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)	WLAN CH 151 (5755 MHz)	WLAN CH 159 (5795 MHz)
WLAN CH 155 (5775 MHz)		

Bandwidths

20 MHz (20 MHz)	40 MHz (40 MHz)	80 MHz (80 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::192.168.48.111::INST0::INSTR), SN 1321.3008K39/101229, FW 3.40
Vector Generator:	VG SMBV100B (VG SMBV100B) @ VISA (ADR TCPIP::192.168.48.29::INST0::INSTR), SN 101685, FW 4.70.006.33
Generator:	SMB100Aa (SMB100A) @ VISA (ADR TCPIP::192.168.48.30::INST0::INSTR), SN 177894, 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	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)

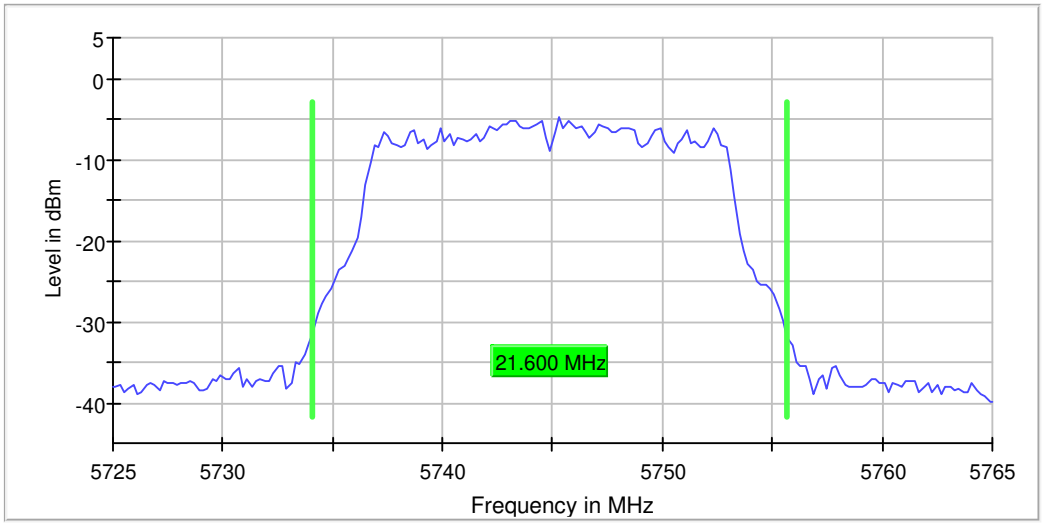
Test according to FCC title 47 part 15 §15.407(a),(e), KDB 789033 D02 General U-NII Test Procedures New Rules v01r03 and ANSI C63.10

26 dB Bandwidth

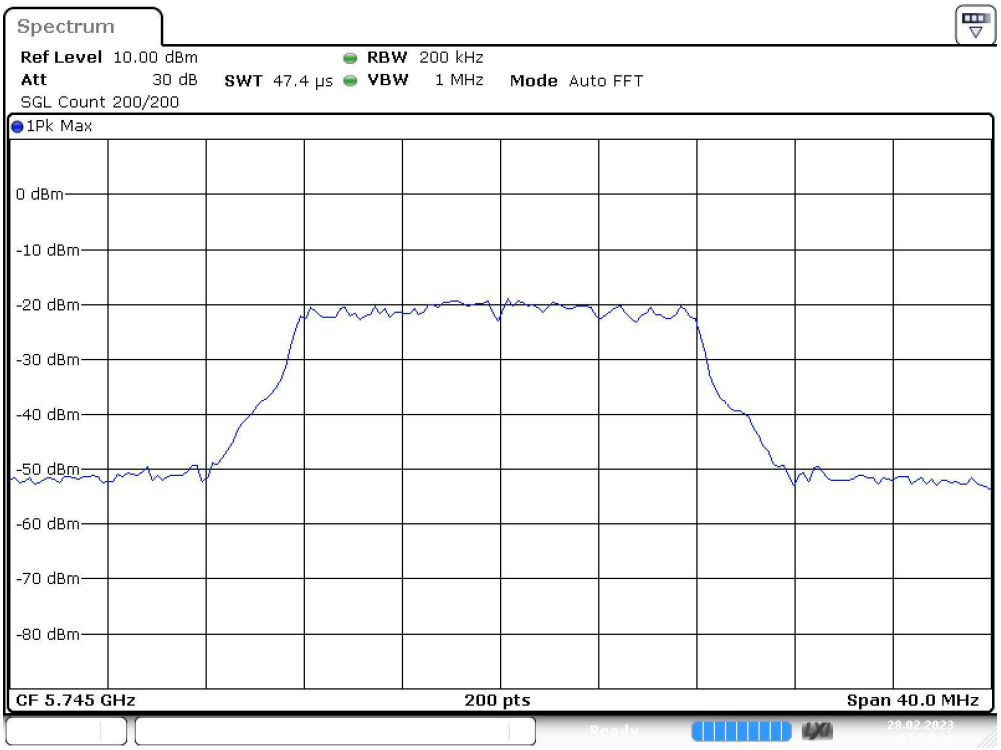
DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
5745.000000	21.600000	---	---	5734.100000	5755.700000

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

DUT Frequency (MHz)	Max Level (dBm)	Result
5745.000000	-4.9	PASS



Bandwidth



Date: 28.FEB.2023 11:39:34

Measurement

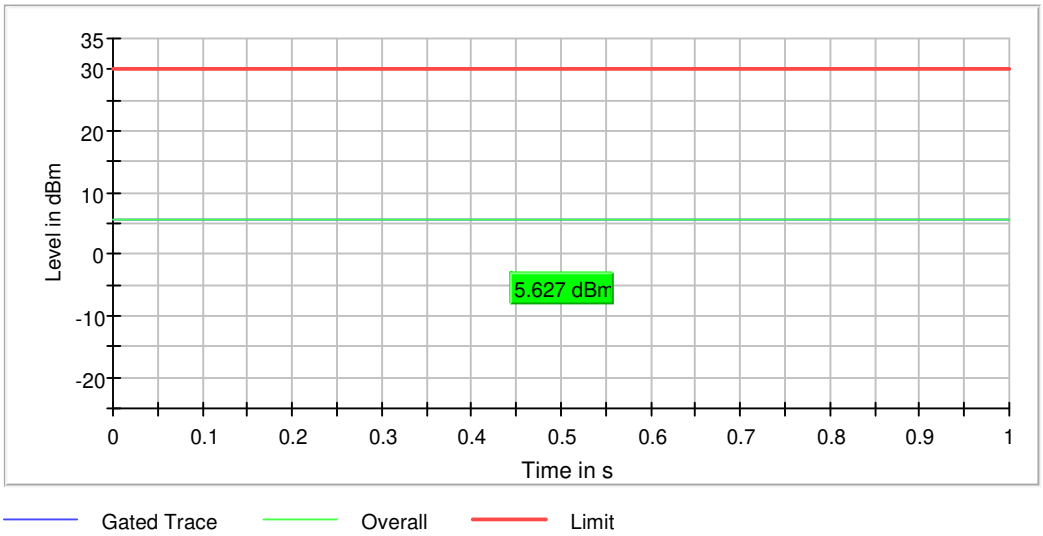
Setting	Instrument Value	Target Value
Start Frequency	5.72500 GHz	5.72500 GHz
Stop Frequency	5.76500 GHz	5.76500 GHz
Span	40.000 MHz	40.000 MHz
RBW	200.000 kHz	~ 200.000 kHz
VBW	1.000 MHz	>= 600.000 kHz
SweepPoints	200	~ 200
Sweeptime	47.405 µs	AUTO
Reference Level	10.000 dBm	10.000 dBm
Attenuation	30.000 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	22 / max. 150	max. 150
Stable	5 / 5	5
Max Stable Difference	0.09 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), KDB 789033 D02 General U-NII Test Procedures New Rules v01r03 and ANSI C63.10

Result

DUT Frequency (MHz)	Gated RMS (dBm)	Limit Max (dBm)	Gated EIRP (dBm)	DutyCycle (%)	Result
5745.000000	5.6	30.0	5.6	100.000	PASS



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

Customized settings.

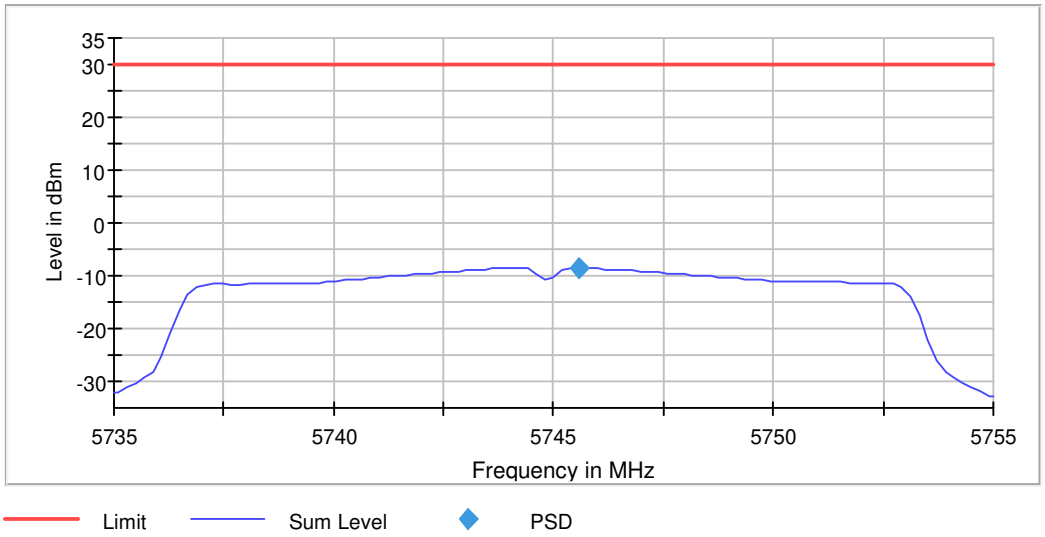
Test according to FCC title 47 part 15 §15.407(a), KDB 789033 D02 General U-NII Test Procedures New Rules v01r03 and ANSI C63.10

Result

DUT Frequency (MHz)	Frequency (MHz)	PSD (dBm)	Limit Max (dBm)	Result
5745.000000	5745.594059	-8.451	30.0	PASS

Ports

Port	Duty Cycle (%)
1	97.235



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
Sweeptime	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 (5745 MHz; 20.000 dBm; 20 MHz)

Customized settings.

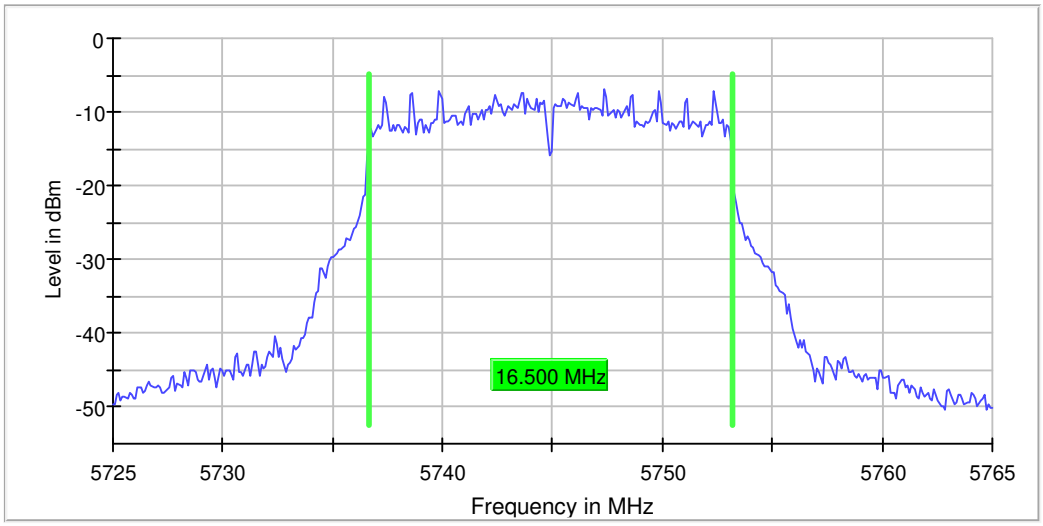
Test according to FCC title 47 part 15 §15.407(a),(e), KDB 789033 D02 General U-NII Test Procedures New Rules v01r03 and ANSI C63.10

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	---	5736.650000	5753.150000

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

DUT Frequency (MHz)	Max Level (dBm)	Result
5745.000000	-6.8	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 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	**0.26 dB**	**0.30 dB**

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

Customized settings.

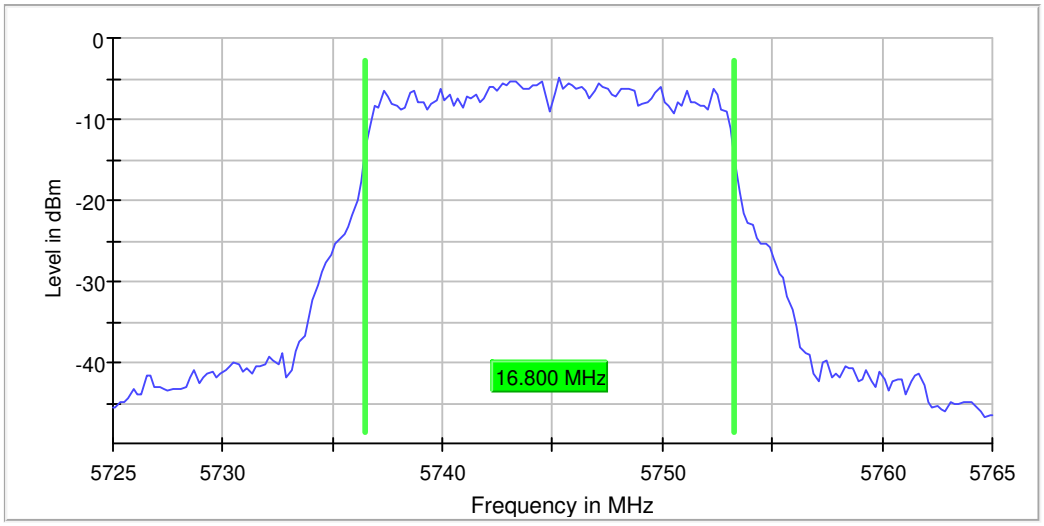
Test according to FCC title 47 part 15 §15.407(a),(e), KDB 789033 D02 General U-NII Test Procedures New Rules v01r03 and ANSI C63.10

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	---	---	5736.500000	5753.300000

(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 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	12 / max. 150	max. 150

Stable	**1 / 1**	**1**
Max Stable Difference	**0.07 dB**	**0.30 dB**

Band Edge low (5745 MHz; 20.000 dBm; 20 MHz)

Customized settings.

Test according to FCC title 47 part 15 §15.407(b), KDB 789033 D02 General U-NII Test Procedures New Rules v01r03 and ANSI C63.10

Result

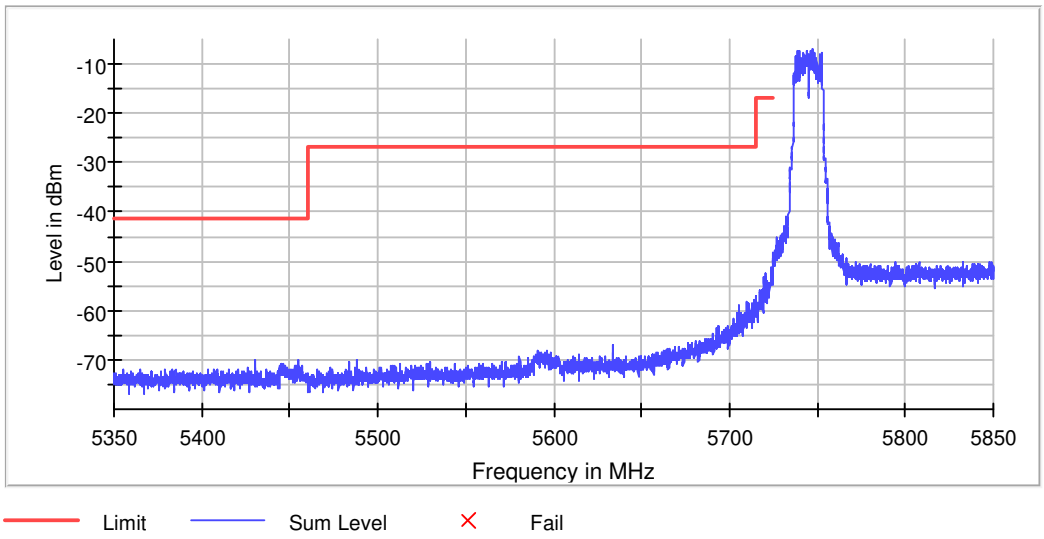
DUT Frequency (MHz)	Result
5745.000000	PASS

Inband Peak

Frequency (MHz)	Level (dBm)
5747.375000	-6.9

Measurements

Frequency (MHz)	Level (dBm)	Margin (dB)	Limit (dBm)	Result
5454.575000	-70.1	28.9	-41.2	PASS
5430.725000	-70.2	28.9	-41.2	PASS
5430.675000	-70.5	29.2	-41.2	PASS
5454.525000	-70.5	29.3	-41.2	PASS
5445.075000	-70.7	29.5	-41.2	PASS
5445.125000	-70.8	29.6	-41.2	PASS
5445.725000	-70.8	29.6	-41.2	PASS
5446.625000	-71.0	29.8	-41.2	PASS
5445.175000	-71.0	29.8	-41.2	PASS
5444.125000	-71.0	29.8	-41.2	PASS
5446.575000	-71.1	29.8	-41.2	PASS
5446.375000	-71.1	29.8	-41.2	PASS
5453.275000	-71.1	29.9	-41.2	PASS
5453.325000	-71.1	29.9	-41.2	PASS
5445.675000	-71.1	29.9	-41.2	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 µs	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	7 / max. 150	max. 150
Stable	1 / 1	1
Max Stable Difference	0.48 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 µs	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	8 / max. 150	max. 150
Stable	1 / 1	1
Max Stable Difference	0.00 dB	0.50 dB

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

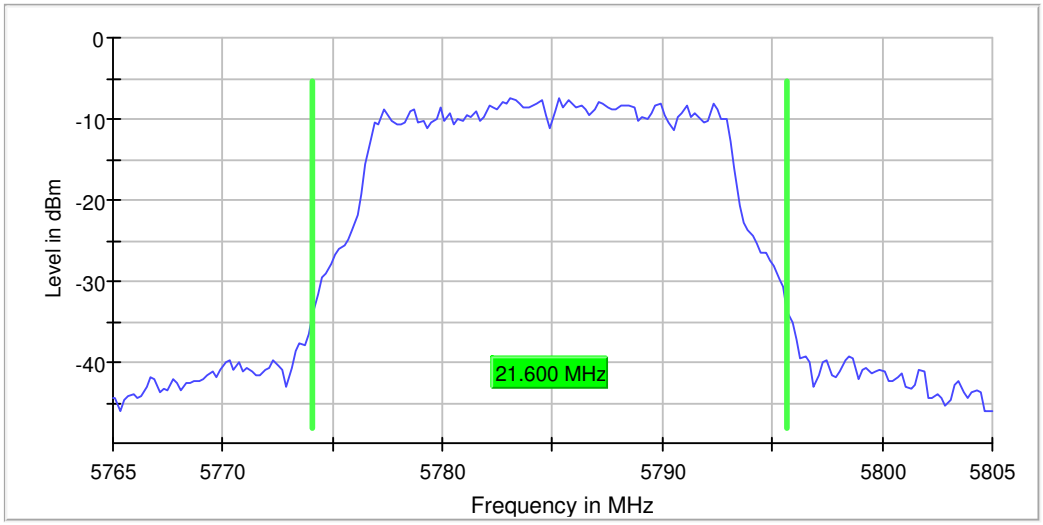
Test according to FCC title 47 part 15 §15.407(a),(e), KDB 789033 D02 General U-NII Test Procedures New Rules v01r03 and ANSI C63.10

26 dB Bandwidth

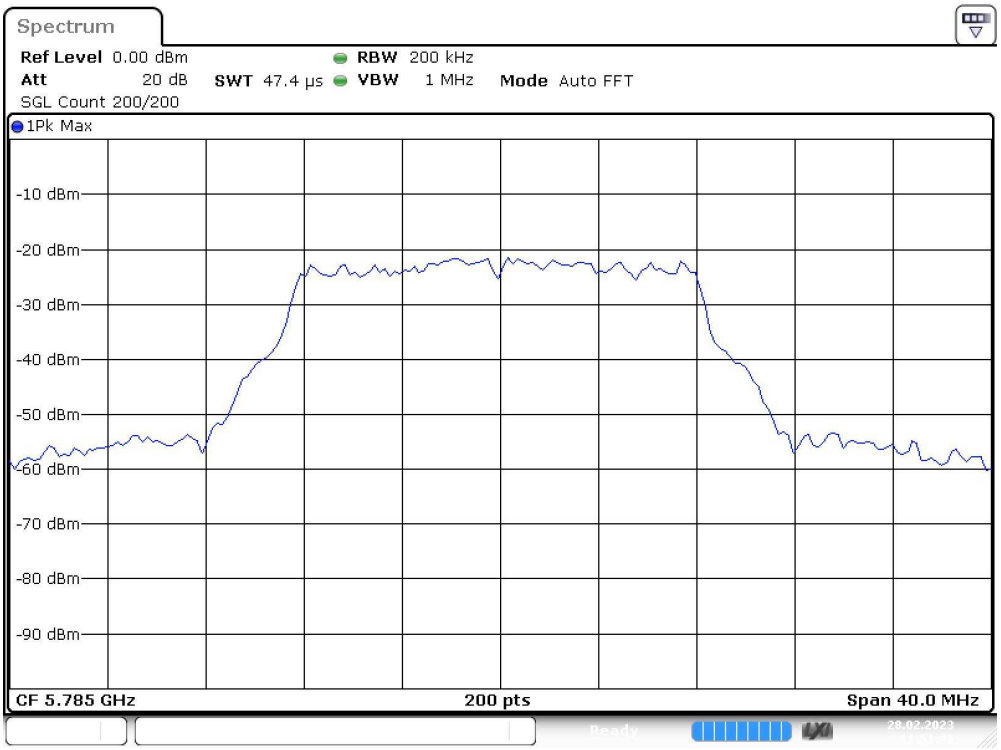
DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
5785.000000	21.600000	---	---	5774.100000	5795.700000

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

DUT Frequency (MHz)	Max Level (dBm)	Result
5785.000000	-7.4	PASS



Bandwidth



Date: 28.FEB.2023 11:51:43

Measurement

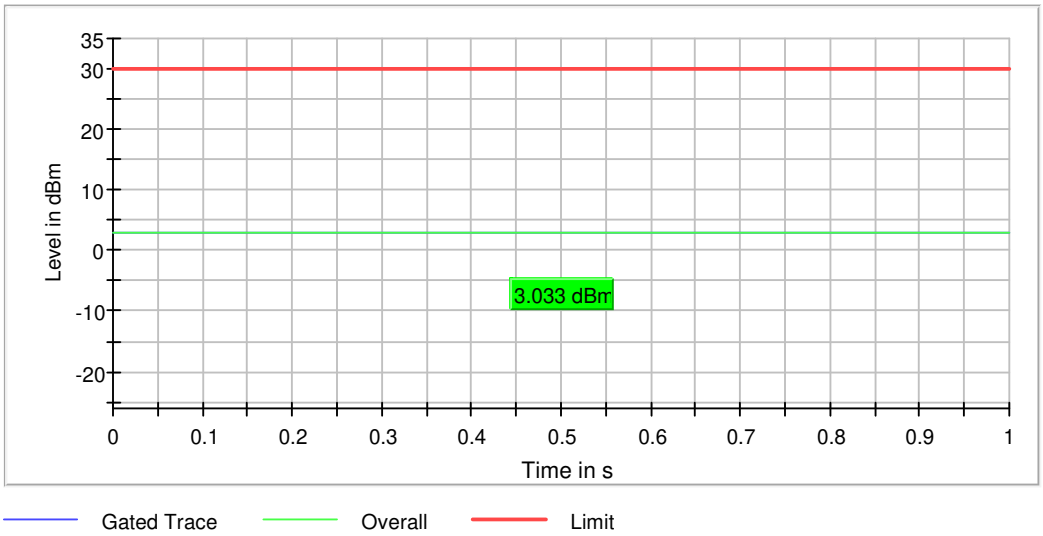
Setting	Instrument Value	Target Value
Start Frequency	5.76500 GHz	5.76500 GHz
Stop Frequency	5.80500 GHz	5.80500 GHz
Span	40.000 MHz	40.000 MHz
RBW	200.000 kHz	~ 200.000 kHz
VBW	1.000 MHz	>= 600.000 kHz
SweepPoints	200	~ 200
Sweeptime	47.405 µs	AUTO
Reference Level	0.000 dBm	0.000 dBm
Attenuation	20.000 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	28 / max. 150	max. 150
Stable	5 / 5	5
Max Stable Difference	0.00 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), KDB 789033 D02 General U-NII Test Procedures New Rules v01r03 and ANSI C63.10

Result

DUT Frequency (MHz)	Gated RMS (dBm)	Limit Max (dBm)	Gated EIRP (dBm)	DutyCycle (%)	Result
5785.000000	3.0	30.0	3.0	100.000	PASS



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

Customized settings.

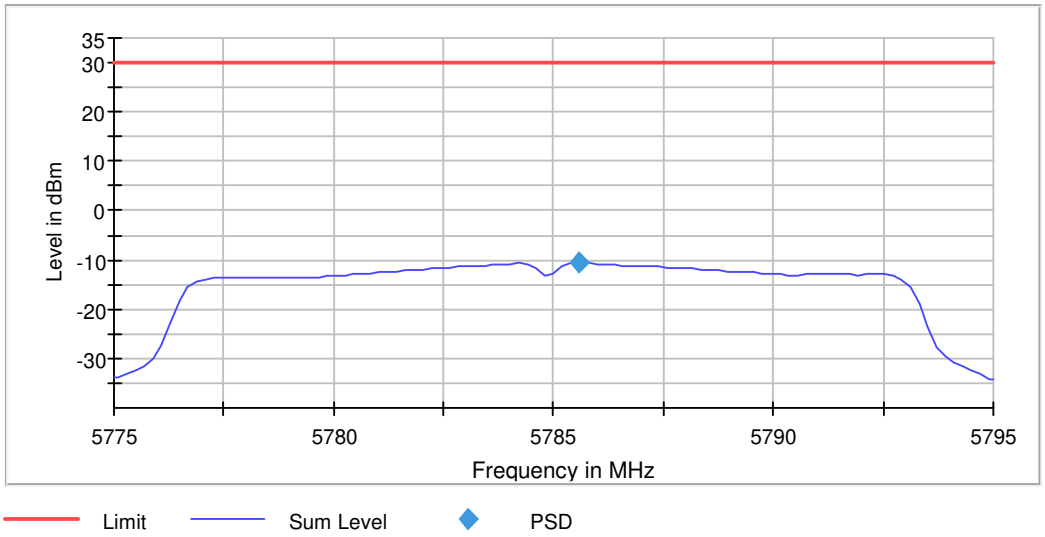
Test according to FCC title 47 part 15 §15.407(a), KDB 789033 D02 General U-NII Test Procedures New Rules v01r03 and ANSI C63.10

Result

DUT Frequency (MHz)	Frequency (MHz)	PSD (dBm)	Limit Max (dBm)	Result
5785.000000	5785.594059	-10.644	30.0	PASS

Ports

Port	Duty Cycle (%)
1	97.243



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
Sweeptime	2.020 s	2.020 s
Reference Level	-10.000 dBm	-10.000 dBm
Attenuation	10.000 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 (5785 MHz; 20.000 dBm; 20 MHz)

Customized settings.

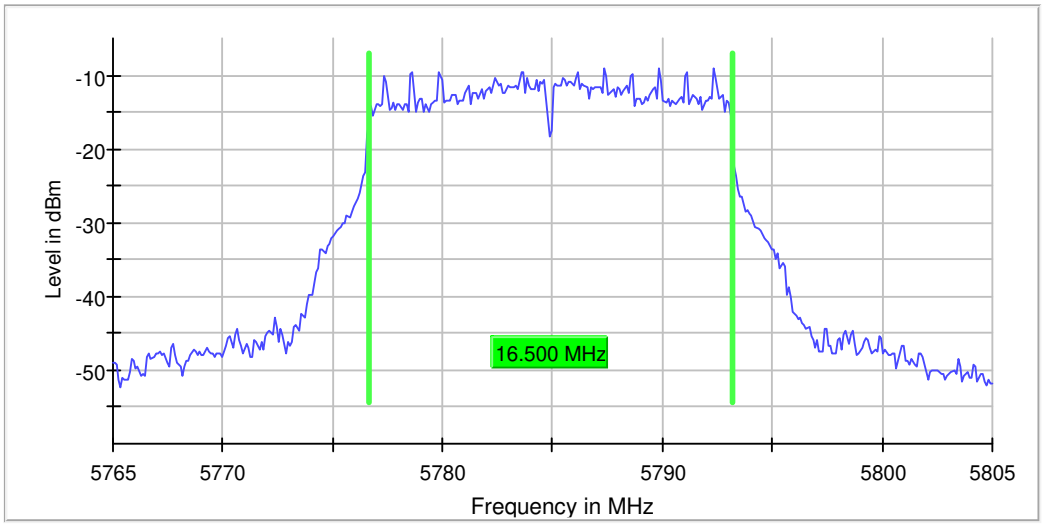
Test according to FCC title 47 part 15 §15.407(a),(e), KDB 789033 D02 General U-NII Test Procedures New Rules v01r03 and ANSI C63.10

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	---	5776.650000	5793.150000

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

DUT Frequency (MHz)	Max Level (dBm)	Result
5785.000000	-9.0	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 µs	AUTO
Reference Level	-10.000 dBm	-10.000 dBm
Attenuation	10.000 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	**0.29 dB**	**0.30 dB**

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

Customized settings.

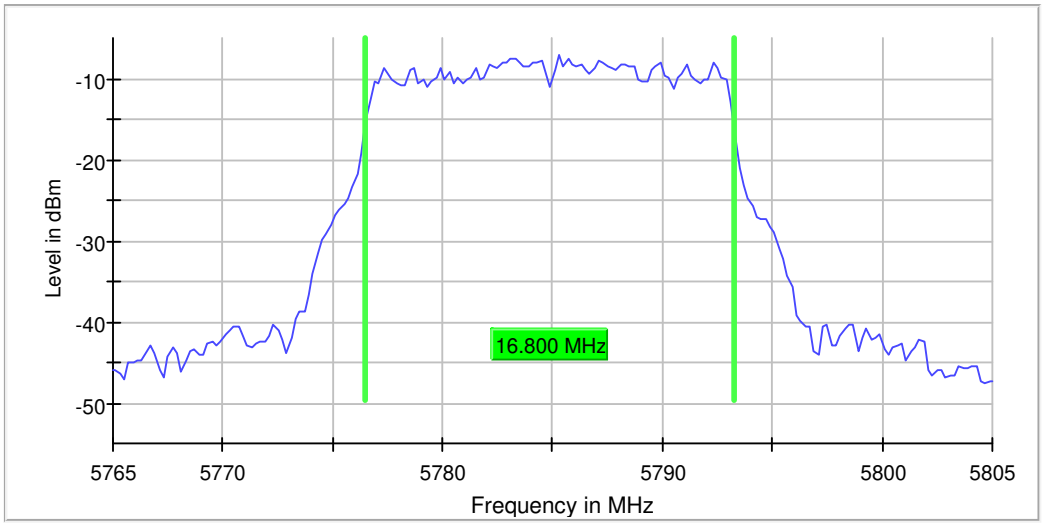
Test according to FCC title 47 part 15 §15.407(a),(e), KDB 789033 D02 General U-NII Test Procedures New Rules v01r03 and ANSI C63.10

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	---	---	5776.500000	5793.300000

(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	10.000 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	**1 / 1**	**1**
Max Stable Difference	**0.28 dB**	**0.30 dB**

Emission Bandwidth 26 dB (5825 MHz; 20.000 dBm; 20 MHz)

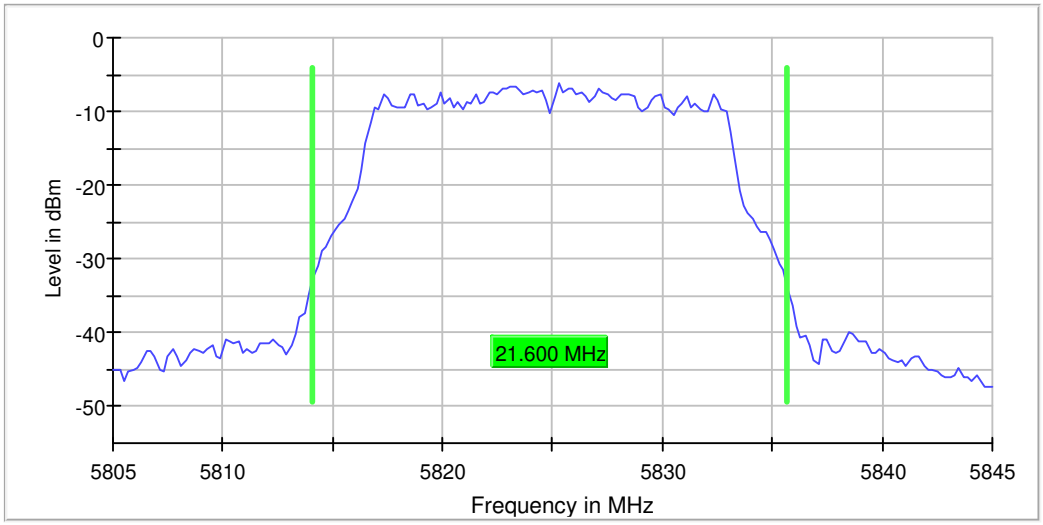
Test according to FCC title 47 part 15 §15.407(a),(e), KDB 789033 D02 General U-NII Test Procedures New Rules v01r03 and ANSI C63.10

26 dB Bandwidth

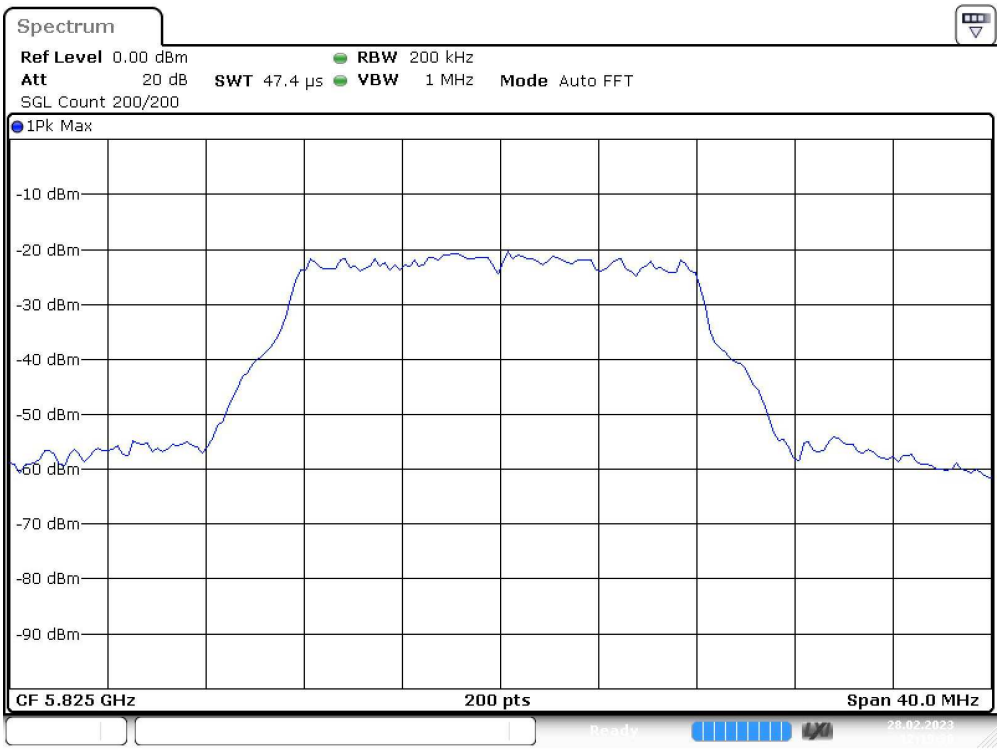
DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
5825.000000	21.600000	---	---	5814.100000	5835.700000

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

DUT Frequency (MHz)	Max Level (dBm)	Result
5825.000000	-6.2	PASS



Bandwidth



Date: 28.FEB.2023 12:19:31

Measurement

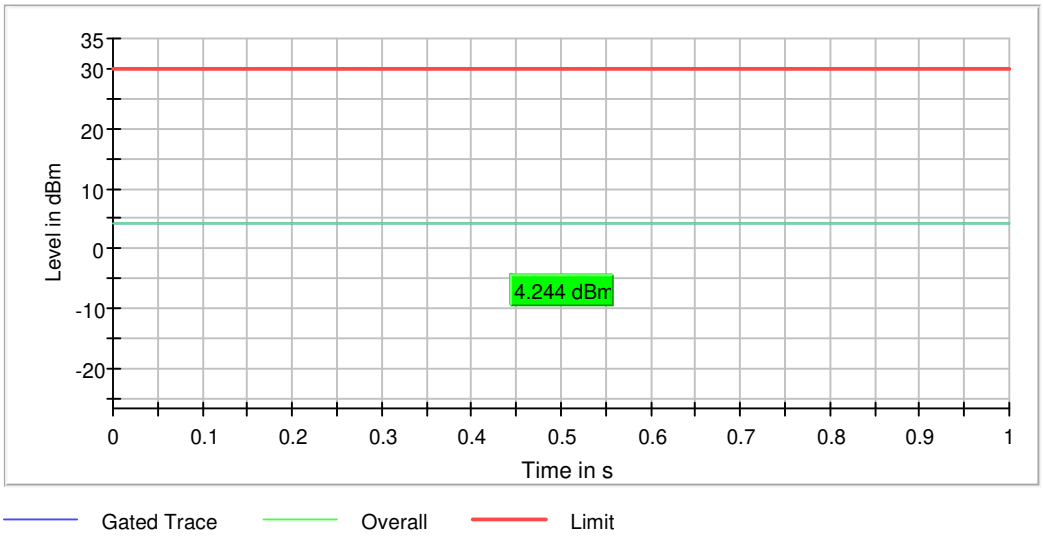
Setting	Instrument Value	Target Value
Start Frequency	5.80500 GHz	5.80500 GHz
Stop Frequency	5.84500 GHz	5.84500 GHz
Span	40.000 MHz	40.000 MHz
RBW	200.000 kHz	~ 200.000 kHz
VBW	1.000 MHz	>= 600.000 kHz
SweepPoints	200	~ 200
Sweeptime	47.405 µs	AUTO
Reference Level	0.000 dBm	0.000 dBm
Attenuation	20.000 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	21 / max. 150	max. 150
Stable	5 / 5	5
Max Stable Difference	0.13 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), KDB 789033 D02 General U-NII Test Procedures New Rules v01r03 and ANSI C63.10

Result

DUT Frequency (MHz)	Gated RMS (dBm)	Limit Max (dBm)	Gated EIRP (dBm)	DutyCycle (%)	Result
5825.000000	4.2	30.0	4.2	100.000	PASS



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

Customized settings.

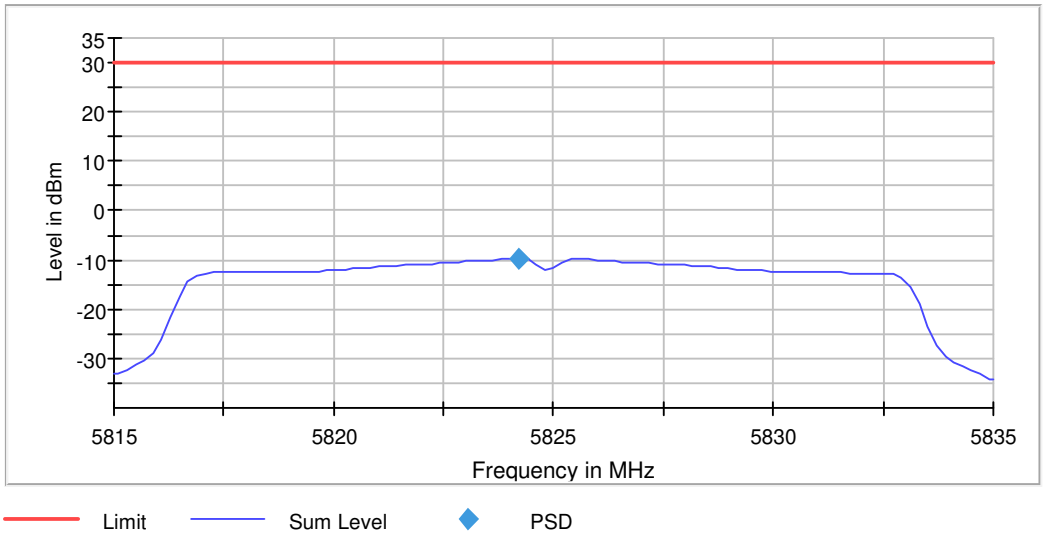
Test according to FCC title 47 part 15 §15.407(a), KDB 789033 D02 General U-NII Test Procedures New Rules v01r03 and ANSI C63.10

Result

DUT Frequency (MHz)	Frequency (MHz)	PSD (dBm)	Limit Max (dBm)	Result
5825.000000	5824.207921	-9.725	30.0	PASS

Ports

Port	Duty Cycle (%)
1	97.237



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
Sweeptime	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	**0.01 dB**	**0.30 dB**

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

Customized settings.

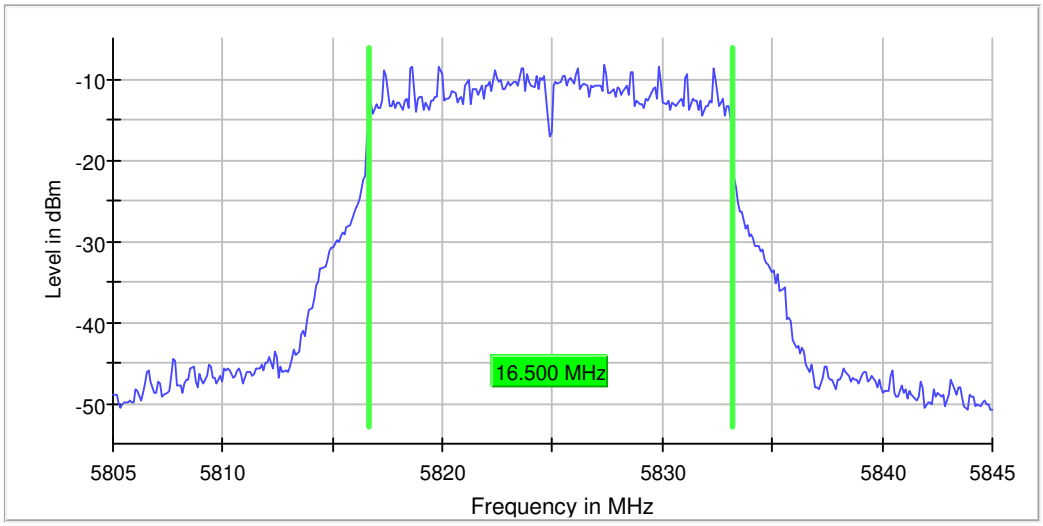
Test according to FCC title 47 part 15 §15.407(a),(e), KDB 789033 D02 General U-NII Test Procedures New Rules v01r03 and ANSI C63.10

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	---	5816.650000	5833.150000

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

DUT Frequency (MHz)	Max Level (dBm)	Result
5825.000000	-8.3	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 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**

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

Customized settings.

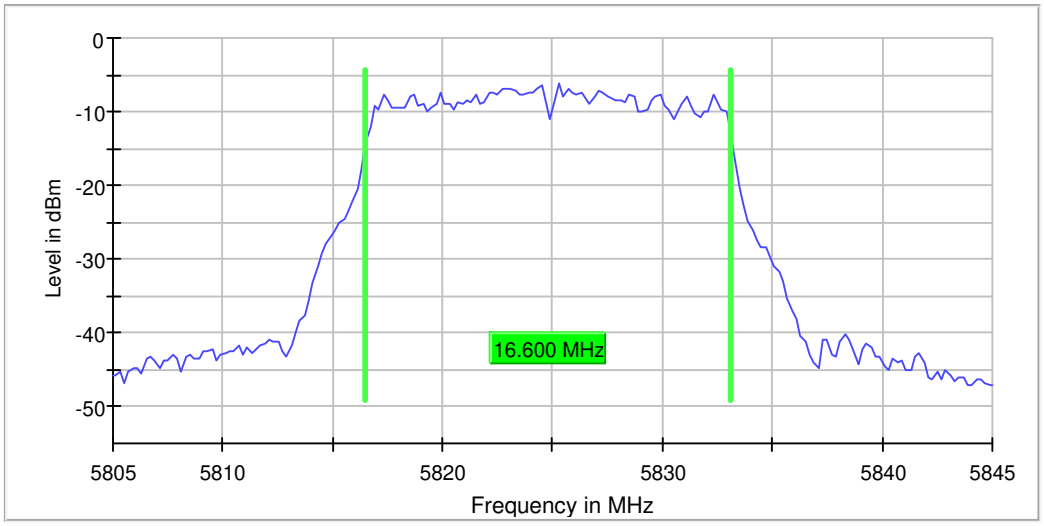
Test according to FCC title 47 part 15 §15.407(a),(e), KDB 789033 D02 General U-NII Test Procedures New Rules v01r03 and ANSI C63.10

99 % Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
5825.000000	16.600000	---	---	5816.500000	5833.100000

(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	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	**0.06 dB**	**0.30 dB**

Band Edge high (5825 MHz; 20.000 dBm; 20 MHz)

Customized settings.

Test according to FCC title 47 part 15 §15.407(b), KDB 789033 D02 General U-NII Test Procedures New Rules v01r03 and ANSI C63.10

Result

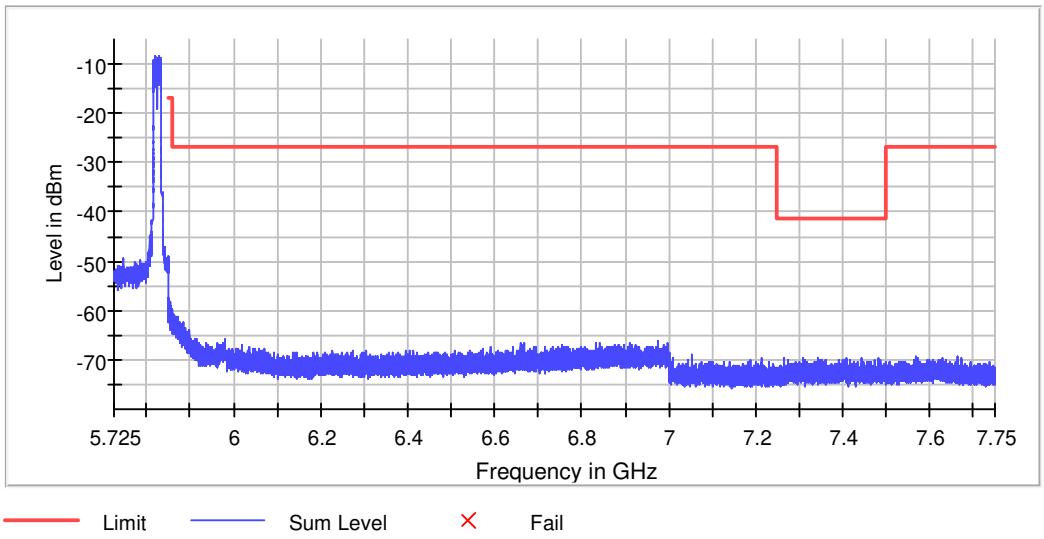
DUT Frequency (MHz)	Result
5825.000000	PASS

Inband Peak

Frequency (MHz)	Level (dBm)
5827.375000	-8.4

Measurements

Frequency (MHz)	Level (dBm)	Margin (dB)	Limit (dBm)	Result
7442.025000	-69.7	28.5	-41.2	PASS
7341.375000	-69.7	28.5	-41.2	PASS
7409.475000	-69.7	28.5	-41.2	PASS
7266.275000	-69.8	28.6	-41.2	PASS
7482.925000	-69.8	28.6	-41.2	PASS
7307.225000	-69.8	28.6	-41.2	PASS
7482.875000	-69.9	28.7	-41.2	PASS
7266.325000	-69.9	28.7	-41.2	PASS
7311.825000	-70.0	28.7	-41.2	PASS
7474.575000	-70.0	28.7	-41.2	PASS
7409.525000	-70.0	28.7	-41.2	PASS
7353.325000	-70.0	28.8	-41.2	PASS
7274.325000	-70.0	28.8	-41.2	PASS
7402.825000	-70.0	28.8	-41.2	PASS
7353.275000	-70.0	28.8	-41.2	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 µs	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	1 / 1	1
Max Stable Difference	0.36 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	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	2 / max. 150	max. 150
Stable	1 / 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)	WLAN CH 151 (5755 MHz)	WLAN CH 159 (5795 MHz)
WLAN CH 155 (5775 MHz)		

Bandwidths

20 MHz (20 MHz)	40 MHz (40 MHz)	80 MHz (80 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::192.168.48.111::INST0::INSTR), SN 1321.3008K39/101229, FW 3.40
Vector Generator:	VG SMBV100B (VG SMBV100B) @ VISA (ADR TCPIP::192.168.48.29::INST0::INSTR), SN 101685, FW 4.70.006.33
Generator:	SMB100Aa (SMB100A) @ VISA (ADR TCPIP::192.168.48.30::INST0::INSTR), SN 177894, 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	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)

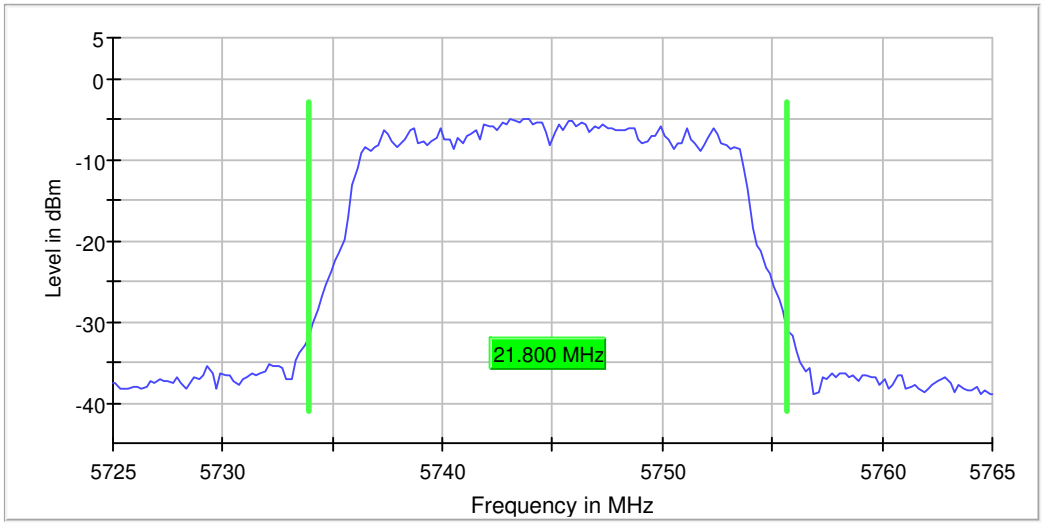
Test according to FCC title 47 part 15 §15.407(a),(e), KDB 789033 D02 General U-NII Test Procedures New Rules v01r03 and ANSI C63.10

26 dB Bandwidth

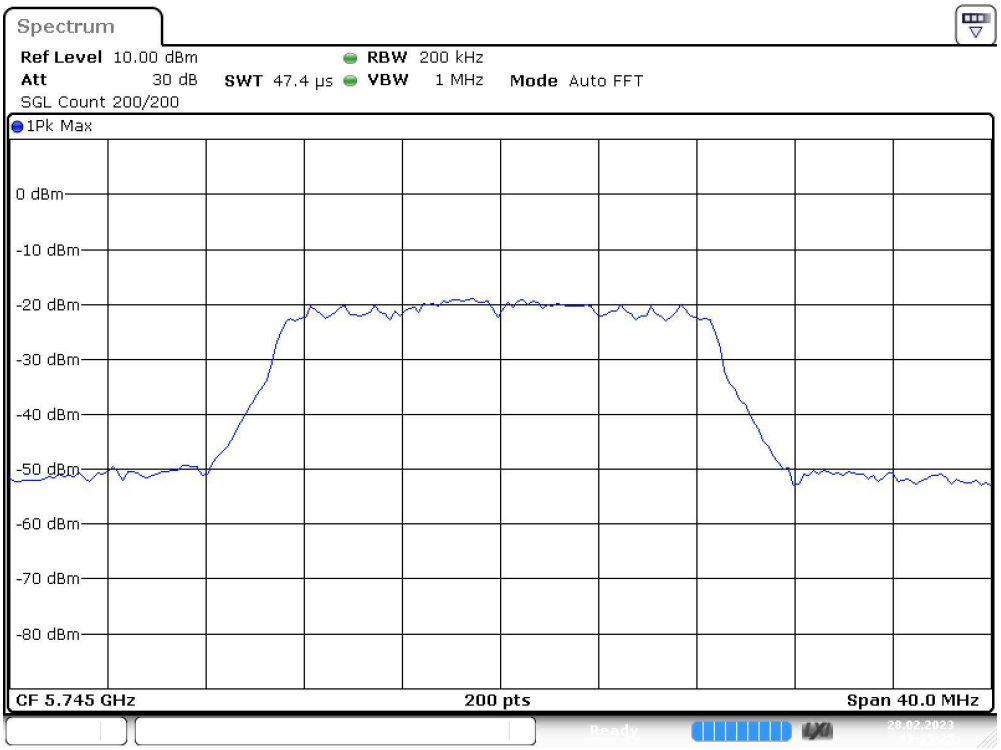
DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
5745.000000	21.800000	---	---	5733.900000	5755.700000

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

DUT Frequency (MHz)	Max Level (dBm)	Result
5745.000000	-4.9	PASS



Bandwidth



Date: 28.FEB.2023 13:35:26

Measurement

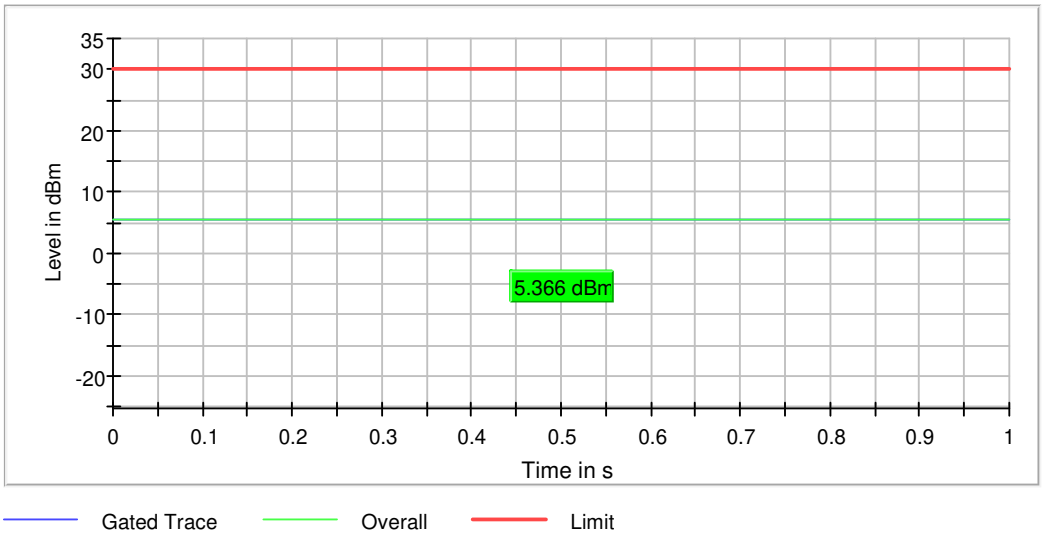
Setting	Instrument Value	Target Value
Start Frequency	5.72500 GHz	5.72500 GHz
Stop Frequency	5.76500 GHz	5.76500 GHz
Span	40.000 MHz	40.000 MHz
RBW	200.000 kHz	~ 200.000 kHz
VBW	1.000 MHz	>= 600.000 kHz
SweepPoints	200	~ 200
Sweeptime	47.405 µs	AUTO
Reference Level	10.000 dBm	10.000 dBm
Attenuation	30.000 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	71 / max. 150	max. 150
Stable	5 / 5	5
Max Stable Difference	0.00 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), KDB 789033 D02 General U-NII Test Procedures New Rules v01r03 and ANSI C63.10

Result

DUT Frequency (MHz)	Gated RMS (dBm)	Limit Max (dBm)	Gated EIRP (dBm)	DutyCycle (%)	Result
5745.000000	5.4	30.0	5.4	100.000	PASS



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

Customized settings.

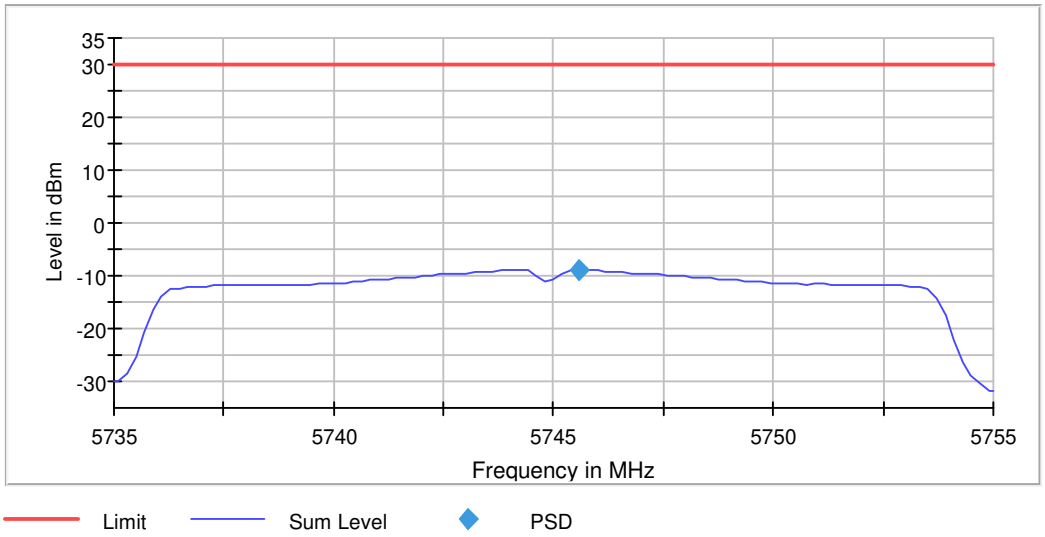
Test according to FCC title 47 part 15 §15.407(a), KDB 789033 D02 General U-NII Test Procedures New Rules v01r03 and ANSI C63.10

Result

DUT Frequency (MHz)	Frequency (MHz)	PSD (dBm)	Limit Max (dBm)	Result
5745.000000	5745.594059	-8.875	30.0	PASS

Ports

Port	Duty Cycle (%)
1	97.071



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
Sweeptime	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	**0.01 dB**	**0.30 dB**

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

Customized settings.

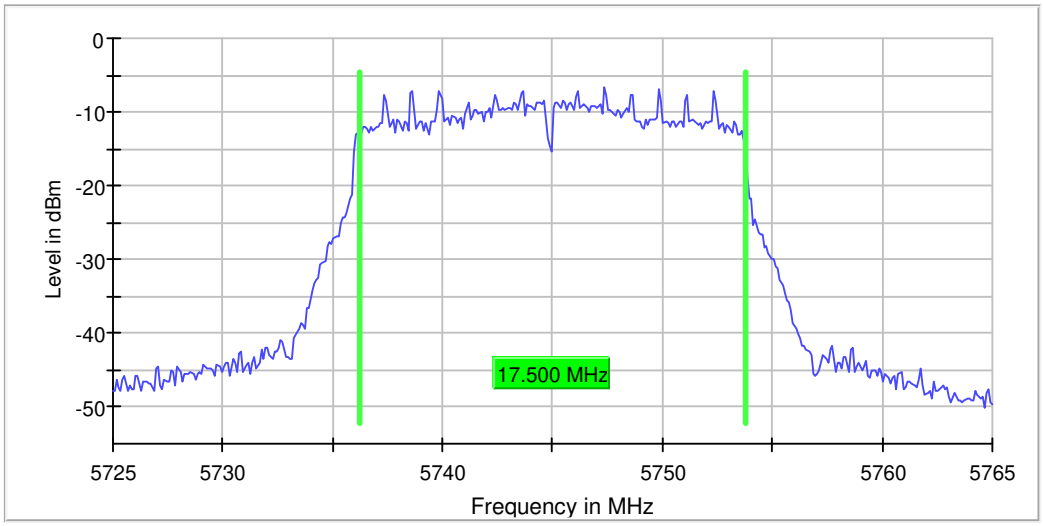
Test according to FCC title 47 part 15 §15.407(a),(e), KDB 789033 D02 General U-NII Test Procedures New Rules v01r03 and ANSI C63.10

6 dB Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
5745.000000	17.500000	0.500000	---	5736.250000	5753.750000

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

DUT Frequency (MHz)	Max Level (dBm)	Result
5745.000000	-6.7	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 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	**21 / max. 150**	**max. 150**
Stable	**1 / 1**	**1**
Max Stable Difference	**0.25 dB**	**0.30 dB**

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

Customized settings.

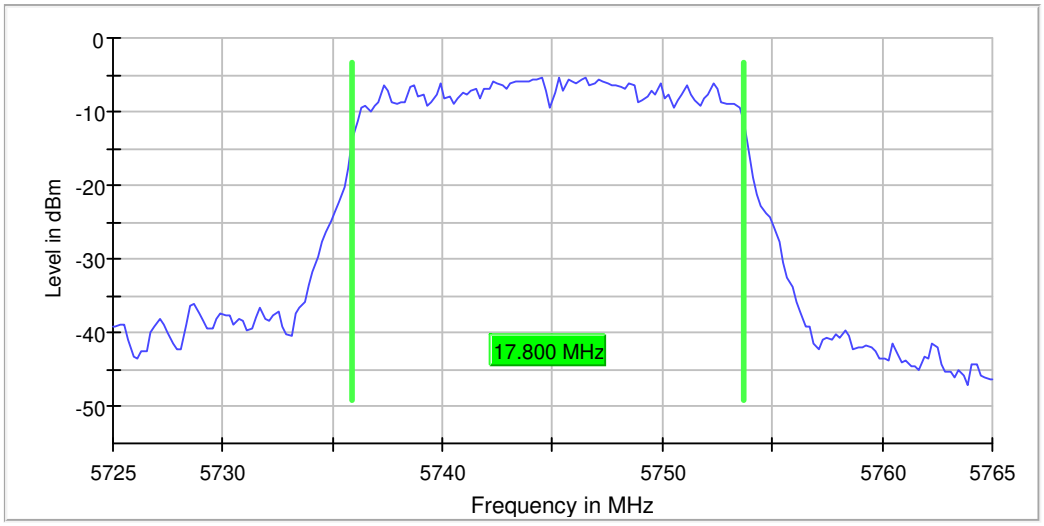
Test according to FCC title 47 part 15 §15.407(a),(e), KDB 789033 D02 General U-NII Test Procedures New Rules v01r03 and ANSI C63.10

99 % Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
5745.000000	17.800000	---	---	5735.900000	5753.700000

(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 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	15 / max. 150	max. 150

Stable	**1 / 1**	**1**
Max Stable Difference	**0.19 dB**	**0.30 dB**

Band Edge low (5745 MHz; 20.000 dBm; 20 MHz)

Customized settings.

Test according to FCC title 47 part 15 §15.407(b), KDB 789033 D02 General U-NII Test Procedures New Rules v01r03 and ANSI C63.10

Result

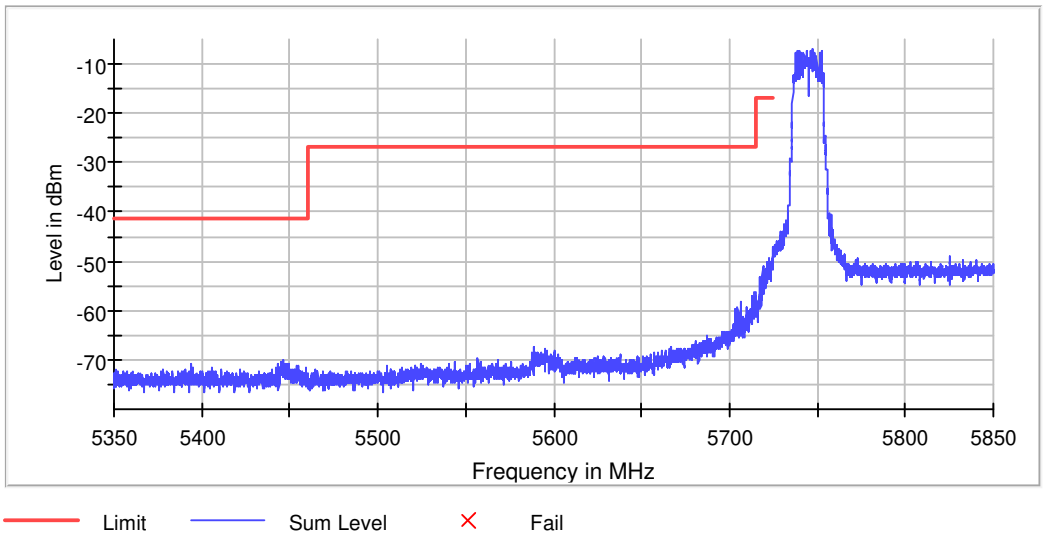
DUT Frequency (MHz)	Result
5745.000000	PASS

Inband Peak

Frequency (MHz)	Level (dBm)
5747.375000	-6.8

Measurements

Frequency (MHz)	Level (dBm)	Margin (dB)	Limit (dBm)	Result
5446.175000	-70.0	28.8	-41.2	PASS
5446.225000	-70.1	28.9	-41.2	PASS
5714.525000	-56.1	29.1	-27.0	PASS
5445.175000	-70.4	29.1	-41.2	PASS
5445.025000	-70.4	29.2	-41.2	PASS
5714.575000	-56.2	29.2	-27.0	PASS
5445.225000	-70.5	29.3	-41.2	PASS
5393.725000	-70.7	29.5	-41.2	PASS
5444.975000	-70.8	29.5	-41.2	PASS
5445.075000	-70.8	29.6	-41.2	PASS
5442.975000	-70.8	29.6	-41.2	PASS
5446.425000	-70.9	29.7	-41.2	PASS
5449.725000	-70.9	29.7	-41.2	PASS
5442.925000	-70.9	29.7	-41.2	PASS
5447.725000	-71.0	29.8	-41.2	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 µs	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	18 / max. 150	max. 150
Stable	1 / 1	1
Max Stable Difference	0.32 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 µs	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	6 / max. 150	max. 150
Stable	1 / 1	1
Max Stable Difference	0.00 dB	0.50 dB

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

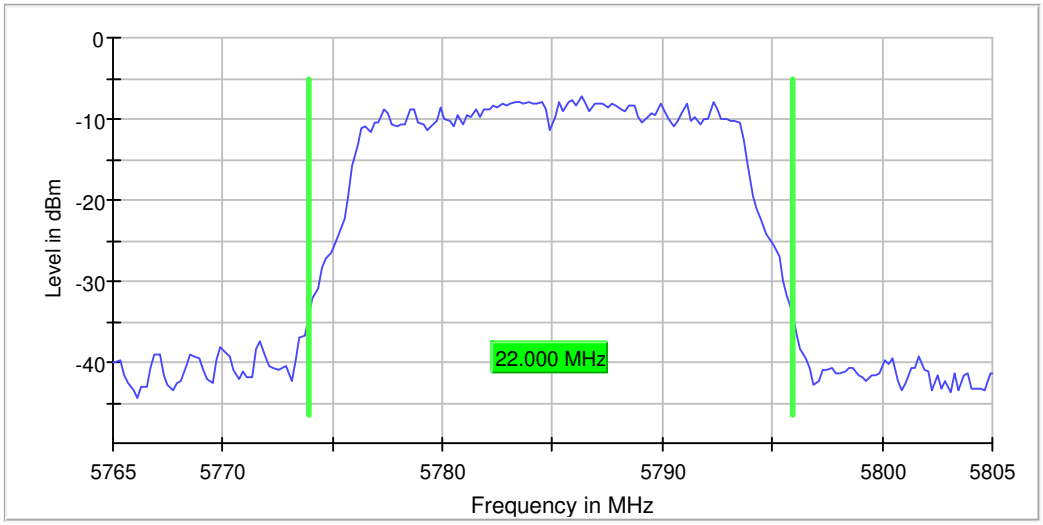
Test according to FCC title 47 part 15 §15.407(a),(e), KDB 789033 D02 General U-NII Test Procedures New Rules v01r03 and ANSI C63.10

26 dB Bandwidth

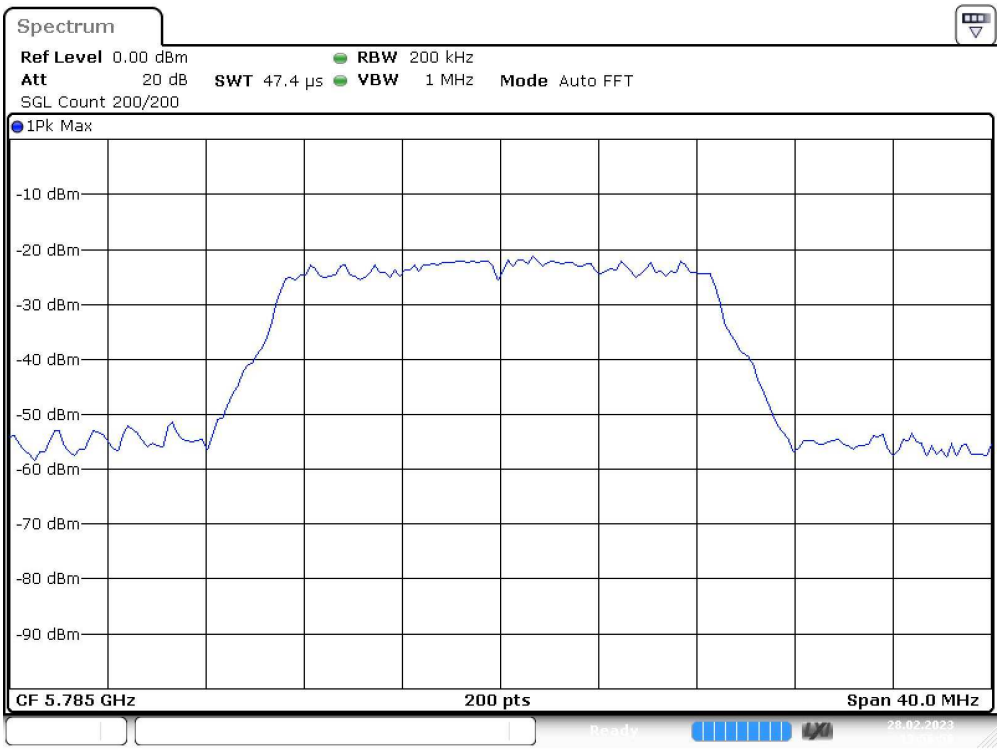
DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
5785.000000	22.000000	---	---	5773.900000	5795.900000

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

DUT Frequency (MHz)	Max Level (dBm)	Result
5785.000000	-7.1	PASS



Bandwidth



Date: 28.FEB.2023 13:56:58

Measurement

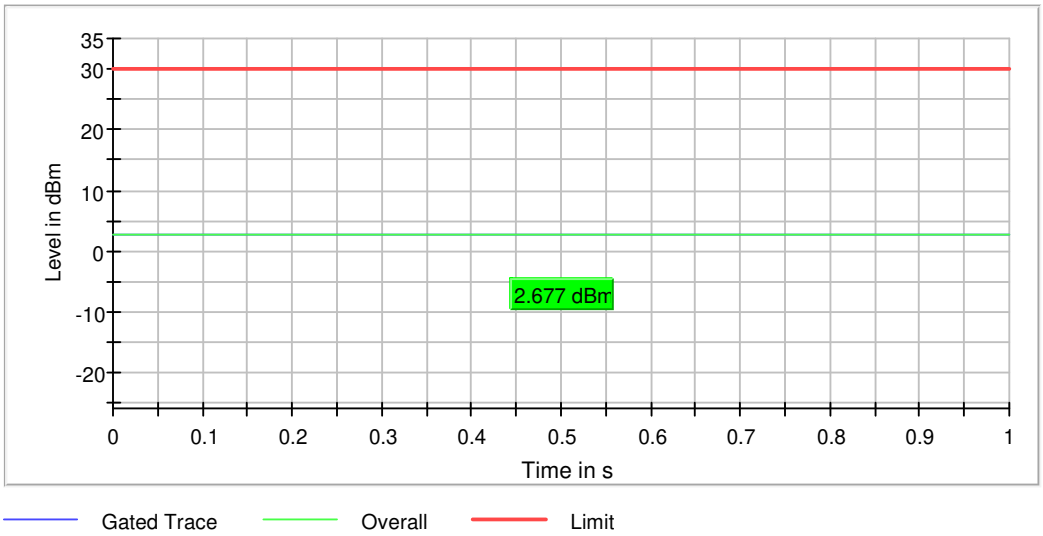
Setting	Instrument Value	Target Value
Start Frequency	5.76500 GHz	5.76500 GHz
Stop Frequency	5.80500 GHz	5.80500 GHz
Span	40.000 MHz	40.000 MHz
RBW	200.000 kHz	~ 200.000 kHz
VBW	1.000 MHz	>= 600.000 kHz
SweepPoints	200	~ 200
Sweeptime	47.405 µs	AUTO
Reference Level	0.000 dBm	0.000 dBm
Attenuation	20.000 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	53 / max. 150	max. 150
Stable	5 / 5	5
Max Stable Difference	0.09 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), KDB 789033 D02 General U-NII Test Procedures New Rules v01r03 and ANSI C63.10

Result

DUT Frequency (MHz)	Gated RMS (dBm)	Limit Max (dBm)	Gated EIRP (dBm)	DutyCycle (%)	Result
5785.000000	2.7	30.0	2.7	100.000	PASS



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

Customized settings.

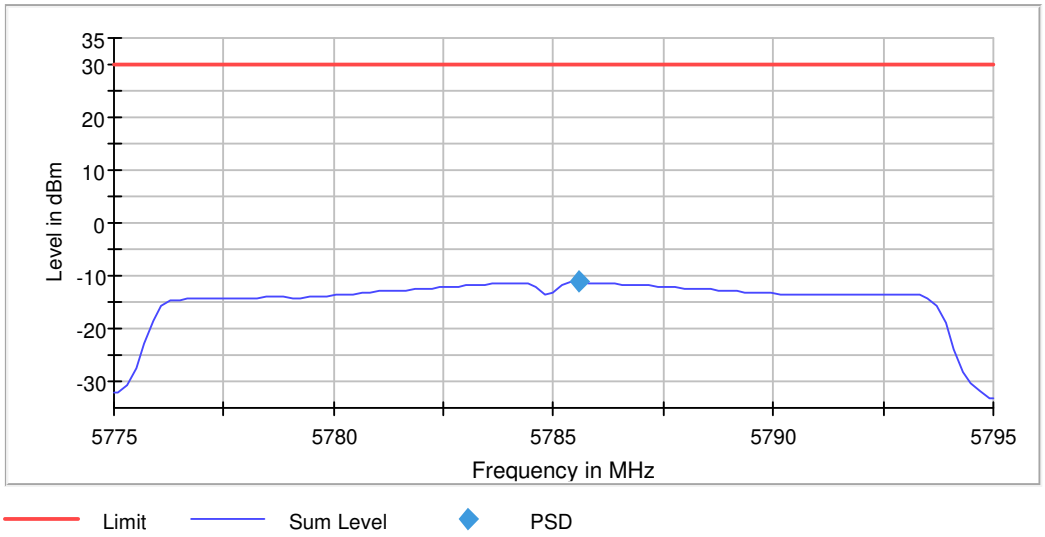
Test according to FCC title 47 part 15 §15.407(a), KDB 789033 D02 General U-NII Test Procedures New Rules v01r03 and ANSI C63.10

Result

DUT Frequency (MHz)	Frequency (MHz)	PSD (dBm)	Limit Max (dBm)	Result
5785.000000	5785.594059	-11.189	30.0	PASS

Ports

Port	Duty Cycle (%)
1	97.075



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
Sweeptime	2.020 s	2.020 s
Reference Level	-10.000 dBm	-10.000 dBm
Attenuation	10.000 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 (5785 MHz; 20.000 dBm; 20 MHz)

Customized settings.

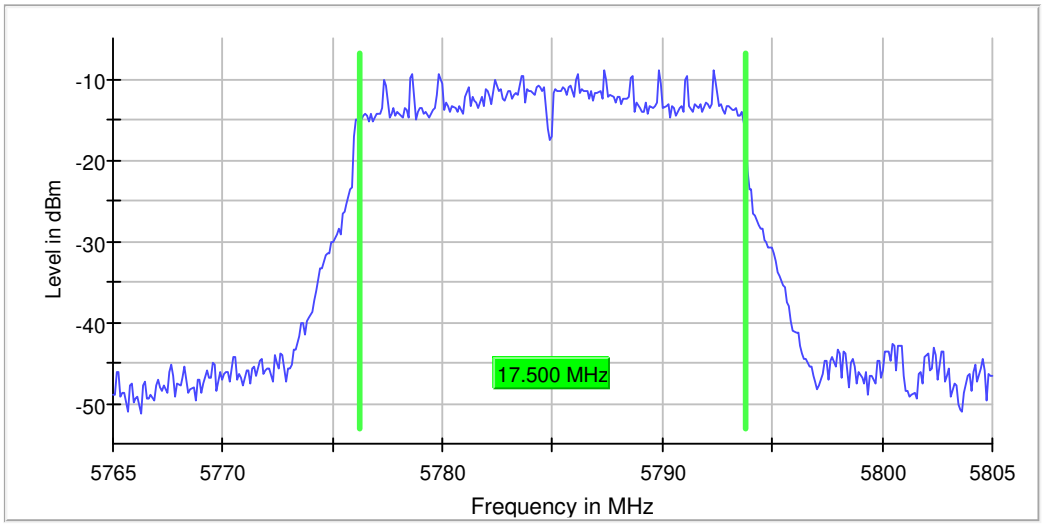
Test according to FCC title 47 part 15 §15.407(a),(e), KDB 789033 D02 General U-NII Test Procedures New Rules v01r03 and ANSI C63.10

6 dB Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
5785.000000	17.500000	0.500000	---	5776.250000	5793.750000

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

DUT Frequency (MHz)	Max Level (dBm)	Result
5785.000000	-8.8	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 µs	AUTO
Reference Level	-10.000 dBm	-10.000 dBm
Attenuation	10.000 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	**13 / max. 150**	**max. 150**
Stable	**1 / 1**	**1**
Max Stable Difference	**0.15 dB**	**0.30 dB**

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

Customized settings.

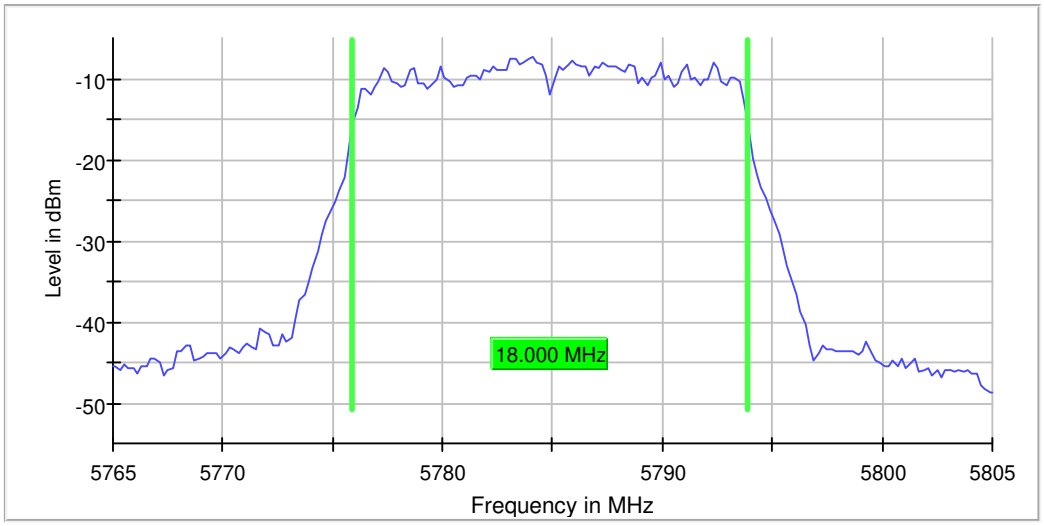
Test according to FCC title 47 part 15 §15.407(a),(e), KDB 789033 D02 General U-NII Test Procedures New Rules v01r03 and ANSI C63.10

99 % Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
5785.000000	18.000000	---	---	5775.900000	5793.900000

(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	10.000 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	**1 / 1**	**1**
Max Stable Difference	**0.12 dB**	**0.30 dB**

Emission Bandwidth 26 dB (5825 MHz; 20.000 dBm; 20 MHz)

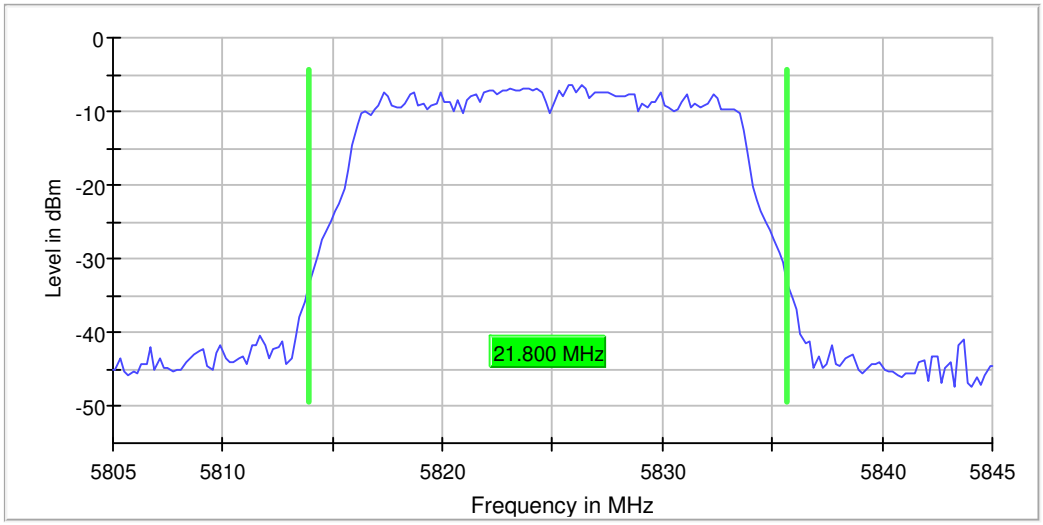
Test according to FCC title 47 part 15 §15.407(a),(e), KDB 789033 D02 General U-NII Test Procedures New Rules v01r03 and ANSI C63.10

26 dB Bandwidth

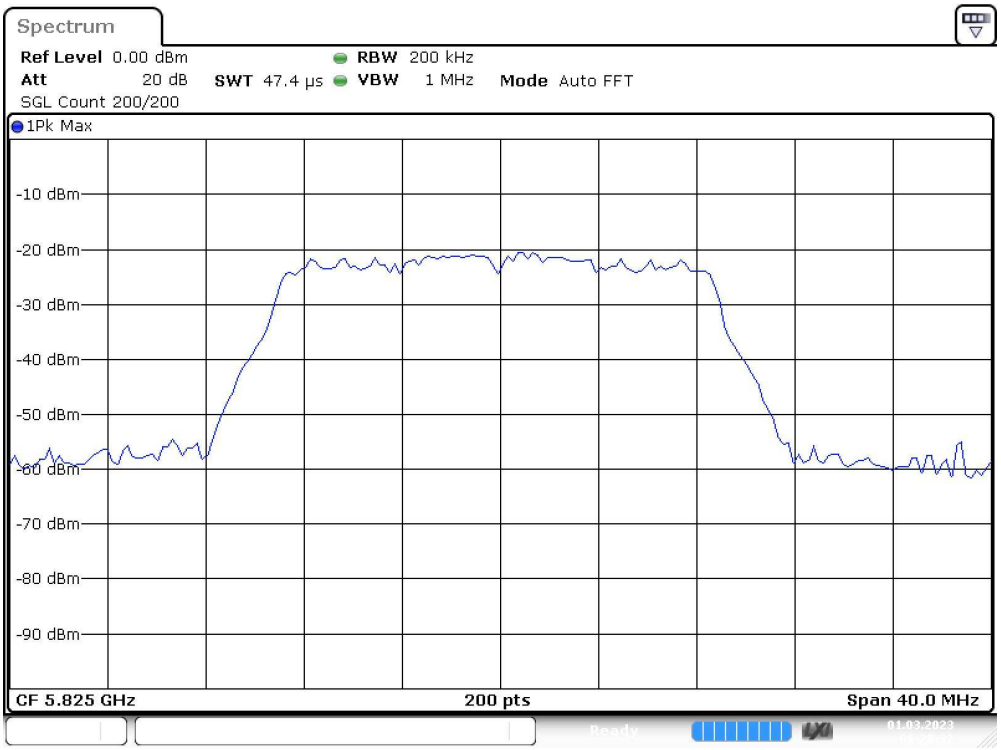
DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
5825.000000	21.800000	---	---	5813.900000	5835.700000

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

DUT Frequency (MHz)	Max Level (dBm)	Result
5825.000000	-6.4	PASS



Bandwidth



Date: 1.MAR.2023 06:28:33

Measurement

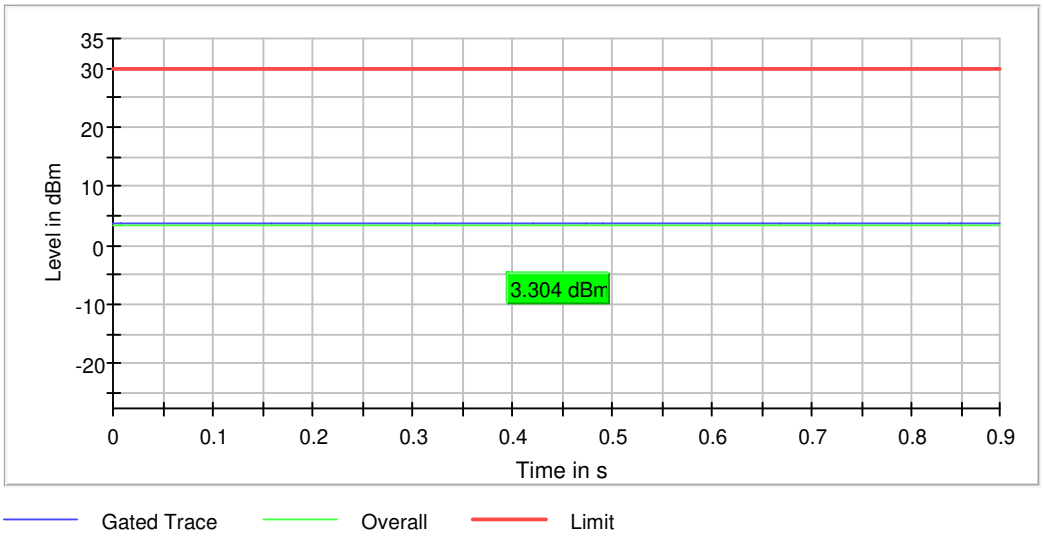
Setting	Instrument Value	Target Value
Start Frequency	5.80500 GHz	5.80500 GHz
Stop Frequency	5.84500 GHz	5.84500 GHz
Span	40.000 MHz	40.000 MHz
RBW	200.000 kHz	~ 200.000 kHz
VBW	1.000 MHz	>= 600.000 kHz
SweepPoints	200	~ 200
Sweeptime	47.405 µs	AUTO
Reference Level	0.000 dBm	0.000 dBm
Attenuation	20.000 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	45 / max. 150	max. 150
Stable	5 / 5	5
Max Stable Difference	0.11 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), KDB 789033 D02 General U-NII Test Procedures New Rules v01r03 and ANSI C63.10

Result

DUT Frequency (MHz)	Gated RMS (dBm)	Limit Max (dBm)	Gated EIRP (dBm)	DutyCycle (%)	Result
5825.000000	3.3	30.0	3.3	100.000	PASS



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

Customized settings.

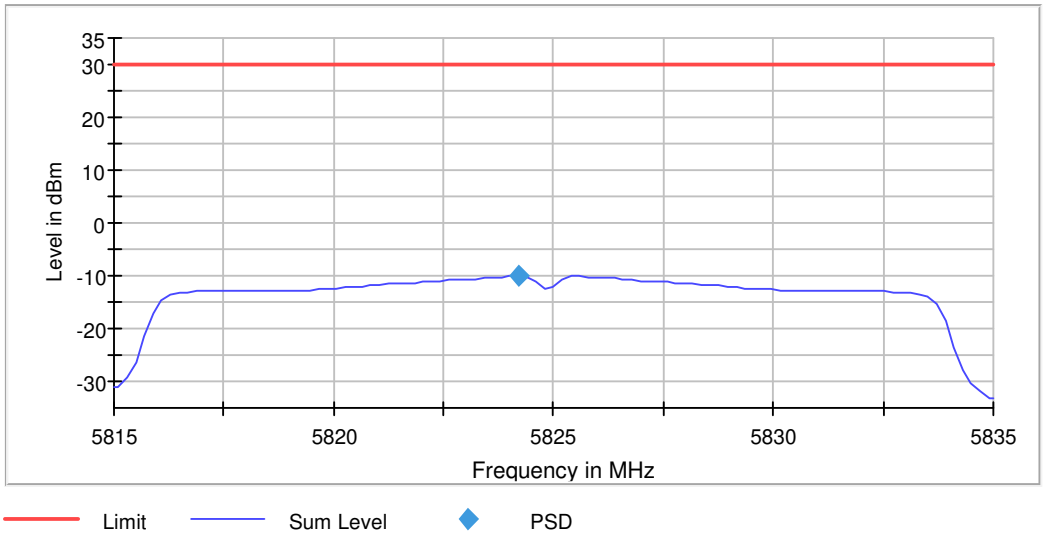
Test according to FCC title 47 part 15 §15.407(a), KDB 789033 D02 General U-NII Test Procedures New Rules v01r03 and ANSI C63.10

Result

DUT Frequency (MHz)	Frequency (MHz)	PSD (dBm)	Limit Max (dBm)	Result
5825.000000	5824.207921	-10.084	30.0	PASS

Ports

Port	Duty Cycle (%)
1	97.073



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
Sweeptime	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	**0.00 dB**	**0.30 dB**

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

Customized settings.

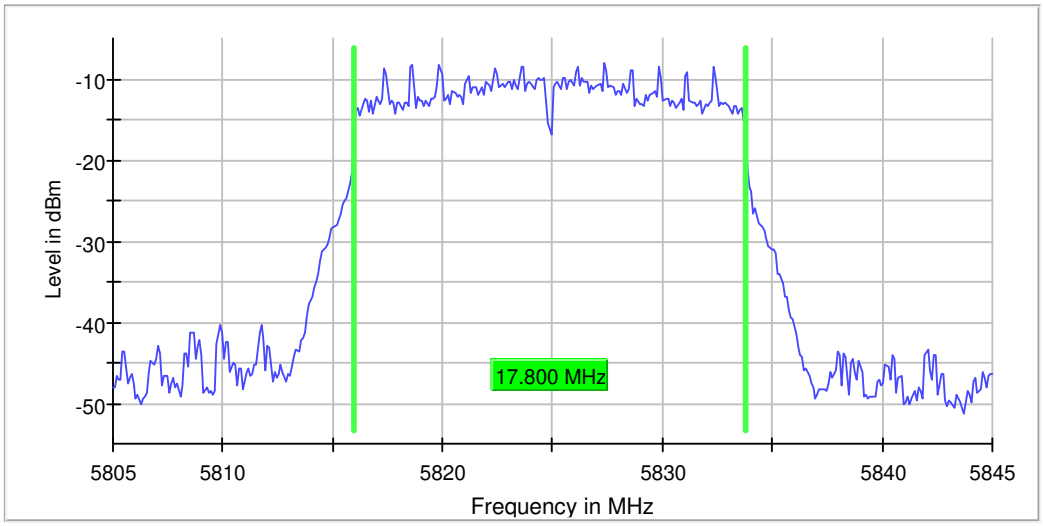
Test according to FCC title 47 part 15 §15.407(a),(e), KDB 789033 D02 General U-NII Test Procedures New Rules v01r03 and ANSI C63.10

6 dB Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
5825.000000	17.800000	0.500000	---	5815.950000	5833.750000

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

DUT Frequency (MHz)	Max Level (dBm)	Result
5825.000000	-8.1	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 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	**17 / max. 150**	**max. 150**
Stable	**1 / 1**	**1**
Max Stable Difference	**0.22 dB**	**0.30 dB**

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

Customized settings.

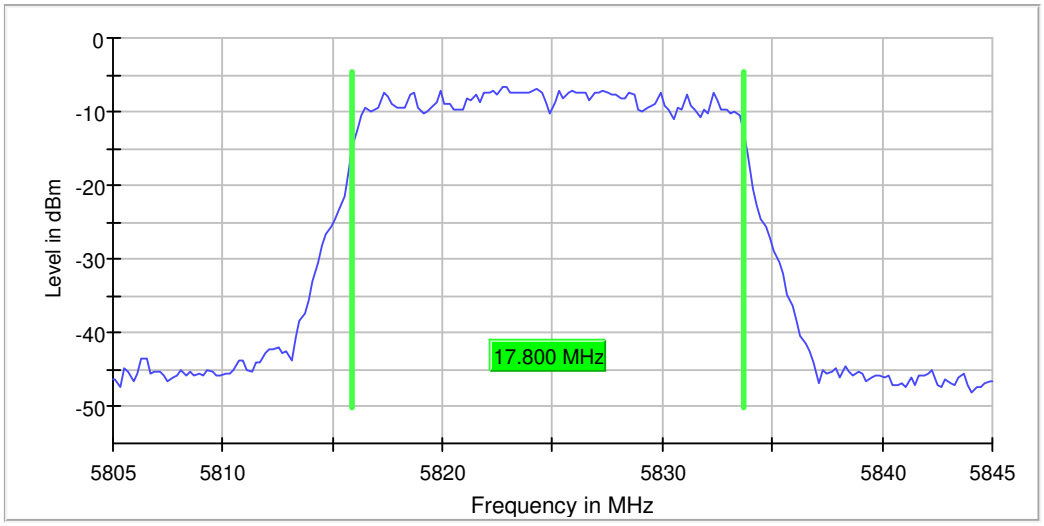
Test according to FCC title 47 part 15 §15.407(a),(e), KDB 789033 D02 General U-NII Test Procedures New Rules v01r03 and ANSI C63.10

99 % Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
5825.000000	17.800000	---	---	5815.900000	5833.700000

(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	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	**1 / 1**	**1**
Max Stable Difference	**0.12 dB**	**0.30 dB**

Band Edge high (5825 MHz; 20.000 dBm; 20 MHz)

Customized settings.

Test according to FCC title 47 part 15 §15.407(b), KDB 789033 D02 General U-NII Test Procedures New Rules v01r03 and ANSI C63.10

Result

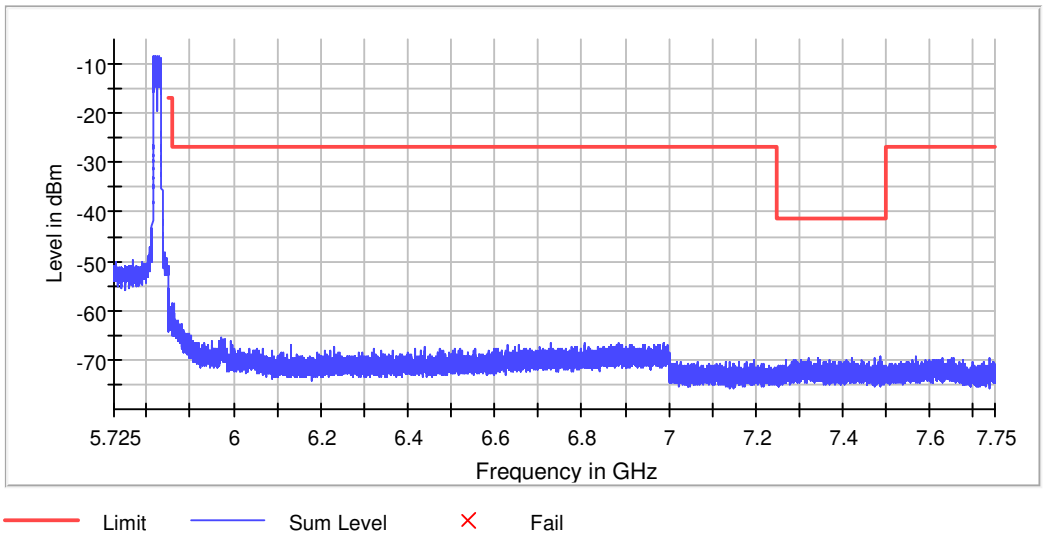
DUT Frequency (MHz)	Result
5825.000000	PASS

Inband Peak

Frequency (MHz)	Level (dBm)
5819.875000	-8.3

Measurements

Frequency (MHz)	Level (dBm)	Margin (dB)	Limit (dBm)	Result
7484.575000	-69.1	27.9	-41.2	PASS
7484.625000	-69.2	27.9	-41.2	PASS
7342.525000	-69.7	28.5	-41.2	PASS
7420.475000	-69.8	28.6	-41.2	PASS
7320.825000	-69.8	28.6	-41.2	PASS
7472.975000	-69.8	28.6	-41.2	PASS
7444.925000	-69.9	28.7	-41.2	PASS
7289.775000	-70.0	28.7	-41.2	PASS
7347.425000	-70.0	28.8	-41.2	PASS
7421.325000	-70.0	28.8	-41.2	PASS
7342.475000	-70.1	28.8	-41.2	PASS
7289.825000	-70.1	28.9	-41.2	PASS
7321.975000	-70.1	28.9	-41.2	PASS
7320.225000	-70.1	28.9	-41.2	PASS
7407.025000	-70.2	28.9	-41.2	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 µs	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	10 / max. 150	max. 150
Stable	1 / 1	1
Max Stable Difference	0.49 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	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	2 / max. 150	max. 150
Stable	1 / 1	1
Max Stable Difference	0.00 dB	0.50 dB

FCC 15.407 2015

DUT Information

Frequencies

WLAN CH 38 (5190 MHz)	WLAN CH 46 (5230 MHz)	WLAN CH 151 (5755 MHz)
WLAN CH 159 (5795 MHz)	WLAN CH 54 (5270 MHz)	WLAN CH 62 (5310 MHz)
WLAN CH 102 (5510 MHz)	WLAN CH 110 (5550 MHz)	WLAN CH 118 (5590 MHz)
WLAN CH 134 (5670 MHz)		

Bandwidths

40 MHz (40 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::192.168.48.111::INST0::INSTR), SN 1321.3008K39/101229, FW 3.40
Vector Generator:	VG SMBV100B (VG SMBV100B) @ VISA (ADR TCPIP::192.168.48.29::INST0::INSTR), SN 101685, FW 4.70.006.33
Generator:	SMB100Aa (SMB100A) @ VISA (ADR TCPIP::192.168.48.30::INST0::INSTR), SN 177894, 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	5755.000	20.0	40.000000	PASS
RF output power	5755.000	20.0	40.000000	PASS
Power Spectral Density	5755.000	20.0	40.000000	PASS
Minimum Emission Bandwidth 6 dB	5755.000	20.0	40.000000	PASS
Occupied Channel Bandwidth 99%	5755.000	20.0	40.000000	PASS
Band Edge low	5755.000	20.0	40.000000	PASS
Emission Bandwidth 26 dB	5795.000	20.0	40.000000	PASS
RF output power	5795.000	20.0	40.000000	PASS
Power Spectral Density	5795.000	20.0	40.000000	PASS
Minimum Emission Bandwidth 6 dB	5795.000	20.0	40.000000	PASS
Occupied Channel Bandwidth 99%	5795.000	20.0	40.000000	PASS
Band Edge high	5795.000	20.0	40.000000	PASS

Emission Bandwidth 26 dB (5755 MHz; 20.000 dBm; 40 MHz)

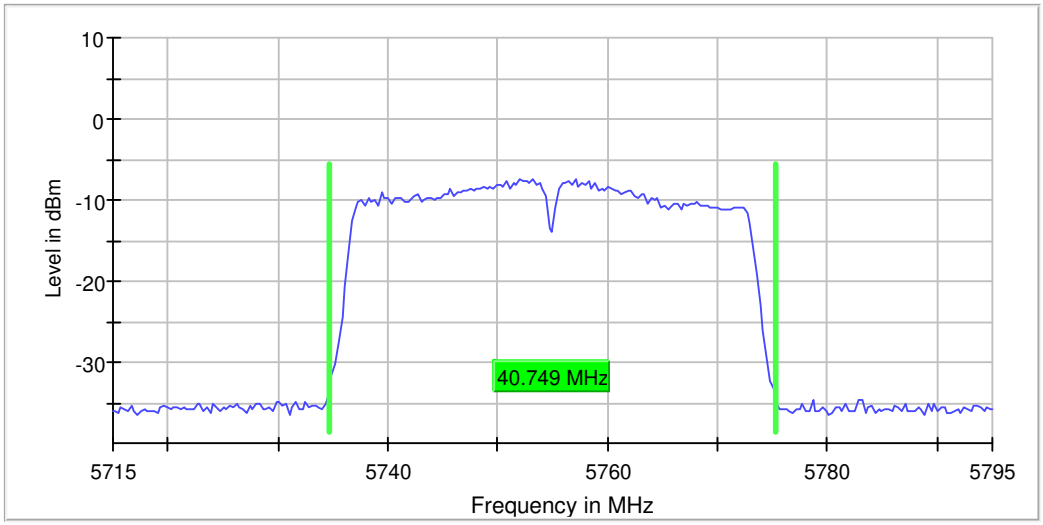
Test according to FCC title 47 part 15 §15.407(a),(e), KDB 789033 D02 General U-NII Test Procedures New Rules v01r03 and ANSI C63.10

26 dB Bandwidth

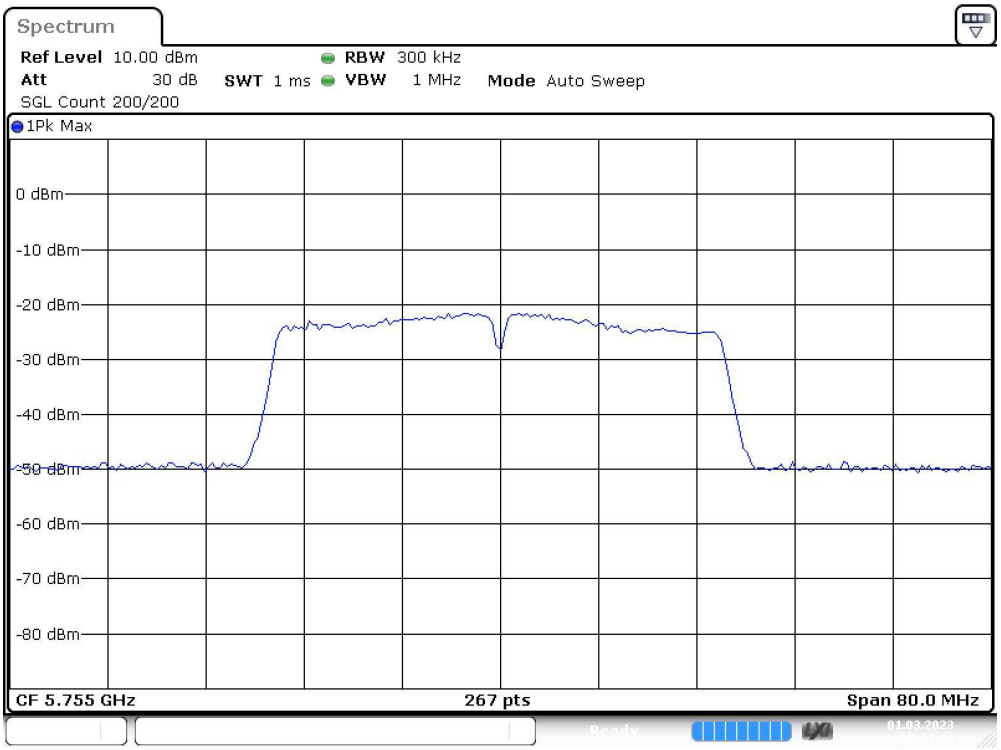
DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
5755.000000	40.749064	---	---	5734.625468	5775.374532

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

DUT Frequency (MHz)	Max Level (dBm)	Result
5755.000000	-7.5	PASS



Bandwidth



Date: 1.MAR.2023 06:44:40

Measurement

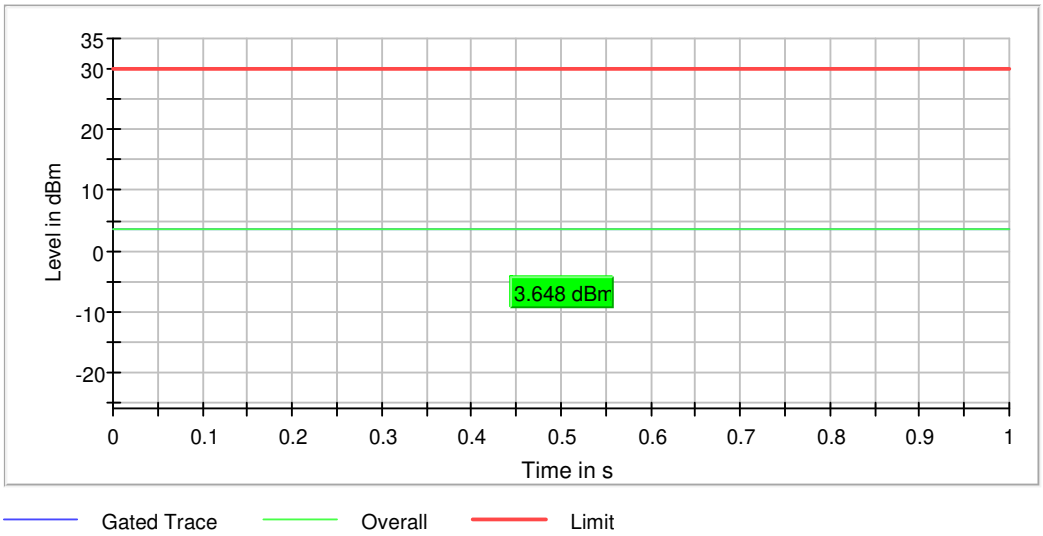
Setting	Instrument Value	Target Value
Start Frequency	5.71500 GHz	5.71500 GHz
Stop Frequency	5.79500 GHz	5.79500 GHz
Span	80.000 MHz	80.000 MHz
RBW	300.000 kHz	~ 400.000 kHz
VBW	1.000 MHz	>= 900.000 kHz
SweepPoints	267	~ 267
Sweeptime	1.000 ms	AUTO
Reference Level	10.000 dBm	10.000 dBm
Attenuation	30.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	200	200
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
Sweeptype	Sweep	AUTO
Preamp	off	off
Stablemode	Trace	Trace
Stablevalue	0.30 dB	0.30 dB
Run	48 / max. 150	max. 150
Stable	5 / 5	5
Max Stable Difference	0.26 dB	0.30 dB

RF output power (5755 MHz; 20.000 dBm; 40 MHz)

Test according to FCC title 47 part 15 §15.407(a), KDB 789033 D02 General U-NII Test Procedures New Rules v01r03 and ANSI C63.10

Result

DUT Frequency (MHz)	Gated RMS (dBm)	Limit Max (dBm)	Gated EIRP (dBm)	DutyCycle (%)	Result
5755.000000	3.6	30.0	3.6	100.000	PASS



Power Spectral Density (5755 MHz; 20.000 dBm; 40 MHz)

Customized settings.

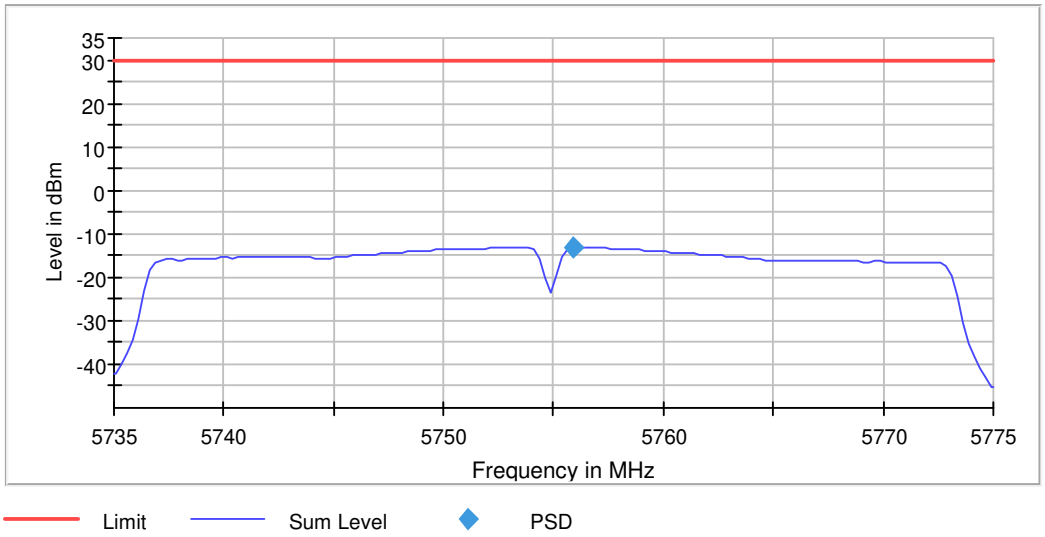
Test according to FCC title 47 part 15 §15.407(a), KDB 789033 D02 General U-NII Test Procedures New Rules v01r03 and ANSI C63.10

Result

DUT Frequency (MHz)	Frequency (MHz)	PSD (dBm)	Limit Max (dBm)	Result
5755.000000	5755.875000	-13.078	30.0	PASS

Ports

Port	Duty Cycle (%)
1	94.297



Measurement

Setting	Instrument Value	Target Value
Start Frequency	5.73500 GHz	5.73500 GHz
Stop Frequency	5.77500 GHz	5.77500 GHz
Span	40.000 MHz	40.000 MHz
RBW	500.000 kHz	<= 500.000 kHz
VBW	2.000 MHz	>= 1.500 MHz
SweepPoints	160	~ 160
Sweeptime	3.200 s	3.200 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	**0.10 dB**	**0.30 dB**

Minimum Emission Bandwidth 6 dB (5755 MHz; 20.000 dBm; 40 MHz)

Customized settings.

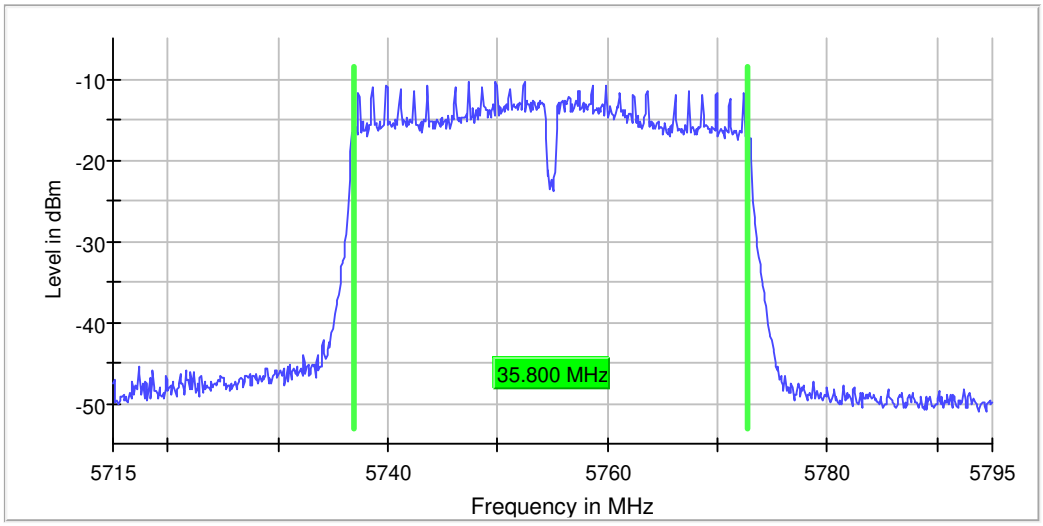
Test according to FCC title 47 part 15 §15.407(a),(e), KDB 789033 D02 General U-NII Test Procedures New Rules v01r03 and ANSI C63.10

6 dB Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
5755.000000	35.800000	0.500000	---	5736.950000	5772.750000

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

DUT Frequency (MHz)	Max Level (dBm)	Result
5755.000000	-10.4	PASS



Measurement

Setting	Instrument Value	Target Value
Start Frequency	5.71500 GHz	5.71500 GHz
Stop Frequency	5.79500 GHz	5.79500 GHz
Span	80.000 MHz	80.000 MHz
RBW	100.000 kHz	~ 100.000 kHz
VBW	300.000 kHz	~ 300.000 kHz
SweepPoints	800	~ 800
Sweeptime	1.070 ms	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	Sweep	AUTO
Preamp	off	off
Stablemode	Trace	Trace

Stablevalue	**0.30 dB**	**0.30 dB**
Run	**24 / max. 150**	**max. 150**
Stable	**1 / 1**	**1**
Max Stable Difference	**0.29 dB**	**0.30 dB**

Occupied Channel Bandwidth 99% (5755 MHz; 20.000 dBm; 40 MHz)

Customized settings.

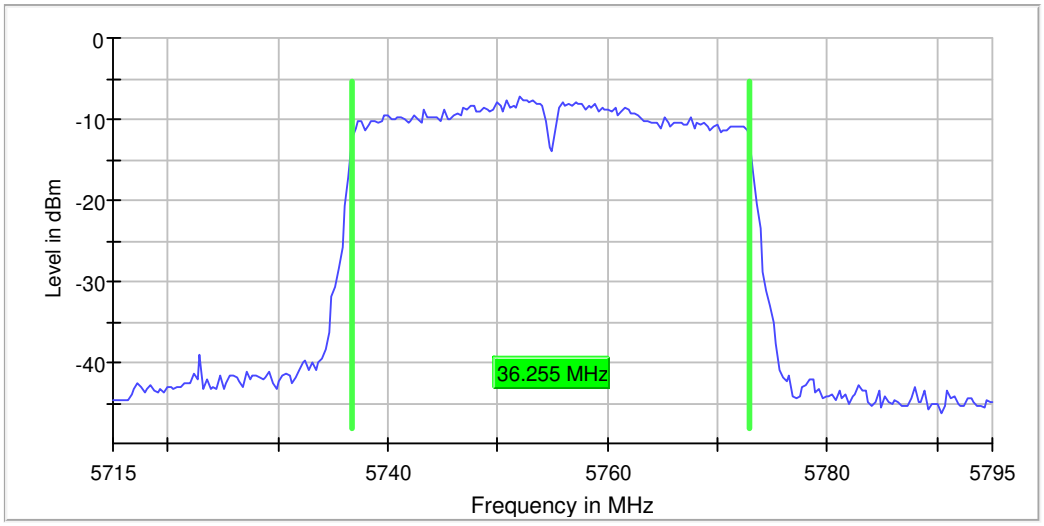
Test according to FCC title 47 part 15 §15.407(a),(e), KDB 789033 D02 General U-NII Test Procedures New Rules v01r03 and ANSI C63.10

99 % Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
5755.000000	36.254682	---	---	5736.722846	5772.977528

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

DUT Frequency (MHz)	Result
5755.000000	PASS



Measurement

Setting	Instrument Value	Target Value
Start Frequency	5.71500 GHz	5.71500 GHz
Stop Frequency	5.79500 GHz	5.79500 GHz
Span	80.000 MHz	80.000 MHz
RBW	300.000 kHz	<= 400.000 kHz
VBW	1.000 MHz	>= 900.000 kHz
SweepPoints	267	~ 267
Sweeptime	1.000 ms	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	Sweep	AUTO
Preamp	off	off
Stablemode	Trace	Trace
Stablevalue	0.30 dB	0.30 dB
Run	12 / max. 150	max. 150

Stable	**1 / 1**	**1**
Max Stable Difference	**0.28 dB**	**0.30 dB**

Band Edge low (5755 MHz; 20.000 dBm; 40 MHz)

Customized settings.

Test according to FCC title 47 part 15 §15.407(b), KDB 789033 D02 General U-NII Test Procedures New Rules v01r03 and ANSI C63.10

Result

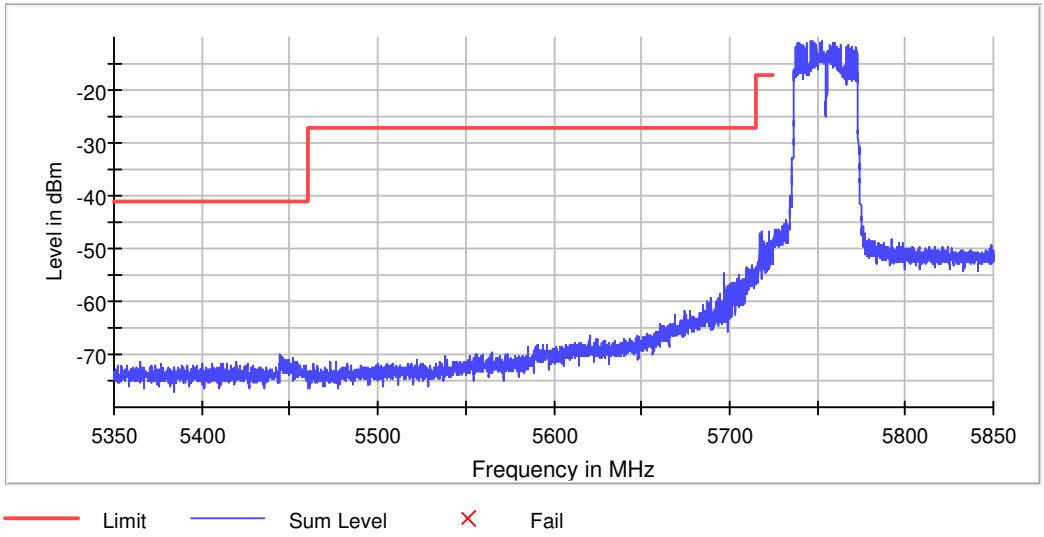
DUT Frequency (MHz)	Result
5755.000000	PASS

Inband Peak

Frequency (MHz)	Level (dBm)
5747.375000	-10.6

Measurements

Frequency (MHz)	Level (dBm)	Margin (dB)	Limit (dBm)	Result
5712.975000	-53.1	26.1	-27.0	PASS
5713.275000	-53.2	26.2	-27.0	PASS
5713.025000	-53.3	26.3	-27.0	PASS
5713.325000	-53.4	26.4	-27.0	PASS
5709.925000	-53.5	26.5	-27.0	PASS
5709.975000	-53.5	26.5	-27.0	PASS
5714.025000	-53.8	26.8	-27.0	PASS
5711.375000	-53.8	26.8	-27.0	PASS
5711.425000	-53.8	26.8	-27.0	PASS
5713.975000	-53.9	26.9	-27.0	PASS
5709.275000	-53.9	26.9	-27.0	PASS
5710.775000	-54.0	27.0	-27.0	PASS
5709.875000	-54.0	27.0	-27.0	PASS
5710.825000	-54.0	27.0	-27.0	PASS
5709.325000	-54.1	27.1	-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 µs	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	18 / max. 150	max. 150
Stable	1 / 1	1
Max Stable Difference	0.40 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 µs	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	7 / max. 150	max. 150
Stable	1 / 1	1
Max Stable Difference	0.26 dB	0.50 dB

Emission Bandwidth 26 dB (5795 MHz; 20.000 dBm; 40 MHz)

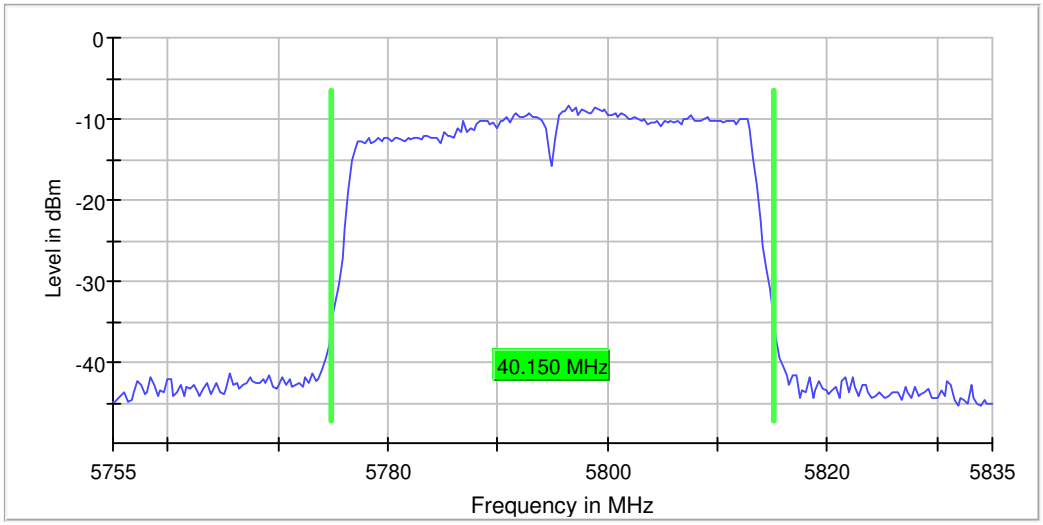
Test according to FCC title 47 part 15 §15.407(a),(e), KDB 789033 D02 General U-NII Test Procedures New Rules v01r03 and ANSI C63.10

26 dB Bandwidth

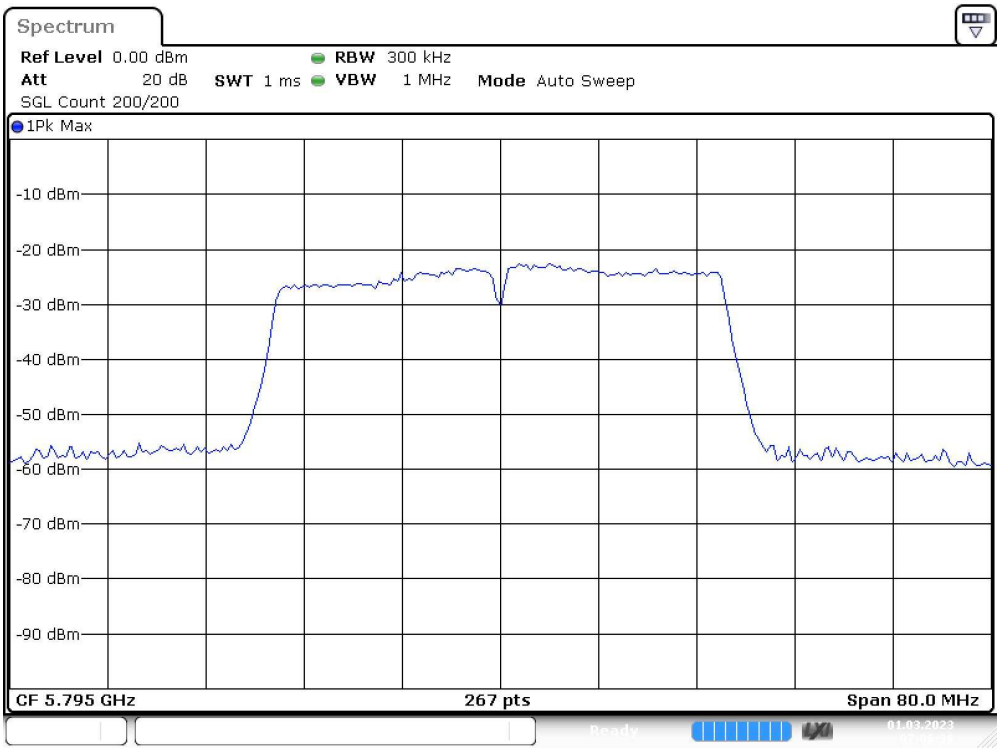
DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
5795.000000	40.149812	---	---	5774.925094	5815.074906

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

DUT Frequency (MHz)	Max Level (dBm)	Result
5795.000000	-8.5	PASS



Bandwidth



Date: 1.MAR.2023 07:06:36

Measurement

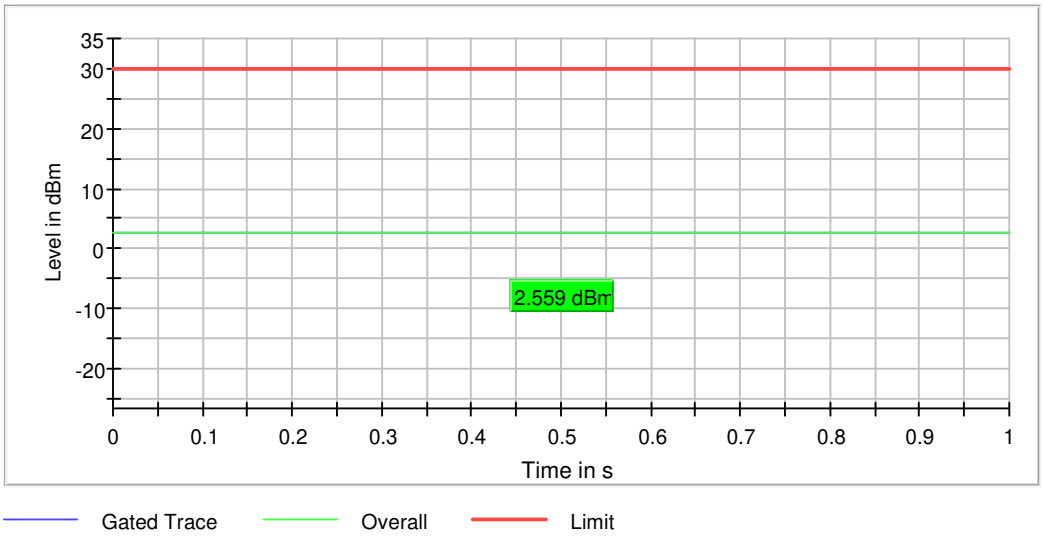
Setting	Instrument Value	Target Value
Start Frequency	5.75500 GHz	5.75500 GHz
Stop Frequency	5.83500 GHz	5.83500 GHz
Span	80.000 MHz	80.000 MHz
RBW	300.000 kHz	~ 400.000 kHz
VBW	1.000 MHz	>= 900.000 kHz
SweepPoints	267	~ 267
Sweeptime	1.000 ms	AUTO
Reference Level	0.000 dBm	0.000 dBm
Attenuation	20.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	200	200
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
Sweeptype	Sweep	AUTO
Preamp	off	off
Stablemode	Trace	Trace
Stablevalue	0.30 dB	0.30 dB
Run	70 / max. 150	max. 150
Stable	5 / 5	5
Max Stable Difference	0.11 dB	0.30 dB

RF output power (5795 MHz; 20.000 dBm; 40 MHz)

Test according to FCC title 47 part 15 §15.407(a), KDB 789033 D02 General U-NII Test Procedures New Rules v01r03 and ANSI C63.10

Result

DUT Frequency (MHz)	Gated RMS (dBm)	Limit Max (dBm)	Gated EIRP (dBm)	DutyCycle (%)	Result
5795.000000	2.6	30.0	2.6	100.000	PASS



Power Spectral Density (5795 MHz; 20.000 dBm; 40 MHz)

Customized settings.

Max level of analyzer (-14.6 dBm) more than 34.0 dB below the nominal power level.

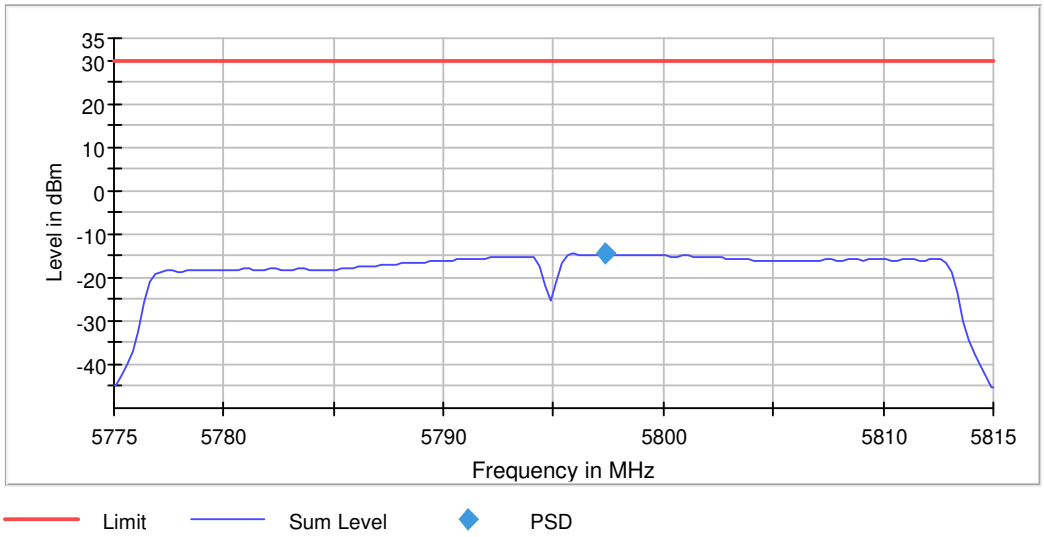
Test according to FCC title 47 part 15 §15.407(a), KDB 789033 D02 General U-NII Test Procedures New Rules v01r03 and ANSI C63.10

Result

DUT Frequency (MHz)	Frequency (MHz)	PSD (dBm)	Limit Max (dBm)	Result
5795.000000	5797.375000	-14.610	30.0	PASS

Ports

Port	Duty Cycle (%)
1	94.316



Measurement

Setting	Instrument Value	Target Value
Start Frequency	5.77500 GHz	5.77500 GHz
Stop Frequency	5.81500 GHz	5.81500 GHz
Span	40.000 MHz	40.000 MHz
RBW	500.000 kHz	<= 500.000 kHz
VBW	2.000 MHz	>= 1.500 MHz
SweepPoints	160	~ 160
Sweeptime	3.200 s	3.200 s
Reference Level	-10.000 dBm	-10.000 dBm
Attenuation	10.000 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	**0.01 dB**	**0.30 dB**

Minimum Emission Bandwidth 6 dB (5795 MHz; 20.000 dBm; 40 MHz)

Customized settings.

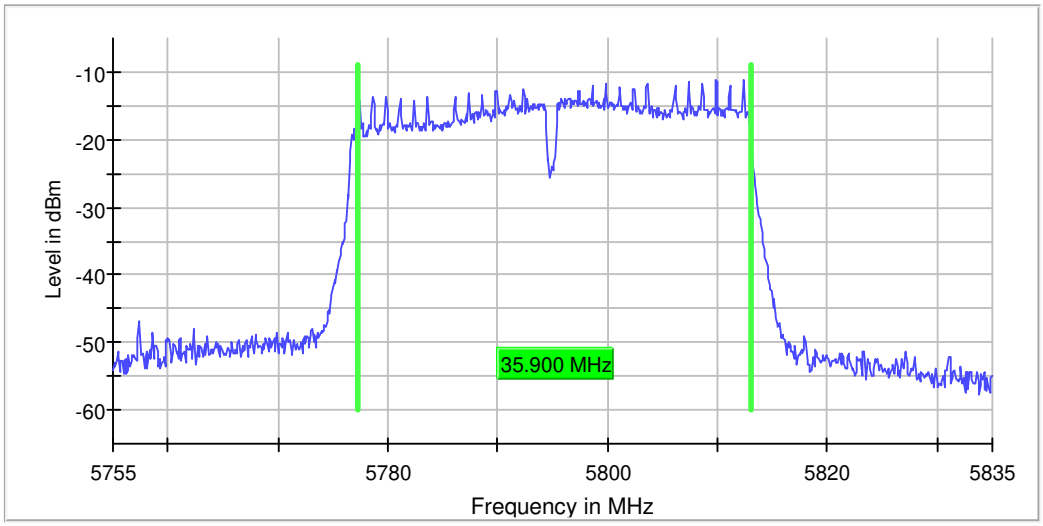
Test according to FCC title 47 part 15 §15.407(a),(e), KDB 789033 D02 General U-NII Test Procedures New Rules v01r03 and ANSI C63.10

6 dB Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
5795.000000	35.900000	0.500000	---	5777.250000	5813.150000

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

DUT Frequency (MHz)	Max Level (dBm)	Result
5795.000000	-11.0	PASS



Measurement

Setting	Instrument Value	Target Value
Start Frequency	5.75500 GHz	5.75500 GHz
Stop Frequency	5.83500 GHz	5.83500 GHz
Span	80.000 MHz	80.000 MHz
RBW	100.000 kHz	~ 100.000 kHz
VBW	300.000 kHz	~ 300.000 kHz
SweepPoints	800	~ 800
Sweeptime	1.070 ms	AUTO
Reference Level	-10.000 dBm	-10.000 dBm
Attenuation	10.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	200	200
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	**38 / max. 150**	**max. 150**
Stable	**1 / 1**	**1**
Max Stable Difference	**0.19 dB**	**0.30 dB**

Occupied Channel Bandwidth 99% (5795 MHz; 20.000 dBm; 40 MHz)

Customized settings.

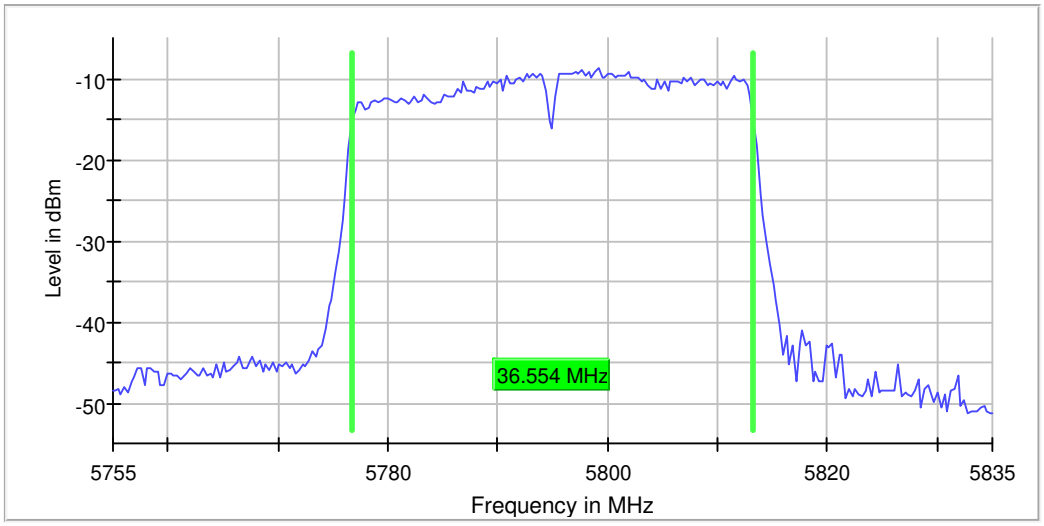
Test according to FCC title 47 part 15 §15.407(a),(e), KDB 789033 D02 General U-NII Test Procedures New Rules v01r03 and ANSI C63.10

99 % Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
5795.000000	36.554308	---	---	5776.722846	5813.277154

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

DUT Frequency (MHz)	Result
5795.000000	PASS



Measurement

Setting	Instrument Value	Target Value
Start Frequency	5.75500 GHz	5.75500 GHz
Stop Frequency	5.83500 GHz	5.83500 GHz
Span	80.000 MHz	80.000 MHz
RBW	300.000 kHz	<= 400.000 kHz
VBW	1.000 MHz	>= 900.000 kHz
SweepPoints	267	~ 267
Sweeptime	1.000 ms	AUTO
Reference Level	-10.000 dBm	-10.000 dBm
Attenuation	10.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	200	200
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	15 / max. 150	max. 150

Stable	**1 / 1**	**1**
Max Stable Difference	**0.24 dB**	**0.30 dB**

Band Edge high (5795 MHz; 20.000 dBm; 40 MHz)

Customized settings.

Test according to FCC title 47 part 15 §15.407(b), KDB 789033 D02 General U-NII Test Procedures New Rules v01r03 and ANSI C63.10

Result

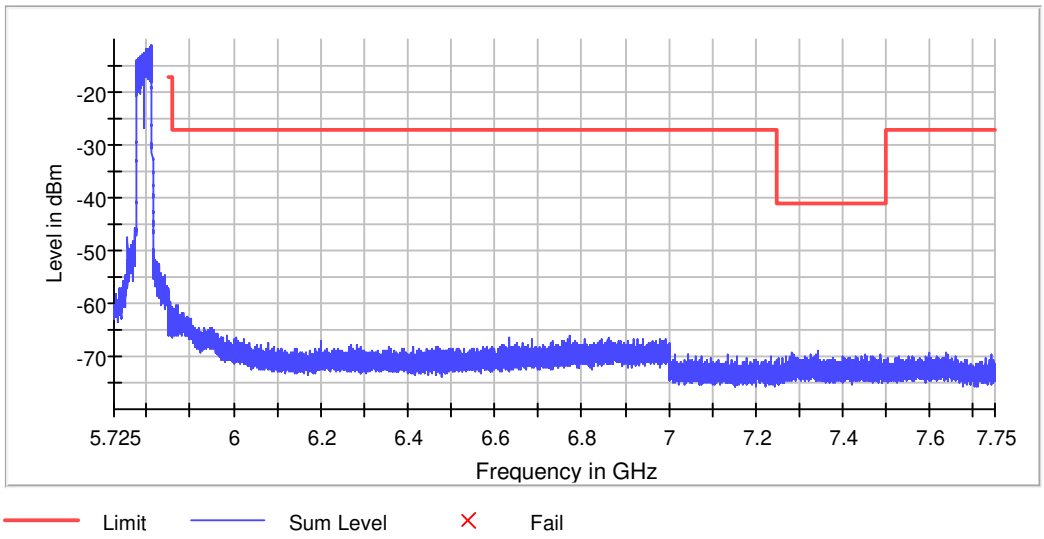
DUT Frequency (MHz)	Result
5795.000000	PASS

Inband Peak

Frequency (MHz)	Level (dBm)
5812.375000	-11.1

Measurements

Frequency (MHz)	Level (dBm)	Margin (dB)	Limit (dBm)	Result
7342.575000	-69.1	27.9	-41.2	PASS
7281.375000	-69.2	28.0	-41.2	PASS
7327.775000	-69.5	28.3	-41.2	PASS
7484.125000	-69.6	28.3	-41.2	PASS
7287.225000	-69.6	28.4	-41.2	PASS
7345.275000	-69.7	28.4	-41.2	PASS
7345.325000	-69.7	28.5	-41.2	PASS
7287.175000	-69.7	28.5	-41.2	PASS
7339.425000	-69.7	28.5	-41.2	PASS
7451.225000	-69.8	28.6	-41.2	PASS
7342.525000	-69.8	28.6	-41.2	PASS
7456.375000	-69.9	28.6	-41.2	PASS
7469.075000	-69.9	28.6	-41.2	PASS
7327.725000	-69.9	28.7	-41.2	PASS
7271.475000	-69.9	28.7	-41.2	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 µs	AUTO
Reference Level	-10.000 dBm	-10.000 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	22 / max. 150	max. 150
Stable	1 / 1	1
Max Stable Difference	0.42 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	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	3 / max. 150	max. 150
Stable	1 / 1	1
Max Stable Difference	0.00 dB	0.50 dB

FCC 15.407 2015

DUT Information

Frequencies

WLAN CH 42 (5210 MHz)	WLAN CH 155 (5775 MHz)	WLAN CH 58 (5290 MHz)
WLAN CH 106 (5530 MHz)	WLAN CH 122 (5610 MHz)	

Bandwidths

80 MHz (80 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::192.168.48.111::INST0::INSTR), SN 1321.3008K39/101229, FW 3.40
Vector Generator:	VG SMBV100B (VG SMBV100B) @ VISA (ADR TCPIP::192.168.48.29::INST0::INSTR), SN 101685, FW 4.70.006.33
Generator:	SMB100Aa (SMB100A) @ VISA (ADR TCPIP::192.168.48.30::INST0::INSTR), SN 177894, 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	5775.000	20.0	80.000000	PASS
RF output power	5775.000	20.0	80.000000	PASS
Power Spectral Density	5775.000	20.0	80.000000	PASS
Minimum Emission Bandwidth 6 dB	5775.000	20.0	80.000000	PASS
Occupied Channel Bandwidth 99%	5775.000	20.0	80.000000	PASS
Band Edge low	5775.000	20.0	80.000000	PASS
Band Edge high	5775.000	20.0	80.000000	PASS

Emission Bandwidth 26 dB (5775 MHz; 20.000 dBm; 80 MHz)

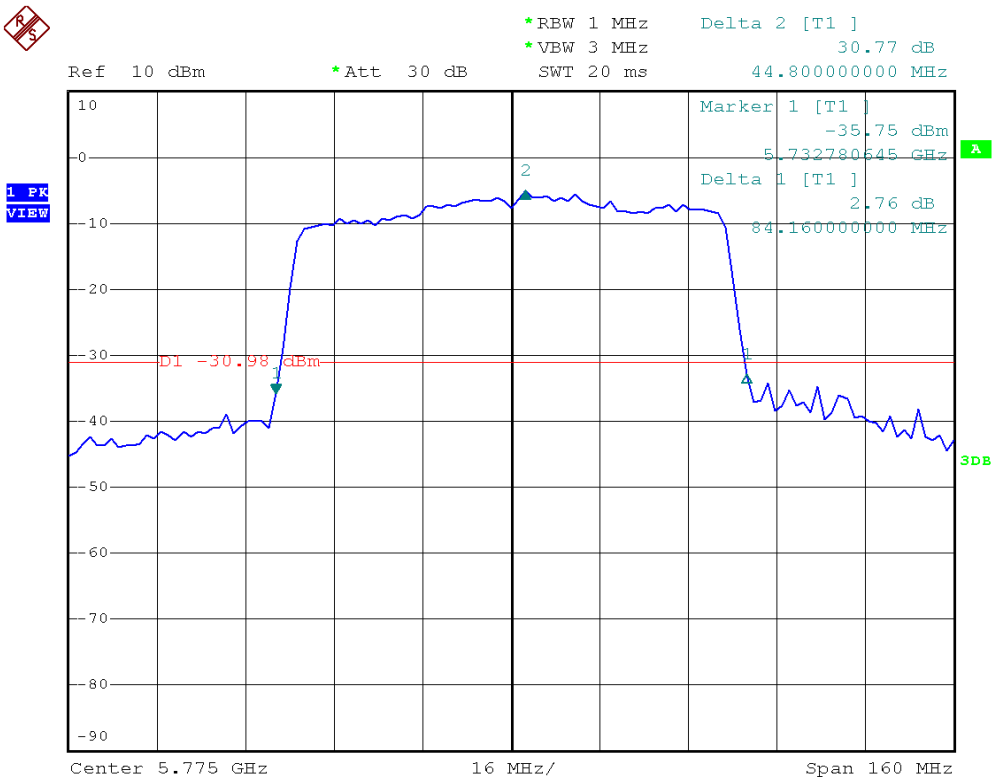
Test according to FCC title 47 part 15 §15.407(a),(e), KDB 789033 D02 General U-NII Test Procedures New Rules v01r03 and ANSI C63.10

26 dB Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
5775.000000	84.160000	---	---	5695.000000	5855.000000

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

DUT Frequency (MHz)	Max Level (dBm)	Result
5775.000000	-4.98	PASS

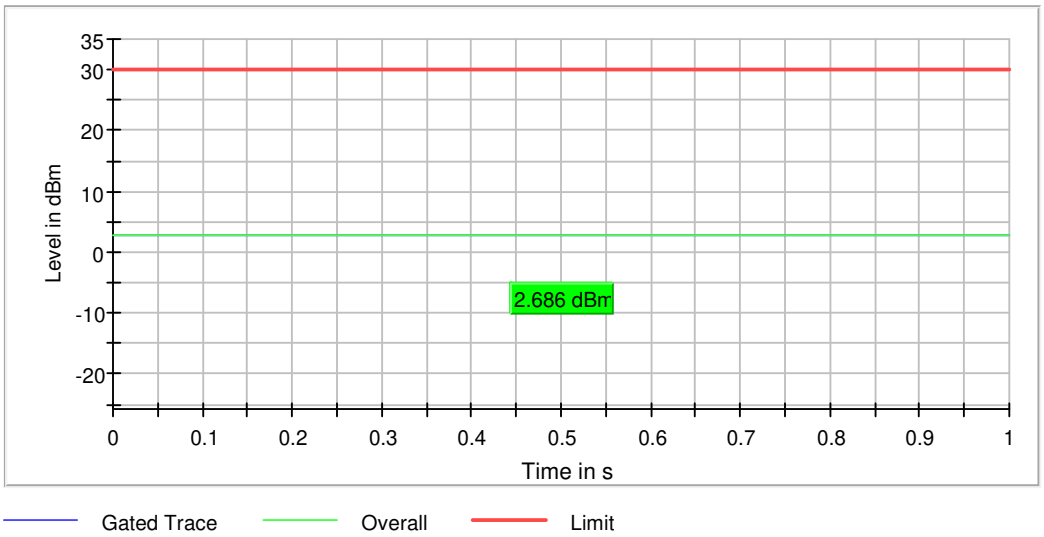


RF output power (5775 MHz; 20.000 dBm; 80 MHz)

Test according to FCC title 47 part 15 §15.407(a), KDB 789033 D02 General U-NII Test Procedures New Rules v01r03 and ANSI C63.10

Result

DUT Frequency (MHz)	Gated RMS (dBm)	Limit Max (dBm)	Gated EIRP (dBm)	DutyCycle (%)	Result
5775.000000	2.7	30.0	2.7	100.000	PASS



Power Spectral Density (5775 MHz; 20.000 dBm; 80 MHz)

Customized settings.

Max level of analyzer (-17.5 dBm) more than 37.0 dB below the nominal power level.

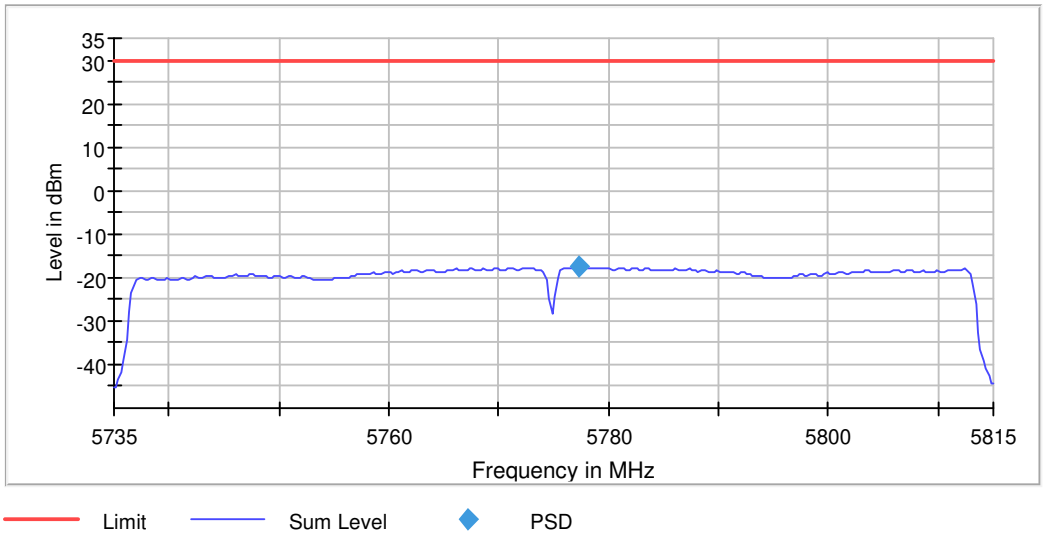
Test according to FCC title 47 part 15 §15.407(a), KDB 789033 D02 General U-NII Test Procedures New Rules v01r03 and ANSI C63.10

Result

DUT Frequency (MHz)	Frequency (MHz)	PSD (dBm)	Limit Max (dBm)	Result
5775.000000	5777.375000	-17.546	30.0	PASS

Ports

Port	Duty Cycle (%)
1	89.190



Measurement

Setting	Instrument Value	Target Value
Start Frequency	5.73500 GHz	5.73500 GHz
Stop Frequency	5.81500 GHz	5.81500 GHz
Span	80.000 MHz	80.000 MHz
RBW	500.000 kHz	<= 500.000 kHz
VBW	2.000 MHz	>= 1.500 MHz
SweepPoints	320	~ 320
Sweeptime	6.400 s	6.400 s
Reference Level	-10.000 dBm	-10.000 dBm
Attenuation	10.000 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 (5775 MHz; 20.000 dBm; 80 MHz)

Customized settings.

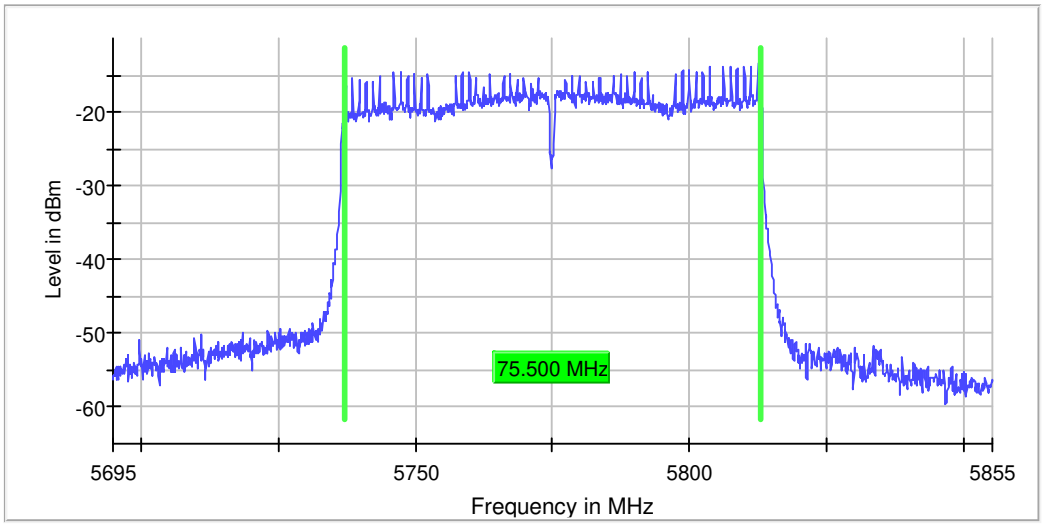
Test according to FCC title 47 part 15 §15.407(a),(e), KDB 789033 D02 General U-NII Test Procedures New Rules v01r03 and ANSI C63.10

6 dB Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
5775.000000	75.500000	0.500000	---	5737.250000	5812.750000

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

DUT Frequency (MHz)	Max Level (dBm)	Result
5775.000000	-13.3	PASS



Measurement

Setting	Instrument Value	Target Value
Start Frequency	5.69500 GHz	5.69500 GHz
Stop Frequency	5.85500 GHz	5.85500 GHz
Span	160.000 MHz	160.000 MHz
RBW	100.000 kHz	~ 100.000 kHz
VBW	300.000 kHz	~ 300.000 kHz
SweepPoints	1600	~ 1600
Sweeptime	360.278 µs	AUTO
Reference Level	-10.000 dBm	-10.000 dBm
Attenuation	10.000 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	**42 / max. 150**	**max. 150**
Stable	**1 / 1**	**1**
Max Stable Difference	**0.18 dB**	**0.30 dB**

Occupied Channel Bandwidth 99% (5775 MHz; 20.000 dBm; 80 MHz)

Customized settings.

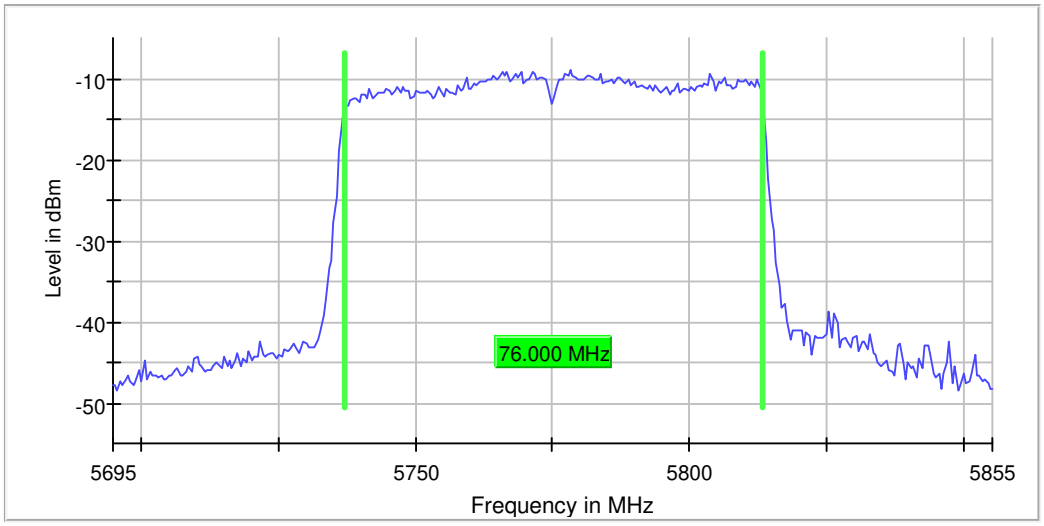
Test according to FCC title 47 part 15 §15.407(a),(e), KDB 789033 D02 General U-NII Test Procedures New Rules v01r03 and ANSI C63.10

99 % Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
5775.000000	76.000000	---	---	5737.250000	5813.250000

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

DUT Frequency (MHz)	Result
5775.000000	PASS



Measurement

Setting	Instrument Value	Target Value
Start Frequency	5.69500 GHz	5.69500 GHz
Stop Frequency	5.85500 GHz	5.85500 GHz
Span	160.000 MHz	160.000 MHz
RBW	500.000 kHz	<= 800.000 kHz
VBW	2.000 MHz	>= 1.500 MHz
SweepPoints	320	~ 320
Sweeptime	1.000 ms	AUTO
Reference Level	-10.000 dBm	-10.000 dBm
Attenuation	10.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	200	200
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	32 / max. 150	max. 150

Stable	**1 / 1**	**1**
Max Stable Difference	**0.22 dB**	**0.30 dB**

Band Edge low (5775 MHz; 20.000 dBm; 80 MHz)

Customized settings.

Test according to FCC title 47 part 15 §15.407(b), KDB 789033 D02 General U-NII Test Procedures New Rules v01r03 and ANSI C63.10

Result

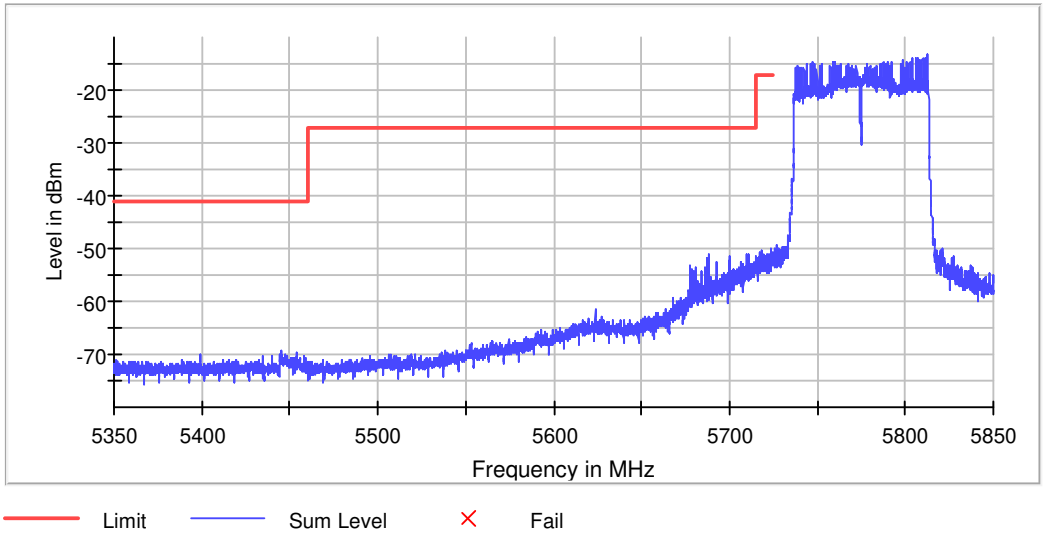
DUT Frequency (MHz)	Result
5775.000000	PASS

Inband Peak

Frequency (MHz)	Level (dBm)
5812.375000	-13.3

Measurements

Frequency (MHz)	Level (dBm)	Margin (dB)	Limit (dBm)	Result
5709.825000	-51.1	24.1	-27.0	PASS
5688.625000	-51.1	24.1	-27.0	PASS
5711.125000	-51.2	24.2	-27.0	PASS
5699.875000	-51.5	24.5	-27.0	PASS
5709.875000	-51.5	24.5	-27.0	PASS
5688.575000	-51.6	24.6	-27.0	PASS
5711.075000	-51.7	24.7	-27.0	PASS
5687.375000	-51.8	24.8	-27.0	PASS
5711.175000	-51.8	24.8	-27.0	PASS
5688.675000	-51.9	24.9	-27.0	PASS
5699.825000	-52.0	25.0	-27.0	PASS
5700.475000	-52.1	25.1	-27.0	PASS
5687.325000	-52.3	25.3	-27.0	PASS
5699.925000	-52.4	25.4	-27.0	PASS
5709.775000	-52.4	25.4	-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 µs	AUTO
Reference Level	-10.000 dBm	-10.000 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	45 / max. 150	max. 150
Stable	1 / 1	1
Max Stable Difference	0.36 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 µs	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	54 / max. 150	max. 150
Stable	1 / 1	1
Max Stable Difference	0.42 dB	0.50 dB

Band Edge high (5775 MHz; 20.000 dBm; 80 MHz)

Customized settings.

Test according to FCC title 47 part 15 §15.407(b), KDB 789033 D02 General U-NII Test Procedures New Rules v01r03 and ANSI C63.10

Result

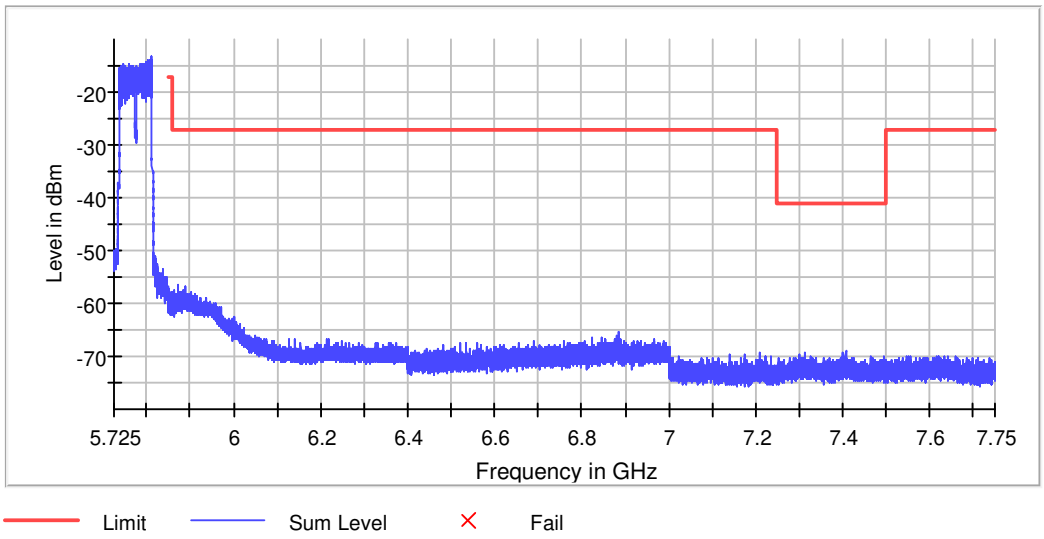
DUT Frequency (MHz)	Result
5775.000000	PASS

Inband Peak

Frequency (MHz)	Level (dBm)
5812.375000	-13.3

Measurements

Frequency (MHz)	Level (dBm)	Margin (dB)	Limit (dBm)	Result
7406.025000	-69.0	27.8	-41.2	PASS
7406.075000	-69.1	27.8	-41.2	PASS
7314.525000	-69.3	28.1	-41.2	PASS
7314.475000	-69.4	28.2	-41.2	PASS
7399.525000	-69.4	28.2	-41.2	PASS
7399.475000	-69.5	28.3	-41.2	PASS
7301.525000	-69.8	28.6	-41.2	PASS
7324.625000	-70.0	28.8	-41.2	PASS
7398.275000	-70.0	28.8	-41.2	PASS
7462.675000	-70.1	28.8	-41.2	PASS
7495.625000	-70.1	28.8	-41.2	PASS
7301.475000	-70.1	28.9	-41.2	PASS
7301.175000	-70.2	29.0	-41.2	PASS
7291.275000	-70.2	29.0	-41.2	PASS
7393.725000	-70.2	29.0	-41.2	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 µs	AUTO
Reference Level	-10.000 dBm	-10.000 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	27 / max. 150	max. 150
Stable	1 / 1	1
Max Stable Difference	0.45 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	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	22 / max. 150	max. 150
Stable	1 / 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)	WLAN CH 151 (5755 MHz)	WLAN CH 159 (5795 MHz)
WLAN CH 155 (5775 MHz)		

Bandwidths

20 MHz (20 MHz)	40 MHz (40 MHz)	80 MHz (80 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::192.168.48.111::INST0::INSTR), SN 1321.3008K39/101229, FW 3.40
Vector Generator:	VG SMBV100B (VG SMBV100B) @ VISA (ADR TCPIP::192.168.48.29::INST0::INSTR), SN 101685, FW 4.70.006.33
Generator:	SMB100Aa (SMB100A) @ VISA (ADR TCPIP::192.168.48.30::INST0::INSTR), SN 177894, 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	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)

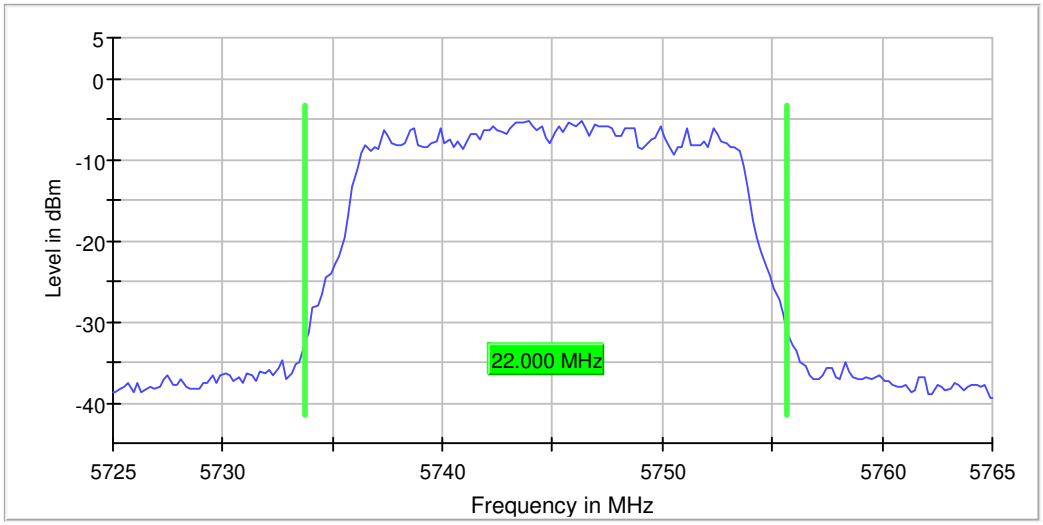
Test according to FCC title 47 part 15 §15.407(a),(e), KDB 789033 D02 General U-NII Test Procedures New Rules v01r03 and ANSI C63.10

26 dB Bandwidth

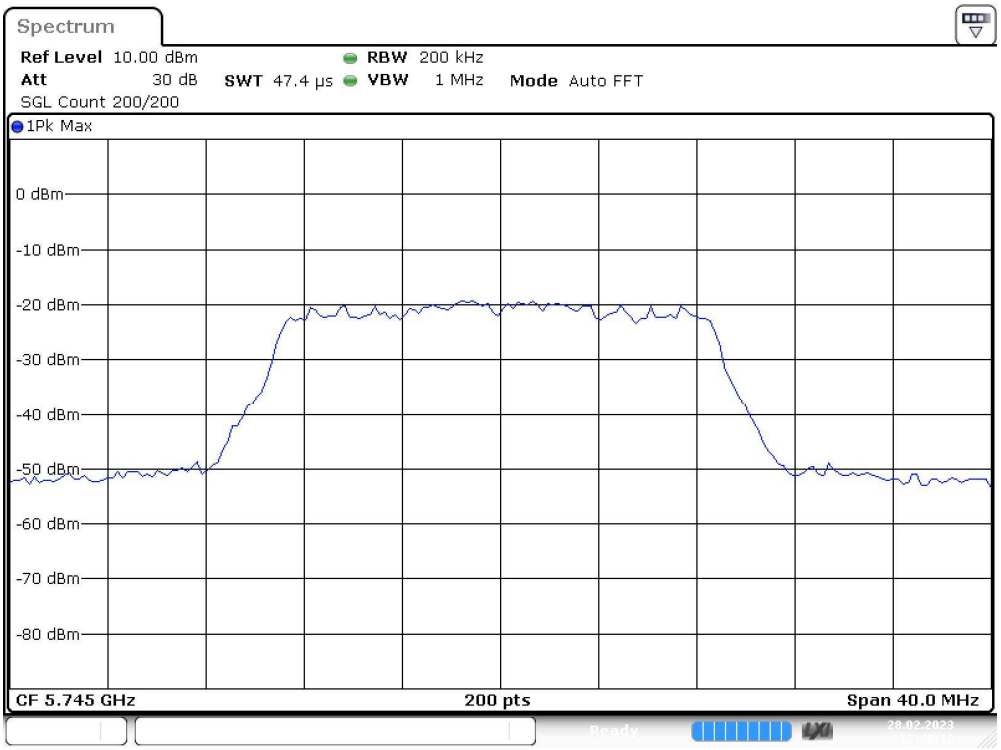
DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
5745.000000	22.000000	---	---	5733.700000	5755.700000

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

DUT Frequency (MHz)	Max Level (dBm)	Result
5745.000000	-5.3	PASS



Bandwidth



Date: 28.FEB.2023 12:48:20

Measurement

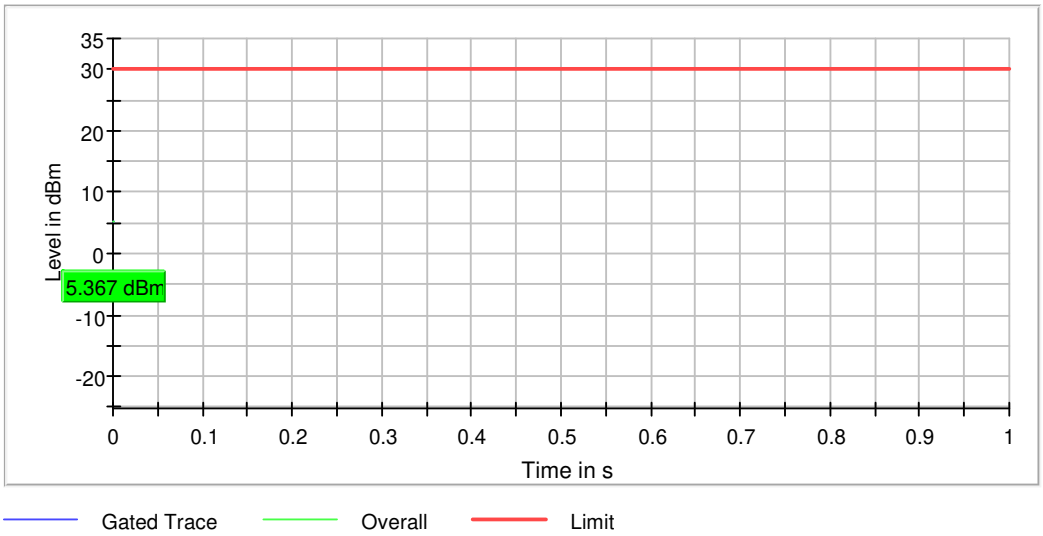
Setting	Instrument Value	Target Value
Start Frequency	5.72500 GHz	5.72500 GHz
Stop Frequency	5.76500 GHz	5.76500 GHz
Span	40.000 MHz	40.000 MHz
RBW	200.000 kHz	~ 200.000 kHz
VBW	1.000 MHz	>= 600.000 kHz
SweepPoints	200	~ 200
Sweeptime	47.405 µs	AUTO
Reference Level	10.000 dBm	10.000 dBm
Attenuation	30.000 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	0.26 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), KDB 789033 D02 General U-NII Test Procedures New Rules v01r03 and ANSI C63.10

Result

DUT Frequency (MHz)	Gated RMS (dBm)	Limit Max (dBm)	Gated EIRP (dBm)	DutyCycle (%)	Result
5745.000000	5.4	30.0	5.4	0.000	PASS



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

Customized settings.

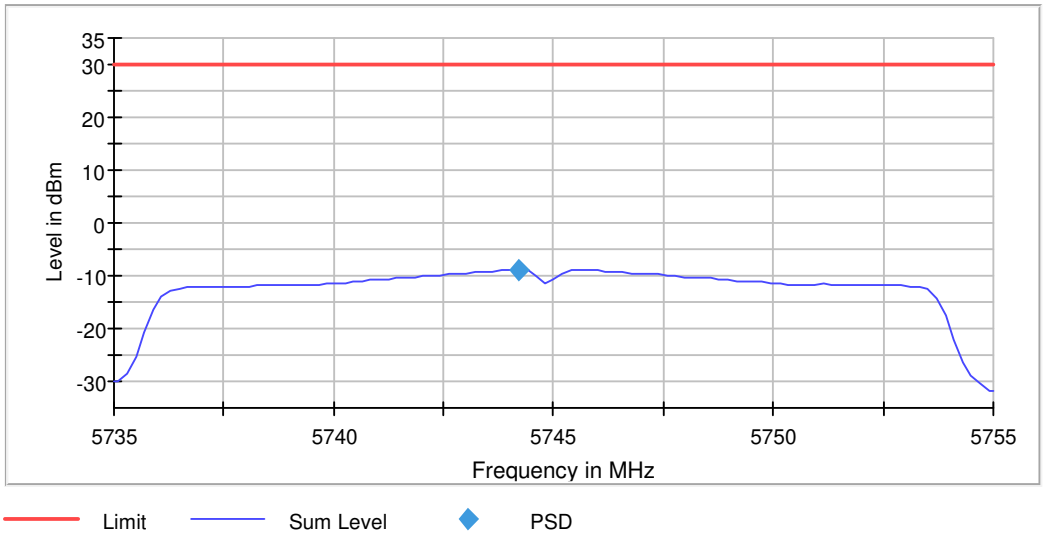
Test according to FCC title 47 part 15 §15.407(a), KDB 789033 D02 General U-NII Test Procedures New Rules v01r03 and ANSI C63.10

Result

DUT Frequency (MHz)	Frequency (MHz)	PSD (dBm)	Limit Max (dBm)	Result
5745.000000	5744.207921	-8.906	30.0	PASS

Ports

Port	Duty Cycle (%)
1	97.048



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
Sweeptime	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 (5745 MHz; 20.000 dBm; 20 MHz)

Customized settings.

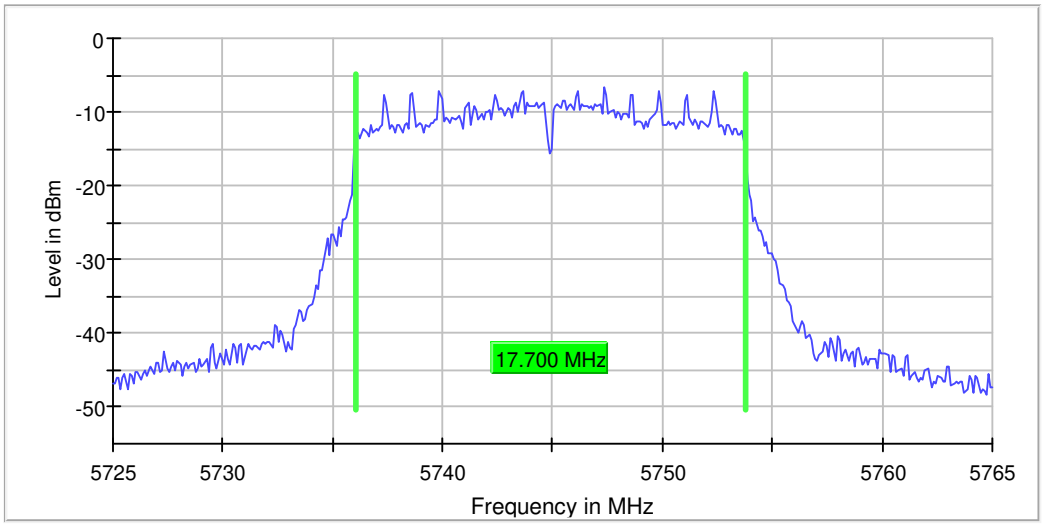
Test according to FCC title 47 part 15 §15.407(a),(e), KDB 789033 D02 General U-NII Test Procedures New Rules v01r03 and ANSI C63.10

6 dB Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
5745.000000	17.700000	0.500000	---	5736.050000	5753.750000

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

DUT Frequency (MHz)	Max Level (dBm)	Result
5745.000000	-6.7	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 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	**18 / max. 150**	**max. 150**
Stable	**1 / 1**	**1**
Max Stable Difference	**0.26 dB**	**0.30 dB**

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

Customized settings.

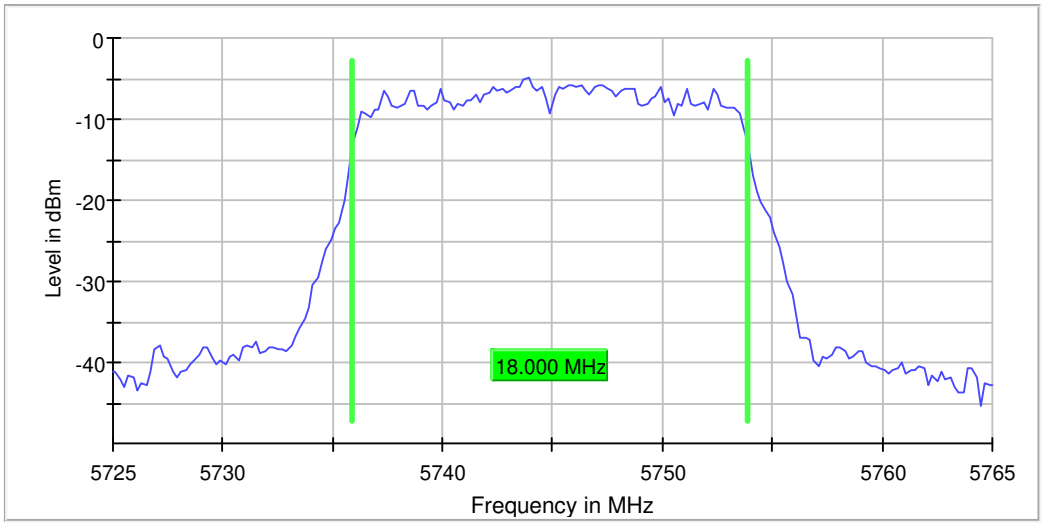
Test according to FCC title 47 part 15 §15.407(a),(e), KDB 789033 D02 General U-NII Test Procedures New Rules v01r03 and ANSI C63.10

99 % Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
5745.000000	18.000000	---	---	5735.900000	5753.900000

(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 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	18 / max. 150	max. 150

Stable	**1 / 1**	**1**
Max Stable Difference	**0.28 dB**	**0.30 dB**

Band Edge low (5745 MHz; 20.000 dBm; 20 MHz)

Customized settings.

Test according to FCC title 47 part 15 §15.407(b), KDB 789033 D02 General U-NII Test Procedures New Rules v01r03 and ANSI C63.10

Result

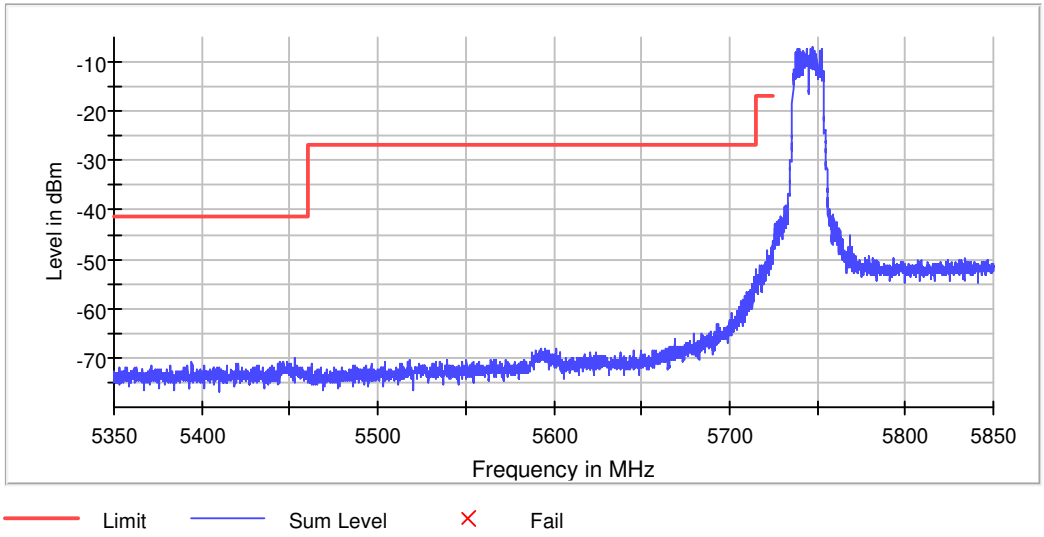
DUT Frequency (MHz)	Result
5745.000000	PASS

Inband Peak

Frequency (MHz)	Level (dBm)
5747.375000	-6.9

Measurements

Frequency (MHz)	Level (dBm)	Margin (dB)	Limit (dBm)	Result
5713.625000	-53.8	26.8	-27.0	PASS
5714.575000	-54.0	27.0	-27.0	PASS
5714.875000	-54.0	27.0	-27.0	PASS
5713.575000	-54.1	27.1	-27.0	PASS
5714.525000	-54.1	27.1	-27.0	PASS
5714.825000	-54.3	27.3	-27.0	PASS
5714.925000	-54.4	27.4	-27.0	PASS
5713.675000	-54.6	27.6	-27.0	PASS
5714.225000	-54.7	27.7	-27.0	PASS
5714.275000	-54.8	27.8	-27.0	PASS
5714.625000	-54.9	27.9	-27.0	PASS
5712.975000	-55.1	28.1	-27.0	PASS
5713.925000	-55.1	28.1	-27.0	PASS
5713.275000	-55.2	28.2	-27.0	PASS
5713.025000	-55.3	28.3	-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 µs	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	17 / max. 150	max. 150
Stable	1 / 1	1
Max Stable Difference	0.39 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 µs	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	10 / max. 150	max. 150
Stable	1 / 1	1
Max Stable Difference	0.00 dB	0.50 dB

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

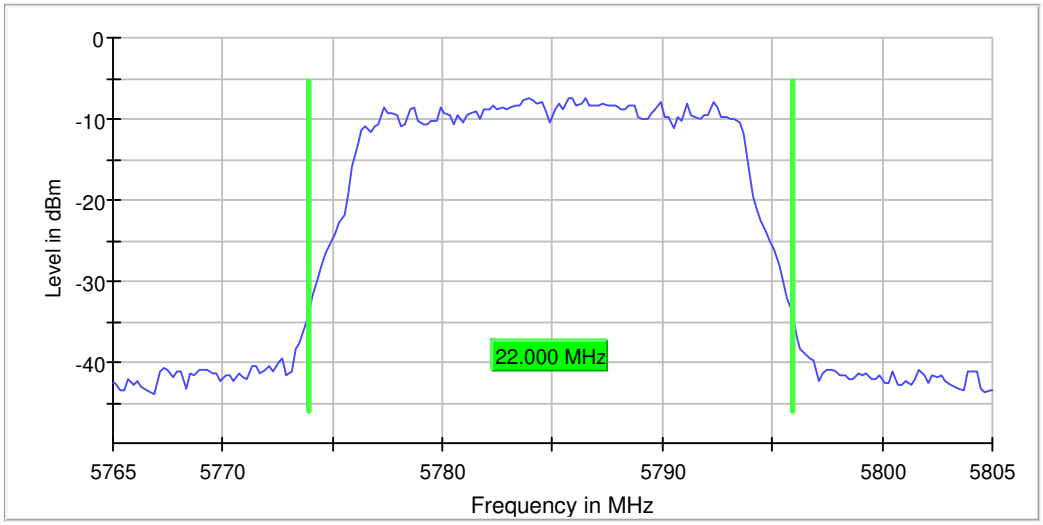
Test according to FCC title 47 part 15 §15.407(a),(e), KDB 789033 D02 General U-NII Test Procedures New Rules v01r03 and ANSI C63.10

26 dB Bandwidth

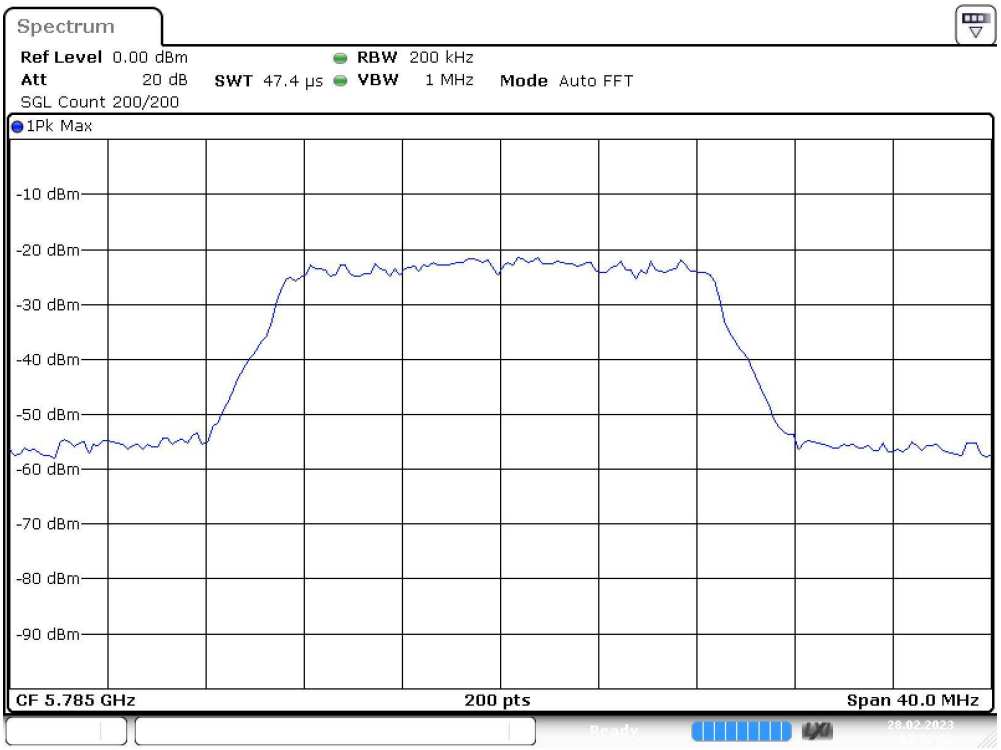
DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
5785.000000	22.000000	---	---	5773.900000	5795.900000

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

DUT Frequency (MHz)	Max Level (dBm)	Result
5785.000000	-7.4	PASS



Bandwidth



Date: 28.FEB.2023 13:02:52

Measurement

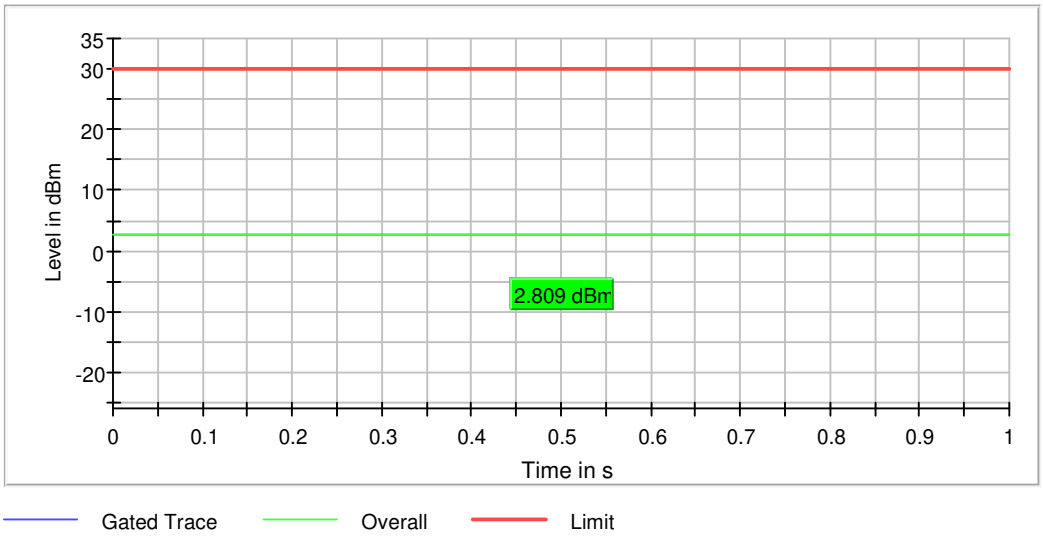
Setting	Instrument Value	Target Value
Start Frequency	5.76500 GHz	5.76500 GHz
Stop Frequency	5.80500 GHz	5.80500 GHz
Span	40.000 MHz	40.000 MHz
RBW	200.000 kHz	~ 200.000 kHz
VBW	1.000 MHz	>= 600.000 kHz
SweepPoints	200	~ 200
Sweeptime	47.405 µs	AUTO
Reference Level	0.000 dBm	0.000 dBm
Attenuation	20.000 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	56 / max. 150	max. 150
Stable	5 / 5	5
Max Stable Difference	0.00 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), KDB 789033 D02 General U-NII Test Procedures New Rules v01r03 and ANSI C63.10

Result

DUT Frequency (MHz)	Gated RMS (dBm)	Limit Max (dBm)	Gated EIRP (dBm)	DutyCycle (%)	Result
5785.000000	2.8	30.0	2.8	100.000	PASS



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

Customized settings.

Max level of analyzer (-11.1 dBm) more than 31.0 dB below the nominal power level.

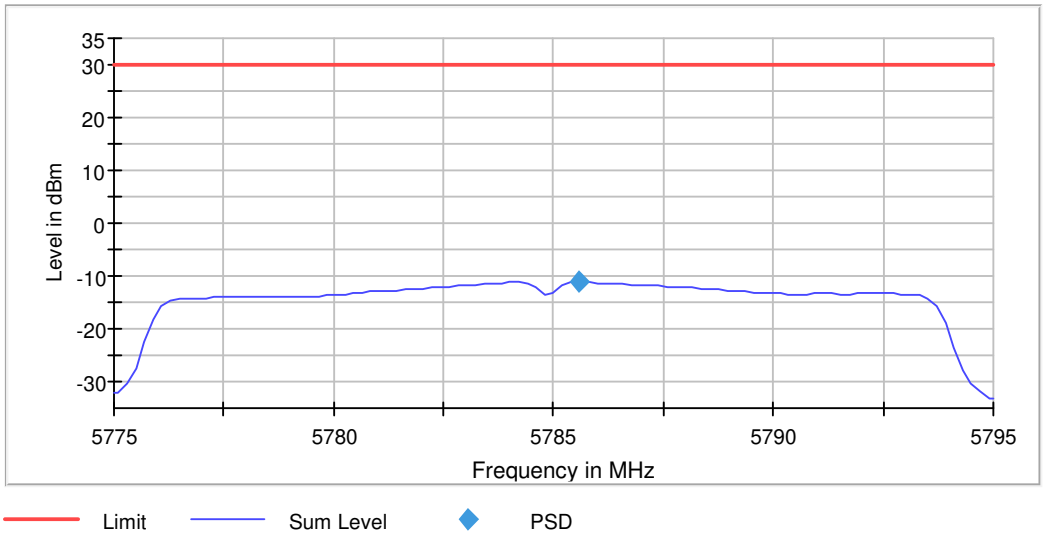
Test according to FCC title 47 part 15 §15.407(a), KDB 789033 D02 General U-NII Test Procedures New Rules v01r03 and ANSI C63.10

Result

DUT Frequency (MHz)	Frequency (MHz)	PSD (dBm)	Limit Max (dBm)	Result
5785.000000	5785.594059	-11.080	30.0	PASS

Ports

Port	Duty Cycle (%)
1	97.055



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
Sweeptime	2.020 s	2.020 s
Reference Level	-10.000 dBm	-10.000 dBm
Attenuation	10.000 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 (5785 MHz; 20.000 dBm; 20 MHz)

Customized settings.

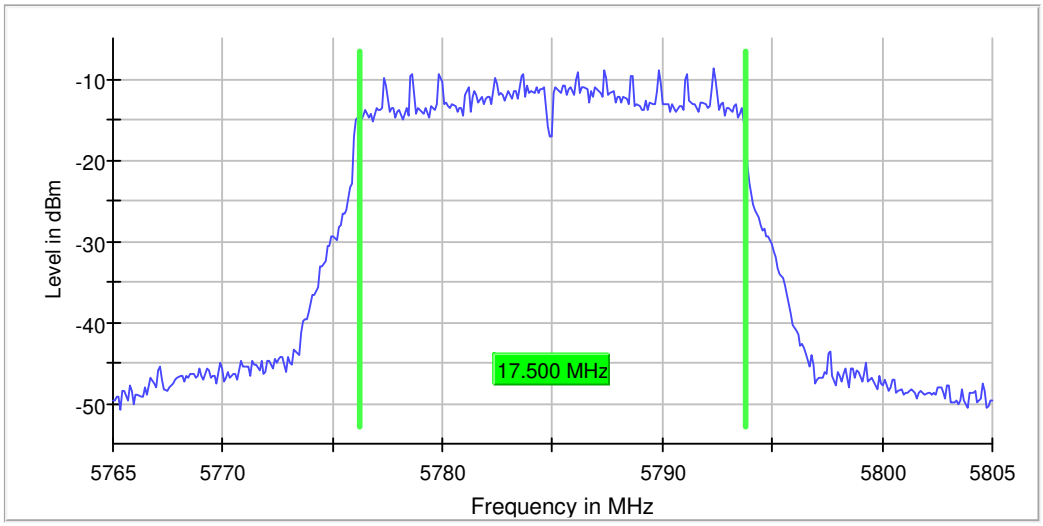
Test according to FCC title 47 part 15 §15.407(a),(e), KDB 789033 D02 General U-NII Test Procedures New Rules v01r03 and ANSI C63.10

6 dB Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
5785.000000	17.500000	0.500000	---	5776.250000	5793.750000

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

DUT Frequency (MHz)	Max Level (dBm)	Result
5785.000000	-8.7	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 µs	AUTO
Reference Level	-10.000 dBm	-10.000 dBm
Attenuation	10.000 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	**1 / 1**	**1**
Max Stable Difference	**0.23 dB**	**0.30 dB**

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

Customized settings.

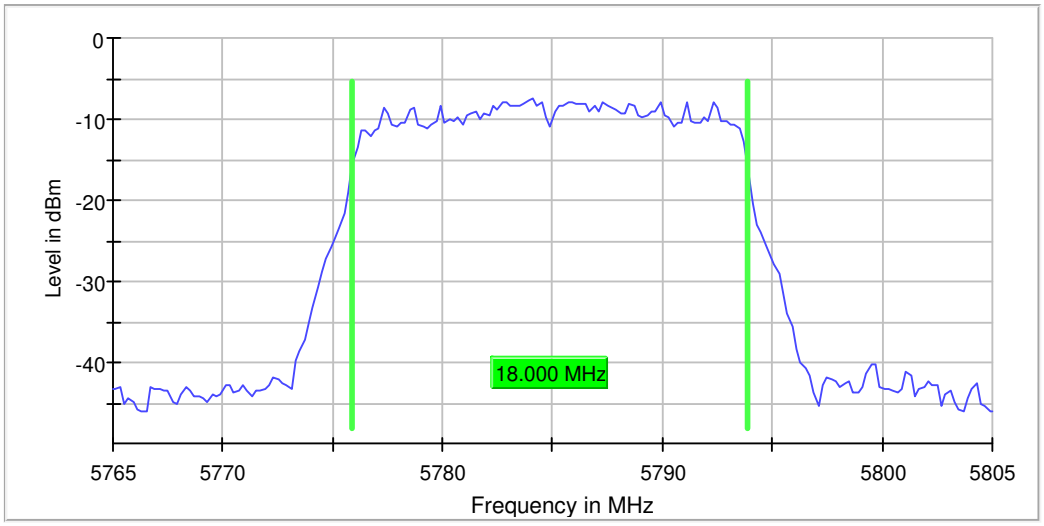
Test according to FCC title 47 part 15 §15.407(a),(e), KDB 789033 D02 General U-NII Test Procedures New Rules v01r03 and ANSI C63.10

99 % Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
5785.000000	18.000000	---	---	5775.900000	5793.900000

(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	10.000 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	13 / max. 150	max. 150

Stable	**1 / 1**	**1**
Max Stable Difference	**0.24 dB**	**0.30 dB**

Emission Bandwidth 26 dB (5825 MHz; 20.000 dBm; 20 MHz)

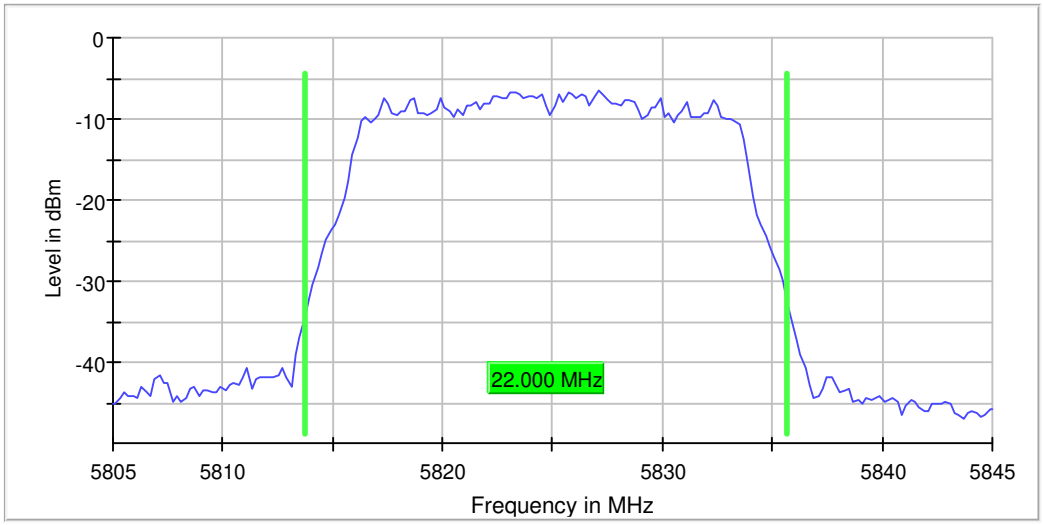
Test according to FCC title 47 part 15 §15.407(a),(e), KDB 789033 D02 General U-NII Test Procedures New Rules v01r03 and ANSI C63.10

26 dB Bandwidth

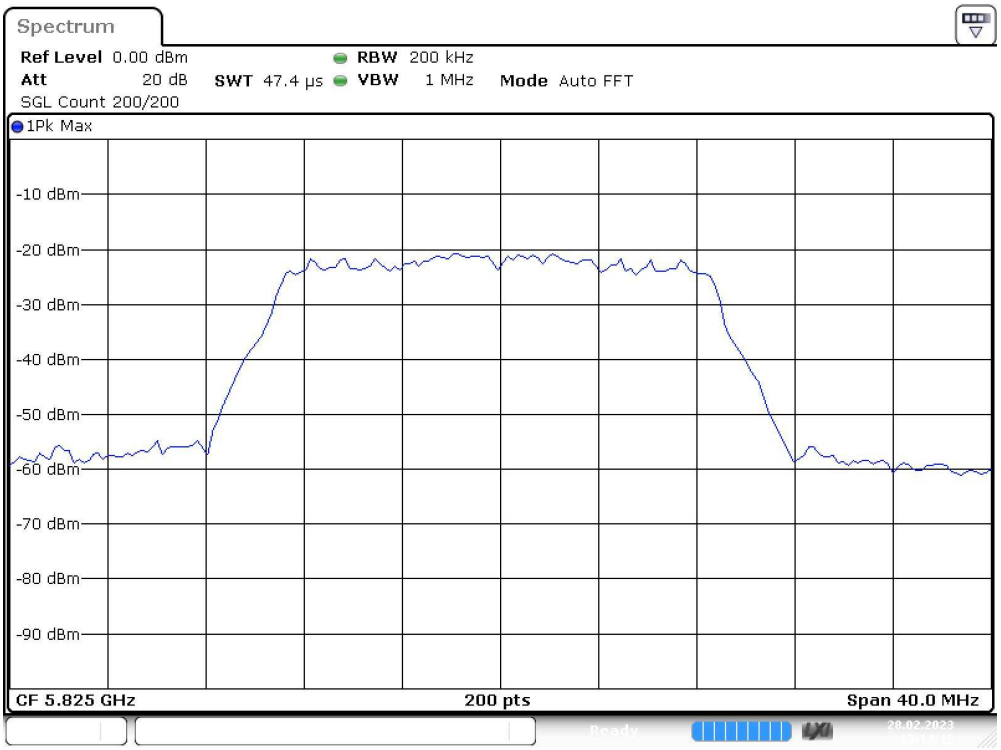
DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
5825.000000	22.000000	---	---	5813.700000	5835.700000

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

DUT Frequency (MHz)	Max Level (dBm)	Result
5825.000000	-6.5	PASS



Bandwidth



Date: 28.FEB.2023 13:14:19

Measurement

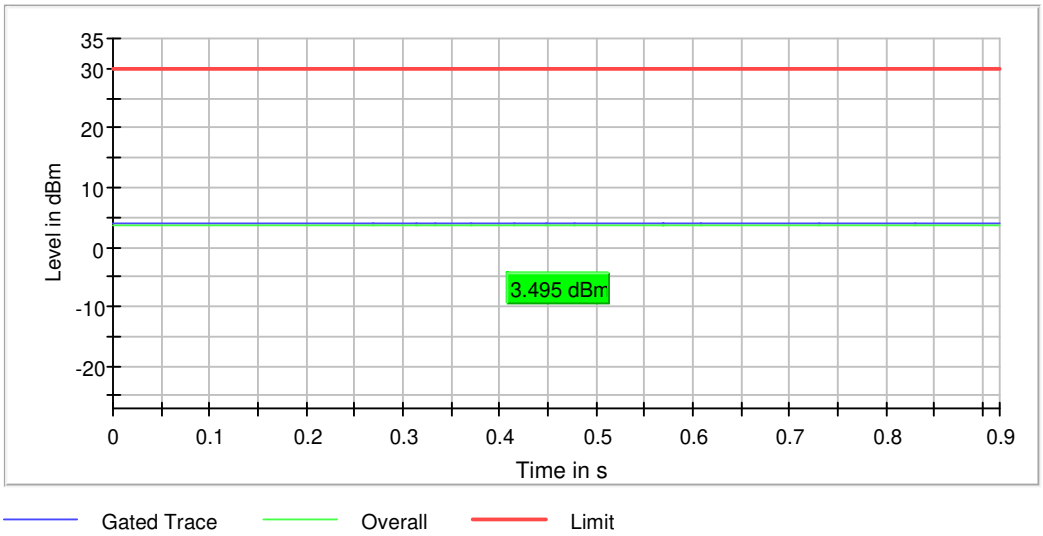
Setting	Instrument Value	Target Value
Start Frequency	5.80500 GHz	5.80500 GHz
Stop Frequency	5.84500 GHz	5.84500 GHz
Span	40.000 MHz	40.000 MHz
RBW	200.000 kHz	~ 200.000 kHz
VBW	1.000 MHz	>= 600.000 kHz
SweepPoints	200	~ 200
Sweeptime	47.405 µs	AUTO
Reference Level	0.000 dBm	0.000 dBm
Attenuation	20.000 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	47 / max. 150	max. 150
Stable	5 / 5	5
Max Stable Difference	0.00 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), KDB 789033 D02 General U-NII Test Procedures New Rules v01r03 and ANSI C63.10

Result

DUT Frequency (MHz)	Gated RMS (dBm)	Limit Max (dBm)	Gated EIRP (dBm)	DutyCycle (%)	Result
5825.000000	3.5	30.0	3.5	100.000	PASS



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

Customized settings.

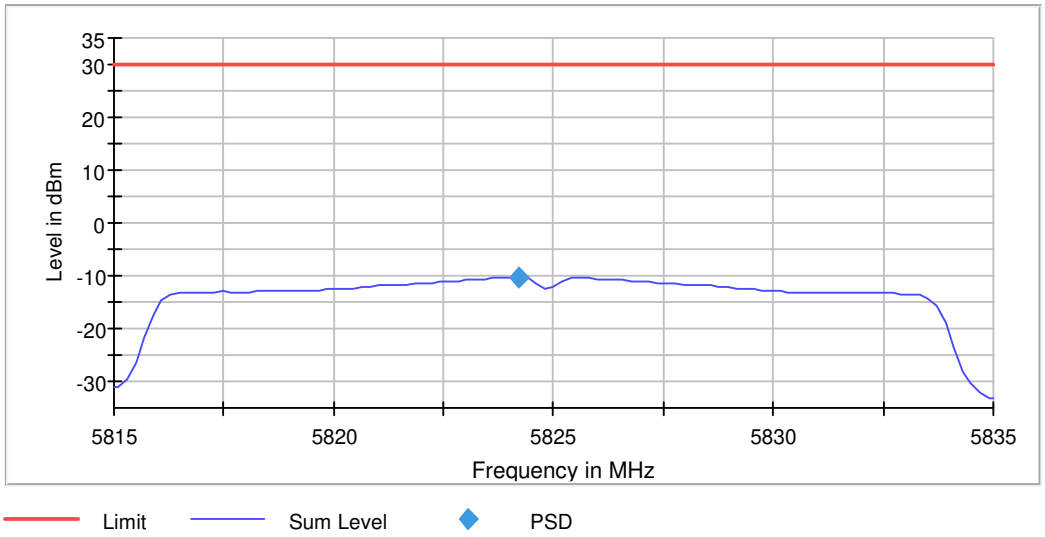
Test according to FCC title 47 part 15 §15.407(a), KDB 789033 D02 General U-NII Test Procedures New Rules v01r03 and ANSI C63.10

Result

DUT Frequency (MHz)	Frequency (MHz)	PSD (dBm)	Limit Max (dBm)	Result
5825.000000	5824.207921	-10.283	30.0	PASS

Ports

Port	Duty Cycle (%)
1	97.050



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
Sweeptime	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 (5825 MHz; 20.000 dBm; 20 MHz)

Customized settings.

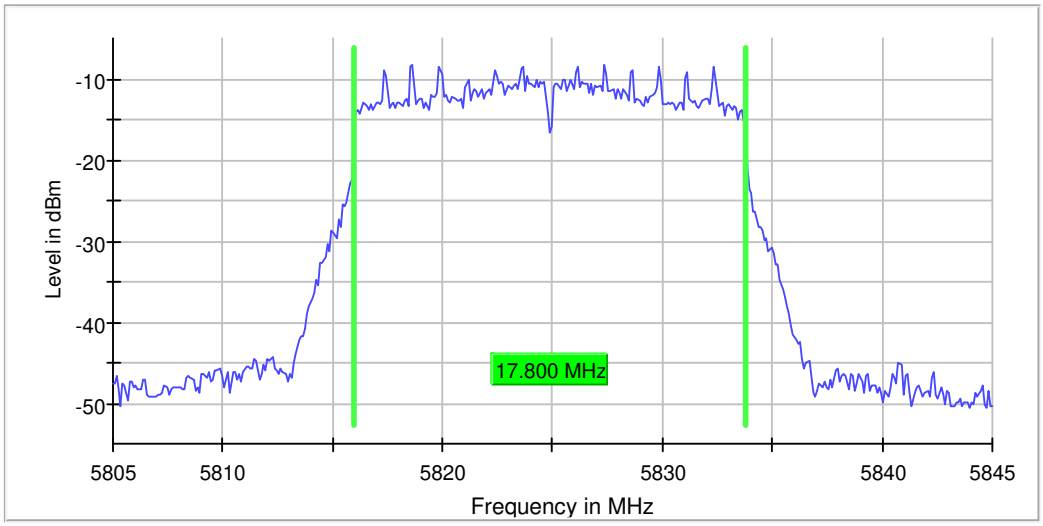
Test according to FCC title 47 part 15 §15.407(a),(e), KDB 789033 D02 General U-NII Test Procedures New Rules v01r03 and ANSI C63.10

6 dB Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
5825.000000	17.800000	0.500000	---	5815.950000	5833.750000

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

DUT Frequency (MHz)	Max Level (dBm)	Result
5825.000000	-8.2	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 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	**17 / max. 150**	**max. 150**
Stable	**1 / 1**	**1**
Max Stable Difference	**0.23 dB**	**0.30 dB**

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

Customized settings.

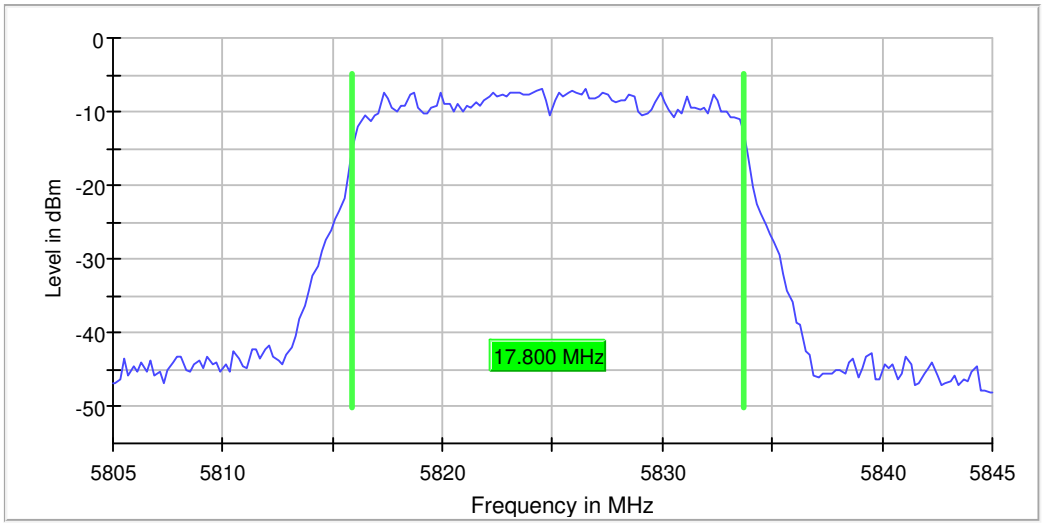
Test according to FCC title 47 part 15 §15.407(a),(e), KDB 789033 D02 General U-NII Test Procedures New Rules v01r03 and ANSI C63.10

99 % Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
5825.000000	17.800000	---	---	5815.900000	5833.700000

(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	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	**1 / 1**	**1**
Max Stable Difference	**0.25 dB**	**0.30 dB**

Band Edge high (5825 MHz; 20.000 dBm; 20 MHz)

Customized settings.

Test according to FCC title 47 part 15 §15.407(b), KDB 789033 D02 General U-NII Test Procedures New Rules v01r03 and ANSI C63.10

Result

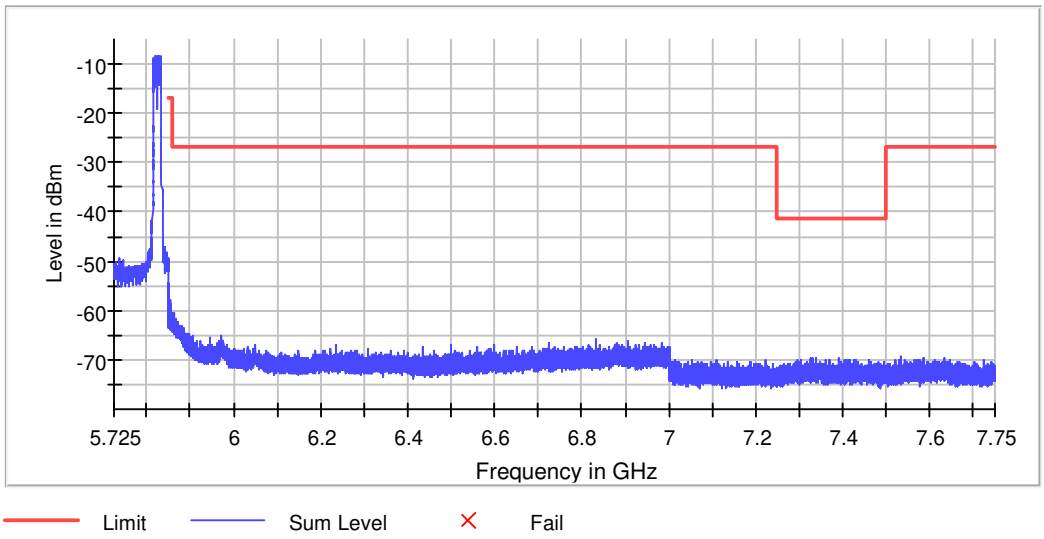
DUT Frequency (MHz)	Result
5825.000000	PASS

Inband Peak

Frequency (MHz)	Level (dBm)
5827.375000	-8.3

Measurements

Frequency (MHz)	Level (dBm)	Margin (dB)	Limit (dBm)	Result
7326.825000	-69.6	28.3	-41.2	PASS
7337.975000	-69.6	28.4	-41.2	PASS
7326.775000	-69.7	28.5	-41.2	PASS
7329.725000	-69.7	28.5	-41.2	PASS
7337.925000	-69.7	28.5	-41.2	PASS
7329.675000	-69.7	28.5	-41.2	PASS
7389.225000	-69.8	28.6	-41.2	PASS
7331.525000	-69.9	28.7	-41.2	PASS
7389.175000	-69.9	28.7	-41.2	PASS
7360.075000	-70.0	28.7	-41.2	PASS
7417.675000	-70.0	28.7	-41.2	PASS
7305.125000	-70.0	28.8	-41.2	PASS
7459.575000	-70.0	28.8	-41.2	PASS
7331.575000	-70.0	28.8	-41.2	PASS
7459.625000	-70.1	28.8	-41.2	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 µs	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	22 / max. 150	max. 150
Stable	1 / 1	1
Max Stable Difference	0.49 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	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	4 / max. 150	max. 150
Stable	1 / 1	1
Max Stable Difference	0.00 dB	0.50 dB

FCC 15.407 2015

DUT Information

Frequencies

WLAN CH 38 (5190 MHz)	WLAN CH 46 (5230 MHz)	WLAN CH 151 (5755 MHz)
WLAN CH 159 (5795 MHz)	WLAN CH 54 (5270 MHz)	WLAN CH 62 (5310 MHz)
WLAN CH 102 (5510 MHz)	WLAN CH 110 (5550 MHz)	WLAN CH 118 (5590 MHz)
WLAN CH 134 (5670 MHz)		

Bandwidths

40 MHz (40 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::192.168.48.111::INST0::INSTR), SN 1321.3008K39/101229, FW 3.40
Vector Generator:	VG SMBV100B (VG SMBV100B) @ VISA (ADR TCPIP::192.168.48.29::INST0::INSTR), SN 101685, FW 4.70.006.33
Generator:	SMB100Aa (SMB100A) @ VISA (ADR TCPIP::192.168.48.30::INST0::INSTR), SN 177894, 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	5755.000	20.0	40.000000	PASS
RF output power	5755.000	20.0	40.000000	PASS
Power Spectral Density	5755.000	20.0	40.000000	PASS
Minimum Emission Bandwidth 6 dB	5755.000	20.0	40.000000	PASS
Occupied Channel Bandwidth 99%	5755.000	20.0	40.000000	PASS
Band Edge low	5755.000	20.0	40.000000	PASS
Emission Bandwidth 26 dB	5795.000	20.0	40.000000	PASS
RF output power	5795.000	20.0	40.000000	PASS
Power Spectral Density	5795.000	20.0	40.000000	PASS
Minimum Emission Bandwidth 6 dB	5795.000	20.0	40.000000	PASS
Occupied Channel Bandwidth 99%	5795.000	20.0	40.000000	PASS
Band Edge high	5795.000	20.0	40.000000	PASS

Emission Bandwidth 26 dB (5755 MHz; 20.000 dBm; 40 MHz)

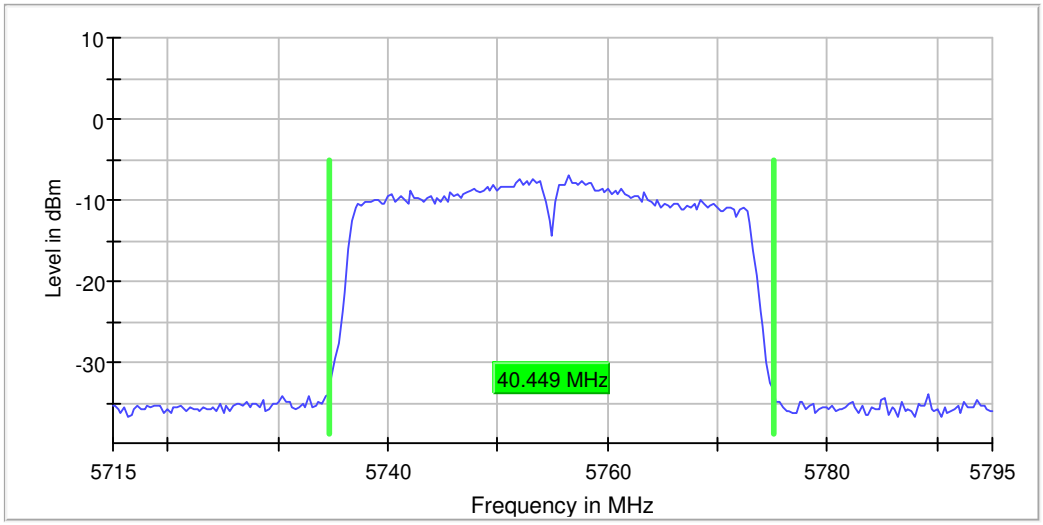
Test according to FCC title 47 part 15 §15.407(a),(e), KDB 789033 D02 General U-NII Test Procedures New Rules v01r03 and ANSI C63.10

26 dB Bandwidth

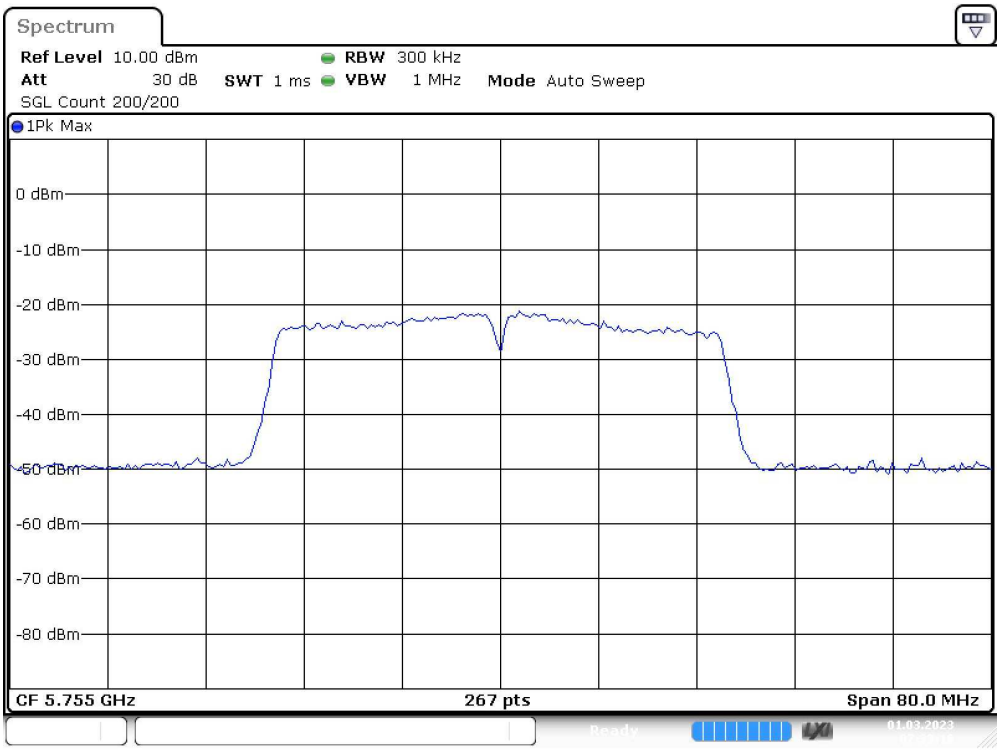
DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
5755.000000	40.449438	---	---	5734.625468	5775.074906

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

DUT Frequency (MHz)	Max Level (dBm)	Result
5755.000000	-7.1	PASS



Bandwidth



Date: 1.MAR.2023 07:33:19

Measurement

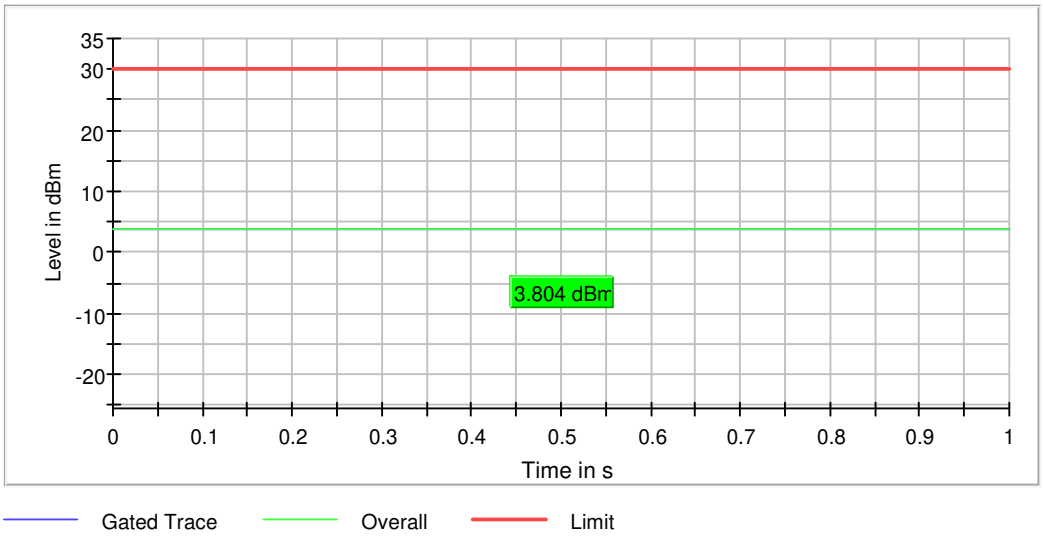
Setting	Instrument Value	Target Value
Start Frequency	5.71500 GHz	5.71500 GHz
Stop Frequency	5.79500 GHz	5.79500 GHz
Span	80.000 MHz	80.000 MHz
RBW	300.000 kHz	~ 400.000 kHz
VBW	1.000 MHz	>= 900.000 kHz
SweepPoints	267	~ 267
Sweeptime	1.000 ms	AUTO
Reference Level	10.000 dBm	10.000 dBm
Attenuation	30.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	200	200
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
Sweeptype	Sweep	AUTO
Preamp	off	off
Stablemode	Trace	Trace
Stablevalue	0.30 dB	0.30 dB
Run	44 / max. 150	max. 150
Stable	5 / 5	5
Max Stable Difference	0.23 dB	0.30 dB

RF output power (5755 MHz; 20.000 dBm; 40 MHz)

Test according to FCC title 47 part 15 §15.407(a), KDB 789033 D02 General U-NII Test Procedures New Rules v01r03 and ANSI C63.10

Result

DUT Frequency (MHz)	Gated RMS (dBm)	Limit Max (dBm)	Gated EIRP (dBm)	DutyCycle (%)	Result
5755.000000	3.8	30.0	3.8	100.000	PASS



Power Spectral Density (5755 MHz; 20.000 dBm; 40 MHz)

Customized settings.

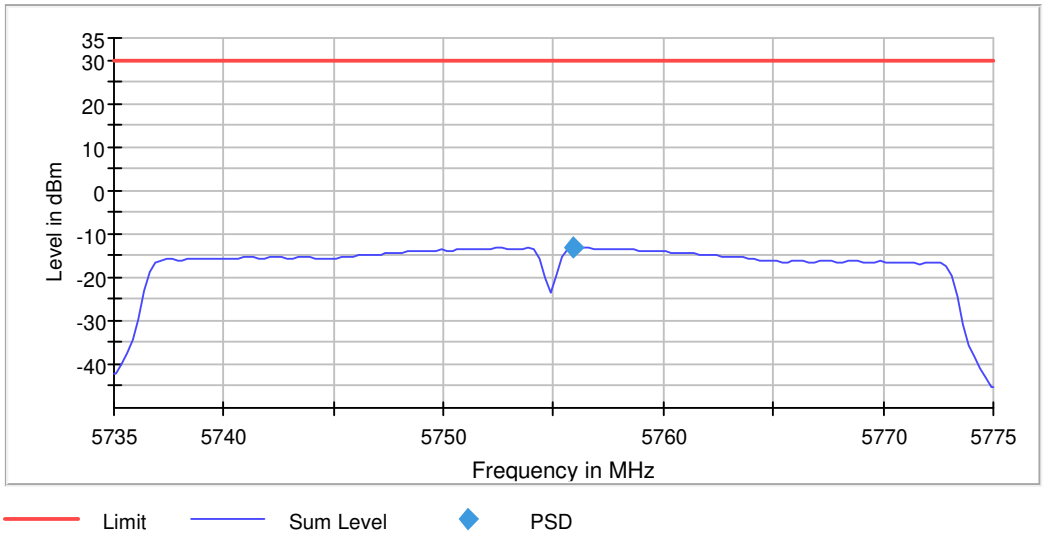
Test according to FCC title 47 part 15 §15.407(a), KDB 789033 D02 General U-NII Test Procedures New Rules v01r03 and ANSI C63.10

Result

DUT Frequency (MHz)	Frequency (MHz)	PSD (dBm)	Limit Max (dBm)	Result
5755.000000	5755.875000	-13.163	30.0	PASS

Ports

Port	Duty Cycle (%)
1	94.241



Measurement

Setting	Instrument Value	Target Value
Start Frequency	5.73500 GHz	5.73500 GHz
Stop Frequency	5.77500 GHz	5.77500 GHz
Span	40.000 MHz	40.000 MHz
RBW	500.000 kHz	<= 500.000 kHz
VBW	2.000 MHz	>= 1.500 MHz
SweepPoints	160	~ 160
Sweeptime	3.200 s	3.200 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 (5755 MHz; 20.000 dBm; 40 MHz)

Customized settings.

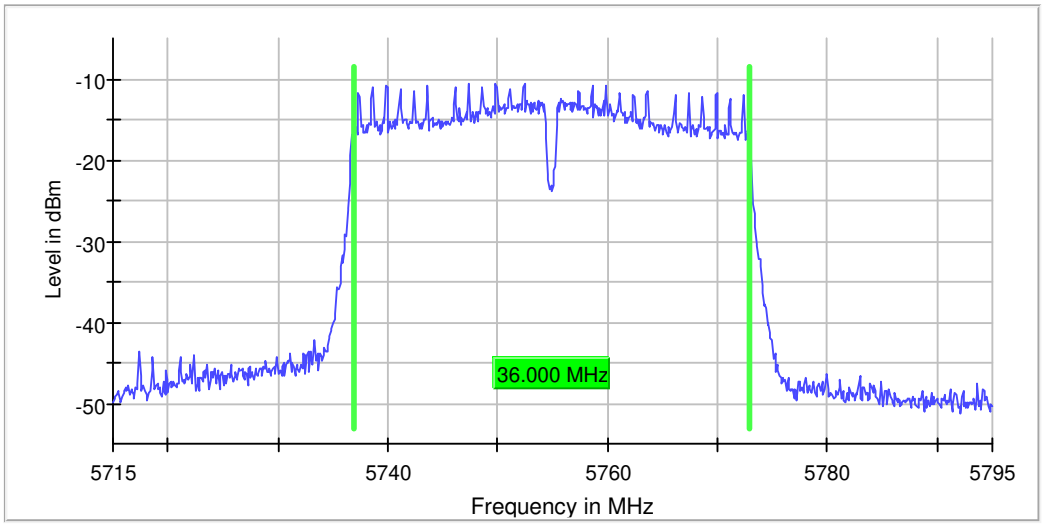
Test according to FCC title 47 part 15 §15.407(a),(e), KDB 789033 D02 General U-NII Test Procedures New Rules v01r03 and ANSI C63.10

6 dB Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
5755.000000	36.000000	0.500000	---	5736.850000	5772.850000

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

DUT Frequency (MHz)	Max Level (dBm)	Result
5755.000000	-10.5	PASS



Measurement

Setting	Instrument Value	Target Value
Start Frequency	5.71500 GHz	5.71500 GHz
Stop Frequency	5.79500 GHz	5.79500 GHz
Span	80.000 MHz	80.000 MHz
RBW	100.000 kHz	~ 100.000 kHz
VBW	300.000 kHz	~ 300.000 kHz
SweepPoints	800	~ 800
Sweeptime	1.070 ms	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	Sweep	AUTO
Preamp	off	off
Stablemode	Trace	Trace

Stablevalue	**0.30 dB**	**0.30 dB**
Run	**30 / max. 150**	**max. 150**
Stable	**1 / 1**	**1**
Max Stable Difference	**0.17 dB**	**0.30 dB**

Occupied Channel Bandwidth 99% (5755 MHz; 20.000 dBm; 40 MHz)

Customized settings.

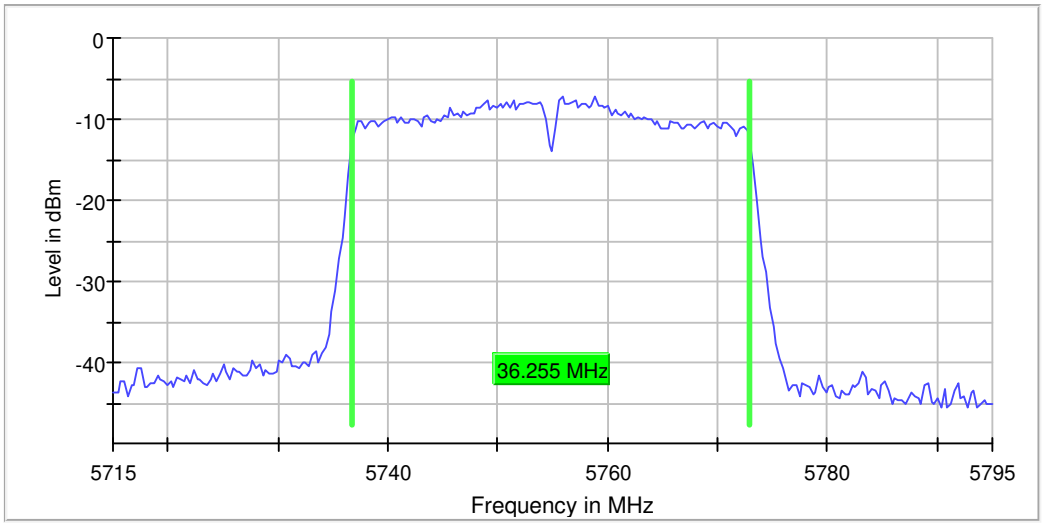
Test according to FCC title 47 part 15 §15.407(a),(e), KDB 789033 D02 General U-NII Test Procedures New Rules v01r03 and ANSI C63.10

99 % Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
5755.000000	36.254682	---	---	5736.722846	5772.977528

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

DUT Frequency (MHz)	Result
5755.000000	PASS



Measurement

Setting	Instrument Value	Target Value
Start Frequency	5.71500 GHz	5.71500 GHz
Stop Frequency	5.79500 GHz	5.79500 GHz
Span	80.000 MHz	80.000 MHz
RBW	300.000 kHz	<= 400.000 kHz
VBW	1.000 MHz	>= 900.000 kHz
SweepPoints	267	~ 267
Sweeptime	1.000 ms	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	Sweep	AUTO
Preamp	off	off
Stablemode	Trace	Trace
Stablevalue	0.30 dB	0.30 dB
Run	22 / max. 150	max. 150

Stable	**1 / 1**	**1**
Max Stable Difference	**0.17 dB**	**0.30 dB**

Band Edge low (5755 MHz; 20.000 dBm; 40 MHz)

Customized settings.

Test according to FCC title 47 part 15 §15.407(b), KDB 789033 D02 General U-NII Test Procedures New Rules v01r03 and ANSI C63.10

Result

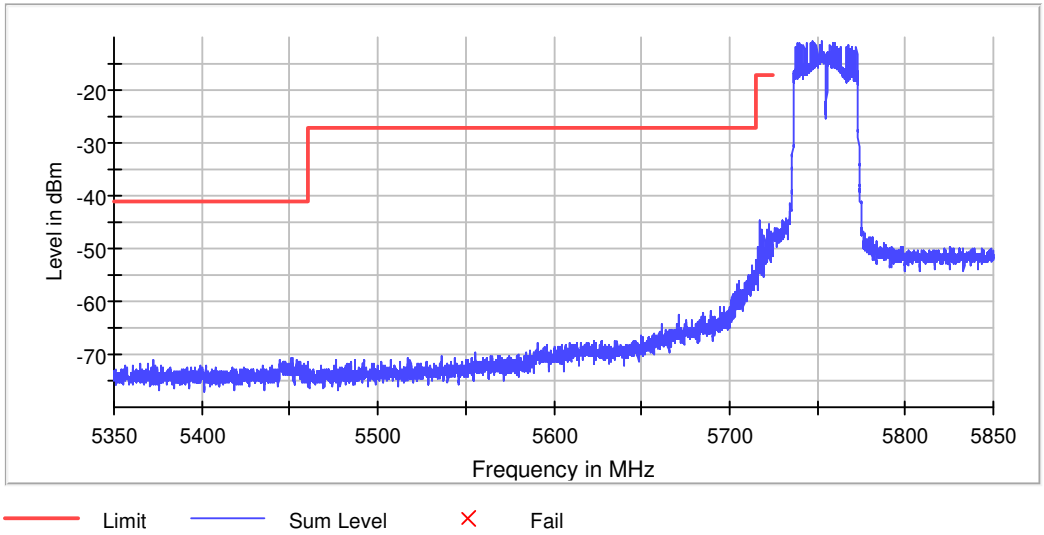
DUT Frequency (MHz)	Result
5755.000000	PASS

Inband Peak

Frequency (MHz)	Level (dBm)
5752.375000	-10.6

Measurements

Frequency (MHz)	Level (dBm)	Margin (dB)	Limit (dBm)	Result
5714.875000	-52.3	25.3	-27.0	PASS
5714.925000	-52.8	25.8	-27.0	PASS
5713.275000	-53.2	26.2	-27.0	PASS
5713.225000	-53.6	26.6	-27.0	PASS
5713.025000	-53.7	26.7	-27.0	PASS
5714.825000	-53.8	26.8	-27.0	PASS
5714.975000	-53.8	26.8	-27.0	PASS
5712.975000	-53.9	26.9	-27.0	PASS
5713.925000	-54.2	27.2	-27.0	PASS
5714.525000	-54.2	27.2	-27.0	PASS
5714.475000	-54.3	27.3	-27.0	PASS
5714.575000	-54.4	27.4	-27.0	PASS
5713.875000	-54.4	27.4	-27.0	PASS
5714.775000	-54.5	27.5	-27.0	PASS
5713.325000	-54.5	27.5	-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 µs	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	27 / max. 150	max. 150
Stable	1 / 1	1
Max Stable Difference	0.28 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 µs	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	1 / 1	1
Max Stable Difference	0.10 dB	0.50 dB

Emission Bandwidth 26 dB (5795 MHz; 20.000 dBm; 40 MHz)

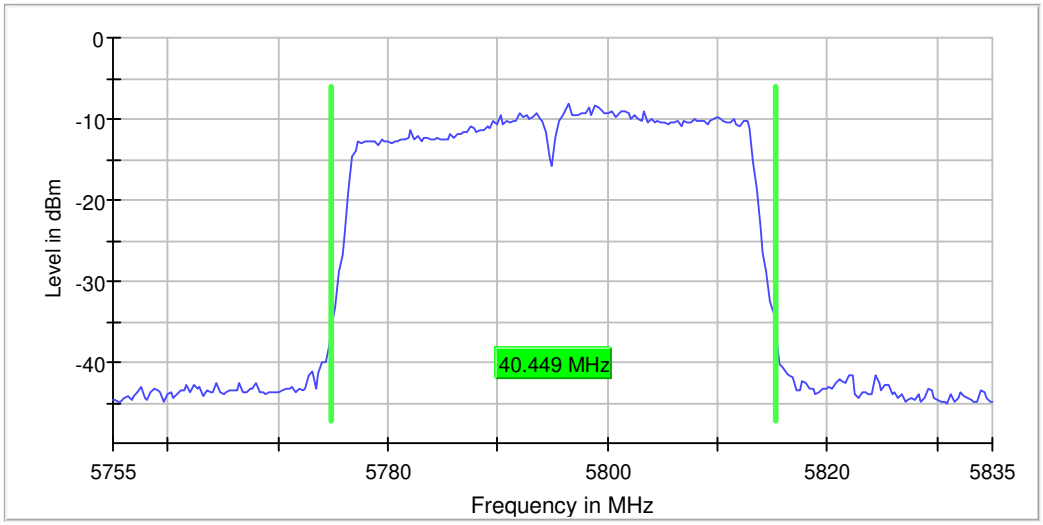
Test according to FCC title 47 part 15 §15.407(a),(e), KDB 789033 D02 General U-NII Test Procedures New Rules v01r03 and ANSI C63.10

26 dB Bandwidth

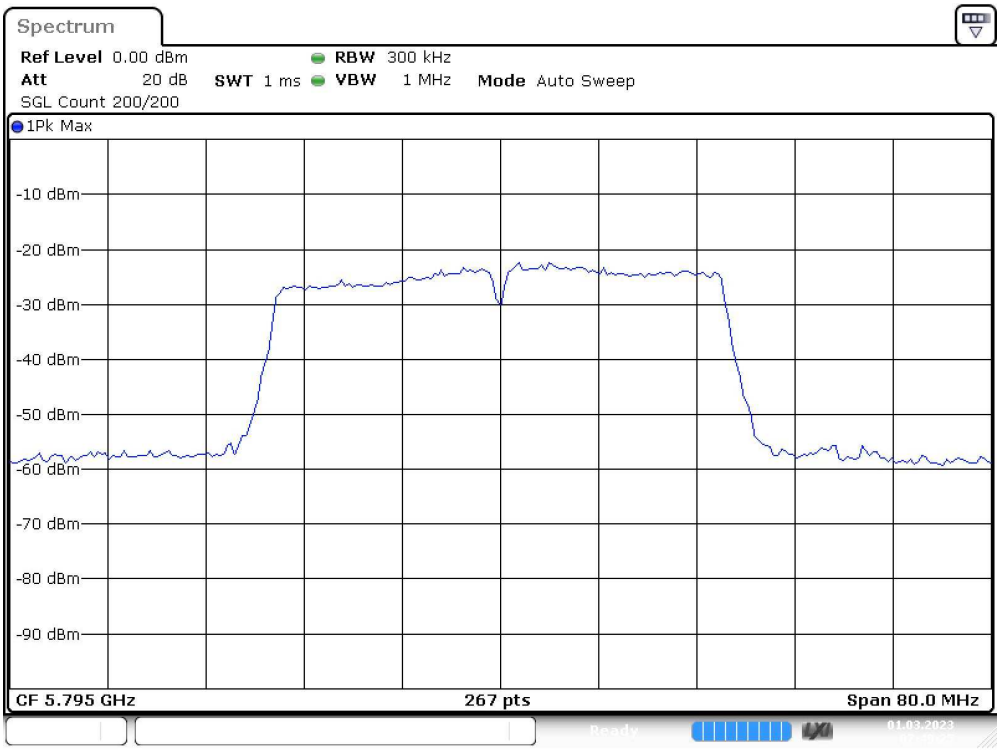
DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
5795.000000	40.449438	---	---	5774.925094	5815.374532

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

DUT Frequency (MHz)	Max Level (dBm)	Result
5795.000000	-8.1	PASS



Bandwidth



Date: 1.MAR.2023 07:49:25

Measurement

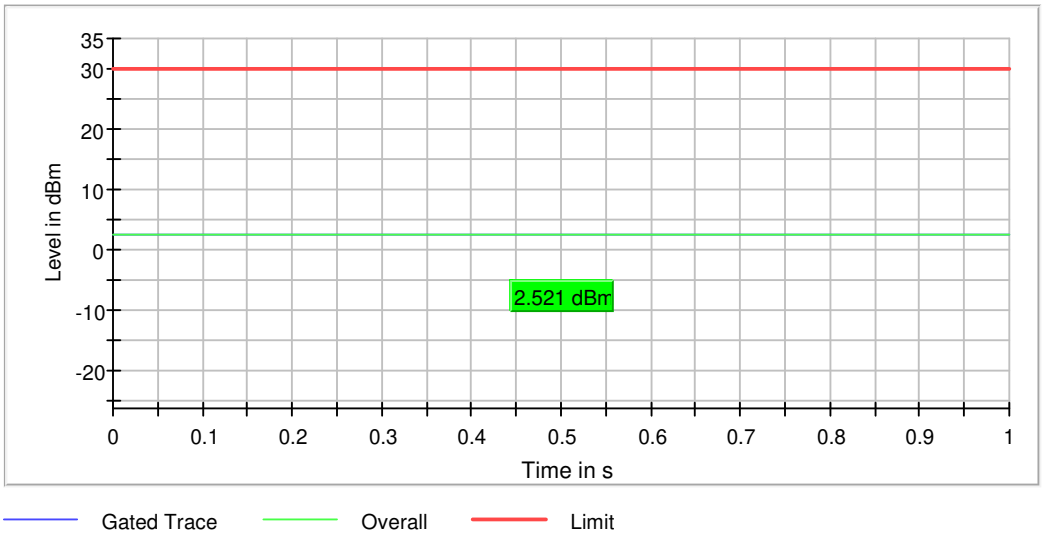
Setting	Instrument Value	Target Value
Start Frequency	5.75500 GHz	5.75500 GHz
Stop Frequency	5.83500 GHz	5.83500 GHz
Span	80.000 MHz	80.000 MHz
RBW	300.000 kHz	~ 400.000 kHz
VBW	1.000 MHz	>= 900.000 kHz
SweepPoints	267	~ 267
Sweeptime	1.000 ms	AUTO
Reference Level	0.000 dBm	0.000 dBm
Attenuation	20.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	200	200
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
Sweeptype	Sweep	AUTO
Preamp	off	off
Stablemode	Trace	Trace
Stablevalue	0.30 dB	0.30 dB
Run	49 / max. 150	max. 150
Stable	5 / 5	5
Max Stable Difference	0.01 dB	0.30 dB

RF output power (5795 MHz; 20.000 dBm; 40 MHz)

Test according to FCC title 47 part 15 §15.407(a), KDB 789033 D02 General U-NII Test Procedures New Rules v01r03 and ANSI C63.10

Result

DUT Frequency (MHz)	Gated RMS (dBm)	Limit Max (dBm)	Gated EIRP (dBm)	DutyCycle (%)	Result
5795.000000	2.5	30.0	2.5	100.000	PASS



Power Spectral Density (5795 MHz; 20.000 dBm; 40 MHz)

Customized settings.

Max level of analyzer (-14.6 dBm) more than 34.0 dB below the nominal power level.

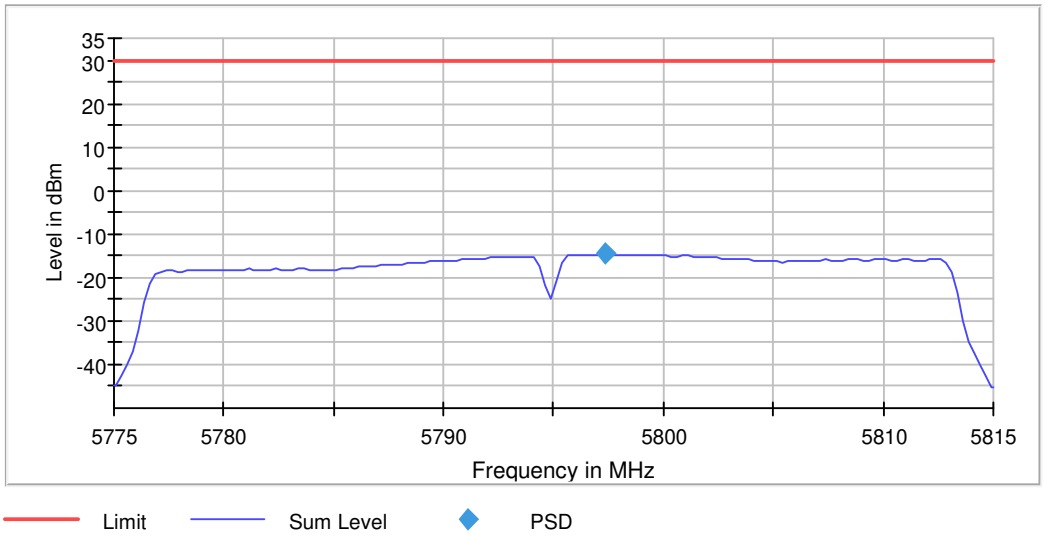
Test according to FCC title 47 part 15 §15.407(a), KDB 789033 D02 General U-NII Test Procedures New Rules v01r03 and ANSI C63.10

Result

DUT Frequency (MHz)	Frequency (MHz)	PSD (dBm)	Limit Max (dBm)	Result
5795.000000	5797.375000	-14.643	30.0	PASS

Ports

Port	Duty Cycle (%)
1	94.245



Measurement

Setting	Instrument Value	Target Value
Start Frequency	5.77500 GHz	5.77500 GHz
Stop Frequency	5.81500 GHz	5.81500 GHz
Span	40.000 MHz	40.000 MHz
RBW	500.000 kHz	<= 500.000 kHz
VBW	2.000 MHz	>= 1.500 MHz
SweepPoints	160	~ 160
Sweeptime	3.200 s	3.200 s
Reference Level	-10.000 dBm	-10.000 dBm
Attenuation	10.000 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	**0.01 dB**	**0.30 dB**

Minimum Emission Bandwidth 6 dB (5795 MHz; 20.000 dBm; 40 MHz)

Customized settings.

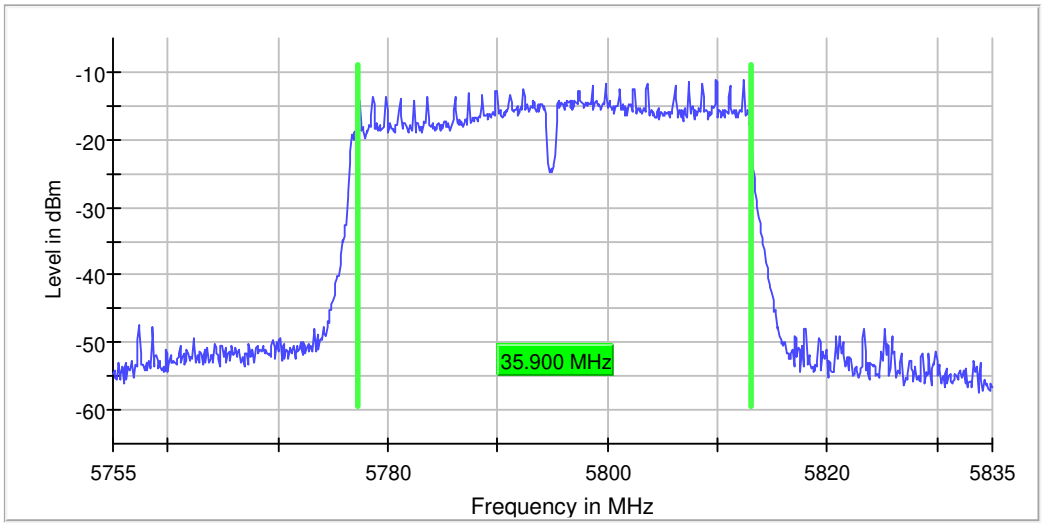
Test according to FCC title 47 part 15 §15.407(a),(e), KDB 789033 D02 General U-NII Test Procedures New Rules v01r03 and ANSI C63.10

6 dB Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
5795.000000	35.900000	0.500000	---	5777.250000	5813.150000

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

DUT Frequency (MHz)	Max Level (dBm)	Result
5795.000000	-11.0	PASS



Measurement

Setting	Instrument Value	Target Value
Start Frequency	5.75500 GHz	5.75500 GHz
Stop Frequency	5.83500 GHz	5.83500 GHz
Span	80.000 MHz	80.000 MHz
RBW	100.000 kHz	~ 100.000 kHz
VBW	300.000 kHz	~ 300.000 kHz
SweepPoints	800	~ 800
Sweeptime	1.070 ms	AUTO
Reference Level	-10.000 dBm	-10.000 dBm
Attenuation	10.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	200	200
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	**23 / max. 150**	**max. 150**
Stable	**1 / 1**	**1**
Max Stable Difference	**0.20 dB**	**0.30 dB**

Occupied Channel Bandwidth 99% (5795 MHz; 20.000 dBm; 40 MHz)

Customized settings.

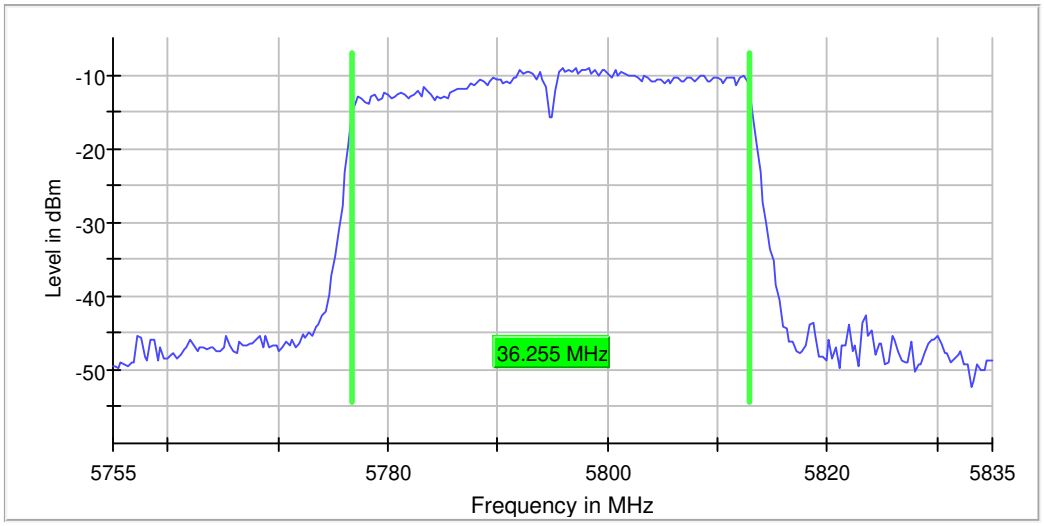
Test according to FCC title 47 part 15 §15.407(a),(e), KDB 789033 D02 General U-NII Test Procedures New Rules v01r03 and ANSI C63.10

99 % Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
5795.000000	36.254682	---	---	5776.722846	5812.977528

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

DUT Frequency (MHz)	Result
5795.000000	PASS



Measurement

Setting	Instrument Value	Target Value
Start Frequency	5.75500 GHz	5.75500 GHz
Stop Frequency	5.83500 GHz	5.83500 GHz
Span	80.000 MHz	80.000 MHz
RBW	300.000 kHz	<= 400.000 kHz
VBW	1.000 MHz	>= 900.000 kHz
SweepPoints	267	~ 267
Sweeptime	1.000 ms	AUTO
Reference Level	-10.000 dBm	-10.000 dBm
Attenuation	10.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	200	200
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	12 / max. 150	max. 150

Stable	**1 / 1**	**1**
Max Stable Difference	**0.28 dB**	**0.30 dB**

Band Edge high (5795 MHz; 20.000 dBm; 40 MHz)

Customized settings.

Test according to FCC title 47 part 15 §15.407(b), KDB 789033 D02 General U-NII Test Procedures New Rules v01r03 and ANSI C63.10

Result

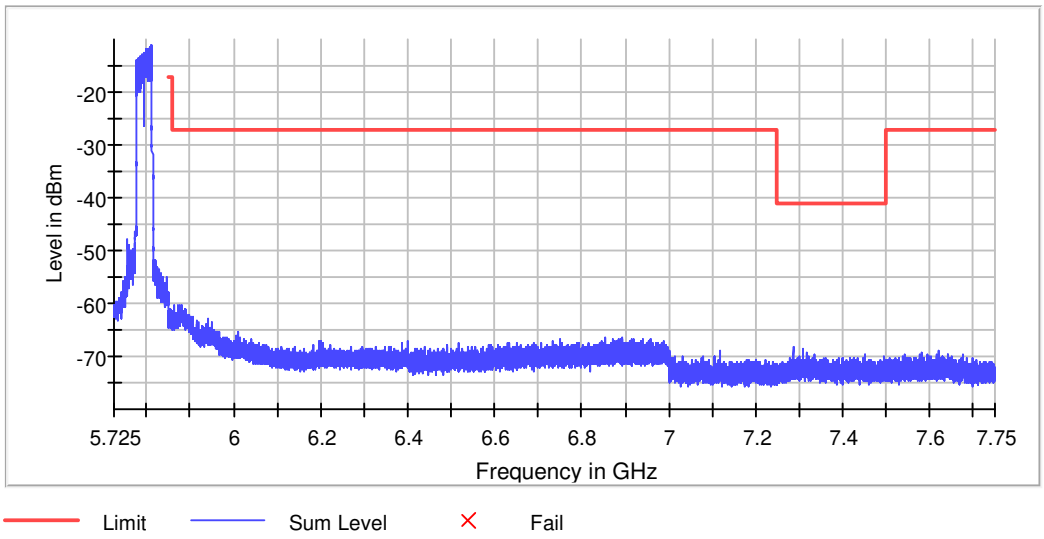
DUT Frequency (MHz)	Result
5795.000000	PASS

Inband Peak

Frequency (MHz)	Level (dBm)
5812.375000	-11.1

Measurements

Frequency (MHz)	Level (dBm)	Margin (dB)	Limit (dBm)	Result
7284.925000	-68.3	27.0	-41.2	PASS
7284.875000	-68.5	27.2	-41.2	PASS
7307.375000	-68.7	27.5	-41.2	PASS
7307.425000	-69.0	27.8	-41.2	PASS
7318.325000	-69.4	28.2	-41.2	PASS
7318.375000	-69.4	28.2	-41.2	PASS
7449.375000	-69.6	28.3	-41.2	PASS
7449.325000	-69.7	28.5	-41.2	PASS
7307.325000	-69.7	28.5	-41.2	PASS
7334.025000	-69.7	28.5	-41.2	PASS
7334.075000	-69.8	28.6	-41.2	PASS
7449.875000	-69.8	28.6	-41.2	PASS
7284.975000	-69.9	28.7	-41.2	PASS
7493.975000	-70.1	28.8	-41.2	PASS
7320.825000	-70.1	28.8	-41.2	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 µs	AUTO
Reference Level	-10.000 dBm	-10.000 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	19 / max. 150	max. 150
Stable	1 / 1	1
Max Stable Difference	0.49 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	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	6 / max. 150	max. 150
Stable	1 / 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)	WLAN CH 151 (5755 MHz)	WLAN CH 159 (5795 MHz)
WLAN CH 155 (5775 MHz)		

Bandwidths

20 MHz (20 MHz)	40 MHz (40 MHz)	80 MHz (80 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::192.168.48.111::INST0::INSTR), SN 1321.3008K39/101229, FW 3.40
Vector Generator:	VG SMBV100B (VG SMBV100B) @ VISA (ADR TCPIP::192.168.48.29::INST0::INSTR), SN 101685, FW 4.70.006.33
Generator:	SMB100Aa (SMB100A) @ VISA (ADR TCPIP::192.168.48.30::INST0::INSTR), SN 177894, 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
Tx Spurious Emission	5745.000	20.0	20.000000	PASS
Tx Spurious Emission	5785.000	20.0	20.000000	PASS
Tx Spurious Emission	5825.000	20.0	20.000000	PASS

Tx Spurious Emission (5745 MHz; 20.000 dBm; 20 MHz)

Customized settings.

Test according to FCC title 47 part 15 §15.407(b), KDB 789033 D02 General U-NII Test Procedures New Rules v01r03 and ANSI C63.10

Result

DUT Frequency (MHz)	Result
5745.000000	PASS

Final measurements

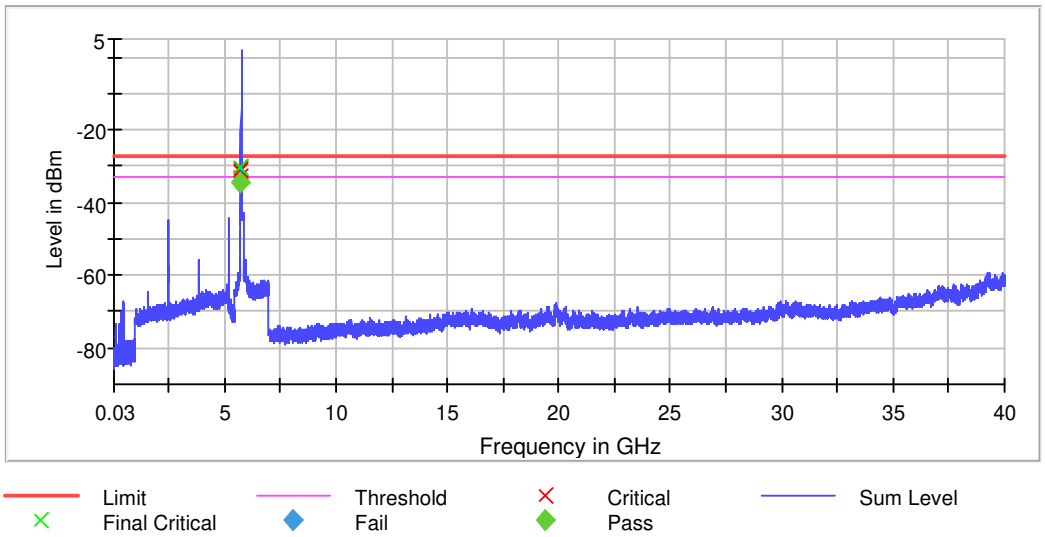
Frequency (MHz)	Level Pre Measurement (dBm)	level (dBm)	Limit (dBm)	Margin (dB)	Result
5719.500000	-30.4	-34.5	-27.0	7.5	PASS

Pre Measurements

Frequency (MHz)	Level (dBm)	Margin (dB)	Limit (dBm)
5719.500000	-30.4	3.4	-27.0
5724.500000	-31.0	4.0	-27.0
5720.500000	-31.3	4.3	-27.0
5723.500000	-32.8	5.8	-27.0
5717.500000	-33.1	6.1	-27.0
5722.500000	-33.8	6.8	-27.0
5721.500000	-35.1	8.1	-27.0
5718.500000	-36.1	9.1	-27.0
5716.500000	-38.0	11.0	-27.0
5713.500000	-40.1	13.1	-27.0
5715.500000	-40.4	13.4	-27.0
5711.500000	-40.8	13.8	-27.0
5712.500000	-41.5	14.5	-27.0
5709.500000	-41.6	14.6	-27.0
5714.500000	-41.8	14.8	-27.0

Measurement Settings

Start Frequency (MHz)	Stop Frequency (MHz)	Pre Measurement	Final Measurement
30.000000	1000.000000	1	1
1000.000000	5150.000000	2	2
5150.000000	5250.000000	2	2
5250.000000	5350.000000	2	2
5350.000000	5470.000000	2	2
5470.000000	5725.000000	2	2
5725.000000	5850.000000	2	2
5850.000000	7000.000000	2	2
7000.000000	18000.000000	2	2
18000.000000	26000.000000	2	2
26000.000000	40000.000000	2	2



Pre Measurement 1

Setting	Instrument Value	Target Value
RBW	100.000 kHz	<= 100.000 kHz
VBW	300.000 kHz	>= 300.000 kHz
SweepPoints	9700	~ 9700
Sweeptime	9.700 ms	AUTO
Reference Level	-20.000 dBm	-30.000 dBm
Attenuation	10.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	30	30
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
Sweeptype	Sweep	AUTO
Preamp	off	off
Stablemode	Trace	Trace
Stablevalue	0.50 dB	0.50 dB
Run	13 / max. 150	max. 150
Stable	3 / 3	3
Max Stable Difference	0.00 dB	0.50 dB

Pre Measurement 2

Setting	Instrument Value	Target Value
RBW	1.000 MHz	<= 1.000 MHz
VBW	3.000 MHz	>= 3.000 MHz
SweepPoints	4150	~ 4150
Sweeptime	4.150 ms	AUTO
Reference Level	-20.000 dBm	-30.000 dBm
Attenuation	10.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	30	30
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
Sweeptype	Sweep	AUTO
Preamp	off	off
Stablemode	Trace	Trace
Stablevalue	0.50 dB	0.50 dB
Run	6 / max. 150	max. 150
Stable	3 / 3	3
Max Stable Difference	0.00 dB	0.50 dB

Final Measurement 2

Setting	Instrument Value	Target Value
Span	ZeroSpan	ZeroSpan
RBW	1.000 MHz	~ 1.000 MHz
VBW	3.000 MHz	~ 3.000 MHz
SweepPoints	10001	~ 10001
Sweeptime	50.000 ms	50.000 ms
Reference Level	30.000 dBm	30.000 dBm
Attenuation	50.000 dB	AUTO
Detector	RMS	RMS
SweepCount	1	1
Filter	3 dB	3 dB
Trace Mode	Clear Write	Clear Write
Sweeptype	Sweep	AUTO
Preamp	off	off

Tx Spurious Emission (5785 MHz; 20.000 dBm; 20 MHz)

Customized settings.

Test according to FCC title 47 part 15 §15.407(b), KDB 789033 D02 General U-NII Test Procedures New Rules v01r03 and ANSI C63.10

Result

DUT Frequency (MHz)	Result
5785.000000	PASS

Final measurements

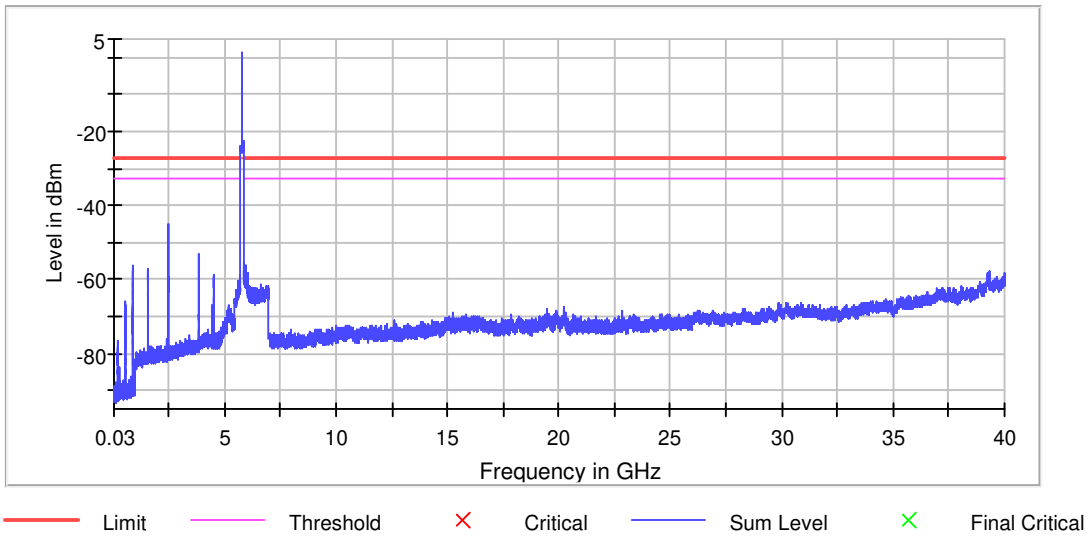
Frequency (MHz)	Level Pre Measurement (dBm)	level (dBm)	Limit (dBm)	Margin (dB)	Result
---	---	---	---	---	---

Pre Measurements

Frequency (MHz)	Level (dBm)	Margin (dB)	Limit (dBm)
2470.500000	-44.9	17.9	-27.0
2469.500000	-45.6	18.6	-27.0
2471.500000	-45.9	18.9	-27.0
2468.500000	-46.1	19.1	-27.0
2467.500000	-49.1	22.1	-27.0
2472.500000	-49.2	22.2	-27.0
2473.500000	-49.9	22.9	-27.0
3857.500000	-53.2	26.2	-27.0
3856.500000	-53.9	26.9	-27.0
5852.500000	-55.5	28.5	-27.0
5854.500000	-55.9	28.9	-27.0
5936.500000	-56.1	29.1	-27.0
903.650000	-56.3	29.3	-27.0
5850.500000	-56.3	29.3	-27.0
2466.500000	-56.3	29.3	-27.0

Measurement Settings

Start Frequency (MHz)	Stop Frequency (MHz)	Pre Measurement	Final Measurement
30.000000	1000.000000	1	1
1000.000000	5150.000000	2	2
5150.000000	5250.000000	2	2
5250.000000	5350.000000	2	2
5350.000000	5470.000000	2	2
5470.000000	5725.000000	2	2
5725.000000	5850.000000	2	2
5850.000000	7000.000000	2	2
7000.000000	18000.000000	2	2
18000.000000	26000.000000	2	2
26000.000000	40000.000000	2	2



Pre Measurement 1

Setting	Instrument Value	Target Value
RBW	100.000 kHz	<= 100.000 kHz
VBW	300.000 kHz	>= 300.000 kHz
SweepPoints	9700	~ 9700
Sweeptime	9.700 ms	AUTO
Reference Level	-30.000 dBm	-30.000 dBm
Attenuation	0.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	30	30
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
Sweeptype	Sweep	AUTO
Preamp	off	off
Stablemode	Trace	Trace
Stablevalue	0.50 dB	0.50 dB
Run	23 / max. 150	max. 150
Stable	3 / 3	3
Max Stable Difference	0.00 dB	0.50 dB

Pre Measurement 2

Setting	Instrument Value	Target Value
RBW	1.000 MHz	<= 1.000 MHz
VBW	3.000 MHz	>= 3.000 MHz
SweepPoints	4150	~ 4150
Sweeptime	4.150 ms	AUTO
Reference Level	-30.000 dBm	-30.000 dBm
Attenuation	0.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	30	30
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
Sweeptype	Sweep	AUTO
Preamp	off	off
Stablemode	Trace	Trace
Stablevalue	0.50 dB	0.50 dB
Run	6 / max. 150	max. 150
Stable	3 / 3	3
Max Stable Difference	0.00 dB	0.50 dB

Tx Spurious Emission (5825 MHz; 20.000 dBm; 20 MHz)

Customized settings.

Test according to FCC title 47 part 15 §15.407(b), KDB 789033 D02 General U-NII Test Procedures New Rules v01r03 and ANSI C63.10

Result

DUT Frequency (MHz)	Result
5825.000000	PASS

Final measurements

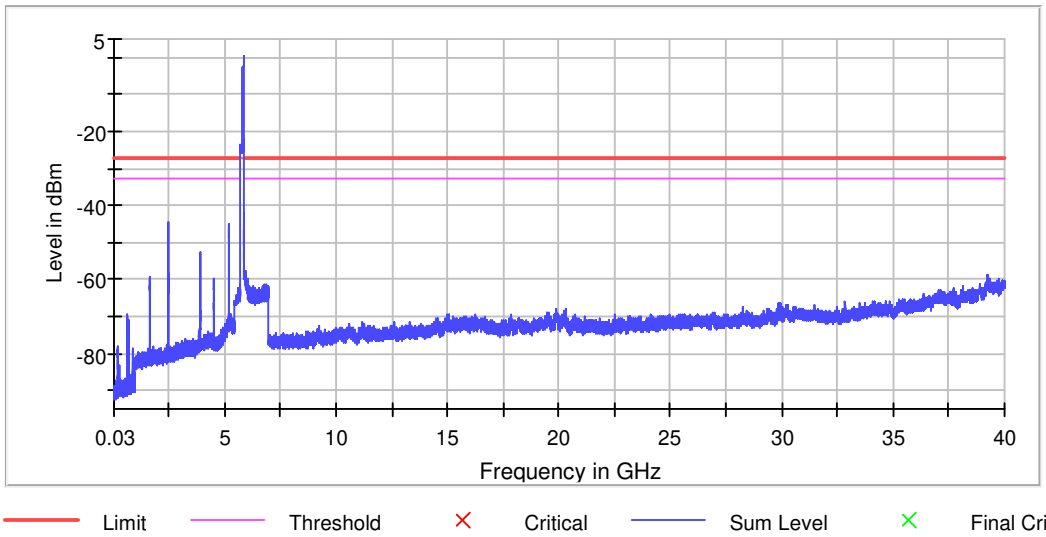
Frequency (MHz)	Level Pre Measurement (dBm)	level (dBm)	Limit (dBm)	Margin (dB)	Result
---	---	---	---	---	---

Pre Measurements

Frequency (MHz)	Level (dBm)	Margin (dB)	Limit (dBm)
5854.500000	-42.1	15.1	-27.0
2470.500000	-44.6	17.6	-27.0
5174.257426	-44.8	17.8	-27.0
5175.247525	-44.8	17.8	-27.0
5176.237624	-45.1	18.1	-27.0
2469.500000	-45.2	18.2	-27.0
2471.500000	-45.3	18.3	-27.0
5178.217822	-45.9	18.9	-27.0
2468.500000	-46.2	19.2	-27.0
5856.500000	-46.3	19.3	-27.0
5851.500000	-46.3	19.3	-27.0
5173.267327	-46.4	19.4	-27.0
5859.500000	-46.5	19.5	-27.0
5857.500000	-47.2	20.2	-27.0
5861.500000	-47.5	20.5	-27.0

Measurement Settings

Start Frequency (MHz)	Stop Frequency (MHz)	Pre Measurement	Final Measurement
30.000000	1000.000000	1	1
1000.000000	5150.000000	2	2
5150.000000	5250.000000	2	2
5250.000000	5350.000000	2	2
5350.000000	5470.000000	2	2
5470.000000	5725.000000	2	2
5725.000000	5850.000000	2	2
5850.000000	7000.000000	2	2
7000.000000	18000.000000	2	2
18000.000000	26000.000000	2	2
26000.000000	40000.000000	2	2



Pre Measurement 1

Setting	Instrument Value	Target Value
RBW	100.000 kHz	<= 100.000 kHz
VBW	300.000 kHz	>= 300.000 kHz
SweepPoints	9700	~ 9700
Sweeptime	9.700 ms	AUTO
Reference Level	-30.000 dBm	-30.000 dBm
Attenuation	0.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	30	30
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
Sweeptype	Sweep	AUTO
Preamp	off	off
Stablemode	Trace	Trace
Stablevalue	0.50 dB	0.50 dB
Run	72 / max. 150	max. 150
Stable	3 / 3	3
Max Stable Difference	0.00 dB	0.50 dB

Pre Measurement 2

Setting	Instrument Value	Target Value
RBW	1.000 MHz	<= 1.000 MHz
VBW	3.000 MHz	>= 3.000 MHz
SweepPoints	4150	~ 4150
Sweeptime	4.150 ms	AUTO
Reference Level	-30.000 dBm	-30.000 dBm
Attenuation	0.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	30	30
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
Sweeptype	Sweep	AUTO
Preamp	off	off
Stablemode	Trace	Trace
Stablevalue	0.50 dB	0.50 dB
Run	4 / 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)	WLAN CH 151 (5755 MHz)	WLAN CH 159 (5795 MHz)
WLAN CH 155 (5775 MHz)		

Bandwidths

20 MHz (20 MHz)	40 MHz (40 MHz)	80 MHz (80 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::192.168.48.111::INST0::INSTR), SN 1321.3008K39/101229, FW 3.40
Vector Generator:	VG SMBV100B (VG SMBV100B) @ VISA (ADR TCPIP::192.168.48.29::INST0::INSTR), SN 101685, FW 4.70.006.33
Generator:	SMB100Aa (SMB100A) @ VISA (ADR TCPIP::192.168.48.30::INST0::INSTR), SN 177894, 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
Tx Spurious Emission	5745.000	20.0	20.000000	PASS
Tx Spurious Emission	5785.000	20.0	20.000000	PASS
Tx Spurious Emission	5825.000	20.0	20.000000	PASS

Tx Spurious Emission (5745 MHz; 20.000 dBm; 20 MHz)

Customized settings.

Test according to FCC title 47 part 15 §15.407(b), KDB 789033 D02 General U-NII Test Procedures New Rules v01r03 and ANSI C63.10

Result

DUT Frequency (MHz)	Result
5745.000000	PASS

Final measurements

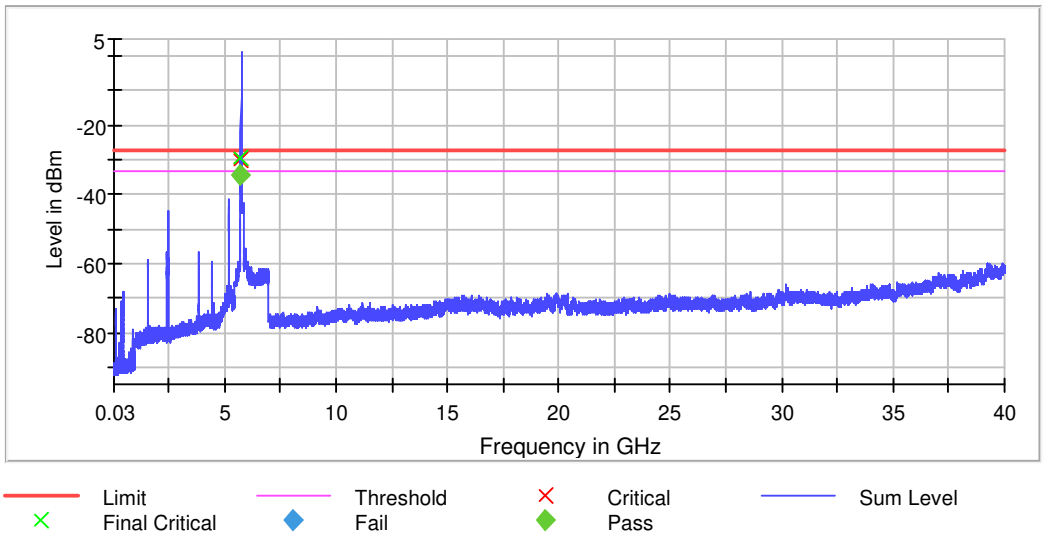
Frequency (MHz)	Level Pre Measurement (dBm)	level (dBm)	Limit (dBm)	Margin (dB)	Result
5721.500000	-29.6	-34.5	-27.0	7.5	PASS

Pre Measurements

Frequency (MHz)	Level (dBm)	Margin (dB)	Limit (dBm)
5721.500000	-29.6	2.6	-27.0
5720.500000	-30.0	3.0	-27.0
5723.500000	-34.5	7.5	-27.0
5724.500000	-34.6	7.6	-27.0
5722.500000	-35.3	8.3	-27.0
5717.500000	-37.7	10.7	-27.0
5718.500000	-38.8	11.8	-27.0
5716.500000	-39.3	12.3	-27.0
5719.500000	-39.6	12.6	-27.0
5715.500000	-40.7	13.7	-27.0
5185.148515	-41.7	14.7	-27.0
5710.500000	-41.8	14.8	-27.0
5714.500000	-42.3	15.3	-27.0
5709.500000	-43.1	16.1	-27.0
5712.500000	-43.4	16.4	-27.0

Measurement Settings

Start Frequency (MHz)	Stop Frequency (MHz)	Pre Measurement	Final Measurement
30.000000	1000.000000	1	1
1000.000000	5150.000000	2	2
5150.000000	5250.000000	2	2
5250.000000	5350.000000	2	2
5350.000000	5470.000000	2	2
5470.000000	5725.000000	2	2
5725.000000	5850.000000	2	2
5850.000000	7000.000000	2	2
7000.000000	18000.000000	2	2
18000.000000	26000.000000	2	2
26000.000000	40000.000000	2	2



Pre Measurement 1

Setting	Instrument Value	Target Value
RBW	100.000 kHz	<= 100.000 kHz
VBW	300.000 kHz	>= 300.000 kHz
SweepPoints	9700	~ 9700
Sweeptime	9.700 ms	AUTO
Reference Level	-30.000 dBm	-30.000 dBm
Attenuation	0.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	30	30
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
Sweeptype	Sweep	AUTO
Preamp	off	off
Stablemode	Trace	Trace
Stablevalue	0.50 dB	0.50 dB
Run	55 / max. 150	max. 150
Stable	3 / 3	3
Max Stable Difference	0.31 dB	0.50 dB

Pre Measurement 2

Setting	Instrument Value	Target Value
RBW	1.000 MHz	<= 1.000 MHz
VBW	3.000 MHz	>= 3.000 MHz
SweepPoints	4150	~ 4150
Sweeptime	4.150 ms	AUTO
Reference Level	-30.000 dBm	-30.000 dBm
Attenuation	0.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	30	30
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
Sweeptype	Sweep	AUTO
Preamp	off	off
Stablemode	Trace	Trace
Stablevalue	0.50 dB	0.50 dB
Run	4 / max. 150	max. 150
Stable	3 / 3	3
Max Stable Difference	0.00 dB	0.50 dB

Final Measurement 2

Setting	Instrument Value	Target Value
Span	ZeroSpan	ZeroSpan
RBW	1.000 MHz	~ 1.000 MHz
VBW	3.000 MHz	~ 3.000 MHz
SweepPoints	10001	~ 10001
Sweeptime	50.000 ms	50.000 ms
Reference Level	30.000 dBm	30.000 dBm
Attenuation	50.000 dB	AUTO
Detector	RMS	RMS
SweepCount	1	1
Filter	3 dB	3 dB
Trace Mode	Clear Write	Clear Write
Sweeptype	Sweep	AUTO
Preamp	off	off

Tx Spurious Emission (5785 MHz; 20.000 dBm; 20 MHz)

Customized settings.

Test according to FCC title 47 part 15 §15.407(b), KDB 789033 D02 General U-NII Test Procedures New Rules v01r03 and ANSI C63.10

Result

DUT Frequency (MHz)	Result
5785.000000	PASS

Final measurements

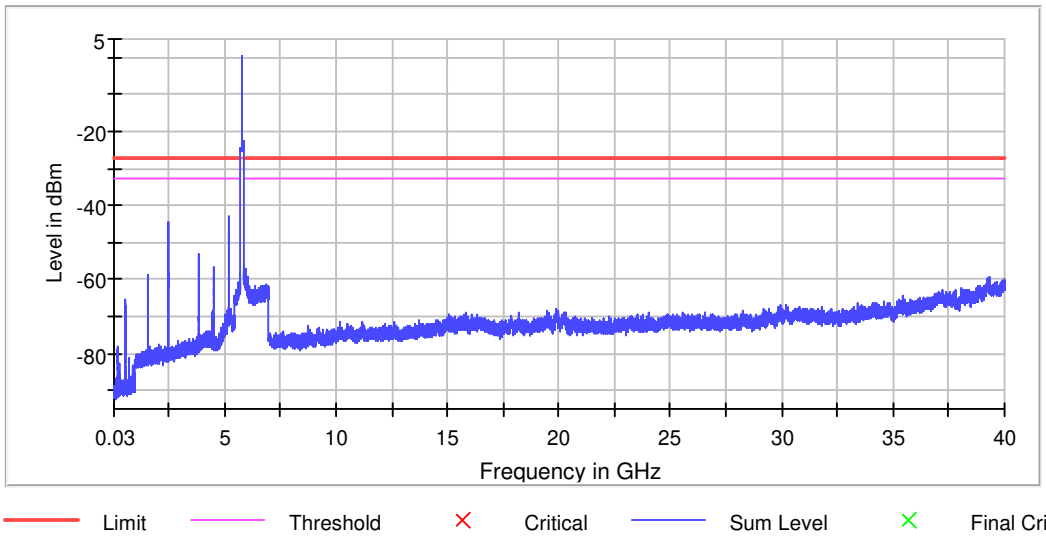
Frequency (MHz)	Level Pre Measurement (dBm)	level (dBm)	Limit (dBm)	Margin (dB)	Result
---	---	---	---	---	---

Pre Measurements

Frequency (MHz)	Level (dBm)	Margin (dB)	Limit (dBm)
5176.237624	-42.9	15.9	-27.0
5175.247525	-43.7	16.7	-27.0
5174.257426	-44.0	17.0	-27.0
2470.500000	-44.4	17.4	-27.0
2471.500000	-45.1	18.1	-27.0
2469.500000	-45.2	18.2	-27.0
2468.500000	-45.6	18.6	-27.0
5173.267327	-45.9	18.9	-27.0
2472.500000	-46.2	19.2	-27.0
5178.217822	-47.5	20.5	-27.0
2467.500000	-48.1	21.1	-27.0
2473.500000	-48.4	21.4	-27.0
5177.227723	-49.4	22.4	-27.0
5172.277228	-50.6	23.6	-27.0
2466.500000	-50.9	23.9	-27.0

Measurement Settings

Start Frequency (MHz)	Stop Frequency (MHz)	Pre Measurement	Final Measurement
30.000000	1000.000000	1	1
1000.000000	5150.000000	2	2
5150.000000	5250.000000	2	2
5250.000000	5350.000000	2	2
5350.000000	5470.000000	2	2
5470.000000	5725.000000	2	2
5725.000000	5850.000000	2	2
5850.000000	7000.000000	2	2
7000.000000	18000.000000	2	2
18000.000000	26000.000000	2	2
26000.000000	40000.000000	2	2



Pre Measurement 1

Setting	Instrument Value	Target Value
RBW	100.000 kHz	<= 100.000 kHz
VBW	300.000 kHz	>= 300.000 kHz
SweepPoints	9700	~ 9700
Sweeptime	9.700 ms	AUTO
Reference Level	-30.000 dBm	-30.000 dBm
Attenuation	0.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	30	30
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
Sweeptype	Sweep	AUTO
Preamp	off	off
Stablemode	Trace	Trace
Stablevalue	0.50 dB	0.50 dB
Run	93 / max. 150	max. 150
Stable	3 / 3	3
Max Stable Difference	0.24 dB	0.50 dB

Pre Measurement 2

Setting	Instrument Value	Target Value
RBW	1.000 MHz	<= 1.000 MHz
VBW	3.000 MHz	>= 3.000 MHz
SweepPoints	4150	~ 4150
Sweeptime	4.150 ms	AUTO
Reference Level	-30.000 dBm	-30.000 dBm
Attenuation	0.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	30	30
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
Sweeptype	Sweep	AUTO
Preamp	off	off
Stablemode	Trace	Trace
Stablevalue	0.50 dB	0.50 dB
Run	5 / max. 150	max. 150
Stable	3 / 3	3
Max Stable Difference	0.00 dB	0.50 dB

Tx Spurious Emission (5825 MHz; 20.000 dBm; 20 MHz)

Customized settings.

Test according to FCC title 47 part 15 §15.407(b), KDB 789033 D02 General U-NII Test Procedures New Rules v01r03 and ANSI C63.10

Result

DUT Frequency (MHz)	Result
5825.000000	PASS

Final measurements

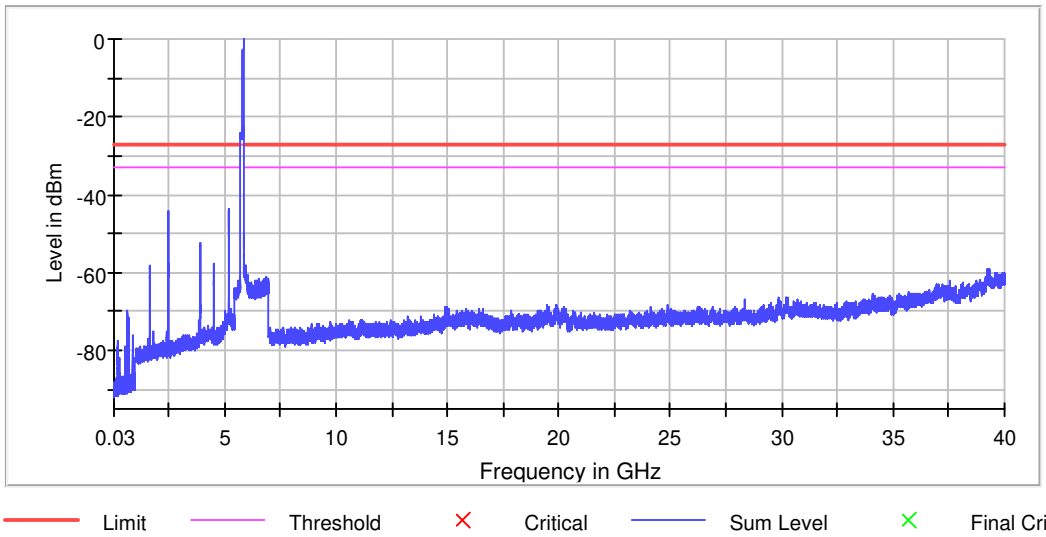
Frequency (MHz)	Level Pre Measurement (dBm)	level (dBm)	Limit (dBm)	Margin (dB)	Result
---	---	---	---	---	---

Pre Measurements

Frequency (MHz)	Level (dBm)	Margin (dB)	Limit (dBm)
5850.500000	-40.0	13.0	-27.0
5175.247525	-43.5	16.5	-27.0
5184.158416	-43.7	16.7	-27.0
5185.148515	-43.9	16.9	-27.0
5179.207921	-44.1	17.1	-27.0
2470.500000	-44.1	17.1	-27.0
5851.500000	-44.2	17.2	-27.0
2469.500000	-44.5	17.5	-27.0
5180.198020	-44.6	17.6	-27.0
2471.500000	-44.8	17.8	-27.0
5853.500000	-45.4	18.4	-27.0
2468.500000	-45.5	18.5	-27.0
5852.500000	-45.6	18.6	-27.0
5174.257426	-45.8	18.8	-27.0
2472.500000	-45.9	18.9	-27.0

Measurement Settings

Start Frequency (MHz)	Stop Frequency (MHz)	Pre Measurement	Final Measurement
30.000000	1000.000000	1	1
1000.000000	5150.000000	2	2
5150.000000	5250.000000	2	2
5250.000000	5350.000000	2	2
5350.000000	5470.000000	2	2
5470.000000	5725.000000	2	2
5725.000000	5850.000000	2	2
5850.000000	7000.000000	2	2
7000.000000	18000.000000	2	2
18000.000000	26000.000000	2	2
26000.000000	40000.000000	2	2



Pre Measurement 1

Setting	Instrument Value	Target Value
RBW	100.000 kHz	<= 100.000 kHz
VBW	300.000 kHz	>= 300.000 kHz
SweepPoints	9700	~ 9700
Sweeptime	9.700 ms	AUTO
Reference Level	-30.000 dBm	-30.000 dBm
Attenuation	0.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	30	30
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
Sweeptype	Sweep	AUTO
Preamp	off	off
Stablemode	Trace	Trace
Stablevalue	0.50 dB	0.50 dB
Run	132 / max. 150	max. 150
Stable	3 / 3	3
Max Stable Difference	0.00 dB	0.50 dB

Pre Measurement 2

Setting	Instrument Value	Target Value
RBW	1.000 MHz	<= 1.000 MHz
VBW	3.000 MHz	>= 3.000 MHz
SweepPoints	4150	~ 4150
Sweeptime	4.150 ms	AUTO
Reference Level	-30.000 dBm	-30.000 dBm
Attenuation	0.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	30	30
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
Sweeptype	Sweep	AUTO
Preamp	off	off
Stablemode	Trace	Trace
Stablevalue	0.50 dB	0.50 dB
Run	11 / 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 38 (5190 MHz)	WLAN CH 46 (5230 MHz)	WLAN CH 151 (5755 MHz)
WLAN CH 159 (5795 MHz)	WLAN CH 54 (5270 MHz)	WLAN CH 62 (5310 MHz)
WLAN CH 102 (5510 MHz)	WLAN CH 110 (5550 MHz)	WLAN CH 118 (5590 MHz)
WLAN CH 134 (5670 MHz)		

Bandwidths

40 MHz (40 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::192.168.48.111::INST0::INSTR), SN 1321.3008K39/101229, FW 3.40
Vector Generator:	VG SMBV100B (VG SMBV100B) @ VISA (ADR TCPIP::192.168.48.29::INST0::INSTR), SN 101685, FW 4.70.006.33
Generator:	SMB100Aa (SMB100A) @ VISA (ADR TCPIP::192.168.48.30::INST0::INSTR), SN 177894, 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
Tx Spurious Emission	5755.000	20.0	40.000000	PASS
Tx Spurious Emission	5795.000	20.0	40.000000	PASS

Tx Spurious Emission (5755 MHz; 20.000 dBm; 40 MHz)

Customized settings.

Test according to FCC title 47 part 15 §15.407(b), KDB 789033 D02 General U-NII Test Procedures New Rules v01r03 and ANSI C63.10

Result

DUT Frequency (MHz)	Result
5755.000000	PASS

Final measurements

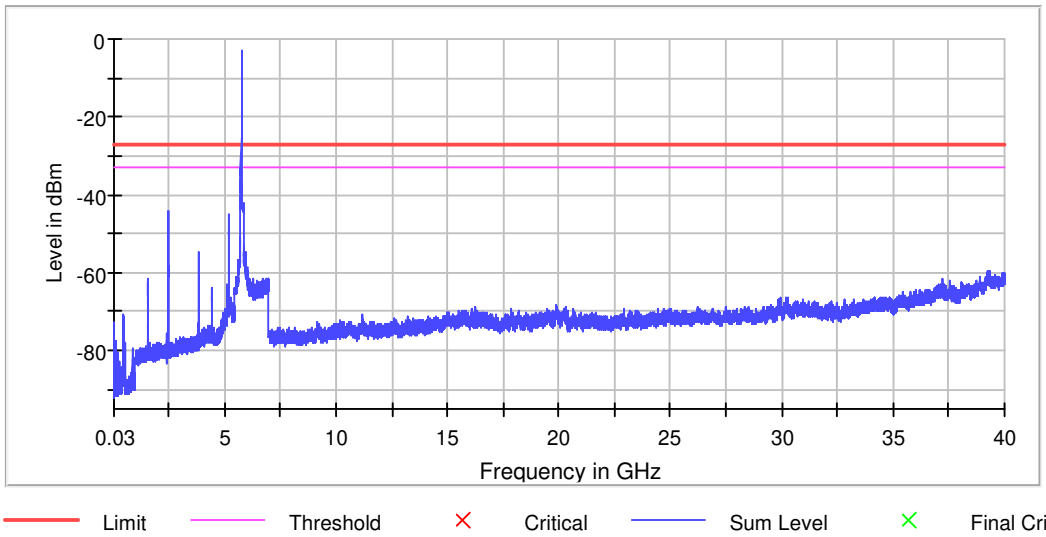
Frequency (MHz)	Level Pre Measurement (dBm)	level (dBm)	Limit (dBm)	Margin (dB)	Result
---	---	---	---	---	---

Pre Measurements

Frequency (MHz)	Level (dBm)	Margin (dB)	Limit (dBm)
5717.500000	-36.2	9.2	-27.0
5724.500000	-36.8	9.8	-27.0
5723.500000	-37.1	10.1	-27.0
5721.500000	-37.4	10.4	-27.0
5722.500000	-37.4	10.4	-27.0
5720.500000	-37.4	10.4	-27.0
5714.500000	-37.6	10.6	-27.0
5718.500000	-37.6	10.6	-27.0
5719.500000	-38.0	11.0	-27.0
5713.500000	-38.1	11.1	-27.0
5715.500000	-38.7	11.7	-27.0
5716.500000	-39.2	12.2	-27.0
5709.500000	-40.9	13.9	-27.0
5710.500000	-41.6	14.6	-27.0
5711.500000	-41.8	14.8	-27.0

Measurement Settings

Start Frequency (MHz)	Stop Frequency (MHz)	Pre Measurement	Final Measurement
30.000000	1000.000000	1	1
1000.000000	5150.000000	2	2
5150.000000	5250.000000	2	2
5250.000000	5350.000000	2	2
5350.000000	5470.000000	2	2
5470.000000	5725.000000	2	2
5725.000000	5850.000000	2	2
5850.000000	7000.000000	2	2
7000.000000	18000.000000	2	2
18000.000000	26000.000000	2	2
26000.000000	40000.000000	2	2



Pre Measurement 1

Setting	Instrument Value	Target Value
RBW	100.000 kHz	<= 100.000 kHz
VBW	300.000 kHz	>= 300.000 kHz
SweepPoints	9700	~ 9700
Sweeptime	9.700 ms	AUTO
Reference Level	-30.000 dBm	-30.000 dBm
Attenuation	0.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	30	30
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
Sweeptype	Sweep	AUTO
Preamp	off	off
Stablemode	Trace	Trace
Stablevalue	0.50 dB	0.50 dB
Run	101 / max. 150	max. 150
Stable	3 / 3	3
Max Stable Difference	0.45 dB	0.50 dB

Pre Measurement 2

Setting	Instrument Value	Target Value
RBW	1.000 MHz	<= 1.000 MHz
VBW	3.000 MHz	>= 3.000 MHz
SweepPoints	4150	~ 4150
Sweeptime	4.150 ms	AUTO
Reference Level	-30.000 dBm	-30.000 dBm
Attenuation	0.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	30	30
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
Sweeptype	Sweep	AUTO
Preamp	off	off
Stablemode	Trace	Trace
Stablevalue	0.50 dB	0.50 dB
Run	6 / max. 150	max. 150
Stable	3 / 3	3
Max Stable Difference	0.00 dB	0.50 dB

Tx Spurious Emission (5795 MHz; 20.000 dBm; 40 MHz)

Customized settings.

Test according to FCC title 47 part 15 §15.407(b), KDB 789033 D02 General U-NII Test Procedures New Rules v01r03 and ANSI C63.10

Result

DUT Frequency (MHz)	Result
5795.000000	PASS

Final measurements

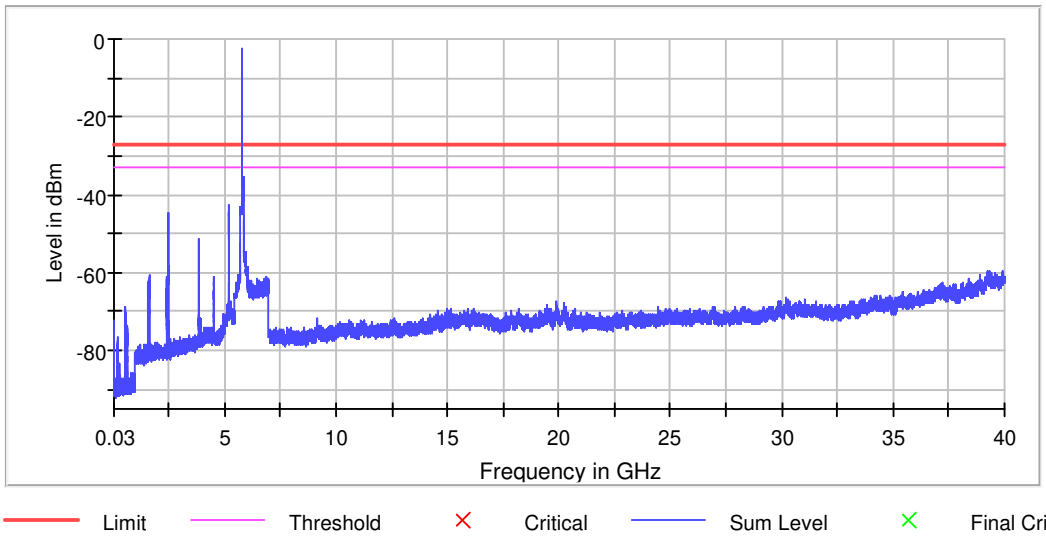
Frequency (MHz)	Level Pre Measurement (dBm)	level (dBm)	Limit (dBm)	Margin (dB)	Result
---	---	---	---	---	---

Pre Measurements

Frequency (MHz)	Level (dBm)	Margin (dB)	Limit (dBm)
5180.198020	-42.5	15.5	-27.0
5179.207921	-43.0	16.0	-27.0
5184.158416	-44.2	17.2	-27.0
5178.217822	-44.3	17.3	-27.0
5176.237624	-44.5	17.5	-27.0
2470.500000	-44.5	17.5	-27.0
5174.257426	-44.7	17.7	-27.0
5173.267327	-44.7	17.7	-27.0
2471.500000	-45.2	18.2	-27.0
2469.500000	-45.3	18.3	-27.0
5860.500000	-45.6	18.6	-27.0
5175.247525	-45.6	18.6	-27.0
5185.148515	-45.7	18.7	-27.0
5183.168317	-45.7	18.7	-27.0
2468.500000	-45.8	18.8	-27.0

Measurement Settings

Start Frequency (MHz)	Stop Frequency (MHz)	Pre Measurement	Final Measurement
30.000000	1000.000000	1	1
1000.000000	5150.000000	2	2
5150.000000	5250.000000	2	2
5250.000000	5350.000000	2	2
5350.000000	5470.000000	2	2
5470.000000	5725.000000	2	2
5725.000000	5850.000000	2	2
5850.000000	7000.000000	2	2
7000.000000	18000.000000	2	2
18000.000000	26000.000000	2	2
26000.000000	40000.000000	2	2



Pre Measurement 1

Setting	Instrument Value	Target Value
RBW	100.000 kHz	<= 100.000 kHz
VBW	300.000 kHz	>= 300.000 kHz
SweepPoints	9700	~ 9700
Sweeptime	9.700 ms	AUTO
Reference Level	-30.000 dBm	-30.000 dBm
Attenuation	0.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	30	30
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
Sweeptype	Sweep	AUTO
Preamp	off	off
Stablemode	Trace	Trace
Stablevalue	0.50 dB	0.50 dB
Run	91 / max. 150	max. 150
Stable	3 / 3	3
Max Stable Difference	0.03 dB	0.50 dB

Pre Measurement 2

Setting	Instrument Value	Target Value
RBW	1.000 MHz	<= 1.000 MHz
VBW	3.000 MHz	>= 3.000 MHz
SweepPoints	4150	~ 4150
Sweeptime	4.150 ms	AUTO
Reference Level	-30.000 dBm	-30.000 dBm
Attenuation	0.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	30	30
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
Sweeptype	Sweep	AUTO
Preamp	off	off
Stablemode	Trace	Trace
Stablevalue	0.50 dB	0.50 dB
Run	6 / 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 42 (5210 MHz)	WLAN CH 155 (5775 MHz)	WLAN CH 58 (5290 MHz)
WLAN CH 106 (5530 MHz)	WLAN CH 122 (5610 MHz)	

Bandwidths

80 MHz (80 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::192.168.48.111::INST0::INSTR), SN 1321.3008K39/101229, FW 3.40
Vector Generator:	VG SMBV100B (VG SMBV100B) @ VISA (ADR TCPIP::192.168.48.29::INST0::INSTR), SN 101685, FW 4.70.006.33
Generator:	SMB100Aa (SMB100A) @ VISA (ADR TCPIP::192.168.48.30::INST0::INSTR), SN 177894, 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
Tx Spurious Emission	**5775.000**	**20.0**	**80.000000**	**PASS**

Tx Spurious Emission (5775 MHz; 20.000 dBm; 80 MHz)

Customized settings.

Test according to FCC title 47 part 15 §15.407(b), KDB 789033 D02 General U-NII Test Procedures New Rules v01r03 and ANSI C63.10

Result

DUT Frequency (MHz)	Result
5775.000000	PASS

Final measurements

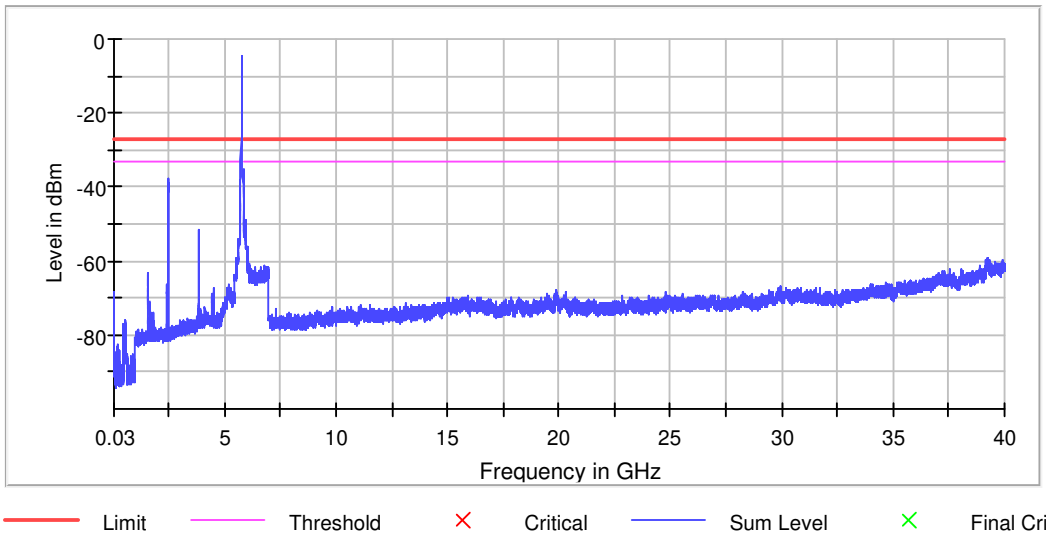
Frequency (MHz)	Level Pre Measurement (dBm)	level (dBm)	Limit (dBm)	Margin (dB)	Result
---	---	---	---	---	---

Pre Measurements

Frequency (MHz)	Level (dBm)	Margin (dB)	Limit (dBm)
2474.500000	-37.8	10.8	-27.0
2475.500000	-37.8	10.8	-27.0
2479.500000	-38.9	11.9	-27.0
2464.500000	-39.1	12.1	-27.0
2470.500000	-39.1	12.1	-27.0
2466.500000	-39.1	12.1	-27.0
2471.500000	-39.2	12.2	-27.0
2465.500000	-39.3	12.3	-27.0
2476.500000	-39.3	12.3	-27.0
2478.500000	-39.6	12.6	-27.0
2480.500000	-39.6	12.6	-27.0
2477.500000	-39.6	12.6	-27.0
5721.500000	-39.8	12.8	-27.0
2473.500000	-40.0	13.0	-27.0
2481.500000	-40.0	13.0	-27.0

Measurement Settings

Start Frequency (MHz)	Stop Frequency (MHz)	Pre Measurement	Final Measurement
30.000000	1000.000000	1	1
1000.000000	5150.000000	2	2
5150.000000	5250.000000	2	2
5250.000000	5350.000000	2	2
5350.000000	5470.000000	2	2
5470.000000	5725.000000	2	2
5725.000000	5850.000000	2	2
5850.000000	7000.000000	2	2
7000.000000	18000.000000	2	2
18000.000000	26000.000000	2	2
26000.000000	40000.000000	2	2



Pre Measurement 1

Setting	Instrument Value	Target Value
RBW	100.000 kHz	<= 100.000 kHz
VBW	300.000 kHz	>= 300.000 kHz
SweepPoints	9700	~ 9700
Sweeptime	9.700 ms	AUTO
Reference Level	-30.000 dBm	-30.000 dBm
Attenuation	0.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	30	30
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
Sweeptype	Sweep	AUTO
Preamp	off	off
Stablemode	Trace	Trace
Stablevalue	0.50 dB	0.50 dB
Run	6 / max. 150	max. 150
Stable	3 / 3	3
Max Stable Difference	0.00 dB	0.50 dB

Pre Measurement 2

Setting	Instrument Value	Target Value
RBW	1.000 MHz	<= 1.000 MHz
VBW	3.000 MHz	>= 3.000 MHz
SweepPoints	4150	~ 4150
Sweeptime	4.150 ms	AUTO
Reference Level	-30.000 dBm	-30.000 dBm
Attenuation	0.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	30	30
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
Sweeptype	Sweep	AUTO
Preamp	off	off
Stablemode	Trace	Trace
Stablevalue	0.50 dB	0.50 dB
Run	14 / 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)	WLAN CH 151 (5755 MHz)	WLAN CH 159 (5795 MHz)
WLAN CH 155 (5775 MHz)		

Bandwidths

20 MHz (20 MHz)	40 MHz (40 MHz)	80 MHz (80 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::192.168.48.111::INST0::INSTR), SN 1321.3008K39/101229, FW 3.40
Vector Generator:	VG SMBV100B (VG SMBV100B) @ VISA (ADR TCPIP::192.168.48.29::INST0::INSTR), SN 101685, FW 4.70.006.33
Generator:	SMB100Aa (SMB100A) @ VISA (ADR TCPIP::192.168.48.30::INST0::INSTR), SN 177894, 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
Tx Spurious Emission	5745.000	20.0	20.000000	PASS
Tx Spurious Emission	5785.000	20.0	20.000000	PASS
Tx Spurious Emission	5825.000	20.0	20.000000	PASS

Tx Spurious Emission (5745 MHz; 20.000 dBm; 20 MHz)

Customized settings.

Test according to FCC title 47 part 15 §15.407(b), KDB 789033 D02 General U-NII Test Procedures New Rules v01r03 and ANSI C63.10

Result

DUT Frequency (MHz)	Result
5745.000000	PASS

Final measurements

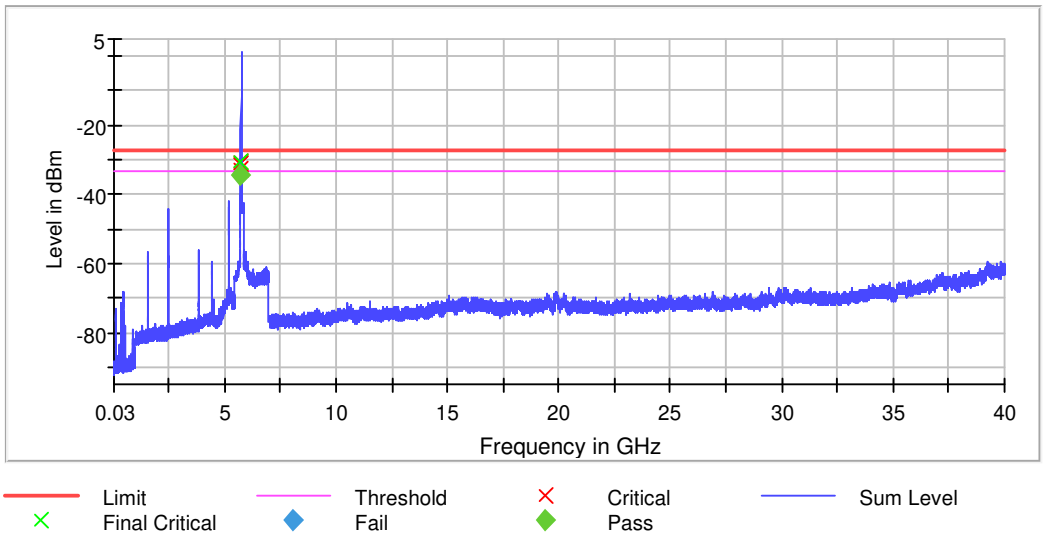
Frequency (MHz)	Level Pre Measurement (dBm)	level (dBm)	Limit (dBm)	Margin (dB)	Result
5724.500000	-30.4	-34.4	-27.0	7.4	PASS

Pre Measurements

Frequency (MHz)	Level (dBm)	Margin (dB)	Limit (dBm)
5724.500000	-30.4	3.4	-27.0
5720.500000	-30.9	3.9	-27.0
5723.500000	-31.3	4.3	-27.0
5718.500000	-32.7	5.7	-27.0
5722.500000	-33.2	6.2	-27.0
5721.500000	-33.5	6.5	-27.0
5717.500000	-35.6	8.6	-27.0
5715.500000	-35.8	8.8	-27.0
5716.500000	-36.0	9.0	-27.0
5719.500000	-36.4	9.4	-27.0
5714.500000	-39.6	12.6	-27.0
5712.500000	-40.0	13.0	-27.0
5709.500000	-40.5	13.5	-27.0
5713.500000	-40.7	13.7	-27.0
5711.500000	-40.8	13.8	-27.0

Measurement Settings

Start Frequency (MHz)	Stop Frequency (MHz)	Pre Measurement	Final Measurement
30.000000	1000.000000	1	1
1000.000000	5150.000000	2	2
5150.000000	5250.000000	2	2
5250.000000	5350.000000	2	2
5350.000000	5470.000000	2	2
5470.000000	5725.000000	2	2
5725.000000	5850.000000	2	2
5850.000000	7000.000000	2	2
7000.000000	18000.000000	2	2
18000.000000	26000.000000	2	2
26000.000000	40000.000000	2	2



Pre Measurement 1

Setting	Instrument Value	Target Value
RBW	100.000 kHz	<= 100.000 kHz
VBW	300.000 kHz	>= 300.000 kHz
SweepPoints	9700	~ 9700
Sweeptime	9.700 ms	AUTO
Reference Level	-30.000 dBm	-30.000 dBm
Attenuation	0.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	30	30
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
Sweeptype	Sweep	AUTO
Preamp	off	off
Stablemode	Trace	Trace
Stablevalue	0.50 dB	0.50 dB
Run	84 / max. 150	max. 150
Stable	3 / 3	3
Max Stable Difference	0.00 dB	0.50 dB

Pre Measurement 2

Setting	Instrument Value	Target Value
RBW	1.000 MHz	<= 1.000 MHz
VBW	3.000 MHz	>= 3.000 MHz
SweepPoints	4150	~ 4150
Sweeptime	4.150 ms	AUTO
Reference Level	-30.000 dBm	-30.000 dBm
Attenuation	0.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	30	30
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
Sweeptype	Sweep	AUTO
Preamp	off	off
Stablemode	Trace	Trace
Stablevalue	0.50 dB	0.50 dB
Run	7 / max. 150	max. 150
Stable	3 / 3	3
Max Stable Difference	0.39 dB	0.50 dB

Final Measurement 2

Setting	Instrument Value	Target Value
Span	ZeroSpan	ZeroSpan
RBW	1.000 MHz	~ 1.000 MHz
VBW	3.000 MHz	~ 3.000 MHz
SweepPoints	10001	~ 10001
Sweeptime	50.000 ms	50.000 ms
Reference Level	30.000 dBm	30.000 dBm
Attenuation	50.000 dB	AUTO
Detector	RMS	RMS
SweepCount	1	1
Filter	3 dB	3 dB
Trace Mode	Clear Write	Clear Write
Sweeptype	Sweep	AUTO
Preamp	off	off

Tx Spurious Emission (5785 MHz; 20.000 dBm; 20 MHz)

Customized settings.

Test according to FCC title 47 part 15 §15.407(b), KDB 789033 D02 General U-NII Test Procedures New Rules v01r03 and ANSI C63.10

Result

DUT Frequency (MHz)	Result
5785.000000	PASS

Final measurements

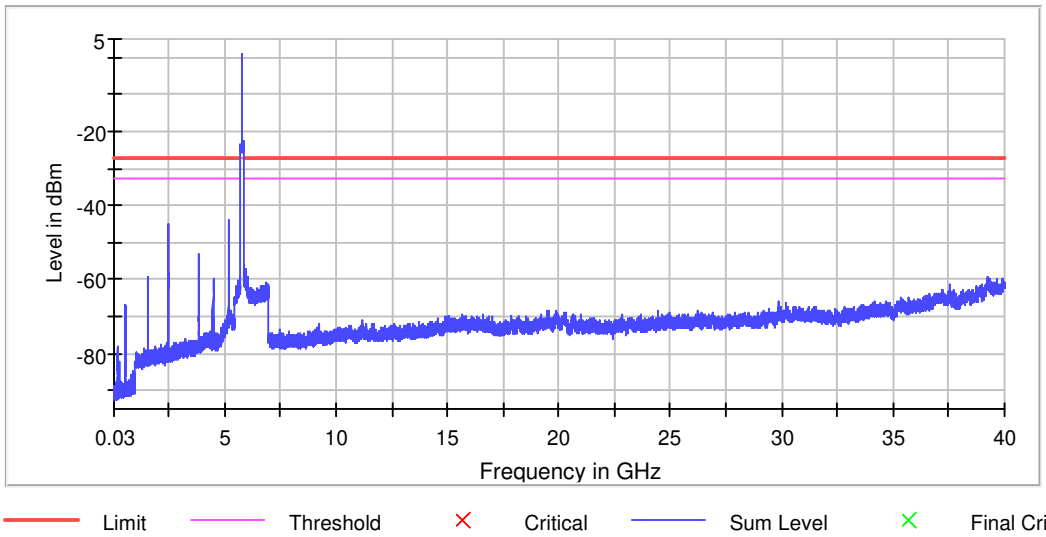
Frequency (MHz)	Level Pre Measurement (dBm)	level (dBm)	Limit (dBm)	Margin (dB)	Result
---	---	---	---	---	---

Pre Measurements

Frequency (MHz)	Level (dBm)	Margin (dB)	Limit (dBm)
5185.148515	-44.2	17.2	-27.0
5184.158416	-45.1	18.1	-27.0
2471.500000	-45.1	18.1	-27.0
2470.500000	-45.3	18.3	-27.0
2469.500000	-45.6	18.6	-27.0
5186.138614	-46.4	19.4	-27.0
2468.500000	-46.6	19.6	-27.0
2467.500000	-48.8	21.8	-27.0
5187.128713	-50.8	23.8	-27.0
2472.500000	-51.6	24.6	-27.0
2473.500000	-52.4	25.4	-27.0
2474.500000	-52.5	25.5	-27.0
5188.118812	-53.2	26.2	-27.0
3857.500000	-53.3	26.3	-27.0
3856.500000	-53.6	26.6	-27.0

Measurement Settings

Start Frequency (MHz)	Stop Frequency (MHz)	Pre Measurement	Final Measurement
30.000000	1000.000000	1	1
1000.000000	5150.000000	2	2
5150.000000	5250.000000	2	2
5250.000000	5350.000000	2	2
5350.000000	5470.000000	2	2
5470.000000	5725.000000	2	2
5725.000000	5850.000000	2	2
5850.000000	7000.000000	2	2
7000.000000	18000.000000	2	2
18000.000000	26000.000000	2	2
26000.000000	40000.000000	2	2



Pre Measurement 1

Setting	Instrument Value	Target Value
RBW	100.000 kHz	<= 100.000 kHz
VBW	300.000 kHz	>= 300.000 kHz
SweepPoints	9700	~ 9700
Sweeptime	9.700 ms	AUTO
Reference Level	-30.000 dBm	-30.000 dBm
Attenuation	0.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	30	30
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
Sweeptype	Sweep	AUTO
Preamp	off	off
Stablemode	Trace	Trace
Stablevalue	0.50 dB	0.50 dB
Run	48 / max. 150	max. 150
Stable	3 / 3	3
Max Stable Difference	0.00 dB	0.50 dB

Pre Measurement 2

Setting	Instrument Value	Target Value
RBW	1.000 MHz	<= 1.000 MHz
VBW	3.000 MHz	>= 3.000 MHz
SweepPoints	4150	~ 4150
Sweeptime	4.150 ms	AUTO
Reference Level	-30.000 dBm	-30.000 dBm
Attenuation	0.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	30	30
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
Sweeptype	Sweep	AUTO
Preamp	off	off
Stablemode	Trace	Trace
Stablevalue	0.50 dB	0.50 dB
Run	4 / max. 150	max. 150
Stable	3 / 3	3
Max Stable Difference	0.00 dB	0.50 dB

Tx Spurious Emission (5825 MHz; 20.000 dBm; 20 MHz)

Customized settings.

Test according to FCC title 47 part 15 §15.407(b), KDB 789033 D02 General U-NII Test Procedures New Rules v01r03 and ANSI C63.10

Result

DUT Frequency (MHz)	Result
5825.000000	PASS

Final measurements

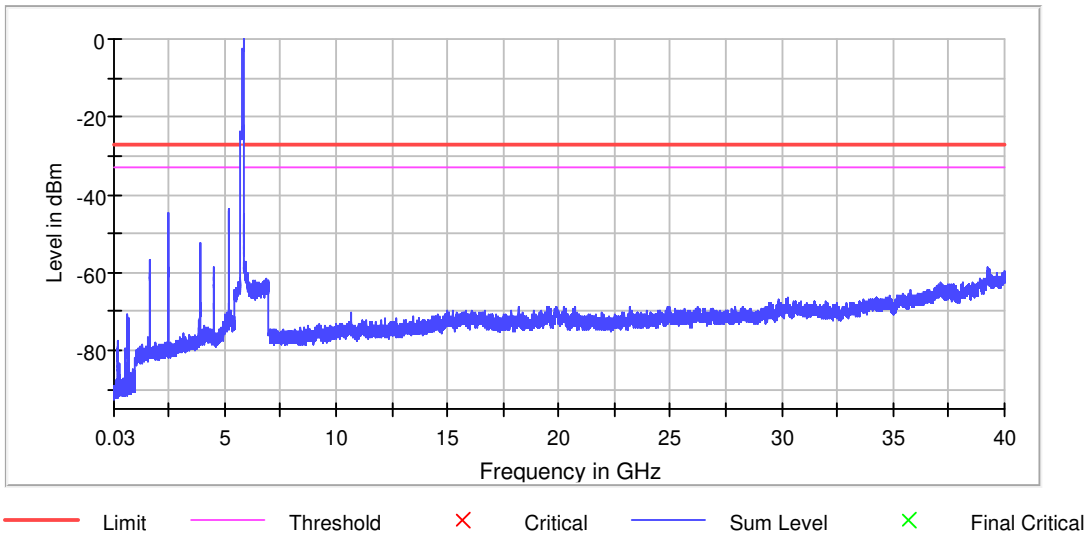
Frequency (MHz)	Level Pre Measurement (dBm)	level (dBm)	Limit (dBm)	Margin (dB)	Result
---	---	---	---	---	---

Pre Measurements

Frequency (MHz)	Level (dBm)	Margin (dB)	Limit (dBm)
5850.500000	-38.0	11.0	-27.0
5179.207921	-43.8	16.8	-27.0
5183.168317	-44.3	17.3	-27.0
5851.500000	-44.3	17.3	-27.0
2470.500000	-44.5	17.5	-27.0
2471.500000	-44.7	17.7	-27.0
5185.148515	-45.0	18.0	-27.0
5861.500000	-45.1	18.1	-27.0
2469.500000	-45.1	18.1	-27.0
5184.158416	-45.2	18.2	-27.0
5181.188119	-45.5	18.5	-27.0
2468.500000	-45.6	18.6	-27.0
2472.500000	-45.7	18.7	-27.0
5180.198020	-45.7	18.7	-27.0
5855.500000	-46.4	19.4	-27.0

Measurement Settings

Start Frequency (MHz)	Stop Frequency (MHz)	Pre Measurement	Final Measurement
30.000000	1000.000000	1	1
1000.000000	5150.000000	2	2
5150.000000	5250.000000	2	2
5250.000000	5350.000000	2	2
5350.000000	5470.000000	2	2
5470.000000	5725.000000	2	2
5725.000000	5850.000000	2	2
5850.000000	7000.000000	2	2
7000.000000	18000.000000	2	2
18000.000000	26000.000000	2	2
26000.000000	40000.000000	2	2



Pre Measurement 1

Setting	Instrument Value	Target Value
RBW	100.000 kHz	<= 100.000 kHz
VBW	300.000 kHz	>= 300.000 kHz
SweepPoints	9700	~ 9700
Sweeptime	9.700 ms	AUTO
Reference Level	-30.000 dBm	-30.000 dBm
Attenuation	0.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	30	30
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
Sweeptype	Sweep	AUTO
Preamp	off	off
Stablemode	Trace	Trace
Stablevalue	0.50 dB	0.50 dB
Run	56 / max. 150	max. 150
Stable	3 / 3	3
Max Stable Difference	0.35 dB	0.50 dB

Pre Measurement 2

Setting	Instrument Value	Target Value
RBW	1.000 MHz	<= 1.000 MHz
VBW	3.000 MHz	>= 3.000 MHz
SweepPoints	4150	~ 4150
Sweeptime	4.150 ms	AUTO
Reference Level	-30.000 dBm	-30.000 dBm
Attenuation	0.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	30	30
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
Sweeptype	Sweep	AUTO
Preamp	off	off
Stablemode	Trace	Trace
Stablevalue	0.50 dB	0.50 dB
Run	8 / 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 38 (5190 MHz)	WLAN CH 46 (5230 MHz)	WLAN CH 151 (5755 MHz)
WLAN CH 159 (5795 MHz)	WLAN CH 54 (5270 MHz)	WLAN CH 62 (5310 MHz)
WLAN CH 102 (5510 MHz)	WLAN CH 110 (5550 MHz)	WLAN CH 118 (5590 MHz)
WLAN CH 134 (5670 MHz)		

Bandwidths

40 MHz (40 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::192.168.48.111::INST0::INSTR), SN 1321.3008K39/101229, FW 3.40
Vector Generator:	VG SMBV100B (VG SMBV100B) @ VISA (ADR TCPIP::192.168.48.29::INST0::INSTR), SN 101685, FW 4.70.006.33
Generator:	SMB100Aa (SMB100A) @ VISA (ADR TCPIP::192.168.48.30::INST0::INSTR), SN 177894, 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
Tx Spurious Emission	5755.000	20.0	40.000000	PASS
Tx Spurious Emission	5795.000	20.0	40.000000	PASS

Tx Spurious Emission (5755 MHz; 20.000 dBm; 40 MHz)

Customized settings.

Test according to FCC title 47 part 15 §15.407(b), KDB 789033 D02 General U-NII Test Procedures New Rules v01r03 and ANSI C63.10

Result

DUT Frequency (MHz)	Result
5755.000000	PASS

Final measurements

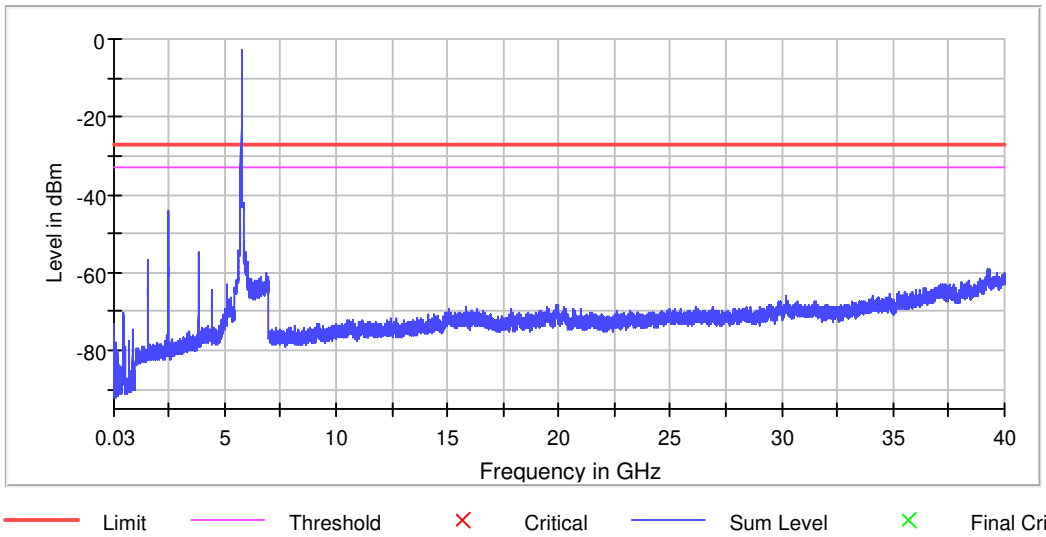
Frequency (MHz)	Level Pre Measurement (dBm)	level (dBm)	Limit (dBm)	Margin (dB)	Result
---	---	---	---	---	---

Pre Measurements

Frequency (MHz)	Level (dBm)	Margin (dB)	Limit (dBm)
5719.500000	-35.7	8.7	-27.0
5721.500000	-36.0	9.0	-27.0
5722.500000	-36.2	9.2	-27.0
5724.500000	-36.8	9.8	-27.0
5723.500000	-36.8	9.8	-27.0
5720.500000	-37.5	10.5	-27.0
5718.500000	-37.9	10.9	-27.0
5717.500000	-38.1	11.1	-27.0
5715.500000	-38.4	11.4	-27.0
5713.500000	-38.4	11.4	-27.0
5710.500000	-38.9	11.9	-27.0
5714.500000	-38.9	11.9	-27.0
5716.500000	-39.5	12.5	-27.0
5711.500000	-39.5	12.5	-27.0
5712.500000	-41.0	14.0	-27.0

Measurement Settings

Start Frequency (MHz)	Stop Frequency (MHz)	Pre Measurement	Final Measurement
30.000000	1000.000000	1	1
1000.000000	5150.000000	2	2
5150.000000	5250.000000	2	2
5250.000000	5350.000000	2	2
5350.000000	5470.000000	2	2
5470.000000	5725.000000	2	2
5725.000000	5850.000000	2	2
5850.000000	7000.000000	2	2
7000.000000	18000.000000	2	2
18000.000000	26000.000000	2	2
26000.000000	40000.000000	2	2



Pre Measurement 1

Setting	Instrument Value	Target Value
RBW	100.000 kHz	<= 100.000 kHz
VBW	300.000 kHz	>= 300.000 kHz
SweepPoints	9700	~ 9700
Sweeptime	9.700 ms	AUTO
Reference Level	-30.000 dBm	-30.000 dBm
Attenuation	0.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	30	30
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
Sweeptype	Sweep	AUTO
Preamp	off	off
Stablemode	Trace	Trace
Stablevalue	0.50 dB	0.50 dB
Run	113 / max. 150	max. 150
Stable	3 / 3	3
Max Stable Difference	0.14 dB	0.50 dB

Pre Measurement 2

Setting	Instrument Value	Target Value
RBW	1.000 MHz	<= 1.000 MHz
VBW	3.000 MHz	>= 3.000 MHz
SweepPoints	4150	~ 4150
Sweeptime	4.150 ms	AUTO
Reference Level	-30.000 dBm	-30.000 dBm
Attenuation	0.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	30	30
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
Sweeptype	Sweep	AUTO
Preamp	off	off
Stablemode	Trace	Trace
Stablevalue	0.50 dB	0.50 dB
Run	7 / max. 150	max. 150
Stable	3 / 3	3
Max Stable Difference	0.00 dB	0.50 dB

Tx Spurious Emission (5795 MHz; 20.000 dBm; 40 MHz)

Customized settings.

Test according to FCC title 47 part 15 §15.407(b), KDB 789033 D02 General U-NII Test Procedures New Rules v01r03 and ANSI C63.10

Result

DUT Frequency (MHz)	Result
5795.000000	PASS

Final measurements

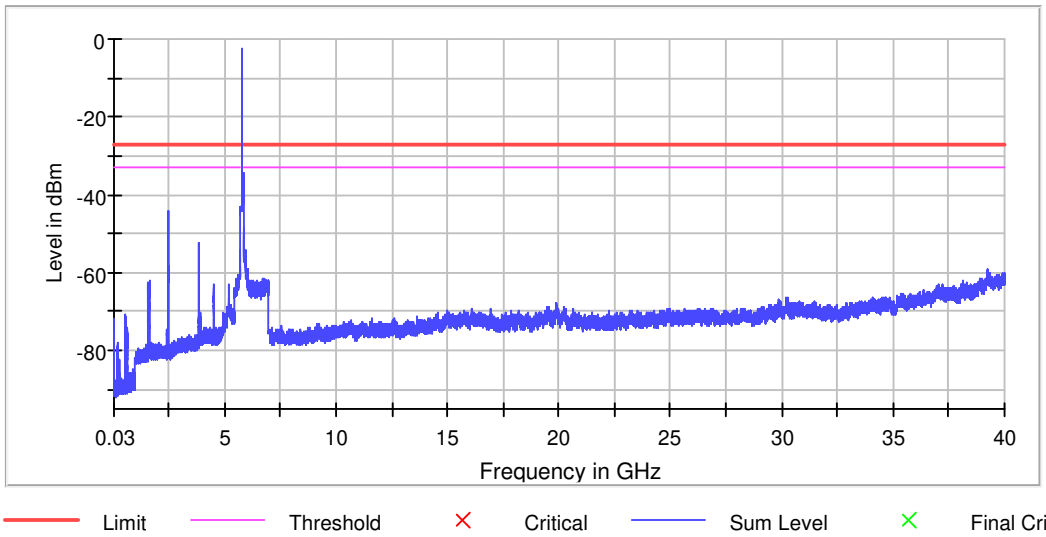
Frequency (MHz)	Level Pre Measurement (dBm)	level (dBm)	Limit (dBm)	Margin (dB)	Result
---	---	---	---	---	---

Pre Measurements

Frequency (MHz)	Level (dBm)	Margin (dB)	Limit (dBm)
2470.500000	-44.3	17.3	-27.0
2471.500000	-44.7	17.7	-27.0
2469.500000	-44.8	17.8	-27.0
2468.500000	-45.5	18.5	-27.0
2472.500000	-45.8	18.8	-27.0
2467.500000	-47.8	20.8	-27.0
2473.500000	-48.3	21.3	-27.0
5860.500000	-48.6	21.6	-27.0
5850.500000	-48.7	21.7	-27.0
5854.500000	-49.3	22.3	-27.0
5858.500000	-49.7	22.7	-27.0
5881.500000	-50.3	23.3	-27.0
5868.500000	-50.3	23.3	-27.0
5867.500000	-50.4	23.4	-27.0
5870.500000	-50.4	23.4	-27.0

Measurement Settings

Start Frequency (MHz)	Stop Frequency (MHz)	Pre Measurement	Final Measurement
30.000000	1000.000000	1	1
1000.000000	5150.000000	2	2
5150.000000	5250.000000	2	2
5250.000000	5350.000000	2	2
5350.000000	5470.000000	2	2
5470.000000	5725.000000	2	2
5725.000000	5850.000000	2	2
5850.000000	7000.000000	2	2
7000.000000	18000.000000	2	2
18000.000000	26000.000000	2	2
26000.000000	40000.000000	2	2



Pre Measurement 1

Setting	Instrument Value	Target Value
RBW	100.000 kHz	<= 100.000 kHz
VBW	300.000 kHz	>= 300.000 kHz
SweepPoints	9700	~ 9700
Sweeptime	9.700 ms	AUTO
Reference Level	-30.000 dBm	-30.000 dBm
Attenuation	0.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	30	30
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
Sweeptype	Sweep	AUTO
Preamp	off	off
Stablemode	Trace	Trace
Stablevalue	0.50 dB	0.50 dB
Run	124 / max. 150	max. 150
Stable	3 / 3	3
Max Stable Difference	0.00 dB	0.50 dB

Pre Measurement 2

Setting	Instrument Value	Target Value
RBW	1.000 MHz	<= 1.000 MHz
VBW	3.000 MHz	>= 3.000 MHz
SweepPoints	4150	~ 4150
Sweeptime	4.150 ms	AUTO
Reference Level	-30.000 dBm	-30.000 dBm
Attenuation	0.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	30	30
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
Sweeptype	Sweep	AUTO
Preamp	off	off
Stablemode	Trace	Trace
Stablevalue	0.50 dB	0.50 dB
Run	7 / max. 150	max. 150
Stable	3 / 3	3
Max Stable Difference	0.00 dB	0.50 dB