Conducted test results

No.23-1-0061401T004a-A6c

August 03, 2023

Test Standard(s) FCC 15.407

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Authorized

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Radio Labs

Table of Content

Message with SA scan ~

References

TC start	25.07.2023 13:05:06
Ambit temp [°C] | humidity [rel%]	23.7 | 56
System version	4.6.0.0
Specification	-
Method	
Description	Message with SA Scan ac_VHT20_U_NII_1
Information	PS68

Test Parameter

Switched Path	EUT - SignalingUnit - SpectrumAnalyzer
Message start	25.07.2023 13:05:06
Message	set WLAN5Gx to ac_VHT20_U_NII_1, Frequency [MHz] 5180 ,

Equipment

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

Verdict
INFO

FCC 15.407 # Max output power and psd ~ WLAN5Gx ac-VHT20 mode U-NII-1

References

TC start	25.07.2023 13:05:16
Ambit temp [°C] | humidity [rel%]	23.7 | 56
System version	4.6.0.0
Specification	FCC 15.407 -
Method	KDB789033 D02, F., E.2.e.
Description	FCC 15.407 Max Output Power & PSD - WLAN5Gx ac-VHT20 mode U-NII-1
Information	PS68

EUT Common Settings WLAN5Gx

Number of Antenna Ports	1
User Interaction	No
Device Class UNII_1	Client
Limit W52 Japan	Standard

Test Parameter

Technology to test	WLAN5Gx ac-VHT20 mode
Antenna port used	1
Temperature	nom
Voltage	nom
Frequency low to test	True | Freq [MHz] 5180
Frequency mid to test	False | Freq [MHz] 5200
Frequency high to test	False | Freq [MHz] 5240
Auto control enabled power supply | Climatic Box	No | No
Additional path loss [dB]	1.3
Switched path	EUT - SignalingUnit - SpectrumAnalyzer

Equipment

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

Test at TX 5180 MHz

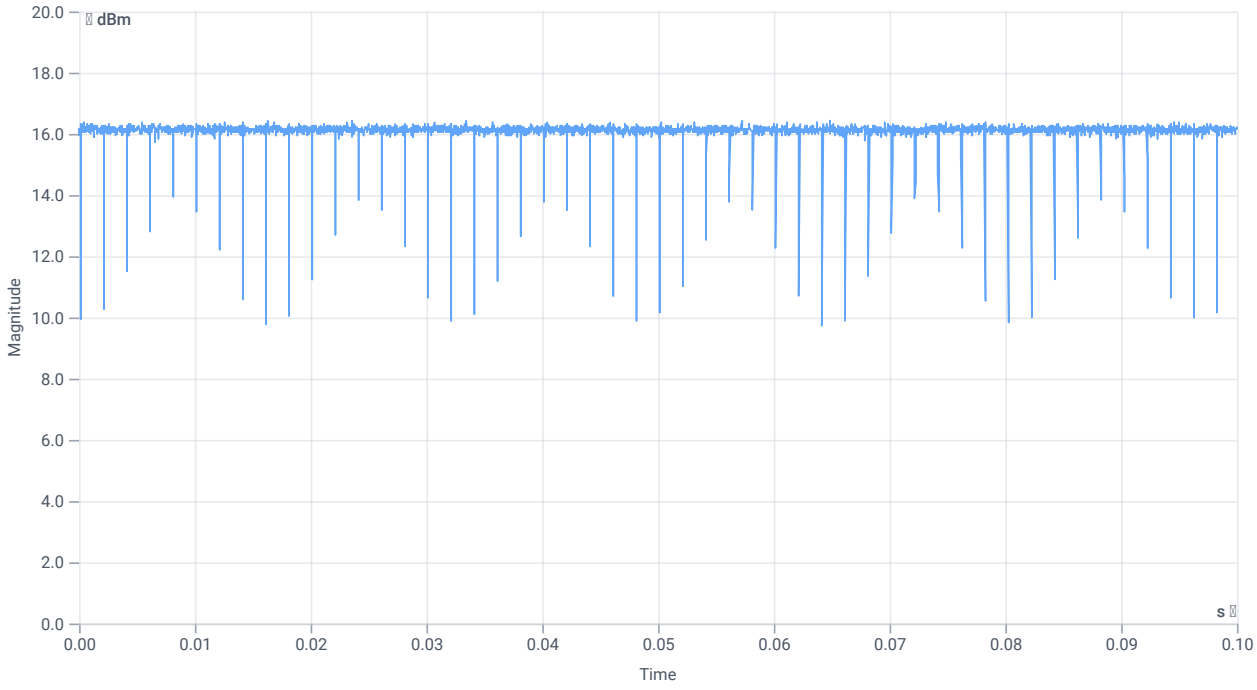
RESULT: Reference Power cond.

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	15.08	dBm	INFO
Ref. Frequency	---	---	5181.000	MHz	INFO

Evaluation max. Duty Cycle

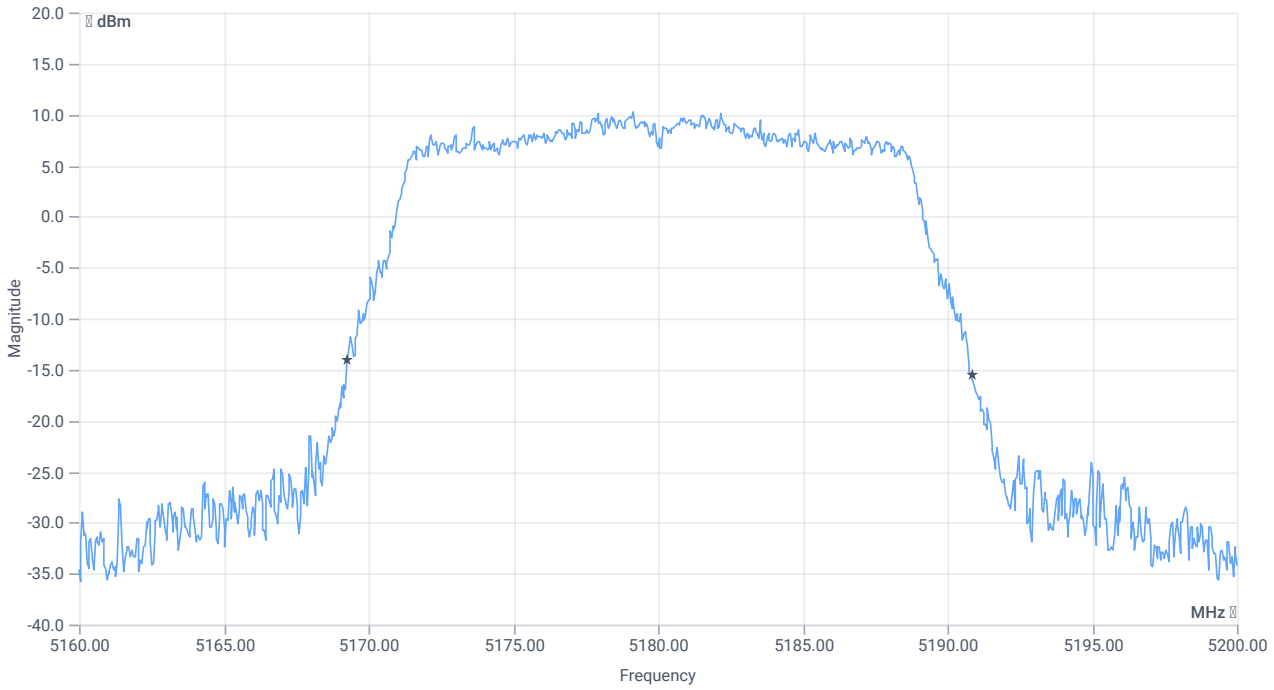
Duty Cycle evaluation

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

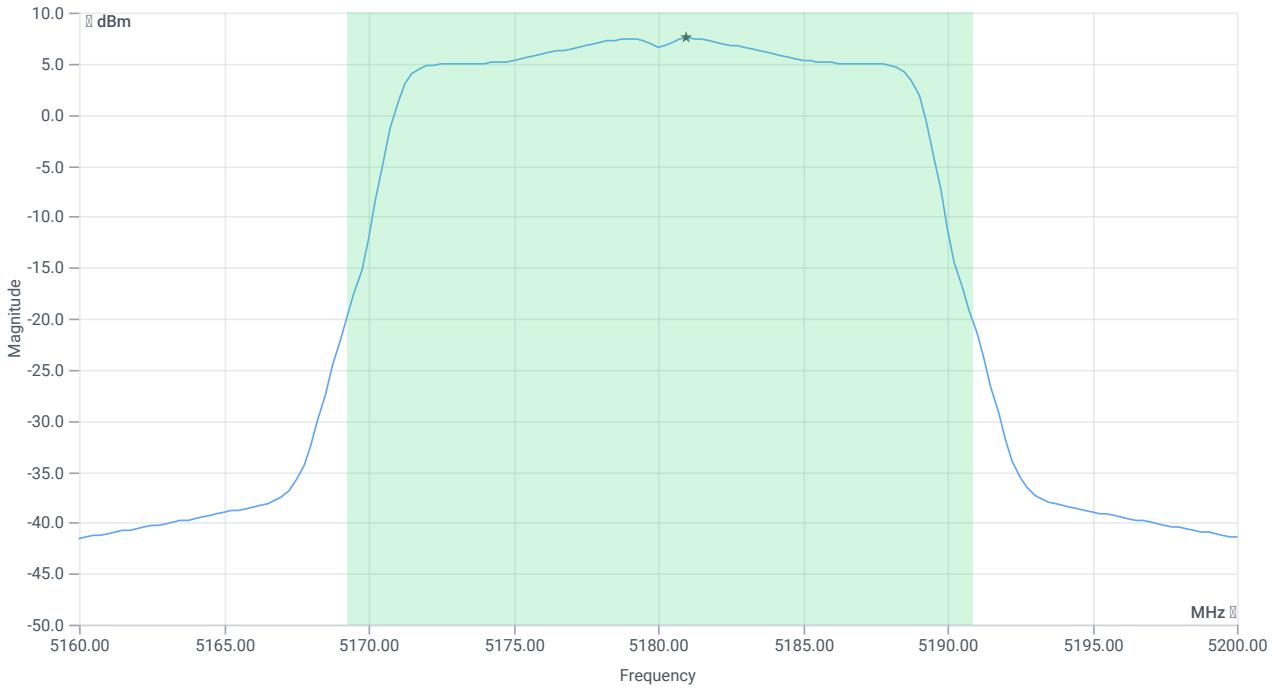
RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 26dB	---	---	21.6	MHz	INFO
T1 26dB	---	---	5169.2400	MHz	INFO
T2 26dB	---	---	5190.8400	MHz	INFO

Maximum Output Power

READ SA SETTINGS:

RefLevel [dBm] | RefLevelOffset [dB] | InpAtt [dB]	27.08 | 16.39 | 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	---	---	18.24	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 21.6					
Max Output Power DC corrected	---	24.34	18.24	dBm	na

Power Spectral Density

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Power Spectral Density	---	---	7.51	dBm/1MHz	INFO
Duty Cycle Correction	---	---	0	dB	INFO
Power Spectral Density DC corrected	---	11	7.51	dBm/1MHz	PASS

Verdict
PASS

FCC 15.407, ISED RSS247 # Bandwidths 99PCT and 26dB ~ WLAN5Gx ac-VHT20 mode U-NII-1

References

TC start	25.07.2023 13:06:48
Ambit temp [°C] | humidity [rel%]	23.7 | 57
System version	4.6.0.0
Specification	FCC 15.407, ISED RSS247 -
Method	26dB Bandwidth KDB789033 D02, C.1 / ISED RSS-GEN
Description	FCC 15.407 Bandwidths - WLAN5Gx ac-VHT20 mode U-NII-1
Information	PS68

EUT Common Settings WLAN5Gx

Number of Antenna Ports	1
User Interaction	No
Device Class UNII_1	Client
Limit W52 Japan	Standard

Test Parameter

Technology to test	WLAN5Gx ac-VHT20 mode
Antenna port used	1
Temperature	nom
Voltage	nom
Frequency low to test	True | Freq [MHz] 5180
Frequency mid to test	False | Freq [MHz] 5200
Frequency high to test	False | Freq [MHz] 5240
Auto control enabled power supply | Climatic Box	No | No
Additional path loss [dB]	1.3
Switched path	EUT - SignalingUnit - SpectrumAnalyzer

Equipment

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

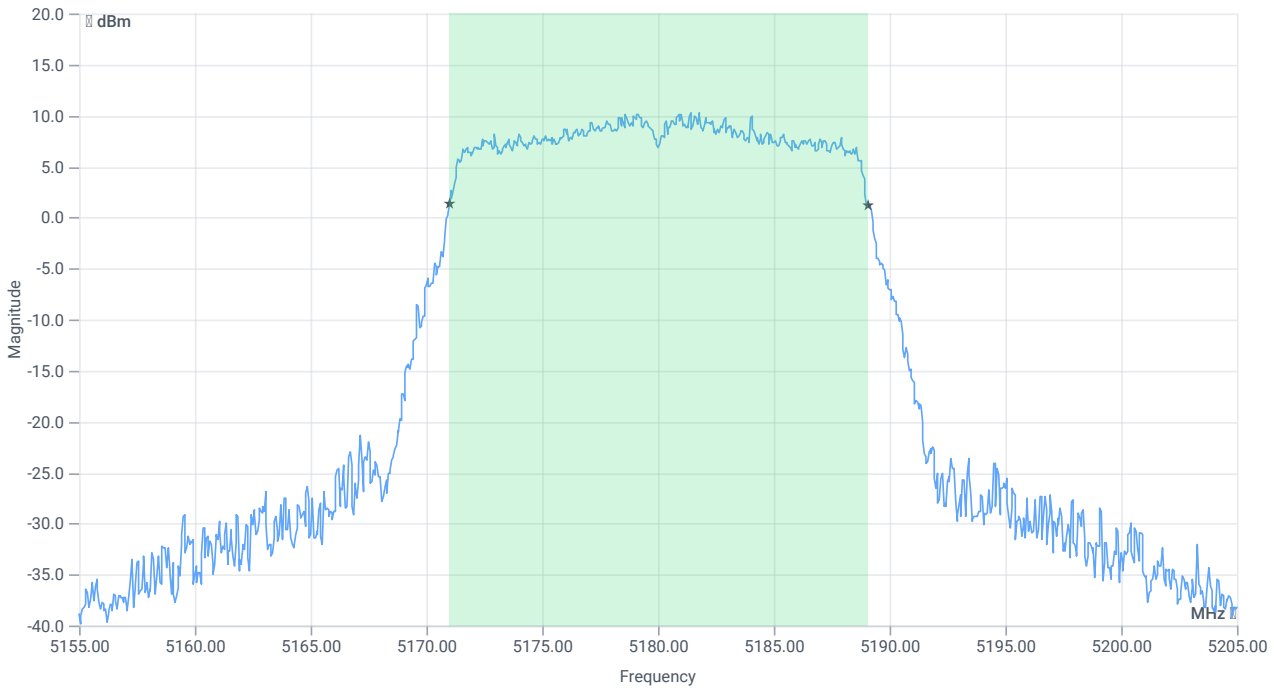
Test at TX 5180 MHz

RESULT: Reference Power cond.

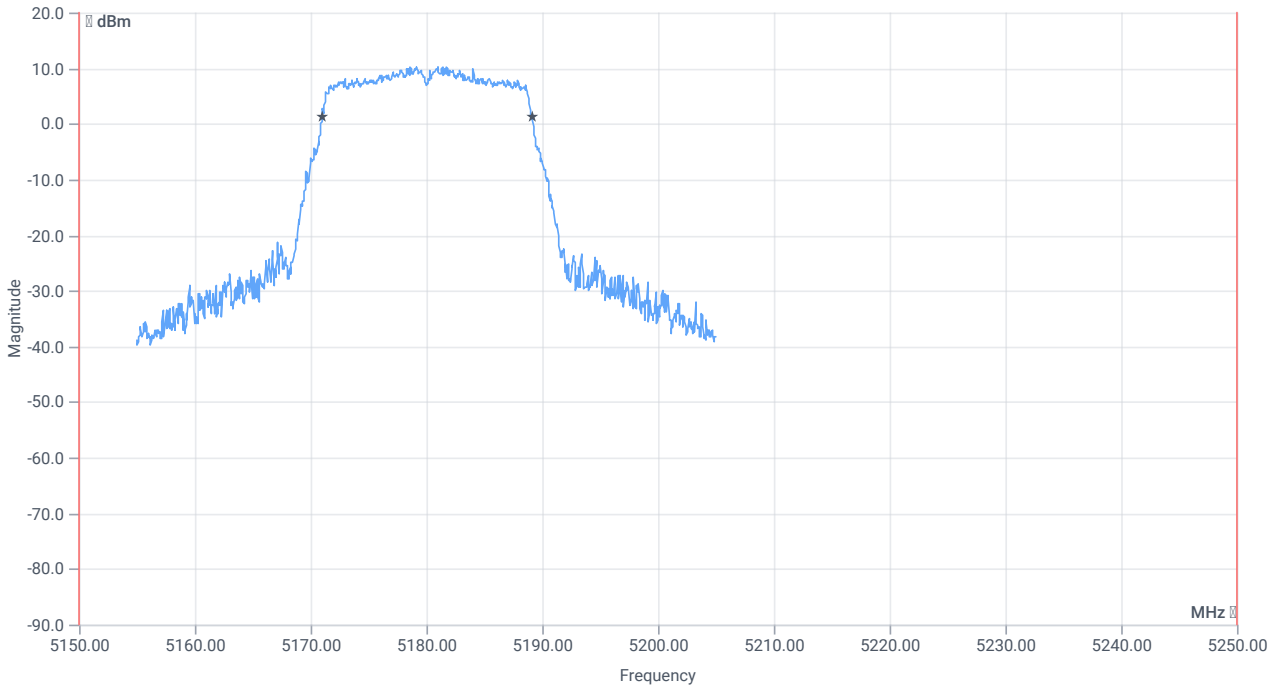
DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	15.05	dBm	INFO
Ref. Frequency	---	---	5181.200	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] | RefLevelOffset [dB] | InpAtt [dB]	23.05 | 16.39 | 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



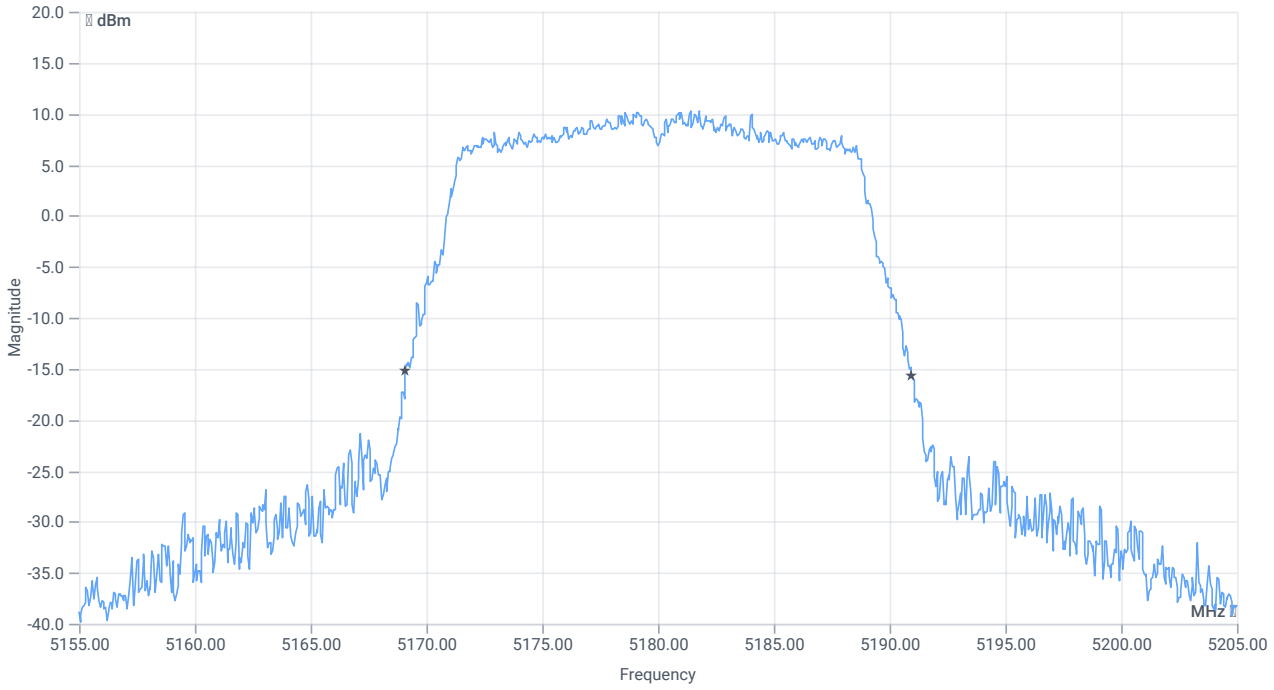
BW 99PCT



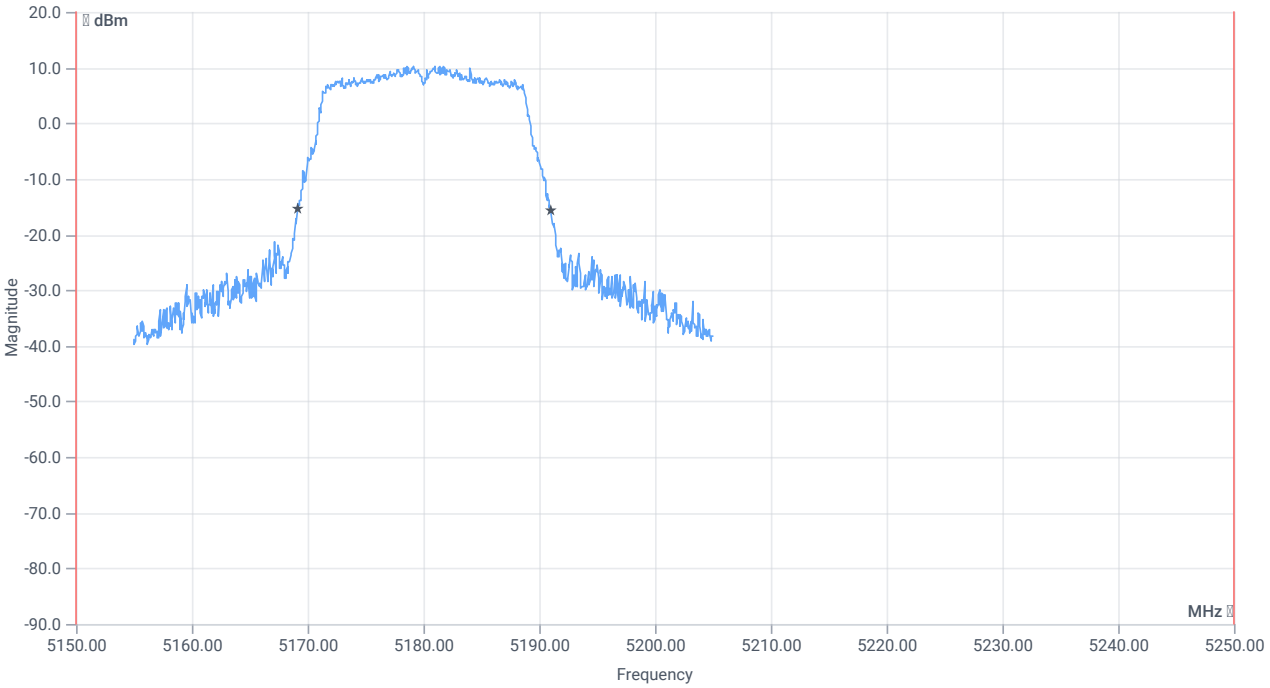
BW within Band 99PCT

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 99%	---	---	18.082	MHz	INFO
T1 99%	5150.000000	---	5171.0090	MHz	PASS
T2 99%	---	5250.000000	5189.0909	MHz	PASS



BW 26dB



BW within Band 26dB

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 26dB	---	---	21.85	MHz	INFO
T1 26dB	5150.000000	---	5169.1000	MHz	PASS
T2 26dB	---	5250.000000	5190.9500	MHz	PASS

Verdict
PASS

FCC 15.407 # Max output power and psd ~ WLAN5Gx ac-VHT20 mode U-NII-1

References

TC start	25.07.2023 13:07:25
Ambit temp [°C] | humidity [rel%]	23.7 | 57
System version	4.6.0.0
Specification	FCC 15.407 -
Method	KDB789033 D02, F., E.2.e.
Description	FCC 15.407 Max Output Power & PSD - WLAN5Gx ac-VHT20 mode U-NII-1
Information	PS68

EUT Common Settings WLAN5Gx

Number of Antenna Ports	1
User Interaction	No
Device Class UNII_1	Client
Limit W52 Japan	Standard

Test Parameter

Technology to test	WLAN5Gx ac-VHT20 mode
Antenna port used	2
Temperature	nom
Voltage	nom
Frequency low to test	True | Freq [MHz] 5180
Frequency mid to test	False | Freq [MHz] 5200
Frequency high to test	False | Freq [MHz] 5240
Auto control enabled power supply | Climatic Box	No | No
Additional path loss [dB]	1.3
Switched path	EUT - SignalingUnit - SpectrumAnalyzer

Equipment

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

Test at TX 5180 MHz

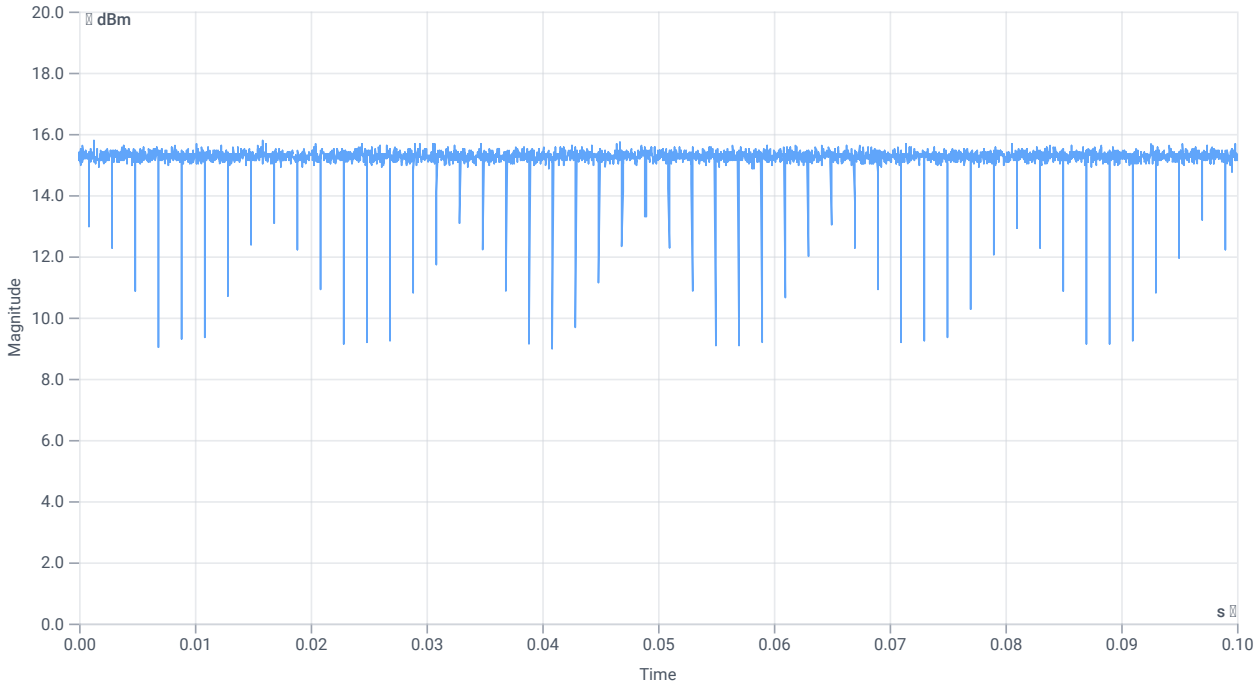
RESULT: Reference Power cond.

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	15.02	dBm	INFO
Ref. Frequency	---	---	5178.800	MHz	INFO

Evaluation max. Duty Cycle

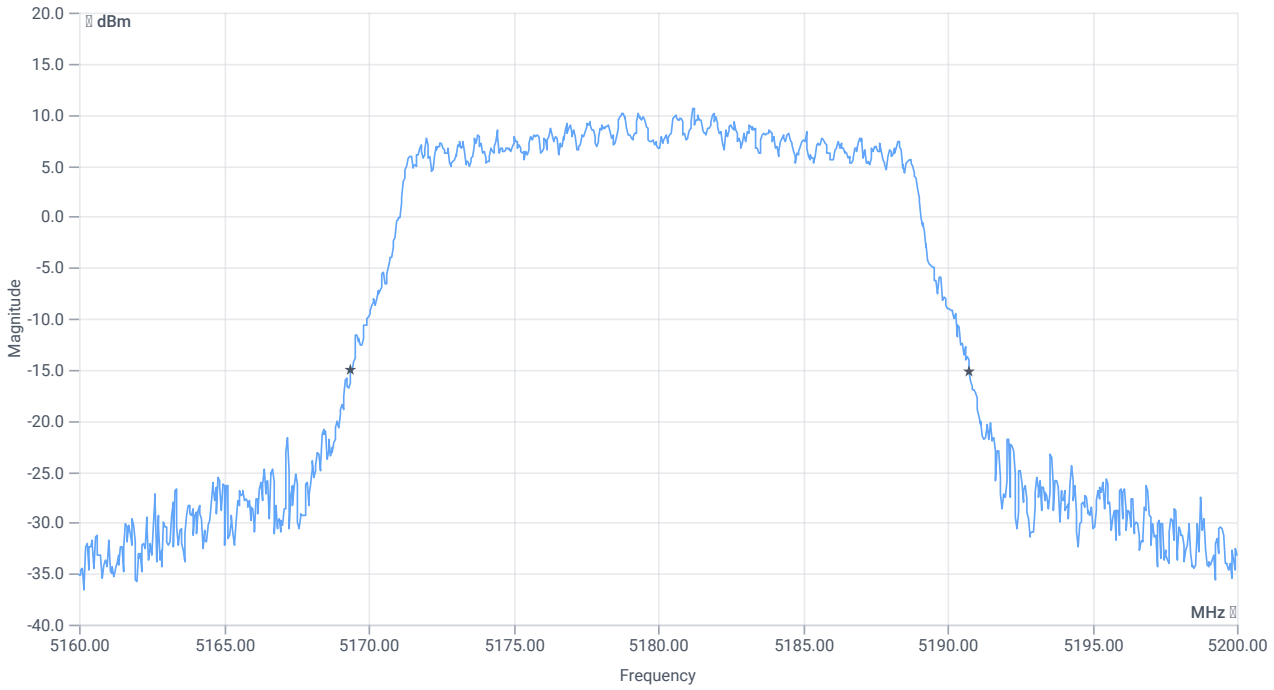
Duty Cycle evaluation

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

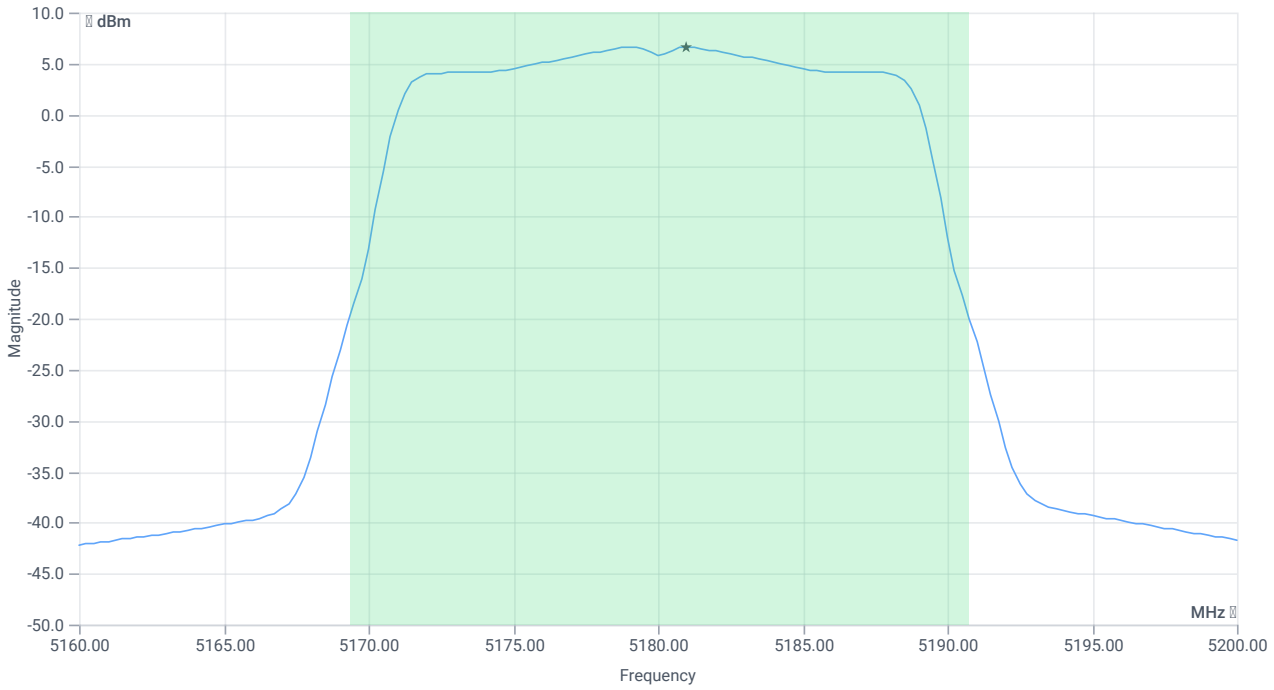
RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 26dB	---	---	21.36	MHz	INFO
T1 26dB	---	---	5169.4000	MHz	INFO
T2 26dB	---	---	5190.7600	MHz	INFO

Maximum Output Power

READ SA SETTINGS:

RefLevel [dBm] | RefLevelOffset [dB] | InpAtt [dB]	27.02 | 16.39 | 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	---	---	17.39	dBm	INFO
Duty Cycle Correction	---	---	0	dB	INFO
Limit absolute					
Max Output Power DC corrected	---	24	17.39	dBm	PASS
Limit: 11 dBm + 10 log	21.36				
Max Output Power DC corrected	---	24.3	17.39	dBm	na

Power Spectral Density

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Power Spectral Density	---	---	6.64	dBm/1MHz	INFO
Duty Cycle Correction	---	---	0	dB	INFO
Power Spectral Density DC corrected	---	11	6.64	dBm/1MHz	PASS

Verdict
PASS

FCC 15.407, ISED RSS247 # Bandwidths 99PCT and 26dB ~ WLAN5Gx ac-VHT20 mode U-NII-1

References

TC start	25.07.2023 13:08:57
Ambit temp [°C] | humidity [rel%]	23.7 | 57
System version	4.6.0.0
Specification	FCC 15.407, ISED RSS247 -
Method	26dB Bandwidth KDB789033 D02, C.1 / ISED RSS-GEN
Description	FCC 15.407 Bandwidths - WLAN5Gx ac-VHT20 mode U-NII-1
Information	PS68

EUT Common Settings WLAN5Gx

Number of Antenna Ports	1
User Interaction	No
Device Class UNII_1	Client
Limit W52 Japan	Standard

Test Parameter

Technology to test	WLAN5Gx ac-VHT20 mode
Antenna port used	2
Temperature	nom
Voltage	nom
Frequency low to test	True | Freq [MHz] 5180
Frequency mid to test	False | Freq [MHz] 5200
Frequency high to test	False | Freq [MHz] 5240
Auto control enabled power supply | Climatic Box	No | No
Additional path loss [dB]	1.3
Switched path	EUT - SignalingUnit - SpectrumAnalyzer

Equipment

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

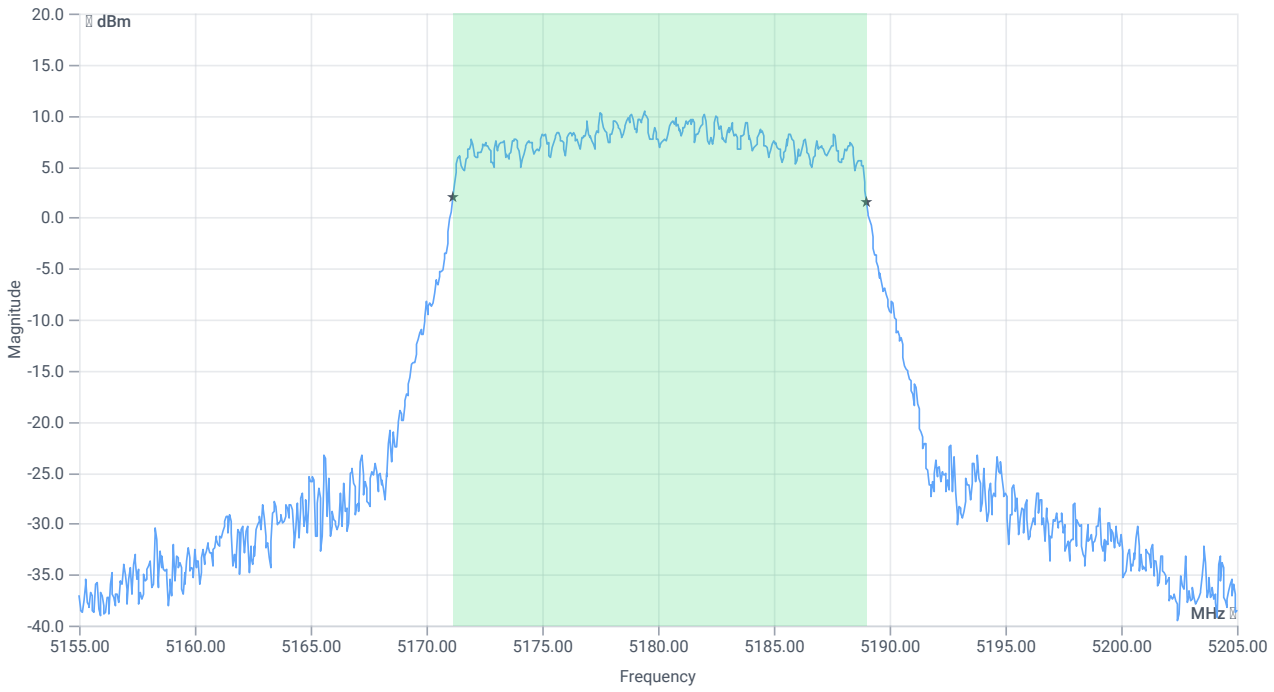
Test at TX 5180 MHz

RESULT: Reference Power cond.

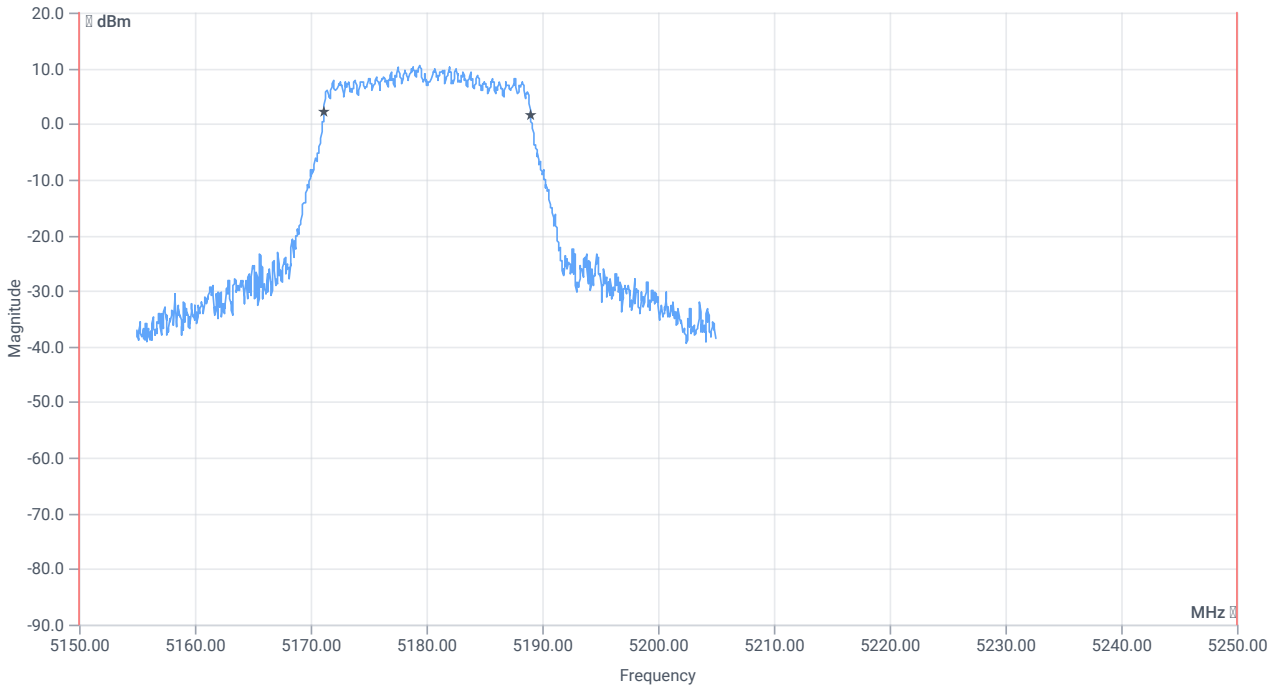
DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	14.78	dBm	INFO
Ref. Frequency	---	---	5178.600	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] | RefLevelOffset [dB] | InpAtt [dB]	22.78 | 16.39 | 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



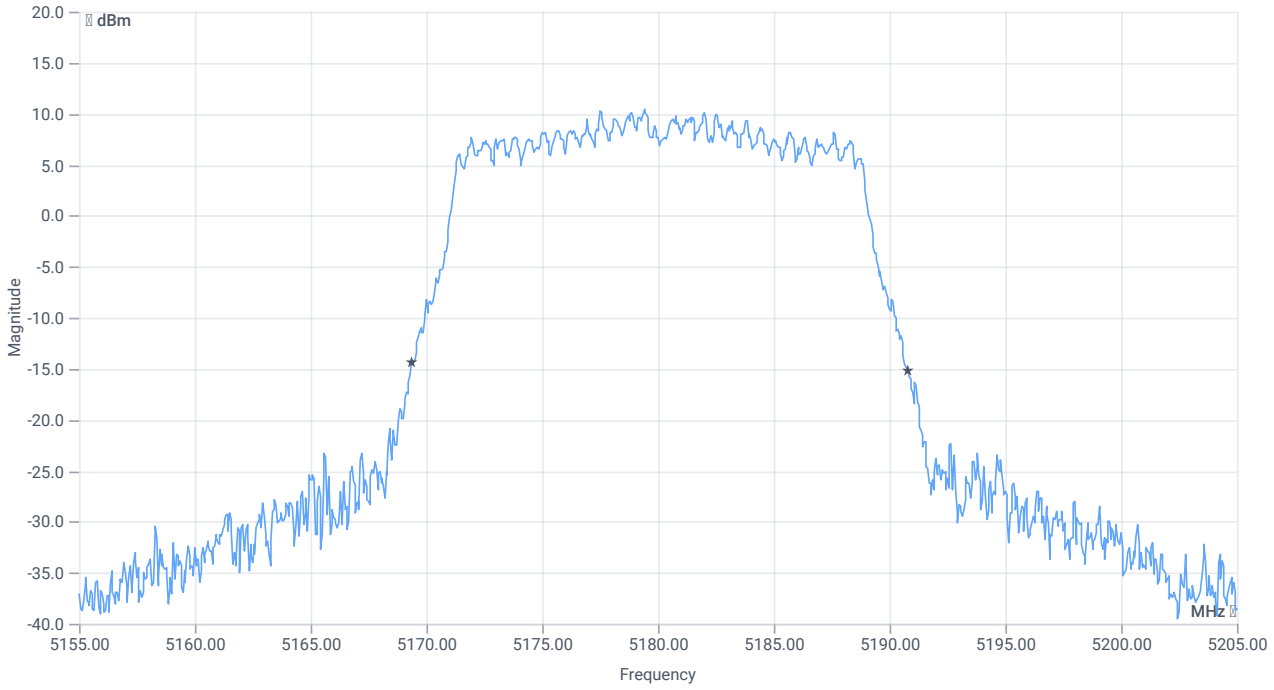
BW 99PCT



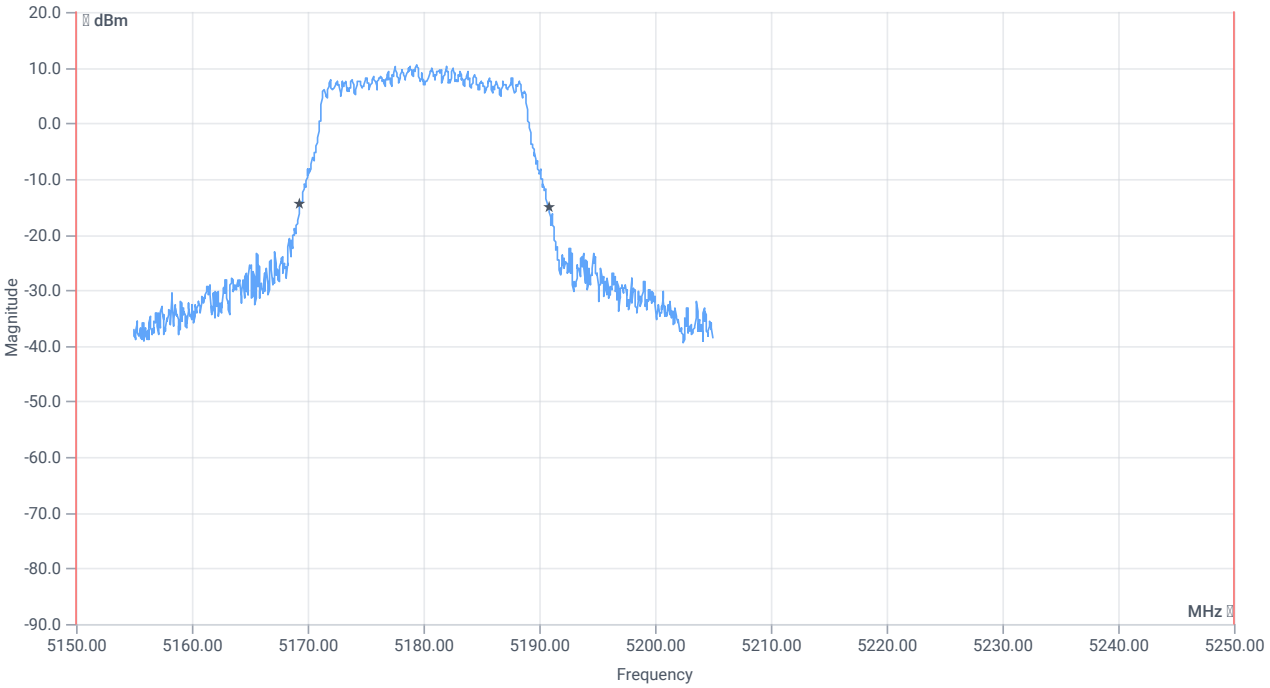
BW within Band 99PCT

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 99%	---	---	17.832	MHz	INFO
T1 99%	5150.000000	---	5171.1588	MHz	PASS
T2 99%	---	5250.000000	5188.9910	MHz	PASS



BW 26dB



BW within Band 26dB

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 26dB	---	---	21.45	MHz	INFO
T1 26dB	5150.000000	---	5169.3500	MHz	PASS
T2 26dB	---	5250.000000	5190.8000	MHz	PASS

Verdict
PASS

FCC 15.407 # MIMO ∑ Max output power and psd ~ WLAN5Gx ac-VHT20 mode U-NII-1

References

TC start	25.07.2023 13:09:34
Ambit temp [°C] | humidity [rel%]	23.7 | 57
System version	4.6.0.0
Specification	FCC 15.407 -
Method	
Description	MIMO ∑ FCC Power & psd - WLAN5Gx ac-VHT20 mode U-NII-1
Information	PS68

EUT Common Settings WLAN5Gx

Number of Antenna Ports	1
User Interaction	No
Device Class UNII_1	Client
Limit W52 Japan	Standard

Test Parameter

Technology to test	WLAN5Gx ac-VHT20 mode
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]	1.3
Switched path	None

Equipment

Test at TX 5180 MHz

RESULT Power

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ant:1 Max Output Power DC corrected	---	---	18.24	dBm	INFO
Ant:1 BW 26dB	---	---	21.600	MHz	INFO
Ant:2 Max Output Power DC corrected	---	---	17.39	dBm	INFO
Ant:2 BW 26dB	---	---	21.360	MHz	INFO
∑ Limit absolute	---	24	20.85	dBm	PASS
∑ Limit: 11 dBm + 10 log 21.36	---	24.3	20.85	dBm	na

RESULT PSD

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ant:1 PSD	---	---	7.51	dBm/1MHz	INFO
Ant:2 PSD	---	---	6.64	dBm/1MHz	INFO
∑	---	11	10.11	dBm/1MHz	PASS

Verdict
PASS

Message with SA scan ~

References

TC start	25.07.2023 13:21:23
Ambit temp [°C] | humidity [rel%]	23.4 | 58
System version	4.6.0.0
Specification	-
Method	
Description	Message with SA Scan ac_VHT20_U_NII_1
Information	

Test Parameter

Switched Path	EUT - SignalingUnit - SpectrumAnalyzer
Message start	25.07.2023 13:21:23
Message	set WLAN5Gx to ac_VHT20_U_NII_1, Frequency [MHz] 5200 , PS72vvvvvvvvvvvvvv

Equipment

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

Verdict
INFO

FCC 15.407 # Max output power and psd ~ WLAN5Gx ac-VHT20 mode U-NII-1

References

TC start	25.07.2023 13:21:32
Ambit temp [°C] | humidity [rel%]	23.4 | 58
System version	4.6.0.0
Specification	FCC 15.407 -
Method	KDB789033 D02, F., E.2.e.
Description	FCC 15.407 Max Output Power & PSD - WLAN5Gx ac-VHT20 mode U-NII-1
Information	PS75

EUT Common Settings WLAN5Gx

Number of Antenna Ports	1
User Interaction	No
Device Class UNII_1	Client
Limit W52 Japan	Standard

Test Parameter

Technology to test	WLAN5Gx ac-VHT20 mode
Antenna port used	1
Temperature	nom
Voltage	nom
Frequency low to test	False | Freq [MHz] 5180
Frequency mid to test	True | Freq [MHz] 5200
Frequency high to test	False | Freq [MHz] 5240
Auto control enabled power supply | Climatic Box	No | No
Additional path loss [dB]	1.3
Switched path	EUT - SignalingUnit - SpectrumAnalyzer

Equipment

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

Test at TX 5200 MHz

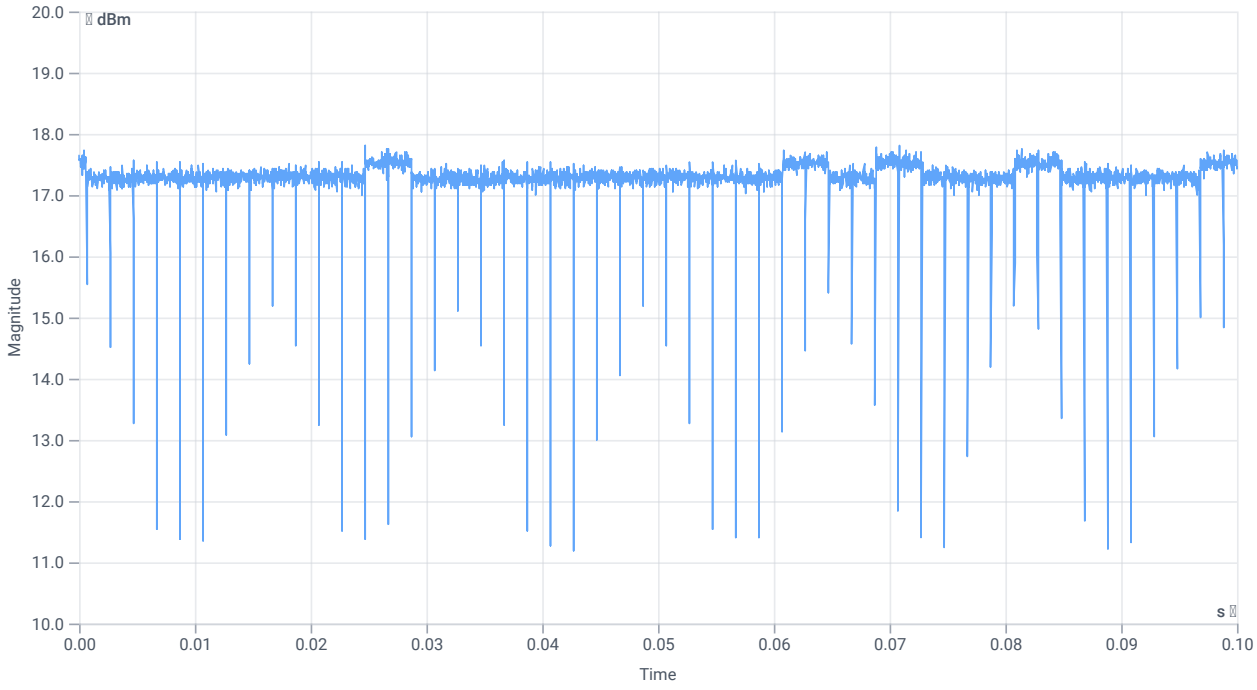
RESULT: Reference Power cond.

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	15.70	dBm	INFO
Ref. Frequency	---	---	5197.600	MHz	INFO

Evaluation max. Duty Cycle

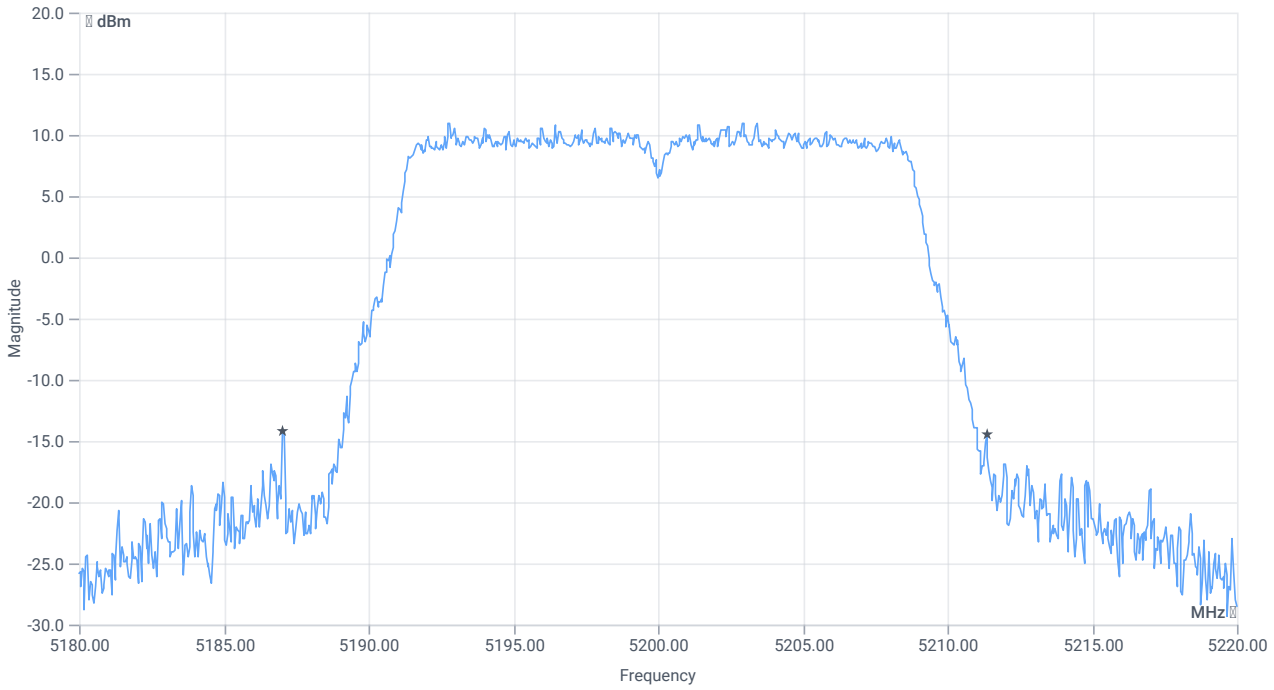
Duty Cycle evaluation

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

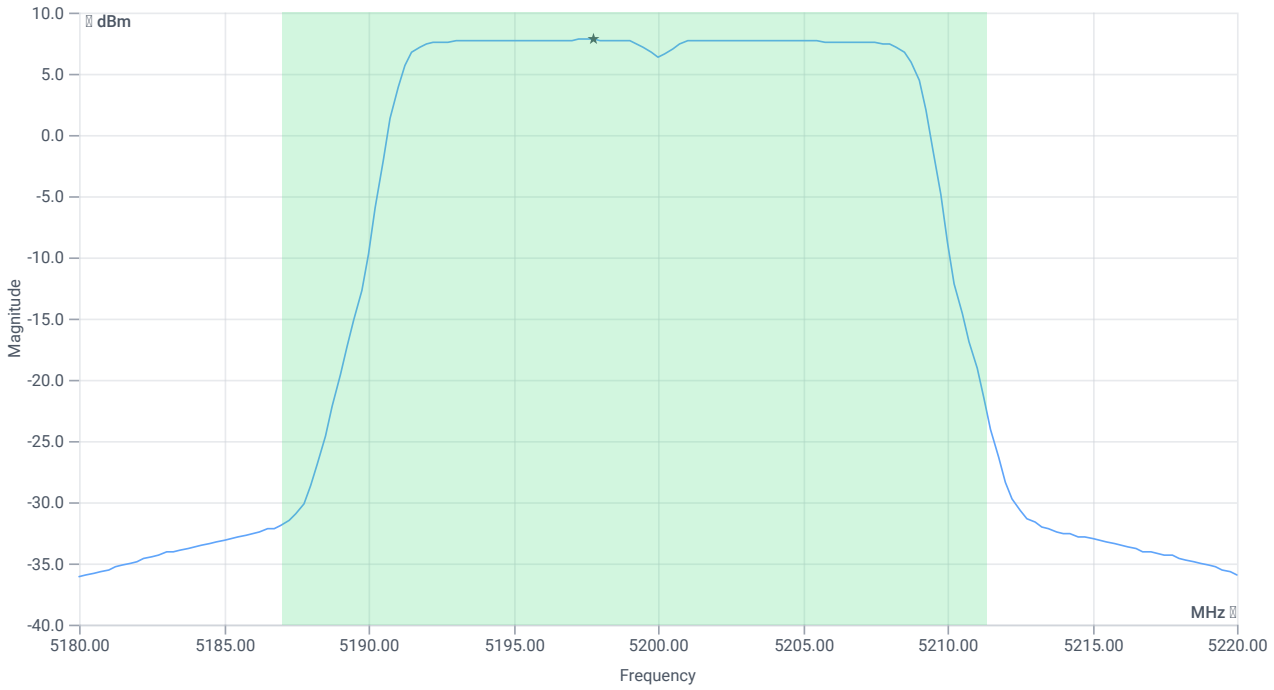
RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 26dB	---	---	24.32	MHz	INFO
T1 26dB	---	---	5187.0400	MHz	INFO
T2 26dB	---	---	5211.3600	MHz	INFO

Maximum Output Power

READ SA SETTINGS:

RefLevel [dBm] | RefLevelOffset [dB] | InpAtt [dB]	27.70 | 16.31 | 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	---	---	19.84	dBm	INFO
Duty Cycle Correction	---	---	0	dB	INFO
Limit absolute					
Max Output Power DC corrected	---	24	19.84	dBm	PASS
Limit: 11 dBm + 10 log			24.32		
Max Output Power DC corrected	---	24.86	19.84	dBm	na

Power Spectral Density

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Power Spectral Density	---	---	7.78	dBm/1MHz	INFO
Duty Cycle Correction	---	---	0	dB	INFO
Power Spectral Density DC corrected	---	11	7.78	dBm/1MHz	PASS

Verdict
PASS

FCC 15.407, ISED RSS247 # Bandwidths 99PCT and 26dB ~ WLAN5Gx ac-VHT20 mode U-NII-1

References

TC start	25.07.2023 13:23:01
Ambit temp [°C] | humidity [rel%]	23.3 | 58
System version	4.6.0.0
Specification	FCC 15.407, ISED RSS247 -
Method	26dB Bandwidth KDB789033 D02, C.1 / ISED RSS-GEN
Description	FCC 15.407 Bandwidths - WLAN5Gx ac-VHT20 mode U-NII-1
Information	PS75

EUT Common Settings WLAN5Gx

Number of Antenna Ports	1
User Interaction	No
Device Class UNII_1	Client
Limit W52 Japan	Standard

Test Parameter

Technology to test	WLAN5Gx ac-VHT20 mode
Antenna port used	1
Temperature	nom
Voltage	nom
Frequency low to test	False | Freq [MHz] 5180
Frequency mid to test	True | Freq [MHz] 5200
Frequency high to test	False | Freq [MHz] 5240
Auto control enabled power supply | Climatic Box	No | No
Additional path loss [dB]	1.3
Switched path	EUT - SignalingUnit - SpectrumAnalyzer

Equipment

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

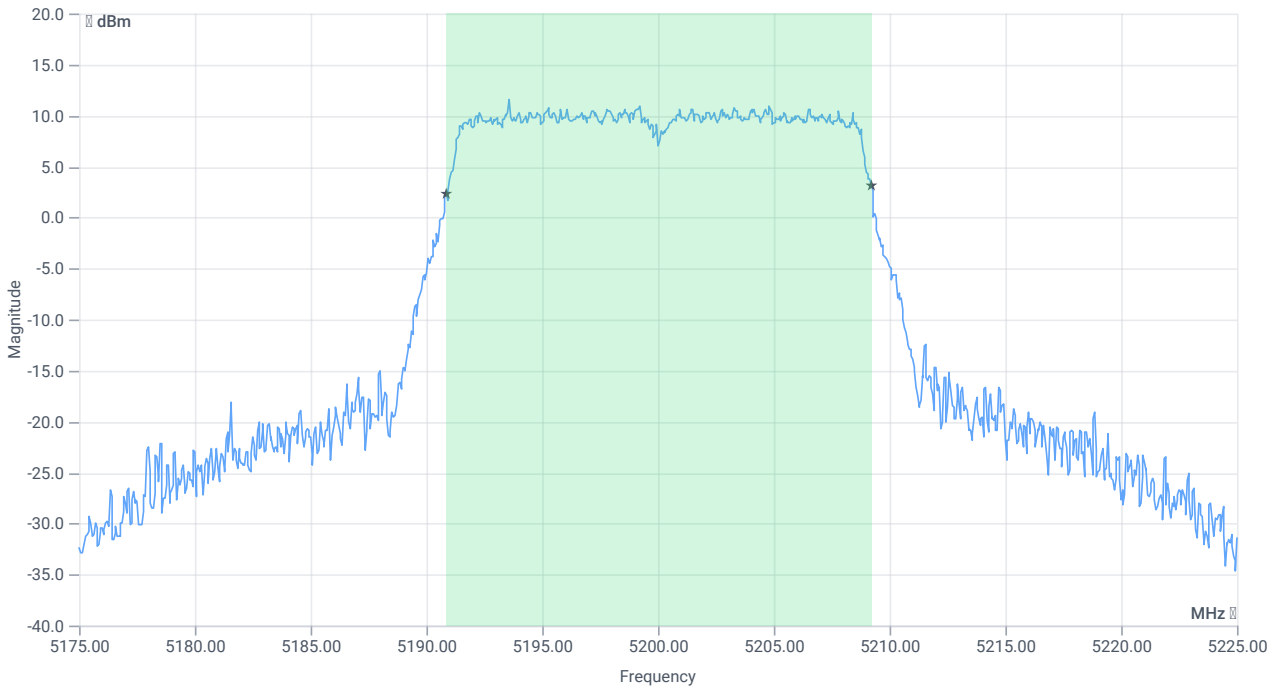
Test at TX 5200 MHz

RESULT: Reference Power cond.

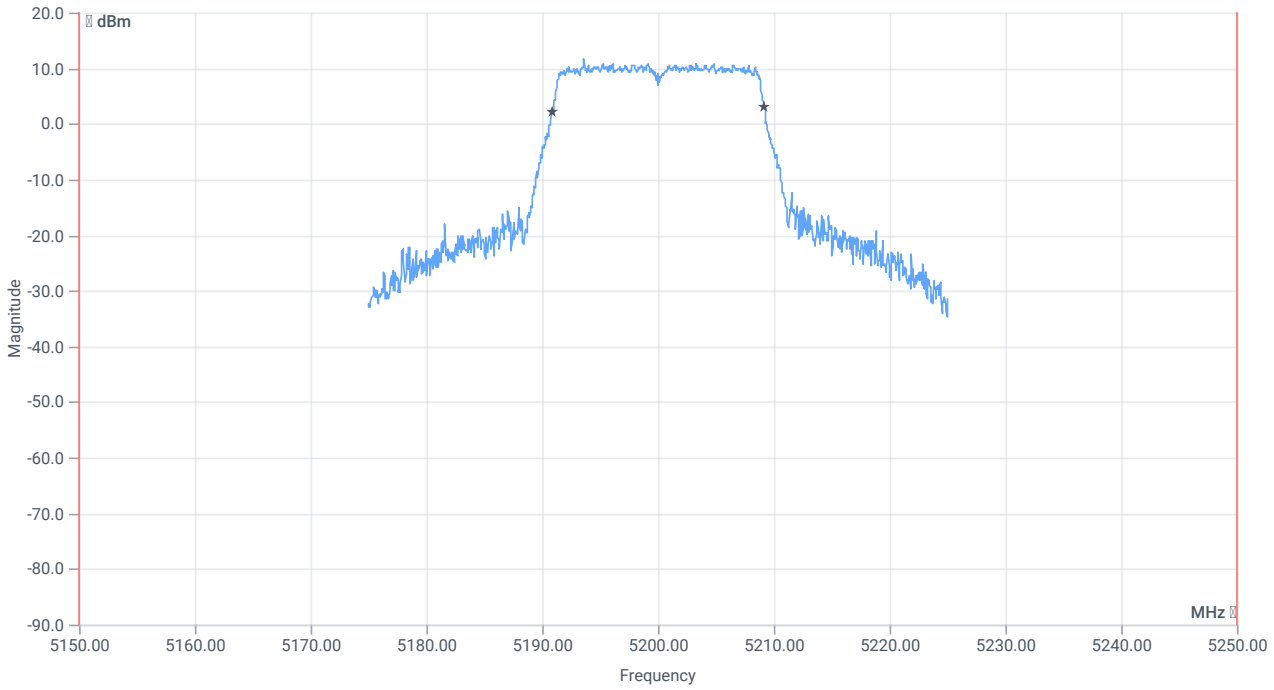
DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	15.58	dBm	INFO
Ref. Frequency	---	---	5201.000	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] | RefLevelOffset [dB] | InpAtt [dB]	23.58 | 16.31 | 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



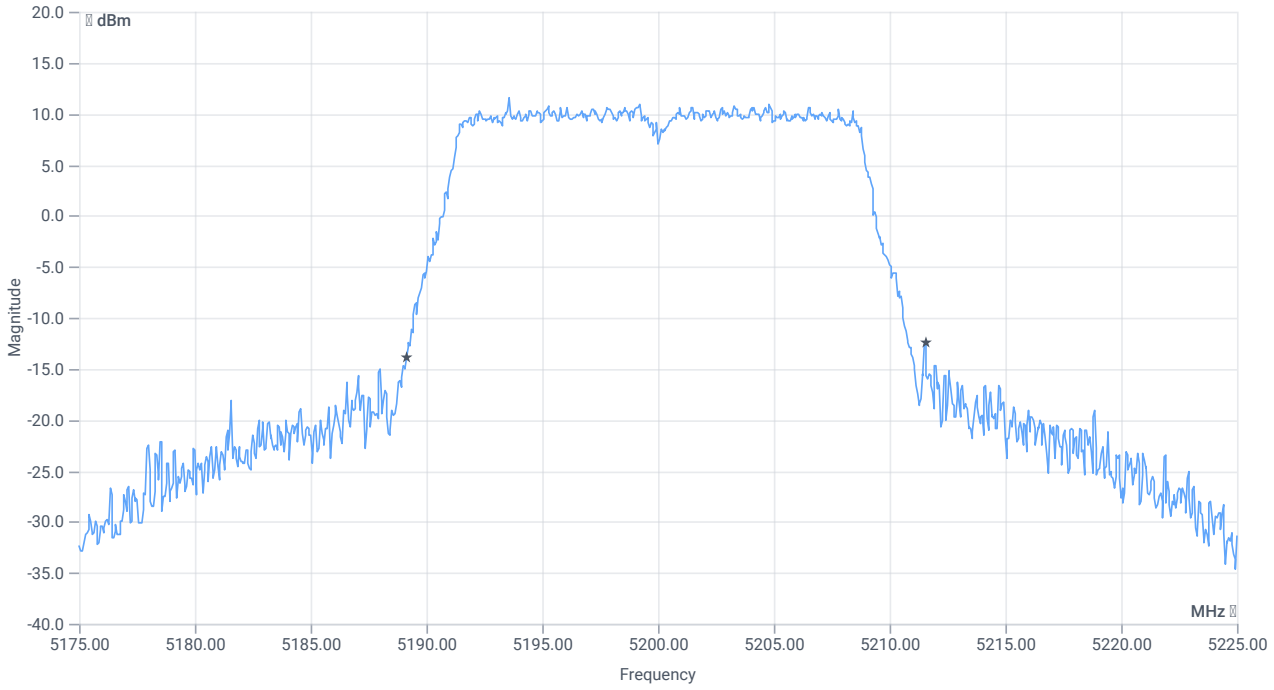
BW 99PCT



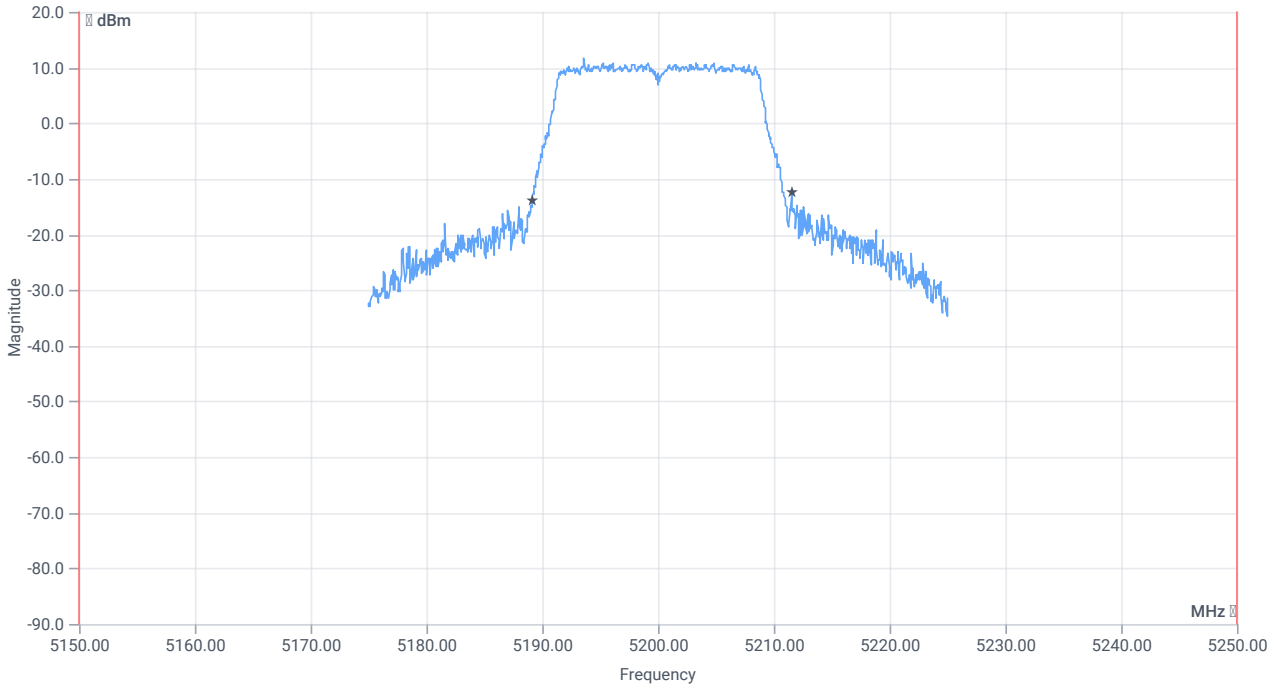
BW within Band 99PCT

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 99%	---	---	18.332	MHz	INFO
T1 99%	5150.000000	---	5190.8591	MHz	PASS
T2 99%	---	5250.000000	5209.1908	MHz	PASS



BW 26dB



BW within Band 26dB

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 26dB	---	---	22.4	MHz	INFO
T1 26dB	5150.000000	---	5189.1500	MHz	PASS
T2 26dB	---	5250.000000	5211.5500	MHz	PASS

Verdict
PASS

FCC 15.407 # Max output power and psd ~ WLAN5Gx ac-VHT20 mode U-NII-1

References

TC start	25.07.2023 13:23:39
Ambit temp [°C] | humidity [rel%]	23.3 | 57
System version	4.6.0.0
Specification	FCC 15.407 -
Method	KDB789033 D02, F., E.2.e.
Description	FCC 15.407 Max Output Power & PSD - WLAN5Gx ac-VHT20 mode U-NII-1
Information	PS75

EUT Common Settings WLAN5Gx

Number of Antenna Ports	1
User Interaction	No
Device Class UNII_1	Client
Limit W52 Japan	Standard

Test Parameter

Technology to test	WLAN5Gx ac-VHT20 mode
Antenna port used	2
Temperature	nom
Voltage	nom
Frequency low to test	False | Freq [MHz] 5180
Frequency mid to test	True | Freq [MHz] 5200
Frequency high to test	False | Freq [MHz] 5240
Auto control enabled power supply | Climatic Box	No | No
Additional path loss [dB]	1.3
Switched path	EUT - SignalingUnit - SpectrumAnalyzer

Equipment

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

Test at TX 5200 MHz

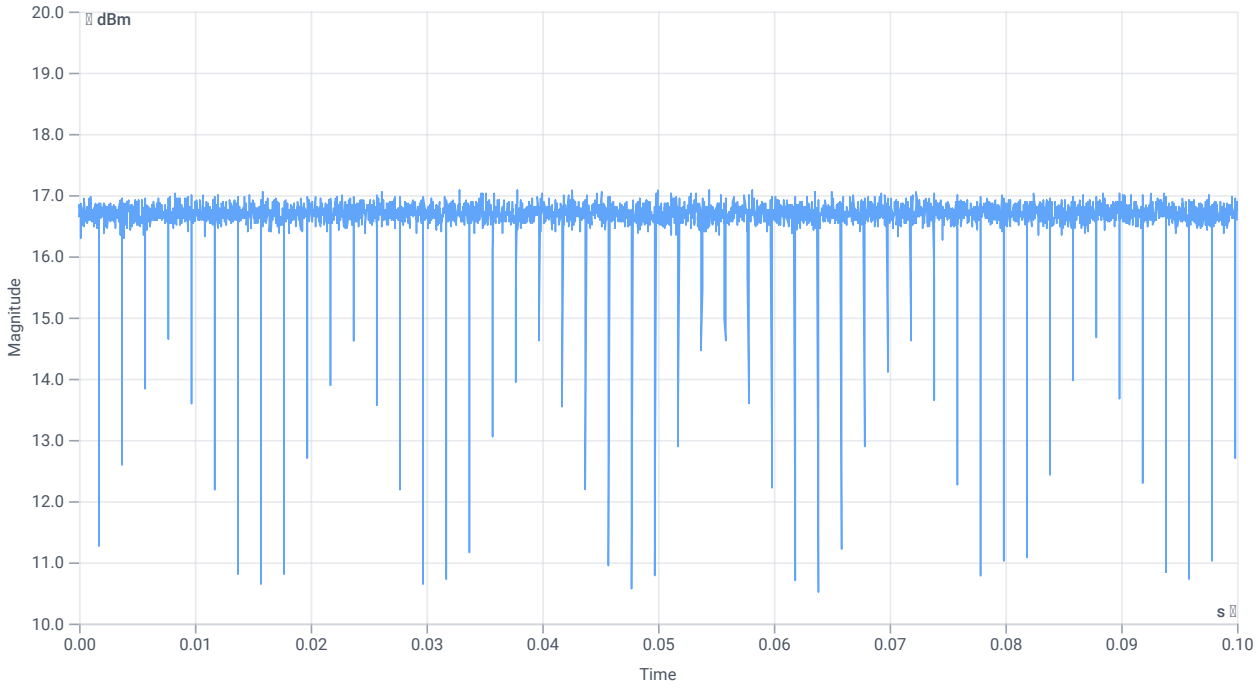
RESULT: Reference Power cond.

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	15.64	dBm	INFO
Ref. Frequency	---	---	5207.790	MHz	INFO

Evaluation max. Duty Cycle

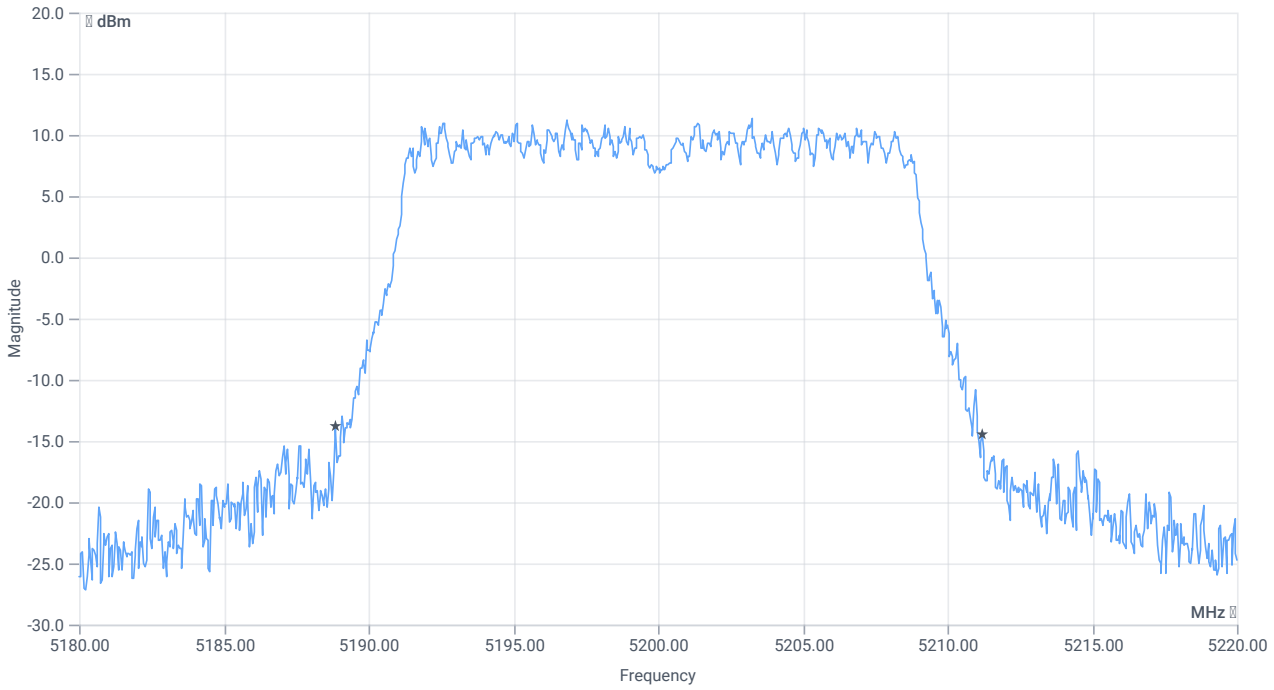
Duty Cycle evaluation

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
No enough Bursts detected, Duty Cycle Burst Ratio set to 1					
Duty Cycle (Burst Ratio) max	---	---	1	---	INFO
Duty Cycle max	---	---	0	dB	INFO
Duty Cycle (Burst Ratio) min	---	---	1	---	INFO
Duty Cycle min	---	---	0	dB	INFO



Duty cycle

Evaluation Bandwidth



BW 26dB

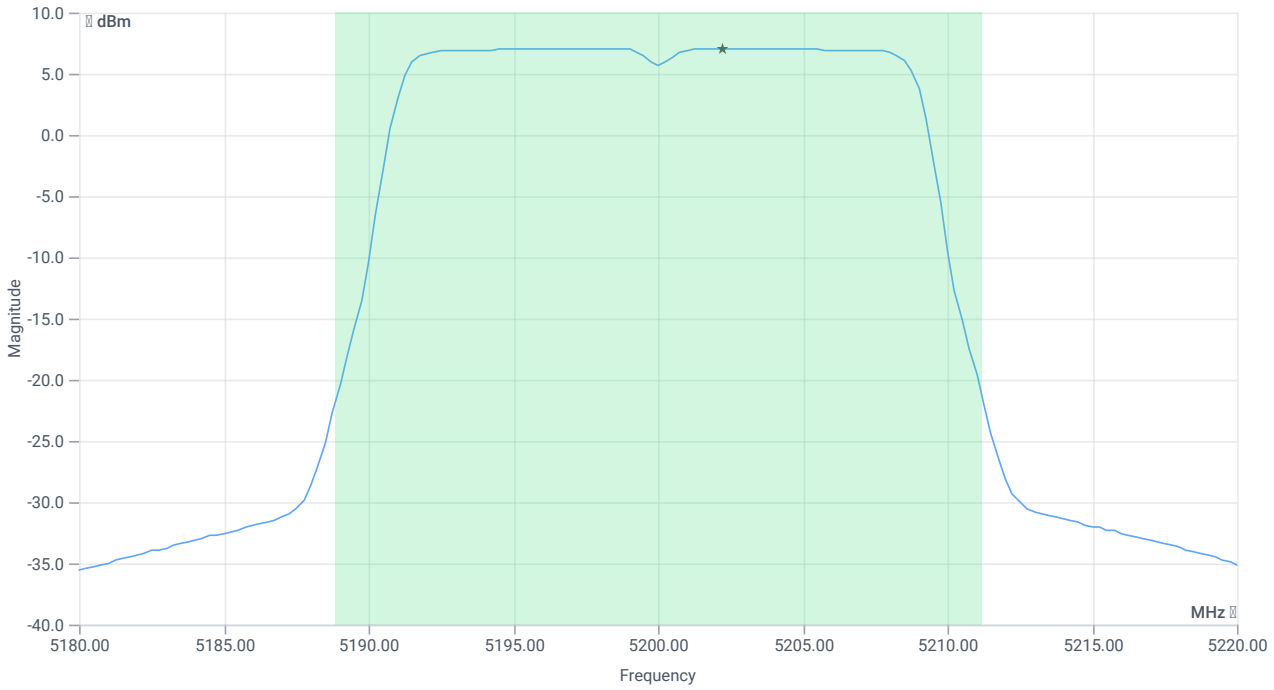
RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 26dB	---	---	22.36	MHz	INFO
T1 26dB	---	---	5188.8400	MHz	INFO
T2 26dB	---	---	5211.2000	MHz	INFO

Maximum Output Power

READ SA SETTINGS:

RefLevel [dBm] | RefLevelOffset [dB] | InpAtt [dB]	27.64 | 16.31 | 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	---	---	19.13	dBm	INFO
Duty Cycle Correction	---	---	0	dB	INFO
Limit absolute					
Max Output Power DC corrected	---	24	19.13	dBm	PASS
Limit: 11 dBm + 10 log	22.36				
Max Output Power DC corrected	---	24.49	19.13	dBm	na

Power Spectral Density

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Power Spectral Density	---	---	7.07	dBm/1MHz	INFO
Duty Cycle Correction	---	---	0	dB	INFO
Power Spectral Density DC corrected	---	11	7.07	dBm/1MHz	PASS

Verdict
PASS

FCC 15.407, ISED RSS247 # Bandwidths 99PCT and 26dB ~ WLAN5Gx ac-VHT20 mode U-NII-1

References

TC start	25.07.2023 13:25:07
Ambit temp [°C] | humidity [rel%]	23.4 | 57
System version	4.6.0.0
Specification	FCC 15.407, ISED RSS247 -
Method	26dB Bandwidth KDB789033 D02, C.1 / ISED RSS-GEN
Description	FCC 15.407 Bandwidths - WLAN5Gx ac-VHT20 mode U-NII-1
Information	PS75

EUT Common Settings WLAN5Gx

Number of Antenna Ports	1
User Interaction	No
Device Class UNII_1	Client
Limit W52 Japan	Standard

Test Parameter

Technology to test	WLAN5Gx ac-VHT20 mode
Antenna port used	2
Temperature	nom
Voltage	nom
Frequency low to test	False | Freq [MHz] 5180
Frequency mid to test	True | Freq [MHz] 5200
Frequency high to test	False | Freq [MHz] 5240
Auto control enabled power supply | Climatic Box	No | No
Additional path loss [dB]	1.3
Switched path	EUT - SignalingUnit - SpectrumAnalyzer

Equipment

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

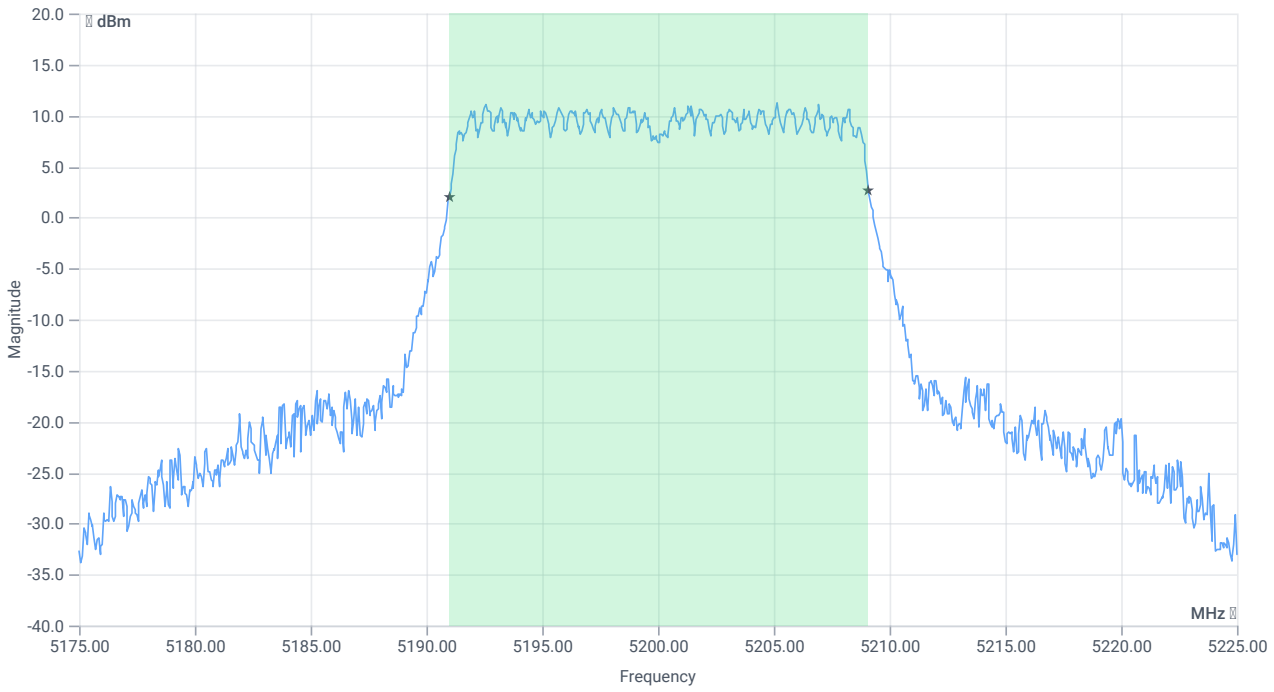
Test at TX 5200 MHz

RESULT: Reference Power cond.

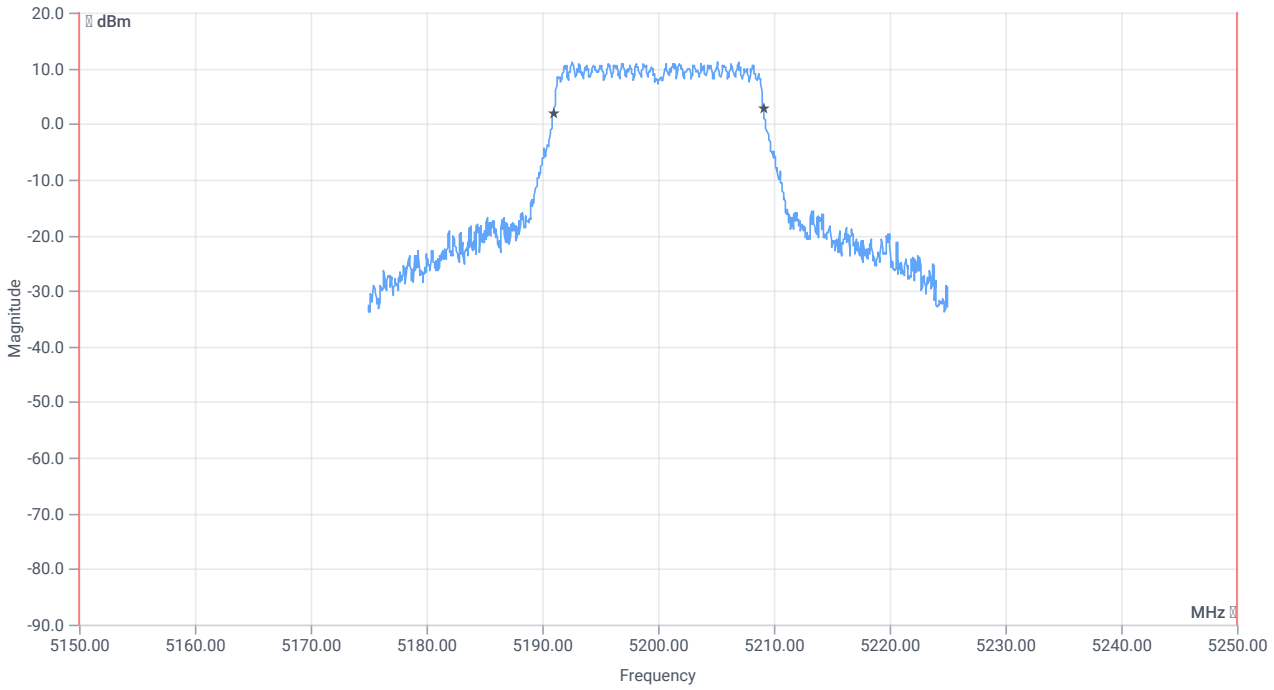
DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	15.52	dBm	INFO
Ref. Frequency	---	---	5195.800	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] | RefLevelOffset [dB] | InpAtt [dB]	23.52 | 16.31 | 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



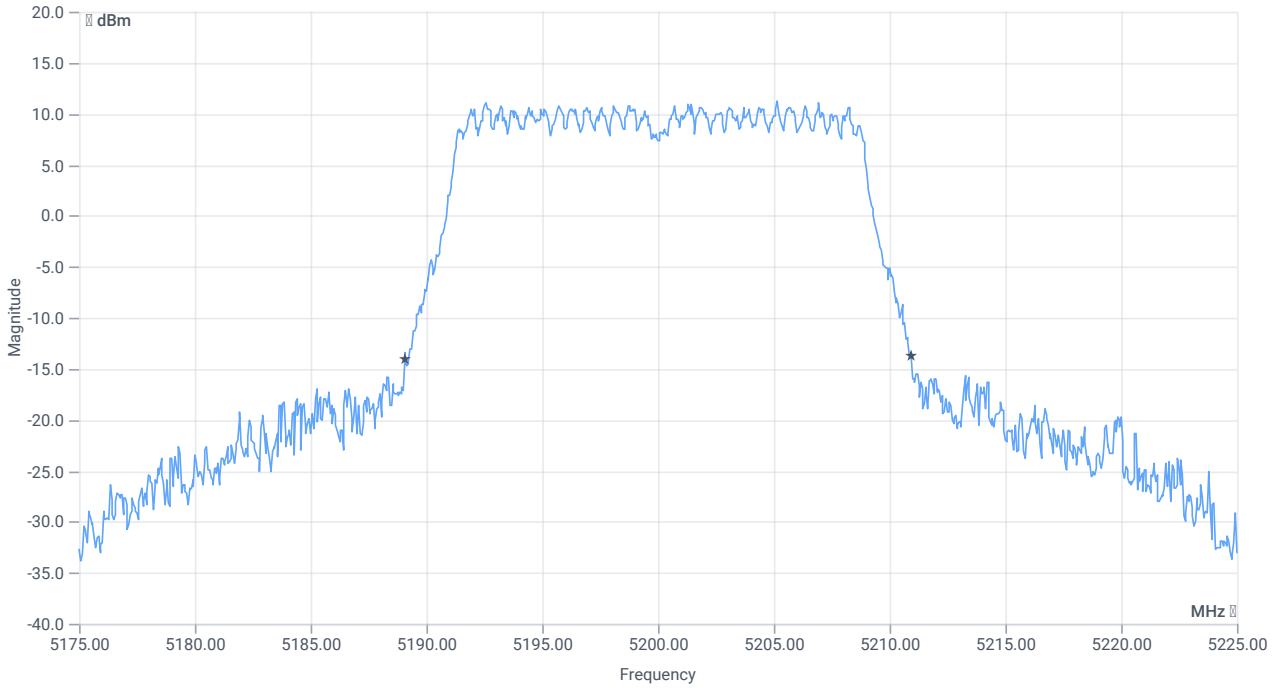
BW 99PCT



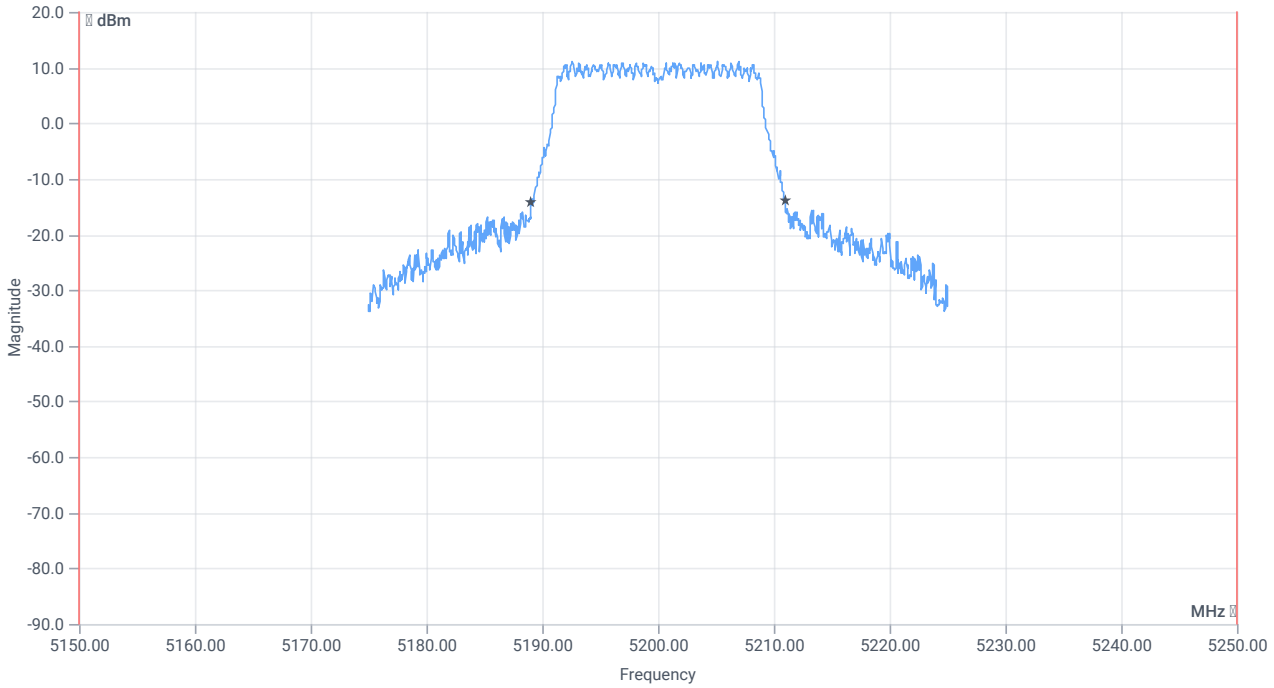
BW within Band 99PCT

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 99%	---	---	18.082	MHz	INFO
T1 99%	5150.000000	---	5191.0090	MHz	PASS
T2 99%	---	5250.000000	5209.0909	MHz	PASS



BW 26dB



BW within Band 26dB

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 26dB	---	---	21.9	MHz	INFO
T1 26dB	5150.000000	---	5189.0500	MHz	PASS
T2 26dB	---	5250.000000	5210.9500	MHz	PASS

Verdict
PASS

FCC 15.407 # MIMO ∑ Max output power and psd ~ WLAN5Gx ac-VHT20 mode U-NII-1

References

TC start	25.07.2023 13:25:44
Ambit temp [°C] | humidity [rel%]	23.4 | 57
System version	4.6.0.0
Specification	FCC 15.407 -
Method	
Description	MIMO ∑ FCC Power & psd - WLAN5Gx ac-VHT20 mode U-NII-1
Information	PS75

EUT Common Settings WLAN5Gx

Number of Antenna Ports	1
User Interaction	No
Device Class UNII_1	Client
Limit W52 Japan	Standard

Test Parameter

Technology to test	WLAN5Gx ac-VHT20 mode
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]	1.3
Switched path	None

Equipment

Test at TX 5200 MHz

RESULT Power

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ant:1 Max Output Power DC corrected	---	---	19.84	dBm	INFO
Ant:1 BW 26dB	---	---	24.320	MHz	INFO
Ant:2 Max Output Power DC corrected	---	---	19.13	dBm	INFO
Ant:2 BW 26dB	---	---	22.360	MHz	INFO
∑ Limit absolute	---	24	22.51	dBm	PASS
∑ Limit: 11 dBm + 10 log 22.36	---	24.49	22.51	dBm	na

RESULT PSD

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ant:1 PSD	---	---	7.78	dBm/1MHz	INFO
Ant:2 PSD	---	---	7.07	dBm/1MHz	INFO
∑	---	11	10.45	dBm/1MHz	PASS

Verdict
PASS

Message with SA scan ~

References

TC start	25.07.2023 13:33:26
Ambit temp [°C] | humidity [rel%]	23.4 | 58
System version	4.6.0.0
Specification	-
Method	
Description	Message with SA Scan ac_VHT20_U_NII_1
Information	PS76

Test Parameter

Switched Path	EUT - SignalingUnit - SpectrumAnalyzer
Message start	25.07.2023 13:33:27
Message	set WLAN5Gx to ac_VHT20_U_NII_1, Frequency [MHz] 5240 PS76

Equipment

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

Verdict
INFO

FCC 15.407 # Max output power and psd ~ WLAN5Gx ac-VHT20 mode U-NII-1

References

TC start	25.07.2023 13:33:47
Ambit temp [°C] | humidity [rel%]	23.4 | 58
System version	4.6.0.0
Specification	FCC 15.407 -
Method	KDB789033 D02, F., E.2.e.
Description	FCC 15.407 Max Output Power & PSD - WLAN5Gx ac-VHT20 mode U-NII-1
Information	PS76

EUT Common Settings WLAN5Gx

Number of Antenna Ports	1
User Interaction	No
Device Class UNII_1	Client
Limit W52 Japan	Standard

Test Parameter

Technology to test	WLAN5Gx ac-VHT20 mode
Antenna port used	1
Temperature	nom
Voltage	nom
Frequency low to test	False | Freq [MHz] 5180
Frequency mid to test	False | Freq [MHz] 5200
Frequency high to test	True | Freq [MHz] 5240
Auto control enabled power supply | Climatic Box	No | No
Additional path loss [dB]	1.3
Switched path	EUT - SignalingUnit - SpectrumAnalyzer

Equipment

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

Test at TX 5240 MHz

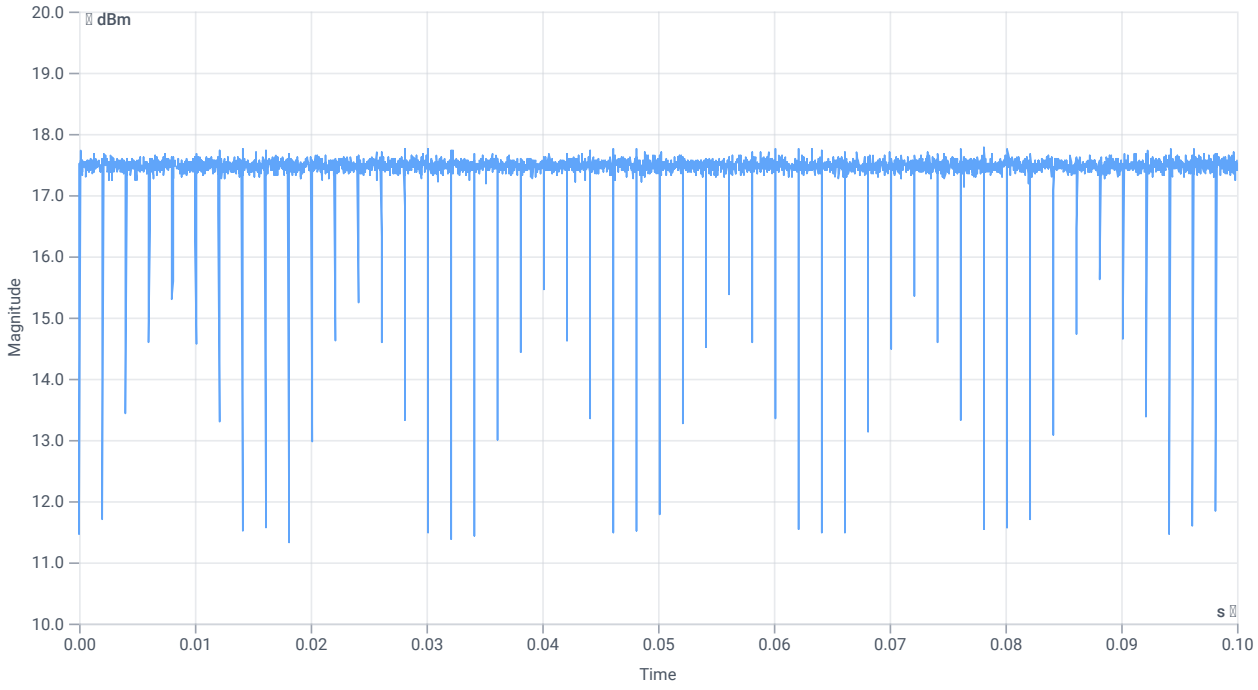
RESULT: Reference Power cond.

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	16.47	dBm	INFO
Ref. Frequency	---	---	5236.800	MHz	INFO

Evaluation max. Duty Cycle

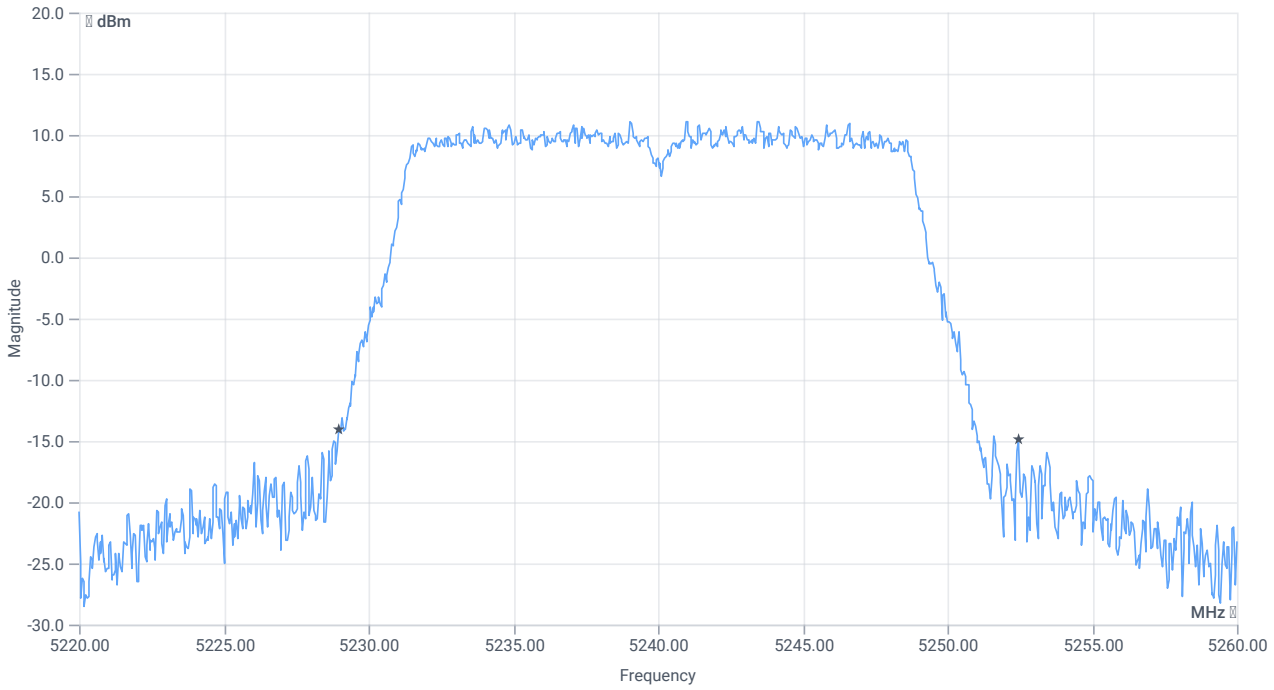
Duty Cycle evaluation

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

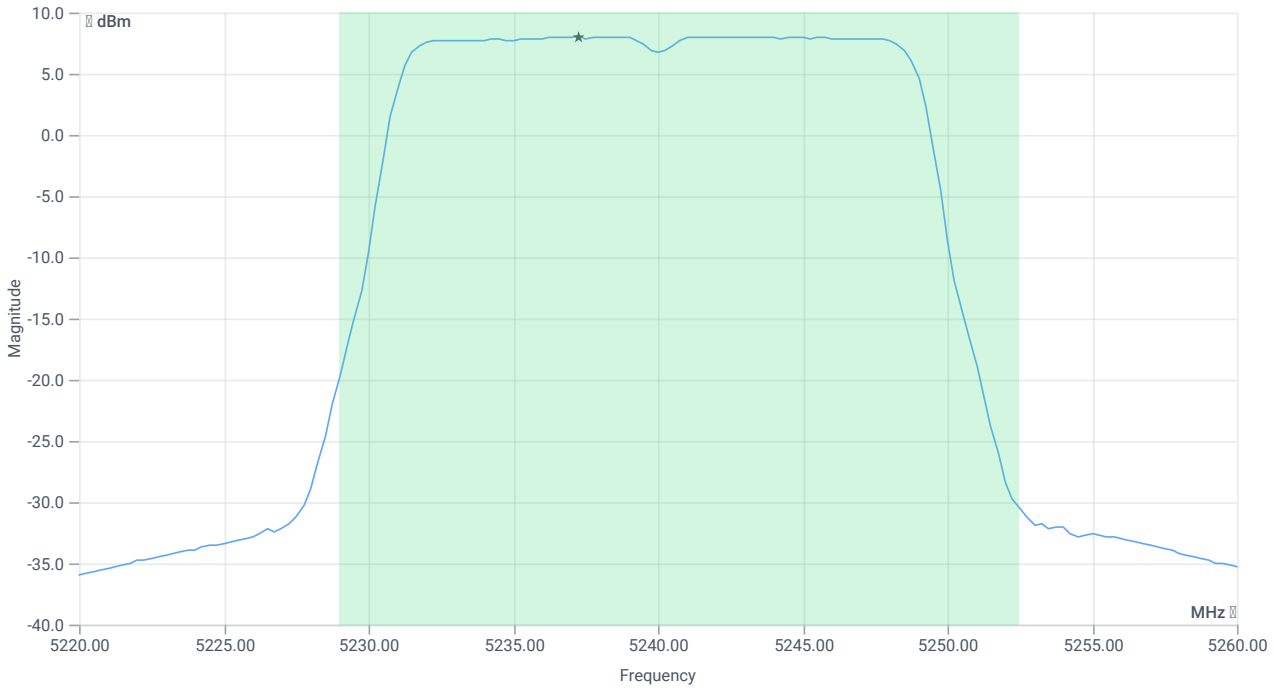
RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 26dB	---	---	23.48	MHz	INFO
T1 26dB	---	---	5228.9600	MHz	INFO
T2 26dB	---	---	5252.4400	MHz	INFO

Maximum Output Power

READ SA SETTINGS:

RefLevel [dBm] | RefLevelOffset [dB] | InpAtt [dB]	28.47 | 16.37 | 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	---	---	20.05	dBm	INFO
Duty Cycle Correction	---	---	0	dB	INFO
Limit absolute					
Max Output Power DC corrected	---	24	20.05	dBm	PASS
Limit: 11 dBm + 10 log	23.48				
Max Output Power DC corrected	---	24.71	20.05	dBm	na

Power Spectral Density

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Power Spectral Density	---	---	8.04	dBm/1MHz	INFO
Duty Cycle Correction	---	---	0	dB	INFO
Power Spectral Density DC corrected	---	11	8.04	dBm/1MHz	PASS

Verdict
PASS

FCC 15.407, ISED RSS247 # Bandwidths 99PCT and 26dB ~ WLAN5Gx ac-VHT20 mode U-NII-1

References

TC start	25.07.2023 13:35:14
Ambit temp [°C] | humidity [rel%]	23.4 | 58
System version	4.6.0.0
Specification	FCC 15.407, ISED RSS247 -
Method	26dB Bandwidth KDB789033 D02, C.1 / ISED RSS-GEN
Description	FCC 15.407 Bandwidths - WLAN5Gx ac-VHT20 mode U-NII-1
Information	PS76

EUT Common Settings WLAN5Gx

Number of Antenna Ports	1
User Interaction	No
Device Class UNII_1	Client
Limit W52 Japan	Standard

Test Parameter

Technology to test	WLAN5Gx ac-VHT20 mode
Antenna port used	1
Temperature	nom
Voltage	nom
Frequency low to test	False | Freq [MHz] 5180
Frequency mid to test	False | Freq [MHz] 5200
Frequency high to test	True | Freq [MHz] 5240
Auto control enabled power supply | Climatic Box	No | No
Additional path loss [dB]	1.3
Switched path	EUT - SignalingUnit - SpectrumAnalyzer

Equipment

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

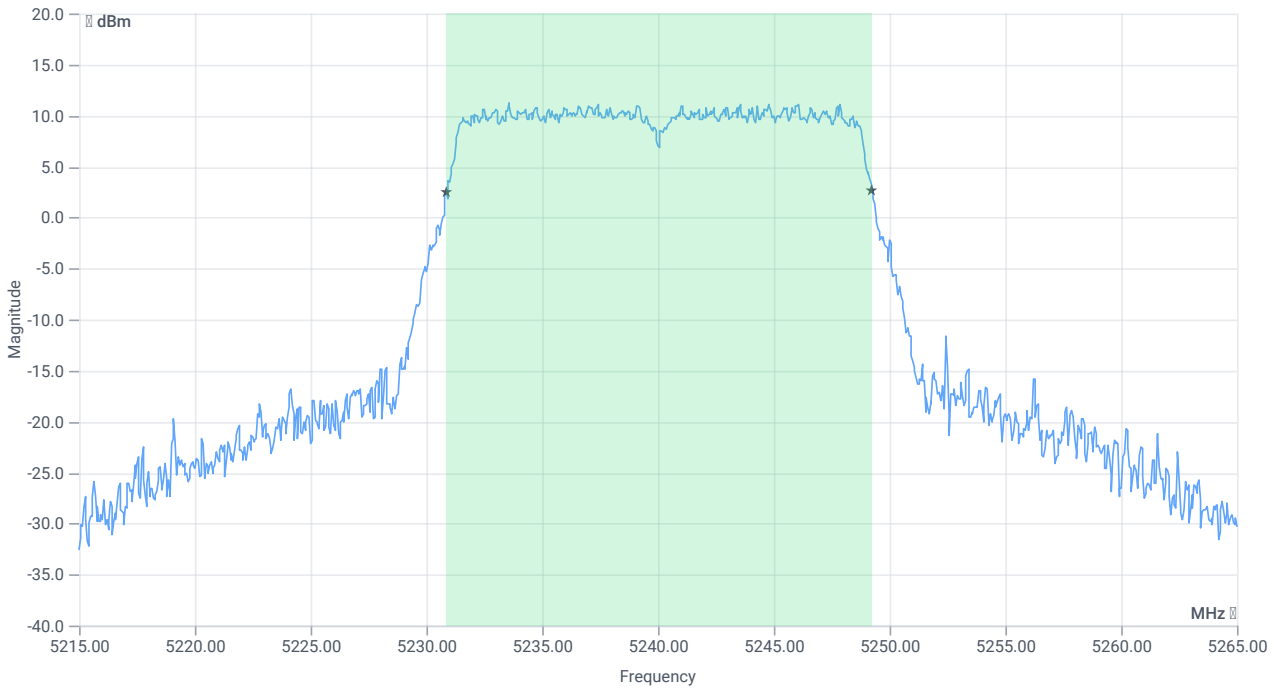
Test at TX 5240 MHz

RESULT: Reference Power cond.

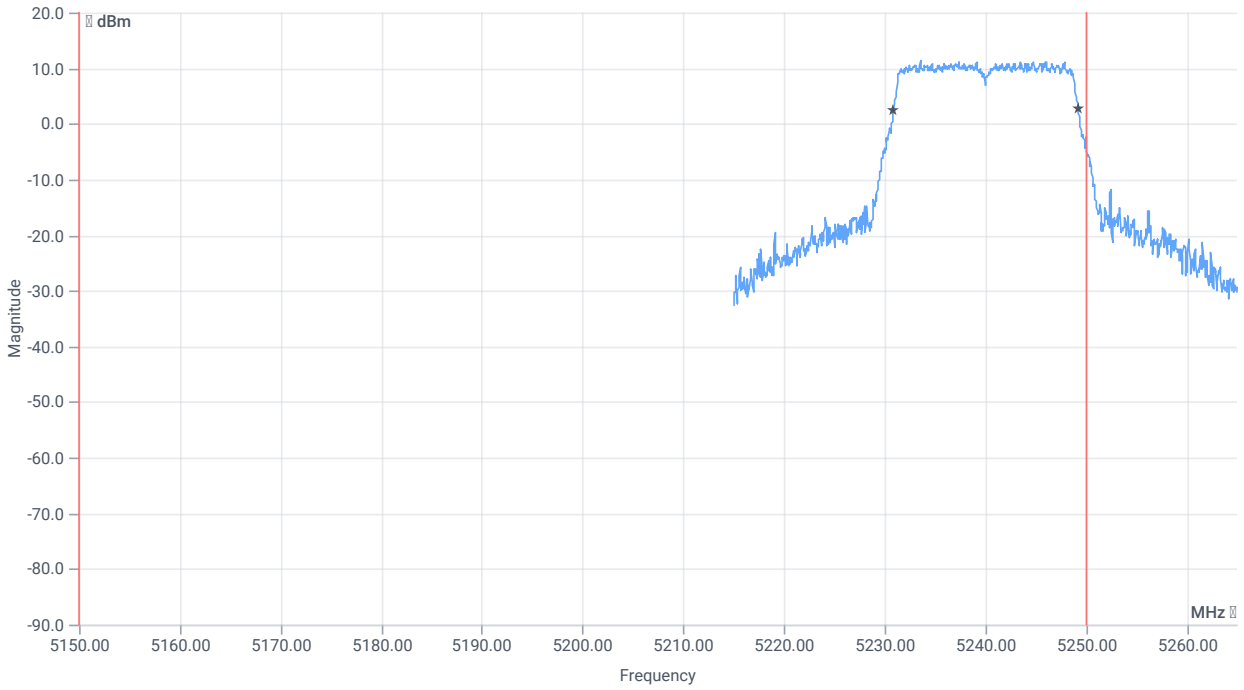
DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	15.76	dBm	INFO
Ref. Frequency	---	---	5244.600	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] | RefLevelOffset [dB] | InpAtt [dB]	23.76 | 16.37 | 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



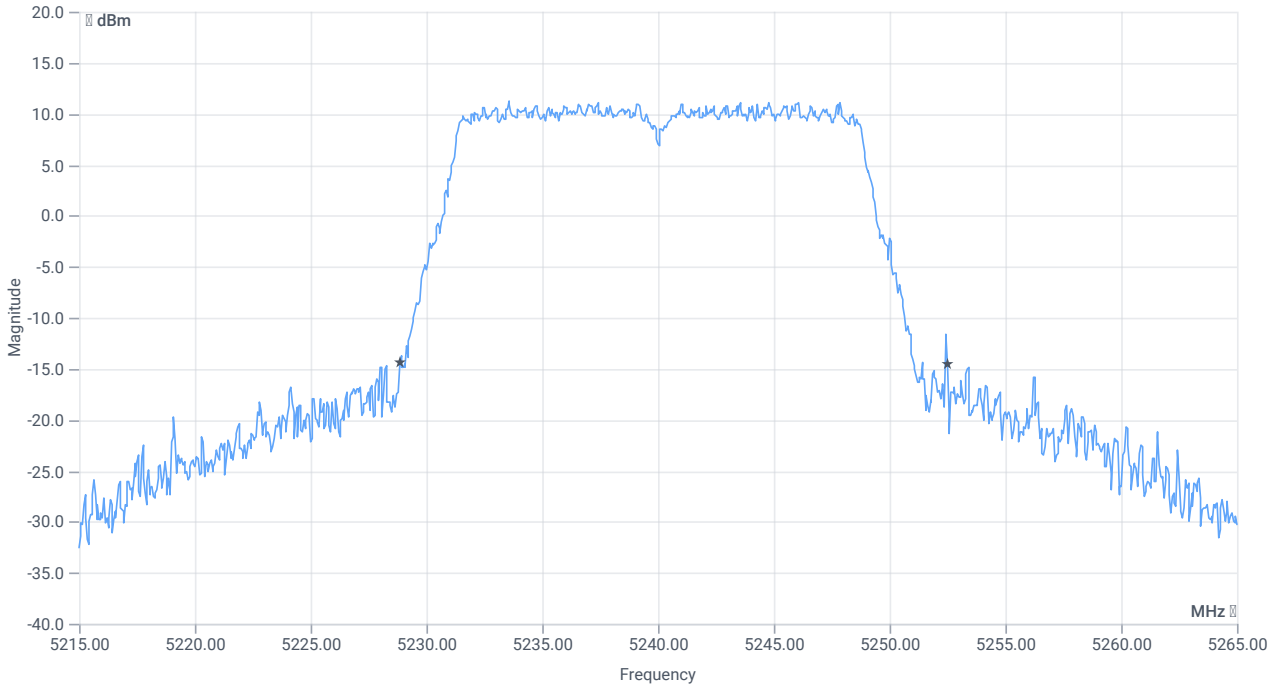
BW 99PCT



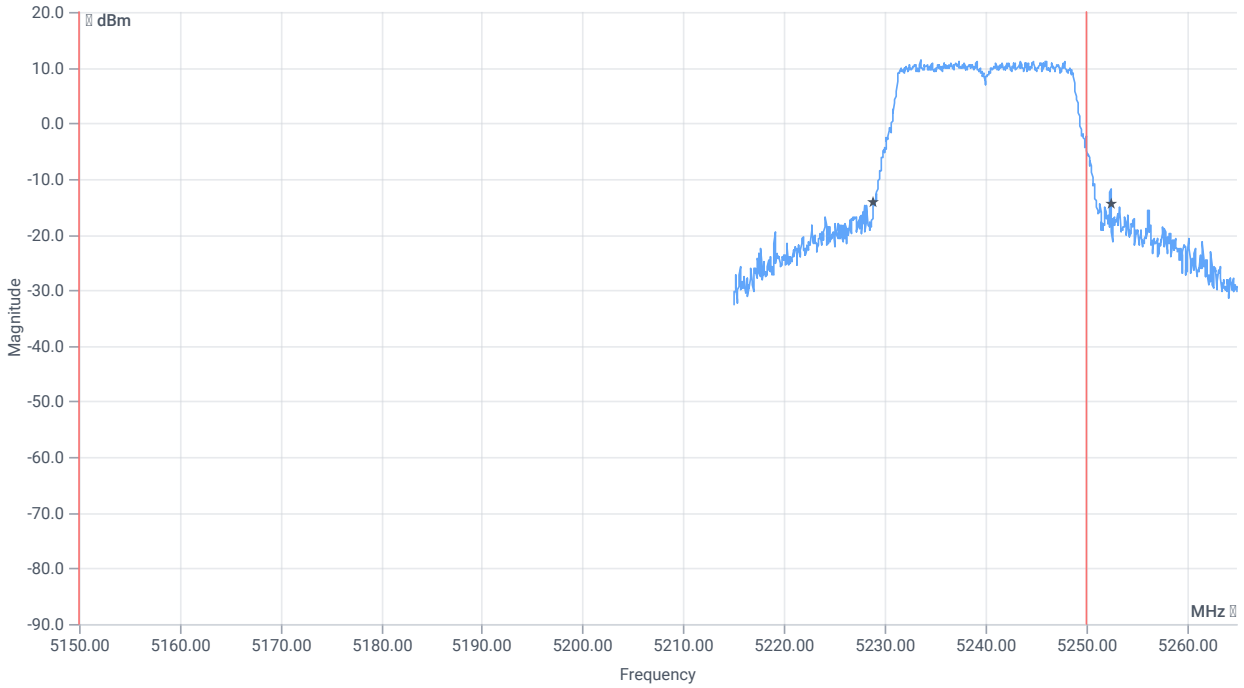
BW within Band 99PCT

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 99%	---	---	18.382	MHz	INFO
T1 99%	5150.000000	---	5230.8591	MHz	PASS
T2 99%	---	5250.000000	5249.2408	MHz	PASS



BW 26dB



BW within Band 26dB

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 26dB	---	---	23.65	MHz	INFO
T1 26dB	5150.000000	---	5228.8500	MHz	PASS
T2 26dB	---	5250.000000	5252.5000	MHz	DFS required

Verdict
PASS

FCC 15.407 # Max output power and psd ~ WLAN5Gx ac-VHT20 mode U-NII-1

References

TC start	25.07.2023 13:35:45
Ambit temp [°C] | humidity [rel%]	23.4 | 58
System version	4.6.0.0
Specification	FCC 15.407 -
Method	KDB789033 D02, F., E.2.e.
Description	FCC 15.407 Max Output Power & PSD - WLAN5Gx ac-VHT20 mode U-NII-1
Information	PS76

EUT Common Settings WLAN5Gx

Number of Antenna Ports	1
User Interaction	No
Device Class UNII_1	Client
Limit W52 Japan	Standard

Test Parameter

Technology to test	WLAN5Gx ac-VHT20 mode
Antenna port used	2
Temperature	nom
Voltage	nom
Frequency low to test	False | Freq [MHz] 5180
Frequency mid to test	False | Freq [MHz] 5200
Frequency high to test	True | Freq [MHz] 5240
Auto control enabled power supply | Climatic Box	No | No
Additional path loss [dB]	1.3
Switched path	EUT - SignalingUnit - SpectrumAnalyzer

Equipment

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

Test at TX 5240 MHz

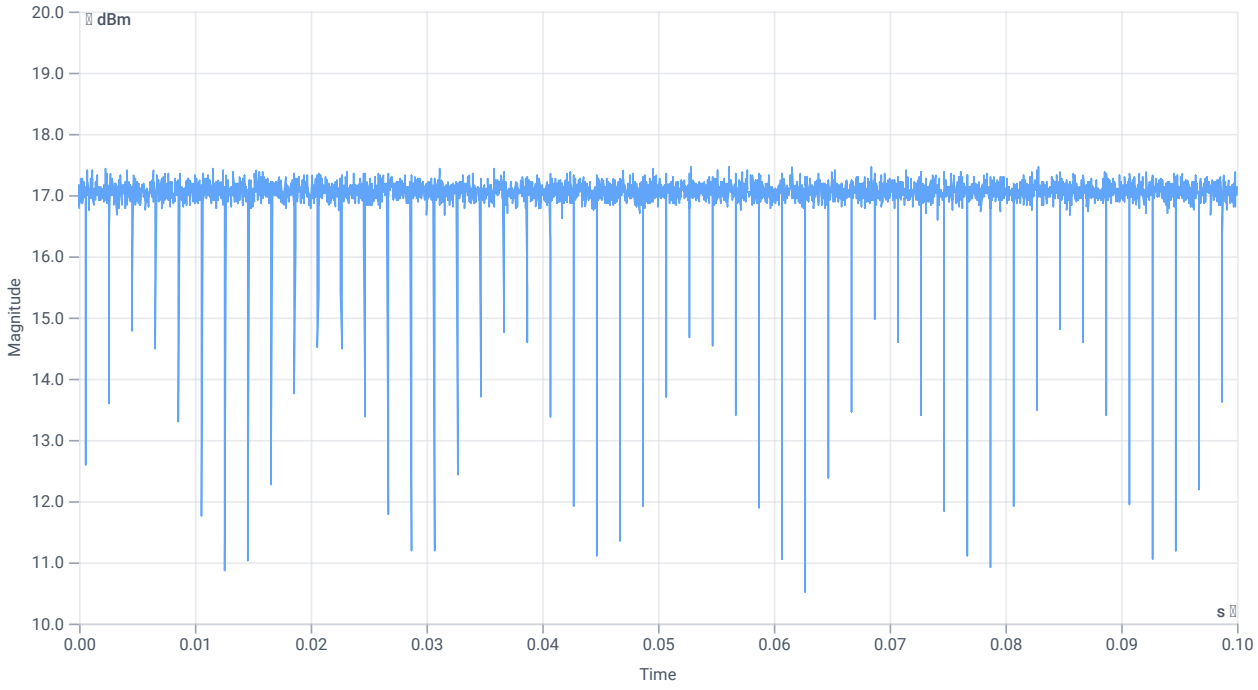
RESULT: Reference Power cond.

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	16.79	dBm	INFO
Ref. Frequency	---	---	5243.200	MHz	INFO

Evaluation max. Duty Cycle

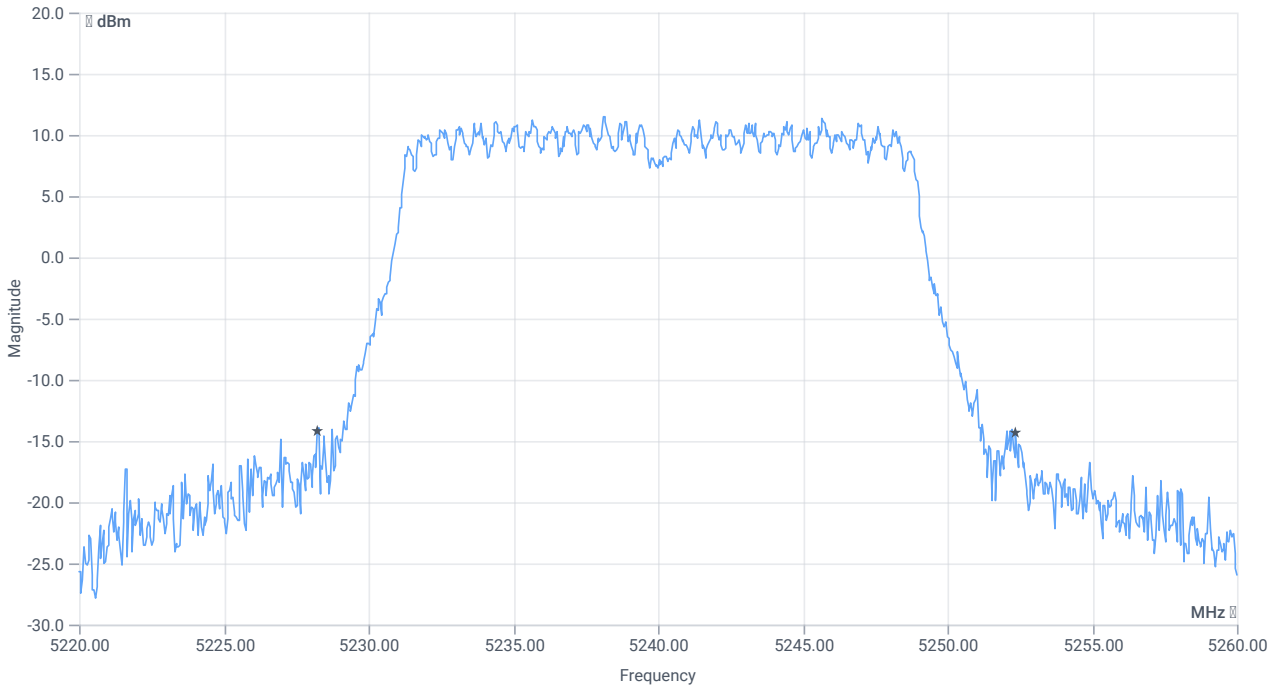
Duty Cycle evaluation

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

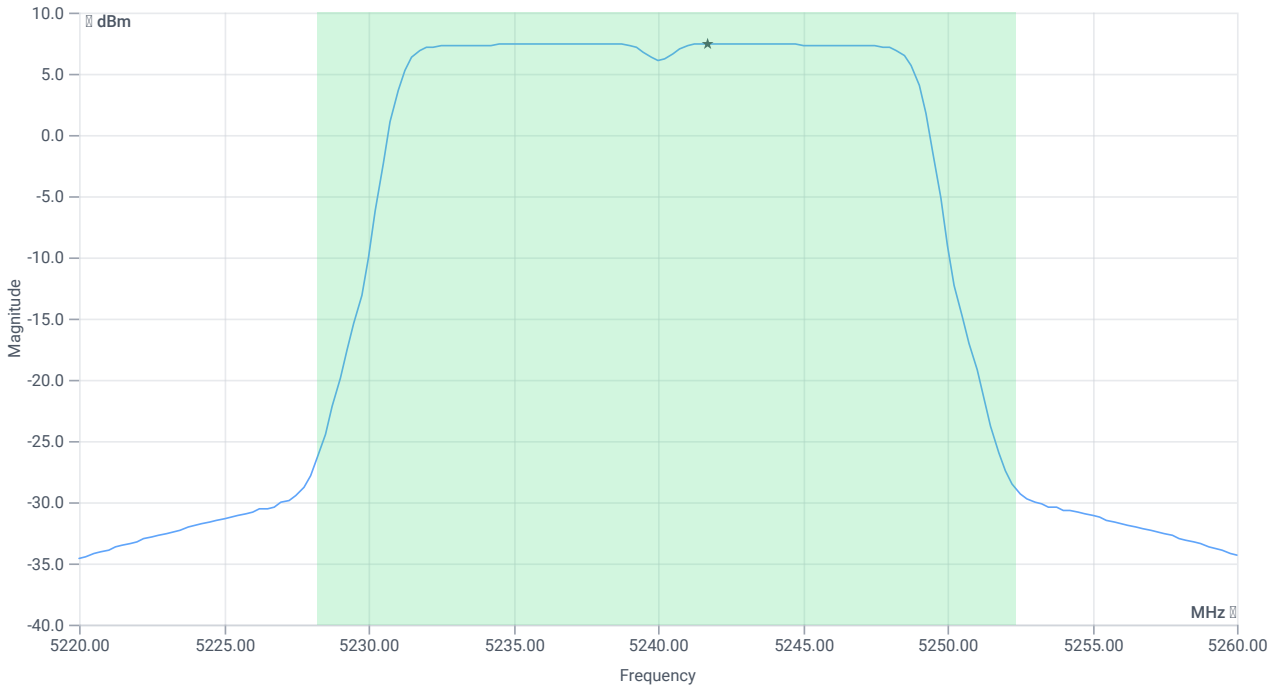
RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 26dB	---	---	24.12	MHz	INFO
T1 26dB	---	---	5228.2400	MHz	INFO
T2 26dB	---	---	5252.3600	MHz	INFO

Maximum Output Power

READ SA SETTINGS:

RefLevel [dBm] | RefLevelOffset [dB] | InpAtt [dB]	28.79 | 16.37 | 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	---	---	19.52	dBm	INFO
Duty Cycle Correction	---	---	0	dB	INFO
Limit absolute					
Max Output Power DC corrected	---	24	19.52	dBm	PASS
Limit: 11 dBm + 10 log		24.12			
Max Output Power DC corrected	---	24.82	19.52	dBm	na

Power Spectral Density

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Power Spectral Density	---	---	7.44	dBm/1MHz	INFO
Duty Cycle Correction	---	---	0	dB	INFO
Power Spectral Density DC corrected	---	11	7.44	dBm/1MHz	PASS

Verdict
PASS

FCC 15.407, ISED RSS247 # Bandwidths 99PCT and 26dB ~ WLAN5Gx ac-VHT20 mode U-NII-1

References

TC start	25.07.2023 13:37:13
Ambit temp [°C] | humidity [rel%]	23.3 | 58
System version	4.6.0.0
Specification	FCC 15.407, ISED RSS247 -
Method	26dB Bandwidth KDB789033 D02, C.1 / ISED RSS-GEN
Description	FCC 15.407 Bandwidths - WLAN5Gx ac-VHT20 mode U-NII-1
Information	PS76

EUT Common Settings WLAN5Gx

Number of Antenna Ports	1
User Interaction	No
Device Class UNII_1	Client
Limit W52 Japan	Standard

Test Parameter

Technology to test	WLAN5Gx ac-VHT20 mode
Antenna port used	2
Temperature	nom
Voltage	nom
Frequency low to test	False | Freq [MHz] 5180
Frequency mid to test	False | Freq [MHz] 5200
Frequency high to test	True | Freq [MHz] 5240
Auto control enabled power supply | Climatic Box	No | No
Additional path loss [dB]	1.3
Switched path	EUT - SignalingUnit - SpectrumAnalyzer

Equipment

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

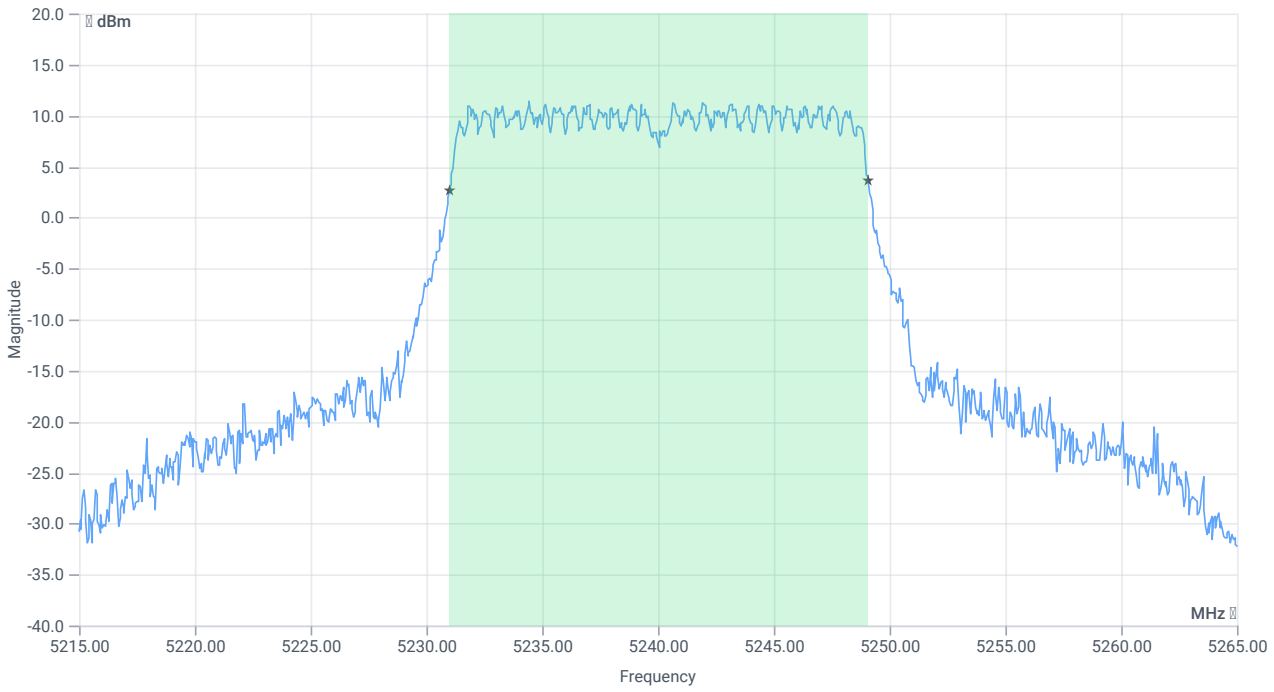
Test at TX 5240 MHz

RESULT: Reference Power cond.

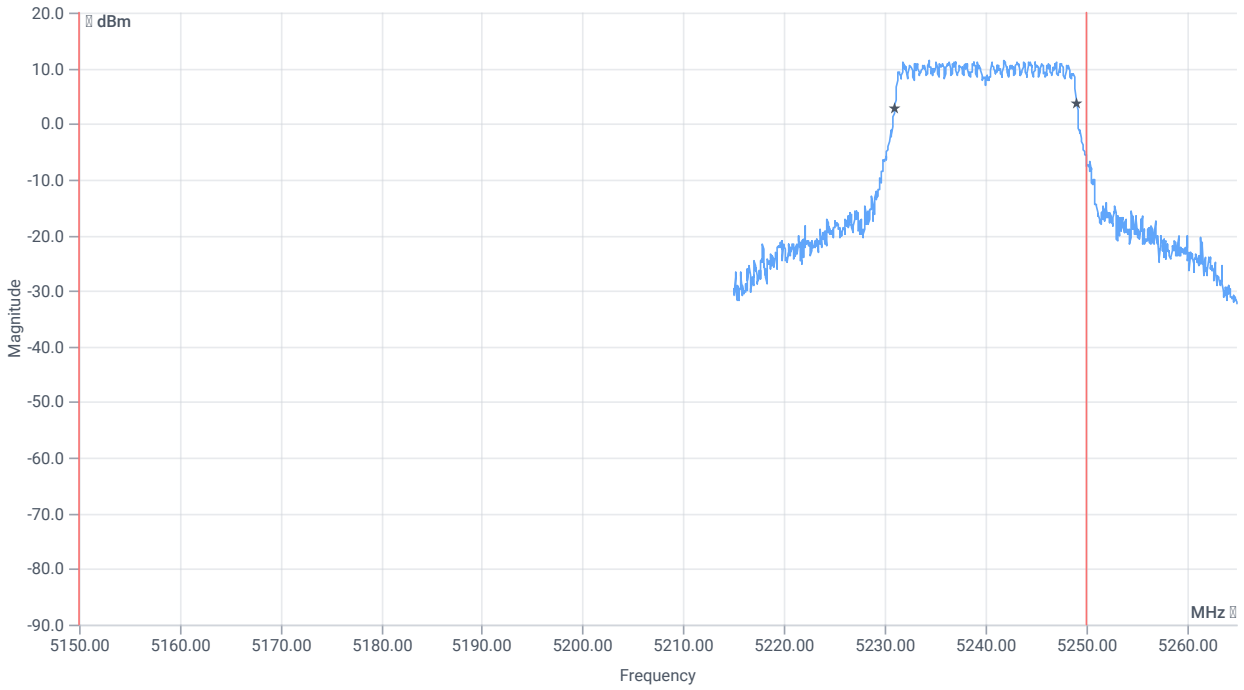
DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	15.89	dBm	INFO
Ref. Frequency	---	---	5232.610	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] | RefLevelOffset [dB] | InpAtt [dB]	23.89 | 16.37 | 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



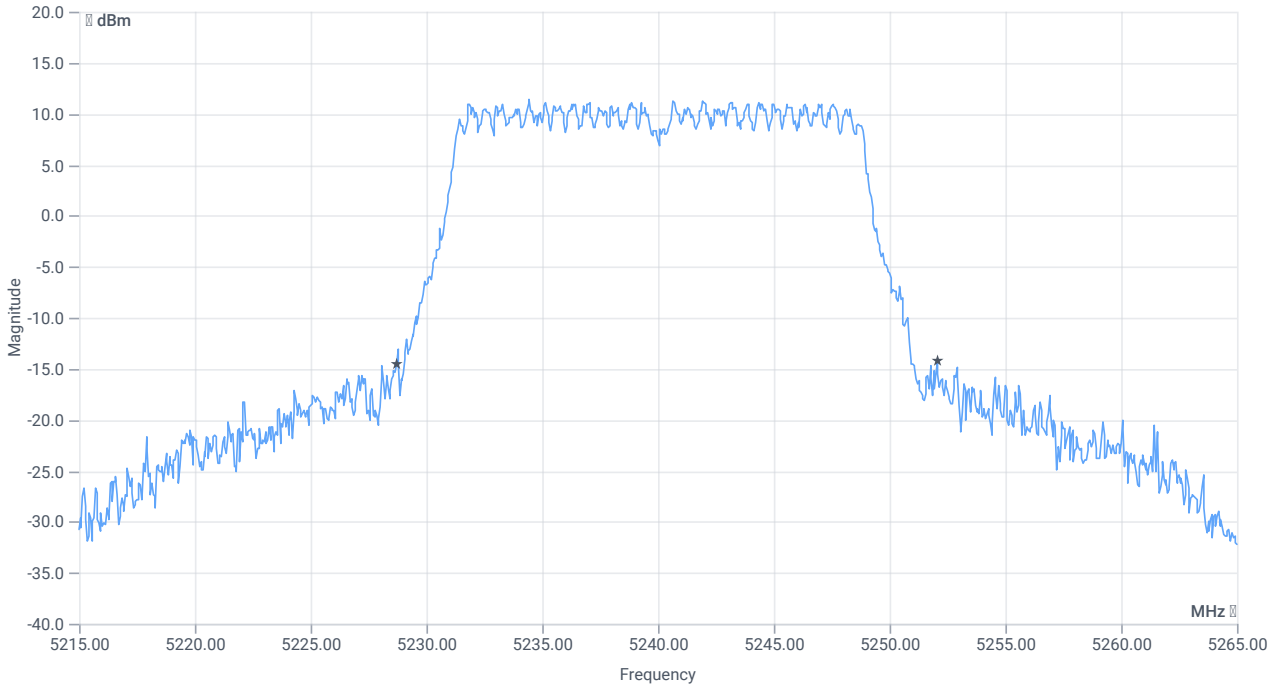
BW 99PCT



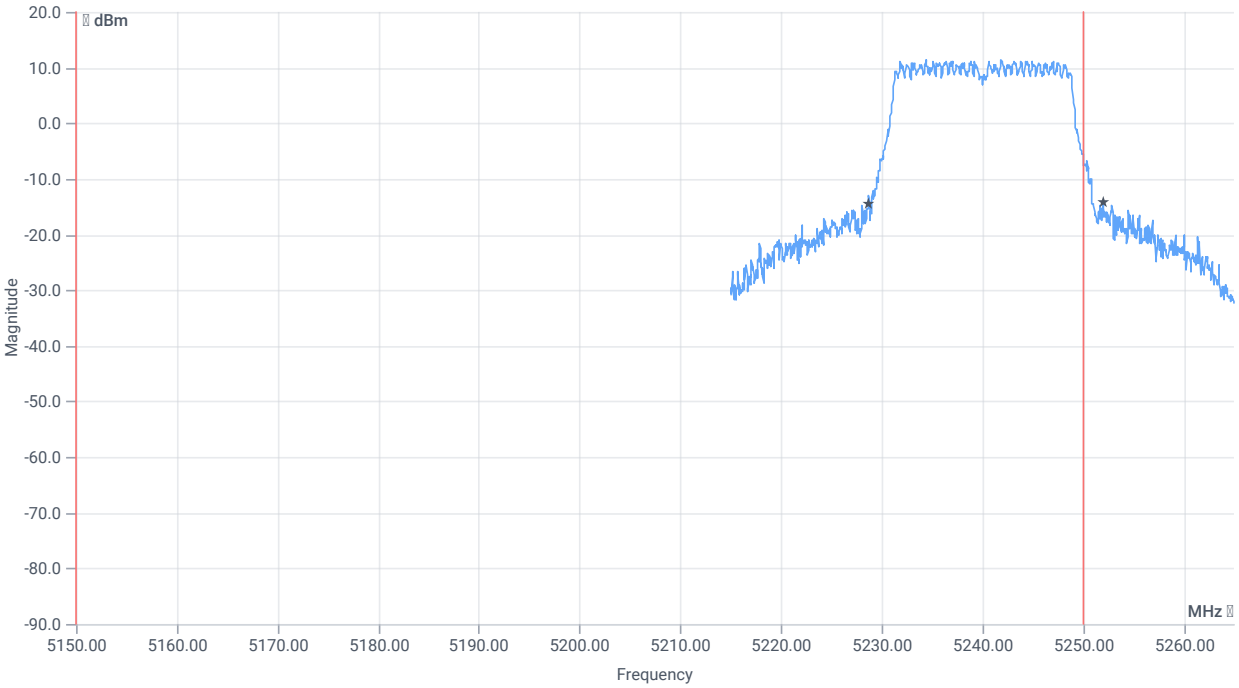
BW within Band 99PCT

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 99%	---	---	18.082	MHz	INFO
T1 99%	5150.000000	---	5231.0090	MHz	PASS
T2 99%	---	5250.000000	5249.0909	MHz	PASS



BW 26dB



BW within Band 26dB

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 26dB	---	---	23.35	MHz	INFO
T1 26dB	5150.000000	---	5228.7000	MHz	PASS
T2 26dB	---	5250.000000	5252.0500	MHz	DFS required

Verdict
PASS

FCC 15.407 # MIMO ∑ Max output power and psd ~ WLAN5Gx ac-VHT20 mode U-NII-1

References

TC start	25.07.2023 13:37:44
Ambit temp [°C] | humidity [rel%]	23.4 | 58
System version	4.6.0.0
Specification	FCC 15.407 -
Method	
Description	MIMO ∑ FCC Power & psd - WLAN5Gx ac-VHT20 mode U-NII-1
Information	PS76

EUT Common Settings WLAN5Gx

Number of Antenna Ports	1
User Interaction	No
Device Class UNII_1	Client
Limit W52 Japan	Standard

Test Parameter

Technology to test	WLAN5Gx ac-VHT20 mode
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]	1.3
Switched path	None

Equipment

Test at TX 5240 MHz

RESULT Power

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ant:1 Max Output Power DC corrected	---	---	20.05	dBm	INFO
Ant:1 BW 26dB	---	---	23.480	MHz	INFO
Ant:2 Max Output Power DC corrected	---	---	19.52	dBm	INFO
Ant:2 BW 26dB	---	---	24.120	MHz	INFO
∑ Limit absolute	---	24	22.8	dBm	PASS
∑ Limit: 11 dBm + 10 log 23.48	---	24.71	22.8	dBm	na

RESULT PSD

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ant:1 PSD	---	---	8.04	dBm/1MHz	INFO
Ant:2 PSD	---	---	7.44	dBm/1MHz	INFO
∑	---	11	10.76	dBm/1MHz	PASS

Verdict
PASS

Message with SA scan ~

References

TC start	25.07.2023 13:39:47
Ambit temp [°C] | humidity [rel%]	23.4 | 58
System version	4.6.0.0
Specification	-
Method	
Description	Message with SA Scan ac_VHT20_U_NII_2A
Information	PS76

Test Parameter

Switched Path	EUT - SignalingUnit - SpectrumAnalyzer
Message start	25.07.2023 13:39:47
Message	set WLAN5Gx to ac_VHT20_U_NII_2A, Frequency [MHz] 5260 ,

Equipment

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

Verdict
INFO

FCC 15.407 # Max output power and psd ~ WLAN5Gx ac-VHT20 mode U-NII-2A

References

TC start	25.07.2023 13:39:57
Ambit temp [°C] | humidity [rel%]	23.4 | 58
System version	4.6.0.0
Specification	FCC 15.407 -
Method	KDB789033 D02, F., E.2.e.
Description	FCC 15.407 Max Output Power & PSD - WLAN5Gx ac-VHT20 mode U-NII-2A
Information	PS76

EUT Common Settings WLAN5Gx

Number of Antenna Ports	1
User Interaction	No
Device Class UNII_1	Client
Limit W52 Japan	Standard

Test Parameter

Technology to test	WLAN5Gx ac-VHT20 mode
Antenna port used	1
Temperature	nom
Voltage	nom
Frequency low to test	True | Freq [MHz] 5260
Frequency mid to test	False | Freq [MHz] 5280
Frequency high to test	False | Freq [MHz] 5320
Auto control enabled power supply | Climatic Box	No | No
Additional path loss [dB]	1.3
Switched path	EUT - SignalingUnit - SpectrumAnalyzer

Equipment

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

Test at TX 5260 MHz

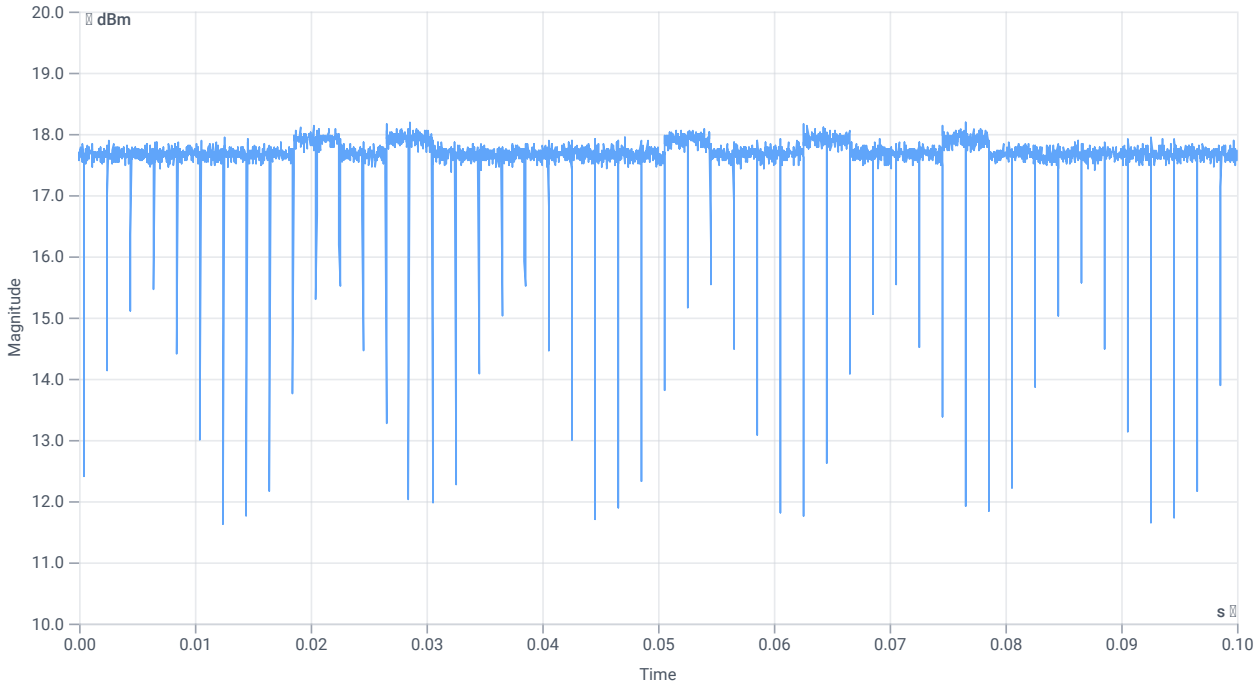
RESULT: Reference Power cond.

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	16.02	dBm	INFO
Ref. Frequency	---	---	5267.390	MHz	INFO

Evaluation max. Duty Cycle

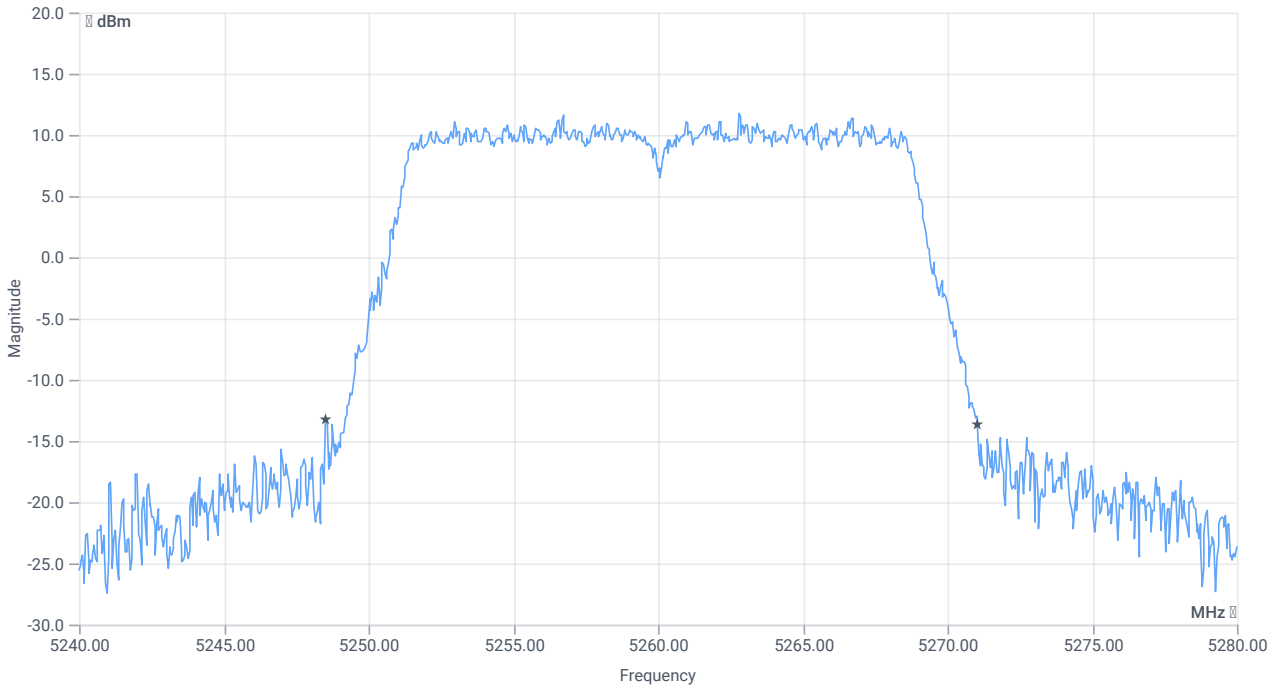
Duty Cycle evaluation

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

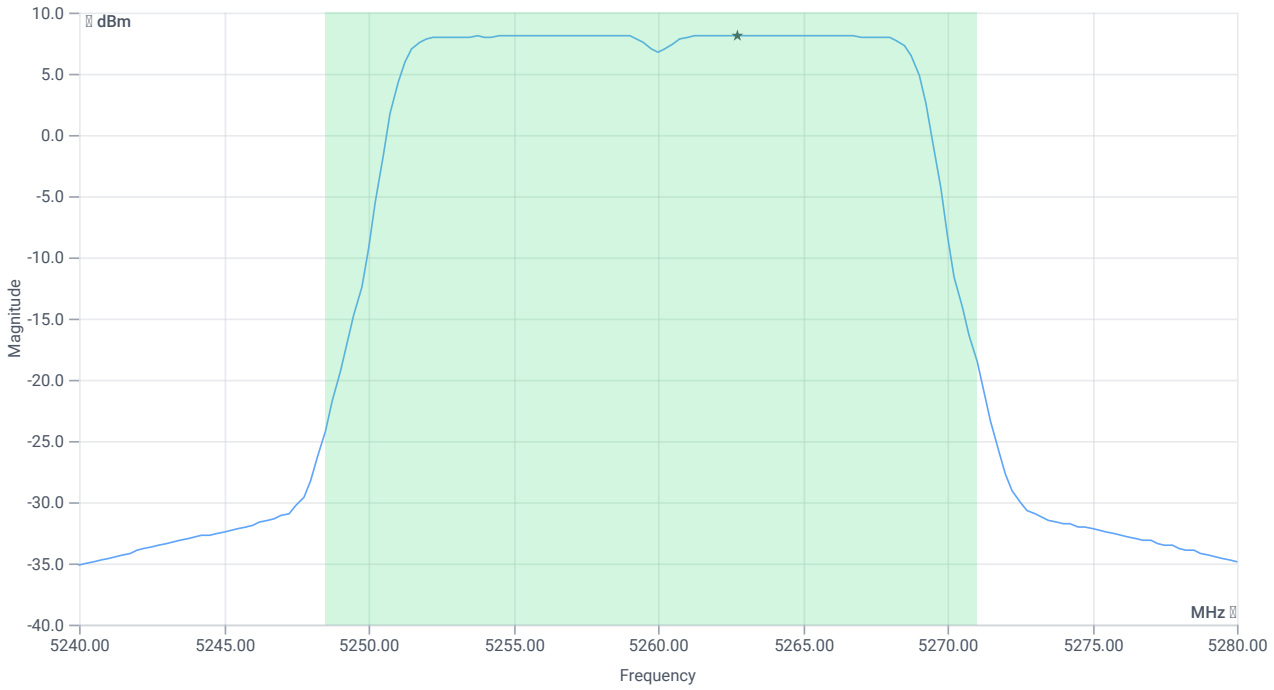
RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 26dB	---	---	22.52	MHz	INFO
T1 26dB	---	---	5248.5200	MHz	INFO
T2 26dB	---	---	5271.0400	MHz	INFO

Maximum Output Power

READ SA SETTINGS:

RefLevel [dBm] | RefLevelOffset [dB] | InpAtt [dB]	28.02 | 16.34 | 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	---	---	20.24	dBm	INFO
Duty Cycle Correction	---	---	0	dB	INFO
Limit absolute					
Max Output Power DC corrected	---	24	20.24	dBm	PASS
Limit: 11 dBm + 10 log		22.52			
Max Output Power DC corrected	---	24.53	20.24	dBm	PASS

Power Spectral Density

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Power Spectral Density	---	---	8.15	dBm/1MHz	INFO
Duty Cycle Correction	---	---	0	dB	INFO
Power Spectral Density DC corrected	---	11	8.15	dBm/1MHz	PASS

Verdict
PASS

FCC 15.407, ISED RSS247 # Bandwidths 99PCT and 26dB ~ WLAN5Gx ac-VHT20 mode U-NII-2A

References

TC start	25.07.2023 13:41:25
Ambit temp [°C] | humidity [rel%]	23.3 | 58
System version	4.6.0.0
Specification	FCC 15.407, ISED RSS247 -
Method	26dB Bandwidth KDB789033 D02, C.1 / ISED RSS-GEN
Description	FCC 15.407 Bandwidths - WLAN5Gx ac-VHT20 mode U-NII-2A
Information	PS76

EUT Common Settings WLAN5Gx

Number of Antenna Ports	1
User Interaction	No
Device Class UNII_1	Client
Limit W52 Japan	Standard

Test Parameter

Technology to test	WLAN5Gx ac-VHT20 mode
Antenna port used	1
Temperature	nom
Voltage	nom
Frequency low to test	True | Freq [MHz] 5260
Frequency mid to test	False | Freq [MHz] 5280
Frequency high to test	False | Freq [MHz] 5320
Auto control enabled power supply | Climatic Box	No | No
Additional path loss [dB]	1.3
Switched path	EUT - SignalingUnit - SpectrumAnalyzer

Equipment

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

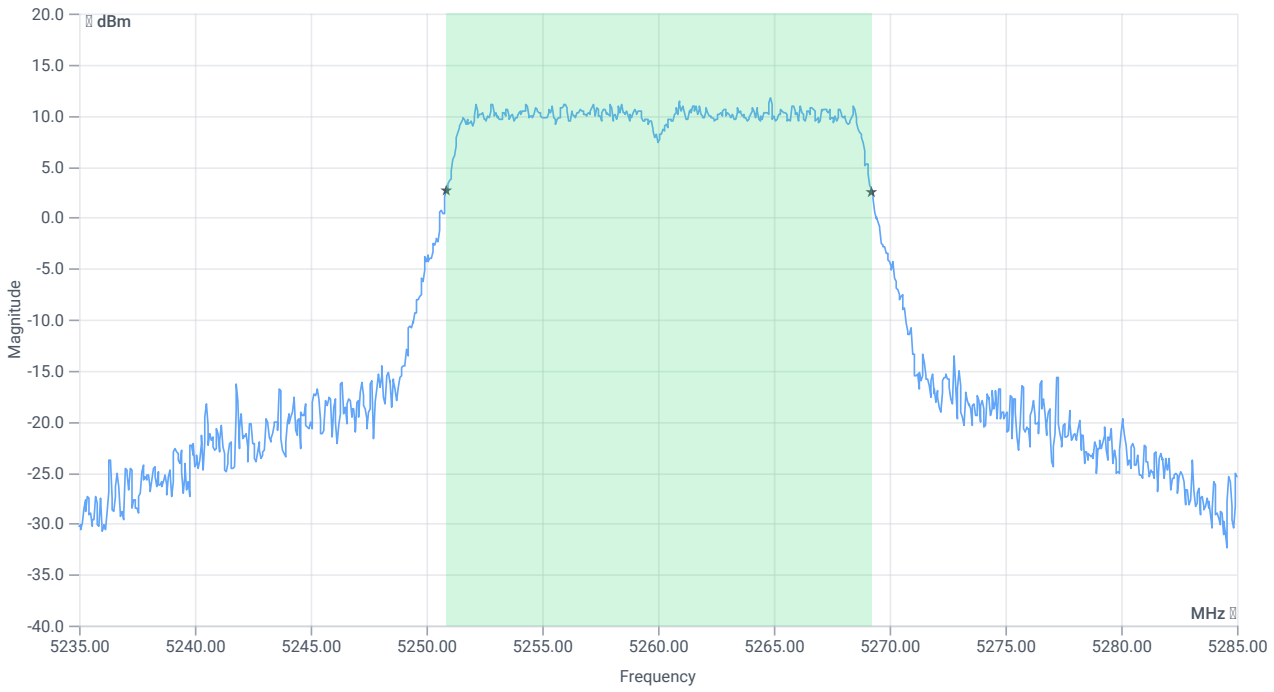
Test at TX 5260 MHz

RESULT: Reference Power cond.

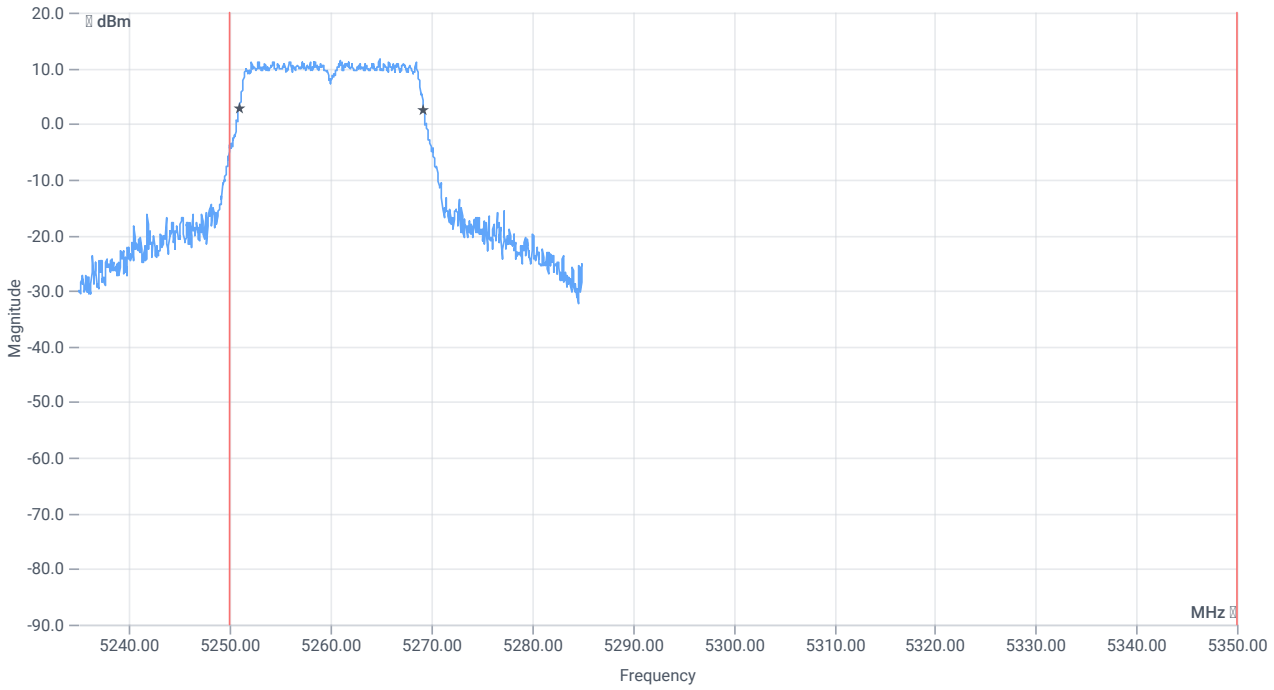
DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	16.63	dBm	INFO
Ref. Frequency	---	---	5257.200	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] | RefLevelOffset [dB] | InpAtt [dB]	24.63 | 16.34 | 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



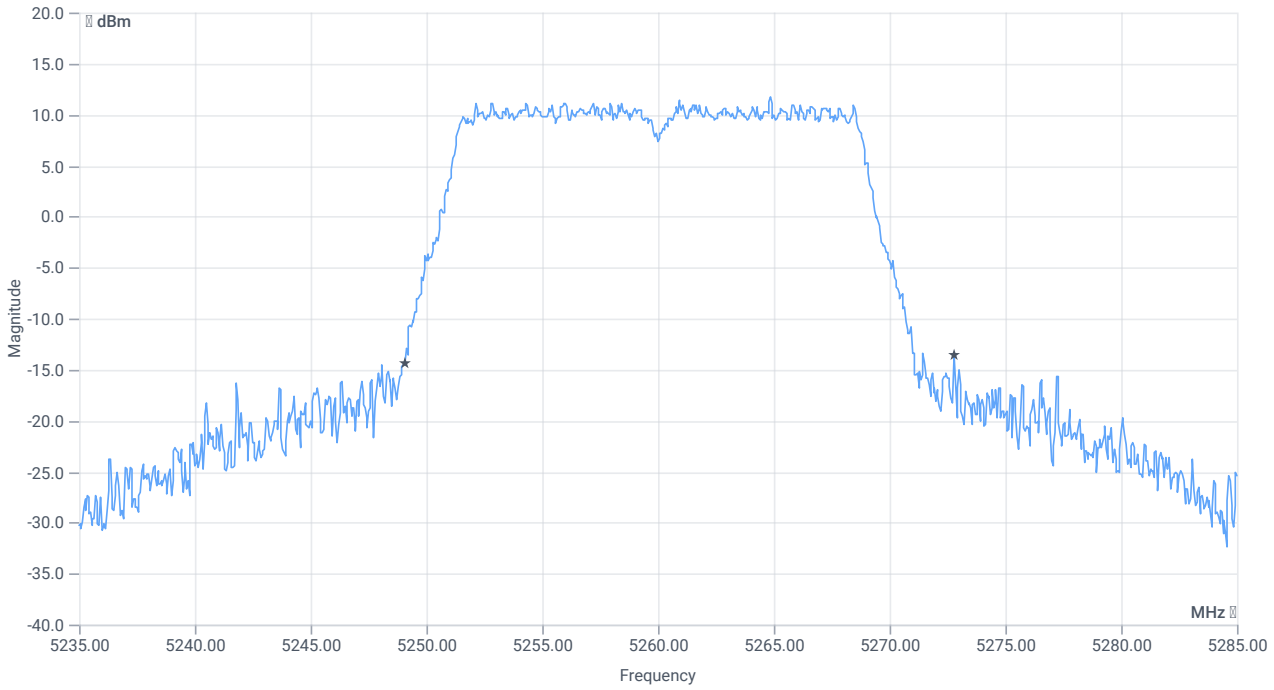
BW 99PCT



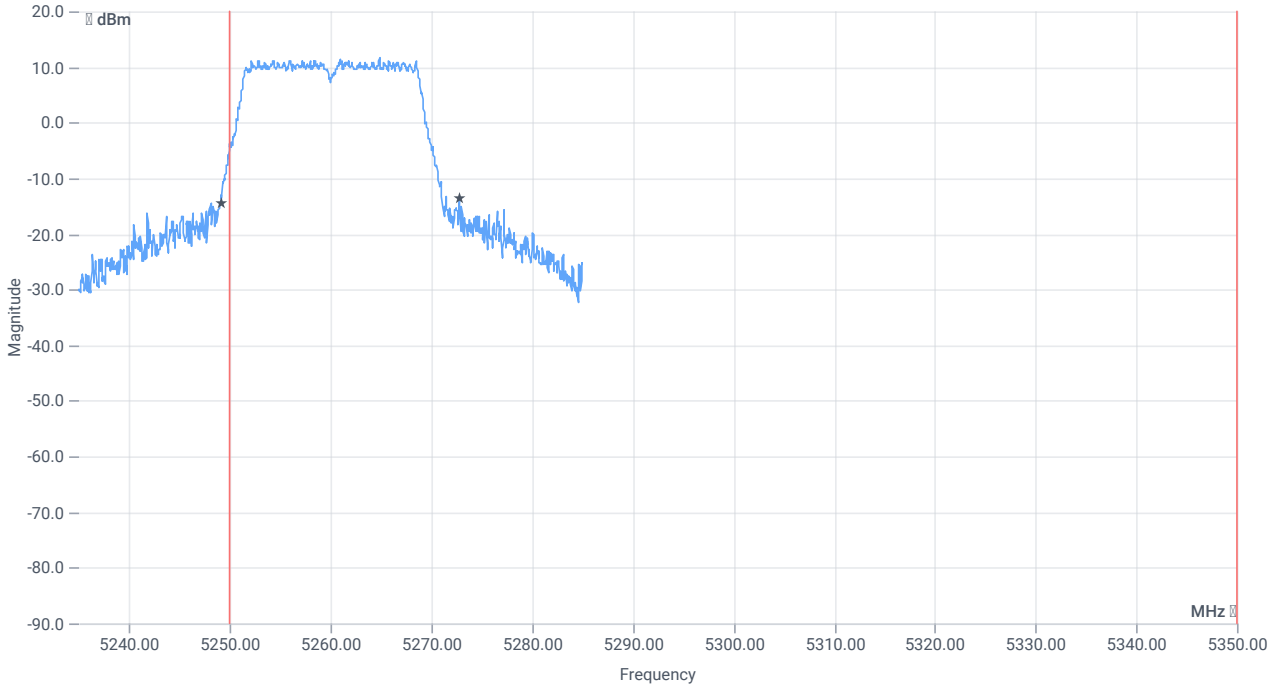
BW within Band 99PCT

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 99%	---	---	18.382	MHz	INFO
T1 99%	5250.000000	---	5250.8591	MHz	PASS since U-NII-1 is supported
T2 99%	---	5350.000000	5269.2408	MHz	PASS



BW 26dB



BW within Band 26dB

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 26dB	---	---	23.7	MHz	INFO

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
T1 26dB	5250.000000	---	5249.1000	MHz	PASS since U-NII-1 is supported
T2 26dB	---	5350.000000	5272.8000	MHz	PASS

Verdict
PASS

FCC 15.407 # Max output power and psd ~ WLAN5Gx ac-VHT20 mode U-NII-2A

References

TC start	25.07.2023 13:41:56
Ambit temp [°C] | humidity [rel%]	23.3 | 58
System version	4.6.0.0
Specification	FCC 15.407 -
Method	KDB789033 D02, F., E.2.e.
Description	FCC 15.407 Max Output Power & PSD - WLAN5Gx ac-VHT20 mode U-NII-2A
Information	PS76

EUT Common Settings WLAN5Gx

Number of Antenna Ports	1
User Interaction	No
Device Class UNII_1	Client
Limit W52 Japan	Standard

Test Parameter

Technology to test	WLAN5Gx ac-VHT20 mode
Antenna port used	2
Temperature	nom
Voltage	nom
Frequency low to test	True | Freq [MHz] 5260
Frequency mid to test	False | Freq [MHz] 5280
Frequency high to test	False | Freq [MHz] 5320
Auto control enabled power supply | Climatic Box	No | No
Additional path loss [dB]	1.3
Switched path	EUT - SignalingUnit - SpectrumAnalyzer

Equipment

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

Test at TX 5260 MHz

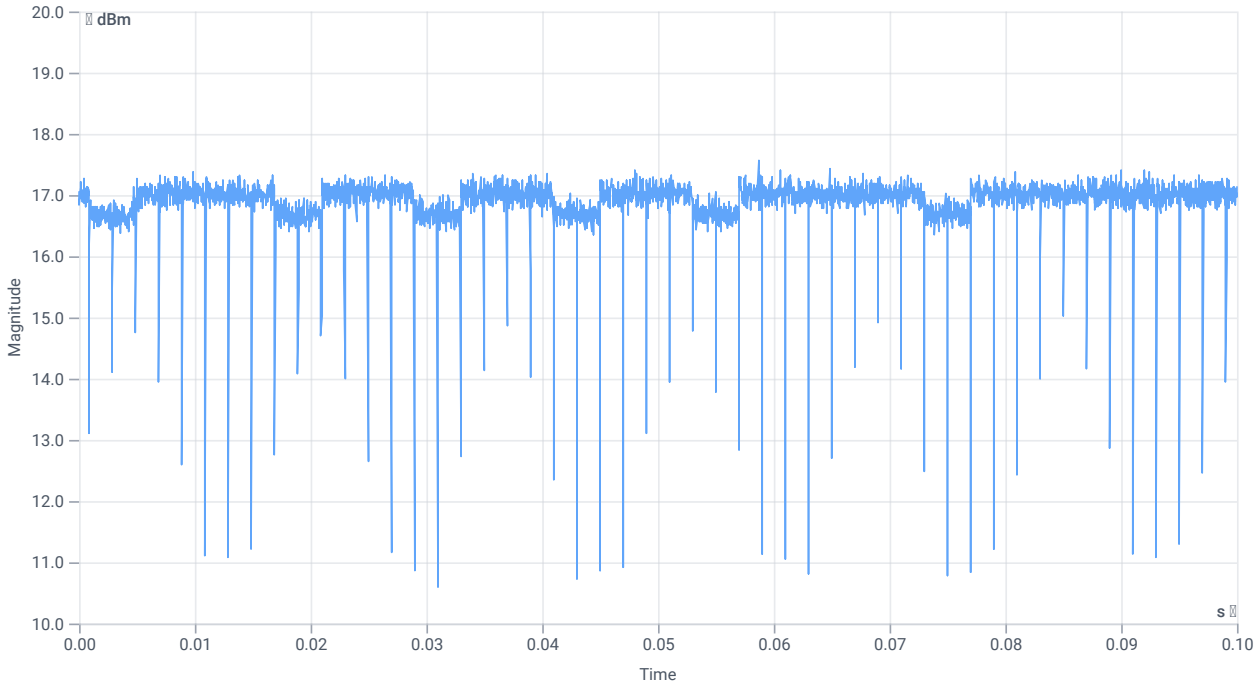
RESULT: Reference Power cond.

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	16.44	dBm	INFO
Ref. Frequency	---	---	5264.800	MHz	INFO

Evaluation max. Duty Cycle

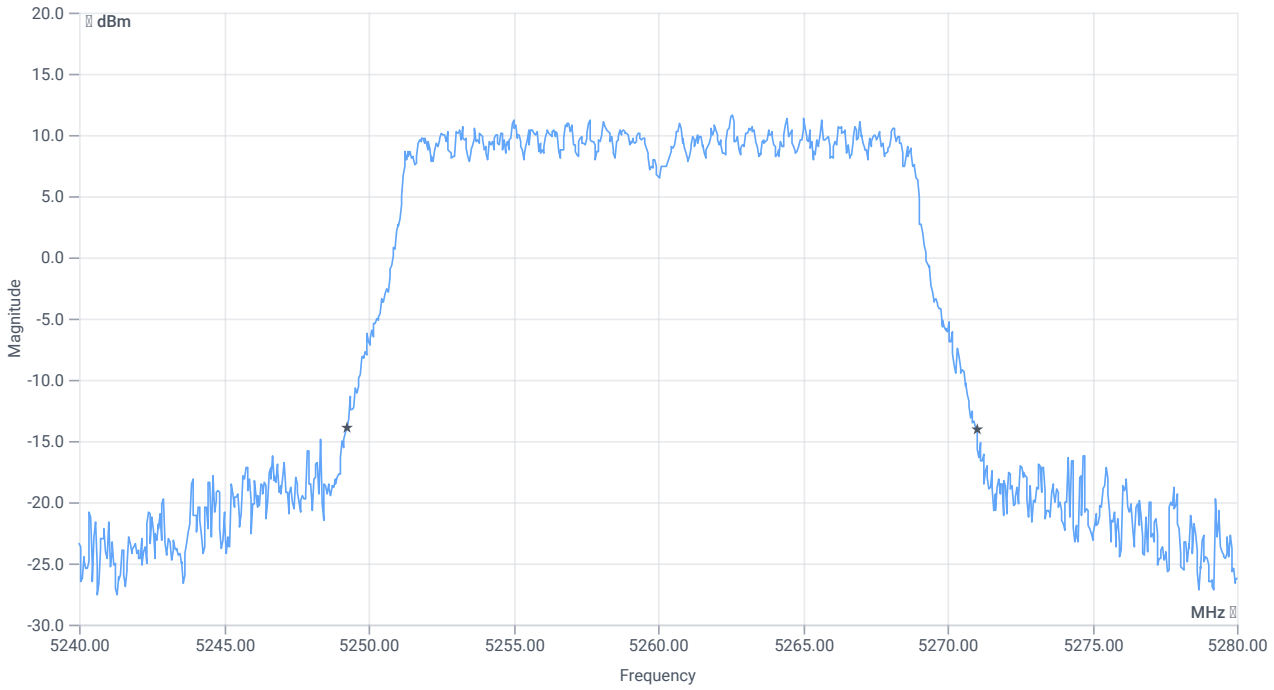
Duty Cycle evaluation

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

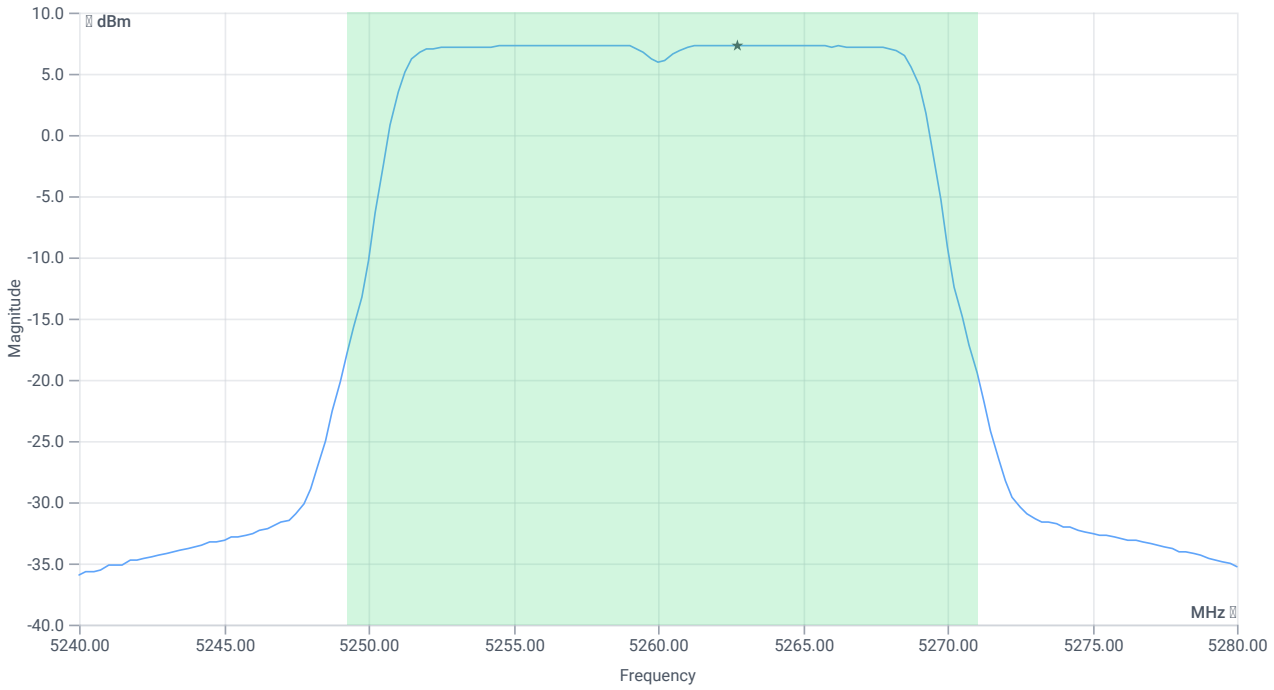
RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 26dB	---	---	21.76	MHz	INFO
T1 26dB	---	---	5249.2400	MHz	INFO
T2 26dB	---	---	5271.0000	MHz	INFO

Maximum Output Power

READ SA SETTINGS:

RefLevel [dBm] | RefLevelOffset [dB] | InpAtt [dB]	28.44 | 16.34 | 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	---	---	19.41	dBm	INFO
Duty Cycle Correction	---	---	0	dB	INFO
Limit absolute					
Max Output Power DC corrected	---	24	19.41	dBm	PASS
Limit: 11 dBm + 10 log	21.76				
Max Output Power DC corrected	---	24.38	19.41	dBm	PASS

Power Spectral Density

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Power Spectral Density	---	---	7.34	dBm/1MHz	INFO
Duty Cycle Correction	---	---	0	dB	INFO
Power Spectral Density DC corrected	---	11	7.34	dBm/1MHz	PASS

Verdict
PASS

FCC 15.407, ISED RSS247 # Bandwidths 99PCT and 26dB ~ WLAN5Gx ac-VHT20 mode U-NII-2A

References

TC start	25.07.2023 13:43:24
Ambit temp [°C] | humidity [rel%]	23.3 | 58
System version	4.6.0.0
Specification	FCC 15.407, ISED RSS247 -
Method	26dB Bandwidth KDB789033 D02, C.1 / ISED RSS-GEN
Description	FCC 15.407 Bandwidths - WLAN5Gx ac-VHT20 mode U-NII-2A
Information	PS76

EUT Common Settings WLAN5Gx

Number of Antenna Ports	1
User Interaction	No
Device Class UNII_1	Client
Limit W52 Japan	Standard

Test Parameter

Technology to test	WLAN5Gx ac-VHT20 mode
Antenna port used	2
Temperature	nom
Voltage	nom
Frequency low to test	True | Freq [MHz] 5260
Frequency mid to test	False | Freq [MHz] 5280
Frequency high to test	False | Freq [MHz] 5320
Auto control enabled power supply | Climatic Box	No | No
Additional path loss [dB]	1.3
Switched path	EUT - SignalingUnit - SpectrumAnalyzer

Equipment

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

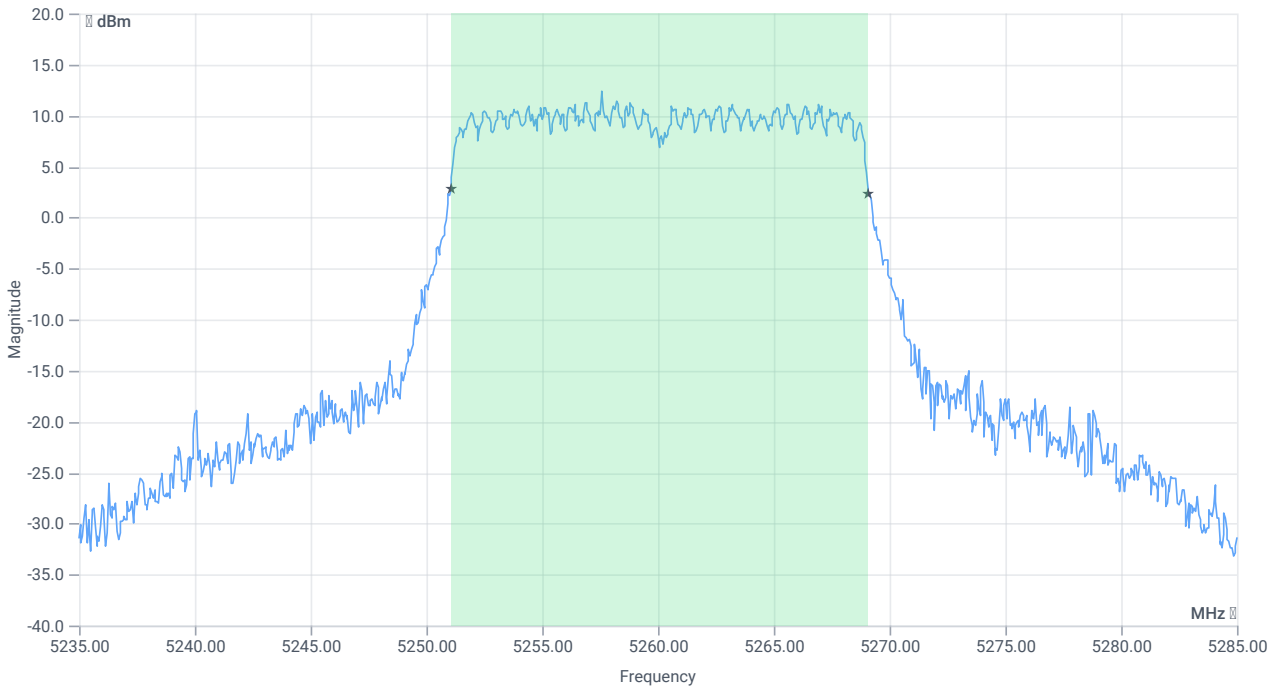
Test at TX 5260 MHz

RESULT: Reference Power cond.

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	16.70	dBm	INFO
Ref. Frequency	---	---	5257.400	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] | RefLevelOffset [dB] | InpAtt [dB]	24.70 | 16.34 | 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

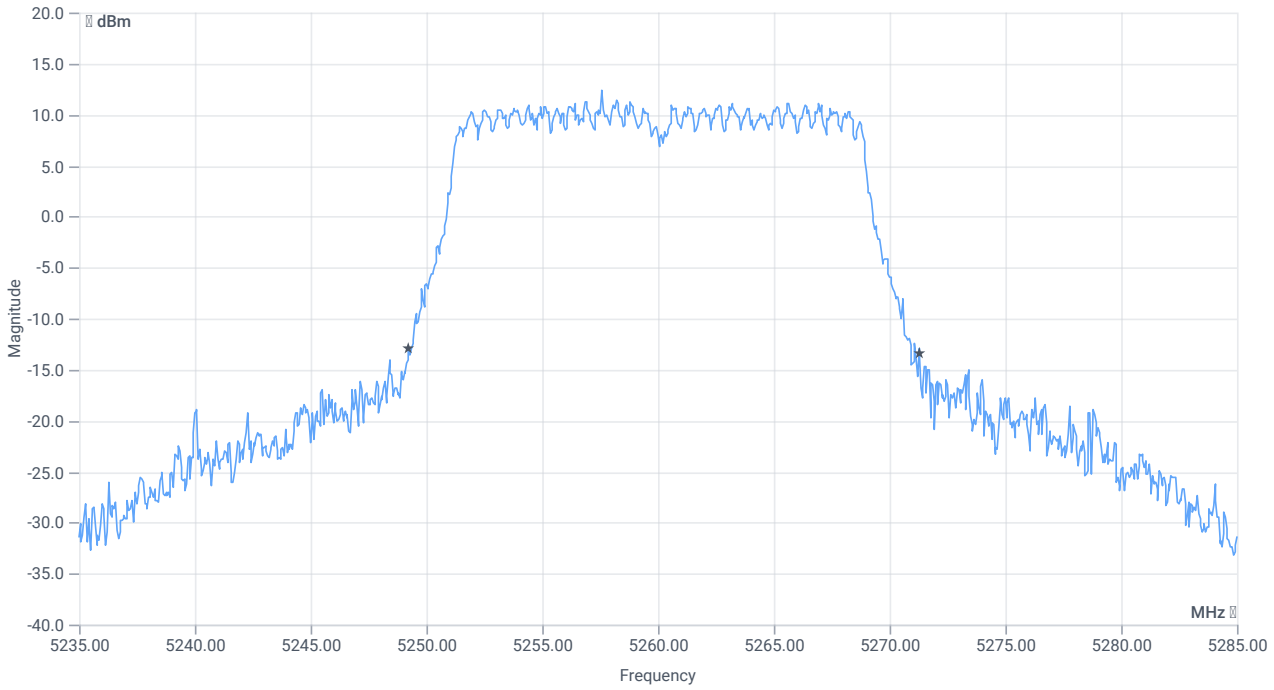


BW 99PCT

BW within Band 99PCT

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 99%	---	---	18.032	MHz	INFO
T1 99%	5250.000000	---	5251.0589	MHz	PASS since U-NII-1 is supported
T2 99%	---	5350.000000	5269.0909	MHz	PASS



BW 26dB

BW within Band 26dB

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 26dB	---	---	22.05	MHz	INFO

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
T1 26dB	5250.000000	---	5249.2500	MHz	PASS since U-NII-1 is supported
T2 26dB	---	5350.000000	5271.3000	MHz	PASS

Verdict
PASS

FCC 15.407 # MIMO ∑ Max output power and psd ~ WLAN5Gx ac-VHT20 mode U-NII-2A

References

TC start	25.07.2023 13:43:55
Ambit temp [°C] | humidity [rel%]	23.3 | 58
System version	4.6.0.0
Specification	FCC 15.407 -
Method	
Description	MIMO ∑ FCC Power & psd - WLAN5Gx ac-VHT20 mode U-NII-2A
Information	PS76

EUT Common Settings WLAN5Gx

Number of Antenna Ports	1
User Interaction	No
Device Class UNII_1	Client
Limit W52 Japan	Standard

Test Parameter

Technology to test	WLAN5Gx ac-VHT20 mode
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]	1.3
Switched path	None

Equipment

Test at TX 5260 MHz

RESULT Power

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ant:1 Max Output Power DC corrected	---	---	20.24	dBm	INFO
Ant:1 BW 26dB	---	---	22.520	MHz	INFO
Ant:2 Max Output Power DC corrected	---	---	19.41	dBm	INFO
Ant:2 BW 26dB	---	---	21.760	MHz	INFO
∑ Limit absolute	---	24	22.86	dBm	PASS
∑ Limit: 11 dBm + 10 log 21.76	---	24.38	22.86	dBm	PASS

RESULT PSD

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ant:1 PSD	---	---	8.15	dBm/1MHz	INFO
Ant:2 PSD	---	---	7.34	dBm/1MHz	INFO
∑	---	11	10.77	dBm/1MHz	PASS

Verdict
PASS

Message with SA scan ~

References

TC start	25.07.2023 13:54:36
Ambit temp [°C] | humidity [rel%]	23.1 | 59
System version	4.6.0.0
Specification	-
Method	
Description	Message with SA Scan ac_VHT20_U_NII_2A
Information	PS76

Test Parameter

Switched Path	EUT - SignalingUnit - SpectrumAnalyzer
Message start	25.07.2023 13:54:36
Message	set WLAN5Gx to ac_VHT20_U_NII_2A, Frequency [MHz] 5280 ,

Equipment

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

Verdict
INFO

FCC 15.407 # Max output power and psd ~ WLAN5Gx ac-VHT20 mode U-NII-2A

References

TC start	25.07.2023 13:55:06
Ambit temp [°C] | humidity [rel%]	23.1 | 59
System version	4.6.0.0
Specification	FCC 15.407 -
Method	KDB789033 D02, F., E.2.e.
Description	FCC 15.407 Max Output Power & PSD - WLAN5Gx ac-VHT20 mode U-NII-2A
Information	PS76

EUT Common Settings WLAN5Gx

Number of Antenna Ports	1
User Interaction	No
Device Class UNII_1	Client
Limit W52 Japan	Standard

Test Parameter

Technology to test	WLAN5Gx ac-VHT20 mode
Antenna port used	1
Temperature	nom
Voltage	nom
Frequency low to test	False | Freq [MHz] 5260
Frequency mid to test	True | Freq [MHz] 5280
Frequency high to test	False | Freq [MHz] 5320
Auto control enabled power supply | Climatic Box	No | No
Additional path loss [dB]	1.3
Switched path	EUT - SignalingUnit - SpectrumAnalyzer

Equipment

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

Test at TX 5280 MHz

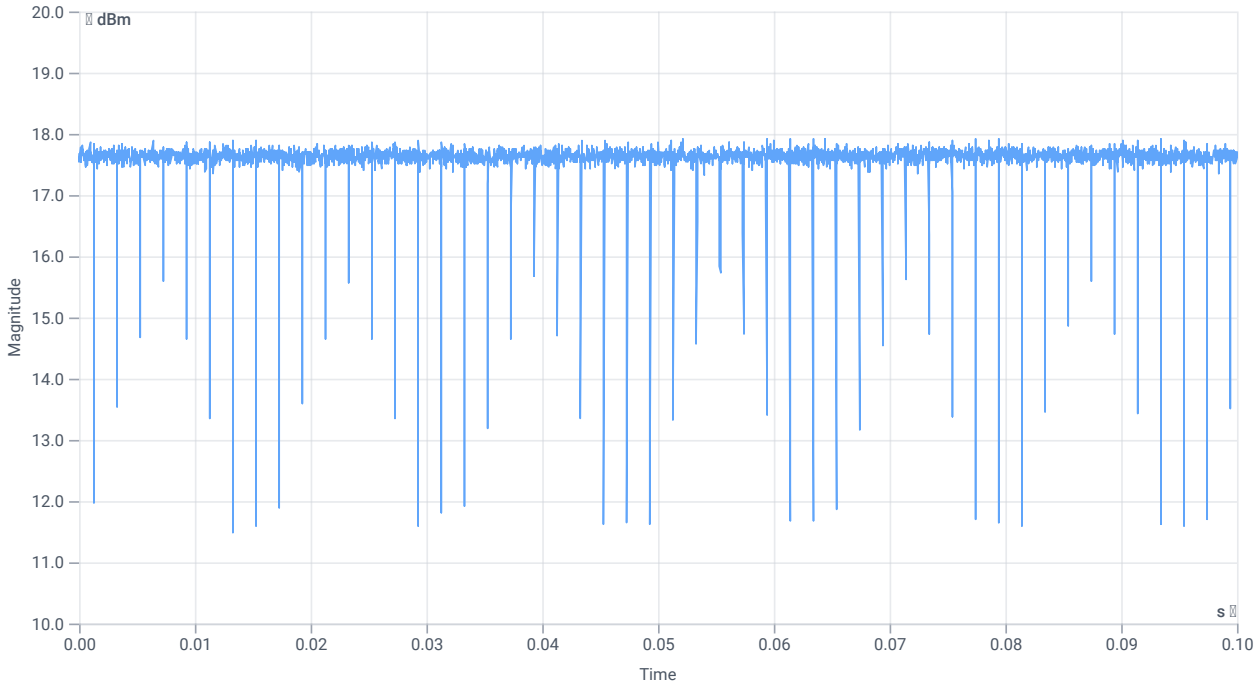
RESULT: Reference Power cond.

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	16.06	dBm	INFO
Ref. Frequency	---	---	5287.590	MHz	INFO

Evaluation max. Duty Cycle

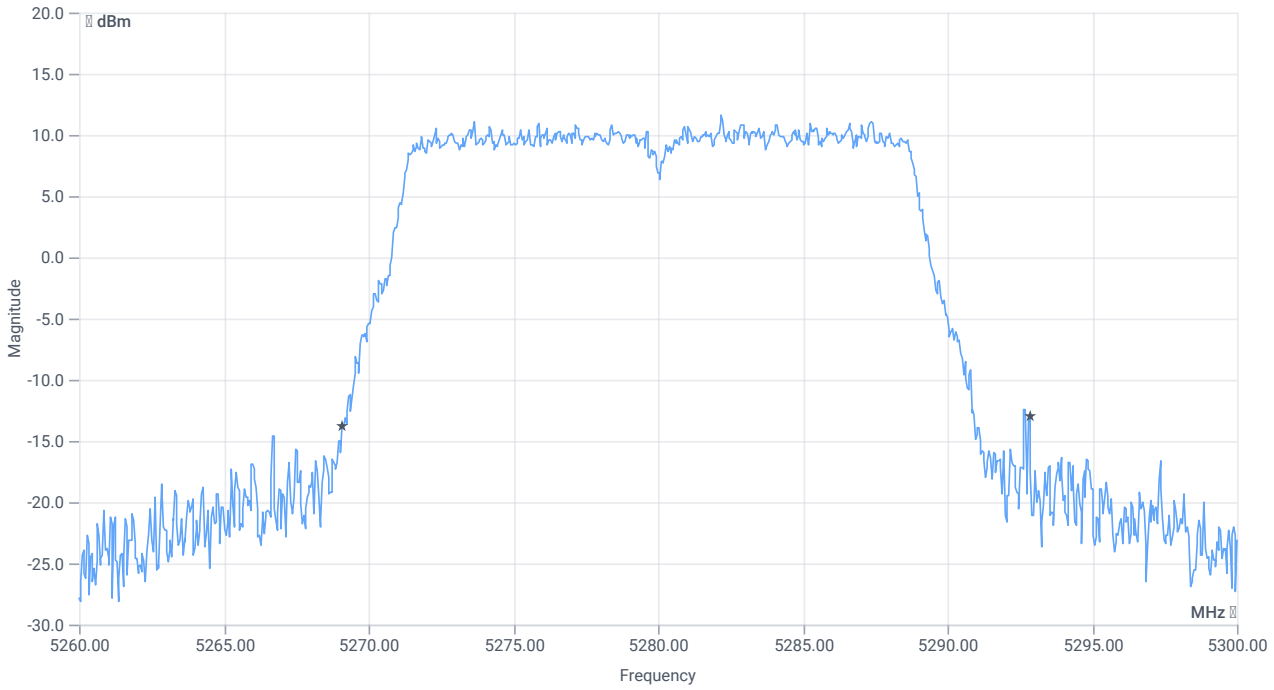
Duty Cycle evaluation

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

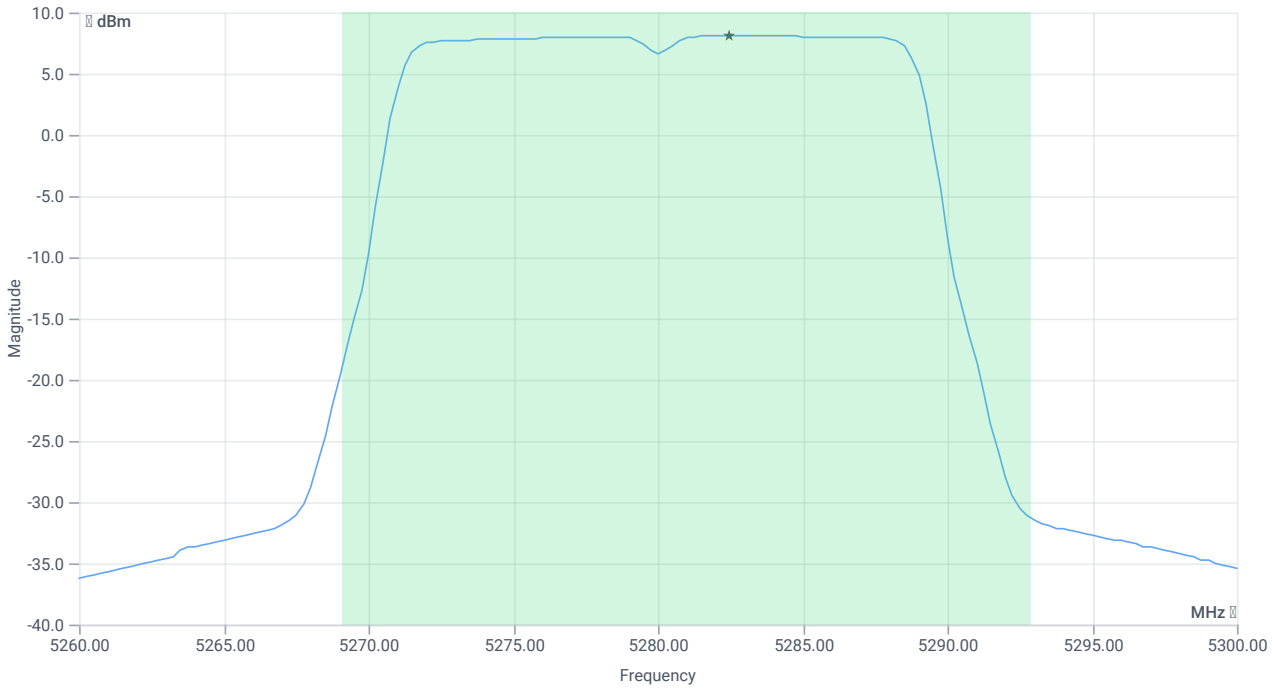
RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 26dB	---	---	23.76	MHz	INFO
T1 26dB	---	---	5269.0800	MHz	INFO
T2 26dB	---	---	5292.8400	MHz	INFO

Maximum Output Power

READ SA SETTINGS:

RefLevel [dBm] | RefLevelOffset [dB] | InpAtt [dB]	28.06 | 16.1 | 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	---	---	20.1	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	23.76				
Max Output Power DC corrected	---	24.76	20.1	dBm	PASS

Power Spectral Density

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Power Spectral Density	---	---	8.07	dBm/1MHz	INFO
Duty Cycle Correction	---	---	0	dB	INFO
Power Spectral Density DC corrected	---	11	8.07	dBm/1MHz	PASS

Verdict
PASS

FCC 15.407, ISED RSS247 # Bandwidths 99PCT and 26dB ~ WLAN5Gx ac-VHT20 mode U-NII-2A

References

TC start	25.07.2023 13:56:34
Ambit temp [°C] | humidity [rel%]	23.1 | 59
System version	4.6.0.0
Specification	FCC 15.407, ISED RSS247 -
Method	26dB Bandwidth KDB789033 D02, C.1 / ISED RSS-GEN
Description	FCC 15.407 Bandwidths - WLAN5Gx ac-VHT20 mode U-NII-2A
Information	PS76

EUT Common Settings WLAN5Gx

Number of Antenna Ports	1
User Interaction	No
Device Class UNII_1	Client
Limit W52 Japan	Standard

Test Parameter

Technology to test	WLAN5Gx ac-VHT20 mode
Antenna port used	1
Temperature	nom
Voltage	nom
Frequency low to test	False | Freq [MHz] 5260
Frequency mid to test	True | Freq [MHz] 5280
Frequency high to test	False | Freq [MHz] 5320
Auto control enabled power supply | Climatic Box	No | No
Additional path loss [dB]	1.3
Switched path	EUT - SignalingUnit - SpectrumAnalyzer

Equipment

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

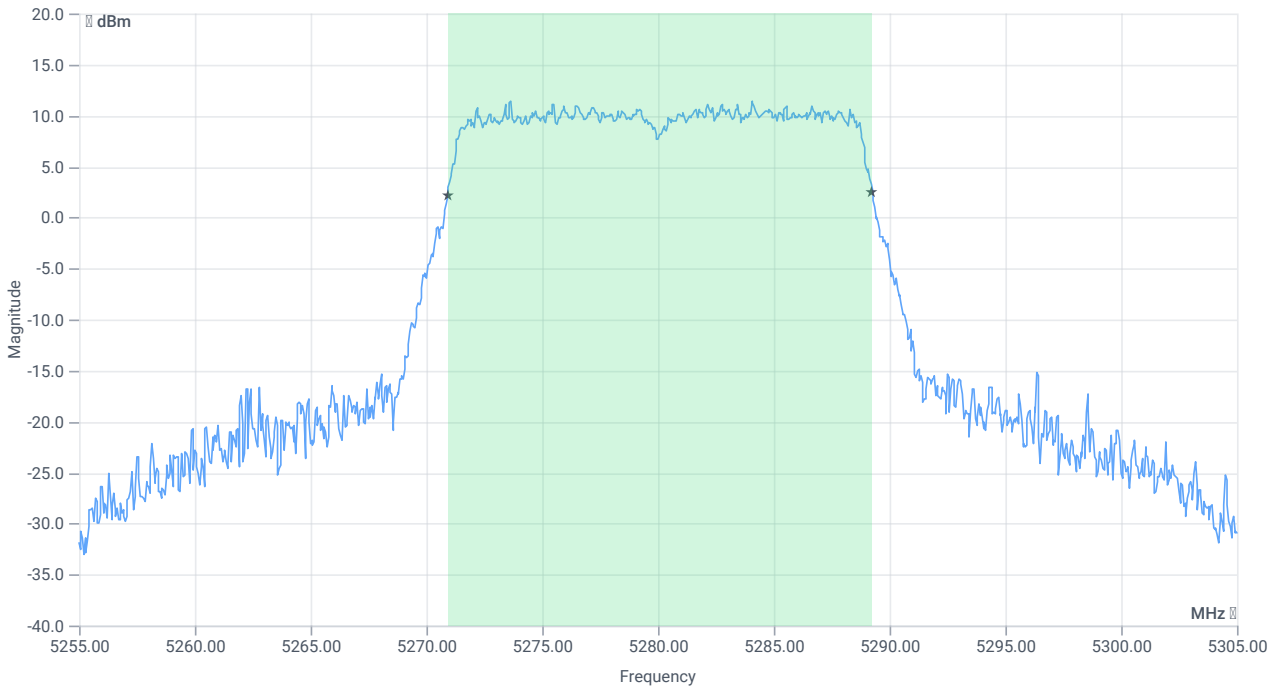
Test at TX 5280 MHz

RESULT: Reference Power cond.

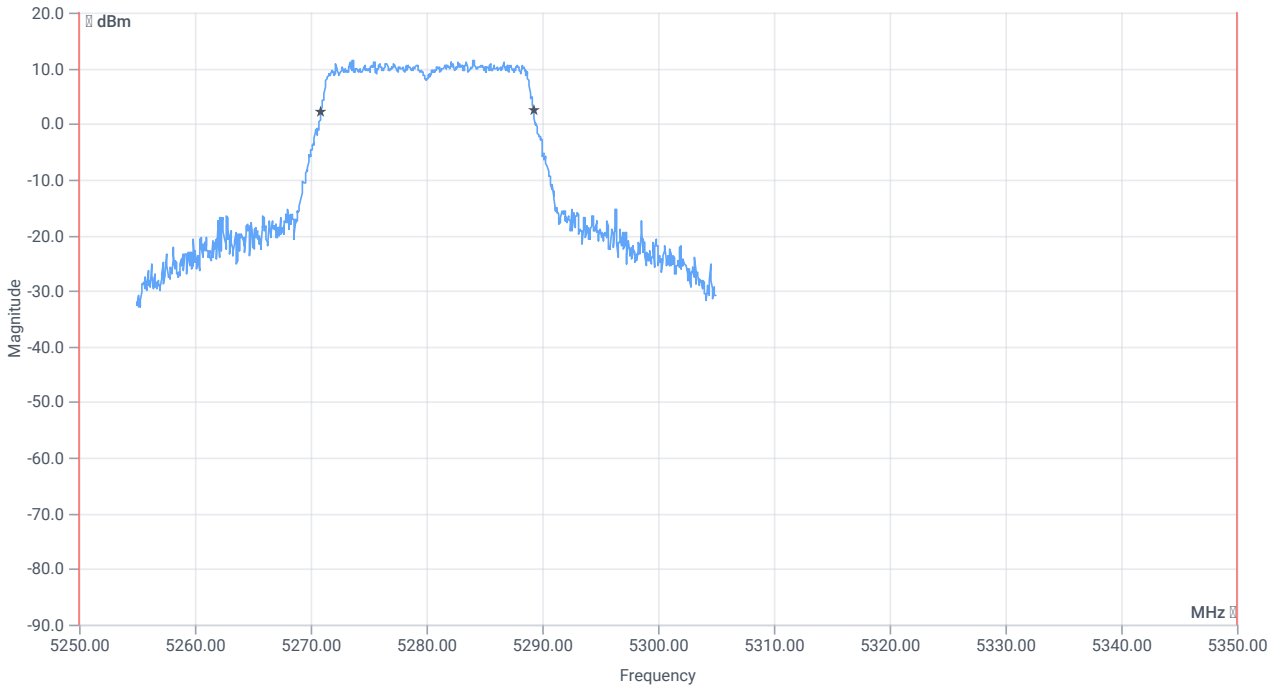
DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	16.02	dBm	INFO
Ref. Frequency	---	---	5282.000	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] | RefLevelOffset [dB] | InpAtt [dB]	24.02 | 16.1 | 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



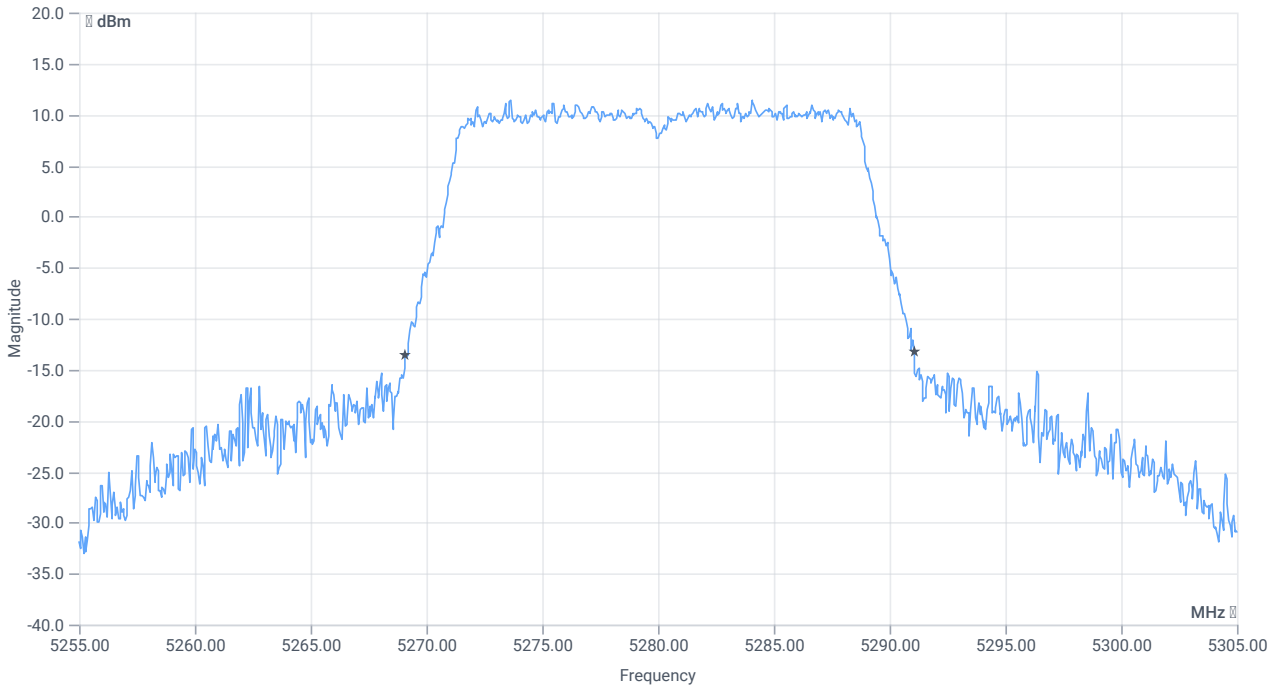
BW 99PCT



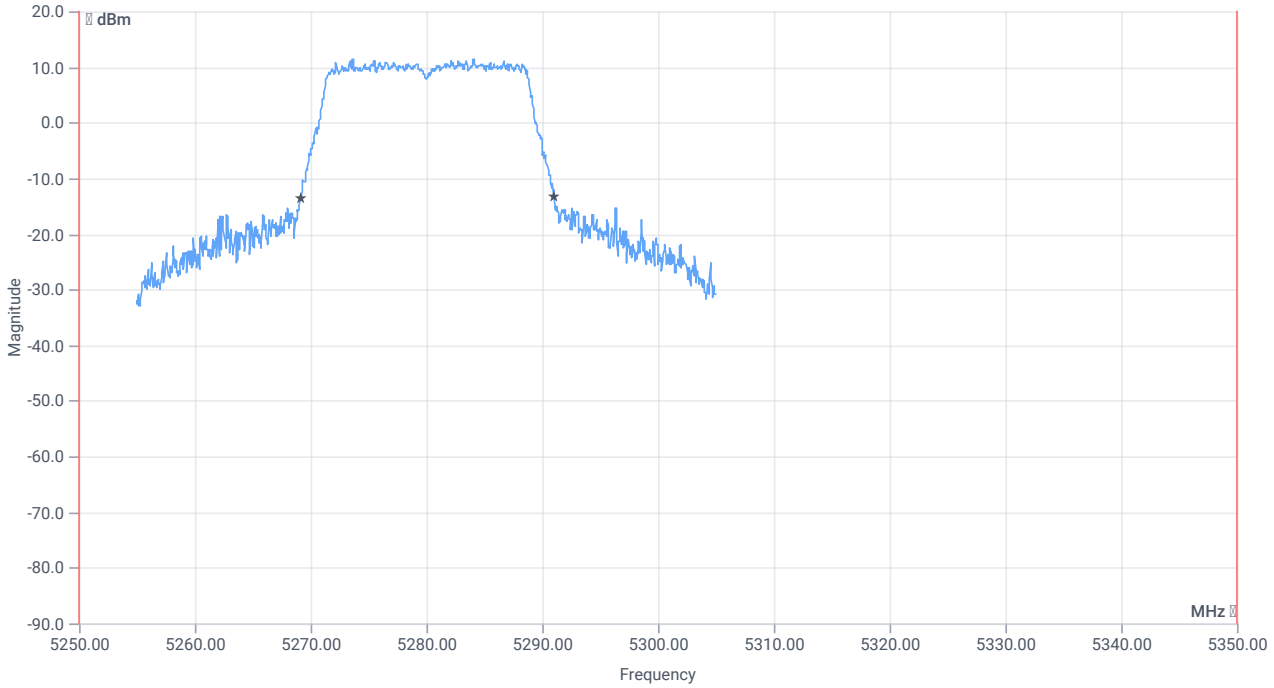
BW within Band 99PCT

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 99%	---	---	18.332	MHz	INFO
T1 99%	5250.000000	---	5270.9091	MHz	PASS since U-NII-1 is supported
T2 99%	---	5350.000000	5289.2408	MHz	PASS



BW 26dB



BW within Band 26dB

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 26dB	---	---	21.95	MHz	INFO

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
T1 26dB	5250.000000	---	5269.1000	MHz	PASS since U-NII-1 is supported
T2 26dB	---	5350.000000	5291.0500	MHz	PASS

Verdict
PASS

FCC 15.407 # Max output power and psd ~ WLAN5Gx ac-VHT20 mode U-NII-2A

References

TC start	25.07.2023 13:57:05
Ambit temp [°C] | humidity [rel%]	23.1 | 59
System version	4.6.0.0
Specification	FCC 15.407 -
Method	KDB789033 D02, F., E.2.e.
Description	FCC 15.407 Max Output Power & PSD - WLAN5Gx ac-VHT20 mode U-NII-2A
Information	PS76

EUT Common Settings WLAN5Gx

Number of Antenna Ports	1
User Interaction	No
Device Class UNII_1	Client
Limit W52 Japan	Standard

Test Parameter

Technology to test	WLAN5Gx ac-VHT20 mode
Antenna port used	2
Temperature	nom
Voltage	nom
Frequency low to test	False | Freq [MHz] 5260
Frequency mid to test	True | Freq [MHz] 5280
Frequency high to test	False | Freq [MHz] 5320
Auto control enabled power supply | Climatic Box	No | No
Additional path loss [dB]	1.3
Switched path	EUT - SignalingUnit - SpectrumAnalyzer

Equipment

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

Test at TX 5280 MHz

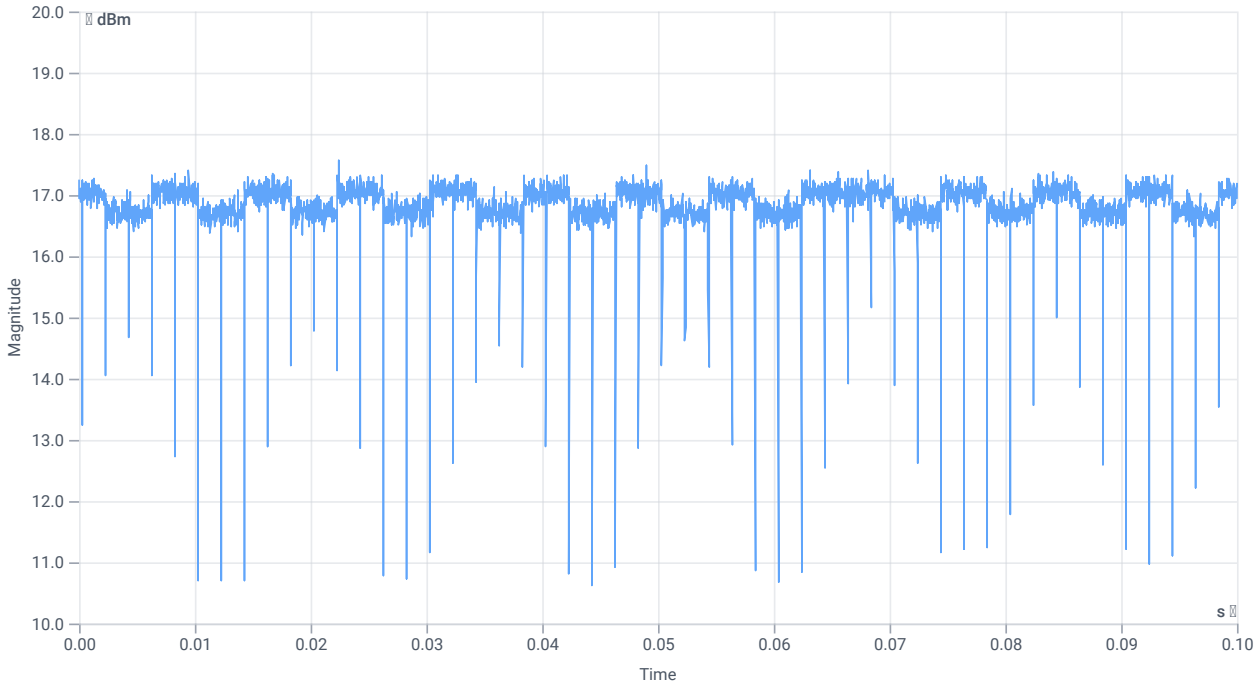
RESULT: Reference Power cond.

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	16.02	dBm	INFO
Ref. Frequency	---	---	5278.600	MHz	INFO

Evaluation max. Duty Cycle

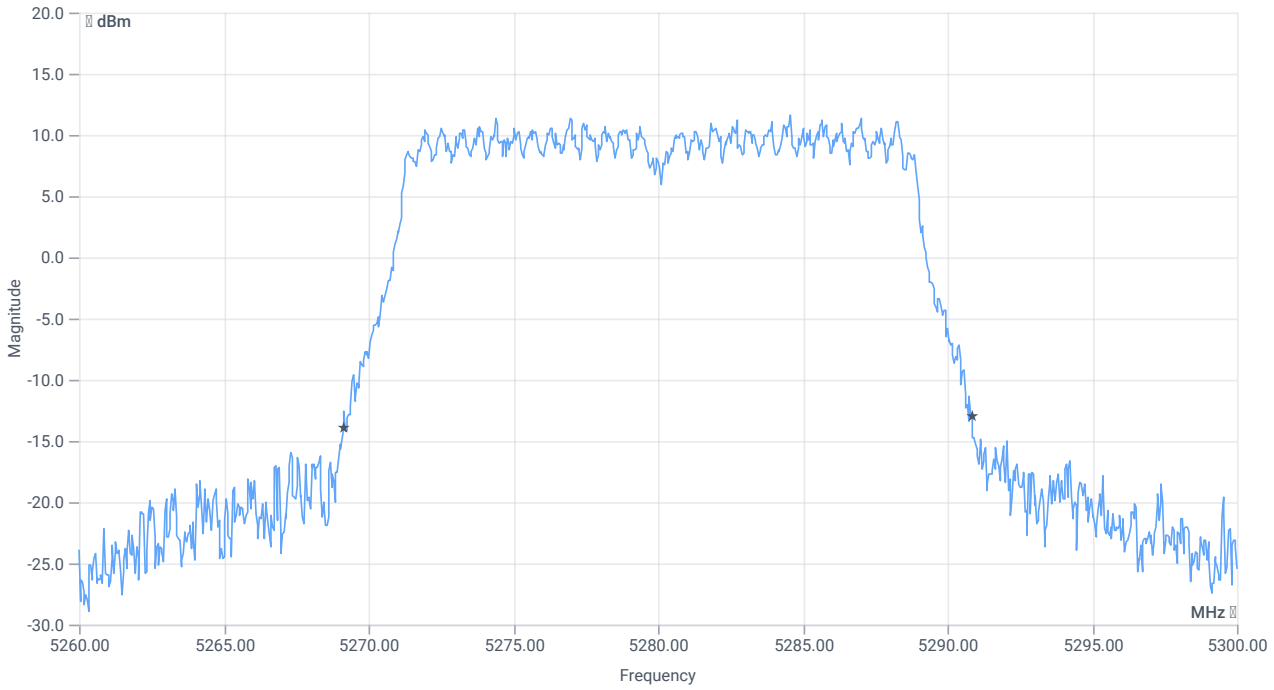
Duty Cycle evaluation

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

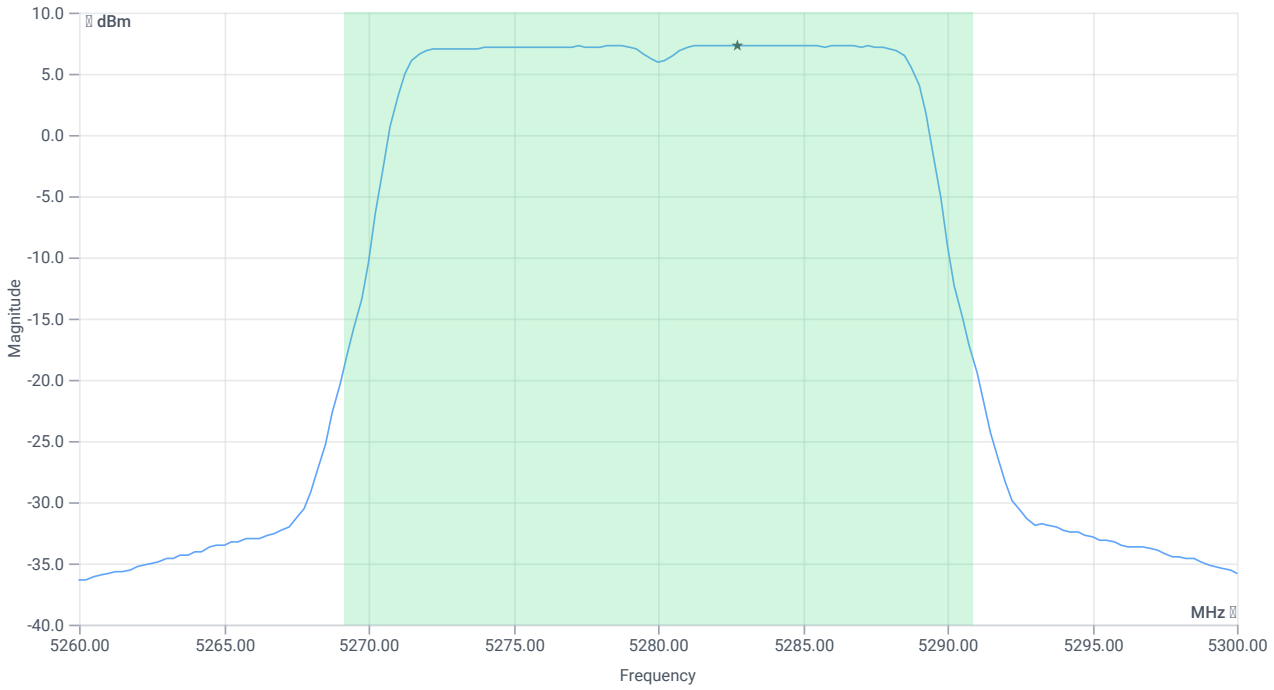
RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 26dB	---	---	21.72	MHz	INFO
T1 26dB	---	---	5269.1200	MHz	INFO
T2 26dB	---	---	5290.8400	MHz	INFO

Maximum Output Power

READ SA SETTINGS:

RefLevel [dBm] | RefLevelOffset [dB] | InpAtt [dB]	28.02 | 16.1 | 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	---	---	19.36	dBm	INFO
Duty Cycle Correction	---	---	0	dB	INFO
Limit absolute					
Max Output Power DC corrected	---	24	19.36	dBm	PASS
Limit: 11 dBm + 10 log	21.72				
Max Output Power DC corrected	---	24.37	19.36	dBm	PASS

Power Spectral Density

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Power Spectral Density	---	---	7.35	dBm/1MHz	INFO
Duty Cycle Correction	---	---	0	dB	INFO
Power Spectral Density DC corrected	---	11	7.35	dBm/1MHz	PASS

Verdict
PASS

FCC 15.407, ISED RSS247 # Bandwidths 99PCT and 26dB ~ WLAN5Gx ac-VHT20 mode U-NII-2A

References

TC start	25.07.2023 13:58:33
Ambit temp [°C] | humidity [rel%]	23.1 | 60
System version	4.6.0.0
Specification	FCC 15.407, ISED RSS247 -
Method	26dB Bandwidth KDB789033 D02, C.1 / ISED RSS-GEN
Description	FCC 15.407 Bandwidths - WLAN5Gx ac-VHT20 mode U-NII-2A
Information	PS76

EUT Common Settings WLAN5Gx

Number of Antenna Ports	1
User Interaction	No
Device Class UNII_1	Client
Limit W52 Japan	Standard

Test Parameter

Technology to test	WLAN5Gx ac-VHT20 mode
Antenna port used	2
Temperature	nom
Voltage	nom
Frequency low to test	False | Freq [MHz] 5260
Frequency mid to test	True | Freq [MHz] 5280
Frequency high to test	False | Freq [MHz] 5320
Auto control enabled power supply | Climatic Box	No | No
Additional path loss [dB]	1.3
Switched path	EUT - SignalingUnit - SpectrumAnalyzer

Equipment

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

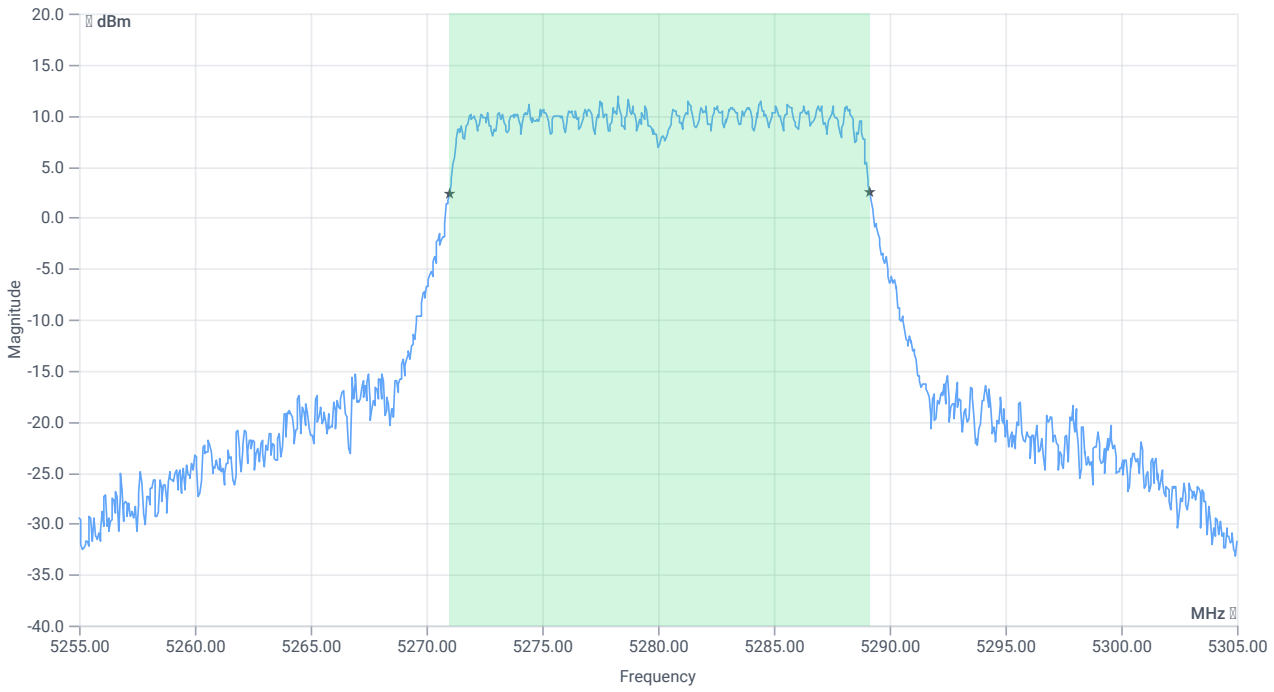
Test at TX 5280 MHz

RESULT: Reference Power cond.

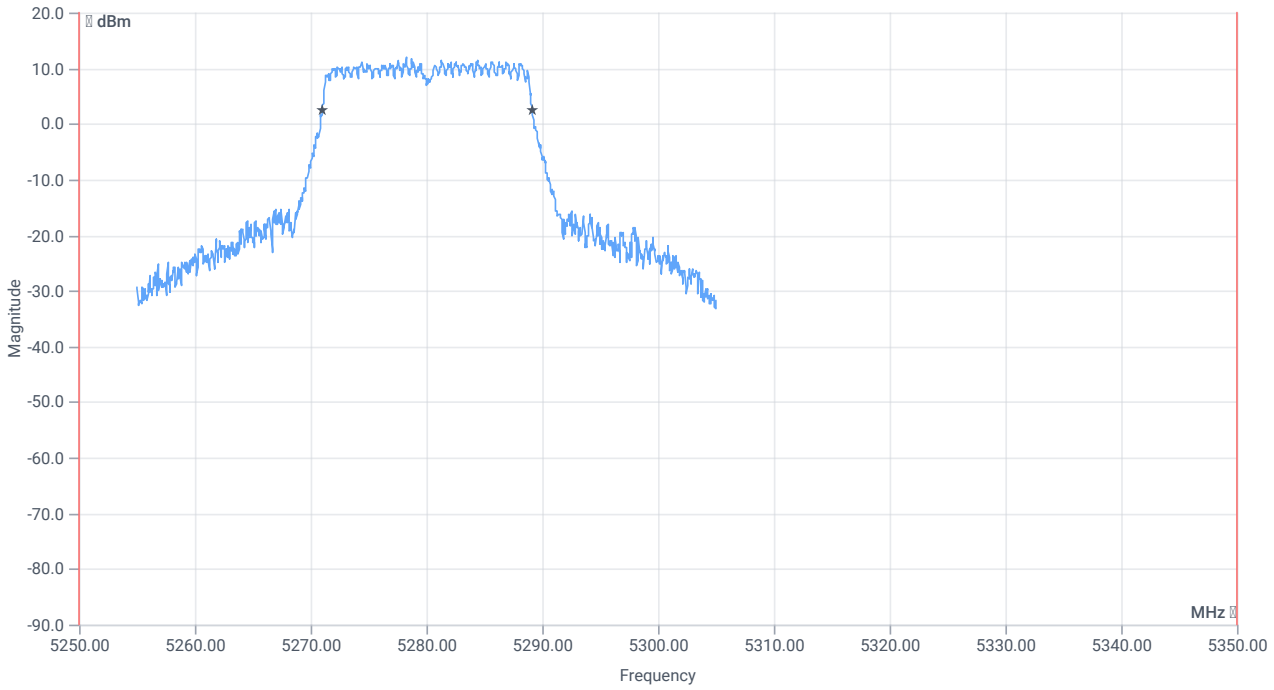
DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	15.97	dBm	INFO
Ref. Frequency	---	---	5283.200	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] | RefLevelOffset [dB] | InpAtt [dB]	23.97 | 16.1 | 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



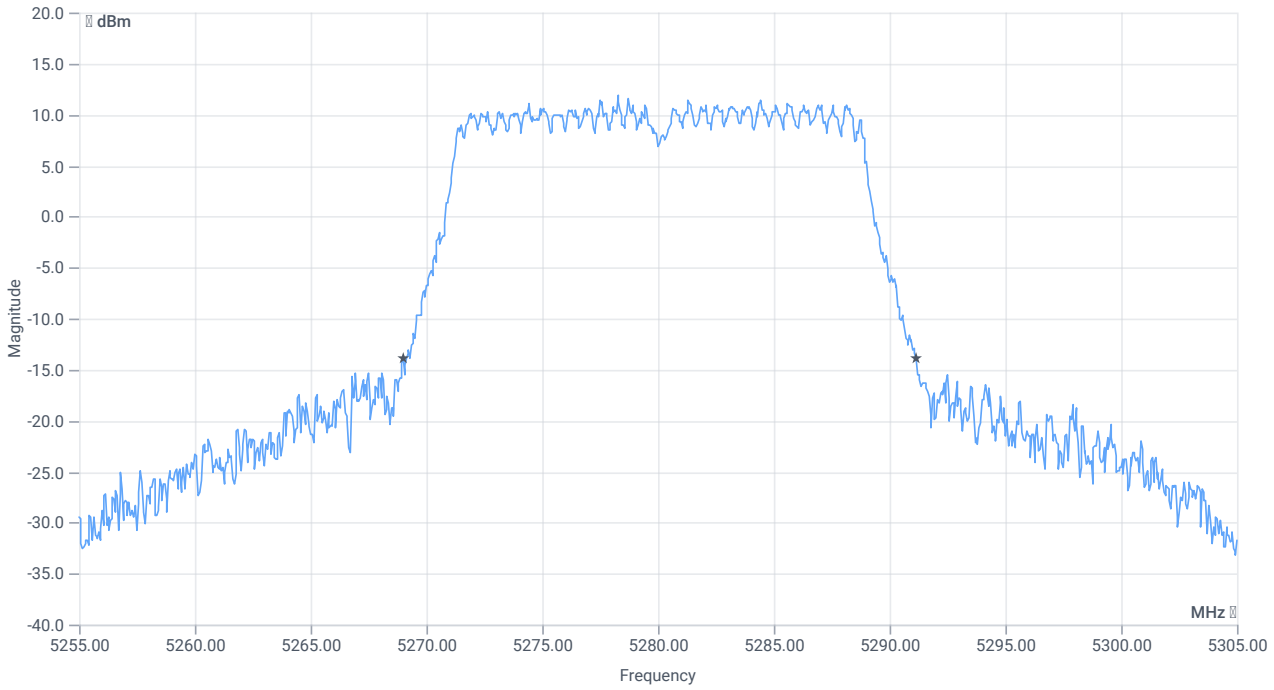
BW 99PCT



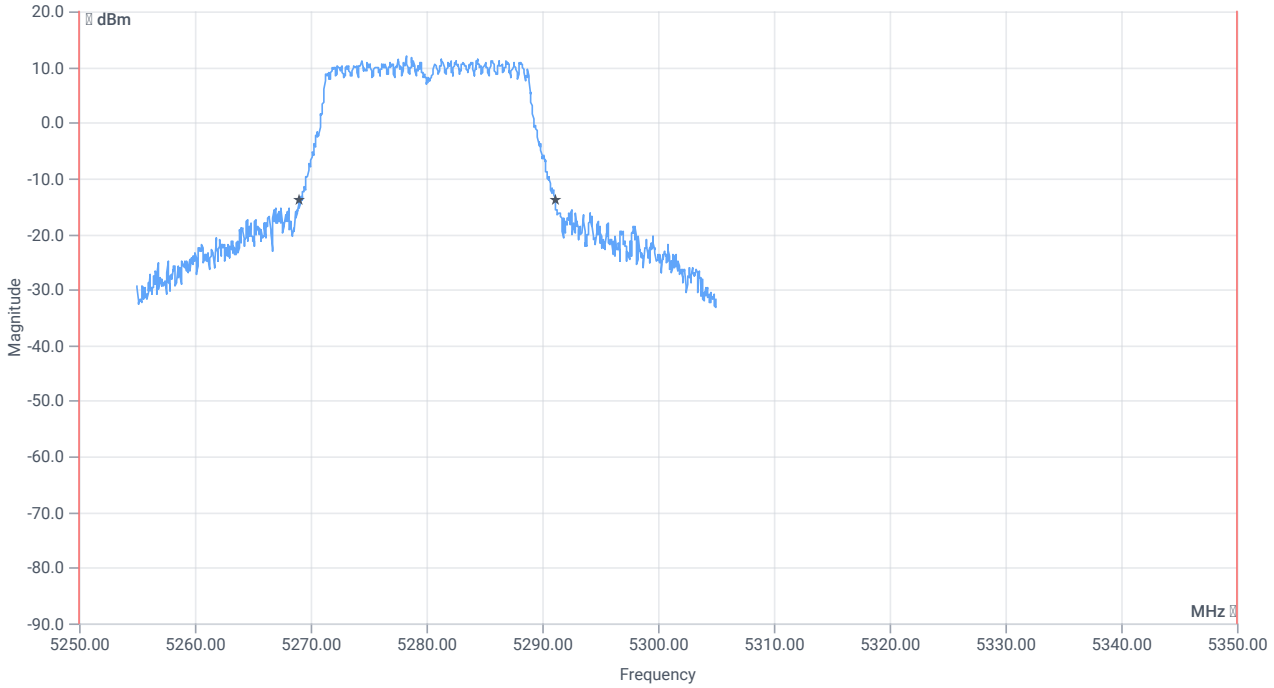
BW within Band 99PCT

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 99%	---	---	18.132	MHz	INFO
T1 99%	5250.000000	---	5271.0090	MHz	PASS since U-NII-1 is supported
T2 99%	---	5350.000000	5289.1409	MHz	PASS



BW 26dB



BW within Band 26dB

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 26dB	---	---	22.15	MHz	INFO

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
T1 26dB	5250.000000	---	5269.0000	MHz	PASS since U-NII-1 is supported
T2 26dB	---	5350.000000	5291.1500	MHz	PASS

Verdict
PASS

FCC 15.407 # MIMO ∑ Max output power and psd ~ WLAN5Gx ac-VHT20 mode U-NII-2A

References

TC start	25.07.2023 13:59:04
Ambit temp [°C] | humidity [rel%]	23.1 | 60
System version	4.6.0.0
Specification	FCC 15.407 -
Method	
Description	MIMO ∑ FCC Power & psd - WLAN5Gx ac-VHT20 mode U-NII-2A
Information	PS76

EUT Common Settings WLAN5Gx

Number of Antenna Ports	1
User Interaction	No
Device Class UNII_1	Client
Limit W52 Japan	Standard

Test Parameter

Technology to test	WLAN5Gx ac-VHT20 mode
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]	1.3
Switched path	None

Equipment

Test at TX 5280 MHz

RESULT Power

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ant:1 Max Output Power DC corrected	---	---	20.1	dBm	INFO
Ant:1 BW 26dB	---	---	23.760	MHz	INFO
Ant:2 Max Output Power DC corrected	---	---	19.36	dBm	INFO
Ant:2 BW 26dB	---	---	21.720	MHz	INFO
∑ Limit absolute	---	24	22.76	dBm	PASS
∑ Limit: 11 dBm + 10 log 21.72	---	24.37	22.76	dBm	PASS

RESULT PSD

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ant:1 PSD	---	---	8.07	dBm/1MHz	INFO
Ant:2 PSD	---	---	7.35	dBm/1MHz	INFO
∑	---	11	10.74	dBm/1MHz	PASS

Verdict
PASS

Message with SA scan ~

References

TC start	25.07.2023 14:07:44
Ambit temp [°C] | humidity [rel%]	23.0 | 60
System version	4.6.0.0
Specification	-
Method	
Description	Message with SA Scan ac_VHT20_U_NII_2A
Information	PS70

Test Parameter

Switched Path	EUT - SignalingUnit - SpectrumAnalyzer
Message start	25.07.2023 14:07:44
Message	set WLAN5Gx to ac_VHT20_U_NII_2A, Frequency [MHz] 5320

Equipment

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

Verdict
INFO

FCC 15.407 # Max output power and psd ~ WLAN5Gx ac-VHT20 mode U-NII-2A

References

TC start	25.07.2023 14:07:54
Ambit temp [°C] | humidity [rel%]	23.0 | 60
System version	4.6.0.0
Specification	FCC 15.407 -
Method	KDB789033 D02, F., E.2.e.
Description	FCC 15.407 Max Output Power & PSD - WLAN5Gx ac-VHT20 mode U-NII-2A
Information	PS70

EUT Common Settings WLAN5Gx

Number of Antenna Ports	1
User Interaction	No
Device Class UNII_1	Client
Limit W52 Japan	Standard

Test Parameter

Technology to test	WLAN5Gx ac-VHT20 mode
Antenna port used	1
Temperature	nom
Voltage	nom
Frequency low to test	False | Freq [MHz] 5260
Frequency mid to test	False | Freq [MHz] 5280
Frequency high to test	True | Freq [MHz] 5320
Auto control enabled power supply | Climatic Box	No | No
Additional path loss [dB]	1.3
Switched path	EUT - SignalingUnit - SpectrumAnalyzer

Equipment

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

Test at TX 5320 MHz

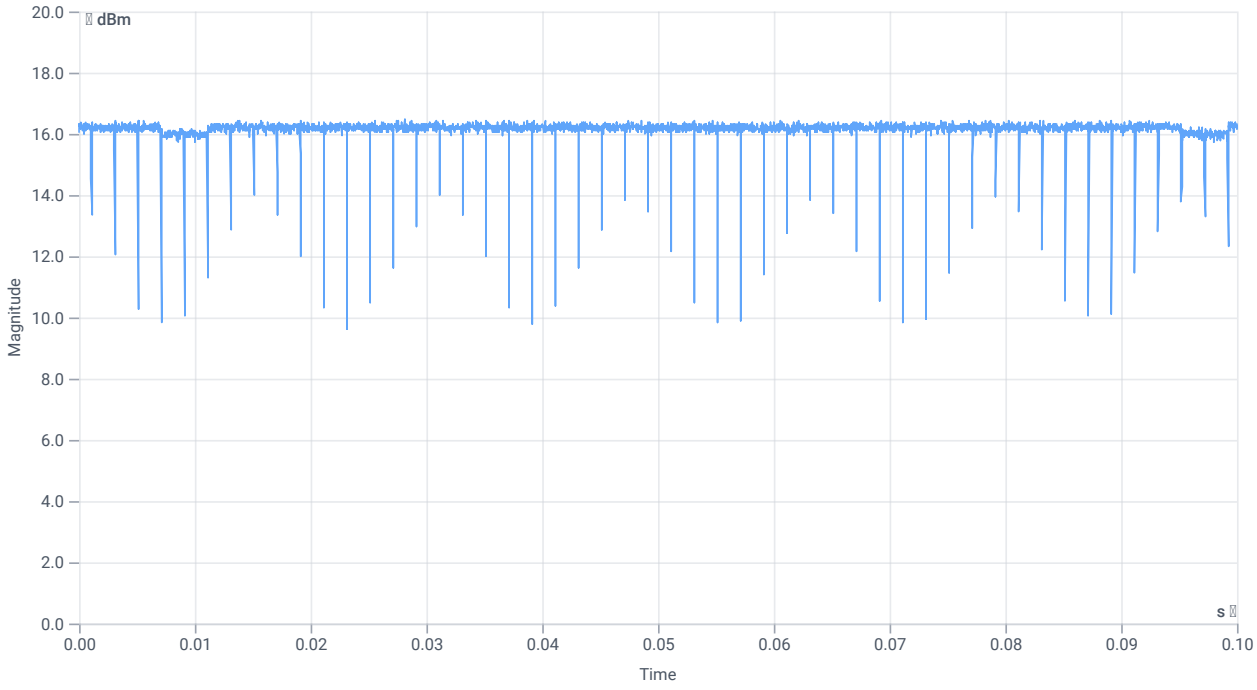
RESULT: Reference Power cond.

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	14.87	dBm	INFO
Ref. Frequency	---	---	5317.800	MHz	INFO

Evaluation max. Duty Cycle

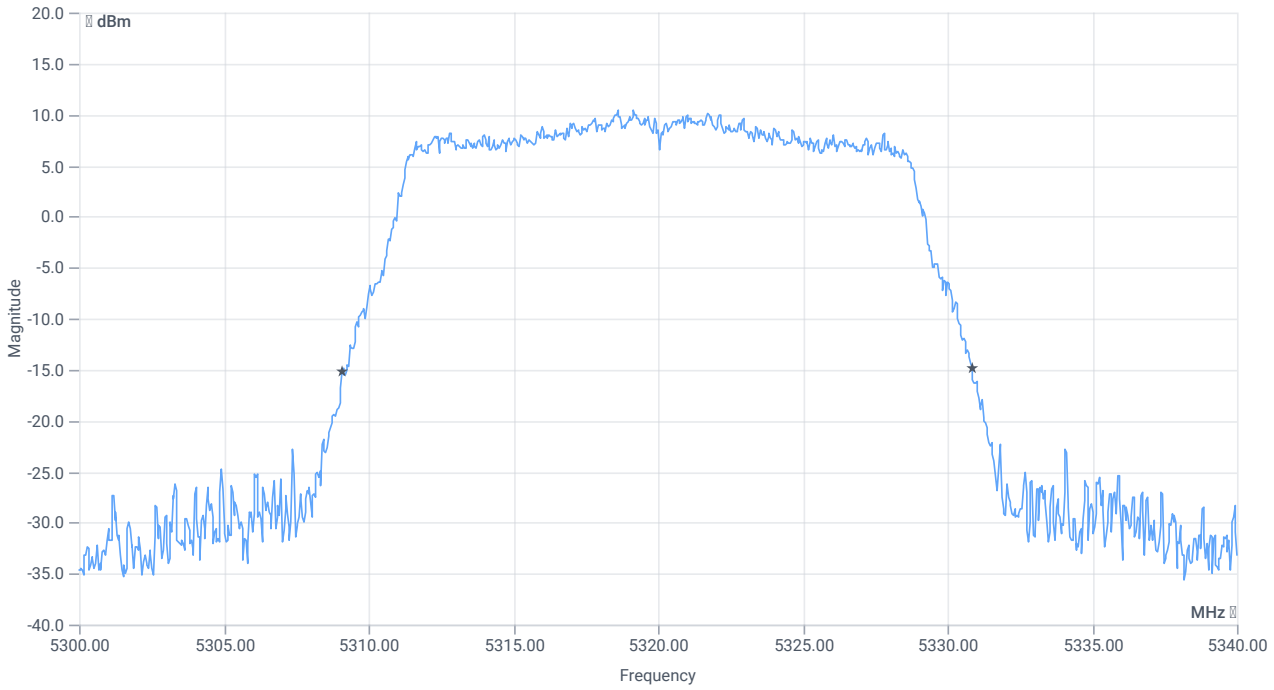
Duty Cycle evaluation

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

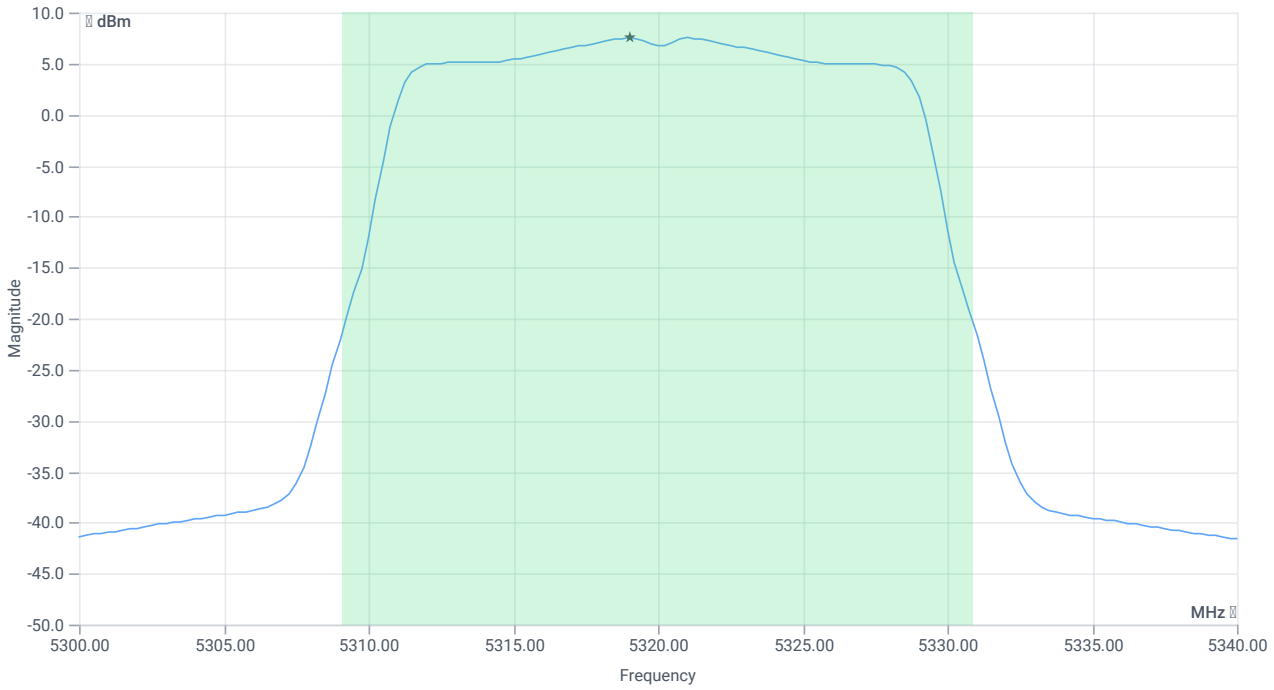
RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 26dB	---	---	21.76	MHz	INFO
T1 26dB	---	---	5309.0800	MHz	INFO
T2 26dB	---	---	5330.8400	MHz	INFO

Maximum Output Power

READ SA SETTINGS:

RefLevel [dBm] | RefLevelOffset [dB] | InpAtt [dB]	26.87 | 16.16 | 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	---	---	18.27	dBm	INFO
Duty Cycle Correction	---	---	0	dB	INFO
Limit absolute					
Max Output Power DC corrected	---	24	18.27	dBm	PASS
Limit: 11 dBm + 10 log	21.76				
Max Output Power DC corrected	---	24.38	18.27	dBm	PASS

Power Spectral Density

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Power Spectral Density	---	---	7.51	dBm/1MHz	INFO
Duty Cycle Correction	---	---	0	dB	INFO
Power Spectral Density DC corrected	---	11	7.51	dBm/1MHz	PASS

Verdict

PASS

FCC 15.407, ISED RSS247 # Bandwidths 99PCT and 26dB ~ WLAN5Gx ac-VHT20 mode U-NII-2A

References

TC start	25.07.2023 14:09:21
Ambit temp [°C] | humidity [rel%]	23.0 | 60
System version	4.6.0.0
Specification	FCC 15.407, ISED RSS247 -
Method	26dB Bandwidth KDB789033 D02, C.1 / ISED RSS-GEN
Description	FCC 15.407 Bandwidths - WLAN5Gx ac-VHT20 mode U-NII-2A
Information	PS70

EUT Common Settings WLAN5Gx

Number of Antenna Ports	1
User Interaction	No
Device Class UNII_1	Client
Limit W52 Japan	Standard

Test Parameter

Technology to test	WLAN5Gx ac-VHT20 mode
Antenna port used	1
Temperature	nom
Voltage	nom
Frequency low to test	False | Freq [MHz] 5260
Frequency mid to test	False | Freq [MHz] 5280
Frequency high to test	True | Freq [MHz] 5320
Auto control enabled power supply | Climatic Box	No | No
Additional path loss [dB]	1.3
Switched path	EUT - SignalingUnit - SpectrumAnalyzer

Equipment

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

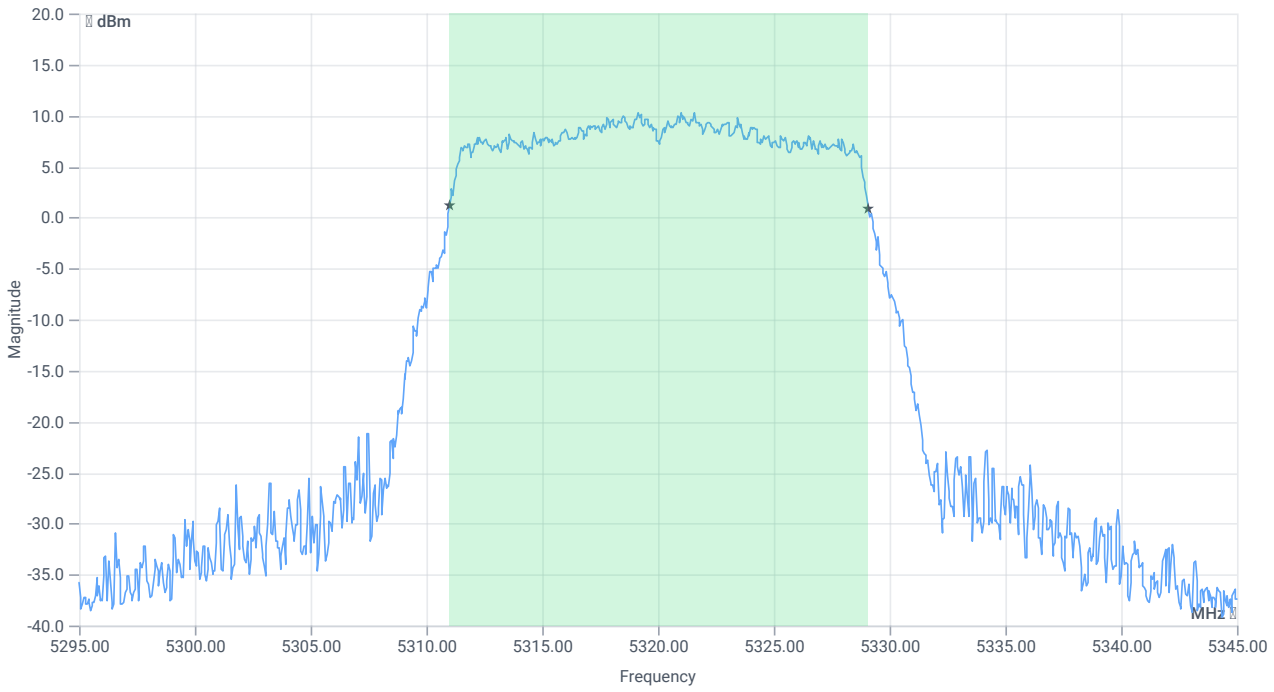
Test at TX 5320 MHz

RESULT: Reference Power cond.

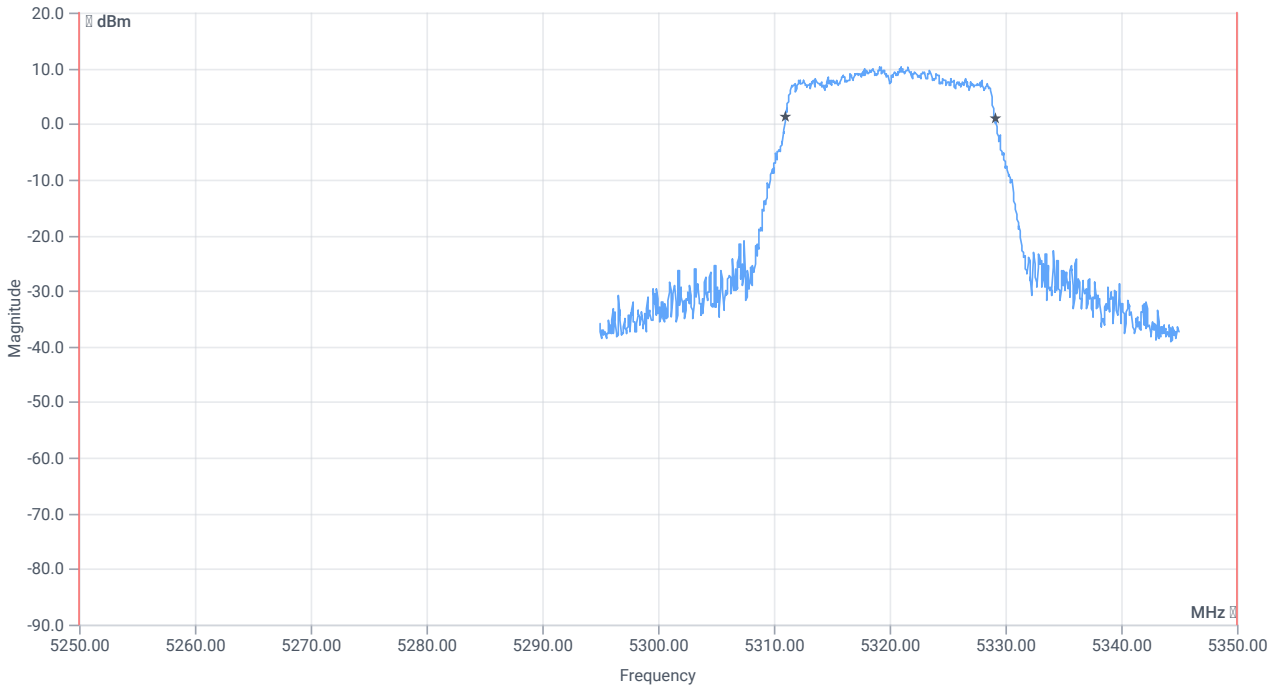
DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	14.62	dBm	INFO
Ref. Frequency	---	---	5317.800	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] | RefLevelOffset [dB] | InpAtt [dB]	22.62 | 16.16 | 25
Start [MHz] | Stop [MHz]	5295.000 | 5345.000
RBW [MHz] | VBW [MHz]	0.300000 | 1.000000
Detector | TraceMode	POS | MAXH
Sweep: time [ms] | count | points per Section | type	1 | 2500 | 1001 | SWE



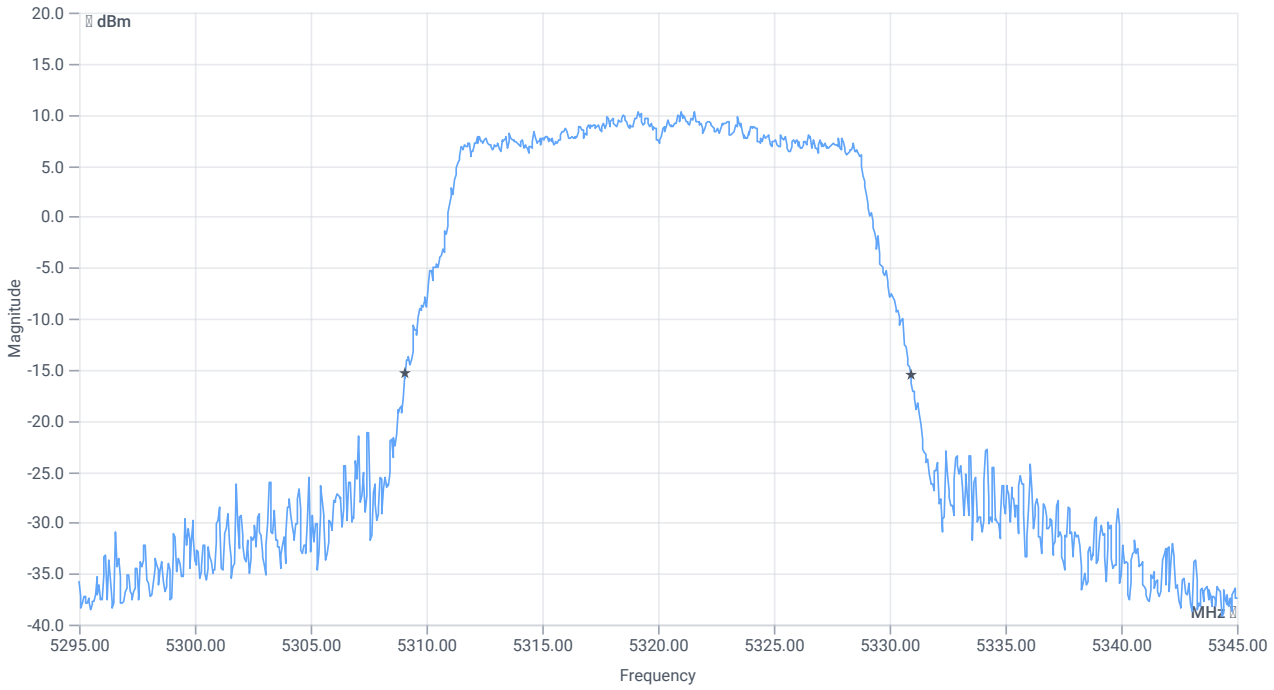
BW 99PCT



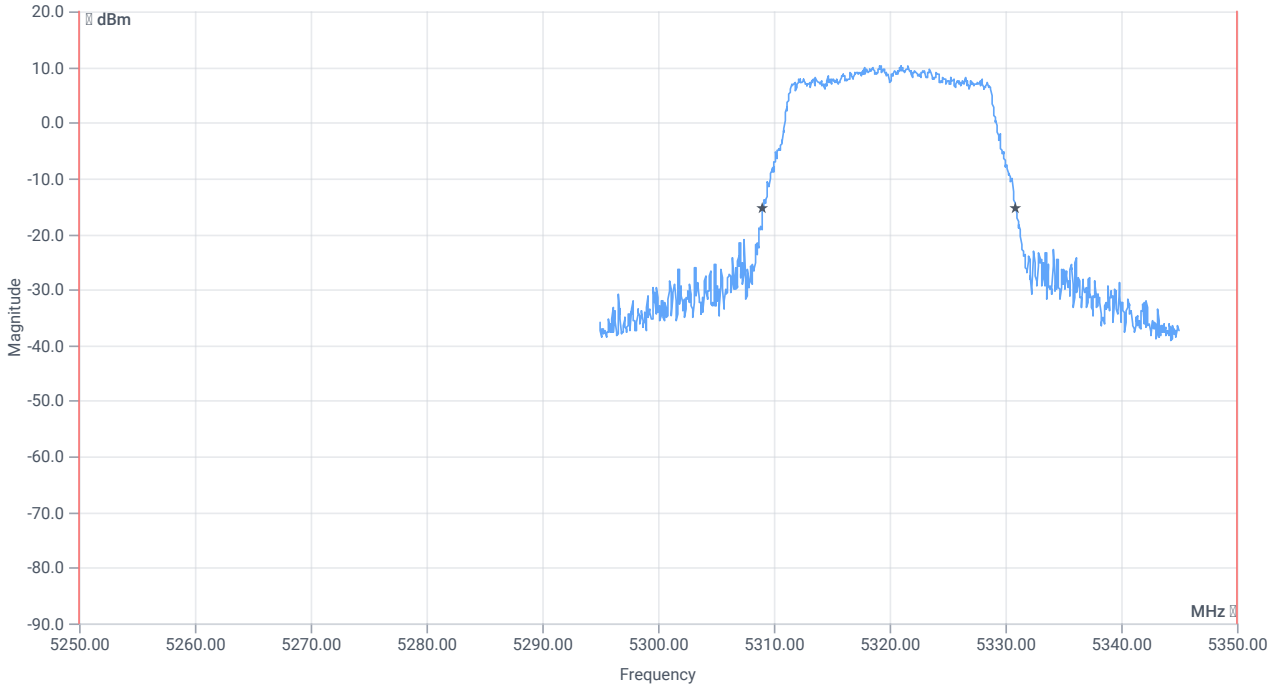
BW within Band 99PCT

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 99%	---	---	18.082	MHz	INFO
T1 99%	5250.000000	---	5311.0090	MHz	PASS since U-NII-1 is supported
T2 99%	---	5350.000000	5329.0909	MHz	PASS



BW 26dB



BW within Band 26dB

RESULT

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	---	5309.0500	MHz	PASS since U-NII-1 is supported
T2 26dB	---	5350.000000	5330.9000	MHz	PASS

Verdict
PASS

FCC 15.407 # Max output power and psd ~ WLAN5Gx ac-VHT20 mode U-NII-2A

References

TC start	25.07.2023 14:09:52
Ambit temp [°C] | humidity [rel%]	23.0 | 60
System version	4.6.0.0
Specification	FCC 15.407 -
Method	KDB789033 D02, F., E.2.e.
Description	FCC 15.407 Max Output Power & PSD - WLAN5Gx ac-VHT20 mode U-NII-2A
Information	PS70

EUT Common Settings WLAN5Gx

Number of Antenna Ports	1
User Interaction	No
Device Class UNII_1	Client
Limit W52 Japan	Standard

Test Parameter

Technology to test	WLAN5Gx ac-VHT20 mode
Antenna port used	2
Temperature	nom
Voltage	nom
Frequency low to test	False | Freq [MHz] 5260
Frequency mid to test	False | Freq [MHz] 5280
Frequency high to test	True | Freq [MHz] 5320
Auto control enabled power supply | Climatic Box	No | No
Additional path loss [dB]	1.3
Switched path	EUT - SignalingUnit - SpectrumAnalyzer

Equipment

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

Test at TX 5320 MHz

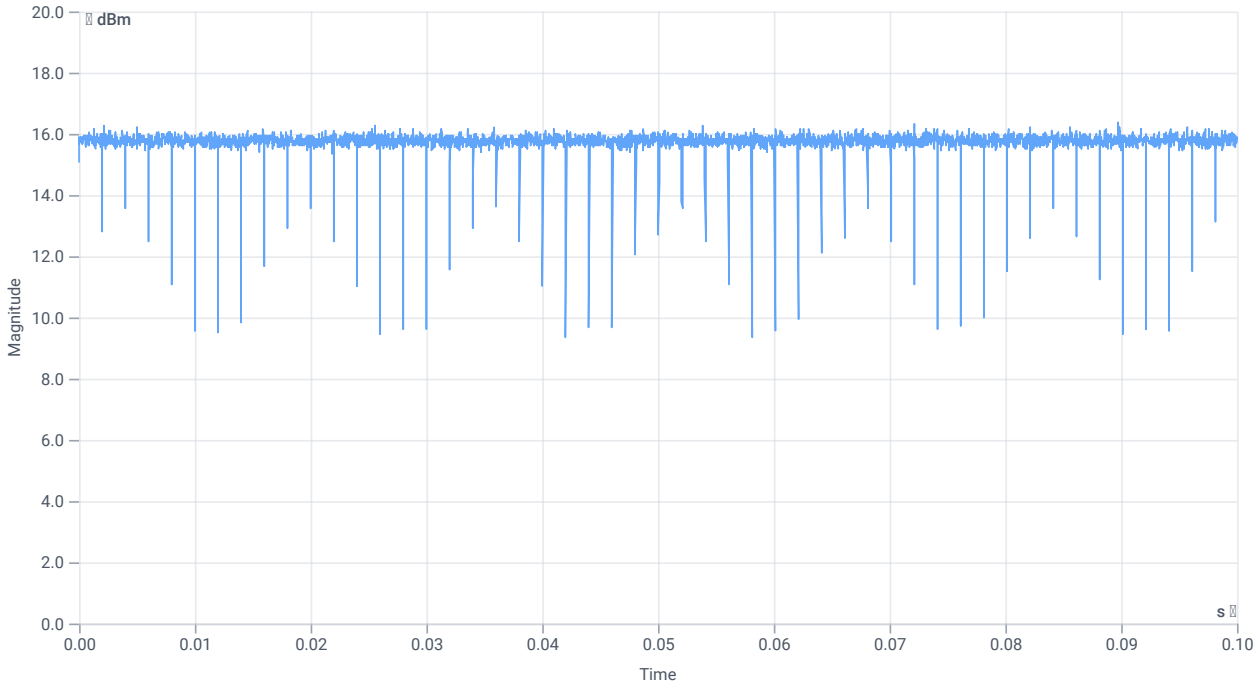
RESULT: Reference Power cond.

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	14.82	dBm	INFO
Ref. Frequency	---	---	5322.000	MHz	INFO

Evaluation max. Duty Cycle

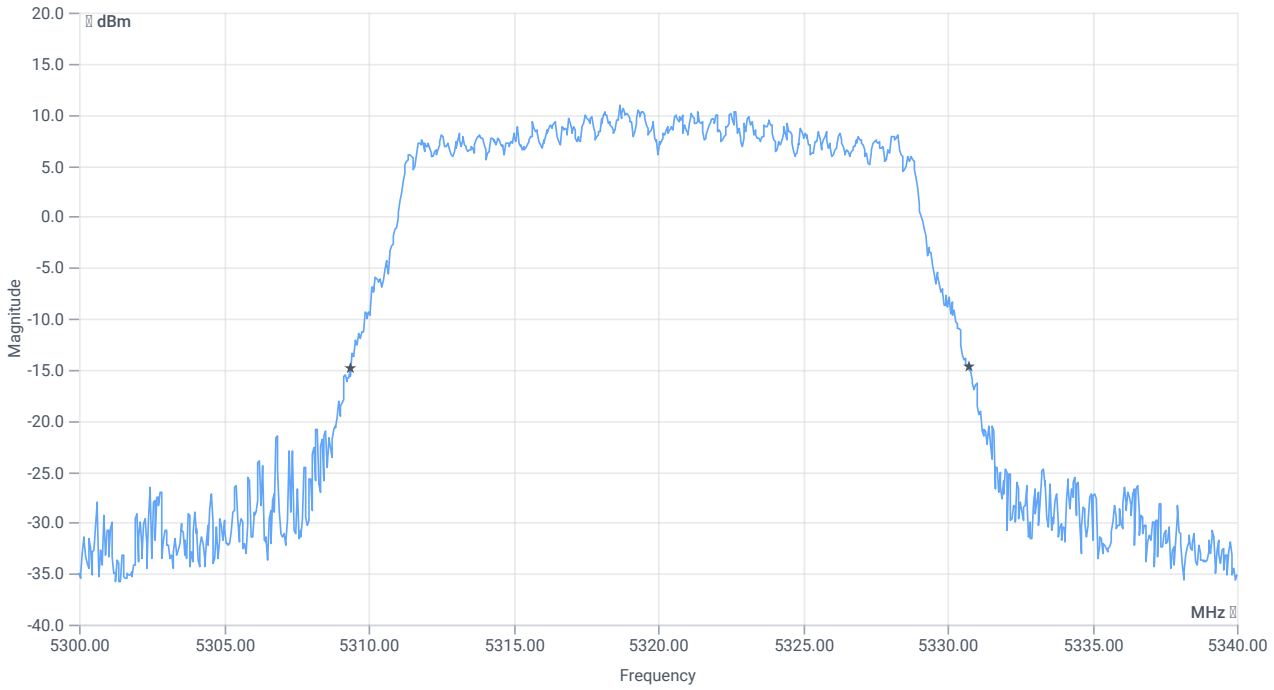
Duty Cycle evaluation

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

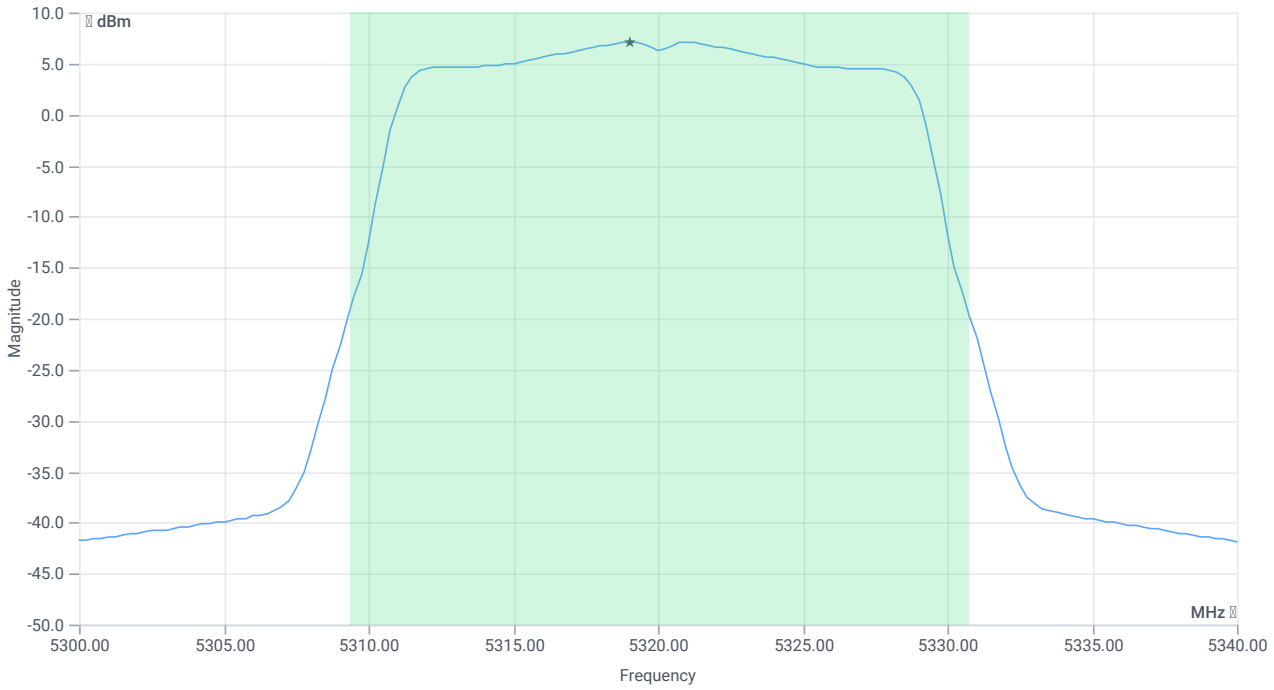
RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 26dB	---	---	21.36	MHz	INFO
T1 26dB	---	---	5309.3600	MHz	INFO
T2 26dB	---	---	5330.7200	MHz	INFO

Maximum Output Power

READ SA SETTINGS:

RefLevel [dBm] | RefLevelOffset [dB] | InpAtt [dB]	26.82 | 16.16 | 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	---	---	17.87	dBm	INFO
Duty Cycle Correction	---	---	0	dB	INFO
Limit absolute					
Max Output Power DC corrected	---	24	17.87	dBm	PASS
Limit: 11 dBm + 10 log	21.36				
Max Output Power DC corrected	---	24.3	17.87	dBm	PASS

Power Spectral Density

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Power Spectral Density	---	---	7.13	dBm/1MHz	INFO
Duty Cycle Correction	---	---	0	dB	INFO
Power Spectral Density DC corrected	---	11	7.13	dBm/1MHz	PASS

Verdict
PASS

FCC 15.407, ISED RSS247 # Bandwidths 99PCT and 26dB ~ WLAN5Gx ac-VHT20 mode U-NII-2A

References

TC start	25.07.2023 14:11:20
Ambit temp [°C] | humidity [rel%]	23.0 | 60
System version	4.6.0.0
Specification	FCC 15.407, ISED RSS247 -
Method	26dB Bandwidth KDB789033 D02, C.1 / ISED RSS-GEN
Description	FCC 15.407 Bandwidths - WLAN5Gx ac-VHT20 mode U-NII-2A
Information	PS70

EUT Common Settings WLAN5Gx

Number of Antenna Ports	1
User Interaction	No
Device Class UNII_1	Client
Limit W52 Japan	Standard

Test Parameter

Technology to test	WLAN5Gx ac-VHT20 mode
Antenna port used	2
Temperature	nom
Voltage	nom
Frequency low to test	False | Freq [MHz] 5260
Frequency mid to test	False | Freq [MHz] 5280
Frequency high to test	True | Freq [MHz] 5320
Auto control enabled power supply | Climatic Box	No | No
Additional path loss [dB]	1.3
Switched path	EUT - SignalingUnit - SpectrumAnalyzer

Equipment

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

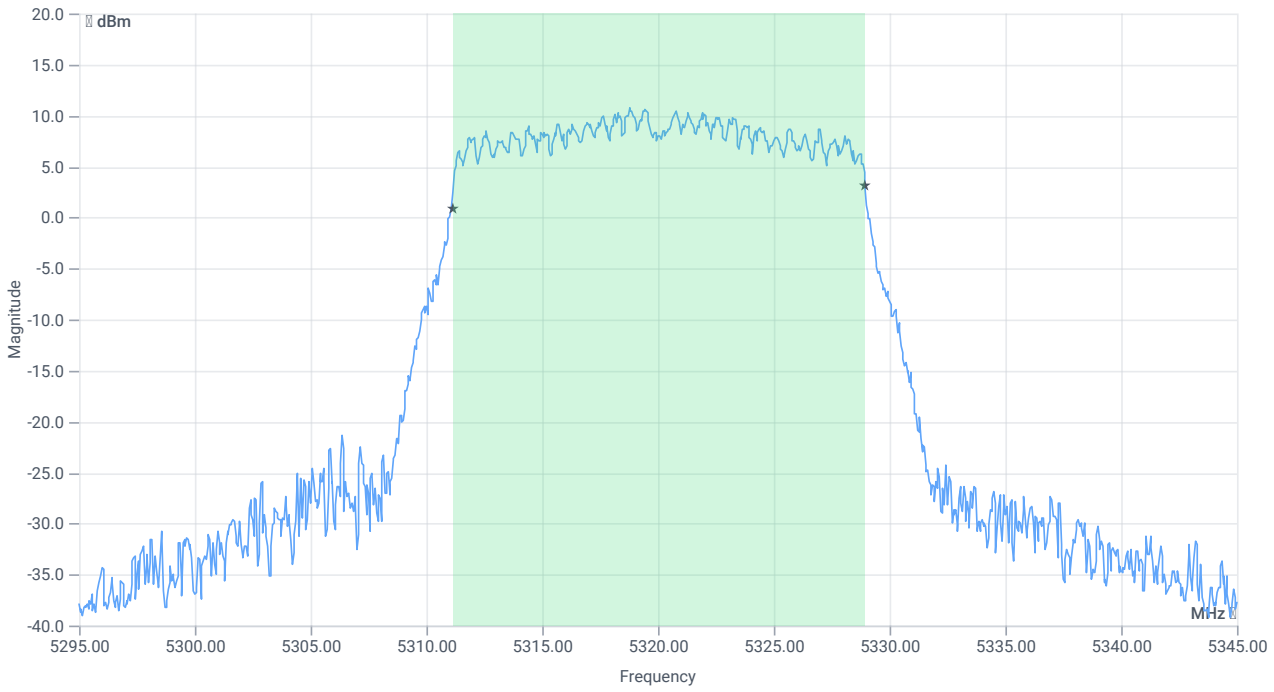
Test at TX 5320 MHz

RESULT: Reference Power cond.

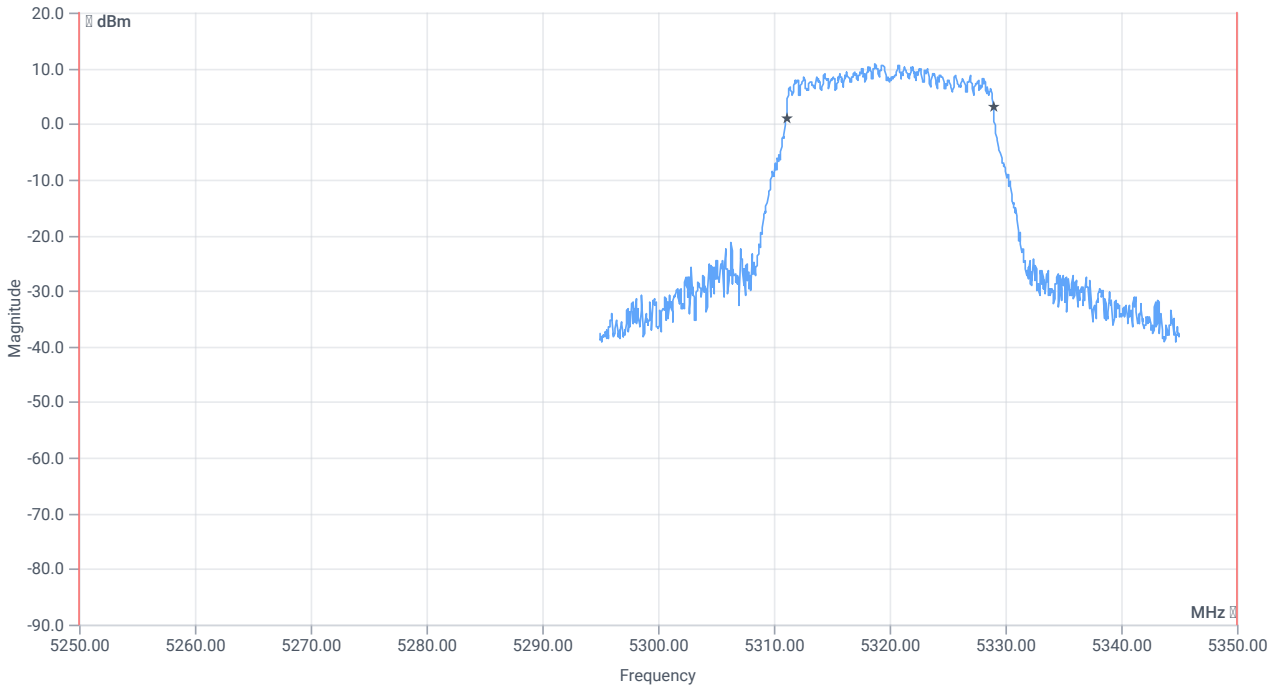
DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	15.24	dBm	INFO
Ref. Frequency	---	---	5318.400	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] | RefLevelOffset [dB] | InpAtt [dB]	23.24 | 16.16 | 25
Start [MHz] | Stop [MHz]	5295.000 | 5345.000
RBW [MHz] | VBW [MHz]	0.300000 | 1.000000
Detector | TraceMode	POS | MAXH
Sweep: time [ms] | count | points per Section | type	1 | 2500 | 1001 | SWE



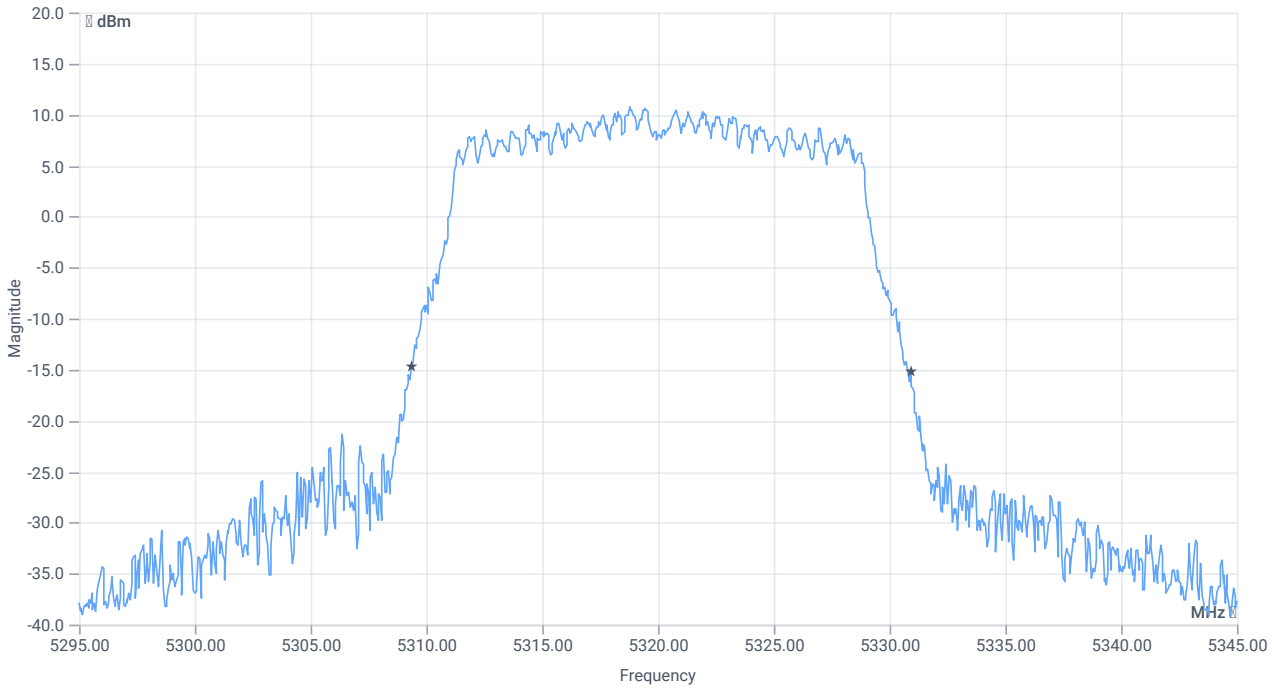
BW 99PCT



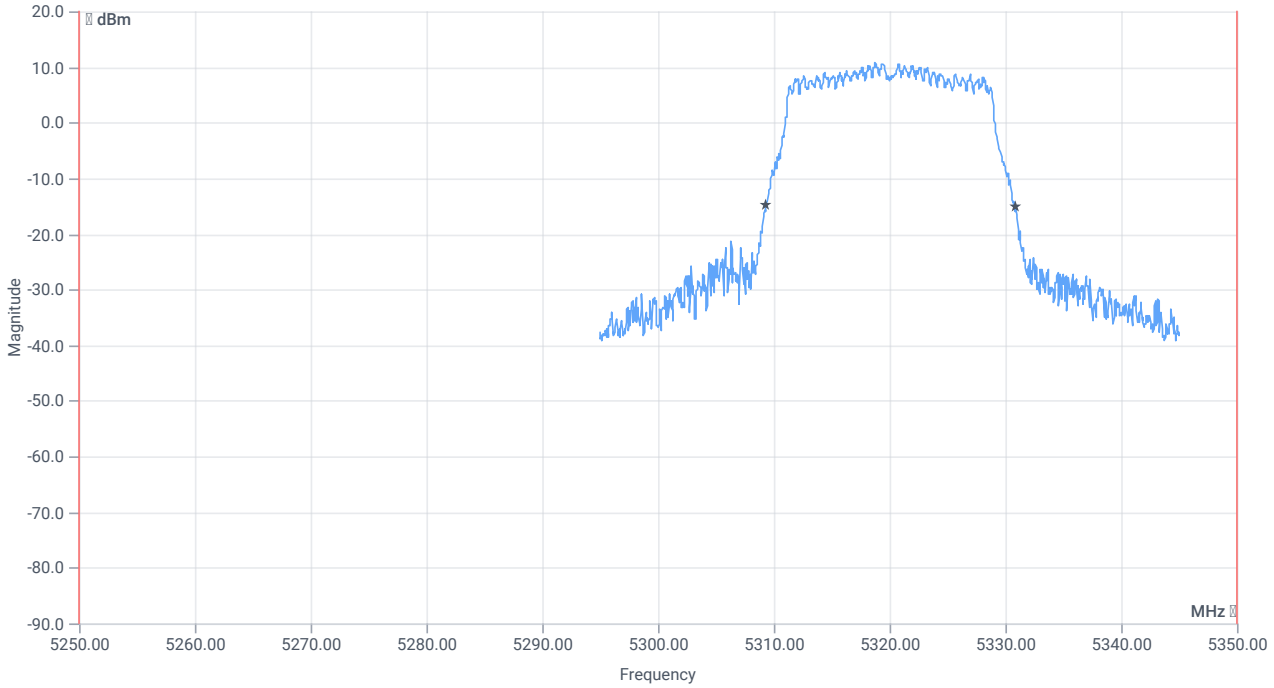
BW within Band 99PCT

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 99%	---	---	17.832	MHz	INFO
T1 99%	5250.000000	---	5311.1089	MHz	PASS since U-NII-1 is supported
T2 99%	---	5350.000000	5328.9411	MHz	PASS



BW 26dB



BW within Band 26dB

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 26dB	---	---	21.55	MHz	INFO

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
T1 26dB	5250.000000	---	5309.3500	MHz	PASS since U-NII-1 is supported
T2 26dB	---	5350.000000	5330.9000	MHz	PASS

Verdict
PASS

FCC 15.407 # MIMO ∑ Max output power and psd ~ WLAN5Gx ac-VHT20 mode U-NII-2A

References

TC start	25.07.2023 14:11:50
Ambit temp [°C] | humidity [rel%]	23.0 | 60
System version	4.6.0.0
Specification	FCC 15.407 -
Method	
Description	MIMO ∑ FCC Power & psd - WLAN5Gx ac-VHT20 mode U-NII-2A
Information	PS70

EUT Common Settings WLAN5Gx

Number of Antenna Ports	1
User Interaction	No
Device Class UNII_1	Client
Limit W52 Japan	Standard

Test Parameter

Technology to test	WLAN5Gx ac-VHT20 mode
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]	1.3
Switched path	None

Equipment

Test at TX 5320 MHz

RESULT Power

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ant:1 Max Output Power DC corrected	---	---	18.27	dBm	INFO
Ant:1 BW 26dB	---	---	21.760	MHz	INFO
Ant:2 Max Output Power DC corrected	---	---	17.87	dBm	INFO
Ant:2 BW 26dB	---	---	21.360	MHz	INFO
∑ Limit absolute	---	24	21.08	dBm	PASS
∑ Limit: 11 dBm + 10 log 21.36	---	24.3	21.08	dBm	PASS

RESULT PSD

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ant:1 PSD	---	---	7.51	dBm/1MHz	INFO
Ant:2 PSD	---	---	7.13	dBm/1MHz	INFO
∑	---	11	10.33	dBm/1MHz	PASS

Verdict
PASS

Message with SA scan ~

References

TC start	25.07.2023 14:30:43
Ambit temp [°C] | humidity [rel%]	22.7 | 60
System version	4.6.0.0
Specification	-
Method	
Description	Message with SA Scan ac_VHT20_U_NII_2C
Information	PS76

Test Parameter

Switched Path	EUT - SignalingUnit - SpectrumAnalyzer
Message start	25.07.2023 14:30:43
Message	set WLAN5Gx to ac_VHT20_U_NII_2C, Frequency [MHz] 5500 ,

Equipment

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

Verdict
INFO

FCC 15.407 # Max output power and psd ~ WLAN5Gx ac-VHT20 mode U-NII-2C

References

TC start	25.07.2023 14:31:15
Ambit temp [°C] | humidity [rel%]	22.7 | 60
System version	4.6.0.0
Specification	FCC 15.407 -
Method	KDB789033 D02, F., E.2.e.
Description	FCC 15.407 Max Output Power & PSD - WLAN5Gx ac-VHT20 mode U-NII-2C
Information	PS74

EUT Common Settings WLAN5Gx

Number of Antenna Ports	1
User Interaction	No
Device Class UNII_1	Client
Limit W52 Japan	Standard

Test Parameter

Technology to test	WLAN5Gx ac-VHT20 mode
Antenna port used	1
Temperature	nom
Voltage	nom
Frequency low to test	True | Freq [MHz] 5500
Frequency mid to test	False | Freq [MHz] 5600
Frequency high to test	False | Freq [MHz] 5720
Auto control enabled power supply | Climatic Box	No | No
Additional path loss [dB]	1.3
Switched path	EUT - SignalingUnit - SpectrumAnalyzer

Equipment

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

Test at TX 5500 MHz

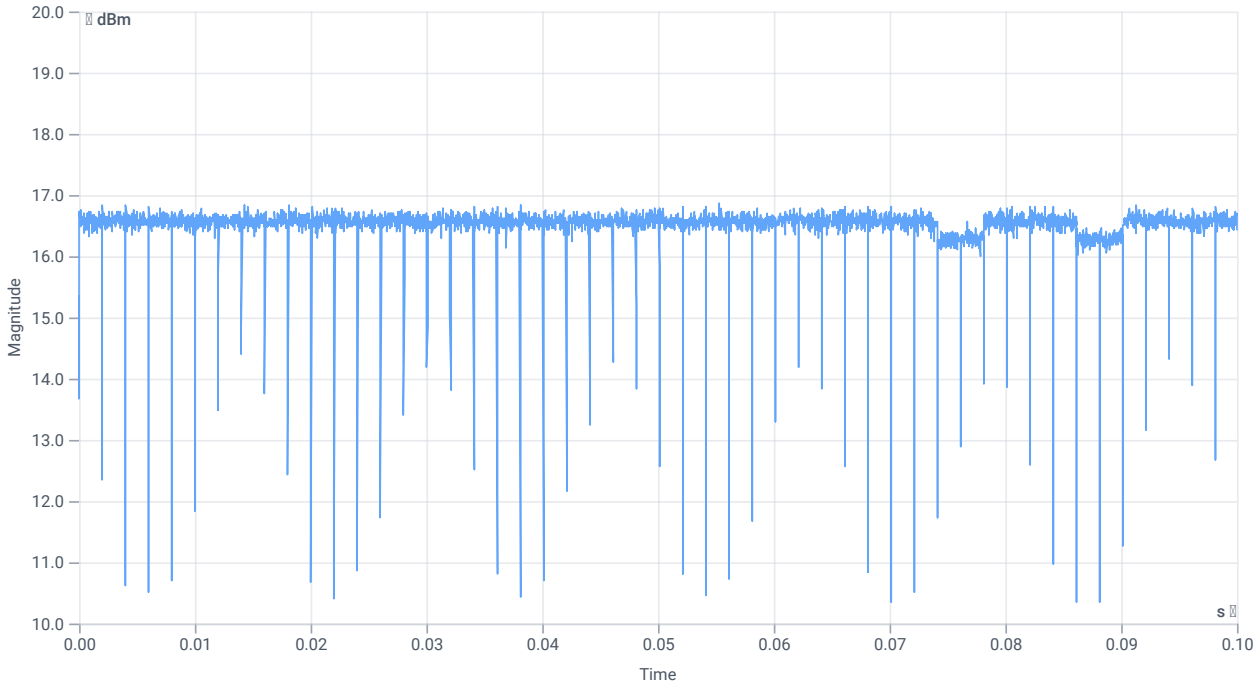
RESULT: Reference Power cond.

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	15.69	dBm	INFO
Ref. Frequency	---	---	5501.200	MHz	INFO

Evaluation max. Duty Cycle

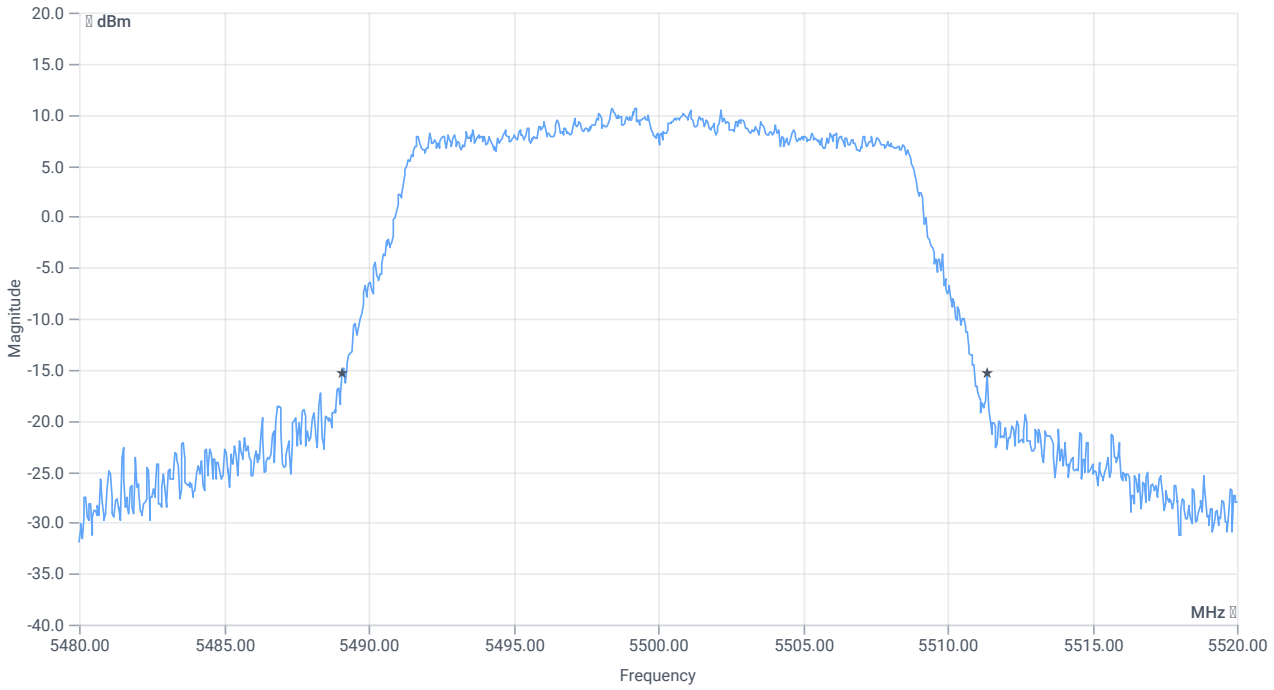
Duty Cycle evaluation

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

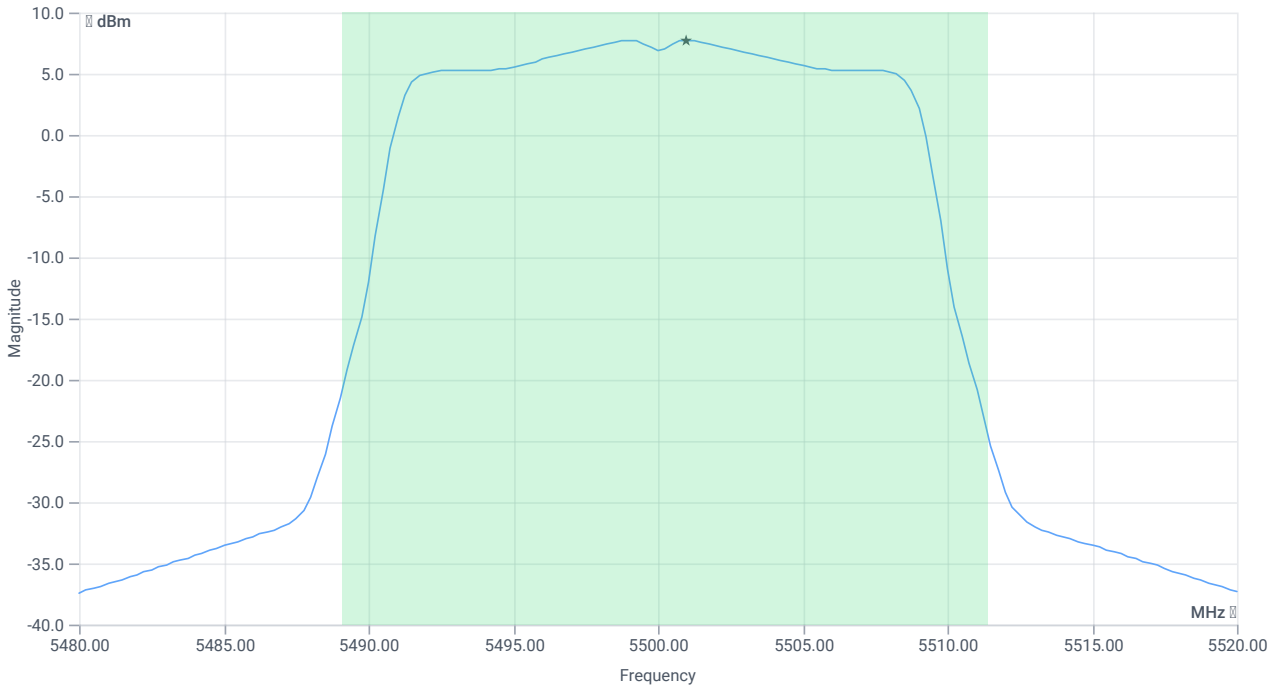
RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 26dB	---	---	22.28	MHz	INFO
T1 26dB	---	---	5489.0800	MHz	INFO
T2 26dB	---	---	5511.3600	MHz	INFO

Maximum Output Power

READ SA SETTINGS:

RefLevel [dBm] | RefLevelOffset [dB] | InpAtt [dB]	27.69 | 16.59 | 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	---	---	18.5	dBm	INFO
Duty Cycle Correction	---	---	0	dB	INFO
Limit absolute					
Max Output Power DC corrected	---	24	18.5	dBm	PASS
Limit: 11 dBm + 10 log		22.28			
Max Output Power DC corrected	---	24.48	18.5	dBm	PASS

Power Spectral Density

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Power Spectral Density	---	---	7.73	dBm/1MHz	INFO
Duty Cycle Correction	---	---	0	dB	INFO
Power Spectral Density DC corrected	---	11	7.73	dBm/1MHz	PASS

Verdict

PASS

FCC 15.407, ISED RSS247 # Bandwidths 99PCT and 26dB ~ WLAN5Gx ac-VHT20 mode U-NII-2C

References

TC start	25.07.2023 14:32:41
Ambit temp [°C] | humidity [rel%]	22.7 | 60
System version	4.6.0.0
Specification	FCC 15.407, ISED RSS247 -
Method	26dB Bandwidth KDB789033 D02, C.1 / ISED RSS-GEN
Description	FCC 15.407 Bandwidths - WLAN5Gx ac-VHT20 mode U-NII-2C
Information	PS74

EUT Common Settings WLAN5Gx

Number of Antenna Ports	1
User Interaction	No
Device Class UNII_1	Client
Limit W52 Japan	Standard

Test Parameter

Technology to test	WLAN5Gx ac-VHT20 mode
Antenna port used	1
Temperature	nom
Voltage	nom
Frequency low to test	True | Freq [MHz] 5500
Frequency mid to test	False | Freq [MHz] 5600
Frequency high to test	False | Freq [MHz] 5720
Auto control enabled power supply | Climatic Box	No | No
Additional path loss [dB]	1.3
Switched path	EUT - SignalingUnit - SpectrumAnalyzer

Equipment

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

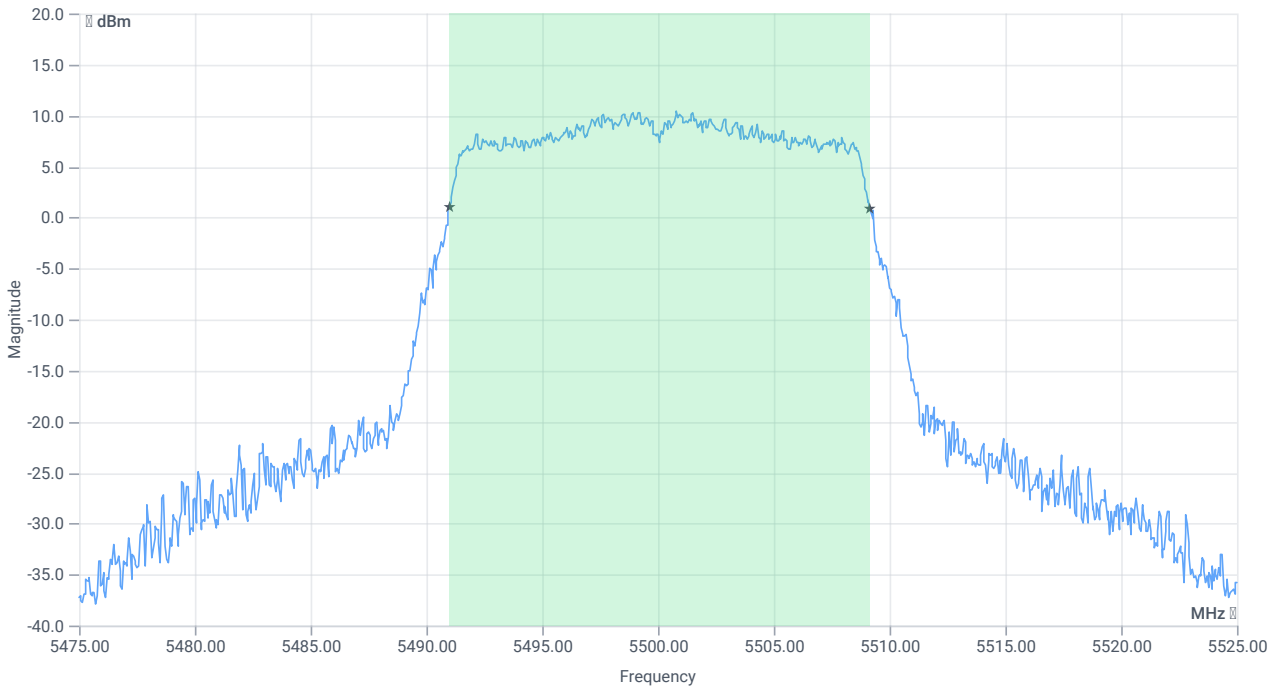
Test at TX 5500 MHz

RESULT: Reference Power cond.

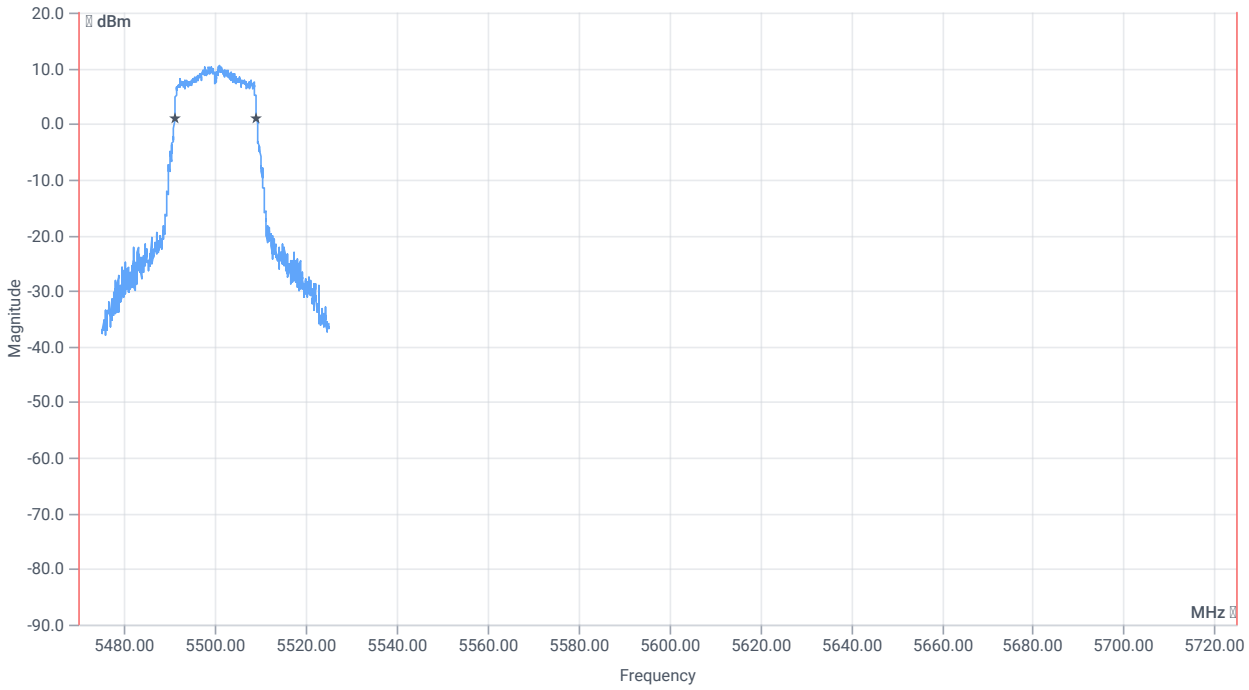
DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	15.53	dBm	INFO
Ref. Frequency	---	---	5498.800	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] | RefLevelOffset [dB] | InpAtt [dB]	23.53 | 16.59 | 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



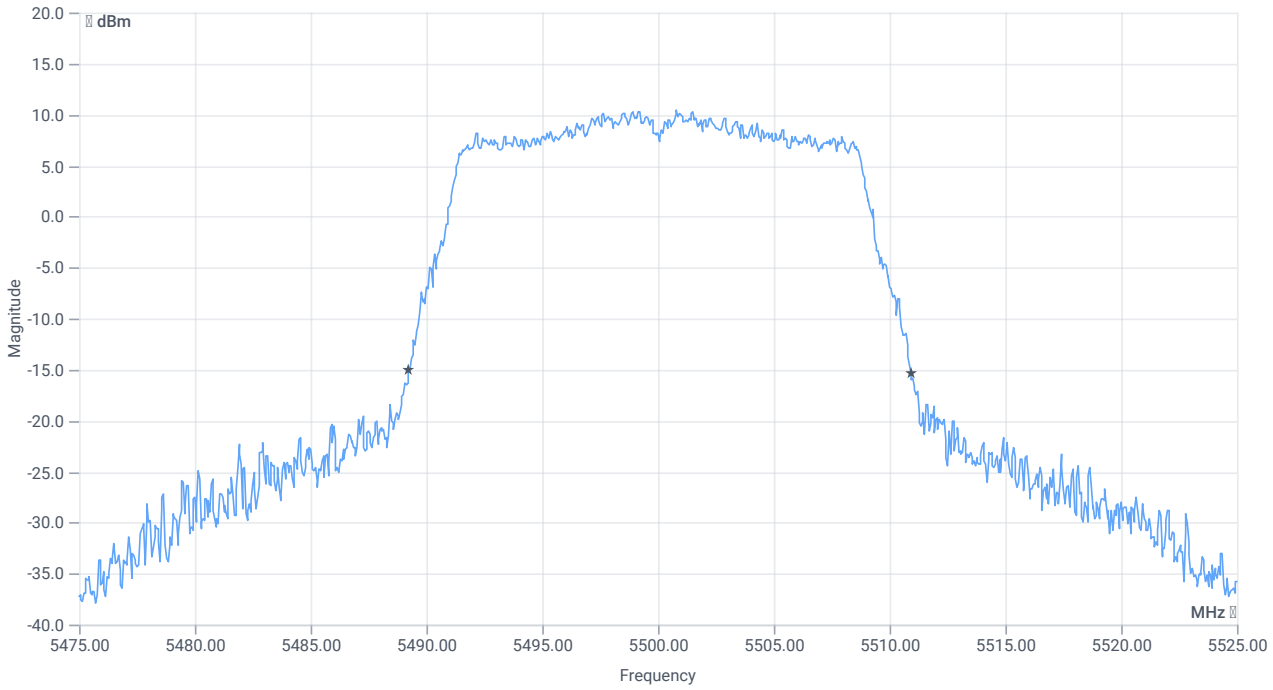
BW 99PCT



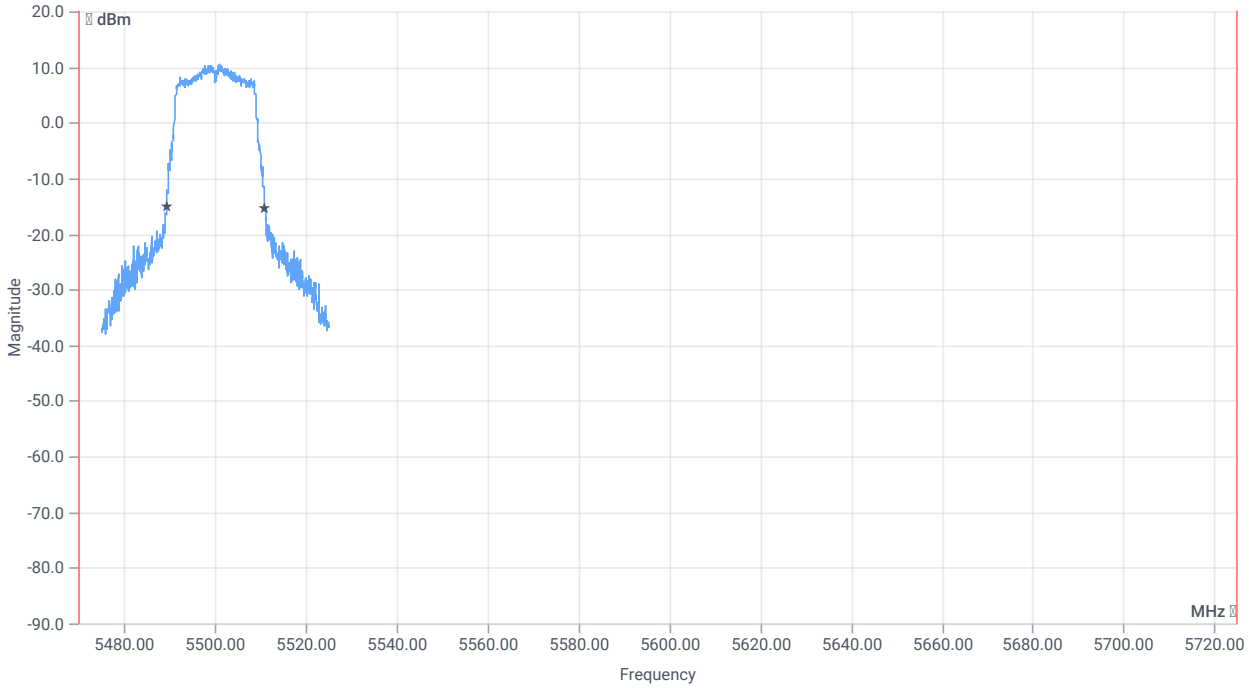
BW within Band 99PCT

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 99%	---	---	18.132	MHz	INFO
T1 99%	5470.000000	---	5491.0090	MHz	PASS since U-NII-3 is supported
T2 99%	---	5725.000000	5509.1409	MHz	



BW 26dB



BW within Band 26dB

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 26dB	---	---	21.65	MHz	INFO

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
T1 26dB	5470.000000	---	5489.2500	MHz	PASS since U-NII-3 is supported
T2 26dB	---	5725.000000	5510.9000	MHz	

Verdict
PASS

FCC 15.407 # Max output power and psd ~ WLAN5Gx ac-VHT20 mode U-NII-2C

References

TC start	25.07.2023 14:33:12
Ambit temp [°C] | humidity [rel%]	22.7 | 60
System version	4.6.0.0
Specification	FCC 15.407 -
Method	KDB789033 D02, F., E.2.e.
Description	FCC 15.407 Max Output Power & PSD - WLAN5Gx ac-VHT20 mode U-NII-2C
Information	PS74

EUT Common Settings WLAN5Gx

Number of Antenna Ports	1
User Interaction	No
Device Class UNII_1	Client
Limit W52 Japan	Standard

Test Parameter

Technology to test	WLAN5Gx ac-VHT20 mode
Antenna port used	2
Temperature	nom
Voltage	nom
Frequency low to test	True | Freq [MHz] 5500
Frequency mid to test	False | Freq [MHz] 5600
Frequency high to test	False | Freq [MHz] 5720
Auto control enabled power supply | Climatic Box	No | No
Additional path loss [dB]	1.3
Switched path	EUT - SignalingUnit - SpectrumAnalyzer

Equipment

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

Test at TX 5500 MHz

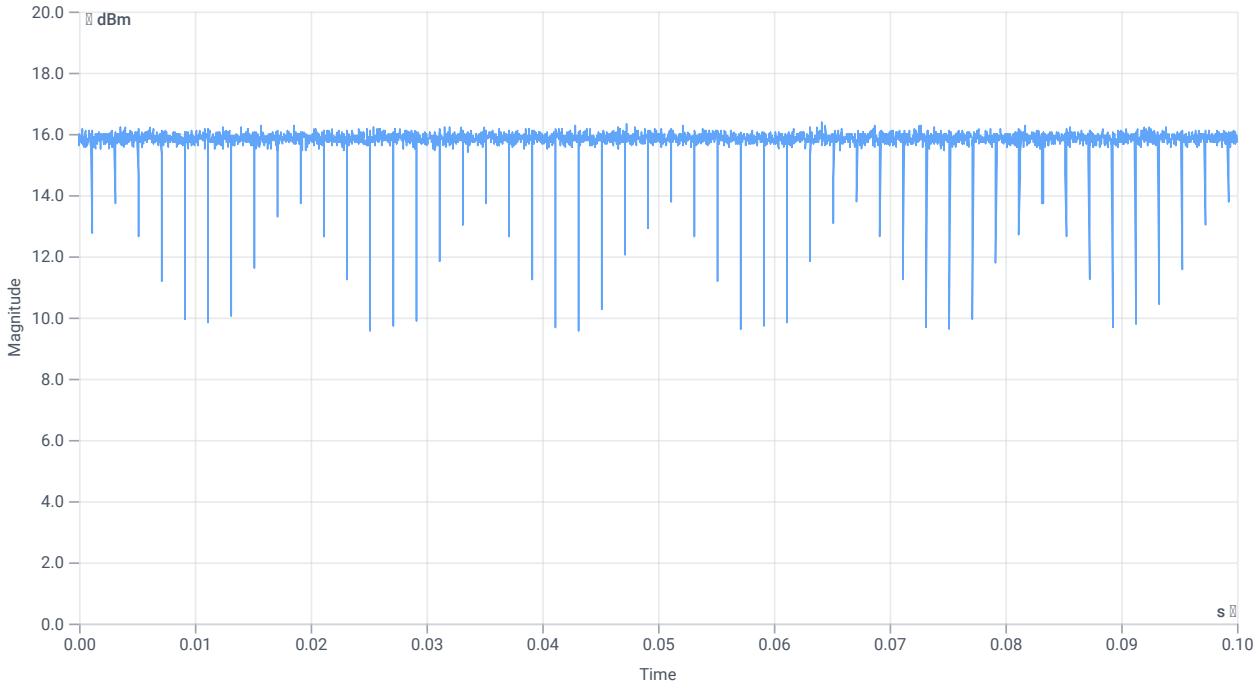
RESULT: Reference Power cond.

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	15.05	dBm	INFO
Ref. Frequency	---	---	5497.800	MHz	INFO

Evaluation max. Duty Cycle

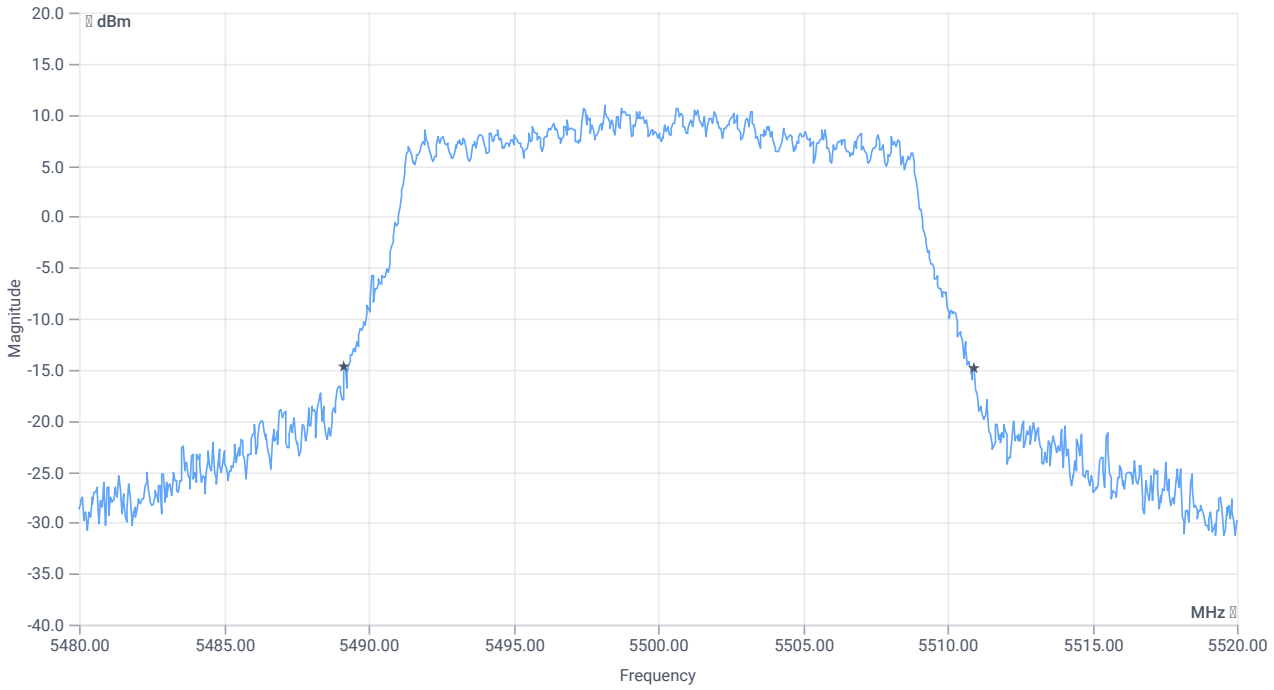
Duty Cycle evaluation

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

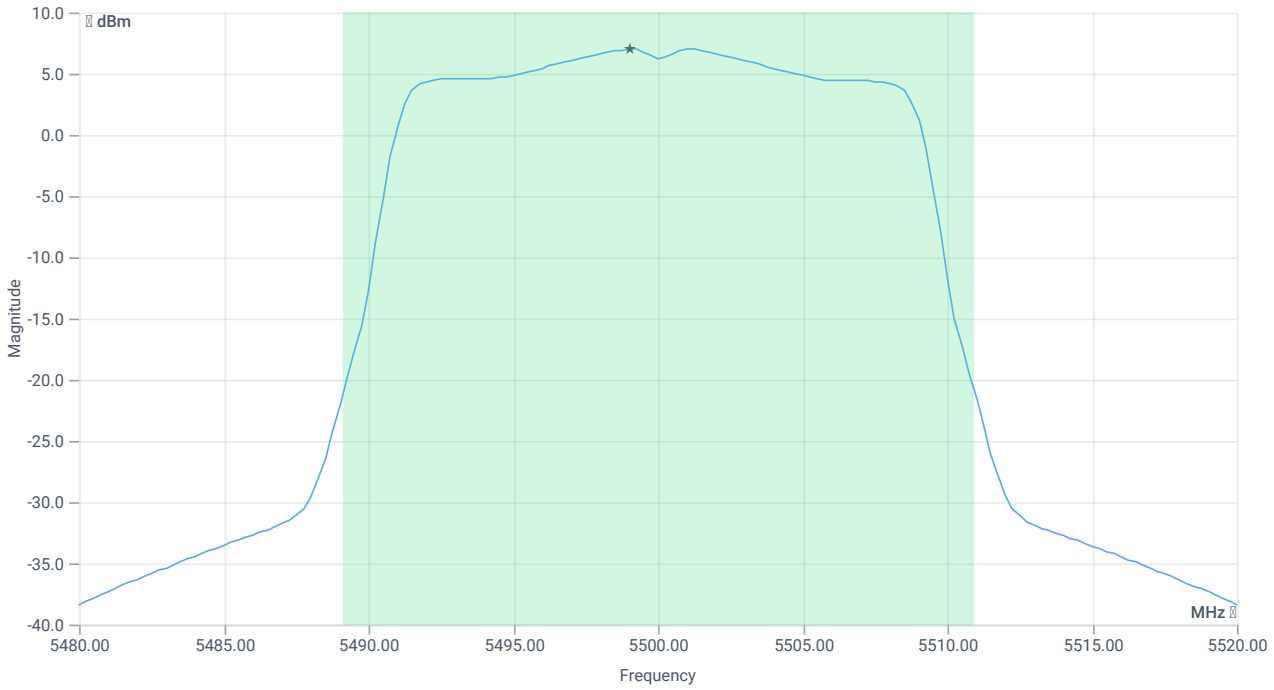
RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 26dB	---	---	21.76	MHz	INFO
T1 26dB	---	---	5489.1600	MHz	INFO
T2 26dB	---	---	5510.9200	MHz	INFO

Maximum Output Power

READ SA SETTINGS:

RefLevel [dBm] | RefLevelOffset [dB] | InpAtt [dB]	27.05 | 16.59 | 25
Start [MHz] | Stop [MHz]	5480.000 | 5520.000
RBW [MHz] | VBW [MHz]	1.000000 | 3.000000
Detector | TraceMode	RMS | MAXH
Sweep: time [ms] | count | points per Section | type	53700 | 1 | 161 | SWE



Max OP and PSD

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Max Output Power	---	---	17.76	dBm	INFO
Duty Cycle Correction	---	---	0	dB	INFO
Limit absolute					
Max Output Power DC corrected	---	24	17.76	dBm	PASS
Limit: 11 dBm + 10 log		21.76			
Max Output Power DC corrected	---	24.38	17.76	dBm	PASS

Power Spectral Density

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Power Spectral Density	---	---	7.02	dBm/1MHz	INFO
Duty Cycle Correction	---	---	0	dB	INFO
Power Spectral Density DC corrected	---	11	7.02	dBm/1MHz	PASS

Verdict

PASS

FCC 15.407, ISED RSS247 # Bandwidths 99PCT and 26dB ~ WLAN5Gx ac-VHT20 mode U-NII-2C

References

TC start	25.07.2023 14:34:39
Ambit temp [°C] | humidity [rel%]	22.8 | 60
System version	4.6.0.0
Specification	FCC 15.407, ISED RSS247 -
Method	26dB Bandwidth KDB789033 D02, C.1 / ISED RSS-GEN
Description	FCC 15.407 Bandwidths - WLAN5Gx ac-VHT20 mode U-NII-2C
Information	PS74

EUT Common Settings WLAN5Gx

Number of Antenna Ports	1
User Interaction	No
Device Class UNII_1	Client
Limit W52 Japan	Standard

Test Parameter

Technology to test	WLAN5Gx ac-VHT20 mode
Antenna port used	2
Temperature	nom
Voltage	nom
Frequency low to test	True | Freq [MHz] 5500
Frequency mid to test	False | Freq [MHz] 5600
Frequency high to test	False | Freq [MHz] 5720
Auto control enabled power supply | Climatic Box	No | No
Additional path loss [dB]	1.3
Switched path	EUT - SignalingUnit - SpectrumAnalyzer

Equipment

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

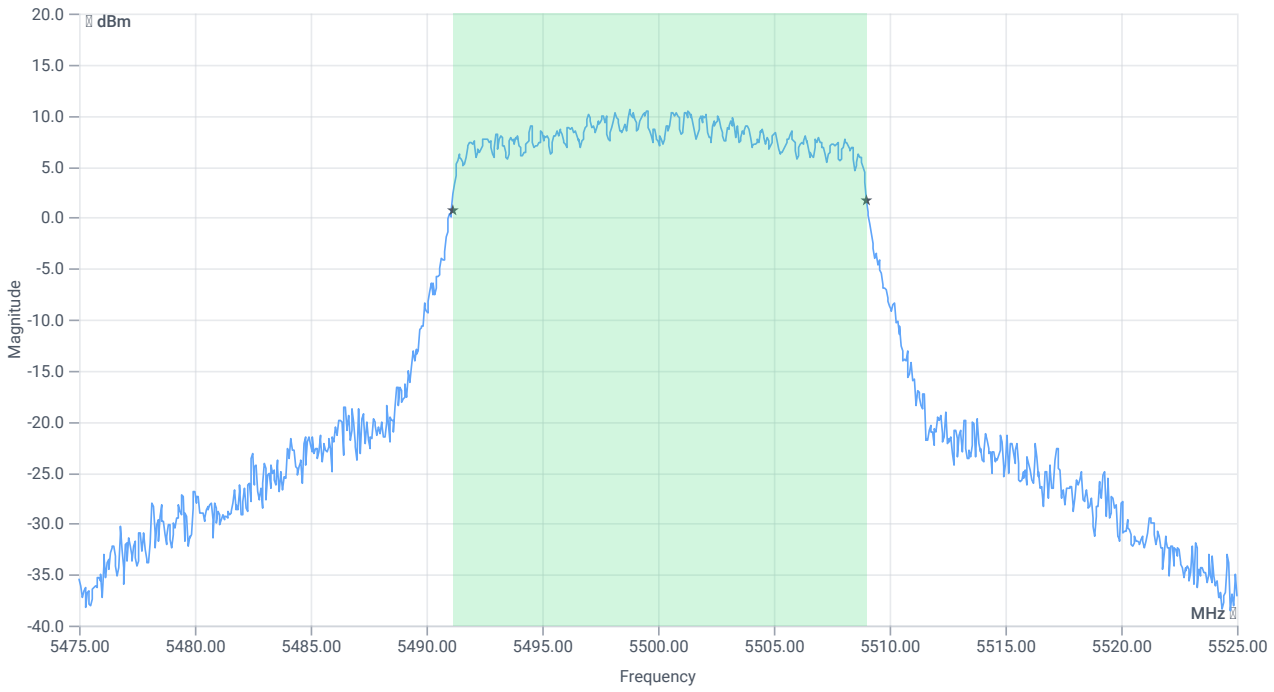
Test at TX 5500 MHz

RESULT: Reference Power cond.

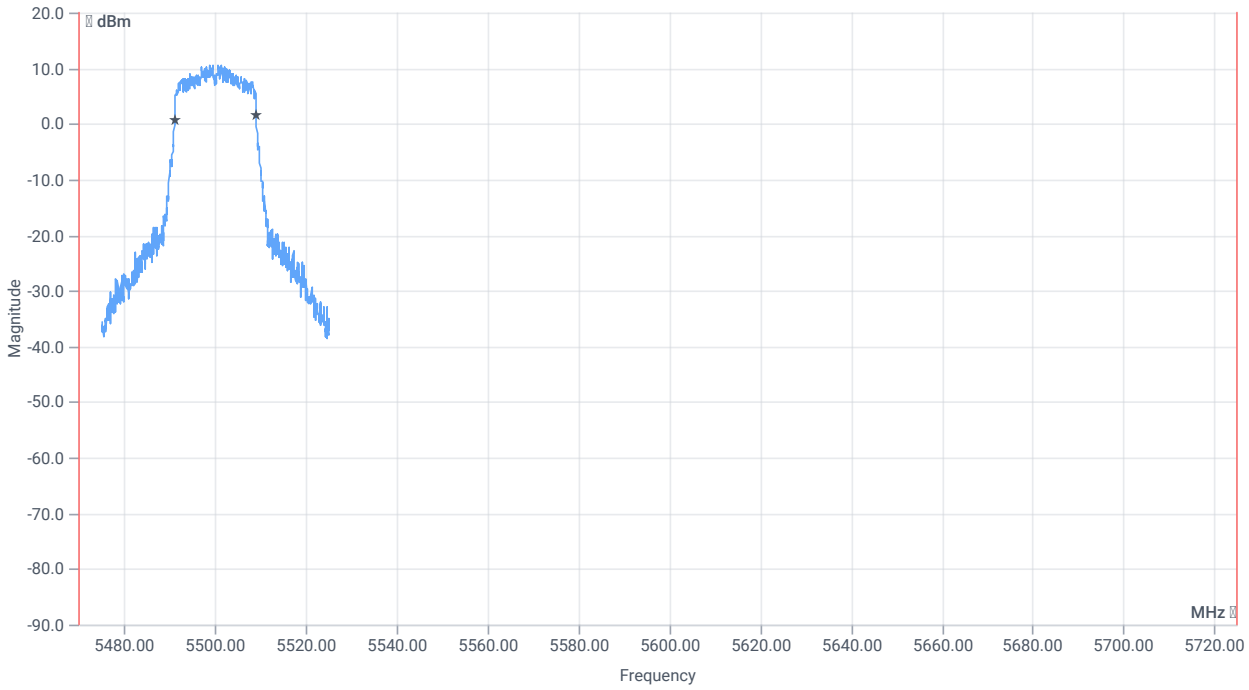
DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	14.62	dBm	INFO
Ref. Frequency	---	---	5495.400	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] | RefLevelOffset [dB] | InpAtt [dB]	22.62 | 16.59 | 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



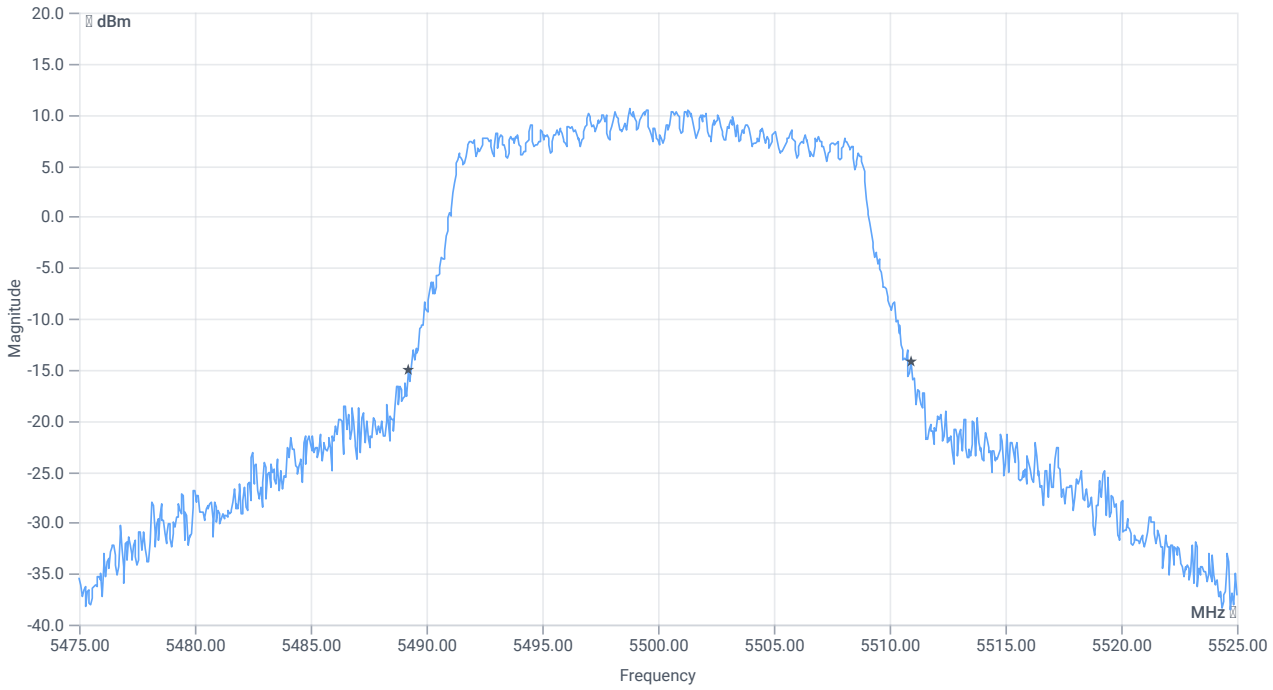
BW 99PCT



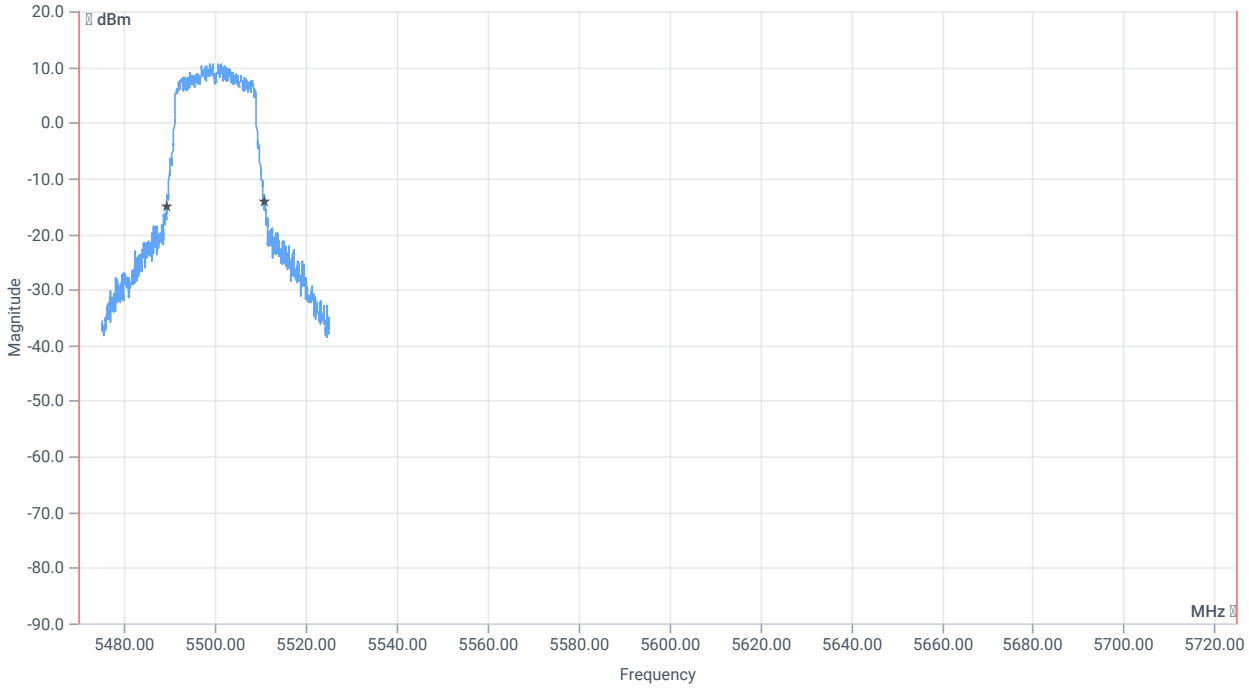
BW within Band 99PCT

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 99%	---	---	17.882	MHz	INFO
T1 99%	5470.000000	---	5491.1089	MHz	PASS since U-NII-3 is supported
T2 99%	---	5725.000000	5508.9910	MHz	



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	5470.000000	---	5489.2500	MHz	PASS since U-NII-3 is supported
T2 26dB	---	5725.000000	5510.9500	MHz	

Verdict
PASS

FCC 15.407 # MIMO ∑ Max output power and psd ~ WLAN5Gx ac-VHT20 mode U-NII-2C

References

TC start	25.07.2023 14:35:10
Ambit temp [°C] | humidity [rel%]	22.8 | 60
System version	4.6.0.0
Specification	FCC 15.407 -
Method	
Description	MIMO ∑ FCC Power & psd - WLAN5Gx ac-VHT20 mode U-NII-2C
Information	PS74

EUT Common Settings WLAN5Gx

Number of Antenna Ports	1
User Interaction	No
Device Class UNII_1	Client
Limit W52 Japan	Standard

Test Parameter

Technology to test	WLAN5Gx ac-VHT20 mode
Antenna port used	several
Temperature	nom
Voltage	nom
Frequency low to test	True | Freq [MHz] 5500
Frequency mid to test	False | Freq [MHz] 5600
Frequency high to test	False | Freq [MHz] 5720
Auto control enabled power supply | Climatic Box	No | No
Additional path loss [dB]	1.3
Switched path	None

Equipment

Test at TX 5500 MHz

RESULT Power

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ant:1 Max Output Power DC corrected	---	---	18.5	dBm	INFO
Ant:1 BW 26dB	---	---	22.280	MHz	INFO
Ant:2 Max Output Power DC corrected	---	---	17.76	dBm	INFO
Ant:2 BW 26dB	---	---	21.760	MHz	INFO
∑ Limit absolute	---	24	21.16	dBm	PASS
∑ Limit: 11 dBm + 10 log 21.76	---	24.38	21.16	dBm	PASS

RESULT PSD

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ant:1 PSD	---	---	7.73	dBm/1MHz	INFO
Ant:2 PSD	---	---	7.02	dBm/1MHz	INFO
∑	---	11	10.4	dBm/1MHz	PASS

Verdict
PASS

Message with SA scan ~

References

TC start	25.07.2023 15:06:33
Ambit temp [°C] | humidity [rel%]	24.0 | 56
System version	4.6.0.0
Specification	-
Method	
Description	Message with SA Scan ac_VHT20_U_NII_2C
Information	

Test Parameter

Switched Path	EUT - SignalingUnit - SpectrumAnalyzer
Message start	25.07.2023 15:06:33
Message	set WLAN5Gx to ac_VHT20_U_NII_2C, Frequency [MHz] 5600 ,

Equipment

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

Verdict
INFO

FCC 15.407 # Max output power and psd ~ WLAN5Gx ac-VHT20 mode U-NII-2C

References

TC start	25.07.2023 15:06:43
Ambit temp [°C] | humidity [rel%]	23.9 | 56
System version	4.6.0.0
Specification	FCC 15.407 -
Method	KDB789033 D02, F., E.2.e.
Description	FCC 15.407 Max Output Power & PSD - WLAN5Gx ac-VHT20 mode U-NII-2C
Information	PS76

EUT Common Settings WLAN5Gx

Number of Antenna Ports	1
User Interaction	No
Device Class UNII_1	Client
Limit W52 Japan	Standard

Test Parameter

Technology to test	WLAN5Gx ac-VHT20 mode
Antenna port used	1
Temperature	nom
Voltage	nom
Frequency low to test	False | Freq [MHz] 5500
Frequency mid to test	True | Freq [MHz] 5600
Frequency high to test	False | Freq [MHz] 5720
Auto control enabled power supply | Climatic Box	No | No
Additional path loss [dB]	1.3
Switched path	EUT - SignalingUnit - SpectrumAnalyzer

Equipment

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

Test at TX 5600 MHz

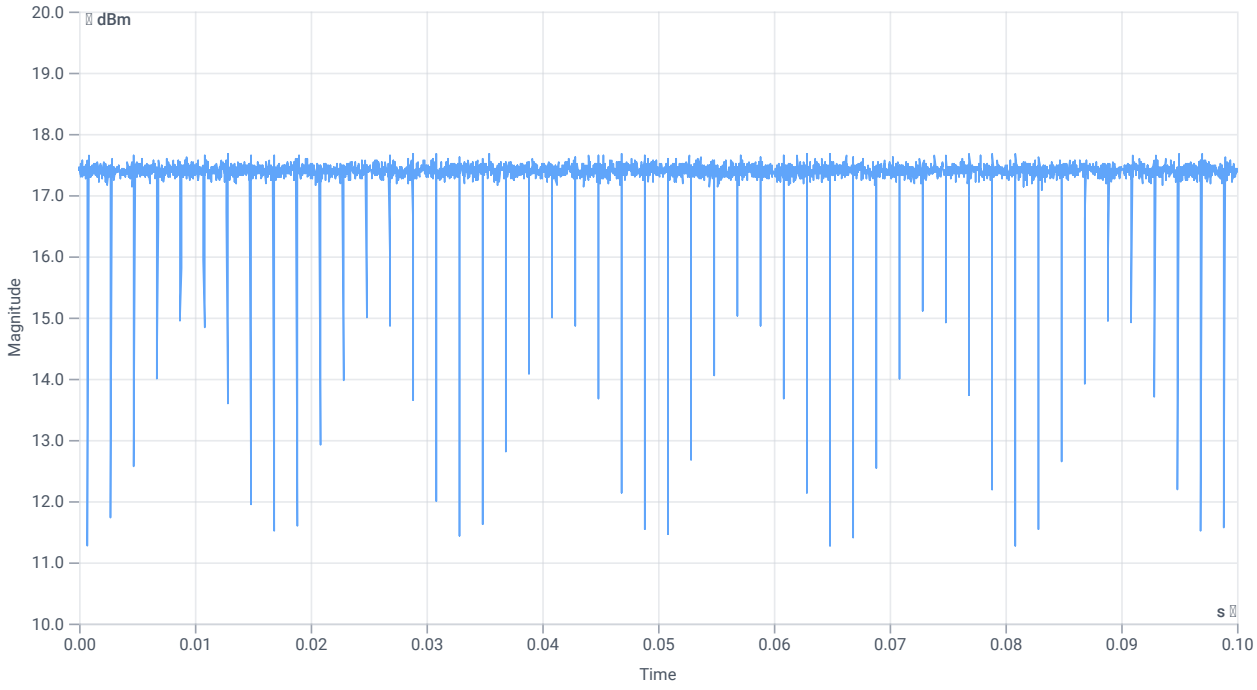
RESULT: Reference Power cond.

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	15.99	dBm	INFO
Ref. Frequency	---	---	5604.400	MHz	INFO

Evaluation max. Duty Cycle

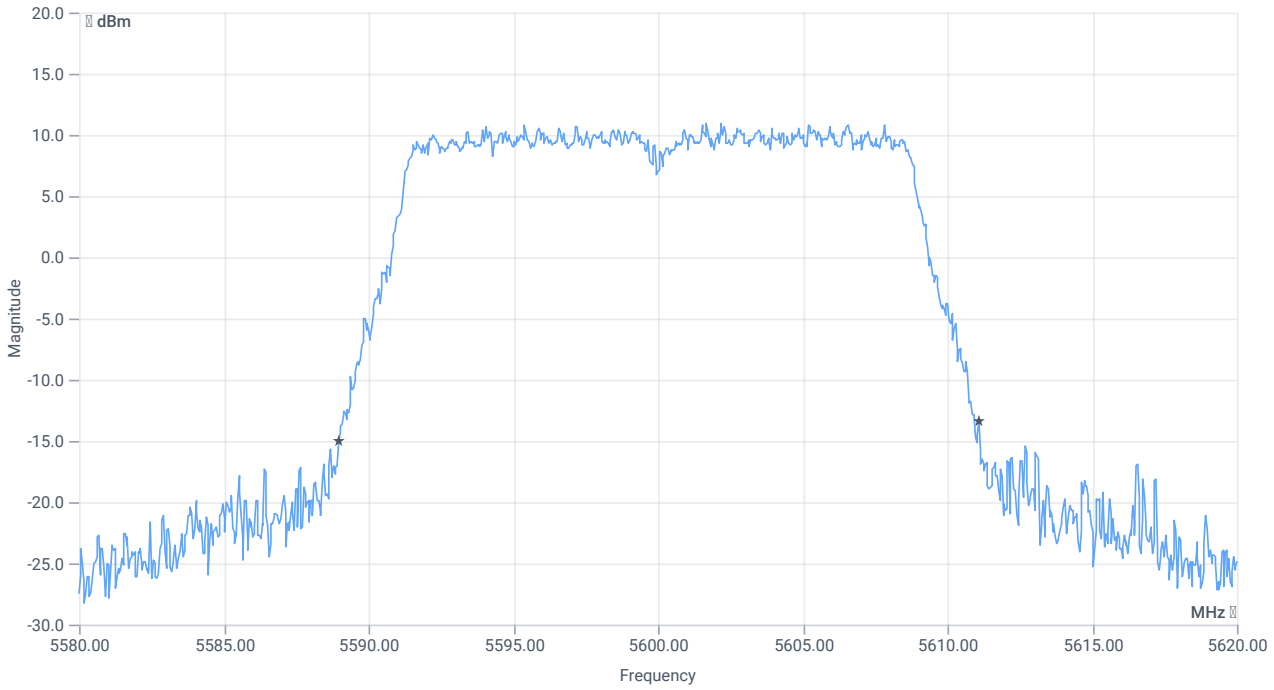
Duty Cycle evaluation

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

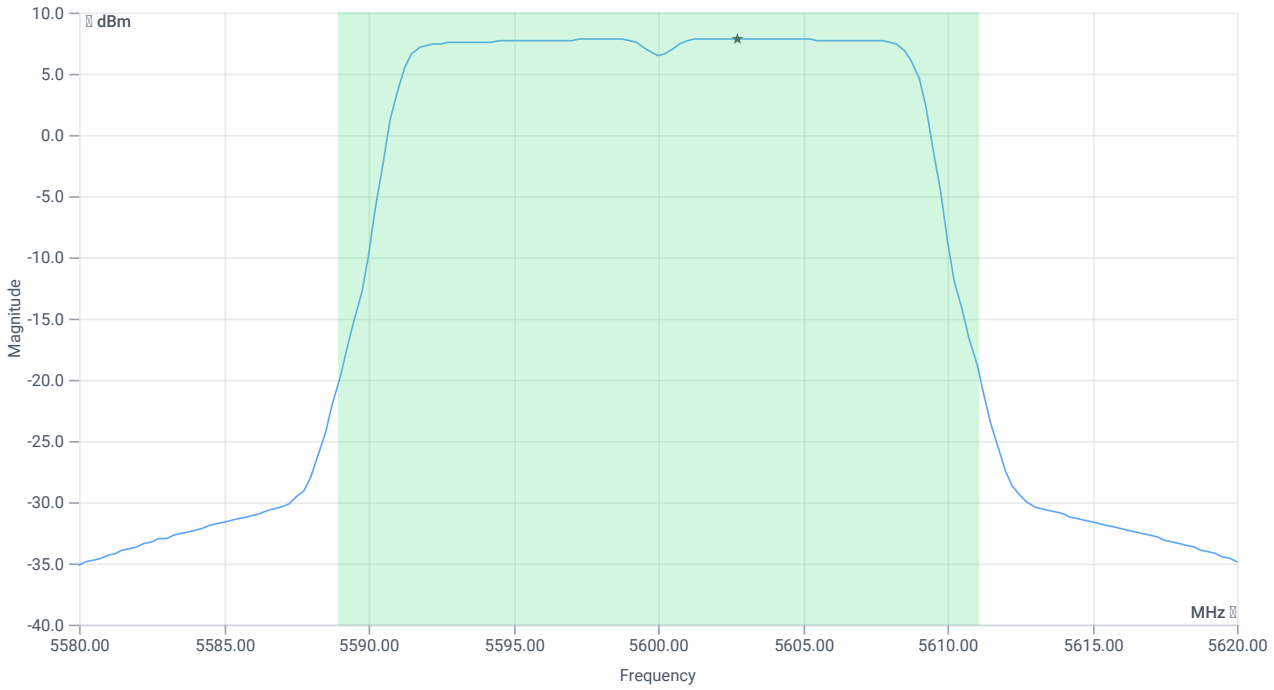
RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 26dB	---	---	22.12	MHz	INFO
T1 26dB	---	---	5588.9600	MHz	INFO
T2 26dB	---	---	5611.0800	MHz	INFO

Maximum Output Power

READ SA SETTINGS:

RefLevel [dBm] | RefLevelOffset [dB] | InpAtt [dB]	27.99 | 16.64 | 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	---	---	19.88	dBm	INFO
Duty Cycle Correction	---	---	0	dB	INFO
Limit absolute					
Max Output Power DC corrected	---	24	19.88	dBm	PASS
Limit: 11 dBm + 10 log		22.12			
Max Output Power DC corrected	---	24.45	19.88	dBm	PASS

Power Spectral Density

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Power Spectral Density	---	---	7.83	dBm/1MHz	INFO
Duty Cycle Correction	---	---	0	dB	INFO
Power Spectral Density DC corrected	---	11	7.83	dBm/1MHz	PASS

Verdict
PASS

FCC 15.407, ISED RSS247 # Bandwidths 99PCT and 26dB ~ WLAN5Gx ac-VHT20 mode U-NII-2C

References

TC start	25.07.2023 15:08:09
Ambit temp [°C] | humidity [rel%]	24.0 | 56
System version	4.6.0.0
Specification	FCC 15.407, ISED RSS247 -
Method	26dB Bandwidth KDB789033 D02, C.1 / ISED RSS-GEN
Description	FCC 15.407 Bandwidths - WLAN5Gx ac-VHT20 mode U-NII-2C
Information	PS76

EUT Common Settings WLAN5Gx

Number of Antenna Ports	1
User Interaction	No
Device Class UNII_1	Client
Limit W52 Japan	Standard

Test Parameter

Technology to test	WLAN5Gx ac-VHT20 mode
Antenna port used	1
Temperature	nom
Voltage	nom
Frequency low to test	False | Freq [MHz] 5500
Frequency mid to test	True | Freq [MHz] 5600
Frequency high to test	False | Freq [MHz] 5720
Auto control enabled power supply | Climatic Box	No | No
Additional path loss [dB]	1.3
Switched path	EUT - SignalingUnit - SpectrumAnalyzer

Equipment

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

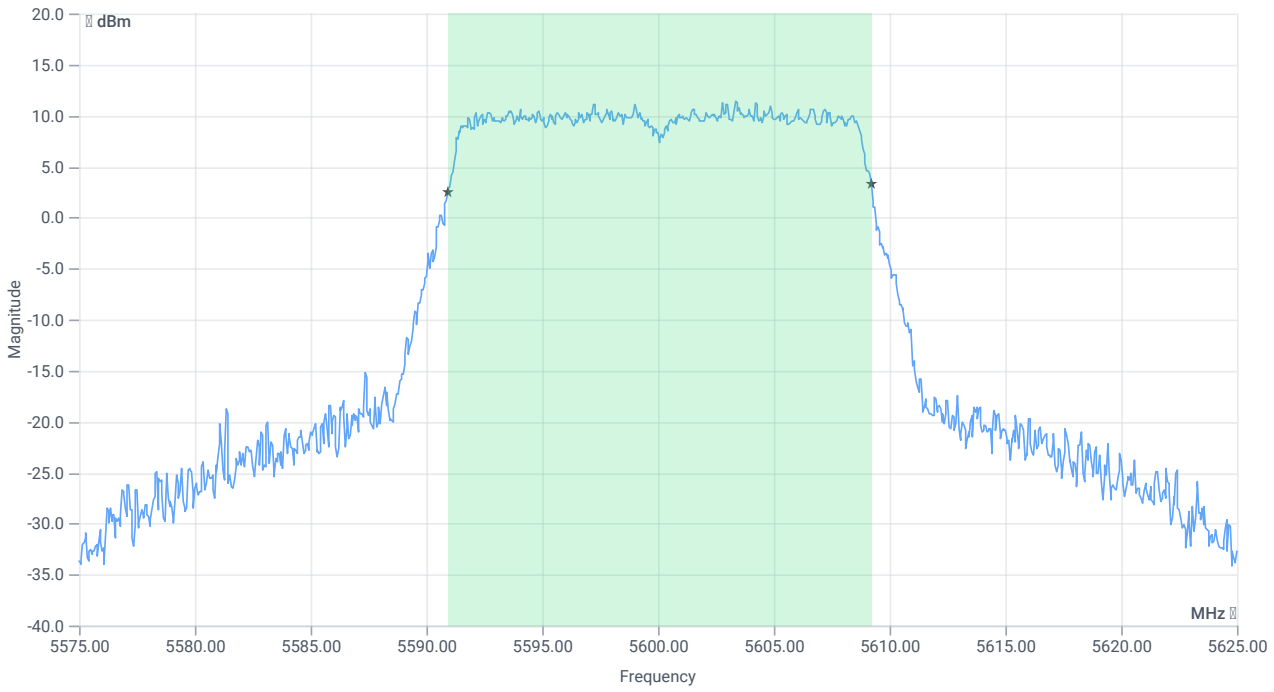
Test at TX 5600 MHz

RESULT: Reference Power cond.

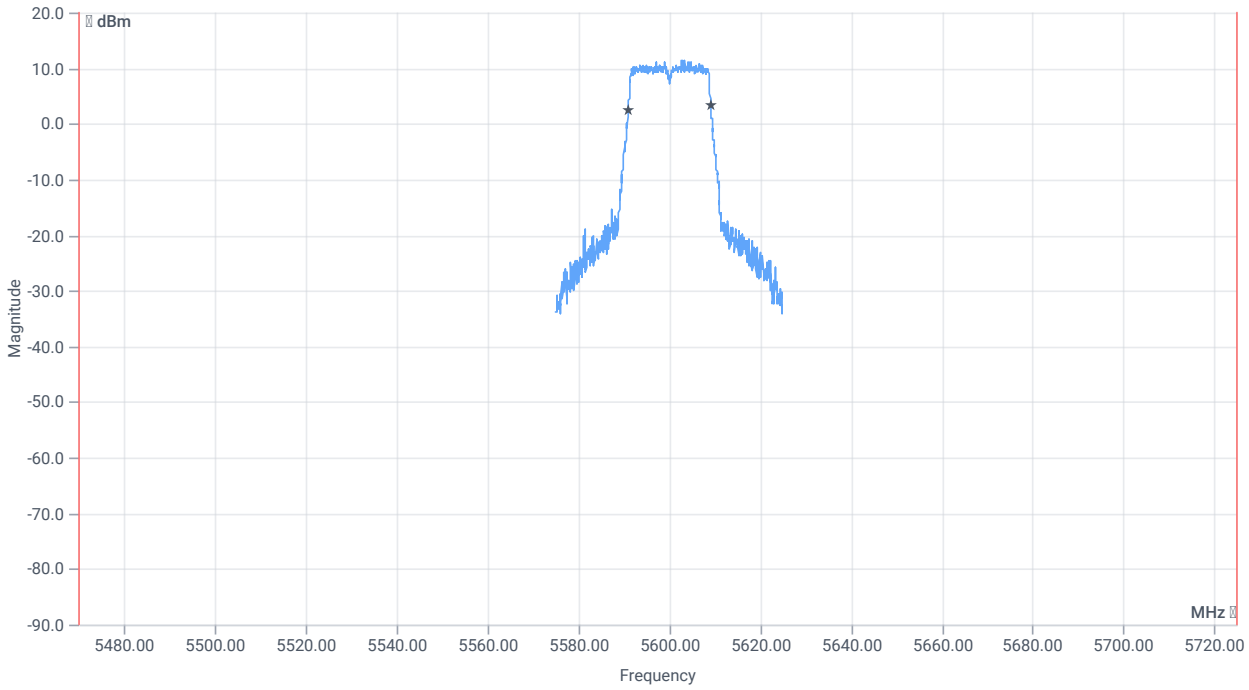
DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	17.63	dBm	INFO
Ref. Frequency	---	---	5602.400	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] | RefLevelOffset [dB] | InpAtt [dB]	25.63 | 16.64 | 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



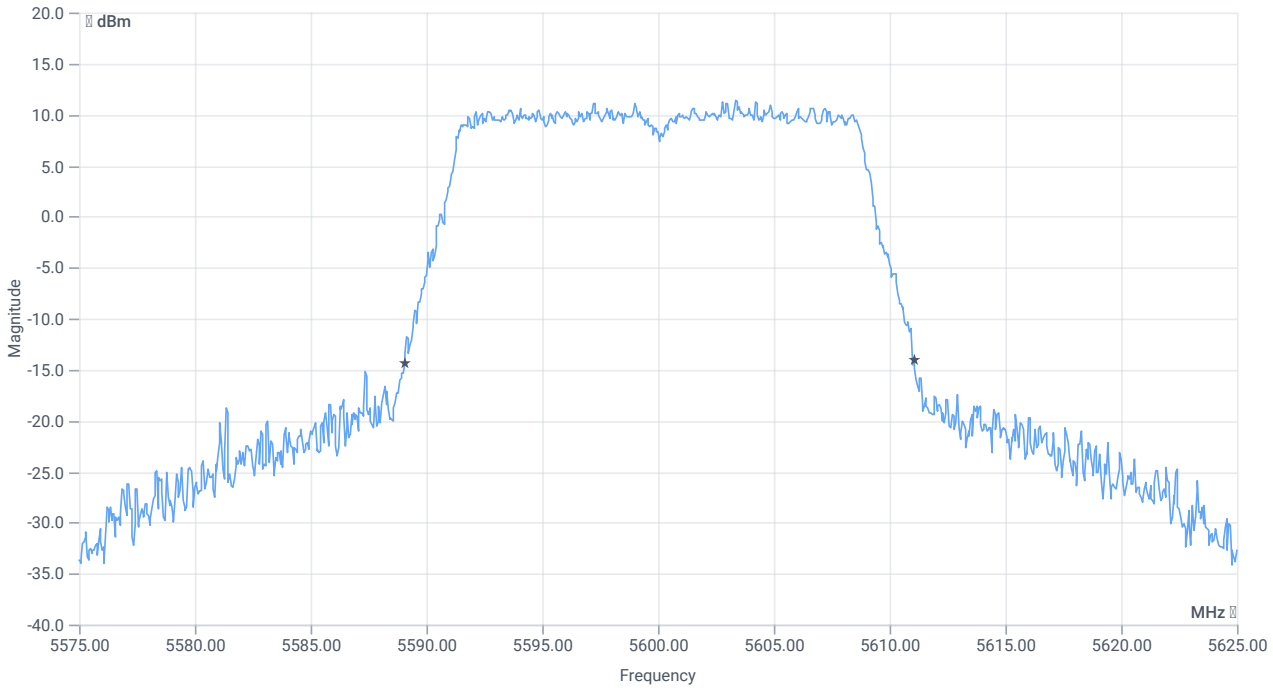
BW 99PCT



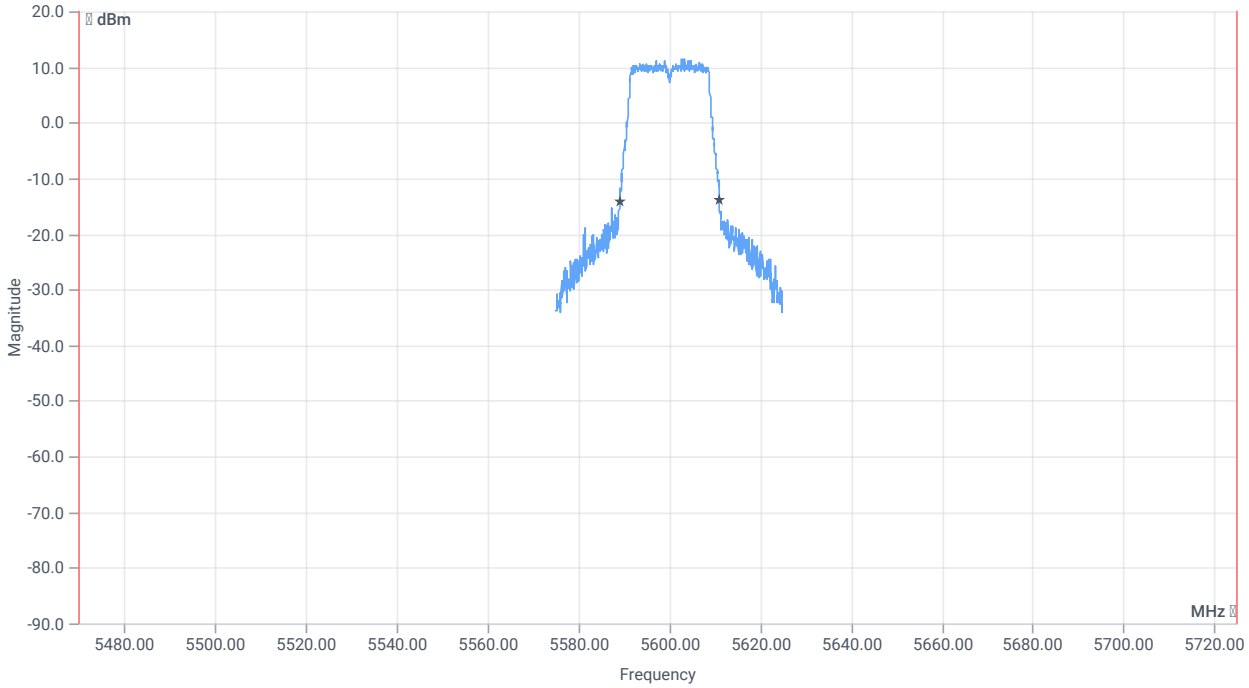
BW within Band 99PCT

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 99%	---	---	18.282	MHz	INFO
T1 99%	5470.000000	---	5590.9091	MHz	PASS since U-NII-3 is supported
T2 99%	---	5725.000000	5609.1908	MHz	



BW 26dB



BW within Band 26dB

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 26dB	---	---	22	MHz	INFO

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
T1 26dB	5470.000000	---	5589.0500	MHz	PASS since U-NII-3 is supported
T2 26dB	---	5725.000000	5611.0500	MHz	

Verdict
PASS

FCC 15.407 # Max output power and psd ~ WLAN5Gx ac-VHT20 mode U-NII-2C

References

TC start	25.07.2023 15:08:40
Ambit temp [°C] | humidity [rel%]	24.0 | 56
System version	4.6.0.0
Specification	FCC 15.407 -
Method	KDB789033 D02, F., E.2.e.
Description	FCC 15.407 Max Output Power & PSD - WLAN5Gx ac-VHT20 mode U-NII-2C
Information	PS76

EUT Common Settings WLAN5Gx

Number of Antenna Ports	1
User Interaction	No
Device Class UNII_1	Client
Limit W52 Japan	Standard

Test Parameter

Technology to test	WLAN5Gx ac-VHT20 mode
Antenna port used	2
Temperature	nom
Voltage	nom
Frequency low to test	False | Freq [MHz] 5500
Frequency mid to test	True | Freq [MHz] 5600
Frequency high to test	False | Freq [MHz] 5720
Auto control enabled power supply | Climatic Box	No | No
Additional path loss [dB]	1.3
Switched path	EUT - SignalingUnit - SpectrumAnalyzer

Equipment

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

Test at TX 5600 MHz

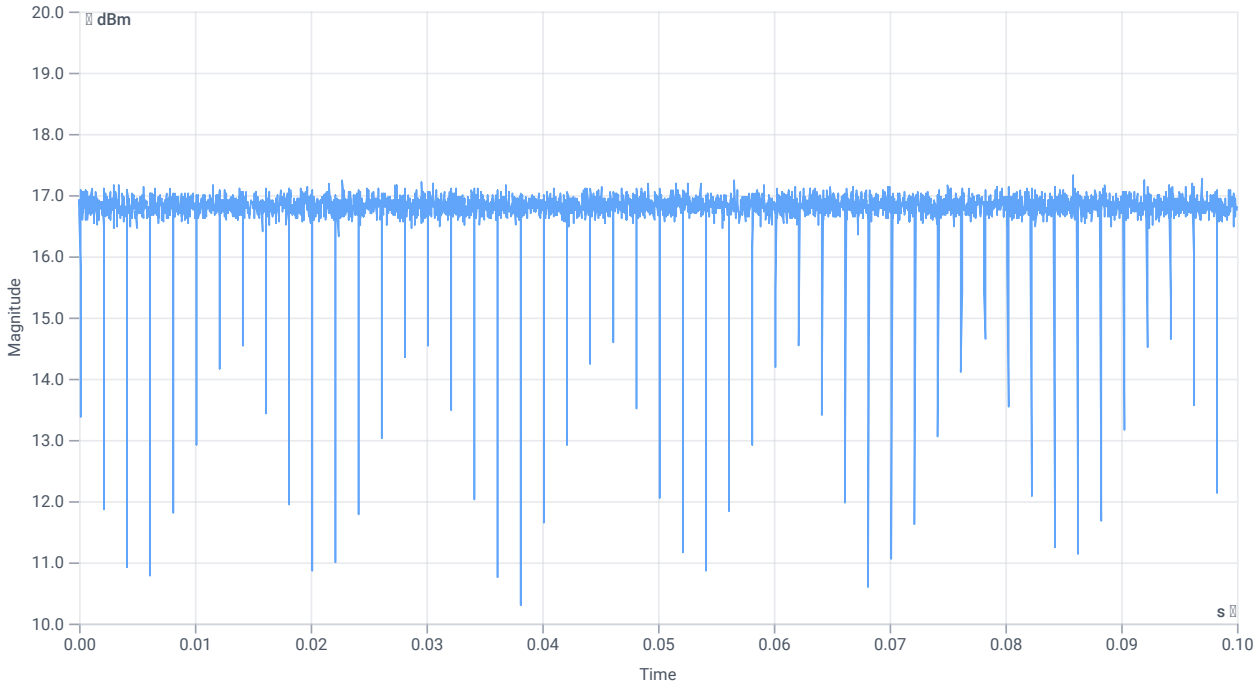
RESULT: Reference Power cond.

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	16.34	dBm	INFO
Ref. Frequency	---	---	5602.400	MHz	INFO

Evaluation max. Duty Cycle

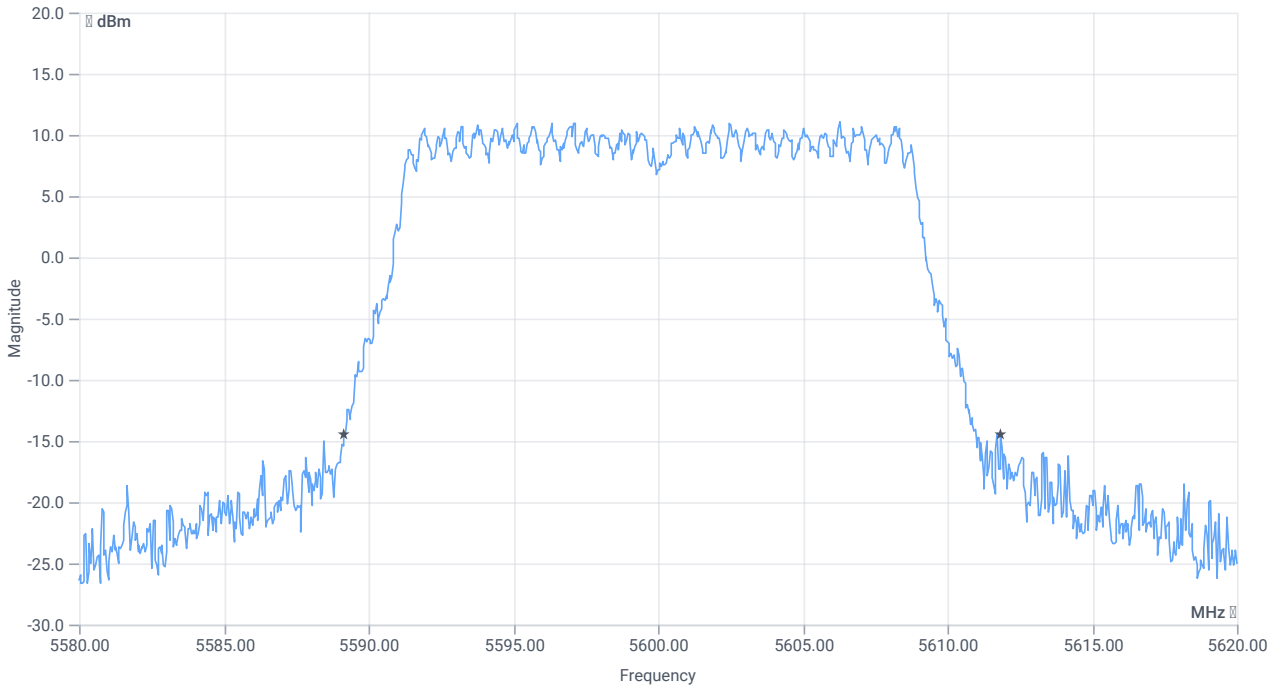
Duty Cycle evaluation

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

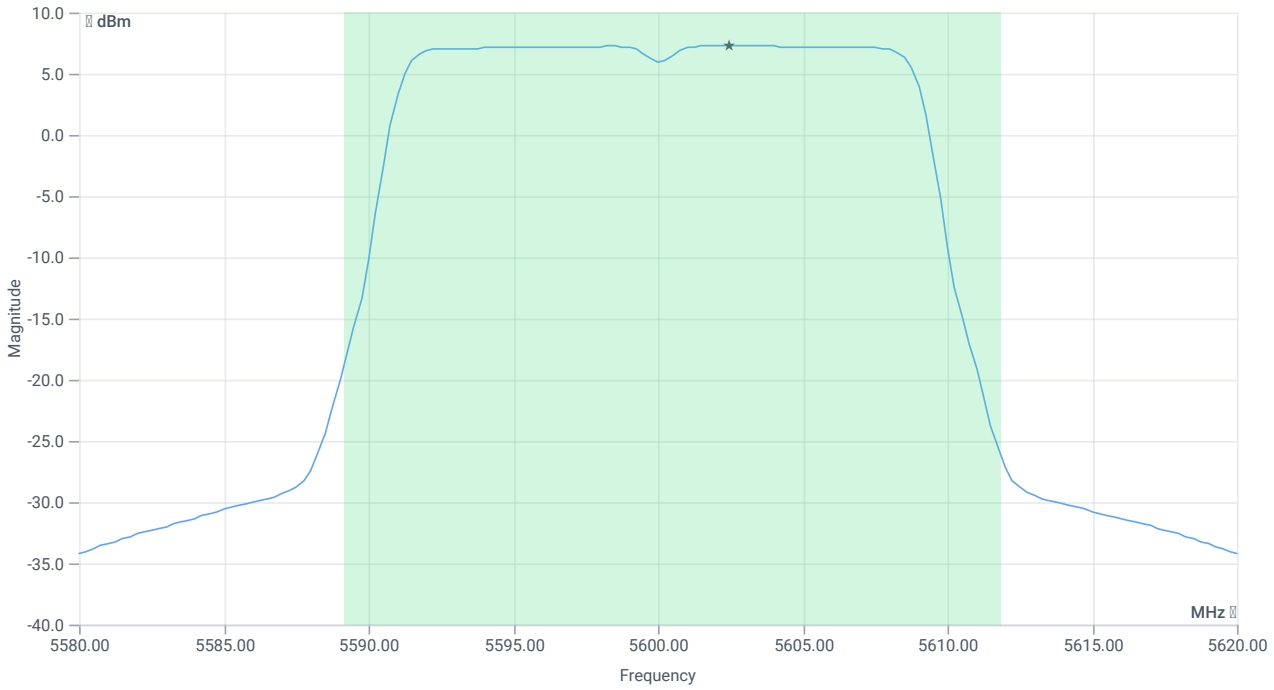
RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 26dB	---	---	22.68	MHz	INFO
T1 26dB	---	---	5589.1600	MHz	INFO
T2 26dB	---	---	5611.8400	MHz	INFO

Maximum Output Power

READ SA SETTINGS:

RefLevel [dBm] | RefLevelOffset [dB] | InpAtt [dB]	28.34 | 16.64 | 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	---	---	19.32	dBm	INFO
Duty Cycle Correction	---	---	0	dB	INFO
Limit absolute					
Max Output Power DC corrected	---	24	19.32	dBm	PASS
Limit: 11 dBm + 10 log		22.68			
Max Output Power DC corrected	---	24.56	19.32	dBm	PASS

Power Spectral Density

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Power Spectral Density	---	---	7.26	dBm/1MHz	INFO
Duty Cycle Correction	---	---	0	dB	INFO
Power Spectral Density DC corrected	---	11	7.26	dBm/1MHz	PASS

Verdict

PASS

FCC 15.407, ISED RSS247 # Bandwidths 99PCT and 26dB ~ WLAN5Gx ac-VHT20 mode U-NII-2C

References

TC start	25.07.2023 15:10:07
Ambit temp [°C] | humidity [rel%]	24.0 | 55
System version	4.6.0.0
Specification	FCC 15.407, ISED RSS247 -
Method	26dB Bandwidth KDB789033 D02, C.1 / ISED RSS-GEN
Description	FCC 15.407 Bandwidths - WLAN5Gx ac-VHT20 mode U-NII-2C
Information	PS76

EUT Common Settings WLAN5Gx

Number of Antenna Ports	1
User Interaction	No
Device Class UNII_1	Client
Limit W52 Japan	Standard

Test Parameter

Technology to test	WLAN5Gx ac-VHT20 mode
Antenna port used	2
Temperature	nom
Voltage	nom
Frequency low to test	False | Freq [MHz] 5500
Frequency mid to test	True | Freq [MHz] 5600
Frequency high to test	False | Freq [MHz] 5720
Auto control enabled power supply | Climatic Box	No | No
Additional path loss [dB]	1.3
Switched path	EUT - SignalingUnit - SpectrumAnalyzer

Equipment

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

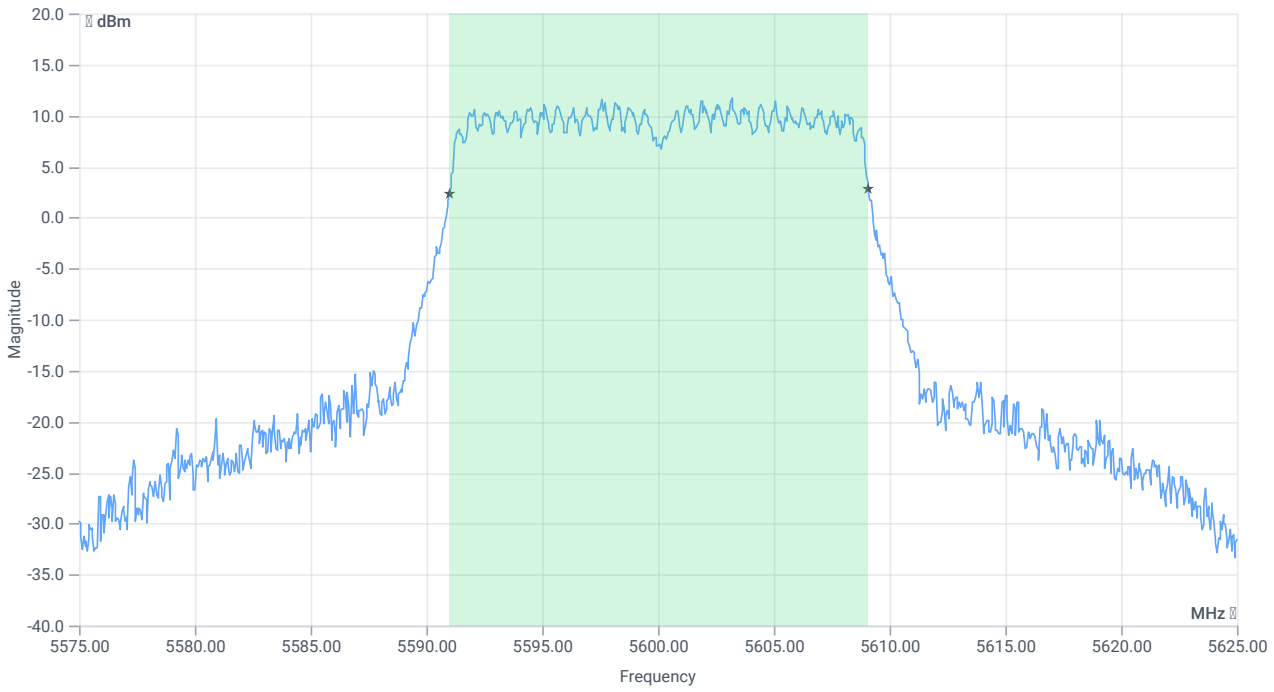
Test at TX 5600 MHz

RESULT: Reference Power cond.

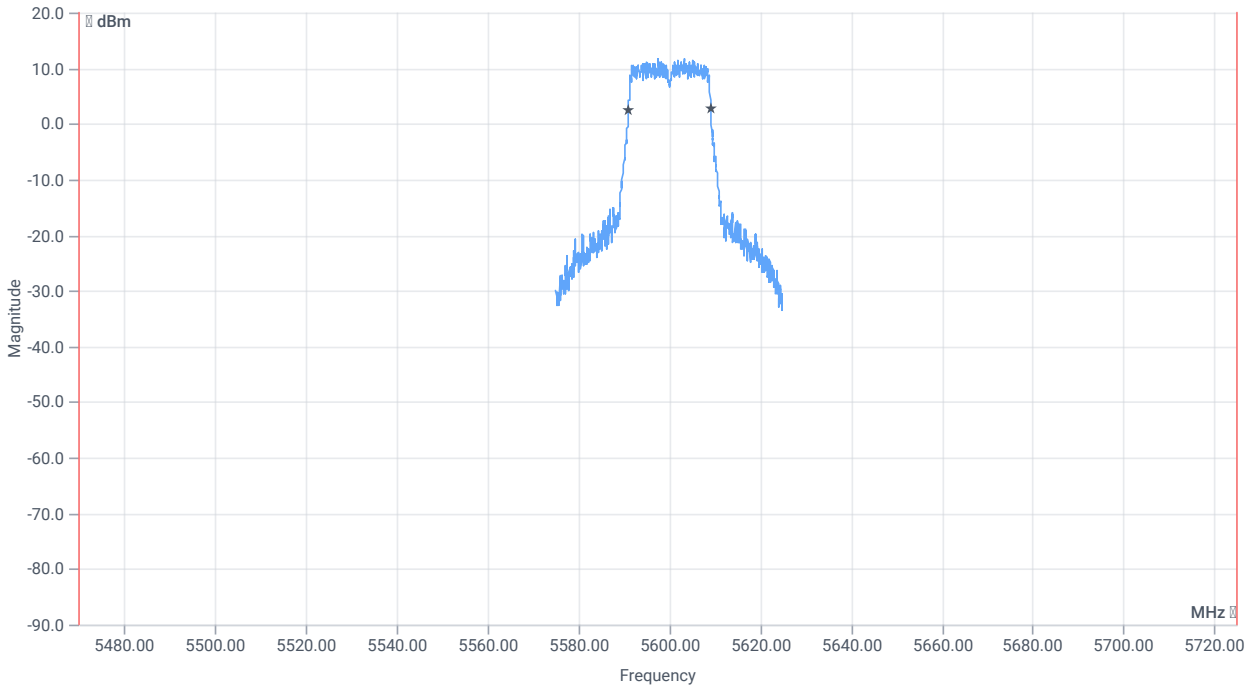
DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	15.98	dBm	INFO
Ref. Frequency	---	---	5604.400	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] | RefLevelOffset [dB] | InpAtt [dB]	23.98 | 16.64 | 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



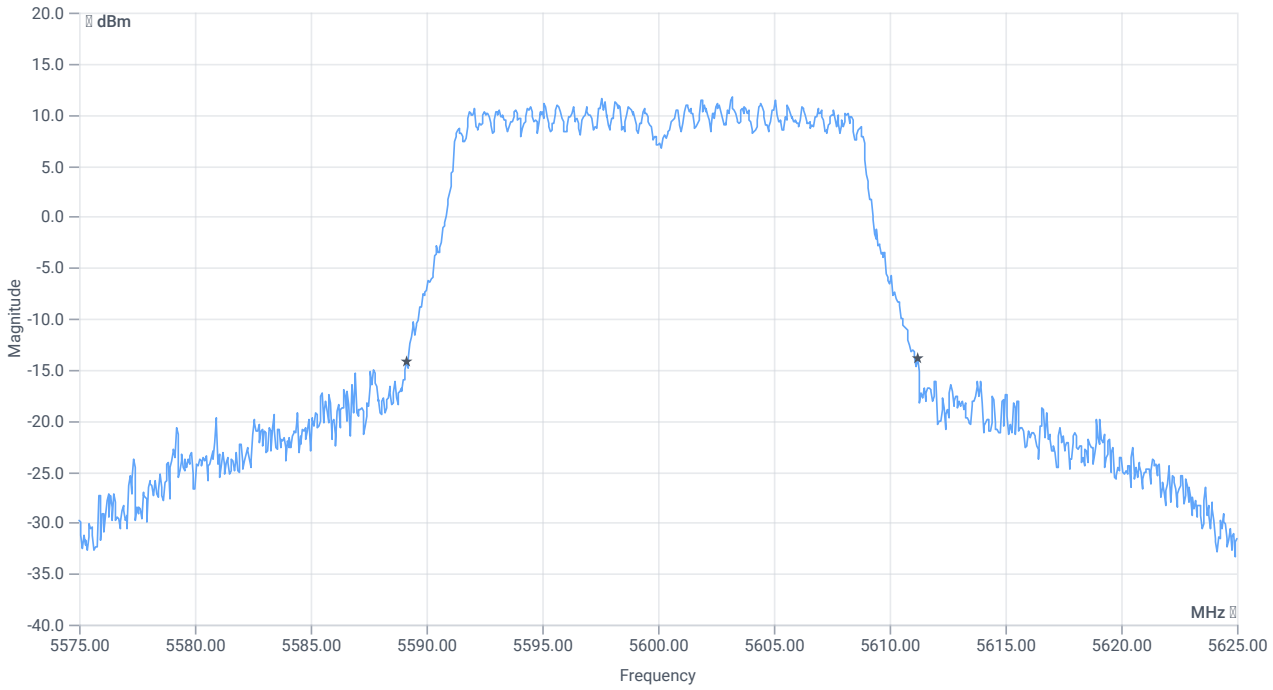
BW 99PCT



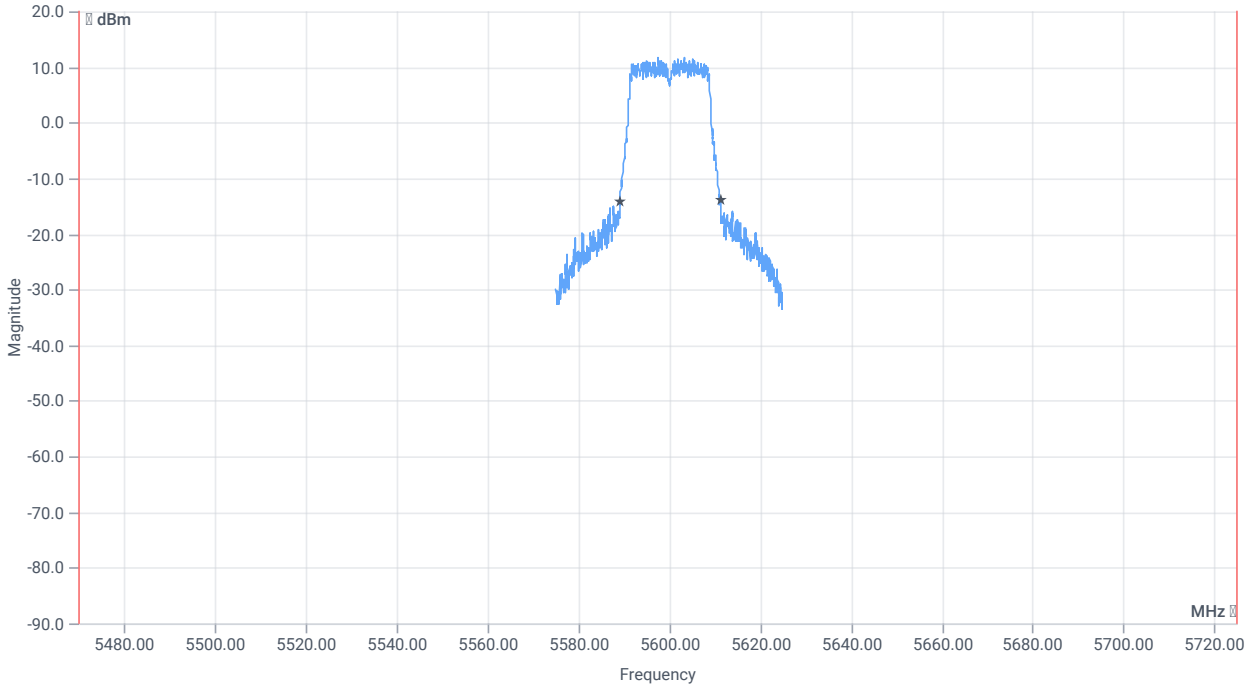
BW within Band 99PCT

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 99%	---	---	18.082	MHz	INFO
T1 99%	5470.000000	---	5591.0090	MHz	PASS since U-NII-3 is supported
T2 99%	---	5725.000000	5609.0909	MHz	



BW 26dB



BW within Band 26dB

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 26dB	---	---	22.05	MHz	INFO

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
T1 26dB	5470.000000	---	5589.1500	MHz	PASS since U-NII-3 is supported
T2 26dB	---	5725.000000	5611.2000	MHz	

Verdict
PASS

FCC 15.407 # MIMO ∑ Max output power and psd ~ WLAN5Gx ac-VHT20 mode U-NII-2C

References

TC start	25.07.2023 15:10:37
Ambit temp [°C] | humidity [rel%]	24.0 | 55
System version	4.6.0.0
Specification	FCC 15.407 -
Method	
Description	MIMO ∑ FCC Power & psd - WLAN5Gx ac-VHT20 mode U-NII-2C
Information	PS76

EUT Common Settings WLAN5Gx

Number of Antenna Ports	1
User Interaction	No
Device Class UNII_1	Client
Limit W52 Japan	Standard

Test Parameter

Technology to test	WLAN5Gx ac-VHT20 mode
Antenna port used	several
Temperature	nom
Voltage	nom
Frequency low to test	False | Freq [MHz] 5500
Frequency mid to test	True | Freq [MHz] 5600
Frequency high to test	False | Freq [MHz] 5720
Auto control enabled power supply | Climatic Box	No | No
Additional path loss [dB]	1.3
Switched path	None

Equipment

Test at TX 5600 MHz

RESULT Power

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ant:1 Max Output Power DC corrected	---	---	19.88	dBm	INFO
Ant:1 BW 26dB	---	---	22.120	MHz	INFO
Ant:2 Max Output Power DC corrected	---	---	19.32	dBm	INFO
Ant:2 BW 26dB	---	---	22.680	MHz	INFO
∑ Limit absolute	---	24	22.62	dBm	PASS
∑ Limit: 11 dBm + 10 log 22.12	---	24.45	22.62	dBm	PASS

RESULT PSD

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ant:1 PSD	---	---	7.83	dBm/1MHz	INFO
Ant:2 PSD	---	---	7.26	dBm/1MHz	INFO
∑	---	11	10.56	dBm/1MHz	PASS

Verdict
PASS

Message with SA scan ~

References

TC start	25.07.2023 15:18:11
Ambit temp [°C] | humidity [rel%]	24.2 | 55
System version	4.6.0.0
Specification	-
Method	
Description	Message with SA Scan ac_VHT20_U_NII_2C
Information	PS74

Test Parameter

Switched Path	EUT - SignalingUnit - SpectrumAnalyzer
Message start	25.07.2023 15:18:12
Message	set WLAN5Gx to ac_VHT20_U_NII_2C, Frequency [MHz] 5720

Equipment

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

Verdict
INFO

FCC 15.407 # Max output power and psd ~ WLAN5Gx ac-VHT20 mode U-NII-2C

References

TC start	25.07.2023 15:18:24
Ambit temp [°C] | humidity [rel%]	24.2 | 55
System version	4.6.0.0
Specification	FCC 15.407 -
Method	KDB789033 D02, F., E.2.e.
Description	FCC 15.407 Max Output Power & PSD - WLAN5Gx ac-VHT20 mode U-NII-2C
Information	PS74

EUT Common Settings WLAN5Gx

Number of Antenna Ports	1
User Interaction	No
Device Class UNII_1	Client
Limit W52 Japan	Standard

Test Parameter

Technology to test	WLAN5Gx ac-VHT20 mode
Antenna port used	1
Temperature	nom
Voltage	nom
Frequency low to test	False | Freq [MHz] 5500
Frequency mid to test	False | Freq [MHz] 5600
Frequency high to test	True | Freq [MHz] 5720
Auto control enabled power supply | Climatic Box	No | No
Additional path loss [dB]	1.3
Switched path	EUT - SignalingUnit - SpectrumAnalyzer

Equipment

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

Test at TX 5720 MHz

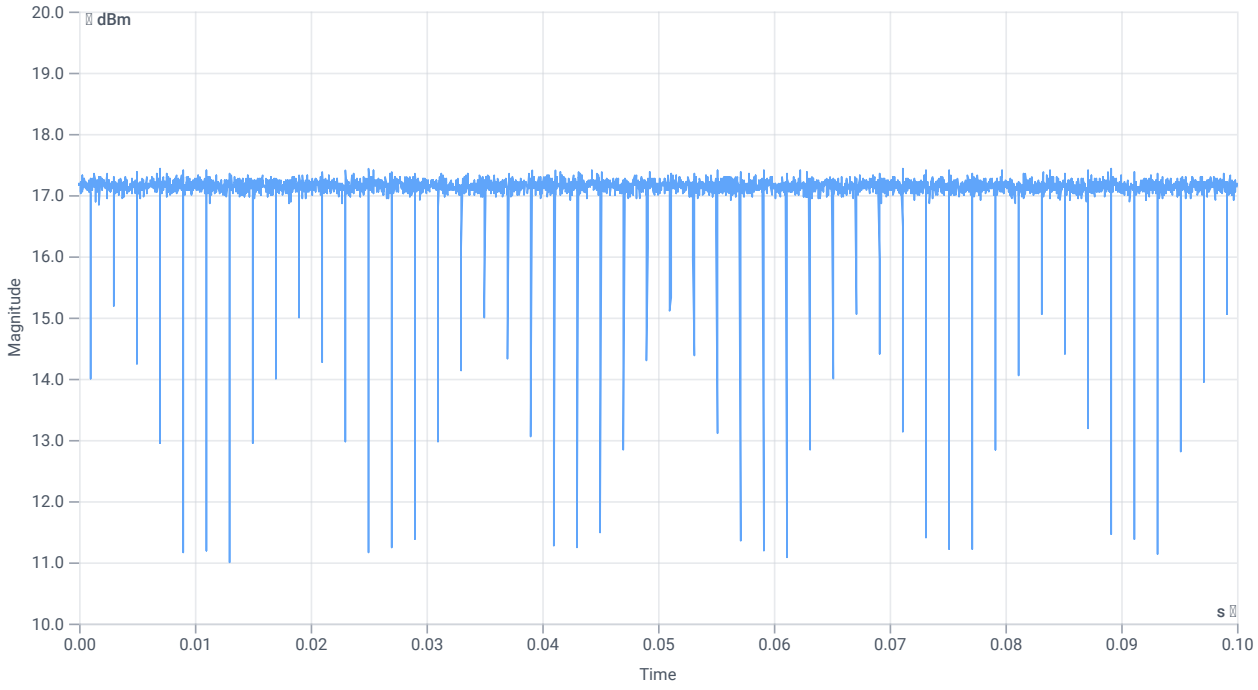
RESULT: Reference Power cond.

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	15.47	dBm	INFO
Ref. Frequency	---	---	5715.000	MHz	INFO

Evaluation max. Duty Cycle

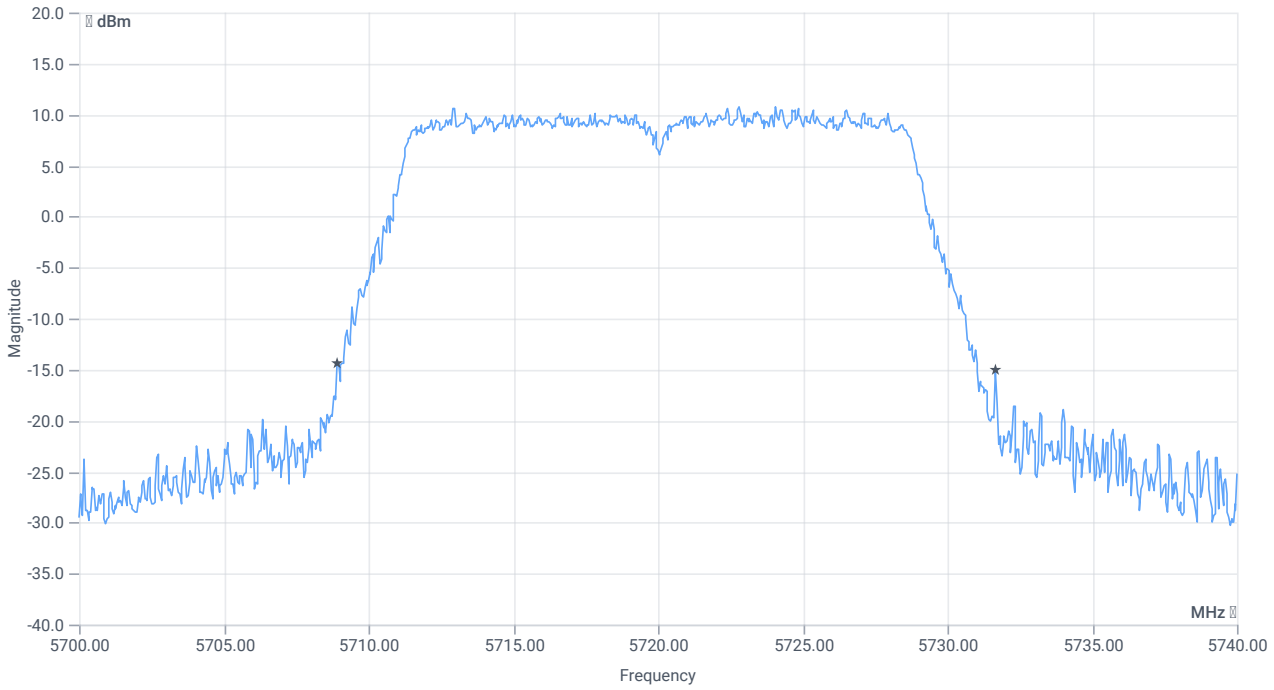
Duty Cycle evaluation

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

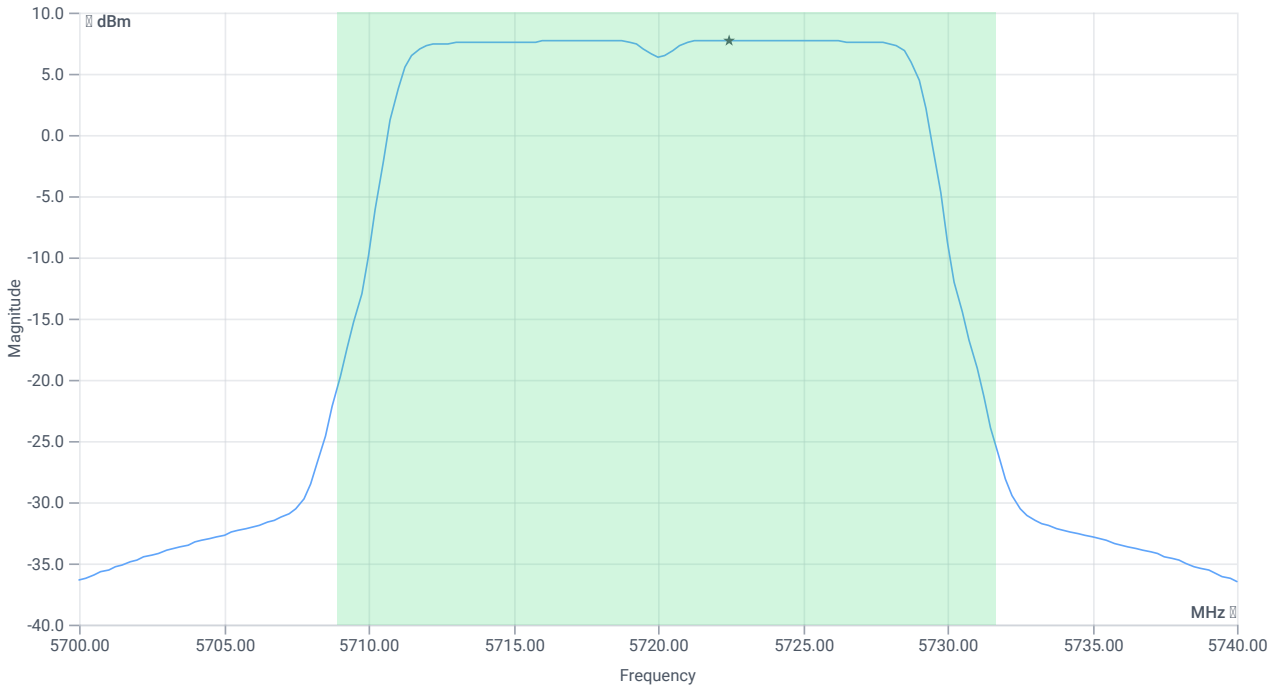
RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 26dB	---	---	22.72	MHz	INFO
T1 26dB	---	---	5708.9200	MHz	INFO
T2 26dB	---	---	5731.6400	MHz	INFO

Maximum Output Power

READ SA SETTINGS:

RefLevel [dBm] | RefLevelOffset [dB] | InpAtt [dB]	27.47 | 16.59 | 25
Start [MHz] | Stop [MHz]	5700.000 | 5740.000
RBW [MHz] | VBW [MHz]	1.000000 | 3.000000
Detector | TraceMode	RMS | MAXH
Sweep: time [ms] | count | points per Section | type	53700 | 1 | 161 | SWE



Max OP and PSD

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Max Output Power	---	---	19.79	dBm	INFO
Duty Cycle Correction	---	---	0	dB	INFO
Limit absolute					
Max Output Power DC corrected	---	24	19.79	dBm	PASS
Limit: 11 dBm + 10 log		22.72			
Max Output Power DC corrected	---	24.56	19.79	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 26dB ~ WLAN5Gx ac-VHT20 mode U-NII-2C

References

TC start	25.07.2023 15:19:51
Ambit temp [°C] | humidity [rel%]	24.3 | 55
System version	4.6.0.0
Specification	FCC 15.407, ISED RSS247 -
Method	26dB Bandwidth KDB789033 D02, C.1 / ISED RSS-GEN
Description	FCC 15.407 Bandwidths - WLAN5Gx ac-VHT20 mode U-NII-2C
Information	PS74

EUT Common Settings WLAN5Gx

Number of Antenna Ports	1
User Interaction	No
Device Class UNII_1	Client
Limit W52 Japan	Standard

Test Parameter

Technology to test	WLAN5Gx ac-VHT20 mode
Antenna port used	1
Temperature	nom
Voltage	nom
Frequency low to test	False | Freq [MHz] 5500
Frequency mid to test	False | Freq [MHz] 5600
Frequency high to test	True | Freq [MHz] 5720
Auto control enabled power supply | Climatic Box	No | No
Additional path loss [dB]	1.3
Switched path	EUT - SignalingUnit - SpectrumAnalyzer

Equipment

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

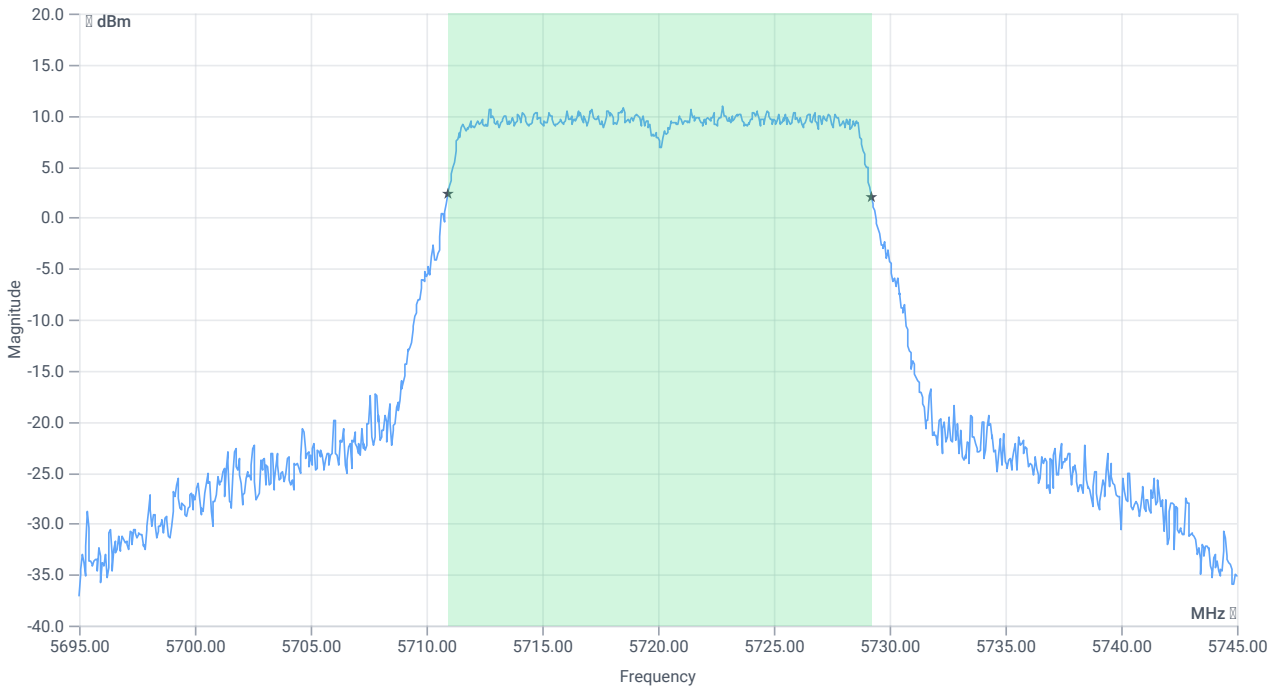
Test at TX 5720 MHz

RESULT: Reference Power cond.

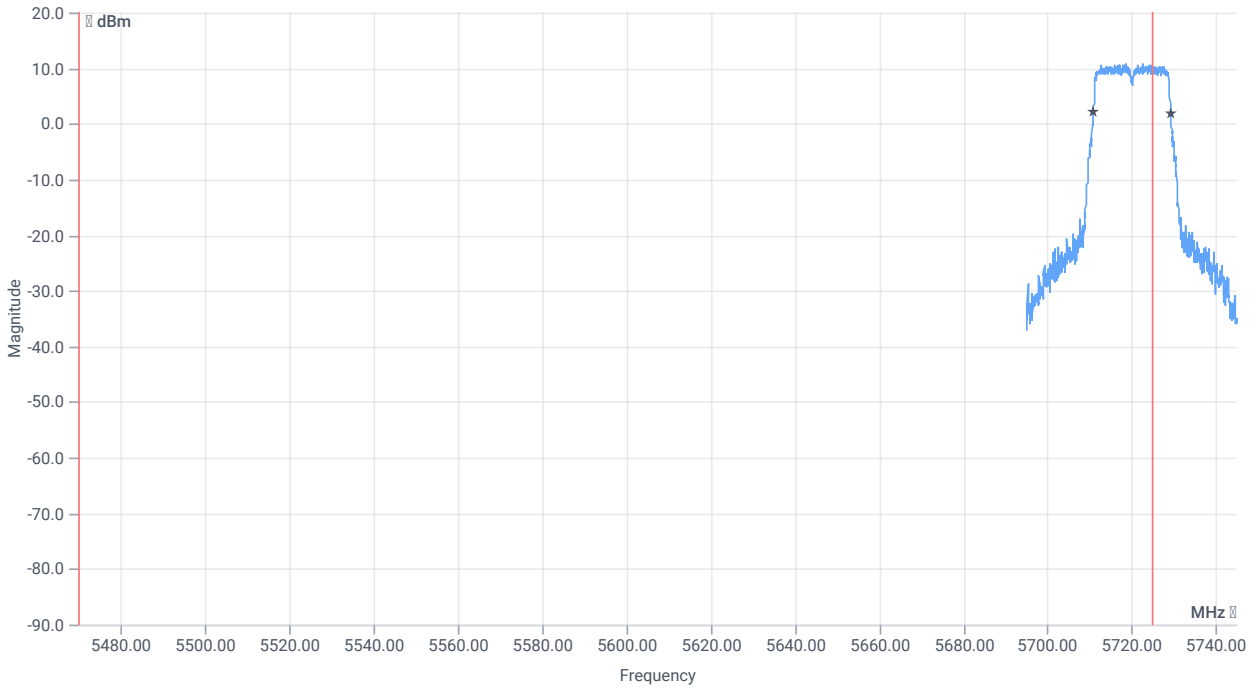
DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	15.24	dBm	INFO
Ref. Frequency	---	---	5719.000	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] | RefLevelOffset [dB] | InpAtt [dB]	23.24 | 16.59 | 25
Start [MHz] | Stop [MHz]	5695.000 | 5745.000
RBW [MHz] | VBW [MHz]	0.300000 | 1.000000
Detector | TraceMode	POS | MAXH
Sweep: time [ms] | count | points per Section | type	1 | 2500 | 1001 | SWE



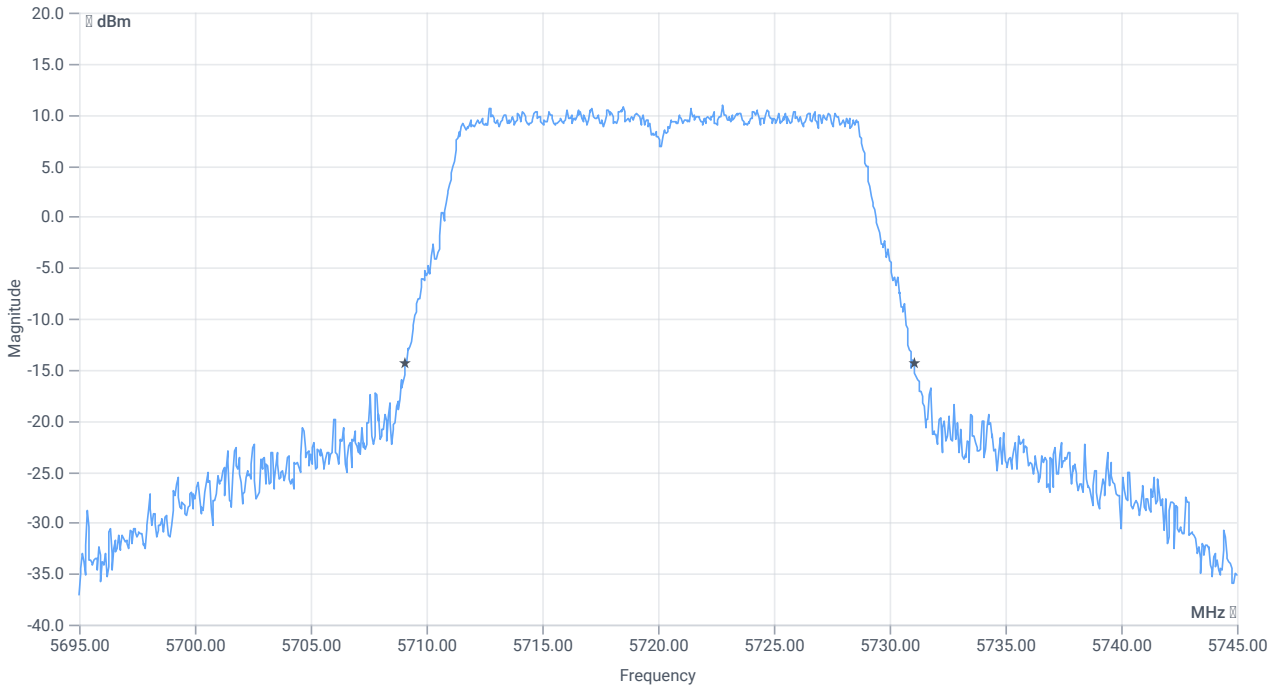
BW 99PCT



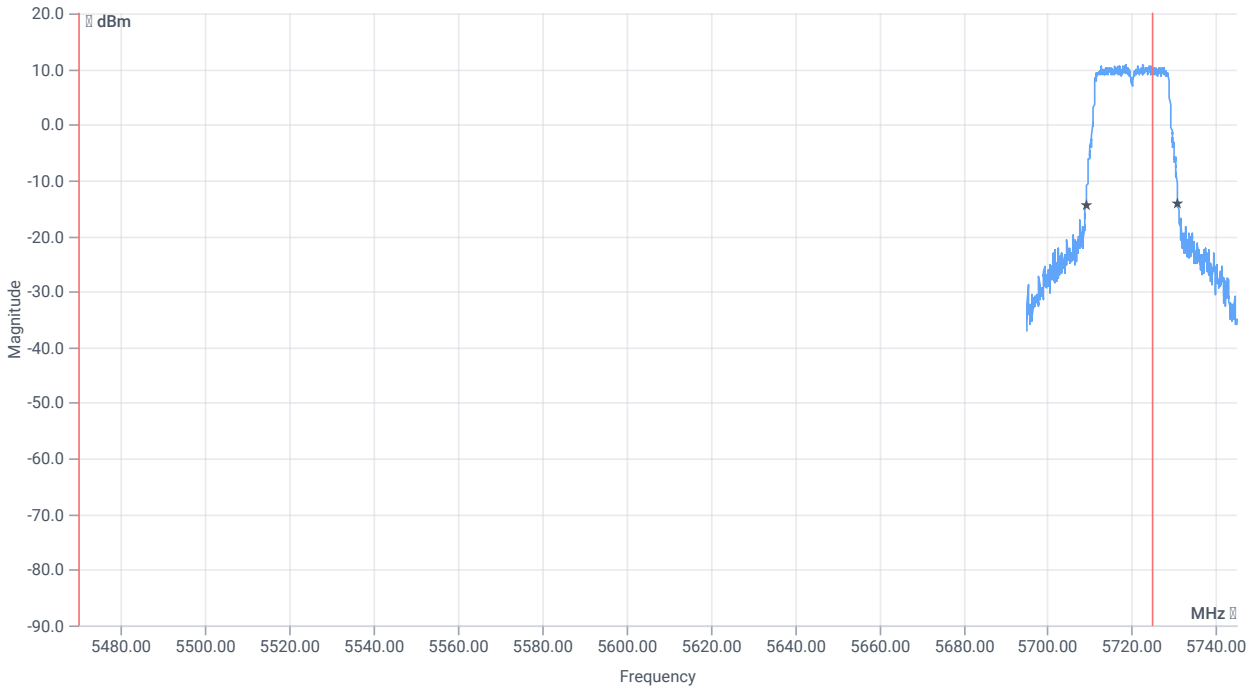
BW within Band 99PCT

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 99%	---	---	18.282	MHz	INFO
T1 99%	5470.000000	---	5710.9091	MHz	PASS since U-NII-3 is supported
T2 99%	---	5725.000000	5729.1908	MHz	



BW 26dB



BW within Band 26dB

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 26dB	---	---	21.95	MHz	INFO

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
T1 26dB	5470.000000	---	5709.1000	MHz	PASS since U-NII-3 is supported
T2 26dB	---	5725.000000	5731.0500	MHz	

Verdict
PASS

FCC 15.407 # Max output power and psd ~ WLAN5Gx ac-VHT20 mode U-NII-2C

References

TC start	25.07.2023 15:20:22
Ambit temp [°C] | humidity [rel%]	24.3 | 55
System version	4.6.0.0
Specification	FCC 15.407 -
Method	KDB789033 D02, F., E.2.e.
Description	FCC 15.407 Max Output Power & PSD - WLAN5Gx ac-VHT20 mode U-NII-2C
Information	PS74

EUT Common Settings WLAN5Gx

Number of Antenna Ports	1
User Interaction	No
Device Class UNII_1	Client
Limit W52 Japan	Standard

Test Parameter

Technology to test	WLAN5Gx ac-VHT20 mode
Antenna port used	2
Temperature	nom
Voltage	nom
Frequency low to test	False | Freq [MHz] 5500
Frequency mid to test	False | Freq [MHz] 5600
Frequency high to test	True | Freq [MHz] 5720
Auto control enabled power supply | Climatic Box	No | No
Additional path loss [dB]	1.3
Switched path	EUT - SignalingUnit - SpectrumAnalyzer

Equipment

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

Test at TX 5720 MHz

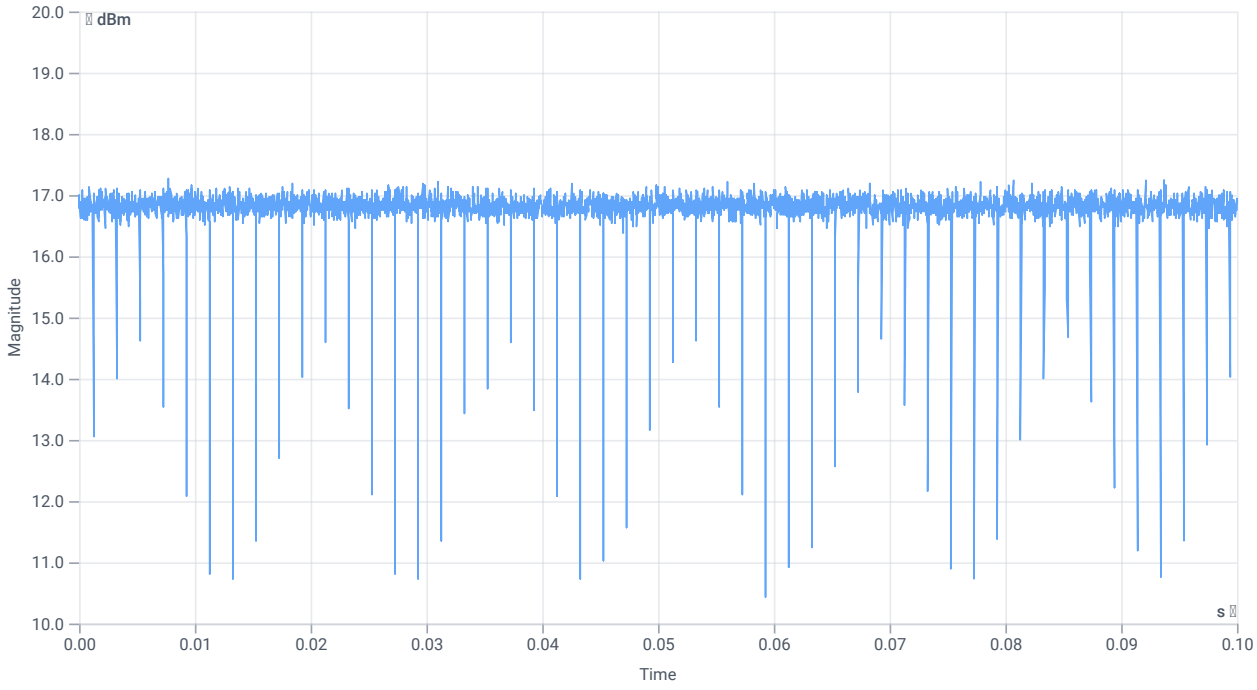
RESULT: Reference Power cond.

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	15.72	dBm	INFO
Ref. Frequency	---	---	5715.000	MHz	INFO

Evaluation max. Duty Cycle

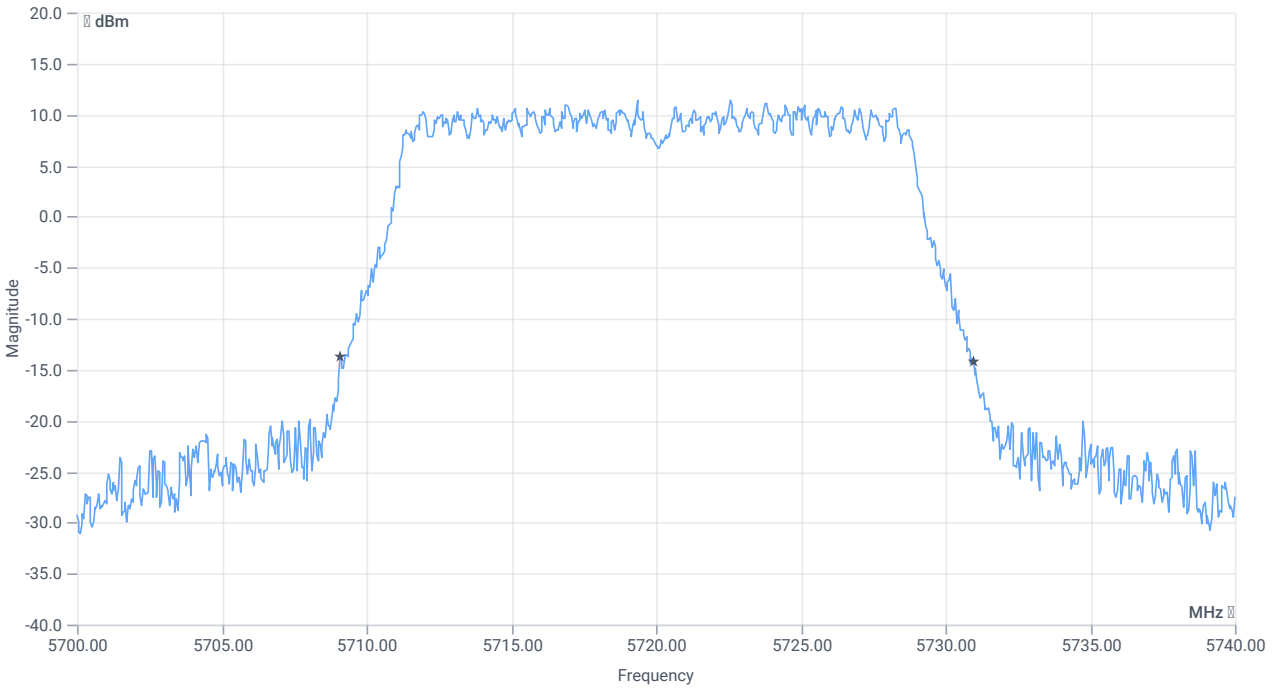
Duty Cycle evaluation

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

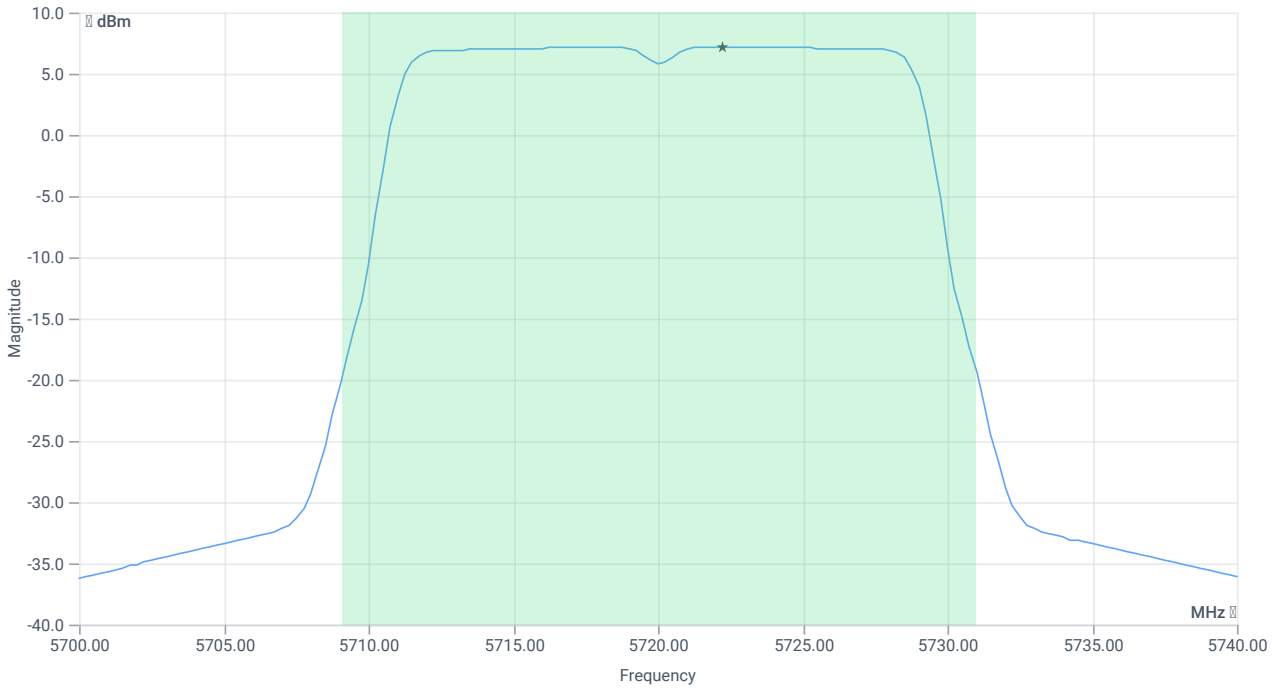
RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 26dB	---	---	21.88	MHz	INFO
T1 26dB	---	---	5709.0800	MHz	INFO
T2 26dB	---	---	5730.9600	MHz	INFO

Maximum Output Power

READ SA SETTINGS:

RefLevel [dBm] | RefLevelOffset [dB] | InpAtt [dB]	27.72 | 16.59 | 30
Start [MHz] | Stop [MHz]	5700.000 | 5740.000
RBW [MHz] | VBW [MHz]	1.000000 | 3.000000
Detector | TraceMode	RMS | MAXH
Sweep: time [ms] | count | points per Section | type	53700 | 1 | 161 | SWE



Max OP and PSD

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Max Output Power	---	---	19.23	dBm	INFO
Duty Cycle Correction	---	---	0	dB	INFO
Limit absolute					
Max Output Power DC corrected	---	24	19.23	dBm	PASS
Limit: 11 dBm + 10 log	21.88				
Max Output Power DC corrected	---	24.4	19.23	dBm	PASS

Power Spectral Density

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Power Spectral Density	---	---	7.18	dBm/1MHz	INFO
Duty Cycle Correction	---	---	0	dB	INFO
Power Spectral Density DC corrected	---	11	7.18	dBm/1MHz	PASS

Verdict

PASS

FCC 15.407, ISED RSS247 # Bandwidths 99PCT and 26dB ~ WLAN5Gx ac-VHT20 mode U-NII-2C

References

TC start	25.07.2023 15:21:48
Ambit temp [°C] | humidity [rel%]	24.3 | 55
System version	4.6.0.0
Specification	FCC 15.407, ISED RSS247 -
Method	26dB Bandwidth KDB789033 D02, C.1 / ISED RSS-GEN
Description	FCC 15.407 Bandwidths - WLAN5Gx ac-VHT20 mode U-NII-2C
Information	PS74

EUT Common Settings WLAN5Gx

Number of Antenna Ports	1
User Interaction	No
Device Class UNII_1	Client
Limit W52 Japan	Standard

Test Parameter

Technology to test	WLAN5Gx ac-VHT20 mode
Antenna port used	2
Temperature	nom
Voltage	nom
Frequency low to test	False | Freq [MHz] 5500
Frequency mid to test	False | Freq [MHz] 5600
Frequency high to test	True | Freq [MHz] 5720
Auto control enabled power supply | Climatic Box	No | No
Additional path loss [dB]	1.3
Switched path	EUT - SignalingUnit - SpectrumAnalyzer

Equipment

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

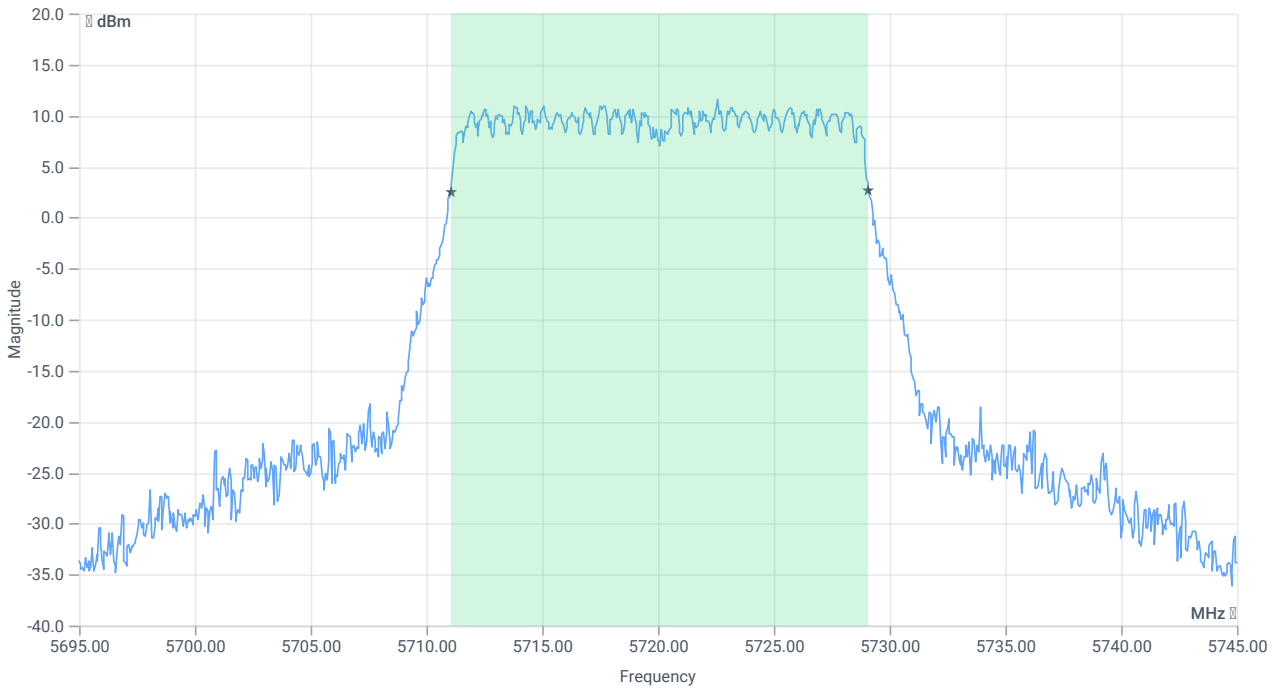
Test at TX 5720 MHz

RESULT: Reference Power cond.

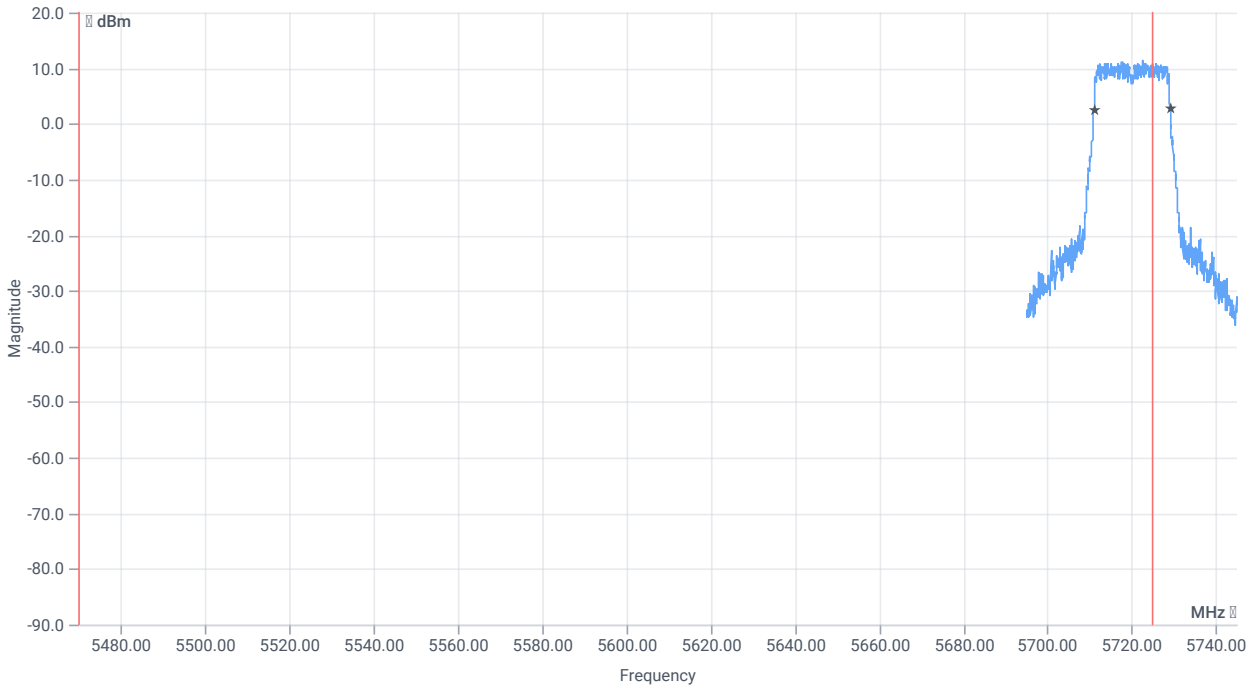
DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	15.78	dBm	INFO
Ref. Frequency	---	---	5715.600	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] | RefLevelOffset [dB] | InpAtt [dB]	23.78 | 16.59 | 25
Start [MHz] | Stop [MHz]	5695.000 | 5745.000
RBW [MHz] | VBW [MHz]	0.300000 | 1.000000
Detector | TraceMode	POS | MAXH
Sweep: time [ms] | count | points per Section | type	1 | 2500 | 1001 | SWE



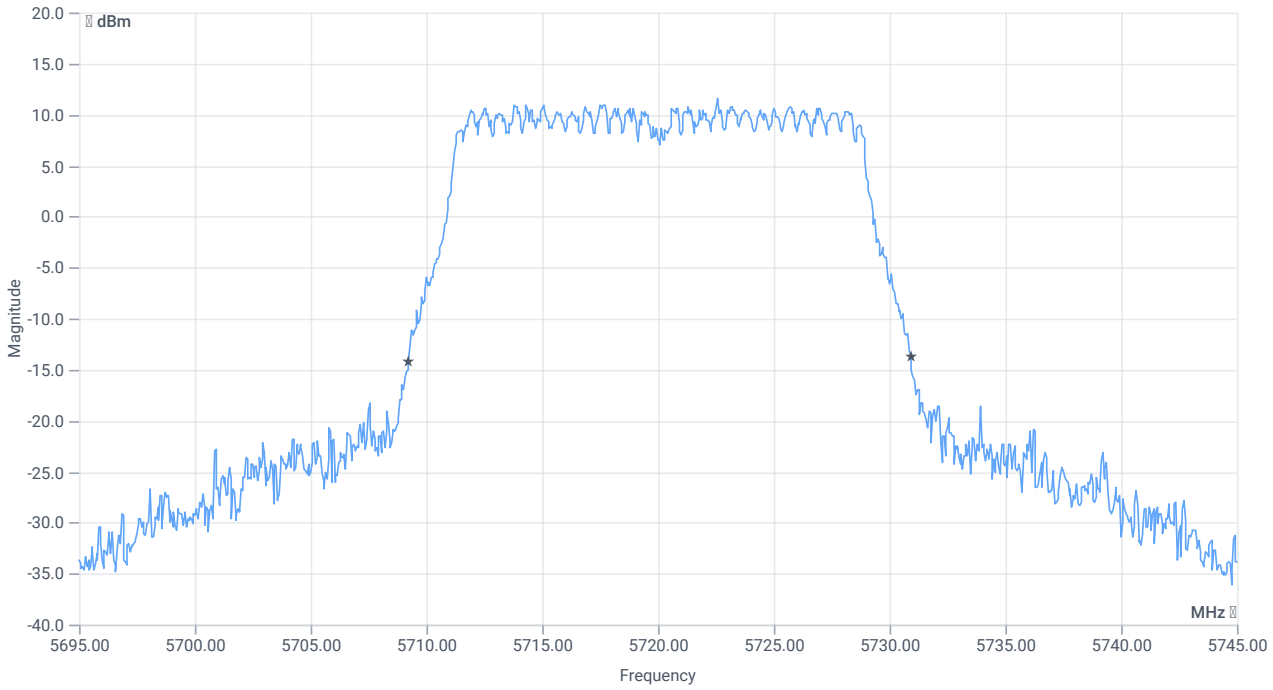
BW 99PCT



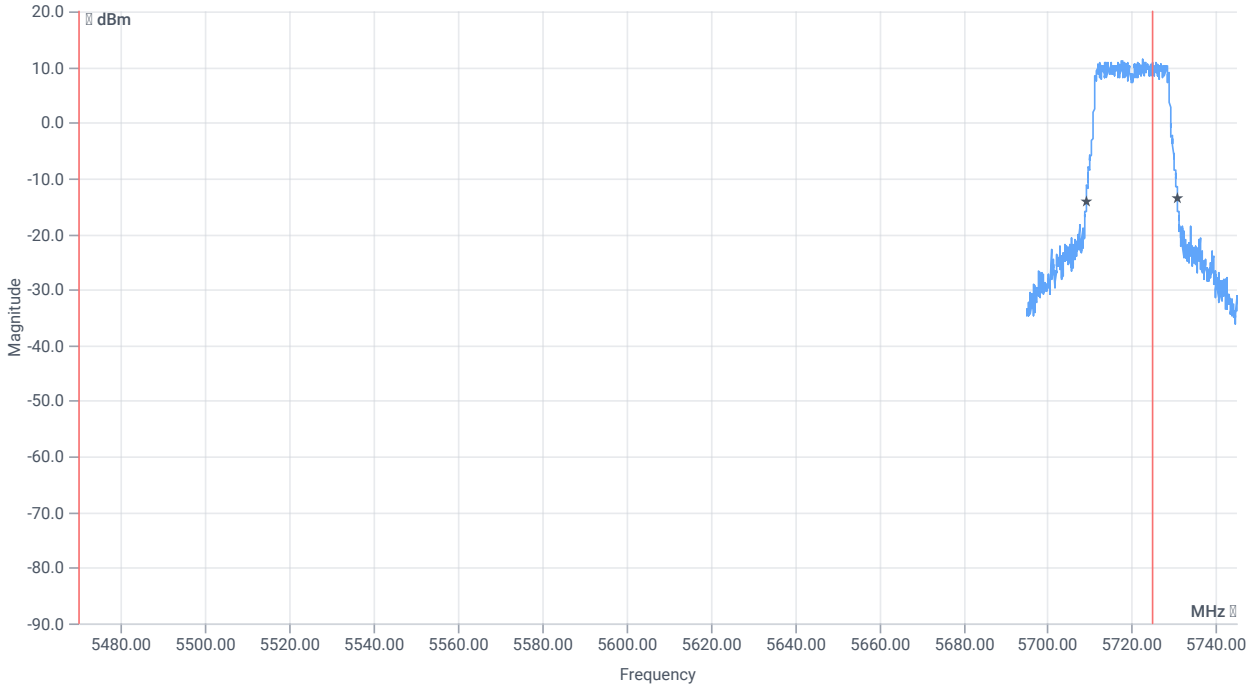
BW within Band 99PCT

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 99%	---	---	18.032	MHz	INFO
T1 99%	5470.000000	---	5711.0589	MHz	PASS since U-NII-3 is supported
T2 99%	---	5725.000000	5729.0909	MHz	



BW 26dB



BW within Band 26dB

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 26dB	---	---	21.65	MHz	INFO

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
T1 26dB	5470.000000	---	5709.2500	MHz	PASS since U-NII-3 is supported
T2 26dB	---	5725.000000	5730.9000	MHz	

Verdict
PASS

FCC 15.407 # MIMO ∑ Max output power and psd ~ WLAN5Gx ac-VHT20 mode U-NII-2C

References

TC start	25.07.2023 15:22:19
Ambit temp [°C] | humidity [rel%]	24.3 | 55
System version	4.6.0.0
Specification	FCC 15.407 -
Method	
Description	MIMO ∑ FCC Power & psd - WLAN5Gx ac-VHT20 mode U-NII-2C
Information	PS74

EUT Common Settings WLAN5Gx

Number of Antenna Ports	1
User Interaction	No
Device Class UNII_1	Client
Limit W52 Japan	Standard

Test Parameter

Technology to test	WLAN5Gx ac-VHT20 mode
Antenna port used	several
Temperature	nom
Voltage	nom
Frequency low to test	False | Freq [MHz] 5500
Frequency mid to test	False | Freq [MHz] 5600
Frequency high to test	True | Freq [MHz] 5720
Auto control enabled power supply | Climatic Box	No | No
Additional path loss [dB]	1.3
Switched path	None

Equipment

Test at TX 5720 MHz

RESULT Power

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ant:1 Max Output Power DC corrected	---	---	19.79	dBm	INFO
Ant:1 BW 26dB	---	---	22.720	MHz	INFO
Ant:2 Max Output Power DC corrected	---	---	19.23	dBm	INFO
Ant:2 BW 26dB	---	---	21.880	MHz	INFO
∑ Limit absolute	---	24	22.53	dBm	PASS
∑ Limit: 11 dBm + 10 log 21.88	---	24.4	22.53	dBm	PASS

RESULT PSD

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ant:1 PSD	---	---	7.72	dBm/1MHz	INFO
Ant:2 PSD	---	---	7.18	dBm/1MHz	INFO
∑	---	11	10.47	dBm/1MHz	PASS

Verdict
PASS

NA # Message with SA scan ~

References

TC start	02.08.2023 08:13:31
Ambit temp [°C] | humidity [rel%]	24.3 | 51
System version	4.6.0.3
Standard | Version	NA | NI
Method	
Description	Message with SA Scan ac_VHT20_U_NII_3
Information	PS96

Test Parameter

Switched Path	EUT - SignalingUnit - SpectrumAnalyzer
Message start	02.08.2023 08:13:31
Message	set WLAN5Gx to ac_VHT20_U_NII_3, Frequency [MHz] 5745 , Information: PS96

Equipment

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

Verdict
INFO

FCC 15.407 # Max output power and psd ~ WLAN5Gx ac-VHT20 mode U-NII-3

References

TC start	02.08.2023 08:13:43
Ambit temp [°C] | humidity [rel%]	24.3 | 51
System version	4.6.0.3
Standard | Version	FCC 15.407 | NI
Method	KDB789033 D02, F., E.2.e.
Description	FCC 15.407 Max Output Power & PSD - WLAN5Gx ac-VHT20 mode U-NII-3
Information	PS96

EUT Common Settings WLAN5Gx

Number of Antenna Ports	1
User Interaction	No
Device Class UNII_1	Client
Limit W52 Japan	Standard

Test Parameter

Technology to test	WLAN5Gx ac-VHT20 mode
Antenna port used	1
Temperature	nom
Voltage	nom
Frequency low to test	True | Freq [MHz] 5745
Frequency mid to test	False | Freq [MHz] 5785
Frequency high to test	False | Freq [MHz] 5825
Auto control enabled power supply | Climatic Box	No | No
Additional path loss [dB]	1.3
Switched path	EUT - SignalingUnit - SpectrumAnalyzer

Equipment

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

Test at TX 5745 MHz

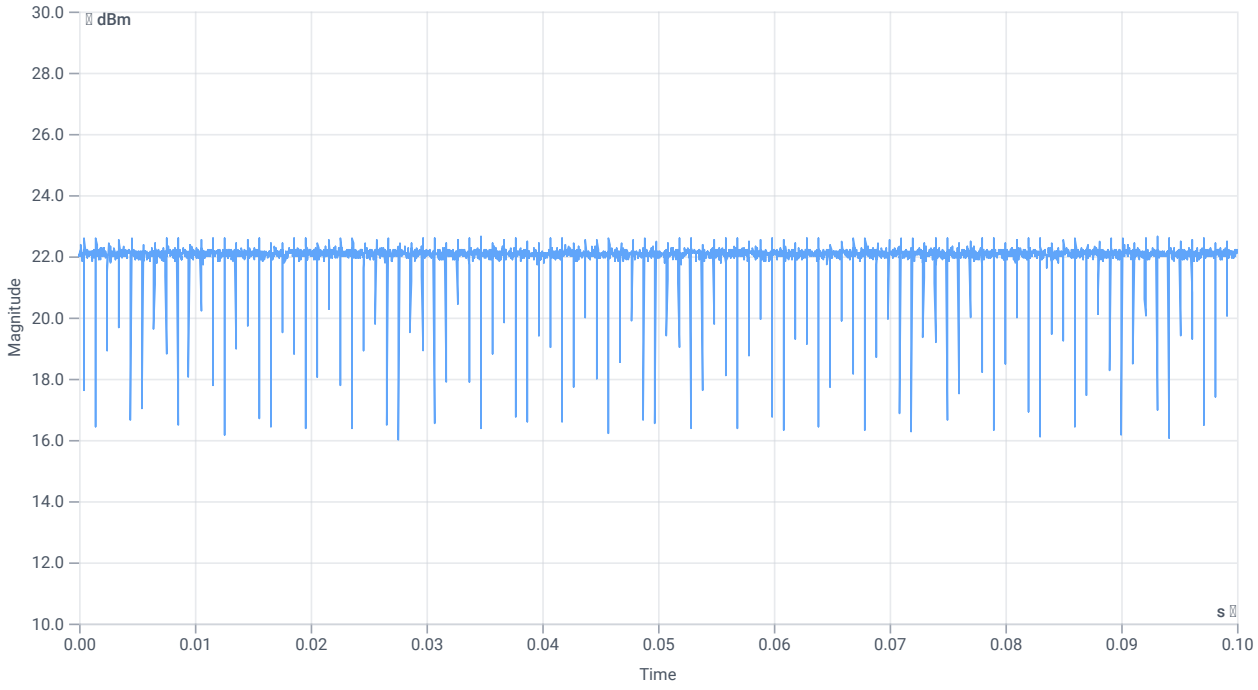
RESULT: Reference Power cond.

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	20.48	dBm	INFO
Ref. Frequency	---	---	5750.000	MHz	INFO

Evaluation max. Duty Cycle

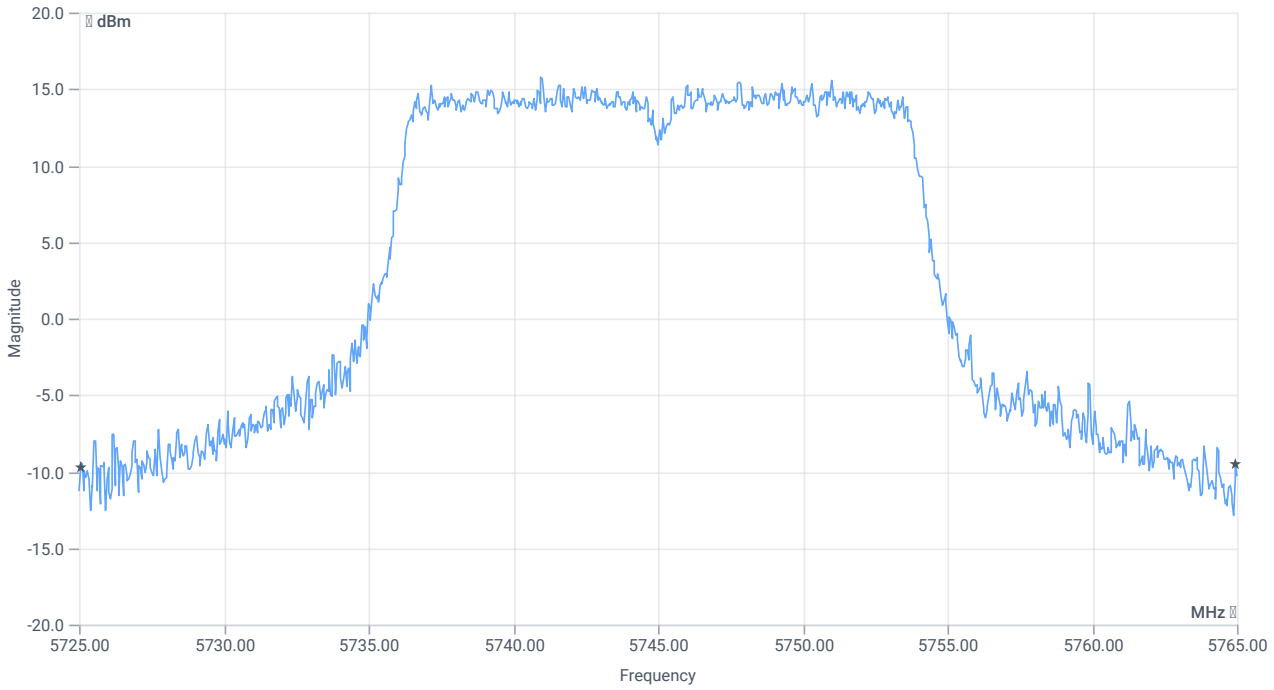
Duty Cycle evaluation

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

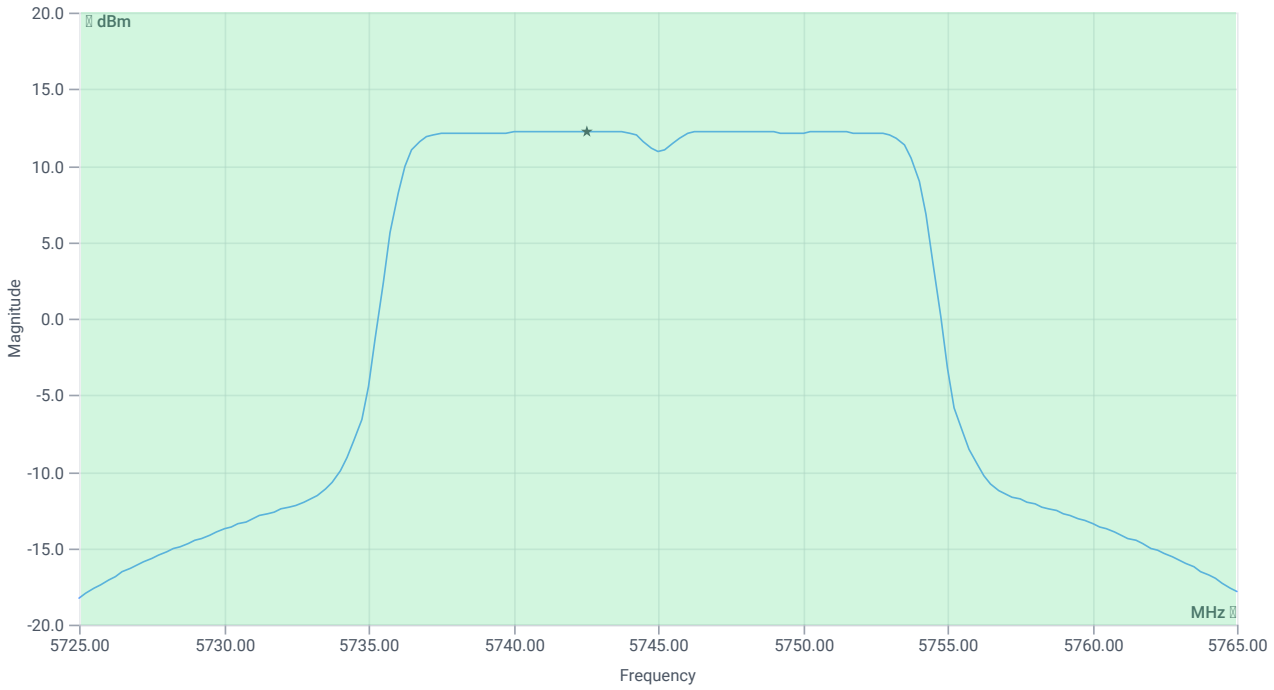
RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 26dB	---	---	39.92	MHz	INFO
T1 26dB	---	---	5725.0400	MHz	INFO
T2 26dB	---	---	5764.9600	MHz	INFO

Maximum Output Power

READ SA SETTINGS:

RefLevel [dBm] | RefLevelOffset [dB] | InpAtt [dB]	32.48 | 16.72 | 30
Start [MHz] | Stop [MHz]	5725.000 | 5765.000
RBW [MHz] | VBW [MHz]	1.000000 | 3.000000
Detector | TraceMode	RMS | MAXH
Sweep: time [ms] | count | points per Section | type	53700 | 1 | 161 | SWE



Max OP and PSD

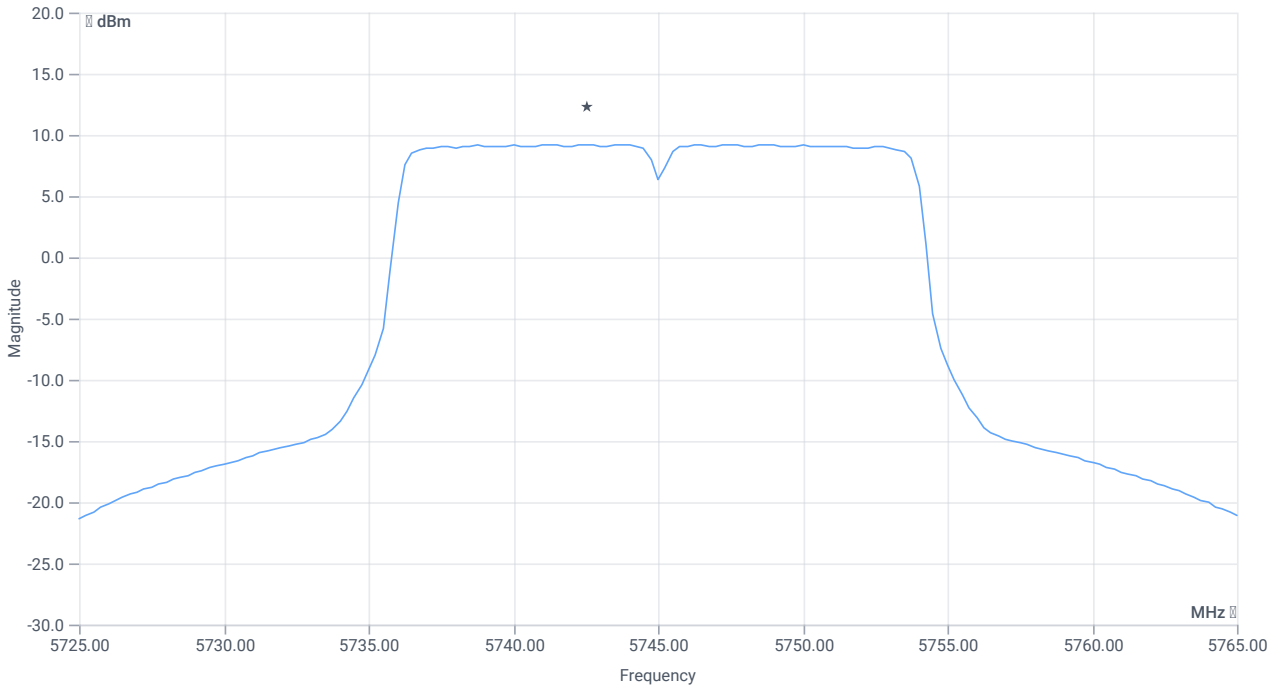
RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Max Output Power	---	---	24.34	dBm	INFO
Duty Cycle Correction	---	---	0	dB	INFO
Limit absolute					
Max Output Power DC corrected	---	30	24.34	dBm	PASS
Limit: 11 dBm + 10 log 39.92					
Max Output Power DC corrected	---	27.01	24.34	dBm	na

Power Spectral Density U-NII-3

READ SA SETTINGS:

RefLevel [dBm] | RefLevelOffset [dB] | InpAtt [dB]	32.48 | 16.72 | 35
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	---	---	9.24	dBm/0.5MHz	INFO
Duty Cycle Correction	---	---	0	dB	INFO
Power Spectral Density DC corrected	---	30	9.24	dBm/0.5MHz	PASS

Verdict
PASS

FCC 15.407, ISED RSS247 # Bandwidths 99PCT and 20dB ~ WLAN5Gx ac-VHT20 mode U-NII-3

References

TC start	02.08.2023 08:16:14
Ambit temp [°C] | humidity [rel%]	24.4 | 51
System version	4.6.0.3
Standard | Version	FCC 15.407, ISED RSS247 | NI
Method	26dB Bandwidth KDB789033 D02, C.1 / ISED RSS-GEN
Description	FCC 15.407 Bandwidths - WLAN5Gx ac-VHT20 mode U-NII-3
Information	PS96

EUT Common Settings WLAN5Gx

Number of Antenna Ports	1
User Interaction	No
Device Class UNII_1	Client
Limit W52 Japan	Standard

Test Parameter

Technology to test	WLAN5Gx ac-VHT20 mode
Antenna port used	1
Temperature	nom
Voltage	nom
Frequency low to test	True | Freq [MHz] 5745
Frequency mid to test	False | Freq [MHz] 5785
Frequency high to test	False | Freq [MHz] 5825
Auto control enabled power supply | Climatic Box	No | No
Additional path loss [dB]	1.3
Switched path	EUT - SignalingUnit - SpectrumAnalyzer

Equipment

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

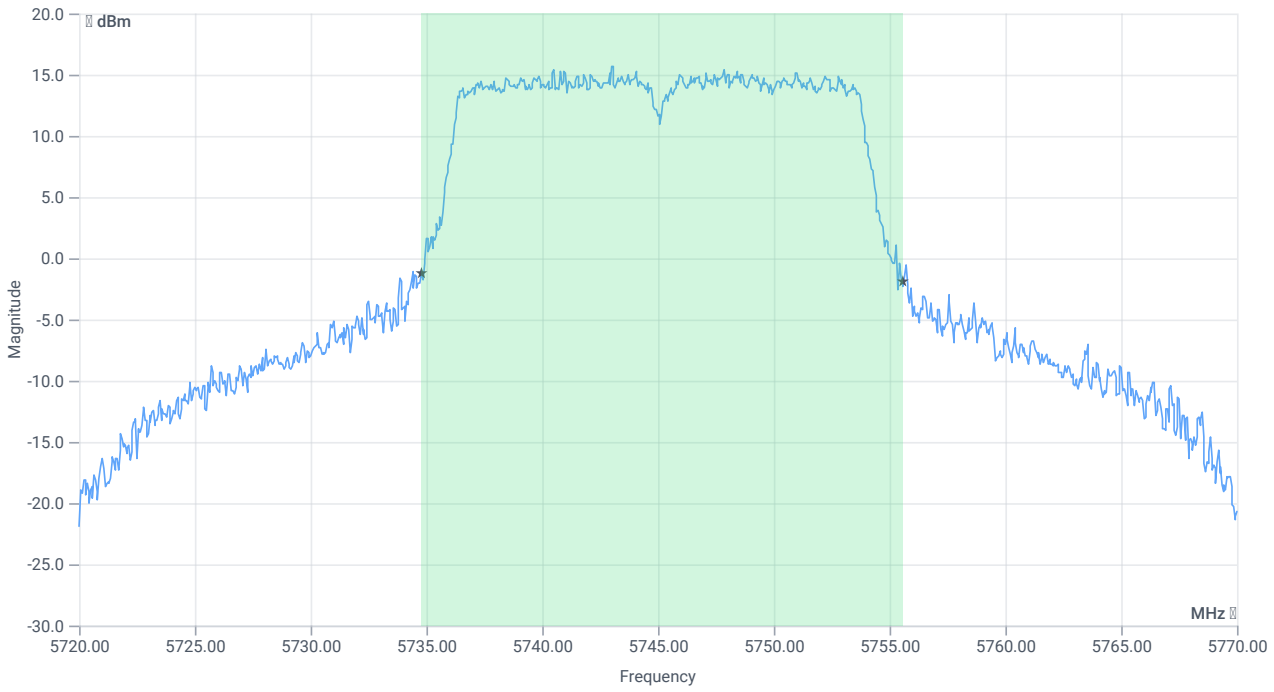
Test at TX 5745 MHz

RESULT: Reference Power cond.

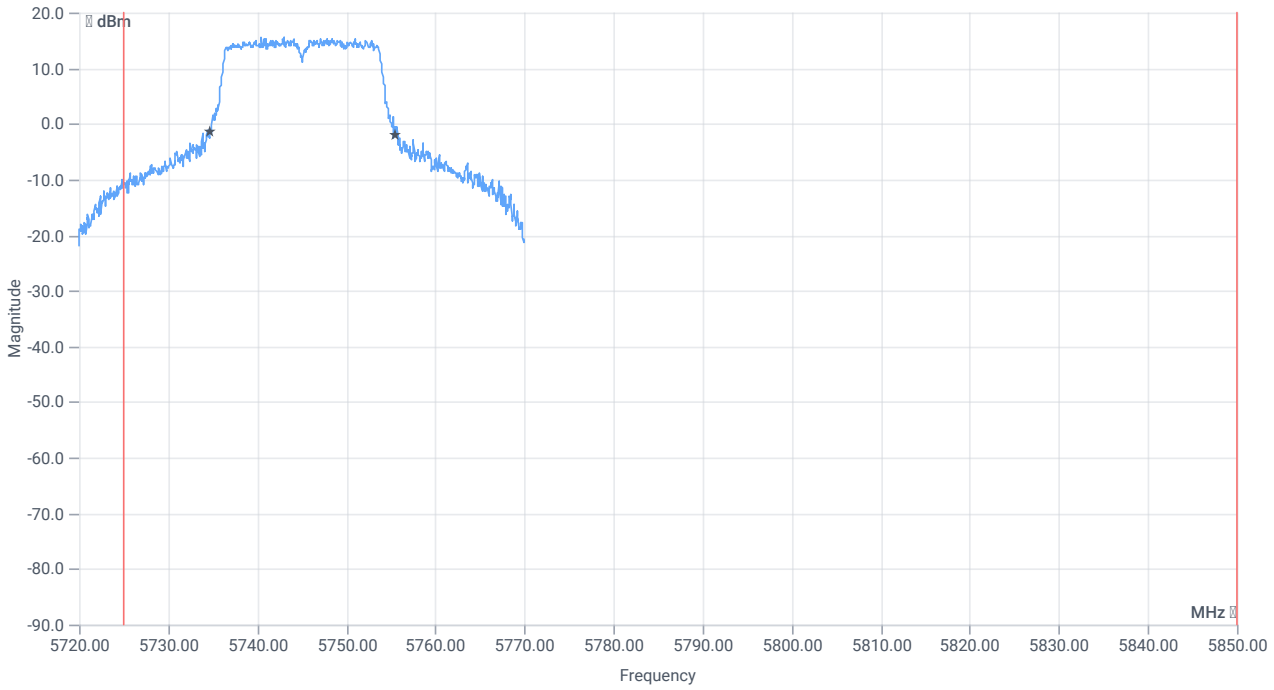
DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	20.43	dBm	INFO
Ref. Frequency	---	---	5748.200	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] | RefLevelOffset [dB] | InpAtt [dB]	28.43 | 16.72 | 30
Start [MHz] | Stop [MHz]	5720.000 | 5770.000
RBW [MHz] | VBW [MHz]	0.300000 | 1.000000
Detector | TraceMode	POS | MAXH
Sweep: time [ms] | count | points per Section | type	1 | 2500 | 1001 | SWE



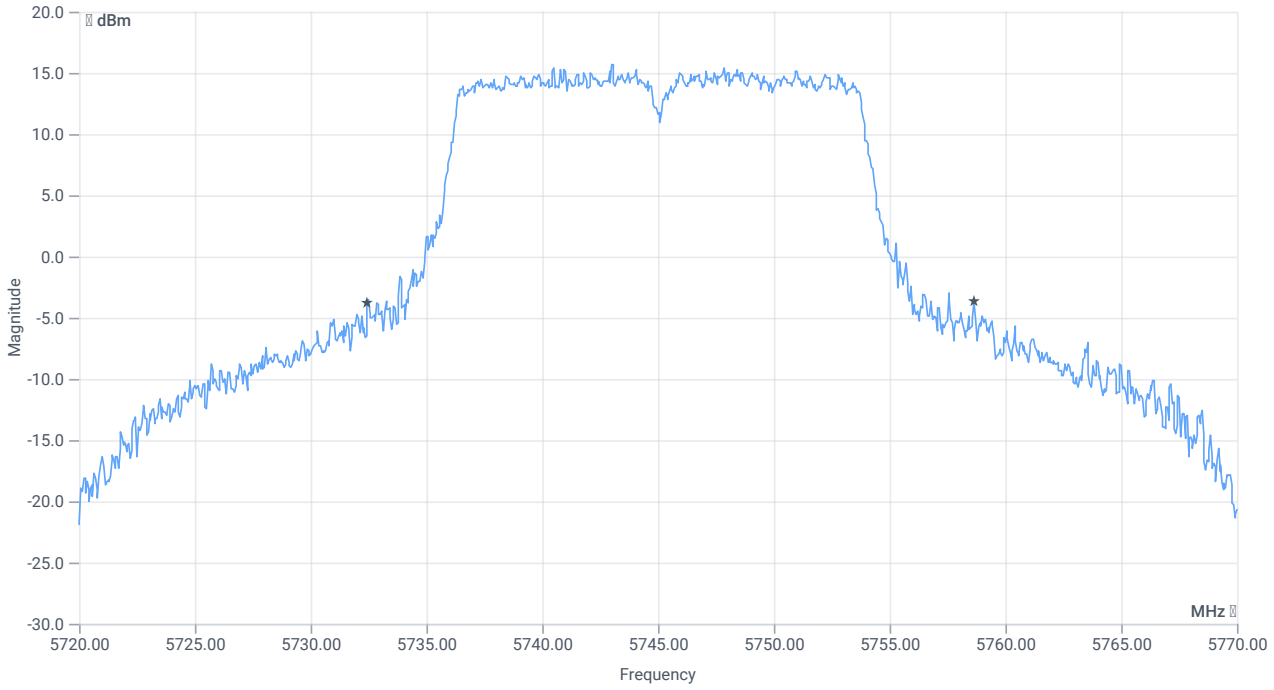
BW 99PCT



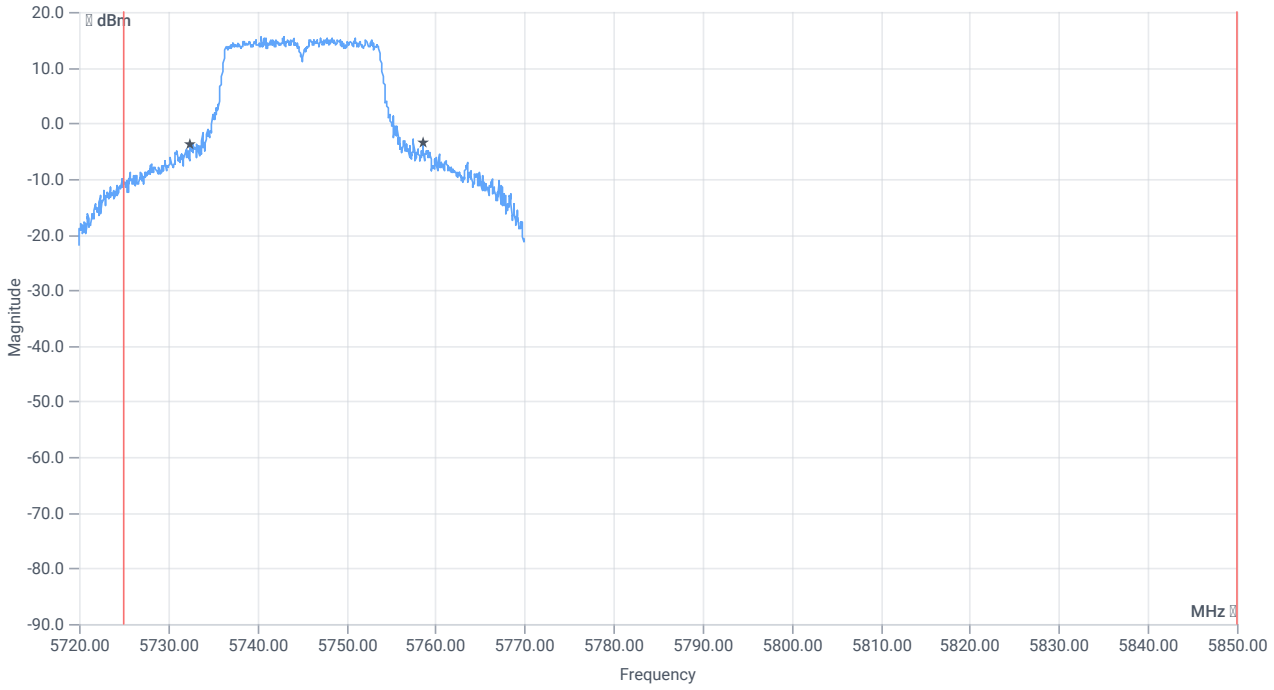
BW within Band 99PCT

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 99%	---	---	20.779	MHz	INFO
T1 99%	5725.000000	---	5734.7602	MHz	PASS
T2 99%	---	5850.000000	5755.5395	MHz	PASS



BW 20dB



BW within Band 20dB

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 20dB	---	---	26.2	MHz	INFO
T1 20dB	5725.000000	---	5732.4500	MHz	PASS
T2 20dB	---	5850.000000	5758.6500	MHz	PASS

Verdict
PASS

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

References

TC start	02.08.2023 08:16:48
Ambit temp [°C] | humidity [rel%]	24.3 | 51
System version	4.6.0.3
Standard | Version	FCC 15.407, ISED RSS247 | NI
Method	KDB789033 D02, C.2.
Description	FCC 15.407 Min Emission Bandwidth - WLAN5Gx ac-VHT20 mode U-NII-3
Information	PS96

EUT Common Settings WLAN5Gx

Number of Antenna Ports	1
User Interaction	No
Device Class UNII_1	Client
Limit W52 Japan	Standard

Test Parameter

Technology to test	WLAN5Gx ac-VHT20 mode
Antenna port used	1
Temperature	nom
Voltage	nom
Frequency low to test	True | Freq [MHz] 5745
Frequency mid to test	False | Freq [MHz] 5785
Frequency high to test	False | Freq [MHz] 5825
Auto control enabled power supply | Climatic Box	No | No
Additional path loss [dB]	1.3
Switched path	EUT - SignalingUnit - SpectrumAnalyzer

Equipment

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

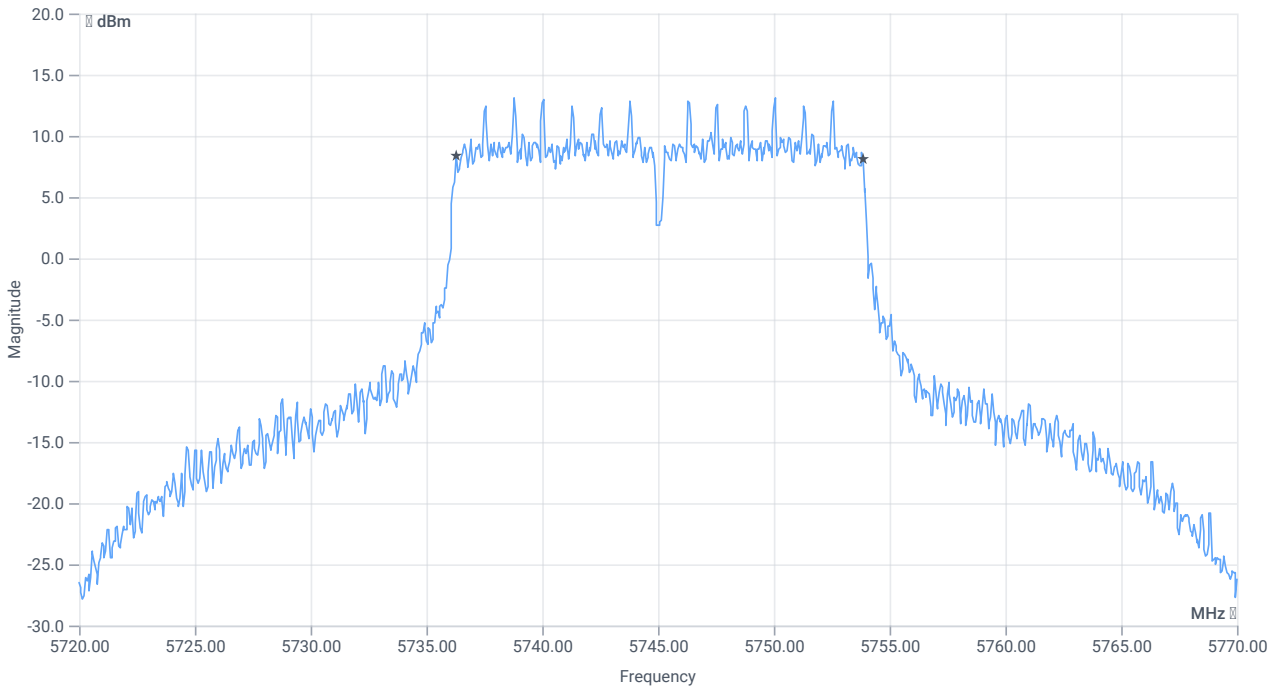
Test at TX 5745 MHz

RESULT: Reference Power cond.

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	20.31	dBm	INFO
Ref. Frequency	---	---	5749.400	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] | RefLevelOffset [dB] | InpAtt [dB]	32.31 | 16.72 | 35
Start [MHz] | Stop [MHz]	5720.000 | 5770.000
RBW [MHz] | VBW [MHz]	0.100000 | 0.300000
Detector | TraceMode	POS | MAXH
Sweep: time [ms] | count | points per Section | type	2 | 1500 | 1001 | SWE



BW 6dB

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth (6dB)	0.500	---	17.6	MHz	PASS

Verdict

PASS

FCC 15.407 # Max output power and psd ~ WLAN5Gx ac-VHT20 mode U-NII-3

References

TC start	02.08.2023 08:17:32
Ambit temp [°C] | humidity [rel%]	24.3 | 51
System version	4.6.0.3
Standard | Version	FCC 15.407 | NI
Method	KDB789033 D02, F., E.2.e.
Description	FCC 15.407 Max Output Power & PSD - WLAN5Gx ac-VHT20 mode U-NII-3
Information	PS96

EUT Common Settings WLAN5Gx

Number of Antenna Ports	1
User Interaction	No
Device Class UNII_1	Client
Limit W52 Japan	Standard

Test Parameter

Technology to test	WLAN5Gx ac-VHT20 mode
Antenna port used	2
Temperature	nom
Voltage	nom
Frequency low to test	True | Freq [MHz] 5745
Frequency mid to test	False | Freq [MHz] 5785
Frequency high to test	False | Freq [MHz] 5825
Auto control enabled power supply | Climatic Box	No | No
Additional path loss [dB]	1.3
Switched path	EUT - SignalingUnit - SpectrumAnalyzer

Equipment

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

Test at TX 5745 MHz

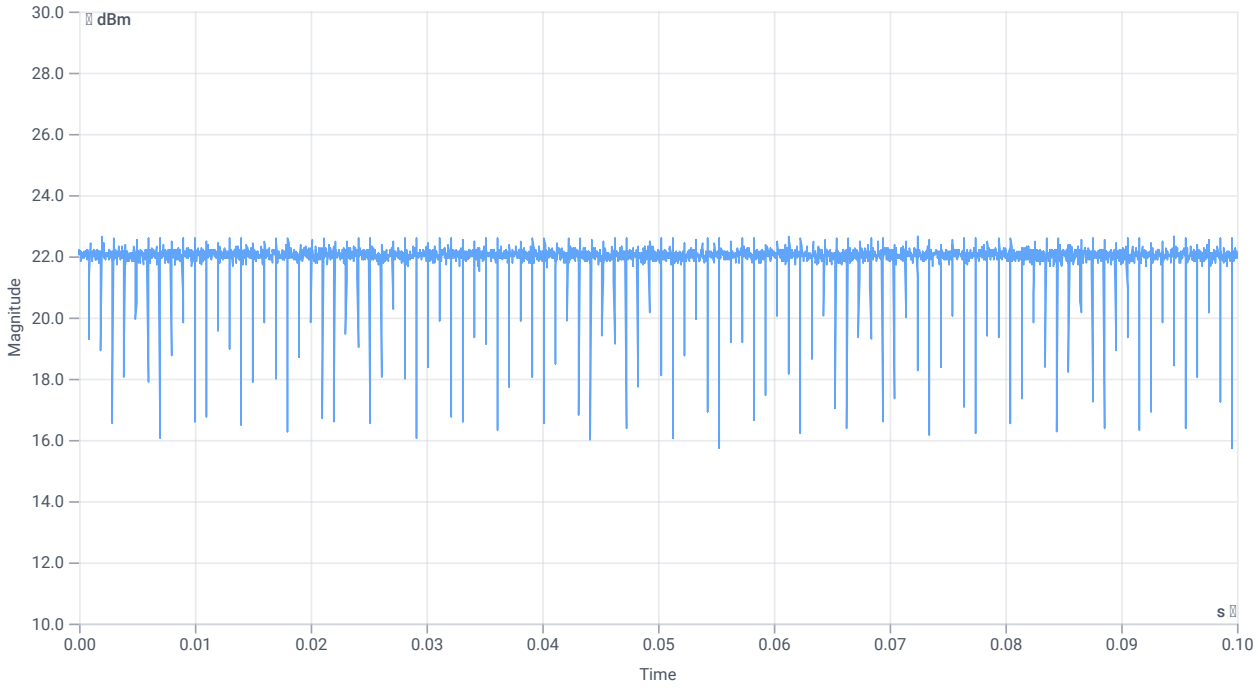
RESULT: Reference Power cond.

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	21.22	dBm	INFO
Ref. Frequency	---	---	5749.600	MHz	INFO

Evaluation max. Duty Cycle

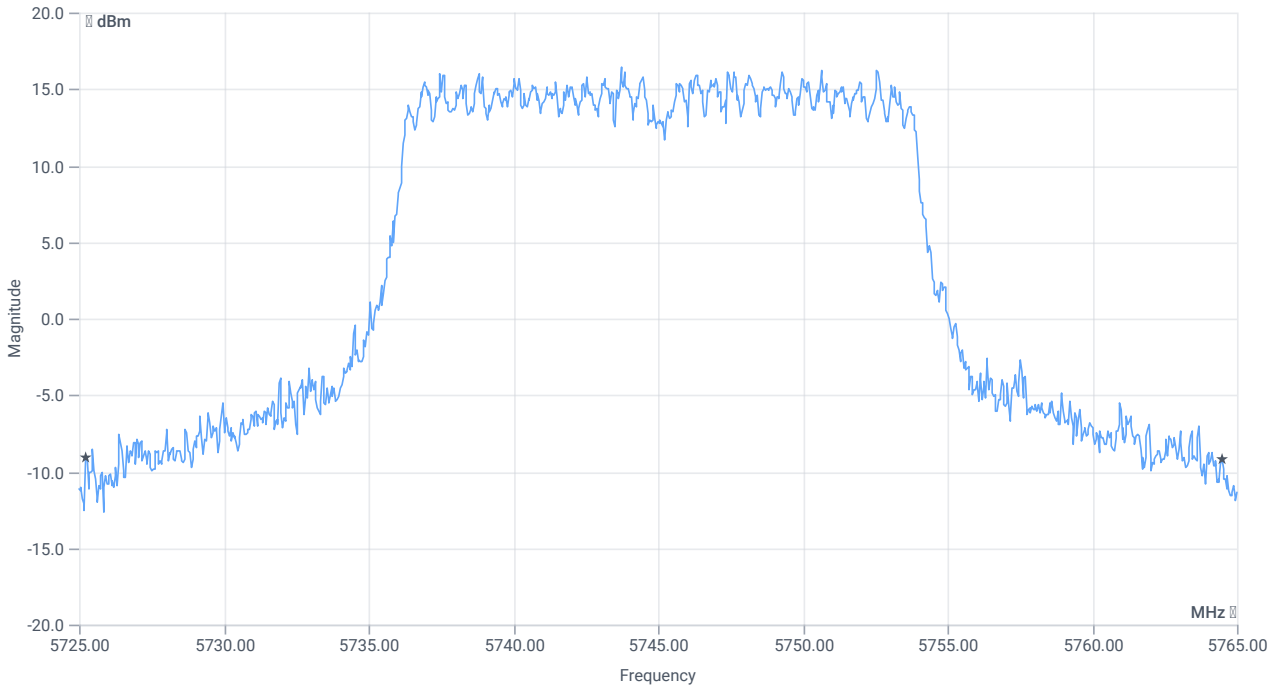
Duty Cycle evaluation

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

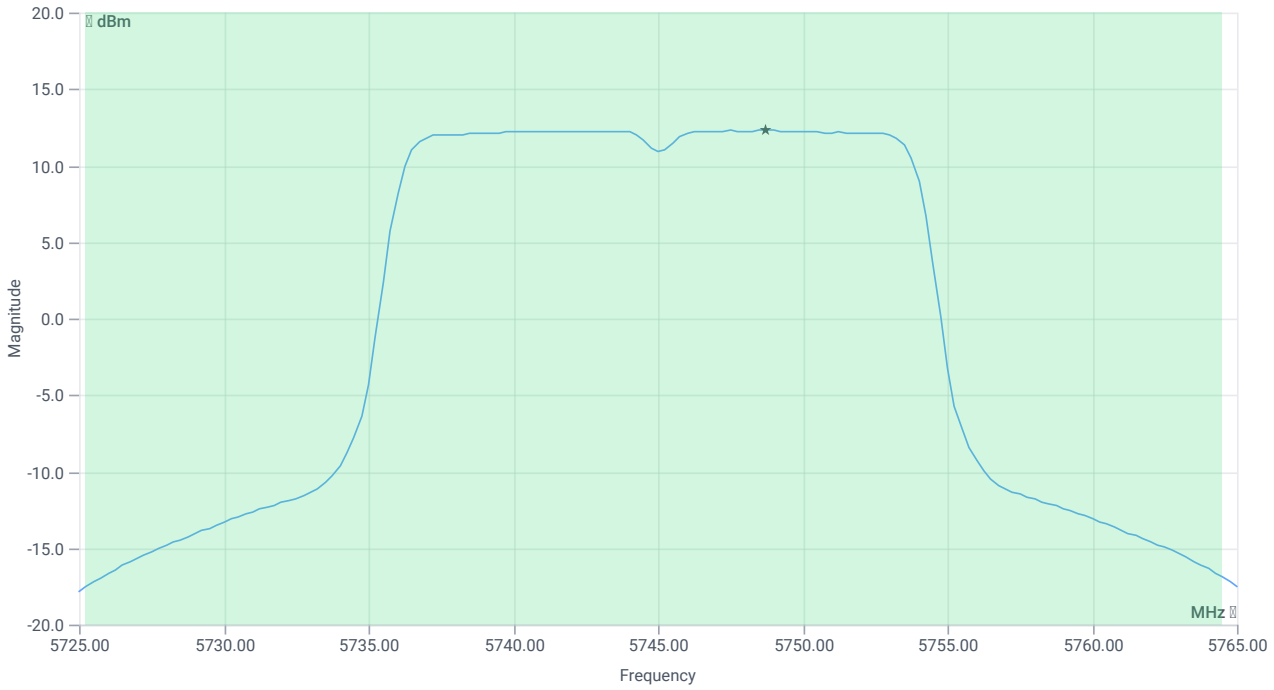
RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 26dB	---	---	39.24	MHz	INFO
T1 26dB	---	---	5725.2400	MHz	INFO
T2 26dB	---	---	5764.4800	MHz	INFO

Maximum Output Power

READ SA SETTINGS:

RefLevel [dBm] | RefLevelOffset [dB] | InpAtt [dB]	33.22 | 16.72 | 35
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

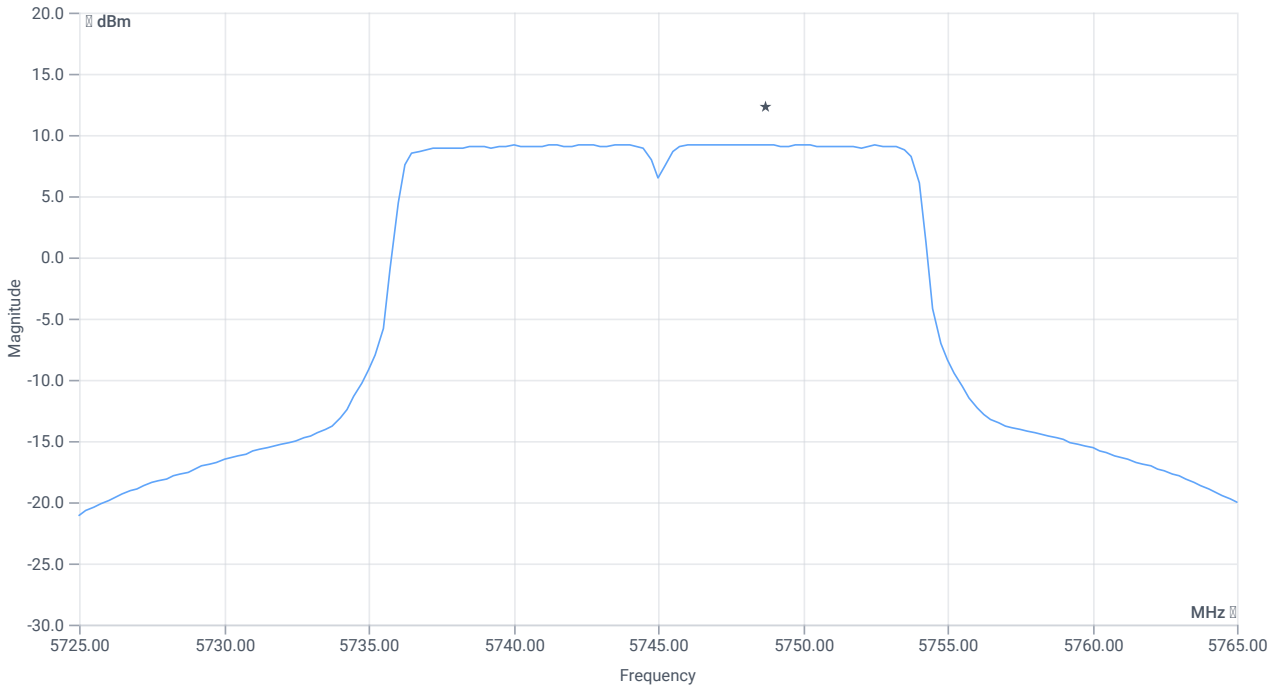
RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Max Output Power	---	---	24.35	dBm	INFO
Duty Cycle Correction	---	---	0	dB	INFO
Limit absolute					
Max Output Power DC corrected	---	30	24.35	dBm	PASS
Limit: 11 dBm + 10 log 39.24					
Max Output Power DC corrected	---	26.94	24.35	dBm	na

Power Spectral Density U-NII-3

READ SA SETTINGS:

RefLevel [dBm] | RefLevelOffset [dB] | InpAtt [dB]	33.22 | 16.72 | 35
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	---	---	9.25	dBm/0.5MHz	INFO
Duty Cycle Correction	---	---	0	dB	INFO
Power Spectral Density DC corrected	---	30	9.25	dBm/0.5MHz	PASS

Verdict
PASS

FCC 15.407, ISED RSS247 # Bandwidths 99PCT and 20dB ~ WLAN5Gx ac-VHT20 mode U-NII-3

References

TC start	02.08.2023 08:20:03
Ambit temp [°C] | humidity [rel%]	24.4 | 51
System version	4.6.0.3
Standard | Version	FCC 15.407, ISED RSS247 | NI
Method	26dB Bandwidth KDB789033 D02, C.1 / ISED RSS-GEN
Description	FCC 15.407 Bandwidths - WLAN5Gx ac-VHT20 mode U-NII-3
Information	PS96

EUT Common Settings WLAN5Gx

Number of Antenna Ports	1
User Interaction	No
Device Class UNII_1	Client
Limit W52 Japan	Standard

Test Parameter

Technology to test	WLAN5Gx ac-VHT20 mode
Antenna port used	2
Temperature	nom
Voltage	nom
Frequency low to test	True | Freq [MHz] 5745
Frequency mid to test	False | Freq [MHz] 5785
Frequency high to test	False | Freq [MHz] 5825
Auto control enabled power supply | Climatic Box	No | No
Additional path loss [dB]	1.3
Switched path	EUT - SignalingUnit - SpectrumAnalyzer

Equipment

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

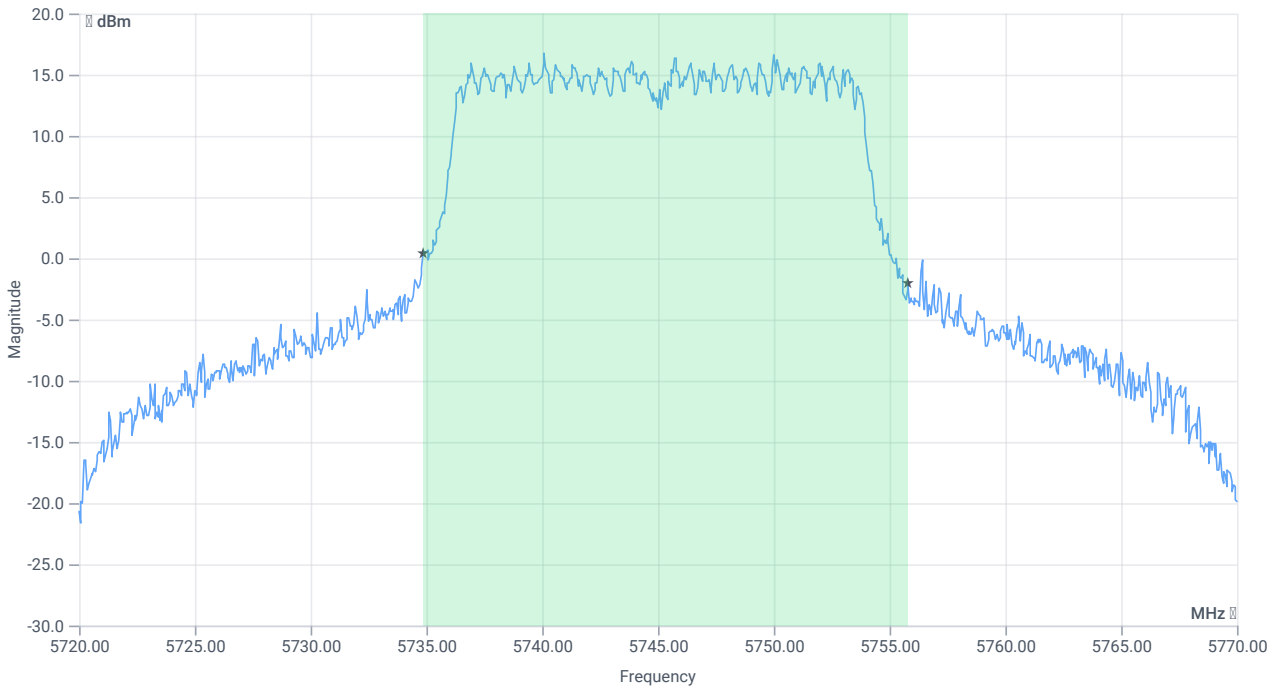
Test at TX 5745 MHz

RESULT: Reference Power cond.

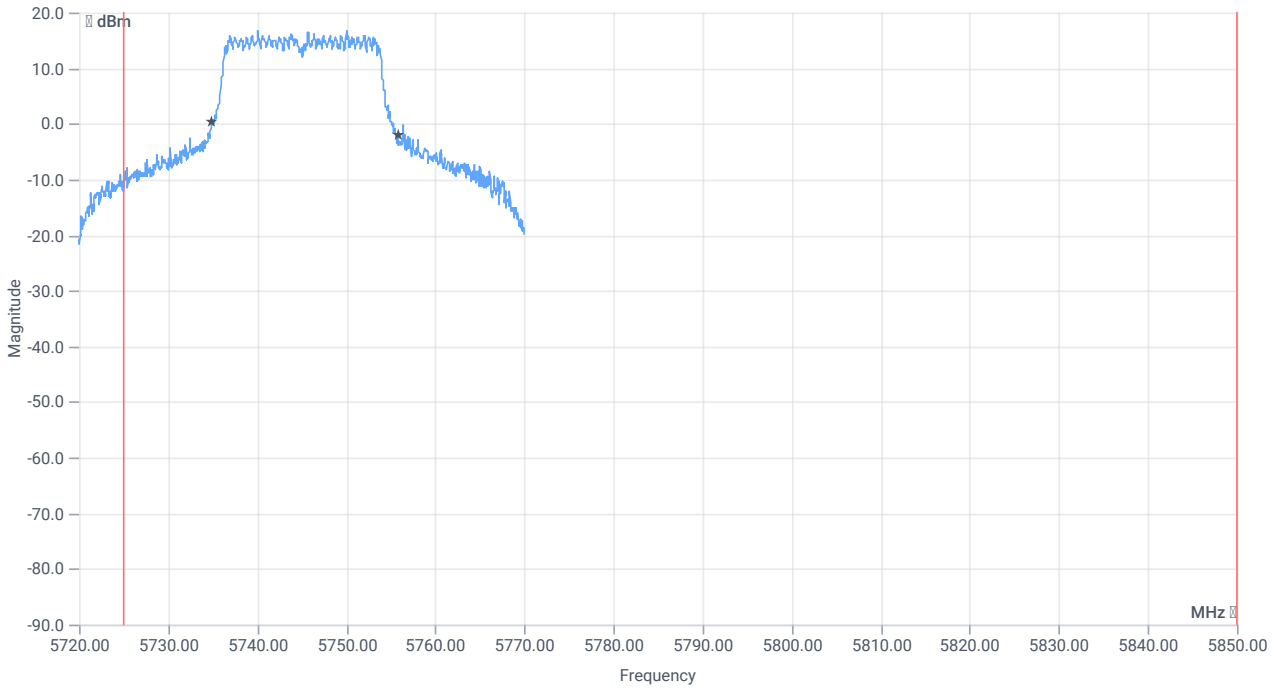
DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	21.18	dBm	INFO
Ref. Frequency	---	---	5743.200	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] | RefLevelOffset [dB] | InpAtt [dB]	29.18 | 16.72 | 30
Start [MHz] | Stop [MHz]	5720.000 | 5770.000
RBW [MHz] | VBW [MHz]	0.300000 | 1.000000
Detector | TraceMode	POS | MAXH
Sweep: time [ms] | count | points per Section | type	1 | 2500 | 1001 | SWE



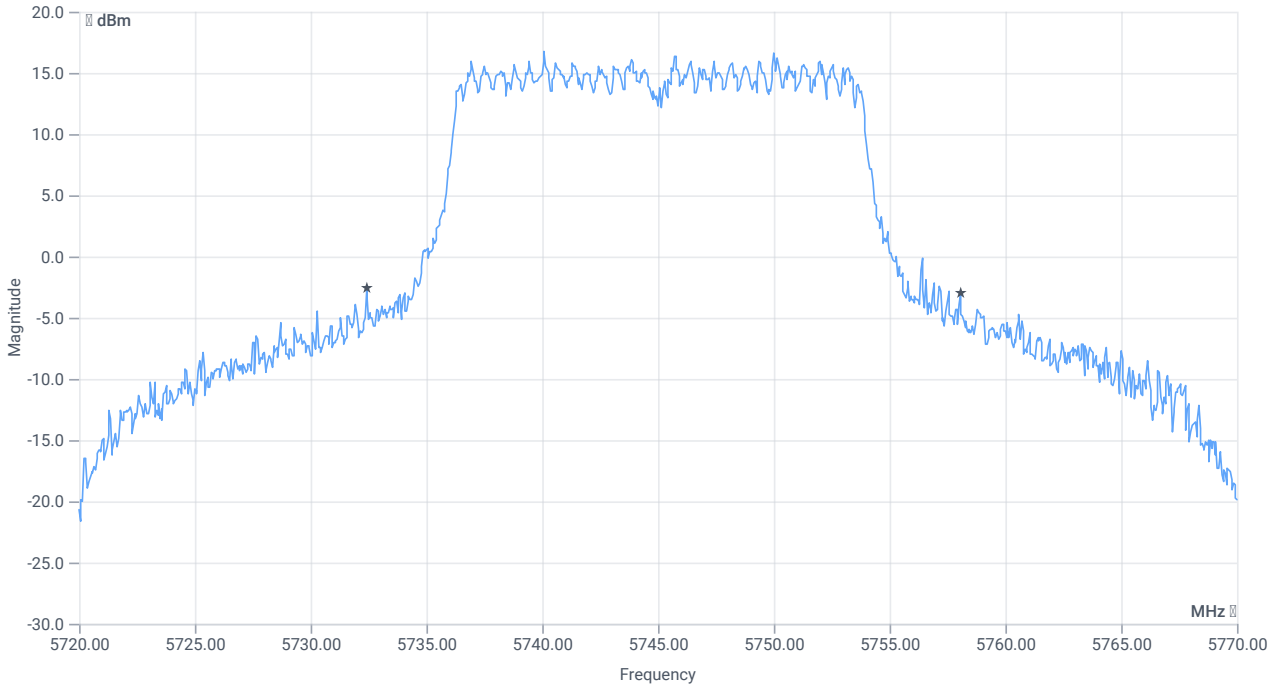
BW 99PCT



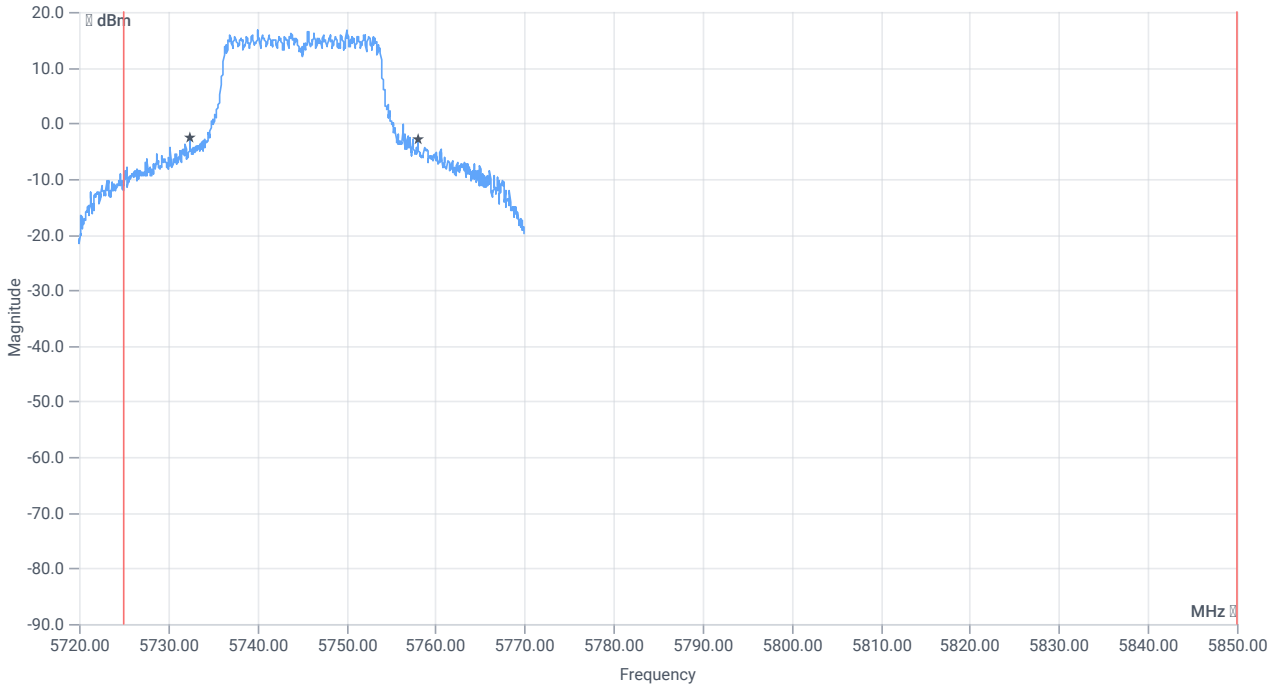
BW within Band 99PCT

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 99%	---	---	20.929	MHz	INFO
T1 99%	5725.000000	---	5734.8601	MHz	PASS
T2 99%	---	5850.000000	5755.7892	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	---	5732.4000	MHz	PASS
T2 20dB	---	5850.000000	5758.0500	MHz	PASS

Verdict
PASS

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

References

TC start	02.08.2023 08:20:36
Ambit temp [°C] | humidity [rel%]	24.4 | 51
System version	4.6.0.3
Standard | Version	FCC 15.407, ISED RSS247 | NI
Method	KDB789033 D02, C.2.
Description	FCC 15.407 Min Emission Bandwidth - WLAN5Gx ac-VHT20 mode U-NII-3
Information	PS96

EUT Common Settings WLAN5Gx

Number of Antenna Ports	1
User Interaction	No
Device Class UNII_1	Client
Limit W52 Japan	Standard

Test Parameter

Technology to test	WLAN5Gx ac-VHT20 mode
Antenna port used	2
Temperature	nom
Voltage	nom
Frequency low to test	True | Freq [MHz] 5745
Frequency mid to test	False | Freq [MHz] 5785
Frequency high to test	False | Freq [MHz] 5825
Auto control enabled power supply | Climatic Box	No | No
Additional path loss [dB]	1.3
Switched path	EUT - SignalingUnit - SpectrumAnalyzer

Equipment

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

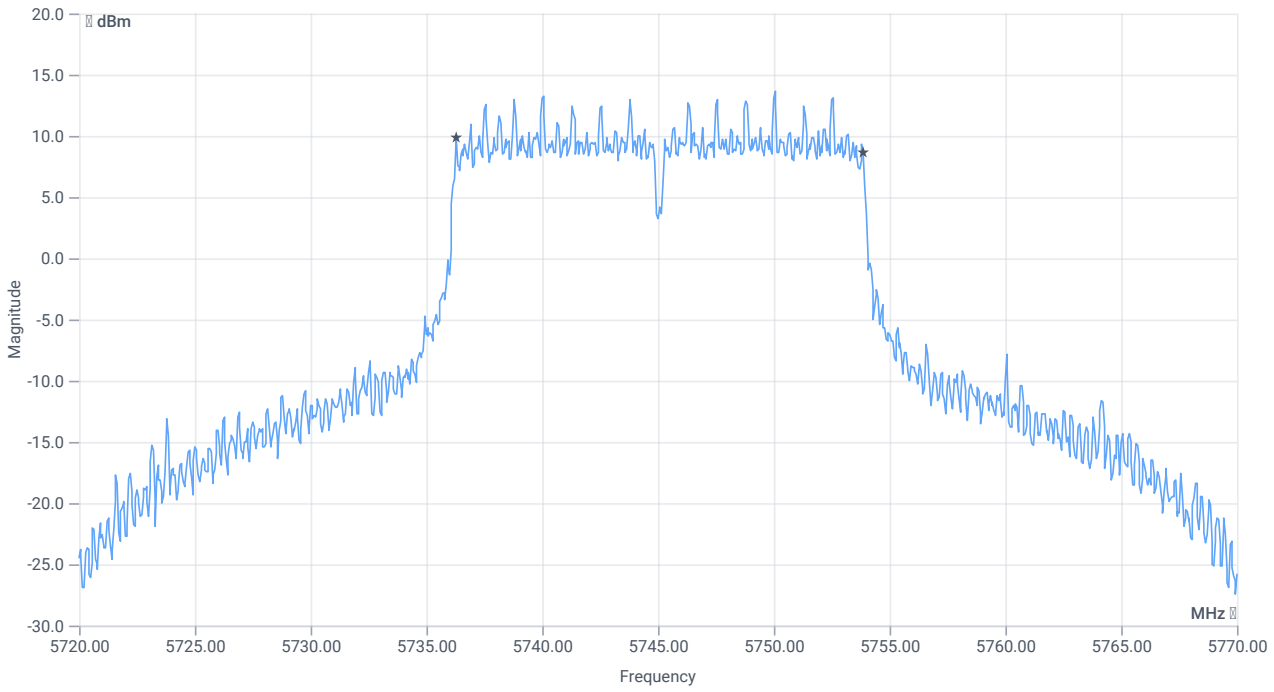
Test at TX 5745 MHz

RESULT: Reference Power cond.

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	21.42	dBm	INFO
Ref. Frequency	---	---	5746.200	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] | RefLevelOffset [dB] | InpAtt [dB]	33.42 | 16.72 | 35
Start [MHz] | Stop [MHz]	5720.000 | 5770.000
RBW [MHz] | VBW [MHz]	0.100000 | 0.300000
Detector | TraceMode	POS | MAXH
Sweep: time [ms] | count | points per Section | type	2 | 1500 | 1001 | SWE



BW 6dB

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth (6dB)	0.500	---	17.6	MHz	PASS

Verdict

PASS

FCC 15.407 # MIMO ∑ Max output power and psd ~ WLAN5Gx ac-VHT20 mode U-NII-3

References

TC start	02.08.2023 08:40:35
Ambit temp [°C] | humidity [rel%]	24.7 | 50
System version	4.6.0.3
Standard | Version	FCC 15.407 | NI
Method	
Description	MIMO ∑ FCC Power & psd - WLAN5Gx ac-VHT20 mode U-NII-3
Information	

EUT Common Settings WLAN5Gx

Number of Antenna Ports	1
User Interaction	No
Device Class UNII_1	Client
Limit W52 Japan	Standard

Test Parameter

Technology to test	WLAN5Gx ac-VHT20 mode
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]	1.3
Switched path	None

Equipment

Test at TX 5745 MHz

RESULT Power

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ant:1 Max Output Power DC corrected	---	---	24.34	dBm	INFO
Ant:1 BW 26dB	---	---	39.920	MHz	INFO
Ant:2 Max Output Power DC corrected	---	---	24.35	dBm	INFO
Ant:2 BW 26dB	---	---	39.240	MHz	INFO
∑ Limit absolute	---	30	27.36	dBm	PASS
∑ Limit: 11 dBm + 10 log 39.24	---	26.94	27.36	dBm	na

RESULT PSD

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ant:1 PSD	---	---	9.24	dBm/0.5MHz	INFO
Ant:2 PSD	---	---	9.25	dBm/0.5MHz	INFO
∑	---	30	12.26	dBm/0.5MHz	PASS

Verdict
PASS

NA # Message with SA scan ~

References

TC start	02.08.2023 08:40:55
Ambit temp [°C] | humidity [rel%]	24.7 | 50
System version	4.6.0.3
Standard | Version	NA | NI
Method	
Description	Message with SA Scan ac_VHT20_U_NII_3
Information	PS96

Test Parameter

Switched Path	EUT - SignalingUnit - SpectrumAnalyzer
Message start	02.08.2023 08:40:56
Message	set WLAN5Gx to ac_VHT20_U_NII_3, Frequency [MHz] 5785 , Information: PS96

Equipment

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

Verdict
INFO

FCC 15.407 # Max output power and psd ~ WLAN5Gx ac-VHT20 mode U-NII-3

References

TC start	02.08.2023 08:41:07
Ambit temp [°C] | humidity [rel%]	24.7 | 50
System version	4.6.0.3
Standard | Version	FCC 15.407 | NI
Method	KDB789033 D02, F., E.2.e.
Description	FCC 15.407 Max Output Power & PSD - WLAN5Gx ac-VHT20 mode U-NII-3
Information	PS96

EUT Common Settings WLAN5Gx

Number of Antenna Ports	1
User Interaction	No
Device Class UNII_1	Client
Limit W52 Japan	Standard

Test Parameter

Technology to test	WLAN5Gx ac-VHT20 mode
Antenna port used	1
Temperature	nom
Voltage	nom
Frequency low to test	False | Freq [MHz] 5745
Frequency mid to test	True | Freq [MHz] 5785
Frequency high to test	False | Freq [MHz] 5825
Auto control enabled power supply | Climatic Box	No | No
Additional path loss [dB]	1.3
Switched path	EUT - SignalingUnit - SpectrumAnalyzer

Equipment

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

Test at TX 5785 MHz

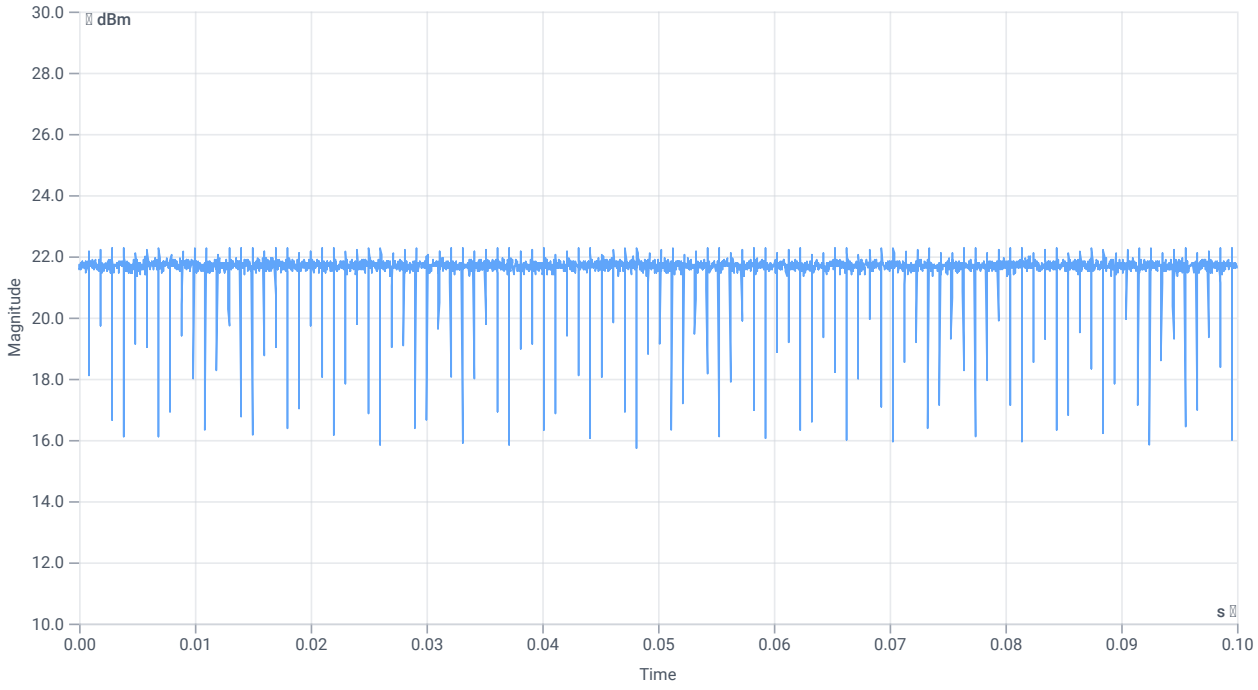
RESULT: Reference Power cond.

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	19.83	dBm	INFO
Ref. Frequency	---	---	5779.610	MHz	INFO

Evaluation max. Duty Cycle

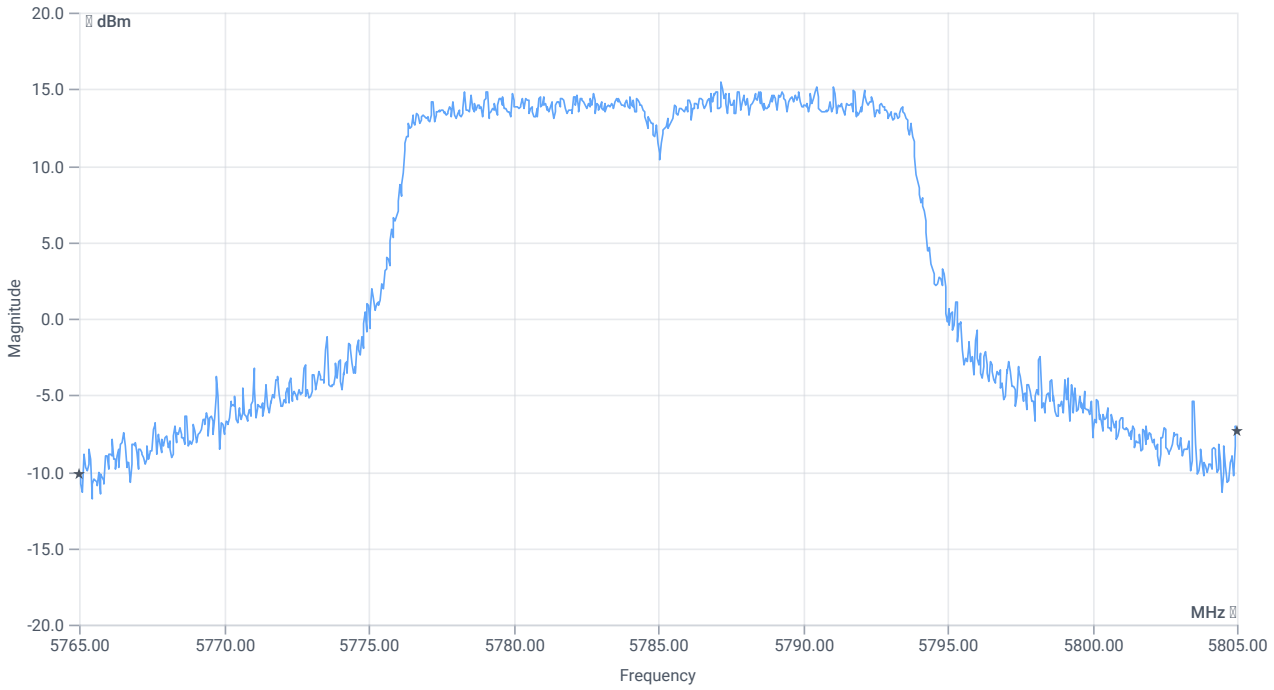
Duty Cycle evaluation

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

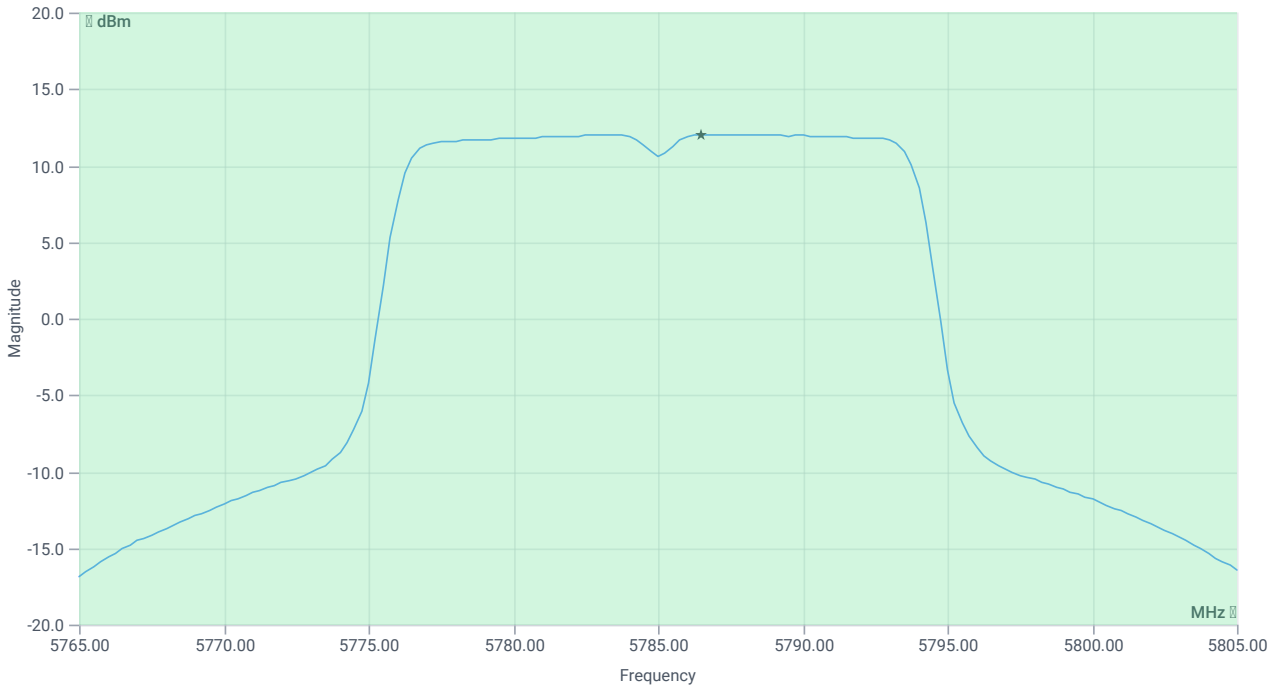
RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 26dB	---	---	40	MHz	INFO
T1 26dB	---	---	5765.0000	MHz	INFO
T2 26dB	---	---	5805.0000	MHz	INFO

Maximum Output Power

READ SA SETTINGS:

RefLevel [dBm] | RefLevelOffset [dB] | InpAtt [dB]	31.83 | 16.7 | 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

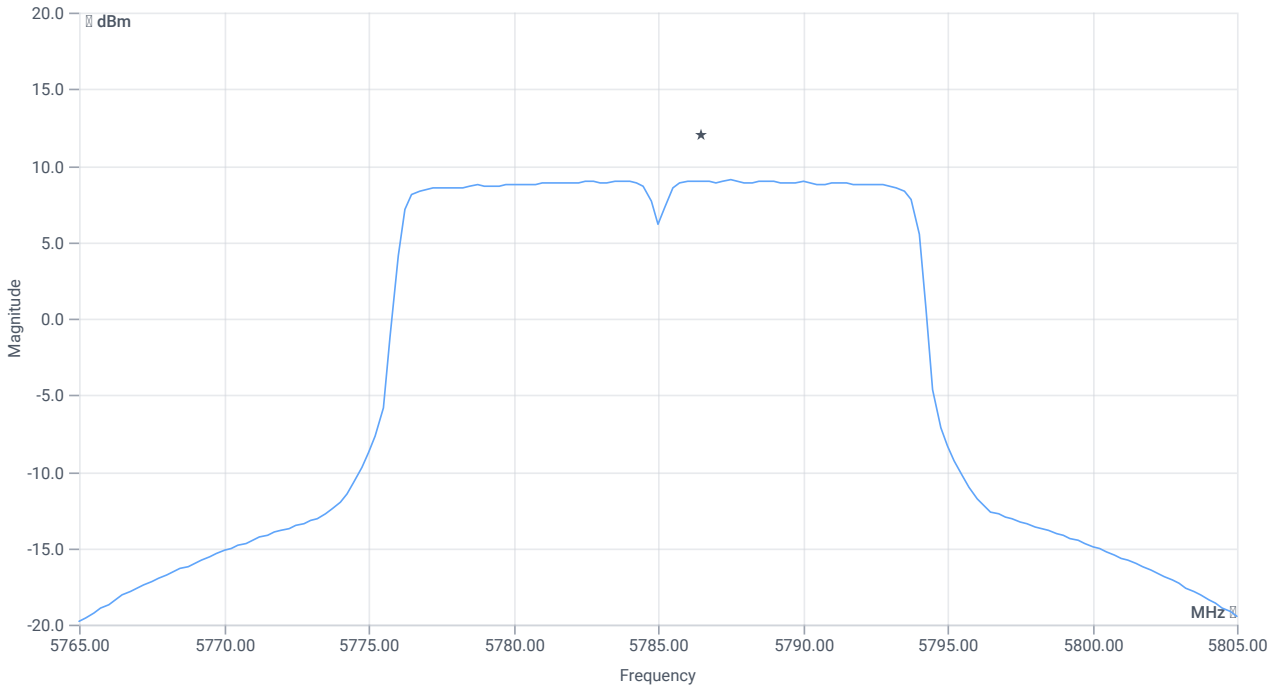
RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Max Output Power	---	---	24.04	dBm	INFO
Duty Cycle Correction	---	---	0	dB	INFO
Limit absolute					
Max Output Power DC corrected	---	30	24.04	dBm	PASS
Limit: 11 dBm + 10 log 40					
Max Output Power DC corrected	---	27.02	24.04	dBm	na

Power Spectral Density U-NII-3

READ SA SETTINGS:

RefLevel [dBm] | RefLevelOffset [dB] | InpAtt [dB]	31.83 | 16.7 | 35
Start [MHz] | Stop [MHz]	5765.000 | 5805.000
RBW [MHz] | VBW [MHz]	0.500000 | 3.000000
Detector | TraceMode	RMS | MAXH
Sweep: time [ms] | count | points per Section | type	53700 | 1 | 161 | SWE



PSD UNII-3

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Power Spectral Density	---	---	9.03	dBm/0.5MHz	INFO
Duty Cycle Correction	---	---	0	dB	INFO
Power Spectral Density DC corrected	---	30	9.03	dBm/0.5MHz	PASS

Verdict
PASS

FCC 15.407, ISED RSS247 # Bandwidths 99PCT and 20dB ~ WLAN5Gx ac-VHT20 mode U-NII-3

References

TC start	02.08.2023 08:43:39
Ambit temp [°C] | humidity [rel%]	24.8 | 50
System version	4.6.0.3
Standard | Version	FCC 15.407, ISED RSS247 | NI
Method	26dB Bandwidth KDB789033 D02, C.1 / ISED RSS-GEN
Description	FCC 15.407 Bandwidths - WLAN5Gx ac-VHT20 mode U-NII-3
Information	PS96

EUT Common Settings WLAN5Gx

Number of Antenna Ports	1
User Interaction	No
Device Class UNII_1	Client
Limit W52 Japan	Standard

Test Parameter

Technology to test	WLAN5Gx ac-VHT20 mode
Antenna port used	1
Temperature	nom
Voltage	nom
Frequency low to test	False | Freq [MHz] 5745
Frequency mid to test	True | Freq [MHz] 5785
Frequency high to test	False | Freq [MHz] 5825
Auto control enabled power supply | Climatic Box	No | No
Additional path loss [dB]	1.3
Switched path	EUT - SignalingUnit - SpectrumAnalyzer

Equipment

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

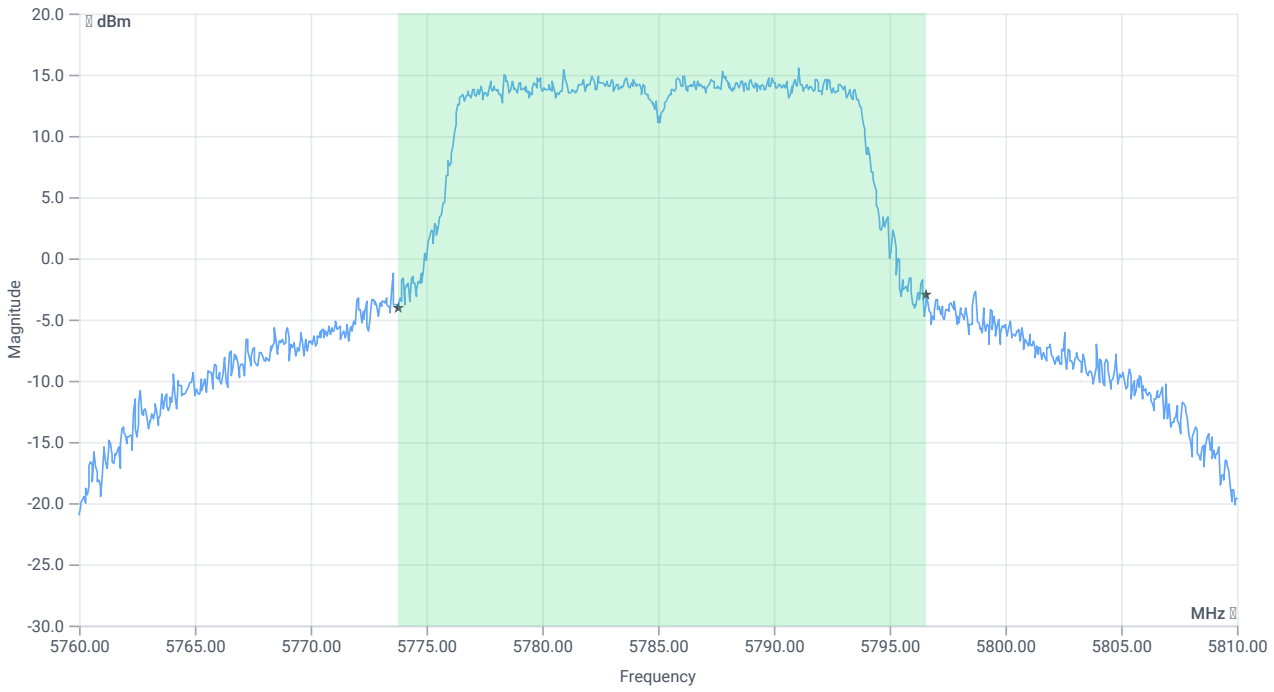
Test at TX 5785 MHz

RESULT: Reference Power cond.

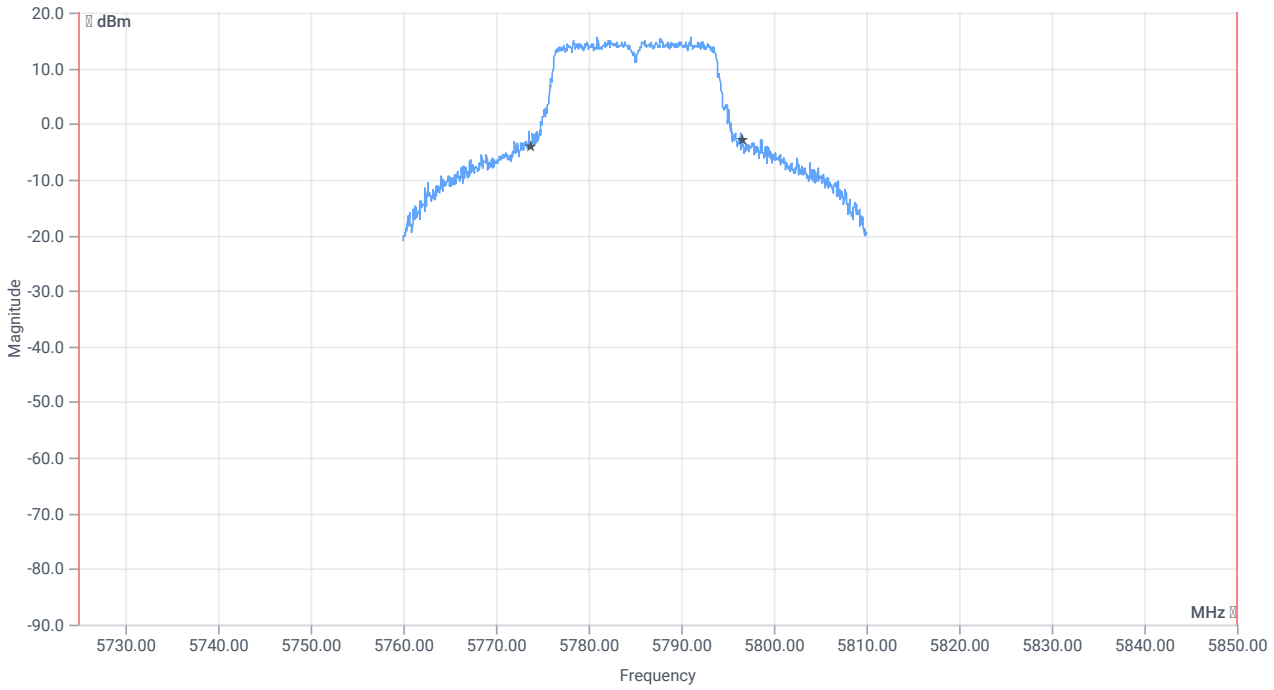
DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	19.99	dBm	INFO
Ref. Frequency	---	---	5780.200	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] | RefLevelOffset [dB] | InpAtt [dB]	27.99 | 16.7 | 30
Start [MHz] | Stop [MHz]	5760.000 | 5810.000
RBW [MHz] | VBW [MHz]	0.300000 | 1.000000
Detector | TraceMode	POS | MAXH
Sweep: time [ms] | count | points per Section | type	1 | 2500 | 1001 | SWE



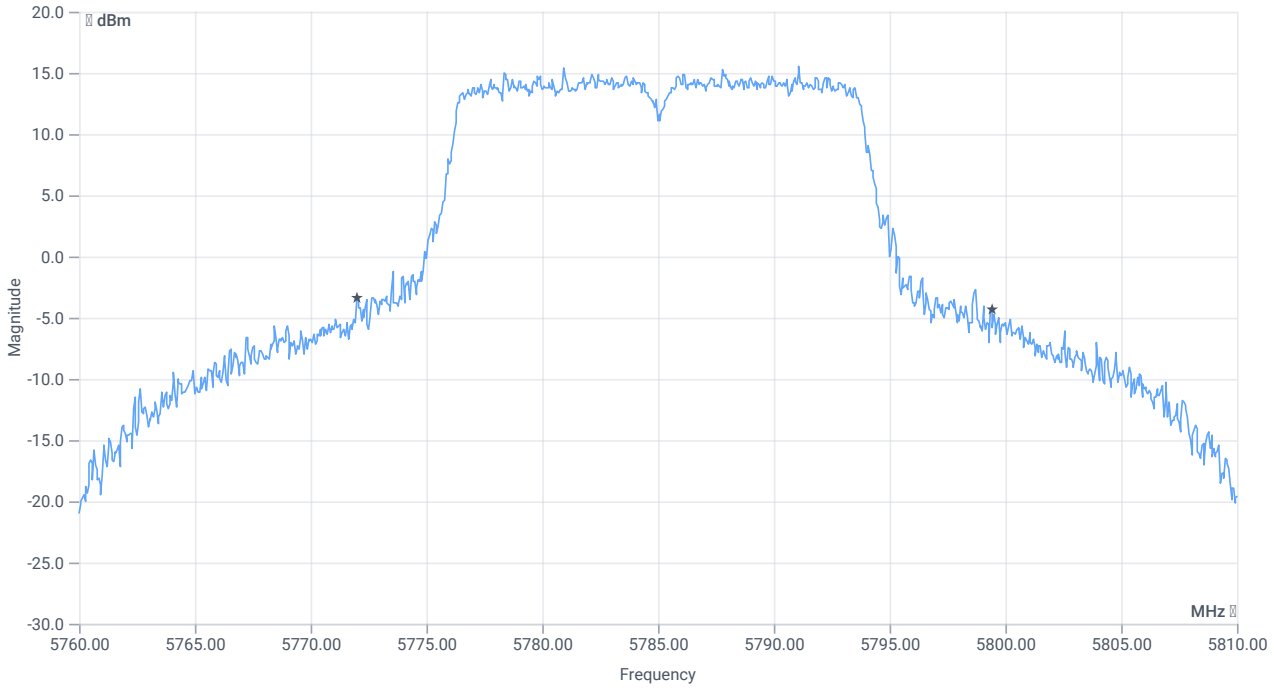
BW 99PCT



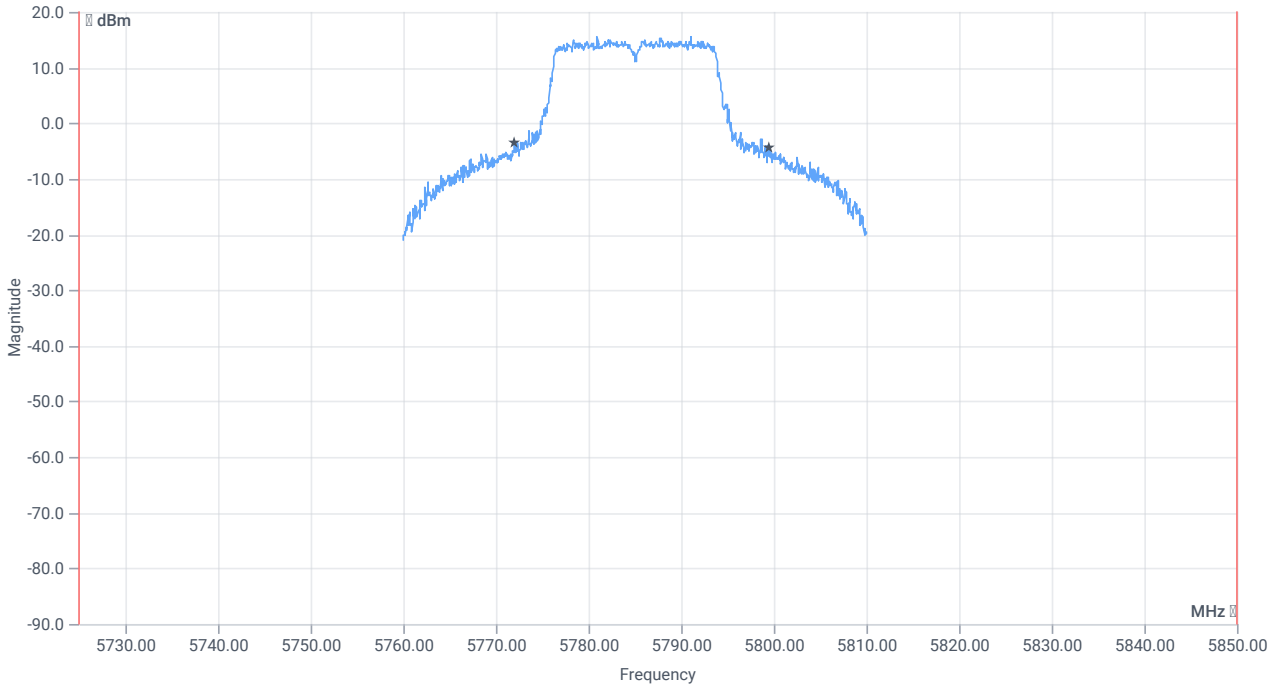
BW within Band 99PCT

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 99%	---	---	22.827	MHz	INFO
T1 99%	5725.000000	---	5773.7612	MHz	PASS
T2 99%	---	5850.000000	5796.5884	MHz	PASS



BW 20dB



BW within Band 20dB

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 20dB	---	---	27.4	MHz	INFO
T1 20dB	5725.000000	---	5772.0000	MHz	PASS
T2 20dB	---	5850.000000	5799.4000	MHz	PASS

Verdict
PASS

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

References

TC start	02.08.2023 08:44:12
Ambit temp [°C] | humidity [rel%]	24.8 | 50
System version	4.6.0.3
Standard | Version	FCC 15.407, ISED RSS247 | NI
Method	KDB789033 D02, C.2.
Description	FCC 15.407 Min Emission Bandwidth - WLAN5Gx ac-VHT20 mode U-NII-3
Information	PS96

EUT Common Settings WLAN5Gx

Number of Antenna Ports	1
User Interaction	No
Device Class UNII_1	Client
Limit W52 Japan	Standard

Test Parameter

Technology to test	WLAN5Gx ac-VHT20 mode
Antenna port used	1
Temperature	nom
Voltage	nom
Frequency low to test	False | Freq [MHz] 5745
Frequency mid to test	True | Freq [MHz] 5785
Frequency high to test	False | Freq [MHz] 5825
Auto control enabled power supply | Climatic Box	No | No
Additional path loss [dB]	1.3
Switched path	EUT - SignalingUnit - SpectrumAnalyzer

Equipment

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

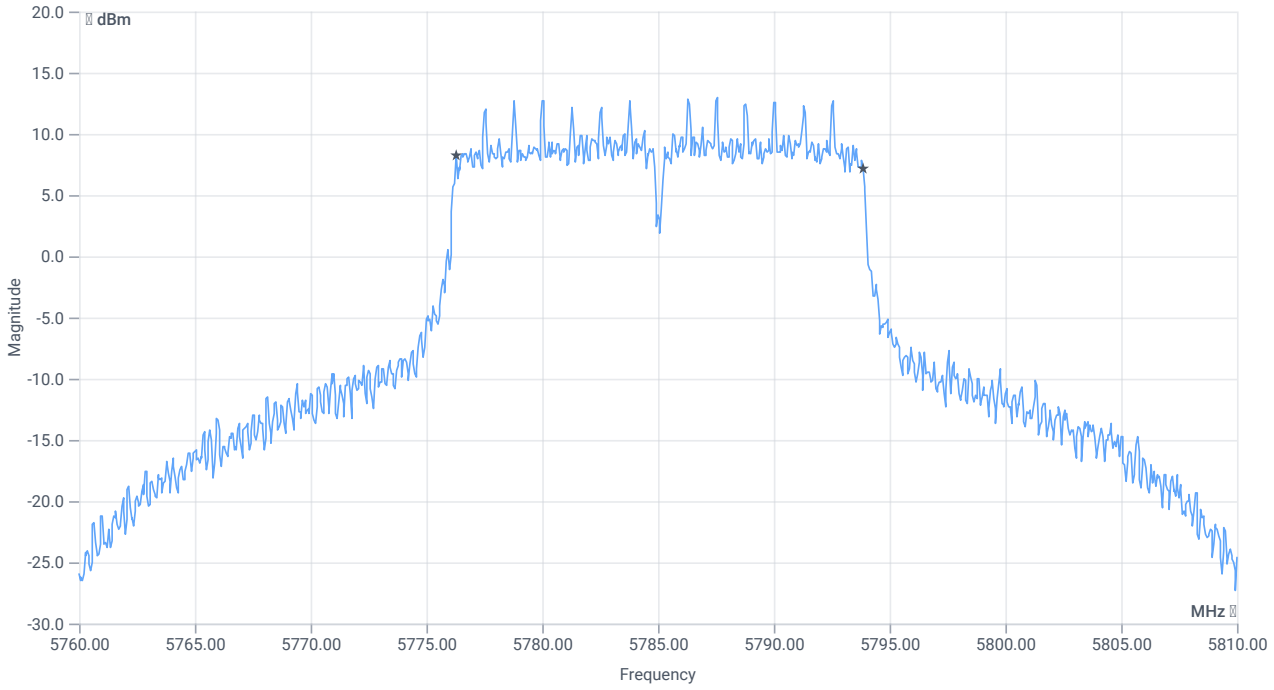
Test at TX 5785 MHz

RESULT: Reference Power cond.

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	20.30	dBm	INFO
Ref. Frequency	---	---	5782.600	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] | RefLevelOffset [dB] | InpAtt [dB]	32.30 | 16.7 | 35
Start [MHz] | Stop [MHz]	5760.000 | 5810.000
RBW [MHz] | VBW [MHz]	0.100000 | 0.300000
Detector | TraceMode	POS | MAXH
Sweep: time [ms] | count | points per Section | type	2 | 1500 | 1001 | SWE



BW 6dB

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth (6dB)	0.500	---	17.6	MHz	PASS

Verdict

PASS

FCC 15.407 # Max output power and psd ~ WLAN5Gx ac-VHT20 mode U-NII-3

References

TC start	02.08.2023 08:45:01
Ambit temp [°C] | humidity [rel%]	24.8 | 50
System version	4.6.0.3
Standard | Version	FCC 15.407 | NI
Method	KDB789033 D02, F., E.2.e.
Description	FCC 15.407 Max Output Power & PSD - WLAN5Gx ac-VHT20 mode U-NII-3
Information	PS96

EUT Common Settings WLAN5Gx

Number of Antenna Ports	1
User Interaction	No
Device Class UNII_1	Client
Limit W52 Japan	Standard

Test Parameter

Technology to test	WLAN5Gx ac-VHT20 mode
Antenna port used	2
Temperature	nom
Voltage	nom
Frequency low to test	False | Freq [MHz] 5745
Frequency mid to test	True | Freq [MHz] 5785
Frequency high to test	False | Freq [MHz] 5825
Auto control enabled power supply | Climatic Box	No | No
Additional path loss [dB]	1.3
Switched path	EUT - SignalingUnit - SpectrumAnalyzer

Equipment

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

Test at TX 5785 MHz

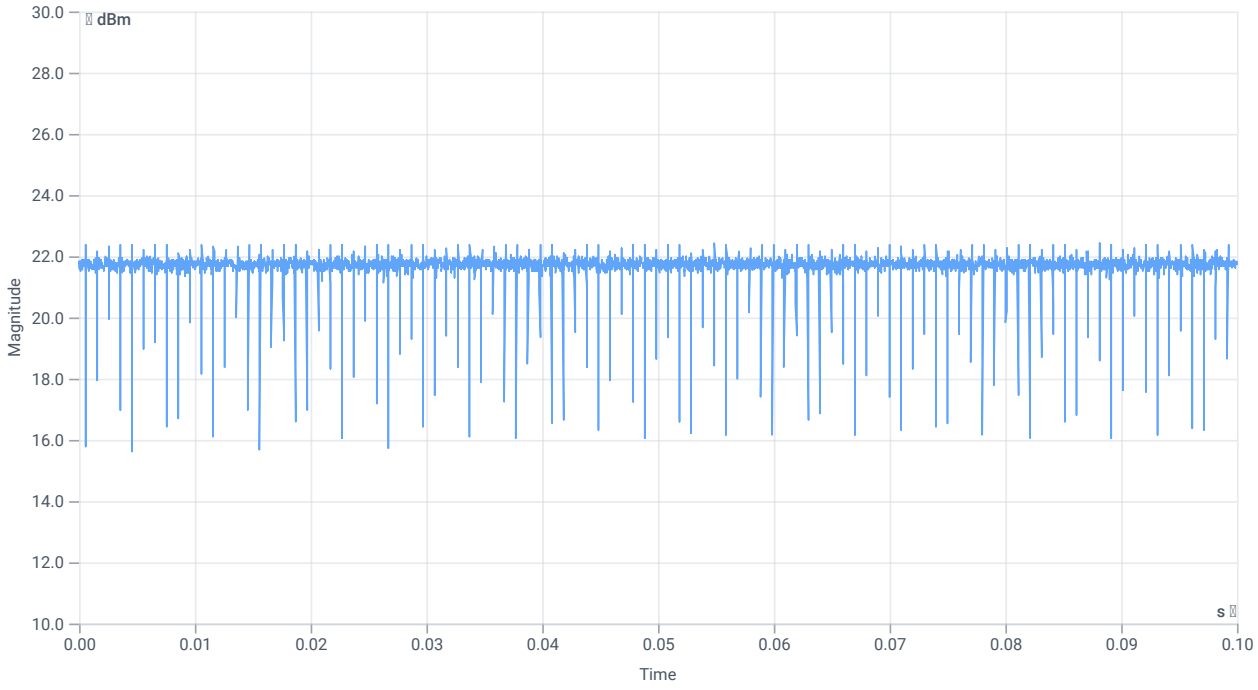
RESULT: Reference Power cond.

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	21.62	dBm	INFO
Ref. Frequency	---	---	5780.800	MHz	INFO

Evaluation max. Duty Cycle

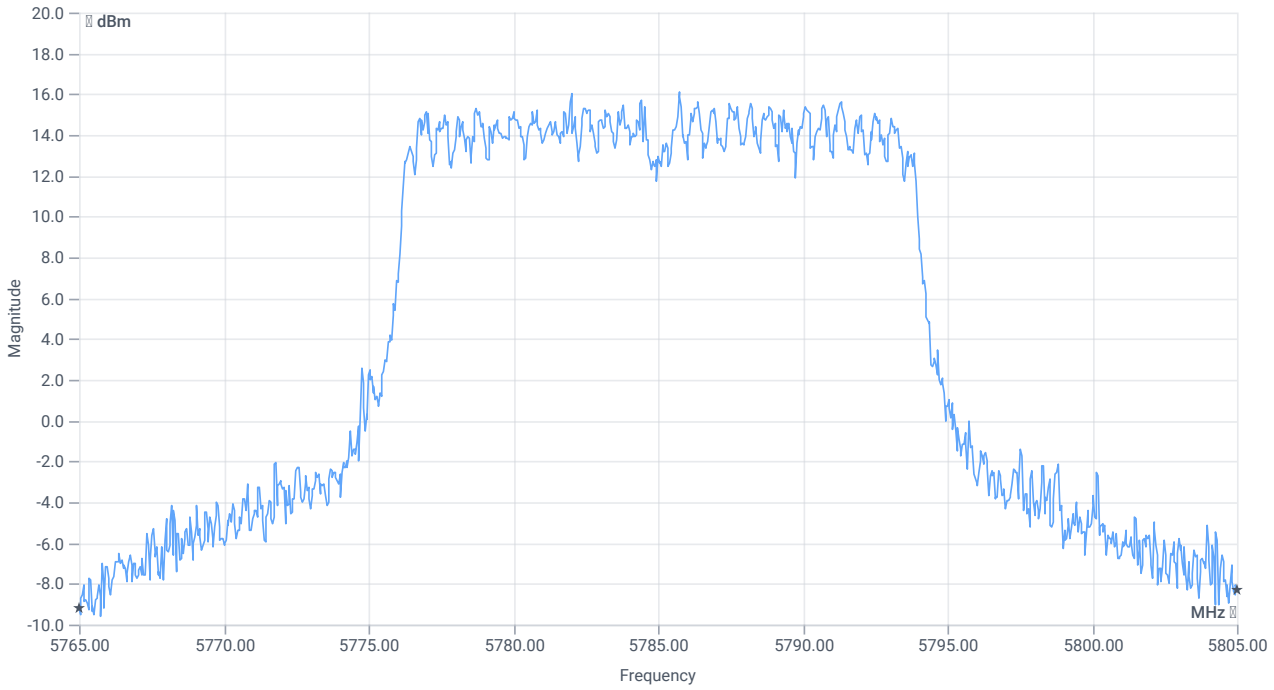
Duty Cycle evaluation

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

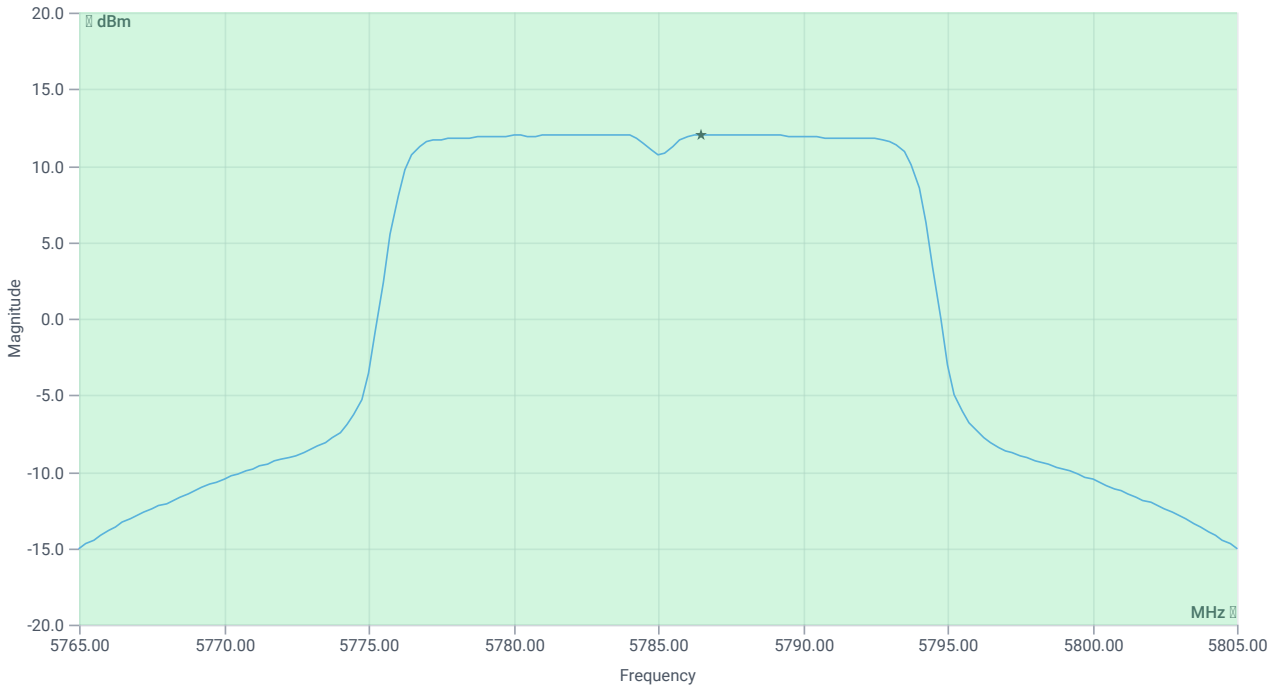
RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 26dB	---	---	40	MHz	INFO
T1 26dB	---	---	5765.0000	MHz	INFO
T2 26dB	---	---	5805.0000	MHz	INFO

Maximum Output Power

READ SA SETTINGS:

RefLevel [dBm] | RefLevelOffset [dB] | InpAtt [dB]	33.62 | 16.7 | 35
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

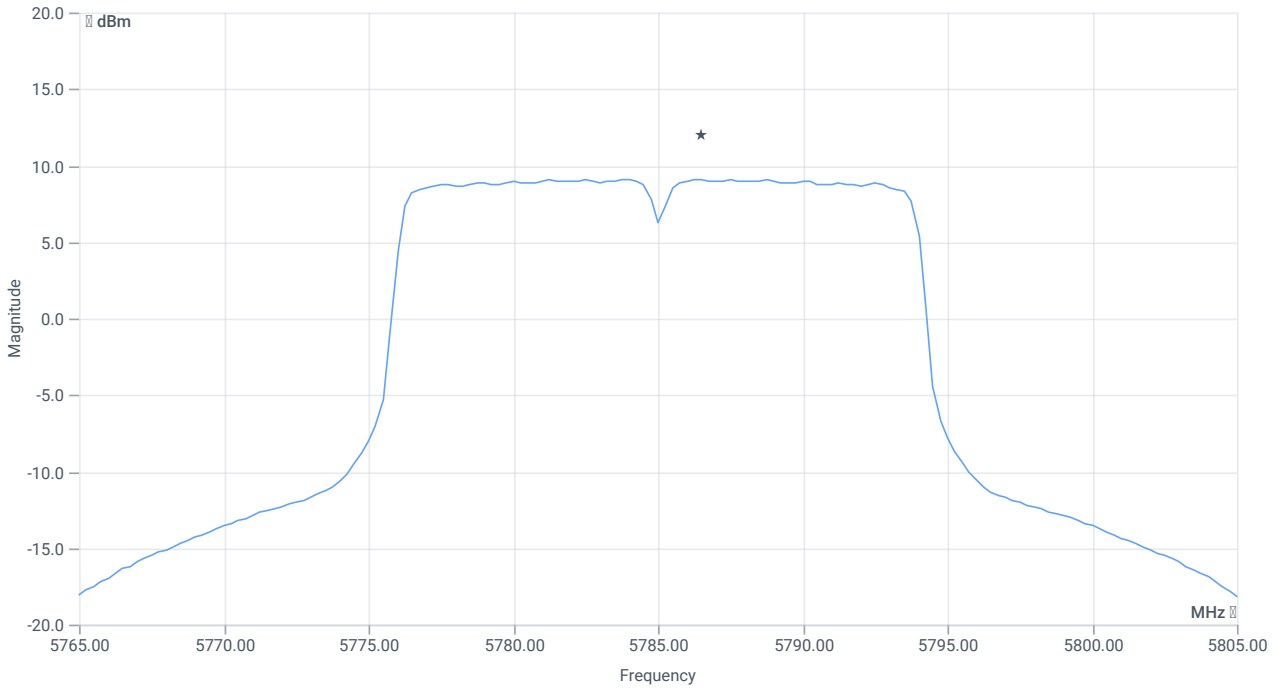
RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Max Output Power	---	---	24.11	dBm	INFO
Duty Cycle Correction	---	---	0	dB	INFO
Limit absolute					
Max Output Power DC corrected	---	30	24.11	dBm	PASS
Limit: 11 dBm + 10 log 40					
Max Output Power DC corrected	---	27.02	24.11	dBm	na

Power Spectral Density U-NII-3

READ SA SETTINGS:

RefLevel [dBm] | RefLevelOffset [dB] | InpAtt [dB]	33.62 | 16.7 | 35
Start [MHz] | Stop [MHz]	5765.000 | 5805.000
RBW [MHz] | VBW [MHz]	0.500000 | 3.000000
Detector | TraceMode	RMS | MAXH
Sweep: time [ms] | count | points per Section | type	53700 | 1 | 161 | SWE



PSD UNII-3

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Power Spectral Density	---	---	9.1	dBm/0.5MHz	INFO
Duty Cycle Correction	---	---	0	dB	INFO
Power Spectral Density DC corrected	---	30	9.1	dBm/0.5MHz	PASS

Verdict
PASS

FCC 15.407, ISED RSS247 # Bandwidths 99PCT and 20dB ~ WLAN5Gx ac-VHT20 mode U-NII-3

References

TC start	02.08.2023 08:47:29
Ambit temp [°C] | humidity [rel%]	24.8 | 50
System version	4.6.0.3
Standard | Version	FCC 15.407, ISED RSS247 | NI
Method	26dB Bandwidth KDB789033 D02, C.1 / ISED RSS-GEN
Description	FCC 15.407 Bandwidths - WLAN5Gx ac-VHT20 mode U-NII-3
Information	PS96

EUT Common Settings WLAN5Gx

Number of Antenna Ports	1
User Interaction	No
Device Class UNII_1	Client
Limit W52 Japan	Standard

Test Parameter

Technology to test	WLAN5Gx ac-VHT20 mode
Antenna port used	2
Temperature	nom
Voltage	nom
Frequency low to test	False | Freq [MHz] 5745
Frequency mid to test	True | Freq [MHz] 5785
Frequency high to test	False | Freq [MHz] 5825
Auto control enabled power supply | Climatic Box	No | No
Additional path loss [dB]	1.3
Switched path	EUT - SignalingUnit - SpectrumAnalyzer

Equipment

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

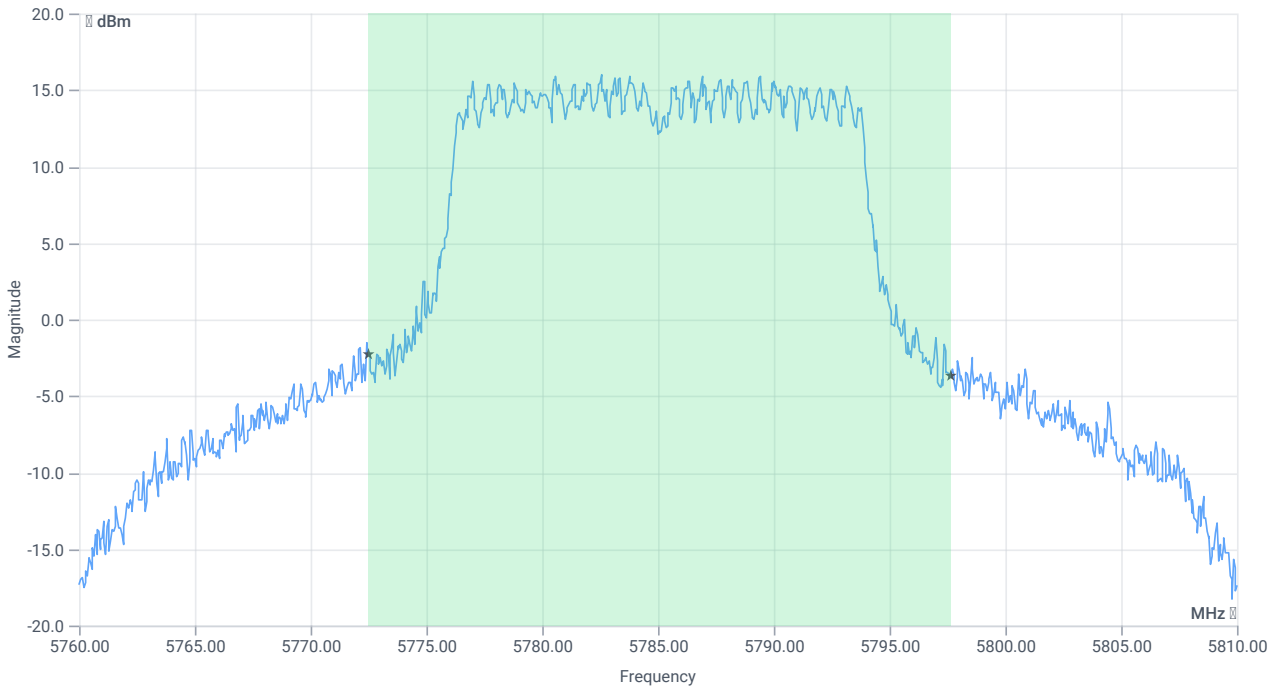
Test at TX 5785 MHz

RESULT: Reference Power cond.

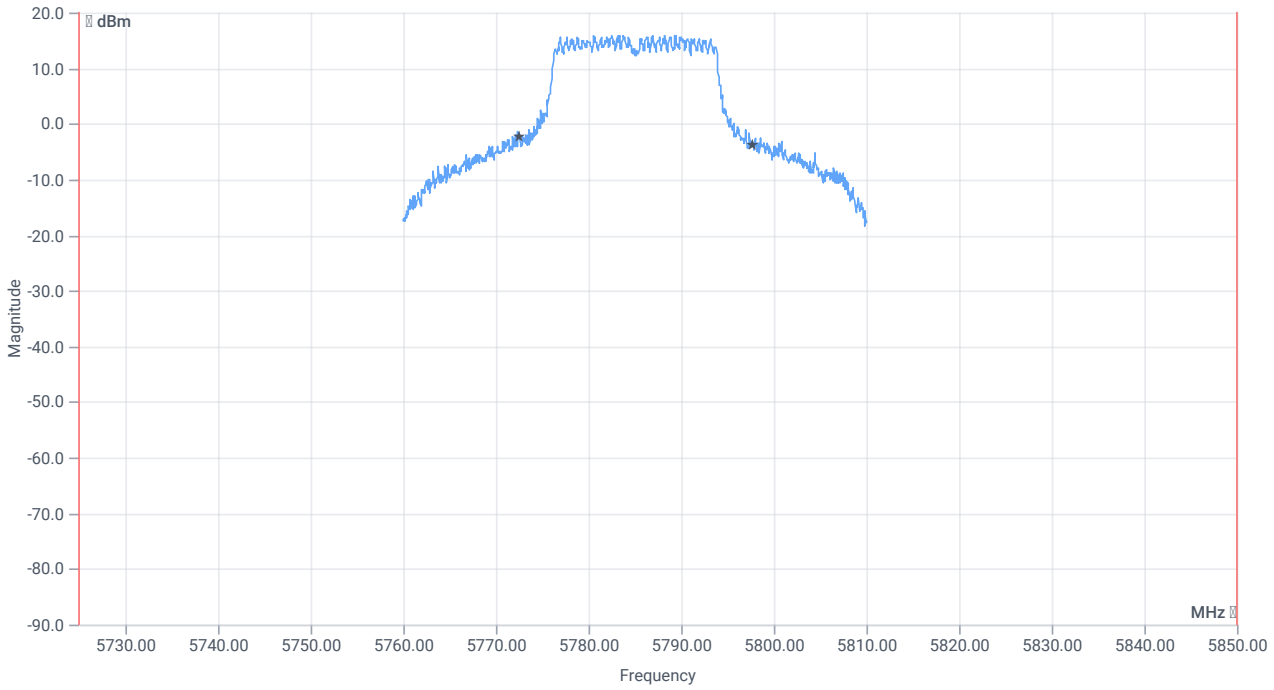
DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	20.56	dBm	INFO
Ref. Frequency	---	---	5789.400	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] | RefLevelOffset [dB] | InpAtt [dB]	28.56 | 16.7 | 30
Start [MHz] | Stop [MHz]	5760.000 | 5810.000
RBW [MHz] | VBW [MHz]	0.300000 | 1.000000
Detector | TraceMode	POS | MAXH
Sweep: time [ms] | count | points per Section | type	1 | 2500 | 1001 | SWE



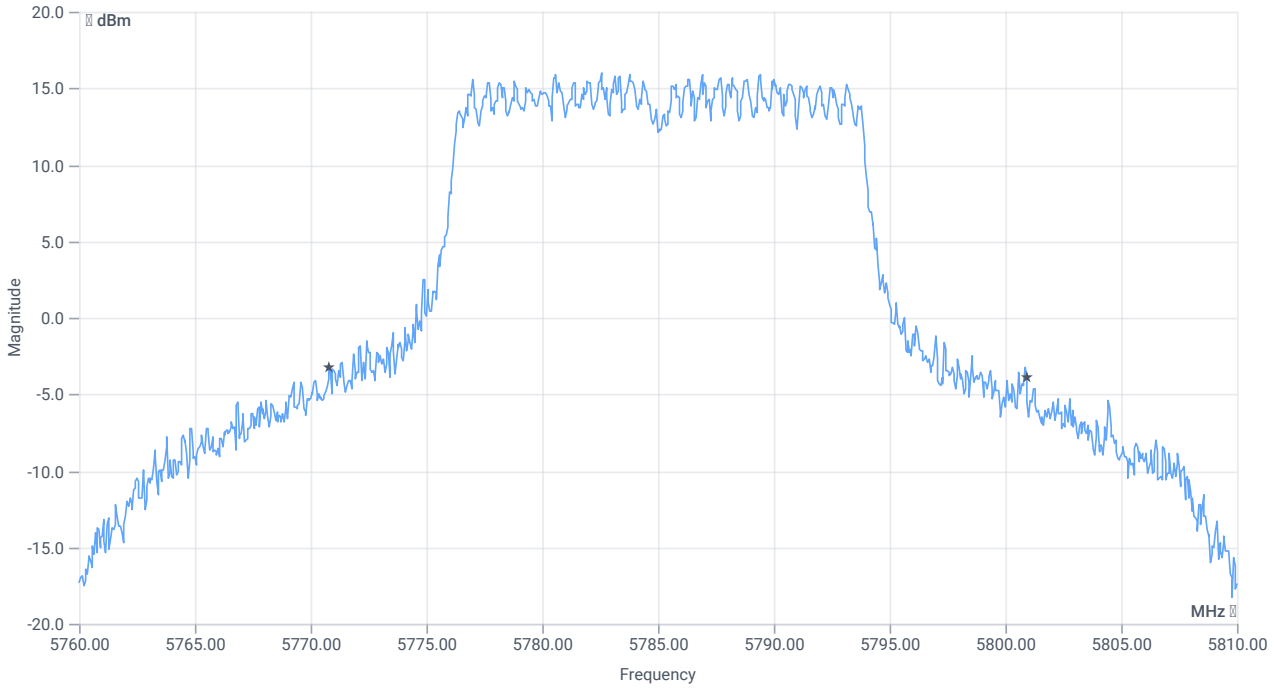
BW 99PCT



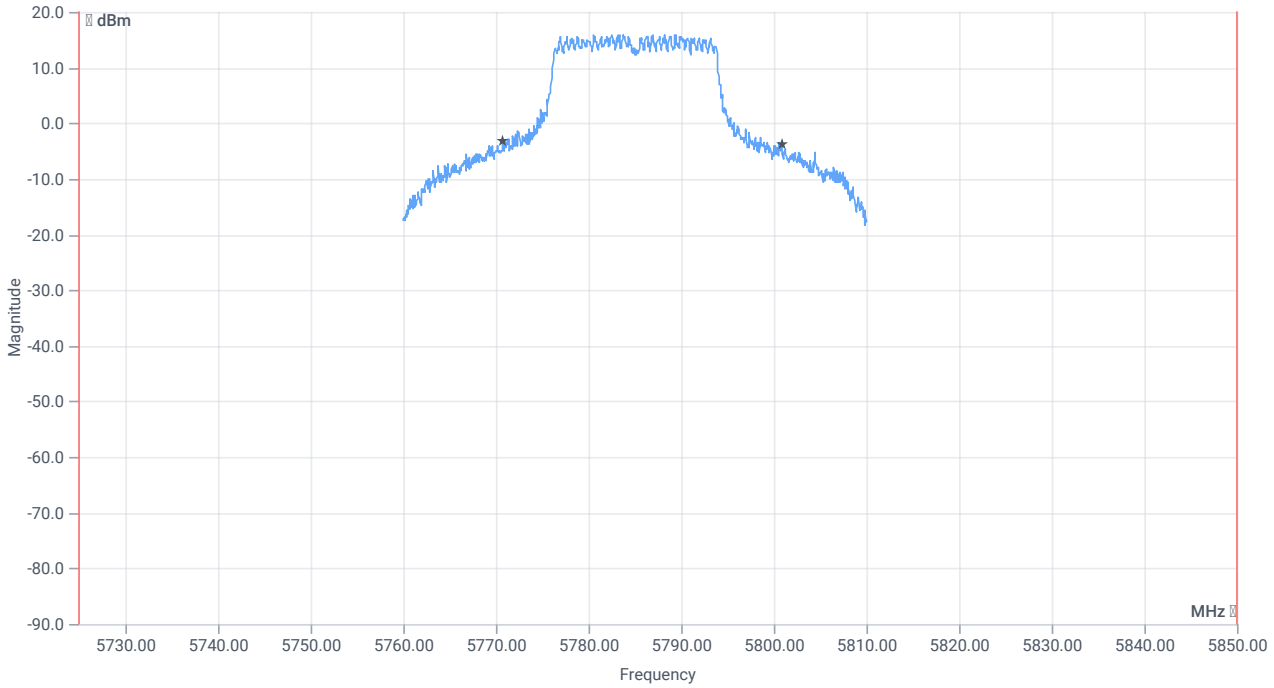
BW within Band 99PCT

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 99%	---	---	25.125	MHz	INFO
T1 99%	5725.000000	---	5772.5125	MHz	PASS
T2 99%	---	5850.000000	5797.6374	MHz	PASS



BW 20dB



BW within Band 20dB

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 20dB	---	---	30.1	MHz	INFO
T1 20dB	5725.000000	---	5770.8000	MHz	PASS
T2 20dB	---	5850.000000	5800.9000	MHz	PASS

Verdict
PASS

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

References

TC start	02.08.2023 08:48:01
Ambit temp [°C] | humidity [rel%]	24.8 | 50
System version	4.6.0.3
Standard | Version	FCC 15.407, ISED RSS247 | NI
Method	KDB789033 D02, C.2.
Description	FCC 15.407 Min Emission Bandwidth - WLAN5Gx ac-VHT20 mode U-NII-3
Information	PS96

EUT Common Settings WLAN5Gx

Number of Antenna Ports	1
User Interaction	No
Device Class UNII_1	Client
Limit W52 Japan	Standard

Test Parameter

Technology to test	WLAN5Gx ac-VHT20 mode
Antenna port used	2
Temperature	nom
Voltage	nom
Frequency low to test	False | Freq [MHz] 5745
Frequency mid to test	True | Freq [MHz] 5785
Frequency high to test	False | Freq [MHz] 5825
Auto control enabled power supply | Climatic Box	No | No
Additional path loss [dB]	1.3
Switched path	EUT - SignalingUnit - SpectrumAnalyzer

Equipment

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

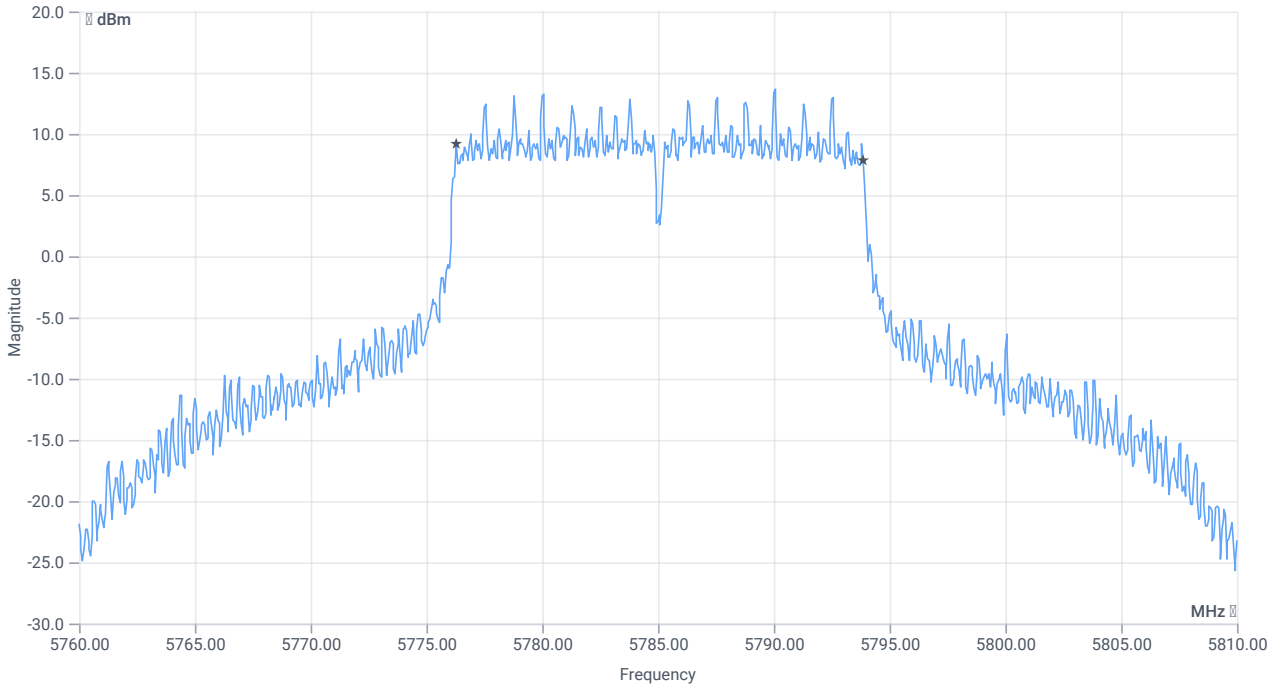
Test at TX 5785 MHz

RESULT: Reference Power cond.

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	21.08	dBm	INFO
Ref. Frequency	---	---	5790.590	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] | RefLevelOffset [dB] | InpAtt [dB]	33.08 | 16.7 | 35
Start [MHz] | Stop [MHz]	5760.000 | 5810.000
RBW [MHz] | VBW [MHz]	0.100000 | 0.300000
Detector | TraceMode	POS | MAXH
Sweep: time [ms] | count | points per Section | type	2 | 1500 | 1001 | SWE



BW 6dB

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth (6dB)	0.500	---	17.6	MHz	PASS

Verdict

PASS

FCC 15.407 # MIMO ∑ Max output power and psd ~ WLAN5Gx ac-VHT20 mode U-NII-3

References

TC start	02.08.2023 08:48:51
Ambit temp [°C] | humidity [rel%]	24.8 | 50
System version	4.6.0.3
Standard | Version	FCC 15.407 | NI
Method	
Description	MIMO ∑ FCC Power & psd - WLAN5Gx ac-VHT20 mode U-NII-3
Information	

EUT Common Settings WLAN5Gx

Number of Antenna Ports	1
User Interaction	No
Device Class UNII_1	Client
Limit W52 Japan	Standard

Test Parameter

Technology to test	WLAN5Gx ac-VHT20 mode
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]	1.3
Switched path	None

Equipment

Test at TX 5785 MHz

RESULT Power

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ant:1 Max Output Power DC corrected	---	---	24.04	dBm	INFO
Ant:1 BW 26dB	---	---	40.000	MHz	INFO
Ant:2 Max Output Power DC corrected	---	---	24.11	dBm	INFO
Ant:2 BW 26dB	---	---	40.000	MHz	INFO
∑ Limit absolute	---	30	27.09	dBm	PASS
∑ Limit: 11 dBm + 10 log 40	---	27.02	27.09	dBm	na

RESULT PSD

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ant:1 PSD	---	---	9.03	dBm/0.5MHz	INFO
Ant:2 PSD	---	---	9.1	dBm/0.5MHz	INFO
∑	---	30	12.08	dBm/0.5MHz	PASS

Verdict
PASS

NA # Message with SA scan ~

References

TC start	02.08.2023 08:49:28
Ambit temp [°C] | humidity [rel%]	24.8 | 50
System version	4.6.0.3
Standard | Version	NA | NI
Method	
Description	Message with SA Scan ac_VHT20_U_NII_3
Information	PS96

Test Parameter

Switched Path	EUT - SignalingUnit - SpectrumAnalyzer
Message start	02.08.2023 08:49:28
Message	set WLAN5Gx to ac_VHT20_U_NII_3, Frequency [MHz] 5825 Information: PS96

Equipment

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

Verdict
INFO

FCC 15.407 # Max output power and psd ~ WLAN5Gx ac-VHT20 mode U-NII-3

References

TC start	02.08.2023 08:49:44
Ambit temp [°C] | humidity [rel%]	24.8 | 50
System version	4.6.0.3
Standard | Version	FCC 15.407 | NI
Method	KDB789033 D02, F., E.2.e.
Description	FCC 15.407 Max Output Power & PSD - WLAN5Gx ac-VHT20 mode U-NII-3
Information	PS96

EUT Common Settings WLAN5Gx

Number of Antenna Ports	1
User Interaction	No
Device Class UNII_1	Client
Limit W52 Japan	Standard

Test Parameter

Technology to test	WLAN5Gx ac-VHT20 mode
Antenna port used	1
Temperature	nom
Voltage	nom
Frequency low to test	False | Freq [MHz] 5745
Frequency mid to test	False | Freq [MHz] 5785
Frequency high to test	True | Freq [MHz] 5825
Auto control enabled power supply | Climatic Box	No | No
Additional path loss [dB]	1.3
Switched path	EUT - SignalingUnit - SpectrumAnalyzer

Equipment

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

Test at TX 5825 MHz

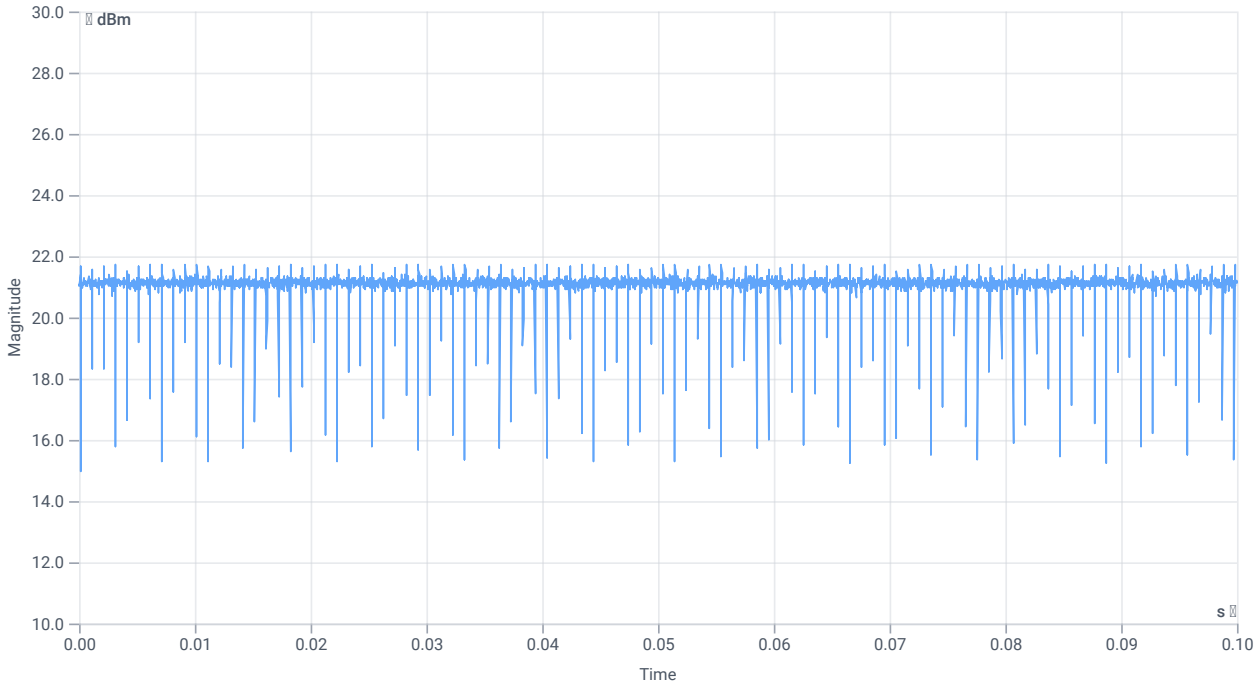
RESULT: Reference Power cond.

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	20.14	dBm	INFO
Ref. Frequency	---	---	5826.400	MHz	INFO

Evaluation max. Duty Cycle

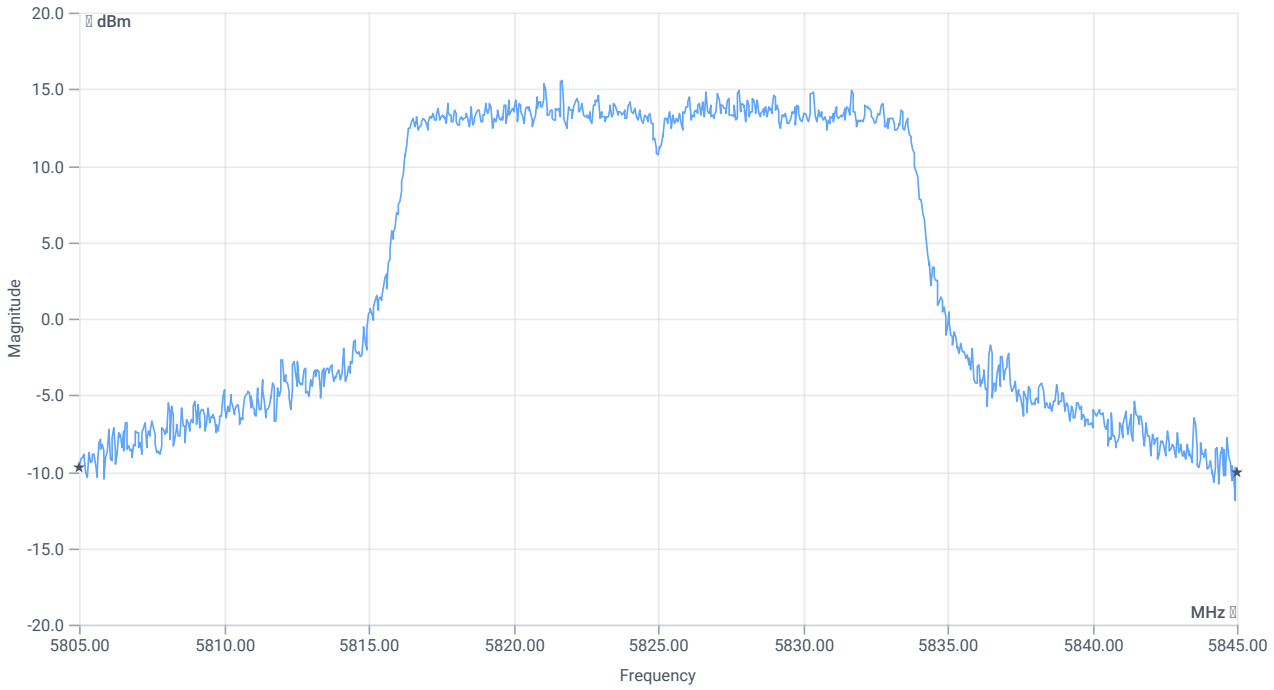
Duty Cycle evaluation

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

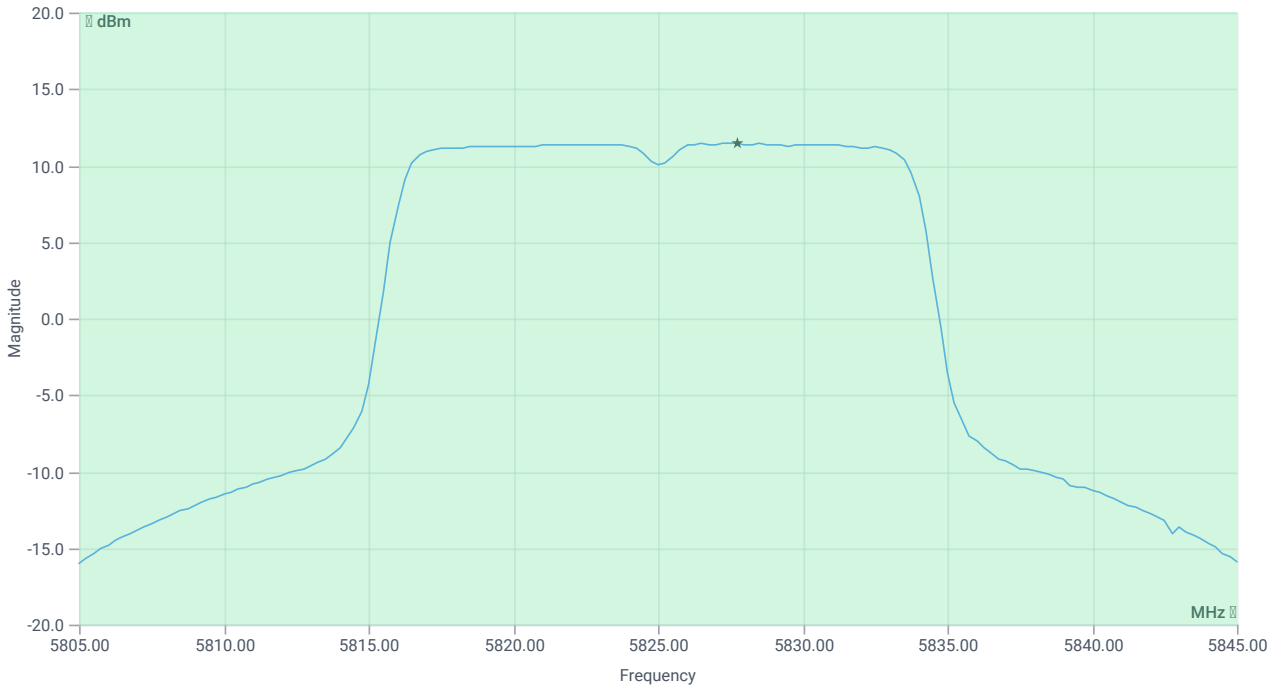
RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 26dB	---	---	40	MHz	INFO
T1 26dB	---	---	5805.0000	MHz	INFO
T2 26dB	---	---	5845.0000	MHz	INFO

Maximum Output Power

READ SA SETTINGS:

RefLevel [dBm] | RefLevelOffset [dB] | InpAtt [dB]	32.14 | 16.68 | 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

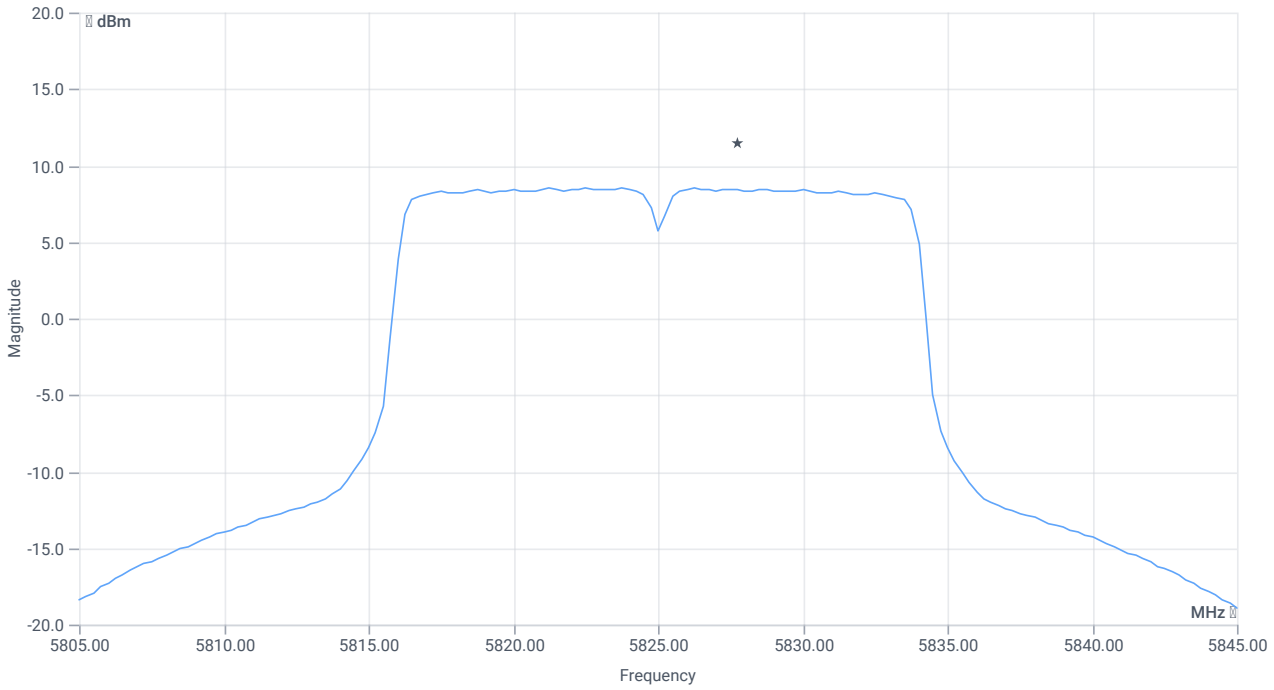
RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Max Output Power	---	---	23.49	dBm	INFO
Duty Cycle Correction	---	---	0	dB	INFO
Limit absolute					
Max Output Power DC corrected	---	30	23.49	dBm	PASS
Limit: 11 dBm + 10 log 40					
Max Output Power DC corrected	---	27.02	23.49	dBm	na

Power Spectral Density U-NII-3

READ SA SETTINGS:

RefLevel [dBm] | RefLevelOffset [dB] | InpAtt [dB]	32.14 | 16.68 | 35
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	---	---	8.53	dBm/0.5MHz	INFO
Duty Cycle Correction	---	---	0	dB	INFO
Power Spectral Density DC corrected	---	30	8.53	dBm/0.5MHz	PASS

Verdict
PASS

FCC 15.407, ISED RSS247 # Bandwidths 99PCT and 20dB ~ WLAN5Gx ac-VHT20 mode U-NII-3

References

TC start	02.08.2023 08:52:11
Ambit temp [°C] | humidity [rel%]	24.9 | 50
System version	4.6.0.3
Standard | Version	FCC 15.407, ISED RSS247 | NI
Method	26dB Bandwidth KDB789033 D02, C.1 / ISED RSS-GEN
Description	FCC 15.407 Bandwidths - WLAN5Gx ac-VHT20 mode U-NII-3
Information	PS96

EUT Common Settings WLAN5Gx

Number of Antenna Ports	1
User Interaction	No
Device Class UNII_1	Client
Limit W52 Japan	Standard

Test Parameter

Technology to test	WLAN5Gx ac-VHT20 mode
Antenna port used	1
Temperature	nom
Voltage	nom
Frequency low to test	False | Freq [MHz] 5745
Frequency mid to test	False | Freq [MHz] 5785
Frequency high to test	True | Freq [MHz] 5825
Auto control enabled power supply | Climatic Box	No | No
Additional path loss [dB]	1.3
Switched path	EUT - SignalingUnit - SpectrumAnalyzer

Equipment

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

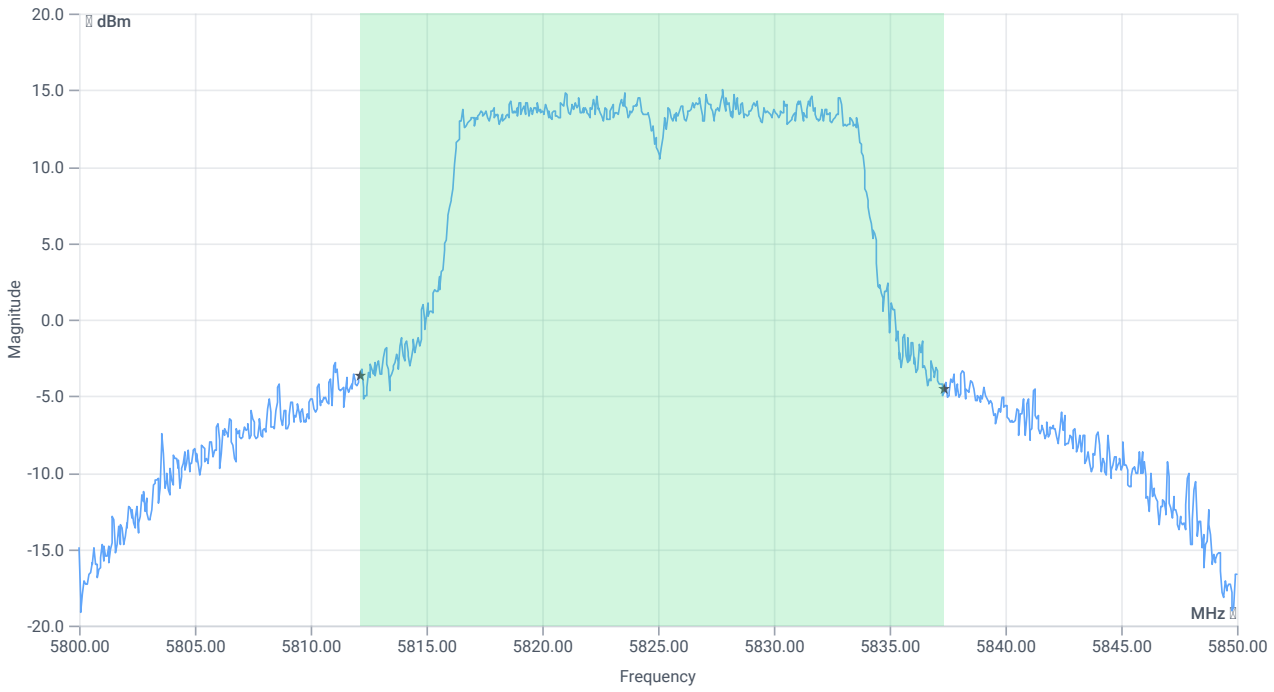
Test at TX 5825 MHz

RESULT: Reference Power cond.

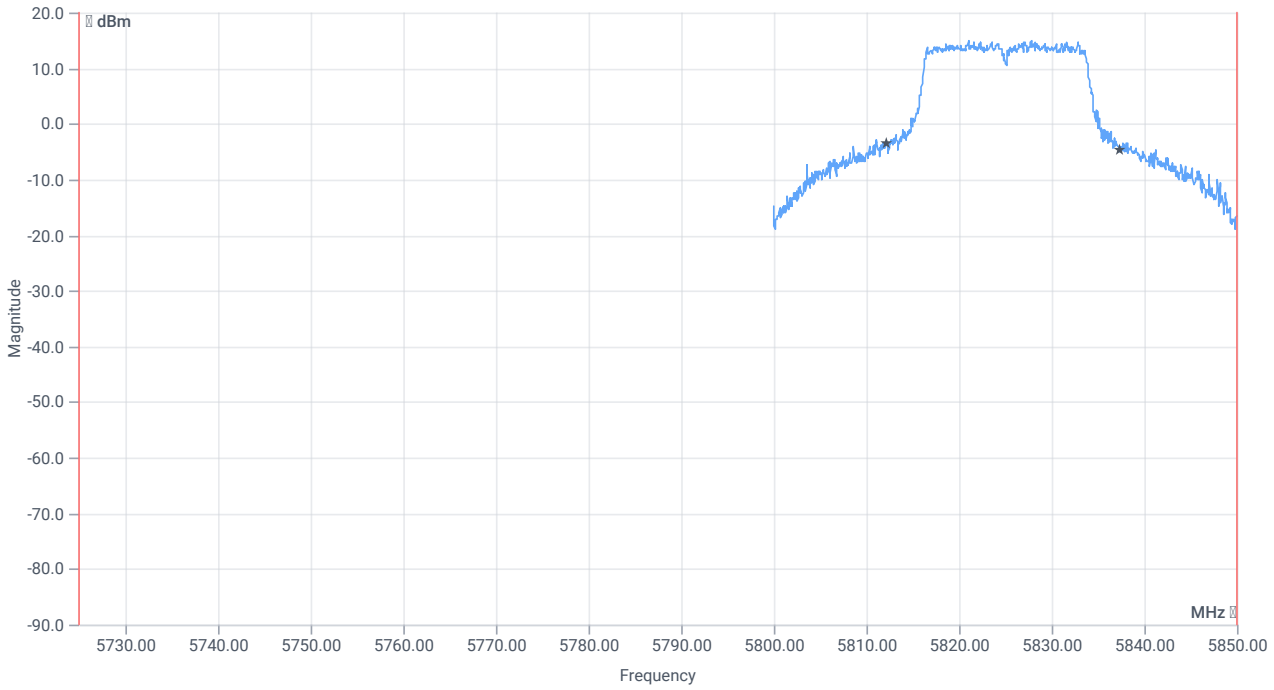
DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	19.50	dBm	INFO
Ref. Frequency	---	---	5820.600	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] | RefLevelOffset [dB] | InpAtt [dB]	27.50 | 16.68 | 30
Start [MHz] | Stop [MHz]	5800.000 | 5850.000
RBW [MHz] | VBW [MHz]	0.300000 | 1.000000
Detector | TraceMode	POS | MAXH
Sweep: time [ms] | count | points per Section | type	1 | 2500 | 1001 | SWE



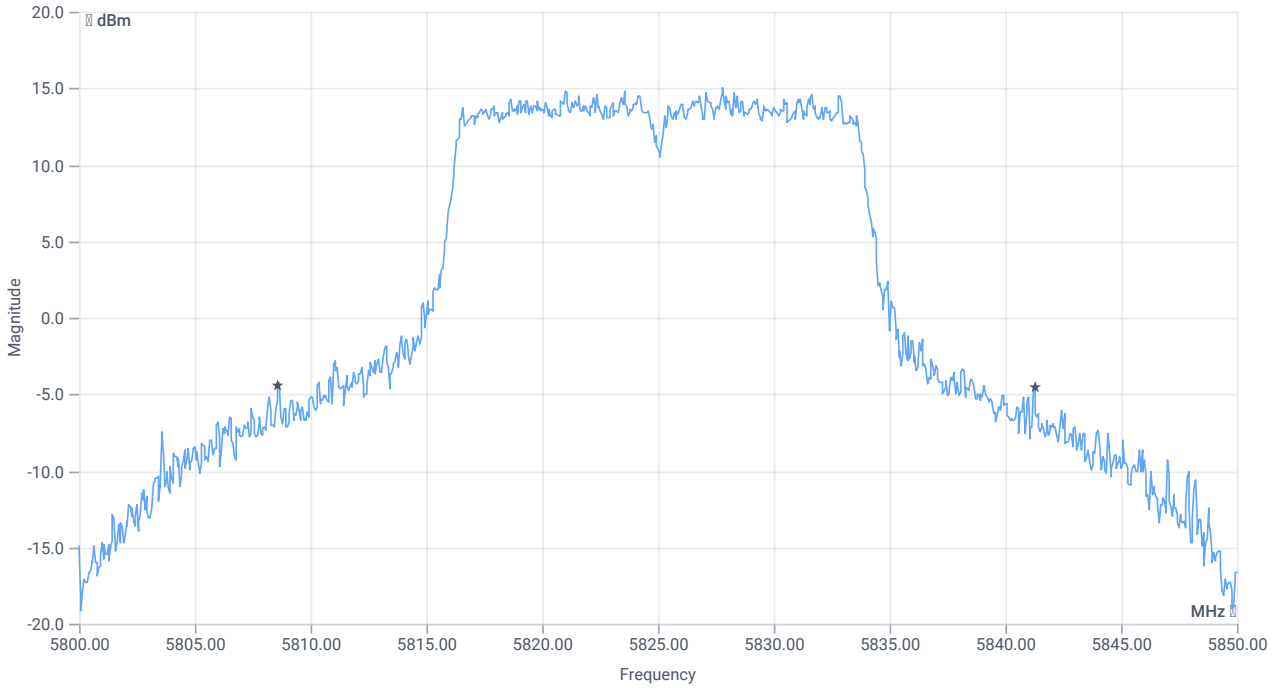
BW 99PCT



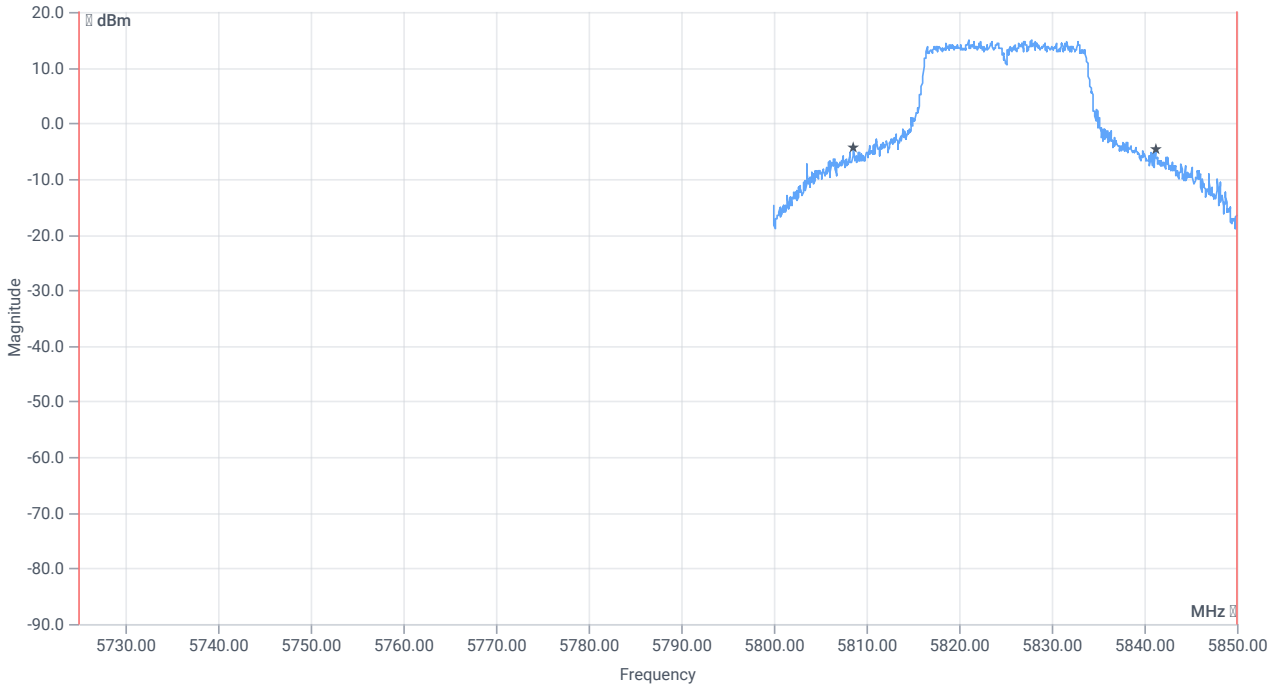
BW within Band 99PCT

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 99%	---	---	25.225	MHz	INFO
T1 99%	5725.000000	---	5812.1628	MHz	PASS
T2 99%	---	5850.000000	5837.3876	MHz	PASS



BW 20dB



BW within Band 20dB

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 20dB	---	---	32.65	MHz	INFO
T1 20dB	5725.000000	---	5808.6000	MHz	PASS
T2 20dB	---	5850.000000	5841.2500	MHz	PASS

Verdict
PASS

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

References

TC start	02.08.2023 08:52:50
Ambit temp [°C] | humidity [rel%]	24.9 | 50
System version	4.6.0.3
Standard | Version	FCC 15.407, ISED RSS247 | NI
Method	KDB789033 D02, C.2.
Description	FCC 15.407 Min Emission Bandwidth - WLAN5Gx ac-VHT20 mode U-NII-3
Information	PS96

EUT Common Settings WLAN5Gx

Number of Antenna Ports	1
User Interaction	No
Device Class UNII_1	Client
Limit W52 Japan	Standard

Test Parameter

Technology to test	WLAN5Gx ac-VHT20 mode
Antenna port used	1
Temperature	nom
Voltage	nom
Frequency low to test	False | Freq [MHz] 5745
Frequency mid to test	False | Freq [MHz] 5785
Frequency high to test	True | Freq [MHz] 5825
Auto control enabled power supply | Climatic Box	No | No
Additional path loss [dB]	1.3
Switched path	EUT - SignalingUnit - SpectrumAnalyzer

Equipment

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

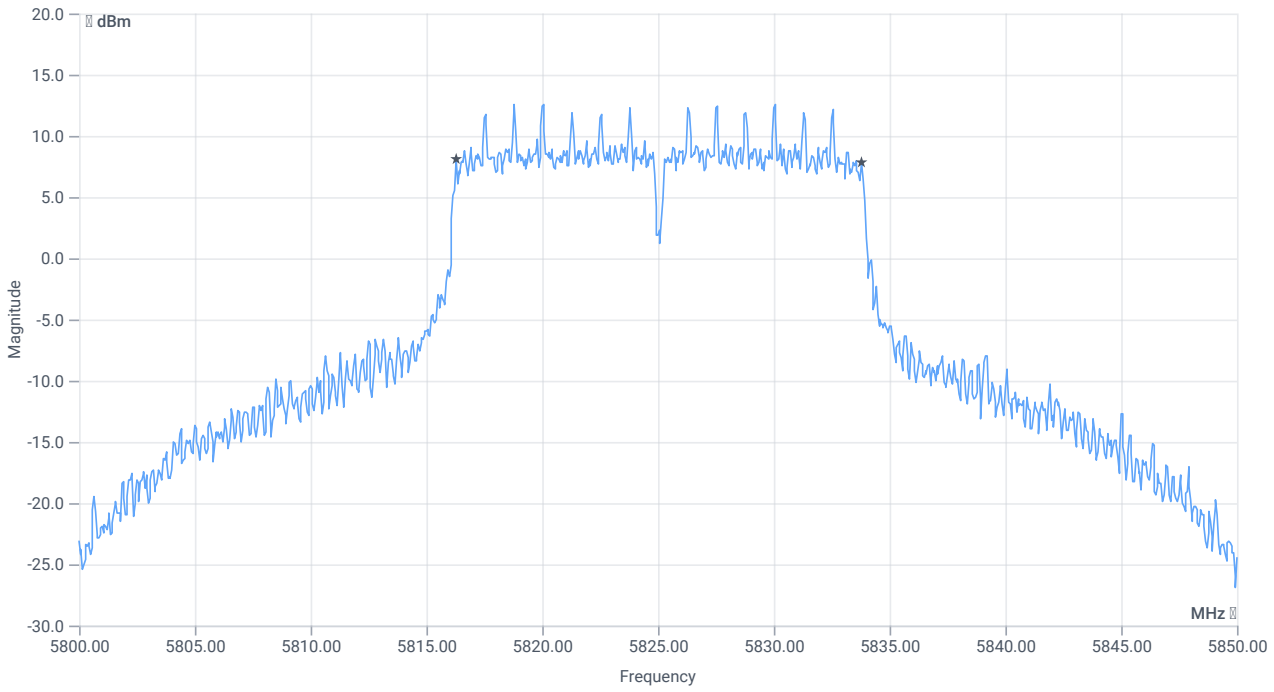
Test at TX 5825 MHz

RESULT: Reference Power cond.

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	19.71	dBm	INFO
Ref. Frequency	---	---	5821.000	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] | RefLevelOffset [dB] | InpAtt [dB]	31.71 | 16.68 | 35
Start [MHz] | Stop [MHz]	5800.000 | 5850.000
RBW [MHz] | VBW [MHz]	0.100000 | 0.300000
Detector | TraceMode	POS | MAXH
Sweep: time [ms] | count | points per Section | type	2 | 1500 | 1001 | SWE



BW 6dB

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth (6dB)	0.500	---	17.55	MHz	PASS

Verdict

PASS

FCC 15.407 # Max output power and psd ~ WLAN5Gx ac-VHT20 mode U-NII-3

References

TC start	02.08.2023 08:53:28
Ambit temp [°C] | humidity [rel%]	24.9 | 50
System version	4.6.0.3
Standard | Version	FCC 15.407 | NI
Method	KDB789033 D02, F., E.2.e.
Description	FCC 15.407 Max Output Power & PSD - WLAN5Gx ac-VHT20 mode U-NII-3
Information	PS96

EUT Common Settings WLAN5Gx

Number of Antenna Ports	1
User Interaction	No
Device Class UNII_1	Client
Limit W52 Japan	Standard

Test Parameter

Technology to test	WLAN5Gx ac-VHT20 mode
Antenna port used	2
Temperature	nom
Voltage	nom
Frequency low to test	False | Freq [MHz] 5745
Frequency mid to test	False | Freq [MHz] 5785
Frequency high to test	True | Freq [MHz] 5825
Auto control enabled power supply | Climatic Box	No | No
Additional path loss [dB]	1.3
Switched path	EUT - SignalingUnit - SpectrumAnalyzer

Equipment

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

Test at TX 5825 MHz

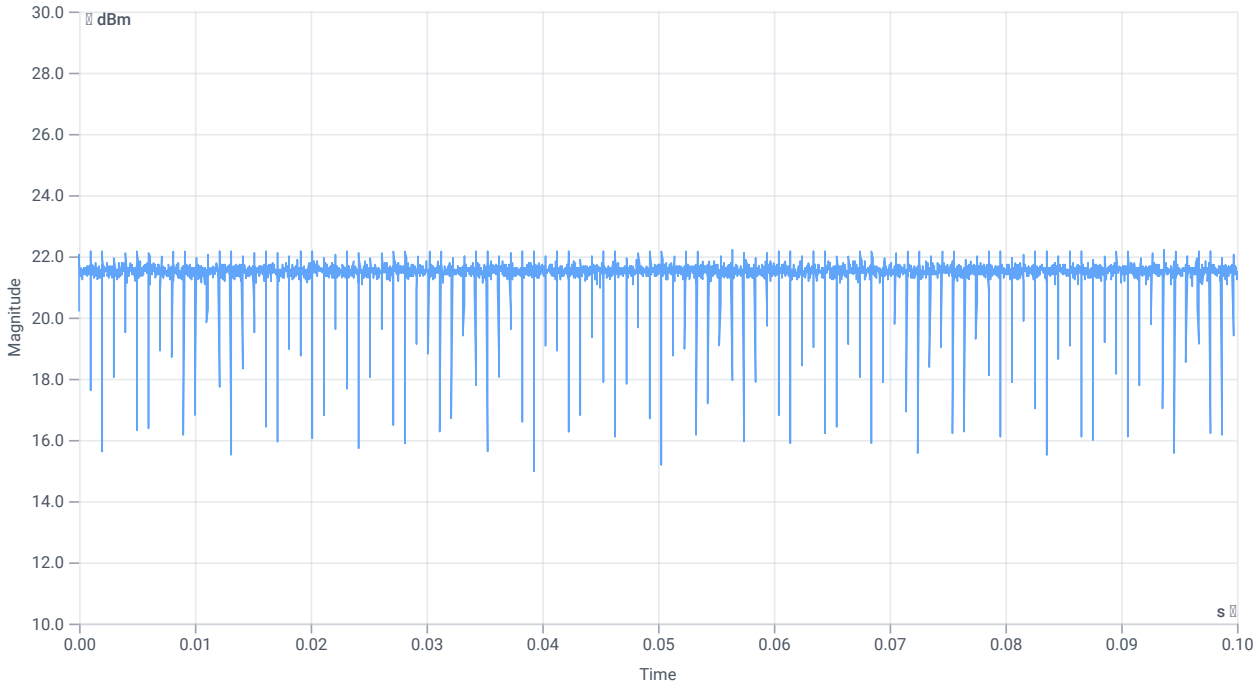
RESULT: Reference Power cond.

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	20.81	dBm	INFO
Ref. Frequency	---	---	5826.600	MHz	INFO

Evaluation max. Duty Cycle

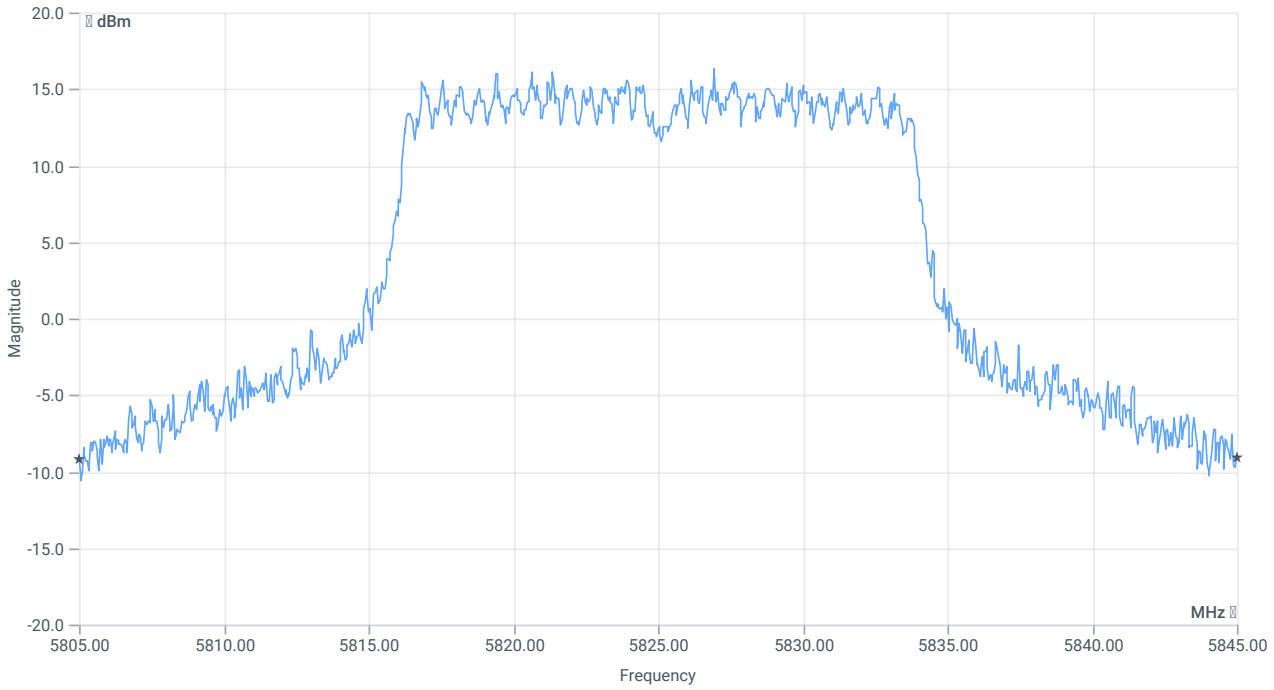
Duty Cycle evaluation

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

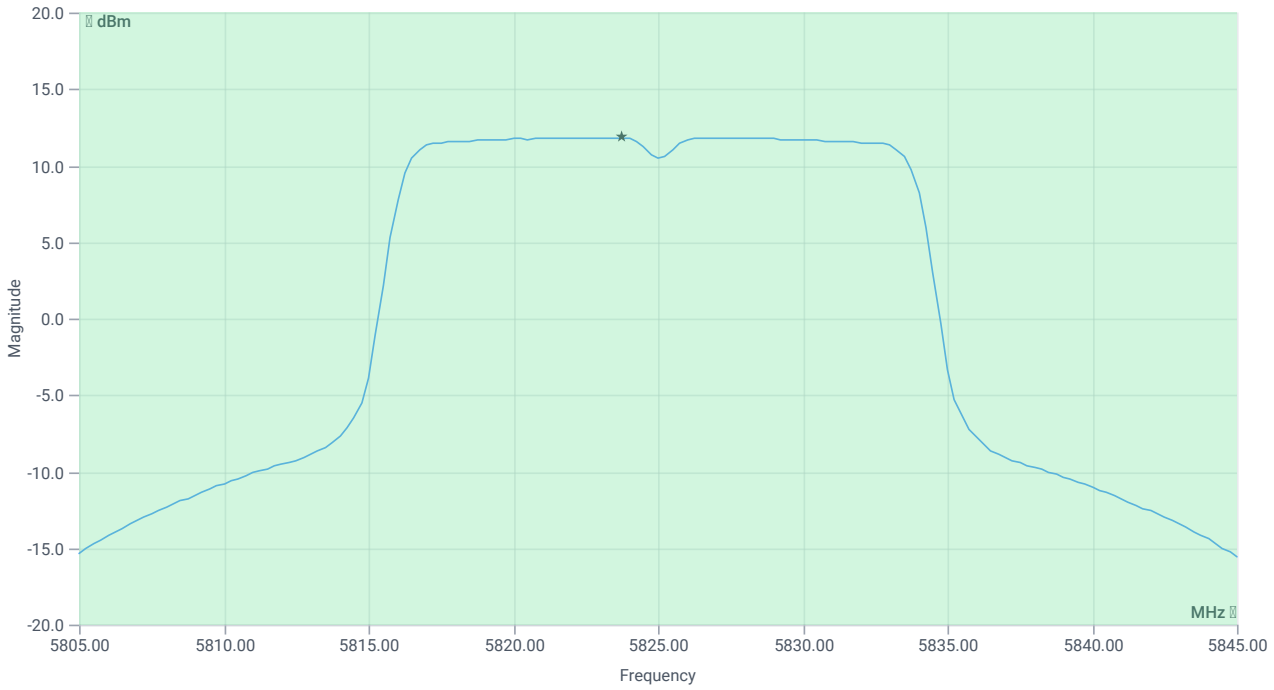
RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 26dB	---	---	40	MHz	INFO
T1 26dB	---	---	5805.0000	MHz	INFO
T2 26dB	---	---	5845.0000	MHz	INFO

Maximum Output Power

READ SA SETTINGS:

RefLevel [dBm] | RefLevelOffset [dB] | InpAtt [dB]	32.81 | 16.68 | 35
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

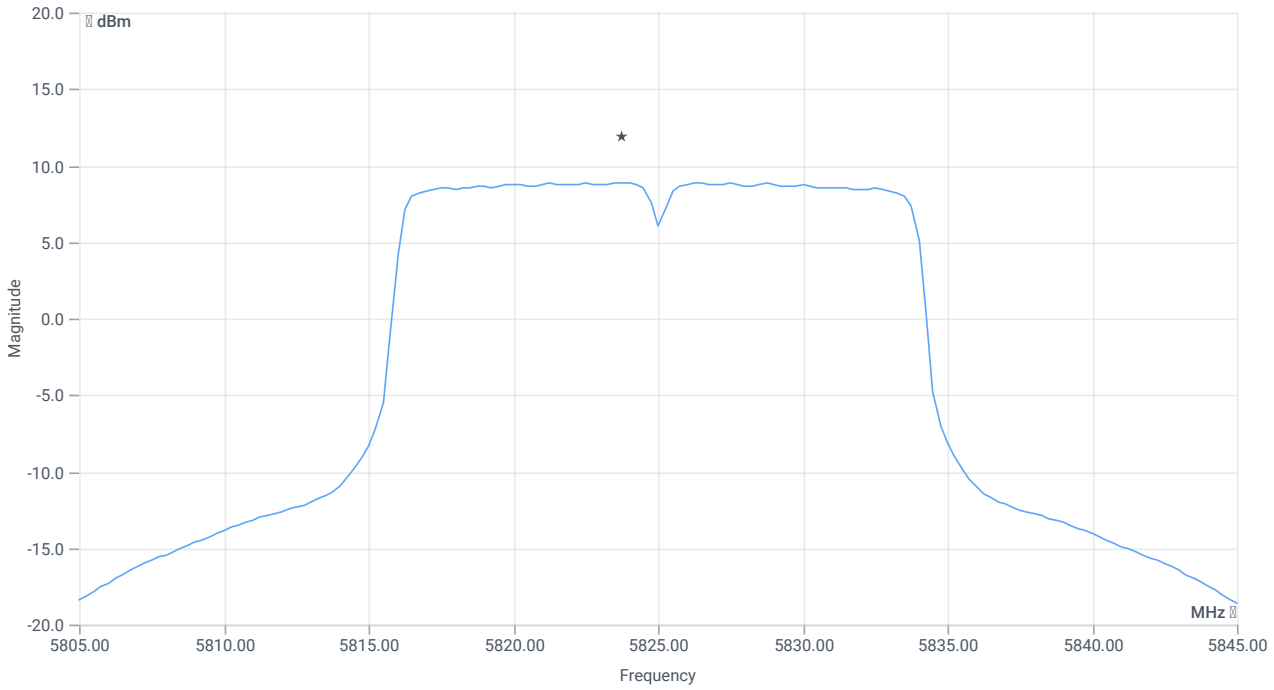
RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Max Output Power	---	---	23.88	dBm	INFO
Duty Cycle Correction	---	---	0	dB	INFO
Limit absolute					
Max Output Power DC corrected	---	30	23.88	dBm	PASS
Limit: 11 dBm + 10 log 40					
Max Output Power DC corrected	---	27.02	23.88	dBm	na

Power Spectral Density U-NII-3

READ SA SETTINGS:

RefLevel [dBm] | RefLevelOffset [dB] | InpAtt [dB]	32.81 | 16.68 | 35
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	---	---	8.89	dBm/0.5MHz	INFO
Duty Cycle Correction	---	---	0	dB	INFO
Power Spectral Density DC corrected	---	30	8.89	dBm/0.5MHz	PASS

Verdict
PASS

FCC 15.407, ISED RSS247 # Bandwidths 99PCT and 20dB ~ WLAN5Gx ac-VHT20 mode U-NII-3

References

TC start	02.08.2023 08:55:55
Ambit temp [°C] | humidity [rel%]	24.9 | 50
System version	4.6.0.3
Standard | Version	FCC 15.407, ISED RSS247 | NI
Method	26dB Bandwidth KDB789033 D02, C.1 / ISED RSS-GEN
Description	FCC 15.407 Bandwidths - WLAN5Gx ac-VHT20 mode U-NII-3
Information	PS96

EUT Common Settings WLAN5Gx

Number of Antenna Ports	1
User Interaction	No
Device Class UNII_1	Client
Limit W52 Japan	Standard

Test Parameter

Technology to test	WLAN5Gx ac-VHT20 mode
Antenna port used	2
Temperature	nom
Voltage	nom
Frequency low to test	False | Freq [MHz] 5745
Frequency mid to test	False | Freq [MHz] 5785
Frequency high to test	True | Freq [MHz] 5825
Auto control enabled power supply | Climatic Box	No | No
Additional path loss [dB]	1.3
Switched path	EUT - SignalingUnit - SpectrumAnalyzer

Equipment

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

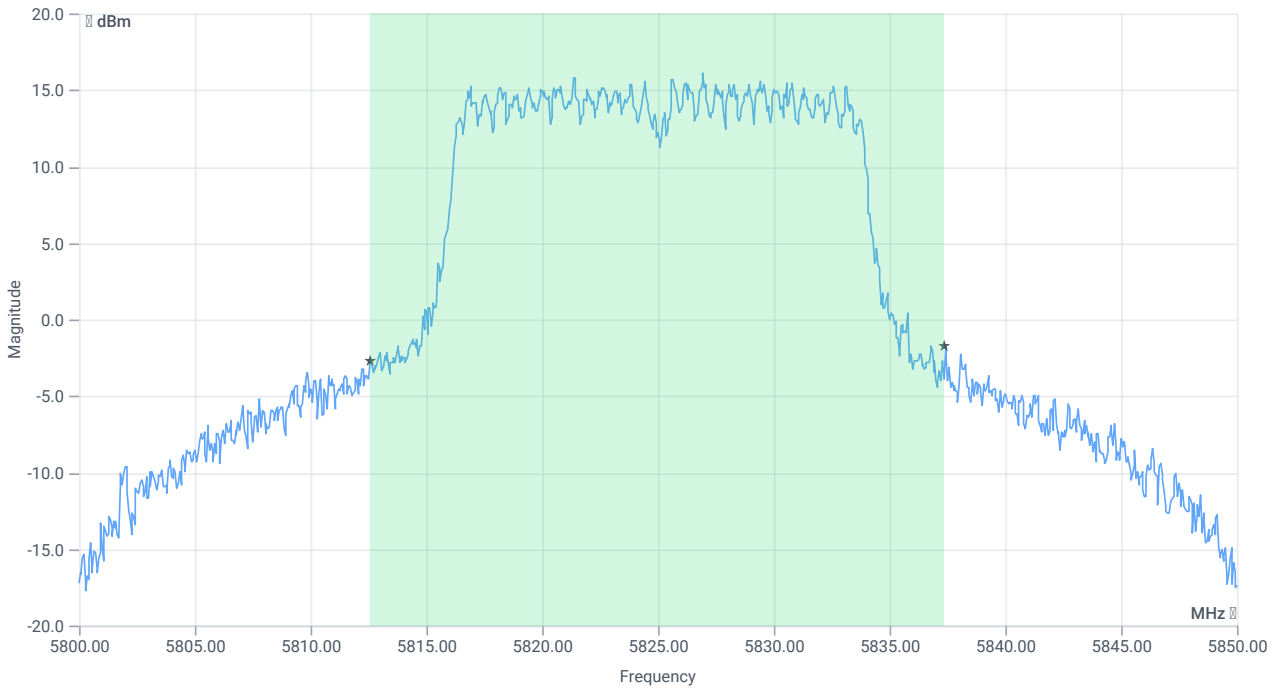
Test at TX 5825 MHz

RESULT: Reference Power cond.

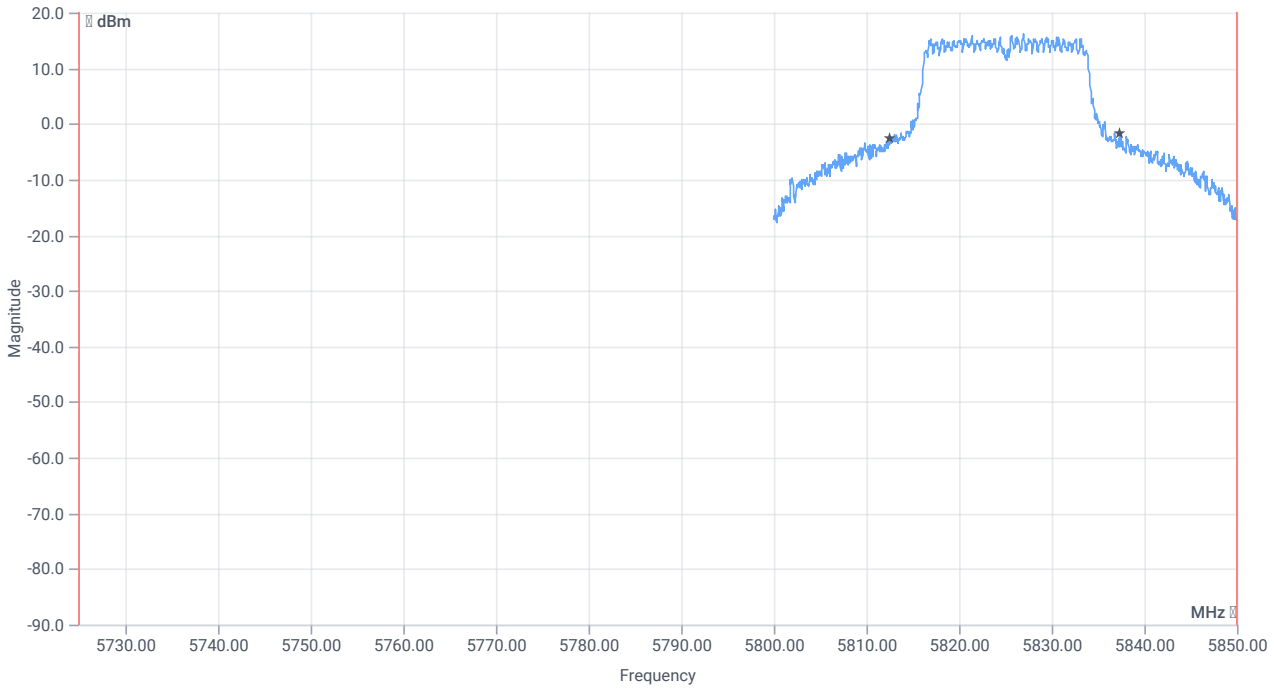
DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	20.18	dBm	INFO
Ref. Frequency	---	---	5829.000	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] | RefLevelOffset [dB] | InpAtt [dB]	28.18 | 16.68 | 30
Start [MHz] | Stop [MHz]	5800.000 | 5850.000
RBW [MHz] | VBW [MHz]	0.300000 | 1.000000
Detector | TraceMode	POS | MAXH
Sweep: time [ms] | count | points per Section | type	1 | 2500 | 1001 | SWE



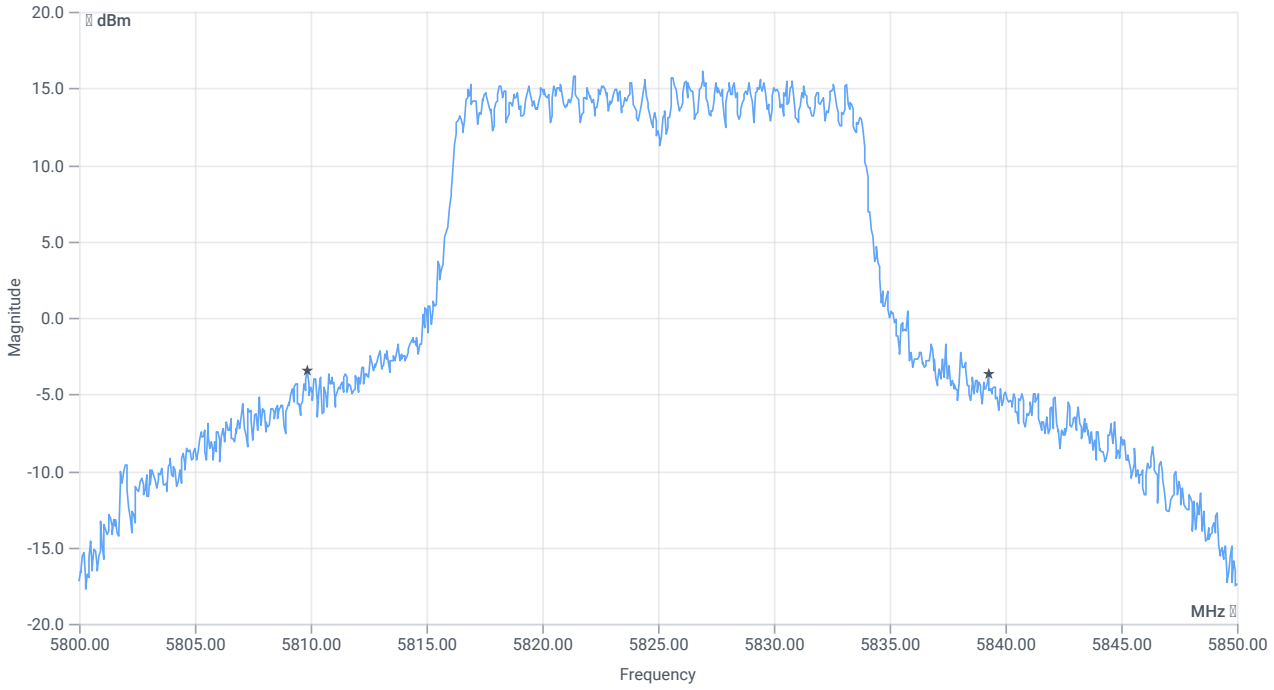
BW 99PCT



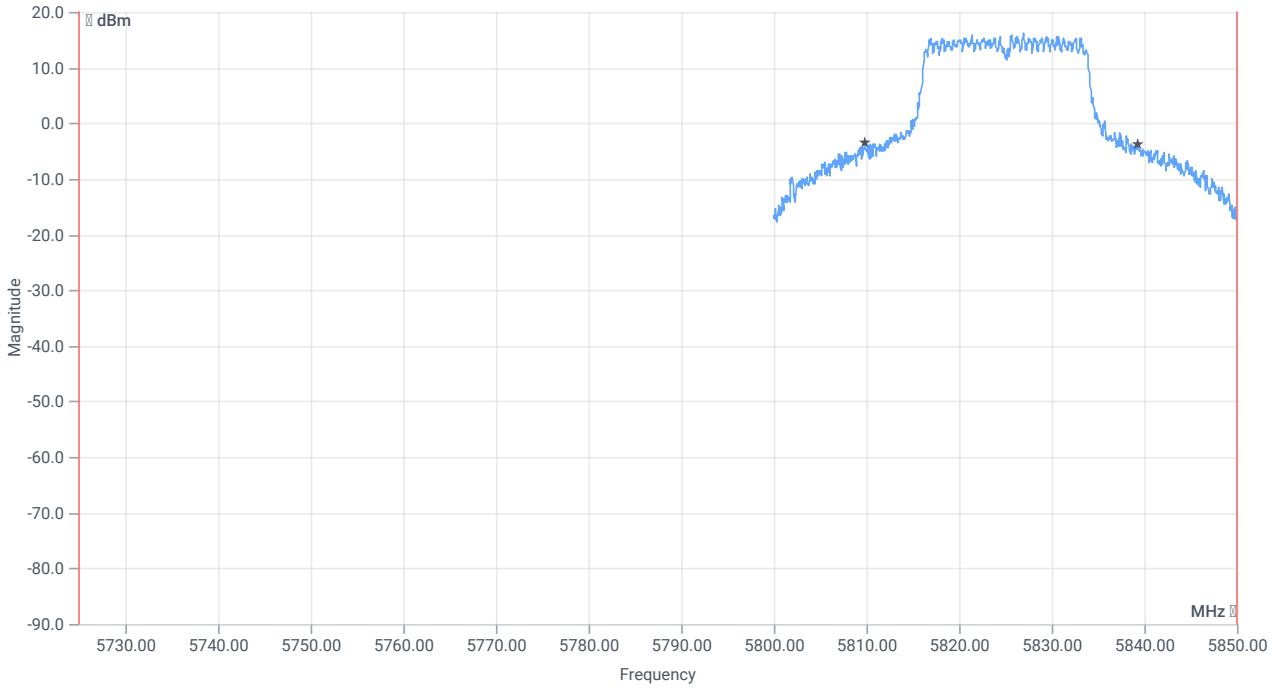
BW within Band 99PCT

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 99%	---	---	24.825	MHz	INFO
T1 99%	5725.000000	---	5812.5624	MHz	PASS
T2 99%	---	5850.000000	5837.3876	MHz	PASS



BW 20dB



BW within Band 20dB

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 20dB	---	---	29.4	MHz	INFO
T1 20dB	5725.000000	---	5809.8500	MHz	PASS
T2 20dB	---	5850.000000	5839.2500	MHz	PASS

Verdict
PASS

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

References

TC start	02.08.2023 08:56:33
Ambit temp [°C] | humidity [rel%]	24.9 | 50
System version	4.6.0.3
Standard | Version	FCC 15.407, ISED RSS247 | NI
Method	KDB789033 D02, C.2.
Description	FCC 15.407 Min Emission Bandwidth - WLAN5Gx ac-VHT20 mode U-NII-3
Information	PS96

EUT Common Settings WLAN5Gx

Number of Antenna Ports	1
User Interaction	No
Device Class UNII_1	Client
Limit W52 Japan	Standard

Test Parameter

Technology to test	WLAN5Gx ac-VHT20 mode
Antenna port used	2
Temperature	nom
Voltage	nom
Frequency low to test	False | Freq [MHz] 5745
Frequency mid to test	False | Freq [MHz] 5785
Frequency high to test	True | Freq [MHz] 5825
Auto control enabled power supply | Climatic Box	No | No
Additional path loss [dB]	1.3
Switched path	EUT - SignalingUnit - SpectrumAnalyzer

Equipment

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

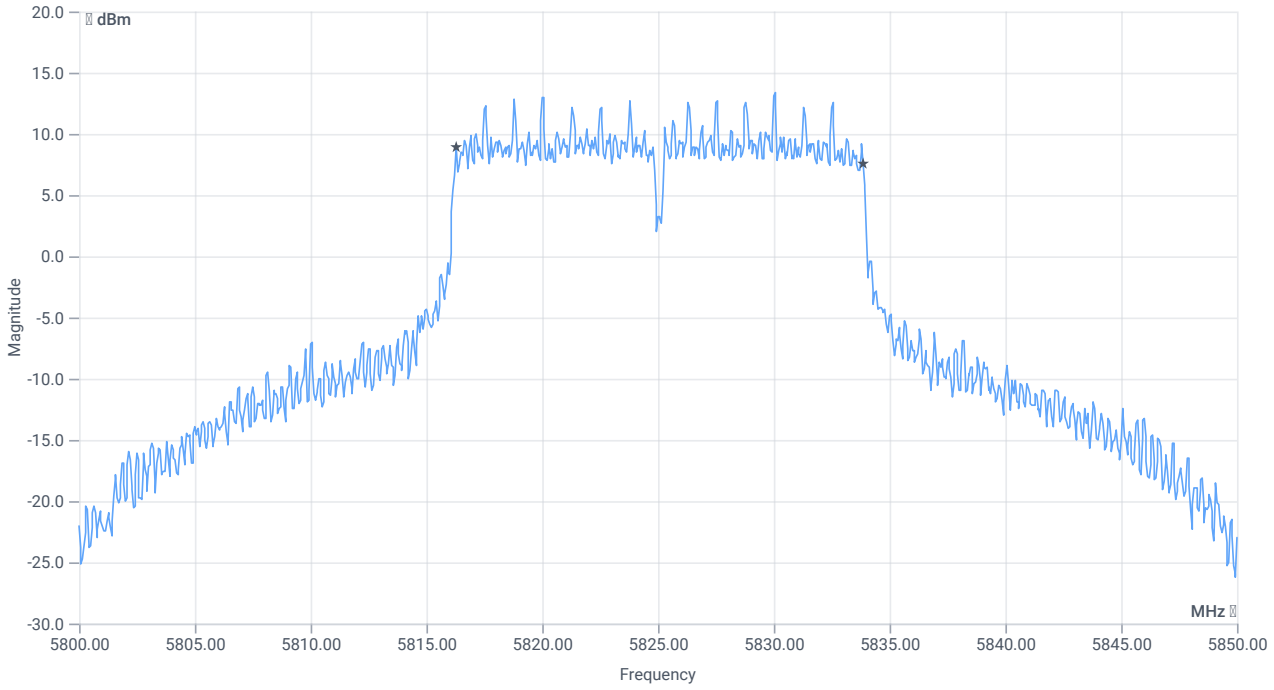
Test at TX 5825 MHz

RESULT: Reference Power cond.

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	20.49	dBm	INFO
Ref. Frequency	---	---	5828.000	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] | RefLevelOffset [dB] | InpAtt [dB]	32.49 | 16.68 | 35
Start [MHz] | Stop [MHz]	5800.000 | 5850.000
RBW [MHz] | VBW [MHz]	0.100000 | 0.300000
Detector | TraceMode	POS | MAXH
Sweep: time [ms] | count | points per Section | type	2 | 1500 | 1001 | SWE



BW 6dB

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth (6dB)	0.500	---	17.6	MHz	PASS

Verdict

PASS

FCC 15.407 # MIMO ∑ Max output power and psd ~ WLAN5Gx ac-VHT20 mode U-NII-3

References

TC start	02.08.2023 08:57:10
Ambit temp [°C] | humidity [rel%]	24.9 | 50
System version	4.6.0.3
Standard | Version	FCC 15.407 | NI
Method	
Description	MIMO ∑ FCC Power & psd - WLAN5Gx ac-VHT20 mode U-NII-3
Information	

EUT Common Settings WLAN5Gx

Number of Antenna Ports	1
User Interaction	No
Device Class UNII_1	Client
Limit W52 Japan	Standard

Test Parameter

Technology to test	WLAN5Gx ac-VHT20 mode
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]	1.3
Switched path	None

Equipment

Test at TX 5825 MHz

RESULT Power

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ant:1 Max Output Power DC corrected	---	---	23.49	dBm	INFO
Ant:1 BW 26dB	---	---	40.000	MHz	INFO
Ant:2 Max Output Power DC corrected	---	---	23.88	dBm	INFO
Ant:2 BW 26dB	---	---	40.000	MHz	INFO
∑ Limit absolute	---	30	26.7	dBm	PASS
∑ Limit: 11 dBm + 10 log 40	---	27.02	26.7	dBm	na

RESULT PSD

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ant:1 PSD	---	---	8.53	dBm/0.5MHz	INFO
Ant:2 PSD	---	---	8.89	dBm/0.5MHz	INFO
∑	---	30	11.72	dBm/0.5MHz	PASS

Verdict

PASS

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