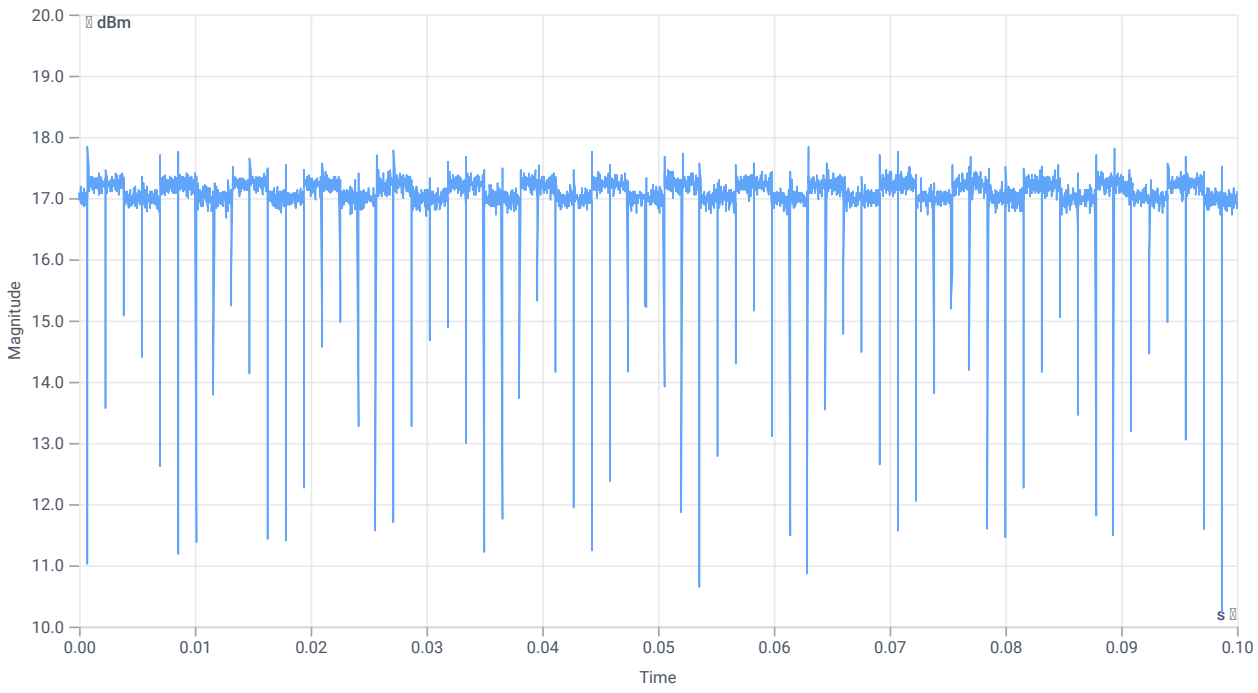
RESULT: Reference Power cond.

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	16.97	dBm	INFO
Ref. Frequency	---	---	5607.190	MHz	INFO

Evaluation max. Duty Cycle

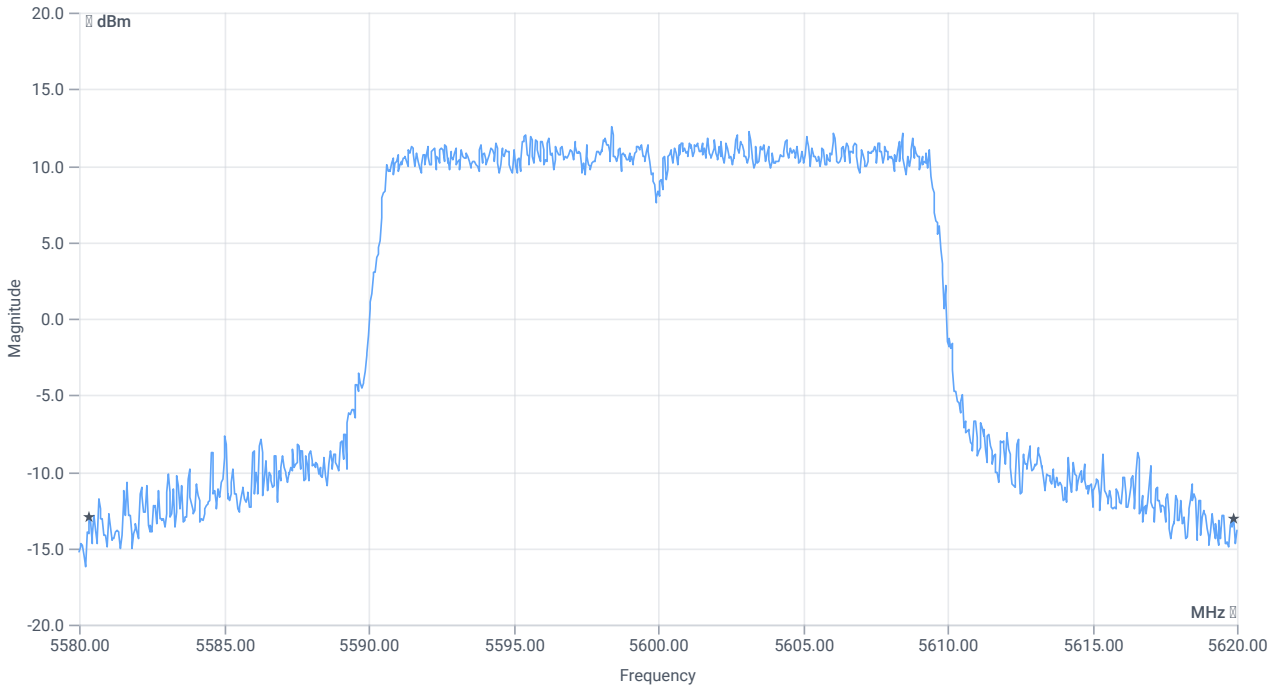
Duty Cycle evaluation

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



Duty cycle

Evaluation Bandwidth



BW 26dB

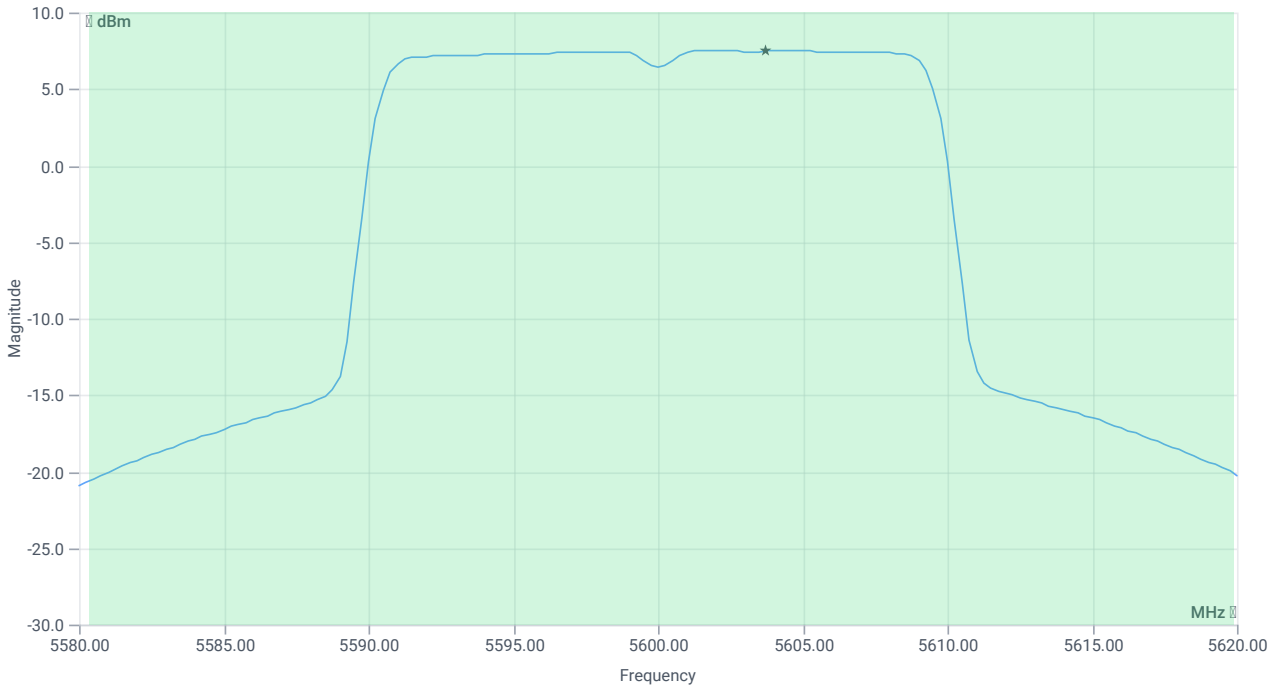
RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 26dB	---	---	39.52	MHz	INFO
T1 26dB	---	---	5580.3600	MHz	INFO
T2 26dB	---	---	5619.8800	MHz	INFO

Maximum Output Power

READ SA SETTINGS:

RefLevel [dBm] | RefLevelOffset [dB] | InpAtt [dB]	28.97 | 16.74 | 30
Start [MHz] | Stop [MHz]	5580.000 | 5620.000
RBW [MHz] | VBW [MHz]	1.000000 | 3.000000
Detector | TraceMode	RMS | MAXH
Sweep: time [ms] | count | points per Section | type	53700 | 1 | 161 | SWE



Max OP and PSD

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Max Output Power	---	---	19.86	dBm	INFO
Duty Cycle Correction	---	---	0	dB	INFO
Limit absolute					
Max Output Power DC corrected	---	24	19.86	dBm	PASS
Limit: 11 dBm + 10 log 39.52					
Max Output Power DC corrected	---	26.97	19.86	dBm	PASS

Power Spectral Density

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Power Spectral Density	---	---	7.49	dBm/1MHz	INFO
Duty Cycle Correction	---	---	0	dB	INFO
Power Spectral Density DC corrected	---	11	7.49	dBm/1MHz	PASS

Verdict
PASS

FCC 15.407, ISED RSS247 # Bandwidths 99PCT and 20dB ~ WLAN5Gx ax-HE20 U-NII-2C

References

TC start	18.01.2024 15:04:46
Ambit temp [°C] | humidity [rel%]	24.7 | 28
System version	4.7.1.5
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-HE20 U-NII-2C
Information	

EUT Common Settings WLAN5Gx

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

Test Parameter

Technology to test	WLAN5Gx ax-HE20
Antenna port used	1
Temperature	nom
Voltage	nom
Frequency low to test	False | Freq [MHz] 5500
Frequency mid to test	True | Freq [MHz] 5600
Frequency high to test	False | Freq [MHz] 5700
Auto control enabled power supply | Climatic Box	No | No
Additional path loss [dB]	1.4
Full path name | type	EUT - SignalingUnit - SpectrumAnalyzer

Equipment

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

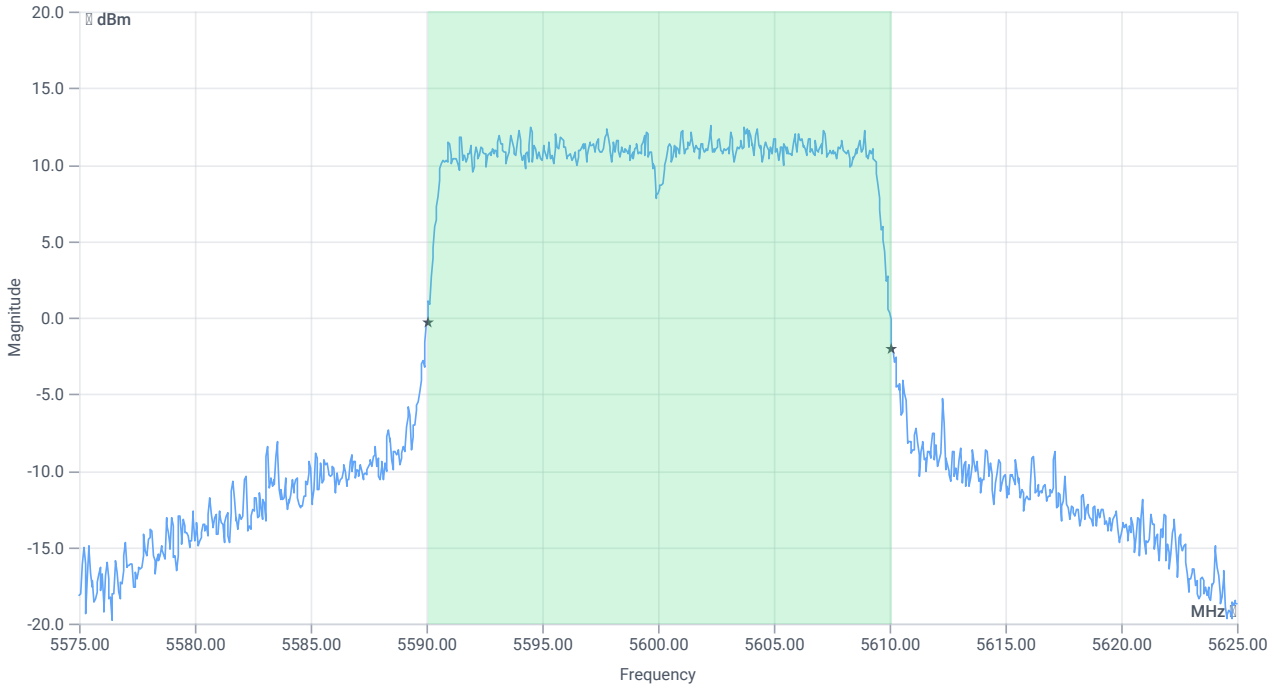
Test at TX 5600 MHz

RESULT: Reference Power cond.

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	16.67	dBm	INFO
Ref. Frequency	---	---	5605.000	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] | RefLevelOffset [dB] | InpAtt [dB]	24.67 | 16.74 | 25
Start [MHz] | Stop [MHz]	5575.000 | 5625.000
RBW [MHz] | VBW [MHz]	0.300000 | 1.000000
Detector | TraceMode	POS | MAXH
Sweep: time [ms] | count | points per Section | type	1 | 2500 | 1001 | SWE

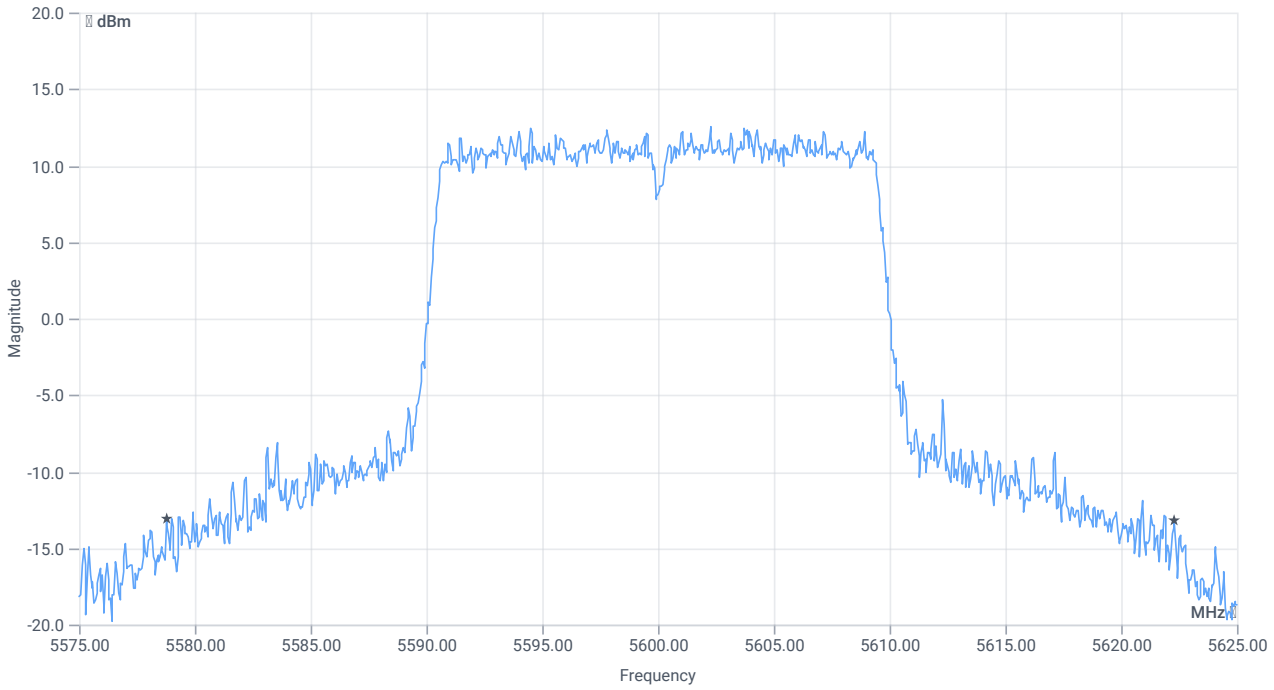


BW 99PCT

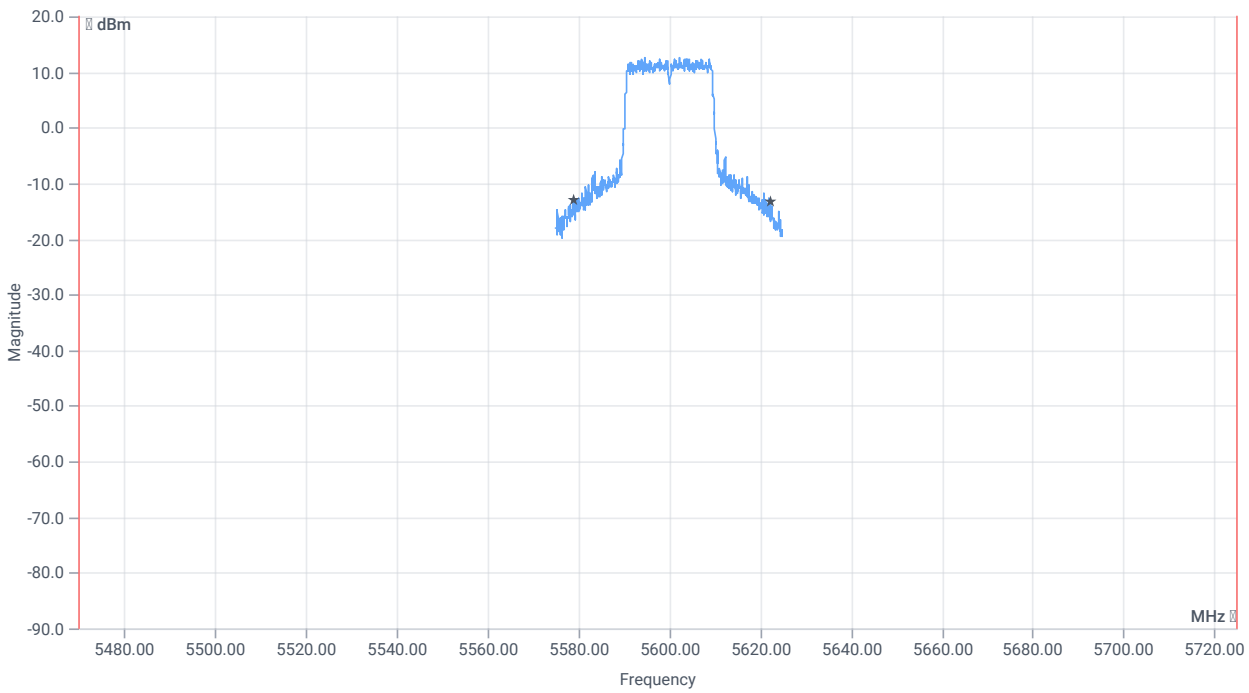
BW within Band 99PCT

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 99%	---	---	20.03	MHz	INFO
T1 99%	5470.000000	---	5590.0599	MHz	PASS since U-NII-3 is supported
T2 99%	---	5725.000000	5610.0899	MHz	



BW 26dB



BW within Band 26dB

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 26dB	---	---	43.55	MHz	INFO

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
T1 26dB	5470.000000	---	5578.7500	MHz	PASS since U-NII-3 is supported
T2 26dB	---	5725.000000	5622.3000	MHz	

Verdict
PASS

FCC 15.407 # Max output power and psd ~ WLAN5Gx ax-HE20 U-NII-2C

References

TC start	18.01.2024 15:05:17
Ambit temp [°C] | humidity [rel%]	24.7 | 28
System version	4.7.1.5
Standard | Version	FCC 15.407 | NI
Method	KDB789033 D02, F., E.2.e.
Description	FCC 15.407 Max Output Power & PSD - WLAN5Gx ax-HE20 U-NII-2C
Information	

EUT Common Settings WLAN5Gx

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

Test Parameter

Technology to test	WLAN5Gx ax-HE20
Antenna port used	2
Temperature	nom
Voltage	nom
Frequency low to test	False | Freq [MHz] 5500
Frequency mid to test	True | Freq [MHz] 5600
Frequency high to test	False | Freq [MHz] 5700
Auto control enabled power supply | Climatic Box	No | No
Additional path loss [dB]	1.4
Full path name | type	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 5600 MHz

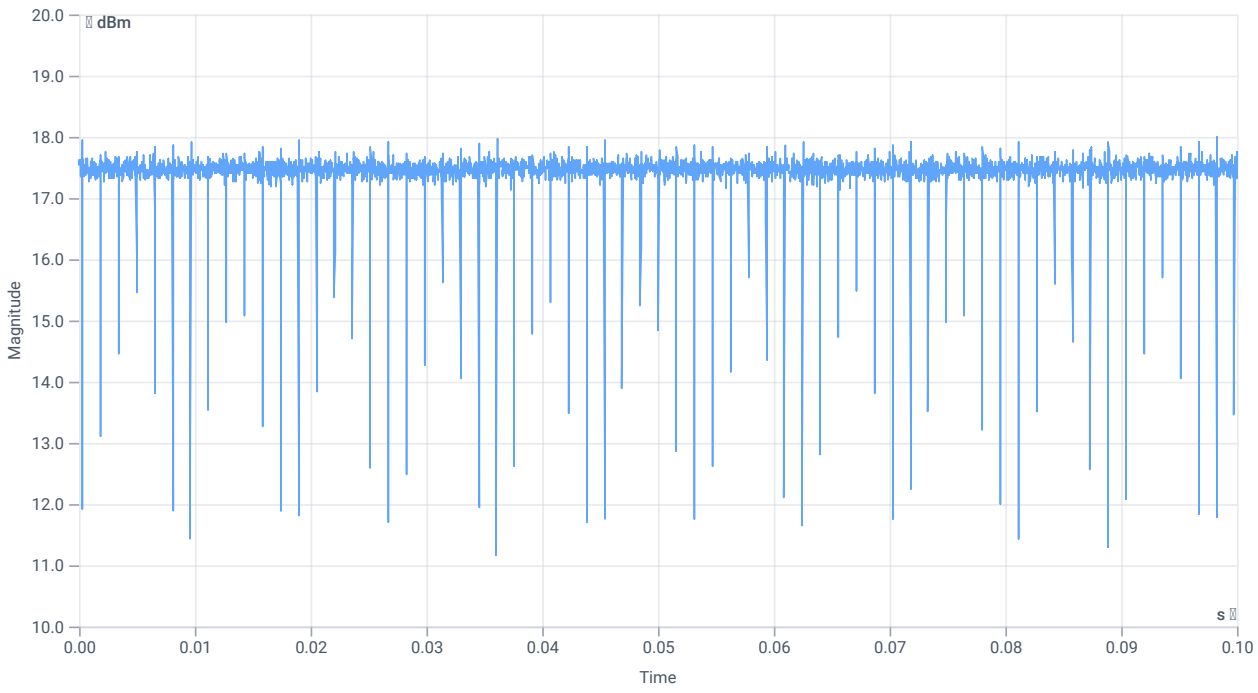
RESULT: Reference Power cond.

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	16.83	dBm	INFO
Ref. Frequency	---	---	5594.610	MHz	INFO

Evaluation max. Duty Cycle

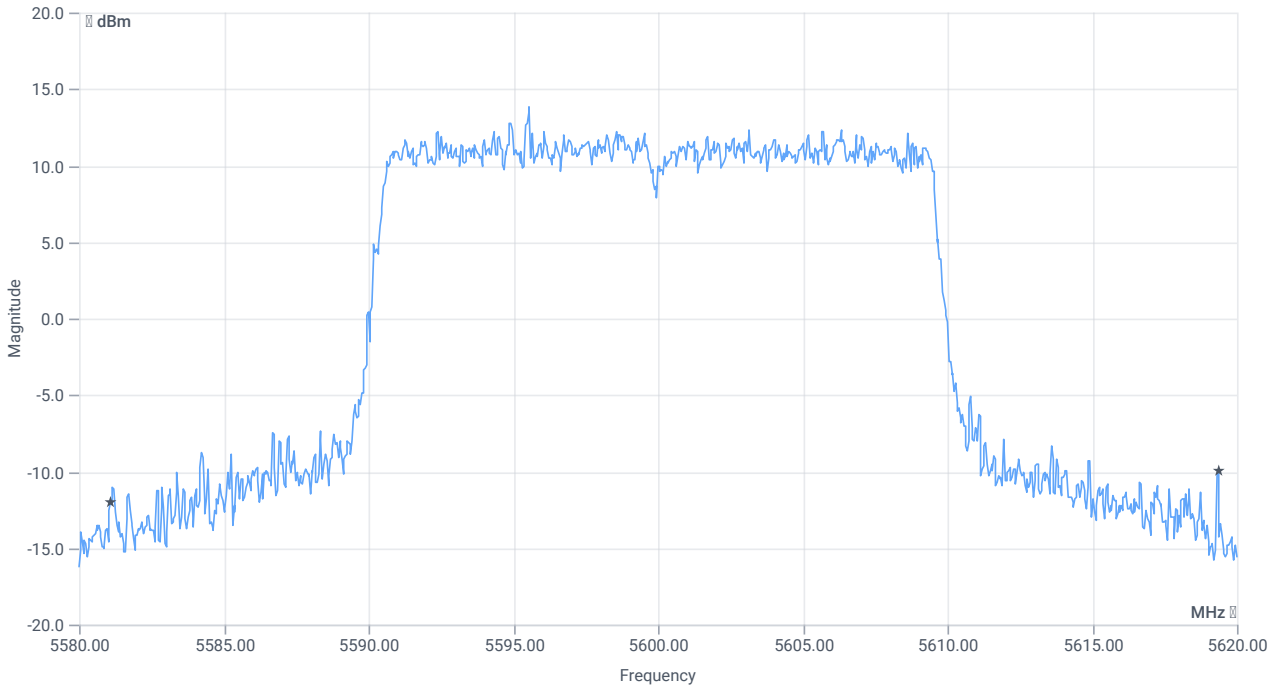
Duty Cycle evaluation

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



Duty cycle

Evaluation Bandwidth



BW 26dB

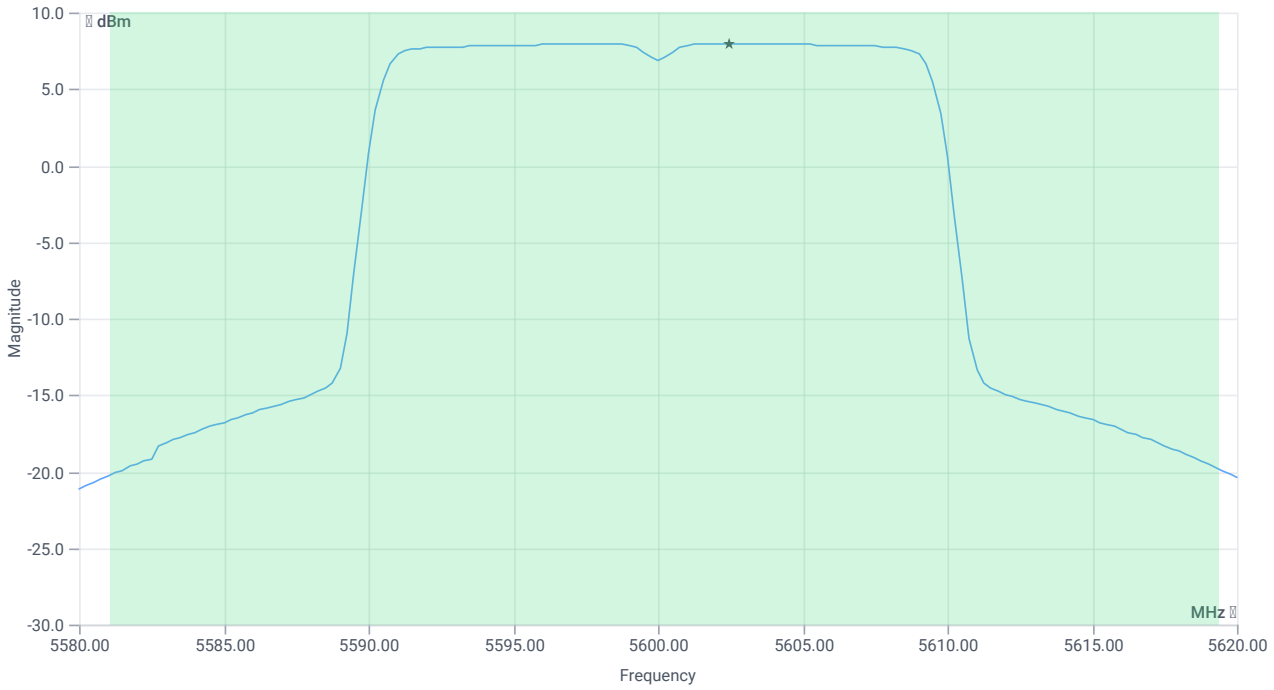
RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 26dB	---	---	38.28	MHz	INFO
T1 26dB	---	---	5581.0800	MHz	INFO
T2 26dB	---	---	5619.3600	MHz	INFO

Maximum Output Power

READ SA SETTINGS:

RefLevel [dBm] | RefLevelOffset [dB] | InpAtt [dB]	28.83 | 16.74 | 30
Start [MHz] | Stop [MHz]	5580.000 | 5620.000
RBW [MHz] | VBW [MHz]	1.000000 | 3.000000
Detector | TraceMode	RMS | MAXH
Sweep: time [ms] | count | points per Section | type	53700 | 1 | 161 | SWE



Max OP and PSD

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Max Output Power	---	---	20.36	dBm	INFO
Duty Cycle Correction	---	---	0	dB	INFO
Limit absolute					
Max Output Power DC corrected	---	24	20.36	dBm	PASS
Limit: 11 dBm + 10 log 38.28					
Max Output Power DC corrected	---	26.83	20.36	dBm	PASS

Power Spectral Density

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Power Spectral Density	---	---	7.97	dBm/1MHz	INFO
Duty Cycle Correction	---	---	0	dB	INFO
Power Spectral Density DC corrected	---	11	7.97	dBm/1MHz	PASS

Verdict
PASS

FCC 15.407, ISED RSS247 # Bandwidths 99PCT and 20dB ~ WLAN5Gx ax-HE20 U-NII-2C

References

TC start	18.01.2024 15:06:44
Ambit temp [°C] | humidity [rel%]	24.7 | 28
System version	4.7.1.5
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-HE20 U-NII-2C
Information	

EUT Common Settings WLAN5Gx

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

Test Parameter

Technology to test	WLAN5Gx ax-HE20
Antenna port used	2
Temperature	nom
Voltage	nom
Frequency low to test	False | Freq [MHz] 5500
Frequency mid to test	True | Freq [MHz] 5600
Frequency high to test	False | Freq [MHz] 5700
Auto control enabled power supply | Climatic Box	No | No
Additional path loss [dB]	1.4
Full path name | type	EUT - SignalingUnit - SpectrumAnalyzer

Equipment

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

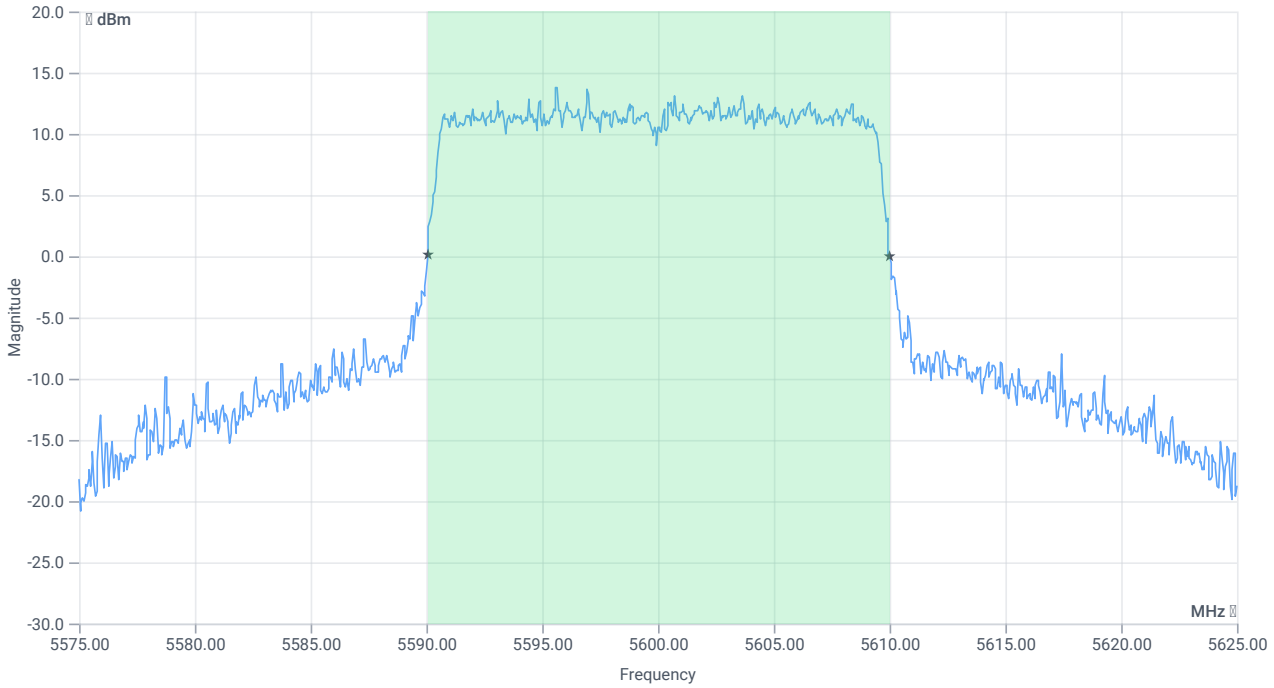
Test at TX 5600 MHz

RESULT: Reference Power cond.

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	16.59	dBm	INFO
Ref. Frequency	---	---	5597.800	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] | RefLevelOffset [dB] | InpAtt [dB]	24.59 | 16.74 | 25
Start [MHz] | Stop [MHz]	5575.000 | 5625.000
RBW [MHz] | VBW [MHz]	0.300000 | 1.000000
Detector | TraceMode	POS | MAXH
Sweep: time [ms] | count | points per Section | type	1 | 2500 | 1001 | SWE

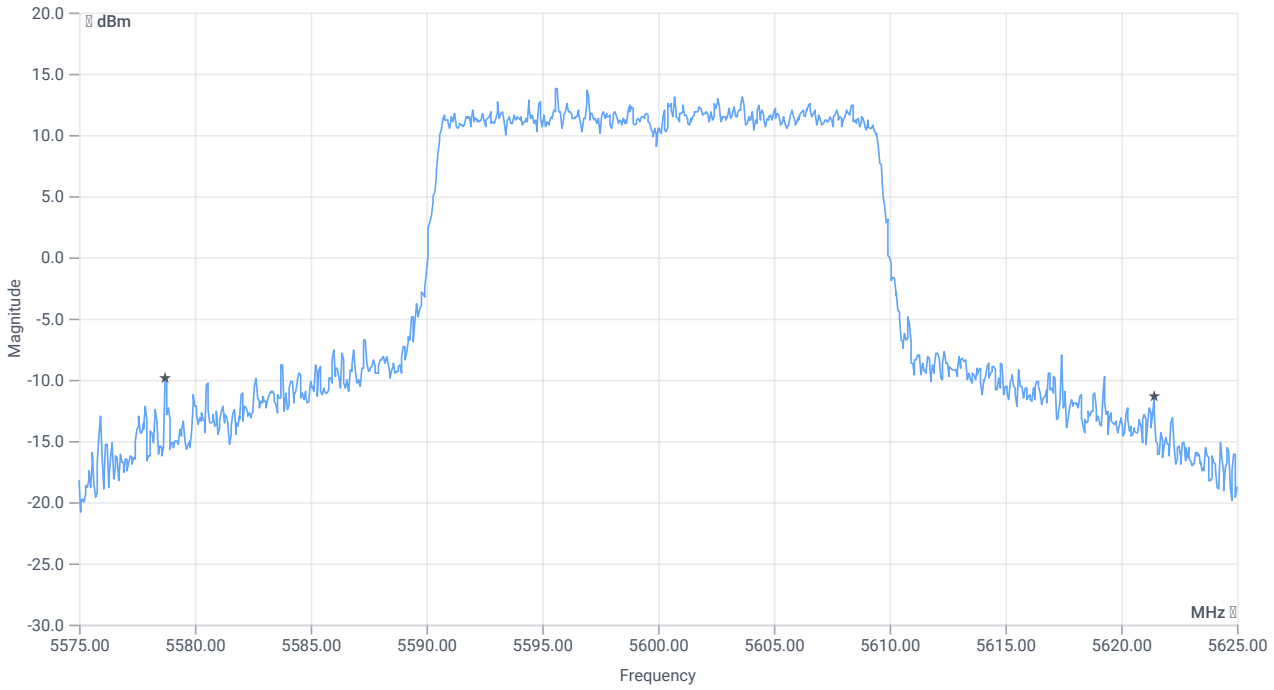


BW 99PCT

BW within Band 99PCT

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 99%	---	---	19.93	MHz	INFO
T1 99%	5470.000000	---	5590.0599	MHz	PASS since U-NII-3 is supported
T2 99%	---	5725.000000	5609.9900	MHz	



BW 26dB

BW within Band 26dB

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 26dB	---	---	42.7	MHz	INFO

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
T1 26dB	5470.000000	---	5578.7000	MHz	PASS since U-NII-3 is supported
T2 26dB	---	5725.000000	5621.4000	MHz	

Verdict
PASS

FCC 15.407 # MIMO ∑ Max output power and psd ~ WLAN5Gx ax-HE20 U-NII-2C

References

TC start	18.01.2024 15:07:14
Ambit temp [°C] | humidity [rel%]	24.8 | 28
System version	4.7.1.5
Standard | Version	FCC 15.407 | NI
Method	
Description	MIMO ∑ FCC Power & psd - WLAN5Gx ax-HE20 U-NII-2C
Information	

EUT Common Settings WLAN5Gx

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

Test Parameter

Technology to test	WLAN5Gx ax-HE20
Antenna port used	several
Temperature	nom
Voltage	nom
Frequency low to test	False | Freq [MHz] 5500
Frequency mid to test	True | Freq [MHz] 5600
Frequency high to test	False | Freq [MHz] 5700
Auto control enabled power supply | Climatic Box	No | No
Additional path loss [dB]	1.4
Full path name | type	None

Equipment

Test at TX 5600 MHz

RESULT Power

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ant:1 Max Output Power DC corrected	---	---	19.86	dBm	INFO
Ant:1 BW 26dB	---	---	39.520	MHz	INFO
Ant:2 Max Output Power DC corrected	---	---	20.36	dBm	INFO
Ant:2 BW 26dB	---	---	38.280	MHz	INFO
∑ Limit absolute	---	24	23.13	dBm	PASS
∑ Limit: 11 dBm + 10 log 38.28	---	26.83	23.13	dBm	PASS

RESULT PSD

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ant:1 PSD	---	---	7.49	dBm/1MHz	INFO
Ant:2 PSD	---	---	7.97	dBm/1MHz	INFO
∑	---	11	10.75	dBm/1MHz	PASS

Verdict
PASS

FCC 15.407 # Max output power and psd ~ WLAN5Gx ax-HE20 U-NII-2C

References

TC start	18.01.2024 15:08:43
Ambit temp [°C] | humidity [rel%]	24.9 | 28
System version	4.7.1.5
Standard | Version	FCC 15.407 | NI
Method	KDB789033 D02, F., E.2.e.
Description	FCC 15.407 Max Output Power & PSD - WLAN5Gx ax-HE20 U-NII-2C
Information	

EUT Common Settings WLAN5Gx

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

Test Parameter

Technology to test	WLAN5Gx ax-HE20
Antenna port used	1
Temperature	nom
Voltage	nom
Frequency low to test	False | Freq [MHz] 5500
Frequency mid to test	False | Freq [MHz] 5600
Frequency high to test	True | Freq [MHz] 5700
Auto control enabled power supply | Climatic Box	No | No
Additional path loss [dB]	1.4
Full path name | type	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 5700 MHz

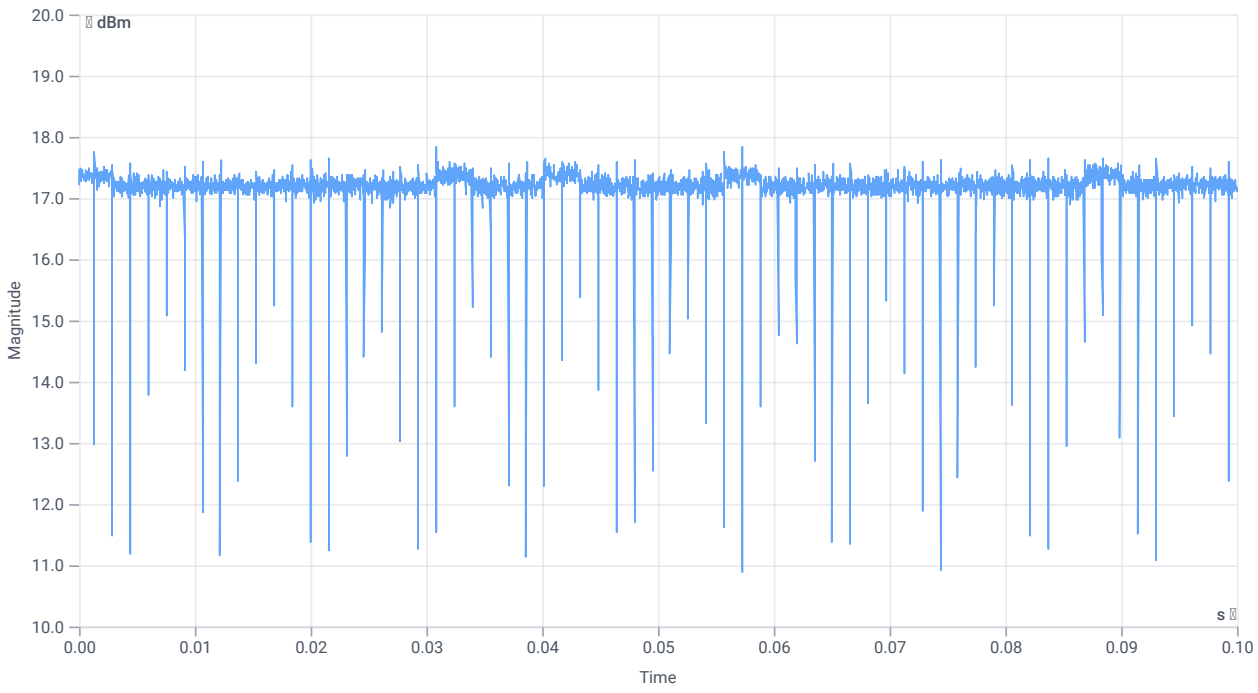
RESULT: Reference Power cond.

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	16.23	dBm	INFO
Ref. Frequency	---	---	5695.400	MHz	INFO

Evaluation max. Duty Cycle

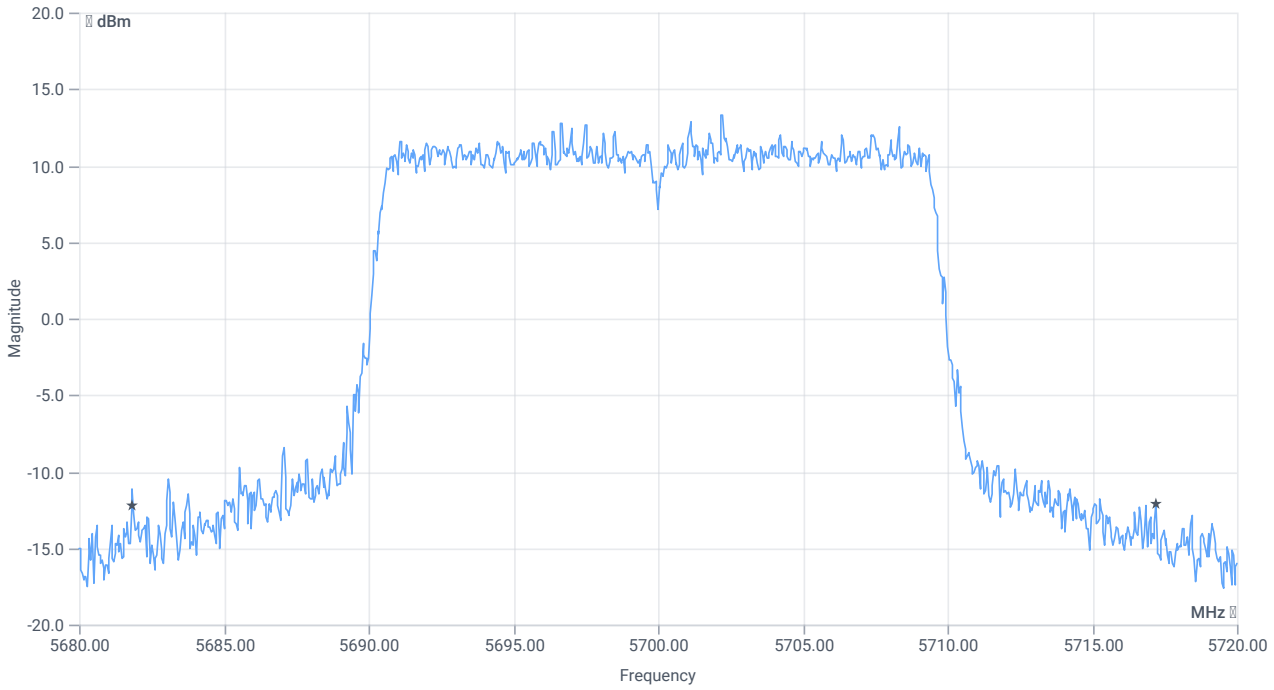
Duty Cycle evaluation

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



Duty cycle

Evaluation Bandwidth



BW 26dB

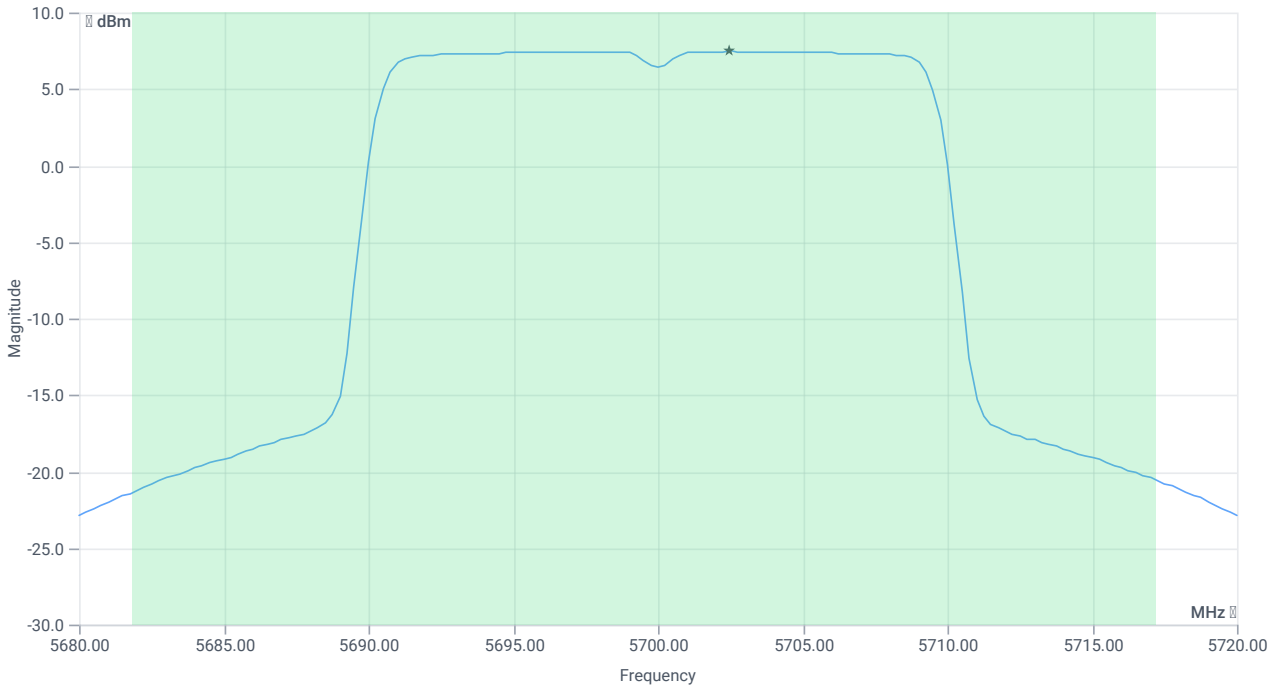
RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 26dB	---	---	35.4	MHz	INFO
T1 26dB	---	---	5681.8000	MHz	INFO
T2 26dB	---	---	5717.2000	MHz	INFO

Maximum Output Power

READ SA SETTINGS:

RefLevel [dBm] | RefLevelOffset [dB] | InpAtt [dB]	28.23 | 16.6 | 30
Start [MHz] | Stop [MHz]	5680.000 | 5720.000
RBW [MHz] | VBW [MHz]	1.000000 | 3.000000
Detector | TraceMode	RMS | MAXH
Sweep: time [ms] | count | points per Section | type	53700 | 1 | 161 | SWE



Max OP and PSD

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Max Output Power	---	---	19.85	dBm	INFO
Duty Cycle Correction	---	---	0	dB	INFO
Limit absolute					
Max Output Power DC corrected	---	24	19.85	dBm	PASS
Limit: 11 dBm + 10 log 35.4					
Max Output Power DC corrected	---	26.49	19.85	dBm	PASS

Power Spectral Density

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Power Spectral Density	---	---	7.47	dBm/1MHz	INFO
Duty Cycle Correction	---	---	0	dB	INFO
Power Spectral Density DC corrected	---	11	7.47	dBm/1MHz	PASS

Verdict
PASS

FCC 15.407, ISED RSS247 # Bandwidths 99PCT and 20dB ~ WLAN5Gx ax-HE20 U-NII-2C

References

TC start	18.01.2024 15:10:08
Ambit temp [°C] | humidity [rel%]	24.9 | 28
System version	4.7.1.5
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-HE20 U-NII-2C
Information	

EUT Common Settings WLAN5Gx

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

Test Parameter

Technology to test	WLAN5Gx ax-HE20
Antenna port used	1
Temperature	nom
Voltage	nom
Frequency low to test	False | Freq [MHz] 5500
Frequency mid to test	False | Freq [MHz] 5600
Frequency high to test	True | Freq [MHz] 5700
Auto control enabled power supply | Climatic Box	No | No
Additional path loss [dB]	1.4
Full path name | type	EUT - SignalingUnit - SpectrumAnalyzer

Equipment

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

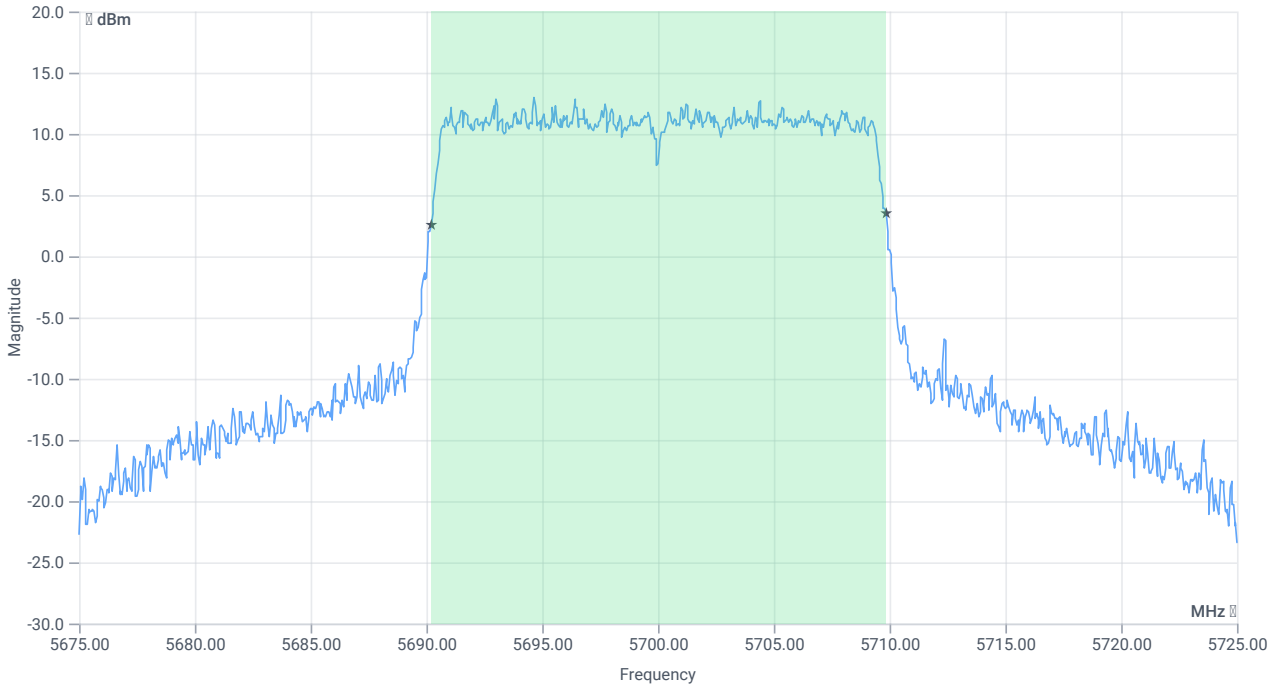
Test at TX 5700 MHz

RESULT: Reference Power cond.

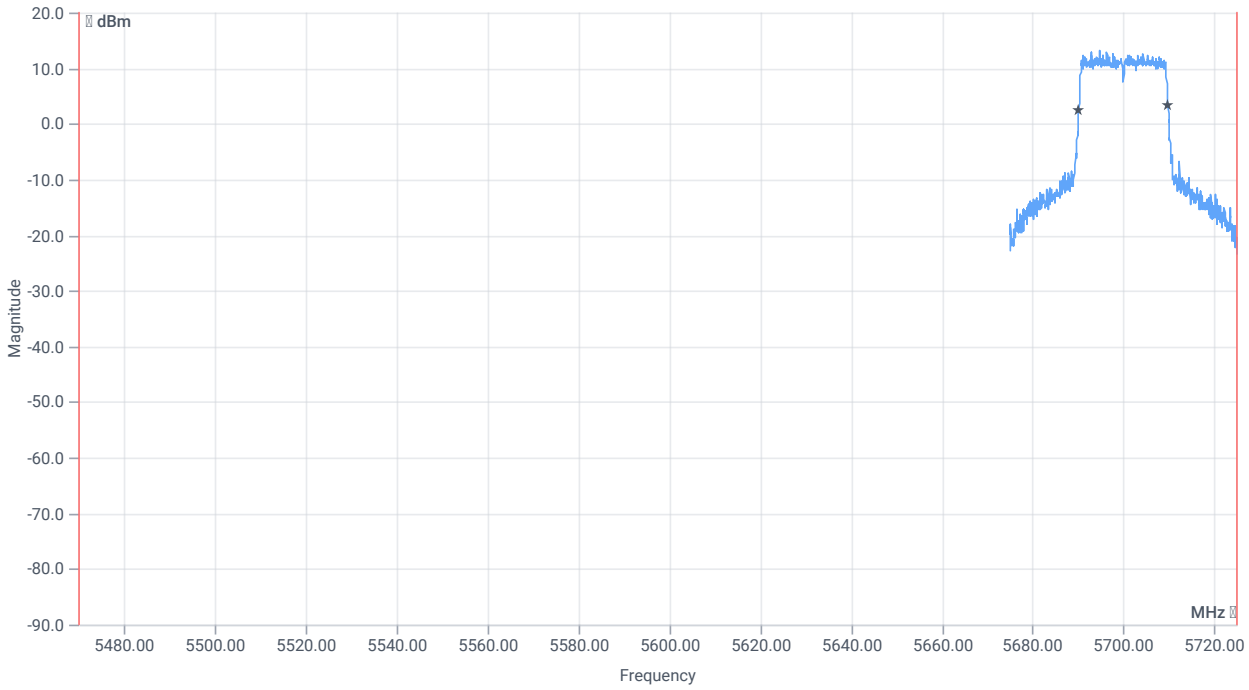
DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	16.81	dBm	INFO
Ref. Frequency	---	---	5698.600	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] | RefLevelOffset [dB] | InpAtt [dB]	24.81 | 16.6 | 25
Start [MHz] | Stop [MHz]	5675.000 | 5725.000
RBW [MHz] | VBW [MHz]	0.300000 | 1.000000
Detector | TraceMode	POS | MAXH
Sweep: time [ms] | count | points per Section | type	1 | 2500 | 1001 | SWE



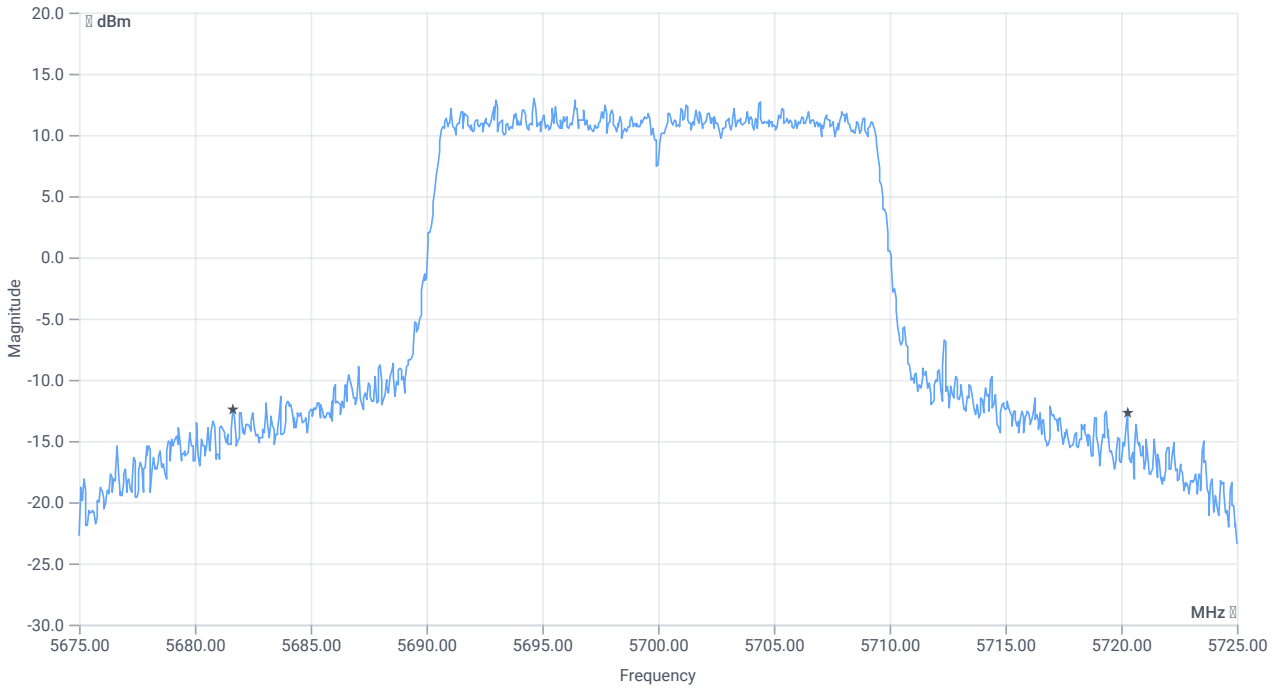
BW 99PCT



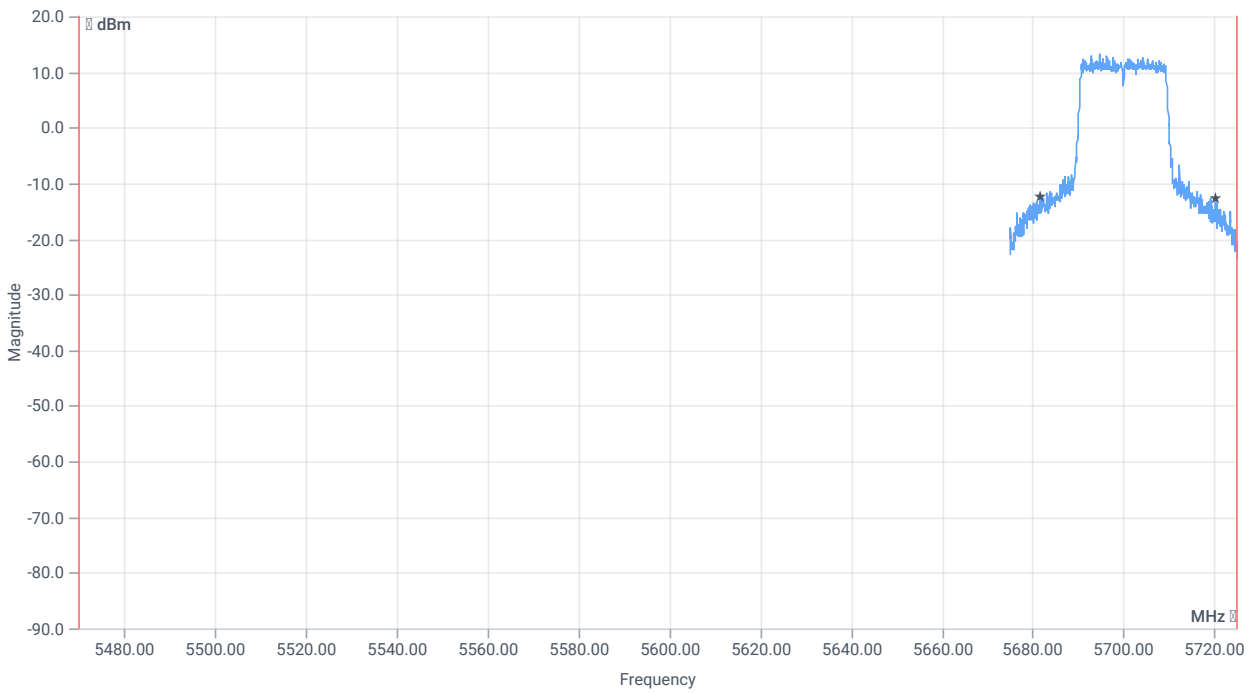
BW within Band 99PCT

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 99%	---	---	19.63	MHz	INFO
T1 99%	5470.000000	---	5690.2098	MHz	PASS since U-NII-3 is supported
T2 99%	---	5725.000000	5709.8402	MHz	



BW 26dB



BW within Band 26dB

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 26dB	---	---	38.6	MHz	INFO

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
T1 26dB	5470.000000	---	5681.6500	MHz	PASS since U-NII-3 is supported
T2 26dB	---	5725.000000	5720.2500	MHz	

Verdict
PASS

FCC 15.407 # Max output power and psd ~ WLAN5Gx ax-HE20 U-NII-2C

References

TC start	18.01.2024 15:10:38
Ambit temp [°C] | humidity [rel%]	24.9 | 28
System version	4.7.1.5
Standard | Version	FCC 15.407 | NI
Method	KDB789033 D02, F., E.2.e.
Description	FCC 15.407 Max Output Power & PSD - WLAN5Gx ax-HE20 U-NII-2C
Information	

EUT Common Settings WLAN5Gx

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

Test Parameter

Technology to test	WLAN5Gx ax-HE20
Antenna port used	2
Temperature	nom
Voltage	nom
Frequency low to test	False | Freq [MHz] 5500
Frequency mid to test	False | Freq [MHz] 5600
Frequency high to test	True | Freq [MHz] 5700
Auto control enabled power supply | Climatic Box	No | No
Additional path loss [dB]	1.4
Full path name | type	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 5700 MHz

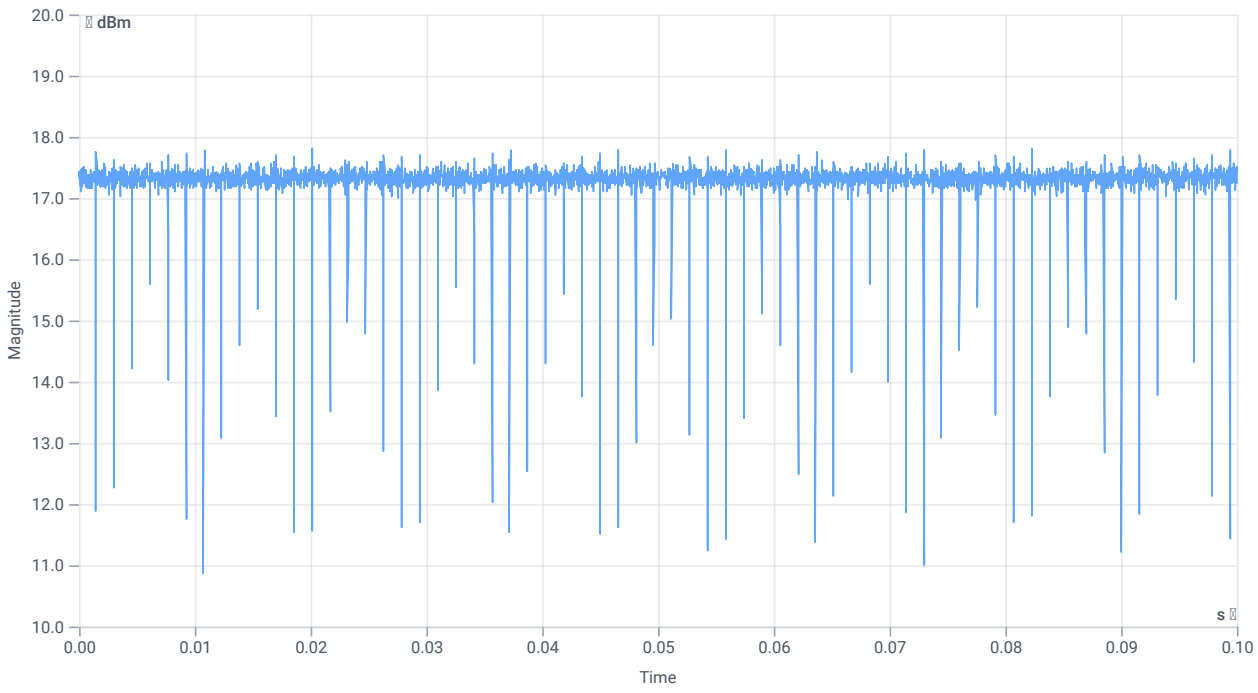
RESULT: Reference Power cond.

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	16.84	dBm	INFO
Ref. Frequency	---	---	5703.600	MHz	INFO

Evaluation max. Duty Cycle

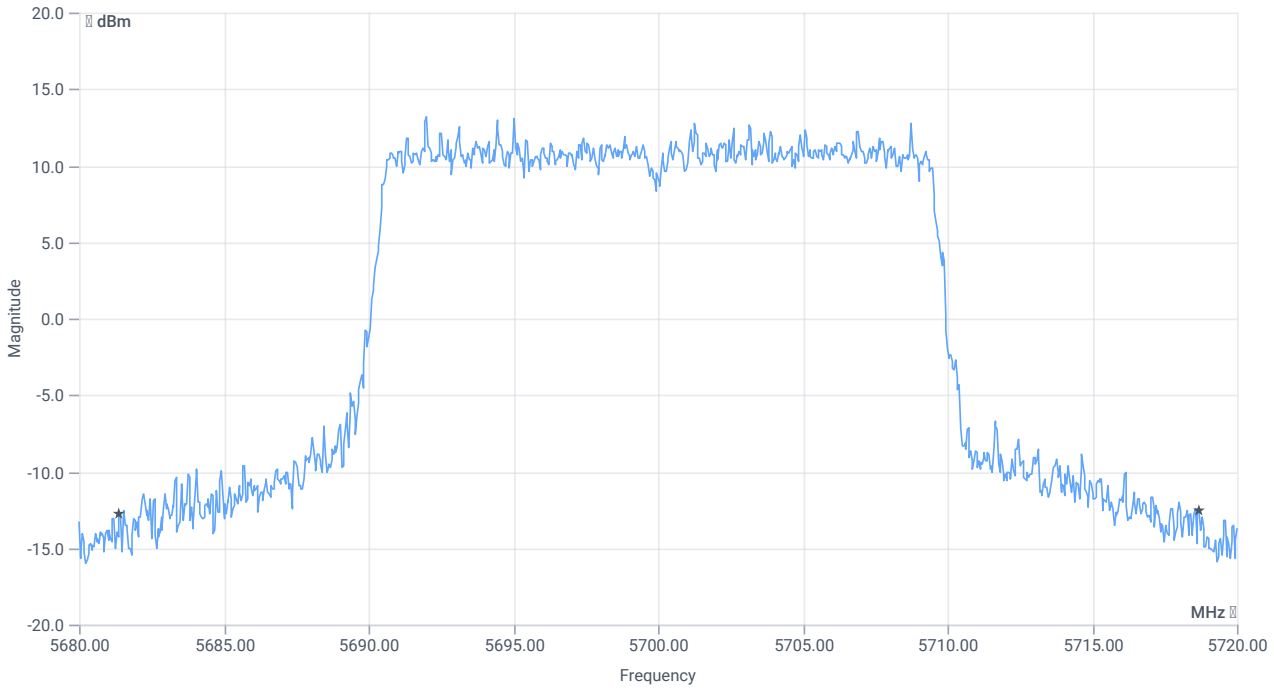
Duty Cycle evaluation

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



Duty cycle

Evaluation Bandwidth



BW 26dB

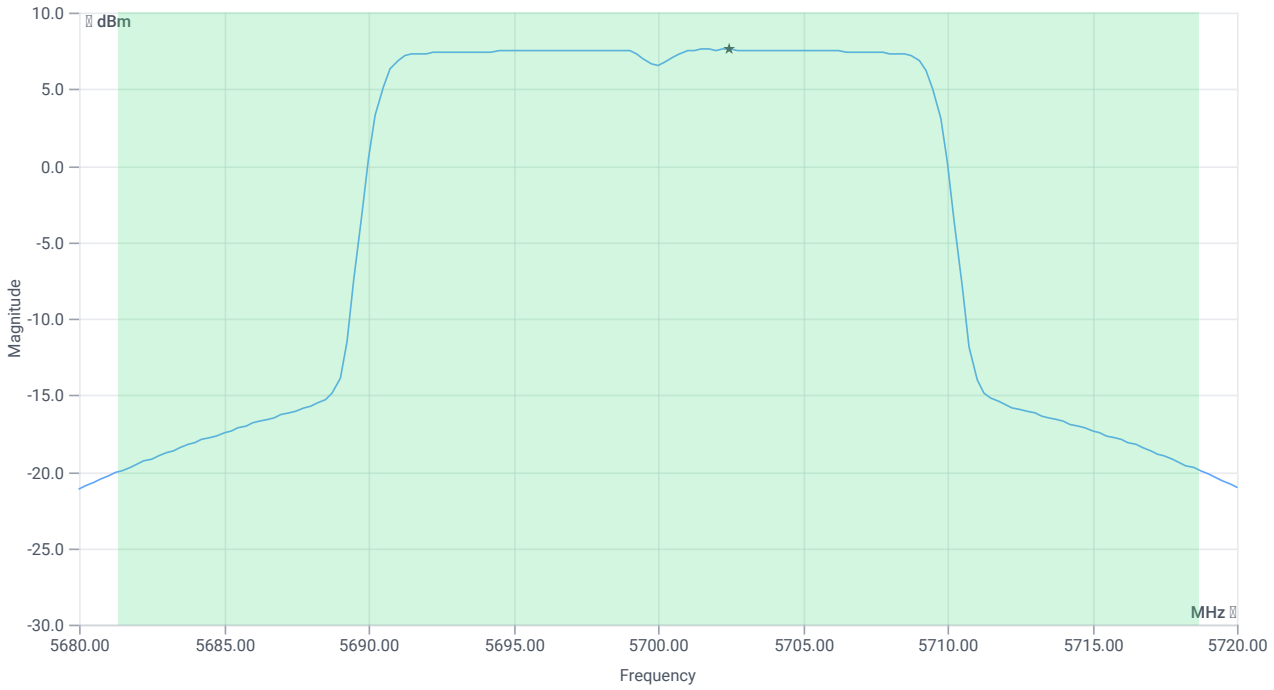
RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 26dB	---	---	37.28	MHz	INFO
T1 26dB	---	---	5681.4000	MHz	INFO
T2 26dB	---	---	5718.6800	MHz	INFO

Maximum Output Power

READ SA SETTINGS:

RefLevel [dBm] | RefLevelOffset [dB] | InpAtt [dB]	28.84 | 16.6 | 30
Start [MHz] | Stop [MHz]	5680.000 | 5720.000
RBW [MHz] | VBW [MHz]	1.000000 | 3.000000
Detector | TraceMode	RMS | MAXH
Sweep: time [ms] | count | points per Section | type	53700 | 1 | 161 | SWE



Max OP and PSD

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Max Output Power	---	---	19.97	dBm	INFO
Duty Cycle Correction	---	---	0	dB	INFO
Limit absolute					
Max Output Power DC corrected	---	24	19.97	dBm	PASS
Limit: 11 dBm + 10 log 37.28					
Max Output Power DC corrected	---	26.71	19.97	dBm	PASS

Power Spectral Density

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Power Spectral Density	---	---	7.58	dBm/1MHz	INFO
Duty Cycle Correction	---	---	0	dB	INFO
Power Spectral Density DC corrected	---	11	7.58	dBm/1MHz	PASS

Verdict
PASS

FCC 15.407, ISED RSS247 # Bandwidths 99PCT and 20dB ~ WLAN5Gx ax-HE20 U-NII-2C

References

TC start	18.01.2024 15:12:06
Ambit temp [°C] | humidity [rel%]	24.9 | 28
System version	4.7.1.5
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-HE20 U-NII-2C
Information	

EUT Common Settings WLAN5Gx

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

Test Parameter

Technology to test	WLAN5Gx ax-HE20
Antenna port used	2
Temperature	nom
Voltage	nom
Frequency low to test	False | Freq [MHz] 5500
Frequency mid to test	False | Freq [MHz] 5600
Frequency high to test	True | Freq [MHz] 5700
Auto control enabled power supply | Climatic Box	No | No
Additional path loss [dB]	1.4
Full path name | type	EUT - SignalingUnit - SpectrumAnalyzer

Equipment

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

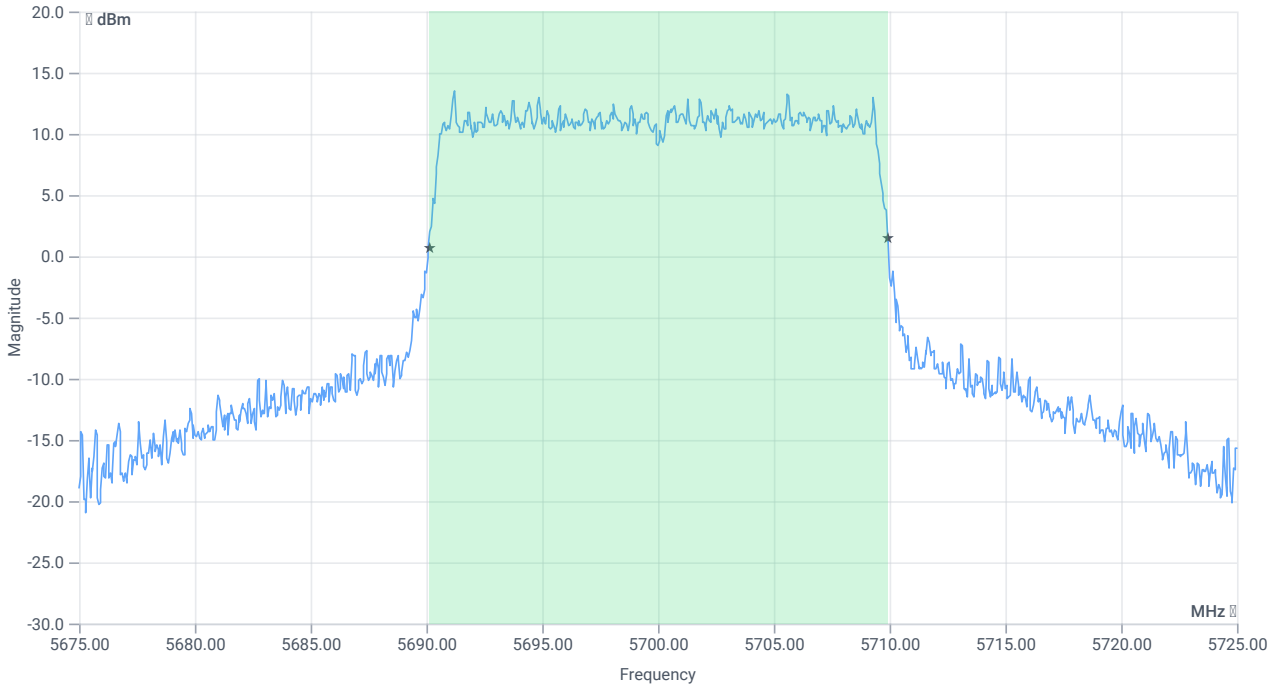
Test at TX 5700 MHz

RESULT: Reference Power cond.

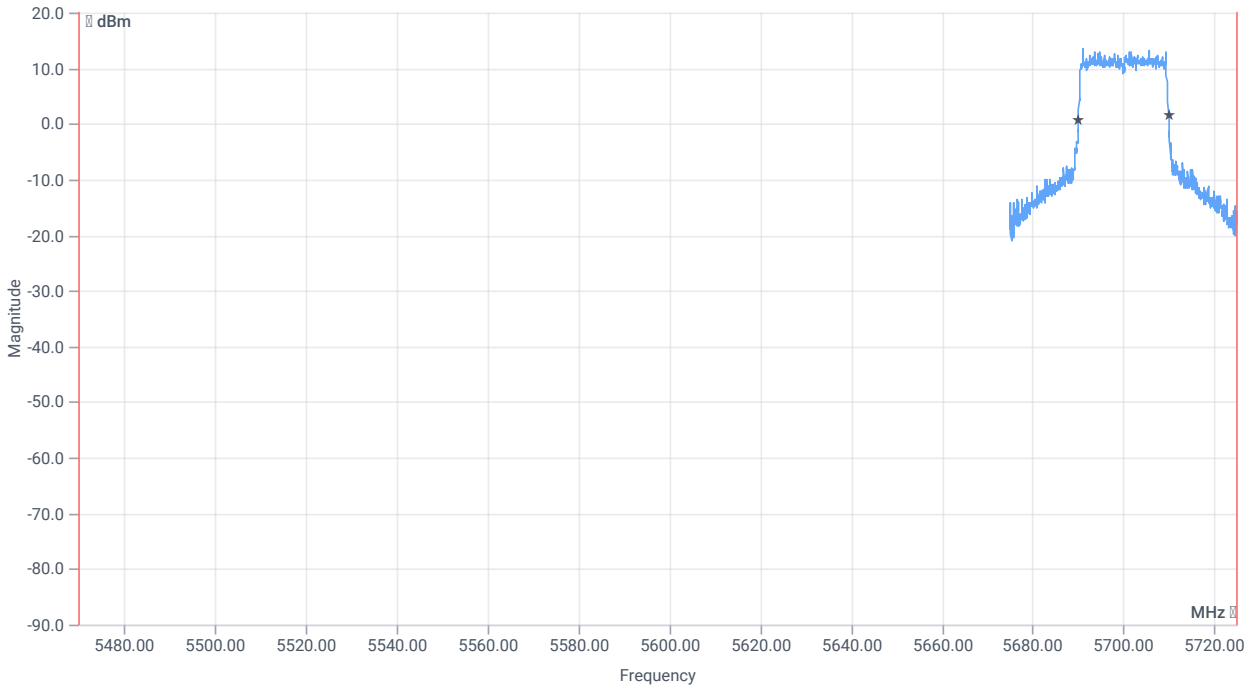
DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	16.98	dBm	INFO
Ref. Frequency	---	---	5694.010	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] | RefLevelOffset [dB] | InpAtt [dB]	24.98 | 16.6 | 25
Start [MHz] | Stop [MHz]	5675.000 | 5725.000
RBW [MHz] | VBW [MHz]	0.300000 | 1.000000
Detector | TraceMode	POS | MAXH
Sweep: time [ms] | count | points per Section | type	1 | 2500 | 1001 | SWE



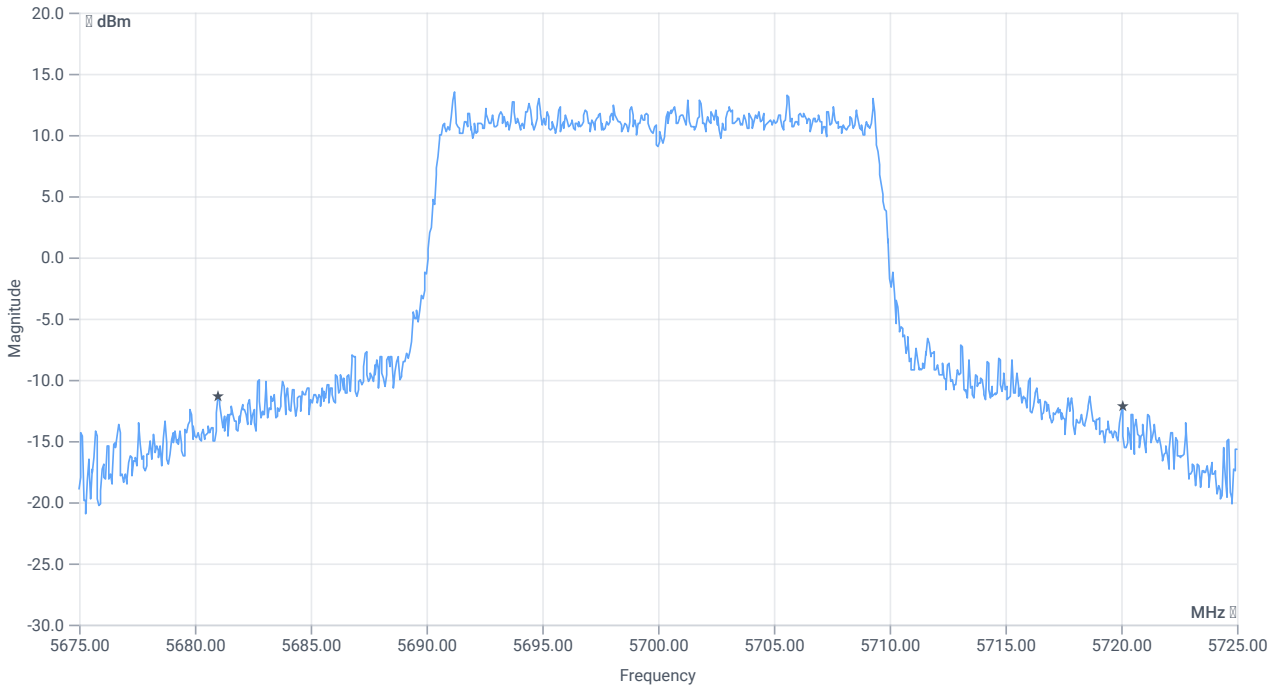
BW 99PCT



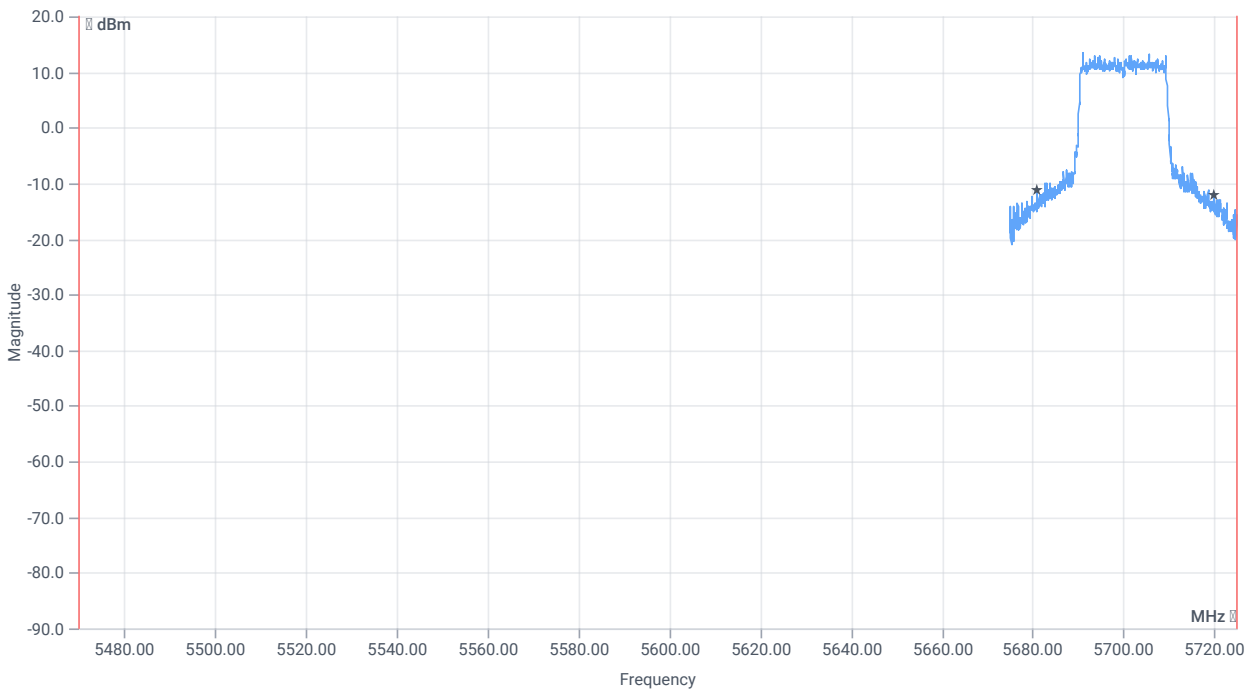
BW within Band 99PCT

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 99%	---	---	19.83	MHz	INFO
T1 99%	5470.000000	---	5690.1099	MHz	PASS since U-NII-3 is supported
T2 99%	---	5725.000000	5709.9401	MHz	



BW 26dB



BW within Band 26dB

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 26dB	---	---	39.05	MHz	INFO

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
T1 26dB	5470.000000	---	5681.0000	MHz	PASS since U-NII-3 is supported
T2 26dB	---	5725.000000	5720.0500	MHz	

Verdict
PASS

FCC 15.407 # MIMO ∑ Max output power and psd ~ WLAN5Gx ax-HE20 U-NII-2C

References

TC start	18.01.2024 15:12:36
Ambit temp [°C] | humidity [rel%]	24.9 | 28
System version	4.7.1.5
Standard | Version	FCC 15.407 | NI
Method	
Description	MIMO ∑ FCC Power & psd - WLAN5Gx ax-HE20 U-NII-2C
Information	

EUT Common Settings WLAN5Gx

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

Test Parameter

Technology to test	WLAN5Gx ax-HE20
Antenna port used	several
Temperature	nom
Voltage	nom
Frequency low to test	False | Freq [MHz] 5500
Frequency mid to test	False | Freq [MHz] 5600
Frequency high to test	True | Freq [MHz] 5700
Auto control enabled power supply | Climatic Box	No | No
Additional path loss [dB]	1.4
Full path name | type	None

Equipment

Test at TX 5700 MHz

RESULT Power

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ant:1 Max Output Power DC corrected	---	---	19.85	dBm	INFO
Ant:1 BW 26dB	---	---	35.400	MHz	INFO
Ant:2 Max Output Power DC corrected	---	---	19.97	dBm	INFO
Ant:2 BW 26dB	---	---	37.280	MHz	INFO
∑ Limit absolute	---	24	22.92	dBm	PASS
∑ Limit: 11 dBm + 10 log 35.4	---	26.49	22.92	dBm	PASS

RESULT PSD

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ant:1 PSD	---	---	7.47	dBm/1MHz	INFO
Ant:2 PSD	---	---	7.58	dBm/1MHz	INFO
∑	---	11	10.54	dBm/1MHz	PASS

Verdict
PASS

FCC 15.407 # Max output power and psd ~ WLAN5Gx ax-HE20 U-NII-3

References

TC start	18.01.2024 15:15:28
Ambit temp [°C] | humidity [rel%]	25.0 | 28
System version	4.7.1.5
Standard | Version	FCC 15.407 | NI
Method	KDB789033 D02, F., E.2.e.
Description	FCC 15.407 Max Output Power & PSD - WLAN5Gx ax-HE20 U-NII-3
Information	

EUT Common Settings WLAN5Gx

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

Test Parameter

Technology to test	WLAN5Gx ax-HE20
Antenna port used	1
Temperature	nom
Voltage	nom
Frequency low to test	True | Freq [MHz] 5745
Frequency mid to test	False | Freq [MHz] 5785
Frequency high to test	False | Freq [MHz] 5825
Auto control enabled power supply | Climatic Box	No | No
Additional path loss [dB]	1.4
Full path name | type	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 5745 MHz

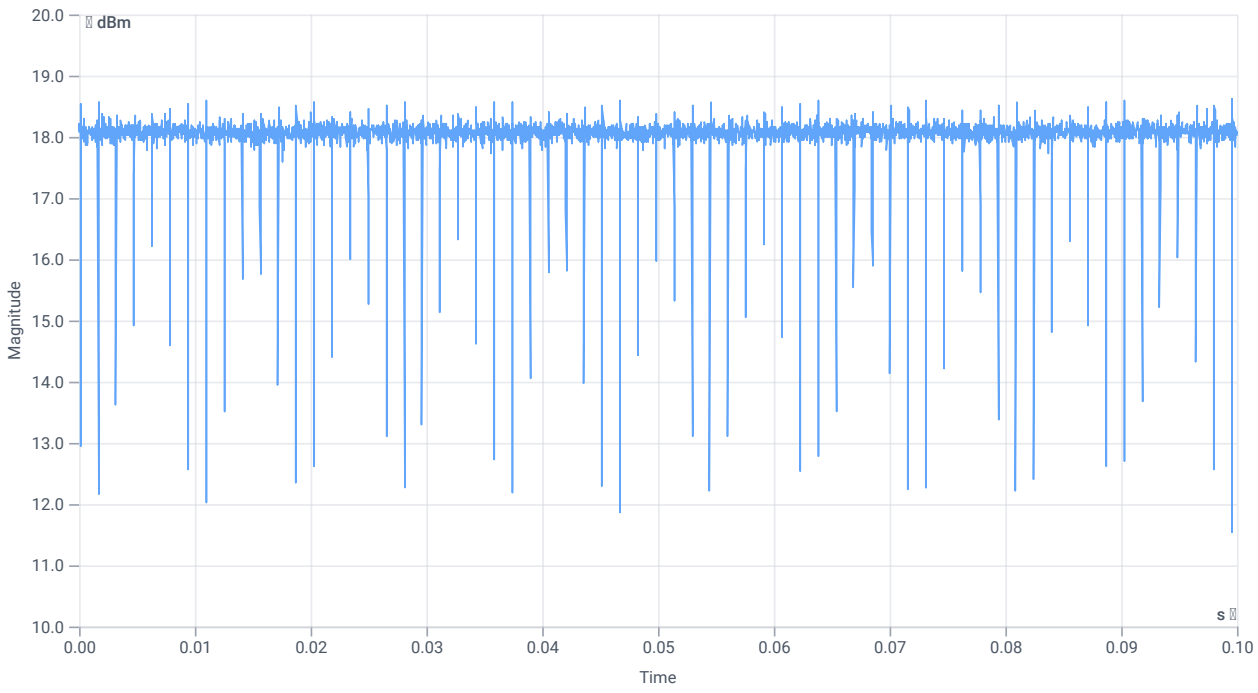
RESULT: Reference Power cond.

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	17.22	dBm	INFO
Ref. Frequency	---	---	5749.600	MHz	INFO

Evaluation max. Duty Cycle

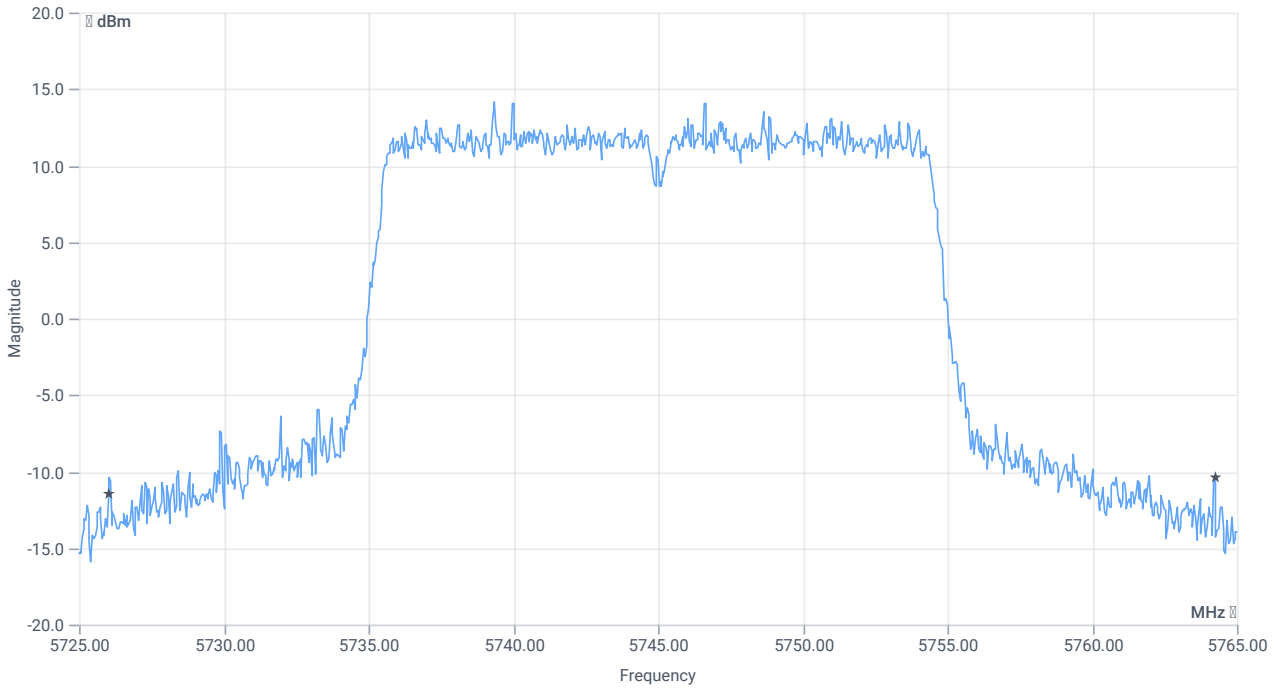
Duty Cycle evaluation

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



Duty cycle

Evaluation Bandwidth



BW 26dB

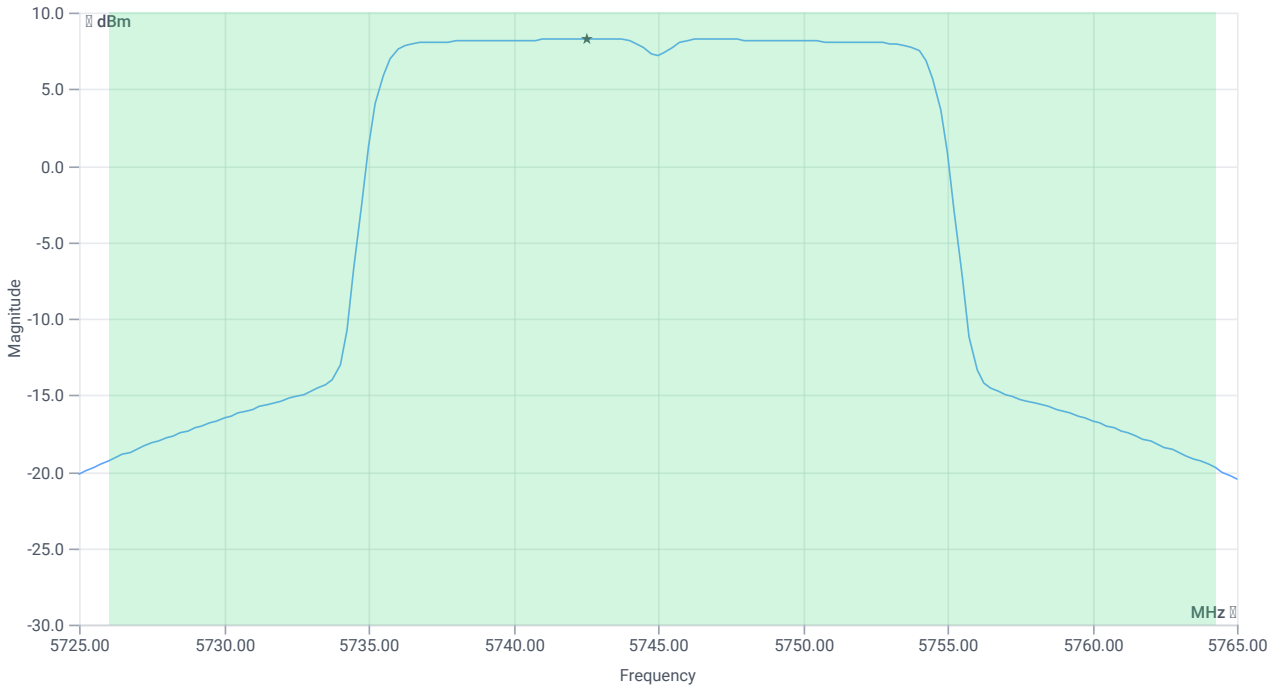
RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 26dB	---	---	38.24	MHz	INFO
T1 26dB	---	---	5726.0000	MHz	INFO
T2 26dB	---	---	5764.2400	MHz	INFO

Maximum Output Power

READ SA SETTINGS:

RefLevel [dBm] | RefLevelOffset [dB] | InpAtt [dB]	29.22 | 16.82 | 30
Start [MHz] | Stop [MHz]	5725.000 | 5765.000
RBW [MHz] | VBW [MHz]	1.000000 | 3.000000
Detector | TraceMode	RMS | MAXH
Sweep: time [ms] | count | points per Section | type	53700 | 1 | 161 | SWE



Max OP and PSD

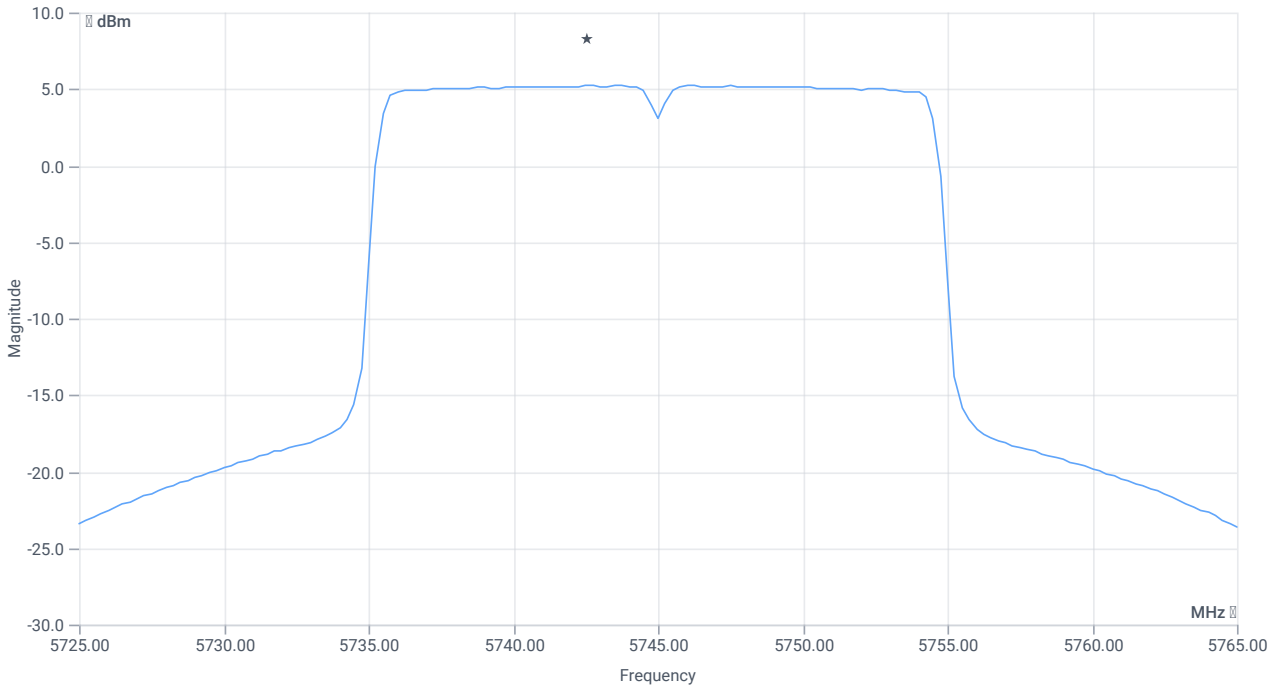
RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Max Output Power	---	---	20.64	dBm	INFO
Duty Cycle Correction	---	---	0	dB	INFO
Limit absolute					
Max Output Power DC corrected	---	30	20.64	dBm	PASS
Limit: 11 dBm + 10 log 38.24					
Max Output Power DC corrected	---	26.83	20.64	dBm	na

Power Spectral Density U-NII-3

READ SA SETTINGS:

RefLevel [dBm] | RefLevelOffset [dB] | InpAtt [dB]	29.22 | 16.82 | 30
Start [MHz] | Stop [MHz]	5725.000 | 5765.000
RBW [MHz] | VBW [MHz]	0.500000 | 3.000000
Detector | TraceMode	RMS | MAXH
Sweep: time [ms] | count | points per Section | type	53700 | 1 | 161 | SWE



PSD UNII-3

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Power Spectral Density	---	---	5.23	dBm/0.5MHz	INFO
Duty Cycle Correction	---	---	0	dB	INFO
Power Spectral Density DC corrected	---	30	5.23	dBm/0.5MHz	PASS

Verdict
PASS

FCC 15.407, ISED RSS247 # Bandwidths 99PCT and 20dB ~ WLAN5Gx ax-HE20 U-NII-3

References

TC start	18.01.2024 15:17:54
Ambit temp [°C] | humidity [rel%]	25.0 | 27
System version	4.7.1.5
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-HE20 U-NII-3
Information	

EUT Common Settings WLAN5Gx

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

Test Parameter

Technology to test	WLAN5Gx ax-HE20
Antenna port used	1
Temperature	nom
Voltage	nom
Frequency low to test	True | Freq [MHz] 5745
Frequency mid to test	False | Freq [MHz] 5785
Frequency high to test	False | Freq [MHz] 5825
Auto control enabled power supply | Climatic Box	No | No
Additional path loss [dB]	1.4
Full path name | type	EUT - SignalingUnit - SpectrumAnalyzer

Equipment

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

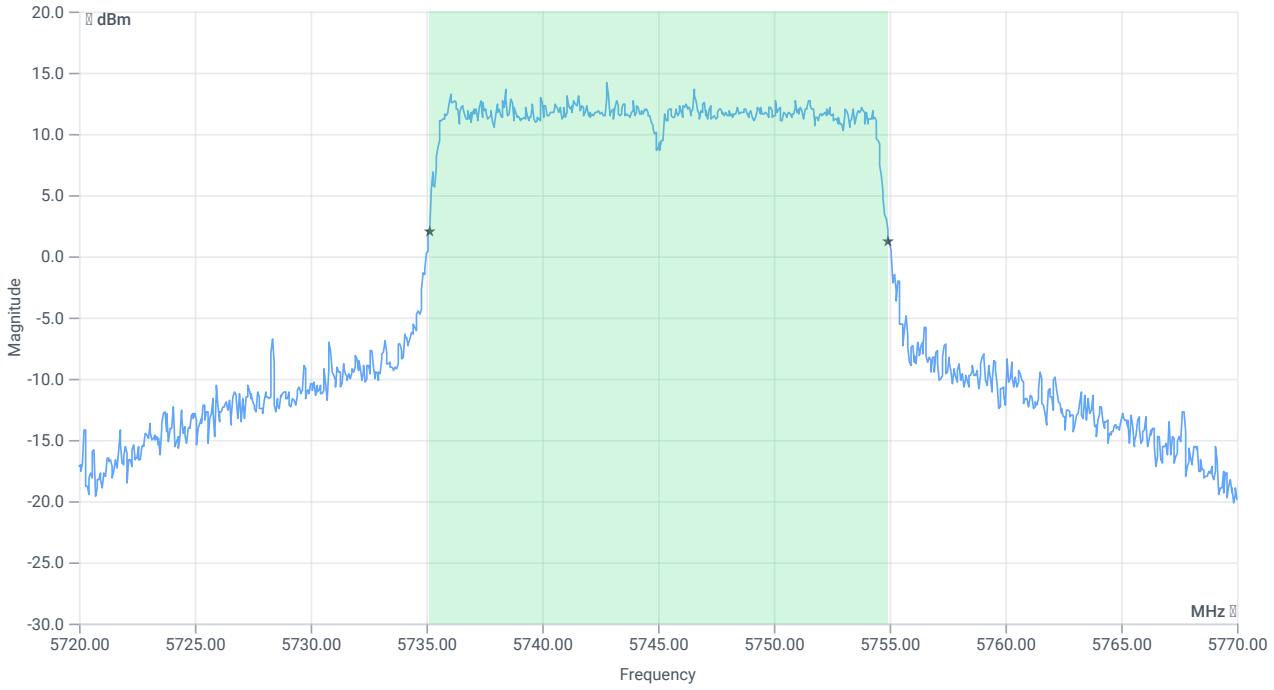
Test at TX 5745 MHz

RESULT: Reference Power cond.

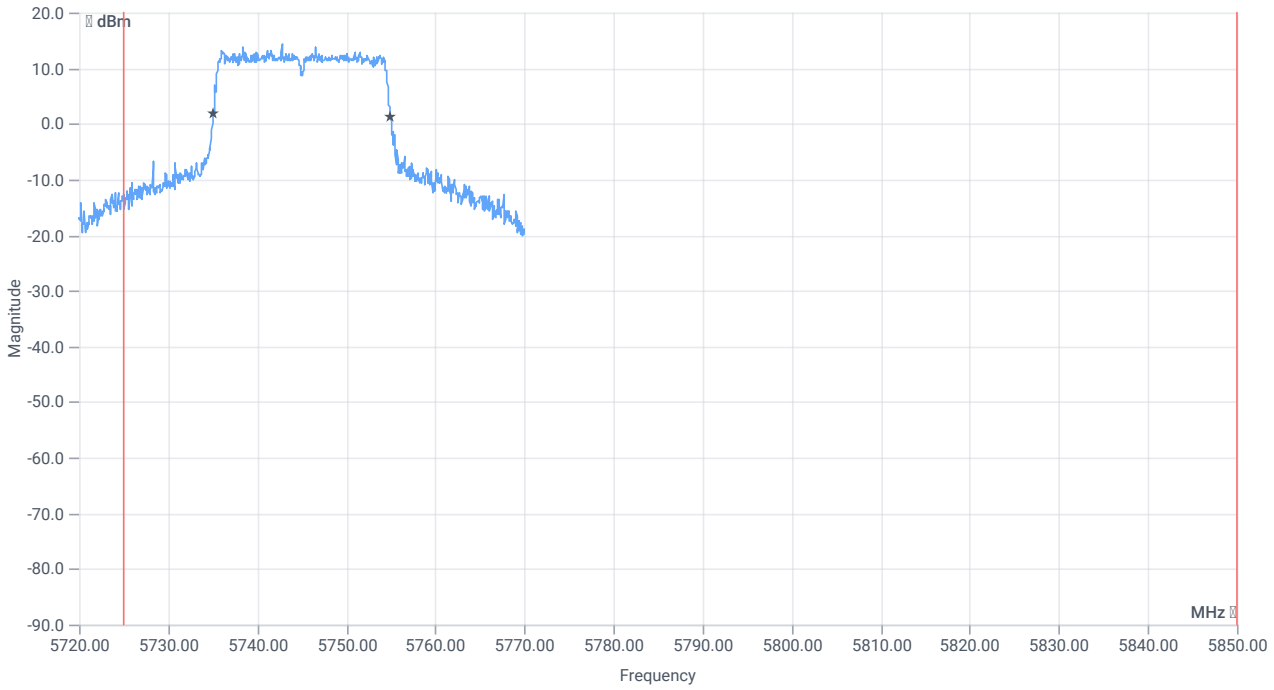
DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	18.20	dBm	INFO
Ref. Frequency	---	---	5741.600	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] | RefLevelOffset [dB] | InpAtt [dB]	26.20 | 16.82 | 25
Start [MHz] | Stop [MHz]	5720.000 | 5770.000
RBW [MHz] | VBW [MHz]	0.300000 | 1.000000
Detector | TraceMode	POS | MAXH
Sweep: time [ms] | count | points per Section | type	1 | 2500 | 1001 | SWE



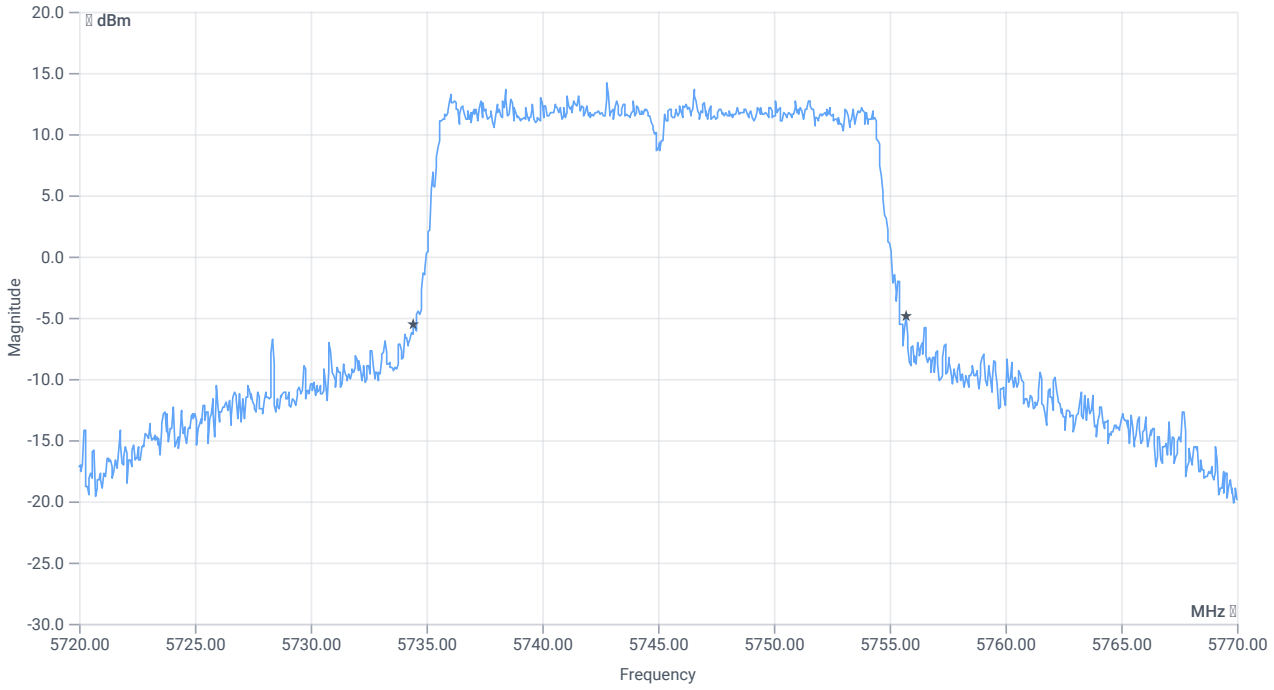
BW 99PCT



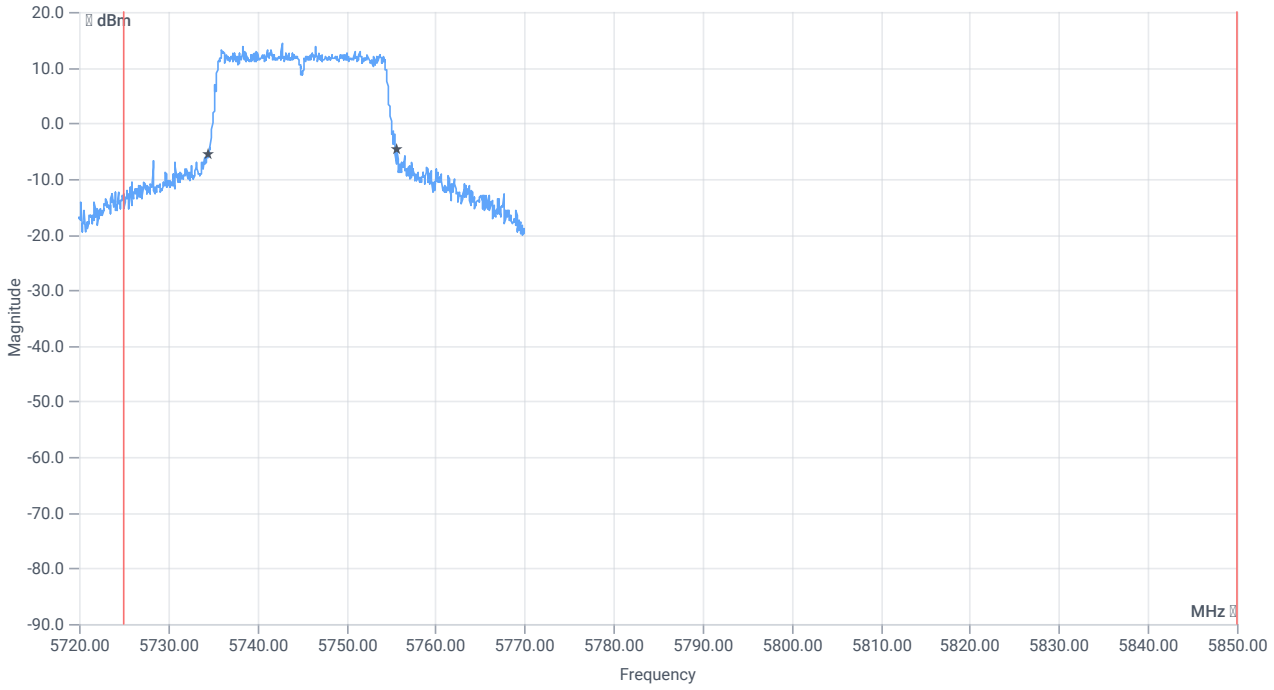
BW within Band 99PCT

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 99%	---	---	19.83	MHz	INFO
T1 99%	5725.000000	---	5735.1099	MHz	PASS
T2 99%	---	5850.000000	5754.9401	MHz	PASS



BW 20dB



BW within Band 20dB

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 20dB	---	---	21.25	MHz	INFO
T1 20dB	5725.000000	---	5734.4500	MHz	PASS
T2 20dB	---	5850.000000	5755.7000	MHz	PASS

Verdict
PASS

FCC 15.407, ISED RSS247 # Minimum emission bandwidth ~ WLAN5Gx ax-HE20 U-NII-3

References

TC start	18.01.2024 15:18:24
Ambit temp [°C] | humidity [rel%]	25.0 | 27
System version	4.7.1.5
Standard | Version	FCC 15.407, ISED RSS247 | NI
Method	KDB789033 D02, C.2.
Description	FCC 15.407 Min Emission Bandwidth - WLAN5Gx ax-HE20 U-NII-3
Information	

EUT Common Settings WLAN5Gx

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

Test Parameter

Technology to test	WLAN5Gx ax-HE20
Antenna port used	1
Temperature	nom
Voltage	nom
Frequency low to test	True | Freq [MHz] 5745
Frequency mid to test	False | Freq [MHz] 5785
Frequency high to test	False | Freq [MHz] 5825
Auto control enabled power supply | Climatic Box	No | No
Additional path loss [dB]	1.4
Full path name | type	EUT - SignalingUnit - SpectrumAnalyzer

Equipment

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

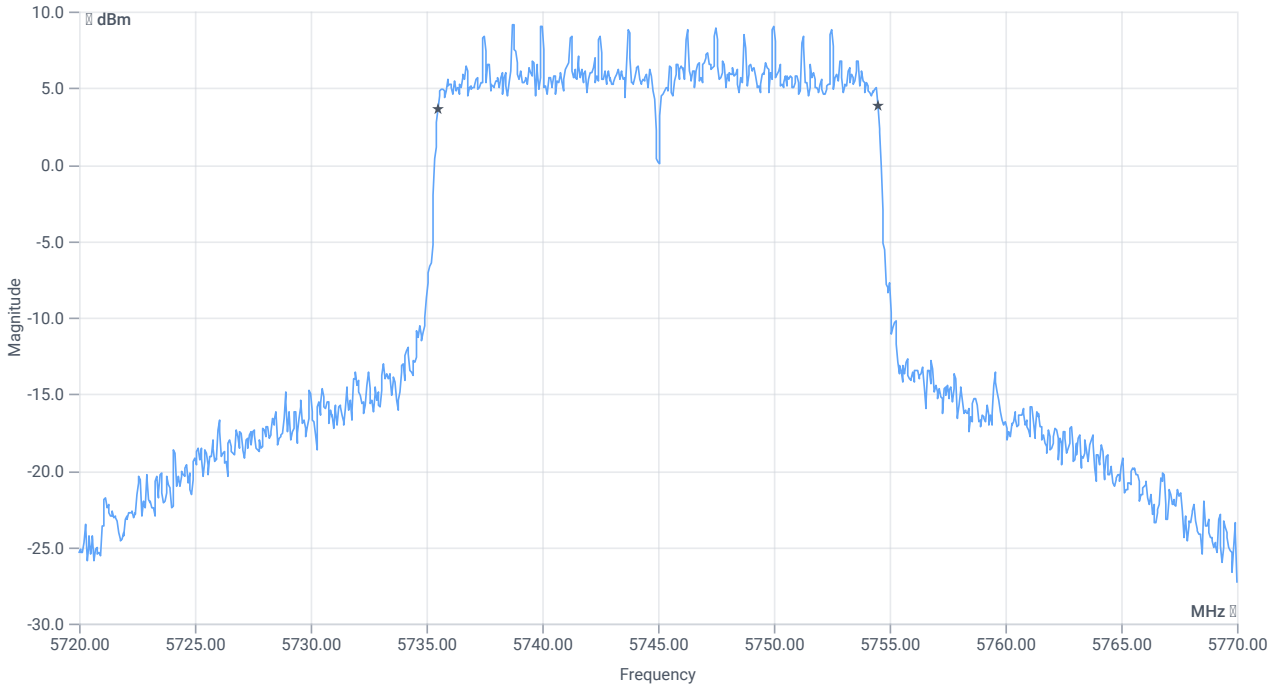
Test at TX 5745 MHz

RESULT: Reference Power cond.

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	18.15	dBm	INFO
Ref. Frequency	---	---	5750.990	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] | RefLevelOffset [dB] | InpAtt [dB]	30.15 | 16.82 | 30
Start [MHz] | Stop [MHz]	5720.000 | 5770.000
RBW [MHz] | VBW [MHz]	0.100000 | 0.300000
Detector | TraceMode	POS | MAXH
Sweep: time [ms] | count | points per Section | type	2 | 1500 | 1001 | SWE



BW 6dB

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth (6dB)	0.500	---	19	MHz	PASS

Verdict
PASS

FCC 15.407 # Max output power and psd ~ WLAN5Gx ax-HE20 U-NII-3

References

TC start	18.01.2024 15:19:07
Ambit temp [°C] | humidity [rel%]	25.0 | 27
System version	4.7.1.5
Standard | Version	FCC 15.407 | NI
Method	KDB789033 D02, F., E.2.e.
Description	FCC 15.407 Max Output Power & PSD - WLAN5Gx ax-HE20 U-NII-3
Information	

EUT Common Settings WLAN5Gx

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

Test Parameter

Technology to test	WLAN5Gx ax-HE20
Antenna port used	2
Temperature	nom
Voltage	nom
Frequency low to test	True | Freq [MHz] 5745
Frequency mid to test	False | Freq [MHz] 5785
Frequency high to test	False | Freq [MHz] 5825
Auto control enabled power supply | Climatic Box	No | No
Additional path loss [dB]	1.4
Full path name | type	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 5745 MHz

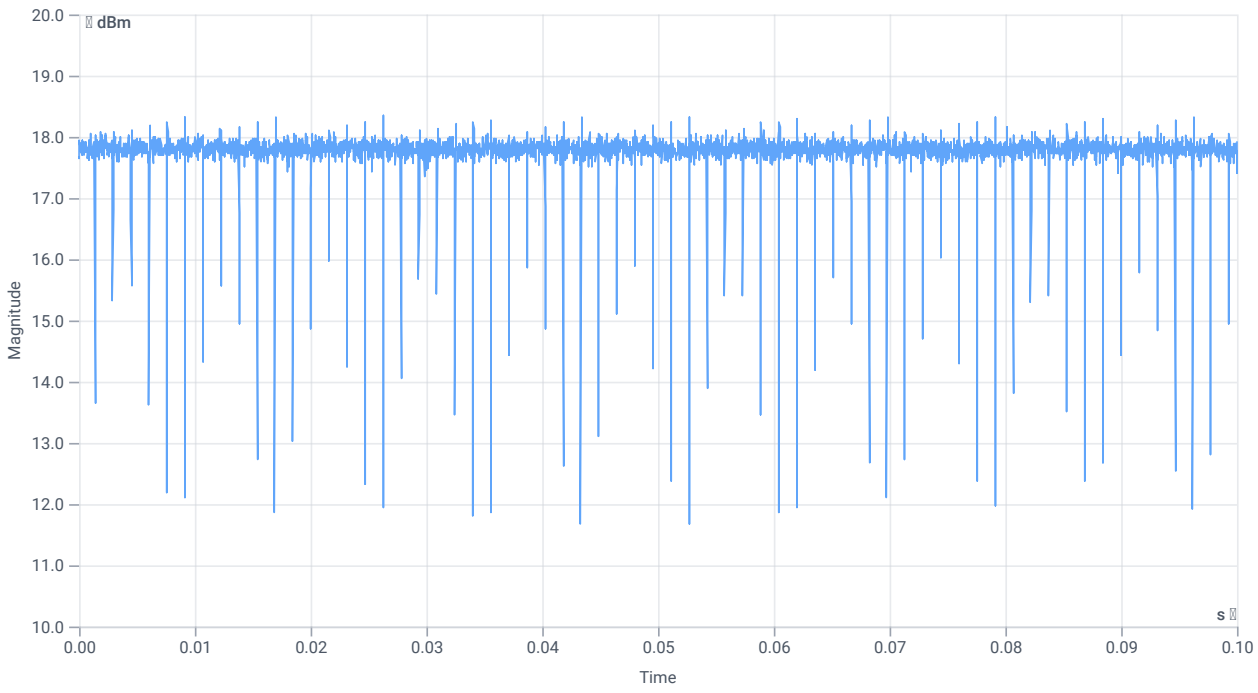
RESULT: Reference Power cond.

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	17.09	dBm	INFO
Ref. Frequency	---	---	5752.190	MHz	INFO

Evaluation max. Duty Cycle

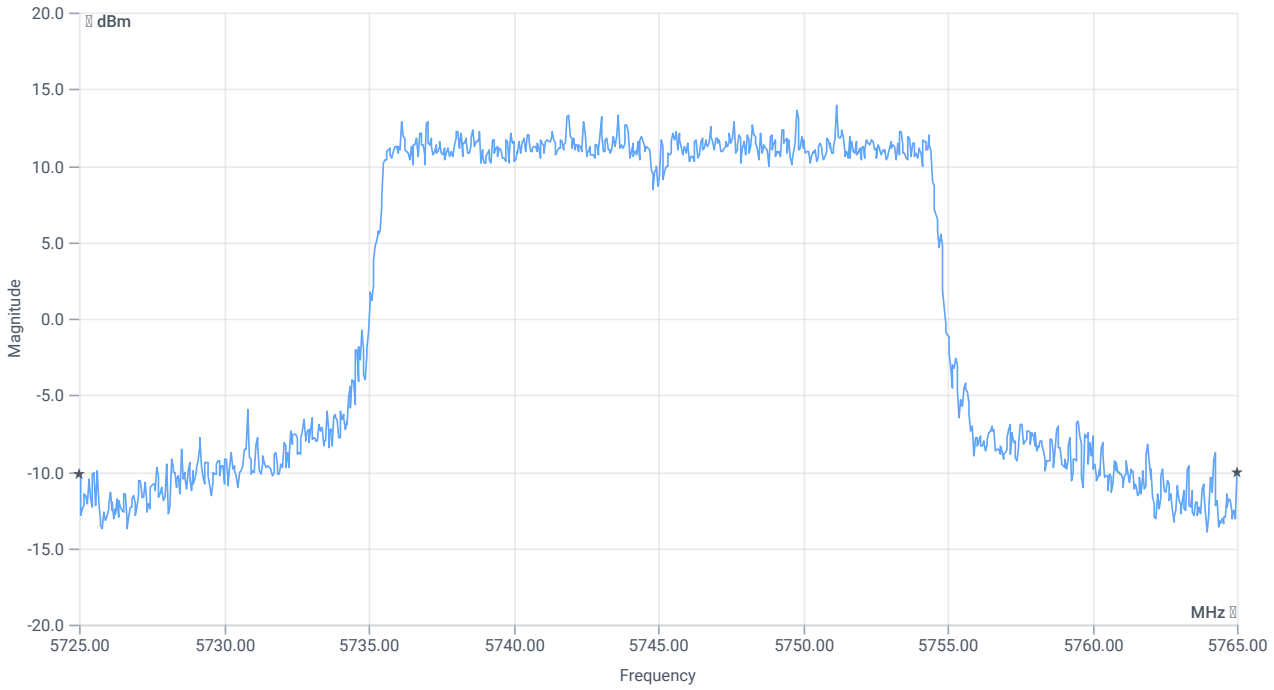
Duty Cycle evaluation

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



Duty cycle

Evaluation Bandwidth



BW 26dB

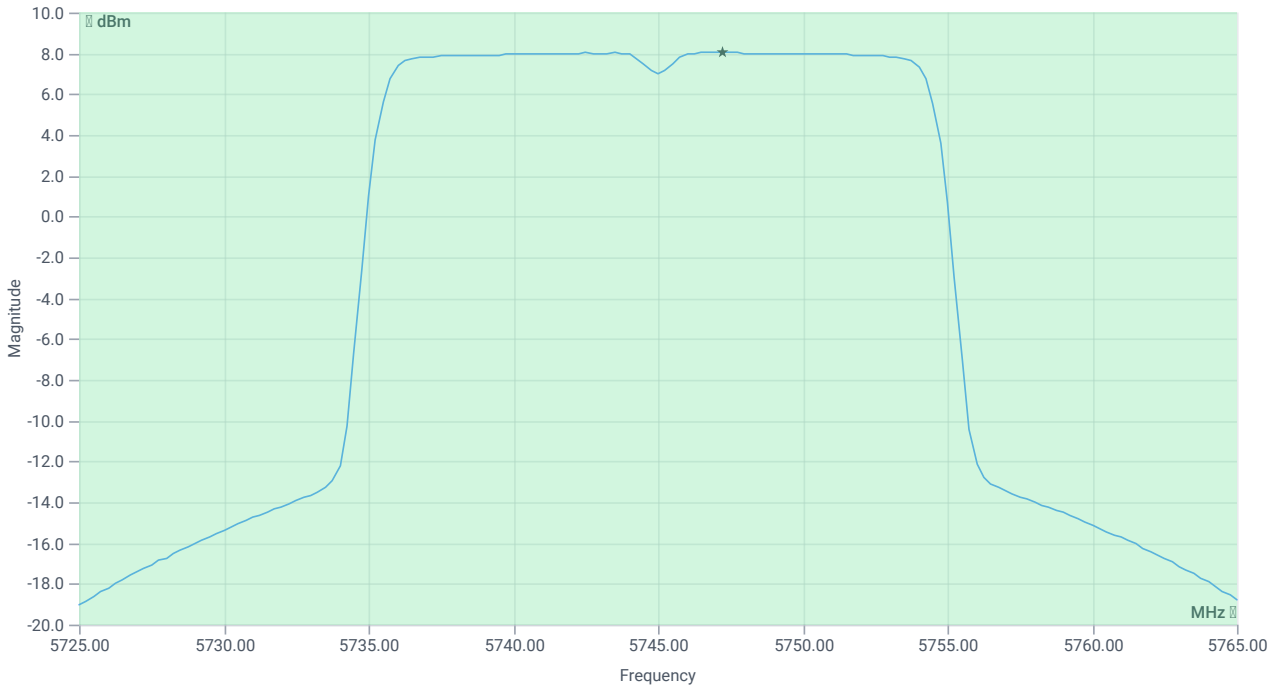
RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 26dB	---	---	40	MHz	INFO
T1 26dB	---	---	5725.0000	MHz	INFO
T2 26dB	---	---	5765.0000	MHz	INFO

Maximum Output Power

READ SA SETTINGS:

RefLevel [dBm] | RefLevelOffset [dB] | InpAtt [dB]	29.09 | 16.82 | 30
Start [MHz] | Stop [MHz]	5725.000 | 5765.000
RBW [MHz] | VBW [MHz]	1.000000 | 3.000000
Detector | TraceMode	RMS | MAXH
Sweep: time [ms] | count | points per Section | type	53700 | 1 | 161 | SWE



Max OP and PSD

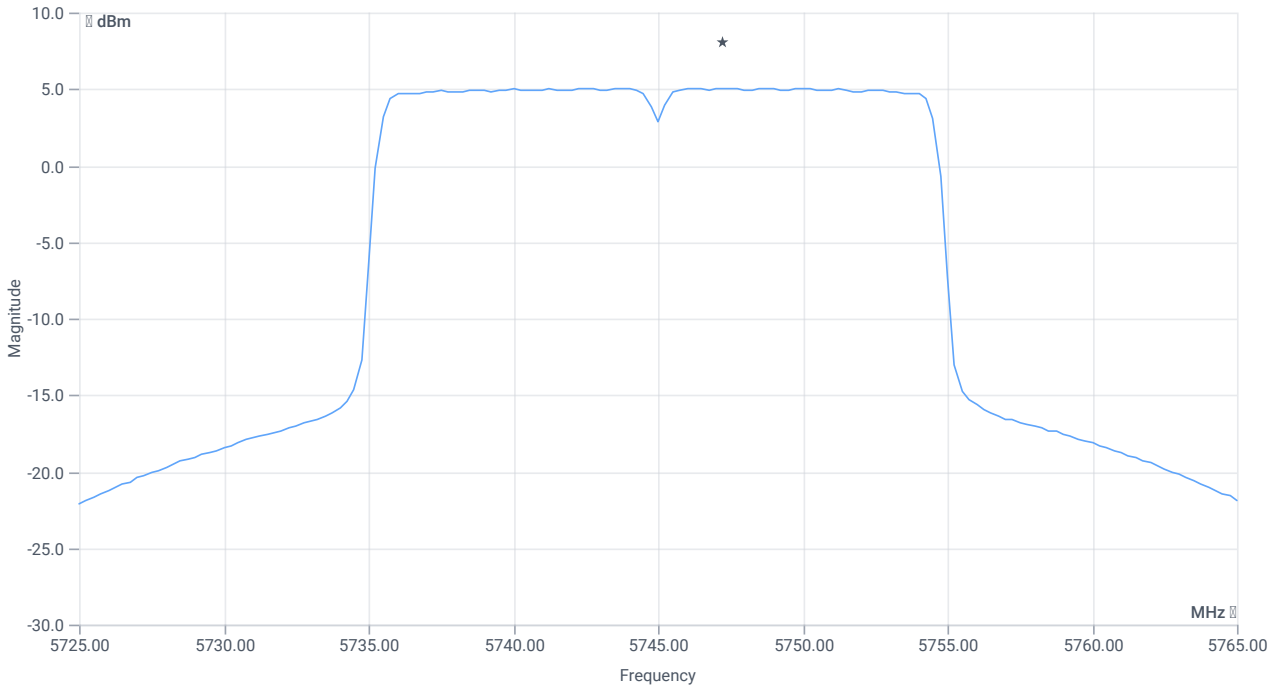
RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Max Output Power	---	---	20.46	dBm	INFO
Duty Cycle Correction	---	---	0	dB	INFO
Limit absolute					
Max Output Power DC corrected	---	30	20.46	dBm	PASS
Limit: 11 dBm + 10 log 40					
Max Output Power DC corrected	---	27.02	20.46	dBm	na

Power Spectral Density U-NII-3

READ SA SETTINGS:

RefLevel [dBm] | RefLevelOffset [dB] | InpAtt [dB]	29.09 | 16.82 | 30
Start [MHz] | Stop [MHz]	5725.000 | 5765.000
RBW [MHz] | VBW [MHz]	0.500000 | 3.000000
Detector | TraceMode	RMS | MAXH
Sweep: time [ms] | count | points per Section | type	53700 | 1 | 161 | SWE



PSD UNII-3

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Power Spectral Density	---	---	5.05	dBm/0.5MHz	INFO
Duty Cycle Correction	---	---	0	dB	INFO
Power Spectral Density DC corrected	---	30	5.05	dBm/0.5MHz	PASS

Verdict
PASS

FCC 15.407, ISED RSS247 # Bandwidths 99PCT and 20dB ~ WLAN5Gx ax-HE20 U-NII-3

References

TC start	18.01.2024 15:21:33
Ambit temp [°C] | humidity [rel%]	25.0 | 27
System version	4.7.1.5
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-HE20 U-NII-3
Information	

EUT Common Settings WLAN5Gx

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

Test Parameter

Technology to test	WLAN5Gx ax-HE20
Antenna port used	2
Temperature	nom
Voltage	nom
Frequency low to test	True | Freq [MHz] 5745
Frequency mid to test	False | Freq [MHz] 5785
Frequency high to test	False | Freq [MHz] 5825
Auto control enabled power supply | Climatic Box	No | No
Additional path loss [dB]	1.4
Full path name | type	EUT - SignalingUnit - SpectrumAnalyzer

Equipment

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

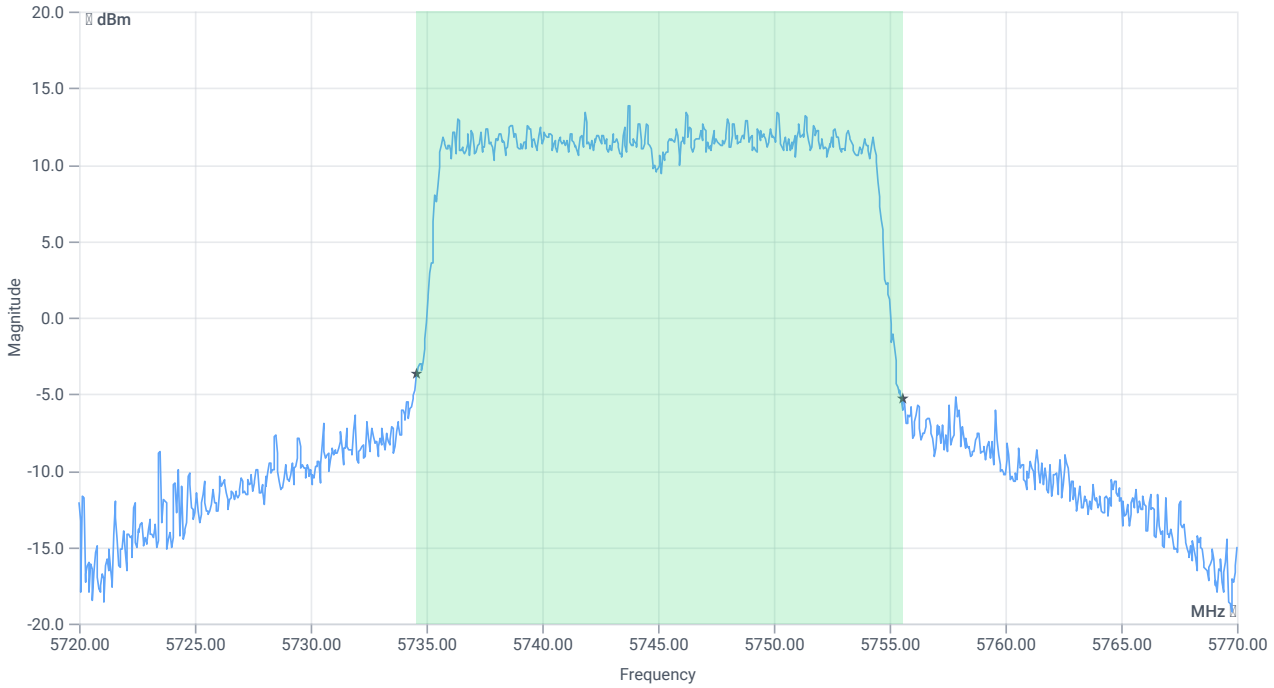
Test at TX 5745 MHz

RESULT: Reference Power cond.

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	17.78	dBm	INFO
Ref. Frequency	---	---	5752.590	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] | RefLevelOffset [dB] | InpAtt [dB]	25.78 | 16.82 | 25
Start [MHz] | Stop [MHz]	5720.000 | 5770.000
RBW [MHz] | VBW [MHz]	0.300000 | 1.000000
Detector | TraceMode	POS | MAXH
Sweep: time [ms] | count | points per Section | type	1 | 2500 | 1001 | SWE

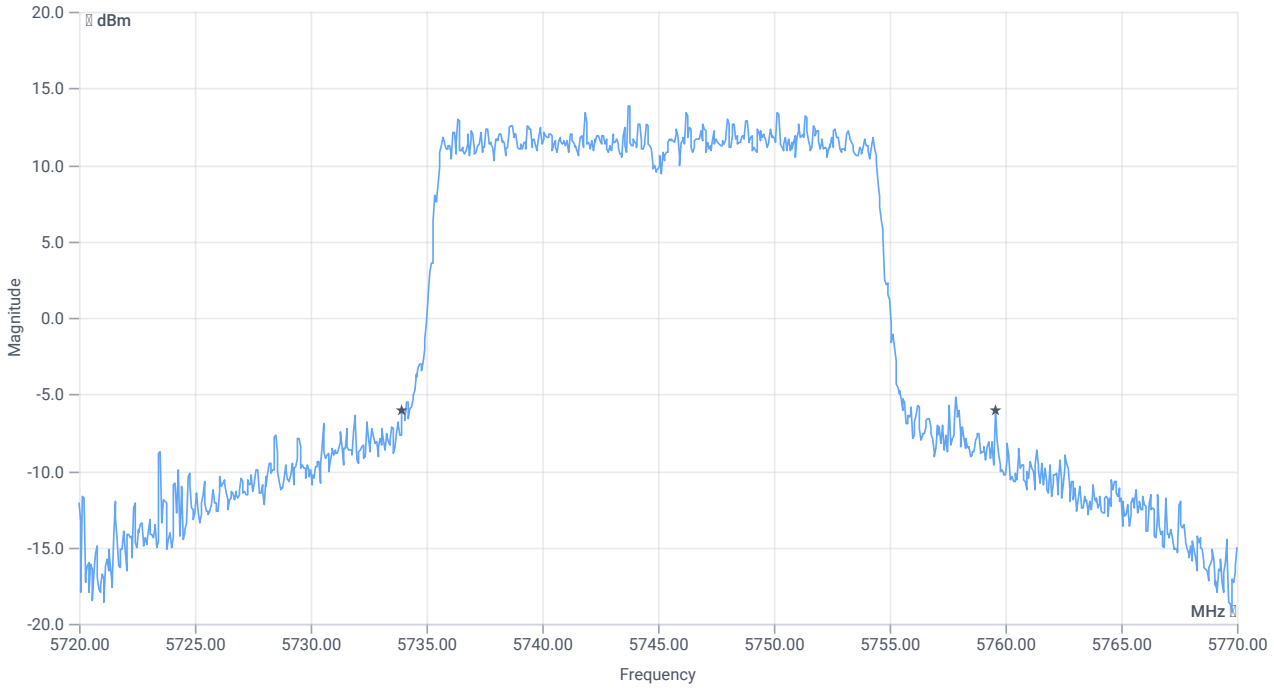


BW 99PCT

BW within Band 99PCT

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 99%	---	---	21.029	MHz	INFO
T1 99%	5725.000000	---	5734.5604	MHz	PASS
T2 99%	---	5850.000000	5755.5894	MHz	PASS



BW 20dB

BW within Band 20dB

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 20dB	---	---	25.65	MHz	INFO
T1 20dB	5725.000000	---	5733.9500	MHz	PASS
T2 20dB	---	5850.000000	5759.6000	MHz	PASS

Verdict
PASS

FCC 15.407, ISED RSS247 # Minimum emission bandwidth ~ WLAN5Gx ax-HE20 U-NII-3

References

TC start	18.01.2024 15:22:04
Ambit temp [°C] | humidity [rel%]	25.0 | 27
System version	4.7.1.5
Standard | Version	FCC 15.407, ISED RSS247 | NI
Method	KDB789033 D02, C.2.
Description	FCC 15.407 Min Emission Bandwidth - WLAN5Gx ax-HE20 U-NII-3
Information	

EUT Common Settings WLAN5Gx

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

Test Parameter

Technology to test	WLAN5Gx ax-HE20
Antenna port used	2
Temperature	nom
Voltage	nom
Frequency low to test	True | Freq [MHz] 5745
Frequency mid to test	False | Freq [MHz] 5785
Frequency high to test	False | Freq [MHz] 5825
Auto control enabled power supply | Climatic Box	No | No
Additional path loss [dB]	1.4
Full path name | type	EUT - SignalingUnit - SpectrumAnalyzer

Equipment

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

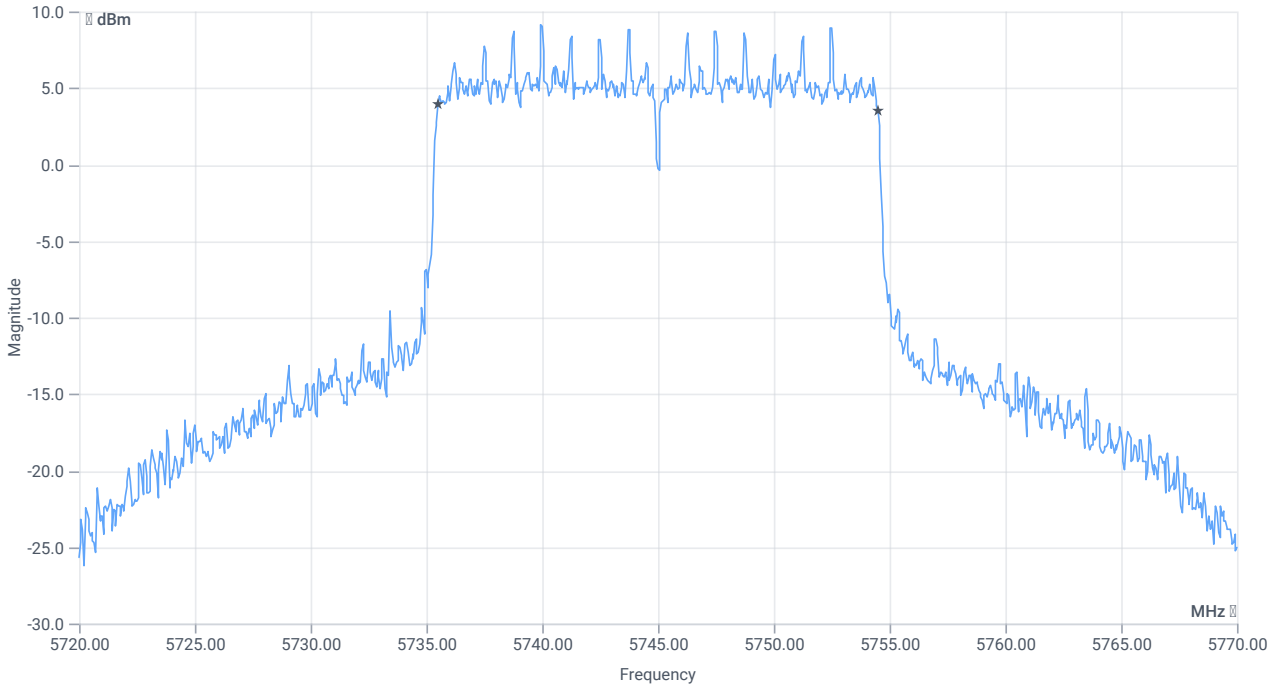
Test at TX 5745 MHz

RESULT: Reference Power cond.

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	17.02	dBm	INFO
Ref. Frequency	---	---	5753.990	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] | RefLevelOffset [dB] | InpAtt [dB]	29.02 | 16.82 | 30
Start [MHz] | Stop [MHz]	5720.000 | 5770.000
RBW [MHz] | VBW [MHz]	0.100000 | 0.300000
Detector | TraceMode	POS | MAXH
Sweep: time [ms] | count | points per Section | type	2 | 1500 | 1001 | SWE



BW 6dB

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth (6dB)	0.500	---	19	MHz	PASS

Verdict
PASS

FCC 15.407 # MIMO ∑ Max output power and psd ~ WLAN5Gx ax-HE20 U-NII-3

References

TC start	18.01.2024 15:22:45
Ambit temp [°C] | humidity [rel%]	25.0 | 27
System version	4.7.1.5
Standard | Version	FCC 15.407 | NI
Method	
Description	MIMO ∑ FCC Power & psd - WLAN5Gx ax-HE20 U-NII-3
Information	

EUT Common Settings WLAN5Gx

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

Test Parameter

Technology to test	WLAN5Gx ax-HE20
Antenna port used	several
Temperature	nom
Voltage	nom
Frequency low to test	True | Freq [MHz] 5745
Frequency mid to test	False | Freq [MHz] 5785
Frequency high to test	False | Freq [MHz] 5825
Auto control enabled power supply | Climatic Box	No | No
Additional path loss [dB]	1.4
Full path name | type	None

Equipment

Test at TX 5745 MHz

RESULT Power

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ant:1 Max Output Power DC corrected	---	---	20.64	dBm	INFO
Ant:1 BW 26dB	---	---	38.240	MHz	INFO
Ant:2 Max Output Power DC corrected	---	---	20.46	dBm	INFO
Ant:2 BW 26dB	---	---	40.000	MHz	INFO
∑ Limit absolute	---	30	23.56	dBm	PASS
∑ Limit: 11 dBm + 10 log 38.24	---	26.83	23.56	dBm	na

RESULT PSD

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ant:1 PSD	---	---	5.23	dBm/0.5MHz	INFO
Ant:2 PSD	---	---	5.05	dBm/0.5MHz	INFO
∑	---	30	8.15	dBm/0.5MHz	PASS

Verdict
PASS

FCC 15.407, ISED RSS247 # Emission mask (eirp) ~ WLAN5Gx ax-HE20 U-NII-3

References

TC start	19.01.2024 13:57:36
Ambit temp [°C] | humidity [rel%]	22.8 | 25
System version	4.7.1.5
Standard | Version	FCC 15.407, ISED RSS247 | NI
Method	NI
Description	FCC 15.407 Emission mask - WLAN5Gx ax-HE20 U-NII-3
Information	

EUT Common Settings WLAN5Gx

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

Test Parameter

Technology to test	WLAN5Gx ax-HE20
Antenna port used	1
Temperature	nom
Voltage	nom
Frequency low to test	True | Freq [MHz] 5745
Frequency mid to test	False | Freq [MHz] 5785
Frequency high to test	False | Freq [MHz] 5825
Auto control enabled power supply | Climatic Box	No | No
Additional path loss [dB]	3.4
Full path name | type	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 5745 MHz

RESULT: Reference Power cond.

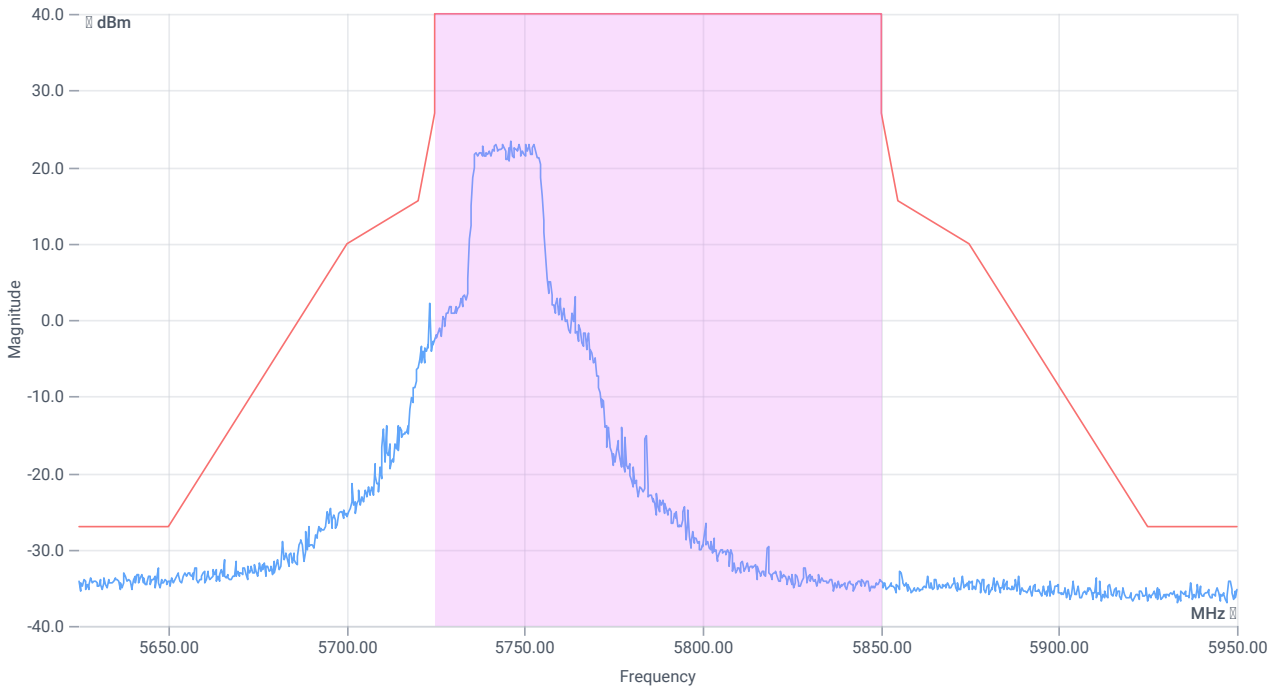
DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	19.49	dBm	INFO
Ref. Frequency	---	---	5750.390	MHz	INFO

Antenna gain

Considered antenna gain [dBi]:	2 / max found in range 5625 to 5950 MHz

READ SA SETTINGS:

RefLevel [dBm] | RefLevelOffset [dB] | InpAtt [dB]	22.49 | 18.82 | 20
Start [MHz] | Stop [MHz]	5625.000 | 5950.000
RBW [MHz] | VBW [MHz]	1.000000 | 3.000000
Detector | TraceMode	POS | MAXH
Sweep: time [ms] | count | points per Section | type	1 | 2500 | 1001 | SWE



Emission Mask (e.i.r.p)

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT

Verdict
PASS

FCC 15.407, ISED RSS247 # Emission mask (eirp) ~ WLAN5Gx ax-HE20 U-NII-3

References

TC start	19.01.2024 13:58:14
Ambit temp [°C] | humidity [rel%]	22.8 | 25
System version	4.7.1.5
Standard | Version	FCC 15.407, ISED RSS247 | NI
Method	NI
Description	FCC 15.407 Emission mask - WLAN5Gx ax-HE20 U-NII-3
Information	

EUT Common Settings WLAN5Gx

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

Test Parameter

Technology to test	WLAN5Gx ax-HE20
Antenna port used	2
Temperature	nom
Voltage	nom
Frequency low to test	True | Freq [MHz] 5745
Frequency mid to test	False | Freq [MHz] 5785
Frequency high to test	False | Freq [MHz] 5825
Auto control enabled power supply | Climatic Box	No | No
Additional path loss [dB]	3.4
Full path name | type	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 5745 MHz

RESULT: Reference Power cond.

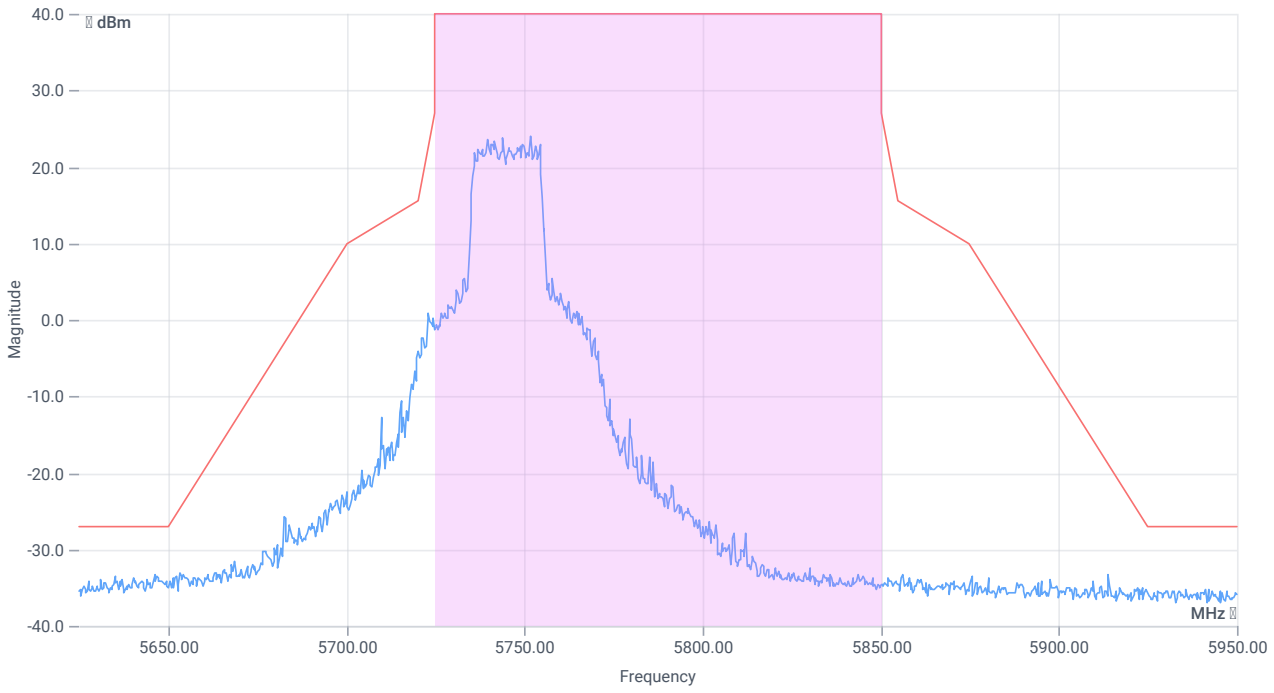
DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	20.05	dBm	INFO
Ref. Frequency	---	---	5747.000	MHz	INFO

Antenna gain

Considered antenna gain [dBi]:	2 / max found in range 5625 to 5950 MHz

READ SA SETTINGS:

RefLevel [dBm] | RefLevelOffset [dB] | InpAtt [dB]	23.05 | 18.82 | 20
Start [MHz] | Stop [MHz]	5625.000 | 5950.000
RBW [MHz] | VBW [MHz]	1.000000 | 3.000000
Detector | TraceMode	POS | MAXH
Sweep: time [ms] | count | points per Section | type	1 | 2500 | 1001 | SWE



Emission Mask (e.i.r.p)

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT

Verdict
PASS

FCC 15.407 # Max output power and psd ~ WLAN5Gx ax-HE20 U-NII-3

References

TC start	18.01.2024 15:24:01
Ambit temp [°C] | humidity [rel%]	25.0 | 27
System version	4.7.1.5
Standard | Version	FCC 15.407 | NI
Method	KDB789033 D02, F., E.2.e.
Description	FCC 15.407 Max Output Power & PSD - WLAN5Gx ax-HE20 U-NII-3
Information	

EUT Common Settings WLAN5Gx

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

Test Parameter

Technology to test	WLAN5Gx ax-HE20
Antenna port used	1
Temperature	nom
Voltage	nom
Frequency low to test	False | Freq [MHz] 5745
Frequency mid to test	True | Freq [MHz] 5785
Frequency high to test	False | Freq [MHz] 5825
Auto control enabled power supply | Climatic Box	No | No
Additional path loss [dB]	1.4
Full path name | type	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 5785 MHz

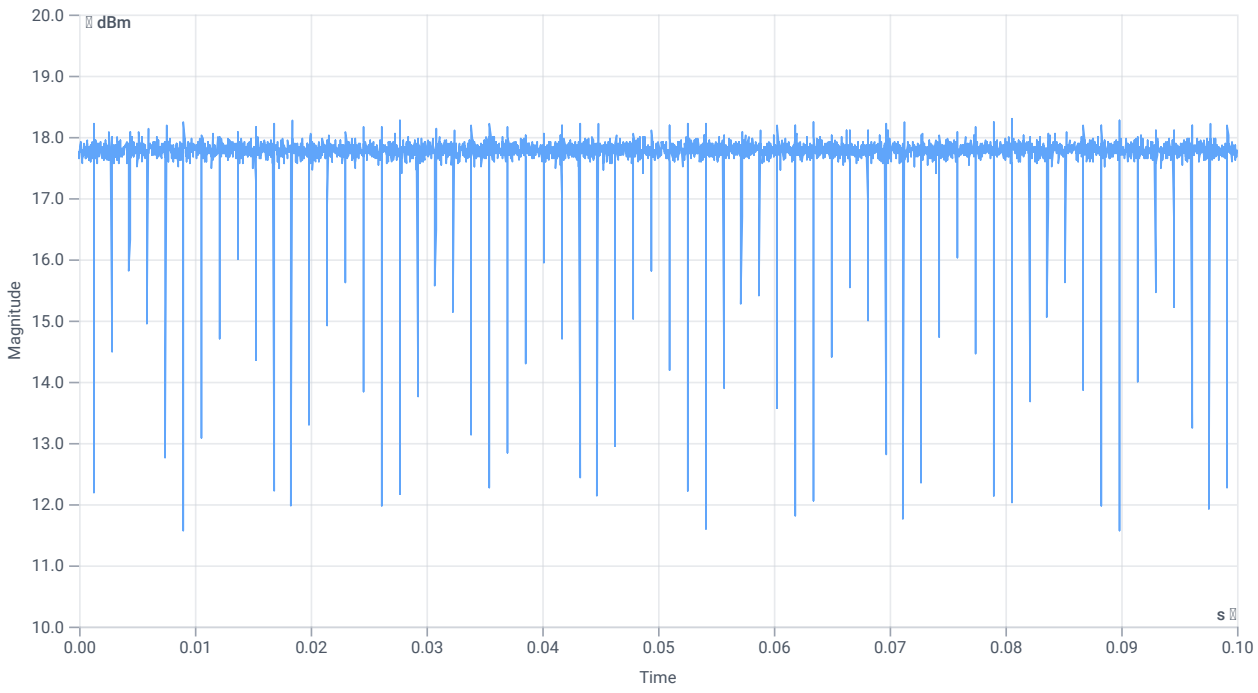
RESULT: Reference Power cond.

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	18.26	dBm	INFO
Ref. Frequency	---	---	5782.400	MHz	INFO

Evaluation max. Duty Cycle

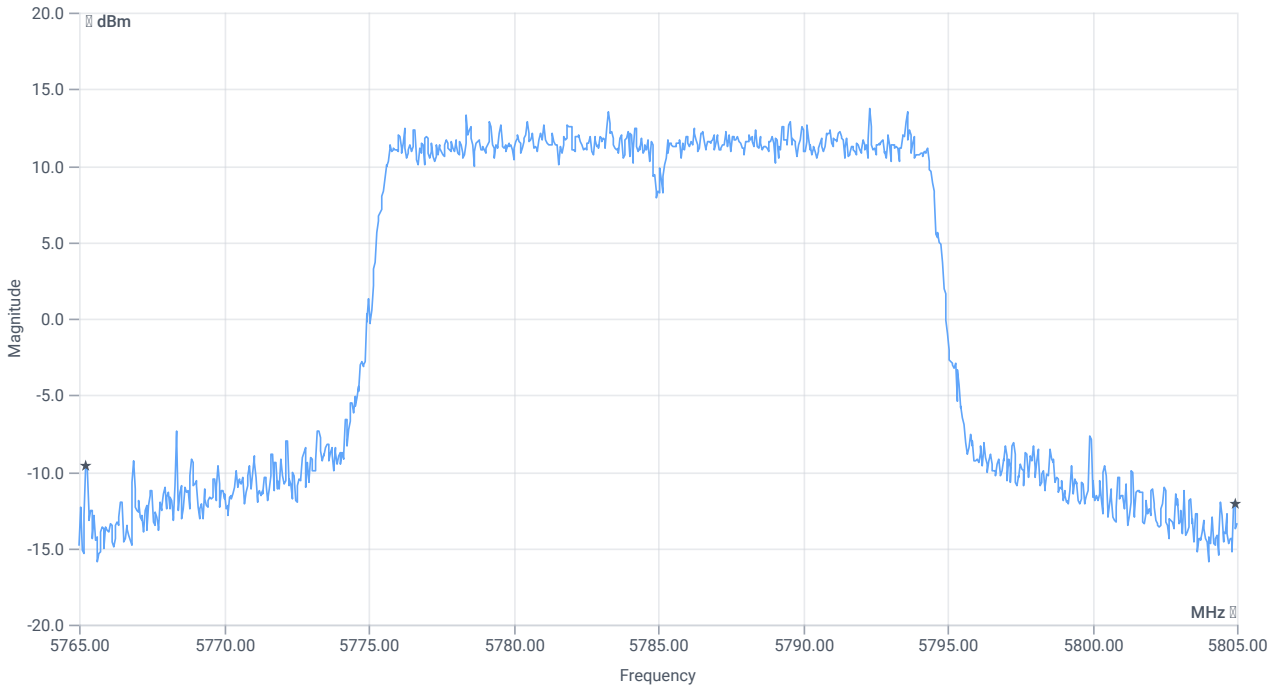
Duty Cycle evaluation

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



Duty cycle

Evaluation Bandwidth



BW 26dB

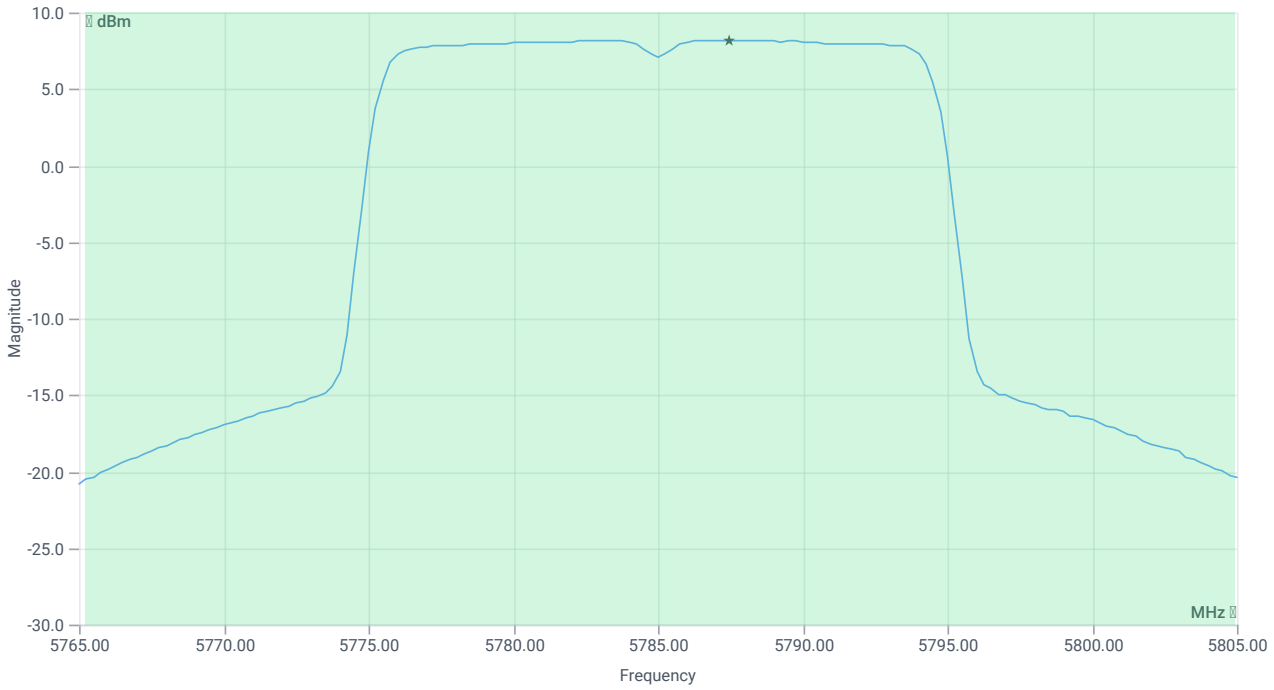
RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 26dB	---	---	39.68	MHz	INFO
T1 26dB	---	---	5765.2400	MHz	INFO
T2 26dB	---	---	5804.9200	MHz	INFO

Maximum Output Power

READ SA SETTINGS:

RefLevel [dBm] | RefLevelOffset [dB] | InpAtt [dB]	30.26 | 16.8 | 30
Start [MHz] | Stop [MHz]	5765.000 | 5805.000
RBW [MHz] | VBW [MHz]	1.000000 | 3.000000
Detector | TraceMode	RMS | MAXH
Sweep: time [ms] | count | points per Section | type	53700 | 1 | 161 | SWE



Max OP and PSD

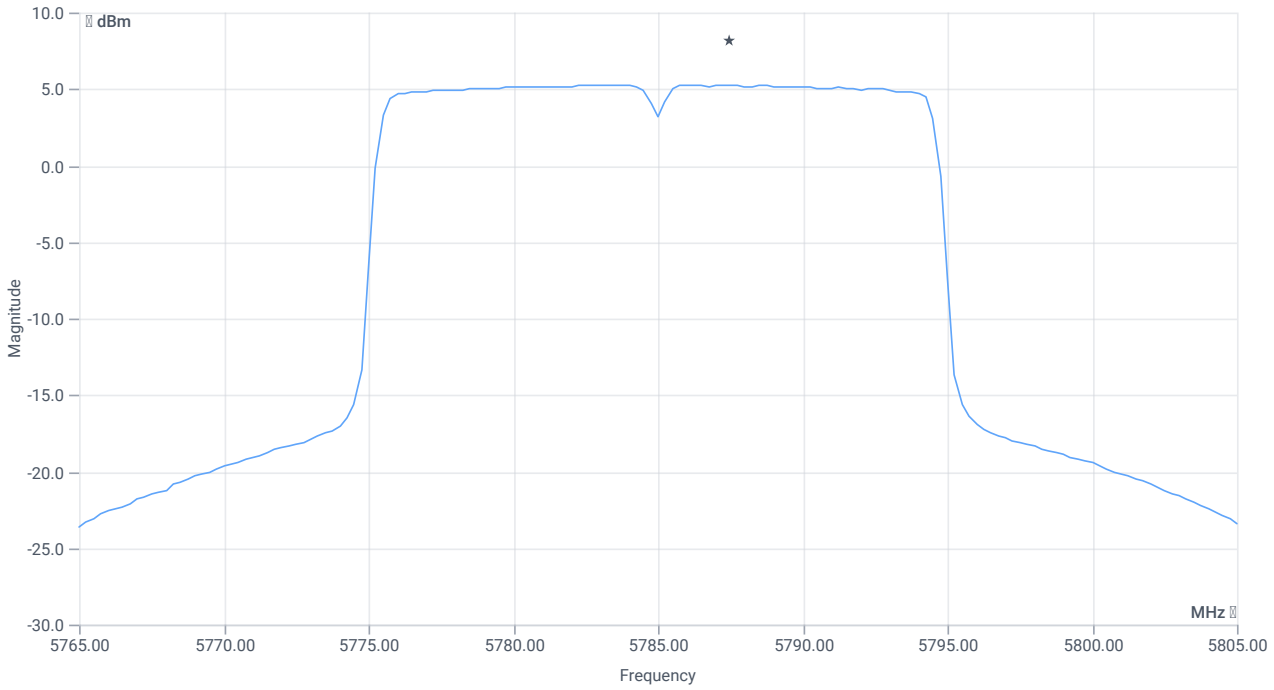
RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Max Output Power	---	---	20.51	dBm	INFO
Duty Cycle Correction	---	---	0	dB	INFO
Limit absolute					
Max Output Power DC corrected	---	30	20.51	dBm	PASS
Limit: 11 dBm + 10 log 39.68					
Max Output Power DC corrected	---	26.99	20.51	dBm	na

Power Spectral Density U-NII-3

READ SA SETTINGS:

RefLevel [dBm] | RefLevelOffset [dB] | InpAtt [dB]	30.26 | 16.8 | 30
Start [MHz] | Stop [MHz]	5765.000 | 5805.000
RBW [MHz] | VBW [MHz]	0.500000 | 3.000000
Detector | TraceMode	RMS | MAXH
Sweep: time [ms] | count | points per Section | type	53700 | 1 | 161 | SWE



PSD UNII-3

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Power Spectral Density	---	---	5.29	dBm/0.5MHz	INFO
Duty Cycle Correction	---	---	0	dB	INFO
Power Spectral Density DC corrected	---	30	5.29	dBm/0.5MHz	PASS

Verdict
PASS

FCC 15.407, ISED RSS247 # Bandwidths 99PCT and 20dB ~ WLAN5Gx ax-HE20 U-NII-3

References

TC start	18.01.2024 15:26:27
Ambit temp [°C] | humidity [rel%]	24.9 | 27
System version	4.7.1.5
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-HE20 U-NII-3
Information	

EUT Common Settings WLAN5Gx

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

Test Parameter

Technology to test	WLAN5Gx ax-HE20
Antenna port used	1
Temperature	nom
Voltage	nom
Frequency low to test	False | Freq [MHz] 5745
Frequency mid to test	True | Freq [MHz] 5785
Frequency high to test	False | Freq [MHz] 5825
Auto control enabled power supply | Climatic Box	No | No
Additional path loss [dB]	1.4
Full path name | type	EUT - SignalingUnit - SpectrumAnalyzer

Equipment

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

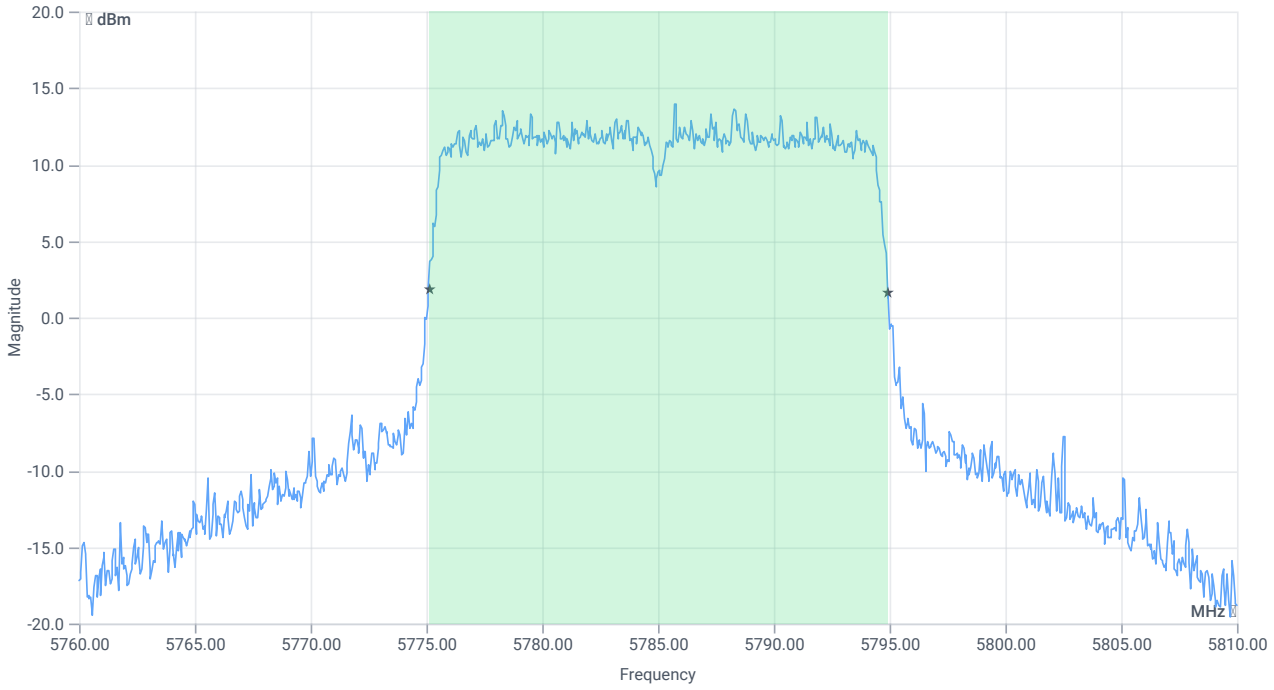
Test at TX 5785 MHz

RESULT: Reference Power cond.

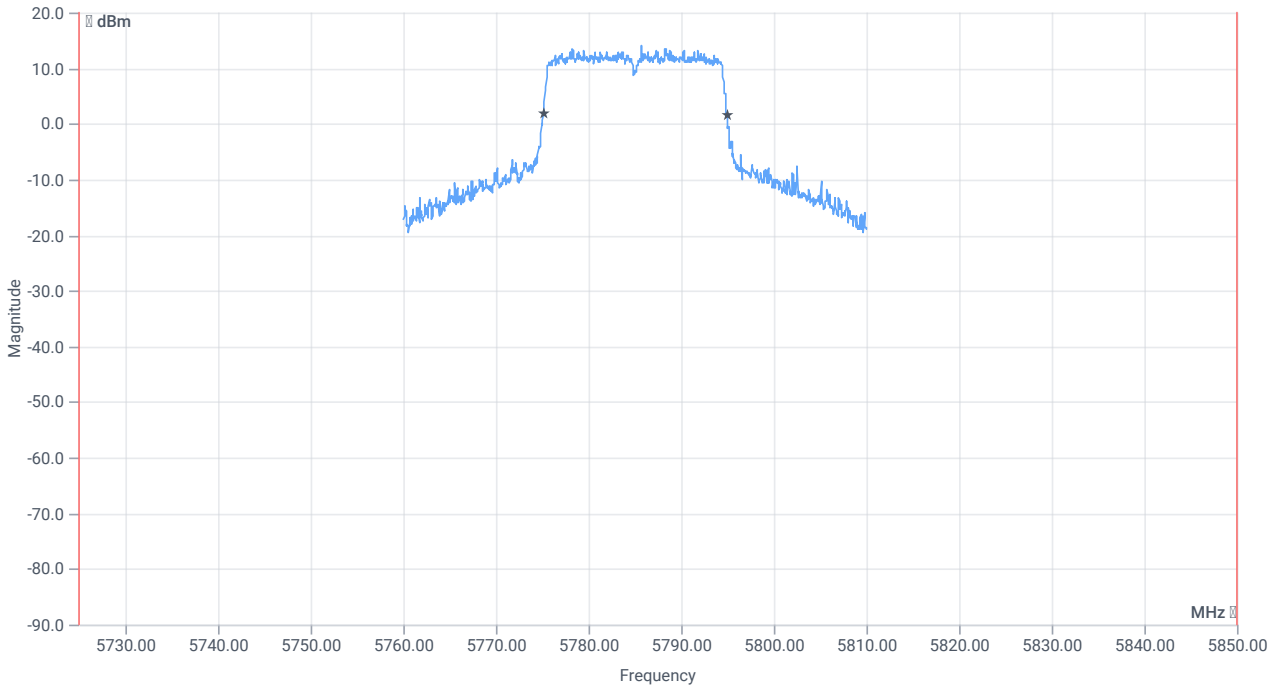
DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	16.68	dBm	INFO
Ref. Frequency	---	---	5779.610	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] | RefLevelOffset [dB] | InpAtt [dB]	24.68 | 16.8 | 25
Start [MHz] | Stop [MHz]	5760.000 | 5810.000
RBW [MHz] | VBW [MHz]	0.300000 | 1.000000
Detector | TraceMode	POS | MAXH
Sweep: time [ms] | count | points per Section | type	1 | 2500 | 1001 | SWE



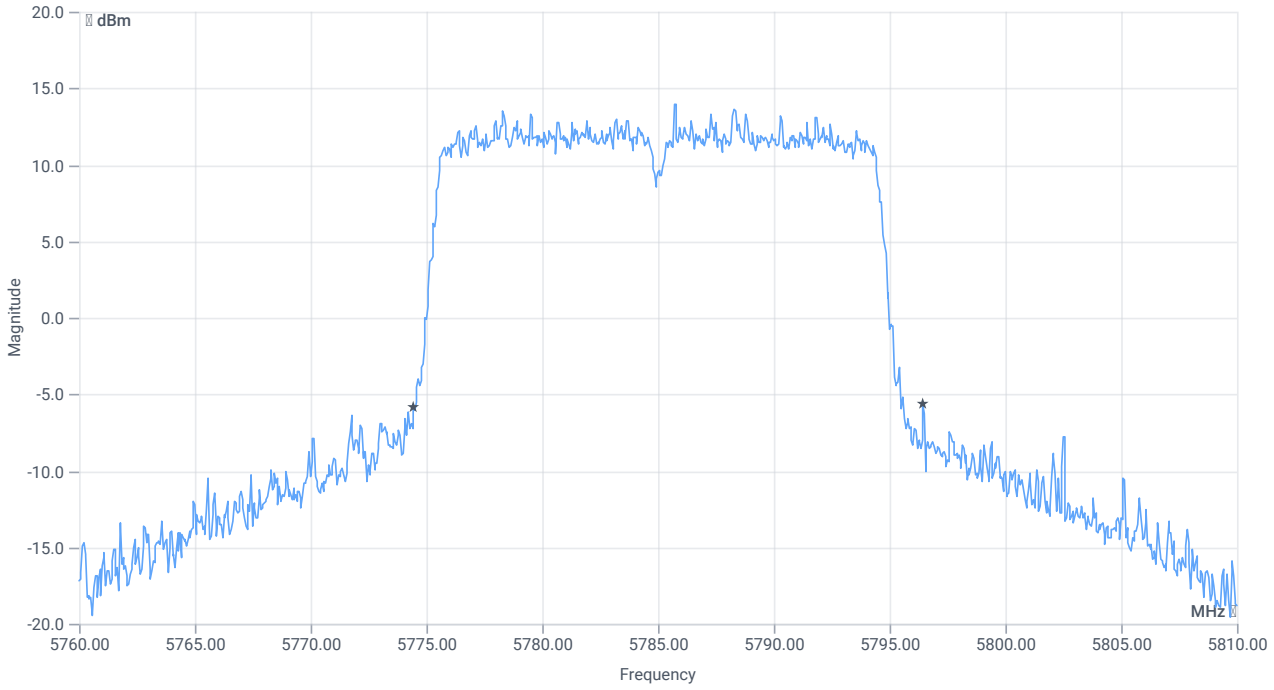
BW 99PCT



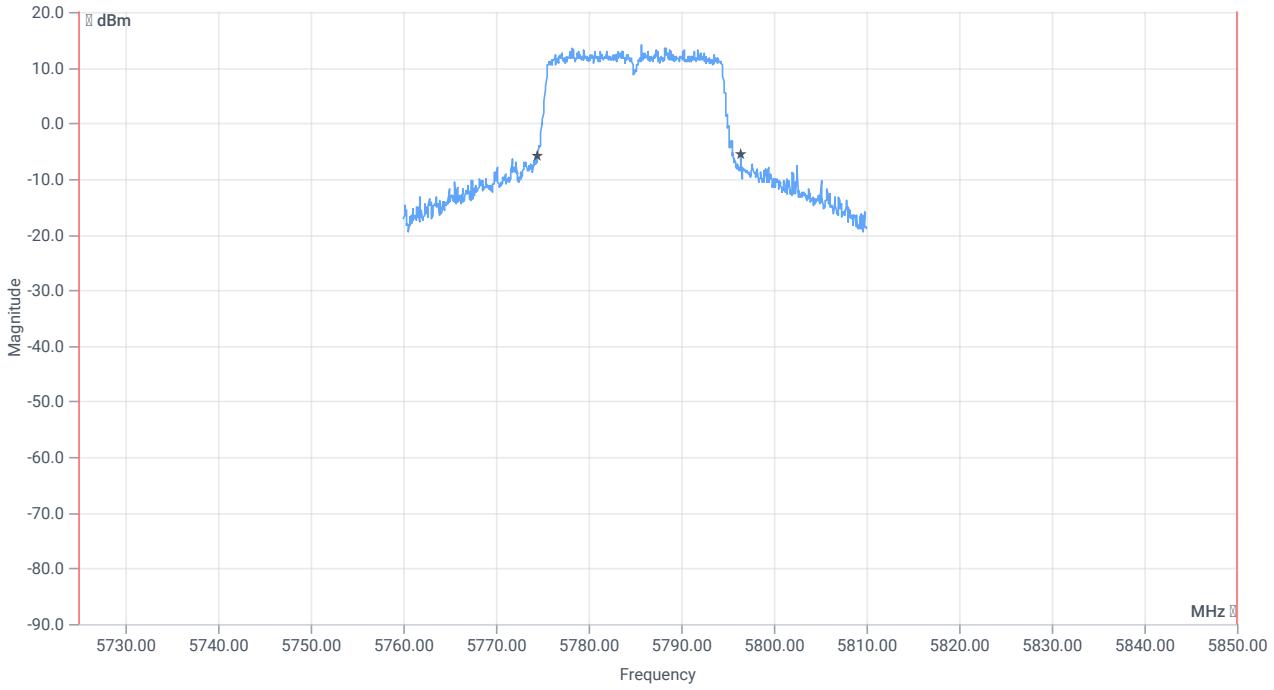
BW within Band 99PCT

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 99%	---	---	19.83	MHz	INFO
T1 99%	5725.000000	---	5775.1099	MHz	PASS
T2 99%	---	5850.000000	5794.9401	MHz	PASS



BW 20dB



BW within Band 20dB

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 20dB	---	---	22	MHz	INFO
T1 20dB	5725.000000	---	5774.4500	MHz	PASS
T2 20dB	---	5850.000000	5796.4500	MHz	PASS

Verdict
PASS

FCC 15.407, ISED RSS247 # Minimum emission bandwidth ~ WLAN5Gx ax-HE20 U-NII-3

References

TC start	18.01.2024 15:26:57
Ambit temp [°C] | humidity [rel%]	24.9 | 27
System version	4.7.1.5
Standard | Version	FCC 15.407, ISED RSS247 | NI
Method	KDB789033 D02, C.2.
Description	FCC 15.407 Min Emission Bandwidth - WLAN5Gx ax-HE20 U-NII-3
Information	

EUT Common Settings WLAN5Gx

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

Test Parameter

Technology to test	WLAN5Gx ax-HE20
Antenna port used	1
Temperature	nom
Voltage	nom
Frequency low to test	False | Freq [MHz] 5745
Frequency mid to test	True | Freq [MHz] 5785
Frequency high to test	False | Freq [MHz] 5825
Auto control enabled power supply | Climatic Box	No | No
Additional path loss [dB]	1.4
Full path name | type	EUT - SignalingUnit - SpectrumAnalyzer

Equipment

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

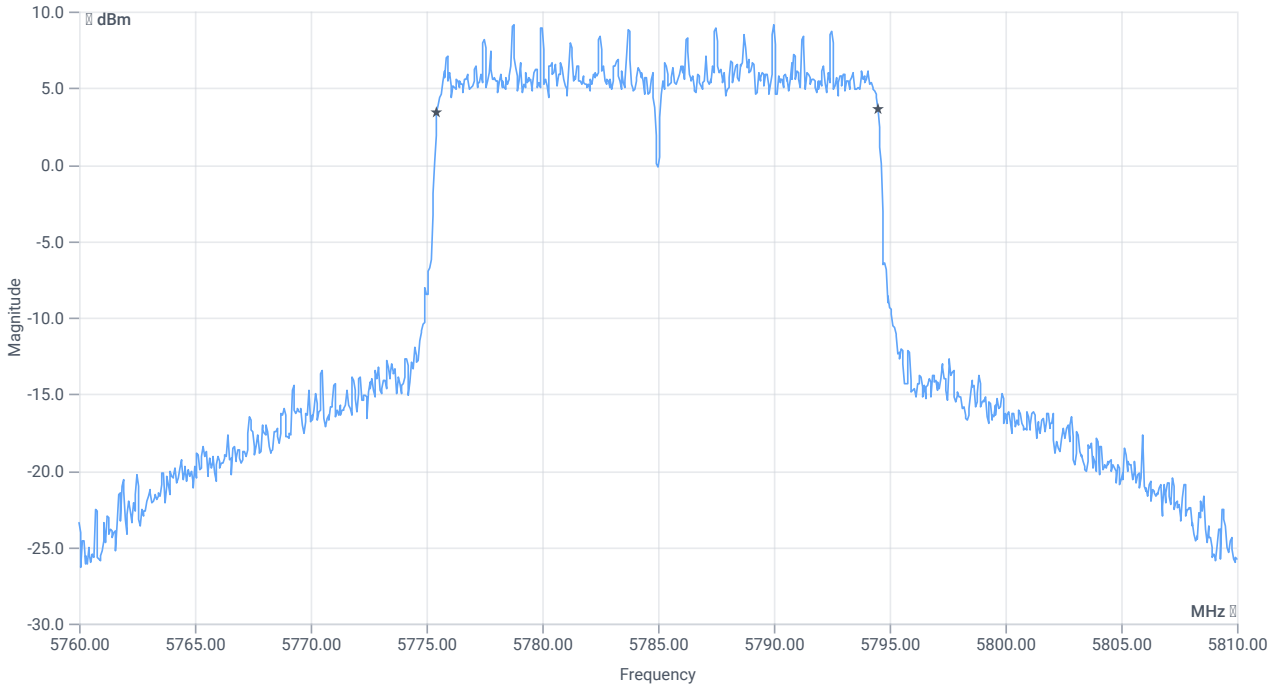
Test at TX 5785 MHz

RESULT: Reference Power cond.

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	17.36	dBm	INFO
Ref. Frequency	---	---	5792.390	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] | RefLevelOffset [dB] | InpAtt [dB]	29.36 | 16.8 | 30
Start [MHz] | Stop [MHz]	5760.000 | 5810.000
RBW [MHz] | VBW [MHz]	0.100000 | 0.300000
Detector | TraceMode	POS | MAXH
Sweep: time [ms] | count | points per Section | type	2 | 1500 | 1001 | SWE



BW 6dB

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth (6dB)	0.500	---	19.05	MHz	PASS

Verdict
PASS

FCC 15.407 # Max output power and psd ~ WLAN5Gx ax-HE20 U-NII-3

References

TC start	18.01.2024 15:27:43
Ambit temp [°C] | humidity [rel%]	24.9 | 27
System version	4.7.1.5
Standard | Version	FCC 15.407 | NI
Method	KDB789033 D02, F., E.2.e.
Description	FCC 15.407 Max Output Power & PSD - WLAN5Gx ax-HE20 U-NII-3
Information	

EUT Common Settings WLAN5Gx

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

Test Parameter

Technology to test	WLAN5Gx ax-HE20
Antenna port used	2
Temperature	nom
Voltage	nom
Frequency low to test	False | Freq [MHz] 5745
Frequency mid to test	True | Freq [MHz] 5785
Frequency high to test	False | Freq [MHz] 5825
Auto control enabled power supply | Climatic Box	No | No
Additional path loss [dB]	1.4
Full path name | type	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 5785 MHz

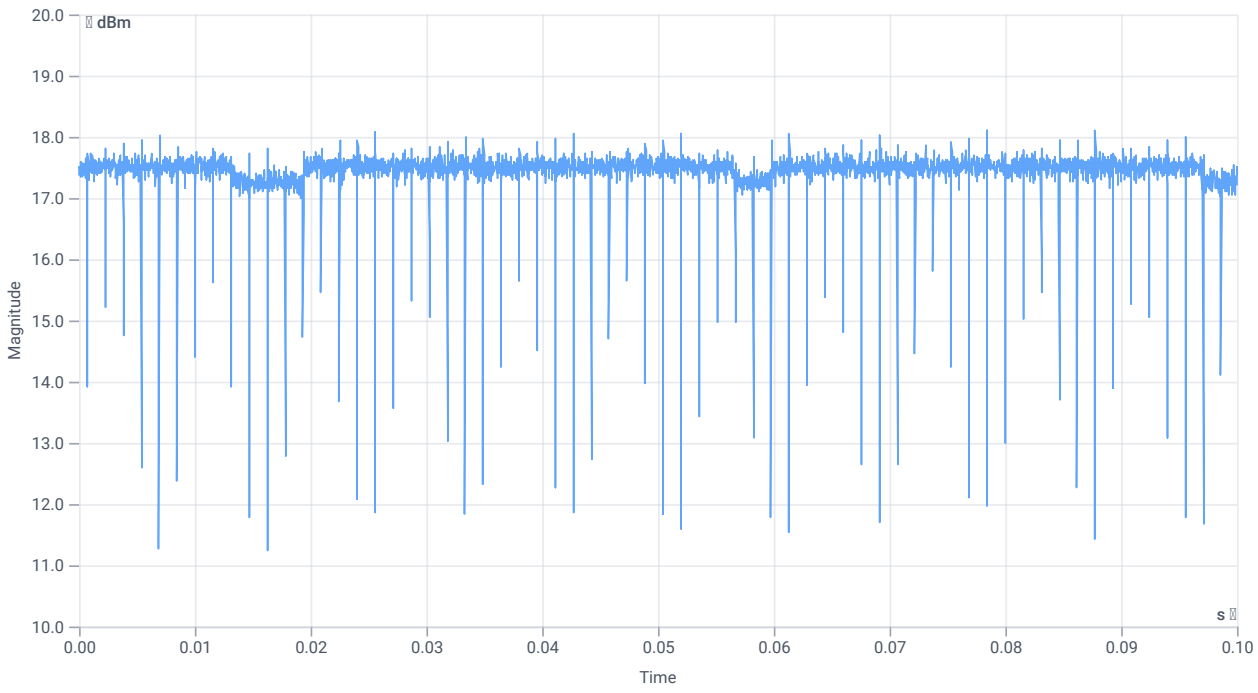
RESULT: Reference Power cond.

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	18.26	dBm	INFO
Ref. Frequency	---	---	5779.010	MHz	INFO

Evaluation max. Duty Cycle

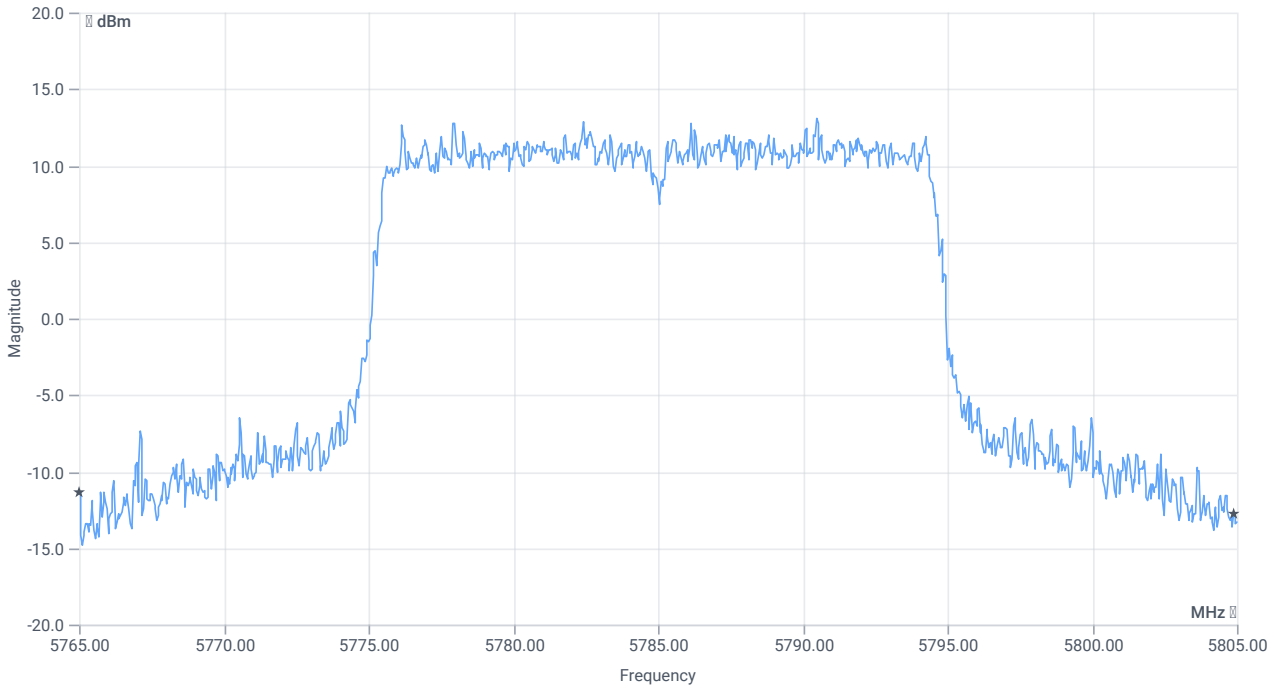
Duty Cycle evaluation

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



Duty cycle

Evaluation Bandwidth



BW 26dB

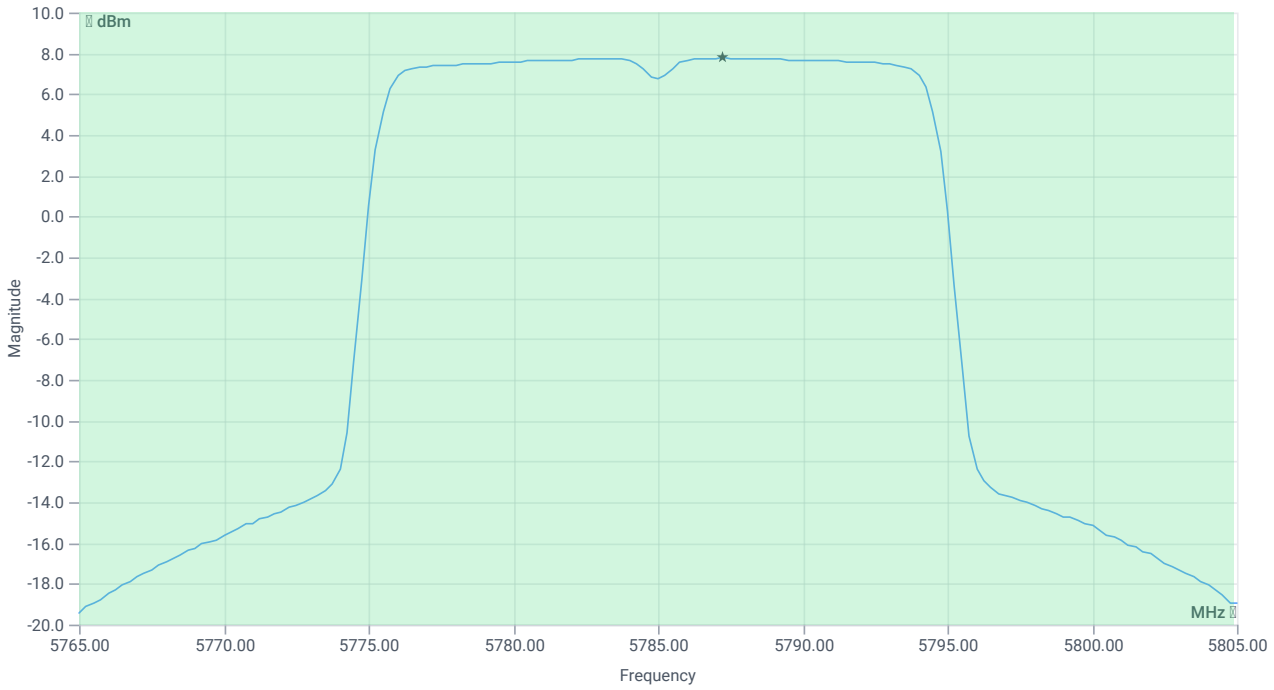
RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 26dB	---	---	39.88	MHz	INFO
T1 26dB	---	---	5765.0000	MHz	INFO
T2 26dB	---	---	5804.8800	MHz	INFO

Maximum Output Power

READ SA SETTINGS:

RefLevel [dBm] | RefLevelOffset [dB] | InpAtt [dB]	30.26 | 16.8 | 30
Start [MHz] | Stop [MHz]	5765.000 | 5805.000
RBW [MHz] | VBW [MHz]	1.000000 | 3.000000
Detector | TraceMode	RMS | MAXH
Sweep: time [ms] | count | points per Section | type	53700 | 1 | 161 | SWE



Max OP and PSD

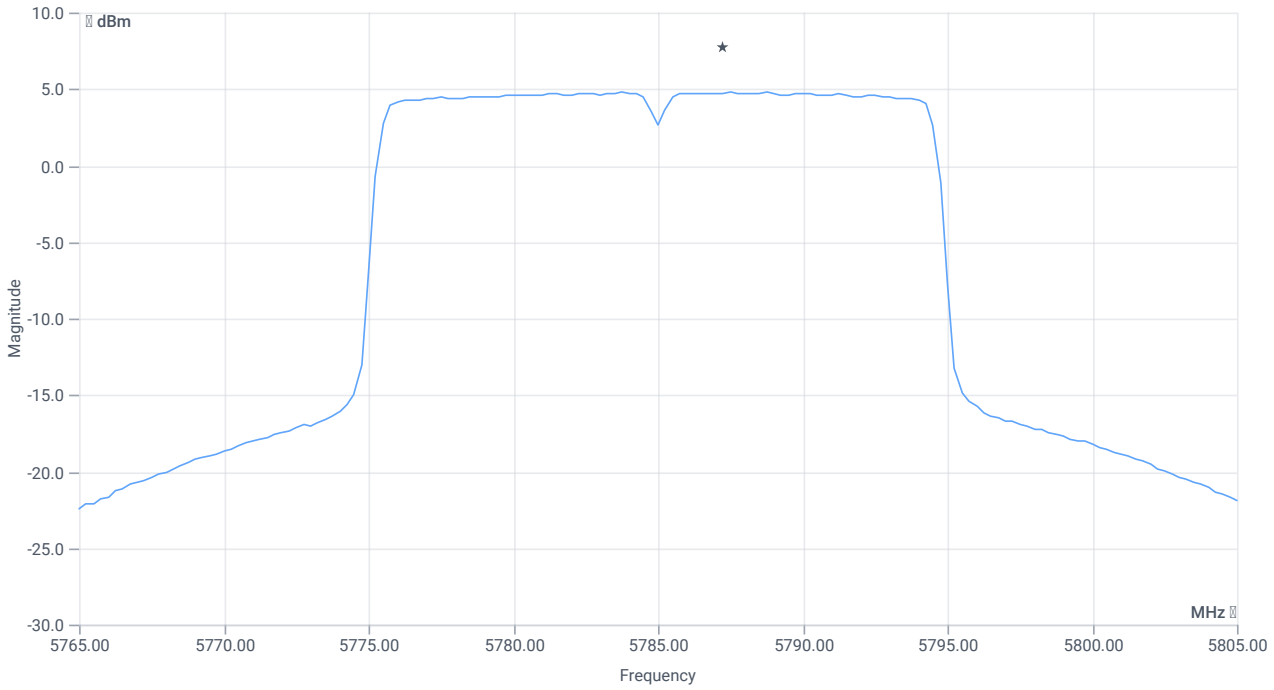
RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Max Output Power	---	---	20.12	dBm	INFO
Duty Cycle Correction	---	---	0	dB	INFO
Limit absolute					
Max Output Power DC corrected	---	30	20.12	dBm	PASS
Limit: 11 dBm + 10 log 39.88					
Max Output Power DC corrected	---	27.01	20.12	dBm	na

Power Spectral Density U-NII-3

READ SA SETTINGS:

RefLevel [dBm] | RefLevelOffset [dB] | InpAtt [dB]	30.26 | 16.8 | 30
Start [MHz] | Stop [MHz]	5765.000 | 5805.000
RBW [MHz] | VBW [MHz]	0.500000 | 3.000000
Detector | TraceMode	RMS | MAXH
Sweep: time [ms] | count | points per Section | type	53700 | 1 | 161 | SWE



PSD UNII-3

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Power Spectral Density	---	---	4.78	dBm/0.5MHz	INFO
Duty Cycle Correction	---	---	0	dB	INFO
Power Spectral Density DC corrected	---	30	4.78	dBm/0.5MHz	PASS

Verdict
PASS

FCC 15.407, ISED RSS247 # Bandwidths 99PCT and 20dB ~ WLAN5Gx ax-HE20 U-NII-3

References

TC start	18.01.2024 15:30:08
Ambit temp [°C] | humidity [rel%]	25.0 | 27
System version	4.7.1.5
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-HE20 U-NII-3
Information	

EUT Common Settings WLAN5Gx

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

Test Parameter

Technology to test	WLAN5Gx ax-HE20
Antenna port used	2
Temperature	nom
Voltage	nom
Frequency low to test	False | Freq [MHz] 5745
Frequency mid to test	True | Freq [MHz] 5785
Frequency high to test	False | Freq [MHz] 5825
Auto control enabled power supply | Climatic Box	No | No
Additional path loss [dB]	1.4
Full path name | type	EUT - SignalingUnit - SpectrumAnalyzer

Equipment

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

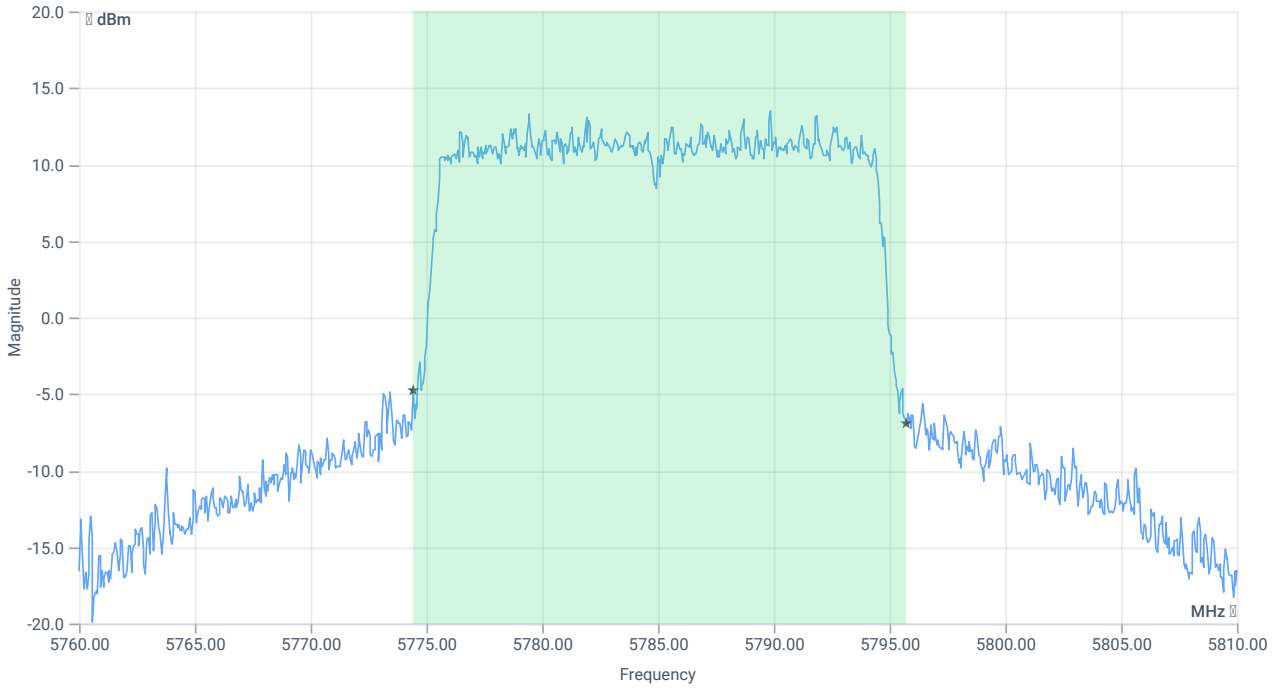
Test at TX 5785 MHz

RESULT: Reference Power cond.

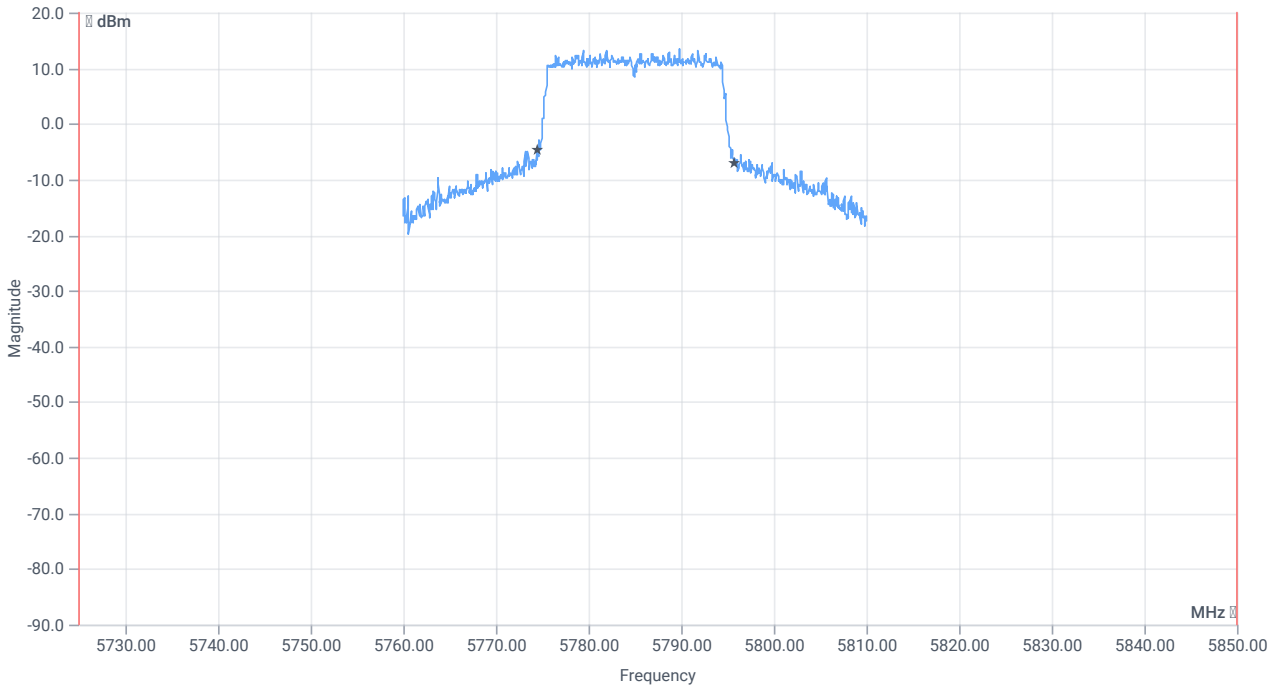
DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	16.86	dBm	INFO
Ref. Frequency	---	---	5790.990	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] | RefLevelOffset [dB] | InpAtt [dB]	24.86 | 16.8 | 25
Start [MHz] | Stop [MHz]	5760.000 | 5810.000
RBW [MHz] | VBW [MHz]	0.300000 | 1.000000
Detector | TraceMode	POS | MAXH
Sweep: time [ms] | count | points per Section | type	1 | 2500 | 1001 | SWE



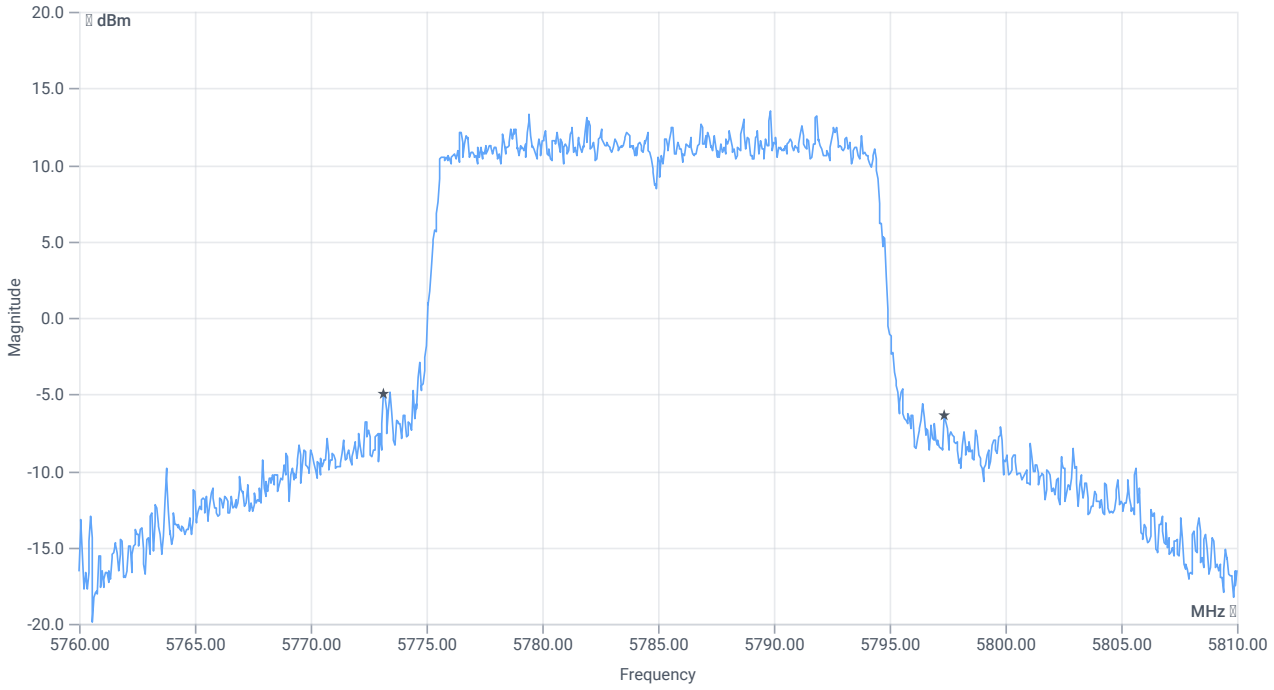
BW 99PCT



BW within Band 99PCT

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 99%	---	---	21.279	MHz	INFO
T1 99%	5725.000000	---	5774.4605	MHz	PASS
T2 99%	---	5850.000000	5795.7393	MHz	PASS



BW 20dB

BW within Band 20dB

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 20dB	---	---	24.2	MHz	INFO
T1 20dB	5725.000000	---	5773.1500	MHz	PASS
T2 20dB	---	5850.000000	5797.3500	MHz	PASS

Verdict
PASS

FCC 15.407, ISED RSS247 # Minimum emission bandwidth ~ WLAN5Gx ax-HE20 U-NII-3

References

TC start	18.01.2024 15:30:39
Ambit temp [°C] | humidity [rel%]	24.9 | 27
System version	4.7.1.5
Standard | Version	FCC 15.407, ISED RSS247 | NI
Method	KDB789033 D02, C.2.
Description	FCC 15.407 Min Emission Bandwidth - WLAN5Gx ax-HE20 U-NII-3
Information	

EUT Common Settings WLAN5Gx

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

Test Parameter

Technology to test	WLAN5Gx ax-HE20
Antenna port used	2
Temperature	nom
Voltage	nom
Frequency low to test	False | Freq [MHz] 5745
Frequency mid to test	True | Freq [MHz] 5785
Frequency high to test	False | Freq [MHz] 5825
Auto control enabled power supply | Climatic Box	No | No
Additional path loss [dB]	1.4
Full path name | type	EUT - SignalingUnit - SpectrumAnalyzer

Equipment

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

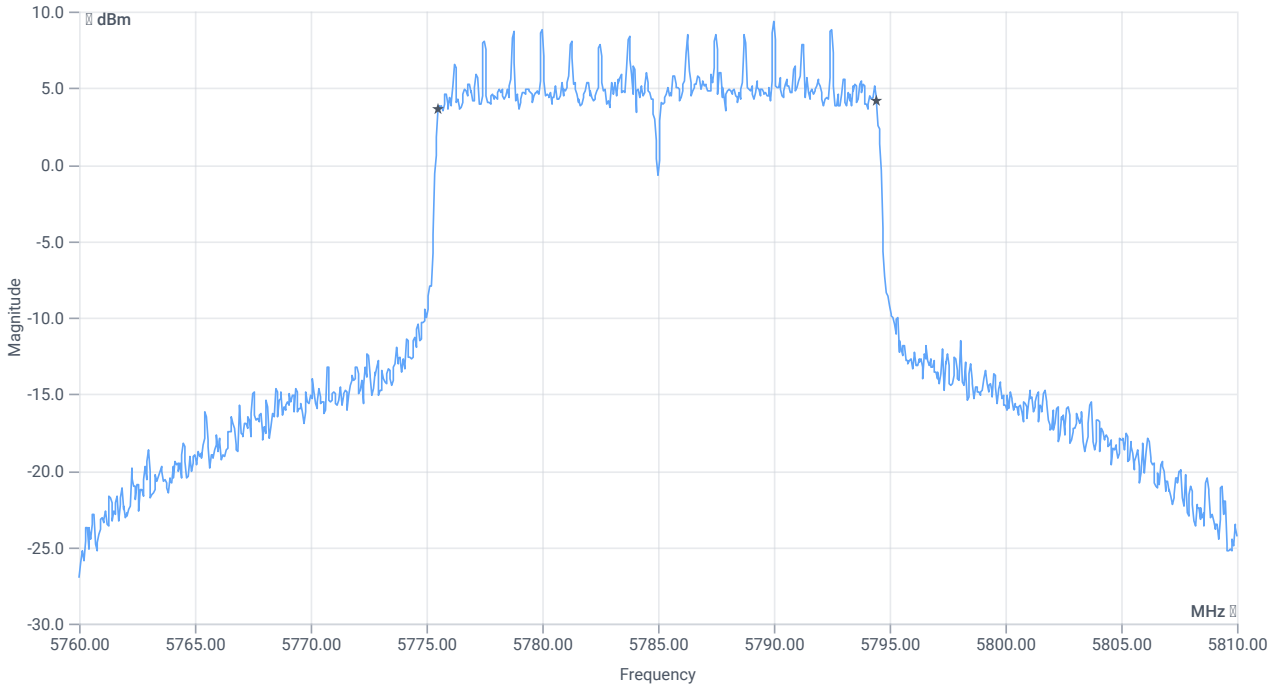
Test at TX 5785 MHz

RESULT: Reference Power cond.

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	16.69	dBm	INFO
Ref. Frequency	---	---	5790.390	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] | RefLevelOffset [dB] | InpAtt [dB]	28.69 | 16.8 | 30
Start [MHz] | Stop [MHz]	5760.000 | 5810.000
RBW [MHz] | VBW [MHz]	0.100000 | 0.300000
Detector | TraceMode	POS | MAXH
Sweep: time [ms] | count | points per Section | type	2 | 1500 | 1001 | SWE



BW 6dB

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth (6dB)	0.500	---	18.95	MHz	PASS

Verdict
PASS

FCC 15.407 # MIMO ∑ Max output power and psd ~ WLAN5Gx ax-HE20 U-NII-3

References

TC start	18.01.2024 15:31:27
Ambit temp [°C] | humidity [rel%]	25.0 | 27
System version	4.7.1.5
Standard | Version	FCC 15.407 | NI
Method	
Description	MIMO ∑ FCC Power & psd - WLAN5Gx ax-HE20 U-NII-3
Information	

EUT Common Settings WLAN5Gx

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

Test Parameter

Technology to test	WLAN5Gx ax-HE20
Antenna port used	several
Temperature	nom
Voltage	nom
Frequency low to test	False | Freq [MHz] 5745
Frequency mid to test	True | Freq [MHz] 5785
Frequency high to test	False | Freq [MHz] 5825
Auto control enabled power supply | Climatic Box	No | No
Additional path loss [dB]	1.4
Full path name | type	None

Equipment

Test at TX 5785 MHz

RESULT Power

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ant:1 Max Output Power DC corrected	---	---	20.51	dBm	INFO
Ant:1 BW 26dB	---	---	39.680	MHz	INFO
Ant:2 Max Output Power DC corrected	---	---	20.12	dBm	INFO
Ant:2 BW 26dB	---	---	39.880	MHz	INFO
∑ Limit absolute	---	30	23.33	dBm	PASS
∑ Limit: 11 dBm + 10 log 39.68	---	26.99	23.33	dBm	na

RESULT PSD

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ant:1 PSD	---	---	5.29	dBm/0.5MHz	INFO
Ant:2 PSD	---	---	4.78	dBm/0.5MHz	INFO
∑	---	30	8.05	dBm/0.5MHz	PASS

Verdict
PASS

FCC 15.407, ISED RSS247 # Emission mask (eirp) ~ WLAN5Gx ax-HE20 U-NII-3

References

TC start	19.01.2024 13:59:31
Ambit temp [°C] | humidity [rel%]	22.8 | 24
System version	4.7.1.5
Standard | Version	FCC 15.407, ISED RSS247 | NI
Method	NI
Description	FCC 15.407 Emission mask - WLAN5Gx ax-HE20 U-NII-3
Information	

EUT Common Settings WLAN5Gx

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

Test Parameter

Technology to test	WLAN5Gx ax-HE20
Antenna port used	1
Temperature	nom
Voltage	nom
Frequency low to test	False | Freq [MHz] 5745
Frequency mid to test	True | Freq [MHz] 5785
Frequency high to test	False | Freq [MHz] 5825
Auto control enabled power supply | Climatic Box	No | No
Additional path loss [dB]	3.4
Full path name | type	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 5785 MHz

RESULT: Reference Power cond.

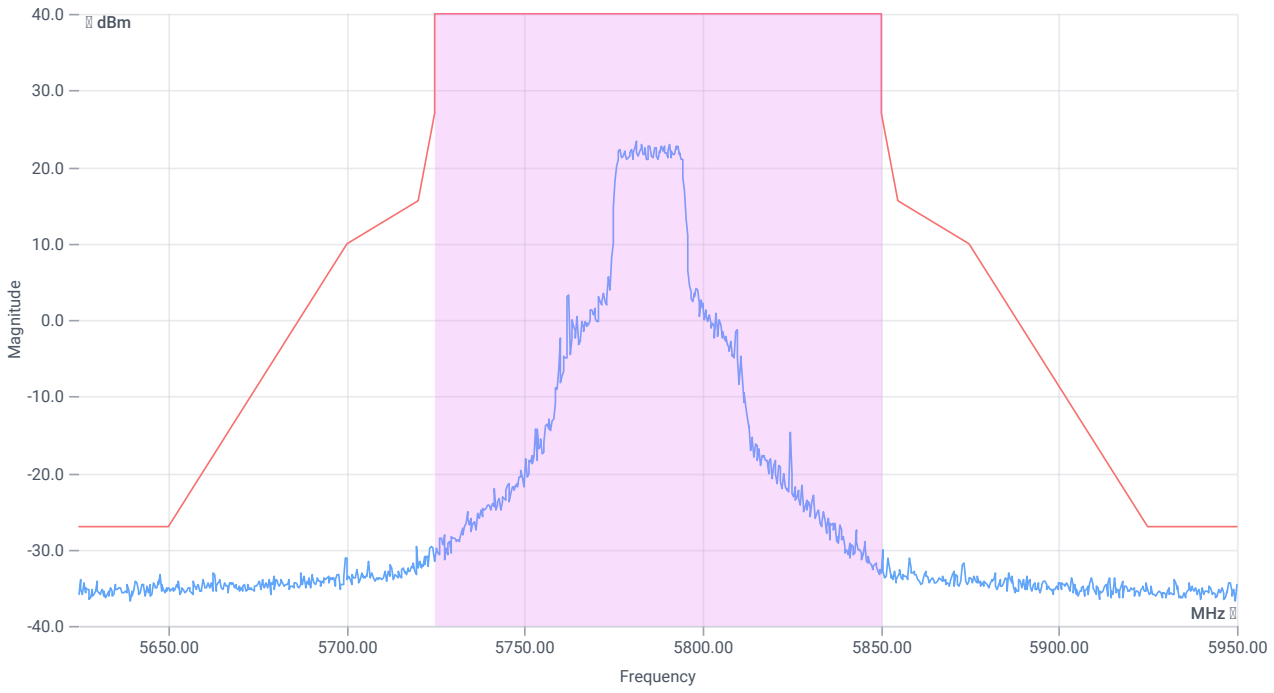
DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	20.49	dBm	INFO
Ref. Frequency	---	---	5781.600	MHz	INFO

Antenna gain

Considered antenna gain [dBi]:	2 / max found in range 5625 to 5950 MHz

READ SA SETTINGS:

RefLevel [dBm] | RefLevelOffset [dB] | InpAtt [dB]	23.49 | 18.8 | 20
Start [MHz] | Stop [MHz]	5625.000 | 5950.000
RBW [MHz] | VBW [MHz]	1.000000 | 3.000000
Detector | TraceMode	POS | MAXH
Sweep: time [ms] | count | points per Section | type	1 | 2500 | 1001 | SWE



Emission Mask (e.i.r.p)

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT

Verdict
PASS

FCC 15.407, ISED RSS247 # Emission mask (eirp) ~ WLAN5Gx ax-HE20 U-NII-3

References

TC start	19.01.2024 14:00:09
Ambit temp [°C] | humidity [rel%]	22.8 | 24
System version	4.7.1.5
Standard | Version	FCC 15.407, ISED RSS247 | NI
Method	NI
Description	FCC 15.407 Emission mask - WLAN5Gx ax-HE20 U-NII-3
Information	

EUT Common Settings WLAN5Gx

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

Test Parameter

Technology to test	WLAN5Gx ax-HE20
Antenna port used	2
Temperature	nom
Voltage	nom
Frequency low to test	False | Freq [MHz] 5745
Frequency mid to test	True | Freq [MHz] 5785
Frequency high to test	False | Freq [MHz] 5825
Auto control enabled power supply | Climatic Box	No | No
Additional path loss [dB]	3.4
Full path name | type	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 5785 MHz

RESULT: Reference Power cond.

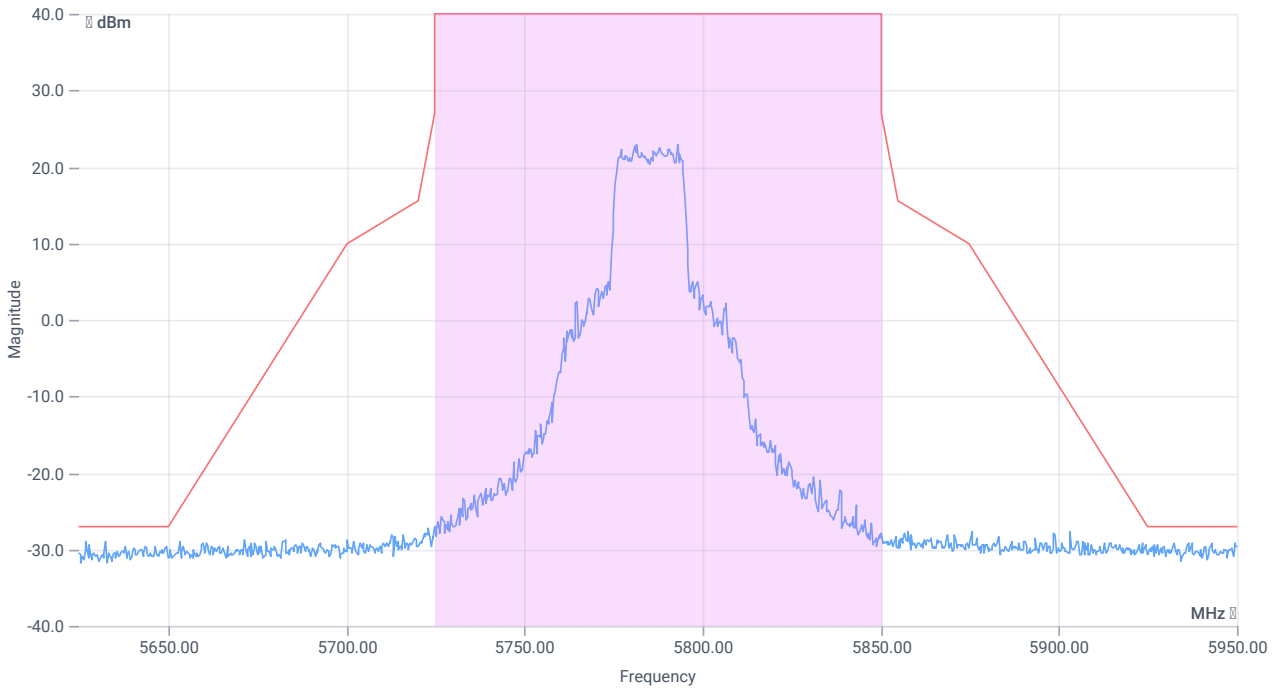
DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	21.25	dBm	INFO
Ref. Frequency	---	---	5780.000	MHz	INFO

Antenna gain

Considered antenna gain [dBi]:	2 / max found in range 5625 to 5950 MHz

READ SA SETTINGS:

RefLevel [dBm] | RefLevelOffset [dB] | InpAtt [dB]	24.25 | 18.8 | 25
Start [MHz] | Stop [MHz]	5625.000 | 5950.000
RBW [MHz] | VBW [MHz]	1.000000 | 3.000000
Detector | TraceMode	POS | MAXH
Sweep: time [ms] | count | points per Section | type	1 | 2500 | 1001 | SWE



Emission Mask (e.i.r.p)

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT

Verdict
PASS

FCC 15.407 # Max output power and psd ~ WLAN5Gx ax-HE20 U-NII-3

References

TC start	18.01.2024 15:33:05
Ambit temp [°C] | humidity [rel%]	24.9 | 27
System version	4.7.1.5
Standard | Version	FCC 15.407 | NI
Method	KDB789033 D02, F., E.2.e.
Description	FCC 15.407 Max Output Power & PSD - WLAN5Gx ax-HE20 U-NII-3
Information	

EUT Common Settings WLAN5Gx

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

Test Parameter

Technology to test	WLAN5Gx ax-HE20
Antenna port used	1
Temperature	nom
Voltage	nom
Frequency low to test	False | Freq [MHz] 5745
Frequency mid to test	False | Freq [MHz] 5785
Frequency high to test	True | Freq [MHz] 5825
Auto control enabled power supply | Climatic Box	No | No
Additional path loss [dB]	1.4
Full path name | type	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 5825 MHz

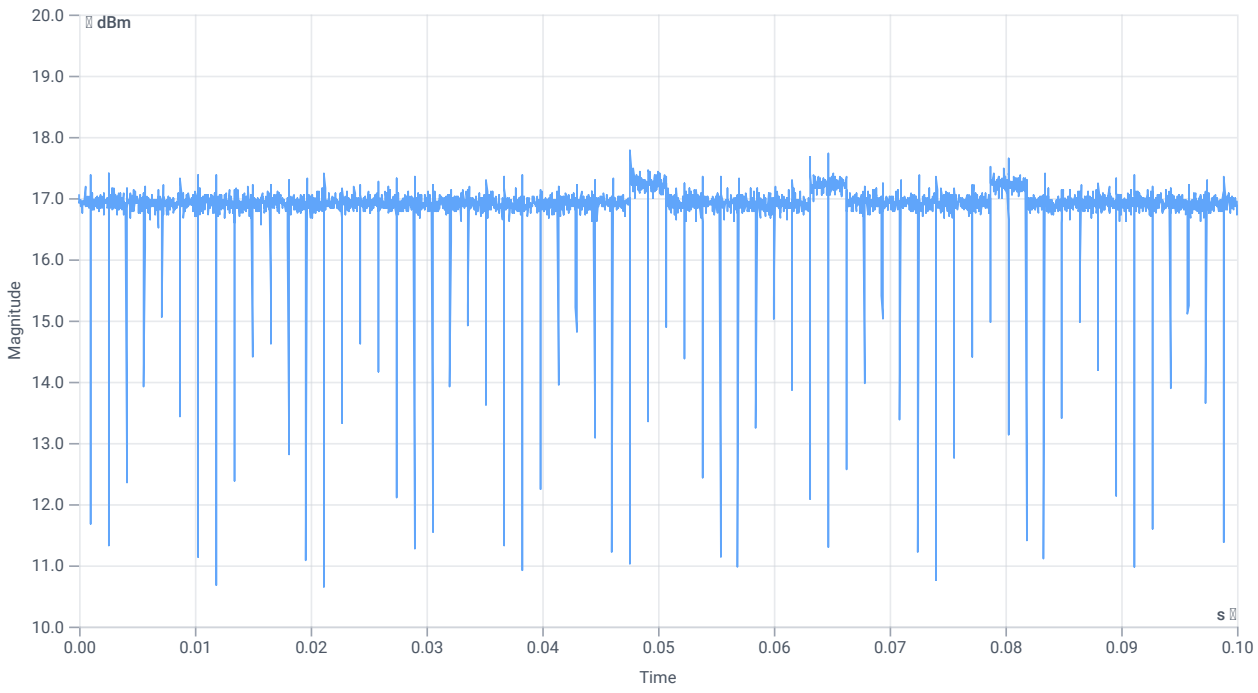
RESULT: Reference Power cond.

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	16.39	dBm	INFO
Ref. Frequency	---	---	5817.610	MHz	INFO

Evaluation max. Duty Cycle

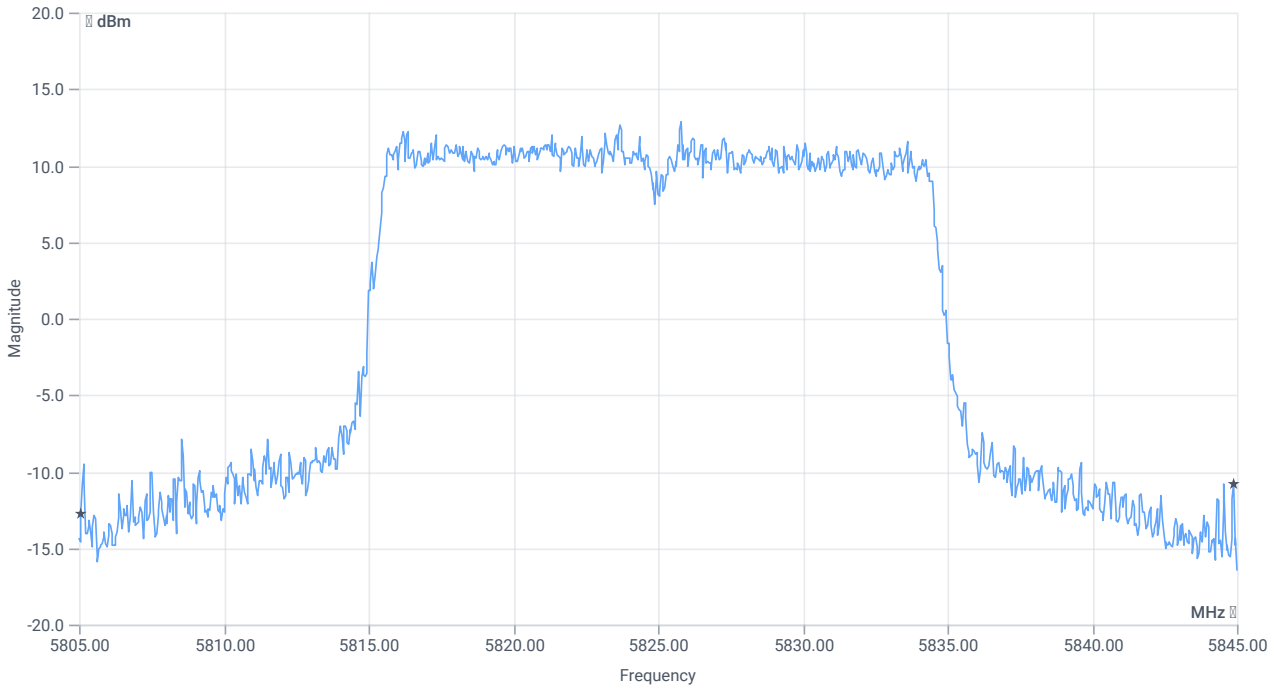
Duty Cycle evaluation

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



Duty cycle

Evaluation Bandwidth



BW 26dB

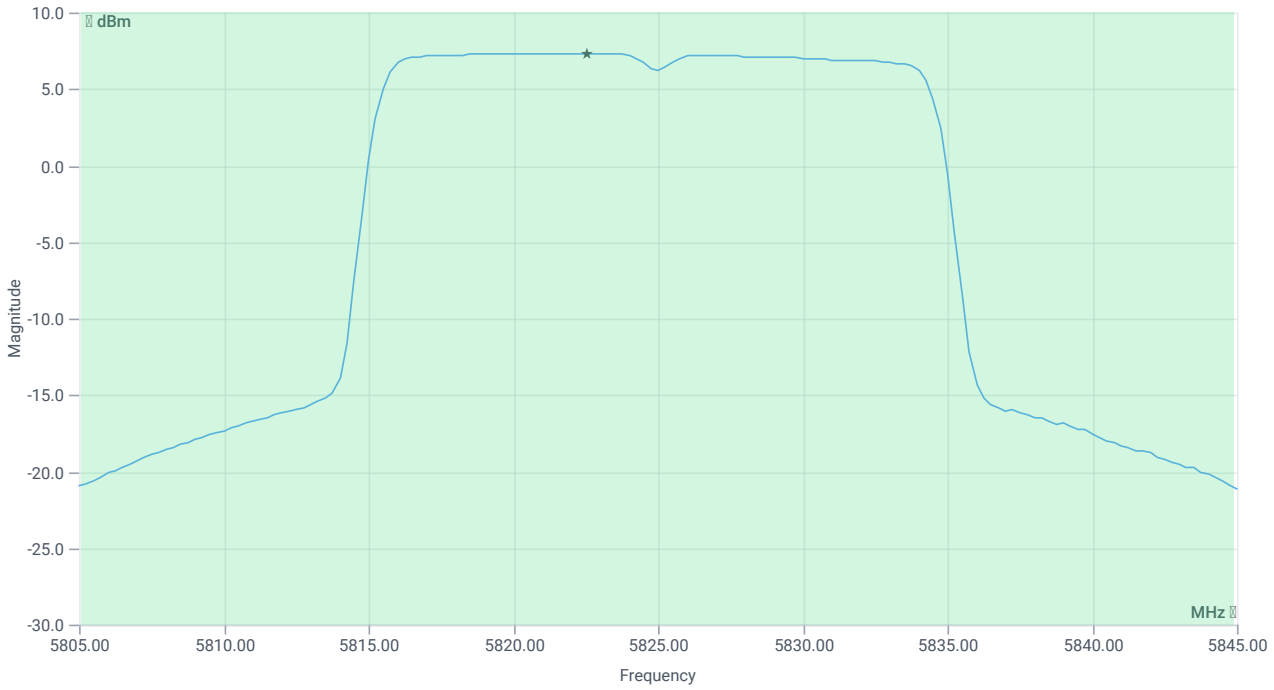
RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 26dB	---	---	39.8	MHz	INFO
T1 26dB	---	---	5805.0800	MHz	INFO
T2 26dB	---	---	5844.8800	MHz	INFO

Maximum Output Power

READ SA SETTINGS:

RefLevel [dBm] | RefLevelOffset [dB] | InpAtt [dB]	28.39 | 16.78 | 30
Start [MHz] | Stop [MHz]	5805.000 | 5845.000
RBW [MHz] | VBW [MHz]	1.000000 | 3.000000
Detector | TraceMode	RMS | MAXH
Sweep: time [ms] | count | points per Section | type	53700 | 1 | 161 | SWE



Max OP and PSD

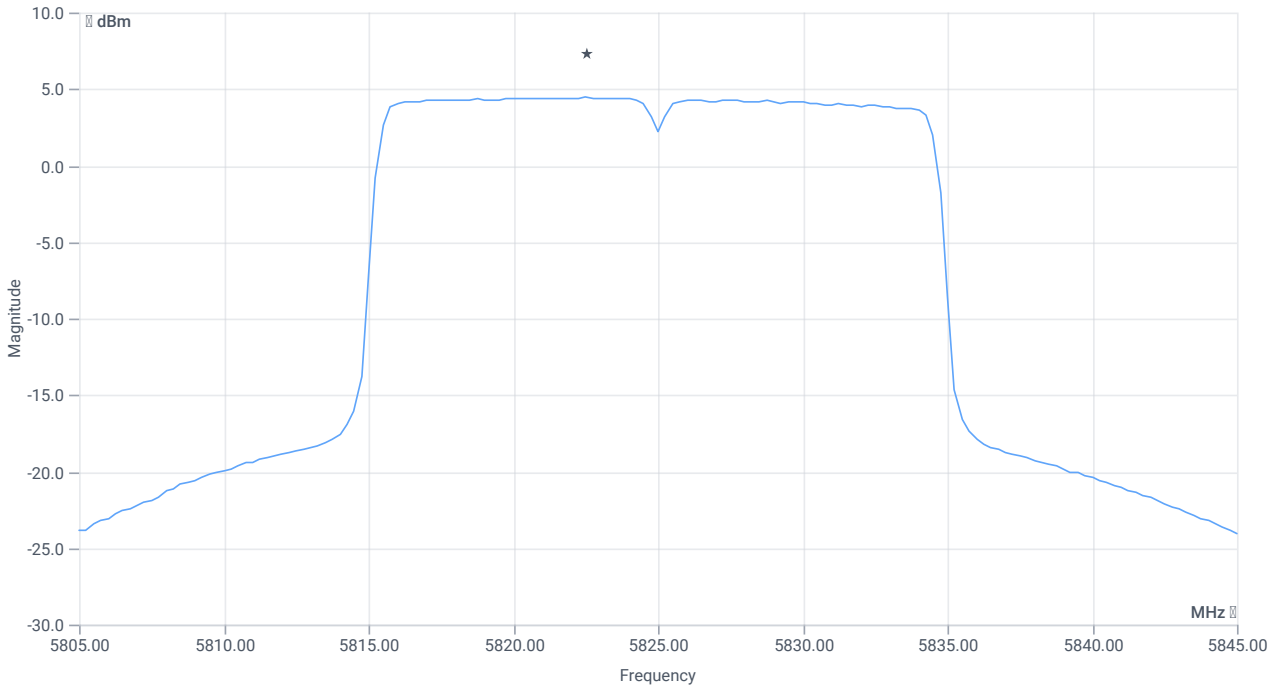
RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Max Output Power	---	---	19.63	dBm	INFO
Duty Cycle Correction	---	---	0	dB	INFO
Limit absolute					
Max Output Power DC corrected	---	30	19.63	dBm	PASS
Limit: 11 dBm + 10 log 39.8					
Max Output Power DC corrected	---	27	19.63	dBm	na

Power Spectral Density U-NII-3

READ SA SETTINGS:

RefLevel [dBm] | RefLevelOffset [dB] | InpAtt [dB]	28.39 | 16.78 | 30
Start [MHz] | Stop [MHz]	5805.000 | 5845.000
RBW [MHz] | VBW [MHz]	0.500000 | 3.000000
Detector | TraceMode	RMS | MAXH
Sweep: time [ms] | count | points per Section | type	53700 | 1 | 161 | SWE



PSD UNII-3

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Power Spectral Density	---	---	4.44	dBm/0.5MHz	INFO
Duty Cycle Correction	---	---	0	dB	INFO
Power Spectral Density DC corrected	---	30	4.44	dBm/0.5MHz	PASS

Verdict
PASS

FCC 15.407, ISED RSS247 # Bandwidths 99PCT and 20dB ~ WLAN5Gx ax-HE20 U-NII-3

References

TC start	18.01.2024 15:35:32
Ambit temp [°C] | humidity [rel%]	24.9 | 27
System version	4.7.1.5
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-HE20 U-NII-3
Information	

EUT Common Settings WLAN5Gx

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

Test Parameter

Technology to test	WLAN5Gx ax-HE20
Antenna port used	1
Temperature	nom
Voltage	nom
Frequency low to test	False | Freq [MHz] 5745
Frequency mid to test	False | Freq [MHz] 5785
Frequency high to test	True | Freq [MHz] 5825
Auto control enabled power supply | Climatic Box	No | No
Additional path loss [dB]	1.4
Full path name | type	EUT - SignalingUnit - SpectrumAnalyzer

Equipment

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

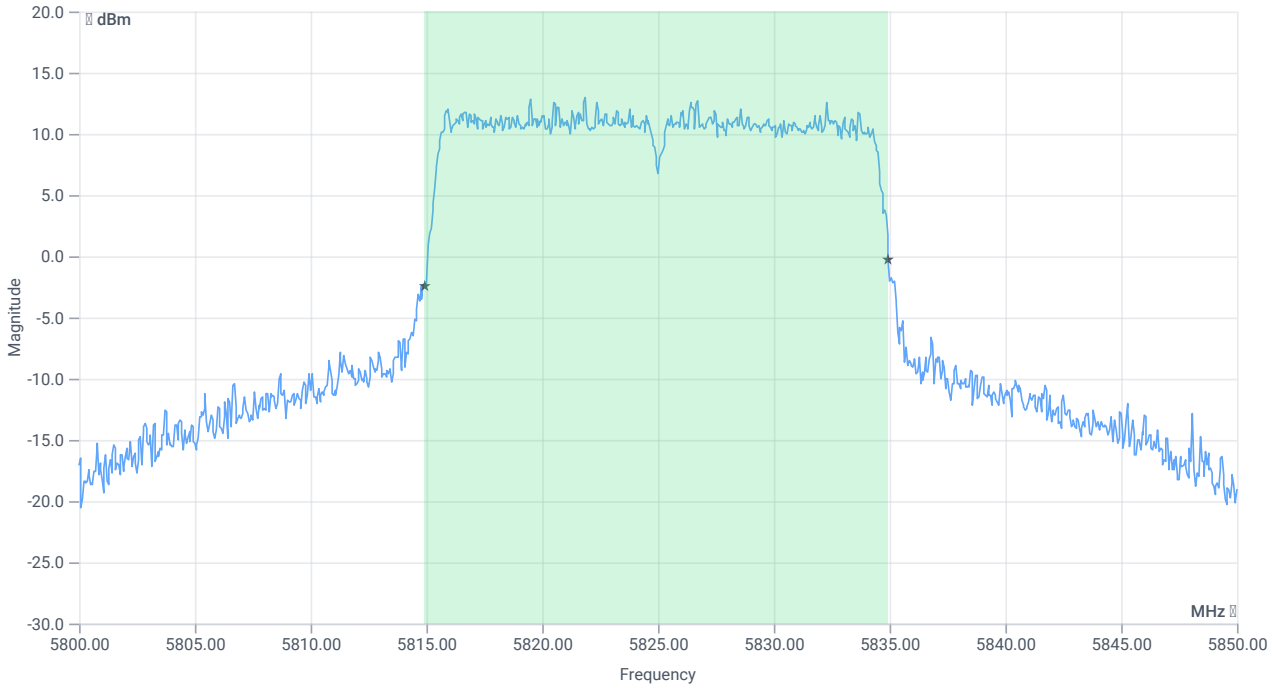
Test at TX 5825 MHz

RESULT: Reference Power cond.

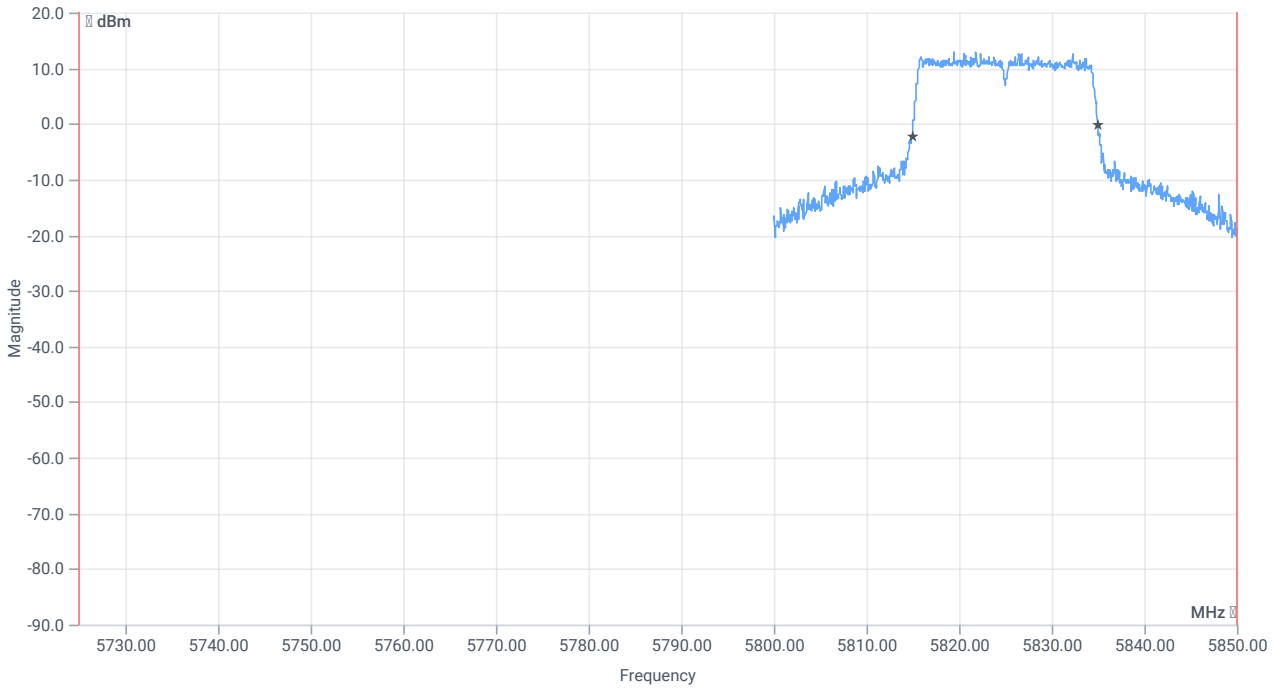
DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	17.21	dBm	INFO
Ref. Frequency	---	---	5827.000	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] | RefLevelOffset [dB] | InpAtt [dB]	25.21 | 16.78 | 25
Start [MHz] | Stop [MHz]	5800.000 | 5850.000
RBW [MHz] | VBW [MHz]	0.300000 | 1.000000
Detector | TraceMode	POS | MAXH
Sweep: time [ms] | count | points per Section | type	1 | 2500 | 1001 | SWE



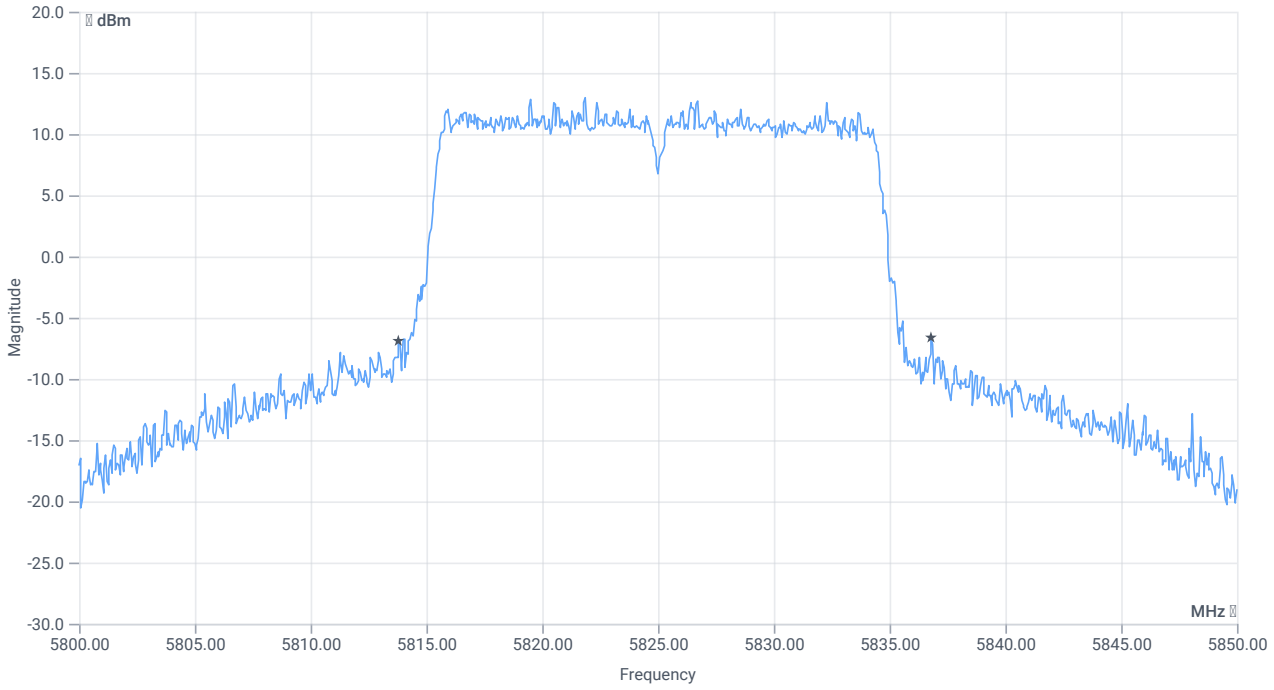
BW 99PCT



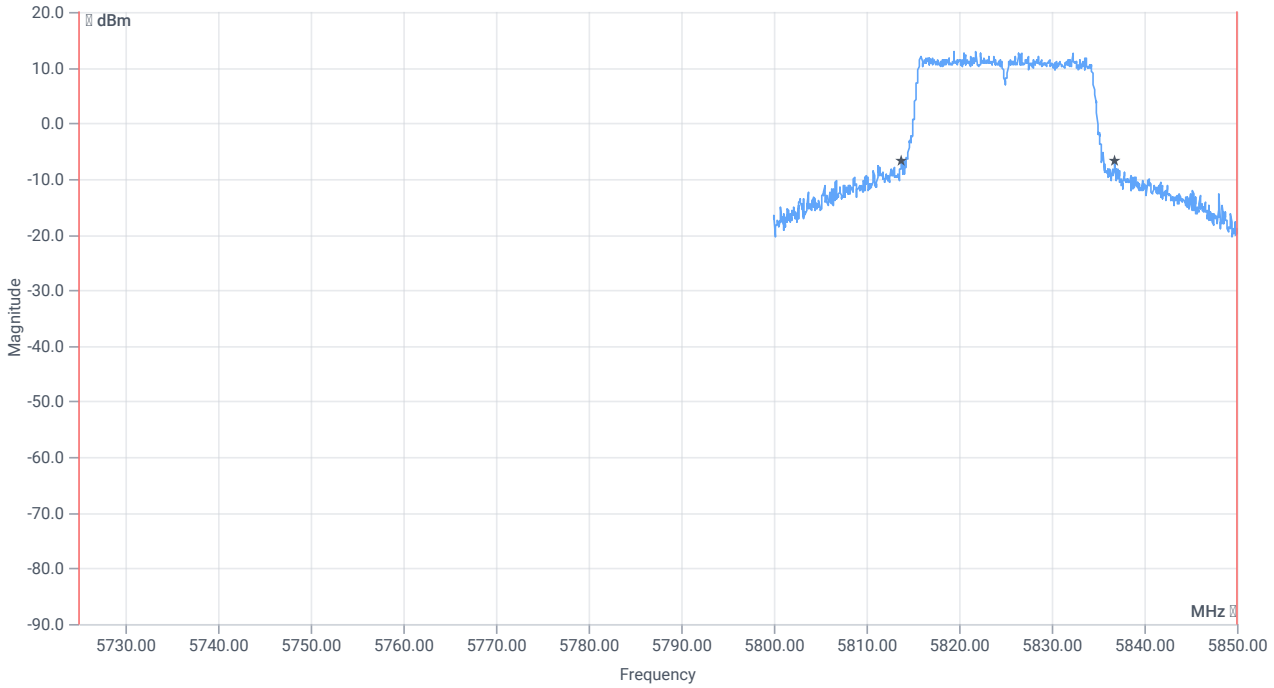
BW within Band 99PCT

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 99%	---	---	19.98	MHz	INFO
T1 99%	5725.000000	---	5814.9600	MHz	PASS
T2 99%	---	5850.000000	5834.9401	MHz	PASS



BW 20dB



BW within Band 20dB

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 20dB	---	---	23	MHz	INFO
T1 20dB	5725.000000	---	5813.8000	MHz	PASS
T2 20dB	---	5850.000000	5836.8000	MHz	PASS

Verdict
PASS

FCC 15.407, ISED RSS247 # Minimum emission bandwidth ~ WLAN5Gx ax-HE20 U-NII-3

References

TC start	18.01.2024 15:36:09
Ambit temp [°C] | humidity [rel%]	24.9 | 27
System version	4.7.1.5
Standard | Version	FCC 15.407, ISED RSS247 | NI
Method	KDB789033 D02, C.2.
Description	FCC 15.407 Min Emission Bandwidth - WLAN5Gx ax-HE20 U-NII-3
Information	

EUT Common Settings WLAN5Gx

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

Test Parameter

Technology to test	WLAN5Gx ax-HE20
Antenna port used	1
Temperature	nom
Voltage	nom
Frequency low to test	False | Freq [MHz] 5745
Frequency mid to test	False | Freq [MHz] 5785
Frequency high to test	True | Freq [MHz] 5825
Auto control enabled power supply | Climatic Box	No | No
Additional path loss [dB]	1.4
Full path name | type	EUT - SignalingUnit - SpectrumAnalyzer

Equipment

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

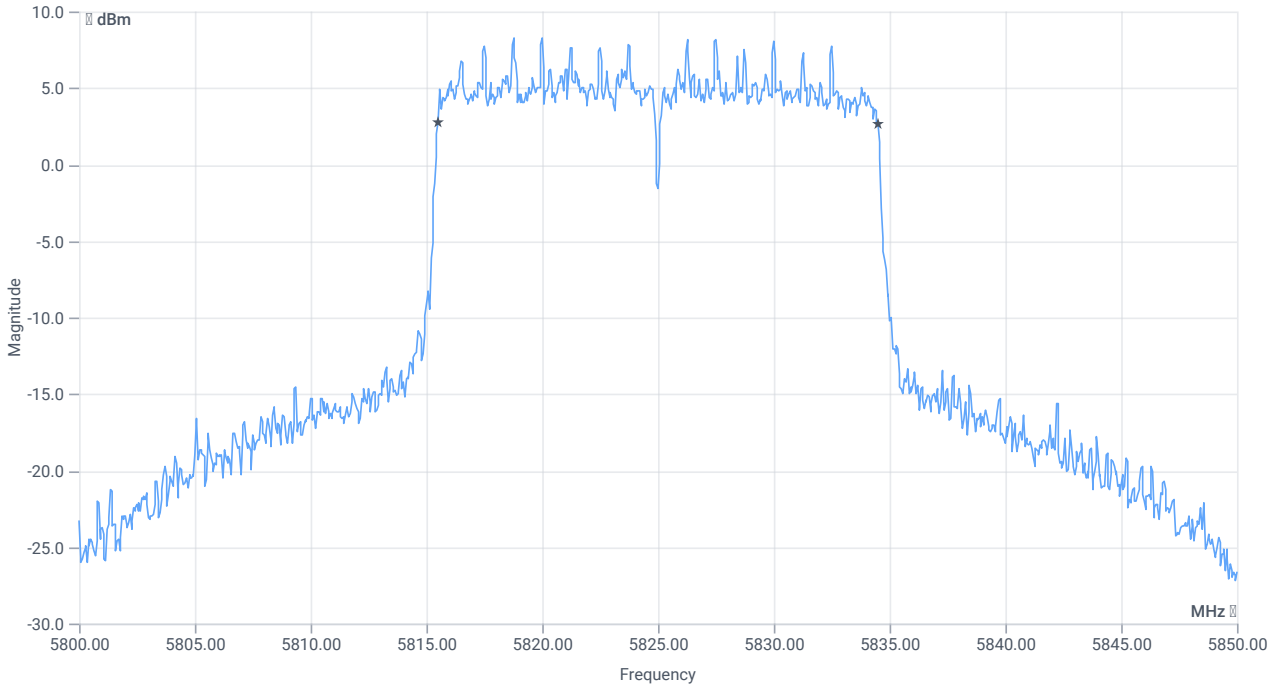
Test at TX 5825 MHz

RESULT: Reference Power cond.

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	16.14	dBm	INFO
Ref. Frequency	---	---	5817.610	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] | RefLevelOffset [dB] | InpAtt [dB]	28.14 | 16.78 | 30
Start [MHz] | Stop [MHz]	5800.000 | 5850.000
RBW [MHz] | VBW [MHz]	0.100000 | 0.300000
Detector | TraceMode	POS | MAXH
Sweep: time [ms] | count | points per Section | type	2 | 1500 | 1001 | SWE



BW 6dB

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth (6dB)	0.500	---	19	MHz	PASS

Verdict
PASS

FCC 15.407 # Max output power and psd ~ WLAN5Gx ax-HE20 U-NII-3

References

TC start	18.01.2024 15:36:43
Ambit temp [°C] | humidity [rel%]	24.9 | 27
System version	4.7.1.5
Standard | Version	FCC 15.407 | NI
Method	KDB789033 D02, F., E.2.e.
Description	FCC 15.407 Max Output Power & PSD - WLAN5Gx ax-HE20 U-NII-3
Information	

EUT Common Settings WLAN5Gx

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

Test Parameter

Technology to test	WLAN5Gx ax-HE20
Antenna port used	2
Temperature	nom
Voltage	nom
Frequency low to test	False | Freq [MHz] 5745
Frequency mid to test	False | Freq [MHz] 5785
Frequency high to test	True | Freq [MHz] 5825
Auto control enabled power supply | Climatic Box	No | No
Additional path loss [dB]	1.4
Full path name | type	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 5825 MHz

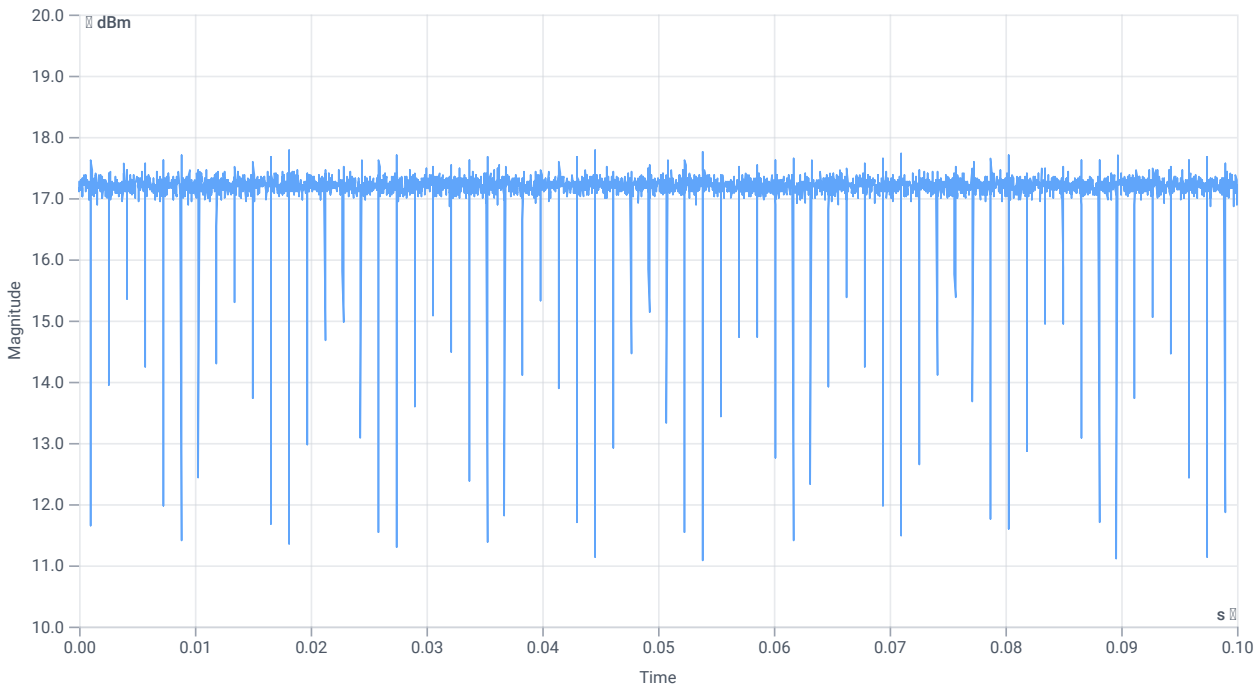
RESULT: Reference Power cond.

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	17.85	dBm	INFO
Ref. Frequency	---	---	5827.200	MHz	INFO

Evaluation max. Duty Cycle

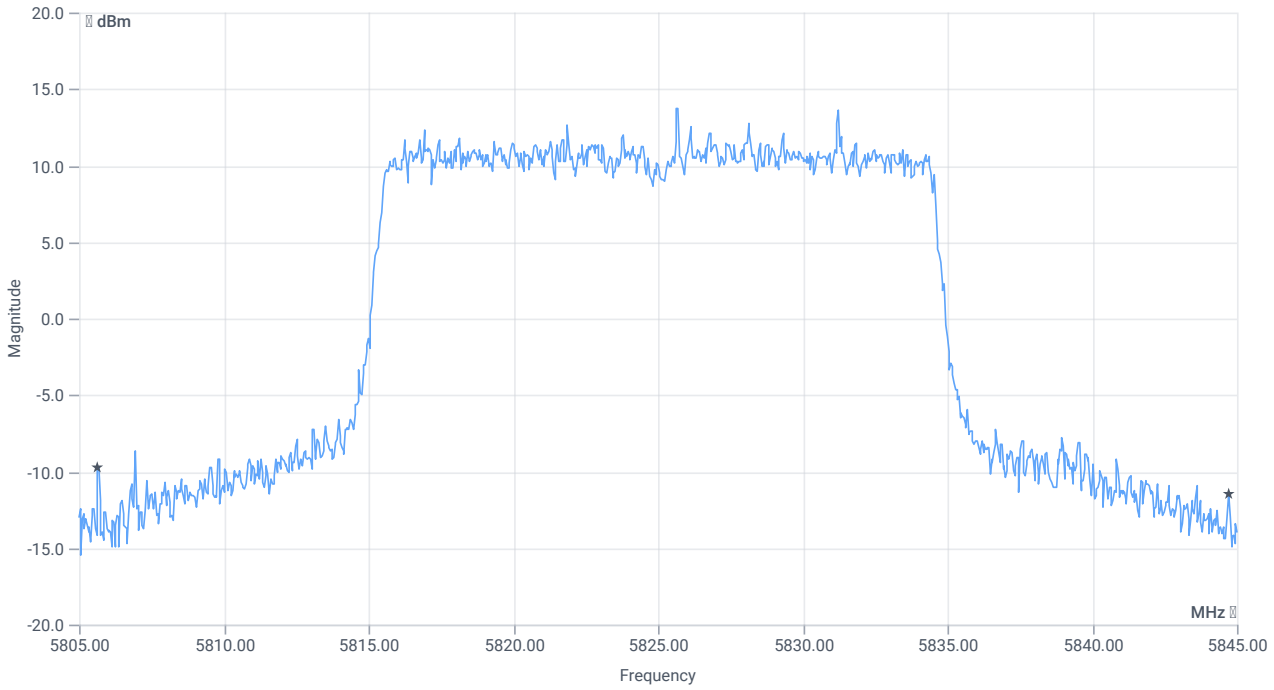
Duty Cycle evaluation

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



Duty cycle

Evaluation Bandwidth



BW 26dB

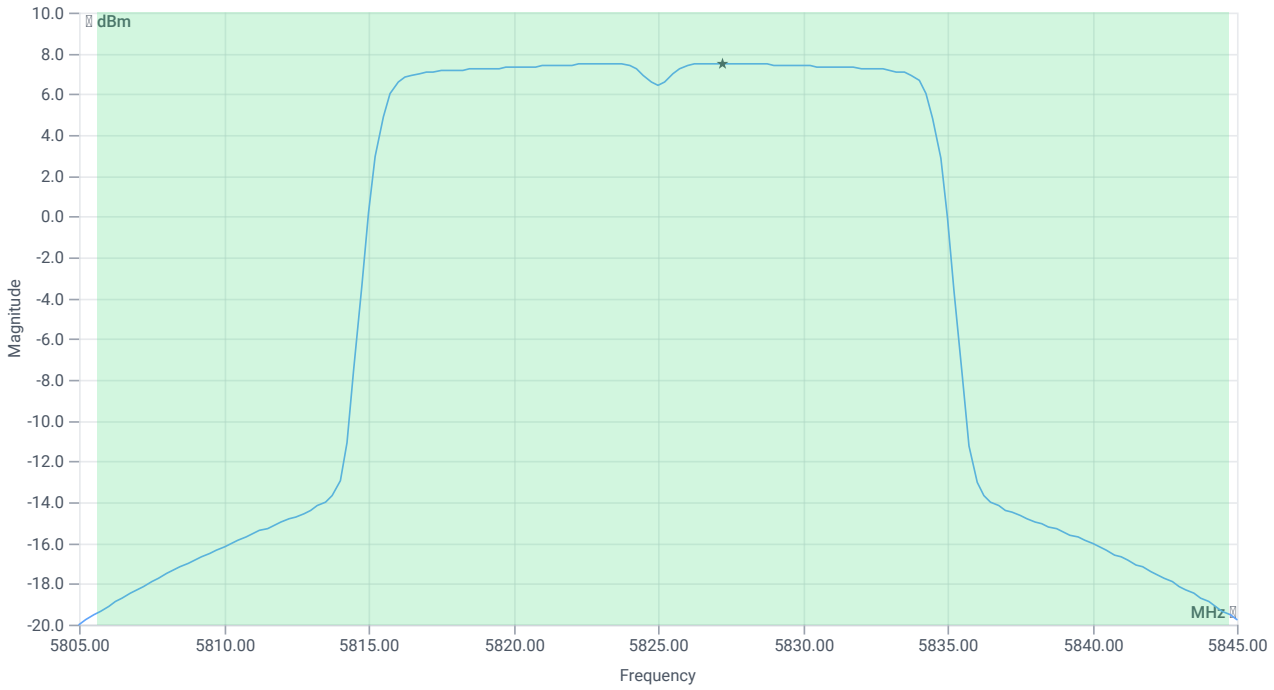
RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 26dB	---	---	39.08	MHz	INFO
T1 26dB	---	---	5805.6400	MHz	INFO
T2 26dB	---	---	5844.7200	MHz	INFO

Maximum Output Power

READ SA SETTINGS:

RefLevel [dBm] | RefLevelOffset [dB] | InpAtt [dB]	29.85 | 16.78 | 30
Start [MHz] | Stop [MHz]	5805.000 | 5845.000
RBW [MHz] | VBW [MHz]	1.000000 | 3.000000
Detector | TraceMode	RMS | MAXH
Sweep: time [ms] | count | points per Section | type	53700 | 1 | 161 | SWE



Max OP and PSD

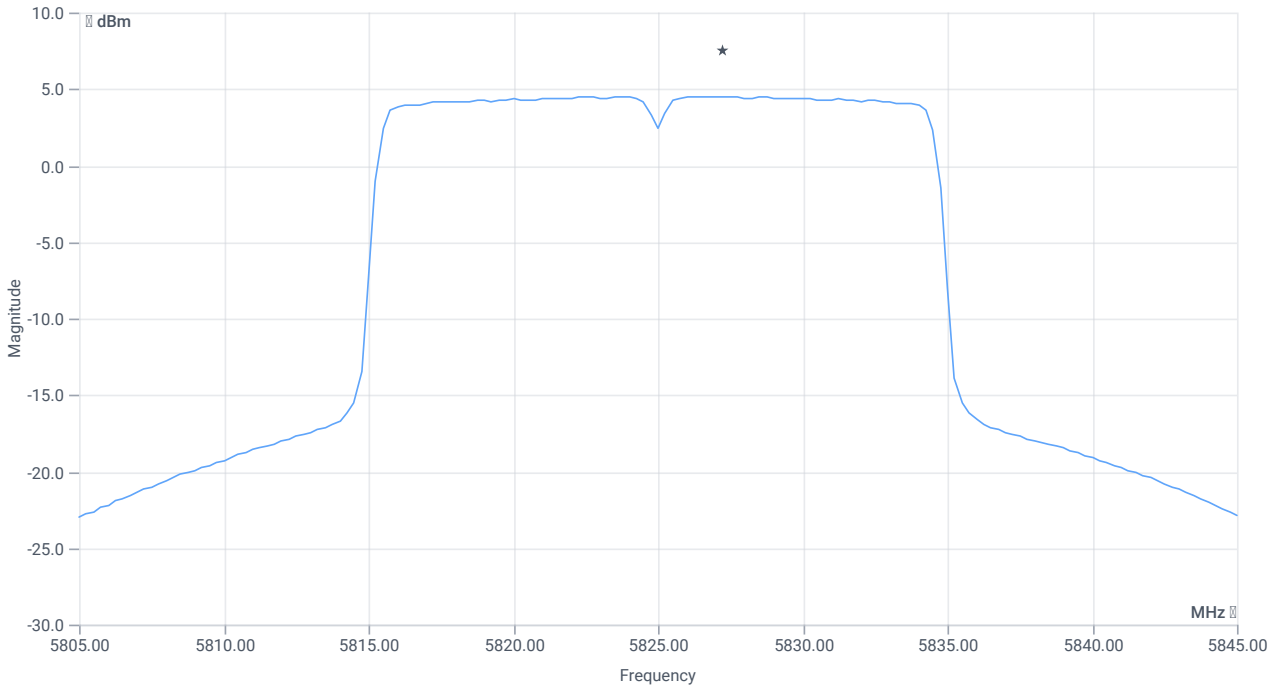
RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Max Output Power	---	---	19.83	dBm	INFO
Duty Cycle Correction	---	---	0	dB	INFO
Limit absolute					
Max Output Power DC corrected	---	30	19.83	dBm	PASS
Limit: 11 dBm + 10 log 39.08					
Max Output Power DC corrected	---	26.92	19.83	dBm	na

Power Spectral Density U-NII-3

READ SA SETTINGS:

RefLevel [dBm] | RefLevelOffset [dB] | InpAtt [dB]	29.85 | 16.78 | 30
Start [MHz] | Stop [MHz]	5805.000 | 5845.000
RBW [MHz] | VBW [MHz]	0.500000 | 3.000000
Detector | TraceMode	RMS | MAXH
Sweep: time [ms] | count | points per Section | type	53700 | 1 | 161 | SWE



PSD UNII-3

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Power Spectral Density	---	---	4.52	dBm/0.5MHz	INFO
Duty Cycle Correction	---	---	0	dB	INFO
Power Spectral Density DC corrected	---	30	4.52	dBm/0.5MHz	PASS

Verdict
PASS

FCC 15.407, ISED RSS247 # Bandwidths 99PCT and 20dB ~ WLAN5Gx ax-HE20 U-NII-3

References

TC start	18.01.2024 15:39:09
Ambit temp [°C] | humidity [rel%]	24.9 | 27
System version	4.7.1.5
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-HE20 U-NII-3
Information	

EUT Common Settings WLAN5Gx

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

Test Parameter

Technology to test	WLAN5Gx ax-HE20
Antenna port used	2
Temperature	nom
Voltage	nom
Frequency low to test	False | Freq [MHz] 5745
Frequency mid to test	False | Freq [MHz] 5785
Frequency high to test	True | Freq [MHz] 5825
Auto control enabled power supply | Climatic Box	No | No
Additional path loss [dB]	1.4
Full path name | type	EUT - SignalingUnit - SpectrumAnalyzer

Equipment

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

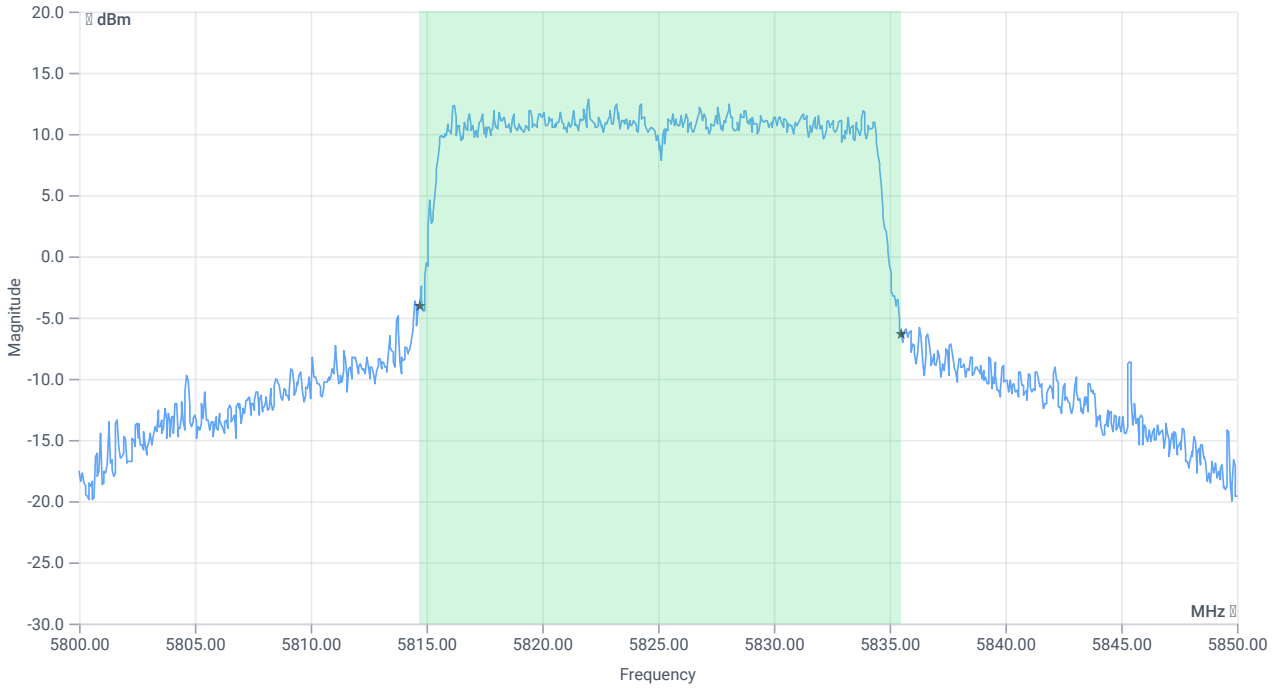
Test at TX 5825 MHz

RESULT: Reference Power cond.

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	17.18	dBm	INFO
Ref. Frequency	---	---	5821.600	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] | RefLevelOffset [dB] | InpAtt [dB]	25.18 | 16.78 | 25
Start [MHz] | Stop [MHz]	5800.000 | 5850.000
RBW [MHz] | VBW [MHz]	0.300000 | 1.000000
Detector | TraceMode	POS | MAXH
Sweep: time [ms] | count | points per Section | type	1 | 2500 | 1001 | SWE

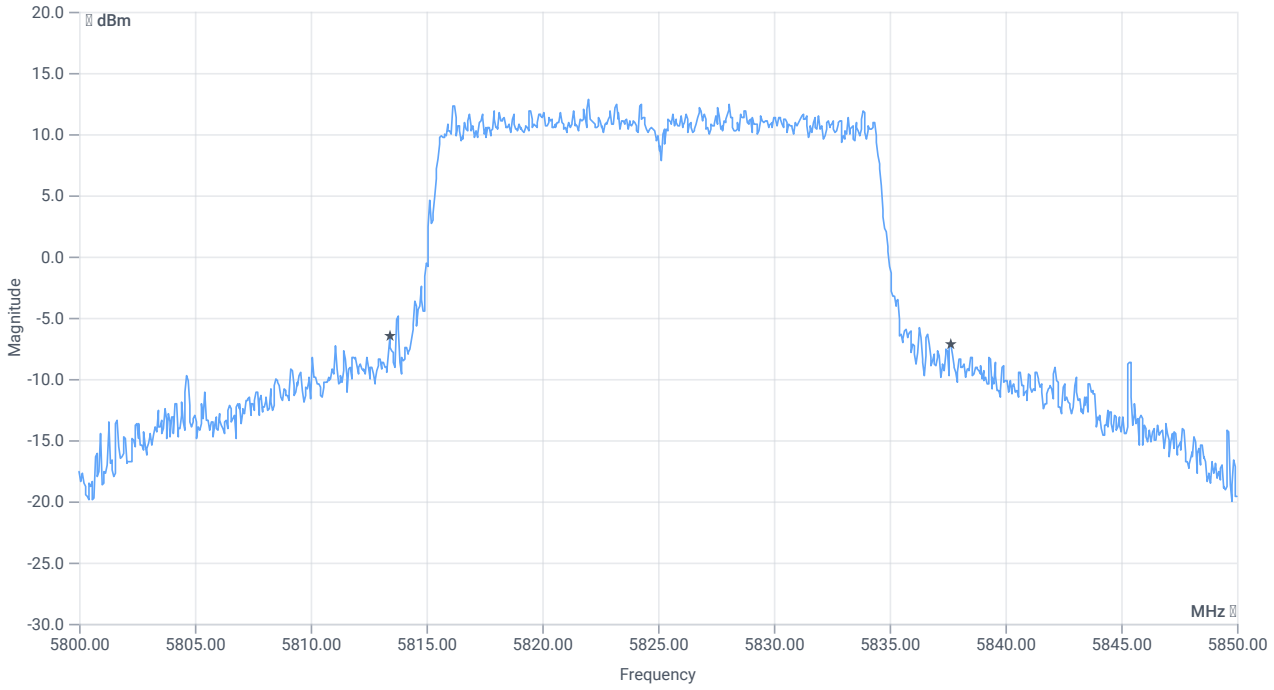


BW 99PCT

BW within Band 99PCT

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 99%	---	---	20.779	MHz	INFO
T1 99%	5725.000000	---	5814.7103	MHz	PASS
T2 99%	---	5850.000000	5835.4895	MHz	PASS



BW 20dB

BW within Band 20dB

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 20dB	---	---	24.25	MHz	INFO
T1 20dB	5725.000000	---	5813.4000	MHz	PASS
T2 20dB	---	5850.000000	5837.6500	MHz	PASS

Verdict
PASS

FCC 15.407, ISED RSS247 # Minimum emission bandwidth ~ WLAN5Gx ax-HE20 U-NII-3

References

TC start	18.01.2024 15:39:45
Ambit temp [°C] | humidity [rel%]	24.9 | 27
System version	4.7.1.5
Standard | Version	FCC 15.407, ISED RSS247 | NI
Method	KDB789033 D02, C.2.
Description	FCC 15.407 Min Emission Bandwidth - WLAN5Gx ax-HE20 U-NII-3
Information	

EUT Common Settings WLAN5Gx

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

Test Parameter

Technology to test	WLAN5Gx ax-HE20
Antenna port used	2
Temperature	nom
Voltage	nom
Frequency low to test	False | Freq [MHz] 5745
Frequency mid to test	False | Freq [MHz] 5785
Frequency high to test	True | Freq [MHz] 5825
Auto control enabled power supply | Climatic Box	No | No
Additional path loss [dB]	1.4
Full path name | type	EUT - SignalingUnit - SpectrumAnalyzer

Equipment

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

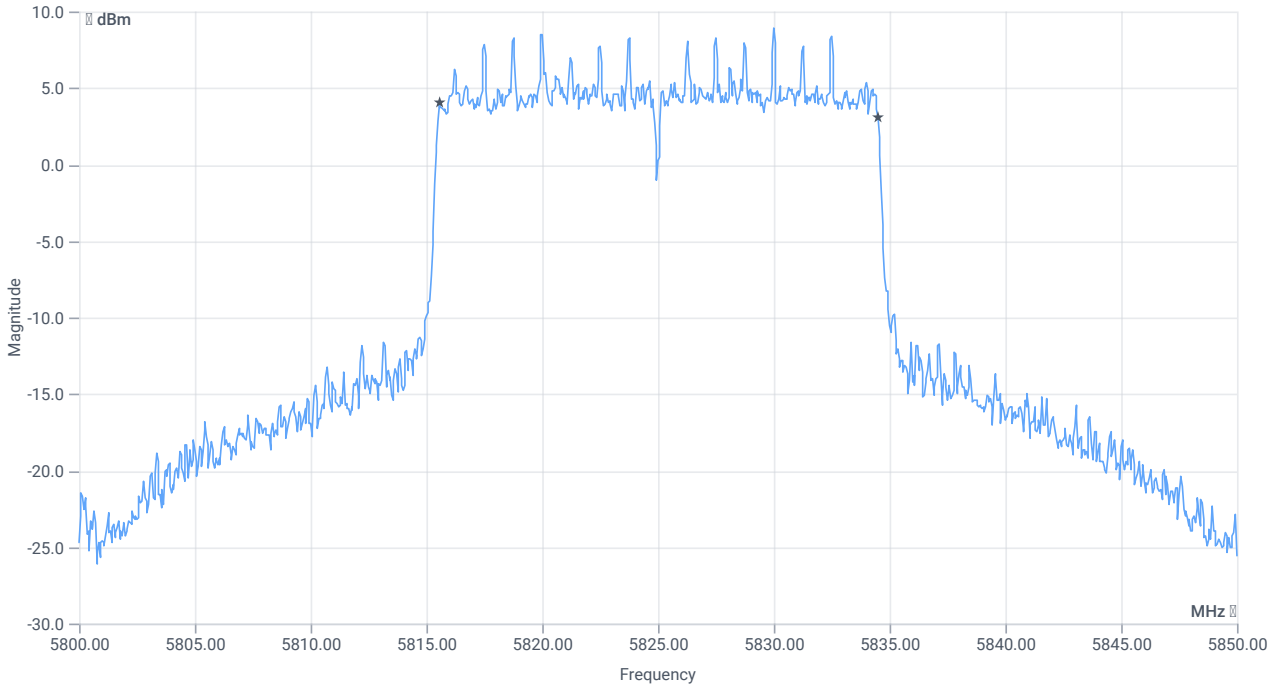
Test at TX 5825 MHz

RESULT: Reference Power cond.

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	17.03	dBm	INFO
Ref. Frequency	---	---	5819.010	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] | RefLevelOffset [dB] | InpAtt [dB]	29.03 | 16.78 | 30
Start [MHz] | Stop [MHz]	5800.000 | 5850.000
RBW [MHz] | VBW [MHz]	0.100000 | 0.300000
Detector | TraceMode	POS | MAXH
Sweep: time [ms] | count | points per Section | type	2 | 1500 | 1001 | SWE



BW 6dB

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth (6dB)	0.500	---	18.95	MHz	PASS

Verdict
PASS

FCC 15.407 # MIMO ∑ Max output power and psd ~ WLAN5Gx ax-HE20 U-NII-3

References

TC start	18.01.2024 15:40:22
Ambit temp [°C] | humidity [rel%]	24.9 | 27
System version	4.7.1.5
Standard | Version	FCC 15.407 | NI
Method	
Description	MIMO ∑ FCC Power & psd - WLAN5Gx ax-HE20 U-NII-3
Information	

EUT Common Settings WLAN5Gx

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

Test Parameter

Technology to test	WLAN5Gx ax-HE20
Antenna port used	several
Temperature	nom
Voltage	nom
Frequency low to test	False | Freq [MHz] 5745
Frequency mid to test	False | Freq [MHz] 5785
Frequency high to test	True | Freq [MHz] 5825
Auto control enabled power supply | Climatic Box	No | No
Additional path loss [dB]	1.4
Full path name | type	None

Equipment

Test at TX 5825 MHz

RESULT Power

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ant:2 Max Output Power DC corrected	---	---	19.83	dBm	INFO
Ant:2 BW 26dB	---	---	39.080	MHz	INFO
Ant:1 Max Output Power DC corrected	---	---	19.63	dBm	INFO
Ant:1 BW 26dB	---	---	39.800	MHz	INFO
∑ Limit absolute	---	30	22.74	dBm	PASS
∑ Limit: 11 dBm + 10 log 39.08	---	26.92	22.74	dBm	na

RESULT PSD

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ant:2 PSD	---	---	4.52	dBm/0.5MHz	INFO
Ant:1 PSD	---	---	4.44	dBm/0.5MHz	INFO
∑	---	30	7.49	dBm/0.5MHz	PASS

Verdict
PASS

FCC 15.407, ISED RSS247 # Emission mask (eirp) ~ WLAN5Gx ax-HE20 U-NII-3

References

TC start	19.01.2024 14:01:24
Ambit temp [°C] | humidity [rel%]	22.7 | 24
System version	4.7.1.5
Standard | Version	FCC 15.407, ISED RSS247 | NI
Method	NI
Description	FCC 15.407 Emission mask - WLAN5Gx ax-HE20 U-NII-3
Information	

EUT Common Settings WLAN5Gx

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

Test Parameter

Technology to test	WLAN5Gx ax-HE20
Antenna port used	1
Temperature	nom
Voltage	nom
Frequency low to test	False | Freq [MHz] 5745
Frequency mid to test	False | Freq [MHz] 5785
Frequency high to test	True | Freq [MHz] 5825
Auto control enabled power supply | Climatic Box	No | No
Additional path loss [dB]	3.4
Full path name | type	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 5825 MHz

RESULT: Reference Power cond.

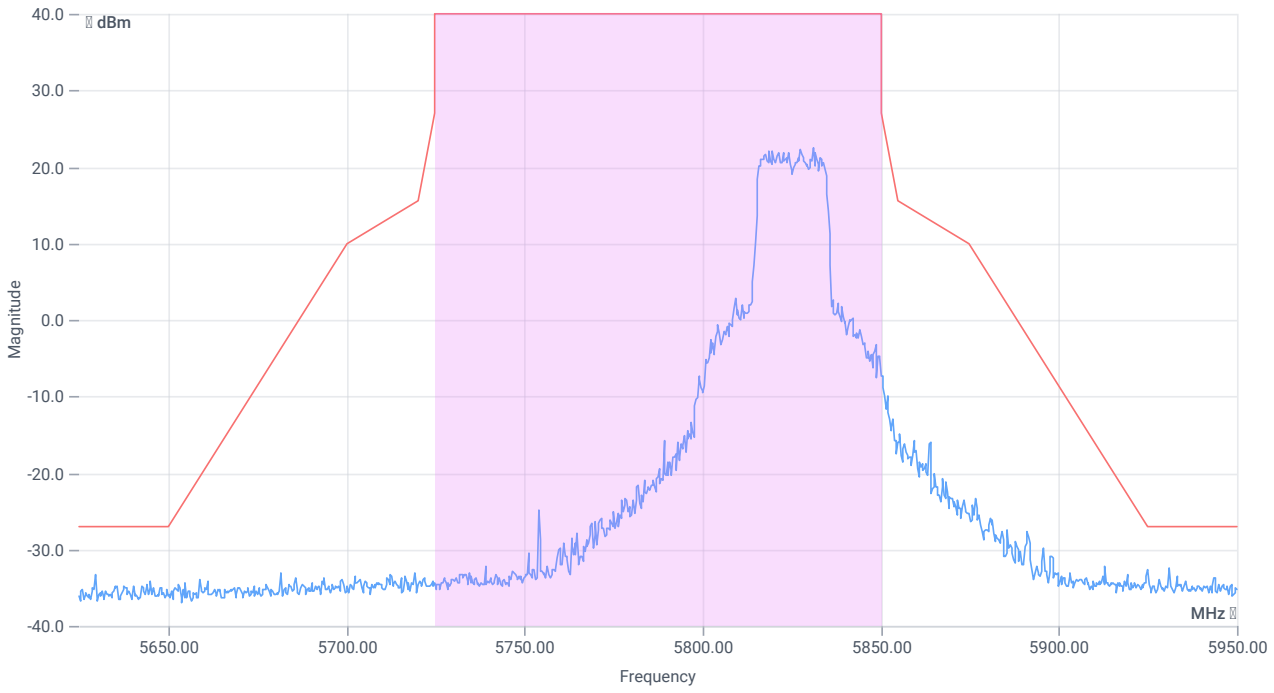
DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	19.22	dBm	INFO
Ref. Frequency	---	---	5828.000	MHz	INFO

Antenna gain

Considered antenna gain [dBi]:	2 / max found in range 5625 to 5950 MHz

READ SA SETTINGS:

RefLevel [dBm] | RefLevelOffset [dB] | InpAtt [dB]	22.22 | 18.78 | 20
Start [MHz] | Stop [MHz]	5625.000 | 5950.000
RBW [MHz] | VBW [MHz]	1.000000 | 3.000000
Detector | TraceMode	POS | MAXH
Sweep: time [ms] | count | points per Section | type	1 | 2500 | 1001 | SWE



Emission Mask (e.i.r.p)

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT

Verdict
PASS

FCC 15.407, ISED RSS247 # Emission mask (eirp) ~ WLAN5Gx ax-HE20 U-NII-3

References

TC start	19.01.2024 14:02:04
Ambit temp [°C] | humidity [rel%]	22.7 | 24
System version	4.7.1.5
Standard | Version	FCC 15.407, ISED RSS247 | NI
Method	NI
Description	FCC 15.407 Emission mask - WLAN5Gx ax-HE20 U-NII-3
Information	

EUT Common Settings WLAN5Gx

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

Test Parameter

Technology to test	WLAN5Gx ax-HE20
Antenna port used	2
Temperature	nom
Voltage	nom
Frequency low to test	False | Freq [MHz] 5745
Frequency mid to test	False | Freq [MHz] 5785
Frequency high to test	True | Freq [MHz] 5825
Auto control enabled power supply | Climatic Box	No | No
Additional path loss [dB]	3.4
Full path name | type	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 5825 MHz

RESULT: Reference Power cond.

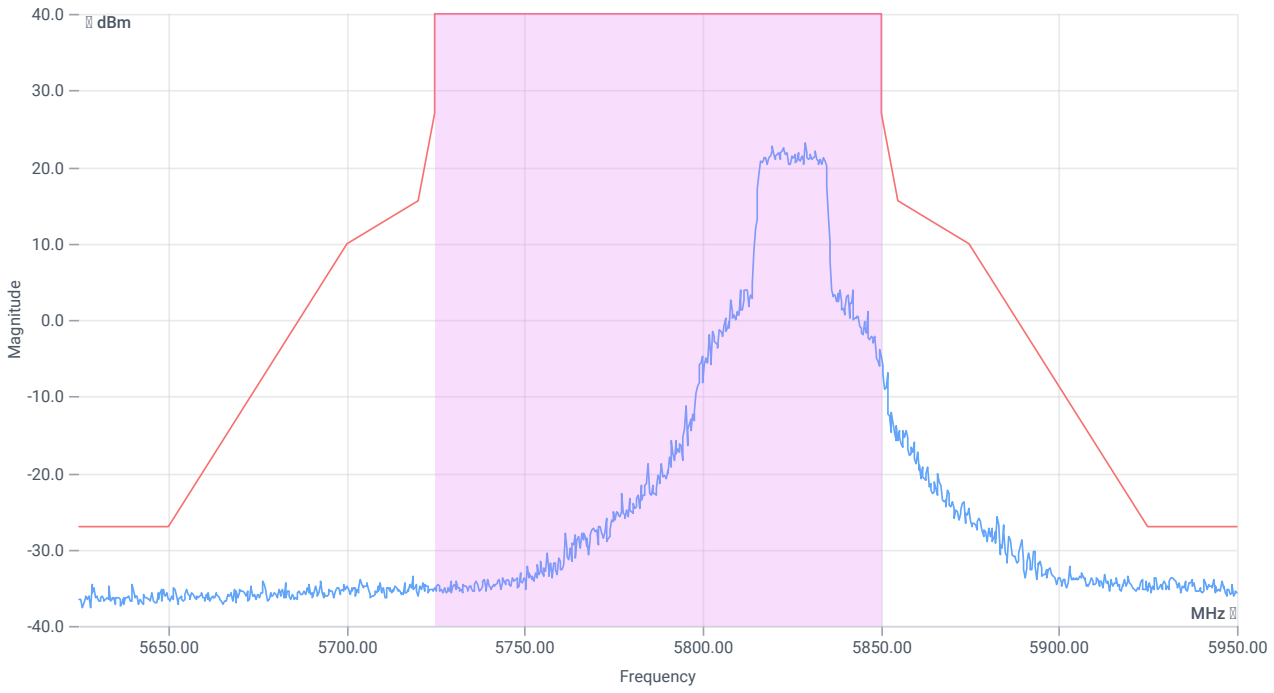
DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	18.70	dBm	INFO
Ref. Frequency	---	---	5823.000	MHz	INFO

Antenna gain

Considered antenna gain [dBi]:	2 / max found in range 5625 to 5950 MHz

READ SA SETTINGS:

RefLevel [dBm] | RefLevelOffset [dB] | InpAtt [dB]	21.70 | 18.78 | 20
Start [MHz] | Stop [MHz]	5625.000 | 5950.000
RBW [MHz] | VBW [MHz]	1.000000 | 3.000000
Detector | TraceMode	POS | MAXH
Sweep: time [ms] | count | points per Section | type	1 | 2500 | 1001 | SWE



Emission Mask (e.i.r.p)

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT

Verdict
PASS

- END OF DOCUMENT -