

Measurements Results

No.1-5618/22-01-11_Annex_MR

Test logging

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EUT Information

EUT DEFINITION

Manufacturer	Teledyne Flir
Type	Flir-E1330
Serial Number	Prot 2.12
Setup Number	1.0
Version SW	NI
Version FW	NI
Version HW	NI
Comment 1	
Comment 2	
Temperature [°C] Min	-15
Temperature [°C] Nom	20
Temperature [°C] Max	40
Voltage [V] Min	3.3
Voltage [V] Nom	3.7
Voltage [V] Max	4.2

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

Test References

TC Start	11.05.2023 13:21:23
Ambit Temp [°C] Humidity [rel%]	22.9 41
System Version	4.0.1.0
Test Specification	FCC 15.407 -
Test Method	KDB789033 D02, F, E.2.e.
TC Version	0.0.1
My Description	FCC 15.407 Max Output Power & PSD - WLAN5Gx n-HT20 mode U-NII-1
Add. 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]	0
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer

Test Equipment

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

Test at TX 5180 MHz

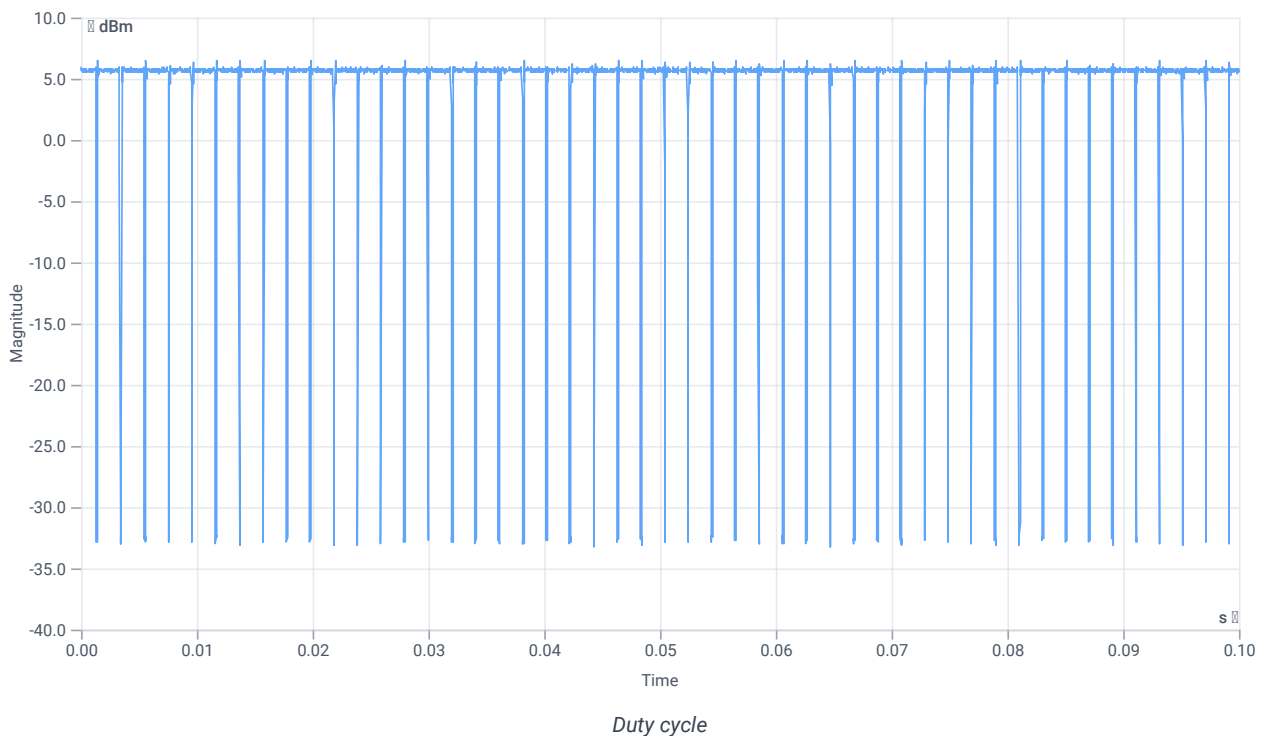
RESULT: Reference Power cond.

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	--	--	4.48	dBm	INFO
Ref. Frequency	--	--	5176.000	MHz	INFO

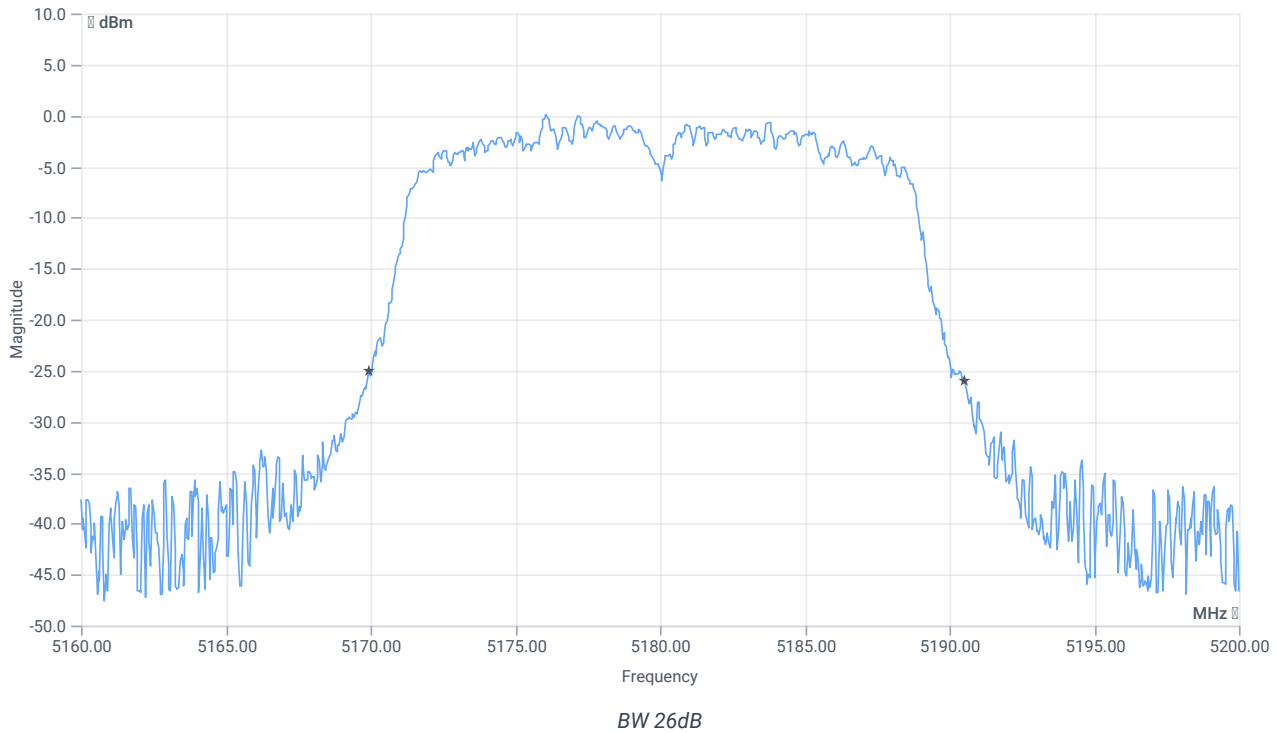
Evaluation max. Duty Cycle

Duty Cycle evaluation

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Result Summary					
Number of detected Bursts:48					
Duty Cycle (Burst Ratio) max	--	--	0.938	--	INFO
Duty Cycle max	--	--	0.278	dB	INFO
Duty Cycle (Burst Ratio) min	--	--	0.904	--	INFO
Duty Cycle min	--	--	0.438	dB	INFO
Max TX Burst Length	--	--	1.9	ms	INFO
Min Gap Length	--	--	0.125	ms	INFO
Max Gap Length	--	--	0.2	ms	INFO



Evaluation Bandwidth



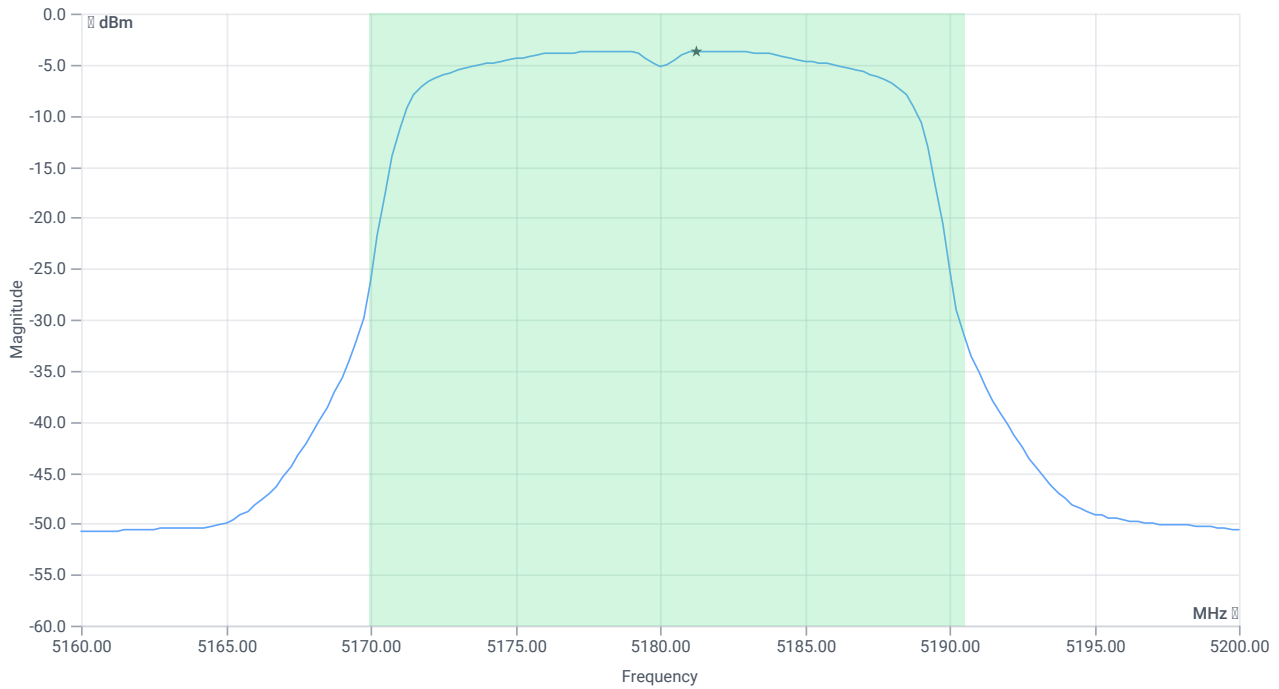
RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 26dB	---	---	20.6	MHz	INFO
T1 26dB	---	---	5169.9200	MHz	INFO
T2 26dB	---	---	5190.5200	MHz	INFO

Maximum Output Power

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	16.48 15.09 20
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

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Max Output Power	--	--	7.55	dBm	INFO
Duty Cycle Correction	--	--	0.44	dB	INFO
Limit absolute					
Max Output Power DC corrected	--	24	7.99	dBm	PASS
Limit: 11 dBm + 10 log 20.6					
Max Output Power DC corrected	--	24.14	7.99	dBm	na

Power Spectral Density

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Power Spectral Density	--	--	-3.7	dBm/1MHz	INFO
Duty Cycle Correction	--	--	0.44	dB	INFO
Power Spectral Density DC corrected	--	11	-3.26	dBm/1MHz	PASS

Verdict

PASS

ISED RSS247 # Max output power and psd ~ WLAN5Gx n-HT20 mode U-NII-1

Test References

TC Start	11.05.2023 13:22:55
Ambit Temp [°C] Humidity [rel%]	22.9 41
System Version	4.0.1.0
Test Specification	ISED RSS247 -
Test Method	
TC Version	0.0.1
My Description	ISED Max Output Power & PSD - WLAN5Gx n-HT20 mode U-NII-1
Add. 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]	0
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer

Test Equipment

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

Test at TX 5180 MHz

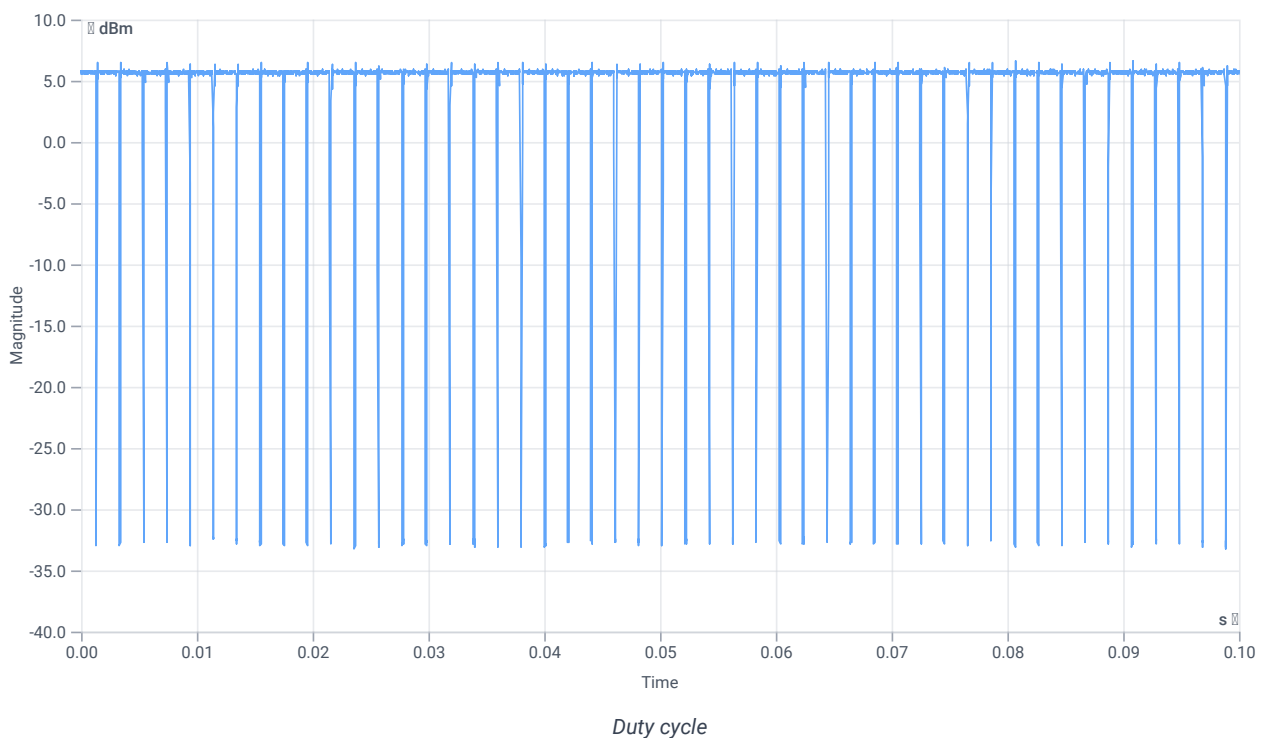
RESULT: Reference Power cond.

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	--	--	3.82	dBm	INFO
Ref. Frequency	--	--	5175.600	MHz	INFO

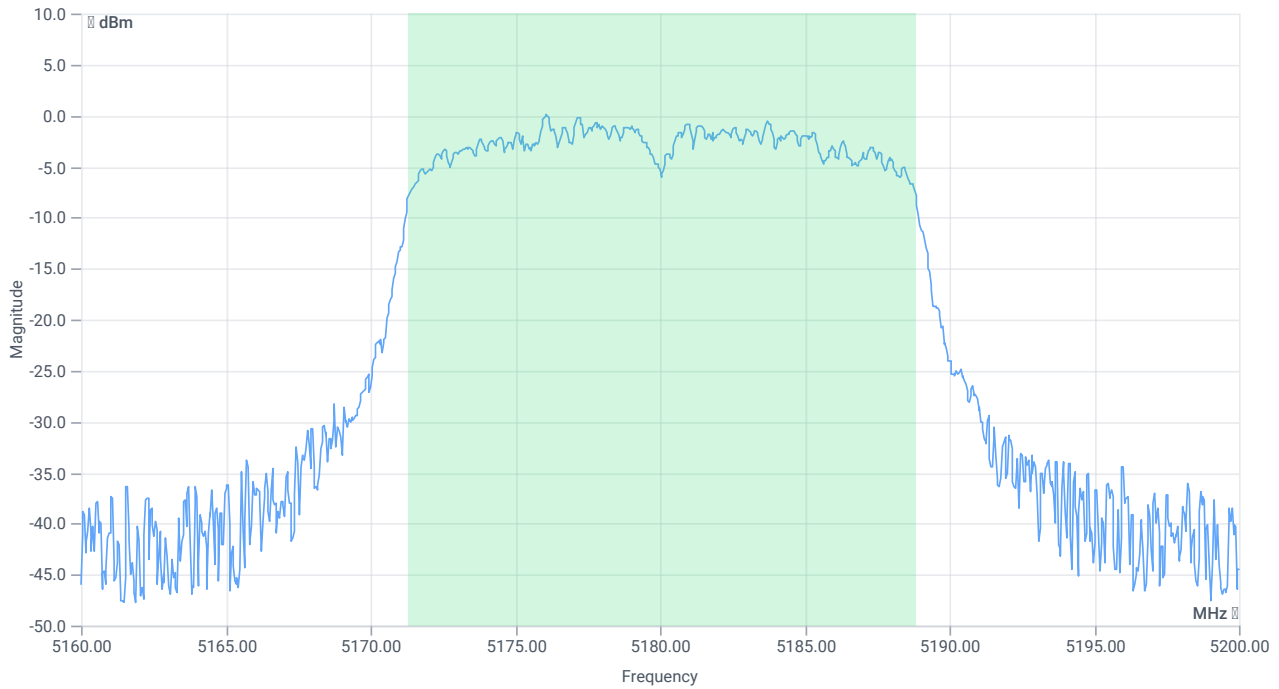
Evaluation max. Duty Cycle

Duty Cycle evaluation

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Result Summary					
Number of detected Bursts:48					
Duty Cycle (Burst Ratio) max	--	--	0.938	--	INFO
Duty Cycle max	--	--	0.278	dB	INFO
Duty Cycle (Burst Ratio) min	--	--	0.893	--	INFO
Duty Cycle min	--	--	0.491	dB	INFO
Max TX Burst Length	--	--	1.9	ms	INFO
Min Gap Length	--	--	0.125	ms	INFO
Max Gap Length	--	--	0.225	ms	INFO



Evaluation Bandwidth



BW 99PCT

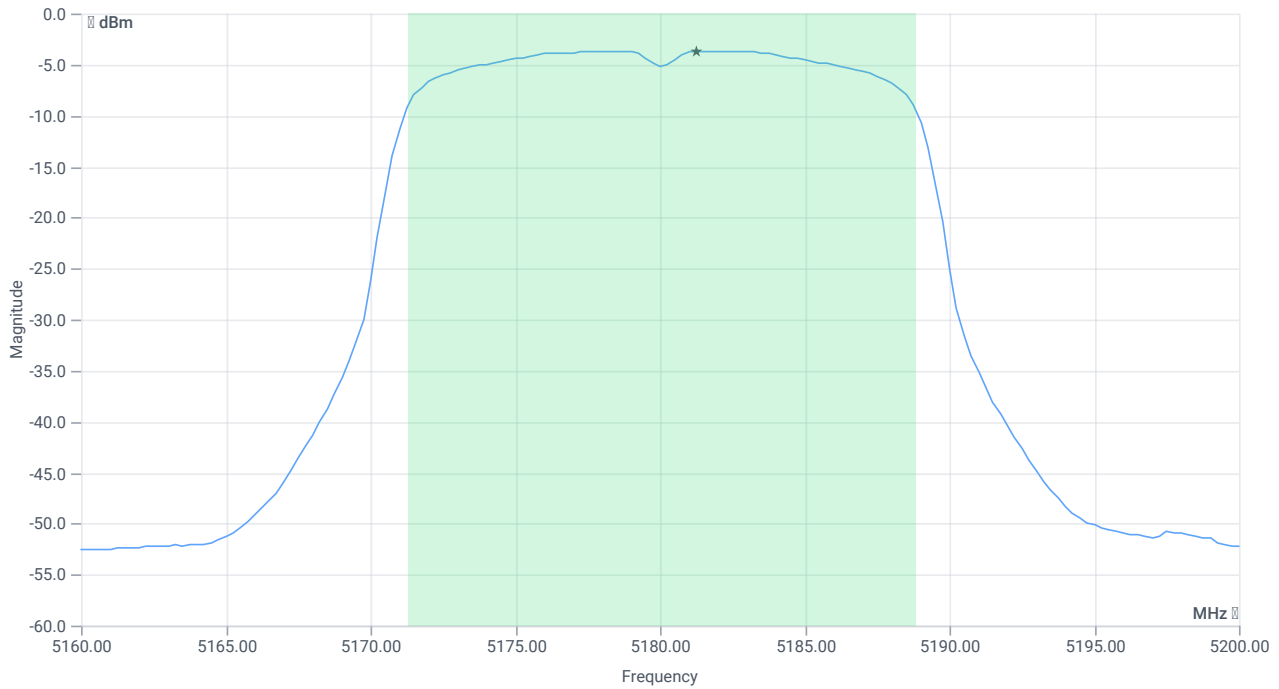
RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 99%	---	---	17.502	MHz	INFO
T1 99%	---	---	5171.3287	MHz	INFO
T2 99%	---	---	5188.8312	MHz	INFO

Maximum Output Power

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	15.82 15.09 15
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

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Max Output Power	--	--	7.49	dBm	INFO
Duty Cycle Correction	--	--	0.49	dB	INFO
Limit absolute					
Max Output Power DC corrected	--	24	7.98	dBm	na
Limit: 11 dBm + 10 log 17.502					
Max Output Power DC corrected	--	23.43	7.98	dBm	na

Power Spectral Density

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Power Spectral Density	--	--	-3.68	dBm/1MHz	INFO
Duty Cycle Correction	--	--	0.49	dB	INFO
Power Spectral Density DC corrected	--	11	-3.19	dBm/1MHz	PASS

Verdict

PASS

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

Test References

TC Start	11.05.2023 13:24:26
Ambit Temp [°C] Humidity [rel%]	22.9 42
System Version	4.0.1.0
Test Specification	FCC 15.407, ISED RSS247 -
Test Method	26dB Bandwidth KDB789033 D02, C.1 / ISED RSS-GEN
TC Version	0.0.1
My Description	FCC 15.407 Bandwidths - WLAN5Gx n-HT20 mode U-NII-1
Add. 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]	0
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer

Test Equipment

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

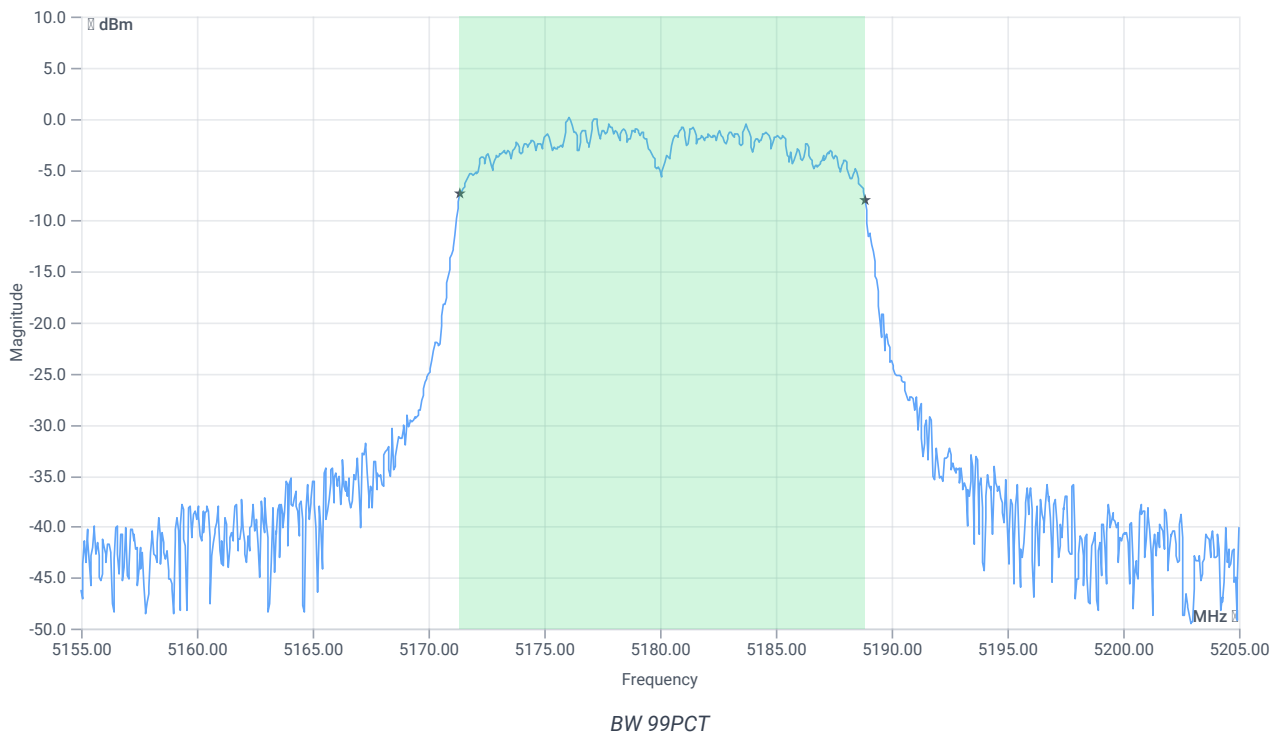
Test at TX 5180 MHz

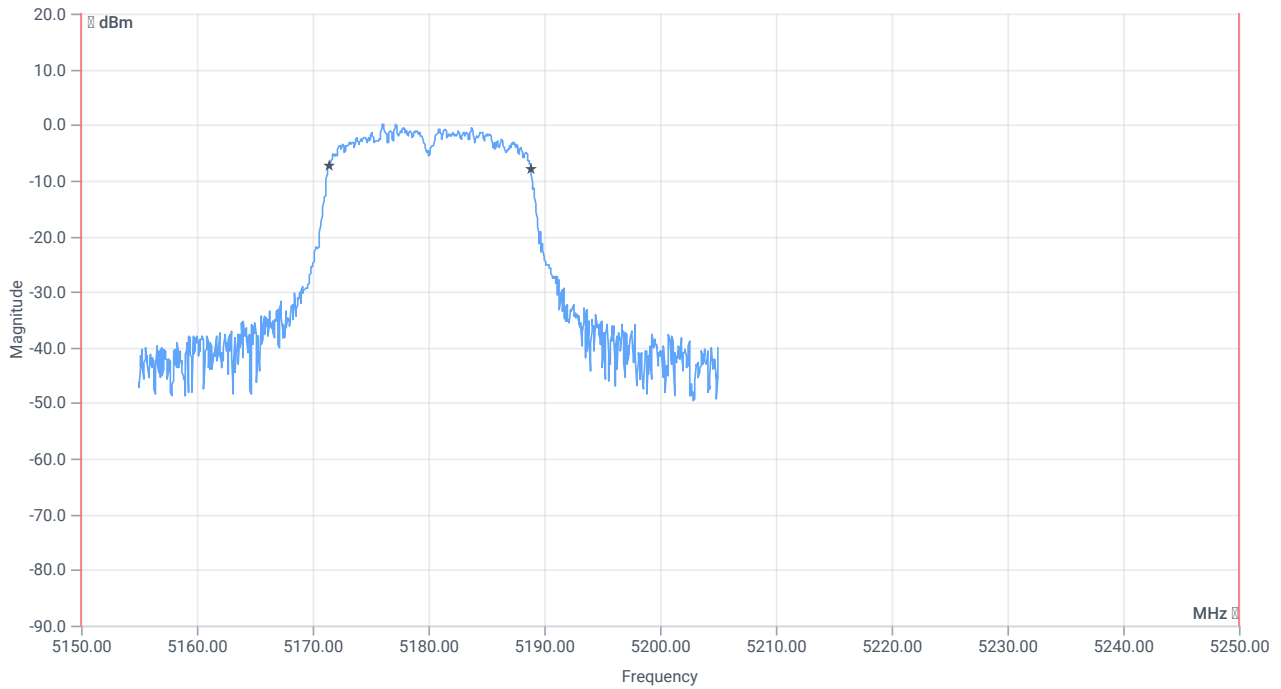
RESULT: Reference Power cond.

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	--	--	4.72	dBm	INFO
Ref. Frequency	--	--	5177.400	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	12.72 15.09 15
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

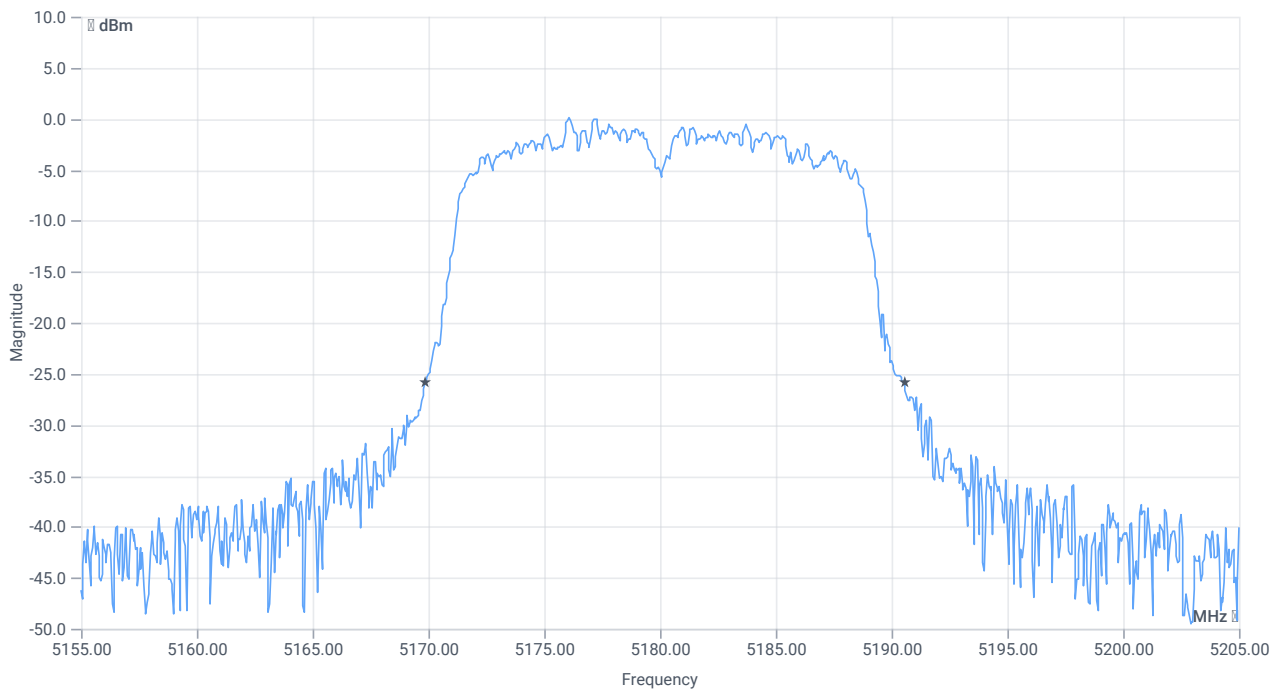




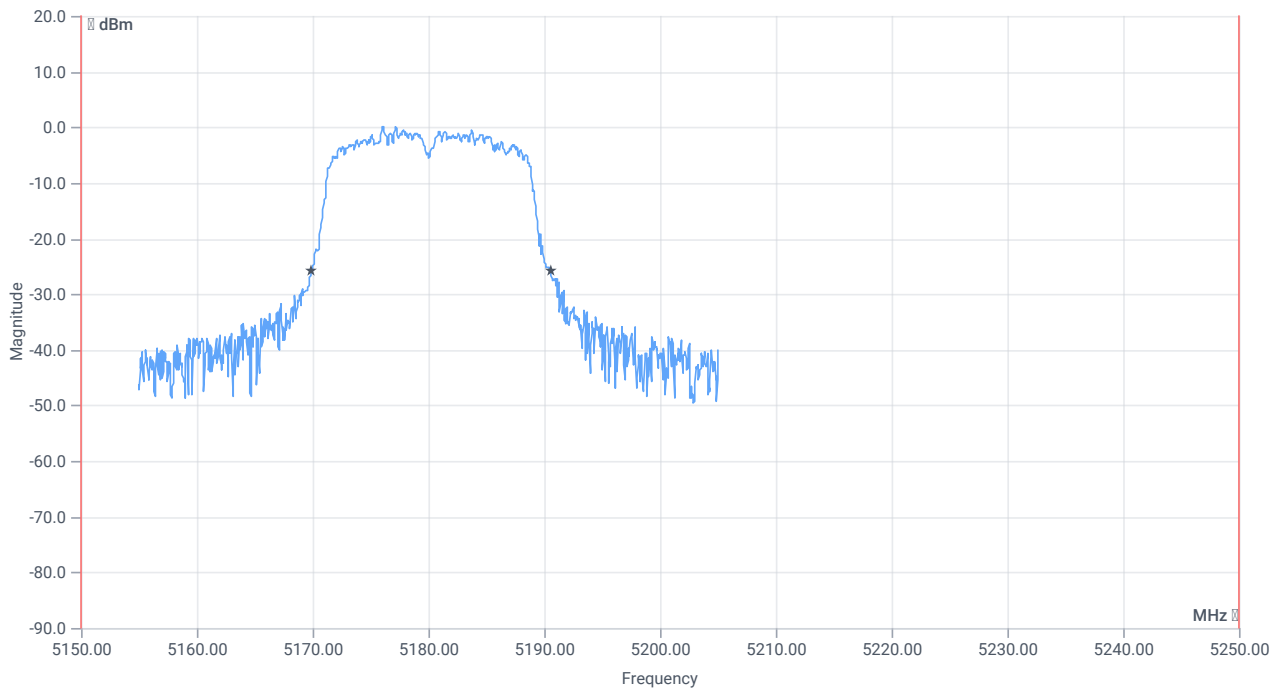
BW within Band 99PCT

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 99%	--	--	17.483	MHz	INFO
T1 99%	5150.000000	--	5171.3586	MHz	PASS
T2 99%	--	5250.000000	5188.8412	MHz	PASS



BW 26dB



BW within Band 26dB

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 26dB	--	--	20.7	MHz	INFO
T1 26dB	5150.000000	--	5169.8500	MHz	PASS
T2 26dB	--	5250.000000	5190.5500	MHz	PASS

Verdict

PASS

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

Test References

TC Start	11.05.2023 13:26:39
Ambit Temp [°C] Humidity [rel%]	22.9 41
System Version	4.0.1.0
Test Specification	FCC 15.407 -
Test Method	KDB789033 D02, F, E.2.e.
TC Version	0.0.1
My Description	FCC 15.407 Max Output Power & PSD - WLAN5Gx n-HT20 mode U-NII-1
Add. 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] 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]	0
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer

Test Equipment

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

Test at TX 5200 MHz

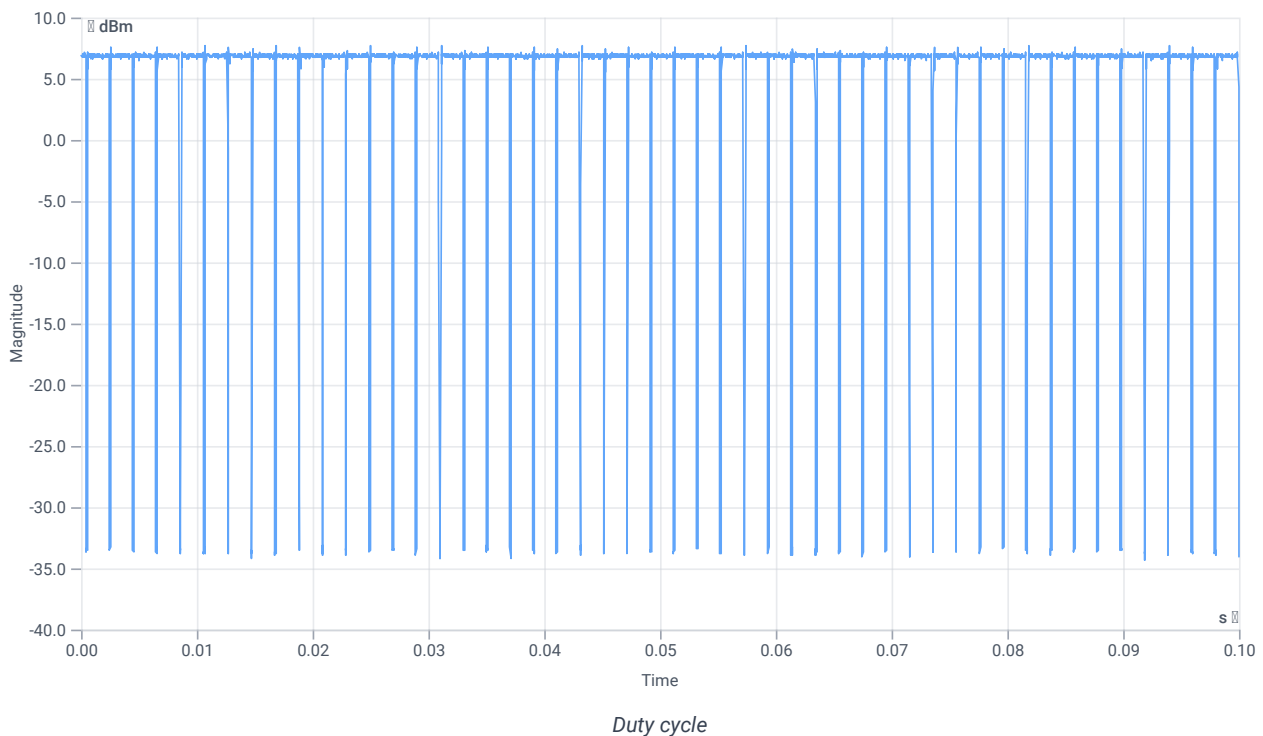
RESULT: Reference Power cond.

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	--	--	5.70	dBm	INFO
Ref. Frequency	--	--	5197.600	MHz	INFO

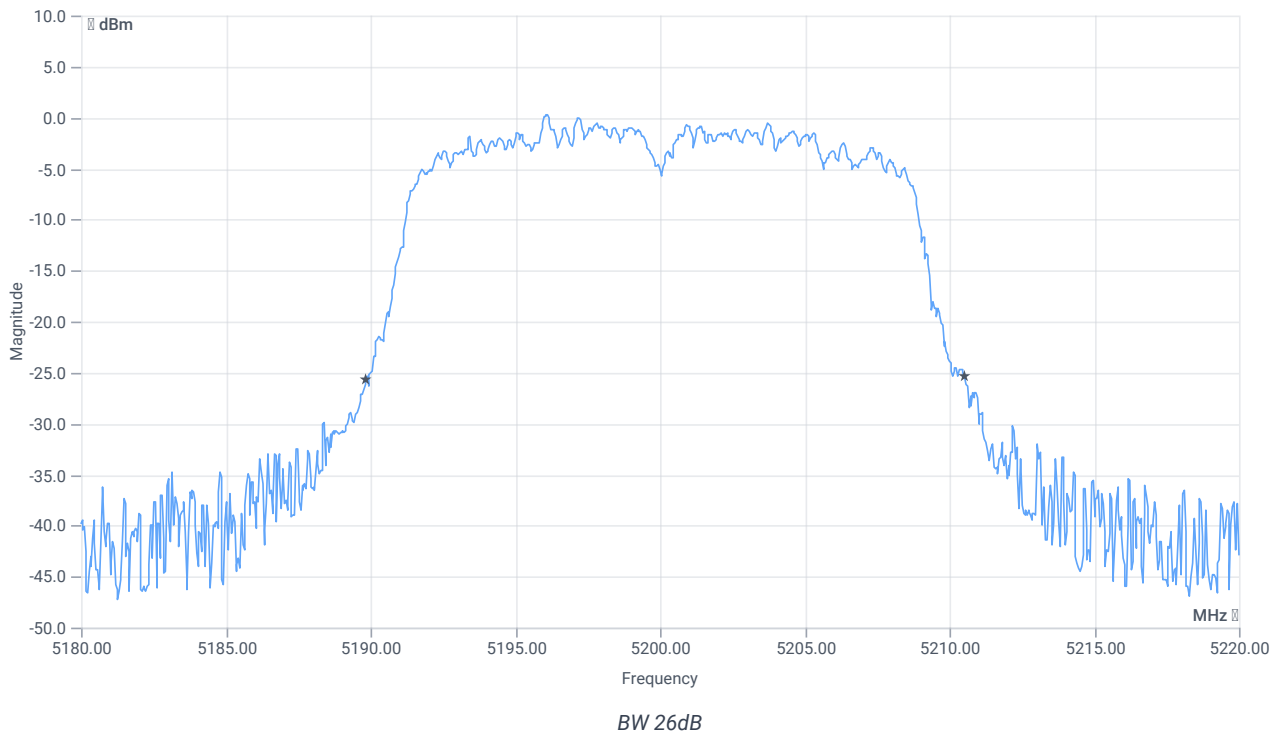
Evaluation max. Duty Cycle

Duty Cycle evaluation

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Result Summary					
Number of detected Bursts:48					
Duty Cycle (Burst Ratio) max	--	--	0.938	--	INFO
Duty Cycle max	--	--	0.278	dB	INFO
Duty Cycle (Burst Ratio) min	--	--	0.893	--	INFO
Duty Cycle min	--	--	0.491	dB	INFO
Max TX Burst Length	--	--	1.9	ms	INFO
Min Gap Length	--	--	0.125	ms	INFO
Max Gap Length	--	--	0.225	ms	INFO



Evaluation Bandwidth



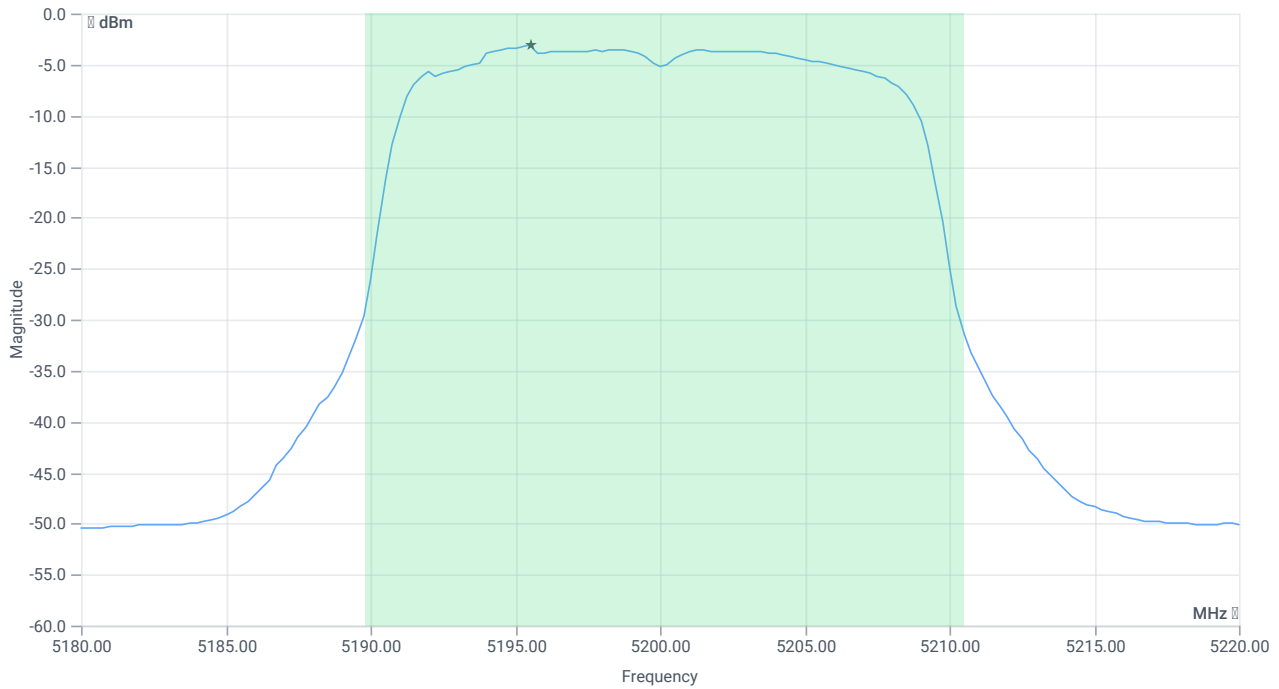
RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 26dB	---	---	20.68	MHz	INFO
T1 26dB	---	---	5189.8400	MHz	INFO
T2 26dB	---	---	5210.5200	MHz	INFO

Maximum Output Power

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	17.70 15.01 20
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

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Max Output Power	--	--	7.78	dBm	INFO
Duty Cycle Correction	--	--	0.49	dB	INFO
Limit absolute					
Max Output Power DC corrected	--	24	8.27	dBm	PASS
Limit: 11 dBm + 10 log 20.68					
Max Output Power DC corrected	--	24.16	8.27	dBm	na

Power Spectral Density

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Power Spectral Density	--	--	-3.1	dBm/1MHz	INFO
Duty Cycle Correction	--	--	0.49	dB	INFO
Power Spectral Density DC corrected	--	11	-2.61	dBm/1MHz	PASS

Verdict

PASS

ISED RSS247 # Max output power and psd ~ WLAN5Gx n-HT20 mode U-NII-1

Test References

TC Start	11.05.2023 13:28:07
Ambit Temp [°C] Humidity [rel%]	22.9 42
System Version	4.0.1.0
Test Specification	ISED RSS247 -
Test Method	
TC Version	0.0.1
My Description	ISED Max Output Power & PSD - WLAN5Gx n-HT20 mode U-NII-1
Add. 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] 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]	0
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer

Test Equipment

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

Test at TX 5200 MHz

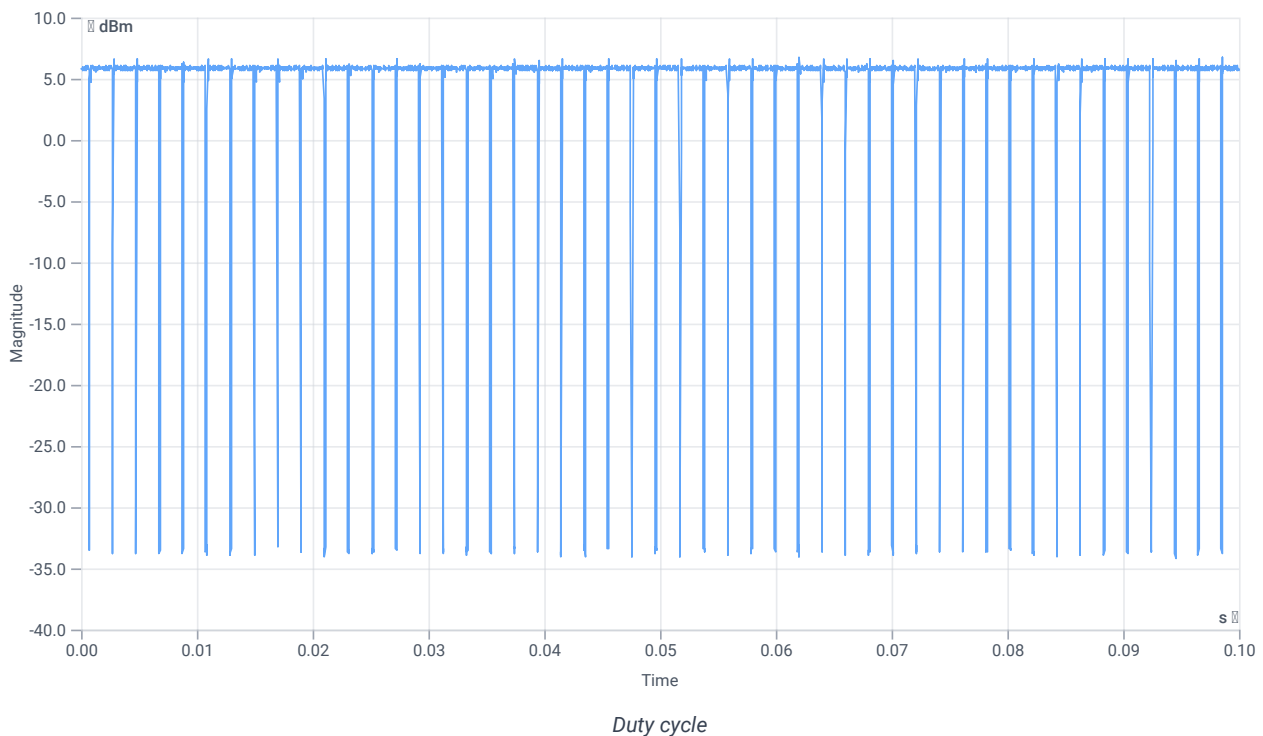
RESULT: Reference Power cond.

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	--	--	4.09	dBm	INFO
Ref. Frequency	--	--	5199.400	MHz	INFO

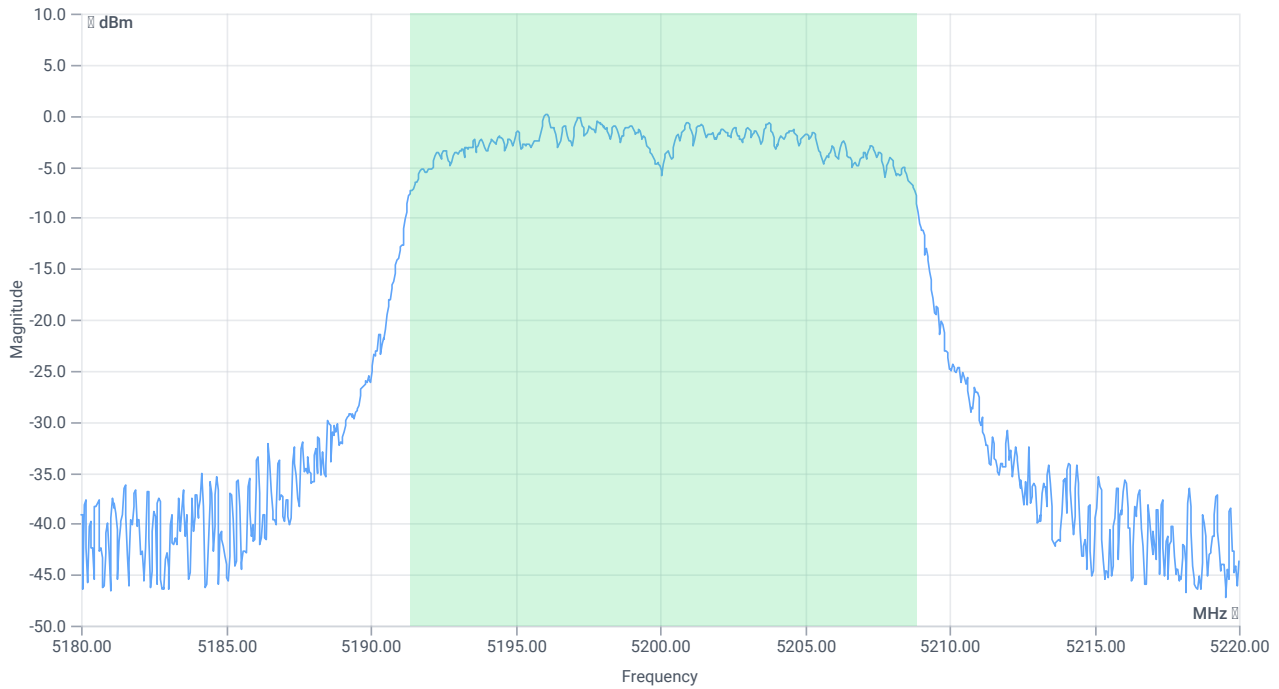
Evaluation max. Duty Cycle

Duty Cycle evaluation

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Result Summary					
Number of detected Bursts:48					
Duty Cycle (Burst Ratio) max	--	--	0.938	--	INFO
Duty Cycle max	--	--	0.278	dB	INFO
Duty Cycle (Burst Ratio) min	--	--	0.893	--	INFO
Duty Cycle min	--	--	0.491	dB	INFO
Max TX Burst Length	--	--	1.9	ms	INFO
Min Gap Length	--	--	0.125	ms	INFO
Max Gap Length	--	--	0.225	ms	INFO



Evaluation Bandwidth



BW 99PCT

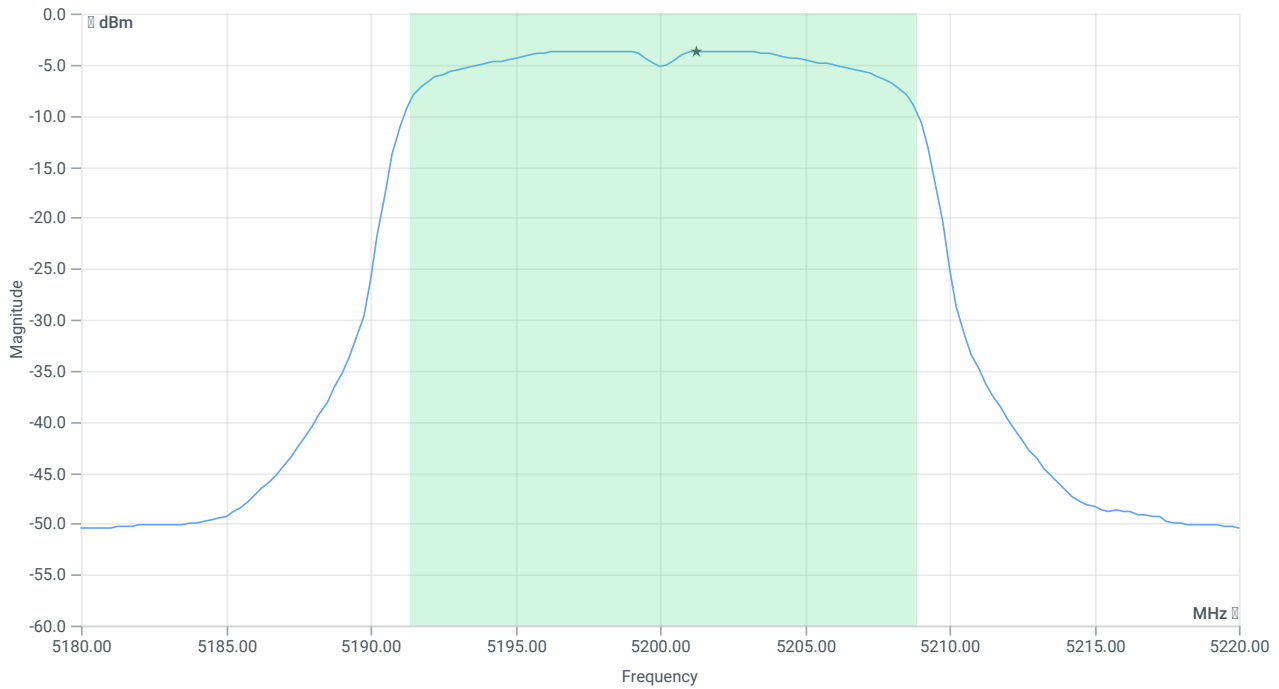
RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 99%	---	---	17.463	MHz	INFO
T1 99%	---	---	5191.3686	MHz	INFO
T2 99%	---	---	5208.8312	MHz	INFO

Maximum Output Power

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	16.09 15.01 20
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

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Max Output Power	--	--	7.52	dBm	INFO
Duty Cycle Correction	--	--	0.49	dB	INFO
Limit absolute					
Max Output Power DC corrected	--	24	8.01	dBm	na
Limit: 11 dBm + 10 log 17.463					
Max Output Power DC corrected	--	23.42	8.01	dBm	na

Power Spectral Density

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Power Spectral Density	--	--	-3.65	dBm/1MHz	INFO
Duty Cycle Correction	--	--	0.49	dB	INFO
Power Spectral Density DC corrected	--	11	-3.16	dBm/1MHz	PASS

Verdict

PASS

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

Test References

TC Start	11.05.2023 13:29:35
Ambit Temp [°C] Humidity [rel%]	22.9 42
System Version	4.0.1.0
Test Specification	FCC 15.407, ISED RSS247 -
Test Method	26dB Bandwidth KDB789033 D02, C.1 / ISED RSS-GEN
TC Version	0.0.1
My Description	FCC 15.407 Bandwidths - WLAN5Gx n-HT20 mode U-NII-1
Add. 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] 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]	0
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer

Test Equipment

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

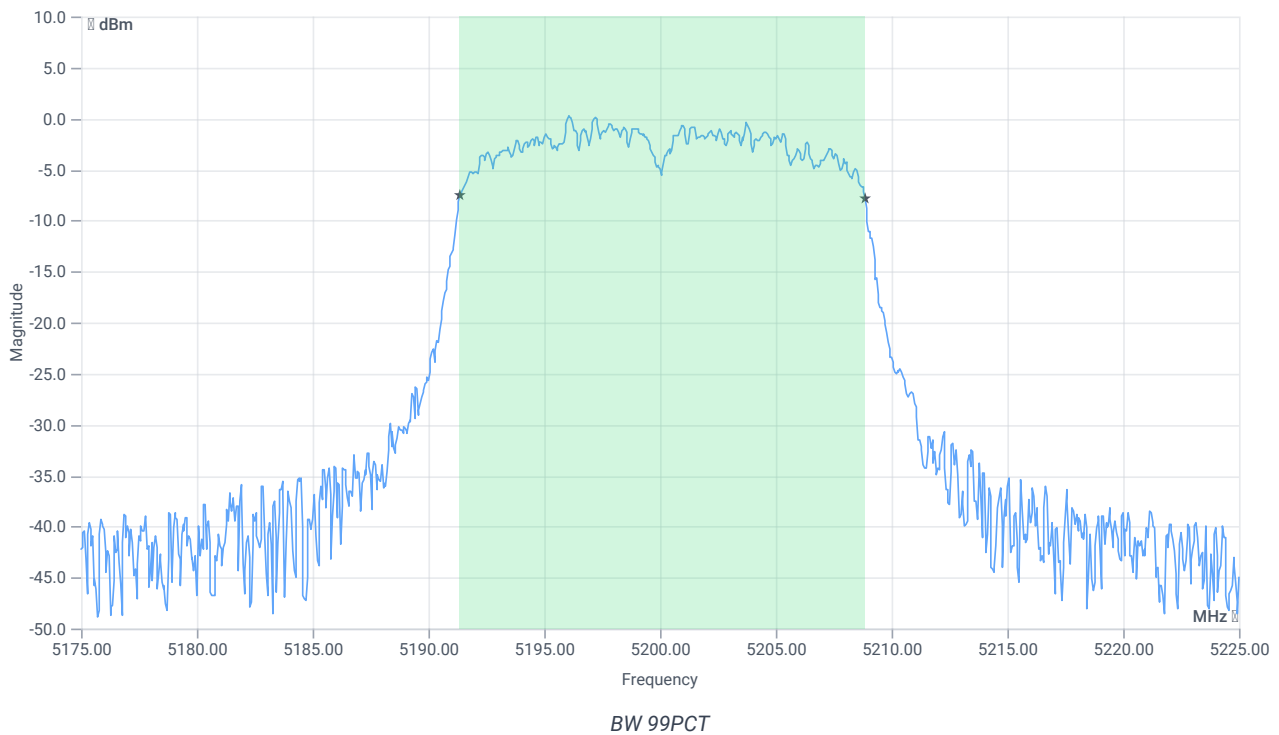
Test at TX 5200 MHz

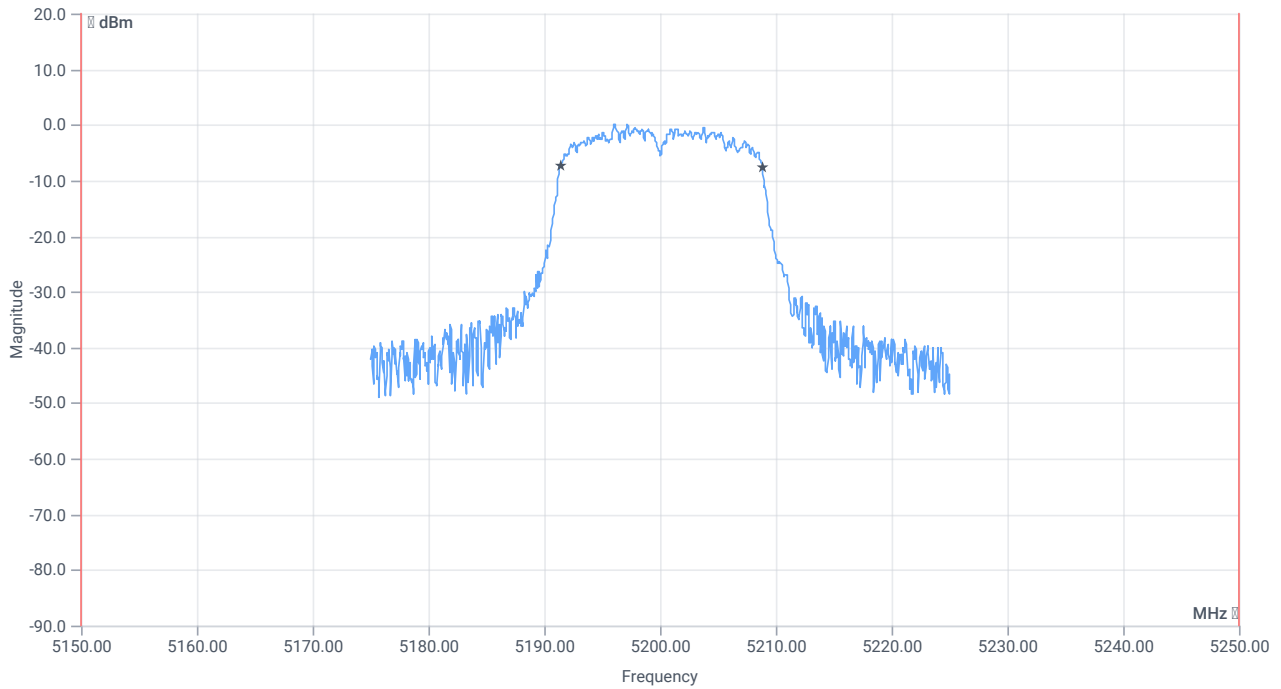
RESULT: Reference Power cond.

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	--	--	4.34	dBm	INFO
Ref. Frequency	--	--	5201.200	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	12.34 15.01 15
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

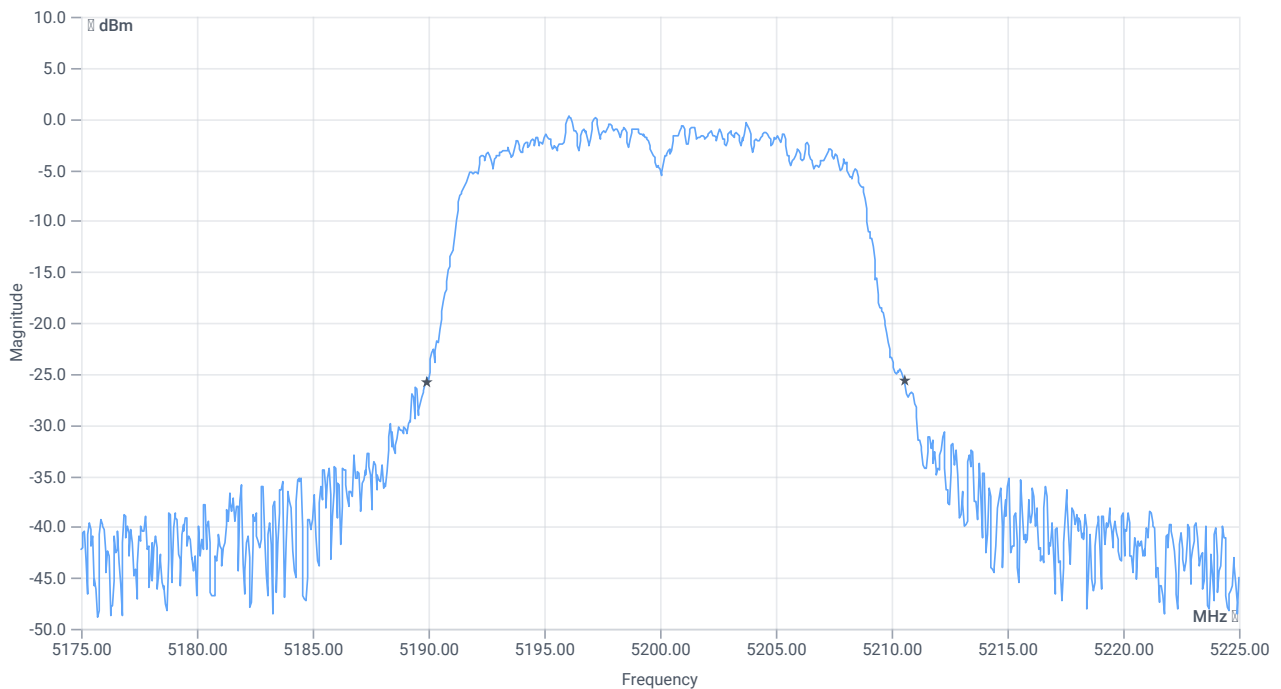




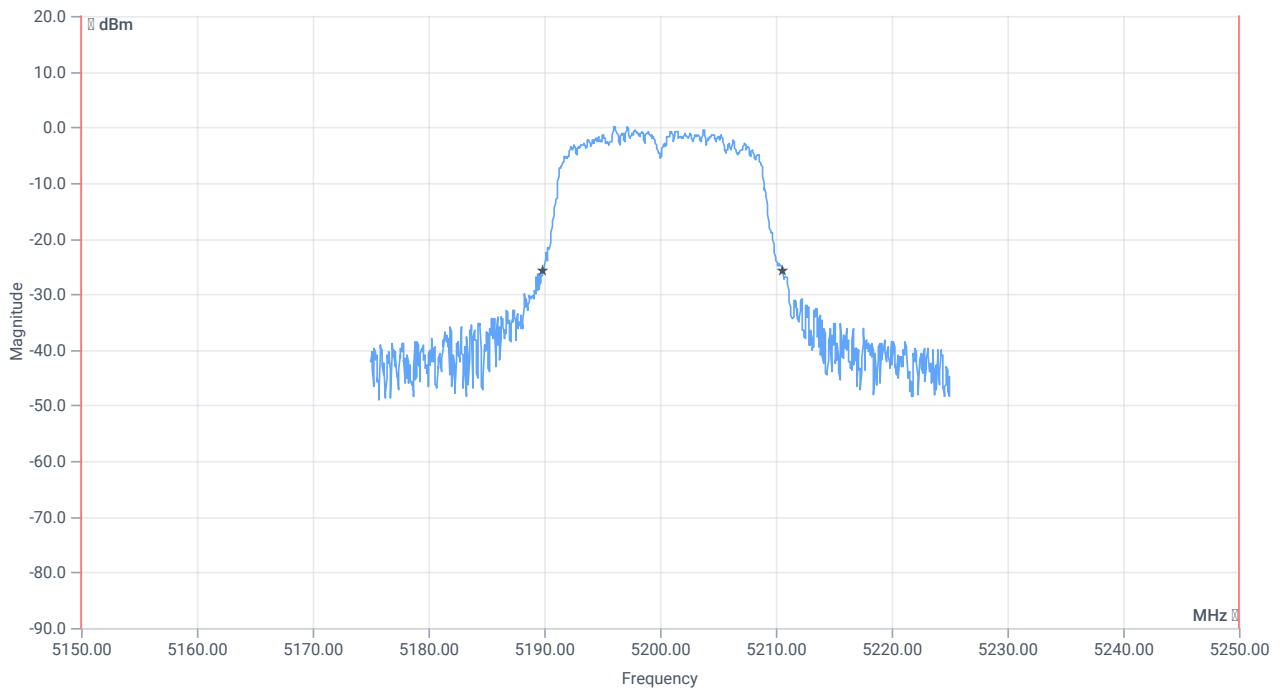
BW within Band 99PCT

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 99%	--	--	17.483	MHz	INFO
T1 99%	5150.000000	--	5191.3586	MHz	PASS
T2 99%	--	5250.000000	5208.8412	MHz	PASS



BW 26dB



BW within Band 26dB

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 26dB	---	---	20.65	MHz	INFO
T1 26dB	5150.000000	---	5189.9000	MHz	PASS
T2 26dB	---	5250.000000	5210.5500	MHz	PASS

Verdict

PASS

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

Test References

TC Start	11.05.2023 13:31:15
Ambit Temp [°C] Humidity [rel%]	22.9 42
System Version	4.0.1.0
Test Specification	FCC 15.407 -
Test Method	KDB789033 D02, F, E.2.e.
TC Version	0.0.1
My Description	FCC 15.407 Max Output Power & PSD - WLAN5Gx n-HT20 mode U-NII-1
Add. 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] 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]	0
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer

Test Equipment

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

Test at TX 5240 MHz

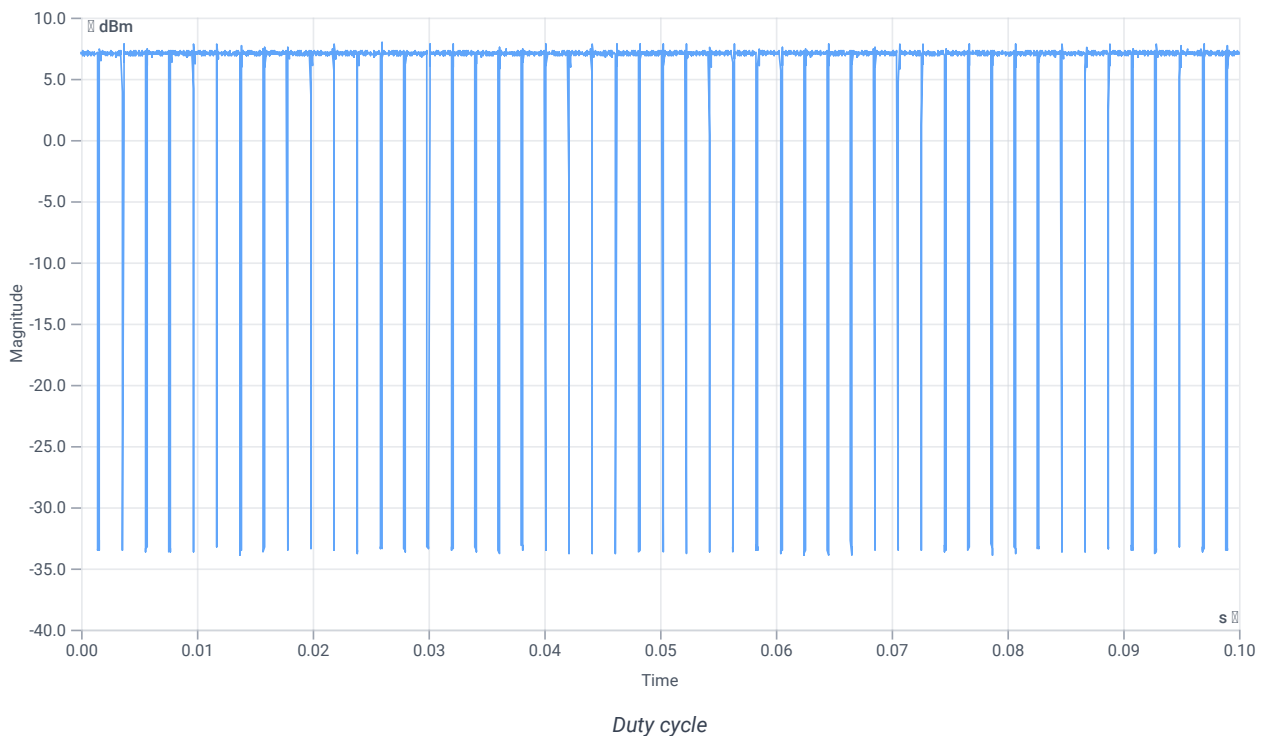
RESULT: Reference Power cond.

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	--	--	5.91	dBm	INFO
Ref. Frequency	--	--	5237.600	MHz	INFO

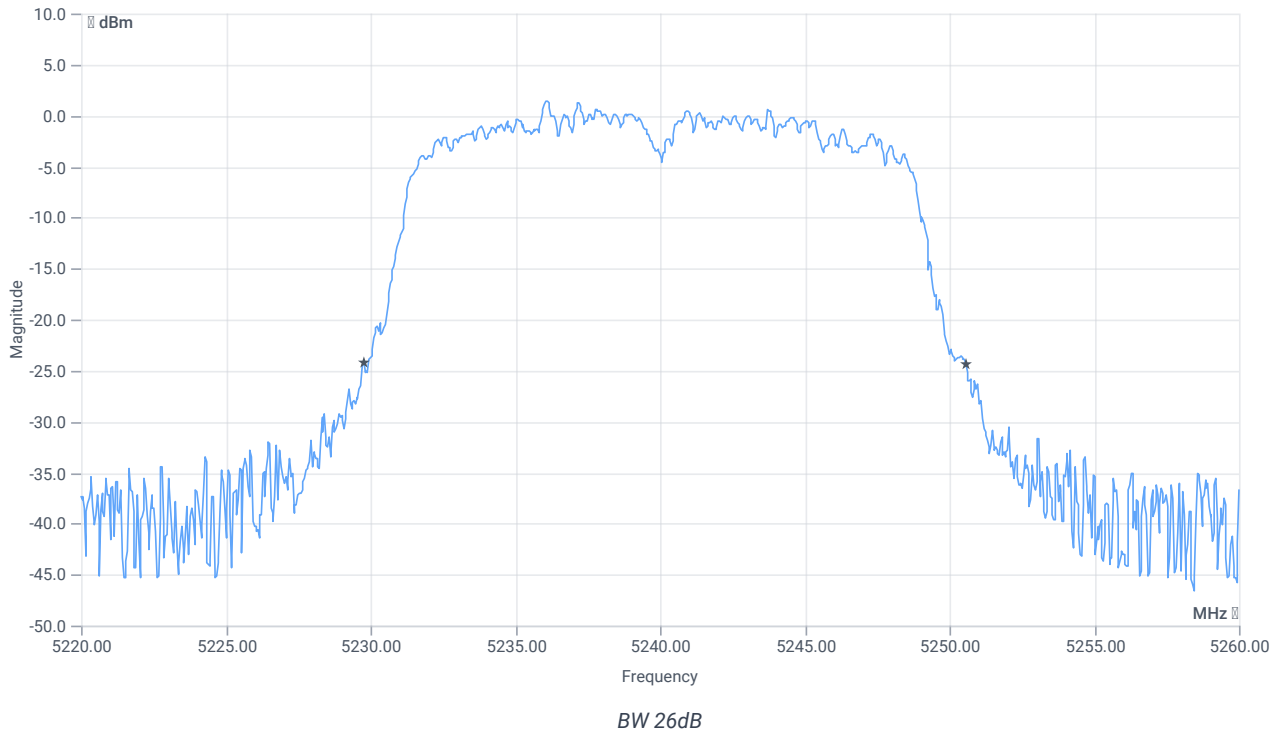
Evaluation max. Duty Cycle

Duty Cycle evaluation

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Result Summary					
Number of detected Bursts:48					
Duty Cycle (Burst Ratio) max	--	--	0.938	--	INFO
Duty Cycle max	--	--	0.278	dB	INFO
Duty Cycle (Burst Ratio) min	--	--	0.893	--	INFO
Duty Cycle min	--	--	0.491	dB	INFO
Max TX Burst Length	--	--	1.9	ms	INFO
Min Gap Length	--	--	0.125	ms	INFO
Max Gap Length	--	--	0.225	ms	INFO



Evaluation Bandwidth



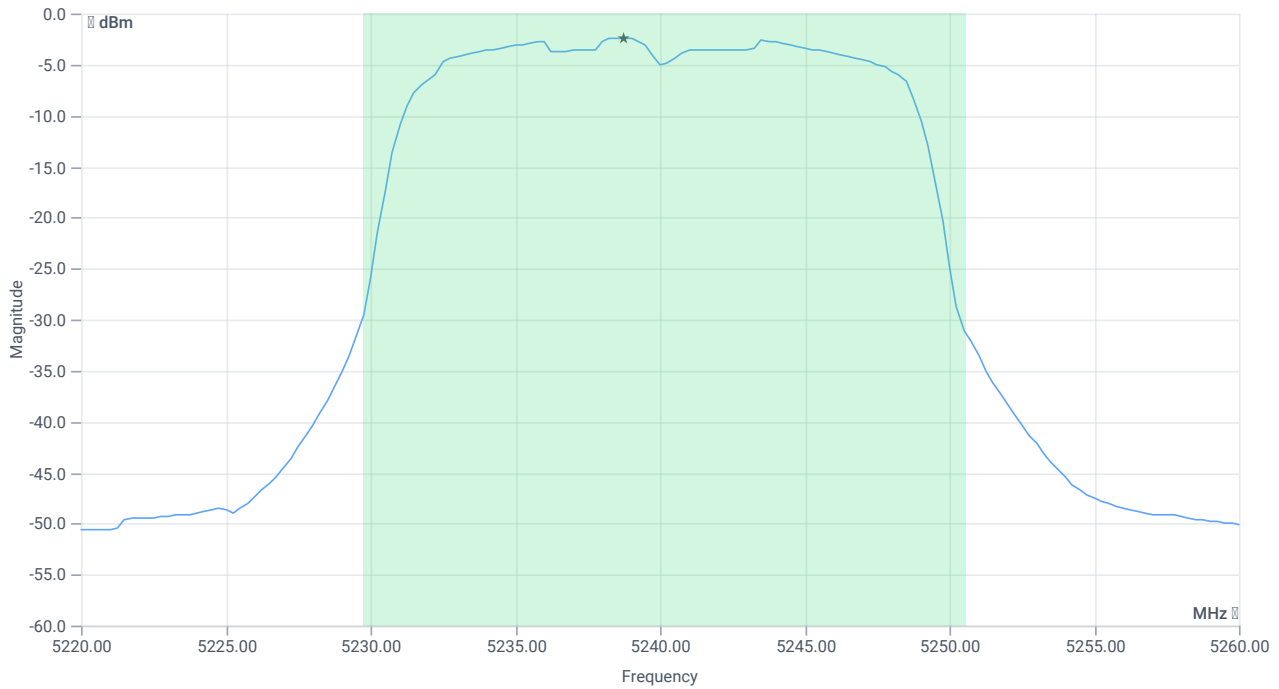
RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 26dB	---	---	20.8	MHz	INFO
T1 26dB	---	---	5229.7600	MHz	INFO
T2 26dB	---	---	5250.5600	MHz	INFO

Maximum Output Power

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	17.91 15.07 20
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

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Max Output Power	--	--	8.39	dBm	INFO
Duty Cycle Correction	--	--	0.49	dB	INFO
Limit absolute					
Max Output Power DC corrected	--	24	8.88	dBm	PASS
Limit: 11 dBm + 10 log 20.8					
Max Output Power DC corrected	--	24.18	8.88	dBm	na

Power Spectral Density

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Power Spectral Density	--	--	-2.44	dBm/1MHz	INFO
Duty Cycle Correction	--	--	0.49	dB	INFO
Power Spectral Density DC corrected	--	11	-1.95	dBm/1MHz	PASS

Verdict

PASS

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

Test References

TC Start	11.05.2023 13:34:10
Ambit Temp [°C] Humidity [rel%]	22.9 42
System Version	4.0.1.0
Test Specification	FCC 15.407, ISED RSS247 -
Test Method	26dB Bandwidth KDB789033 D02, C.1 / ISED RSS-GEN
TC Version	0.0.1
My Description	FCC 15.407 Bandwidths - WLAN5Gx n-HT20 mode U-NII-1
Add. 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] 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]	0
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer

Test Equipment

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

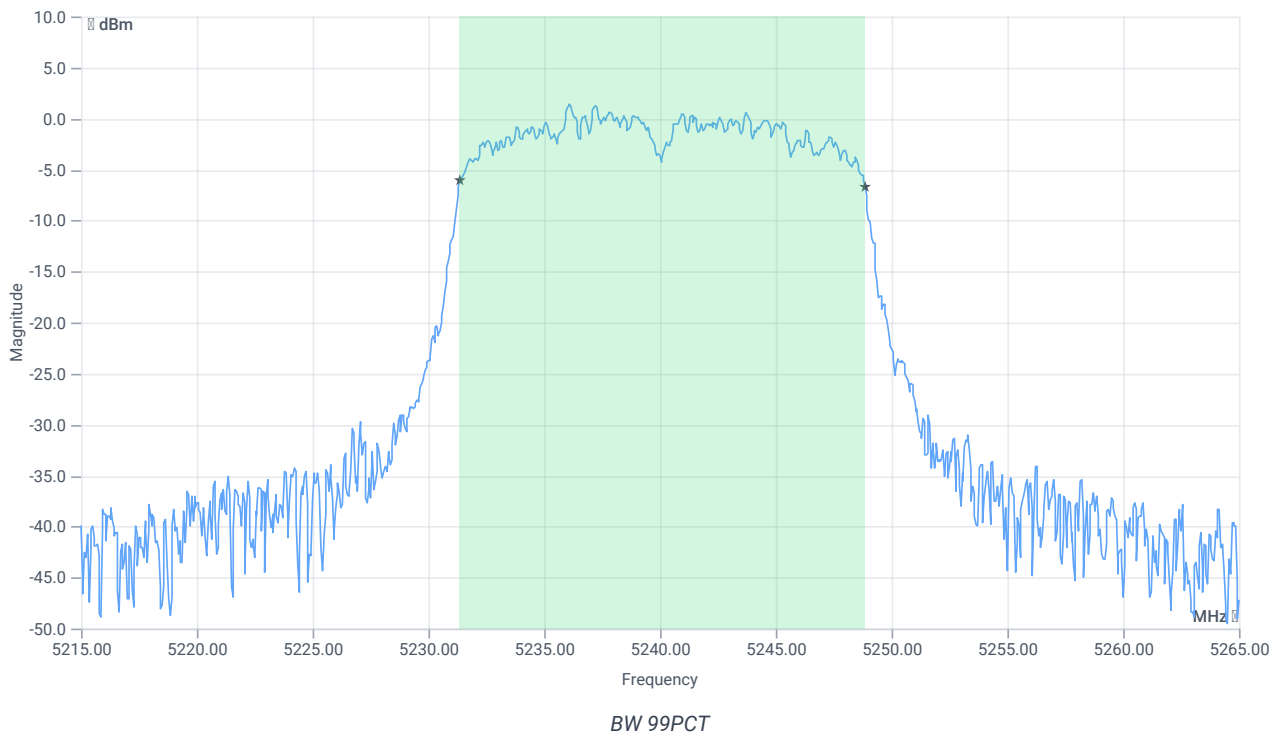
Test at TX 5240 MHz

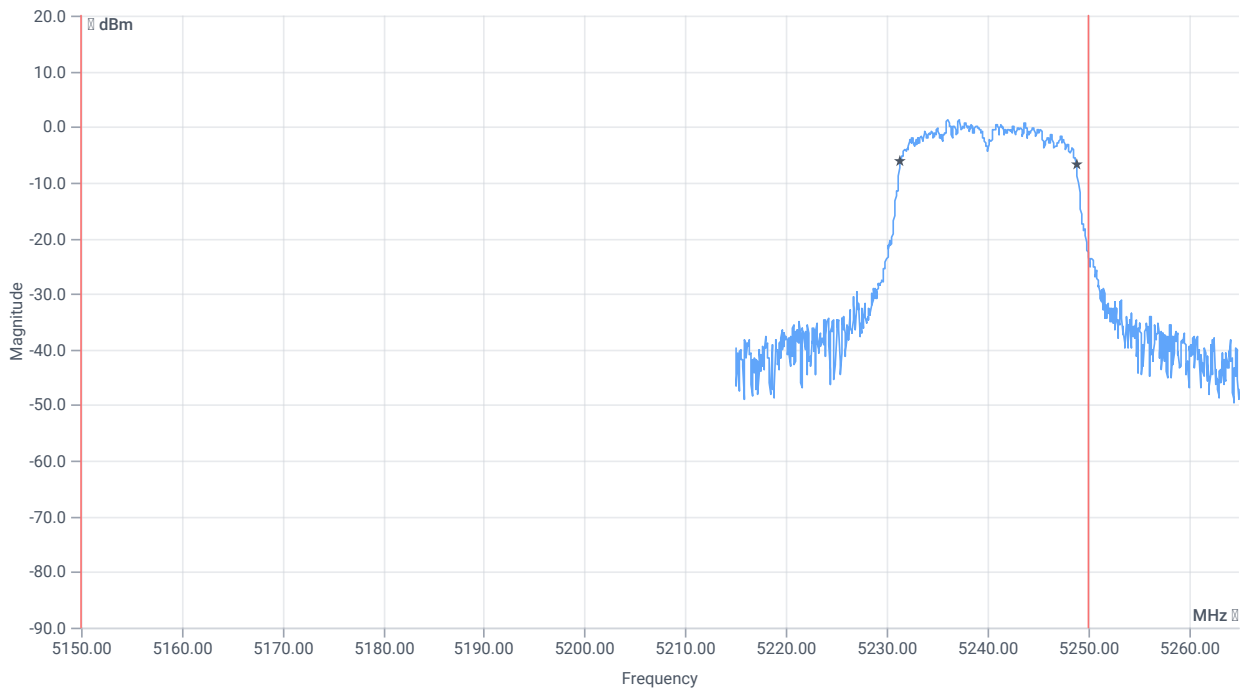
RESULT: Reference Power cond.

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	--	--	5.24	dBm	INFO
Ref. Frequency	--	--	5242.800	MHz	INFO

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	13.24 15.07 15
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

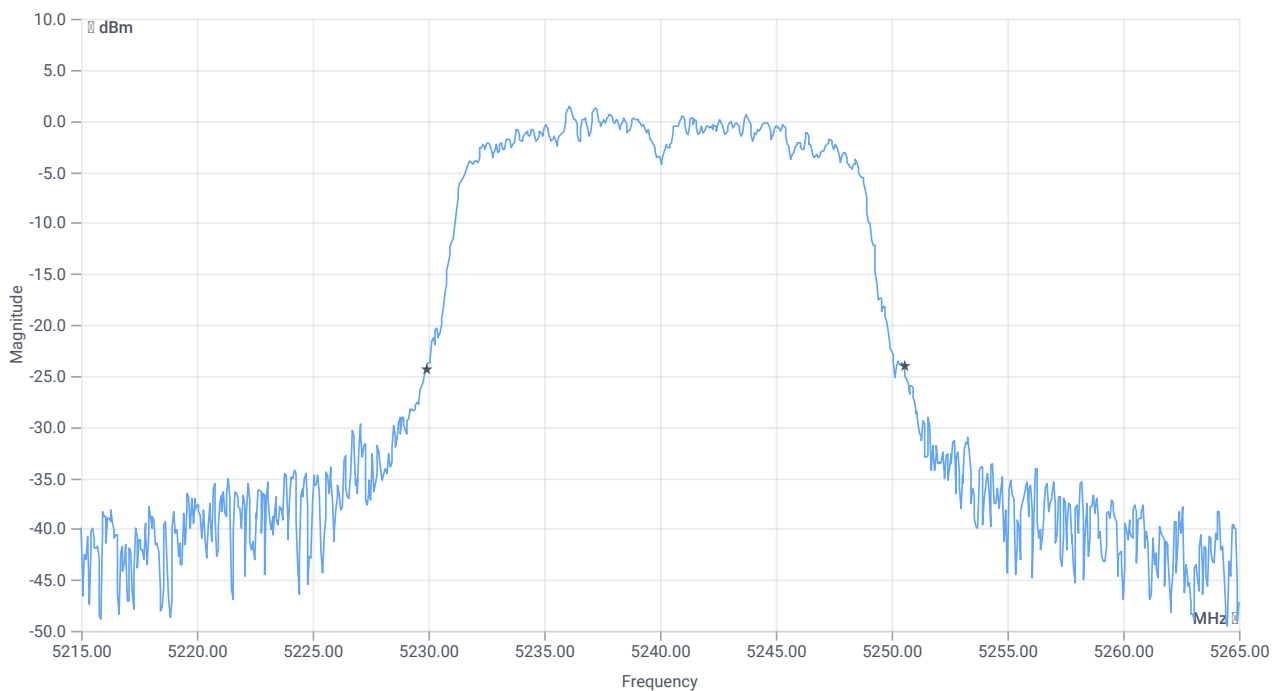




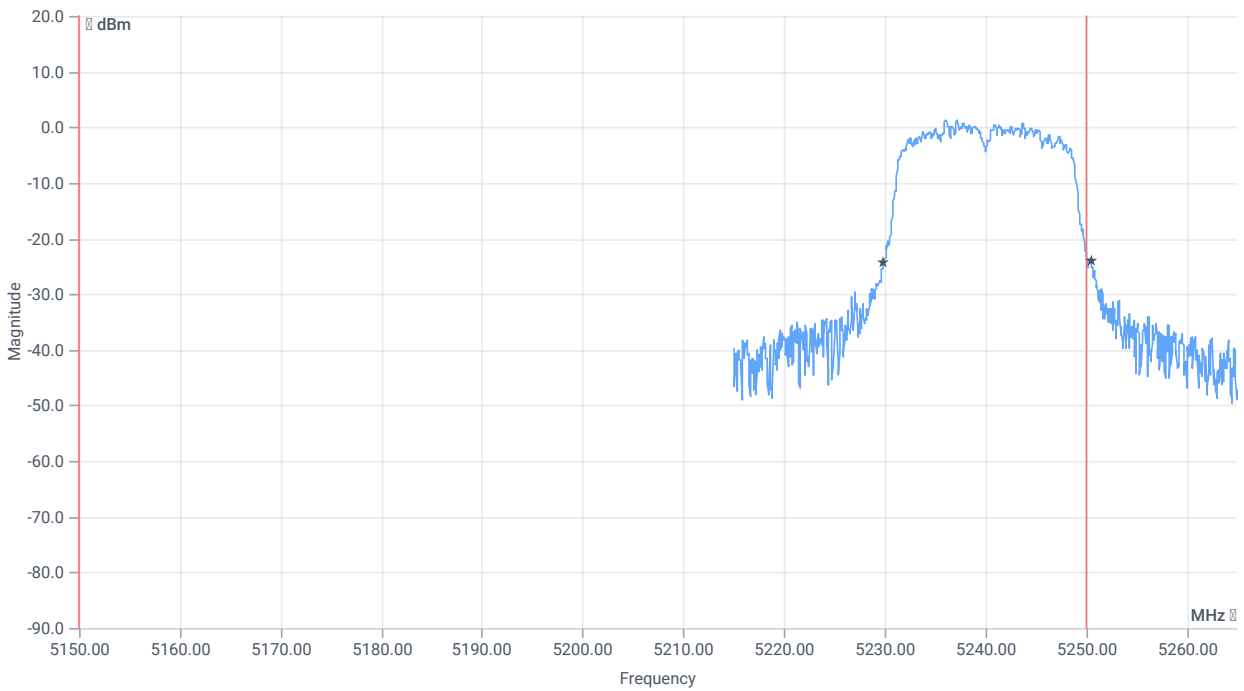
BW within Band 99PCT

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 99%	--	--	17.483	MHz	INFO
T1 99%	5150.000000	--	5231.3586	MHz	PASS
T2 99%	--	5250.000000	5248.8412	MHz	PASS



BW 26dB



BW within Band 26dB

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 26dB	---	---	20.65	MHz	INFO
T1 26dB	5150.000000	---	5229.9000	MHz	PASS
T2 26dB	---	5250.000000	5250.5500	MHz	DFS required

Verdict

PASS

ISED RSS247 # Max output power and psd ~ WLAN5Gx n-HT20 mode U-NII-1

Test References

TC Start	11.05.2023 13:37:03
Ambit Temp [°C] Humidity [rel%]	22.9 42
System Version	4.0.1.0
Test Specification	ISED RSS247 -
Test Method	
TC Version	0.0.1
My Description	ISED Max Output Power & PSD - WLAN5Gx n-HT20 mode U-NII-1
Add. 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] 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]	0
Switched Path	EUT - SignalingUnit - SpectrumAnalyzer

Test Equipment

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

Test at TX 5240 MHz

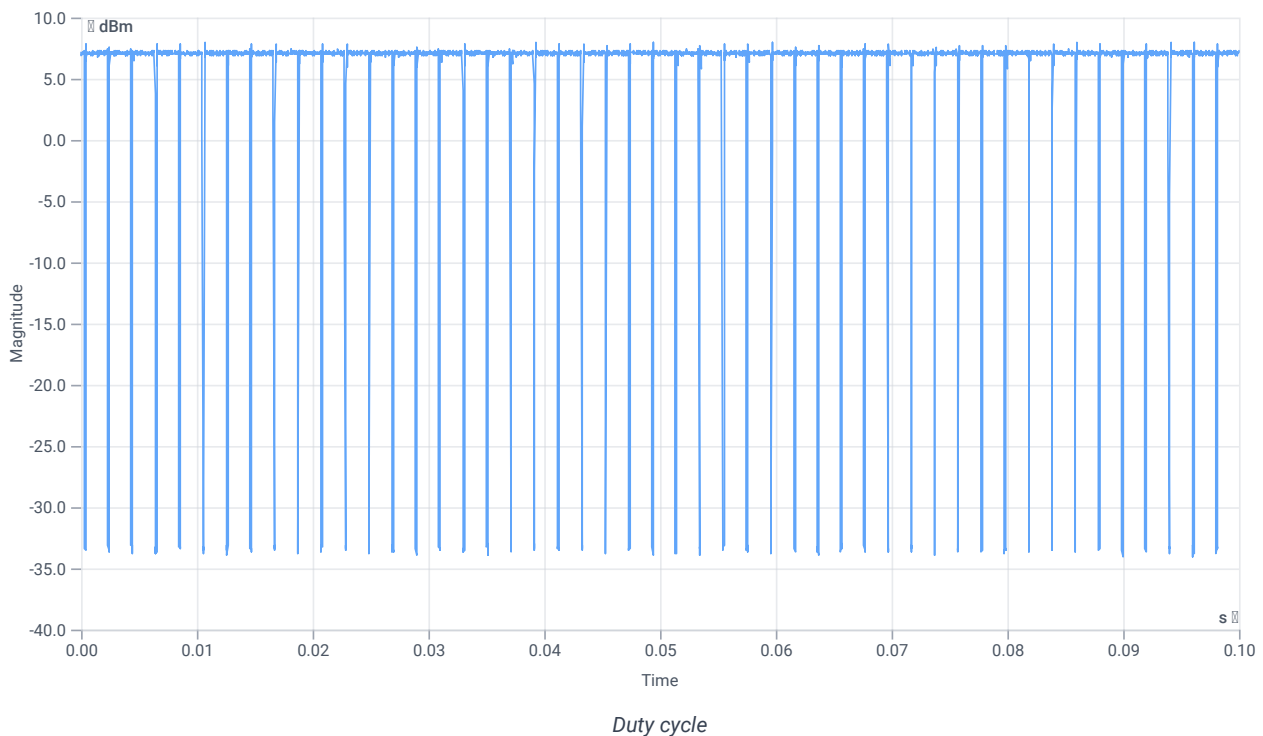
RESULT: Reference Power cond.

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Ref. Power 1MHz/1MHz cond.	--	--	6.50	dBm	INFO
Ref. Frequency	--	--	5241.400	MHz	INFO

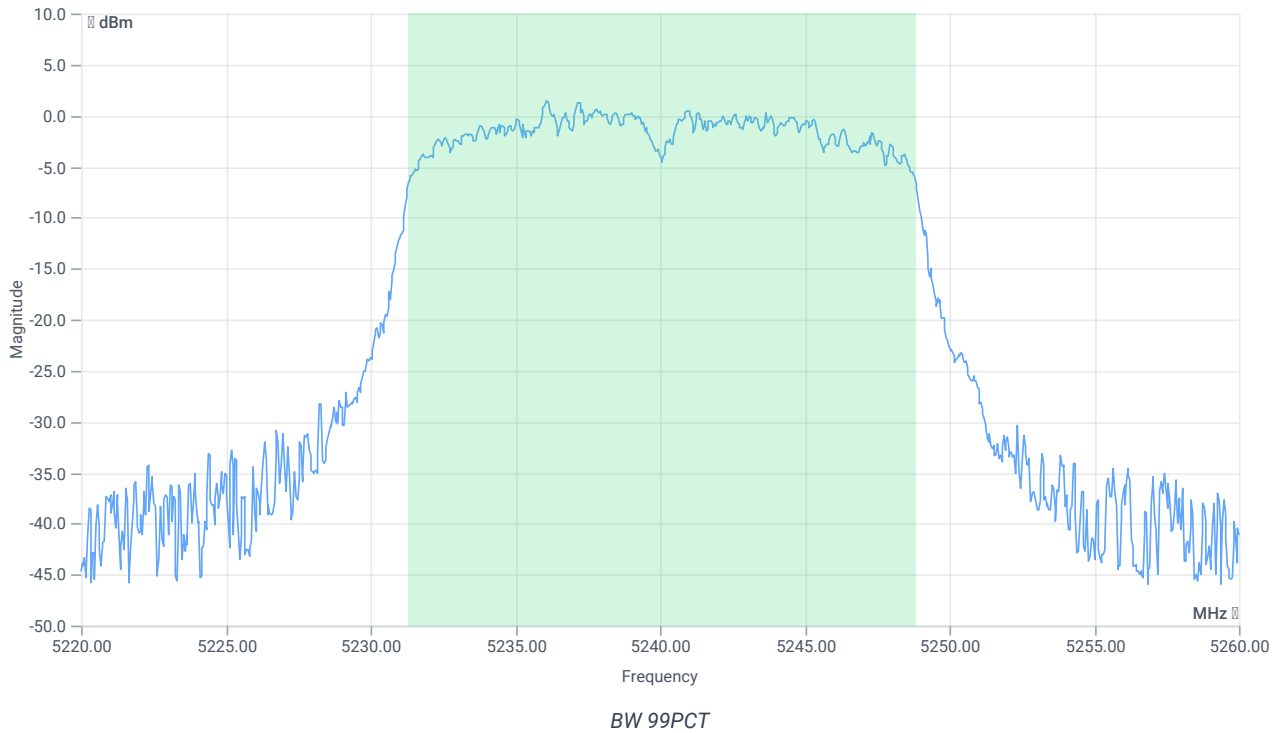
Evaluation max. Duty Cycle

Duty Cycle evaluation

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Result Summary					
Number of detected Bursts:48					
Duty Cycle (Burst Ratio) max	--	--	0.938	--	INFO
Duty Cycle max	--	--	0.278	dB	INFO
Duty Cycle (Burst Ratio) min	--	--	0.893	--	INFO
Duty Cycle min	--	--	0.491	dB	INFO
Max TX Burst Length	--	--	1.9	ms	INFO
Min Gap Length	--	--	0.125	ms	INFO
Max Gap Length	--	--	0.225	ms	INFO



Evaluation Bandwidth



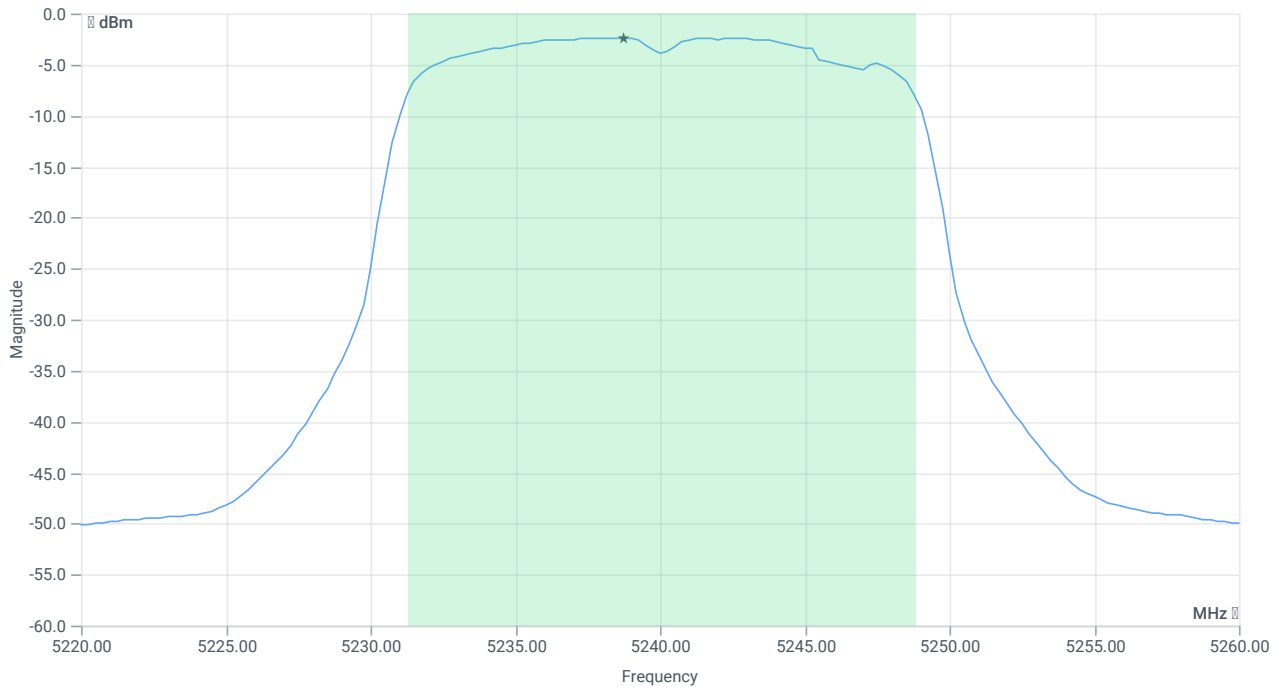
RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Bandwidth 99%	---	---	17.502	MHz	INFO
T1 99%	---	---	5231.3287	MHz	INFO
T2 99%	---	---	5248.8312	MHz	INFO

Maximum Output Power

READ SA SETTINGS:

RefLevel [dBm] RefLevelOffset [dB] InpAtt [dB]	18.50 15.07 20
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

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Max Output Power	--	--	8.68	dBm	INFO
Duty Cycle Correction	--	--	0.49	dB	INFO
Limit absolute					
Max Output Power DC corrected	--	24	9.17	dBm	na
Limit: 11 dBm + 10 log 17.502					
Max Output Power DC corrected	--	23.43	9.17	dBm	na

Power Spectral Density

RESULT

Test Description	Lower Limit	Upper Limit	Measured	Unit	Verdict
Power Spectral Density	--	--	-2.42	dBm/1MHz	INFO
Duty Cycle Correction	--	--	0.49	dB	INFO
Power Spectral Density DC corrected	--	11	-1.93	dBm/1MHz	PASS

Verdict

PASS

- END OF DOCUMENT -