



427 West 12800 South
Draper, UT 84020

Test Report Attachment

FCC ID	SWX-U7PRO
ISED ID	6545A-U7PRO
Equipment Under Test	U7-Pro
Test Report Serial Number	TR8594_01
Date of Test	3 October 2023
Report Issue Date	26 October 2023

Test Personnel

Testing performed by	Evan Hartzell
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Test Location

Testing was performed at the Unified Compliance Laboratory located at 427 West 12800 South, Draper, UT 84020. Unified Compliance Laboratory is accredited by National Voluntary Laboratory Accreditation Program (NVLAP); NVLAP Code 600241-0 which is effective until 30 June 2023. This site has also been registered with Innovations, Science and Economic Development (ISED) department as was accepted under Appendix B, Phase 1 procedures of the APEC Tel MRA for Canadian recognition. ISED No.: 25346, effective until 30 June 2024. Unified Compliance Laboratory has been assigned Conformity Assessment Number US0223 by ISED and MRA US5037.



NVLAP LAB CODE 600241-0

1 UNII-1 Band

1.1 a Mode

1.1.1 Summary

Test	Frequency (MHz)	Nominal Power (dBm)	Nominal Bandwidth (MHz)	Result
Emission Bandwidth 26 dB	5180.000	24.0	20.000000	PASS
RF output power	5180.000	24.0	20.000000	PASS
Power Spectral Density	5180.000	24.0	20.000000	PASS
Occupied Channel Bandwidth 99%	5180.000	24.0	20.000000	PASS
Emission Bandwidth 26 dB	5210.000	24.0	20.000000	PASS
Occupied Channel Bandwidth 99%	5210.000	24.0	20.000000	PASS
Emission Bandwidth 26 dB	5240.000	24.0	20.000000	PASS
Occupied Channel Bandwidth 99%	5240.000	24.0	20.000000	PASS

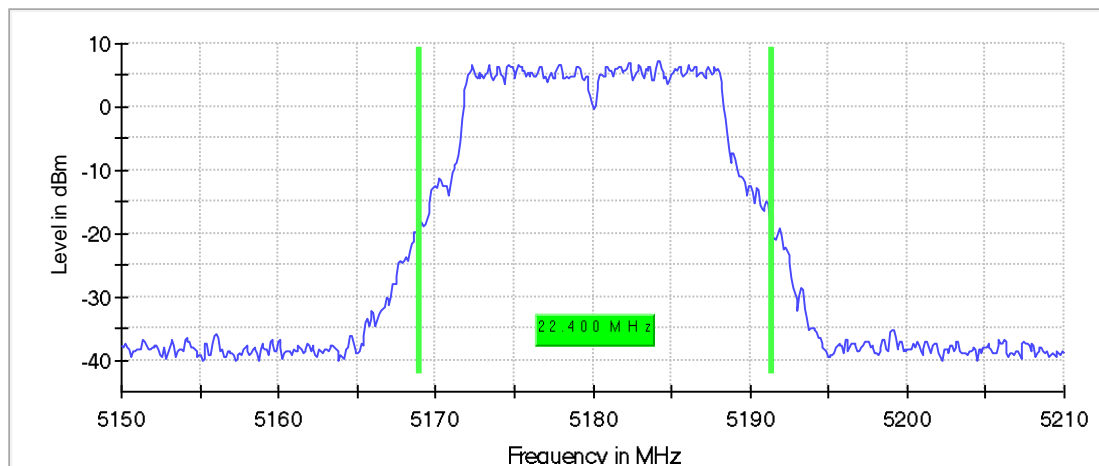
Emission Bandwidth 26 dB (5180 MHz; 24.000 dBm; 20 MHz)

26 dB Bandwidth

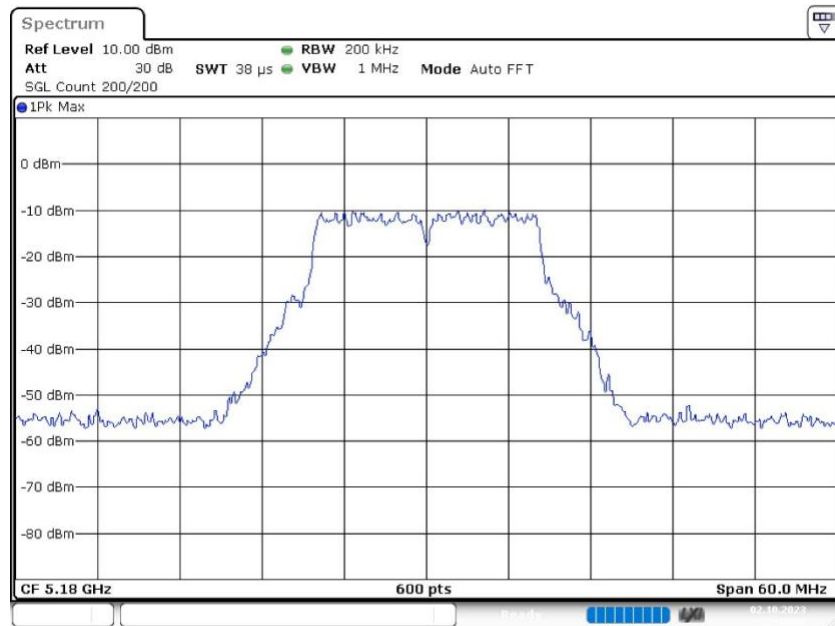
DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
5180.000000	22.400000	---	---	5168.950000	5191.350000

DUT Frequency (MHz)	Max Level (dBm)	Result
5180.000000	7.3	PASS

26 dB Bandwidth



Bandwidth



Date: 2.OCT.2023 22:48:31

Measurement

Setting	Instrument Value	Target Value
Start Frequency	5.15000 GHz	5.15000 GHz
Stop Frequency	5.21000 GHz	5.21000 GHz
Span	60.000 MHz	60.000 MHz
RBW	200.000 kHz	~ 200.000 kHz
VBW	1.000 MHz	>= 600.000 kHz
SweepPoints	600	~ 600
Sweeptime	37.969 μs	AUTO
Reference Level	10.000 dBm	10.000 dBm
Attenuation	30.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	200	200
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
Sweeptype	FFT	AUTO
Preamp	off	off

RF output power (5180 MHz; 24.000 dBm; 20 MHz)

Result

DUT Frequency (MHz)	Gated RMS (dBm)	Limit Max (dBm)	Gated EIRP (dBm)	DutyCycle (%)	Result
5180.000000	22.5	30.0	22.5	99.230	PASS

OSP PowerMeter settings

Setting	Instrument Value	Target Value
Measurement Time	1.000 s	1.000 s
Points	1000000	1000000

Time resolution	1.000 μ s	1.000 μ s
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Power Spectral Density (5180 MHz; 24.000 dBm; 20 MHz)

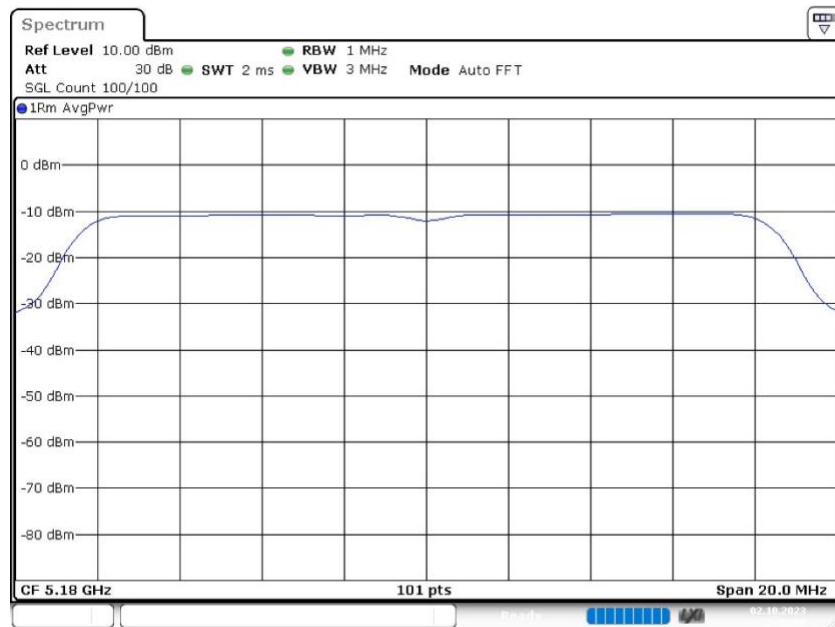
Result

DUT Frequency (MHz)	Frequency (MHz)	PSD (dBm)	Limit Max (dBm)	Result
5180.000000	5186.930693	9.679	17.0	PASS

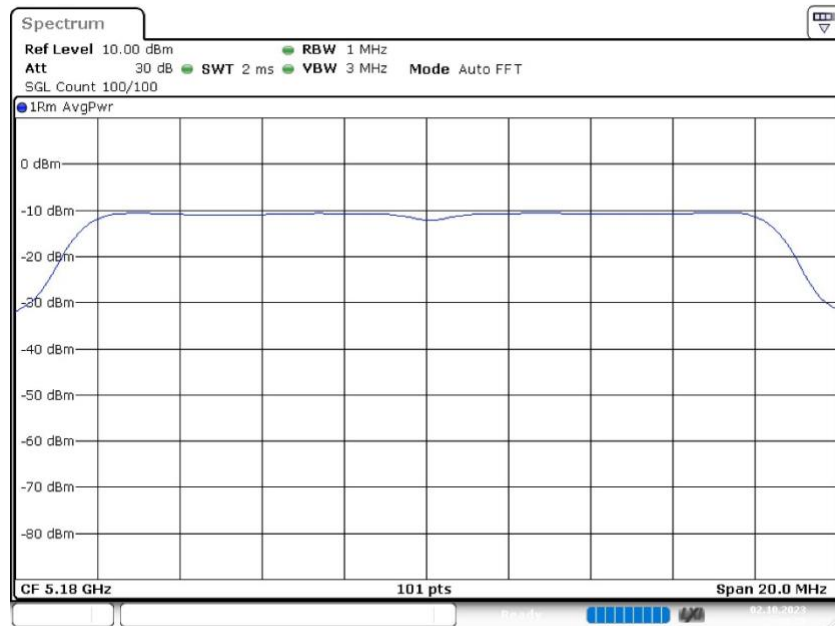
Ports

Port	State
1	used
2	used

PSD Connector 1



PSD Connector 2



Date: 2.OCT.2023 22:49:15

Measurement

Setting	Instrument Value	Target Value
Start Frequency	5.17000 GHz	5.17000 GHz
Stop Frequency	5.19000 GHz	5.19000 GHz
Span	20.000 MHz	20.000 MHz
RBW	1.000 MHz	<= 1.000 MHz
VBW	3.000 MHz	>= 3.000 MHz
SweepPoints	101	~ 40
Sweeptime	2.020 ms	2.020 ms
Reference Level	10.000 dBm	10.000 dBm
Attenuation	30.000 dB	AUTO
Detector	RMS	RMS
SweepCount	100	100
Filter	3 dB	3 dB
Trace Mode	Average Power	Average Power
Sweeptype	FFT	AUTO
Preamp	off	off

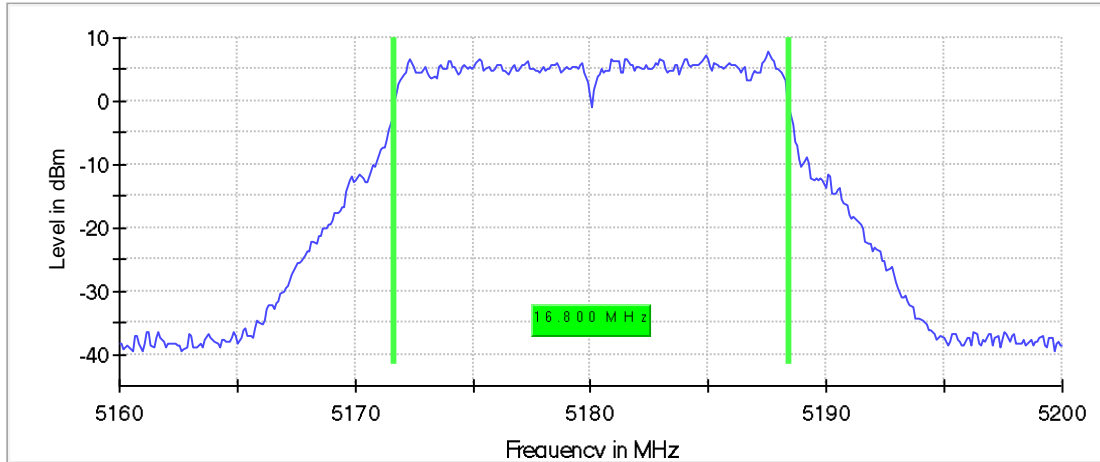
Occupied Channel Bandwidth 99% (5180 MHz; 24.000 dBm; 20 MHz)

99 % Bandwidth

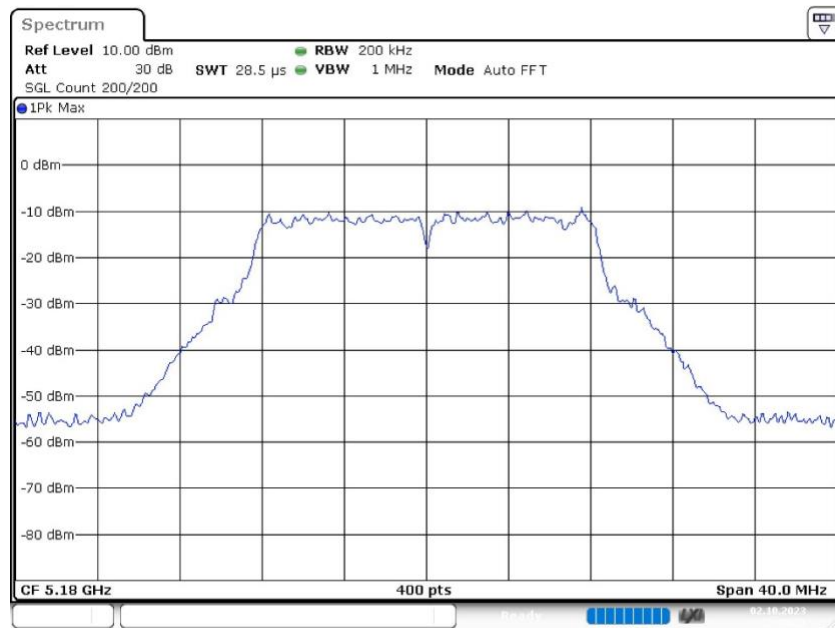
DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
5180.000000	16.800000	---	---	5171.650000	5188.450000

DUT Frequency (MHz)	Result
5180.000000	PASS

99 % Bandwidth



Bandwidth



Date: 2.OCT.2023 22:49:23

Measurement

Setting	Instrument Value	Target Value
Start Frequency	5.16000 GHz	5.16000 GHz
Stop Frequency	5.20000 GHz	5.20000 GHz
Span	40.000 MHz	40.000 MHz
RBW	200.000 kHz	>= 200.000 kHz
VBW	1.000 MHz	>= 600.000 kHz

SweepPoints	400	~ 400
Sweeptime	28.477 μ s	AUTO
Reference Level	10.000 dBm	10.000 dBm
Attenuation	30.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	200	200
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
SweepType	FFT	AUTO
Preamp	off	off

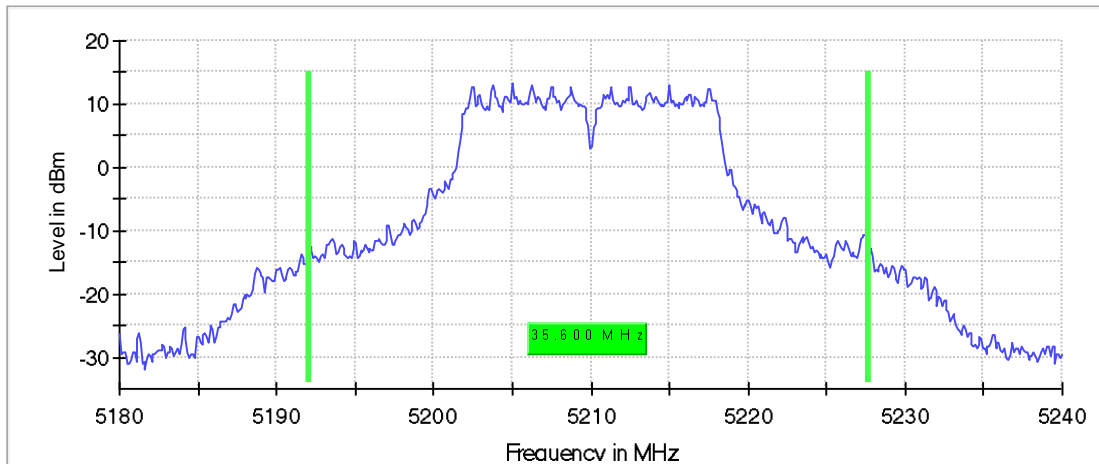
Emission Bandwidth 26 dB (5210 MHz; 24.000 dBm; 20 MHz)

26 dB Bandwidth

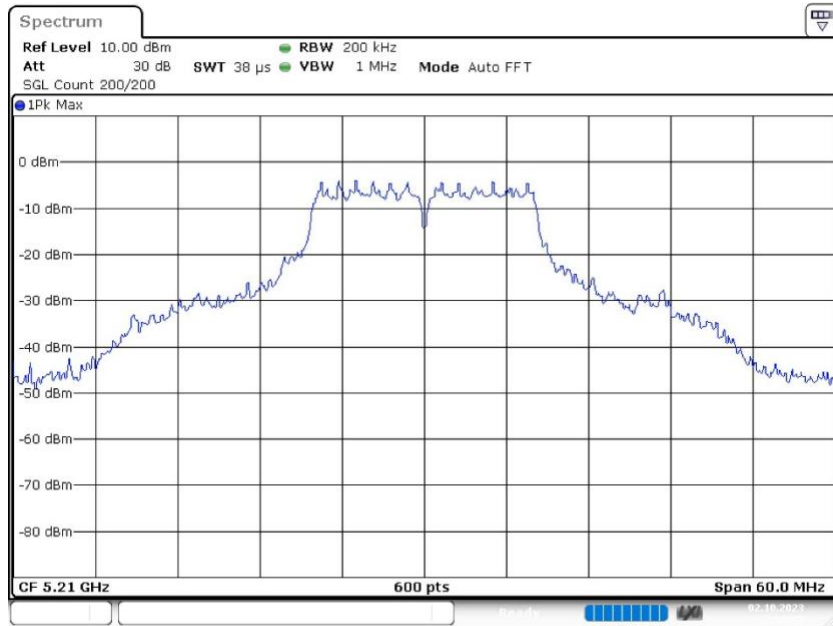
DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
5210.000000	35.600000	---	---	5192.050000	5227.650000

DUT Frequency (MHz)	Max Level (dBm)	Result
5210.000000	13.3	PASS

26 dB Bandwidth



Bandwidth



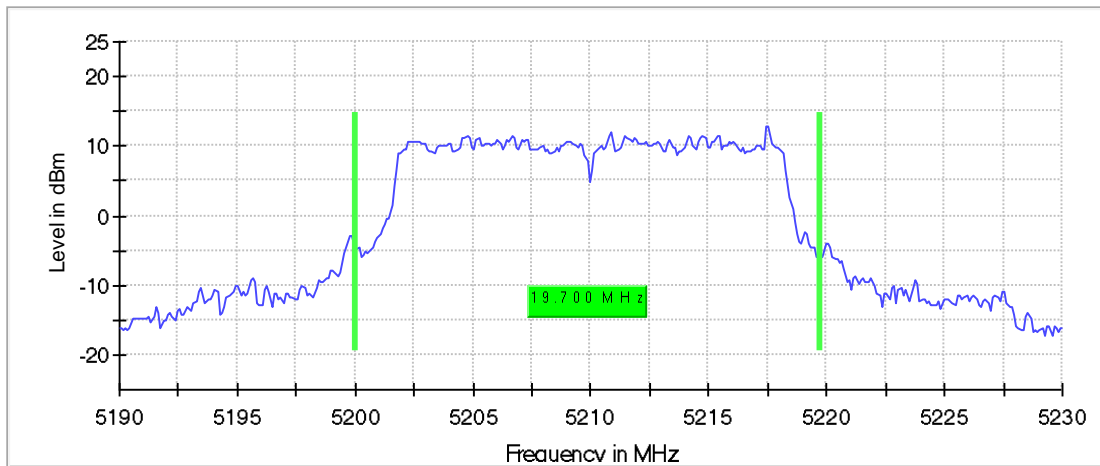
Occupied Channel Bandwidth 99% (5210 MHz; 24.000 dBm; 20 MHz)

99 % Bandwidth

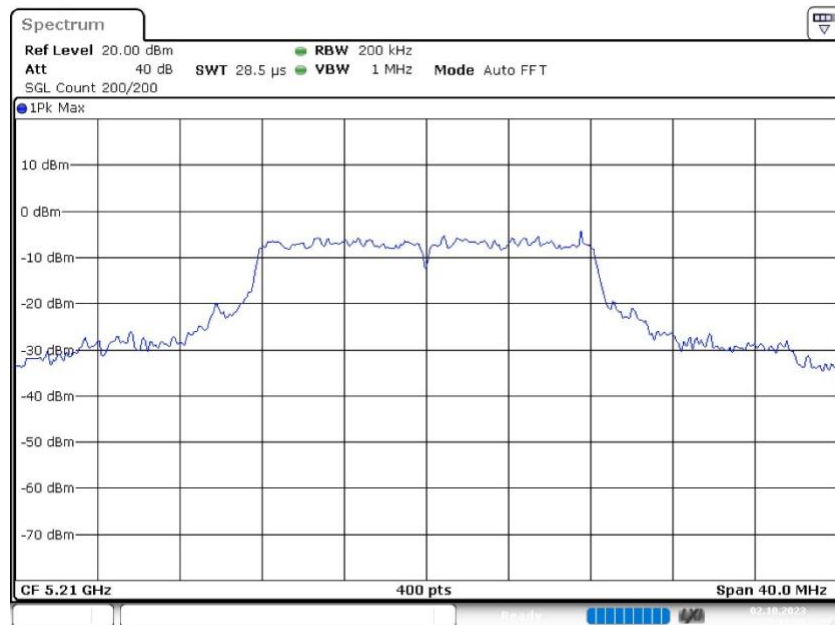
DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
5210.000000	19.700000	---	---	5200.050000	5219.750000

DUT Frequency (MHz)	Result
5210.000000	PASS

99 % Bandwidth



Bandwidth



Date: 2.OCT.2023 22:51:38

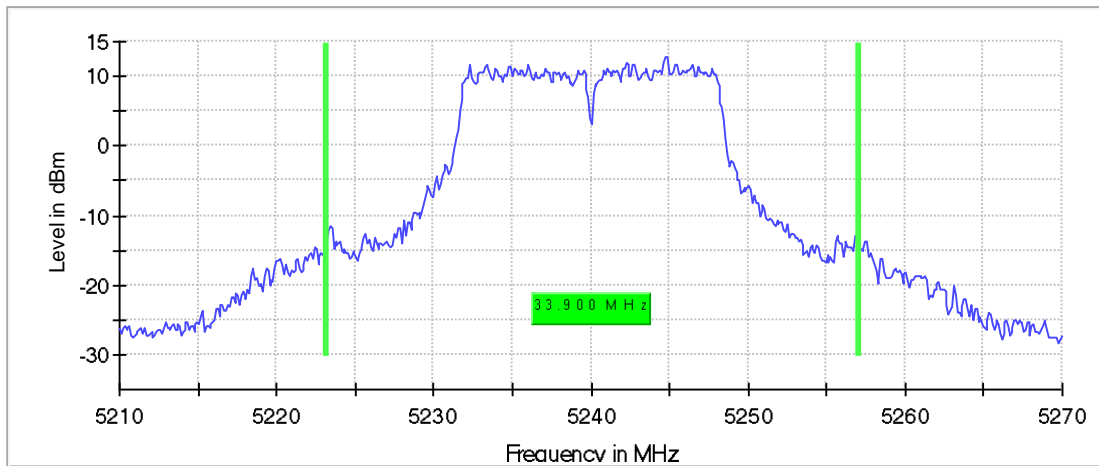
Emission Bandwidth 26 dB (5240 MHz; 24.000 dBm; 20 MHz)

26 dB Bandwidth

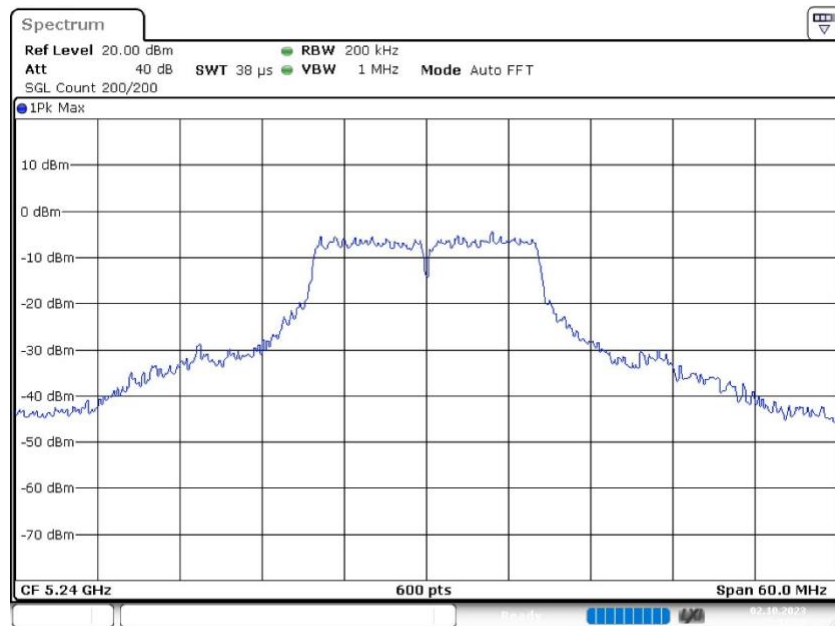
DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
5240.000000	33.900000	---	---	5223.150000	5257.050000

DUT Frequency (MHz)	Max Level (dBm)	Result
5240.000000	12.8	PASS

26 dB Bandwidth



Bandwidth



Date: 2.OCT.2023 22:51:59

Occupied Channel Bandwidth 99% (5240 MHz; 24.000 dBm; 20 MHz)

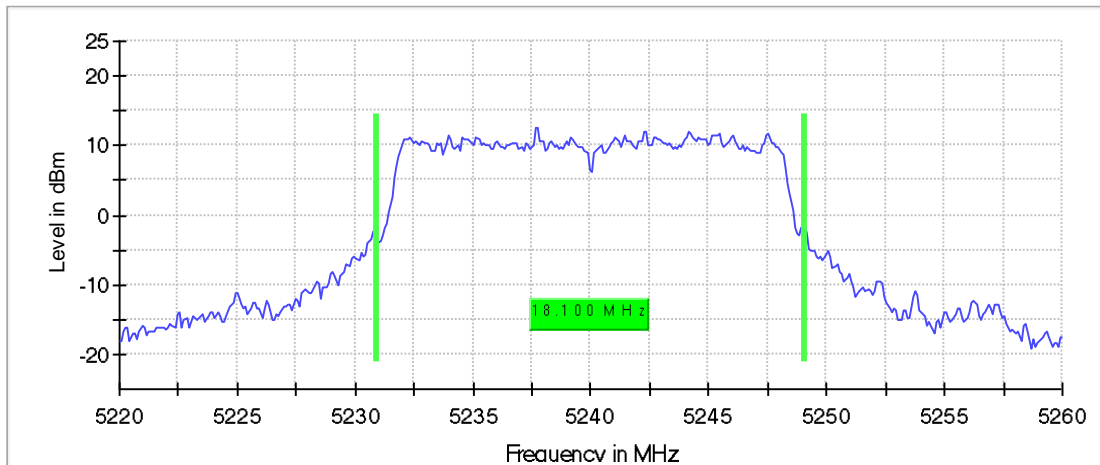
99 % Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
5240.000000	18.100000	---	---	5230.950000	5249.050000

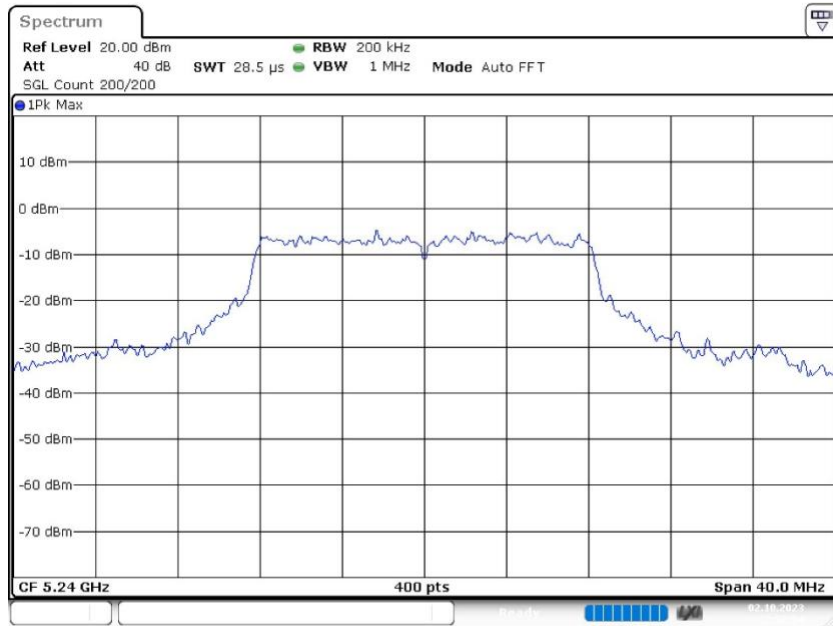
(continuation of the "99 % Bandwidth" table from column 6 ...)

DUT Frequency (MHz)	Result
5240.000000	PASS

99 % Bandwidth



Bandwidth



Date: 2.OCT.2023 22:52:54

1.2 ax Mode

1.2.1 Summary

Test	Frequency (MHz)	Nominal Power (dBm)	Nominal Bandwidth (MHz)	Result
Emission Bandwidth 26 dB	5180.000	24.0	20.000000	PASS
RF output power	5180.000	24.0	20.000000	PASS
Power Spectral Density	5180.000	24.0	20.000000	PASS
Occupied Channel Bandwidth 99%	5180.000	24.0	20.000000	PASS
Emission Bandwidth 26 dB	5210.000	24.0	20.000000	PASS
Occupied Channel Bandwidth 99%	5210.000	24.0	20.000000	PASS
Emission Bandwidth 26 dB	5240.000	24.0	20.000000	PASS
Occupied Channel Bandwidth 99%	5240.000	24.0	20.000000	PASS
Emission Bandwidth 26 dB	5190.000	24.0	40.000000	PASS
Occupied Channel Bandwidth 99%	5190.000	24.0	40.000000	PASS
Emission Bandwidth 26 dB	5230.000	24.0	40.000000	PASS
Occupied Channel Bandwidth 99%	5230.000	24.0	40.000000	PASS
Emission Bandwidth 26 dB	5210.000	24.0	80.000000	PASS
Occupied Channel Bandwidth 99%	5210.000	24.0	80.000000	PASS

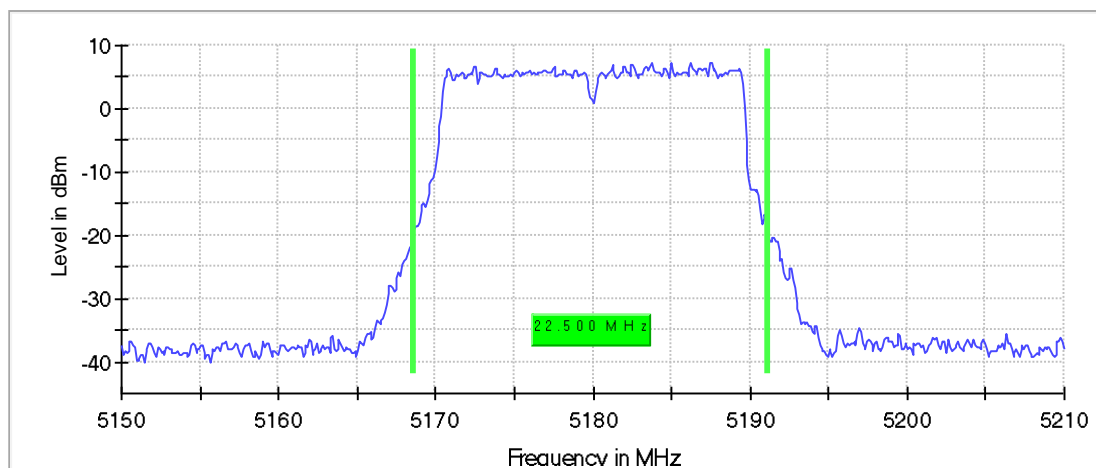
Emission Bandwidth 26 dB (5180 MHz; 24.000 dBm; 20 MHz)

26 dB Bandwidth

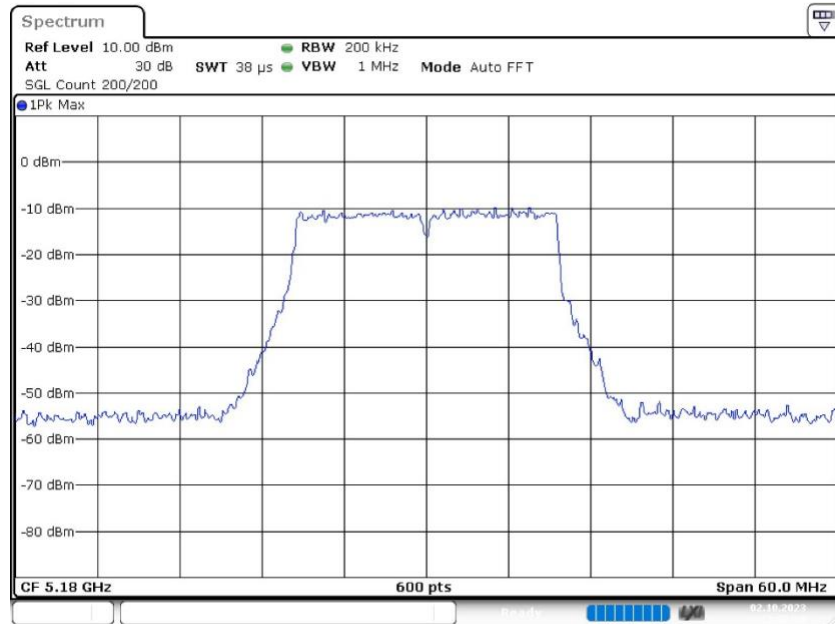
DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
5180.000000	22.500000	---	---	5168.650000	5191.150000

DUT Frequency (MHz)	Max Level (dBm)	Result
5180.000000	7.3	PASS

26 dB Bandwidth



Bandwidth



Date: 2.OCT.2023 23:07:39

Measurement

Setting	Instrument Value	Target Value
Start Frequency	5.15000 GHz	5.15000 GHz
Stop Frequency	5.21000 GHz	5.21000 GHz
Span	60.000 MHz	60.000 MHz
RBW	200.000 kHz	~ 200.000 kHz
VBW	1.000 MHz	>= 600.000 kHz
SweepPoints	600	~ 600
SweepTime	37.969 μs	AUTO
Reference Level	10.000 dBm	10.000 dBm
Attenuation	30.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	200	200
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
SweepType	FFT	AUTO
Preamp	off	off

RF output power (5180 MHz; 24.000 dBm; 20 MHz)

Result

DUT Frequency (MHz)	Gated RMS (dBm)	Limit Max (dBm)	Gated EIRP (dBm)	DutyCycle (%)	Result
5180.000000	22.5	30.0	22.5	99.719	PASS

OSP PowerMeter settings

Setting	Instrument Value	Target Value
Measurement Time	1.000 s	1.000 s
Points	1000000	1000000

Time resolution	1.000 μ s	1.000 μ s
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Power Spectral Density (5180 MHz; 24.000 dBm; 20 MHz)

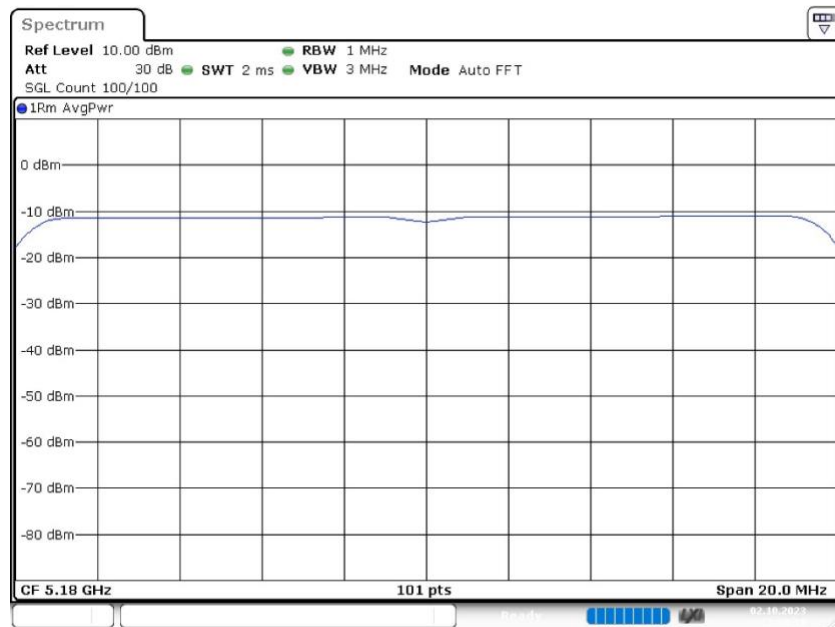
Result

DUT Frequency (MHz)	Frequency (MHz)	PSD (dBm)	Limit Max (dBm)	Result
5180.000000	5188.316832	9.246	17.0	PASS

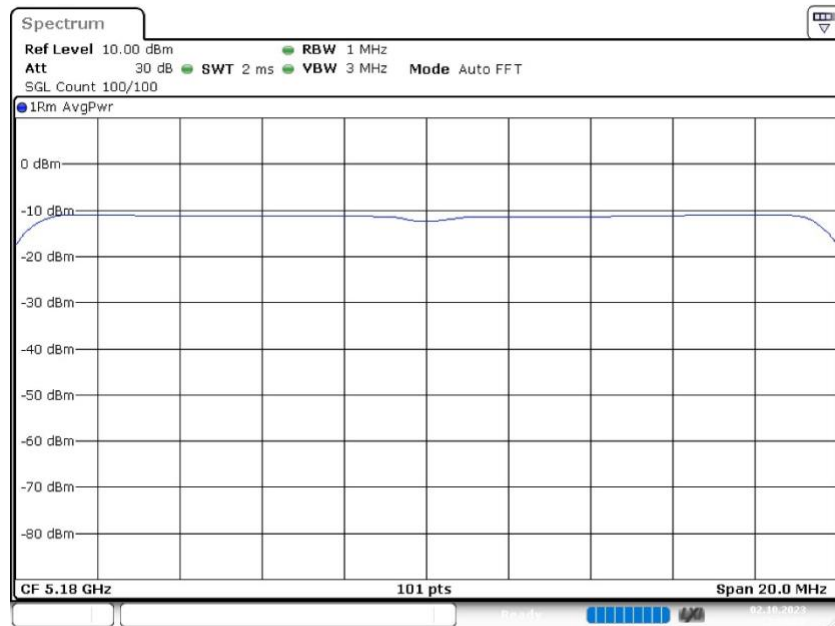
Ports

Port	State
1	used
2	used

PSD Connector 1



PSD Connector 2



Date: 2.OCT.2023 23:08:26

Measurement

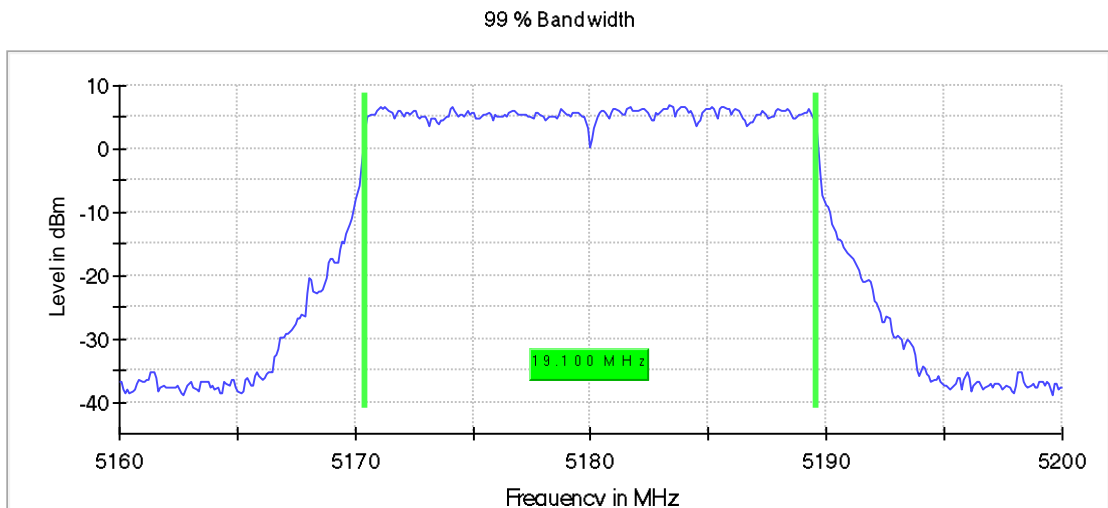
Setting	Instrument Value	Target Value
Start Frequency	5.17000 GHz	5.17000 GHz
Stop Frequency	5.19000 GHz	5.19000 GHz
Span	20.000 MHz	20.000 MHz
RBW	1.000 MHz	<= 1.000 MHz
VBW	3.000 MHz	>= 3.000 MHz
SweepPoints	101	~ 40
SweepTime	2.020 ms	2.020 ms
Reference Level	10.000 dBm	10.000 dBm
Attenuation	30.000 dB	AUTO
Detector	RMS	RMS
SweepCount	100	100
Filter	3 dB	3 dB
Trace Mode	Average Power	Average Power
SweepType	FFT	AUTO
Preamp	off	off

Occupied Channel Bandwidth 99% (5180 MHz; 24.000 dBm; 20 MHz)

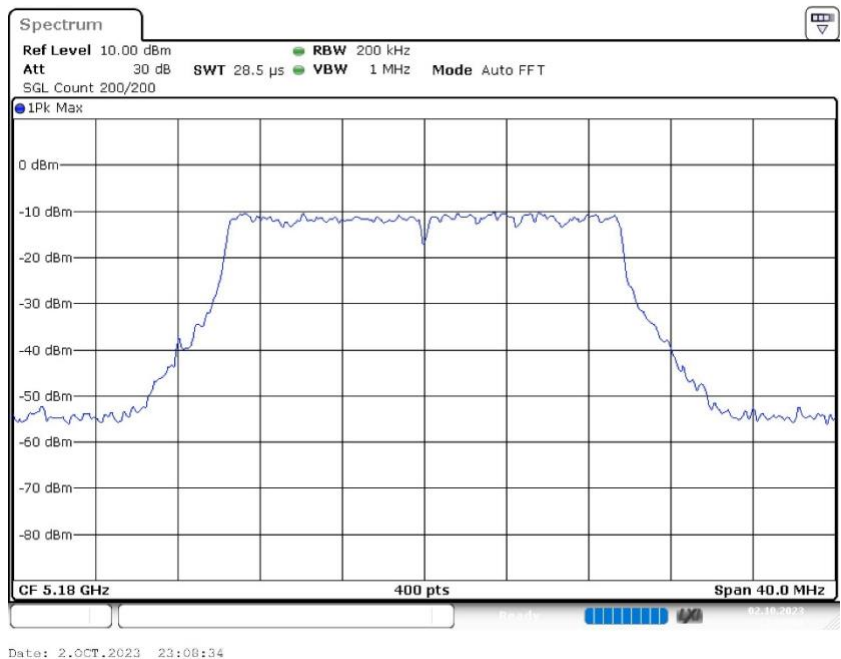
99 % Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
5180.000000	19.100000	---	---	5170.450000	5189.550000

DUT Frequency (MHz)	Result
5180.000000	PASS



Bandwidth



Measurement

Setting	Instrument Value	Target Value
Start Frequency	5.16000 GHz	5.16000 GHz
Stop Frequency	5.20000 GHz	5.20000 GHz
Span	40.000 MHz	40.000 MHz
RBW	200.000 kHz	>= 200.000 kHz
VBW	1.000 MHz	>= 600.000 kHz
SweepPoints	400	~ 400

SweepTime	28.477 μ s	AUTO
Reference Level	10.000 dBm	10.000 dBm
Attenuation	30.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	200	200
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
SweepType	FFT	AUTO
Preamp	off	off

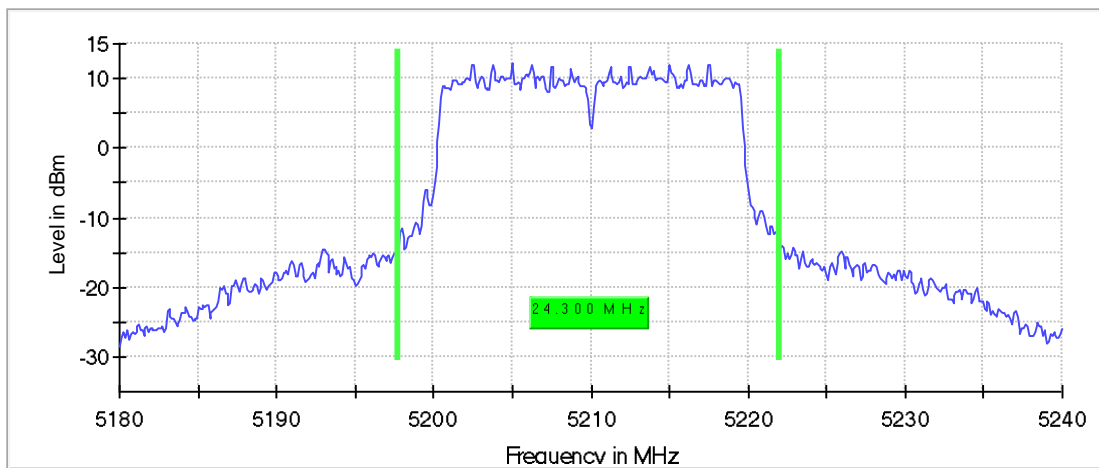
Emission Bandwidth 26 dB (5210 MHz; 24.000 dBm; 20 MHz)

26 dB Bandwidth

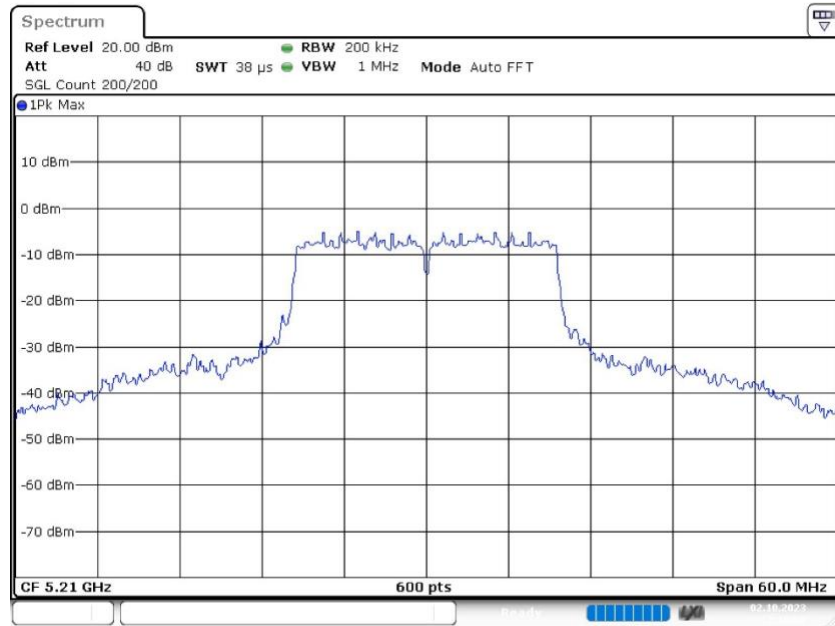
DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
5210.000000	24.300000	---	---	5197.750000	5222.050000

DUT Frequency (MHz)	Max Level (dBm)	Result
5210.000000	12.1	PASS

26 dB Bandwidth



Bandwidth



Date: 2.OCT.2023 23:10:57

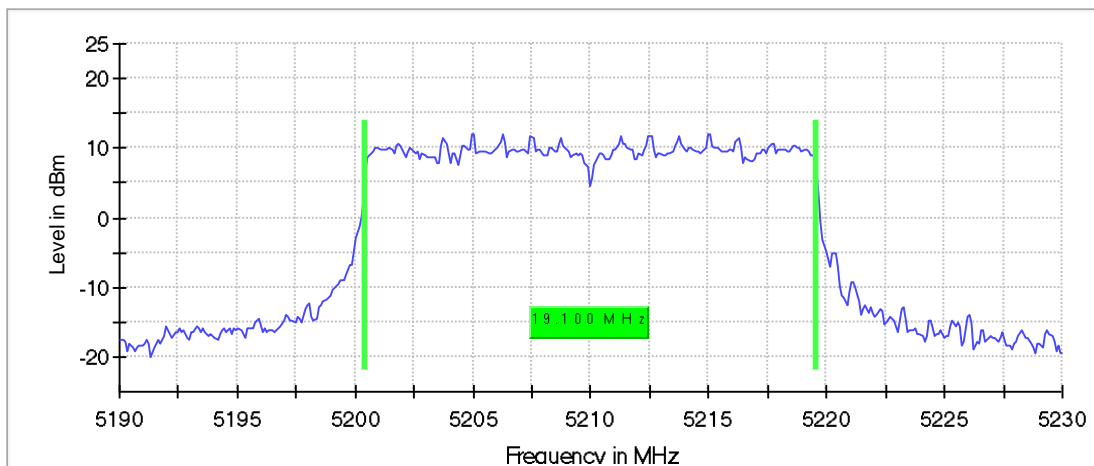
Occupied Channel Bandwidth 99% (5210 MHz; 24.000 dBm; 20 MHz)

99 % Bandwidth

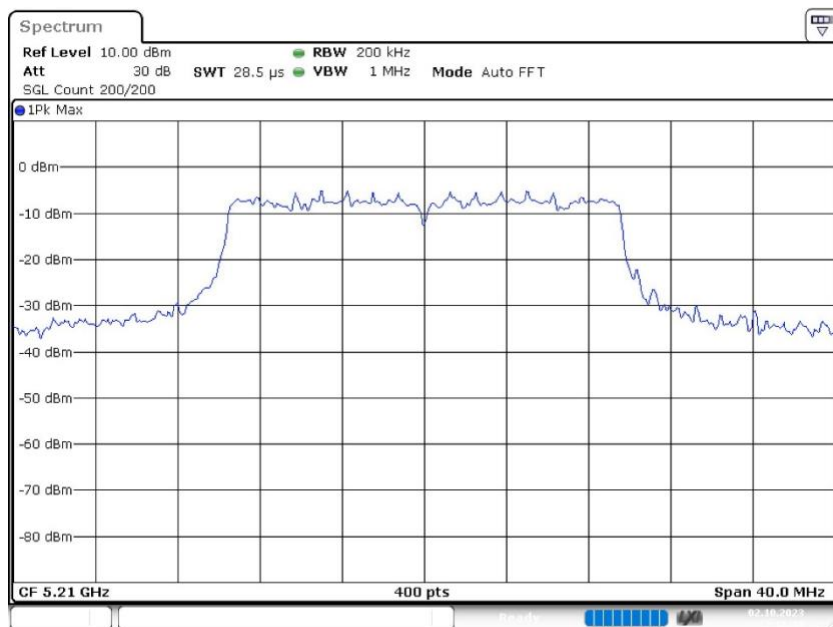
DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
5210.000000	19.100000	---	---	5200.450000	5219.550000

DUT Frequency (MHz)	Result
5210.000000	PASS

99 % Bandwidth



Bandwidth



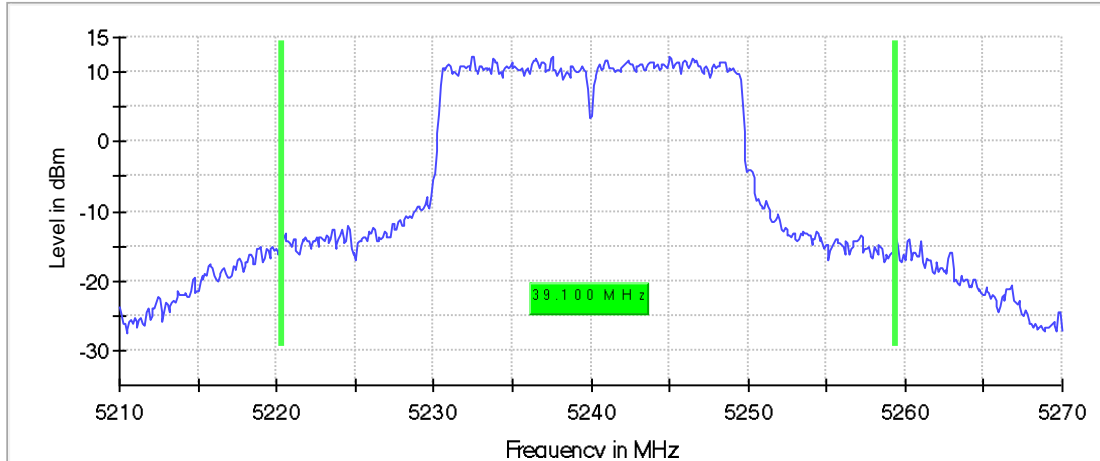
Emission Bandwidth 26 dB (5240 MHz; 24.000 dBm; 20 MHz)

26 dB Bandwidth

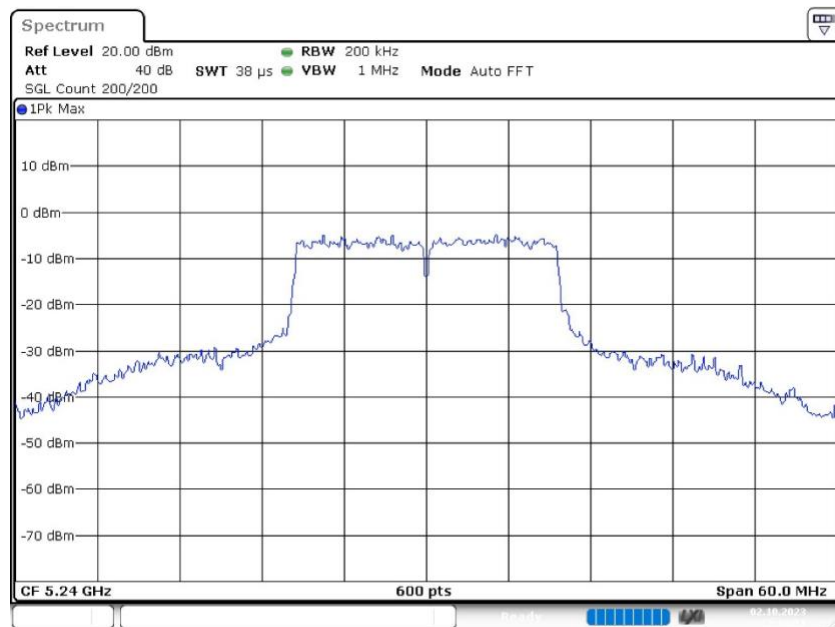
DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
5240.000000	39.100000	---	---	5220.350000	5259.450000

DUT Frequency (MHz)	Max Level (dBm)	Result
5240.000000	12.3	PASS

26 dB Bandwidth



Bandwidth



Date: 2.OCT.2023 23:14:51

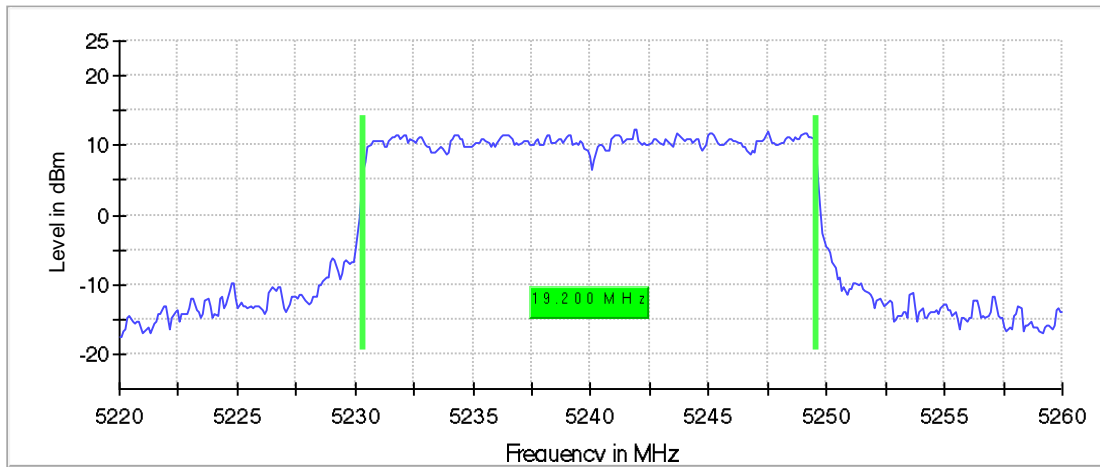
Occupied Channel Bandwidth 99% (5240 MHz; 24.000 dBm; 20 MHz)

99 % Bandwidth

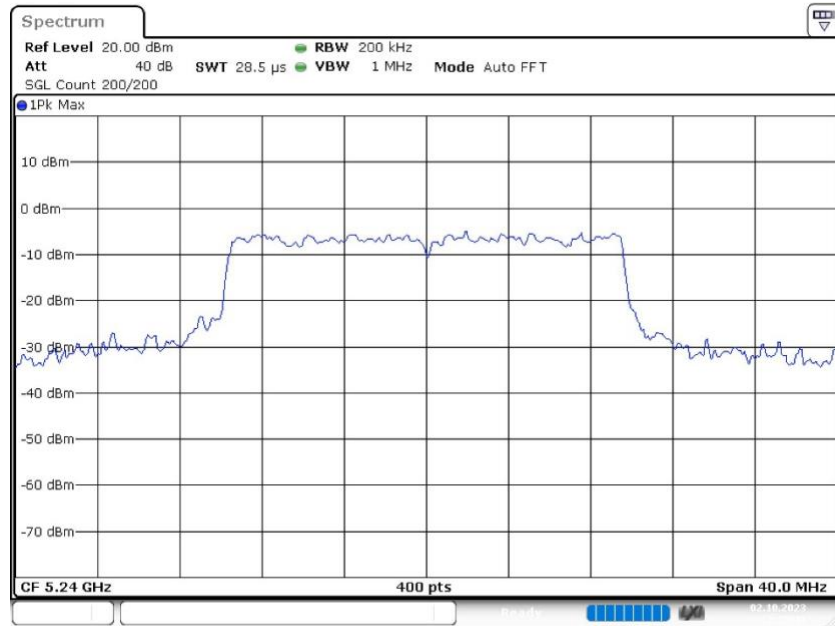
DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
5240.000000	19.200000	---	---	5230.350000	5249.550000

DUT Frequency (MHz)	Result
5240.000000	PASS

99 % Bandwidth



Bandwidth



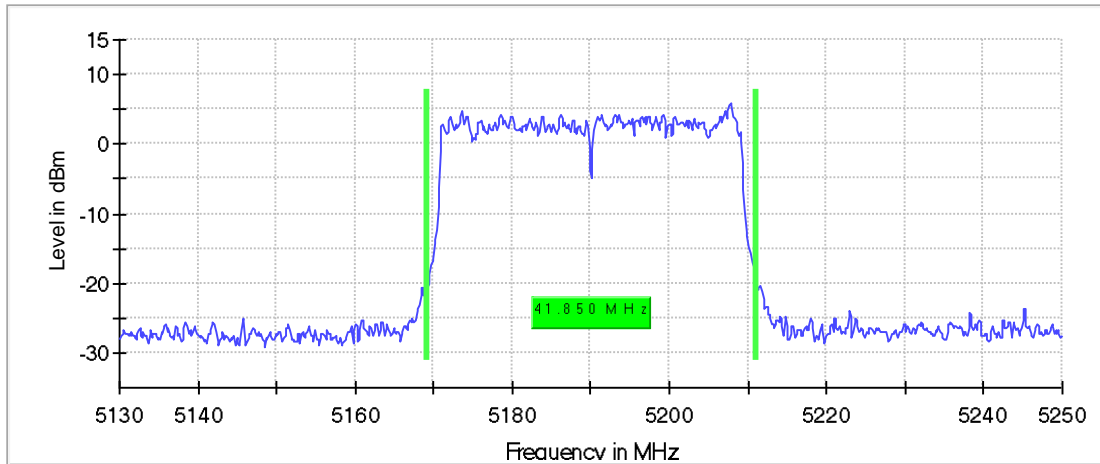
Emission Bandwidth 26 dB (5190 MHz; 24.000 dBm; 40 MHz)

26 dB Bandwidth

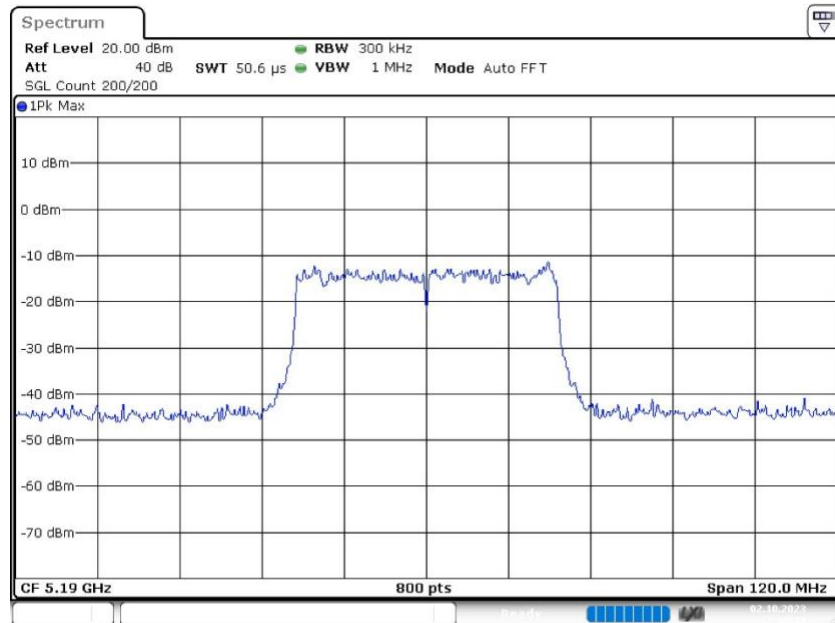
DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
5190.000000	41.850000	---	---	5169.225000	5211.075000

DUT Frequency (MHz)	Max Level (dBm)	Result
5190.000000	5.8	PASS

26 dB Bandwidth



Bandwidth



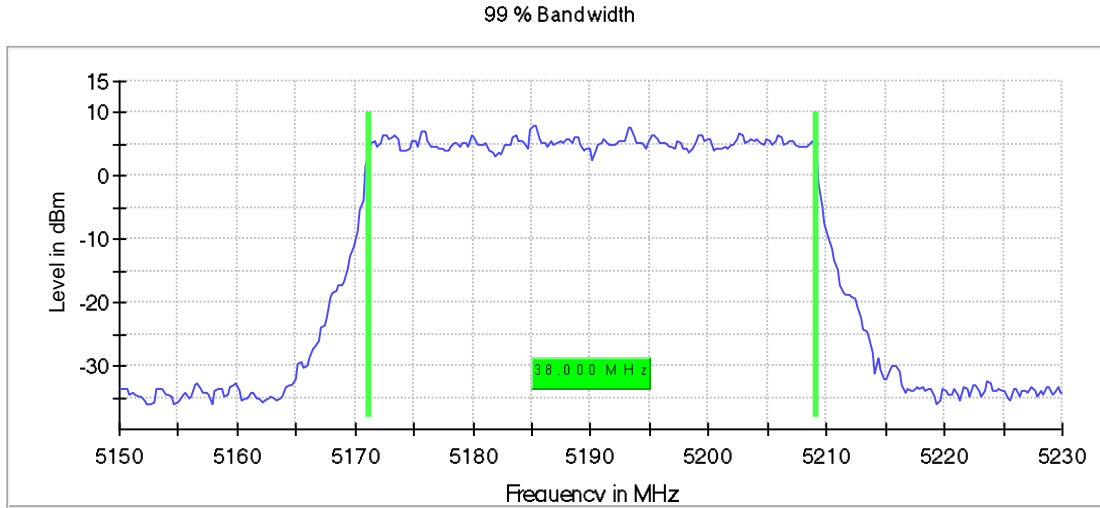
Date: 2.OCT.2023 23:16:42

Occupied Channel Bandwidth 99% (5190 MHz; 24.000 dBm; 40 MHz)

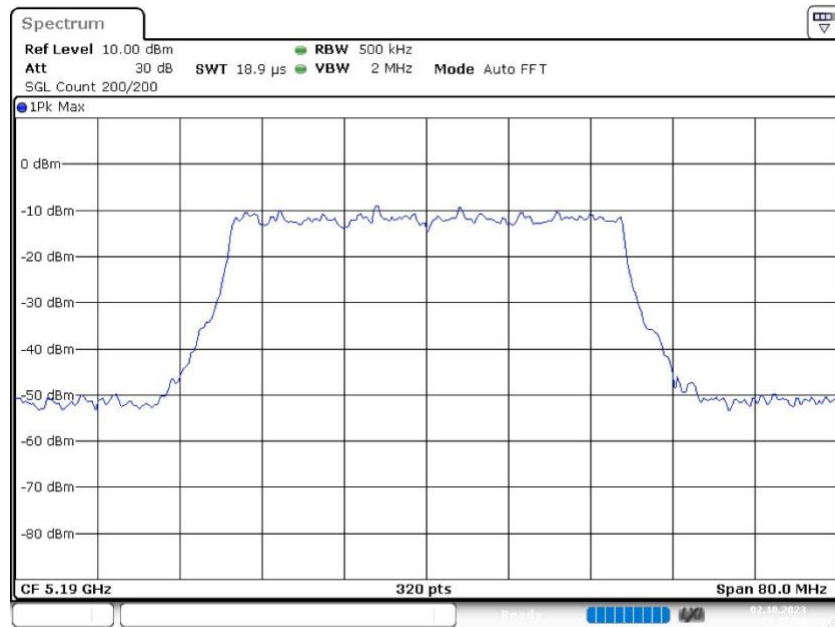
99 % Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
5190.000000	38.000000	---	---	5171.125000	5209.125000

DUT Frequency (MHz)	Result
5190.000000	PASS



Bandwidth



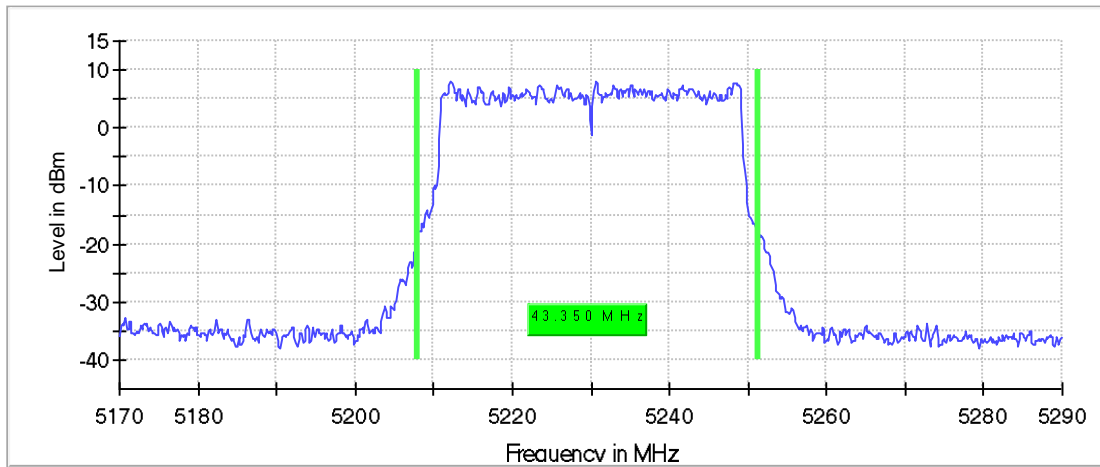
Emission Bandwidth 26 dB (5230 MHz; 24.000 dBm; 40 MHz)

26 dB Bandwidth

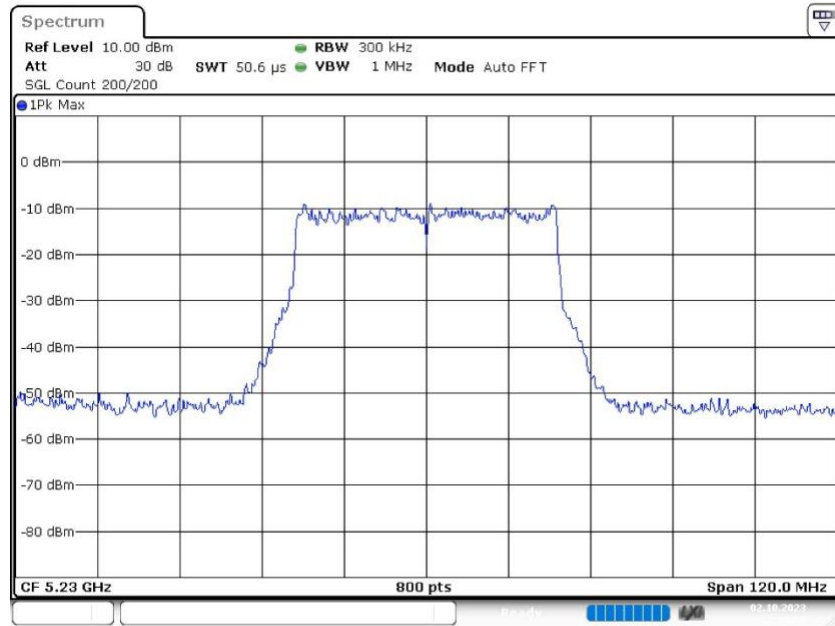
DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
5230.000000	43.350000	---	---	5207.875000	5251.225000

DUT Frequency (MHz)	Max Level (dBm)	Result
5230.000000	8.2	PASS

26 dB Bandwidth



Bandwidth



Date: 2.OCT.2023 23:19:59

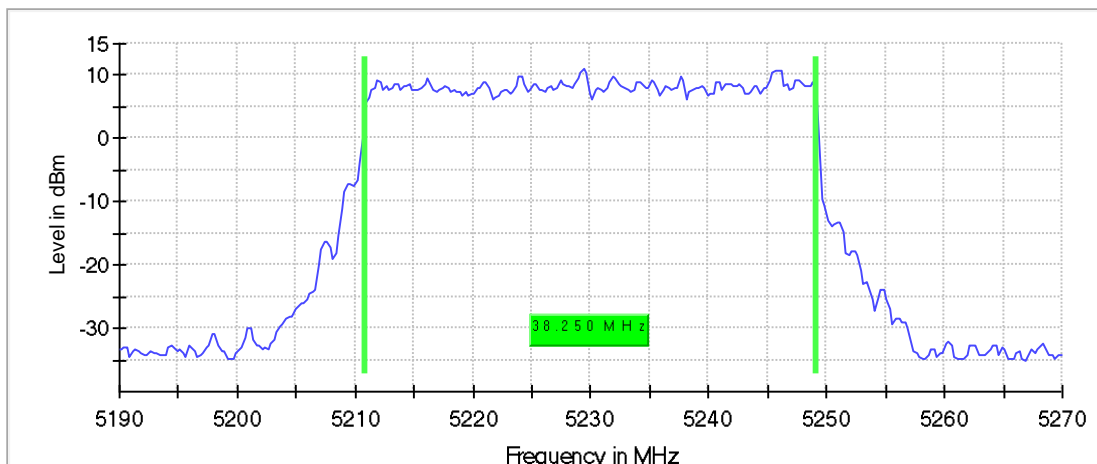
Occupied Channel Bandwidth 99% (5230 MHz; 24.000 dBm; 40 MHz)

99 % Bandwidth

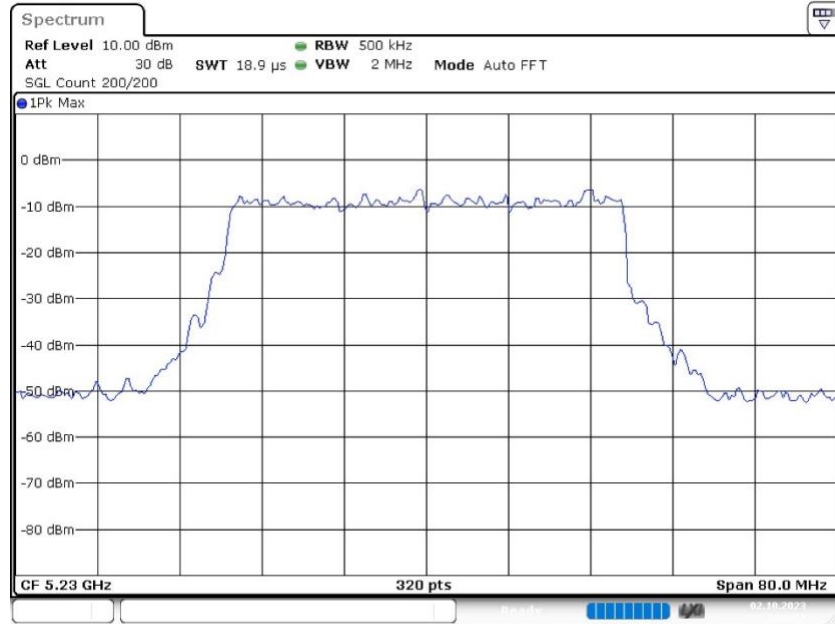
DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
5230.000000	38.250000	---	---	5210.875000	5249.125000

DUT Frequency (MHz)	Result
5230.000000	PASS

99 % Bandwidth



Bandwidth



Date: 2.OCT.2023 23:20:52

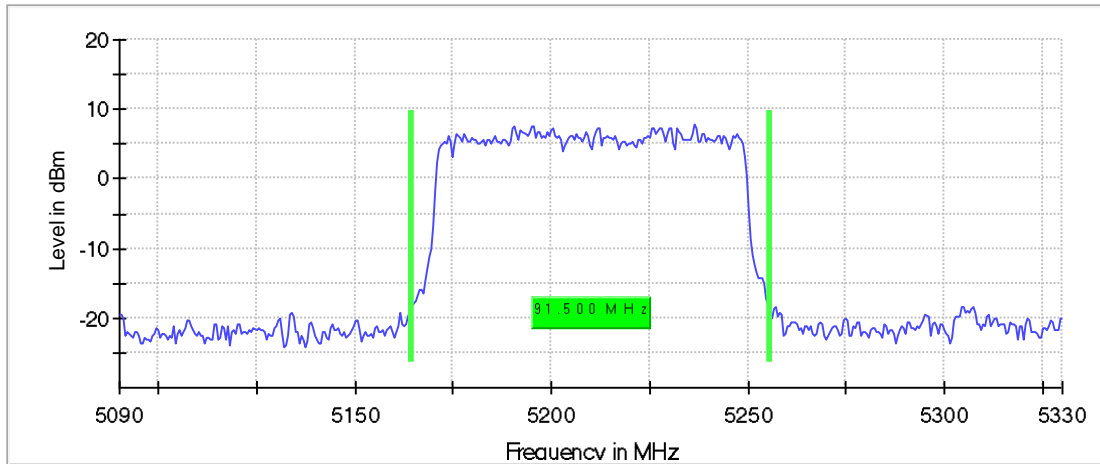
Emission Bandwidth 26 dB (5210 MHz; 24.000 dBm; 80 MHz)

26 dB Bandwidth

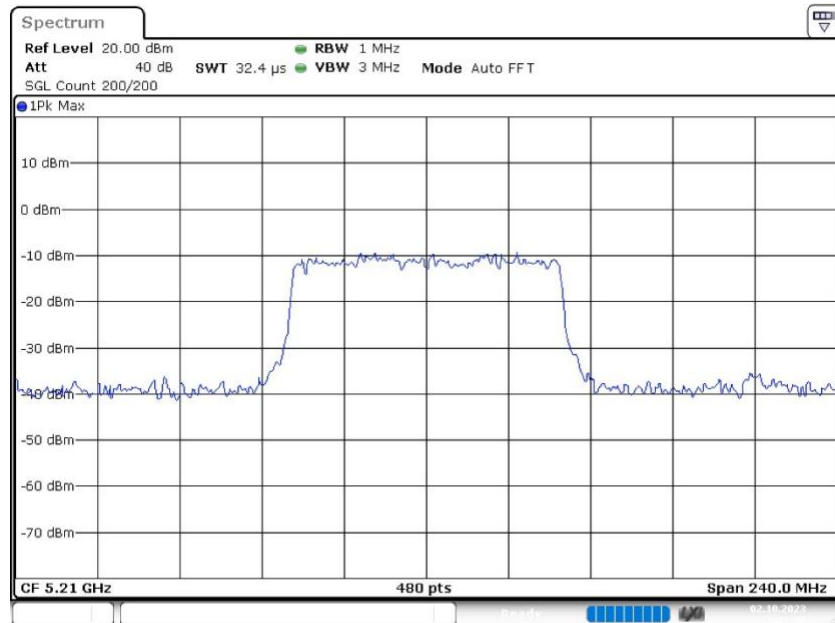
DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
5210.000000	91.500000	---	---	5164.250000	5255.750000

DUT Frequency (MHz)	Max Level (dBm)	Result
5210.000000	7.8	PASS

26 dB Bandwidth



Bandwidth



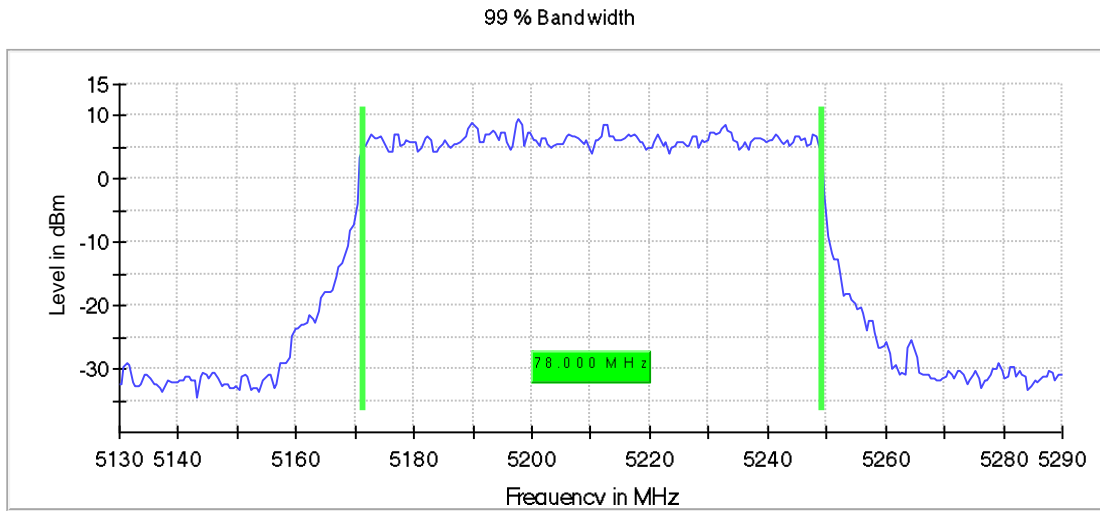
Date: 2.OCT.2023 23:21:48

Occupied Channel Bandwidth 99% (5210 MHz; 24.000 dBm; 80 MHz)

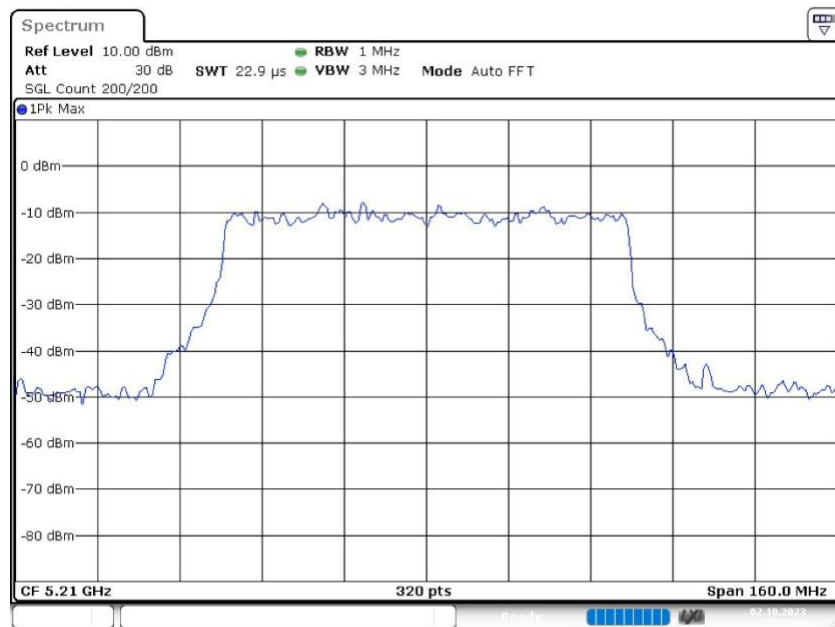
99 % Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
5210.000000	78.000000	---	---	5171.250000	5249.250000

DUT Frequency (MHz)	Result
5210.000000	PASS



Bandwidth



-- End of Report --