

FCC 15.407

DUT Information

Frequencies

WLAN CH 36 (5180 MHz)
WLAN CH 149 (5745 MHz)

WLAN CH 40 (5200 MHz)
WLAN CH 157 (5785 MHz)

WLAN CH 48 (5240 MHz)
WLAN CH 165 (5825 MHz)

Bandwidths

20 MHz (20 MHz)

Power

20.000 dBm (20 dBm)

Beamforming Gain

20.000 dBm (20 dBm) 0 dB

Gain Tables

20.000 dBm (20 dBm) Port 1: 0dBi;

DUT Settings

No. of transmission chains	1
DFS capability	Yes
DFS Mode	Master
Equipment Type	Portable
TPC	No

Hardware Setup: WMS Measurements\TS8997

Spectrum Analyzer:

SA FSV 40 (SA FSV 40) @ VISA (ADR
TCPIP::192.168.48.149::INST0::INSTR), SN 1321.3008K39/101229,
FW 3.40

Vector Generator:

VG SMBV100A (VG SMBV100A) @ VISA (ADR
TCPIP::192.168.48.25::INST0::INSTR), SN 260451, FW 4.15.125.49

Generator:

SMB100A (SMB100A) @ VISA (ADR
TCPIP::192.168.48.30::INST0::INSTR), SN 178361, FW 3.20.390.24
/ Drv:Rev 2.21.0, 07/2016, CVI 2015

OSP:

OSP-B157W (OSP-B157W) @ VISA (ADR
TCPIP::192.168.48.157::INST0::INSTR), SN 1527.1144. /, FW
1.23.0.2

Summary

Test	Frequency (MHz)	Nominal Power (dBm)	Nominal Bandwidth (MHz)	Result
Emission Bandwidth 26 dB	5180.000	20.0	20.000000	PASS
RF output power	5180.000	20.0	20.000000	PASS
Power Spectral Density	5180.000	20.0	20.000000	PASS
Minimum Emission Bandwidth 6 dB	5180.000	20.0	20.000000	PASS
Occupied Channel Bandwidth 99%	5180.000	20.0	20.000000	PASS
Band Edge low	5180.000	20.0	20.000000	PASS
Emission Bandwidth 26 dB	5200.000	20.0	20.000000	PASS
RF output power	5200.000	20.0	20.000000	PASS
Power Spectral Density	5200.000	20.0	20.000000	PASS
Minimum Emission Bandwidth 6 dB	5200.000	20.0	20.000000	PASS
Occupied Channel Bandwidth 99%	5200.000	20.0	20.000000	PASS
Emission Bandwidth 26 dB	5240.000	20.0	20.000000	PASS
RF output power	5240.000	20.0	20.000000	PASS
Power Spectral Density	5240.000	20.0	20.000000	PASS
Minimum Emission Bandwidth 6 dB	5240.000	20.0	20.000000	PASS
Occupied Channel Bandwidth 99%	5240.000	20.0	20.000000	PASS
Band Edge high	5240.000	20.0	20.000000	PASS

Emission Bandwidth 26 dB (5180 MHz; 20.000 dBm; 20 MHz)

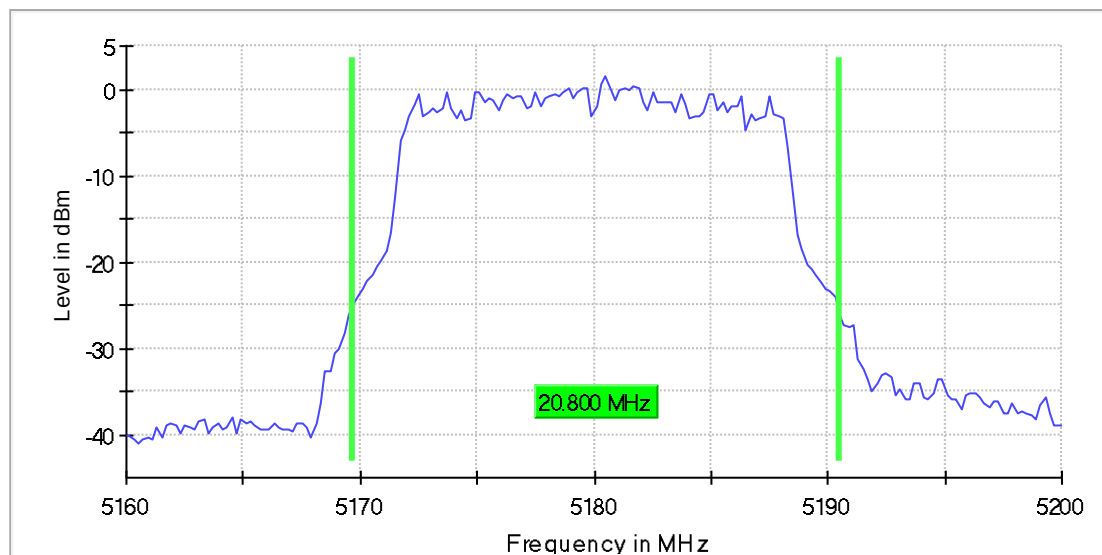
Test according to FCC title 47 part 15 §15.407(a),(e),

26 dB Bandwidth

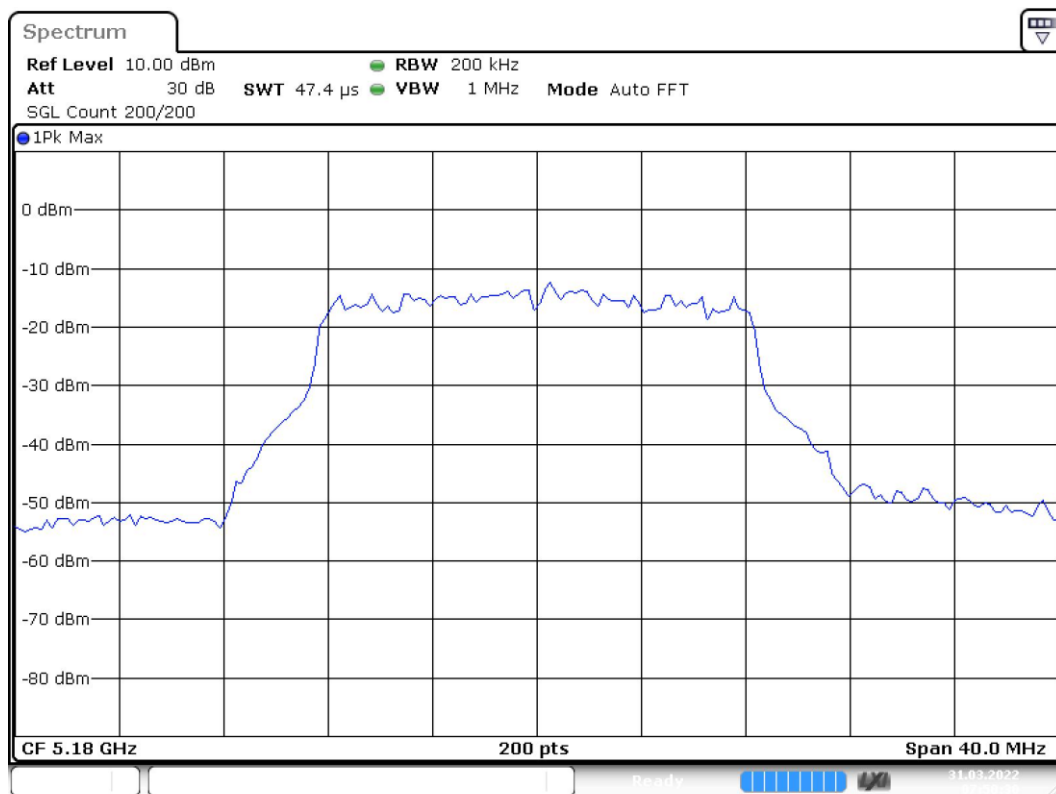
DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
5180.000000	20.800000	---	---	5169.700000	5190.500000

(continuation of the "26 dB Bandwidth" table from column 6 ...)

DUT Frequency (MHz)	Max Level (dBm)	Result
5180.000000	1.6	PASS



Bandwidth



Date: 31.MAR.2022 07:50:30

Measurement

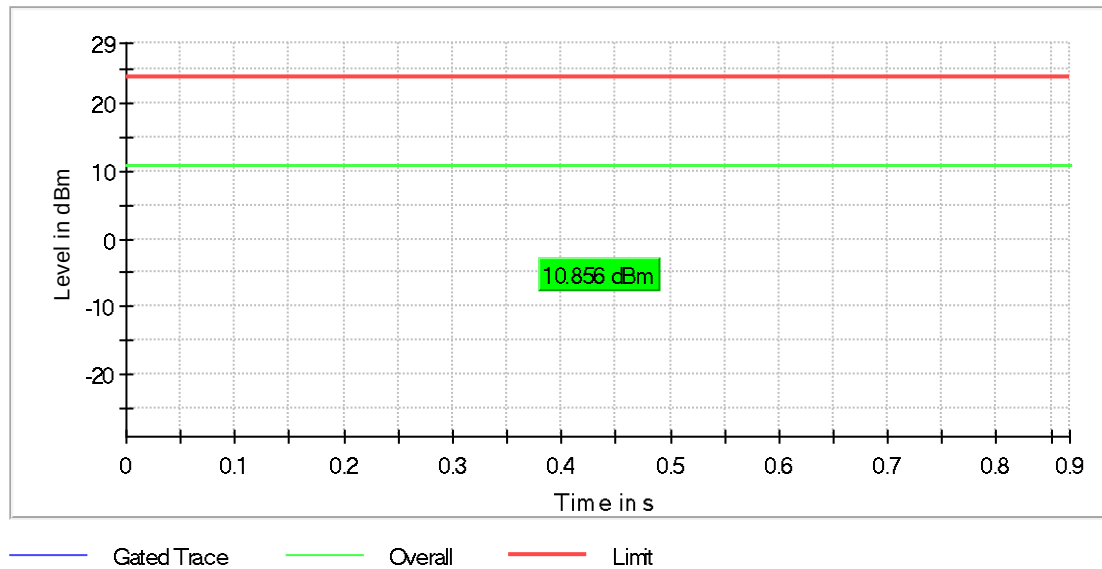
Setting	Instrument Value	Target Value
Start Frequency	5.16000 GHz	5.16000 GHz
Stop Frequency	5.20000 GHz	5.20000 GHz
Span	40.000 MHz	40.000 MHz
RBW	200.000 kHz	~ 200.000 kHz
VBW	1.000 MHz	>= 600.000 kHz
SweepPoints	200	~ 200
SweepTime	47.405 µs	AUTO
Reference Level	10.000 dBm	10.000 dBm
Attenuation	30.000 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
Stablemode	Trace	Trace
Stablevalue	0.30 dB	0.30 dB
Run	11 / max. 150	max. 150
Stable	5 / 5	5
Max Stable Difference	0.08 dB	0.30 dB

RF output power (5180 MHz; 20.000 dBm; 20 MHz)

Test according to FCC title 47 part 15 §15.407(a),

Result

DUT Frequency (MHz)	Gated RMS (dBm)	Limit Max (dBm)	Gated EIRP (dBm)	DutyCycle (%)	Result
5180.000000	10.9	24.0	10.9	86.279	PASS



Power Spectral Density (5180 MHz; 20.000 dBm; 20 MHz)

Customized settings.

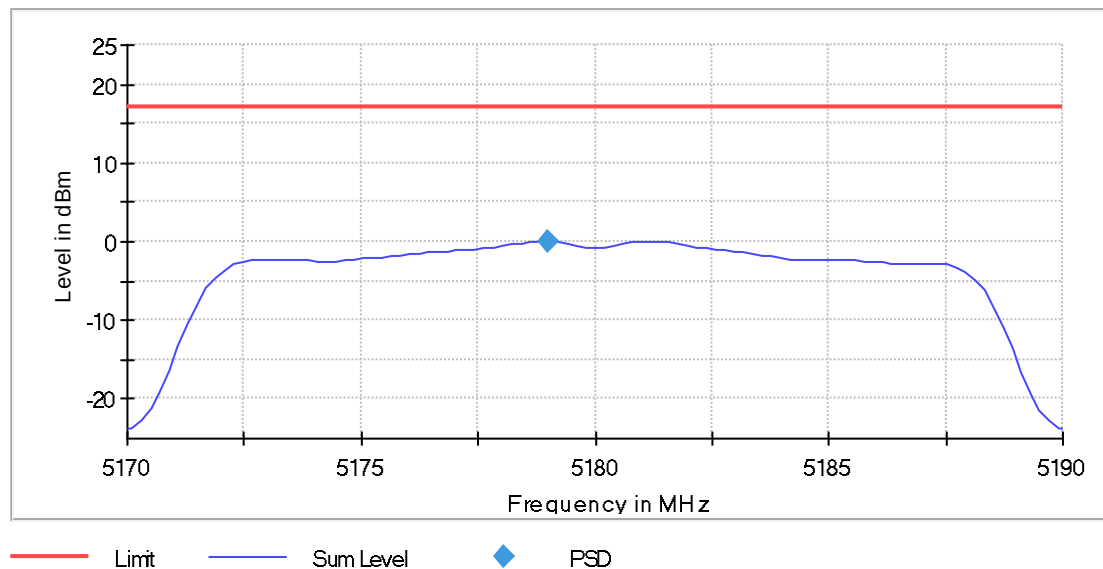
Test according to FCC title 47 part 15 §15.407(a),

Result

DUT Frequency (MHz)	Frequency (MHz)	PSD (dBm)	Limit Max (dBm)	Result
5180.000000	5179.009901	0.106	17.0	PASS

Ports

Port	Duty Cycle (%)
1	85.614



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
Sweptime	2.020 s	2.020 s
Reference Level	0.000 dBm	0.000 dBm
Attenuation	20.000 dB	AUTO
Detector	RMS	RMS
SweepCount	100	100
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
SweepType	Sweep	AUTO
Preamp	off	off
Stablemode	Trace	Trace
Stablevalue	0.30 dB	0.30 dB
Run	2 / max. 15	max. 15

Stable	1 / 1	1
Max Stable Difference	0.03 dB	0.30 dB

Minimum Emission Bandwidth 6 dB (5180 MHz; 20.000 dBm; 20 MHz)

Customized settings.

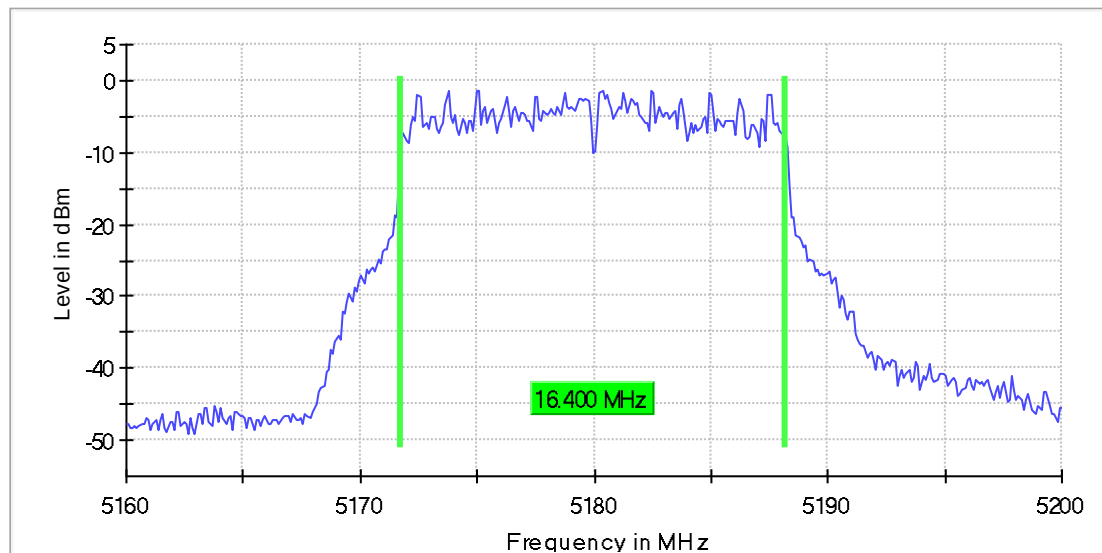
Test according to FCC title 47 part 15 §15.407(a),(e),

6 dB Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
5180.000000	16.400000	---	---	5171.750000	5188.150000

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

DUT Frequency (MHz)	Max Level (dBm)	Result
5180.000000	-1.4	PASS



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	100.000 kHz	~ 100.000 kHz
VBW	300.000 kHz	~ 300.000 kHz
SweepPoints	400	~ 400
SweepTime	94.810 μ s	AUTO
Reference Level	0.000 dBm	0.000 dBm
Attenuation	20.000 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
Stablemode	Trace	Trace
Stablevalue	0.30 dB	0.30 dB

Run	7 / max. 150	max. 150
Stable	1 / 1	1
Max Stable Difference	0.28 dB	0.30 dB

Occupied Channel Bandwidth 99% (5180 MHz; 20.000 dBm; 20 MHz)

Customized settings.

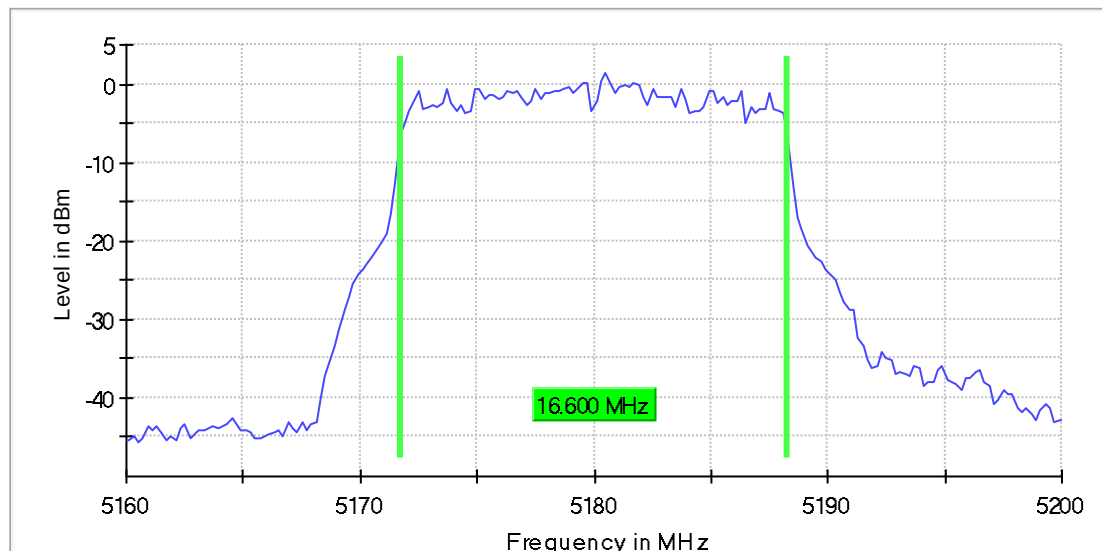
Test according to FCC title 47 part 15 §15.407(a),(e),

99 % Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
5180.000000	16.600000	---	---	5171.700000	5188.300000

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

DUT Frequency (MHz)	Result
5180.000000	PASS



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	200	~ 200
SweepTime	47.405 µs	AUTO
Reference Level	0.000 dBm	0.000 dBm
Attenuation	20.000 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
Stablemode	Trace	Trace
Stablevalue	0.30 dB	0.30 dB
Run	5 / max. 150	max. 150
Stable	1 / 1	1

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Max Stable Difference	0.29 dB	0.30 dB
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Band Edge low (5180 MHz; 20.000 dBm; 20 MHz)

Customized settings.

Test according to FCC title 47 part 15 §15.407(b),

Result

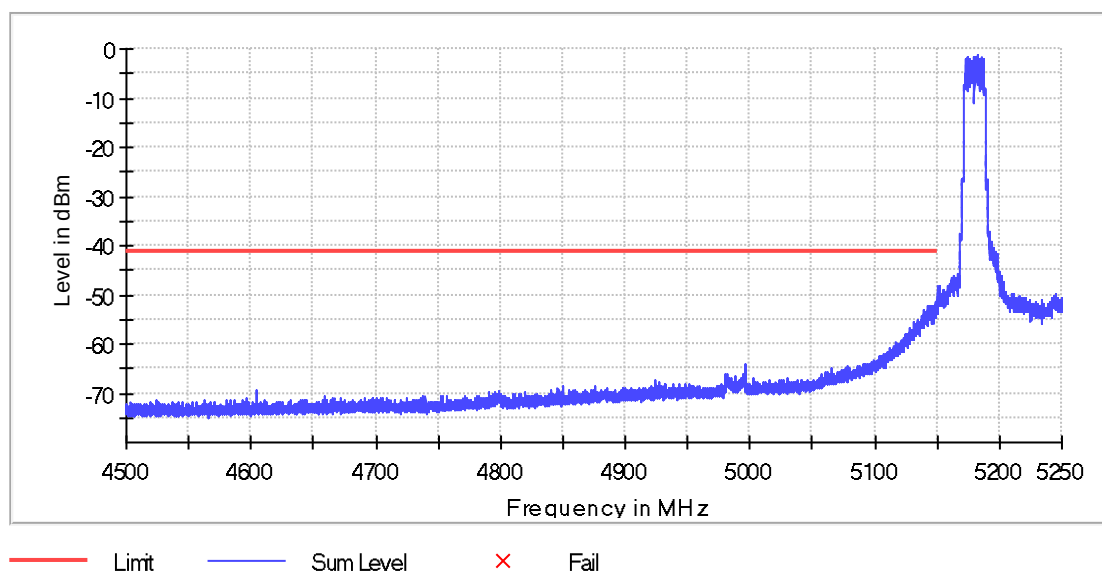
DUT Frequency (MHz)	Result
5180.000000	PASS

Inband Peak

Frequency (MHz)	Level (dBm)
5182.475000	-1.4

Measurements

Frequency (MHz)	Level (dBm)	Margin (dB)	Limit (dBm)	Result
5149.675000	-51.2	10.0	-41.2	PASS
5148.575000	-51.5	10.3	-41.2	PASS
5149.725000	-51.6	10.3	-41.2	PASS
5149.625000	-51.6	10.4	-41.2	PASS
5148.825000	-51.7	10.5	-41.2	PASS
5148.725000	-51.7	10.5	-41.2	PASS
5148.775000	-51.8	10.5	-41.2	PASS
5148.875000	-51.8	10.6	-41.2	PASS
5148.625000	-51.8	10.6	-41.2	PASS
5148.975000	-52.0	10.8	-41.2	PASS
5141.775000	-52.1	10.9	-41.2	PASS
5147.525000	-52.1	10.9	-41.2	PASS
5143.275000	-52.2	11.0	-41.2	PASS
5145.675000	-52.2	11.0	-41.2	PASS
5148.525000	-52.3	11.0	-41.2	PASS



Measurement 1

Setting	Instrument Value	Target Value
Start Frequency	5.15000 GHz	5.15000 GHz
Stop Frequency	5.25000 GHz	5.25000 GHz
Span	100.000 MHz	100.000 MHz
RBW	100.000 kHz	<= 100.000 kHz
VBW	300.000 kHz	>= 300.000 kHz
SweepPoints	2000	~ 2000
SweepTime	227.813 μ s	AUTO
Reference Level	0.000 dBm	0.000 dBm
Attenuation	20.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	100	100
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
SweepType	FFT	AUTO
Preamp	off	off
Stablemode	Trace	Trace
Stablevalue	0.50 dB	0.50 dB
Run	11 / max. 150	max. 150
Stable	3 / 3	3
Max Stable Difference	0.16 dB	0.50 dB

Measurement 2

Setting	Instrument Value	Target Value
Start Frequency	4.50000 GHz	4.50000 GHz
Stop Frequency	5.15000 GHz	5.15000 GHz
Span	650.000 MHz	650.000 MHz
RBW	100.000 kHz	<= 100.000 kHz
VBW	300.000 kHz	>= 300.000 kHz
SweepPoints	13000	~ 13000
SweepTime	13.000 ms	AUTO
Reference Level	-20.000 dBm	-20.000 dBm
Attenuation	0.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	100	100
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
SweepType	Sweep	AUTO
Preamp	off	off
Stablemode	Trace	Trace
Stablevalue	0.50 dB	0.50 dB
Run	66 / max. 150	max. 150
Stable	3 / 3	3
Max Stable Difference	0.03 dB	0.50 dB

Emission Bandwidth 26 dB (5200 MHz; 20.000 dBm; 20 MHz)

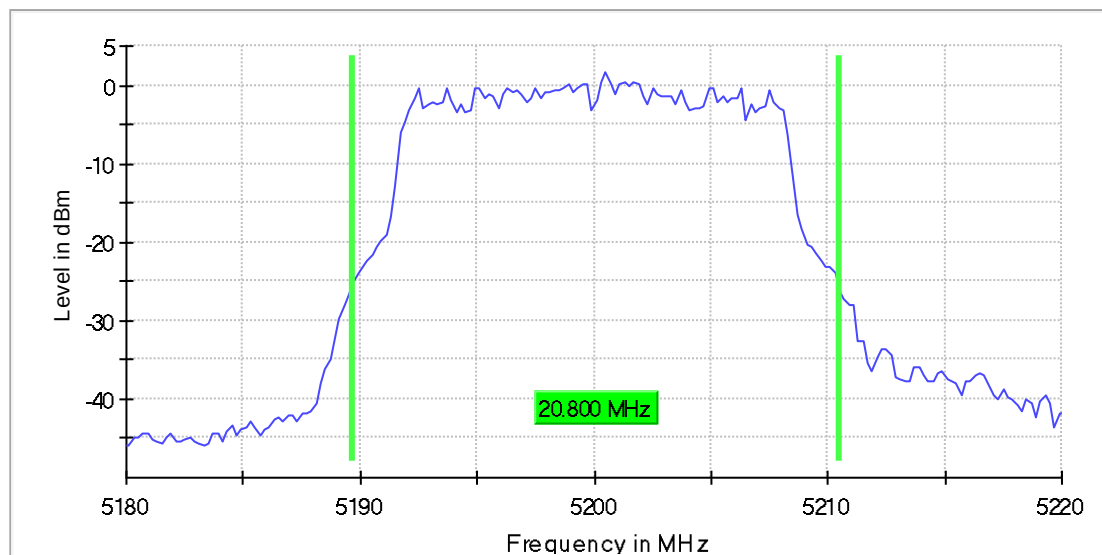
Test according to FCC title 47 part 15 §15.407(a),(e),

26 dB Bandwidth

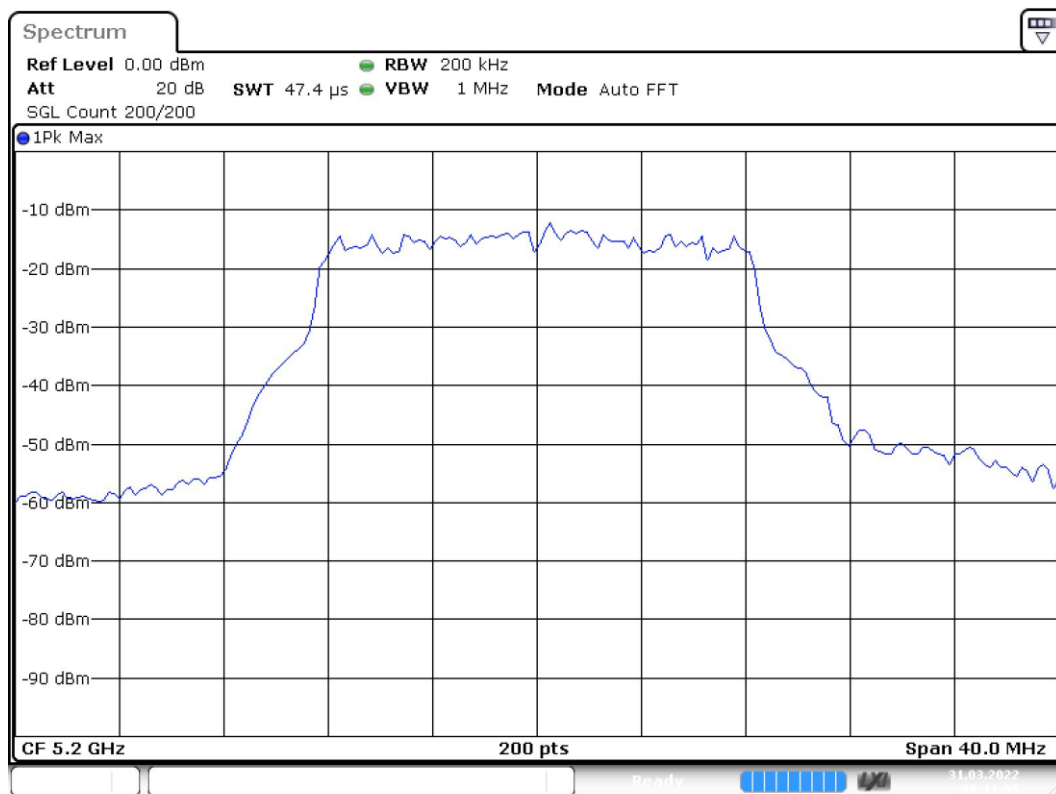
DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
5200.000000	20.800000	---	---	5189.700000	5210.500000

(continuation of the "26 dB Bandwidth" table from column 6 ...)

DUT Frequency (MHz)	Max Level (dBm)	Result
5200.000000	1.8	PASS



Bandwidth



Date: 31.MAR.2022 08:11:55

Measurement

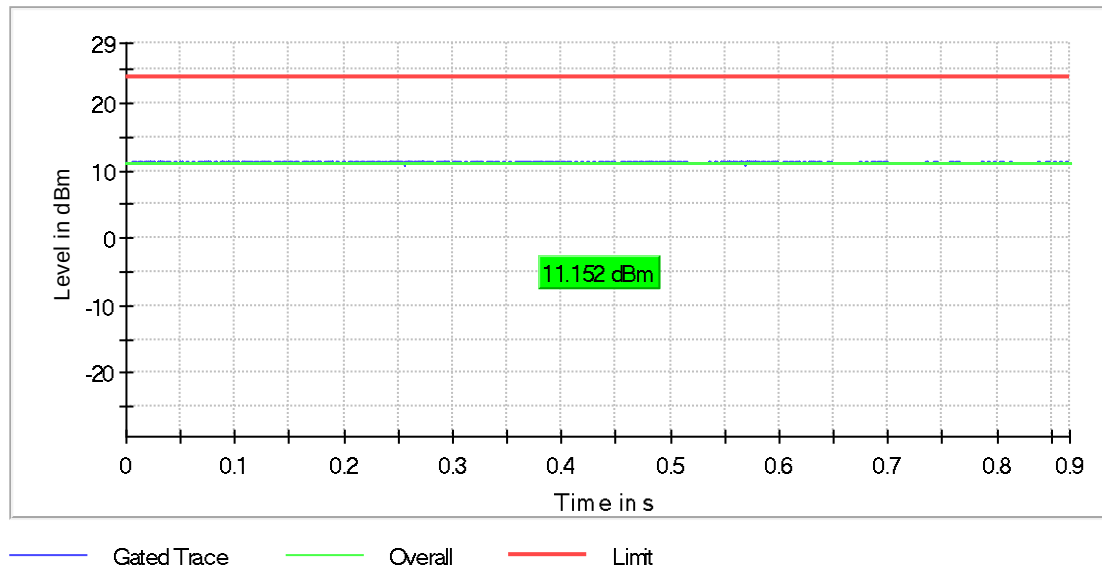
Setting	Instrument Value	Target Value
Start Frequency	5.18000 GHz	5.18000 GHz
Stop Frequency	5.22000 GHz	5.22000 GHz
Span	40.000 MHz	40.000 MHz
RBW	200.000 kHz	~ 200.000 kHz
VBW	1.000 MHz	>= 600.000 kHz
SweepPoints	200	~ 200
SweepTime	47.405 μ s	AUTO
Reference Level	0.000 dBm	0.000 dBm
Attenuation	20.000 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
Stablemode	Trace	Trace
Stablevalue	0.30 dB	0.30 dB
Run	20 / max. 150	max. 150
Stable	5 / 5	5
Max Stable Difference	0.04 dB	0.30 dB

RF output power (5200 MHz; 20.000 dBm; 20 MHz)

Test according to FCC title 47 part 15 §15.407(a),

Result

DUT Frequency (MHz)	Gated RMS (dBm)	Limit Max (dBm)	Gated EIRP (dBm)	DutyCycle (%)	Result
5200.000000	11.2	24.0	11.2	86.256	PASS



Power Spectral Density (5200 MHz; 20.000 dBm; 20 MHz)

Customized settings.

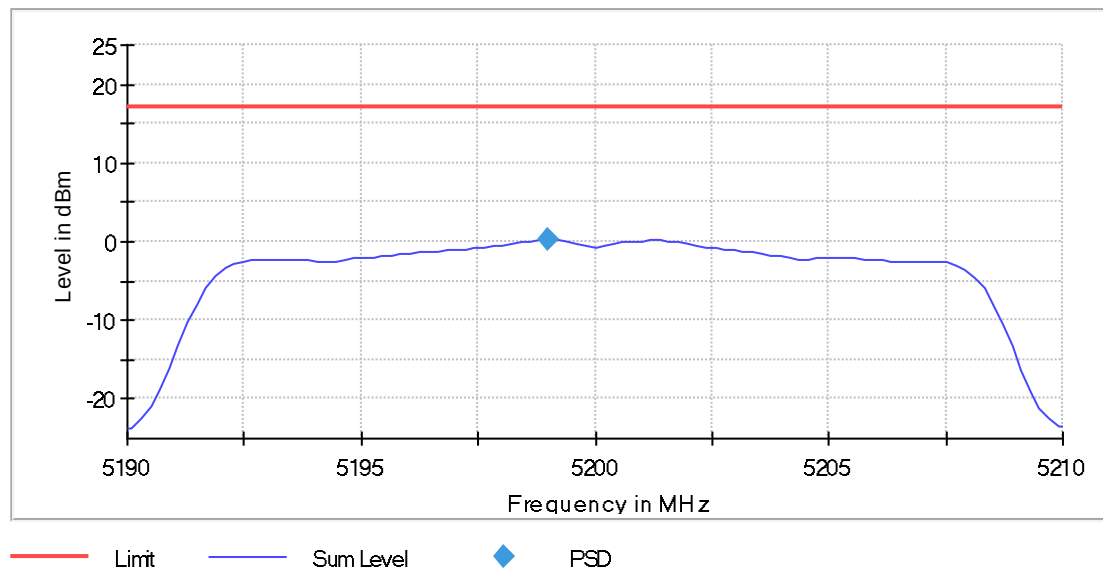
Test according to FCC title 47 part 15 §15.407(a),

Result

DUT Frequency (MHz)	Frequency (MHz)	PSD (dBm)	Limit Max (dBm)	Result
5200.000000	5199.009901	0.226	17.0	PASS

Ports

Port	Duty Cycle (%)
1	85.608



Measurement

Setting	Instrument Value	Target Value
Start Frequency	5.19000 GHz	5.19000 GHz
Stop Frequency	5.21000 GHz	5.21000 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
Sweptime	2.020 s	2.020 s
Reference Level	0.000 dBm	0.000 dBm
Attenuation	20.000 dB	AUTO
Detector	RMS	RMS
SweepCount	100	100
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
SweepType	Sweep	AUTO
Preamp	off	off
Stablemode	Trace	Trace
Stablevalue	0.30 dB	0.30 dB
Run	2 / max. 15	max. 15

Stable	1 / 1	1
Max Stable Difference	0.13 dB	0.30 dB

Minimum Emission Bandwidth 6 dB (5200 MHz; 20.000 dBm; 20 MHz)

Customized settings.

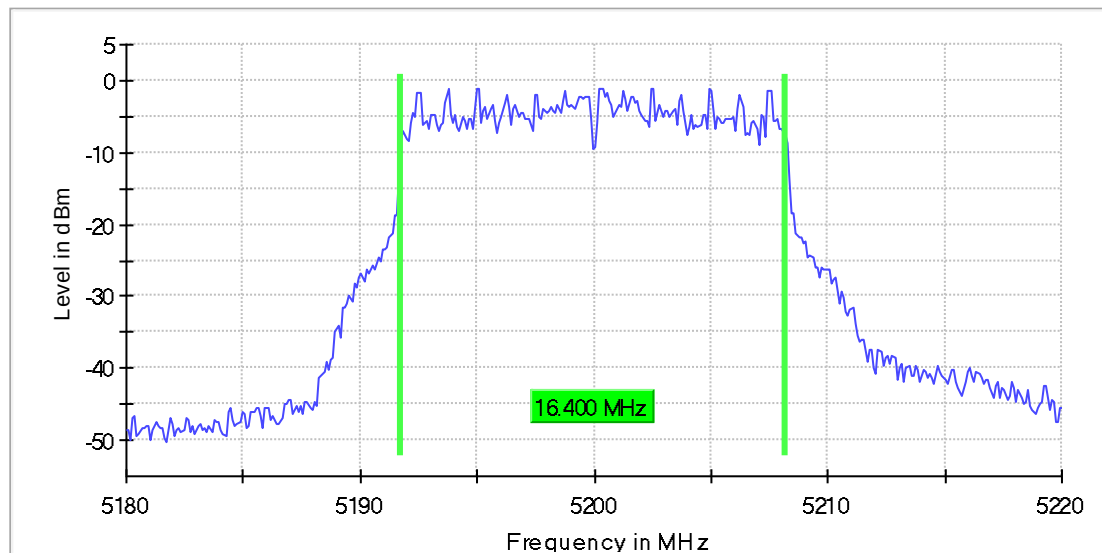
Test according to FCC title 47 part 15 §15.407(a),(e),

6 dB Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
5200.000000	16.400000	---	---	5191.750000	5208.150000

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

DUT Frequency (MHz)	Max Level (dBm)	Result
5200.000000	-1.1	PASS



Measurement

Setting	Instrument Value	Target Value
Start Frequency	5.18000 GHz	5.18000 GHz
Stop Frequency	5.22000 GHz	5.22000 GHz
Span	40.000 MHz	40.000 MHz
RBW	100.000 kHz	~ 100.000 kHz
VBW	300.000 kHz	~ 300.000 kHz
SweepPoints	400	~ 400
SweepTime	94.810 μ s	AUTO
Reference Level	0.000 dBm	0.000 dBm
Attenuation	20.000 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
Stablemode	Trace	Trace
Stablevalue	0.30 dB	0.30 dB

Run	6 / max. 150	max. 150
Stable	1 / 1	1
Max Stable Difference	0.14 dB	0.30 dB

Occupied Channel Bandwidth 99% (5200 MHz; 20.000 dBm; 20 MHz)

Customized settings.

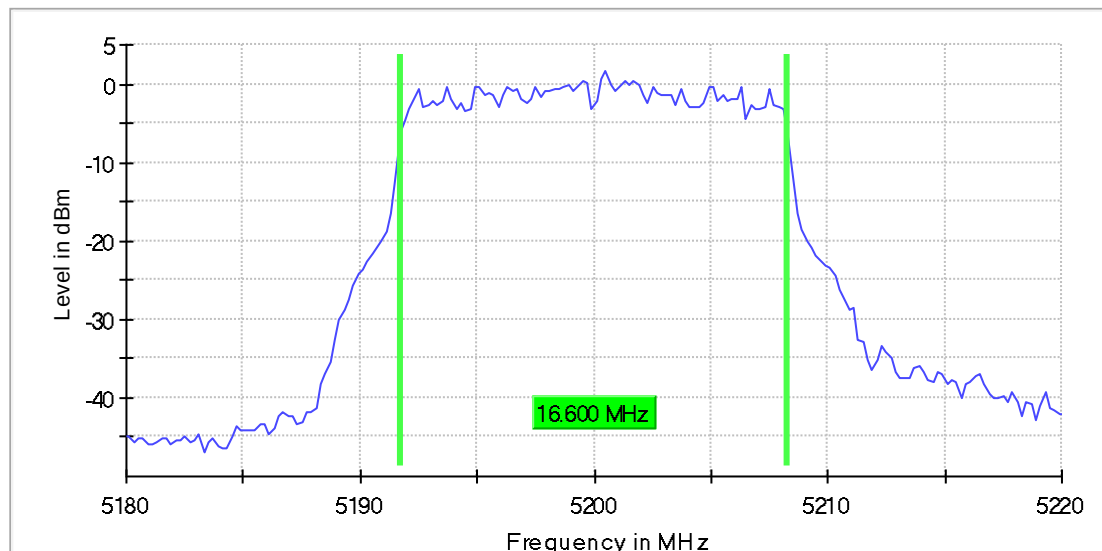
Test according to FCC title 47 part 15 §15.407(a),(e),

99 % Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
5200.000000	16.600000	---	---	5191.700000	5208.300000

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

DUT Frequency (MHz)	Result
5200.000000	PASS



Measurement

Setting	Instrument Value	Target Value
Start Frequency	5.18000 GHz	5.18000 GHz
Stop Frequency	5.22000 GHz	5.22000 GHz
Span	40.000 MHz	40.000 MHz
RBW	200.000 kHz	<= 200.000 kHz
VBW	1.000 MHz	>= 600.000 kHz
SweepPoints	200	~ 200
SweepTime	47.405 µs	AUTO
Reference Level	0.000 dBm	0.000 dBm
Attenuation	20.000 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
Stablemode	Trace	Trace
Stablevalue	0.30 dB	0.30 dB
Run	5 / max. 150	max. 150
Stable	1 / 1	1

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Max Stable Difference	0.15 dB	0.30 dB
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Emission Bandwidth 26 dB (5240 MHz; 20.000 dBm; 20 MHz)

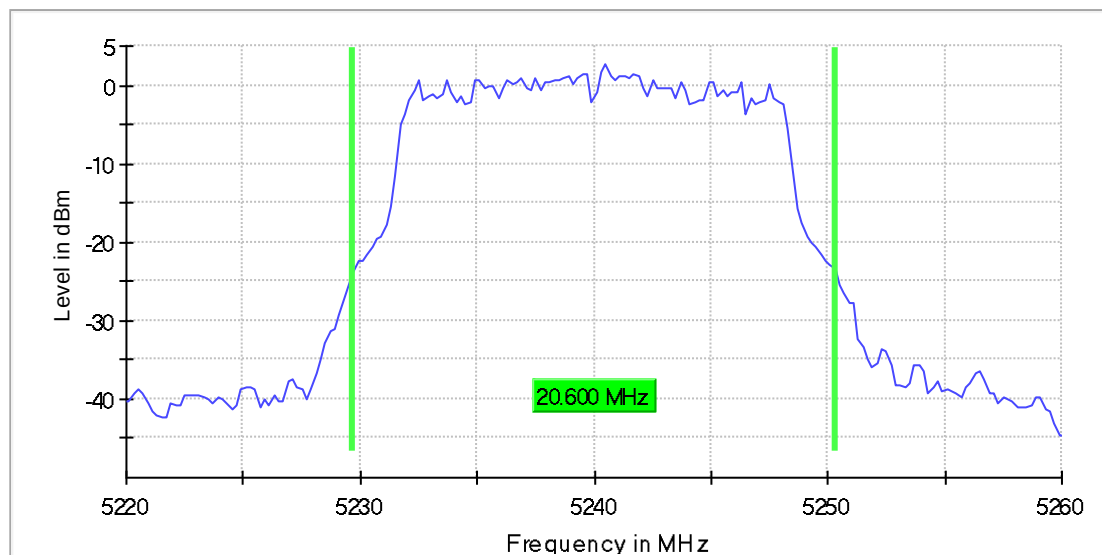
Test according to FCC title 47 part 15 §15.407(a),(e),

26 dB Bandwidth

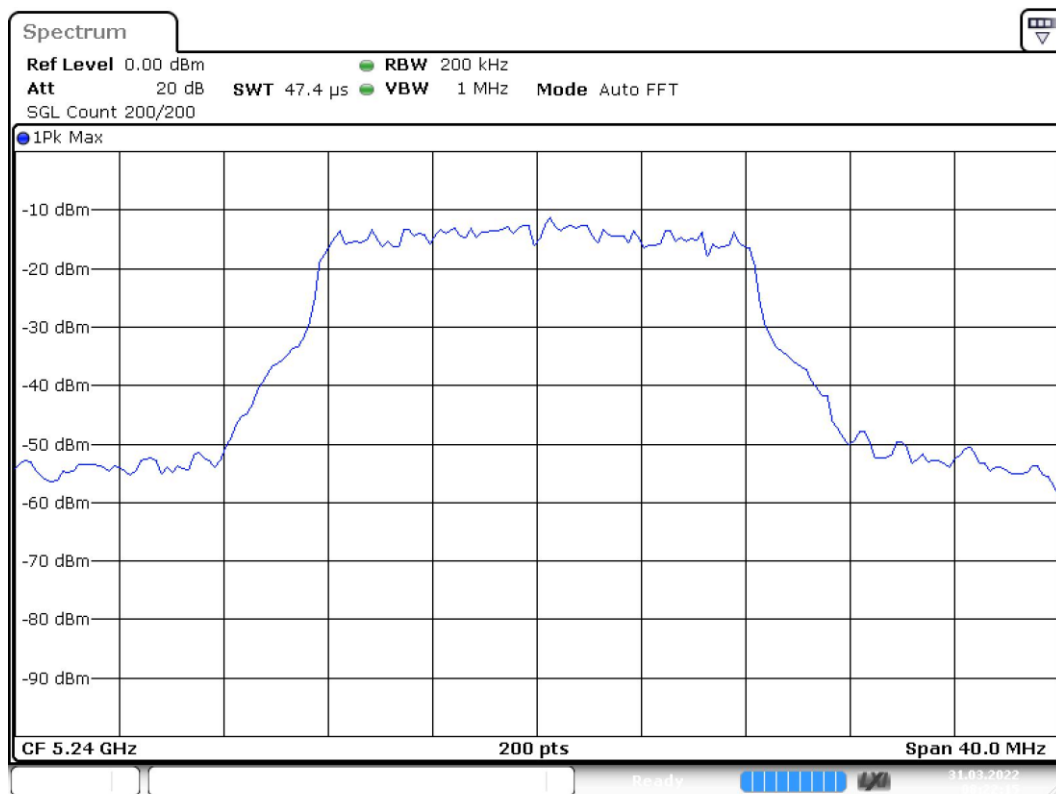
DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
5240.000000	20.600000	---	---	5229.700000	5250.300000

(continuation of the "26 dB Bandwidth" table from column 6 ...)

DUT Frequency (MHz)	Max Level (dBm)	Result
5240.000000	2.8	PASS



Bandwidth



Date: 31.MAR.2022 08:22:16

Measurement

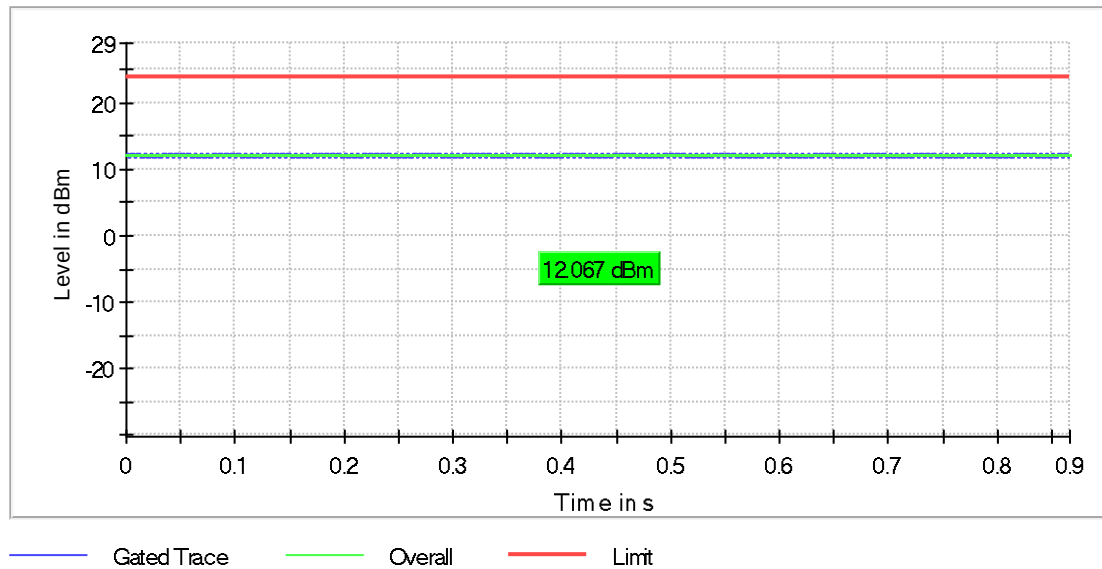
Setting	Instrument Value	Target Value
Start Frequency	5.22000 GHz	5.22000 GHz
Stop Frequency	5.26000 GHz	5.26000 GHz
Span	40.000 MHz	40.000 MHz
RBW	200.000 kHz	~ 200.000 kHz
VBW	1.000 MHz	>= 600.000 kHz
SweepPoints	200	~ 200
SweepTime	47.405 μ s	AUTO
Reference Level	0.000 dBm	0.000 dBm
Attenuation	20.000 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
Stablemode	Trace	Trace
Stablevalue	0.30 dB	0.30 dB
Run	18 / max. 150	max. 150
Stable	5 / 5	5
Max Stable Difference	0.02 dB	0.30 dB

RF output power (5240 MHz; 20.000 dBm; 20 MHz)

Test according to FCC title 47 part 15 §15.407(a),

Result

DUT Frequency (MHz)	Gated RMS (dBm)	Limit Max (dBm)	Gated EIRP (dBm)	DutyCycle (%)	Result
5240.000000	12.1	24.0	12.1	86.187	PASS



Power Spectral Density (5240 MHz; 20.000 dBm; 20 MHz)

Customized settings.

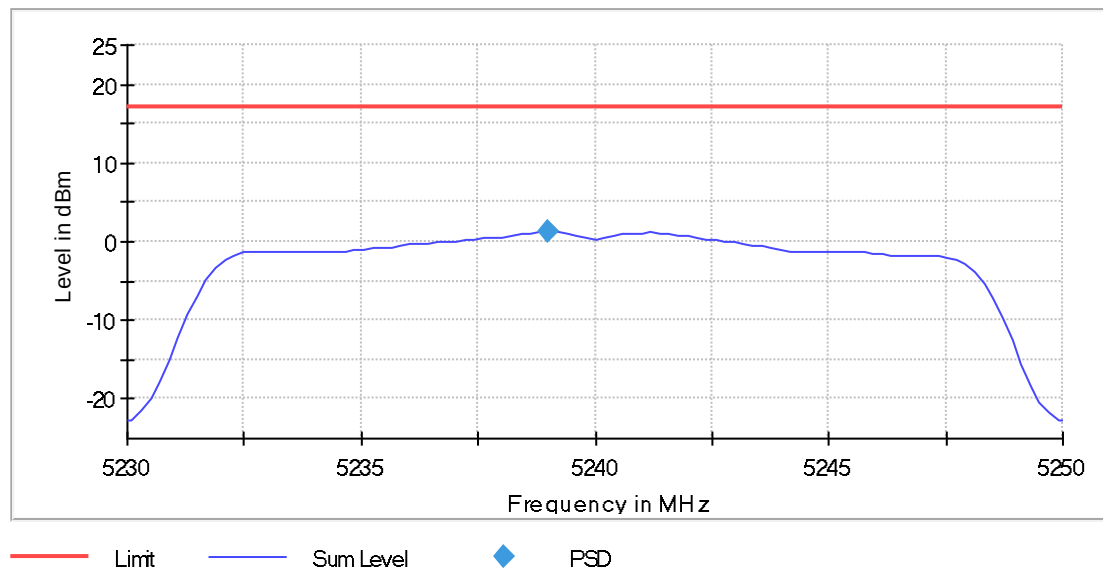
Test according to FCC title 47 part 15 §15.407(a),

Result

DUT Frequency (MHz)	Frequency (MHz)	PSD (dBm)	Limit Max (dBm)	Result
5240.000000	5239.009901	1.269	17.0	PASS

Ports

Port	Duty Cycle (%)
1	85.556



Measurement

Setting	Instrument Value	Target Value
Start Frequency	5.23000 GHz	5.23000 GHz
Stop Frequency	5.25000 GHz	5.25000 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
Sweptime	2.020 s	2.020 s
Reference Level	0.000 dBm	0.000 dBm
Attenuation	20.000 dB	AUTO
Detector	RMS	RMS
SweepCount	100	100
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
SweepType	Sweep	AUTO
Preamp	off	off
Stablemode	Trace	Trace
Stablevalue	0.30 dB	0.30 dB
Run	2 / max. 15	max. 15

Stable	1 / 1	1
Max Stable Difference	0.04 dB	0.30 dB

Minimum Emission Bandwidth 6 dB (5240 MHz; 20.000 dBm; 20 MHz)

Customized settings.

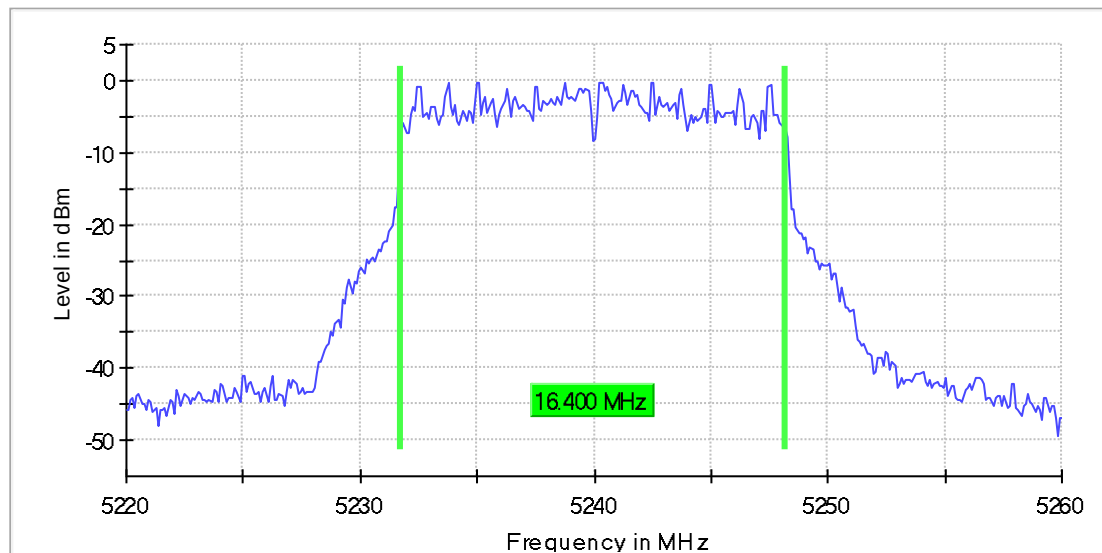
Test according to FCC title 47 part 15 §15.407(a),(e),

6 dB Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
5240.000000	16.400000	---	---	5231.750000	5248.150000

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

DUT Frequency (MHz)	Max Level (dBm)	Result
5240.000000	-0.2	PASS



Measurement

Setting	Instrument Value	Target Value
Start Frequency	5.22000 GHz	5.22000 GHz
Stop Frequency	5.26000 GHz	5.26000 GHz
Span	40.000 MHz	40.000 MHz
RBW	100.000 kHz	~ 100.000 kHz
VBW	300.000 kHz	~ 300.000 kHz
SweepPoints	400	~ 400
SweepTime	94.810 μ s	AUTO
Reference Level	0.000 dBm	0.000 dBm
Attenuation	20.000 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
Stablemode	Trace	Trace
Stablevalue	0.30 dB	0.30 dB

Run	5 / max. 150	max. 150
Stable	1 / 1	1
Max Stable Difference	0.11 dB	0.30 dB

Occupied Channel Bandwidth 99% (5240 MHz; 20.000 dBm; 20 MHz)

Customized settings.

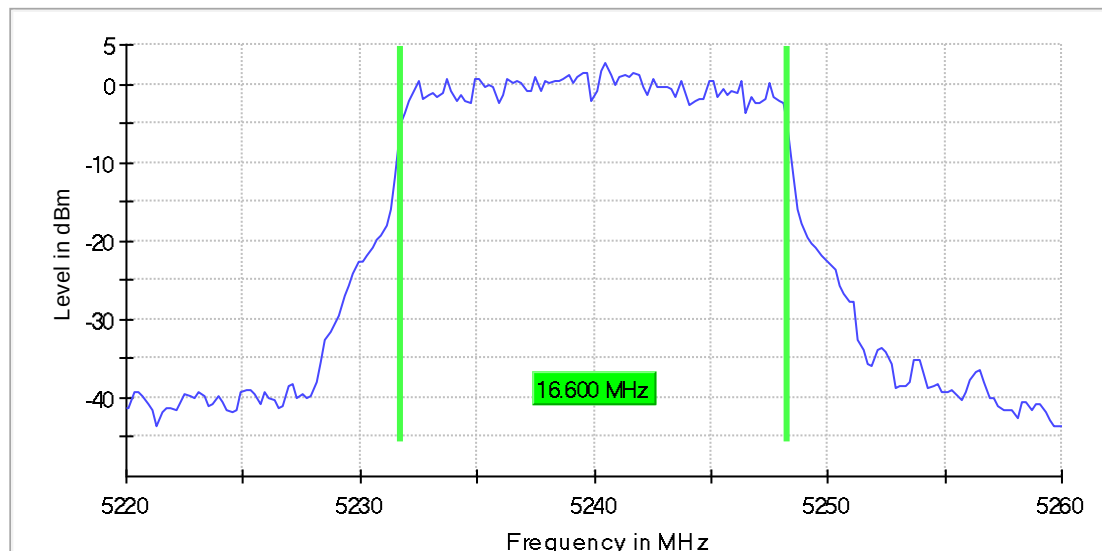
Test according to FCC title 47 part 15 §15.407(a),(e),

99 % Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
5240.000000	16.600000	---	---	5231.700000	5248.300000

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

DUT Frequency (MHz)	Result
5240.000000	PASS



Measurement

Setting	Instrument Value	Target Value
Start Frequency	5.22000 GHz	5.22000 GHz
Stop Frequency	5.26000 GHz	5.26000 GHz
Span	40.000 MHz	40.000 MHz
RBW	200.000 kHz	<= 200.000 kHz
VBW	1.000 MHz	>= 600.000 kHz
SweepPoints	200	~ 200
SweepTime	47.405 µs	AUTO
Reference Level	0.000 dBm	0.000 dBm
Attenuation	20.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	200	200
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
SweepType	FFT	AUTO
Preamplifier	off	off
Stablemode	Trace	Trace
Stablevalue	0.30 dB	0.30 dB
Run	6 / max. 150	max. 150
Stable	1 / 1	1

FCC 15.407

Max Stable Difference	0.14 dB	0.30 dB
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Band Edge high (5240 MHz; 20.000 dBm; 20 MHz)

Customized settings.

Test according to FCC title 47 part 15 §15.407(b),

Result

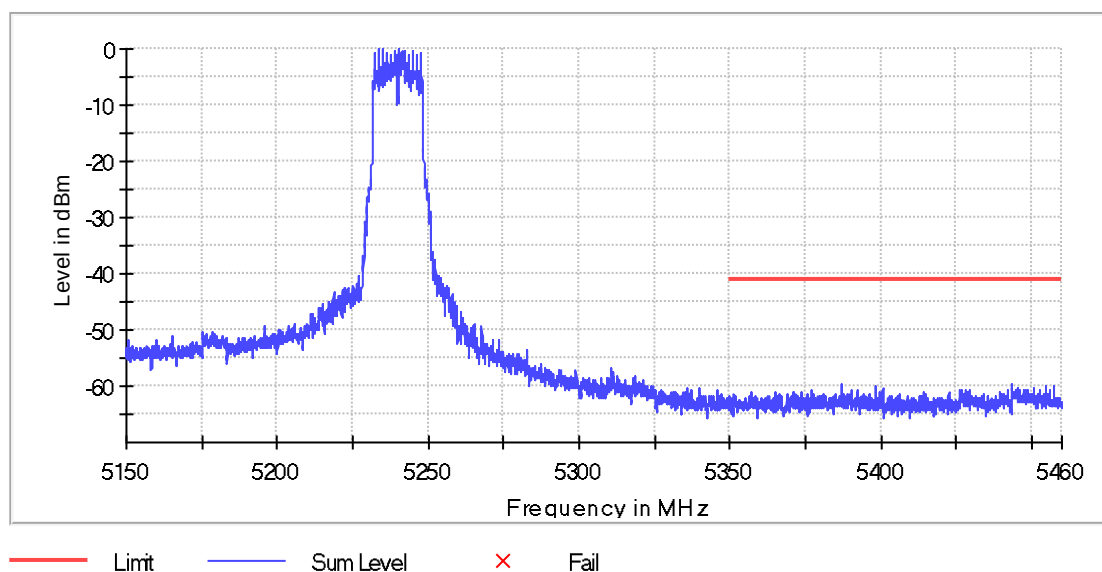
DUT Frequency (MHz)	Result
5240.000000	PASS

Inband Peak

Frequency (MHz)	Level (dBm)
5233.725000	-0.1

Measurements

Frequency (MHz)	Level (dBm)	Margin (dB)	Limit (dBm)	Result
5386.825000	-59.6	18.3	-41.2	PASS
5443.575000	-59.7	18.5	-41.2	PASS
5454.475000	-59.9	18.7	-41.2	PASS
5457.175000	-60.0	18.8	-41.2	PASS
5443.625000	-60.1	18.9	-41.2	PASS
5457.125000	-60.1	18.9	-41.2	PASS
5398.075000	-60.2	18.9	-41.2	PASS
5398.025000	-60.2	19.0	-41.2	PASS
5445.375000	-60.3	19.0	-41.2	PASS
5445.425000	-60.3	19.1	-41.2	PASS
5450.775000	-60.4	19.1	-41.2	PASS
5454.425000	-60.4	19.2	-41.2	PASS
5400.625000	-60.4	19.2	-41.2	PASS
5443.475000	-60.5	19.3	-41.2	PASS
5445.275000	-60.5	19.3	-41.2	PASS



Measurement 1

Setting	Instrument Value	Target Value
Start Frequency	5.15000 GHz	5.15000 GHz
Stop Frequency	5.25000 GHz	5.25000 GHz
Span	100.000 MHz	100.000 MHz
RBW	100.000 kHz	<= 100.000 kHz
VBW	300.000 kHz	>= 300.000 kHz
SweepPoints	2000	~ 2000
SweepTime	227.813 μ s	AUTO
Reference Level	0.000 dBm	0.000 dBm
Attenuation	20.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	100	100
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
SweepType	FFT	AUTO
Preamp	off	off
Stablemode	Trace	Trace
Stablevalue	0.50 dB	0.50 dB
Run	13 / max. 150	max. 150
Stable	3 / 3	3
Max Stable Difference	0.05 dB	0.50 dB

Measurement 2

Setting	Instrument Value	Target Value
Start Frequency	5.25000 GHz	5.25000 GHz
Stop Frequency	5.46000 GHz	5.46000 GHz
Span	210.000 MHz	210.000 MHz
RBW	100.000 kHz	<= 100.000 kHz
VBW	300.000 kHz	>= 300.000 kHz
SweepPoints	4200	~ 4200
SweepTime	474.609 μ s	AUTO
Reference Level	-10.000 dBm	-20.000 dBm
Attenuation	10.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	100	100
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
SweepType	FFT	AUTO
Preamp	off	off
Stablemode	Trace	Trace
Stablevalue	0.50 dB	0.50 dB
Run	6 / max. 150	max. 150
Stable	3 / 3	3
Max Stable Difference	0.15 dB	0.50 dB

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DUT Information

Frequencies

WLAN CH 36 (5180 MHz)	WLAN CH 40 (5200 MHz)	WLAN CH 48 (5240 MHz)
WLAN CH 149 (5745 MHz)	WLAN CH 157 (5785 MHz)	WLAN CH 165 (5825 MHz)
WLAN CH 52 (5260 MHz)	WLAN CH 56 (5280 MHz)	WLAN CH 64 (5320 MHz)
WLAN CH 100 (5500 MHz)	WLAN CH 120 (5600 MHz)	WLAN CH 140 (5700 MHz)
WLAN CH 116 (5580 MHz)		

Bandwidths

20 MHz (20 MHz)

Power

20.000 dBm (20 dBm)

Beamforming Gain

20.000 dBm (20 dBm) 0 dB

Gain Tables

20.000 dBm (20 dBm) Port 1: 0dBi;

DUT Settings

No. of transmission chains	1
DFS capability	Yes
DFS Mode	Master
Equipment Type	Portable
TPC	No

Hardware Setup: WMS Measurements\Hardware Setup

Spectrum Analyzer:	SA FSV 40 (SA FSV 40) @ VISA (ADR TCPIP::192.168.48.149::INST0::INSTR), SN 1321.3008K39/101229, FW 3.40
Vector Generator:	VG SMBV100A (VG SMBV100A) @ VISA (ADR TCPIP::192.168.48.25::INST0::INSTR), SN 260451, FW 4.15.125.49
Generator:	SMB100A (SMB100A) @ VISA (ADR TCPIP::192.168.48.30::INST0::INSTR), SN 178361, FW / Drv:Rev 2.21.0, 07/2016, CVI 2015
OSP:	OSP-B157W (OSP-B157W) @ VISA (ADR TCPIP::192.168.48.157::INST0::INSTR), SN 1527.1144. / , FW 1.23.0.2

Summary

Test	Frequency (MHz)	Nominal Power (dBm)	Nominal Bandwidth (MHz)	Result
Emission Bandwidth 26 dB	5260.000	20.0	20.000000	PASS
RF output power	5260.000	20.0	20.000000	PASS
Power Spectral Density	5260.000	20.0	20.000000	PASS
Minimum Emission Bandwidth 6 dB	5260.000	20.0	20.000000	PASS
Occupied Channel Bandwidth 99%	5260.000	20.0	20.000000	PASS
Band Edge low	5260.000	20.0	20.000000	PASS
Emission Bandwidth 26 dB	5280.000	20.0	20.000000	PASS
RF output power	5280.000	20.0	20.000000	PASS
Power Spectral Density	5280.000	20.0	20.000000	PASS
Minimum Emission Bandwidth 6 dB	5280.000	20.0	20.000000	PASS
Occupied Channel Bandwidth 99%	5280.000	20.0	20.000000	PASS
Emission Bandwidth 26 dB	5320.000	20.0	20.000000	PASS
RF output power	5320.000	20.0	20.000000	PASS
Power Spectral Density	5320.000	20.0	20.000000	PASS
Minimum Emission Bandwidth 6 dB	5320.000	20.0	20.000000	PASS
Occupied Channel Bandwidth 99%	5320.000	20.0	20.000000	PASS
Band Edge high	5320.000	20.0	20.000000	PASS

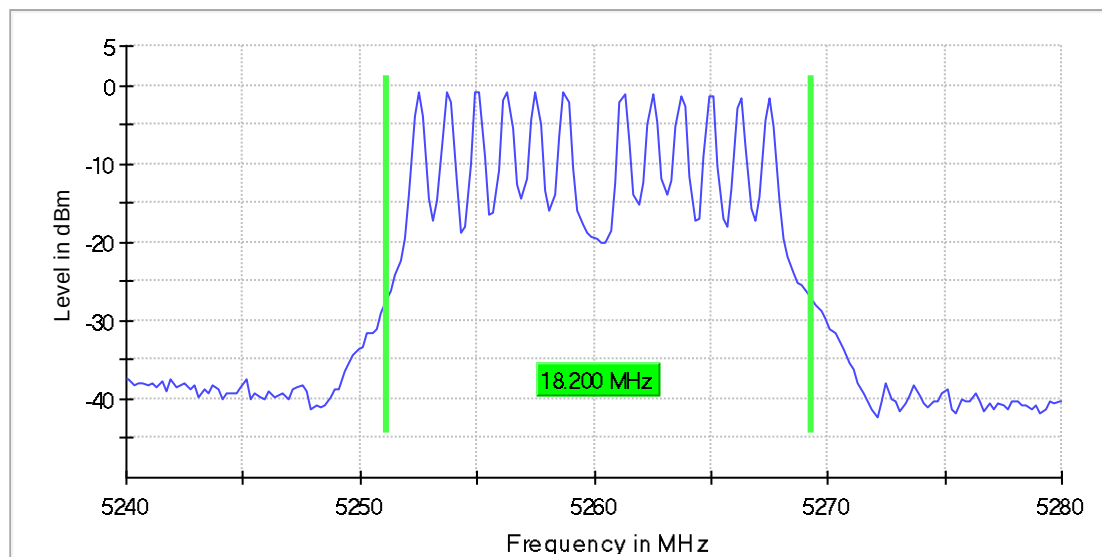
Emission Bandwidth 26 dB (5260 MHz; 20.000 dBm; 20 MHz)

26 dB Bandwidth

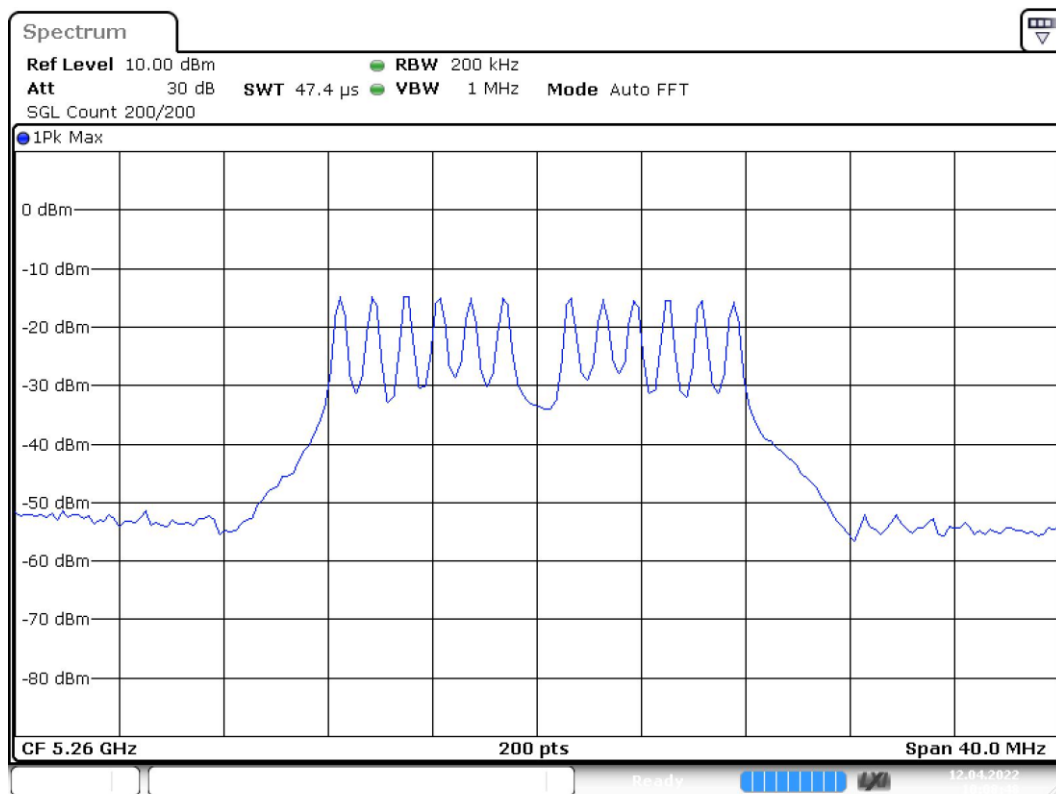
DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
5260.000000	18.200000	---	---	5251.100000	5269.300000

(continuation of the "26 dB Bandwidth" table from column 6 ...)

DUT Frequency (MHz)	Max Level (dBm)	Result
5260.000000	-0.8	PASS



Bandwidth



Date: 12.APR.2022 10:08:48

Measurement

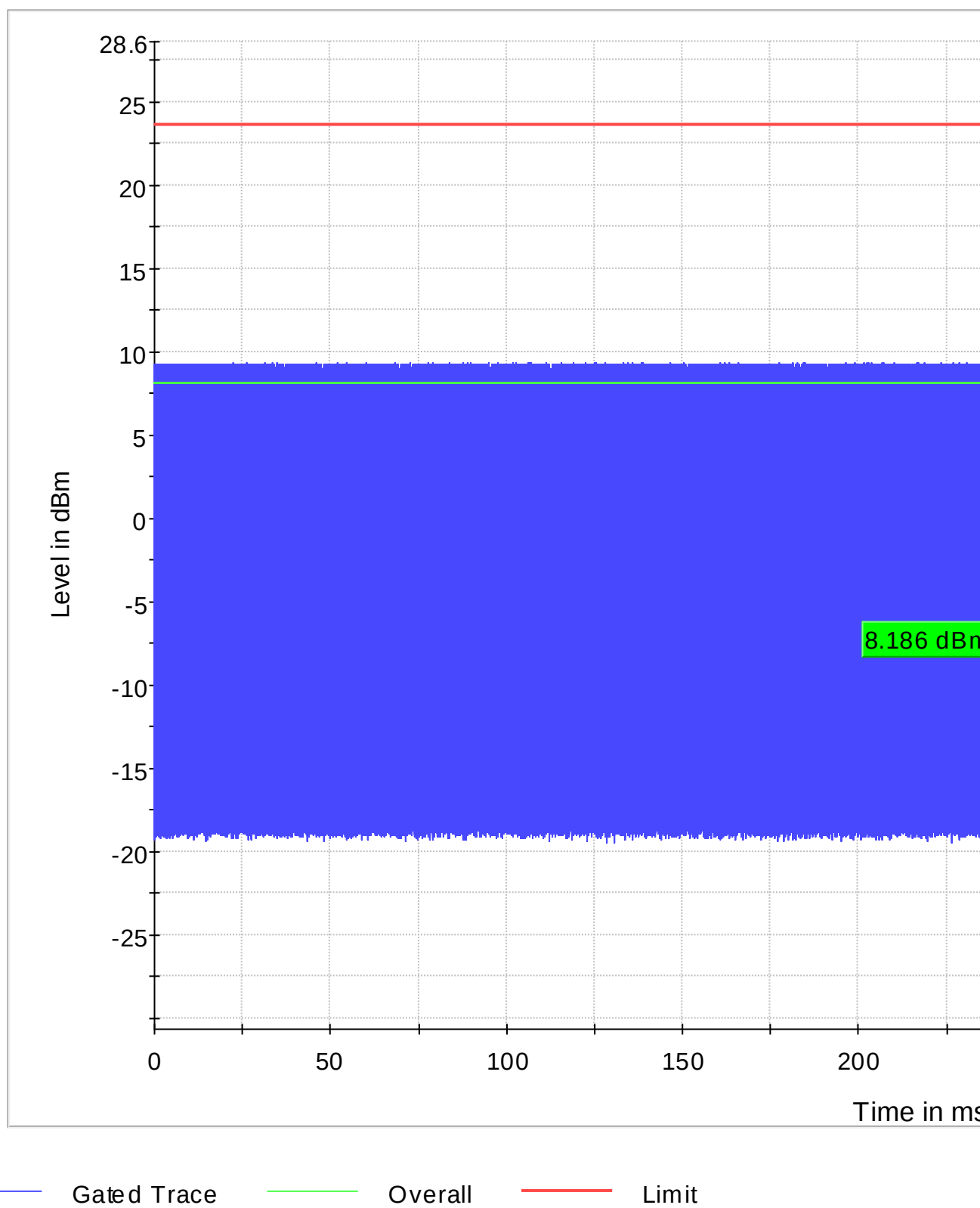
Setting	Instrument Value	Target Value
Start Frequency	5.24000 GHz	5.24000 GHz
Stop Frequency	5.28000 GHz	5.28000 GHz
Span	40.000 MHz	40.000 MHz
RBW	200.000 kHz	~ 200.000 kHz
VBW	1.000 MHz	>= 600.000 kHz
SweepPoints	200	~ 200
SweepTime	47.405 μ s	AUTO
Reference Level	10.000 dBm	10.000 dBm
Attenuation	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
Stablemode	Trace	Trace
Stablevalue	0.30 dB	0.30 dB
Run	7 / max. 150	max. 150
Stable	5 / 5	5
Max Stable Difference	0.04 dB	0.30 dB

RF output power (5260 MHz; 20.000 dBm; 20 MHz)

Test according to FCC title 47 part 15 §15.407(a),

Result

DUT Frequency (MHz)	Gated RMS (dBm)	Limit Max (dBm)	Gated EIRP (dBm)	DutyCycle (%)	Result
5260.000000	8.2	23.6	8.2	38.384	PASS



Power Spectral Density (5260 MHz; 20.000 dBm; 20 MHz)

Customized settings.

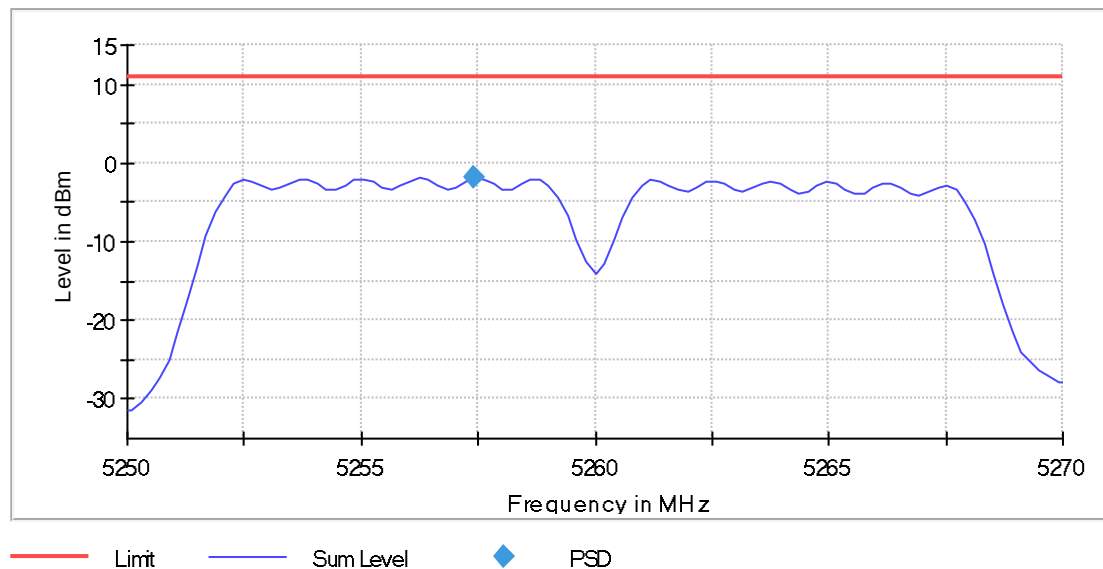
Test according to FCC title 47 part 15 §15.407(a),

Result

DUT Frequency (MHz)	Frequency (MHz)	PSD (dBm)	Limit Max (dBm)	Result
5260.000000	5257.425743	-1.908	11.0	PASS

Ports

Port	Duty Cycle (%)
1	29.688



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
Sweptime	2.020 s	2.020 s
Reference Level	0.000 dBm	0.000 dBm
Attenuation	20.000 dB	AUTO
Detector	RMS	RMS
SweepCount	30	30
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
SweepType	Sweep	AUTO
Preamp	off	off
Stablemode	Trace	Trace
Stablevalue	0.30 dB	0.30 dB
Run	1 / max. 1	max. 1

Stable	0 / 1	1
Max Stable Difference	0.00 dB	0.30 dB

Minimum Emission Bandwidth 6 dB (5260 MHz; 20.000 dBm; 20 MHz)

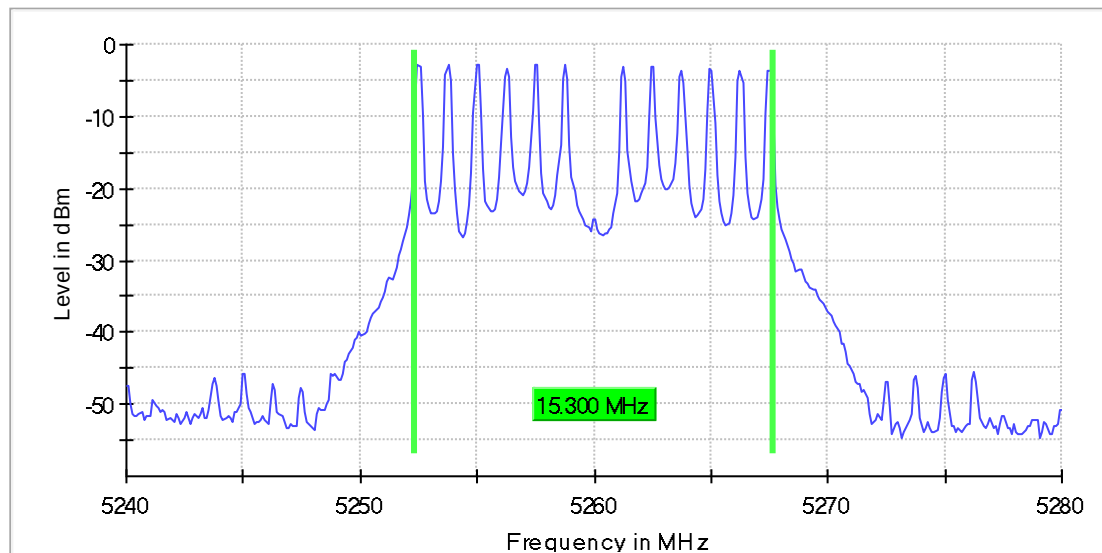
Customized settings.

6 dB Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
5260.000000	15.300000	---	---	5252.350000	5267.650000

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

DUT Frequency (MHz)	Max Level (dBm)	Result
5260.000000	-2.8	PASS



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	100.000 kHz	~ 100.000 kHz
VBW	300.000 kHz	~ 300.000 kHz
SweepPoints	400	~ 400
SweepTime	94.810 μ s	AUTO
Reference Level	0.000 dBm	0.000 dBm
Attenuation	20.000 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
Stablemode	Trace	Trace
Stablevalue	0.30 dB	0.30 dB

Run	2 / max. 150	max. 150
Stable	1 / 1	1
Max Stable Difference	0.06 dB	0.30 dB

Occupied Channel Bandwidth 99% (5260 MHz; 20.000 dBm; 20 MHz)

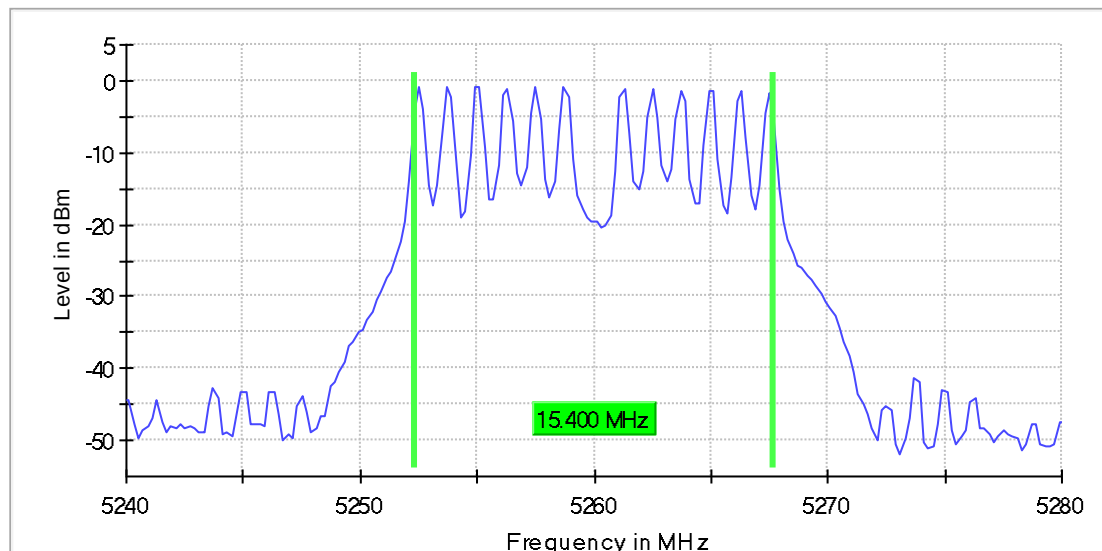
Customized settings.

99 % Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
5260.000000	15.400000	---	---	5252.300000	5267.700000

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

DUT Frequency (MHz)	Result
5260.000000	PASS



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	200	~ 200
SweepTime	47.405 µs	AUTO
Reference Level	0.000 dBm	0.000 dBm
Attenuation	20.000 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
Stablemode	Trace	Trace
Stablevalue	0.30 dB	0.30 dB
Run	2 / max. 150	max. 150
Stable	1 / 1	1

Max Stable Difference	0.27 dB	0.30 dB
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Band Edge low (5260 MHz; 20.000 dBm; 20 MHz)

Customized settings.

Result

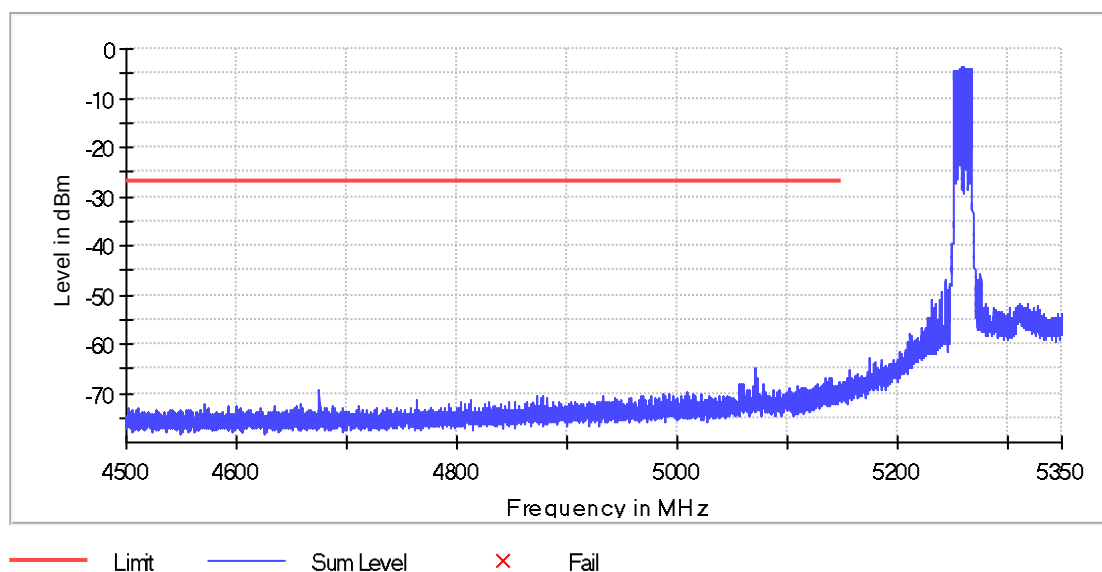
DUT Frequency (MHz)	Result
5260.000000	PASS

Inband Peak

Frequency (MHz)	Level (dBm)
5261.275000	-3.6

Measurements

Frequency (MHz)	Level (dBm)	Margin (dB)	Limit (dBm)	Result
5071.425000	-64.9	37.9	-27.0	PASS
5071.375000	-65.9	38.9	-27.0	PASS
5134.725000	-66.8	39.8	-27.0	PASS
5071.475000	-66.8	39.8	-27.0	PASS
5072.725000	-66.9	39.9	-27.0	PASS
5072.675000	-66.9	39.9	-27.0	PASS
5139.675000	-66.9	39.9	-27.0	PASS
5139.625000	-66.9	39.9	-27.0	PASS
5134.775000	-66.9	39.9	-27.0	PASS
5134.675000	-67.0	40.0	-27.0	PASS
5141.225000	-67.0	40.0	-27.0	PASS
5141.275000	-67.1	40.1	-27.0	PASS
5072.625000	-67.6	40.6	-27.0	PASS
5136.575000	-67.6	40.6	-27.0	PASS
5139.725000	-67.7	40.7	-27.0	PASS



Measurement 1

Setting	Instrument Value	Target Value
Start Frequency	5.25000 GHz	5.25000 GHz
Stop Frequency	5.35000 GHz	5.35000 GHz
Span	100.000 MHz	100.000 MHz
RBW	100.000 kHz	<= 100.000 kHz
VBW	300.000 kHz	>= 300.000 kHz
SweepPoints	2000	~ 2000
SweepTime	227.813 μ s	AUTO
Reference Level	0.000 dBm	0.000 dBm
Attenuation	20.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	40	40
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
SweepType	FFT	AUTO
Preamp	off	off
Stablemode	Trace	Trace
Stablevalue	0.50 dB	0.50 dB
Run	1 / max. 1	max. 1
Stable	0 / 1	1
Max Stable Difference	0.00 dB	0.50 dB

Measurement 2

Setting	Instrument Value	Target Value
Start Frequency	4.50000 GHz	4.50000 GHz
Stop Frequency	5.25000 GHz	5.25000 GHz
Span	750.000 MHz	750.000 MHz
RBW	100.000 kHz	<= 100.000 kHz
VBW	300.000 kHz	>= 300.000 kHz
SweepPoints	15000	~ 15000
SweepTime	15.000 ms	AUTO
Reference Level	-20.000 dBm	-20.000 dBm
Attenuation	0.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	50	50
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
SweepType	Sweep	AUTO
Preamp	off	off
Stablemode	Trace	Trace
Stablevalue	0.50 dB	0.50 dB
Run	4 / max. 5	max. 5
Stable	1 / 1	1
Max Stable Difference	0.29 dB	0.50 dB

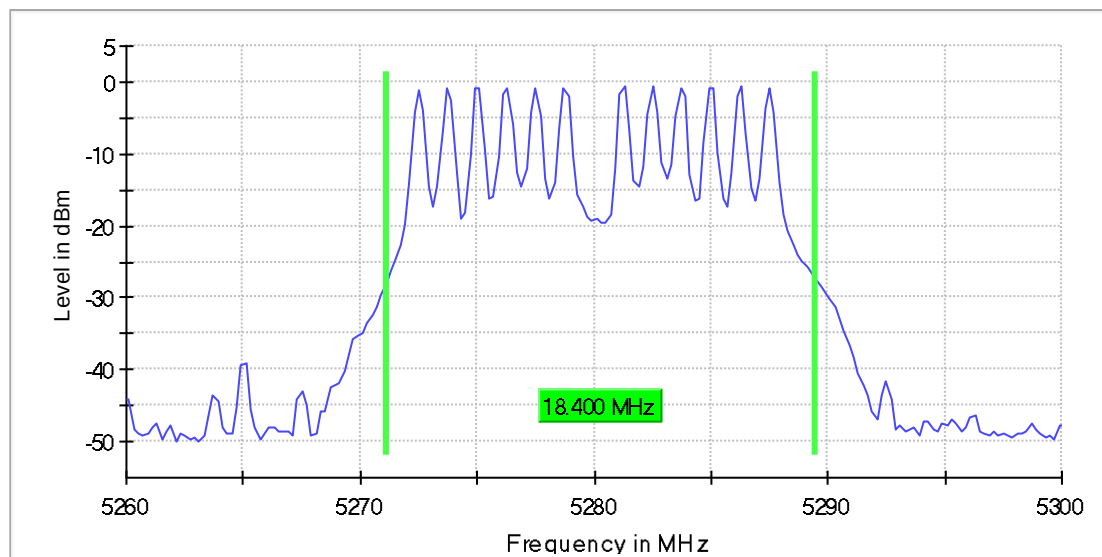
Emission Bandwidth 26 dB (5280 MHz; 20.000 dBm; 20 MHz)

26 dB Bandwidth

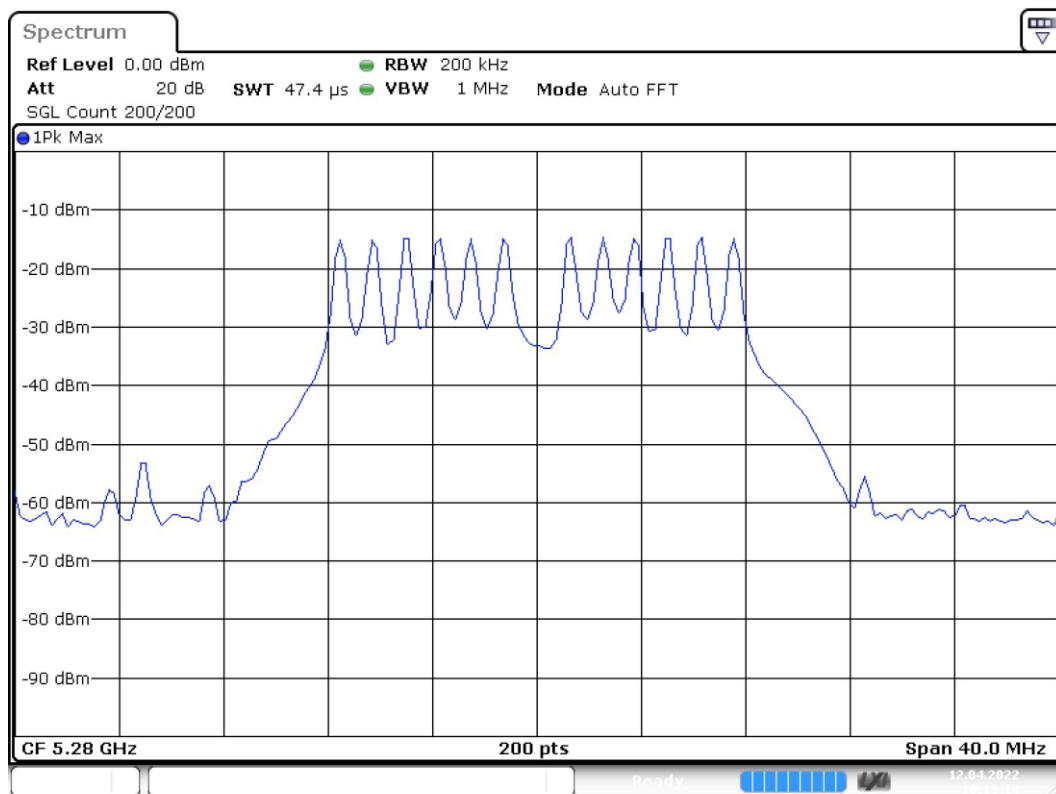
DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
5280.000000	18.400000	---	---	5271.100000	5289.500000

(continuation of the "26 dB Bandwidth" table from column 6 ...)

DUT Frequency (MHz)	Max Level (dBm)	Result
5280.000000	-0.7	PASS



Bandwidth



Date: 12.APR.2022 10:13:14

Measurement

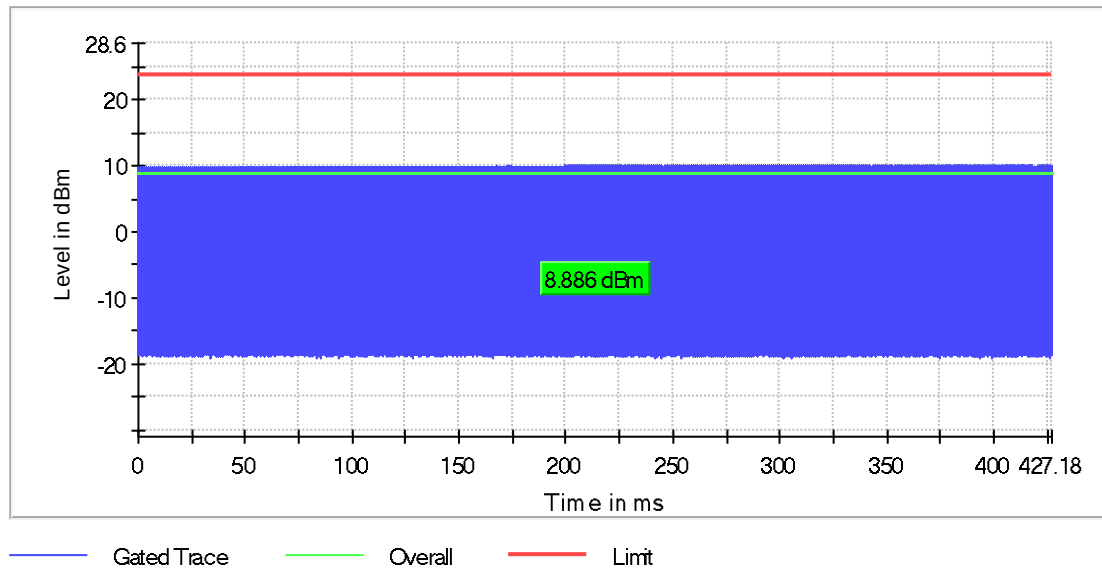
Setting	Instrument Value	Target Value
Start Frequency	5.26000 GHz	5.26000 GHz
Stop Frequency	5.30000 GHz	5.30000 GHz
Span	40.000 MHz	40.000 MHz
RBW	200.000 kHz	~ 200.000 kHz
VBW	1.000 MHz	>= 600.000 kHz
SweepPoints	200	~ 200
SweepTime	47.405 μ s	AUTO
Reference Level	0.000 dBm	0.000 dBm
Attenuation	20.000 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
Stablemode	Trace	Trace
Stablevalue	0.30 dB	0.30 dB
Run	10 / max. 150	max. 150
Stable	5 / 5	5
Max Stable Difference	0.07 dB	0.30 dB

RF output power (5280 MHz; 20.000 dBm; 20 MHz)

Test according to FCC title 47 part 15 §15.407(a),

Result

DUT Frequency (MHz)	Gated RMS (dBm)	Limit Max (dBm)	Gated EIRP (dBm)	DutyCycle (%)	Result
5280.000000	8.9	23.6	8.9	37.671	PASS



Power Spectral Density (5280 MHz; 20.000 dBm; 20 MHz)

Customized settings.

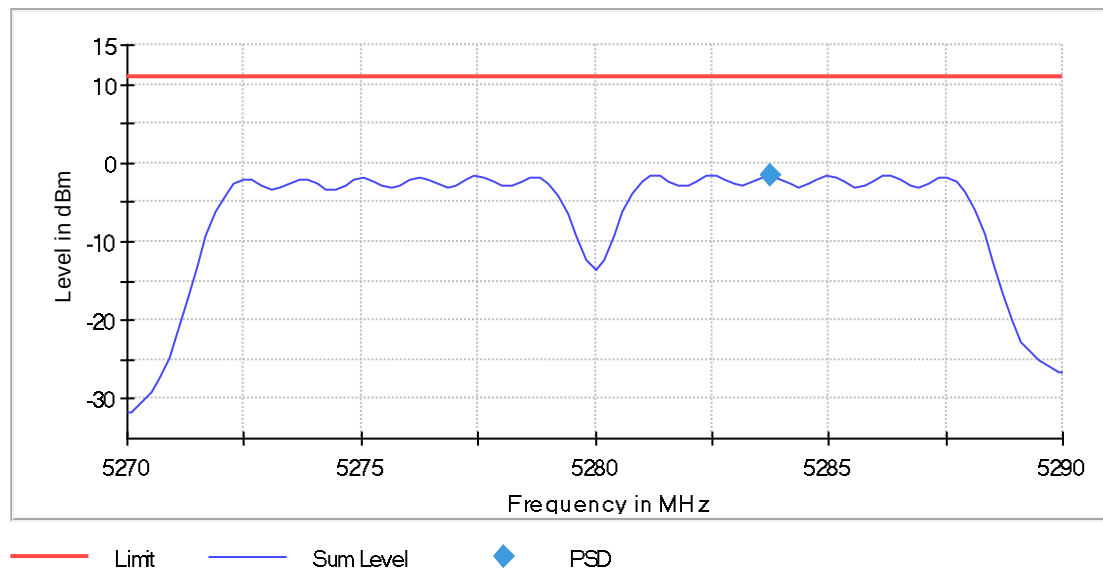
Test according to FCC title 47 part 15 §15.407(a),

Result

DUT Frequency (MHz)	Frequency (MHz)	PSD (dBm)	Limit Max (dBm)	Result
5280.000000	5283.762376	-1.585	11.0	PASS

Ports

Port	Duty Cycle (%)
1	29.668



Measurement

Setting	Instrument Value	Target Value
Start Frequency	5.27000 GHz	5.27000 GHz
Stop Frequency	5.29000 GHz	5.29000 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
Sweptime	2.020 s	2.020 s
Reference Level	0.000 dBm	0.000 dBm
Attenuation	20.000 dB	AUTO
Detector	RMS	RMS
SweepCount	30	30
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
SweepType	Sweep	AUTO
Preamp	off	off
Stablemode	Trace	Trace
Stablevalue	0.30 dB	0.30 dB
Run	1 / max. 1	max. 1

Stable	0 / 1	1
Max Stable Difference	0.00 dB	0.30 dB

Minimum Emission Bandwidth 6 dB (5280 MHz; 20.000 dBm; 20 MHz)

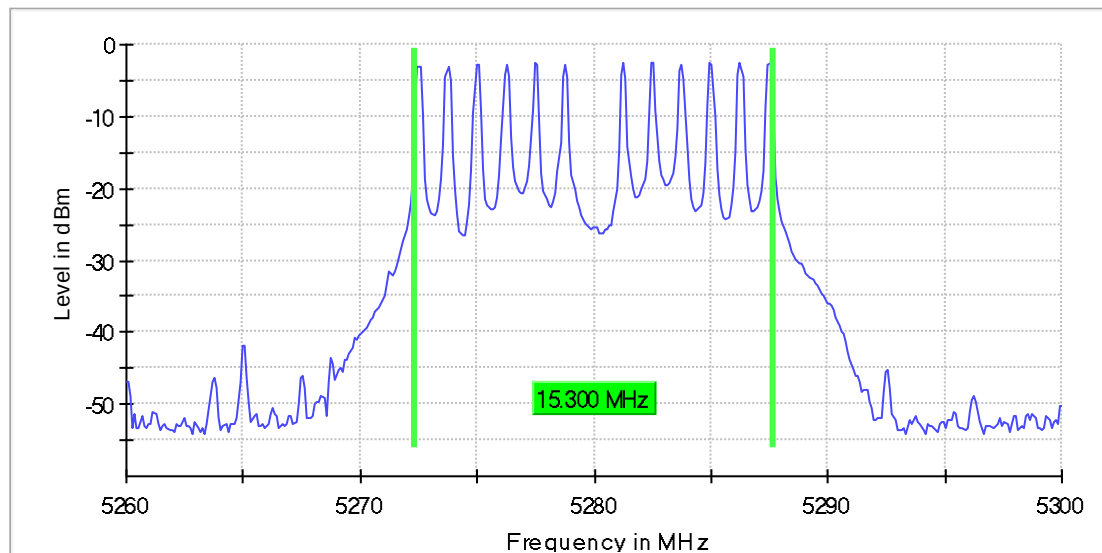
Customized settings.

6 dB Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
5280.000000	15.300000	---	---	5272.350000	5287.650000

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

DUT Frequency (MHz)	Max Level (dBm)	Result
5280.000000	-2.6	PASS



Measurement

Setting	Instrument Value	Target Value
Start Frequency	5.26000 GHz	5.26000 GHz
Stop Frequency	5.30000 GHz	5.30000 GHz
Span	40.000 MHz	40.000 MHz
RBW	100.000 kHz	~ 100.000 kHz
VBW	300.000 kHz	~ 300.000 kHz
SweepPoints	400	~ 400
SweepTime	94.810 μ s	AUTO
Reference Level	0.000 dBm	0.000 dBm
Attenuation	20.000 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
Stablemode	Trace	Trace
Stablevalue	0.30 dB	0.30 dB

Run	3 / max. 150	max. 150
Stable	1 / 1	1
Max Stable Difference	0.15 dB	0.30 dB

Occupied Channel Bandwidth 99% (5280 MHz; 20.000 dBm; 20 MHz)

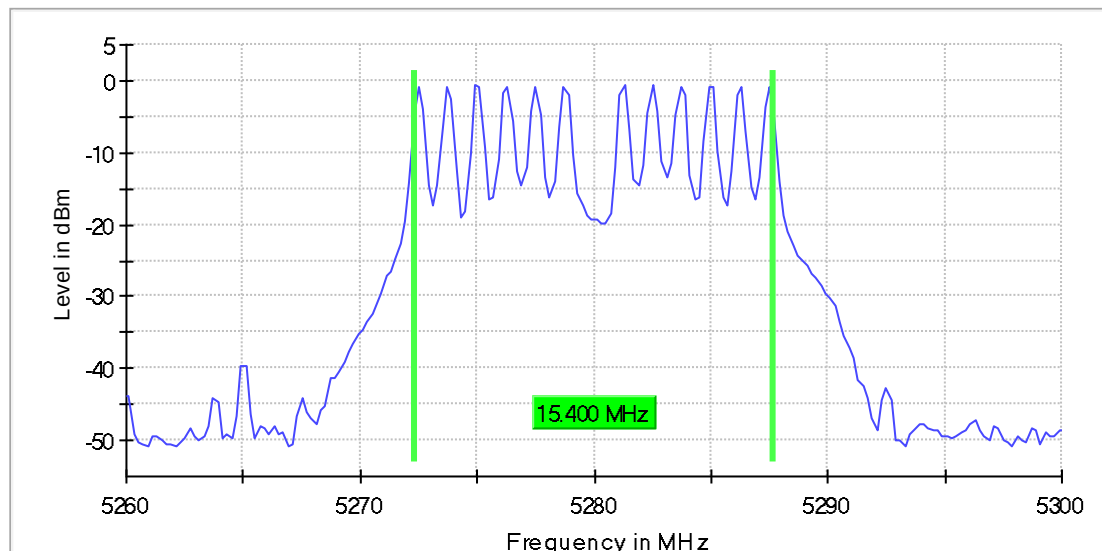
Customized settings.

99 % Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
5280.000000	15.400000	---	---	5272.300000	5287.700000

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

DUT Frequency (MHz)	Result
5280.000000	PASS



Measurement

Setting	Instrument Value	Target Value
Start Frequency	5.26000 GHz	5.26000 GHz
Stop Frequency	5.30000 GHz	5.30000 GHz
Span	40.000 MHz	40.000 MHz
RBW	200.000 kHz	<= 200.000 kHz
VBW	1.000 MHz	>= 600.000 kHz
SweepPoints	200	~ 200
SweepTime	47.405 µs	AUTO
Reference Level	0.000 dBm	0.000 dBm
Attenuation	20.000 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
Stablemode	Trace	Trace
Stablevalue	0.30 dB	0.30 dB
Run	2 / max. 150	max. 150
Stable	1 / 1	1

Max Stable Difference	0.18 dB	0.30 dB
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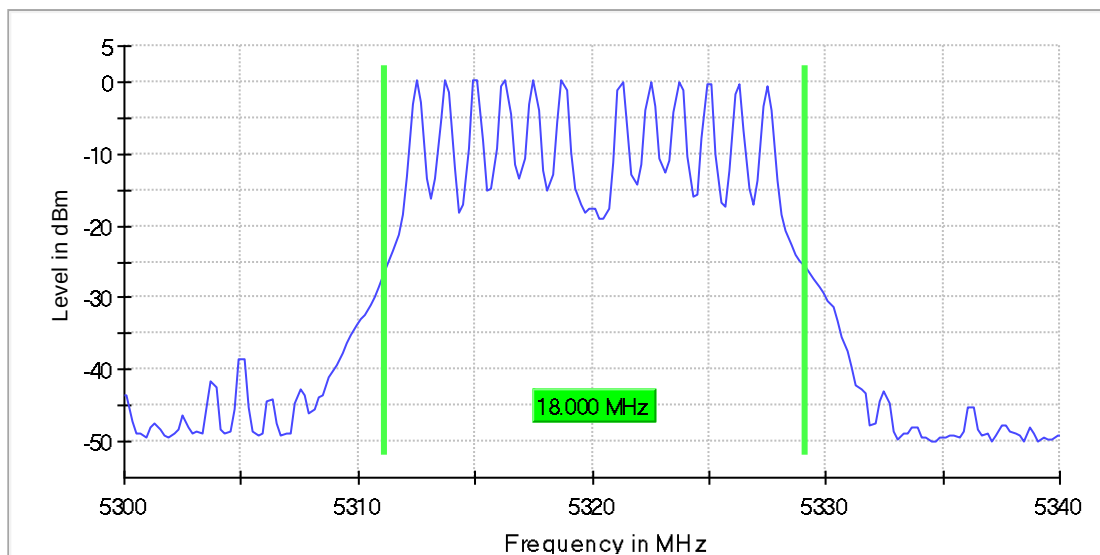
Emission Bandwidth 26 dB (5320 MHz; 20.000 dBm; 20 MHz)

26 dB Bandwidth

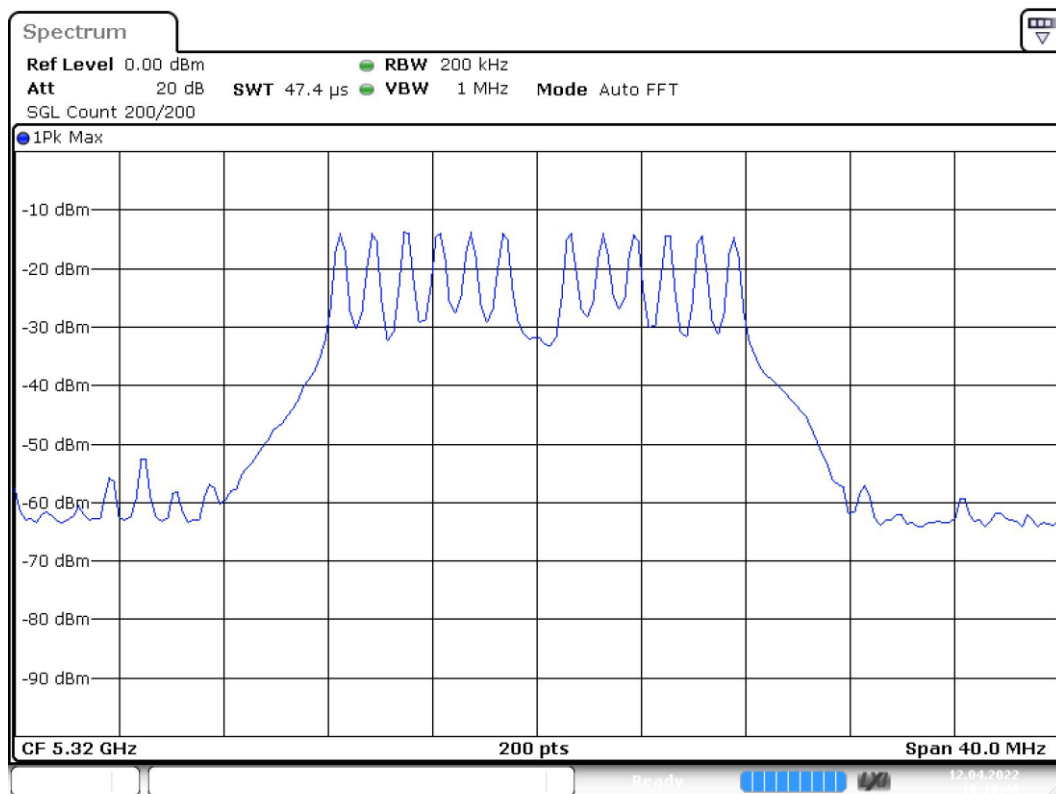
DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
5320.000000	18.000000	---	---	5311.100000	5329.100000

(continuation of the "26 dB Bandwidth" table from column 6 ...)

DUT Frequency (MHz)	Max Level (dBm)	Result
5320.000000	0.3	PASS



Bandwidth



Date: 12.APR.2022 10:18:41

Measurement

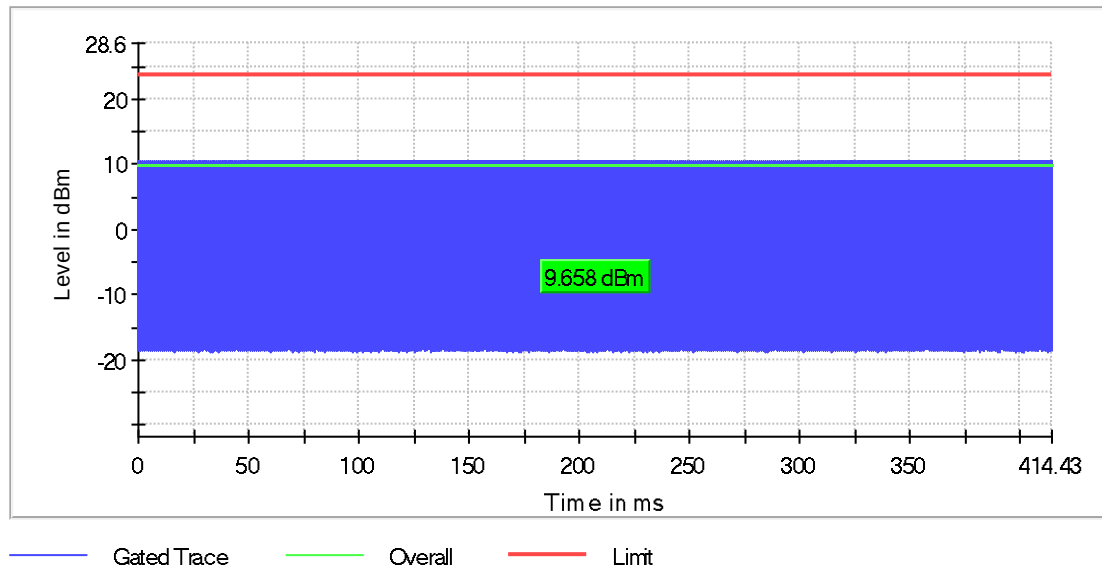
Setting	Instrument Value	Target Value
Start Frequency	5.30000 GHz	5.30000 GHz
Stop Frequency	5.34000 GHz	5.34000 GHz
Span	40.000 MHz	40.000 MHz
RBW	200.000 kHz	~ 200.000 kHz
VBW	1.000 MHz	>= 600.000 kHz
SweepPoints	200	~ 200
SweepTime	47.405 μ s	AUTO
Reference Level	0.000 dBm	0.000 dBm
Attenuation	20.000 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
Stablemode	Trace	Trace
Stablevalue	0.30 dB	0.30 dB
Run	7 / max. 150	max. 150
Stable	5 / 5	5
Max Stable Difference	0.07 dB	0.30 dB

RF output power (5320 MHz; 20.000 dBm; 20 MHz)

Test according to FCC title 47 part 15 §15.407(a),

Result

DUT Frequency (MHz)	Gated RMS (dBm)	Limit Max (dBm)	Gated EIRP (dBm)	DutyCycle (%)	Result
5320.000000	9.7	23.6	9.7	36.817	PASS



Power Spectral Density (5320 MHz; 20.000 dBm; 20 MHz)

Customized settings.

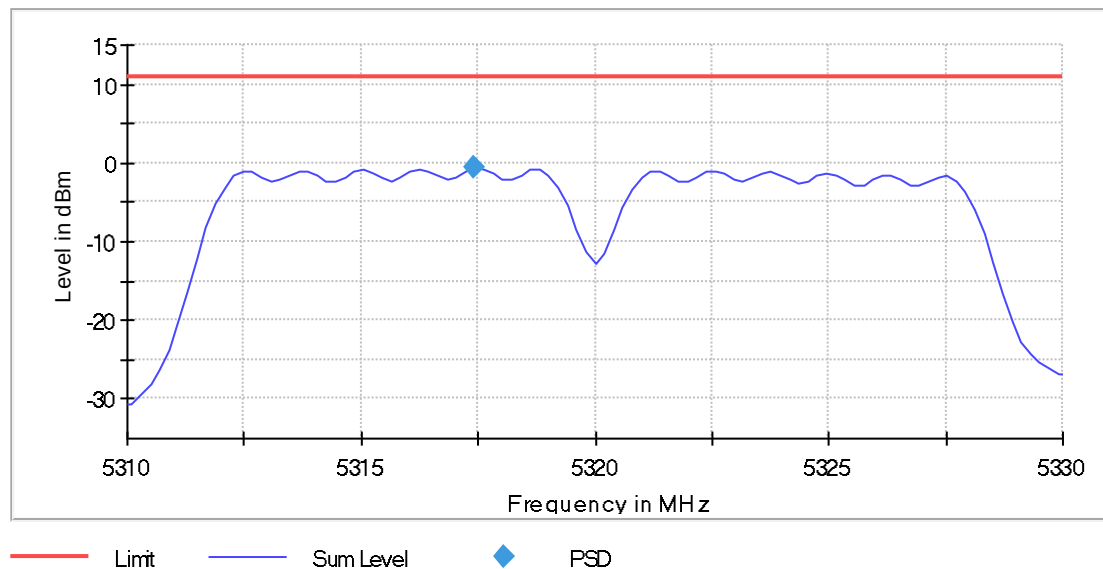
Test according to FCC title 47 part 15 §15.407(a),

Result

DUT Frequency (MHz)	Frequency (MHz)	PSD (dBm)	Limit Max (dBm)	Result
5320.000000	5317.425743	-0.676	11.0	PASS

Ports

Port	Duty Cycle (%)
1	29.700



Measurement

Setting	Instrument Value	Target Value
Start Frequency	5.31000 GHz	5.31000 GHz
Stop Frequency	5.33000 GHz	5.33000 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
Sweptime	2.020 s	2.020 s
Reference Level	0.000 dBm	0.000 dBm
Attenuation	20.000 dB	AUTO
Detector	RMS	RMS
SweepCount	30	30
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
SweepType	Sweep	AUTO
Preamp	off	off
Stablemode	Trace	Trace
Stablevalue	0.30 dB	0.30 dB
Run	1 / max. 1	max. 1

Stable	0 / 1	1
Max Stable Difference	0.00 dB	0.30 dB

Minimum Emission Bandwidth 6 dB (5320 MHz; 20.000 dBm; 20 MHz)

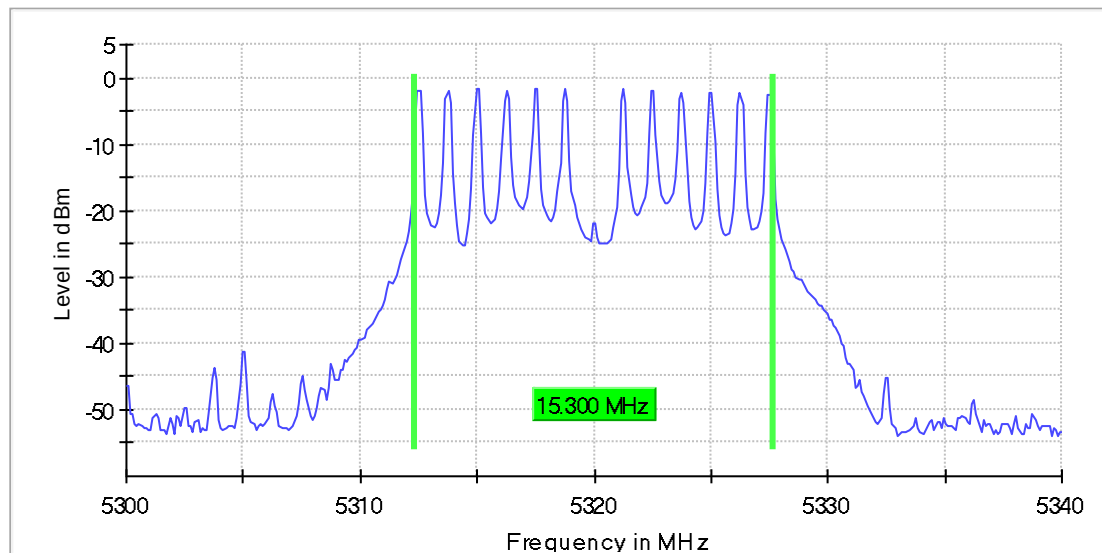
Customized settings.

6 dB Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
5320.000000	15.300000	---	---	5312.350000	5327.650000

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

DUT Frequency (MHz)	Max Level (dBm)	Result
5320.000000	-1.7	PASS



Measurement

Setting	Instrument Value	Target Value
Start Frequency	5.30000 GHz	5.30000 GHz
Stop Frequency	5.34000 GHz	5.34000 GHz
Span	40.000 MHz	40.000 MHz
RBW	100.000 kHz	~ 100.000 kHz
VBW	300.000 kHz	~ 300.000 kHz
SweepPoints	400	~ 400
SweepTime	94.810 μ s	AUTO
Reference Level	0.000 dBm	0.000 dBm
Attenuation	20.000 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
Stablemode	Trace	Trace
Stablevalue	0.30 dB	0.30 dB

Run	3 / max. 150	max. 150
Stable	1 / 1	1
Max Stable Difference	0.30 dB	0.30 dB

Occupied Channel Bandwidth 99% (5320 MHz; 20.000 dBm; 20 MHz)

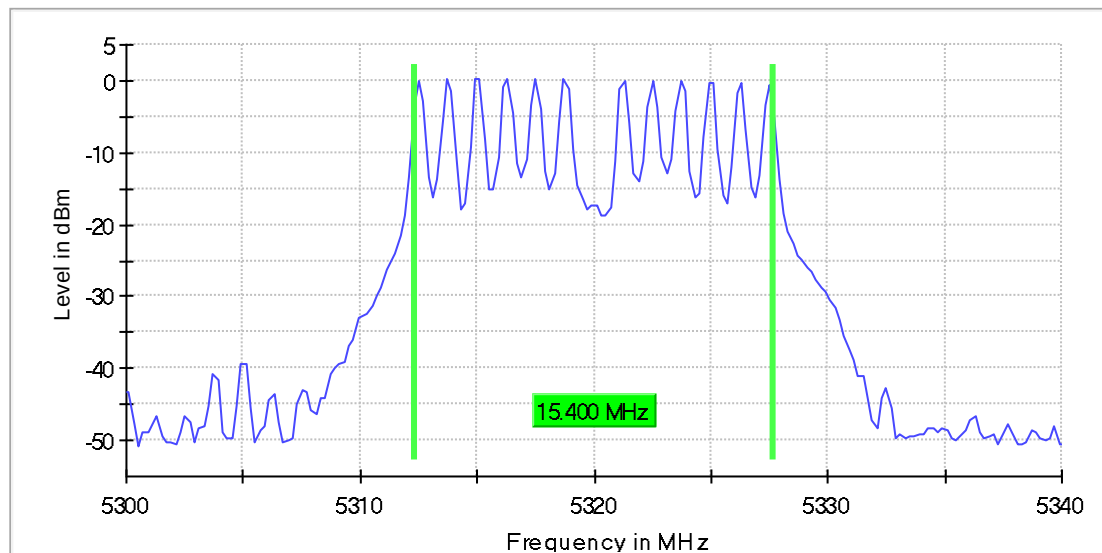
Customized settings.

99 % Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
5320.000000	15.400000	---	---	5312.300000	5327.700000

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

DUT Frequency (MHz)	Result
5320.000000	PASS



Measurement

Setting	Instrument Value	Target Value
Start Frequency	5.30000 GHz	5.30000 GHz
Stop Frequency	5.34000 GHz	5.34000 GHz
Span	40.000 MHz	40.000 MHz
RBW	200.000 kHz	<= 200.000 kHz
VBW	1.000 MHz	>= 600.000 kHz
SweepPoints	200	~ 200
SweepTime	47.405 μ s	AUTO
Reference Level	0.000 dBm	0.000 dBm
Attenuation	20.000 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
Stablemode	Trace	Trace
Stablevalue	0.30 dB	0.30 dB
Run	3 / max. 150	max. 150
Stable	1 / 1	1

Max Stable Difference	0.09 dB	0.30 dB
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Band Edge high (5320 MHz; 20.000 dBm; 20 MHz)

Customized settings.

Result

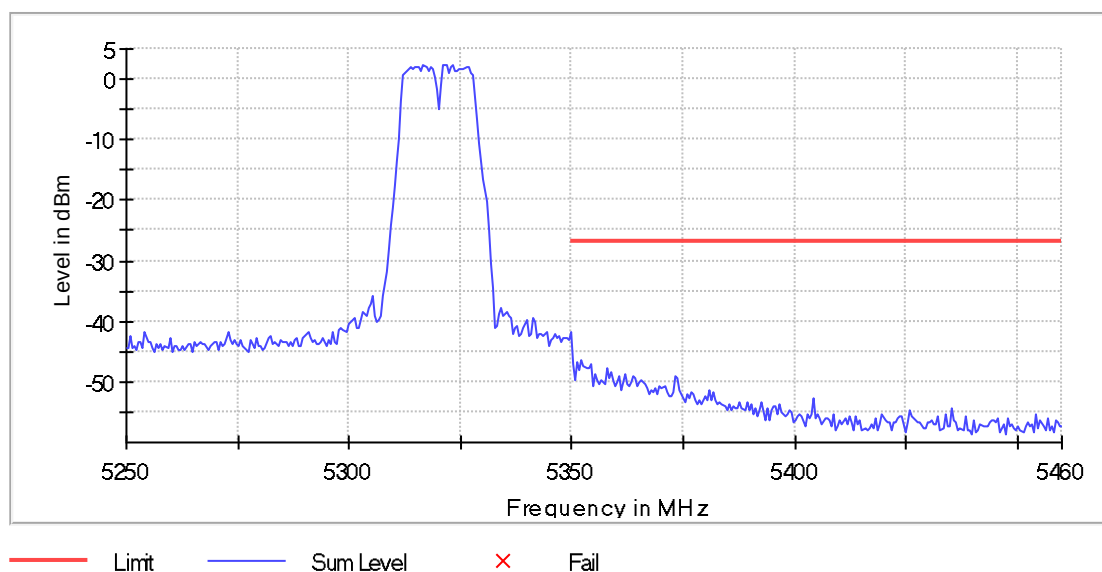
DUT Frequency (MHz)	Result
5320.000000	PASS

Inband Peak

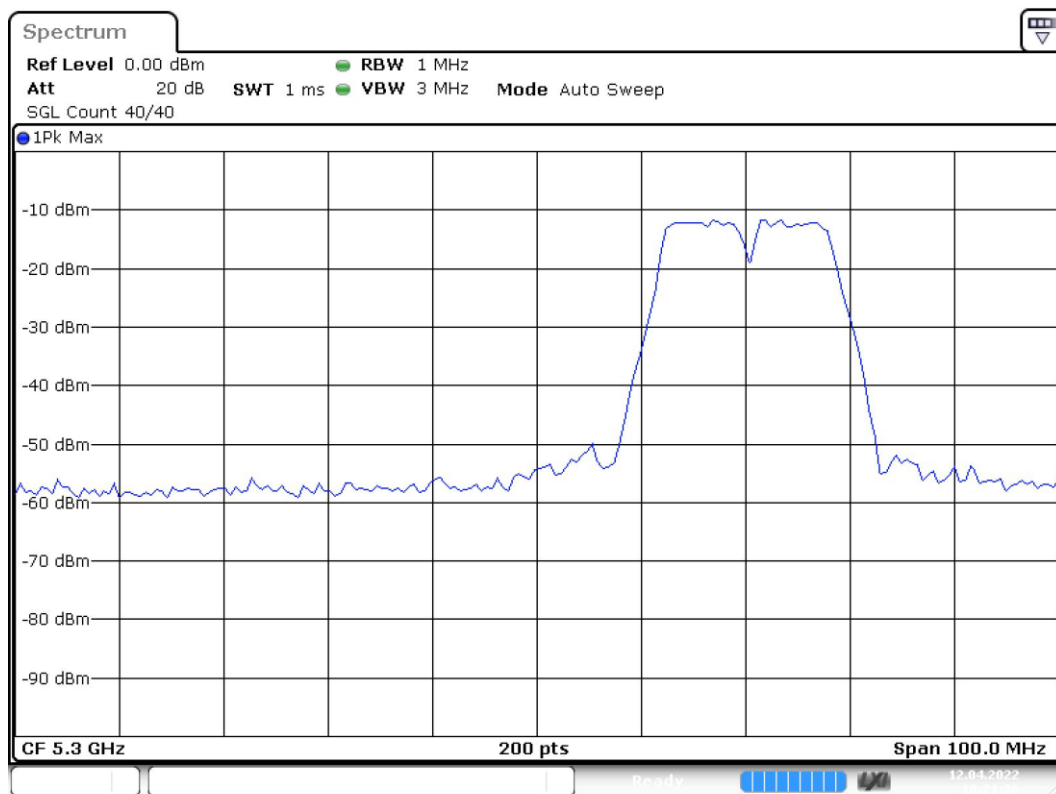
Frequency (MHz)	Level (dBm)
5323.250000	2.5

Measurements

Frequency (MHz)	Level (dBm)	Margin (dB)	Limit (dBm)	Result
5352.250000	-46.2	19.2	-27.0	PASS
5351.250000	-46.9	19.9	-27.0	PASS
5354.250000	-47.1	20.1	-27.0	PASS
5350.250000	-47.2	20.2	-27.0	PASS
5352.750000	-47.4	20.4	-27.0	PASS
5353.750000	-47.7	20.7	-27.0	PASS
5357.750000	-47.7	20.7	-27.0	PASS
5353.250000	-47.7	20.7	-27.0	PASS
5351.750000	-47.9	20.9	-27.0	PASS
5358.750000	-48.3	21.3	-27.0	PASS
5355.250000	-48.6	21.6	-27.0	PASS
5361.750000	-48.7	21.7	-27.0	PASS
5373.250000	-49.0	22.0	-27.0	PASS
5360.750000	-49.0	22.0	-27.0	PASS
5363.750000	-49.2	22.2	-27.0	PASS

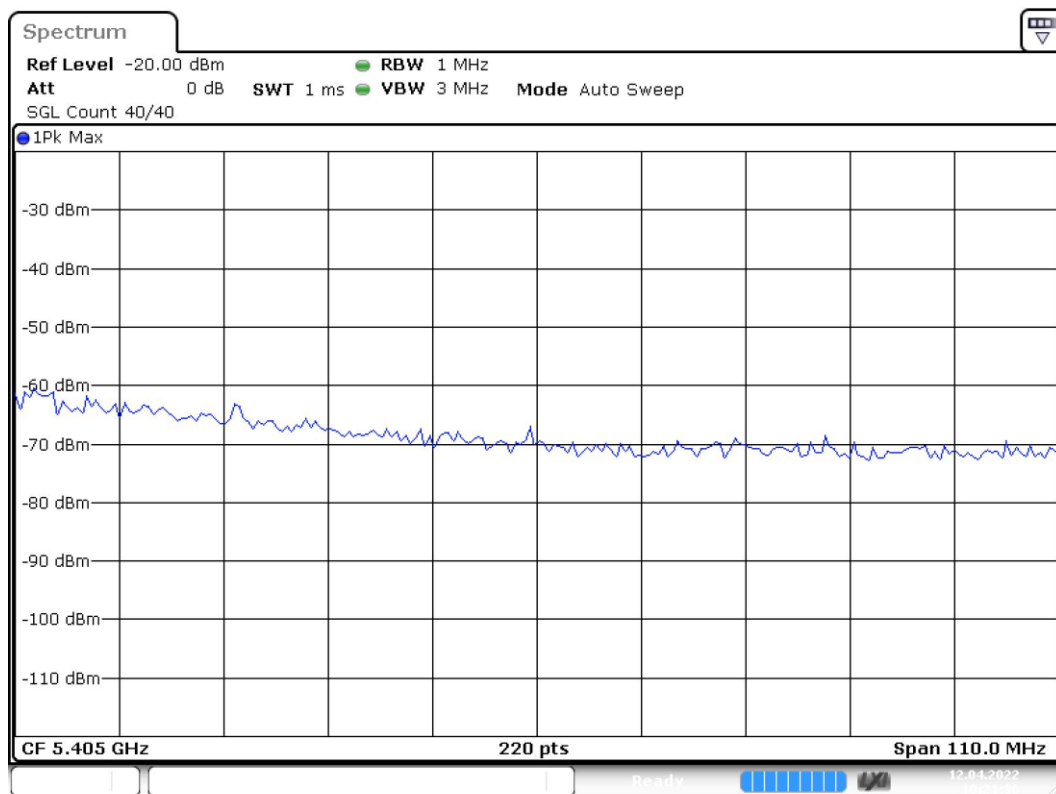


Band Edge Connector 1_0



Date: 12.APR.2022 10:21:25

Band Edge Connector 1_1



Date: 12.APR.2022 10:21:30

Measurement 1

Setting	Instrument Value	Target Value
Start Frequency	5.25000 GHz	5.25000 GHz
Stop Frequency	5.35000 GHz	5.35000 GHz
Span	100.000 MHz	100.000 MHz
RBW	1.000 MHz	≤ 1.000 MHz
VBW	3.000 MHz	≥ 3.000 MHz
SweepPoints	200	~ 200
Sweptime	1.000 ms	AUTO
Reference Level	0.000 dBm	0.000 dBm
Attenuation	20.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	40	40
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
SweepType	Sweep	AUTO
Preamp	off	off
Stablemode	Trace	Trace
Stablevalue	0.50 dB	0.50 dB
Run	1 / max. 1	max. 1
Stable	0 / 1	1
Max Stable Difference	0.00 dB	0.50 dB

Measurement 2

Setting	Instrument Value	Target Value
Start Frequency	5.35000 GHz	5.35000 GHz
Stop Frequency	5.46000 GHz	5.46000 GHz
Span	110.000 MHz	110.000 MHz
RBW	1.000 MHz	≤ 1.000 MHz
VBW	3.000 MHz	≥ 3.000 MHz

SweepPoints	220	~ 220
SweepTime	1.000 ms	AUTO
Reference Level	-20.000 dBm	-20.000 dBm
Attenuation	0.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	40	40
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
SweepType	Sweep	AUTO
Preamp	off	off
Stablemode	Trace	Trace
Stablevalue	0.50 dB	0.50 dB
Run	1 / max. 1	max. 1
Stable	0 / 1	1
Max Stable Difference	0.00 dB	0.50 dB

FCC 15.407 2015

DUT Information

Frequencies

WLAN CH 36 (5180 MHz)	WLAN CH 40 (5200 MHz)	WLAN CH 48 (5240 MHz)
WLAN CH 149 (5745 MHz)	WLAN CH 157 (5785 MHz)	WLAN CH 165 (5825 MHz)
WLAN CH 52 (5260 MHz)	WLAN CH 56 (5280 MHz)	WLAN CH 64 (5320 MHz)
WLAN CH 100 (5500 MHz)	WLAN CH 120 (5600 MHz)	WLAN CH 140 (5700 MHz)
WLAN CH 116 (5580 MHz)		

Bandwidths

20 MHz (20 MHz)

Power

20.000 dBm (20 dBm)

Beamforming Gain

20.000 dBm (20 dBm) 0 dB

Gain Tables

20.000 dBm (20 dBm) Port 1: 0dBi;

DUT Settings

No. of transmission chains	1
DFS capability	Yes
DFS Mode	Master
Equipment Type	Portable
TPC	No

Hardware Setup: WMS Measurements\Hardware Setup

Spectrum Analyzer:	SA FSV 40 (SA FSV 40) @ VISA (ADR TCPIP::192.168.48.149::INST0::INSTR), SN 1321.3008K39/101229, FW 3.40
Vector Generator:	VG SMBV100A (VG SMBV100A) @ VISA (ADR TCPIP::192.168.48.25::INST0::INSTR), SN 260451, FW 4.15.125.49
Generator:	SMB100A (SMB100A) @ VISA (ADR TCPIP::192.168.48.30::INST0::INSTR), SN 178361, FW / Drv:Rev 2.21.0, 07/2016, CVI 2015
OSP:	OSP-B157W (OSP-B157W) @ VISA (ADR TCPIP::192.168.48.157::INST0::INSTR), SN 1527.1144. /, FW 1.23.0.2

Summary

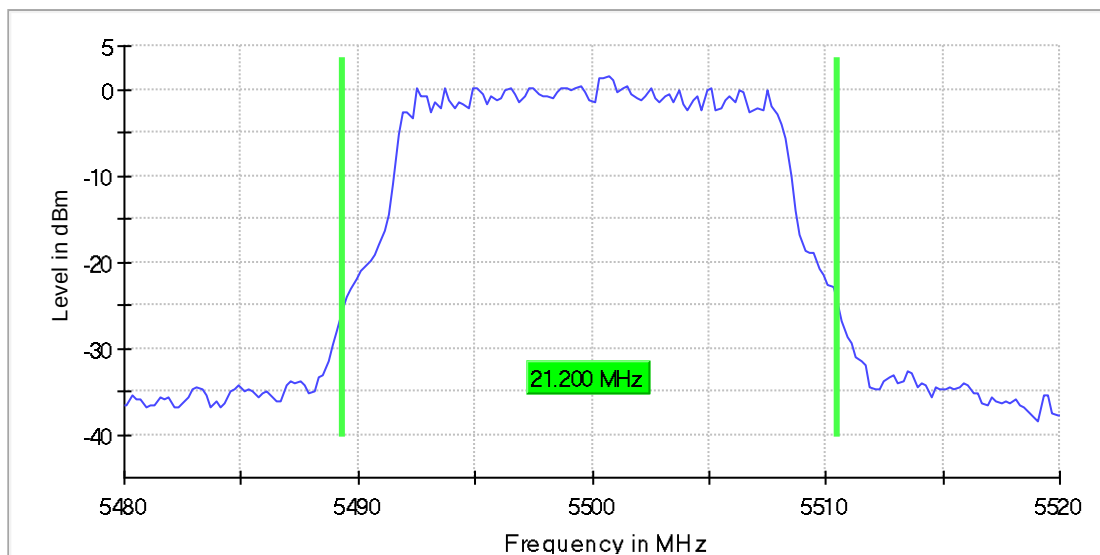
Test	Frequency (MHz)	Nominal Power (dBm)	Nominal Bandwidth (MHz)	Result
Emission Bandwidth 26 dB	5500.000	20.0	20.000000	PASS
RF output power	5500.000	20.0	20.000000	PASS
Power Spectral Density	5500.000	20.0	20.000000	PASS
Minimum Emission Bandwidth 6 dB	5500.000	20.0	20.000000	PASS
Occupied Channel Bandwidth 99%	5500.000	20.0	20.000000	PASS
Band Edge low	5500.000	20.0	20.000000	PASS
Emission Bandwidth 26 dB	5600.000	20.0	20.000000	PASS
RF output power	5600.000	20.0	20.000000	PASS
Power Spectral Density	5600.000	20.0	20.000000	PASS
Minimum Emission Bandwidth 6 dB	5600.000	20.0	20.000000	PASS
Occupied Channel Bandwidth 99%	5600.000	20.0	20.000000	PASS
Emission Bandwidth 26 dB	5700.000	20.0	20.000000	PASS
RF output power	5700.000	20.0	20.000000	PASS
Power Spectral Density	5700.000	20.0	20.000000	PASS
Minimum Emission Bandwidth 6 dB	5700.000	20.0	20.000000	PASS
Occupied Channel Bandwidth 99%	5700.000	20.0	20.000000	PASS
Band Edge high	5700.000	20.0	20.000000	PASS

Emission Bandwidth 26 dB (5500 MHz; 20.000 dBm; 20 MHz)**26 dB Bandwidth**

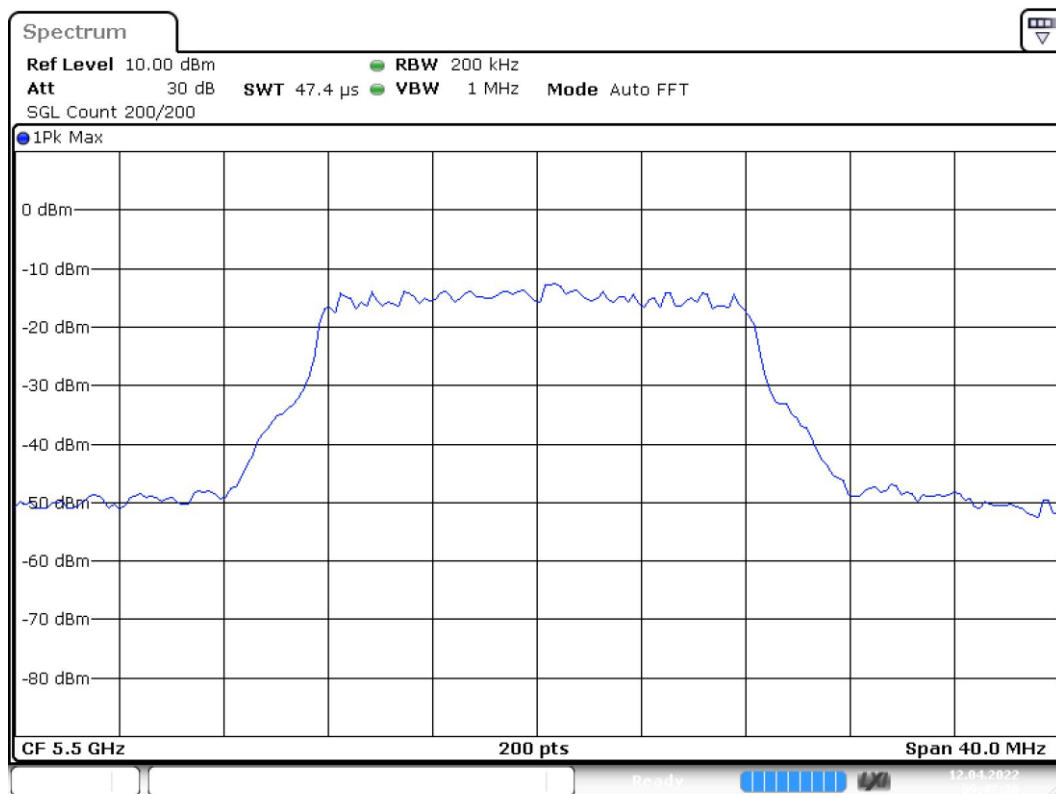
DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
5500.000000	21.200000	---	---	5489.300000	5510.500000

(continuation of the "26 dB Bandwidth" table from column 6 ...)

DUT Frequency (MHz)	Max Level (dBm)	Result
5500.000000	1.6	PASS



Bandwidth



Date: 12.APR.2022 09:47:21

Measurement

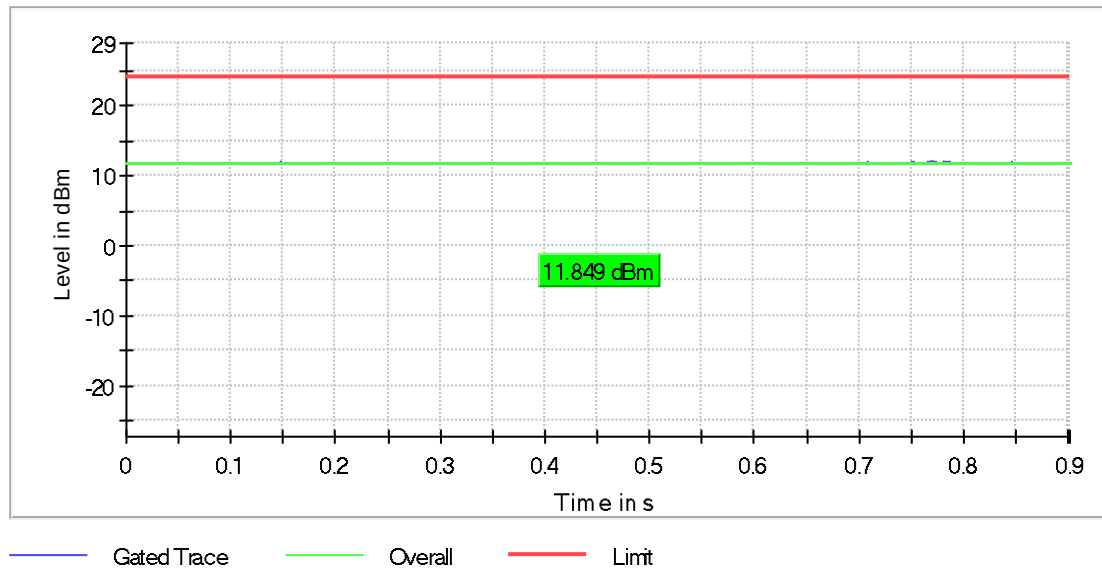
Setting	Instrument Value	Target Value
Start Frequency	5.48000 GHz	5.48000 GHz
Stop Frequency	5.52000 GHz	5.52000 GHz
Span	40.000 MHz	40.000 MHz
RBW	200.000 kHz	~ 200.000 kHz
VBW	1.000 MHz	>= 600.000 kHz
SweepPoints	200	~ 200
SweepTime	47.405 μ s	AUTO
Reference Level	10.000 dBm	10.000 dBm
Attenuation	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
Stablemode	Trace	Trace
Stablevalue	0.30 dB	0.30 dB
Run	16 / max. 150	max. 150
Stable	5 / 5	5
Max Stable Difference	0.07 dB	0.30 dB

RF output power (5500 MHz; 20.000 dBm; 20 MHz)

Test according to FCC title 47 part 15 §15.407(a),

Result

DUT Frequency (MHz)	Gated RMS (dBm)	Limit Max (dBm)	Gated EIRP (dBm)	DutyCycle (%)	Result
5500.000000	11.8	24.0	11.8	89.841	PASS



Power Spectral Density (5500 MHz; 20.000 dBm; 20 MHz)

Customized settings.

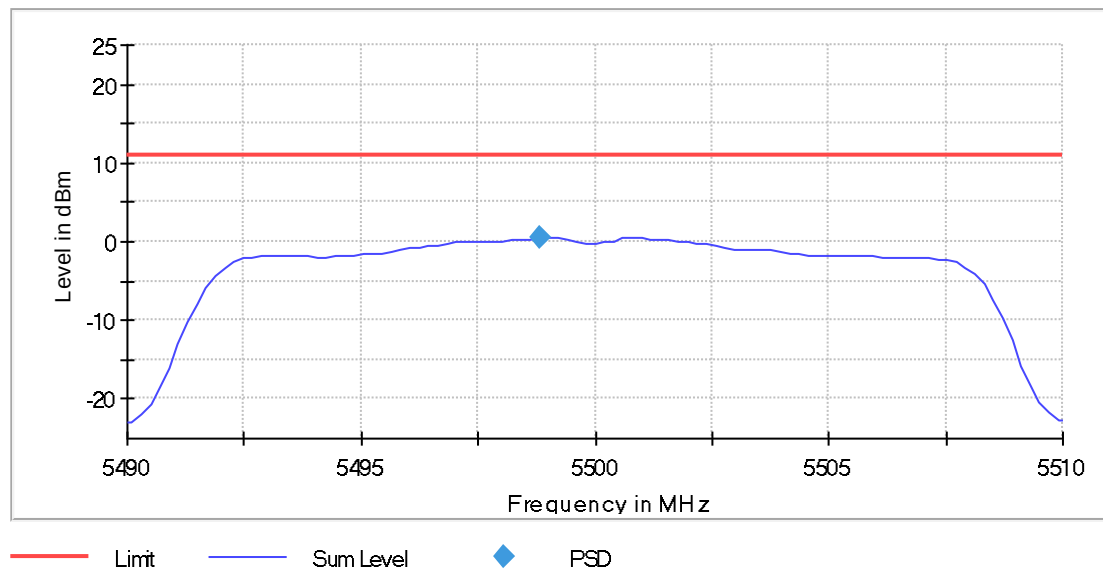
Test according to FCC title 47 part 15 §15.407(a),

Result

DUT Frequency (MHz)	Frequency (MHz)	PSD (dBm)	Limit Max (dBm)	Result
5500.000000	5498.811881	0.482	11.0	PASS

Ports

Port	Duty Cycle (%)
1	89.366



Measurement

Setting	Instrument Value	Target Value
Start Frequency	5.49000 GHz	5.49000 GHz
Stop Frequency	5.51000 GHz	5.51000 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
Sweptime	2.020 s	2.020 s
Reference Level	0.000 dBm	0.000 dBm
Attenuation	20.000 dB	AUTO
Detector	RMS	RMS
SweepCount	30	30
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
SweepType	Sweep	AUTO
Preamp	off	off
Stablemode	Trace	Trace
Stablevalue	0.30 dB	0.30 dB
Run	1 / max. 1	max. 1

Stable	0 / 1	1
Max Stable Difference	0.00 dB	0.30 dB

Minimum Emission Bandwidth 6 dB (5500 MHz; 20.000 dBm; 20 MHz)

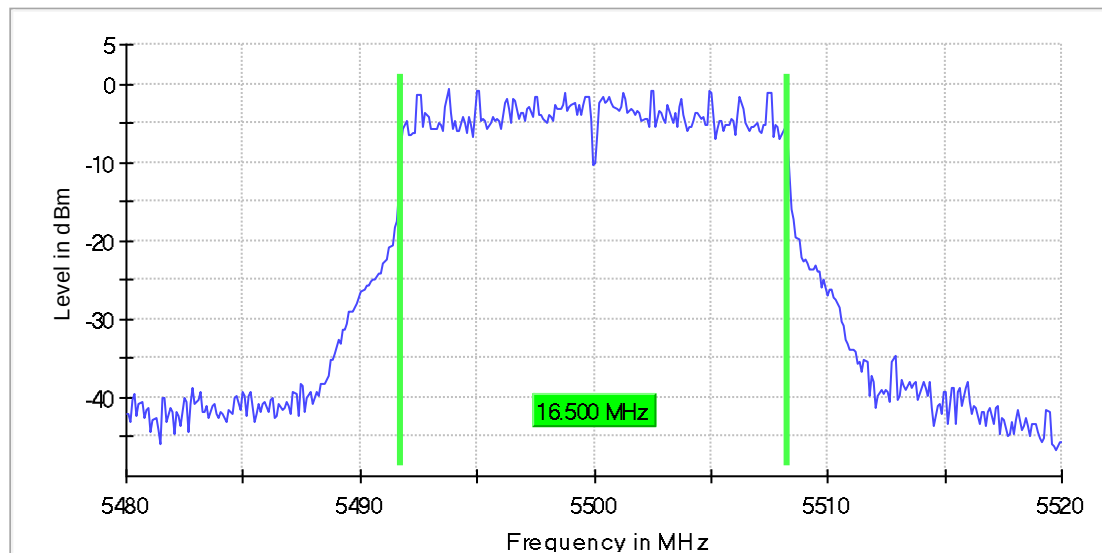
Customized settings.

6 dB Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
5500.000000	16.500000	---	---	5491.750000	5508.250000

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

DUT Frequency (MHz)	Max Level (dBm)	Result
5500.000000	-0.7	PASS



Measurement

Setting	Instrument Value	Target Value
Start Frequency	5.48000 GHz	5.48000 GHz
Stop Frequency	5.52000 GHz	5.52000 GHz
Span	40.000 MHz	40.000 MHz
RBW	100.000 kHz	~ 100.000 kHz
VBW	300.000 kHz	~ 300.000 kHz
SweepPoints	400	~ 400
SweepTime	94.810 μ s	AUTO
Reference Level	0.000 dBm	0.000 dBm
Attenuation	20.000 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
Stablemode	Trace	Trace
Stablevalue	0.30 dB	0.30 dB

Run	7 / max. 150	max. 150
Stable	1 / 1	1
Max Stable Difference	0.13 dB	0.30 dB

Occupied Channel Bandwidth 99% (5500 MHz; 20.000 dBm; 20 MHz)

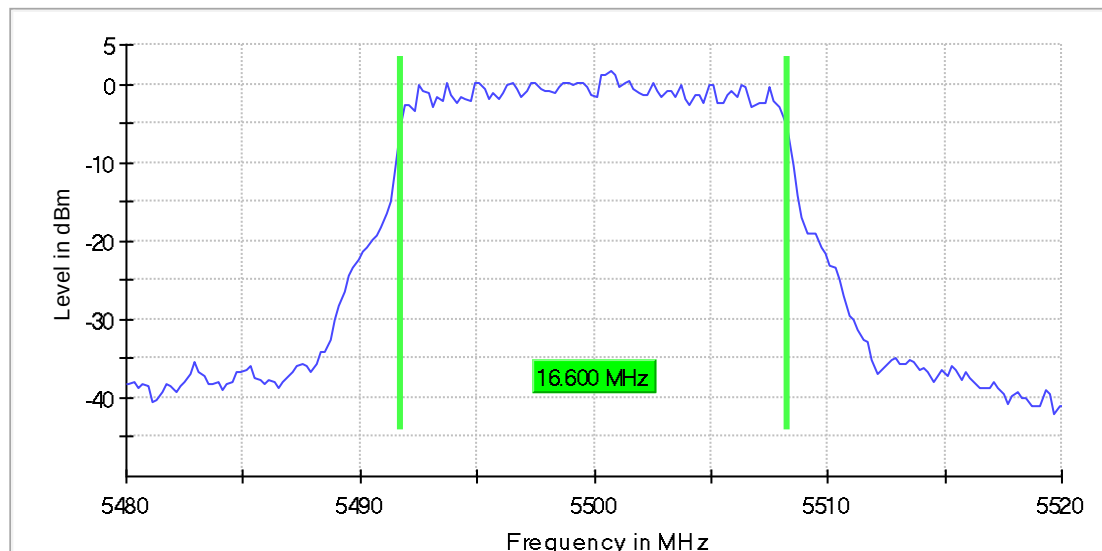
Customized settings.

99 % Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
5500.000000	16.600000	---	---	5491.700000	5508.300000

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

DUT Frequency (MHz)	Result
5500.000000	PASS



Measurement

Setting	Instrument Value	Target Value
Start Frequency	5.48000 GHz	5.48000 GHz
Stop Frequency	5.52000 GHz	5.52000 GHz
Span	40.000 MHz	40.000 MHz
RBW	200.000 kHz	<= 200.000 kHz
VBW	1.000 MHz	>= 600.000 kHz
SweepPoints	200	~ 200
SweepTime	47.405 µs	AUTO
Reference Level	0.000 dBm	0.000 dBm
Attenuation	20.000 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
Stablemode	Trace	Trace
Stablevalue	0.30 dB	0.30 dB
Run	6 / max. 150	max. 150
Stable	1 / 1	1

Max Stable Difference	0.16 dB	0.30 dB
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Band Edge low (5500 MHz; 20.000 dBm; 20 MHz)

Customized settings.

Test according to FCC title 47 part 15 §15.407(b),

Result

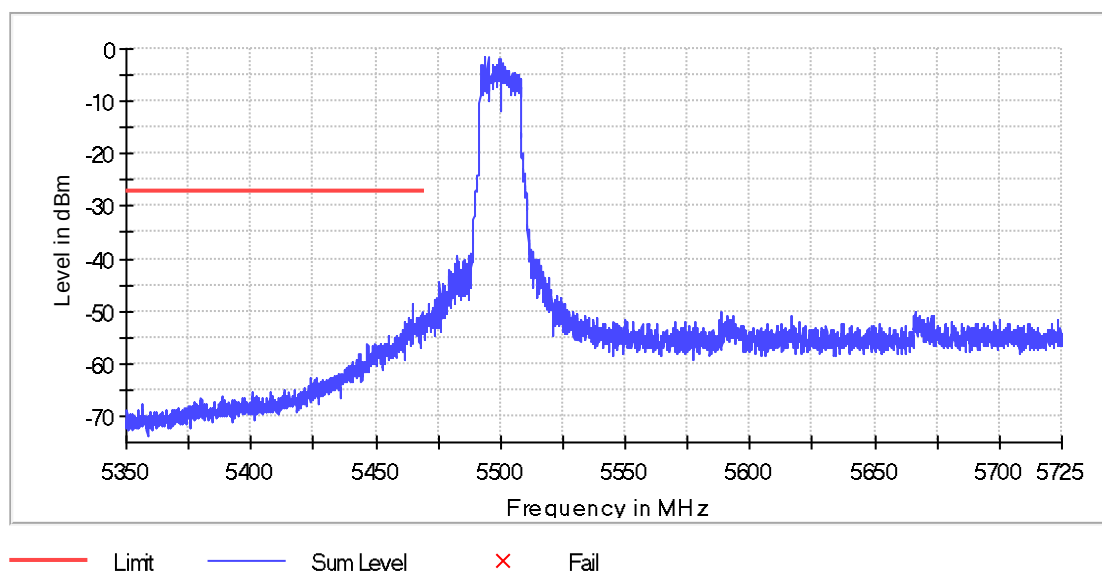
DUT Frequency (MHz)	Result
5500.000000	PASS

Inband Peak

Frequency (MHz)	Level (dBm)
5493.725000	-1.5

Measurements

Frequency (MHz)	Level (dBm)	Margin (dB)	Limit (dBm)	Result
5464.675000	-48.7	21.7	-27.0	PASS
5464.725000	-49.0	22.0	-27.0	PASS
5464.625000	-49.6	22.6	-27.0	PASS
5468.475000	-50.3	23.3	-27.0	PASS
5468.525000	-50.6	23.6	-27.0	PASS
5468.175000	-50.8	23.8	-27.0	PASS
5468.725000	-50.9	23.9	-27.0	PASS
5469.975000	-51.0	24.0	-27.0	PASS
5468.425000	-51.1	24.1	-27.0	PASS
5468.775000	-51.1	24.1	-27.0	PASS
5466.925000	-51.1	24.1	-27.0	PASS
5468.225000	-51.2	24.2	-27.0	PASS
5463.125000	-51.3	24.3	-27.0	PASS
5466.725000	-51.4	24.4	-27.0	PASS
5466.675000	-51.4	24.4	-27.0	PASS



Measurement 1

Setting	Instrument Value	Target Value
Start Frequency	5.47000 GHz	5.47000 GHz
Stop Frequency	5.72500 GHz	5.72500 GHz
Span	255.000 MHz	255.000 MHz
RBW	100.000 kHz	<= 100.000 kHz
VBW	300.000 kHz	>= 300.000 kHz
SweepPoints	5100	~ 5100
SweepTime	569.531 μ s	AUTO
Reference Level	0.000 dBm	0.000 dBm
Attenuation	20.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	40	40
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
SweepType	FFT	AUTO
Preamp	off	off
Stablemode	Trace	Trace
Stablevalue	0.50 dB	0.50 dB
Run	1 / max. 1	max. 1
Stable	0 / 1	1
Max Stable Difference	0.00 dB	0.50 dB

Measurement 2

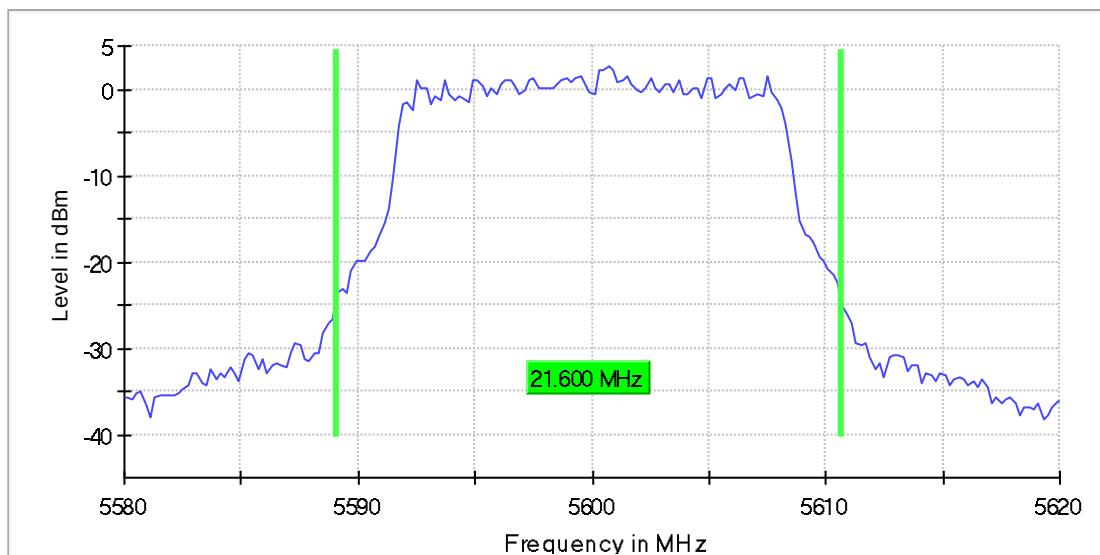
Setting	Instrument Value	Target Value
Start Frequency	5.35000 GHz	5.35000 GHz
Stop Frequency	5.47000 GHz	5.47000 GHz
Span	120.000 MHz	120.000 MHz
RBW	100.000 kHz	<= 100.000 kHz
VBW	300.000 kHz	>= 300.000 kHz
SweepPoints	2400	~ 2400
SweepTime	265.781 μ s	AUTO
Reference Level	-20.000 dBm	-20.000 dBm
Attenuation	0.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	50	50
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
SweepType	FFT	AUTO
Preamp	off	off
Stablemode	Trace	Trace
Stablevalue	0.50 dB	0.50 dB
Run	5 / max. 5	max. 5
Stable	0 / 1	1
Max Stable Difference	3.02 dB	0.50 dB

Emission Bandwidth 26 dB (5600 MHz; 20.000 dBm; 20 MHz)**26 dB Bandwidth**

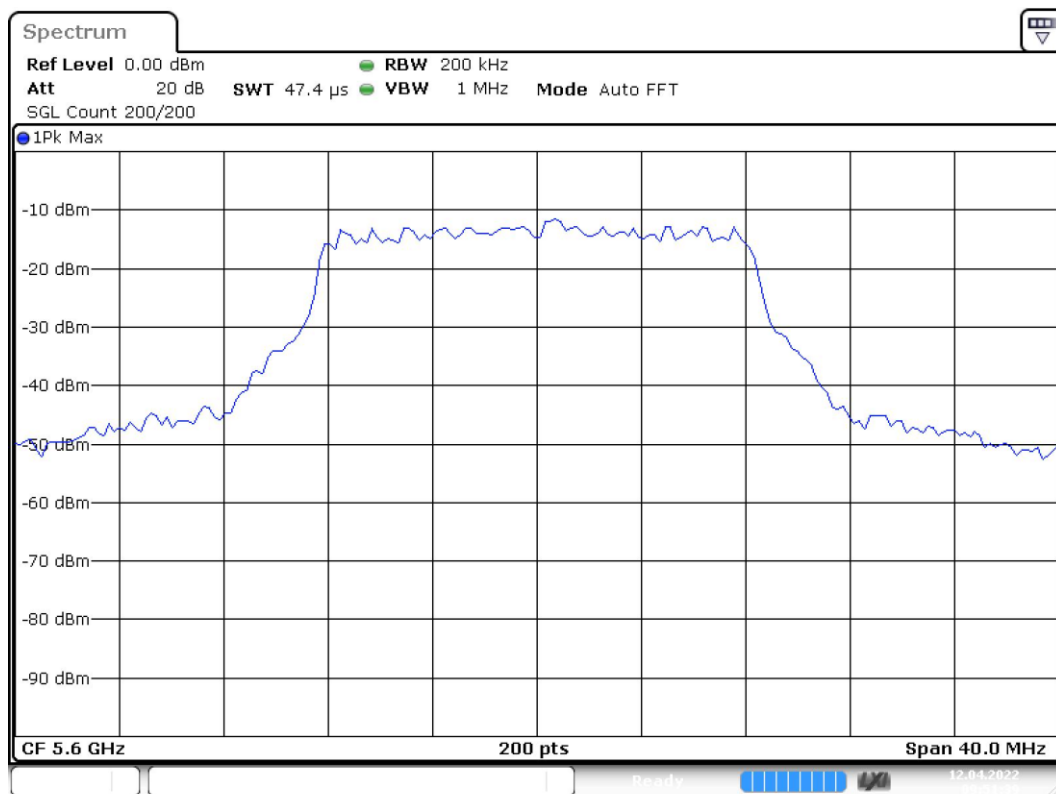
DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
5600.000000	21.600000	---	---	5589.100000	5610.700000

(continuation of the "26 dB Bandwidth" table from column 6 ...)

DUT Frequency (MHz)	Max Level (dBm)	Result
5600.000000	2.6	PASS



Bandwidth



Date: 12.APR.2022 09:51:39

Measurement

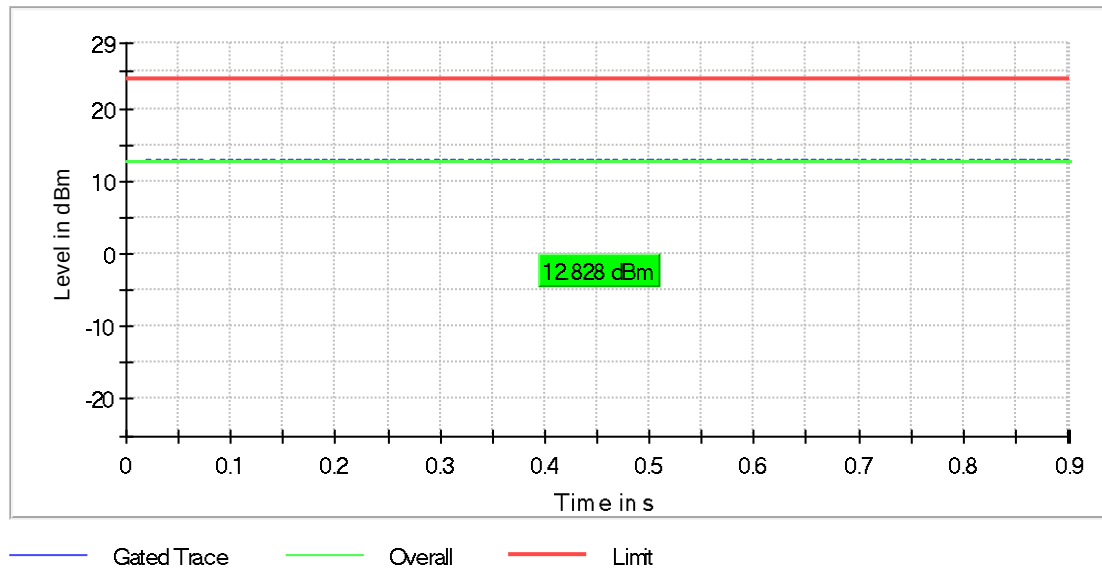
Setting	Instrument Value	Target Value
Start Frequency	5.58000 GHz	5.58000 GHz
Stop Frequency	5.62000 GHz	5.62000 GHz
Span	40.000 MHz	40.000 MHz
RBW	200.000 kHz	~ 200.000 kHz
VBW	1.000 MHz	>= 600.000 kHz
SweepPoints	200	~ 200
SweepTime	47.405 μ s	AUTO
Reference Level	0.000 dBm	0.000 dBm
Attenuation	20.000 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
Stablemode	Trace	Trace
Stablevalue	0.30 dB	0.30 dB
Run	12 / max. 150	max. 150
Stable	5 / 5	5
Max Stable Difference	0.05 dB	0.30 dB

RF output power (5600 MHz; 20.000 dBm; 20 MHz)

Test according to FCC title 47 part 15 §15.407(a),

Result

DUT Frequency (MHz)	Gated RMS (dBm)	Limit Max (dBm)	Gated EIRP (dBm)	DutyCycle (%)	Result
5600.000000	12.8	24.0	12.8	89.883	PASS



Power Spectral Density (5600 MHz; 20.000 dBm; 20 MHz)

Customized settings.

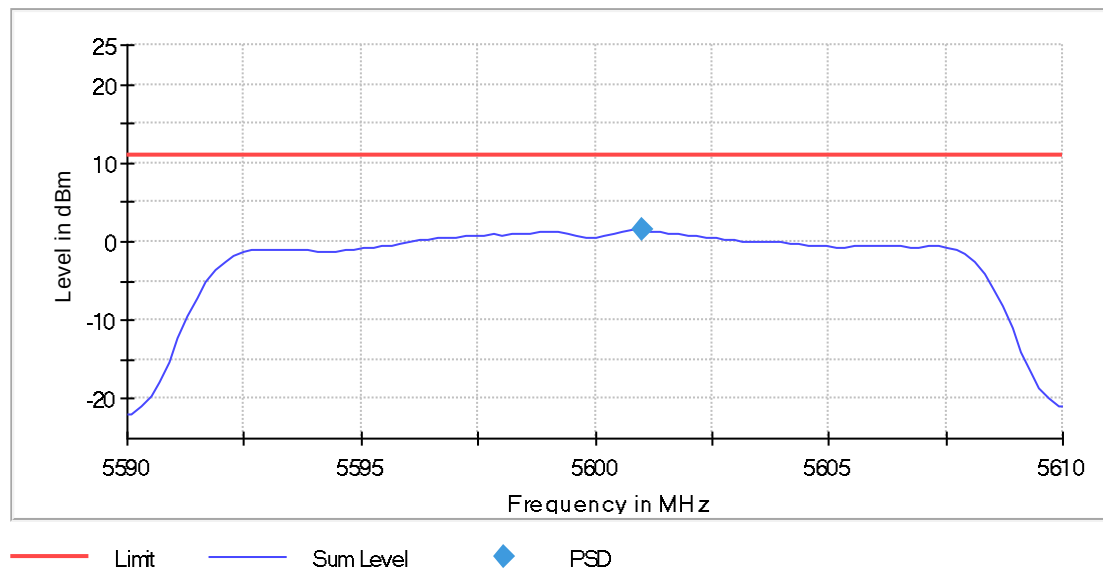
Test according to FCC title 47 part 15 §15.407(a),

Result

DUT Frequency (MHz)	Frequency (MHz)	PSD (dBm)	Limit Max (dBm)	Result
5600.000000	5600.990099	1.444	11.0	PASS

Ports

Port	Duty Cycle (%)
1	89.380



Measurement

Setting	Instrument Value	Target Value
Start Frequency	5.59000 GHz	5.59000 GHz
Stop Frequency	5.61000 GHz	5.61000 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
Sweptime	2.020 s	2.020 s
Reference Level	0.000 dBm	0.000 dBm
Attenuation	20.000 dB	AUTO
Detector	RMS	RMS
SweepCount	30	30
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
SweepType	Sweep	AUTO
Preamp	off	off
Stablemode	Trace	Trace
Stablevalue	0.30 dB	0.30 dB
Run	1 / max. 1	max. 1

Stable	0 / 1	1
Max Stable Difference	0.00 dB	0.30 dB

Minimum Emission Bandwidth 6 dB (5600 MHz; 20.000 dBm; 20 MHz)

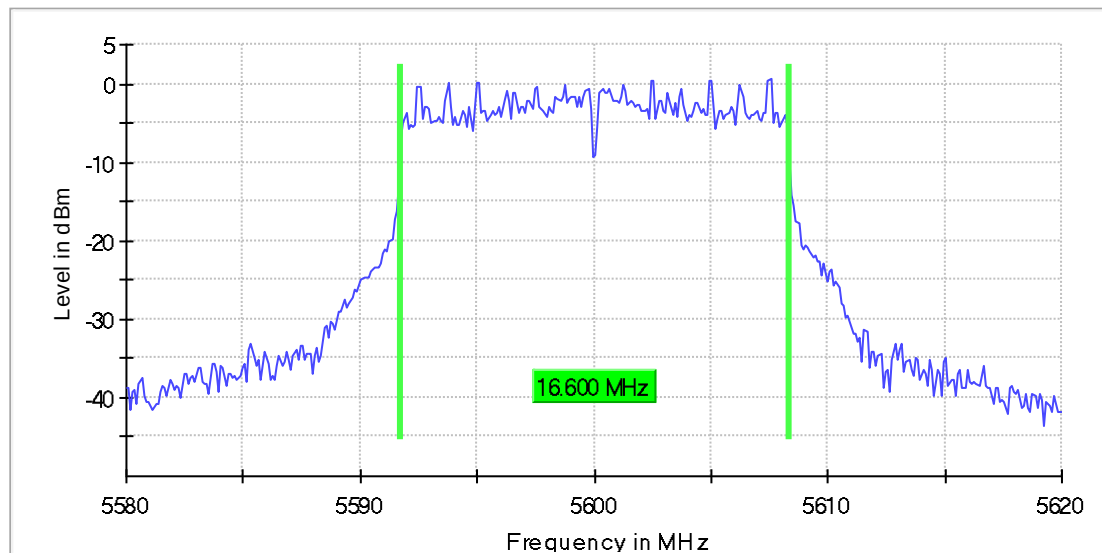
Customized settings.

6 dB Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
5600.000000	16.600000	---	---	5591.750000	5608.350000

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

DUT Frequency (MHz)	Max Level (dBm)	Result
5600.000000	0.5	PASS



Measurement

Setting	Instrument Value	Target Value
Start Frequency	5.58000 GHz	5.58000 GHz
Stop Frequency	5.62000 GHz	5.62000 GHz
Span	40.000 MHz	40.000 MHz
RBW	100.000 kHz	~ 100.000 kHz
VBW	300.000 kHz	~ 300.000 kHz
SweepPoints	400	~ 400
SweepTime	94.810 μ s	AUTO
Reference Level	0.000 dBm	0.000 dBm
Attenuation	20.000 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
Stablemode	Trace	Trace
Stablevalue	0.30 dB	0.30 dB

Run	6 / max. 150	max. 150
Stable	1 / 1	1
Max Stable Difference	0.27 dB	0.30 dB

Occupied Channel Bandwidth 99% (5600 MHz; 20.000 dBm; 20 MHz)

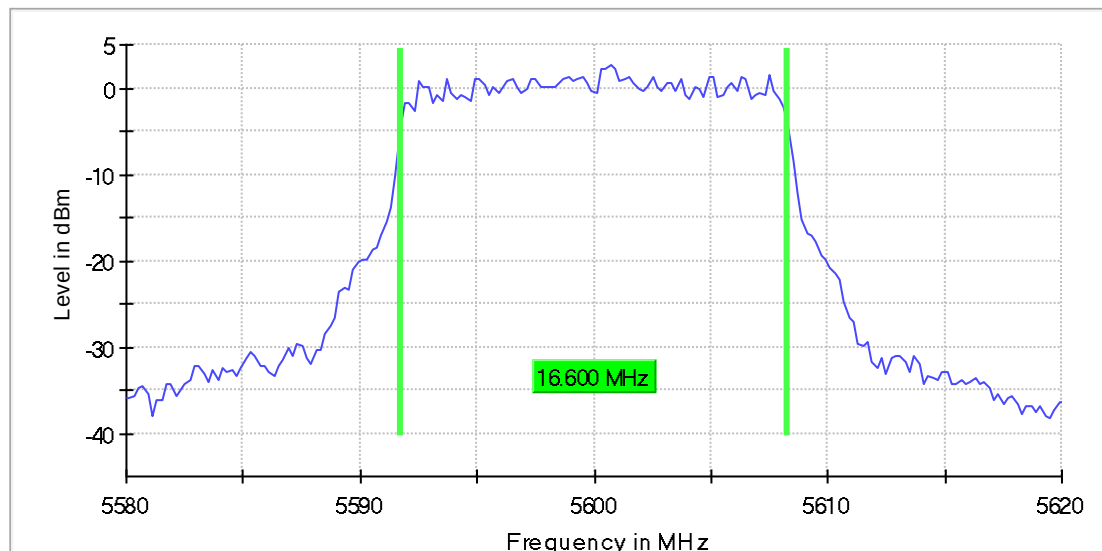
Customized settings.

99 % Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
5600.000000	16.600000	---	---	5591.700000	5608.300000

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

DUT Frequency (MHz)	Result
5600.000000	PASS



Measurement

Setting	Instrument Value	Target Value
Start Frequency	5.58000 GHz	5.58000 GHz
Stop Frequency	5.62000 GHz	5.62000 GHz
Span	40.000 MHz	40.000 MHz
RBW	200.000 kHz	<= 200.000 kHz
VBW	1.000 MHz	>= 600.000 kHz
SweepPoints	200	~ 200
SweepTime	47.405 µs	AUTO
Reference Level	0.000 dBm	0.000 dBm
Attenuation	20.000 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
Stablemode	Trace	Trace
Stablevalue	0.30 dB	0.30 dB
Run	8 / max. 150	max. 150
Stable	1 / 1	1

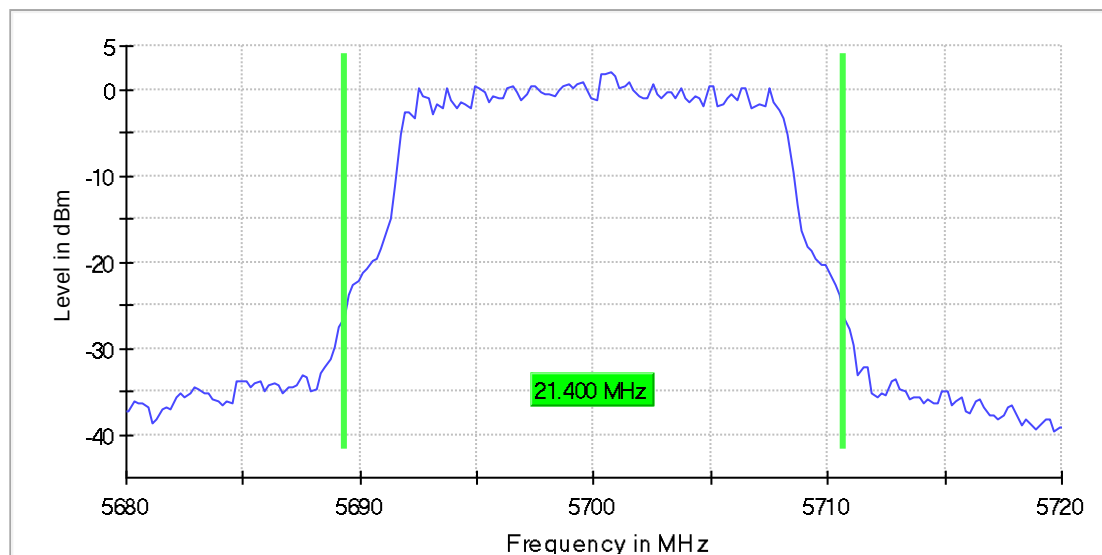
Max Stable Difference	0.14 dB	0.30 dB
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Emission Bandwidth 26 dB (5700 MHz; 20.000 dBm; 20 MHz)**26 dB Bandwidth**

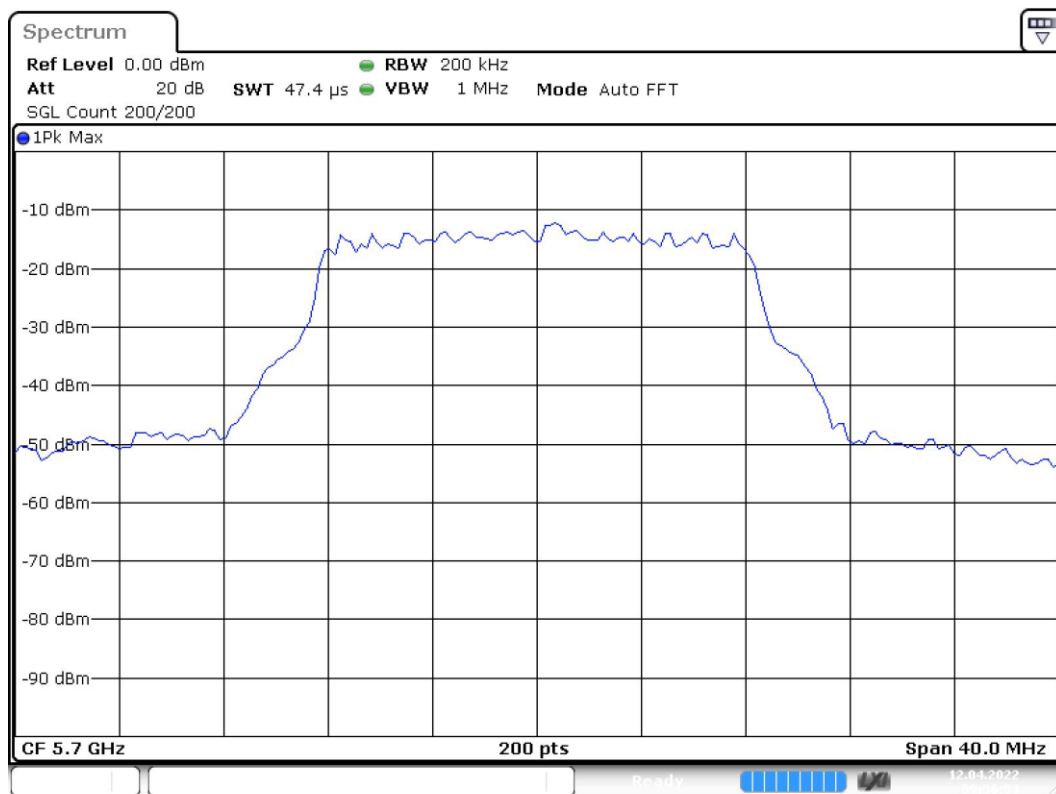
DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
5700.000000	21.400000	---	---	5689.300000	5710.700000

(continuation of the "26 dB Bandwidth" table from column 6 ...)

DUT Frequency (MHz)	Max Level (dBm)	Result
5700.000000	2.0	PASS



Bandwidth



Date: 12.APR.2022 09:56:04

Measurement

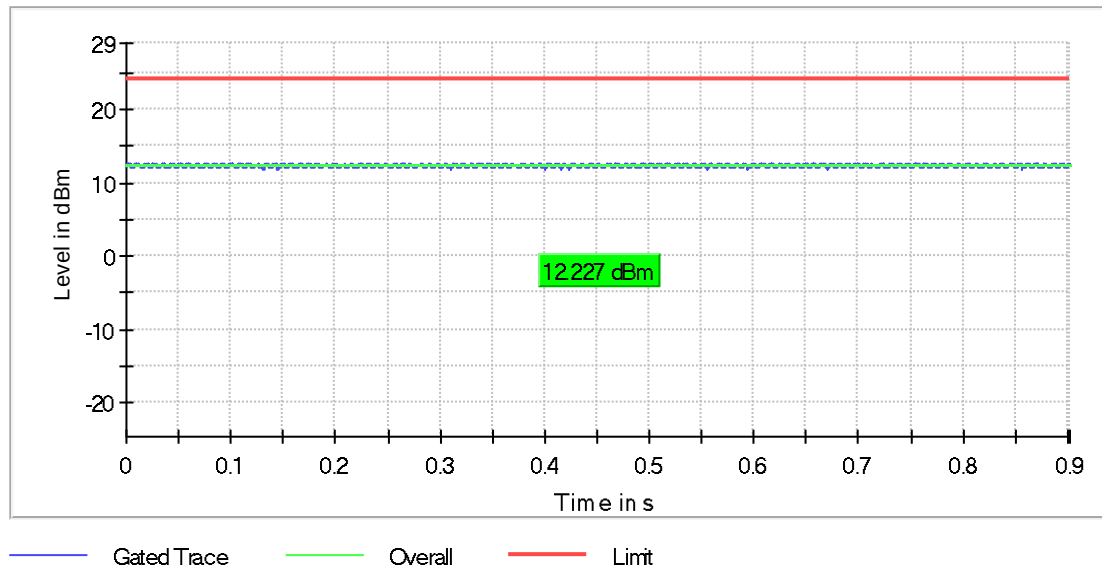
Setting	Instrument Value	Target Value
Start Frequency	5.68000 GHz	5.68000 GHz
Stop Frequency	5.72000 GHz	5.72000 GHz
Span	40.000 MHz	40.000 MHz
RBW	200.000 kHz	~ 200.000 kHz
VBW	1.000 MHz	>= 600.000 kHz
SweepPoints	200	~ 200
SweepTime	47.405 μ s	AUTO
Reference Level	0.000 dBm	0.000 dBm
Attenuation	20.000 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
Stablemode	Trace	Trace
Stablevalue	0.30 dB	0.30 dB
Run	17 / max. 150	max. 150
Stable	5 / 5	5
Max Stable Difference	0.14 dB	0.30 dB

RF output power (5700 MHz; 20.000 dBm; 20 MHz)

Test according to FCC title 47 part 15 §15.407(a),

Result

DUT Frequency (MHz)	Gated RMS (dBm)	Limit Max (dBm)	Gated EIRP (dBm)	DutyCycle (%)	Result
5700.000000	12.2	24.0	12.2	89.885	PASS



Power Spectral Density (5700 MHz; 20.000 dBm; 20 MHz)

Customized settings.

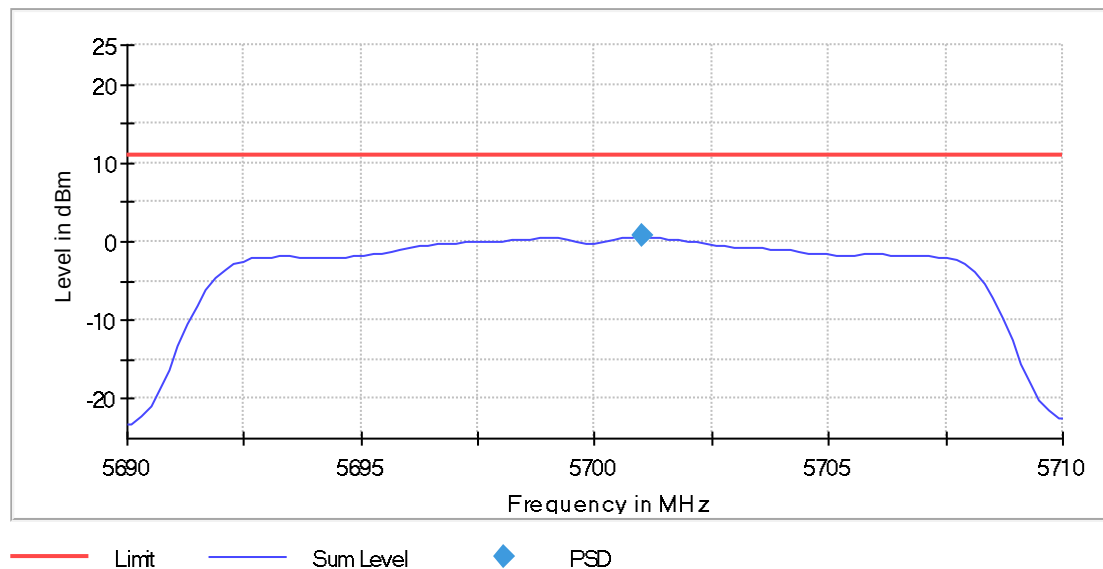
Test according to FCC title 47 part 15 §15.407(a),

Result

DUT Frequency (MHz)	Frequency (MHz)	PSD (dBm)	Limit Max (dBm)	Result
5700.000000	5700.990099	0.648	11.0	PASS

Ports

Port	Duty Cycle (%)
1	89.371



Measurement

Setting	Instrument Value	Target Value
Start Frequency	5.69000 GHz	5.69000 GHz
Stop Frequency	5.71000 GHz	5.71000 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
Sweptime	2.020 s	2.020 s
Reference Level	0.000 dBm	0.000 dBm
Attenuation	20.000 dB	AUTO
Detector	RMS	RMS
SweepCount	30	30
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
SweepType	Sweep	AUTO
Preamp	off	off
Stablemode	Trace	Trace
Stablevalue	0.30 dB	0.30 dB
Run	1 / max. 1	max. 1

Stable	0 / 1	1
Max Stable Difference	0.00 dB	0.30 dB

Minimum Emission Bandwidth 6 dB (5700 MHz; 20.000 dBm; 20 MHz)

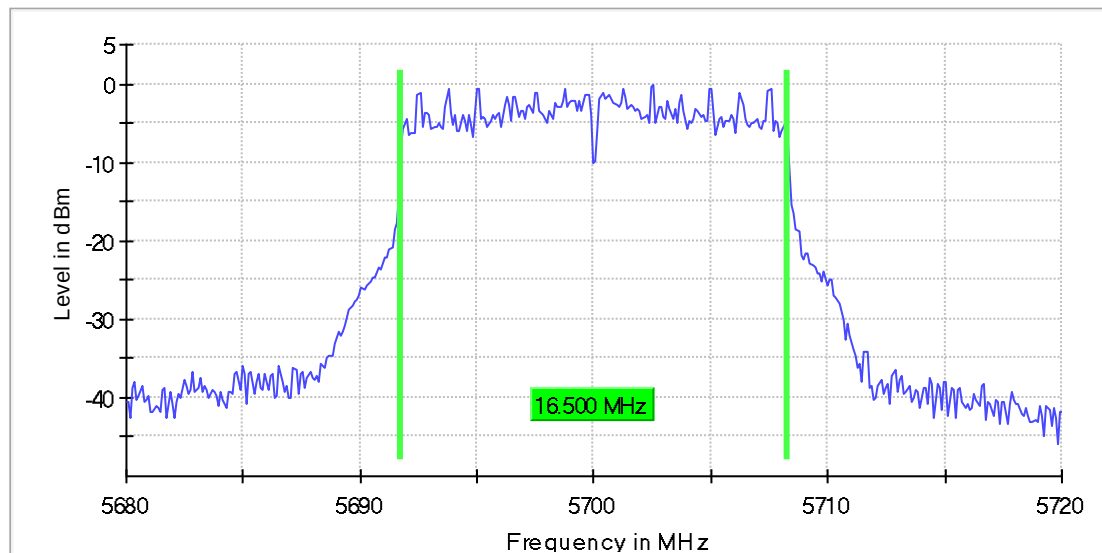
Customized settings.

6 dB Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
5700.000000	16.500000	---	---	5691.750000	5708.250000

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

DUT Frequency (MHz)	Max Level (dBm)	Result
5700.000000	-0.2	PASS



Measurement

Setting	Instrument Value	Target Value
Start Frequency	5.68000 GHz	5.68000 GHz
Stop Frequency	5.72000 GHz	5.72000 GHz
Span	40.000 MHz	40.000 MHz
RBW	100.000 kHz	~ 100.000 kHz
VBW	300.000 kHz	~ 300.000 kHz
SweepPoints	400	~ 400
SweepTime	94.810 μ s	AUTO
Reference Level	0.000 dBm	0.000 dBm
Attenuation	20.000 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
Stablemode	Trace	Trace
Stablevalue	0.30 dB	0.30 dB

Run	9 / max. 150	max. 150
Stable	1 / 1	1
Max Stable Difference	0.26 dB	0.30 dB

Occupied Channel Bandwidth 99% (5700 MHz; 20.000 dBm; 20 MHz)

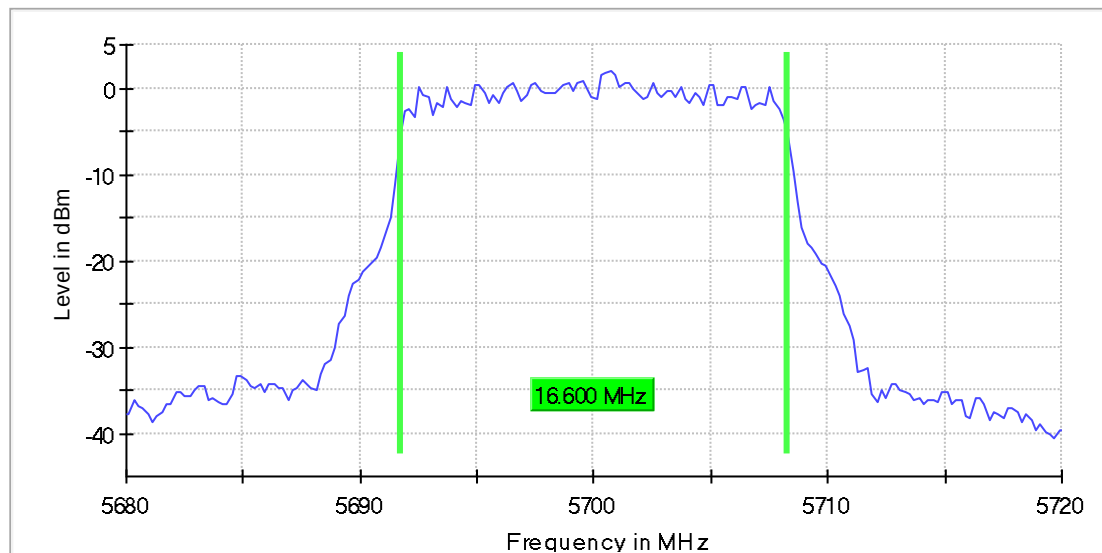
Customized settings.

99 % Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
5700.000000	16.600000	---	---	5691.700000	5708.300000

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

DUT Frequency (MHz)	Result
5700.000000	PASS



Measurement

Setting	Instrument Value	Target Value
Start Frequency	5.68000 GHz	5.68000 GHz
Stop Frequency	5.72000 GHz	5.72000 GHz
Span	40.000 MHz	40.000 MHz
RBW	200.000 kHz	<= 200.000 kHz
VBW	1.000 MHz	>= 600.000 kHz
SweepPoints	200	~ 200
SweepTime	47.405 µs	AUTO
Reference Level	0.000 dBm	0.000 dBm
Attenuation	20.000 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
Stablemode	Trace	Trace
Stablevalue	0.30 dB	0.30 dB
Run	7 / max. 150	max. 150
Stable	1 / 1	1

Max Stable Difference	0.27 dB	0.30 dB
-----------------------	---------	---------

Band Edge high (5700 MHz; 20.000 dBm; 20 MHz)

Customized settings.

Test according to FCC title 47 part 15 §15.407(b),

Result

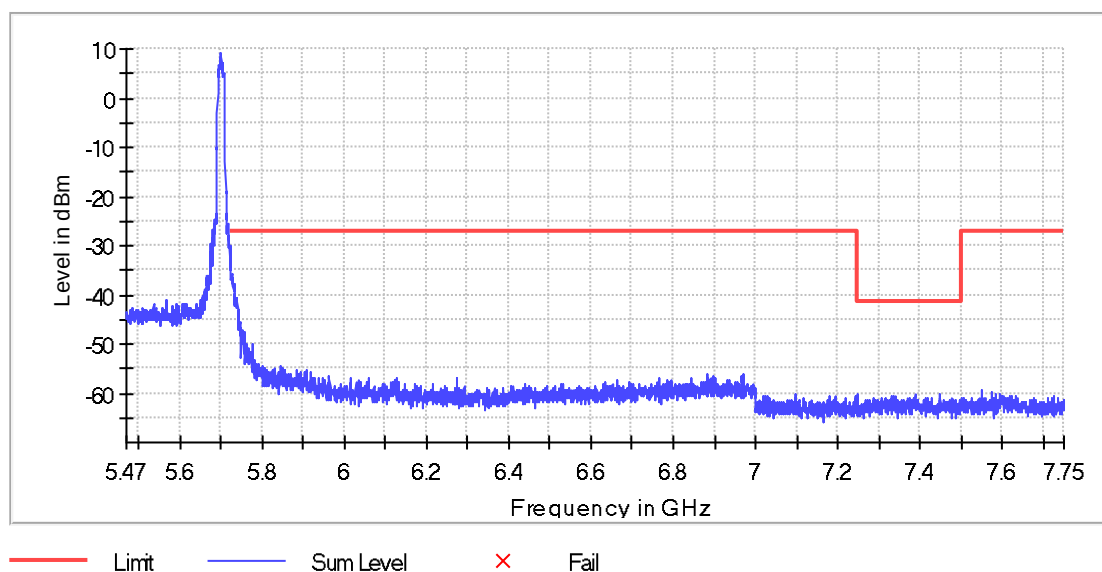
DUT Frequency (MHz)	Result
5700.000000	PASS

Inband Peak

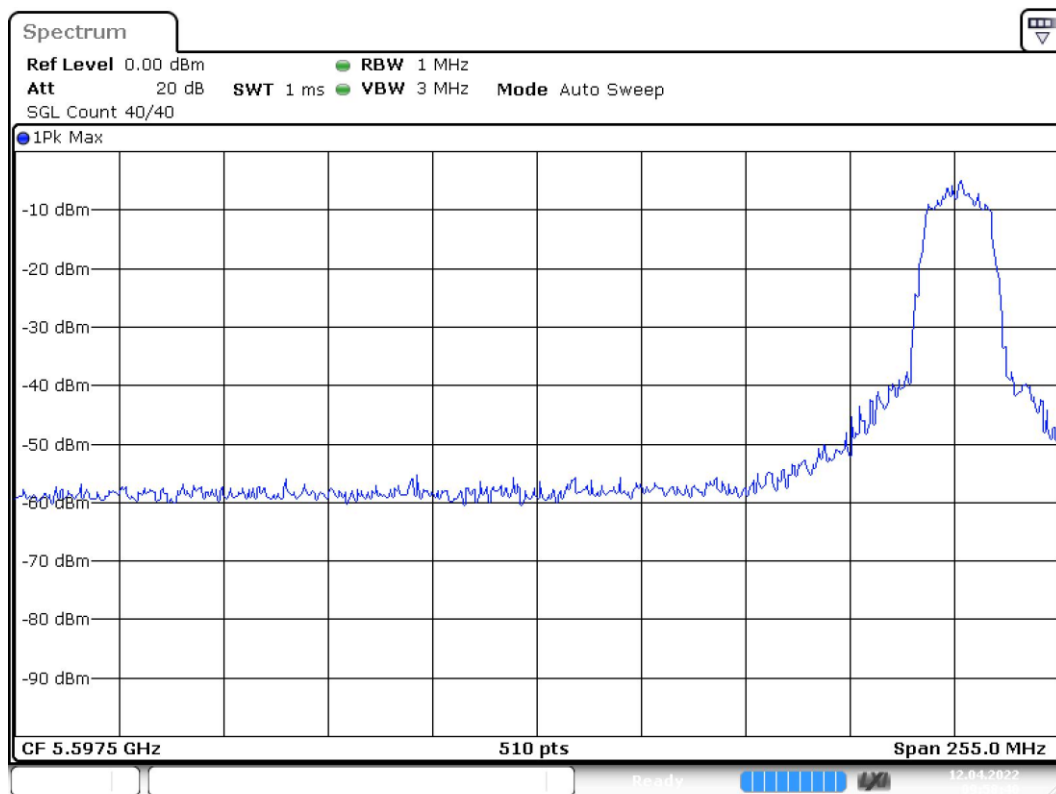
Frequency (MHz)	Level (dBm)
5700.750000	9.2

Measurements

Frequency (MHz)	Level (dBm)	Margin (dB)	Limit (dBm)	Result
5726.250000	-35.9	8.9	-27.0	PASS
5727.750000	-36.4	9.4	-27.0	PASS
5725.250000	-36.4	9.4	-27.0	PASS
5727.250000	-36.5	9.5	-27.0	PASS
5728.250000	-36.7	9.7	-27.0	PASS
5729.250000	-36.9	9.9	-27.0	PASS
5726.750000	-37.0	10.0	-27.0	PASS
5725.750000	-37.1	10.1	-27.0	PASS
5729.750000	-37.6	10.6	-27.0	PASS
5731.250000	-37.9	10.9	-27.0	PASS
5728.750000	-38.0	11.0	-27.0	PASS
5730.250000	-38.1	11.1	-27.0	PASS
5730.750000	-39.3	12.3	-27.0	PASS
5733.250000	-39.7	12.7	-27.0	PASS
5731.750000	-39.7	12.7	-27.0	PASS

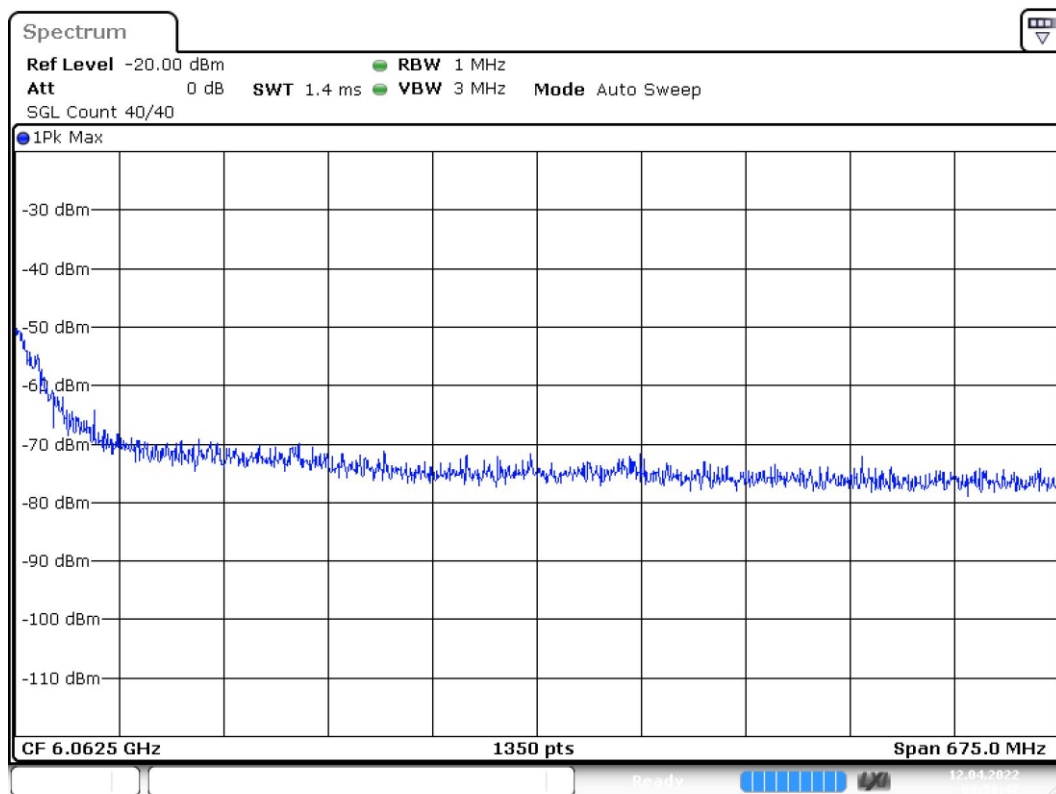


Band Edge Connector 1_0



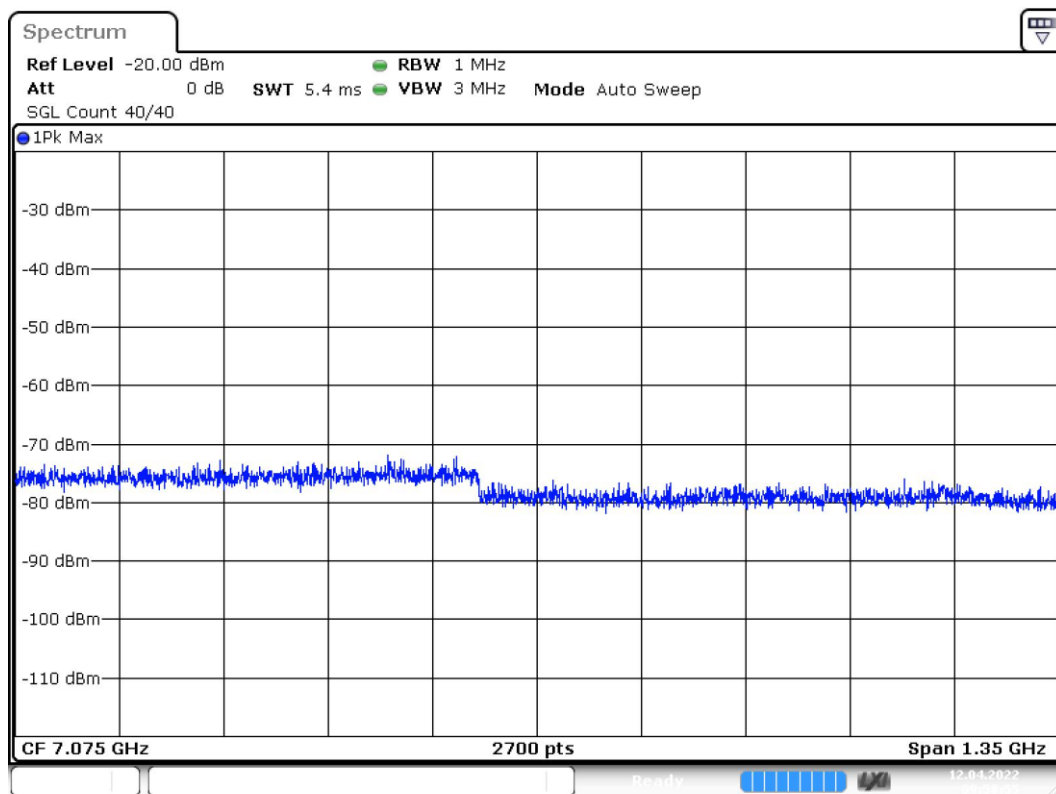
Date: 12.APR.2022 09:58:40

Band Edge Connector 1_1



Date: 12.APR.2022 09:58:47

Band Edge Connector 1_2



Date: 12.APR.2022 09:58:56

Measurement 1

Setting	Instrument Value	Target Value
Start Frequency	5.47000 GHz	5.47000 GHz
Stop Frequency	5.72500 GHz	5.72500 GHz
Span	255.000 MHz	255.000 MHz
RBW	1.000 MHz	<= 1.000 MHz
VBW	3.000 MHz	>= 3.000 MHz
SweepPoints	510	~ 510
Sweptime	1.000 ms	AUTO
Reference Level	0.000 dBm	0.000 dBm
Attenuation	20.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	40	40
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
SweepType	Sweep	AUTO
Preamp	off	off
Stablemode	Trace	Trace
Stablevalue	0.50 dB	0.50 dB
Run	1 / max. 1	max. 1
Stable	0 / 1	1
Max Stable Difference	0.00 dB	0.50 dB

Measurement 2

Setting	Instrument Value	Target Value
Start Frequency	5.72500 GHz	5.72500 GHz
Stop Frequency	6.40000 GHz	6.40000 GHz
Span	675.000 MHz	675.000 MHz
RBW	1.000 MHz	<= 1.000 MHz
VBW	3.000 MHz	>= 3.000 MHz

SweepPoints	1350	~ 1350
SweepTime	1.350 ms	AUTO
Reference Level	-20.000 dBm	-20.000 dBm
Attenuation	0.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	40	40
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
SweepType	Sweep	AUTO
Preamp	off	off
Stablemode	Trace	Trace
Stablevalue	0.50 dB	0.50 dB
Run	1 / max. 1	max. 1
Stable	0 / 1	1
Max Stable Difference	0.00 dB	0.50 dB

FCC 15.407 2015

DUT Information

Frequencies

WLAN CH 36 (5180 MHz)
WLAN CH 149 (5745 MHz)

WLAN CH 40 (5200 MHz)
WLAN CH 157 (5785 MHz)

WLAN CH 48 (5240 MHz)
WLAN CH 165 (5825 MHz)

Bandwidths

20 MHz (20 MHz)

Power

20.000 dBm (20 dBm)

Beamforming Gain

20.000 dBm (20 dBm) 0 dB

Gain Tables

20.000 dBm (20 dBm) Port 1: 0dBi;

DUT Settings

No. of transmission chains	1
DFS capability	Yes
DFS Mode	Master
Equipment Type	Portable
TPC	No

Hardware Setup: WMS Measurements\Hardware Setup

Spectrum Analyzer:

SA FSV 40 (SA FSV 40) @ VISA (ADR
TCPIP::192.168.48.149::INST0::INSTR), SN 1321.3008K39/101229,
FW 3.40

Vector Generator:

VG SMBV100A (VG SMBV100A) @ VISA (ADR
TCPIP::192.168.48.25::INST0::INSTR), SN 260451, FW 4.15.125.49

Generator:

SMB100A (SMB100A) @ VISA (ADR
TCPIP::192.168.48.30::INST0::INSTR), SN 178361, FW 3.20.390.24
/ Drv:Rev 2.21.0, 07/2016, CVI 2015

OSP:

OSP-B157W (OSP-B157W) @ VISA (ADR
TCPIP::192.168.48.157::INST0::INSTR), SN 1527.1144. /, FW
1.23.0.2

Summary

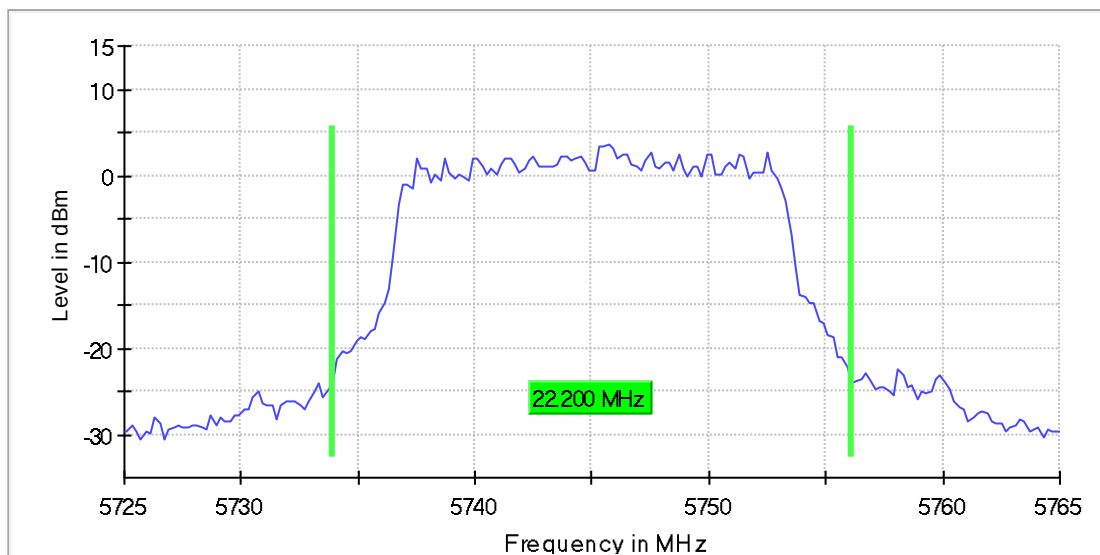
Test	Frequency (MHz)	Nominal Power (dBm)	Nominal Bandwidth (MHz)	Result
Emission Bandwidth 26 dB	5745.000	20.0	20.000000	PASS
RF output power	5745.000	20.0	20.000000	PASS
Power Spectral Density	5745.000	20.0	20.000000	PASS
Minimum Emission Bandwidth 6 dB	5745.000	20.0	20.000000	PASS
Occupied Channel Bandwidth 99%	5745.000	20.0	20.000000	PASS
Band Edge low	5745.000	20.0	20.000000	PASS
Emission Bandwidth 26 dB	5785.000	20.0	20.000000	PASS
RF output power	5785.000	20.0	20.000000	PASS
Power Spectral Density	5785.000	20.0	20.000000	PASS
Minimum Emission Bandwidth 6 dB	5785.000	20.0	20.000000	PASS
Occupied Channel Bandwidth 99%	5785.000	20.0	20.000000	PASS
Emission Bandwidth 26 dB	5825.000	20.0	20.000000	PASS
RF output power	5825.000	20.0	20.000000	PASS
Power Spectral Density	5825.000	20.0	20.000000	PASS
Minimum Emission Bandwidth 6 dB	5825.000	20.0	20.000000	PASS
Occupied Channel Bandwidth 99%	5825.000	20.0	20.000000	PASS
Band Edge high	5825.000	20.0	20.000000	PASS

Emission Bandwidth 26 dB (5745 MHz; 20.000 dBm; 20 MHz)**26 dB Bandwidth**

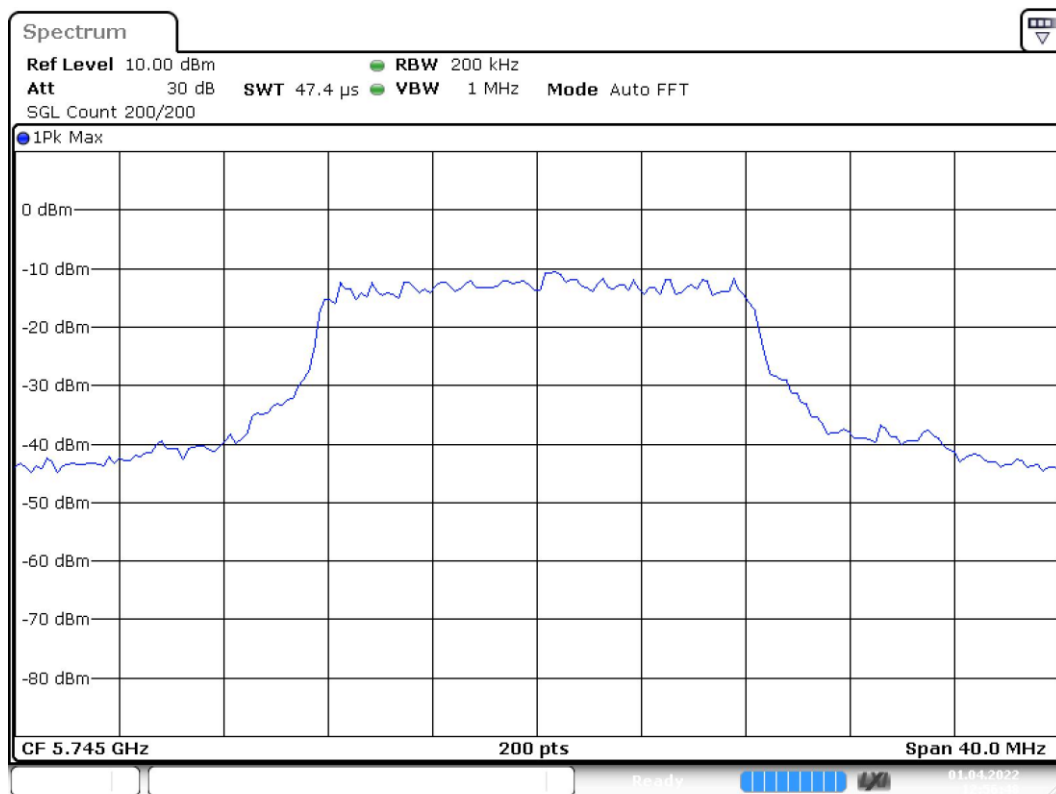
DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
5745.000000	22.200000	---	---	5733.900000	5756.100000

(continuation of the "26 dB Bandwidth" table from column 6 ...)

DUT Frequency (MHz)	Max Level (dBm)	Result
5745.000000	3.7	PASS



Bandwidth



Date: 1.APR.2022 12:56:49

Measurement

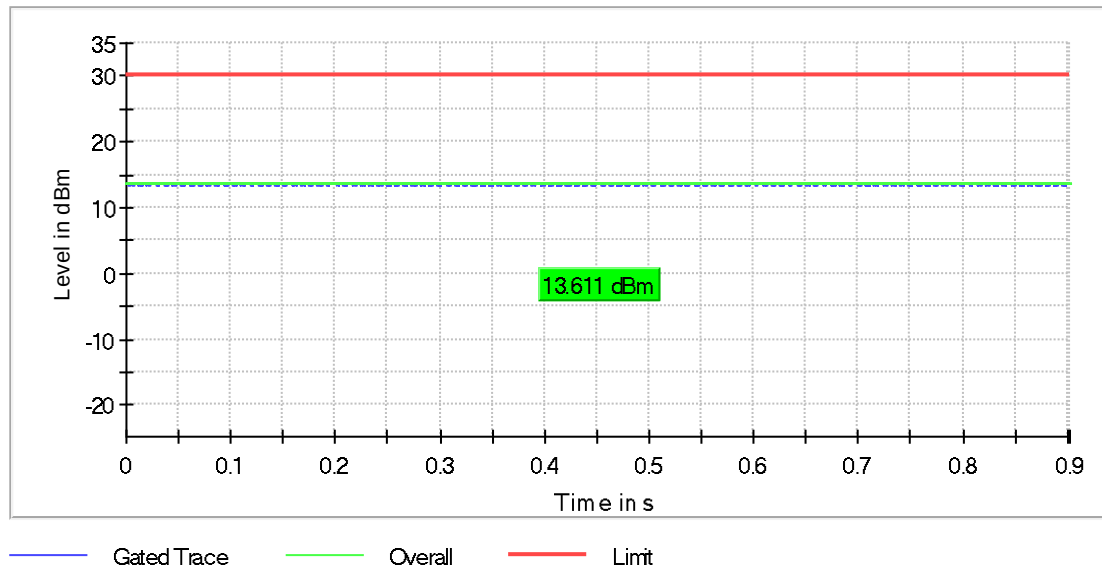
Setting	Instrument Value	Target Value
Start Frequency	5.72500 GHz	5.72500 GHz
Stop Frequency	5.76500 GHz	5.76500 GHz
Span	40.000 MHz	40.000 MHz
RBW	200.000 kHz	~ 200.000 kHz
VBW	1.000 MHz	>= 600.000 kHz
SweepPoints	200	~ 200
SweepTime	47.405 μ s	AUTO
Reference Level	10.000 dBm	10.000 dBm
Attenuation	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
Stablemode	Trace	Trace
Stablevalue	0.30 dB	0.30 dB
Run	16 / max. 150	max. 150
Stable	5 / 5	5
Max Stable Difference	0.05 dB	0.30 dB

RF output power (5745 MHz; 20.000 dBm; 20 MHz)

Test according to FCC title 47 part 15 §15.407(a),

Result

DUT Frequency (MHz)	Gated RMS (dBm)	Limit Max (dBm)	Gated EIRP (dBm)	DutyCycle (%)	Result
5745.000000	13.6	30.0	13.6	89.907	PASS



Power Spectral Density (5745 MHz; 20.000 dBm; 20 MHz)

Customized settings.

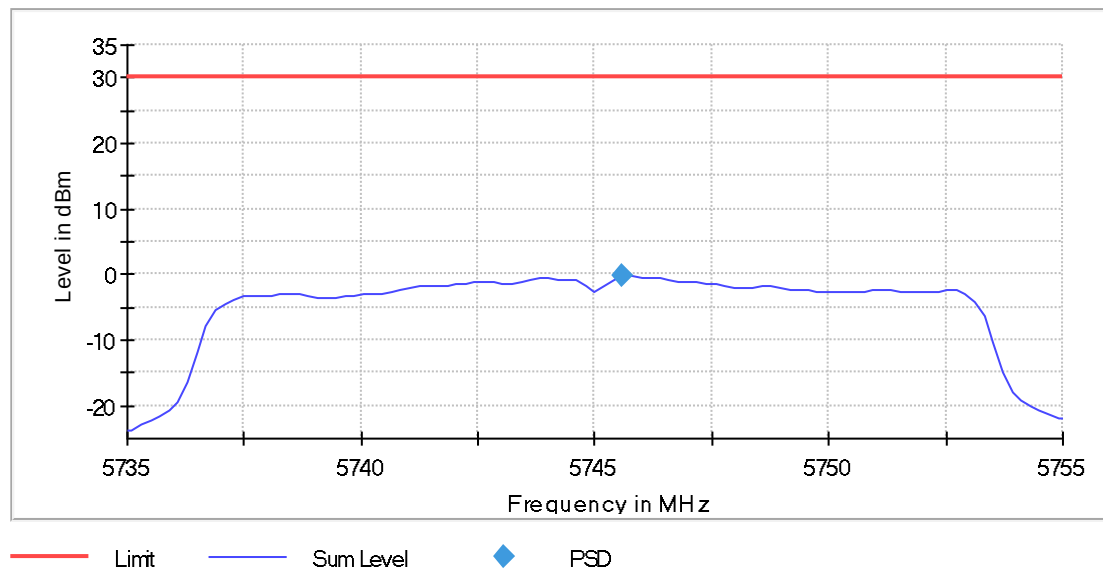
Test according to FCC title 47 part 15 §15.407(a),

Result

DUT Frequency (MHz)	Frequency (MHz)	PSD (dBm)	Limit Max (dBm)	Result
5745.000000	5745.594059	-0.244	30.0	PASS

Ports

Port	Duty Cycle (%)
1	89.431



Measurement

Setting	Instrument Value	Target Value
Start Frequency	5.73500 GHz	5.73500 GHz
Stop Frequency	5.75500 GHz	5.75500 GHz
Span	20.000 MHz	20.000 MHz
RBW	500.000 kHz	<= 500.000 kHz
VBW	2.000 MHz	>= 1.500 MHz
SweepPoints	101	~ 80
Sweptime	2.020 s	2.020 s
Reference Level	10.000 dBm	10.000 dBm
Attenuation	30.000 dB	AUTO
Detector	RMS	RMS
SweepCount	30	30
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
SweepType	Sweep	AUTO
Preamp	off	off
Stablemode	Trace	Trace
Stablevalue	0.30 dB	0.30 dB
Run	1 / max. 1	max. 1

Stable	0 / 1	1
Max Stable Difference	0.00 dB	0.30 dB

Minimum Emission Bandwidth 6 dB (5745 MHz; 20.000 dBm; 20 MHz)

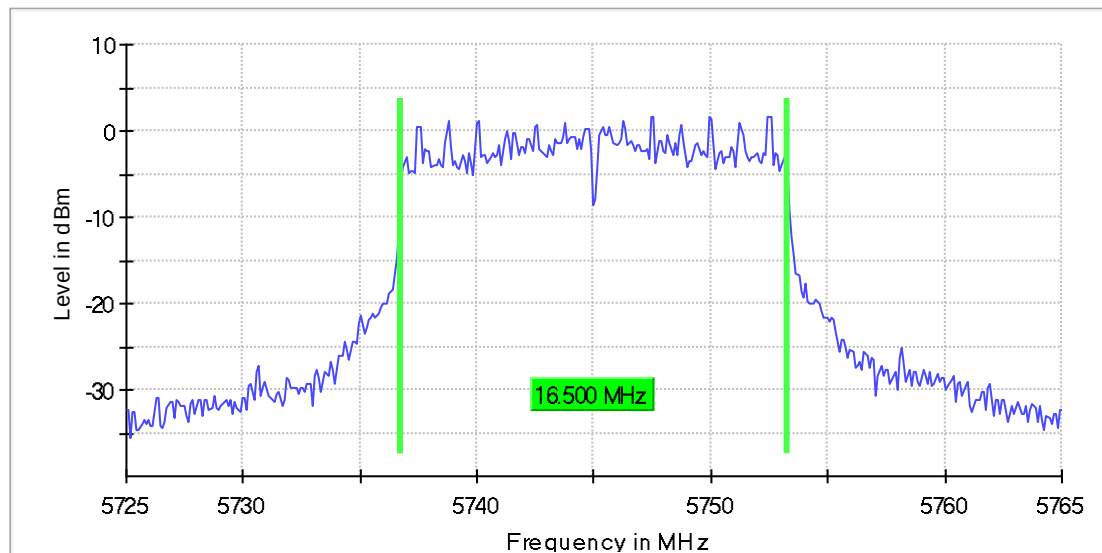
Customized settings.

6 dB Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
5745.000000	16.500000	0.500000	---	5736.750000	5753.250000

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

DUT Frequency (MHz)	Max Level (dBm)	Result
5745.000000	1.7	PASS



Measurement

Setting	Instrument Value	Target Value
Start Frequency	5.72500 GHz	5.72500 GHz
Stop Frequency	5.76500 GHz	5.76500 GHz
Span	40.000 MHz	40.000 MHz
RBW	100.000 kHz	~ 100.000 kHz
VBW	300.000 kHz	~ 300.000 kHz
SweepPoints	400	~ 400
SweepTime	94.810 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
Stablemode	Trace	Trace
Stablevalue	0.30 dB	0.30 dB

Run	7 / max. 150	max. 150
Stable	1 / 1	1
Max Stable Difference	0.19 dB	0.30 dB

Occupied Channel Bandwidth 99% (5745 MHz; 20.000 dBm; 20 MHz)

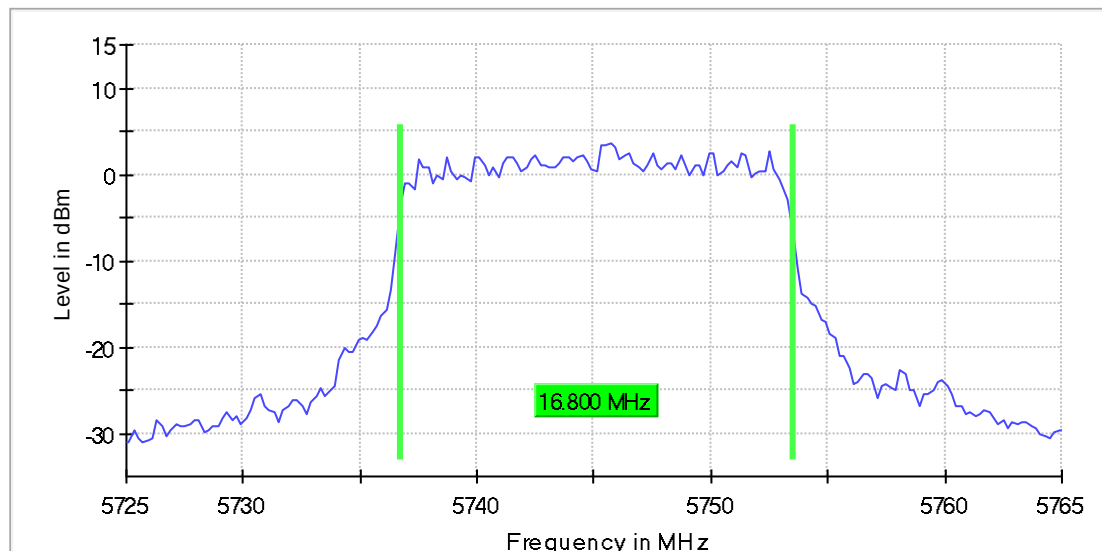
Customized settings.

99 % Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
5745.000000	16.800000	---	---	5736.700000	5753.500000

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

DUT Frequency (MHz)	Result
5745.000000	PASS



Measurement

Setting	Instrument Value	Target Value
Start Frequency	5.72500 GHz	5.72500 GHz
Stop Frequency	5.76500 GHz	5.76500 GHz
Span	40.000 MHz	40.000 MHz
RBW	200.000 kHz	<= 200.000 kHz
VBW	1.000 MHz	>= 600.000 kHz
SweepPoints	200	~ 200
SweepTime	47.405 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
Stablemode	Trace	Trace
Stablevalue	0.30 dB	0.30 dB
Run	6 / max. 150	max. 150
Stable	1 / 1	1

Max Stable Difference	0.25 dB	0.30 dB
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Band Edge low (5745 MHz; 20.000 dBm; 20 MHz)

Customized settings.

Test according to FCC title 47 part 15 §15.407(b),

Result

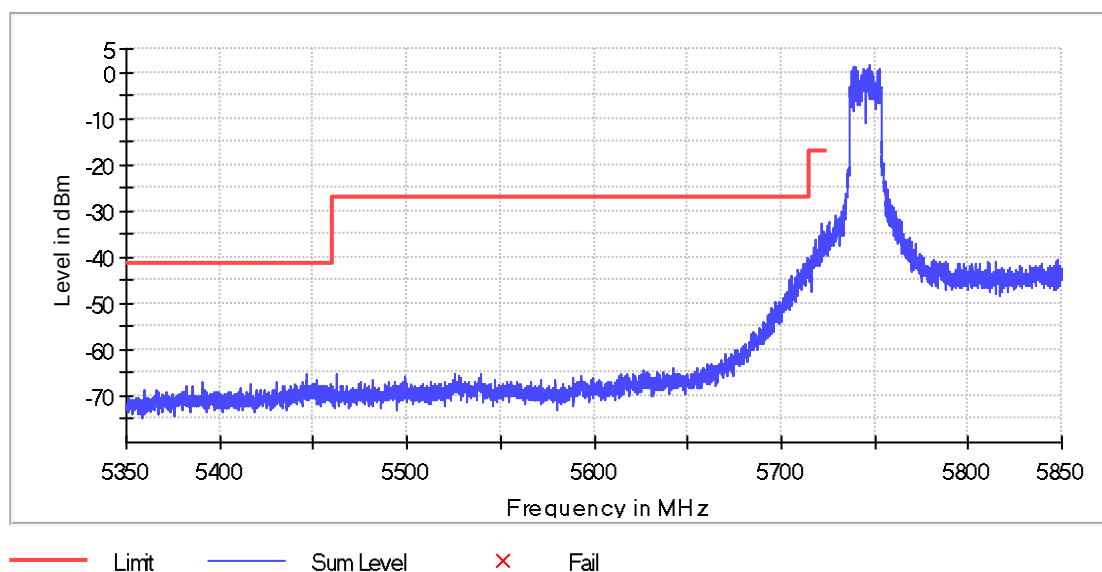
DUT Frequency (MHz)	Result
5745.000000	PASS

Inband Peak

Frequency (MHz)	Level (dBm)
5747.475000	1.5

Measurements

Frequency (MHz)	Level (dBm)	Margin (dB)	Limit (dBm)	Result
5713.975000	-40.1	13.1	-27.0	PASS
5714.025000	-40.3	13.3	-27.0	PASS
5714.975000	-40.4	13.4	-27.0	PASS
5713.925000	-41.2	14.2	-27.0	PASS
5712.825000	-41.3	14.3	-27.0	PASS
5712.875000	-41.4	14.4	-27.0	PASS
5711.825000	-41.4	14.4	-27.0	PASS
5714.725000	-41.5	14.5	-27.0	PASS
5714.675000	-41.5	14.5	-27.0	PASS
5711.875000	-41.9	14.9	-27.0	PASS
5714.775000	-41.9	14.9	-27.0	PASS
5713.125000	-41.9	14.9	-27.0	PASS
5713.825000	-42.0	15.0	-27.0	PASS
5712.525000	-42.0	15.0	-27.0	PASS
5714.625000	-42.0	15.0	-27.0	PASS



Measurement 1

Setting	Instrument Value	Target Value
Start Frequency	5.72500 GHz	5.72500 GHz
Stop Frequency	5.85000 GHz	5.85000 GHz
Span	125.000 MHz	125.000 MHz
RBW	100.000 kHz	<= 100.000 kHz
VBW	300.000 kHz	>= 300.000 kHz
SweepPoints	2500	~ 2500
SweepTime	284.766 μ s	AUTO
Reference Level	10.000 dBm	10.000 dBm
Attenuation	30.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	40	40
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
SweepType	FFT	AUTO
Preamp	off	off
Stablemode	Trace	Trace
Stablevalue	0.50 dB	0.50 dB
Run	1 / max. 1	max. 1
Stable	0 / 1	1
Max Stable Difference	0.00 dB	0.50 dB

Measurement 2

Setting	Instrument Value	Target Value
Start Frequency	5.35000 GHz	5.35000 GHz
Stop Frequency	5.72500 GHz	5.72500 GHz
Span	375.000 MHz	375.000 MHz
RBW	100.000 kHz	<= 100.000 kHz
VBW	300.000 kHz	>= 300.000 kHz
SweepPoints	7500	~ 7500
SweepTime	835.313 μ s	AUTO
Reference Level	-20.000 dBm	-20.000 dBm
Attenuation	0.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	50	50
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
SweepType	FFT	AUTO
Preamp	off	off
Stablemode	Trace	Trace
Stablevalue	0.50 dB	0.50 dB
Run	3 / max. 3	max. 3
Stable	0 / 1	1
Max Stable Difference	3.92 dB	0.50 dB

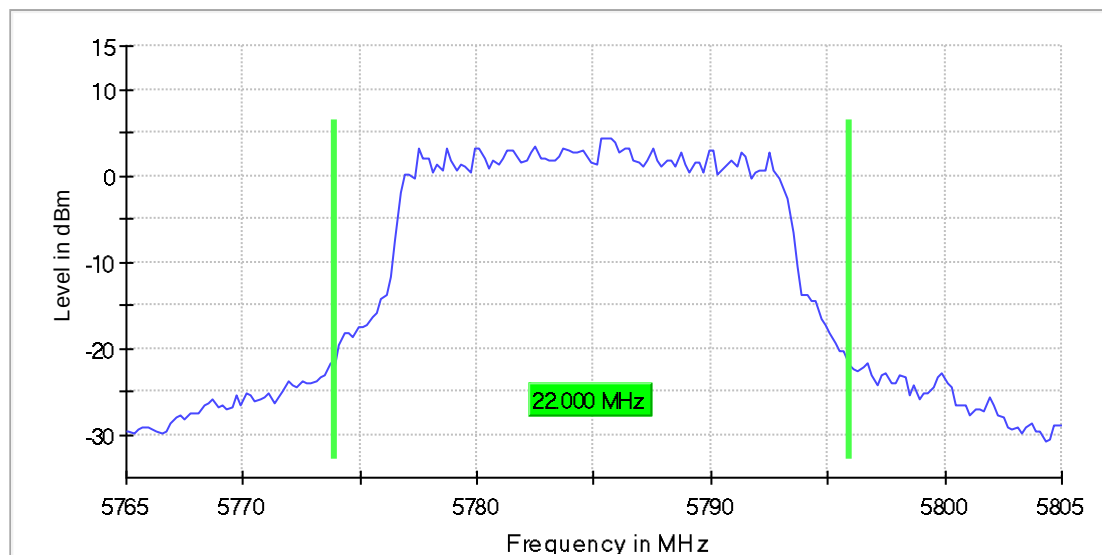
Emission Bandwidth 26 dB (5785 MHz; 20.000 dBm; 20 MHz)

26 dB Bandwidth

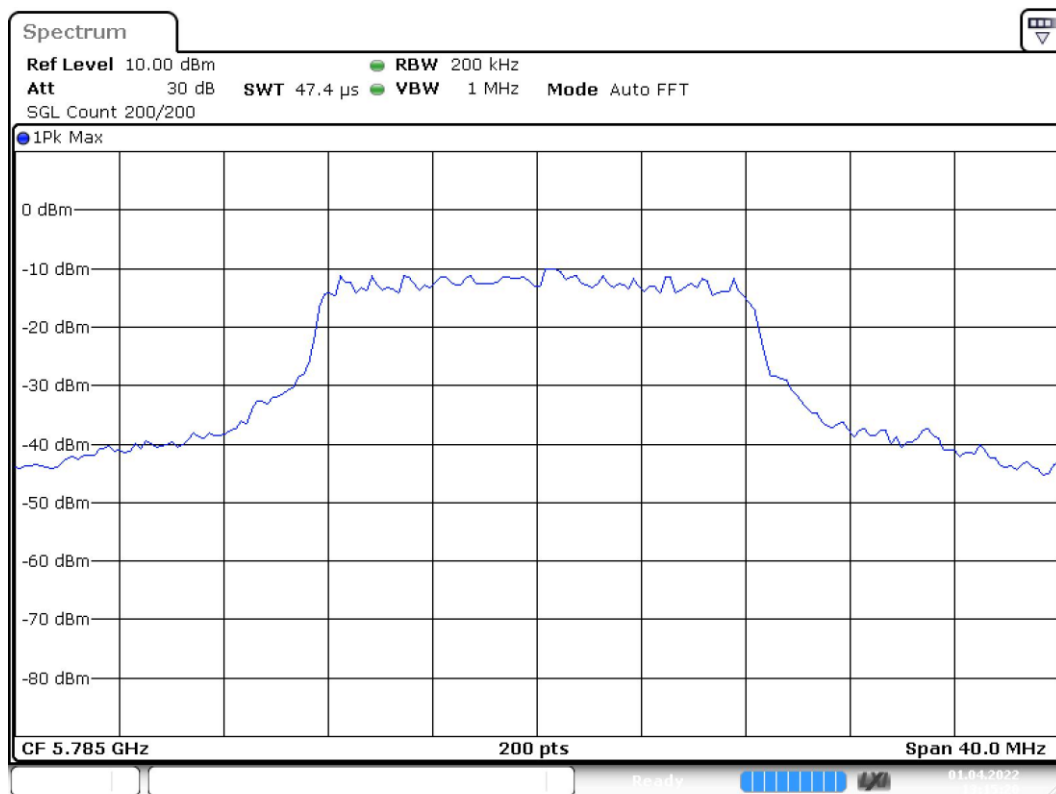
DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
5785.000000	22.000000	---	---	5773.900000	5795.900000

(continuation of the "26 dB Bandwidth" table from column 6 ...)

DUT Frequency (MHz)	Max Level (dBm)	Result
5785.000000	4.4	PASS



Bandwidth



Date: 1.APR.2022 13:15:20

Measurement

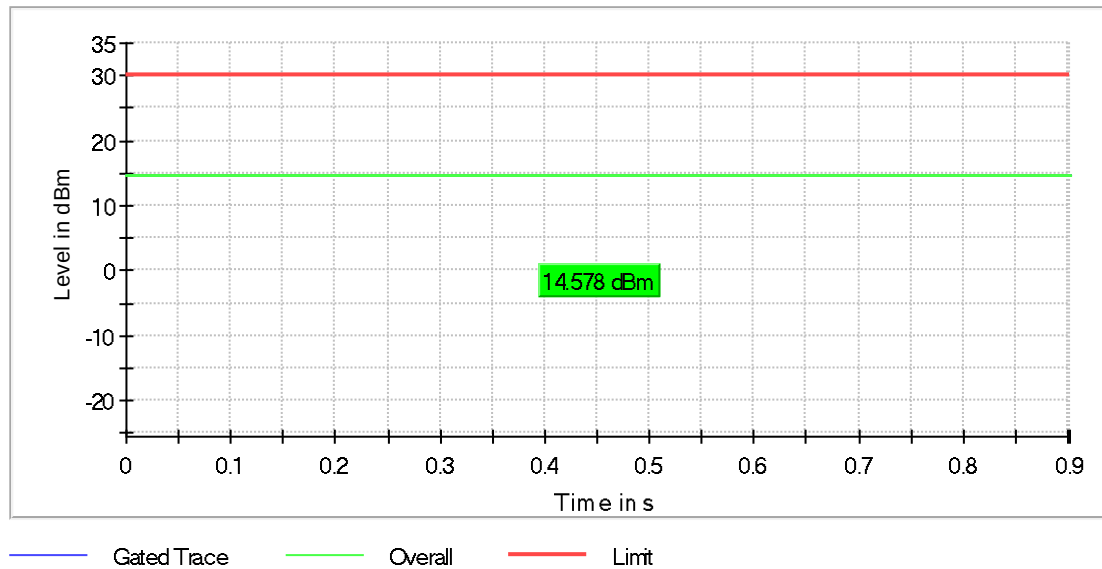
Setting	Instrument Value	Target Value
Start Frequency	5.76500 GHz	5.76500 GHz
Stop Frequency	5.80500 GHz	5.80500 GHz
Span	40.000 MHz	40.000 MHz
RBW	200.000 kHz	~ 200.000 kHz
VBW	1.000 MHz	>= 600.000 kHz
SweepPoints	200	~ 200
SweepTime	47.405 µs	AUTO
Reference Level	10.000 dBm	10.000 dBm
Attenuation	30.000 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
Stablemode	Trace	Trace
Stablevalue	0.30 dB	0.30 dB
Run	21 / max. 150	max. 150
Stable	5 / 5	5
Max Stable Difference	0.05 dB	0.30 dB

RF output power (5785 MHz; 20.000 dBm; 20 MHz)

Test according to FCC title 47 part 15 §15.407(a),

Result

DUT Frequency (MHz)	Gated RMS (dBm)	Limit Max (dBm)	Gated EIRP (dBm)	DutyCycle (%)	Result
5785.000000	14.6	30.0	14.6	89.864	PASS



Power Spectral Density (5785 MHz; 20.000 dBm; 20 MHz)

Customized settings.

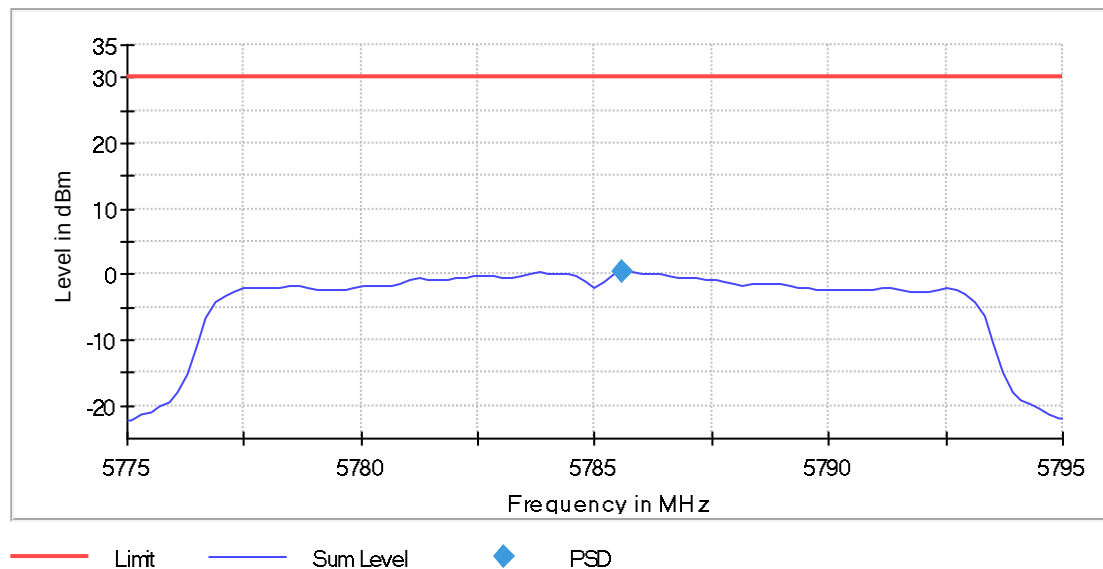
Test according to FCC title 47 part 15 §15.407(a),

Result

DUT Frequency (MHz)	Frequency (MHz)	PSD (dBm)	Limit Max (dBm)	Result
5785.000000	5785.594059	0.415	30.0	PASS

Ports

Port	Duty Cycle (%)
1	89.402



Measurement

Setting	Instrument Value	Target Value
Start Frequency	5.77500 GHz	5.77500 GHz
Stop Frequency	5.79500 GHz	5.79500 GHz
Span	20.000 MHz	20.000 MHz
RBW	500.000 kHz	<= 500.000 kHz
VBW	2.000 MHz	>= 1.500 MHz
SweepPoints	101	~ 80
Sweptime	2.020 s	2.020 s
Reference Level	10.000 dBm	10.000 dBm
Attenuation	30.000 dB	AUTO
Detector	RMS	RMS
SweepCount	30	30
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
SweepType	Sweep	AUTO
Preamp	off	off
Stablemode	Trace	Trace
Stablevalue	0.30 dB	0.30 dB
Run	1 / max. 1	max. 1

Stable	0 / 1	1
Max Stable Difference	0.00 dB	0.30 dB

Minimum Emission Bandwidth 6 dB (5785 MHz; 20.000 dBm; 20 MHz)

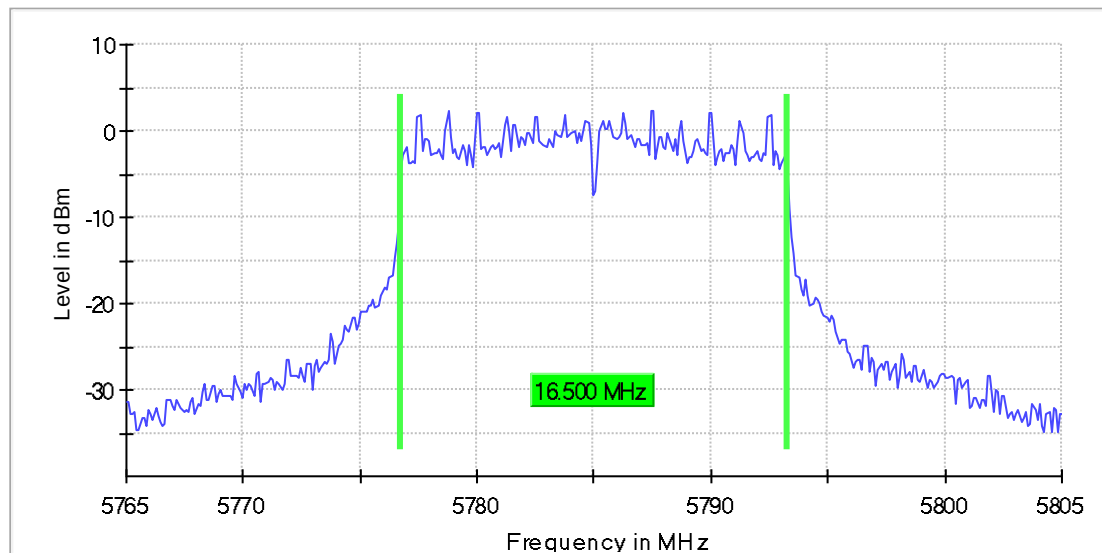
Customized settings.

6 dB Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
5785.000000	16.500000	0.500000	---	5776.750000	5793.250000

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

DUT Frequency (MHz)	Max Level (dBm)	Result
5785.000000	2.3	PASS



Measurement

Setting	Instrument Value	Target Value
Start Frequency	5.76500 GHz	5.76500 GHz
Stop Frequency	5.80500 GHz	5.80500 GHz
Span	40.000 MHz	40.000 MHz
RBW	100.000 kHz	~ 100.000 kHz
VBW	300.000 kHz	~ 300.000 kHz
SweepPoints	400	~ 400
SweepTime	94.810 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
Stablemode	Trace	Trace
Stablevalue	0.30 dB	0.30 dB

Run	6 / max. 150	max. 150
Stable	1 / 1	1
Max Stable Difference	0.26 dB	0.30 dB

Occupied Channel Bandwidth 99% (5785 MHz; 20.000 dBm; 20 MHz)

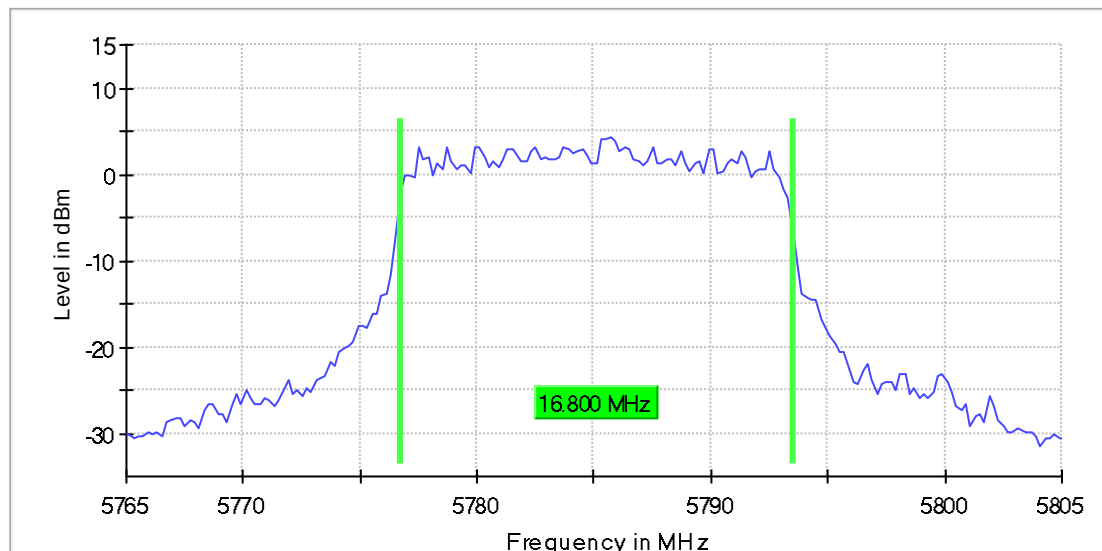
Customized settings.

99 % Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
5785.000000	16.800000	---	---	5776.700000	5793.500000

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

DUT Frequency (MHz)	Result
5785.000000	PASS



Measurement

Setting	Instrument Value	Target Value
Start Frequency	5.76500 GHz	5.76500 GHz
Stop Frequency	5.80500 GHz	5.80500 GHz
Span	40.000 MHz	40.000 MHz
RBW	200.000 kHz	<= 200.000 kHz
VBW	1.000 MHz	>= 600.000 kHz
SweepPoints	200	~ 200
SweepTime	47.405 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
Stablemode	Trace	Trace
Stablevalue	0.30 dB	0.30 dB
Run	4 / max. 150	max. 150
Stable	1 / 1	1

Max Stable Difference	0.23 dB	0.30 dB
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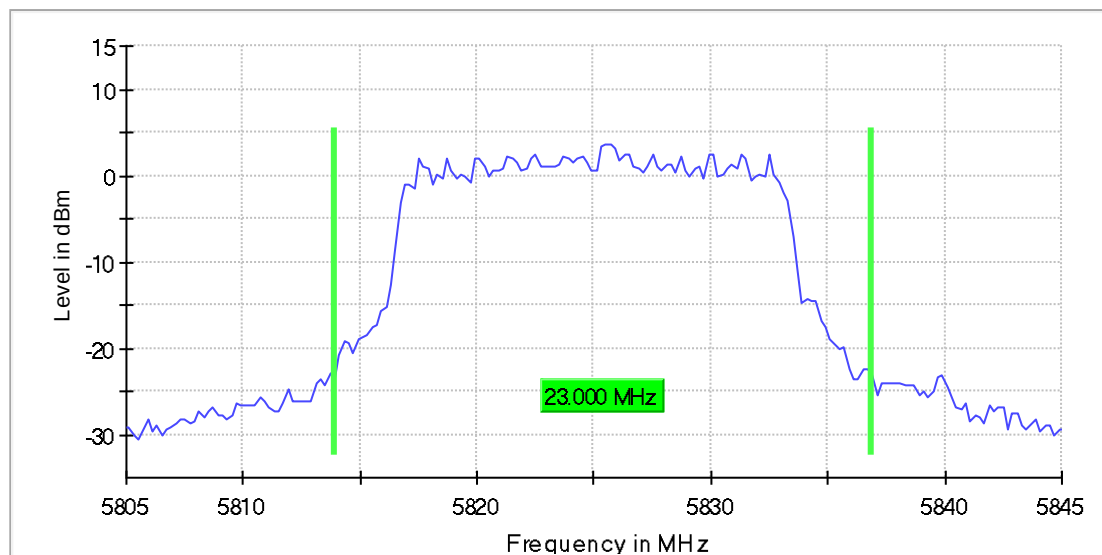
Emission Bandwidth 26 dB (5825 MHz; 20.000 dBm; 20 MHz)

26 dB Bandwidth

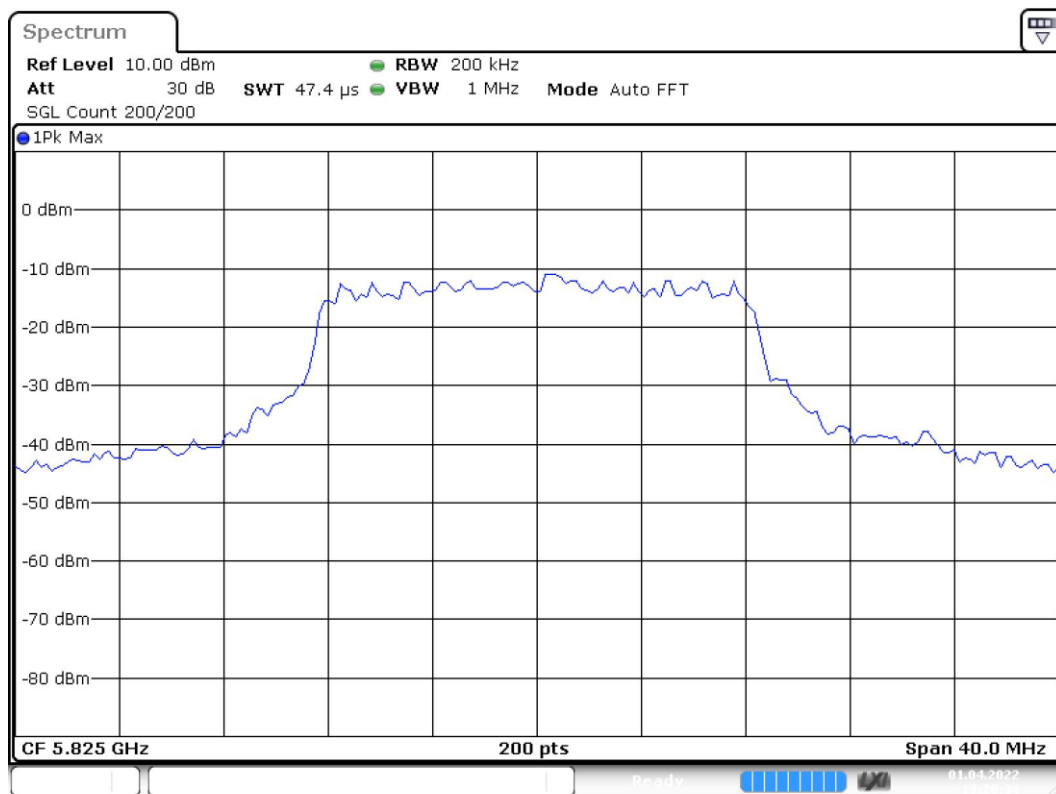
DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
5825.000000	23.000000	---	---	5813.900000	5836.900000

(continuation of the "26 dB Bandwidth" table from column 6 ...)

DUT Frequency (MHz)	Max Level (dBm)	Result
5825.000000	3.6	PASS



Bandwidth



Date: 1.APR.2022 13:20:35

Measurement

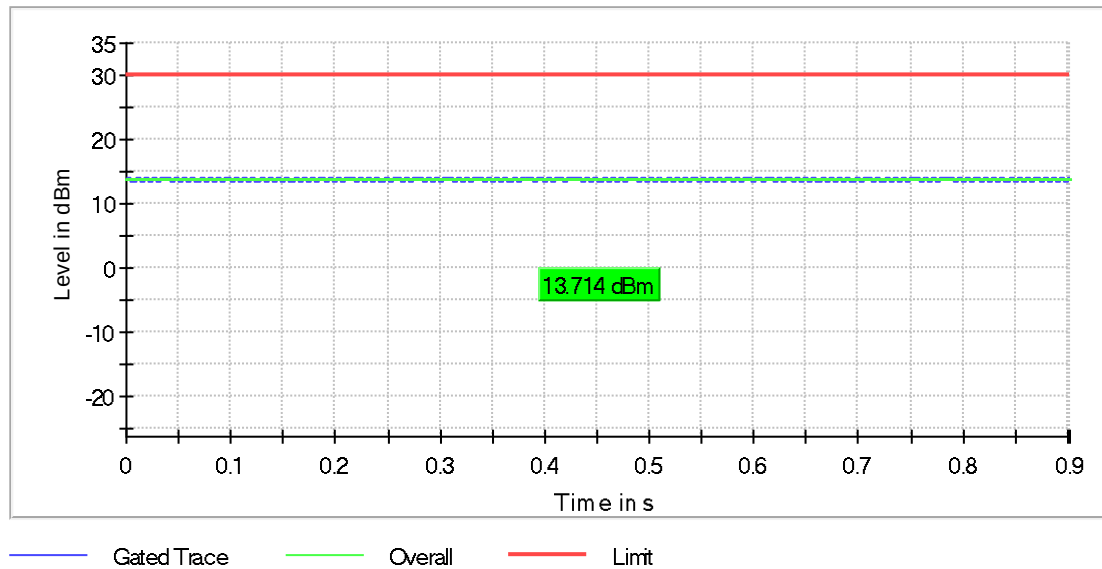
Setting	Instrument Value	Target Value
Start Frequency	5.80500 GHz	5.80500 GHz
Stop Frequency	5.84500 GHz	5.84500 GHz
Span	40.000 MHz	40.000 MHz
RBW	200.000 kHz	~ 200.000 kHz
VBW	1.000 MHz	>= 600.000 kHz
SweepPoints	200	~ 200
SweepTime	47.405 µs	AUTO
Reference Level	10.000 dBm	10.000 dBm
Attenuation	30.000 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
Stablemode	Trace	Trace
Stablevalue	0.30 dB	0.30 dB
Run	15 / max. 150	max. 150
Stable	5 / 5	5
Max Stable Difference	0.05 dB	0.30 dB

RF output power (5825 MHz; 20.000 dBm; 20 MHz)

Test according to FCC title 47 part 15 §15.407(a),

Result

DUT Frequency (MHz)	Gated RMS (dBm)	Limit Max (dBm)	Gated EIRP (dBm)	DutyCycle (%)	Result
5825.000000	13.7	30.0	13.7	89.877	PASS



Power Spectral Density (5825 MHz; 20.000 dBm; 20 MHz)

Customized settings.

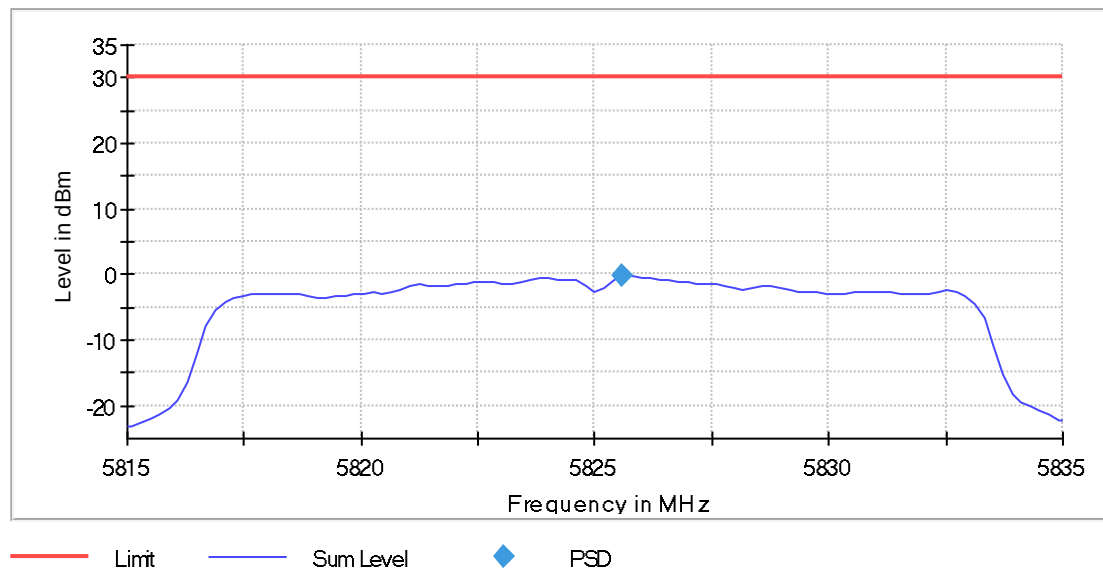
Test according to FCC title 47 part 15 §15.407(a),

Result

DUT Frequency (MHz)	Frequency (MHz)	PSD (dBm)	Limit Max (dBm)	Result
5825.000000	5825.594059	-0.278	30.0	PASS

Ports

Port	Duty Cycle (%)
1	89.405



Measurement

Setting	Instrument Value	Target Value
Start Frequency	5.81500 GHz	5.81500 GHz
Stop Frequency	5.83500 GHz	5.83500 GHz
Span	20.000 MHz	20.000 MHz
RBW	500.000 kHz	<= 500.000 kHz
VBW	2.000 MHz	>= 1.500 MHz
SweepPoints	101	~ 80
Sweptime	2.020 s	2.020 s
Reference Level	10.000 dBm	10.000 dBm
Attenuation	30.000 dB	AUTO
Detector	RMS	RMS
SweepCount	30	30
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
SweepType	Sweep	AUTO
Preamp	off	off
Stablemode	Trace	Trace
Stablevalue	0.30 dB	0.30 dB
Run	1 / max. 1	max. 1

Stable	0 / 1	1
Max Stable Difference	0.00 dB	0.30 dB

Minimum Emission Bandwidth 6 dB (5825 MHz; 20.000 dBm; 20 MHz)

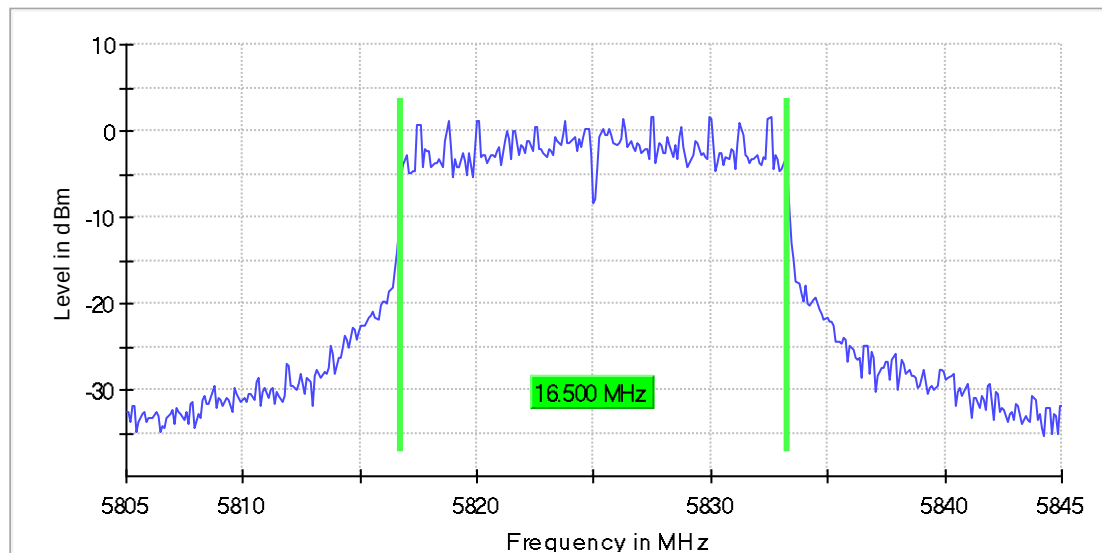
Customized settings.

6 dB Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
5825.000000	16.500000	0.500000	---	5816.750000	5833.250000

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

DUT Frequency (MHz)	Max Level (dBm)	Result
5825.000000	1.6	PASS



Measurement

Setting	Instrument Value	Target Value
Start Frequency	5.80500 GHz	5.80500 GHz
Stop Frequency	5.84500 GHz	5.84500 GHz
Span	40.000 MHz	40.000 MHz
RBW	100.000 kHz	~ 100.000 kHz
VBW	300.000 kHz	~ 300.000 kHz
SweepPoints	400	~ 400
SweepTime	94.810 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
Stablemode	Trace	Trace
Stablevalue	0.30 dB	0.30 dB

Run	4 / max. 150	max. 150
Stable	1 / 1	1
Max Stable Difference	0.27 dB	0.30 dB

Occupied Channel Bandwidth 99% (5825 MHz; 20.000 dBm; 20 MHz)

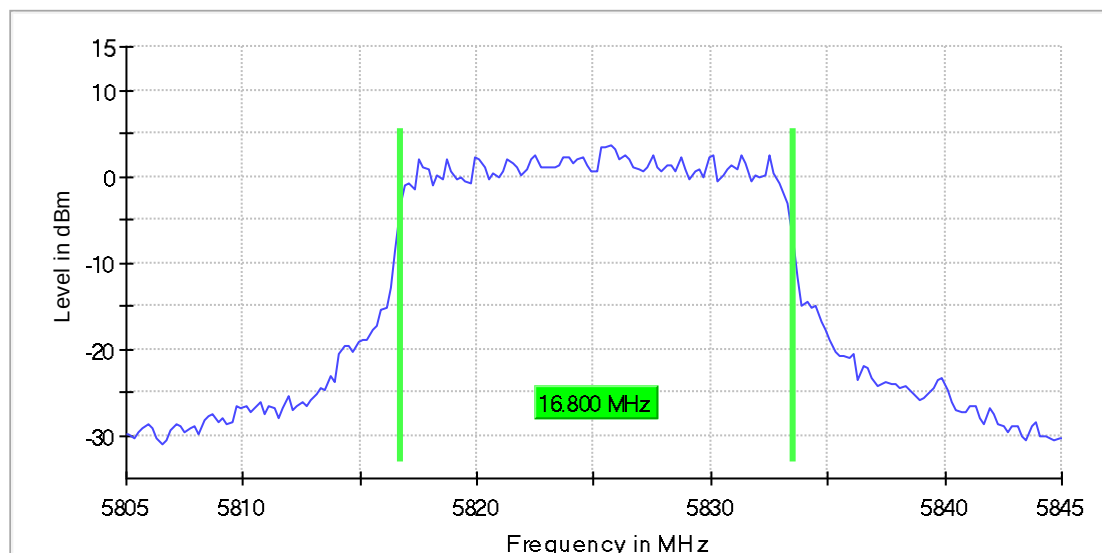
Customized settings.

99 % Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
5825.000000	16.800000	---	---	5816.700000	5833.500000

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

DUT Frequency (MHz)	Result
5825.000000	PASS



Measurement

Setting	Instrument Value	Target Value
Start Frequency	5.80500 GHz	5.80500 GHz
Stop Frequency	5.84500 GHz	5.84500 GHz
Span	40.000 MHz	40.000 MHz
RBW	200.000 kHz	<= 200.000 kHz
VBW	1.000 MHz	>= 600.000 kHz
SweepPoints	200	~ 200
SweepTime	47.405 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
Stablemode	Trace	Trace
Stablevalue	0.30 dB	0.30 dB
Run	5 / max. 150	max. 150
Stable	1 / 1	1

Max Stable Difference	0.19 dB	0.30 dB
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Band Edge high (5825 MHz; 20.000 dBm; 20 MHz)

Customized settings.

Test according to FCC title 47 part 15 §15.407(b),

Result

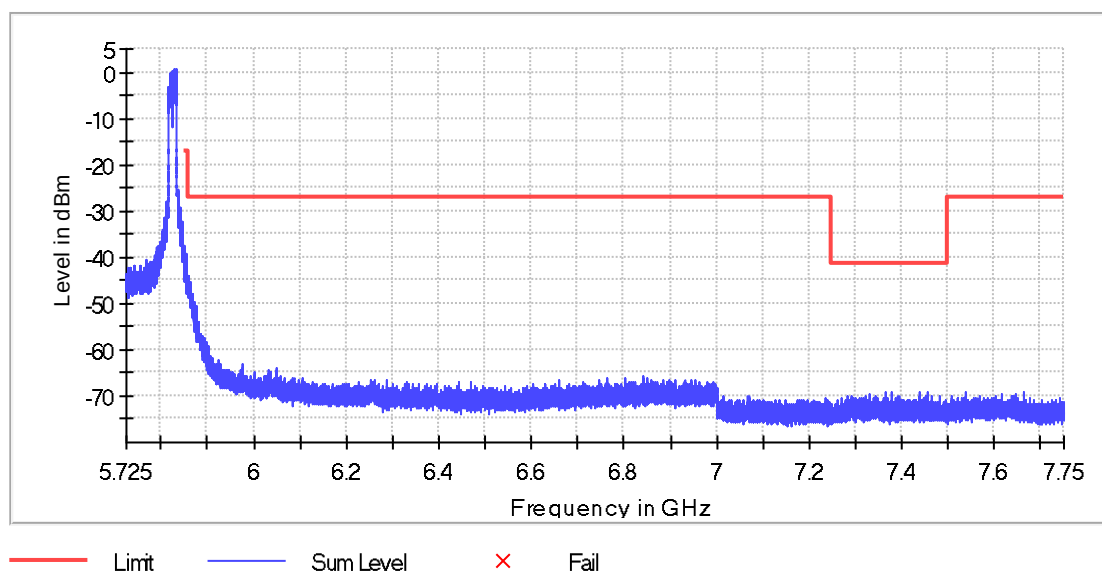
DUT Frequency (MHz)	Result
5825.000000	PASS

Inband Peak

Frequency (MHz)	Level (dBm)
5827.475000	0.5

Measurements

Frequency (MHz)	Level (dBm)	Margin (dB)	Limit (dBm)	Result
5860.675000	-45.1	18.1	-27.0	PASS
5860.725000	-45.2	18.2	-27.0	PASS
5861.675000	-45.2	18.2	-27.0	PASS
5860.275000	-45.4	18.4	-27.0	PASS
5861.725000	-45.5	18.5	-27.0	PASS
5860.375000	-45.5	18.5	-27.0	PASS
5863.825000	-45.6	18.6	-27.0	PASS
5860.075000	-45.8	18.8	-27.0	PASS
5860.225000	-45.9	18.9	-27.0	PASS
5861.275000	-46.0	19.0	-27.0	PASS
5863.775000	-46.1	19.1	-27.0	PASS
5861.225000	-46.1	19.1	-27.0	PASS
5860.425000	-46.2	19.2	-27.0	PASS
5860.325000	-46.2	19.2	-27.0	PASS
5863.875000	-46.2	19.2	-27.0	PASS



Measurement 1

Setting	Instrument Value	Target Value
Start Frequency	5.72500 GHz	5.72500 GHz
Stop Frequency	5.85000 GHz	5.85000 GHz
Span	125.000 MHz	125.000 MHz
RBW	100.000 kHz	<= 100.000 kHz
VBW	300.000 kHz	>= 300.000 kHz
SweepPoints	2500	~ 2500
SweepTime	284.766 μ s	AUTO
Reference Level	10.000 dBm	10.000 dBm
Attenuation	30.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	40	40
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
SweepType	FFT	AUTO
Preamp	off	off
Stablemode	Trace	Trace
Stablevalue	0.50 dB	0.50 dB
Run	1 / max. 1	max. 1
Stable	0 / 1	1
Max Stable Difference	0.00 dB	0.50 dB

Measurement 2

Setting	Instrument Value	Target Value
Start Frequency	5.85000 GHz	5.85000 GHz
Stop Frequency	6.40000 GHz	6.40000 GHz
Span	550.000 MHz	550.000 MHz
RBW	100.000 kHz	<= 100.000 kHz
VBW	300.000 kHz	>= 300.000 kHz
SweepPoints	11000	~ 11000
SweepTime	11.000 ms	AUTO
Reference Level	-20.000 dBm	-20.000 dBm
Attenuation	0.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	50	50
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
SweepType	Sweep	AUTO
Preamp	off	off
Stablemode	Trace	Trace
Stablevalue	0.50 dB	0.50 dB
Run	3 / max. 3	max. 3
Stable	0 / 1	1
Max Stable Difference	3.88 dB	0.50 dB

FCC 15.407 2015

DUT Information

Frequencies

WLAN CH 36 (5180 MHz)
WLAN CH 149 (5745 MHz)

WLAN CH 40 (5200 MHz)
WLAN CH 157 (5785 MHz)

WLAN CH 48 (5240 MHz)
WLAN CH 165 (5825 MHz)

Bandwidths

20 MHz (20 MHz)

Power

20.000 dBm (20 dBm)

Beamforming Gain

20.000 dBm (20 dBm) 0 dB

Gain Tables

20.000 dBm (20 dBm) Port 1: 0dBi;

DUT Settings

No. of transmission chains	1
DFS capability	Yes
DFS Mode	Master
Equipment Type	Portable
TPC	No

Hardware Setup: WMS Measurements\TS8997

Spectrum Analyzer:

SA FSV 40 (SA FSV 40) @ VISA (ADR
TCPIP::192.168.48.149::INST0::INSTR), SN 1321.3008K39/101229,
FW 3.40

Vector Generator:

VG SMBV100A (VG SMBV100A) @ VISA (ADR
TCPIP::192.168.48.25::INST0::INSTR), SN 260451, FW 4.15.125.49

Generator:

SMB100A (SMB100A) @ VISA (ADR
TCPIP::192.168.48.30::INST0::INSTR), SN 178361, FW 3.20.390.24
/ Drv:Rev 2.21.0, 07/2016, CVI 2015

OSP:

OSP-B157W (OSP-B157W) @ VISA (ADR
TCPIP::192.168.48.157::INST0::INSTR), SN 1527.1144. /, FW
1.23.0.2

Summary

Test	Frequency (MHz)	Nominal Power (dBm)	Nominal Bandwidth (MHz)	Result
Emission Bandwidth 26 dB	5180.000	20.0	20.000000	PASS
RF output power	5180.000	20.0	20.000000	PASS
Power Spectral Density	5180.000	20.0	20.000000	PASS
Minimum Emission Bandwidth 6 dB	5180.000	20.0	20.000000	PASS
Occupied Channel Bandwidth 99%	5180.000	20.0	20.000000	PASS
Band Edge low	5180.000	20.0	20.000000	PASS
Emission Bandwidth 26 dB	5200.000	20.0	20.000000	PASS
RF output power	5200.000	20.0	20.000000	PASS
Power Spectral Density	5200.000	20.0	20.000000	PASS
Minimum Emission Bandwidth 6 dB	5200.000	20.0	20.000000	PASS
Occupied Channel Bandwidth 99%	5200.000	20.0	20.000000	PASS
Emission Bandwidth 26 dB	5240.000	20.0	20.000000	PASS
RF output power	5240.000	20.0	20.000000	PASS
Power Spectral Density	5240.000	20.0	20.000000	PASS
Minimum Emission Bandwidth 6 dB	5240.000	20.0	20.000000	PASS
Occupied Channel Bandwidth 99%	5240.000	20.0	20.000000	PASS
Band Edge high	5240.000	20.0	20.000000	PASS

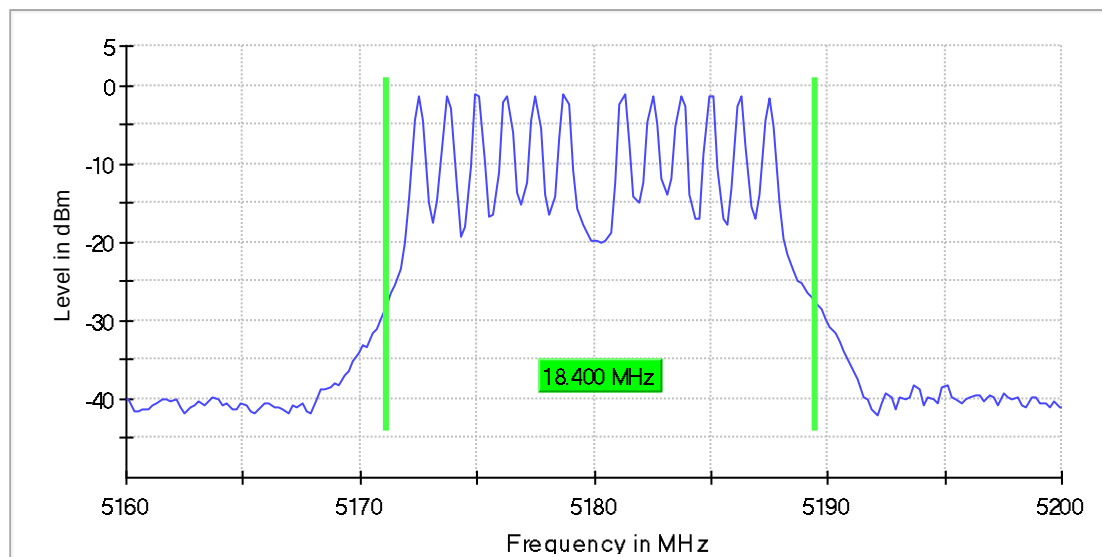
Emission Bandwidth 26 dB (5180 MHz; 20.000 dBm; 20 MHz)

26 dB Bandwidth

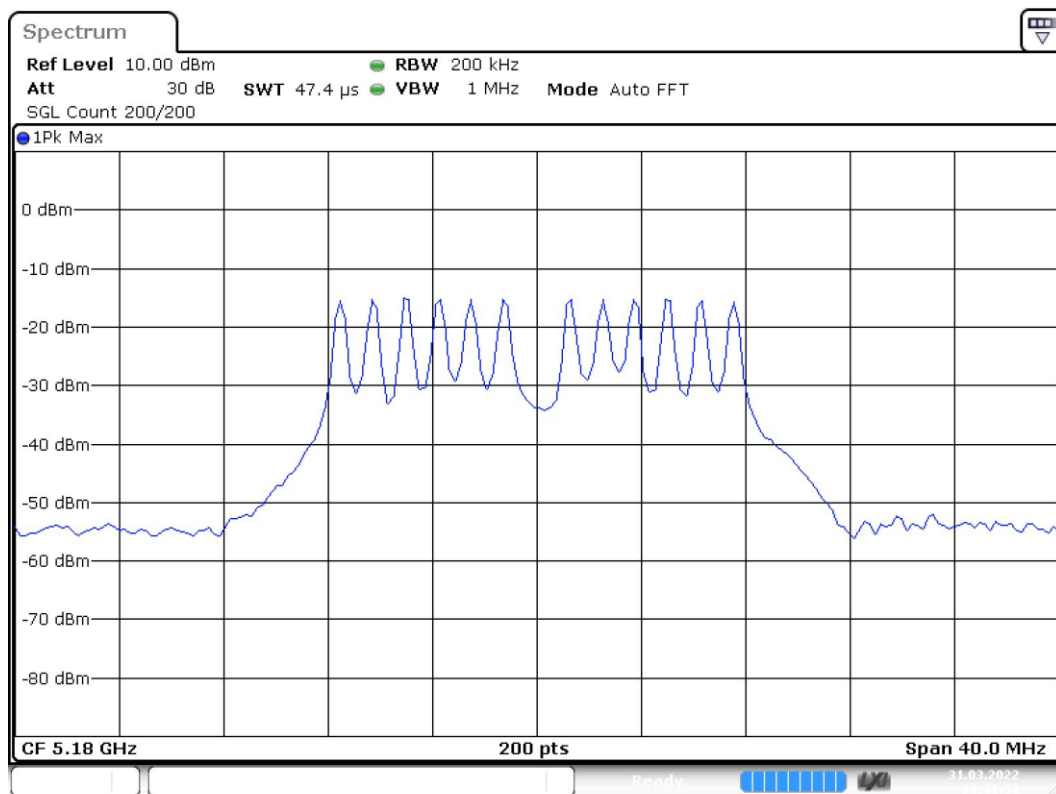
DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
5180.000000	18.400000	---	---	5171.100000	5189.500000

(continuation of the "26 dB Bandwidth" table from column 6 ...)

DUT Frequency (MHz)	Max Level (dBm)	Result
5180.000000	-1.2	PASS



Bandwidth



Date: 31.MAR.2022 09:41:52

Measurement

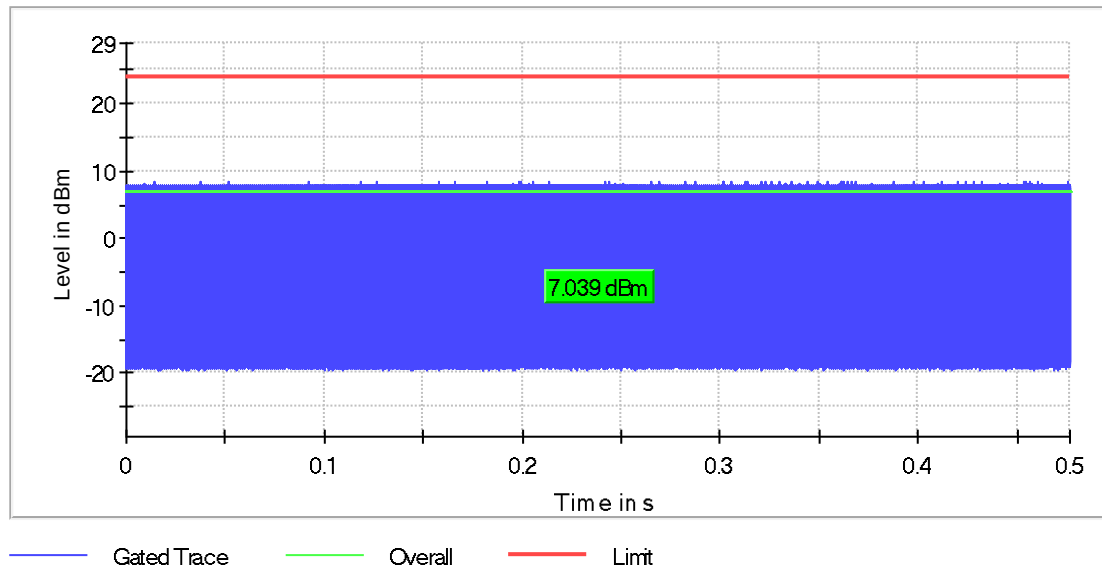
Setting	Instrument Value	Target Value
Start Frequency	5.16000 GHz	5.16000 GHz
Stop Frequency	5.20000 GHz	5.20000 GHz
Span	40.000 MHz	40.000 MHz
RBW	200.000 kHz	~ 200.000 kHz
VBW	1.000 MHz	>= 600.000 kHz
SweepPoints	200	~ 200
SweepTime	47.405 µs	AUTO
Reference Level	10.000 dBm	10.000 dBm
Attenuation	30.000 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
Stablemode	Trace	Trace
Stablevalue	0.30 dB	0.30 dB
Run	10 / max. 150	max. 150
Stable	5 / 5	5
Max Stable Difference	0.08 dB	0.30 dB

RF output power (5180 MHz; 20.000 dBm; 20 MHz)

Test according to FCC title 47 part 15 §15.407(a),

Result

DUT Frequency (MHz)	Gated RMS (dBm)	Limit Max (dBm)	Gated EIRP (dBm)	DutyCycle (%)	Result
5180.000000	7.0	24.0	7.0	41.338	PASS



Power Spectral Density (5180 MHz; 20.000 dBm; 20 MHz)

Customized settings.

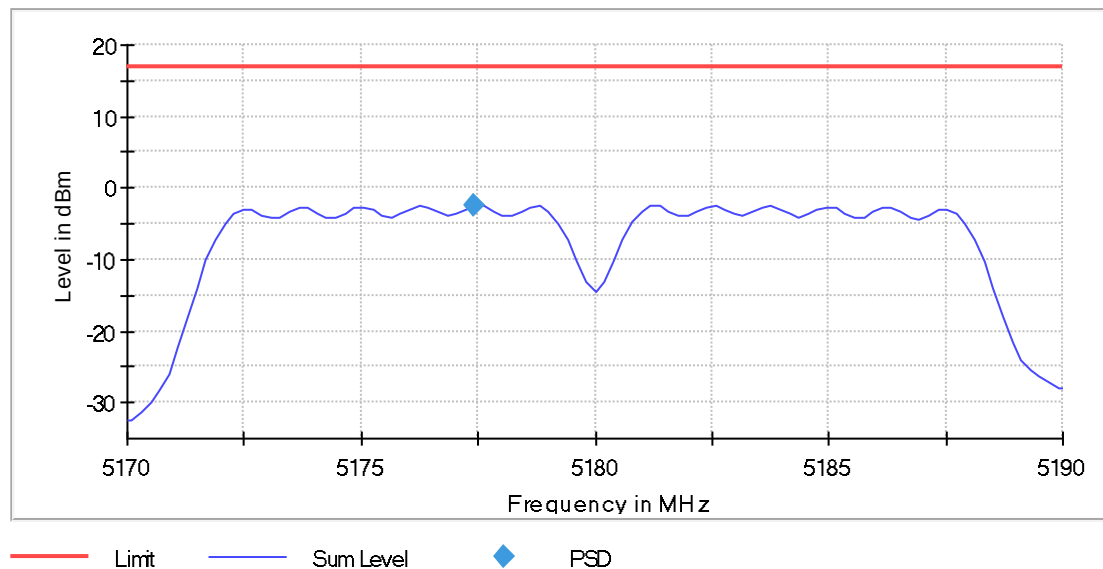
Test according to FCC title 47 part 15 §15.407(a),

Result

DUT Frequency (MHz)	Frequency (MHz)	PSD (dBm)	Limit Max (dBm)	Result
5180.000000	5177.425743	-2.457	17.0	PASS

Ports

Port	Duty Cycle (%)
1	29.849



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
Sweptime	2.020 s	2.020 s
Reference Level	0.000 dBm	0.000 dBm
Attenuation	20.000 dB	AUTO
Detector	RMS	RMS
SweepCount	100	100
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
SweepType	Sweep	AUTO
Preamp	off	off
Stablemode	Trace	Trace
Stablevalue	0.30 dB	0.30 dB
Run	2 / max. 15	max. 15

Stable	1 / 1	1
Max Stable Difference	0.02 dB	0.30 dB

Minimum Emission Bandwidth 6 dB (5180 MHz; 20.000 dBm; 20 MHz)

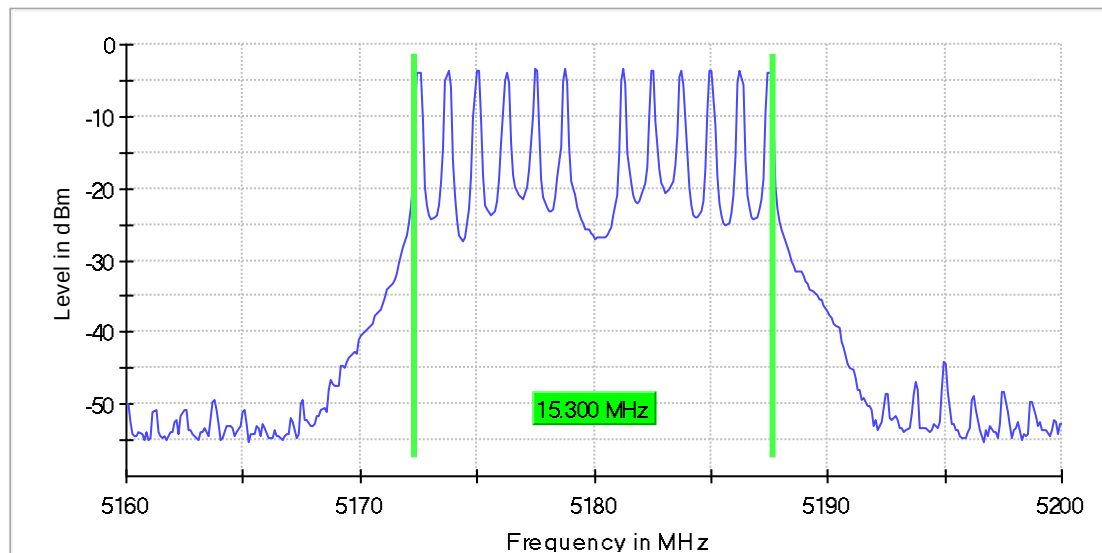
Customized settings.

6 dB Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
5180.000000	15.300000	---	---	5172.350000	5187.650000

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

DUT Frequency (MHz)	Max Level (dBm)	Result
5180.000000	-3.4	PASS



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	100.000 kHz	~ 100.000 kHz
VBW	300.000 kHz	~ 300.000 kHz
SweepPoints	400	~ 400
SweepTime	94.810 μ s	AUTO
Reference Level	0.000 dBm	0.000 dBm
Attenuation	20.000 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
Stablemode	Trace	Trace
Stablevalue	0.30 dB	0.30 dB

Run	2 / max. 150	max. 150
Stable	1 / 1	1
Max Stable Difference	0.10 dB	0.30 dB

Occupied Channel Bandwidth 99% (5180 MHz; 20.000 dBm; 20 MHz)

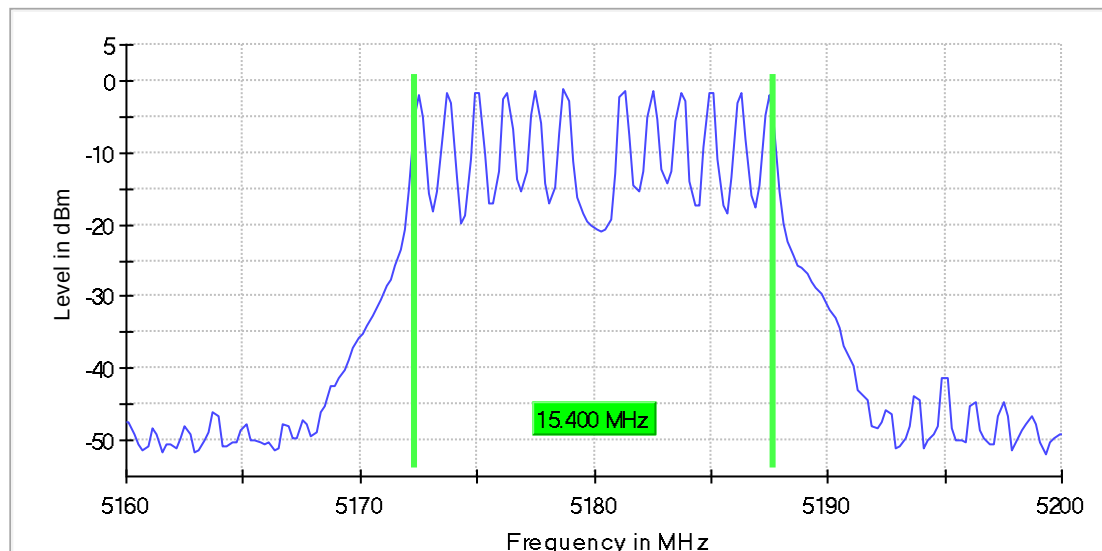
Customized settings.

99 % Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
5180.000000	15.400000	---	---	5172.300000	5187.700000

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

DUT Frequency (MHz)	Result
5180.000000	PASS



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	200	~ 200
SweepTime	47.405 µs	AUTO
Reference Level	0.000 dBm	0.000 dBm
Attenuation	20.000 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
Stablemode	Trace	Trace
Stablevalue	0.30 dB	0.30 dB
Run	3 / max. 150	max. 150
Stable	1 / 1	1

Max Stable Difference	0.13 dB	0.30 dB
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Band Edge low (5180 MHz; 20.000 dBm; 20 MHz)

Customized settings.

Test according to FCC title 47 part 15 §15.407(b),

Result

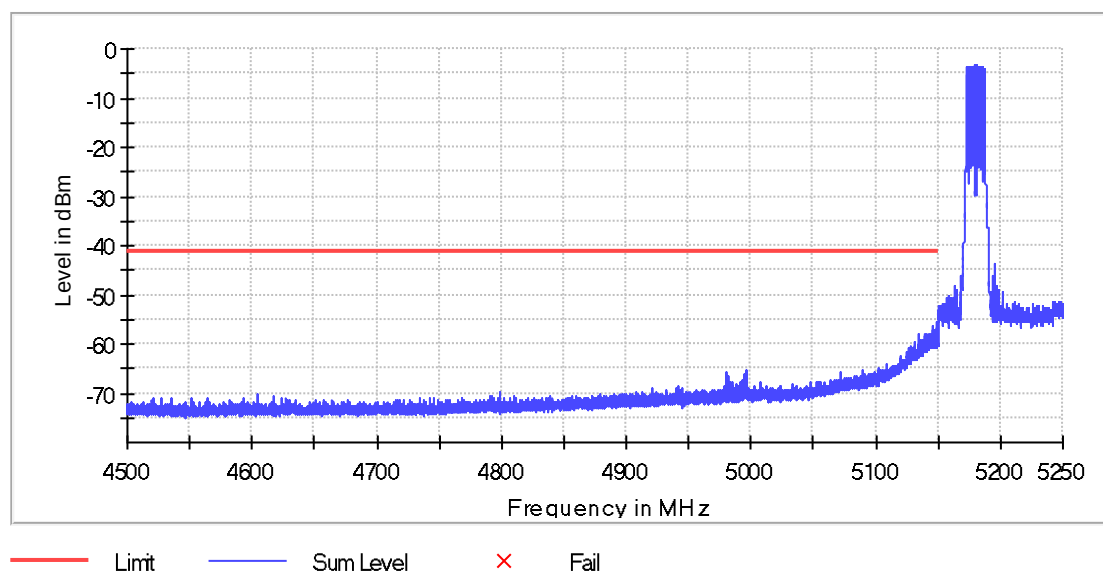
DUT Frequency (MHz)	Result
5180.000000	PASS

Inband Peak

Frequency (MHz)	Level (dBm)
5181.225000	-3.4

Measurements

Frequency (MHz)	Level (dBm)	Margin (dB)	Limit (dBm)	Result
5148.725000	-55.5	14.2	-41.2	PASS
5148.775000	-55.9	14.6	-41.2	PASS
5146.225000	-56.2	15.0	-41.2	PASS
5146.275000	-56.5	15.3	-41.2	PASS
5148.075000	-56.8	15.6	-41.2	PASS
5145.025000	-57.1	15.9	-41.2	PASS
5144.975000	-57.2	15.9	-41.2	PASS
5146.875000	-57.3	16.1	-41.2	PASS
5148.125000	-57.5	16.2	-41.2	PASS
5146.825000	-57.6	16.3	-41.2	PASS
5147.575000	-57.6	16.4	-41.2	PASS
5148.675000	-57.7	16.5	-41.2	PASS
5146.775000	-57.8	16.5	-41.2	PASS
5145.725000	-57.8	16.6	-41.2	PASS
5147.625000	-57.8	16.6	-41.2	PASS



Measurement 1

Setting	Instrument Value	Target Value
Start Frequency	5.15000 GHz	5.15000 GHz
Stop Frequency	5.25000 GHz	5.25000 GHz
Span	100.000 MHz	100.000 MHz
RBW	100.000 kHz	<= 100.000 kHz
VBW	300.000 kHz	>= 300.000 kHz
SweepPoints	2000	~ 2000
SweepTime	227.813 μ s	AUTO
Reference Level	0.000 dBm	0.000 dBm
Attenuation	20.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	100	100
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
SweepType	FFT	AUTO
Preamp	off	off
Stablemode	Trace	Trace
Stablevalue	0.50 dB	0.50 dB
Run	4 / max. 150	max. 150
Stable	3 / 3	3
Max Stable Difference	0.20 dB	0.50 dB

Measurement 2

Setting	Instrument Value	Target Value
Start Frequency	4.50000 GHz	4.50000 GHz
Stop Frequency	5.15000 GHz	5.15000 GHz
Span	650.000 MHz	650.000 MHz
RBW	100.000 kHz	<= 100.000 kHz
VBW	300.000 kHz	>= 300.000 kHz
SweepPoints	13000	~ 13000
SweepTime	13.000 ms	AUTO
Reference Level	-20.000 dBm	-20.000 dBm
Attenuation	0.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	100	100
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
SweepType	Sweep	AUTO
Preamp	off	off
Stablemode	Trace	Trace
Stablevalue	0.50 dB	0.50 dB
Run	91 / max. 150	max. 150
Stable	3 / 3	3
Max Stable Difference	0.00 dB	0.50 dB

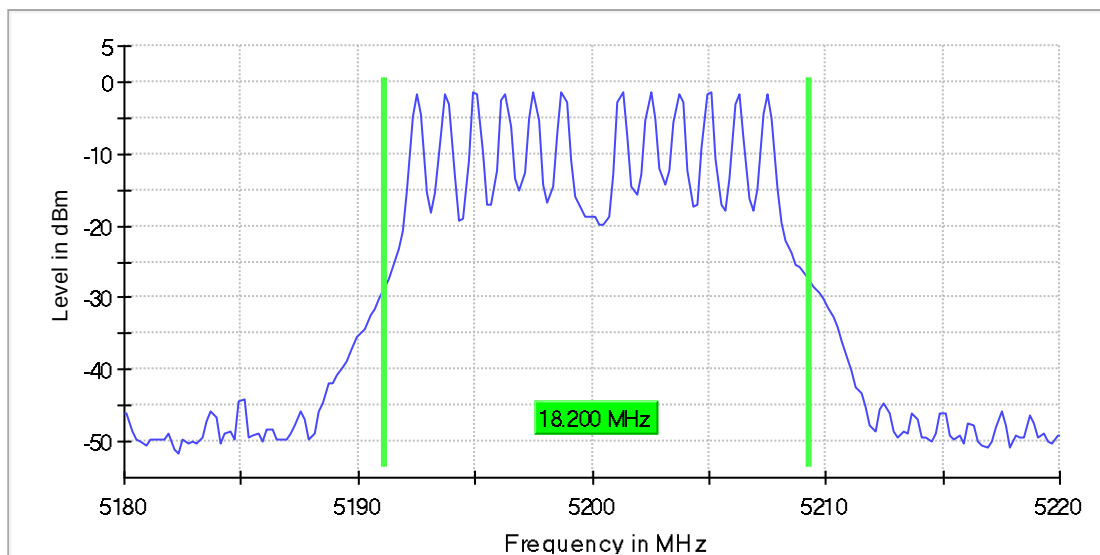
Emission Bandwidth 26 dB (5200 MHz; 20.000 dBm; 20 MHz)

26 dB Bandwidth

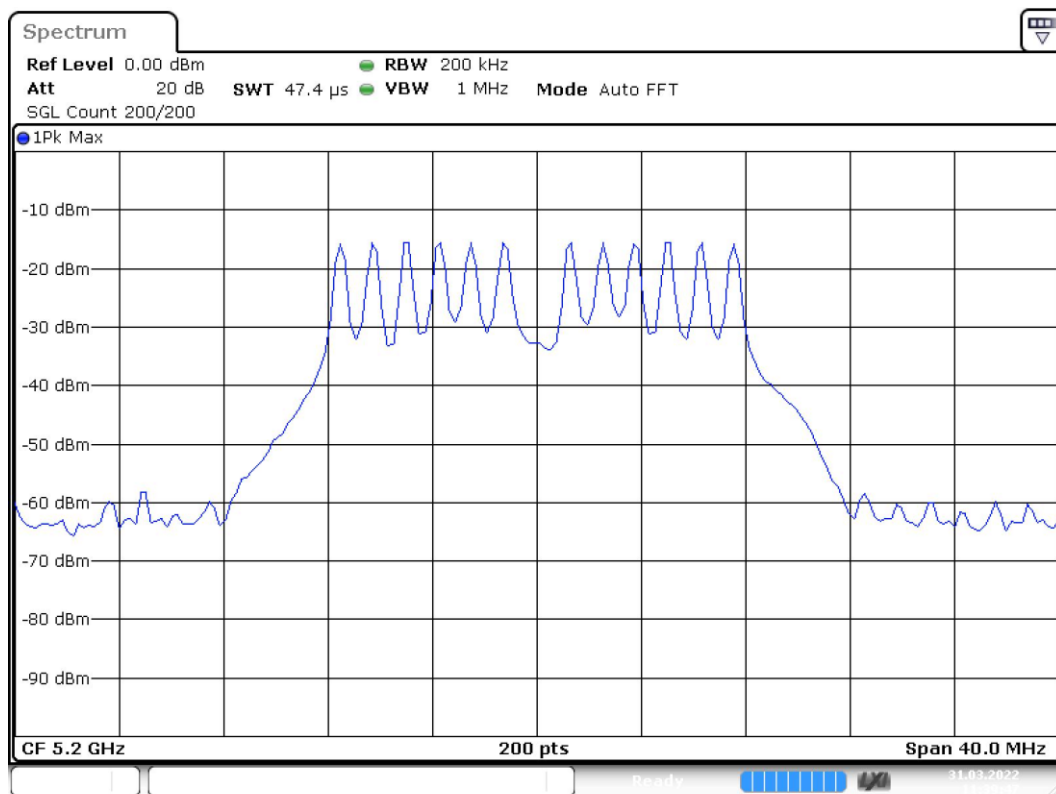
DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
5200.000000	18.200000	---	---	5191.100000	5209.300000

(continuation of the "26 dB Bandwidth" table from column 6 ...)

DUT Frequency (MHz)	Max Level (dBm)	Result
5200.000000	-1.5	PASS



Bandwidth



Date: 31.MAR.2022 11:39:47

Measurement

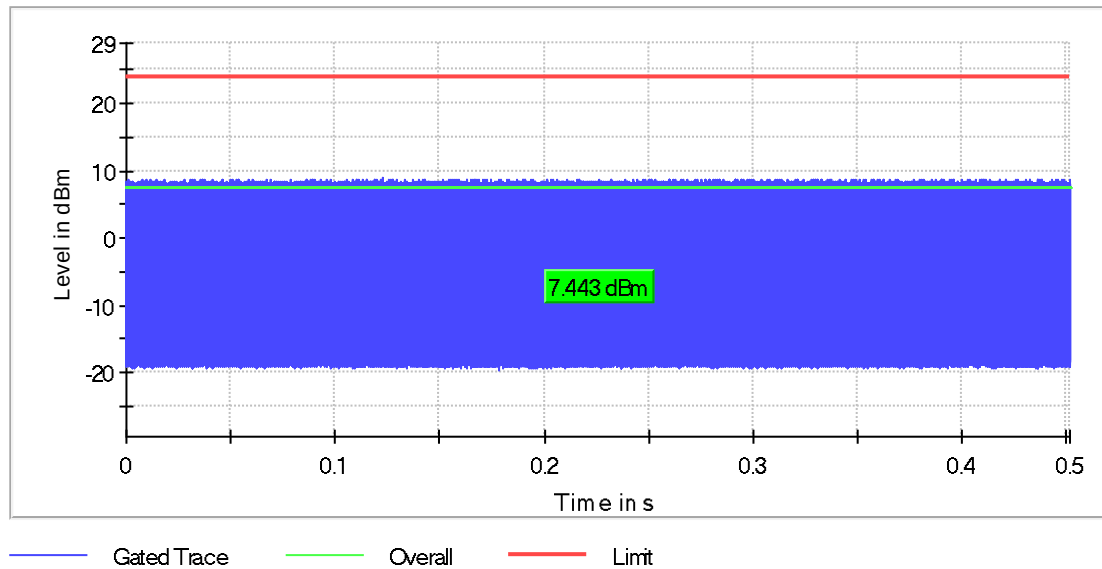
Setting	Instrument Value	Target Value
Start Frequency	5.18000 GHz	5.18000 GHz
Stop Frequency	5.22000 GHz	5.22000 GHz
Span	40.000 MHz	40.000 MHz
RBW	200.000 kHz	~ 200.000 kHz
VBW	1.000 MHz	>= 600.000 kHz
SweepPoints	200	~ 200
SweepTime	47.405 μ s	AUTO
Reference Level	0.000 dBm	0.000 dBm
Attenuation	20.000 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
Stablemode	Trace	Trace
Stablevalue	0.30 dB	0.30 dB
Run	7 / max. 150	max. 150
Stable	5 / 5	5
Max Stable Difference	0.11 dB	0.30 dB

RF output power (5200 MHz; 20.000 dBm; 20 MHz)

Test according to FCC title 47 part 15 §15.407(a),

Result

DUT Frequency (MHz)	Gated RMS (dBm)	Limit Max (dBm)	Gated EIRP (dBm)	DutyCycle (%)	Result
5200.000000	7.4	24.0	7.4	39.536	PASS



Power Spectral Density (5200 MHz; 20.000 dBm; 20 MHz)

Customized settings.

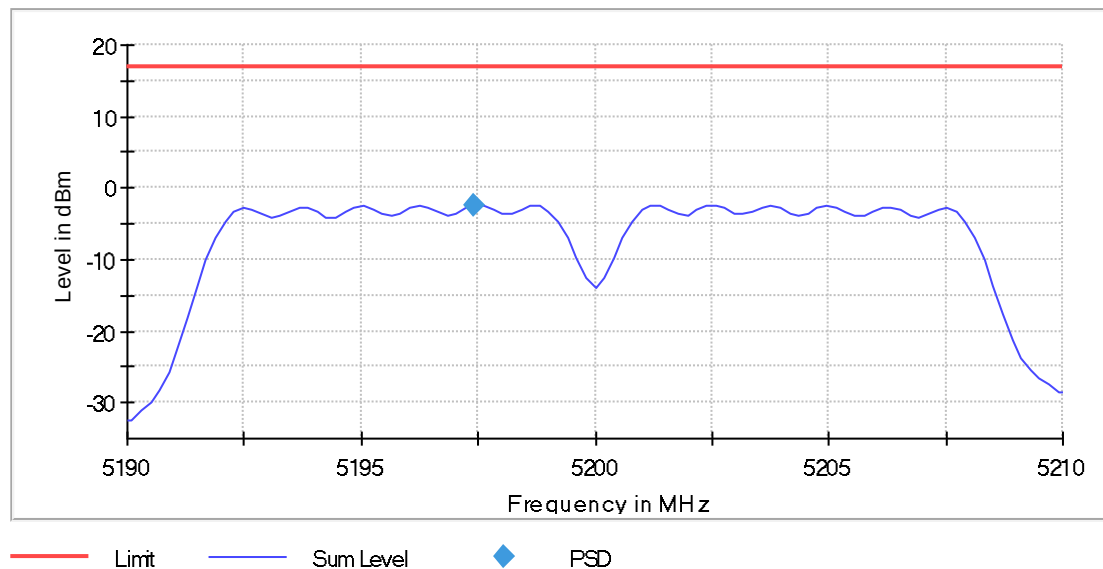
Test according to FCC title 47 part 15 §15.407(a),

Result

DUT Frequency (MHz)	Frequency (MHz)	PSD (dBm)	Limit Max (dBm)	Result
5200.000000	5197.425743	-2.315	17.0	PASS

Ports

Port	Duty Cycle (%)
1	29.714



Measurement

Setting	Instrument Value	Target Value
Start Frequency	5.19000 GHz	5.19000 GHz
Stop Frequency	5.21000 GHz	5.21000 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
Sweptime	2.020 s	2.020 s
Reference Level	0.000 dBm	0.000 dBm
Attenuation	20.000 dB	AUTO
Detector	RMS	RMS
SweepCount	100	100
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
SweepType	Sweep	AUTO
Preamp	off	off
Stablemode	Trace	Trace
Stablevalue	0.30 dB	0.30 dB
Run	2 / max. 15	max. 15

Stable	1 / 1	1
Max Stable Difference	0.08 dB	0.30 dB

Minimum Emission Bandwidth 6 dB (5200 MHz; 20.000 dBm; 20 MHz)

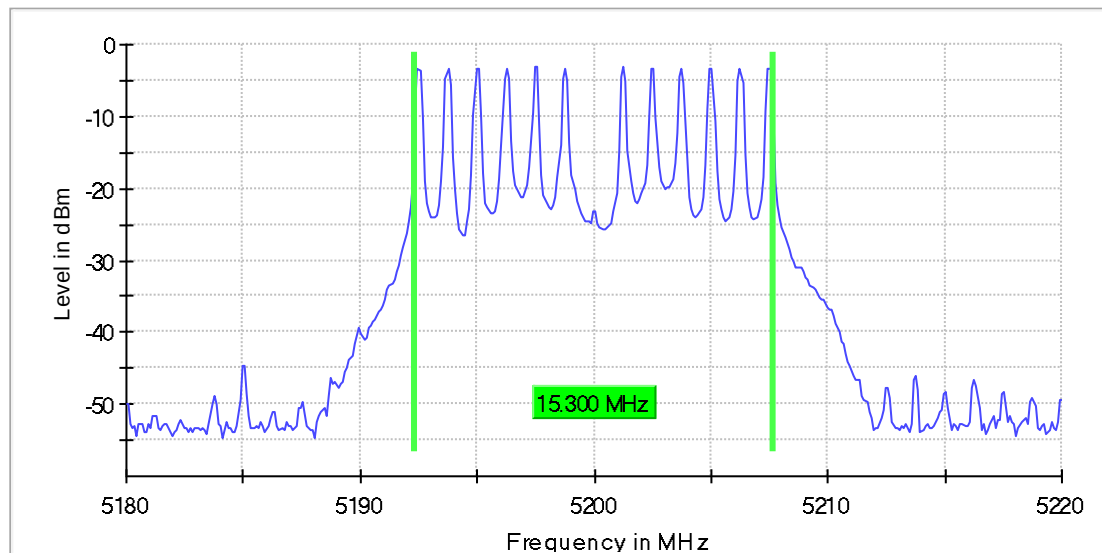
Customized settings.

6 dB Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
5200.000000	15.300000	---	---	5192.350000	5207.650000

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

DUT Frequency (MHz)	Max Level (dBm)	Result
5200.000000	-3.0	PASS



Measurement

Setting	Instrument Value	Target Value
Start Frequency	5.18000 GHz	5.18000 GHz
Stop Frequency	5.22000 GHz	5.22000 GHz
Span	40.000 MHz	40.000 MHz
RBW	100.000 kHz	~ 100.000 kHz
VBW	300.000 kHz	~ 300.000 kHz
SweepPoints	400	~ 400
SweepTime	94.810 μ s	AUTO
Reference Level	0.000 dBm	0.000 dBm
Attenuation	20.000 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
Stablemode	Trace	Trace
Stablevalue	0.30 dB	0.30 dB

Run	3 / max. 150	max. 150
Stable	1 / 1	1
Max Stable Difference	0.09 dB	0.30 dB

Occupied Channel Bandwidth 99% (5200 MHz; 20.000 dBm; 20 MHz)

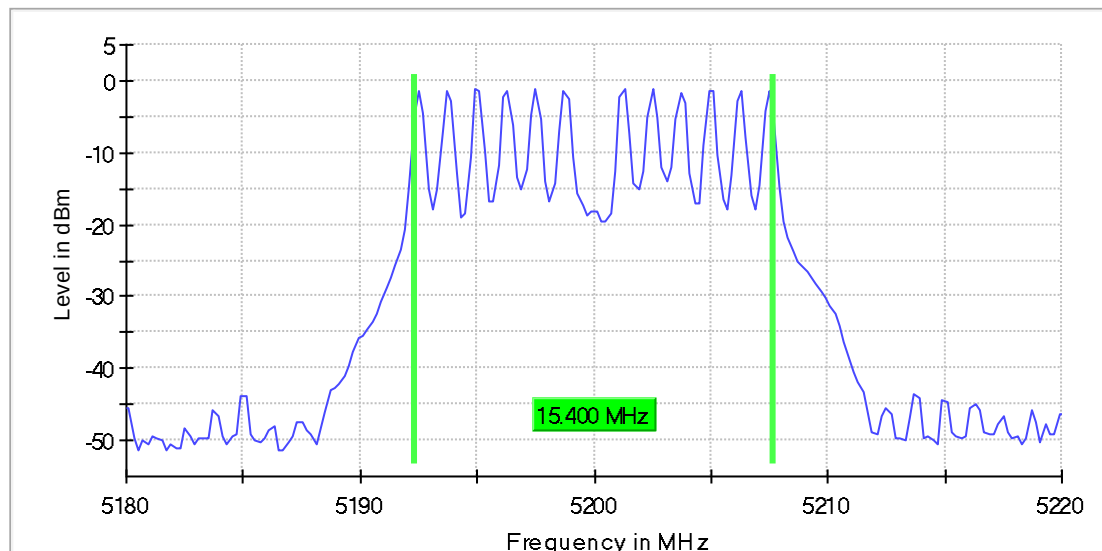
Customized settings.

99 % Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
5200.000000	15.400000	---	---	5192.300000	5207.700000

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

DUT Frequency (MHz)	Result
5200.000000	PASS



Measurement

Setting	Instrument Value	Target Value
Start Frequency	5.18000 GHz	5.18000 GHz
Stop Frequency	5.22000 GHz	5.22000 GHz
Span	40.000 MHz	40.000 MHz
RBW	200.000 kHz	<= 200.000 kHz
VBW	1.000 MHz	>= 600.000 kHz
SweepPoints	200	~ 200
SweepTime	47.405 µs	AUTO
Reference Level	0.000 dBm	0.000 dBm
Attenuation	20.000 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
Stablemode	Trace	Trace
Stablevalue	0.30 dB	0.30 dB
Run	3 / max. 150	max. 150
Stable	1 / 1	1

Max Stable Difference	0.20 dB	0.30 dB
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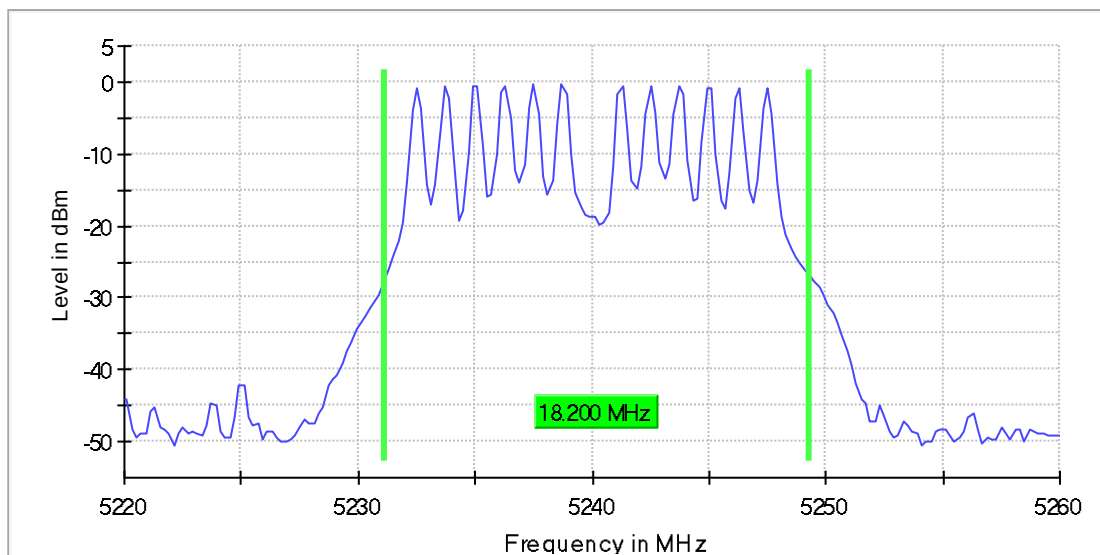
Emission Bandwidth 26 dB (5240 MHz; 20.000 dBm; 20 MHz)

26 dB Bandwidth

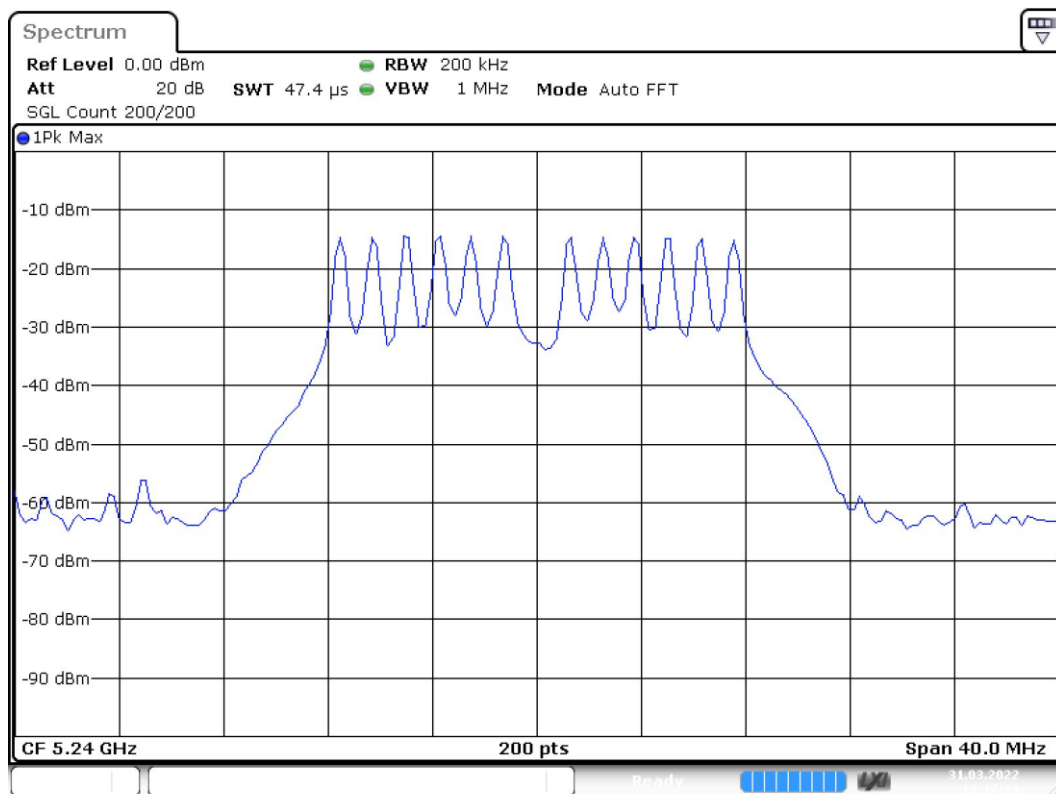
DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
5240.000000	18.200000	---	---	5231.100000	5249.300000

(continuation of the "26 dB Bandwidth" table from column 6 ...)

DUT Frequency (MHz)	Max Level (dBm)	Result
5240.000000	-0.4	PASS



Bandwidth



Date: 31.MAR.2022 12:17:14

Measurement

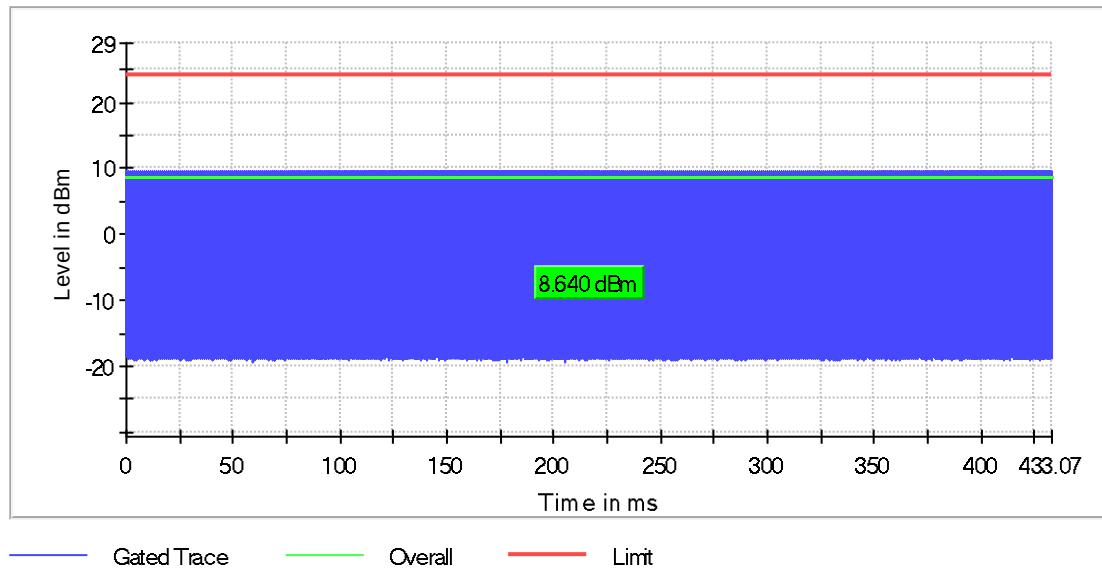
Setting	Instrument Value	Target Value
Start Frequency	5.22000 GHz	5.22000 GHz
Stop Frequency	5.26000 GHz	5.26000 GHz
Span	40.000 MHz	40.000 MHz
RBW	200.000 kHz	~ 200.000 kHz
VBW	1.000 MHz	>= 600.000 kHz
SweepPoints	200	~ 200
SweepTime	47.405 μ s	AUTO
Reference Level	0.000 dBm	0.000 dBm
Attenuation	20.000 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
Stablemode	Trace	Trace
Stablevalue	0.30 dB	0.30 dB
Run	8 / max. 150	max. 150
Stable	5 / 5	5
Max Stable Difference	0.02 dB	0.30 dB

RF output power (5240 MHz; 20.000 dBm; 20 MHz)

Test according to FCC title 47 part 15 §15.407(a),

Result

DUT Frequency (MHz)	Gated RMS (dBm)	Limit Max (dBm)	Gated EIRP (dBm)	DutyCycle (%)	Result
5240.000000	8.6	24.0	8.6	38.146	PASS



Power Spectral Density (5240 MHz; 20.000 dBm; 20 MHz)

Customized settings.

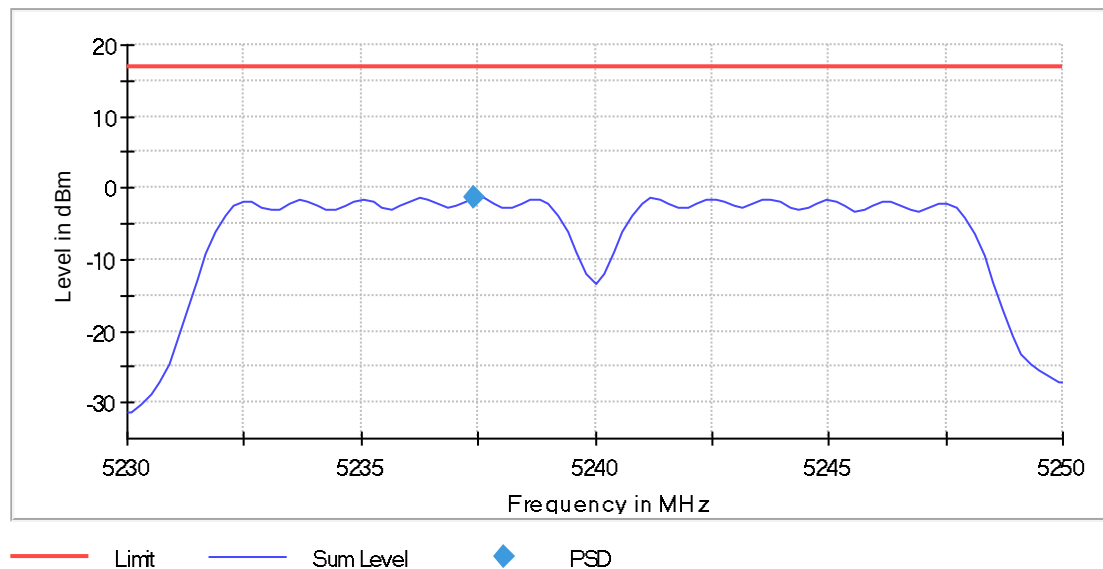
Test according to FCC title 47 part 15 §15.407(a),

Result

DUT Frequency (MHz)	Frequency (MHz)	PSD (dBm)	Limit Max (dBm)	Result
5240.000000	5237.425743	-1.327	17.0	PASS

Ports

Port	Duty Cycle (%)
1	29.698



Measurement

Setting	Instrument Value	Target Value
Start Frequency	5.23000 GHz	5.23000 GHz
Stop Frequency	5.25000 GHz	5.25000 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
Sweptime	2.020 s	2.020 s
Reference Level	0.000 dBm	0.000 dBm
Attenuation	20.000 dB	AUTO
Detector	RMS	RMS
SweepCount	100	100
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
SweepType	Sweep	AUTO
Preamp	off	off
Stablemode	Trace	Trace
Stablevalue	0.30 dB	0.30 dB
Run	2 / max. 15	max. 15

Stable	1 / 1	1
Max Stable Difference	0.06 dB	0.30 dB

Minimum Emission Bandwidth 6 dB (5240 MHz; 20.000 dBm; 20 MHz)

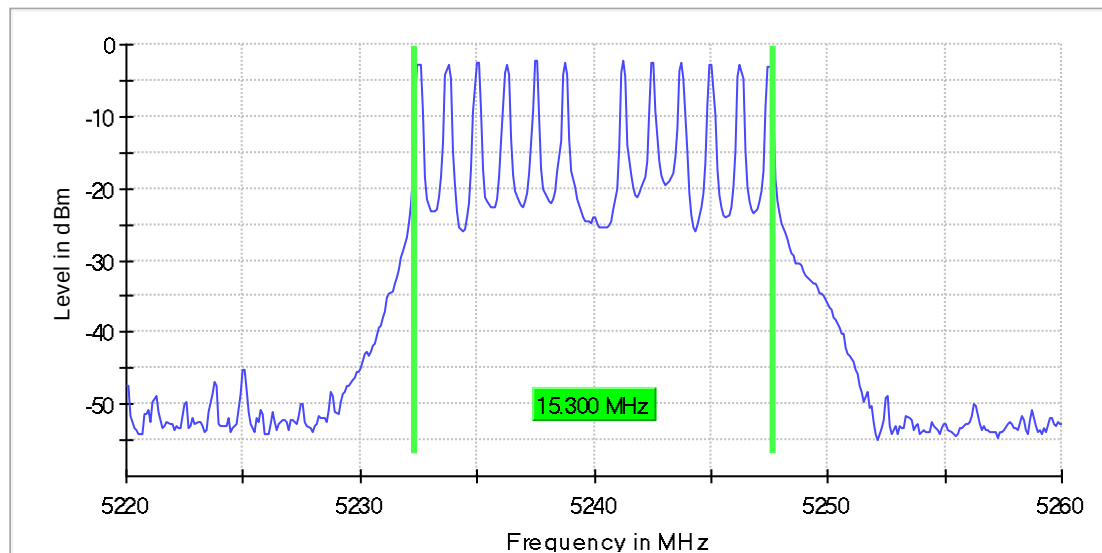
Customized settings.

6 dB Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
5240.000000	15.300000	---	---	5232.350000	5247.650000

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

DUT Frequency (MHz)	Max Level (dBm)	Result
5240.000000	-2.3	PASS



Measurement

Setting	Instrument Value	Target Value
Start Frequency	5.22000 GHz	5.22000 GHz
Stop Frequency	5.26000 GHz	5.26000 GHz
Span	40.000 MHz	40.000 MHz
RBW	100.000 kHz	~ 100.000 kHz
VBW	300.000 kHz	~ 300.000 kHz
SweepPoints	400	~ 400
SweepTime	94.810 μ s	AUTO
Reference Level	0.000 dBm	0.000 dBm
Attenuation	20.000 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
Stablemode	Trace	Trace
Stablevalue	0.30 dB	0.30 dB

Run	2 / max. 150	max. 150
Stable	1 / 1	1
Max Stable Difference	0.08 dB	0.30 dB

Occupied Channel Bandwidth 99% (5240 MHz; 20.000 dBm; 20 MHz)

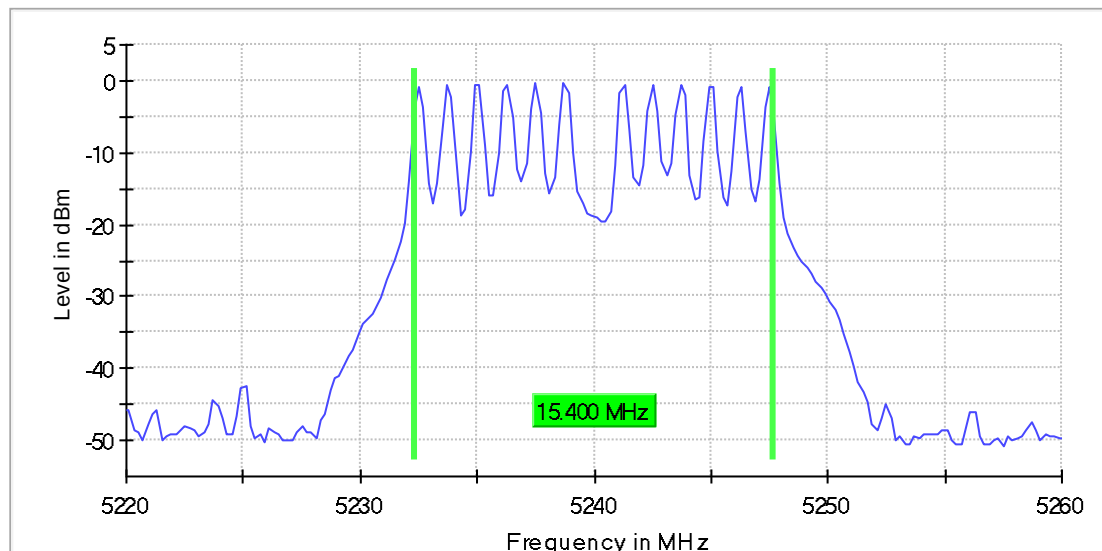
Customized settings.

99 % Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
5240.000000	15.400000	---	---	5232.300000	5247.700000

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

DUT Frequency (MHz)	Result
5240.000000	PASS



Measurement

Setting	Instrument Value	Target Value
Start Frequency	5.22000 GHz	5.22000 GHz
Stop Frequency	5.26000 GHz	5.26000 GHz
Span	40.000 MHz	40.000 MHz
RBW	200.000 kHz	<= 200.000 kHz
VBW	1.000 MHz	>= 600.000 kHz
SweepPoints	200	~ 200
SweepTime	47.405 µs	AUTO
Reference Level	0.000 dBm	0.000 dBm
Attenuation	20.000 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
Stablemode	Trace	Trace
Stablevalue	0.30 dB	0.30 dB
Run	4 / max. 150	max. 150
Stable	1 / 1	1

Max Stable Difference	0.17 dB	0.30 dB
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Band Edge high (5240 MHz; 20.000 dBm; 20 MHz)

Customized settings.

Test according to FCC title 47 part 15 §15.407(b),

Result

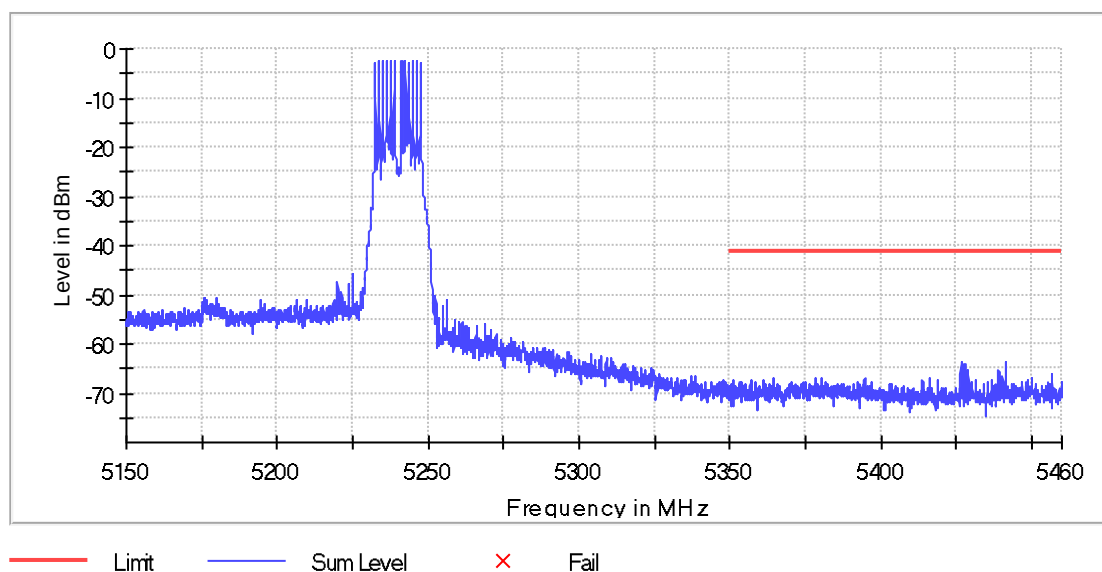
DUT Frequency (MHz)	Result
5240.000000	PASS

Inband Peak

Frequency (MHz)	Level (dBm)
5241.225000	-2.3

Measurements

Frequency (MHz)	Level (dBm)	Margin (dB)	Limit (dBm)	Result
5426.575000	-63.6	22.4	-41.2	PASS
5441.575000	-63.9	22.6	-41.2	PASS
5427.825000	-64.1	22.8	-41.2	PASS
5426.625000	-64.2	22.9	-41.2	PASS
5426.525000	-64.2	23.0	-41.2	PASS
5427.775000	-64.2	23.0	-41.2	PASS
5441.525000	-64.4	23.2	-41.2	PASS
5441.625000	-64.5	23.2	-41.2	PASS
5427.875000	-65.2	23.9	-41.2	PASS
5439.075000	-65.4	24.2	-41.2	PASS
5429.075000	-65.5	24.3	-41.2	PASS
5429.025000	-65.6	24.4	-41.2	PASS
5439.125000	-65.7	24.5	-41.2	PASS
5439.025000	-66.0	24.8	-41.2	PASS
5426.675000	-66.0	24.8	-41.2	PASS



Measurement 1

Setting	Instrument Value	Target Value
Start Frequency	5.15000 GHz	5.15000 GHz
Stop Frequency	5.25000 GHz	5.25000 GHz
Span	100.000 MHz	100.000 MHz
RBW	100.000 kHz	<= 100.000 kHz
VBW	300.000 kHz	>= 300.000 kHz
SweepPoints	2000	~ 2000
SweepTime	227.813 μ s	AUTO
Reference Level	0.000 dBm	0.000 dBm
Attenuation	20.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	100	100
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
SweepType	FFT	AUTO
Preamp	off	off
Stablemode	Trace	Trace
Stablevalue	0.50 dB	0.50 dB
Run	4 / max. 150	max. 150
Stable	3 / 3	3
Max Stable Difference	0.17 dB	0.50 dB

Measurement 2

Setting	Instrument Value	Target Value
Start Frequency	5.25000 GHz	5.25000 GHz
Stop Frequency	5.46000 GHz	5.46000 GHz
Span	210.000 MHz	210.000 MHz
RBW	100.000 kHz	<= 100.000 kHz
VBW	300.000 kHz	>= 300.000 kHz
SweepPoints	4200	~ 4200
SweepTime	474.609 μ s	AUTO
Reference Level	-20.000 dBm	-20.000 dBm
Attenuation	0.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	100	100
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
SweepType	FFT	AUTO
Preamp	off	off
Stablemode	Trace	Trace
Stablevalue	0.50 dB	0.50 dB
Run	5 / max. 150	max. 150
Stable	3 / 3	3
Max Stable Difference	0.00 dB	0.50 dB

FCC 15.407 2015

DUT Information

Frequencies

WLAN CH 36 (5180 MHz)	WLAN CH 40 (5200 MHz)	WLAN CH 48 (5240 MHz)
WLAN CH 149 (5745 MHz)	WLAN CH 157 (5785 MHz)	WLAN CH 165 (5825 MHz)
WLAN CH 52 (5260 MHz)	WLAN CH 56 (5280 MHz)	WLAN CH 64 (5320 MHz)
WLAN CH 100 (5500 MHz)	WLAN CH 120 (5600 MHz)	WLAN CH 140 (5700 MHz)
WLAN CH 116 (5580 MHz)		

Bandwidths

20 MHz (20 MHz)

Power

20.000 dBm (20 dBm)

Beamforming Gain

20.000 dBm (20 dBm) 0 dB

Gain Tables

20.000 dBm (20 dBm) Port 1: 0dBi;

DUT Settings

No. of transmission chains	1
DFS capability	Yes
DFS Mode	Master
Equipment Type	Portable
TPC	No

Hardware Setup: WMS Measurements\Hardware Setup

Spectrum Analyzer:	SA FSV 40 (SA FSV 40) @ VISA (ADR TCPIP::192.168.48.149::INST0::INSTR), SN 1321.3008K39/101229, FW 3.40
Vector Generator:	VG SMBV100A (VG SMBV100A) @ VISA (ADR TCPIP::192.168.48.25::INST0::INSTR), SN 260451, FW 4.15.125.49
Generator:	SMB100A (SMB100A) @ VISA (ADR TCPIP::192.168.48.30::INST0::INSTR), SN 178361, FW / Drv:Rev 2.21.0, 07/2016, CVI 2015
OSP:	OSP-B157W (OSP-B157W) @ VISA (ADR TCPIP::192.168.48.157::INST0::INSTR), SN 1527.1144. / , FW 1.23.0.2

Summary

Test	Frequency (MHz)	Nominal Power (dBm)	Nominal Bandwidth (MHz)	Result
Emission Bandwidth 26 dB	5260.000	20.0	20.000000	PASS
RF output power	5260.000	20.0	20.000000	PASS
Power Spectral Density	5260.000	20.0	20.000000	PASS
Minimum Emission Bandwidth 6 dB	5260.000	20.0	20.000000	PASS
Occupied Channel Bandwidth 99%	5260.000	20.0	20.000000	PASS
Band Edge low	5260.000	20.0	20.000000	PASS
Emission Bandwidth 26 dB	5280.000	20.0	20.000000	PASS
RF output power	5280.000	20.0	20.000000	PASS
Power Spectral Density	5280.000	20.0	20.000000	PASS
Minimum Emission Bandwidth 6 dB	5280.000	20.0	20.000000	PASS
Occupied Channel Bandwidth 99%	5280.000	20.0	20.000000	PASS
Emission Bandwidth 26 dB	5320.000	20.0	20.000000	PASS
RF output power	5320.000	20.0	20.000000	PASS
Power Spectral Density	5320.000	20.0	20.000000	PASS
Minimum Emission Bandwidth 6 dB	5320.000	20.0	20.000000	PASS
Occupied Channel Bandwidth 99%	5320.000	20.0	20.000000	PASS
Band Edge high	5320.000	20.0	20.000000	PASS

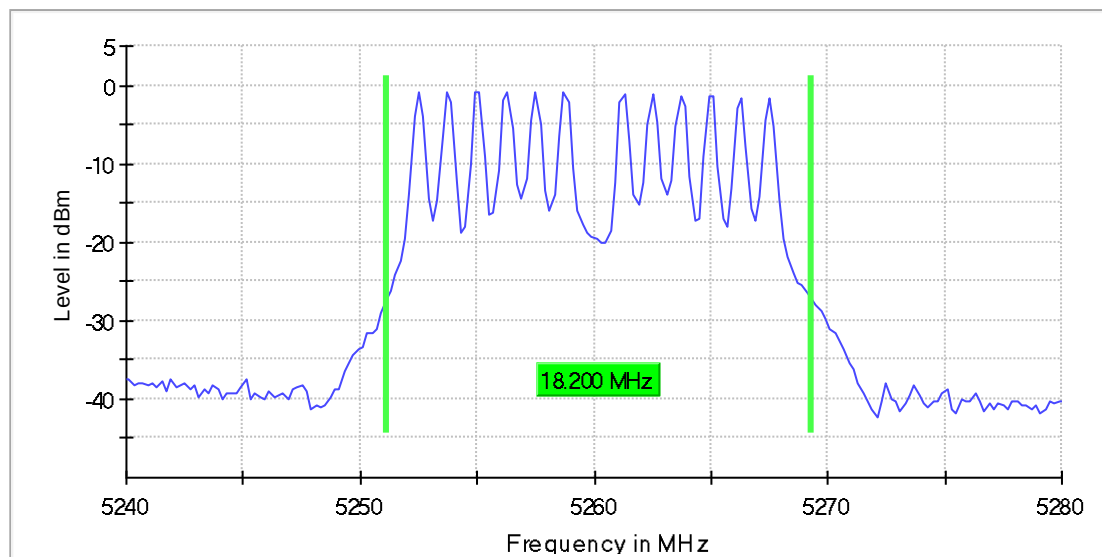
Emission Bandwidth 26 dB (5260 MHz; 20.000 dBm; 20 MHz)

26 dB Bandwidth

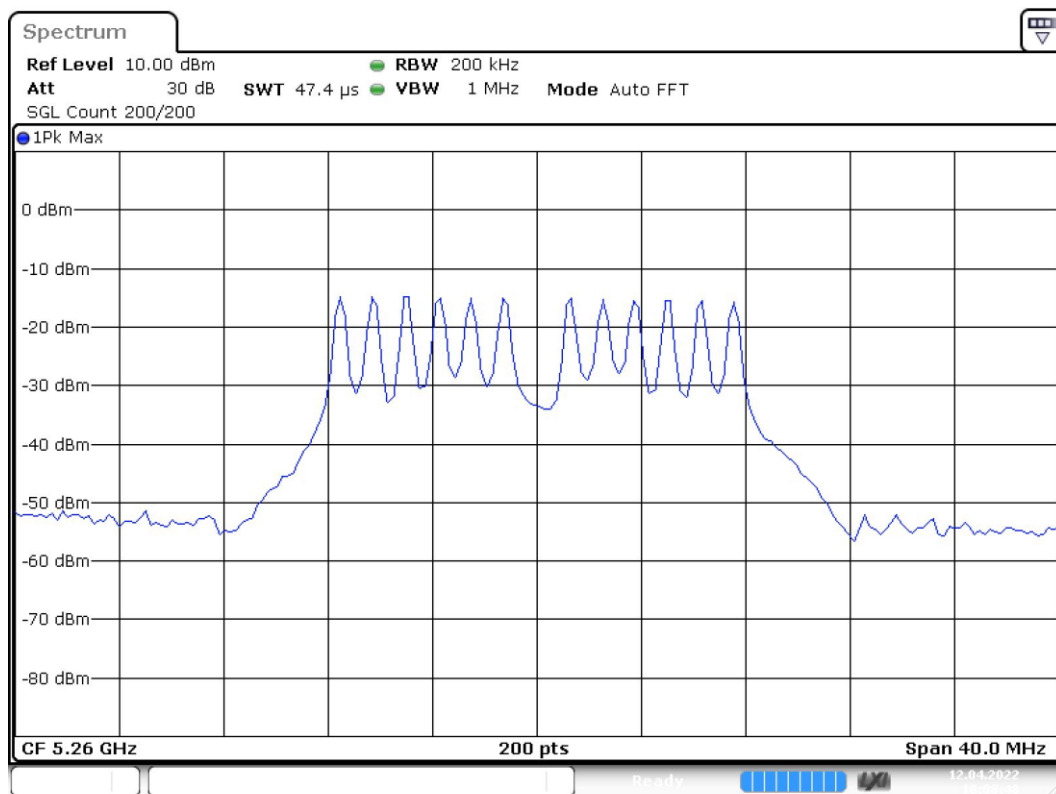
DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
5260.000000	18.200000	---	---	5251.100000	5269.300000

(continuation of the "26 dB Bandwidth" table from column 6 ...)

DUT Frequency (MHz)	Max Level (dBm)	Result
5260.000000	-0.8	PASS



Bandwidth



Date: 12.APR.2022 10:08:48

Measurement

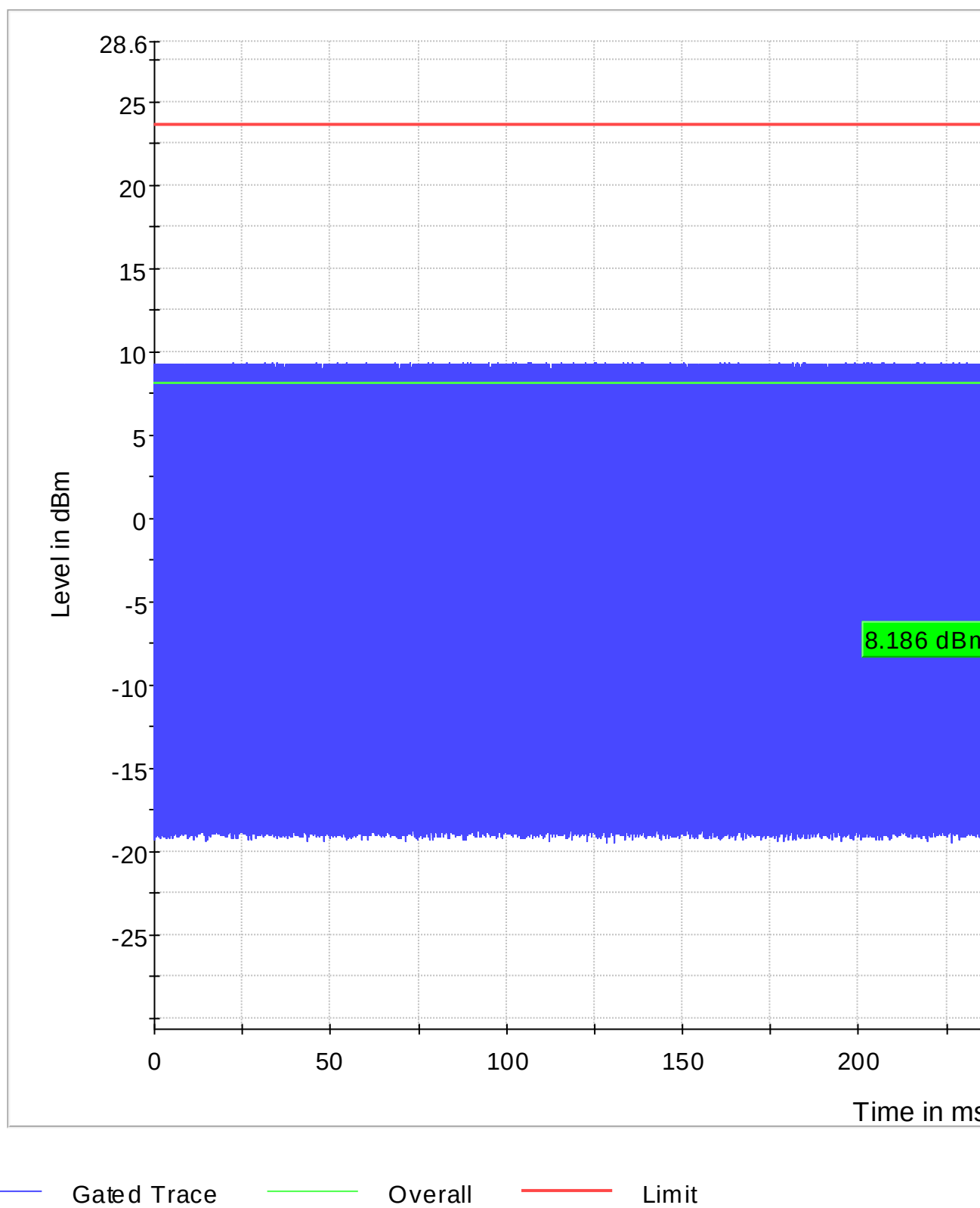
Setting	Instrument Value	Target Value
Start Frequency	5.24000 GHz	5.24000 GHz
Stop Frequency	5.28000 GHz	5.28000 GHz
Span	40.000 MHz	40.000 MHz
RBW	200.000 kHz	~ 200.000 kHz
VBW	1.000 MHz	>= 600.000 kHz
SweepPoints	200	~ 200
SweepTime	47.405 μ s	AUTO
Reference Level	10.000 dBm	10.000 dBm
Attenuation	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
Stablemode	Trace	Trace
Stablevalue	0.30 dB	0.30 dB
Run	7 / max. 150	max. 150
Stable	5 / 5	5
Max Stable Difference	0.04 dB	0.30 dB

RF output power (5260 MHz; 20.000 dBm; 20 MHz)

Test according to FCC title 47 part 15 §15.407(a),

Result

DUT Frequency (MHz)	Gated RMS (dBm)	Limit Max (dBm)	Gated EIRP (dBm)	DutyCycle (%)	Result
5260.000000	8.2	23.6	8.2	38.384	PASS



Power Spectral Density (5260 MHz; 20.000 dBm; 20 MHz)

Customized settings.

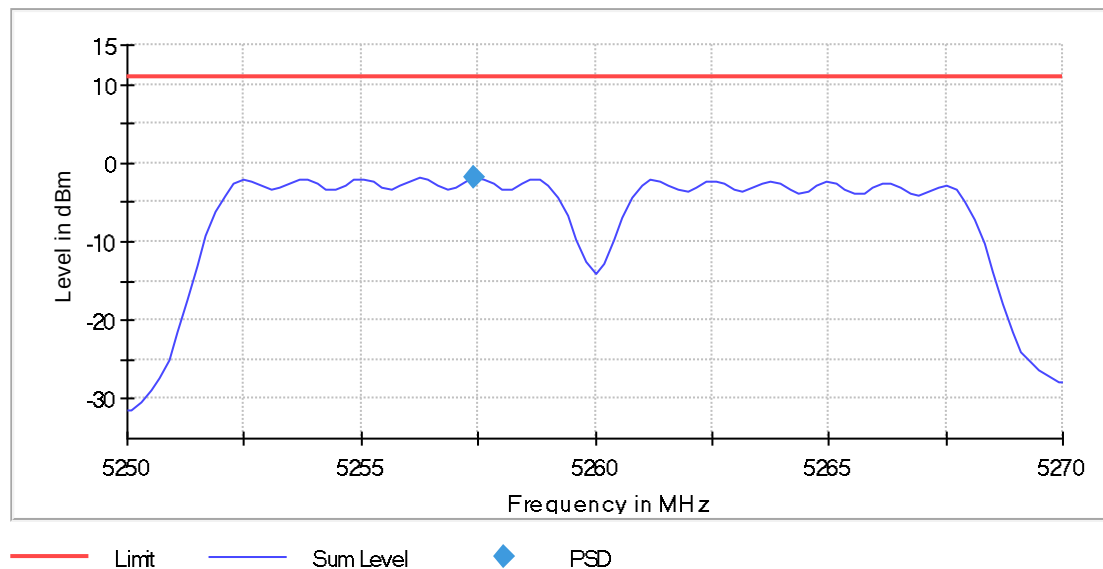
Test according to FCC title 47 part 15 §15.407(a),

Result

DUT Frequency (MHz)	Frequency (MHz)	PSD (dBm)	Limit Max (dBm)	Result
5260.000000	5257.425743	-1.908	11.0	PASS

Ports

Port	Duty Cycle (%)
1	29.688



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 s	2.020 s
Reference Level	0.000 dBm	0.000 dBm
Attenuation	20.000 dB	AUTO
Detector	RMS	RMS
SweepCount	30	30
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
SweepType	Sweep	AUTO
Preamp	off	off
Stablemode	Trace	Trace
Stablevalue	0.30 dB	0.30 dB
Run	1 / max. 1	max. 1

Stable	0 / 1	1
Max Stable Difference	0.00 dB	0.30 dB

Minimum Emission Bandwidth 6 dB (5260 MHz; 20.000 dBm; 20 MHz)

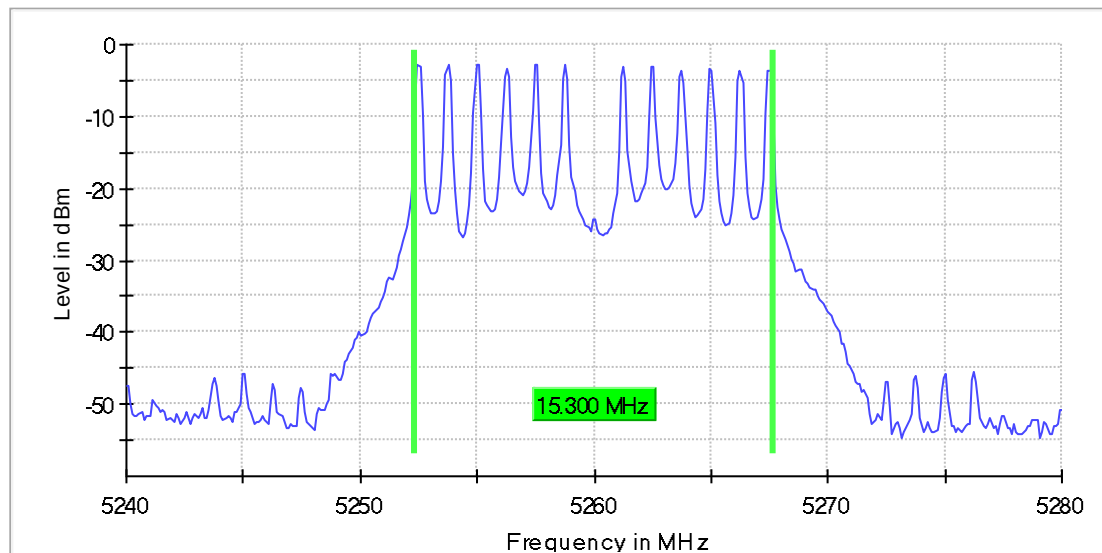
Customized settings.

6 dB Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
5260.000000	15.300000	---	---	5252.350000	5267.650000

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

DUT Frequency (MHz)	Max Level (dBm)	Result
5260.000000	-2.8	PASS



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	100.000 kHz	~ 100.000 kHz
VBW	300.000 kHz	~ 300.000 kHz
SweepPoints	400	~ 400
SweepTime	94.810 μ s	AUTO
Reference Level	0.000 dBm	0.000 dBm
Attenuation	20.000 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
Stablemode	Trace	Trace
Stablevalue	0.30 dB	0.30 dB

Run	2 / max. 150	max. 150
Stable	1 / 1	1
Max Stable Difference	0.06 dB	0.30 dB

Occupied Channel Bandwidth 99% (5260 MHz; 20.000 dBm; 20 MHz)

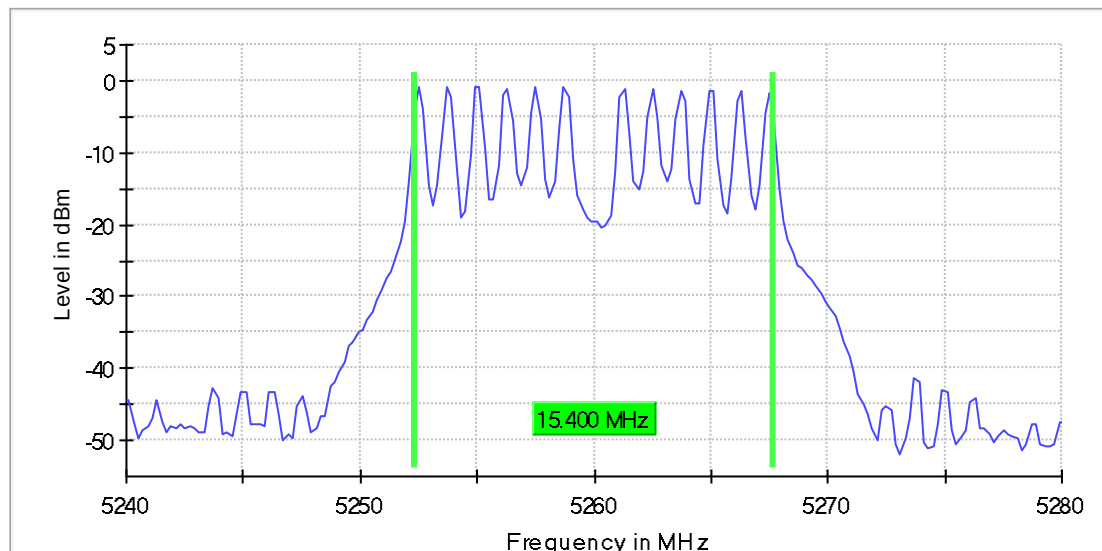
Customized settings.

99 % Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
5260.000000	15.400000	---	---	5252.300000	5267.700000

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

DUT Frequency (MHz)	Result
5260.000000	PASS



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	200	~ 200
SweepTime	47.405 µs	AUTO
Reference Level	0.000 dBm	0.000 dBm
Attenuation	20.000 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
Stablemode	Trace	Trace
Stablevalue	0.30 dB	0.30 dB
Run	2 / max. 150	max. 150
Stable	1 / 1	1

Max Stable Difference	0.27 dB	0.30 dB
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Band Edge low (5260 MHz; 20.000 dBm; 20 MHz)

Customized settings.

Test according to FCC title 47 part 15 §15.407(b),

Result

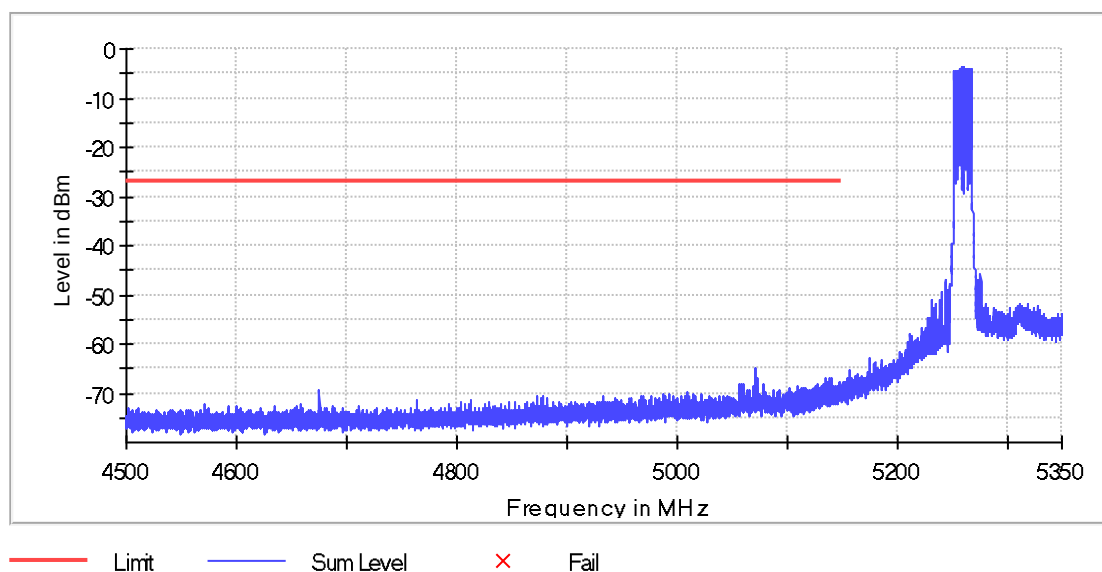
DUT Frequency (MHz)	Result
5260.000000	PASS

Inband Peak

Frequency (MHz)	Level (dBm)
5261.275000	-3.6

Measurements

Frequency (MHz)	Level (dBm)	Margin (dB)	Limit (dBm)	Result
5071.425000	-64.9	37.9	-27.0	PASS
5071.375000	-65.9	38.9	-27.0	PASS
5134.725000	-66.8	39.8	-27.0	PASS
5071.475000	-66.8	39.8	-27.0	PASS
5072.725000	-66.9	39.9	-27.0	PASS
5072.675000	-66.9	39.9	-27.0	PASS
5139.675000	-66.9	39.9	-27.0	PASS
5139.625000	-66.9	39.9	-27.0	PASS
5134.775000	-66.9	39.9	-27.0	PASS
5134.675000	-67.0	40.0	-27.0	PASS
5141.225000	-67.0	40.0	-27.0	PASS
5141.275000	-67.1	40.1	-27.0	PASS
5072.625000	-67.6	40.6	-27.0	PASS
5136.575000	-67.6	40.6	-27.0	PASS
5139.725000	-67.7	40.7	-27.0	PASS



Measurement 1

Setting	Instrument Value	Target Value
Start Frequency	5.25000 GHz	5.25000 GHz
Stop Frequency	5.35000 GHz	5.35000 GHz
Span	100.000 MHz	100.000 MHz
RBW	100.000 kHz	<= 100.000 kHz
VBW	300.000 kHz	>= 300.000 kHz
SweepPoints	2000	~ 2000
SweepTime	227.813 μ s	AUTO
Reference Level	0.000 dBm	0.000 dBm
Attenuation	20.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	40	40
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
SweepType	FFT	AUTO
Preamp	off	off
Stablemode	Trace	Trace
Stablevalue	0.50 dB	0.50 dB
Run	1 / max. 1	max. 1
Stable	0 / 1	1
Max Stable Difference	0.00 dB	0.50 dB

Measurement 2

Setting	Instrument Value	Target Value
Start Frequency	4.50000 GHz	4.50000 GHz
Stop Frequency	5.25000 GHz	5.25000 GHz
Span	750.000 MHz	750.000 MHz
RBW	100.000 kHz	<= 100.000 kHz
VBW	300.000 kHz	>= 300.000 kHz
SweepPoints	15000	~ 15000
SweepTime	15.000 ms	AUTO
Reference Level	-20.000 dBm	-20.000 dBm
Attenuation	0.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	50	50
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
SweepType	Sweep	AUTO
Preamp	off	off
Stablemode	Trace	Trace
Stablevalue	0.50 dB	0.50 dB
Run	4 / max. 5	max. 5
Stable	1 / 1	1
Max Stable Difference	0.29 dB	0.50 dB

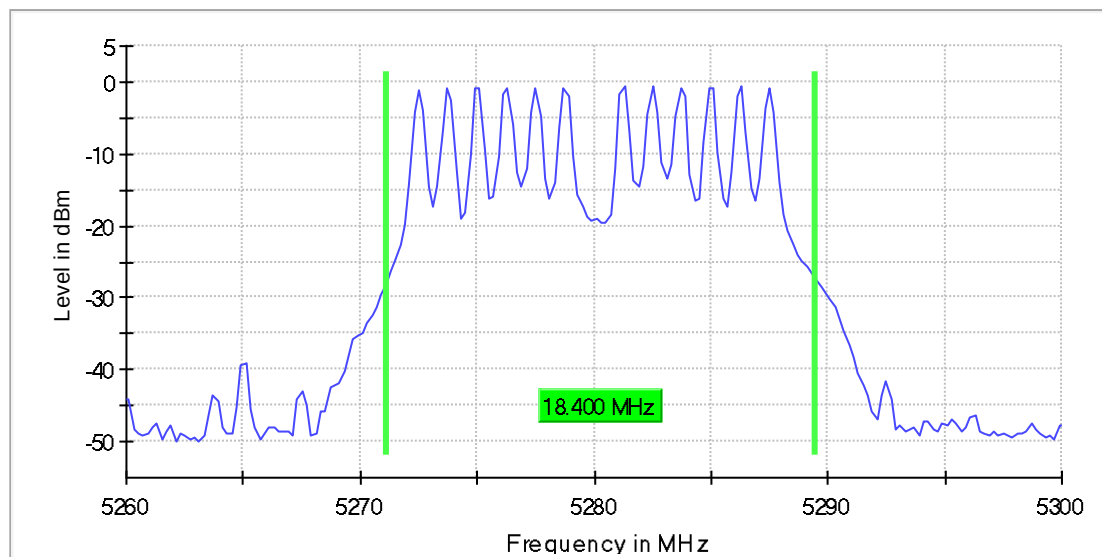
Emission Bandwidth 26 dB (5280 MHz; 20.000 dBm; 20 MHz)

26 dB Bandwidth

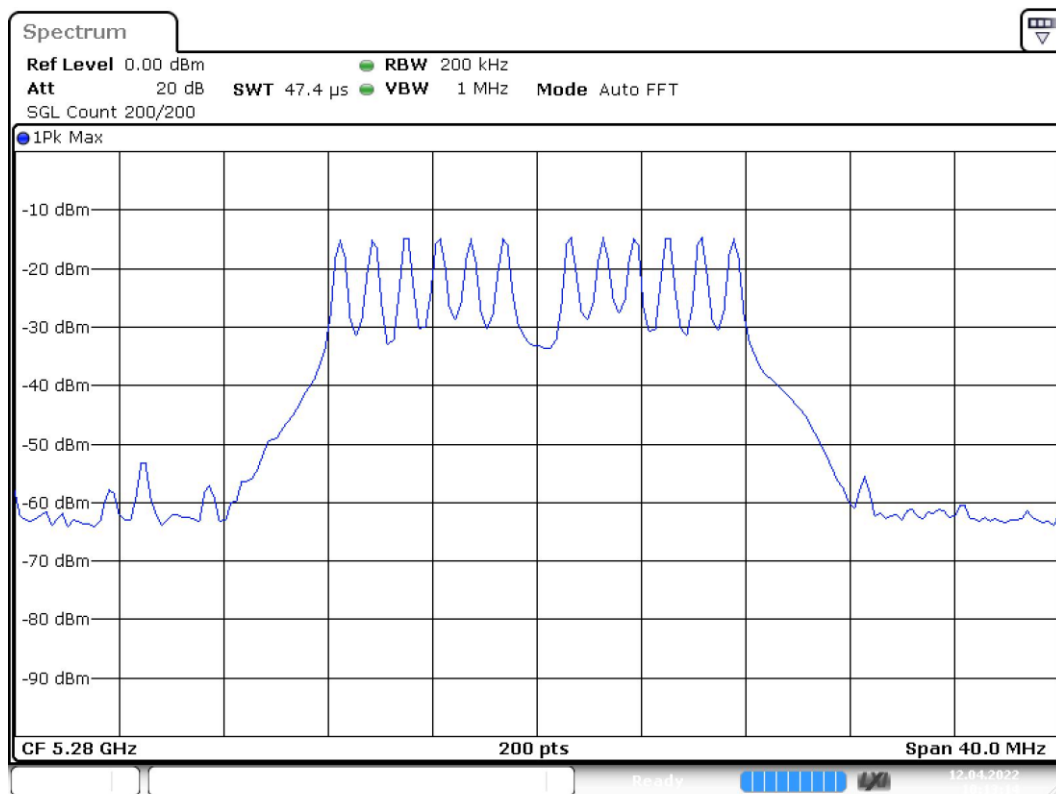
DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
5280.000000	18.400000	---	---	5271.100000	5289.500000

(continuation of the "26 dB Bandwidth" table from column 6 ...)

DUT Frequency (MHz)	Max Level (dBm)	Result
5280.000000	-0.7	PASS



Bandwidth



Date: 12.APR.2022 10:13:14

Measurement

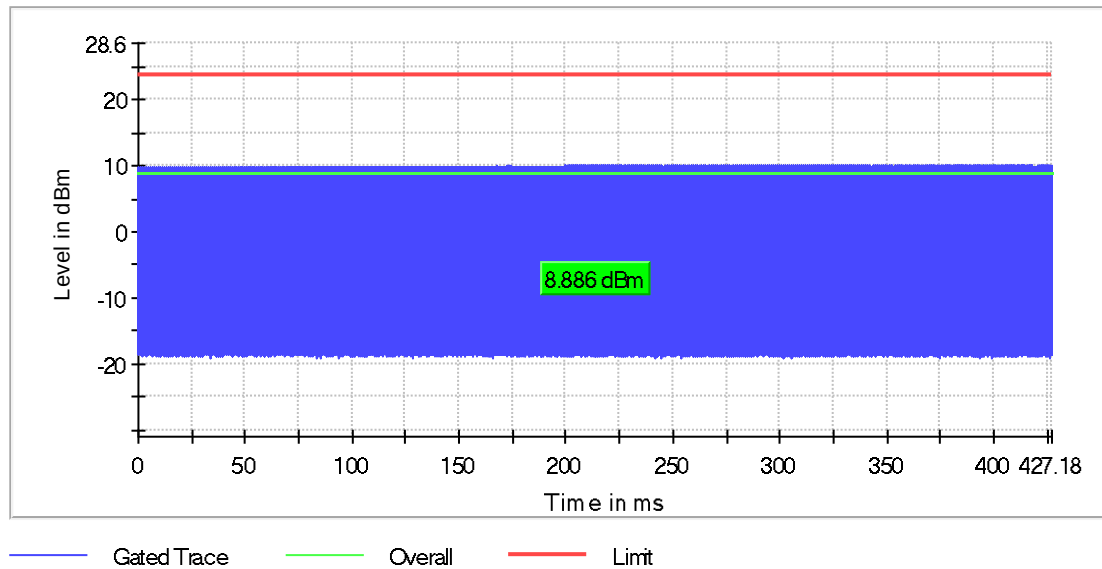
Setting	Instrument Value	Target Value
Start Frequency	5.26000 GHz	5.26000 GHz
Stop Frequency	5.30000 GHz	5.30000 GHz
Span	40.000 MHz	40.000 MHz
RBW	200.000 kHz	~ 200.000 kHz
VBW	1.000 MHz	>= 600.000 kHz
SweepPoints	200	~ 200
SweepTime	47.405 μ s	AUTO
Reference Level	0.000 dBm	0.000 dBm
Attenuation	20.000 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
Stablemode	Trace	Trace
Stablevalue	0.30 dB	0.30 dB
Run	10 / max. 150	max. 150
Stable	5 / 5	5
Max Stable Difference	0.07 dB	0.30 dB

RF output power (5280 MHz; 20.000 dBm; 20 MHz)

Test according to FCC title 47 part 15 §15.407(a),

Result

DUT Frequency (MHz)	Gated RMS (dBm)	Limit Max (dBm)	Gated EIRP (dBm)	DutyCycle (%)	Result
5280.000000	8.9	23.6	8.9	37.671	PASS



Power Spectral Density (5280 MHz; 20.000 dBm; 20 MHz)

Customized settings.

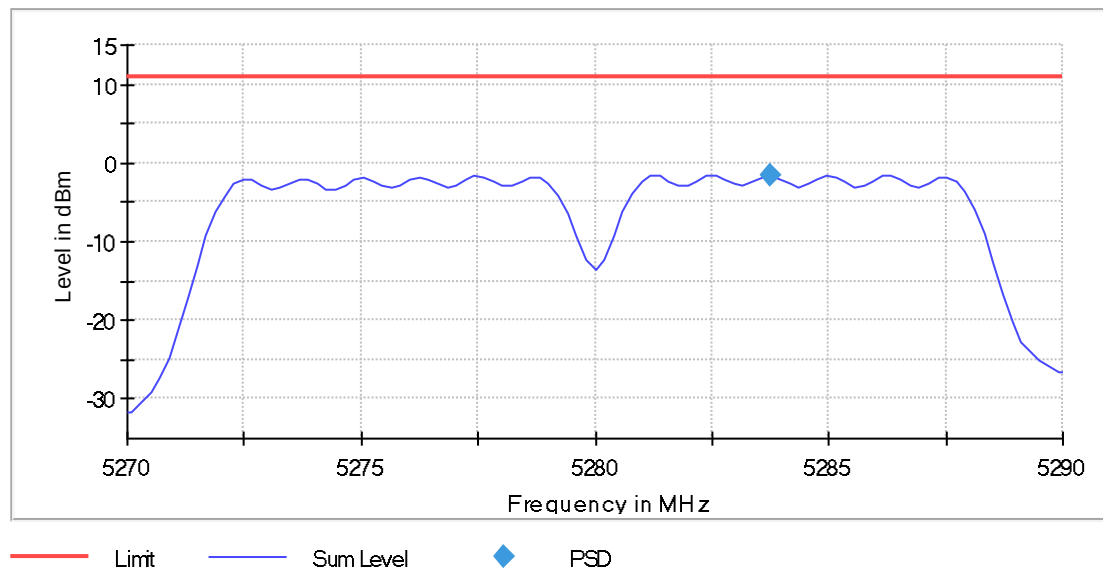
Test according to FCC title 47 part 15 §15.407(a),

Result

DUT Frequency (MHz)	Frequency (MHz)	PSD (dBm)	Limit Max (dBm)	Result
5280.000000	5283.762376	-1.585	11.0	PASS

Ports

Port	Duty Cycle (%)
1	29.668



Measurement

Setting	Instrument Value	Target Value
Start Frequency	5.27000 GHz	5.27000 GHz
Stop Frequency	5.29000 GHz	5.29000 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
Sweptime	2.020 s	2.020 s
Reference Level	0.000 dBm	0.000 dBm
Attenuation	20.000 dB	AUTO
Detector	RMS	RMS
SweepCount	30	30
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
SweepType	Sweep	AUTO
Preamp	off	off
Stablemode	Trace	Trace
Stablevalue	0.30 dB	0.30 dB
Run	1 / max. 1	max. 1

Stable	0 / 1	1
Max Stable Difference	0.00 dB	0.30 dB

Minimum Emission Bandwidth 6 dB (5280 MHz; 20.000 dBm; 20 MHz)

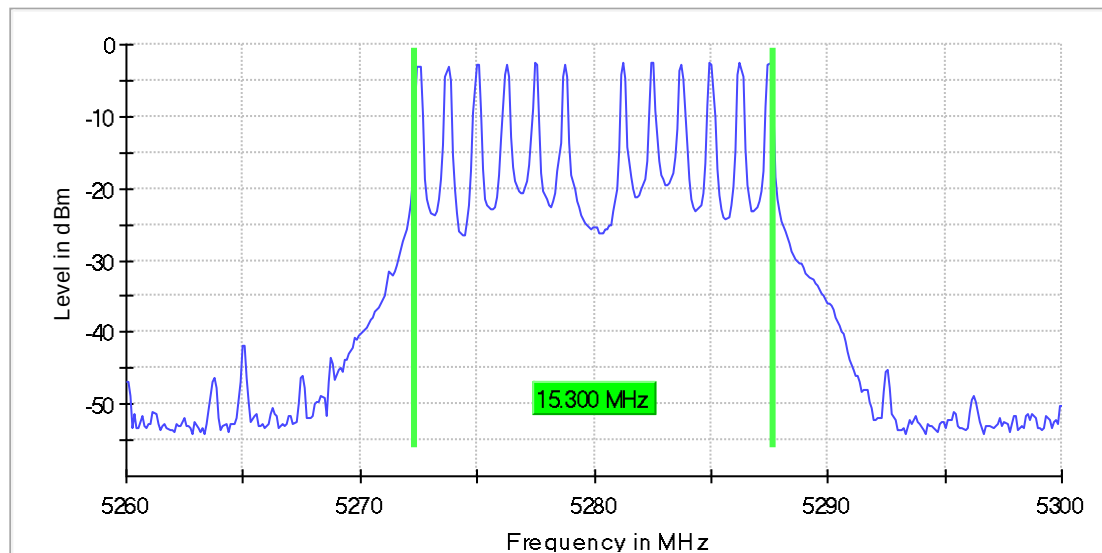
Customized settings.

6 dB Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
5280.000000	15.300000	---	---	5272.350000	5287.650000

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

DUT Frequency (MHz)	Max Level (dBm)	Result
5280.000000	-2.6	PASS



Measurement

Setting	Instrument Value	Target Value
Start Frequency	5.26000 GHz	5.26000 GHz
Stop Frequency	5.30000 GHz	5.30000 GHz
Span	40.000 MHz	40.000 MHz
RBW	100.000 kHz	~ 100.000 kHz
VBW	300.000 kHz	~ 300.000 kHz
SweepPoints	400	~ 400
SweepTime	94.810 μ s	AUTO
Reference Level	0.000 dBm	0.000 dBm
Attenuation	20.000 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
Stablemode	Trace	Trace
Stablevalue	0.30 dB	0.30 dB

Run	3 / max. 150	max. 150
Stable	1 / 1	1
Max Stable Difference	0.15 dB	0.30 dB

Occupied Channel Bandwidth 99% (5280 MHz; 20.000 dBm; 20 MHz)

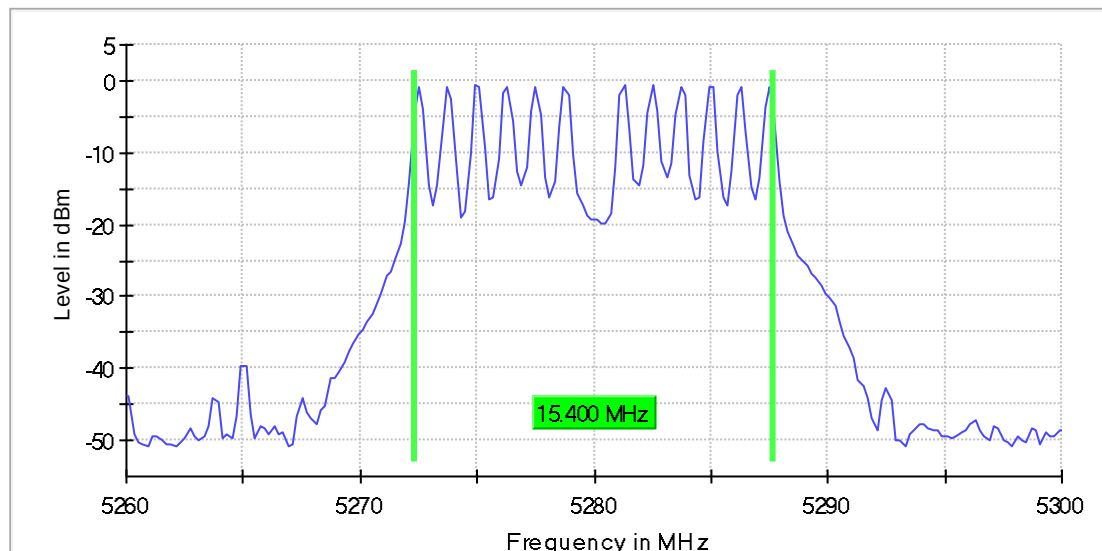
Customized settings.

99 % Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
5280.000000	15.400000	---	---	5272.300000	5287.700000

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

DUT Frequency (MHz)	Result
5280.000000	PASS



Measurement

Setting	Instrument Value	Target Value
Start Frequency	5.26000 GHz	5.26000 GHz
Stop Frequency	5.30000 GHz	5.30000 GHz
Span	40.000 MHz	40.000 MHz
RBW	200.000 kHz	<= 200.000 kHz
VBW	1.000 MHz	>= 600.000 kHz
SweepPoints	200	~ 200
SweepTime	47.405 μ s	AUTO
Reference Level	0.000 dBm	0.000 dBm
Attenuation	20.000 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
Stablemode	Trace	Trace
Stablevalue	0.30 dB	0.30 dB
Run	2 / max. 150	max. 150
Stable	1 / 1	1

Max Stable Difference	0.18 dB	0.30 dB
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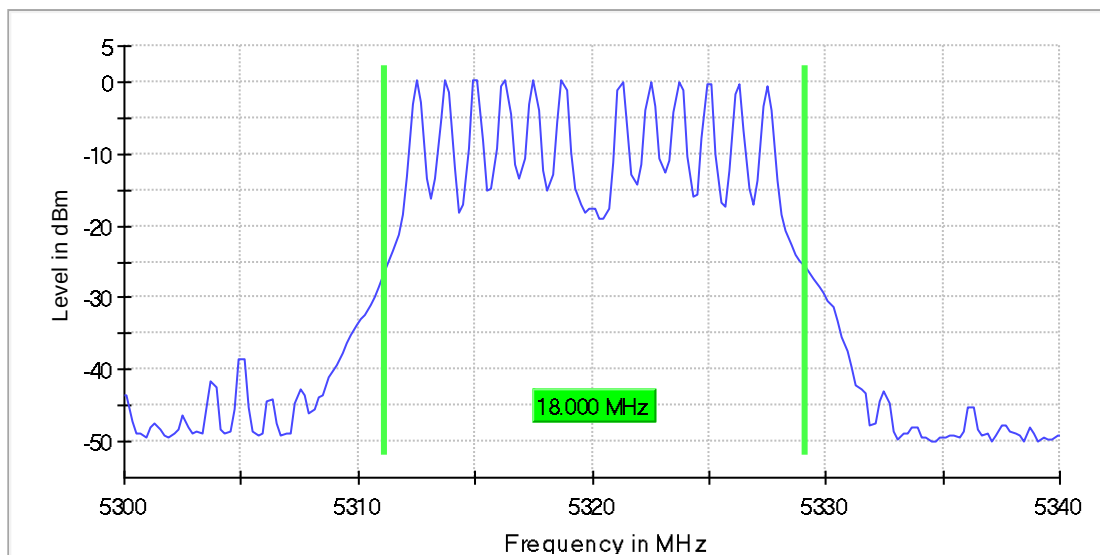
Emission Bandwidth 26 dB (5320 MHz; 20.000 dBm; 20 MHz)

26 dB Bandwidth

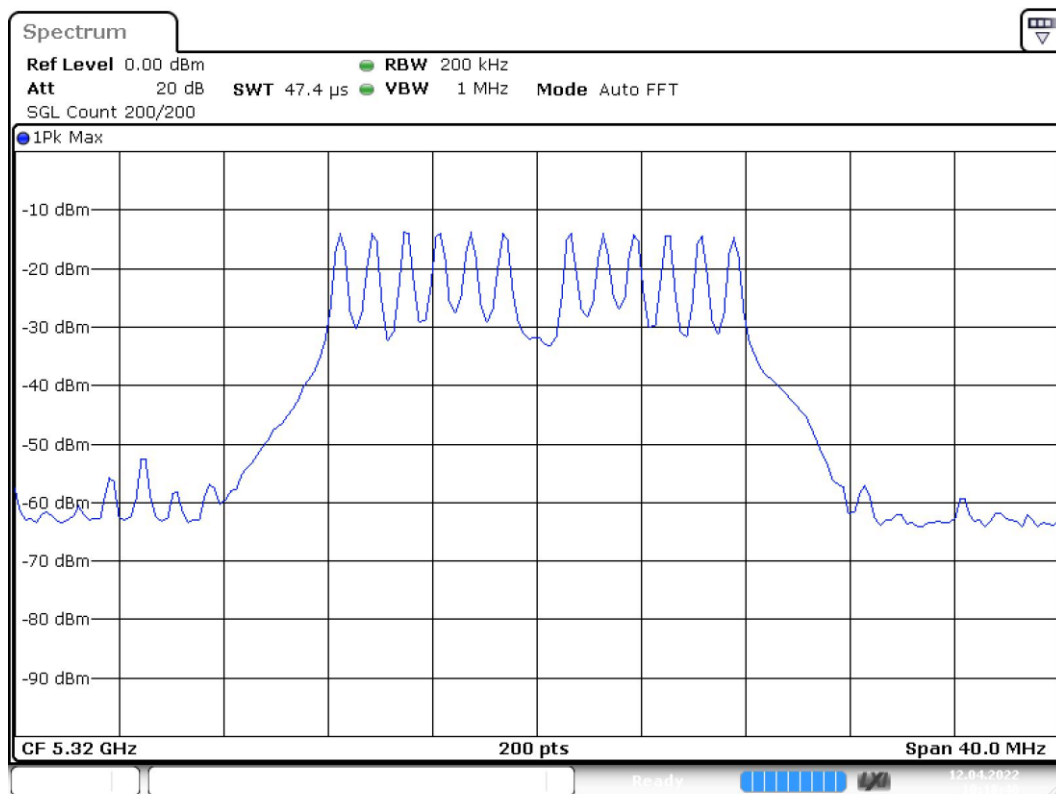
DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
5320.000000	18.000000	---	---	5311.100000	5329.100000

(continuation of the "26 dB Bandwidth" table from column 6 ...)

DUT Frequency (MHz)	Max Level (dBm)	Result
5320.000000	0.3	PASS



Bandwidth



Date: 12.APR.2022 10:18:41

Measurement

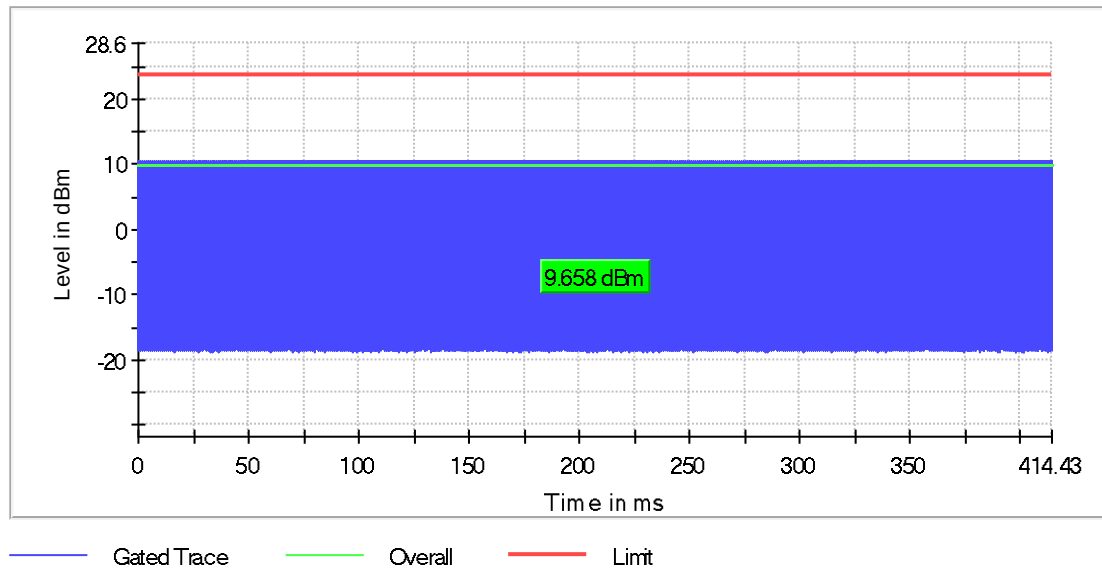
Setting	Instrument Value	Target Value
Start Frequency	5.30000 GHz	5.30000 GHz
Stop Frequency	5.34000 GHz	5.34000 GHz
Span	40.000 MHz	40.000 MHz
RBW	200.000 kHz	~ 200.000 kHz
VBW	1.000 MHz	>= 600.000 kHz
SweepPoints	200	~ 200
SweepTime	47.405 μ s	AUTO
Reference Level	0.000 dBm	0.000 dBm
Attenuation	20.000 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
Stablemode	Trace	Trace
Stablevalue	0.30 dB	0.30 dB
Run	7 / max. 150	max. 150
Stable	5 / 5	5
Max Stable Difference	0.07 dB	0.30 dB

RF output power (5320 MHz; 20.000 dBm; 20 MHz)

Test according to FCC title 47 part 15 §15.407(a),

Result

DUT Frequency (MHz)	Gated RMS (dBm)	Limit Max (dBm)	Gated EIRP (dBm)	DutyCycle (%)	Result
5320.000000	9.7	23.6	9.7	36.817	PASS



Power Spectral Density (5320 MHz; 20.000 dBm; 20 MHz)

Customized settings.

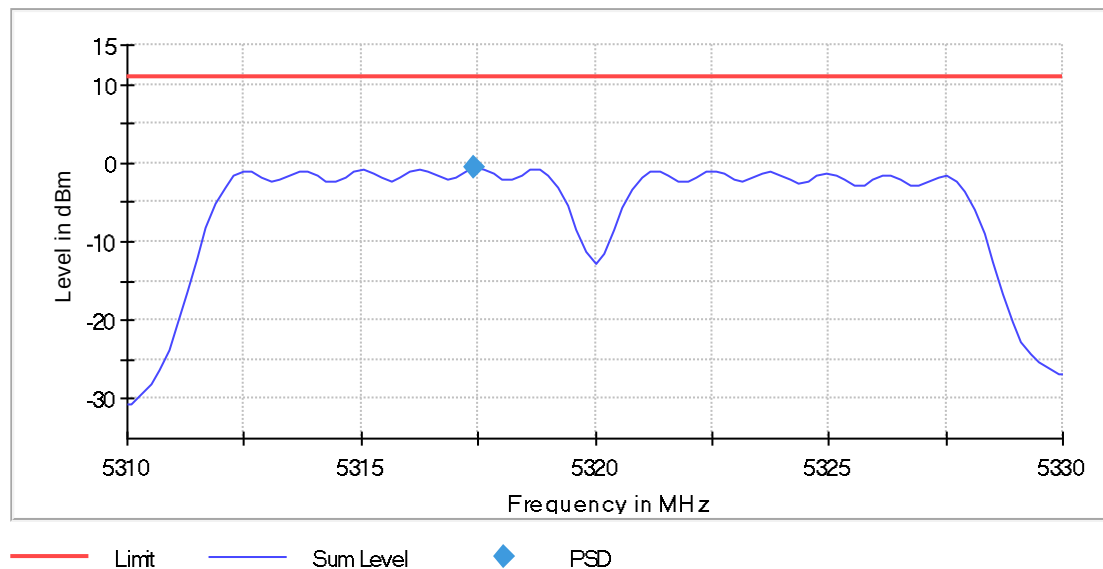
Test according to FCC title 47 part 15 §15.407(a),

Result

DUT Frequency (MHz)	Frequency (MHz)	PSD (dBm)	Limit Max (dBm)	Result
5320.000000	5317.425743	-0.676	11.0	PASS

Ports

Port	Duty Cycle (%)
1	29.700



Measurement

Setting	Instrument Value	Target Value
Start Frequency	5.31000 GHz	5.31000 GHz
Stop Frequency	5.33000 GHz	5.33000 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
Sweptime	2.020 s	2.020 s
Reference Level	0.000 dBm	0.000 dBm
Attenuation	20.000 dB	AUTO
Detector	RMS	RMS
SweepCount	30	30
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
SweepType	Sweep	AUTO
Preamp	off	off
Stablemode	Trace	Trace
Stablevalue	0.30 dB	0.30 dB
Run	1 / max. 1	max. 1

Stable	0 / 1	1
Max Stable Difference	0.00 dB	0.30 dB

Minimum Emission Bandwidth 6 dB (5320 MHz; 20.000 dBm; 20 MHz)

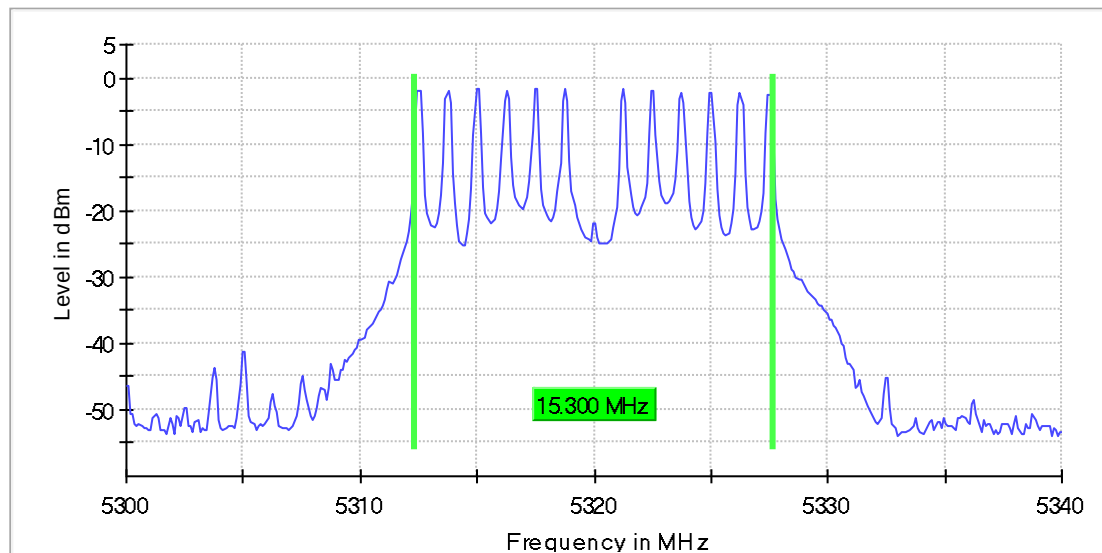
Customized settings.

6 dB Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
5320.000000	15.300000	---	---	5312.350000	5327.650000

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

DUT Frequency (MHz)	Max Level (dBm)	Result
5320.000000	-1.7	PASS



Measurement

Setting	Instrument Value	Target Value
Start Frequency	5.30000 GHz	5.30000 GHz
Stop Frequency	5.34000 GHz	5.34000 GHz
Span	40.000 MHz	40.000 MHz
RBW	100.000 kHz	~ 100.000 kHz
VBW	300.000 kHz	~ 300.000 kHz
SweepPoints	400	~ 400
SweepTime	94.810 μ s	AUTO
Reference Level	0.000 dBm	0.000 dBm
Attenuation	20.000 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
Stablemode	Trace	Trace
Stablevalue	0.30 dB	0.30 dB

Run	3 / max. 150	max. 150
Stable	1 / 1	1
Max Stable Difference	0.30 dB	0.30 dB

Occupied Channel Bandwidth 99% (5320 MHz; 20.000 dBm; 20 MHz)

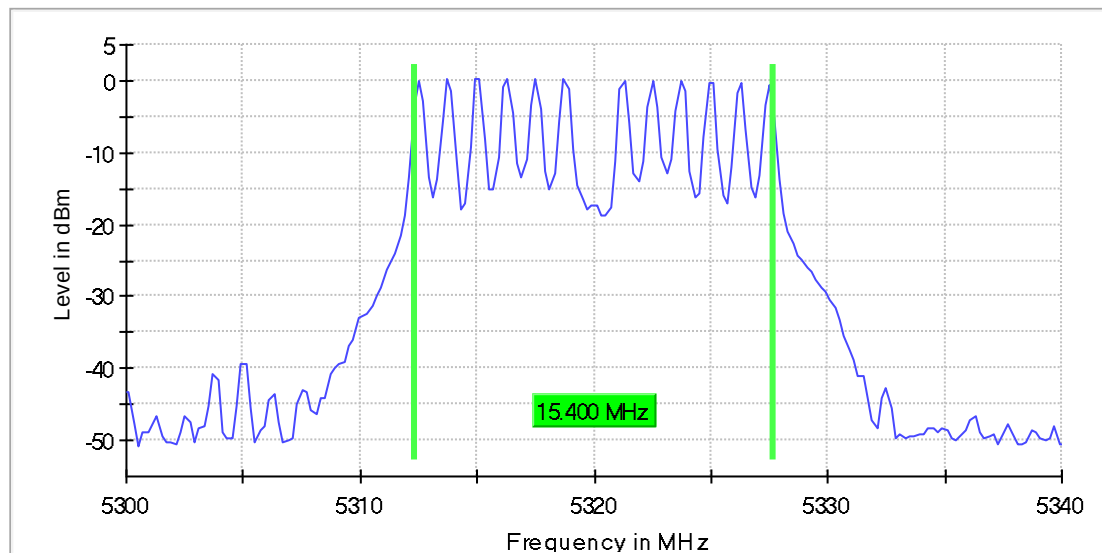
Customized settings.

99 % Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
5320.000000	15.400000	---	---	5312.300000	5327.700000

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

DUT Frequency (MHz)	Result
5320.000000	PASS



Measurement

Setting	Instrument Value	Target Value
Start Frequency	5.30000 GHz	5.30000 GHz
Stop Frequency	5.34000 GHz	5.34000 GHz
Span	40.000 MHz	40.000 MHz
RBW	200.000 kHz	<= 200.000 kHz
VBW	1.000 MHz	>= 600.000 kHz
SweepPoints	200	~ 200
SweepTime	47.405 µs	AUTO
Reference Level	0.000 dBm	0.000 dBm
Attenuation	20.000 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
Stablemode	Trace	Trace
Stablevalue	0.30 dB	0.30 dB
Run	3 / max. 150	max. 150
Stable	1 / 1	1

Max Stable Difference	0.09 dB	0.30 dB
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Band Edge high (5320 MHz; 20.000 dBm; 20 MHz)

Customized settings.

Test according to FCC title 47 part 15 §15.407(b),

Result

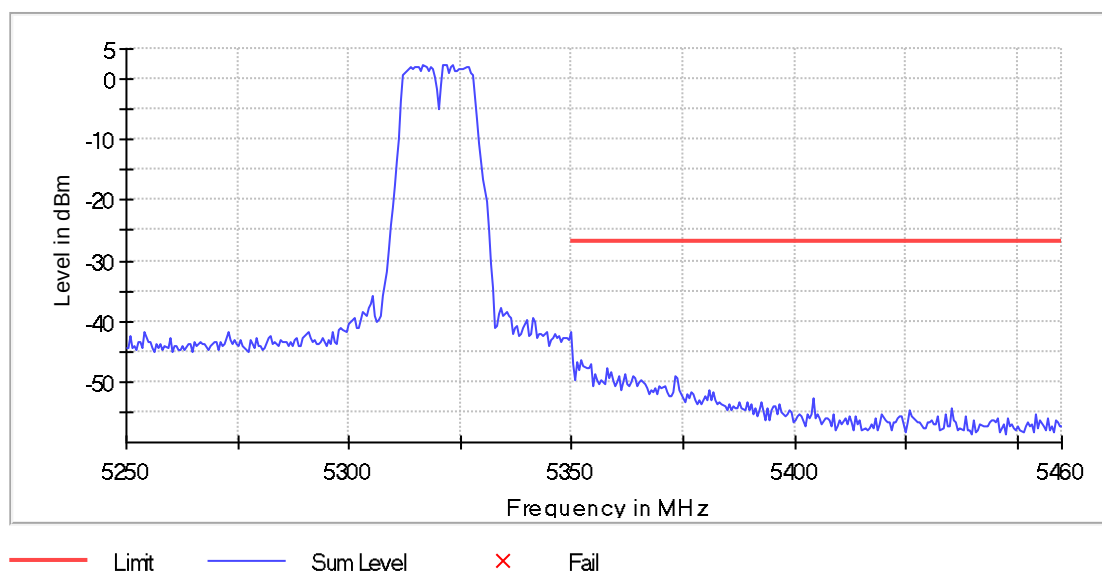
DUT Frequency (MHz)	Result
5320.000000	PASS

Inband Peak

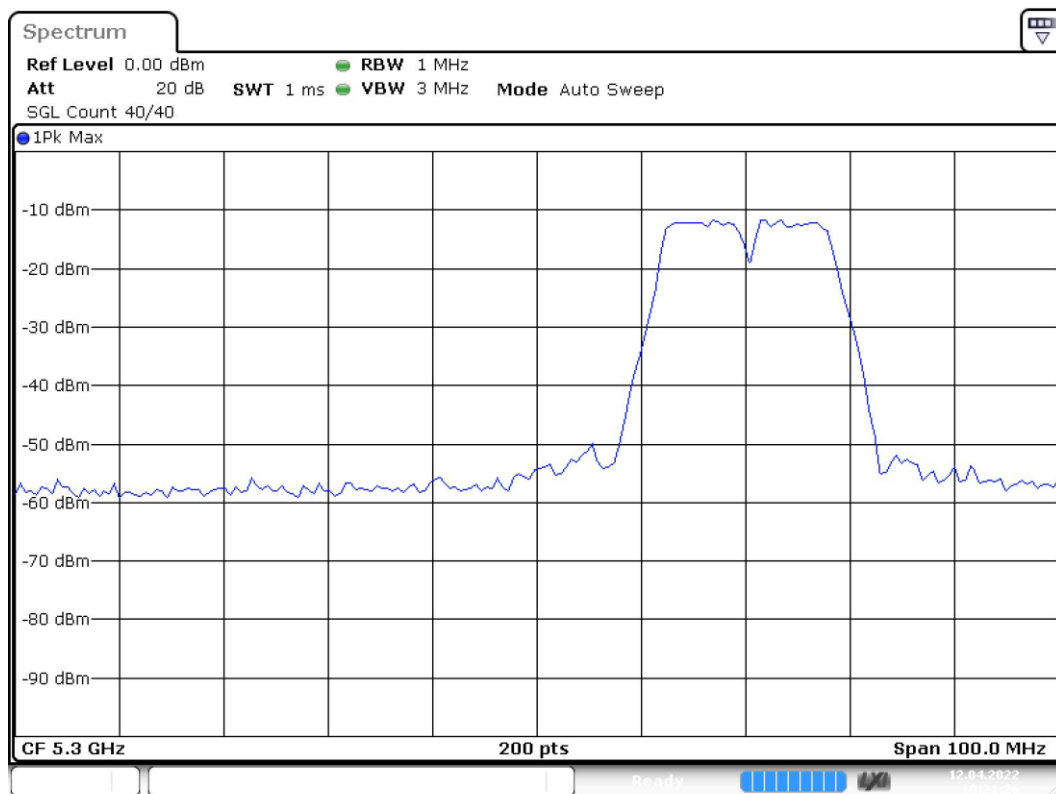
Frequency (MHz)	Level (dBm)
5323.250000	2.5

Measurements

Frequency (MHz)	Level (dBm)	Margin (dB)	Limit (dBm)	Result
5352.250000	-46.2	19.2	-27.0	PASS
5351.250000	-46.9	19.9	-27.0	PASS
5354.250000	-47.1	20.1	-27.0	PASS
5350.250000	-47.2	20.2	-27.0	PASS
5352.750000	-47.4	20.4	-27.0	PASS
5353.750000	-47.7	20.7	-27.0	PASS
5357.750000	-47.7	20.7	-27.0	PASS
5353.250000	-47.7	20.7	-27.0	PASS
5351.750000	-47.9	20.9	-27.0	PASS
5358.750000	-48.3	21.3	-27.0	PASS
5355.250000	-48.6	21.6	-27.0	PASS
5361.750000	-48.7	21.7	-27.0	PASS
5373.250000	-49.0	22.0	-27.0	PASS
5360.750000	-49.0	22.0	-27.0	PASS
5363.750000	-49.2	22.2	-27.0	PASS

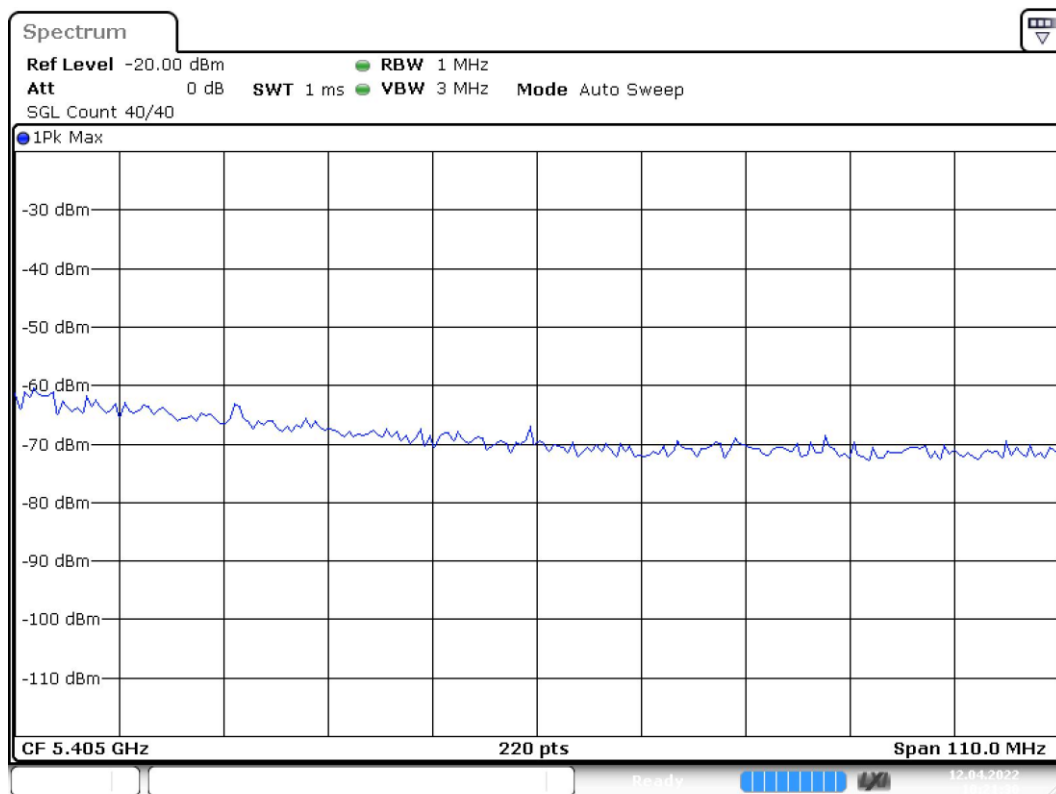


Band Edge Connector 1_0



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Band Edge Connector 1_1



Date: 12.APR.2022 10:21:30

Measurement 1

Setting	Instrument Value	Target Value
Start Frequency	5.25000 GHz	5.25000 GHz
Stop Frequency	5.35000 GHz	5.35000 GHz
Span	100.000 MHz	100.000 MHz
RBW	1.000 MHz	≤ 1.000 MHz
VBW	3.000 MHz	≥ 3.000 MHz
SweepPoints	200	~ 200
Sweptime	1.000 ms	AUTO
Reference Level	0.000 dBm	0.000 dBm
Attenuation	20.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	40	40
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
SweepType	Sweep	AUTO
Preamp	off	off
Stablemode	Trace	Trace
Stablevalue	0.50 dB	0.50 dB
Run	1 / max. 1	max. 1
Stable	0 / 1	1
Max Stable Difference	0.00 dB	0.50 dB

Measurement 2

Setting	Instrument Value	Target Value
Start Frequency	5.35000 GHz	5.35000 GHz
Stop Frequency	5.46000 GHz	5.46000 GHz
Span	110.000 MHz	110.000 MHz
RBW	1.000 MHz	≤ 1.000 MHz
VBW	3.000 MHz	≥ 3.000 MHz

SweepPoints	220	~ 220
SweepTime	1.000 ms	AUTO
Reference Level	-20.000 dBm	-20.000 dBm
Attenuation	0.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	40	40
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
SweepType	Sweep	AUTO
Preamp	off	off
Stablemode	Trace	Trace
Stablevalue	0.50 dB	0.50 dB
Run	1 / max. 1	max. 1
Stable	0 / 1	1
Max Stable Difference	0.00 dB	0.50 dB