Conducted test results

No.23-1-0061401T004a-A6b

August 02, 2023

Test Standard(s)	FCC 15.407

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Authorized

David Lang
Lab Manager
Radio Labs

Table of Content

Message with SA scan ~

References

TC start	25.07.2023 09:16:24
Ambit temp [°C] | humidity [rel%]	23.3 | 57
System version	4.6.0.0
Specification	-
Method	
Description	Message with SA Scan n_HT20_U_NII_1
Information	

Test Parameter

Switched Path	EUT - SignalingUnit - SpectrumAnalyzer
Message start	25.07.2023 09:16:25
Message	set WLAN5Gx to n_HT20_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 n-HT20 mode U-NII-1

References

TC start	25.07.2023 09:16:40
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 n-HT20 mode U-NII-1
Information	

EUT Common Settings WLAN5Gx

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

Test Parameter

Technology to test	WLAN5Gx n-HT20 mode
Antenna port used	1
Temperature	nom
Voltage	nom
Frequency low to test	True | Freq [MHz] 5180
Frequency mid to test	False | Freq [MHz] 5200
Frequency high to test	False | Freq [MHz] 5240
Auto control enabled power supply | Climatic Box	No | No
Additional path loss [dB]	1.3
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

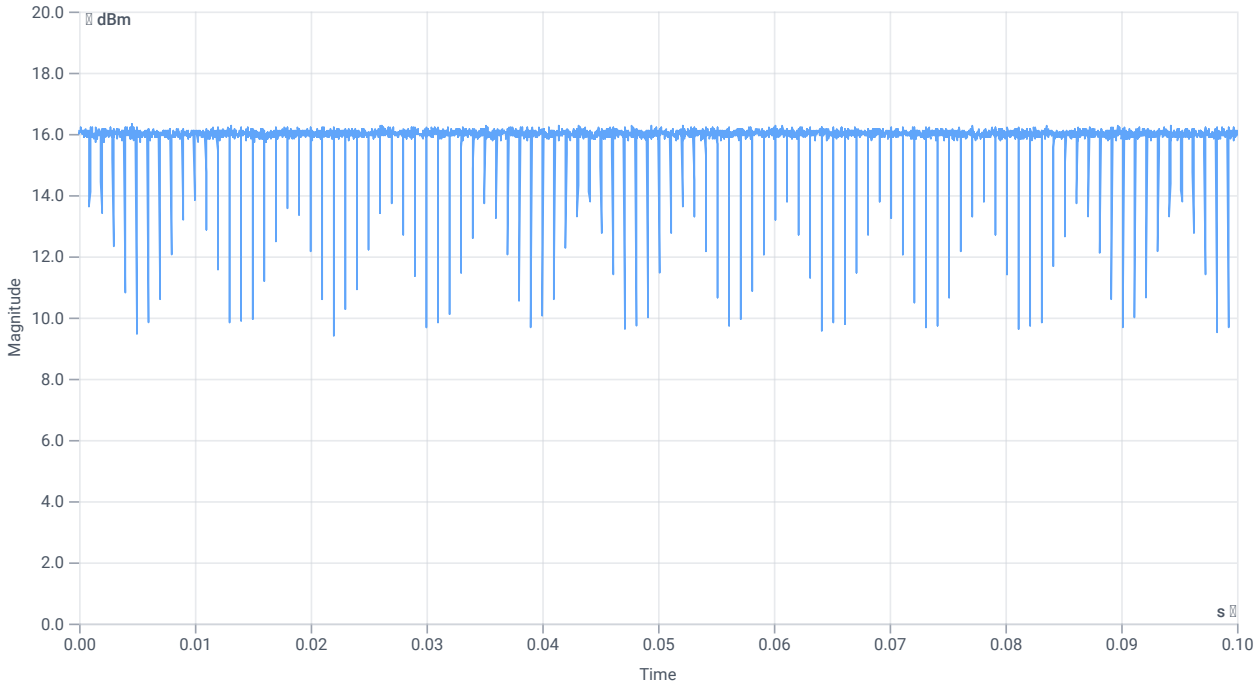
RESULT: Reference Power cond.

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	14.65	dBm	INFO
Ref. Frequency	---	---	5181.000	MHz	INFO

Evaluation max. Duty Cycle

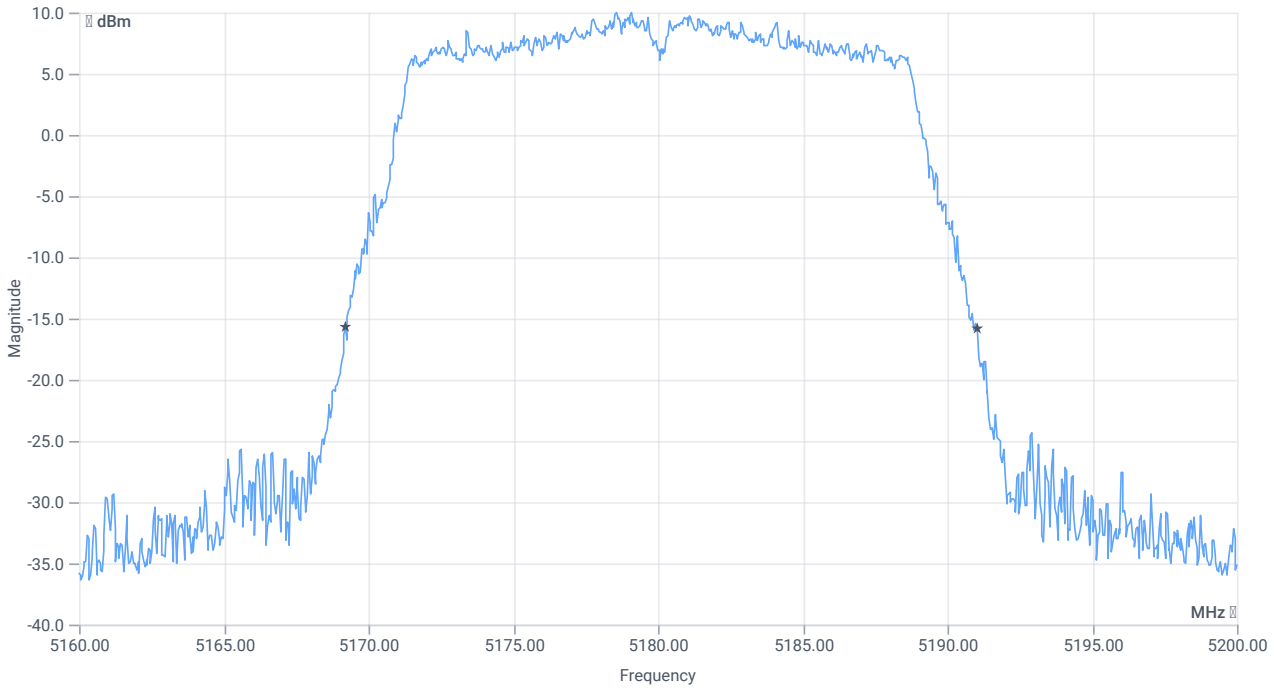
Duty Cycle evaluation

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

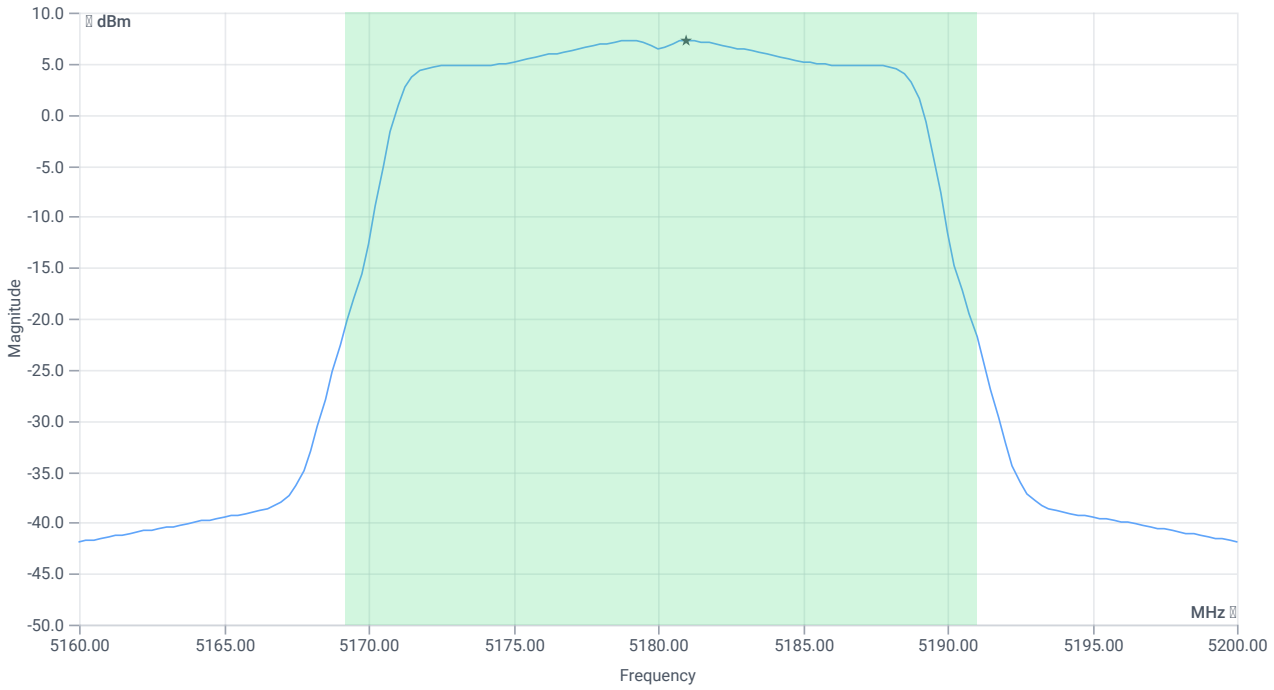
RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 26dB	---	---	21.84	MHz	INFO
T1 26dB	---	---	5169.2000	MHz	INFO
T2 26dB	---	---	5191.0400	MHz	INFO

Maximum Output Power

READ SA SETTINGS:

RefLevel [dBm] | RefLevelOffset [dB] | InpAtt [dB]	26.65 | 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	---	---	18.05	dBm	INFO
Duty Cycle Correction	---	---	0	dB	INFO
Limit absolute					
Max Output Power DC corrected	---	24	18.05	dBm	PASS
Limit: 11 dBm + 10 log			21.84		
Max Output Power DC corrected	---	24.39	18.05	dBm	na

Power Spectral Density

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Power Spectral Density	---	---	7.31	dBm/1MHz	INFO
Duty Cycle Correction	---	---	0	dB	INFO
Power Spectral Density DC corrected	---	11	7.31	dBm/1MHz	PASS

Verdict
PASS

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

References

TC start	25.07.2023 09:18:16
Ambit temp [°C] | humidity [rel%]	23.3 | 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 n-HT20 mode U-NII-1
Information	

EUT Common Settings WLAN5Gx

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

Test Parameter

Technology to test	WLAN5Gx n-HT20 mode
Antenna port used	1
Temperature	nom
Voltage	nom
Frequency low to test	True | Freq [MHz] 5180
Frequency mid to test	False | Freq [MHz] 5200
Frequency high to test	False | Freq [MHz] 5240
Auto control enabled power supply | Climatic Box	No | No
Additional path loss [dB]	1.3
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

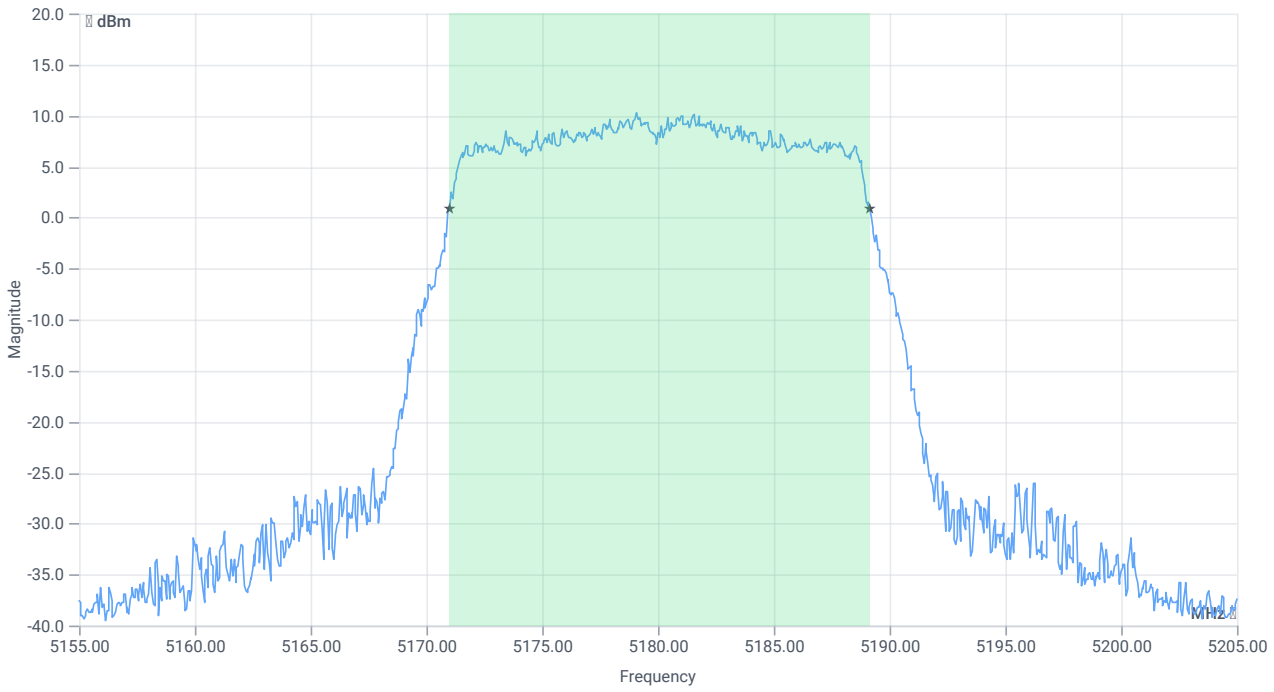
Test at TX 5180 MHz

RESULT: Reference Power cond.

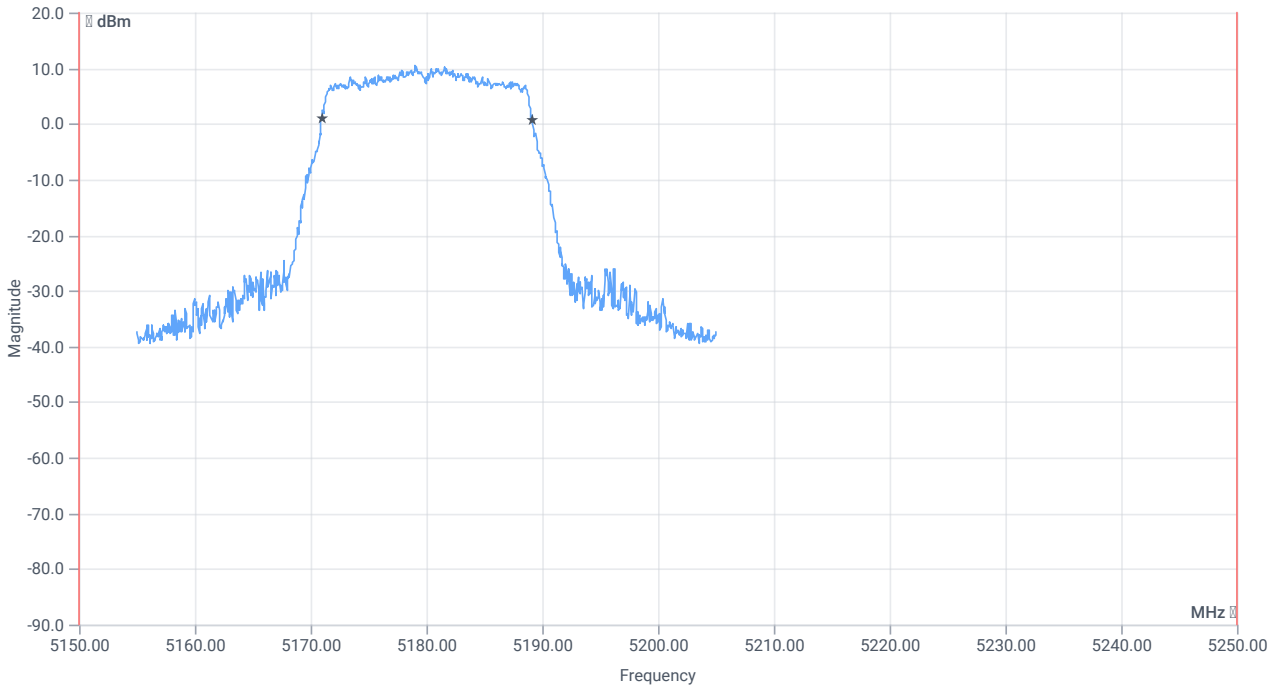
DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	14.80	dBm	INFO
Ref. Frequency	---	---	5178.800	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] | RefLevelOffset [dB] | InpAtt [dB]	22.80 | 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



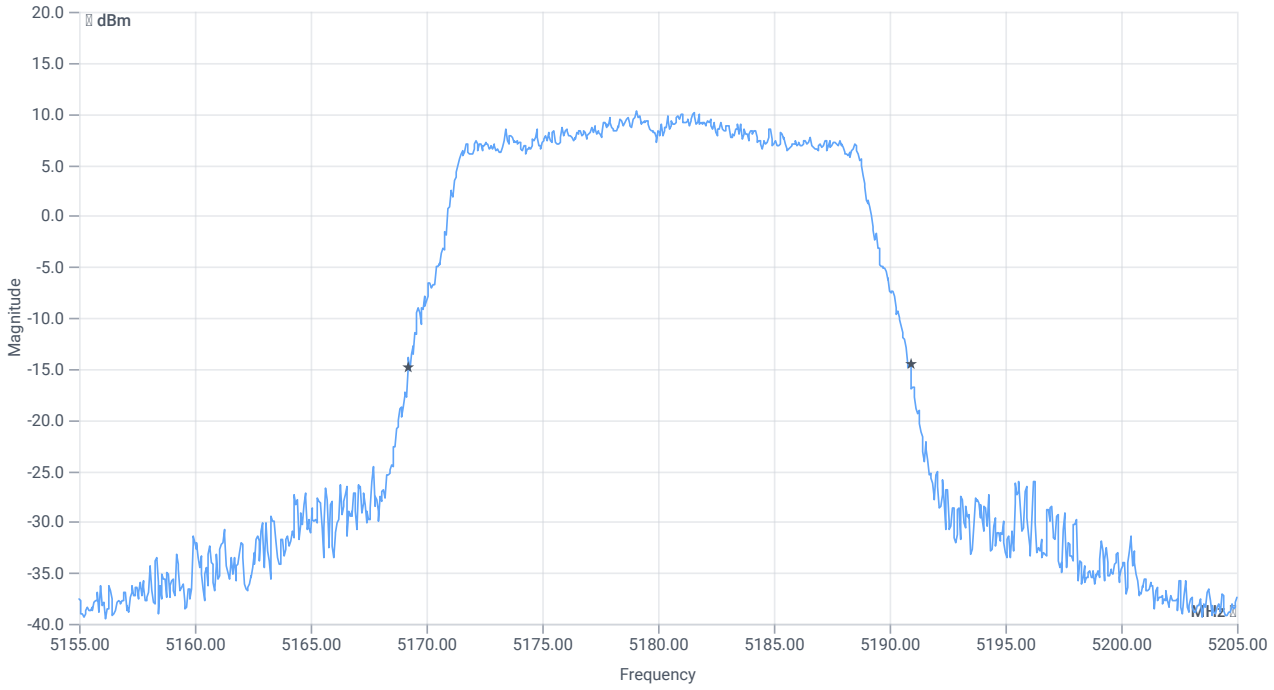
BW 99PCT



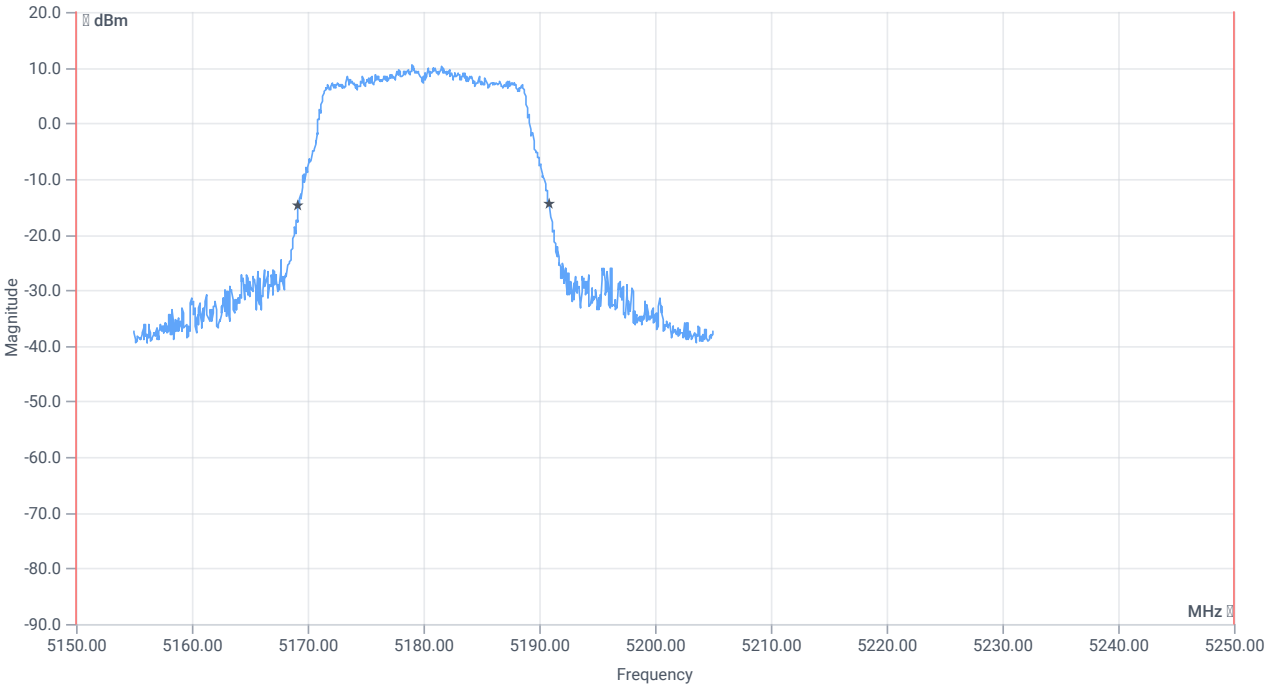
BW within Band 99PCT

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 99%	---	---	18.132	MHz	INFO
T1 99%	5150.000000	---	5171.0090	MHz	PASS
T2 99%	---	5250.000000	5189.1409	MHz	PASS



BW 26dB



BW within Band 26dB

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 26dB	---	---	21.7	MHz	INFO
T1 26dB	5150.000000	---	5169.2000	MHz	PASS
T2 26dB	---	5250.000000	5190.9000	MHz	PASS

Verdict
PASS

FCC 15.407 # Max output power and psd ~ WLAN5Gx n-HT20 mode U-NII-1

References

TC start	25.07.2023 09:18:56
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 n-HT20 mode U-NII-1
Information	

EUT Common Settings WLAN5Gx

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

Test Parameter

Technology to test	WLAN5Gx n-HT20 mode
Antenna port used	2
Temperature	nom
Voltage	nom
Frequency low to test	True | Freq [MHz] 5180
Frequency mid to test	False | Freq [MHz] 5200
Frequency high to test	False | Freq [MHz] 5240
Auto control enabled power supply | Climatic Box	No | No
Additional path loss [dB]	1.3
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

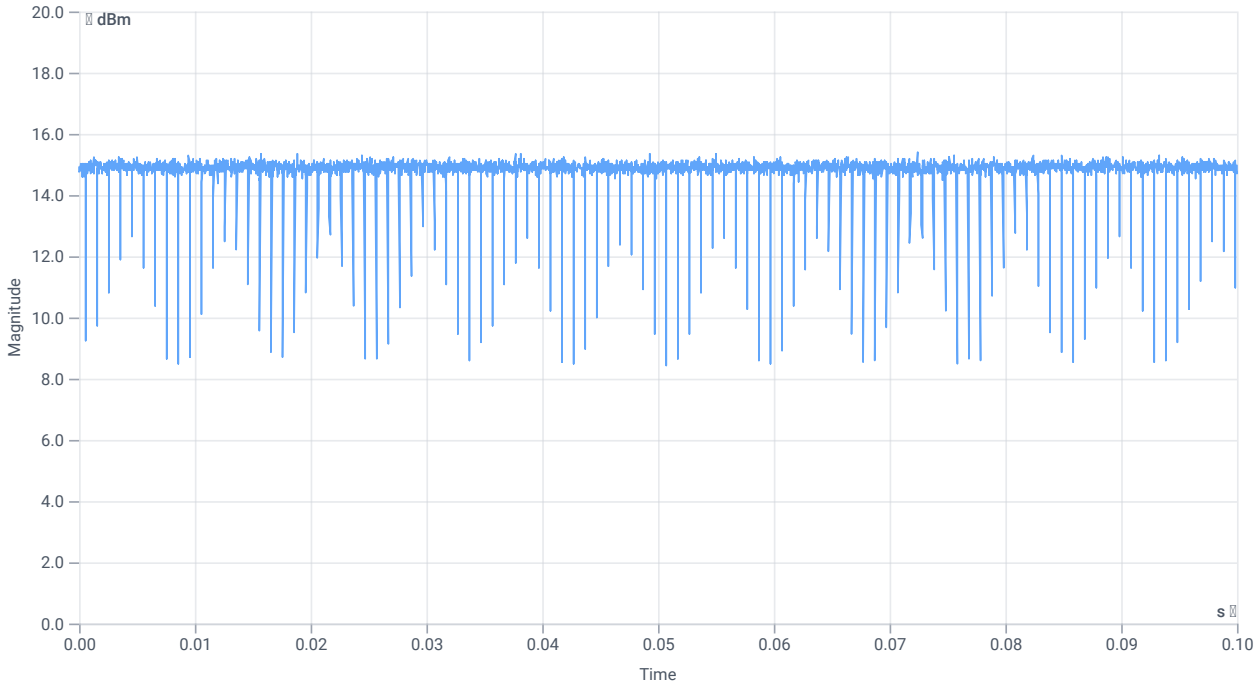
RESULT: Reference Power cond.

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	14.58	dBm	INFO
Ref. Frequency	---	---	5180.800	MHz	INFO

Evaluation max. Duty Cycle

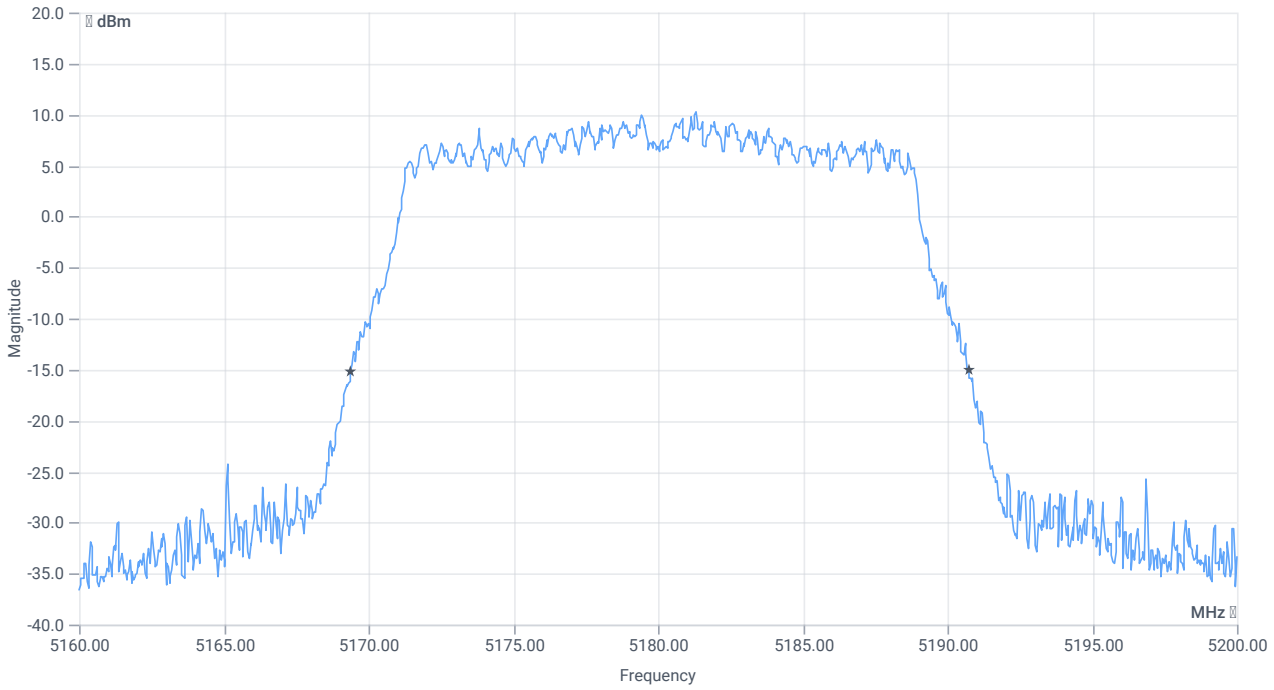
Duty Cycle evaluation

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

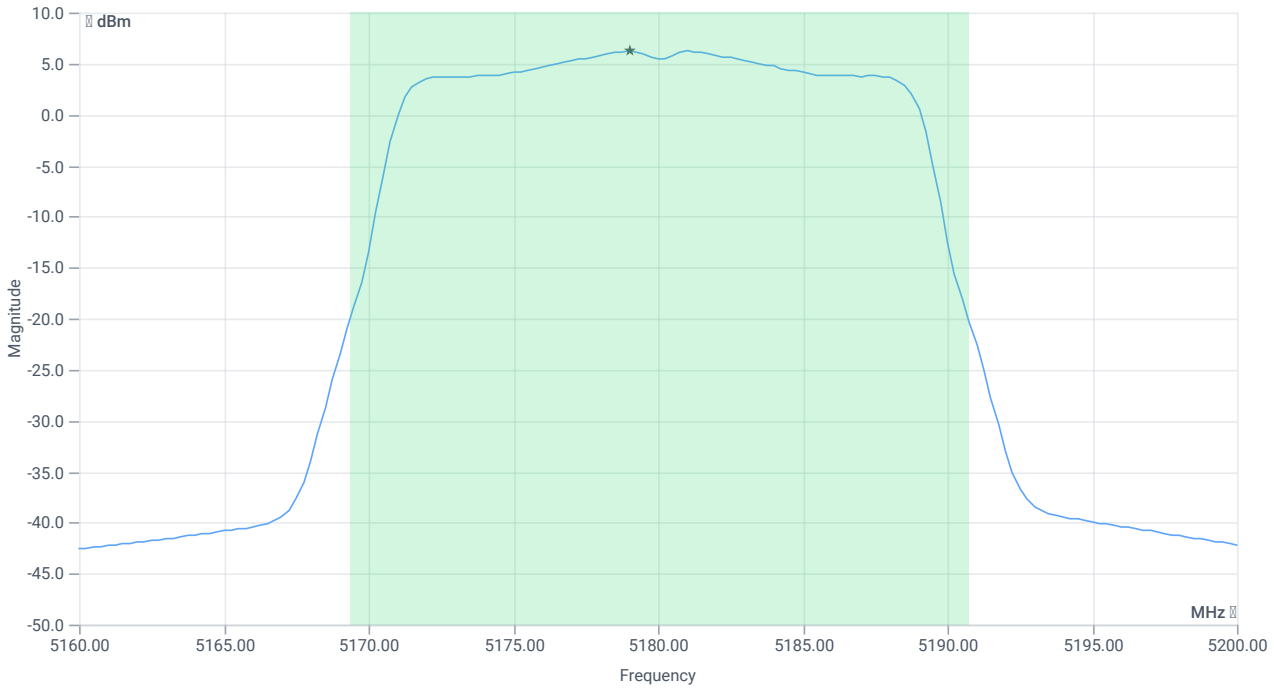
RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 26dB	---	---	21.32	MHz	INFO
T1 26dB	---	---	5169.4000	MHz	INFO
T2 26dB	---	---	5190.7200	MHz	INFO

Maximum Output Power

READ SA SETTINGS:

RefLevel [dBm] | RefLevelOffset [dB] | InpAtt [dB]	26.58 | 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	---	---	16.99	dBm	INFO
Duty Cycle Correction	---	---	0	dB	INFO
Limit absolute					
Max Output Power DC corrected	---	24	16.99	dBm	PASS
Limit: 11 dBm + 10 log	21.32				
Max Output Power DC corrected	---	24.29	16.99	dBm	na

Power Spectral Density

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Power Spectral Density	---	---	6.23	dBm/1MHz	INFO
Duty Cycle Correction	---	---	0	dB	INFO
Power Spectral Density DC corrected	---	11	6.23	dBm/1MHz	PASS

Verdict
PASS

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

References

TC start	25.07.2023 09:20:33
Ambit temp [°C] | humidity [rel%]	23.3 | 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 n-HT20 mode U-NII-1
Information	

EUT Common Settings WLAN5Gx

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

Test Parameter

Technology to test	WLAN5Gx n-HT20 mode
Antenna port used	2
Temperature	nom
Voltage	nom
Frequency low to test	True | Freq [MHz] 5180
Frequency mid to test	False | Freq [MHz] 5200
Frequency high to test	False | Freq [MHz] 5240
Auto control enabled power supply | Climatic Box	No | No
Additional path loss [dB]	1.3
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

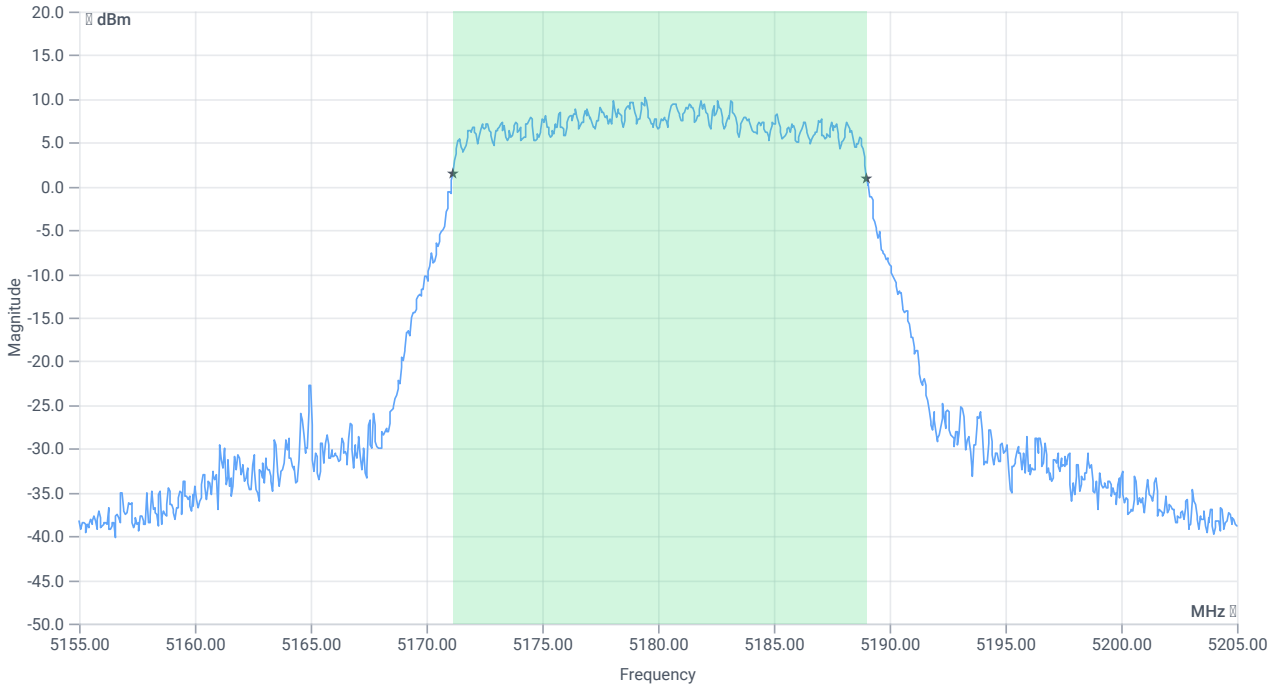
Test at TX 5180 MHz

RESULT: Reference Power cond.

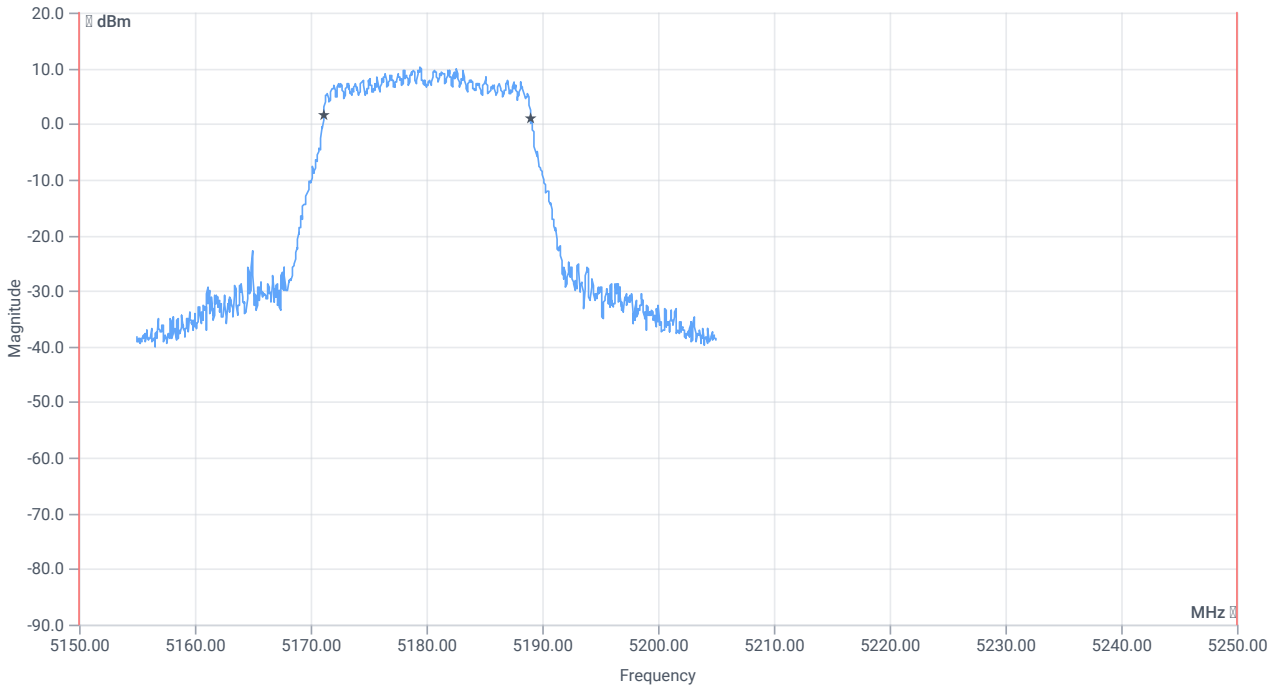
DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	14.46	dBm	INFO
Ref. Frequency	---	---	5182.200	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] | RefLevelOffset [dB] | InpAtt [dB]	22.46 | 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



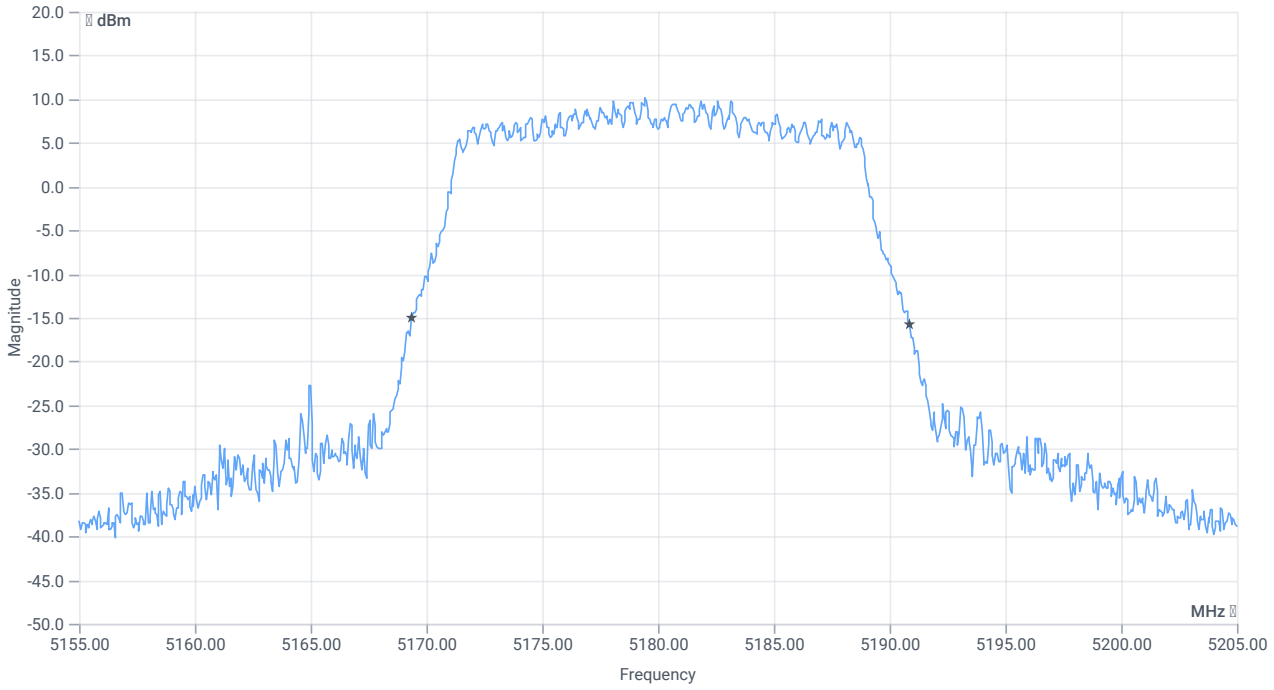
BW 99PCT



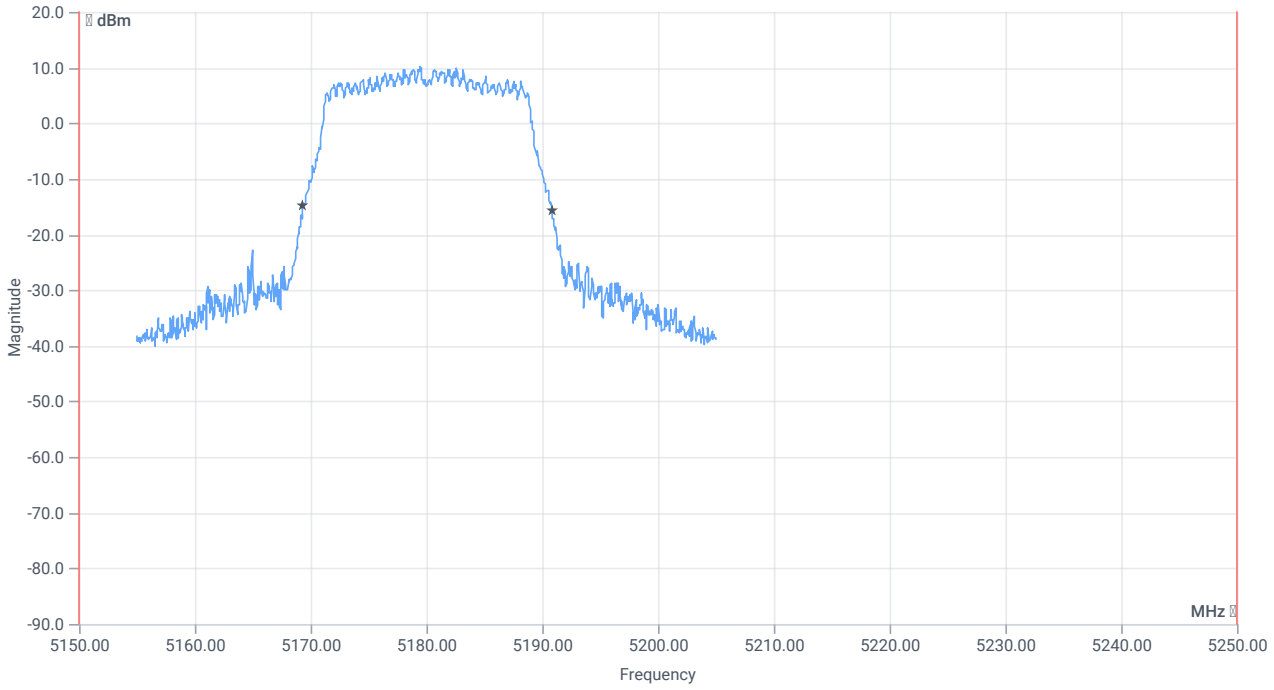
BW within Band 99PCT

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	---	---	21.5	MHz	INFO
T1 26dB	5150.000000	---	5169.3500	MHz	PASS
T2 26dB	---	5250.000000	5190.8500	MHz	PASS

Verdict
PASS

FCC 15.407 # MIMO ∑ Max output power and psd ~ WLAN5Gx n-HT20 mode U-NII-1

References

TC start	25.07.2023 09:21:14
Ambit temp [°C] | humidity [rel%]	23.3 | 57
System version	4.6.0.0
Specification	FCC 15.407 -
Method	
Description	MIMO ∑ FCC Power & psd - WLAN5Gx n-HT20 mode U-NII-1
Information	

EUT Common Settings WLAN5Gx

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

Test Parameter

Technology to test	WLAN5Gx n-HT20 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	---	---	18.05	dBm	INFO
Ant:1 BW 26dB	---	---	21.840	MHz	INFO
Ant:2 Max Output Power DC corrected	---	---	16.99	dBm	INFO
Ant:2 BW 26dB	---	---	21.320	MHz	INFO
∑ Limit absolute	---	24	20.56	dBm	PASS
∑ Limit: 11 dBm + 10 log 21.32	---	24.29	20.56	dBm	na

RESULT PSD

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ant:1 PSD	---	---	7.31	dBm/1MHz	INFO
Ant:2 PSD	---	---	6.23	dBm/1MHz	INFO
∑	---	11	9.81	dBm/1MHz	PASS

Verdict
PASS

Message with SA scan ~

References

TC start	25.07.2023 09:42:15
Ambit temp [°C] | humidity [rel%]	23.6 | 55
System version	4.6.0.0
Specification	-
Method	
Description	Message with SA Scan n_HT20_U_NII_1
Information	

Test Parameter

Switched Path	EUT - SignalingUnit - SpectrumAnalyzer
Message start	25.07.2023 09:42:15
Message	set WLAN5Gx to n_HT20_U_NII_1, Frequency [MHz] 5200 ,

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 n-HT20 mode U-NII-1

References

TC start	25.07.2023 09:42:27
Ambit temp [°C] | humidity [rel%]	23.6 | 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 n-HT20 mode U-NII-1
Information	PS72

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 n-HT20 mode
Antenna port used	1
Temperature	nom
Voltage	nom
Frequency low to test	False | Freq [MHz] 5180
Frequency mid to test	True | Freq [MHz] 5200
Frequency high to test	False | Freq [MHz] 5240
Auto control enabled power supply | Climatic Box	No | No
Additional path loss [dB]	1.3
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

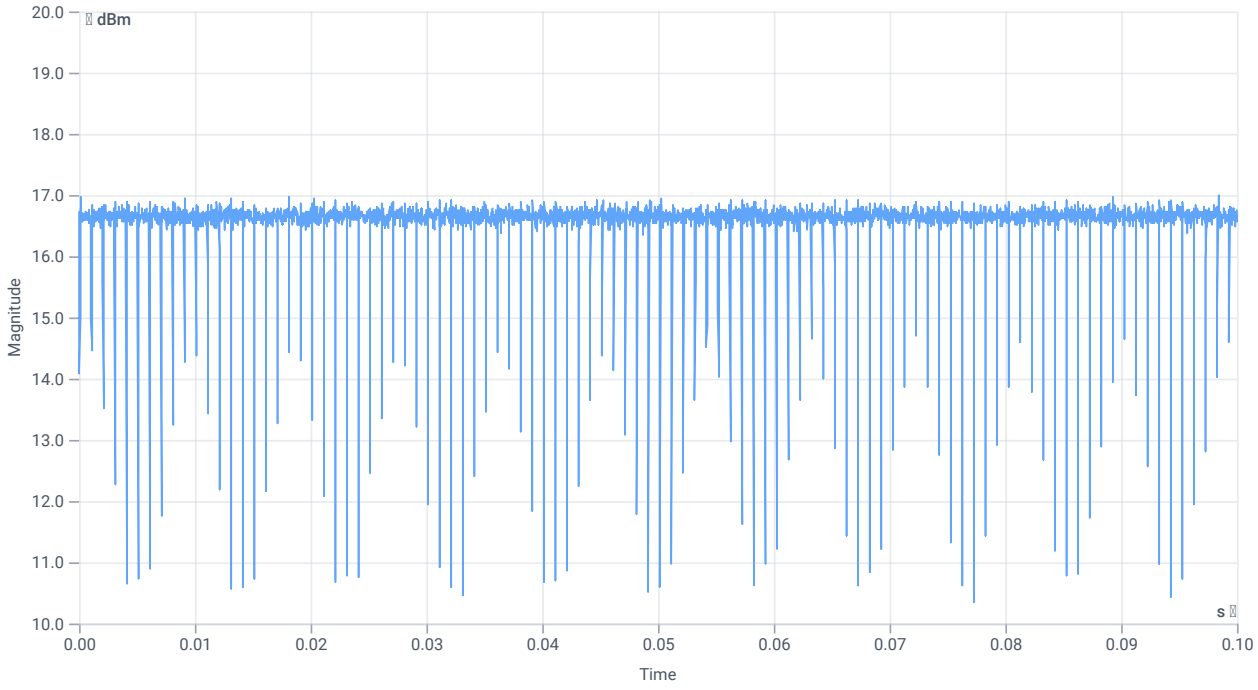
RESULT: Reference Power cond.

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	14.80	dBm	INFO
Ref. Frequency	---	---	5195.600	MHz	INFO

Evaluation max. Duty Cycle

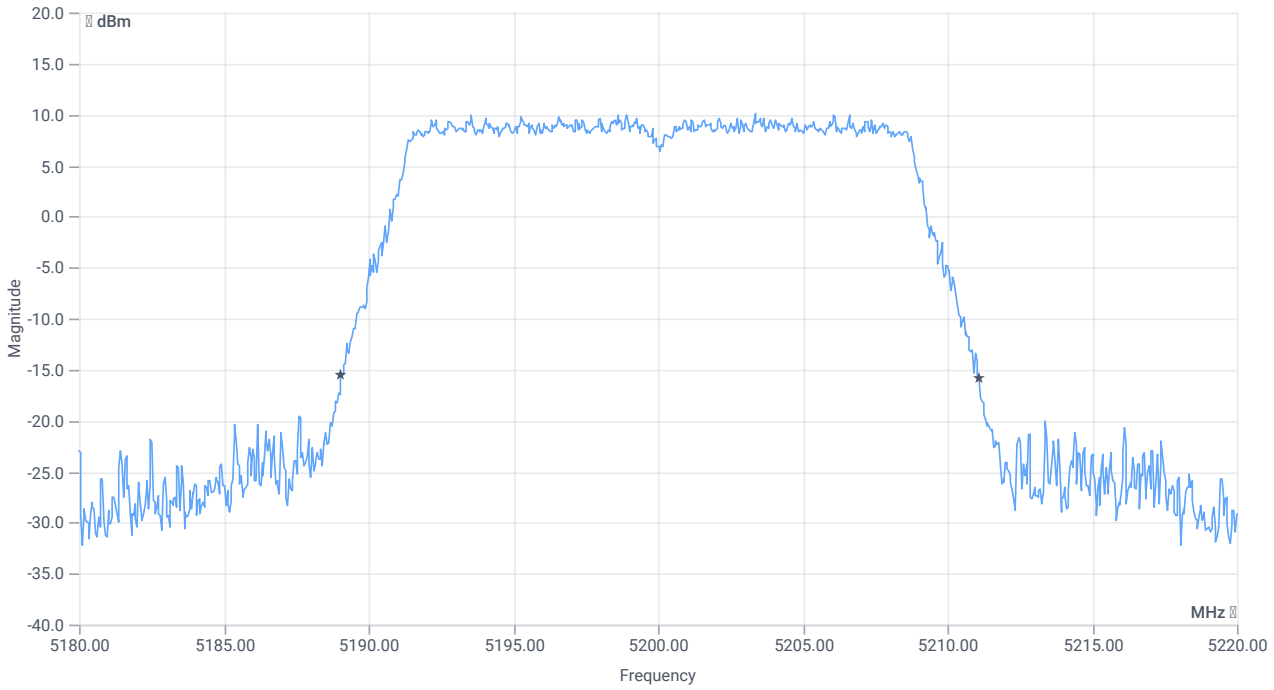
Duty Cycle evaluation

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

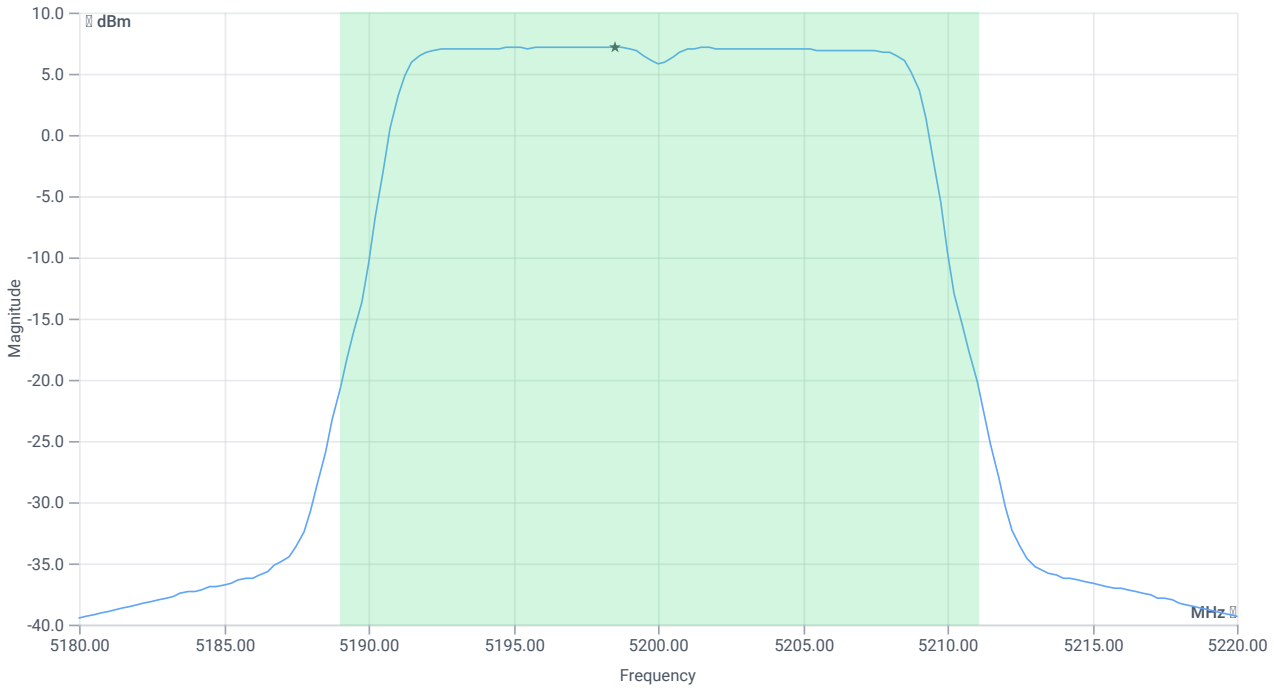
RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 26dB	---	---	22.04	MHz	INFO
T1 26dB	---	---	5189.0400	MHz	INFO
T2 26dB	---	---	5211.0800	MHz	INFO

Maximum Output Power

READ SA SETTINGS:

RefLevel [dBm] | RefLevelOffset [dB] | InpAtt [dB]	26.80 | 16.31 | 25
Start [MHz] | Stop [MHz]	5180.000 | 5220.000
RBW [MHz] | VBW [MHz]	1.000000 | 3.000000
Detector | TraceMode	RMS | MAXH
Sweep: time [ms] | count | points per Section | type	53700 | 1 | 161 | SWE



Max OP and PSD

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Max Output Power	---	---	19.18	dBm	INFO
Duty Cycle Correction	---	---	0	dB	INFO
Limit absolute					
Max Output Power DC corrected	---	24	19.18	dBm	PASS
Limit: 11 dBm + 10 log			22.04		
Max Output Power DC corrected	---	24.43	19.18	dBm	na

Power Spectral Density

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Power Spectral Density	---	---	7.15	dBm/1MHz	INFO
Duty Cycle Correction	---	---	0	dB	INFO
Power Spectral Density DC corrected	---	11	7.15	dBm/1MHz	PASS

Verdict
PASS

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

References

TC start	25.07.2023 09:43:59
Ambit temp [°C] | humidity [rel%]	23.6 | 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 n-HT20 mode U-NII-1
Information	PS72

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 n-HT20 mode
Antenna port used	1
Temperature	nom
Voltage	nom
Frequency low to test	False | Freq [MHz] 5180
Frequency mid to test	True | Freq [MHz] 5200
Frequency high to test	False | Freq [MHz] 5240
Auto control enabled power supply | Climatic Box	No | No
Additional path loss [dB]	1.3
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

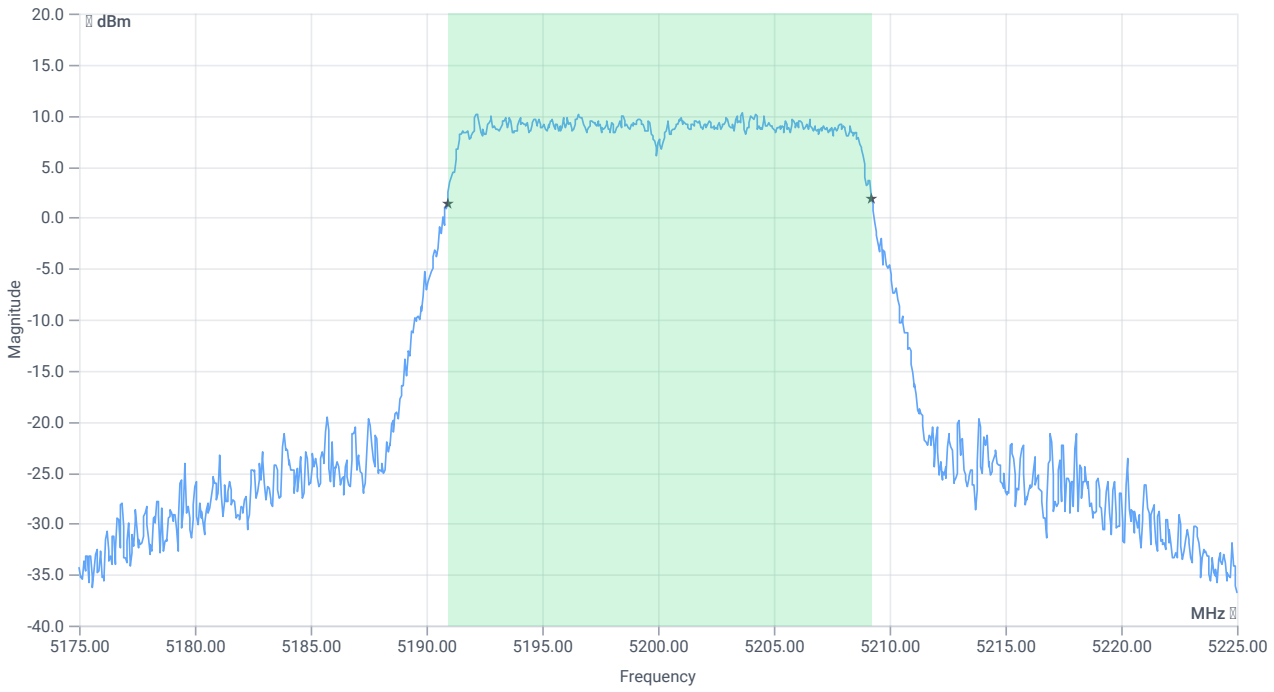
Test at TX 5200 MHz

RESULT: Reference Power cond.

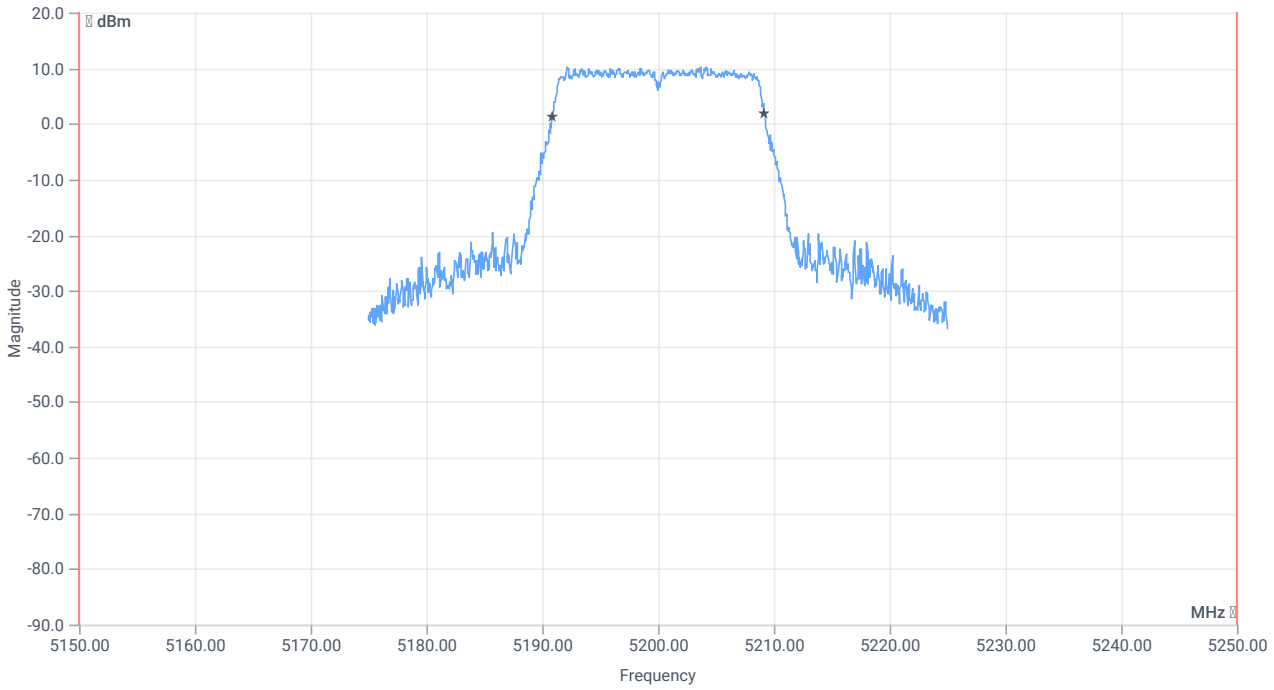
DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	15.82	dBm	INFO
Ref. Frequency	---	---	5197.400	MHz	INFO

READ SA SETTINGS:

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



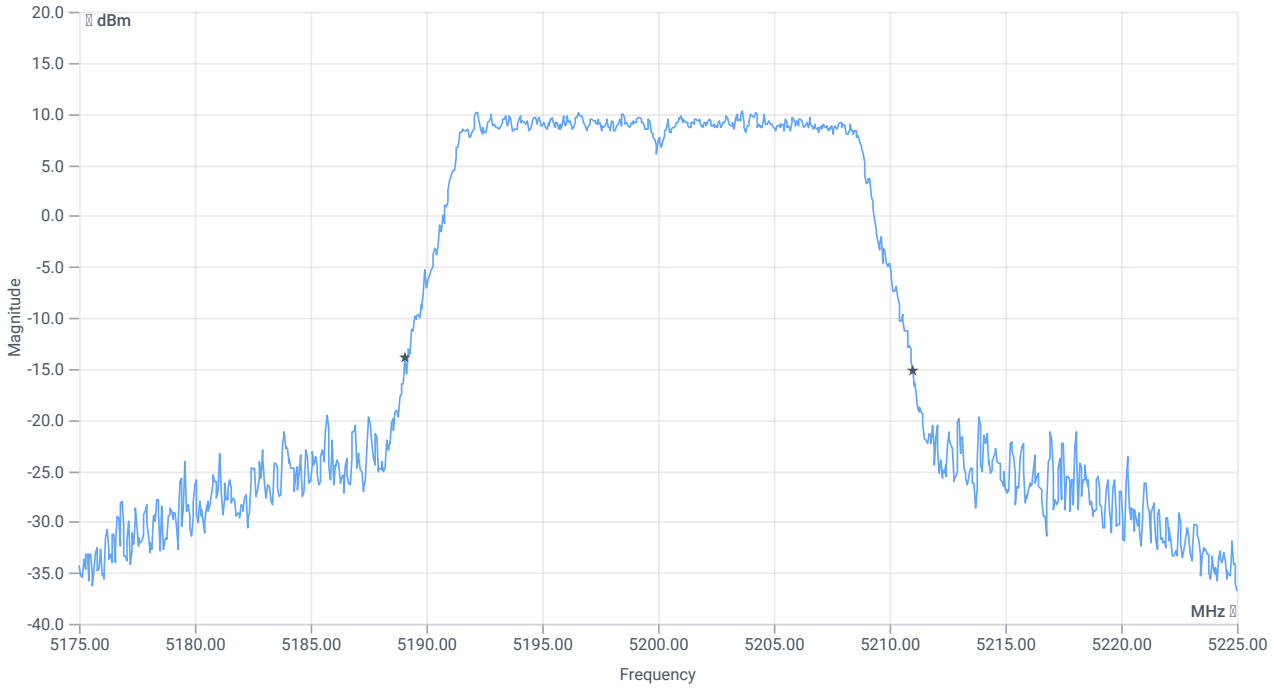
BW 99PCT



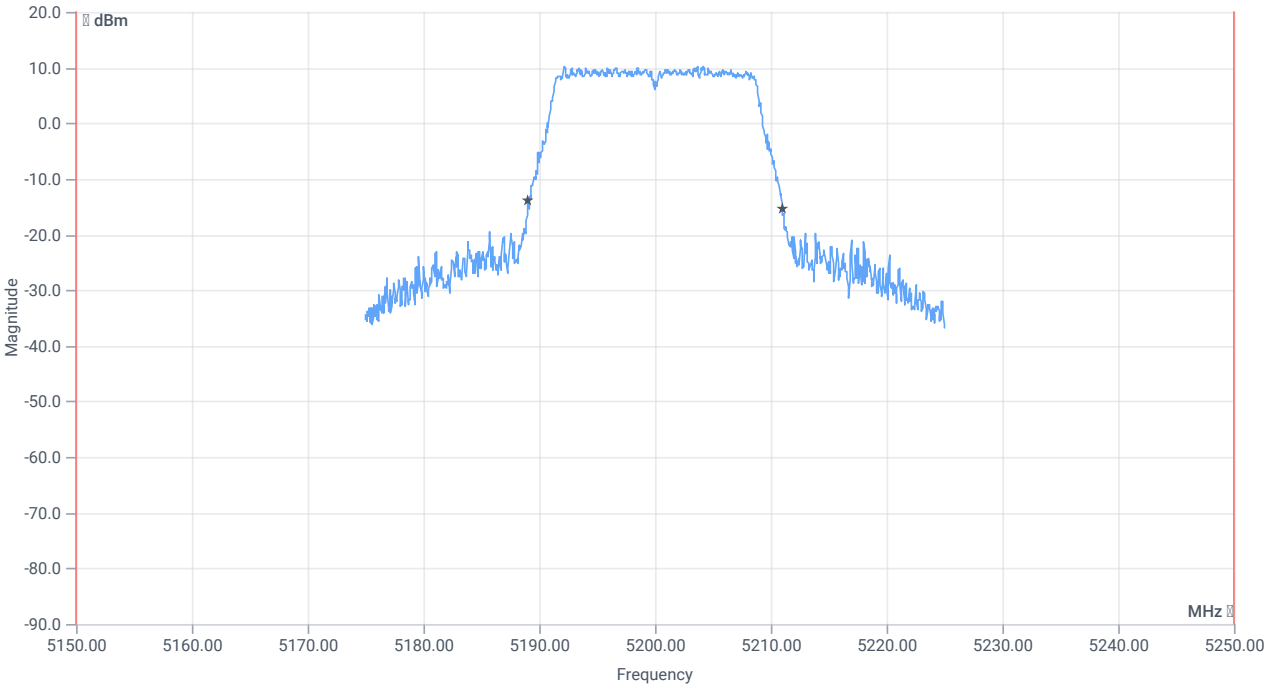
BW within Band 99PCT

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 99%	---	---	18.282	MHz	INFO
T1 99%	5150.000000	---	5190.9091	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	---	---	21.95	MHz	INFO
T1 26dB	5150.000000	---	5189.0500	MHz	PASS
T2 26dB	---	5250.000000	5211.0000	MHz	PASS

Verdict
PASS

FCC 15.407 # Max output power and psd ~ WLAN5Gx n-HT20 mode U-NII-1

References

TC start	25.07.2023 09:44:39
Ambit temp [°C] | humidity [rel%]	23.6 | 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 n-HT20 mode U-NII-1
Information	PS72

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 n-HT20 mode
Antenna port used	2
Temperature	nom
Voltage	nom
Frequency low to test	False | Freq [MHz] 5180
Frequency mid to test	True | Freq [MHz] 5200
Frequency high to test	False | Freq [MHz] 5240
Auto control enabled power supply | Climatic Box	No | No
Additional path loss [dB]	1.3
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

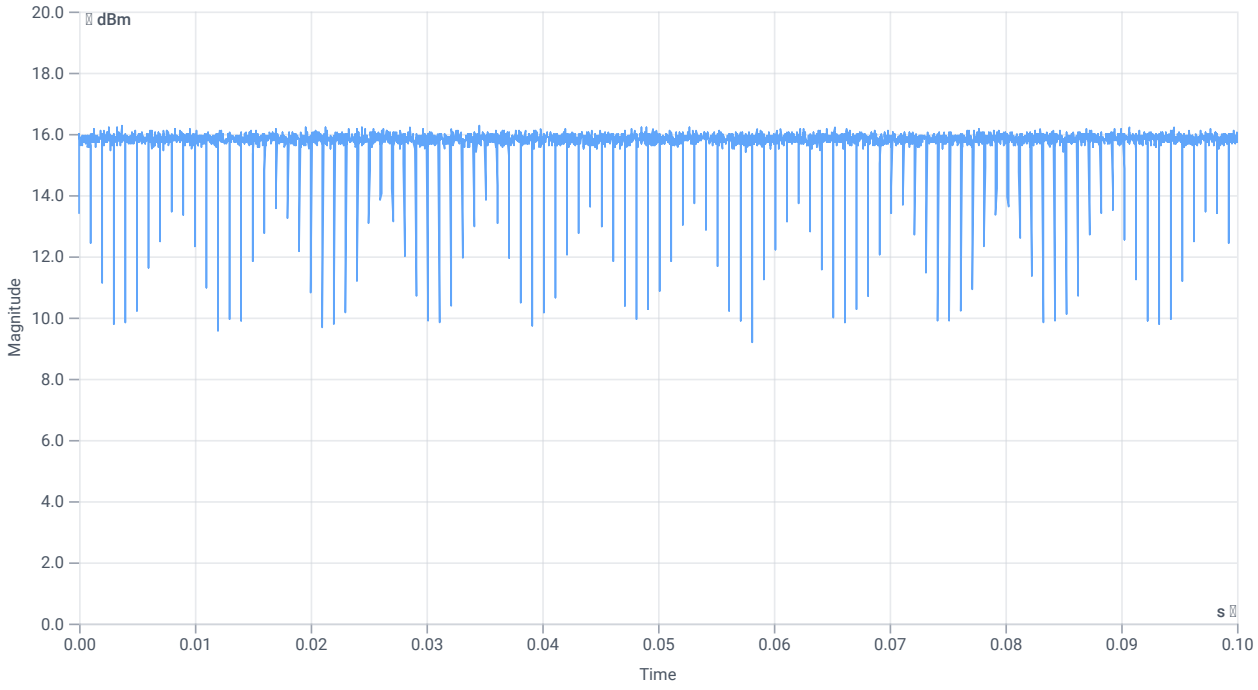
RESULT: Reference Power cond.

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	14.62	dBm	INFO
Ref. Frequency	---	---	5207.190	MHz	INFO

Evaluation max. Duty Cycle

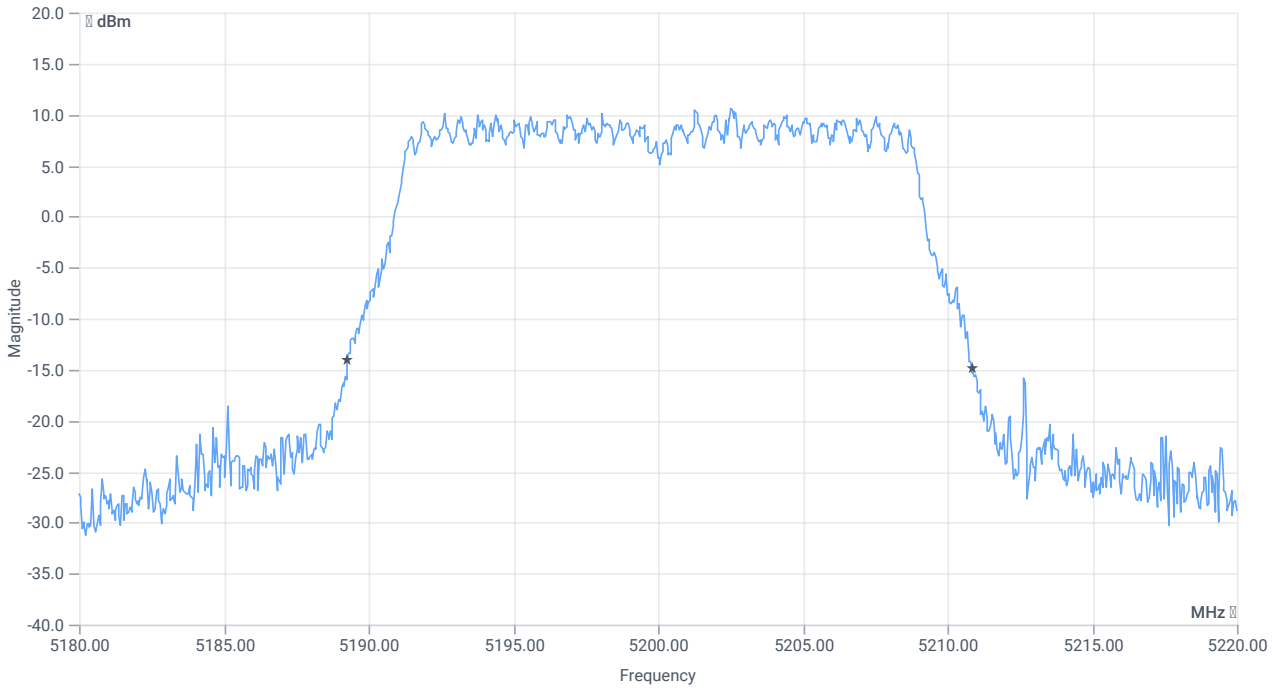
Duty Cycle evaluation

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



Duty cycle

Evaluation Bandwidth



BW 26dB

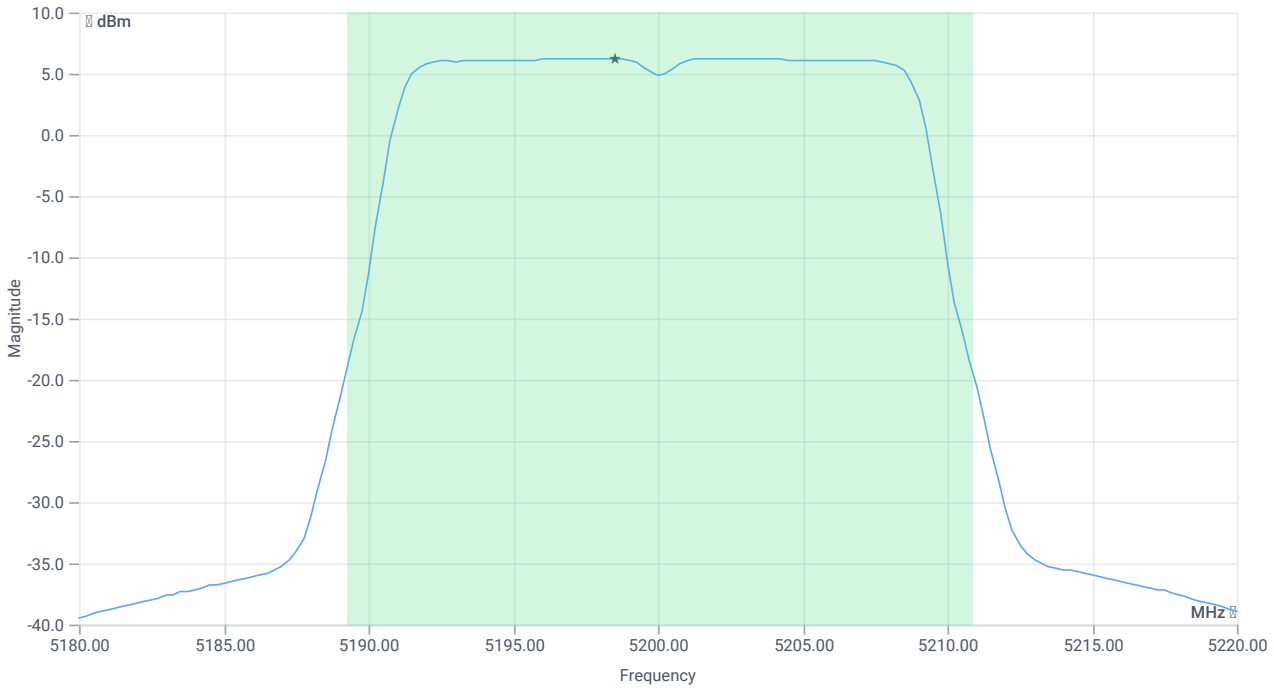
RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 26dB	---	---	21.6	MHz	INFO
T1 26dB	---	---	5189.2800	MHz	INFO
T2 26dB	---	---	5210.8800	MHz	INFO

Maximum Output Power

READ SA SETTINGS:

RefLevel [dBm] | RefLevelOffset [dB] | InpAtt [dB]	26.62 | 16.31 | 25
Start [MHz] | Stop [MHz]	5180.000 | 5220.000
RBW [MHz] | VBW [MHz]	1.000000 | 3.000000
Detector | TraceMode	RMS | MAXH
Sweep: time [ms] | count | points per Section | type	53700 | 1 | 161 | SWE



Max OP and PSD

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Max Output Power	---	---	18.26	dBm	INFO
Duty Cycle Correction	---	---	0	dB	INFO
Limit absolute					
Max Output Power DC corrected	---	24	18.26	dBm	PASS
Limit: 11 dBm + 10 log	21.6				
Max Output Power DC corrected	---	24.34	18.26	dBm	na

Power Spectral Density

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Power Spectral Density	---	---	6.2	dBm/1MHz	INFO
Duty Cycle Correction	---	---	0	dB	INFO
Power Spectral Density DC corrected	---	11	6.2	dBm/1MHz	PASS

Verdict
PASS

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

References

TC start	25.07.2023 09:46:11
Ambit temp [°C] | humidity [rel%]	23.5 | 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 n-HT20 mode U-NII-1
Information	PS72

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 n-HT20 mode
Antenna port used	2
Temperature	nom
Voltage	nom
Frequency low to test	False | Freq [MHz] 5180
Frequency mid to test	True | Freq [MHz] 5200
Frequency high to test	False | Freq [MHz] 5240
Auto control enabled power supply | Climatic Box	No | No
Additional path loss [dB]	1.3
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

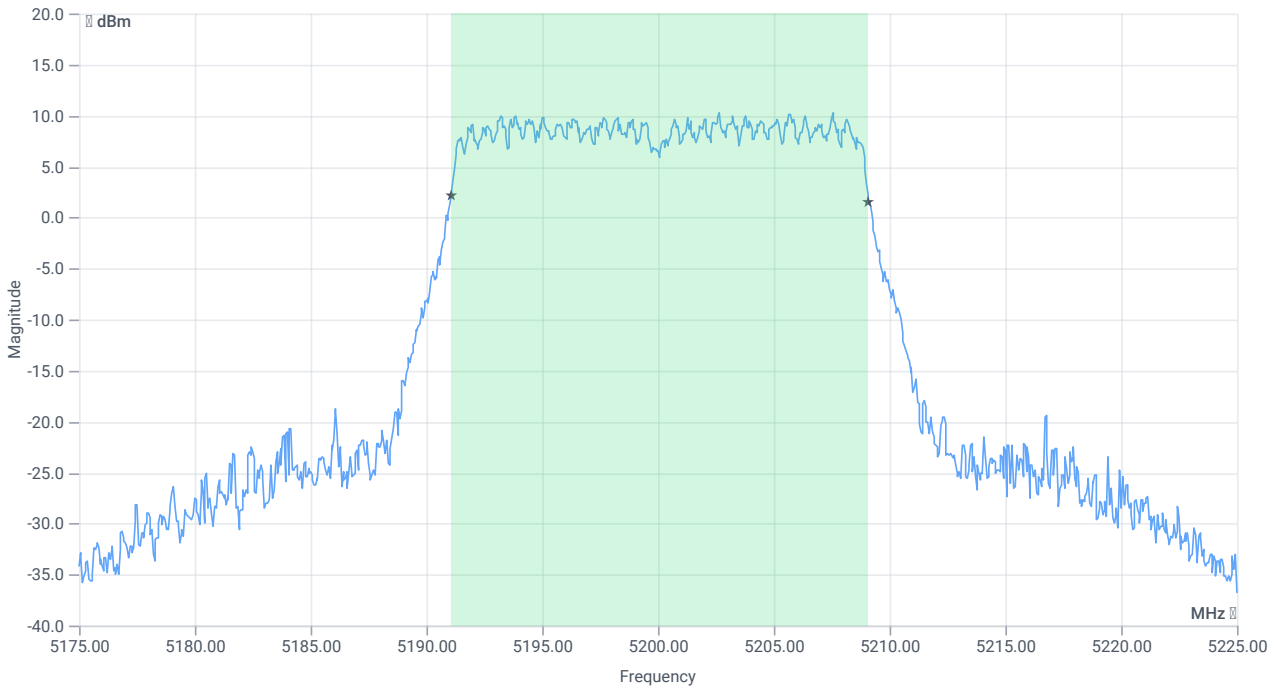
Test at TX 5200 MHz

RESULT: Reference Power cond.

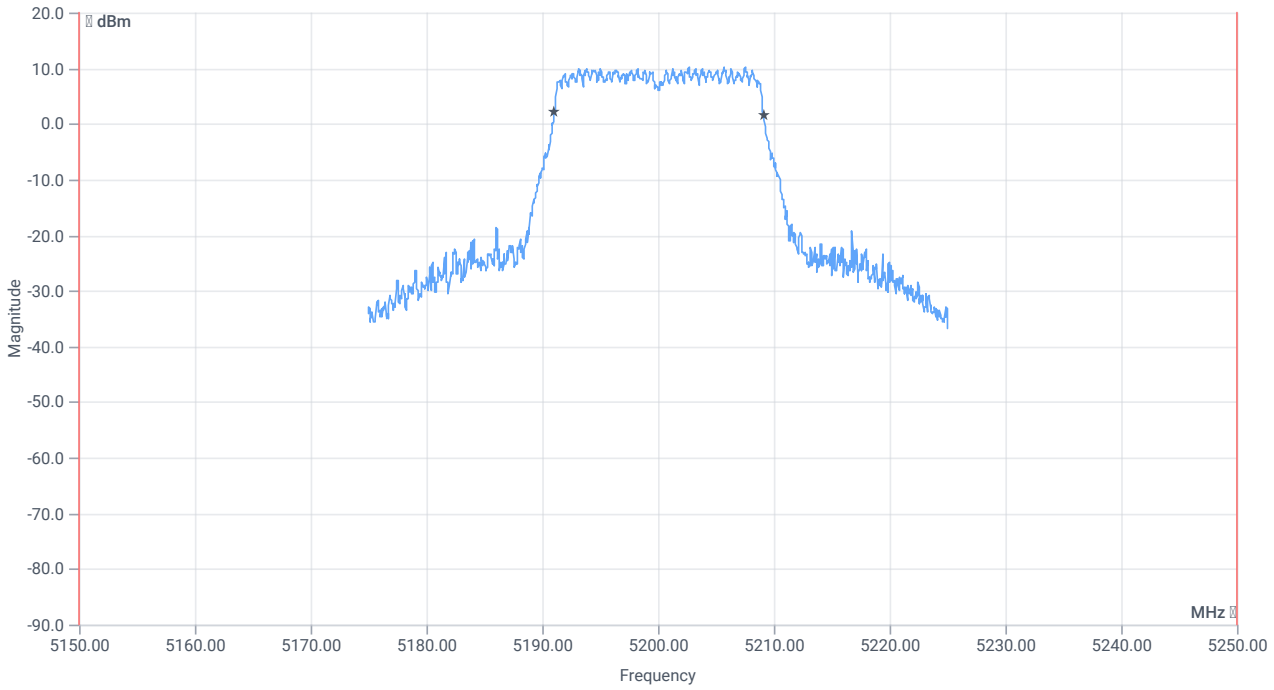
DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	14.31	dBm	INFO
Ref. Frequency	---	---	5198.800	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] | RefLevelOffset [dB] | InpAtt [dB]	22.31 | 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



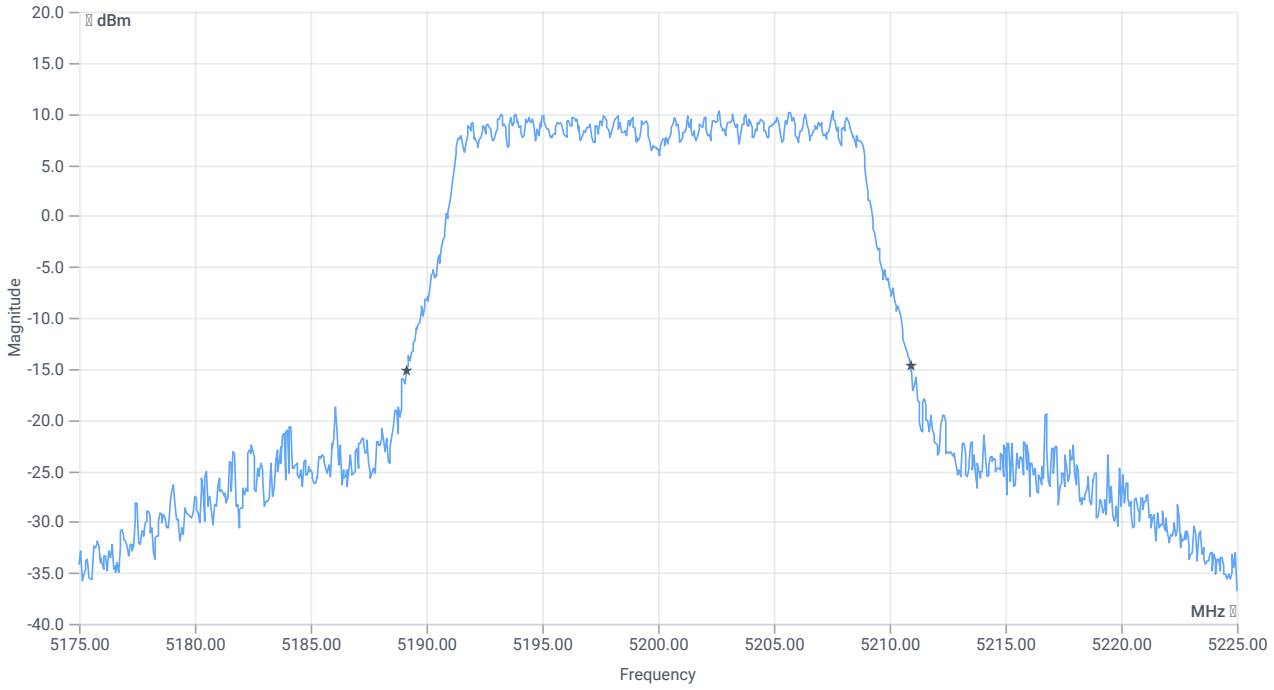
BW 99PCT



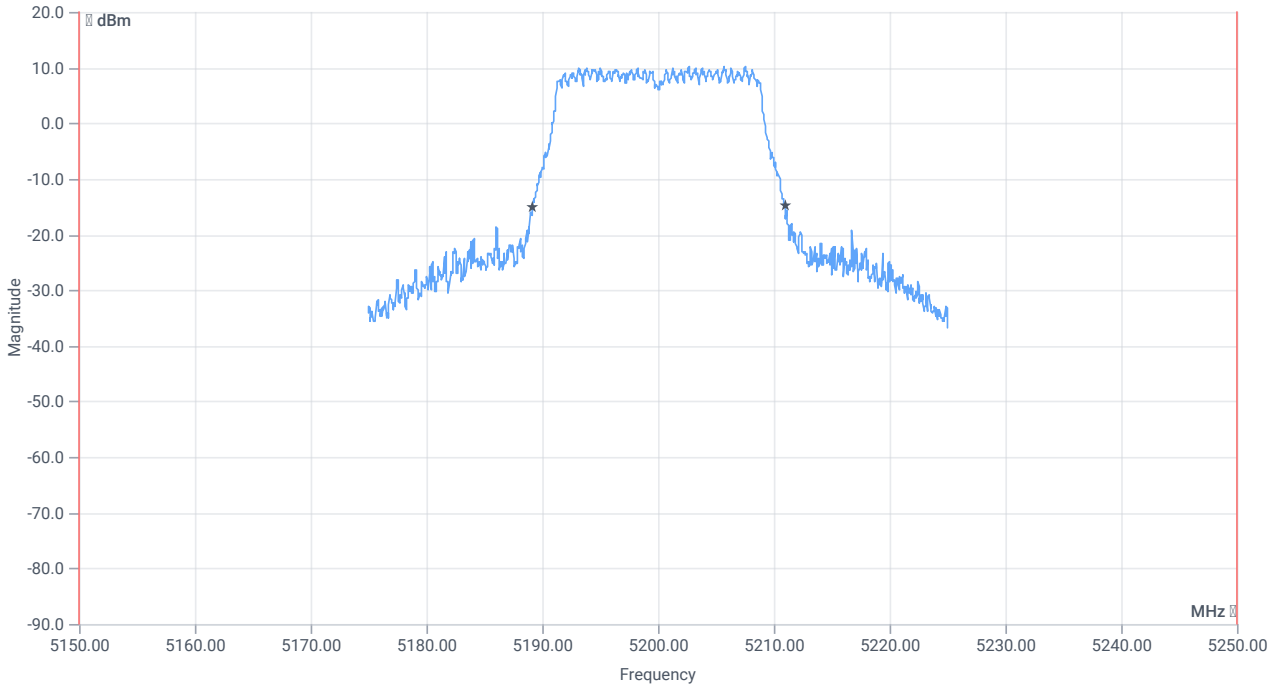
BW within Band 99PCT

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 99%	---	---	18.032	MHz	INFO
T1 99%	5150.000000	---	5191.0589	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	---	---	21.8	MHz	INFO
T1 26dB	5150.000000	---	5189.1500	MHz	PASS
T2 26dB	---	5250.000000	5210.9500	MHz	PASS

Verdict
PASS

FCC 15.407 # MIMO ∑ Max output power and psd ~ WLAN5Gx n-HT20 mode U-NII-1

References

TC start	25.07.2023 09:46:50
Ambit temp [°C] | humidity [rel%]	23.5 | 55
System version	4.6.0.0
Specification	FCC 15.407 -
Method	
Description	MIMO ∑ FCC Power & psd - WLAN5Gx n-HT20 mode U-NII-1
Information	PS72

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 n-HT20 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	---	---	19.18	dBm	INFO
Ant:1 BW 26dB	---	---	22.040	MHz	INFO
Ant:2 Max Output Power DC corrected	---	---	18.26	dBm	INFO
Ant:2 BW 26dB	---	---	21.600	MHz	INFO
∑ Limit absolute	---	24	21.75	dBm	PASS
∑ Limit: 11 dBm + 10 log 21.6	---	24.34	21.75	dBm	na

RESULT PSD

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ant:1 PSD	---	---	7.15	dBm/1MHz	INFO
Ant:2 PSD	---	---	6.2	dBm/1MHz	INFO
∑	---	11	9.71	dBm/1MHz	PASS

Verdict
PASS

Message with SA scan ~

References

TC start	25.07.2023 10:30:16
Ambit temp [°C] | humidity [rel%]	22.7 | 58
System version	4.6.0.0
Specification	-
Method	
Description	Message with SA Scan n_HT20_U_NII_1
Information	PS76

Test Parameter

Switched Path	EUT - SignalingUnit - SpectrumAnalyzer
Message start	25.07.2023 10:30:16
Message	set WLAN5Gx to n_HT20_U_NII_1, Frequency [MHz] 5240 PS79

Equipment

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

Verdict
INFO

FCC 15.407 # Max output power and psd ~ WLAN5Gx n-HT20 mode U-NII-1

References

TC start	25.07.2023 10:30:28
Ambit temp [°C] | humidity [rel%]	22.7 | 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 n-HT20 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 n-HT20 mode
Antenna port used	1
Temperature	nom
Voltage	nom
Frequency low to test	False | Freq [MHz] 5180
Frequency mid to test	False | Freq [MHz] 5200
Frequency high to test	True | Freq [MHz] 5240
Auto control enabled power supply | Climatic Box	No | No
Additional path loss [dB]	1.3
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

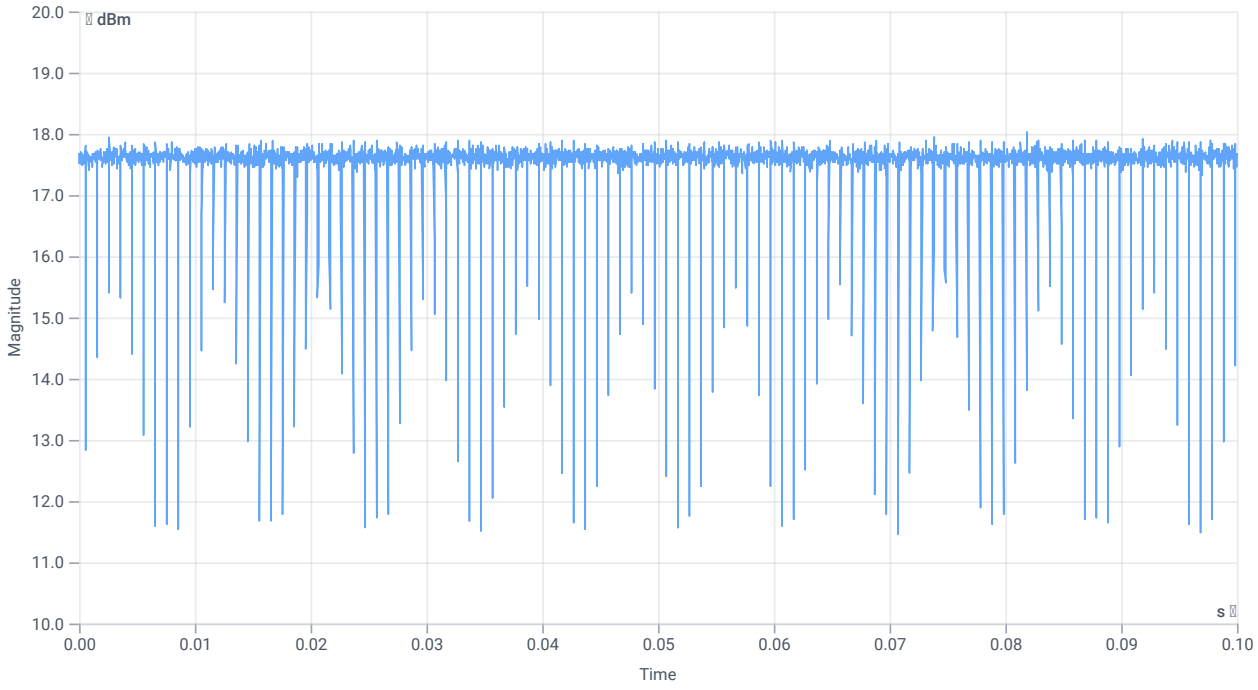
RESULT: Reference Power cond.

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	15.71	dBm	INFO
Ref. Frequency	---	---	5244.600	MHz	INFO

Evaluation max. Duty Cycle

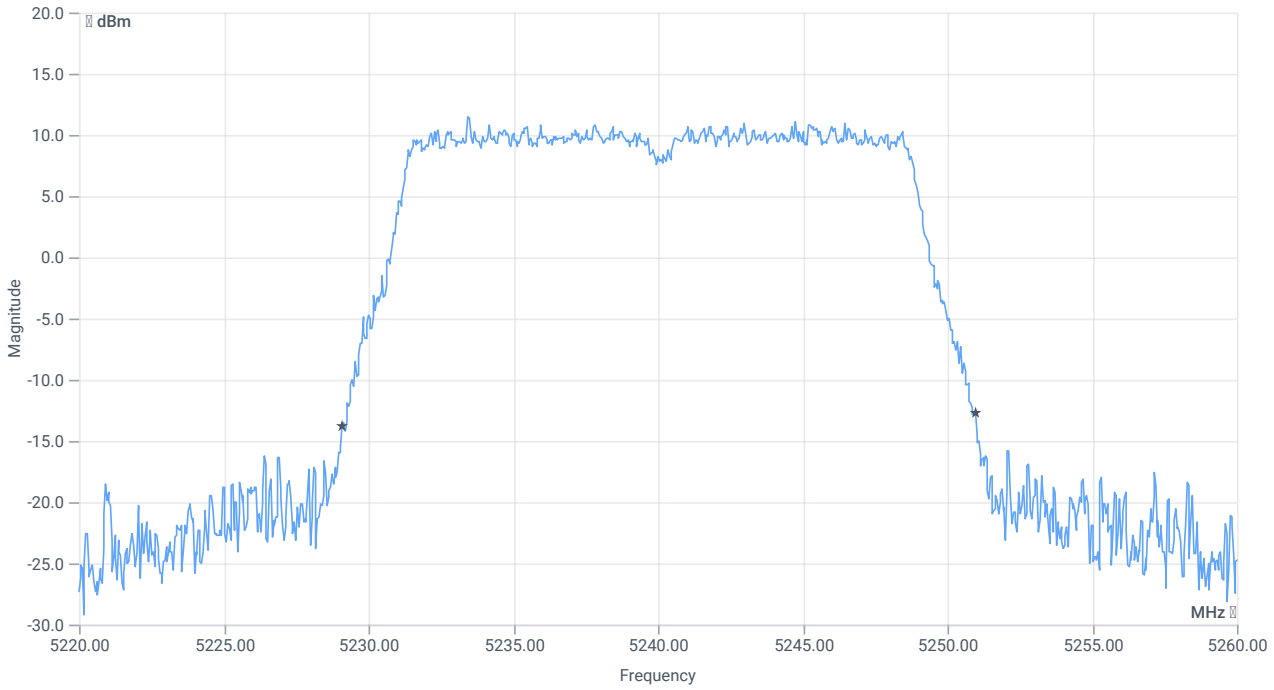
Duty Cycle evaluation

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

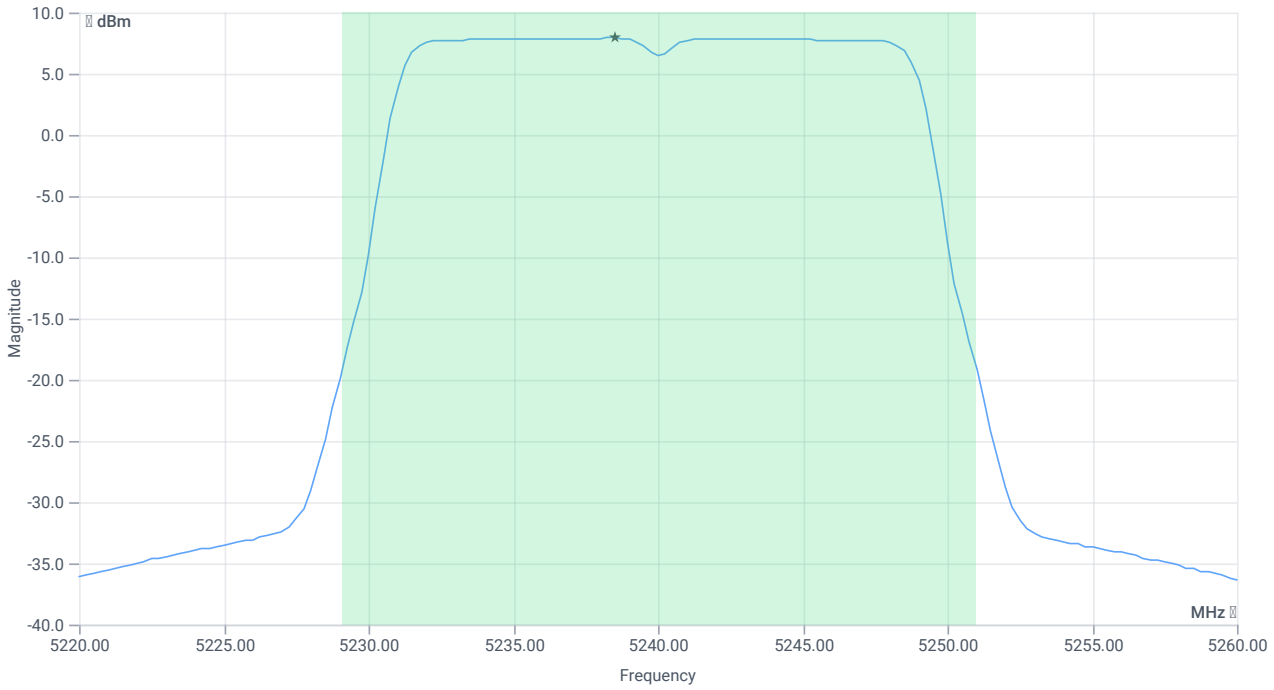
RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 26dB	---	---	21.88	MHz	INFO
T1 26dB	---	---	5229.0800	MHz	INFO
T2 26dB	---	---	5250.9600	MHz	INFO

Maximum Output Power

READ SA SETTINGS:

RefLevel [dBm] | RefLevelOffset [dB] | InpAtt [dB]	27.71 | 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	---	---	19.96	dBm	INFO
Duty Cycle Correction	---	---	0	dB	INFO
Limit absolute					
Max Output Power DC corrected	---	24	19.96	dBm	PASS
Limit: 11 dBm + 10 log	21.88				
Max Output Power DC corrected	---	24.4	19.96	dBm	na

Power Spectral Density

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Power Spectral Density	---	---	7.92	dBm/1MHz	INFO
Duty Cycle Correction	---	---	0	dB	INFO
Power Spectral Density DC corrected	---	11	7.92	dBm/1MHz	PASS

Verdict
PASS

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

References

TC start	25.07.2023 10:31:58
Ambit temp [°C] | humidity [rel%]	22.7 | 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 n-HT20 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 n-HT20 mode
Antenna port used	1
Temperature	nom
Voltage	nom
Frequency low to test	False | Freq [MHz] 5180
Frequency mid to test	False | Freq [MHz] 5200
Frequency high to test	True | Freq [MHz] 5240
Auto control enabled power supply | Climatic Box	No | No
Additional path loss [dB]	1.3
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

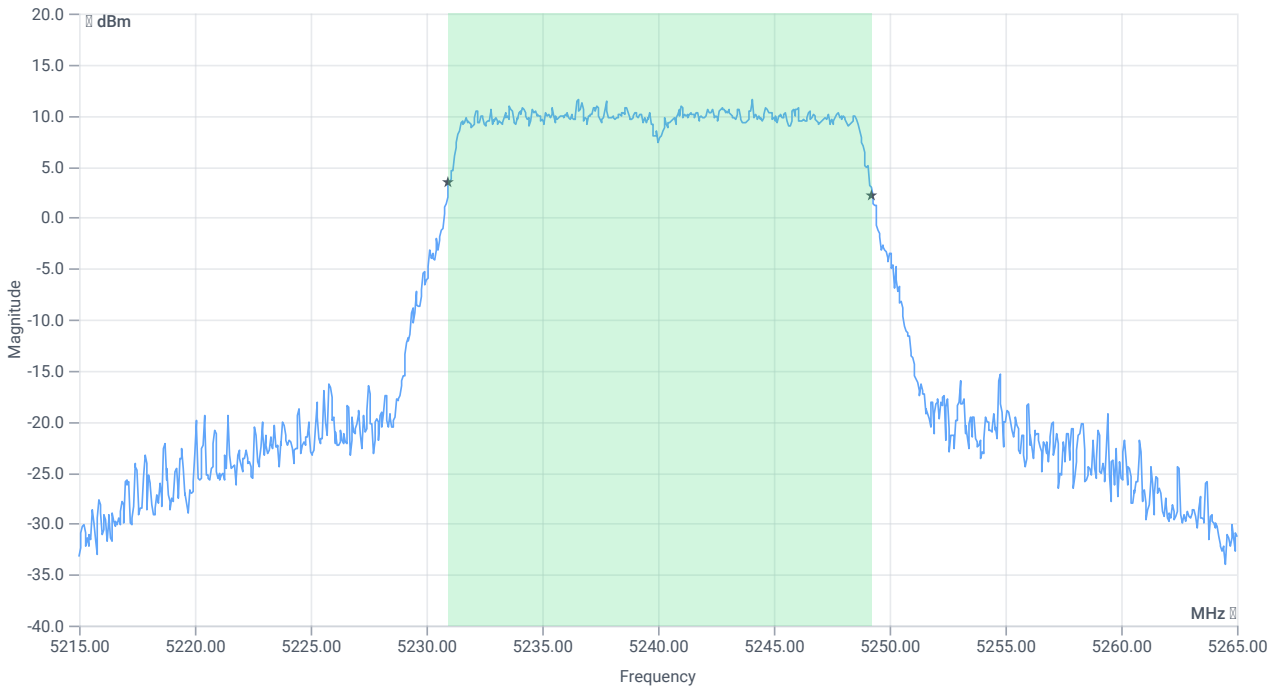
Test at TX 5240 MHz

RESULT: Reference Power cond.

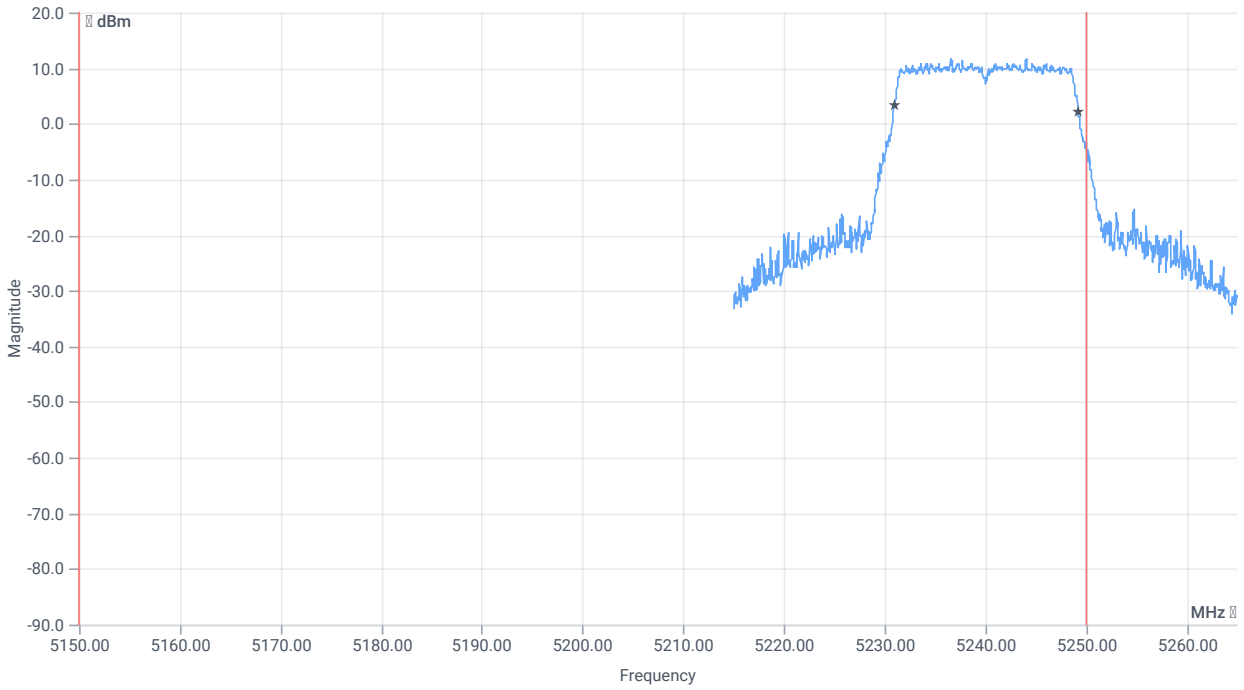
DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	16.05	dBm	INFO
Ref. Frequency	---	---	5244.000	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] | RefLevelOffset [dB] | InpAtt [dB]	24.05 | 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



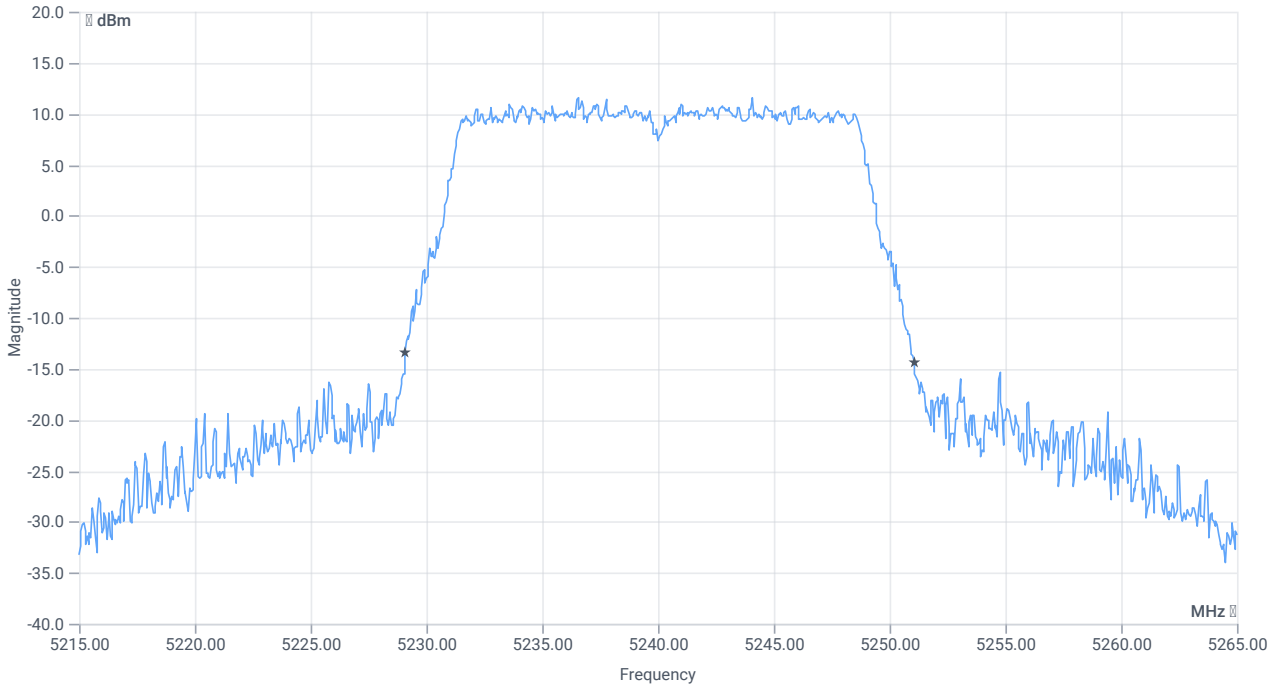
BW 99PCT



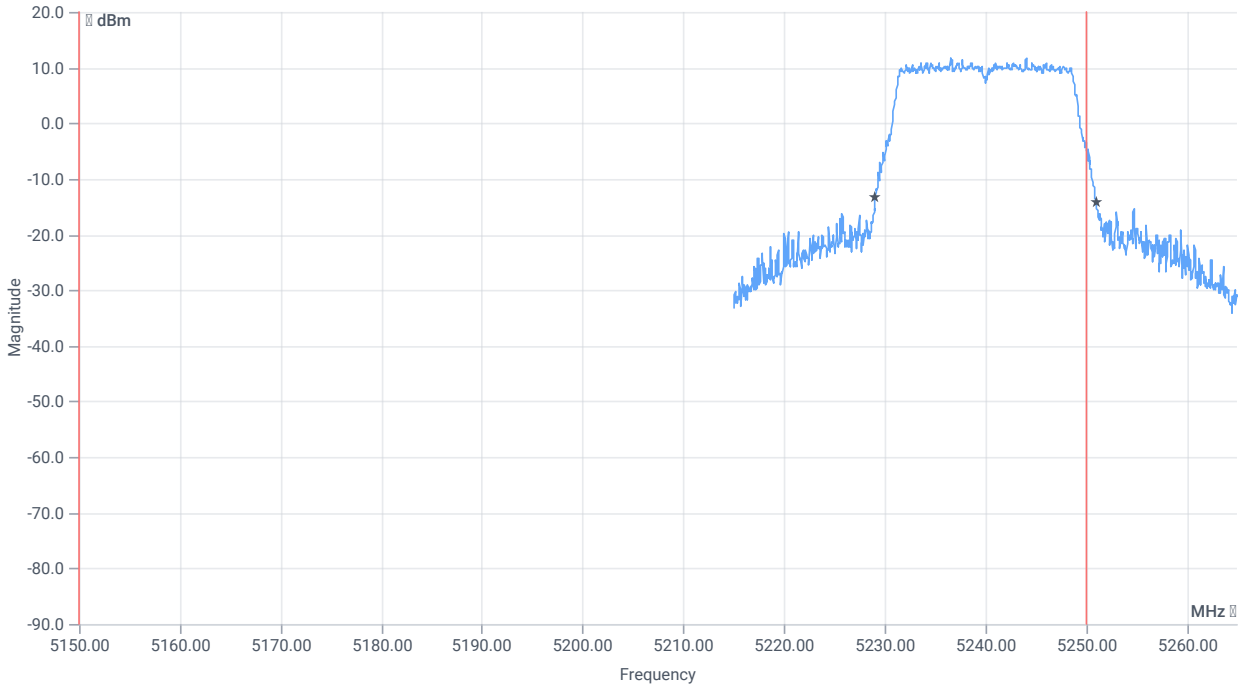
BW within Band 99PCT

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 99%	---	---	18.282	MHz	INFO
T1 99%	5150.000000	---	5230.9590	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	---	---	21.95	MHz	INFO
T1 26dB	5150.000000	---	5229.1000	MHz	PASS
T2 26dB	---	5250.000000	5251.0500	MHz	DFS required

Verdict
PASS

FCC 15.407 # Max output power and psd ~ WLAN5Gx n-HT20 mode U-NII-1

References

TC start	25.07.2023 10:32:30
Ambit temp [°C] | humidity [rel%]	22.7 | 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 n-HT20 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 n-HT20 mode
Antenna port used	2
Temperature	nom
Voltage	nom
Frequency low to test	False | Freq [MHz] 5180
Frequency mid to test	False | Freq [MHz] 5200
Frequency high to test	True | Freq [MHz] 5240
Auto control enabled power supply | Climatic Box	No | No
Additional path loss [dB]	1.3
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

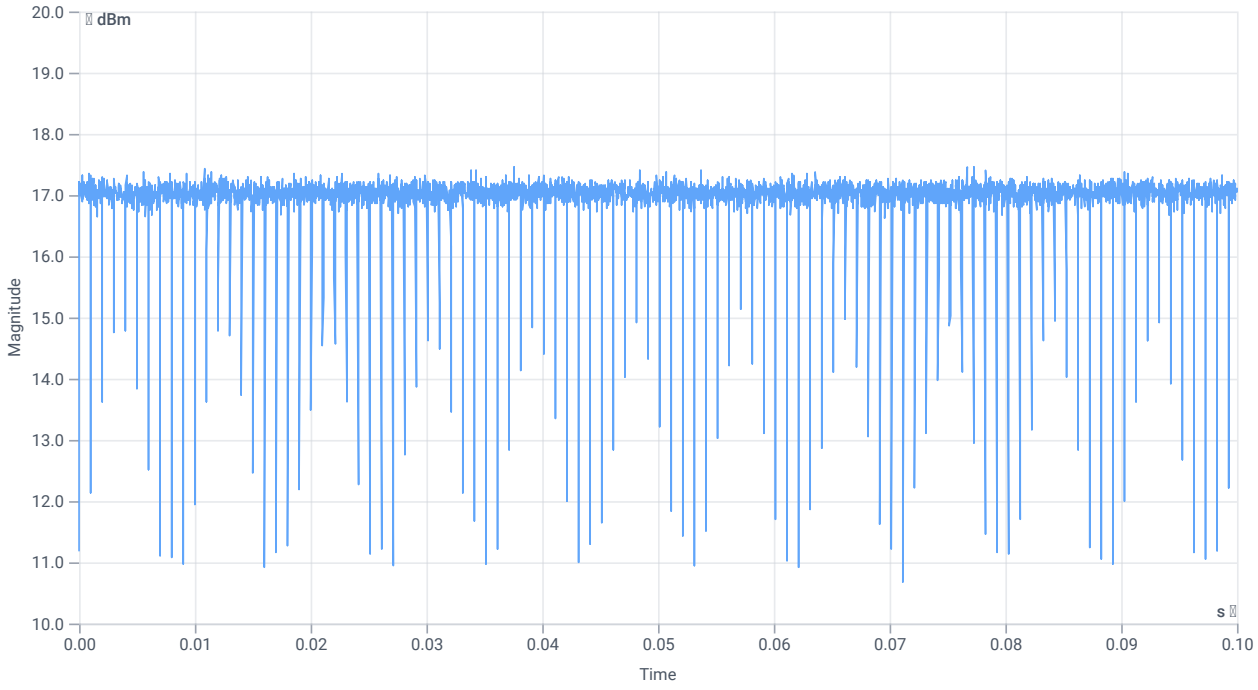
RESULT: Reference Power cond.

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	16.13	dBm	INFO
Ref. Frequency	---	---	5245.000	MHz	INFO

Evaluation max. Duty Cycle

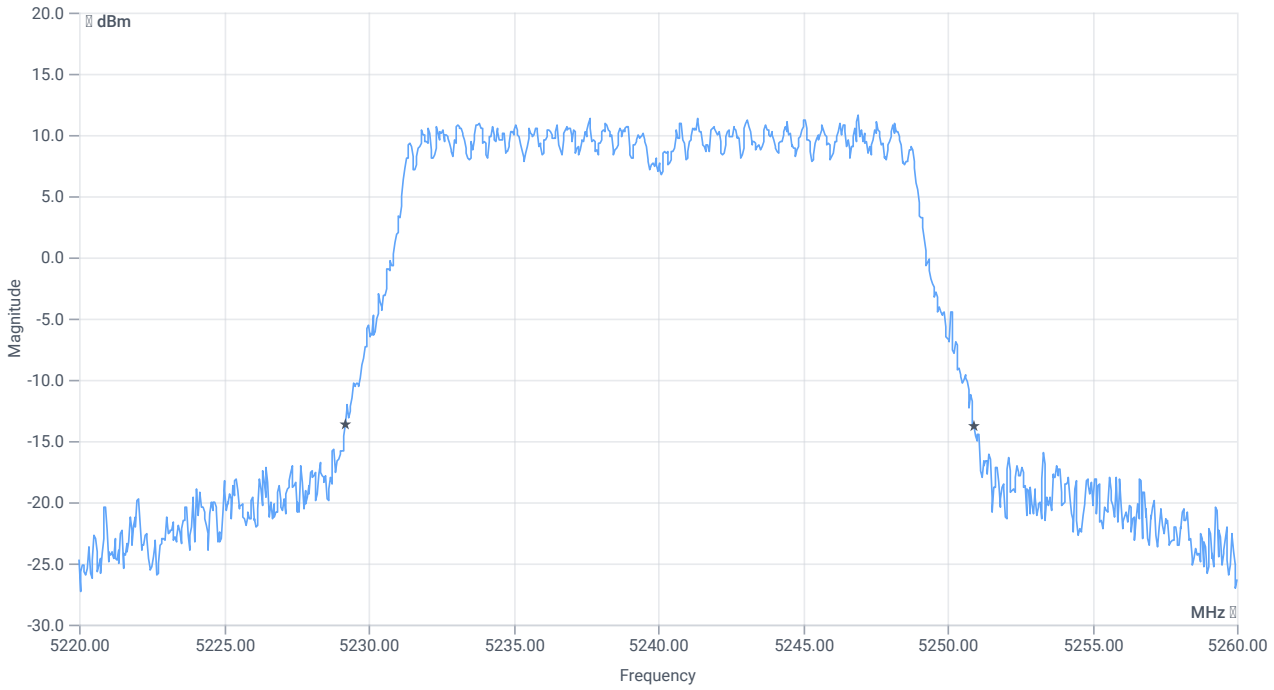
Duty Cycle evaluation

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

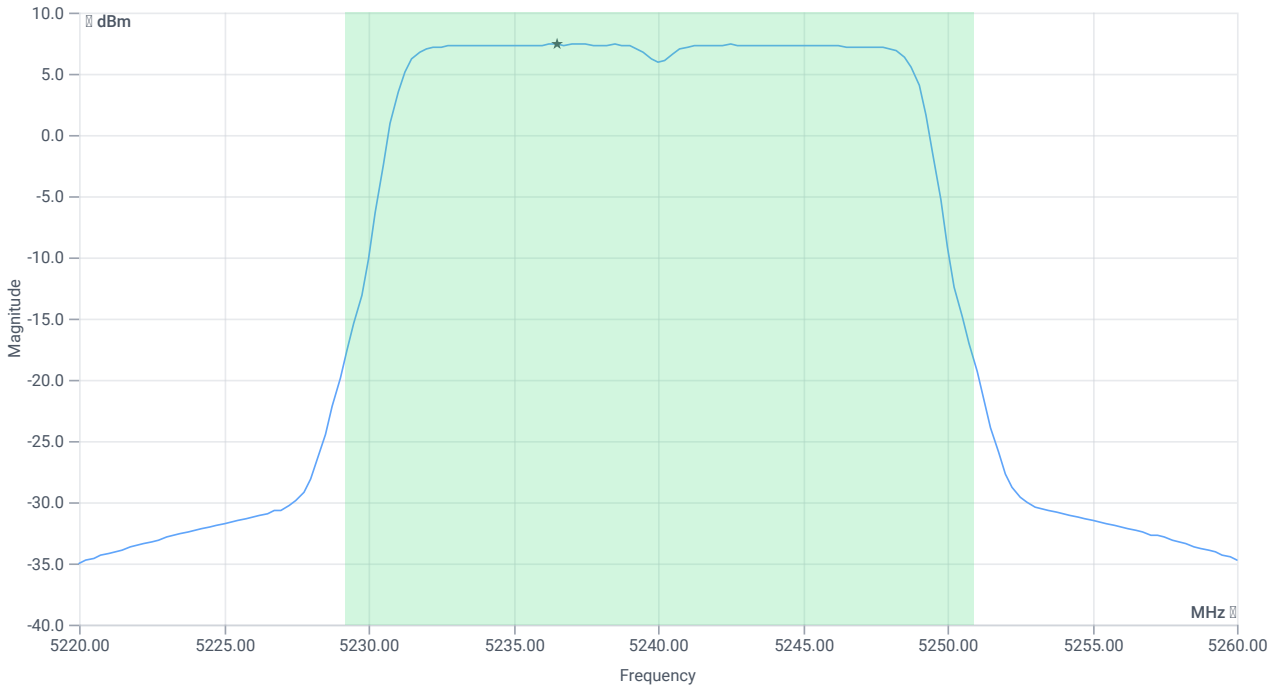
RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 26dB	---	---	21.72	MHz	INFO
T1 26dB	---	---	5229.2000	MHz	INFO
T2 26dB	---	---	5250.9200	MHz	INFO

Maximum Output Power

READ SA SETTINGS:

RefLevel [dBm] | RefLevelOffset [dB] | InpAtt [dB]	28.13 | 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	---	---	19.45	dBm	INFO
Duty Cycle Correction	---	---	0	dB	INFO
Limit absolute					
Max Output Power DC corrected	---	24	19.45	dBm	PASS
Limit: 11 dBm + 10 log		21.72			
Max Output Power DC corrected	---	24.37	19.45	dBm	na

Power Spectral Density

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Power Spectral Density	---	---	7.38	dBm/1MHz	INFO
Duty Cycle Correction	---	---	0	dB	INFO
Power Spectral Density DC corrected	---	11	7.38	dBm/1MHz	PASS

Verdict
PASS

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

References

TC start	25.07.2023 10:34:00
Ambit temp [°C] | humidity [rel%]	22.7 | 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 n-HT20 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 n-HT20 mode
Antenna port used	2
Temperature	nom
Voltage	nom
Frequency low to test	False | Freq [MHz] 5180
Frequency mid to test	False | Freq [MHz] 5200
Frequency high to test	True | Freq [MHz] 5240
Auto control enabled power supply | Climatic Box	No | No
Additional path loss [dB]	1.3
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

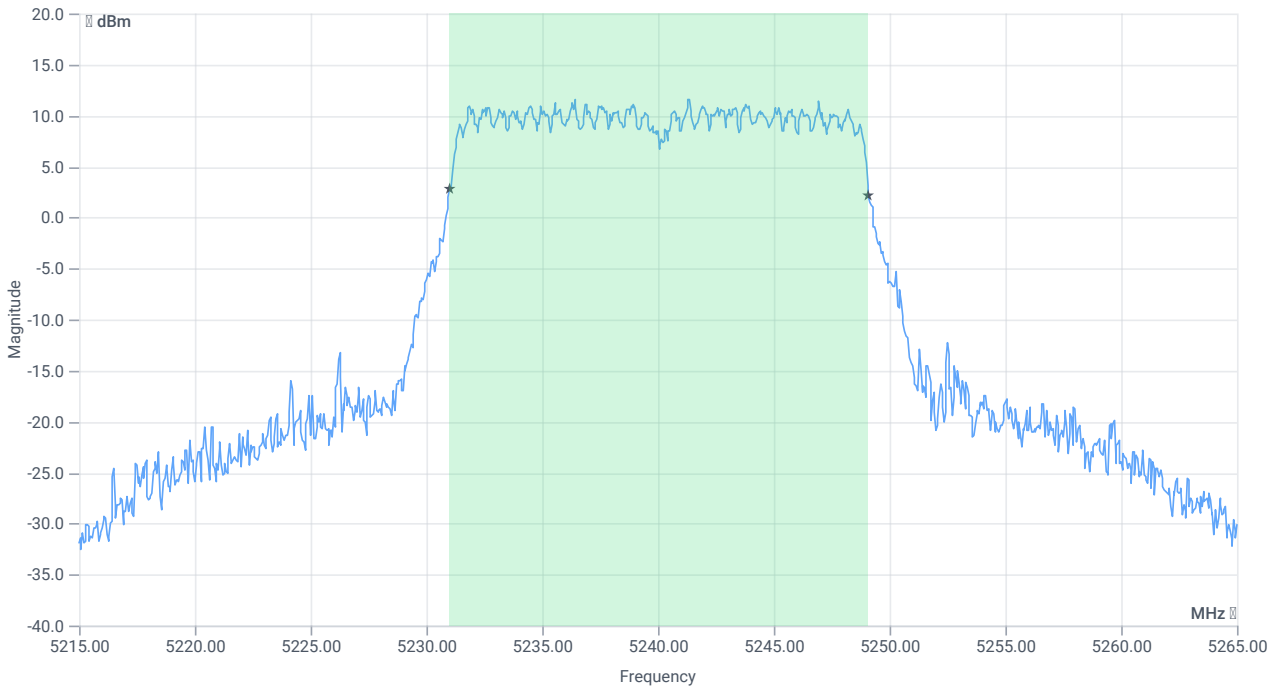
Test at TX 5240 MHz

RESULT: Reference Power cond.

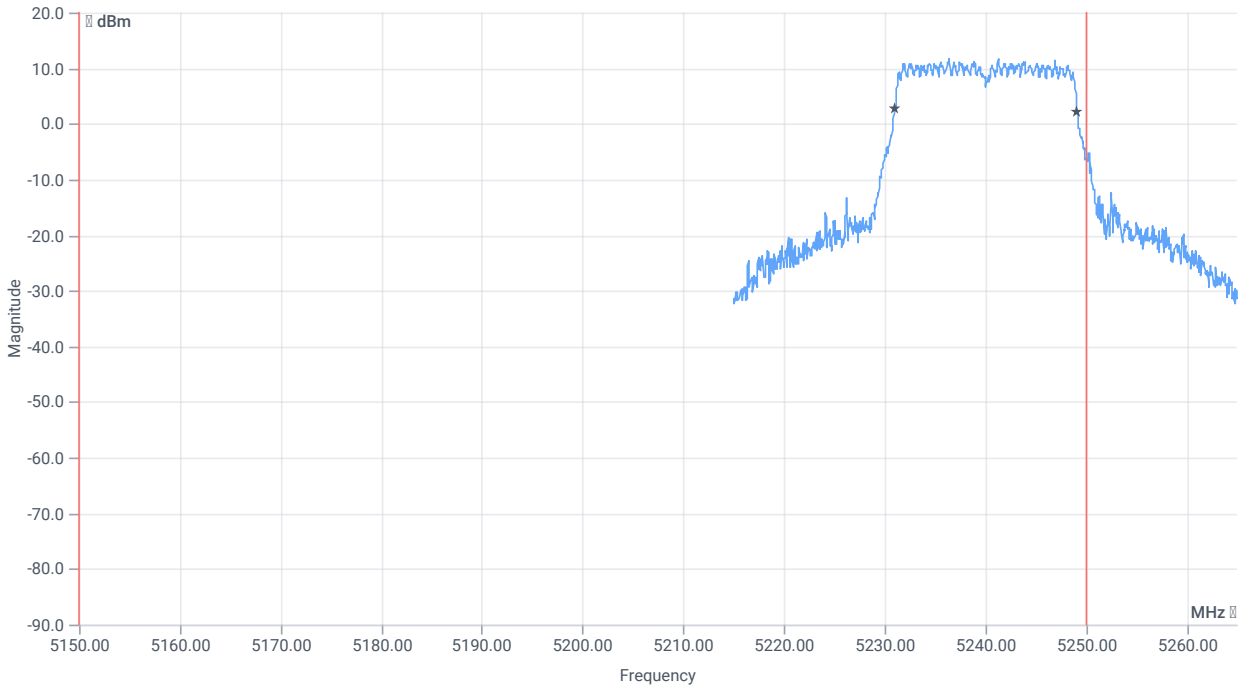
DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	16.54	dBm	INFO
Ref. Frequency	---	---	5245.790	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] | RefLevelOffset [dB] | InpAtt [dB]	24.54 | 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



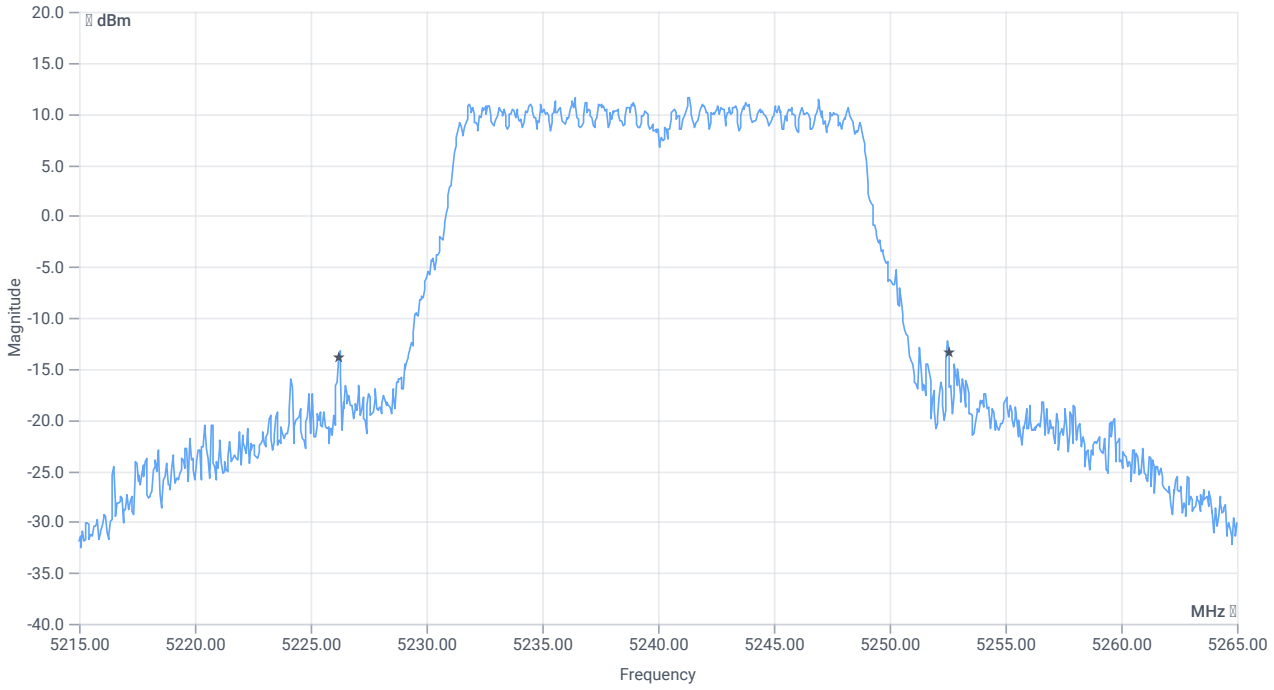
BW 99PCT



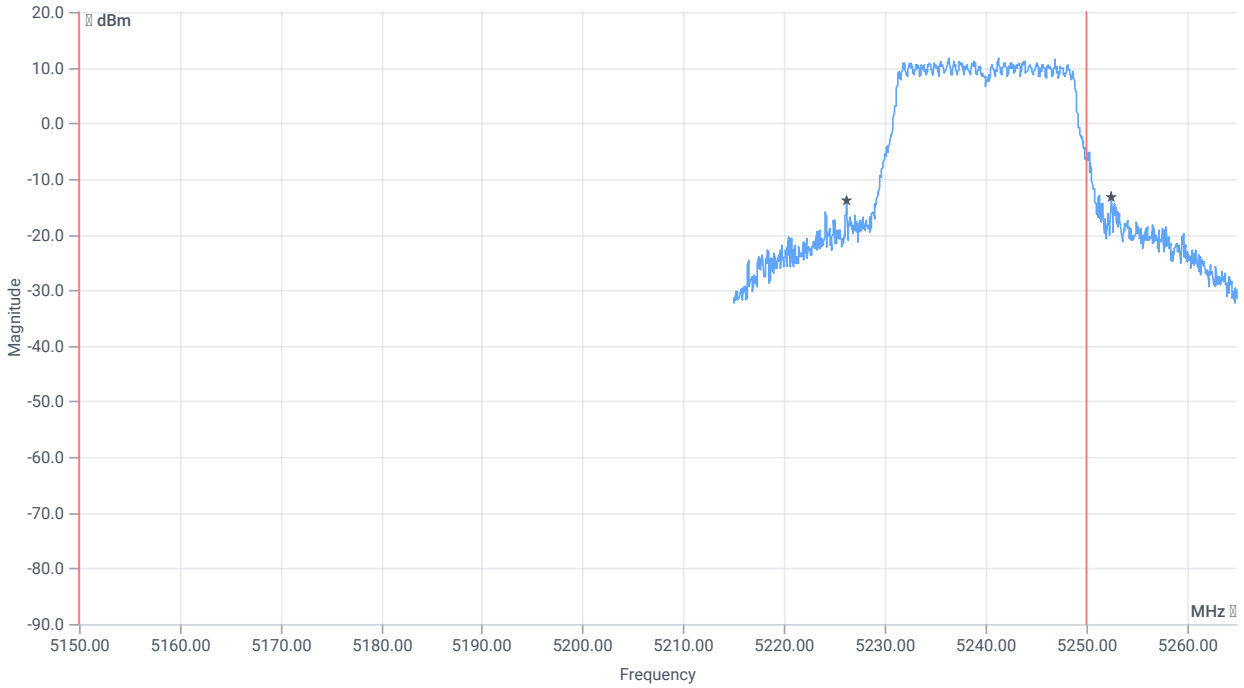
BW within Band 99PCT

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	---	---	26.35	MHz	INFO
T1 26dB	5150.000000	---	5226.2000	MHz	PASS
T2 26dB	---	5250.000000	5252.5500	MHz	DFS required

Verdict
PASS

FCC 15.407 # MIMO ∑ Max output power and psd ~ WLAN5Gx n-HT20 mode U-NII-1

References

TC start	25.07.2023 10:34:32
Ambit temp [°C] | humidity [rel%]	22.7 | 58
System version	4.6.0.0
Specification	FCC 15.407 -
Method	
Description	MIMO ∑ FCC Power & psd - WLAN5Gx n-HT20 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 n-HT20 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	---	---	19.96	dBm	INFO
Ant:1 BW 26dB	---	---	21.880	MHz	INFO
Ant:2 Max Output Power DC corrected	---	---	19.45	dBm	INFO
Ant:2 BW 26dB	---	---	21.720	MHz	INFO
∑ Limit absolute	---	24	22.72	dBm	PASS
∑ Limit: 11 dBm + 10 log 21.72	---	24.37	22.72	dBm	na

RESULT PSD

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ant:1 PSD	---	---	7.92	dBm/1MHz	INFO
Ant:2 PSD	---	---	7.38	dBm/1MHz	INFO
∑	---	11	10.67	dBm/1MHz	PASS

Verdict
PASS

Message with SA scan ~

References

TC start	25.07.2023 11:22:23
Ambit temp [°C] | humidity [rel%]	22.5 | 59
System version	4.6.0.0
Specification	-
Method	
Description	Message with SA Scan n_HT20_U_NII_2A
Information	

Test Parameter

Switched Path	EUT - SignalingUnit - SpectrumAnalyzer
Message start	25.07.2023 11:22:24
Message	set WLAN5Gx to n_HT20_U_NII_2A, Frequency [MHz] 5260 , PS75

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 n-HT20 mode U-NII-2A

References

TC start	25.07.2023 11:22:34
Ambit temp [°C] | humidity [rel%]	22.6 | 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 n-HT20 mode U-NII-2A
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 n-HT20 mode
Antenna port used	1
Temperature	nom
Voltage	nom
Frequency low to test	True | Freq [MHz] 5260
Frequency mid to test	False | Freq [MHz] 5280
Frequency high to test	False | Freq [MHz] 5320
Auto control enabled power supply | Climatic Box	No | No
Additional path loss [dB]	1.3
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

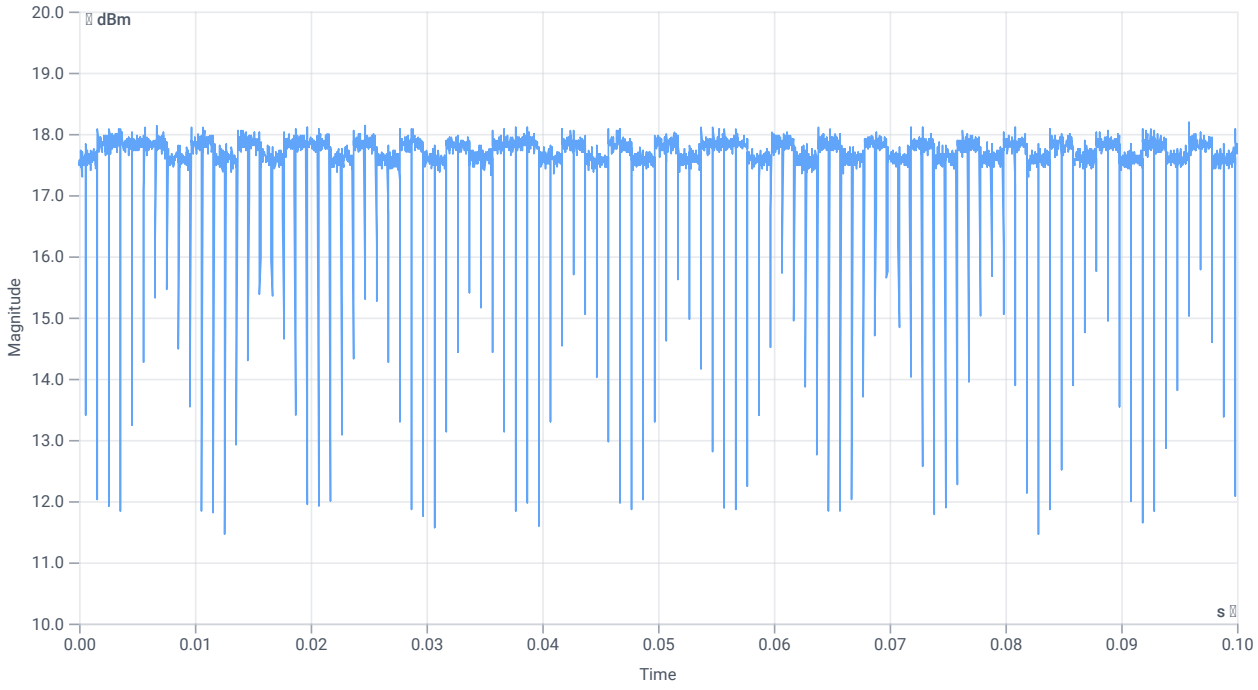
RESULT: Reference Power cond.

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	16.64	dBm	INFO
Ref. Frequency	---	---	5258.200	MHz	INFO

Evaluation max. Duty Cycle

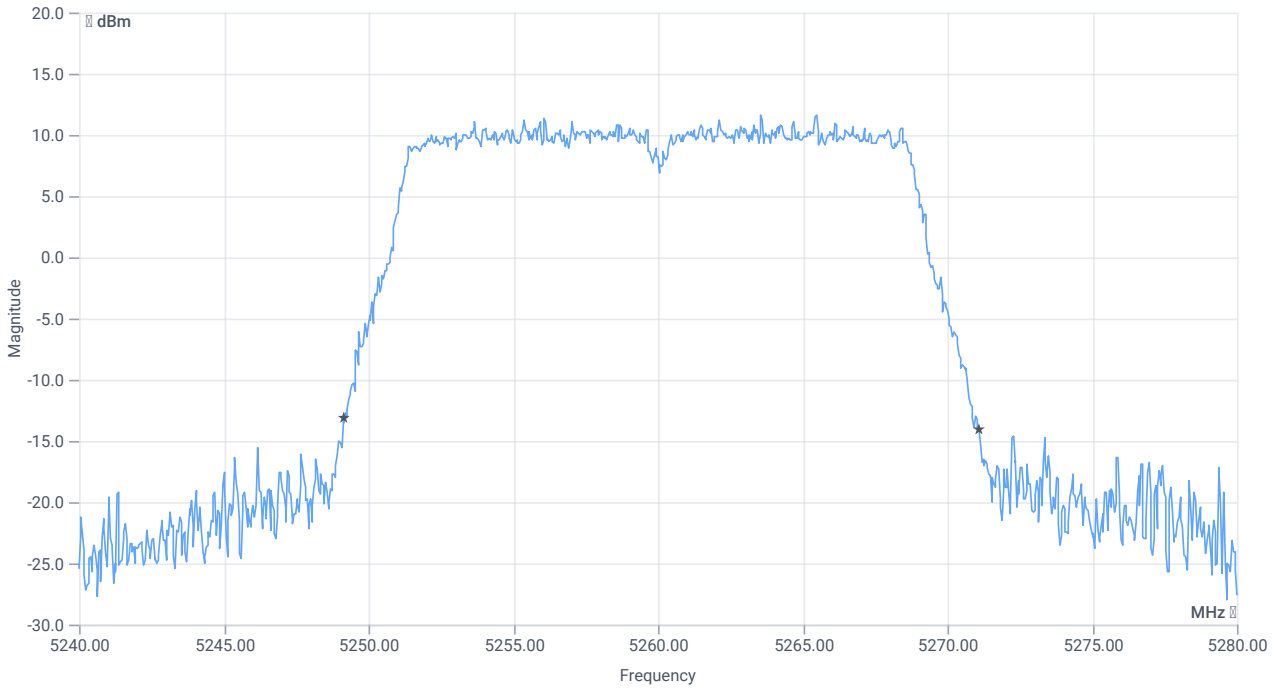
Duty Cycle evaluation

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

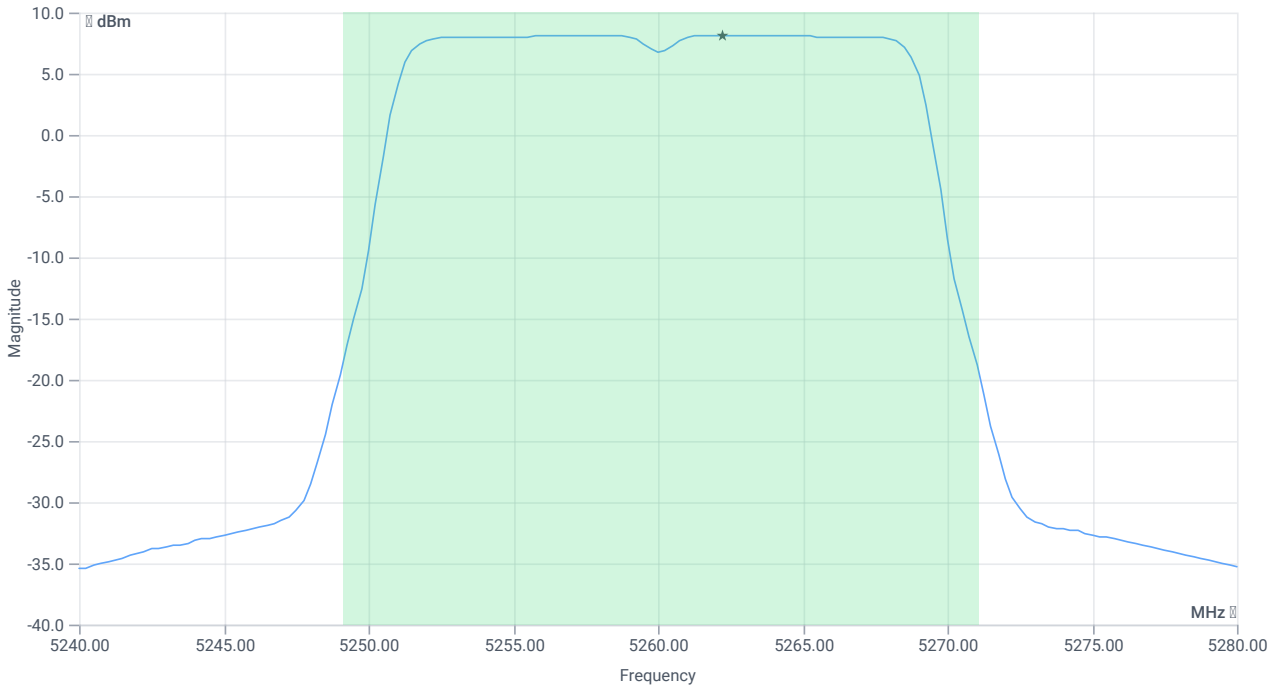
RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 26dB	---	---	21.96	MHz	INFO
T1 26dB	---	---	5249.1200	MHz	INFO
T2 26dB	---	---	5271.0800	MHz	INFO

Maximum Output Power

READ SA SETTINGS:

RefLevel [dBm] | RefLevelOffset [dB] | InpAtt [dB]	28.64 | 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	---	---	20.19	dBm	INFO
Duty Cycle Correction	---	---	0	dB	INFO
Limit absolute					
Max Output Power DC corrected	---	24	20.19	dBm	PASS
Limit: 11 dBm + 10 log			21.96		
Max Output Power DC corrected	---	24.42	20.19	dBm	PASS

Power Spectral Density

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Power Spectral Density	---	---	8.11	dBm/1MHz	INFO
Duty Cycle Correction	---	---	0	dB	INFO
Power Spectral Density DC corrected	---	11	8.11	dBm/1MHz	PASS

Verdict
PASS

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

References

TC start	25.07.2023 11:24:02
Ambit temp [°C] | humidity [rel%]	22.6 | 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 n-HT20 mode U-NII-2A
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 n-HT20 mode
Antenna port used	1
Temperature	nom
Voltage	nom
Frequency low to test	True | Freq [MHz] 5260
Frequency mid to test	False | Freq [MHz] 5280
Frequency high to test	False | Freq [MHz] 5320
Auto control enabled power supply | Climatic Box	No | No
Additional path loss [dB]	1.3
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

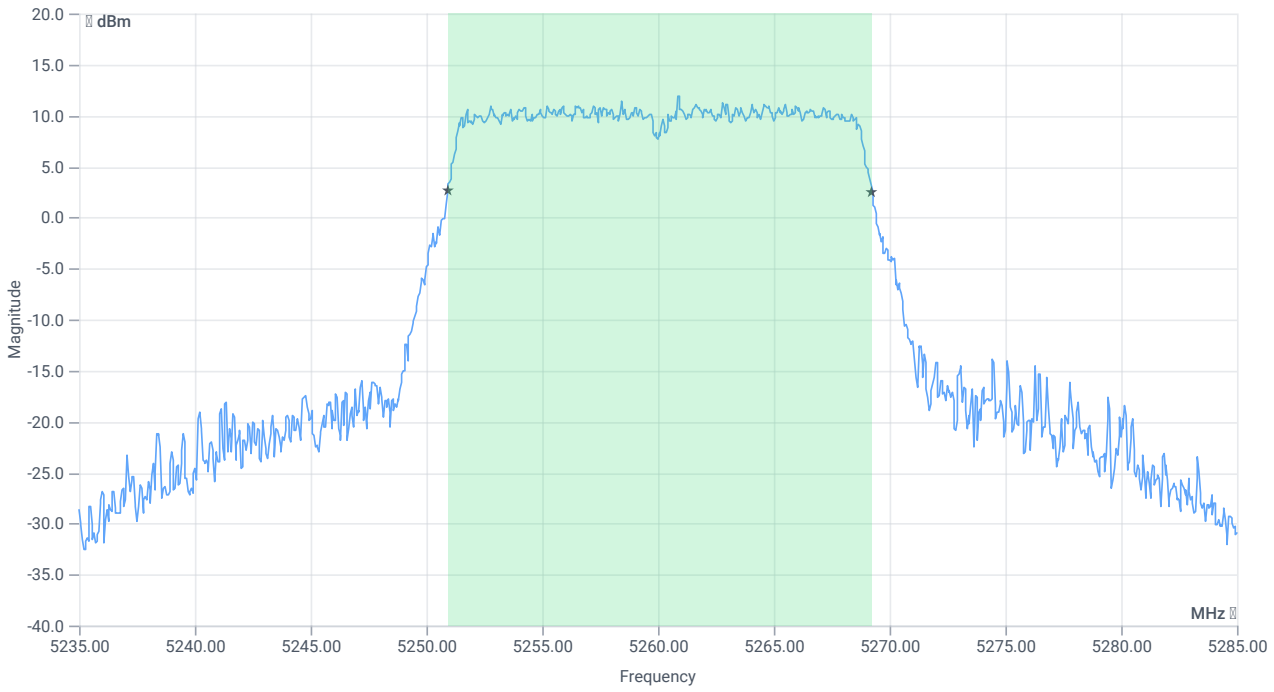
Test at TX 5260 MHz

RESULT: Reference Power cond.

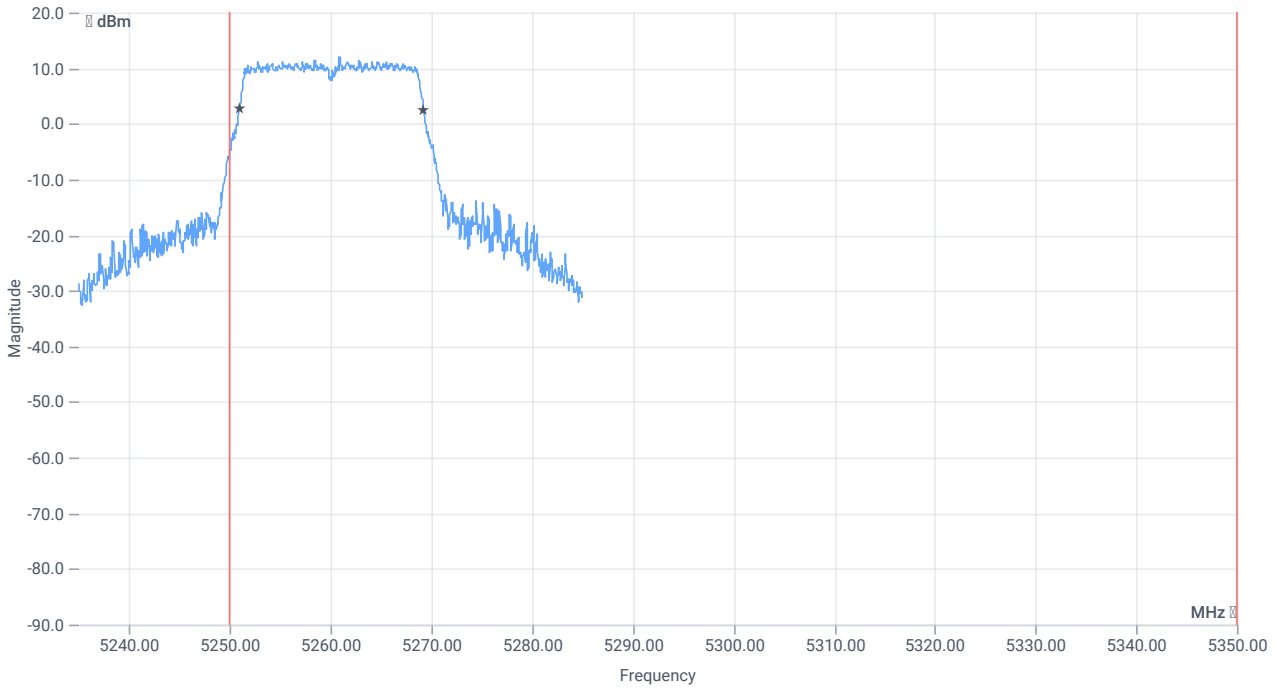
DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	16.46	dBm	INFO
Ref. Frequency	---	---	5258.000	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] | RefLevelOffset [dB] | InpAtt [dB]	24.46 | 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



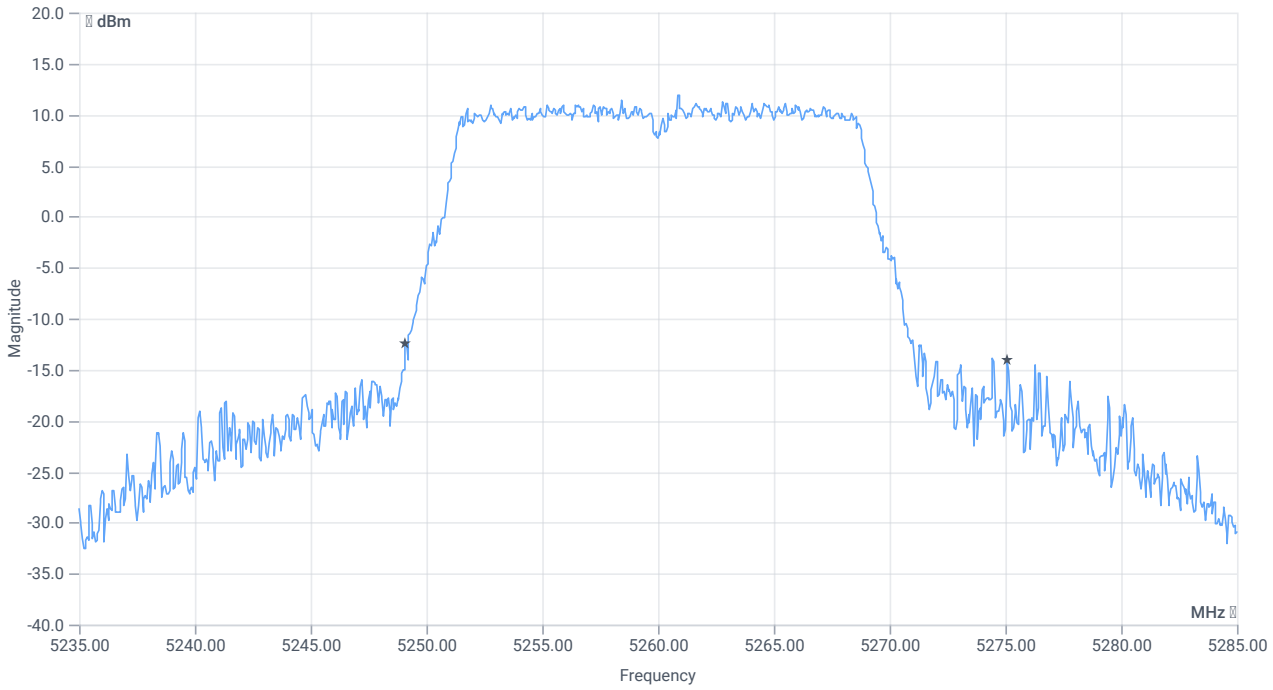
BW 99PCT



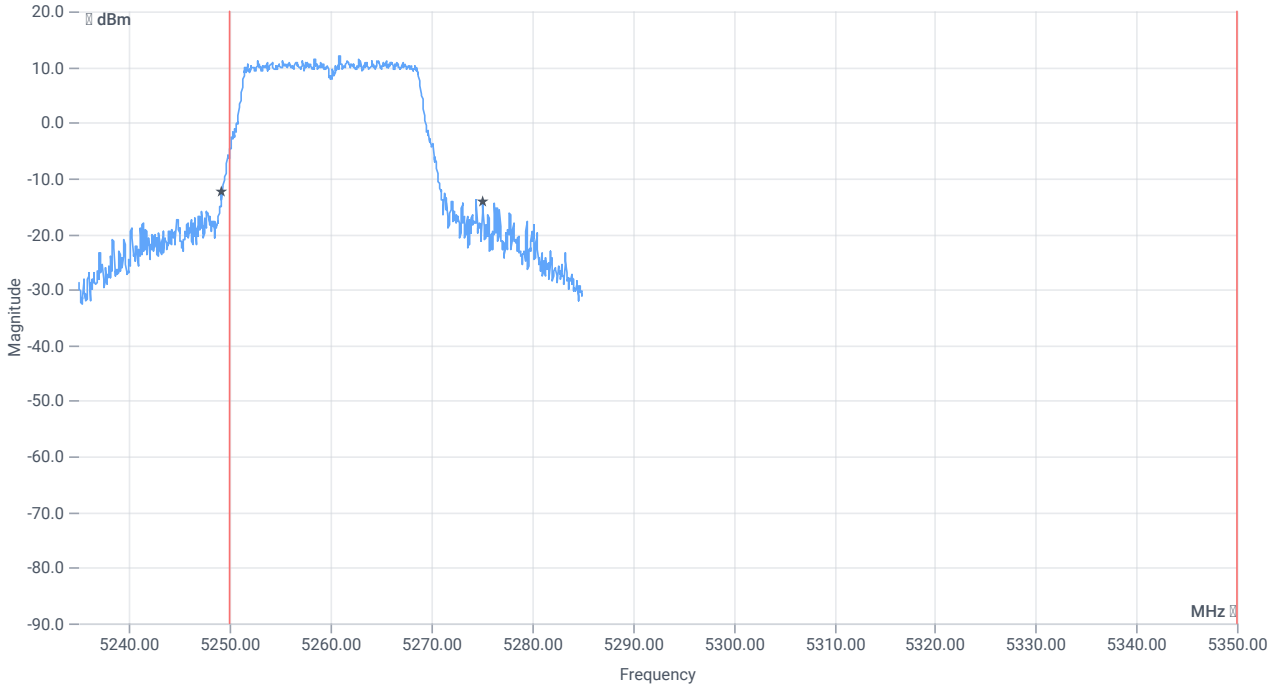
BW within Band 99PCT

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 99%	---	---	18.332	MHz	INFO
T1 99%	5250.000000	---	5250.9091	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	---	---	26	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	5275.1000	MHz	PASS

Verdict
PASS

FCC 15.407 # Max output power and psd ~ WLAN5Gx n-HT20 mode U-NII-2A

References

TC start	25.07.2023 11:24:33
Ambit temp [°C] | humidity [rel%]	22.6 | 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 n-HT20 mode U-NII-2A
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 n-HT20 mode
Antenna port used	2
Temperature	nom
Voltage	nom
Frequency low to test	True | Freq [MHz] 5260
Frequency mid to test	False | Freq [MHz] 5280
Frequency high to test	False | Freq [MHz] 5320
Auto control enabled power supply | Climatic Box	No | No
Additional path loss [dB]	1.3
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

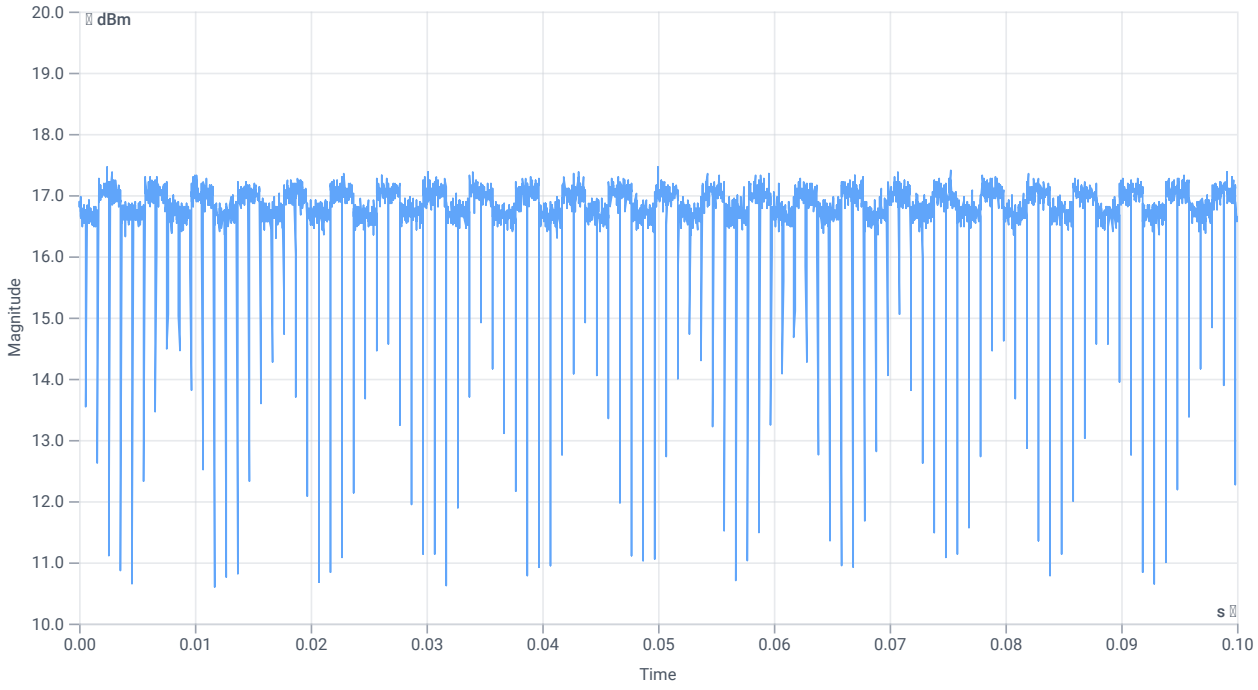
RESULT: Reference Power cond.

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	15.76	dBm	INFO
Ref. Frequency	---	---	5261.800	MHz	INFO

Evaluation max. Duty Cycle

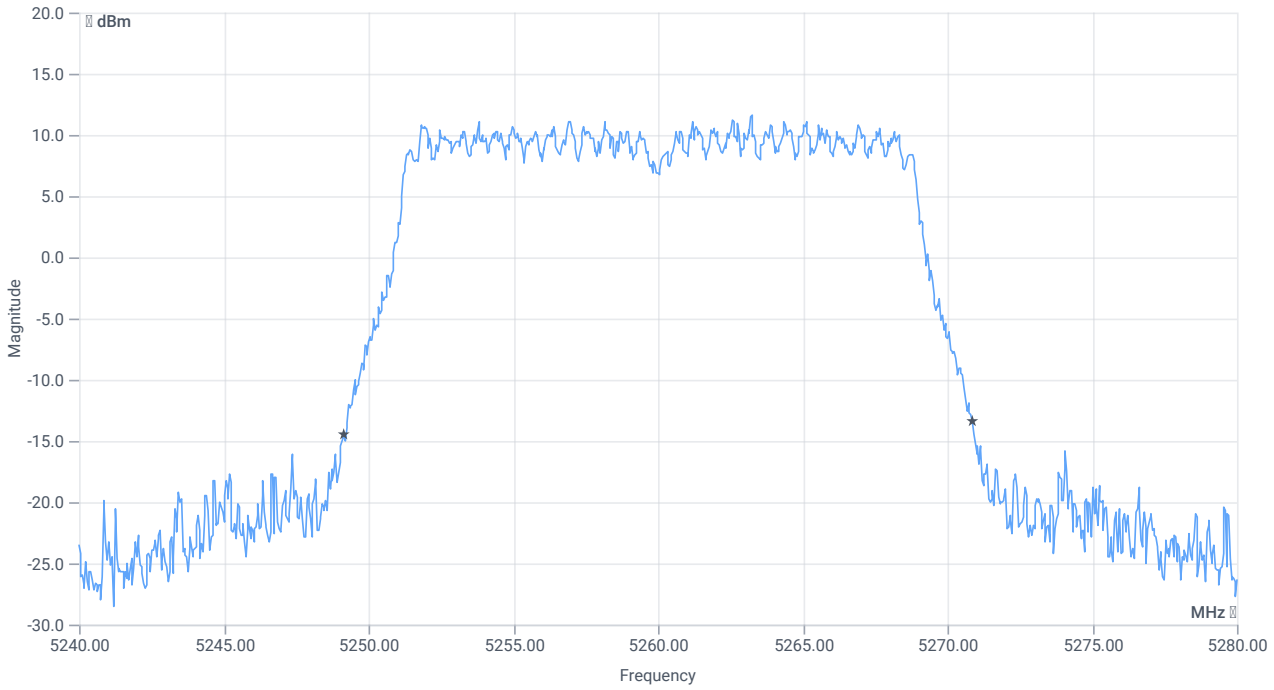
Duty Cycle evaluation

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

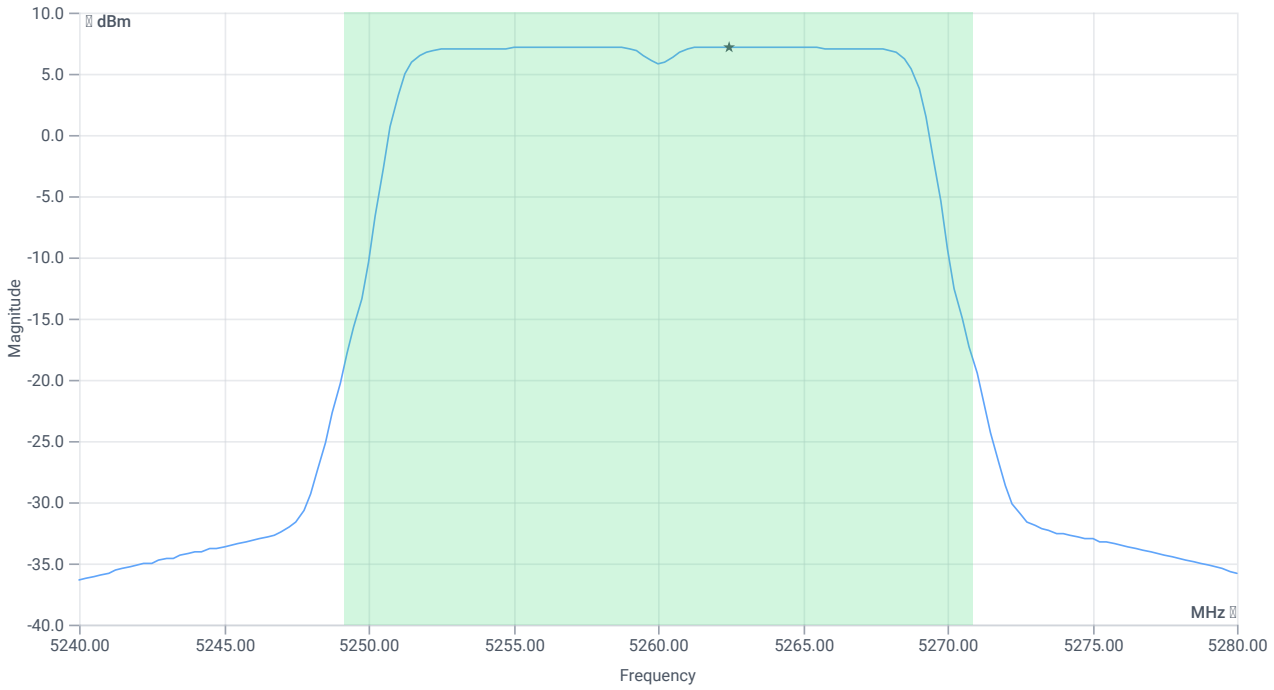
RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 26dB	---	---	21.72	MHz	INFO
T1 26dB	---	---	5249.1600	MHz	INFO
T2 26dB	---	---	5270.8800	MHz	INFO

Maximum Output Power

READ SA SETTINGS:

RefLevel [dBm] | RefLevelOffset [dB] | InpAtt [dB]	27.76 | 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	---	---	19.25	dBm	INFO
Duty Cycle Correction	---	---	0	dB	INFO
Limit absolute					
Max Output Power DC corrected	---	24	19.25	dBm	PASS
Limit: 11 dBm + 10 log		21.72			
Max Output Power DC corrected	---	24.37	19.25	dBm	PASS

Power Spectral Density

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Power Spectral Density	---	---	7.19	dBm/1MHz	INFO
Duty Cycle Correction	---	---	0	dB	INFO
Power Spectral Density DC corrected	---	11	7.19	dBm/1MHz	PASS

Verdict
PASS

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

References

TC start	25.07.2023 11:26:02
Ambit temp [°C] | humidity [rel%]	22.6 | 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 n-HT20 mode U-NII-2A
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 n-HT20 mode
Antenna port used	2
Temperature	nom
Voltage	nom
Frequency low to test	True | Freq [MHz] 5260
Frequency mid to test	False | Freq [MHz] 5280
Frequency high to test	False | Freq [MHz] 5320
Auto control enabled power supply | Climatic Box	No | No
Additional path loss [dB]	1.3
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

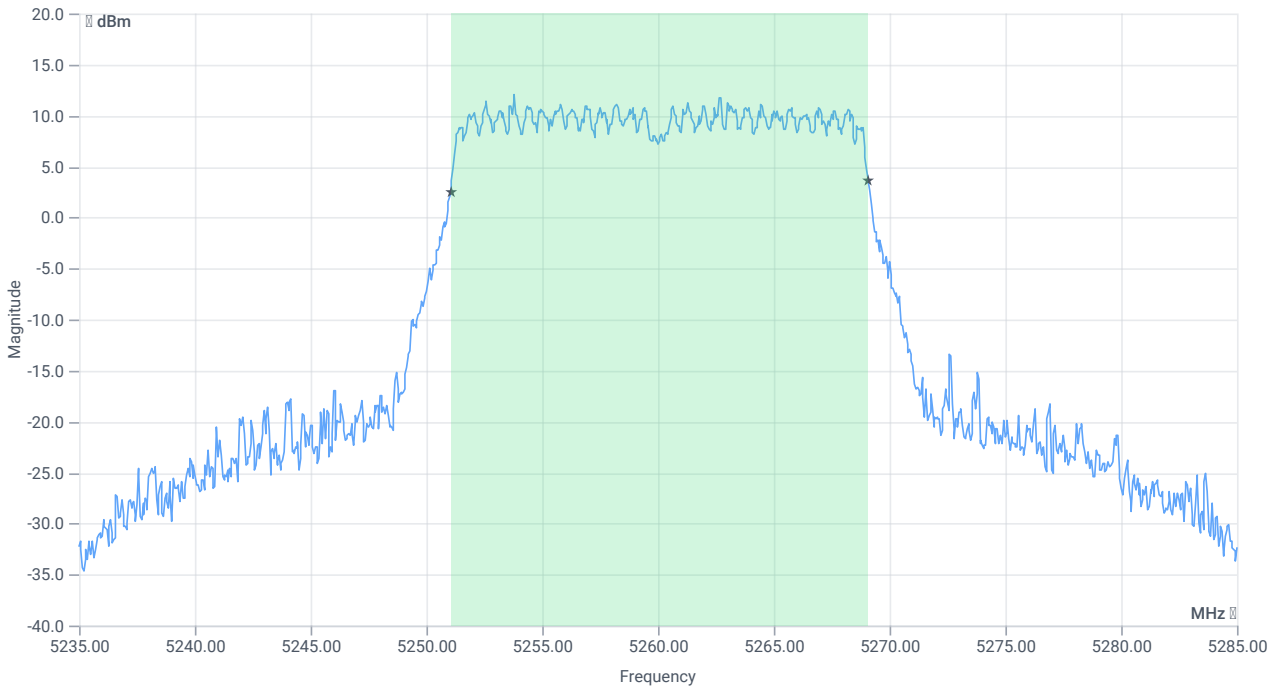
Test at TX 5260 MHz

RESULT: Reference Power cond.

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	16.51	dBm	INFO
Ref. Frequency	---	---	5254.610	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] | RefLevelOffset [dB] | InpAtt [dB]	24.51 | 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

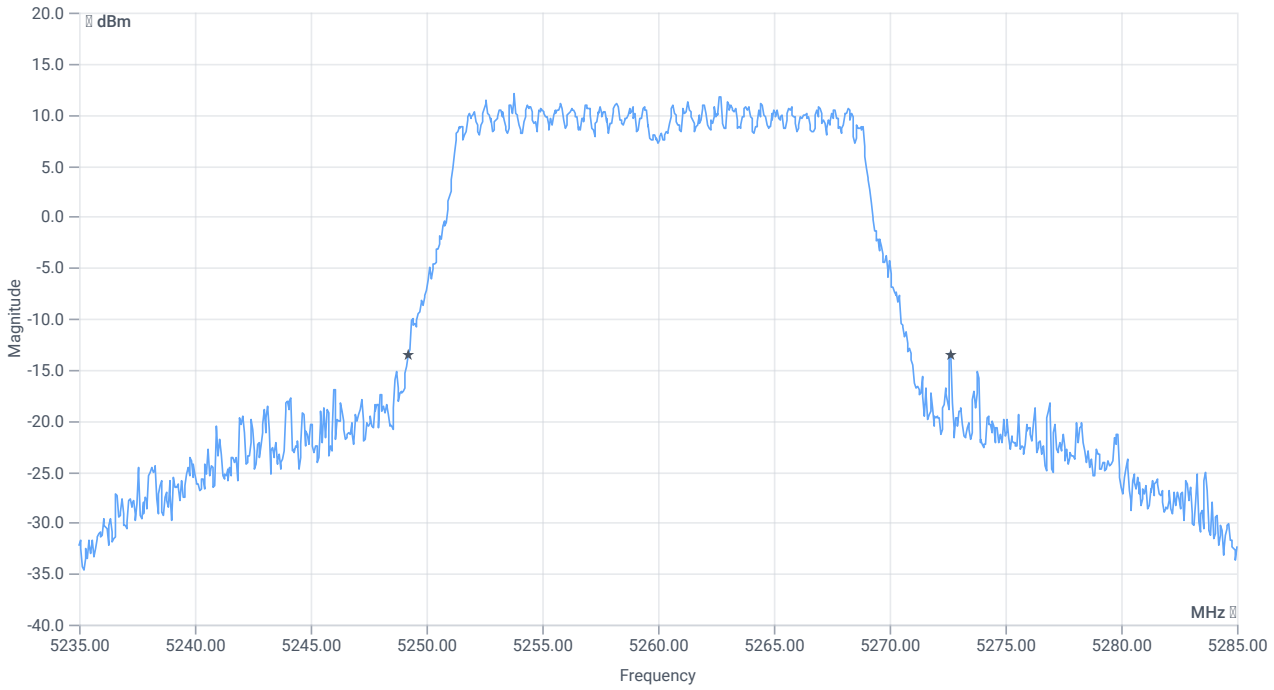


BW 99PCT

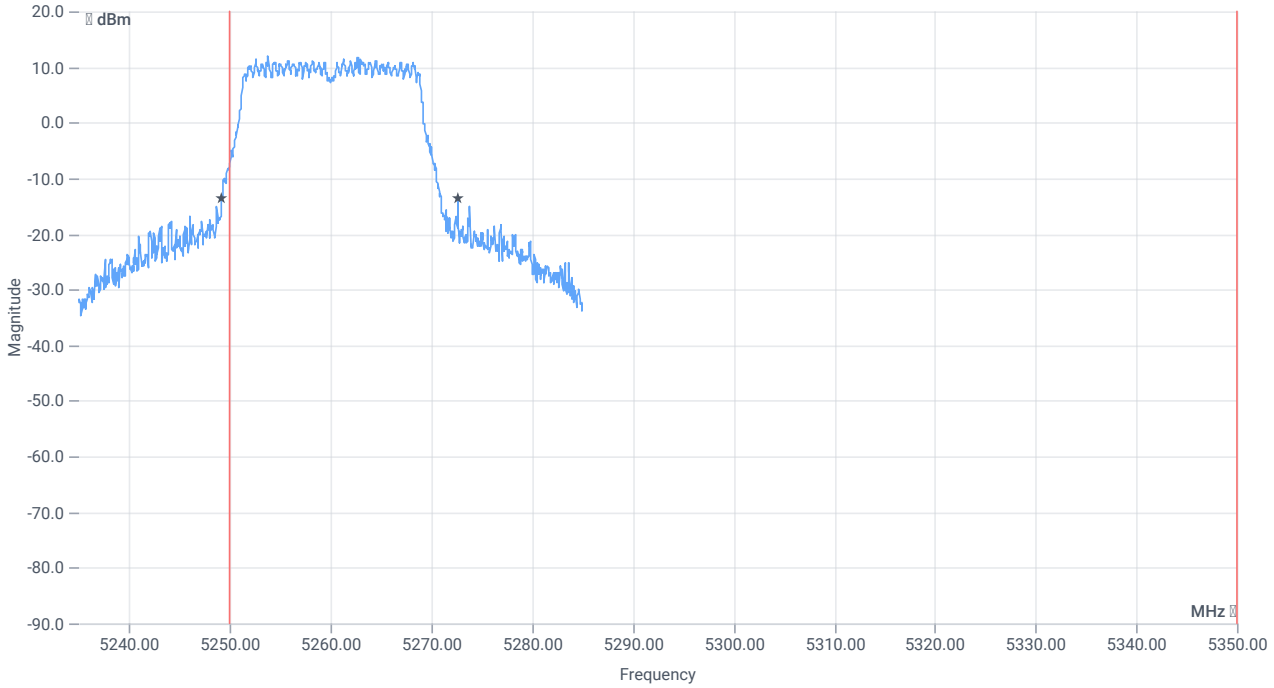
BW within Band 99PCT

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	---	---	23.45	MHz	INFO

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
T1 26dB	5250.000000	---	5249.2000	MHz	PASS since U-NII-1 is supported
T2 26dB	---	5350.000000	5272.6500	MHz	PASS

Verdict
PASS

FCC 15.407 # MIMO ∑ Max output power and psd ~ WLAN5Gx n-HT20 mode U-NII-2A

References

TC start	25.07.2023 11:26:34
Ambit temp [°C] | humidity [rel%]	22.6 | 58
System version	4.6.0.0
Specification	FCC 15.407 -
Method	
Description	MIMO ∑ FCC Power & psd - WLAN5Gx n-HT20 mode U-NII-2A
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 n-HT20 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	---	---	20.19	dBm	INFO
Ant:1 BW 26dB	---	---	21.960	MHz	INFO
Ant:2 Max Output Power DC corrected	---	---	19.25	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	---	---	8.11	dBm/1MHz	INFO
Ant:2 PSD	---	---	7.19	dBm/1MHz	INFO
∑	---	11	10.68	dBm/1MHz	PASS

Verdict
PASS

Message with SA scan ~

References

TC start	25.07.2023 11:43:27
Ambit temp [°C] | humidity [rel%]	22.9 | 58
System version	4.6.0.0
Specification	-
Method	
Description	Message with SA Scan n_HT20_U_NII_2A
Information	

Test Parameter

Switched Path	EUT - SignalingUnit - SpectrumAnalyzer
Message start	25.07.2023 11:43:27
Message	set WLAN5Gx to n_HT20_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 n-HT20 mode U-NII-2A

References

TC start	25.07.2023 11:43:34
Ambit temp [°C] | humidity [rel%]	22.9 | 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 n-HT20 mode U-NII-2A
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 n-HT20 mode
Antenna port used	1
Temperature	nom
Voltage	nom
Frequency low to test	False | Freq [MHz] 5260
Frequency mid to test	True | Freq [MHz] 5280
Frequency high to test	False | Freq [MHz] 5320
Auto control enabled power supply | Climatic Box	No | No
Additional path loss [dB]	1.3
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

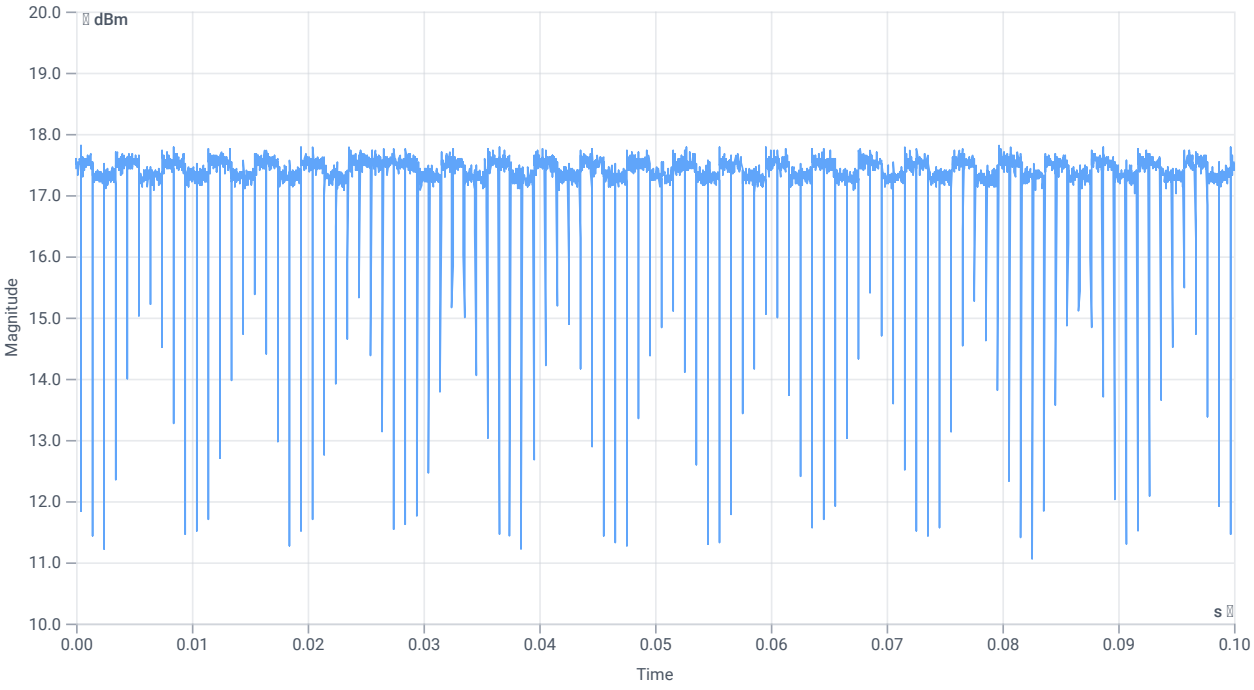
RESULT: Reference Power cond.

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	15.79	dBm	INFO
Ref. Frequency	---	---	5283.400	MHz	INFO

Evaluation max. Duty Cycle

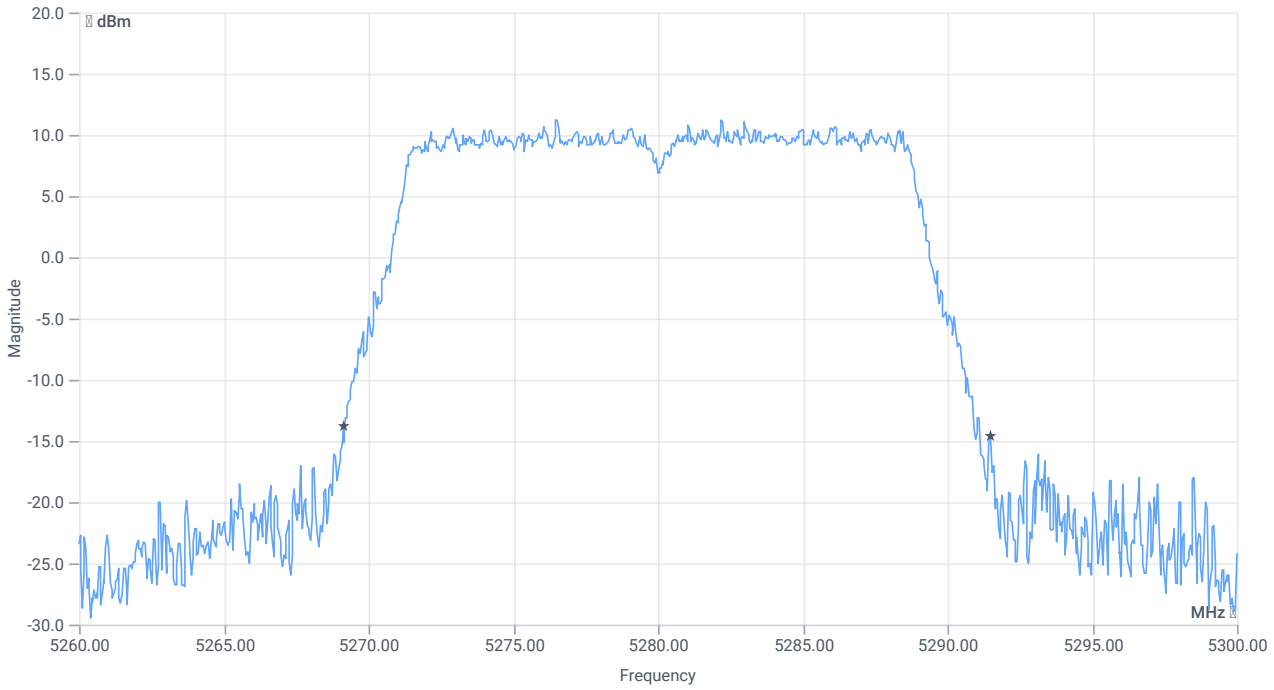
Duty Cycle evaluation

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

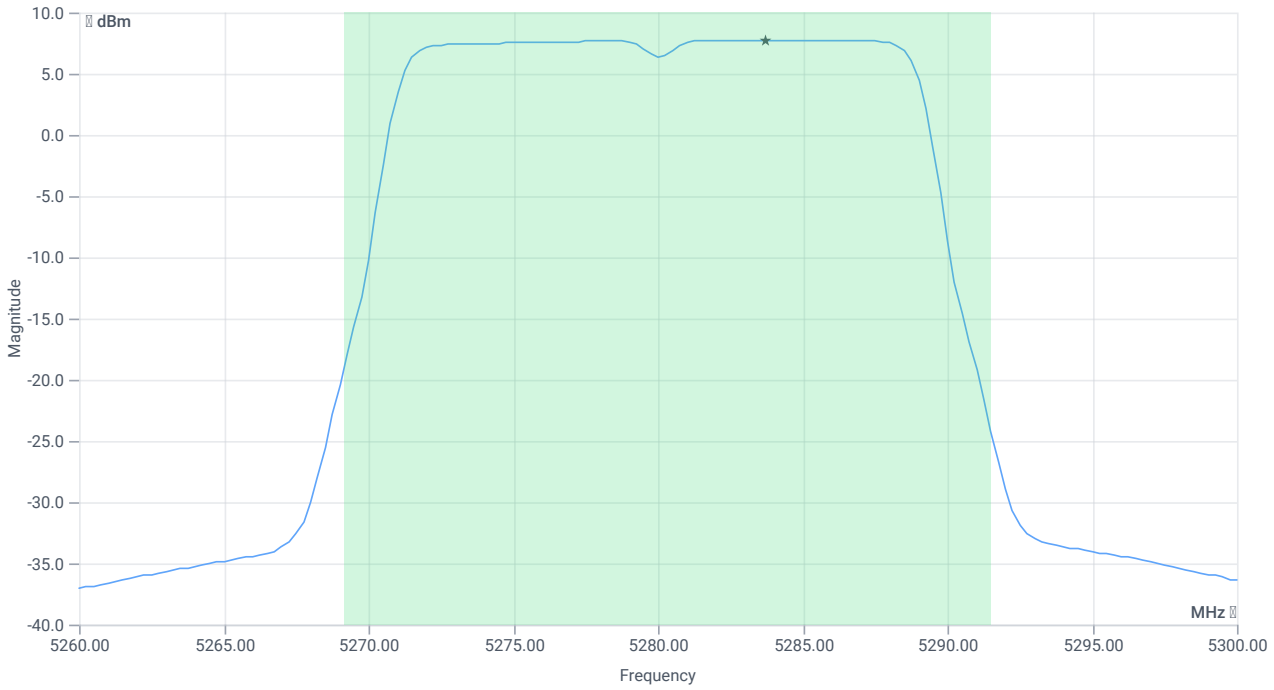
RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 26dB	---	---	22.36	MHz	INFO
T1 26dB	---	---	5269.1200	MHz	INFO
T2 26dB	---	---	5291.4800	MHz	INFO

Maximum Output Power

READ SA SETTINGS:

RefLevel [dBm] | RefLevelOffset [dB] | InpAtt [dB]	27.79 | 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	---	---	19.77	dBm	INFO
Duty Cycle Correction	---	---	0	dB	INFO
Limit absolute					
Max Output Power DC corrected	---	24	19.77	dBm	PASS
Limit: 11 dBm + 10 log	22.36				
Max Output Power DC corrected	---	24.49	19.77	dBm	PASS

Power Spectral Density

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Power Spectral Density	---	---	7.75	dBm/1MHz	INFO
Duty Cycle Correction	---	---	0	dB	INFO
Power Spectral Density DC corrected	---	11	7.75	dBm/1MHz	PASS

Verdict
PASS

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

References

TC start	25.07.2023 11:45:03
Ambit temp [°C] | humidity [rel%]	22.9 | 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 n-HT20 mode U-NII-2A
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 n-HT20 mode
Antenna port used	1
Temperature	nom
Voltage	nom
Frequency low to test	False | Freq [MHz] 5260
Frequency mid to test	True | Freq [MHz] 5280
Frequency high to test	False | Freq [MHz] 5320
Auto control enabled power supply | Climatic Box	No | No
Additional path loss [dB]	1.3
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

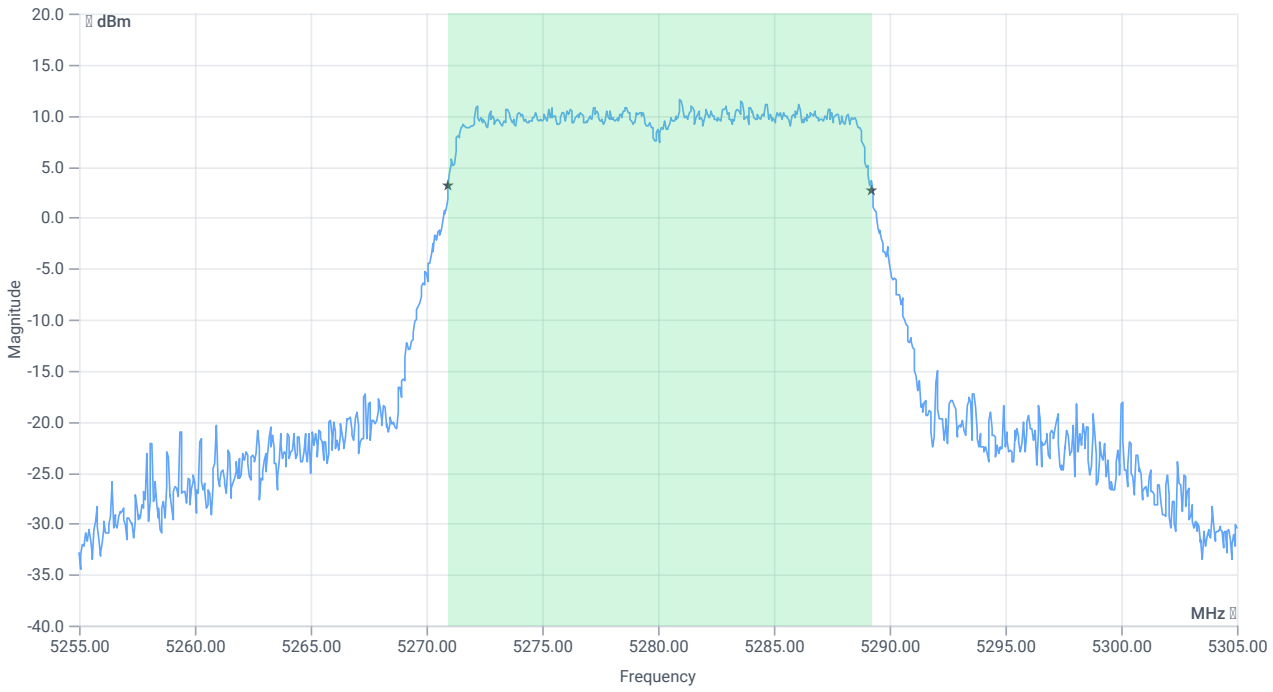
Test at TX 5280 MHz

RESULT: Reference Power cond.

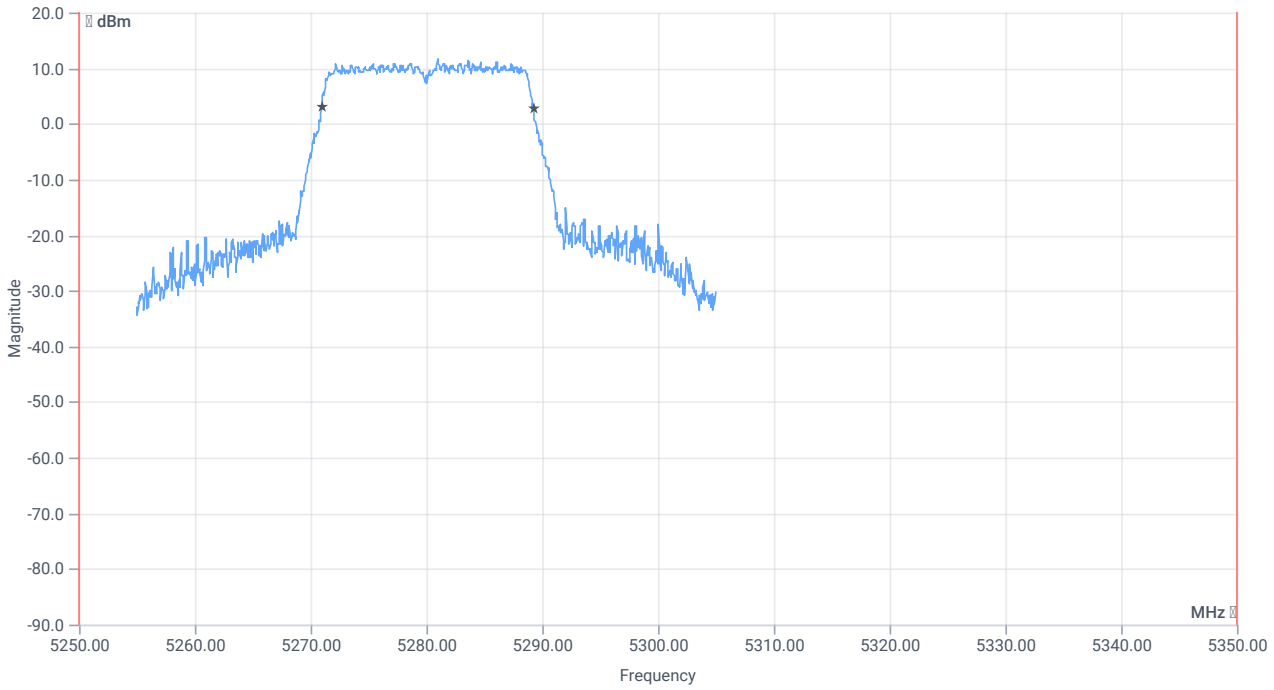
DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	15.56	dBm	INFO
Ref. Frequency	---	---	5274.010	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] | RefLevelOffset [dB] | InpAtt [dB]	23.56 | 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



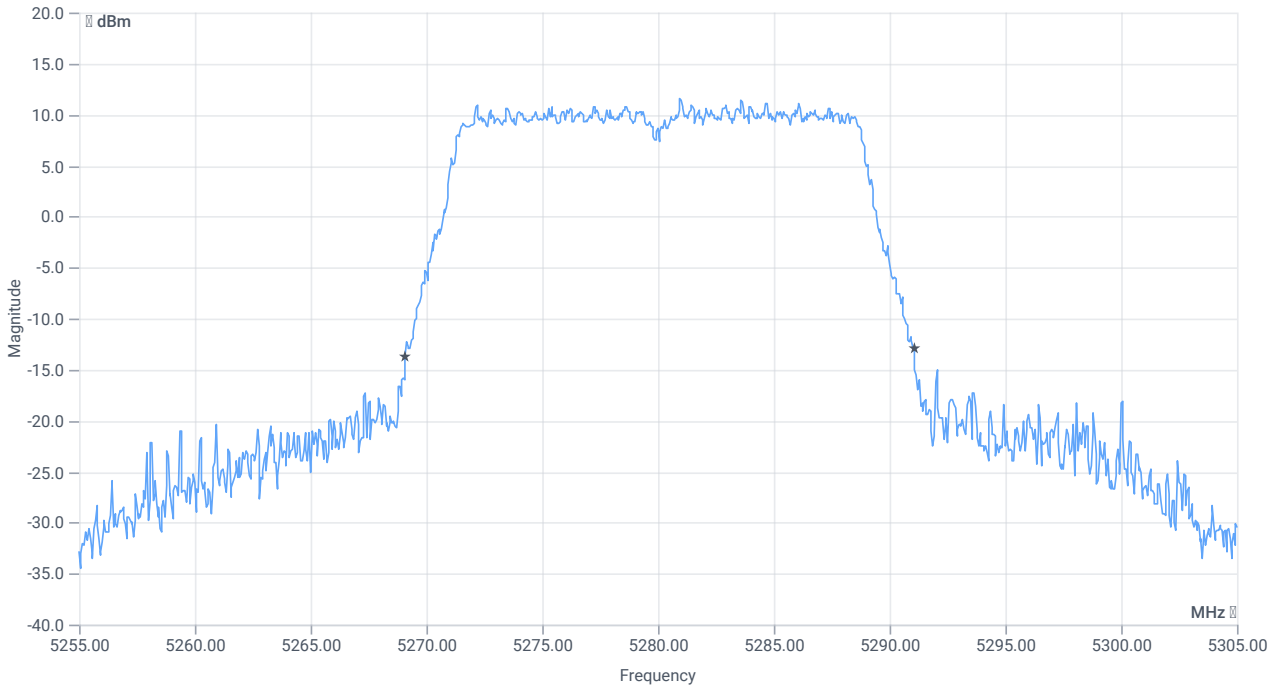
BW 99PCT



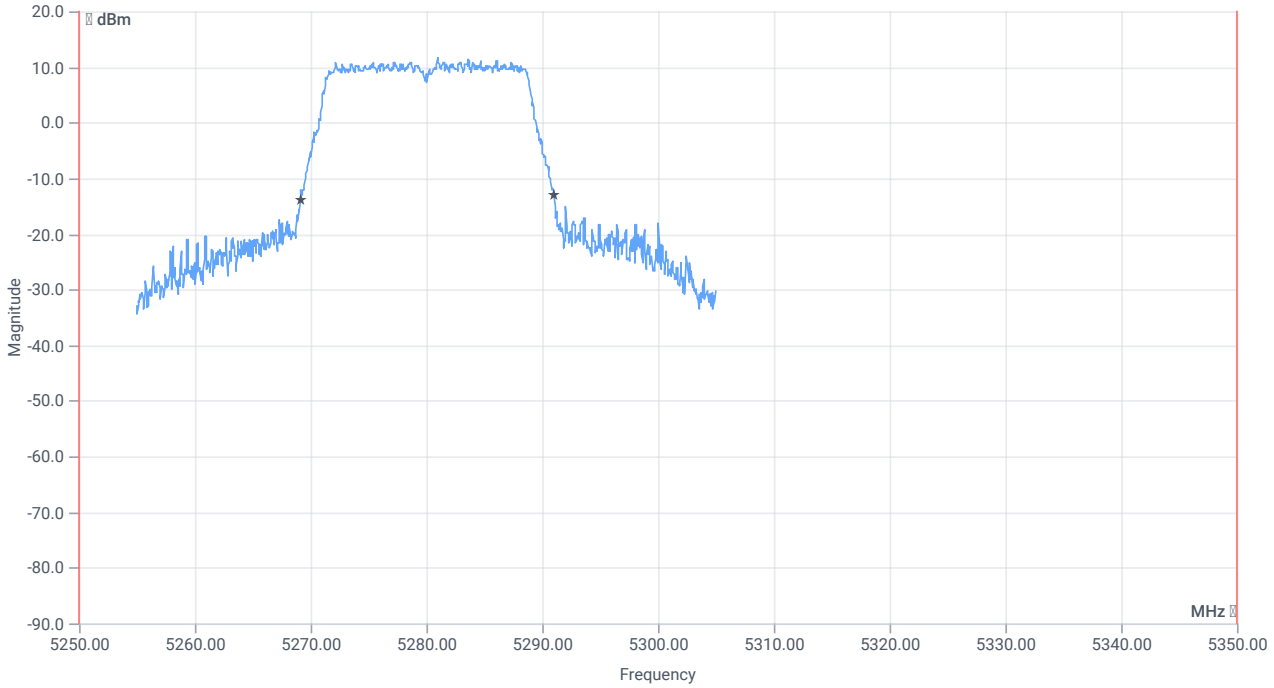
BW within Band 99PCT

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 99%	---	---	18.282	MHz	INFO
T1 99%	5250.000000	---	5270.9590	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 n-HT20 mode U-NII-2A

References

TC start	25.07.2023 11:45:34
Ambit temp [°C] | humidity [rel%]	22.9 | 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 n-HT20 mode U-NII-2A
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 n-HT20 mode
Antenna port used	2
Temperature	nom
Voltage	nom
Frequency low to test	False | Freq [MHz] 5260
Frequency mid to test	True | Freq [MHz] 5280
Frequency high to test	False | Freq [MHz] 5320
Auto control enabled power supply | Climatic Box	No | No
Additional path loss [dB]	1.3
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

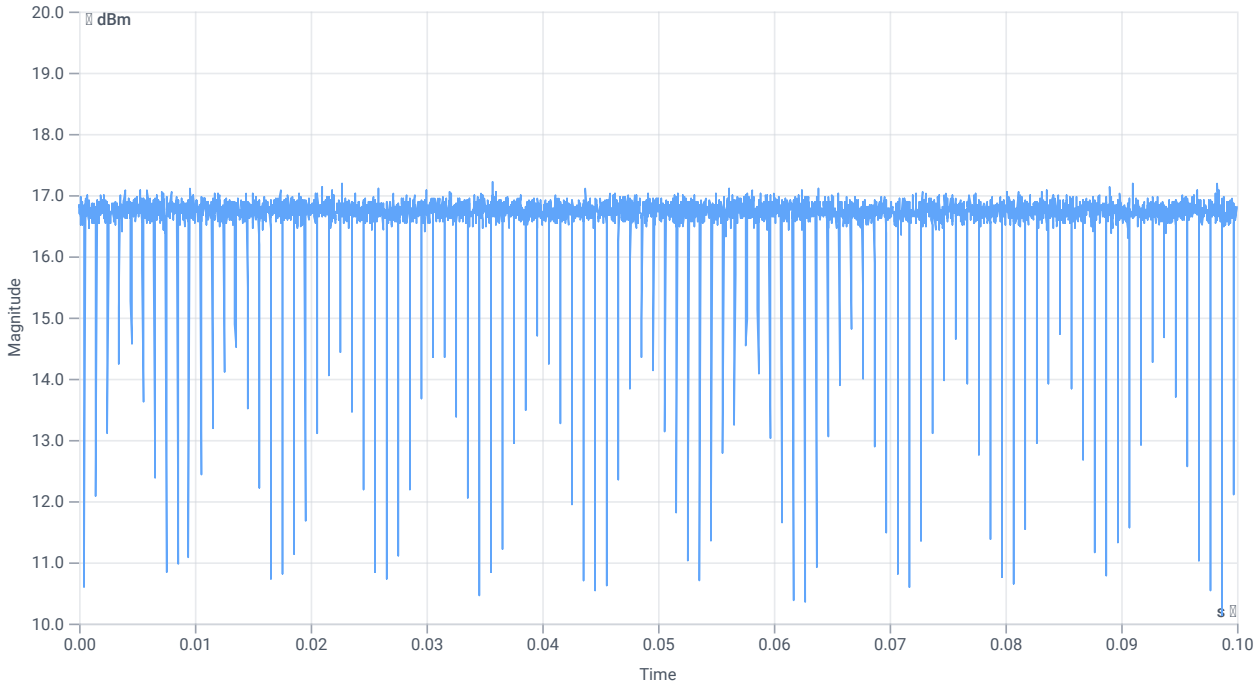
RESULT: Reference Power cond.

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	16.21	dBm	INFO
Ref. Frequency	---	---	5278.000	MHz	INFO

Evaluation max. Duty Cycle

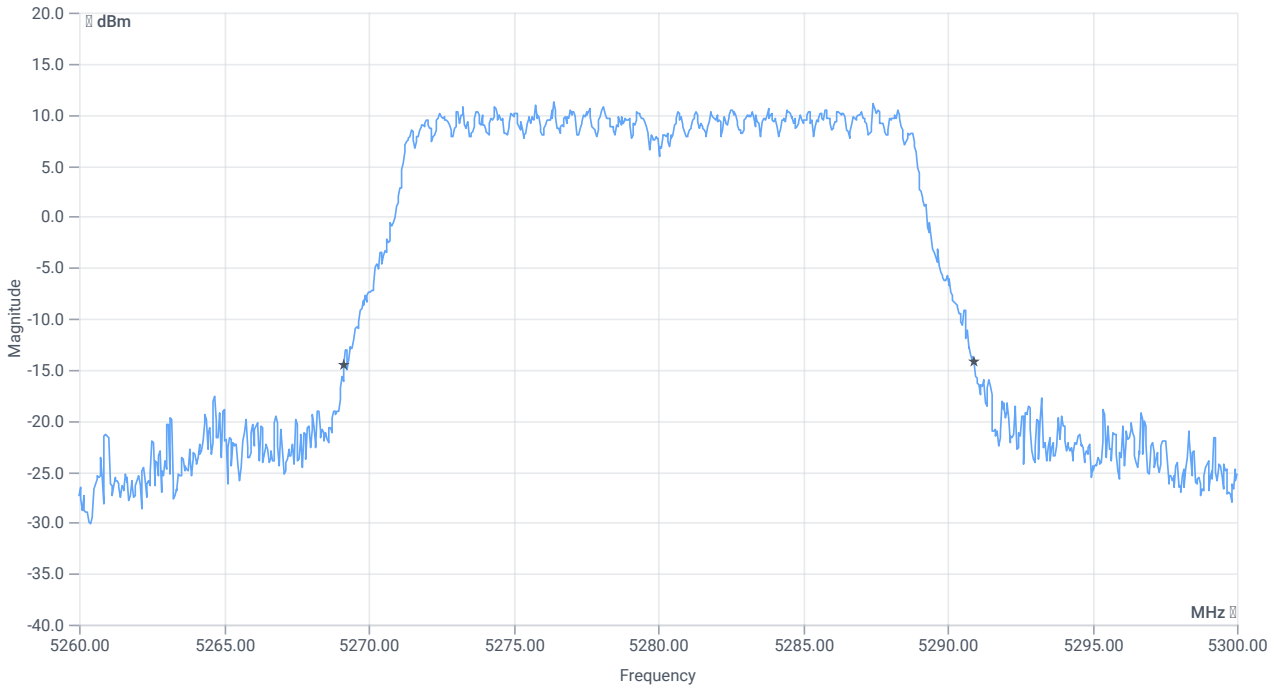
Duty Cycle evaluation

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



Duty cycle

Evaluation Bandwidth



BW 26dB

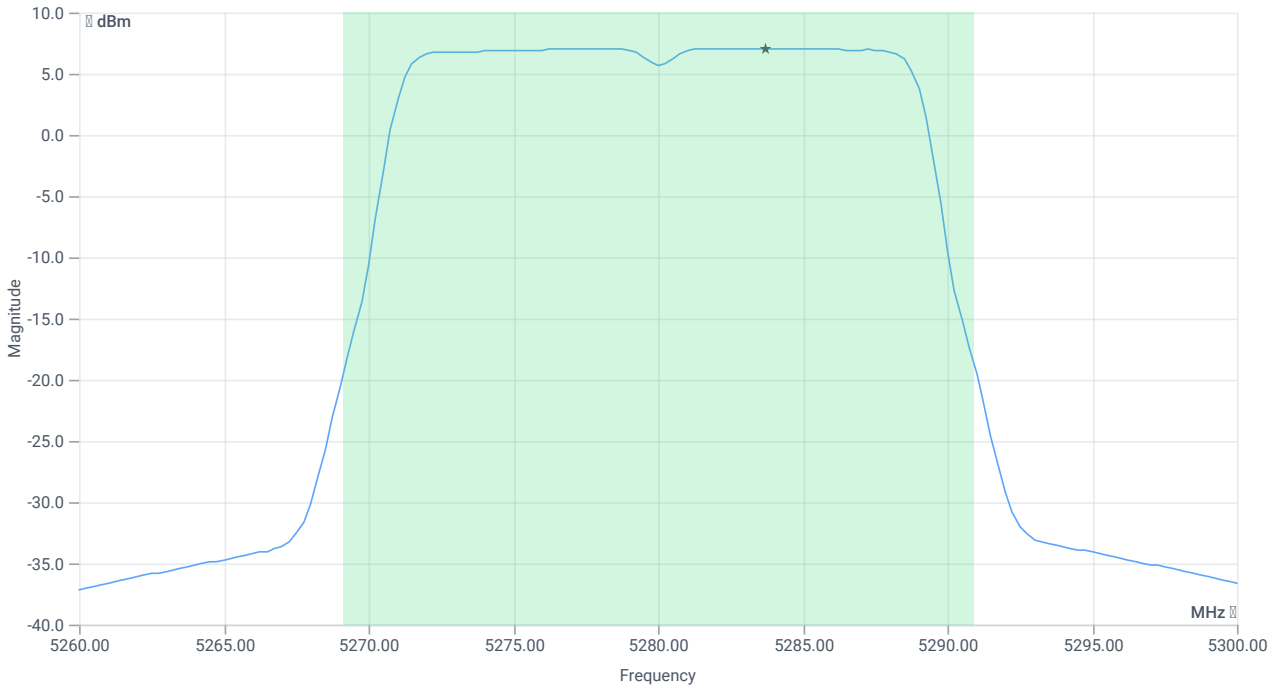
RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 26dB	---	---	21.76	MHz	INFO
T1 26dB	---	---	5269.1600	MHz	INFO
T2 26dB	---	---	5290.9200	MHz	INFO

Maximum Output Power

READ SA SETTINGS:

RefLevel [dBm] | RefLevelOffset [dB] | InpAtt [dB]	28.21 | 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	---	---	19.1	dBm	INFO
Duty Cycle Correction	---	---	0	dB	INFO
Limit absolute					
Max Output Power DC corrected	---	24	19.1	dBm	PASS
Limit: 11 dBm + 10 log	21.76				
Max Output Power DC corrected	---	24.38	19.1	dBm	PASS

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 n-HT20 mode U-NII-2A

References

TC start	25.07.2023 11:47:03
Ambit temp [°C] | humidity [rel%]	22.9 | 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 n-HT20 mode U-NII-2A
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 n-HT20 mode
Antenna port used	2
Temperature	nom
Voltage	nom
Frequency low to test	False | Freq [MHz] 5260
Frequency mid to test	True | Freq [MHz] 5280
Frequency high to test	False | Freq [MHz] 5320
Auto control enabled power supply | Climatic Box	No | No
Additional path loss [dB]	1.3
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

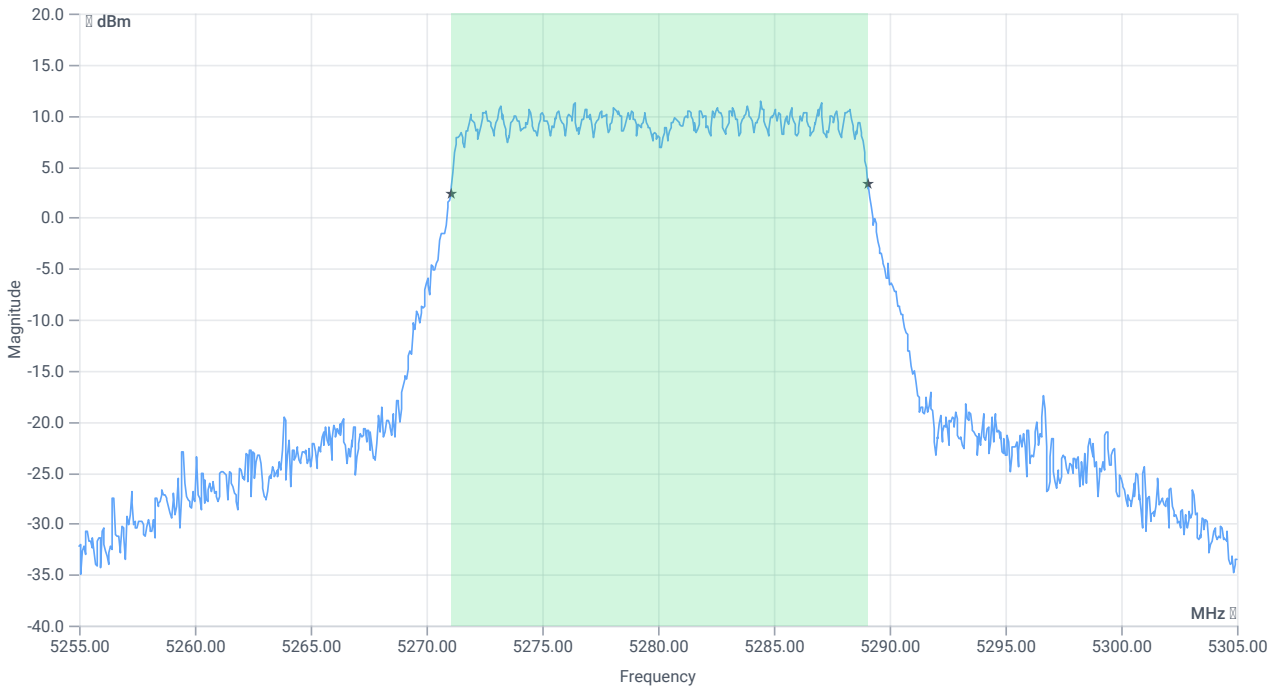
Test at TX 5280 MHz

RESULT: Reference Power cond.

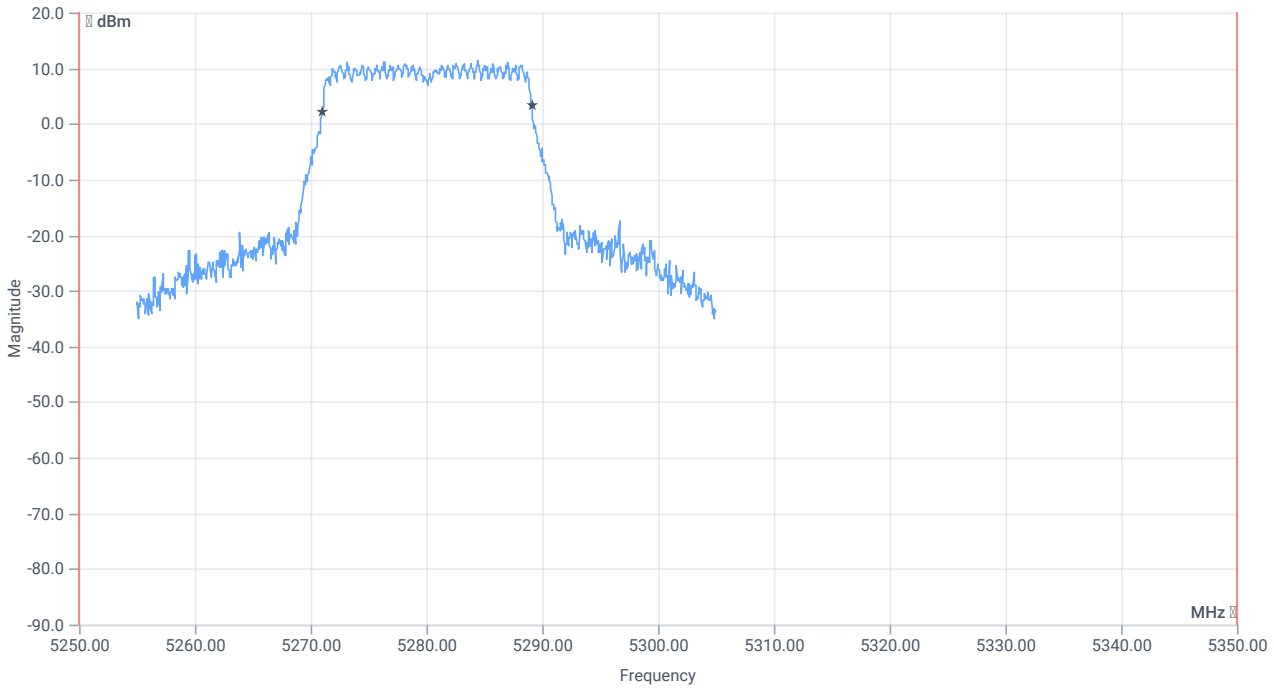
DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	15.87	dBm	INFO
Ref. Frequency	---	---	5282.200	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] | RefLevelOffset [dB] | InpAtt [dB]	23.87 | 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



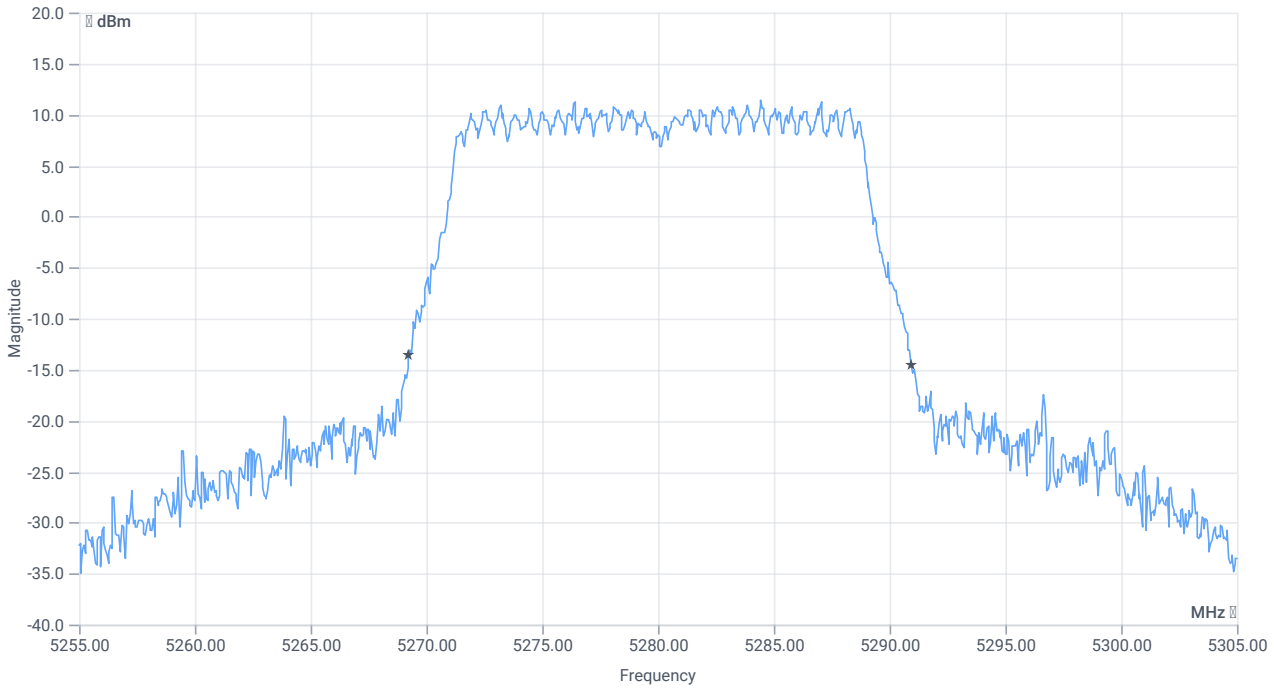
BW 99PCT



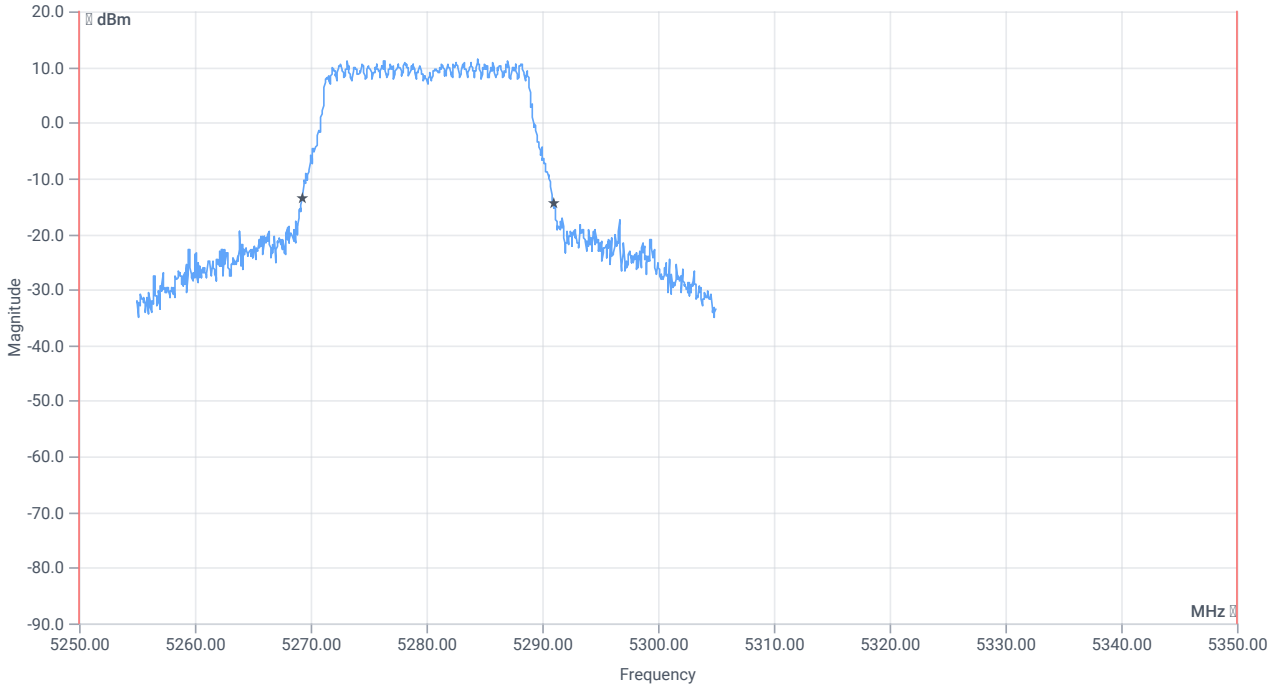
BW within Band 99PCT

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 99%	---	---	18.032	MHz	INFO
T1 99%	5250.000000	---	5271.0589	MHz	PASS since U-NII-1 is supported
T2 99%	---	5350.000000	5289.0909	MHz	PASS



BW 26dB



BW within Band 26dB

RESULT

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

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
T1 26dB	5250.000000	---	5269.2500	MHz	PASS since U-NII-1 is supported
T2 26dB	---	5350.000000	5290.9500	MHz	PASS

Verdict
PASS

FCC 15.407 # MIMO ∑ Max output power and psd ~ WLAN5Gx n-HT20 mode U-NII-2A

References

TC start	25.07.2023 11:47:35
Ambit temp [°C] | humidity [rel%]	23.0 | 57
System version	4.6.0.0
Specification	FCC 15.407 -
Method	
Description	MIMO ∑ FCC Power & psd - WLAN5Gx n-HT20 mode U-NII-2A
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 n-HT20 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	---	---	19.77	dBm	INFO
Ant:1 BW 26dB	---	---	22.360	MHz	INFO
Ant:2 Max Output Power DC corrected	---	---	19.1	dBm	INFO
Ant:2 BW 26dB	---	---	21.760	MHz	INFO
∑ Limit absolute	---	24	22.46	dBm	PASS
∑ Limit: 11 dBm + 10 log 21.76	---	24.38	22.46	dBm	PASS

RESULT PSD

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ant:1 PSD	---	---	7.75	dBm/1MHz	INFO
Ant:2 PSD	---	---	7.07	dBm/1MHz	INFO
∑	---	11	10.43	dBm/1MHz	PASS

Verdict
PASS

Message with SA scan ~

References

TC start	25.07.2023 11:47:54
Ambit temp [°C] | humidity [rel%]	23.0 | 57
System version	4.6.0.0
Specification	-
Method	
Description	Message with SA Scan n_HT20_U_NII_2A
Information	

Test Parameter

Switched Path	EUT - SignalingUnit - SpectrumAnalyzer
Message start	25.07.2023 11:47:55
Message	set WLAN5Gx to n_HT20_U_NII_2A, Frequency [MHz] 5320 PS70

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 n-HT20 mode U-NII-2A

References

TC start	25.07.2023 11:48:29
Ambit temp [°C] | humidity [rel%]	23.0 | 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 n-HT20 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 n-HT20 mode
Antenna port used	1
Temperature	nom
Voltage	nom
Frequency low to test	False | Freq [MHz] 5260
Frequency mid to test	False | Freq [MHz] 5280
Frequency high to test	True | Freq [MHz] 5320
Auto control enabled power supply | Climatic Box	No | No
Additional path loss [dB]	1.3
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

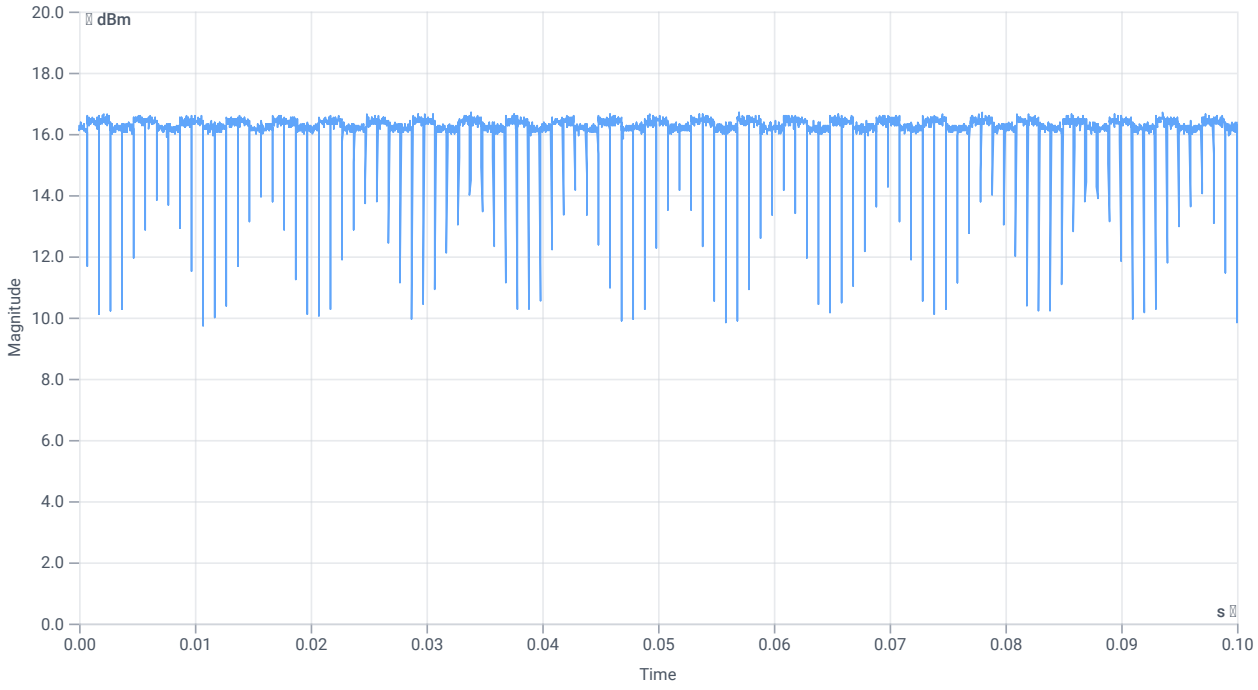
RESULT: Reference Power cond.

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	15.04	dBm	INFO
Ref. Frequency	---	---	5318.400	MHz	INFO

Evaluation max. Duty Cycle

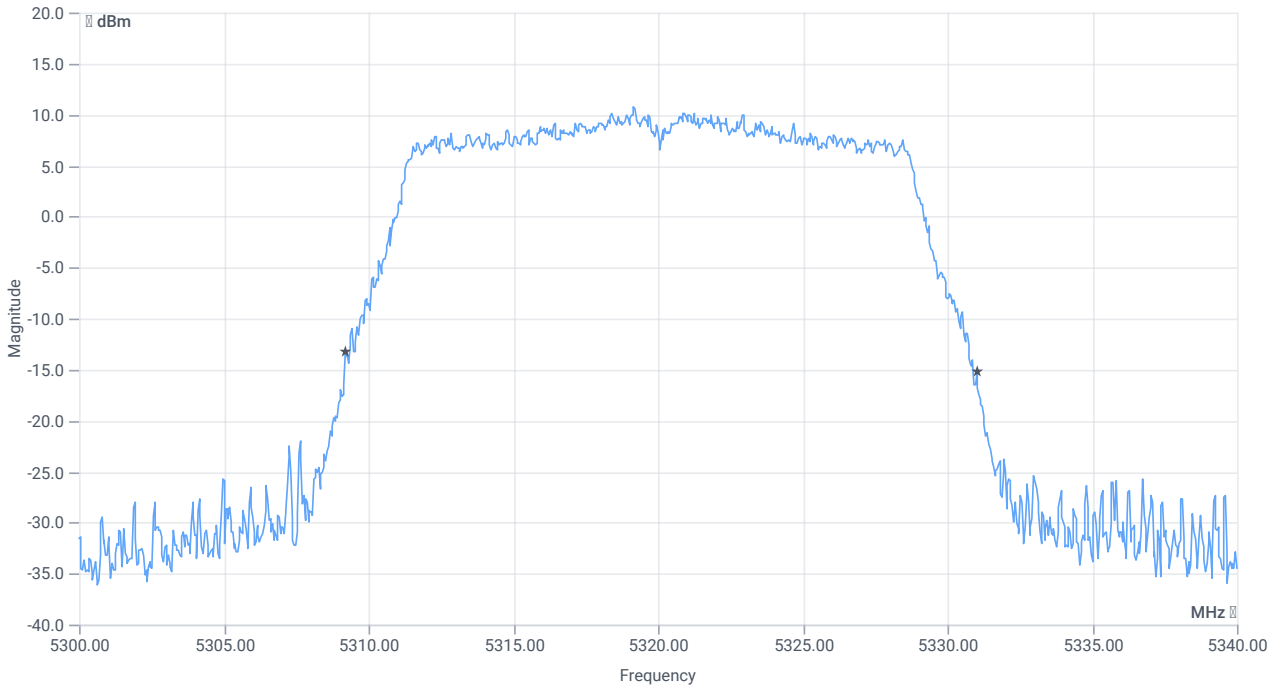
Duty Cycle evaluation

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

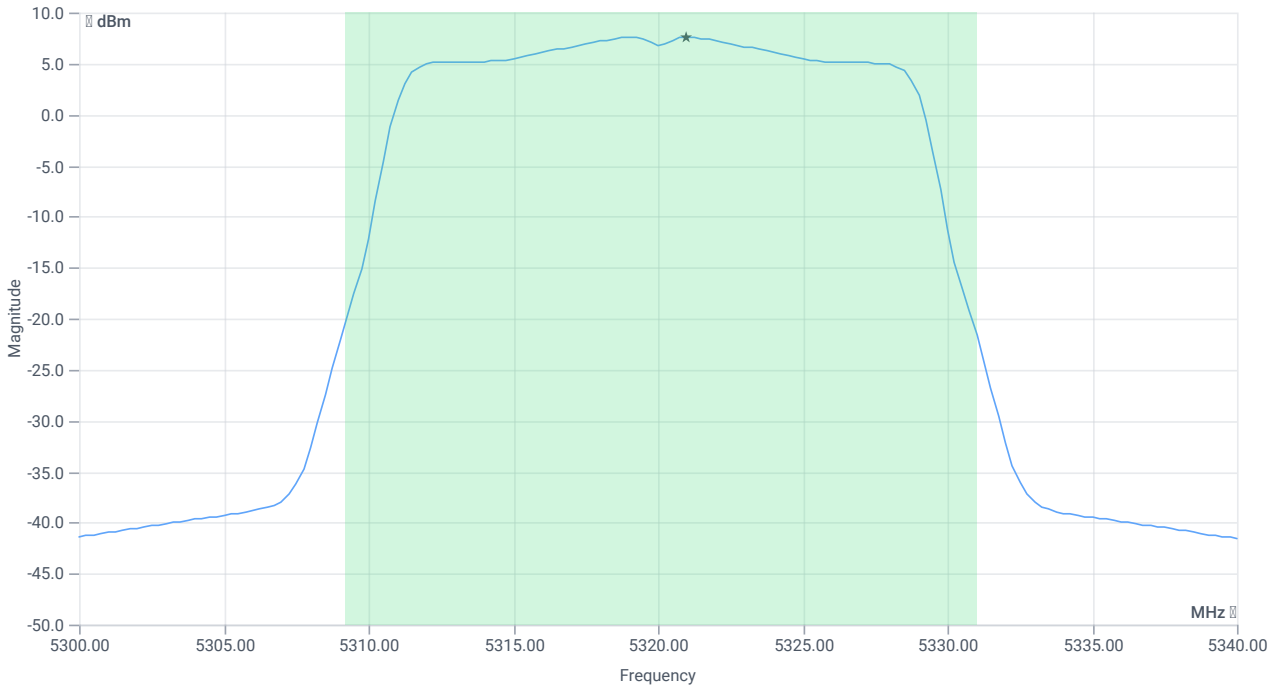
RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 26dB	---	---	21.8	MHz	INFO
T1 26dB	---	---	5309.2000	MHz	INFO
T2 26dB	---	---	5331.0000	MHz	INFO

Maximum Output Power

READ SA SETTINGS:

RefLevel [dBm] | RefLevelOffset [dB] | InpAtt [dB]	27.04 | 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	---	---	18.37	dBm	INFO
Duty Cycle Correction	---	---	0	dB	INFO
Limit absolute					
Max Output Power DC corrected	---	24	18.37	dBm	PASS
Limit: 11 dBm + 10 log	21.8				
Max Output Power DC corrected	---	24.38	18.37	dBm	PASS

Power Spectral Density

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Power Spectral Density	---	---	7.63	dBm/1MHz	INFO
Duty Cycle Correction	---	---	0	dB	INFO
Power Spectral Density DC corrected	---	11	7.63	dBm/1MHz	PASS

Verdict
PASS

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

References

TC start	25.07.2023 11:49:57
Ambit temp [°C] | humidity [rel%]	23.0 | 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 n-HT20 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 n-HT20 mode
Antenna port used	1
Temperature	nom
Voltage	nom
Frequency low to test	False | Freq [MHz] 5260
Frequency mid to test	False | Freq [MHz] 5280
Frequency high to test	True | Freq [MHz] 5320
Auto control enabled power supply | Climatic Box	No | No
Additional path loss [dB]	1.3
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

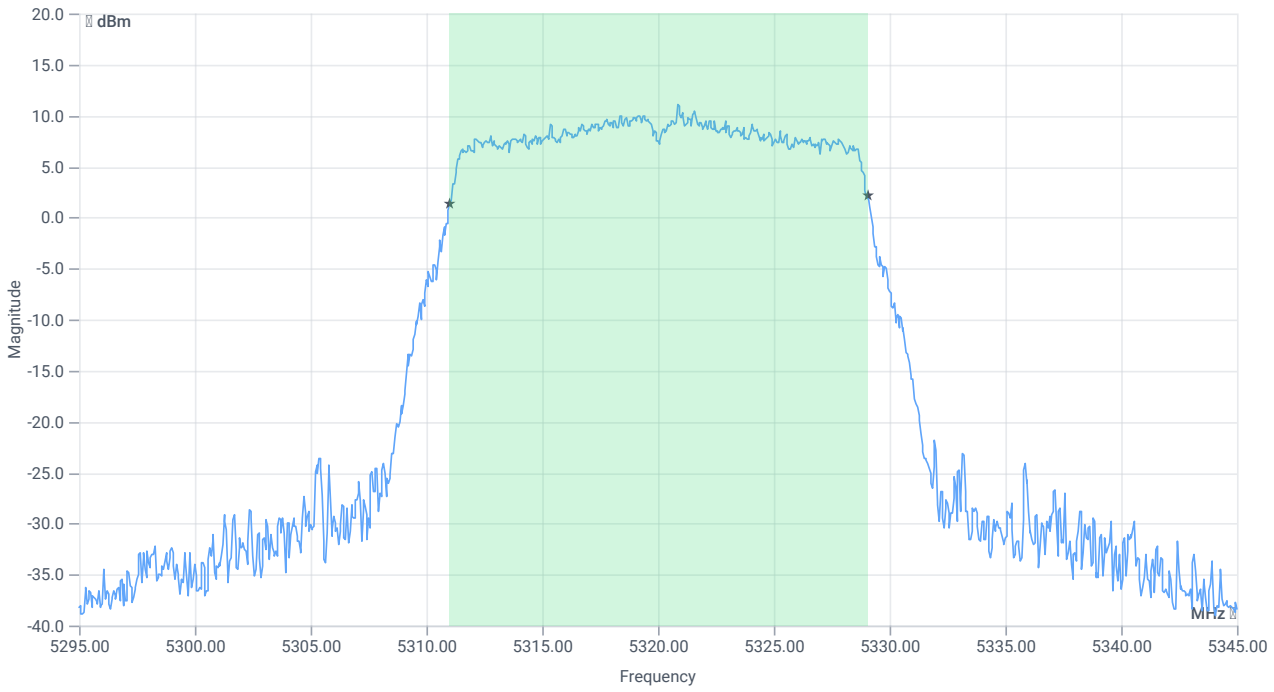
Test at TX 5320 MHz

RESULT: Reference Power cond.

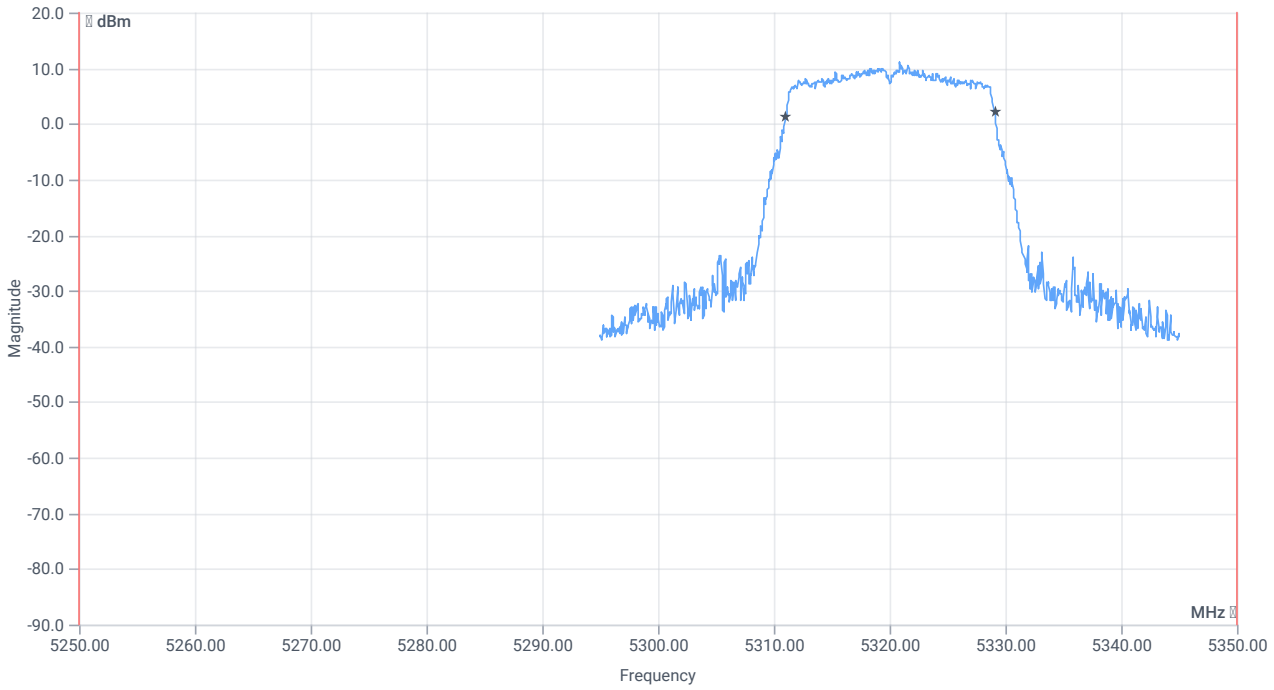
DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	15.08	dBm	INFO
Ref. Frequency	---	---	5318.800	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] | RefLevelOffset [dB] | InpAtt [dB]	23.08 | 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



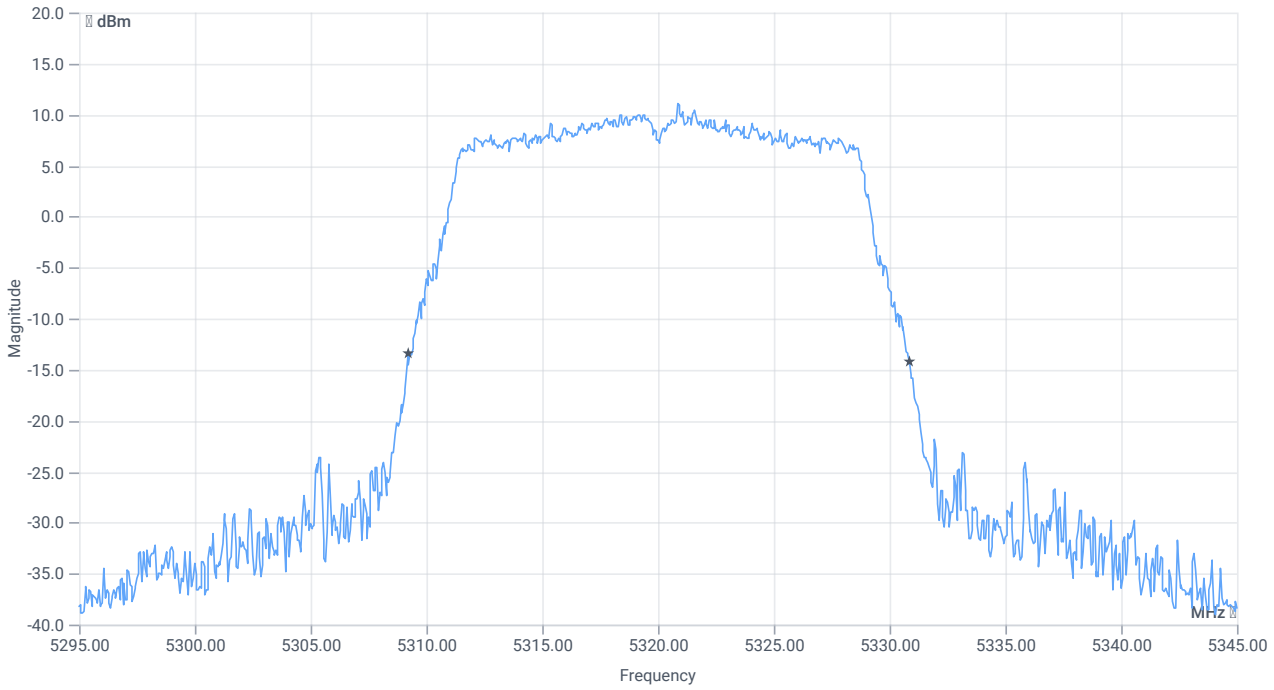
BW 99PCT



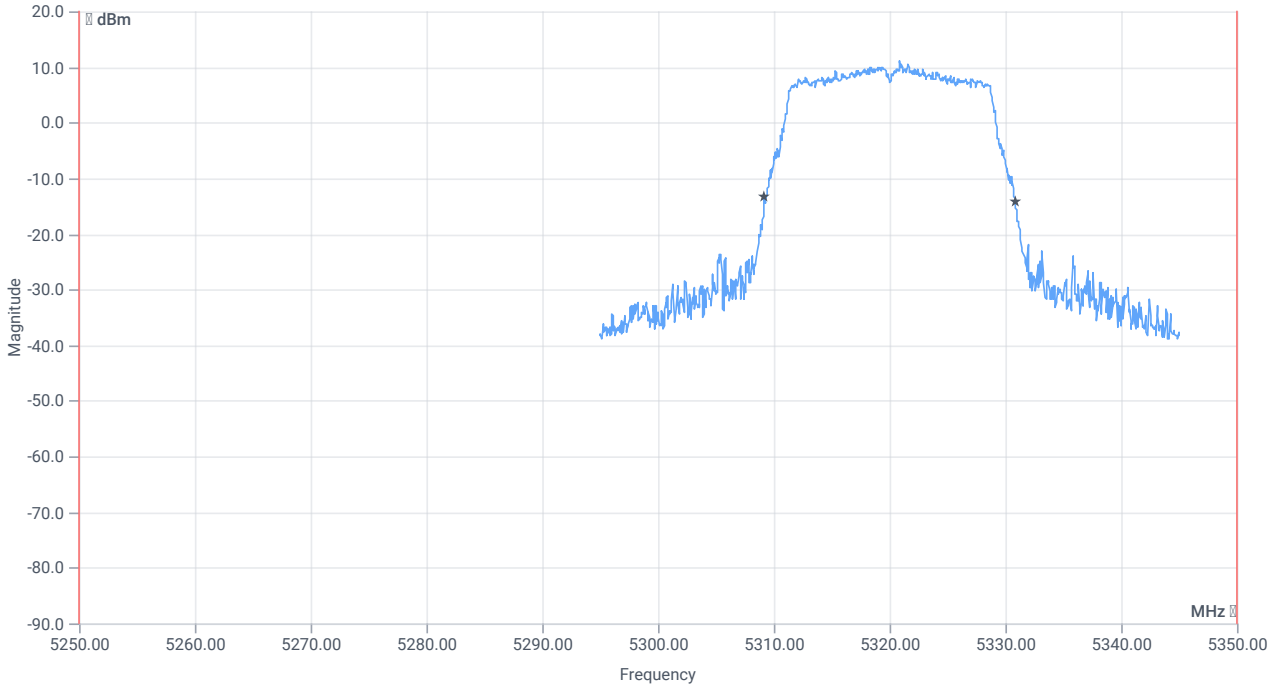
BW within Band 99PCT

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	---	---	21.65	MHz	INFO

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
T1 26dB	5250.000000	---	5309.2000	MHz	PASS since U-NII-1 is supported
T2 26dB	---	5350.000000	5330.8500	MHz	PASS

Verdict
PASS

FCC 15.407 # Max output power and psd ~ WLAN5Gx n-HT20 mode U-NII-2A

References

TC start	25.07.2023 11:50:28
Ambit temp [°C] | humidity [rel%]	23.0 | 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 n-HT20 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 n-HT20 mode
Antenna port used	2
Temperature	nom
Voltage	nom
Frequency low to test	False | Freq [MHz] 5260
Frequency mid to test	False | Freq [MHz] 5280
Frequency high to test	True | Freq [MHz] 5320
Auto control enabled power supply | Climatic Box	No | No
Additional path loss [dB]	1.3
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

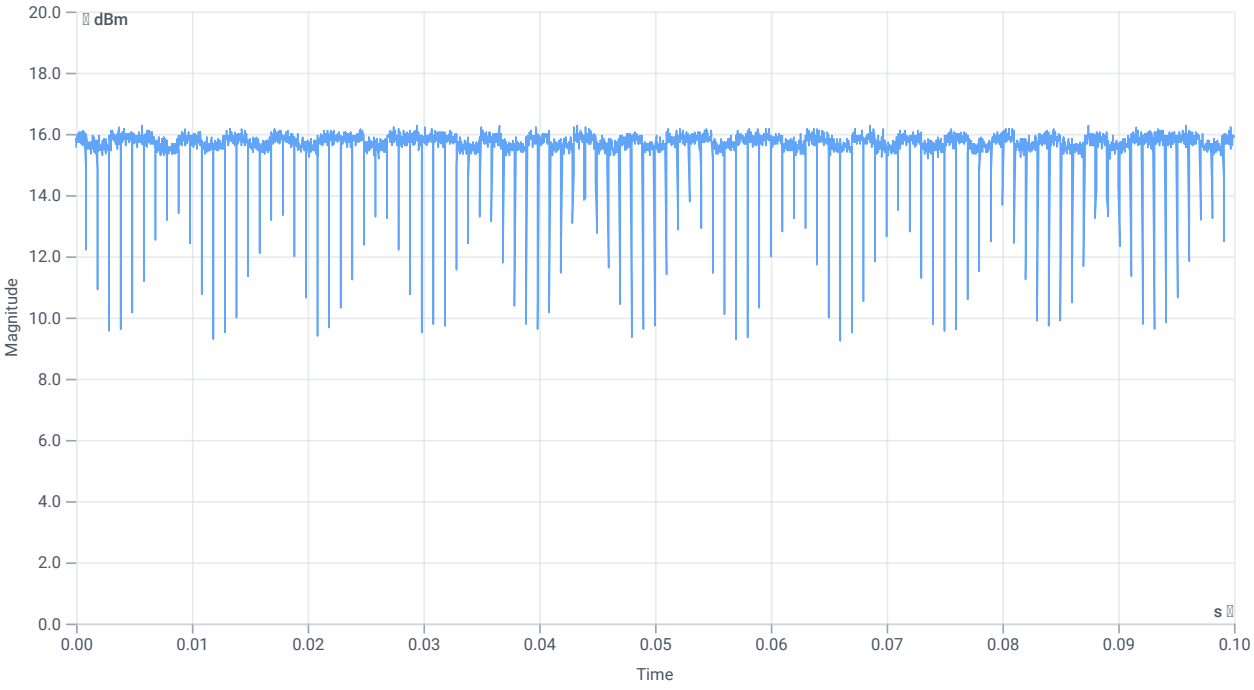
RESULT: Reference Power cond.

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	14.60	dBm	INFO
Ref. Frequency	---	---	5320.400	MHz	INFO

Evaluation max. Duty Cycle

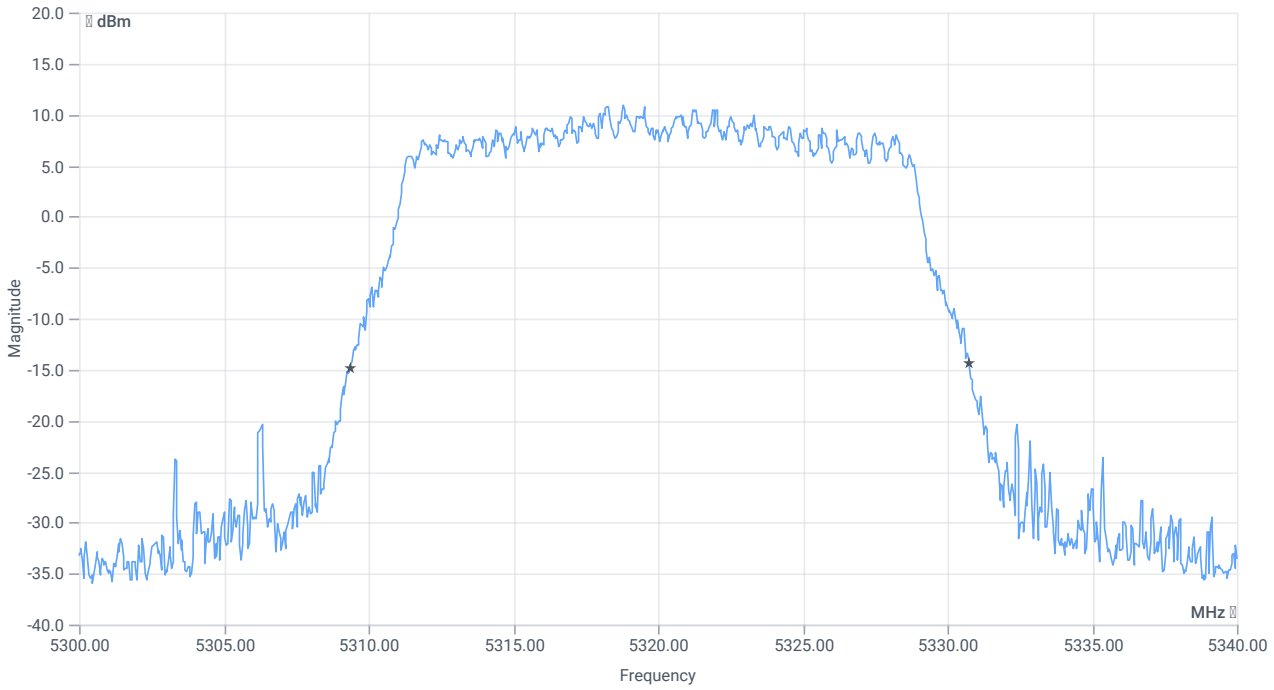
Duty Cycle evaluation

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

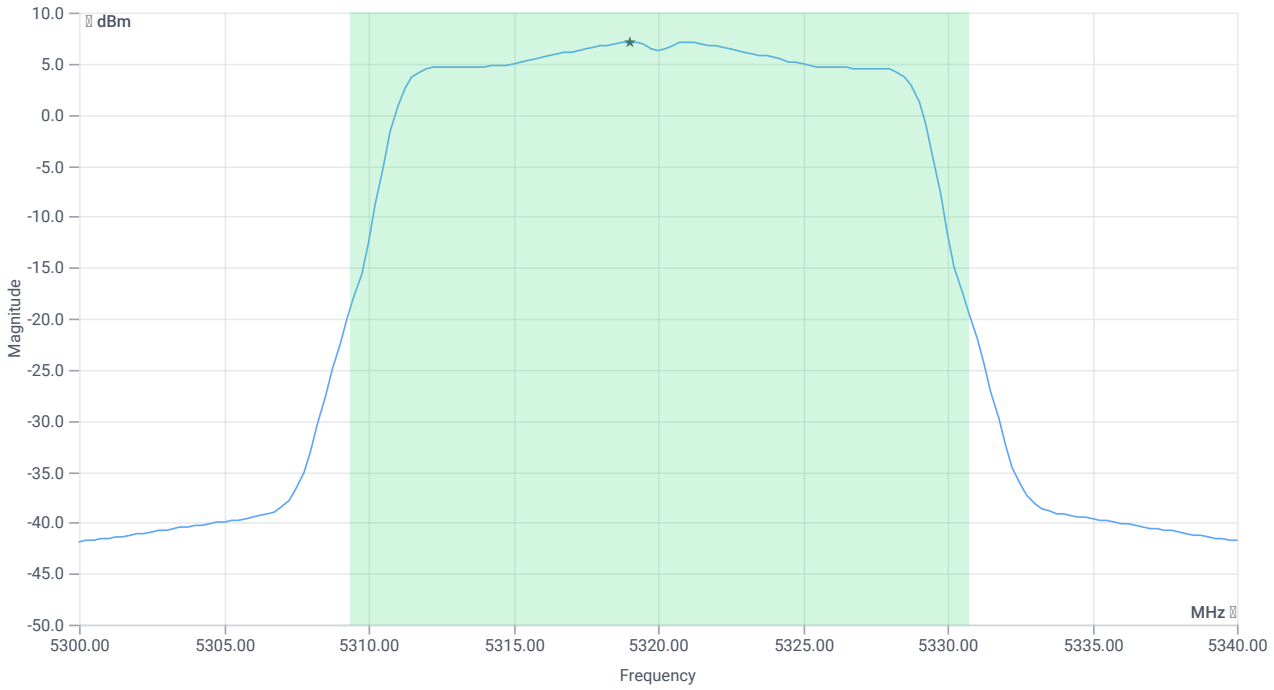
RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 26dB	---	---	21.4	MHz	INFO
T1 26dB	---	---	5309.3600	MHz	INFO
T2 26dB	---	---	5330.7600	MHz	INFO

Maximum Output Power

READ SA SETTINGS:

RefLevel [dBm] | RefLevelOffset [dB] | InpAtt [dB]	26.60 | 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 21.4					
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	---	---	7.15	dBm/1MHz	INFO
Duty Cycle Correction	---	---	0	dB	INFO
Power Spectral Density DC corrected	---	11	7.15	dBm/1MHz	PASS

Verdict

PASS

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

References

TC start	25.07.2023 11:51:56
Ambit temp [°C] | humidity [rel%]	23.0 | 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 n-HT20 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 n-HT20 mode
Antenna port used	2
Temperature	nom
Voltage	nom
Frequency low to test	False | Freq [MHz] 5260
Frequency mid to test	False | Freq [MHz] 5280
Frequency high to test	True | Freq [MHz] 5320
Auto control enabled power supply | Climatic Box	No | No
Additional path loss [dB]	1.3
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

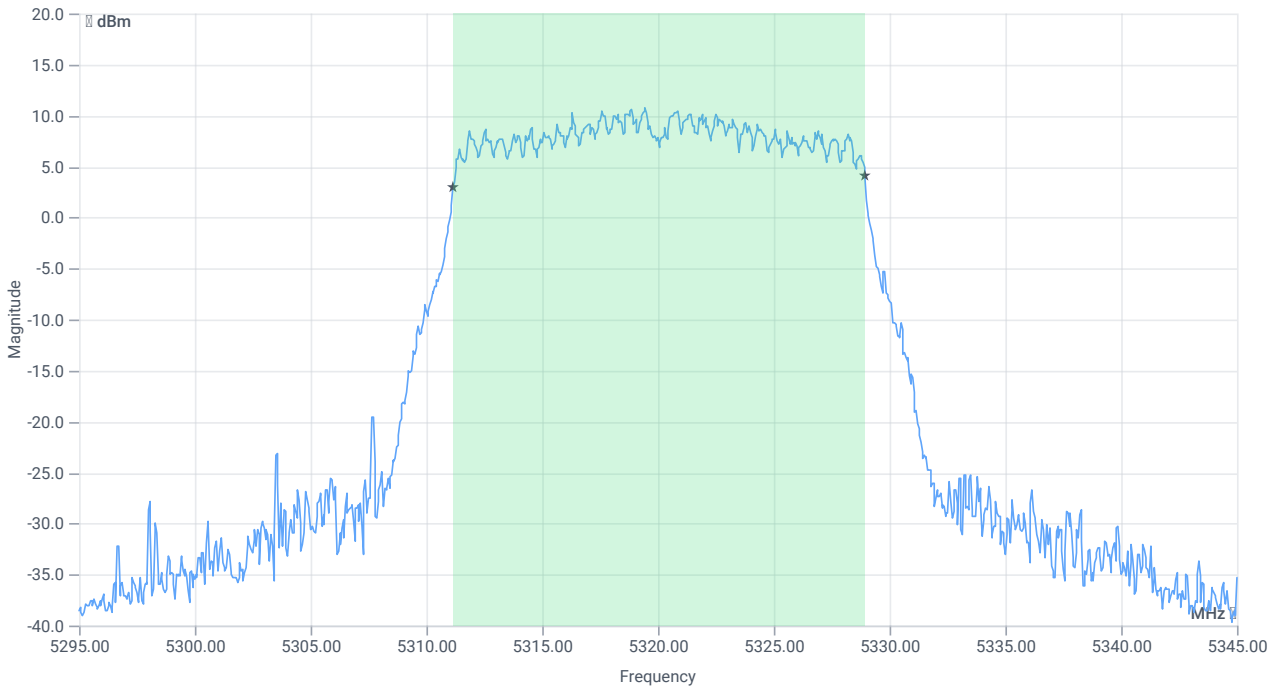
Test at TX 5320 MHz

RESULT: Reference Power cond.

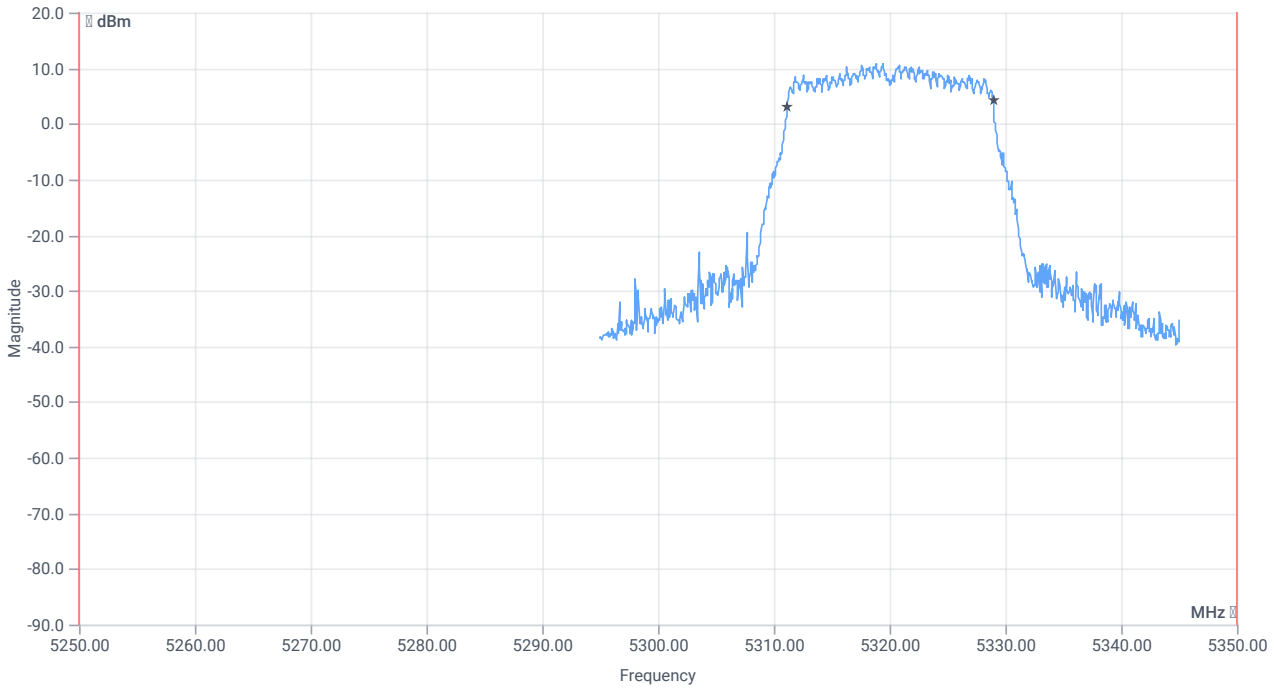
DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	14.83	dBm	INFO
Ref. Frequency	---	---	5323.800	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] | RefLevelOffset [dB] | InpAtt [dB]	22.83 | 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



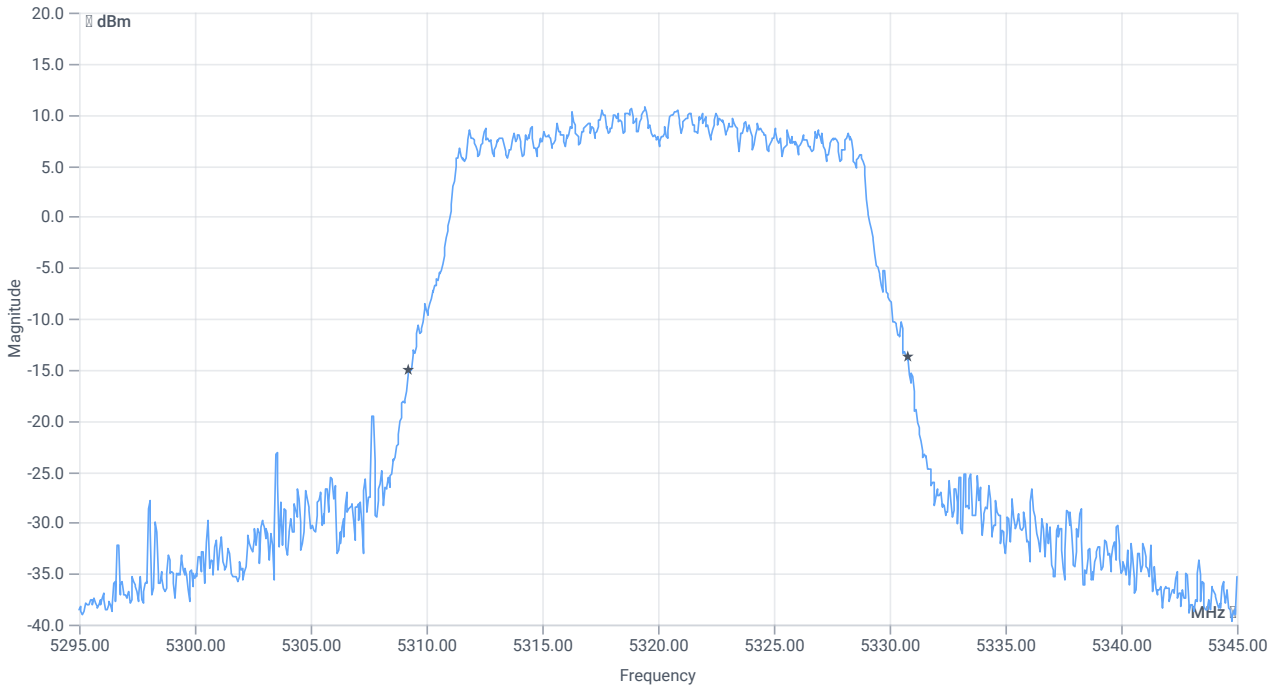
BW 99PCT



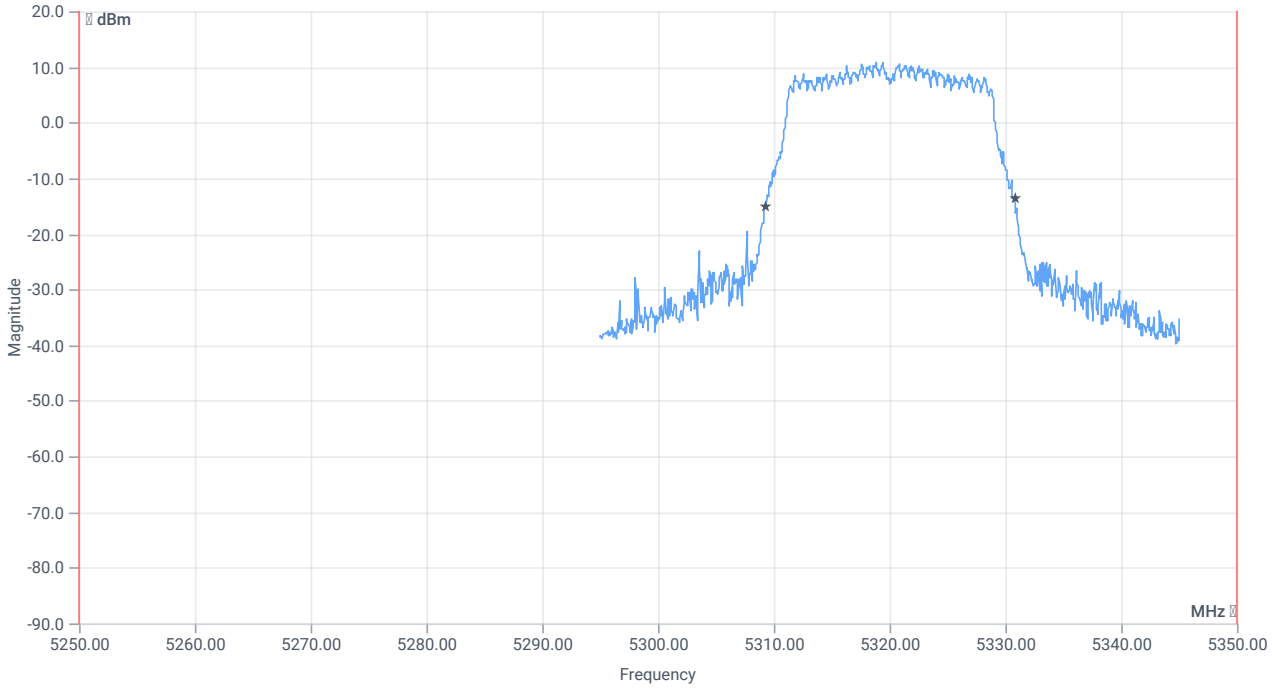
BW within Band 99PCT

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 99%	---	---	17.782	MHz	INFO
T1 99%	5250.000000	---	5311.1588	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	---	5309.2500	MHz	PASS since U-NII-1 is supported
T2 26dB	---	5350.000000	5330.8000	MHz	PASS

Verdict
PASS

Message with SA scan ~

References

TC start	25.07.2023 12:04:08
Ambit temp [°C] | humidity [rel%]	23.2 | 56
System version	4.6.0.0
Specification	-
Method	
Description	Message with SA Scan n_HT20_U_NII_2C
Information	PS74

Test Parameter

Switched Path	EUT - SignalingUnit - SpectrumAnalyzer
Message start	25.07.2023 12:04:09
Message	set WLAN5Gx to n_HT20_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 n-HT20 mode U-NII-2C

References

TC start	25.07.2023 12:04:52
Ambit temp [°C] | humidity [rel%]	23.2 | 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 n-HT20 mode U-NII-2C
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 n-HT20 mode
Antenna port used	1
Temperature	nom
Voltage	nom
Frequency low to test	True | Freq [MHz] 5500
Frequency mid to test	False | Freq [MHz] 5600
Frequency high to test	False | Freq [MHz] 5720
Auto control enabled power supply | Climatic Box	No | No
Additional path loss [dB]	1.3
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

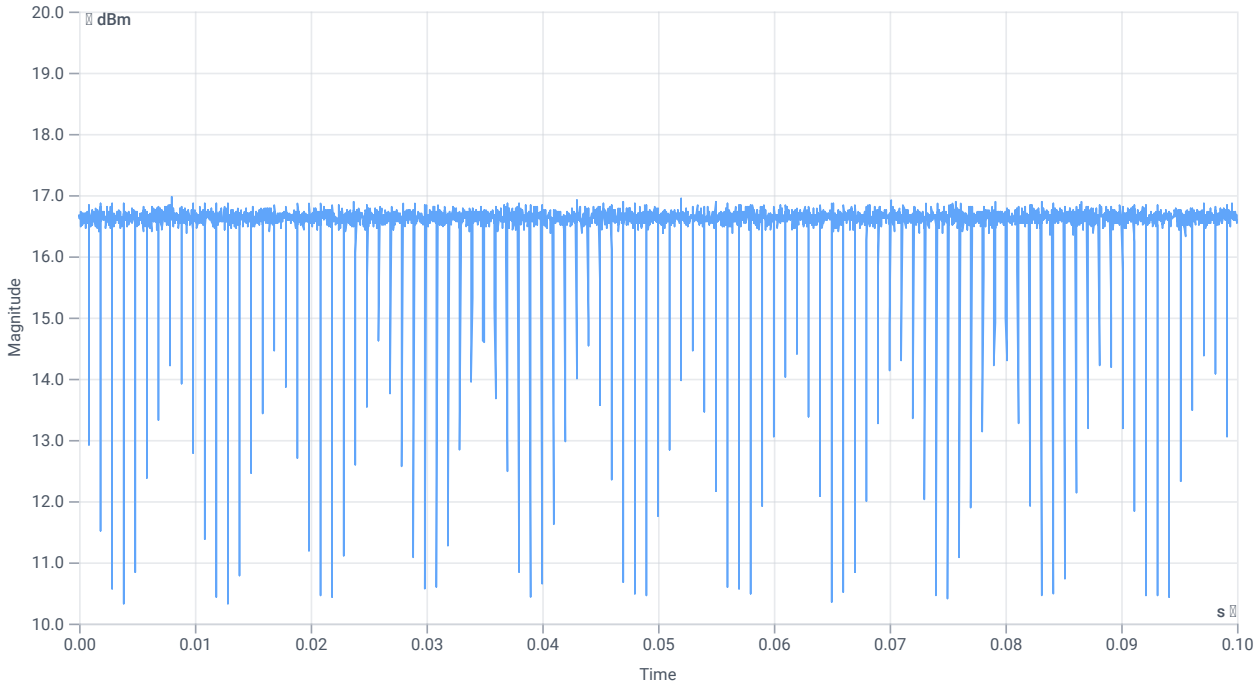
RESULT: Reference Power cond.

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	15.19	dBm	INFO
Ref. Frequency	---	---	5501.000	MHz	INFO

Evaluation max. Duty Cycle

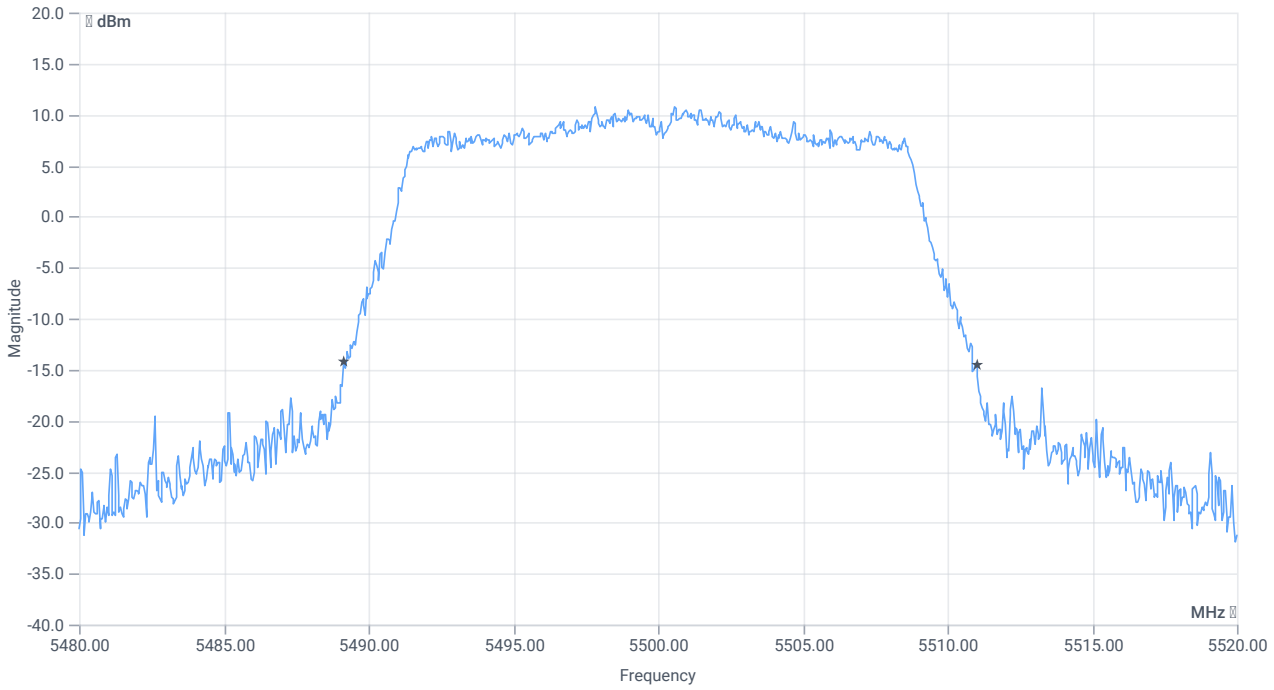
Duty Cycle evaluation

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

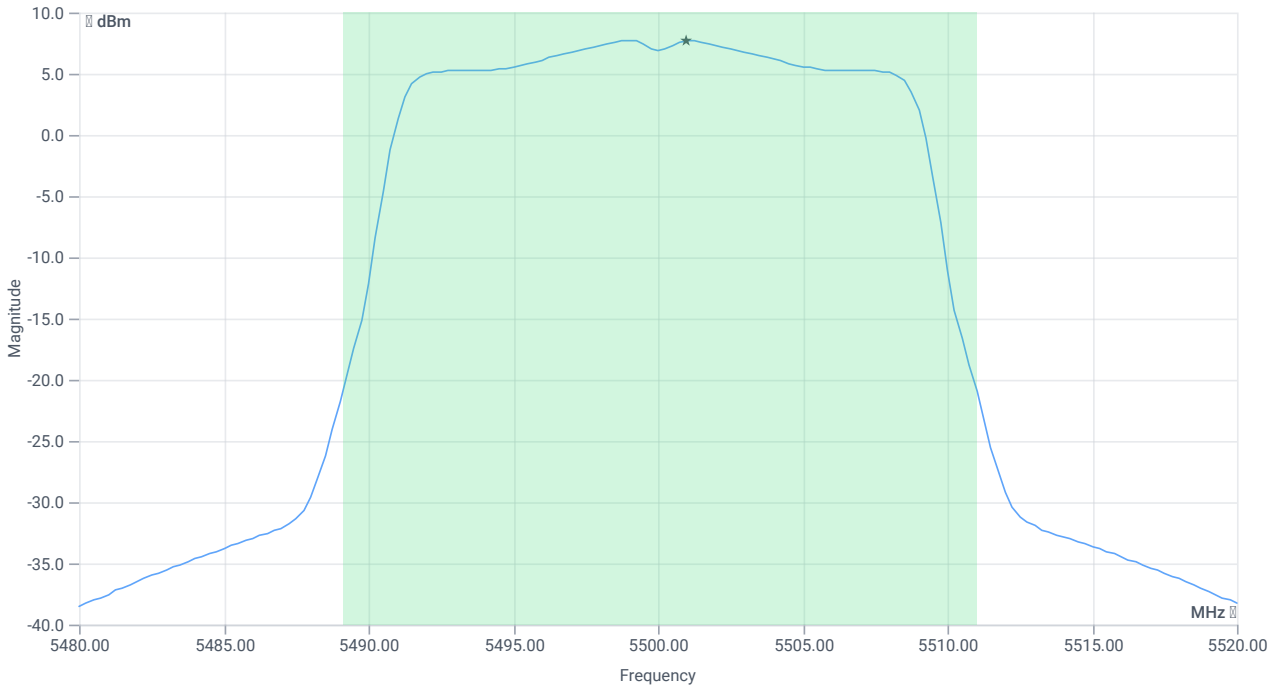
RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 26dB	---	---	21.88	MHz	INFO
T1 26dB	---	---	5489.1200	MHz	INFO
T2 26dB	---	---	5511.0000	MHz	INFO

Maximum Output Power

READ SA SETTINGS:

RefLevel [dBm] | RefLevelOffset [dB] | InpAtt [dB]	27.19 | 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	---	---	18.46	dBm	INFO
Duty Cycle Correction	---	---	0	dB	INFO
Limit absolute					
Max Output Power DC corrected	---	24	18.46	dBm	PASS
Limit: 11 dBm + 10 log 21.88					
Max Output Power DC corrected	---	24.4	18.46	dBm	PASS

Power Spectral Density

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Power Spectral Density	---	---	7.71	dBm/1MHz	INFO
Duty Cycle Correction	---	---	0	dB	INFO
Power Spectral Density DC corrected	---	11	7.71	dBm/1MHz	PASS

Verdict
PASS

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

References

TC start	25.07.2023 12:06:19
Ambit temp [°C] | humidity [rel%]	23.3 | 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 n-HT20 mode U-NII-2C
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 n-HT20 mode
Antenna port used	1
Temperature	nom
Voltage	nom
Frequency low to test	True | Freq [MHz] 5500
Frequency mid to test	False | Freq [MHz] 5600
Frequency high to test	False | Freq [MHz] 5720
Auto control enabled power supply | Climatic Box	No | No
Additional path loss [dB]	1.3
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

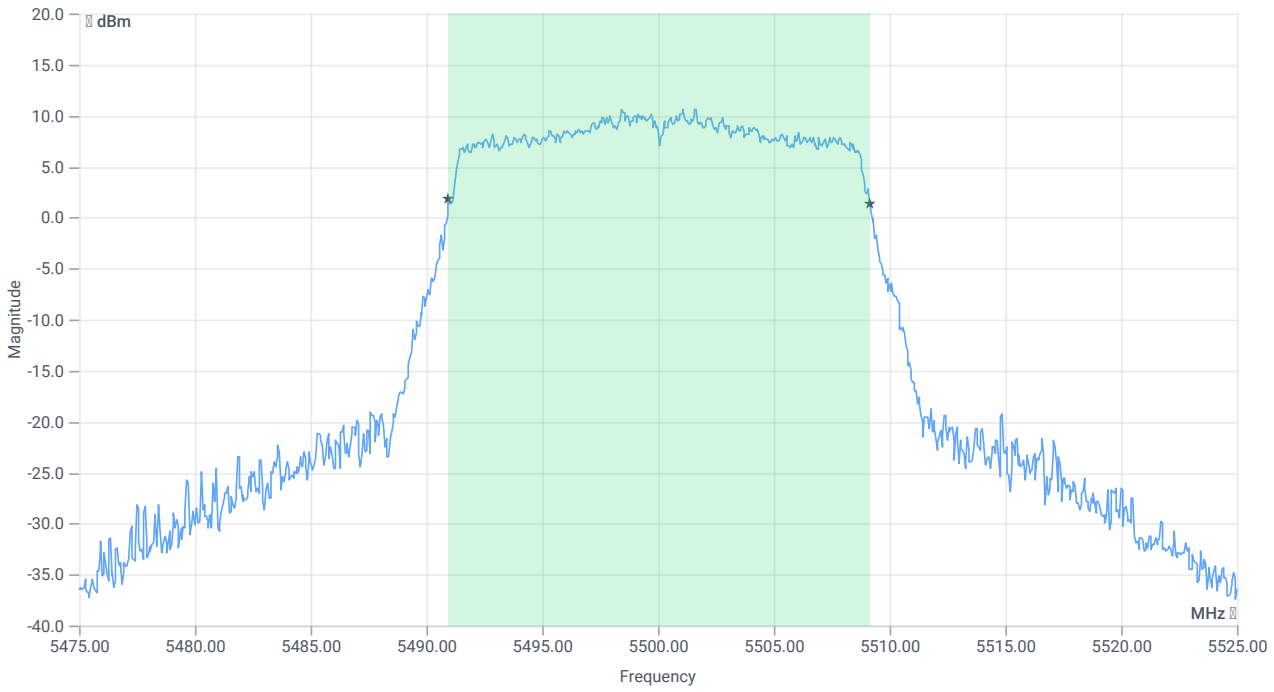
Test at TX 5500 MHz

RESULT: Reference Power cond.

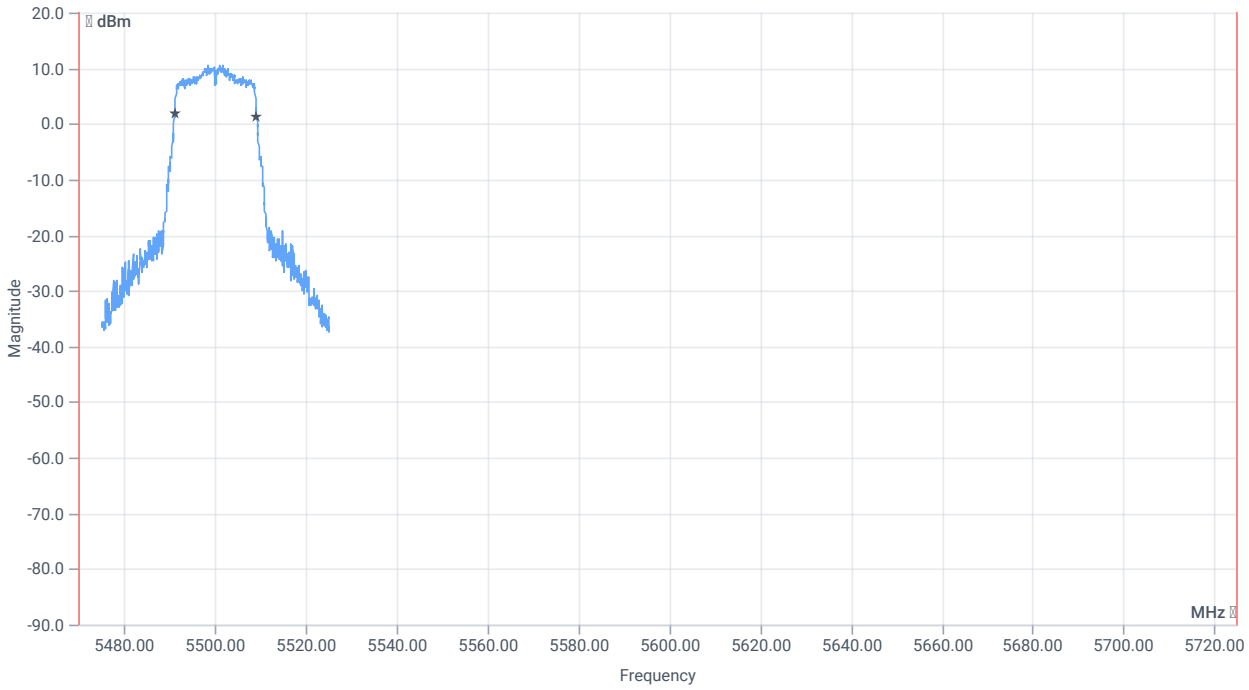
DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	16.14	dBm	INFO
Ref. Frequency	---	---	5499.600	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] | RefLevelOffset [dB] | InpAtt [dB]	24.14 | 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



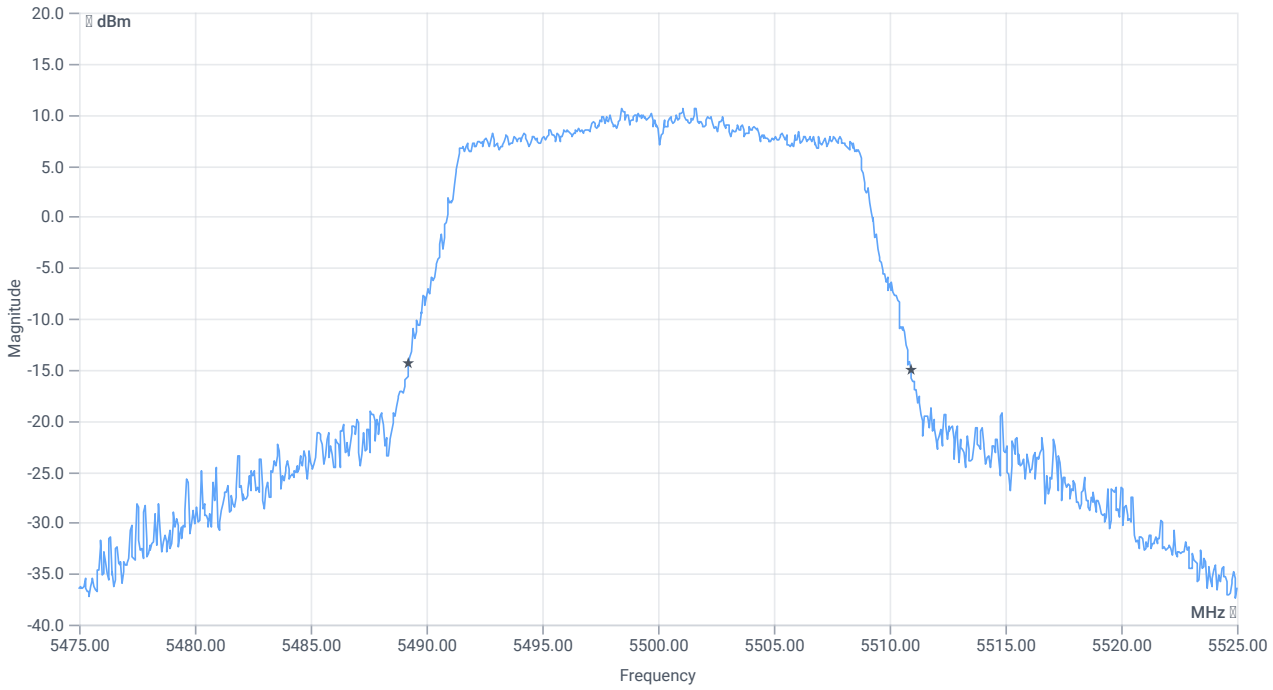
BW 99PCT



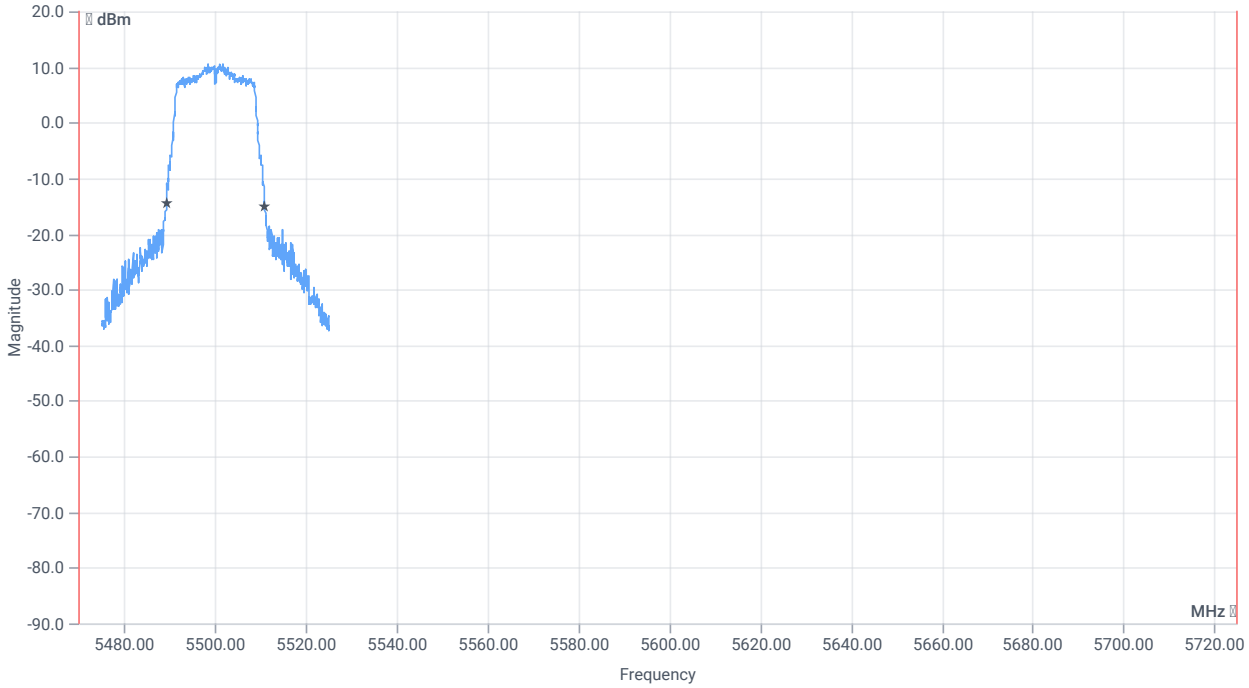
BW within Band 99PCT

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 99%	---	---	18.182	MHz	INFO
T1 99%	5470.000000	---	5490.9590	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 n-HT20 mode U-NII-2C

References

TC start	25.07.2023 12:06:50
Ambit temp [°C] | humidity [rel%]	23.3 | 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 n-HT20 mode U-NII-2C
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 n-HT20 mode
Antenna port used	2
Temperature	nom
Voltage	nom
Frequency low to test	True | Freq [MHz] 5500
Frequency mid to test	False | Freq [MHz] 5600
Frequency high to test	False | Freq [MHz] 5720
Auto control enabled power supply | Climatic Box	No | No
Additional path loss [dB]	1.3
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

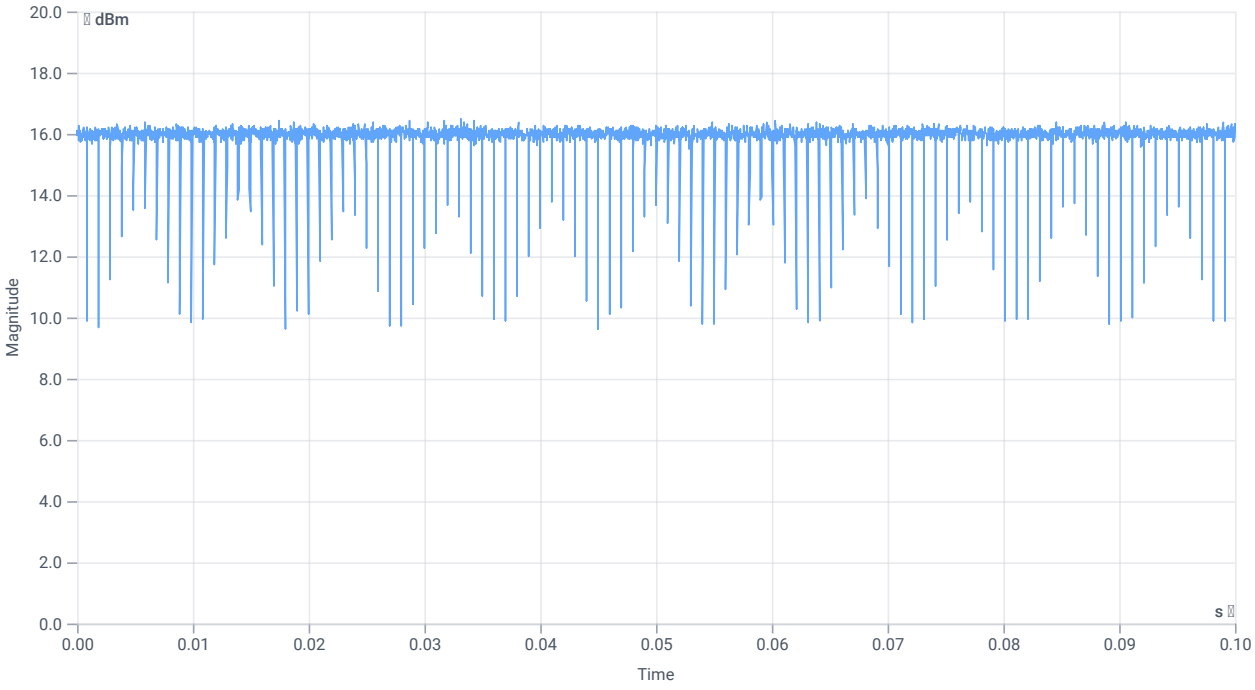
RESULT: Reference Power cond.

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	15.20	dBm	INFO
Ref. Frequency	---	---	5499.000	MHz	INFO

Evaluation max. Duty Cycle

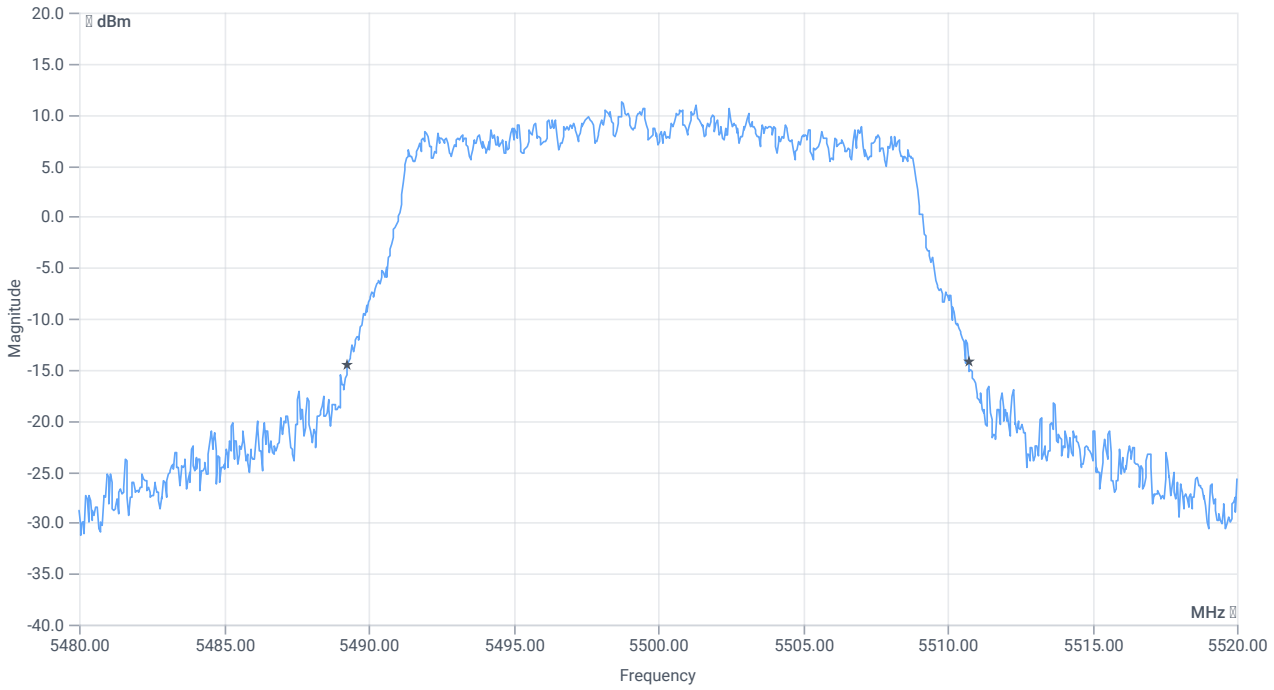
Duty Cycle evaluation

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

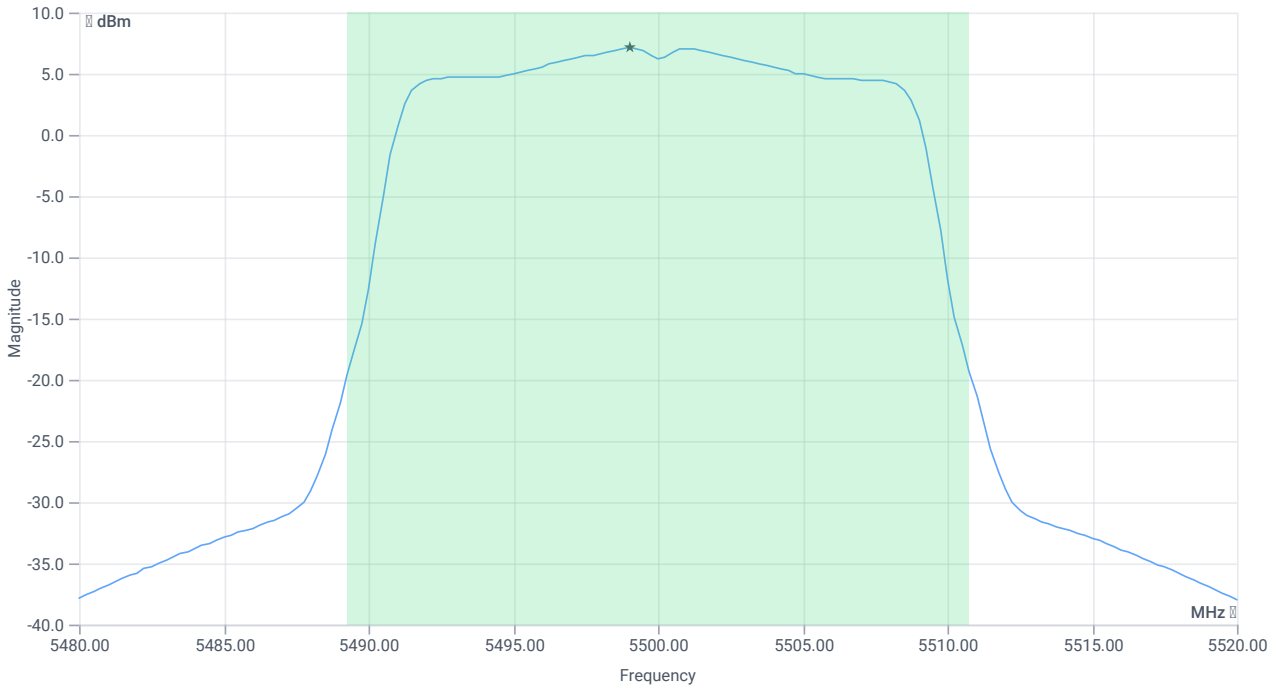
RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 26dB	---	---	21.44	MHz	INFO
T1 26dB	---	---	5489.2800	MHz	INFO
T2 26dB	---	---	5510.7200	MHz	INFO

Maximum Output Power

READ SA SETTINGS:

RefLevel [dBm] | RefLevelOffset [dB] | InpAtt [dB]	27.20 | 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	---	---	17.85	dBm	INFO
Duty Cycle Correction	---	---	0	dB	INFO
Limit absolute					
Max Output Power DC corrected	---	24	17.85	dBm	PASS
Limit: 11 dBm + 10 log			21.44		
Max Output Power DC corrected	---	24.31	17.85	dBm	PASS

Power Spectral Density

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Power Spectral Density	---	---	7.12	dBm/1MHz	INFO
Duty Cycle Correction	---	---	0	dB	INFO
Power Spectral Density DC corrected	---	11	7.12	dBm/1MHz	PASS

Verdict

PASS

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

References

TC start	25.07.2023 12:08:18
Ambit temp [°C] | humidity [rel%]	23.3 | 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 n-HT20 mode U-NII-2C
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 n-HT20 mode
Antenna port used	2
Temperature	nom
Voltage	nom
Frequency low to test	True | Freq [MHz] 5500
Frequency mid to test	False | Freq [MHz] 5600
Frequency high to test	False | Freq [MHz] 5720
Auto control enabled power supply | Climatic Box	No | No
Additional path loss [dB]	1.3
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

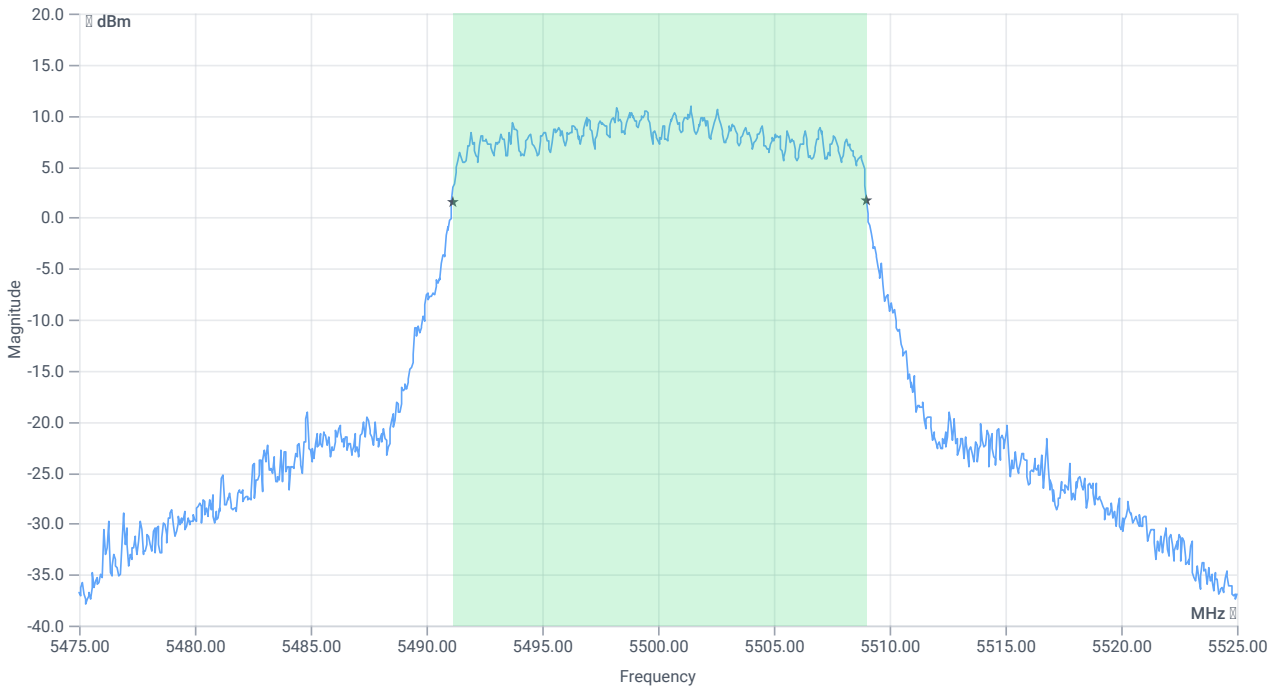
Test at TX 5500 MHz

RESULT: Reference Power cond.

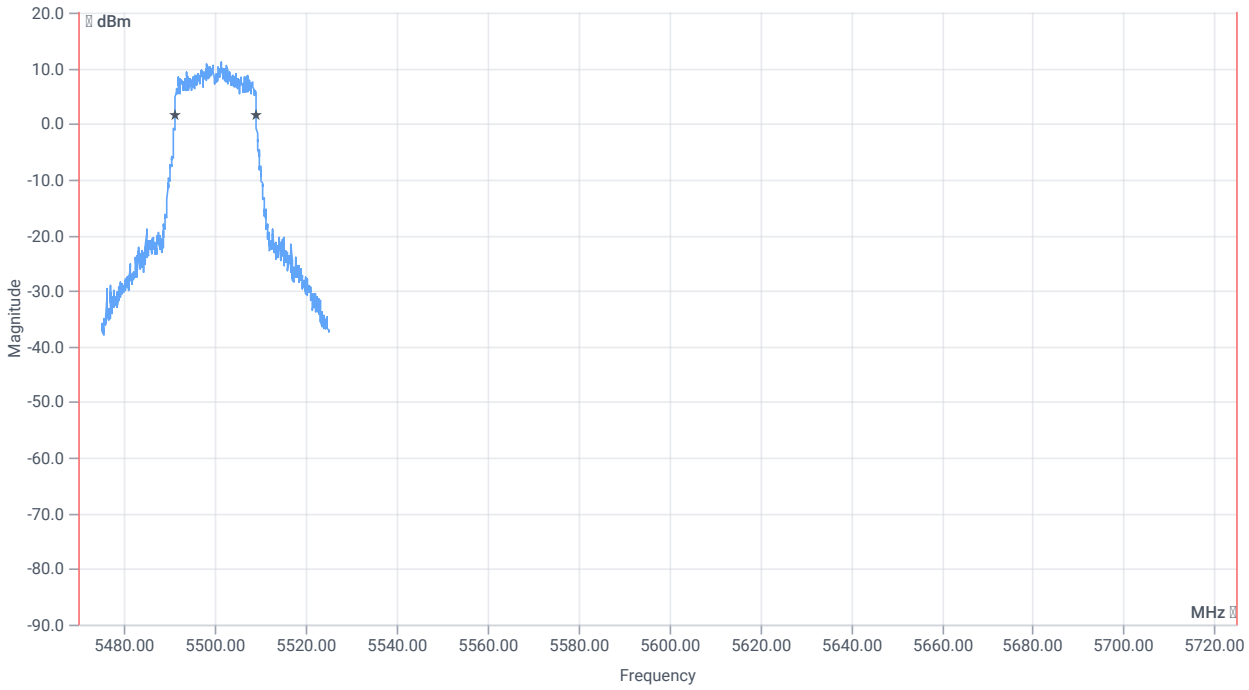
DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	14.79	dBm	INFO
Ref. Frequency	---	---	5503.400	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] | RefLevelOffset [dB] | InpAtt [dB]	22.79 | 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



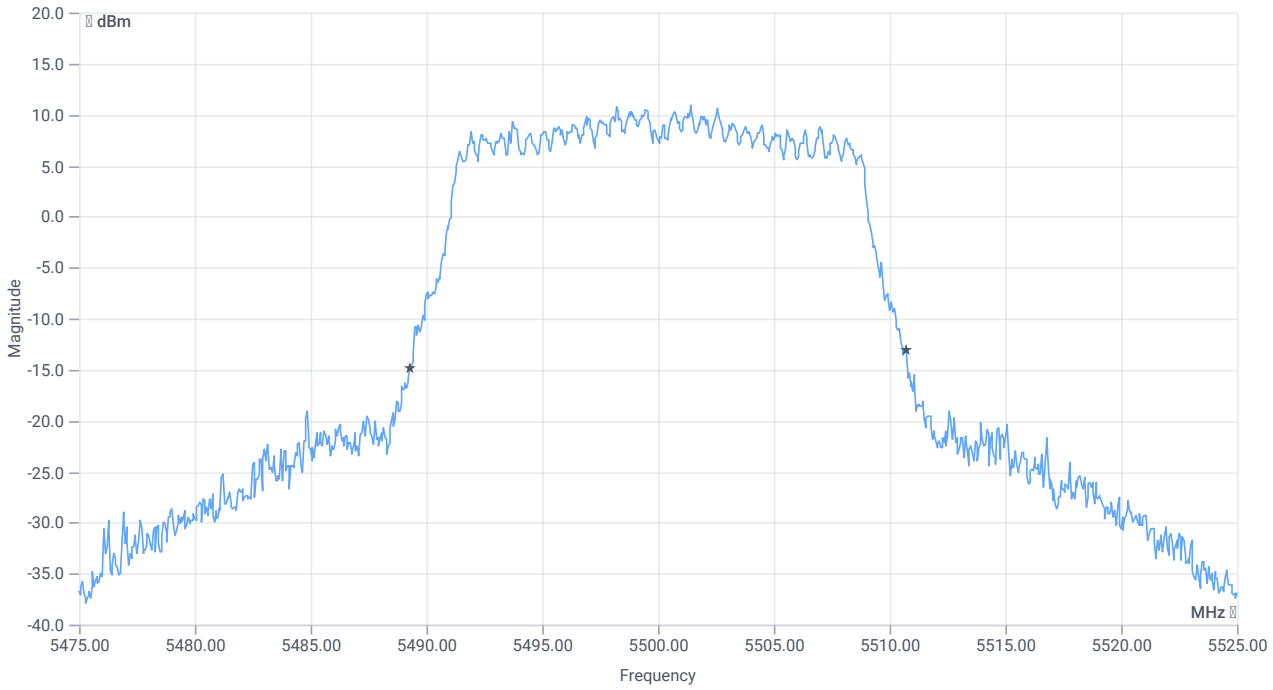
BW 99PCT



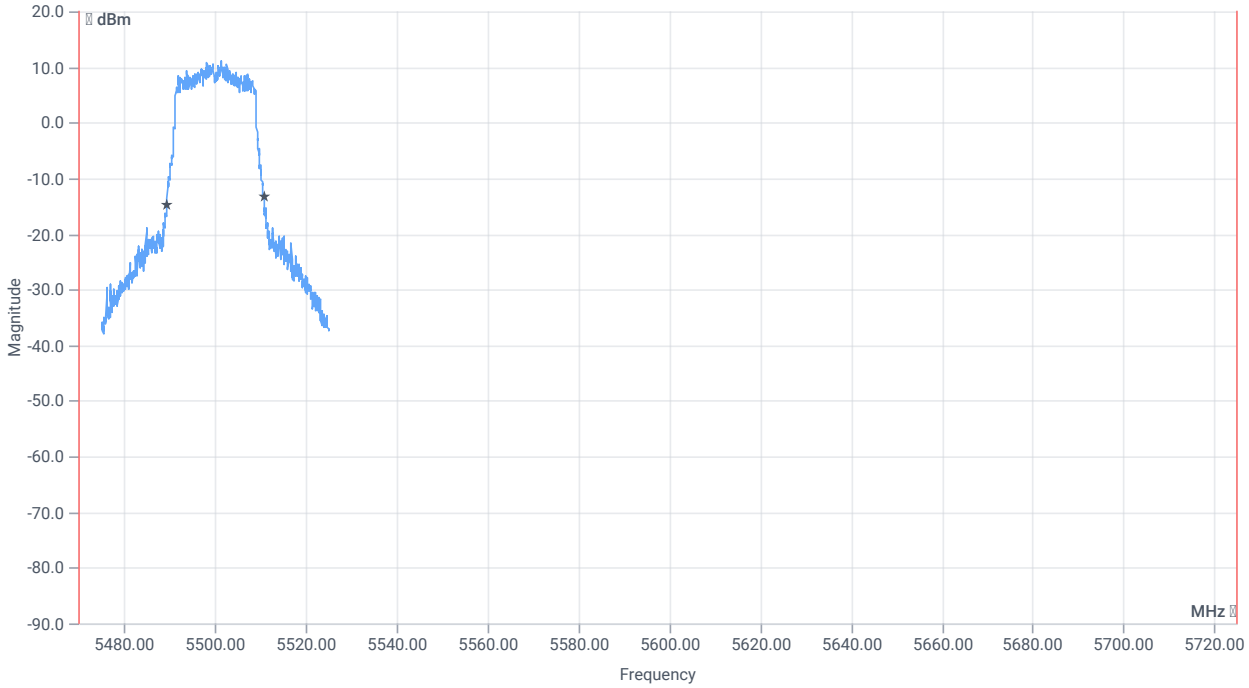
BW within Band 99PCT

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	---	---	21.4	MHz	INFO

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
T1 26dB	5470.000000	---	5489.3000	MHz	PASS since U-NII-3 is supported
T2 26dB	---	5725.000000	5510.7000	MHz	

Verdict
PASS

FCC 15.407 # MIMO ∑ Max output power and psd ~ WLAN5Gx n-HT20 mode U-NII-2C

References

TC start	25.07.2023 12:08:49
Ambit temp [°C] | humidity [rel%]	23.3 | 56
System version	4.6.0.0
Specification	FCC 15.407 -
Method	
Description	MIMO ∑ FCC Power & psd - WLAN5Gx n-HT20 mode U-NII-2C
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 n-HT20 mode
Antenna port used	several
Temperature	nom
Voltage	nom
Frequency low to test	True | Freq [MHz] 5500
Frequency mid to test	False | Freq [MHz] 5600
Frequency high to test	False | Freq [MHz] 5720
Auto control enabled power supply | Climatic Box	No | No
Additional path loss [dB]	1.3
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	---	---	18.46	dBm	INFO
Ant:1 BW 26dB	---	---	21.880	MHz	INFO
Ant:2 Max Output Power DC corrected	---	---	17.85	dBm	INFO
Ant:2 BW 26dB	---	---	21.440	MHz	INFO
∑ Limit absolute	---	24	21.18	dBm	PASS
∑ Limit: 11 dBm + 10 log 21.44	---	24.31	21.18	dBm	PASS

RESULT PSD

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ant:1 PSD	---	---	7.71	dBm/1MHz	INFO
Ant:2 PSD	---	---	7.12	dBm/1MHz	INFO
∑	---	11	10.44	dBm/1MHz	PASS

Verdict
PASS

Message with SA scan ~

References

TC start	25.07.2023 12:10:29
Ambit temp [°C] | humidity [rel%]	23.3 | 56
System version	4.6.0.0
Specification	-
Method	
Description	Message with SA Scan n_HT20_U_NII_2C
Information	

Test Parameter

Switched Path	EUT - SignalingUnit - SpectrumAnalyzer
Message start	25.07.2023 12:10:30
Message	set WLAN5Gx to n_HT20_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 n-HT20 mode U-NII-2C

References

TC start	25.07.2023 12:10:41
Ambit temp [°C] | humidity [rel%]	23.3 | 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 n-HT20 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 n-HT20 mode
Antenna port used	1
Temperature	nom
Voltage	nom
Frequency low to test	False | Freq [MHz] 5500
Frequency mid to test	True | Freq [MHz] 5600
Frequency high to test	False | Freq [MHz] 5700
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

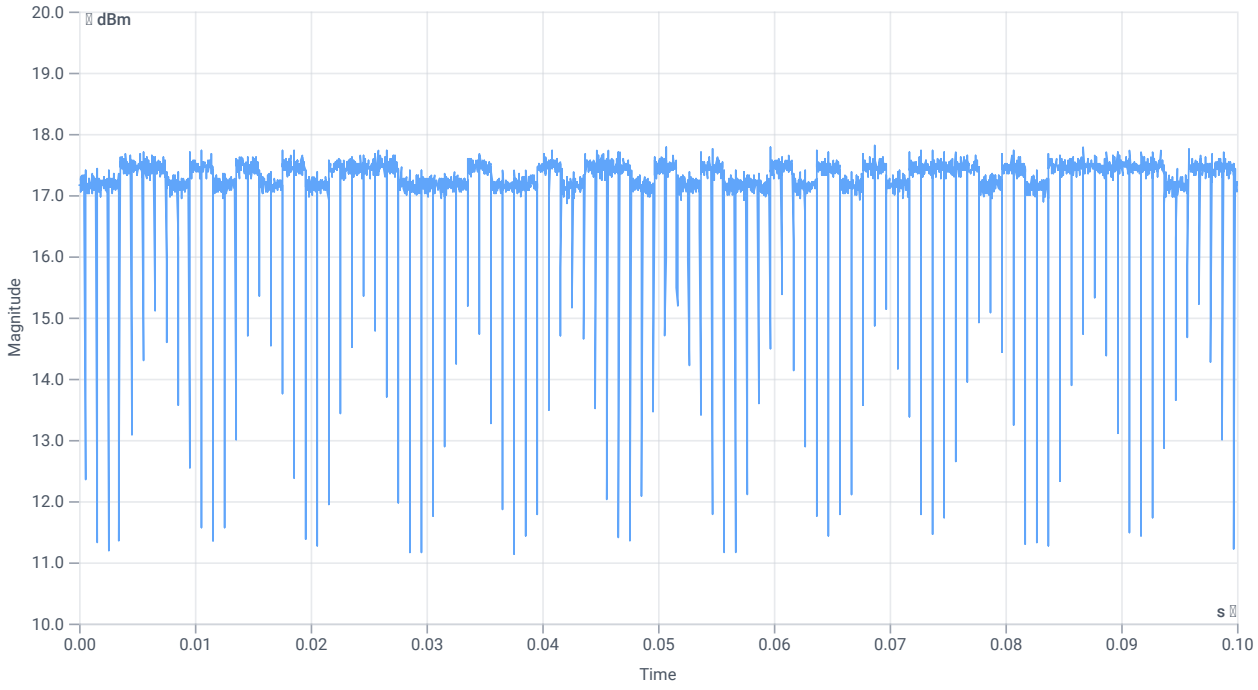
RESULT: Reference Power cond.

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	15.73	dBm	INFO
Ref. Frequency	---	---	5595.800	MHz	INFO

Evaluation max. Duty Cycle

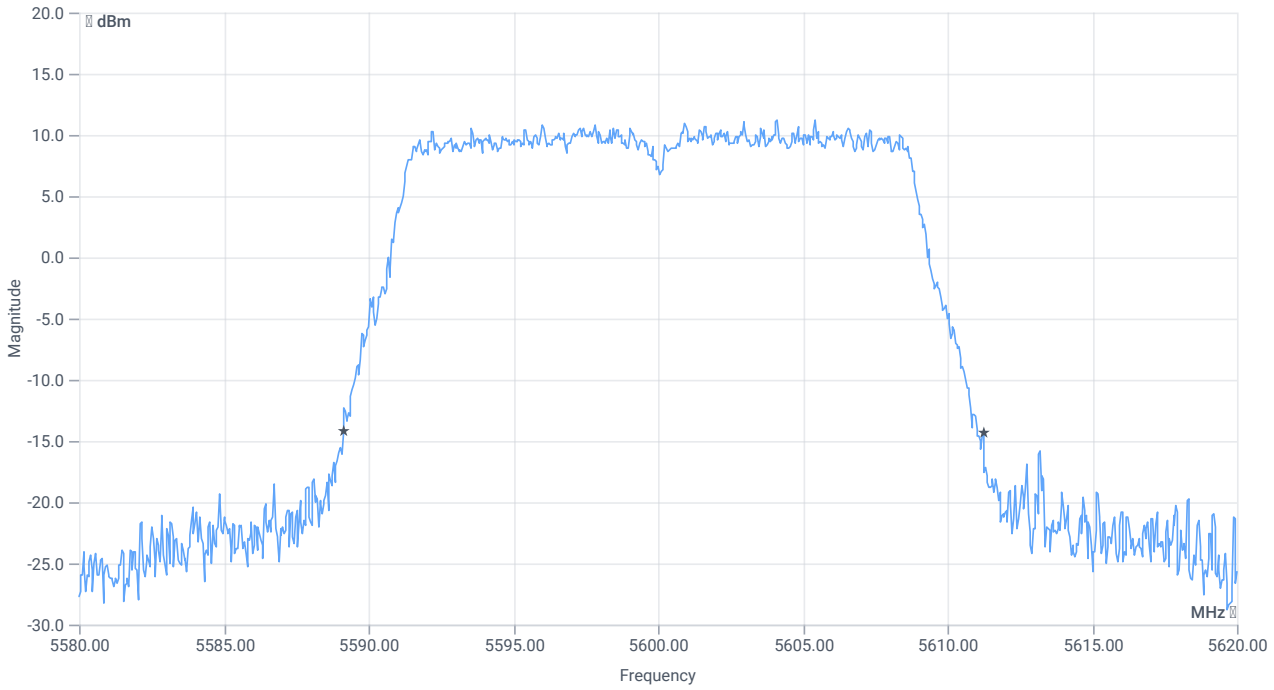
Duty Cycle evaluation

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

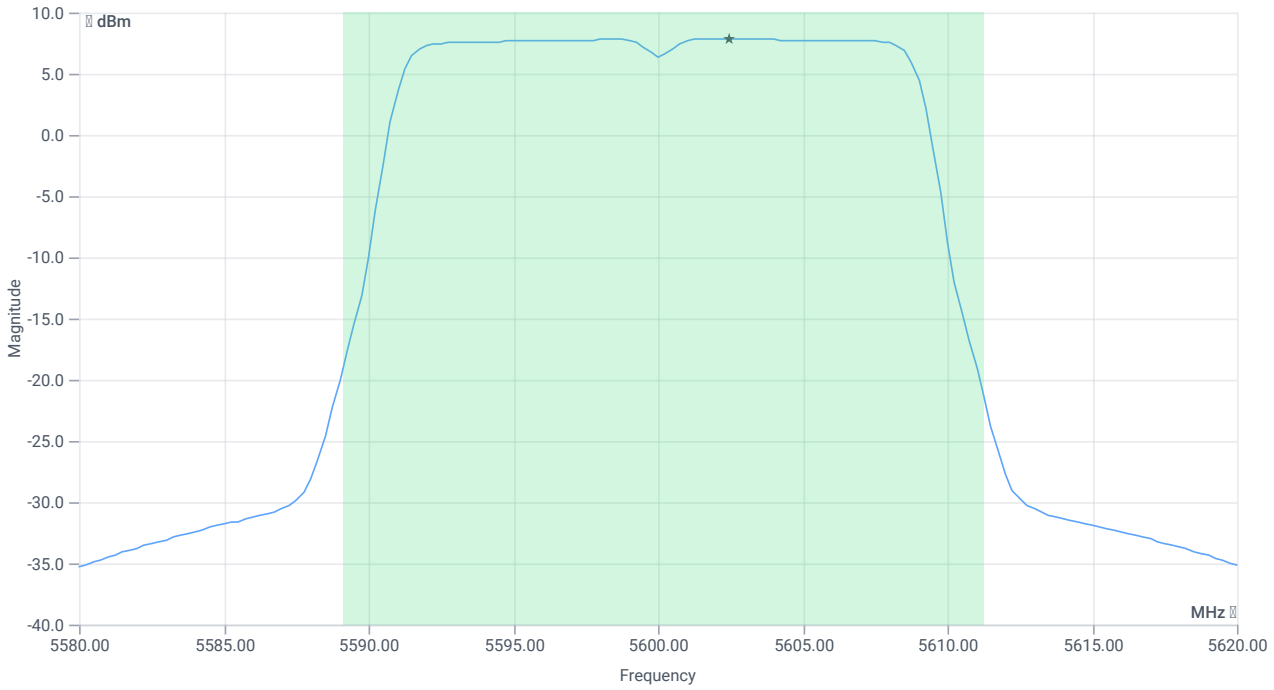
RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 26dB	---	---	22.12	MHz	INFO
T1 26dB	---	---	5589.1200	MHz	INFO
T2 26dB	---	---	5611.2400	MHz	INFO

Maximum Output Power

READ SA SETTINGS:

RefLevel [dBm] | RefLevelOffset [dB] | InpAtt [dB]	27.73 | 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	---	---	19.84	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	22.12				
Max Output Power DC corrected	---	24.45	19.84	dBm	PASS

Power Spectral Density

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Power Spectral Density	---	---	7.81	dBm/1MHz	INFO
Duty Cycle Correction	---	---	0	dB	INFO
Power Spectral Density DC corrected	---	11	7.81	dBm/1MHz	PASS

Verdict

PASS

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

References

TC start	25.07.2023 12:12:08
Ambit temp [°C] | humidity [rel%]	23.3 | 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 n-HT20 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 n-HT20 mode
Antenna port used	1
Temperature	nom
Voltage	nom
Frequency low to test	False | Freq [MHz] 5500
Frequency mid to test	True | Freq [MHz] 5600
Frequency high to test	False | Freq [MHz] 5700
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

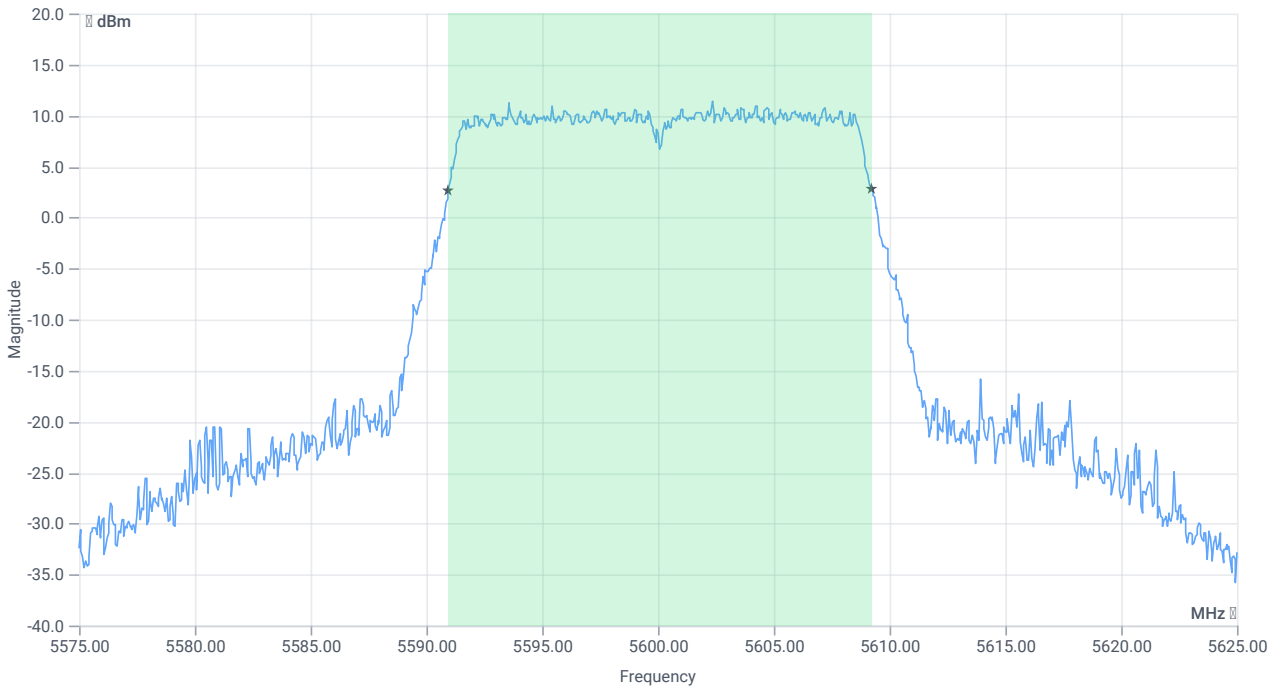
Test at TX 5600 MHz

RESULT: Reference Power cond.

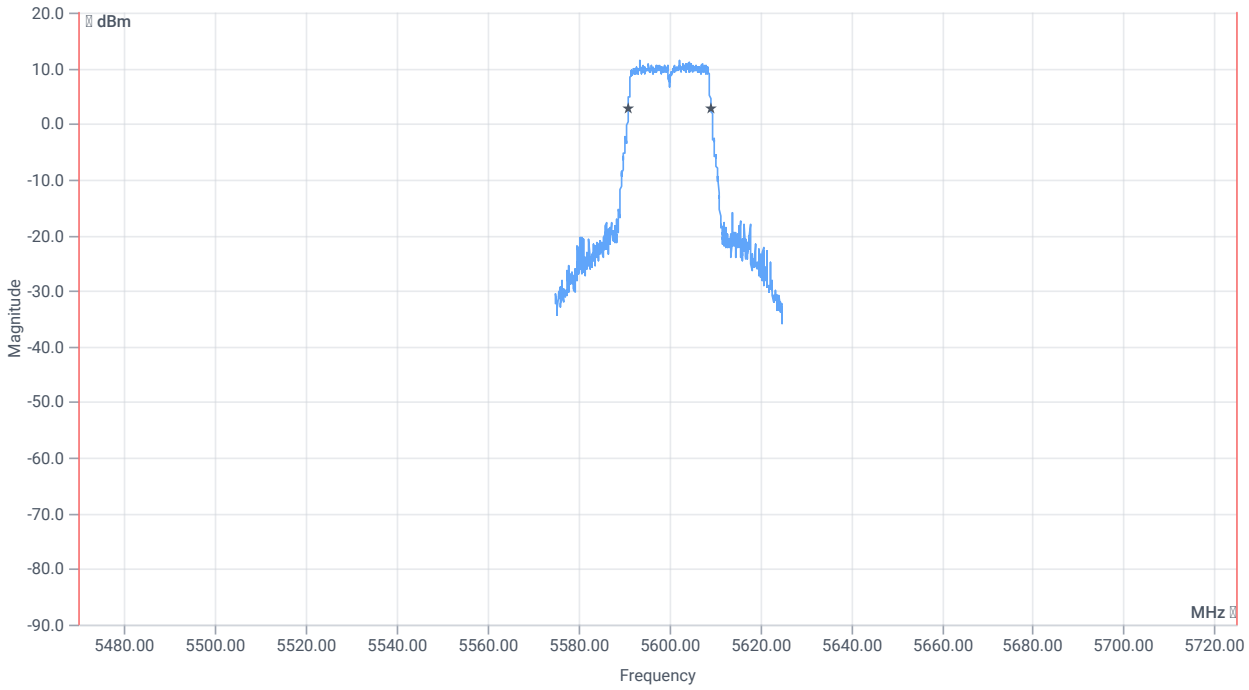
DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	15.70	dBm	INFO
Ref. Frequency	---	---	5602.200	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] | RefLevelOffset [dB] | InpAtt [dB]	23.70 | 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



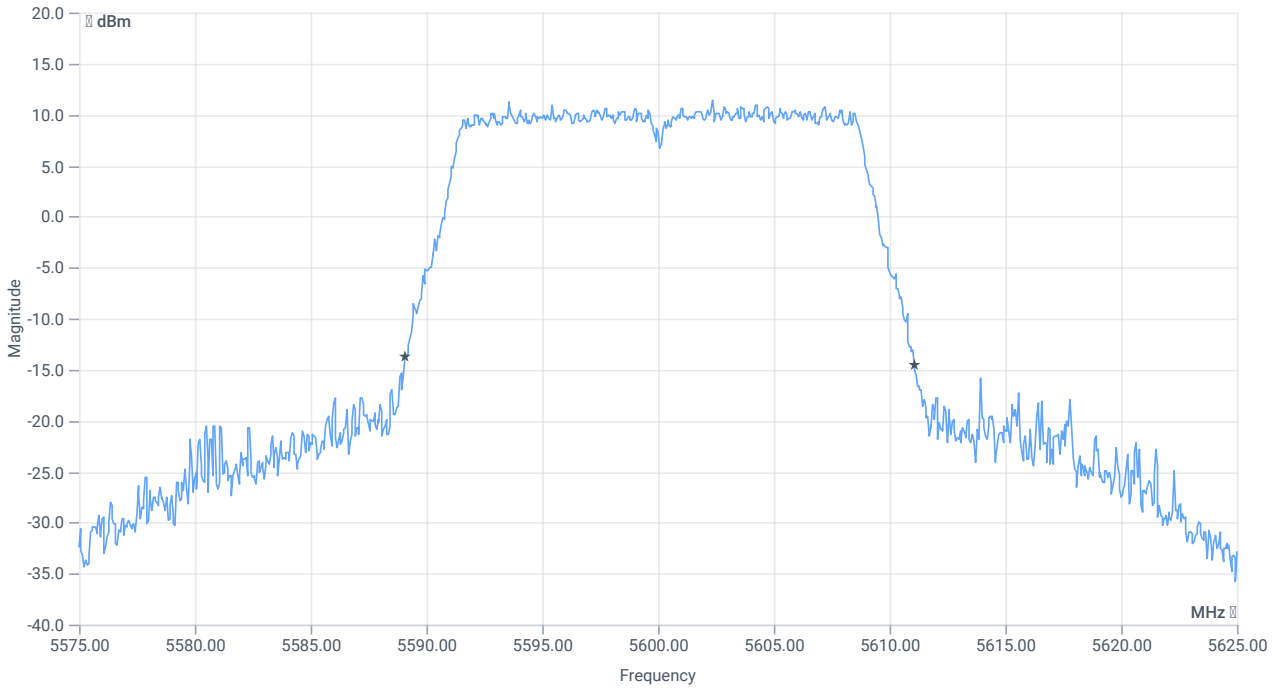
BW 99PCT



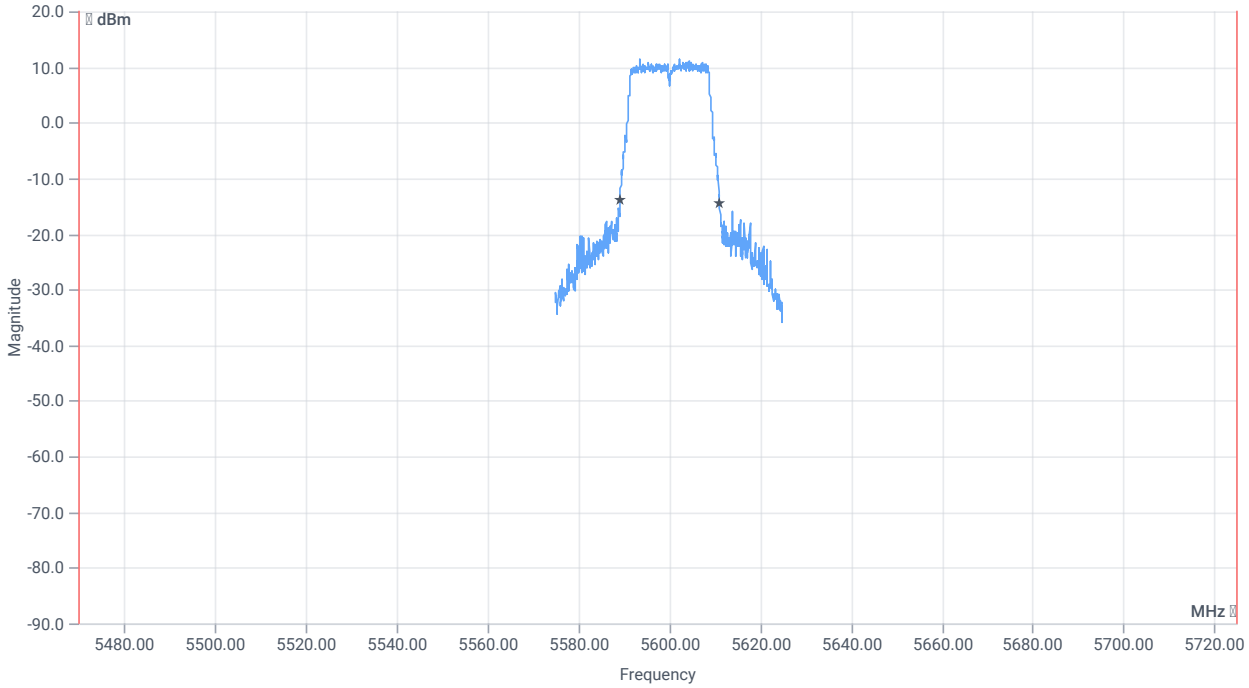
BW within Band 99PCT

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 99%	---	---	18.282	MHz	INFO
T1 99%	5470.000000	---	5590.9590	MHz	PASS since U-NII-3 is supported
T2 99%	---	5725.000000	5609.2408	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 n-HT20 mode U-NII-2C

References

TC start	25.07.2023 12:12:39
Ambit temp [°C] | humidity [rel%]	23.3 | 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 n-HT20 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 n-HT20 mode
Antenna port used	2
Temperature	nom
Voltage	nom
Frequency low to test	False | Freq [MHz] 5500
Frequency mid to test	True | Freq [MHz] 5600
Frequency high to test	False | Freq [MHz] 5700
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

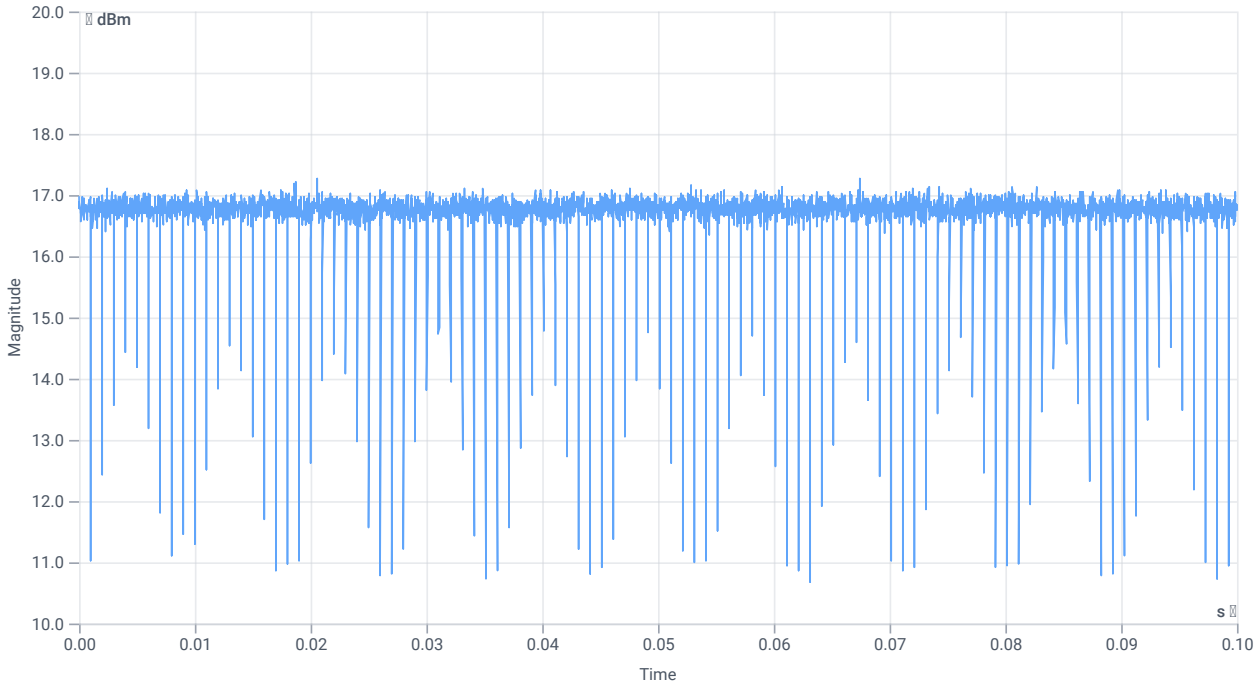
RESULT: Reference Power cond.

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	16.03	dBm	INFO
Ref. Frequency	---	---	5603.200	MHz	INFO

Evaluation max. Duty Cycle

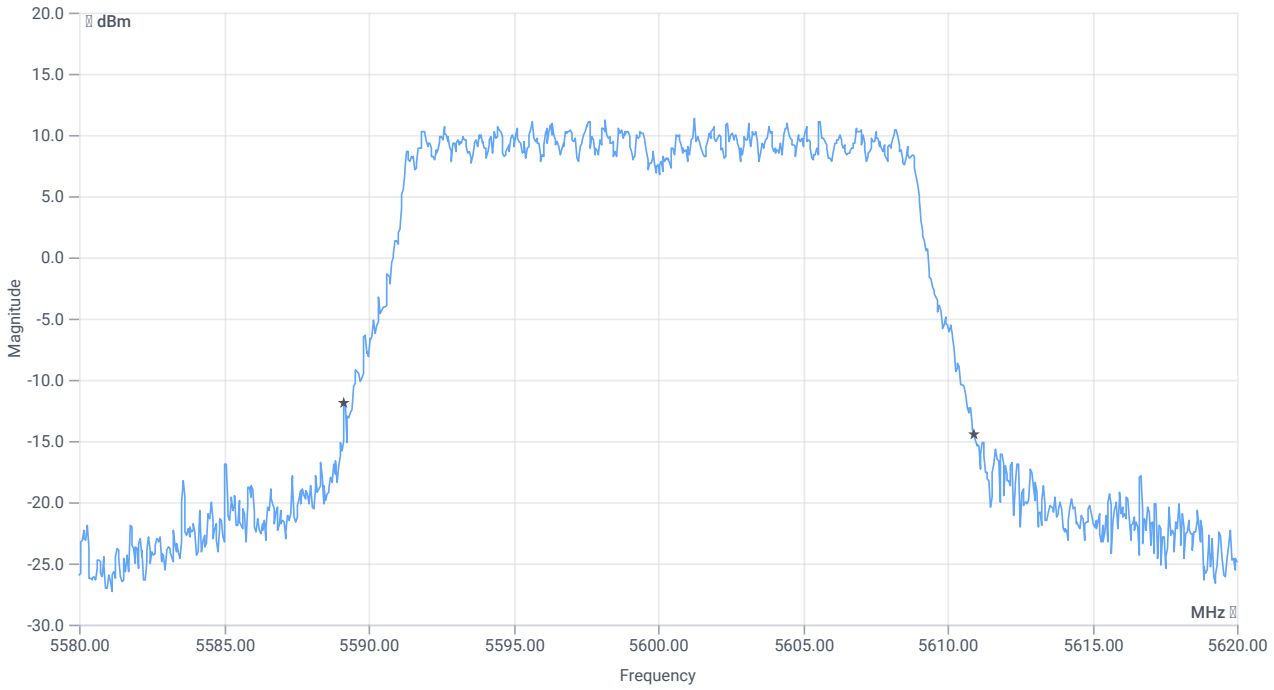
Duty Cycle evaluation

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

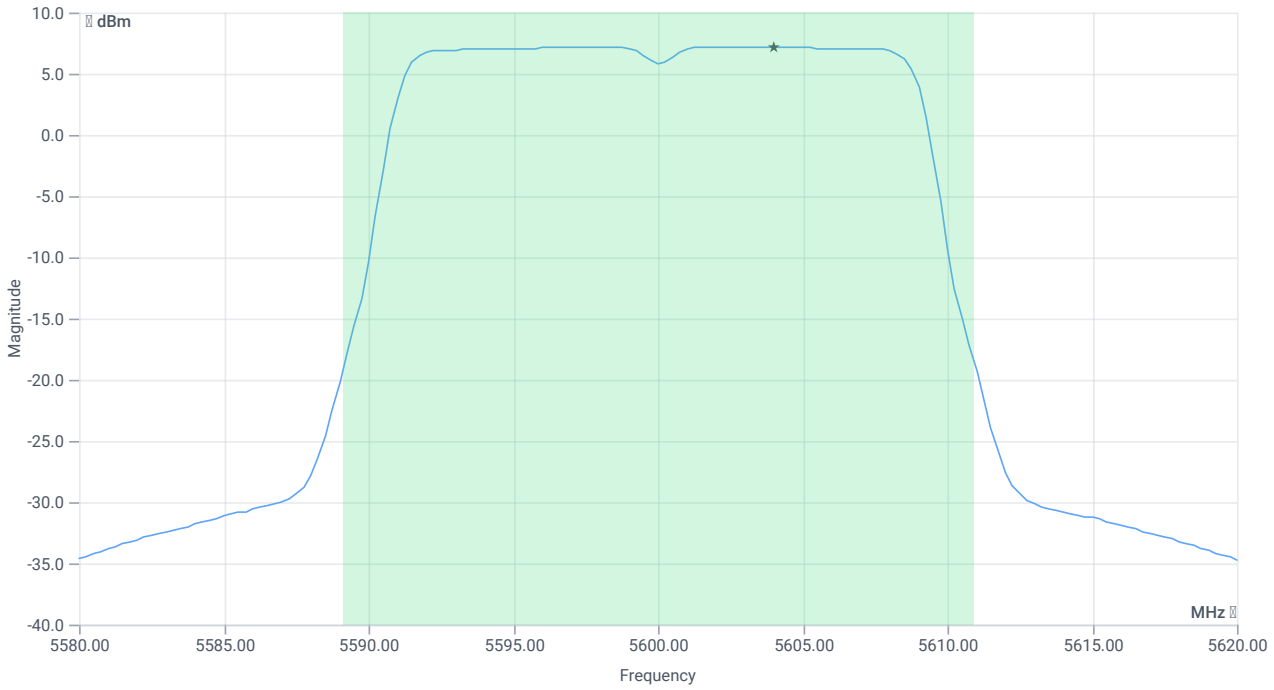
RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 26dB	---	---	21.76	MHz	INFO
T1 26dB	---	---	5589.1600	MHz	INFO
T2 26dB	---	---	5610.9200	MHz	INFO

Maximum Output Power

READ SA SETTINGS:

RefLevel [dBm] | RefLevelOffset [dB] | InpAtt [dB]	28.03 | 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	---	---	19.23	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			21.76		
Max Output Power DC corrected	---	24.38	19.23	dBm	PASS

Power Spectral Density

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Power Spectral Density	---	---	7.16	dBm/1MHz	INFO
Duty Cycle Correction	---	---	0	dB	INFO
Power Spectral Density DC corrected	---	11	7.16	dBm/1MHz	PASS

Verdict

PASS

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

References

TC start	25.07.2023 12:14:06
Ambit temp [°C] | humidity [rel%]	23.3 | 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 n-HT20 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 n-HT20 mode
Antenna port used	2
Temperature	nom
Voltage	nom
Frequency low to test	False | Freq [MHz] 5500
Frequency mid to test	True | Freq [MHz] 5600
Frequency high to test	False | Freq [MHz] 5700
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

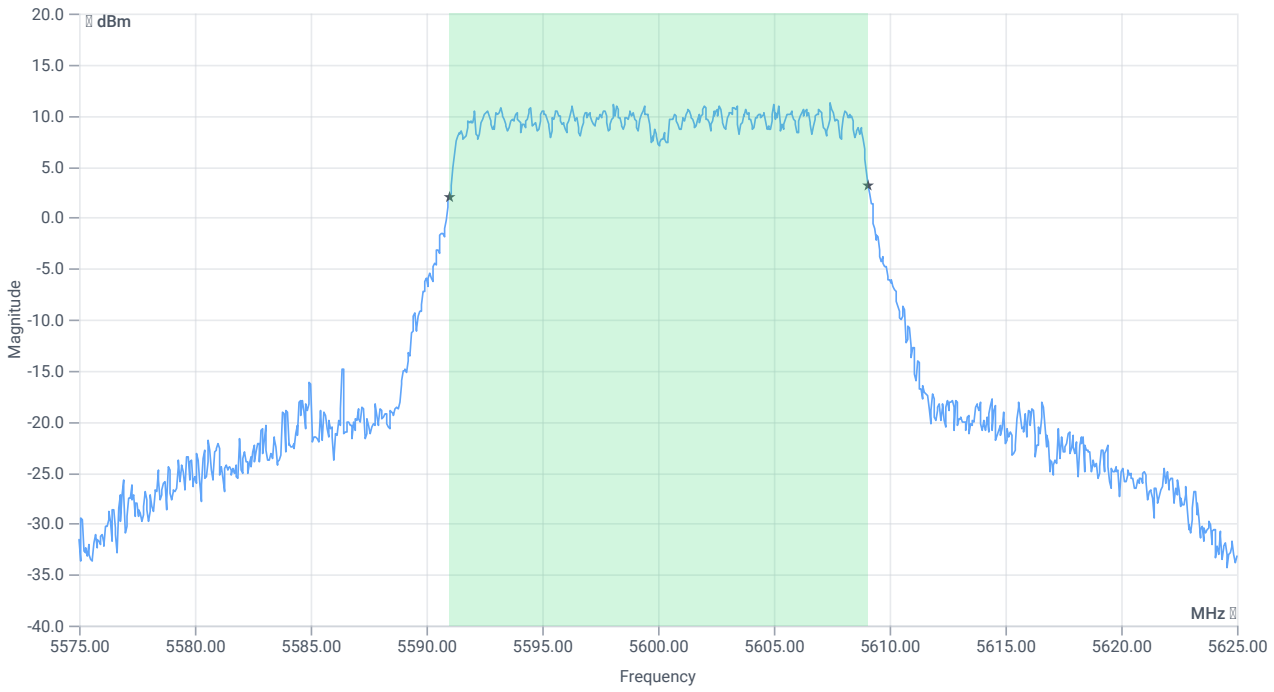
Test at TX 5600 MHz

RESULT: Reference Power cond.

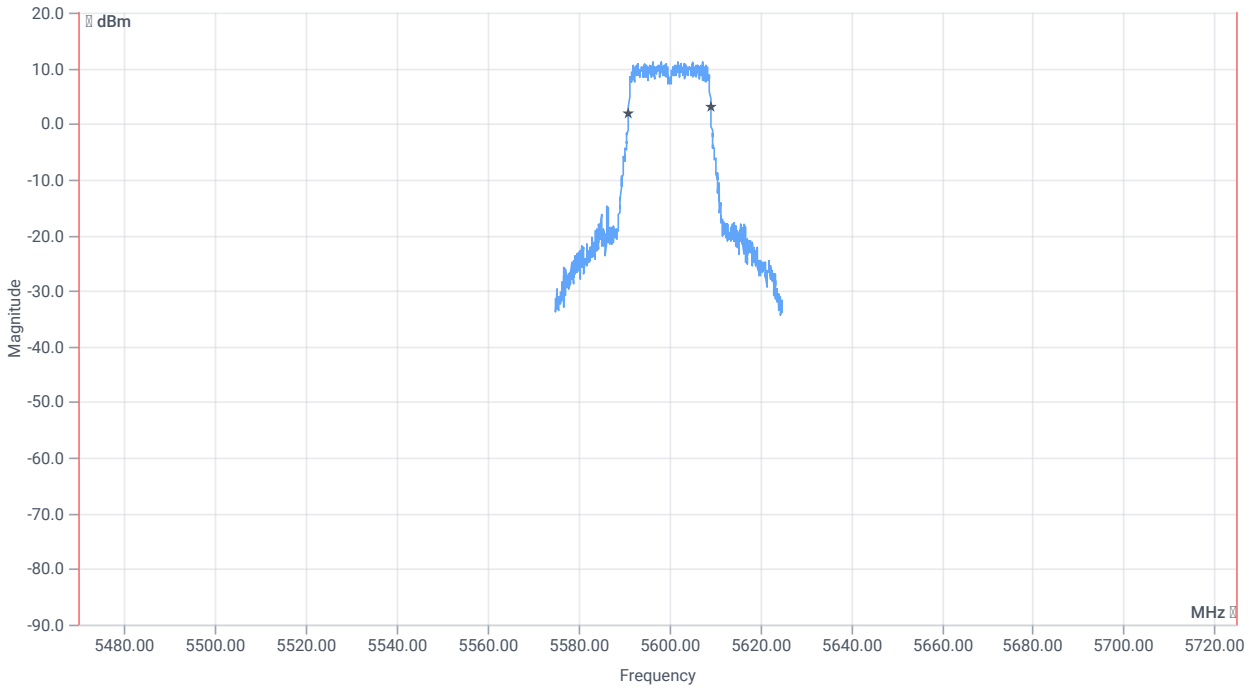
DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	16.34	dBm	INFO
Ref. Frequency	---	---	5601.200	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] | RefLevelOffset [dB] | InpAtt [dB]	24.34 | 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



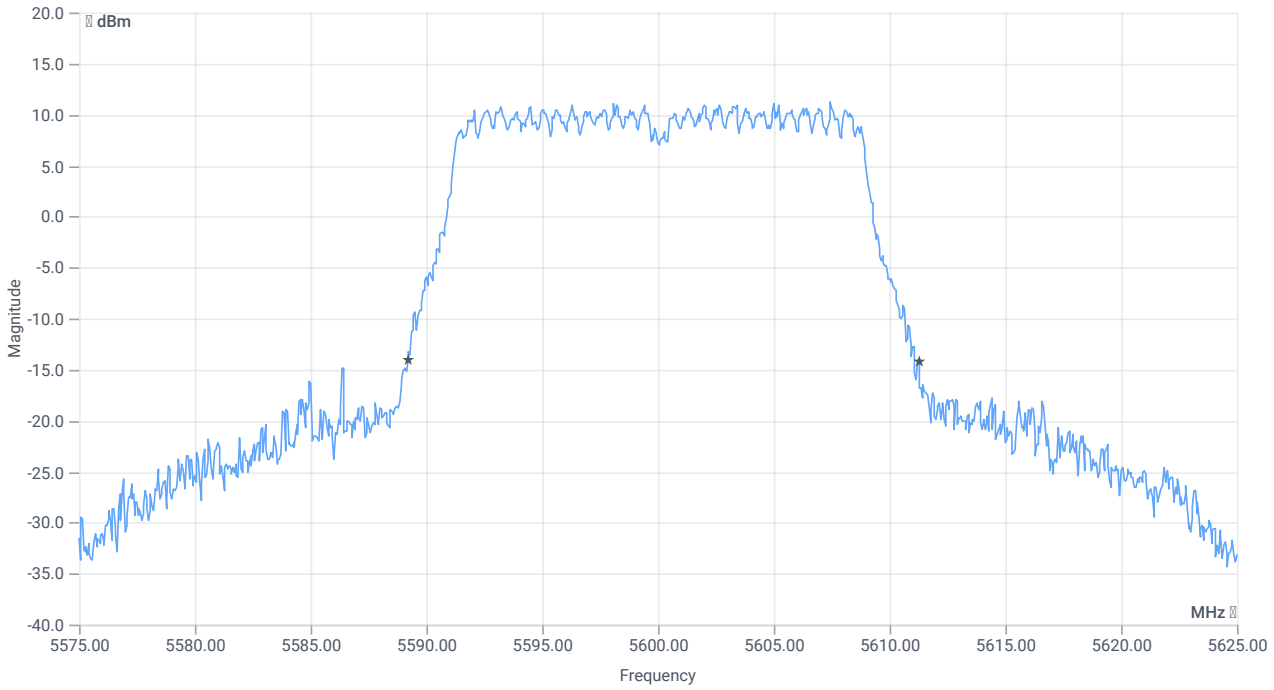
BW 99PCT



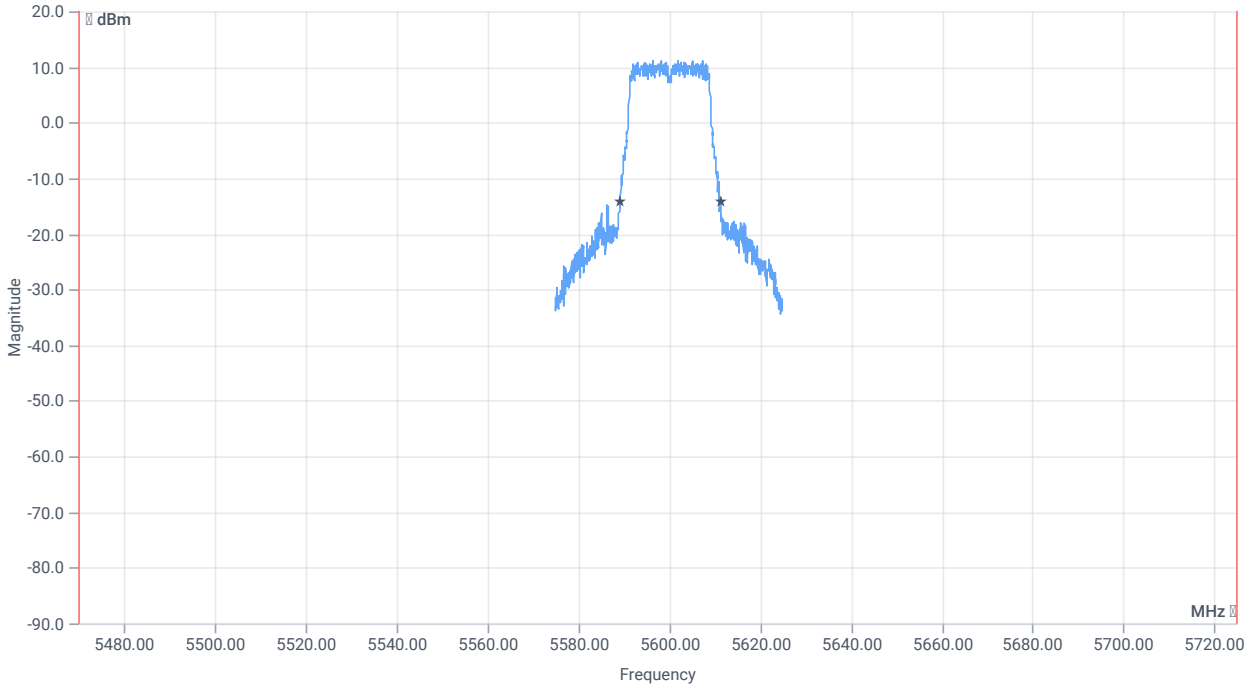
BW within Band 99PCT

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	---	5589.2000	MHz	PASS since U-NII-3 is supported
T2 26dB	---	5725.000000	5611.2500	MHz	

Verdict
PASS

FCC 15.407 # MIMO ∑ Max output power and psd ~ WLAN5Gx n-HT20 mode U-NII-2C

References

TC start	25.07.2023 12:14:37
Ambit temp [°C] | humidity [rel%]	23.3 | 55
System version	4.6.0.0
Specification	FCC 15.407 -
Method	
Description	MIMO ∑ FCC Power & psd - WLAN5Gx n-HT20 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 n-HT20 mode
Antenna port used	several
Temperature	nom
Voltage	nom
Frequency low to test	False | Freq [MHz] 5500
Frequency mid to test	True | Freq [MHz] 5600
Frequency high to test	False | Freq [MHz] 5700
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	---	---	19.84	dBm	INFO
Ant:1 BW 26dB	---	---	22.120	MHz	INFO
Ant:2 Max Output Power DC corrected	---	---	19.23	dBm	INFO
Ant:2 BW 26dB	---	---	21.760	MHz	INFO
∑ Limit absolute	---	24	22.56	dBm	PASS
∑ Limit: 11 dBm + 10 log 21.76	---	24.38	22.56	dBm	PASS

RESULT PSD

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ant:1 PSD	---	---	7.81	dBm/1MHz	INFO
Ant:2 PSD	---	---	7.16	dBm/1MHz	INFO
∑	---	11	10.51	dBm/1MHz	PASS

Verdict
PASS

Message with SA scan ~

References

TC start	25.07.2023 12:16:40
Ambit temp [°C] | humidity [rel%]	23.3 | 55
System version	4.6.0.0
Specification	-
Method	
Description	Message with SA Scan n_HT20_U_NII_2C
Information	

Test Parameter

Switched Path	EUT - SignalingUnit - SpectrumAnalyzer
Message start	25.07.2023 12:16:41
Message	set WLAN5Gx to n_HT20_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 n-HT20 mode U-NII-2C

References

TC start	25.07.2023 12:16:51
Ambit temp [°C] | humidity [rel%]	23.3 | 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 n-HT20 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 n-HT20 mode
Antenna port used	1
Temperature	nom
Voltage	nom
Frequency low to test	False | Freq [MHz] 5500
Frequency mid to test	False | Freq [MHz] 5600
Frequency high to test	True | Freq [MHz] 5720
Auto control enabled power supply | Climatic Box	No | No
Additional path loss [dB]	1.3
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

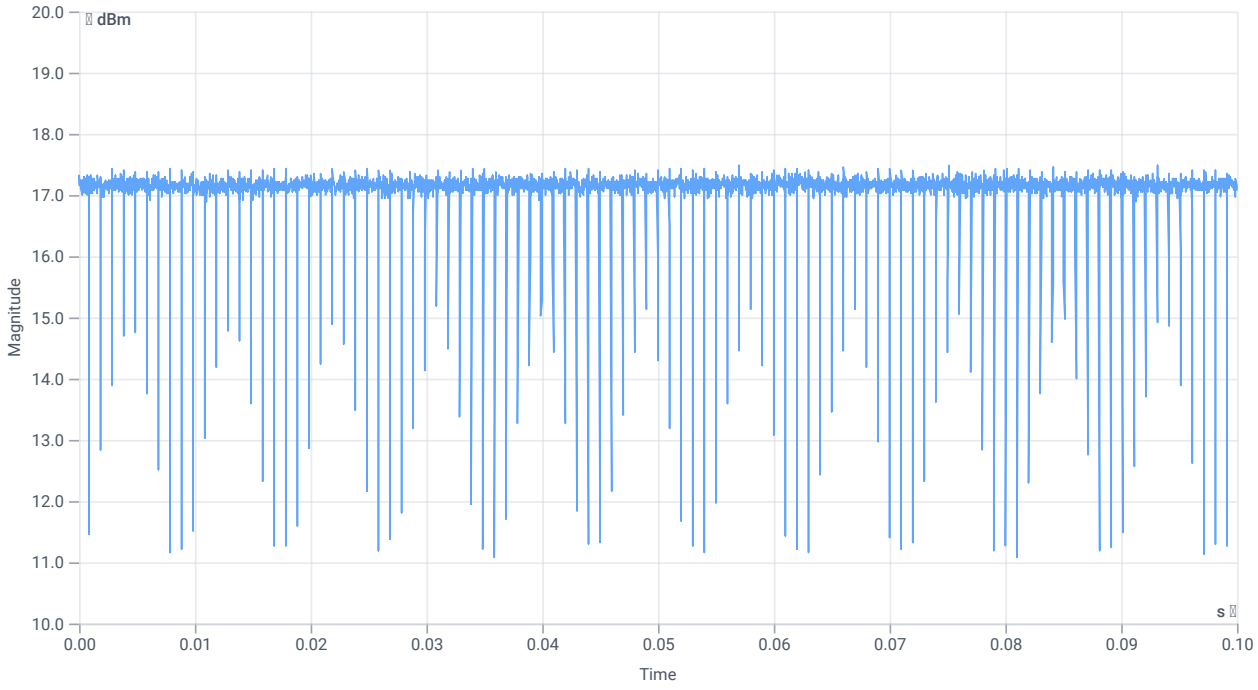
RESULT: Reference Power cond.

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	15.57	dBm	INFO
Ref. Frequency	---	---	5717.200	MHz	INFO

Evaluation max. Duty Cycle

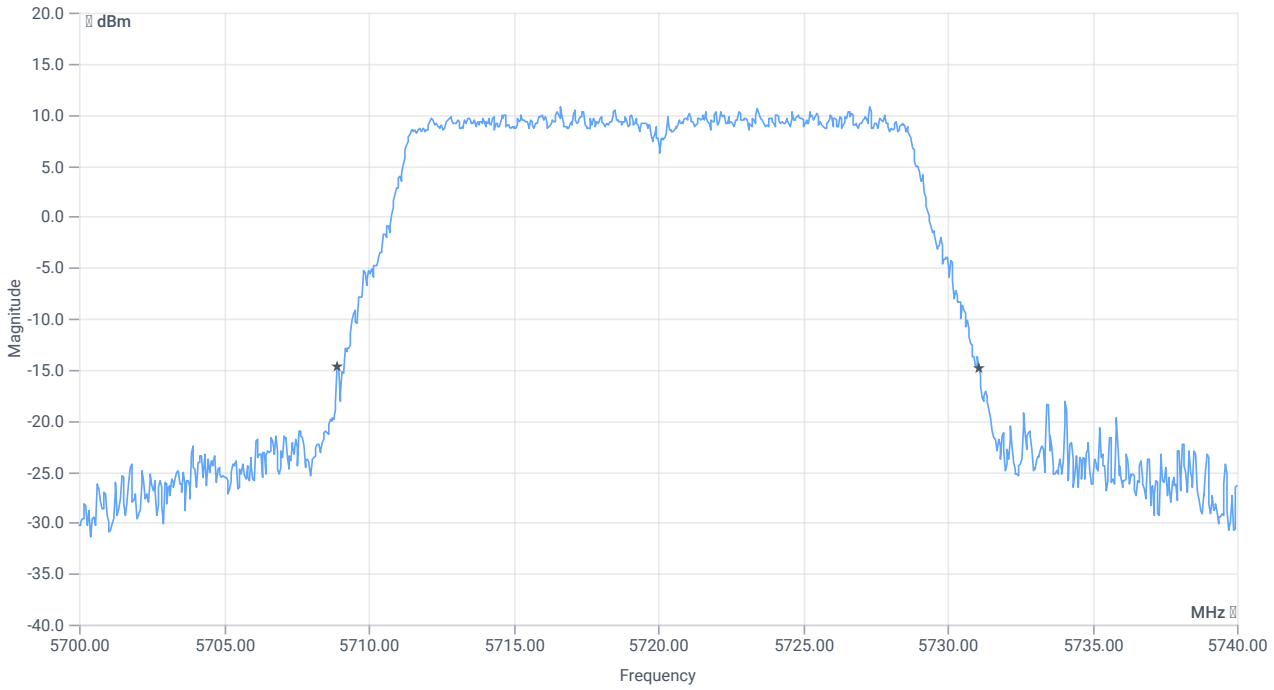
Duty Cycle evaluation

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

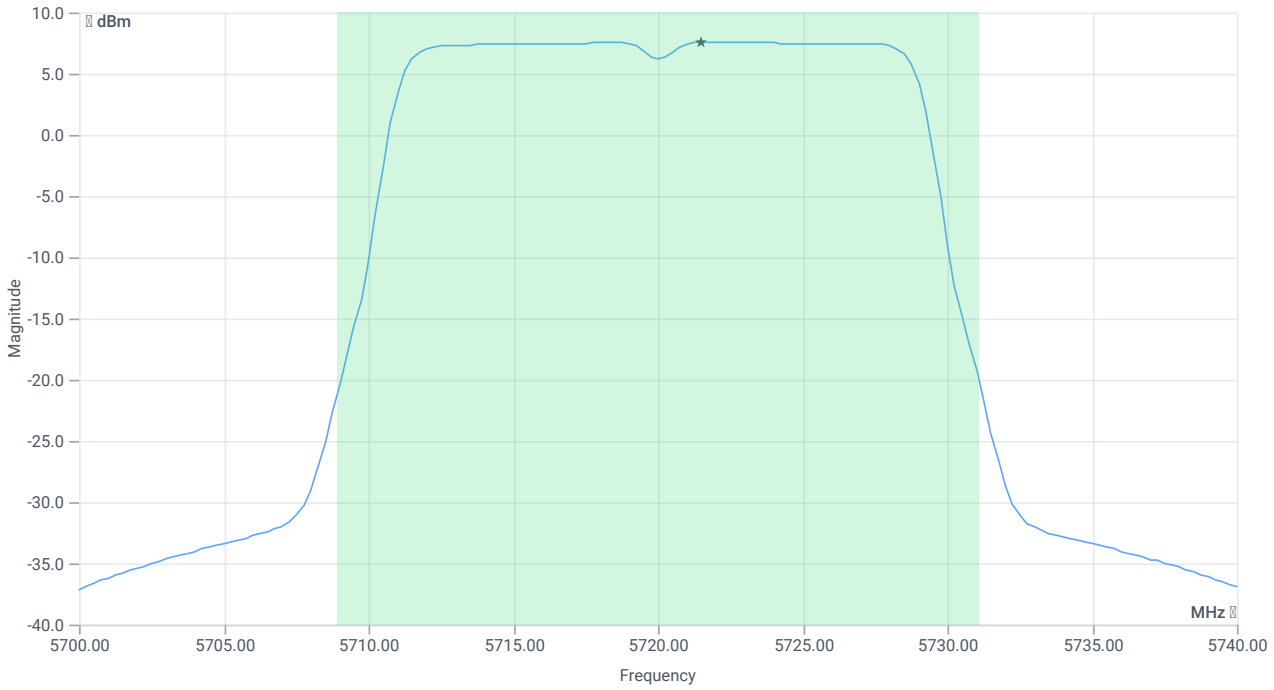
RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 26dB	---	---	22.16	MHz	INFO
T1 26dB	---	---	5708.9200	MHz	INFO
T2 26dB	---	---	5731.0800	MHz	INFO

Maximum Output Power

READ SA SETTINGS:

RefLevel [dBm] | RefLevelOffset [dB] | InpAtt [dB]	27.57 | 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	---	---	19.59	dBm	INFO
Duty Cycle Correction	---	---	0	dB	INFO
Limit absolute					
Max Output Power DC corrected	---	24	19.59	dBm	PASS
Limit: 11 dBm + 10 log	22.16				
Max Output Power DC corrected	---	24.46	19.59	dBm	PASS

Power Spectral Density

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Power Spectral Density	---	---	7.55	dBm/1MHz	INFO
Duty Cycle Correction	---	---	0	dB	INFO
Power Spectral Density DC corrected	---	11	7.55	dBm/1MHz	PASS

Verdict
PASS

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

References

TC start	25.07.2023 12:18:18
Ambit temp [°C] | humidity [rel%]	23.3 | 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 n-HT20 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 n-HT20 mode
Antenna port used	1
Temperature	nom
Voltage	nom
Frequency low to test	False | Freq [MHz] 5500
Frequency mid to test	False | Freq [MHz] 5600
Frequency high to test	True | Freq [MHz] 5720
Auto control enabled power supply | Climatic Box	No | No
Additional path loss [dB]	1.3
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

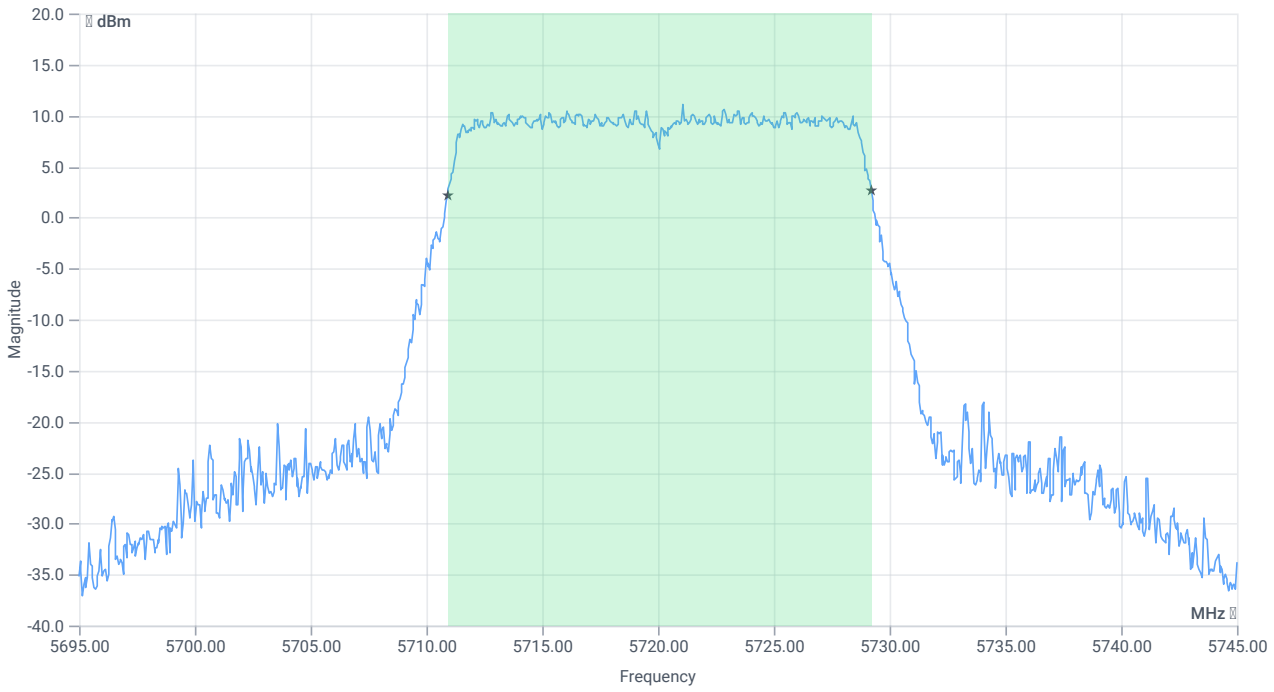
Test at TX 5720 MHz

RESULT: Reference Power cond.

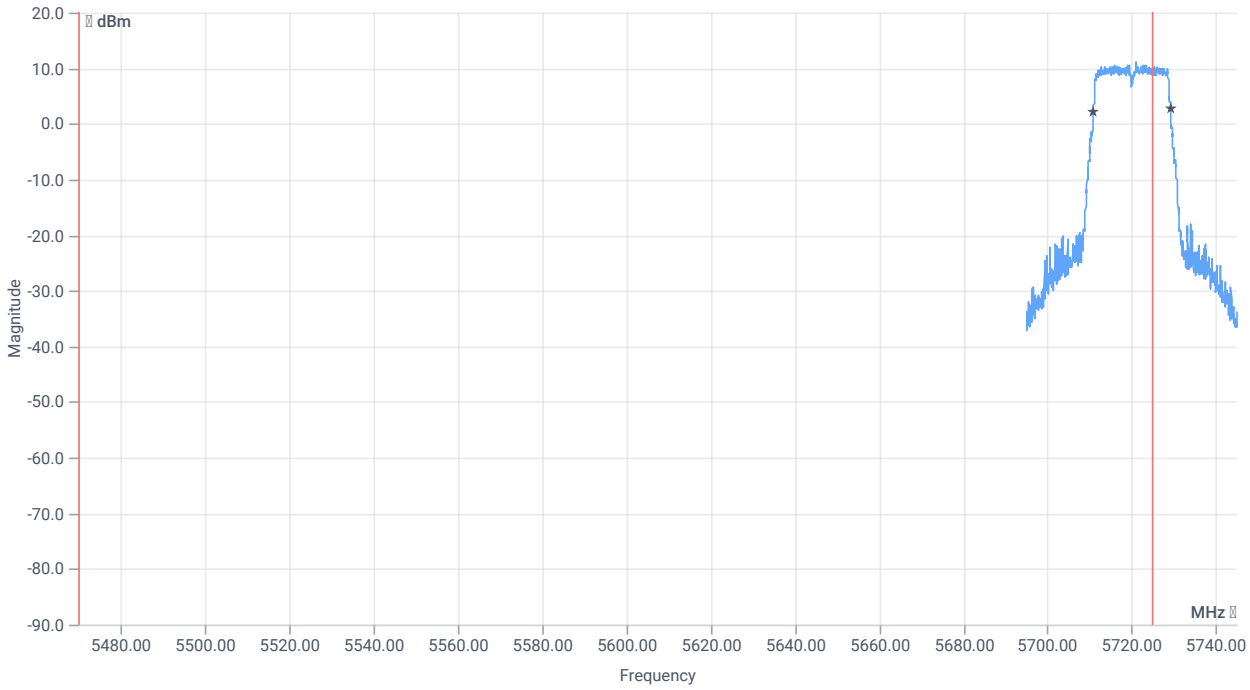
DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	15.49	dBm	INFO
Ref. Frequency	---	---	5723.000	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] | RefLevelOffset [dB] | InpAtt [dB]	23.49 | 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



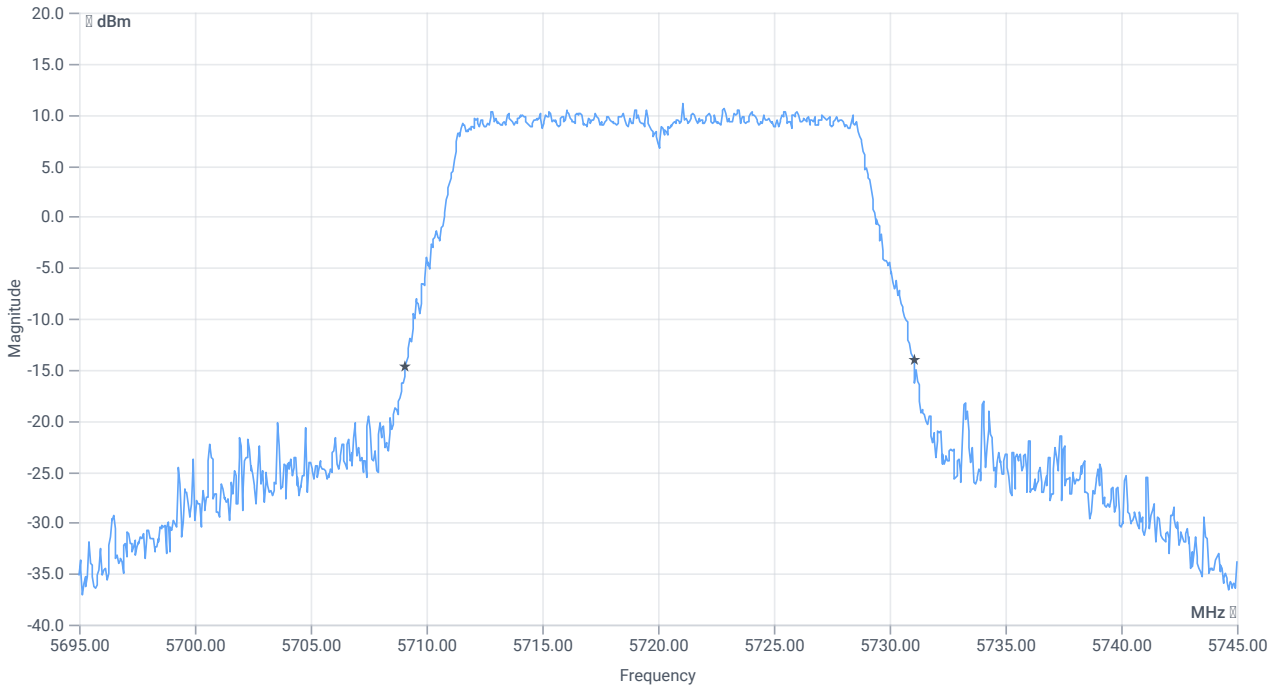
BW 99PCT



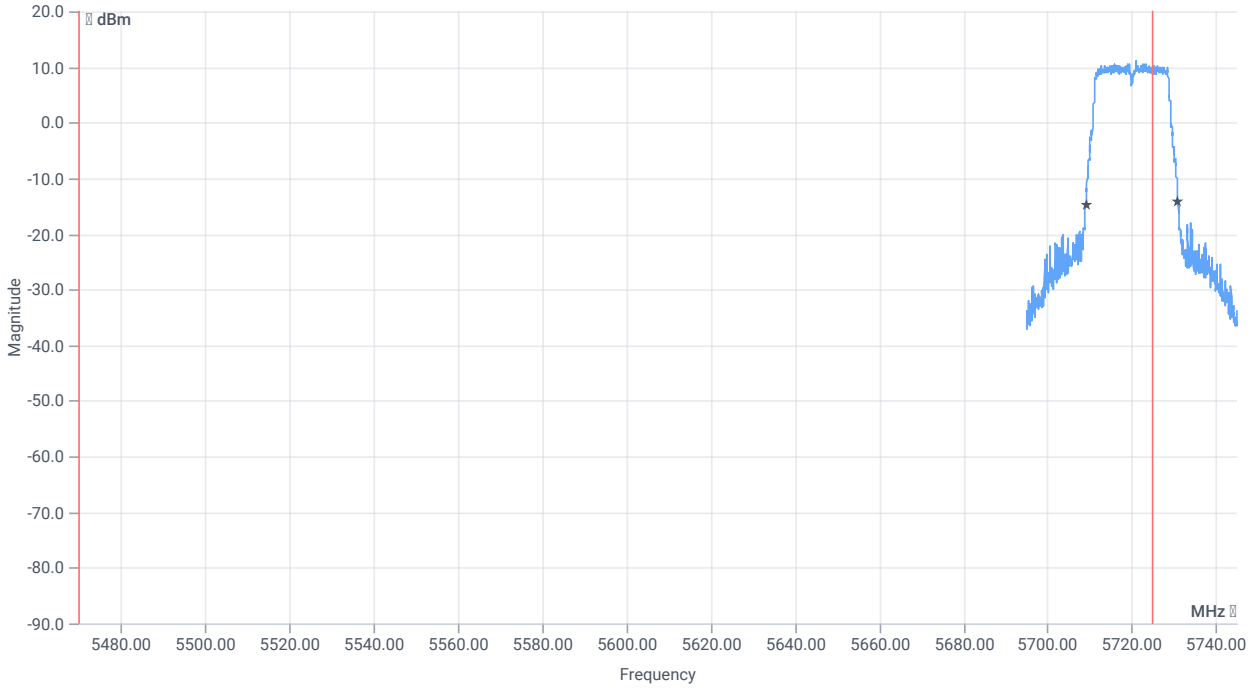
BW within Band 99PCT

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 n-HT20 mode U-NII-2C

References

TC start	25.07.2023 12:18:49
Ambit temp [°C] | humidity [rel%]	23.4 | 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 n-HT20 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 n-HT20 mode
Antenna port used	2
Temperature	nom
Voltage	nom
Frequency low to test	False | Freq [MHz] 5500
Frequency mid to test	False | Freq [MHz] 5600
Frequency high to test	True | Freq [MHz] 5720
Auto control enabled power supply | Climatic Box	No | No
Additional path loss [dB]	1.3
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

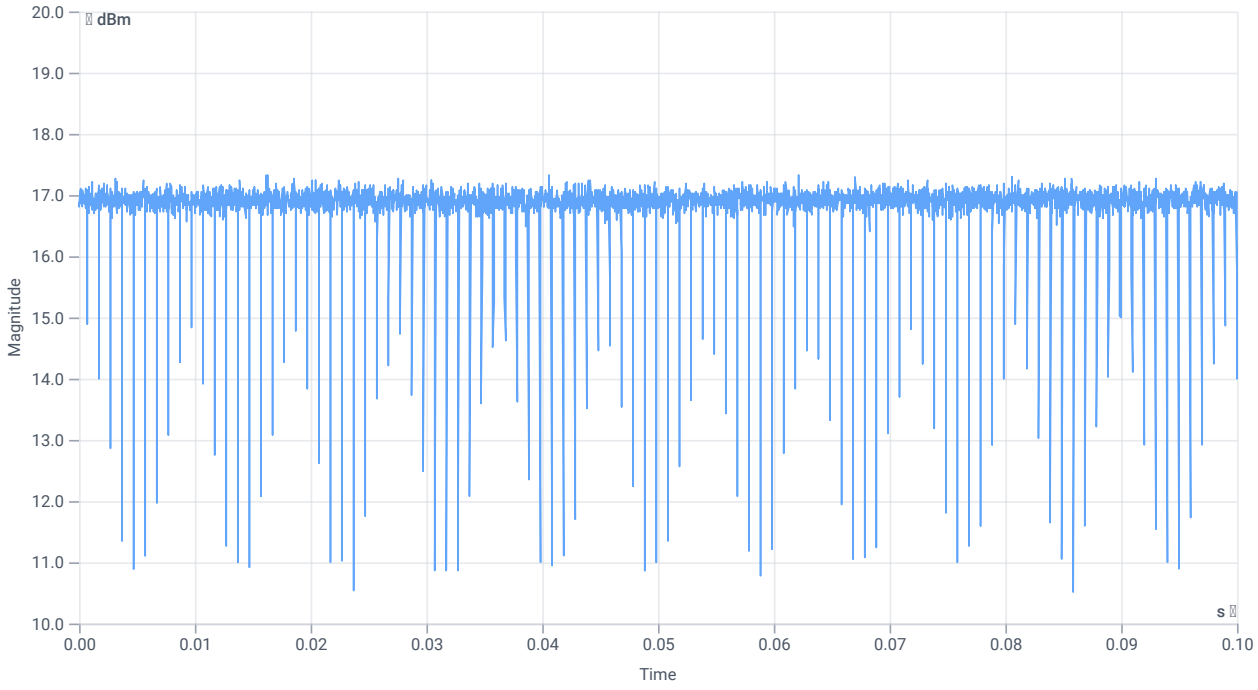
RESULT: Reference Power cond.

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	16.03	dBm	INFO
Ref. Frequency	---	---	5718.000	MHz	INFO

Evaluation max. Duty Cycle

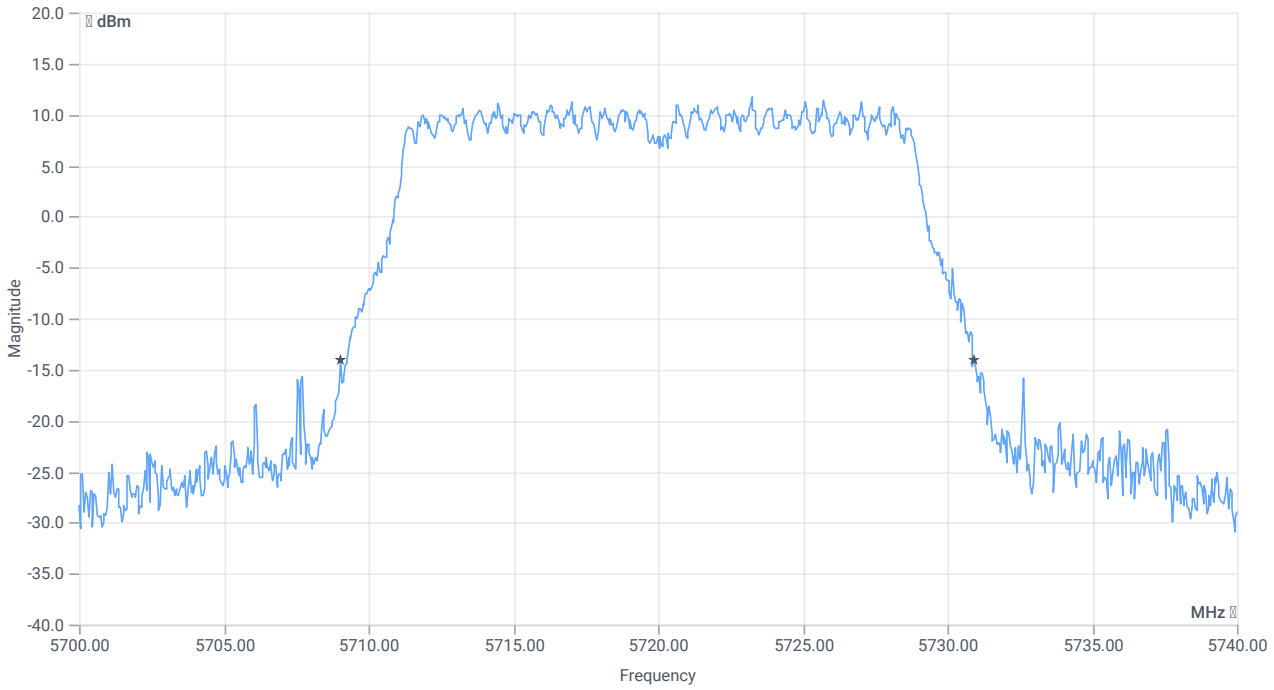
Duty Cycle evaluation

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

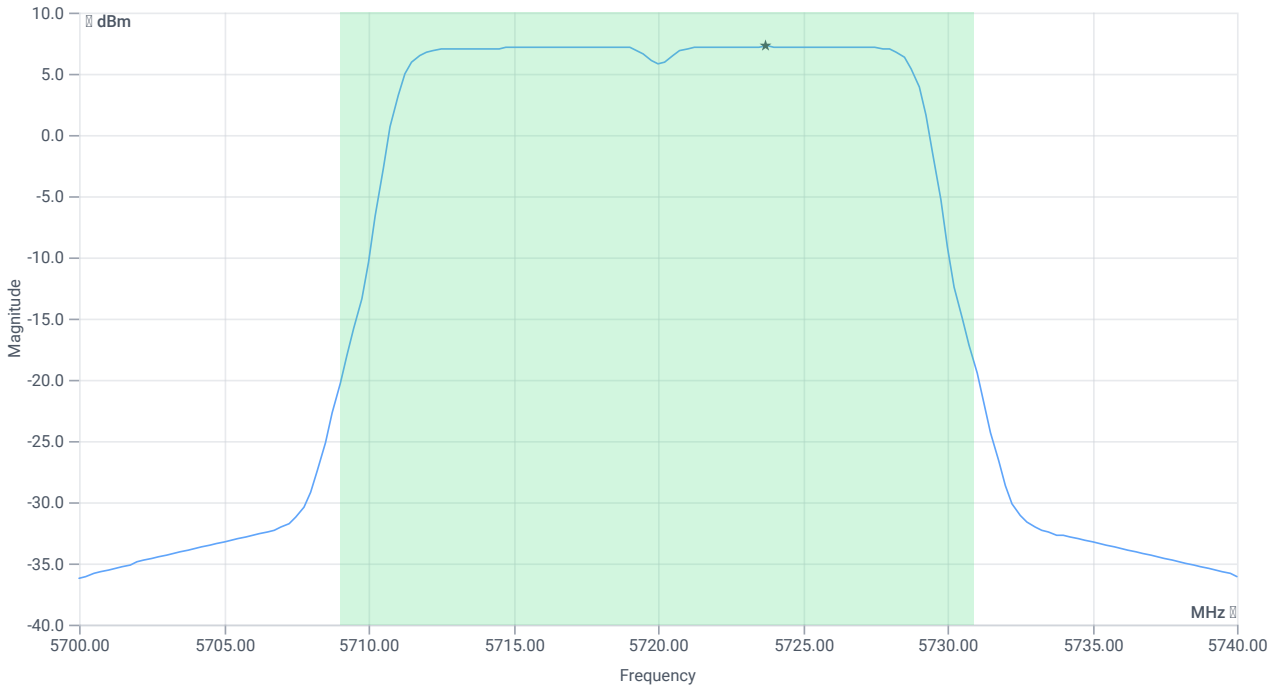
RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 26dB	---	---	21.88	MHz	INFO
T1 26dB	---	---	5709.0400	MHz	INFO
T2 26dB	---	---	5730.9200	MHz	INFO

Maximum Output Power

READ SA SETTINGS:

RefLevel [dBm] | RefLevelOffset [dB] | InpAtt [dB]	28.03 | 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	---	---	19.29	dBm	INFO
Duty Cycle Correction	---	---	0	dB	INFO
Limit absolute					
Max Output Power DC corrected	---	24	19.29	dBm	PASS
Limit: 11 dBm + 10 log	21.88				
Max Output Power DC corrected	---	24.4	19.29	dBm	PASS

Power Spectral Density

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Power Spectral Density	---	---	7.24	dBm/1MHz	INFO
Duty Cycle Correction	---	---	0	dB	INFO
Power Spectral Density DC corrected	---	11	7.24	dBm/1MHz	PASS

Verdict
PASS

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

References

TC start	25.07.2023 12:20:16
Ambit temp [°C] | humidity [rel%]	23.4 | 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 n-HT20 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 n-HT20 mode
Antenna port used	2
Temperature	nom
Voltage	nom
Frequency low to test	False | Freq [MHz] 5500
Frequency mid to test	False | Freq [MHz] 5600
Frequency high to test	True | Freq [MHz] 5720
Auto control enabled power supply | Climatic Box	No | No
Additional path loss [dB]	1.3
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

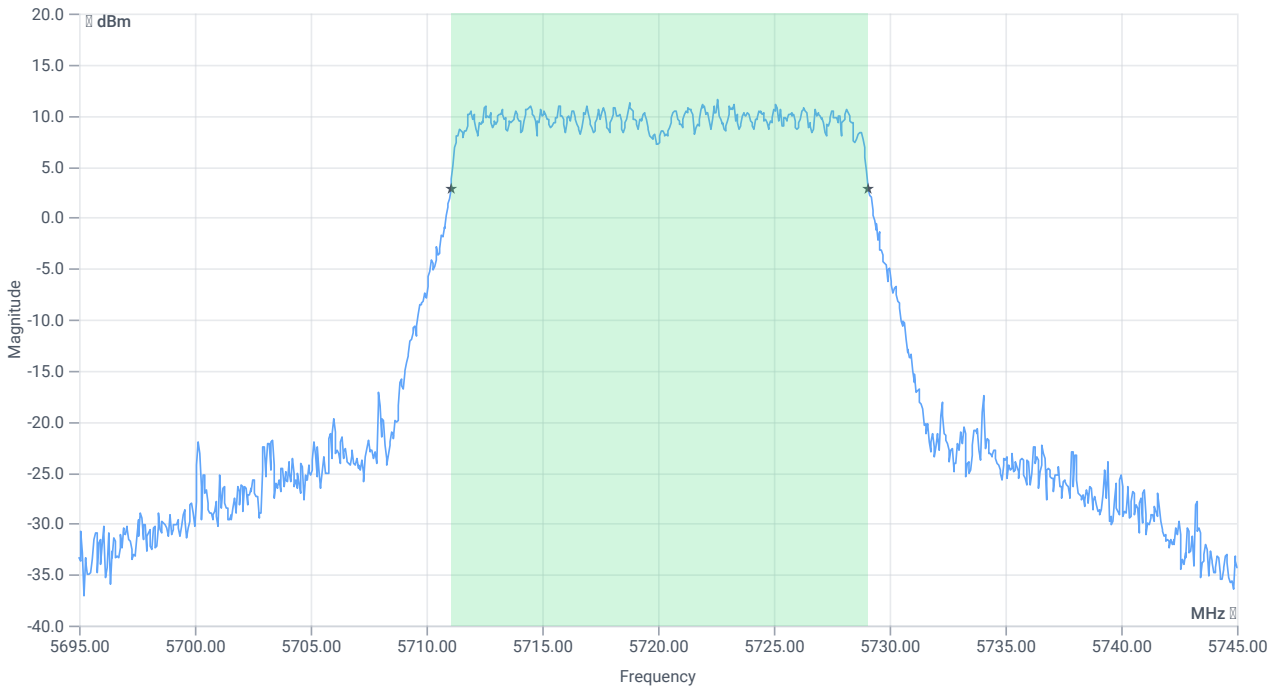
Test at TX 5720 MHz

RESULT: Reference Power cond.

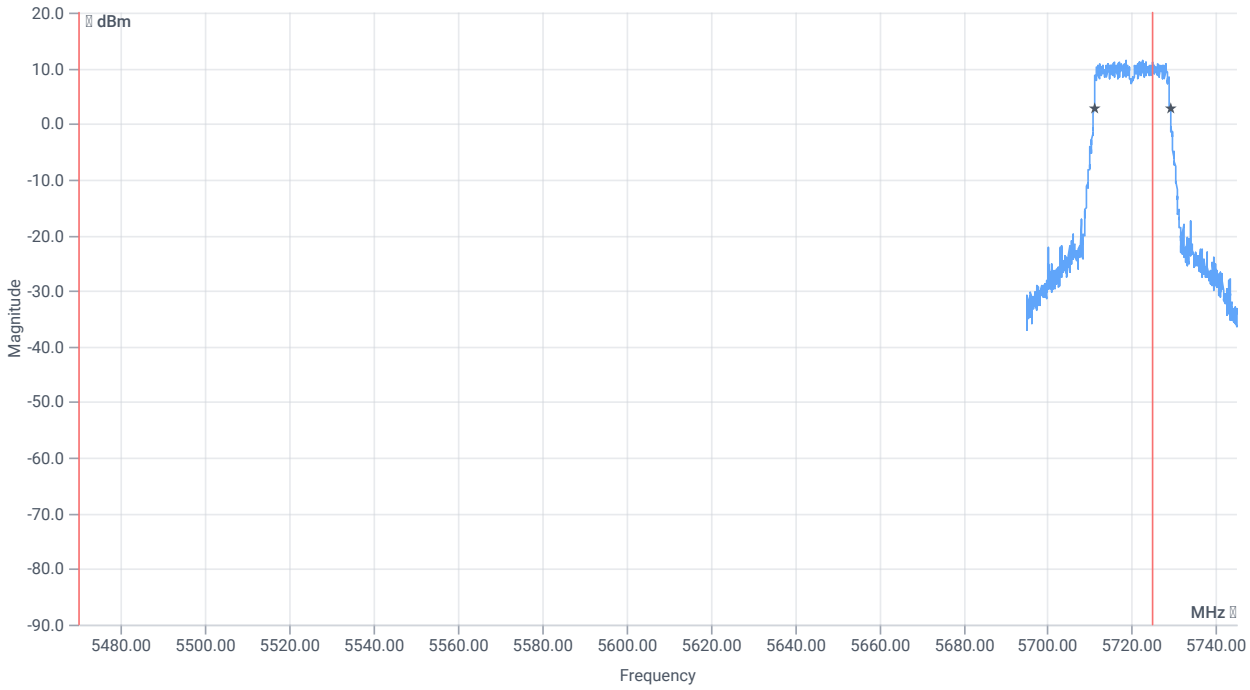
DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	16.27	dBm	INFO
Ref. Frequency	---	---	5714.010	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] | RefLevelOffset [dB] | InpAtt [dB]	24.27 | 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



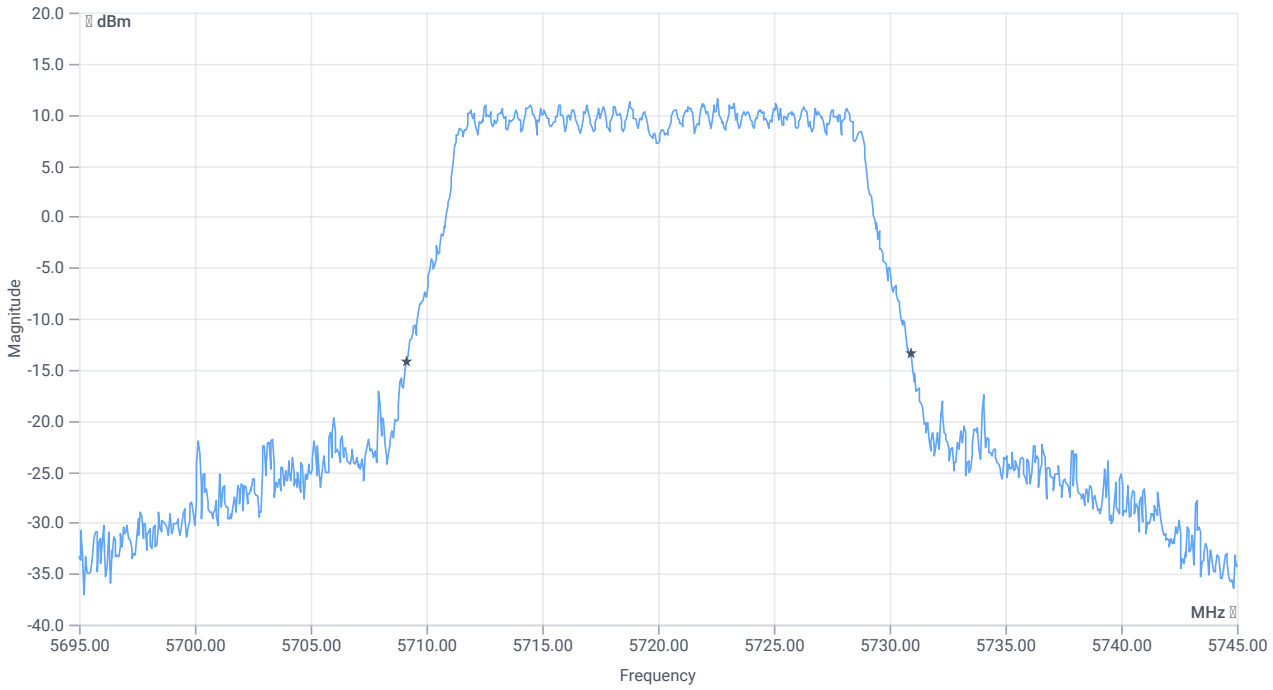
BW 99PCT



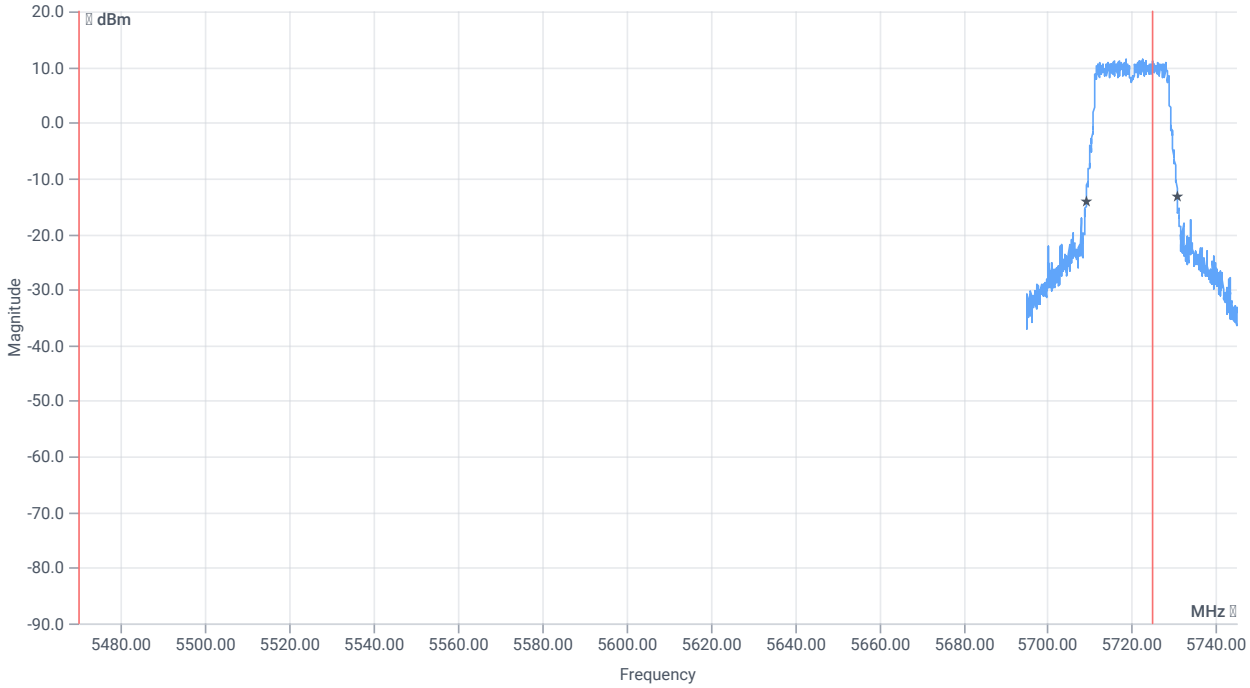
BW within Band 99PCT

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	---	---	21.8	MHz	INFO

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
T1 26dB	5470.000000	---	5709.1500	MHz	PASS since U-NII-3 is supported
T2 26dB	---	5725.000000	5730.9500	MHz	

Verdict
PASS

FCC 15.407 # MIMO ∑ Max output power and psd ~ WLAN5Gx n-HT20 mode U-NII-2C

References

TC start	25.07.2023 12:20:47
Ambit temp [°C] | humidity [rel%]	23.4 | 56
System version	4.6.0.0
Specification	FCC 15.407 -
Method	
Description	MIMO ∑ FCC Power & psd - WLAN5Gx n-HT20 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 n-HT20 mode
Antenna port used	several
Temperature	nom
Voltage	nom
Frequency low to test	False | Freq [MHz] 5500
Frequency mid to test	False | Freq [MHz] 5600
Frequency high to test	True | Freq [MHz] 5720
Auto control enabled power supply | Climatic Box	No | No
Additional path loss [dB]	1.3
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	---	---	19.59	dBm	INFO
Ant:1 BW 26dB	---	---	22.160	MHz	INFO
Ant:2 Max Output Power DC corrected	---	---	19.29	dBm	INFO
Ant:2 BW 26dB	---	---	21.880	MHz	INFO
∑ Limit absolute	---	24	22.45	dBm	PASS
∑ Limit: 11 dBm + 10 log 21.88	---	24.4	22.45	dBm	PASS

RESULT PSD

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ant:1 PSD	---	---	7.55	dBm/1MHz	INFO
Ant:2 PSD	---	---	7.24	dBm/1MHz	INFO
∑	---	11	10.41	dBm/1MHz	PASS

Verdict
PASS

NA # Message with SA scan ~

References

TC start	01.08.2023 15:27:57
Ambit temp [°C] | humidity [rel%]	25.3 | 49
System version	4.6.0.1
Standard | Version	NA | NI
Method	
Description	Message with SA Scan n_HT20_U_NII_3
Information	PS96

Test Parameter

Switched Path	EUT - SignalingUnit - SpectrumAnalyzer
Message start	01.08.2023 15:27:58
Message	set WLAN5Gx to n_HT20_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 n-HT20 mode U-NII-3

References

TC start	01.08.2023 15:28:06
Ambit temp [°C] | humidity [rel%]	25.3 | 49
System version	4.6.0.1
Standard | Version	FCC 15.407 | NI
Method	KDB789033 D02, F., E.2.e.
Description	FCC 15.407 Max Output Power & PSD - WLAN5Gx n-HT20 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 n-HT20 mode
Antenna port used	1
Temperature	nom
Voltage	nom
Frequency low to test	True | Freq [MHz] 5745
Frequency mid to test	False | Freq [MHz] 5785
Frequency high to test	False | Freq [MHz] 5825
Auto control enabled power supply | Climatic Box	No | No
Additional path loss [dB]	1.3
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

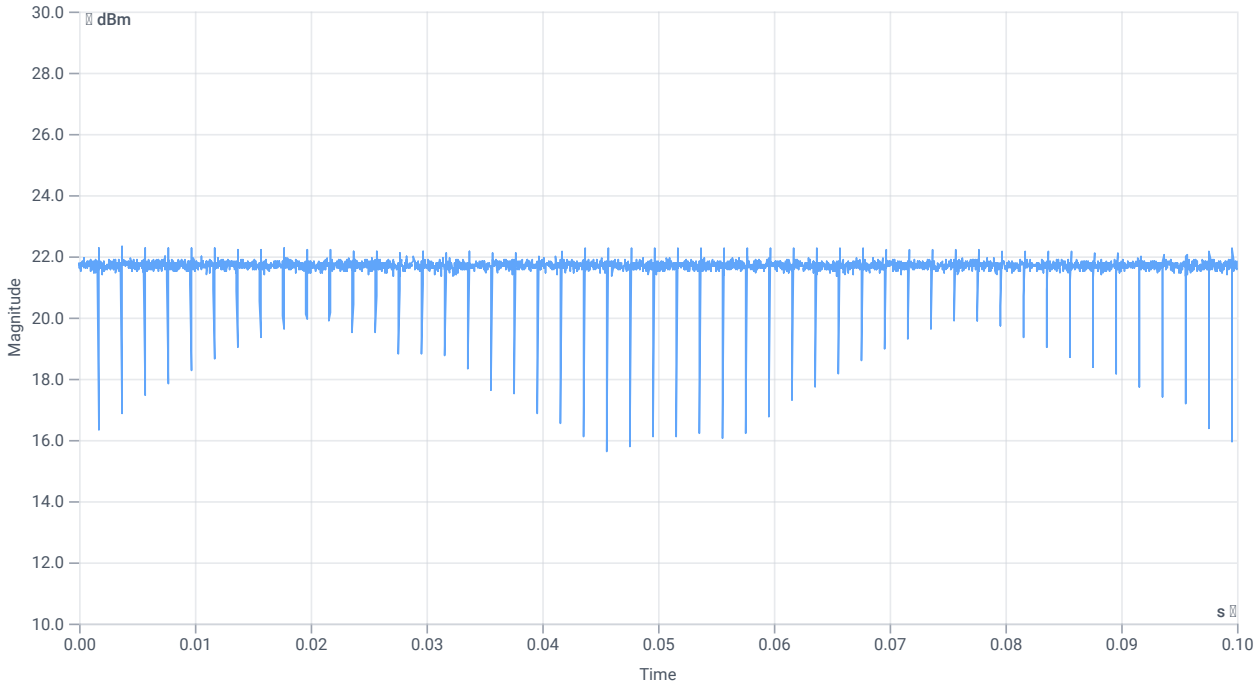
RESULT: Reference Power cond.

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	20.48	dBm	INFO
Ref. Frequency	---	---	5739.810	MHz	INFO

Evaluation max. Duty Cycle

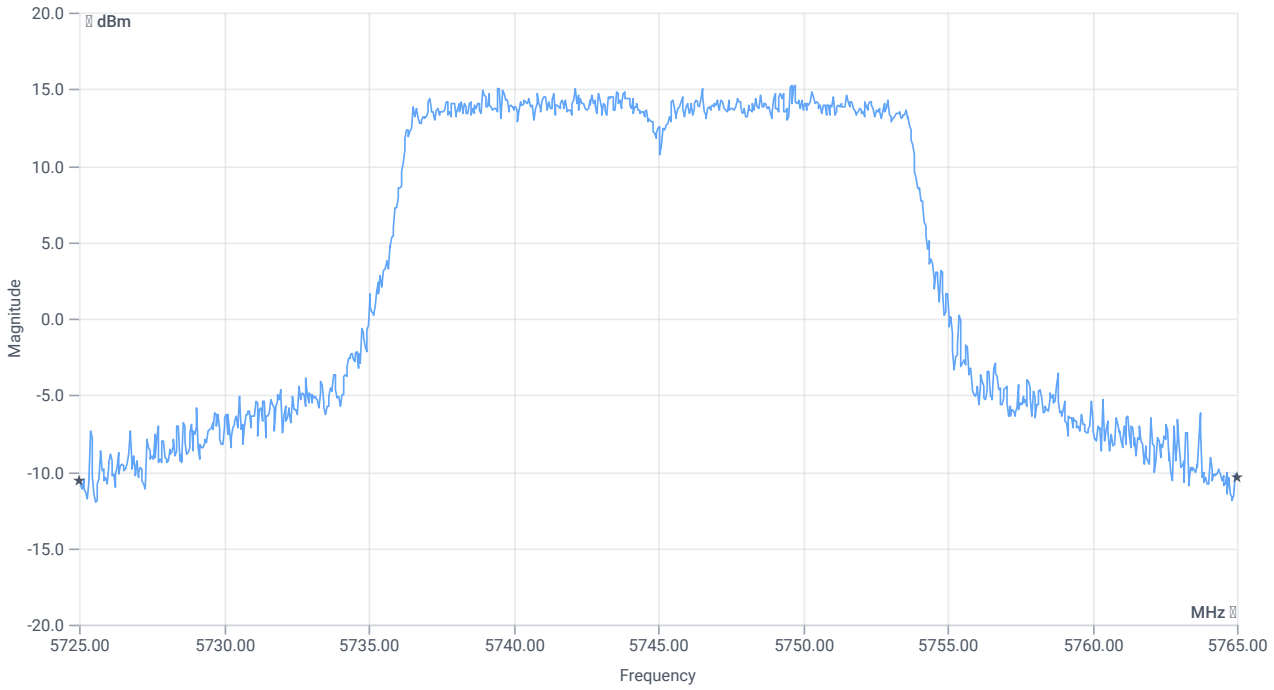
Duty Cycle evaluation

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



Duty cycle

Evaluation Bandwidth



BW 26dB

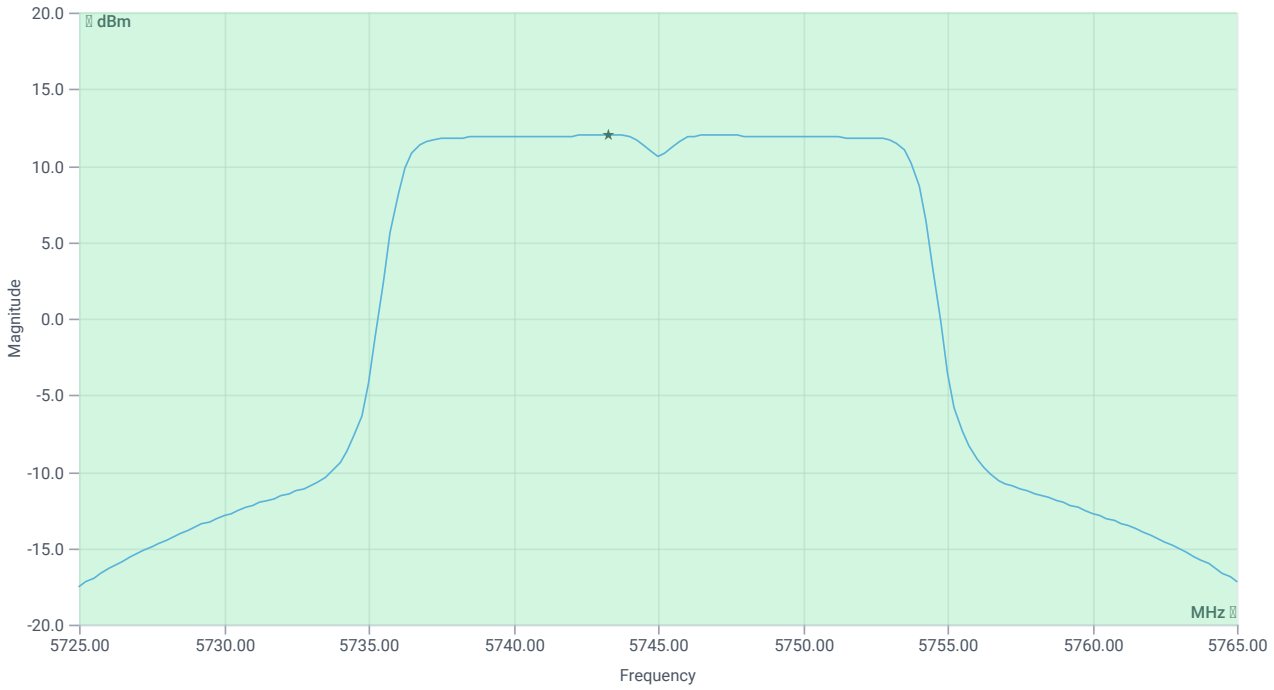
RESULT

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

Maximum Output Power

READ SA SETTINGS:

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

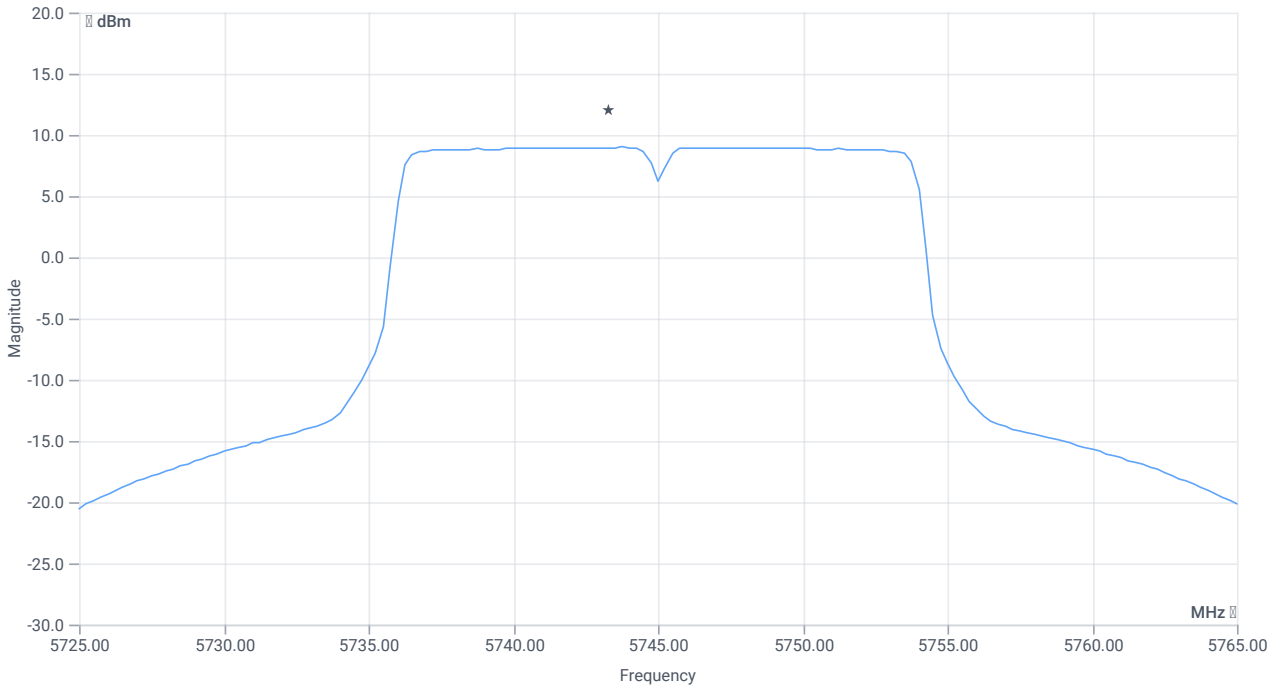
RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Max Output Power	---	---	24.08	dBm	INFO
Duty Cycle Correction	---	---	0	dB	INFO
Limit absolute					
Max Output Power DC corrected	---	30	24.08	dBm	PASS
Limit: 11 dBm + 10 log 40					
Max Output Power DC corrected	---	27.02	24.08	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	---	---	8.99	dBm/0.5MHz	INFO
Duty Cycle Correction	---	---	0	dB	INFO
Power Spectral Density DC corrected	---	30	8.99	dBm/0.5MHz	PASS

Verdict
PASS

FCC 15.407, ISED RSS247 # Bandwidths 99PCT and 20dB ~ WLAN5Gx n-HT20 mode U-NII-3

References

TC start	01.08.2023 15:30:34
Ambit temp [°C] | humidity [rel%]	25.3 | 49
System version	4.6.0.1
Standard | Version	FCC 15.407, ISED RSS247 | NI
Method	26dB Bandwidth KDB789033 D02, C.1 / ISED RSS-GEN
Description	FCC 15.407 Bandwidths - WLAN5Gx n-HT20 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 n-HT20 mode
Antenna port used	1
Temperature	nom
Voltage	nom
Frequency low to test	True | Freq [MHz] 5745
Frequency mid to test	False | Freq [MHz] 5785
Frequency high to test	False | Freq [MHz] 5825
Auto control enabled power supply | Climatic Box	No | No
Additional path loss [dB]	1.3
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

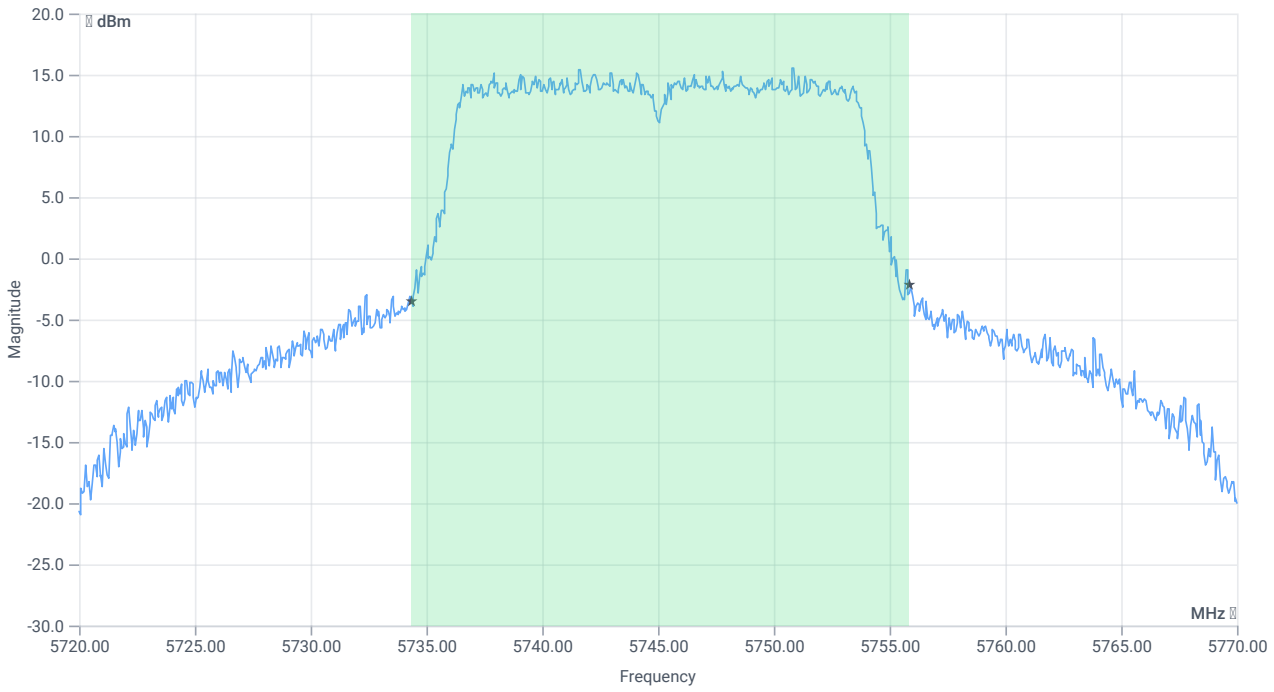
Test at TX 5745 MHz

RESULT: Reference Power cond.

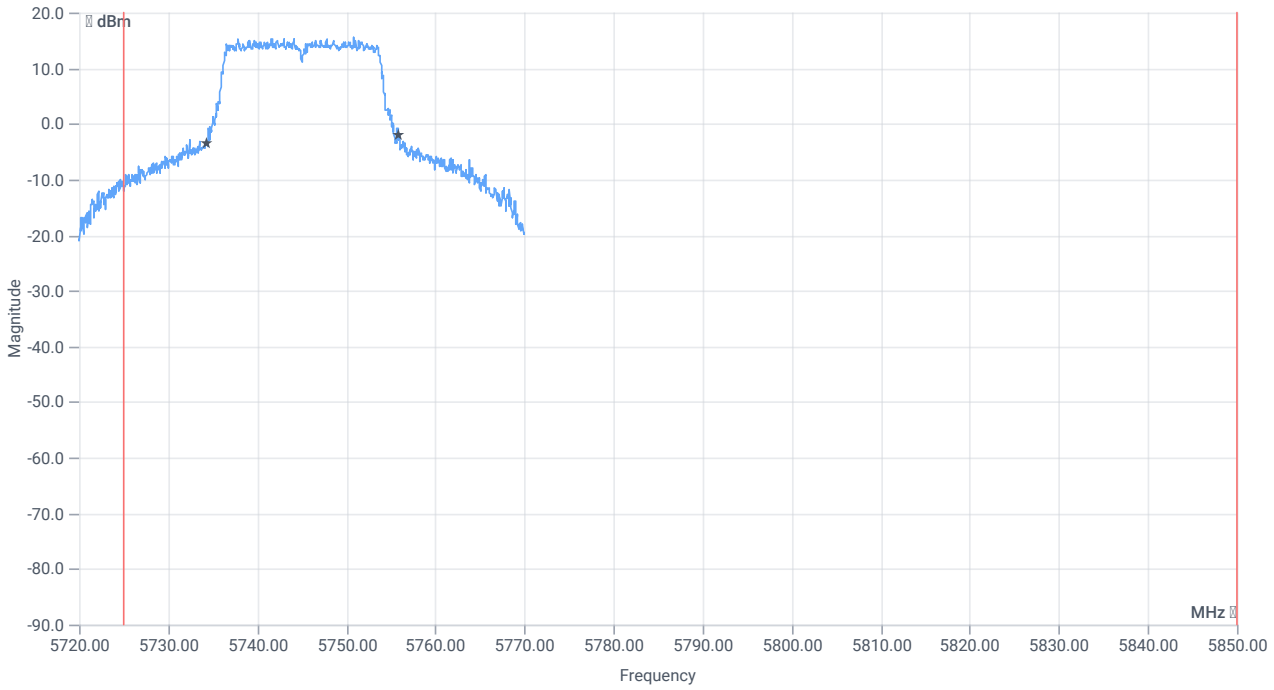
DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	20.24	dBm	INFO
Ref. Frequency	---	---	5741.200	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] | RefLevelOffset [dB] | InpAtt [dB]	28.24 | 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



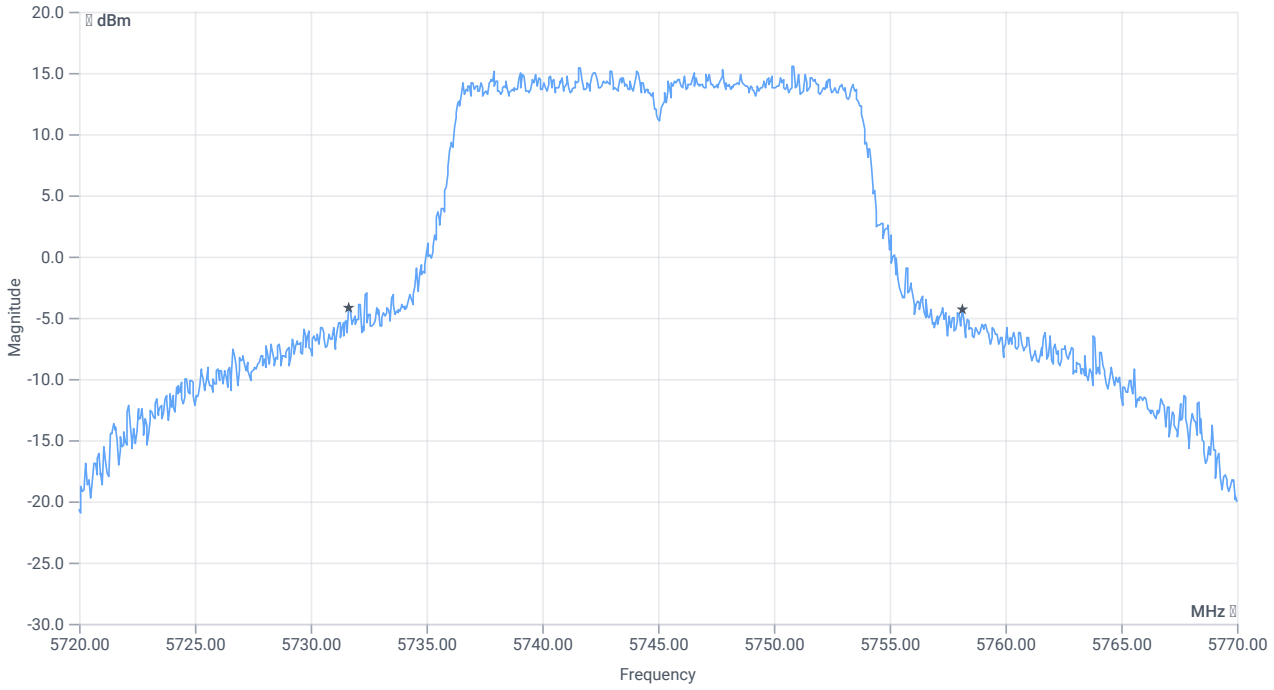
BW 99PCT



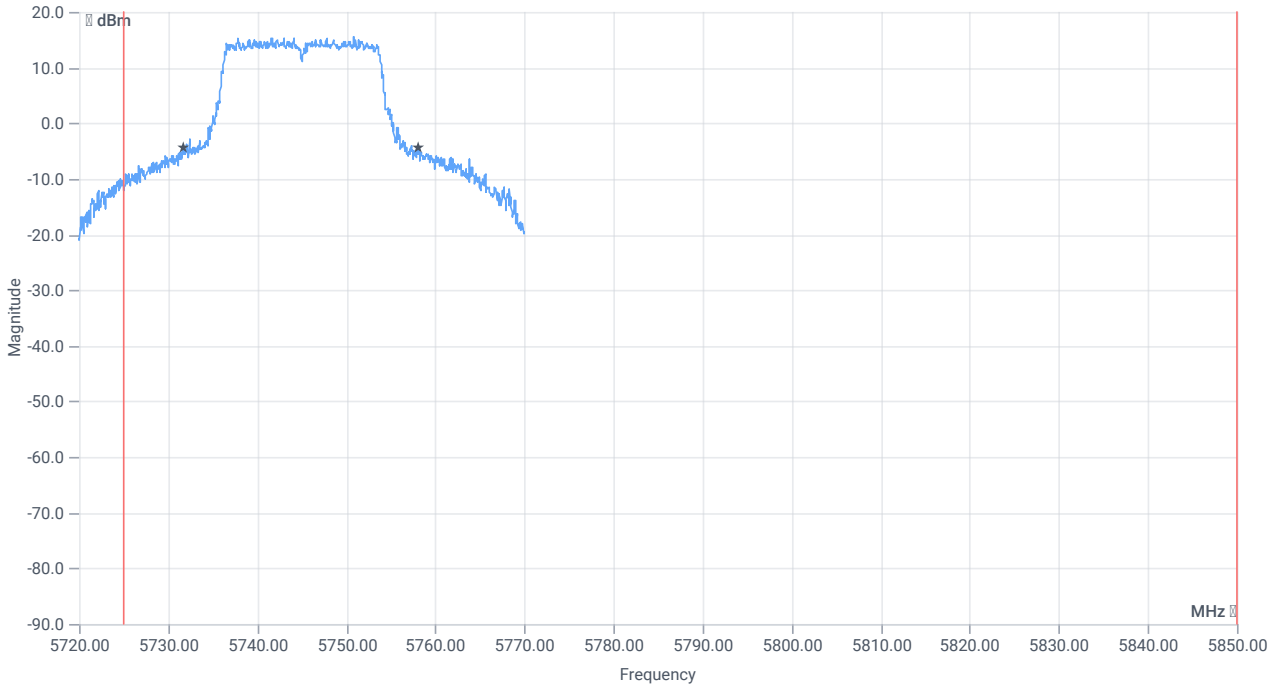
BW within Band 99PCT

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 99%	---	---	21.528	MHz	INFO
T1 99%	5725.000000	---	5734.3606	MHz	PASS
T2 99%	---	5850.000000	5755.8891	MHz	PASS



BW 20dB



BW within Band 20dB

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 20dB	---	---	26.5	MHz	INFO
T1 20dB	5725.000000	---	5731.6500	MHz	PASS
T2 20dB	---	5850.000000	5758.1500	MHz	PASS

Verdict
PASS

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

References

TC start	01.08.2023 15:31:05
Ambit temp [°C] | humidity [rel%]	25.3 | 49
System version	4.6.0.1
Standard | Version	FCC 15.407, ISED RSS247 | NI
Method	KDB789033 D02, C.2.
Description	FCC 15.407 Min Emission Bandwidth - WLAN5Gx n-HT20 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 n-HT20 mode
Antenna port used	1
Temperature	nom
Voltage	nom
Frequency low to test	True | Freq [MHz] 5745
Frequency mid to test	False | Freq [MHz] 5785
Frequency high to test	False | Freq [MHz] 5825
Auto control enabled power supply | Climatic Box	No | No
Additional path loss [dB]	1.3
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

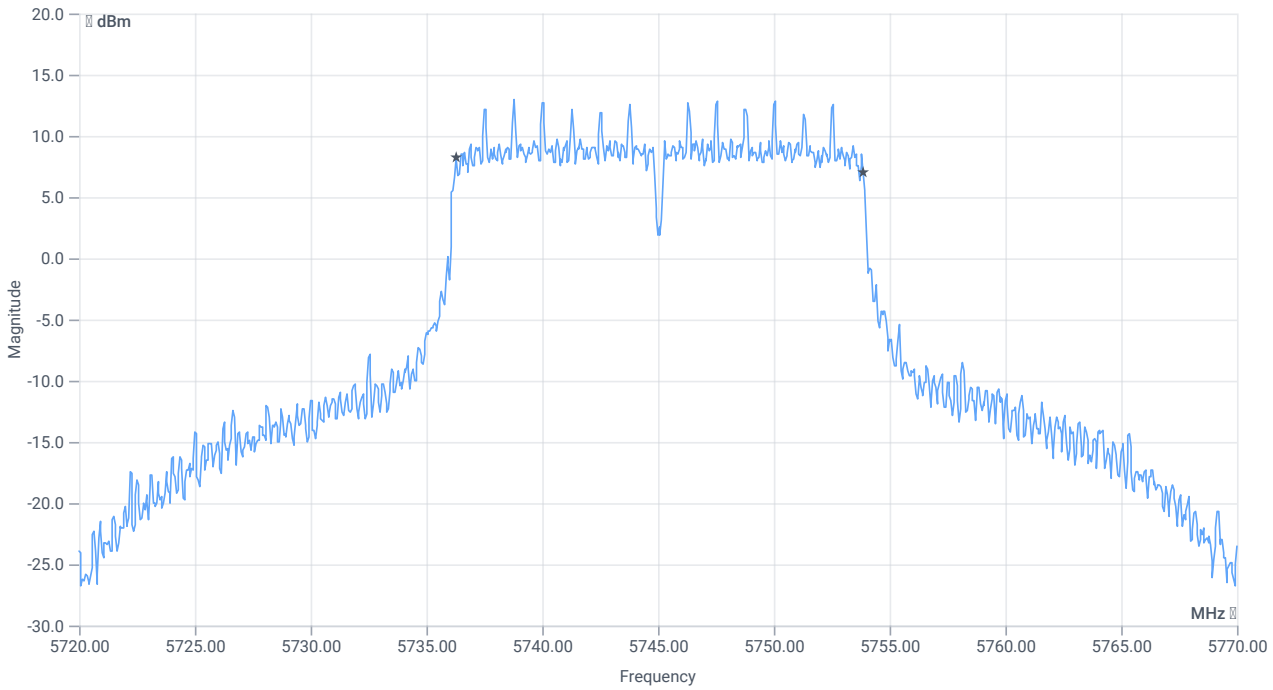
Test at TX 5745 MHz

RESULT: Reference Power cond.

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	20.15	dBm	INFO
Ref. Frequency	---	---	5744.800	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] | RefLevelOffset [dB] | InpAtt [dB]	32.15 | 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 n-HT20 mode U-NII-3

References

TC start	01.08.2023 15:31:49
Ambit temp [°C] | humidity [rel%]	25.3 | 49
System version	4.6.0.1
Standard | Version	FCC 15.407 | NI
Method	KDB789033 D02, F., E.2.e.
Description	FCC 15.407 Max Output Power & PSD - WLAN5Gx n-HT20 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 n-HT20 mode
Antenna port used	2
Temperature	nom
Voltage	nom
Frequency low to test	True | Freq [MHz] 5745
Frequency mid to test	False | Freq [MHz] 5785
Frequency high to test	False | Freq [MHz] 5825
Auto control enabled power supply | Climatic Box	No | No
Additional path loss [dB]	1.3
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

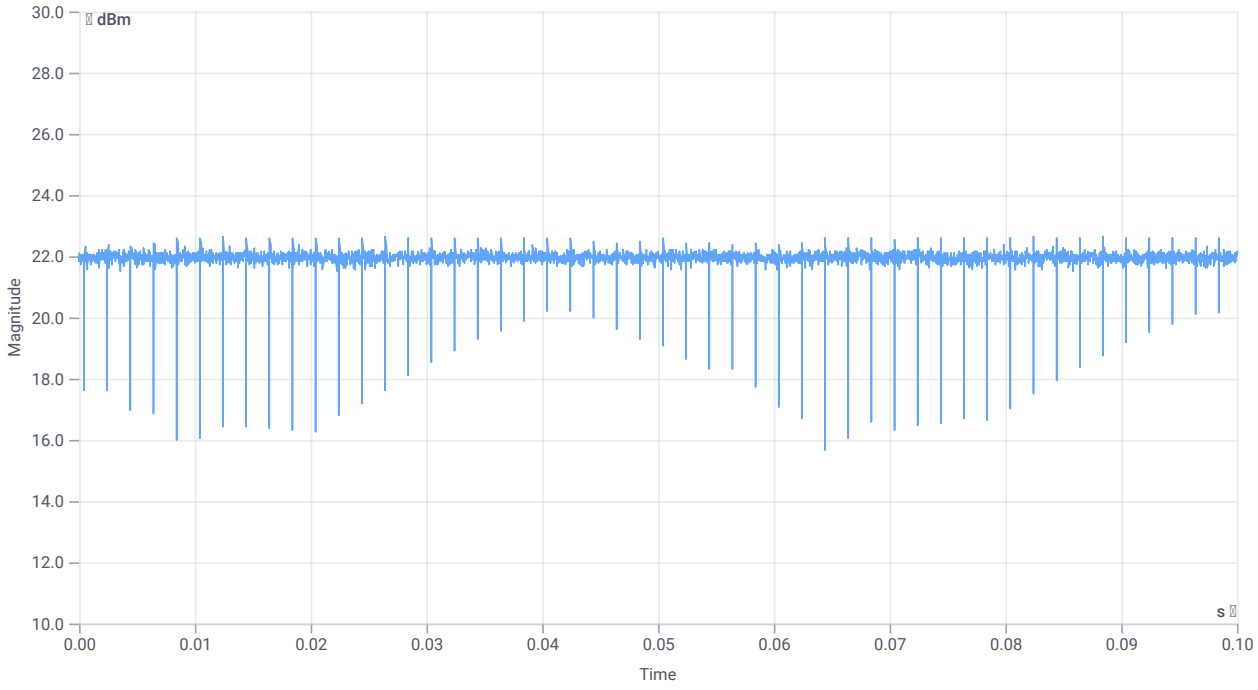
RESULT: Reference Power cond.

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	20.83	dBm	INFO
Ref. Frequency	---	---	5747.400	MHz	INFO

Evaluation max. Duty Cycle

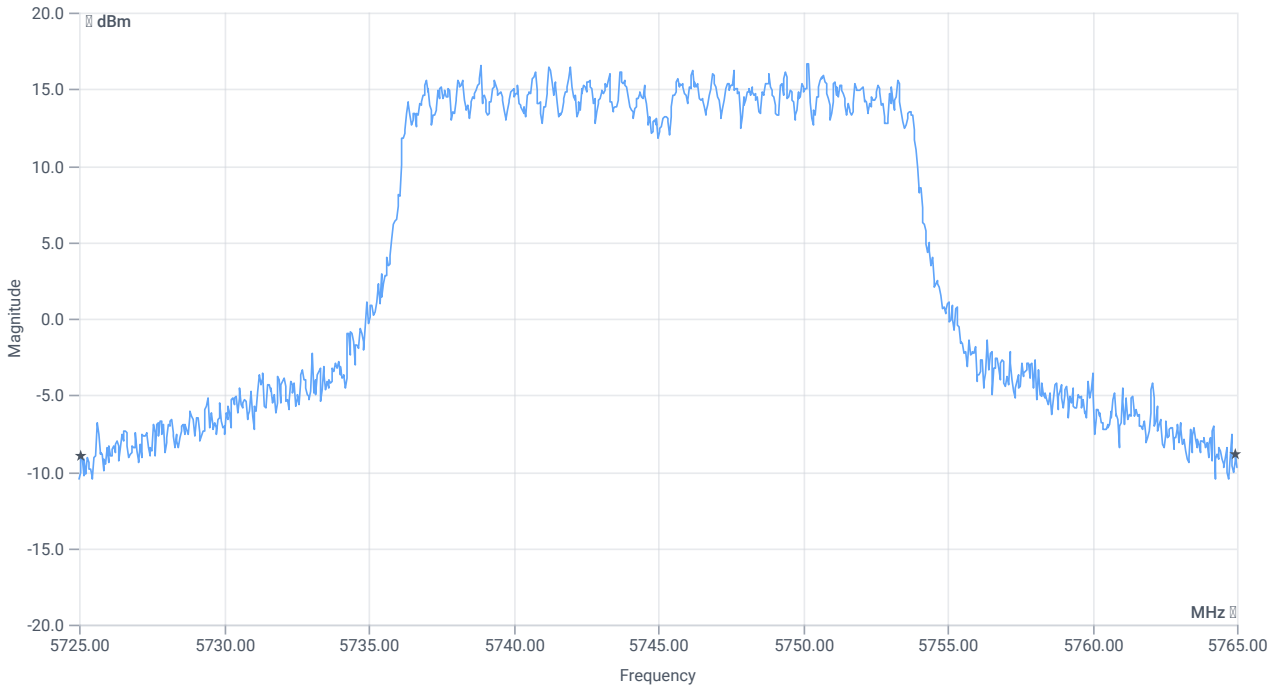
Duty Cycle evaluation

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



Duty cycle

Evaluation Bandwidth



BW 26dB

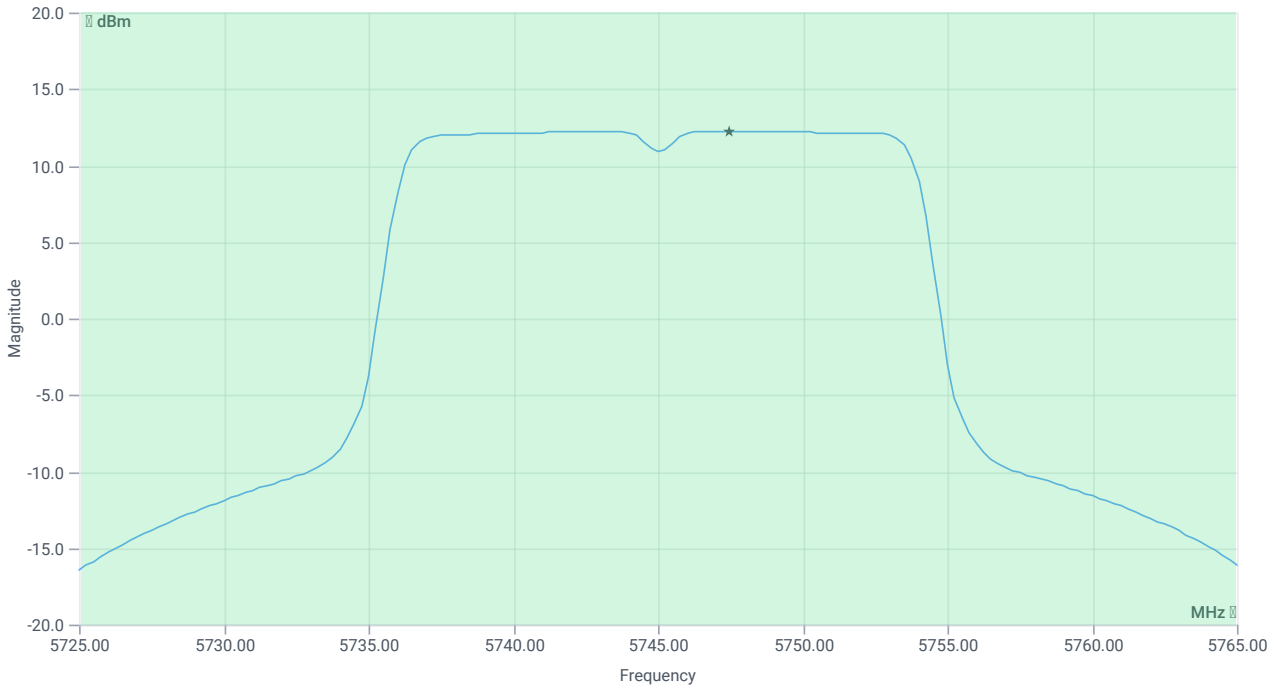
RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 26dB	---	---	39.88	MHz	INFO
T1 26dB	---	---	5725.0800	MHz	INFO
T2 26dB	---	---	5764.9600	MHz	INFO

Maximum Output Power

READ SA SETTINGS:

RefLevel [dBm] | RefLevelOffset [dB] | InpAtt [dB]	32.83 | 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

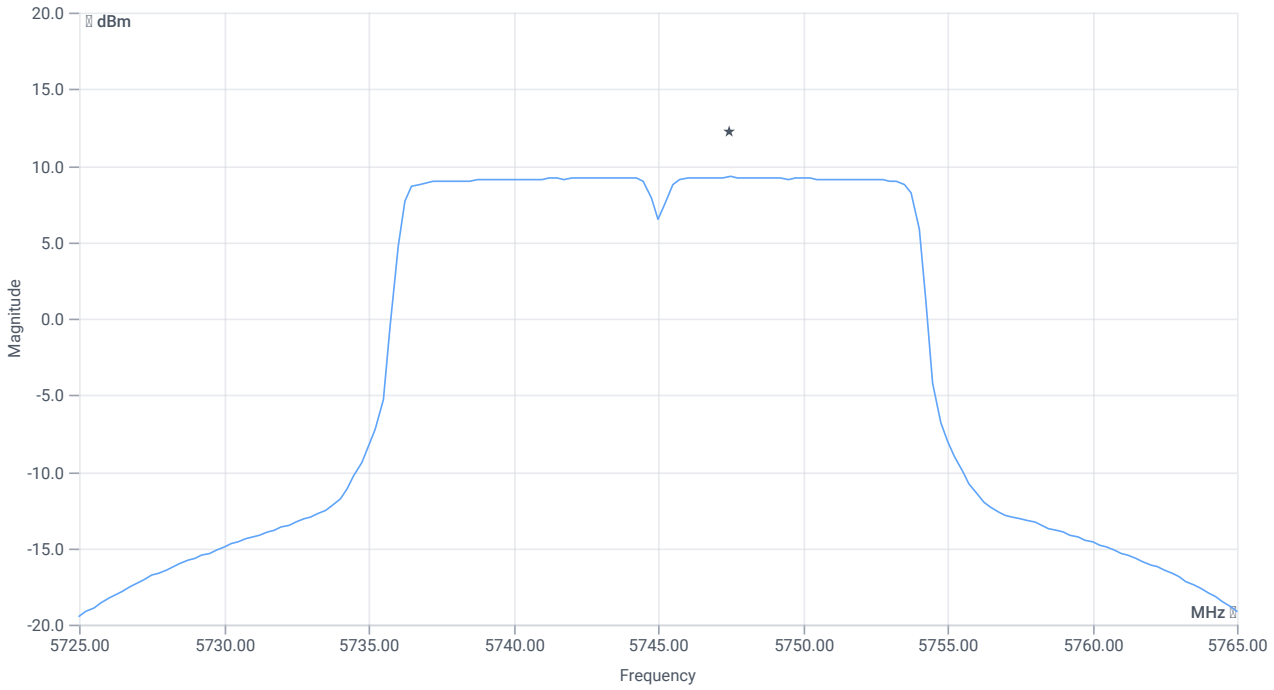
RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Max Output Power	---	---	24.33	dBm	INFO
Duty Cycle Correction	---	---	0	dB	INFO
Limit absolute					
Max Output Power DC corrected	---	30	24.33	dBm	PASS
Limit: 11 dBm + 10 log 39.88					
Max Output Power DC corrected	---	27.01	24.33	dBm	na

Power Spectral Density U-NII-3

READ SA SETTINGS:

RefLevel [dBm] | RefLevelOffset [dB] | InpAtt [dB]	32.83 | 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 n-HT20 mode U-NII-3

References

TC start	01.08.2023 15:34:16
Ambit temp [°C] | humidity [rel%]	25.3 | 49
System version	4.6.0.1
Standard | Version	FCC 15.407, ISED RSS247 | NI
Method	26dB Bandwidth KDB789033 D02, C.1 / ISED RSS-GEN
Description	FCC 15.407 Bandwidths - WLAN5Gx n-HT20 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 n-HT20 mode
Antenna port used	2
Temperature	nom
Voltage	nom
Frequency low to test	True | Freq [MHz] 5745
Frequency mid to test	False | Freq [MHz] 5785
Frequency high to test	False | Freq [MHz] 5825
Auto control enabled power supply | Climatic Box	No | No
Additional path loss [dB]	1.3
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

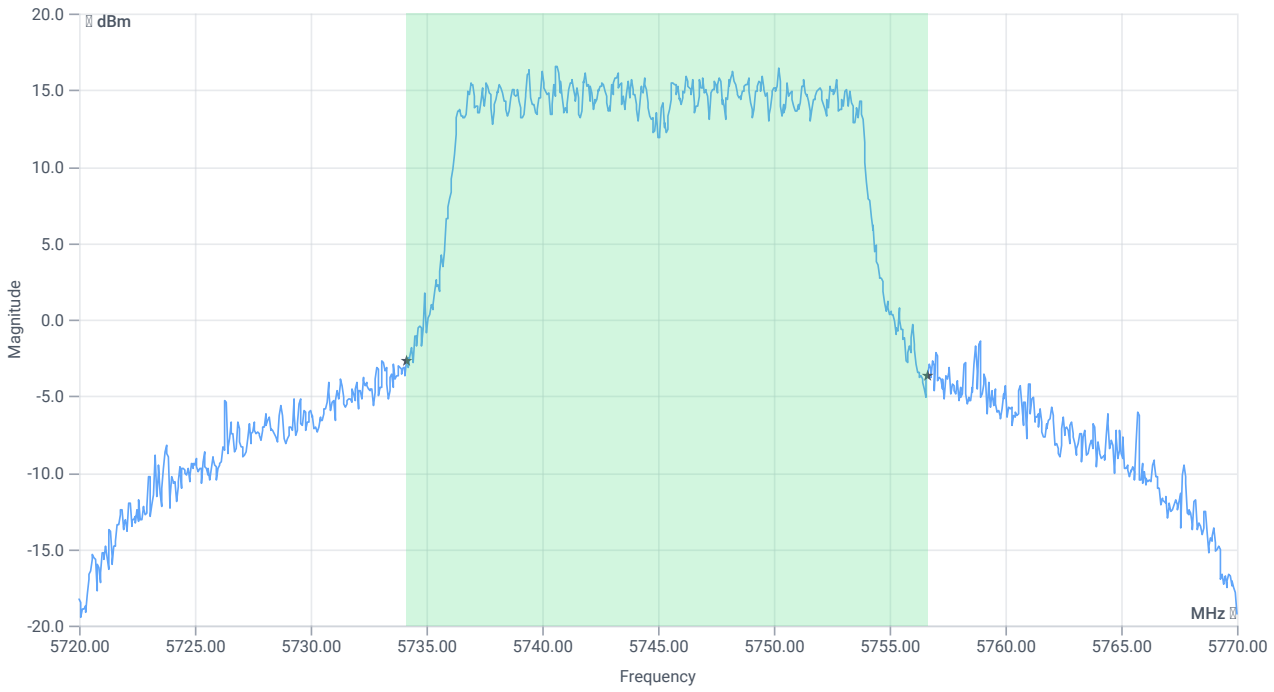
Test at TX 5745 MHz

RESULT: Reference Power cond.

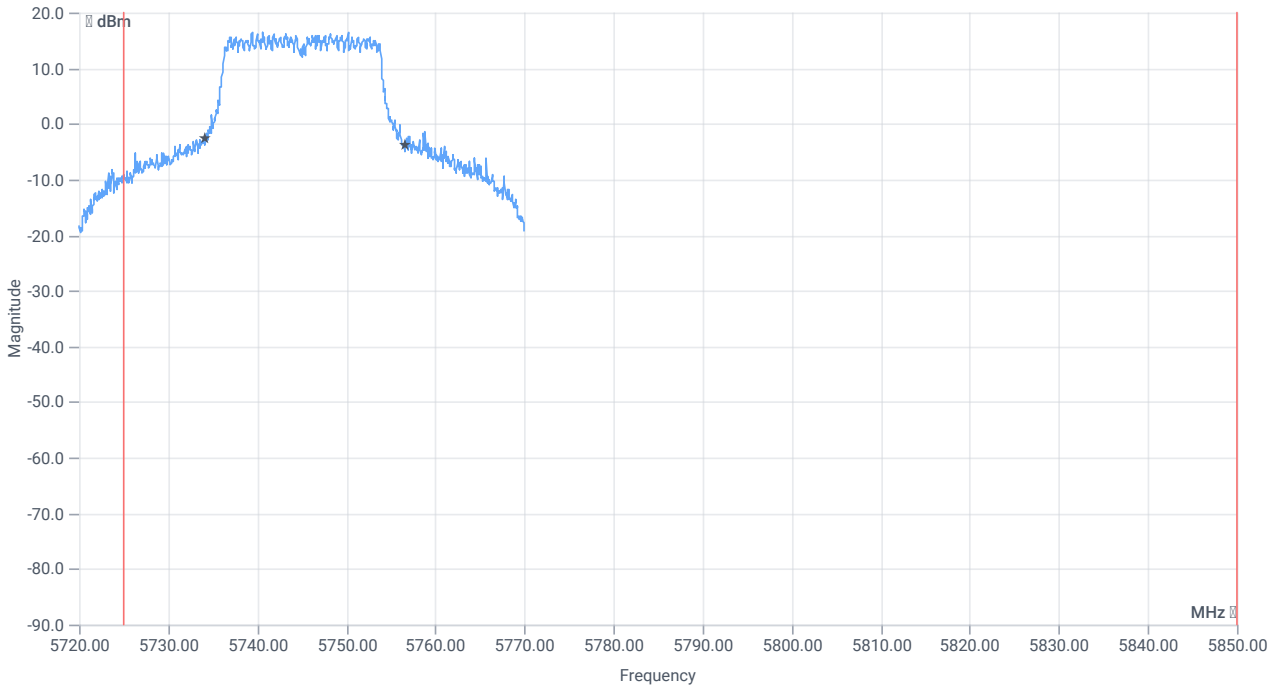
DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	20.95	dBm	INFO
Ref. Frequency	---	---	5743.800	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] | RefLevelOffset [dB] | InpAtt [dB]	28.95 | 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



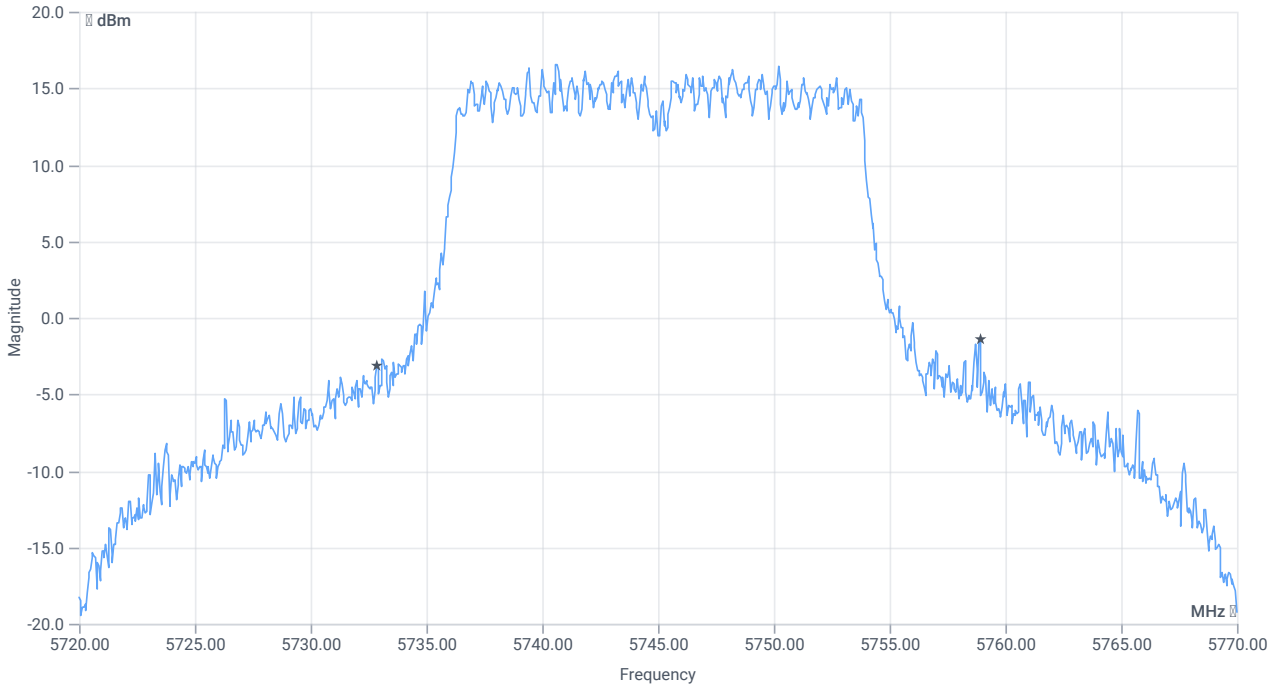
BW 99PCT



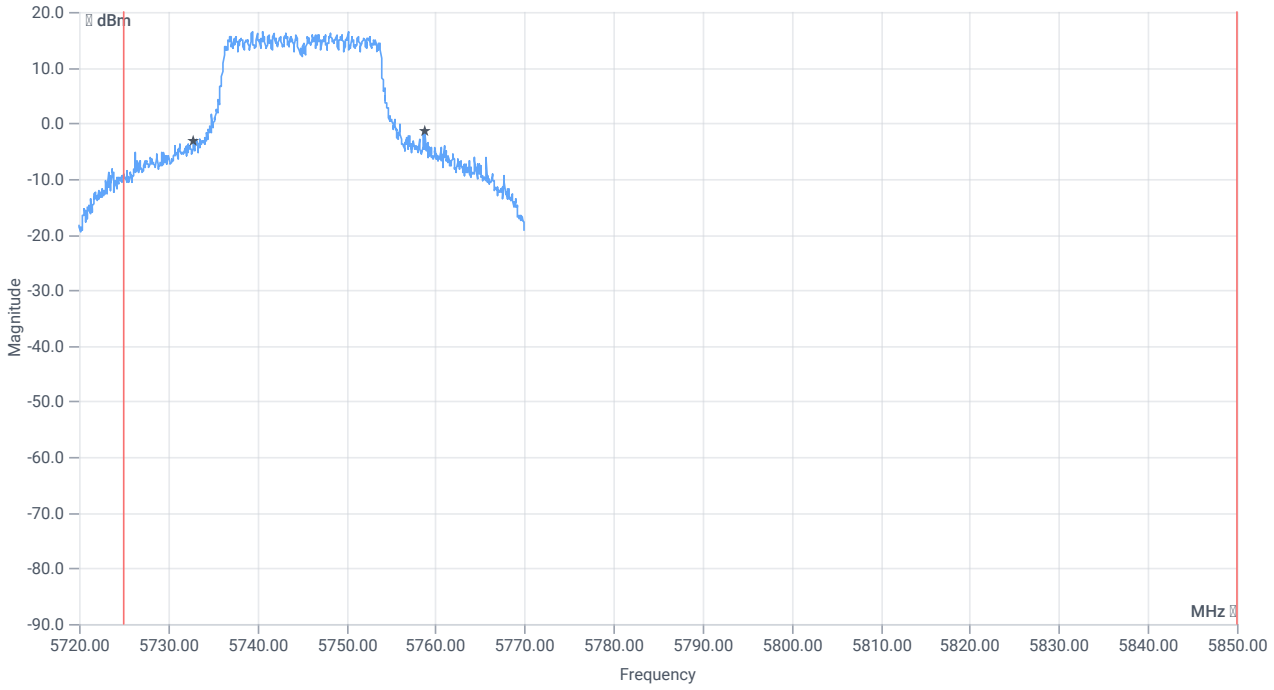
BW within Band 99PCT

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 99%	---	---	22.478	MHz	INFO
T1 99%	5725.000000	---	5734.1608	MHz	PASS
T2 99%	---	5850.000000	5756.6384	MHz	PASS



BW 20dB



BW within Band 20dB

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 20dB	---	---	26.05	MHz	INFO
T1 20dB	5725.000000	---	5732.8500	MHz	PASS
T2 20dB	---	5850.000000	5758.9000	MHz	PASS

Verdict
PASS

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

References

TC start	01.08.2023 15:34:48
Ambit temp [°C] | humidity [rel%]	25.3 | 49
System version	4.6.0.1
Standard | Version	FCC 15.407, ISED RSS247 | NI
Method	KDB789033 D02, C.2.
Description	FCC 15.407 Min Emission Bandwidth - WLAN5Gx n-HT20 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 n-HT20 mode
Antenna port used	2
Temperature	nom
Voltage	nom
Frequency low to test	True | Freq [MHz] 5745
Frequency mid to test	False | Freq [MHz] 5785
Frequency high to test	False | Freq [MHz] 5825
Auto control enabled power supply | Climatic Box	No | No
Additional path loss [dB]	1.3
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

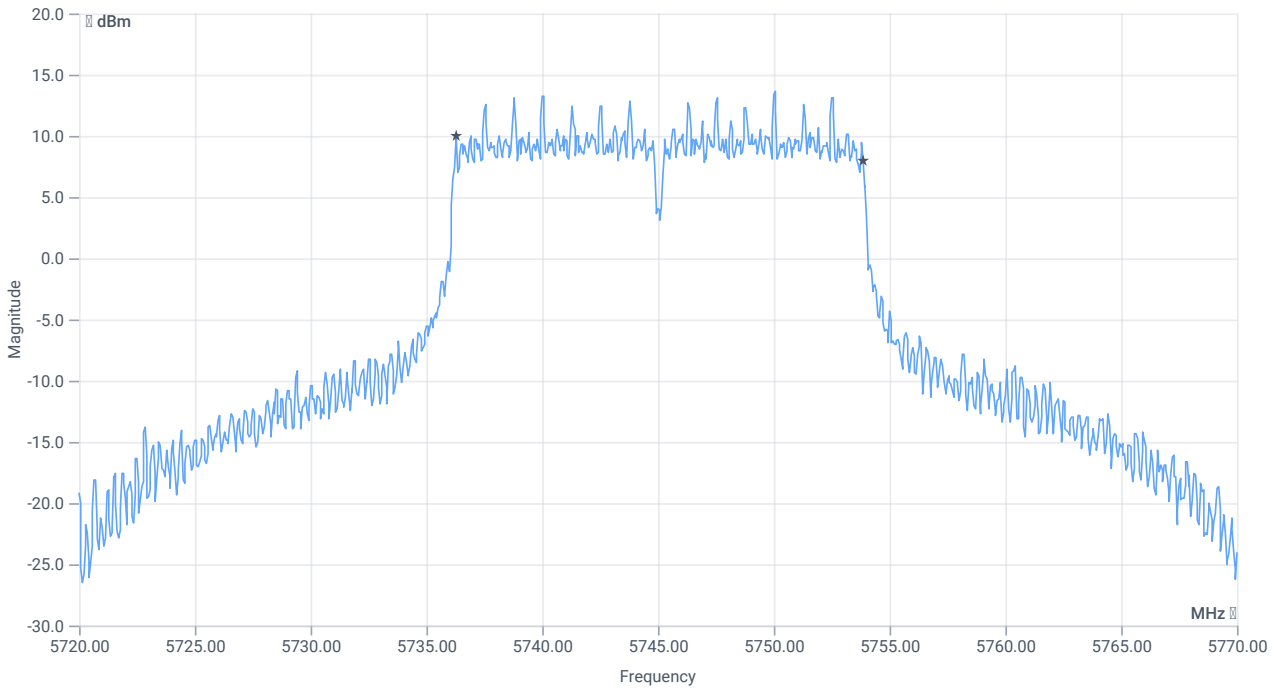
Test at TX 5745 MHz

RESULT: Reference Power cond.

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	20.75	dBm	INFO
Ref. Frequency	---	---	5749.800	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] | RefLevelOffset [dB] | InpAtt [dB]	32.75 | 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 n-HT20 mode U-NII-3

References

TC start	01.08.2023 15:35:33
Ambit temp [°C] | humidity [rel%]	25.3 | 49
System version	4.6.0.1
Standard | Version	FCC 15.407 | NI
Method	
Description	MIMO ∑ FCC Power & psd - WLAN5Gx n-HT20 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 n-HT20 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	---	---	24.08	dBm	INFO
Ant:1 BW 26dB	---	---	40.000	MHz	INFO
Ant:2 Max Output Power DC corrected	---	---	24.33	dBm	INFO
Ant:2 BW 26dB	---	---	39.880	MHz	INFO
∑ Limit absolute	---	30	27.22	dBm	PASS
∑ Limit: 11 dBm + 10 log 39.88	---	27.01	27.22	dBm	na

RESULT PSD

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ant:1 PSD	---	---	8.99	dBm/0.5MHz	INFO
Ant:2 PSD	---	---	9.25	dBm/0.5MHz	INFO
∑	---	30	12.13	dBm/0.5MHz	PASS

Verdict
PASS

NA # Message with SA scan ~

References

TC start	01.08.2023 15:35:49
Ambit temp [°C] | humidity [rel%]	25.3 | 49
System version	4.6.0.1
Standard | Version	NA | NI
Method	
Description	Message with SA Scan n_HT20_U_NII_3
Information	PS96

Test Parameter

Switched Path	EUT - SignalingUnit - SpectrumAnalyzer
Message start	01.08.2023 15:35:49
Message	set WLAN5Gx to n_HT20_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 n-HT20 mode U-NII-3

References

TC start	01.08.2023 15:35:58
Ambit temp [°C] | humidity [rel%]	25.3 | 49
System version	4.6.0.1
Standard | Version	FCC 15.407 | NI
Method	KDB789033 D02, F., E.2.e.
Description	FCC 15.407 Max Output Power & PSD - WLAN5Gx n-HT20 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 n-HT20 mode
Antenna port used	1
Temperature	nom
Voltage	nom
Frequency low to test	False | Freq [MHz] 5745
Frequency mid to test	True | Freq [MHz] 5785
Frequency high to test	False | Freq [MHz] 5825
Auto control enabled power supply | Climatic Box	No | No
Additional path loss [dB]	1.3
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

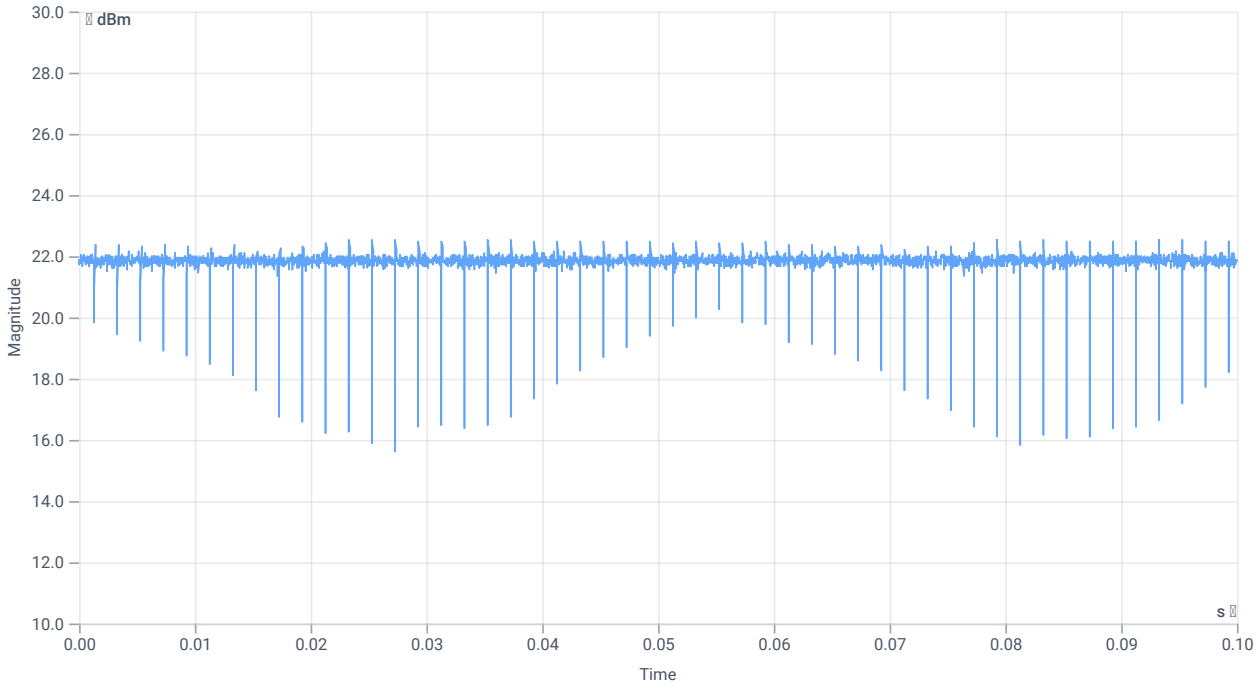
RESULT: Reference Power cond.

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	20.80	dBm	INFO
Ref. Frequency	---	---	5779.210	MHz	INFO

Evaluation max. Duty Cycle

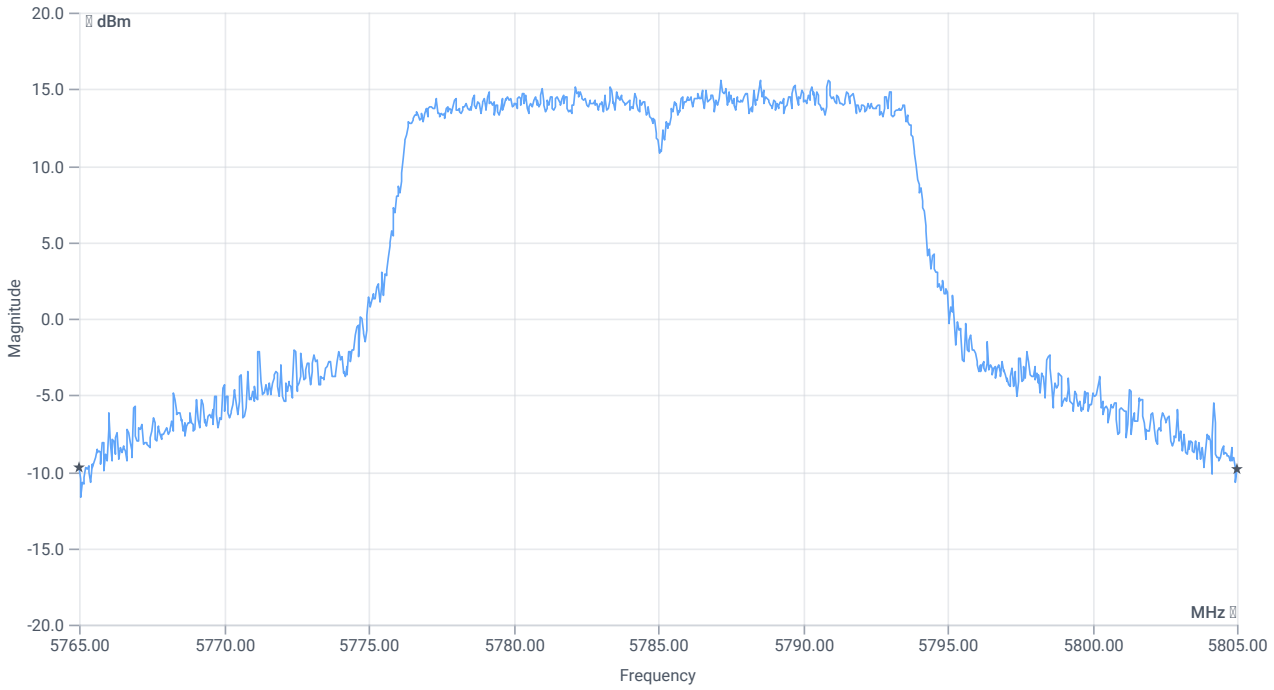
Duty Cycle evaluation

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



Duty cycle

Evaluation Bandwidth



BW 26dB

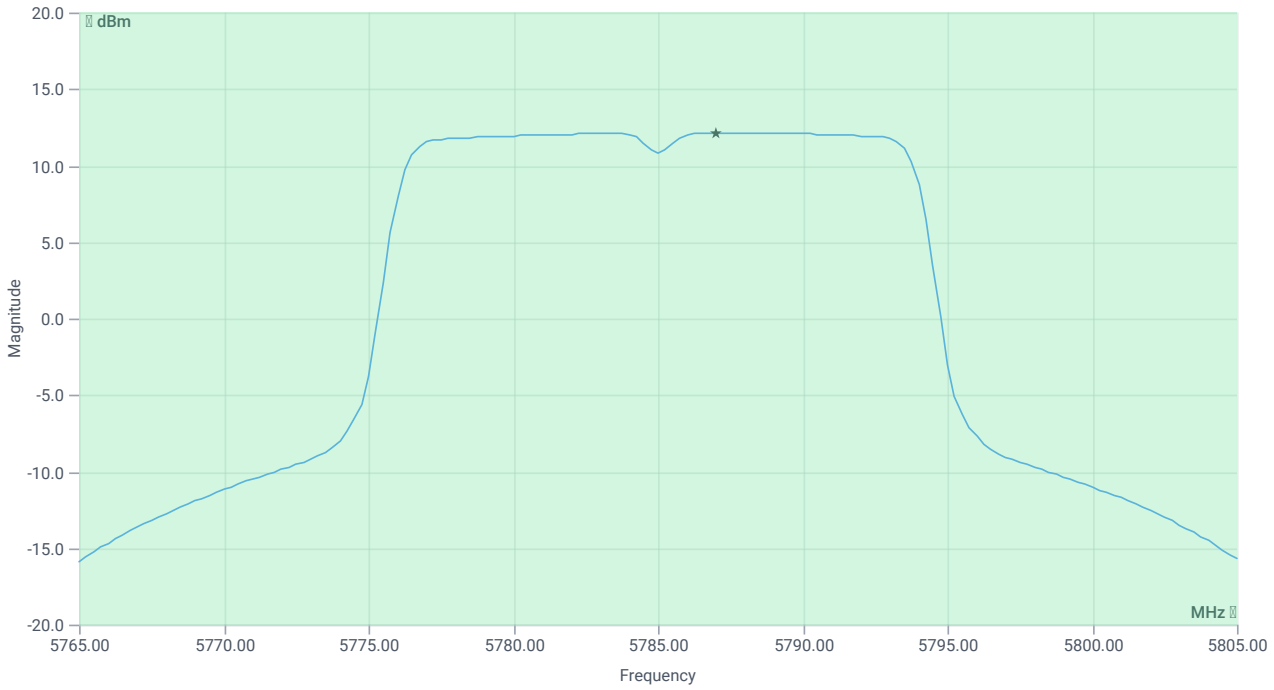
RESULT

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]	32.80 | 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

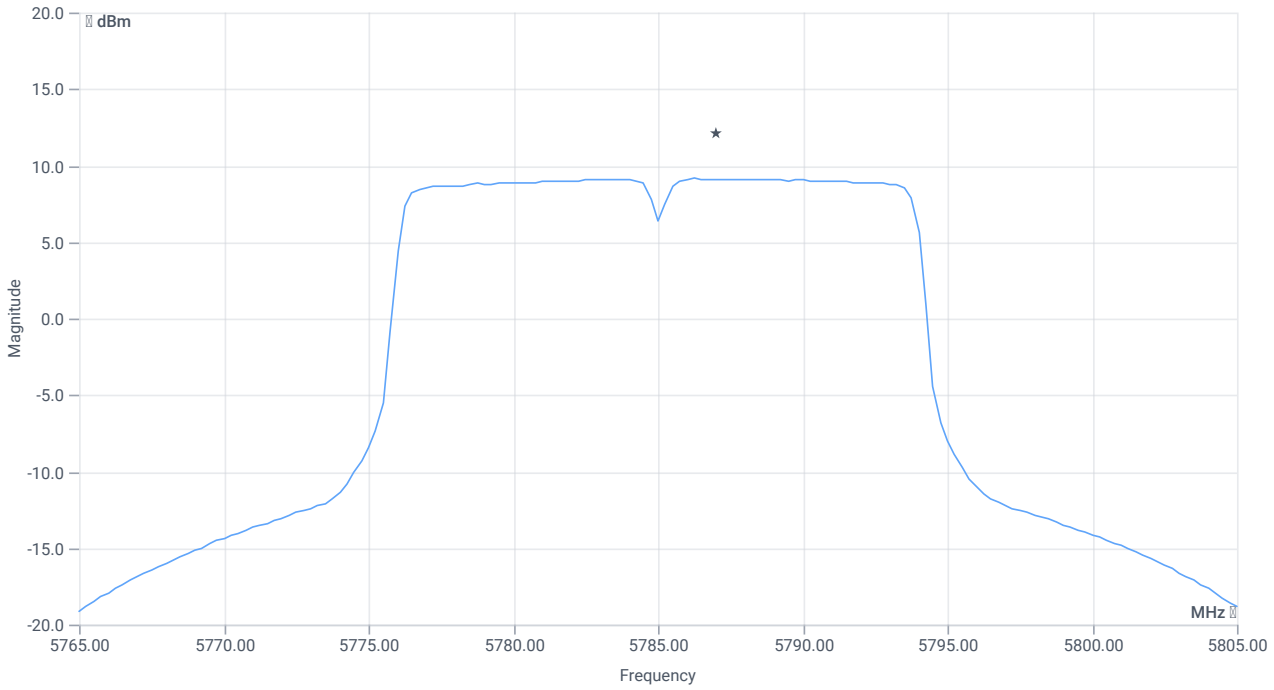
RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Max Output Power	---	---	24.2	dBm	INFO
Duty Cycle Correction	---	---	0	dB	INFO
Limit absolute					
Max Output Power DC corrected	---	30	24.2	dBm	PASS
Limit: 11 dBm + 10 log 40					
Max Output Power DC corrected	---	27.02	24.2	dBm	na

Power Spectral Density U-NII-3

READ SA SETTINGS:

RefLevel [dBm] | RefLevelOffset [dB] | InpAtt [dB]	32.80 | 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	---	---	9.14	dBm/0.5MHz	INFO
Duty Cycle Correction	---	---	0	dB	INFO
Power Spectral Density DC corrected	---	30	9.14	dBm/0.5MHz	PASS

Verdict
PASS

FCC 15.407, ISED RSS247 # Bandwidths 99PCT and 20dB ~ WLAN5Gx n-HT20 mode U-NII-3

References

TC start	01.08.2023 15:38:25
Ambit temp [°C] | humidity [rel%]	25.3 | 49
System version	4.6.0.1
Standard | Version	FCC 15.407, ISED RSS247 | NI
Method	26dB Bandwidth KDB789033 D02, C.1 / ISED RSS-GEN
Description	FCC 15.407 Bandwidths - WLAN5Gx n-HT20 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 n-HT20 mode
Antenna port used	1
Temperature	nom
Voltage	nom
Frequency low to test	False | Freq [MHz] 5745
Frequency mid to test	True | Freq [MHz] 5785
Frequency high to test	False | Freq [MHz] 5825
Auto control enabled power supply | Climatic Box	No | No
Additional path loss [dB]	1.3
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

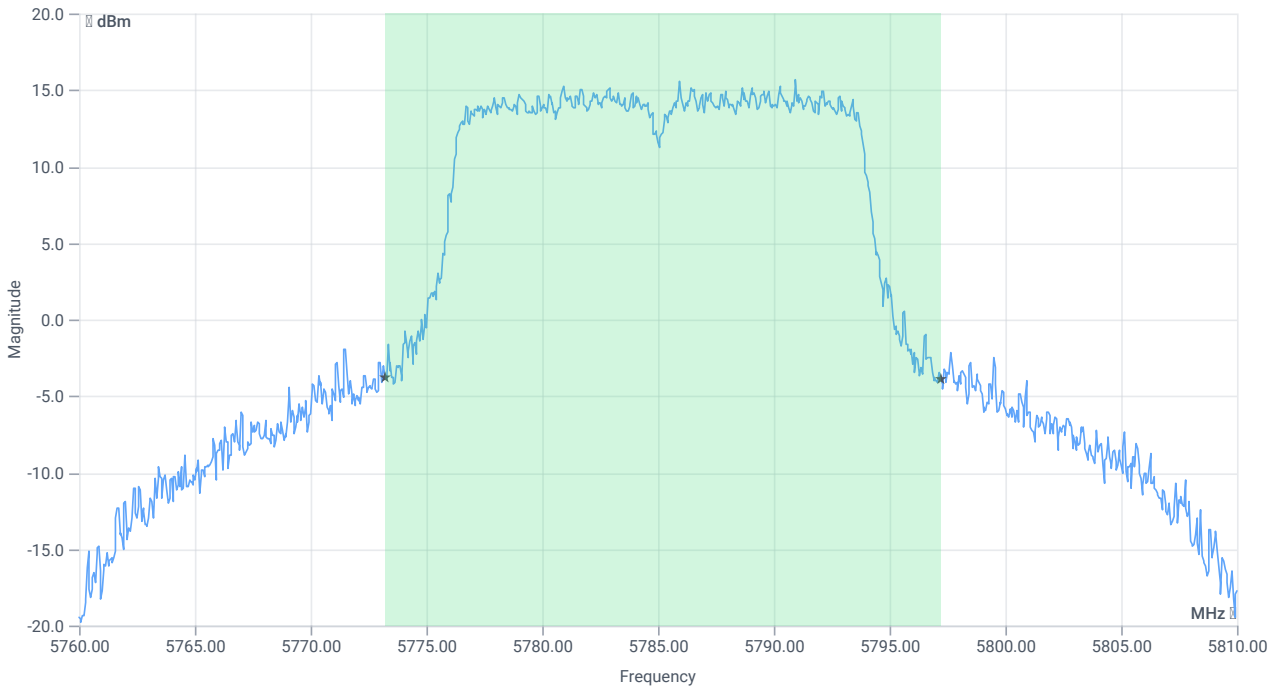
Test at TX 5785 MHz

RESULT: Reference Power cond.

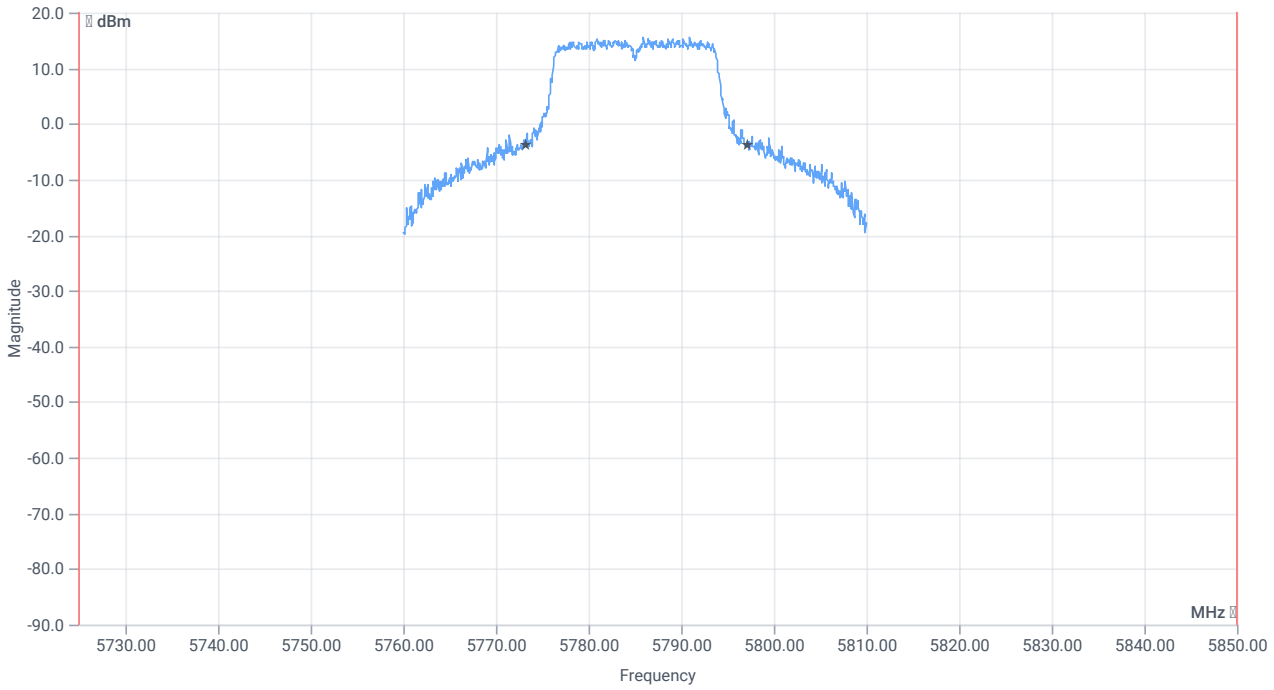
DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	20.37	dBm	INFO
Ref. Frequency	---	---	5780.800	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] | RefLevelOffset [dB] | InpAtt [dB]	28.37 | 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



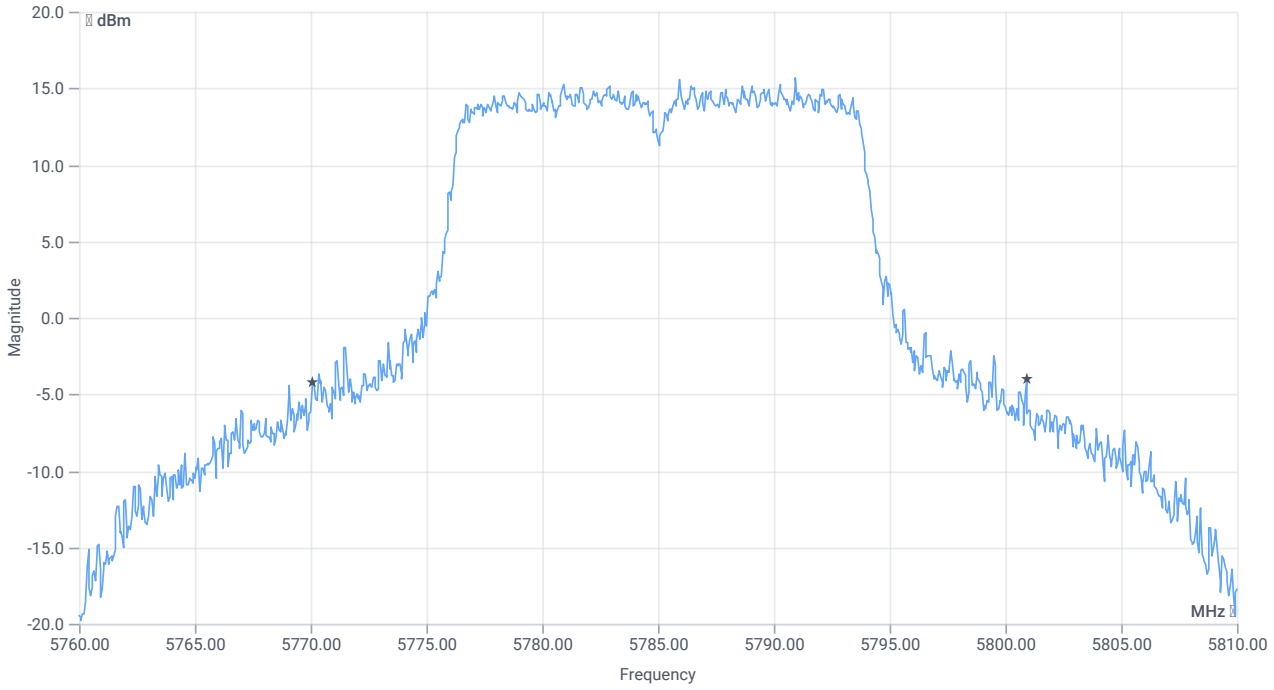
BW 99PCT



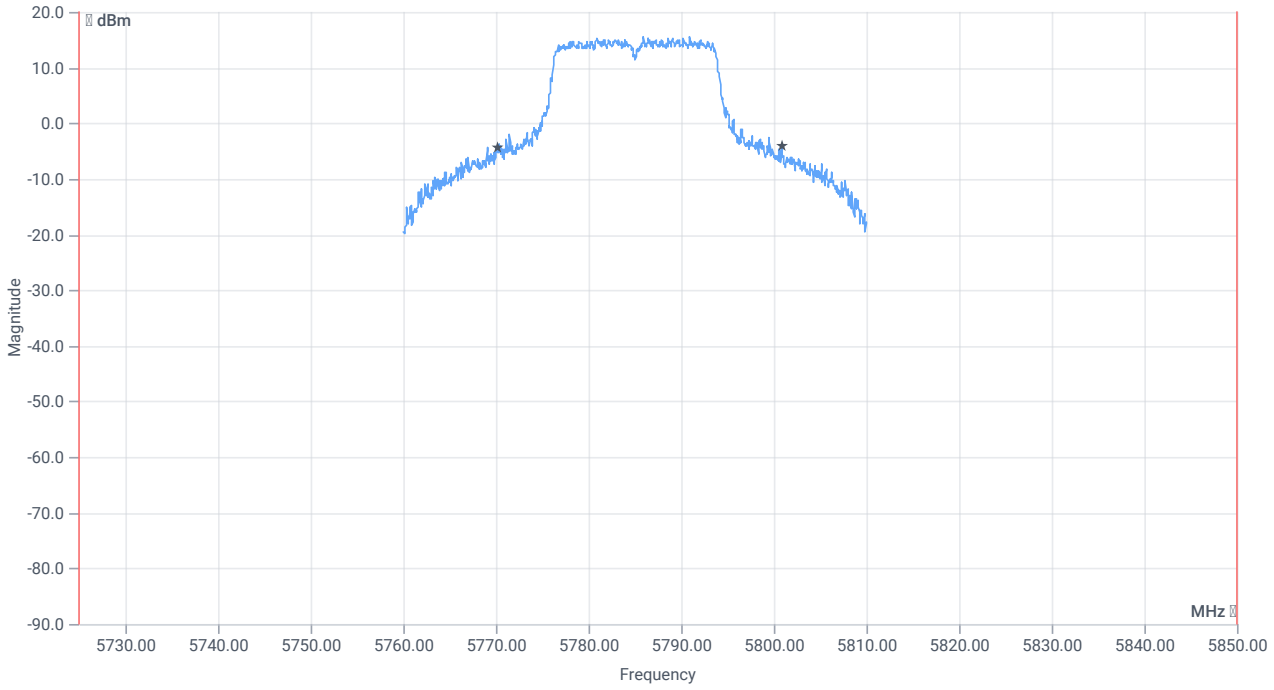
BW within Band 99PCT

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 99%	---	---	23.976	MHz	INFO
T1 99%	5725.000000	---	5773.2118	MHz	PASS
T2 99%	---	5850.000000	5797.1878	MHz	PASS



BW 20dB



BW within Band 20dB

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 20dB	---	---	30.8	MHz	INFO
T1 20dB	5725.000000	---	5770.1000	MHz	PASS
T2 20dB	---	5850.000000	5800.9000	MHz	PASS

Verdict
PASS

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

References

TC start	01.08.2023 15:38:57
Ambit temp [°C] | humidity [rel%]	25.3 | 49
System version	4.6.0.1
Standard | Version	FCC 15.407, ISED RSS247 | NI
Method	KDB789033 D02, C.2.
Description	FCC 15.407 Min Emission Bandwidth - WLAN5Gx n-HT20 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 n-HT20 mode
Antenna port used	1
Temperature	nom
Voltage	nom
Frequency low to test	False | Freq [MHz] 5745
Frequency mid to test	True | Freq [MHz] 5785
Frequency high to test	False | Freq [MHz] 5825
Auto control enabled power supply | Climatic Box	No | No
Additional path loss [dB]	1.3
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

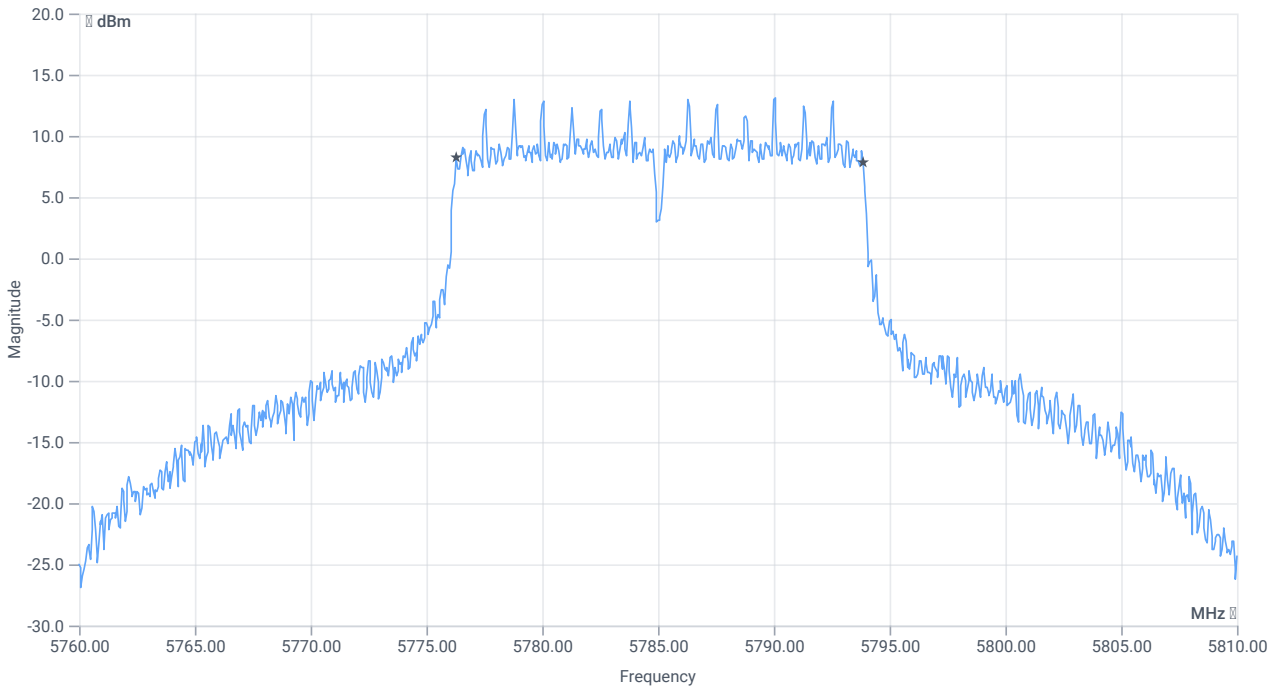
Test at TX 5785 MHz

RESULT: Reference Power cond.

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	20.11	dBm	INFO
Ref. Frequency	---	---	5788.600	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] | RefLevelOffset [dB] | InpAtt [dB]	32.11 | 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 n-HT20 mode U-NII-3

References

TC start	01.08.2023 15:39:44
Ambit temp [°C] | humidity [rel%]	25.3 | 49
System version	4.6.0.1
Standard | Version	FCC 15.407 | NI
Method	KDB789033 D02, F., E.2.e.
Description	FCC 15.407 Max Output Power & PSD - WLAN5Gx n-HT20 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 n-HT20 mode
Antenna port used	2
Temperature	nom
Voltage	nom
Frequency low to test	False | Freq [MHz] 5745
Frequency mid to test	True | Freq [MHz] 5785
Frequency high to test	False | Freq [MHz] 5825
Auto control enabled power supply | Climatic Box	No | No
Additional path loss [dB]	1.3
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

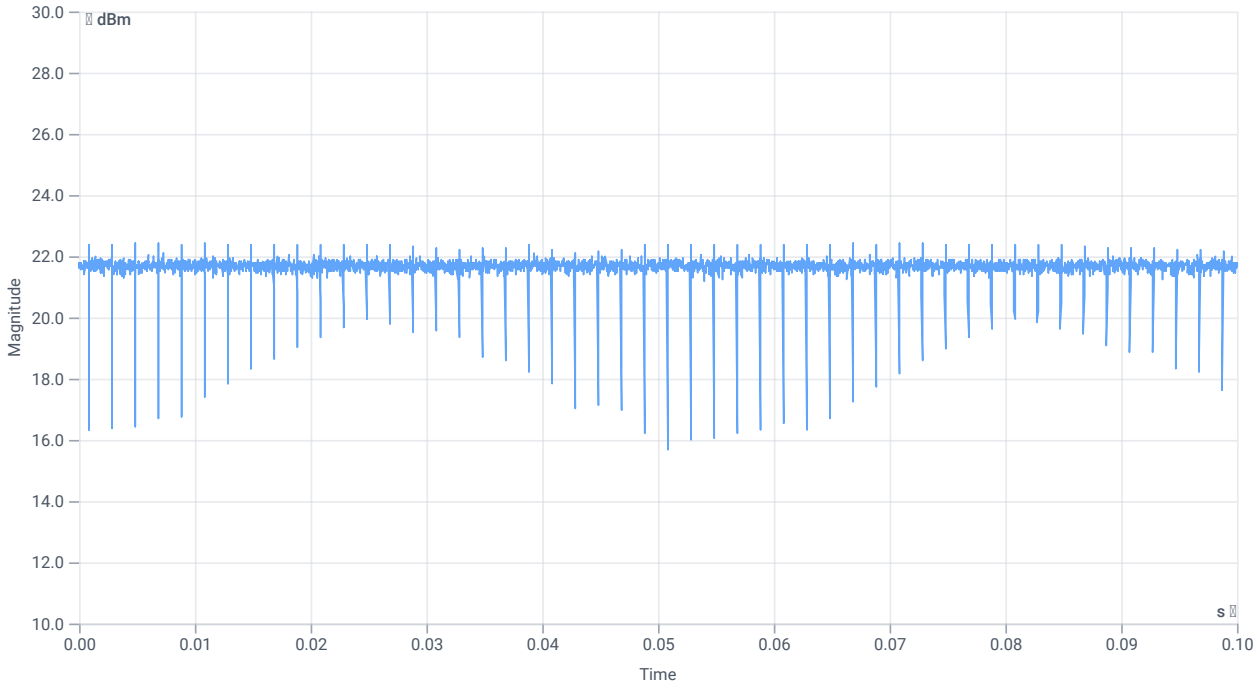
RESULT: Reference Power cond.

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	20.04	dBm	INFO
Ref. Frequency	---	---	5779.810	MHz	INFO

Evaluation max. Duty Cycle

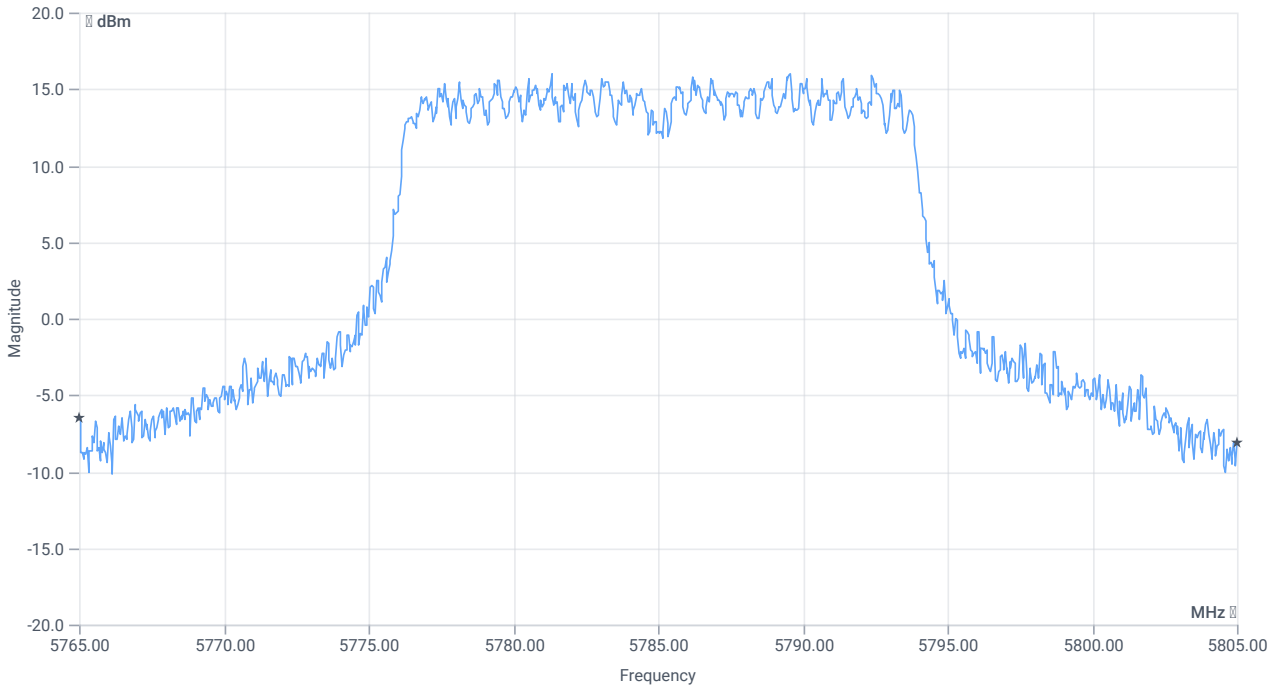
Duty Cycle evaluation

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



Duty cycle

Evaluation Bandwidth



BW 26dB

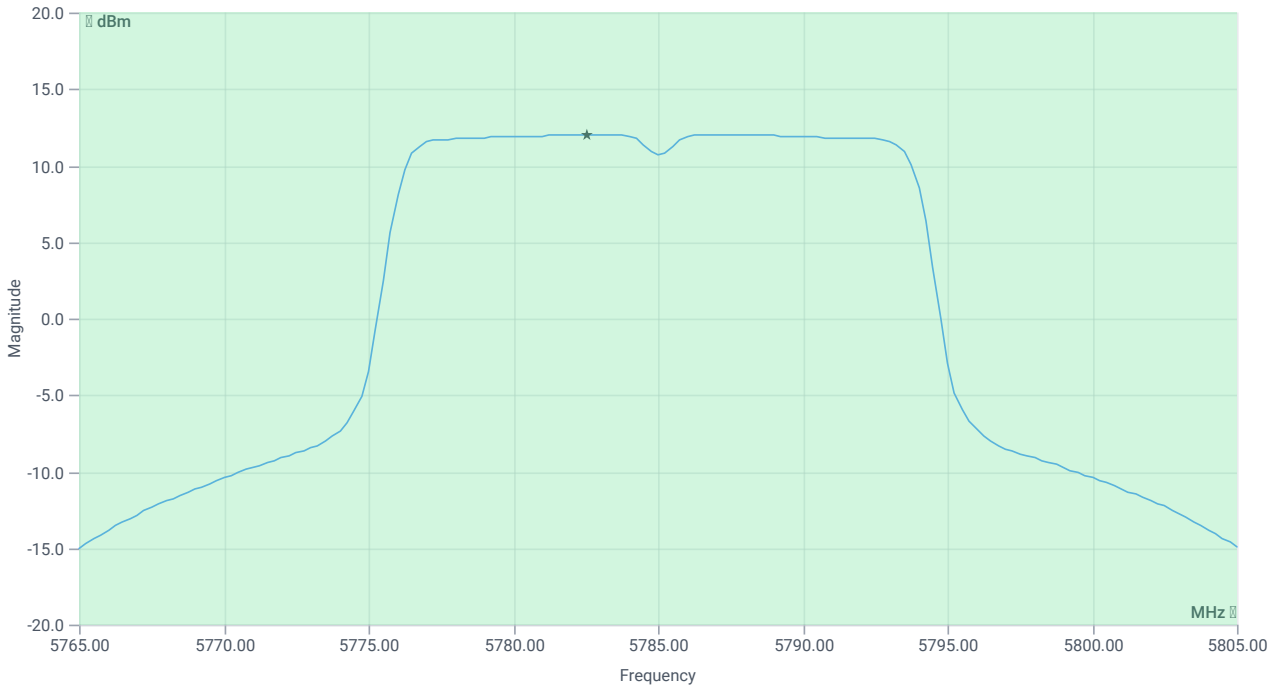
RESULT

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]	32.04 | 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

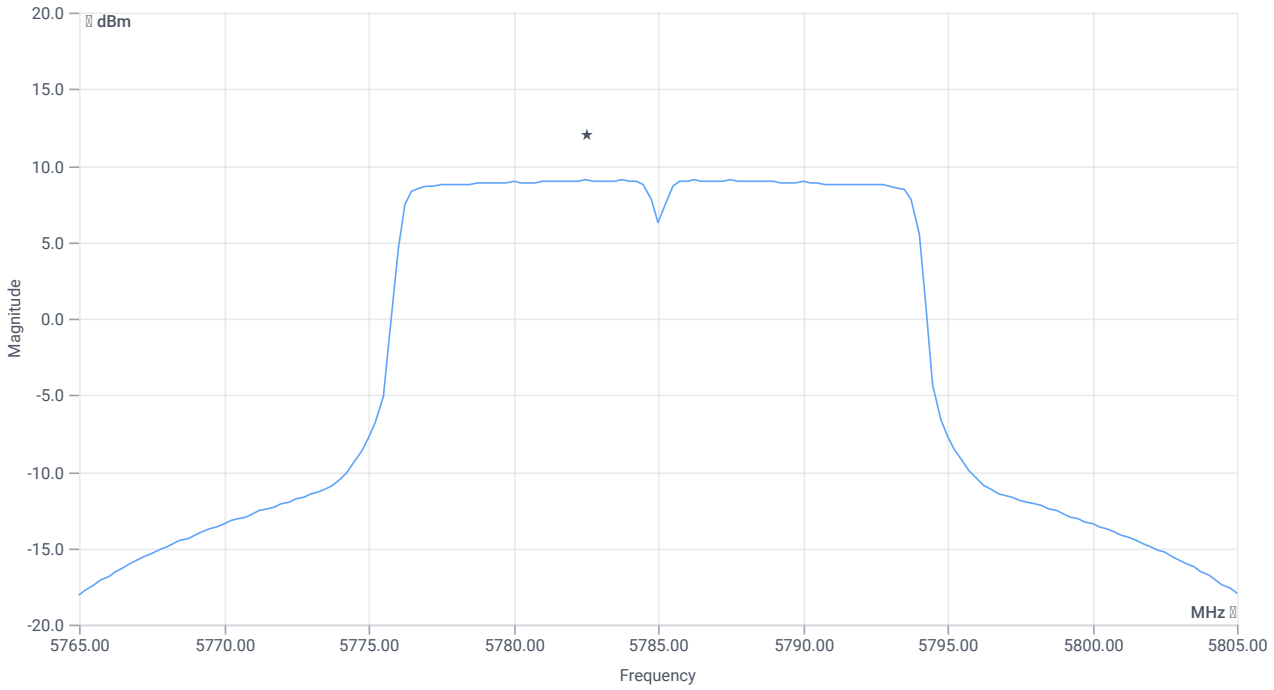
RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Max Output Power	---	---	24.1	dBm	INFO
Duty Cycle Correction	---	---	0	dB	INFO
Limit absolute					
Max Output Power DC corrected	---	30	24.1	dBm	PASS
Limit: 11 dBm + 10 log 40					
Max Output Power DC corrected	---	27.02	24.1	dBm	na

Power Spectral Density U-NII-3

READ SA SETTINGS:

RefLevel [dBm] | RefLevelOffset [dB] | InpAtt [dB]	32.04 | 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	---	---	9.05	dBm/0.5MHz	INFO
Duty Cycle Correction	---	---	0	dB	INFO
Power Spectral Density DC corrected	---	30	9.05	dBm/0.5MHz	PASS

Verdict
PASS

FCC 15.407, ISED RSS247 # Bandwidths 99PCT and 20dB ~ WLAN5Gx n-HT20 mode U-NII-3

References

TC start	01.08.2023 15:42:11
Ambit temp [°C] | humidity [rel%]	25.3 | 49
System version	4.6.0.1
Standard | Version	FCC 15.407, ISED RSS247 | NI
Method	26dB Bandwidth KDB789033 D02, C.1 / ISED RSS-GEN
Description	FCC 15.407 Bandwidths - WLAN5Gx n-HT20 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 n-HT20 mode
Antenna port used	2
Temperature	nom
Voltage	nom
Frequency low to test	False | Freq [MHz] 5745
Frequency mid to test	True | Freq [MHz] 5785
Frequency high to test	False | Freq [MHz] 5825
Auto control enabled power supply | Climatic Box	No | No
Additional path loss [dB]	1.3
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

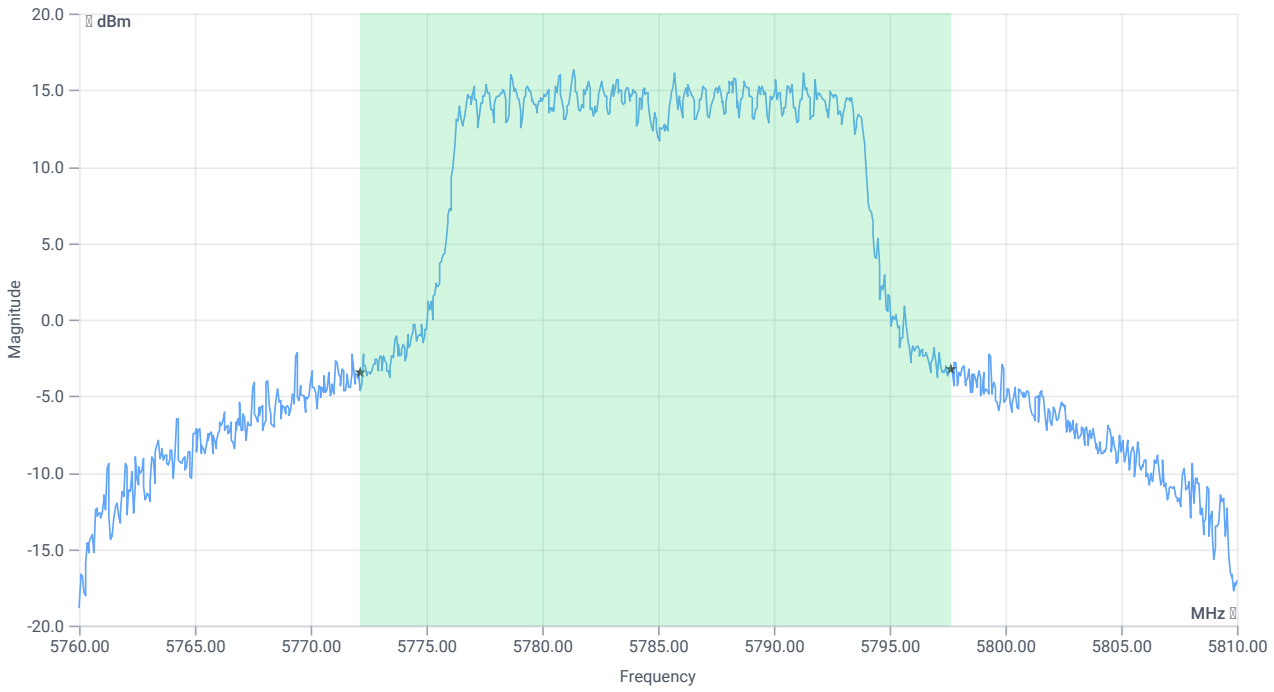
Test at TX 5785 MHz

RESULT: Reference Power cond.

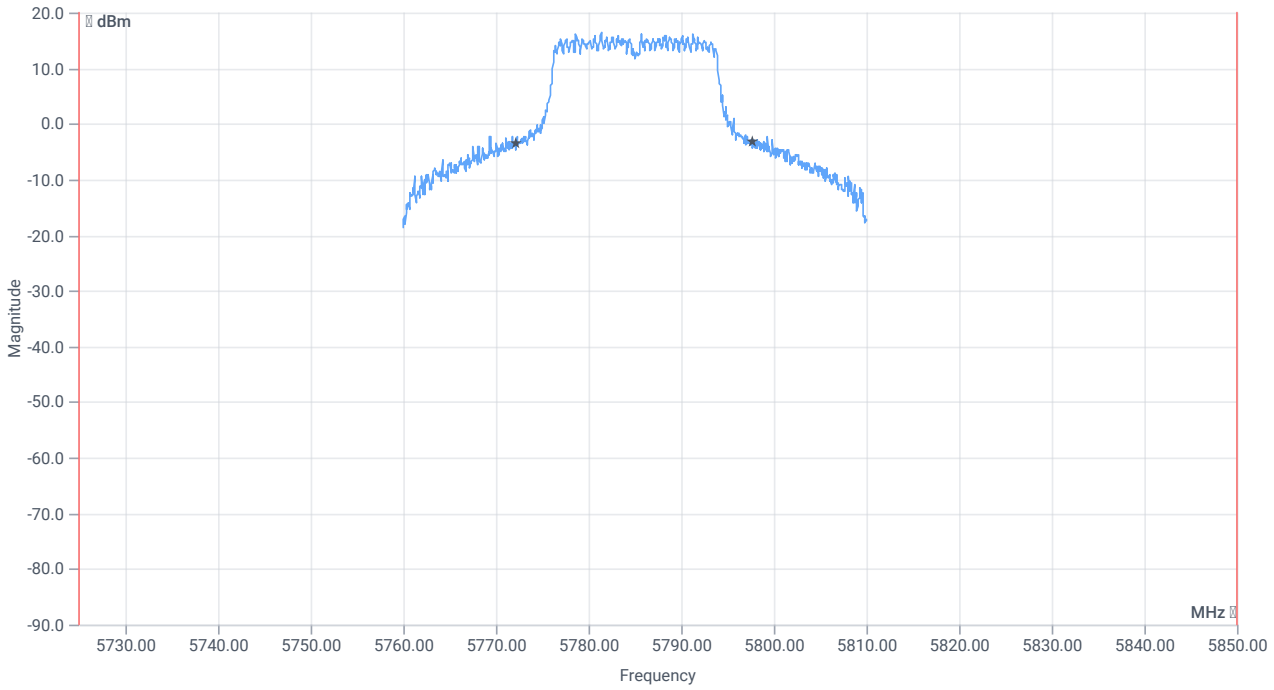
DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	20.43	dBm	INFO
Ref. Frequency	---	---	5781.800	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] | RefLevelOffset [dB] | InpAtt [dB]	28.43 | 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



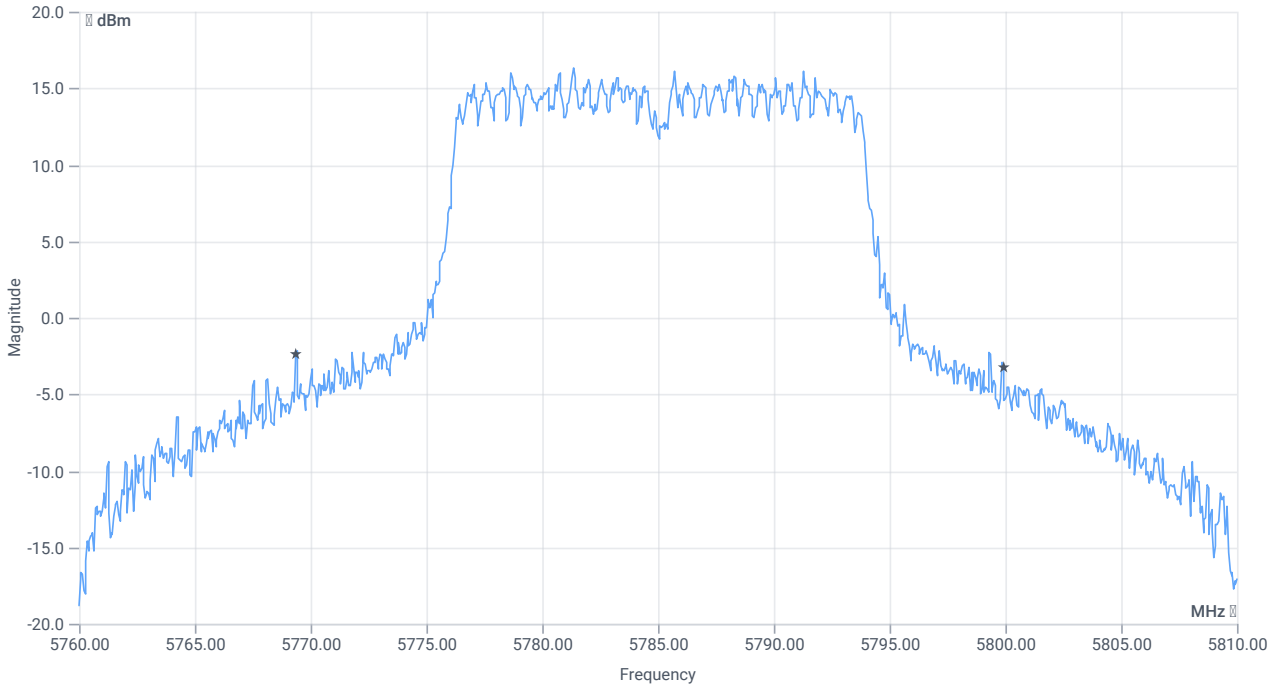
BW 99PCT



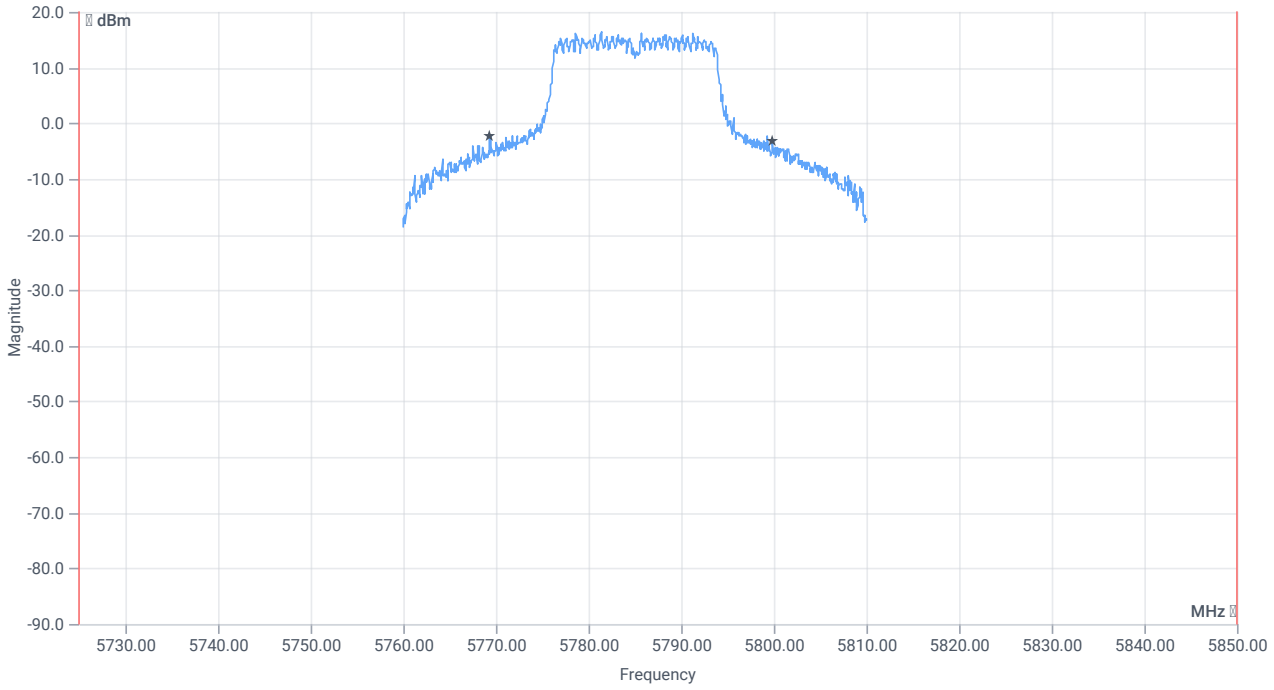
BW within Band 99PCT

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 99%	---	---	25.524	MHz	INFO
T1 99%	5725.000000	---	5772.1129	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	---	---	30.55	MHz	INFO
T1 20dB	5725.000000	---	5769.3500	MHz	PASS
T2 20dB	---	5850.000000	5799.9000	MHz	PASS

Verdict
PASS

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

References

TC start	01.08.2023 15:42:42
Ambit temp [°C] | humidity [rel%]	25.3 | 49
System version	4.6.0.1
Standard | Version	FCC 15.407, ISED RSS247 | NI
Method	KDB789033 D02, C.2.
Description	FCC 15.407 Min Emission Bandwidth - WLAN5Gx n-HT20 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 n-HT20 mode
Antenna port used	2
Temperature	nom
Voltage	nom
Frequency low to test	False | Freq [MHz] 5745
Frequency mid to test	True | Freq [MHz] 5785
Frequency high to test	False | Freq [MHz] 5825
Auto control enabled power supply | Climatic Box	No | No
Additional path loss [dB]	1.3
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

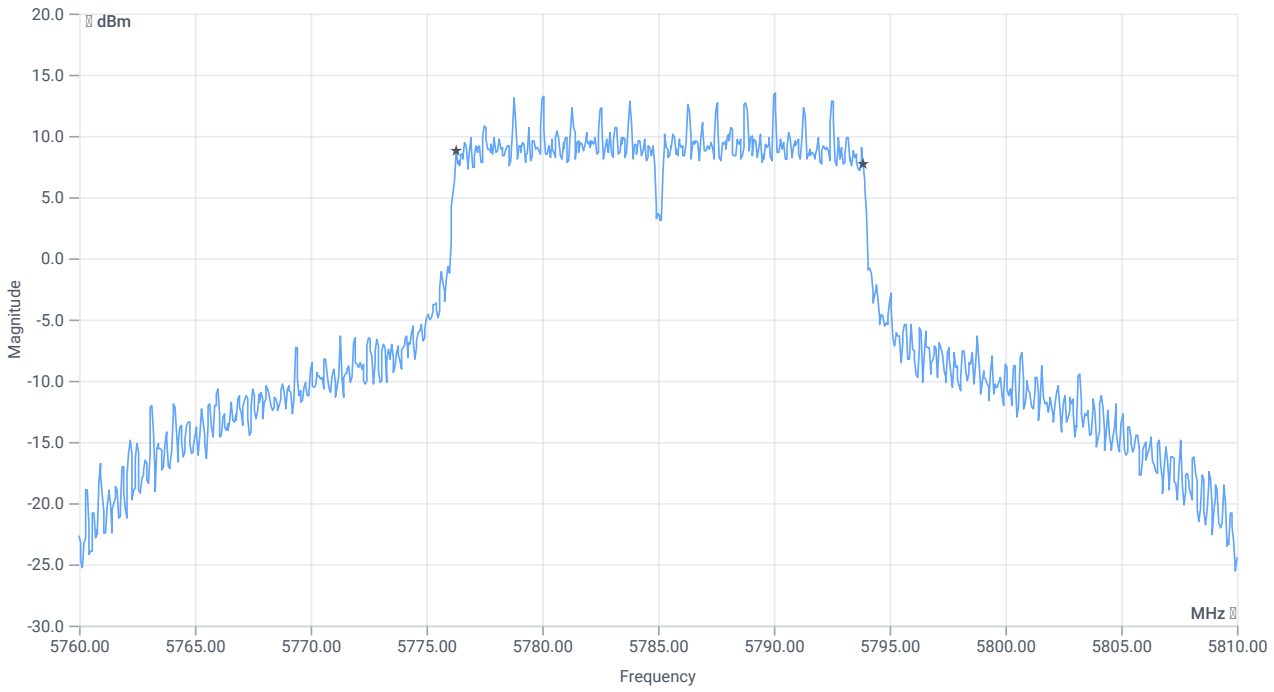
Test at TX 5785 MHz

RESULT: Reference Power cond.

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	20.89	dBm	INFO
Ref. Frequency	---	---	5779.210	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] | RefLevelOffset [dB] | InpAtt [dB]	32.89 | 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 n-HT20 mode U-NII-3

References

TC start	01.08.2023 15:43:32
Ambit temp [°C] | humidity [rel%]	25.3 | 49
System version	4.6.0.1
Standard | Version	FCC 15.407 | NI
Method	
Description	MIMO ∑ FCC Power & psd - WLAN5Gx n-HT20 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 n-HT20 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	---	---	24.2	dBm	INFO
Ant:1 BW 26dB	---	---	40.000	MHz	INFO
Ant:2 Max Output Power DC corrected	---	---	24.1	dBm	INFO
Ant:2 BW 26dB	---	---	40.000	MHz	INFO
∑ Limit absolute	---	30	27.16	dBm	PASS
∑ Limit: 11 dBm + 10 log 40	---	27.02	27.16	dBm	na

RESULT PSD

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ant:1 PSD	---	---	9.14	dBm/0.5MHz	INFO
Ant:2 PSD	---	---	9.05	dBm/0.5MHz	INFO
∑	---	30	12.11	dBm/0.5MHz	PASS

Verdict
PASS

NA # Message with SA scan ~

References

TC start	01.08.2023 15:43:45
Ambit temp [°C] | humidity [rel%]	25.3 | 49
System version	4.6.0.1
Standard | Version	NA | NI
Method	
Description	Message with SA Scan n_HT20_U_NII_3
Information	PS96

Test Parameter

Switched Path	EUT - SignalingUnit - SpectrumAnalyzer
Message start	01.08.2023 15:43:45
Message	set WLAN5Gx to n_HT20_U_NII_3, Frequency [MHz] 5785 , 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 n-HT20 mode U-NII-3

References

TC start	01.08.2023 15:43:57
Ambit temp [°C] | humidity [rel%]	25.3 | 49
System version	4.6.0.1
Standard | Version	FCC 15.407 | NI
Method	KDB789033 D02, F., E.2.e.
Description	FCC 15.407 Max Output Power & PSD - WLAN5Gx n-HT20 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 n-HT20 mode
Antenna port used	1
Temperature	nom
Voltage	nom
Frequency low to test	False | Freq [MHz] 5745
Frequency mid to test	False | Freq [MHz] 5785
Frequency high to test	True | Freq [MHz] 5825
Auto control enabled power supply | Climatic Box	No | No
Additional path loss [dB]	1.3
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

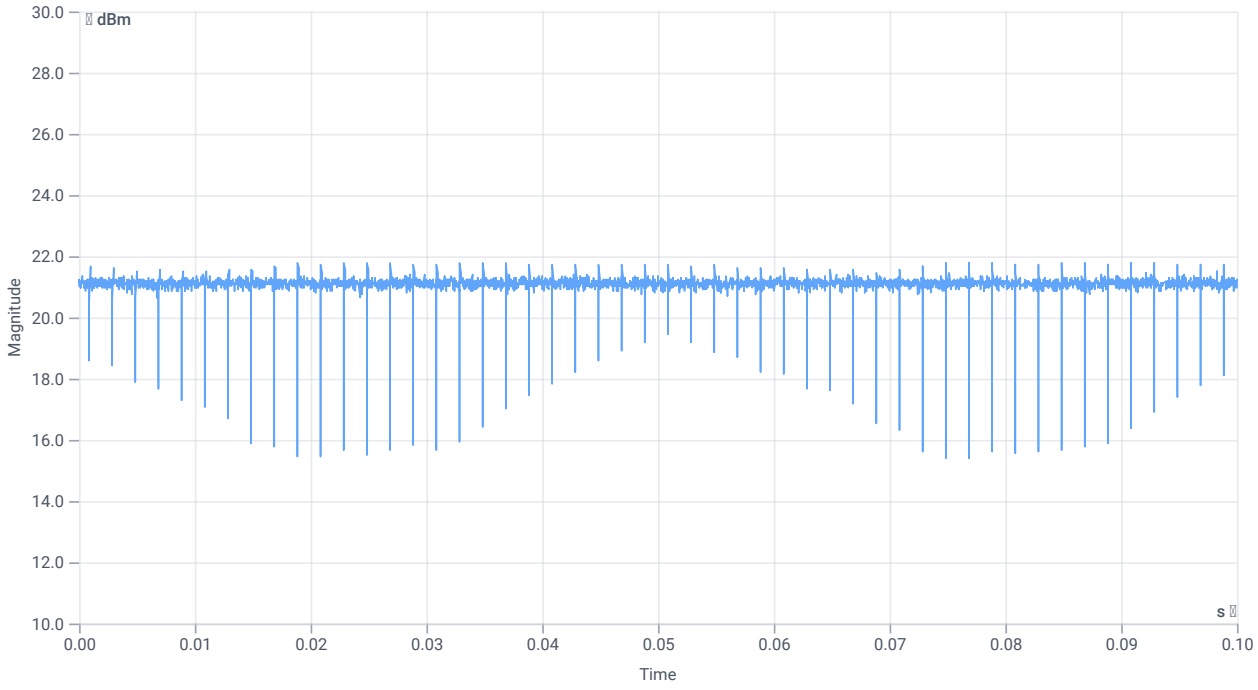
RESULT: Reference Power cond.

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	19.24	dBm	INFO
Ref. Frequency	---	---	5832.790	MHz	INFO

Evaluation max. Duty Cycle

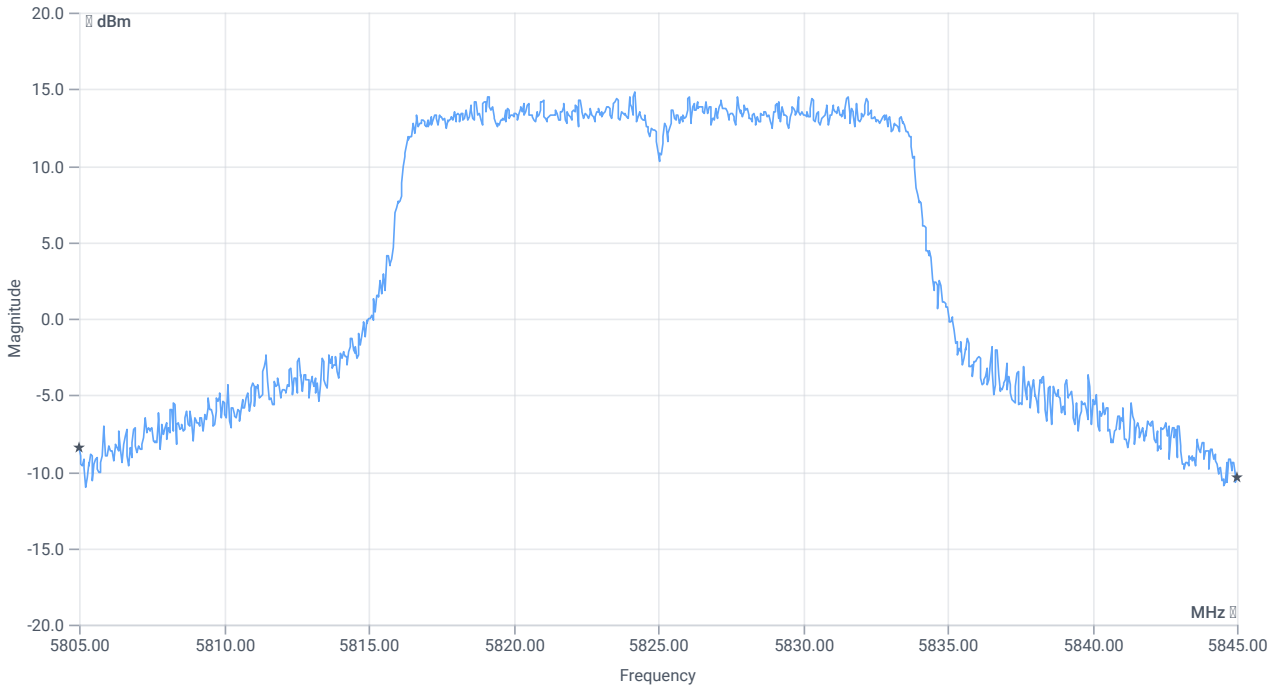
Duty Cycle evaluation

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

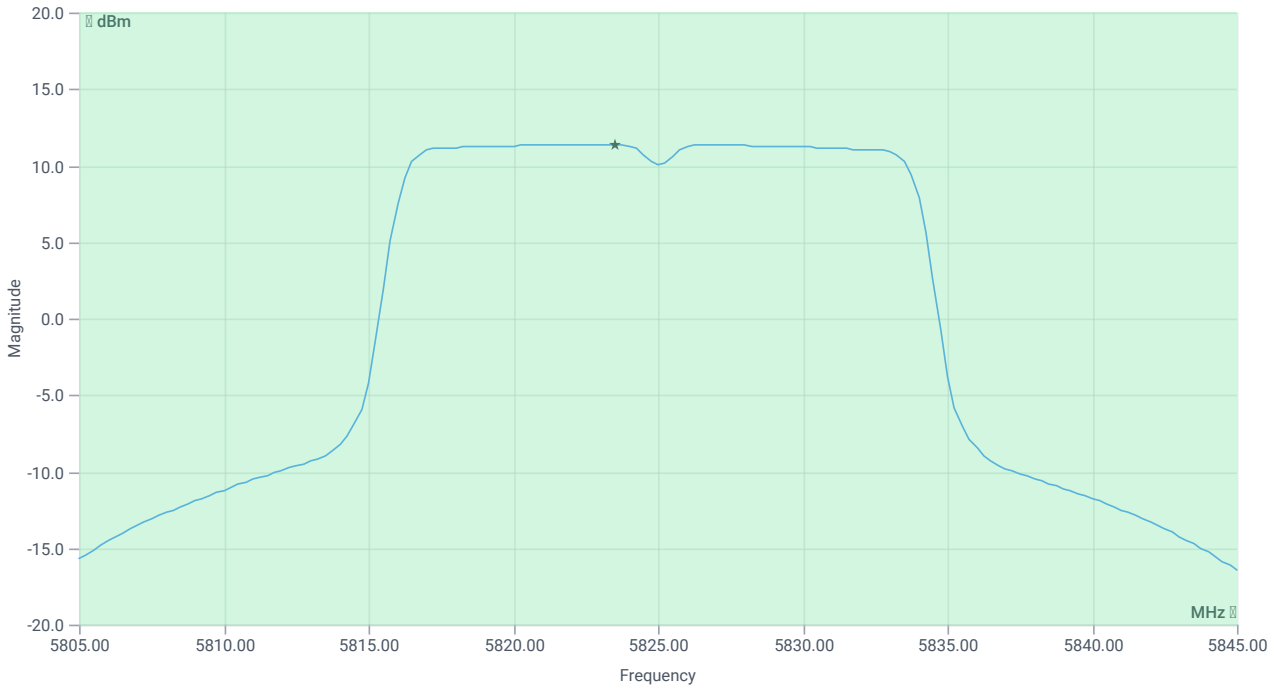
RESULT

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

Maximum Output Power

READ SA SETTINGS:

RefLevel [dBm] | RefLevelOffset [dB] | InpAtt [dB]	31.24 | 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

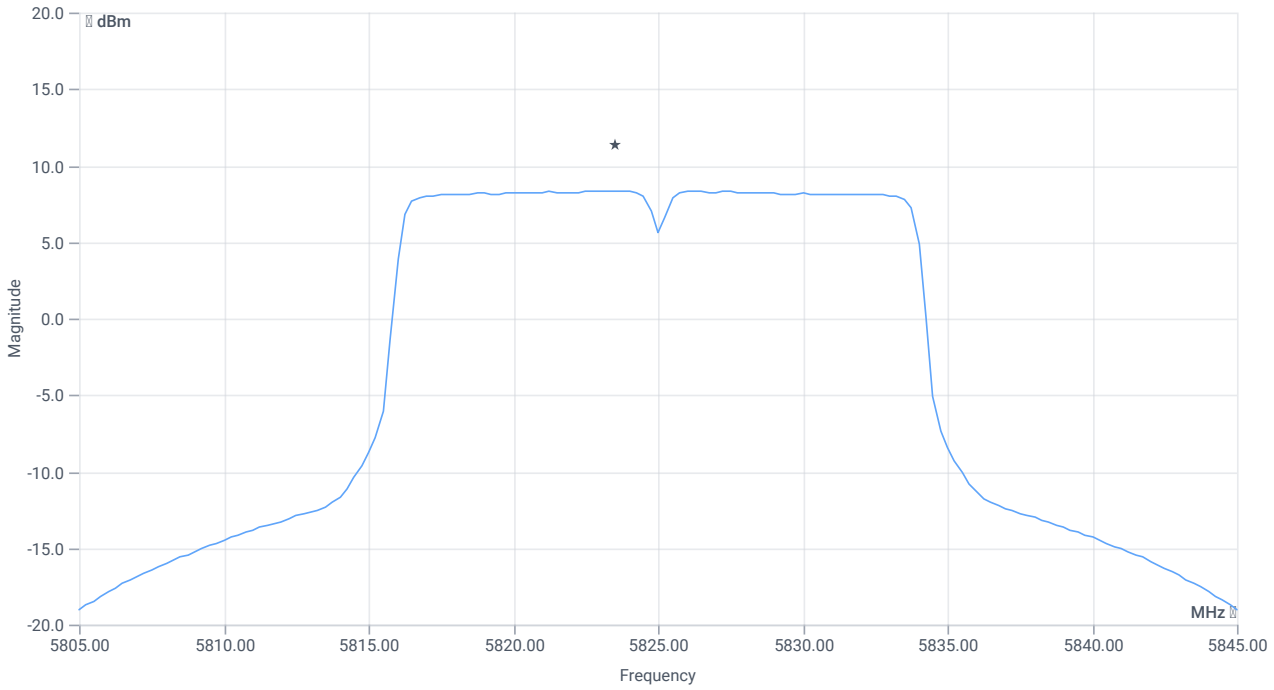
RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Max Output Power	---	---	23.45	dBm	INFO
Duty Cycle Correction	---	---	0	dB	INFO
Limit absolute					
Max Output Power DC corrected	---	30	23.45	dBm	PASS
Limit: 11 dBm + 10 log 40					
Max Output Power DC corrected	---	27.02	23.45	dBm	na

Power Spectral Density U-NII-3

READ SA SETTINGS:

RefLevel [dBm] | RefLevelOffset [dB] | InpAtt [dB]	31.24 | 16.68 | 30
Start [MHz] | Stop [MHz]	5805.000 | 5845.000
RBW [MHz] | VBW [MHz]	0.500000 | 3.000000
Detector | TraceMode	RMS | MAXH
Sweep: time [ms] | count | points per Section | type	53700 | 1 | 161 | SWE



PSD UNII-3

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Power Spectral Density	---	---	8.33	dBm/0.5MHz	INFO
Duty Cycle Correction	---	---	0	dB	INFO
Power Spectral Density DC corrected	---	30	8.33	dBm/0.5MHz	PASS

Verdict
PASS

FCC 15.407, ISED RSS247 # Bandwidths 99PCT and 20dB ~ WLAN5Gx n-HT20 mode U-NII-3

References

TC start	01.08.2023 15:46:24
Ambit temp [°C] | humidity [rel%]	25.3 | 49
System version	4.6.0.1
Standard | Version	FCC 15.407, ISED RSS247 | NI
Method	26dB Bandwidth KDB789033 D02, C.1 / ISED RSS-GEN
Description	FCC 15.407 Bandwidths - WLAN5Gx n-HT20 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 n-HT20 mode
Antenna port used	1
Temperature	nom
Voltage	nom
Frequency low to test	False | Freq [MHz] 5745
Frequency mid to test	False | Freq [MHz] 5785
Frequency high to test	True | Freq [MHz] 5825
Auto control enabled power supply | Climatic Box	No | No
Additional path loss [dB]	1.3
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

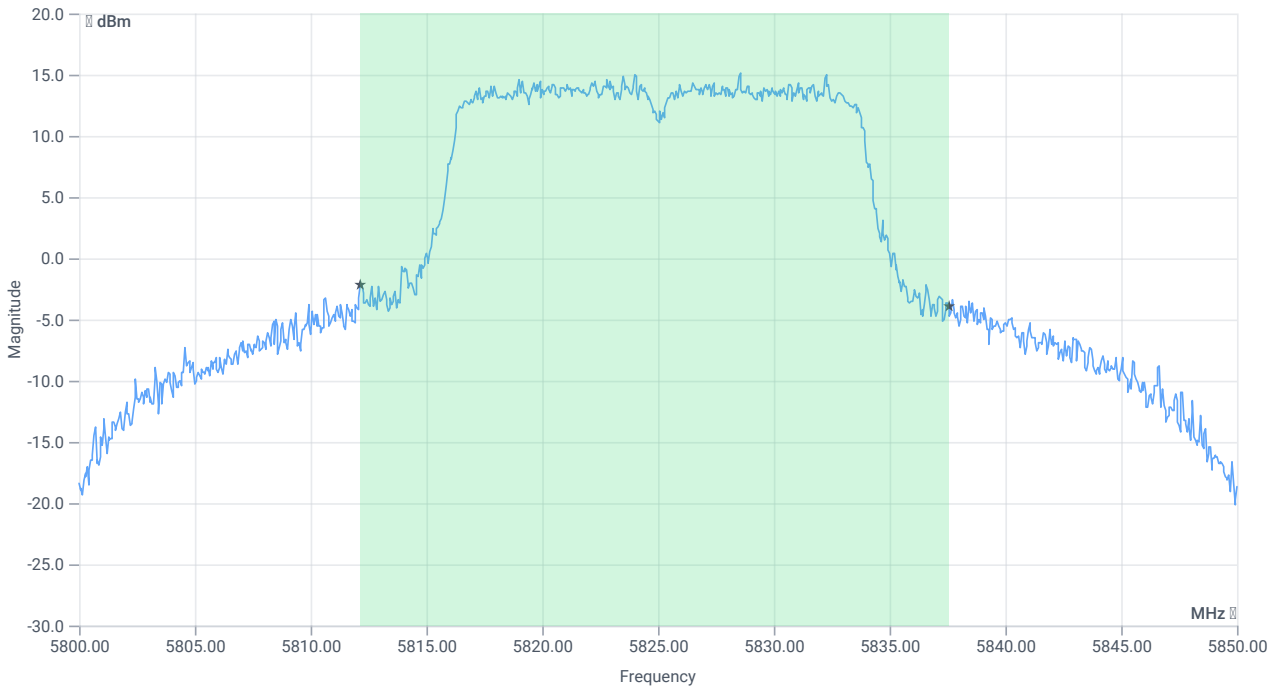
Test at TX 5825 MHz

RESULT: Reference Power cond.

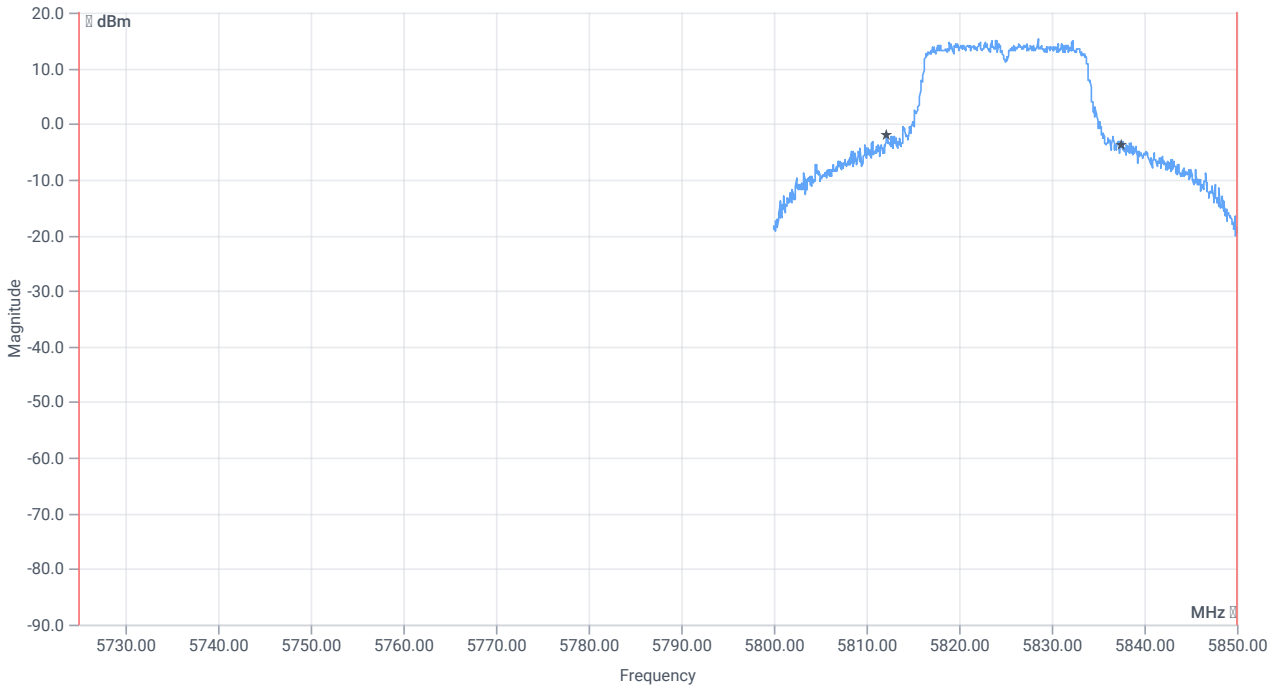
DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	19.46	dBm	INFO
Ref. Frequency	---	---	5822.000	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] | RefLevelOffset [dB] | InpAtt [dB]	27.46 | 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



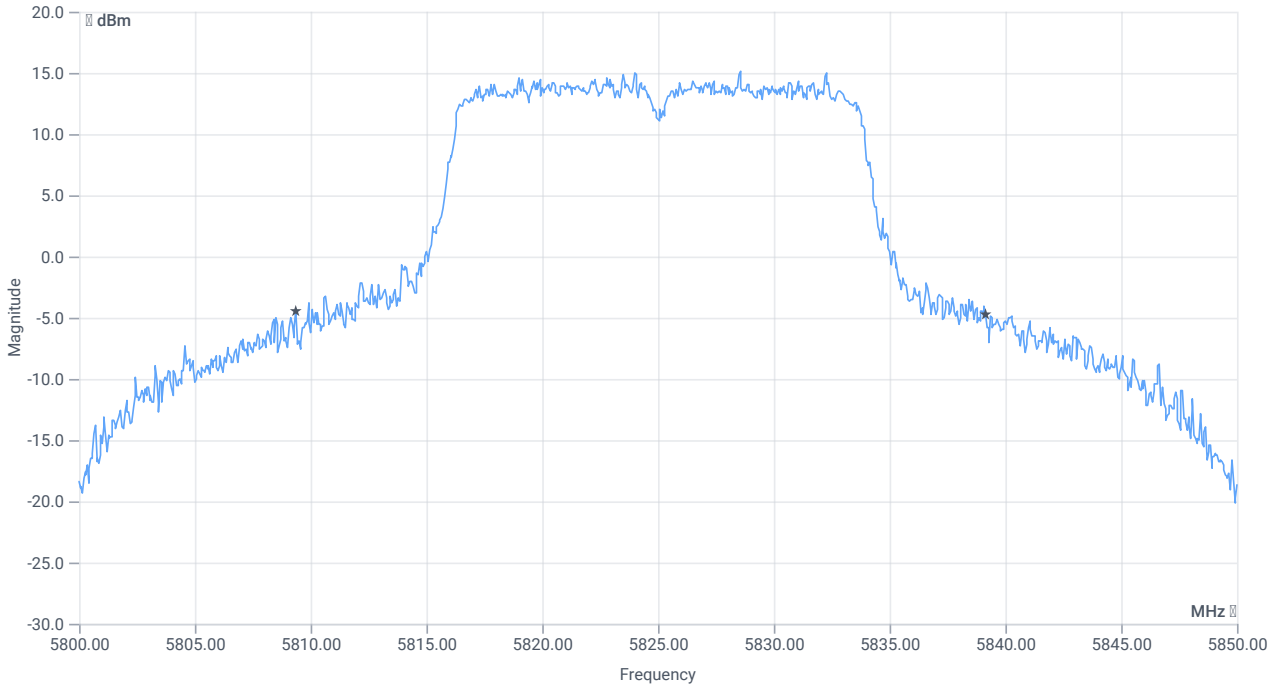
BW 99PCT



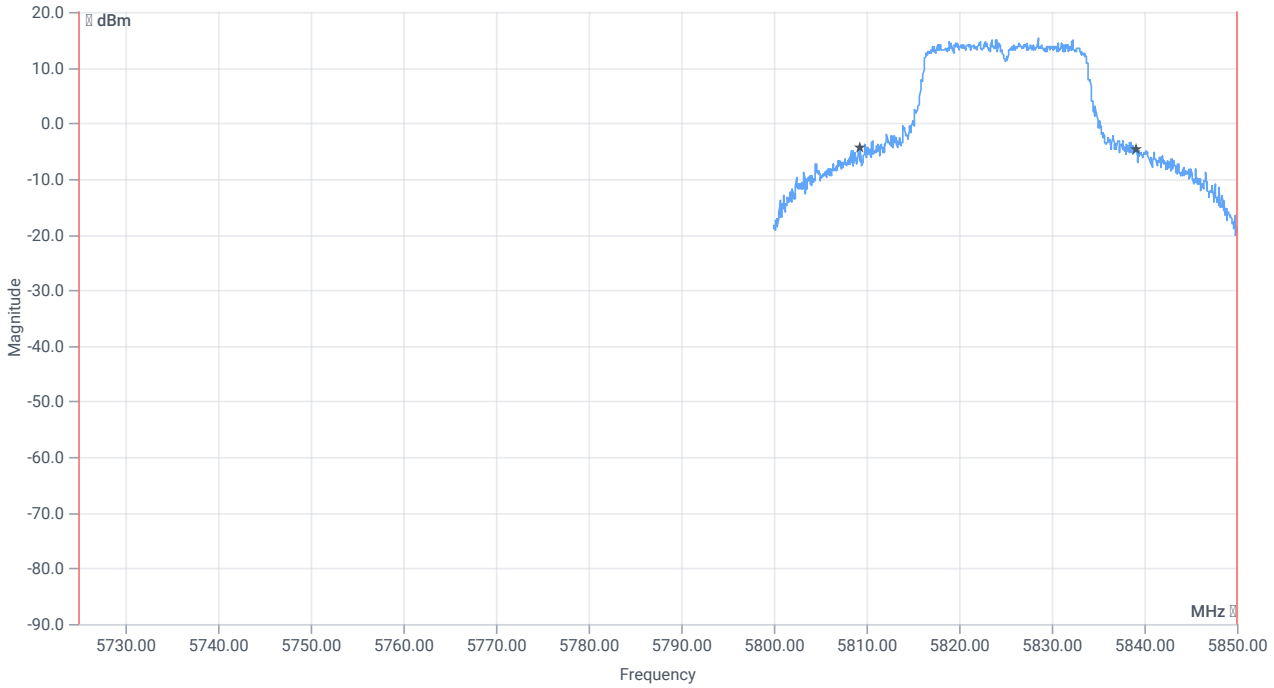
BW within Band 99PCT

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 99%	---	---	25.375	MHz	INFO
T1 99%	5725.000000	---	5812.1628	MHz	PASS
T2 99%	---	5850.000000	5837.5375	MHz	PASS



BW 20dB



BW within Band 20dB

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 20dB	---	---	29.8	MHz	INFO
T1 20dB	5725.000000	---	5809.3500	MHz	PASS
T2 20dB	---	5850.000000	5839.1500	MHz	PASS

Verdict
PASS

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

References

TC start	01.08.2023 15:47:02
Ambit temp [°C] | humidity [rel%]	25.3 | 49
System version	4.6.0.1
Standard | Version	FCC 15.407, ISED RSS247 | NI
Method	KDB789033 D02, C.2.
Description	FCC 15.407 Min Emission Bandwidth - WLAN5Gx n-HT20 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 n-HT20 mode
Antenna port used	1
Temperature	nom
Voltage	nom
Frequency low to test	False | Freq [MHz] 5745
Frequency mid to test	False | Freq [MHz] 5785
Frequency high to test	True | Freq [MHz] 5825
Auto control enabled power supply | Climatic Box	No | No
Additional path loss [dB]	1.3
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

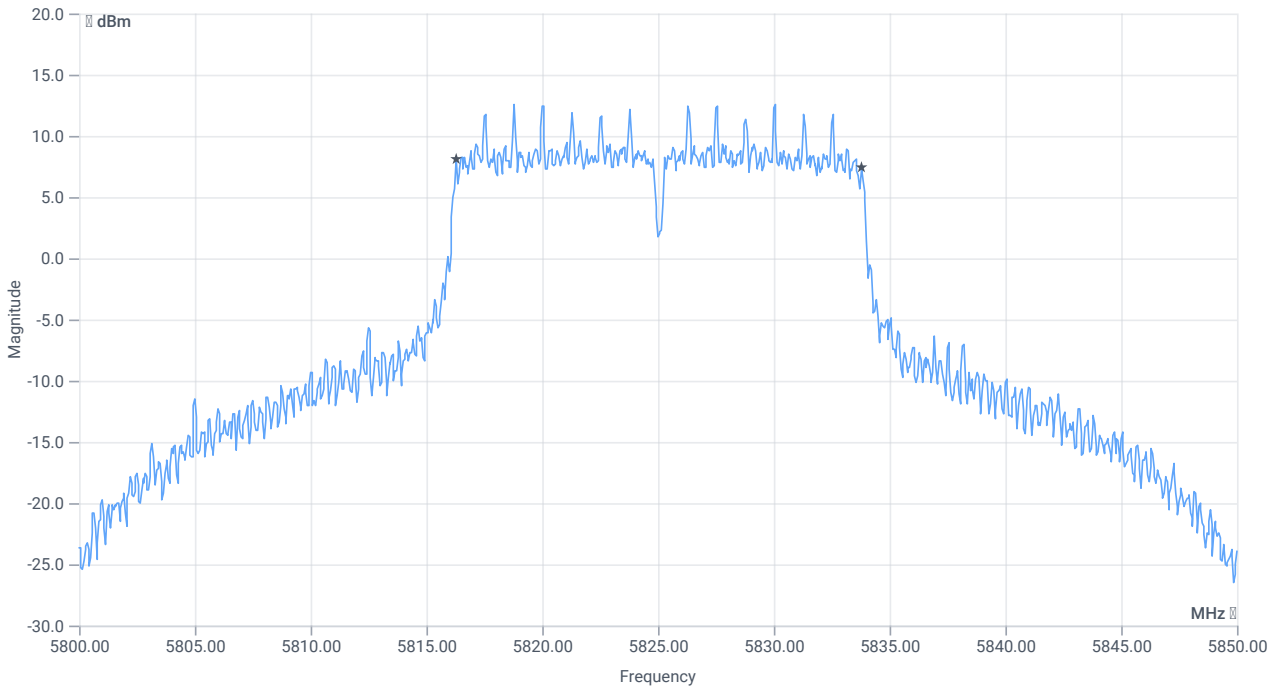
Test at TX 5825 MHz

RESULT: Reference Power cond.

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	19.92	dBm	INFO
Ref. Frequency	---	---	5830.790	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] | RefLevelOffset [dB] | InpAtt [dB]	31.92 | 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 n-HT20 mode U-NII-3

References

TC start	01.08.2023 15:47:38
Ambit temp [°C] | humidity [rel%]	25.3 | 49
System version	4.6.0.1
Standard | Version	FCC 15.407 | NI
Method	KDB789033 D02, F., E.2.e.
Description	FCC 15.407 Max Output Power & PSD - WLAN5Gx n-HT20 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 n-HT20 mode
Antenna port used	2
Temperature	nom
Voltage	nom
Frequency low to test	False | Freq [MHz] 5745
Frequency mid to test	False | Freq [MHz] 5785
Frequency high to test	True | Freq [MHz] 5825
Auto control enabled power supply | Climatic Box	No | No
Additional path loss [dB]	1.3
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

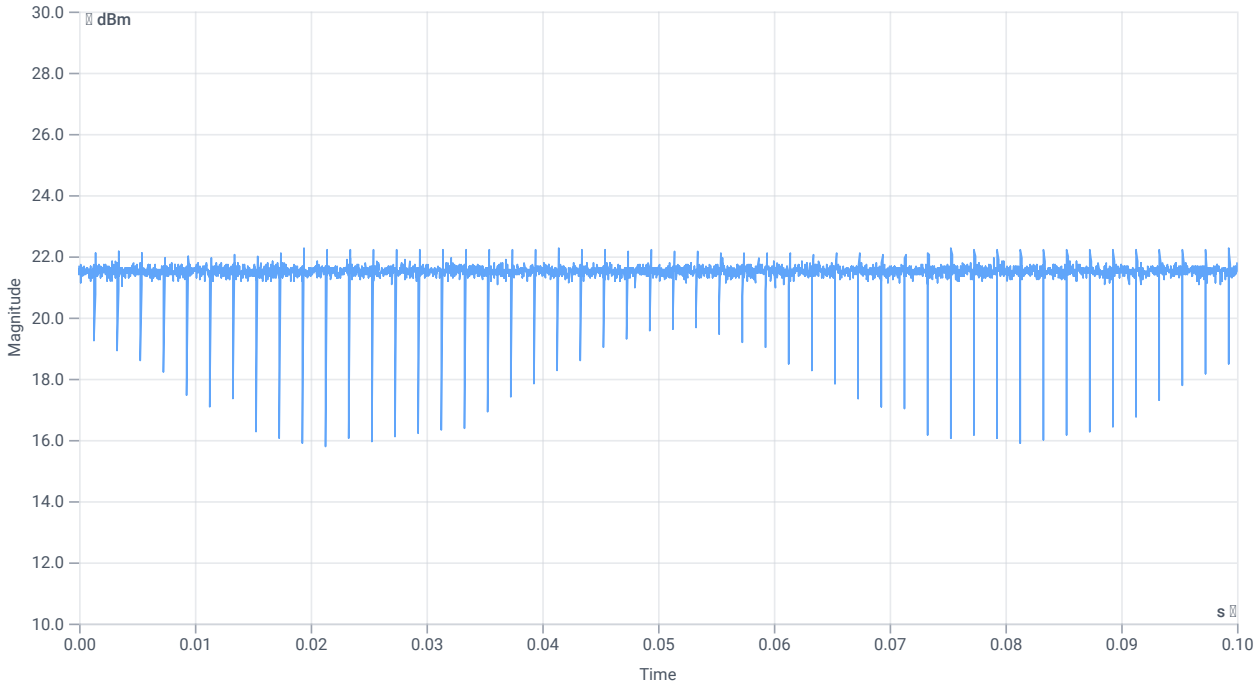
RESULT: Reference Power cond.

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	20.25	dBm	INFO
Ref. Frequency	---	---	5823.600	MHz	INFO

Evaluation max. Duty Cycle

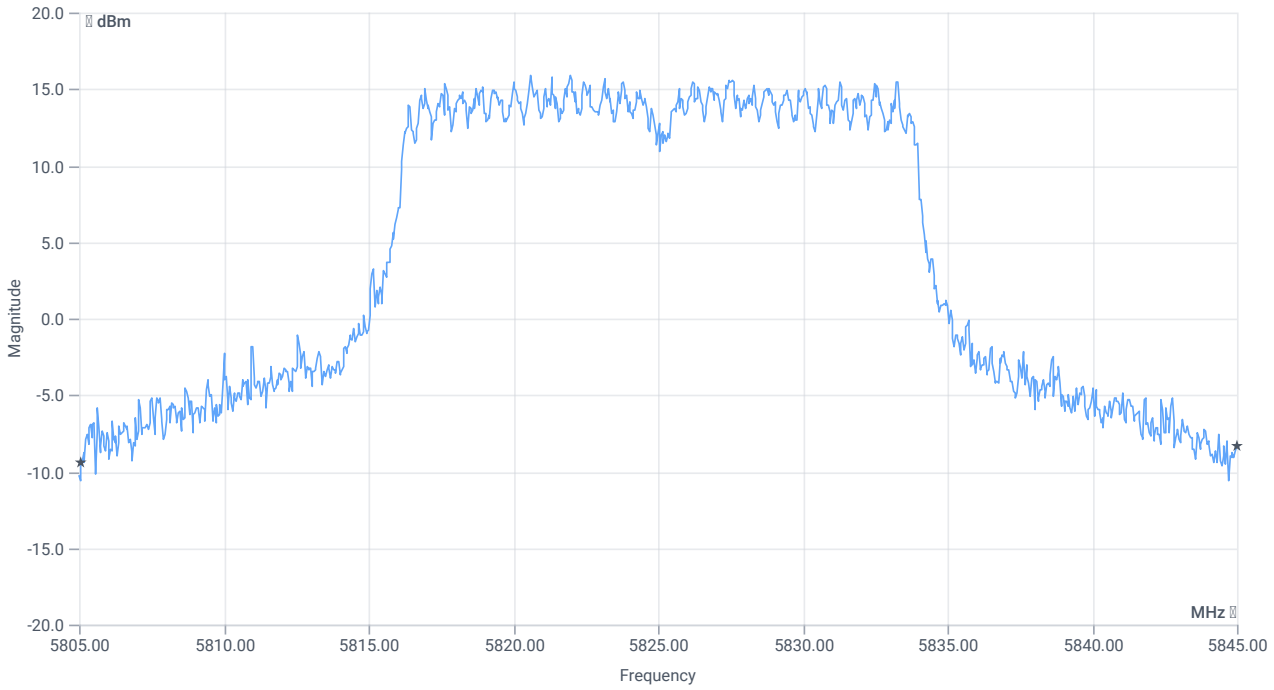
Duty Cycle evaluation

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

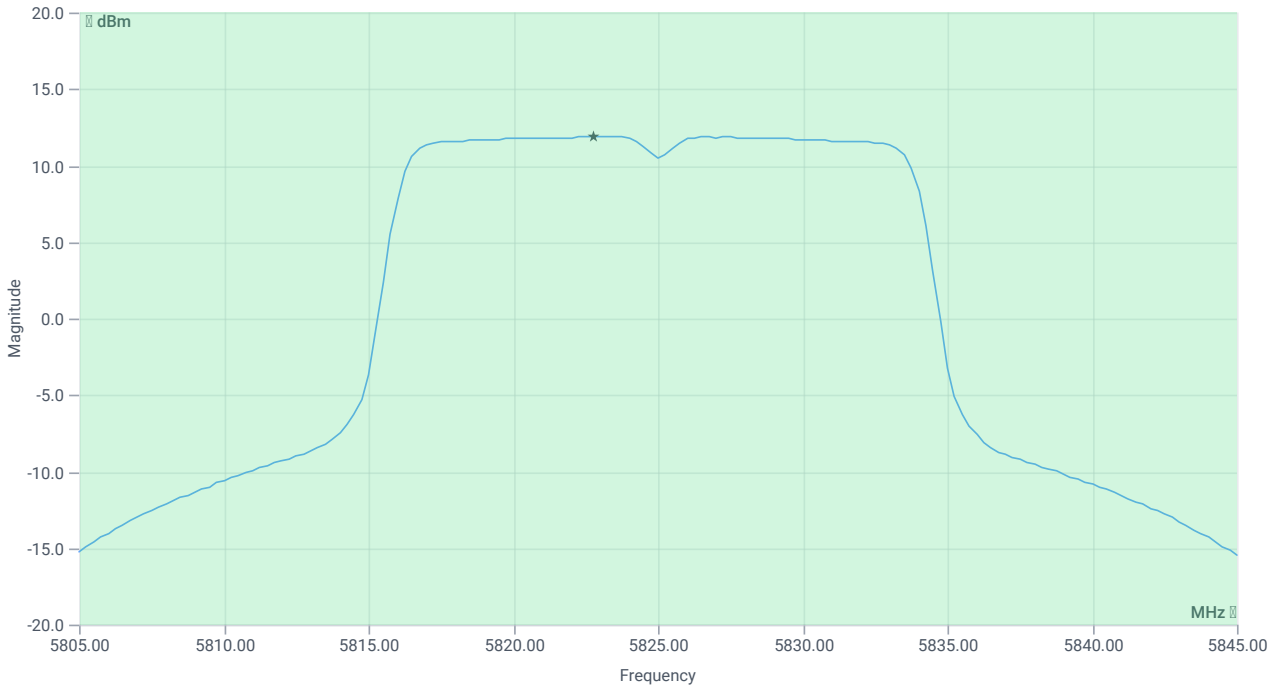
RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 26dB	---	---	39.92	MHz	INFO
T1 26dB	---	---	5805.0800	MHz	INFO
T2 26dB	---	---	5845.0000	MHz	INFO

Maximum Output Power

READ SA SETTINGS:

RefLevel [dBm] | RefLevelOffset [dB] | InpAtt [dB]	32.25 | 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

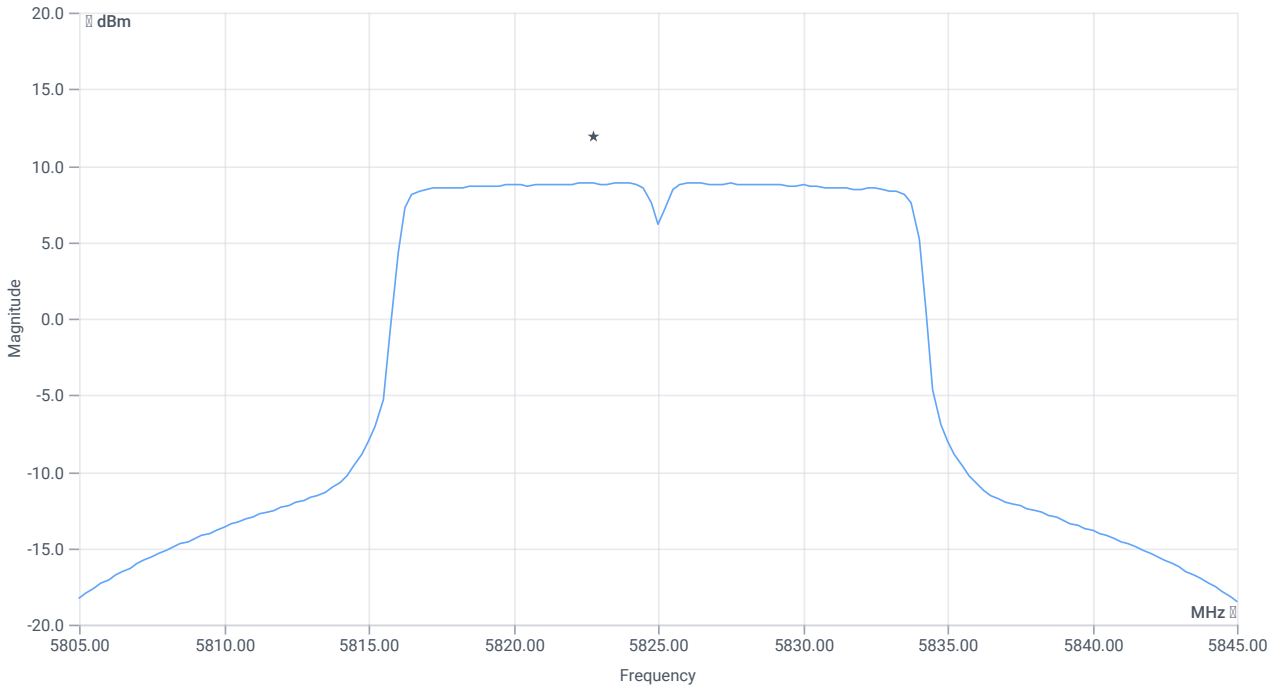
RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Max Output Power	---	---	23.92	dBm	INFO
Duty Cycle Correction	---	---	0	dB	INFO
Limit absolute					
Max Output Power DC corrected	---	30	23.92	dBm	PASS
Limit: 11 dBm + 10 log 39.92					
Max Output Power DC corrected	---	27.01	23.92	dBm	na

Power Spectral Density U-NII-3

READ SA SETTINGS:

RefLevel [dBm] | RefLevelOffset [dB] | InpAtt [dB]	32.25 | 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	---	---	8.88	dBm/0.5MHz	INFO
Duty Cycle Correction	---	---	0	dB	INFO
Power Spectral Density DC corrected	---	30	8.88	dBm/0.5MHz	PASS

Verdict
PASS

FCC 15.407, ISED RSS247 # Bandwidths 99PCT and 20dB ~ WLAN5Gx n-HT20 mode U-NII-3

References

TC start	01.08.2023 15:50:05
Ambit temp [°C] | humidity [rel%]	25.3 | 49
System version	4.6.0.1
Standard | Version	FCC 15.407, ISED RSS247 | NI
Method	26dB Bandwidth KDB789033 D02, C.1 / ISED RSS-GEN
Description	FCC 15.407 Bandwidths - WLAN5Gx n-HT20 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 n-HT20 mode
Antenna port used	2
Temperature	nom
Voltage	nom
Frequency low to test	False | Freq [MHz] 5745
Frequency mid to test	False | Freq [MHz] 5785
Frequency high to test	True | Freq [MHz] 5825
Auto control enabled power supply | Climatic Box	No | No
Additional path loss [dB]	1.3
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

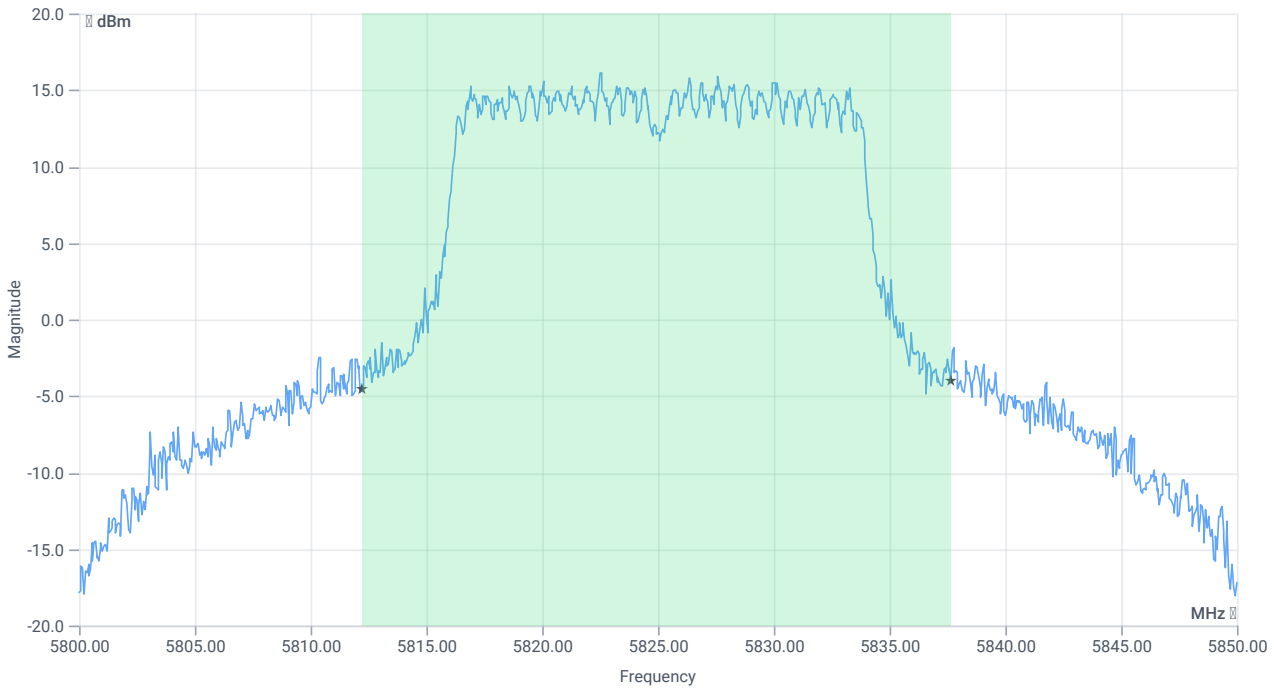
Test at TX 5825 MHz

RESULT: Reference Power cond.

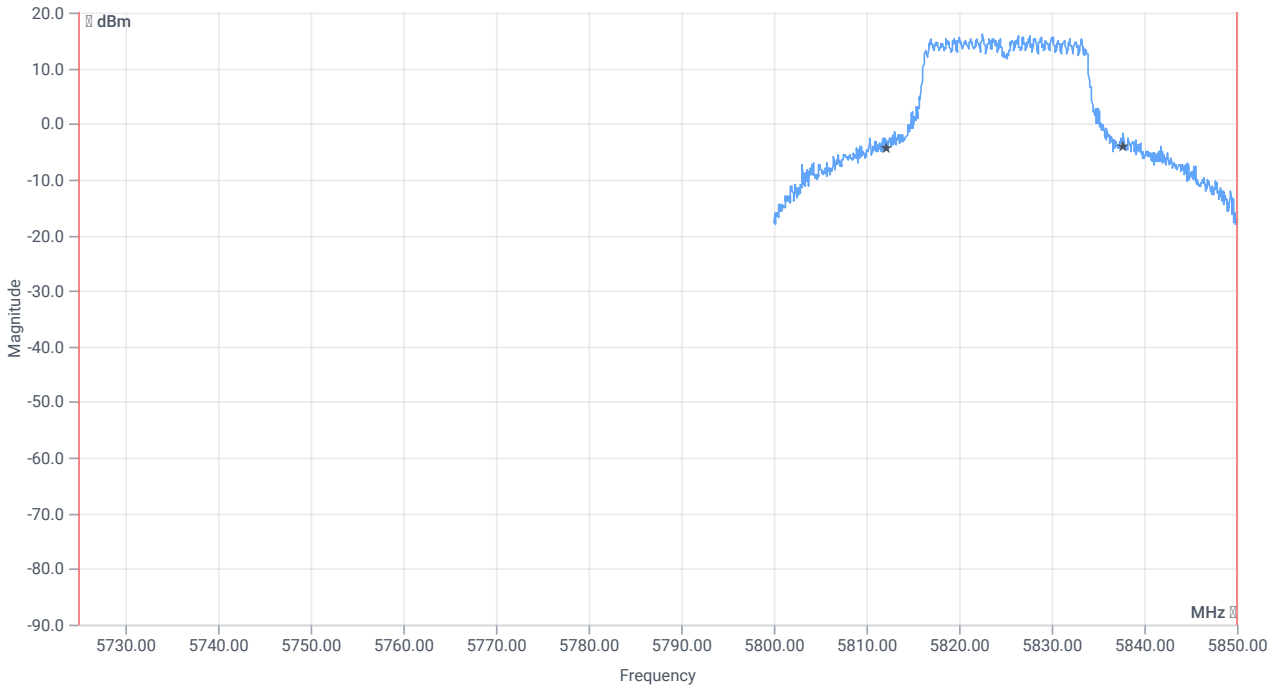
DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	19.87	dBm	INFO
Ref. Frequency	---	---	5832.990	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] | RefLevelOffset [dB] | InpAtt [dB]	27.87 | 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



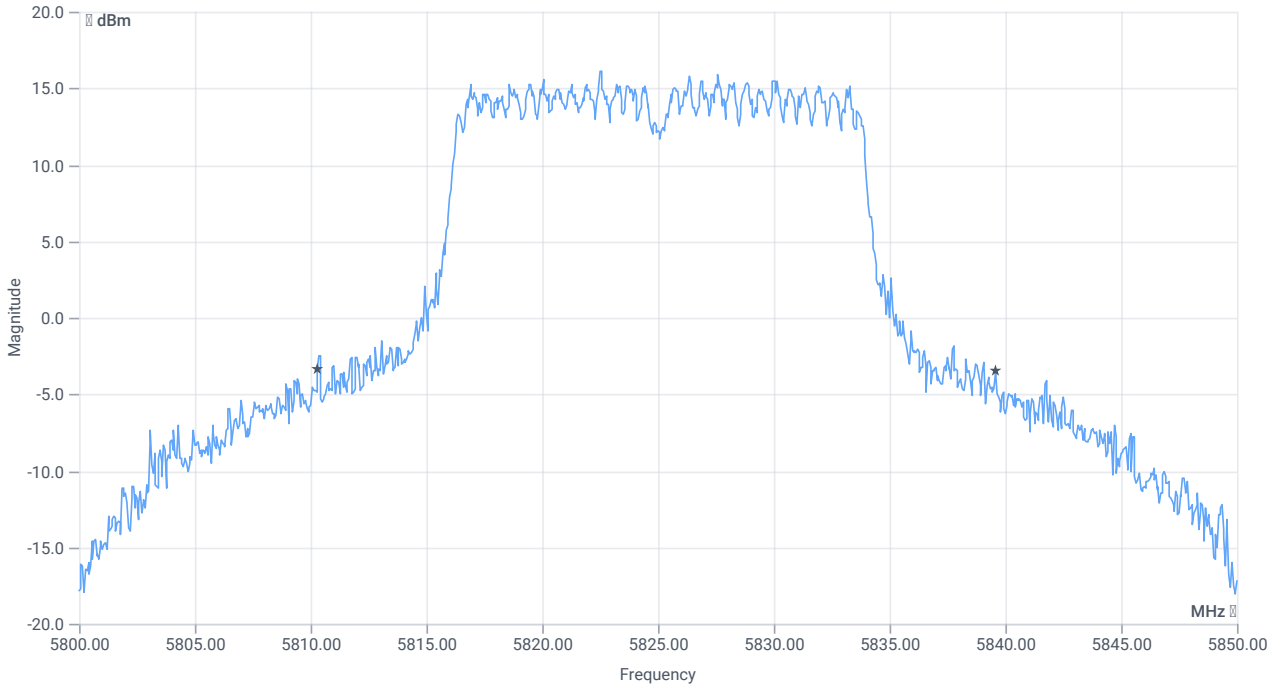
BW 99PCT



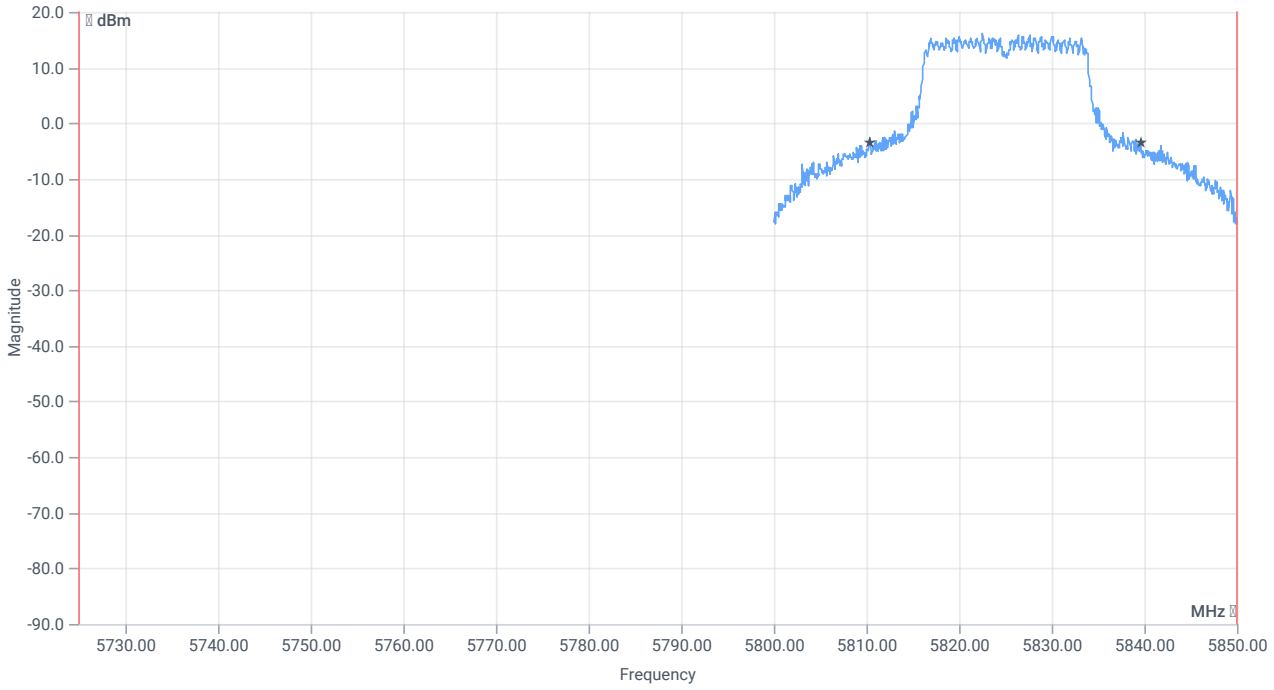
BW within Band 99PCT

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 99%	---	---	25.425	MHz	INFO
T1 99%	5725.000000	---	5812.2128	MHz	PASS
T2 99%	---	5850.000000	5837.6374	MHz	PASS



BW 20dB



BW within Band 20dB

RESULT

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Bandwidth 20dB	---	---	29.3	MHz	INFO
T1 20dB	5725.000000	---	5810.3000	MHz	PASS
T2 20dB	---	5850.000000	5839.6000	MHz	PASS

Verdict
PASS

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

References

TC start	01.08.2023 15:50:43
Ambit temp [°C] | humidity [rel%]	25.4 | 49
System version	4.6.0.1
Standard | Version	FCC 15.407, ISED RSS247 | NI
Method	KDB789033 D02, C.2.
Description	FCC 15.407 Min Emission Bandwidth - WLAN5Gx n-HT20 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 n-HT20 mode
Antenna port used	2
Temperature	nom
Voltage	nom
Frequency low to test	False | Freq [MHz] 5745
Frequency mid to test	False | Freq [MHz] 5785
Frequency high to test	True | Freq [MHz] 5825
Auto control enabled power supply | Climatic Box	No | No
Additional path loss [dB]	1.3
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

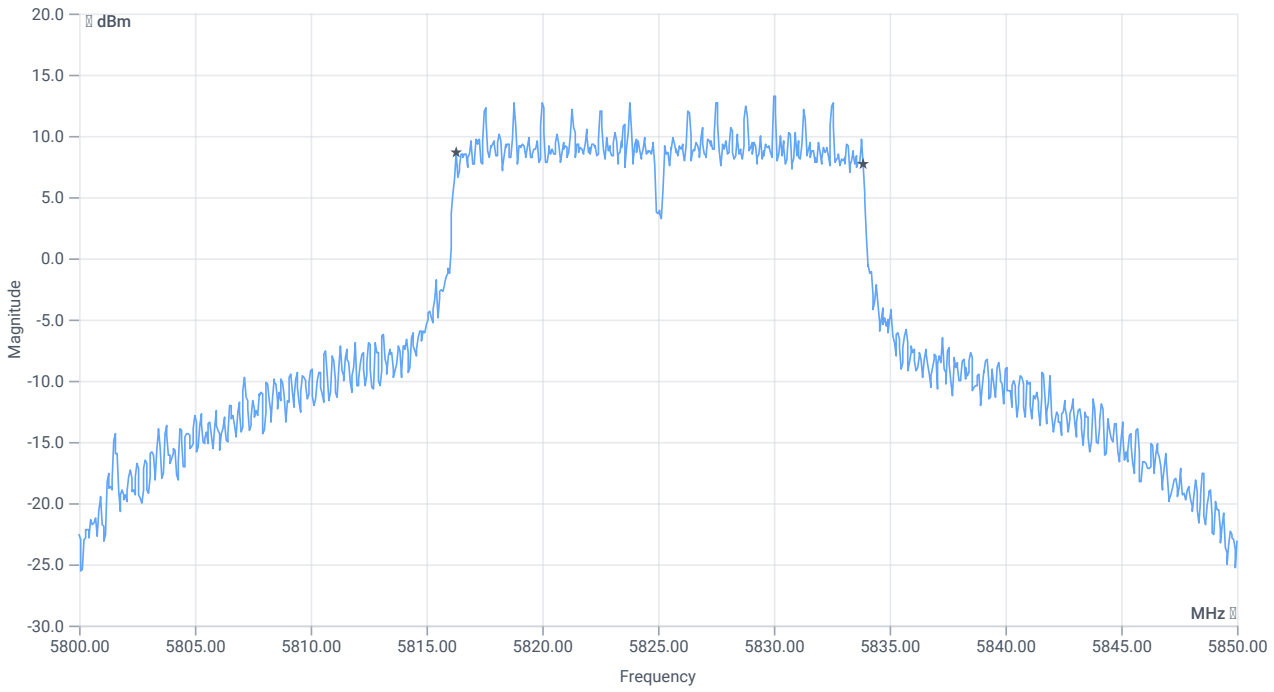
Test at TX 5825 MHz

RESULT: Reference Power cond.

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ref. Power 1MHz/1MHz cond.	---	---	19.71	dBm	INFO
Ref. Frequency	---	---	5824.000	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	---	17.6	MHz	PASS

Verdict

PASS

FCC 15.407 # MIMO ∑ Max output power and psd ~ WLAN5Gx n-HT20 mode U-NII-3

References

TC start	01.08.2023 15:51:21
Ambit temp [°C] | humidity [rel%]	25.4 | 49
System version	4.6.0.1
Standard | Version	FCC 15.407 | NI
Method	
Description	MIMO ∑ FCC Power & psd - WLAN5Gx n-HT20 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 n-HT20 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	---	---	23.45	dBm	INFO
Ant:1 BW 26dB	---	---	40.000	MHz	INFO
Ant:2 Max Output Power DC corrected	---	---	23.92	dBm	INFO
Ant:2 BW 26dB	---	---	39.920	MHz	INFO
∑ Limit absolute	---	30	26.7	dBm	PASS
∑ Limit: 11 dBm + 10 log 39.92	---	27.01	26.7	dBm	na

RESULT PSD

DESCRIPTION	LOWER LIMIT	UPPER LIMIT	MEASURED	UNIT	VERDICT
Ant:1 PSD	---	---	8.33	dBm/0.5MHz	INFO
Ant:2 PSD	---	---	8.88	dBm/0.5MHz	INFO
∑	---	30	11.62	dBm/0.5MHz	PASS

Verdict

PASS

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