



427 West 12800 South  
Draper, UT 84020

## Test Report Attachment

<b>FCC ID</b>	SWX-U7PRO
<b>ISED ID</b>	6545A-U7PRO
<b>Equipment Under Test</b>	U7-Pro
<b>Test Report Serial Number</b>	TR8570_01
<b>Date of Test</b>	8 September 2023
<b>Report Issue Date</b>	20 October 2023

### Test Personnel

<b>Testing performed by</b>	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.



# 1 UNII-2A

## 1.1 Summary

Test	Frequency (MHz)	Nominal Power (dBm)	Nominal Bandwidth (MHz)	Result
Emission Bandwidth 26 dB	5260.000	24.0	20.000000	PASS
RF output power	5260.000	24.0	20.000000	PASS
Power Spectral Density	5260.000	24.0	20.000000	PASS
Occupied Channel Bandwidth 99%	5260.000	24.0	20.000000	PASS
Emission Bandwidth 26 dB	5280.000	24.0	20.000000	PASS
Occupied Channel Bandwidth 99%	5280.000	24.0	20.000000	PASS
Emission Bandwidth 26 dB	5320.000	24.0	20.000000	PASS
Occupied Channel Bandwidth 99%	5320.000	24.0	20.000000	PASS

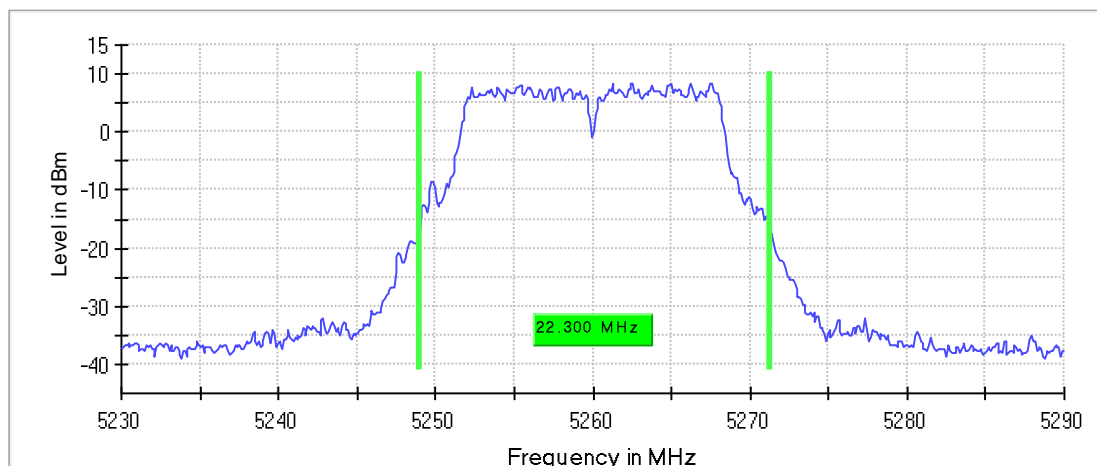
### Emission Bandwidth 26 dB (5260 MHz; 24.000 dBm; 20 MHz)

#### 26 dB Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
5260.000000	22.300000	---	---	5248.950000	5271.250000

DUT Frequency (MHz)	Max Level (dBm)	Result
5260.000000	8.5	PASS

26 dB Bandwidth



Bandwidth



Date: 8.SEP.2023 02:11:37

## Measurement

Setting	Instrument Value	Target Value
Start Frequency	5.23000 GHz	5.23000 GHz
Stop Frequency	5.29000 GHz	5.29000 GHz
Span	60.000 MHz	60.000 MHz
RBW	200.000 kHz	~ 200.000 kHz
VBW	300.000 kHz	>= 240.000 kHz
SweepPoints	600	~ 600
Sweeptime	37.969 $\mu$ s	AUTO
Reference Level	10.000 dBm	10.000 dBm
Attenuation	30.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	500	500
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
Sweeptype	FFT	AUTO
Preamp	off	off

## RF output power (5260 MHz; 24.000 dBm; 20 MHz)

## Result

DUT Frequency (MHz)	Gated RMS (dBm)	Limit Max (dBm)	Gated EIRP (dBm)	DutyCycle (%)	Result
5260.000000	23.5	24.0	23.5	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 $\mu$ s	1.000 $\mu$ s
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## Power Spectral Density (5260 MHz; 24.000 dBm; 20 MHz)

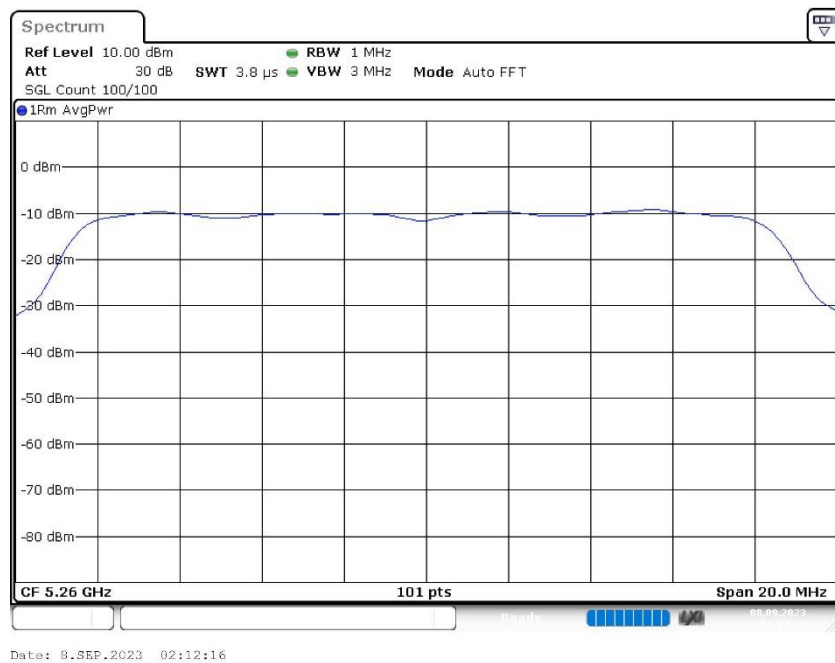
### Result

DUT Frequency (MHz)	Frequency (MHz)	PSD (dBm)	Limit Max (dBm)	Result
5260.000000	5253.861386	10.842	11.0	PASS

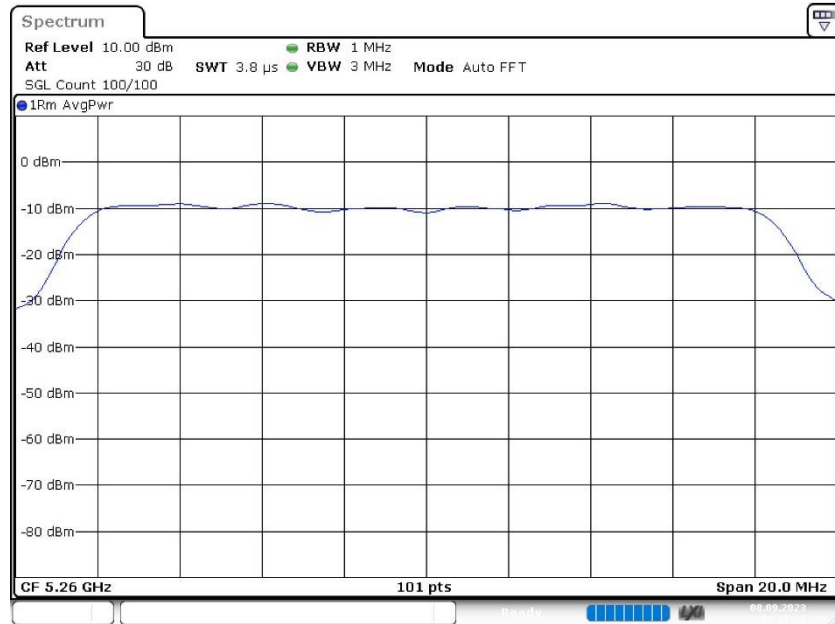
### Ports

Port	State
1	used
2	used

### PSD Connector 1



### PSD Connector 2



Date: 8..SEP.2023 02:12:22

### Measurement

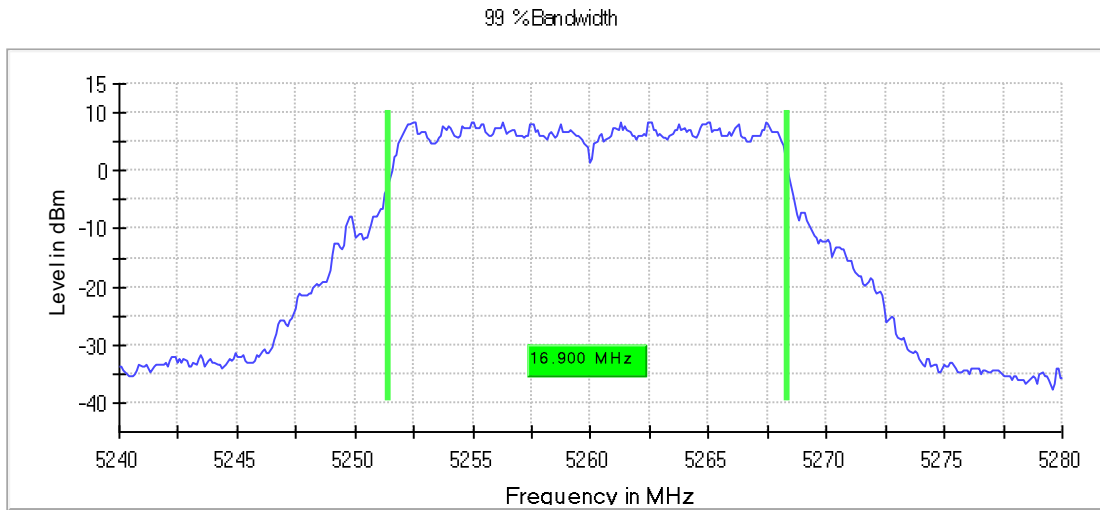
Setting	Instrument Value	Target Value
Start Frequency	5.25000 GHz	5.25000 GHz
Stop Frequency	5.27000 GHz	5.27000 GHz
Span	20.000 MHz	20.000 MHz
RBW	1.000 MHz	<= 1.000 MHz
VBW	3.000 MHz	>= 3.000 MHz
SweepPoints	101	~ 40
Sweeptime	3.788 µs	AUTO
Reference Level	10.000 dBm	10.000 dBm
Attenuation	30.000 dB	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% (5260 MHz; 24.000 dBm; 20 MHz)**

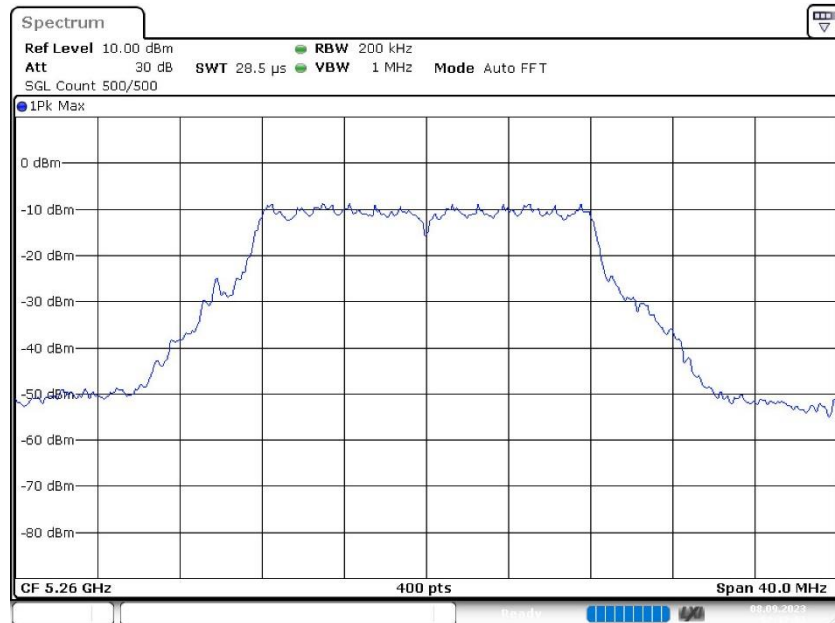
### 99 % Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
5260.000000	16.900000	---	---	5251.450000	5268.350000

DUT Frequency (MHz)	Result
5260.000000	PASS



**Bandwidth**



Date: 8. SEP. 2023 02:12:32

**Measurement**

Setting	Instrument Value	Target Value
Start Frequency	5.24000 GHz	5.24000 GHz
Stop Frequency	5.28000 GHz	5.28000 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 $\mu$ s	AUTO
Reference Level	10.000 dBm	10.000 dBm
Attenuation	30.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	500	500
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
SweepType	FFT	AUTO
Preamp	off	off

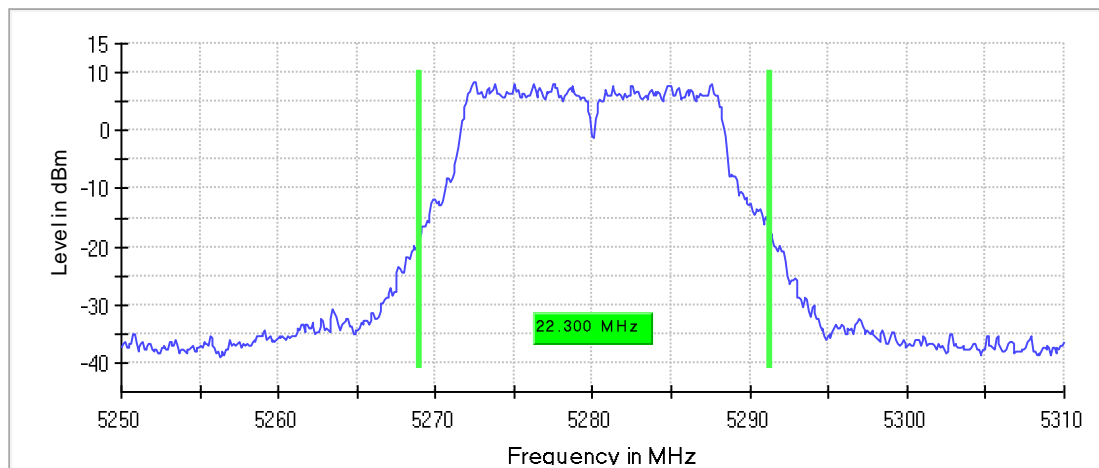
## Emission Bandwidth 26 dB (5280 MHz; 24.000 dBm; 20 MHz)

### 26 dB Bandwidth

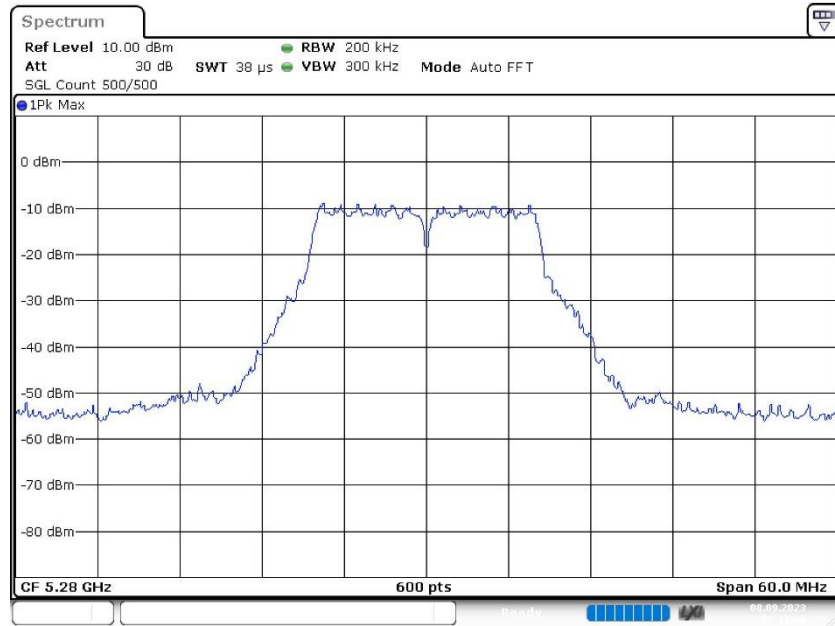
DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
5280.000000	22.300000	---	---	5268.950000	5291.250000

DUT Frequency (MHz)	Max Level (dBm)	Result
5280.000000	8.2	PASS

26 dB Bandwidth



Bandwidth



Date: 8.SEP.2023 02:13:01

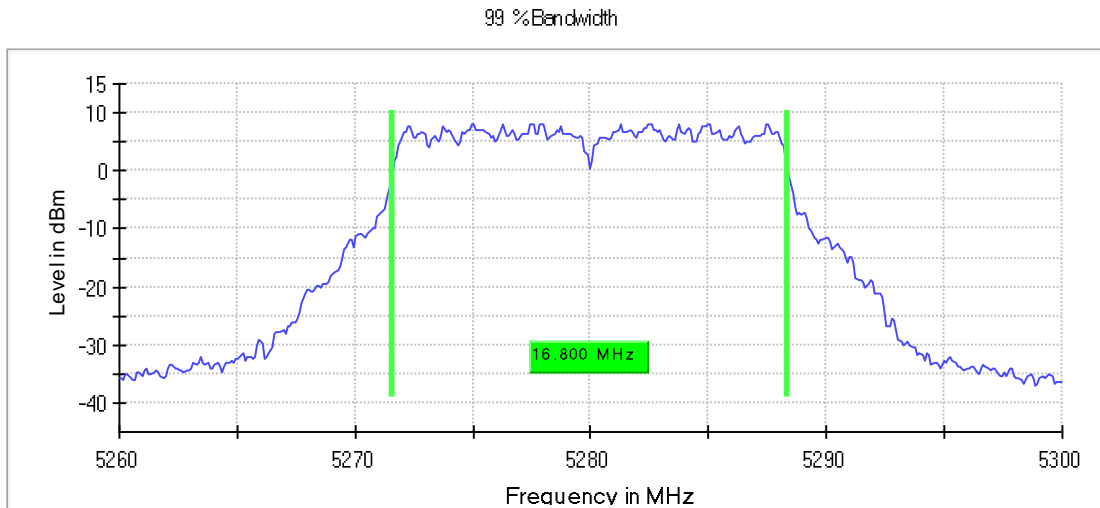
**Occupied Channel Bandwidth 99% (5280 MHz; 24.000 dBm; 20 MHz)**

**99 % Bandwidth**

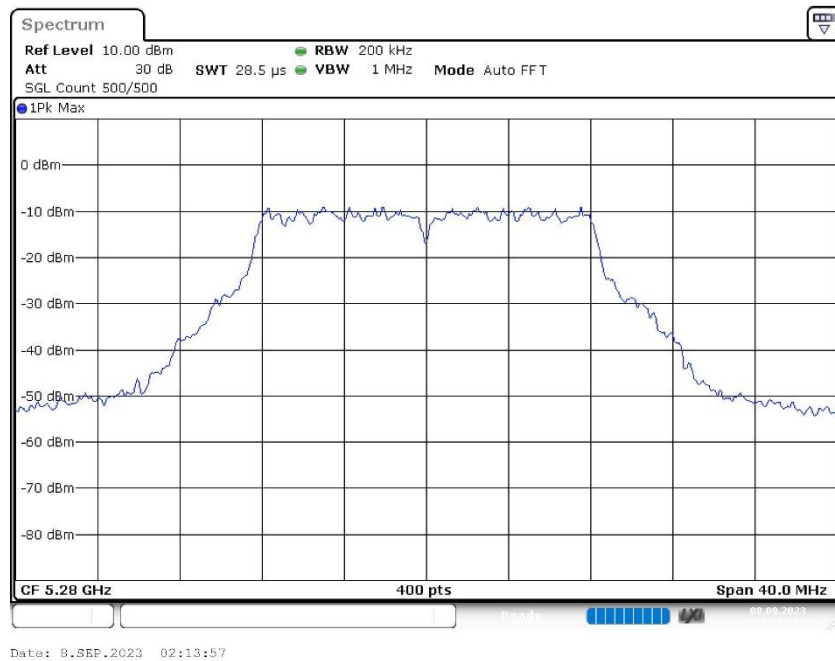
DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
5280.000000	16.800000	---	---	5271.550000	5288.350000

DUT Frequency (MHz)	Result
5280.000000	PASS





**Bandwidth**



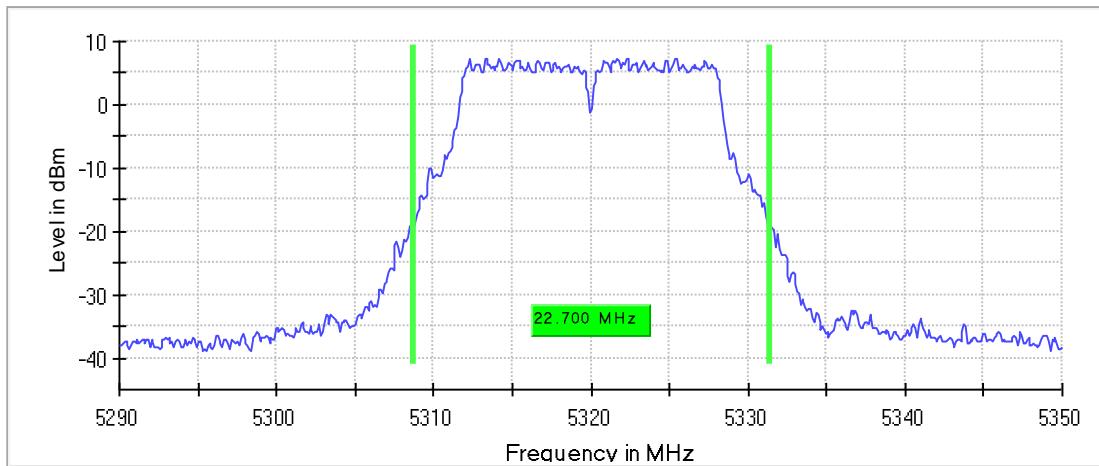
**Emission Bandwidth 26 dB (5320 MHz; 24.000 dBm; 20 MHz)**

**26 dB Bandwidth**

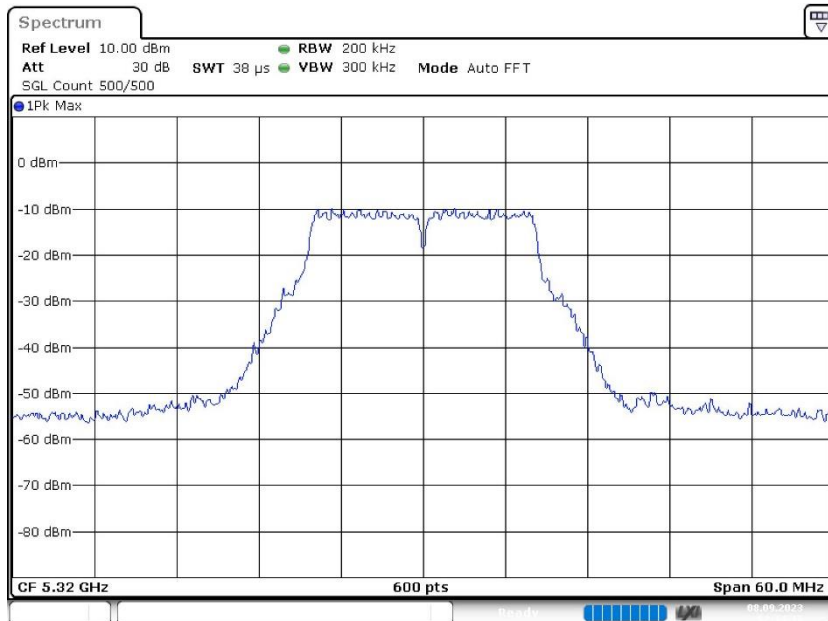
DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
5320.000000	22.700000	---	---	5308.750000	5331.450000

DUT Frequency (MHz)	Max Level (dBm)	Result
5320.000000	7.4	PASS

26 dB Bandwidth



Bandwidth



Date: 8.SEP.2023 02:14:18

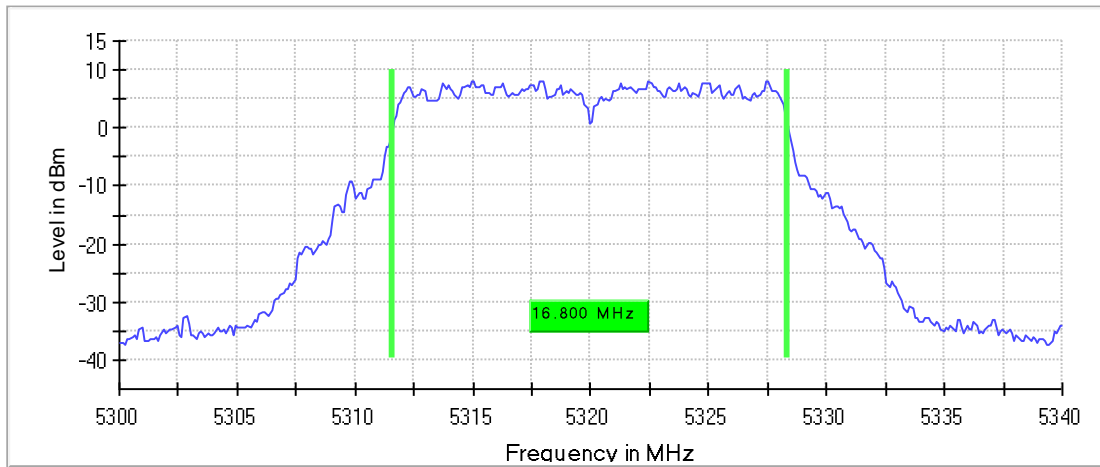
**Occupied Channel Bandwidth 99% (5320 MHz; 24.000 dBm; 20 MHz)**

**99 % Bandwidth**

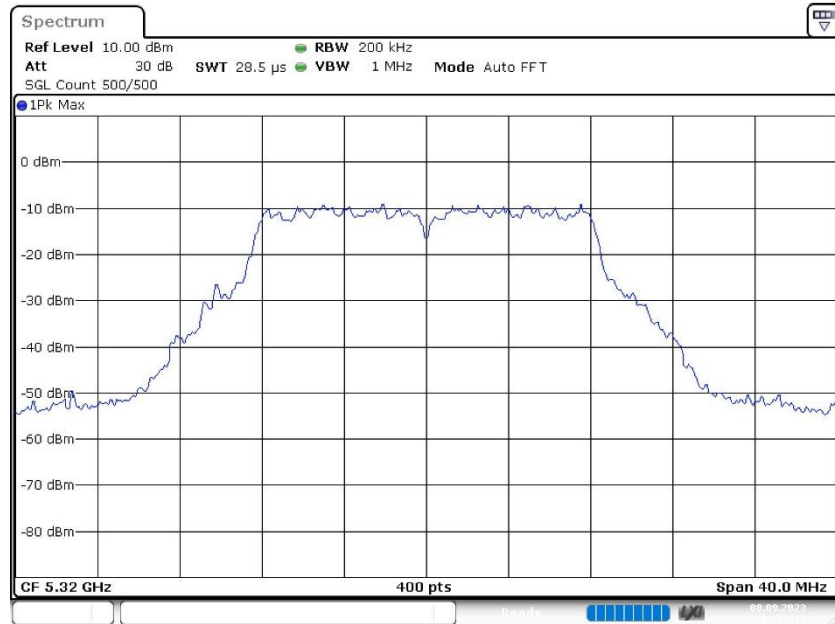
DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
5320.000000	16.800000	---	---	5311.550000	5328.350000

DUT Frequency (MHz)	Result
5320.000000	PASS

99 %Bandwidth



Bandwidth



Date: 8.SEP.2023 02:15:14

## 1.2 Summary

Test	Frequency (MHz)	Nominal Power (dBm)	Nominal Bandwidth (MHz)	Result
Emission Bandwidth 26 dB	5260.000	24.0	20.000000	PASS
RF output power	5260.000	24.0	20.000000	PASS
Power Spectral Density	5260.000	24.0	20.000000	PASS
Occupied Channel Bandwidth 99%	5260.000	24.0	20.000000	PASS
Emission Bandwidth 26 dB	5280.000	24.0	20.000000	PASS
Occupied Channel Bandwidth 99%	5280.000	24.0	20.000000	PASS
Emission Bandwidth 26 dB	5320.000	24.0	20.000000	PASS
Occupied Channel Bandwidth 99%	5320.000	24.0	20.000000	PASS
Emission Bandwidth 26 dB	5270.000	24.0	40.000000	PASS
Occupied Channel Bandwidth 99%	5270.000	24.0	40.000000	PASS
Emission Bandwidth 26 dB	5310.000	24.0	40.000000	PASS
Occupied Channel Bandwidth 99%	5310.000	24.0	40.000000	PASS
Emission Bandwidth 26 dB	5290.000	24.0	80.000000	PASS
Occupied Channel Bandwidth 99%	5290.000	24.0	80.000000	PASS
Emission Bandwidth 26 dB	5250.000	24.0	160.000000	PASS
Occupied Channel Bandwidth 99%	5250.000	24.0	160.000000	PASS

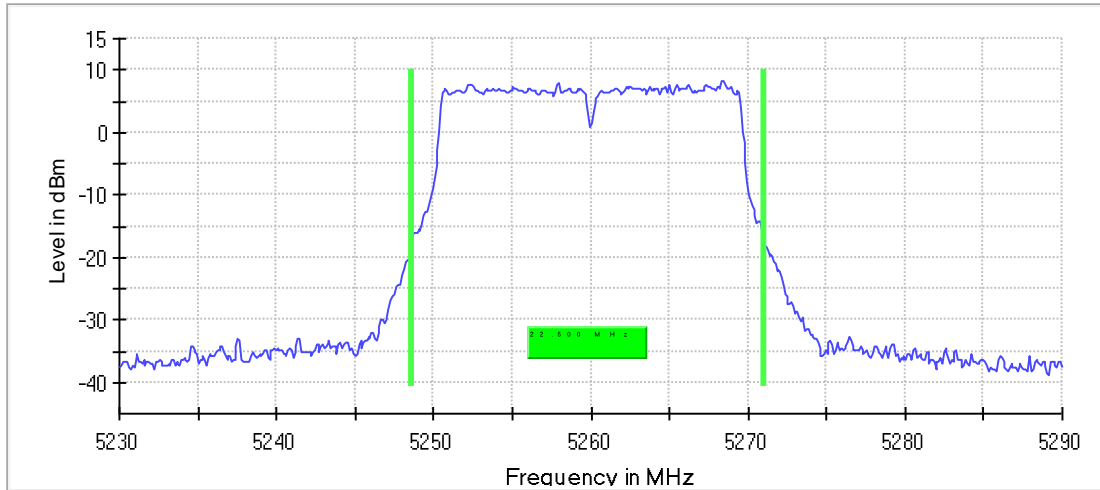
### Emission Bandwidth 26 dB (5260 MHz; 24.000 dBm; 20 MHz)

#### 26 dB Bandwidth

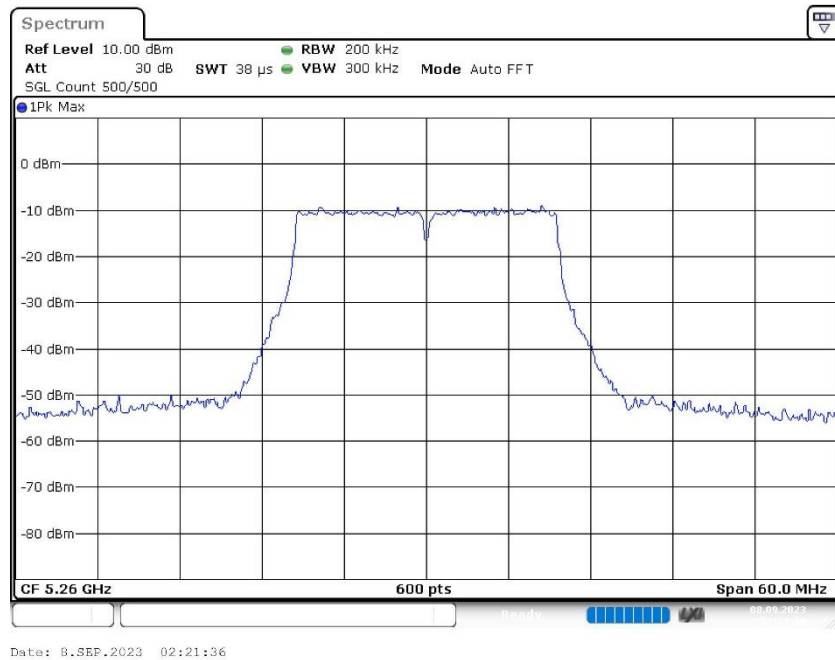
DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
5260.000000	22.500000	---	---	5248.550000	5271.050000

DUT Frequency (MHz)	Max Level (dBm)	Result
5260.000000	-10.00	PASS

5260.000000      8.2      PASS



**Bandwidth**



**Measurement**

Setting	Instrument Value	Target Value
Start Frequency	5.23000 GHz	5.23000 GHz
Stop Frequency	5.29000 GHz	5.29000 GHz
Span	60.000 MHz	60.000 MHz

RBW	200.000 kHz	~ 200.000 kHz
VBW	300.000 kHz	>= 240.000 kHz
SweepPoints	600	~ 600
SweepTime	37.969 $\mu$ s	AUTO
Reference Level	10.000 dBm	10.000 dBm
Attenuation	30.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	500	500
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
SweepType	FFT	AUTO
Preamp	off	off

## RF output power (5260 MHz; 24.000 dBm; 20 MHz)

### Result

DUT Frequency (MHz)	Gated RMS (dBm)	Limit Max (dBm)	Gated EIRP (dBm)	DutyCycle (%)	Result
5260.000000	23.6	24.0	23.6	99.723	PASS

## OSP PowerMeter settings

Setting	Instrument Value	Target Value
Measurement Time	1.000 s	1.000 s
Points	1000000	1000000
Time resolution	1.000 $\mu$ s	1.000 $\mu$ s

## Power Spectral Density (5260 MHz; 24.000 dBm; 20 MHz)

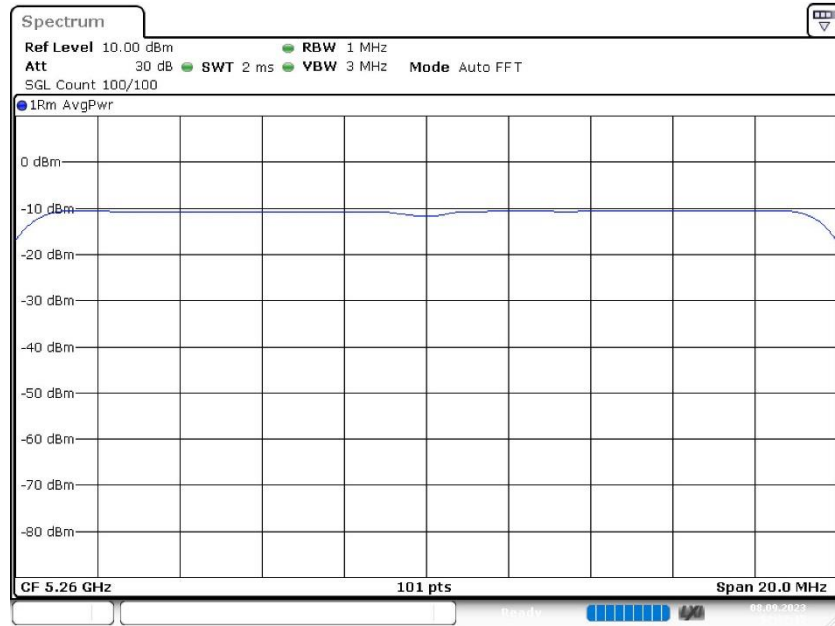
### Result

DUT Frequency (MHz)	Frequency (MHz)	PSD (dBm)	Limit Max (dBm)	Result
5260.000000	5268.316832	10.107	11.0	PASS

## Ports

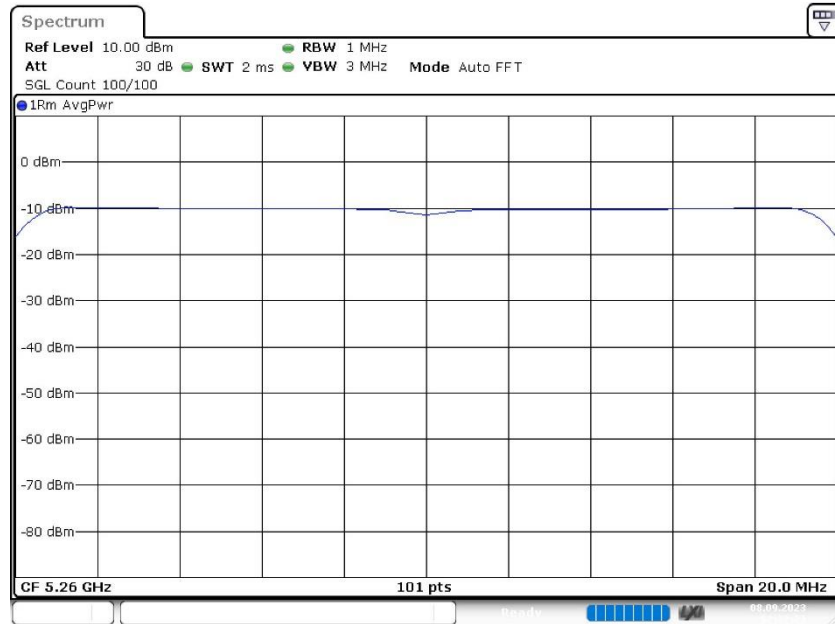
Port	State
1	used
2	used

PSD Connector 1



Date: 8.SEP.2023 02:22:16

## PSD Connector 2



## Measurement

Setting	Instrument Value	Target Value
Start Frequency	5.25000 GHz	5.25000 GHz
Stop Frequency	5.27000 GHz	5.27000 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

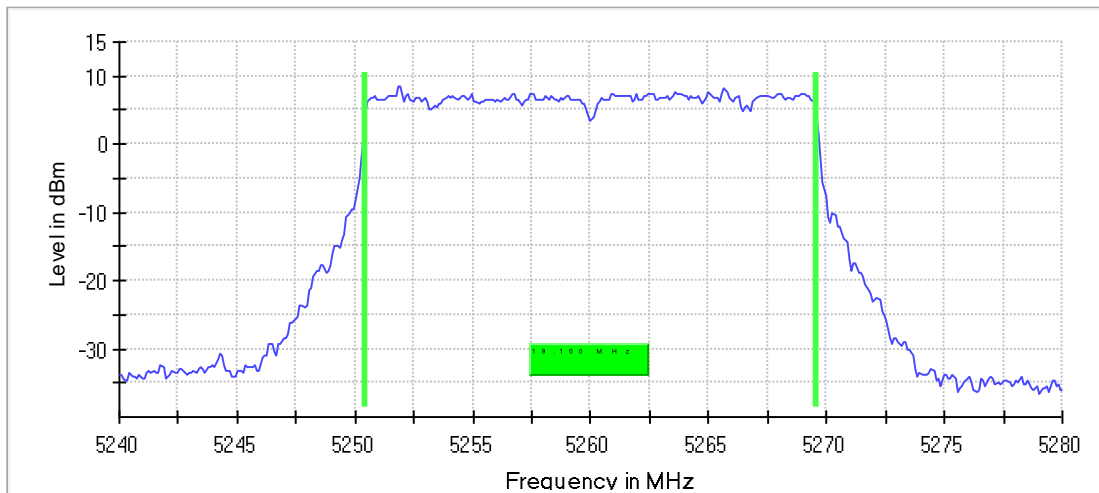
**Occupied Channel Bandwidth 99% (5260 MHz; 24.000 dBm; 20 MHz)**

## 99 % Bandwidth

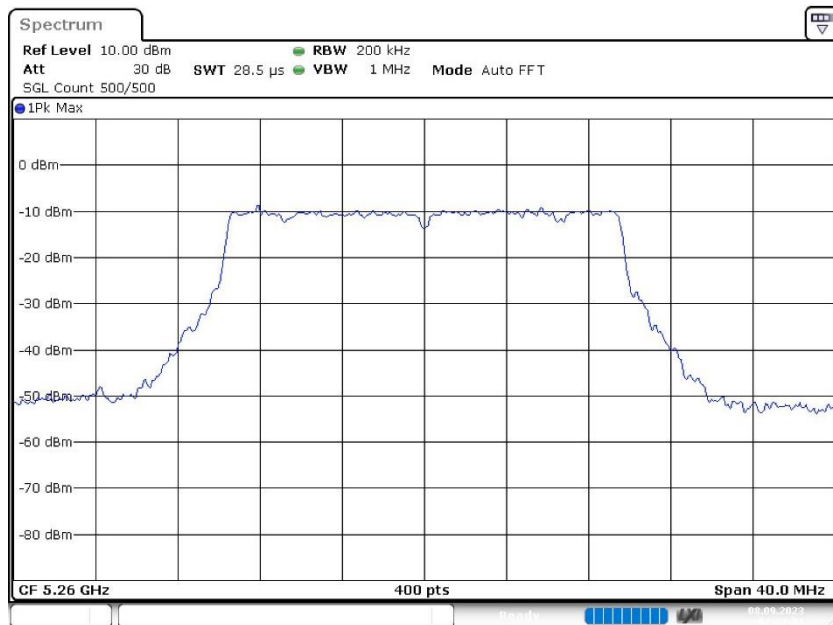
DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
5260.000000	19.100000	---	---	5250.450000	5269.550000

DUT Frequency (MHz)	Result
5260.000000	PASS





**Bandwidth**



Date: 8,SEP,2023 02:22:33

**Measurement**

Setting	Instrument Value	Target Value
Start Frequency	5.24000 GHz	5.24000 GHz
Stop Frequency	5.28000 GHz	5.28000 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

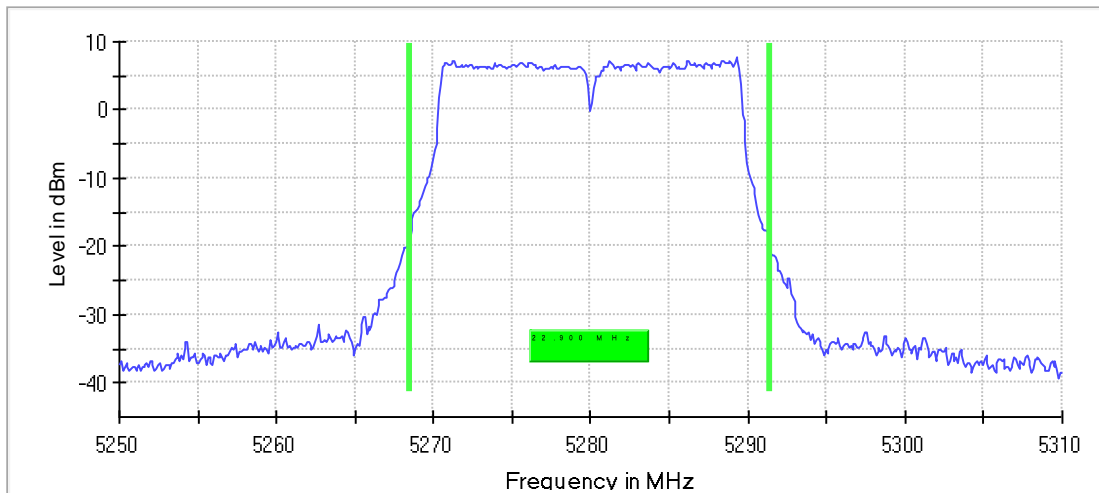
SweepTime	28.477 $\mu$ s	AUTO
Reference Level	10.000 dBm	10.000 dBm
Attenuation	30.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	500	500
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
SweepType	FFT	AUTO
Preamp	off	off

## Emission Bandwidth 26 dB (5280 MHz; 24.000 dBm; 20 MHz)

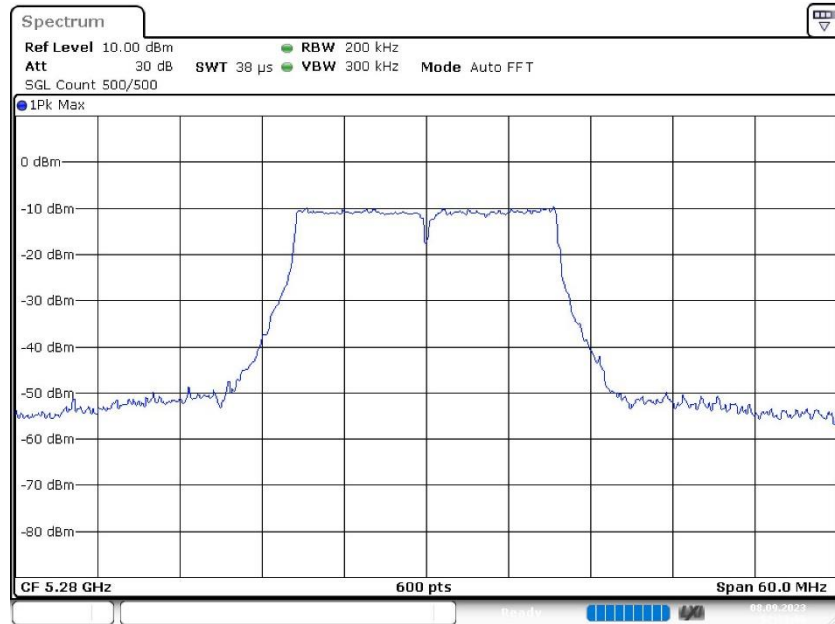
### 26 dB Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
5280.000000	22.900000	---	---	5268.450000	5291.350000

DUT Frequency (MHz)	Max Level (dBm)	Result
5280.000000	7.6	PASS



Bandwidth



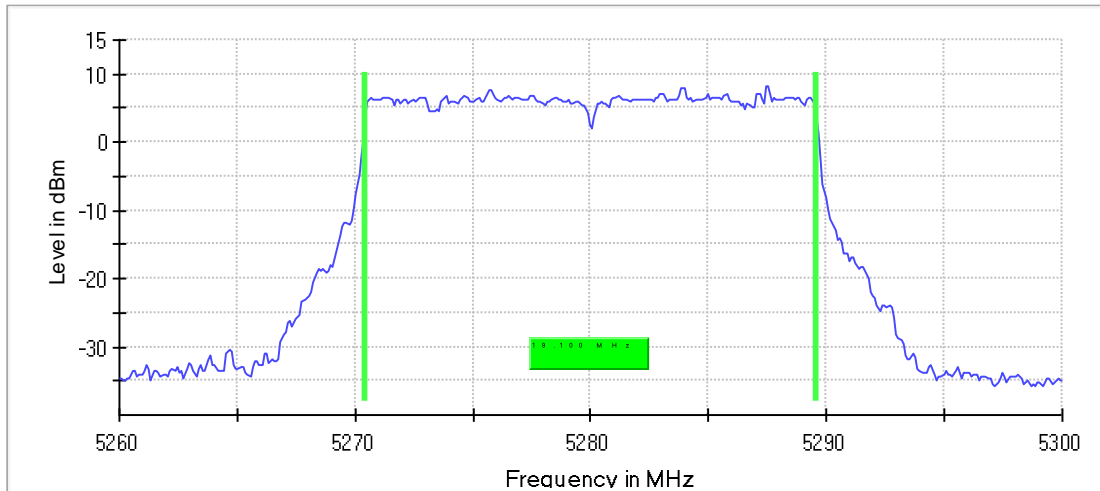
Date: 8..SEP.2023 02:23:09

**Occupied Channel Bandwidth 99% (5280 MHz; 24.000 dBm; 20 MHz)**

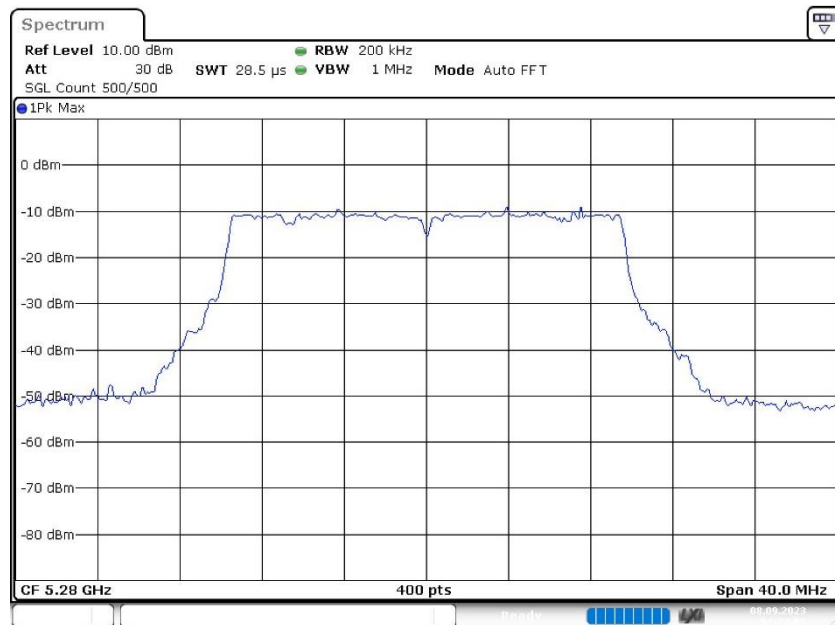
**99 % Bandwidth**

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
5280.000000	19.100000	---	---	5270.450000	5289.550000

DUT Frequency (MHz)	Result
5280.000000	PASS



**Bandwidth**



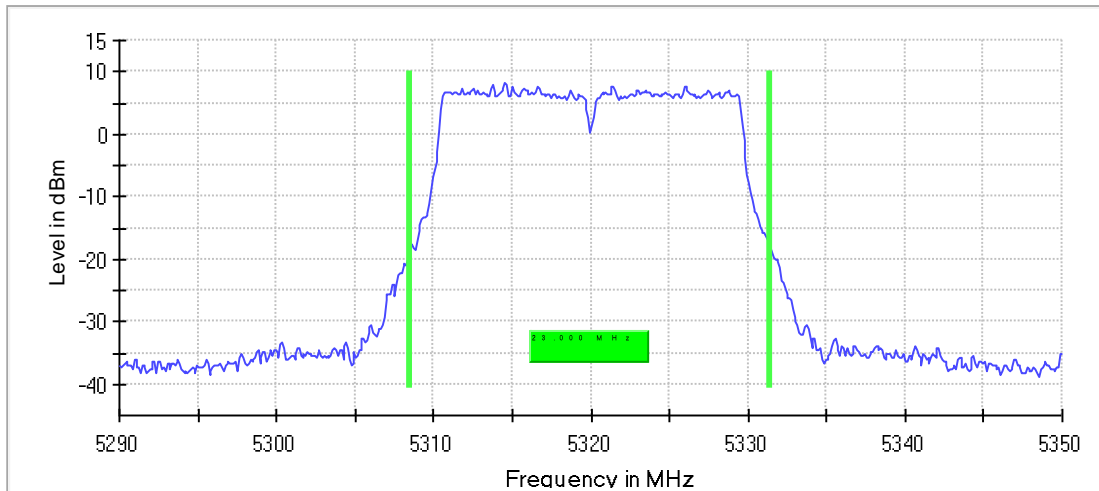
Date: 8.SEP.2023 02:24:05

**Emission Bandwidth 26 dB (5320 MHz; 24.000 dBm; 20 MHz)**

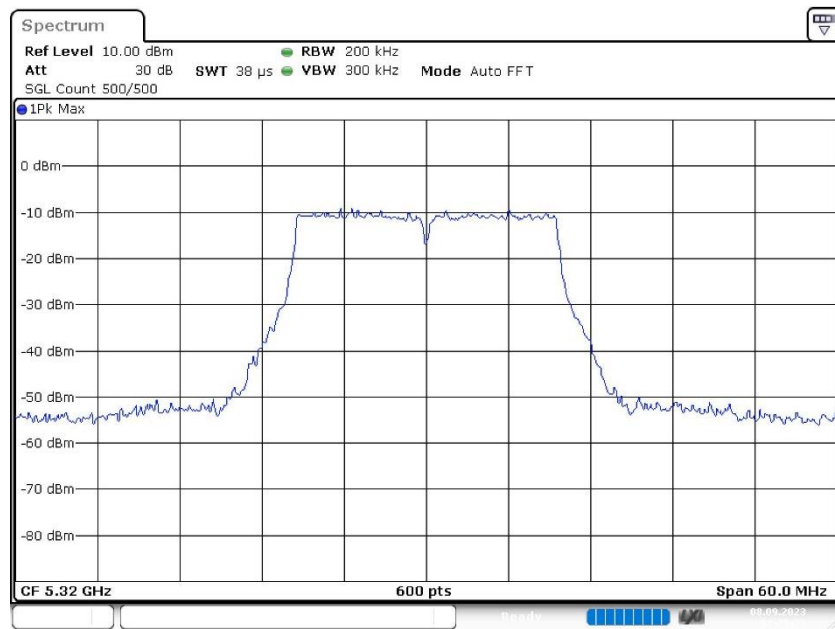
**26 dB Bandwidth**

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
5320.000000	23.000000	---	---	5308.450000	5331.450000

DUT Frequency (MHz)	Max Level (dBm)	Result
5320.000000	8.2	PASS



Bandwidth

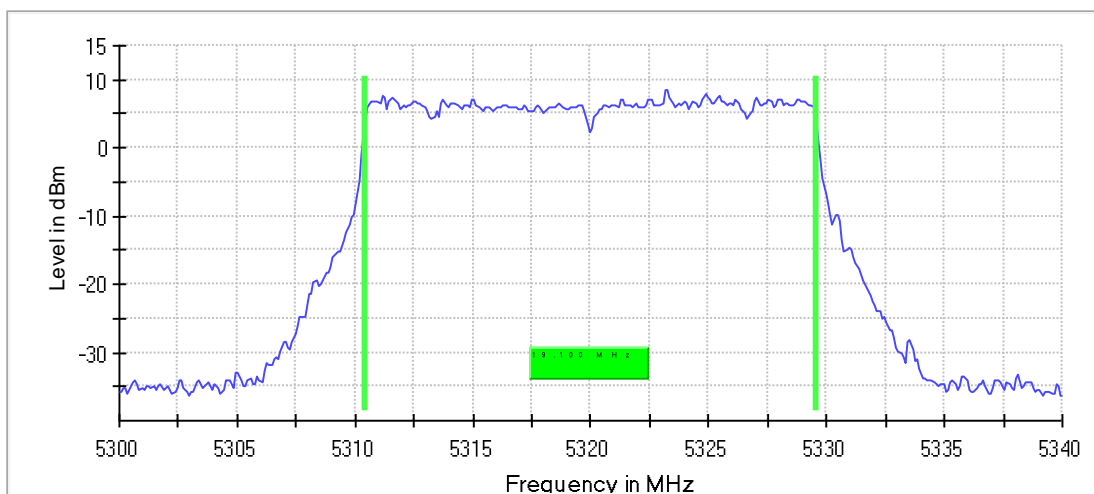


**Occupied Channel Bandwidth 99% (5320 MHz; 24.000 dBm; 20 MHz)**

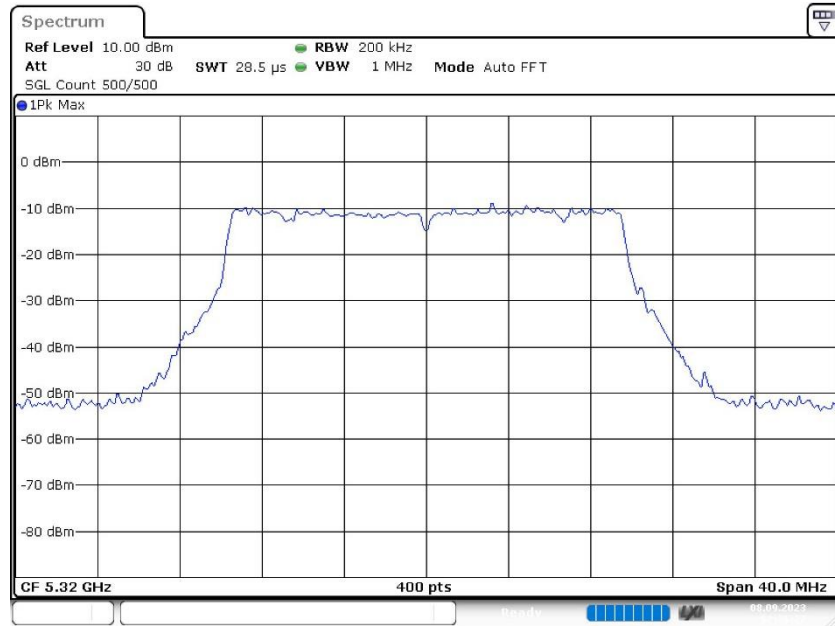
## 99 % Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
5320.000000	19.100000	---	---	5310.450000	5329.550000

DUT Frequency (MHz)	Result
5320.000000	PASS



Bandwidth



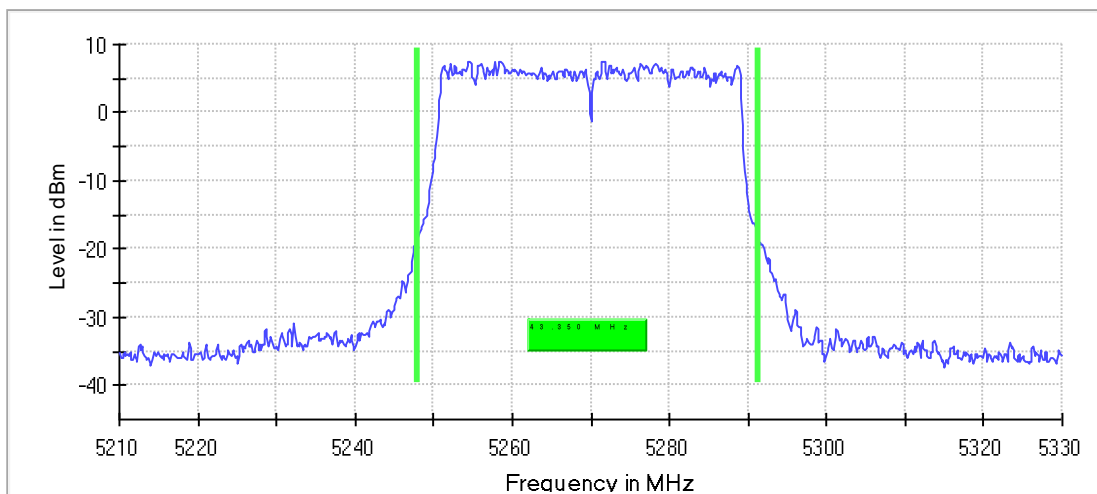
Date: 8.SEP.2023 02:26:28

### Emission Bandwidth 26 dB (5270 MHz; 24.000 dBm; 40 MHz)

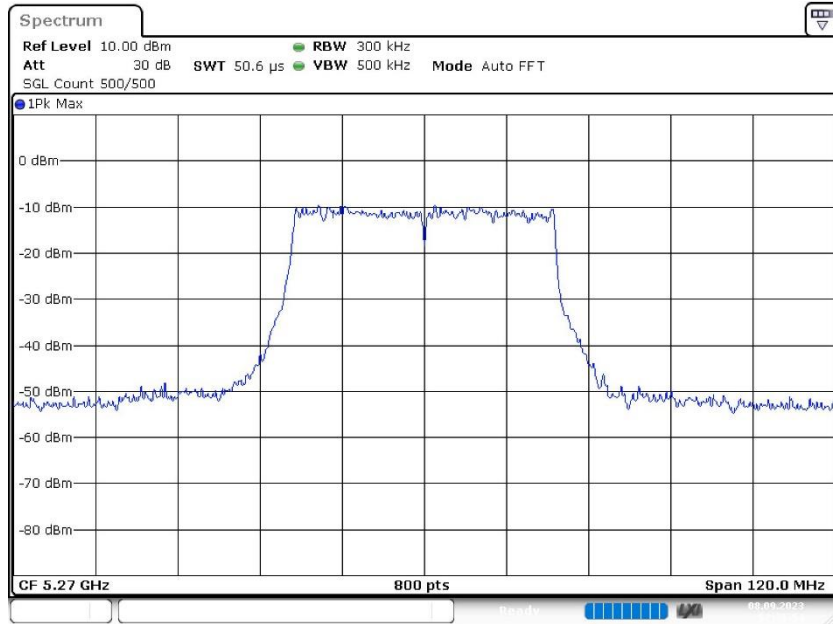
#### 26 dB Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
5270.000000	43.350000	---	---	5248.025000	5291.375000

DUT Frequency (MHz)	Max Level (dBm)	Result
5270.000000	7.6	PASS



Bandwidth



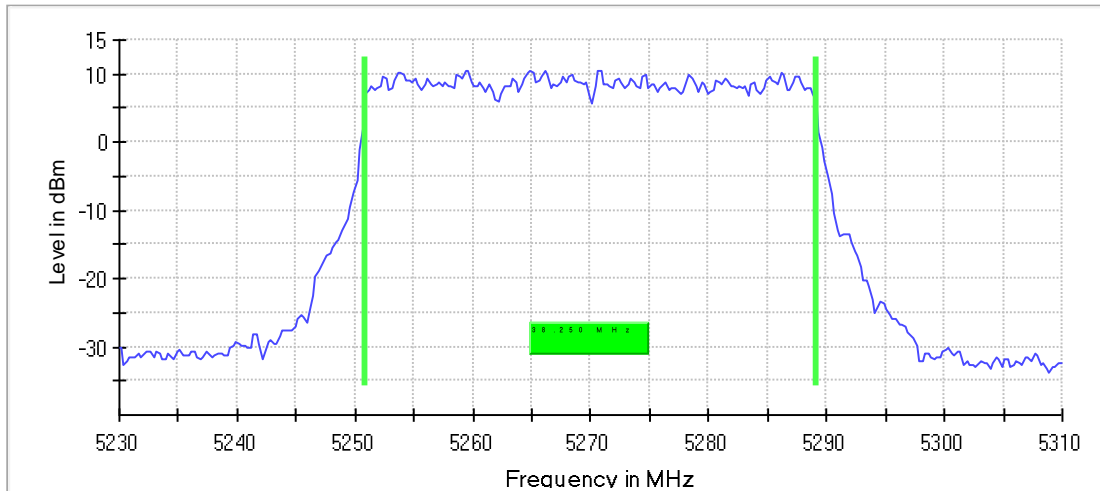
**Occupied Channel Bandwidth 99% (5270 MHz; 24.000 dBm; 40 MHz)**

**99 % Bandwidth**

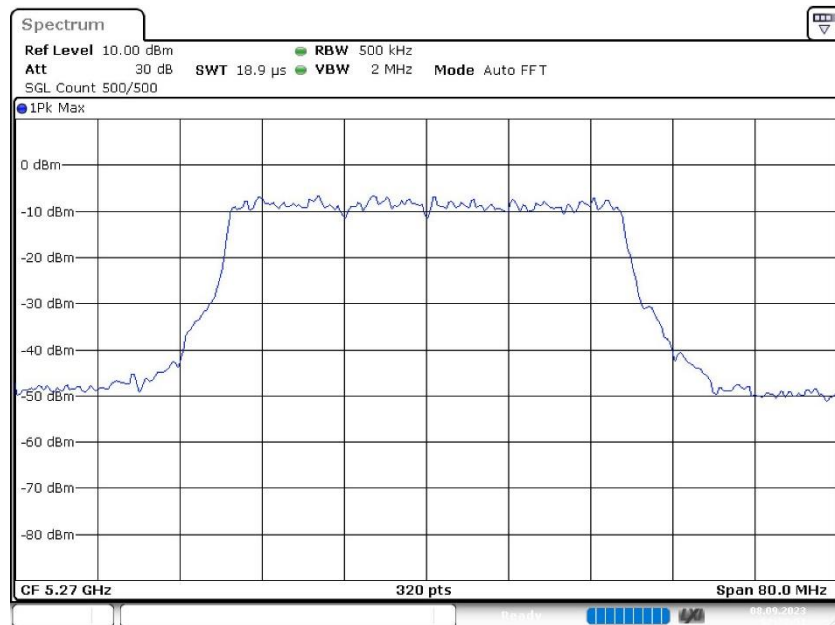
DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
5270.000000	38.250000	---	---	5250.875000	5289.125000

DUT Frequency (MHz)	Result
5270.000000	PASS





**Bandwidth**



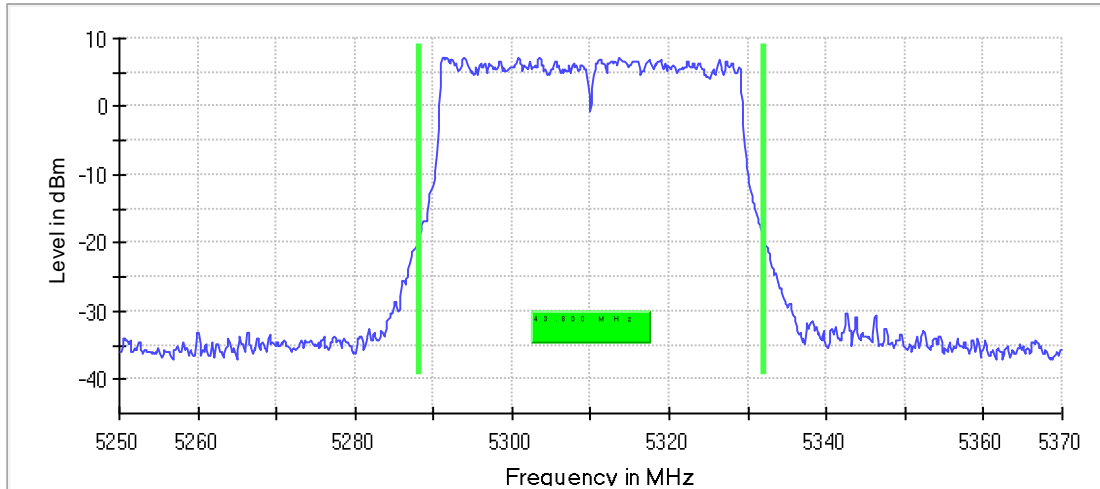
Date: 8. SEP. 2023 02:27:52

**Emission Bandwidth 26 dB (5310 MHz; 24.000 dBm; 40 MHz)**

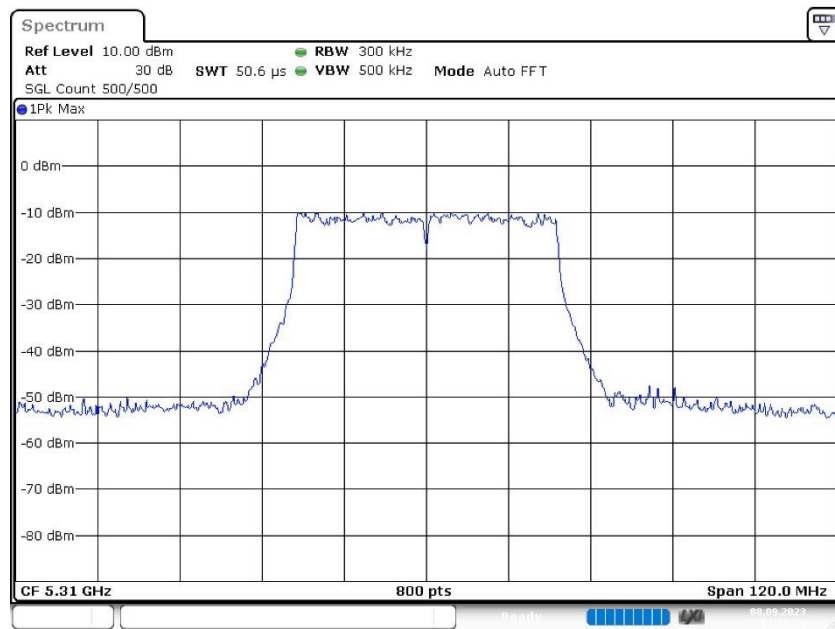
**26 dB Bandwidth**

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
5310.000000	43.800000	---	---	5288.175000	5331.975000

DUT Frequency (MHz)	Max Level (dBm)	Result
5310.000000	7.2	PASS



Bandwidth



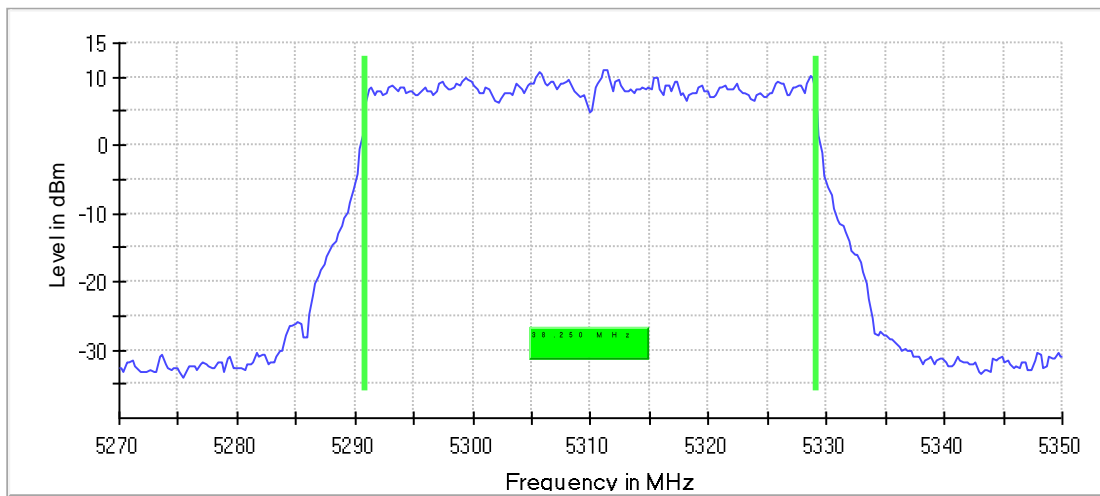
Date: 8.SEP.2023 02:28:28

**Occupied Channel Bandwidth 99% (5310 MHz; 24.000 dBm; 40 MHz)**

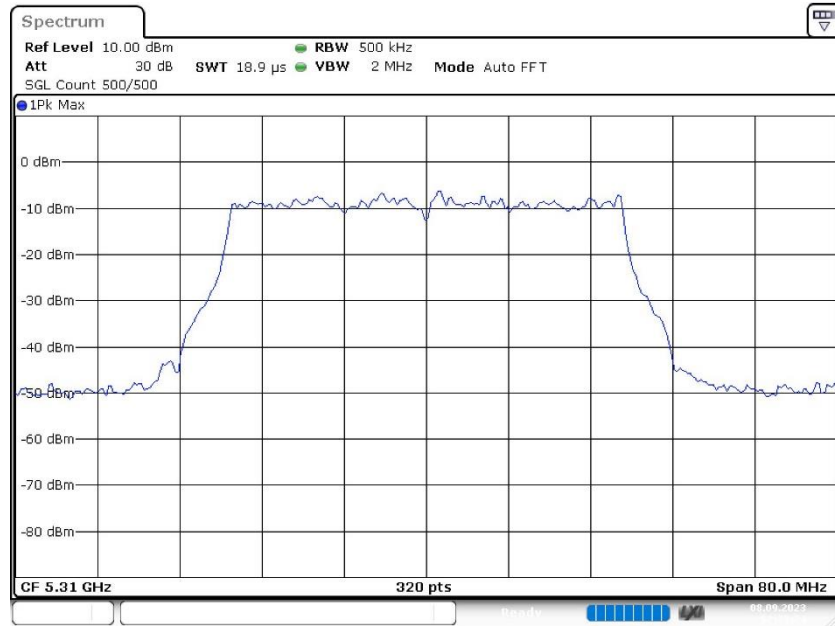
**99 % Bandwidth**

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
5310.000000	38.250000	---	---	5290.875000	5329.125000

DUT Frequency (MHz)	Result
5310.000000	PASS



Bandwidth

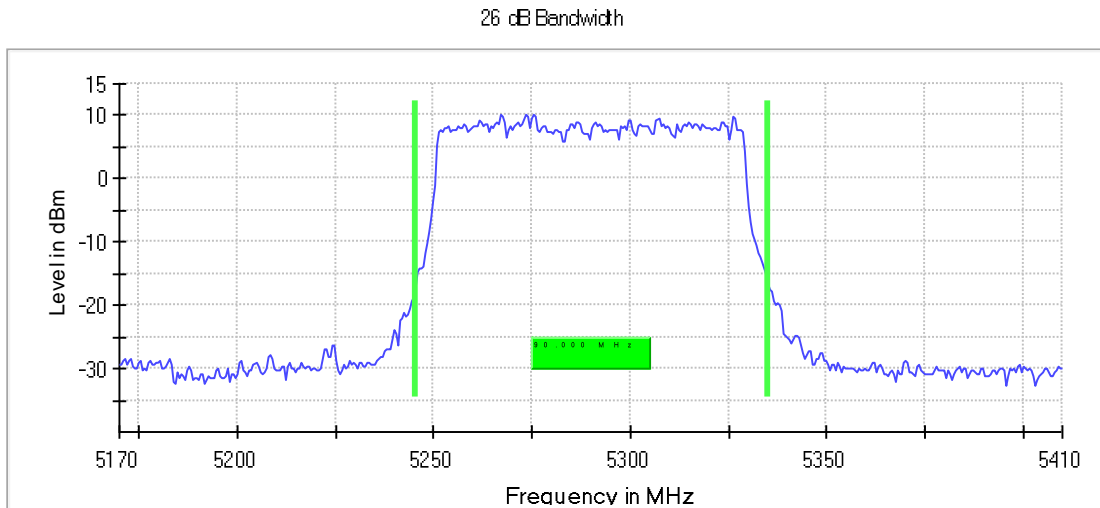


**Emission Bandwidth 26 dB (5290 MHz; 24.000 dBm; 80 MHz)**

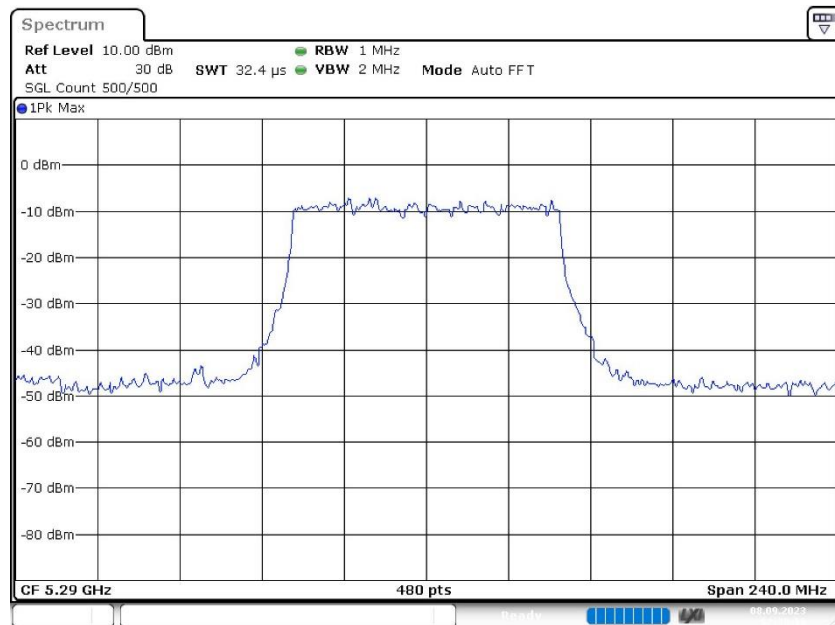
**26 dB Bandwidth**

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
5290.000000	90.000000	---	---	5245.250000	5335.250000

DUT Frequency (MHz)	Max Level (dBm)	Result
5290.000000	10.2	PASS



**Bandwidth**



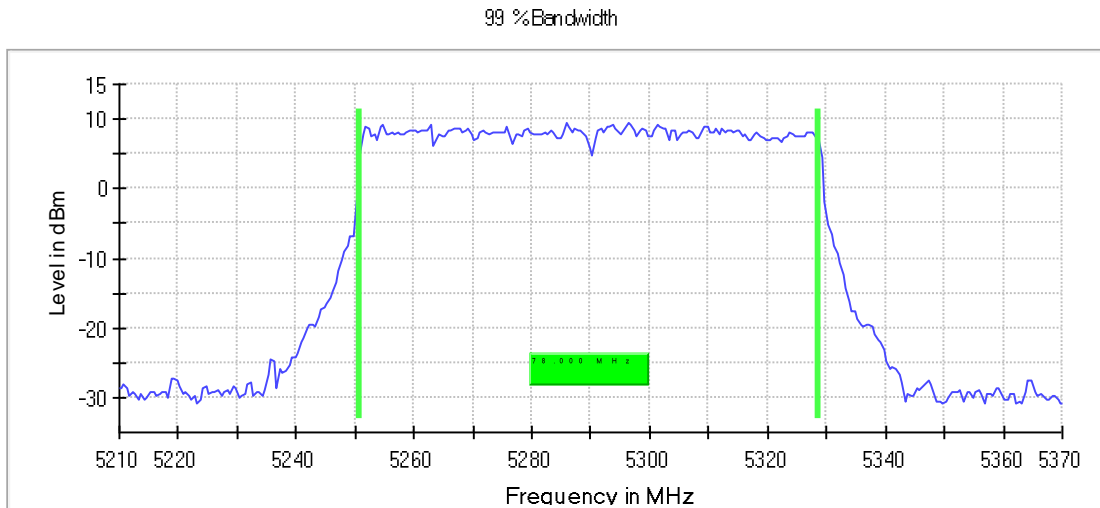
Date: 8.SEP.2023 02:39:37

**Occupied Channel Bandwidth 99% (5290 MHz; 24.000 dBm; 80 MHz)**

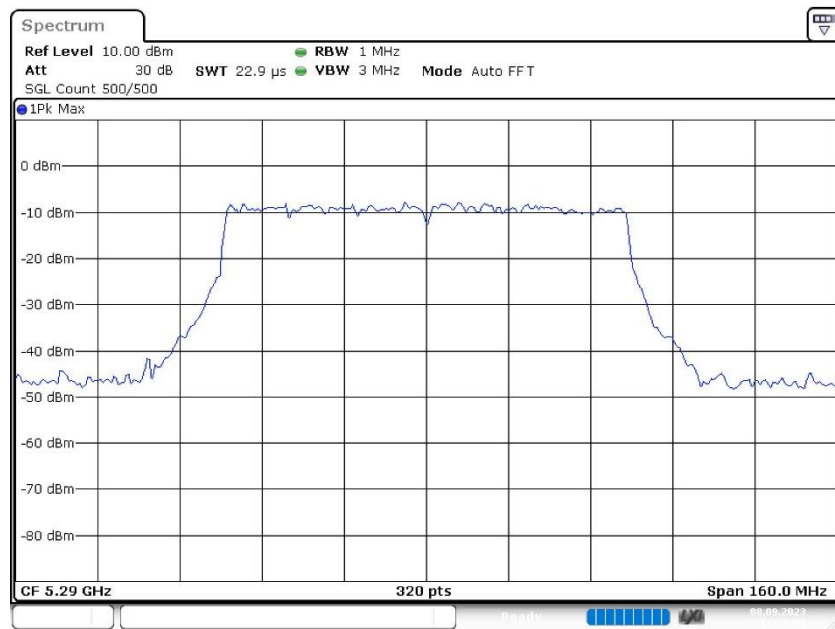
**99 % Bandwidth**

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
5290.000000	78.000000	---	---	5250.750000	5328.750000

DUT Frequency (MHz)	Result
5290.000000	PASS



Bandwidth



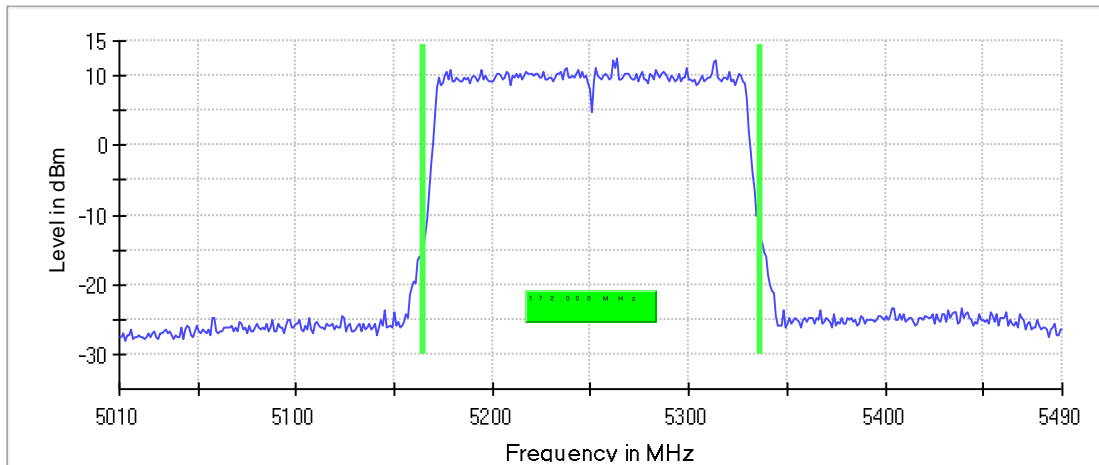
**Emission Bandwidth 26 dB (5250 MHz; 24.000 dBm; 160 MHz)**

**26 dB Bandwidth**

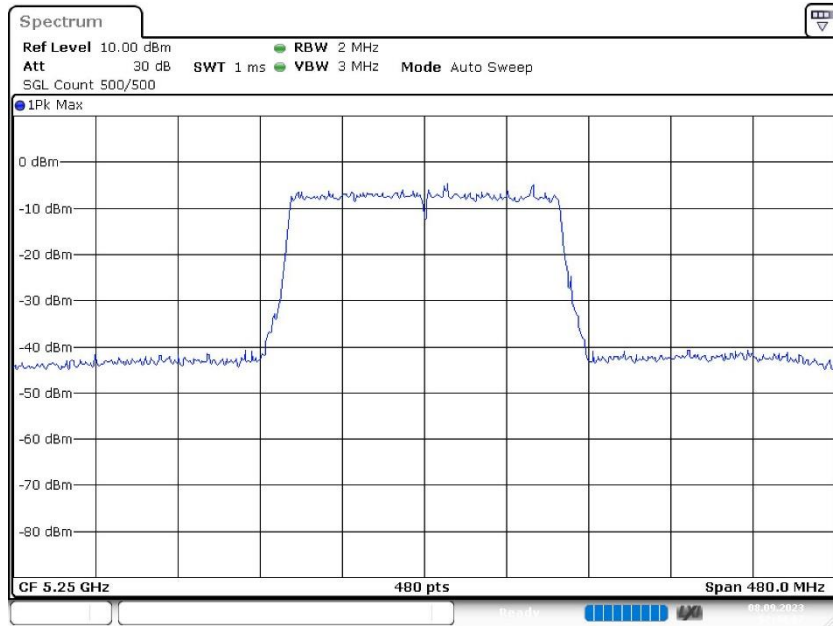
DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
5250.000000	172.000000	---	---	5164.500000	5336.500000

DUT Frequency (MHz)	Max Level (dBm)	Result
5250.000000	12.6	PASS

26 dB Bandwidth



Bandwidth



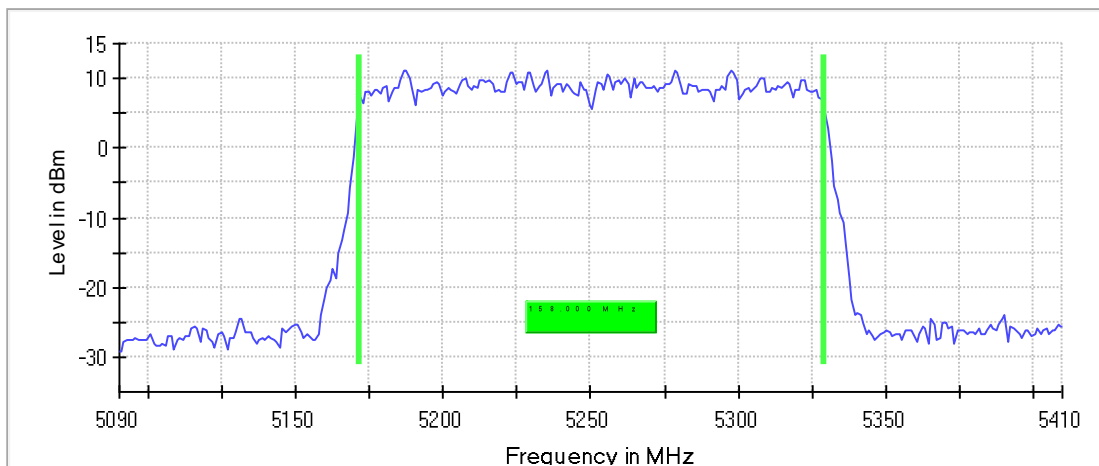
**Occupied Channel Bandwidth 99% (5250 MHz; 24.000 dBm; 160 MHz)**

**99 % Bandwidth**

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
5250.000000	158.000000	---	---	5171.500000	5329.500000

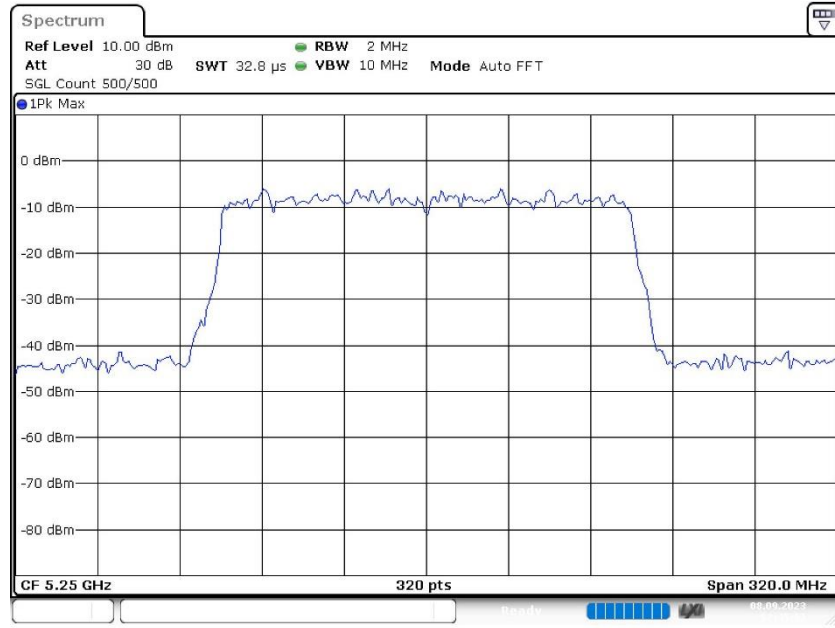
DUT Frequency (MHz)	Result
5250.000000	PASS

99 %Bandwidth





Bandwidth



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**-- End of Report --**